


LWD MEMORY LOG									
<div><div><div>BAKER HUGHES</div><div>a GE company</div></div><div></div></div>				Gamma Ray					
Scale:		Company: Noble Energy							
1:240 MD		Well: Emmy State H25-738							
Depth Reference:		Field: Wattenberg							
Driller's Depth		County: Weld							
		State: Colorado							
		Country: United States							
Status:		Surface Location:				Other Services:			
Final Print		Latitude: 040° 11' 22.812" N							
API No: 05-123-46972-00		Longitude: 104° 36' 33.084" W				Directional			
Job ID: 109312853		SEC: 25		TWN: 3N		RGE: 6SW			
Permanent Datum (P.D.): Ground Level		Elevation: Above P.D.		4805.00 ft		Elev. KB: 4835.00 ft		N/A	
Log Measured From: Rig Floor				30.00 ft		Elev. DF: 4805.00 ft		Elev. GL:	
Dates		Interval Drilled				Magnetic Field Reference			
Date From: 2018-09-27		Top: (ft)		1943.00		Azi Reference North: Grid		Dip Angle: (deg)	
Date To: 2018-09-30		Bottom: (ft)		17283.00		Total Magnetic Field Strength: (nT)		52107	
Spud Date: 2018-09-26						Mag to Reference North Correction: (deg)		7.51	
Borehole Record				Casing Record					
Hole Size (in)		From (ft)		To (ft)		Size (in)		Weight (lb/ft)	
13.500		30.00		1943.00		9.625		36.00	
8.500		1943.00		17283.00					

Service and Tool Mnemonics

Mnemonic	Name	Description
ATC_SU	ATC_SU	Auto Trak Curve Steering Unit
ATC_MWD	ATC_MWD	Auto Trak Curve MWD
ATC_LCPM	ATC_LCPM	Auto Trak Curve LCPM

Comments


- 1
- Depth measurements were obtained from a depth control system not supplied or operated by Baker Hughes. Due to the lack of control by Baker Hughes, depth calibrations and measurements could not be independently verified.
- 2
- Baker Hughes LWD run 1 utilized a 6.75 inch NaviGamma service (Directional and Gamma Ray) behind a 8.5 inch bit and rotary steerable assembly from 1943 to 17283 feet MD (1943 to 6973 feet TVD).
- 3
- The Gamma Ray Apparent (GRAM) data is presented 0 to 300 API, per the customer's request.

Remarks

Number	Measured Depth (ft)	Hole Section (in)	Run No.	Remark
1	17283.00	8.500	1	The interval from 17270 to 17283 feet MD (6973 feet TVD) was not logged after being drilled due to sensor to bit offset at well TD.

BAKER HUGHES

a GE company



Company Well

Interval

Created

Noble Energy

Emmy State H25-738

Date From: 2018-09-27 16:06

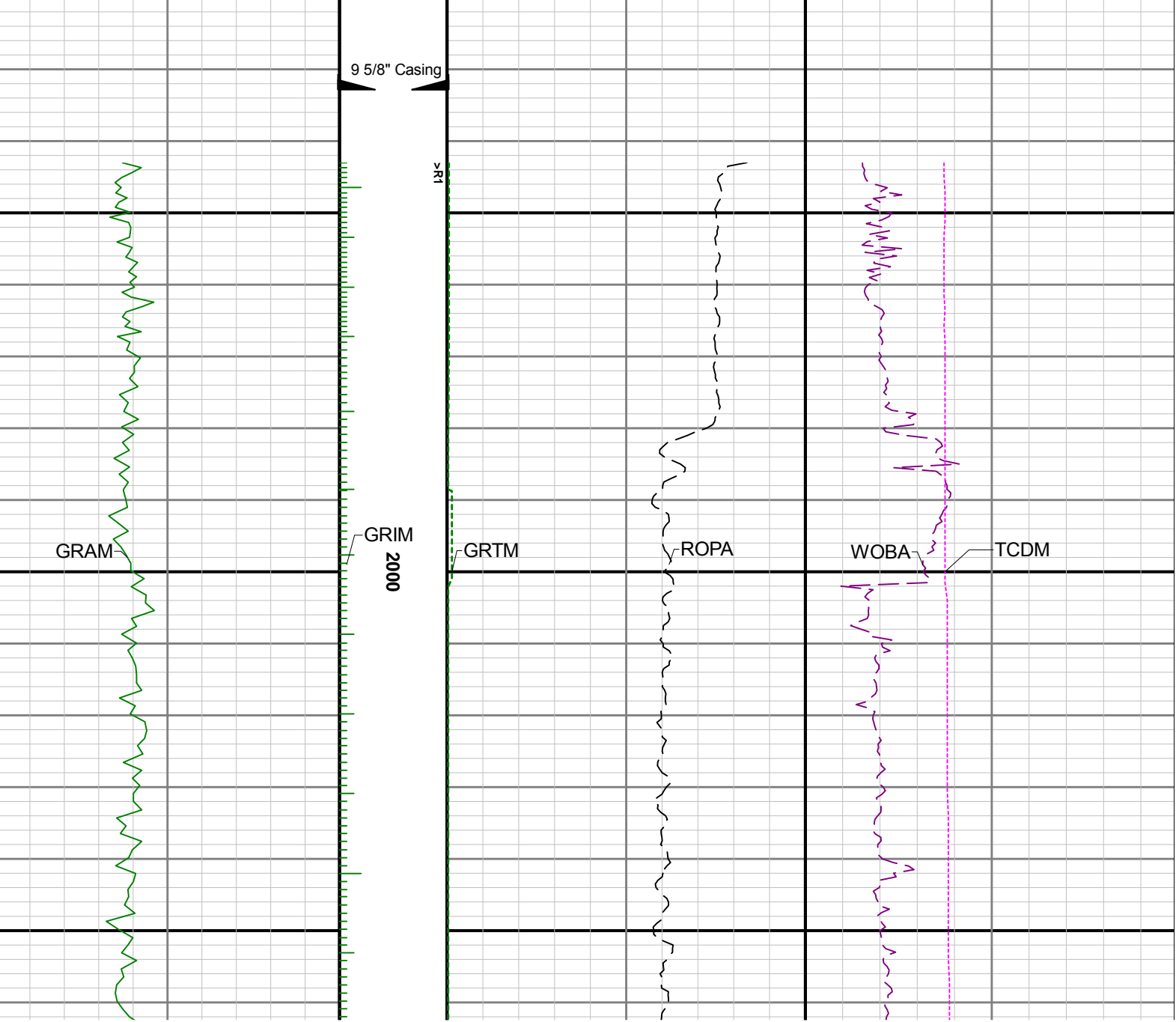
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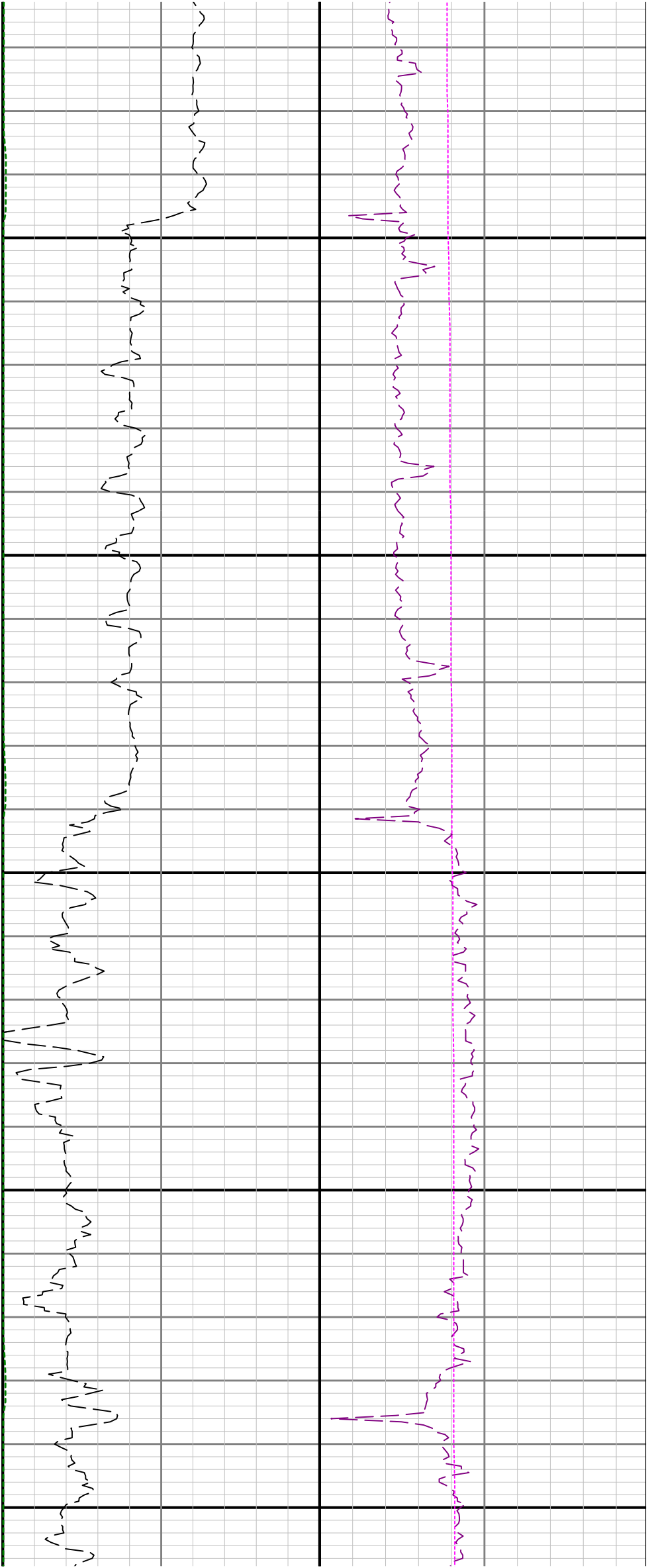
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Top: 1943.00 ft

Bottom: 17283.00 ft

Gamma Ray - Apparent 0.5 ft Average GRAM	MD 1:240 feet	Depth Averaged ROP 3 ft Average ROPA	Weight On Bit, Average 1 ft Average WOBA
0 300		1000 0	0 50
API		ft/h	klb
True Vertical Depth TVD		Gamma Time Since Drilled GRTM	Downhole Temperature TCDM
7100 6100		0 600	0 300
ft		min	degF

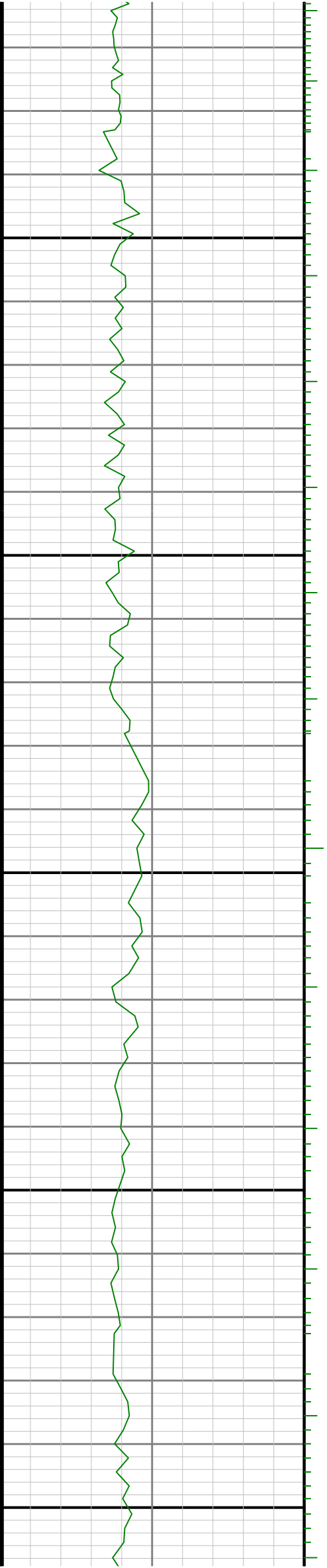


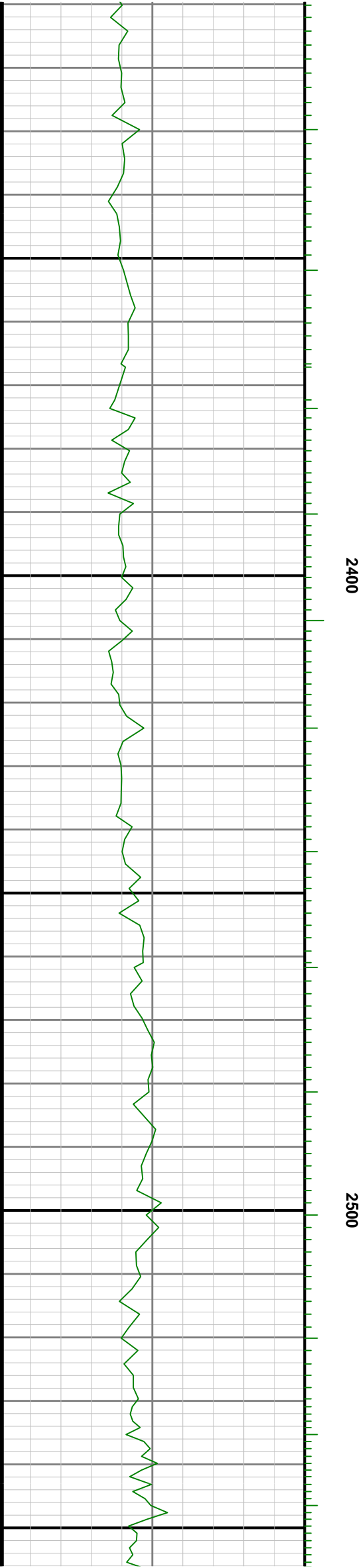
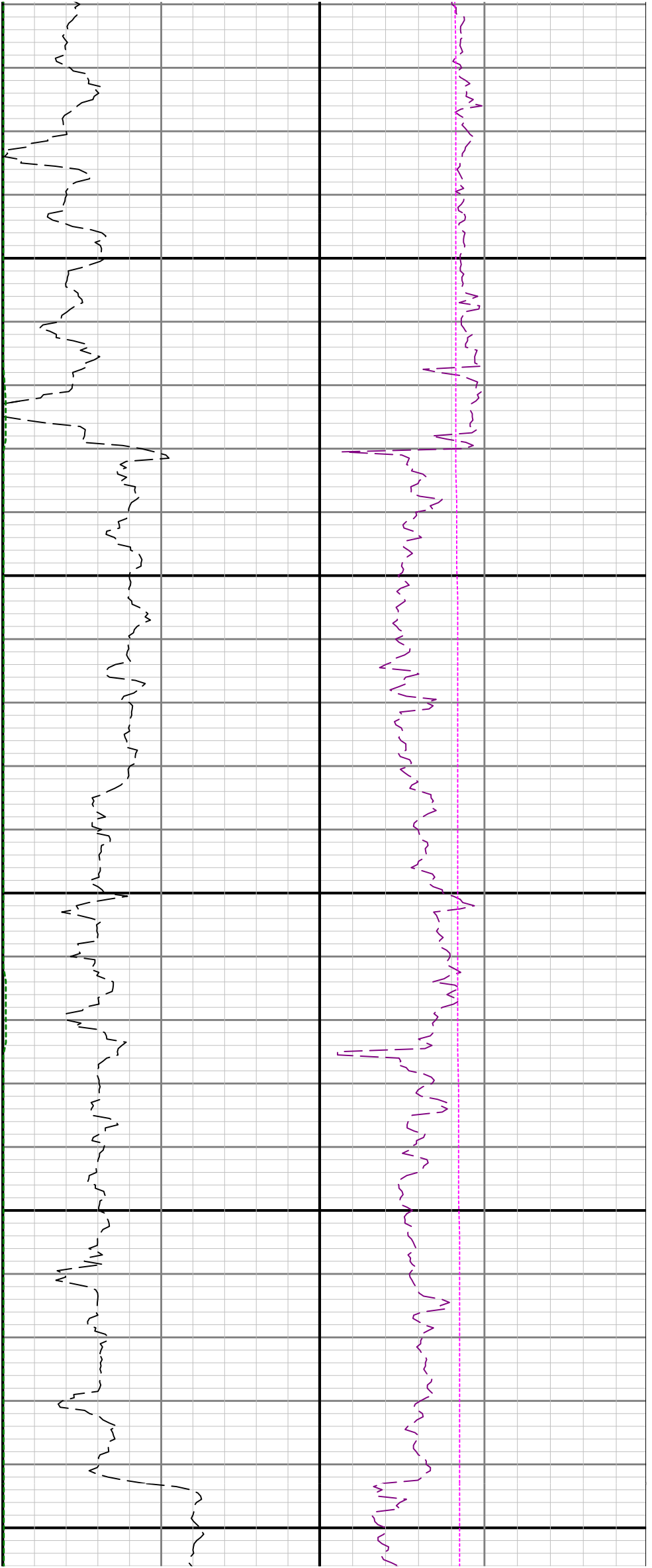


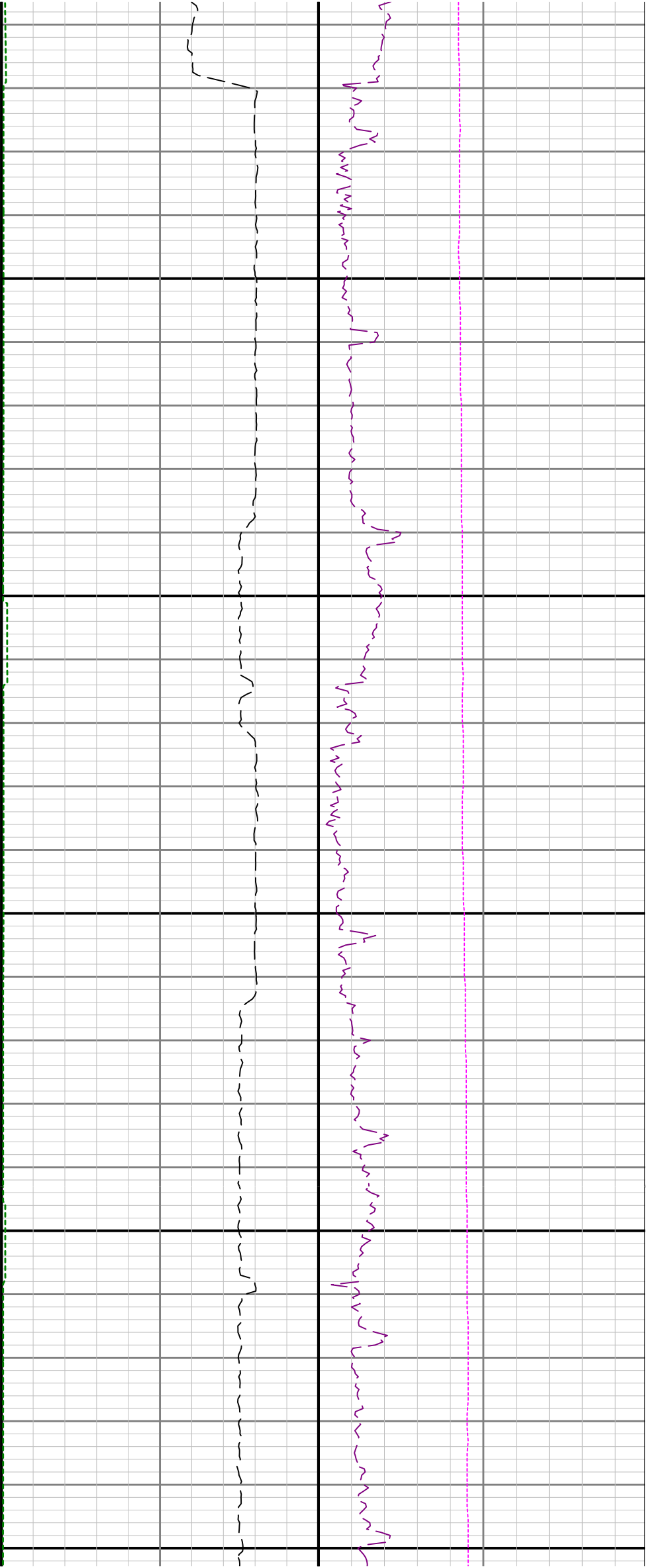
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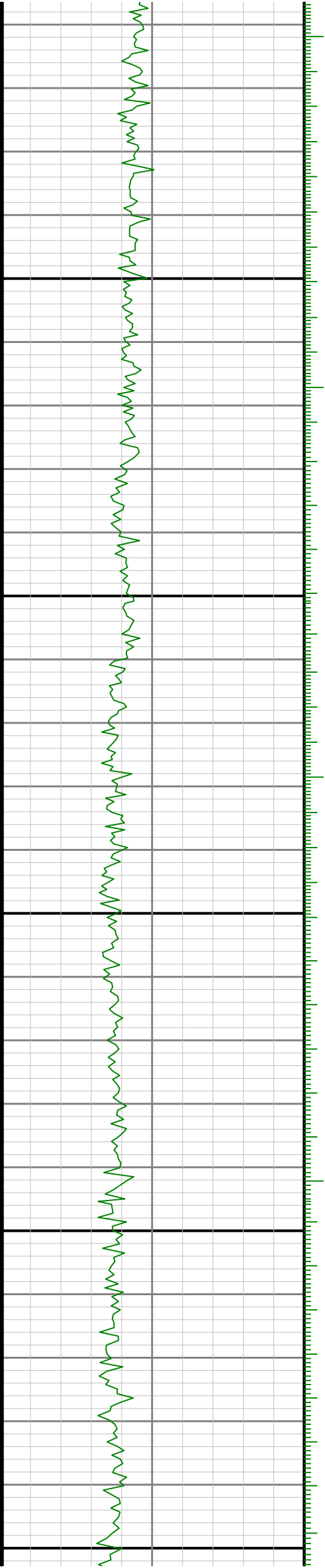


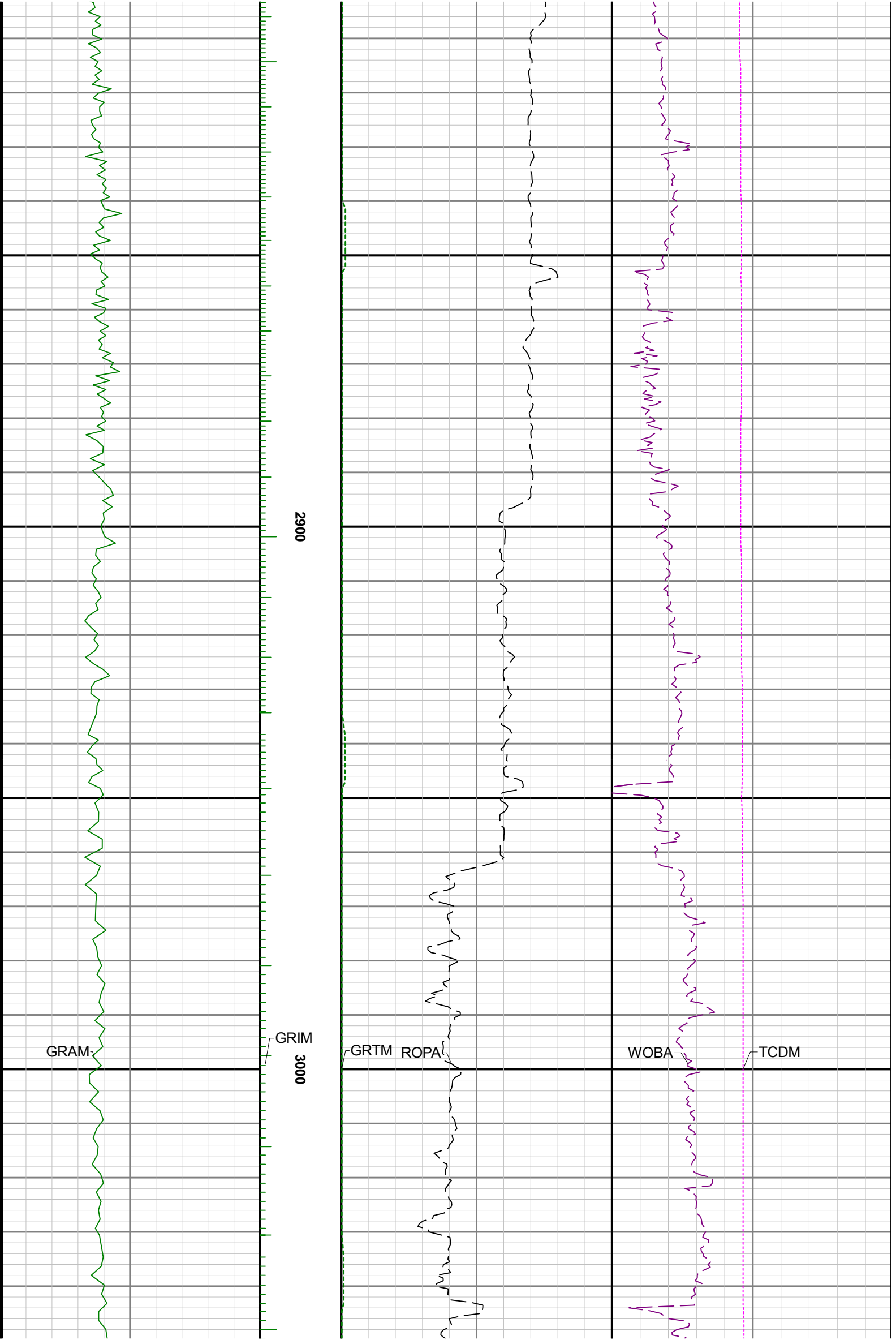


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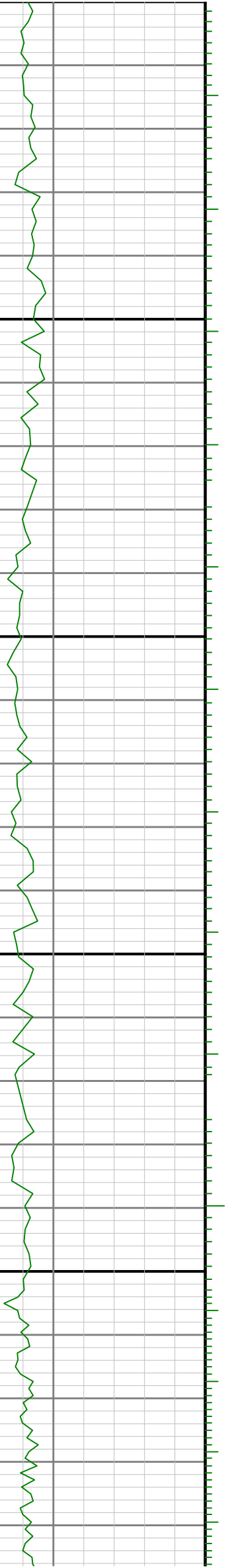


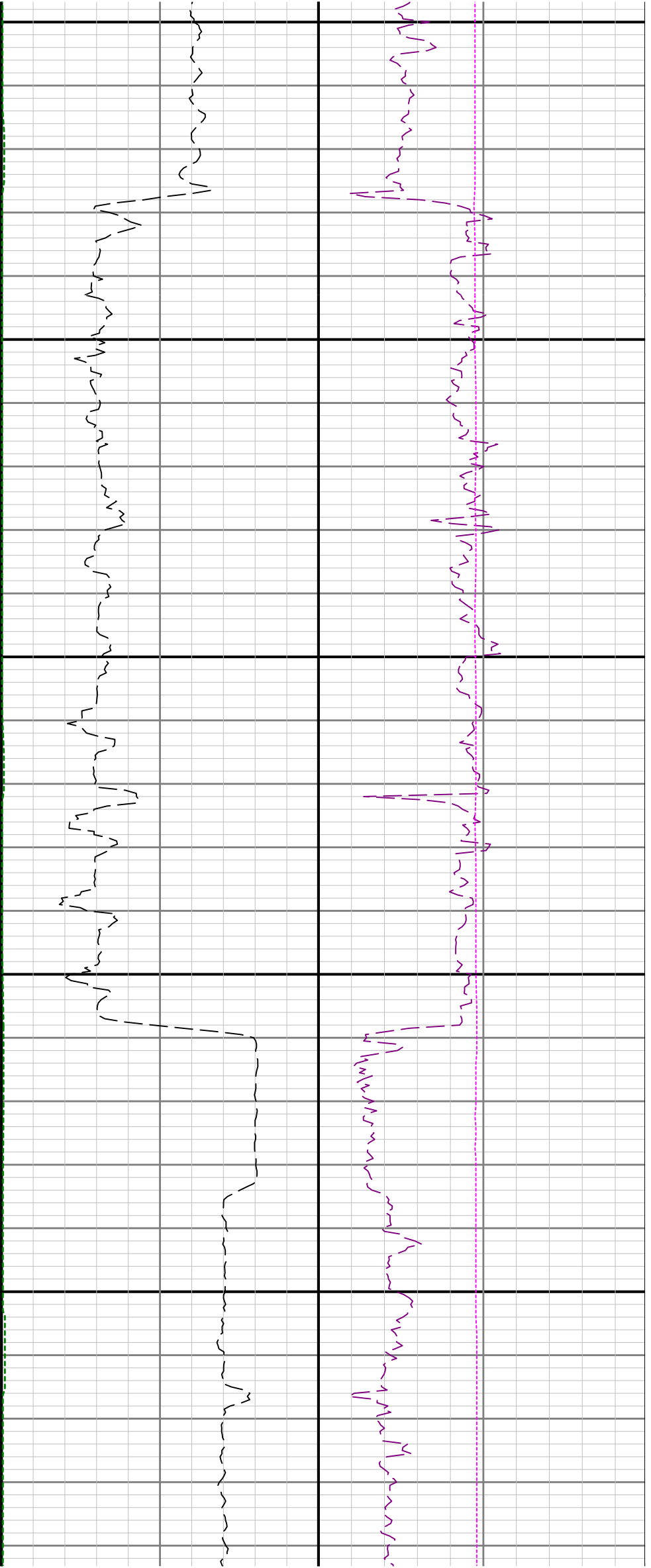




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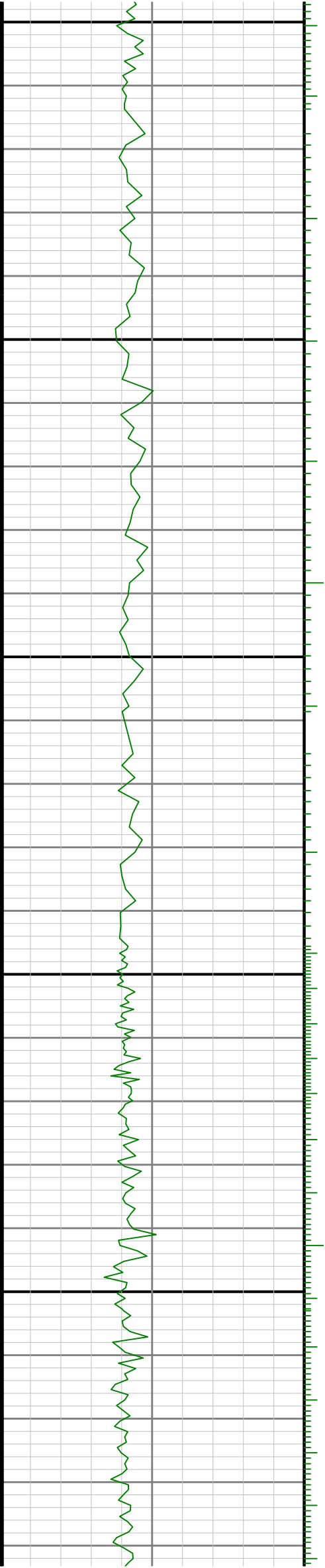


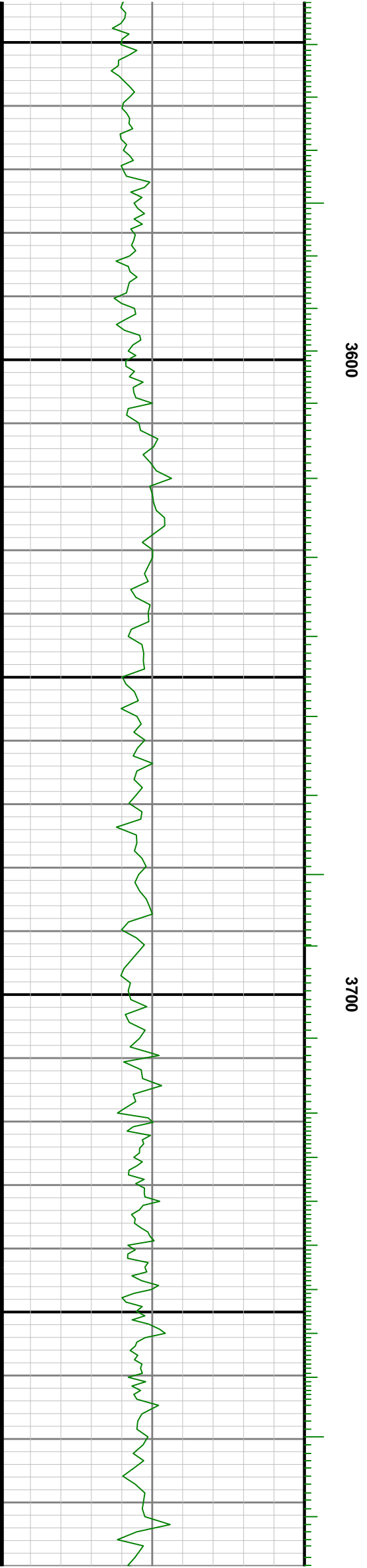
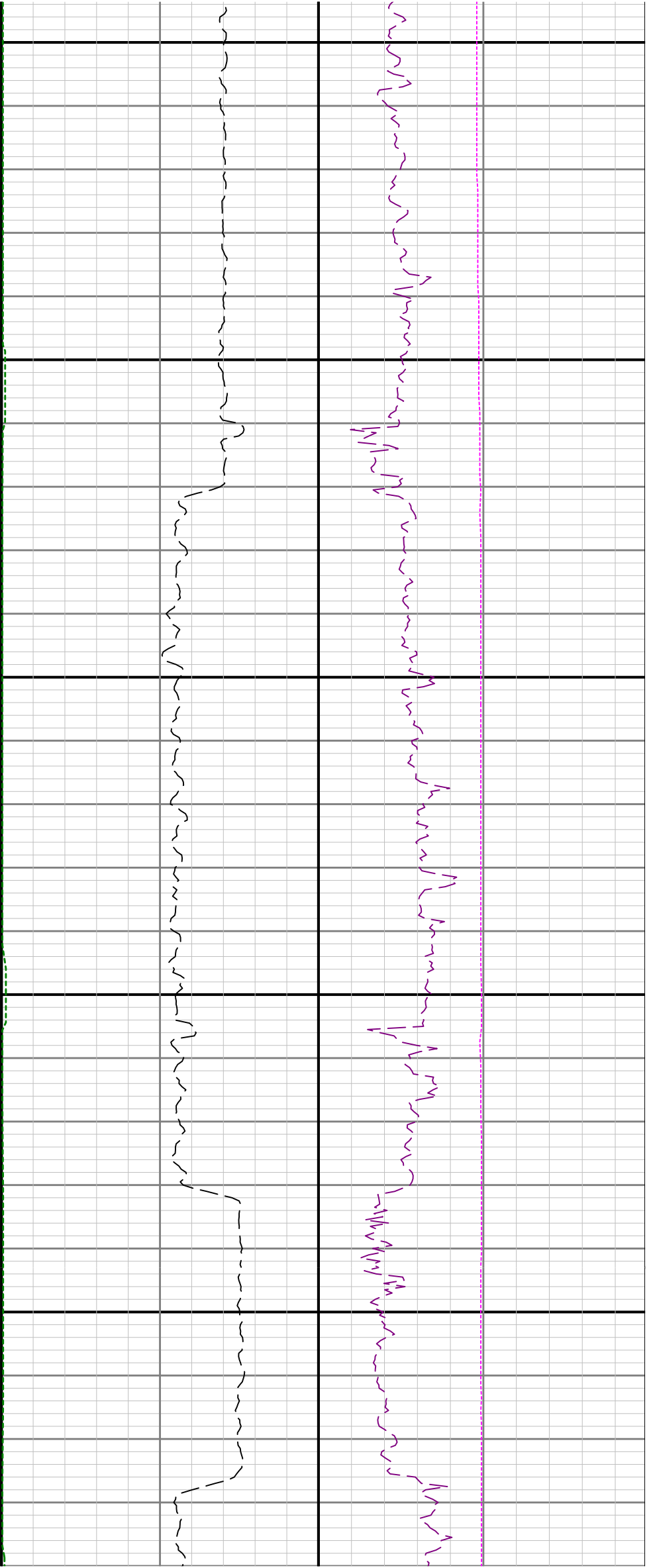


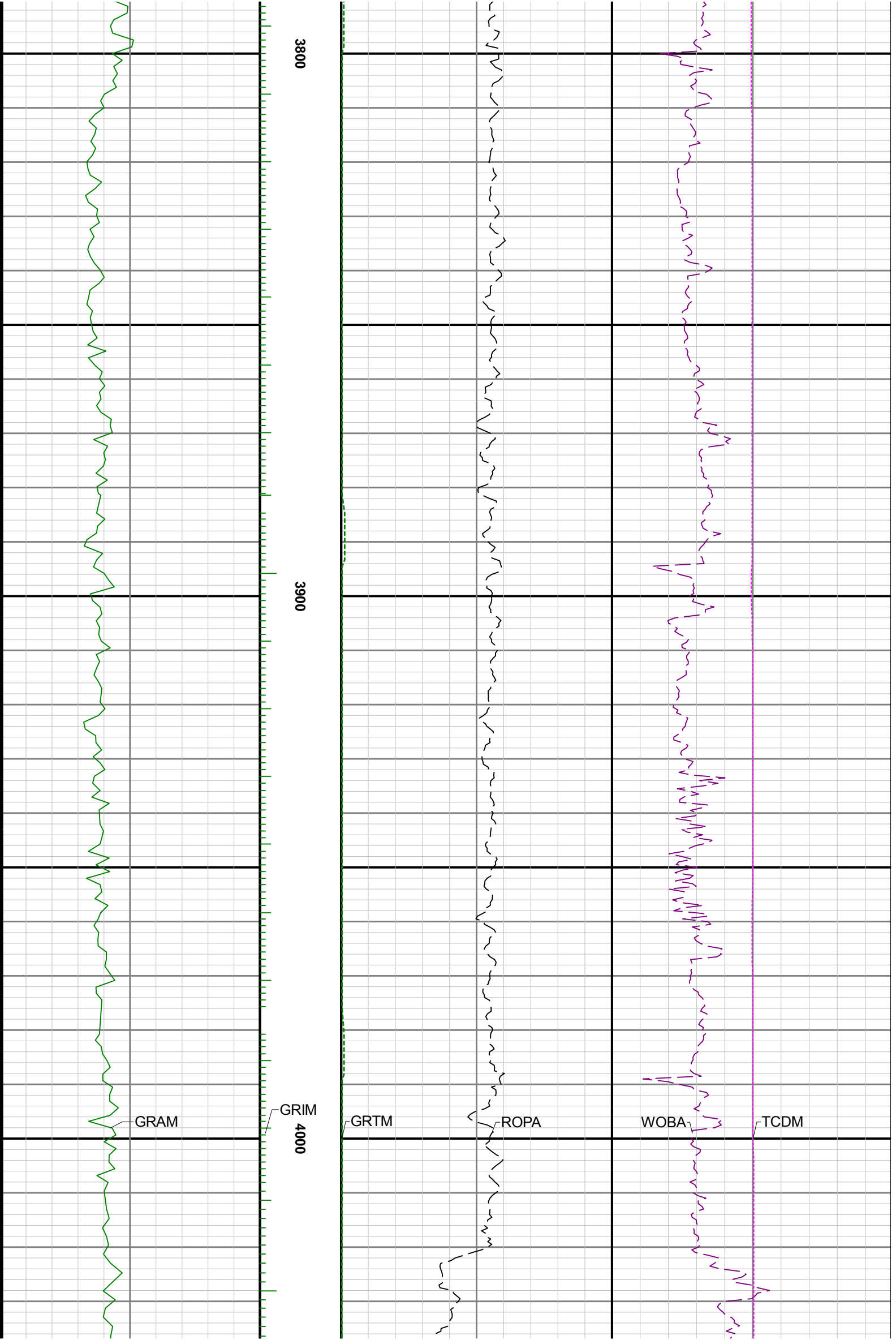
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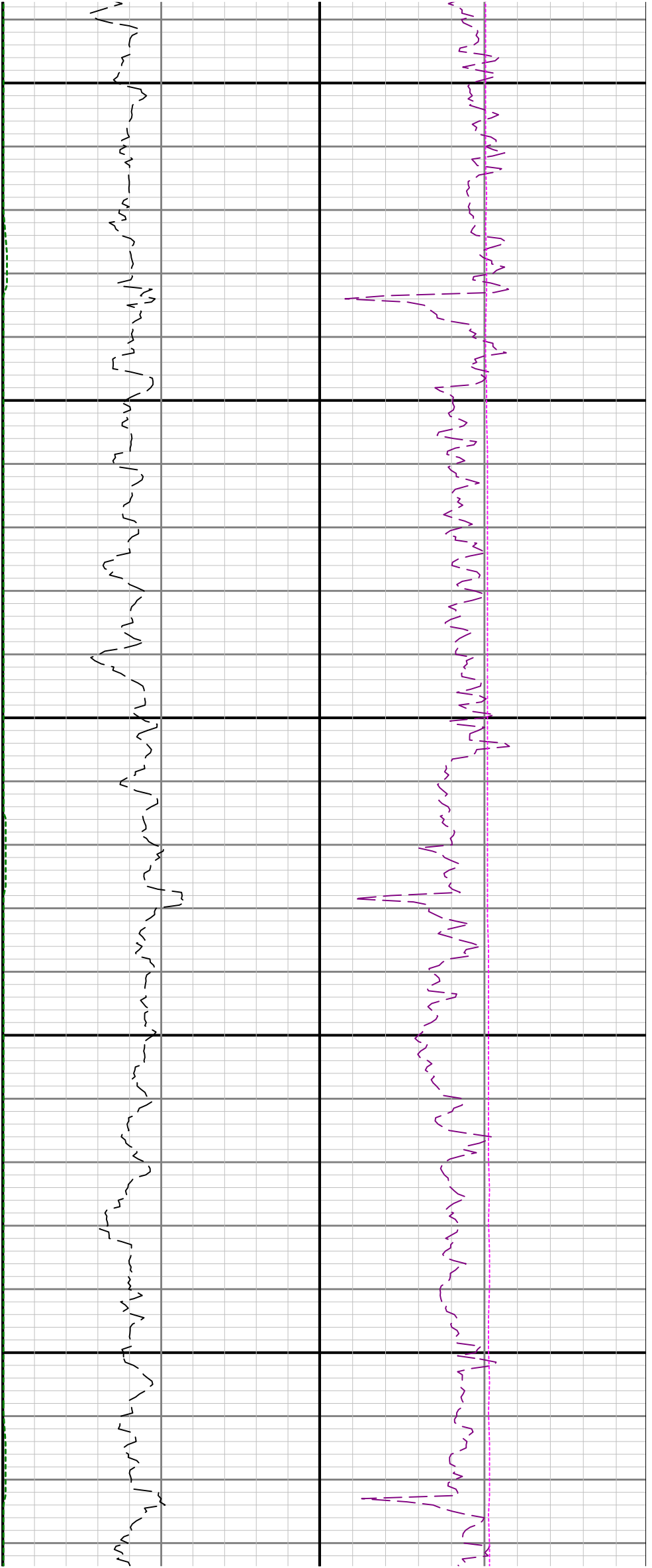
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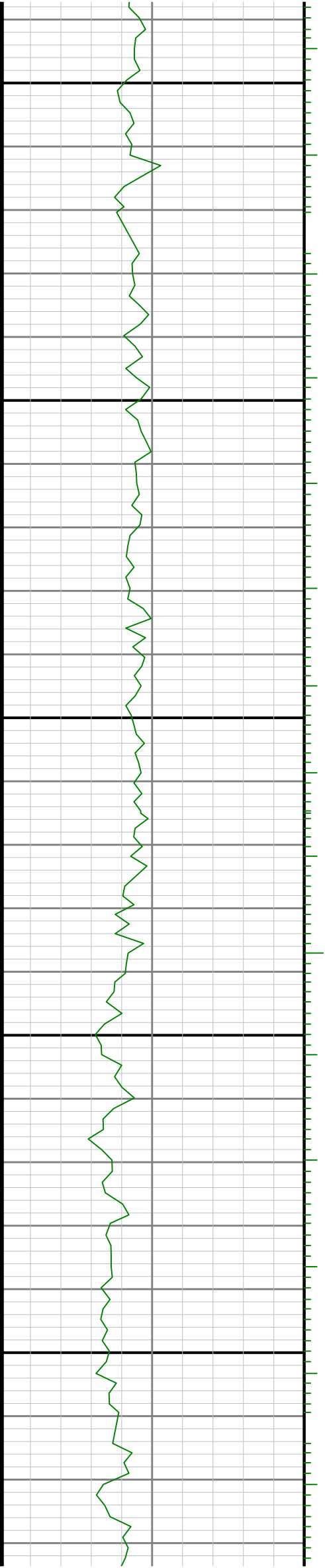


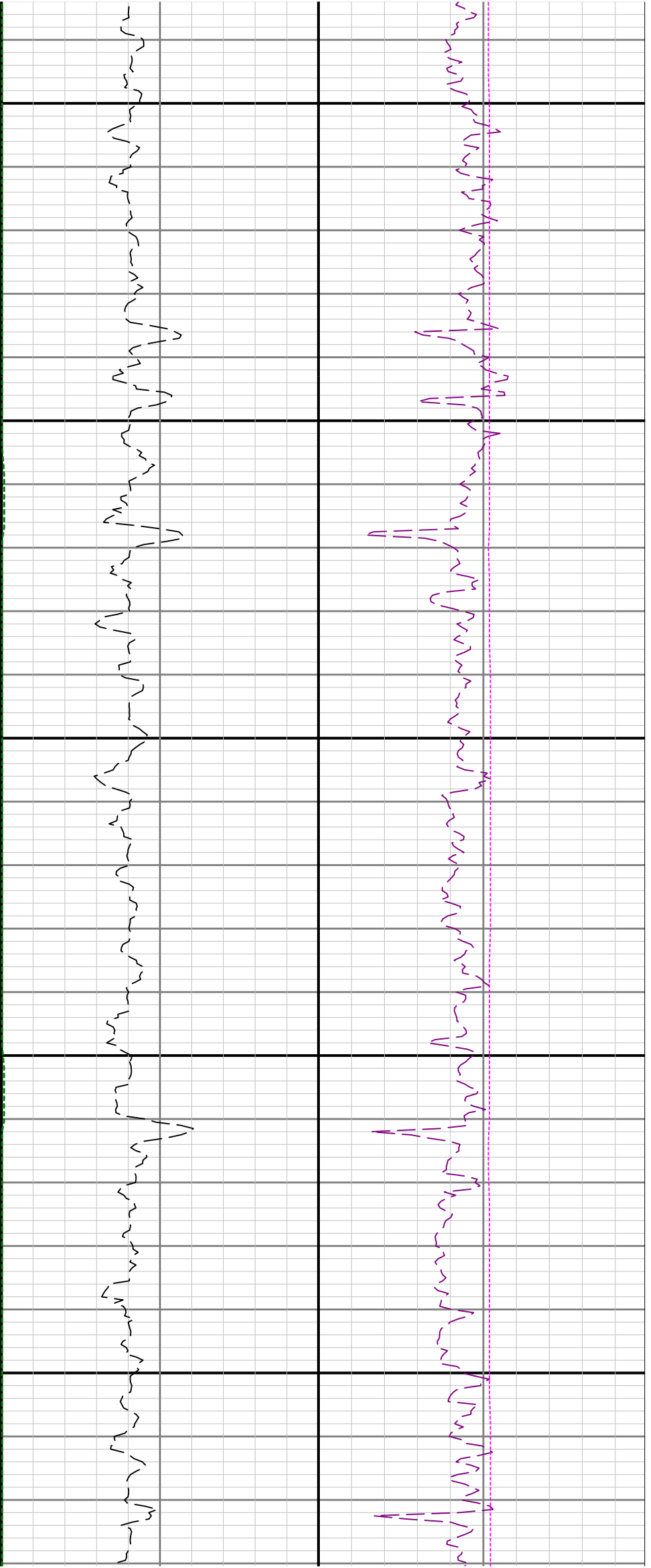




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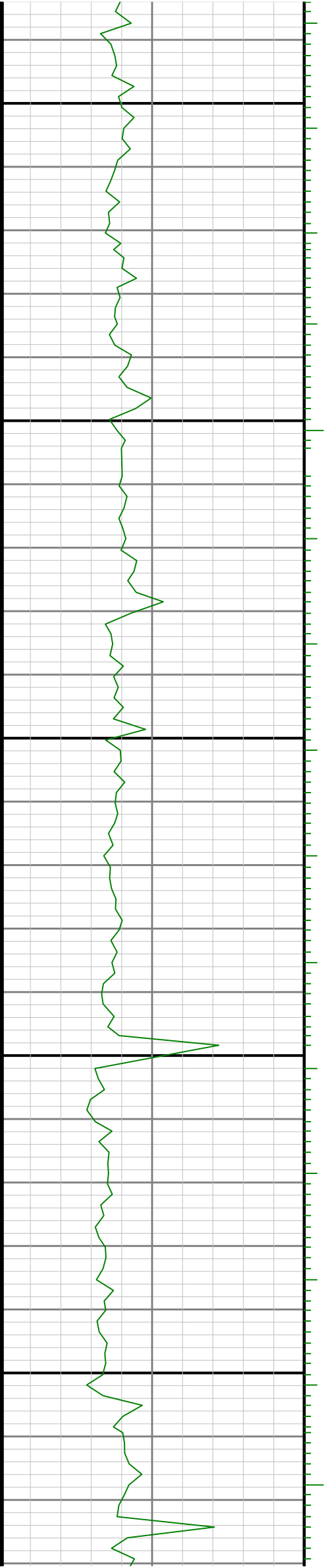


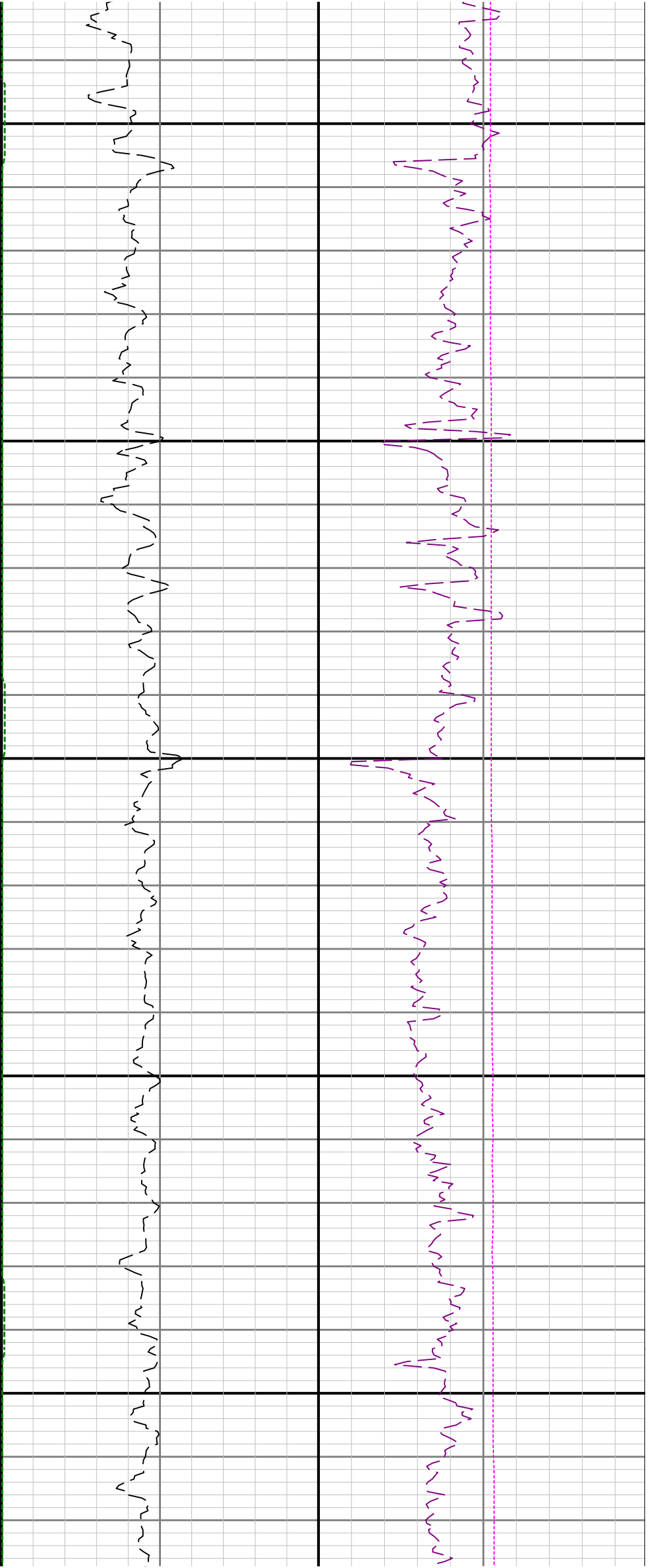


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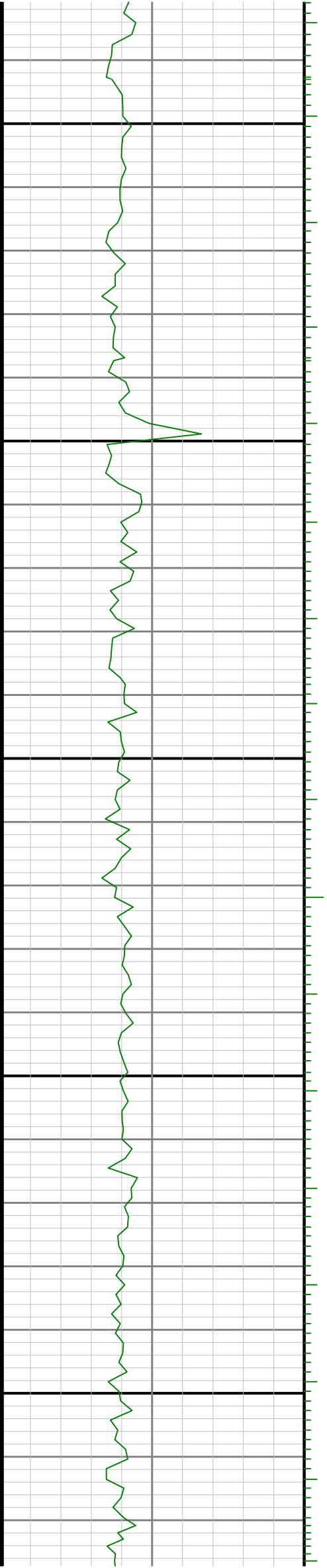
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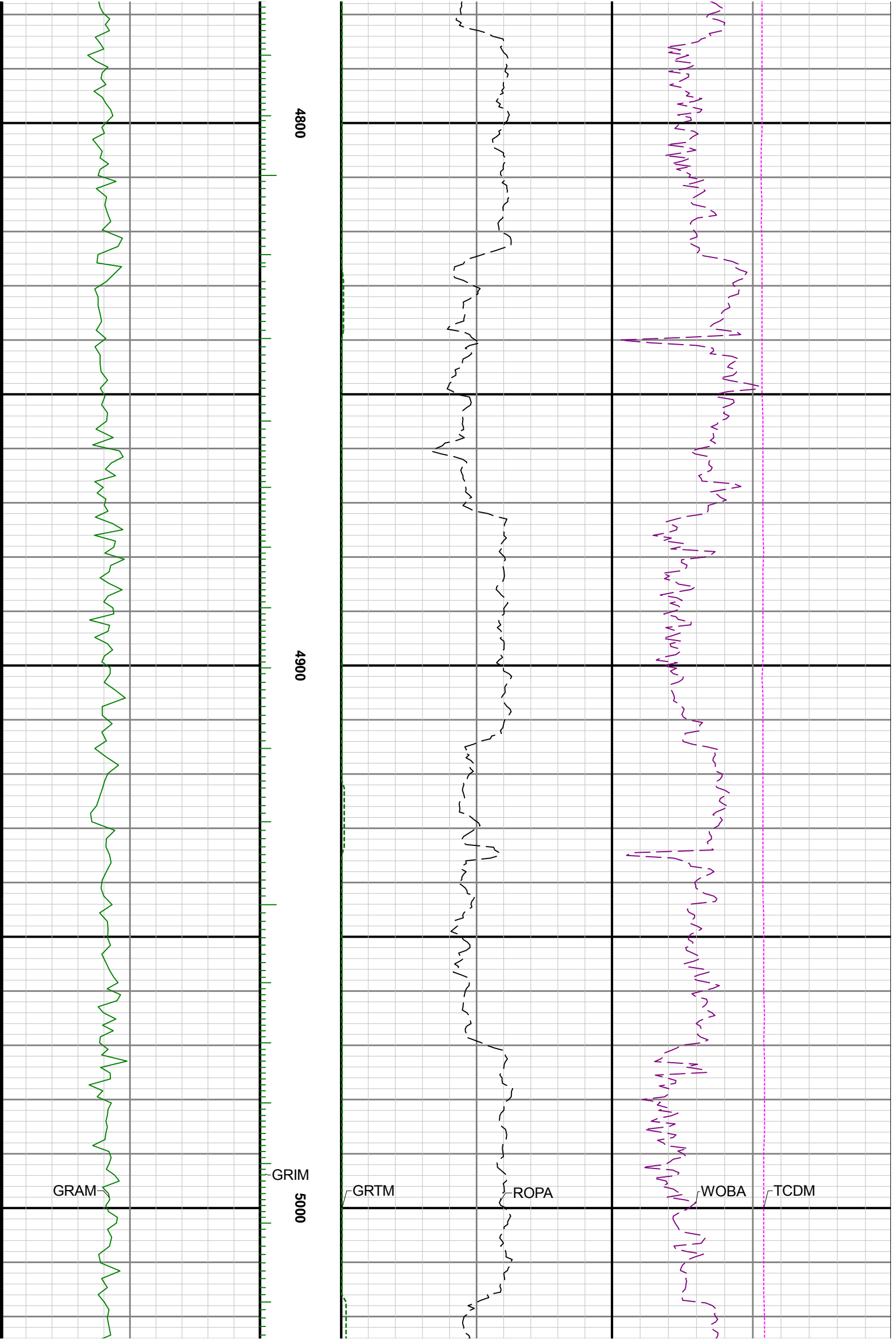


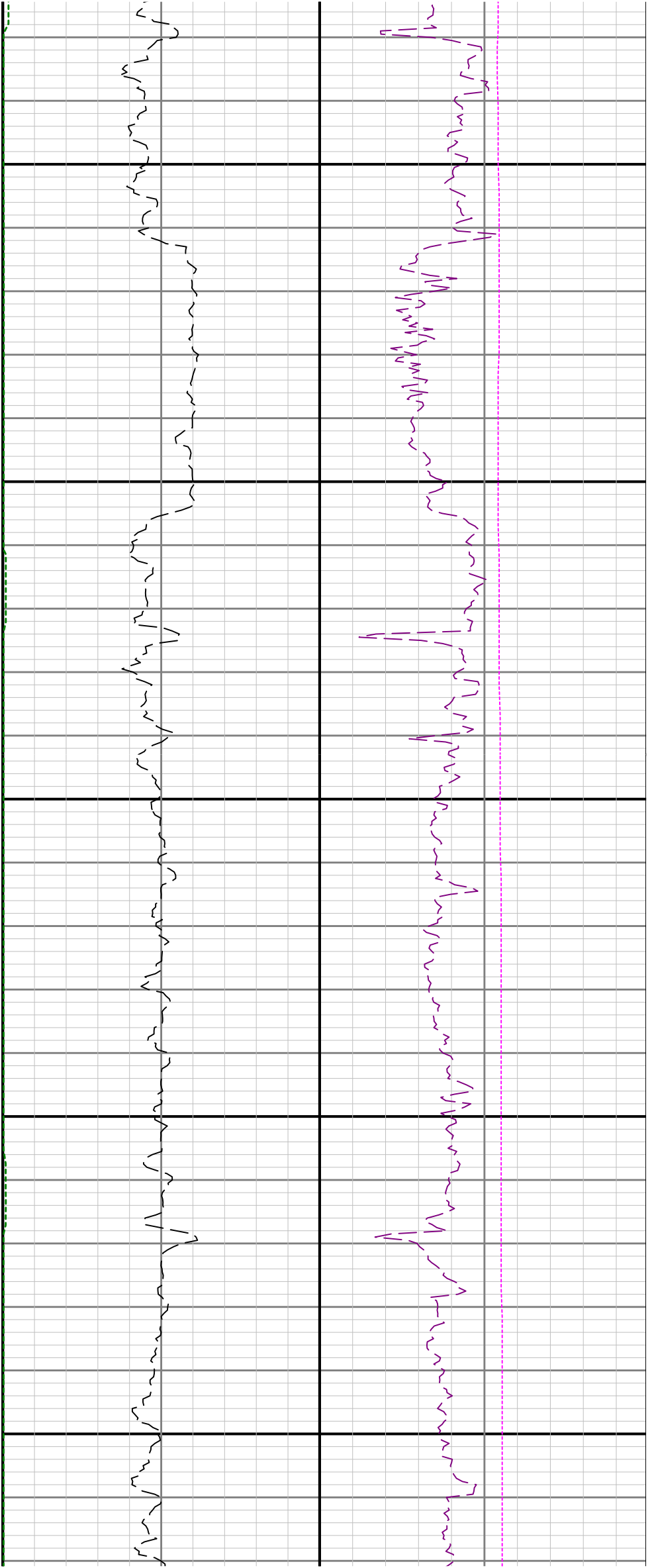


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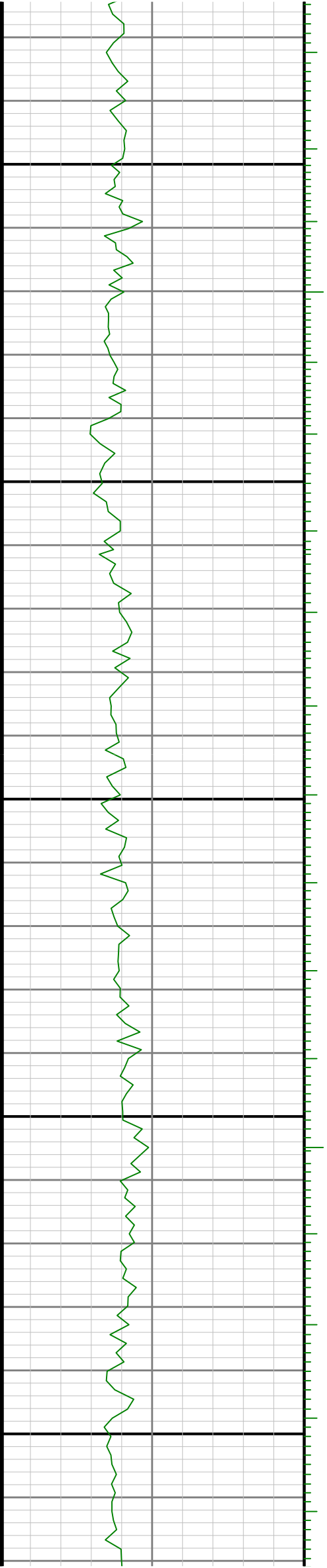


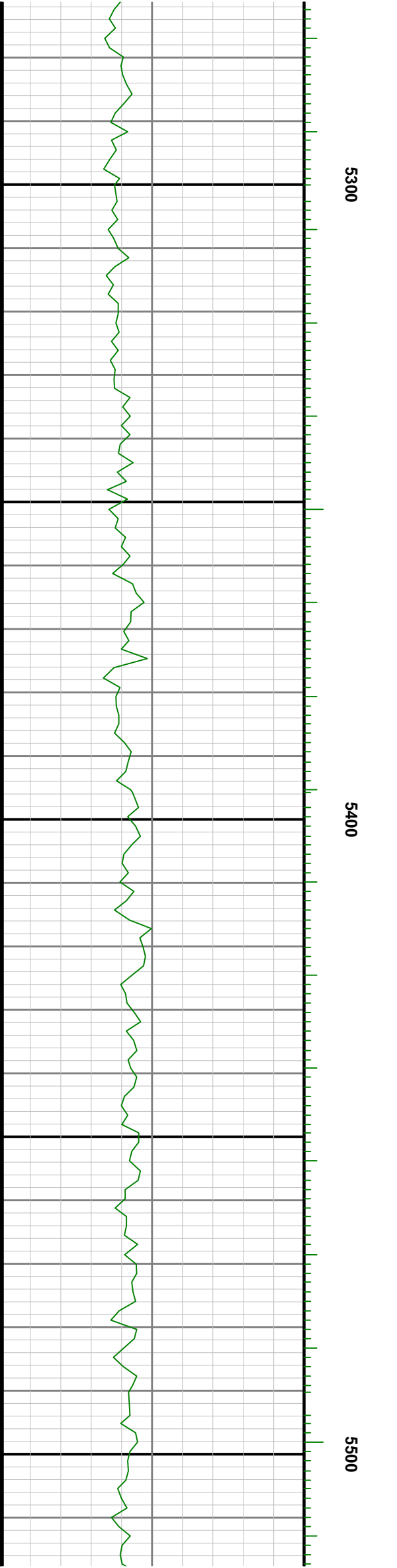
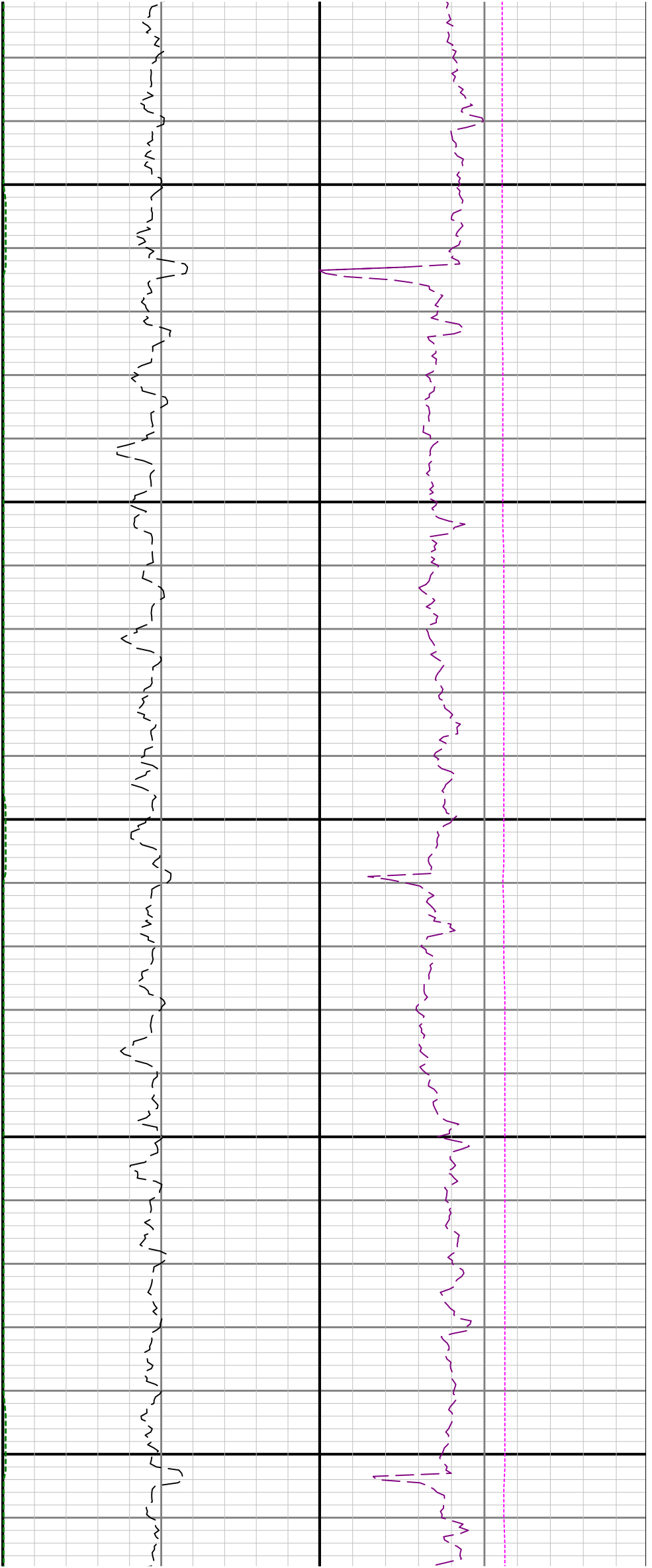


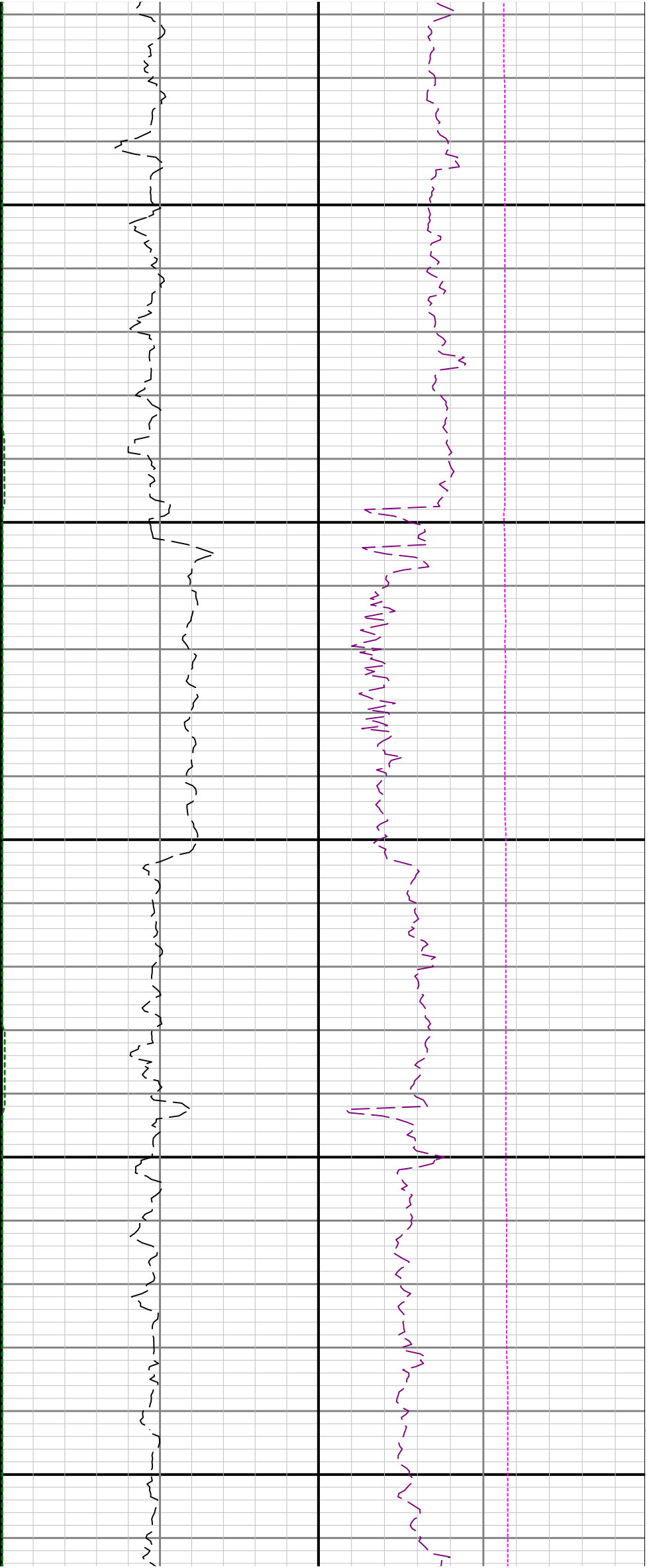


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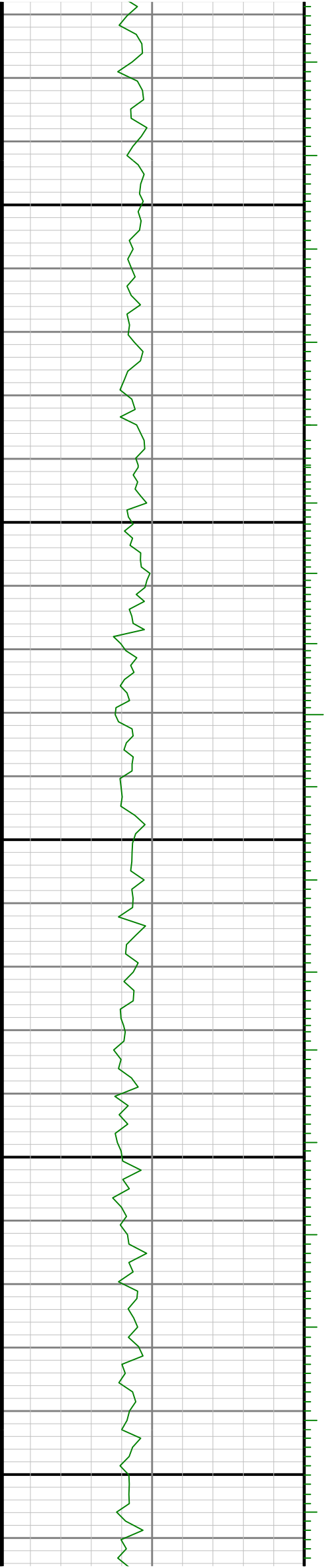


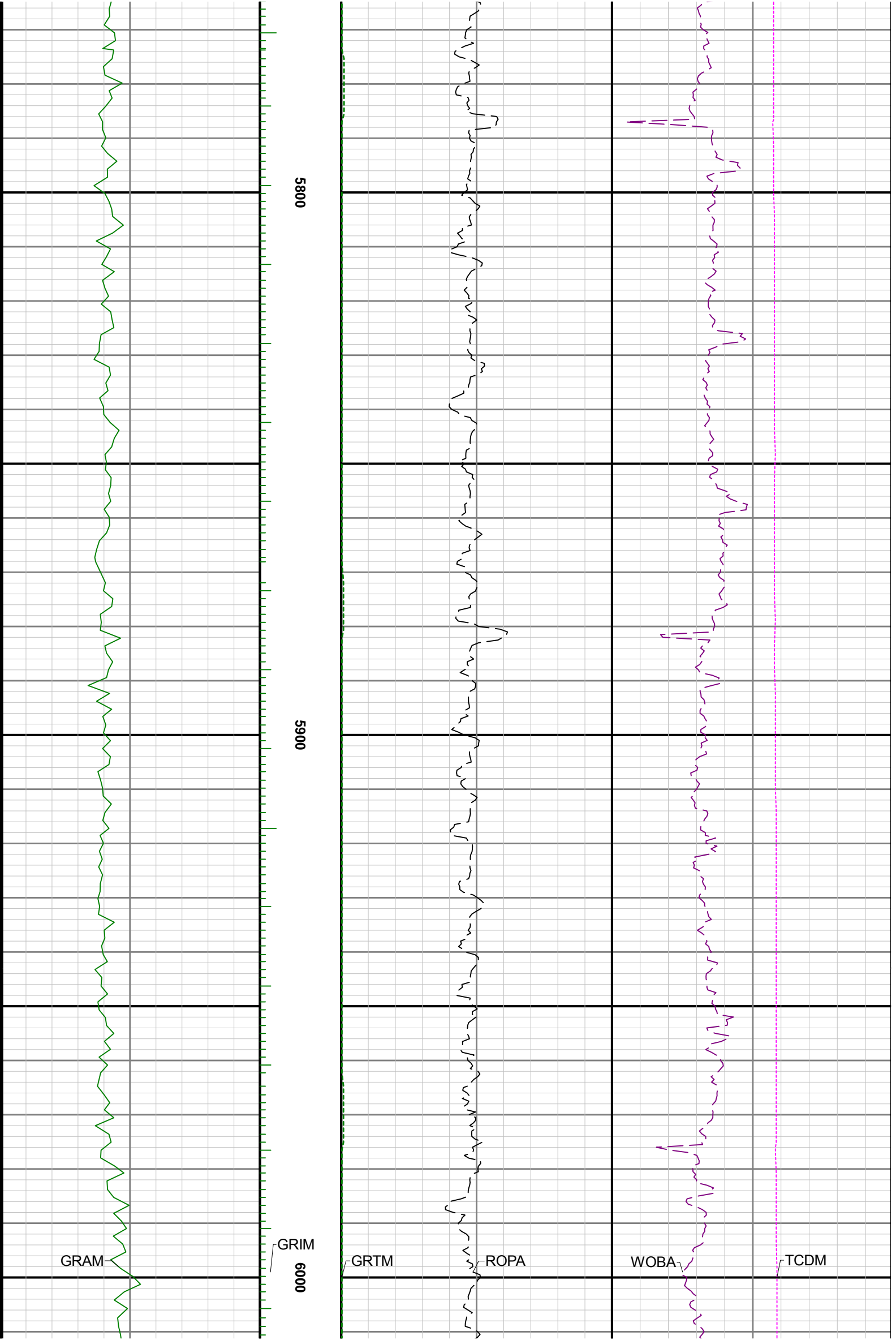


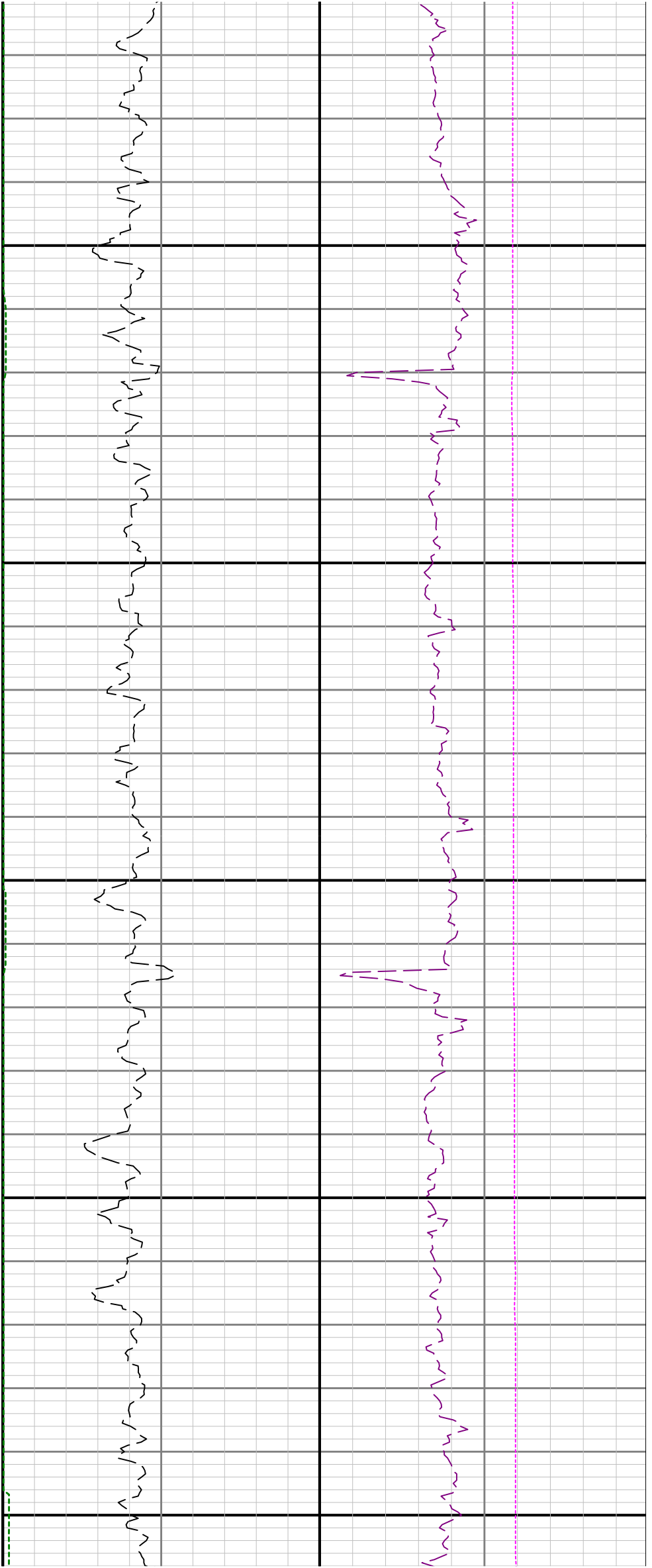


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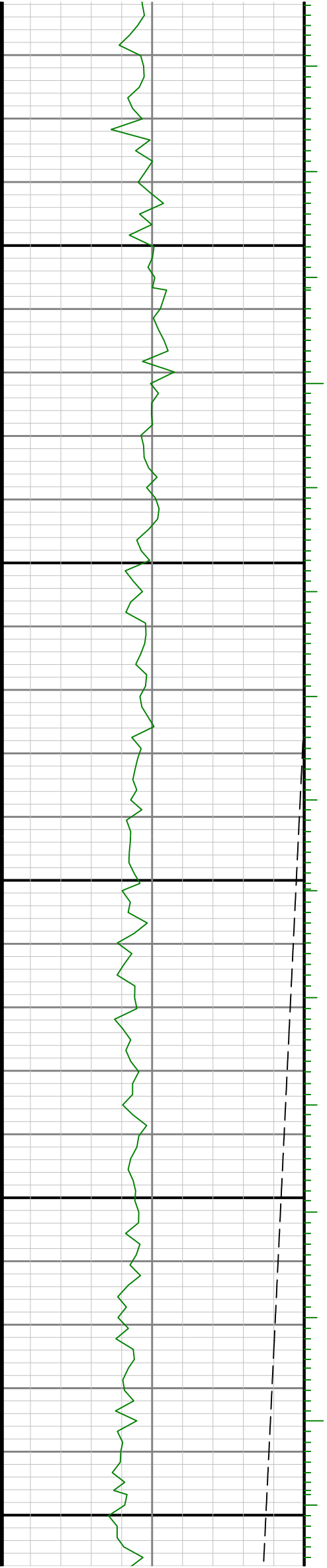


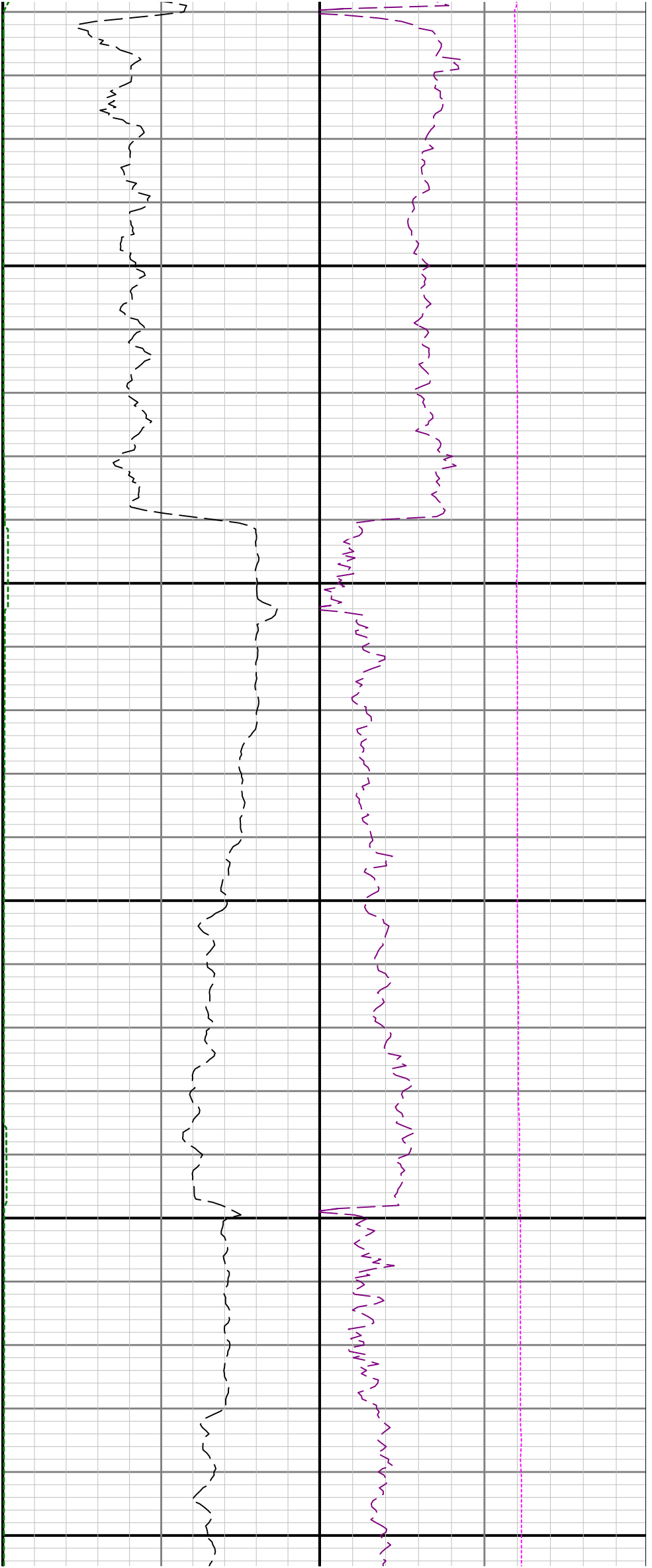




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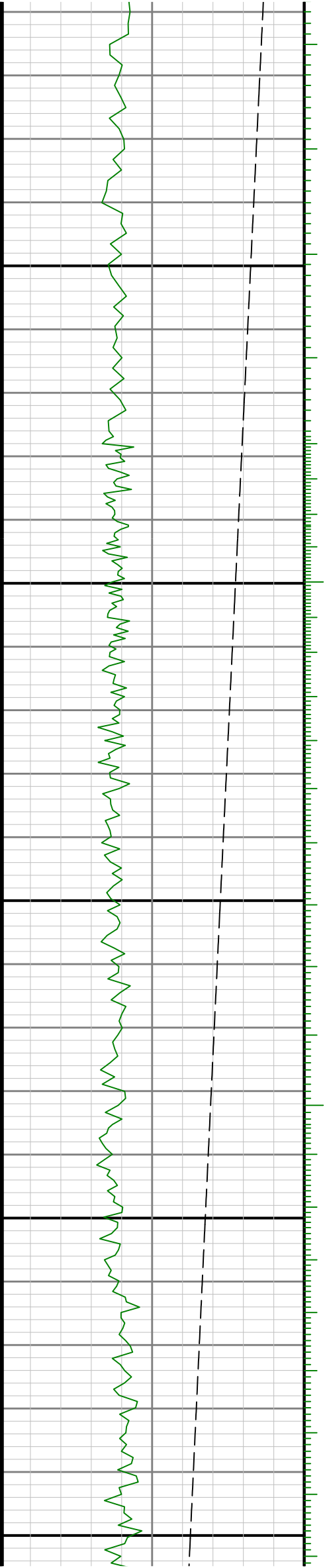


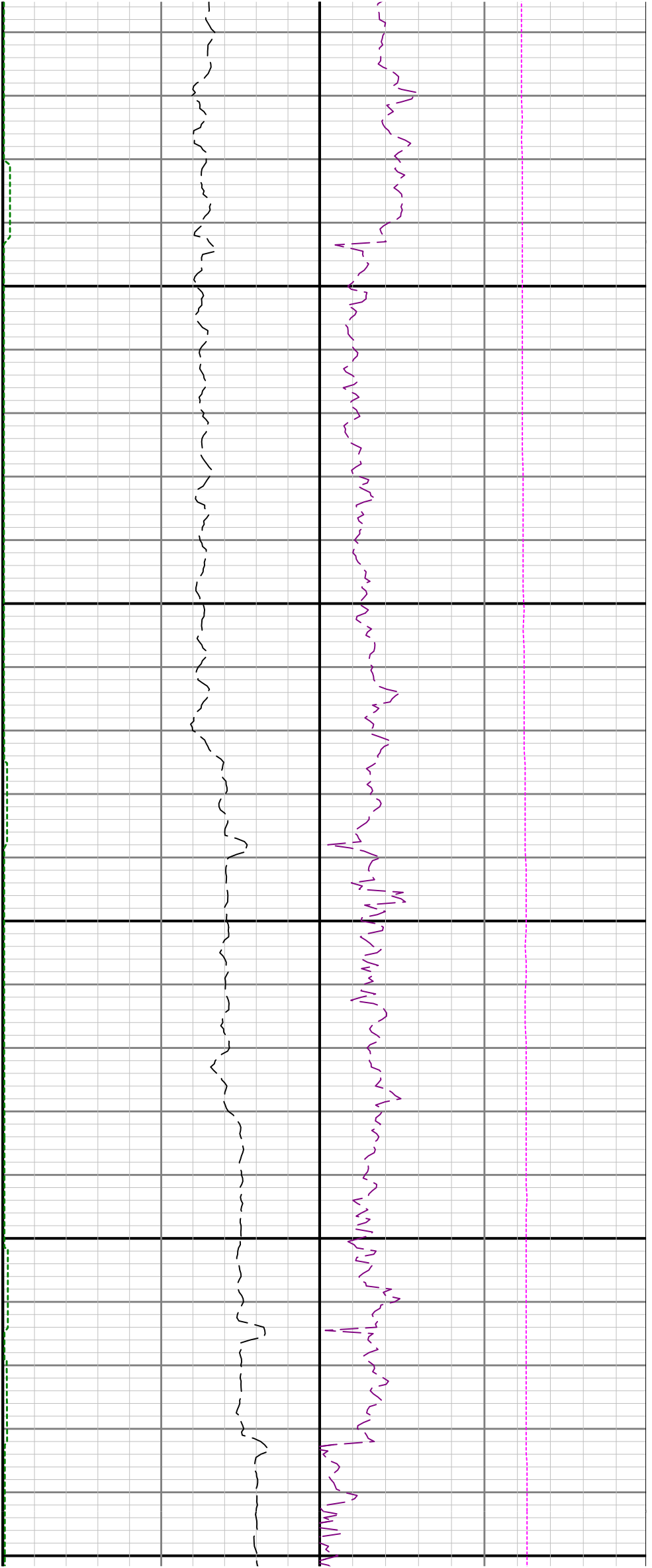


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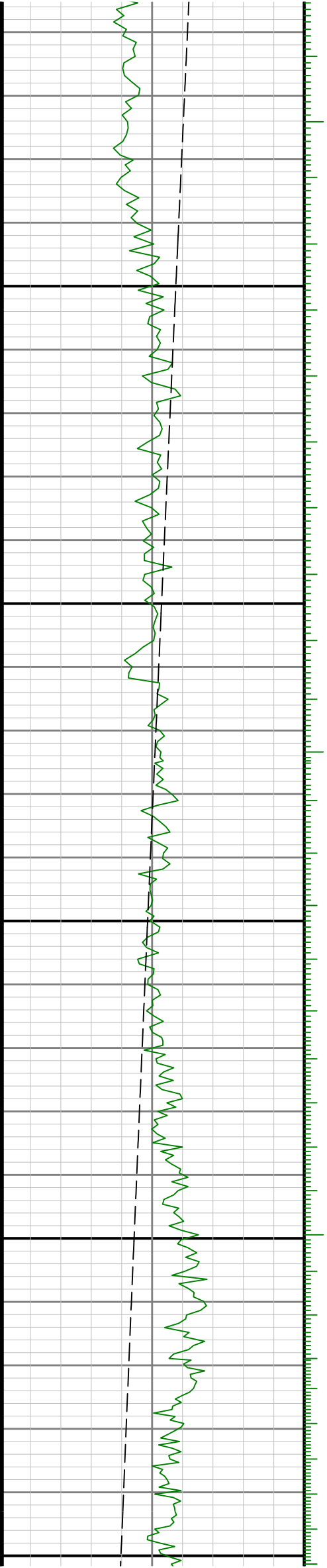
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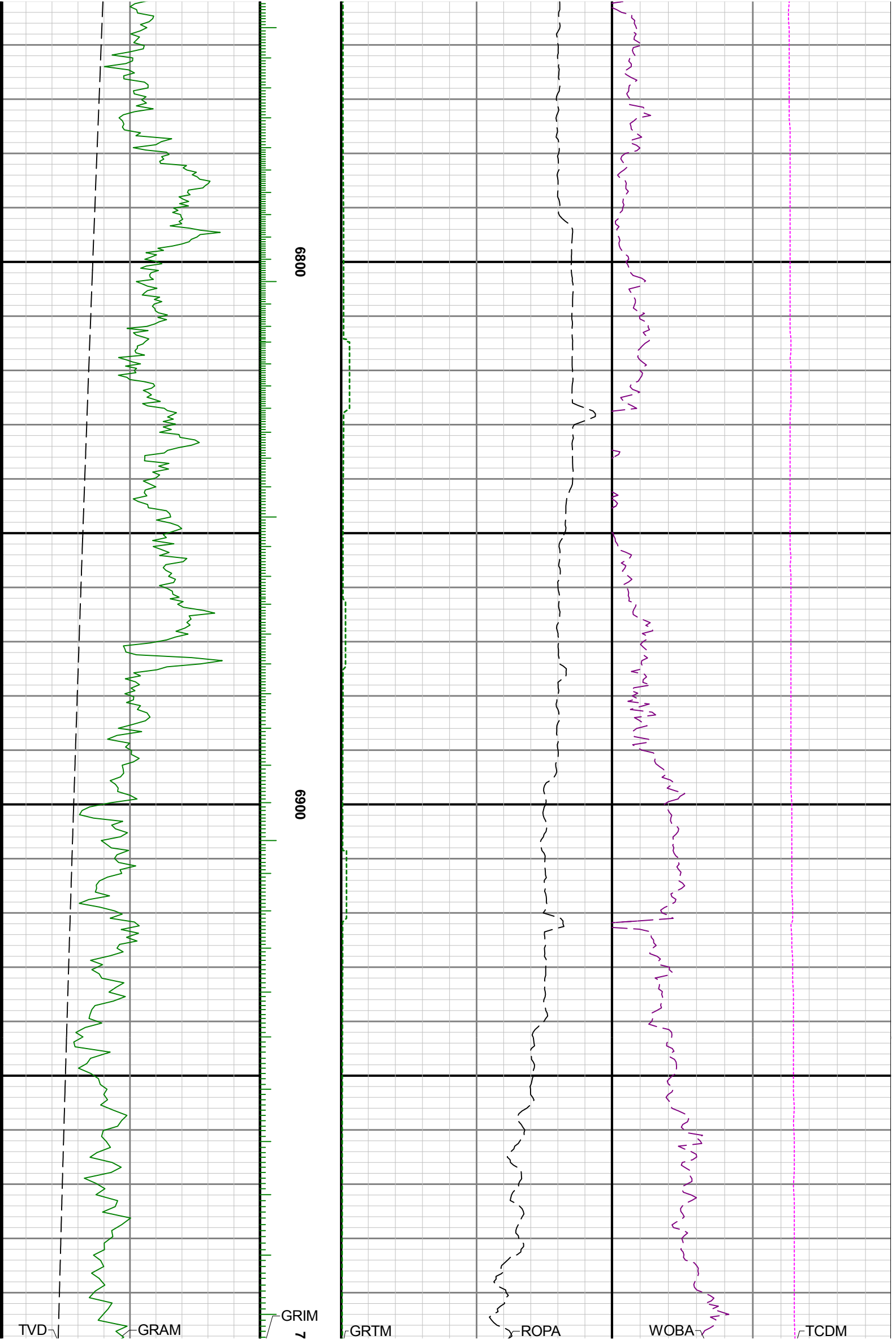


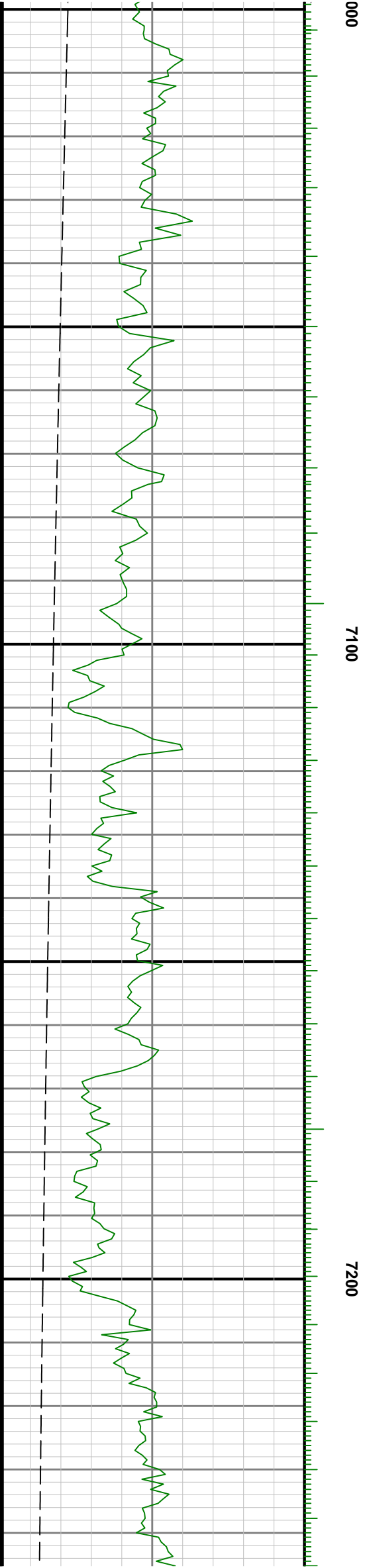
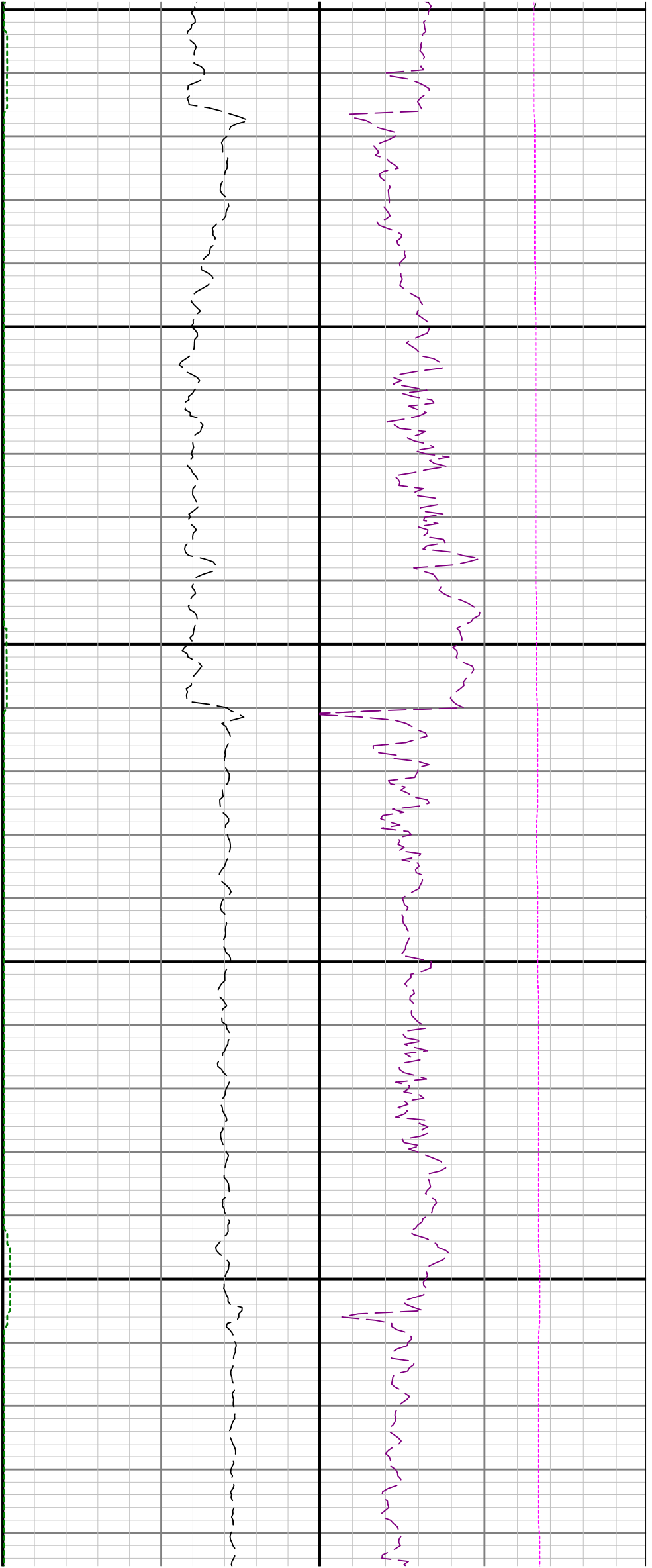


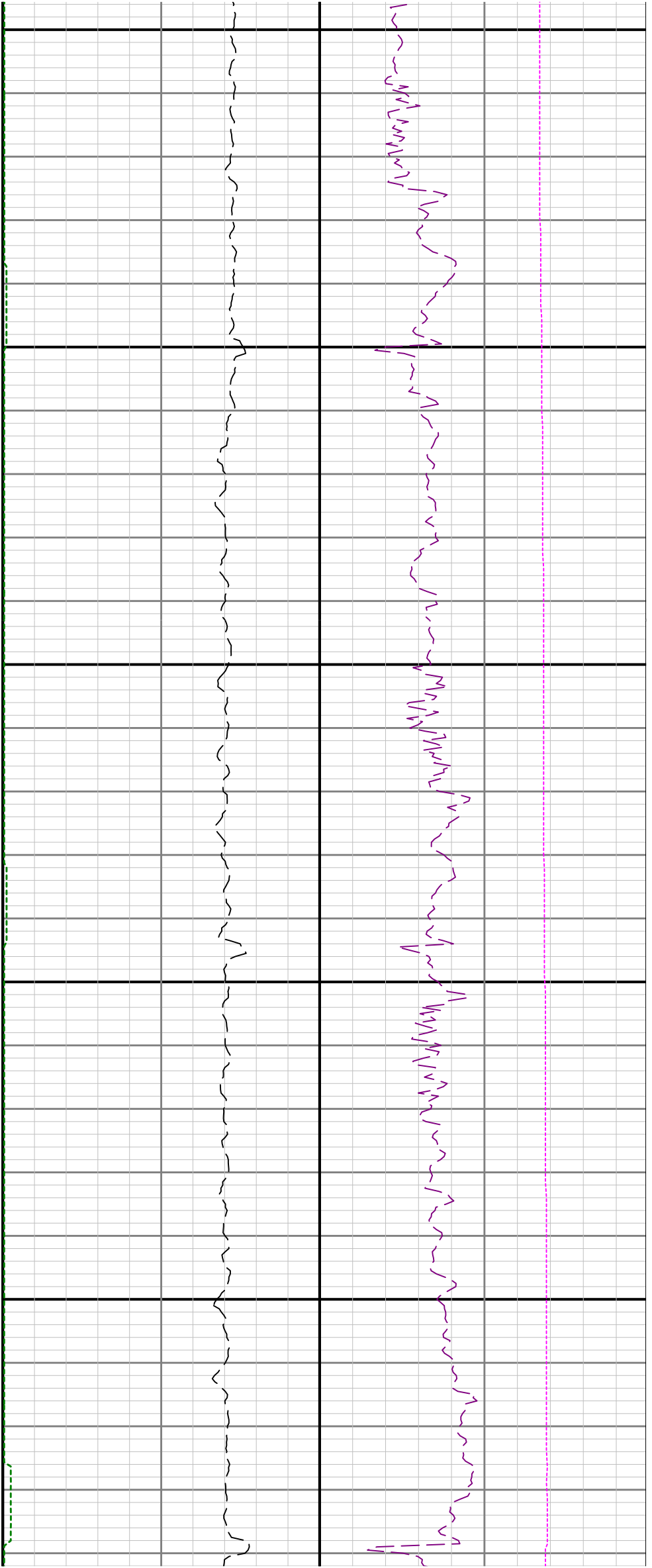
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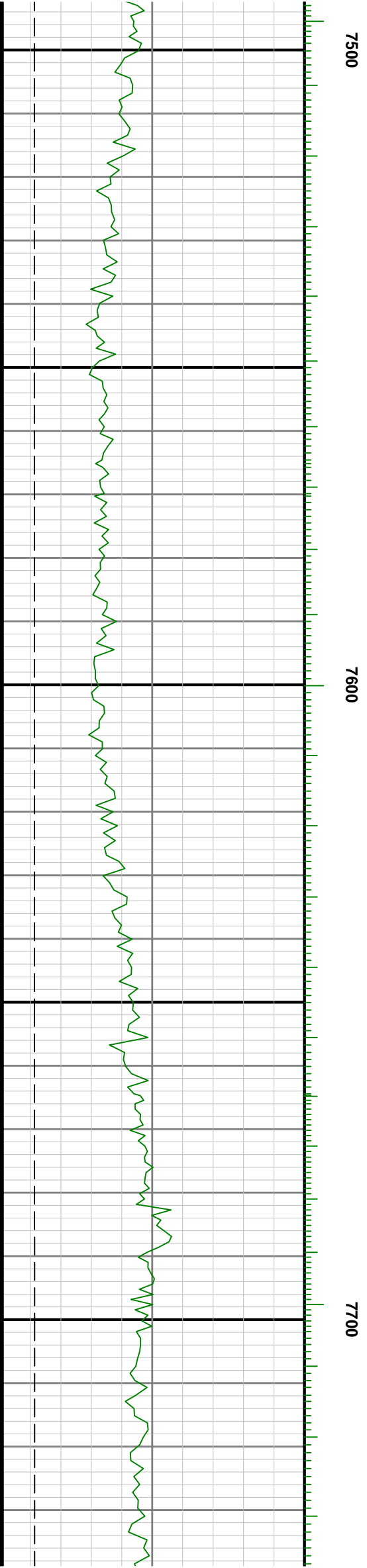
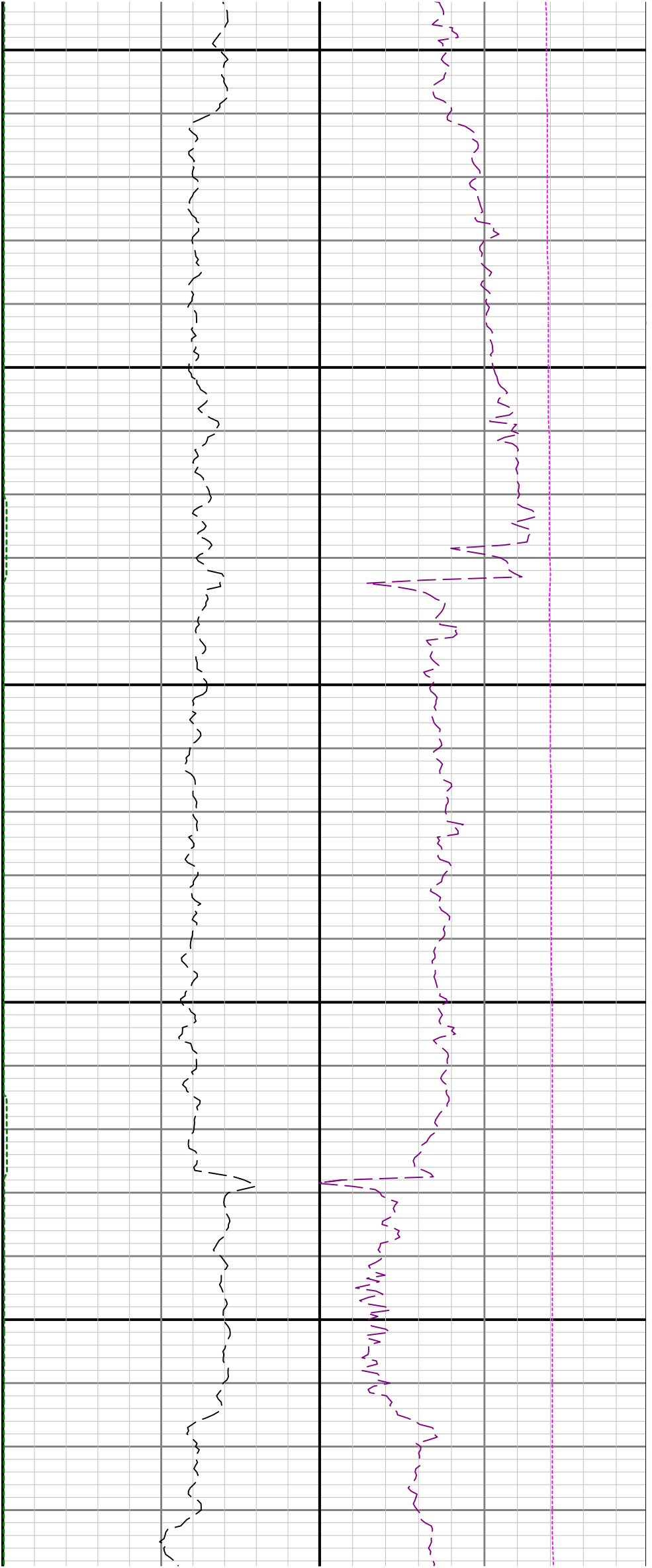


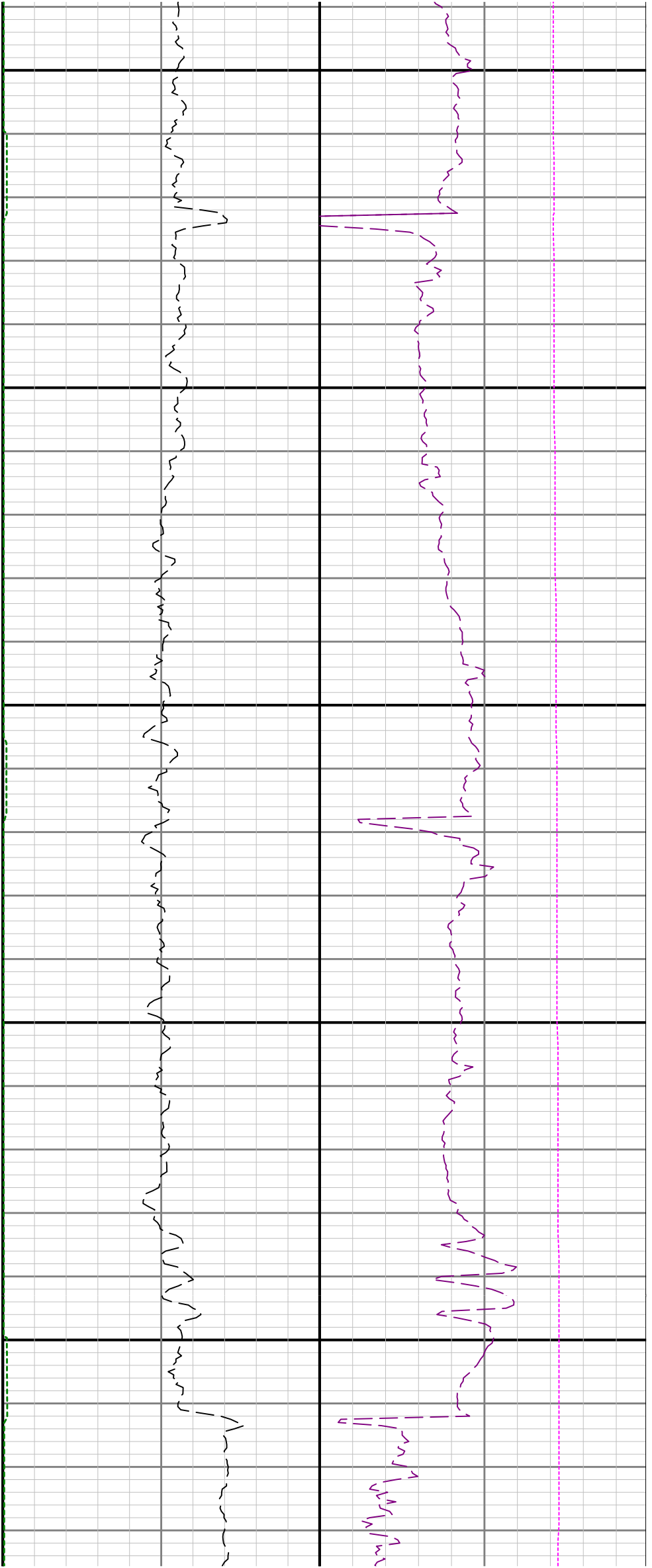




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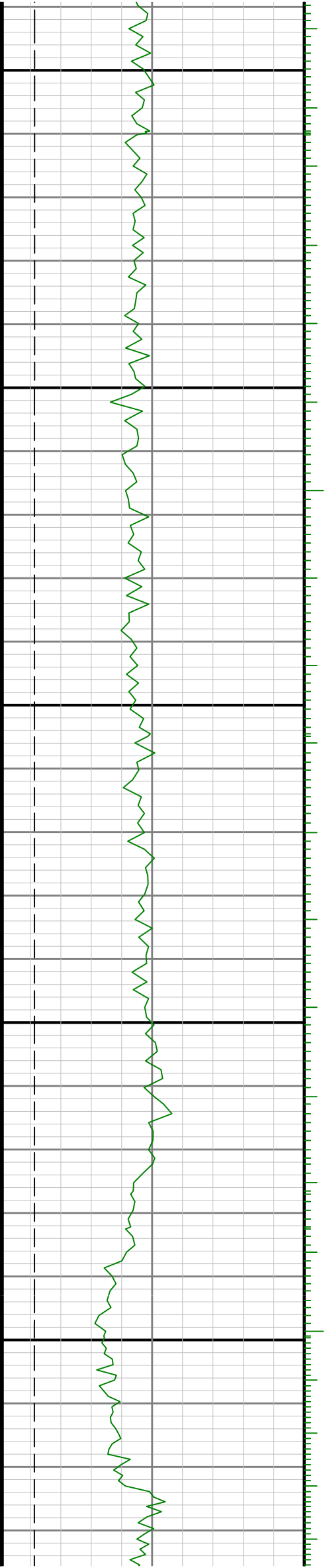
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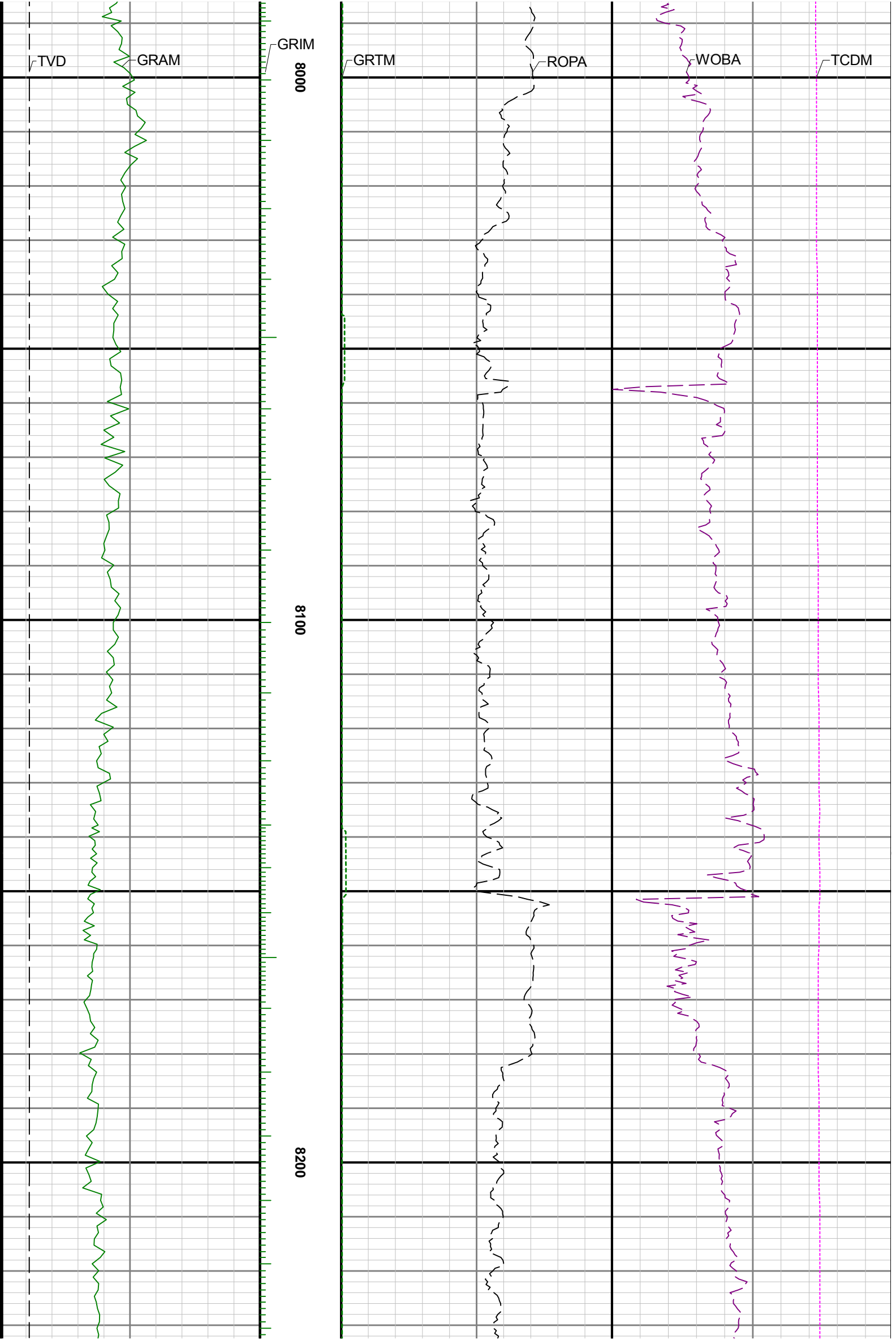


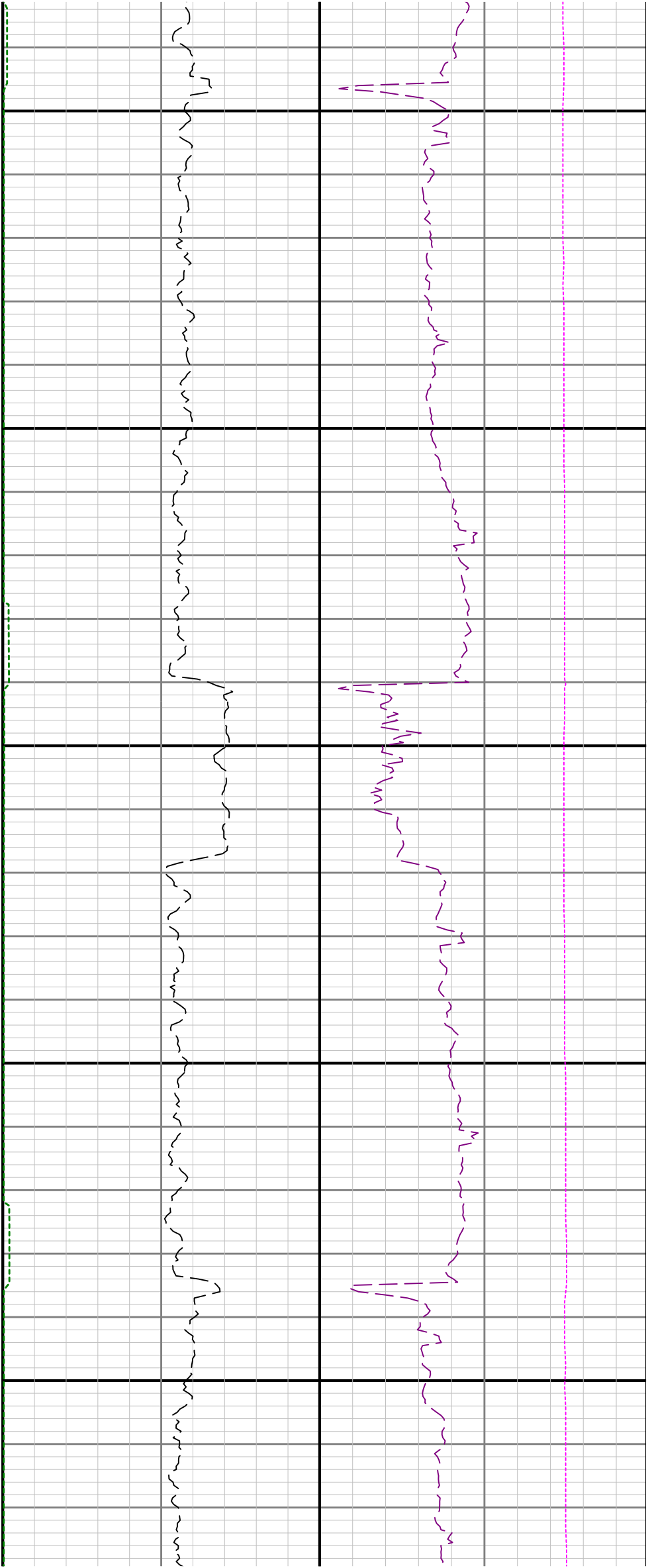


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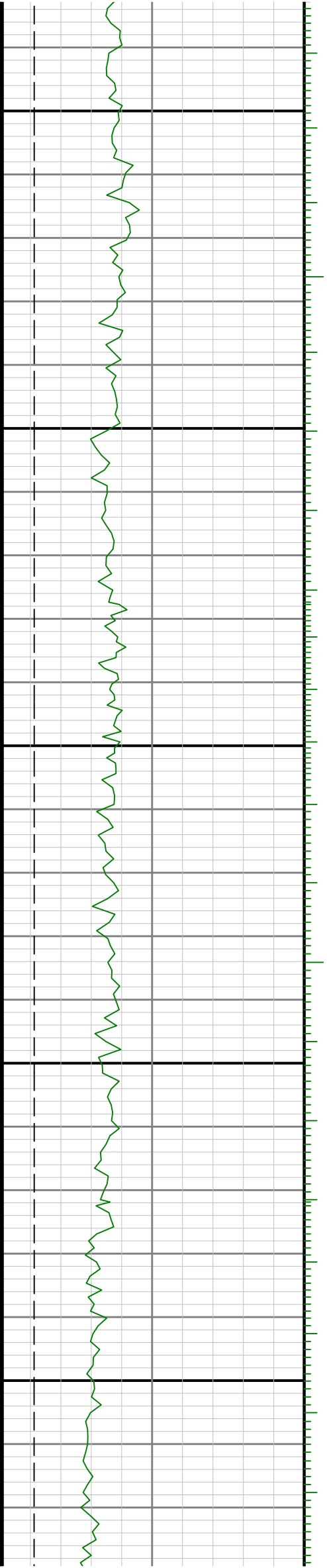


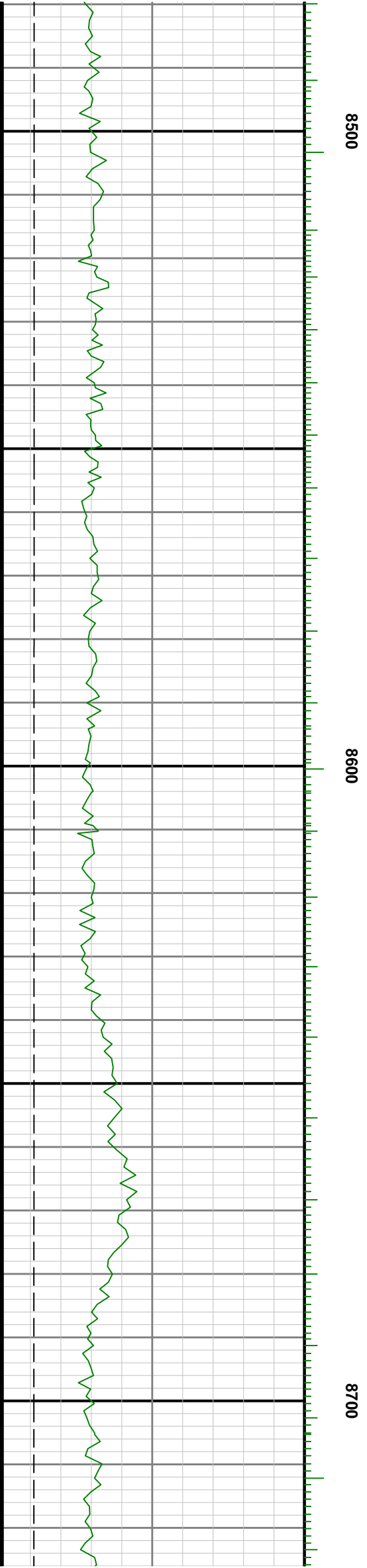
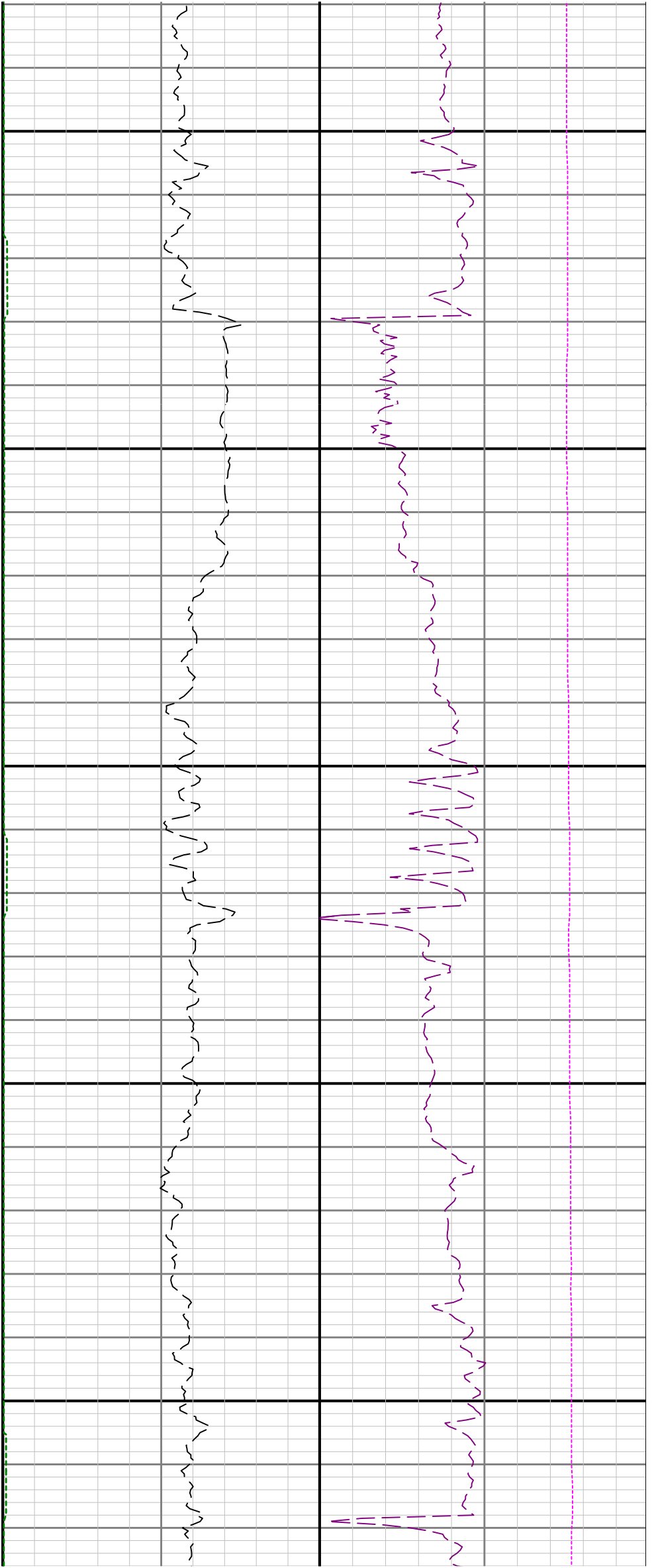


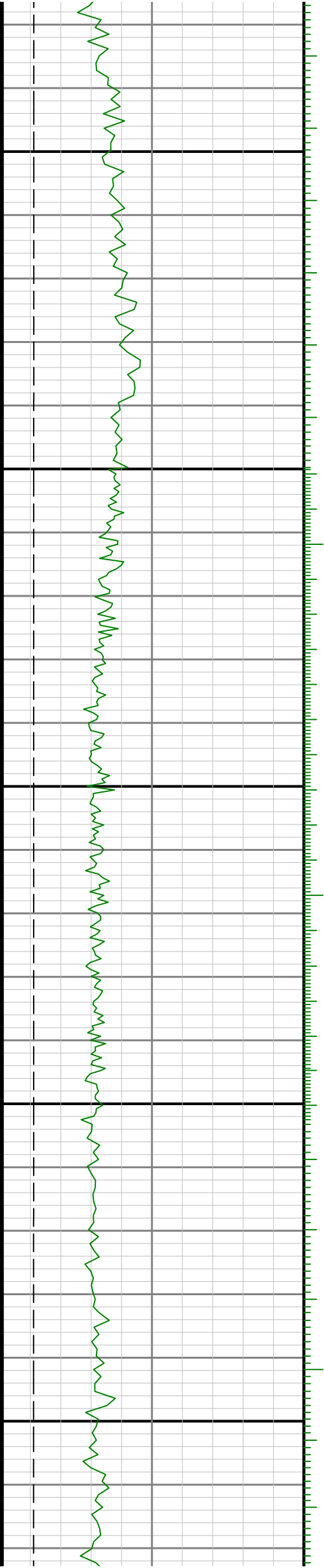


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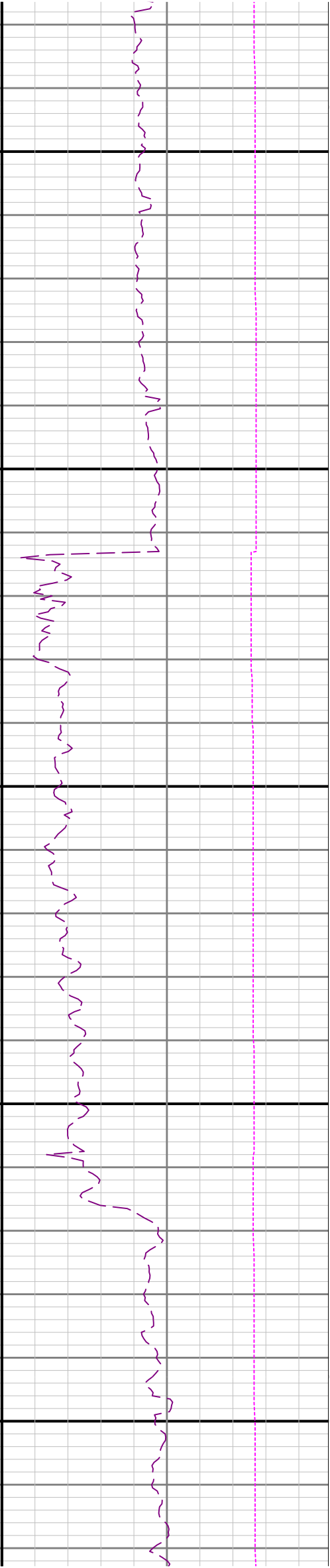


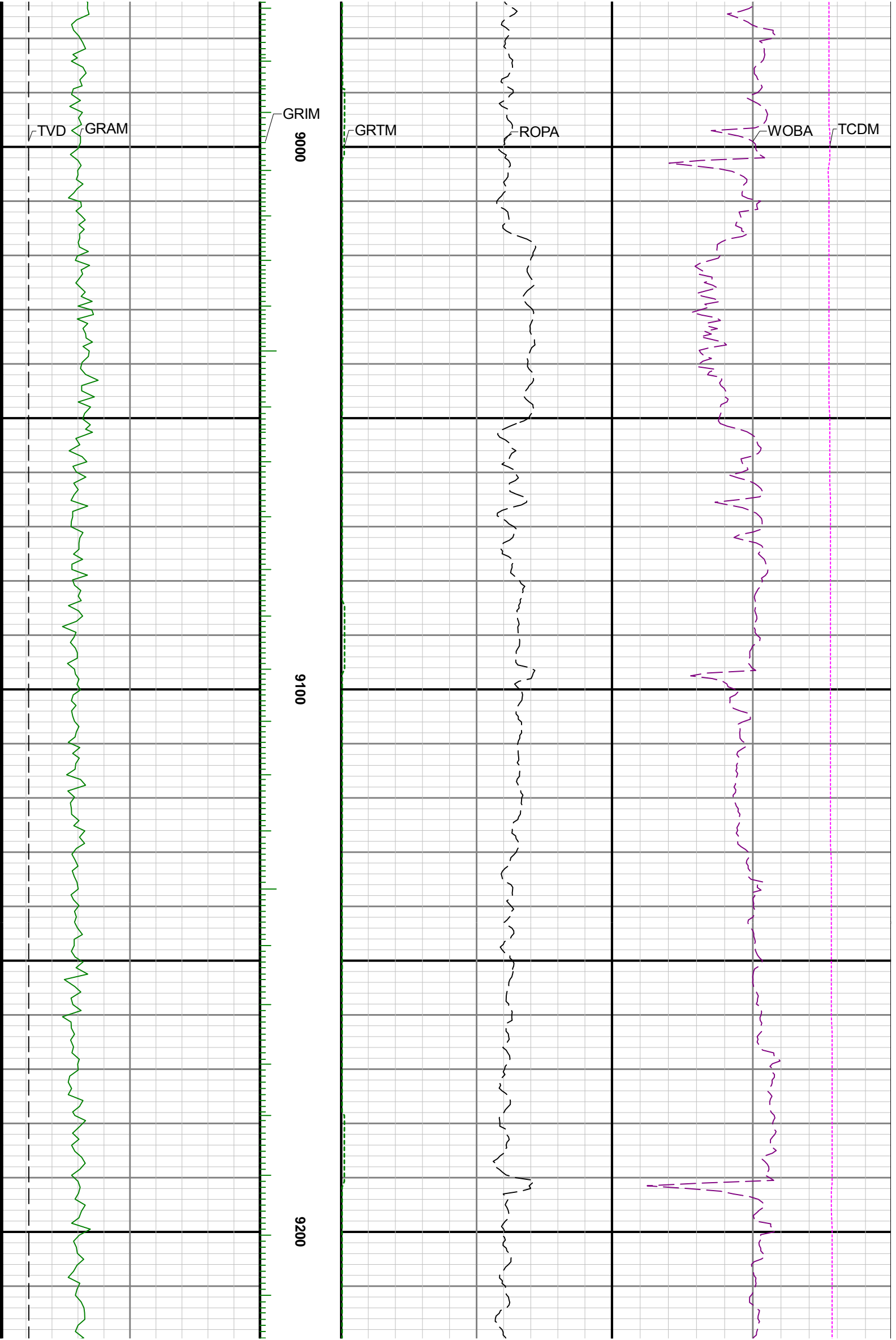


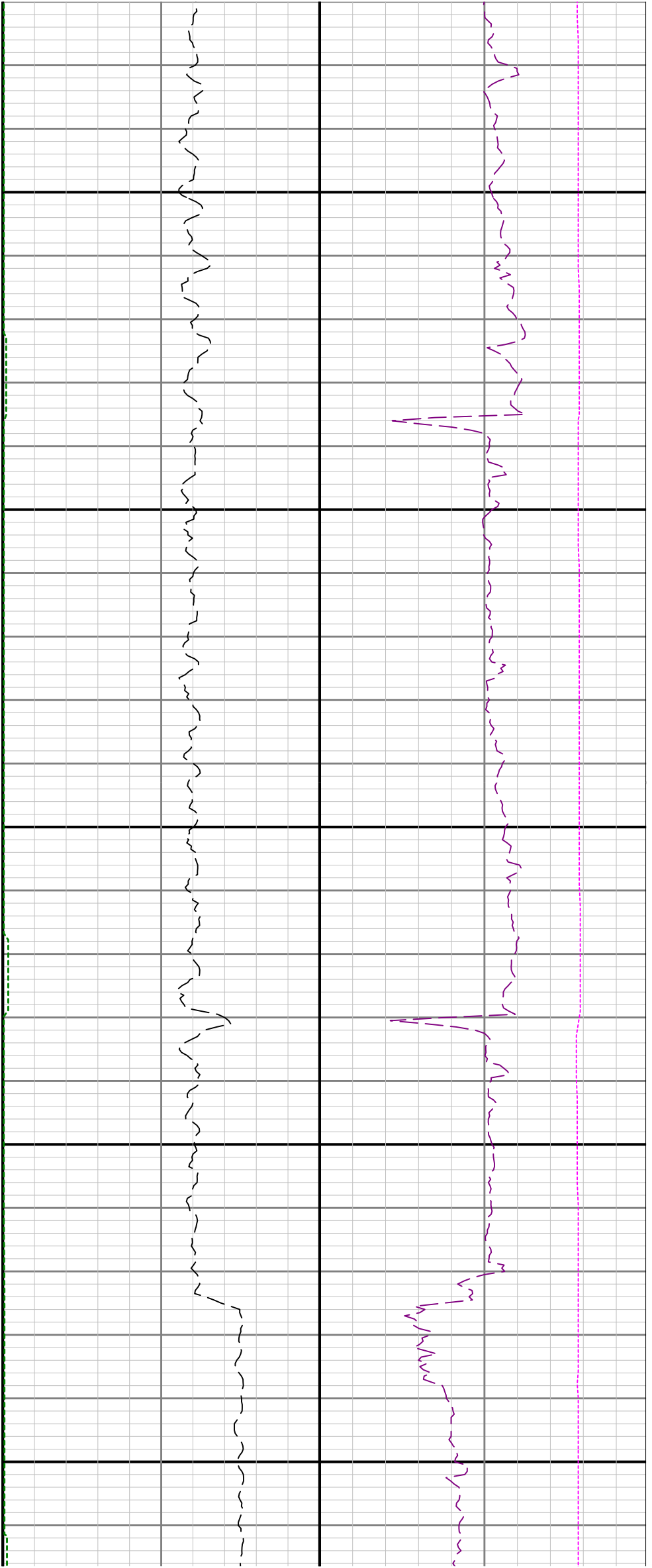


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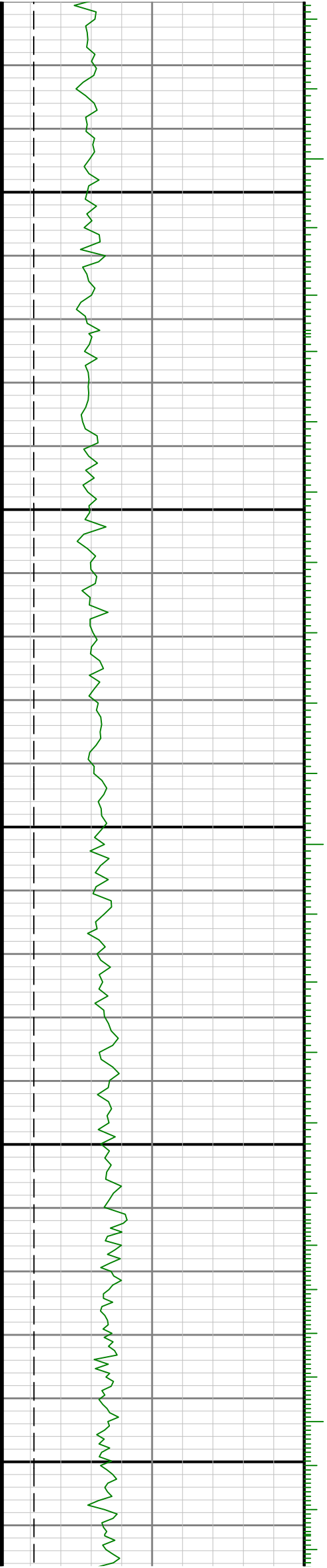


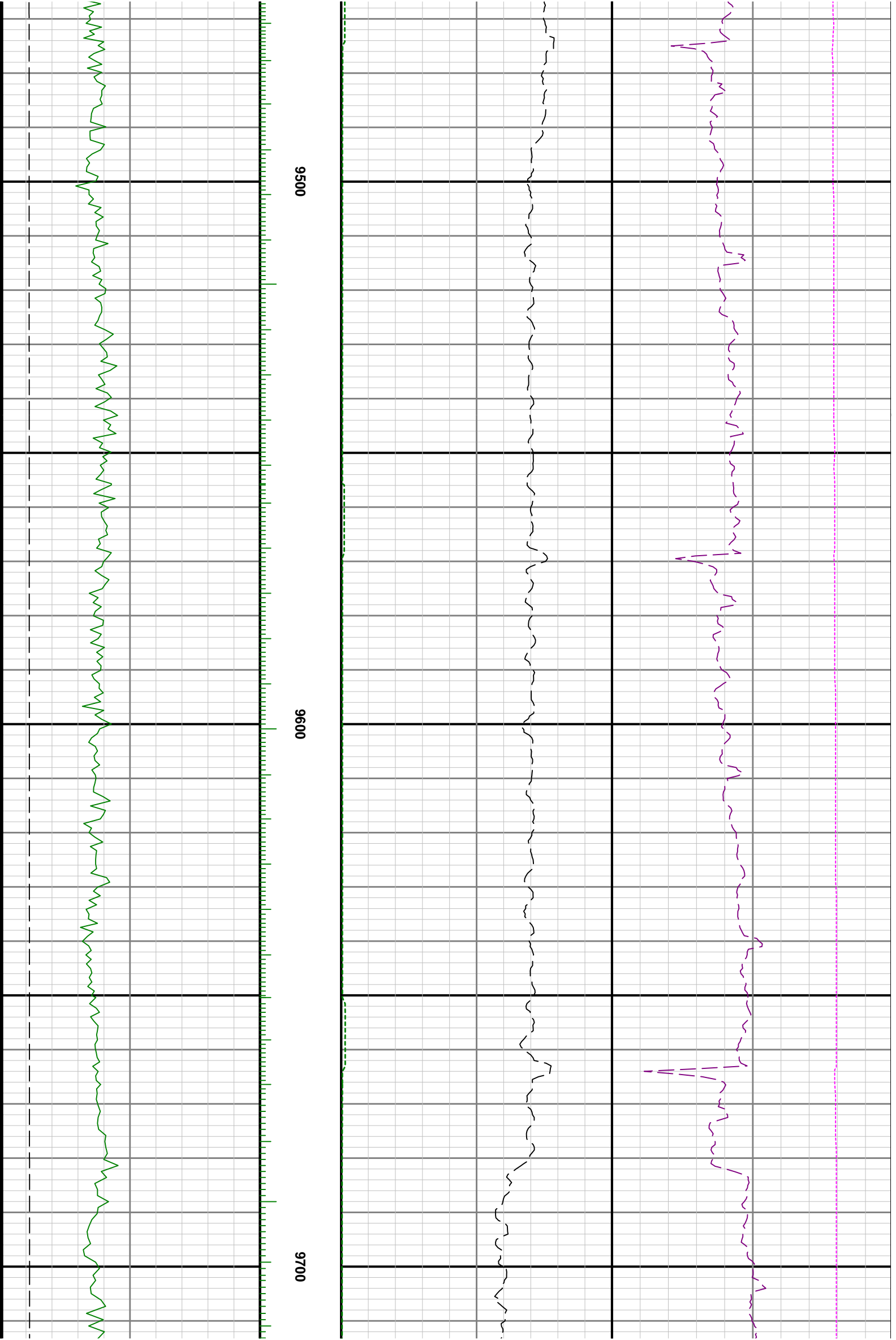


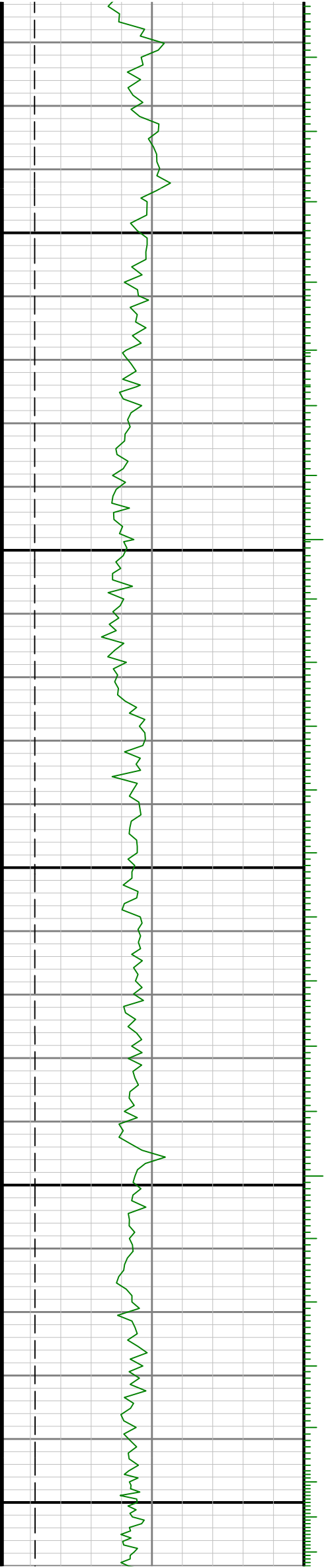


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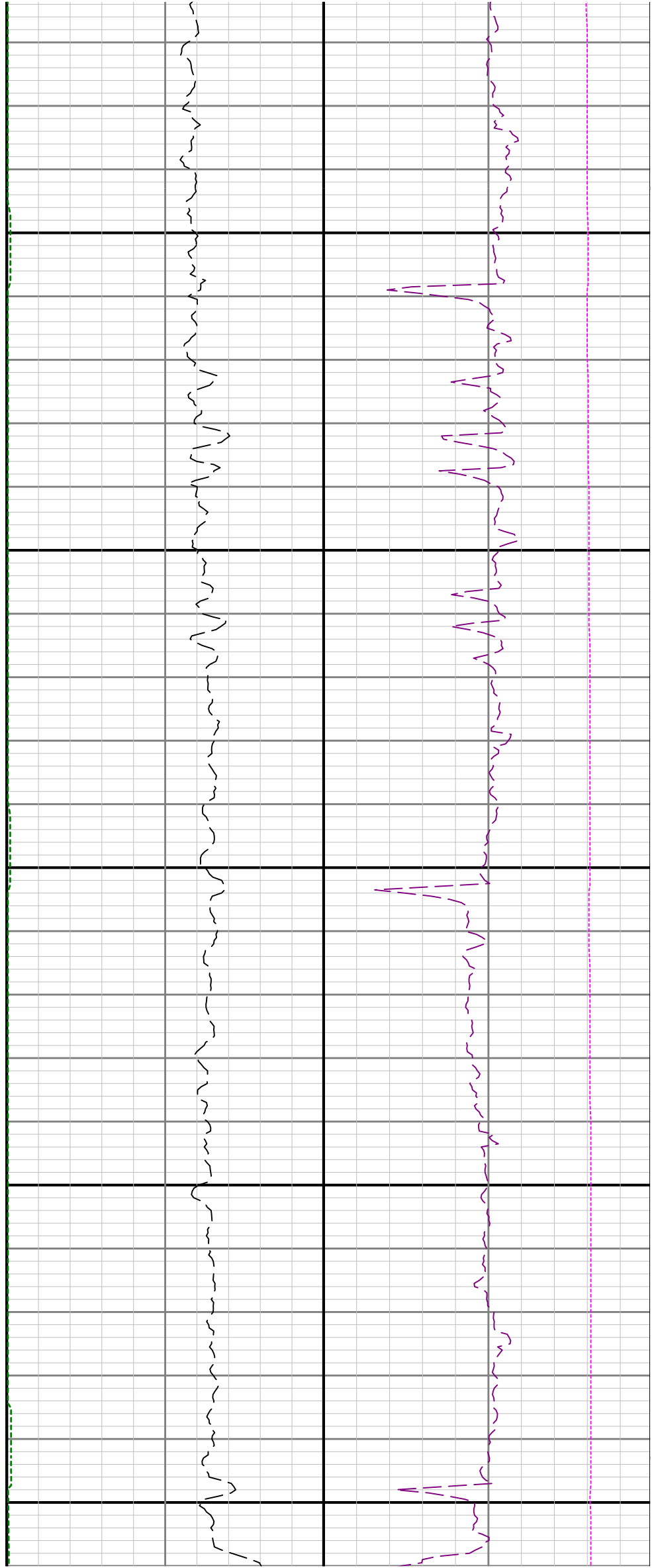


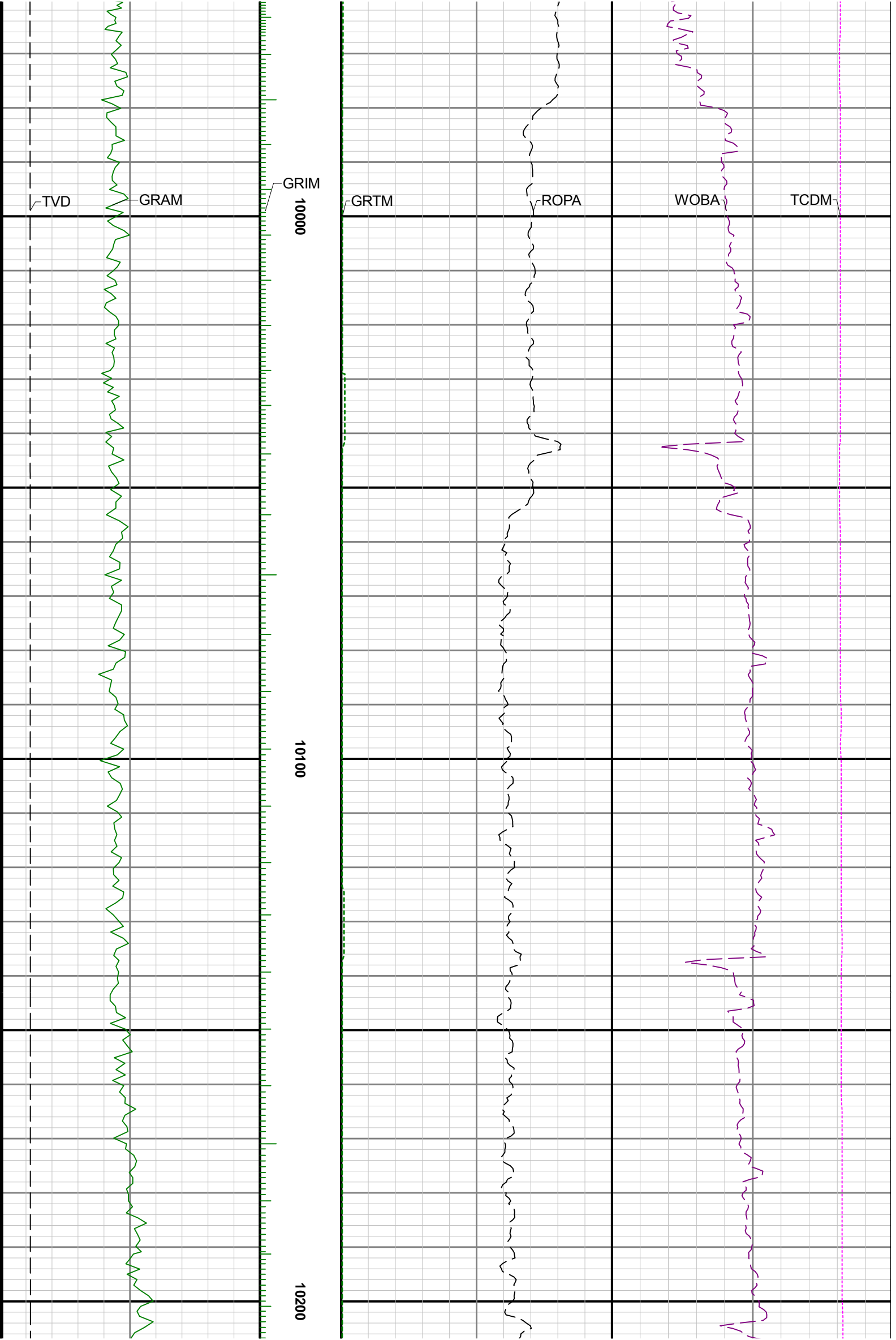


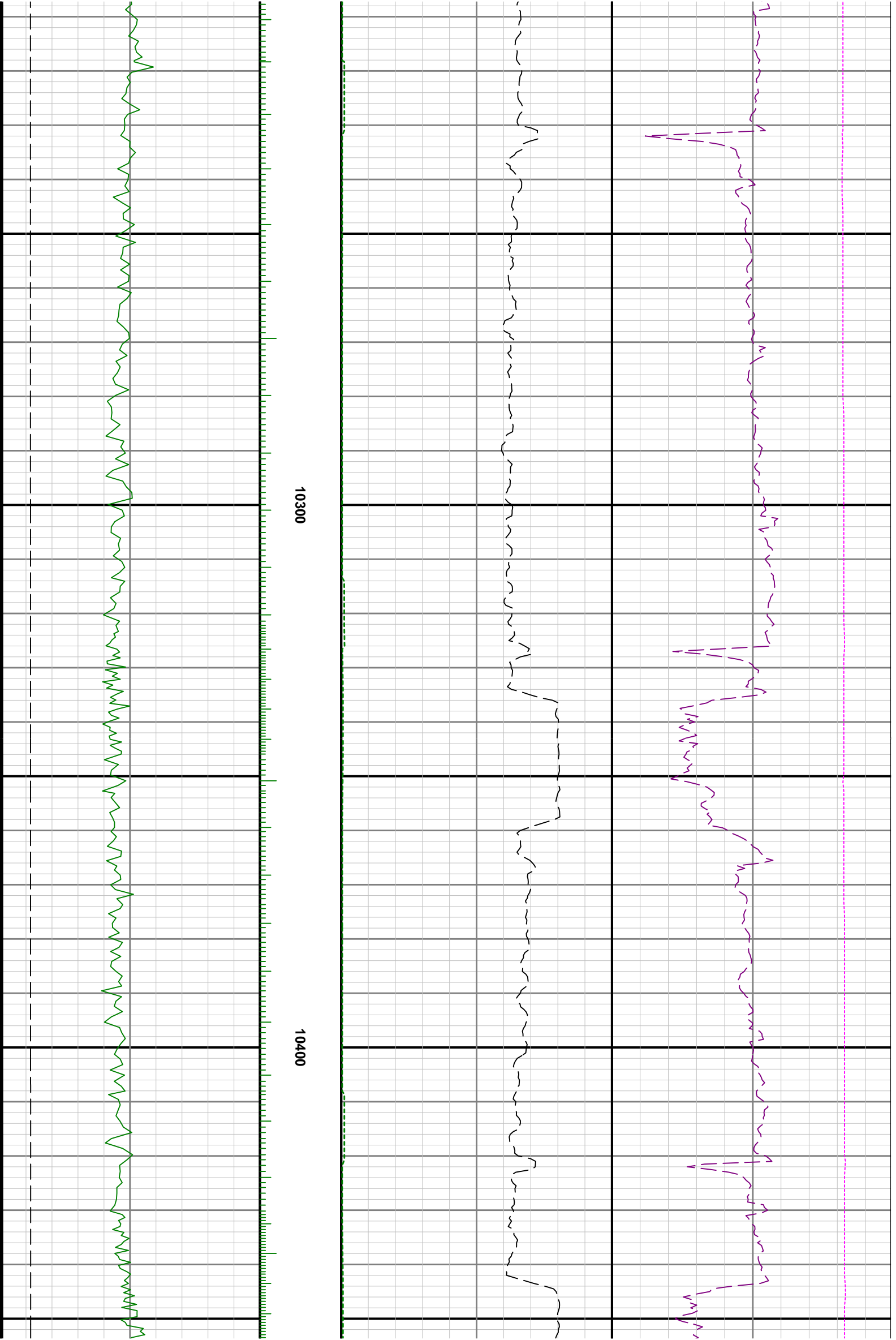


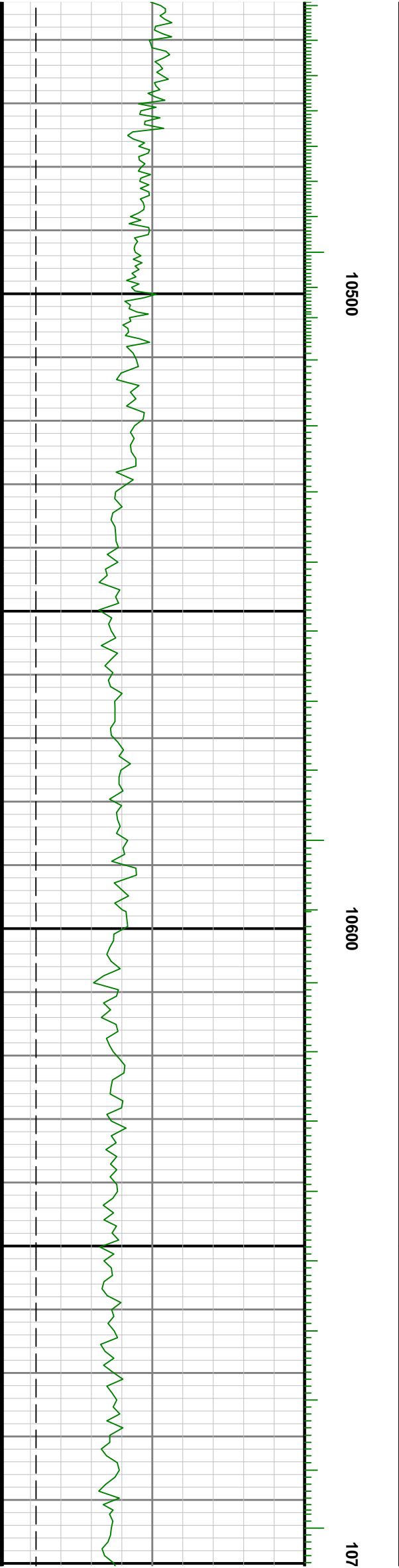
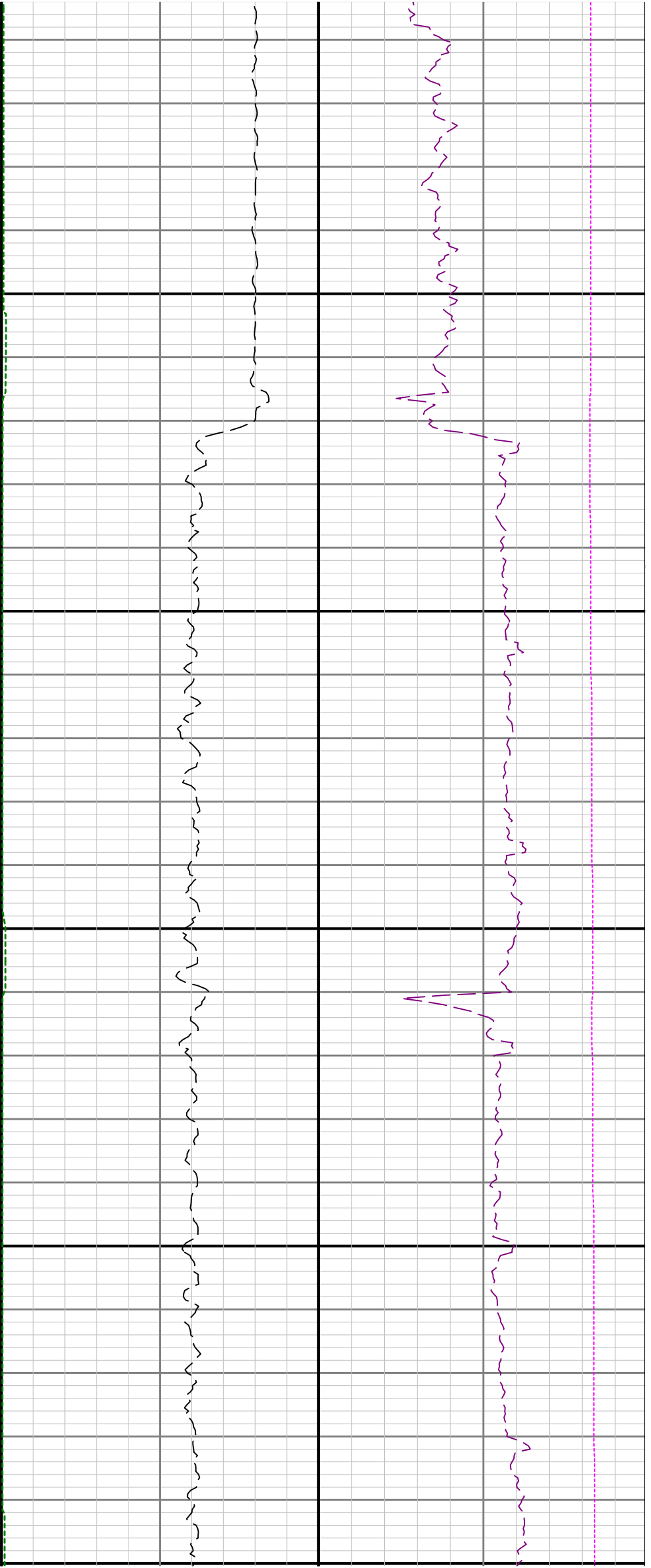
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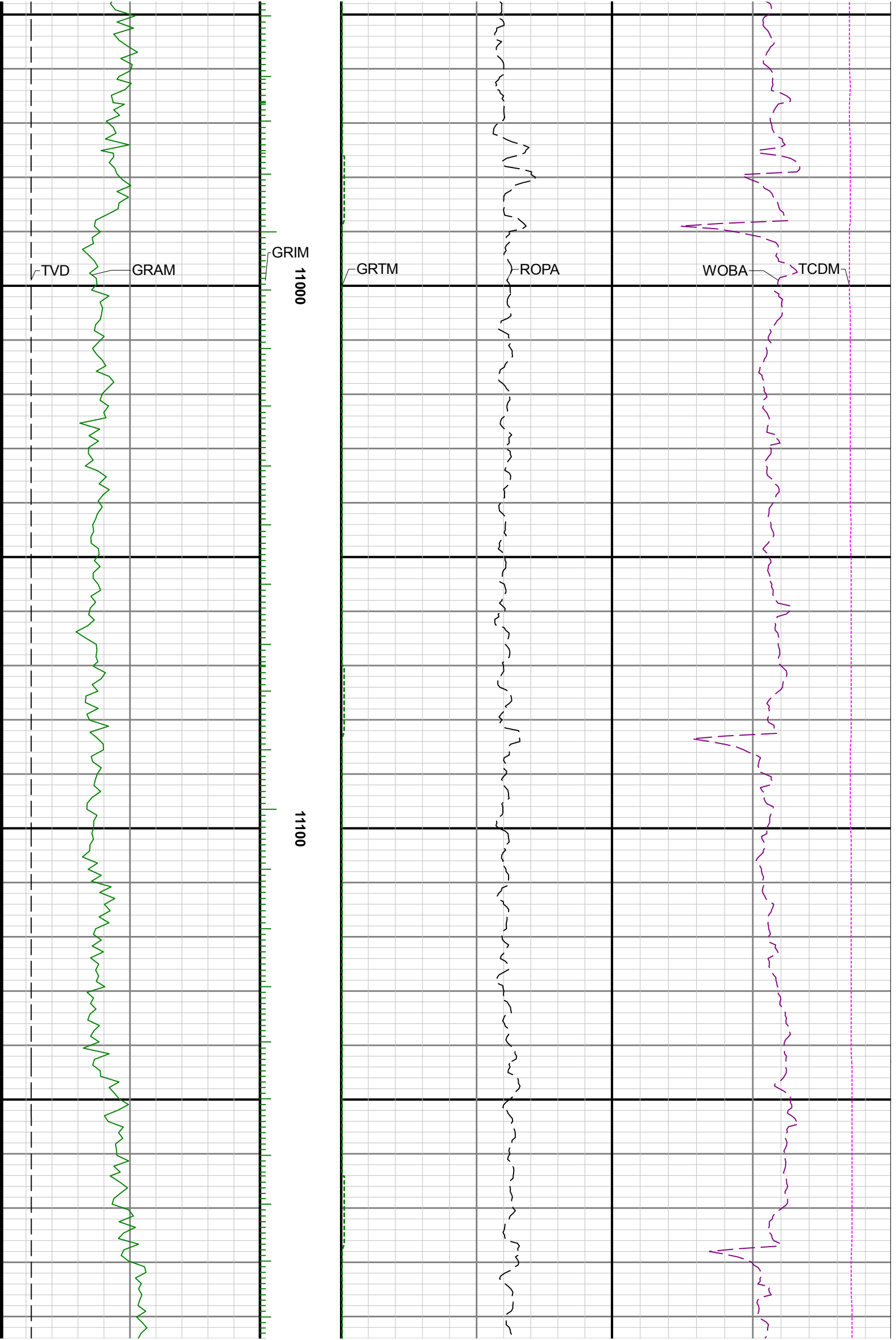
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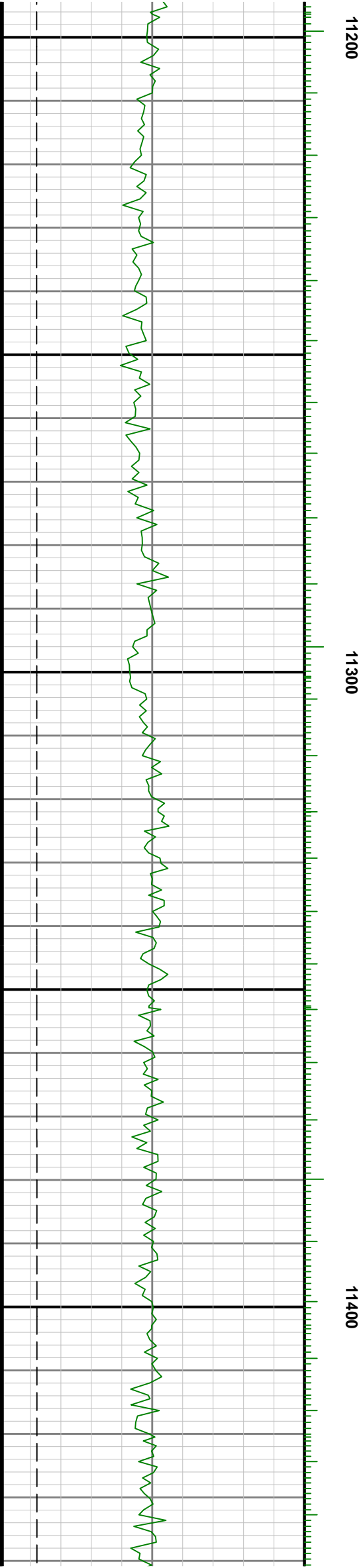
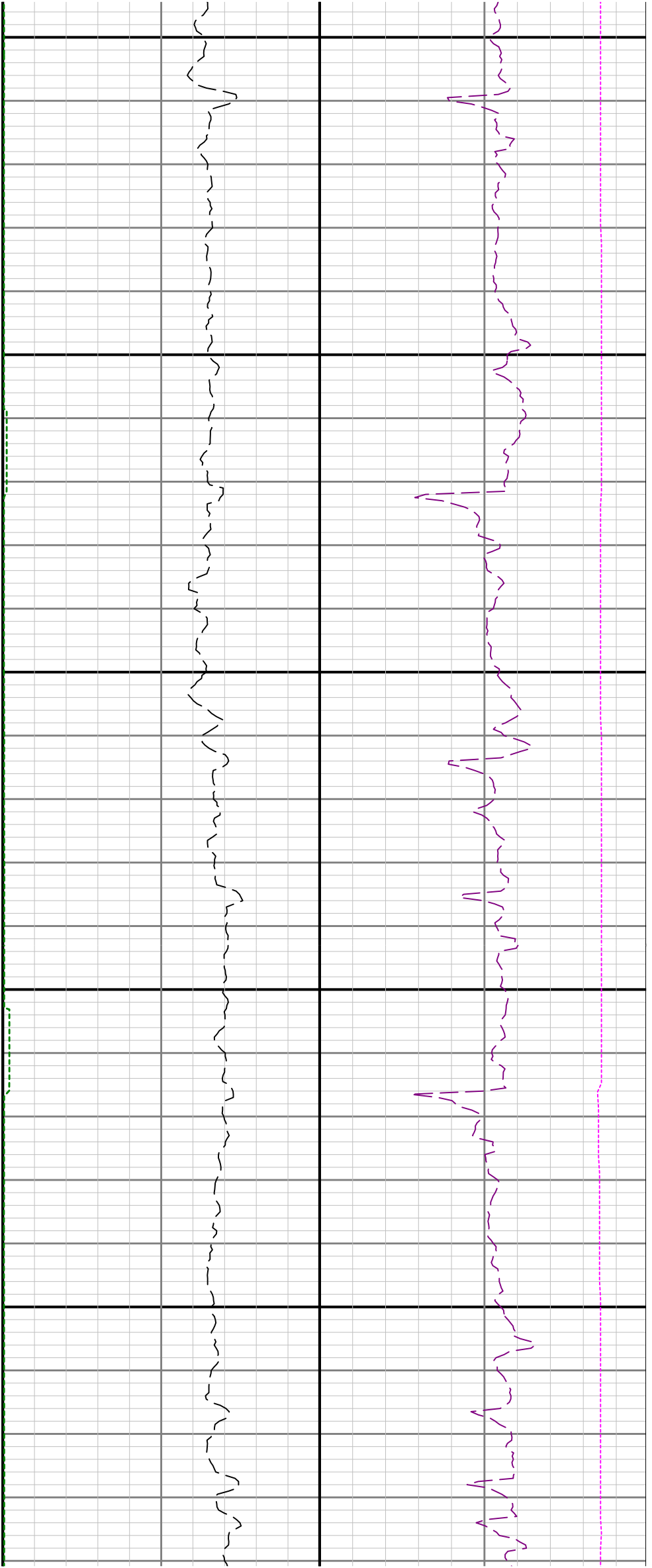


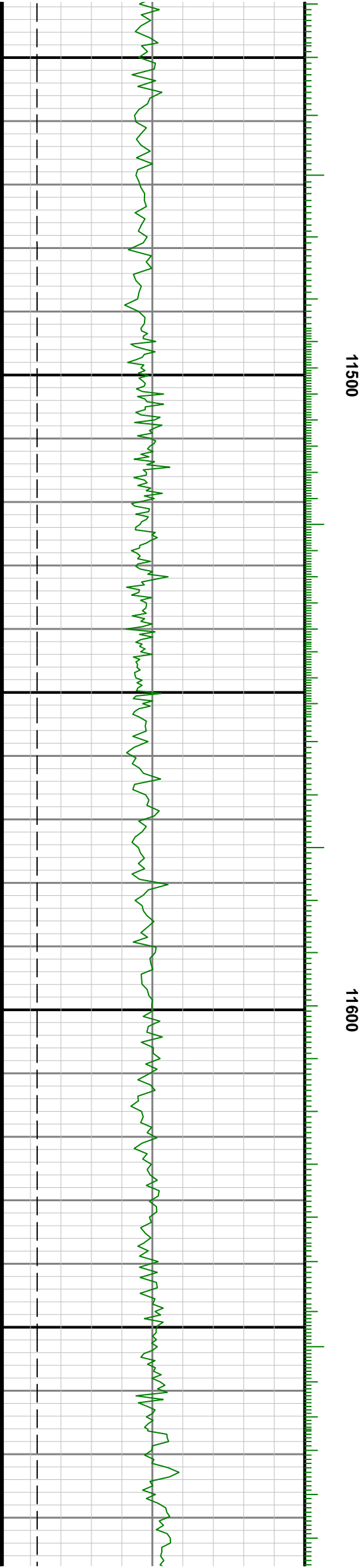
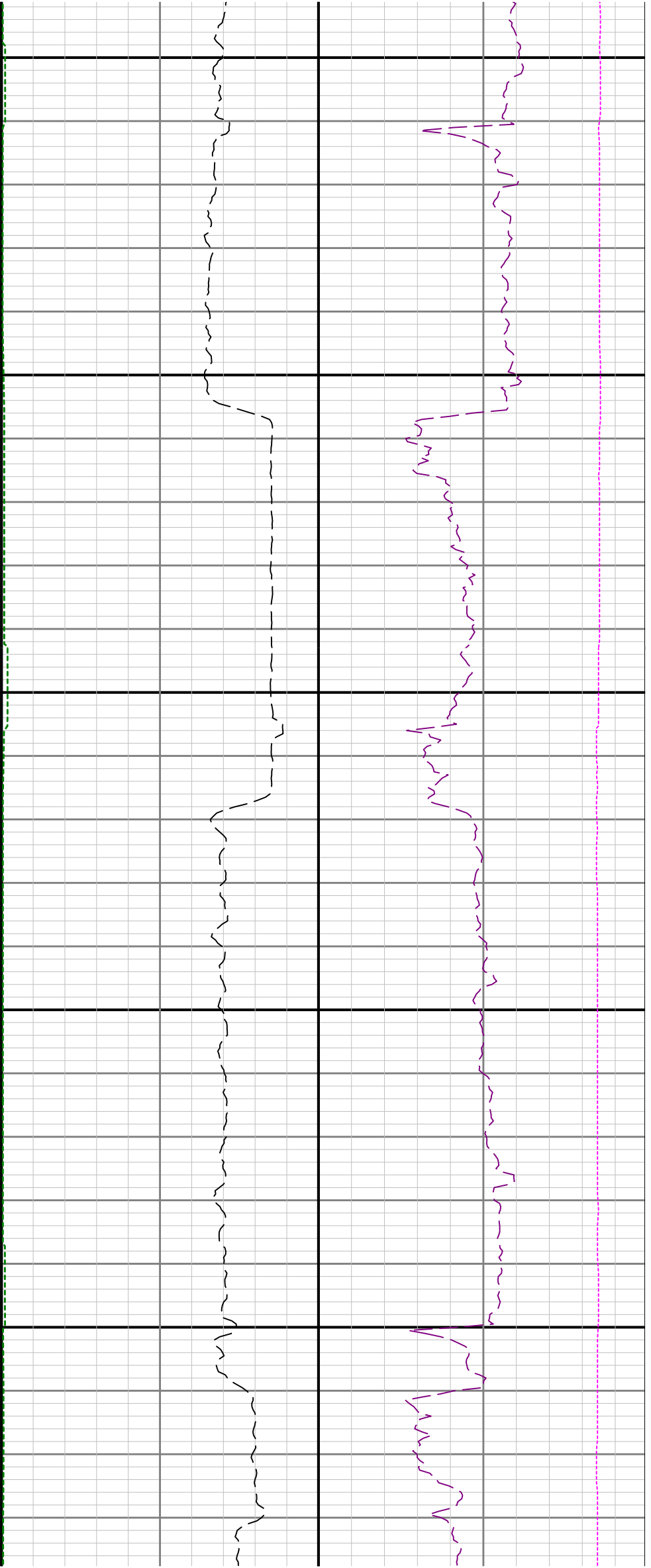


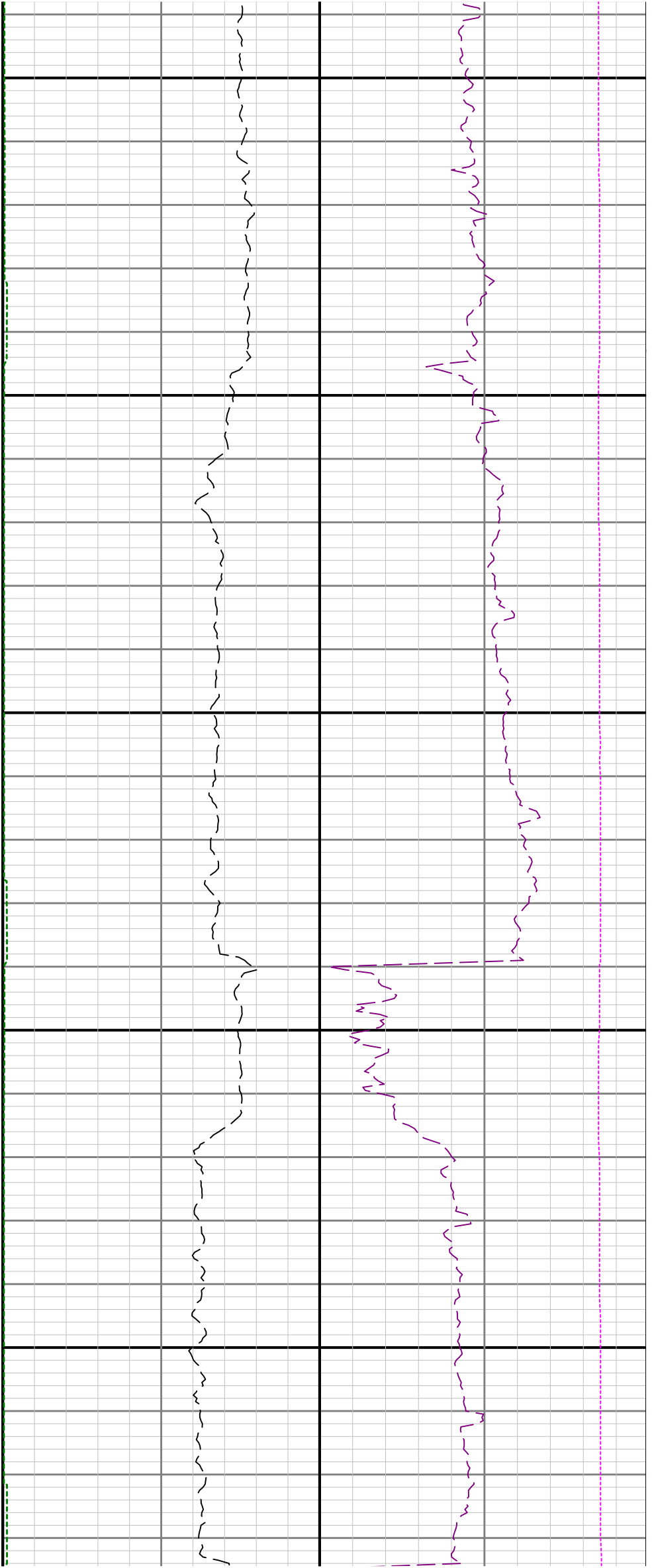








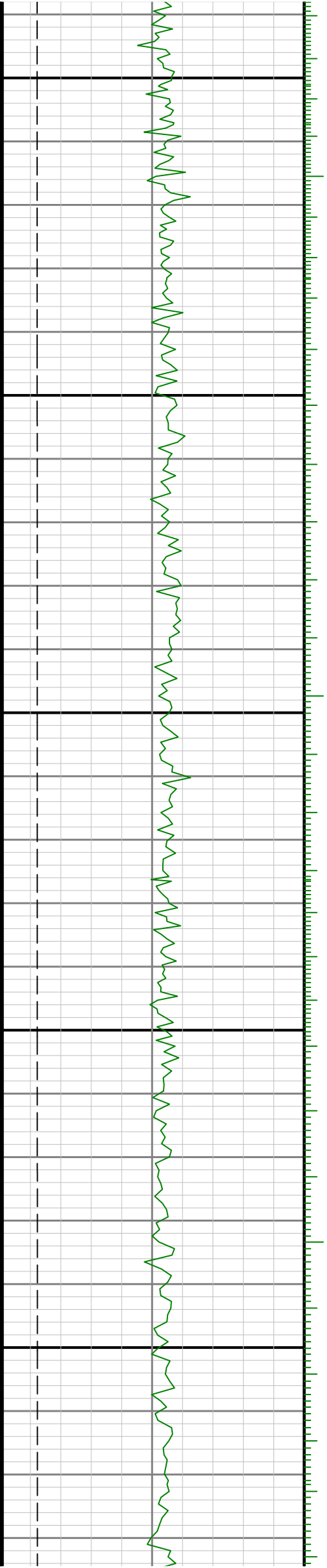


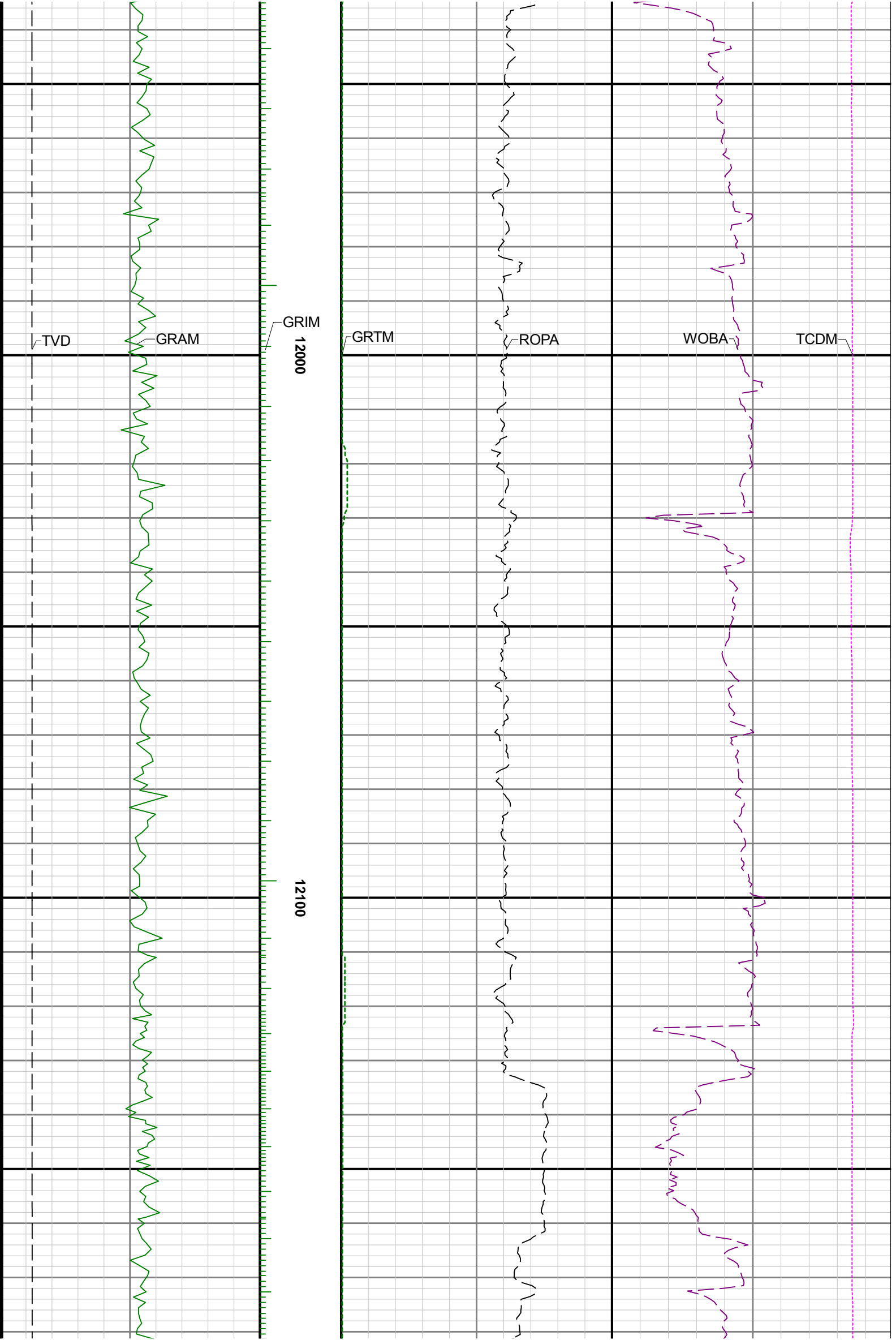


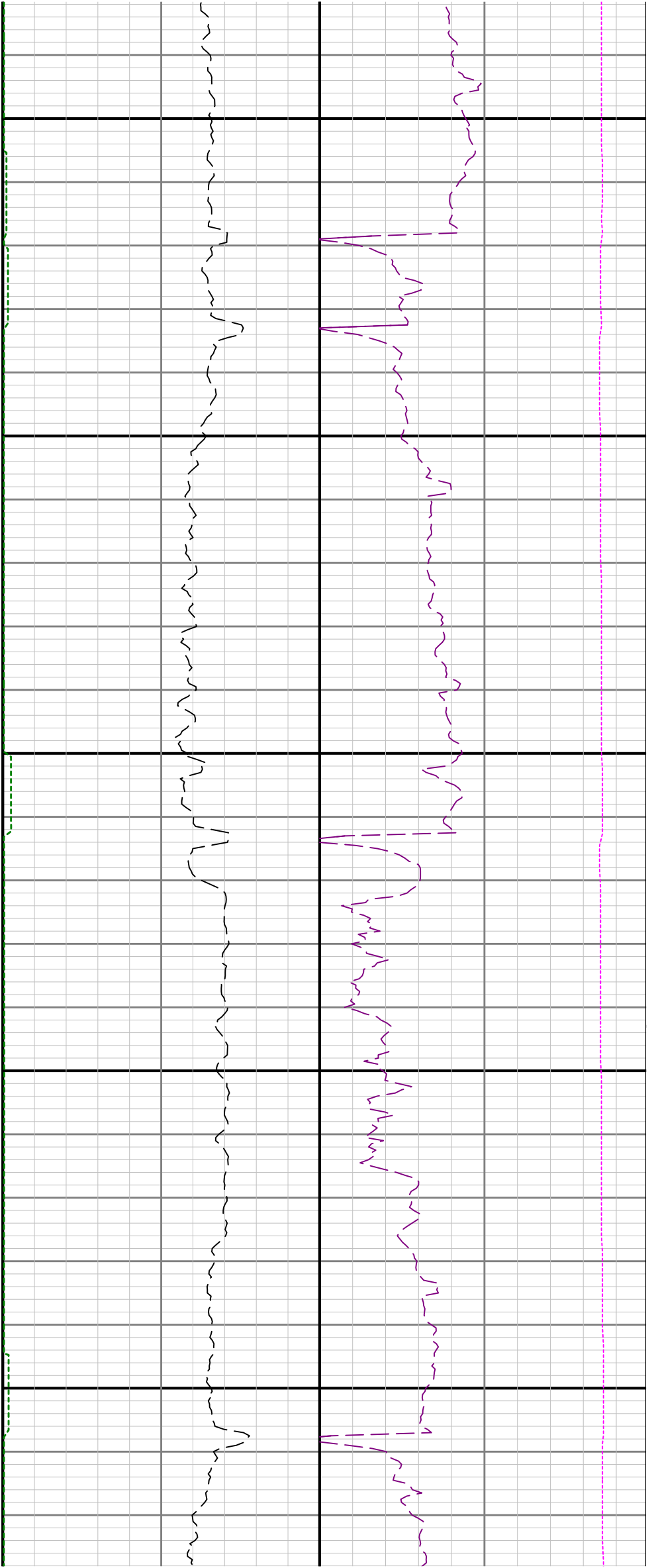
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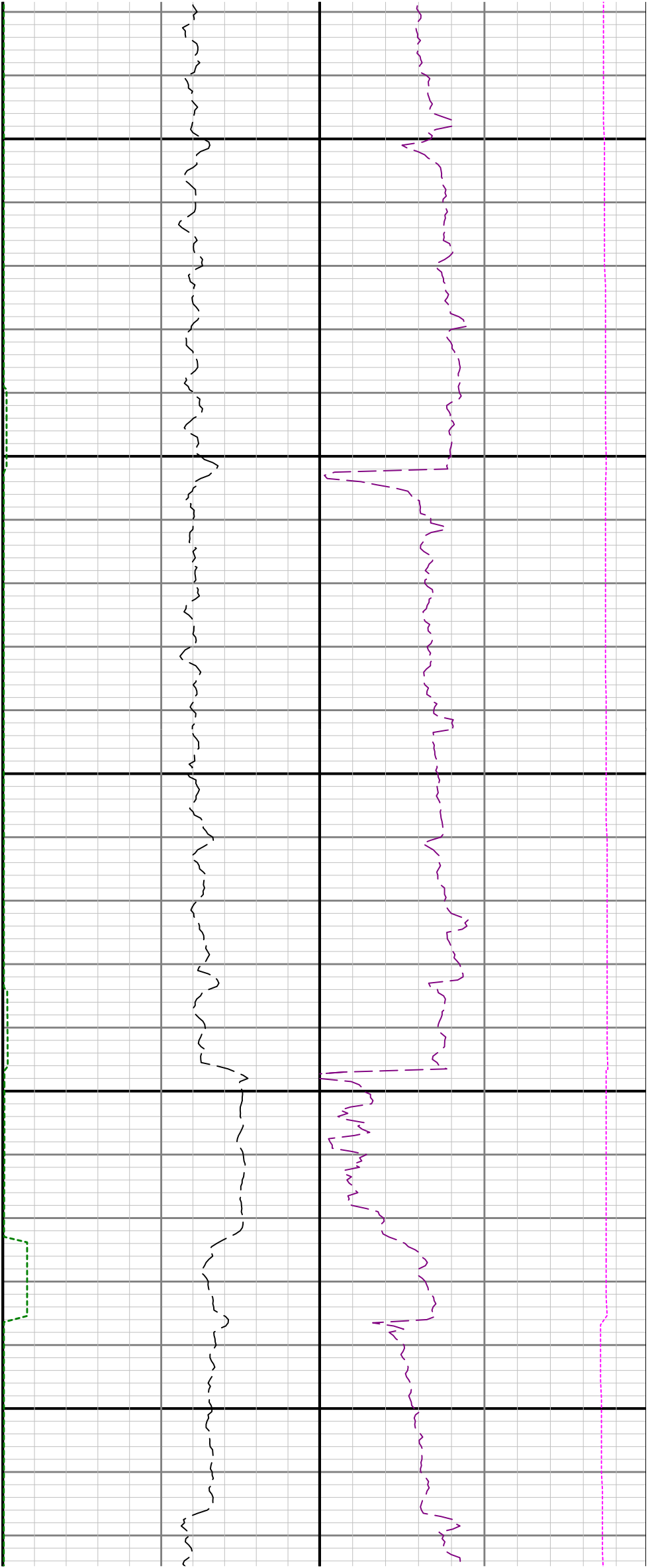




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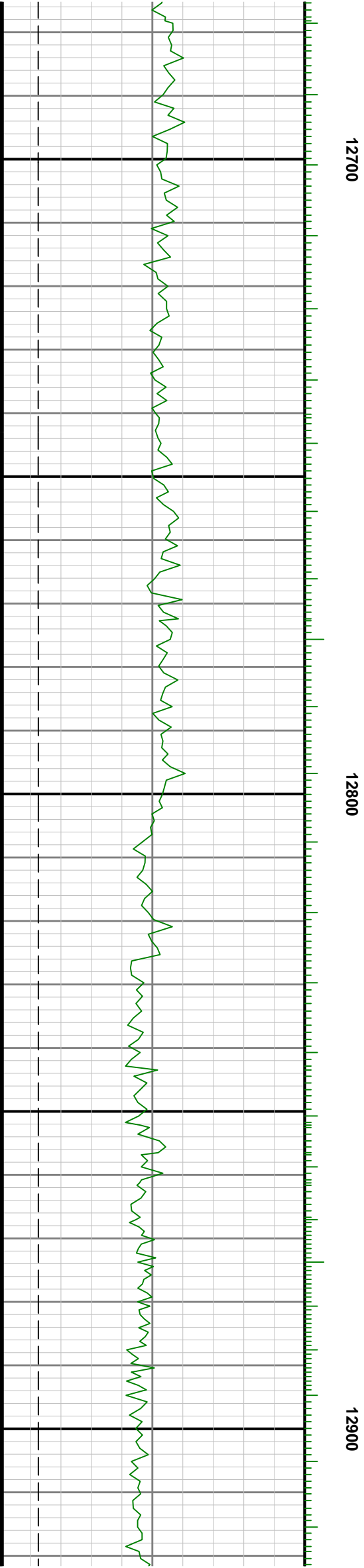
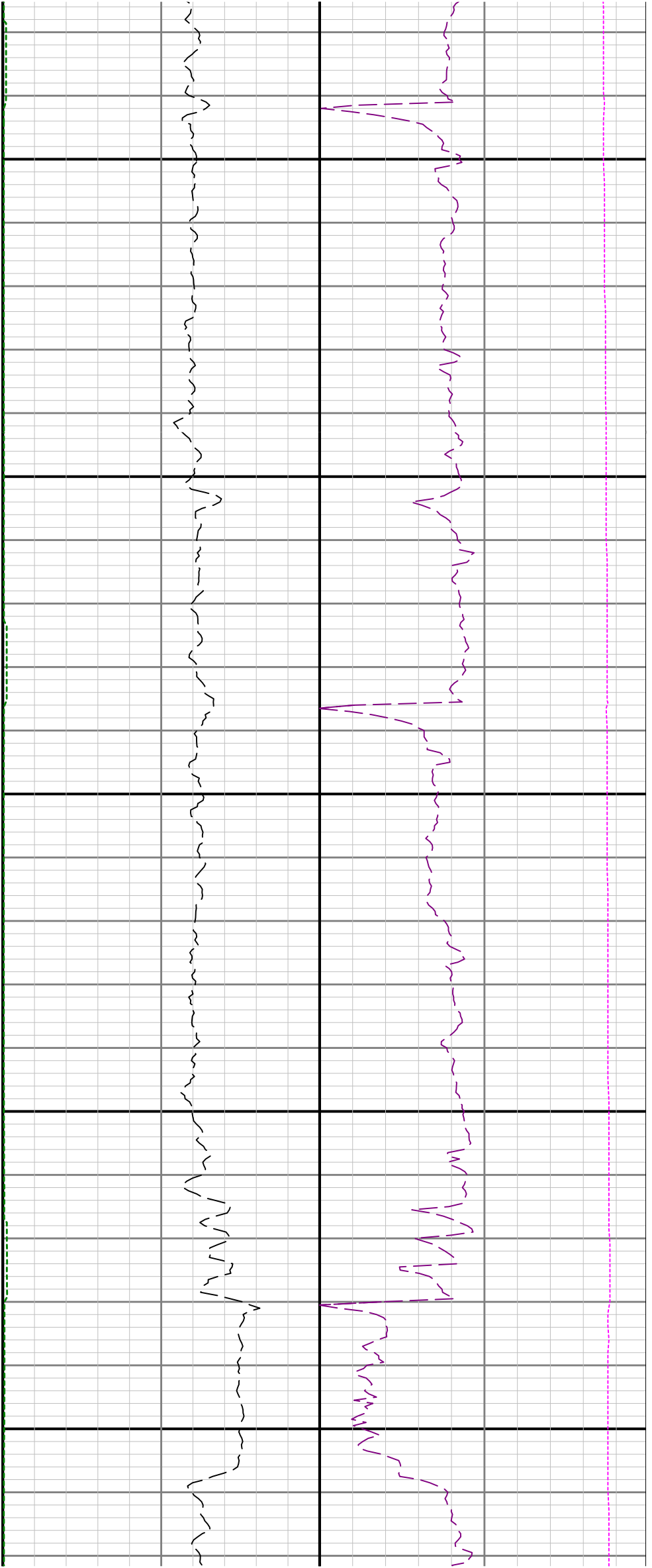
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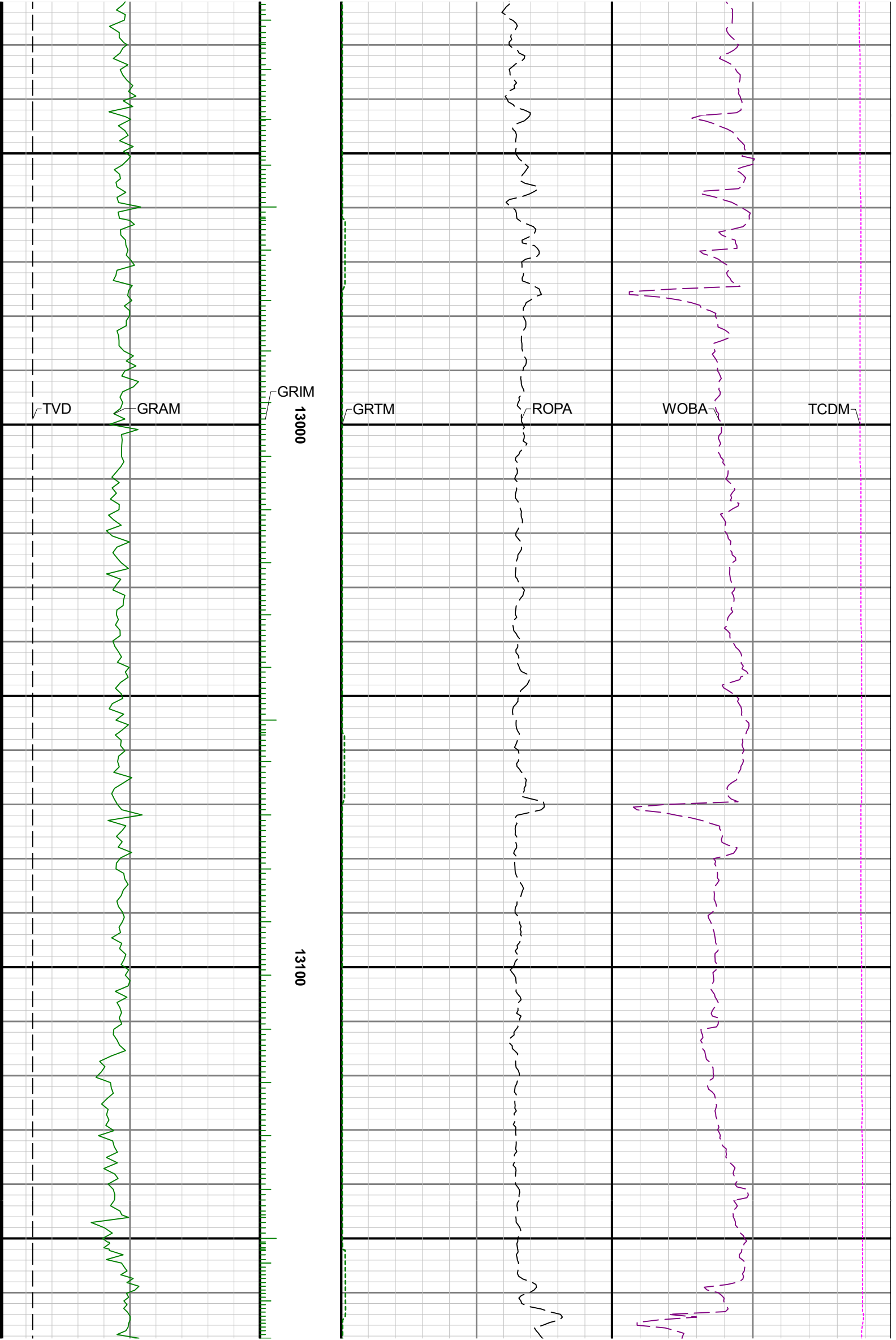
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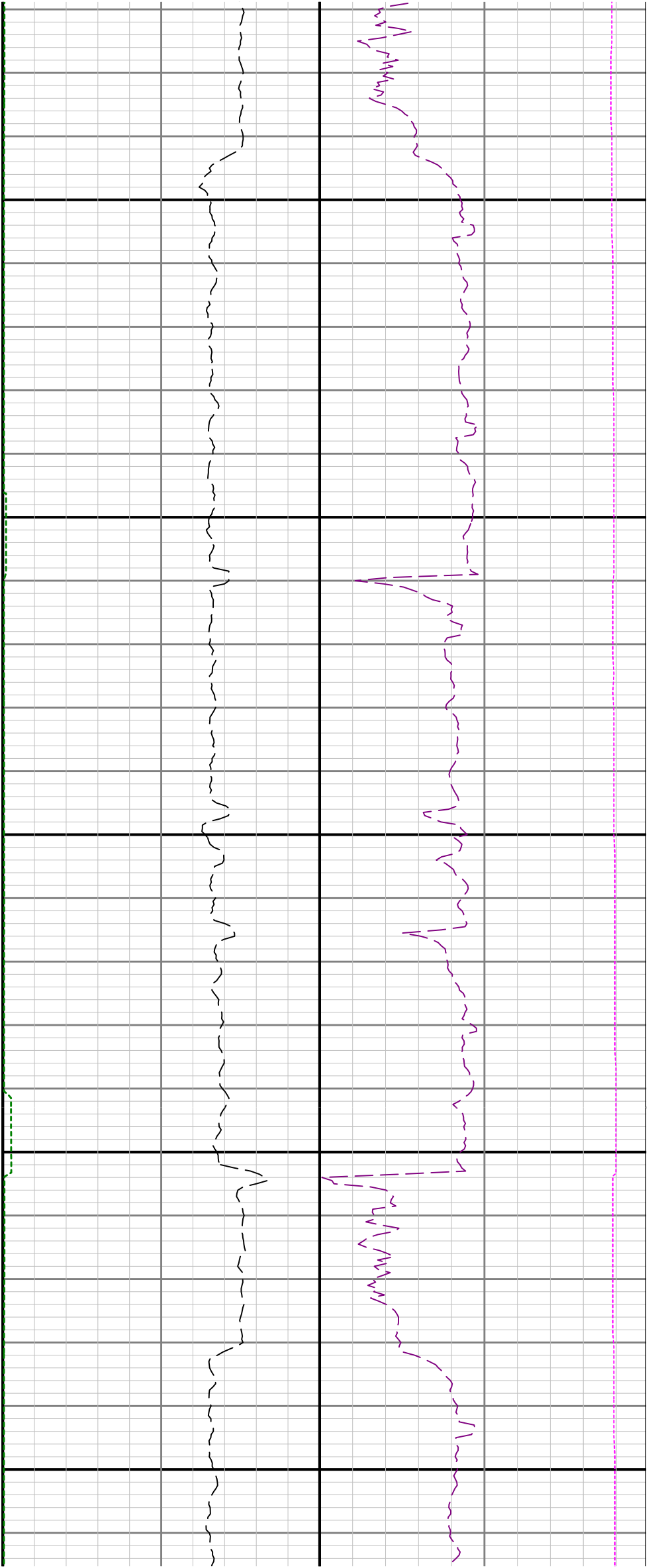


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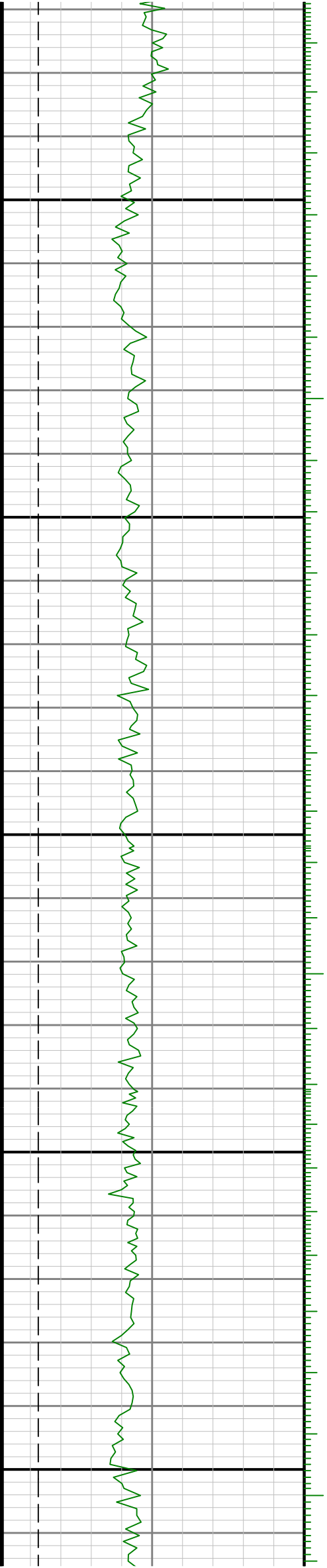


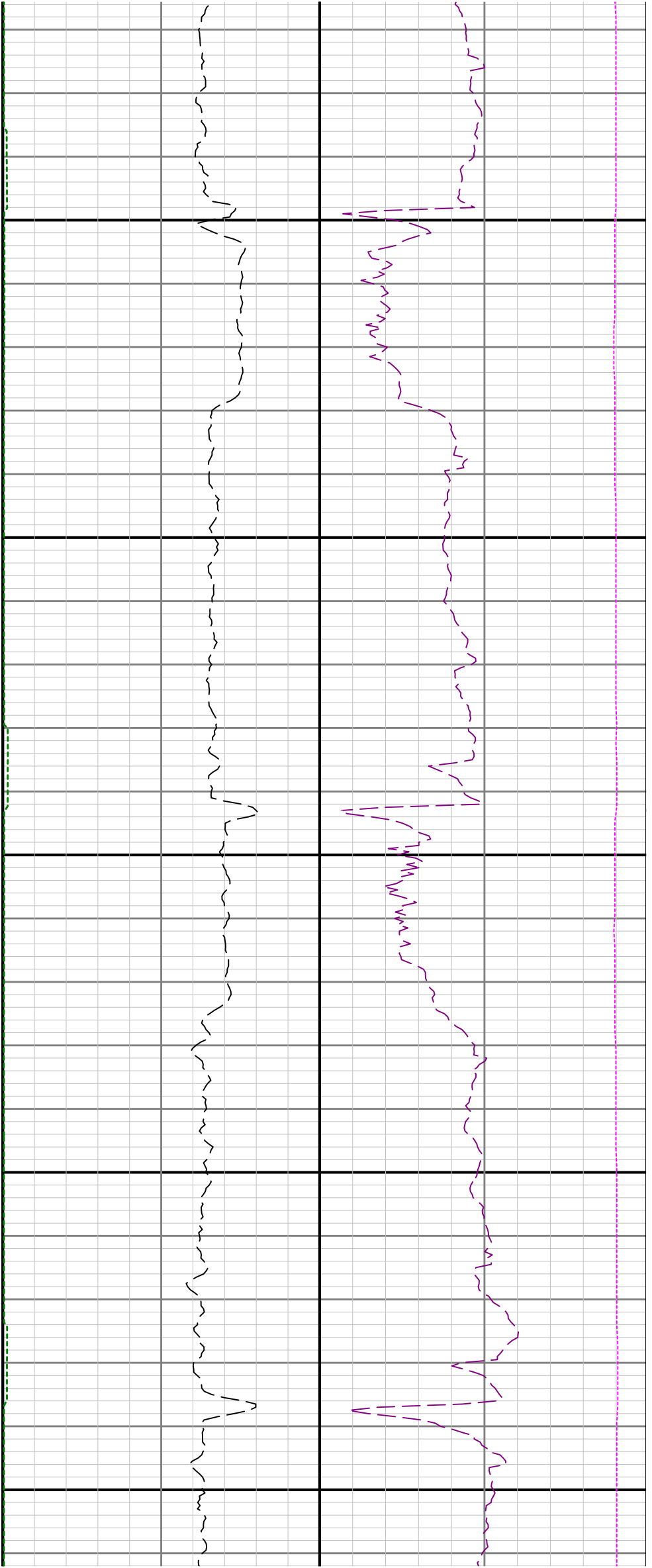


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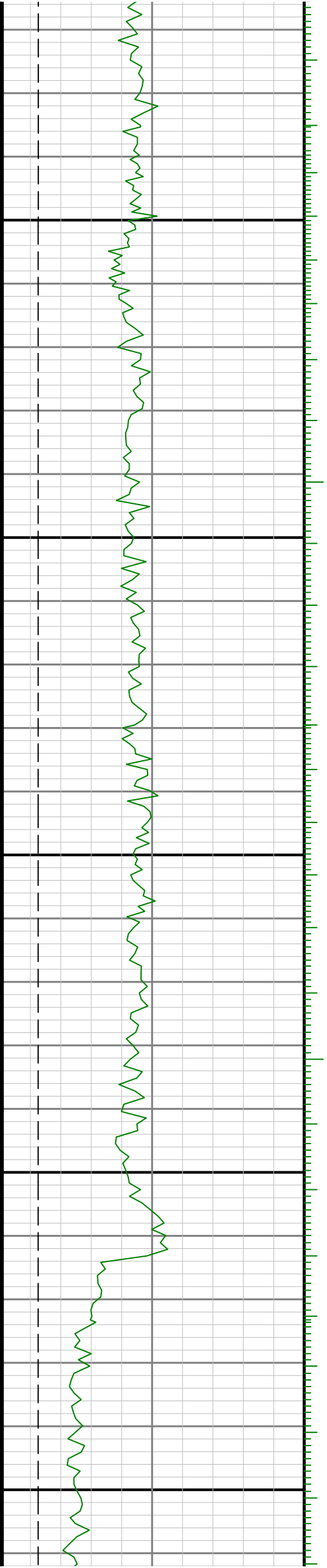
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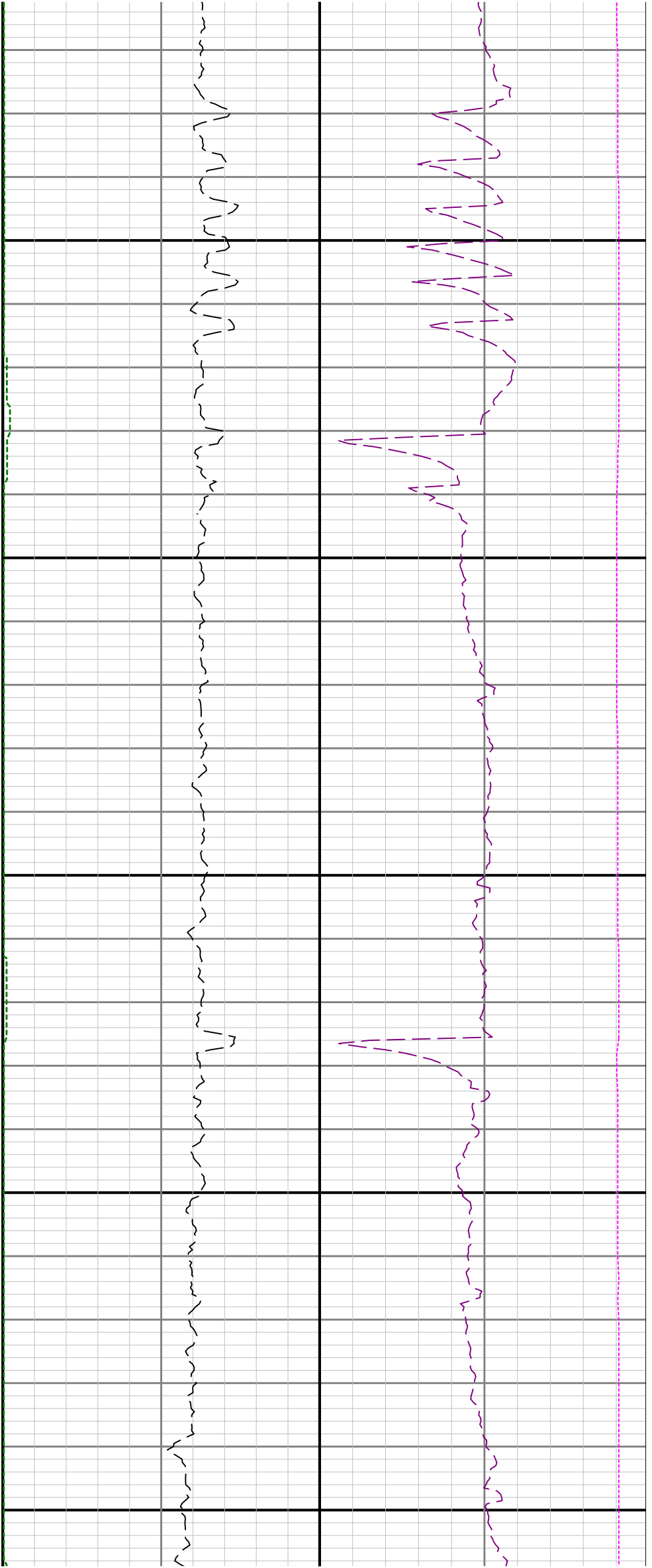




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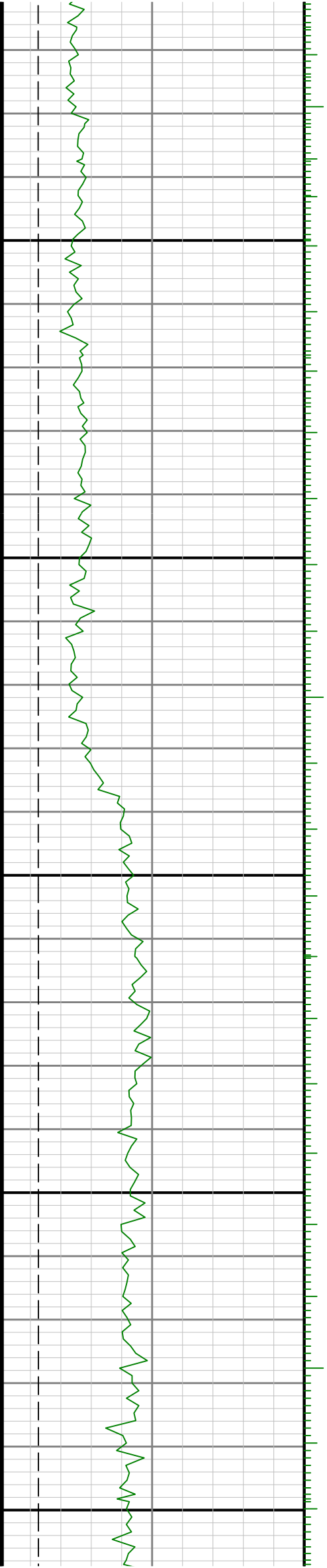


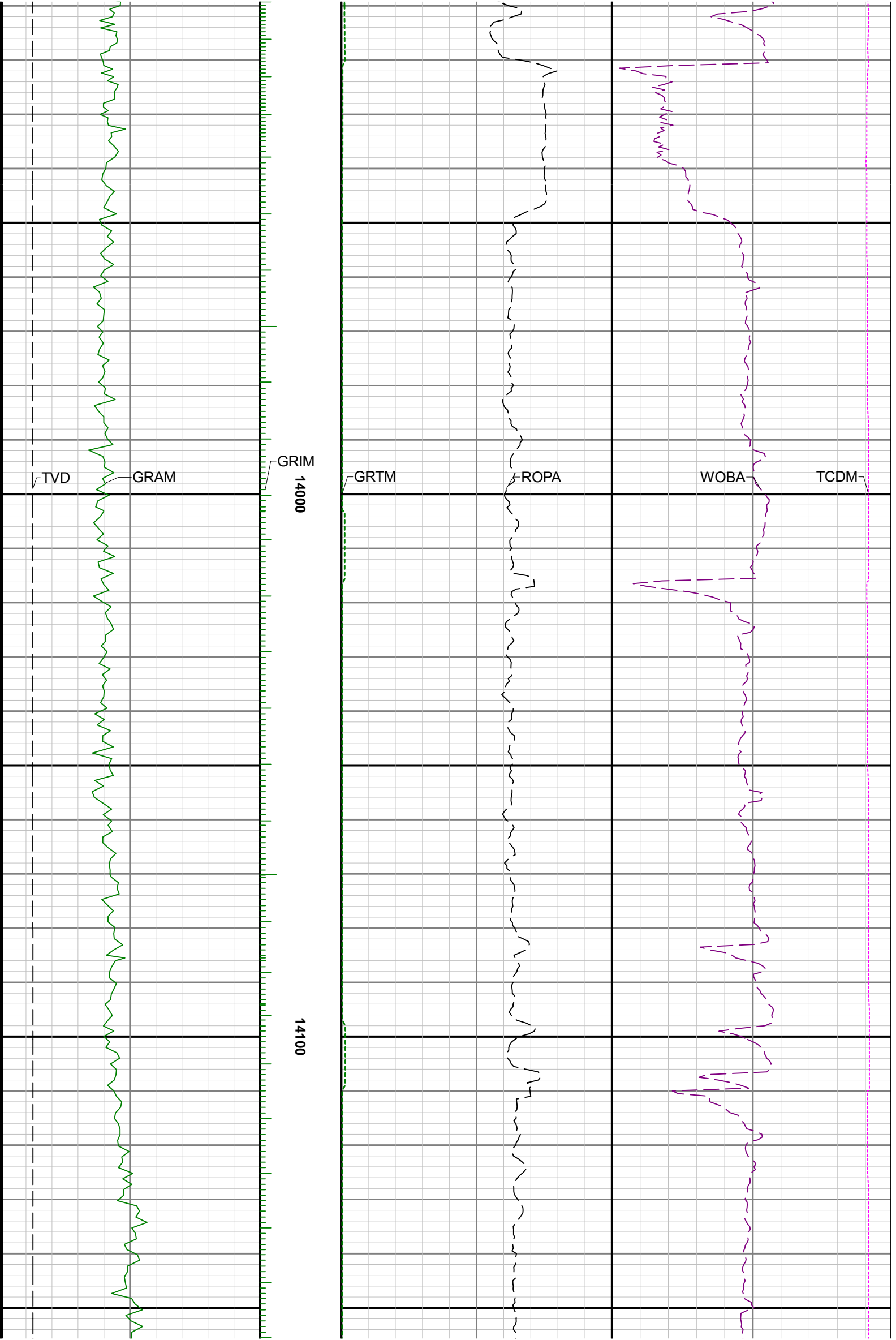


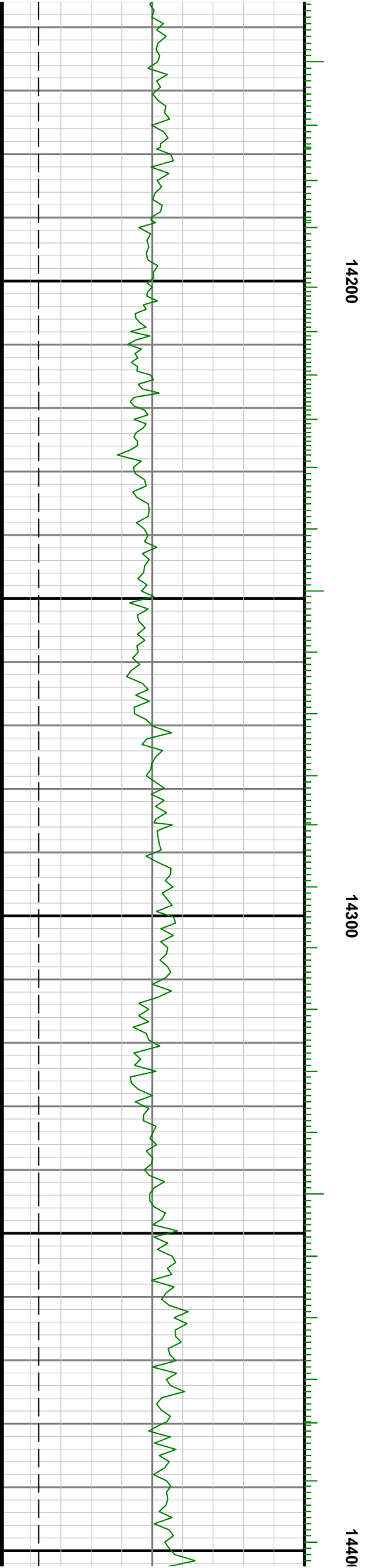
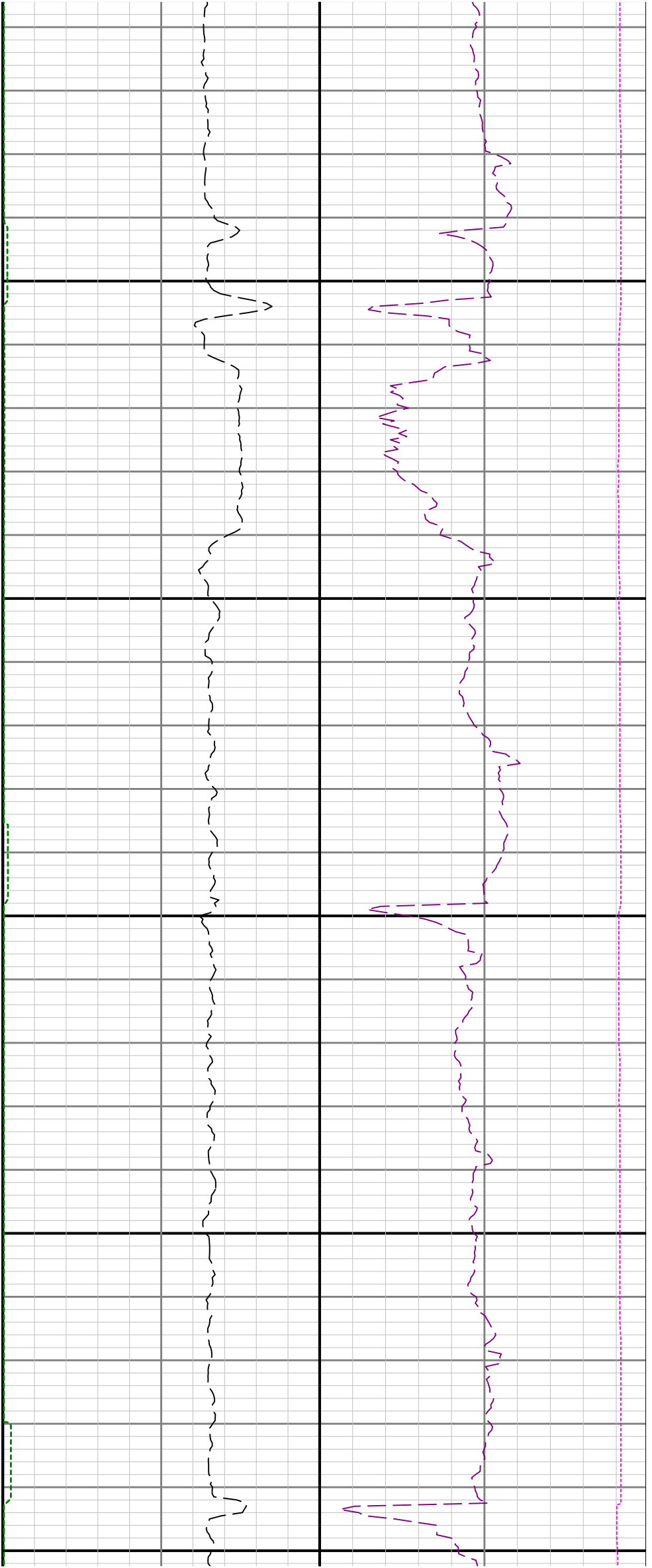
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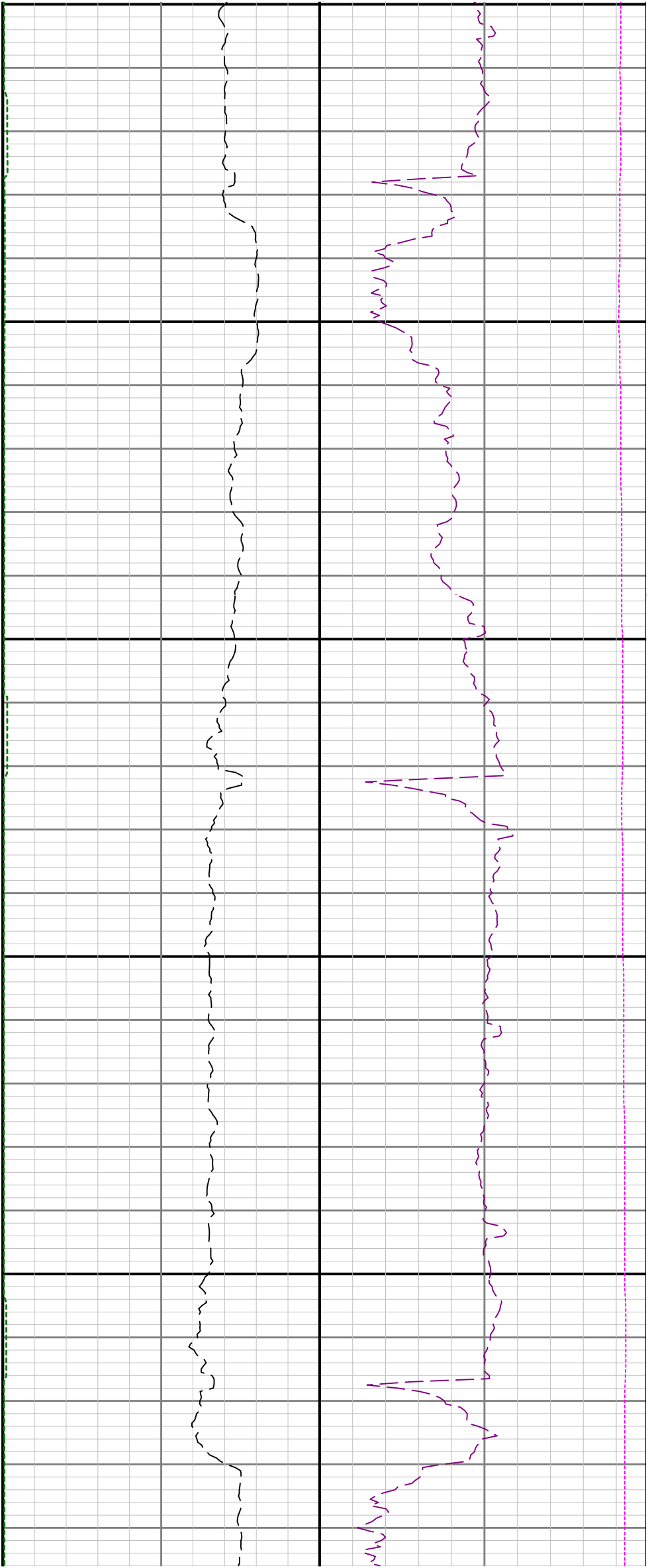
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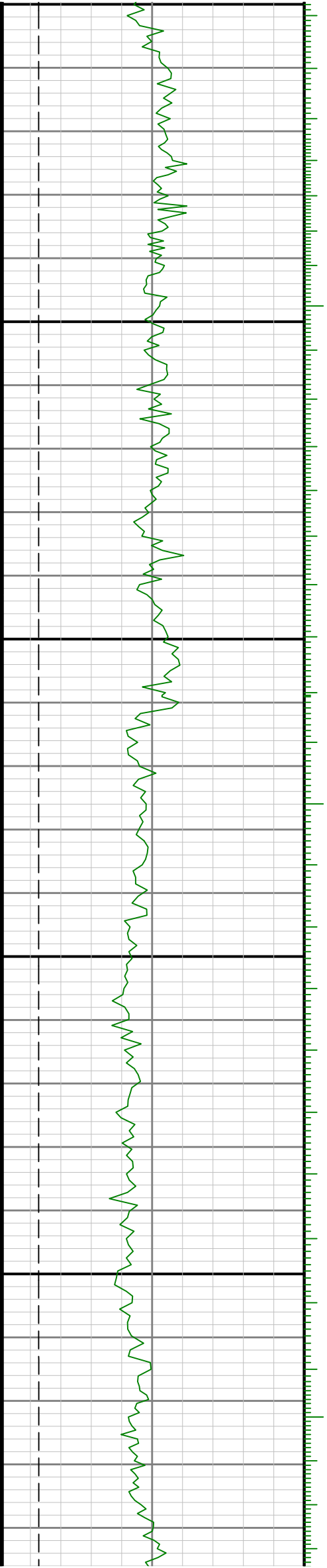


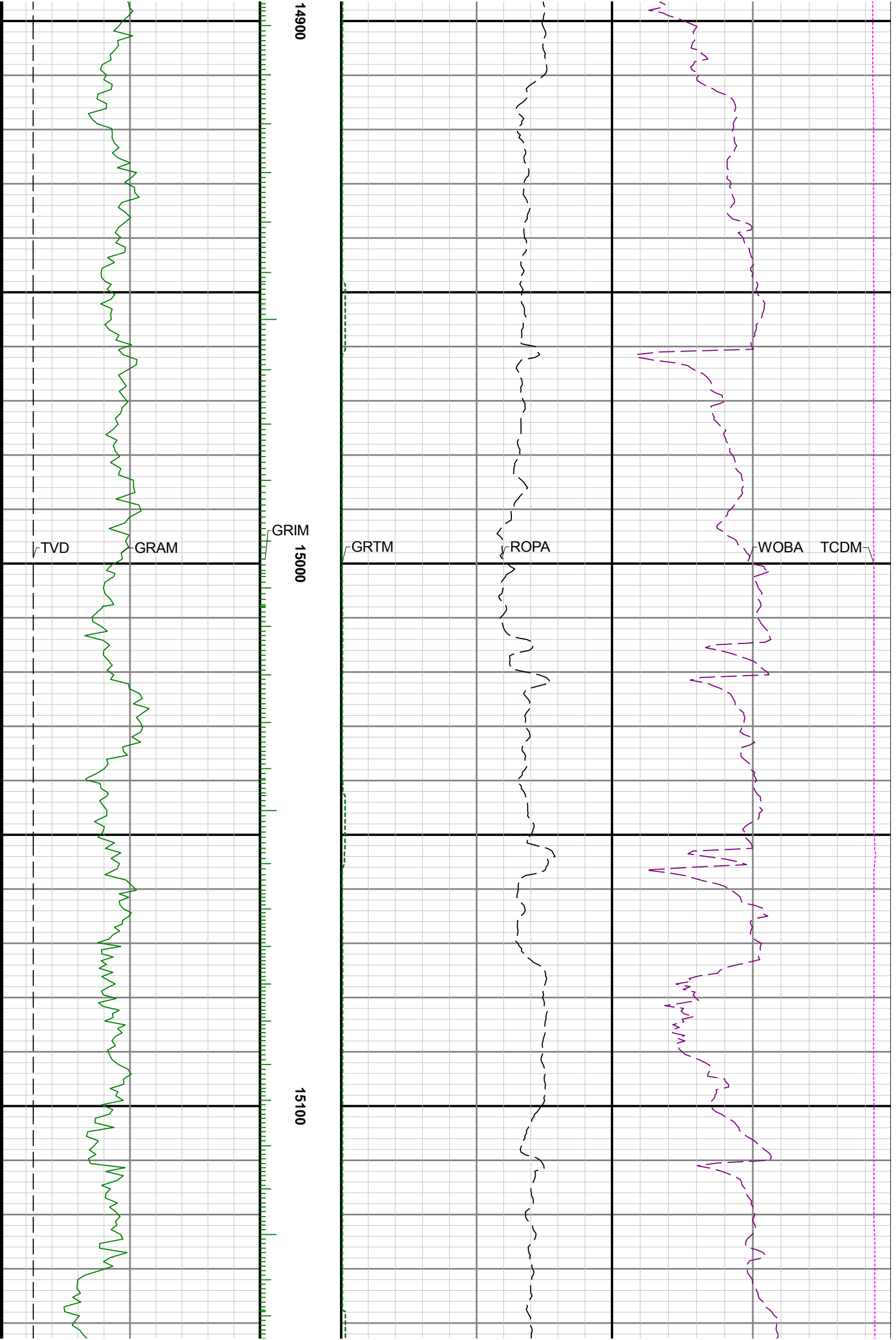


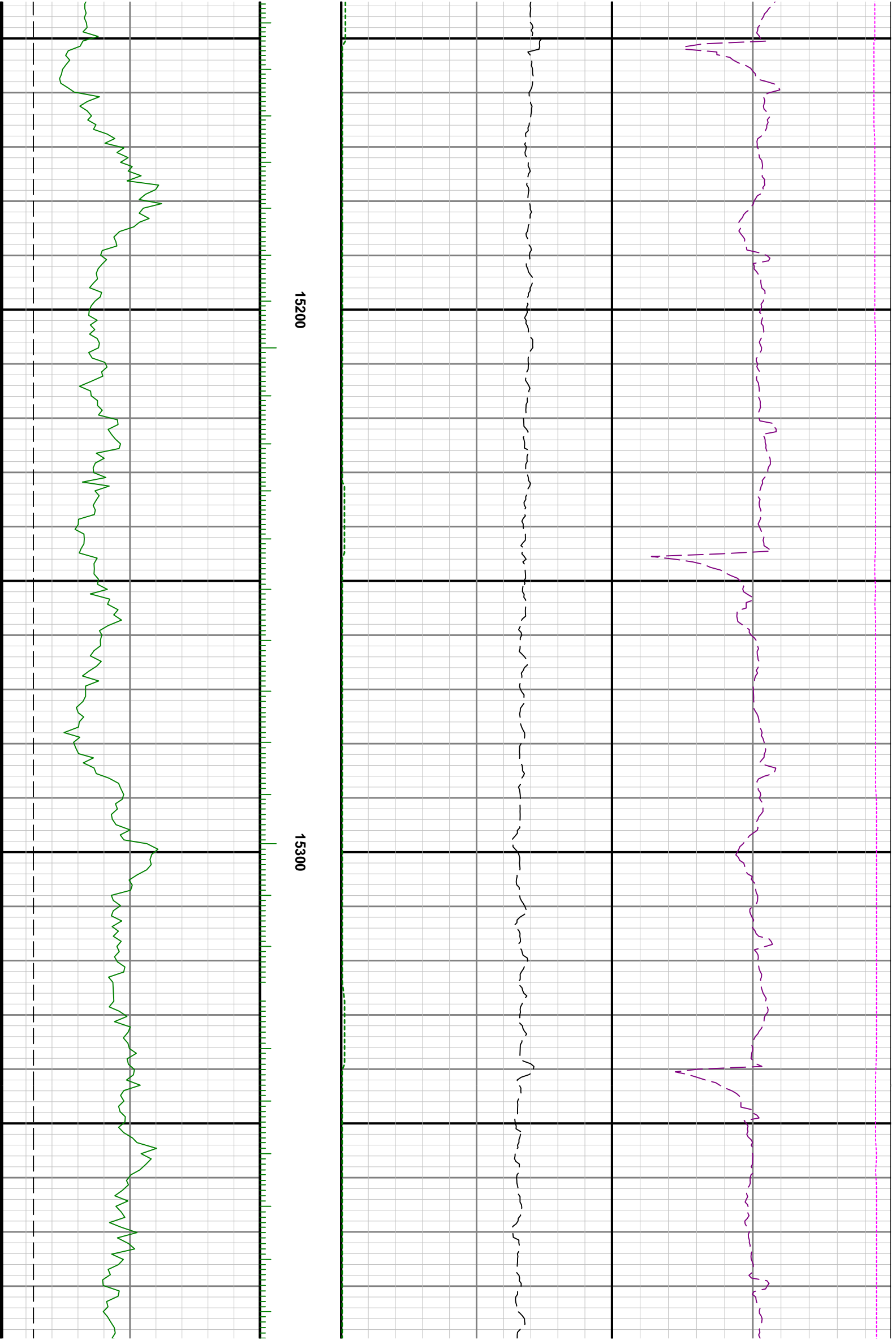


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14800





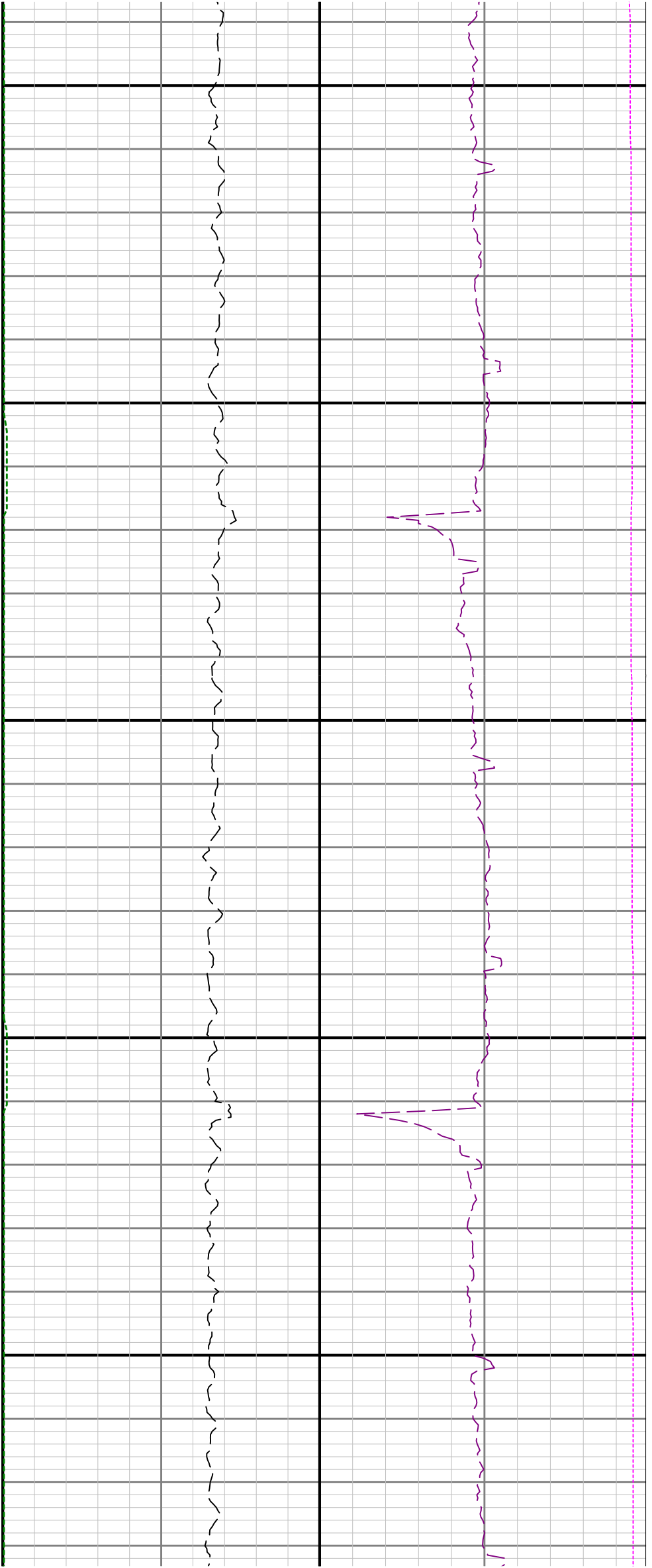




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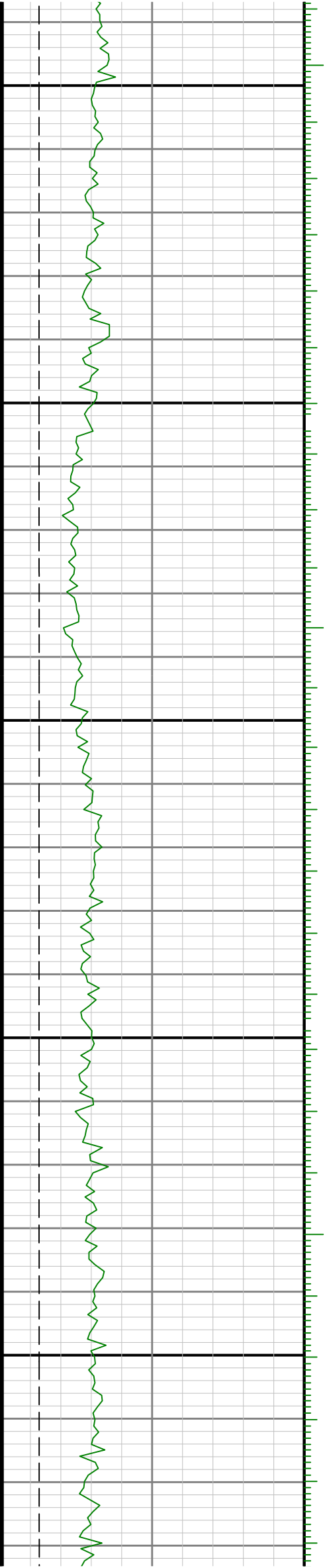
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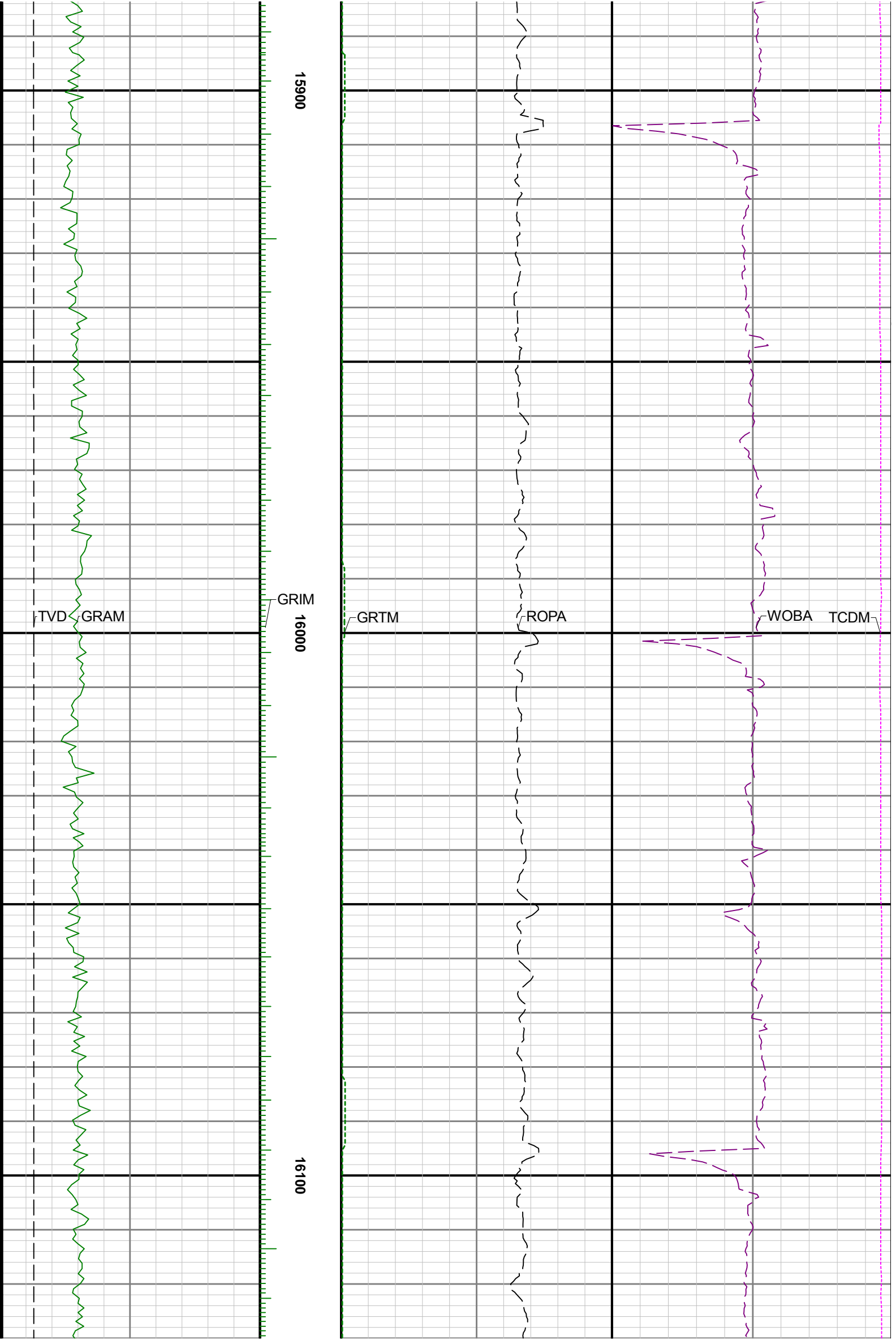
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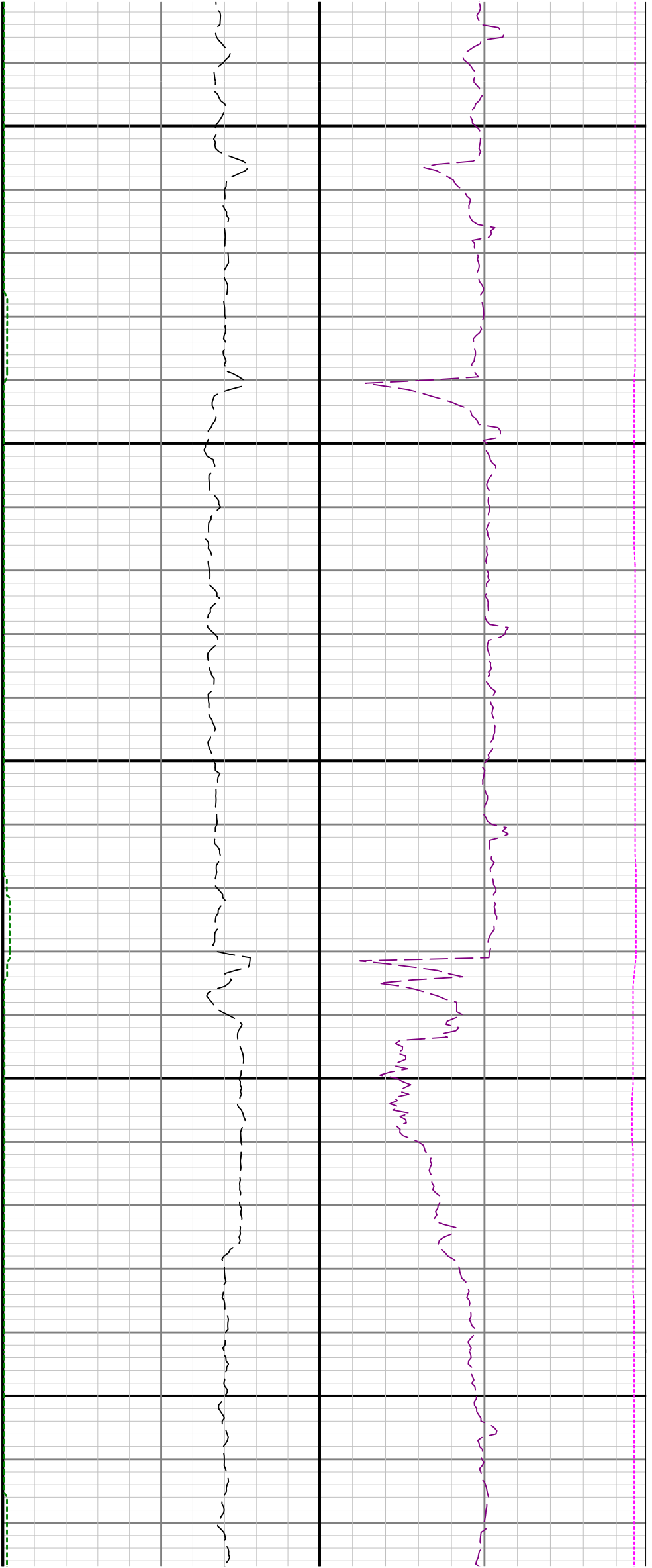


15700

15800







16200

16300

