



REALTIME LOG

Gamma Ray

Scale:		Company: Anadarko				
1:240 MD		Well: George 25-4HZ				
Depth Reference:		Field: Wattenberg				
Driller's Depth		County: Weld				
State:		Country: United States				
Status:		Other Services:				
Final Print		Directional				
API No: 051234633500		Surface Location:				
Job ID: 9204495		Latitude: 040° 06' 37.498" N				
Permanent Datum (P.D.): Mean Sea Level		Longitude: 104° 36' 36.238" W				
Log Measured From: Rig Floor		SEC: 25 TWN: 2N RGE: 6SW				
Elevation: Above P.D.		Elev. KB: N/A				
4917.00 ft		Elev. DF: 4917.00 ft				
Elev. GL: 4900.00 ft						
Dates		Magnetic Field Reference				
Interval Drilled						
Date From: 2018-06-28 Top: (ft) 1853.00		Azi Reference North: True Dip Angle: (deg) 66.57				
Date To: 2018-07-01 Bottom: (ft) 15621.00		Total Magnetic Field Strength: (nT) 52302				
Spud Date: 2018-06-28		Mag to Reference North Correction: (deg) 7.94				
Borehole Record		Casing Record				
Hole Size (in)	From (ft)	To (ft)	Size (in)	Weight (lb/ft)	From (ft)	To (ft)
13.500	17.00	1853.00	9.625	25.00	17.00	1843.00
7.875	1853.00	15621.00				
Mud Record		Deviation Record				
Type	From (ft)	To (ft)	Hole Size (in)	Interval (ft)	Inc Az (Start)	Inc Az (End)
Diesel-Oil Based Mud	1853.00	15621.00	7.875	13768.00	12.13 86.69	90.71 178.52
Acquisition System		Software Version		Other		
Baker Hughes Cadence	RT 4.2	Xtreme 22		Rig: Contractor: District: Unit: D & E		
Plot Studio	4.2.8155.1	RMD				

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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
						Top	Bottom	From	To	Start Logging	End Logging	
						(ft)	(ft)	(ft)	(ft)			
1	1	7.875	PDC	2.00	Steerable	1853.00	15580.00	1853.00	15621.00	2018-06-28 22:25	2018-07-01 07:15	50.09

Crew

Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite
Joshua Monroe	2018-06-28	2018-07-01	Teni Onafowokan	2018-06-28	2018-07-01			

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+ (%)
2018-06-28 12:46	1	1853.00	Diesel-Oil Based Mud	9.2	14	N/A	N/A	67/33	Active Pit	38000	0.00
2018-06-29 19:46	1	7479.00	Diesel-Oil Based Mud	8.8	13	N/A	N/A	66/34	Active Pit	42000	0.00
2018-06-30 19:10	1	12846.00	Diesel-Oil Based Mud	9.2	17	N/A	N/A	66/34	Active Pit	38000	0.00

Equipment and Service Data

Run	Tool	Serial	Measurement	Sensor	Bit	Max	Min
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Run No.	Sensor	Sensor Number	Measurement	Sensor Offset (ft)	Bit Offset (ft)	Max O.D. (in)	Min I.D. (in)
1	NaviGamma	6058	Gamma (single)	10.53	40.97	6.500	3.500
1	NaviGamma	6058	Directional (mag)	13.95	44.39	6.500	3.500
1	NaviGamma	6058	VSS	13.95	44.39	6.500	3.500

Service and Tool Mnemonics

Mnemonic	Name	Description
GAM	NaviGamma	Probe Based Gamma Module, NaviTrak Platform

Comments

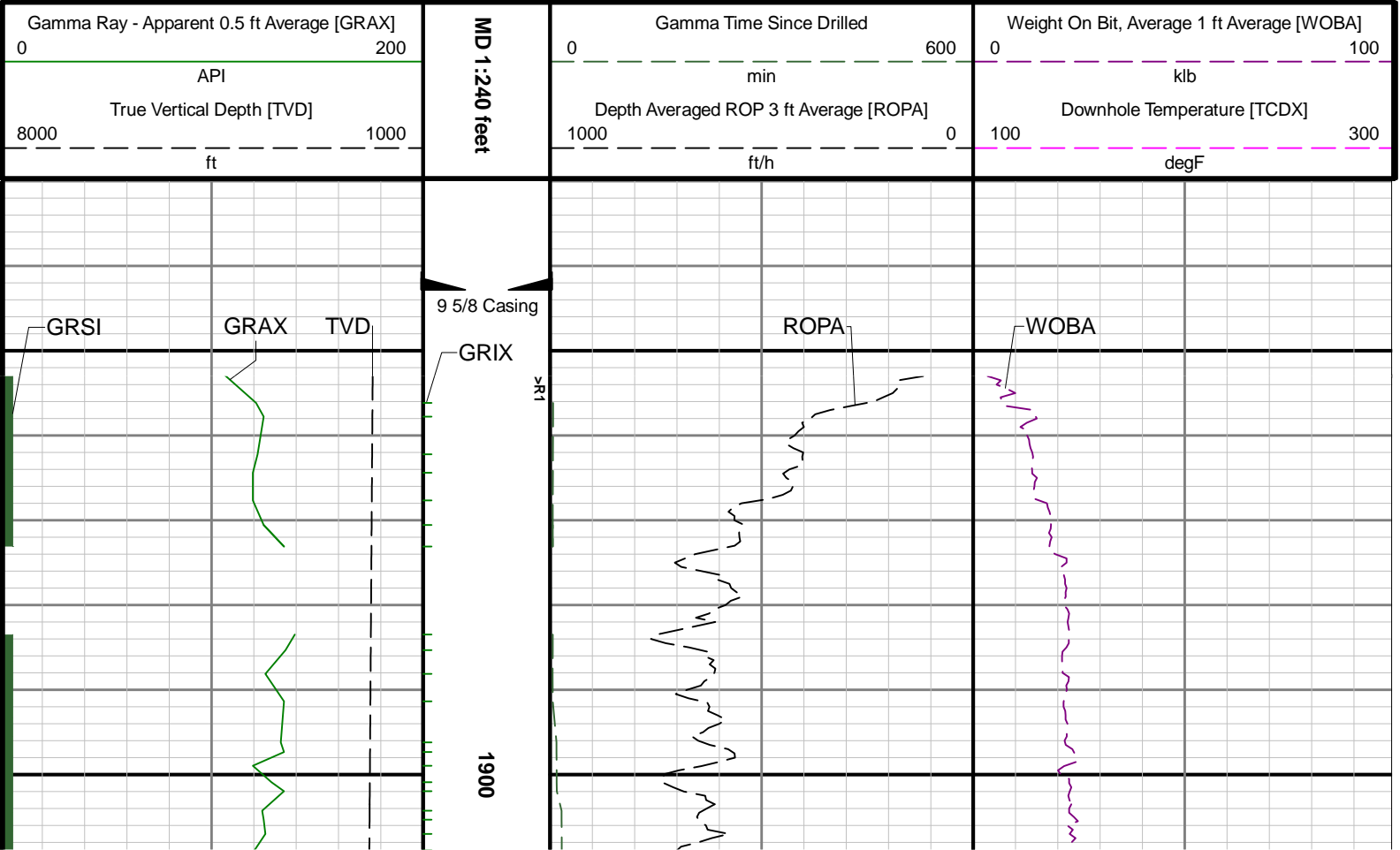
1	Depth measurements were obtained from a depth control system not supplied or operated by Baker Hughes. Due to the lack of control by Baker Hughes logging engineers, depth calibrations and measurements could not be independently verified.
2	A sliding indicator is shown to the left edge of track 1 as a heavy line. The indicator has been depth-shifted to the Gamma Ray sensor offset to correspond with Gamma Ray data acquired while sliding.
3	Baker Hughes run 1 utilized 6.50 inch NaviGamma services (Gamma Ray and Directional) behind a 7 7/8 inch bit and steerable assembly from 1853 to 15621 feet MD (1834 to 6914 feet TVD).
4	Numerous gaps are present throughout the log due to surveying while on bottom drilling ahead.
5	Gamma Ray (GRAX) scale is presented 0 to 200 API per customer request.

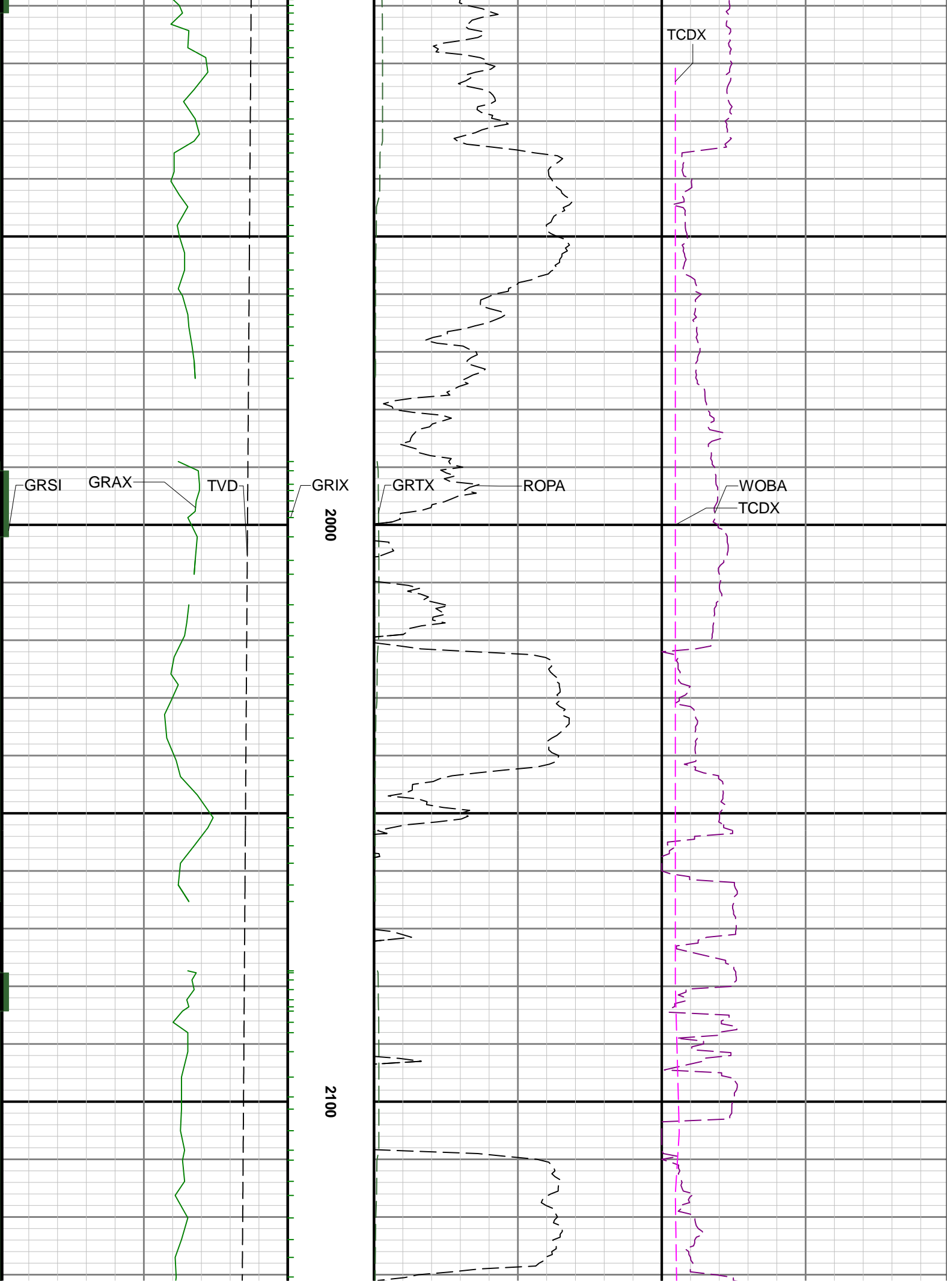
Remarks

Number	Measured Depth (ft)	Hole Section (in)	Run No.	Remark
1	15500.00	7.875	1	The interval from 15580 to 15621 feet MD (6914 feet TVD) was not logged due to sensor to bit offset at the end of Run 1.

Curve Mnemonics

Presented Curves	Description	Units
TCDX	Downhole Temperature	degF
ROPA	Depth Averaged ROP 3 ft Average	ft/h
TVD	True Vertical Depth	ft
WOBA	Weight On Bit, Average 1 ft Average	klb
GRAX	Gamma Ray - Apparent - Real-Time 0.5 ft Average	API
GRIX	Gamma Ray - Data Point Indicator - Real-Time	unitless
GRTX	Gamma Ray - Time Since Drilled - Real-Time	min
GRSI	Sliding Indicator Flag	unitless

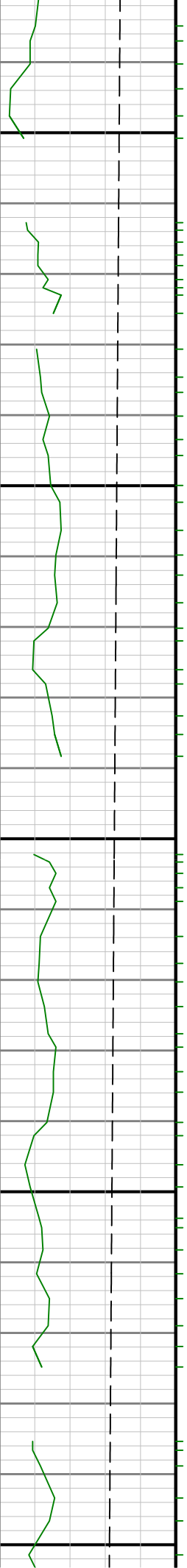


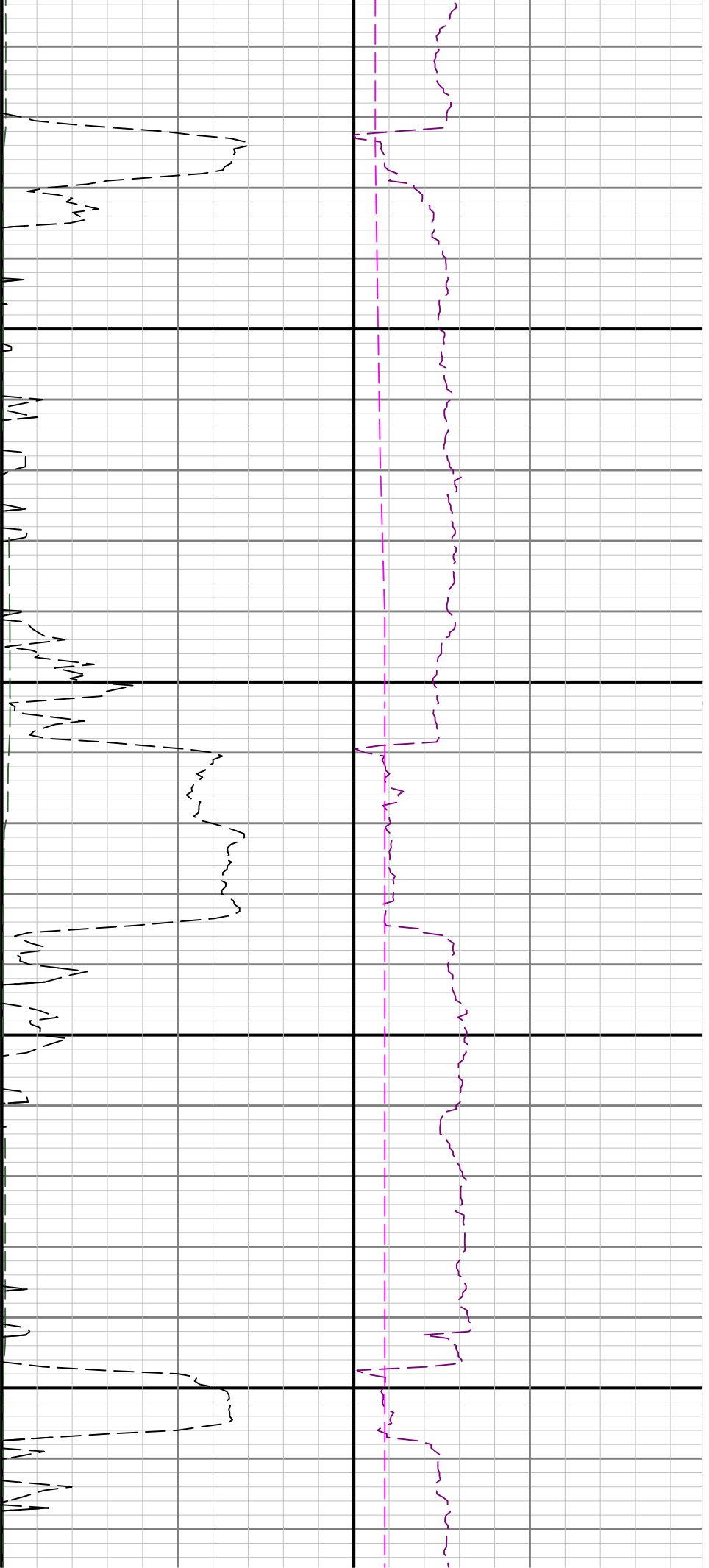




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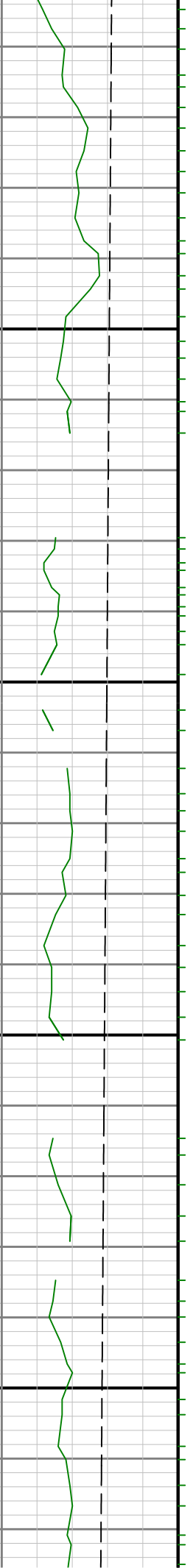
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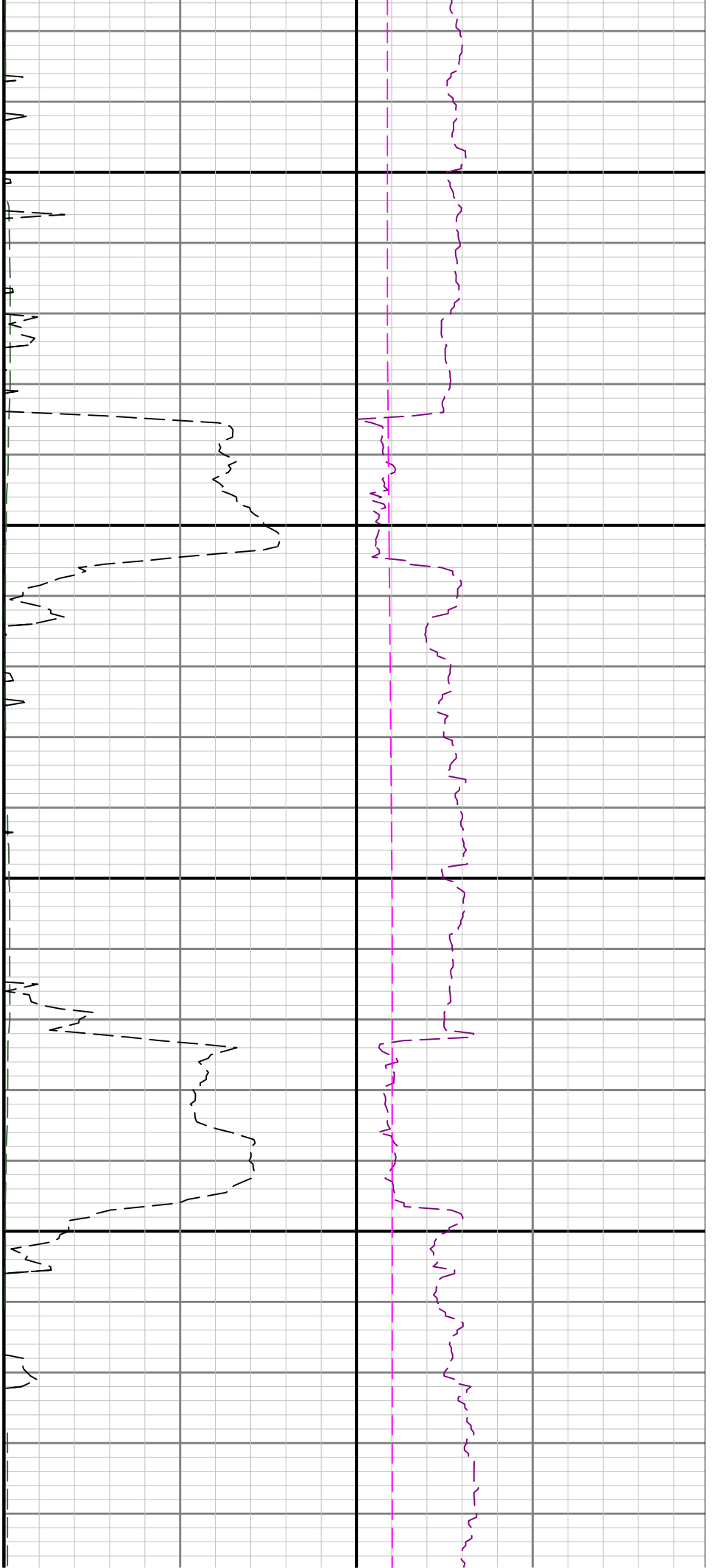




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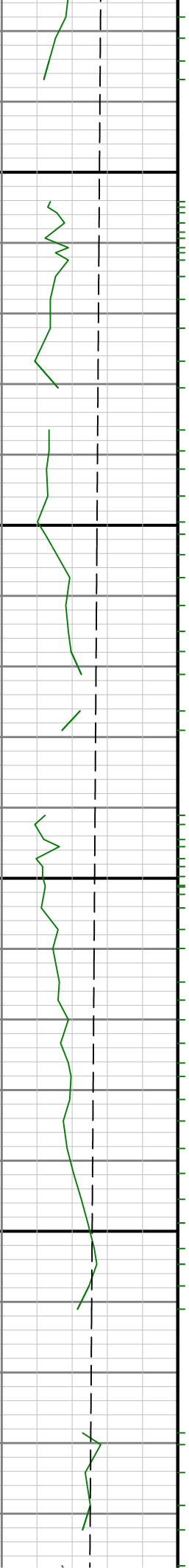
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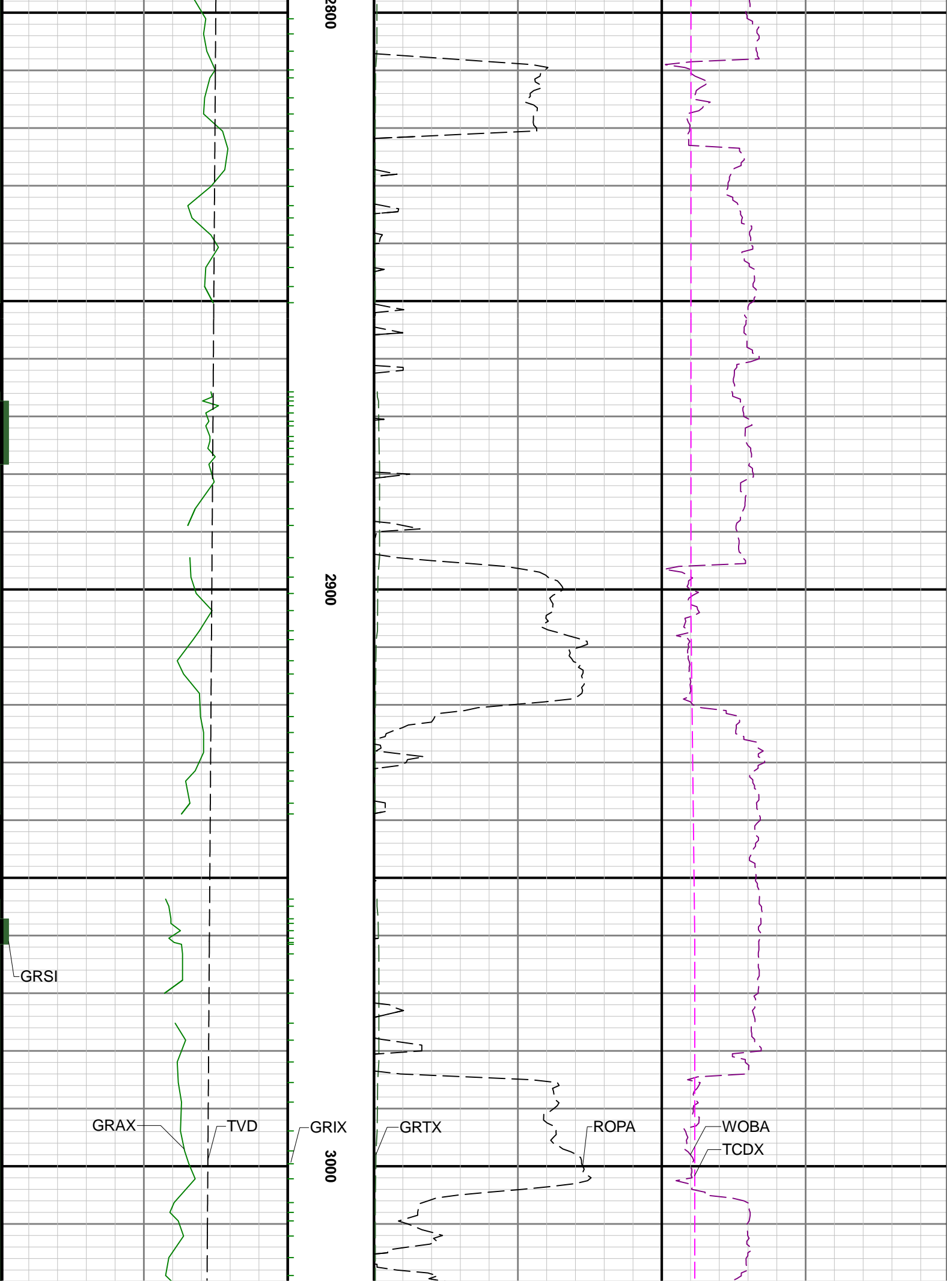


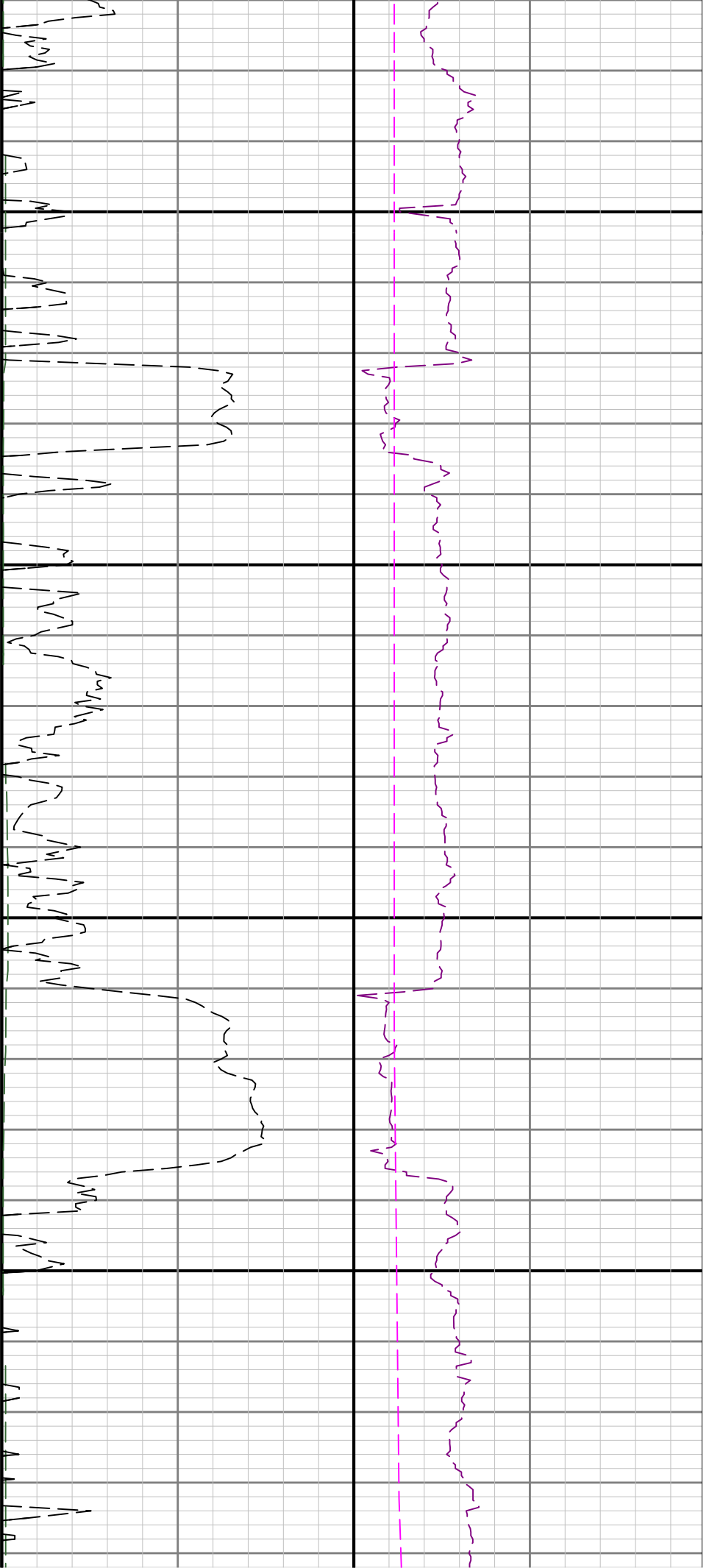


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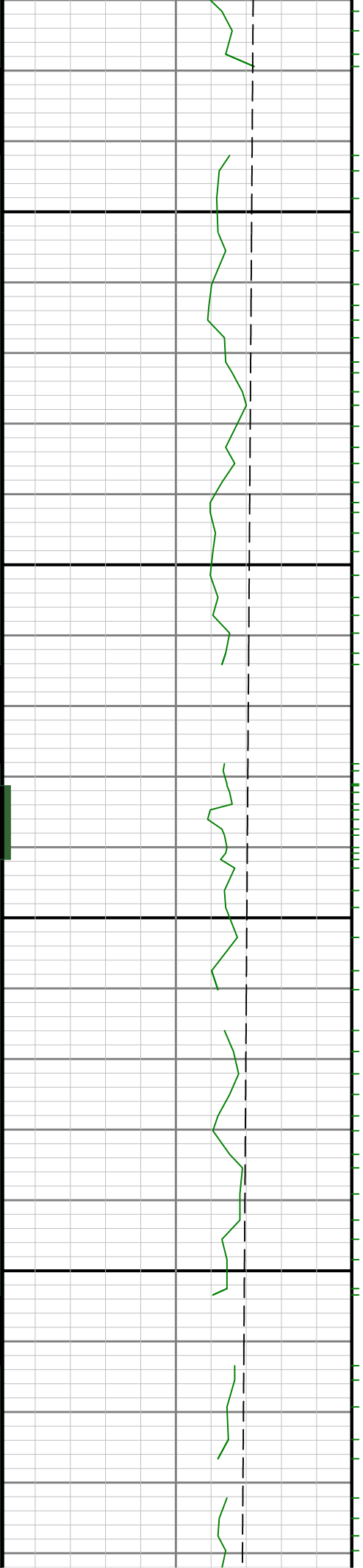


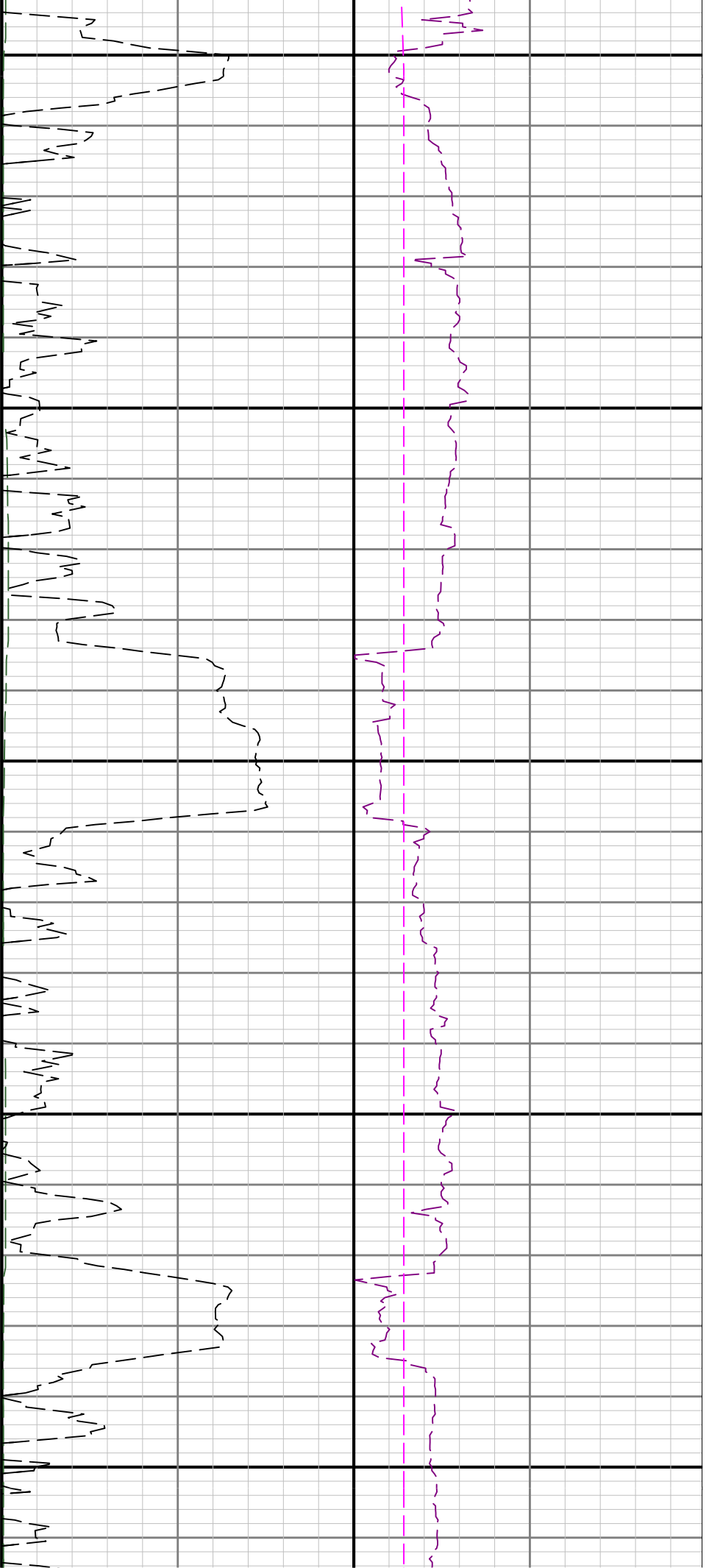




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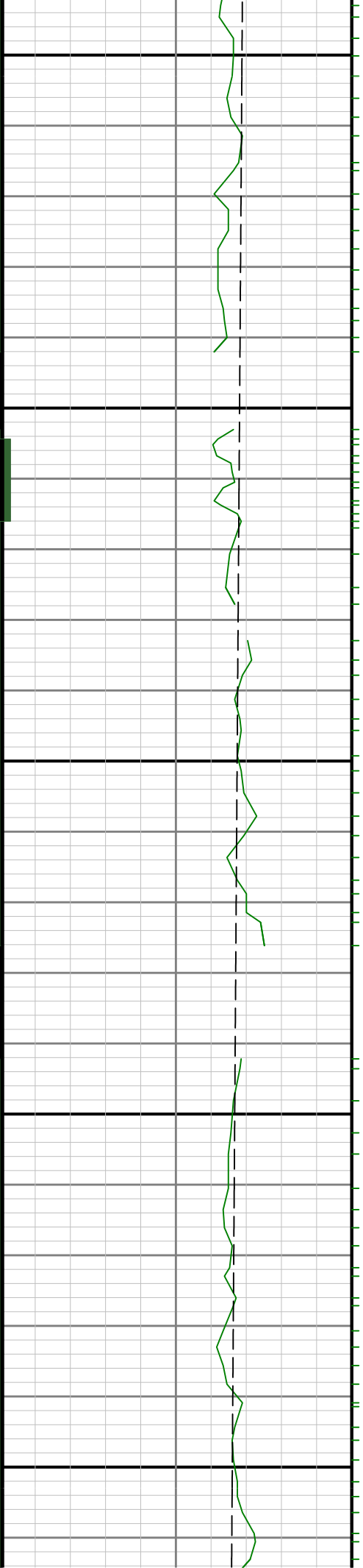
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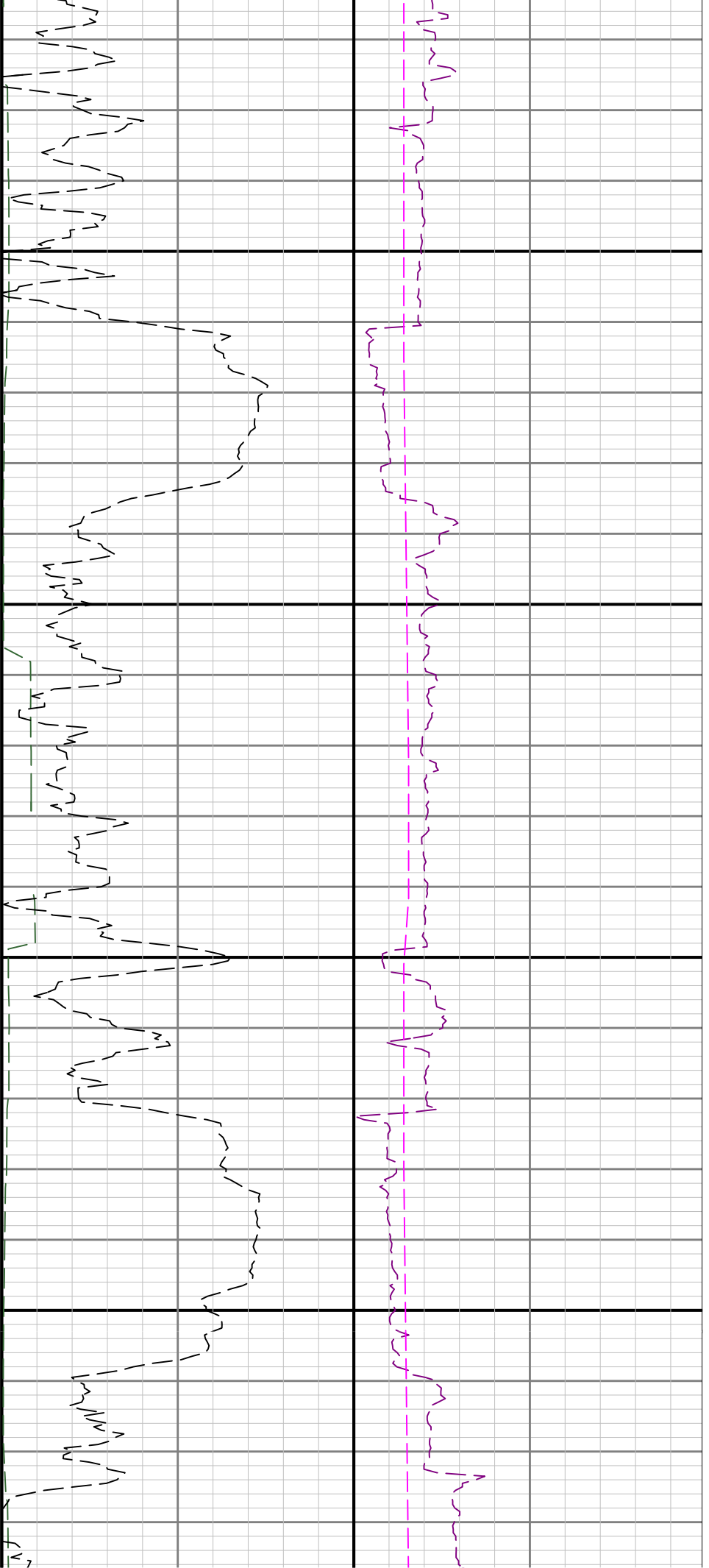




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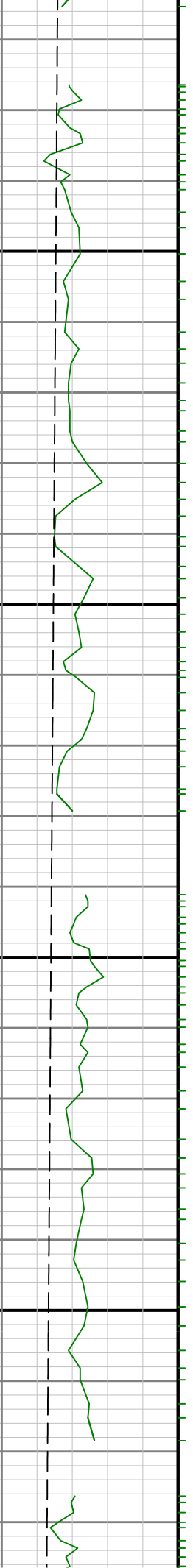
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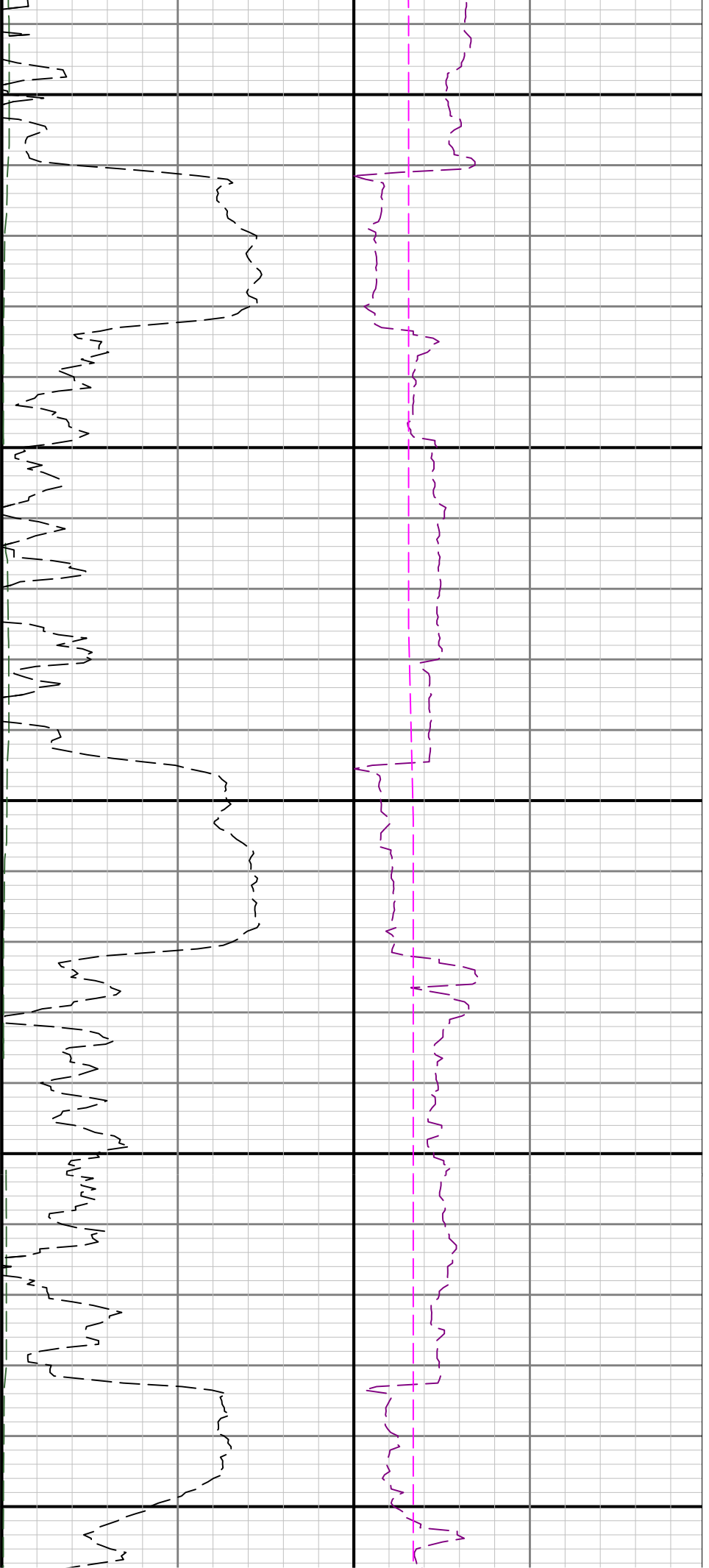




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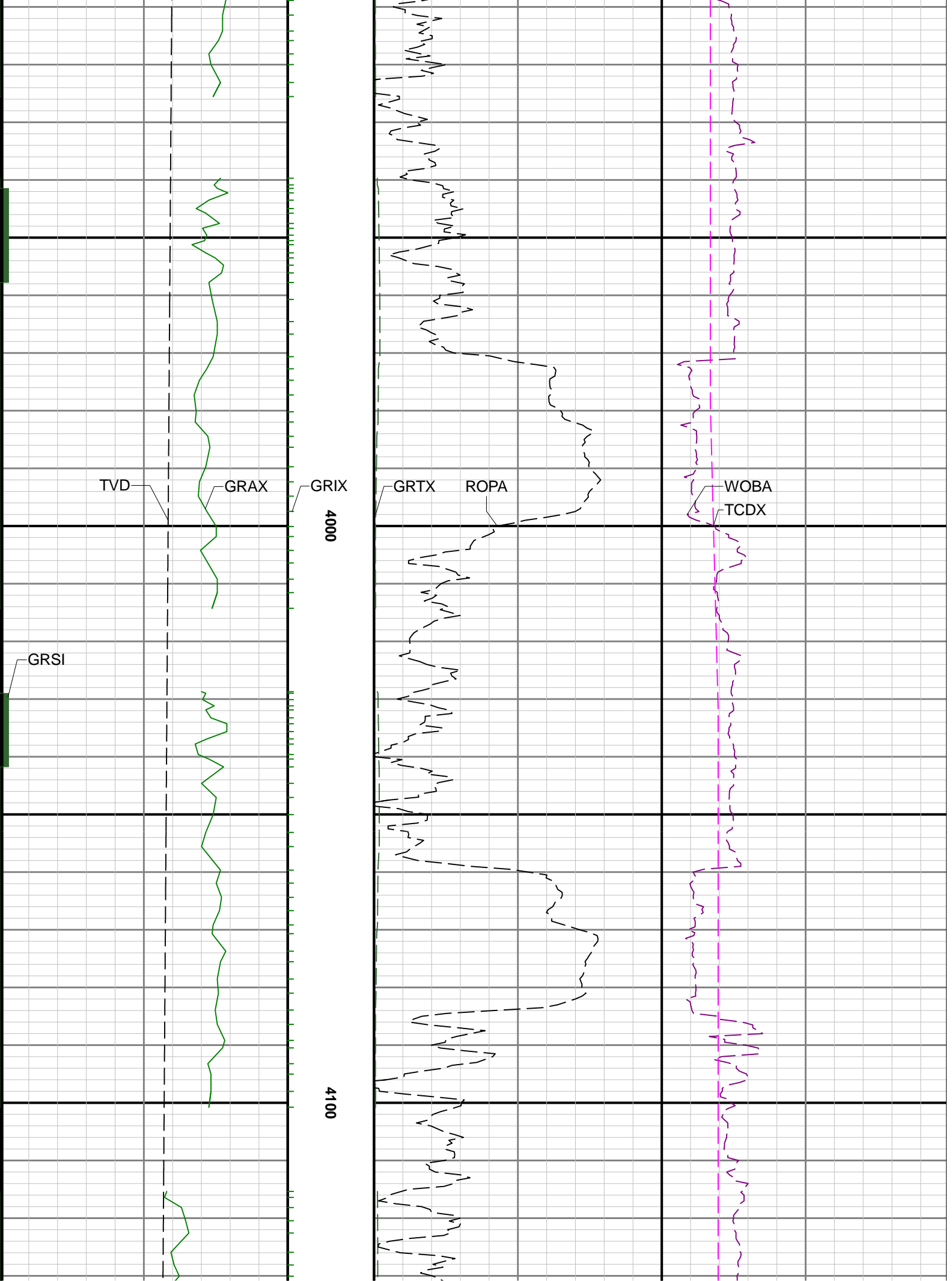


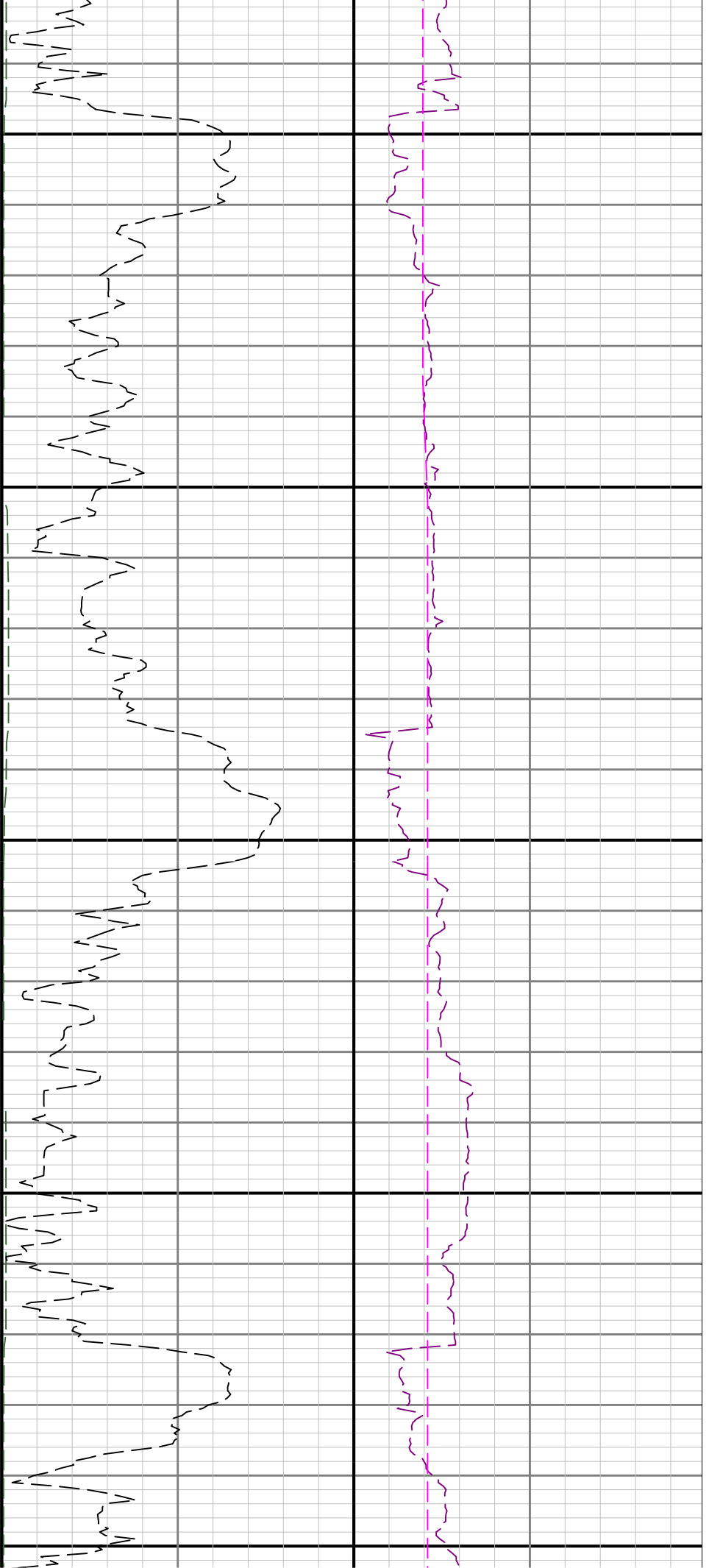
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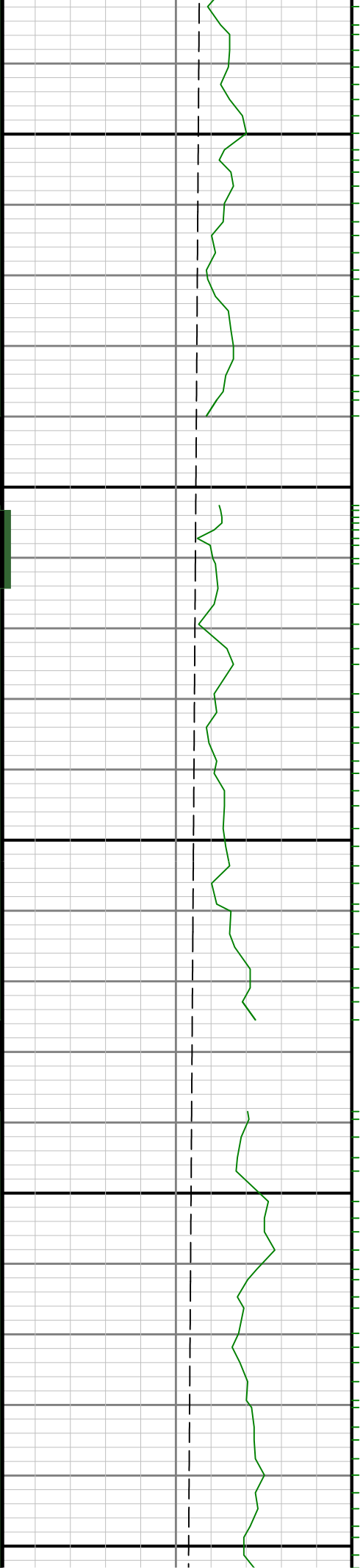


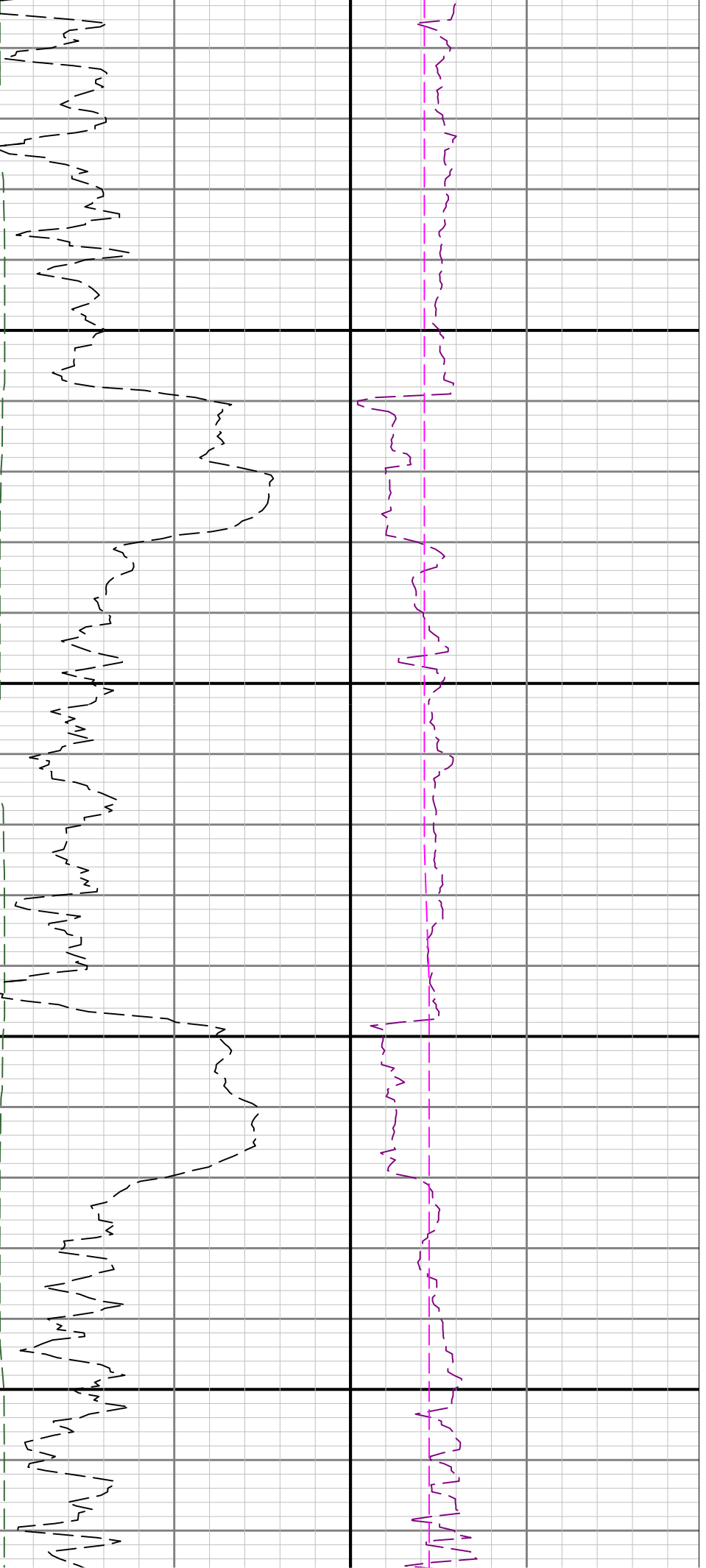




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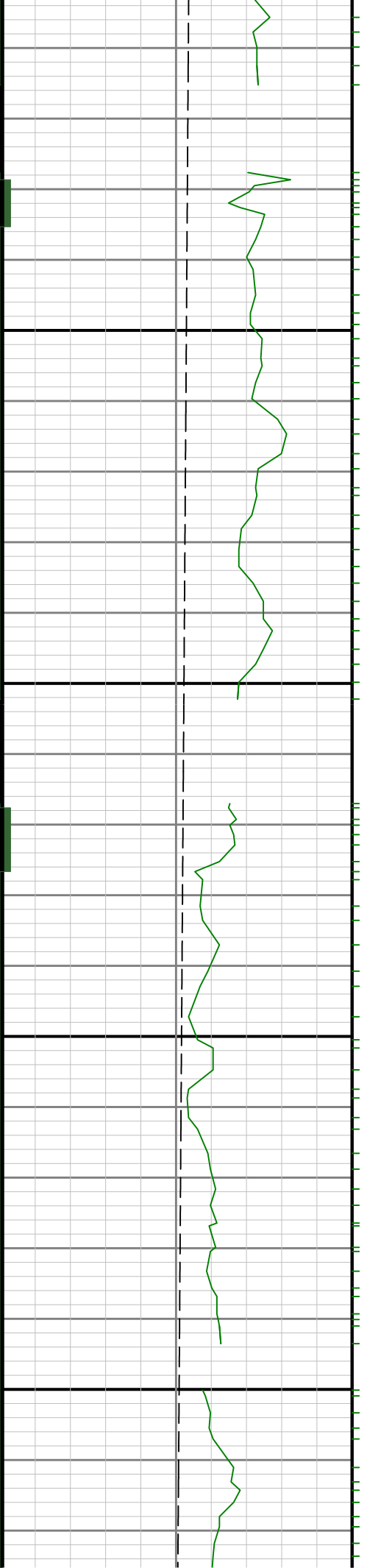
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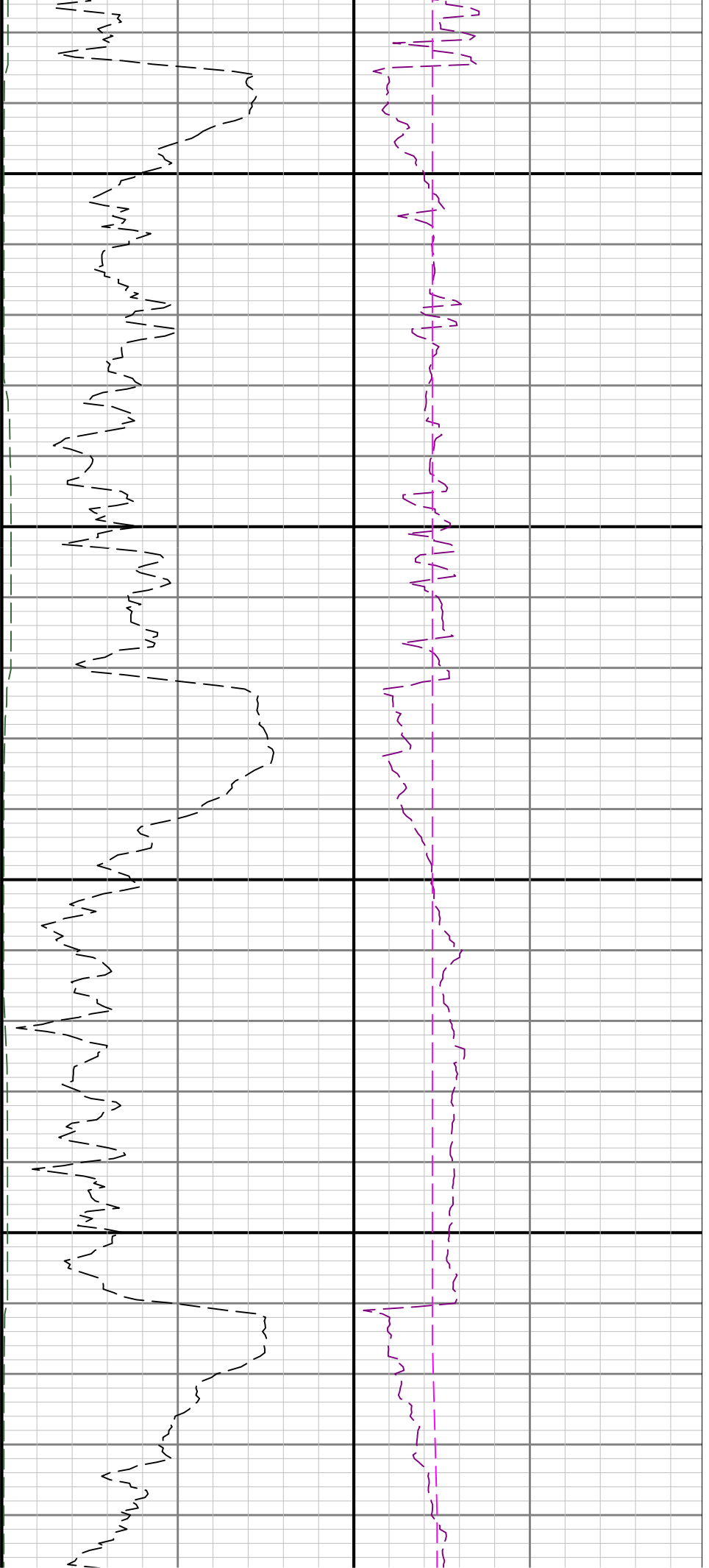




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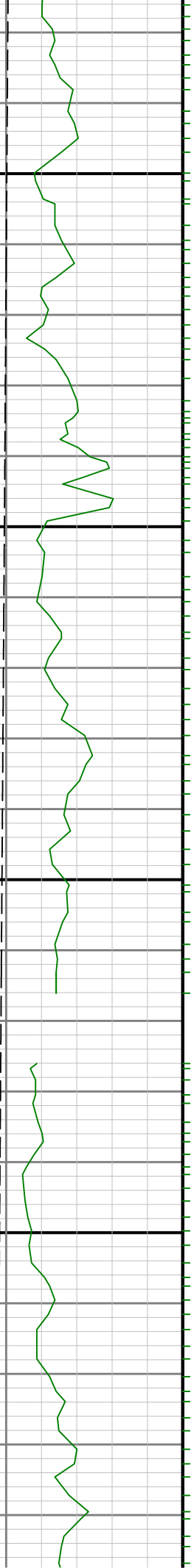
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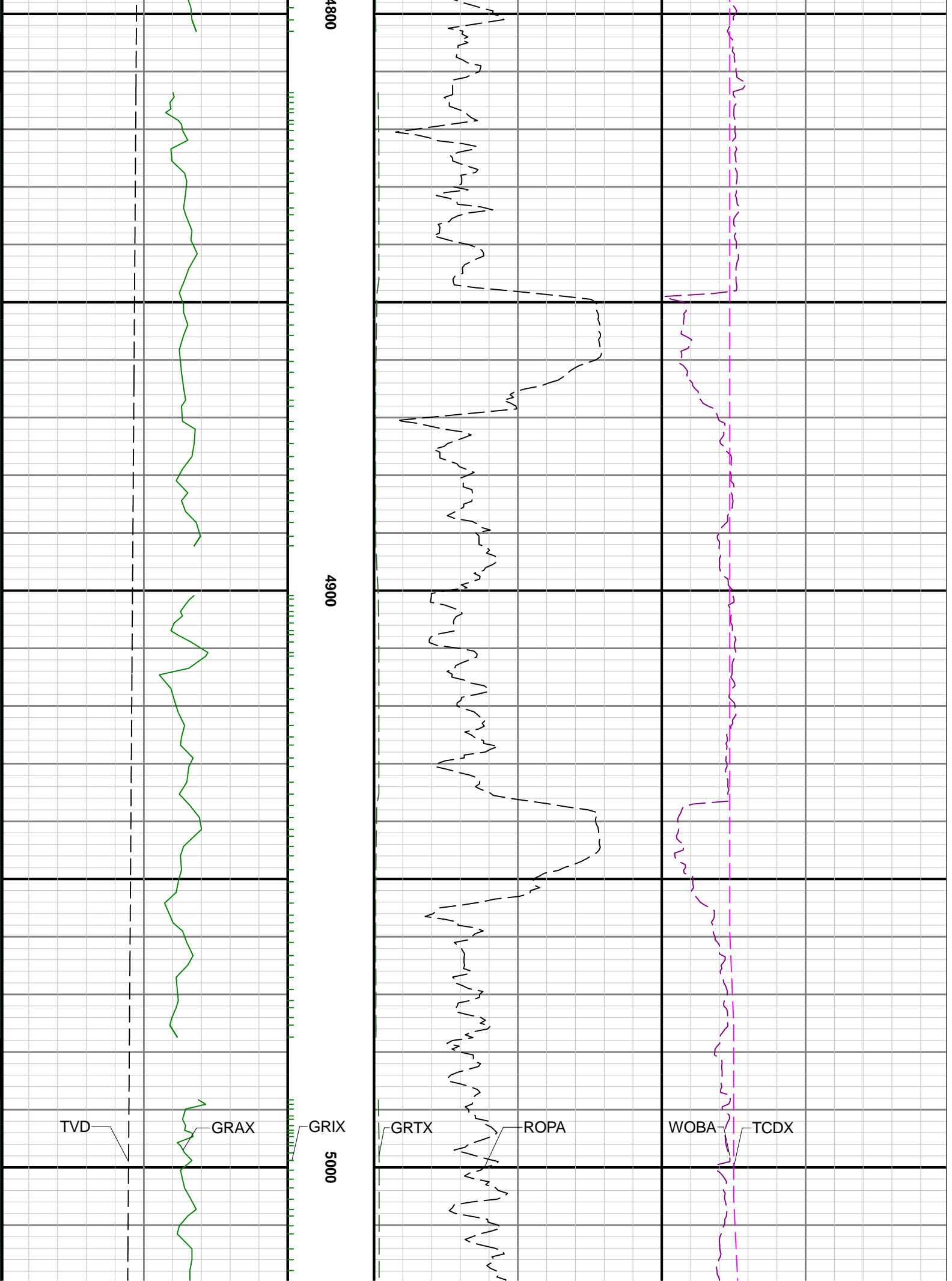


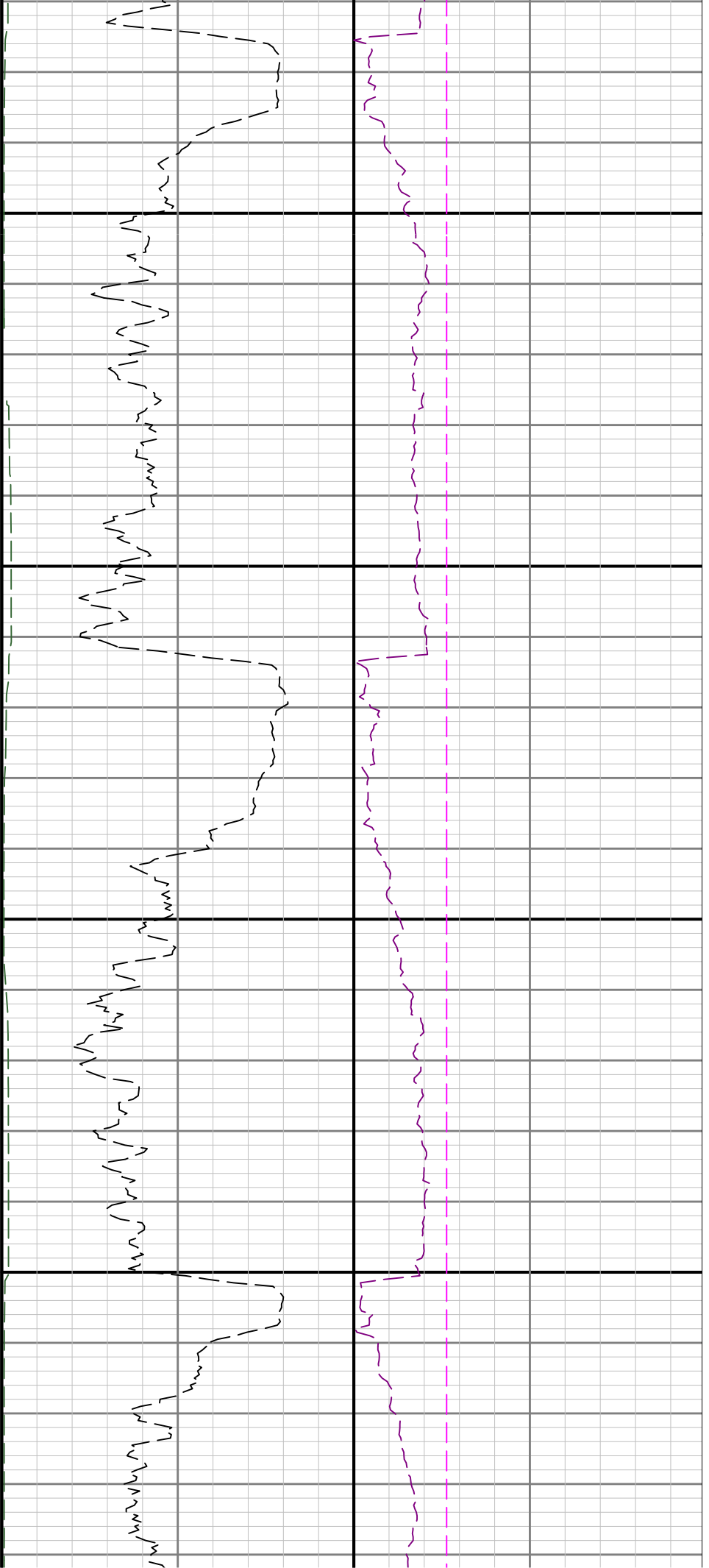


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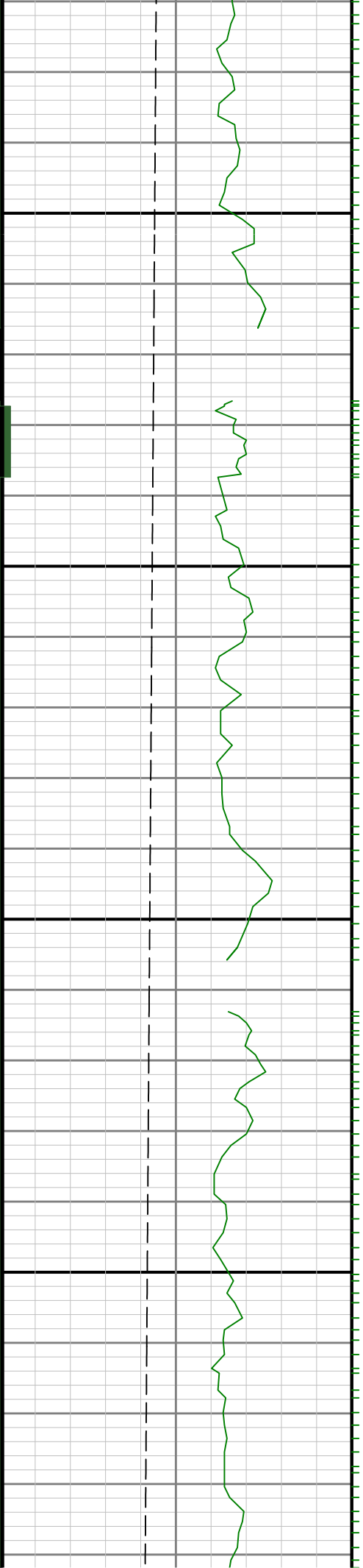


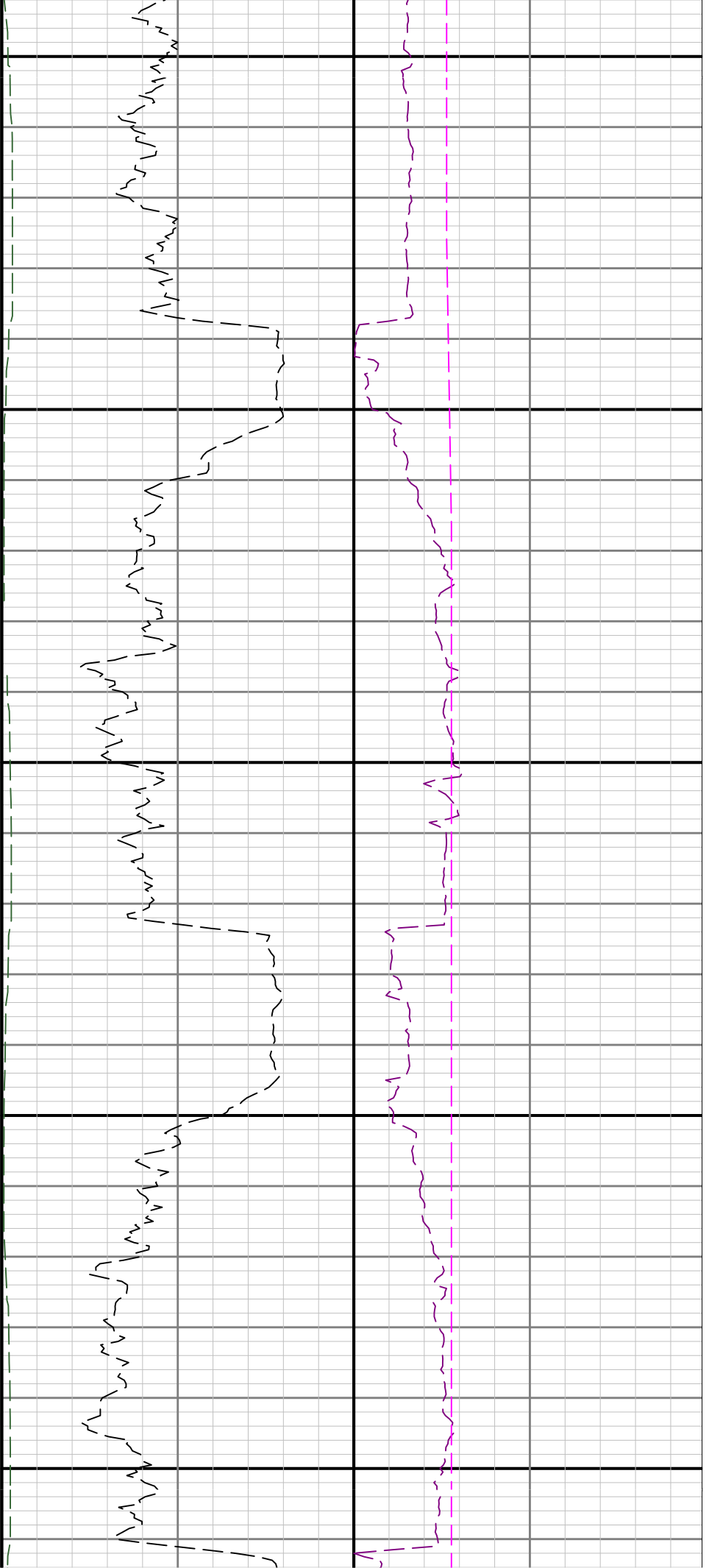




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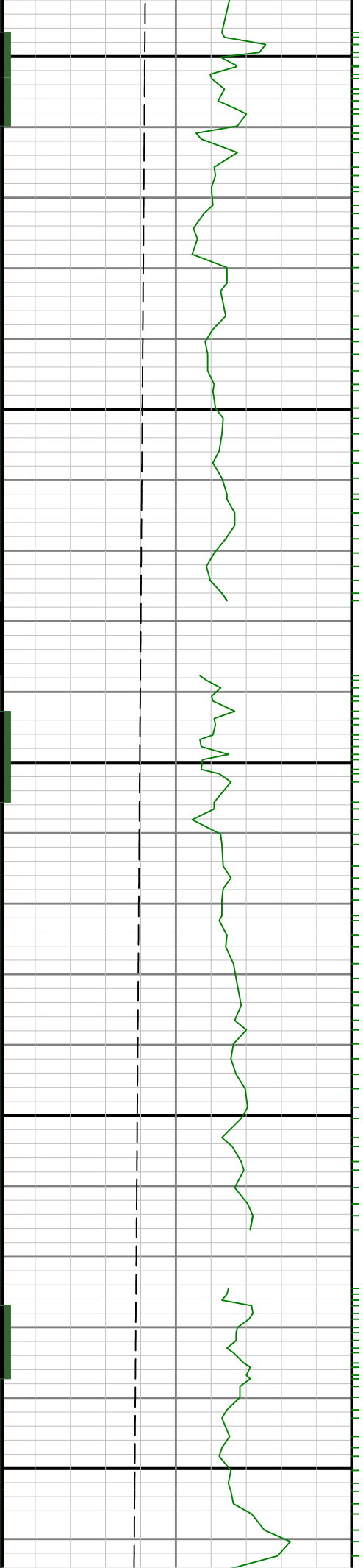
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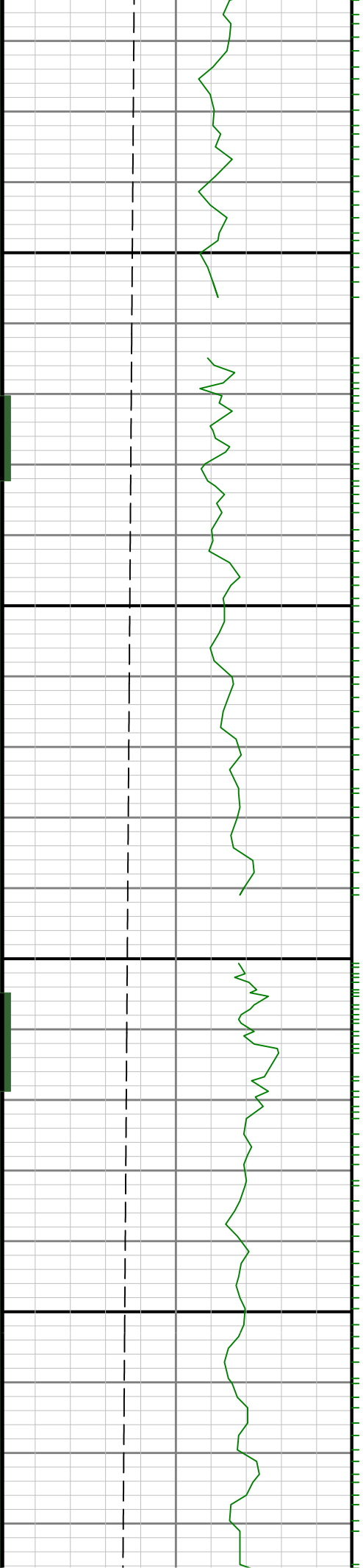




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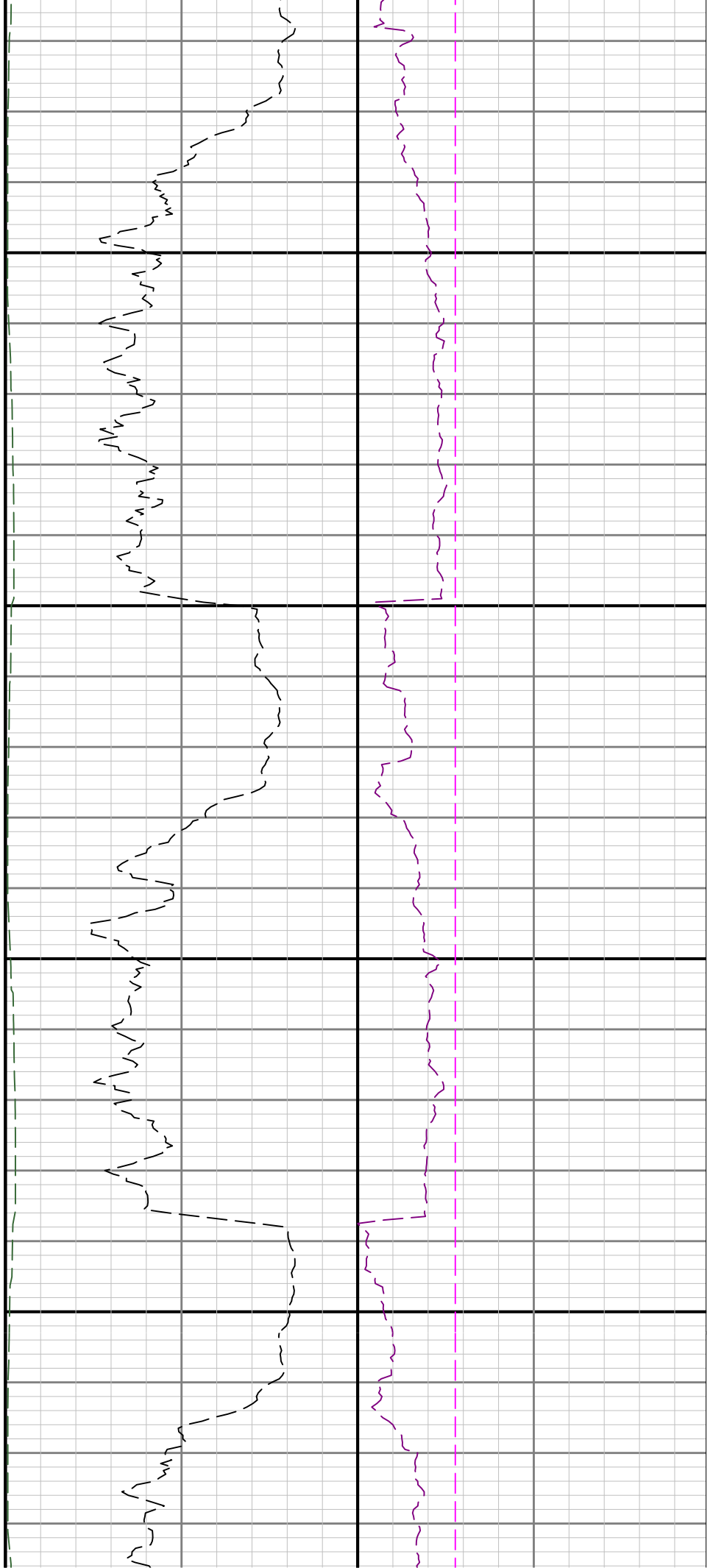
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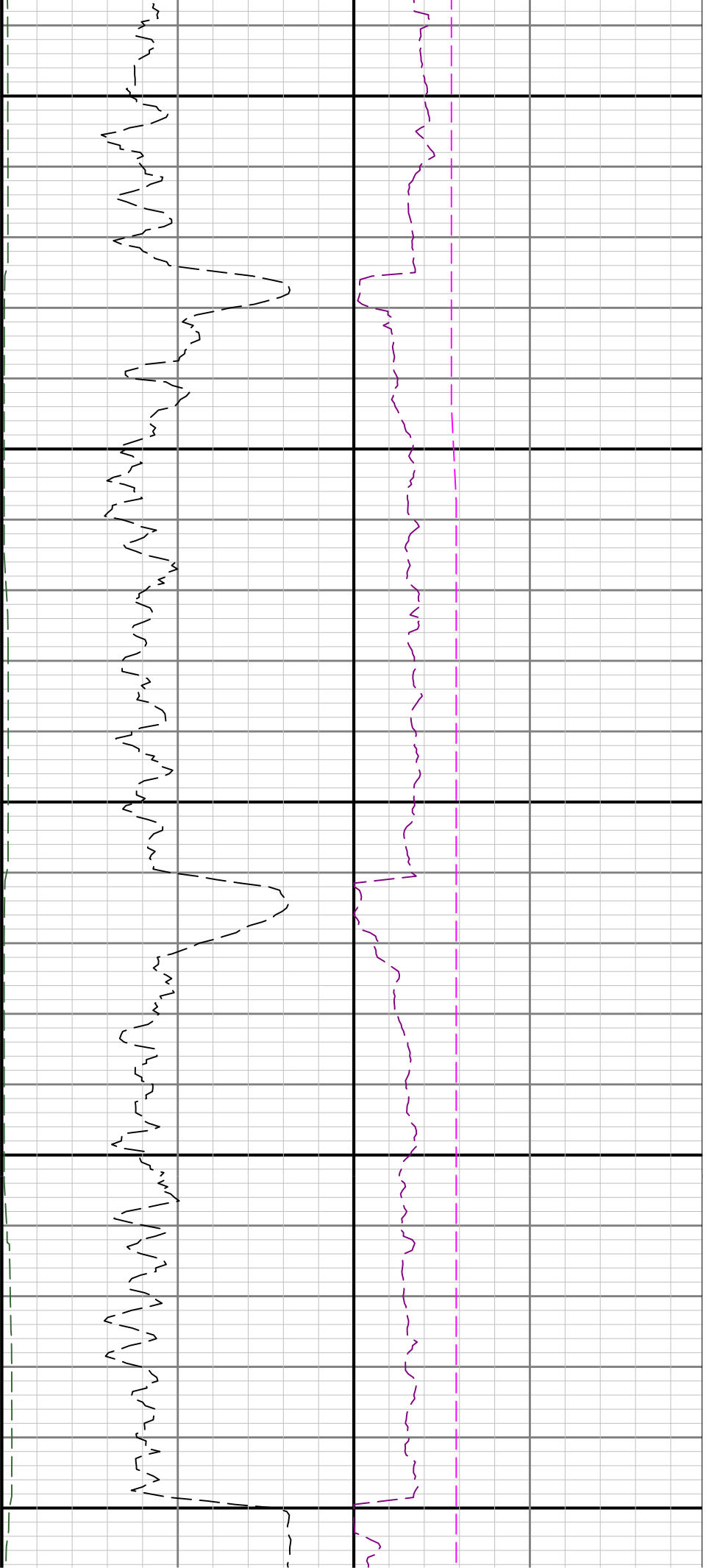




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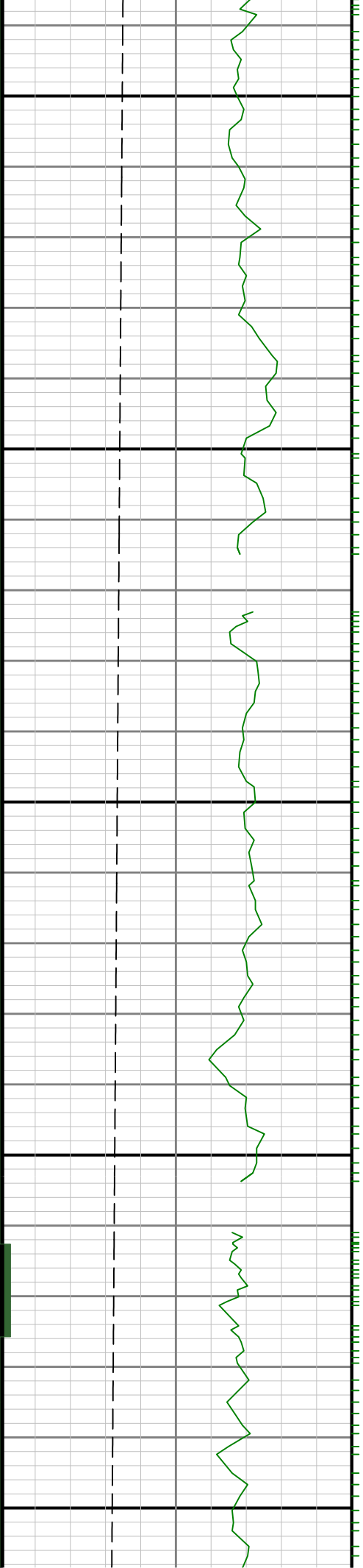


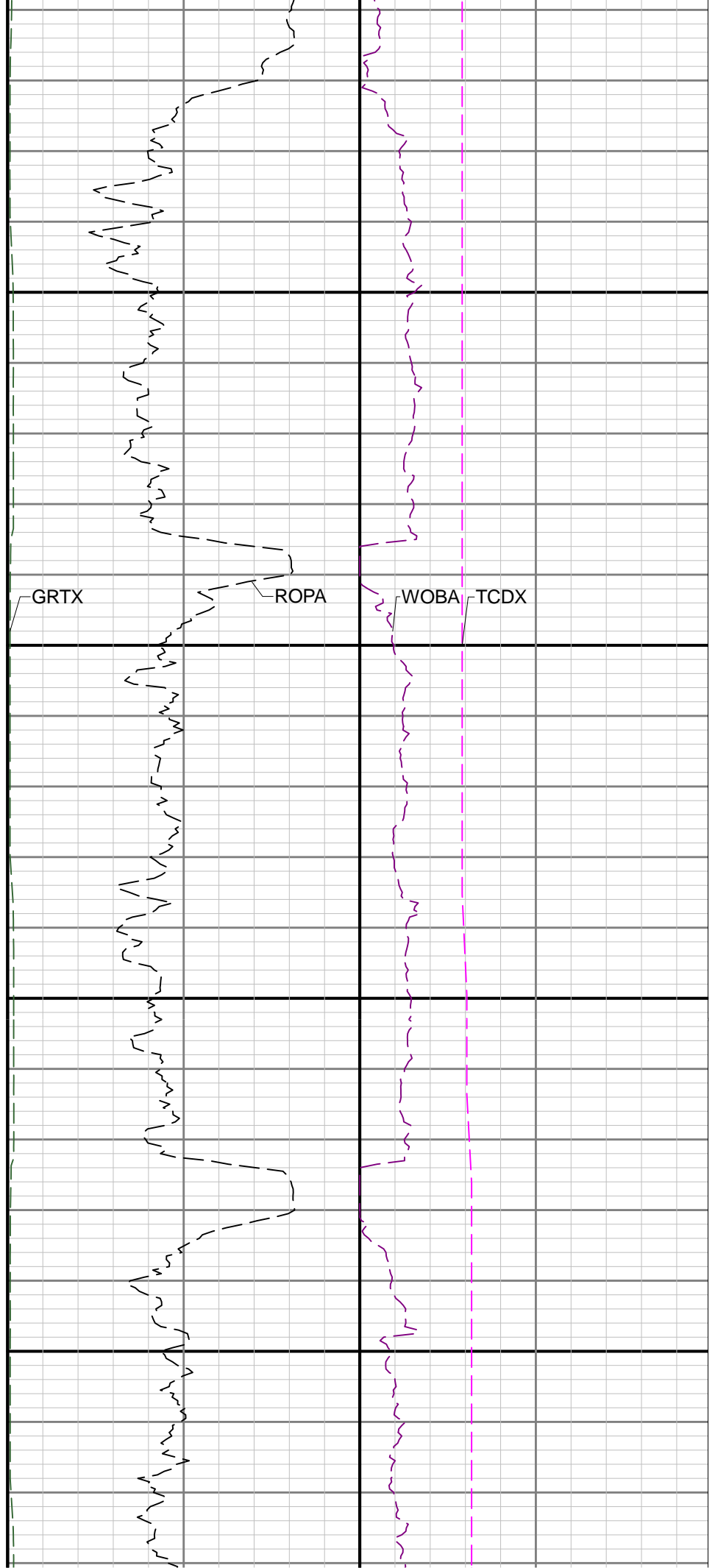
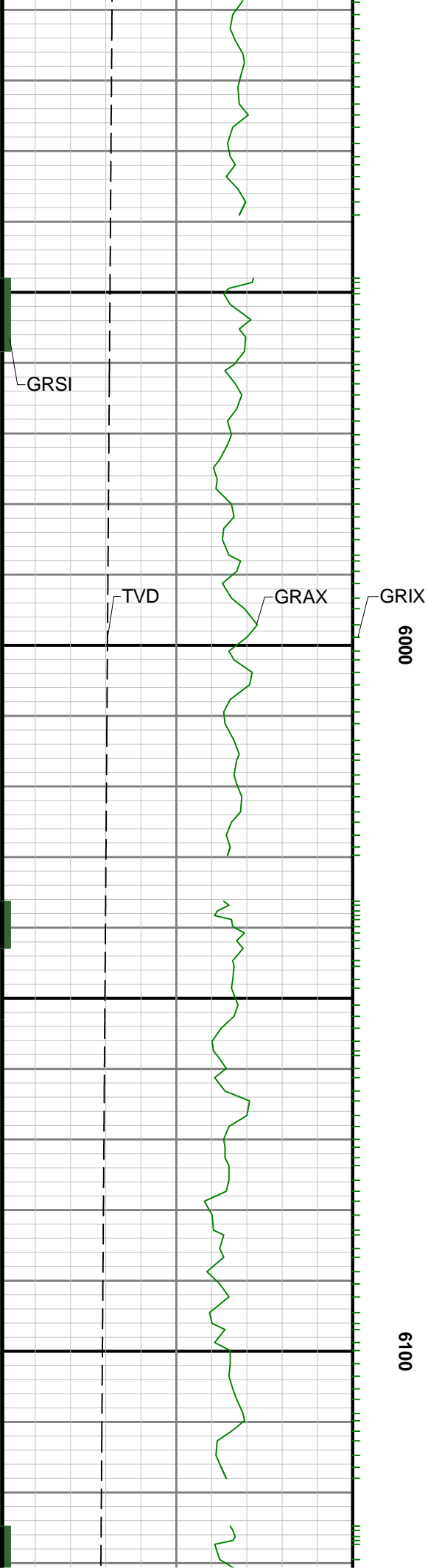


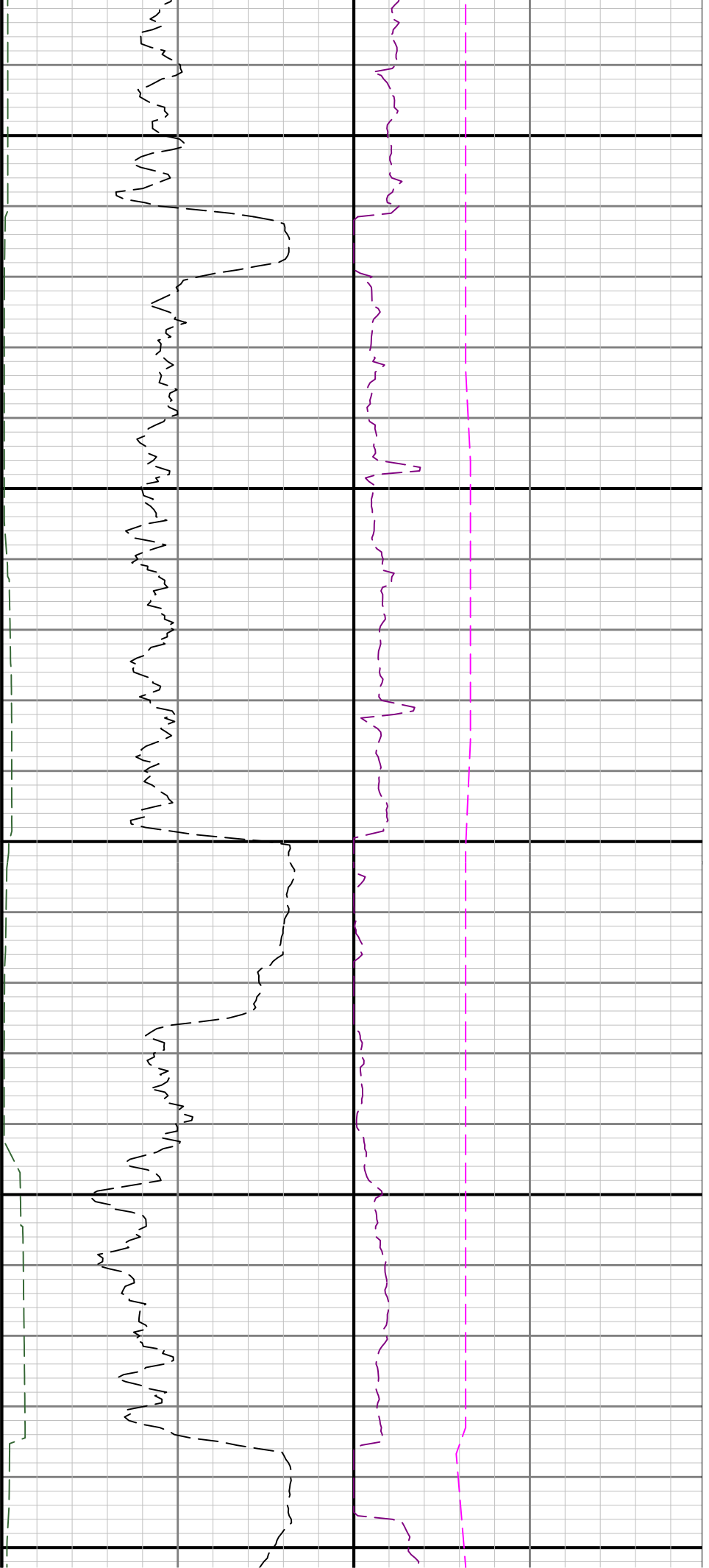
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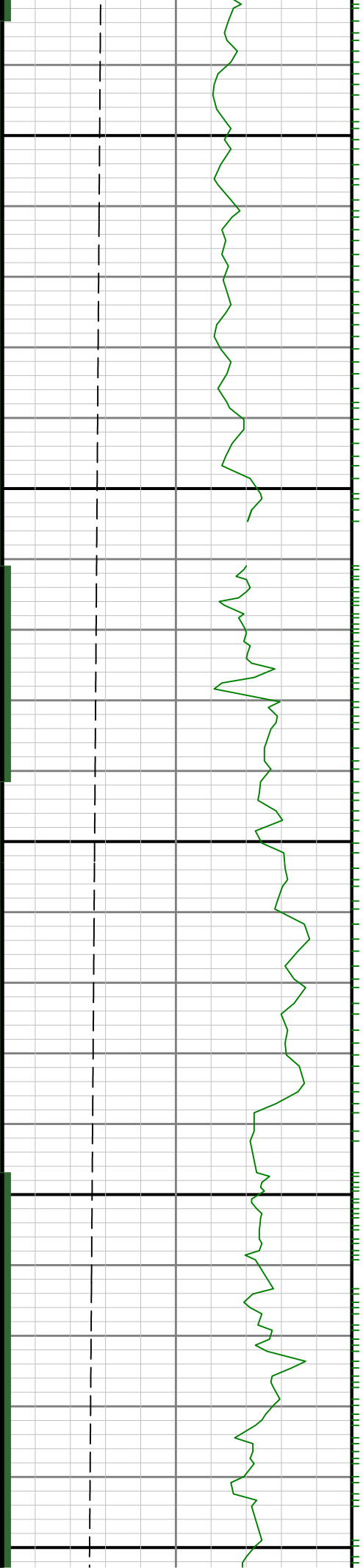


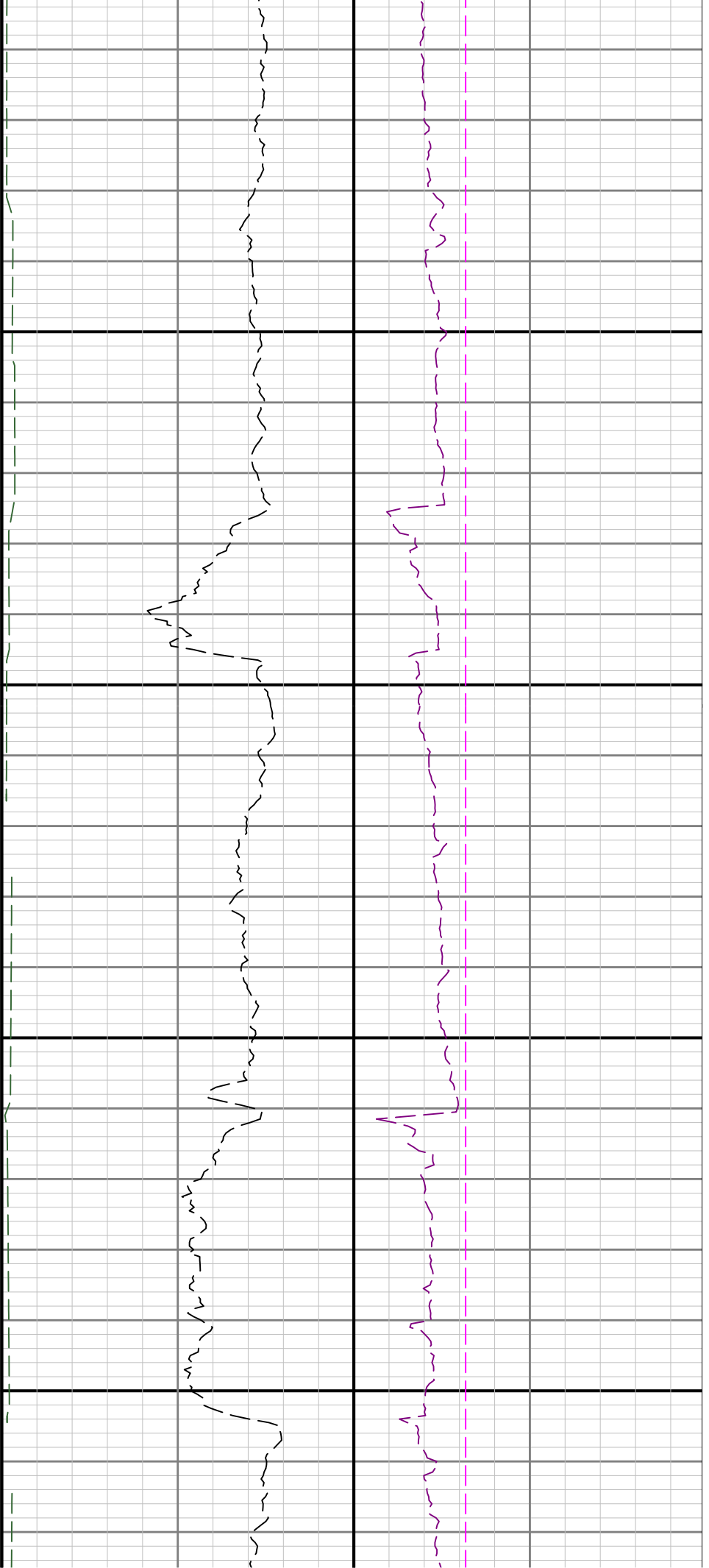




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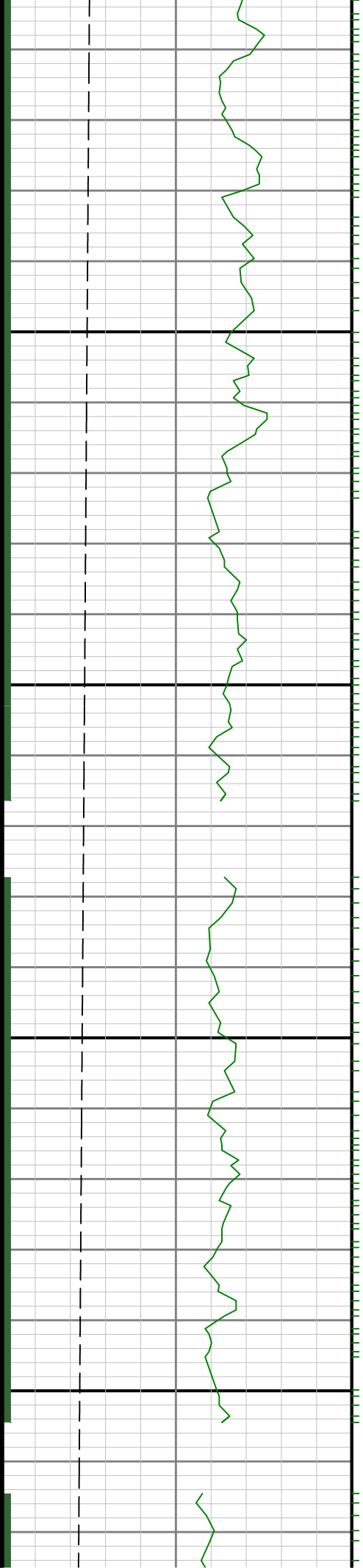
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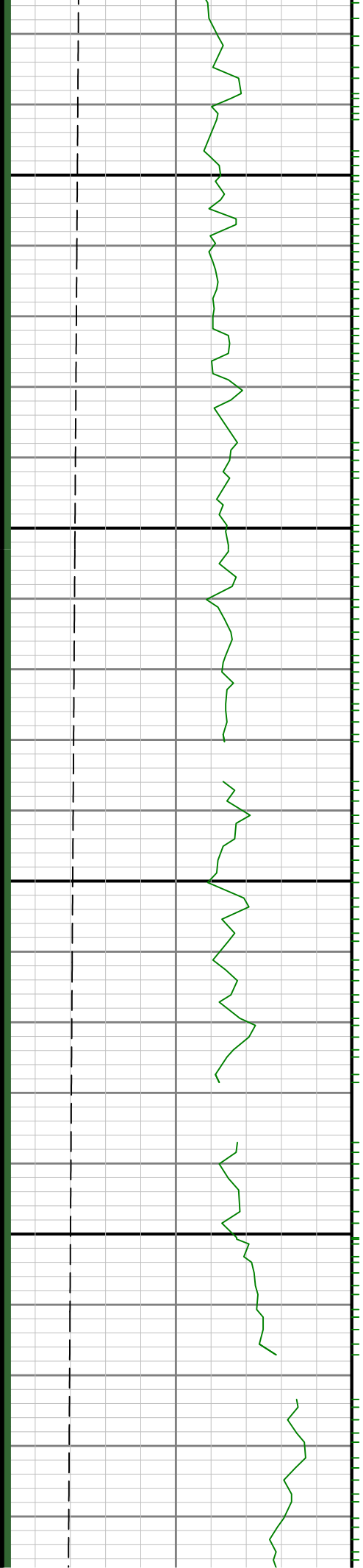




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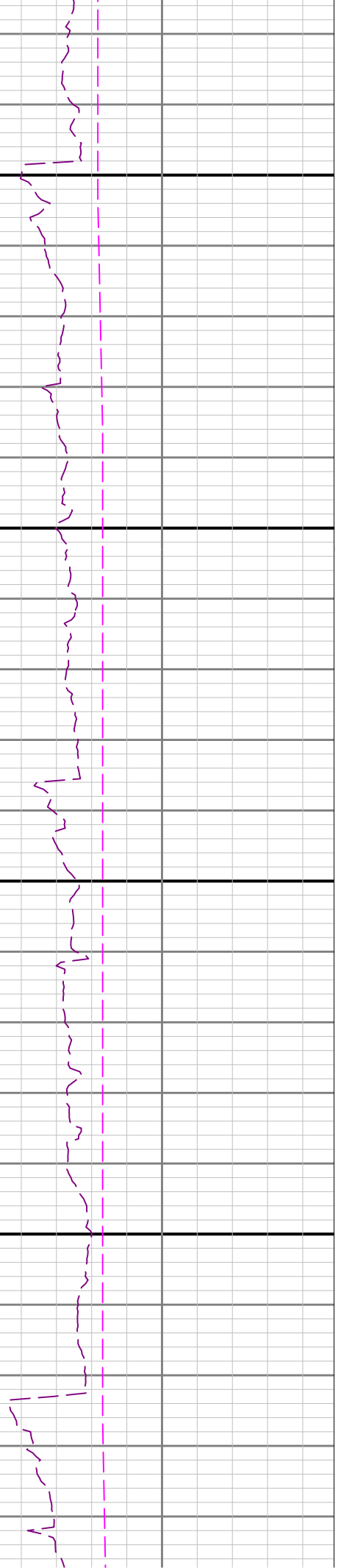
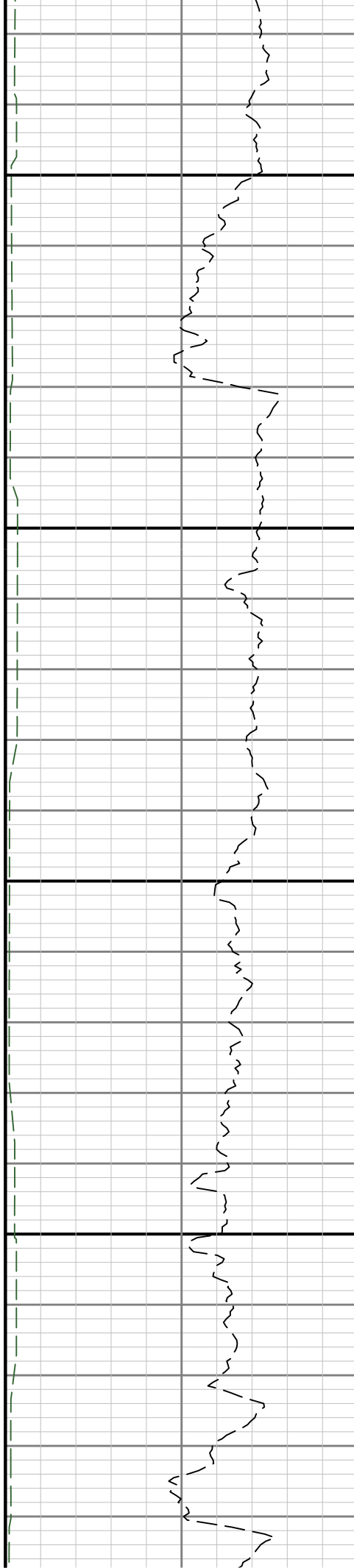
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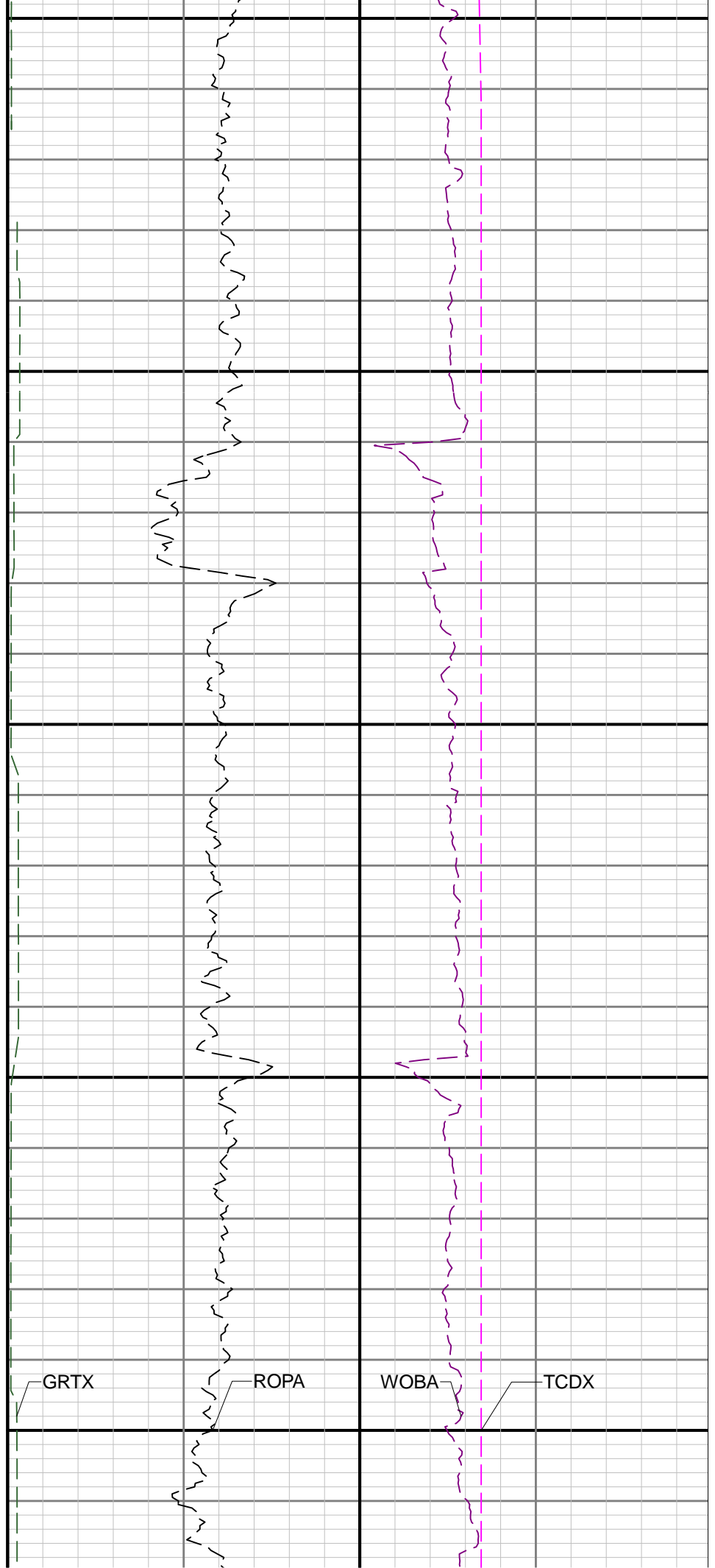
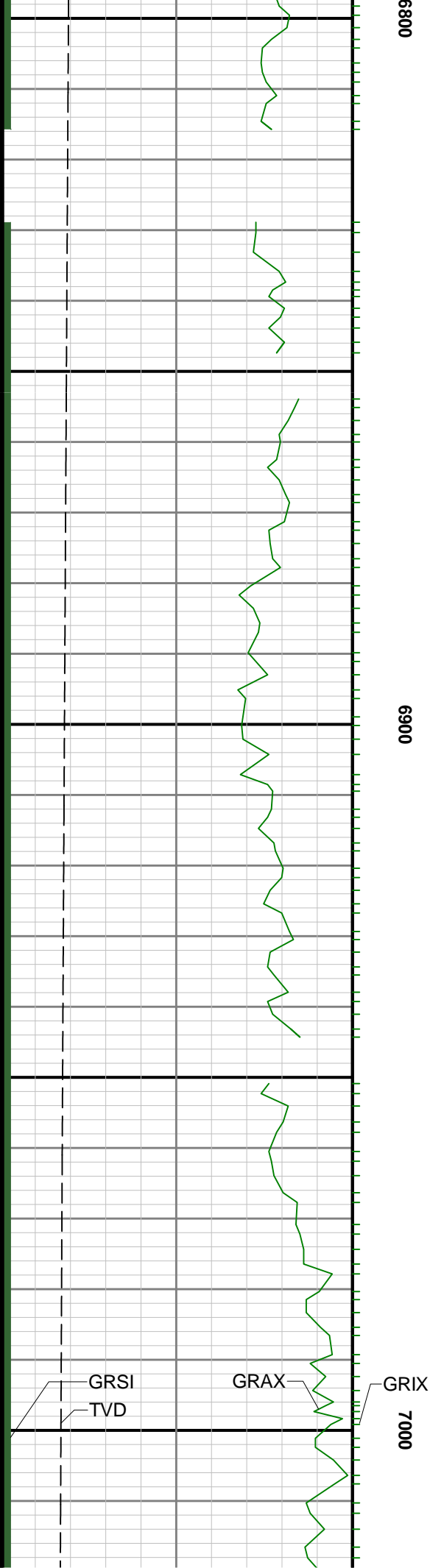


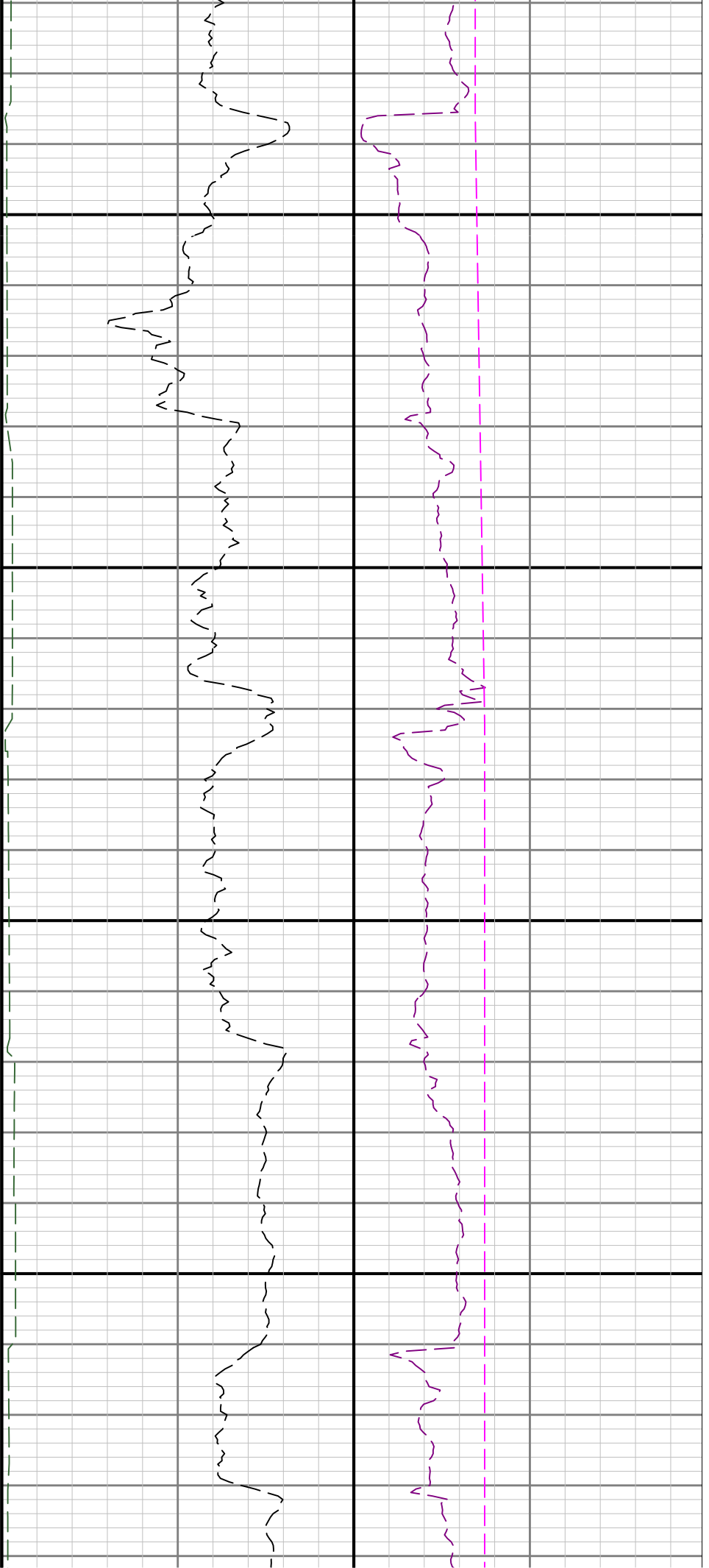


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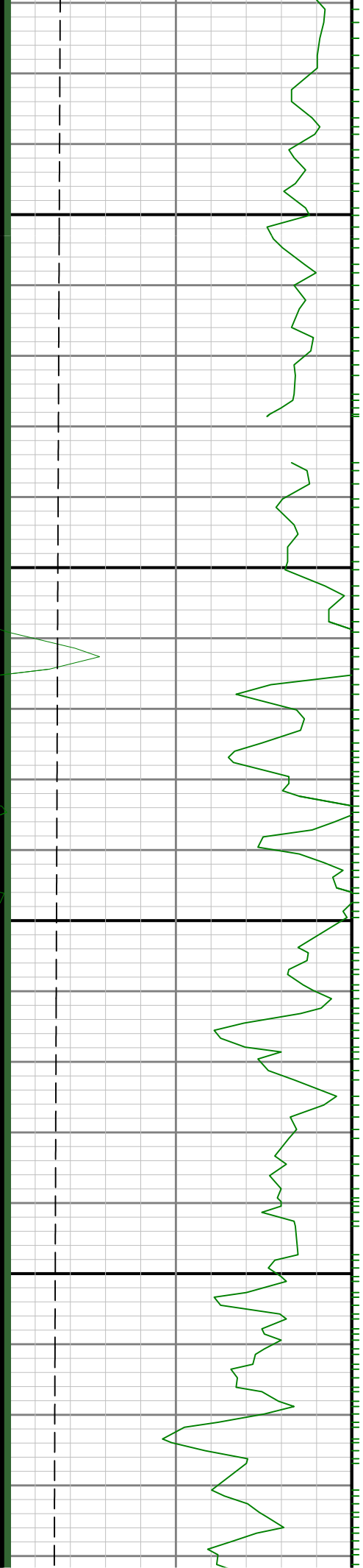


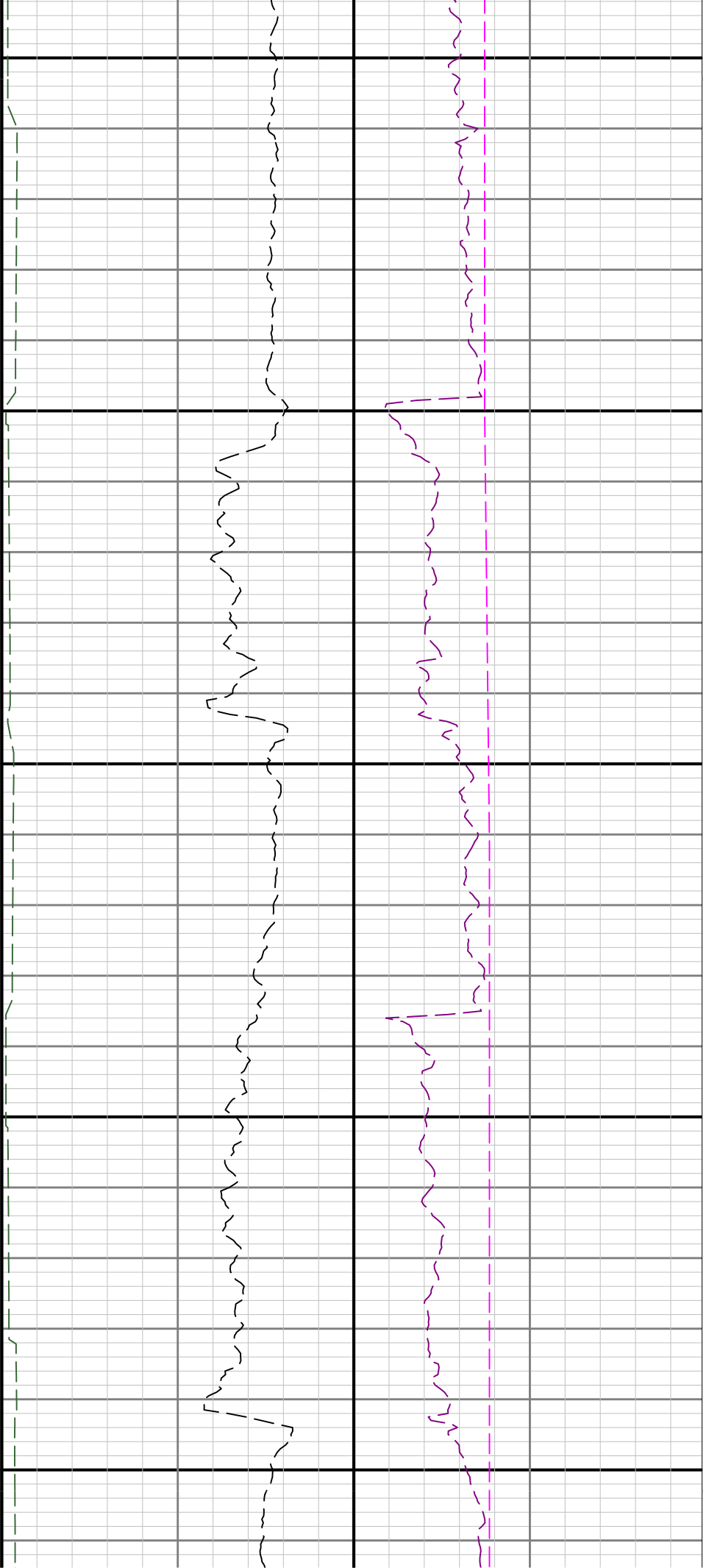




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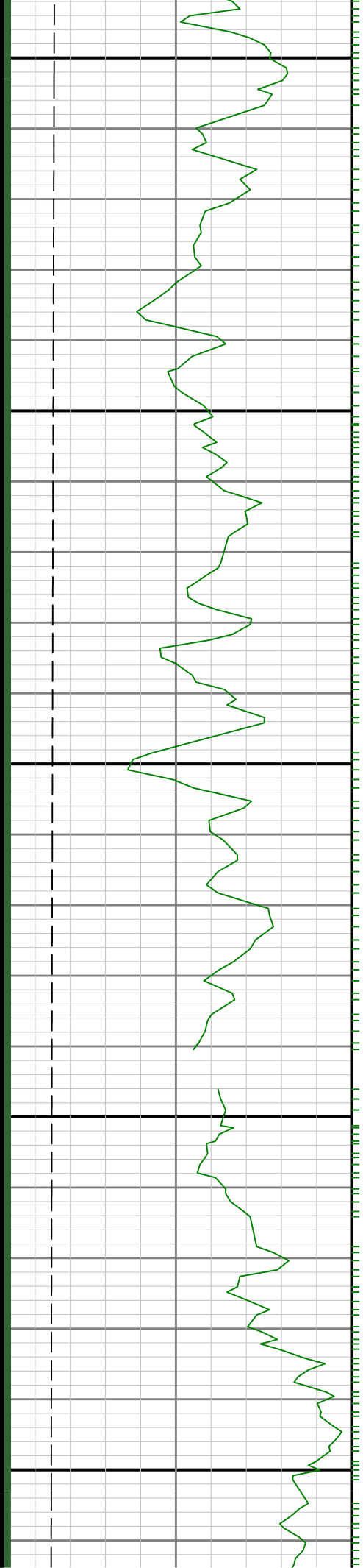
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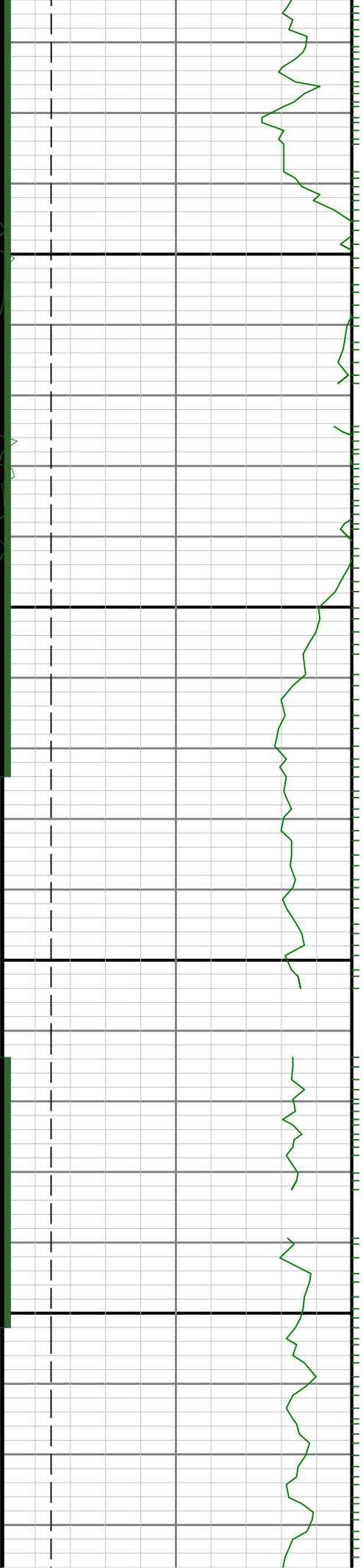




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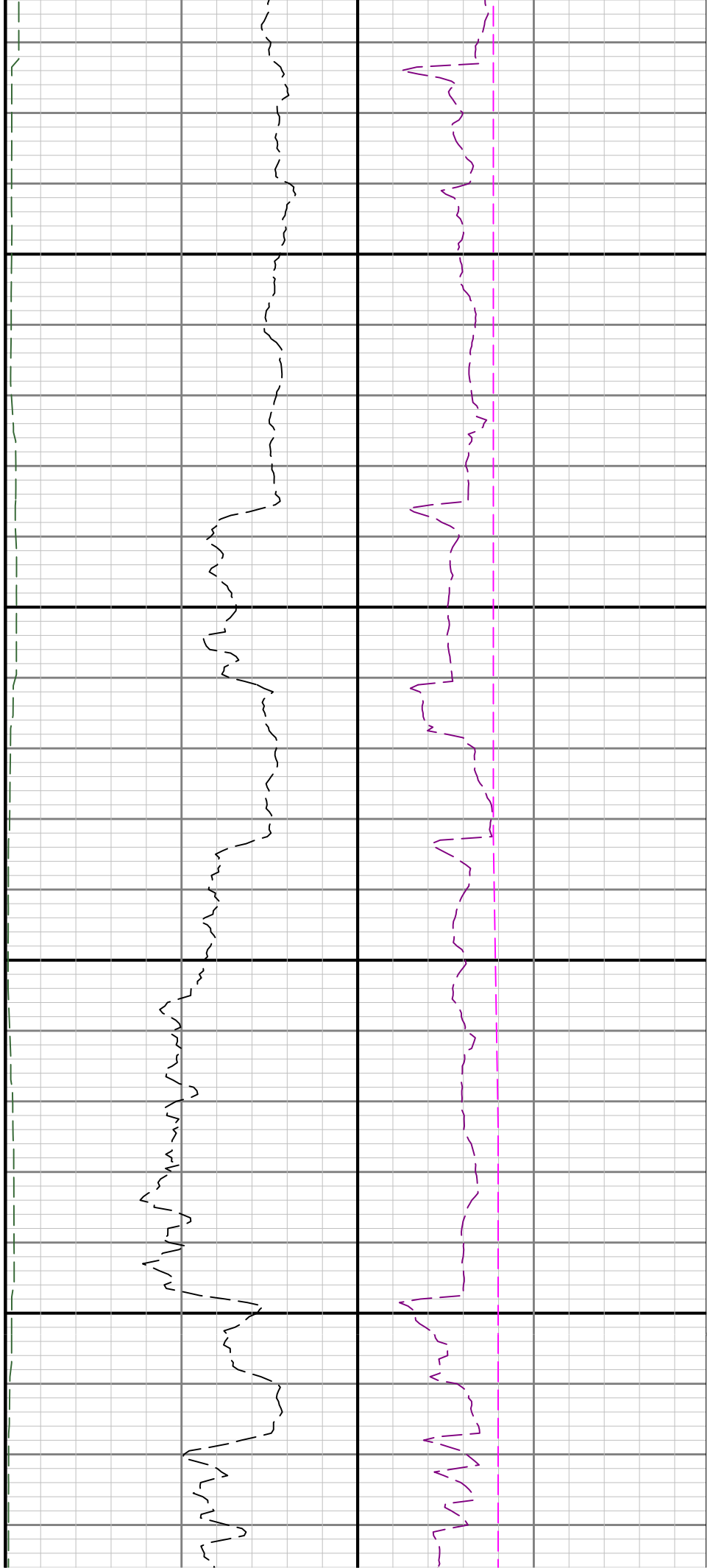
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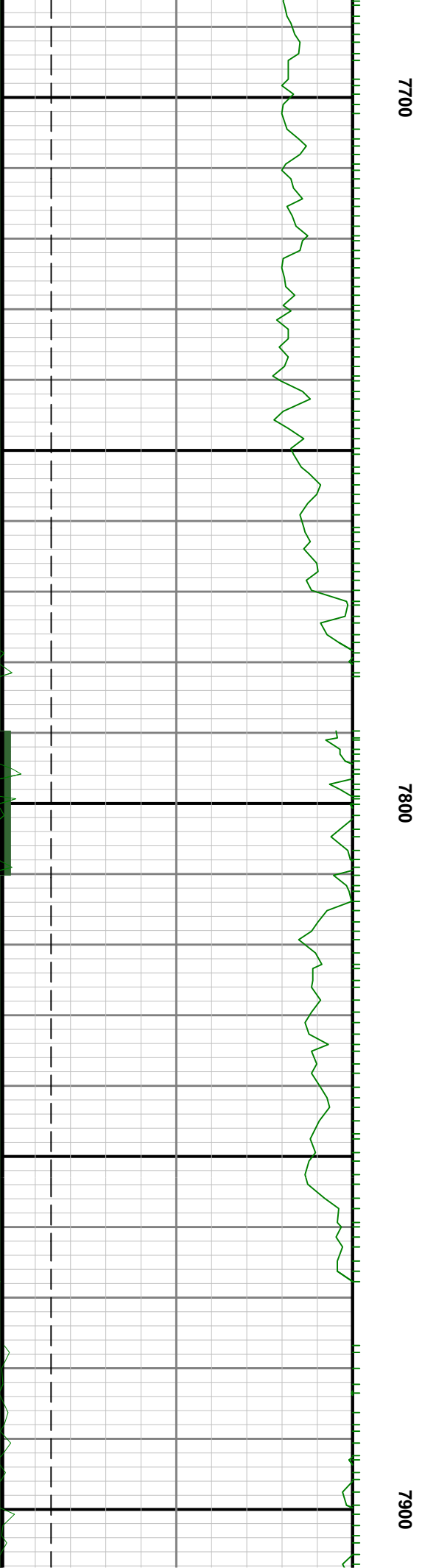
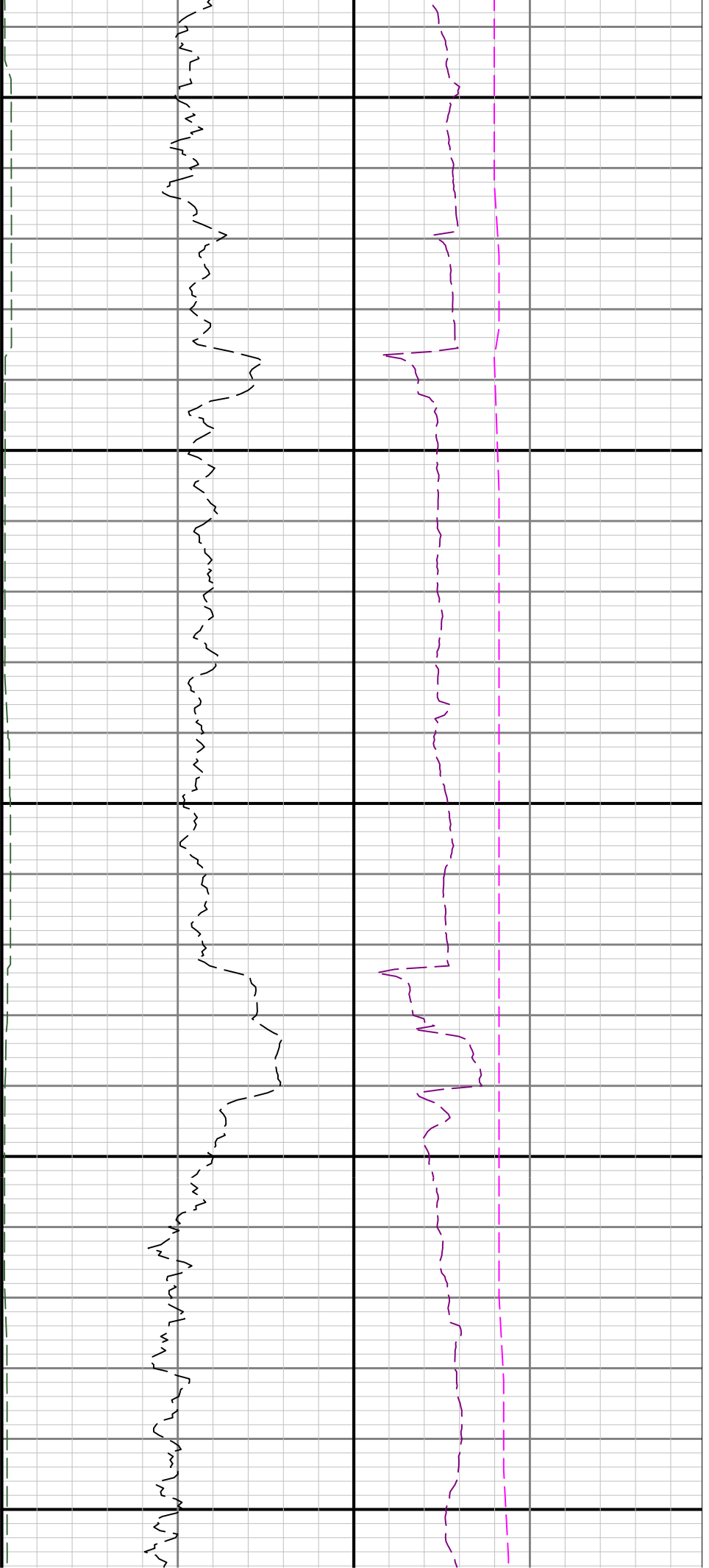


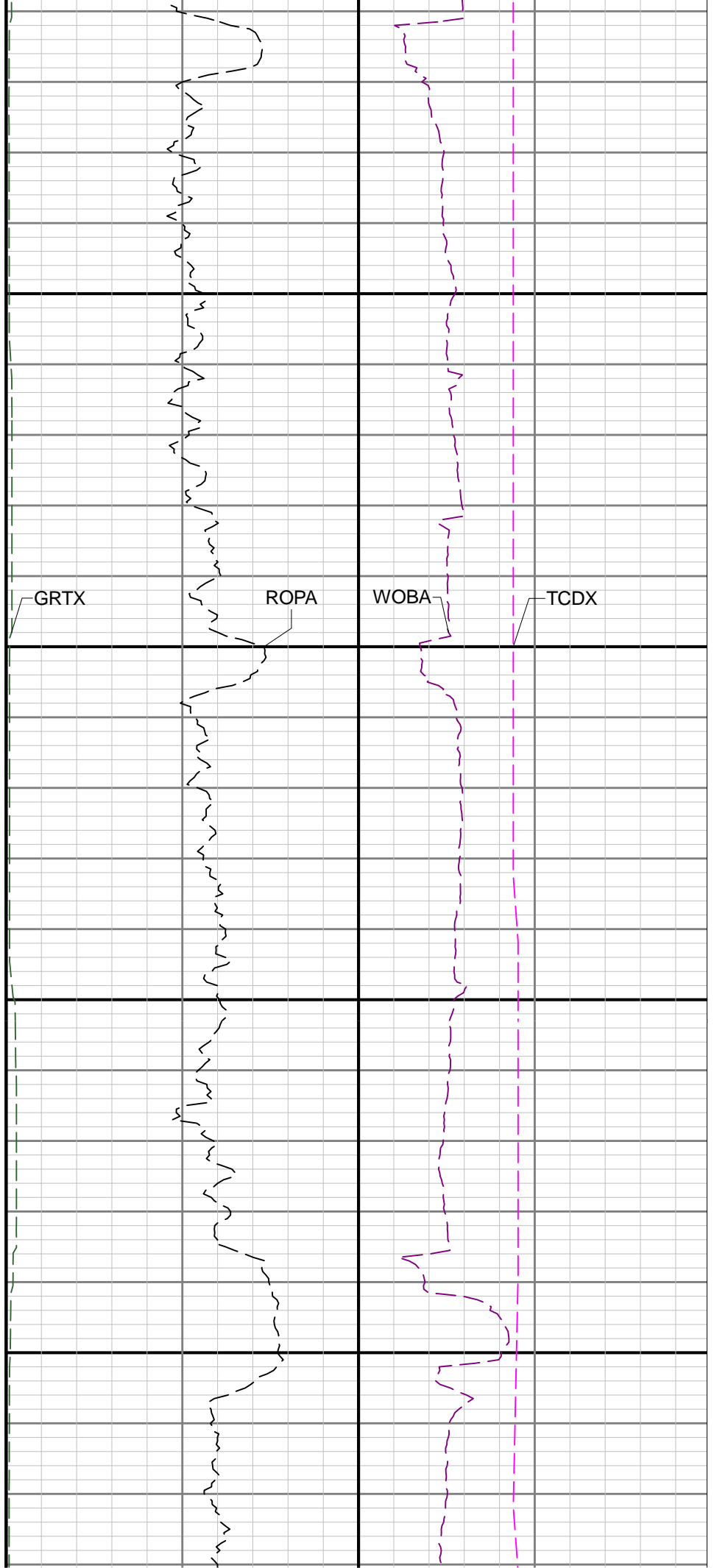
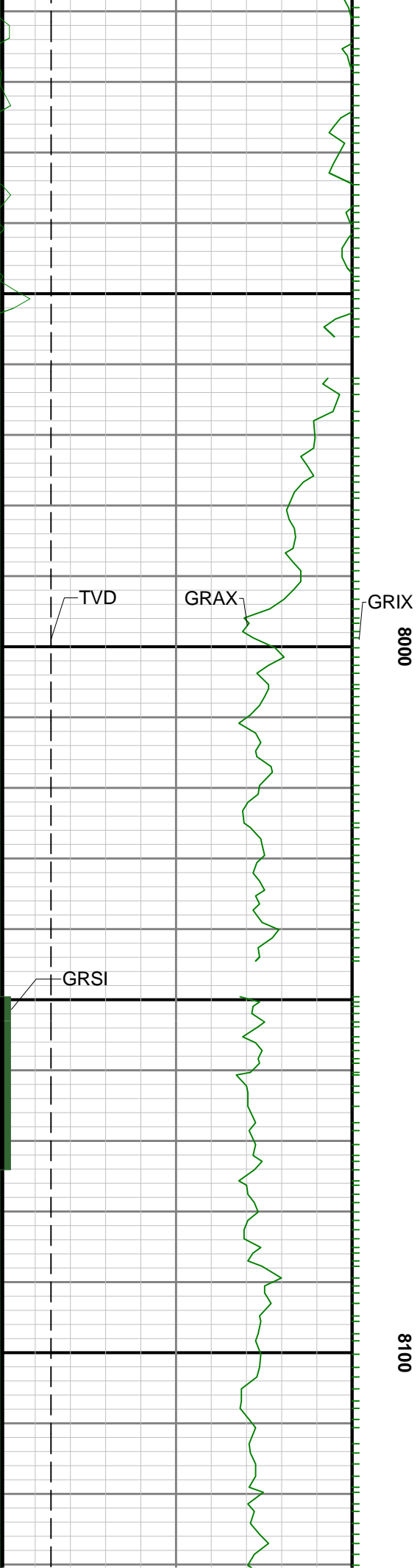


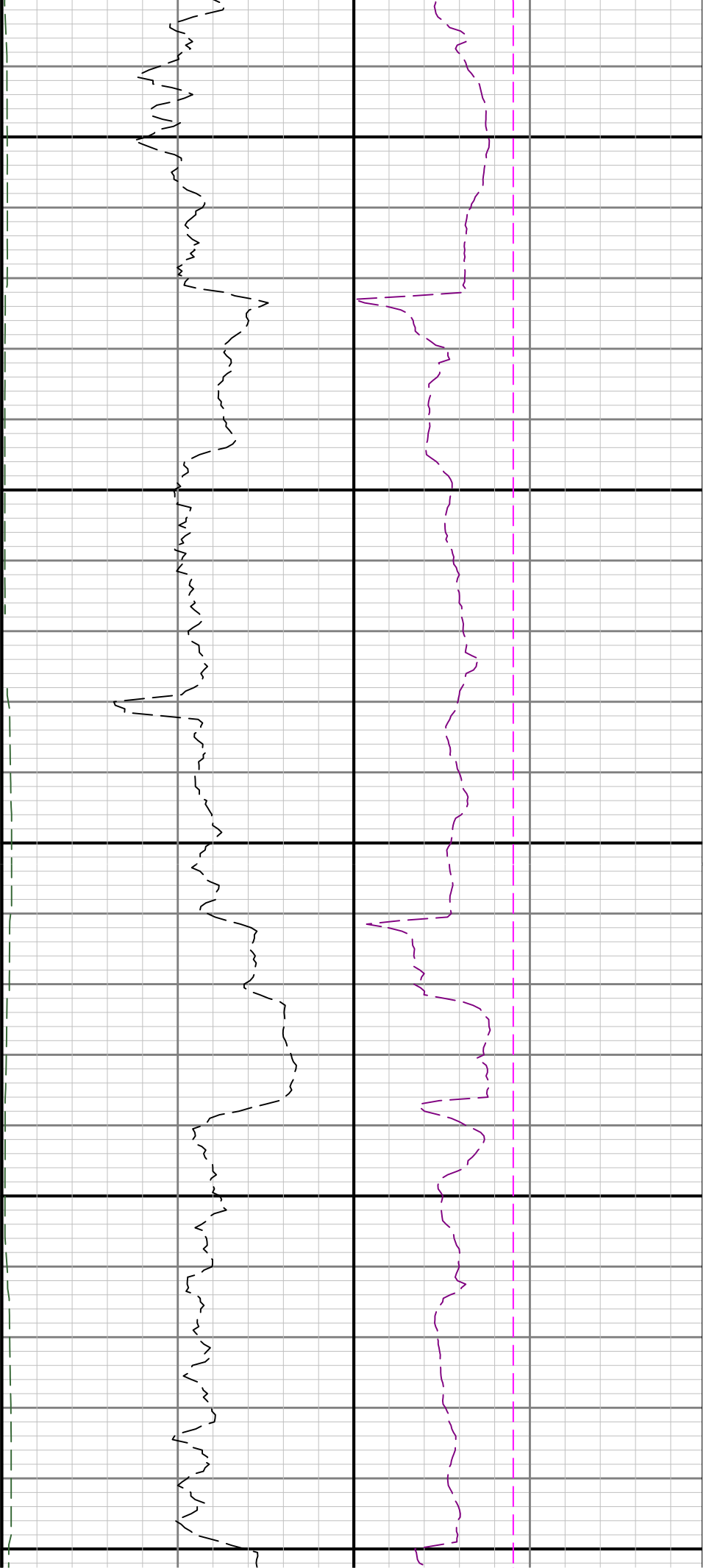
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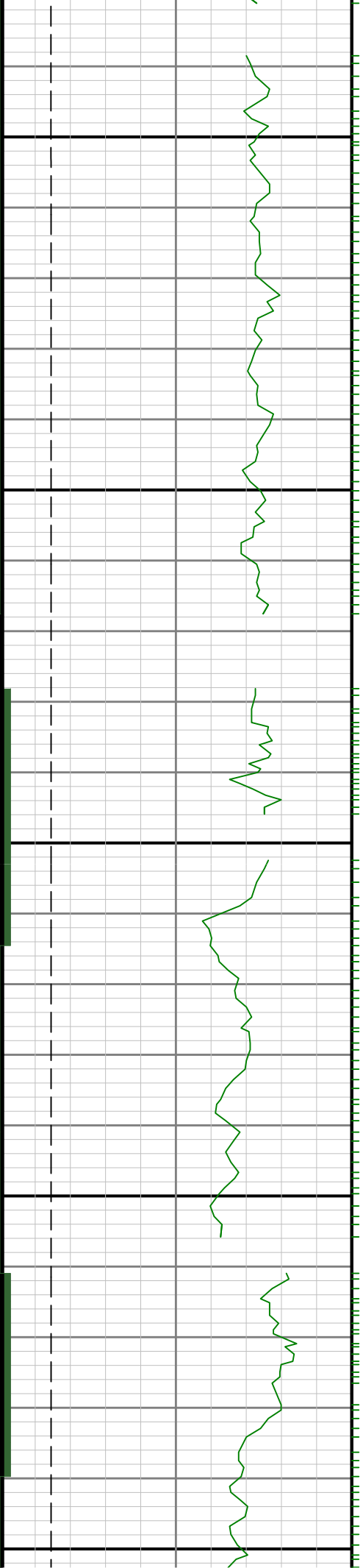


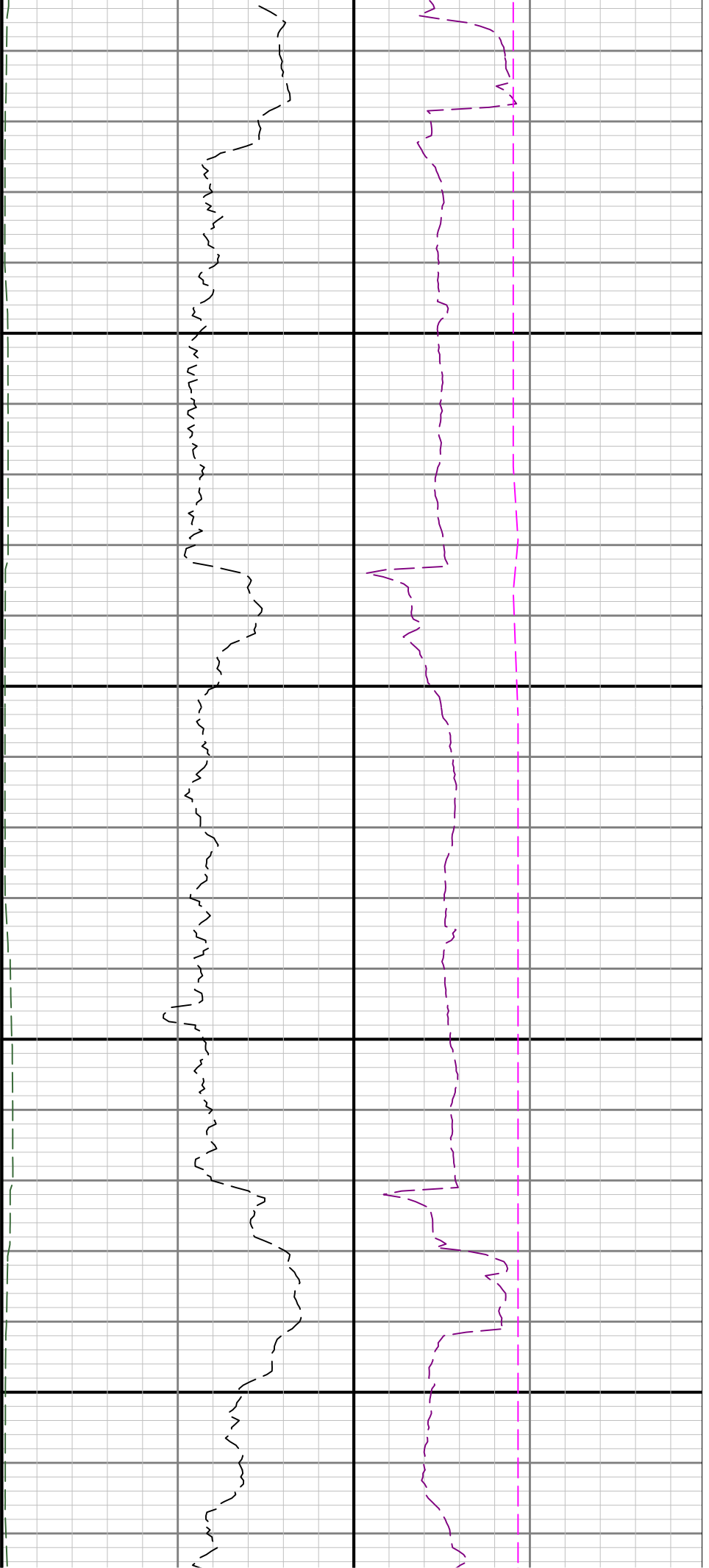




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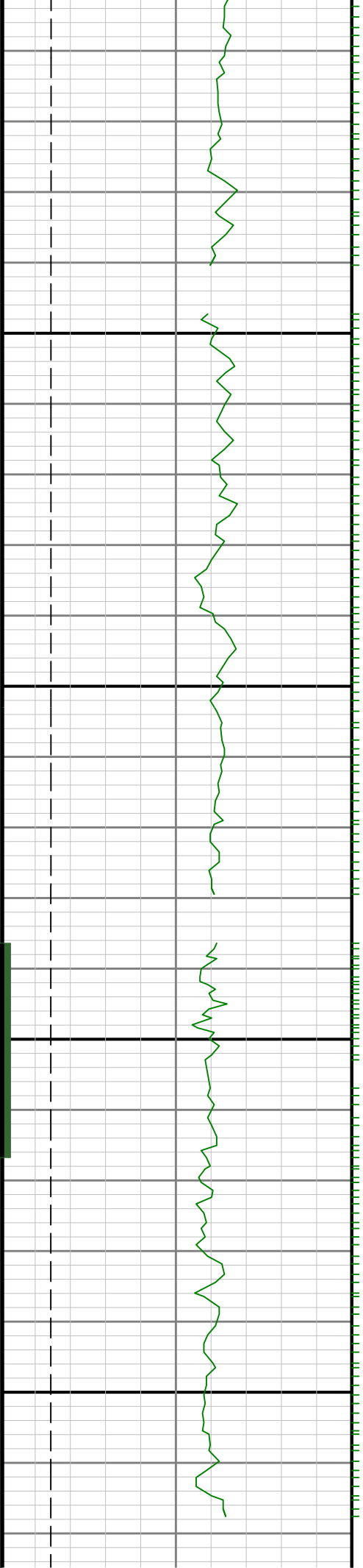
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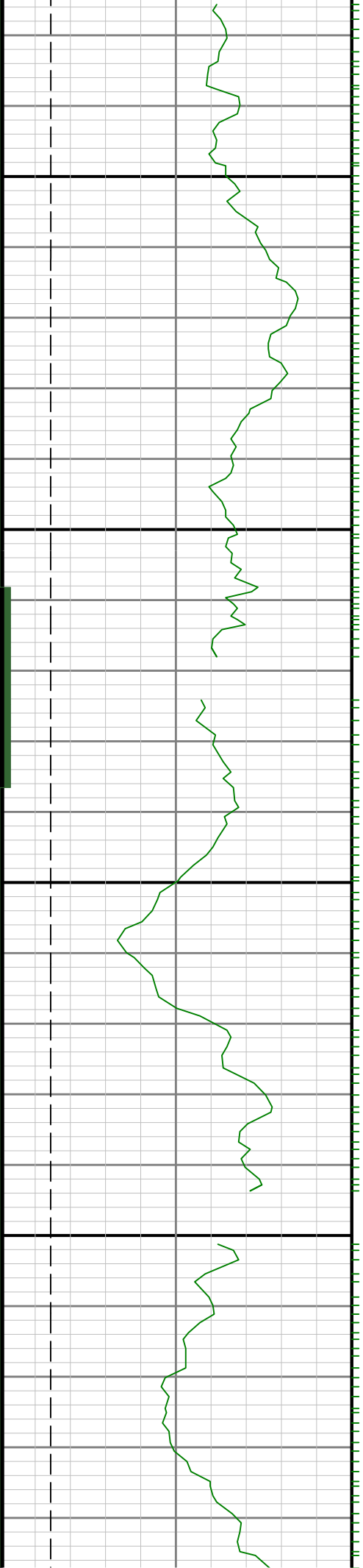




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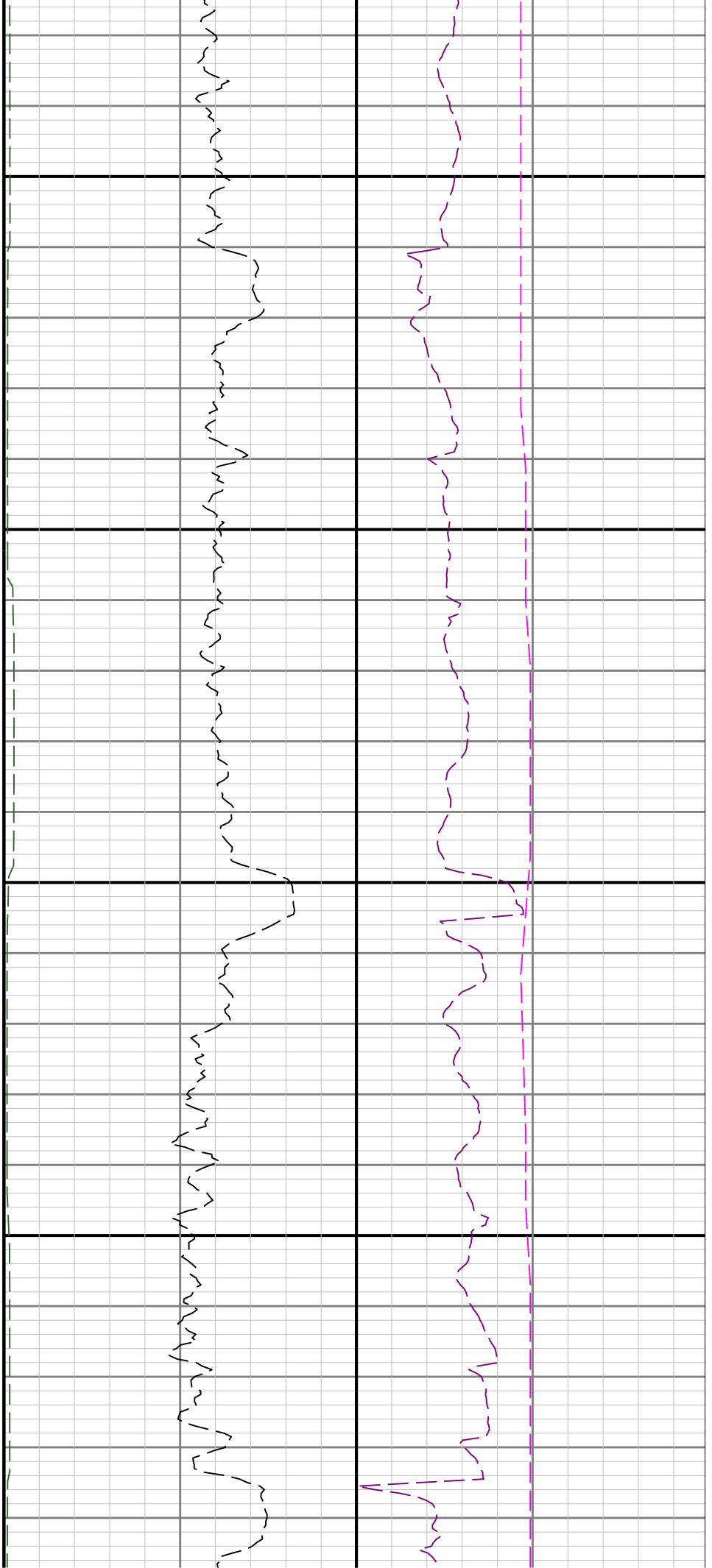
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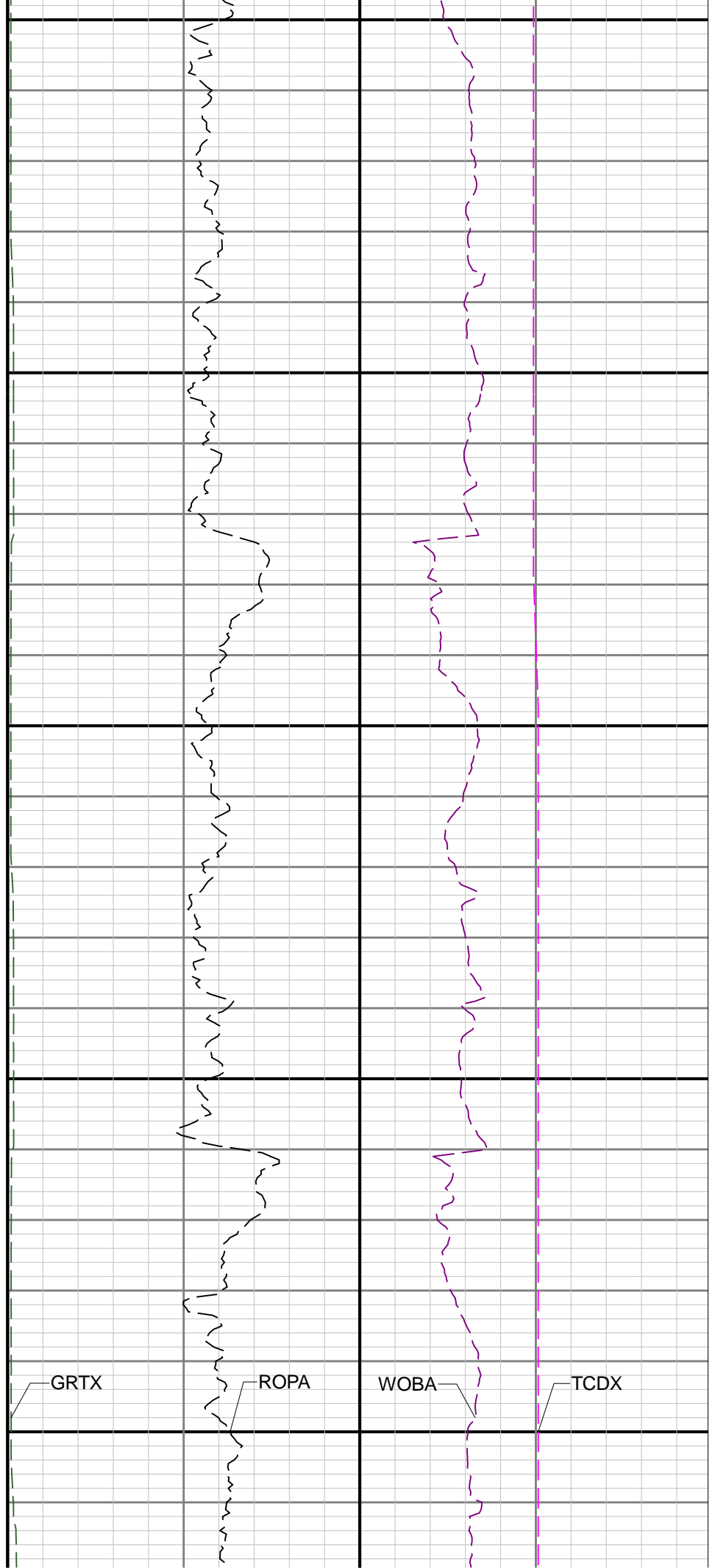
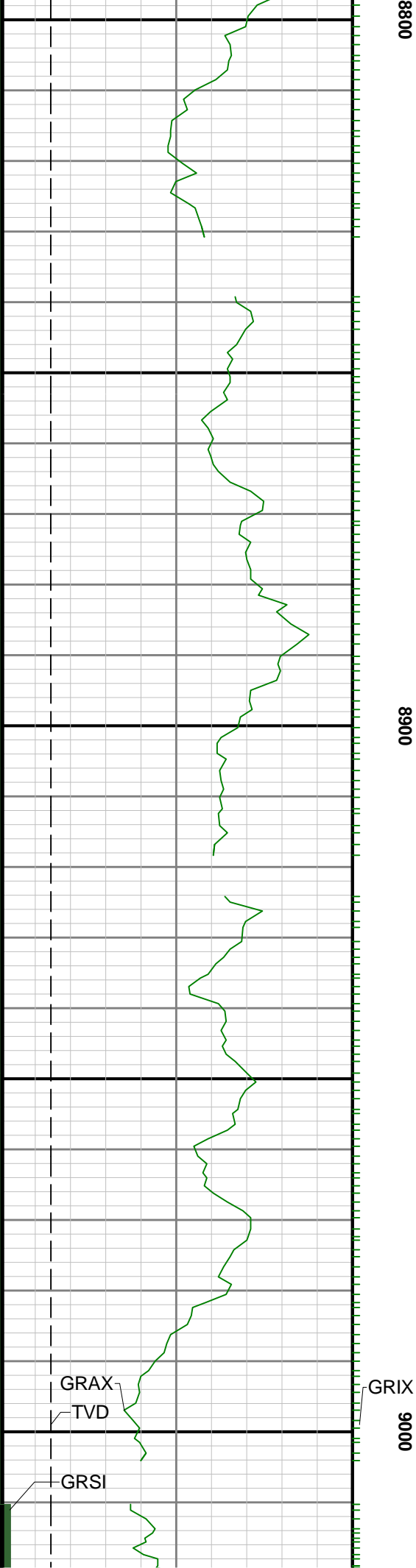


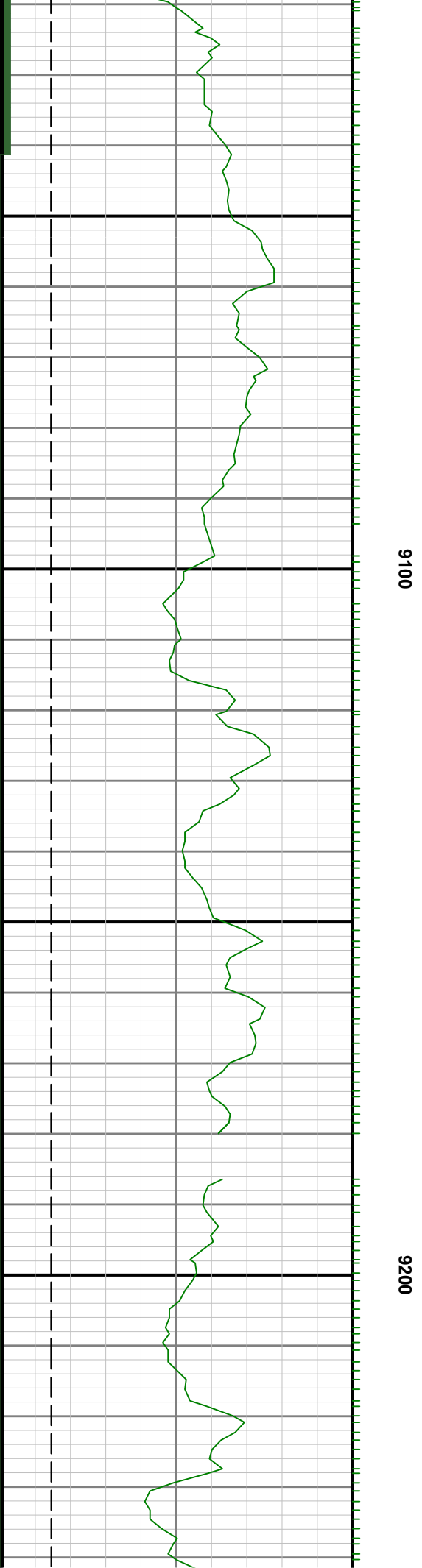
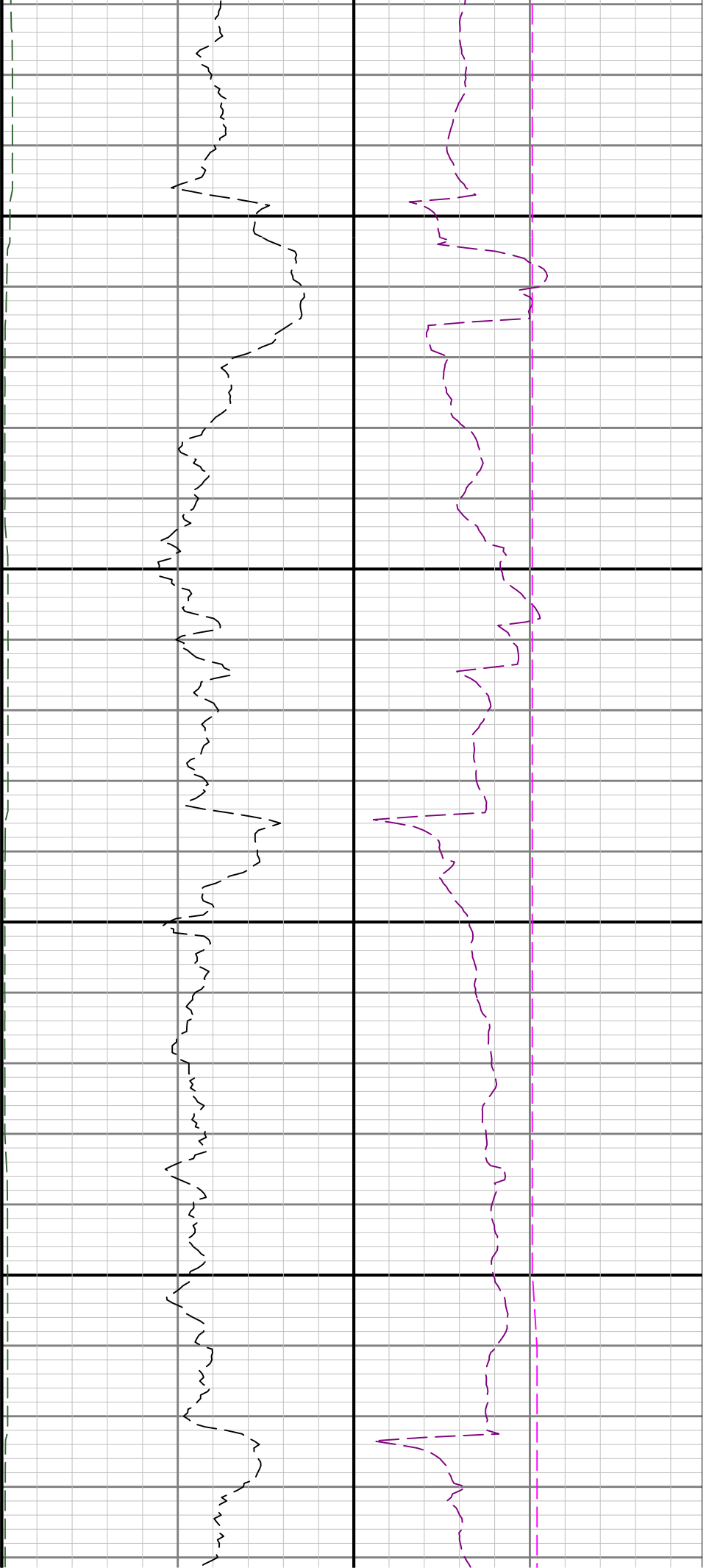


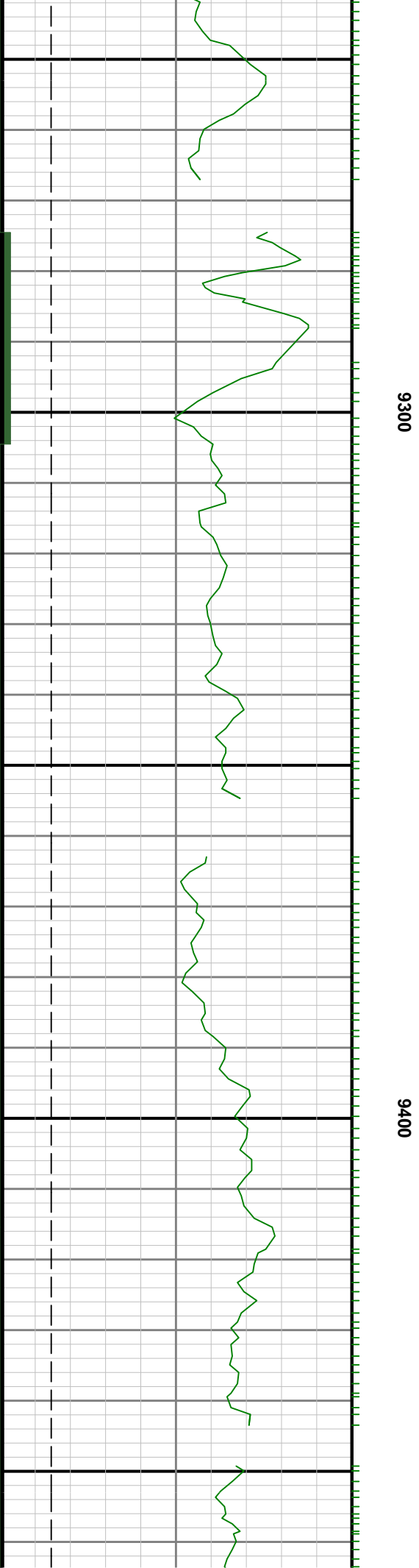
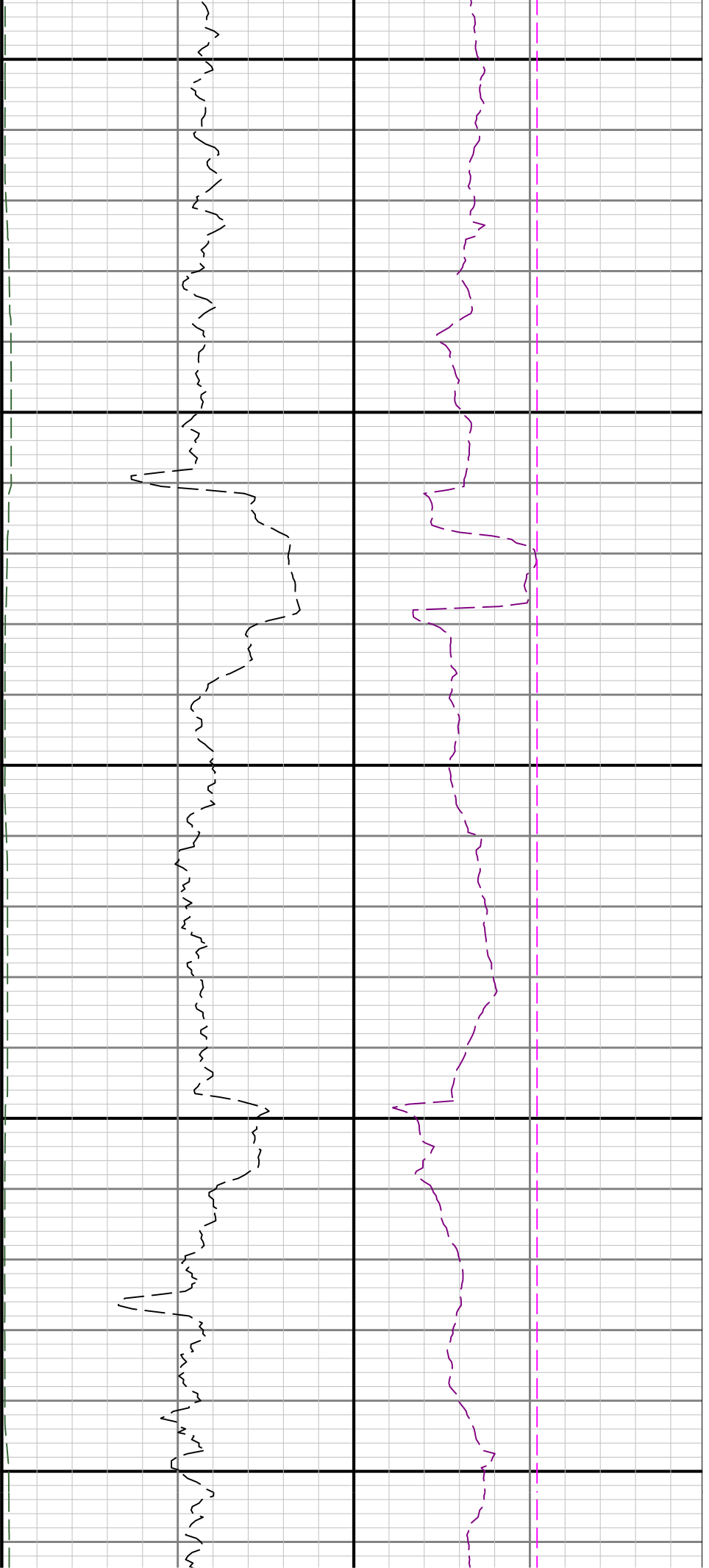
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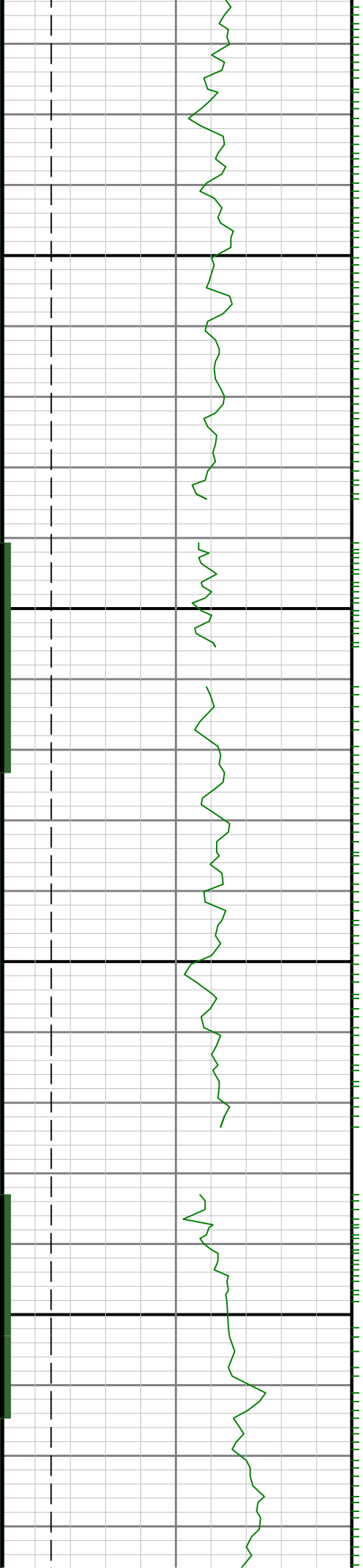
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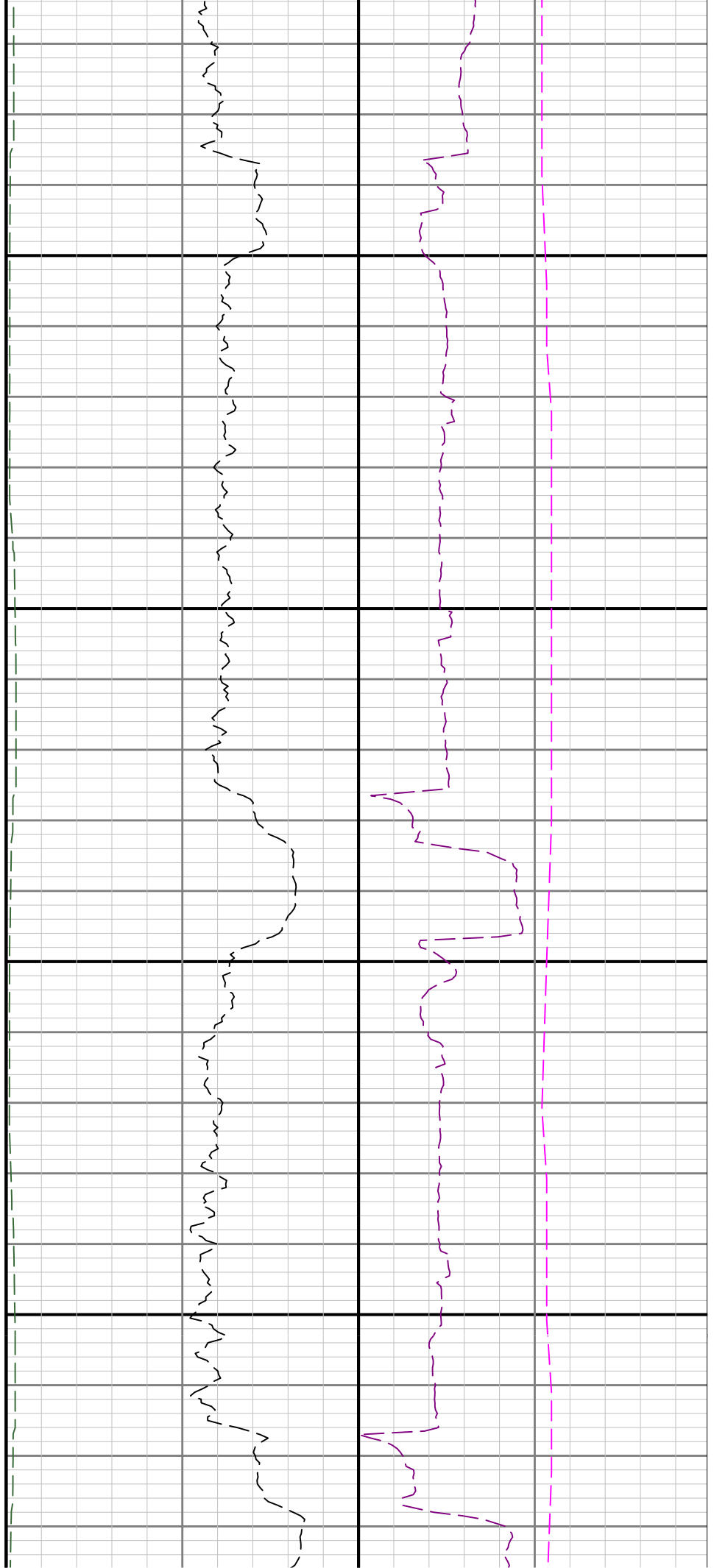


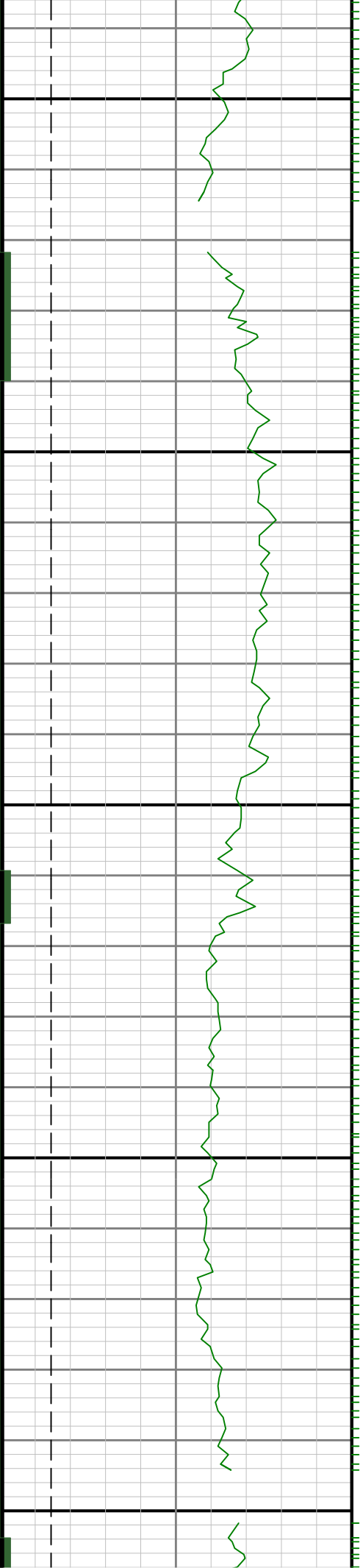




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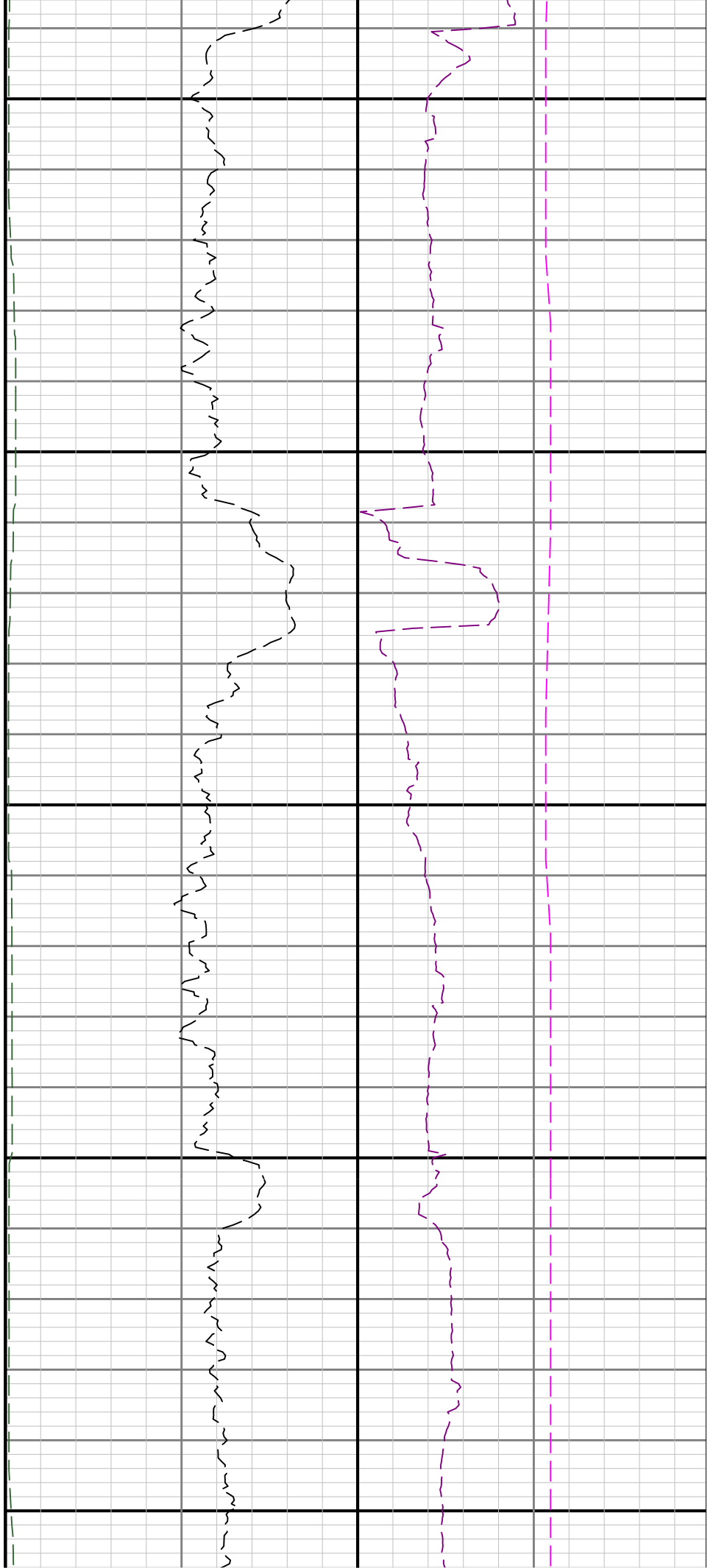


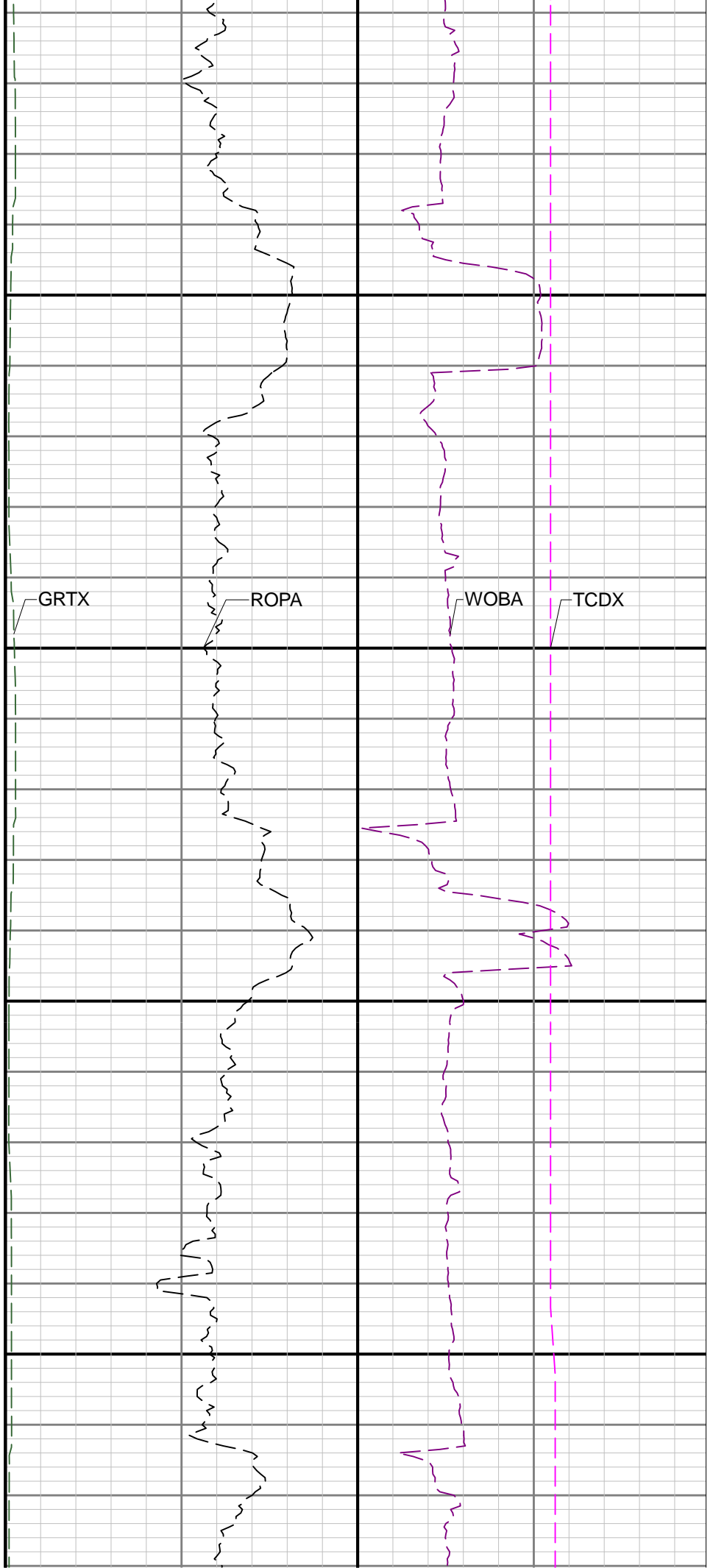
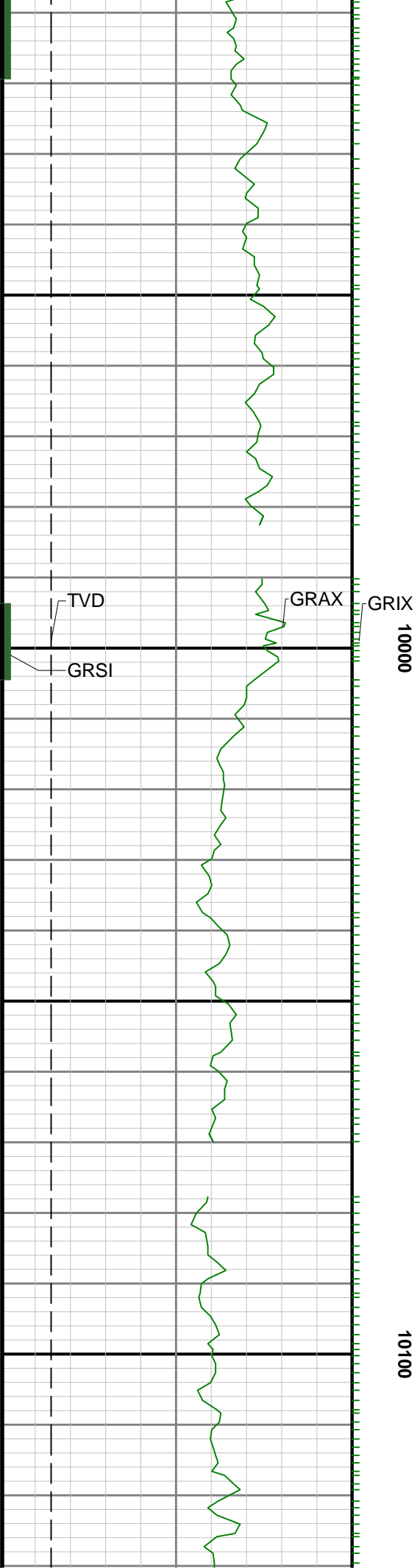


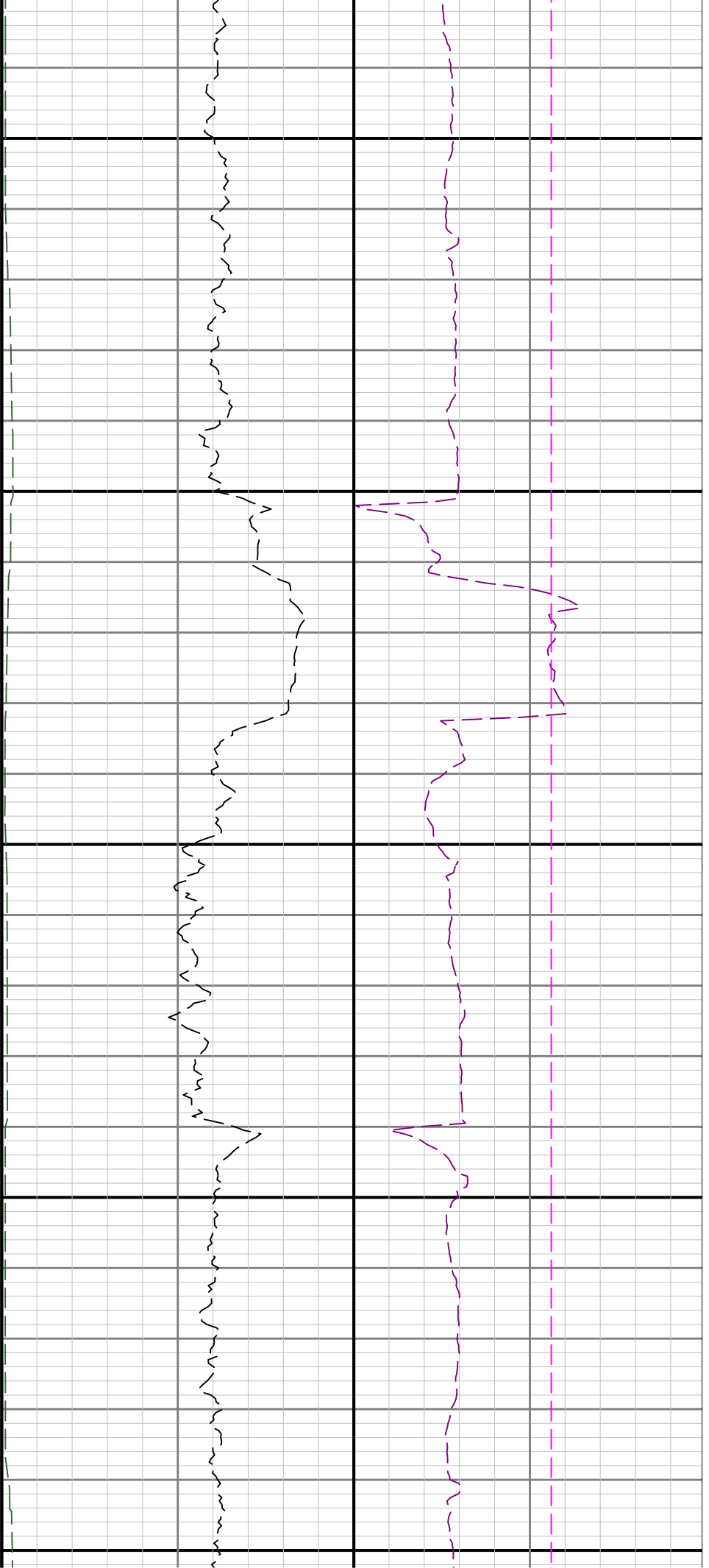
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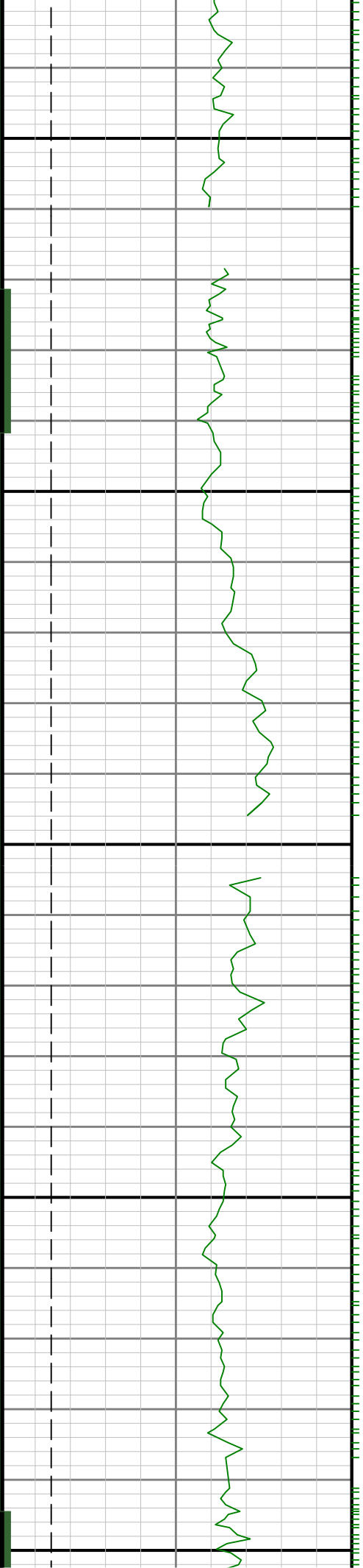


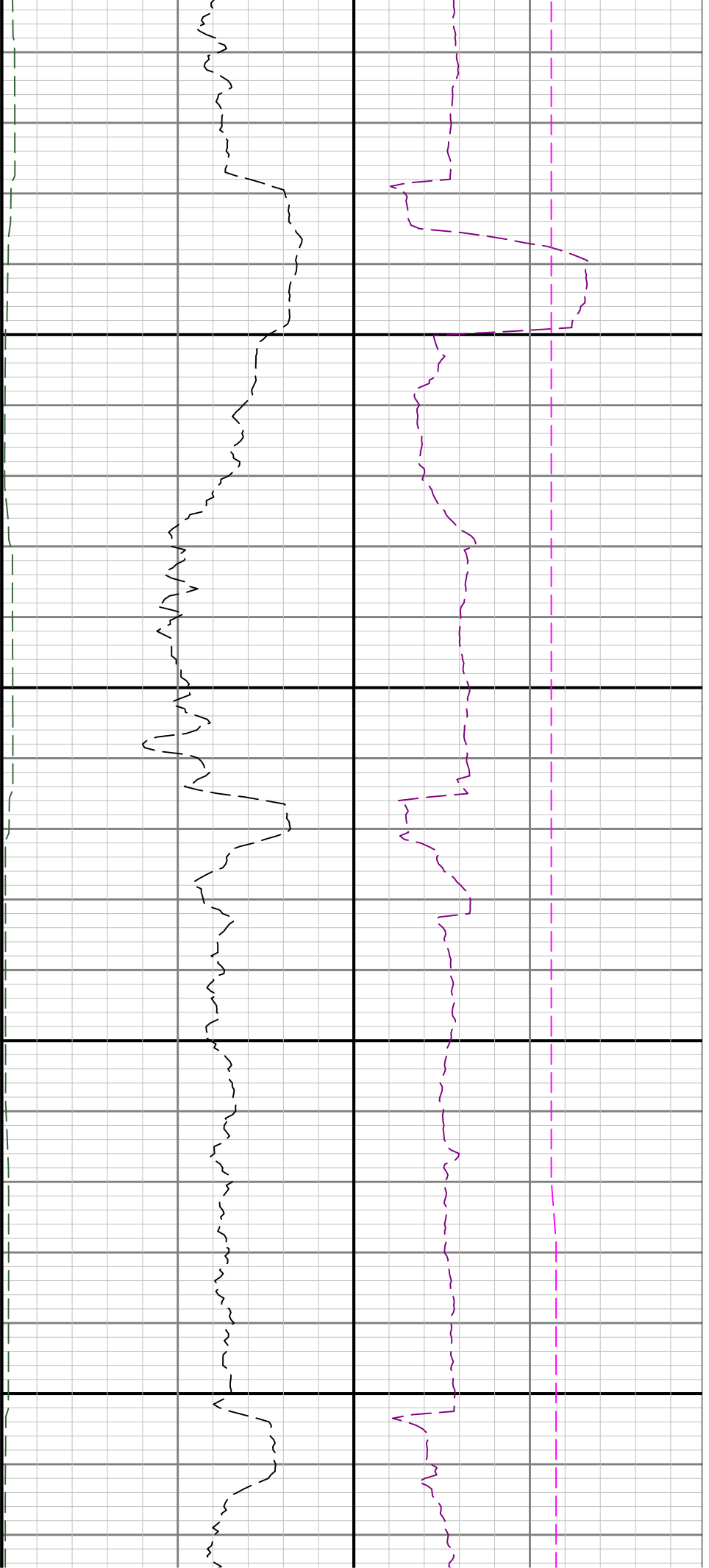




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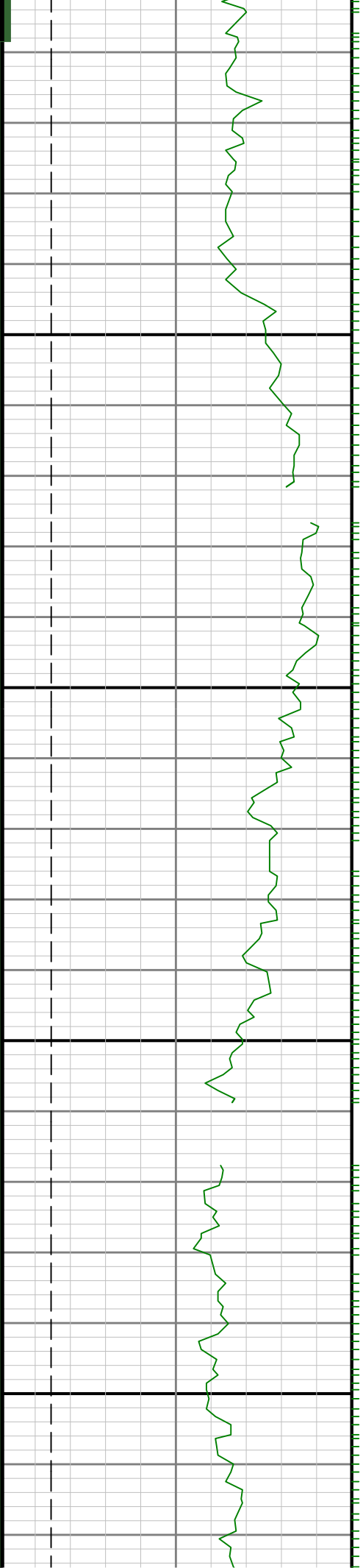
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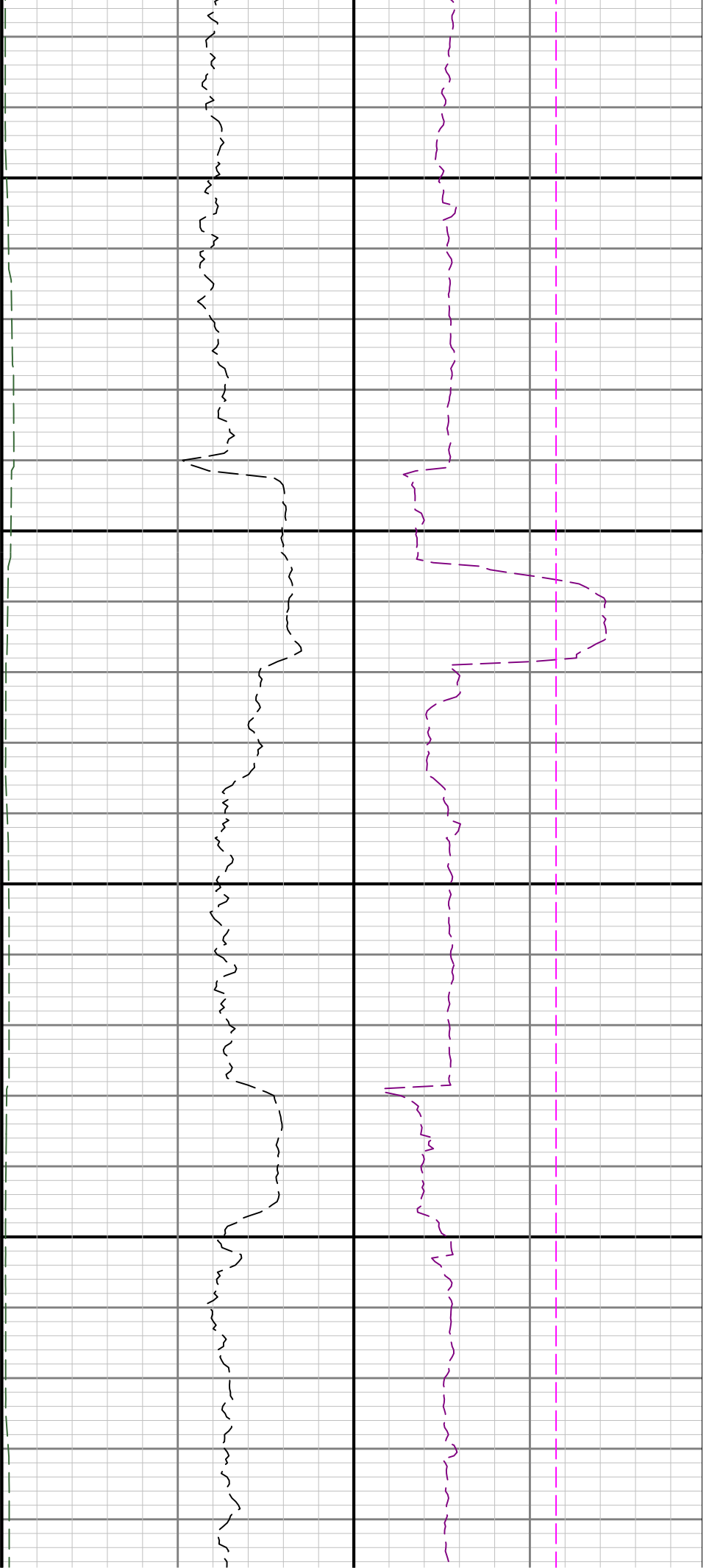




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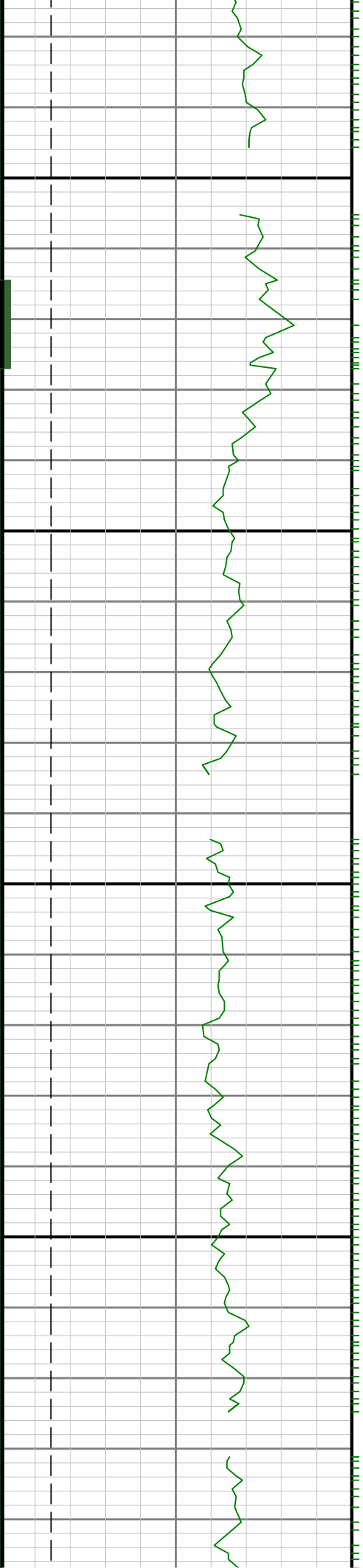
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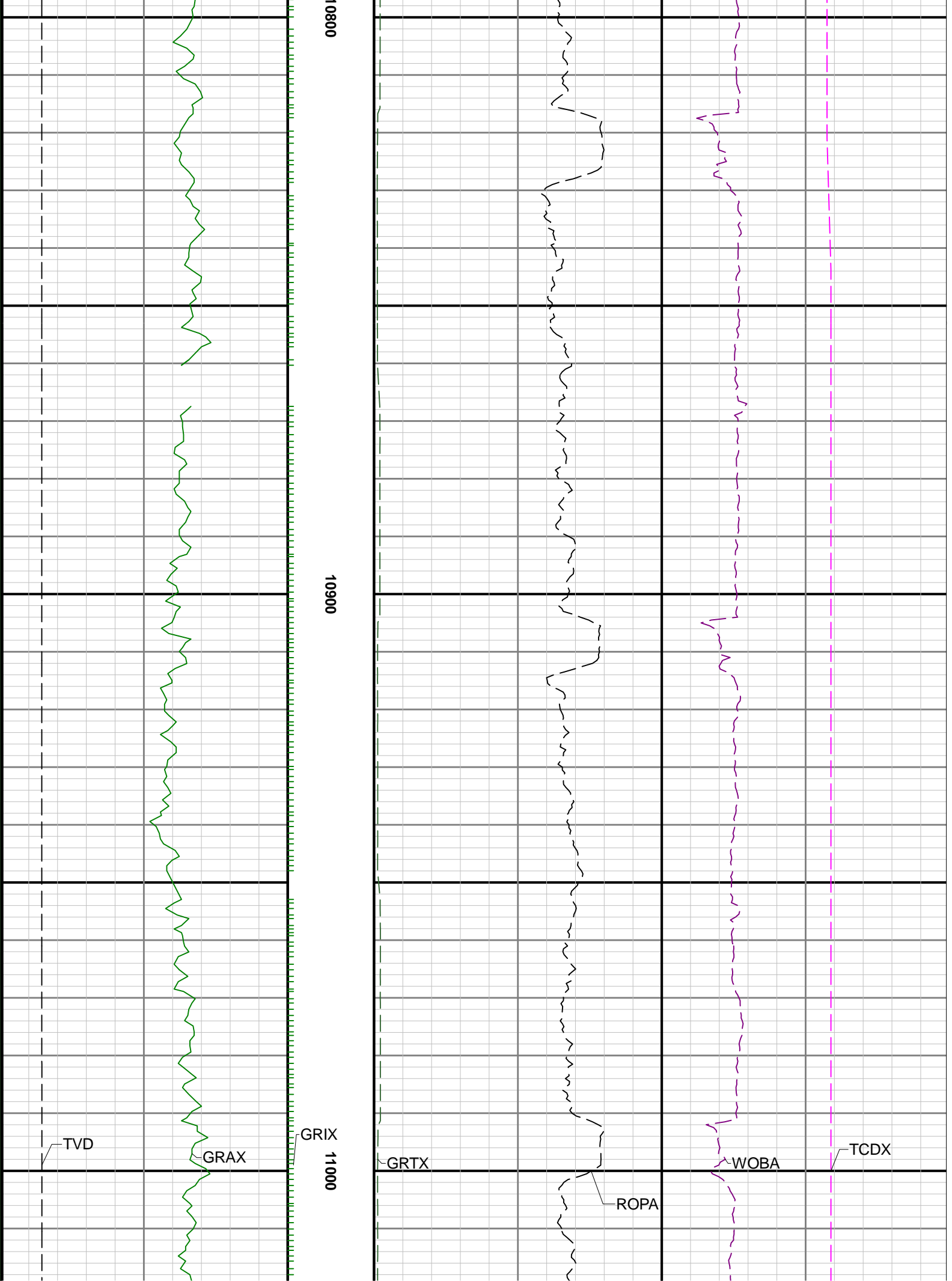


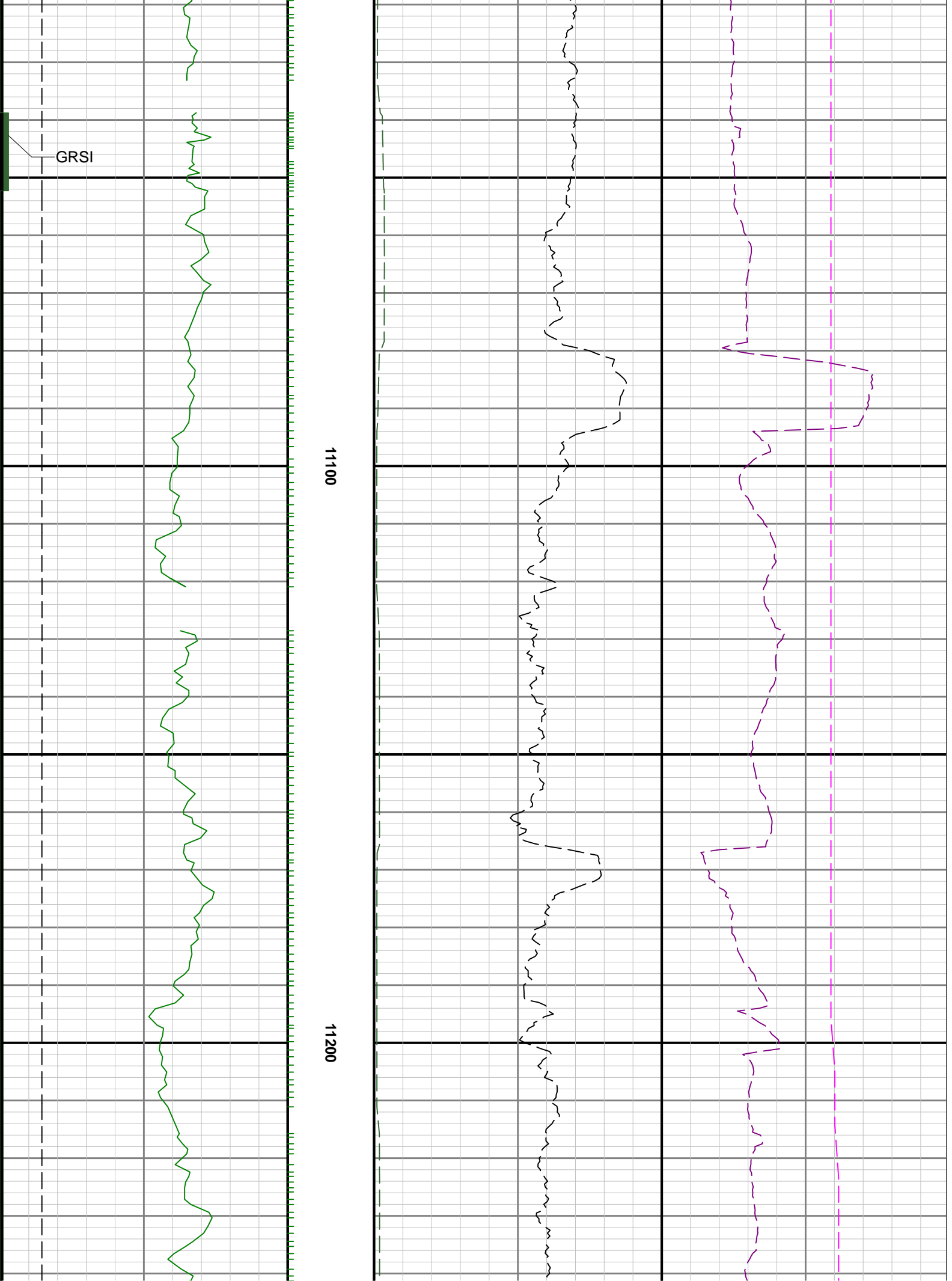


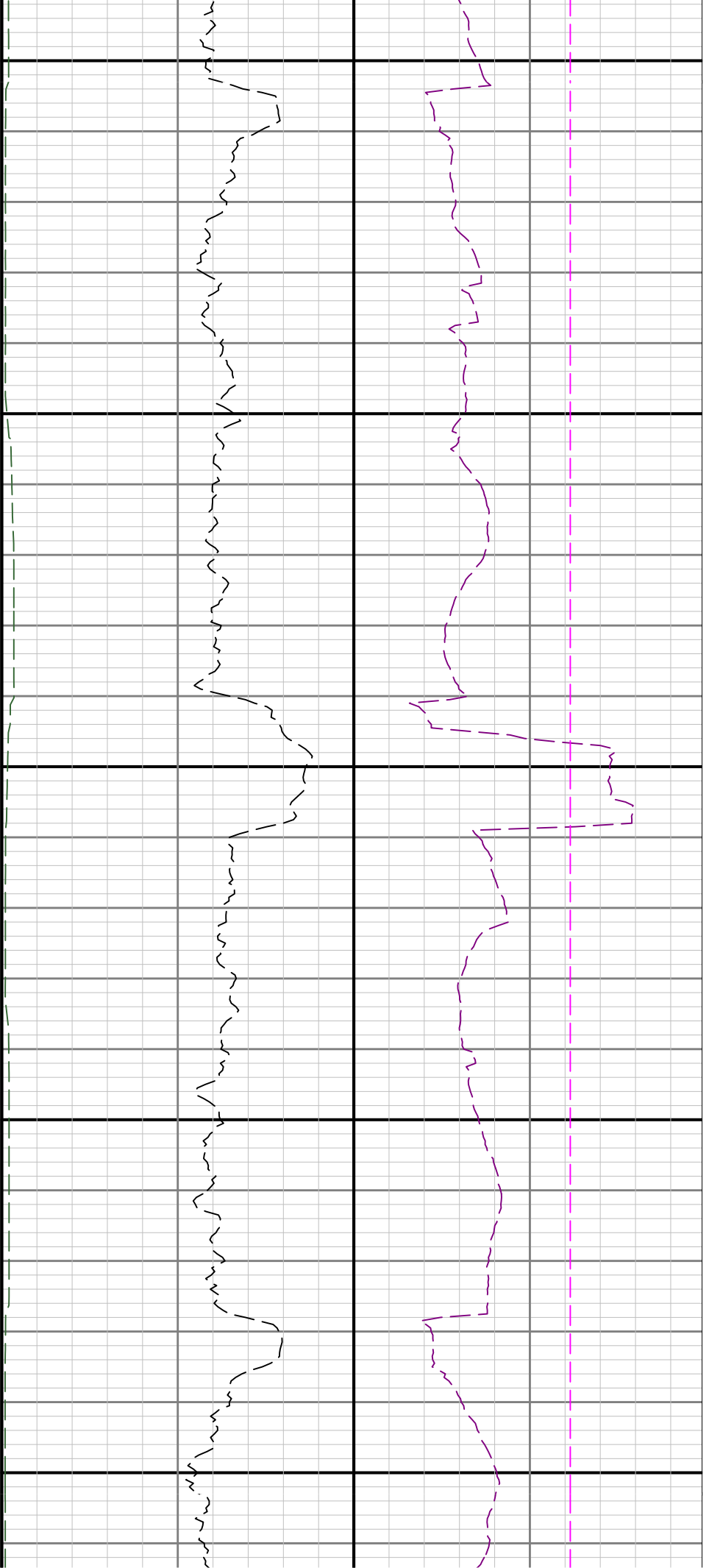
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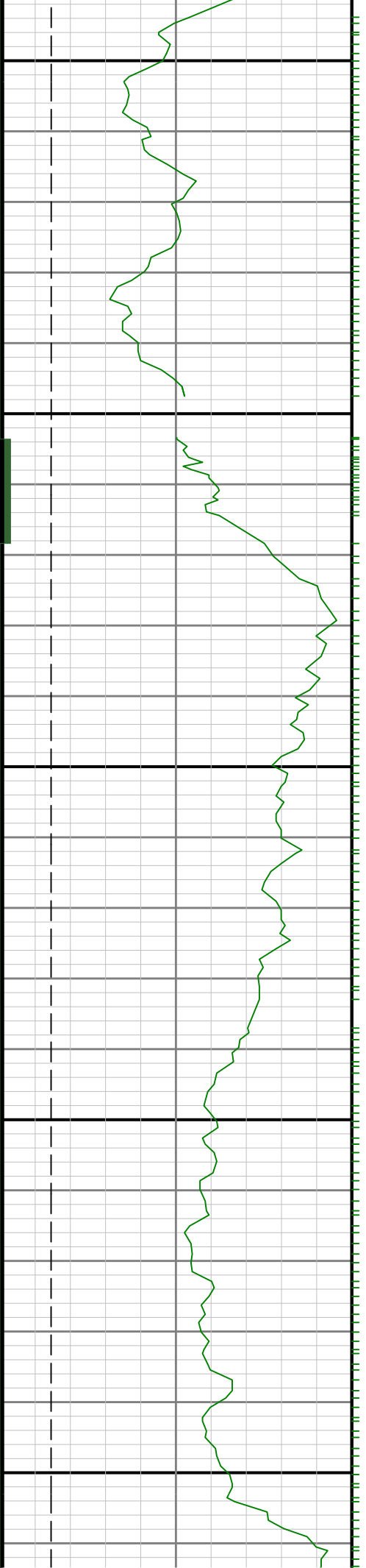


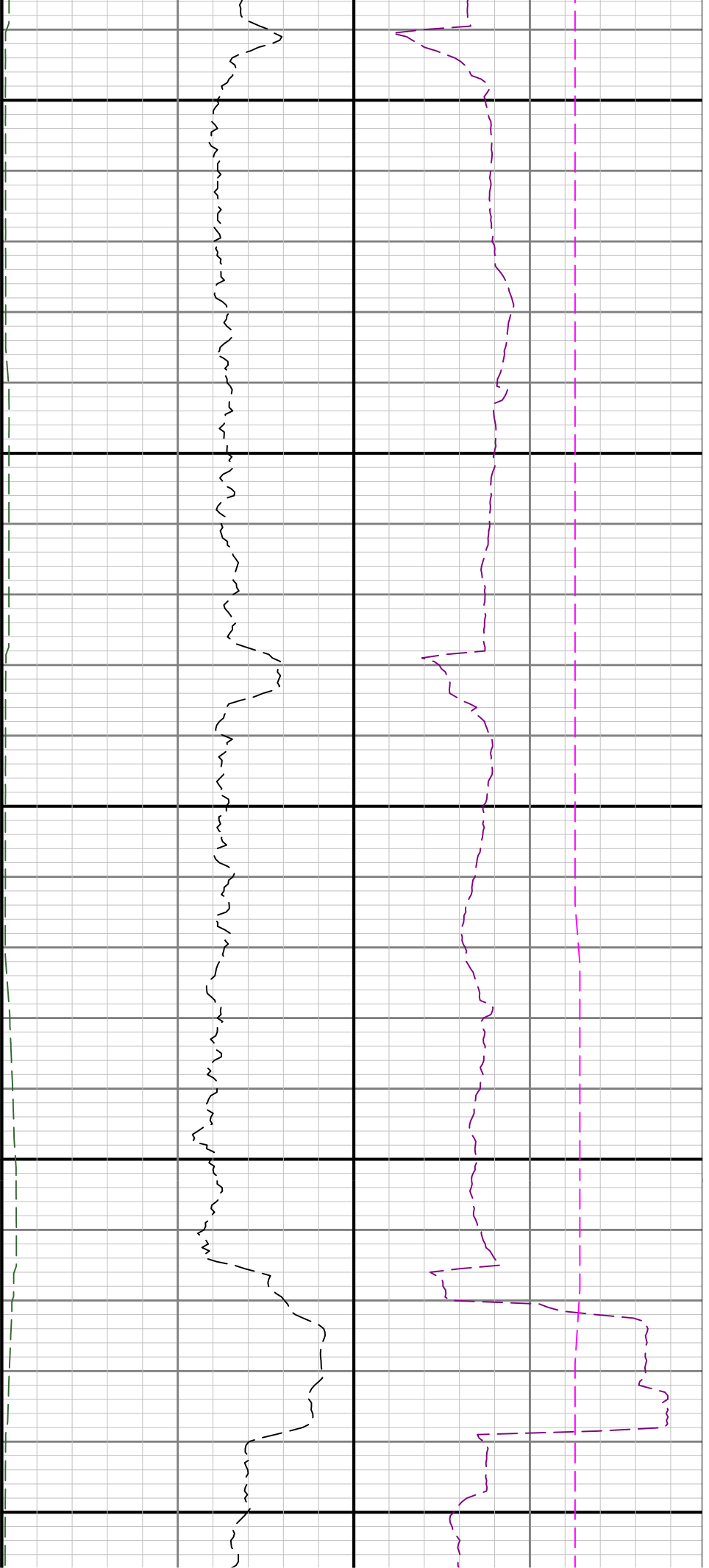




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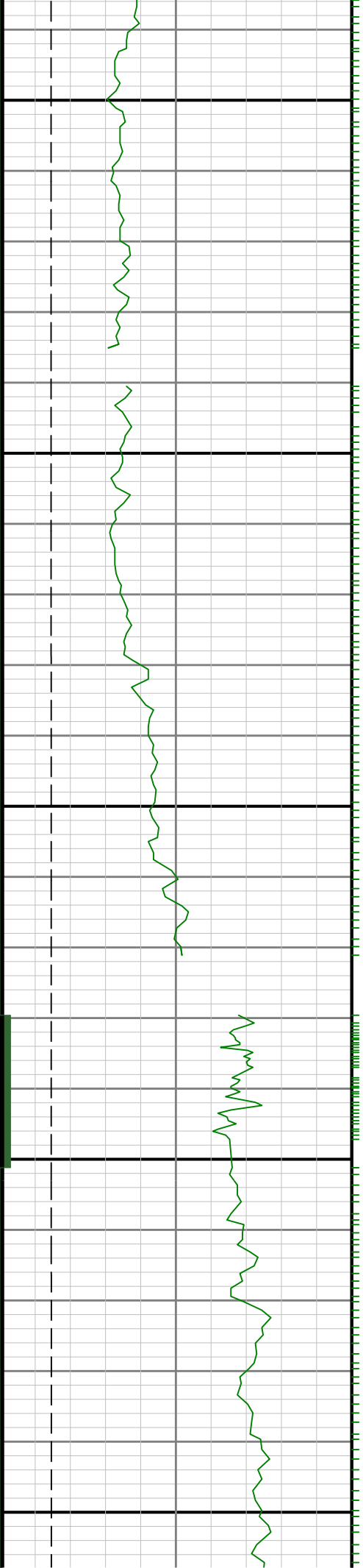


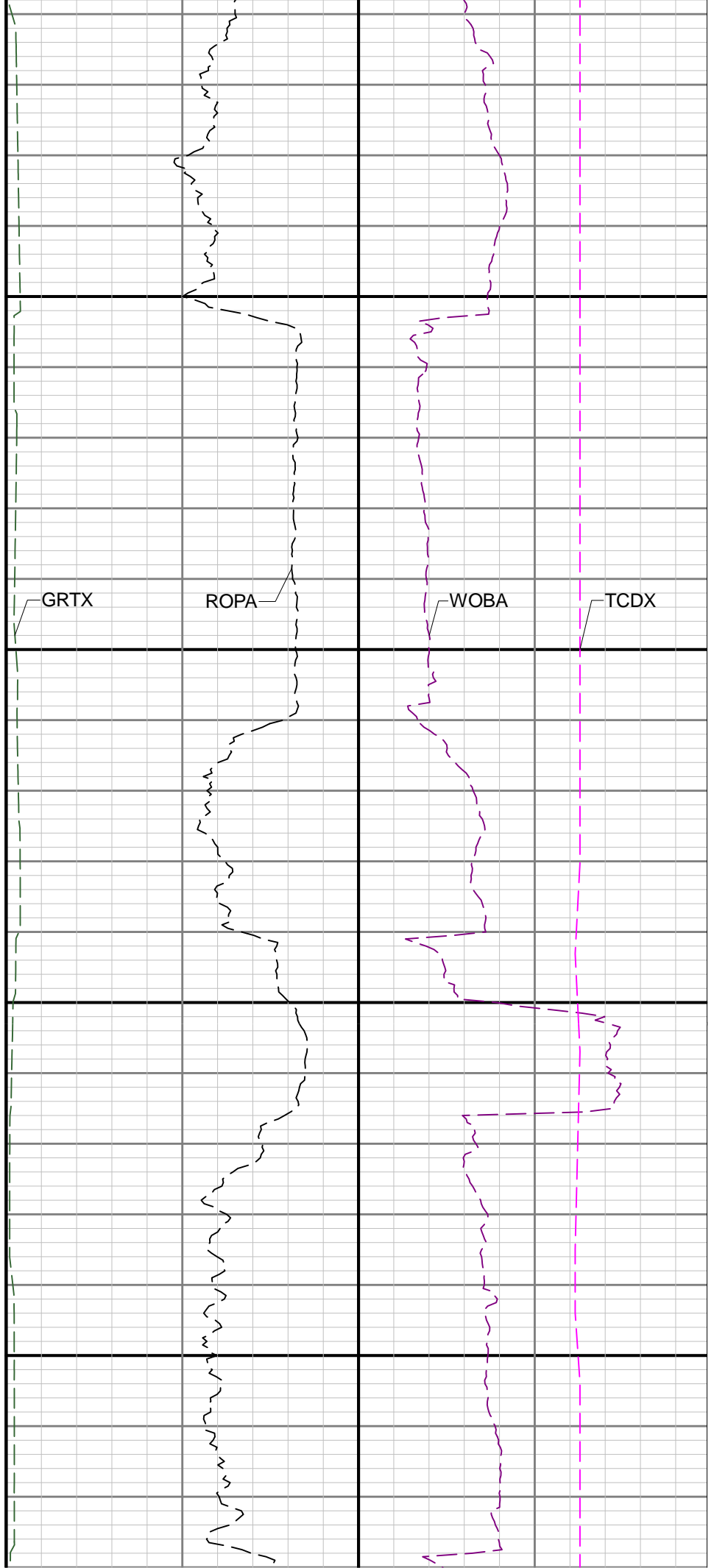
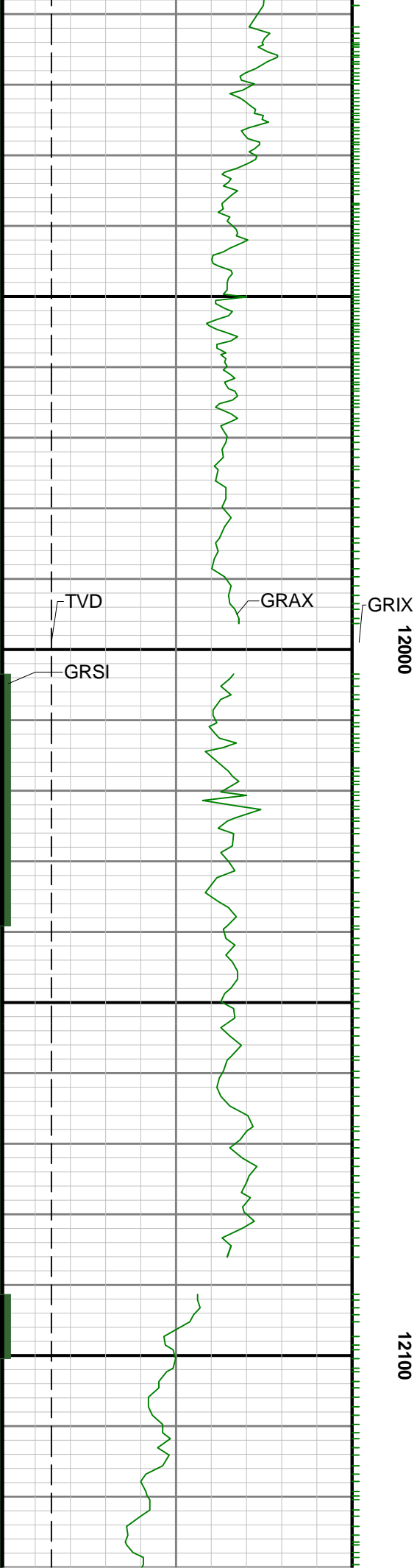


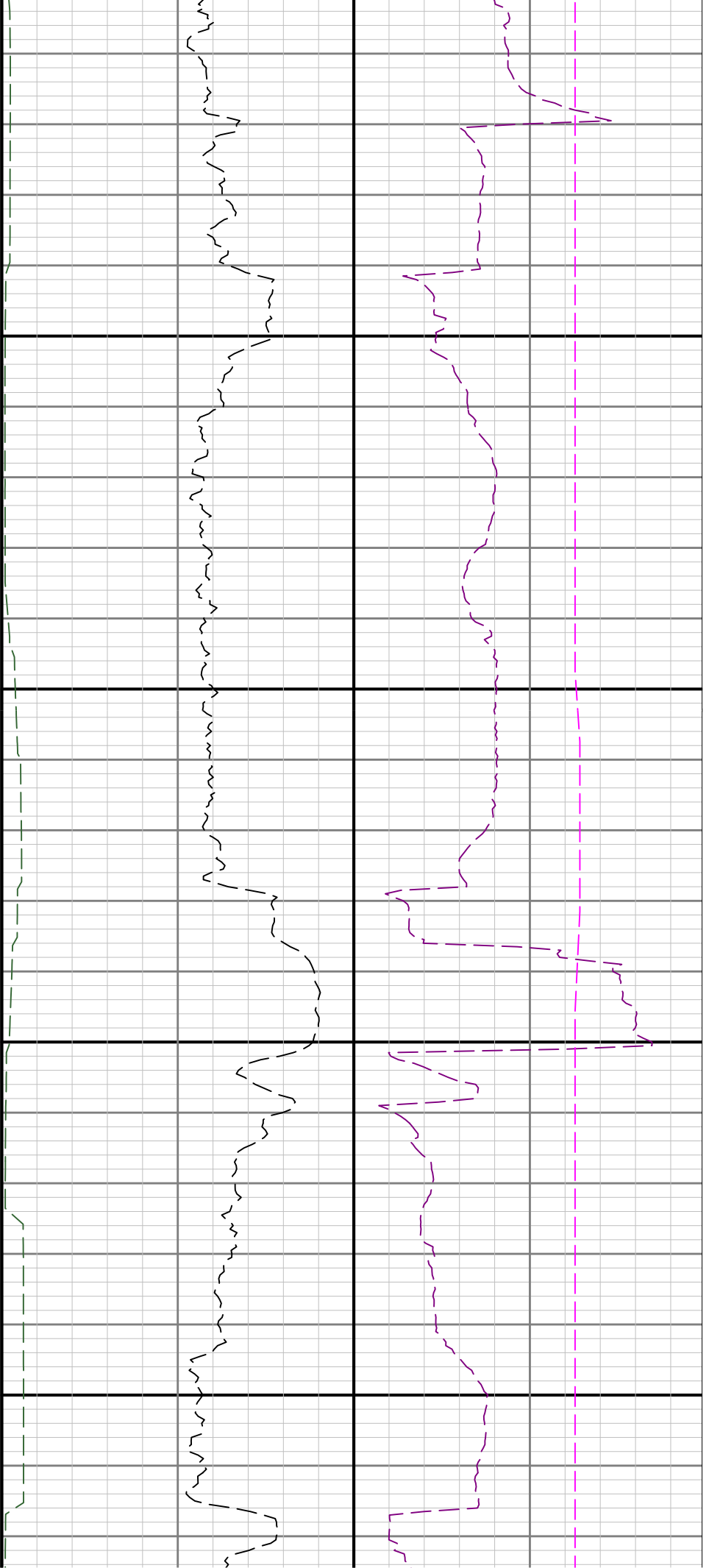
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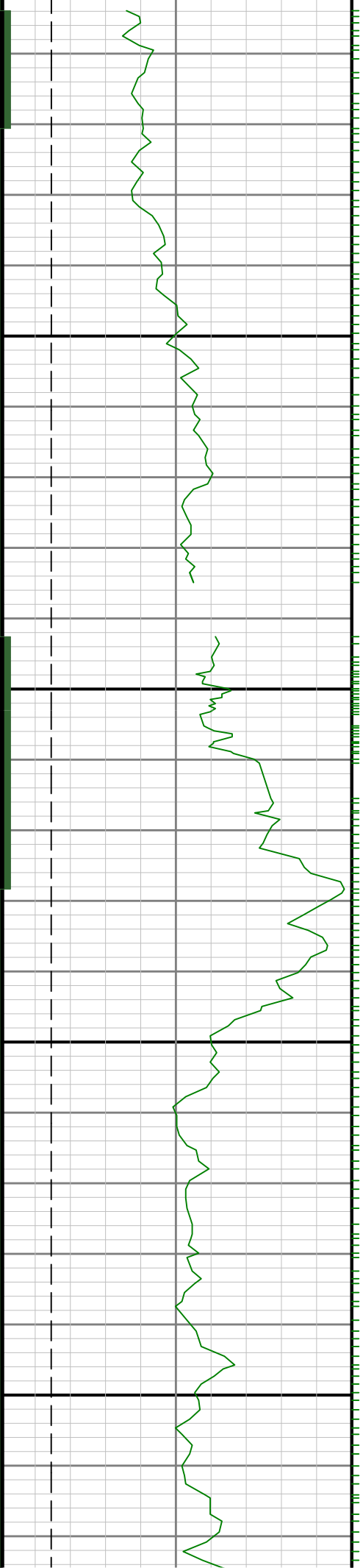


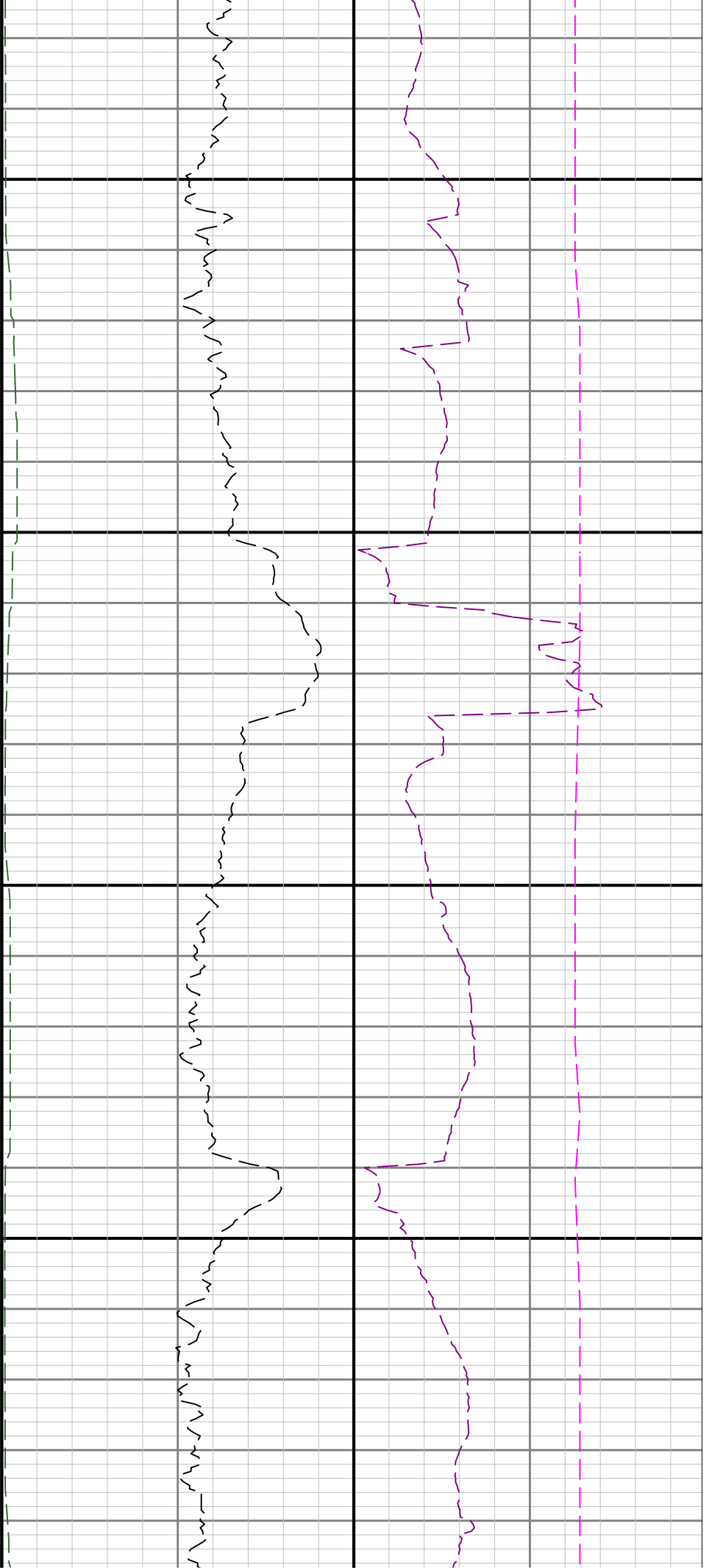




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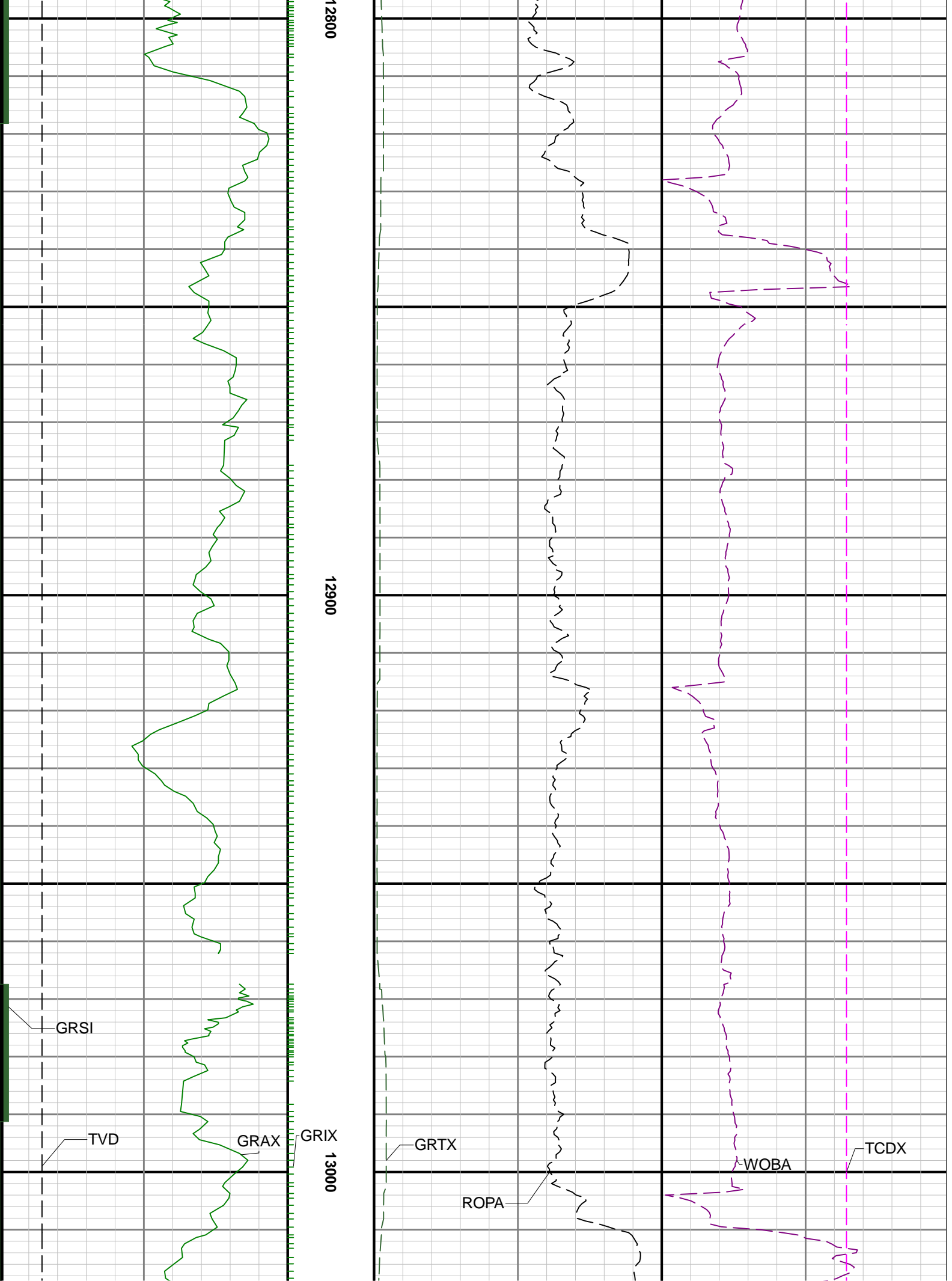
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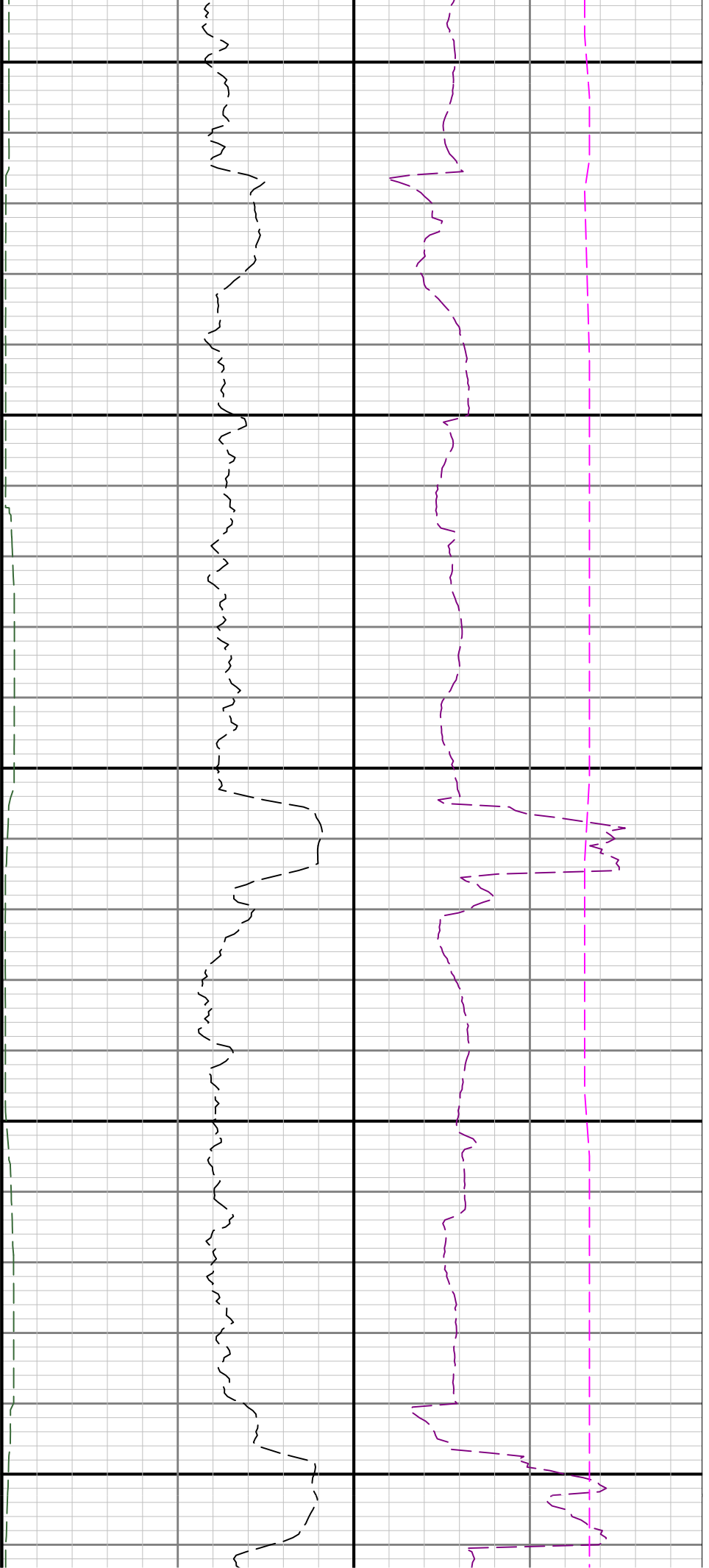




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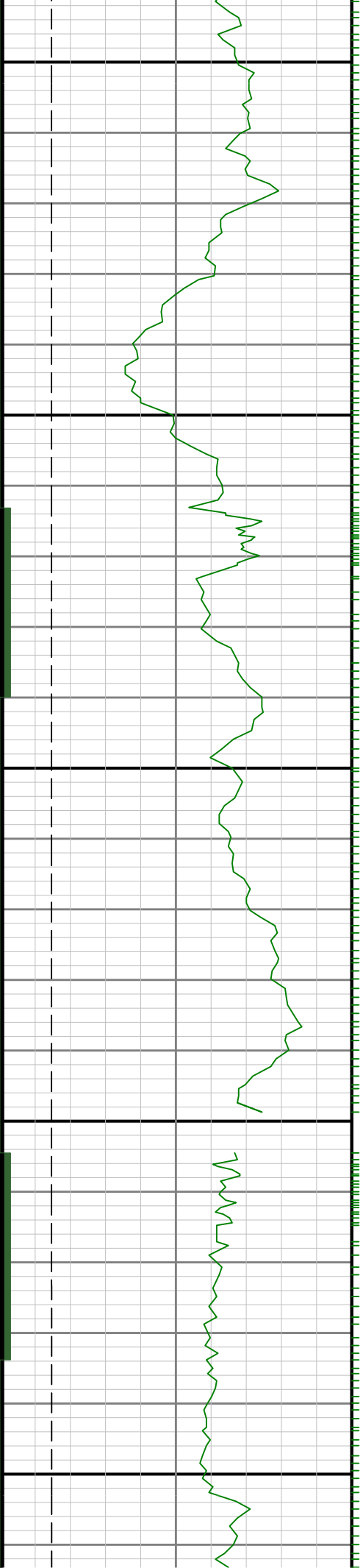
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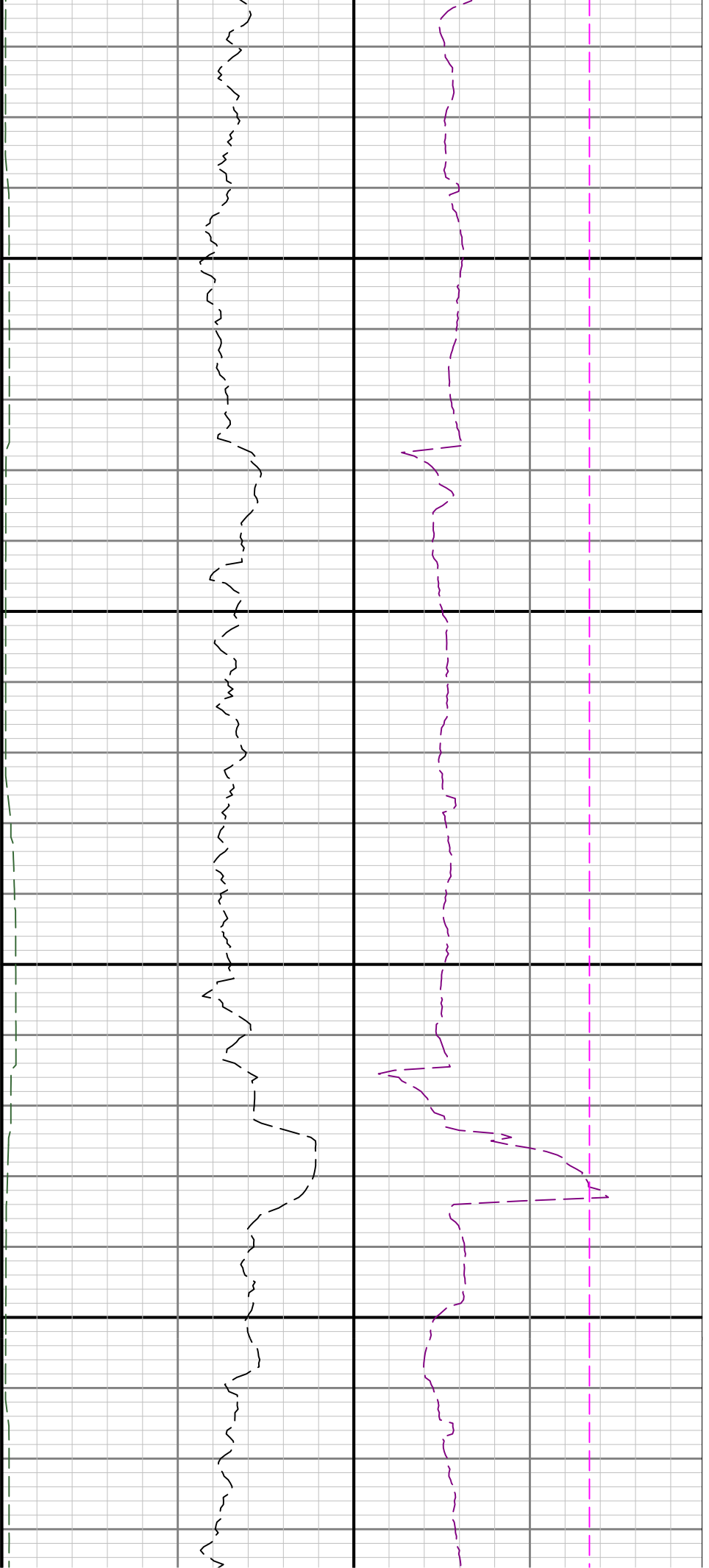




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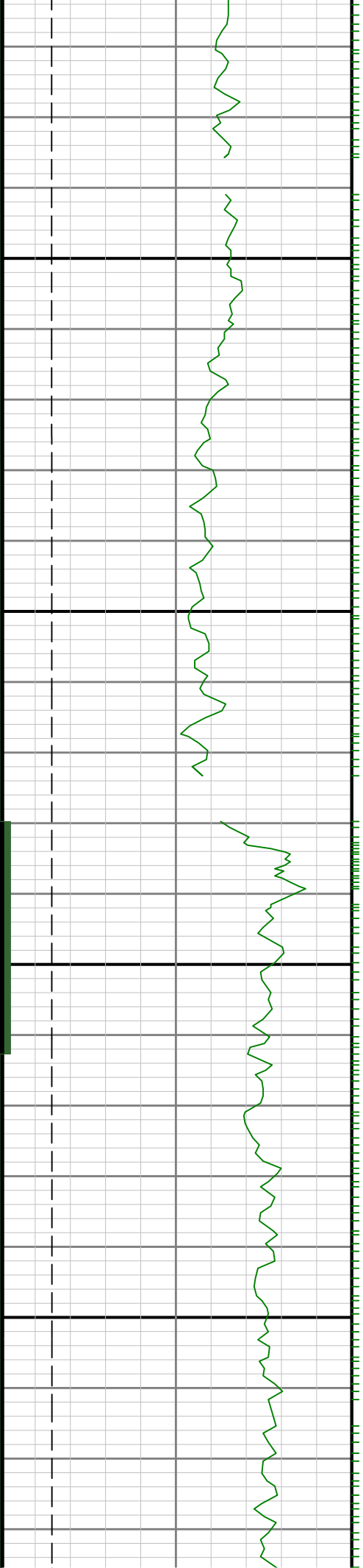
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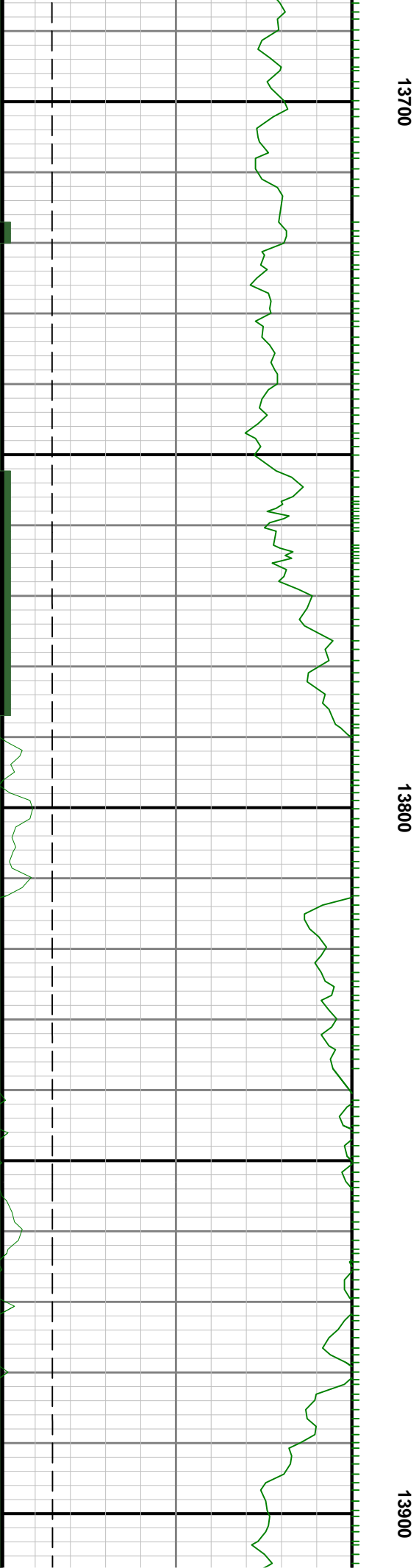
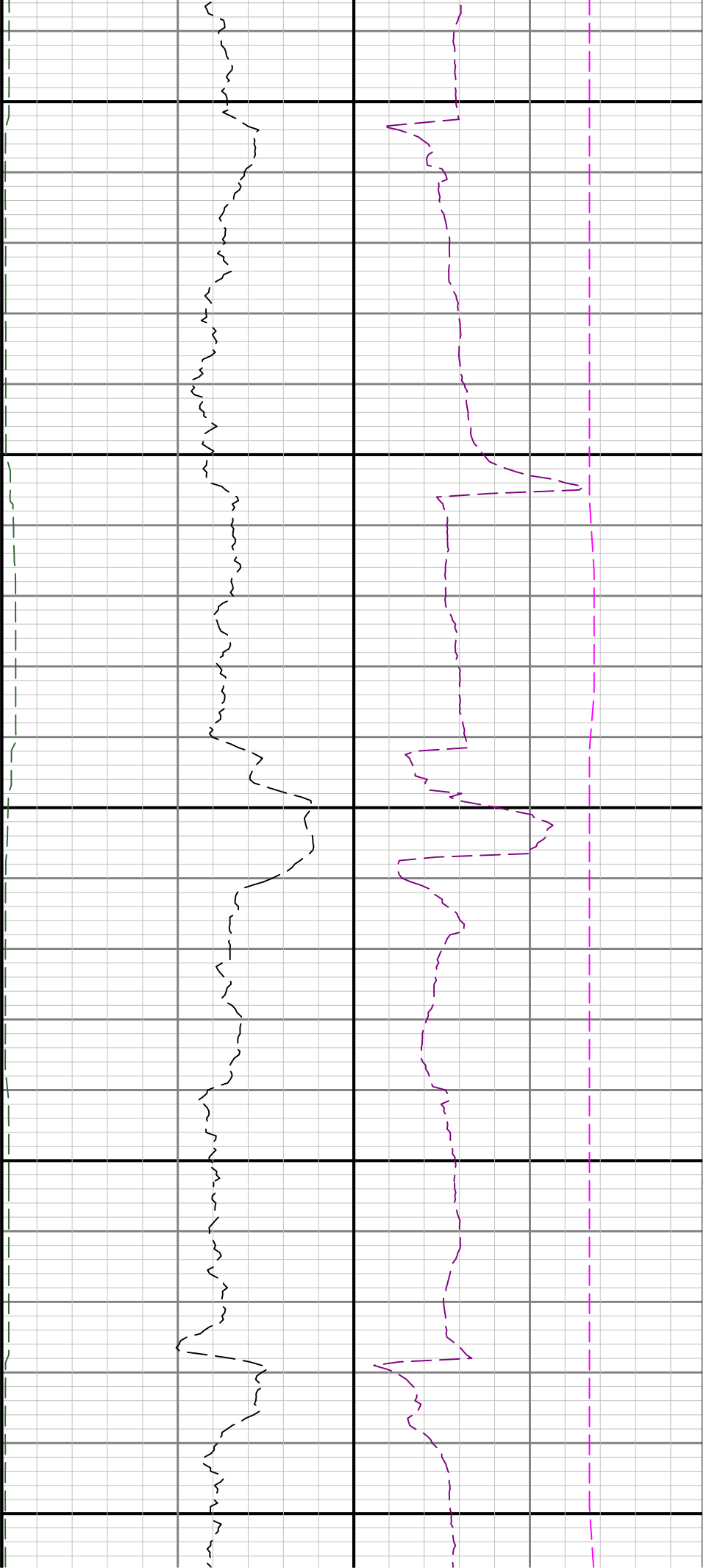


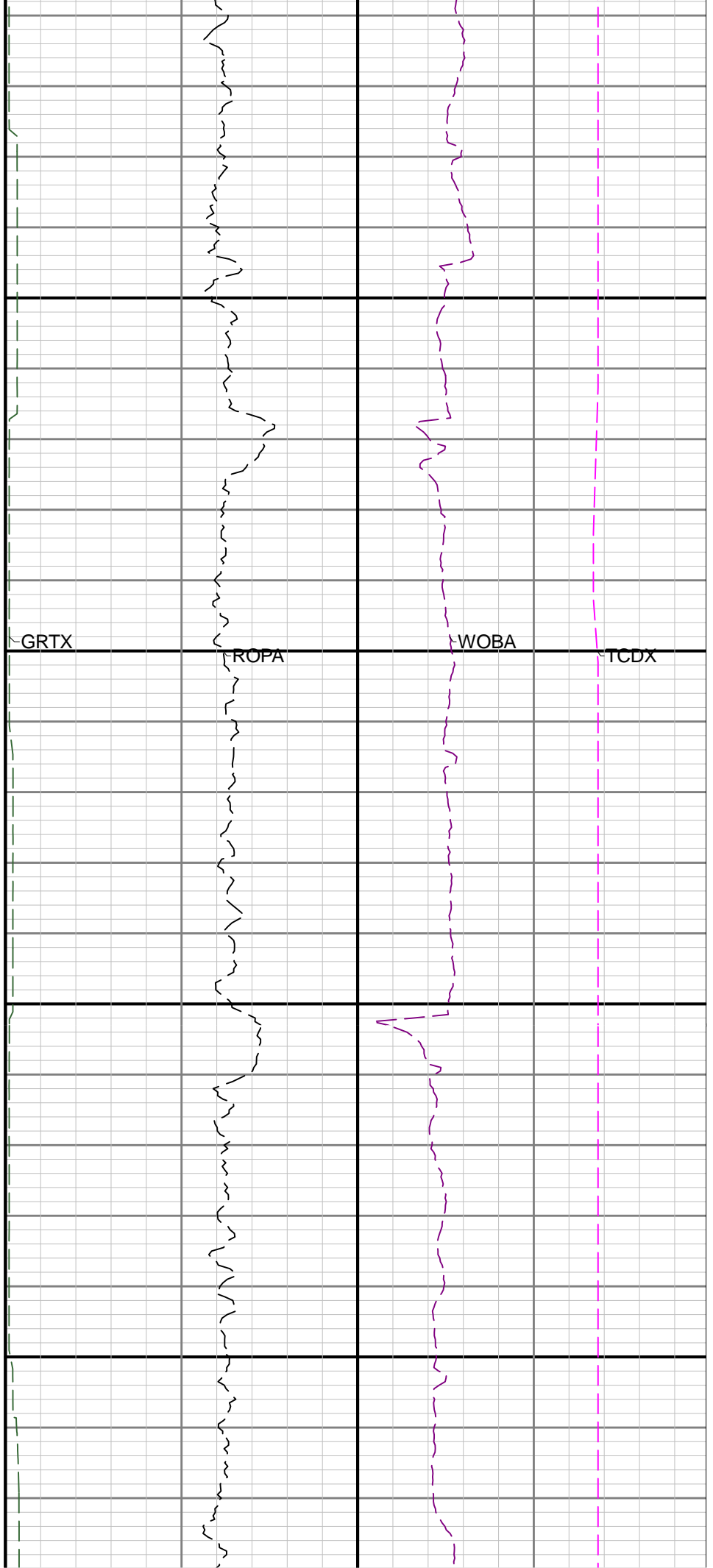
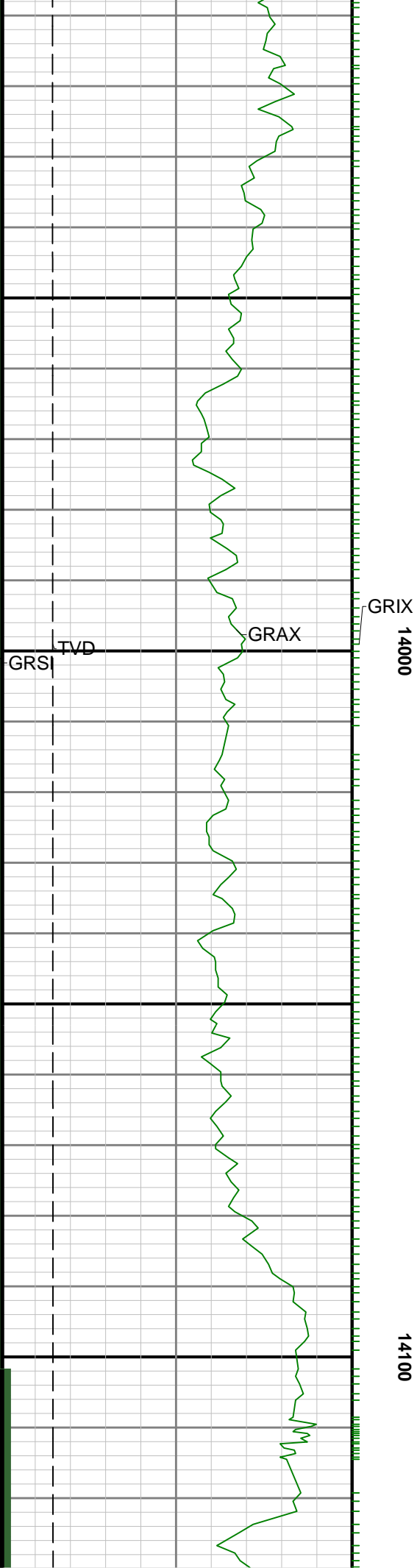


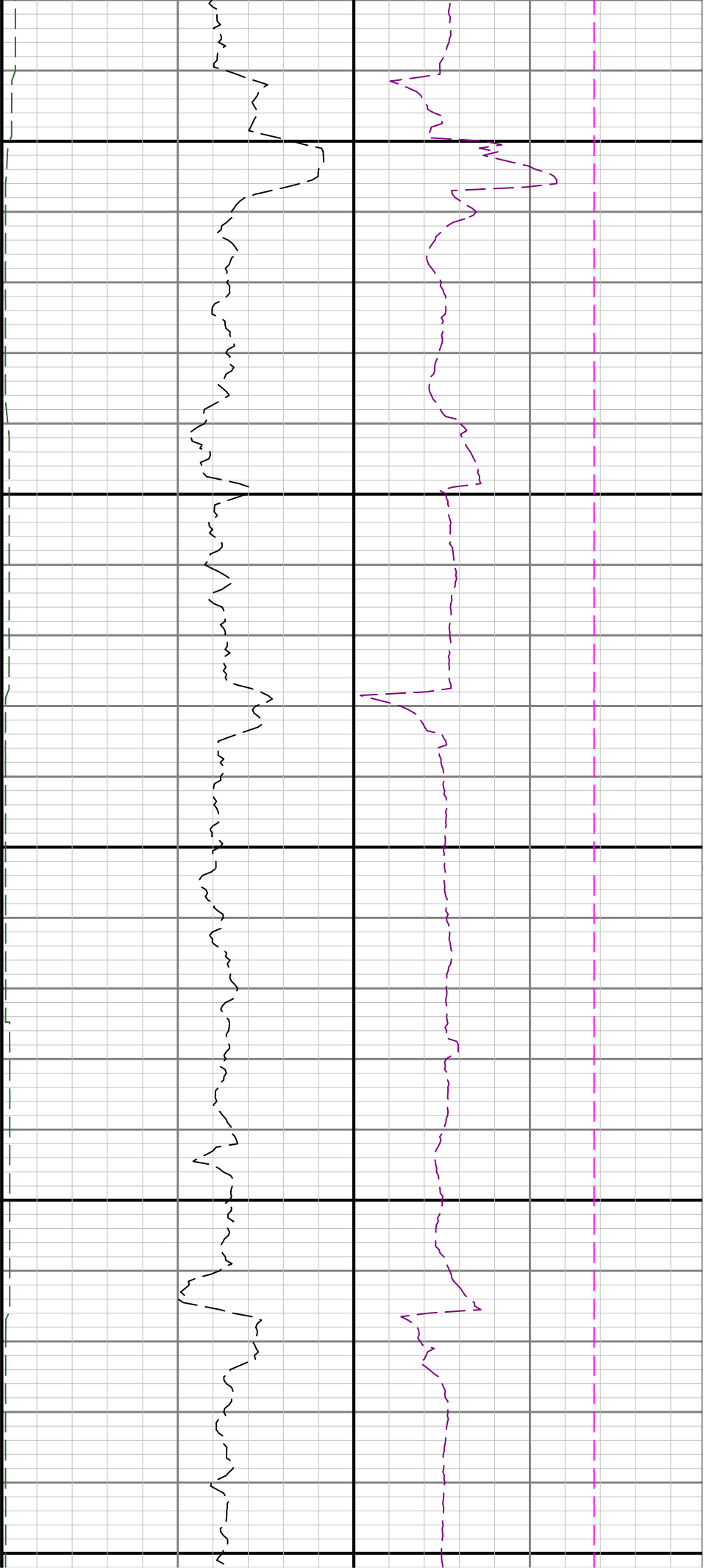
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13600



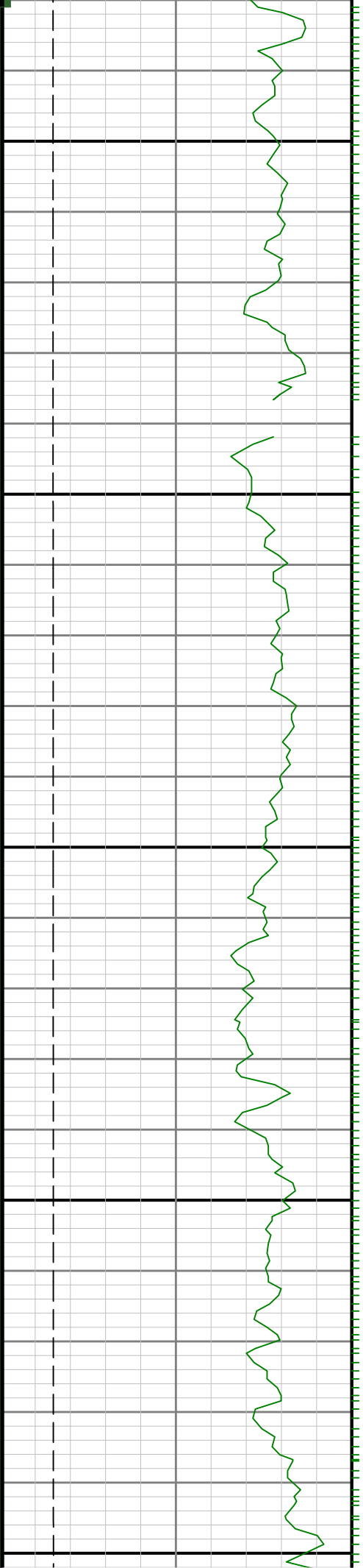


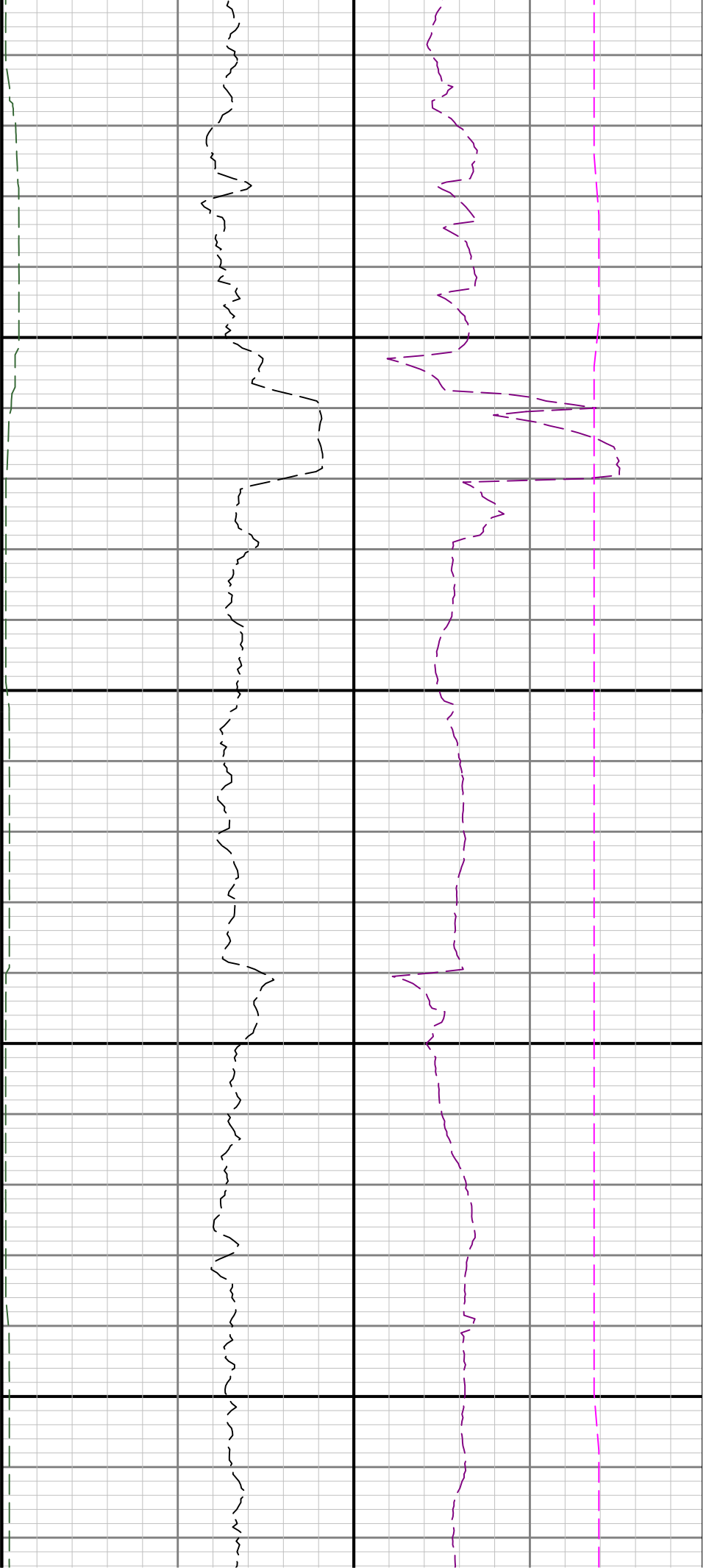




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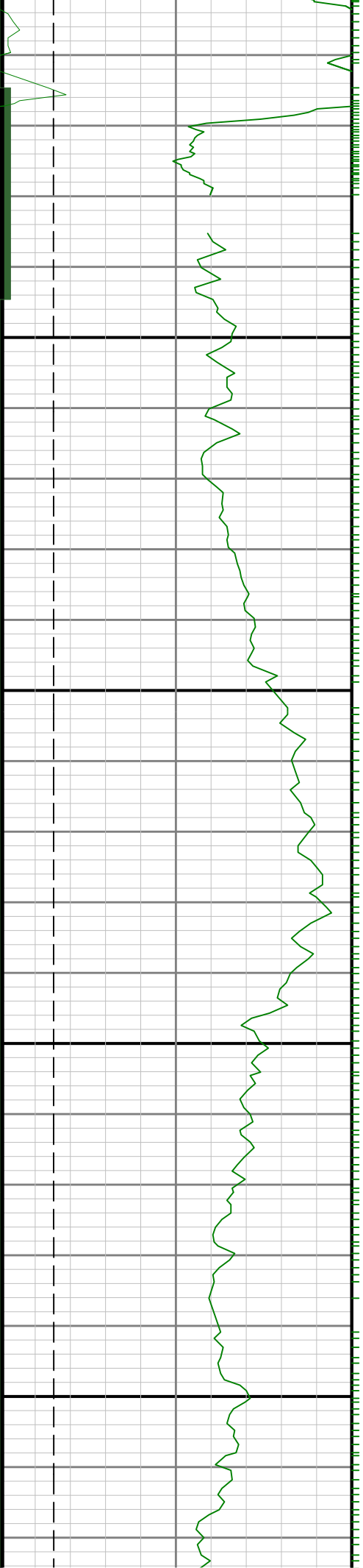
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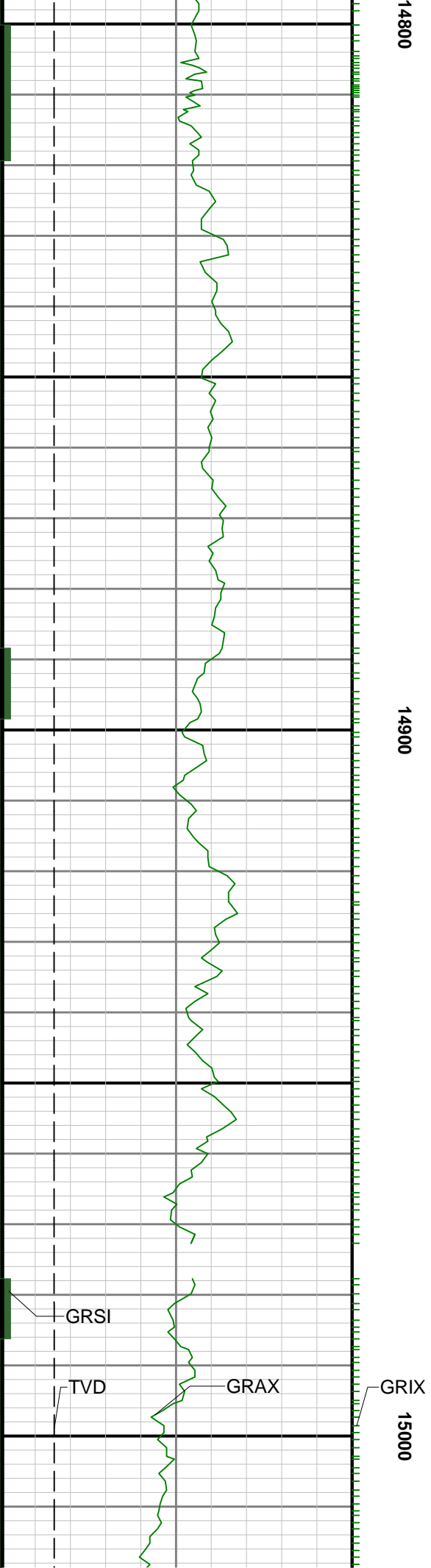
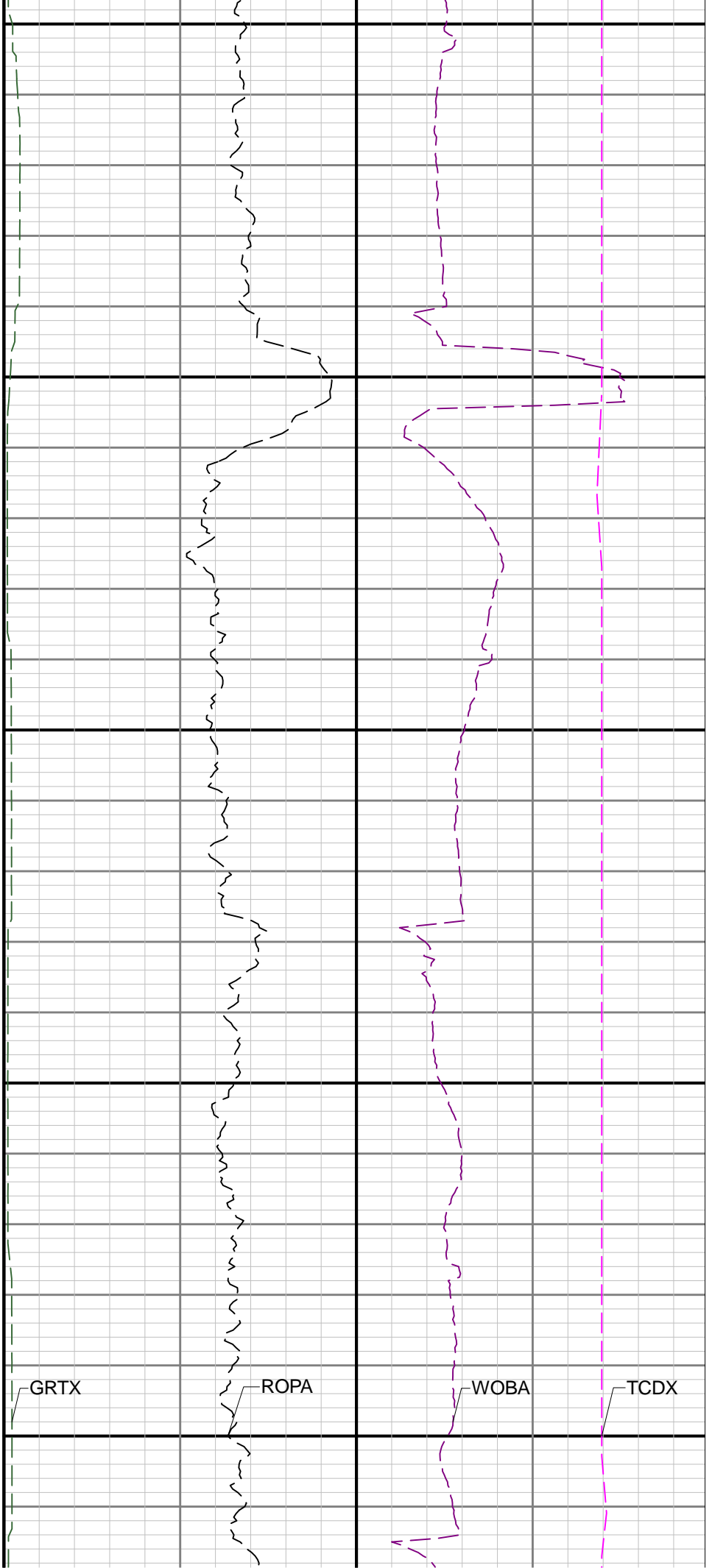


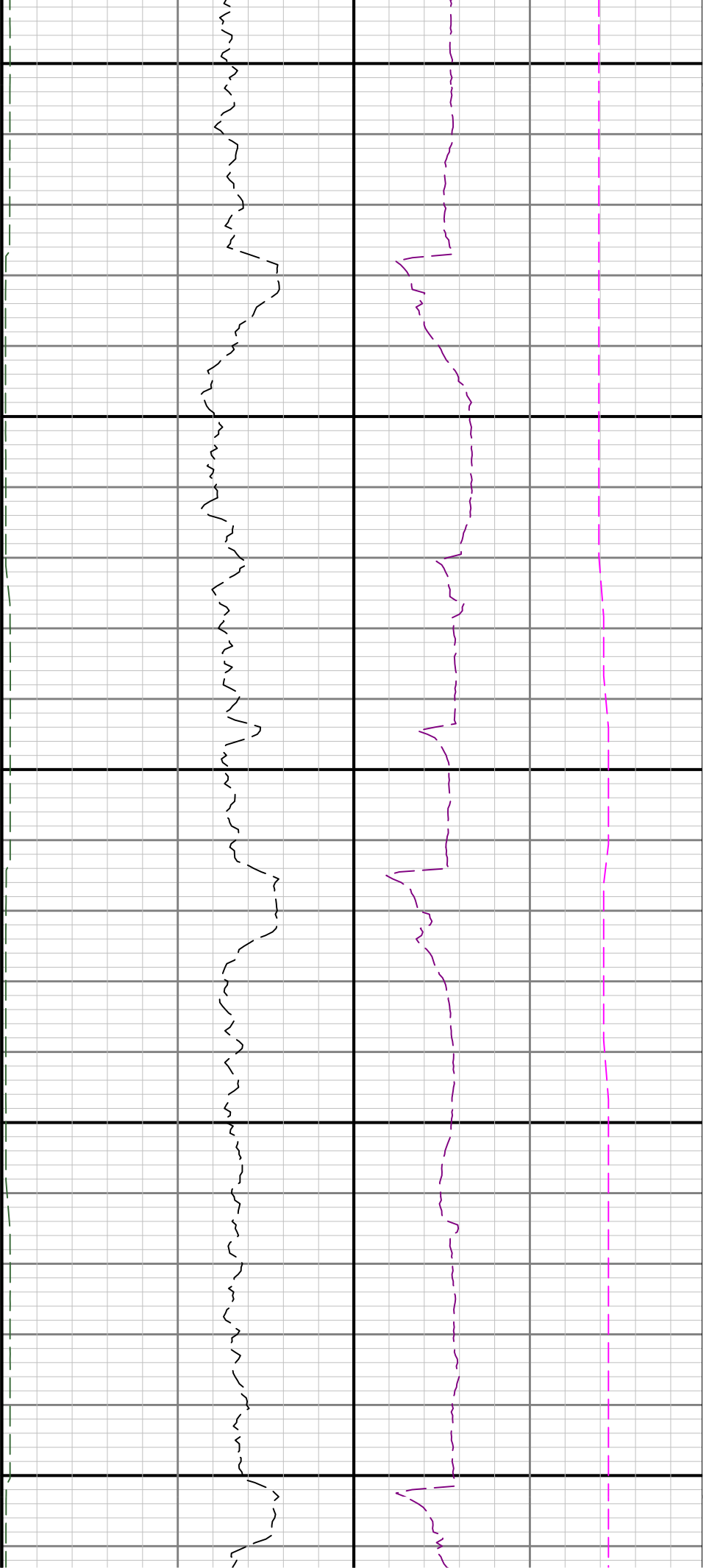


14400

14500







15300

15400

