



LWD MEMORY LOG

Gamma Ray

[illegible]

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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)			
2	2	8.500	PDC	3.00	AutoTrak Curve	1829.00	10317.00	1829.00	10329.00	2018-09-17 04:52	2018-09-18 19:43	32.57
3	3	8.500	PDC	3.00	AutoTrak Curve	10317.00	14912.00	10329.00	14925.00	2018-09-19 12:36	2018-09-20 13:33	27.19

Crew

Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite
Doug Ruscoe	2018-09-16	2018-09-18	Garrett Gerdson	2018-09-18	2018-09-21			

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+ (%)
2018-09-17 01:00	2	1841.00	Oil Based Mud	9.7	19	N/A	8.0	79/21	Active Pit	42000	0.00
2018-09-18 03:30	2	7470.00	Oil Based Mud	9.6	20	N/A	16.0	79/21	Active Pit	41000	0.00

2018-09-20 03:30	3	13280.00	Oil Based Mud	10.0	25	N/A	12.0	78/22	Active Pit	42000	0.00
2018-09-21 03:00	3	14925.00	Oil Based Mud	10.0	27	N/A	13.0	76/24	Active Pit	41000	0.00

Equipment and Service Data

Run No.	Tool	Serial Number	Measurement	Sensor Offset (ft)	Bit Offset (ft)	Max O.D. (in)	Min I.D. (in)
2	ATC_SU	14236914	Near Bit VSS	5.93	6.73	7.000	4.330
2	ATC_SU	14236914	Near Bit Inclination	5.93	6.73	7.000	4.330
2	ATC_MWD	12965732	Gamma (single)	2.20	12.34	7.000	3.250
2	ATC_MWD	12965732	Directional (mag)	12.27	22.41	7.000	3.250
3	ATC_SU	14306237	Near Bit Inclination	5.93	6.73	7.000	4.330
3	ATC_SU	14306237	Near Bit VSS	5.93	6.73	7.000	4.330
3	ATC_MWD	14146739	Gamma (single)	2.22	12.35	7.000	3.250
3	ATC_MWD	14146739	Directional (mag)	12.27	22.40	7.000	3.250

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

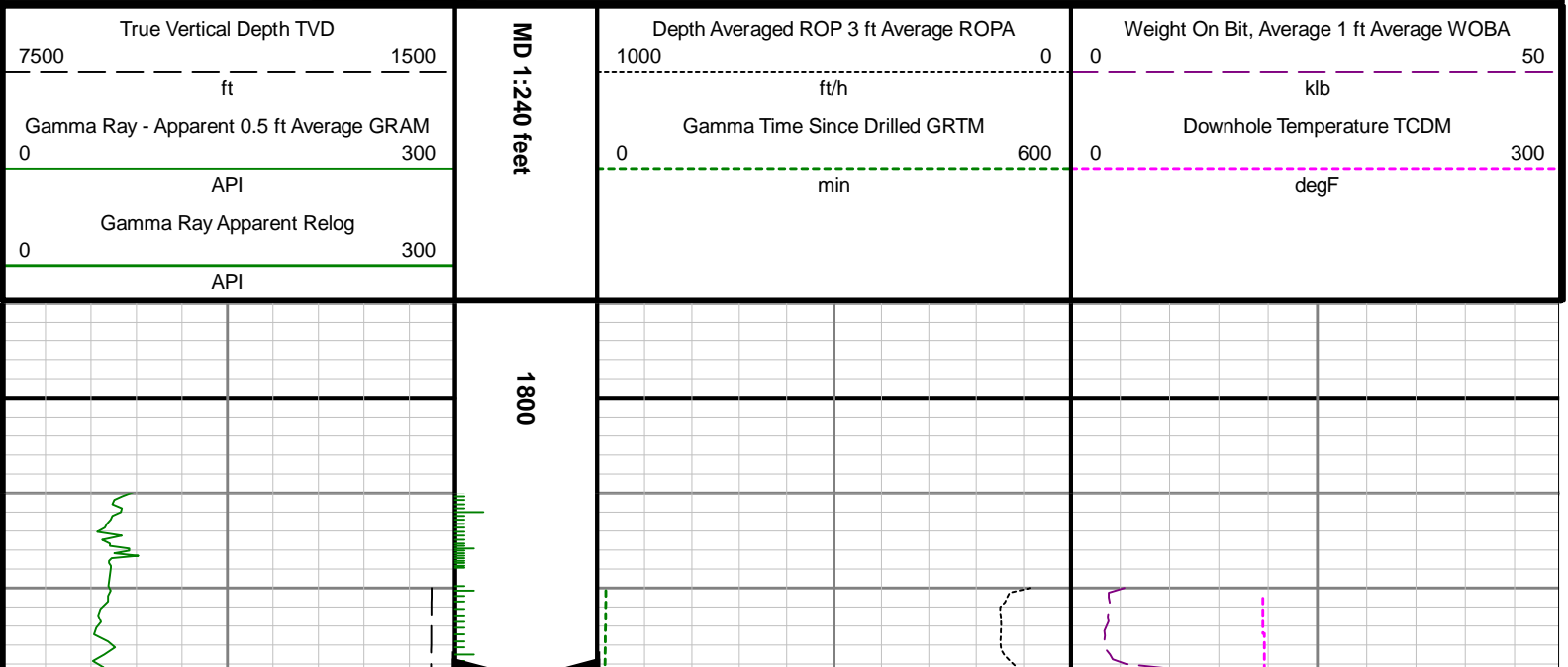
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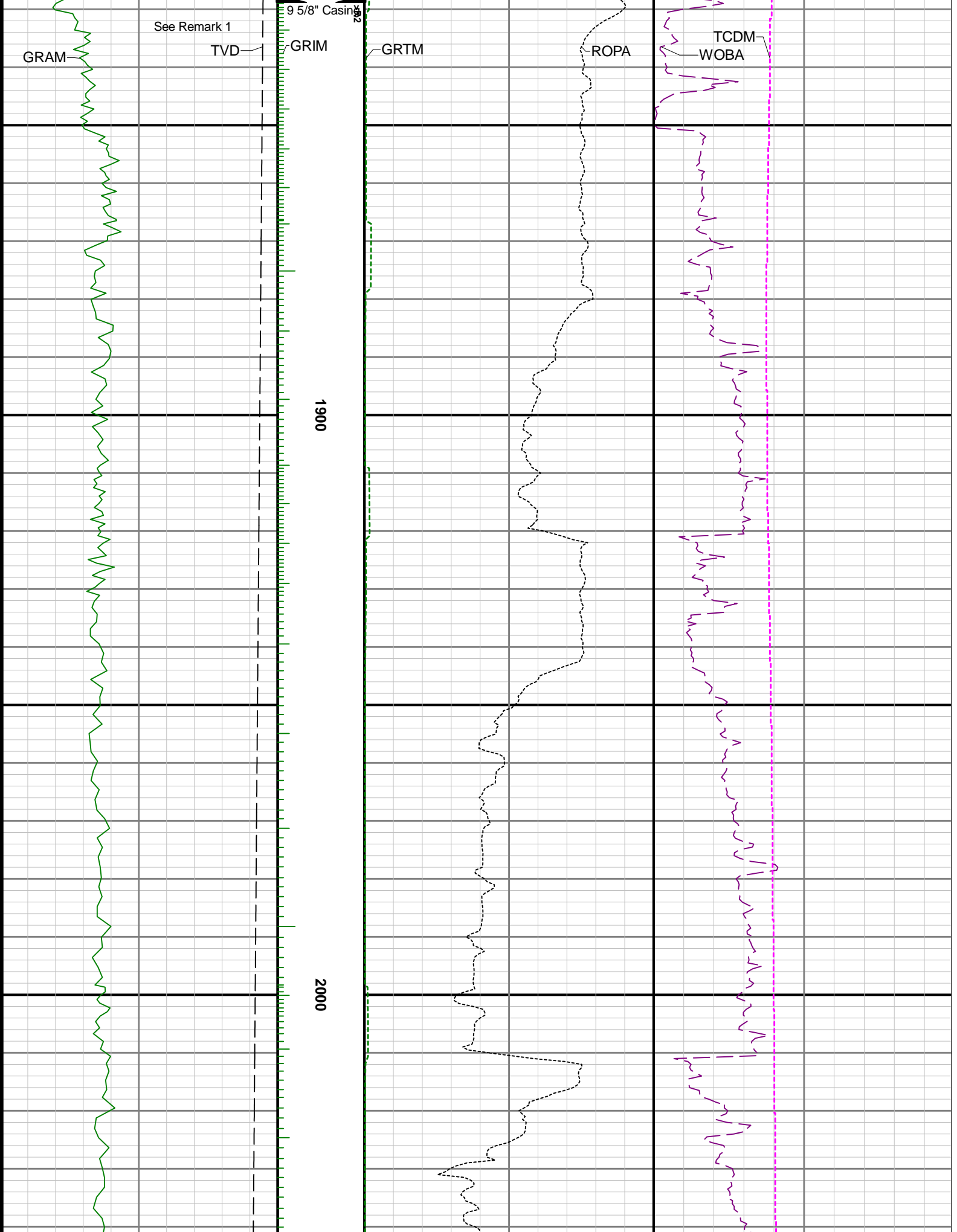
1	Depth measurements obtained from a depth control system not supplied or operated by Baker Hughes. Due to lack of control by Baker Hughes logging engineers, depth calibrations and measurements could not be independently verified.
2	Baker Hughes LWD Run 1 utilized 8 inch NaviTrak service (Directional only) behind a 13 1/2 inch bit and steerable assembly from surface to 1841 feet MD (surface to 1828 feet TVD). No logging data was acquired during this run.
3	Baker Hughes LWD Runs 2 and 3 utilized 6 ¾ inch NaviGamma services (Gamma Ray and Directional) behind an 8 ½ inch bit and rotary steerable assembly from 1841 to 14925 feet MD (1828 to 7054 feet TVD)
4	Gamma Ray Apparent (GRAM) is presented 0 to 300 API per customer request.

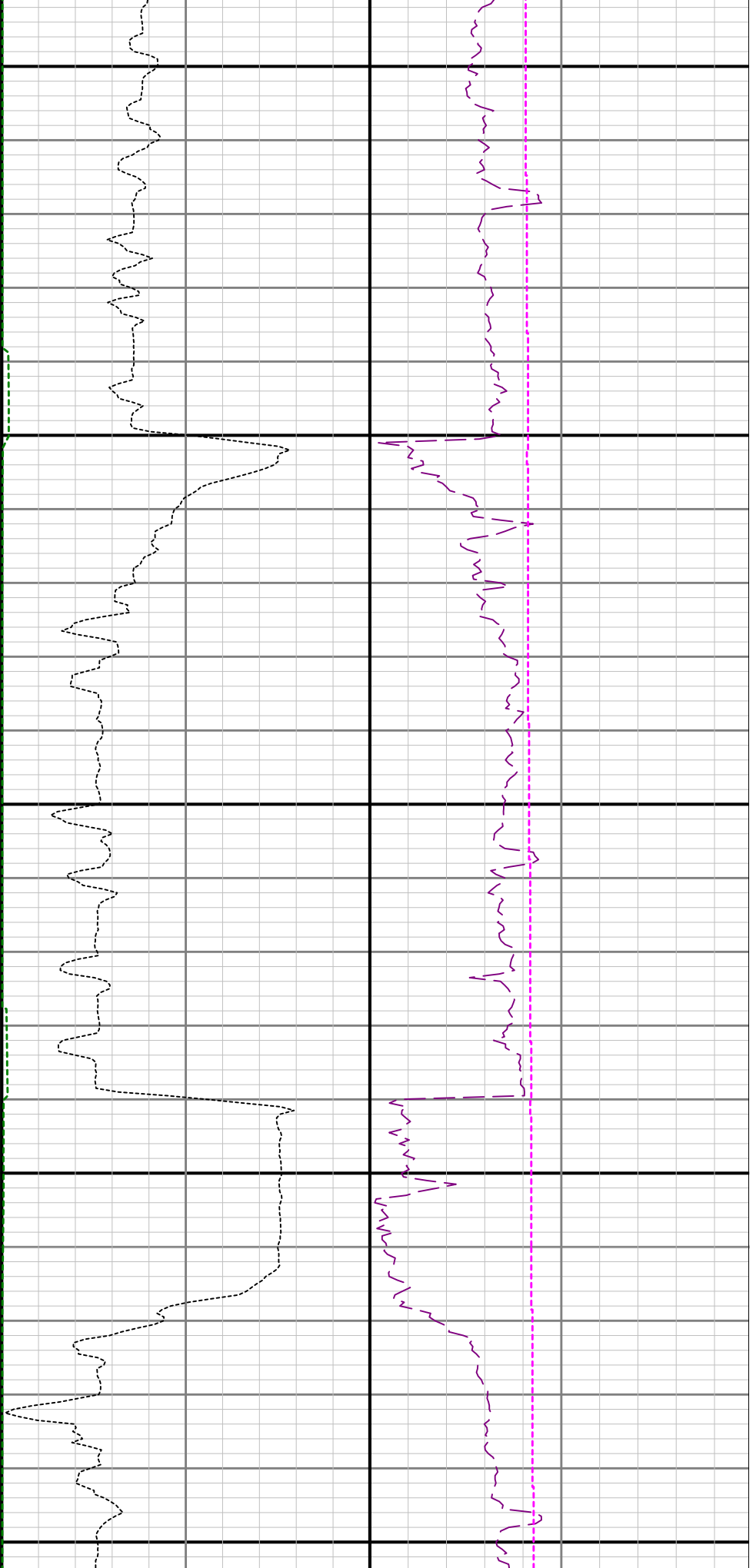
Remarks

Number	Measured Depth (ft)	Hole Section (in)	Run No.	Remark
1	1825.00	8.500	3	Gamma Ray logging operations began at 1821 feet (1808 feet TVD).
2	10315.00	8.500	3	The interval from 10260 to 10329 feet MD (7065 feet TVD) surface data was logged up to 17.8 hours after being drilled due to a trip out of the hole for a tool failure.
3	14917.00	8.500	3	The interval from 14912 to 14925 feet MD (7054 feet TVD) was not logged due to sensor to bit offset at well TD.

<div> <div>BAKER HUGHES</div> <div>a GE company</div> </div>	Company	SRC Energy	
	Well	Troudts 40N-23C-M	
	Interval	Date From: 2018-09-17 03:25	Top: 1820.00 ft
	Created	Date To: 2018-09-21 11:20	Bottom: 14925.00 ft
		2018-09-21 12:16:11	

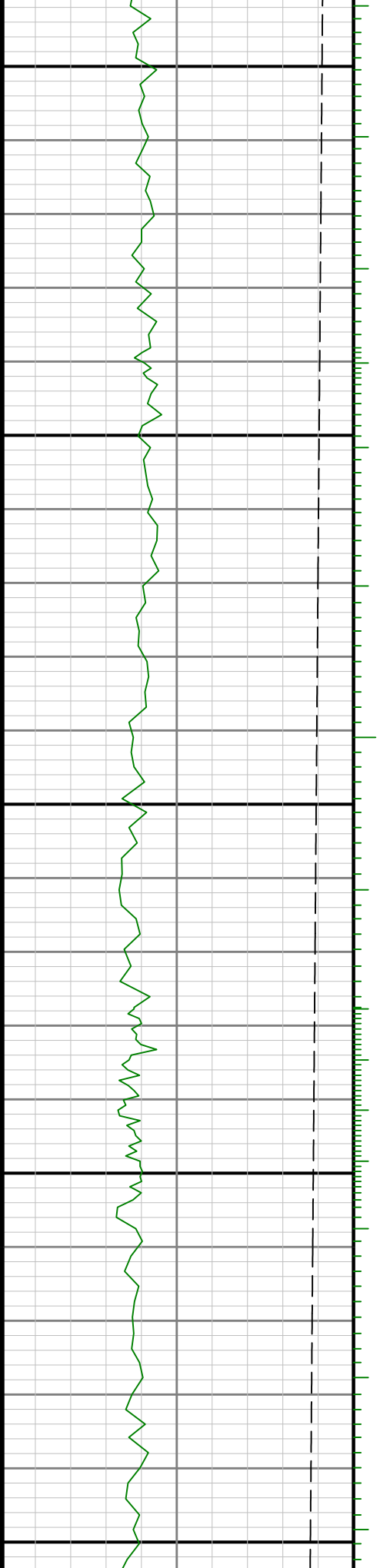


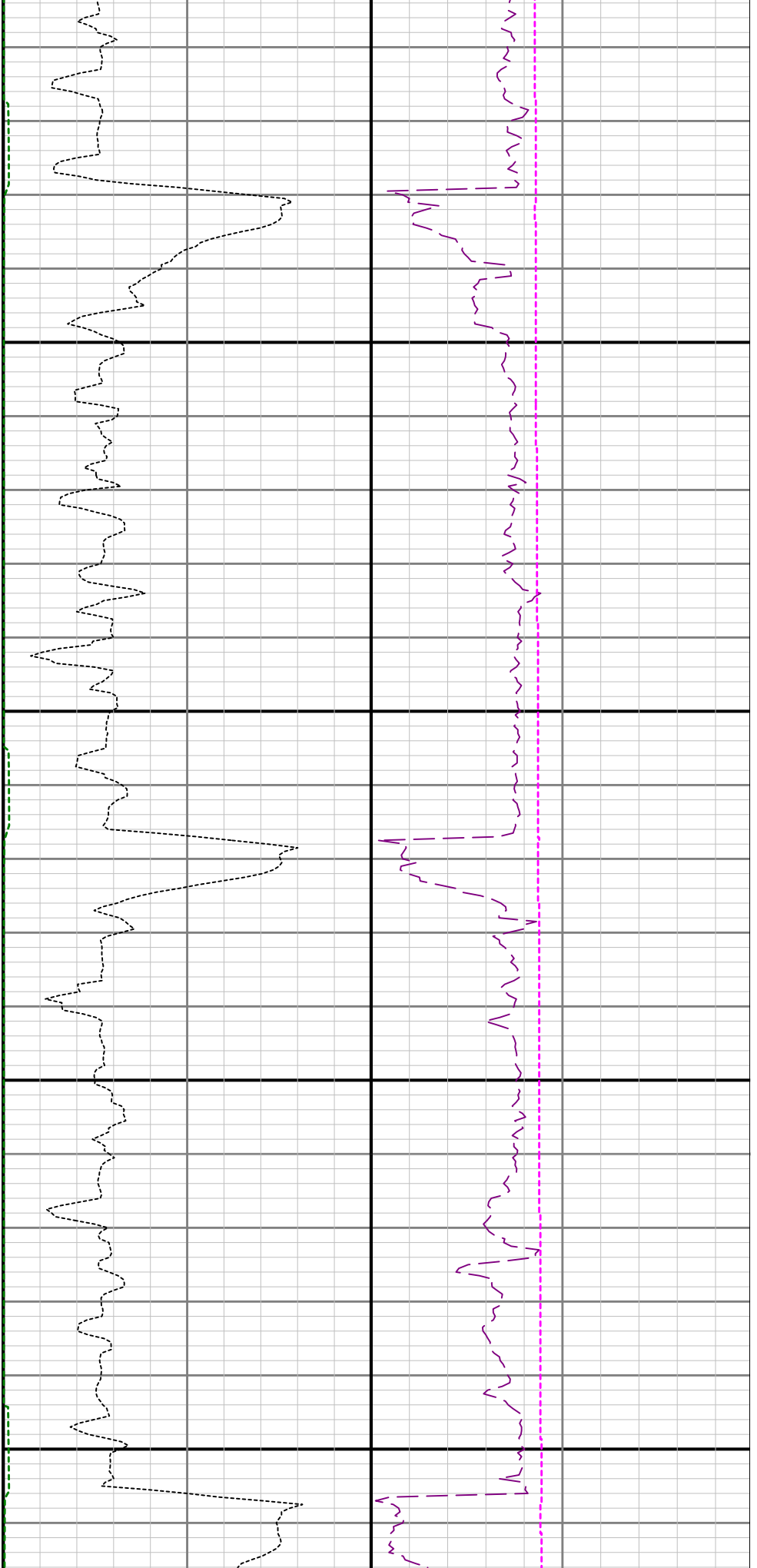




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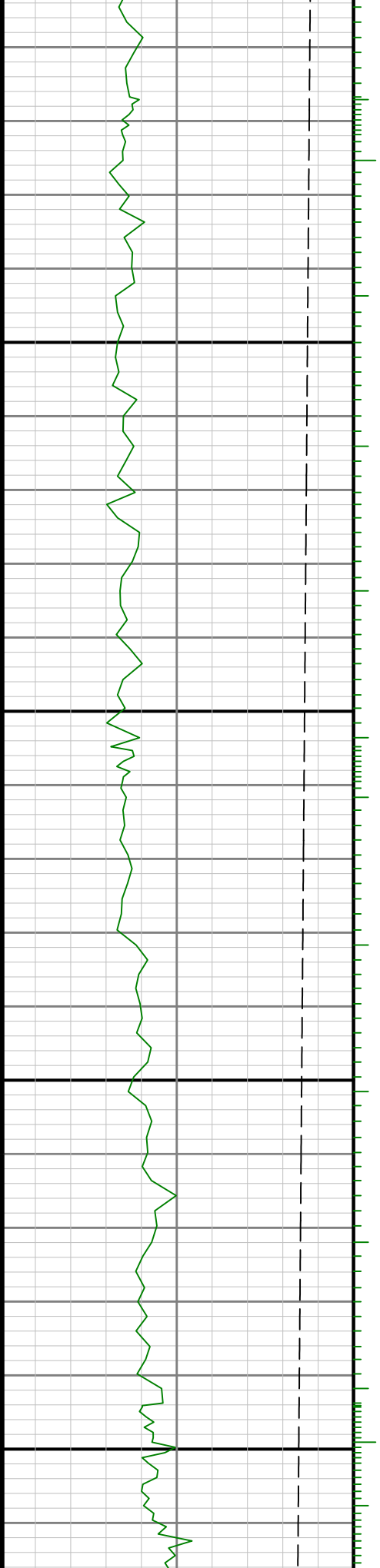
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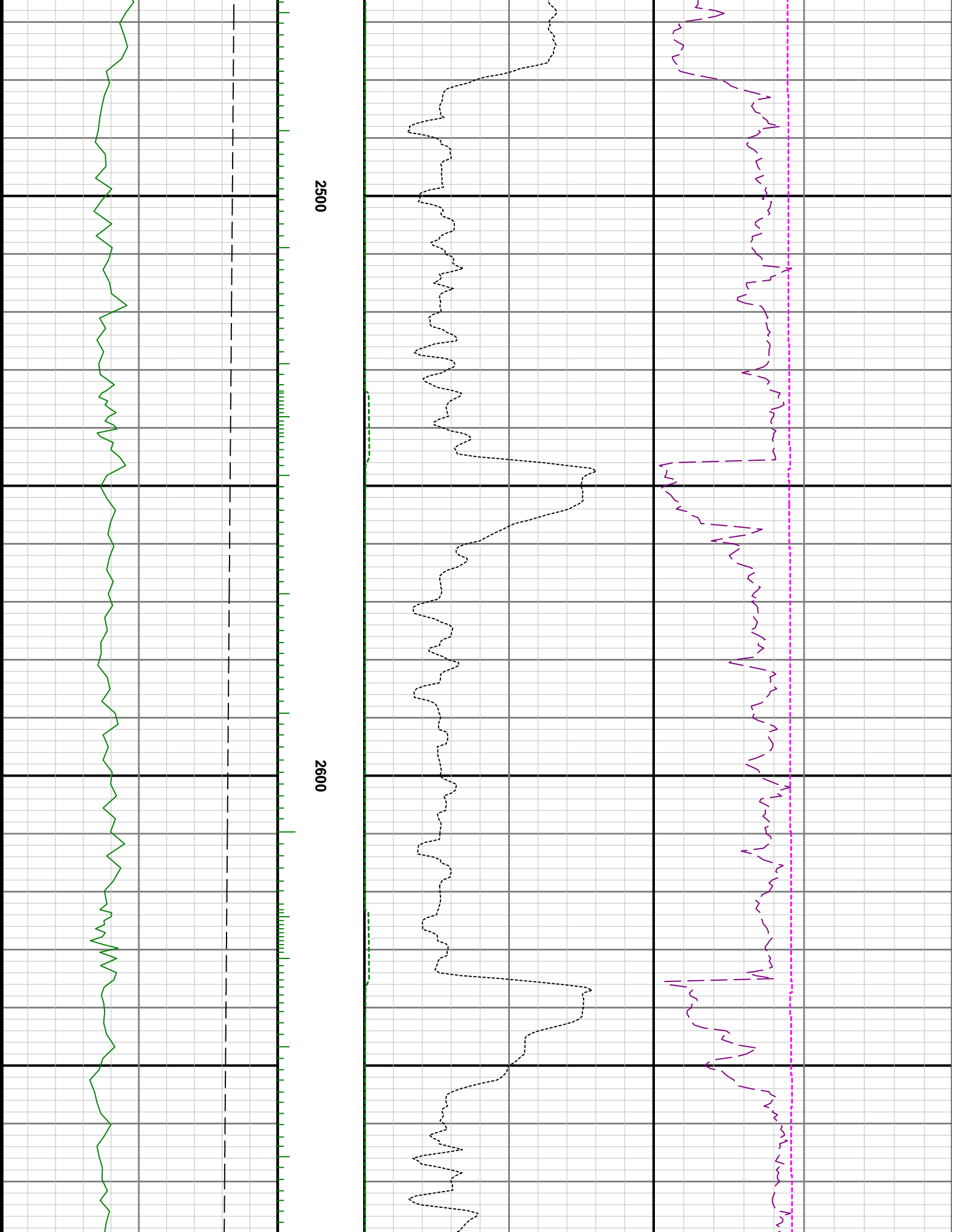


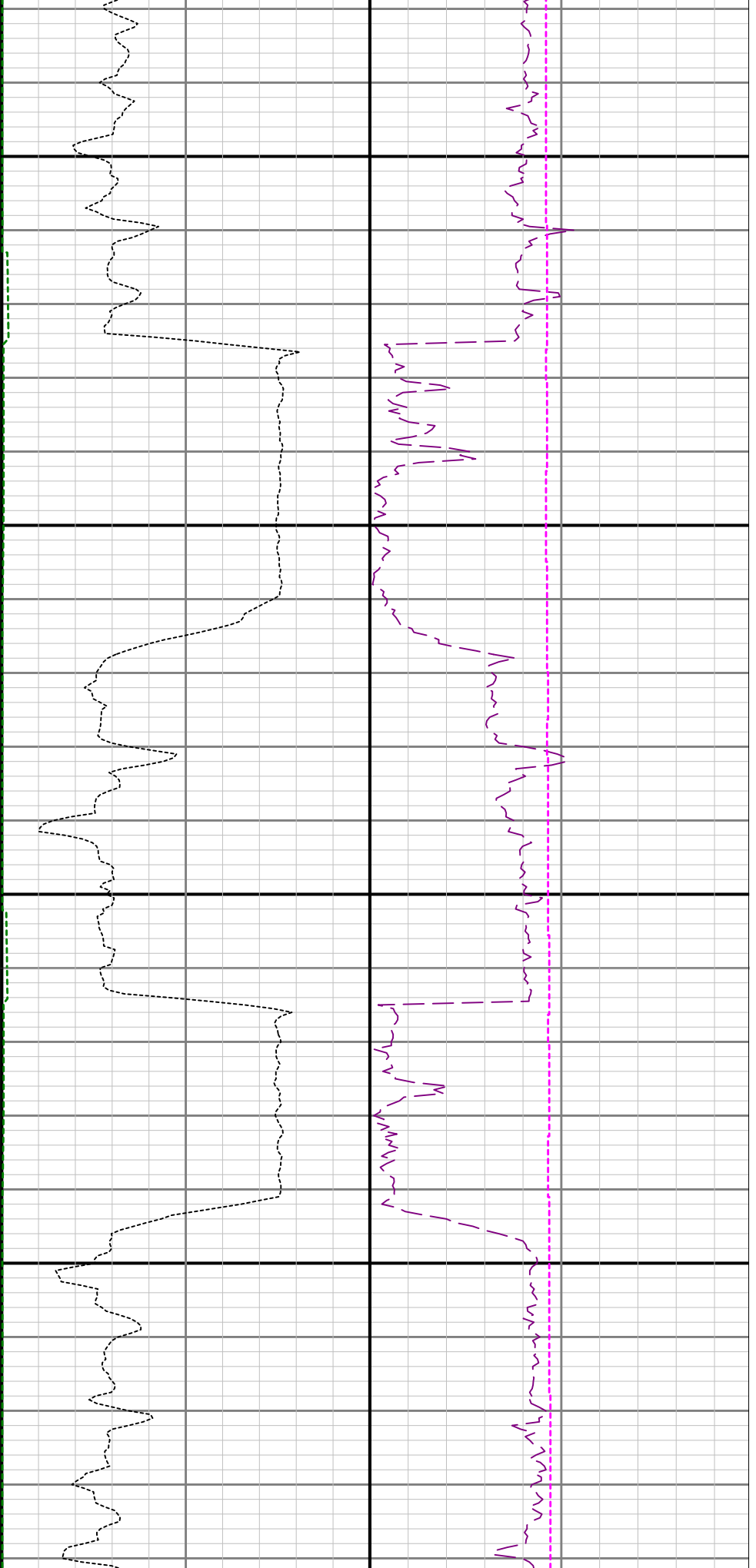


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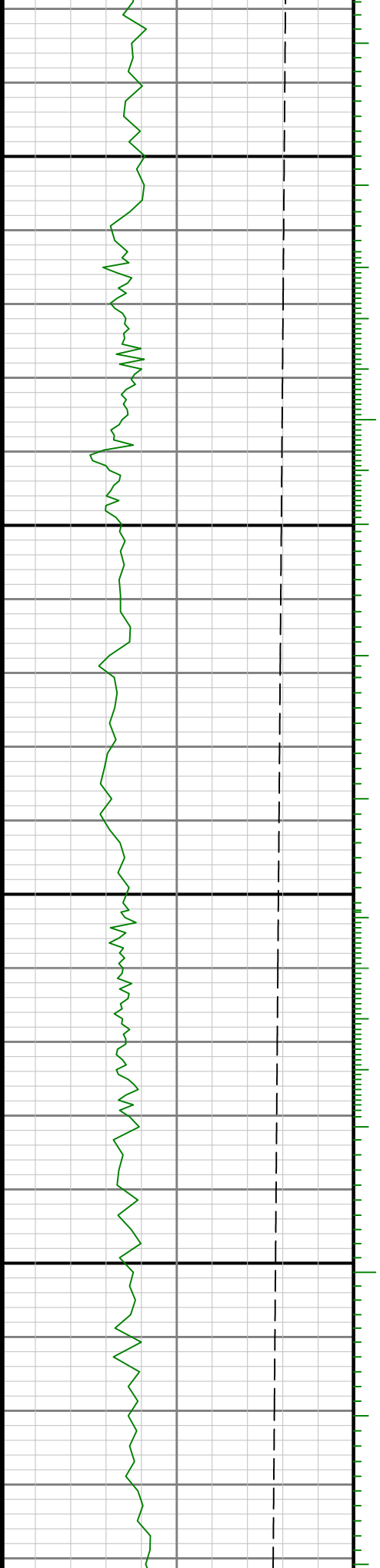


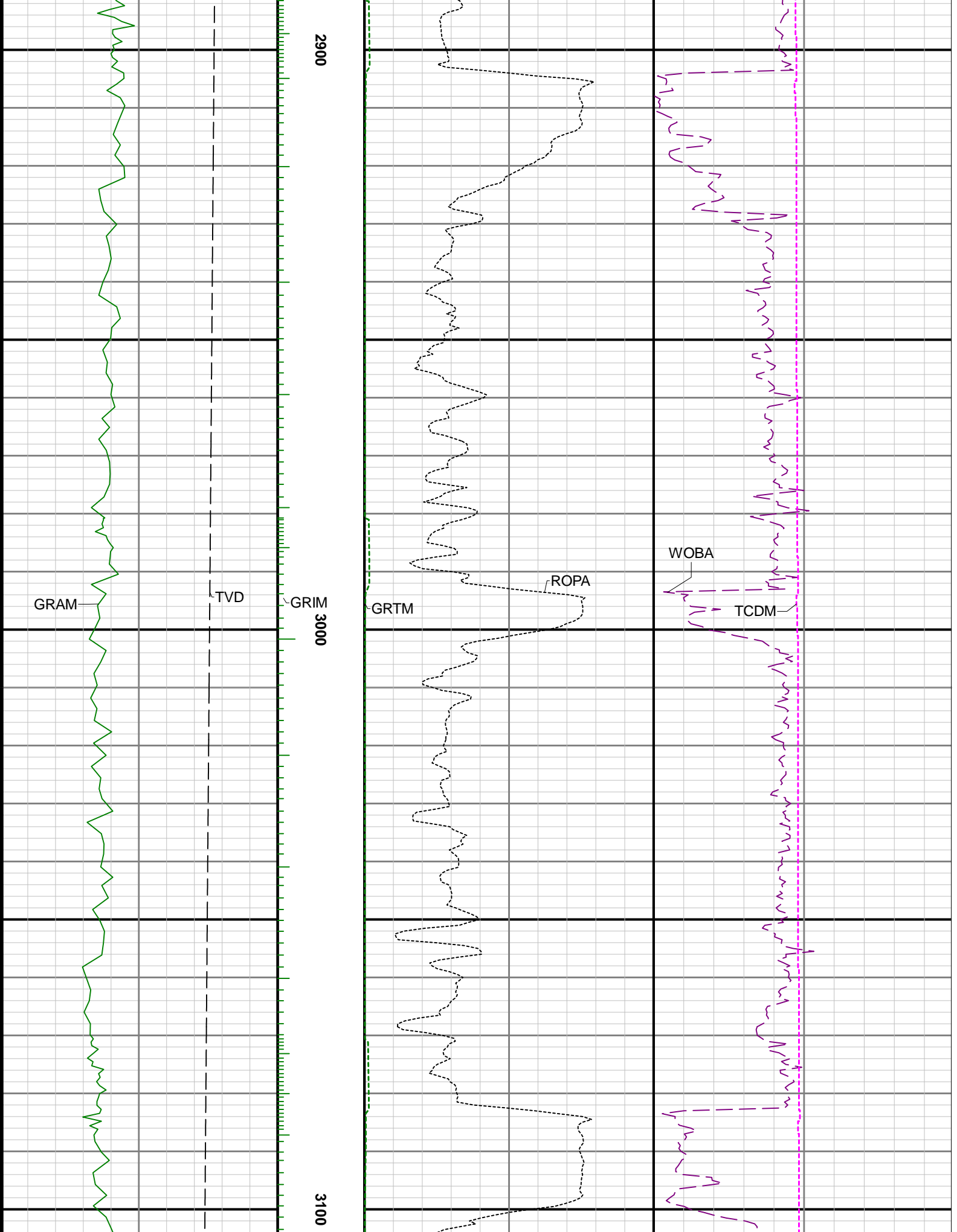


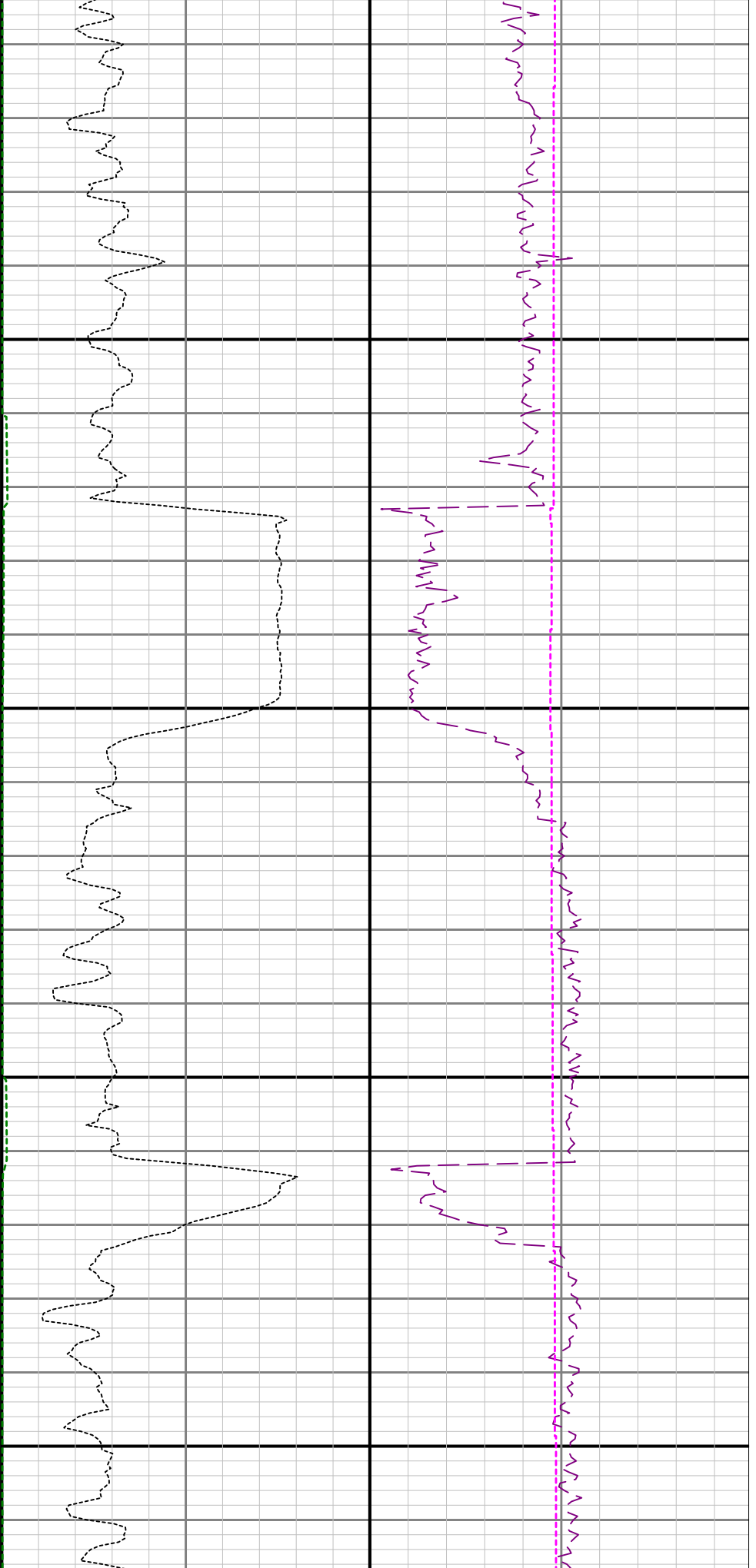


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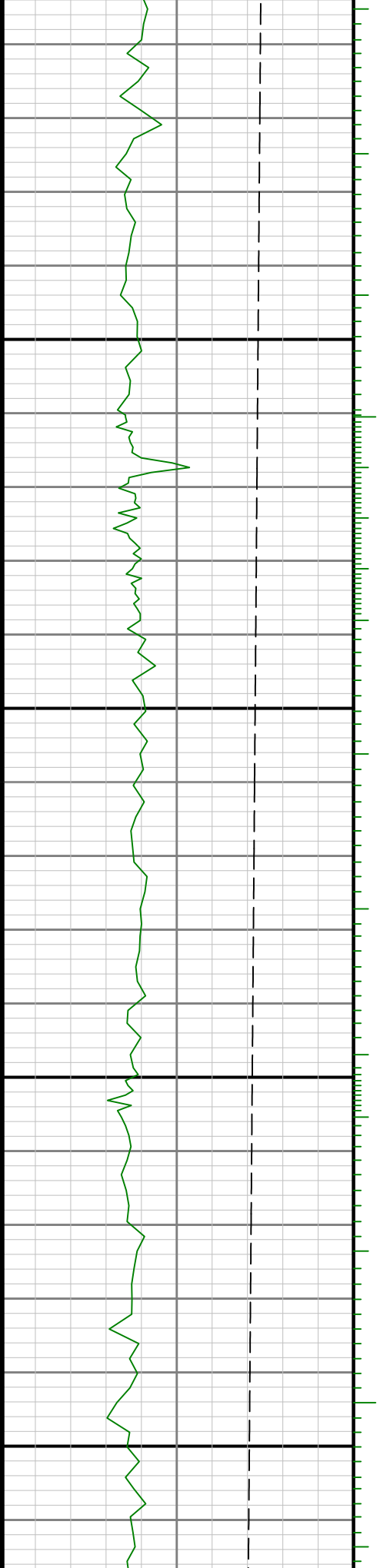


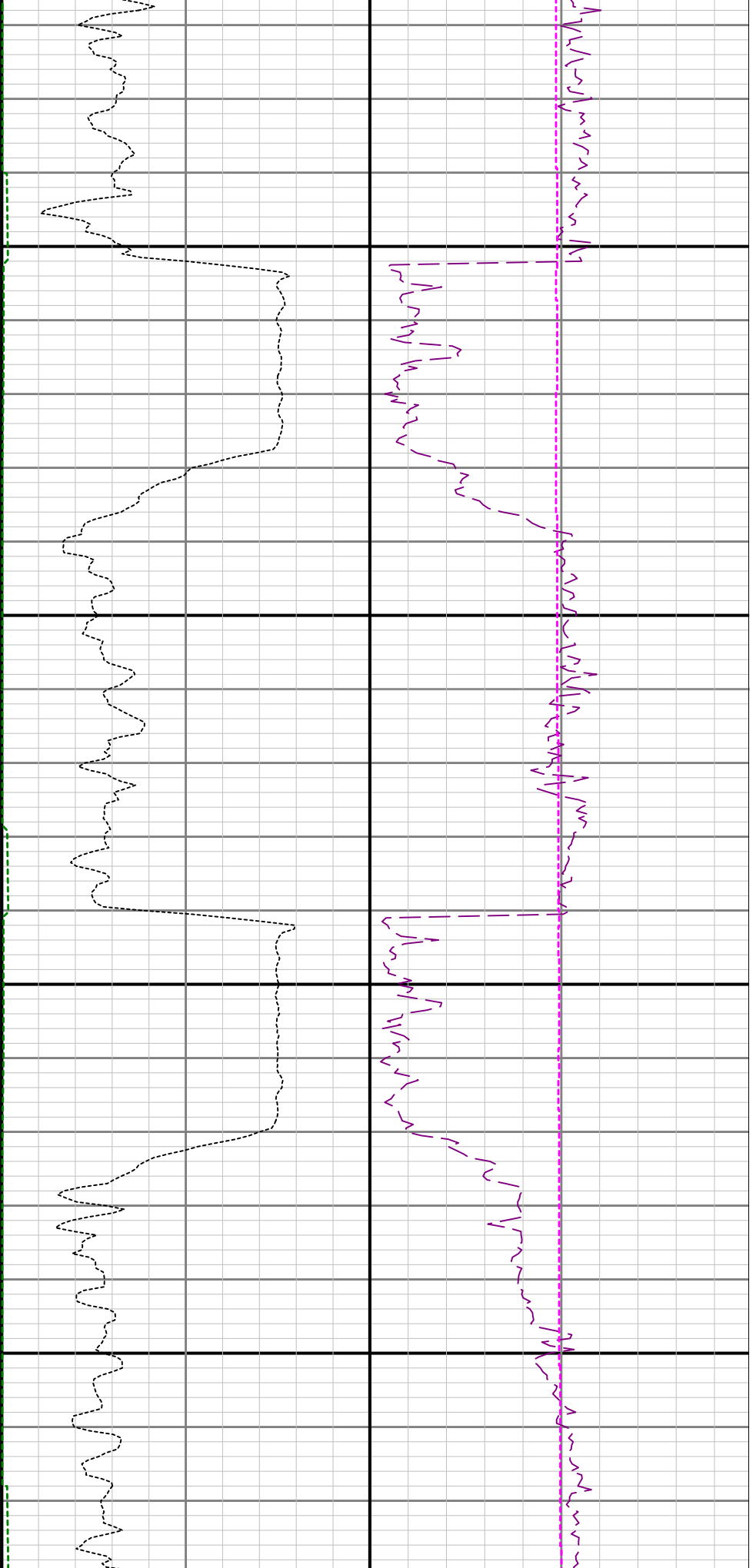




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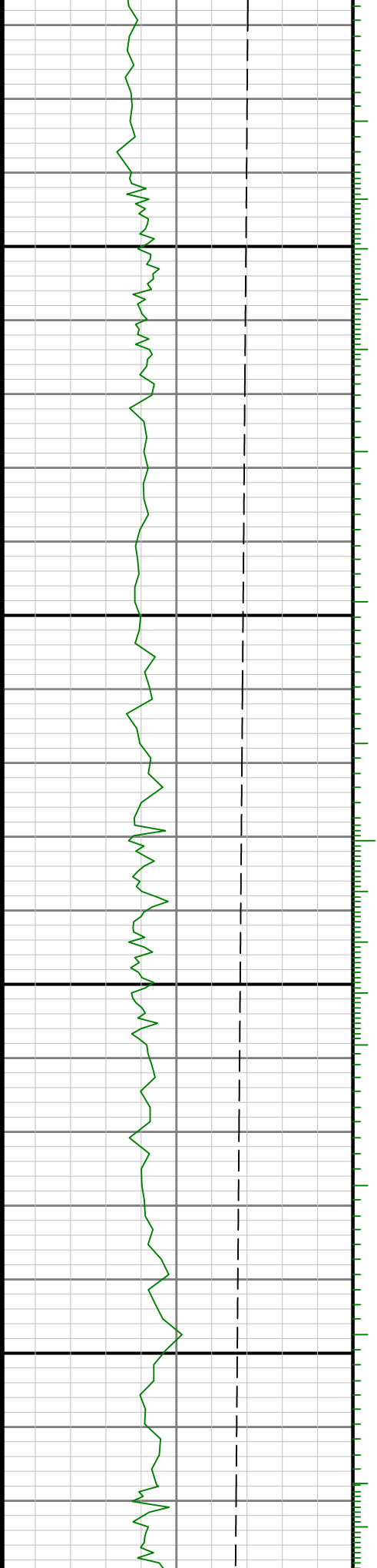
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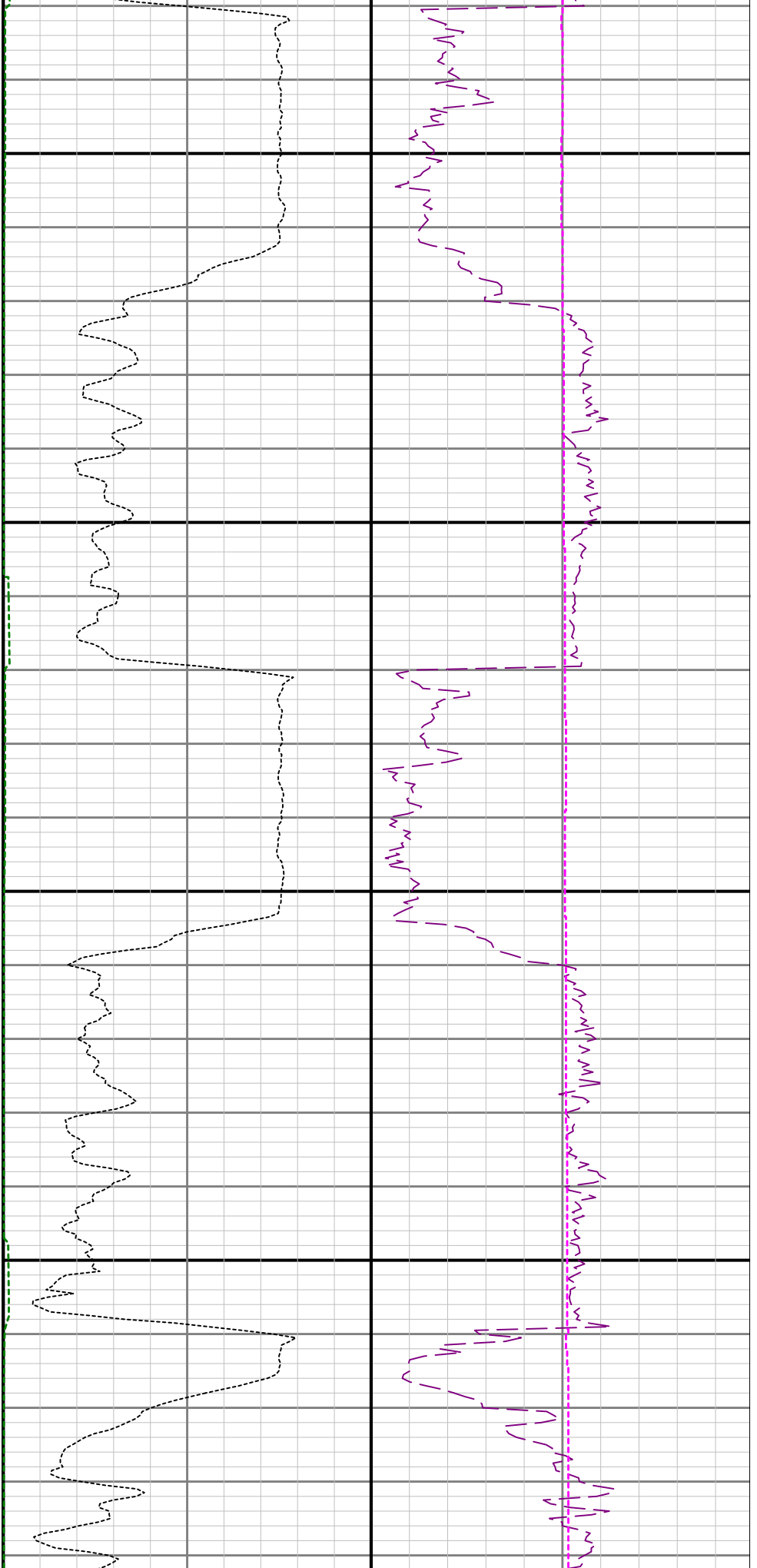




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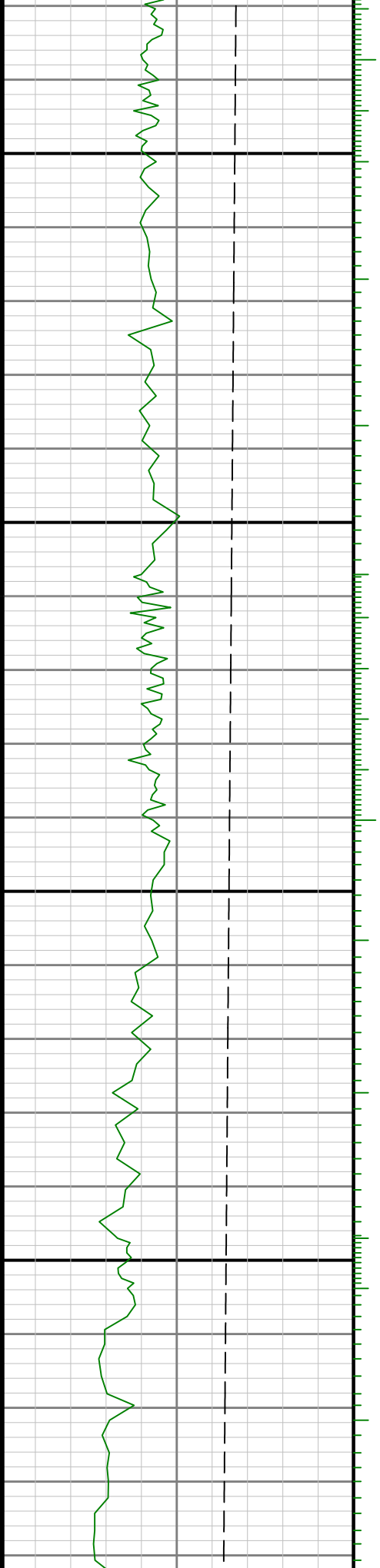
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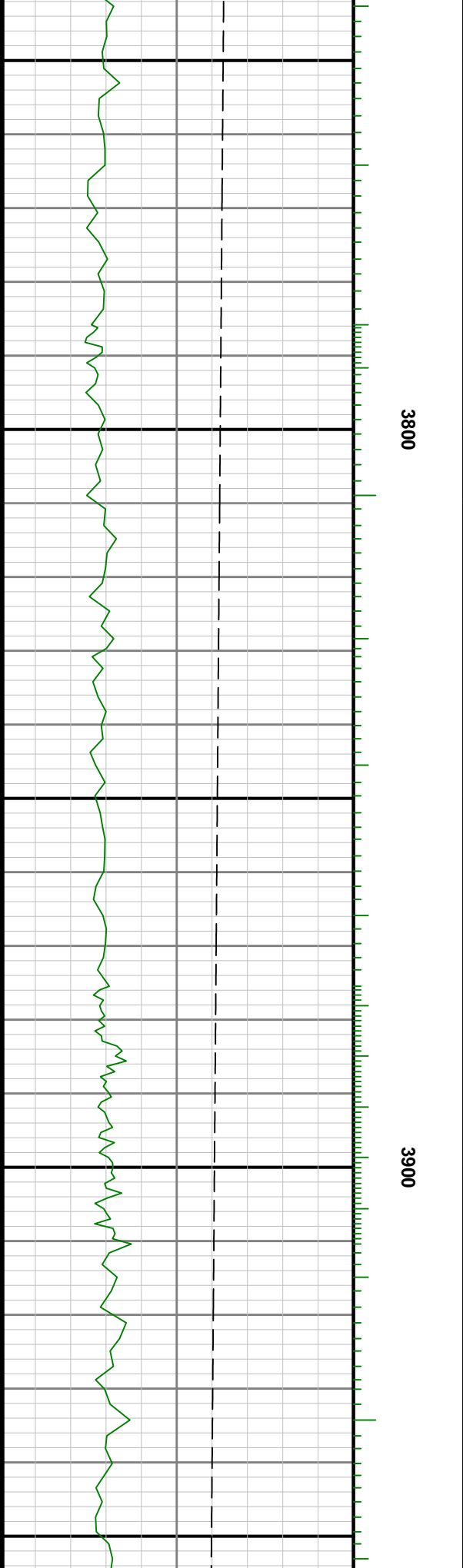
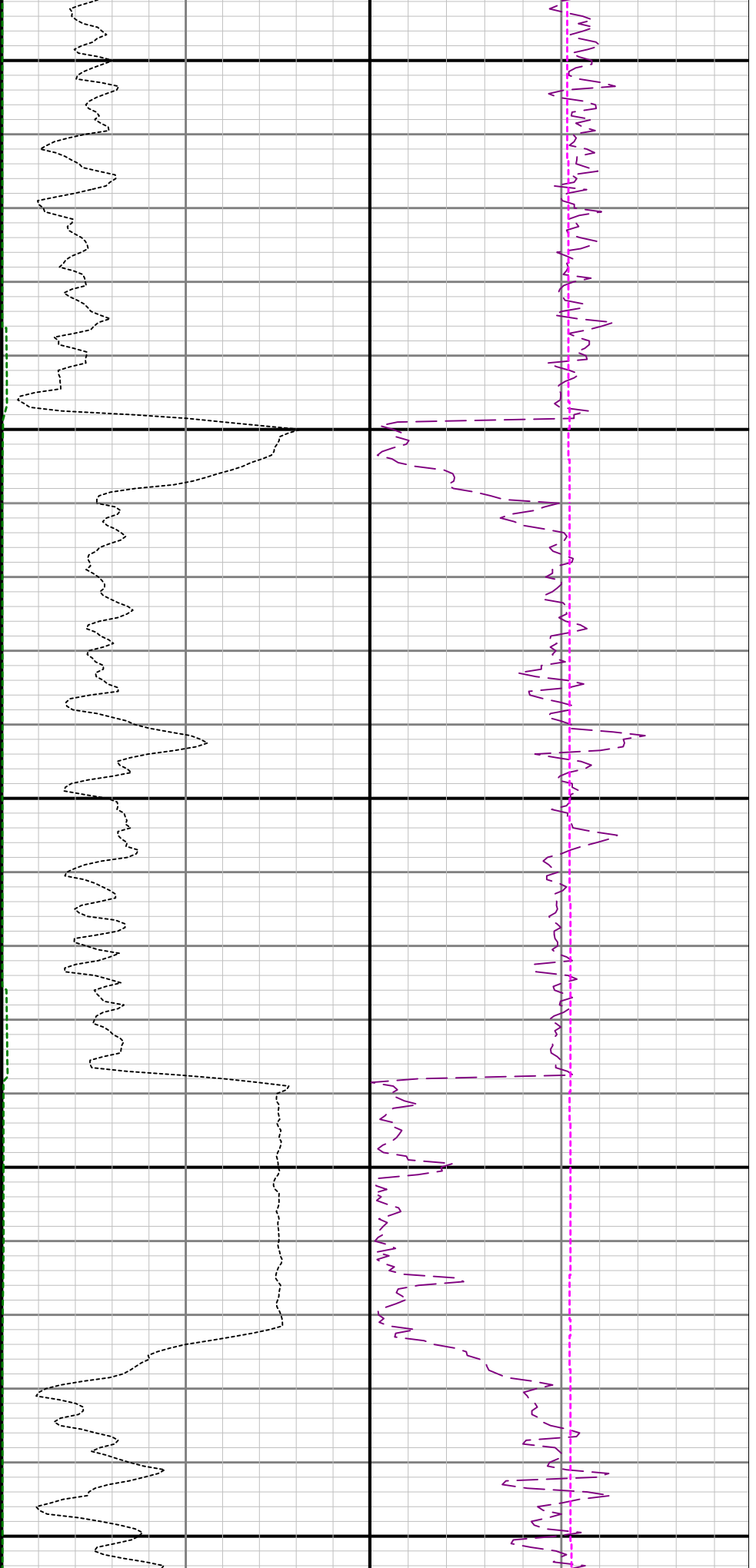


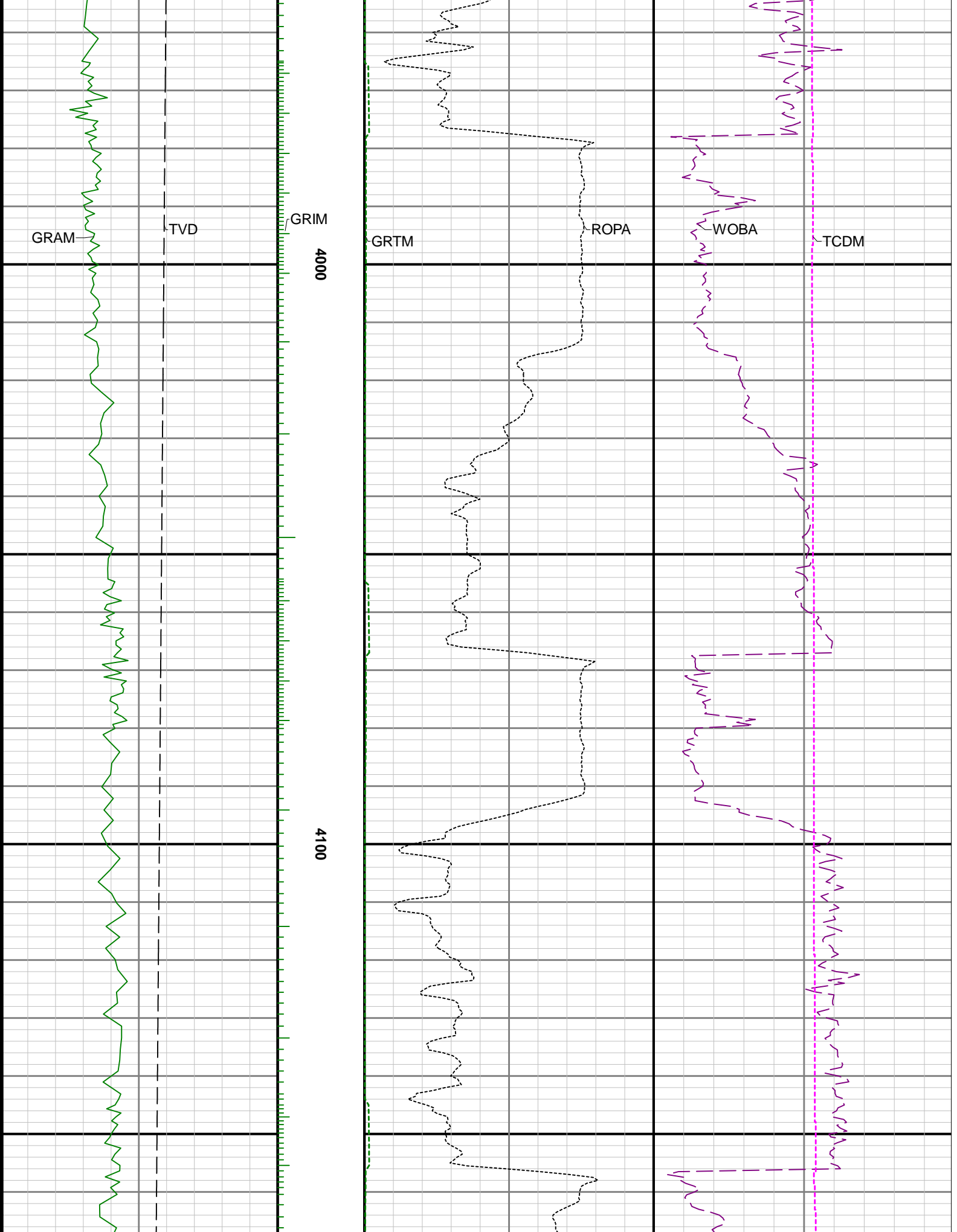


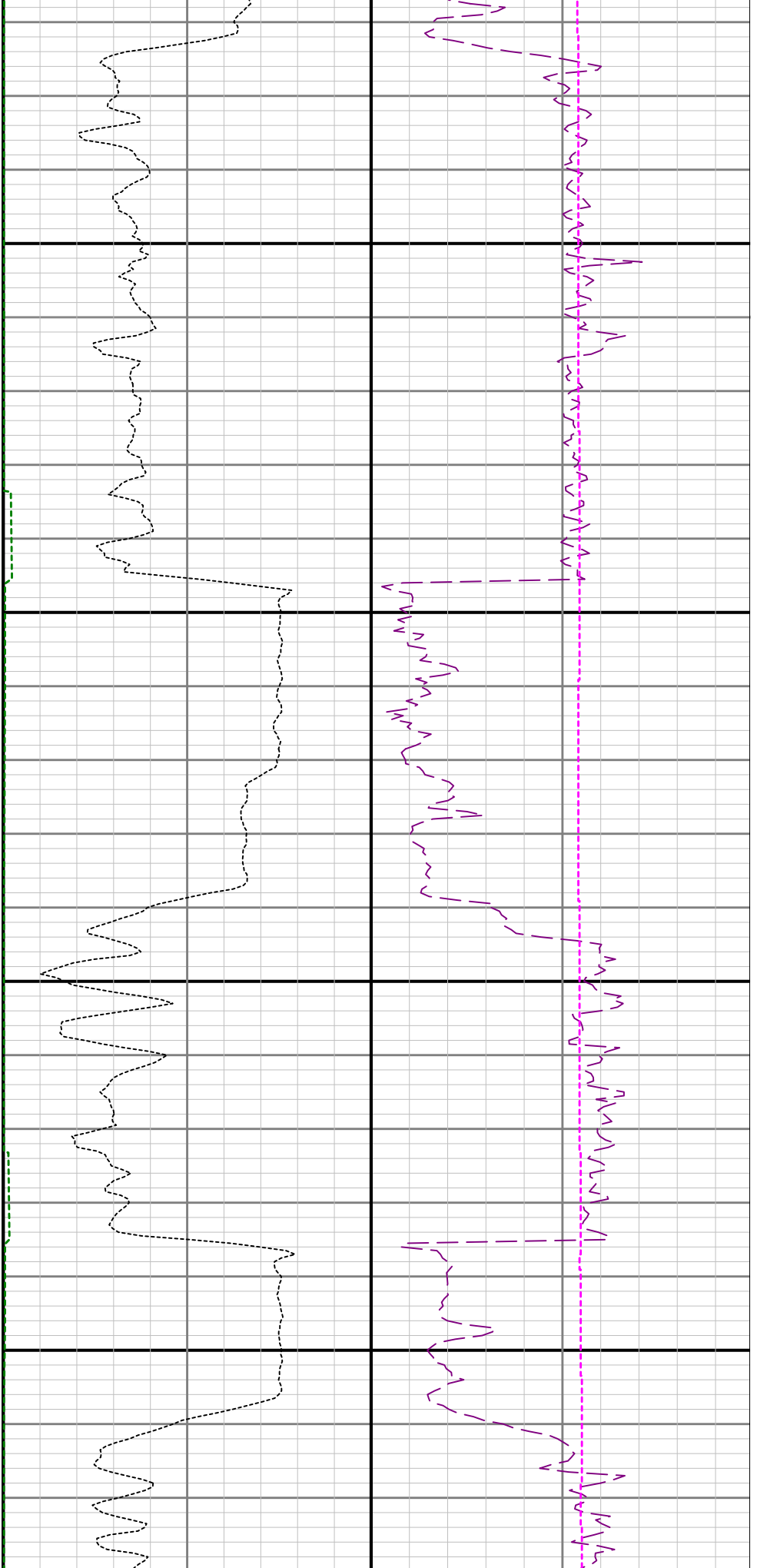
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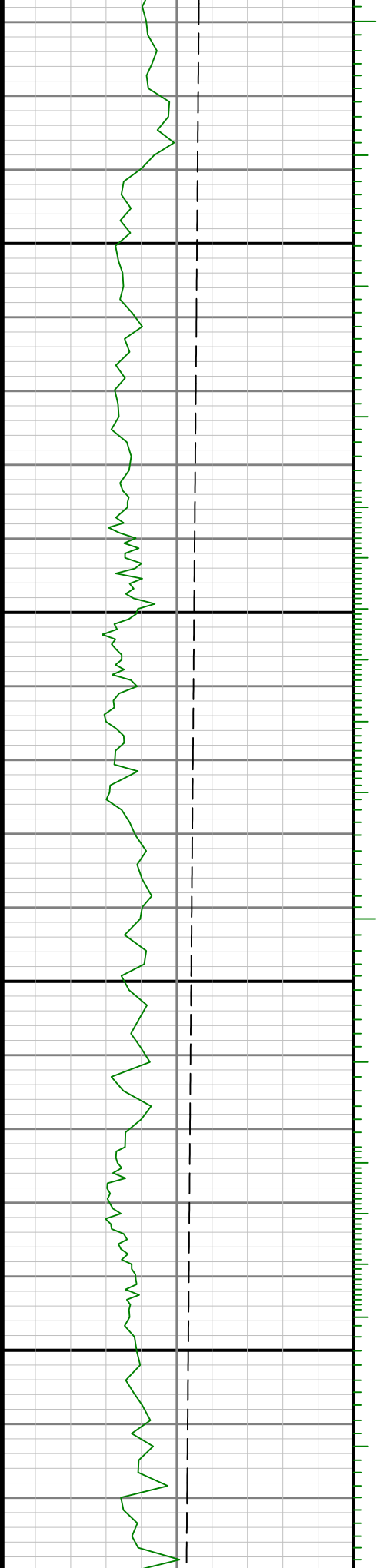


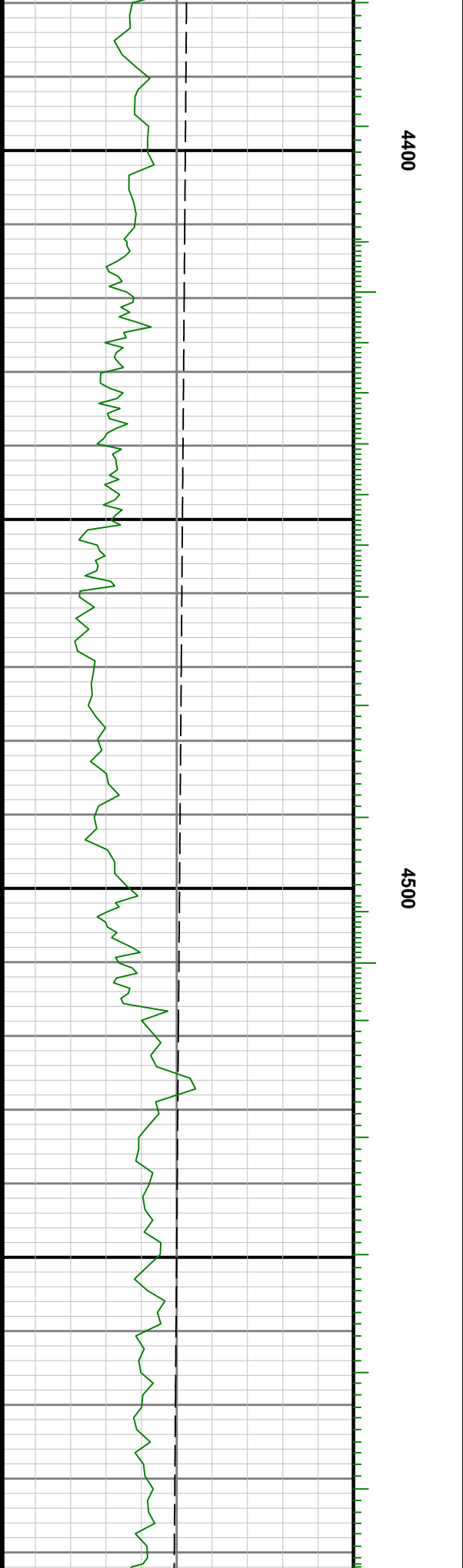
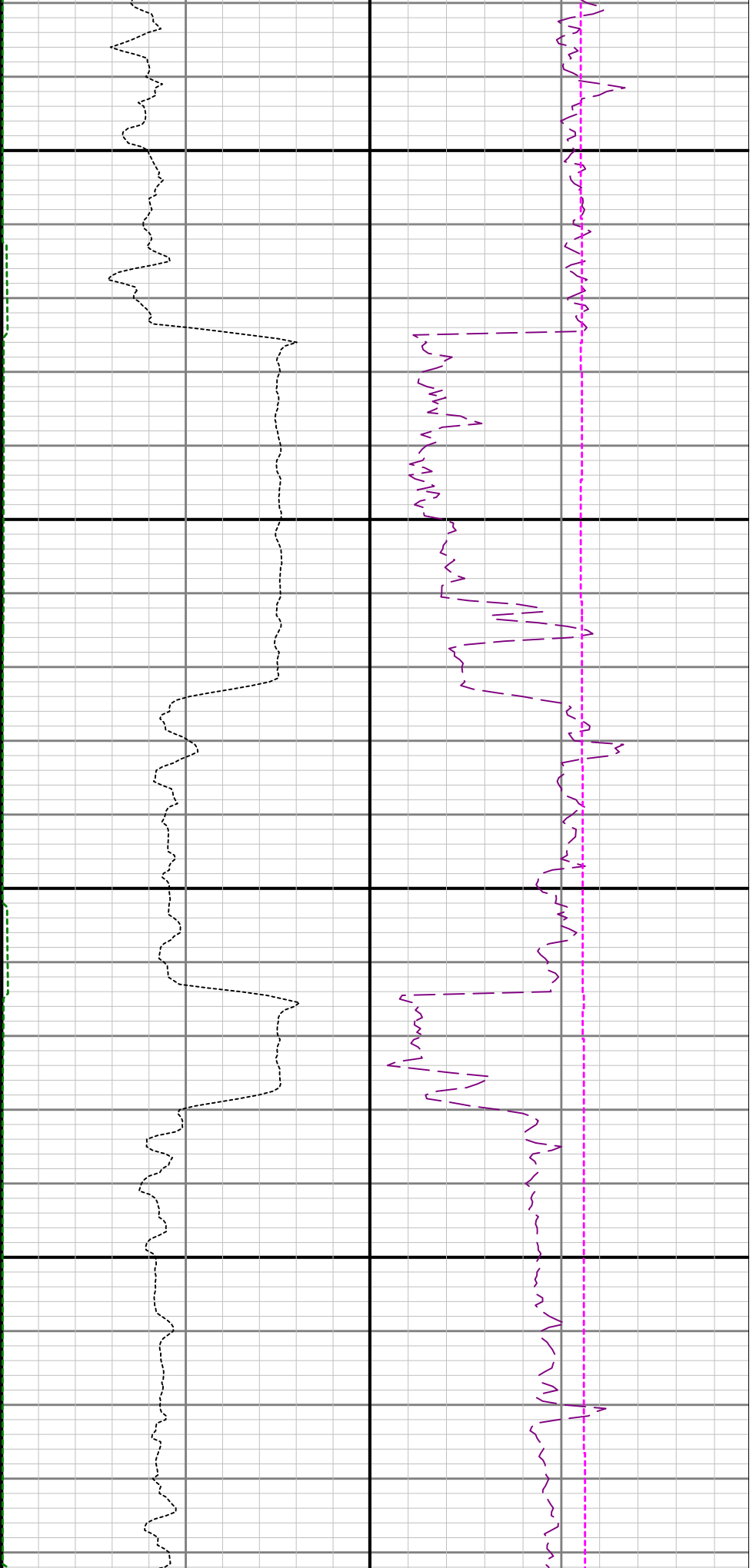


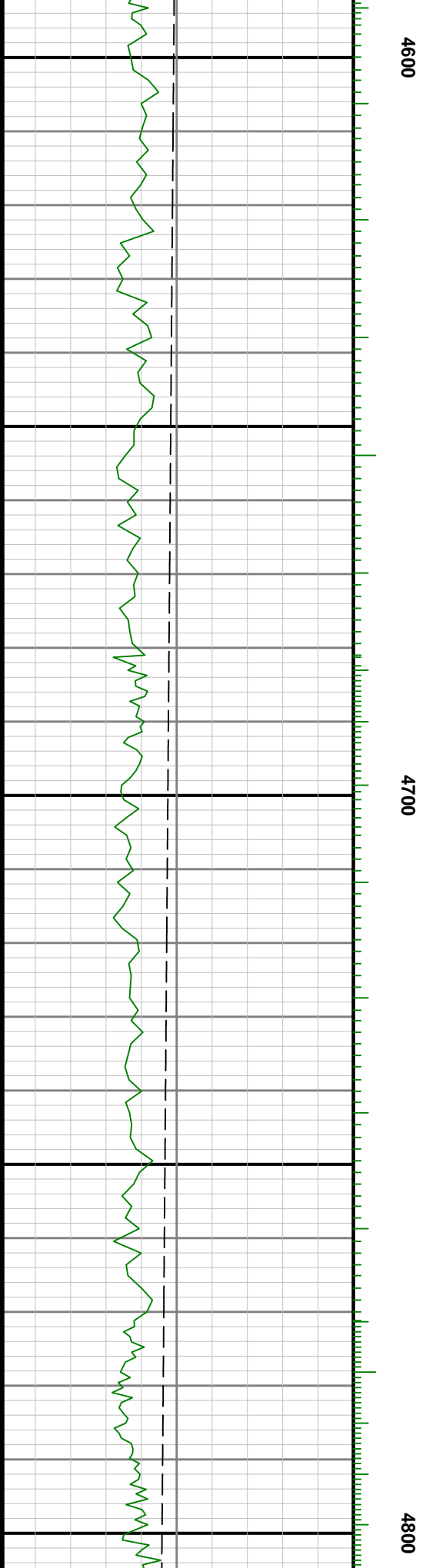
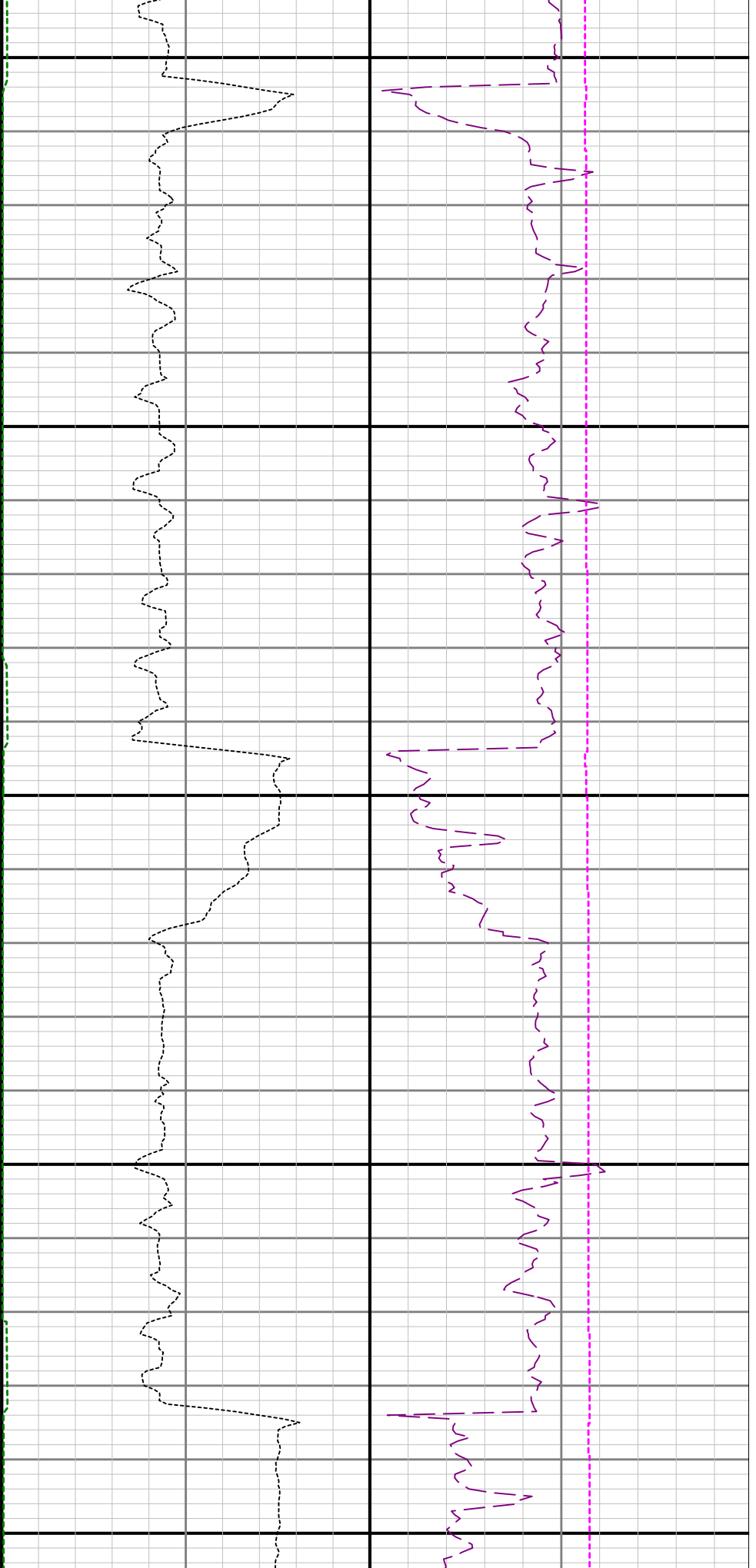


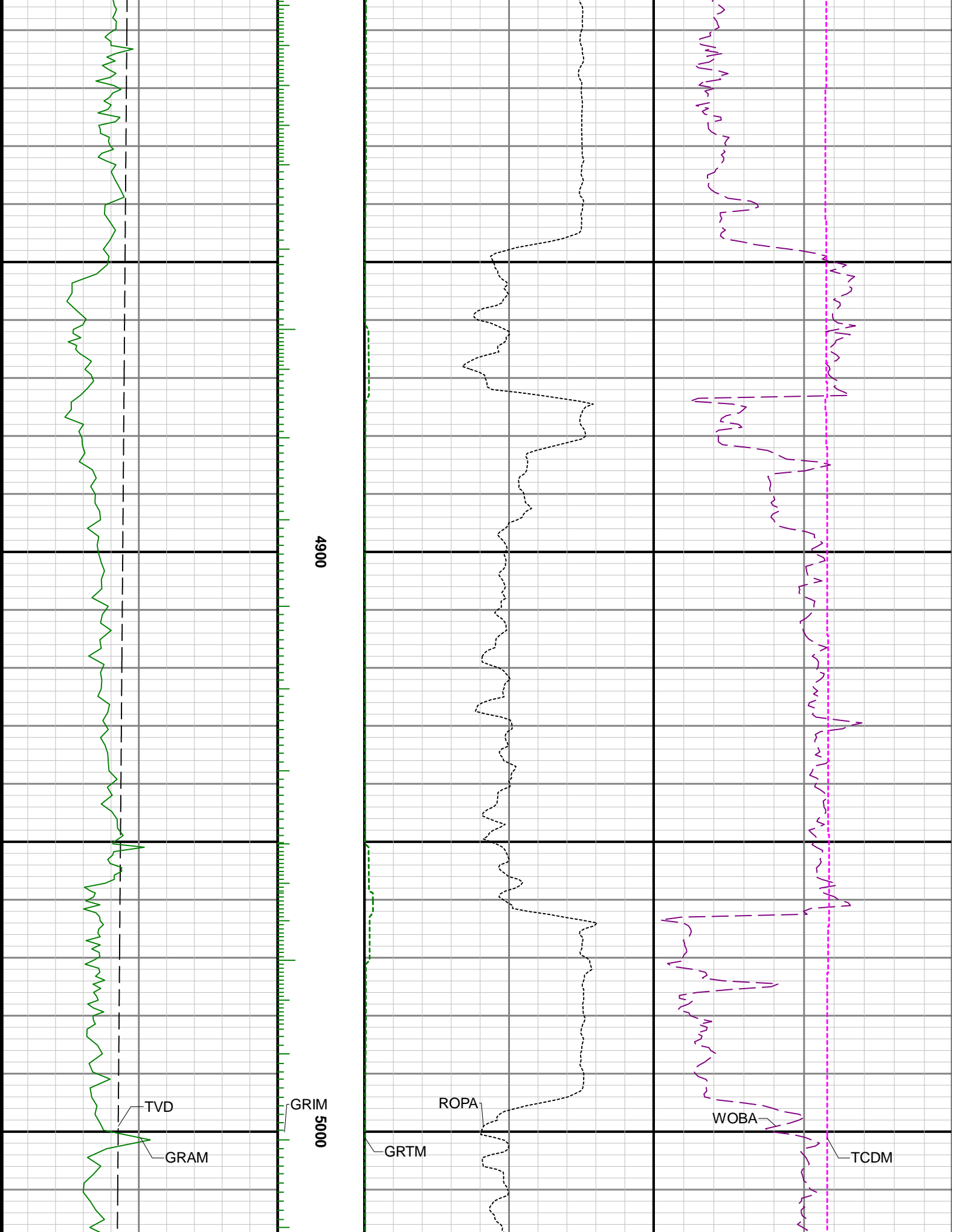
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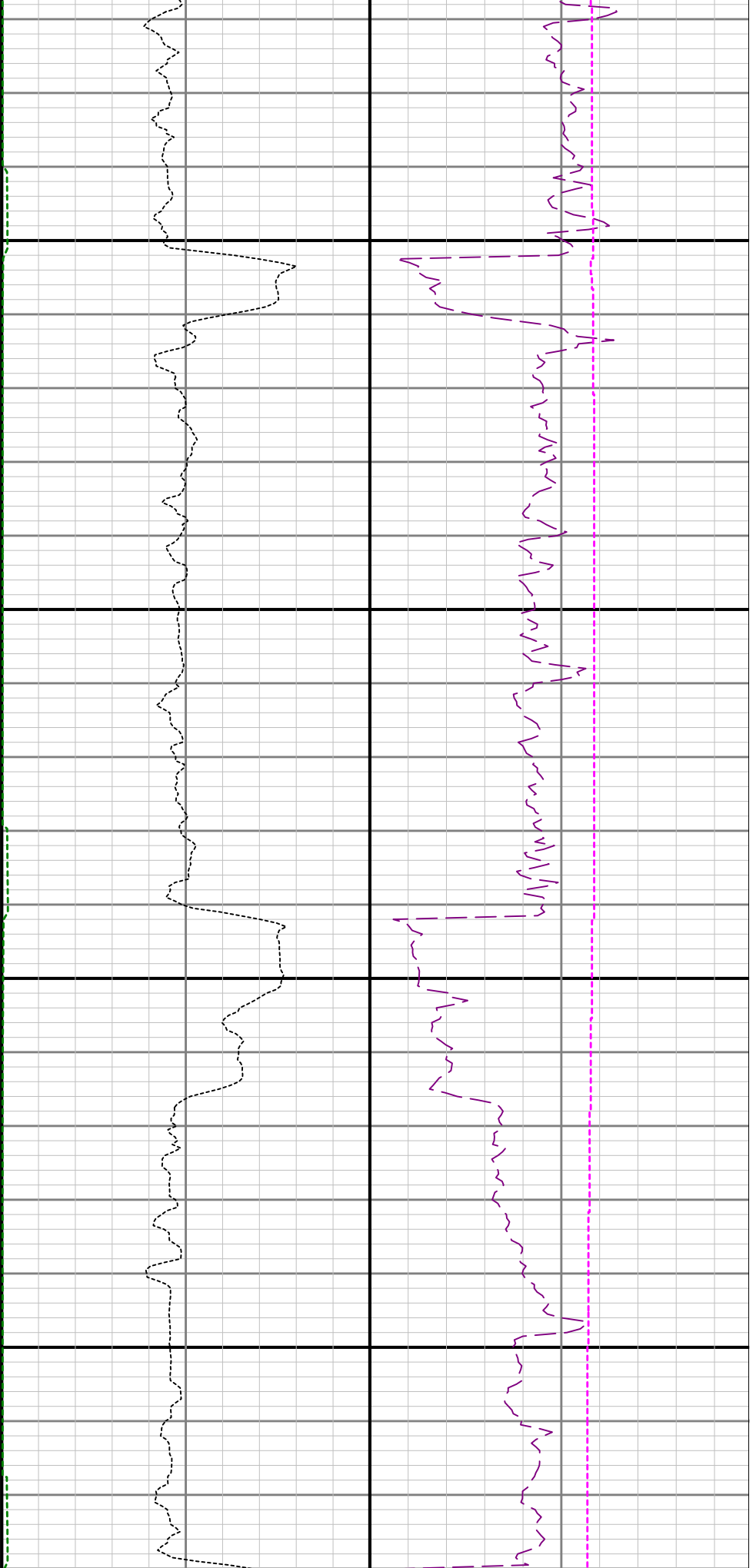
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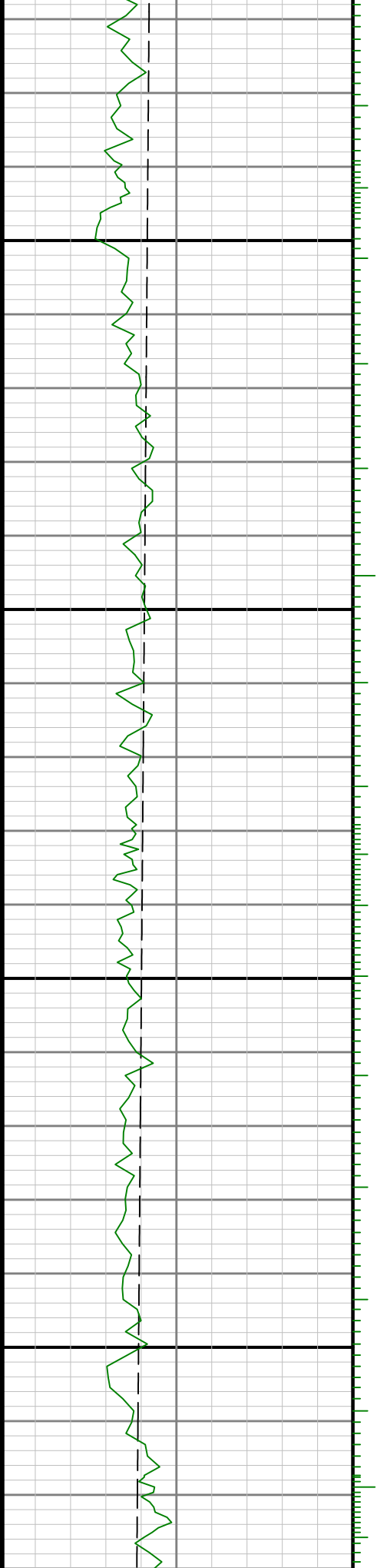


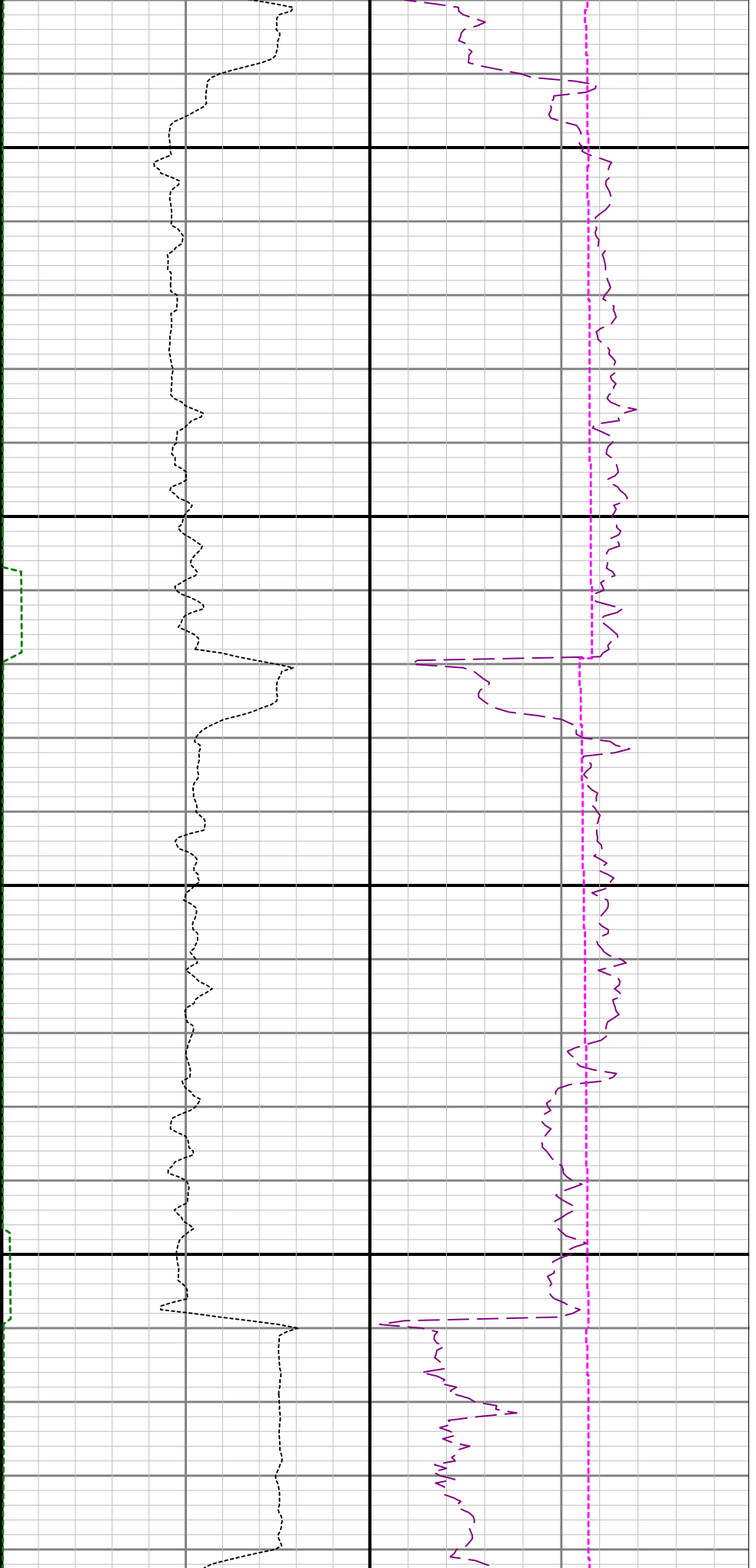




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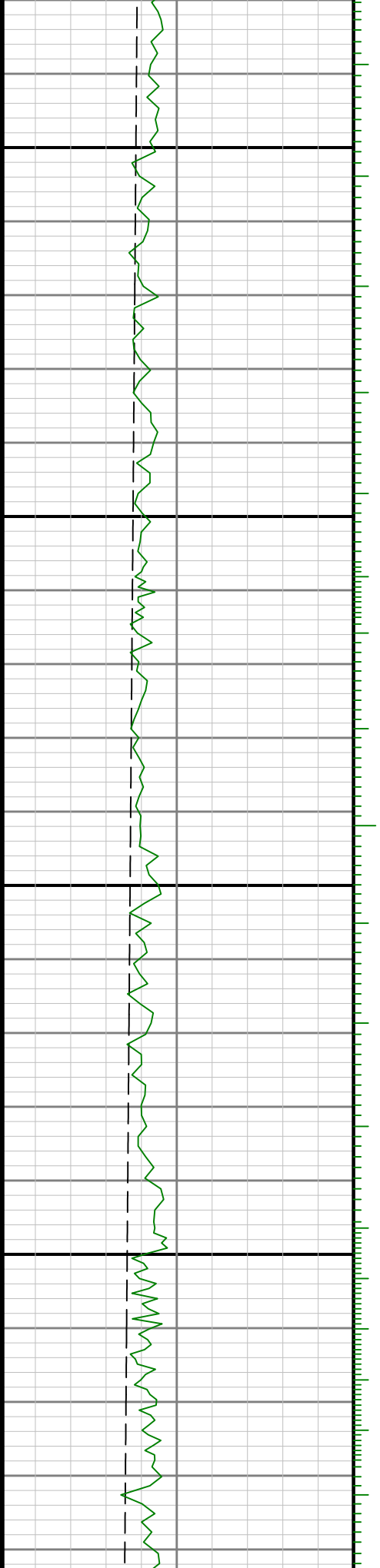
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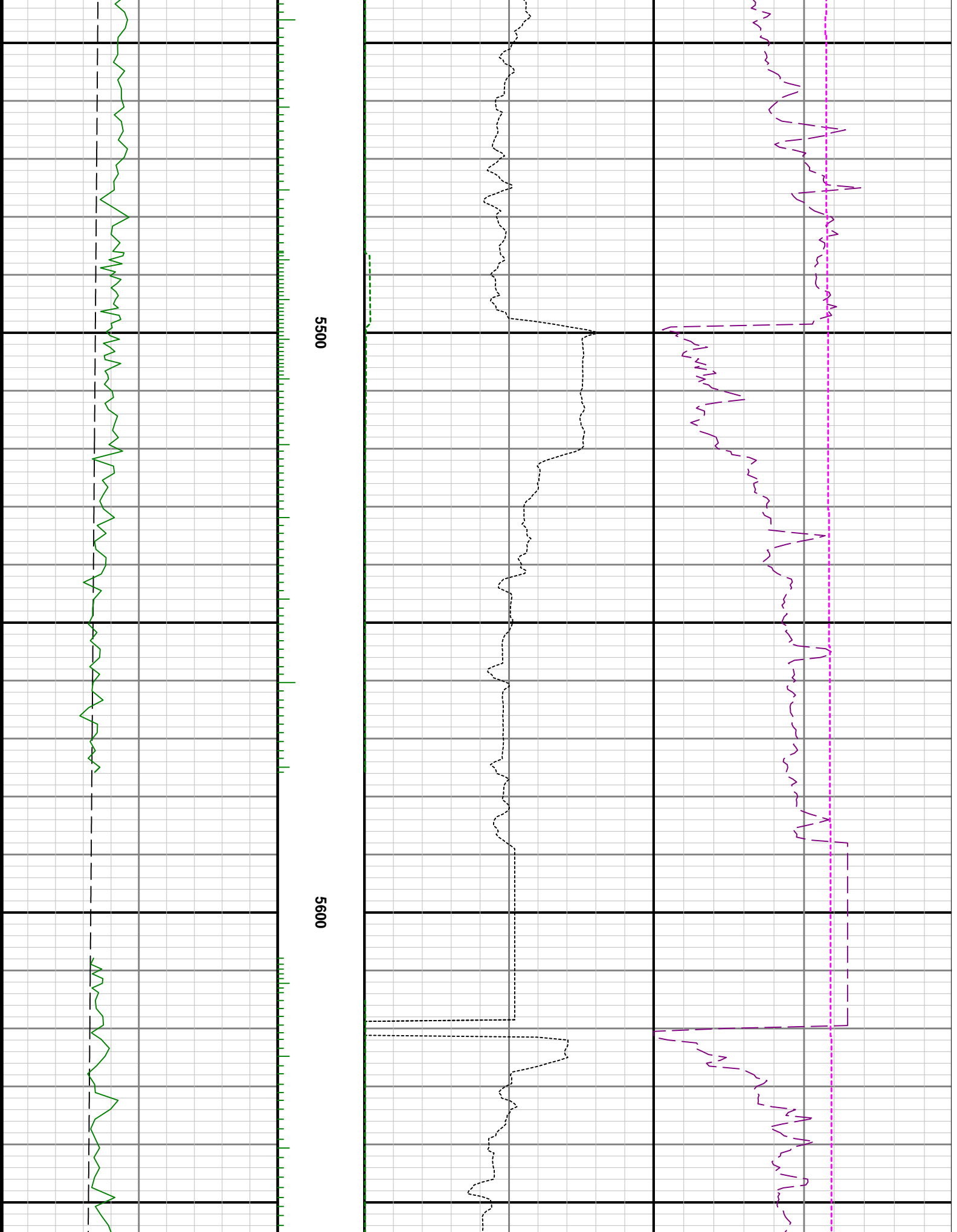


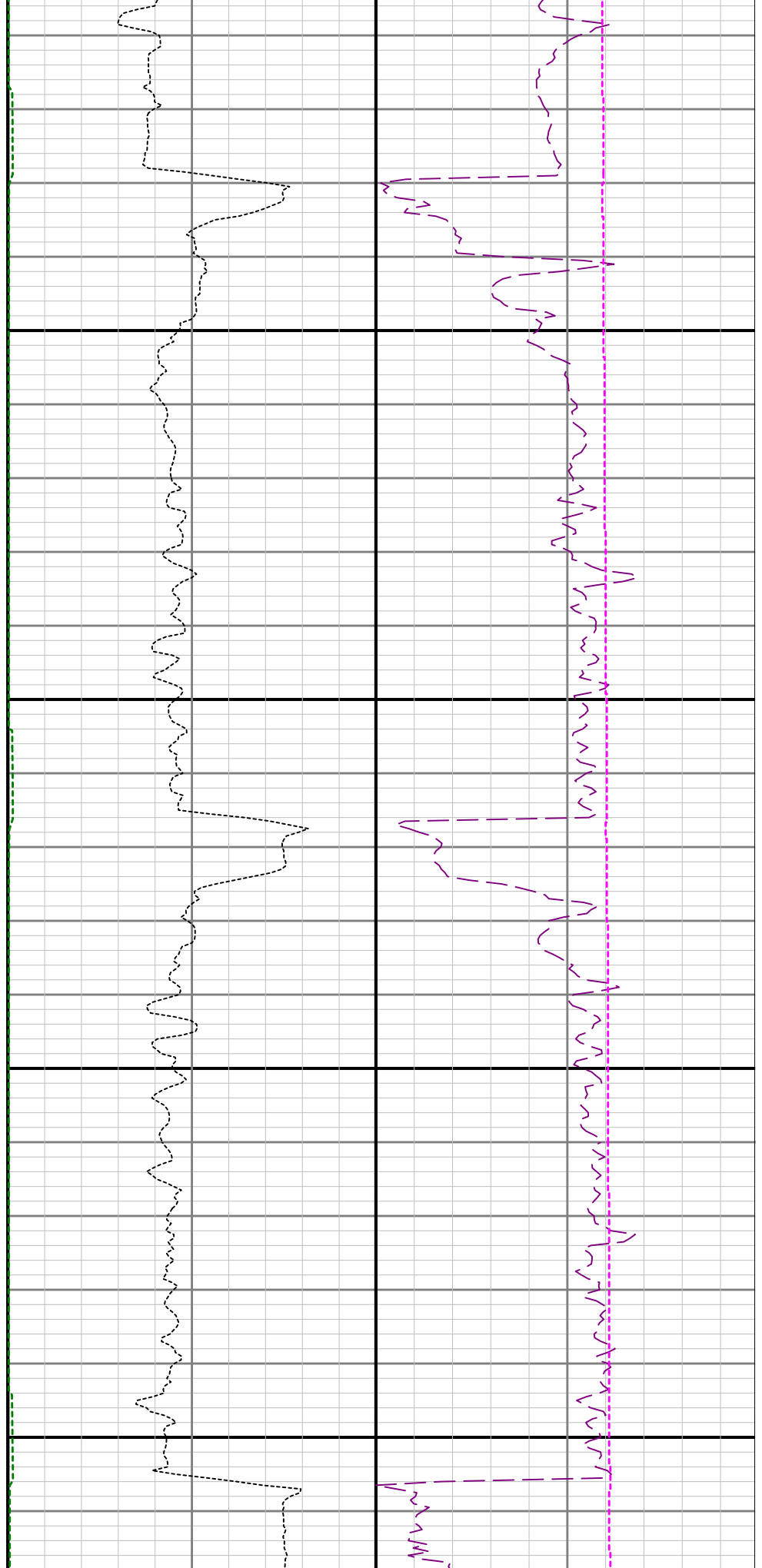


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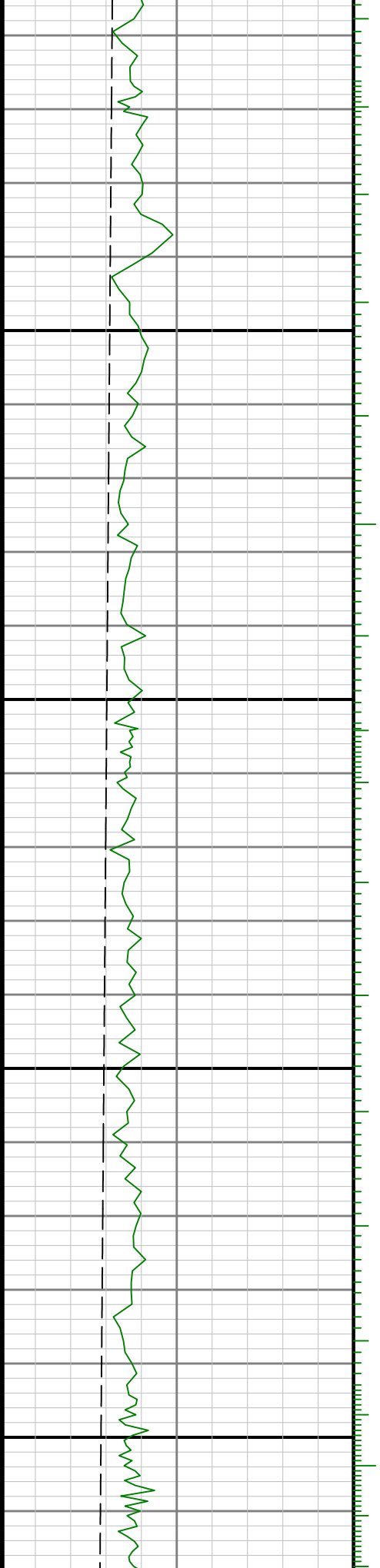


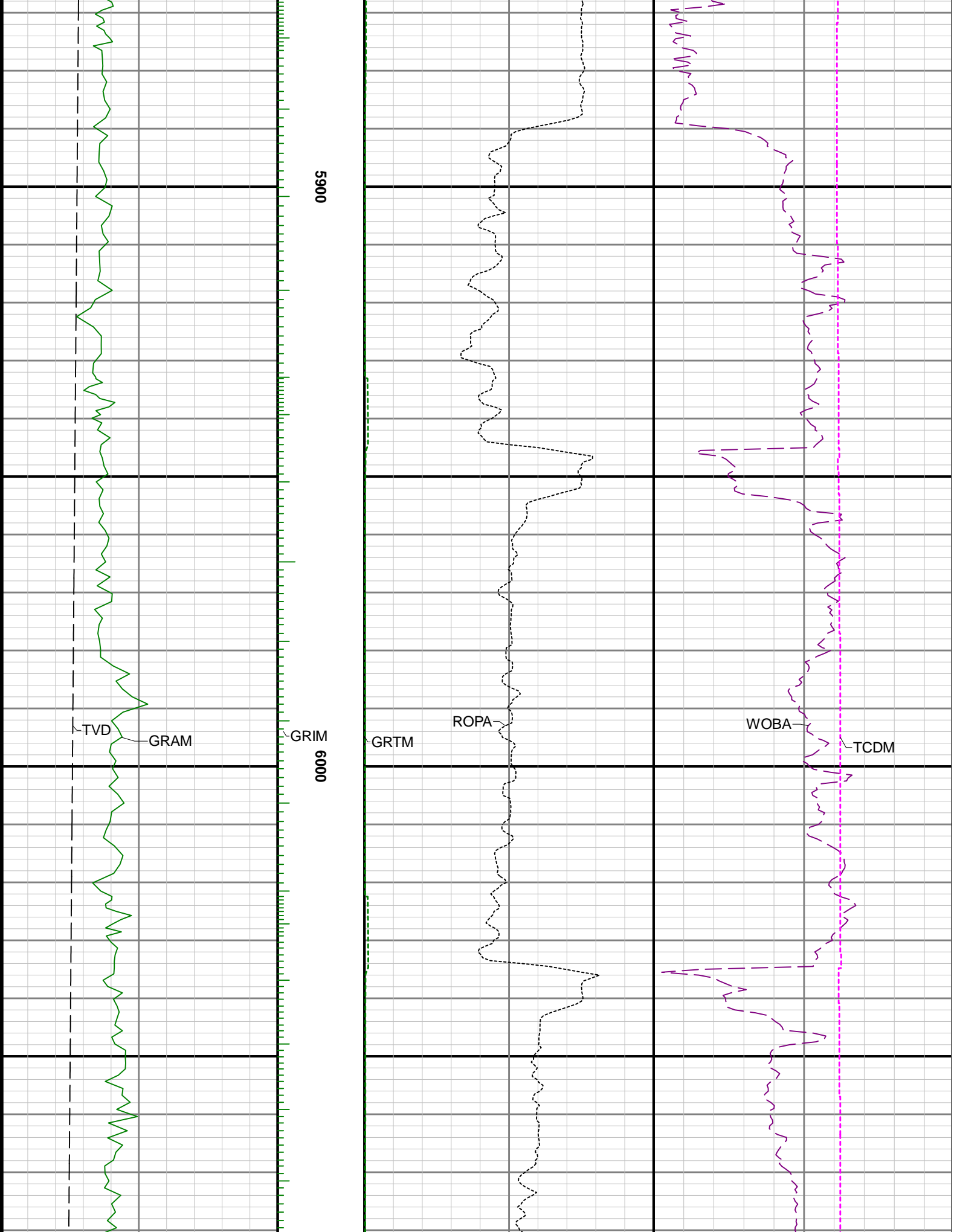


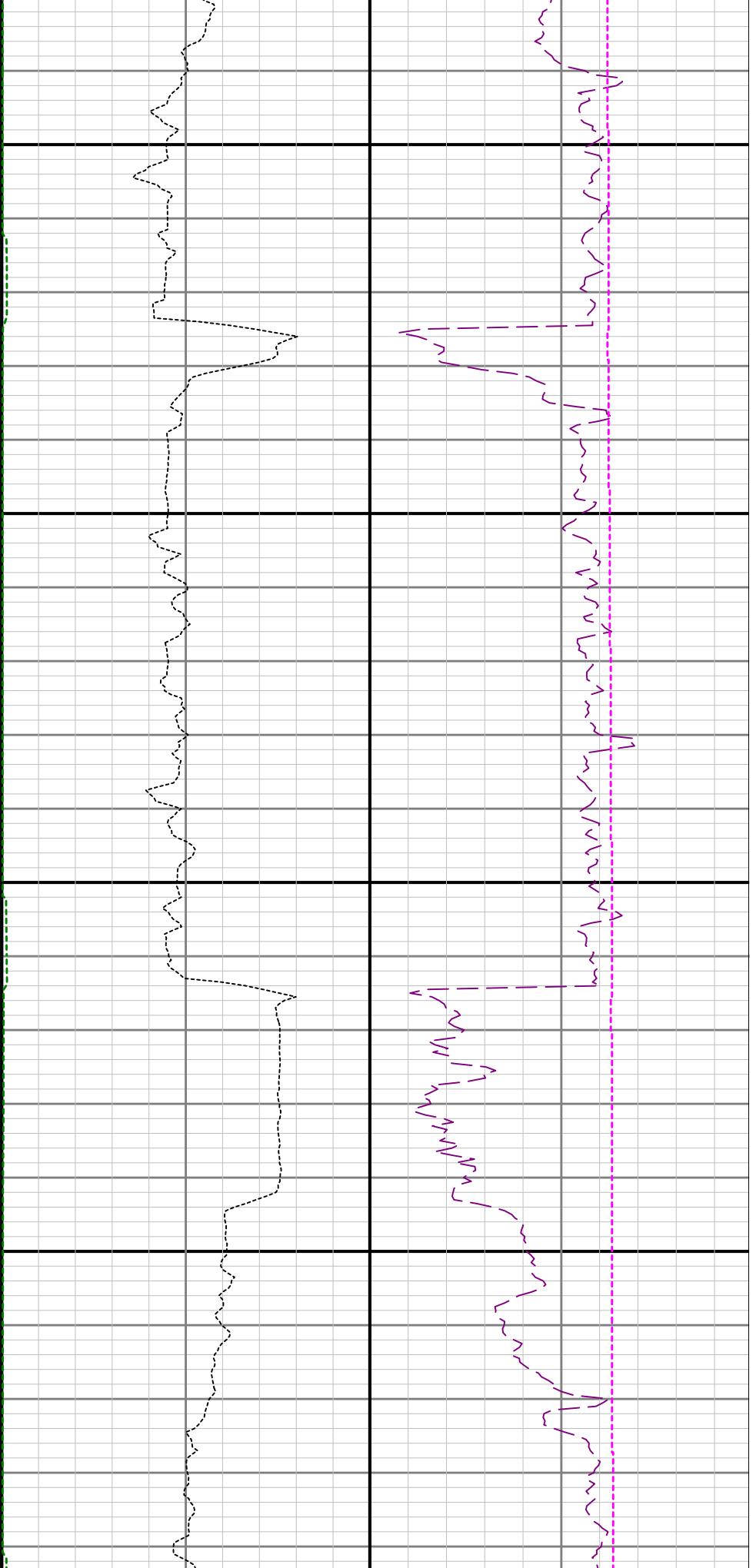


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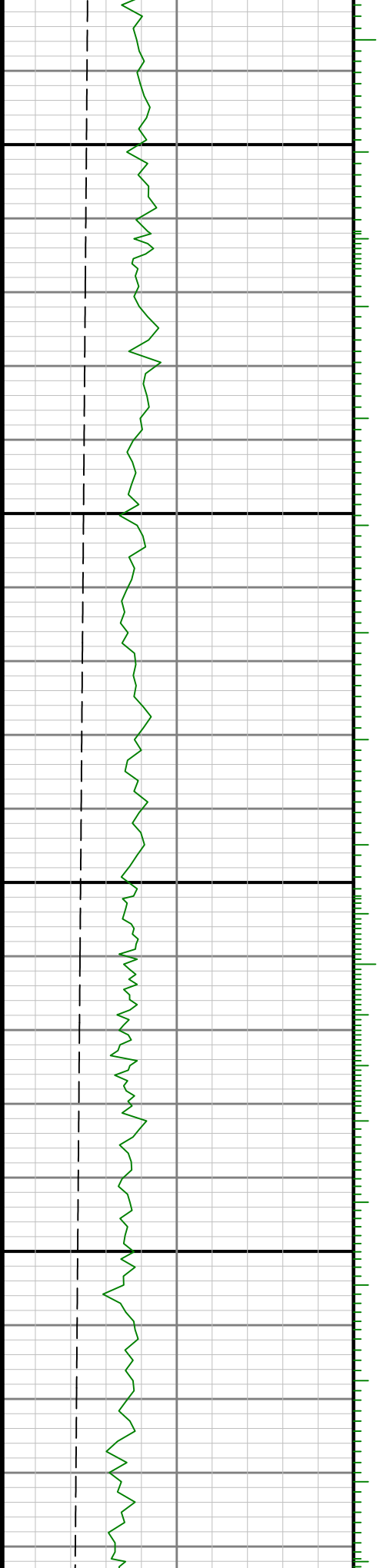


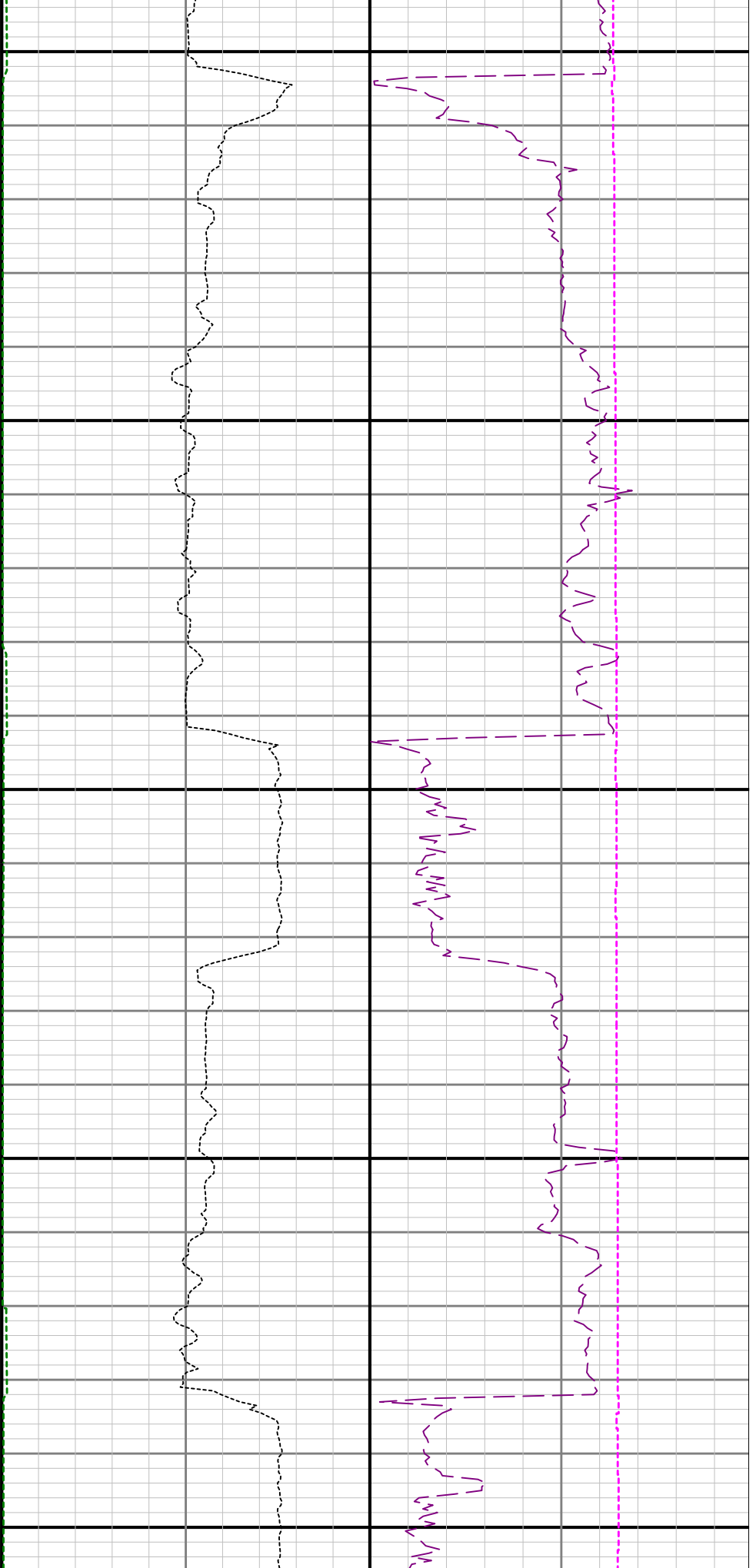




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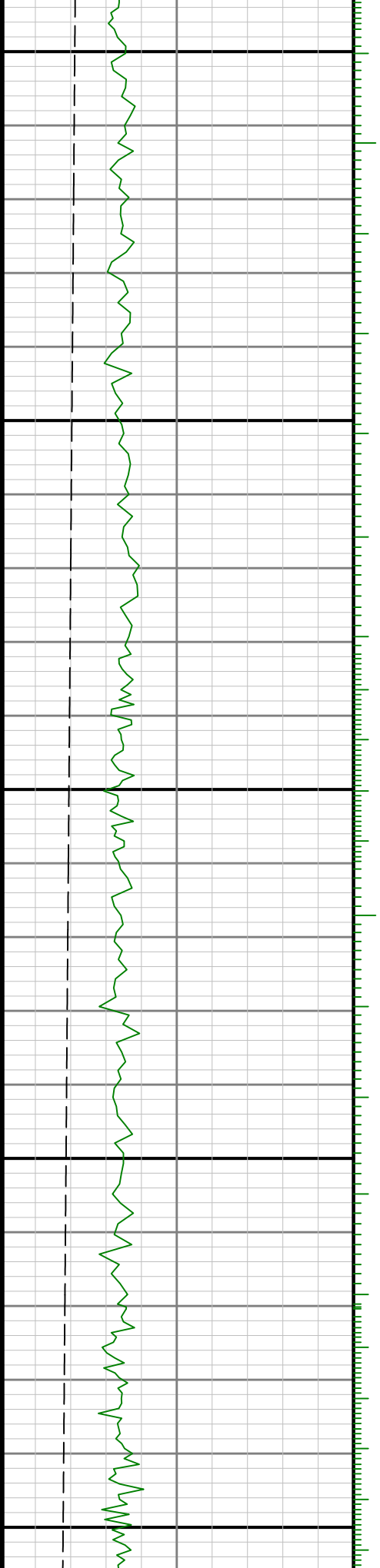


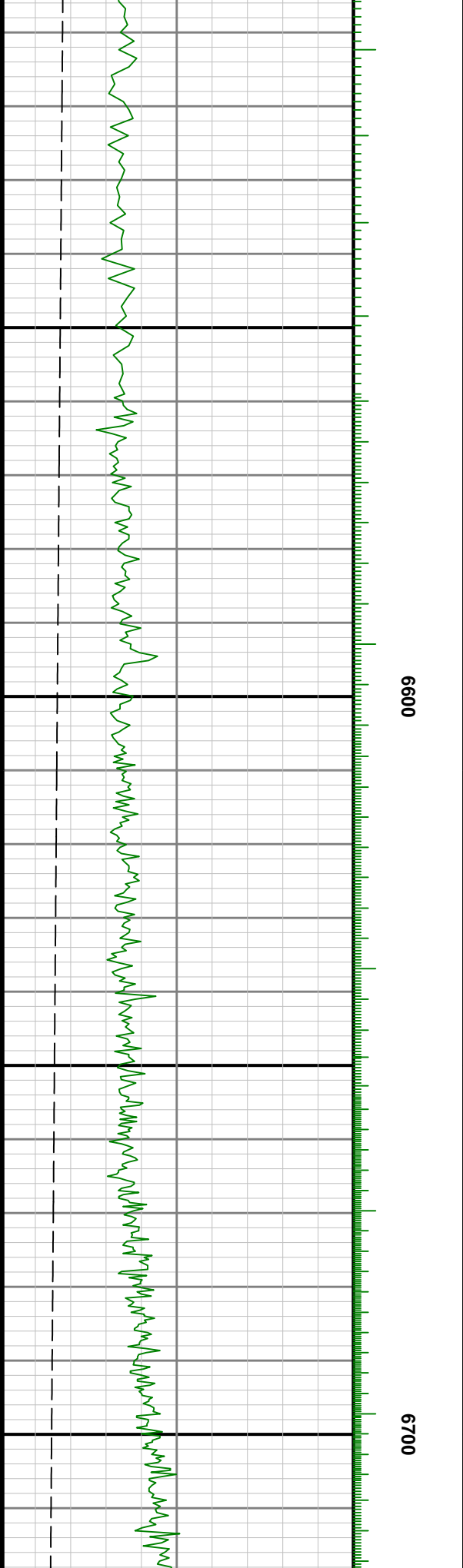
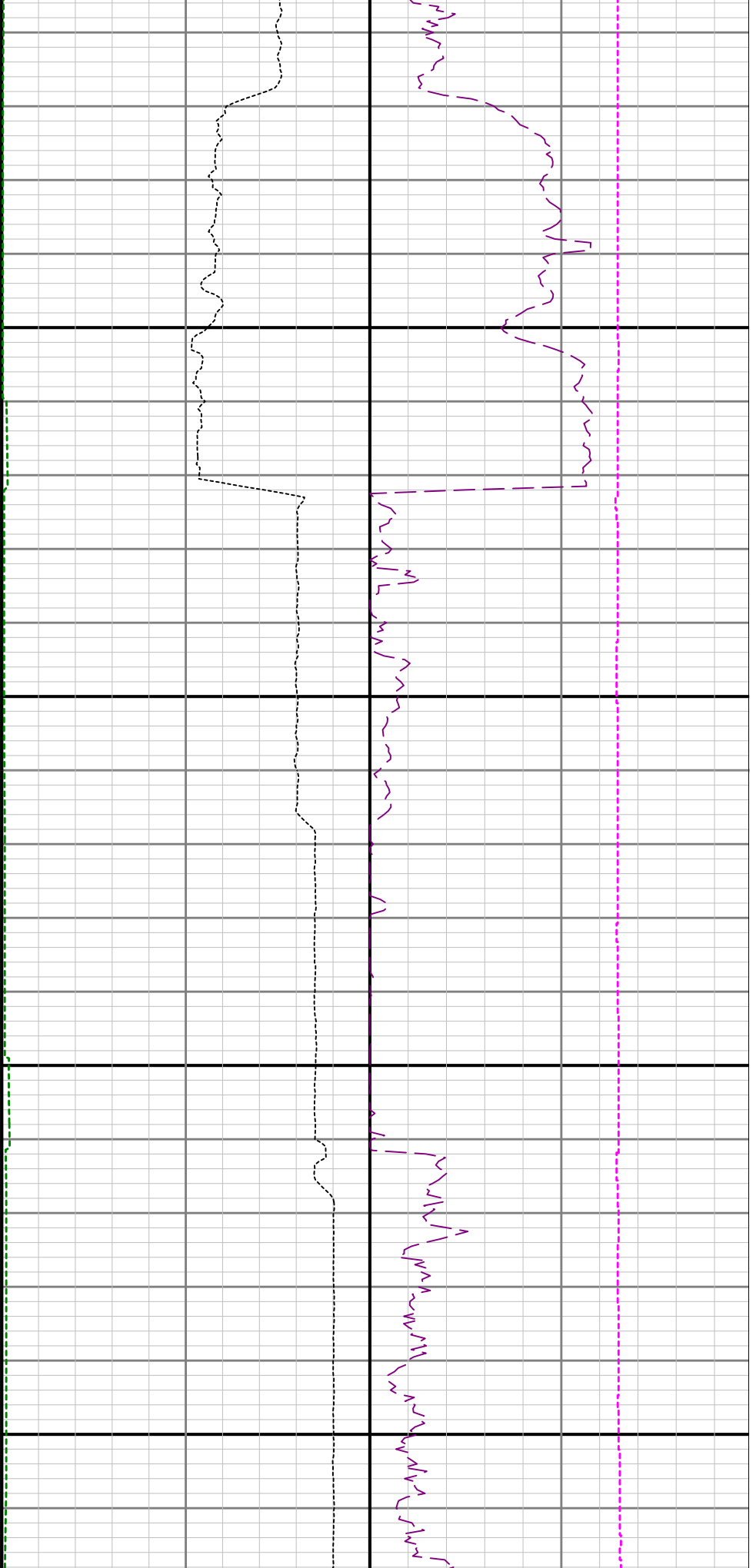


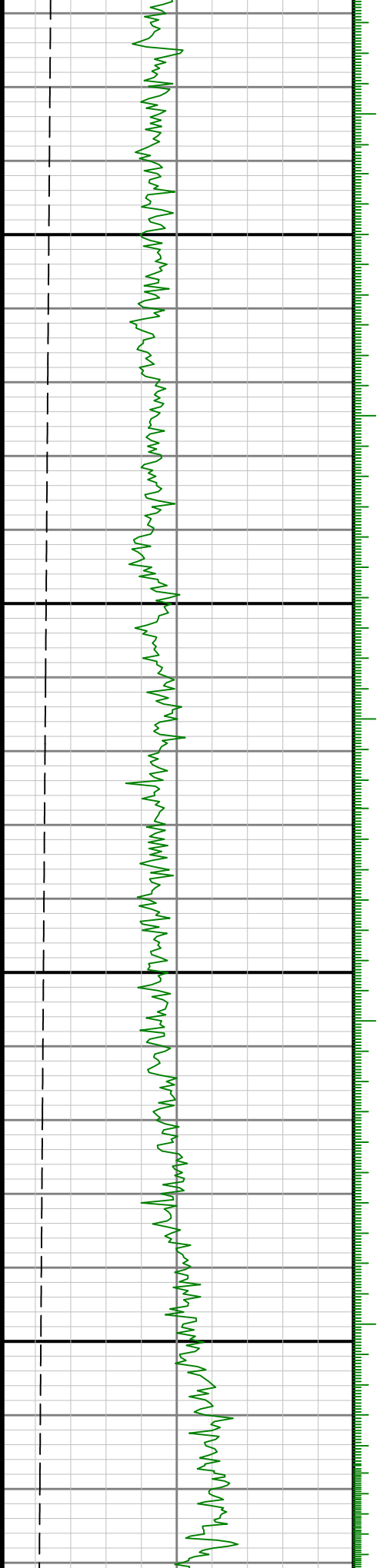
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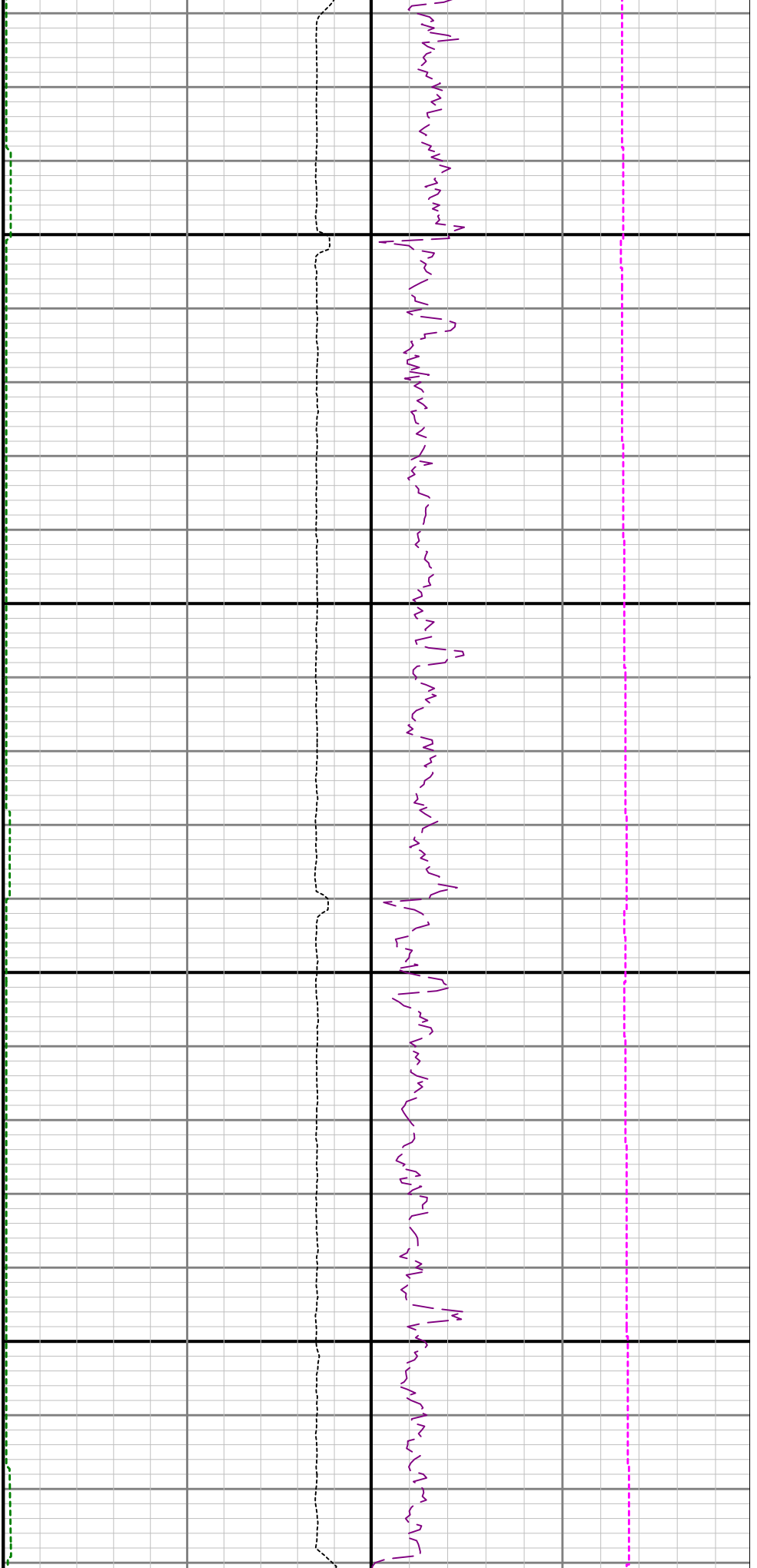


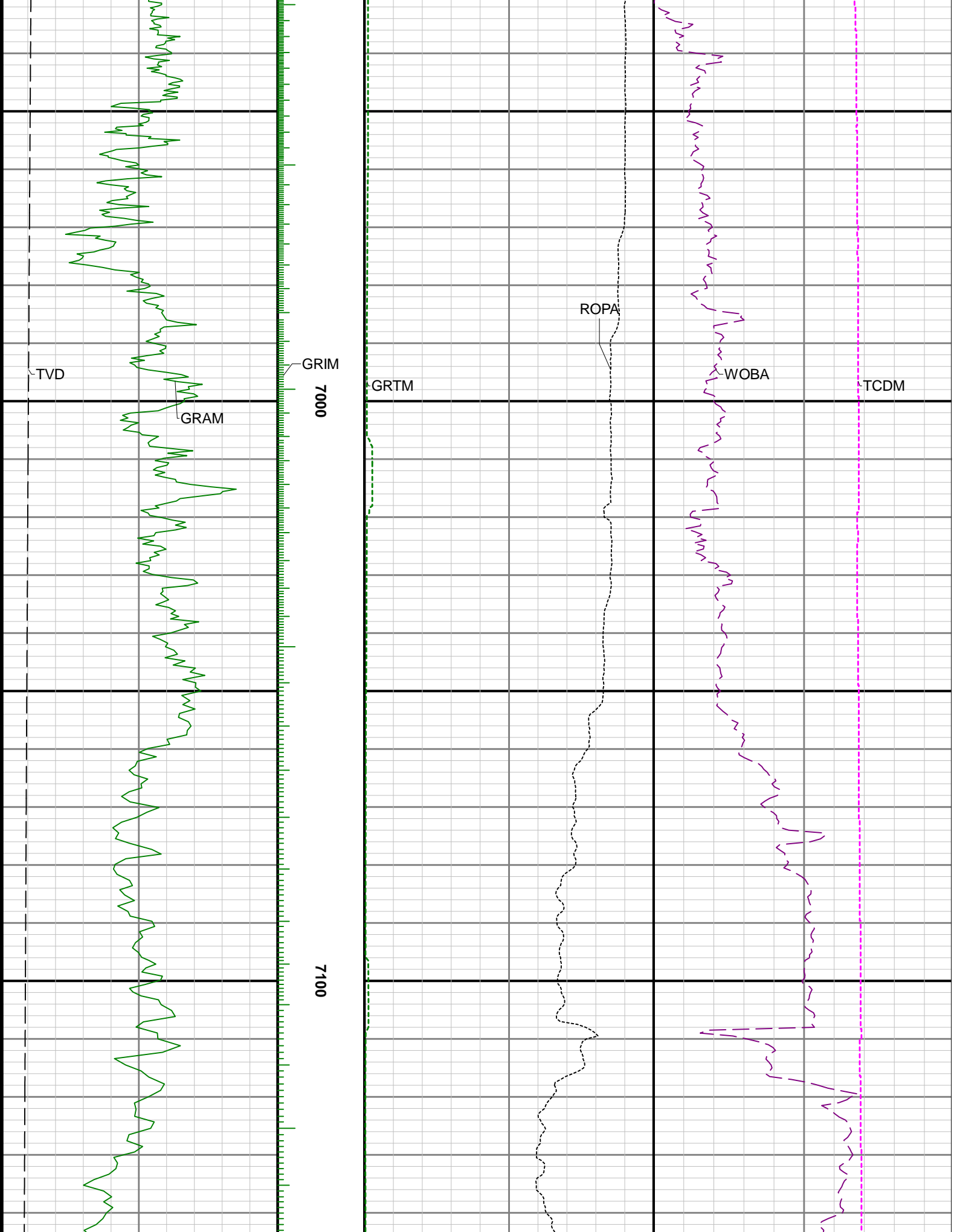


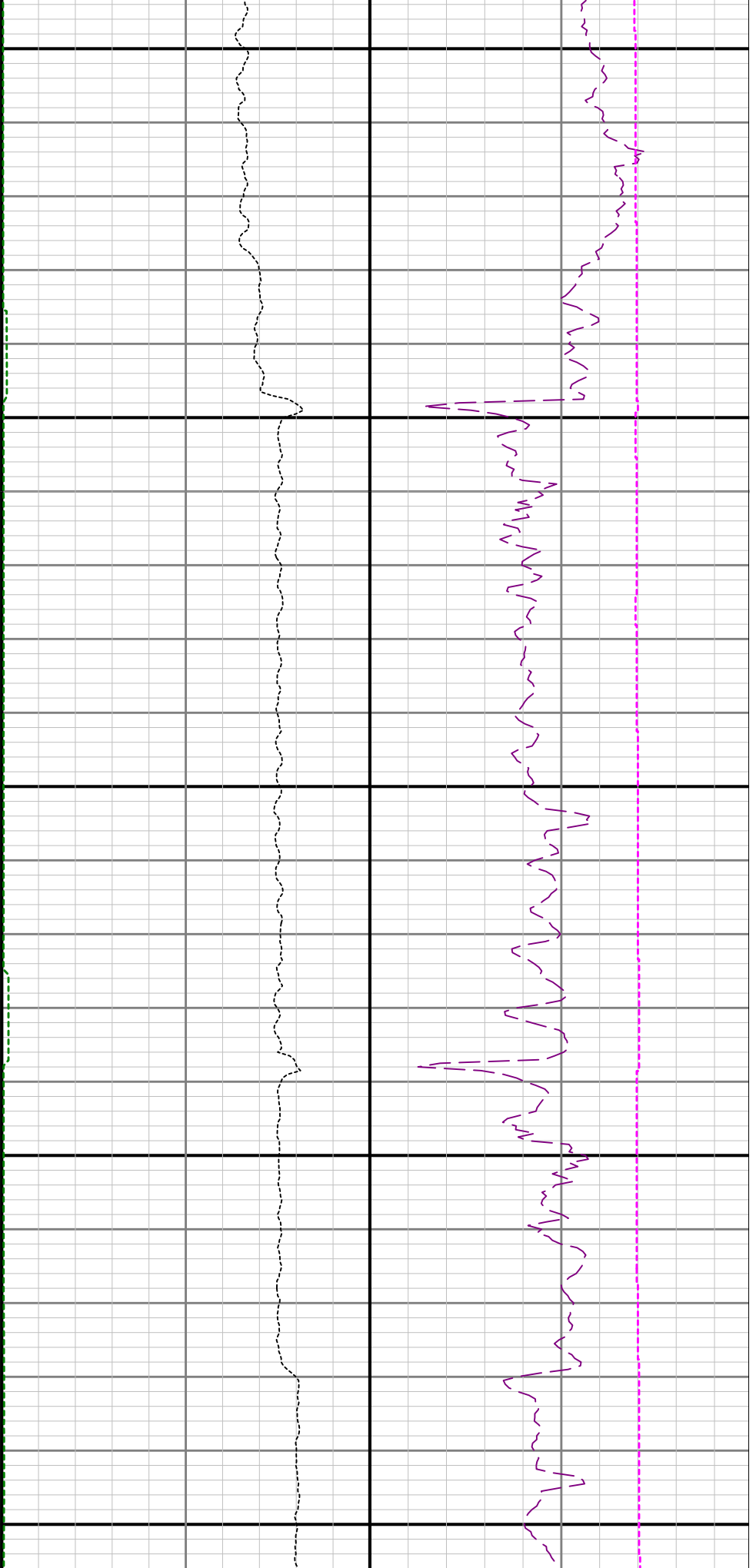


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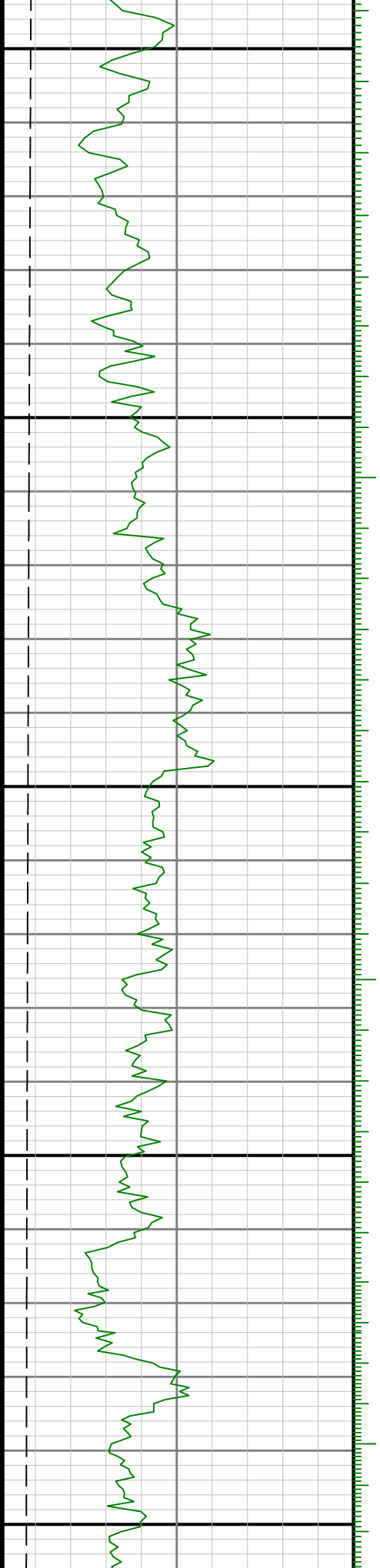


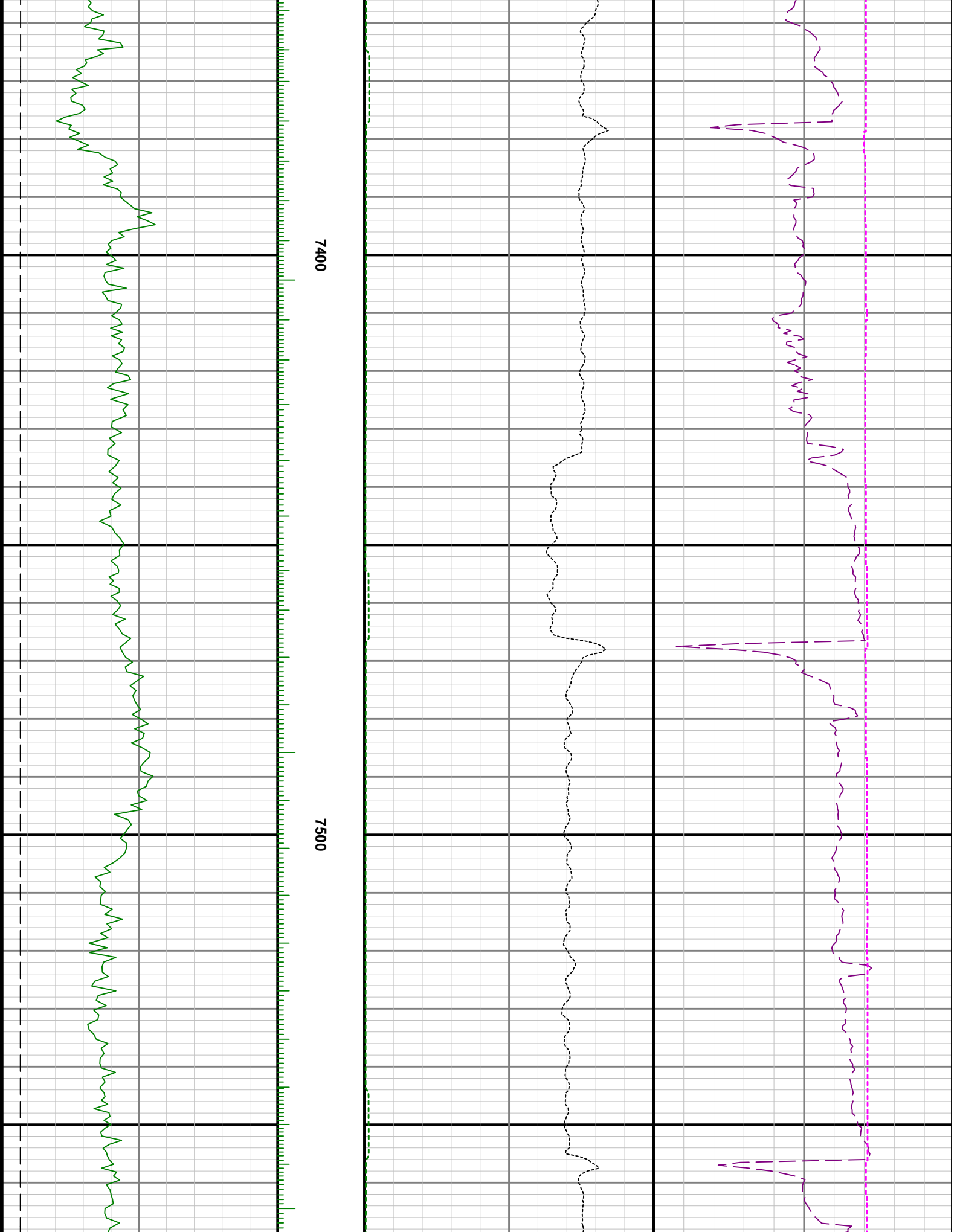




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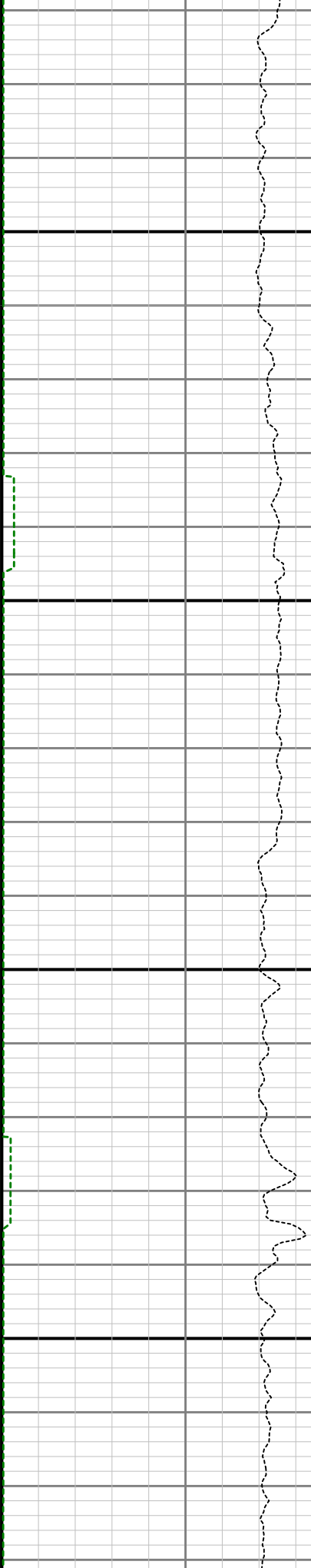


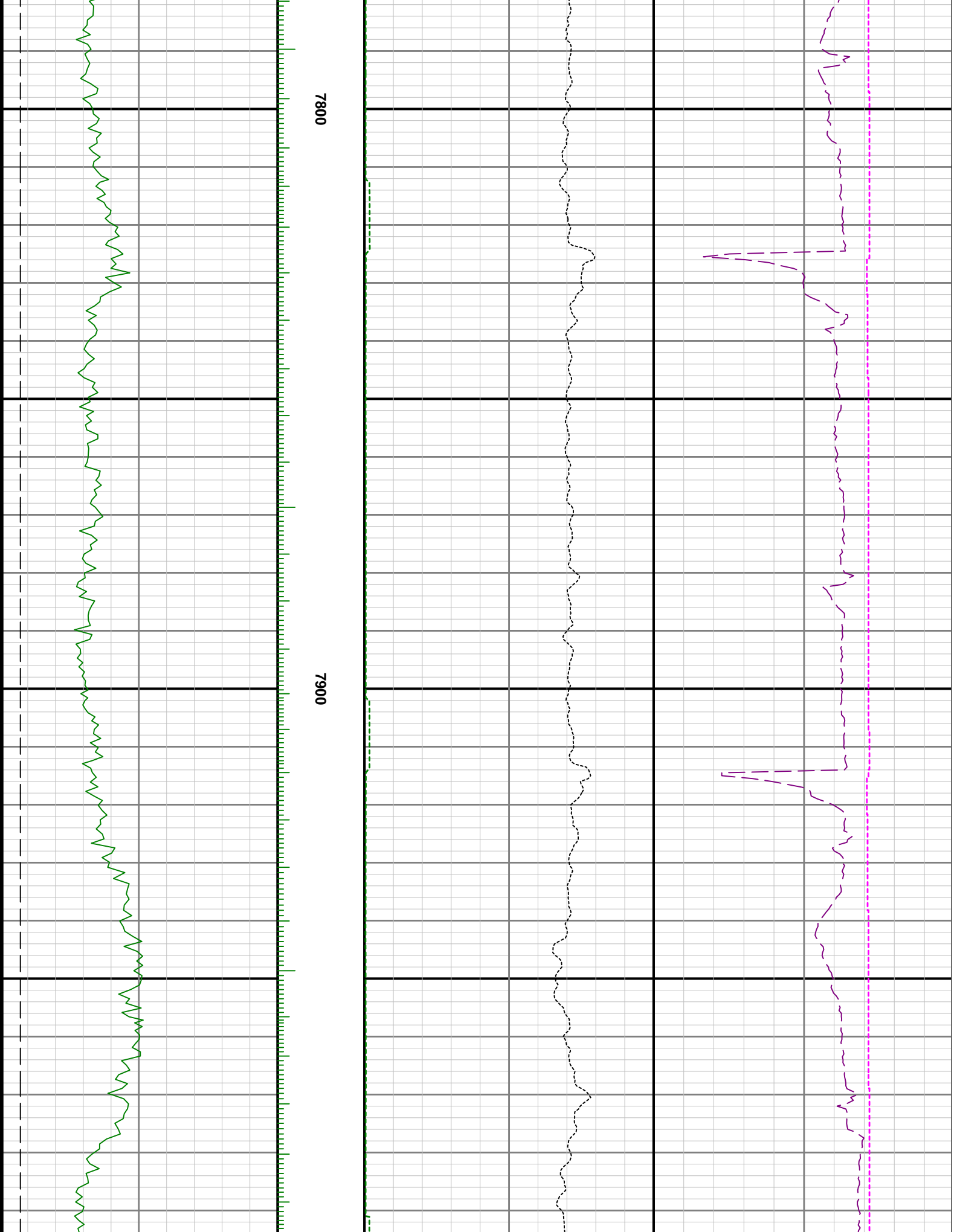


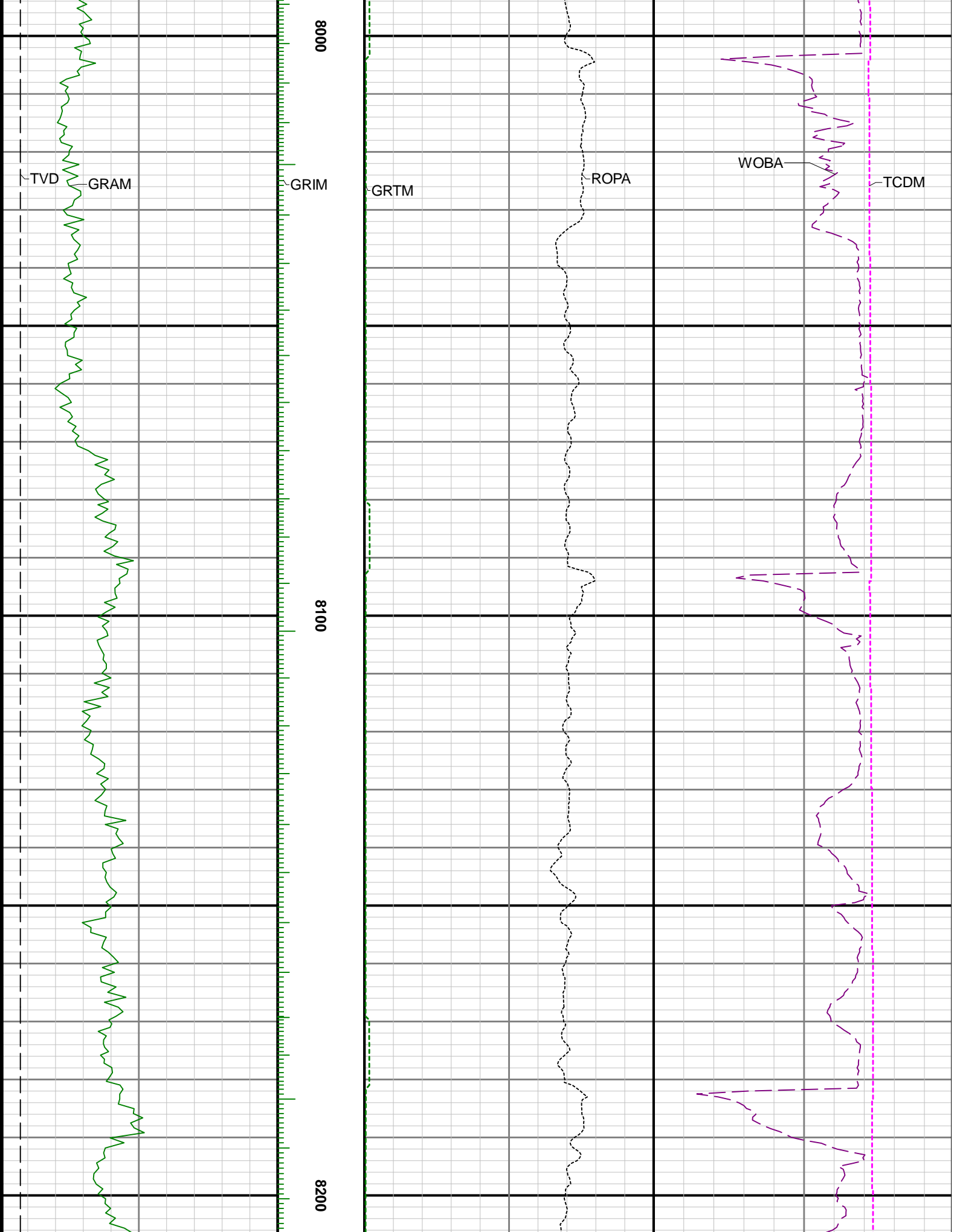


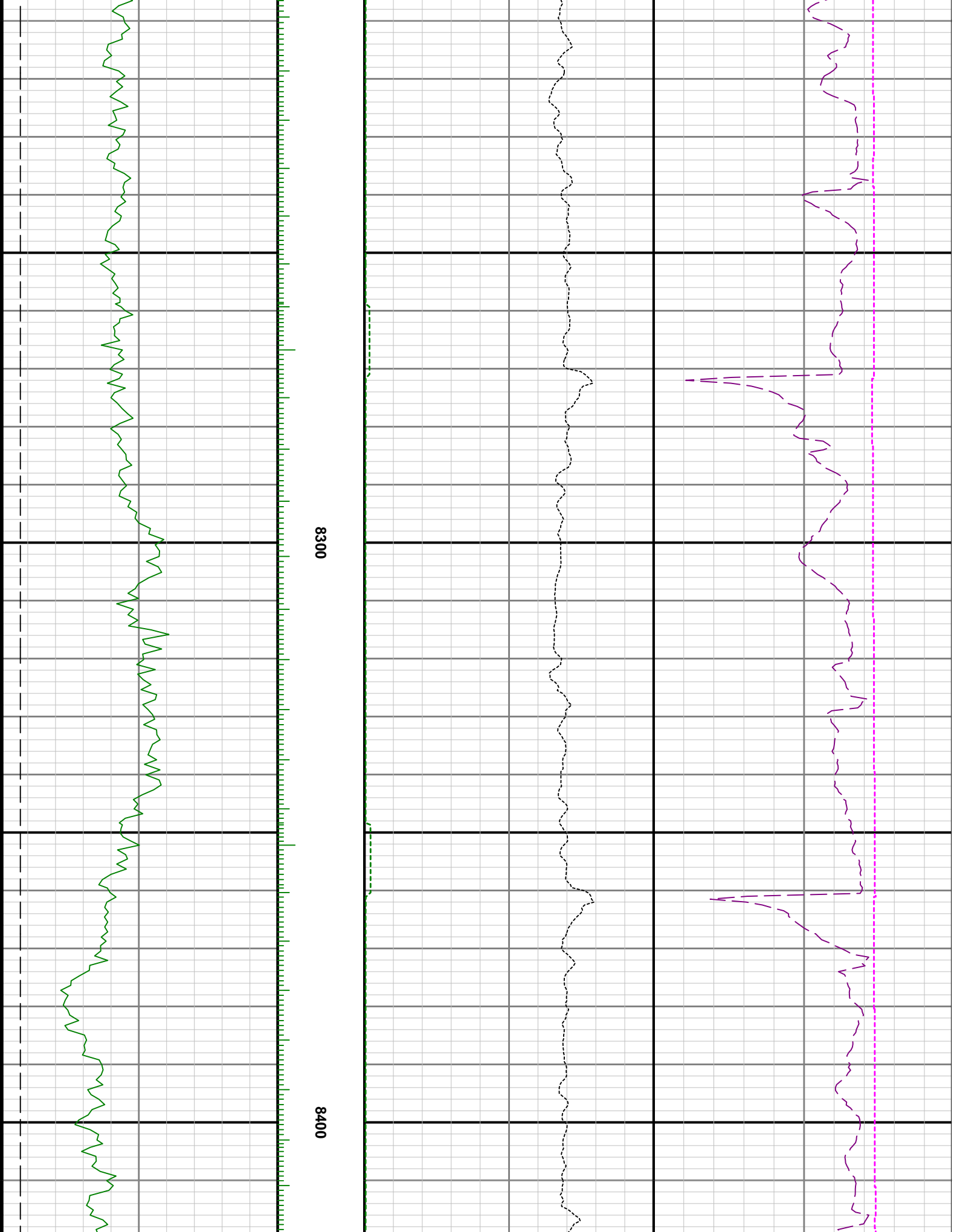
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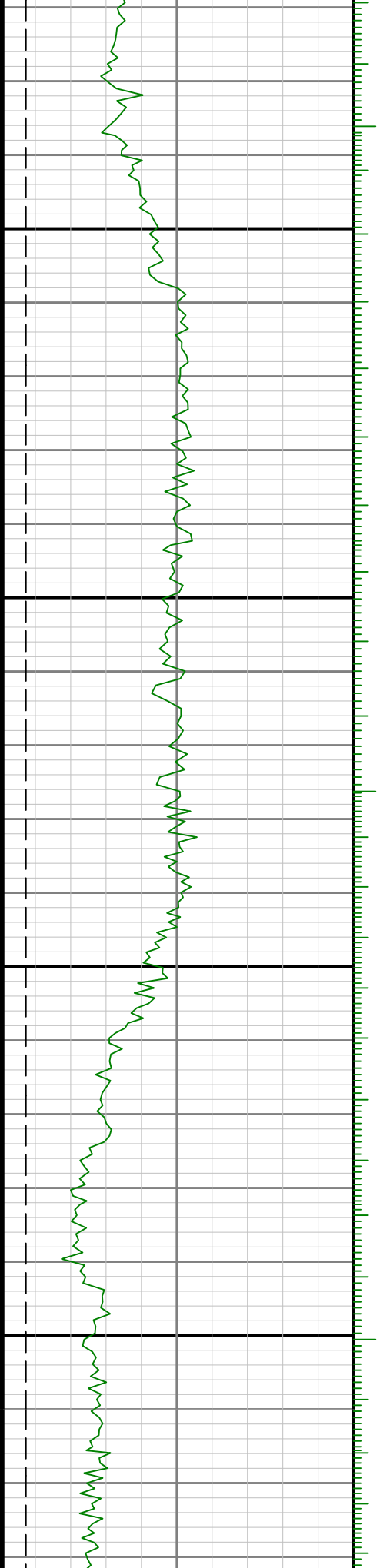
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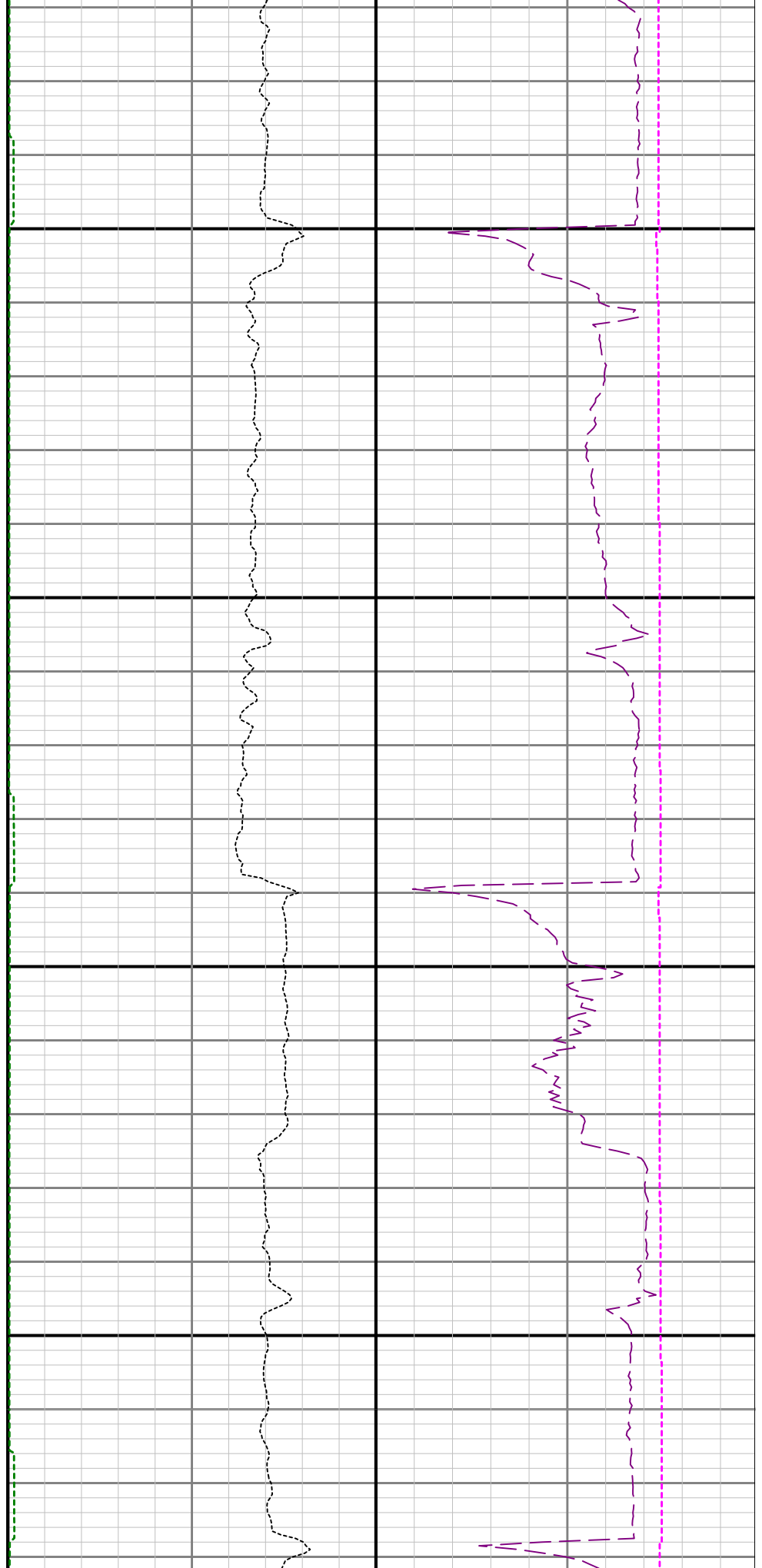


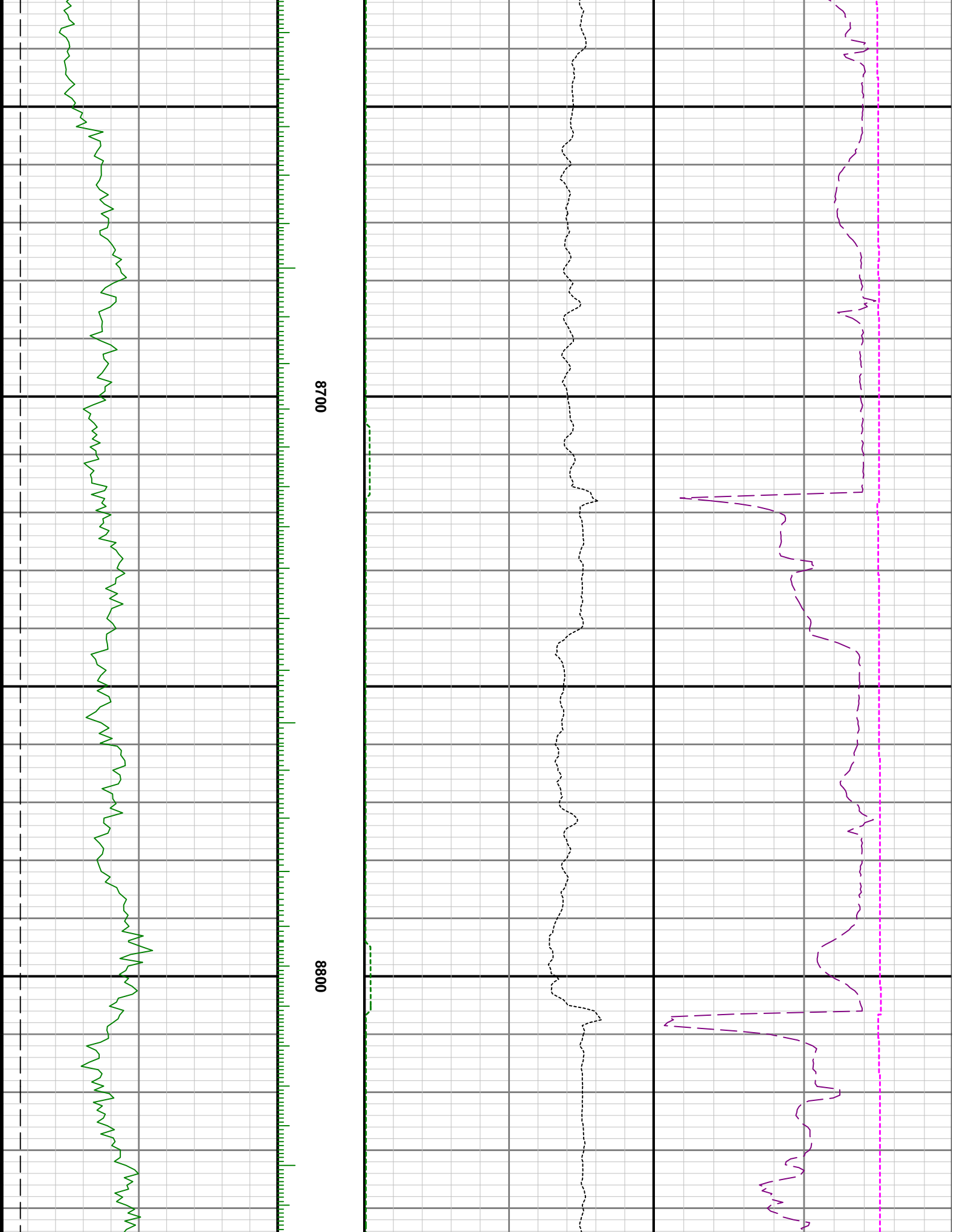


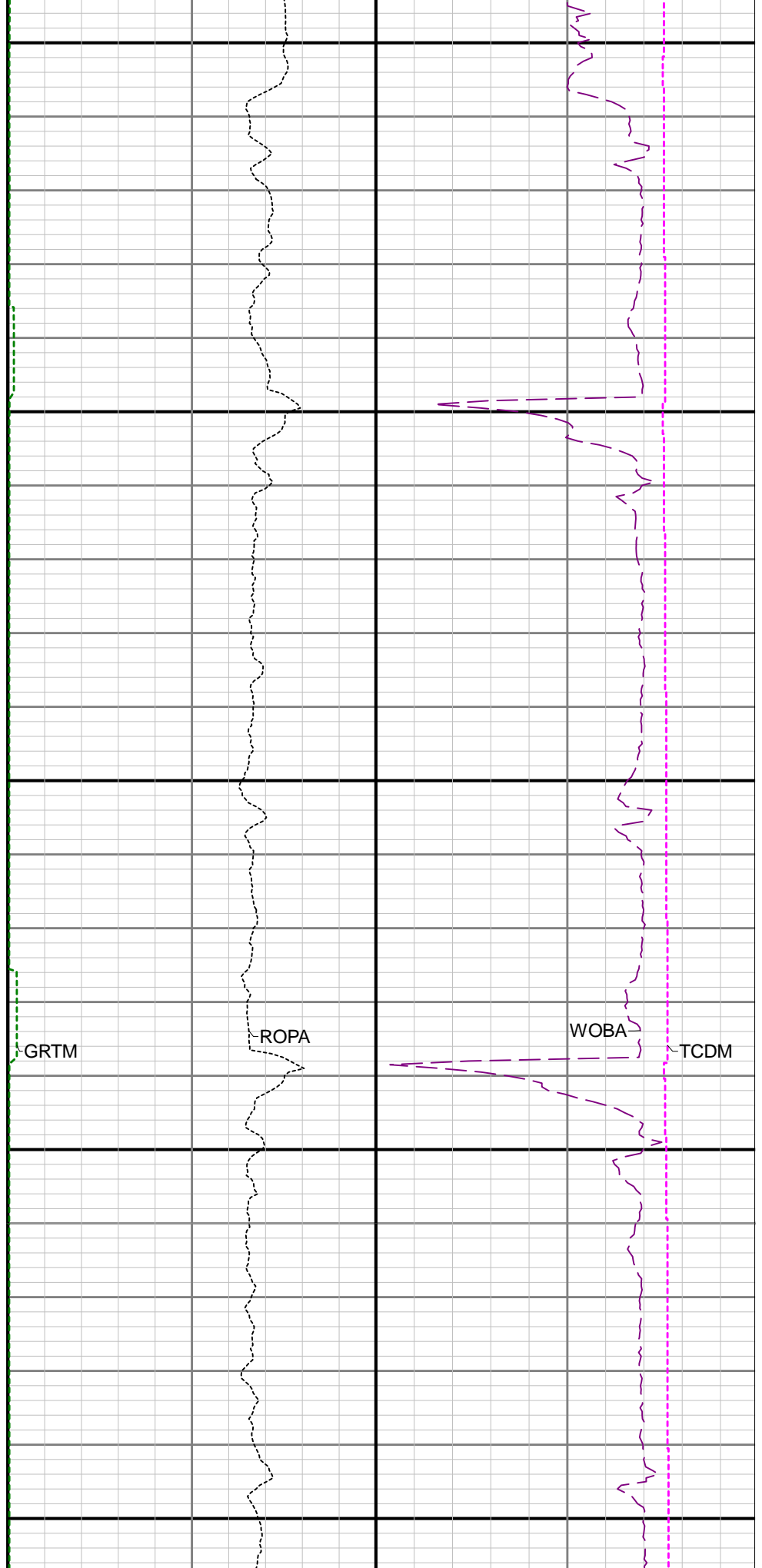
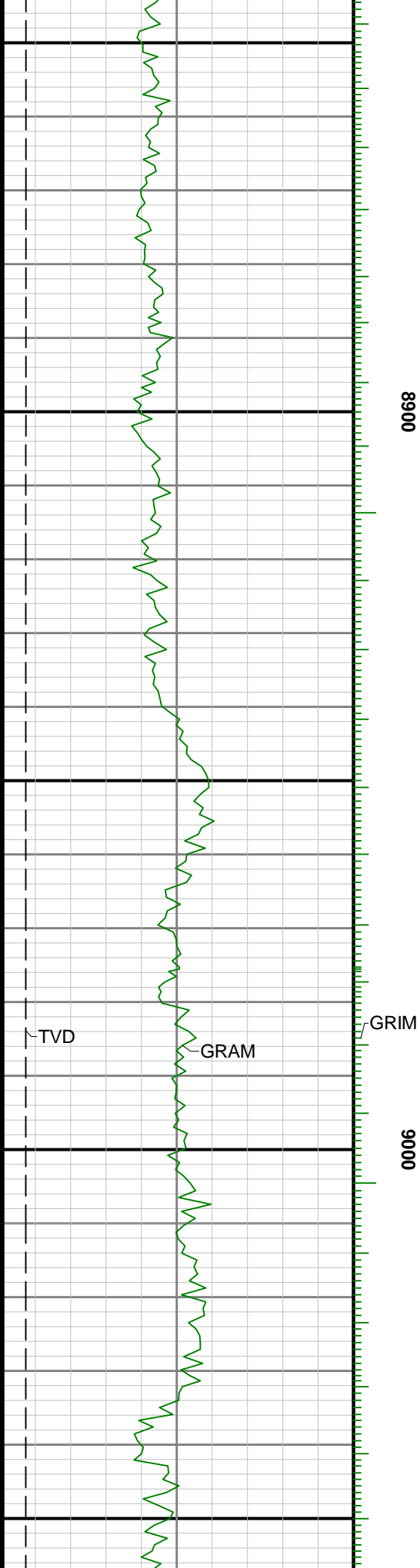


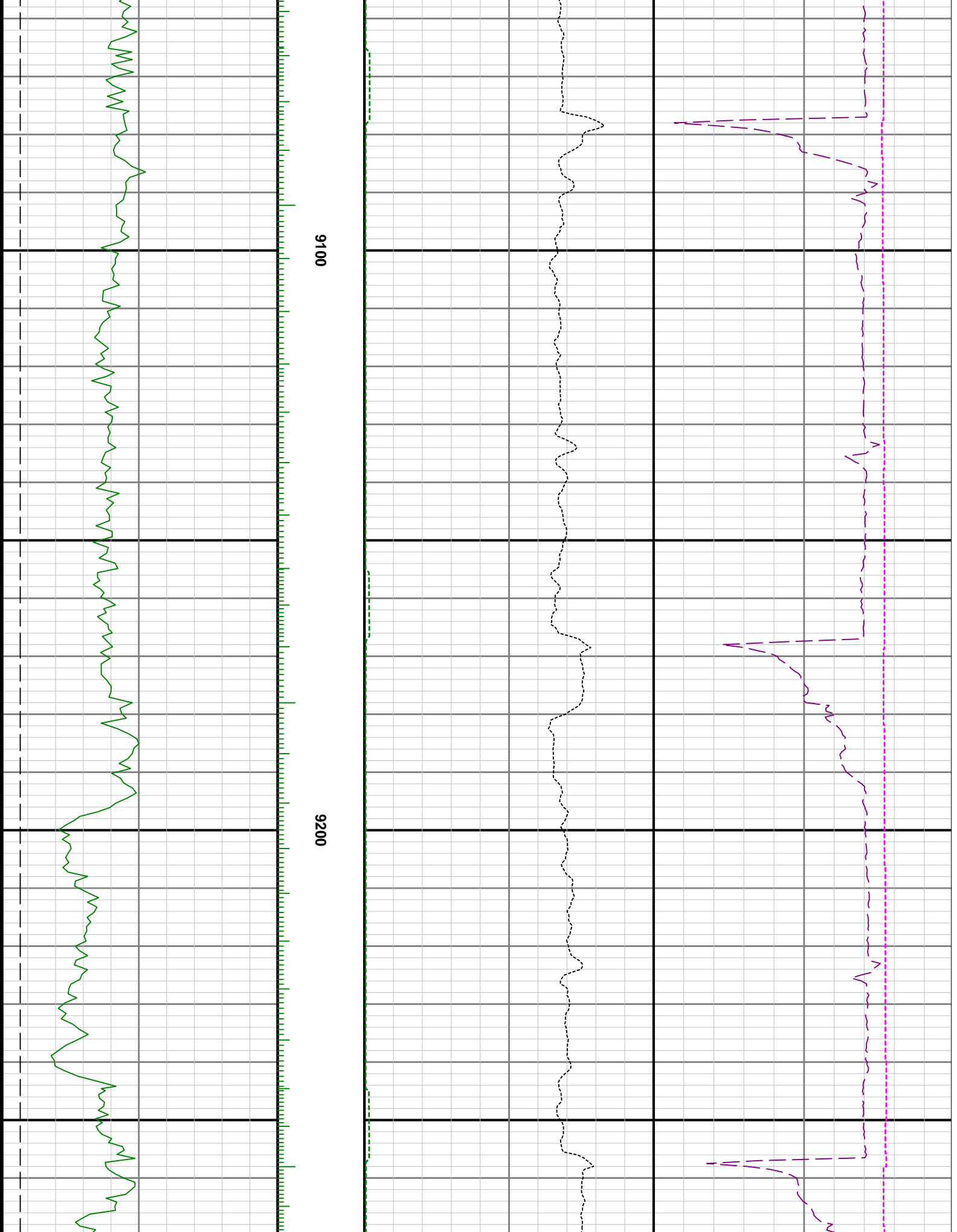
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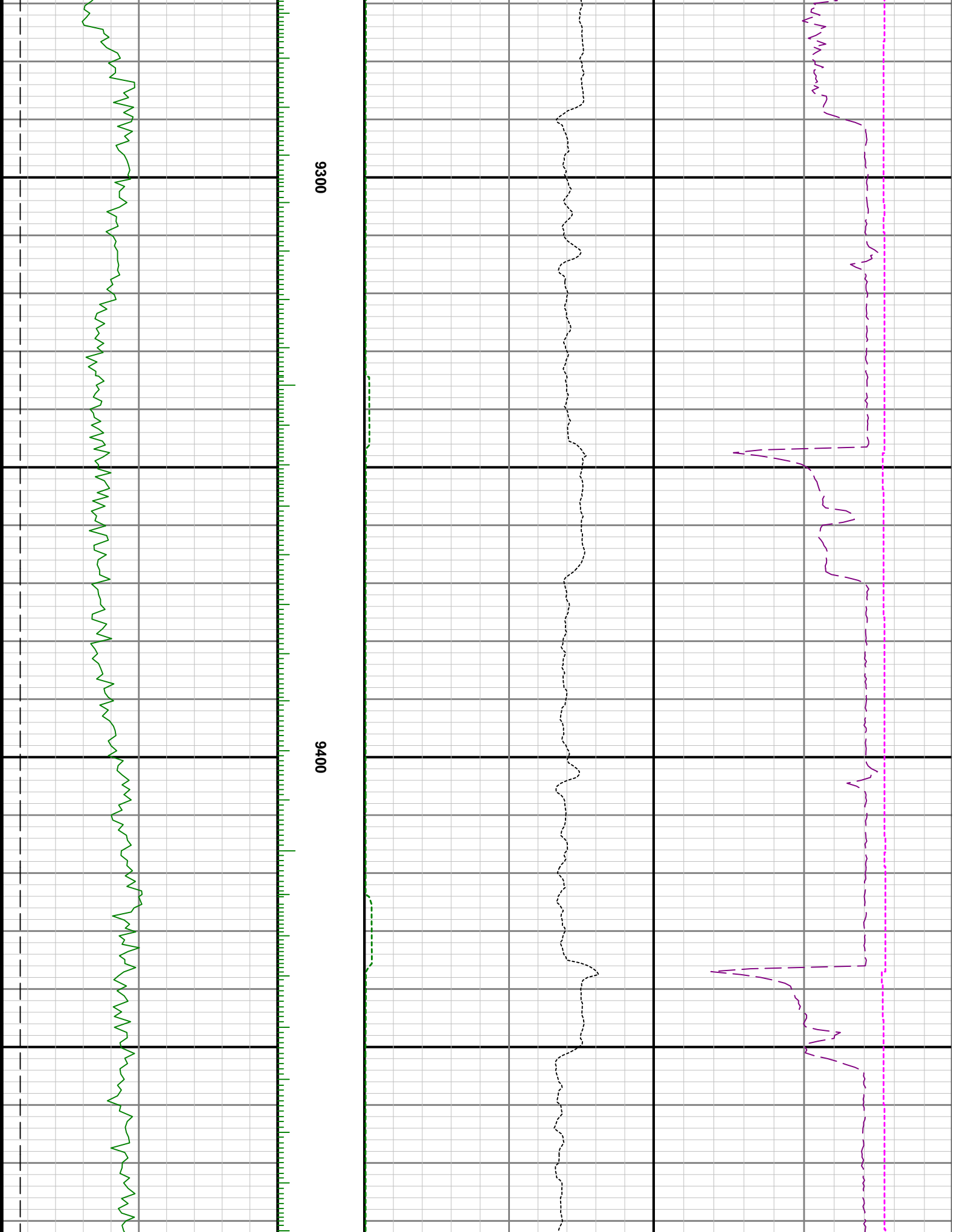
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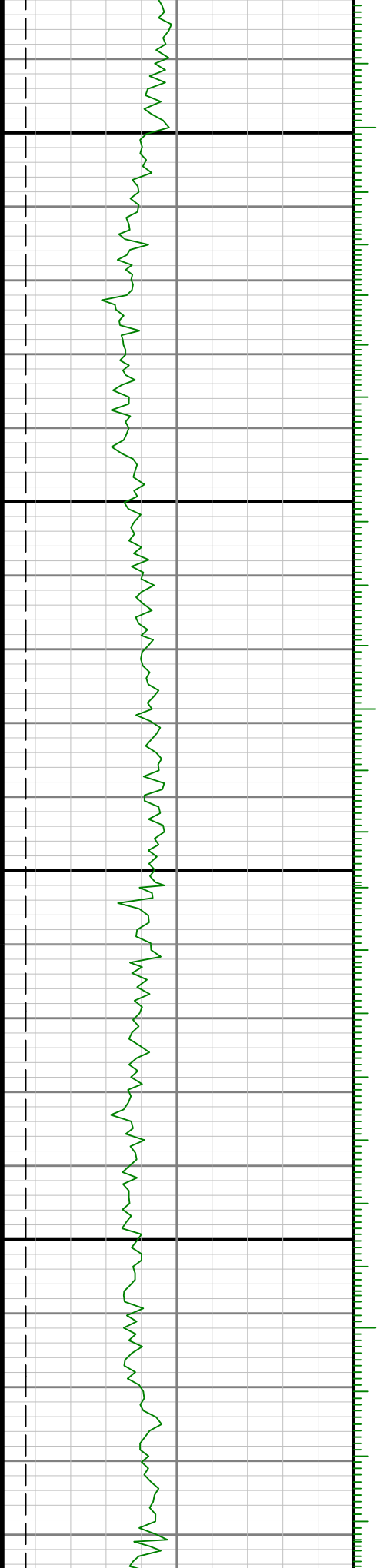






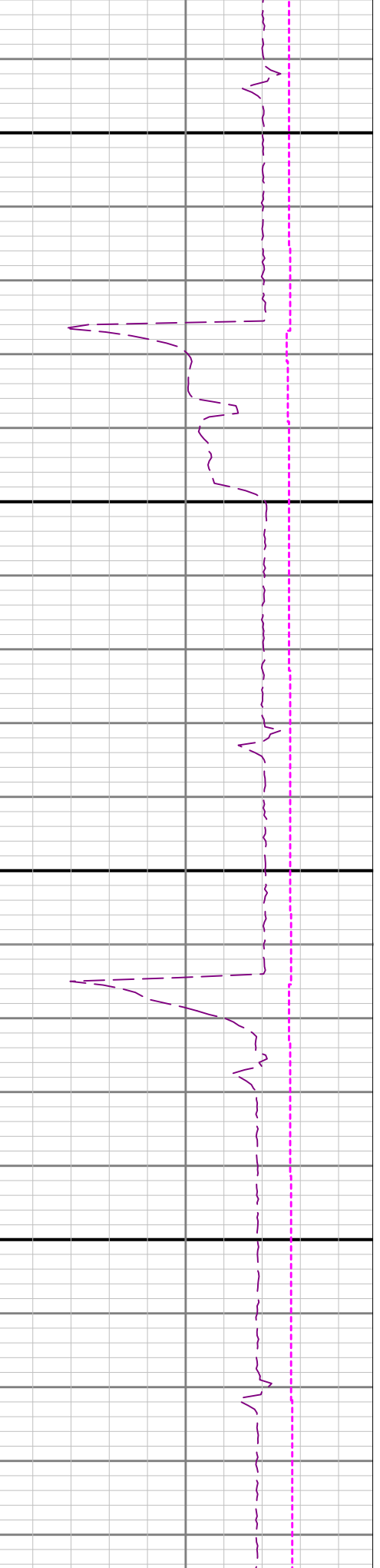
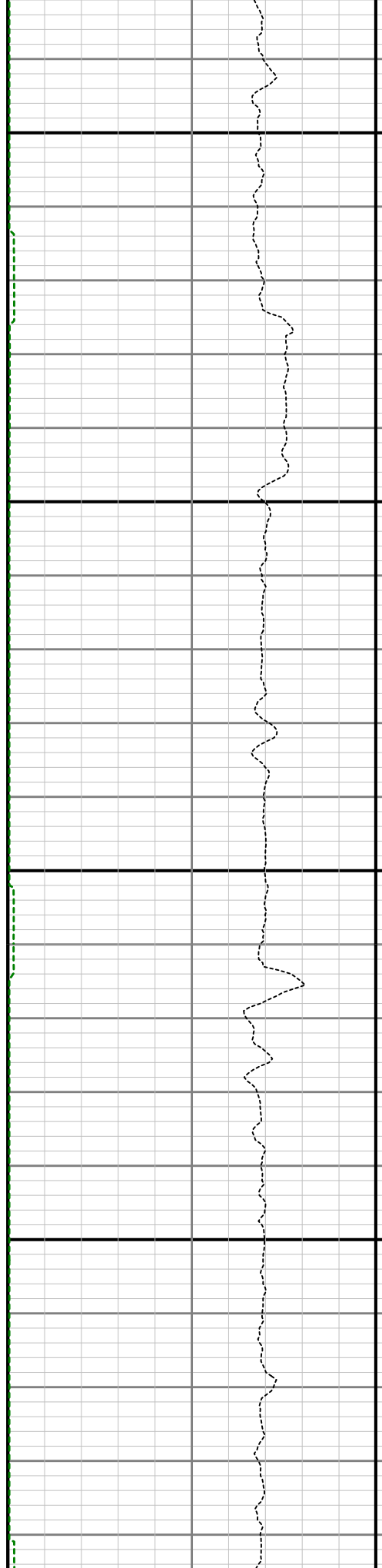


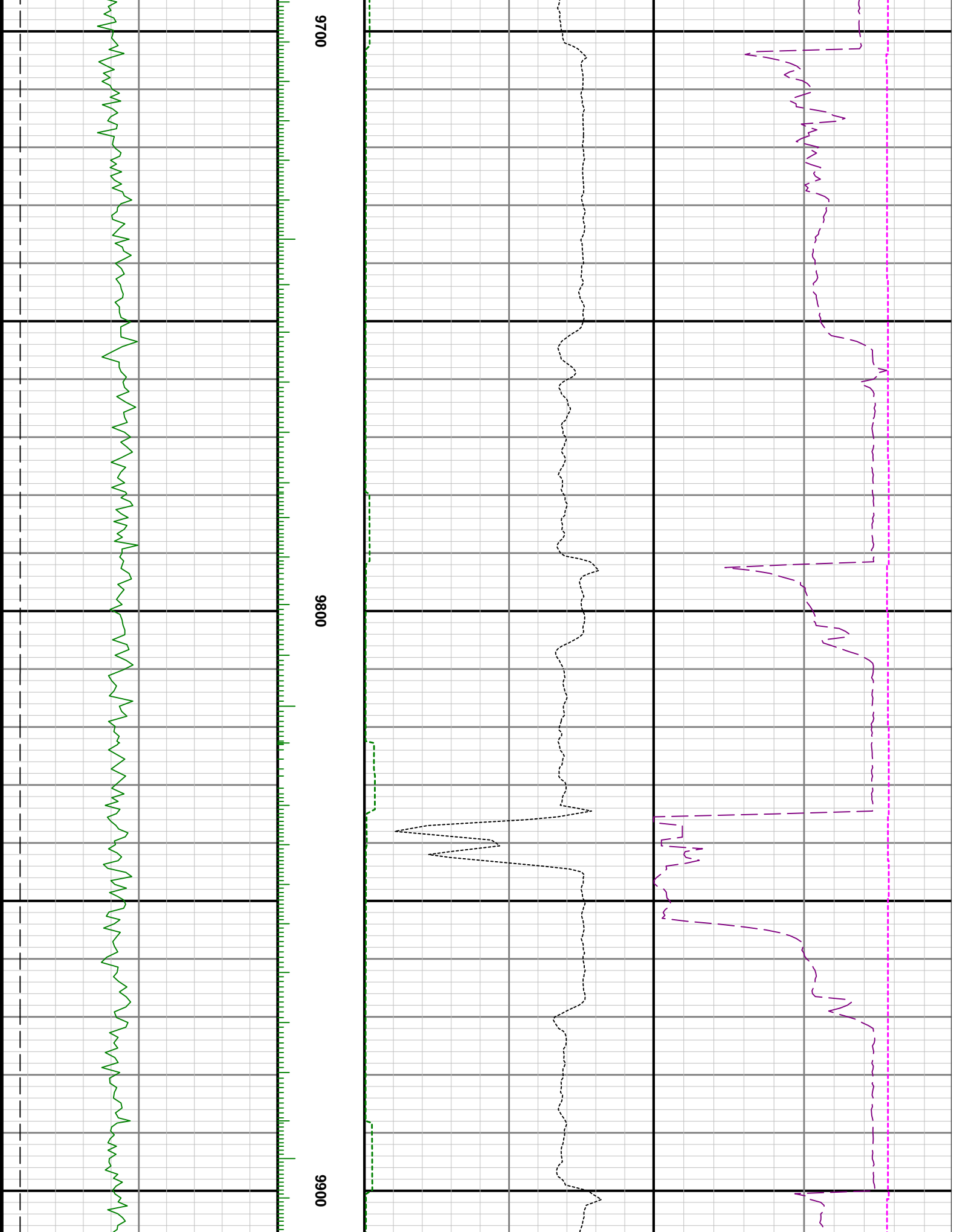


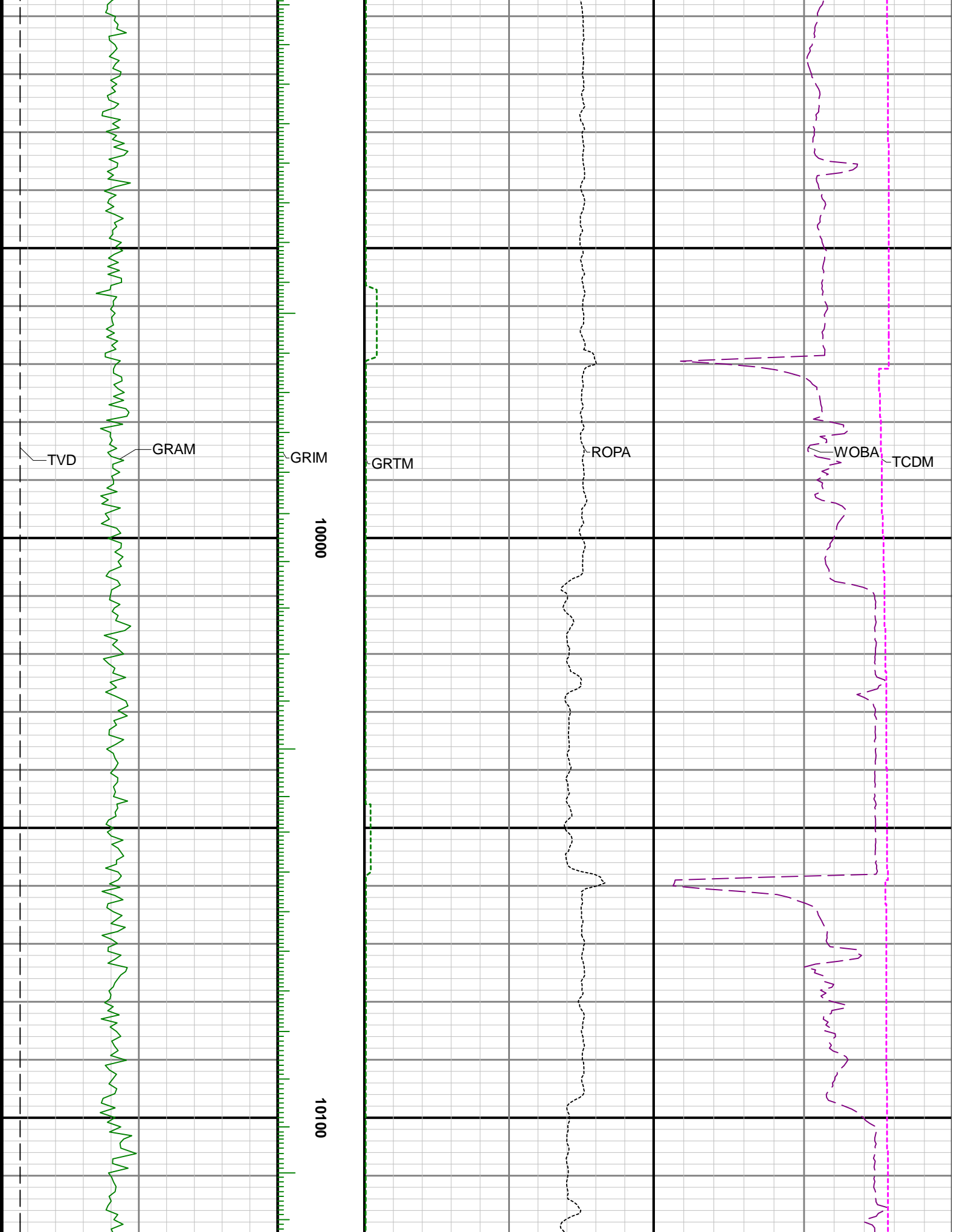


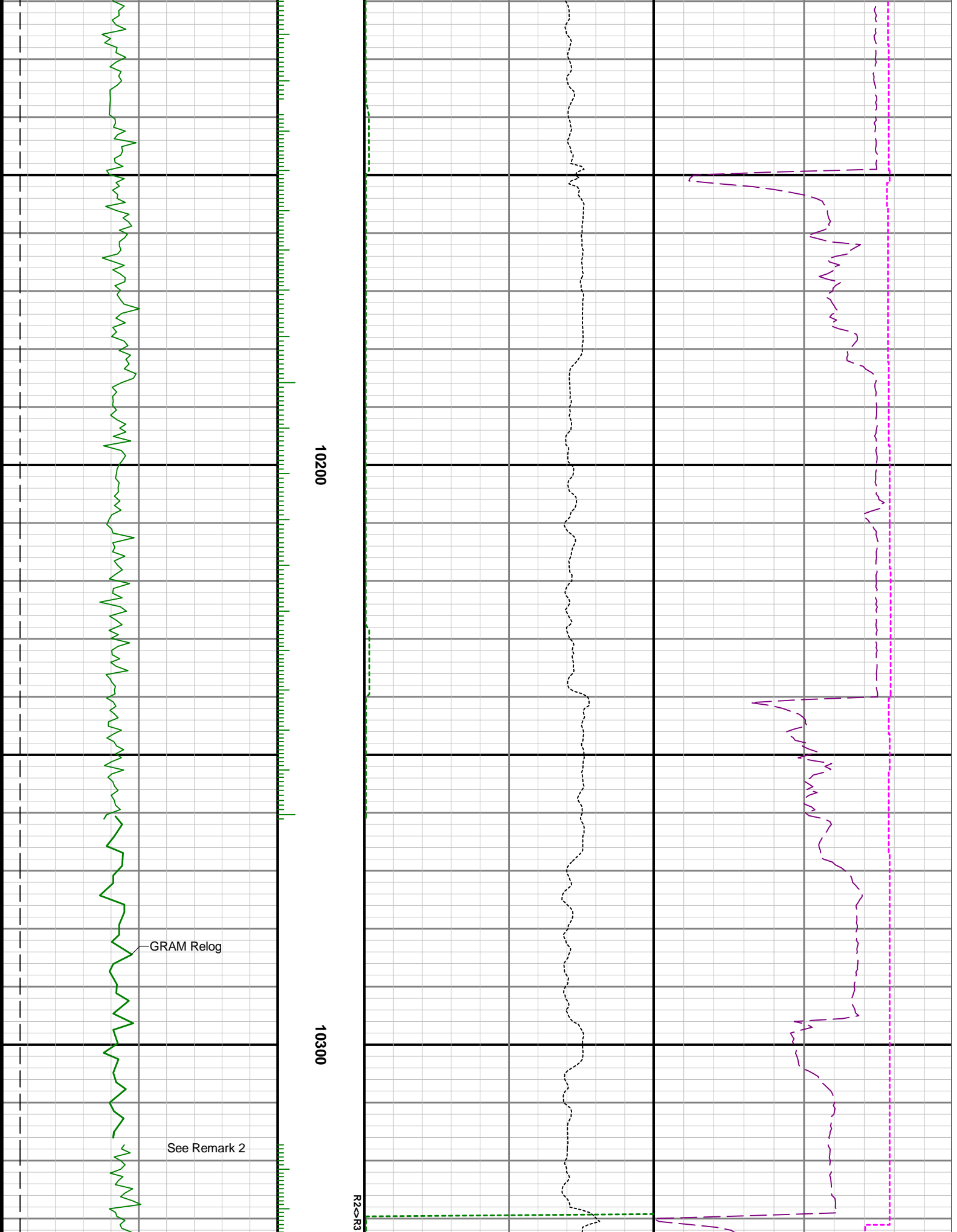
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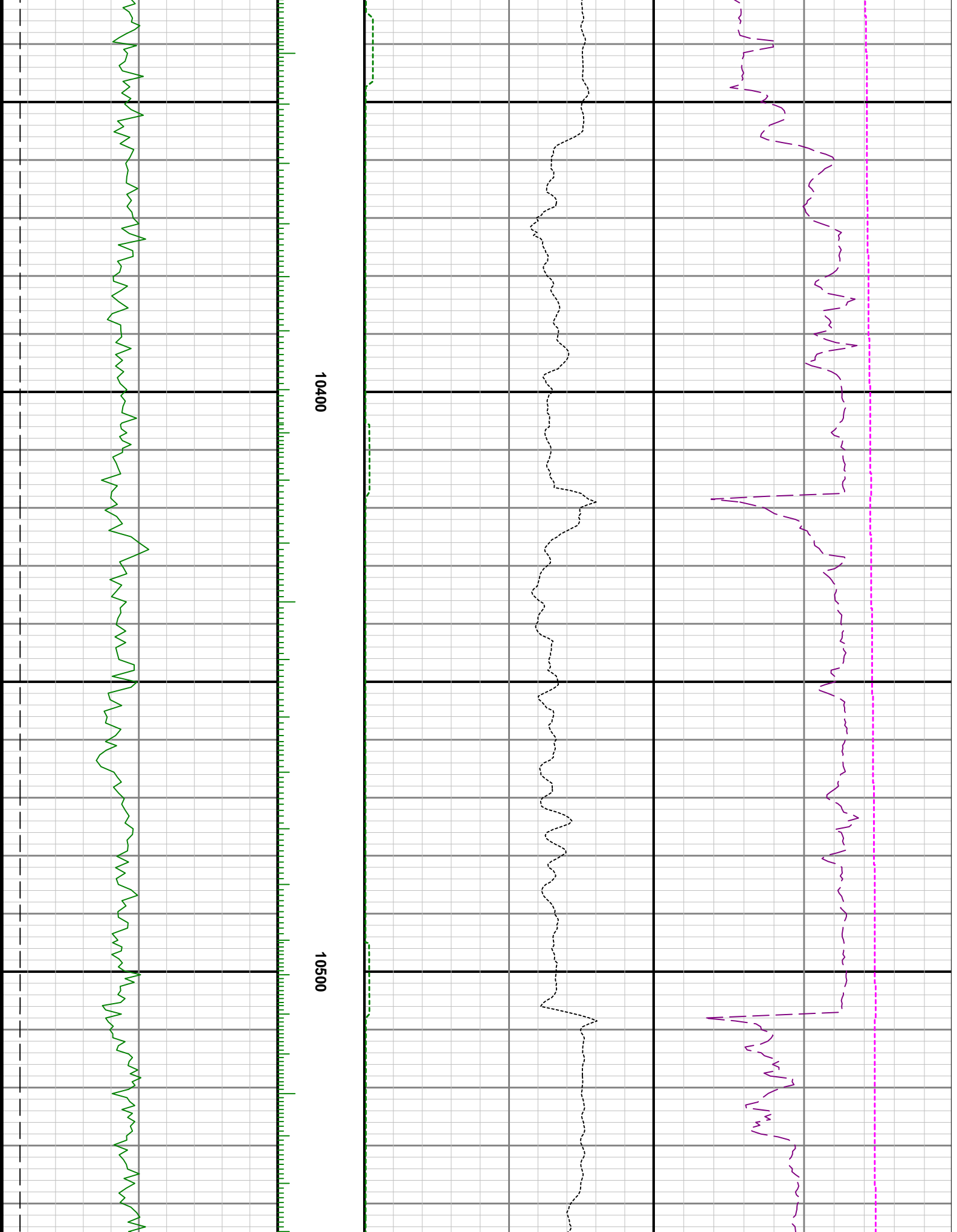
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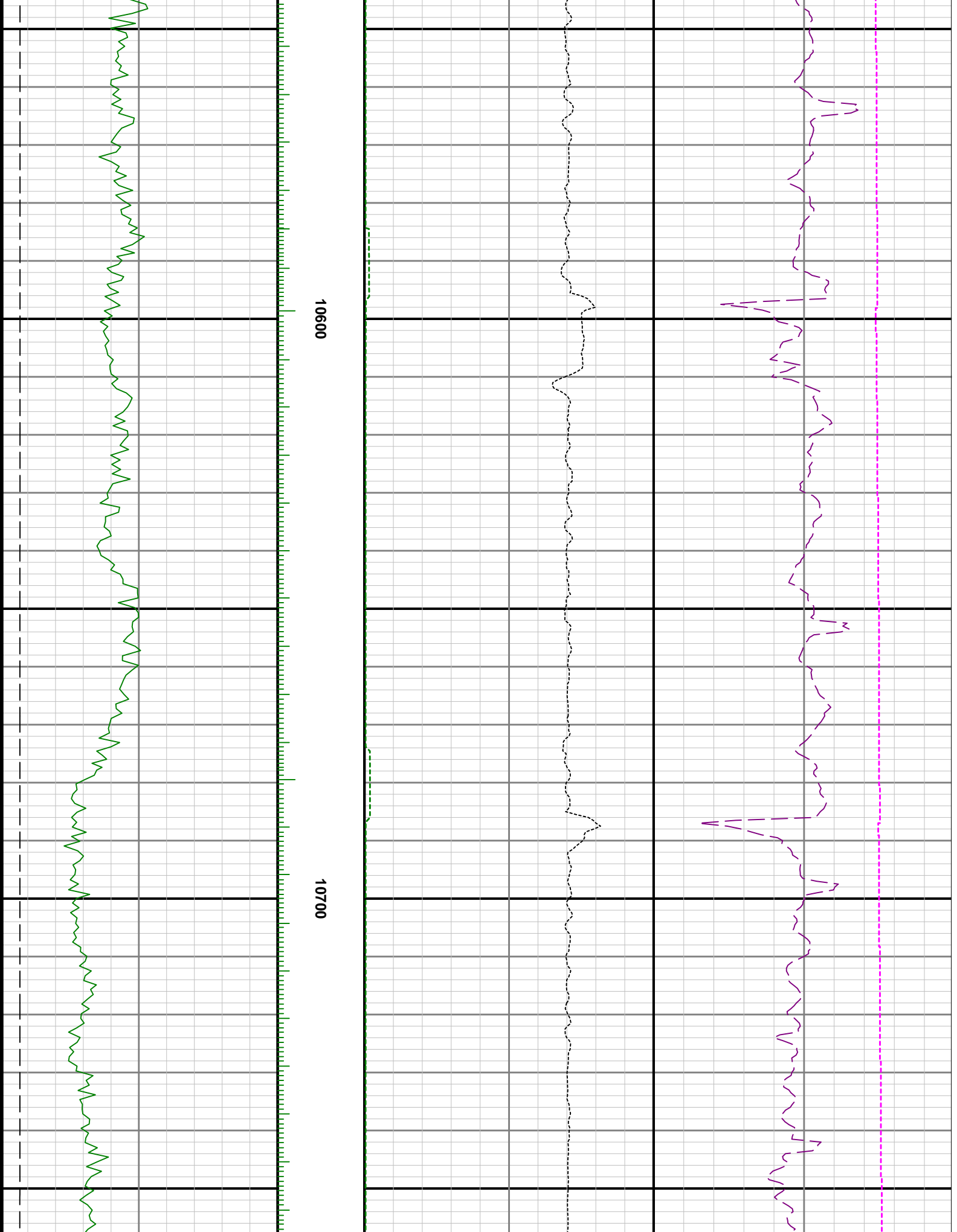


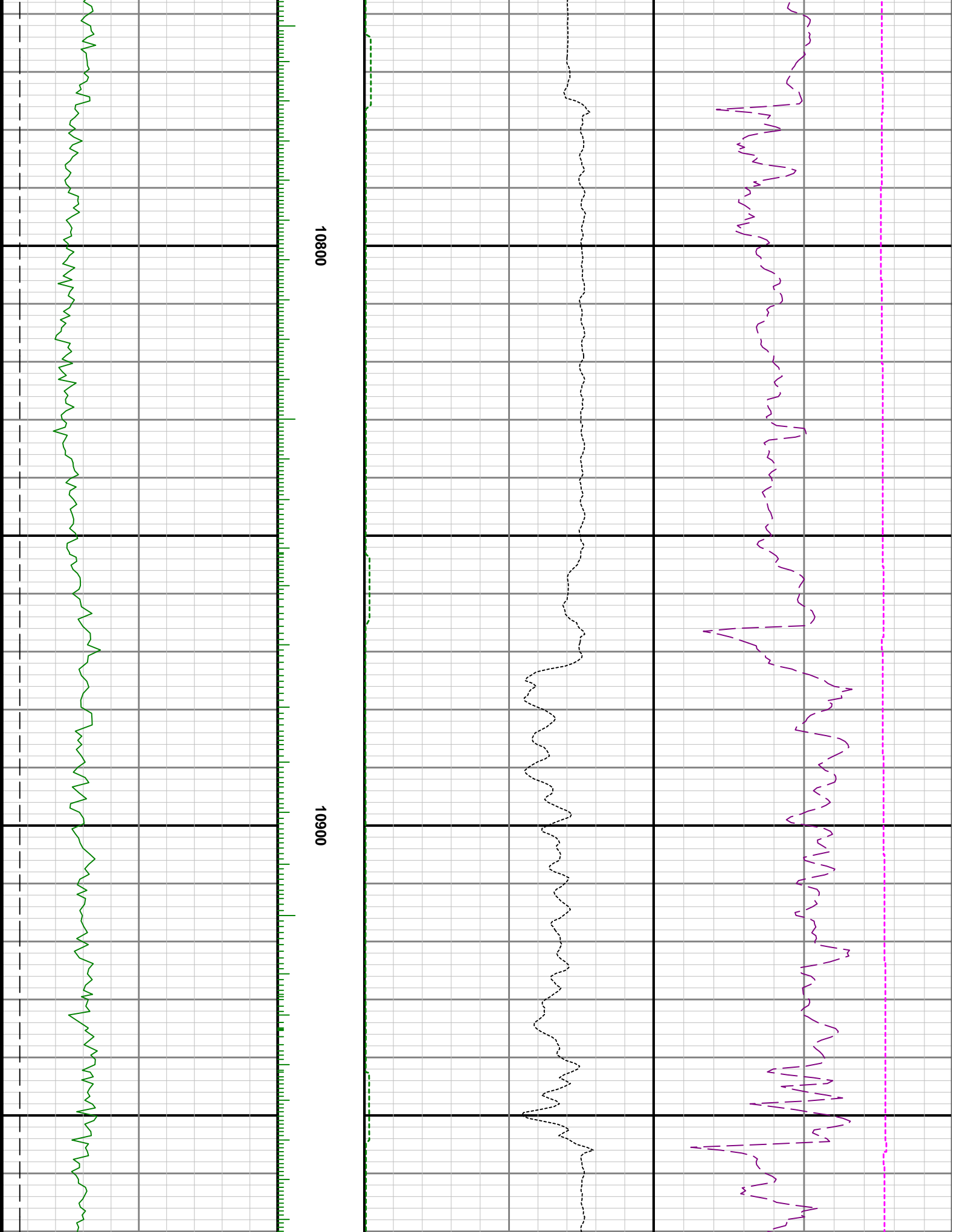


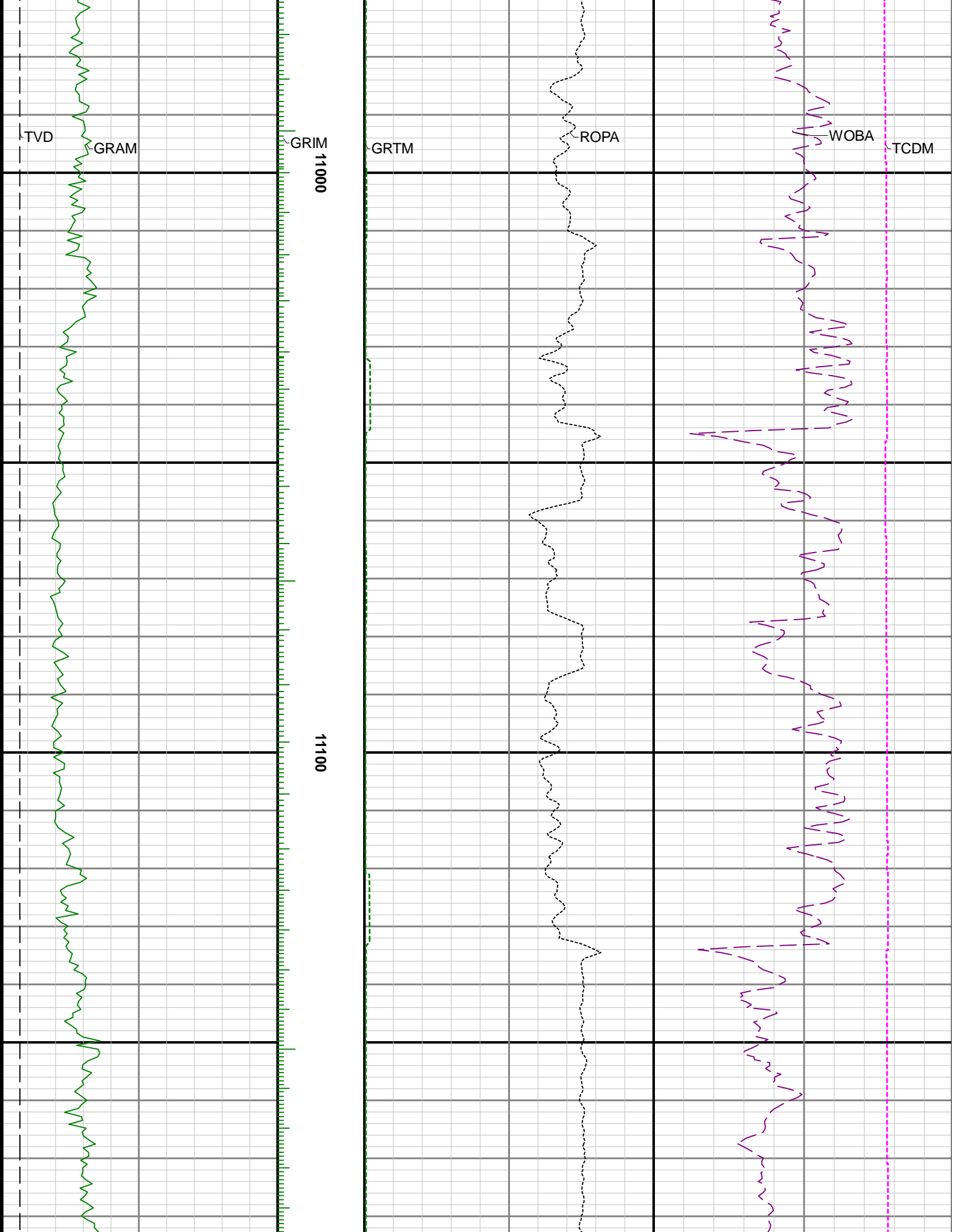


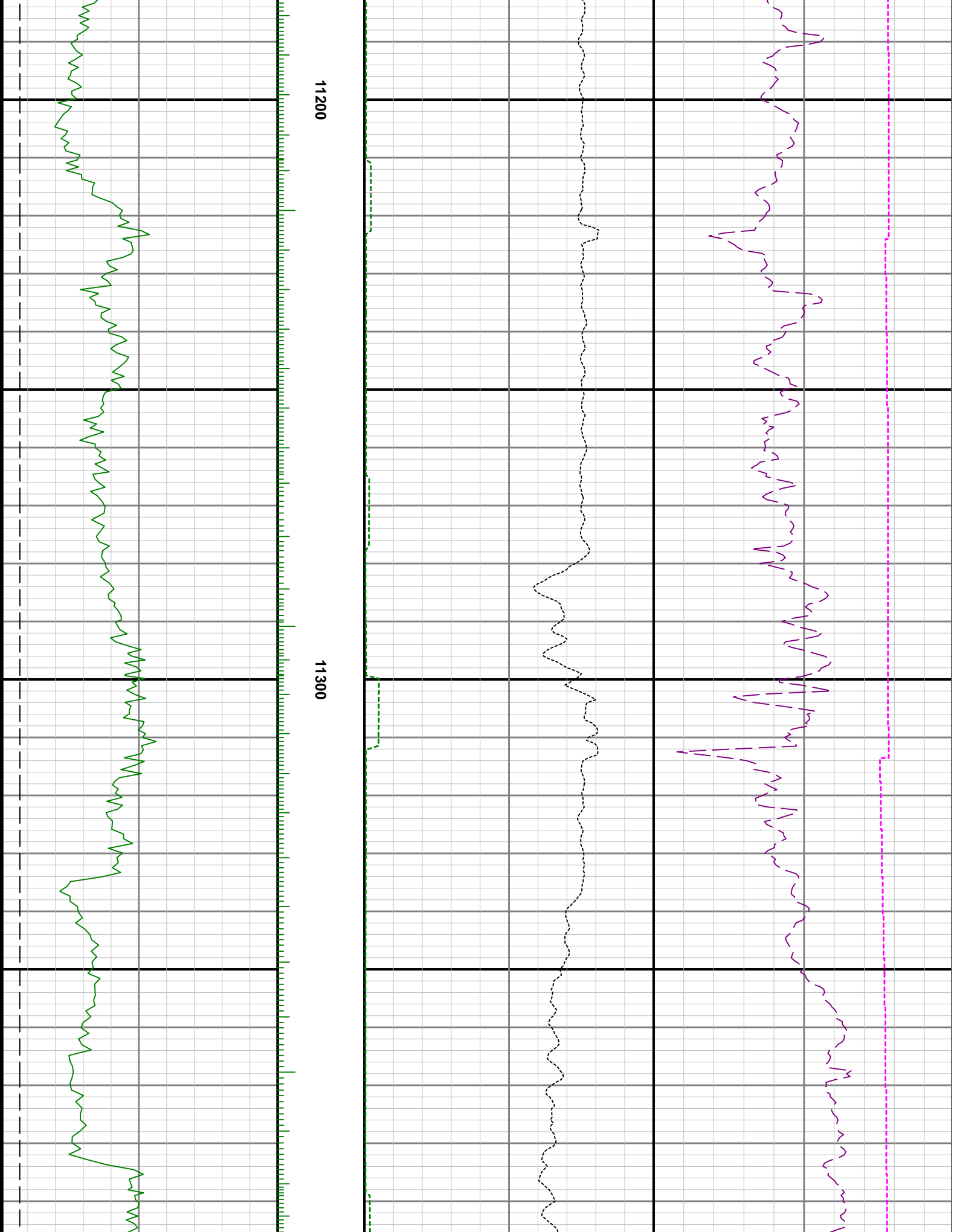


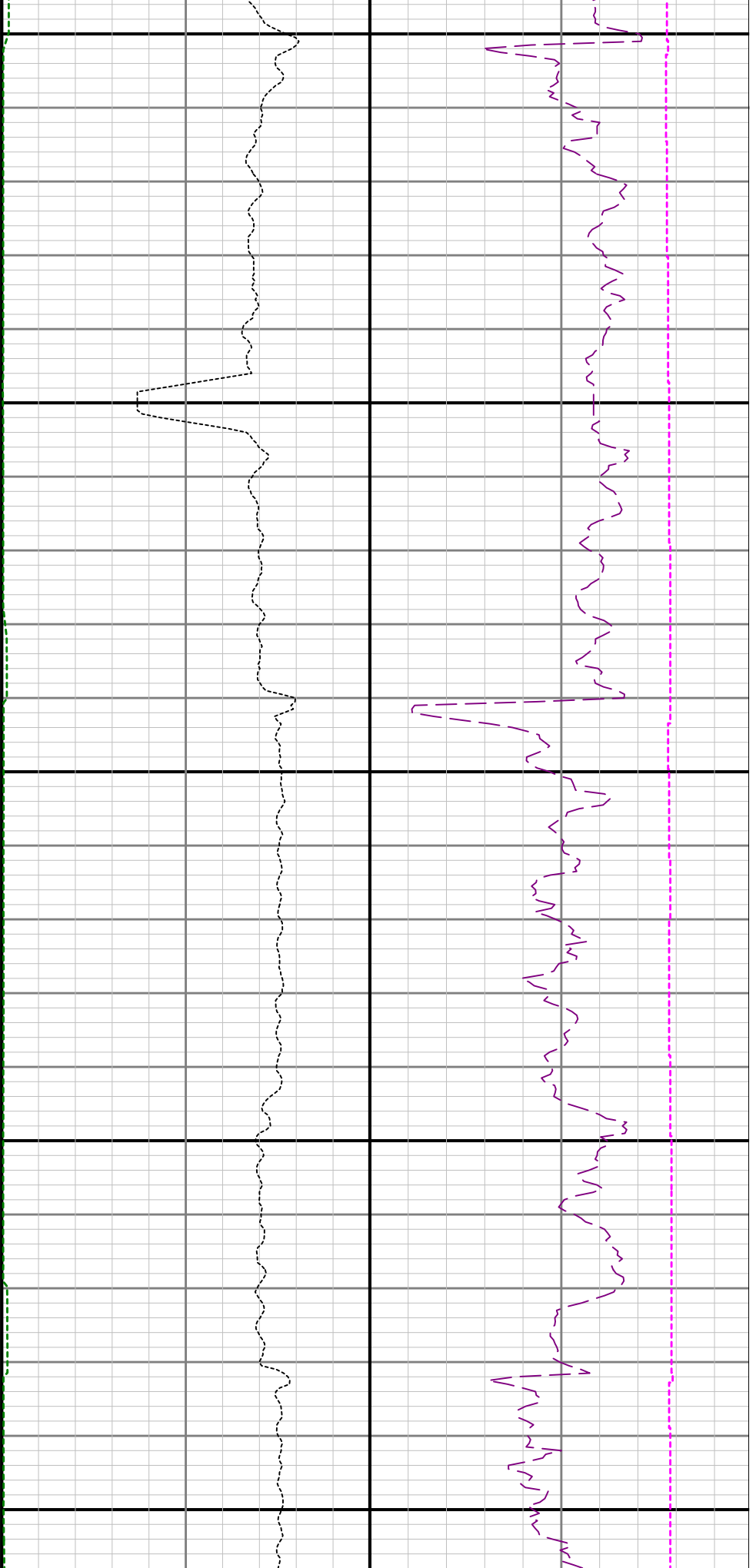








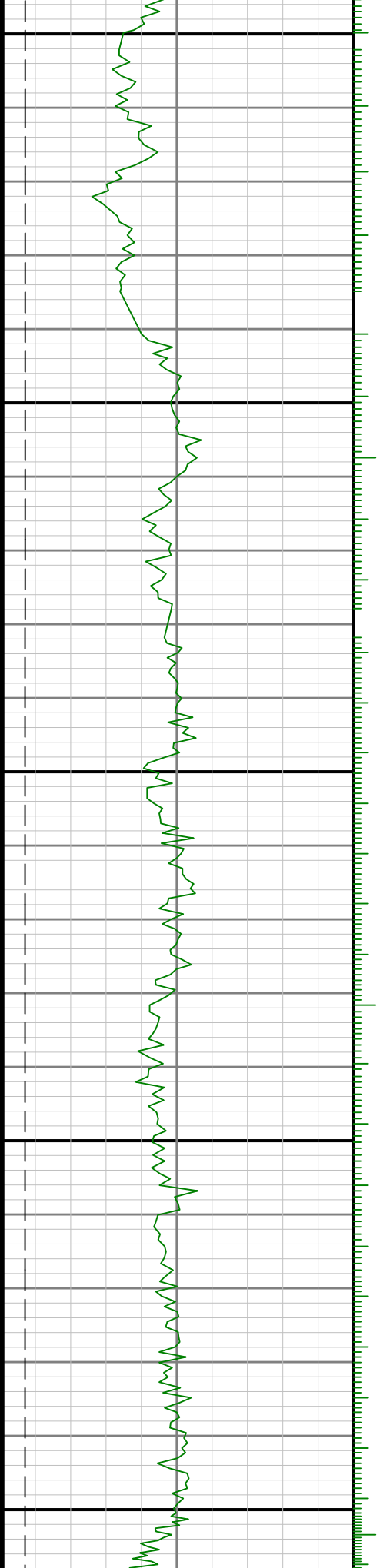


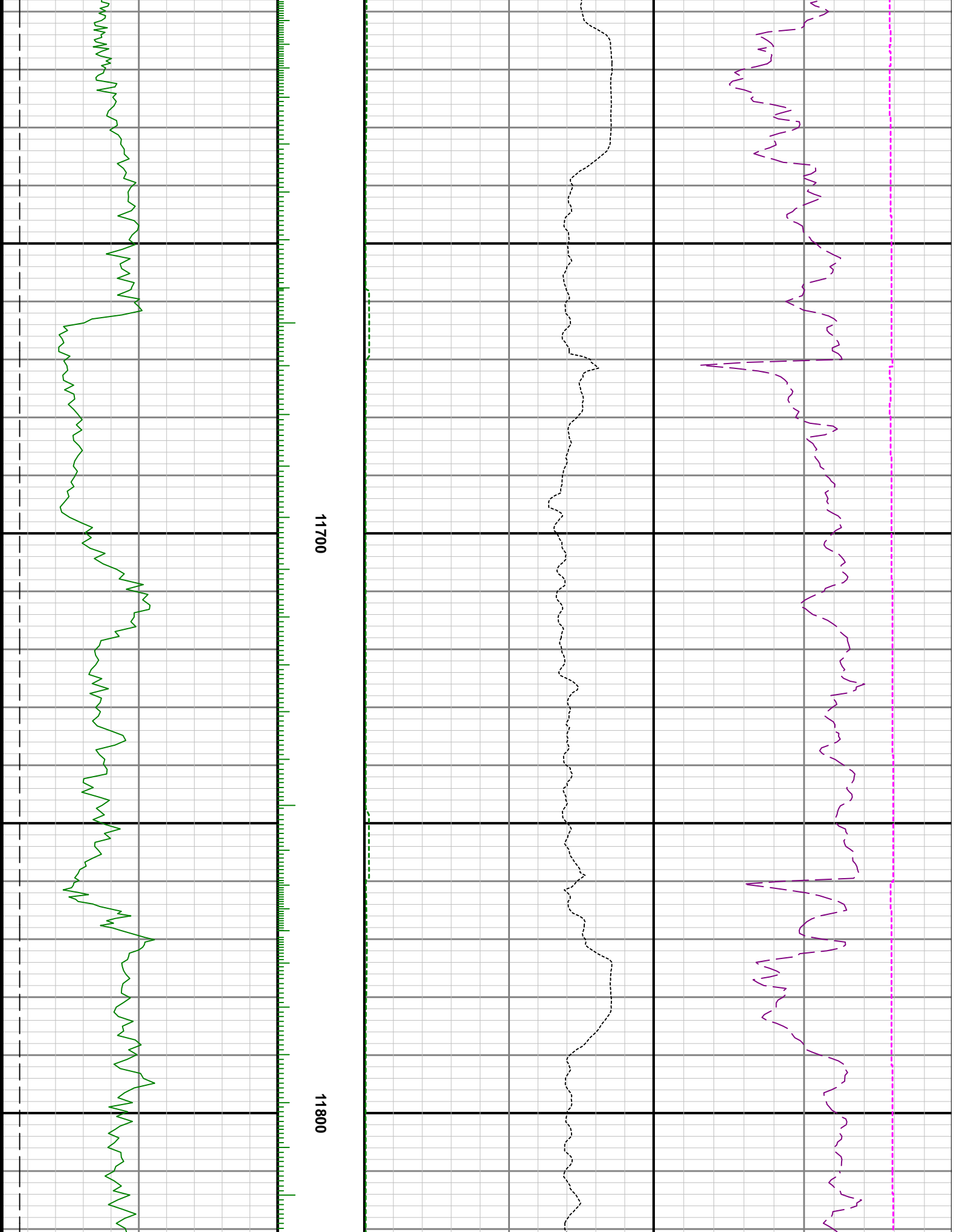


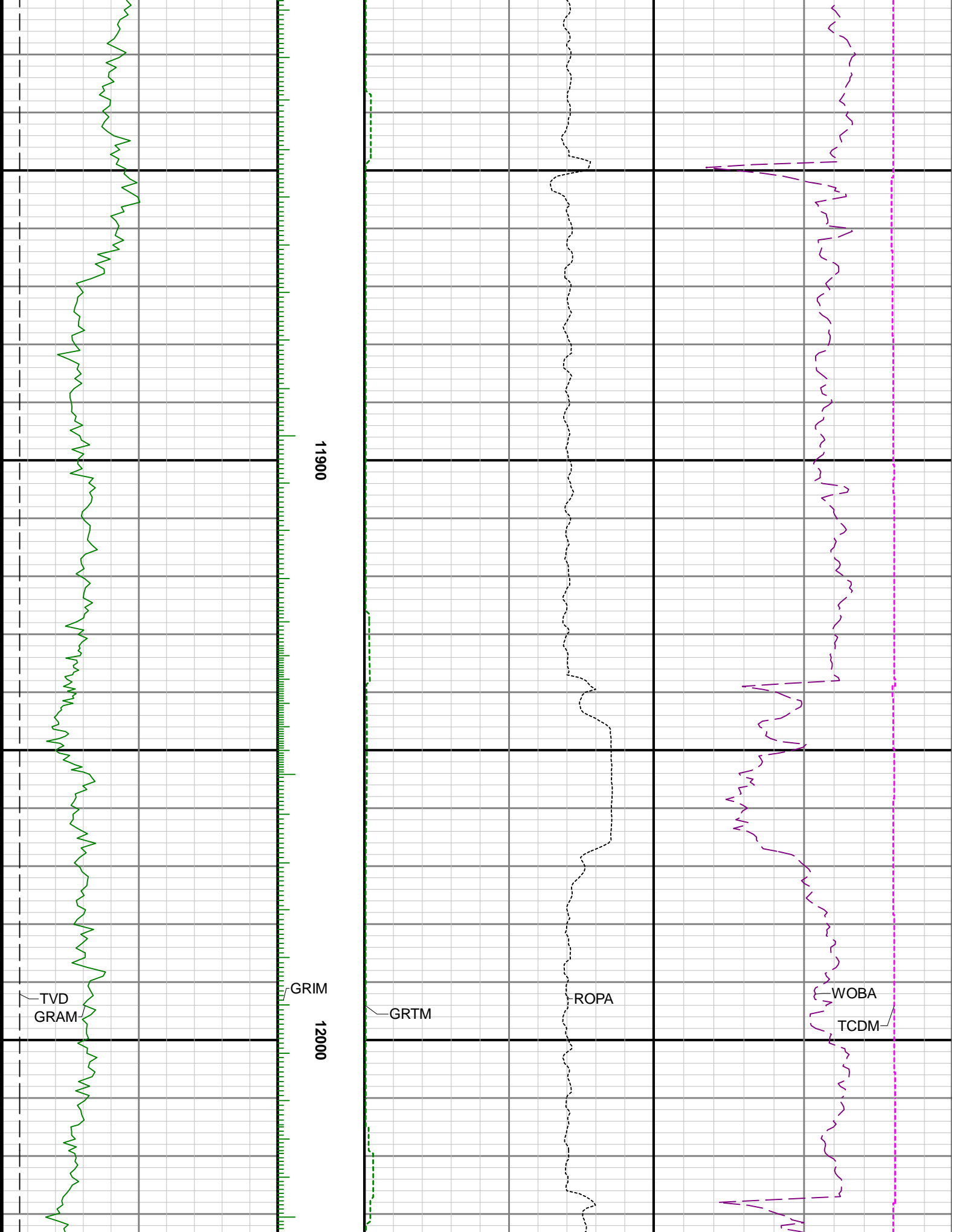
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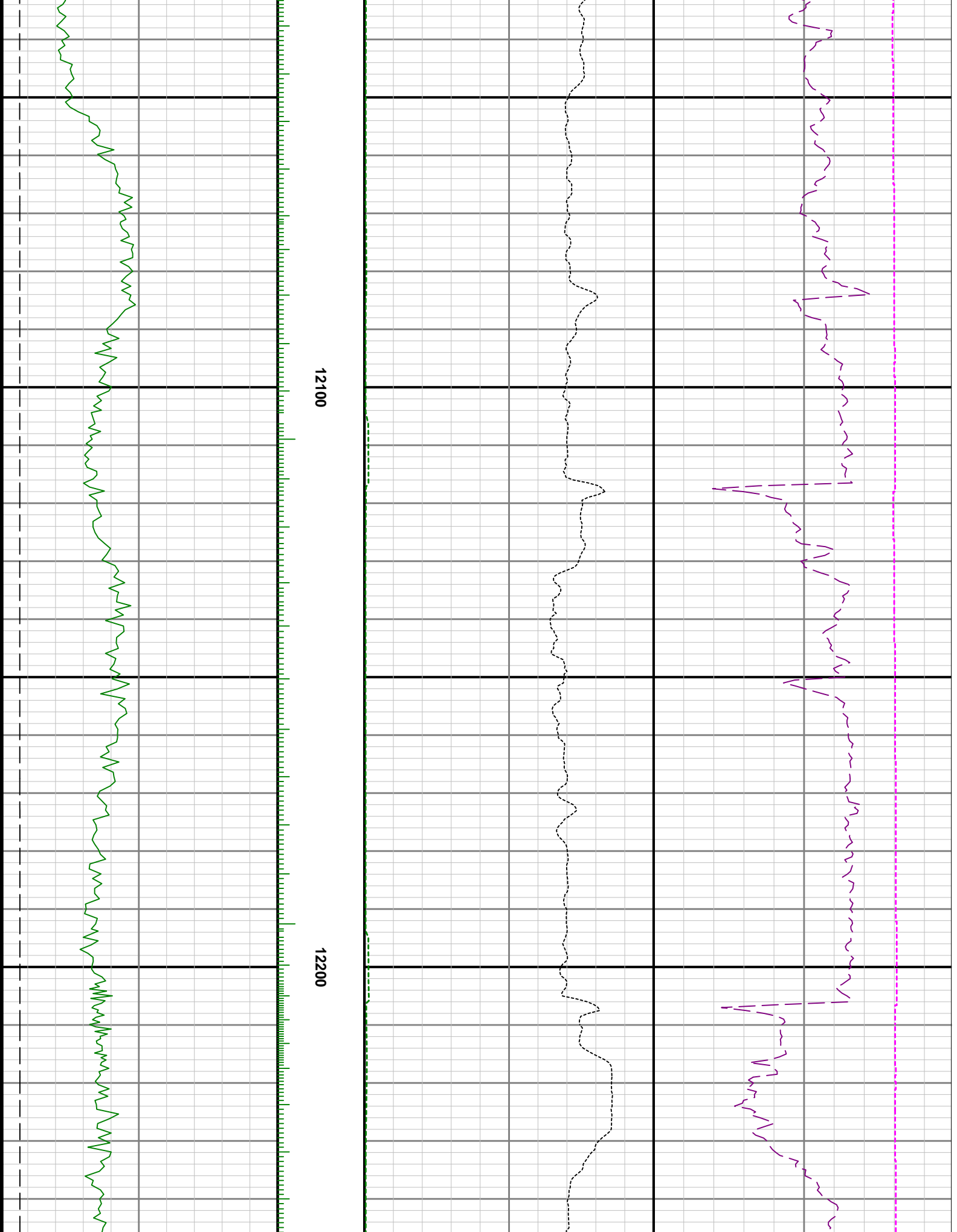
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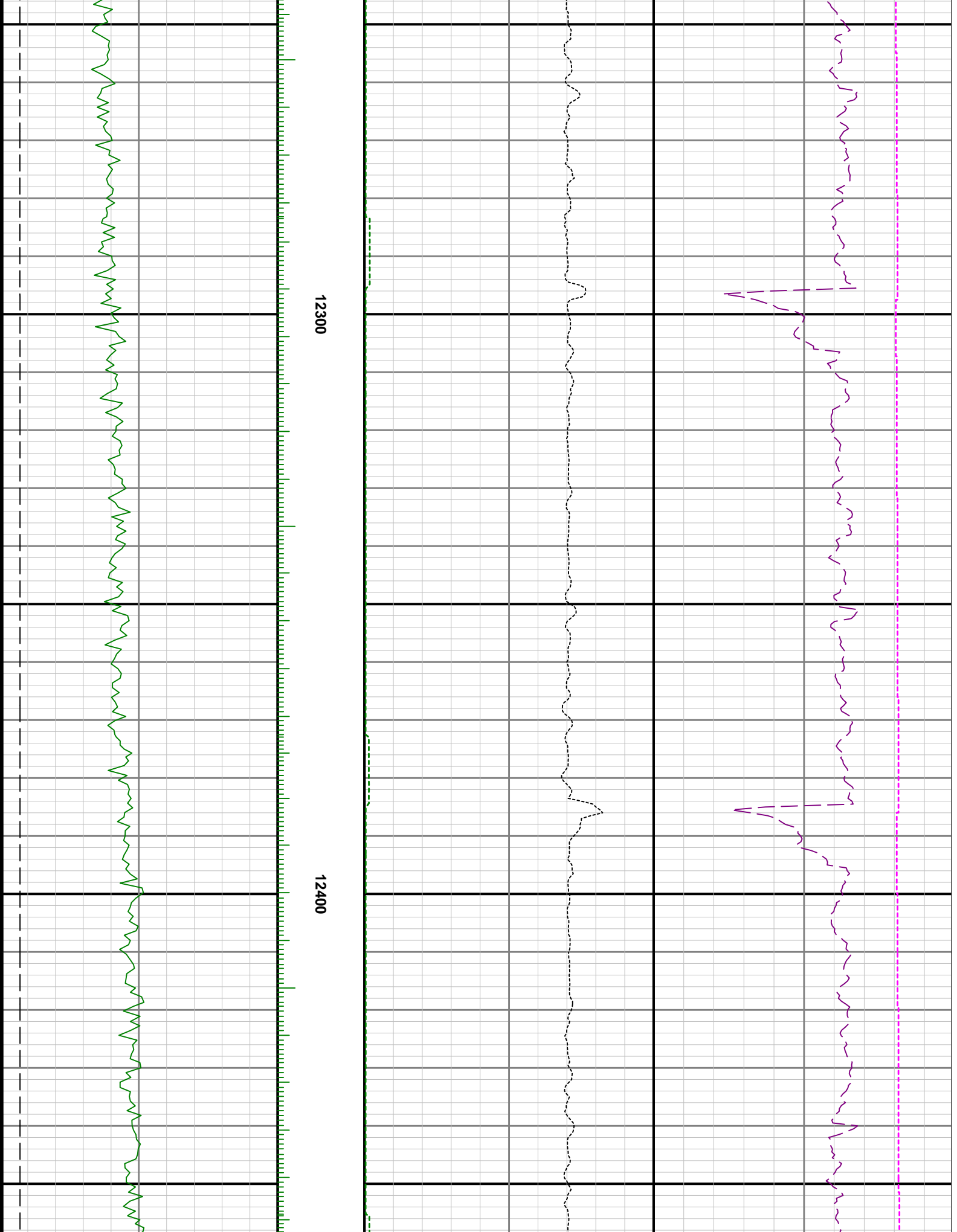
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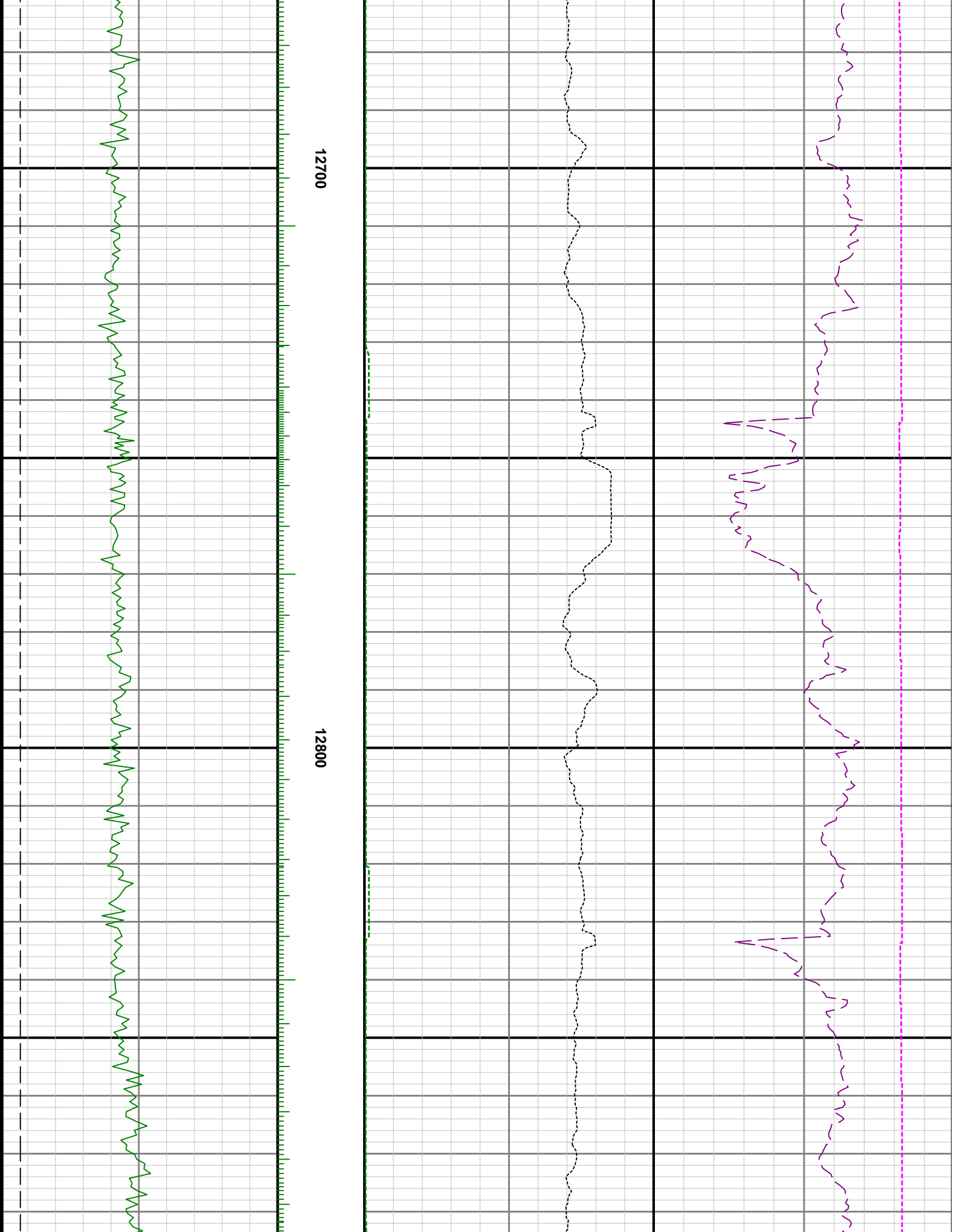


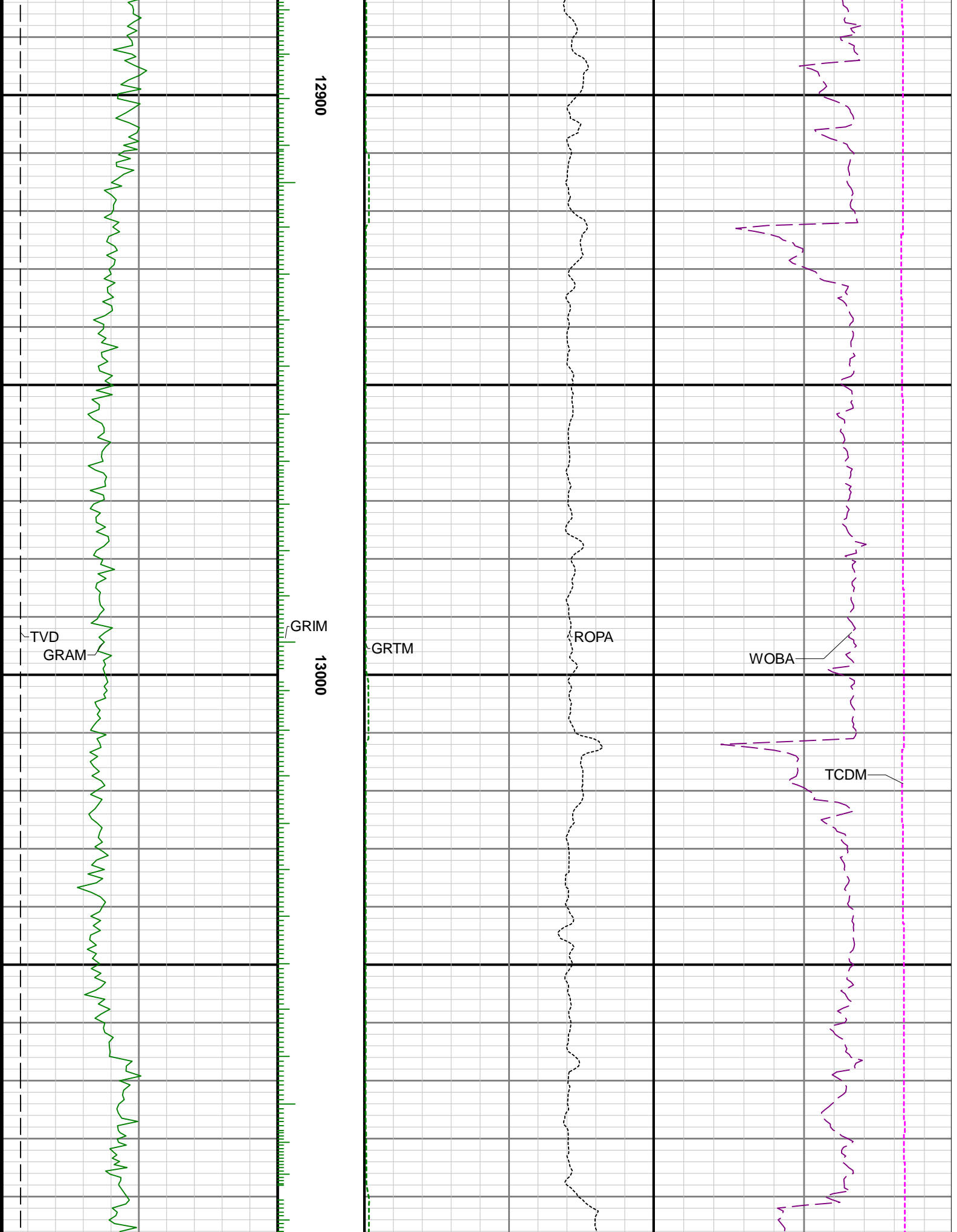


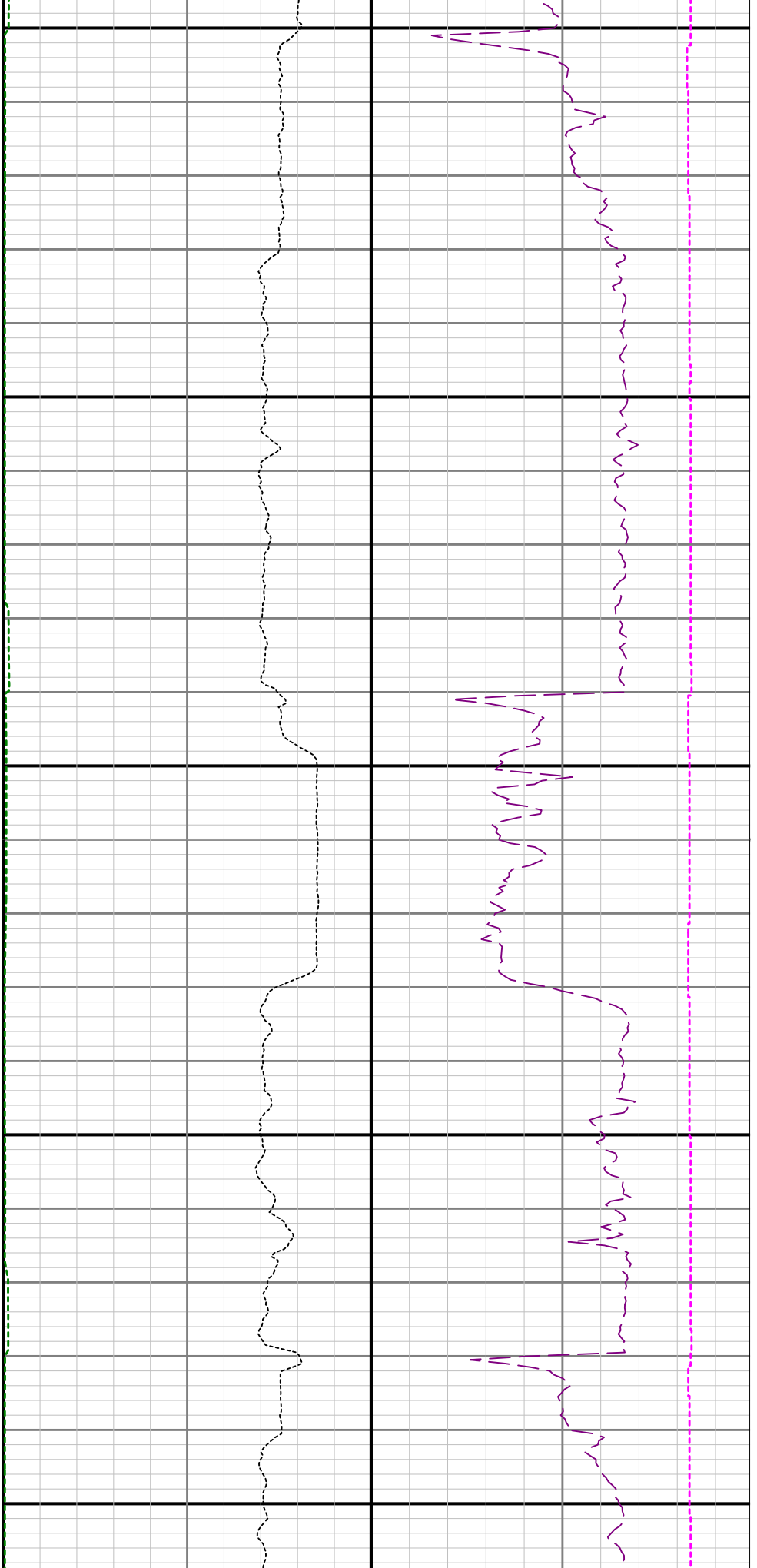












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