

Name	Arrive	Depart	Name	Arrive	Depart	Name	Arrive	Depart
	Wellsite	Wellsite		Wellsite	Wellsite		Wellsite	Wellsite
Carlos Lopez	2017-04-09	2017-04-14						

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+ (%)
2017-04-10 00:18	2	1760.00	Oil Based Mud	9.7	26	N/A	0.0	76/24	Suction	50095	0.00
2017-04-10 06:41	2	1760.00	Oil Based Mud	9.6	30	N/A	0.0	72/28	Suction	51643	0.00
2017-04-11 08:26	3	5838.62	Oil Based Mud	9.7	22	N/A	0.0	75/25	Suction	45369	0.00
2017-04-12 06:13	3	8719.46	Oil Based Mud	9.7	24	N/A	0.0	72/28	Suction	47259	0.00
2017-04-13 07:11	3	14116.96	Oil Based Mud	9.7	31	N/A	0.0	73/27	Suction	44762	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)
1	Sensor Sub	ZAPS230930	Directional (mag)	11.88	59.46	8.000	3.250
1	Sensor Sub	ZAPS230930	VSS	11.88	59.46	8.000	3.250
1	Sensor Sub	ZAPS230930	Pressure	32.43	80.01	8.000	3.250
2	ATC_SU	11994998	Near Bit Inclination	5.93	6.68	7.000	4.330
2	ATC_SU	11994998	Near Bit VSS	5.93	6.68	7.000	4.330
2	ATC_MWD	12332774	Gamma (single)	2.75	12.84	7.000	3.250
2	ATC_MWD	12332774	Directional (mag)	12.27	22.36	7.000	3.250
3	ATC_SU	11994998	Near Bit Inclination	5.93	6.68	7.000	4.330
3	ATC_SU	11994998	Near Bit VSS	5.93	6.68	7.000	4.330
3	ATC_MWD	12332774	Gamma (single)	2.75	12.84	7.000	3.250
3	ATC_MWD	12332774	Directional (mag)	12.27	22.36	7.000	3.250

Service and Tool Mnemonics

Mnemonic	Name	Description
GAM	APS	APS EM Module
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 obtained from a depth control system no 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 APS EM service (Directional-Only) behind a 13 1/2 inch bit and steerable assembly from surface to 1781 feet MD (Surface to 1777 feet TVD). No logging data was acquired during this run.
3	Baker Hughes LWD Run 2 utilized 6 3/4 inch Navigamma services (Gamma Ray and Directional) behind an 8 1/2 inch bit and rotary steerable assembly from 1781 to 5839 feet MD (1777 to 5808 feet TVD). Pull out of the hole due to a motor failure.
4	Baker Hughes LWD Run 3 utilized 6 3/4 inch Navigamma services (Gamma Ray and Directional) behind an 8 1/2 inch bit and rotary steerable assembly from 5839 to 15173 feet MD (5808 to 7007 feet TVD).
5	Numerous gaps in Gamma Ray data are present throughout the log due to downlinking and surveying while drilling ahead.
6	Gamma Ray Apparent curve (GRAM) is presented 0 to 300 API per customer request.


Remarks

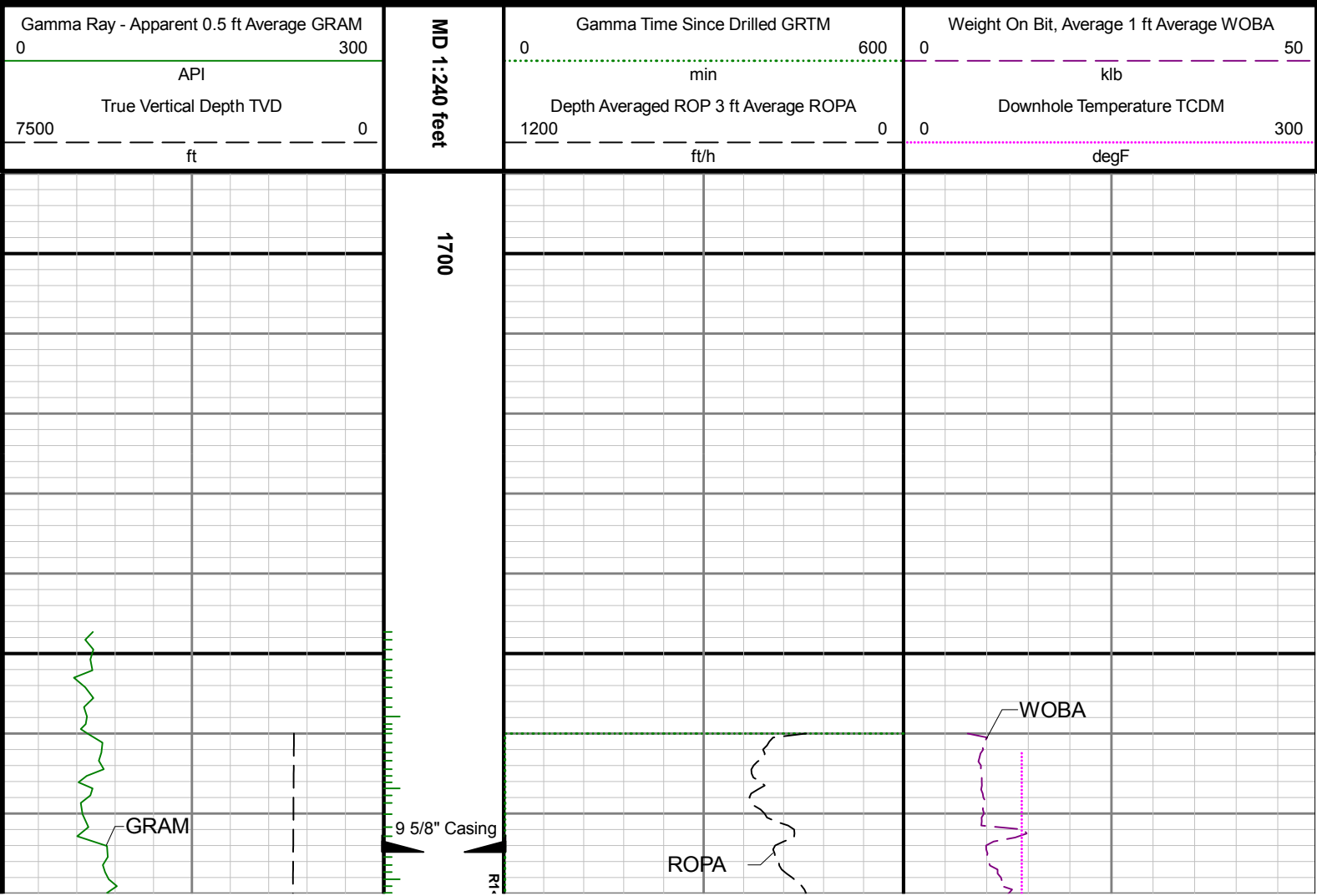
Number	Measured Depth (ft)	Hole Section (in)	Run No.	Remark
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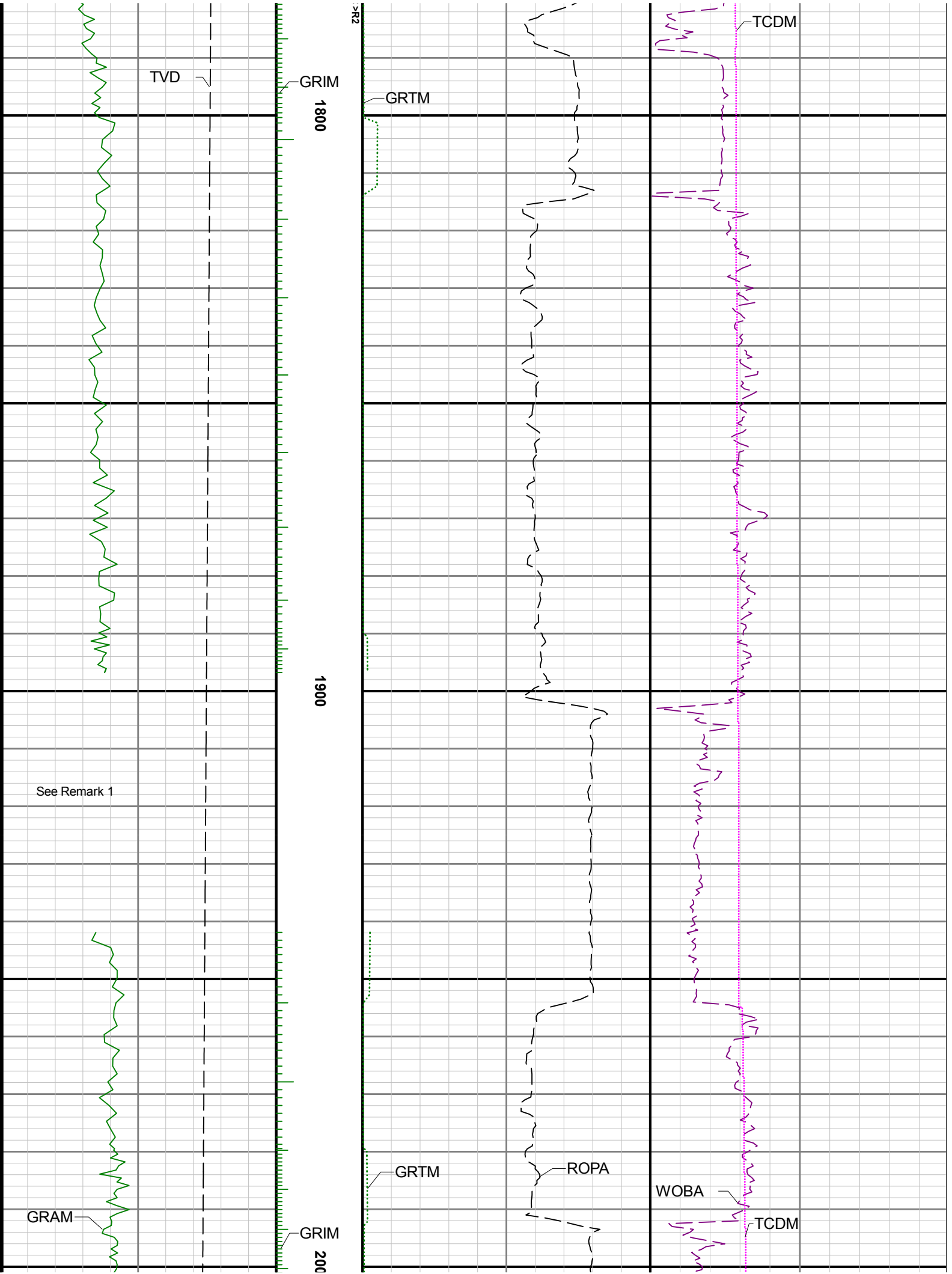
1	1918.00	8.500	3	The interval from 1897 to 1942 feet MD (1893 to 1937 feet TVD) was no logged due to LWD tool shut down during a downlink while drilling ahead.
2	2898.00	8.500	3	The interval from 2880 to 2926 feet MD (2870 to 2916 feet TVD) was no logged due to LWD tool shut down during a downlink while drilling ahead.
3	3708.00	8.500	3	The interval from 3695 to 3717 feet MD (3681 to 3702 feet TVD) was no logged due to LWD tool shut down during a downlink while drilling ahead.
4	5834.00	8.500	3	The interval from 5826 to 5839 feet MD (5795 to 5808 feet TVD) was logged up to 10 hours after being drilled due to a trip out after motor failure.
5	15168.00	8.500	3	The interval from 15162 to 15173 feet MD (7007 feet TVD) was not logged due to sensor to bit at well TD.

Curve Mnemonics

Presented Curves	Description	Units
ROPA	Depth Averaged ROP 3 ft Average	ft/h
TVD	True Vertical Depth	ft
WOBA	Weight On Bit, Average 1 ft Average	klb
GRAM	Gamma Ray - Apparent 0.5 ft Average	API
GRIM	Gamma Ray Data Point Indicator	unitless
GRTM	Gamma Time Since Drilled	min
TCDM	Downhole Temperature	degF

<div> <div>  </div> <div> <div>Company</div> <div>Well</div> <div>Interval</div> <div>Created</div> </div> </div>	Synergy Resources Corporation		
	Hood 14N-22B-M		
	Date From:	2017-04-10 08:00:00	Top: 1747.00
	Date To:	2017-04-13 12:00:00	Bottom: 15162.00
		2017-04-14 08:53	





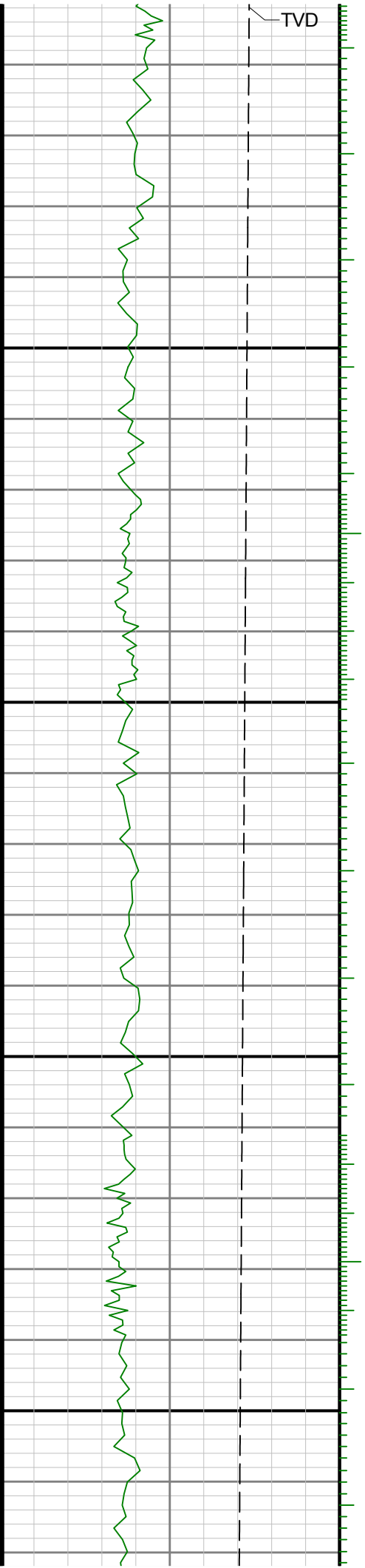


0

2100

2200

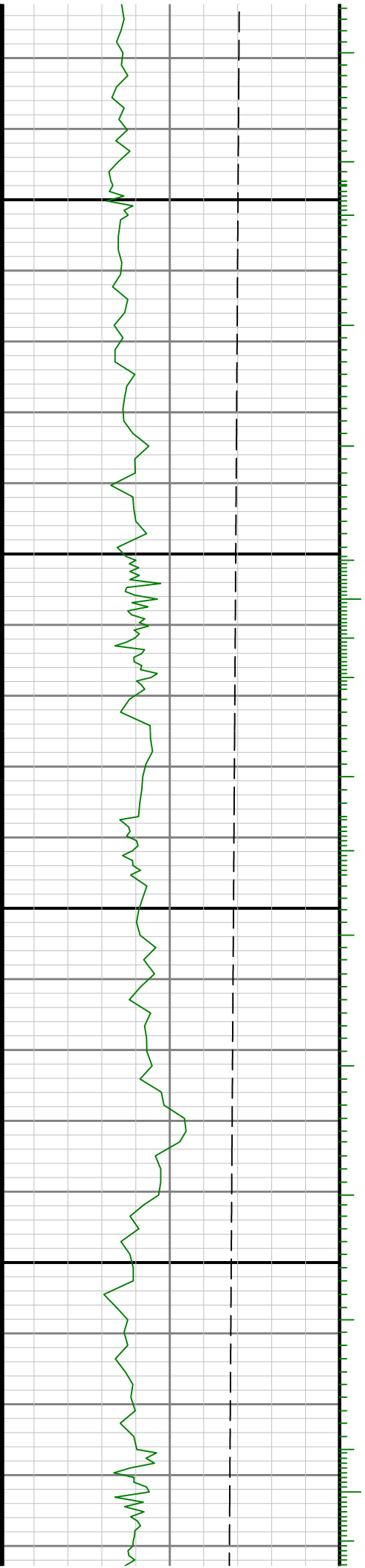
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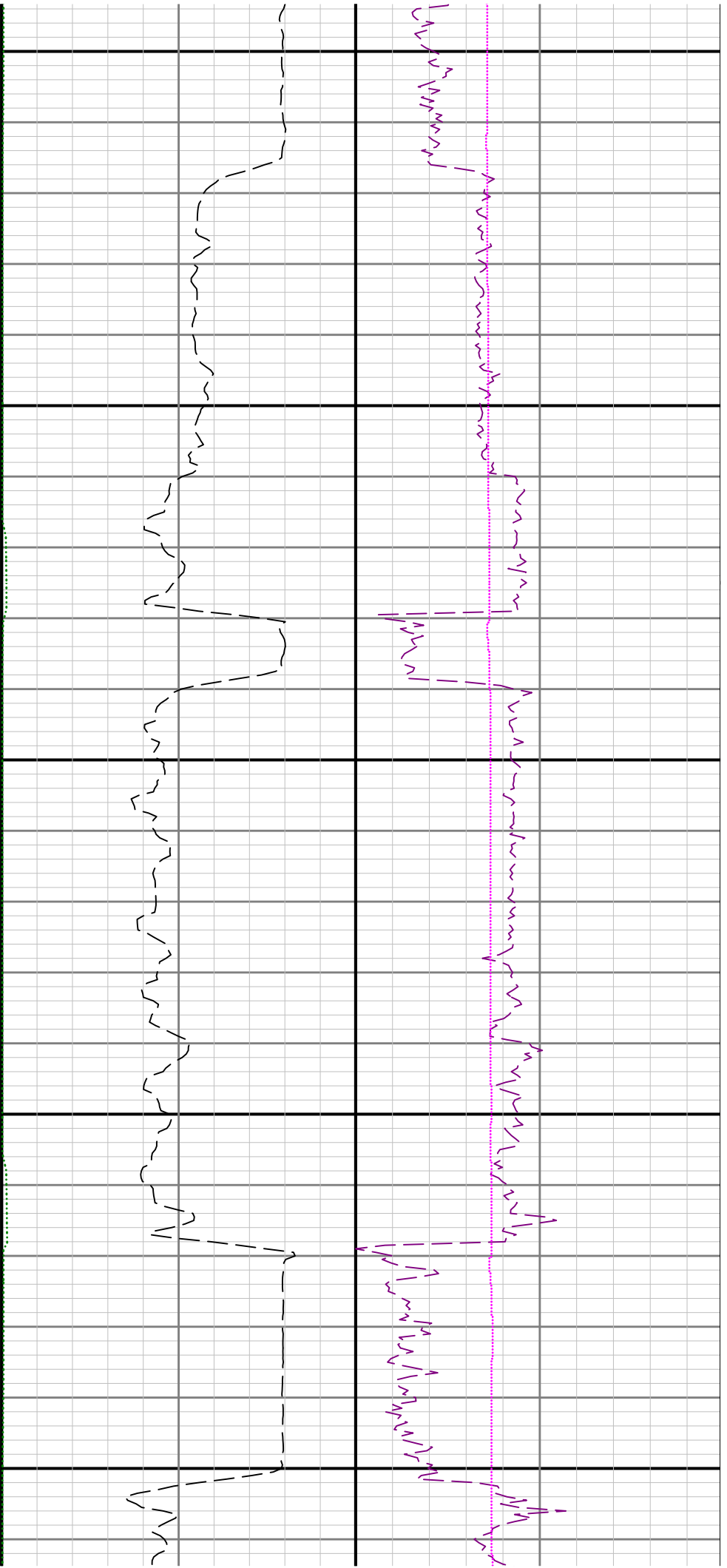




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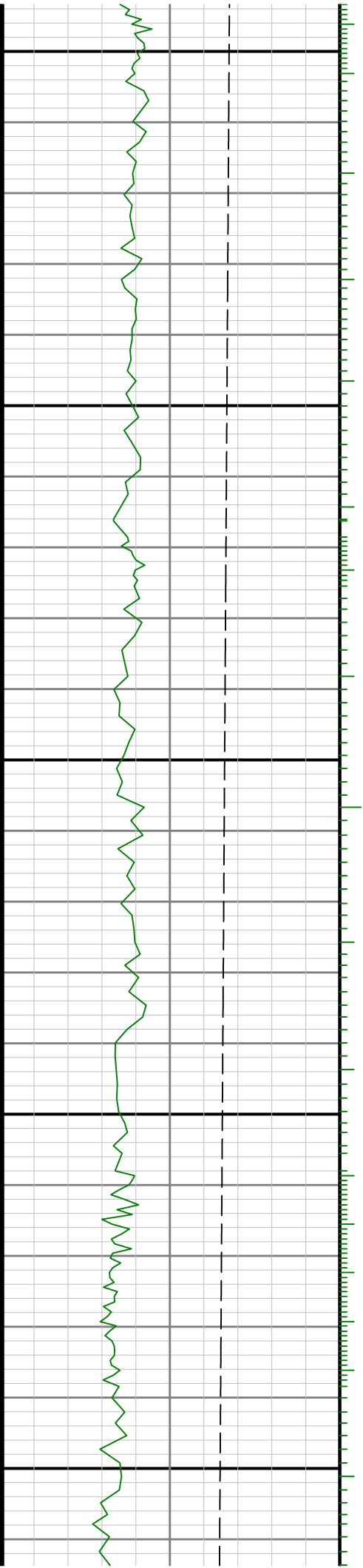
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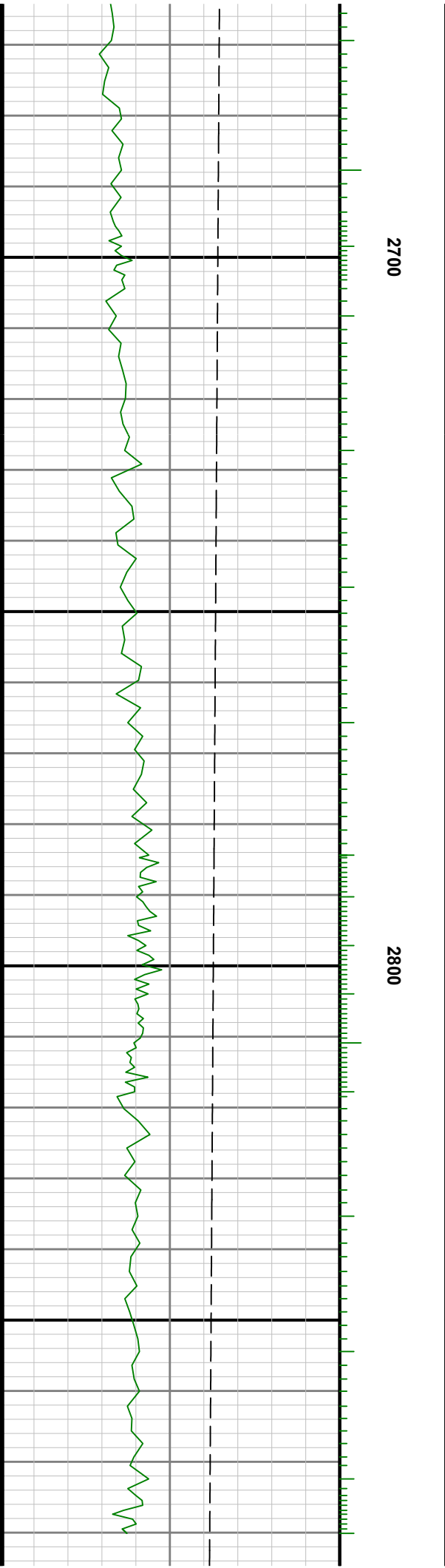
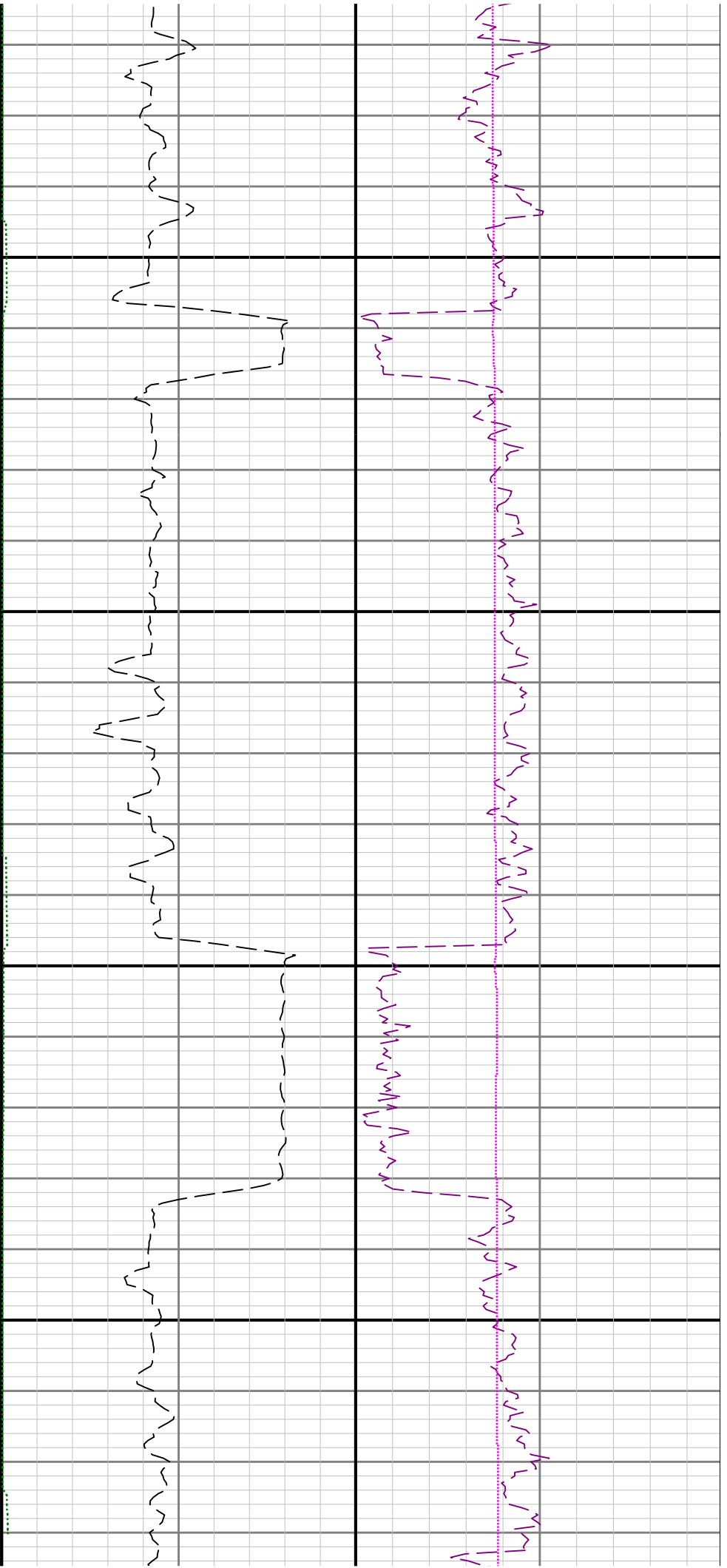




2500

2600





See Remark 2

2900

3000

3100

GRAM

TVD

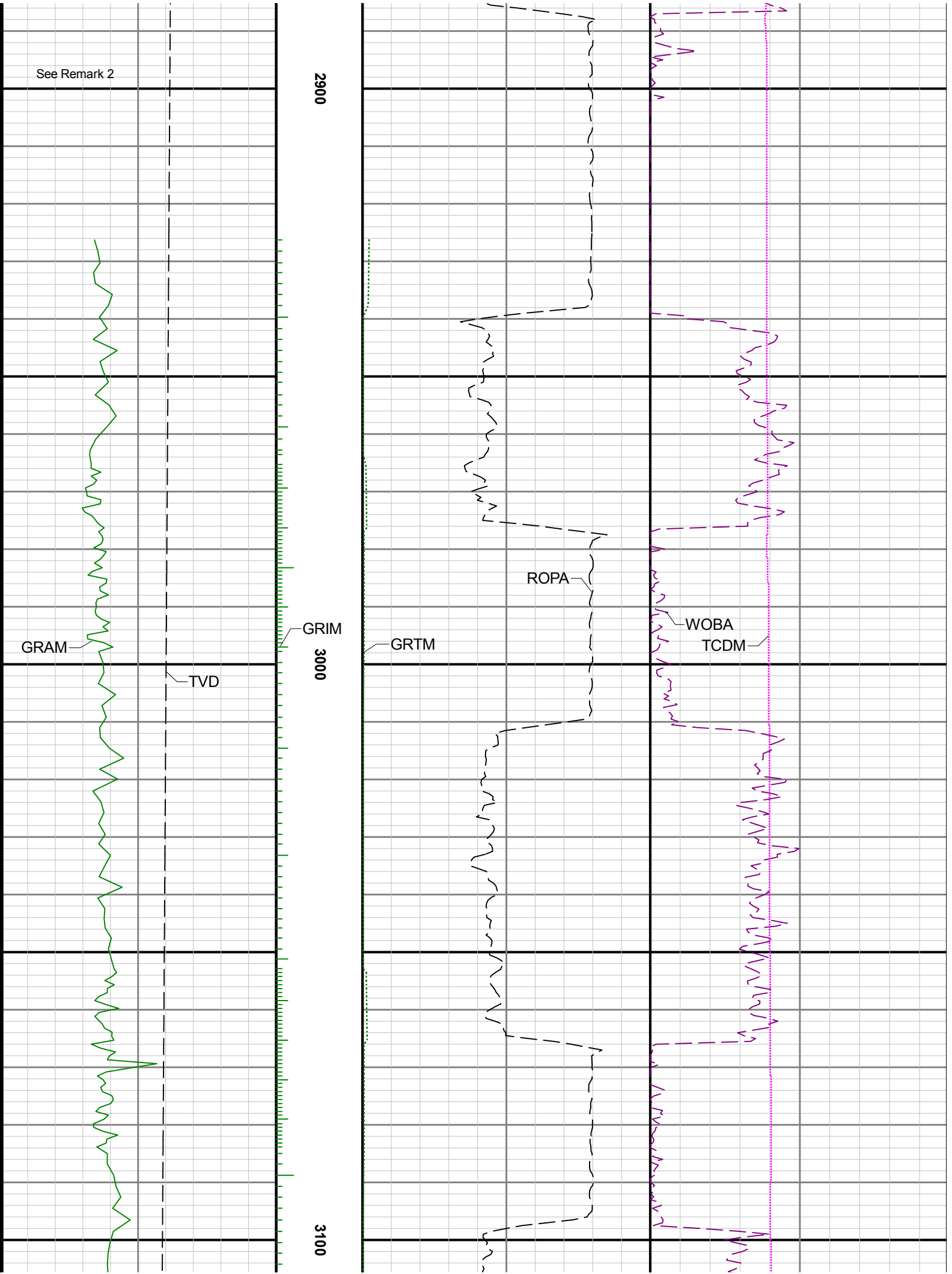
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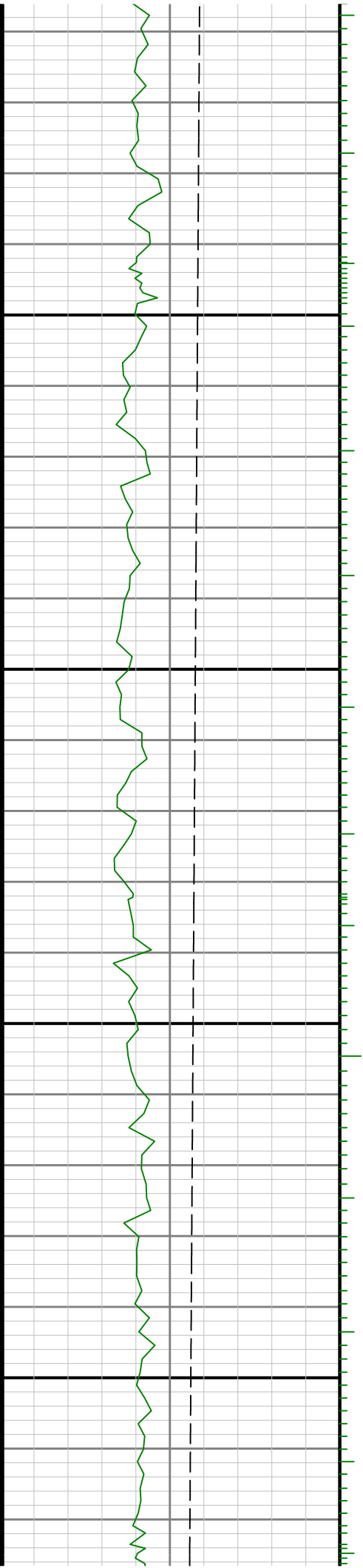
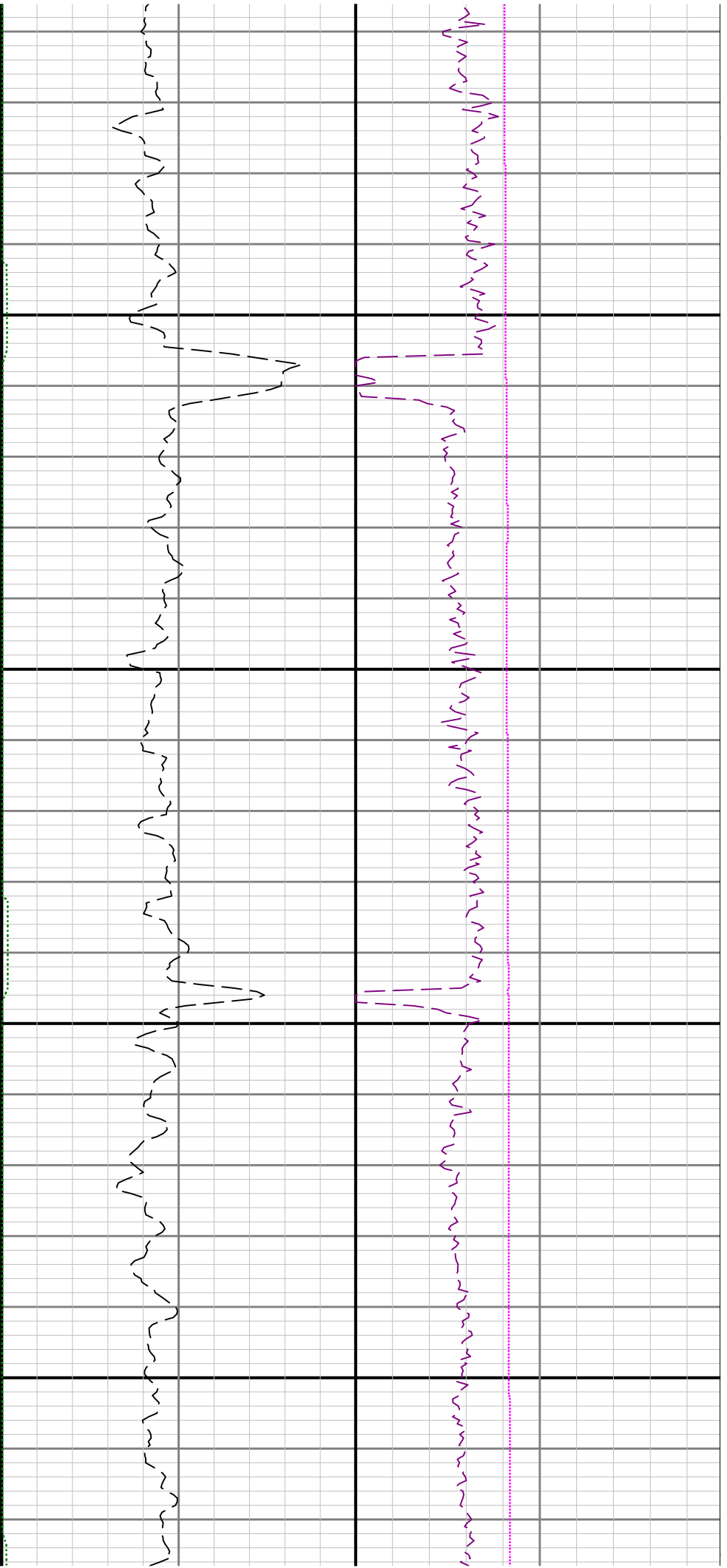
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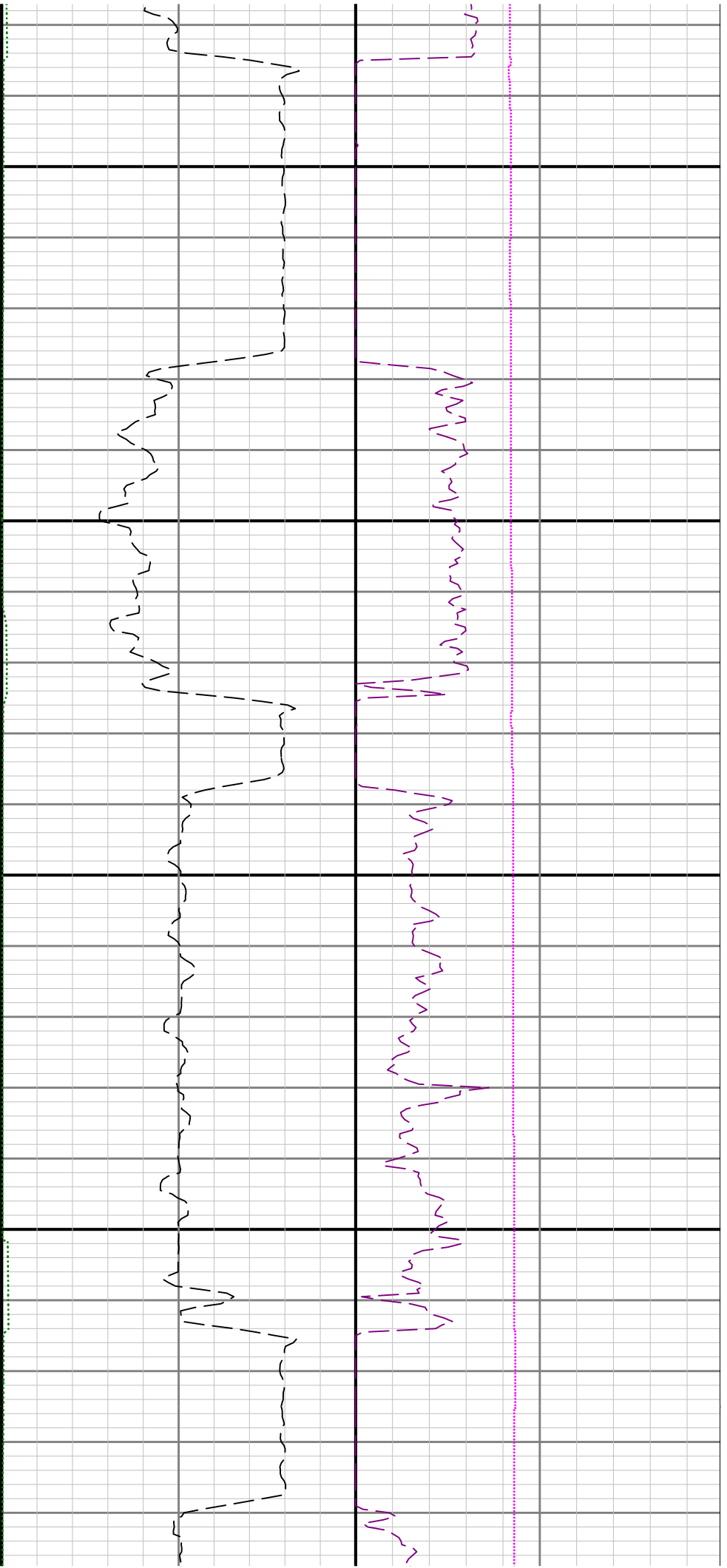
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WOBA

TCDM

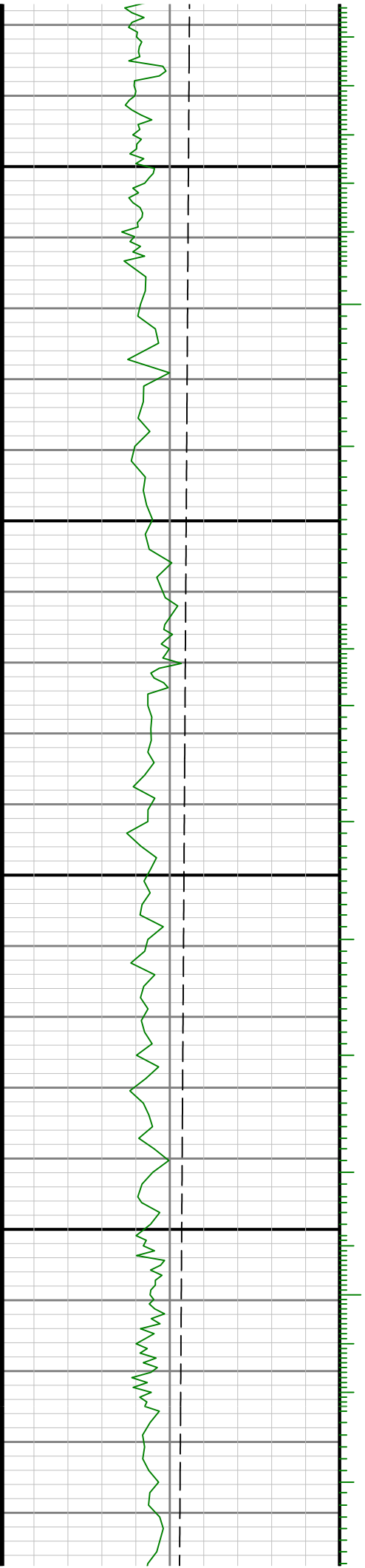


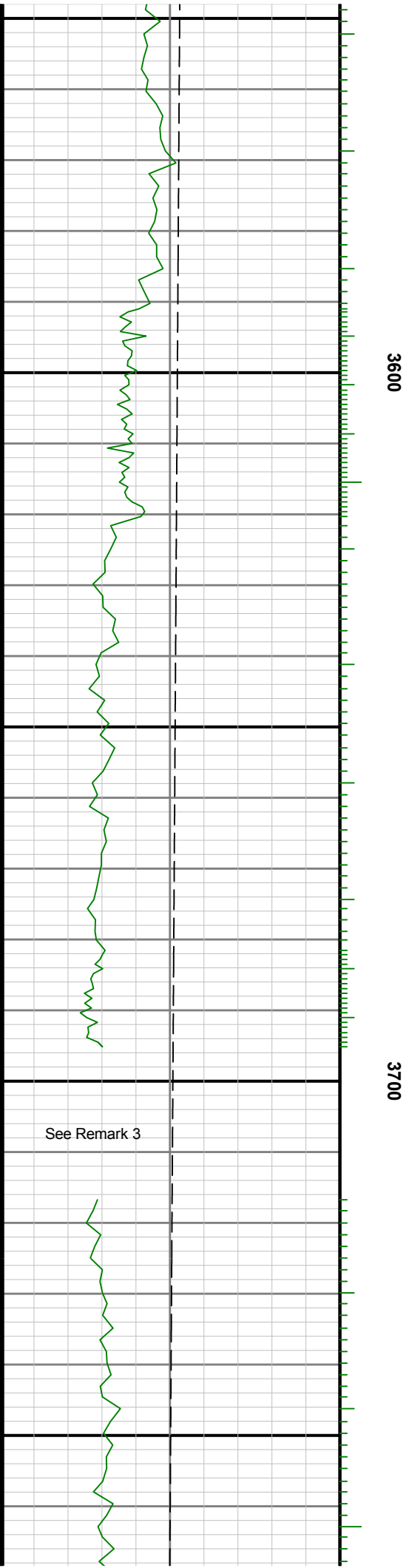
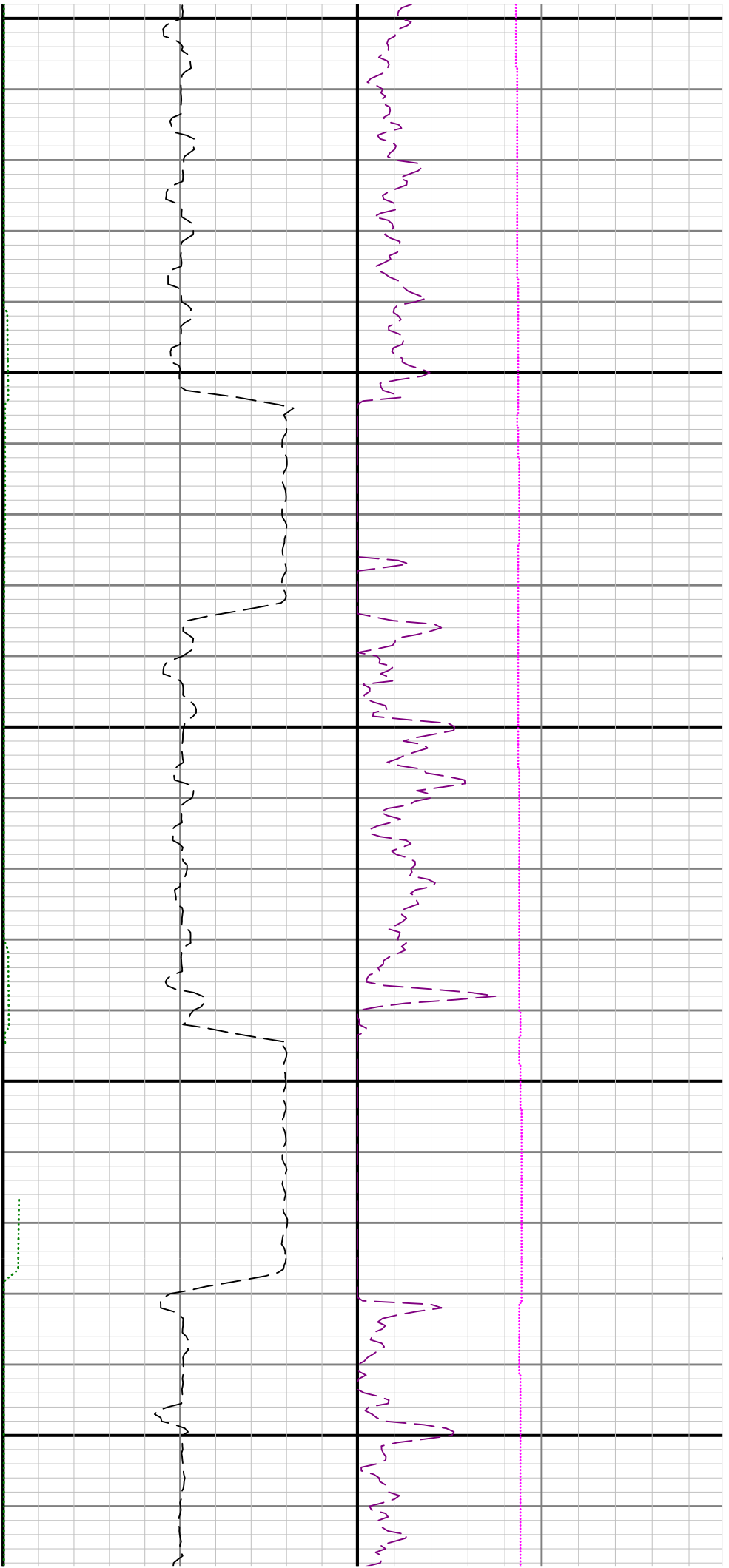


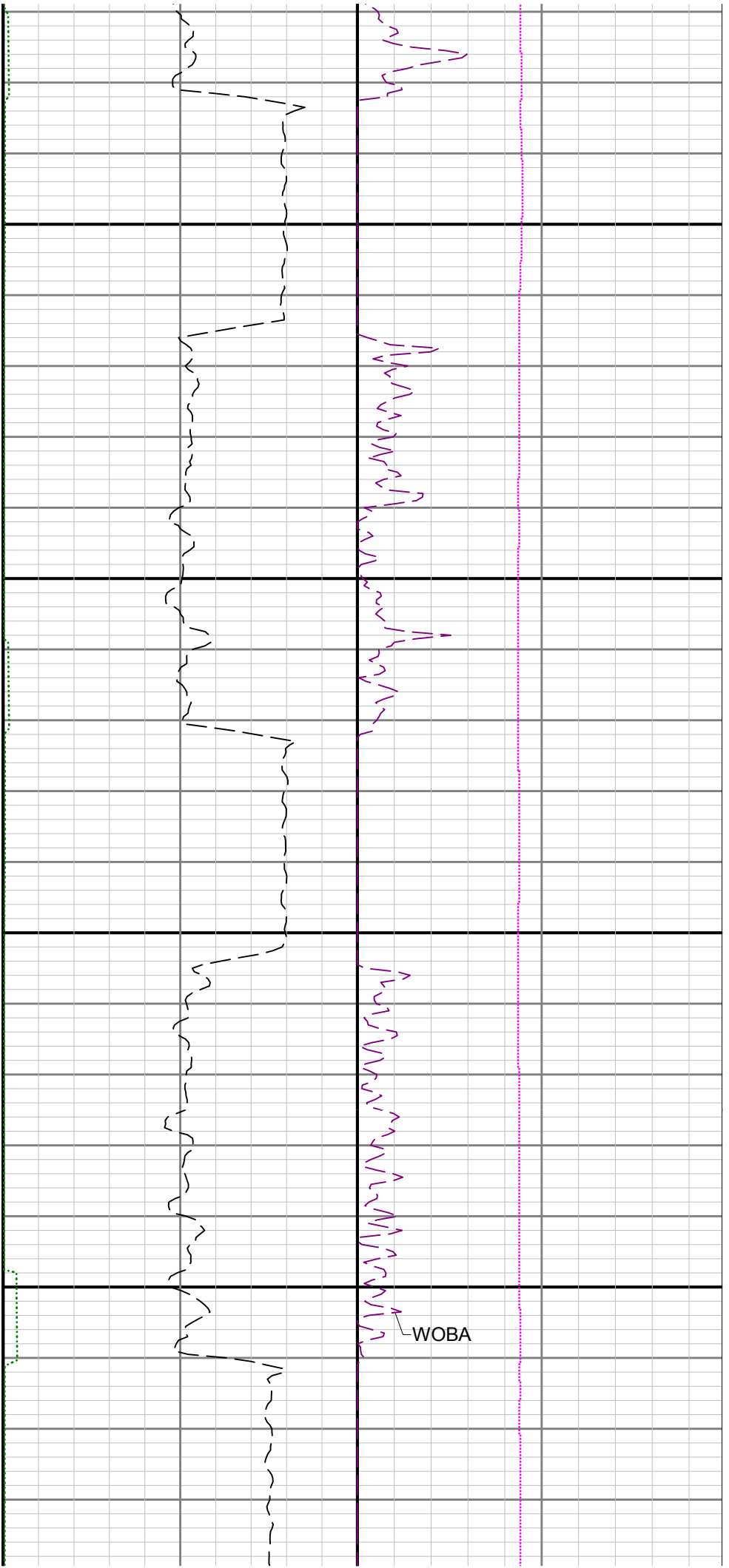


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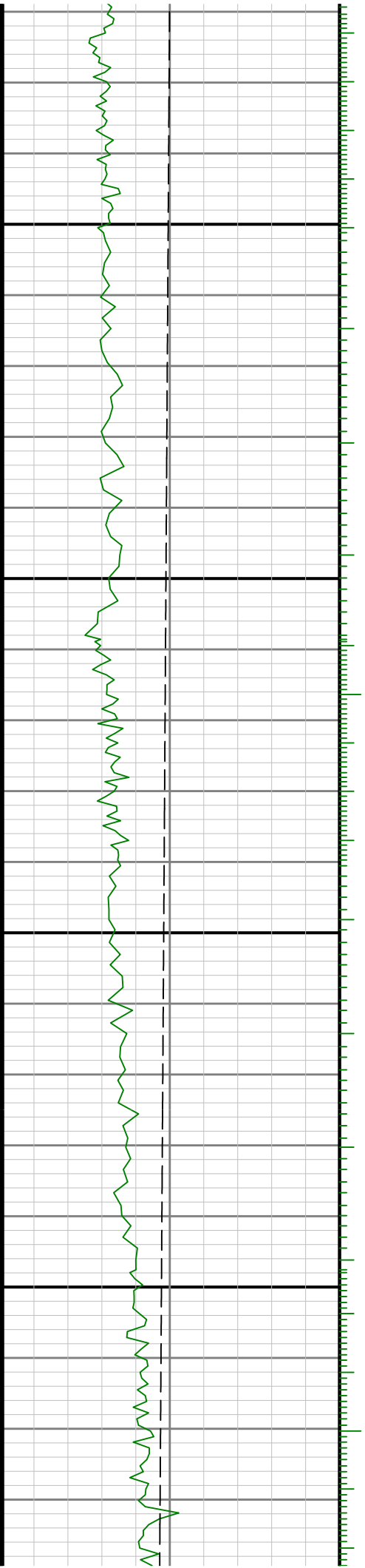


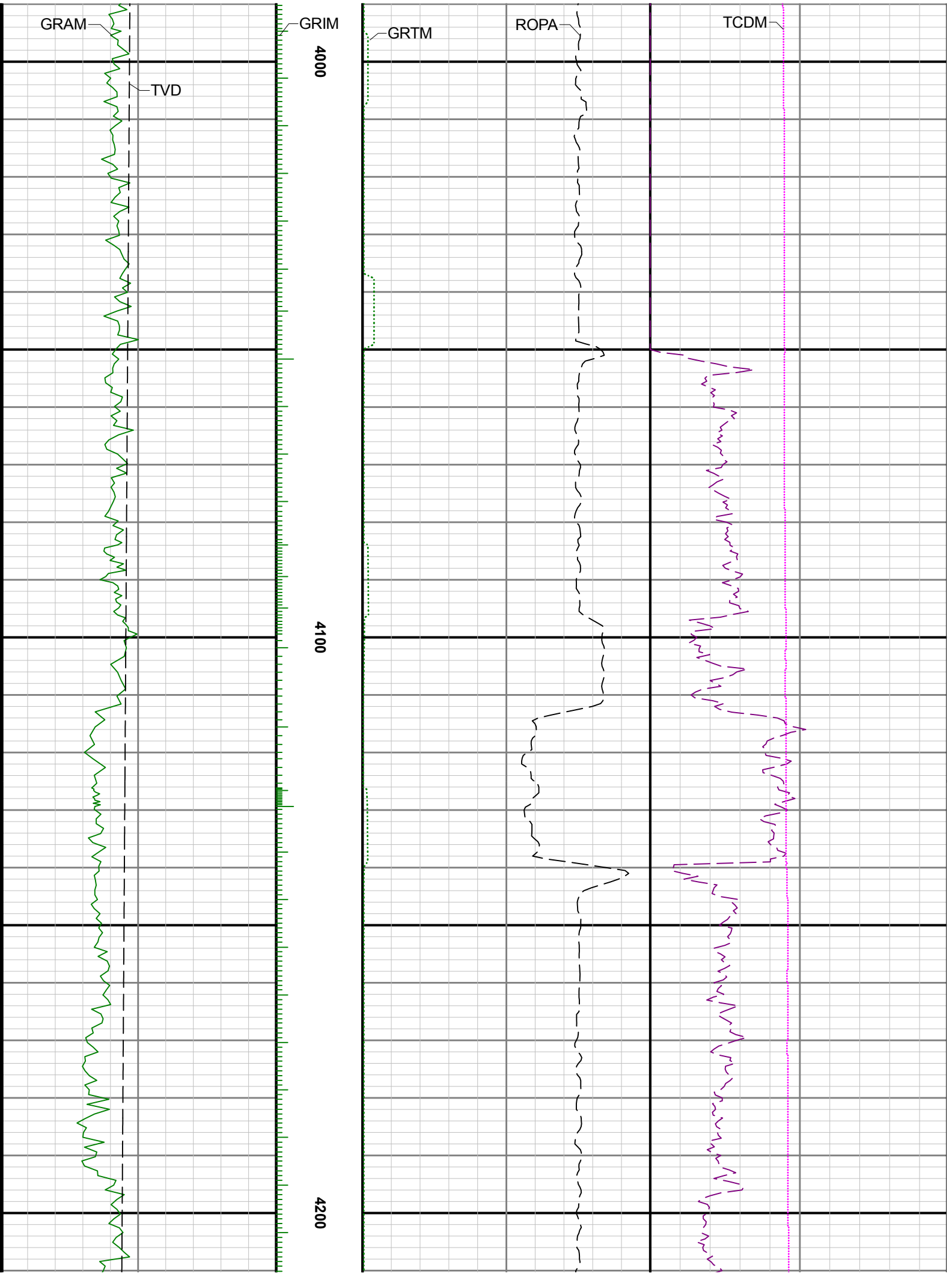


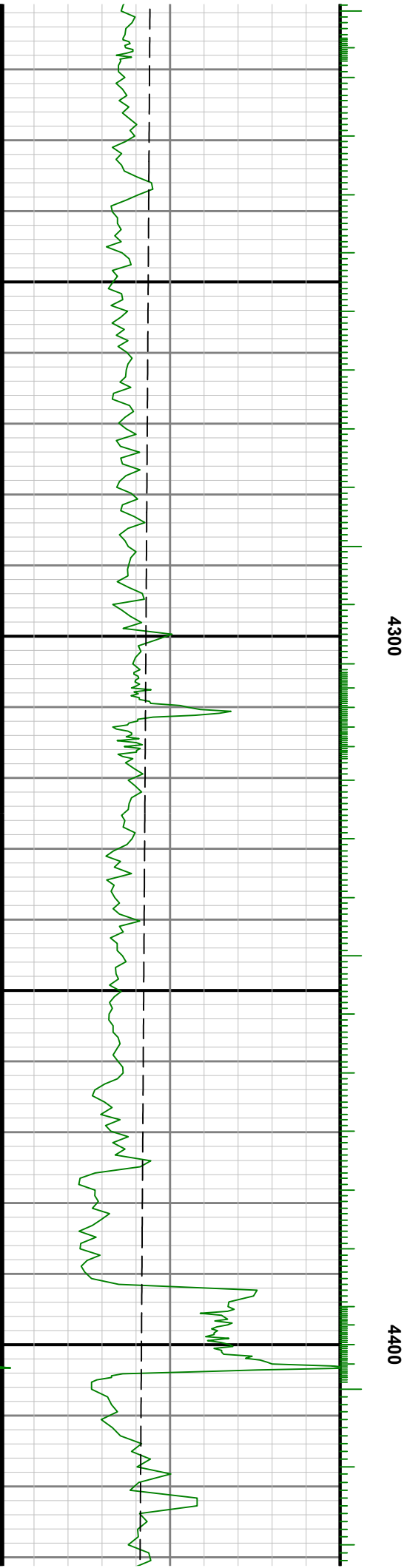
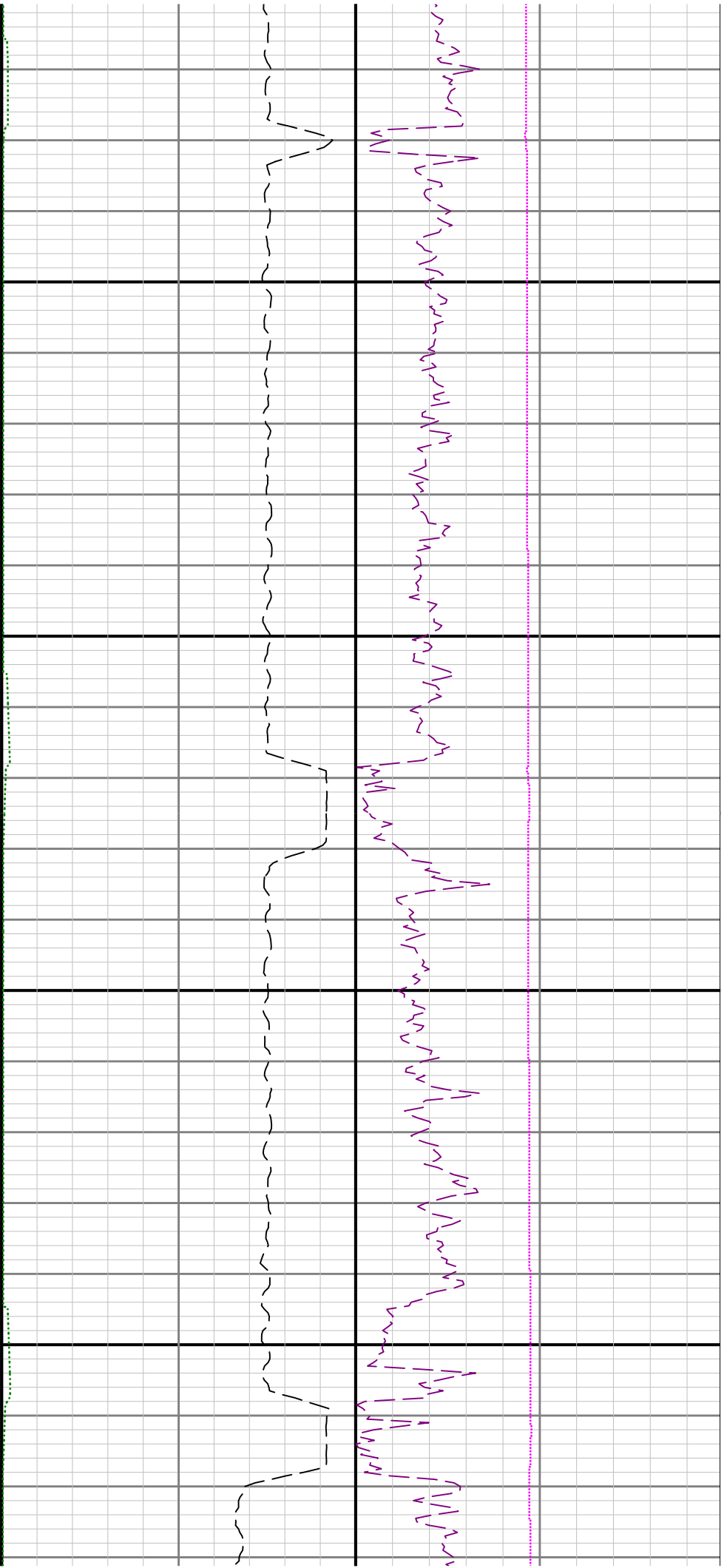


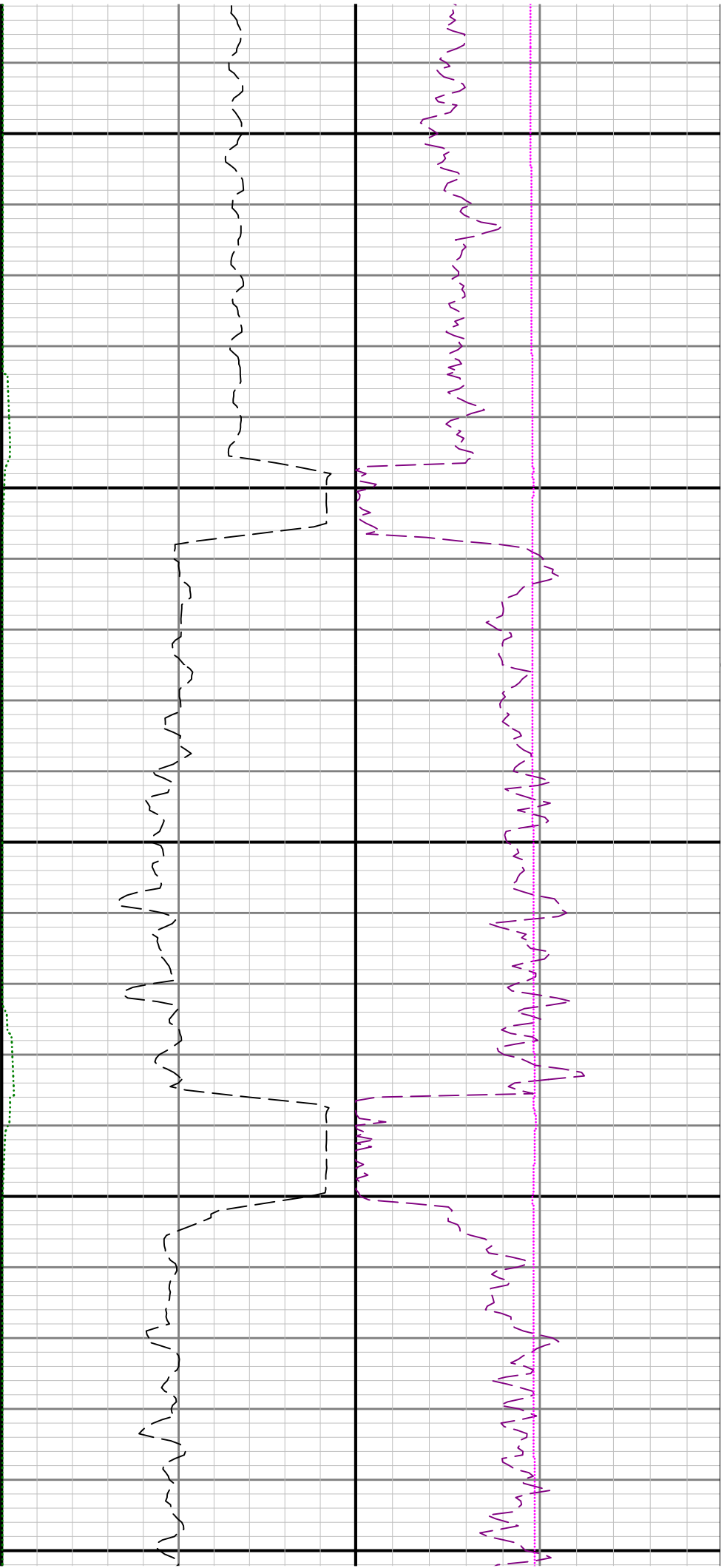
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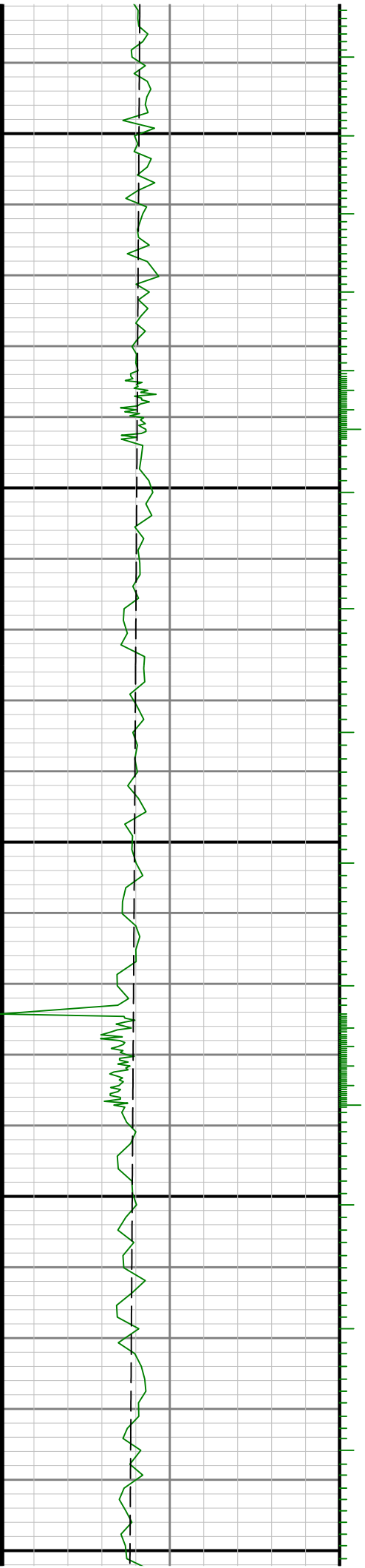


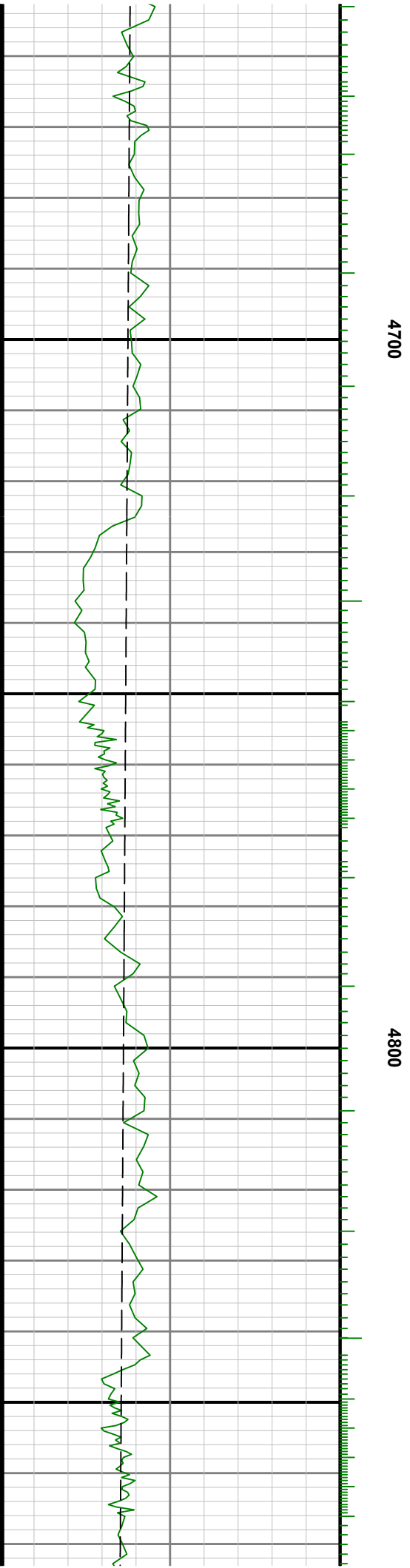
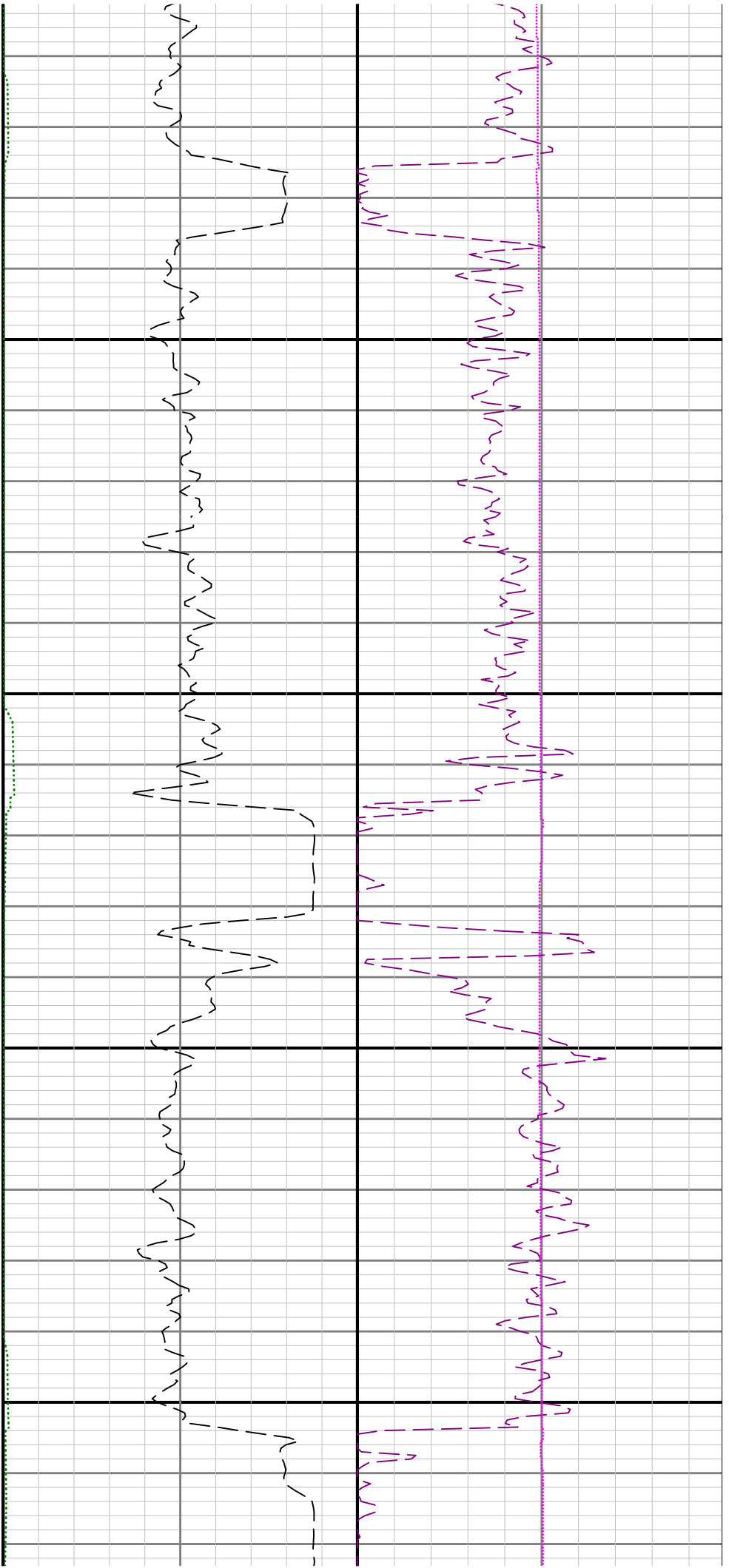


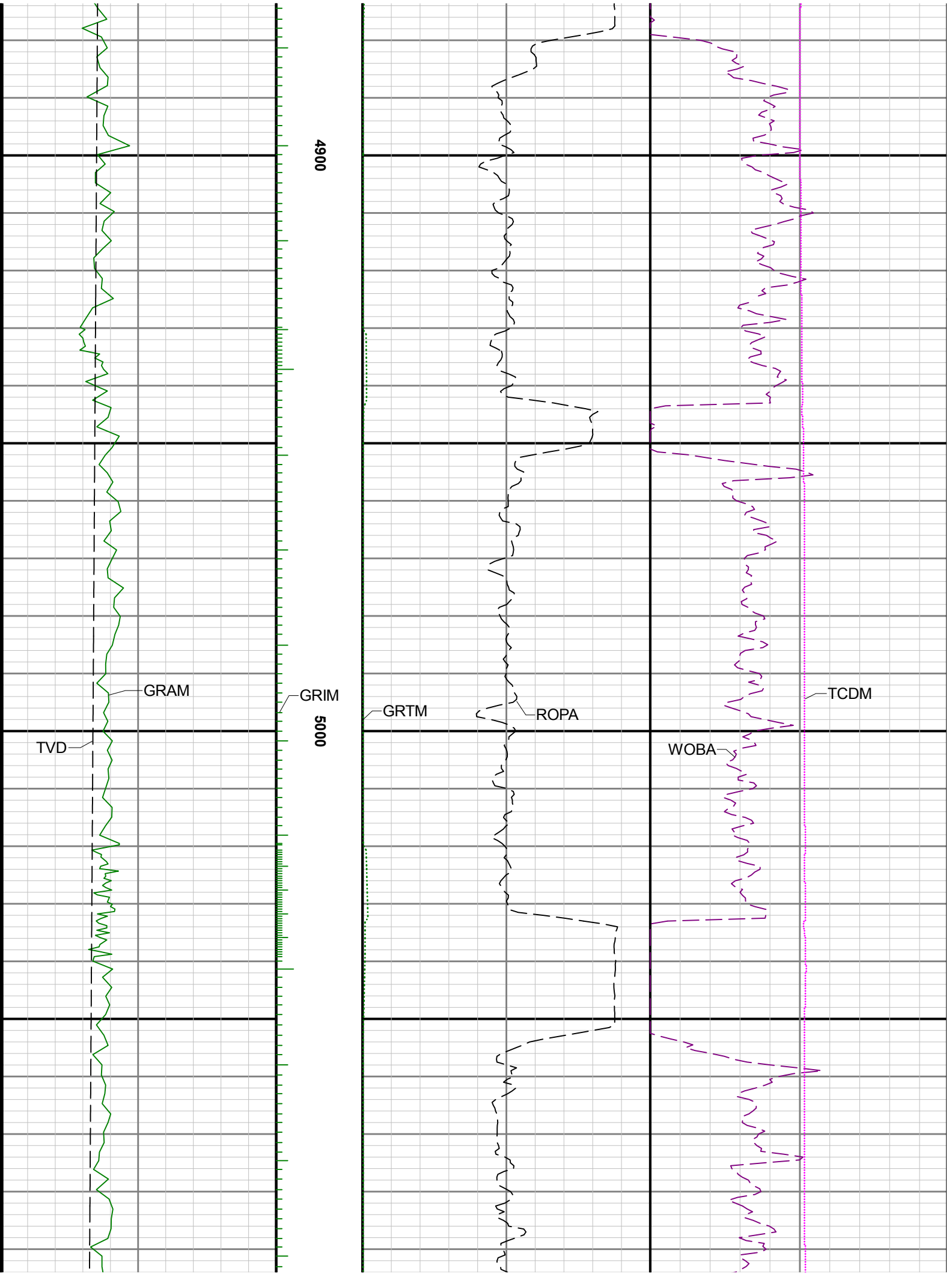


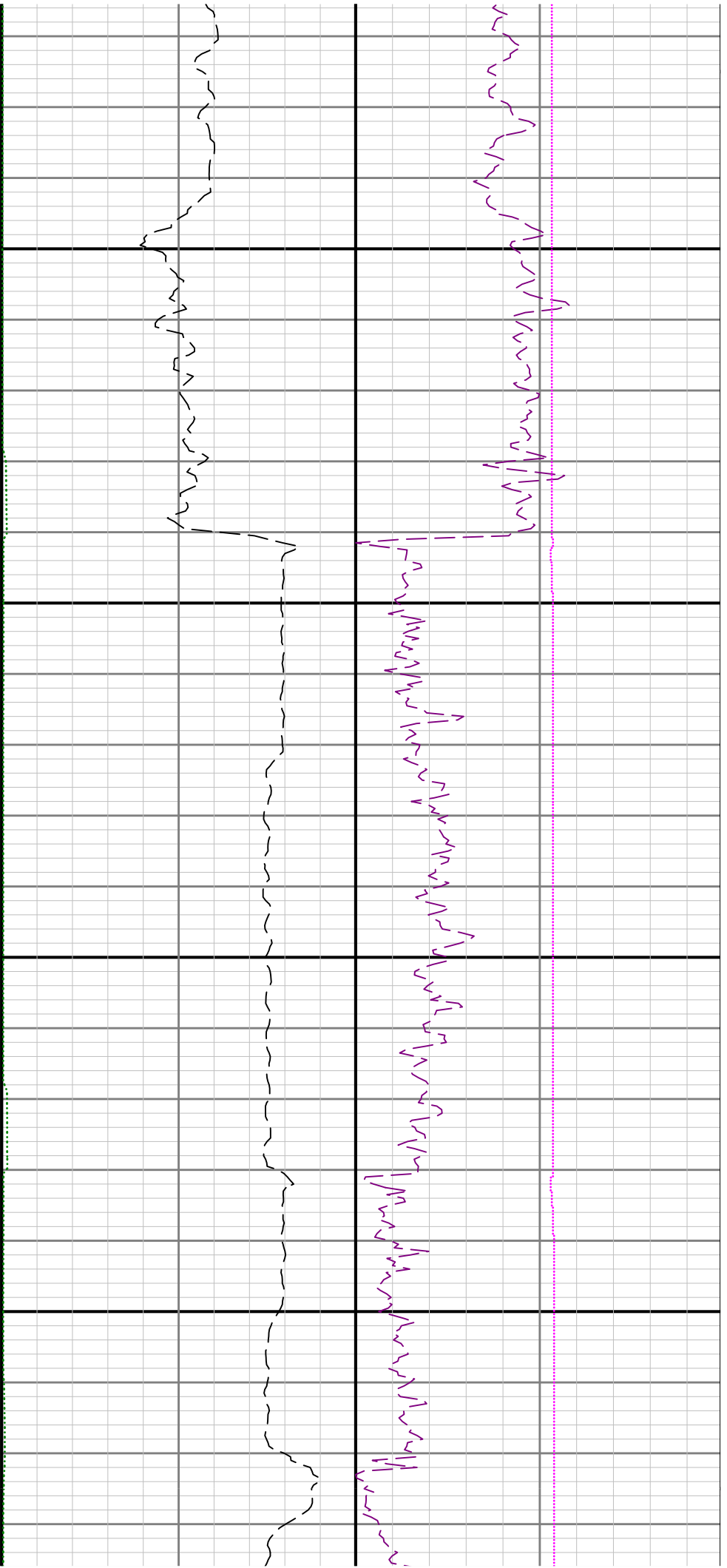
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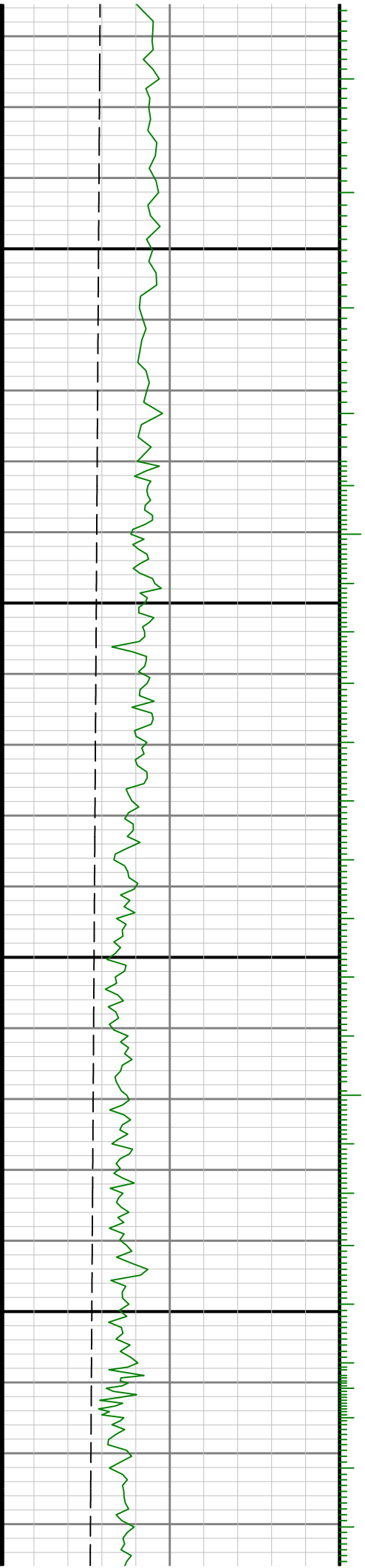


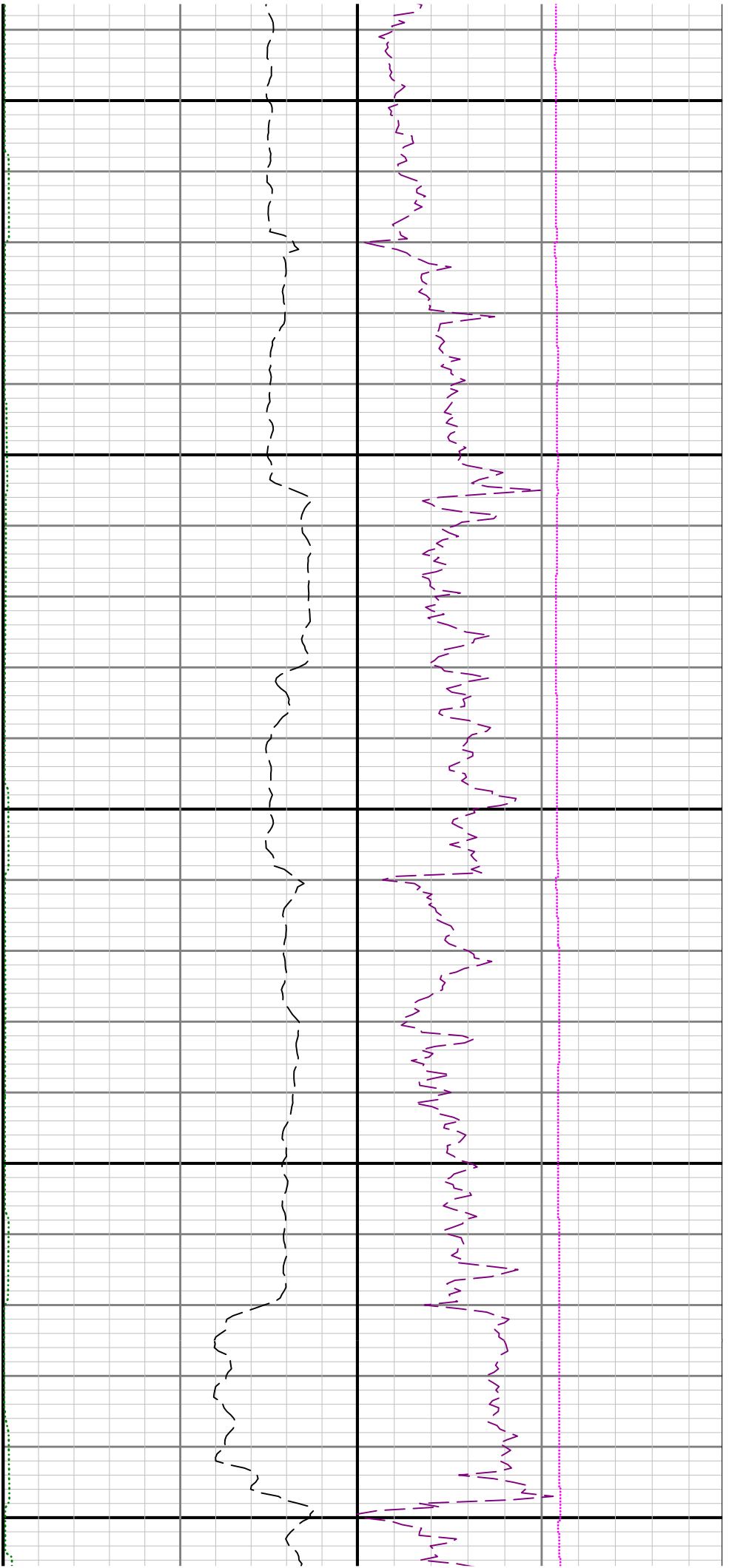




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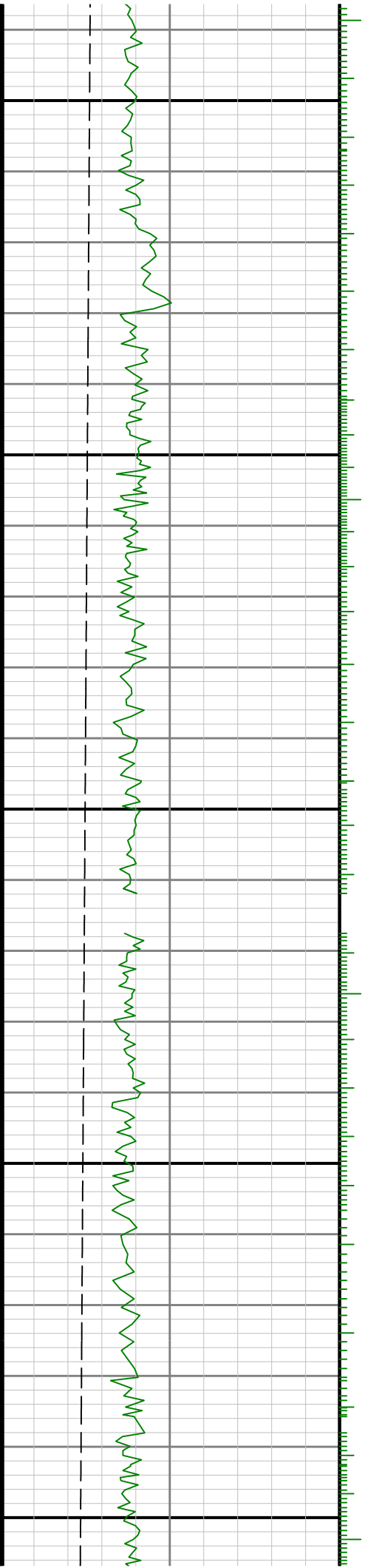
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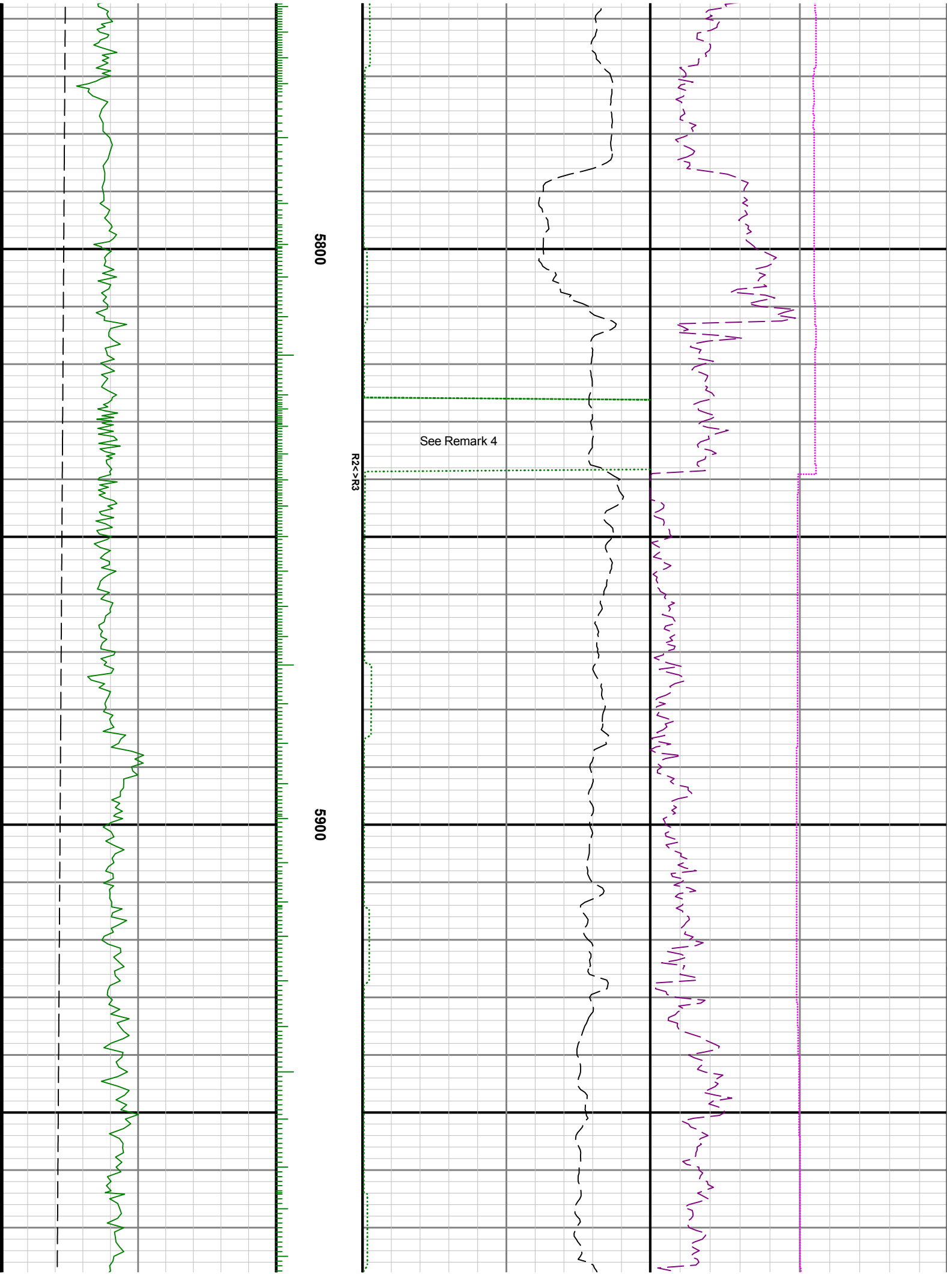


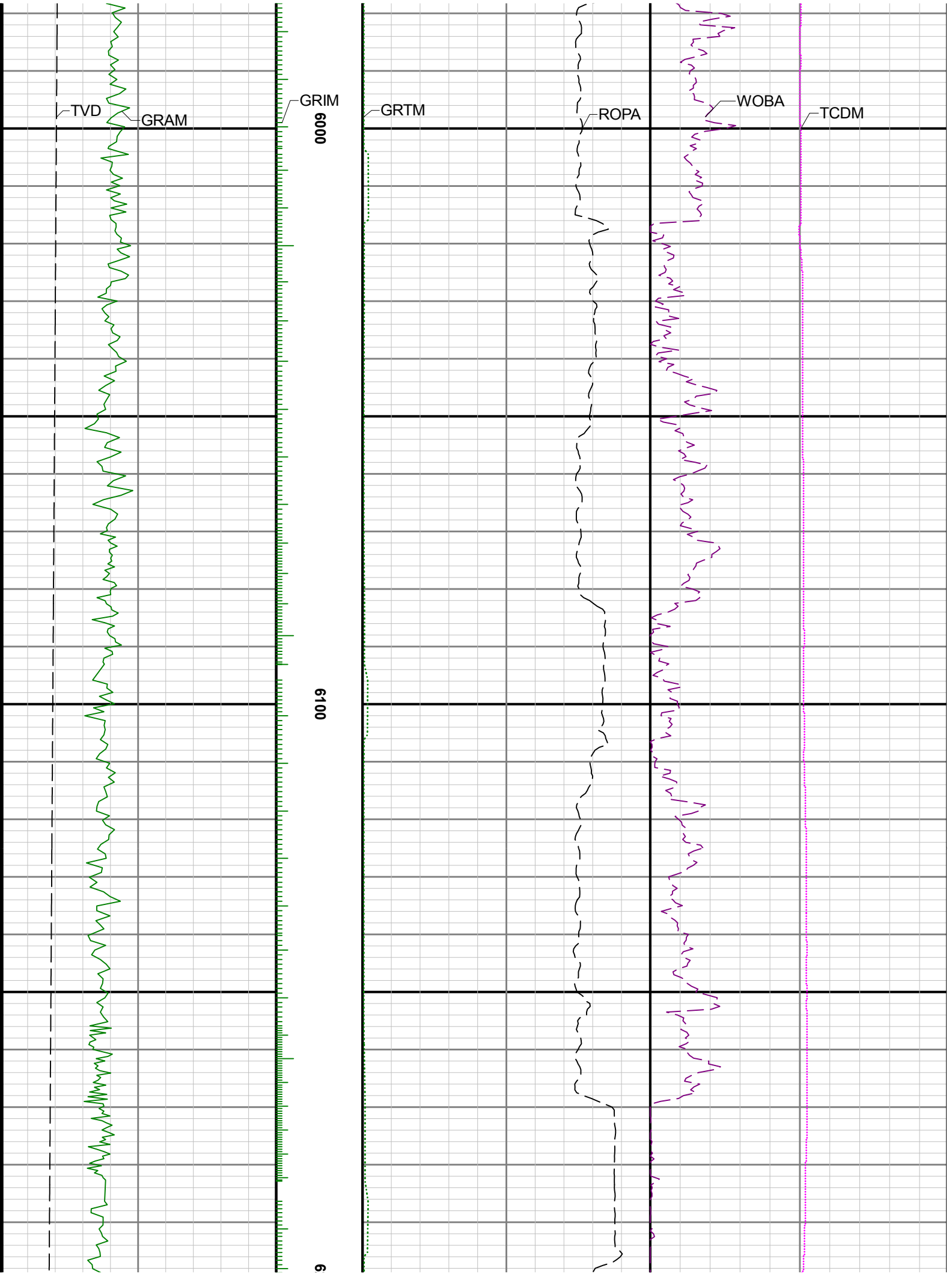


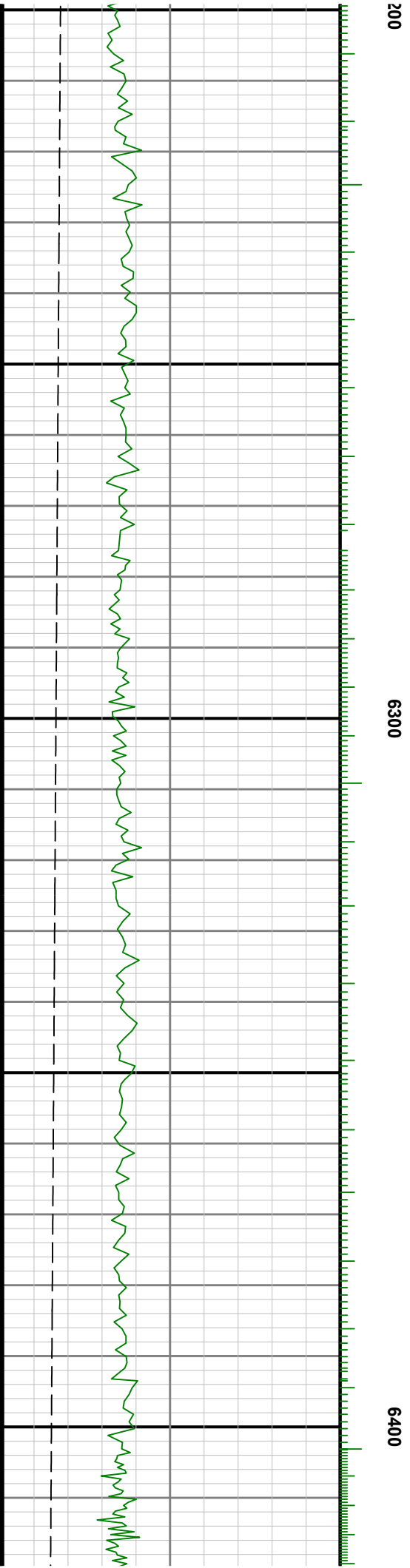
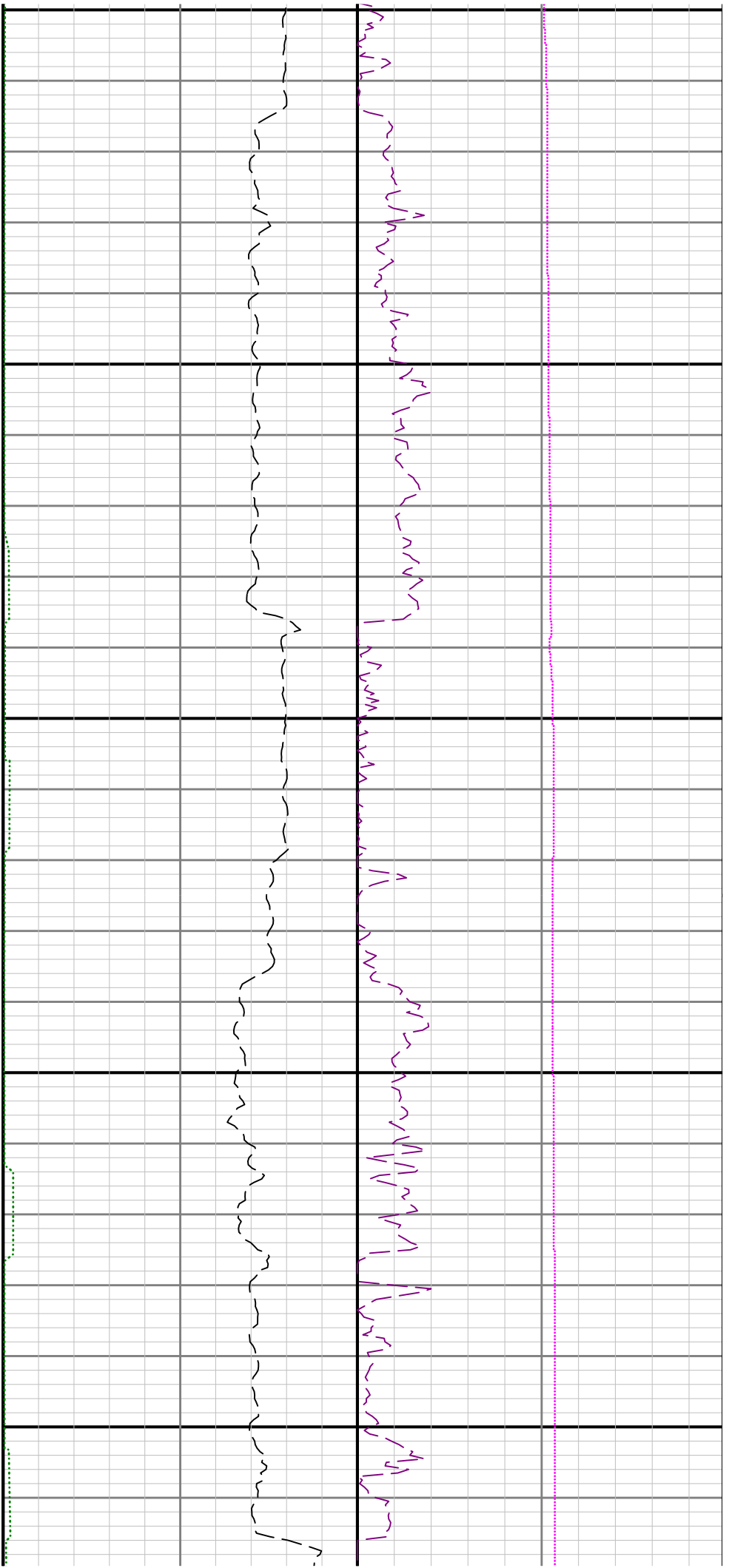
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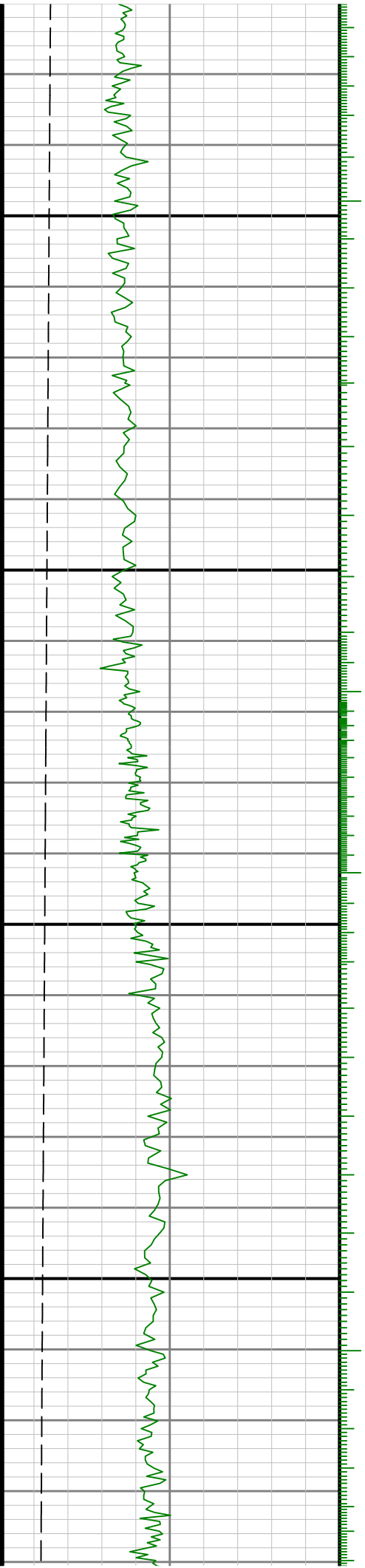
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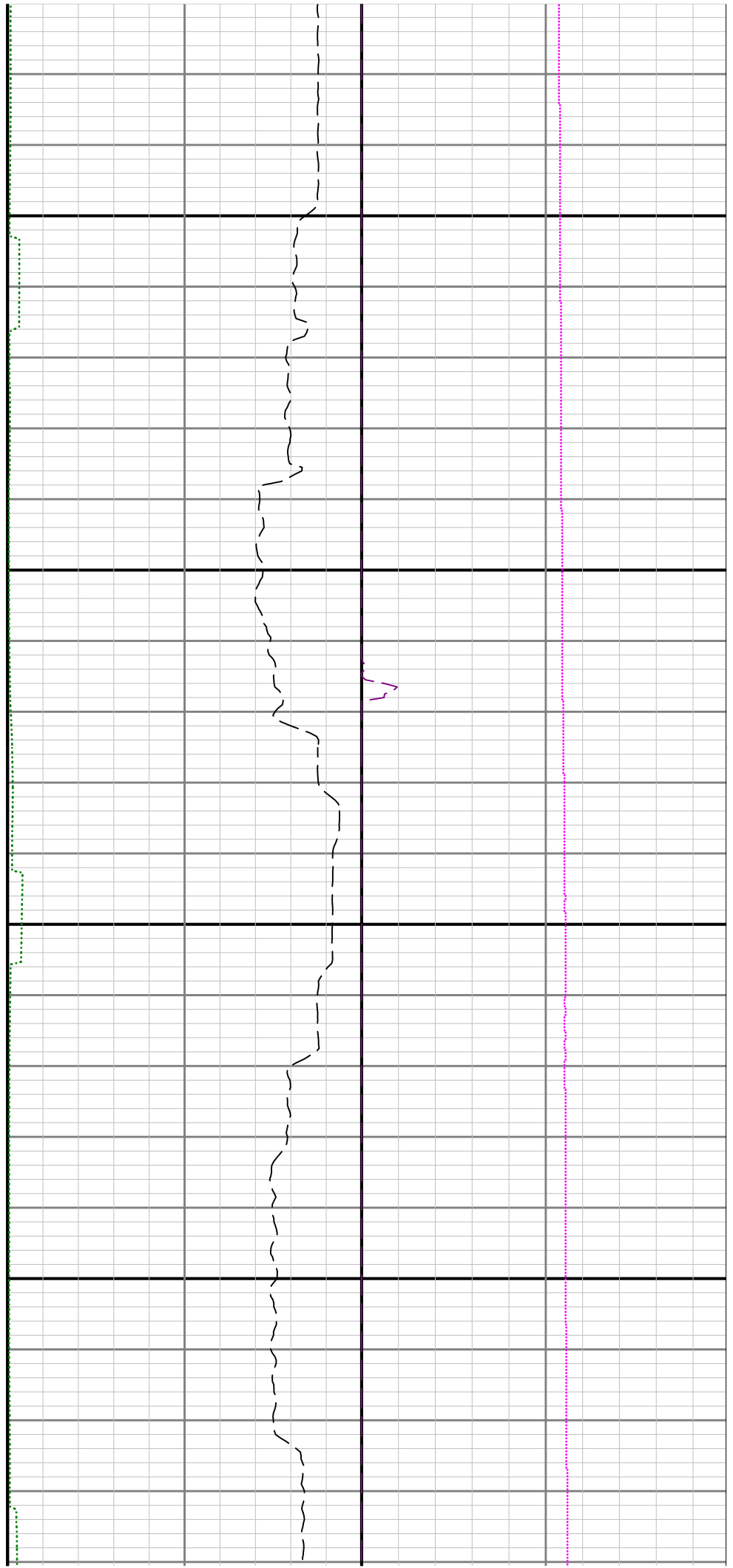


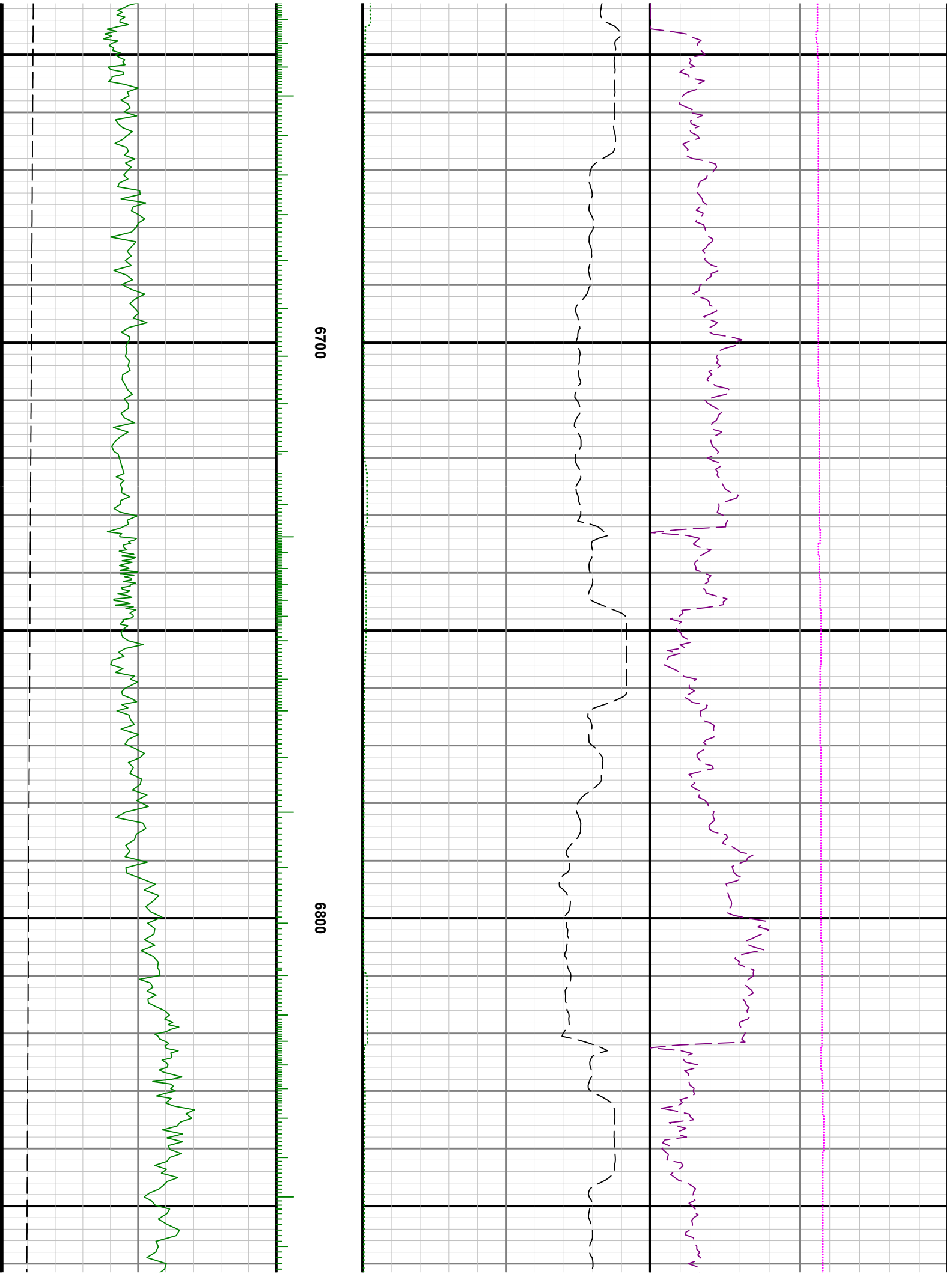


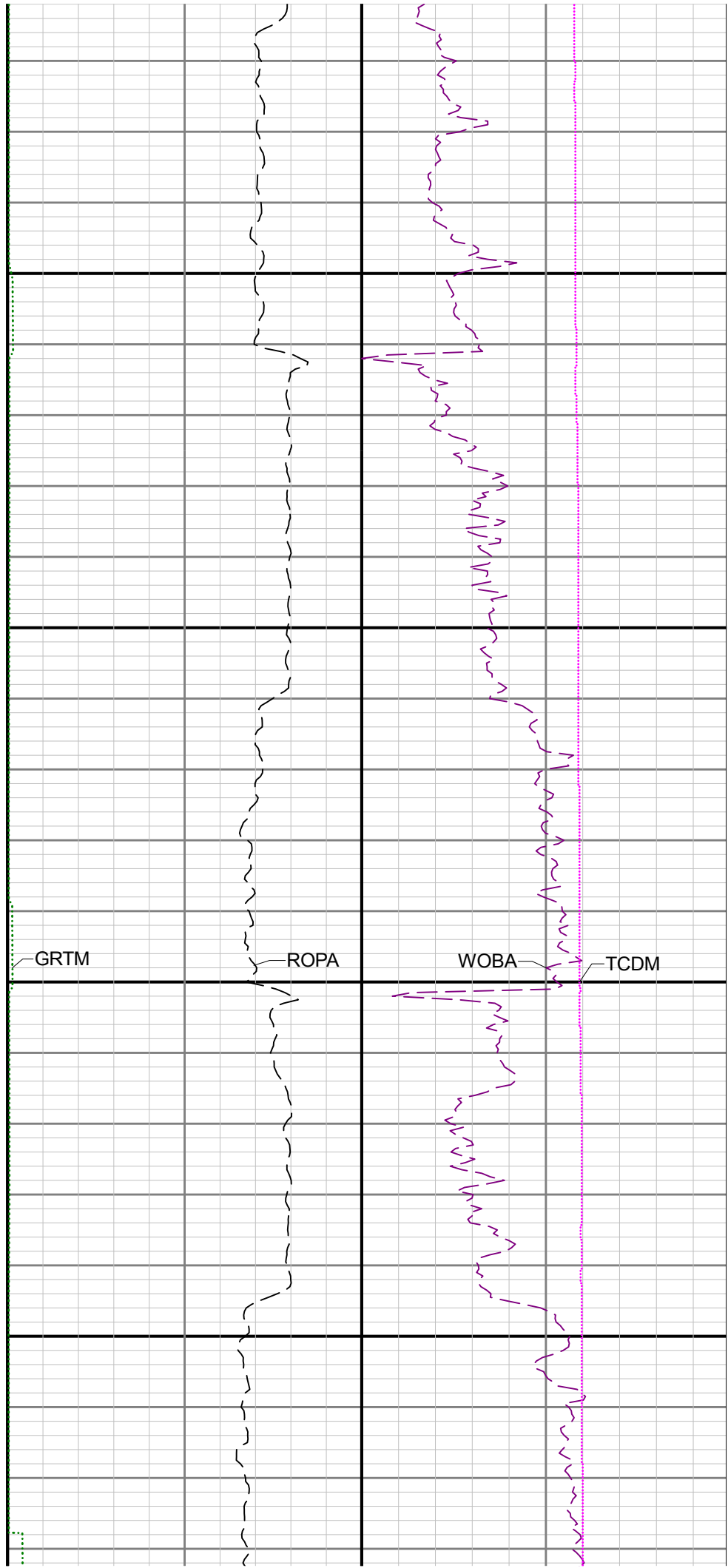
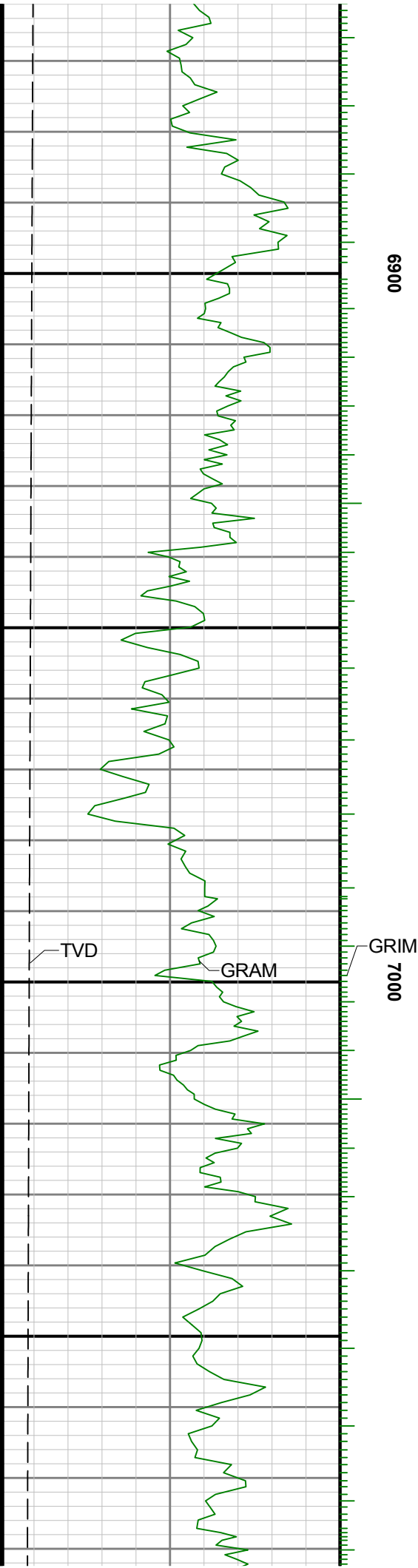


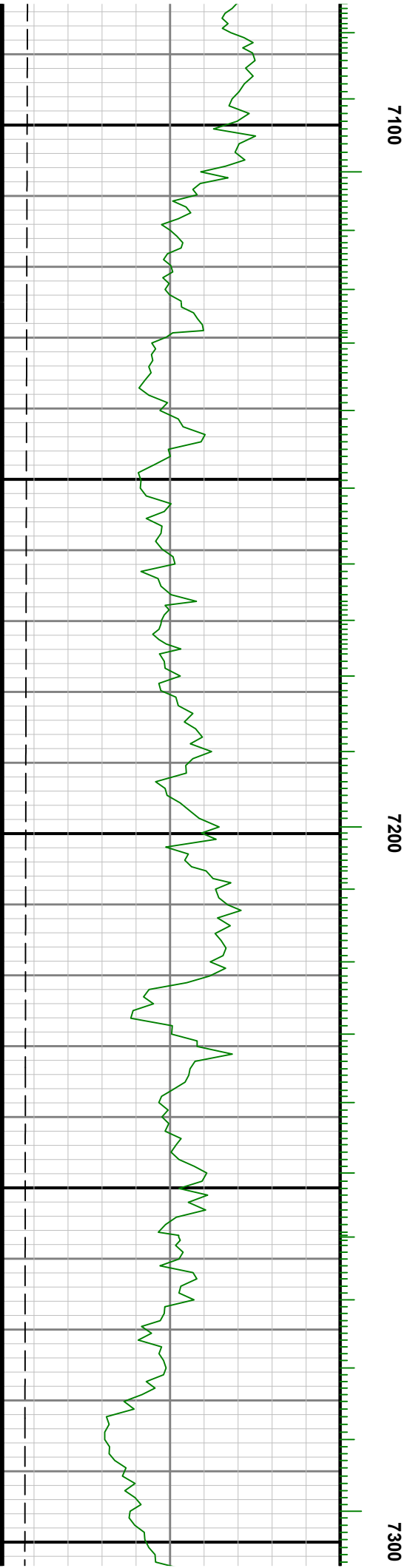
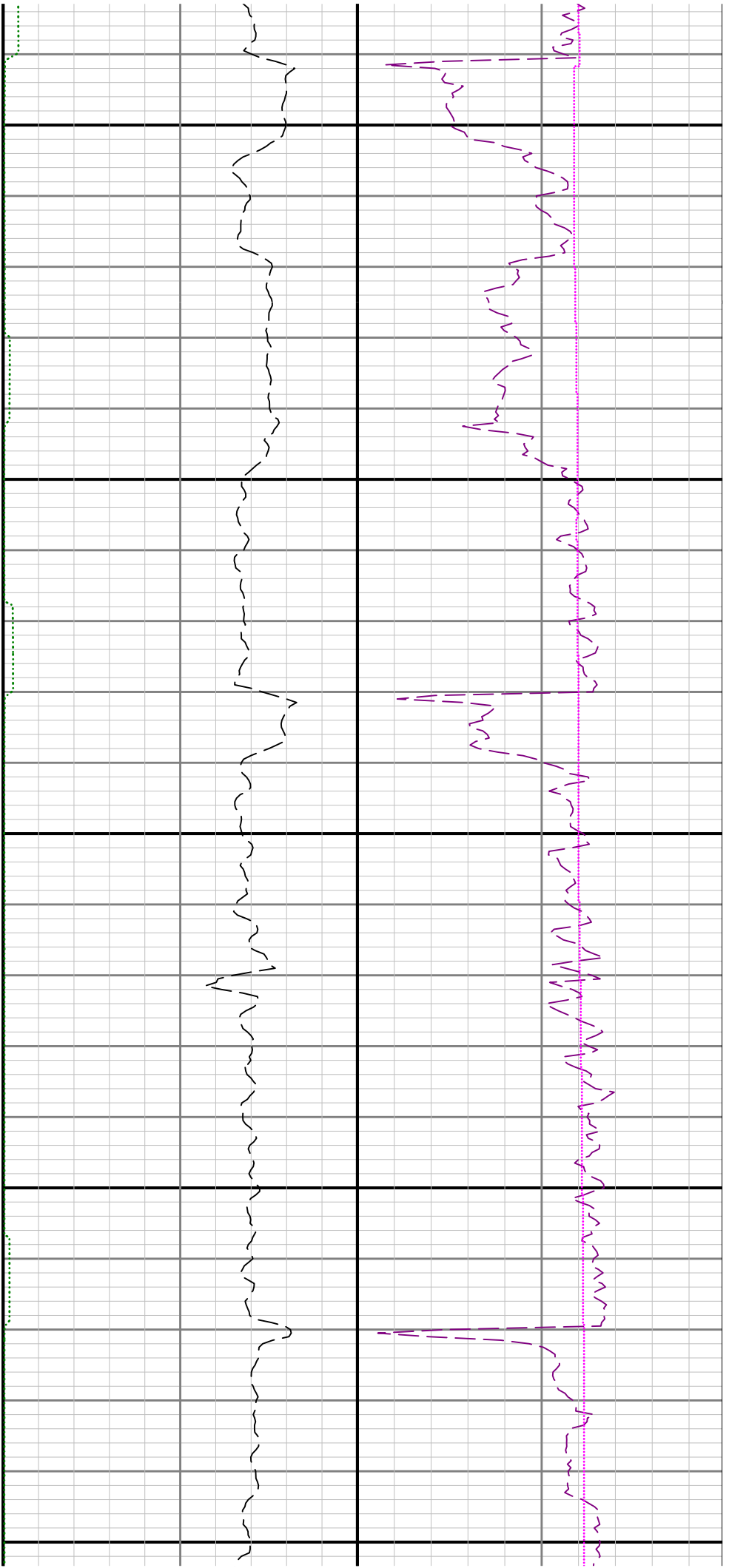
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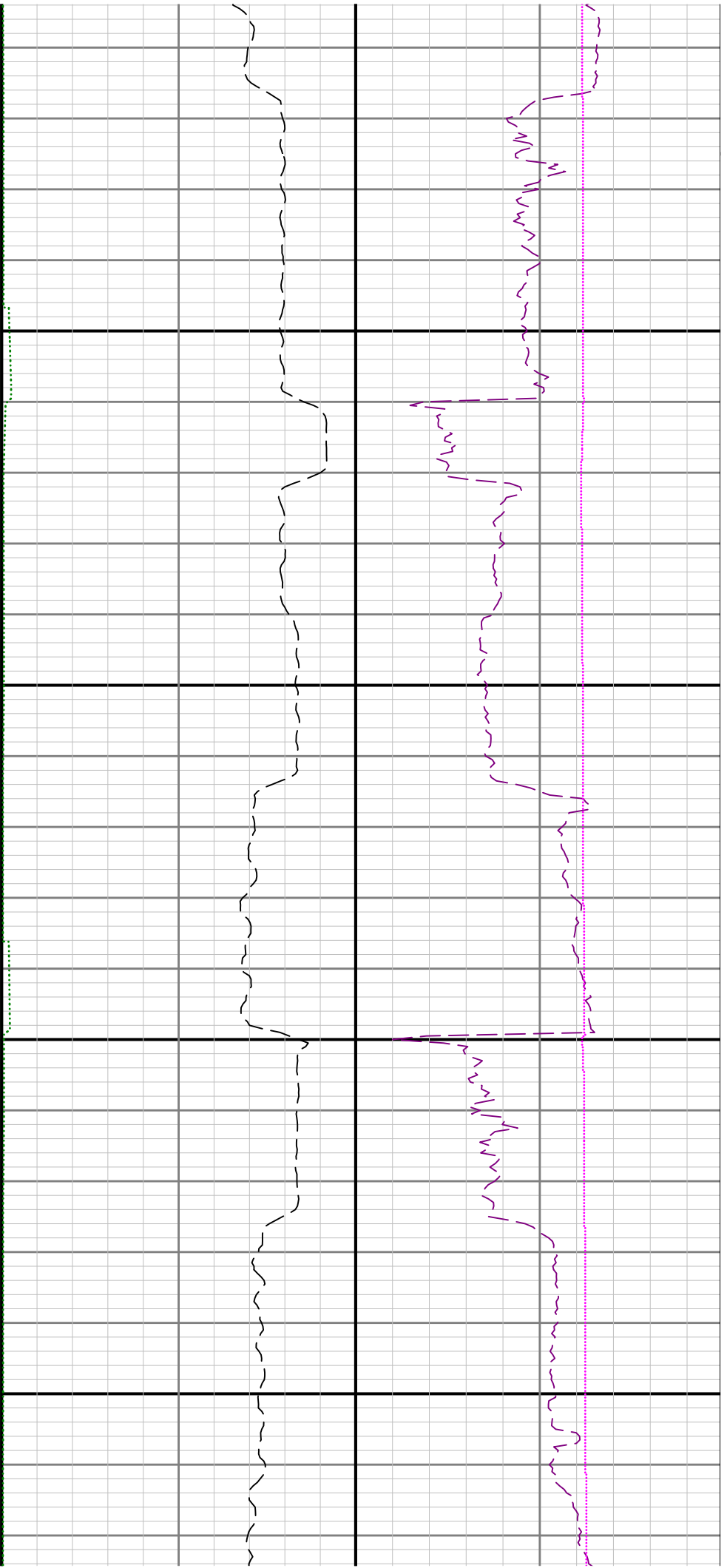
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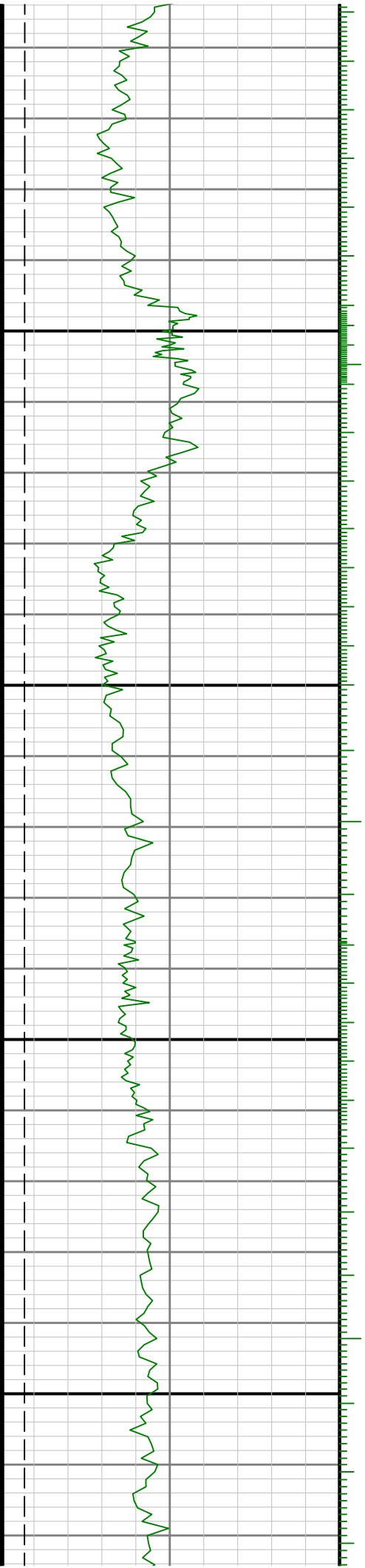


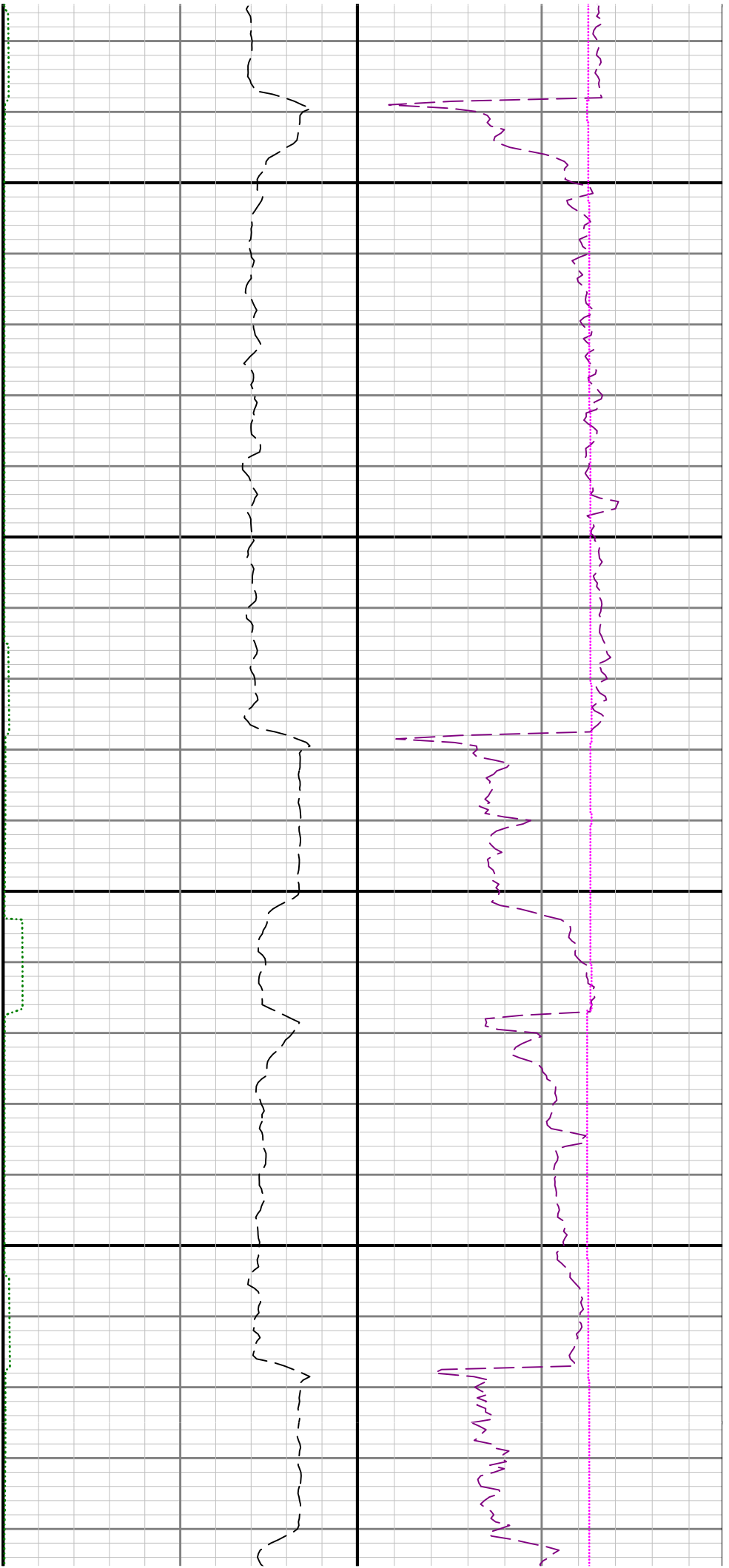




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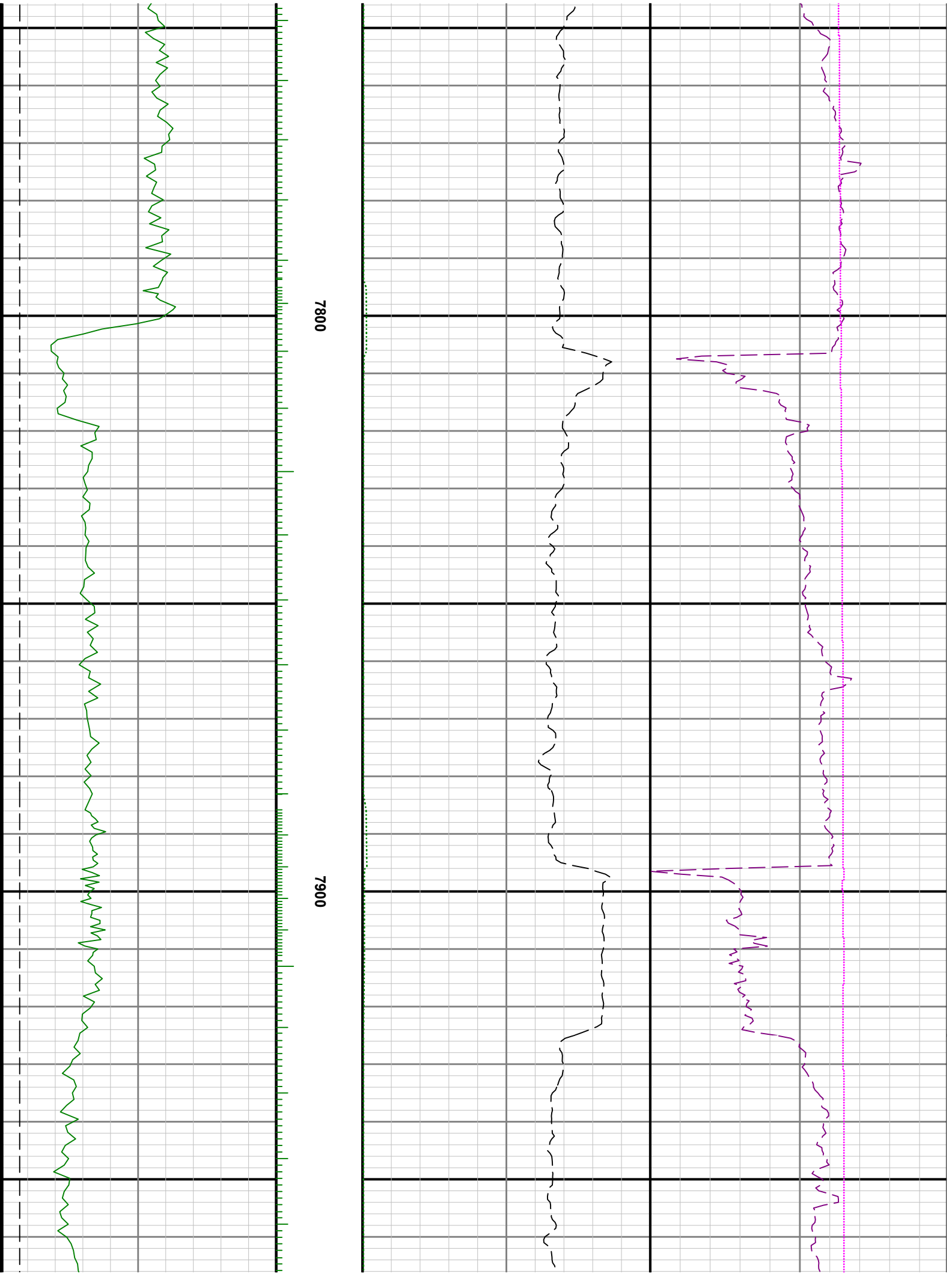
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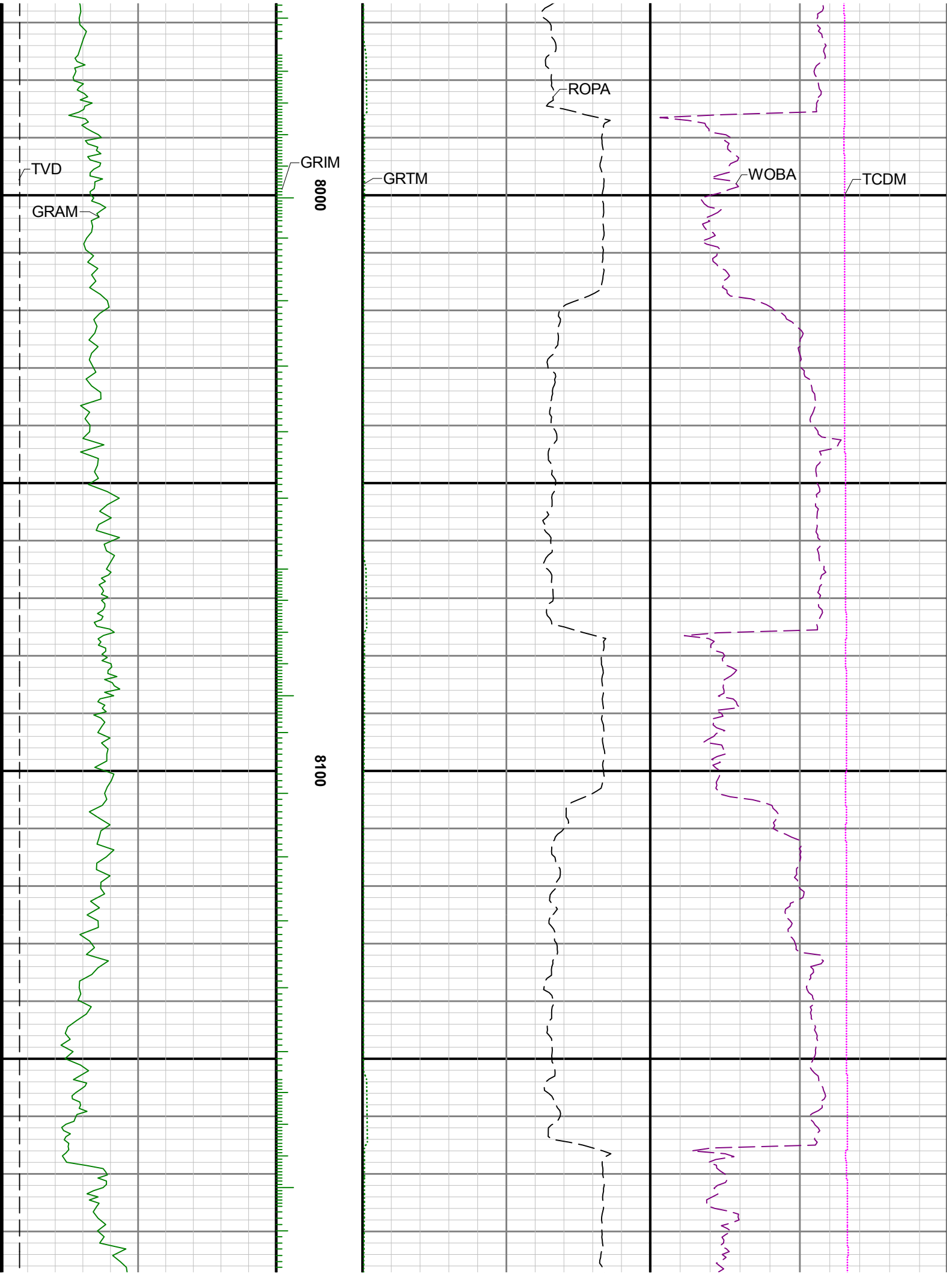


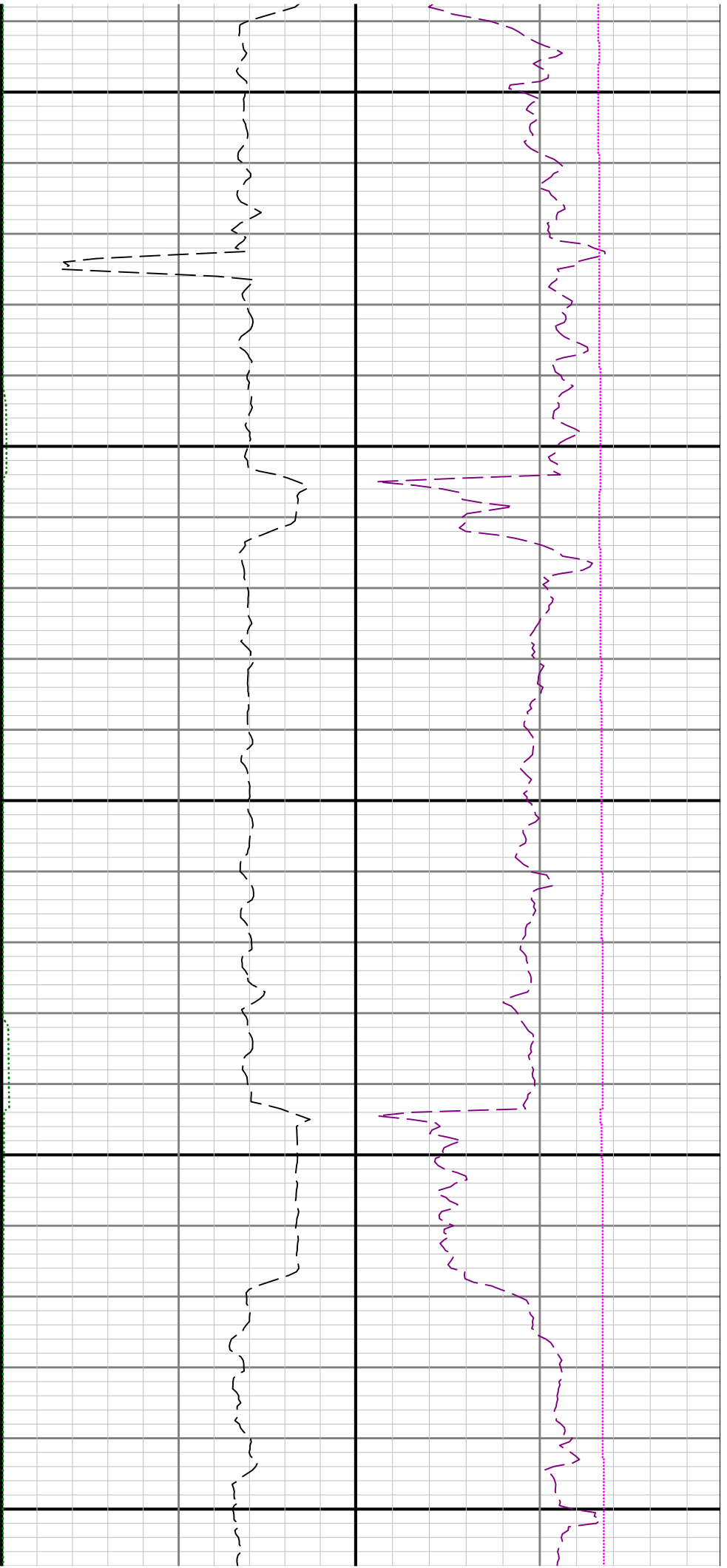


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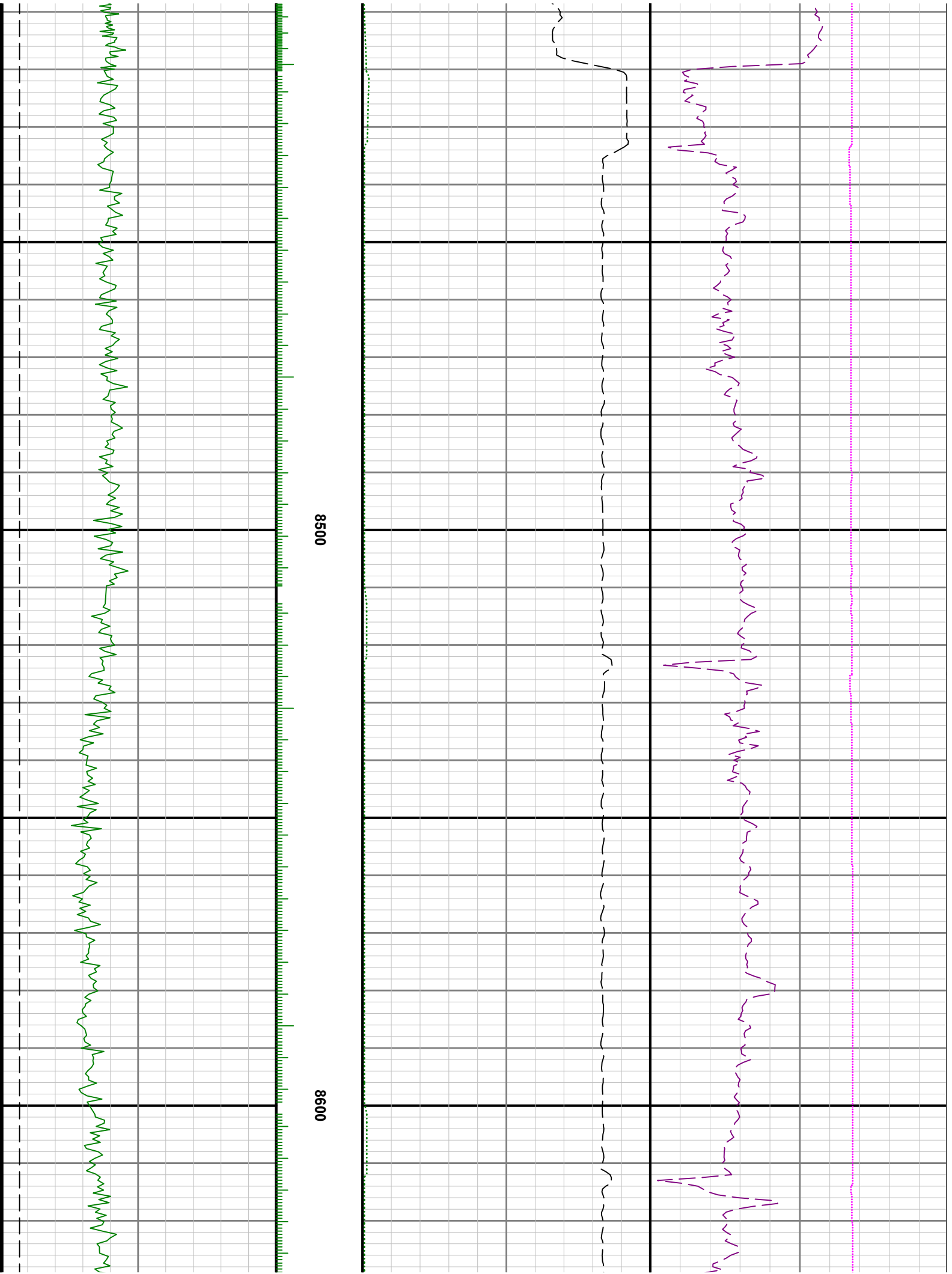


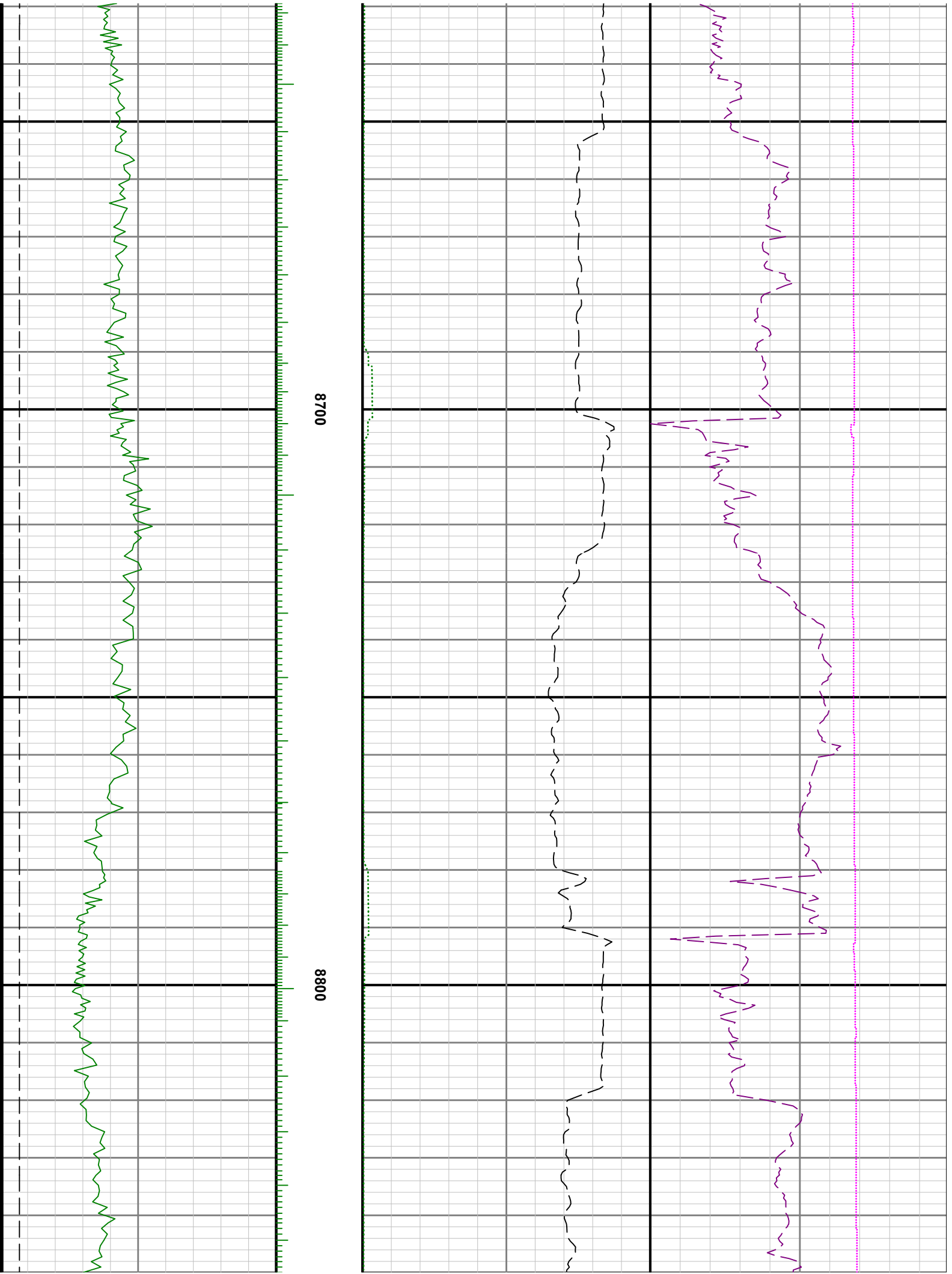


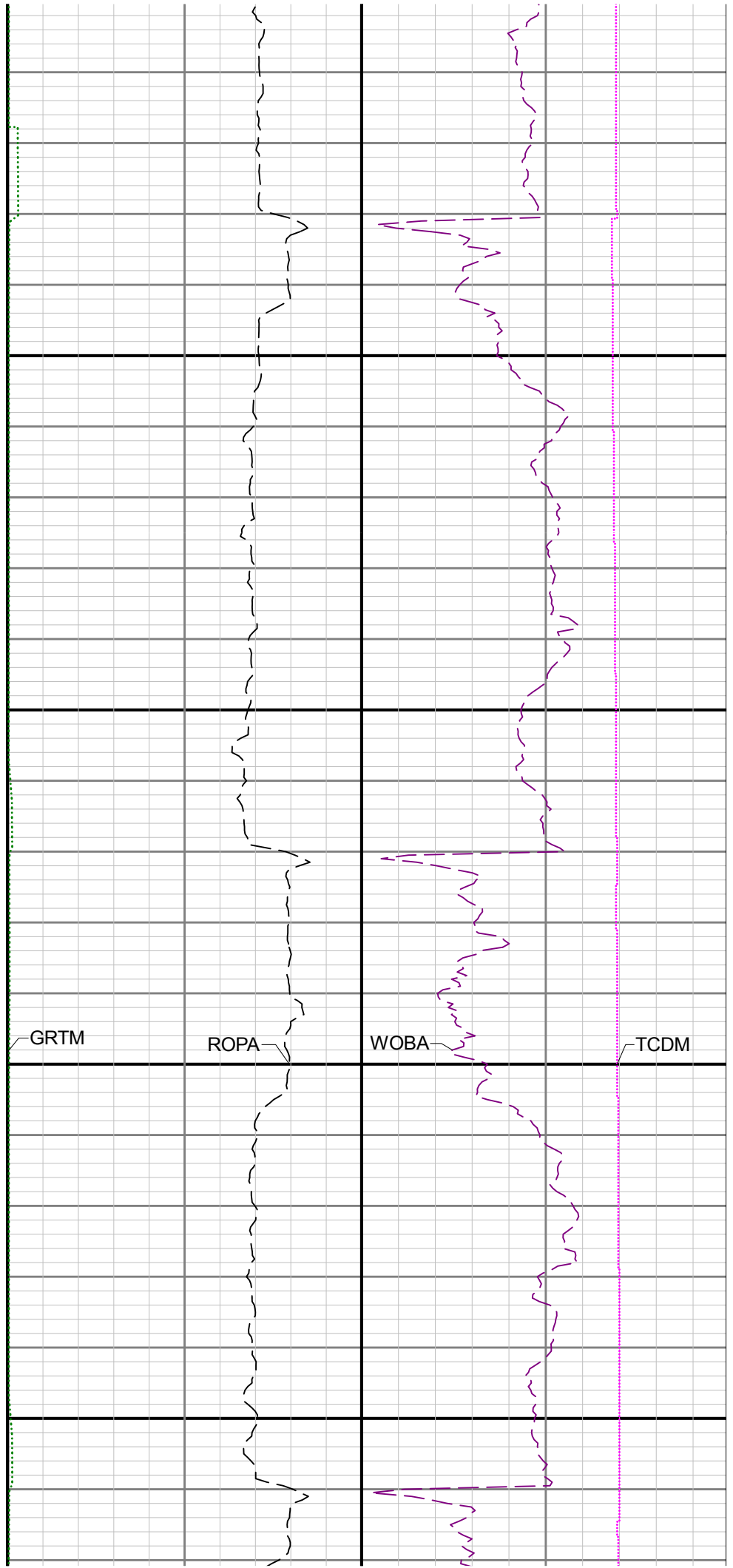
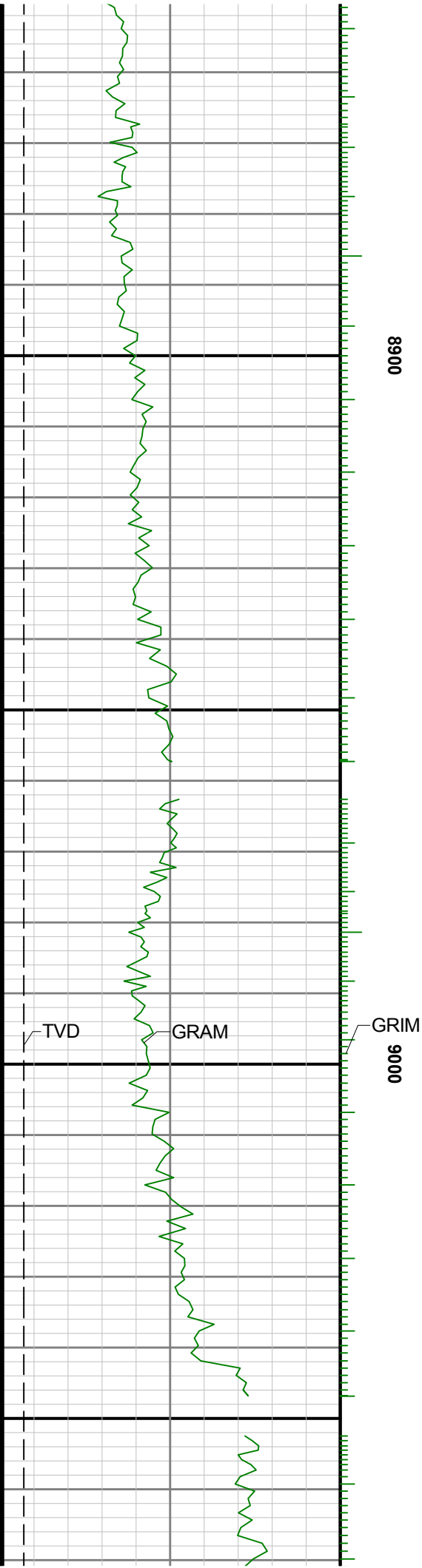
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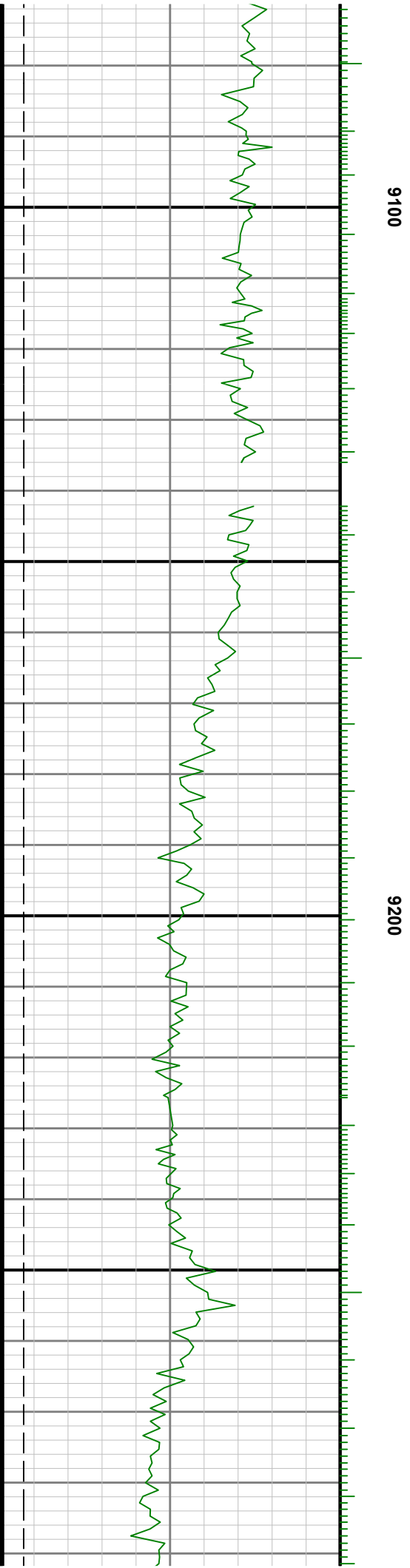
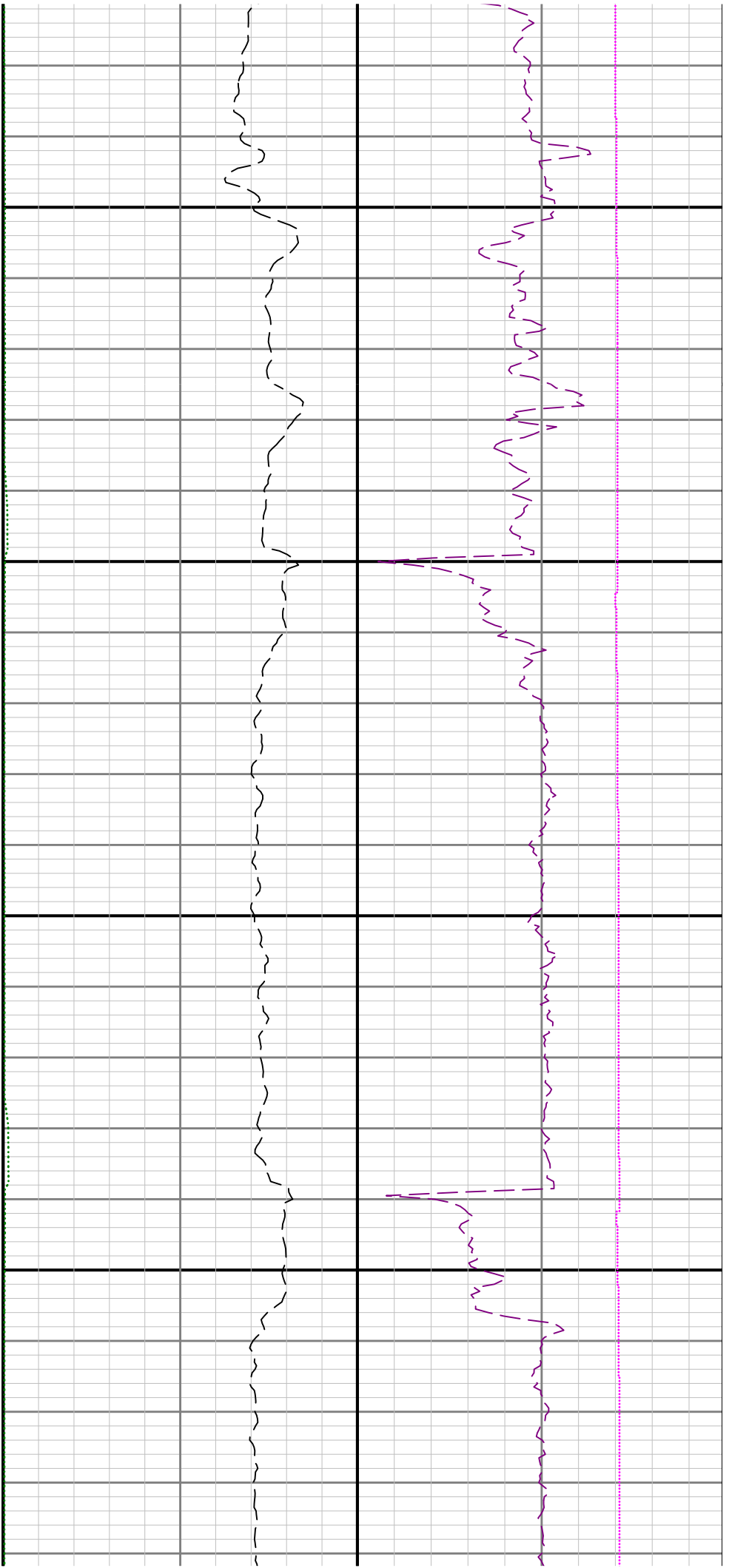
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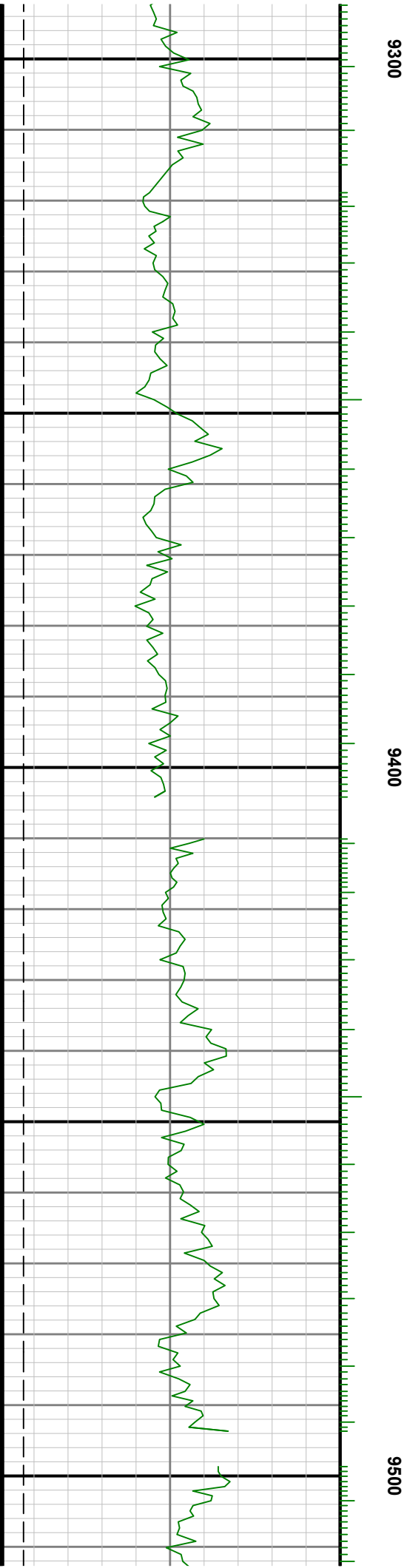
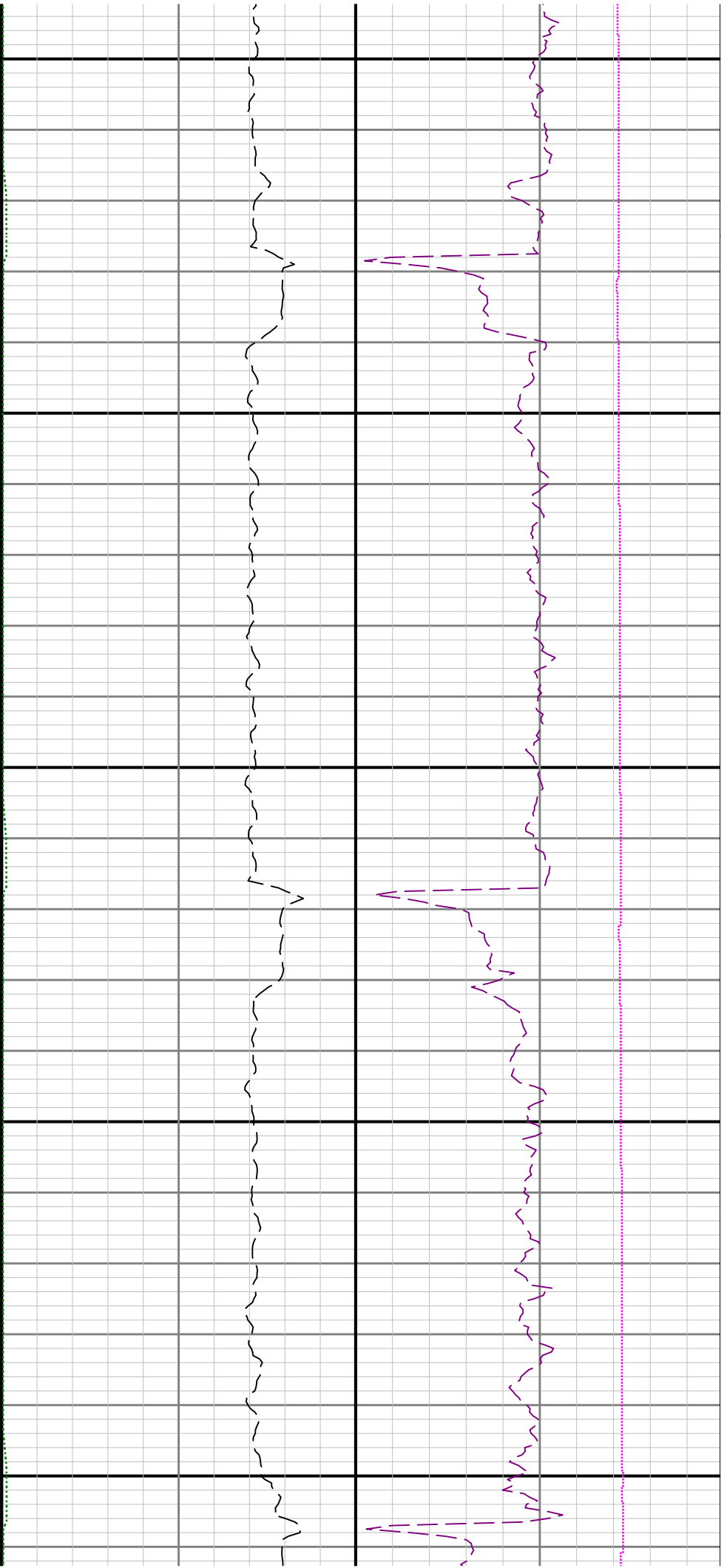
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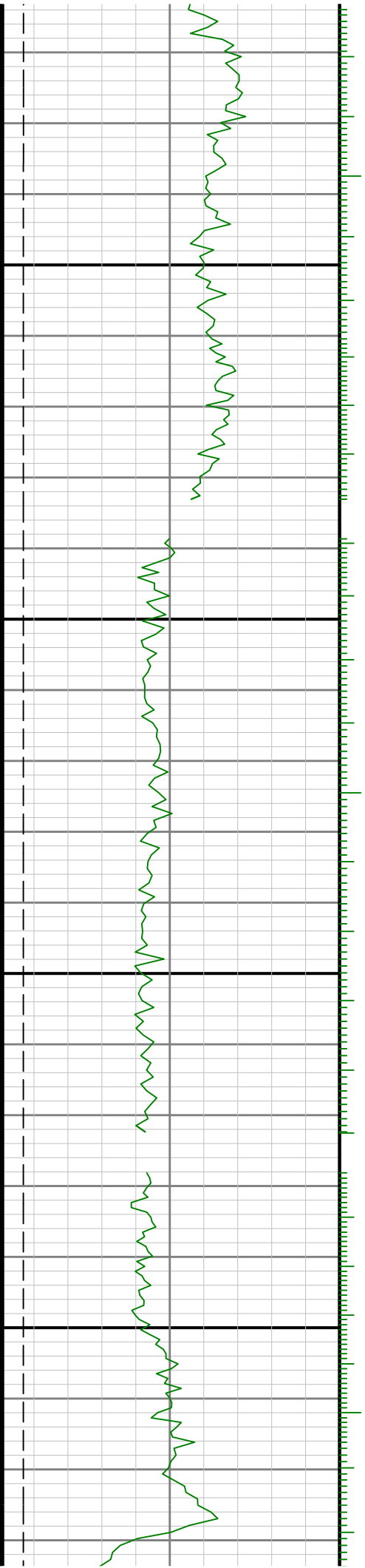






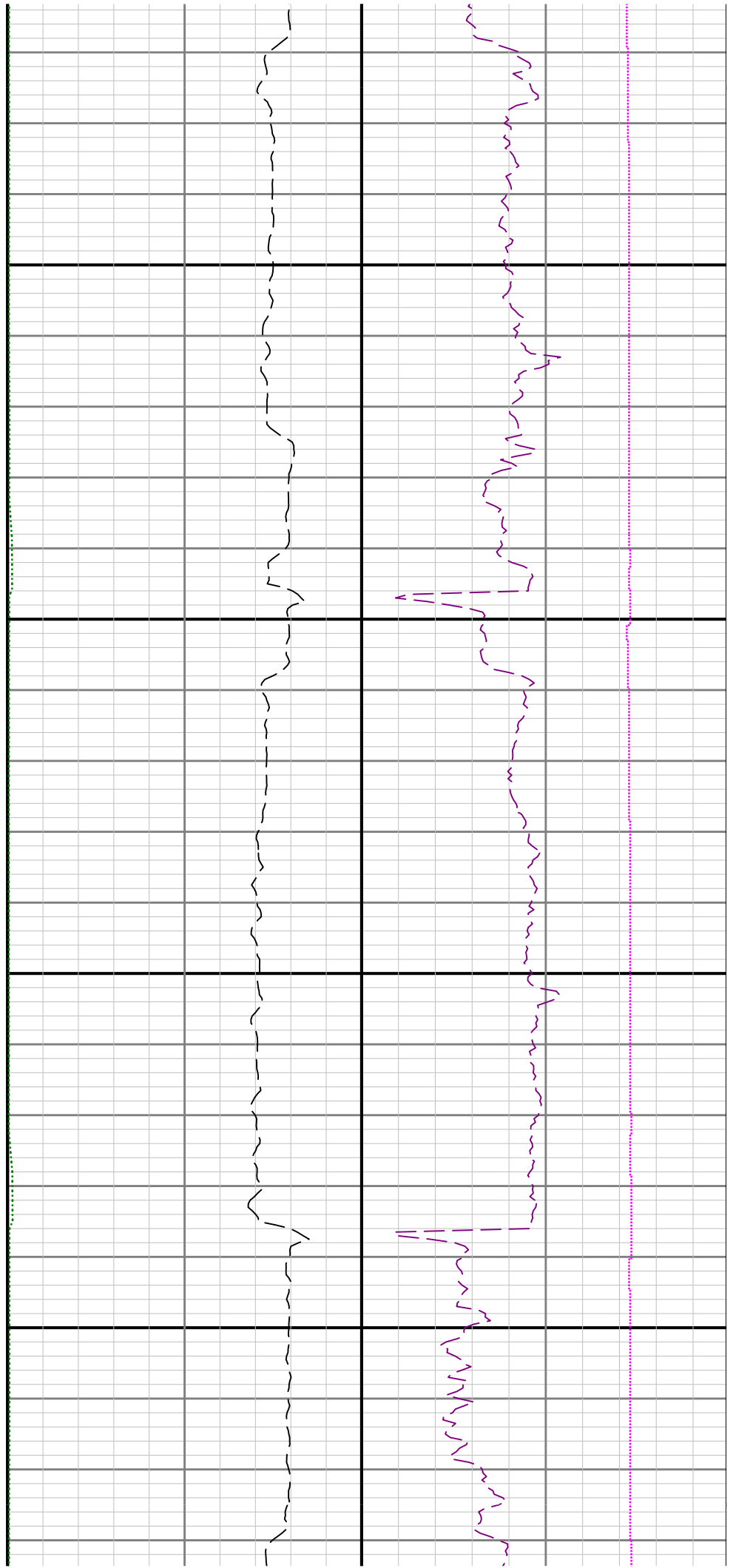


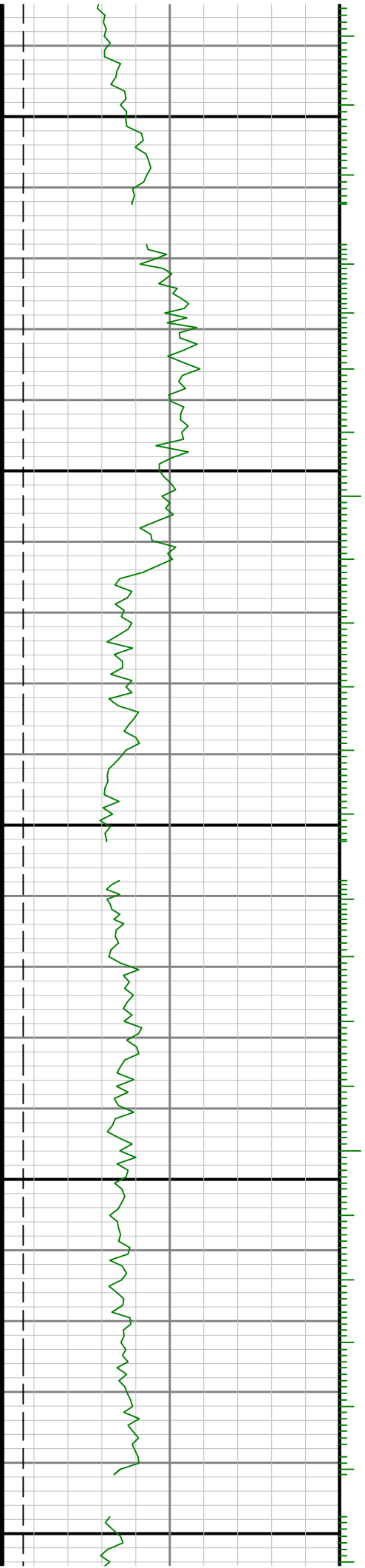




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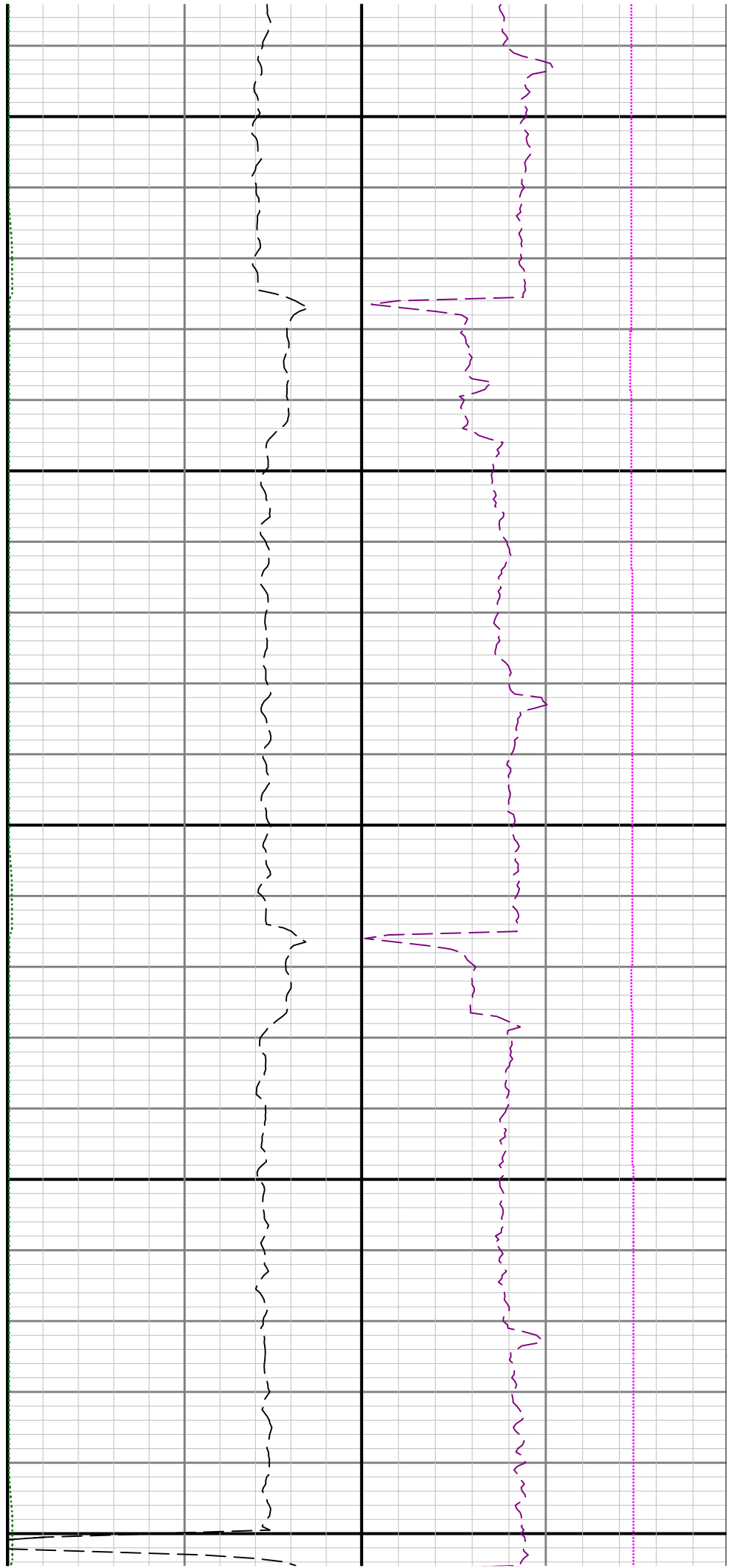
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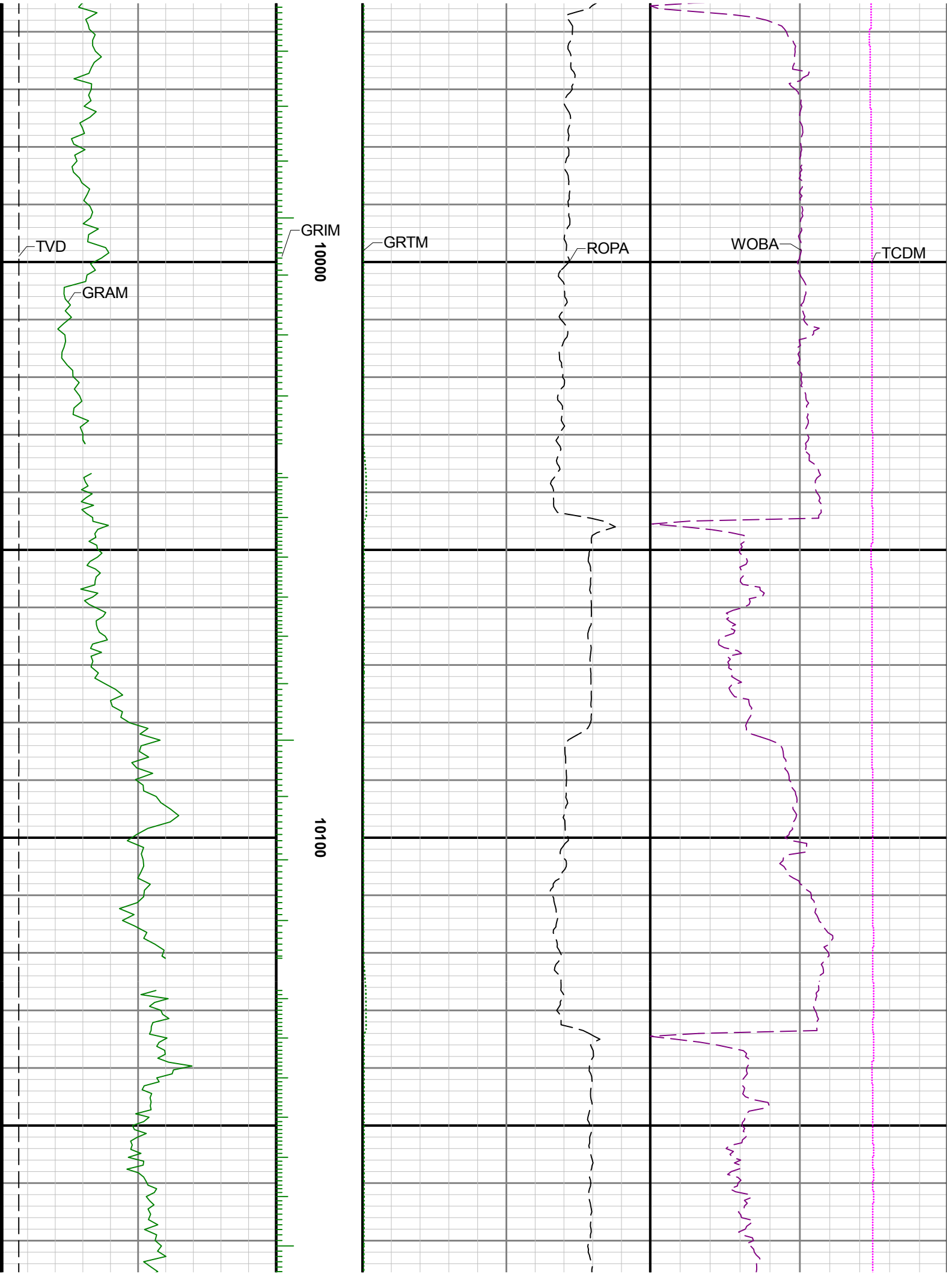


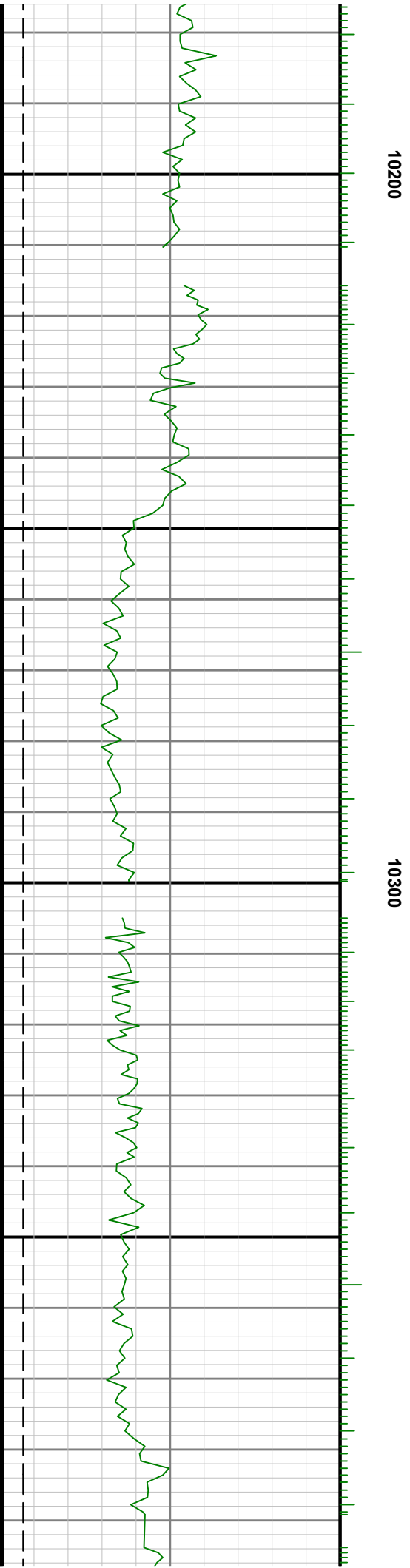
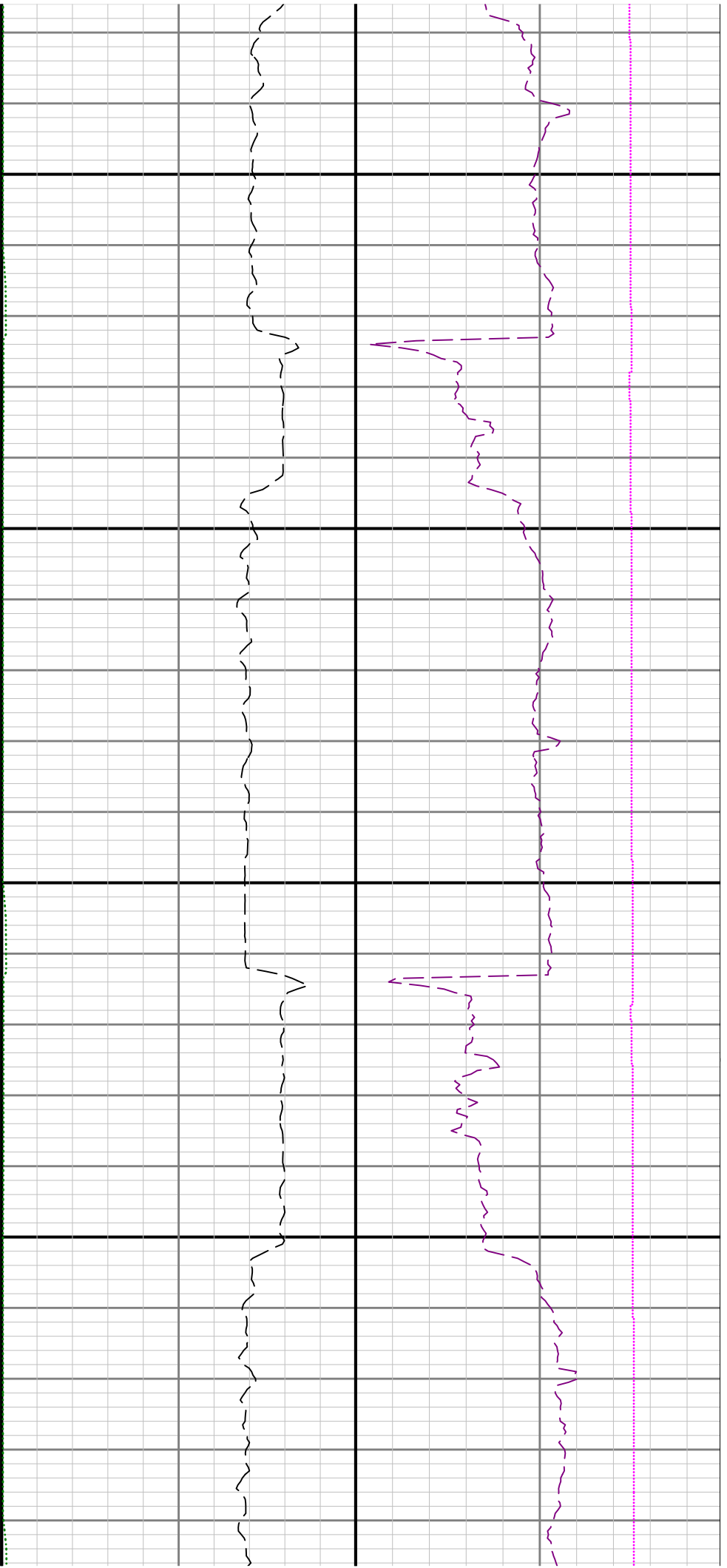


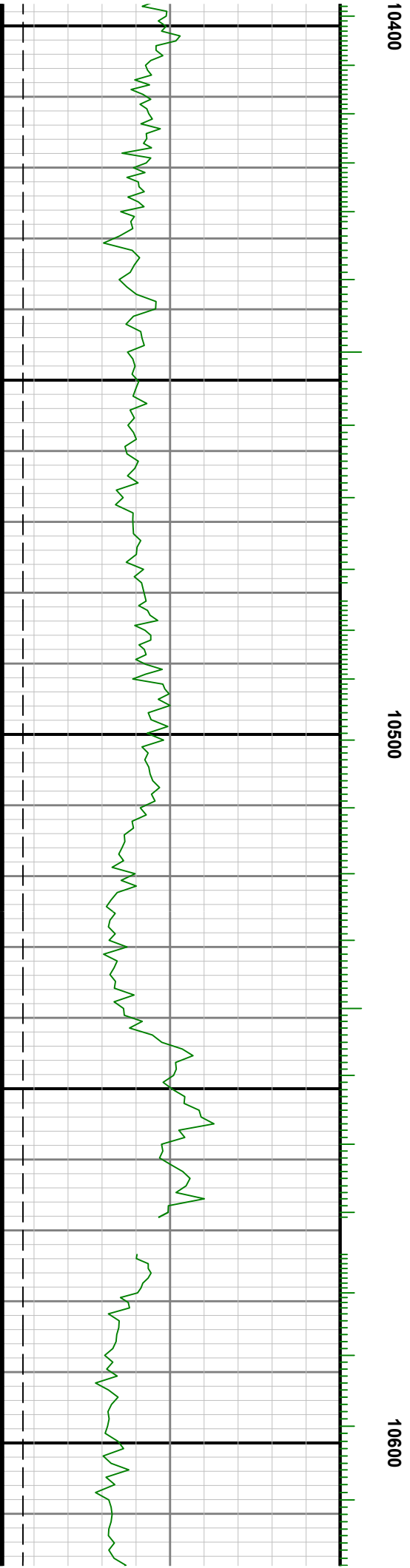
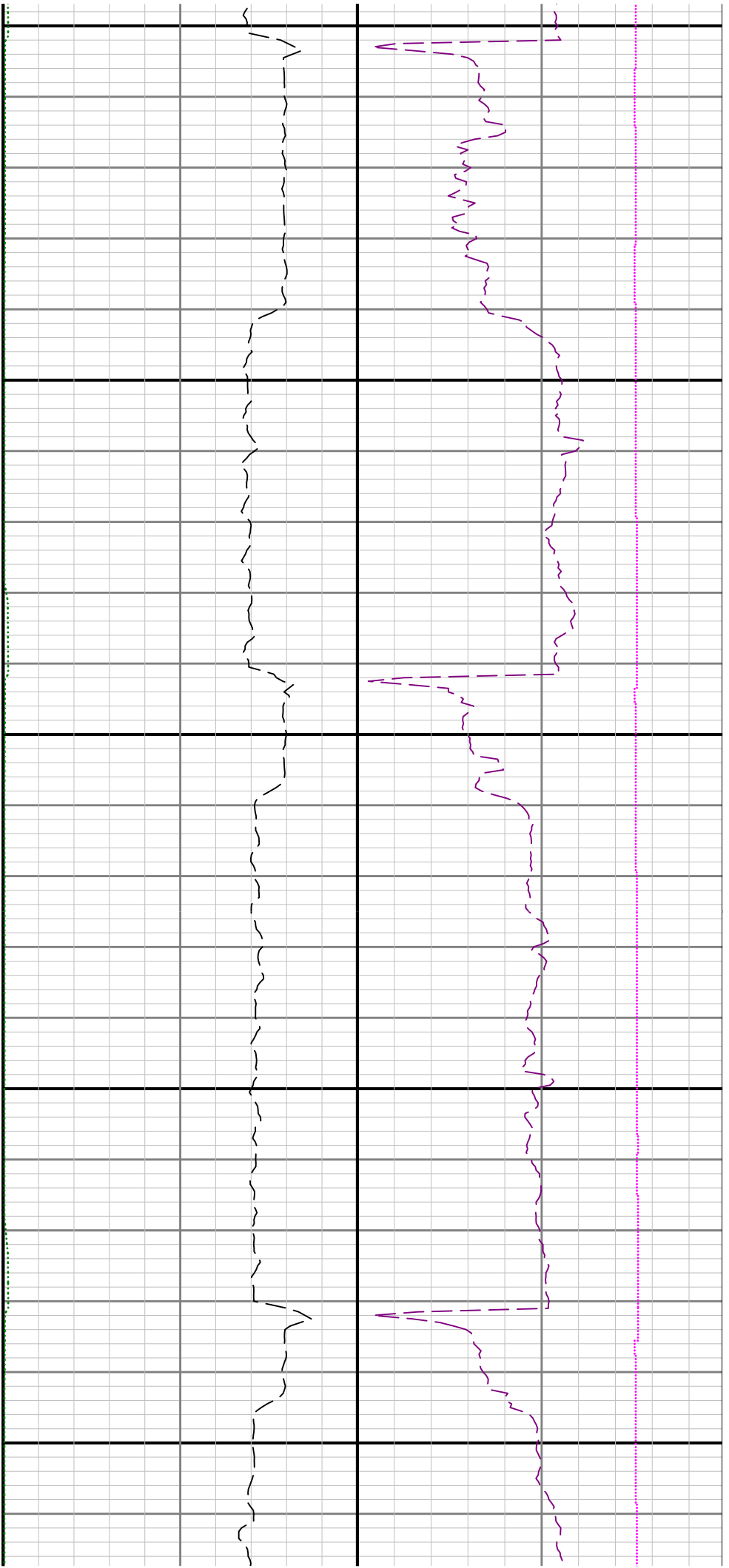
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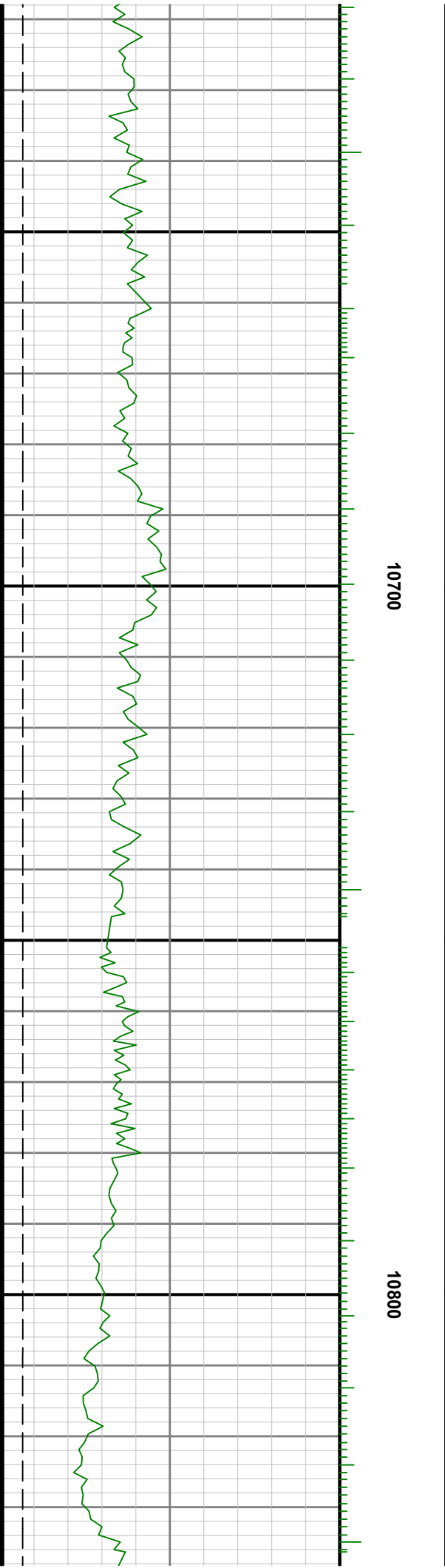
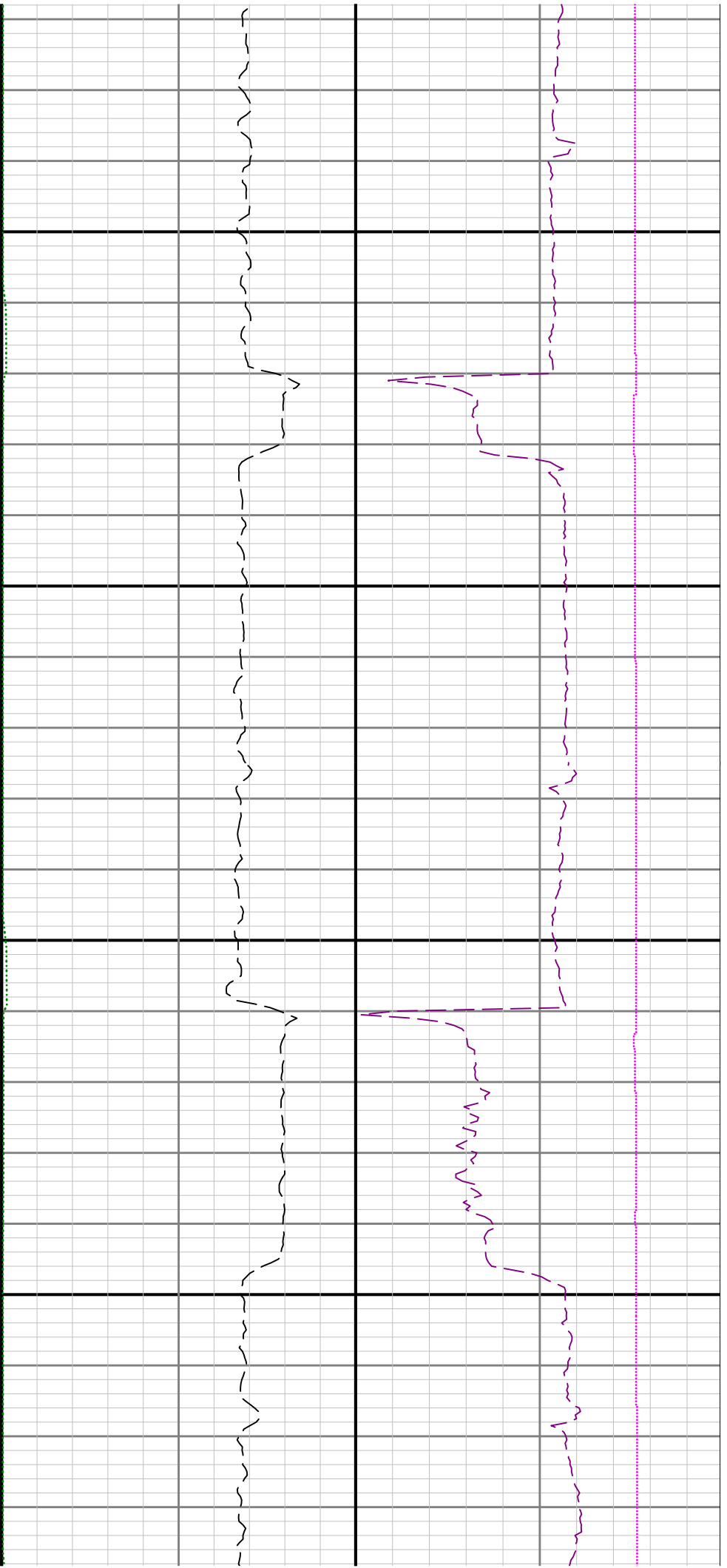
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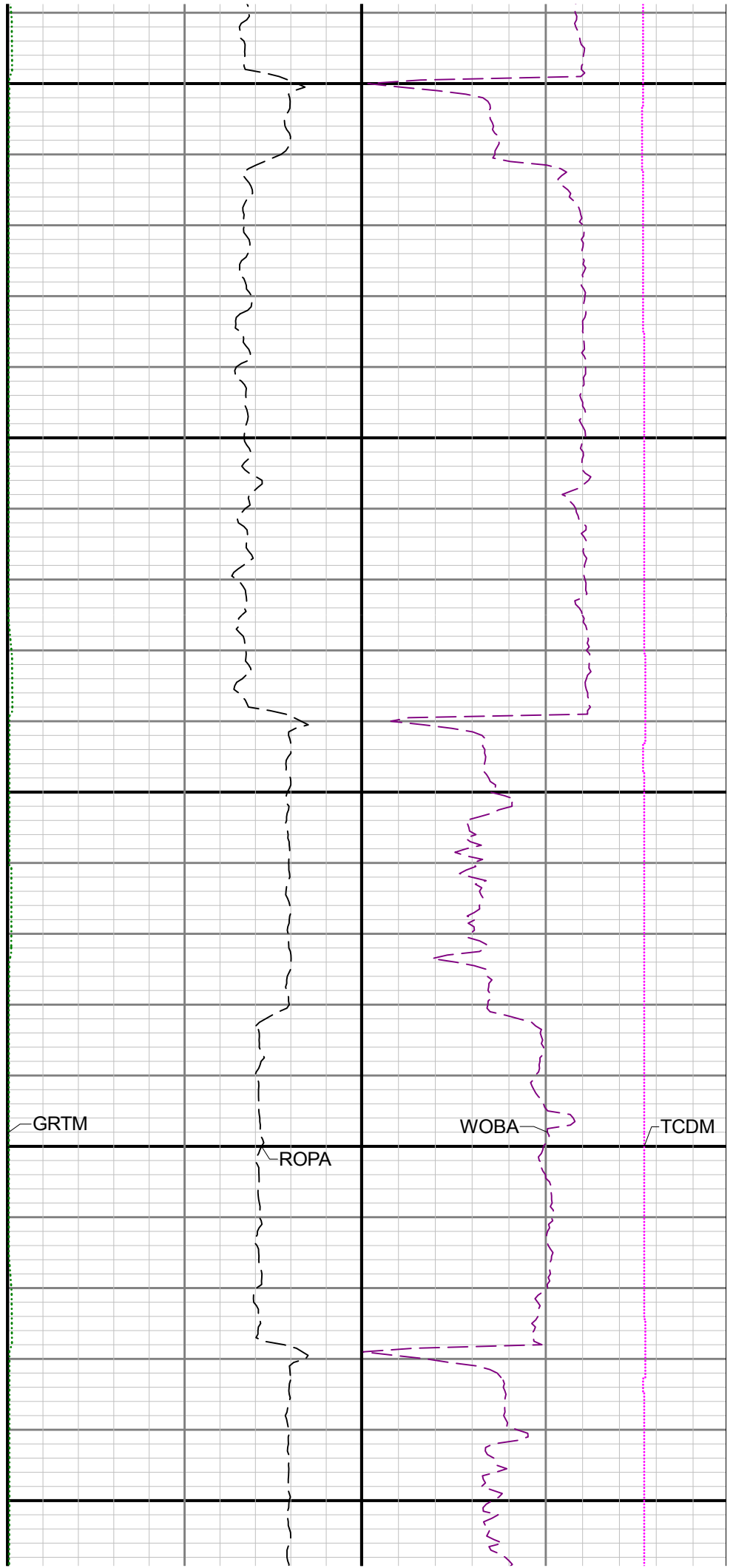
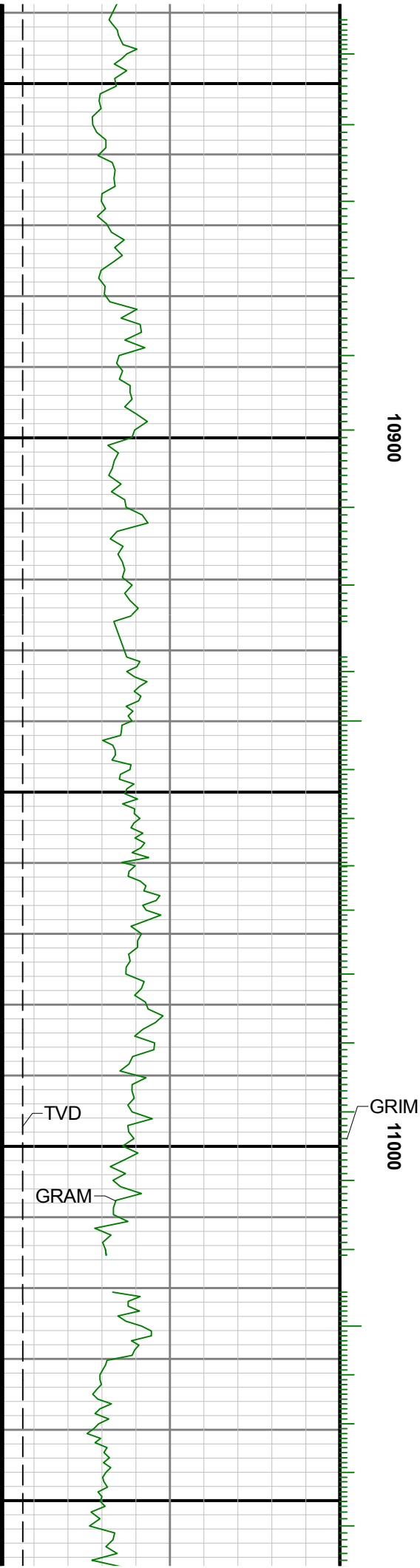


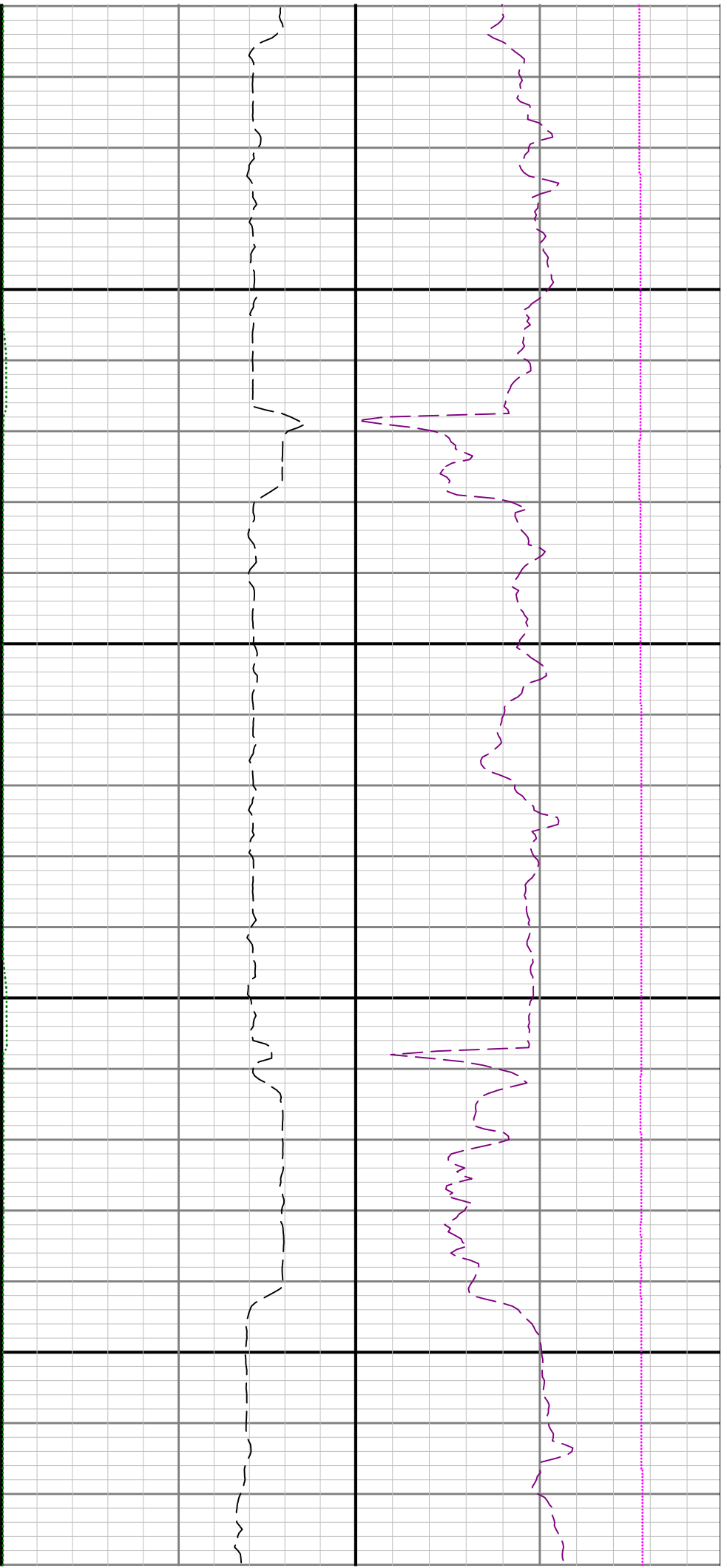






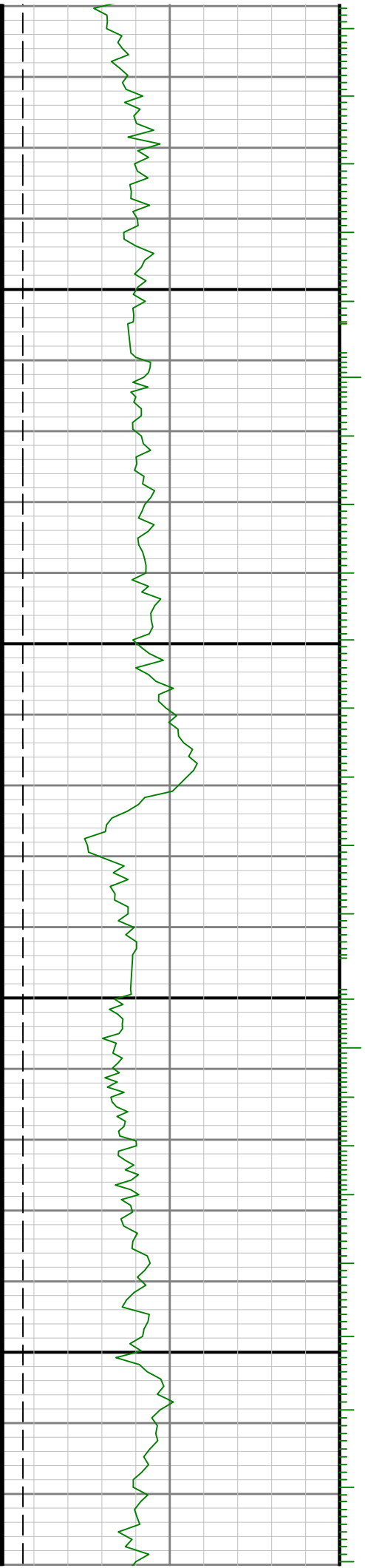


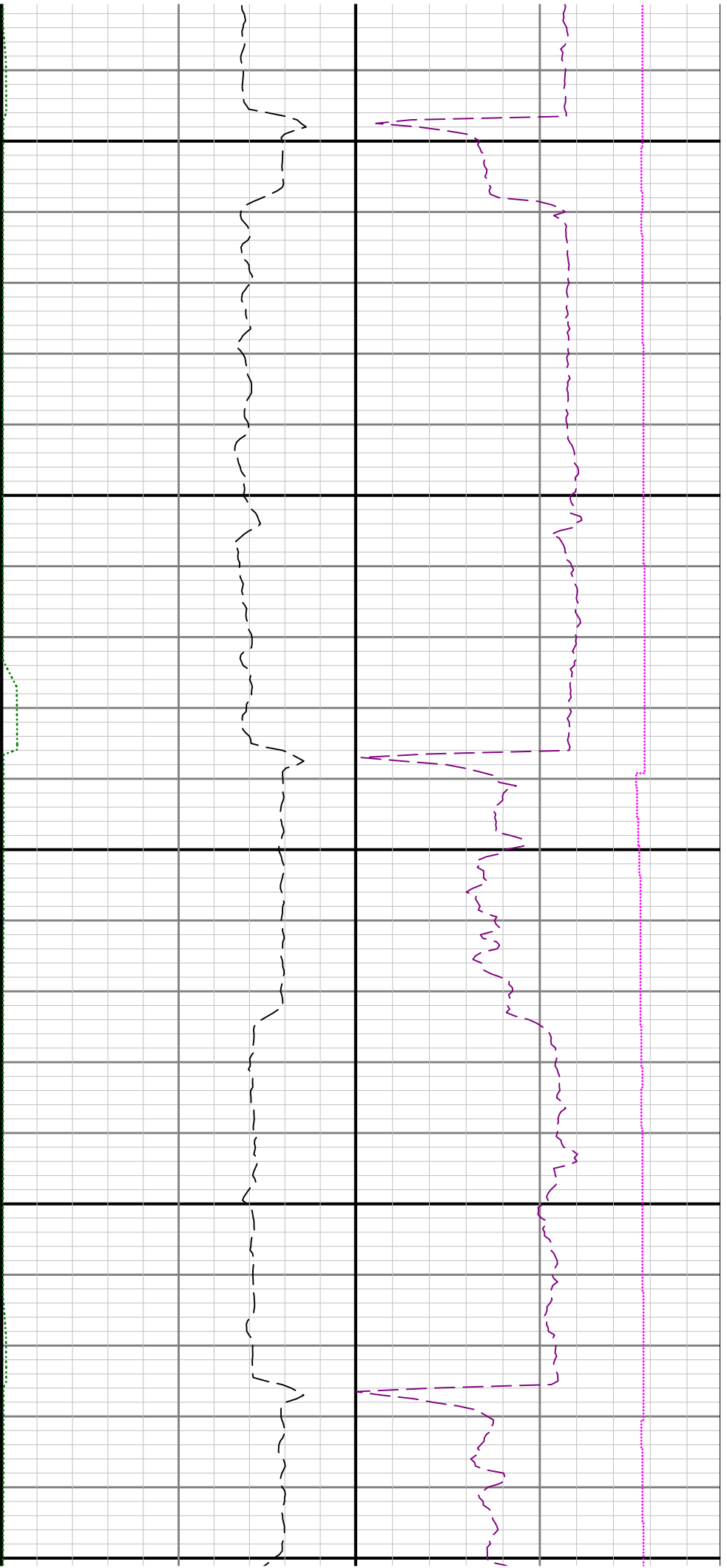




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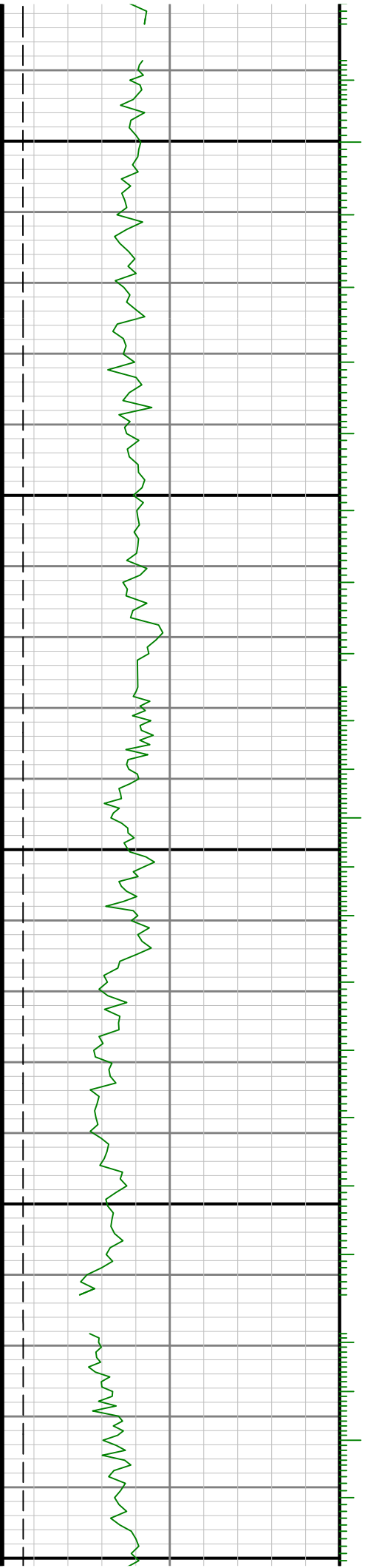


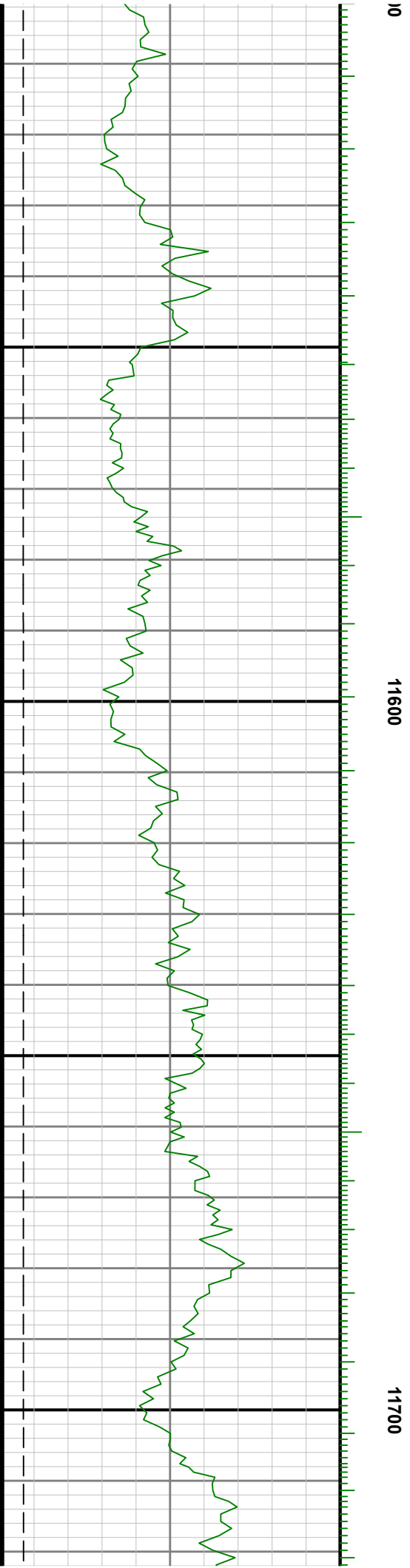
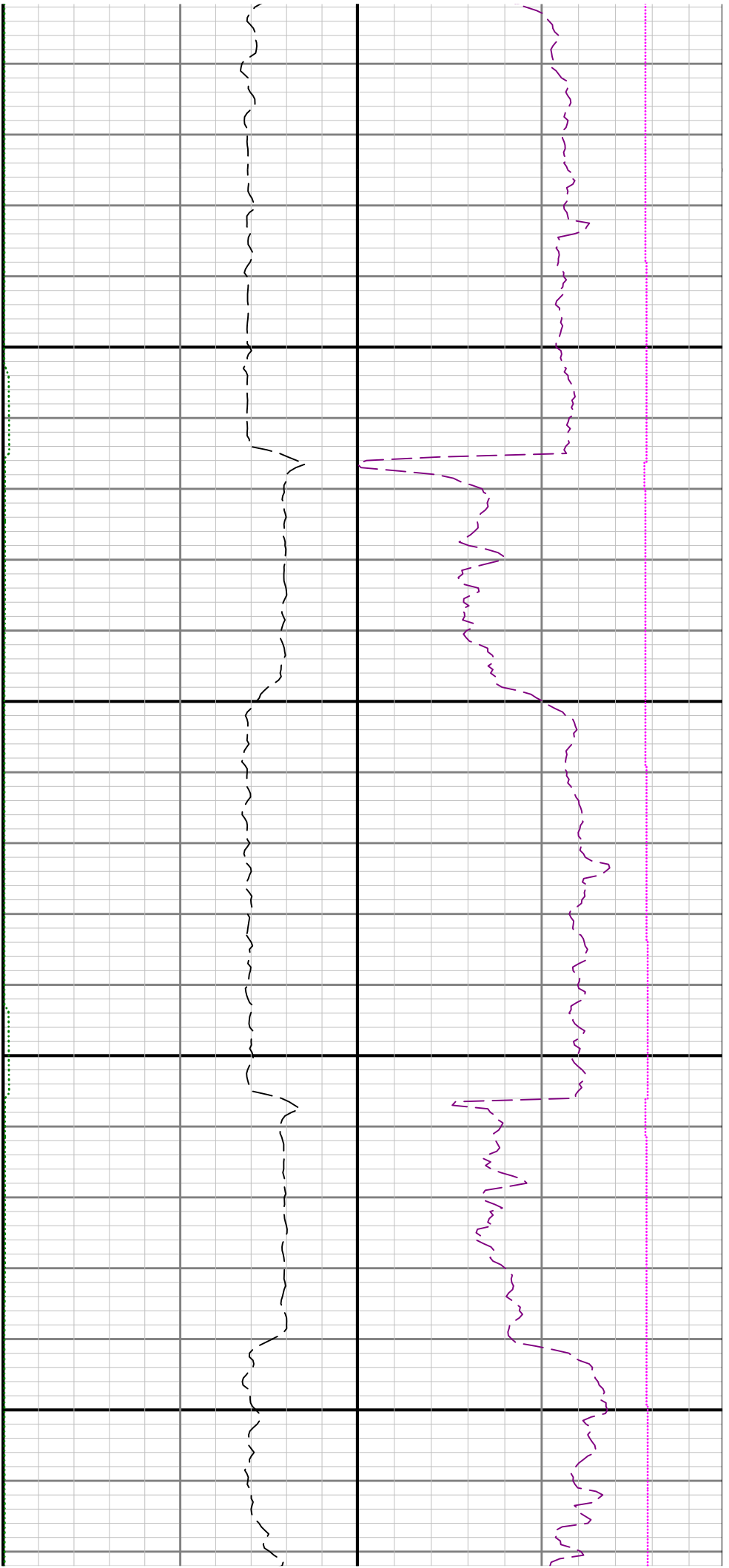


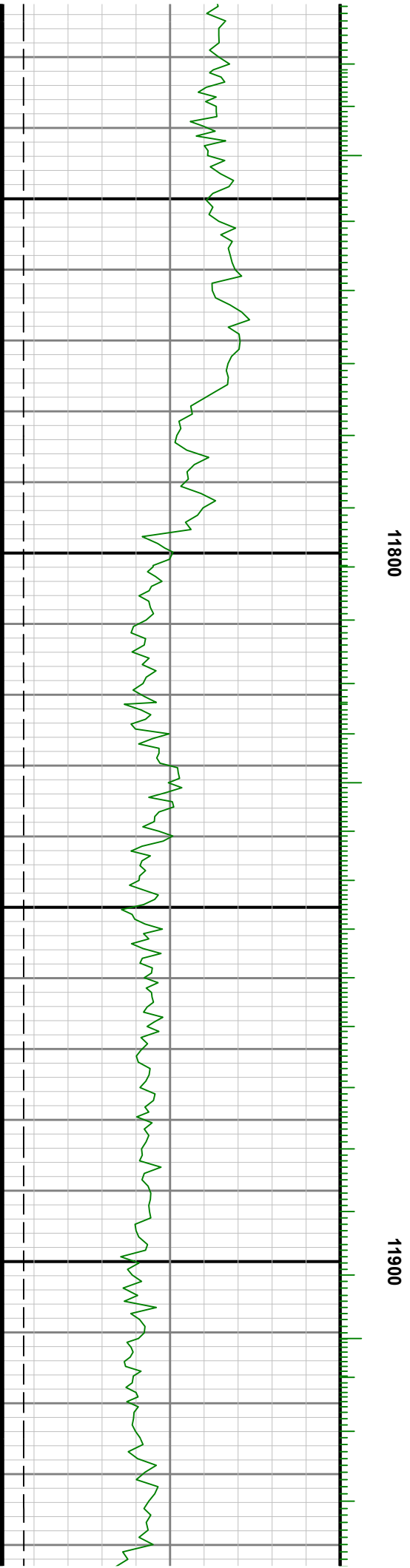
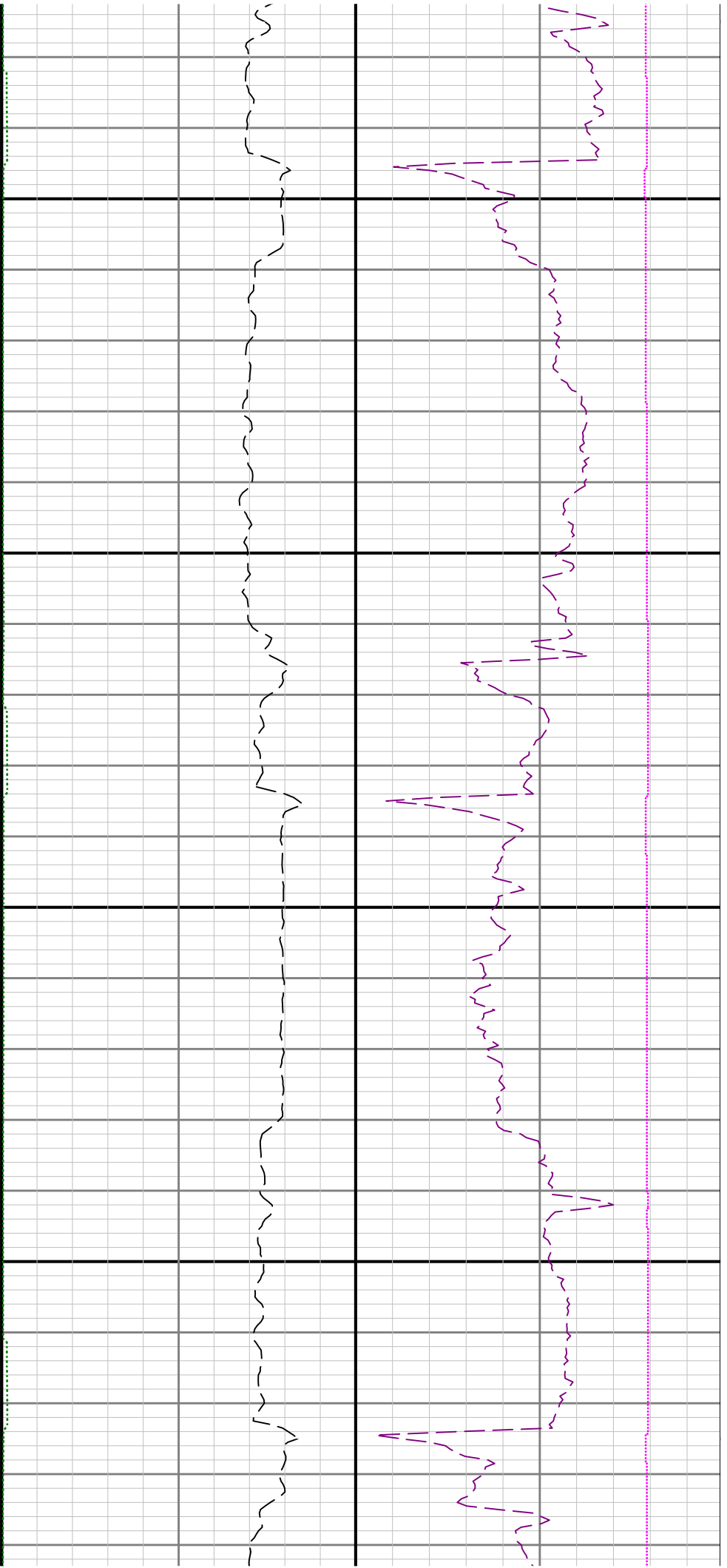
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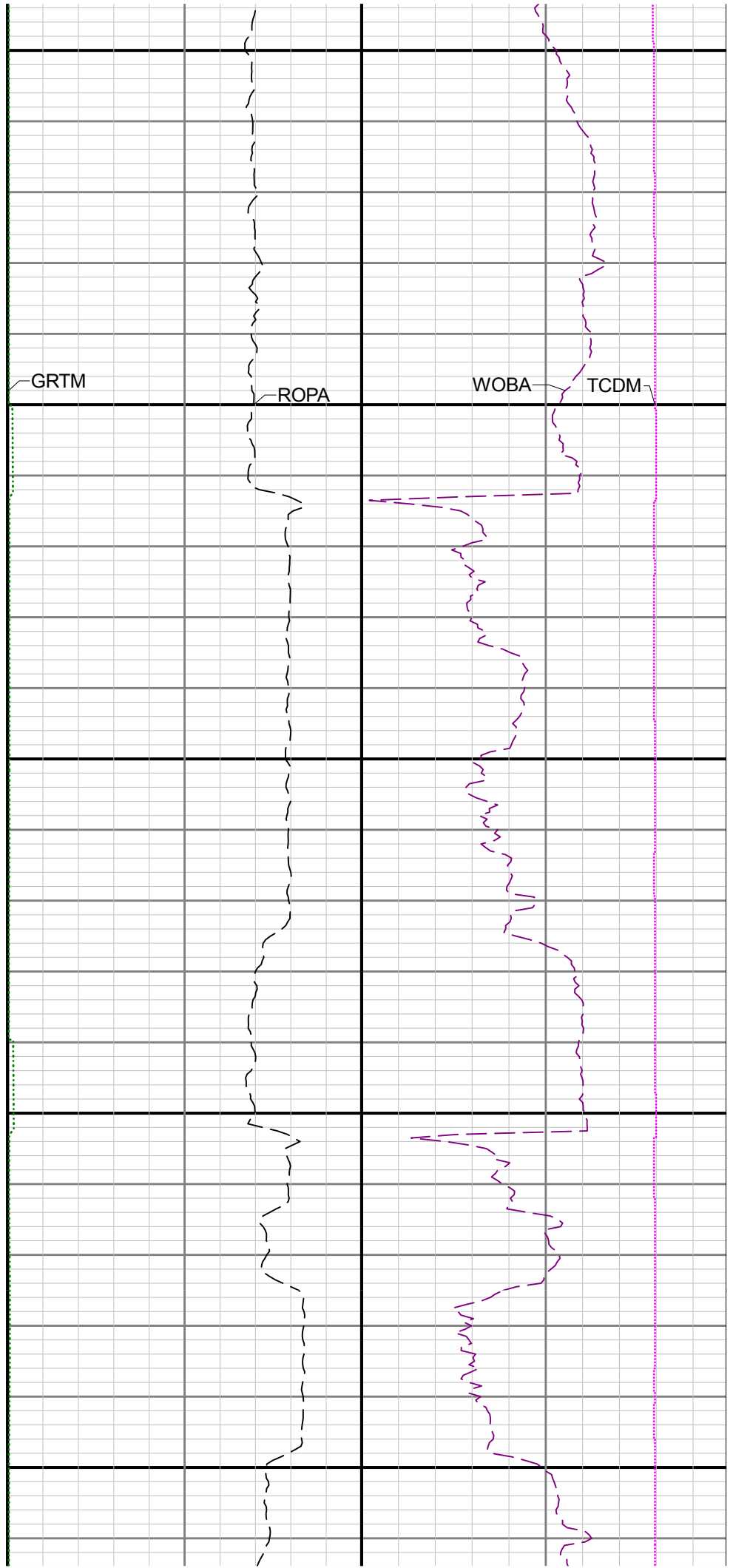
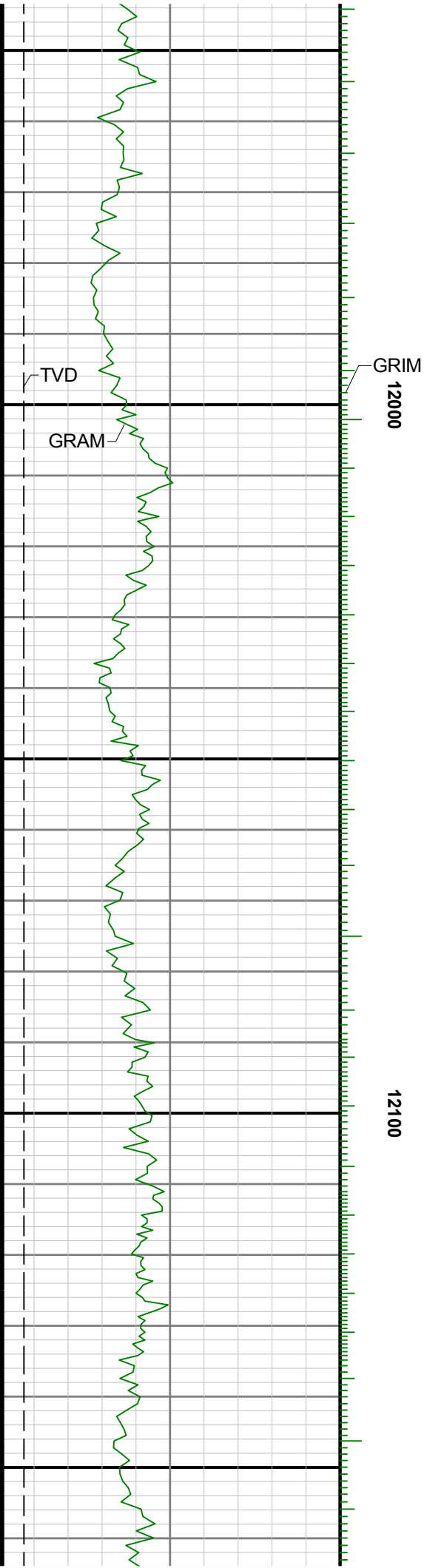
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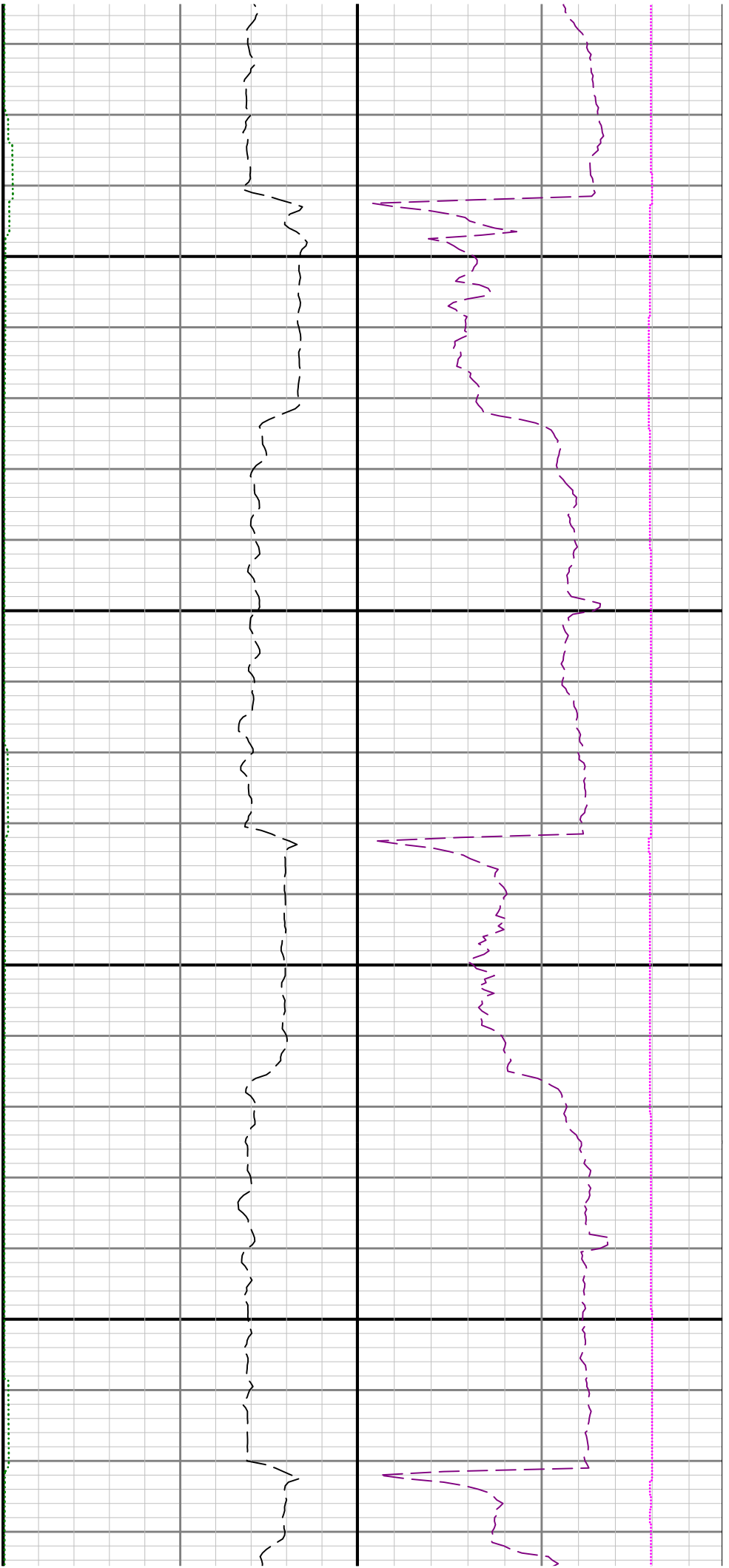
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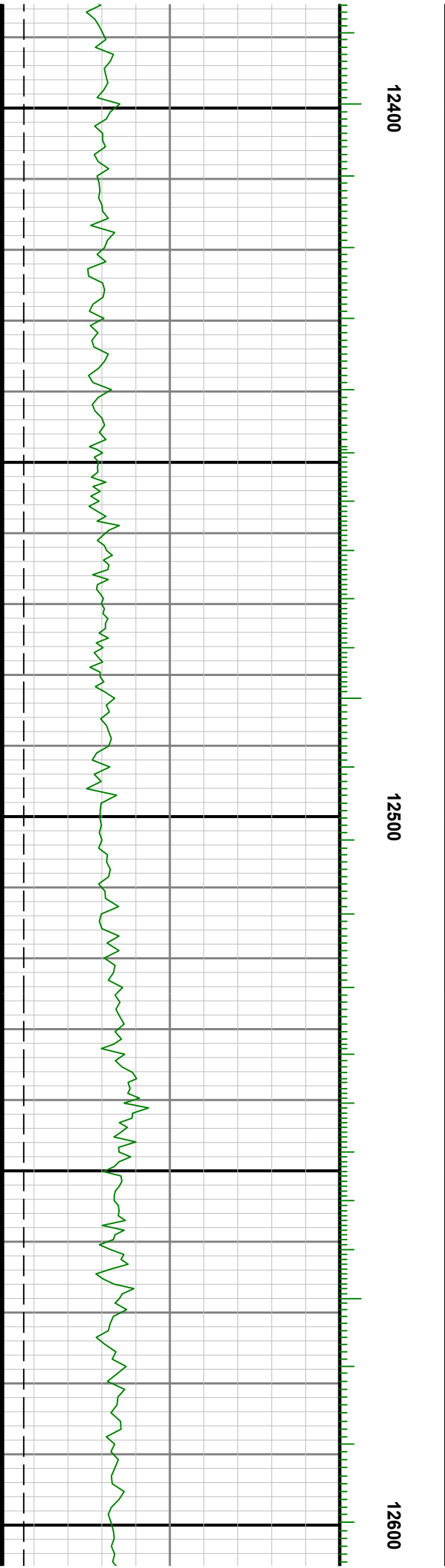
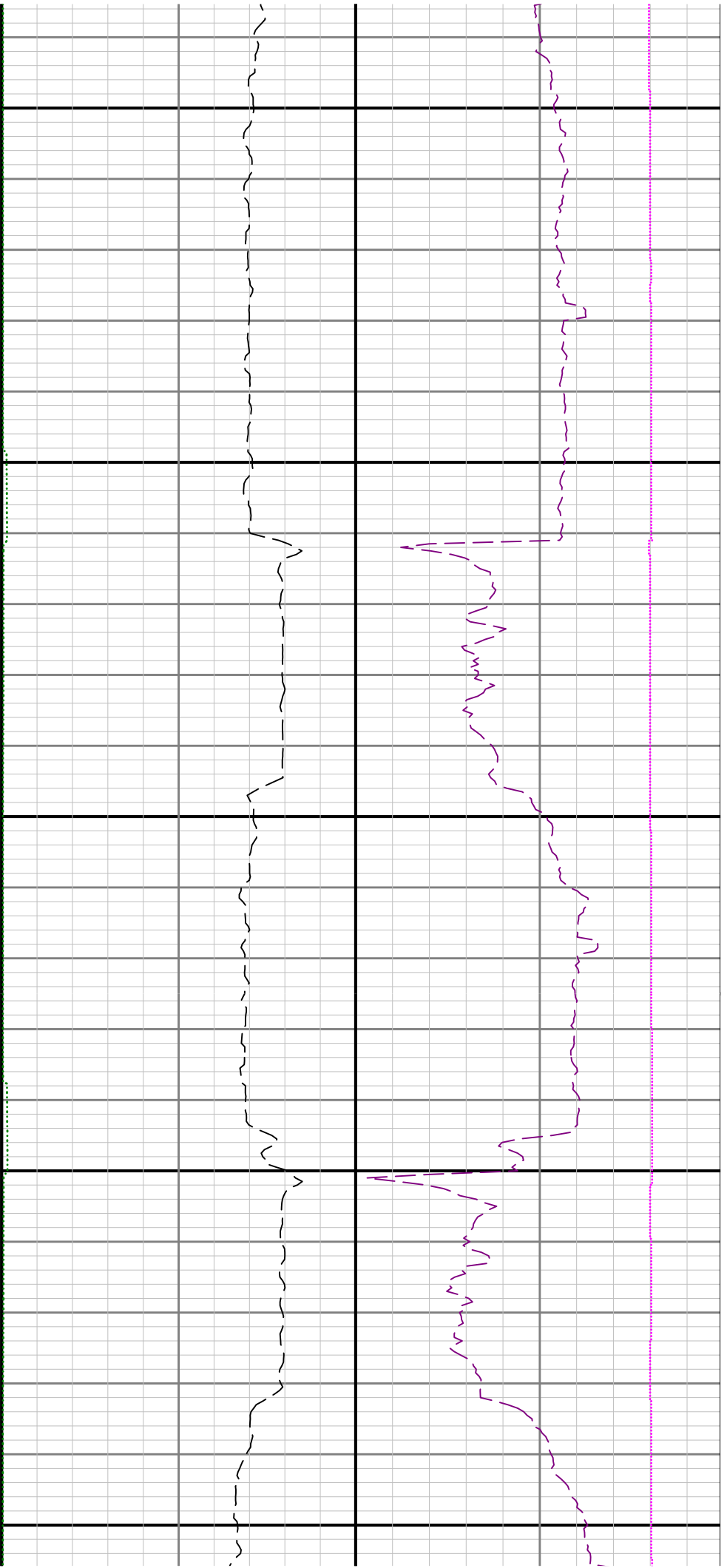


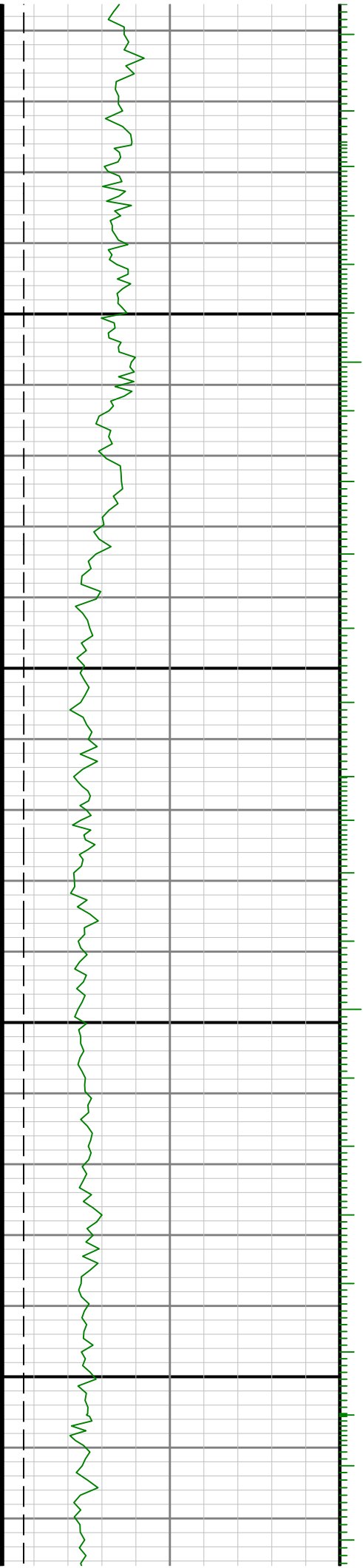
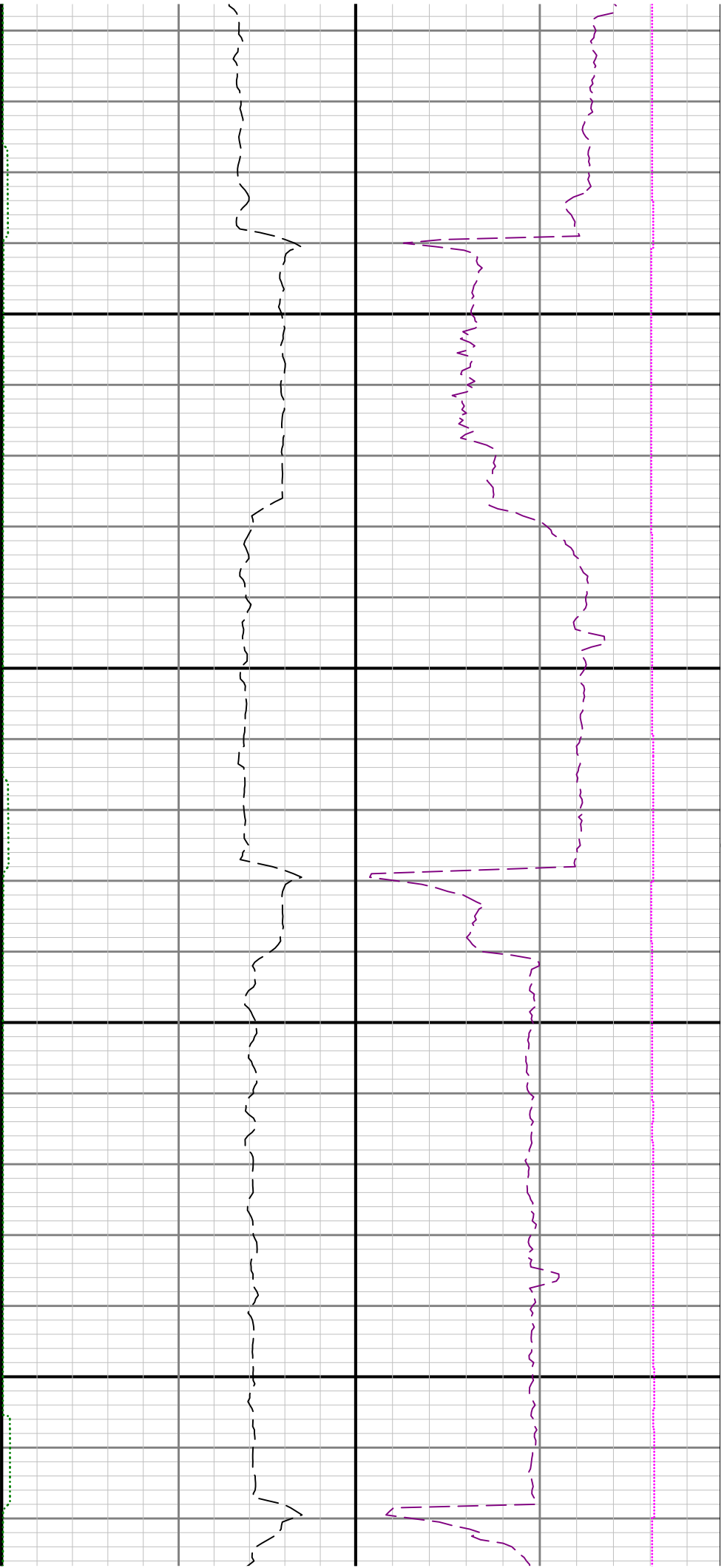


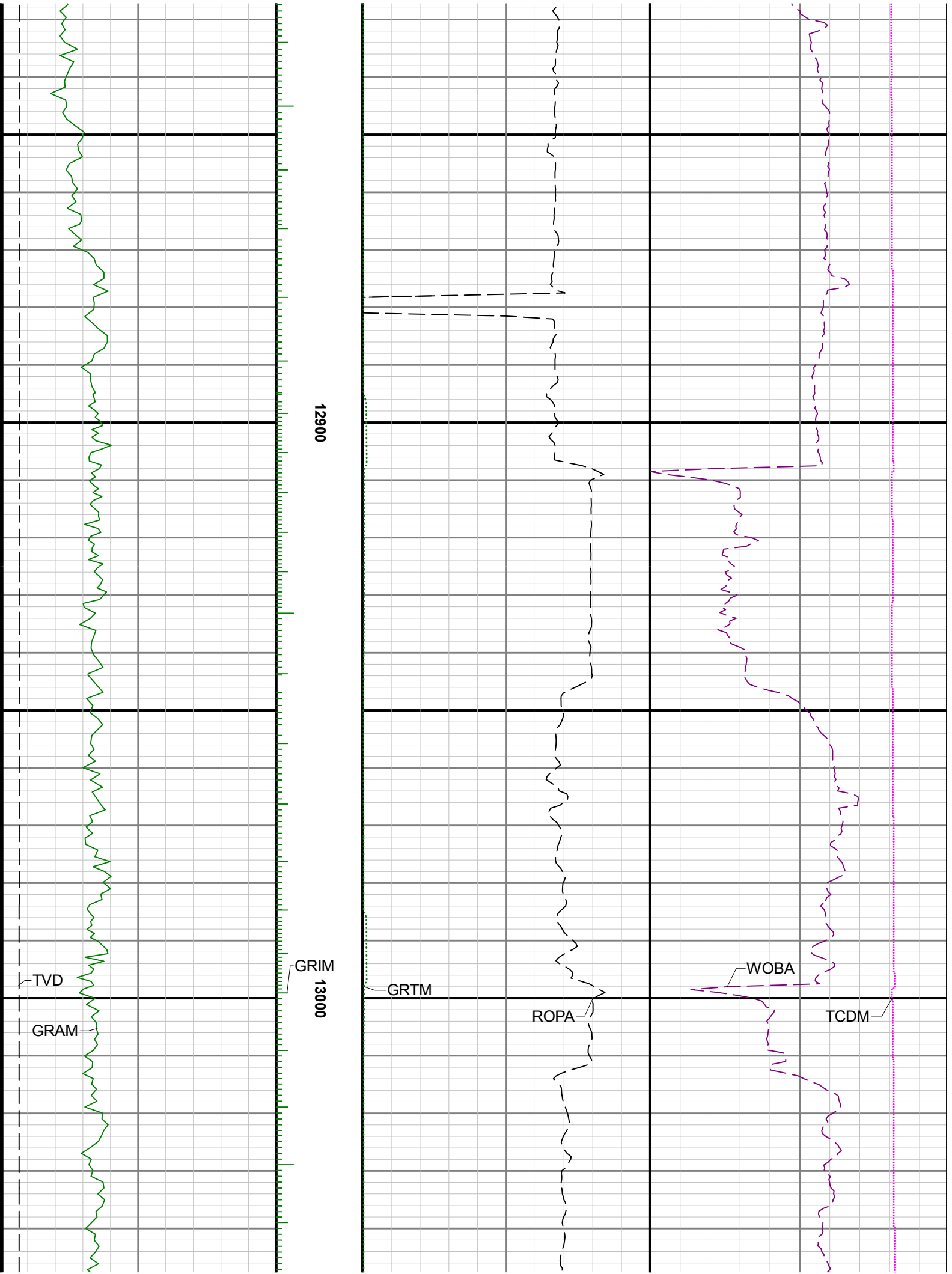


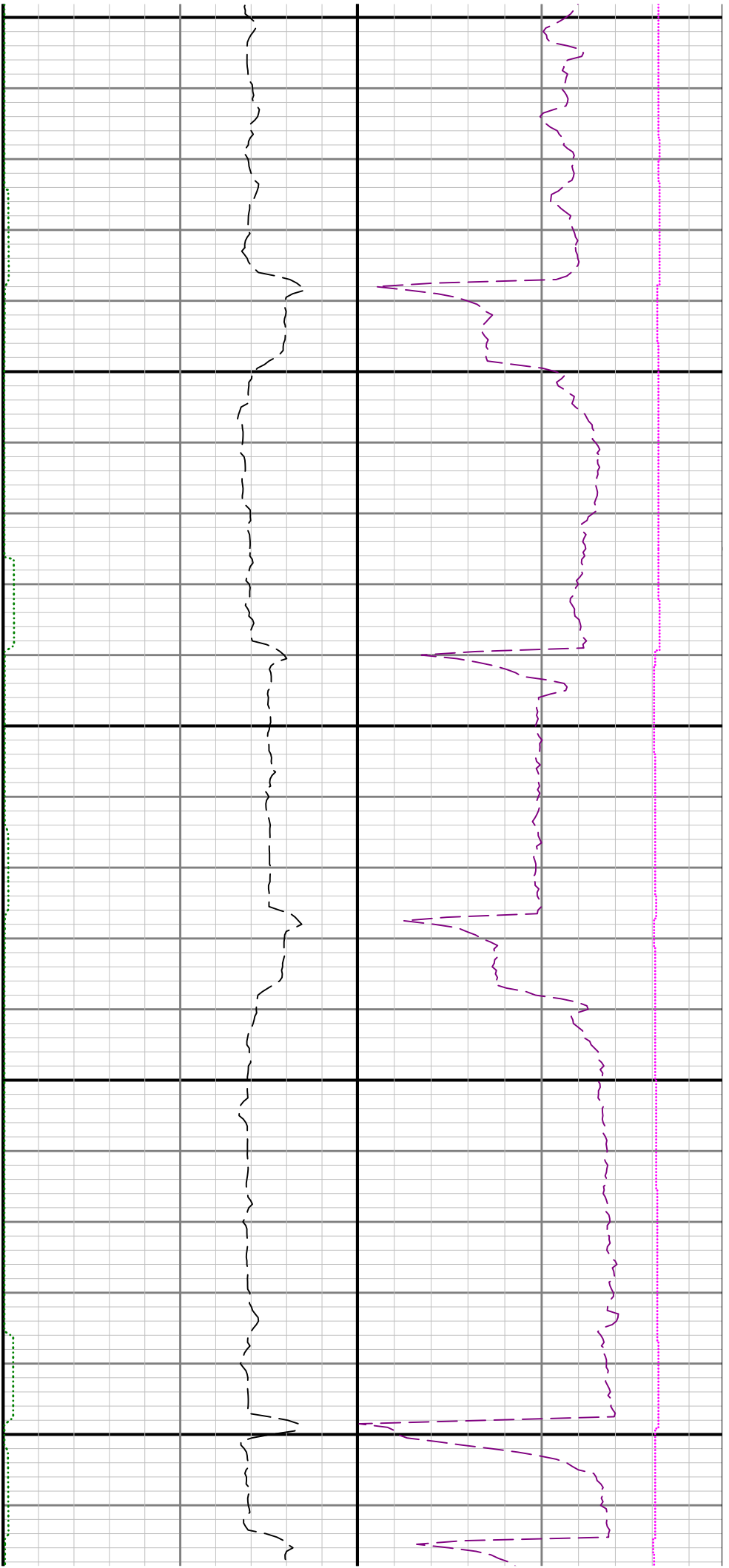
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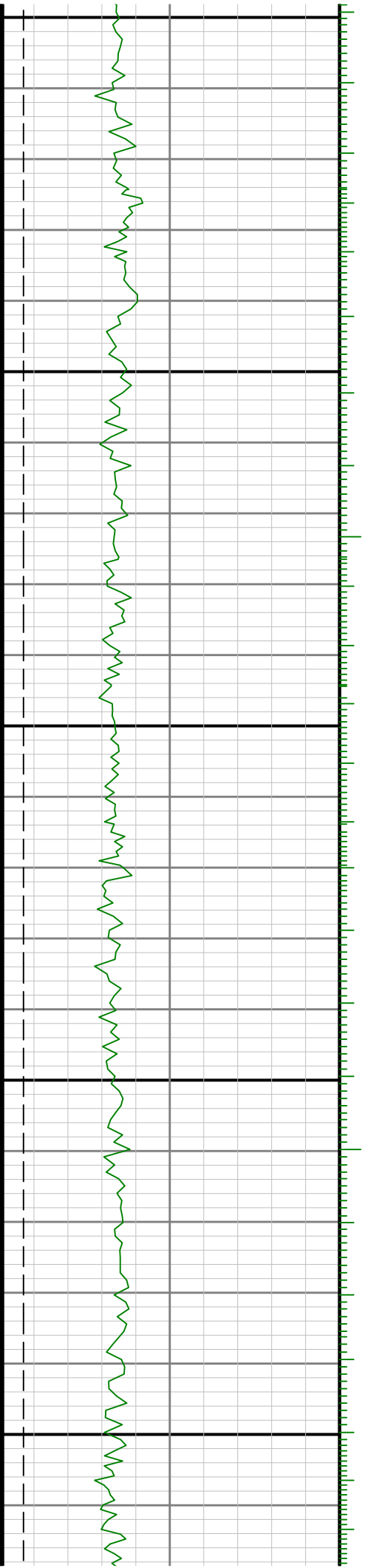


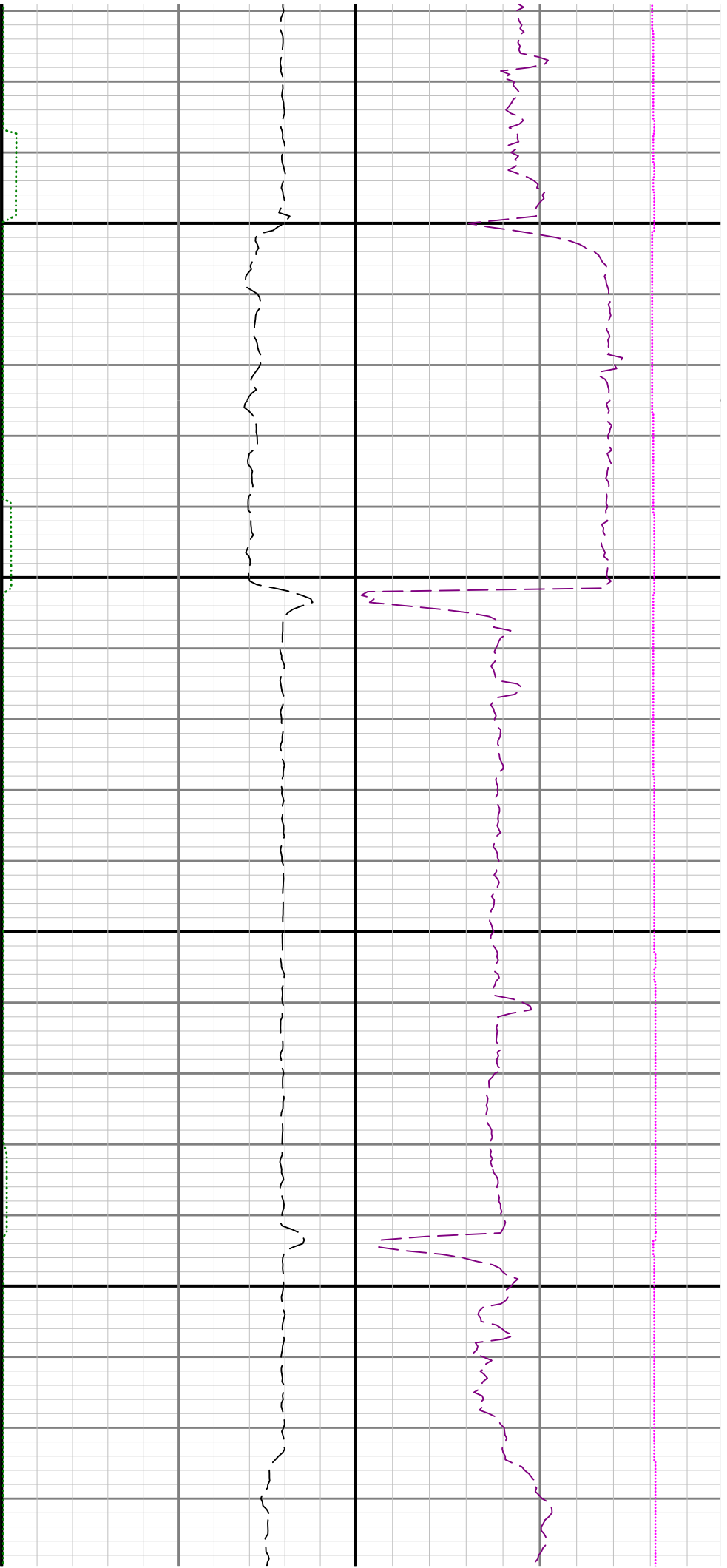




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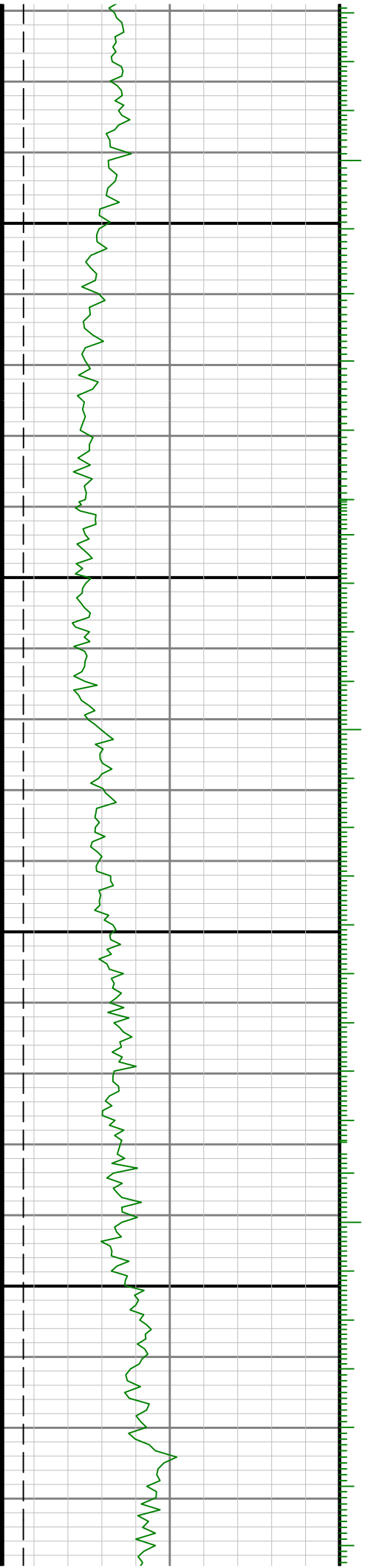
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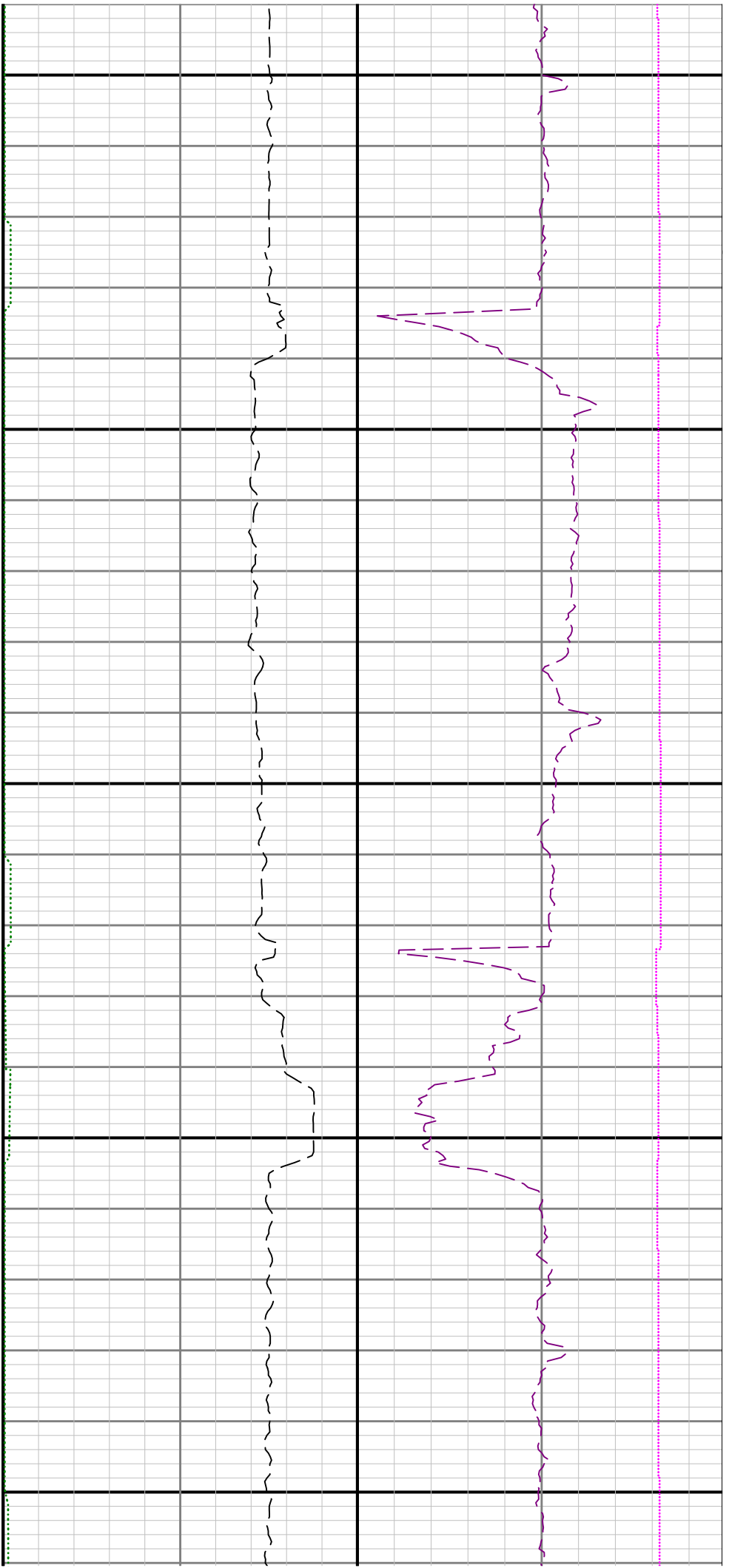




13300

13400





13500

13600

13700

