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Crew								
Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite
Adam Schlenz	2017-06-14	2017-06-20	Emi Iyalla	2017-06-14	2017-06-20			

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+ (%)
2017-06-15 04:00	1	1968.00	Oil Based Mud	9.1	9	N/A	0.0	84/16	Active Pit	17000	0.00
2017-06-15 14:30	1	2579.00	Oil Based Mud	9.0	13	N/A	201.4	82/18	Active Pit	19000	0.00
2017-06-16 04:00	1	5225.00	Oil Based Mud	9.1	12	N/A	59.2	81/19	Active Pit	21000	0.00
2017-06-16 14:30	1	7182.00	Oil Based Mud	9.2	12	N/A	64.4	81/19	Active Pit	25000	0.00
2017-06-17 04:00	1	9451.00	Oil Based Mud	9.3	12	N/A	114.3	81/19	Active Pit	24000	0.00
2017-06-18 04:00	2	12685.00	Oil Based Mud	9.2	10	N/A	144.7	83/17	Active Pit	21000	0.00
2017-06-18 14:30	2	15206.00	Oil Based Mud	9.3	11	N/A	87.0	84/16	Active Pit	22500	0.00

2017-06-19 04:00	2	17018.00	Oil Based Mud	9.3	10	N/A	125.5	84/16	Active Pit	22500	0.00
2017-06-19 14:30	3	17018.00	Oil Based Mud	9.3	10	N/A	70.4	84/16	Active Pit	21000	0.00
2017-06-20 03:30	3	19019.00	Oil Based Mud	9.3	10	N/A	53.5	84/16	Active Pit	20500	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	ATC_SU	12099238	Near Bit VSS	5.93	6.73	7.000	4.330
1	ATC_SU	12099238	Near Bit Inclination	5.93	6.73	7.000	4.330
1	ATC_MWD	12118937	Gamma (single)	2.75	12.90	7.000	3.250
1	ATC_MWD	12118937	Directional (mag)	12.27	22.42	7.000	3.250
2	ATC_SU	14192927	Near Bit Inclination	5.93	6.73	7.000	4.330
2	ATC_SU	14192927	Near Bit VSS	5.93	6.73	7.000	4.330
2	ATC_MWD	12178891	Gamma (single)	2.65	12.90	7.000	3.250
2	ATC_MWD	12178891	Directional (mag)	12.17	22.42	7.000	3.250
3	ATC_SU	12124244	Near Bit VSS	5.93	6.73	7.000	4.330
3	ATC_SU	12124244	Near Bit Inclination	5.93	6.73	7.000	4.330
3	ATC_MWD	12118955	Gamma (single)	2.76	12.90	7.000	3.250
3	ATC_MWD	12118955	Directional (mag)	12.28	22.42	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

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 runs 1 to 3 utilized a 6.75 inch NaviGamma (Directional and Gamma Ray) services behind a 8.5 inch bit and rotary steerable assembly from 1968 to 19292 feet MD (1968 to 6910 feet TVD).
3	Realtime data (GRAX, GRIX and GRTX) is used in place of memory data in the interval from 1968 to to 10311 feet MD (1968 to 6901 feet TVD) due to the fact that Baker Hughes logging engineers were unable to access to the memory data after the tool was plugged off by stator rubber downhole and thereby affecting the internal electronic circuit board of the AutoTrak curve tool.
4	There are significant gaps in the real time gamma data (GRAX, GRIX and GRTX ) in the interval from 1968 to 10311 feet MD (1968 to 6901 feet TVD) due to downlinks and getting surveys on the fly before the tool has had a chance to transmit gamma data.

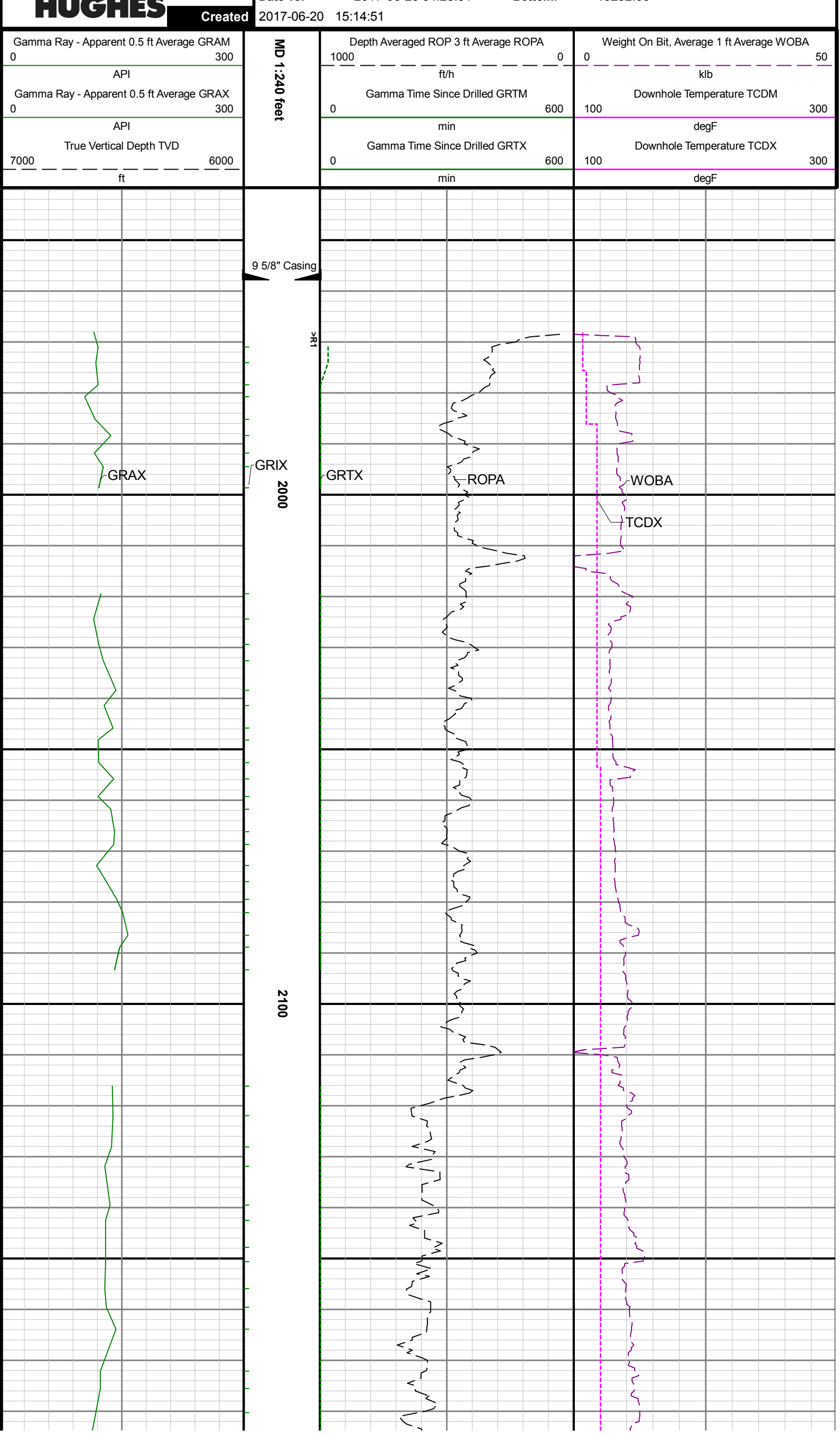
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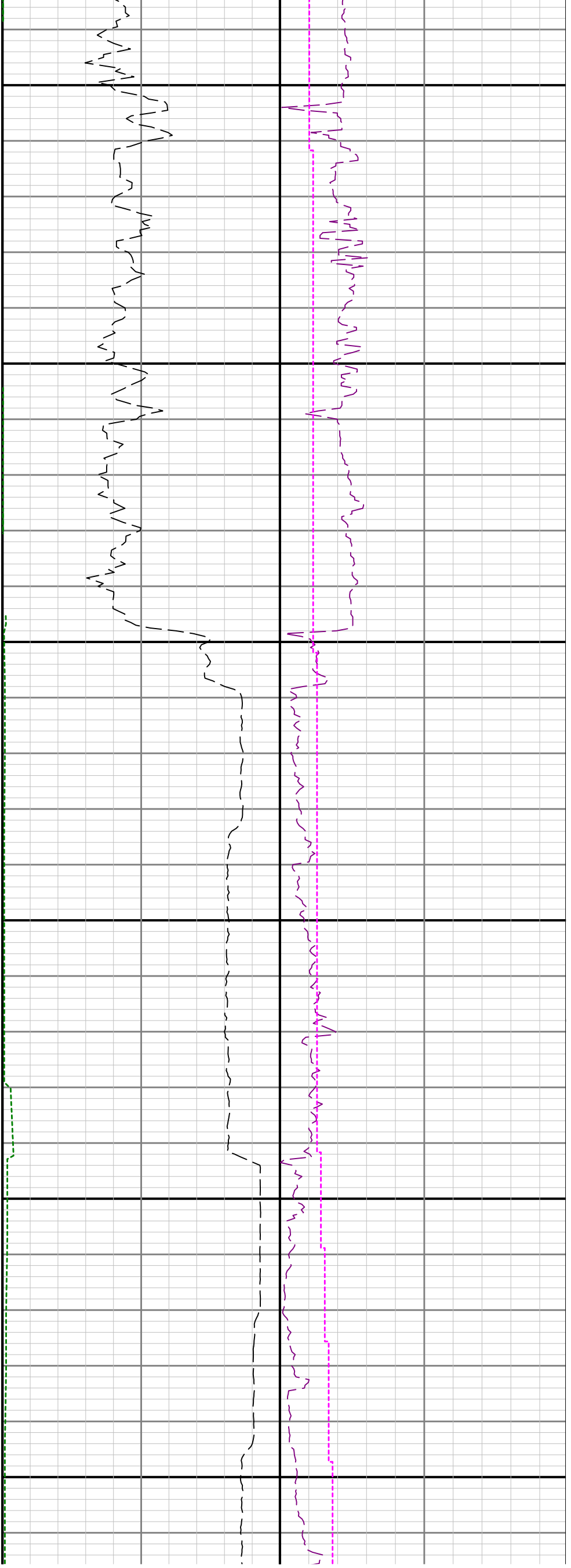
Number	Measured Depth (ft)	Hole Section (in)	Run No.	Remark
1	10323.00	8.500	2	The interval from 10310 to 10323 feet MD (6901 feet TVD) was logged more than 10 hours after being drilled due to, a trip out of the hole to change out the BHA components.
2	13820.00	8.500	2	The interval from 13820 to 13854 feet MD (6904 feet TVD) has a gap in gamma ray data due to, a downlink being transmitted and killing power to the AutoTrak Curve tool.
3	17018.00	8.500	3	The interval from 17005 to 17018 feet MD (6906 feet TVD) was logged more than 10 hours after being drilled due to, a trip out of the hole to change out the BHA components.
4	19292.00	8.500	3	The interval from 19279 to 19292 feet MD (6903 feet TVD) was not logged after being drilled due to sensor to bit offset at well TD.

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
GRAM	OnTrak - Gamma Ray - Apparent - Memory 0.5 ft Average	API
GRIM	OnTrak - Gamma Ray - Data Point Indicator - Memory	unitless
GRTM	OnTrak - Gamma Ray - Time Since Drilled - Memory	min
GRAX	OnTrak - Gamma Ray - Apparent - Real-Time 0.5 ft Average	API
GRIX	OnTrak - Gamma Ray - Data Point Indicator - Real-Time	unitless
GRTX	OnTrak - Gamma Ray - Time Since Drilled - Real-Time	min
TCDM	Downhole Temperature	degF

	Company	Noble Energy			
	Well	Kona A19-685			
	Interval	Date From:	2017-06-15 10:17:09	Top:	1968.00
		Date To:	2017-06-20 04:25:31	Bottom:	19292.00

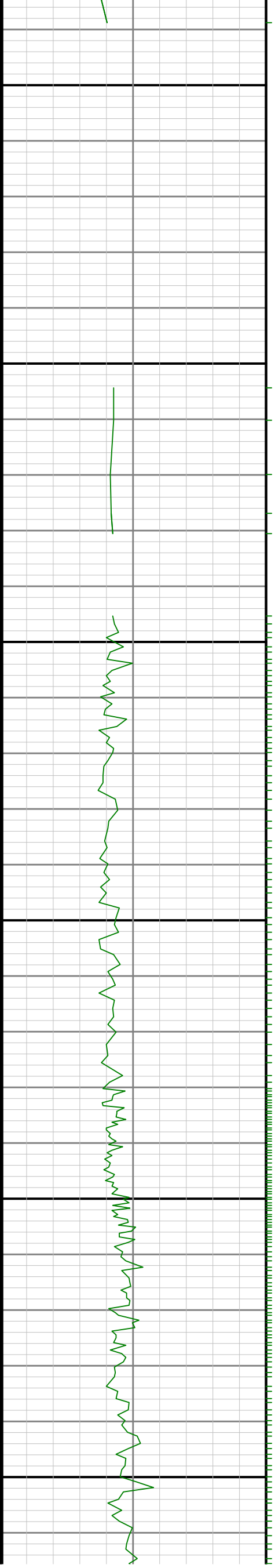


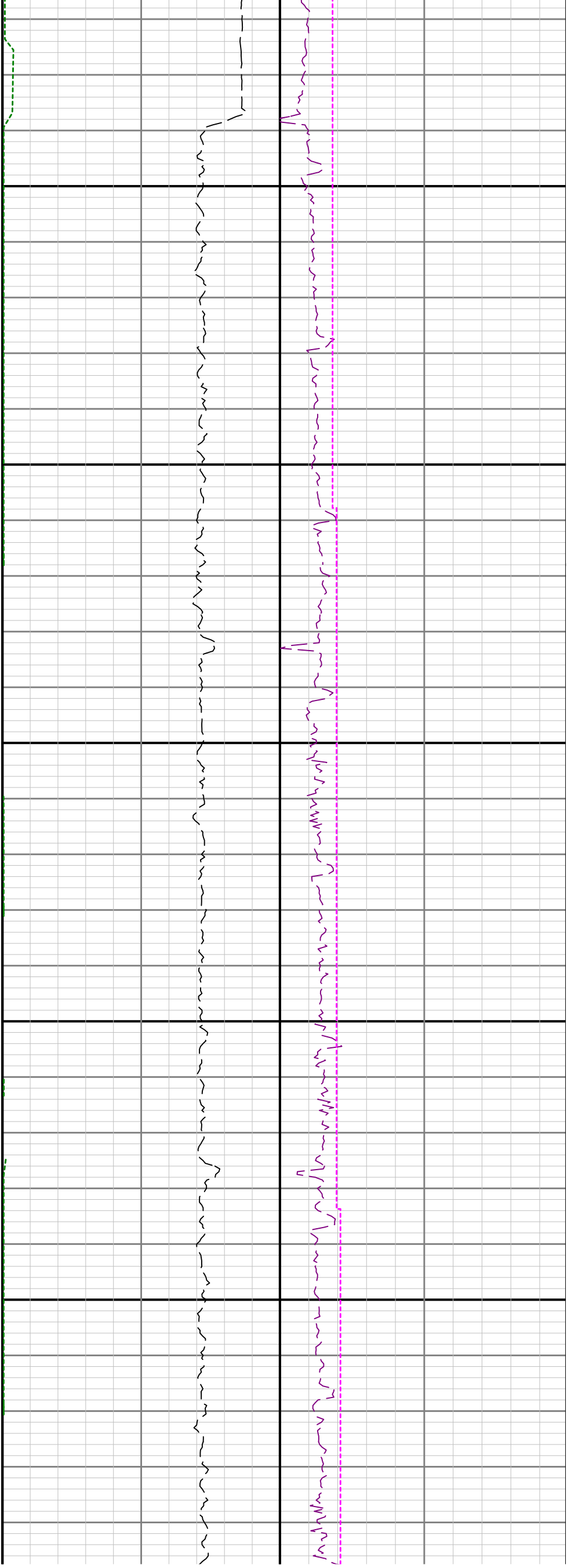


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2300

2400

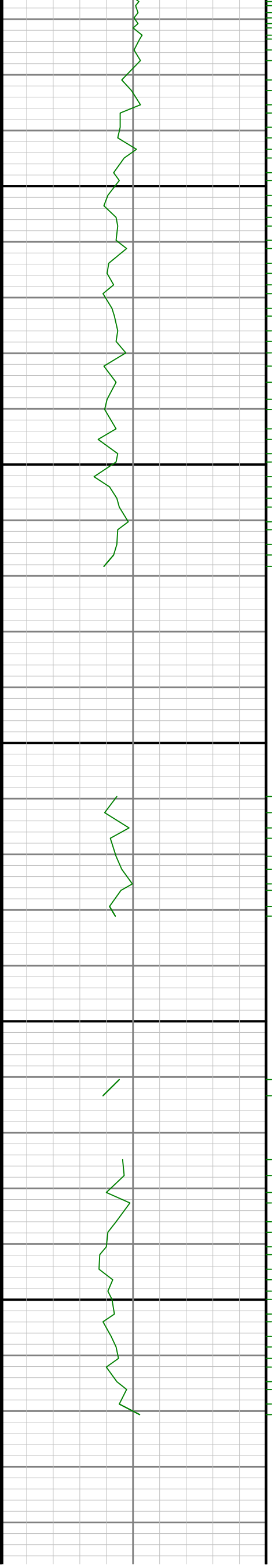


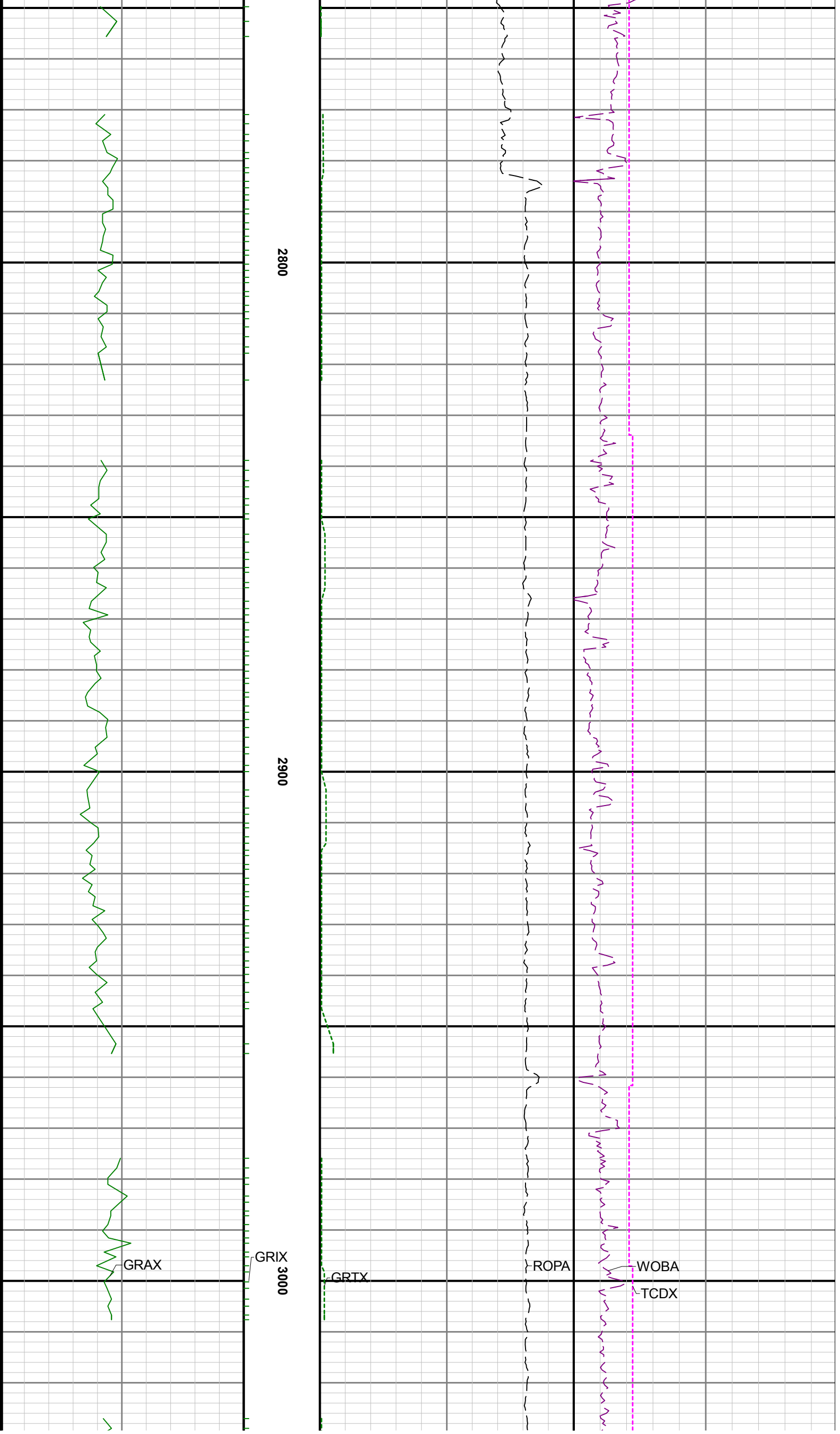


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2600

2700



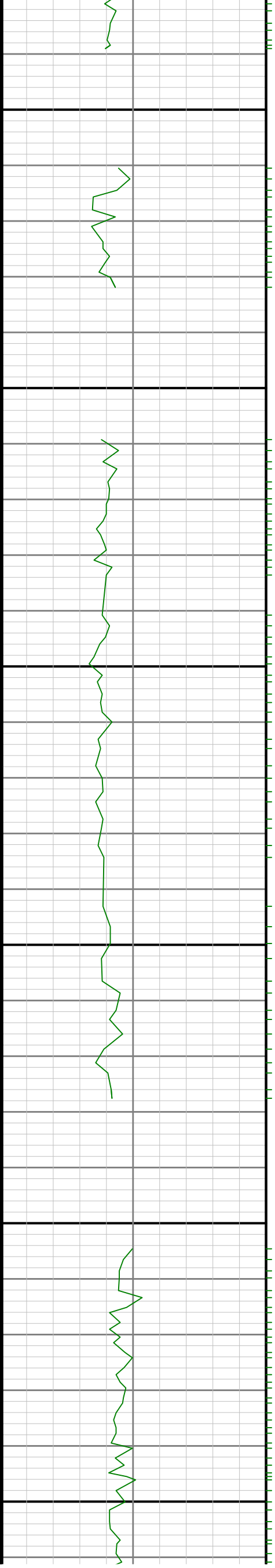




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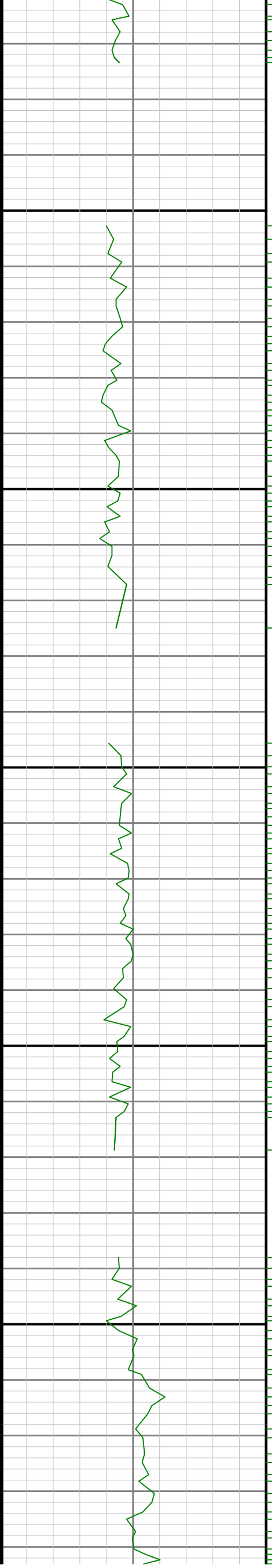
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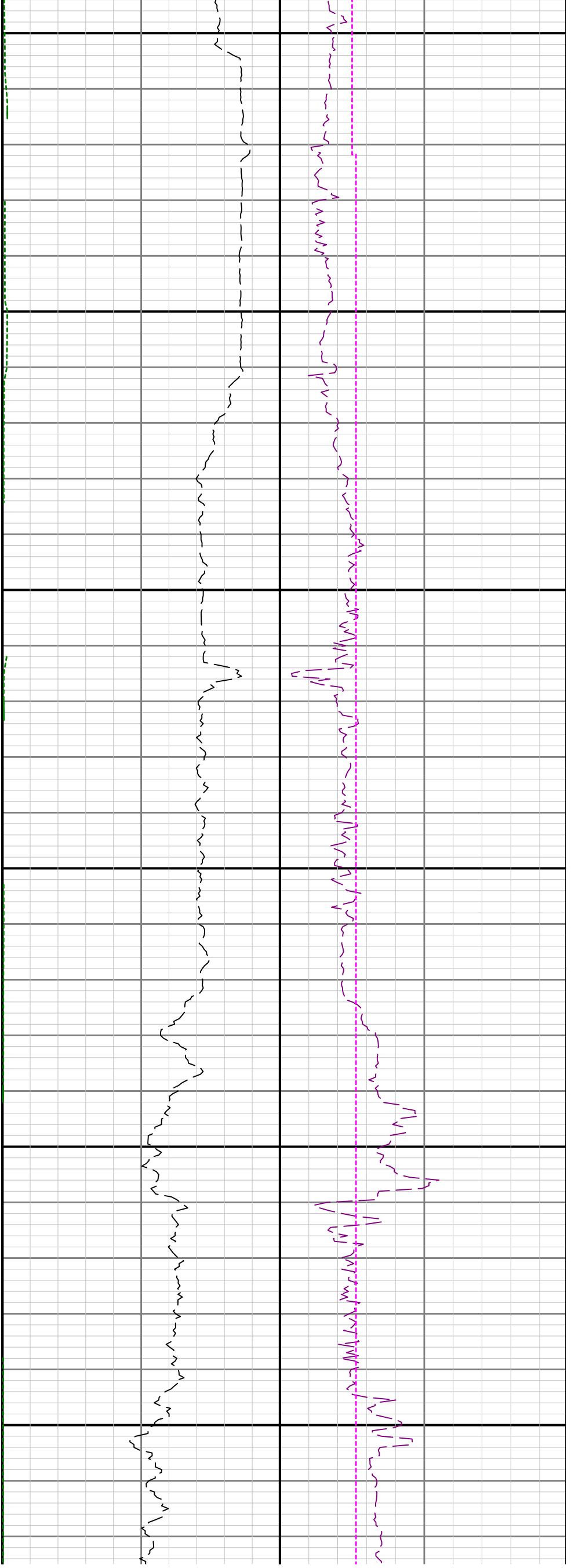


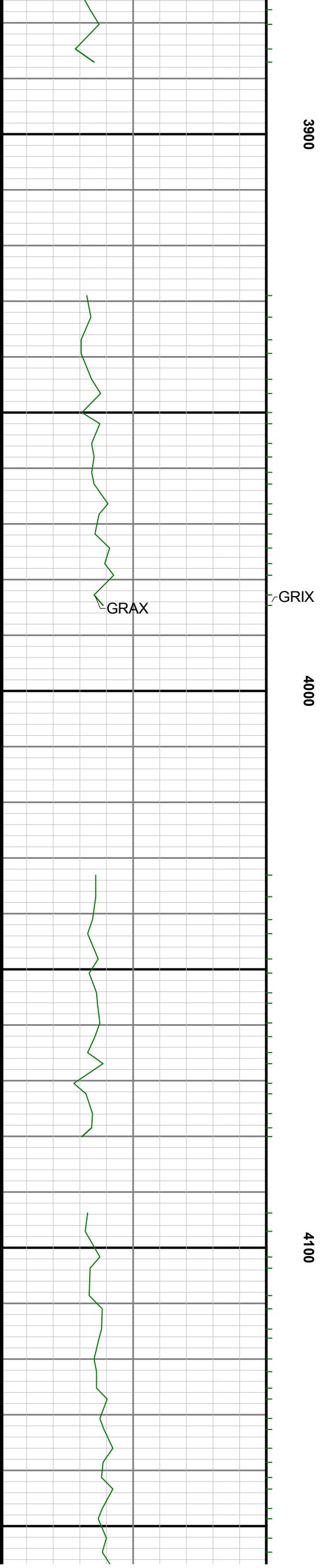
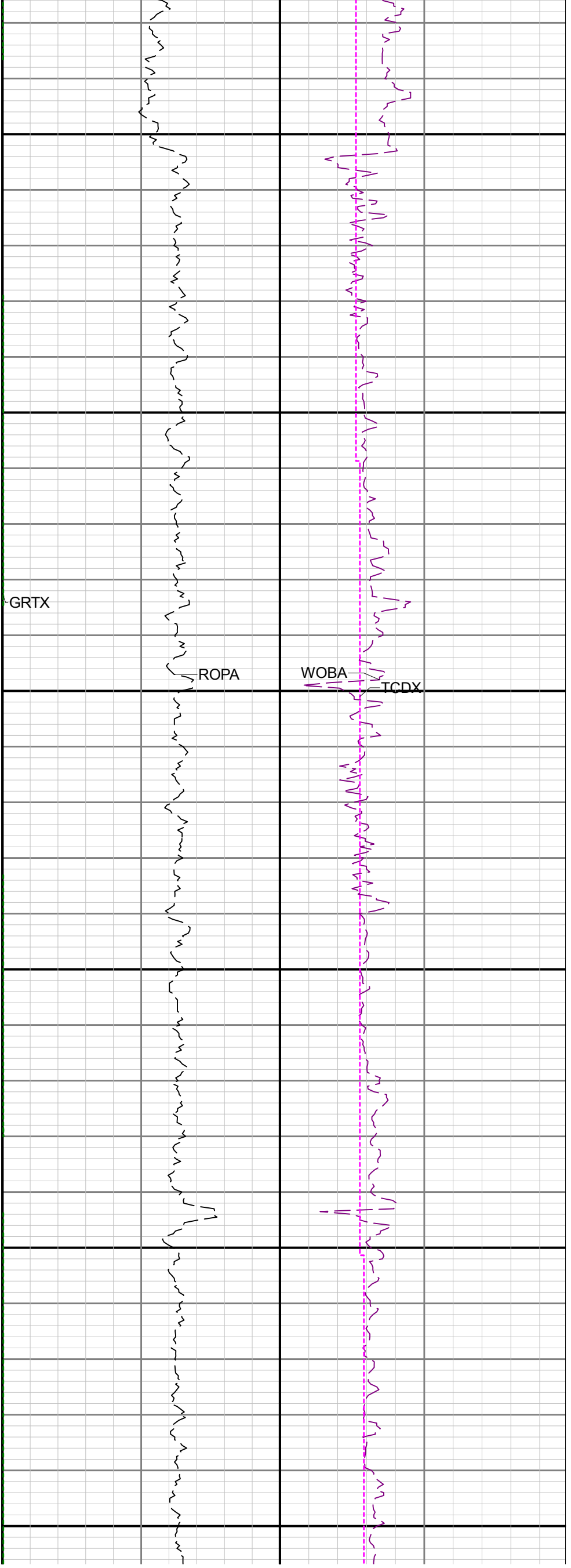
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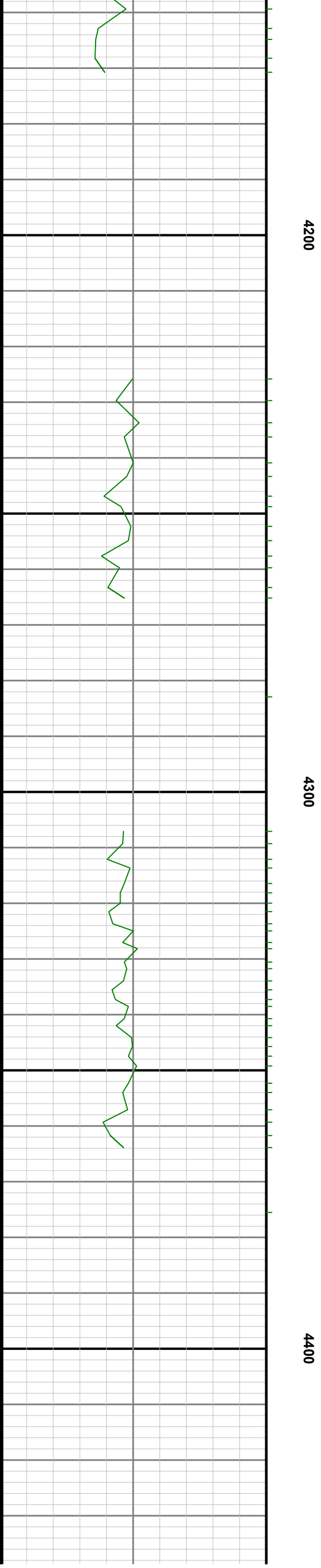
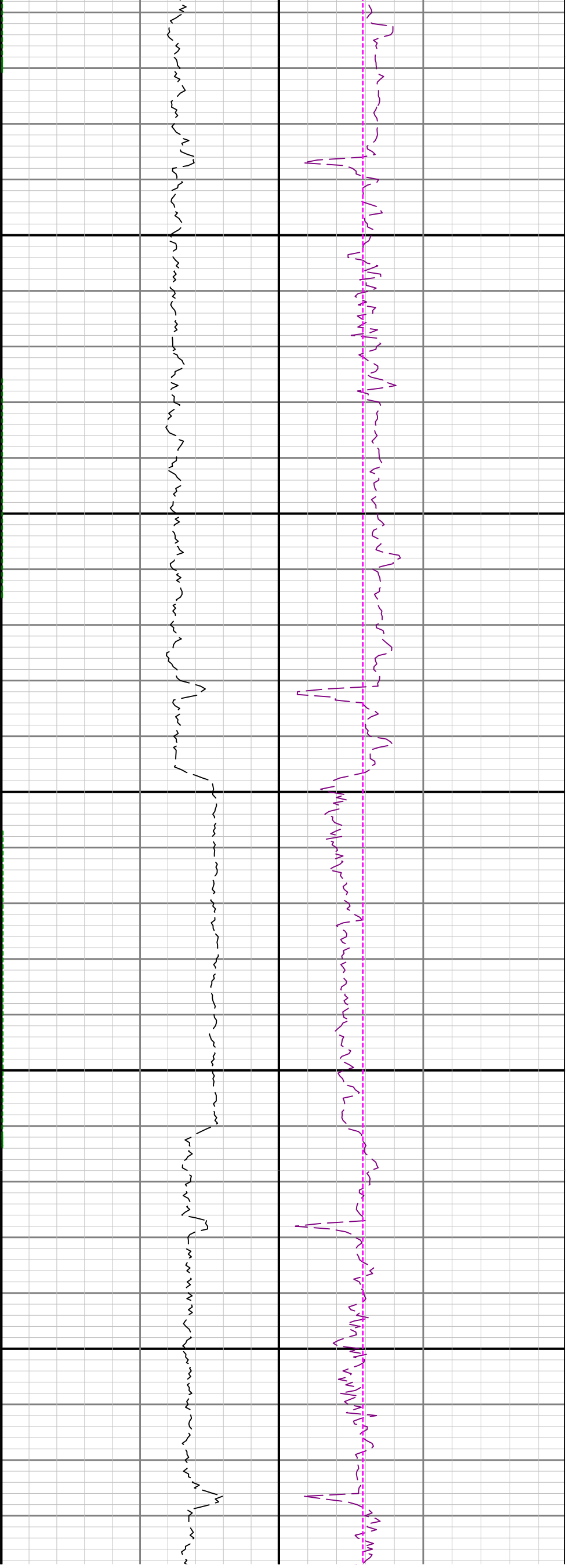
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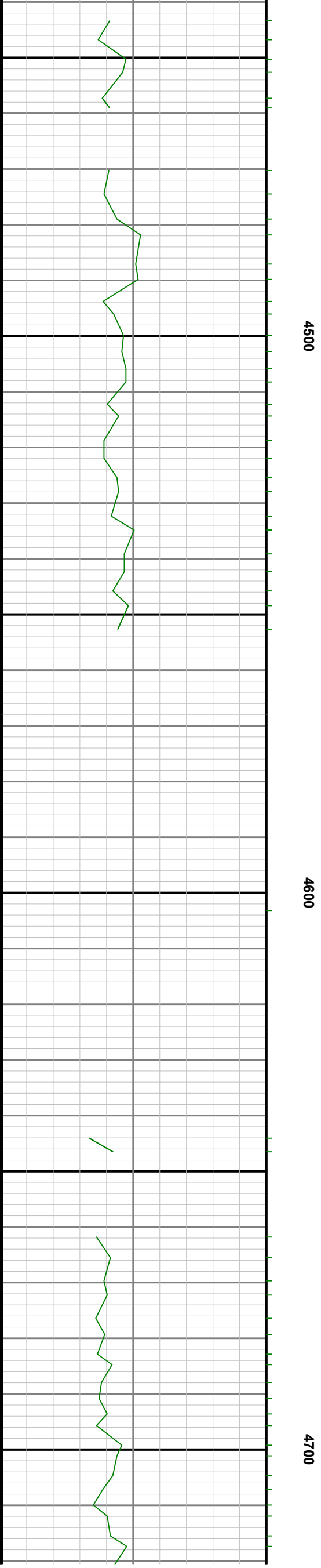
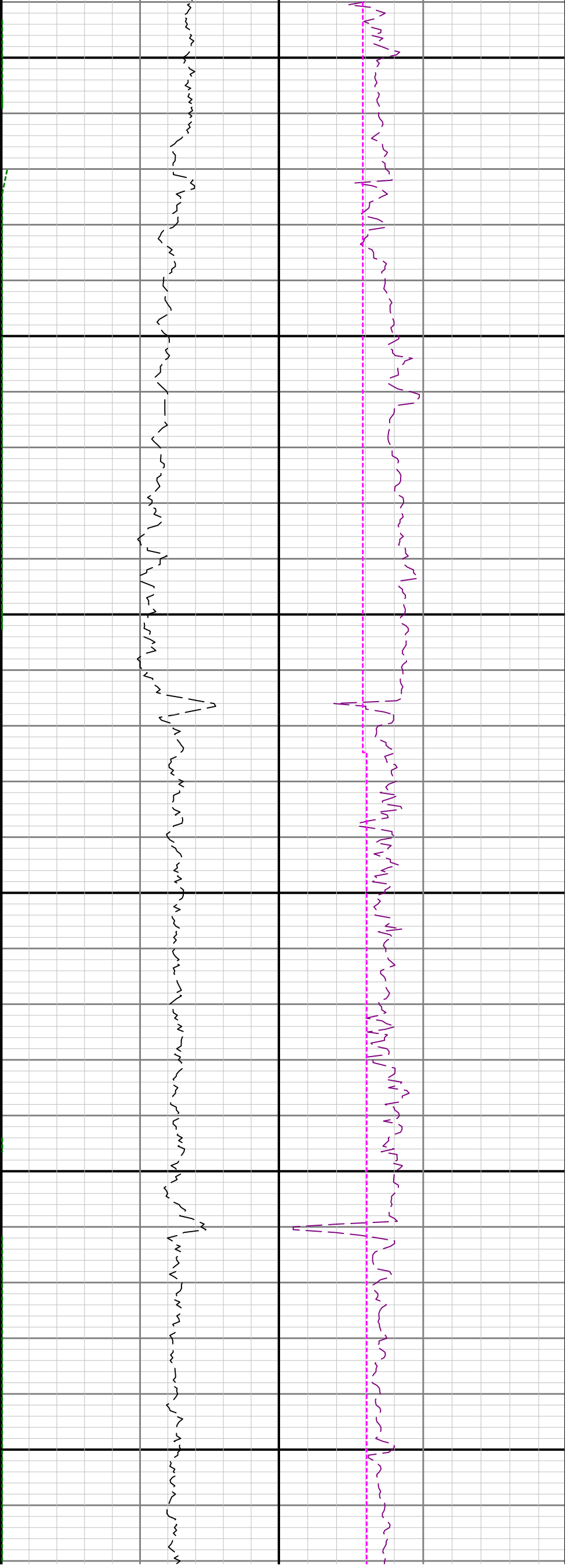


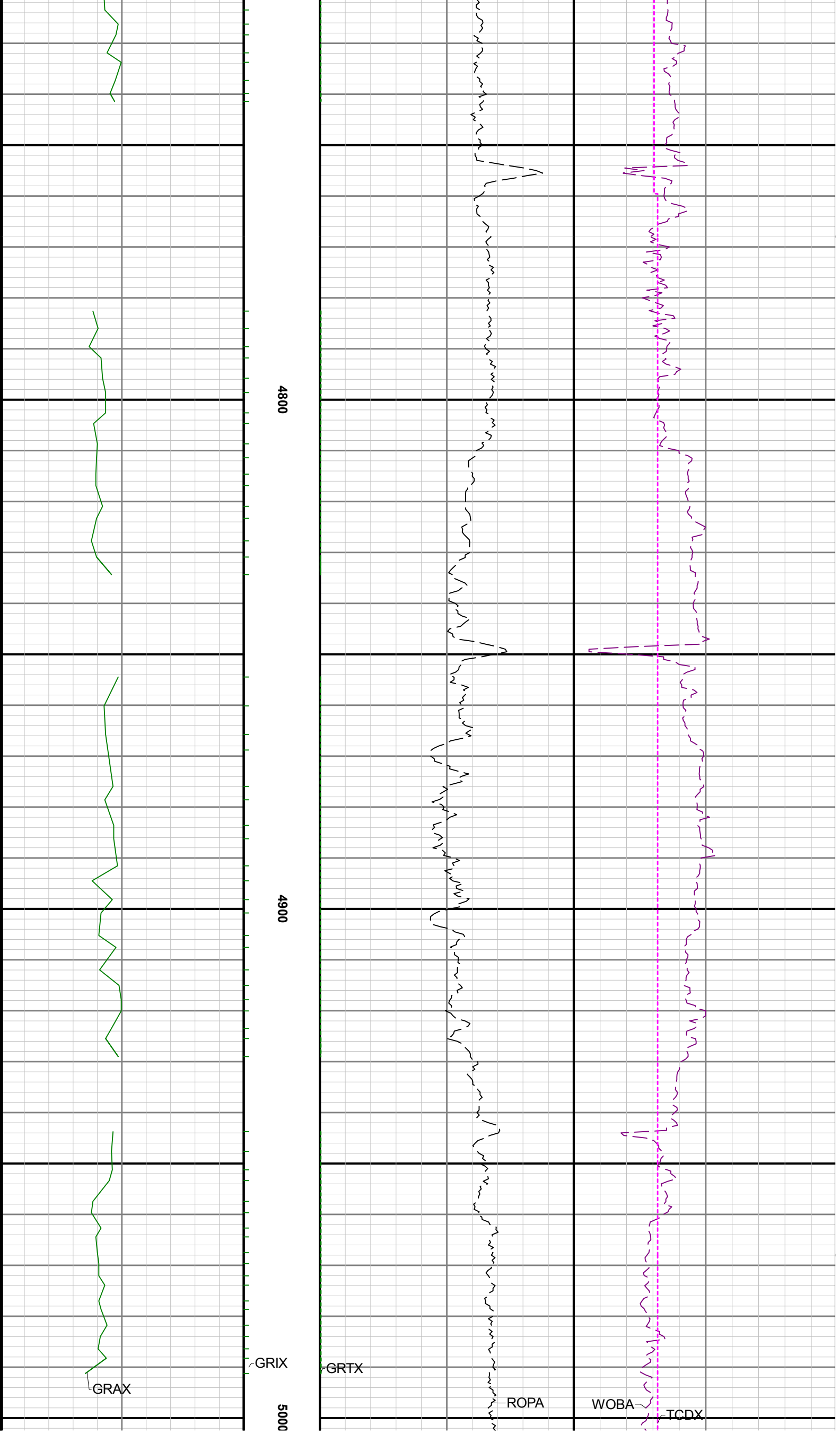


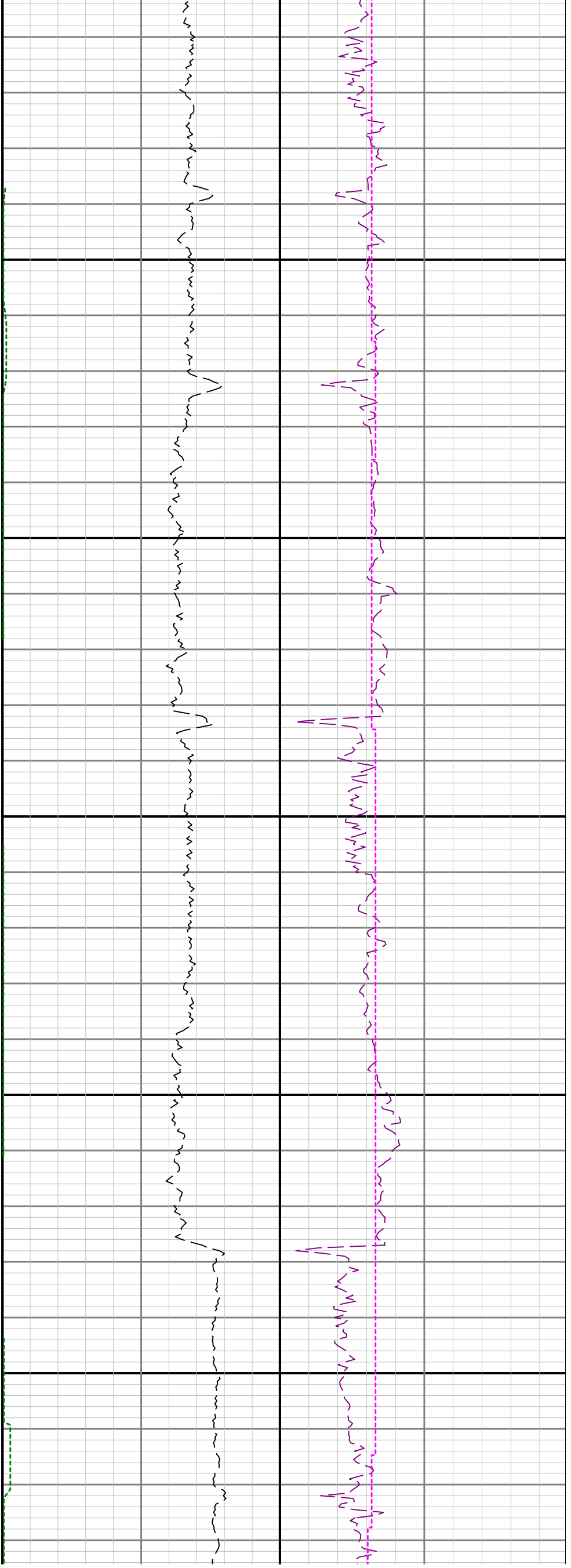








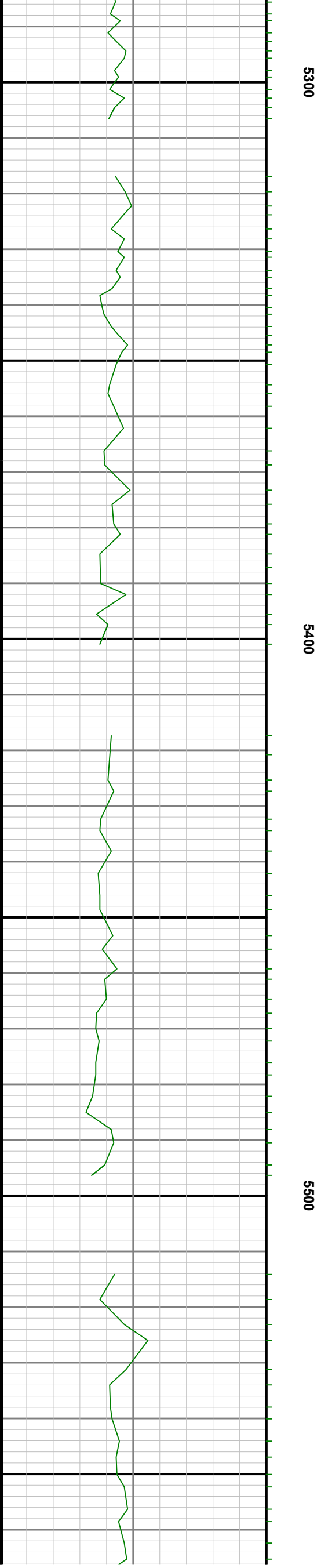
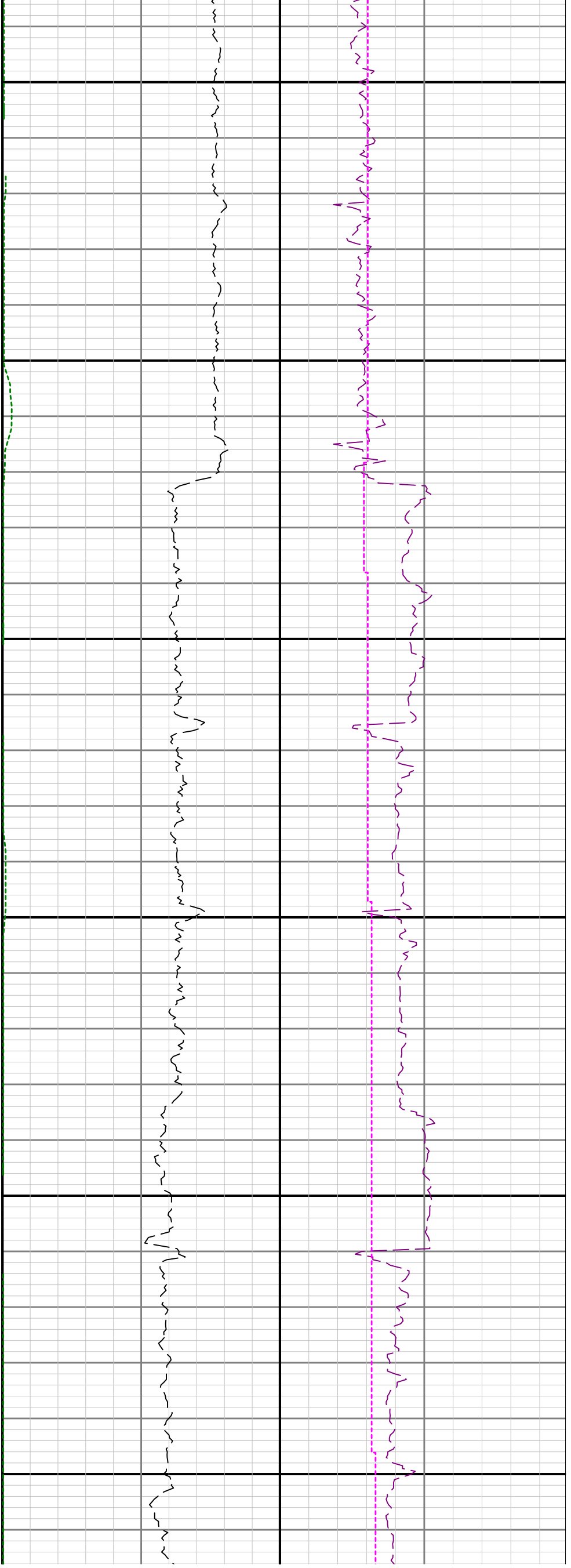


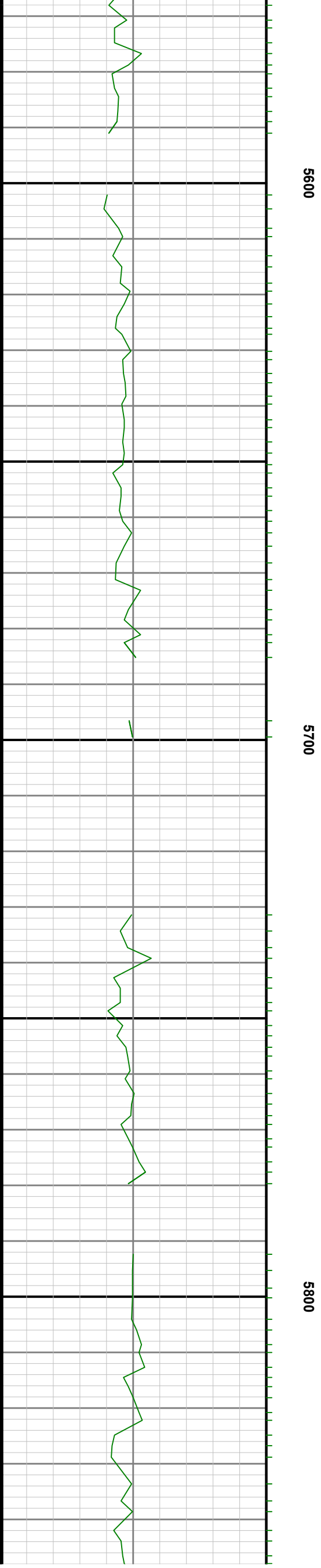
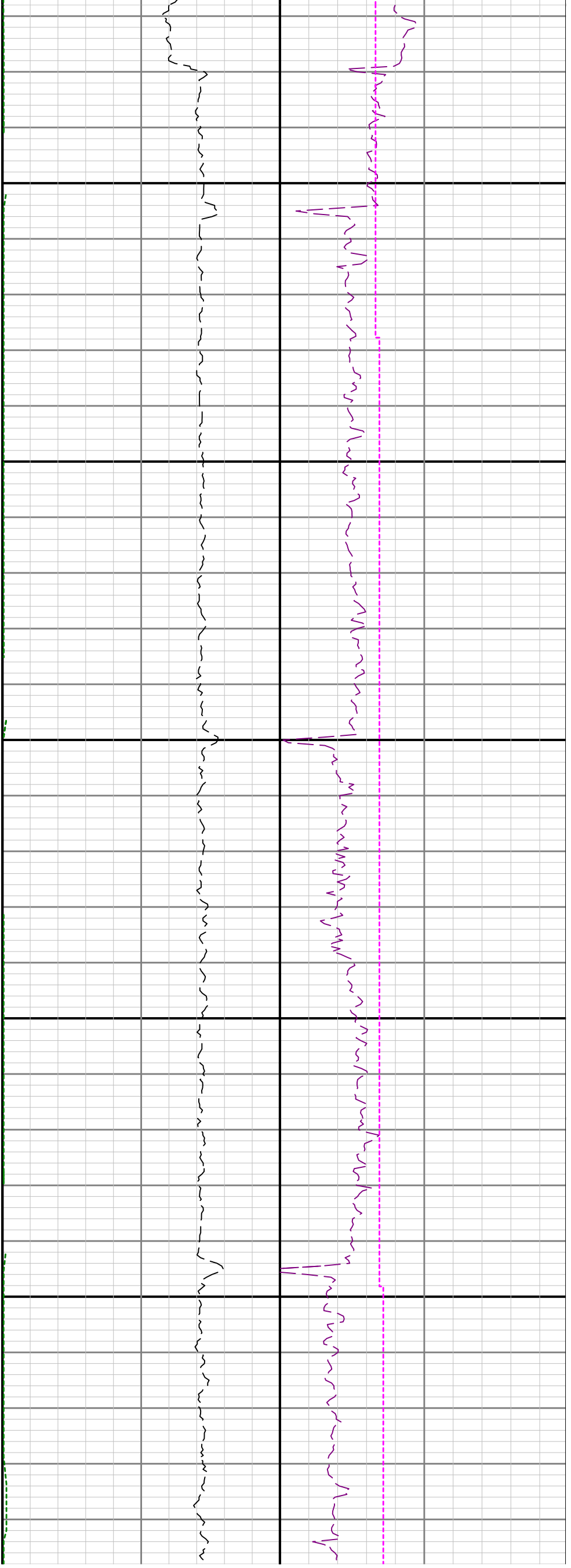


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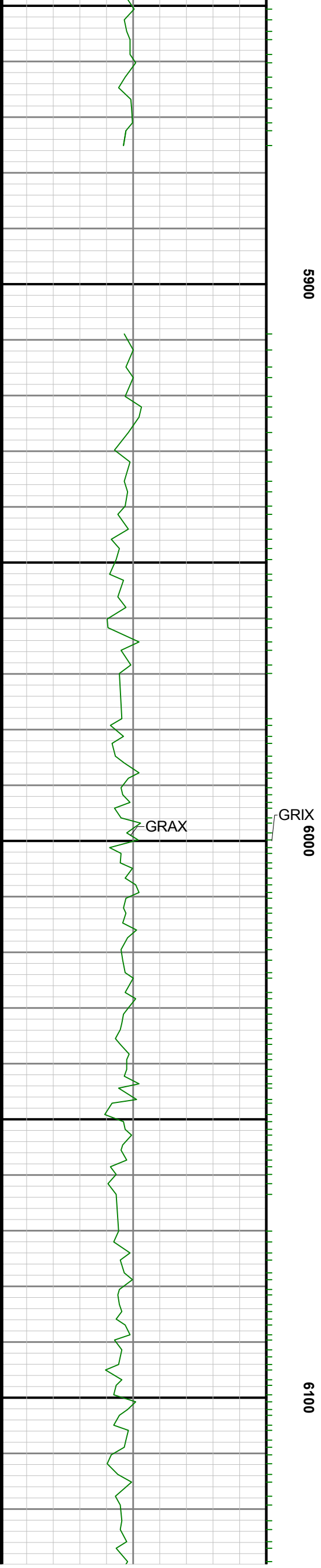
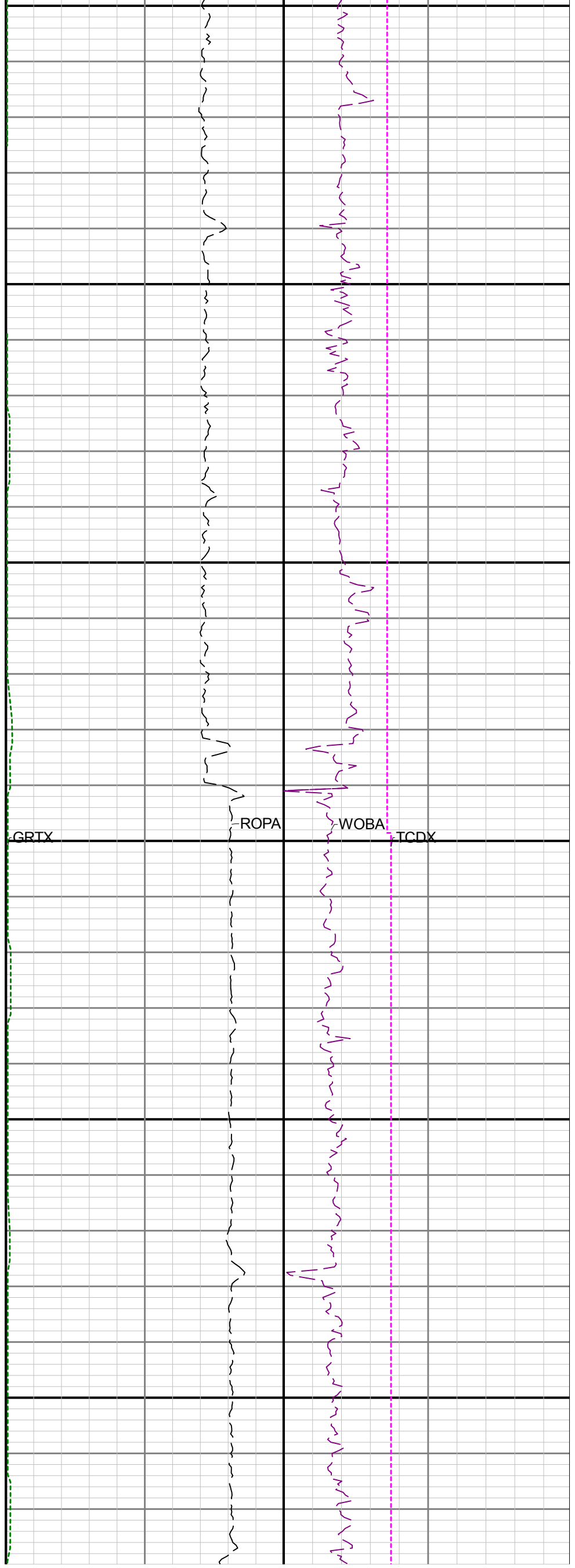
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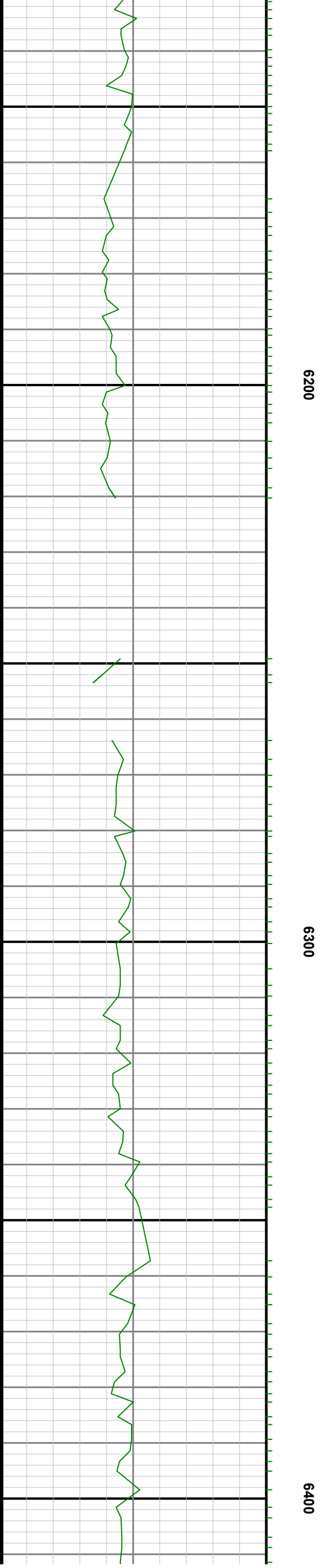
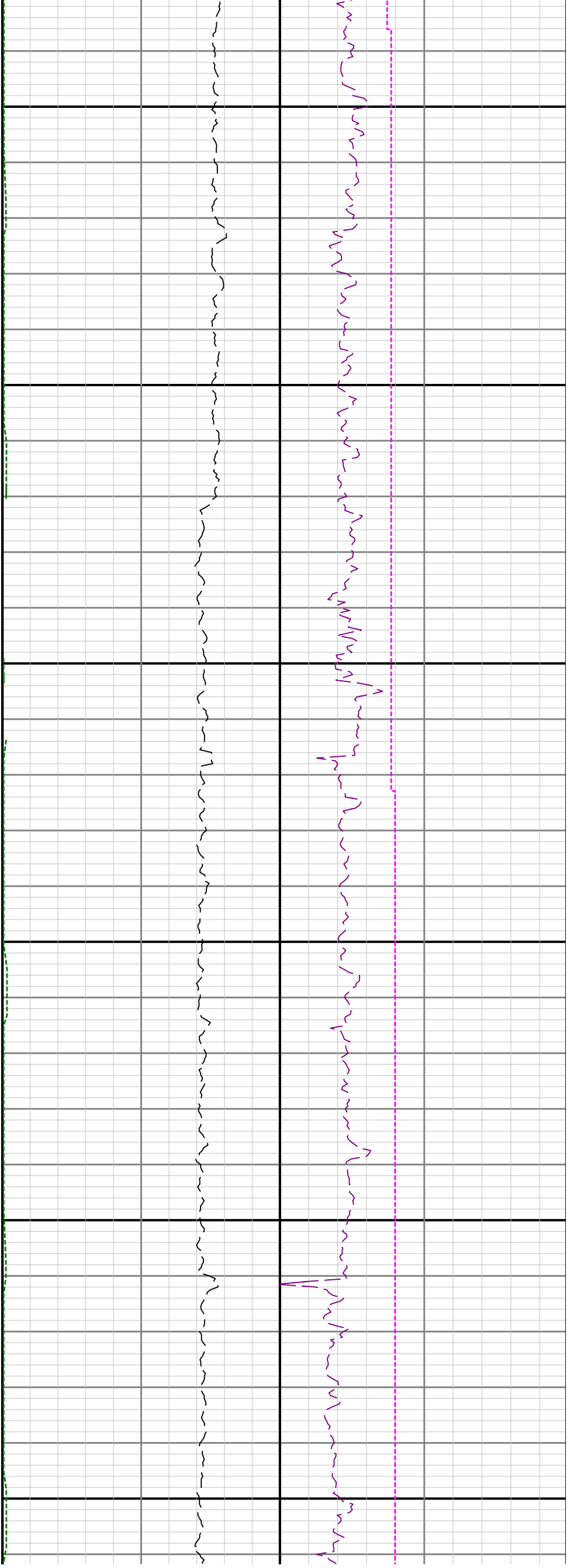


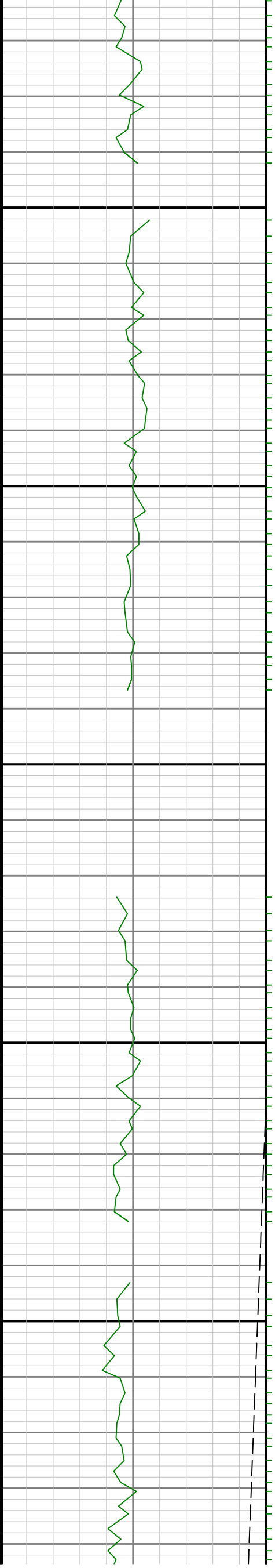






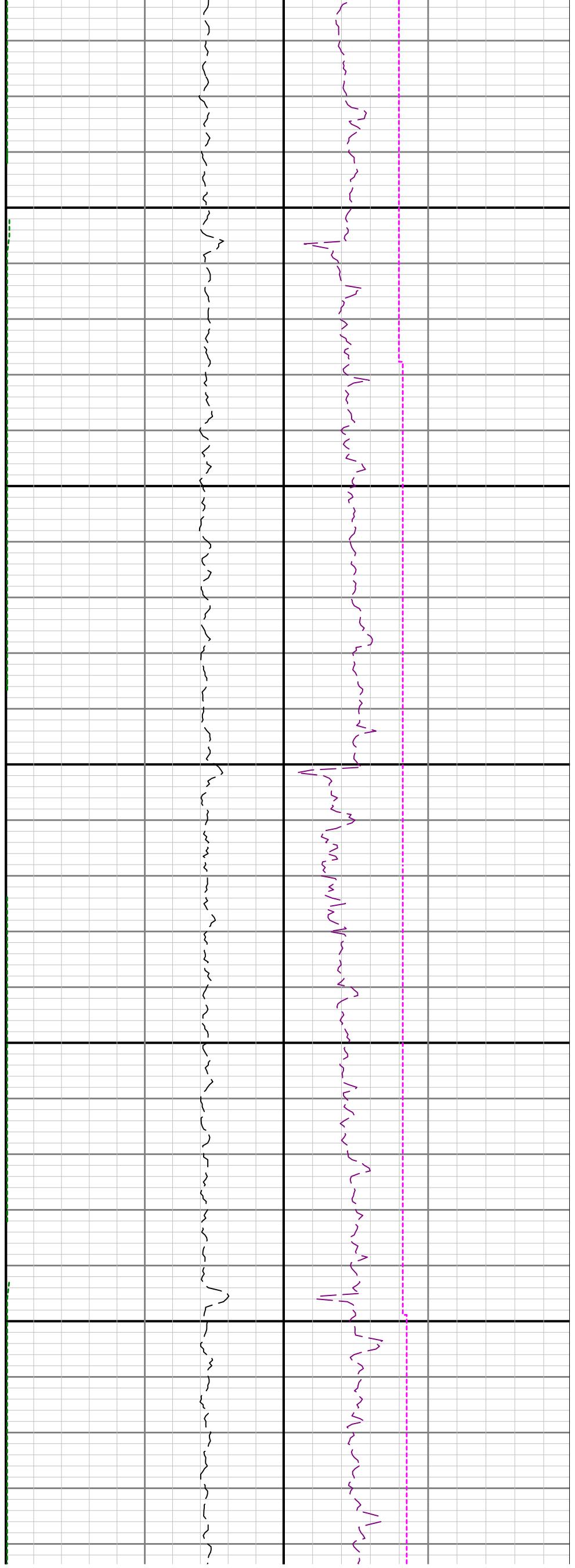


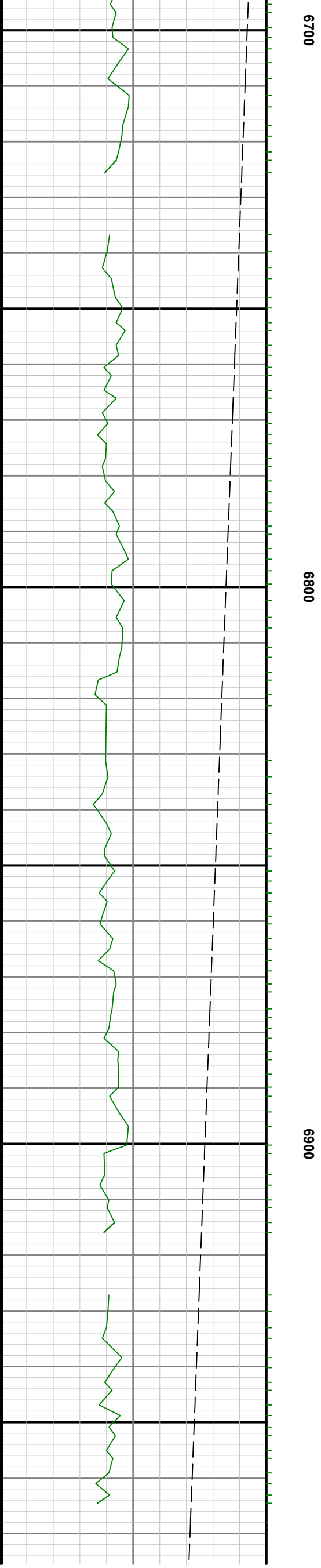
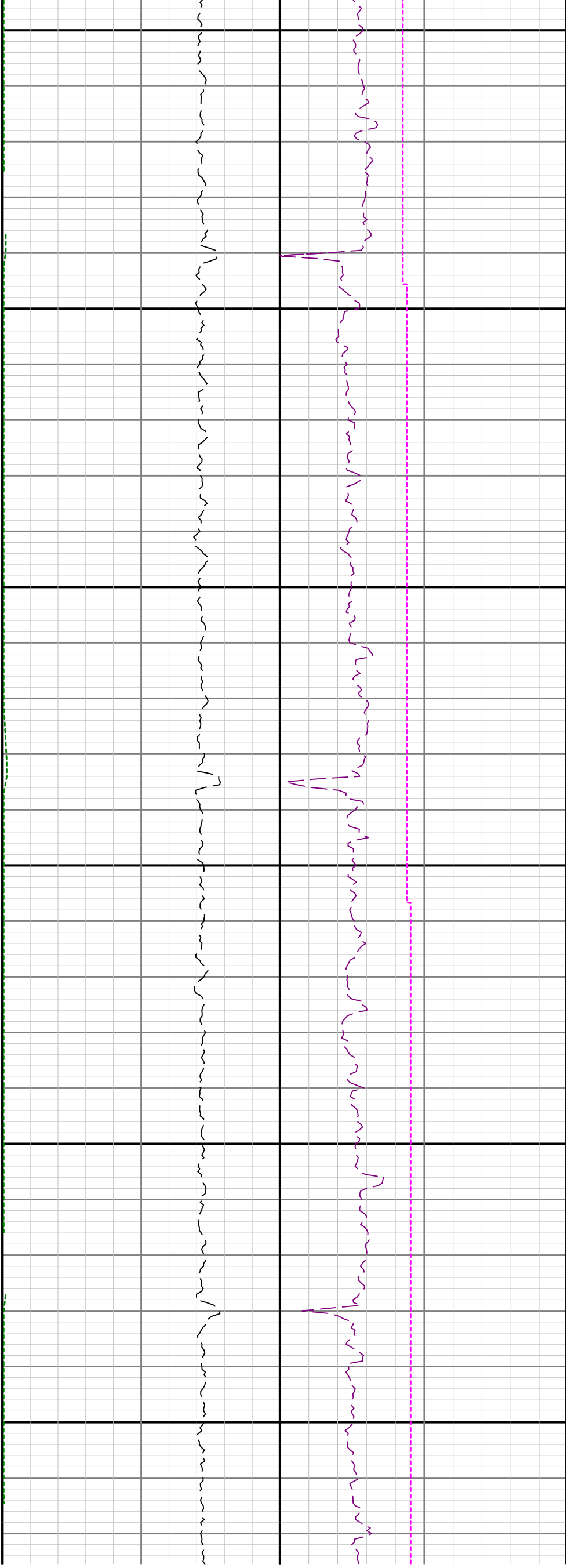


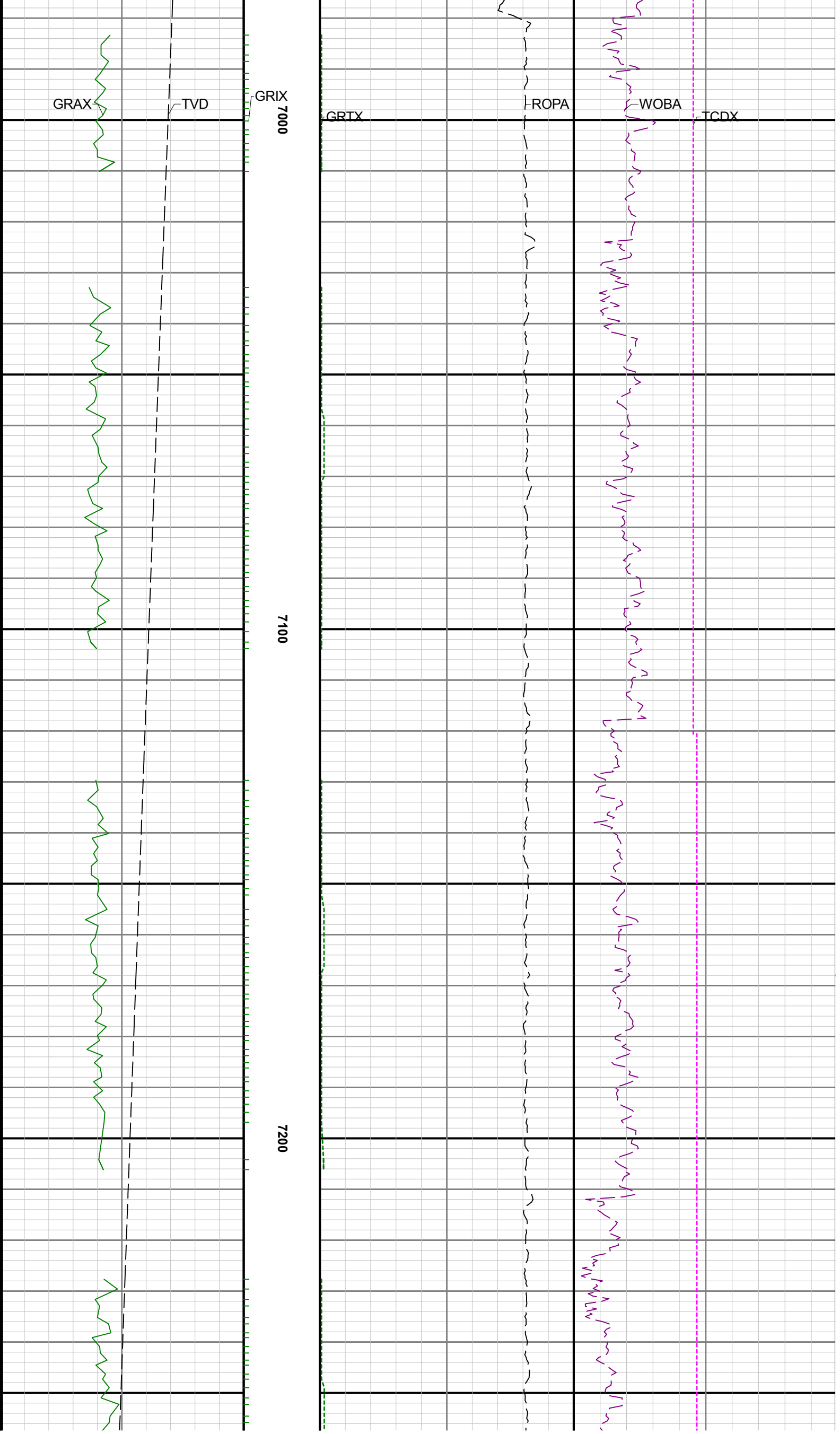


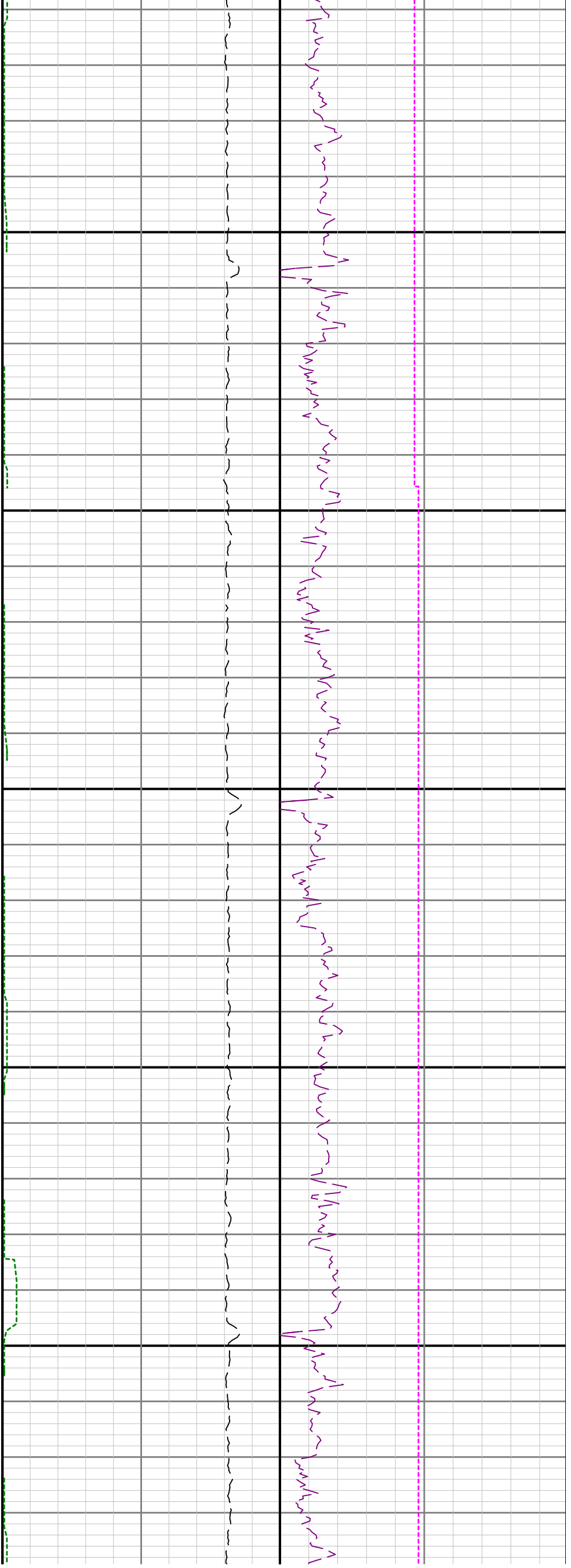
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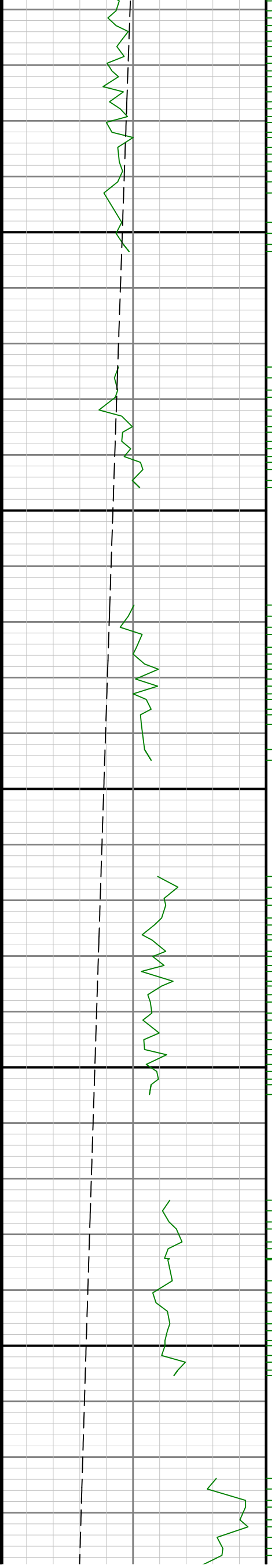


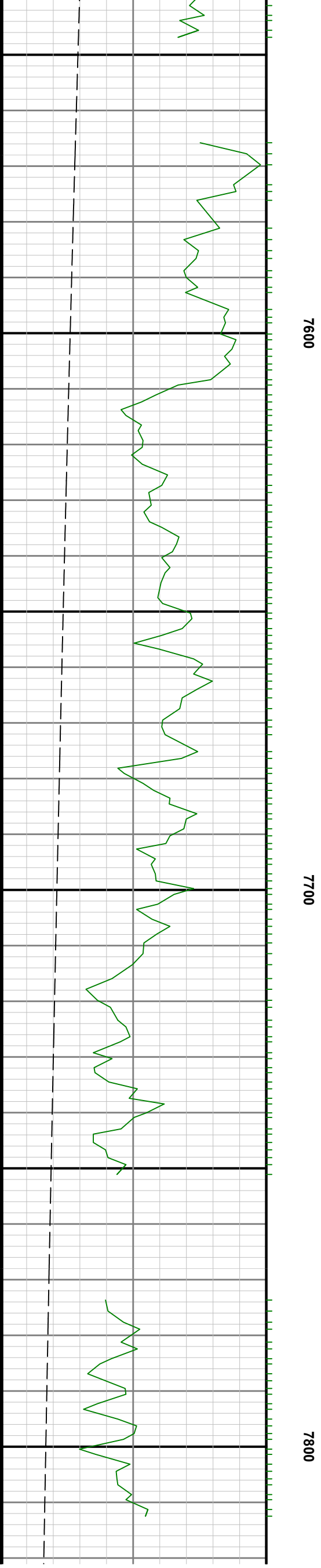
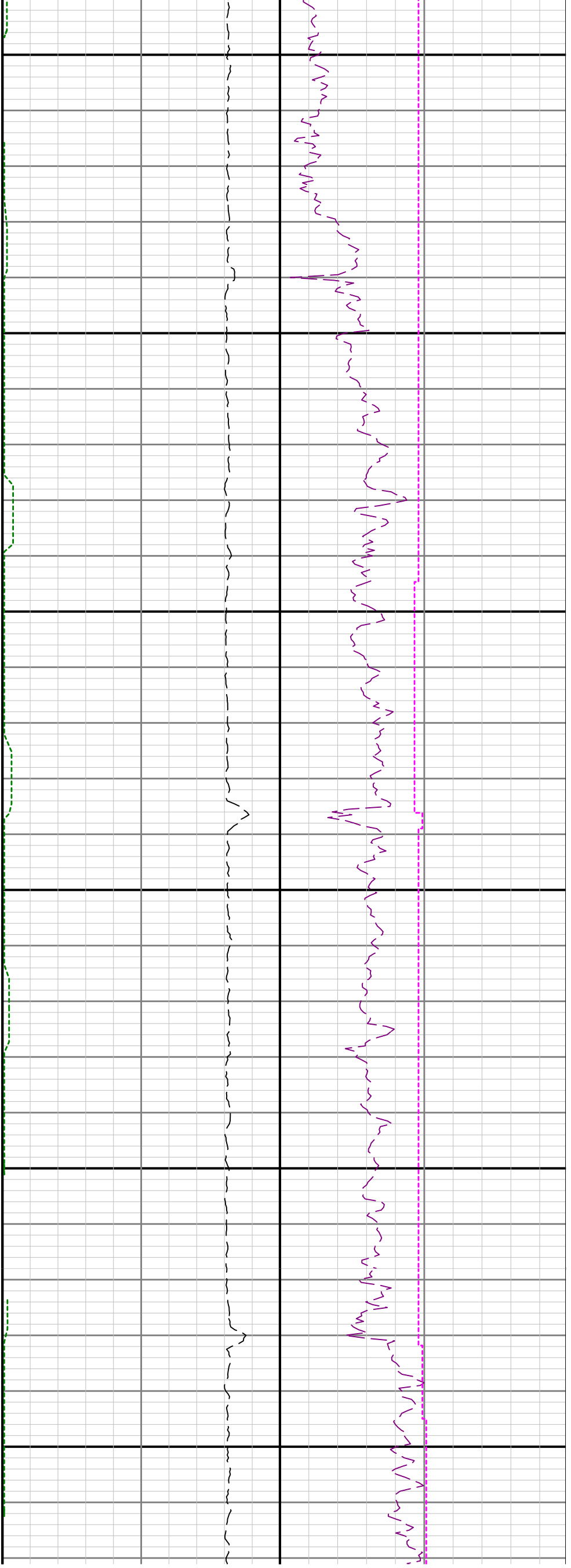


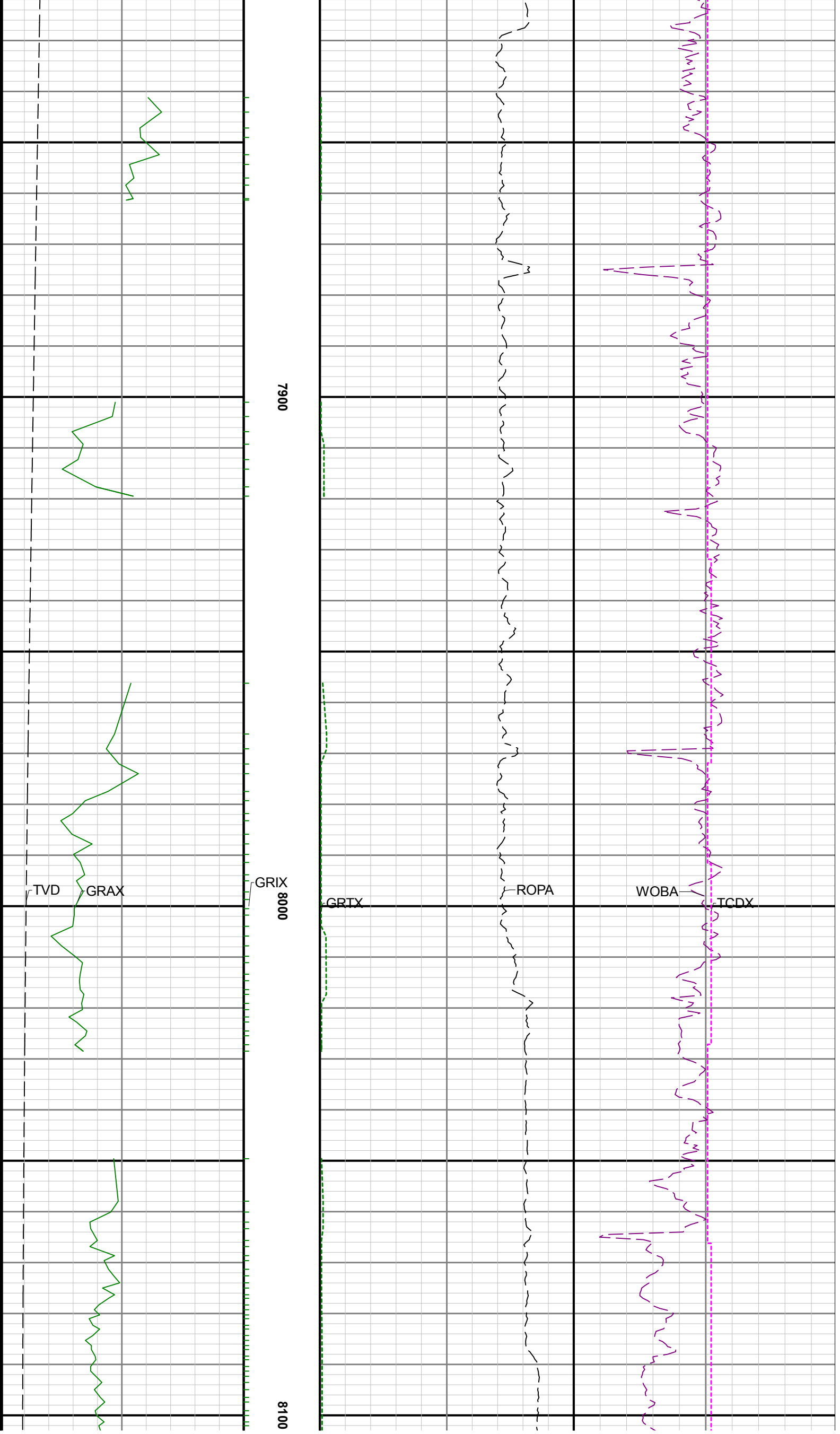
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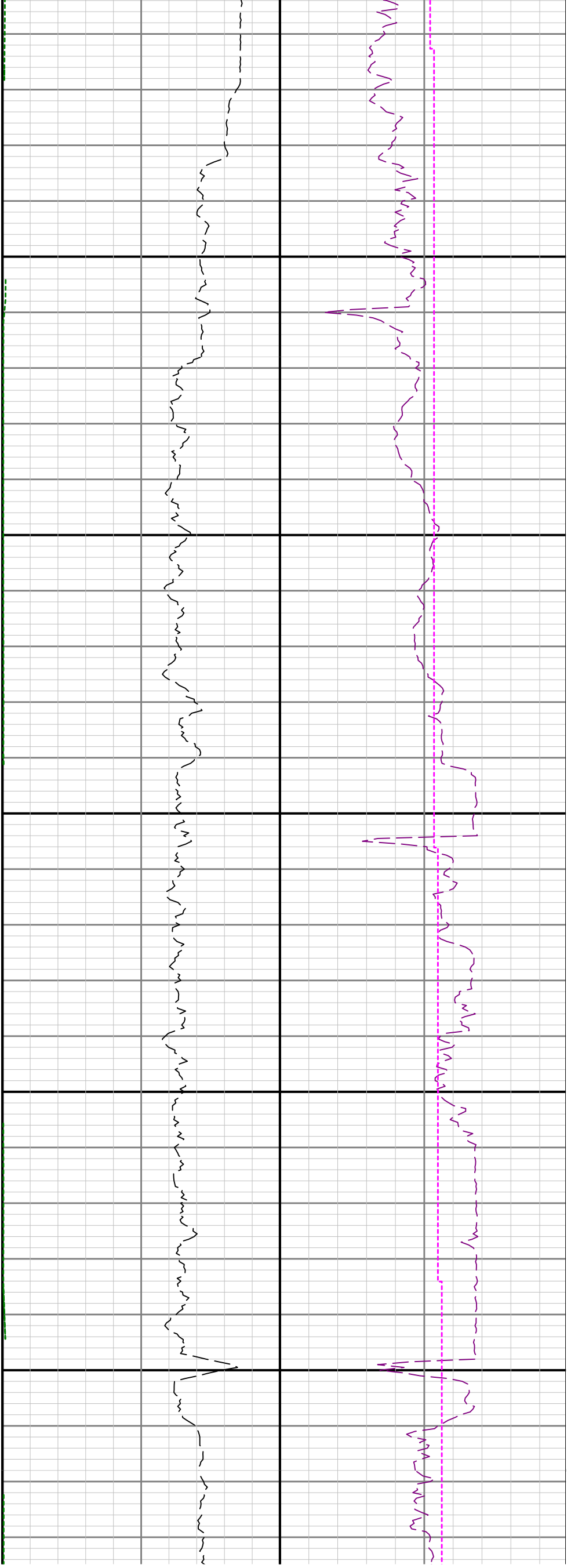
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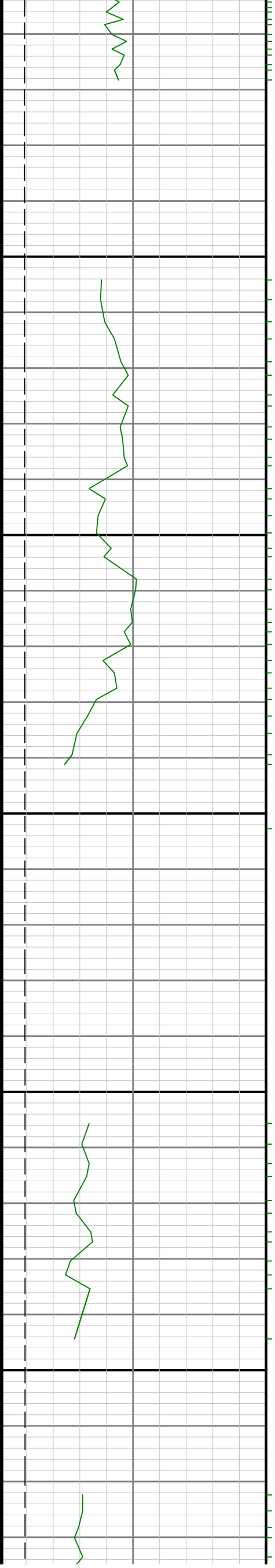


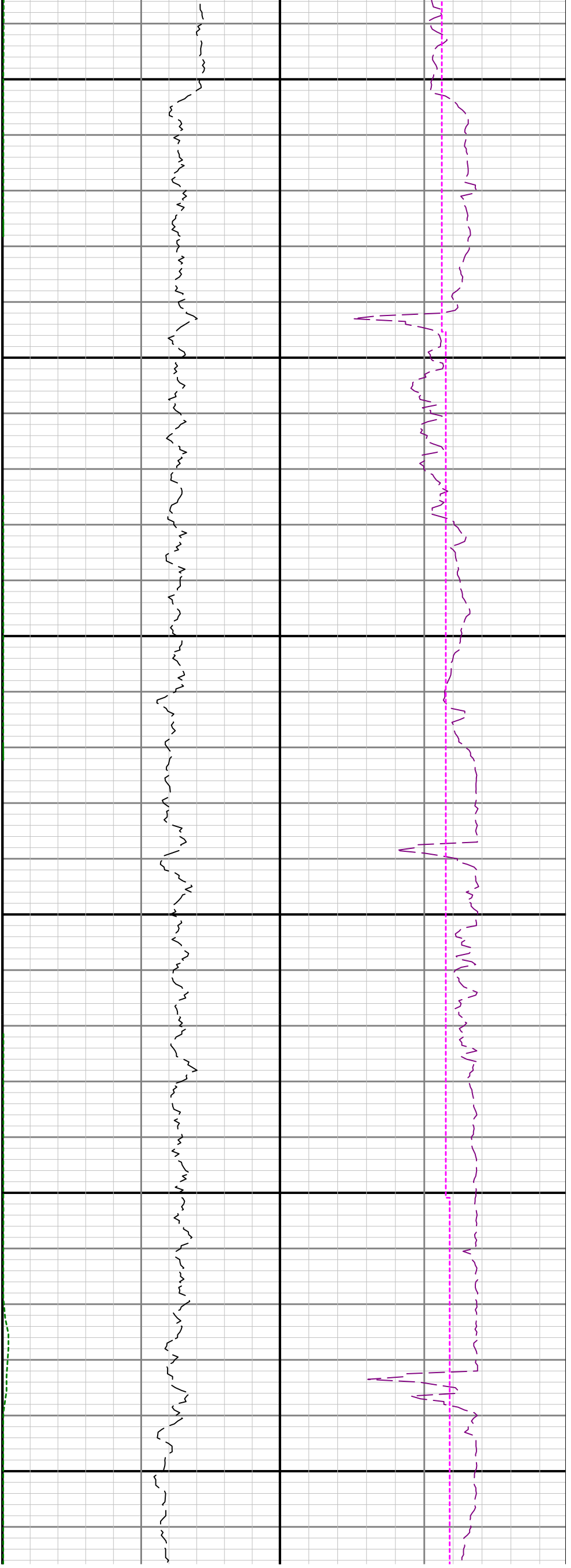




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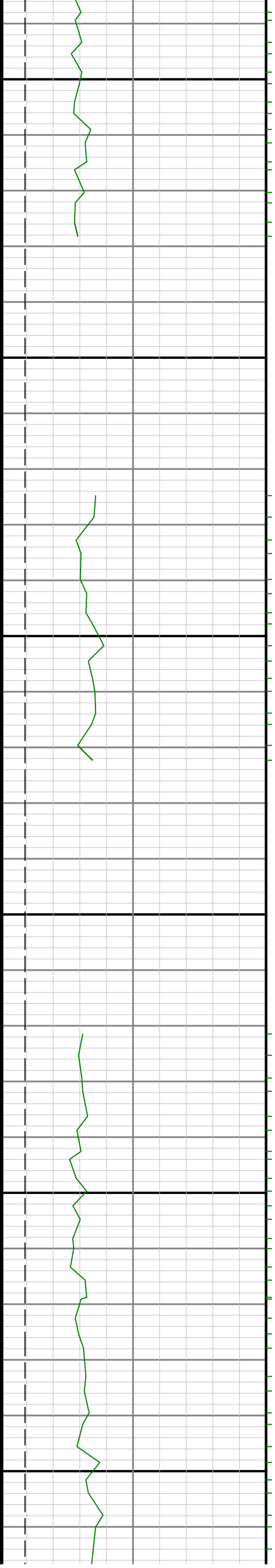


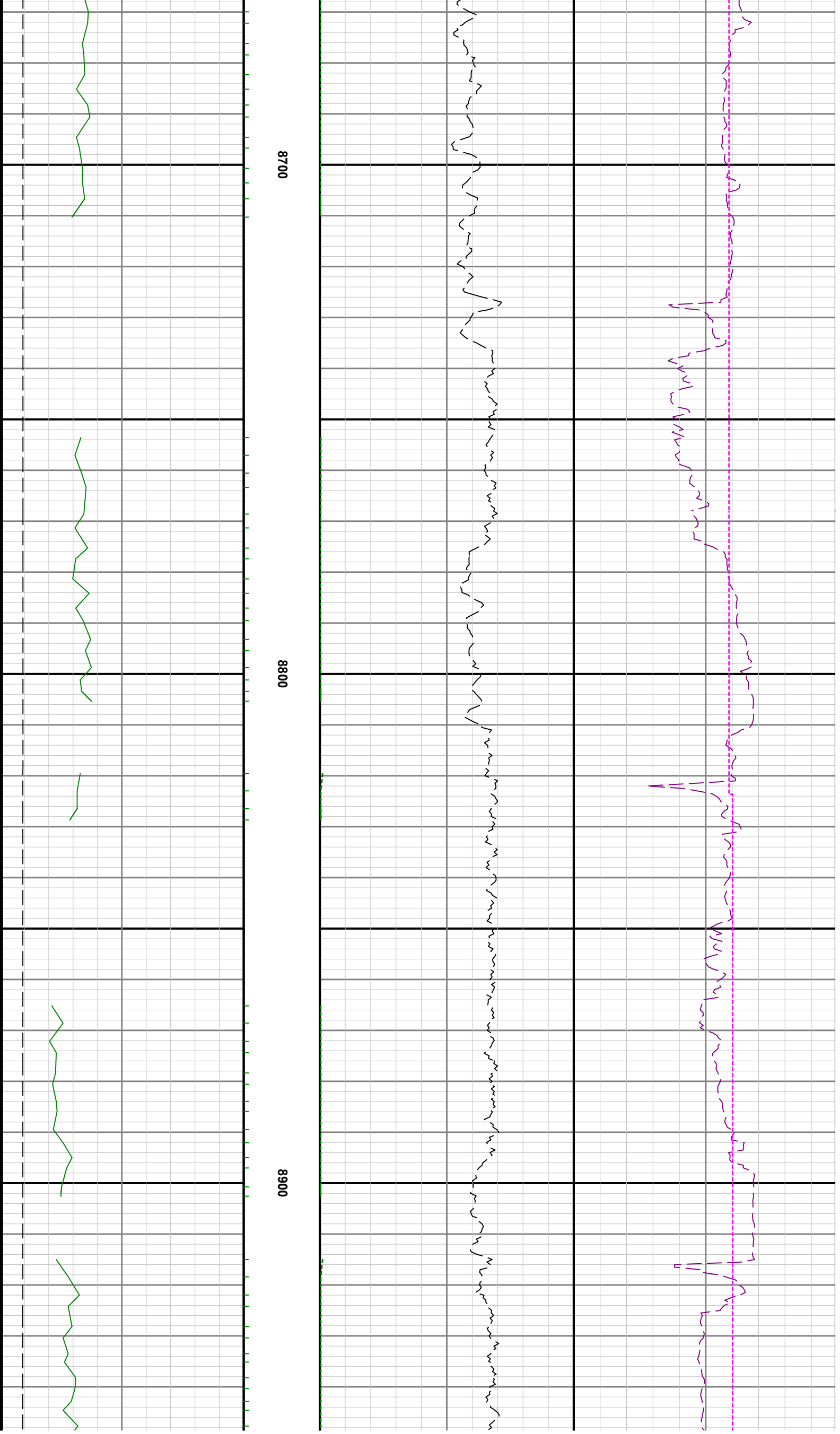


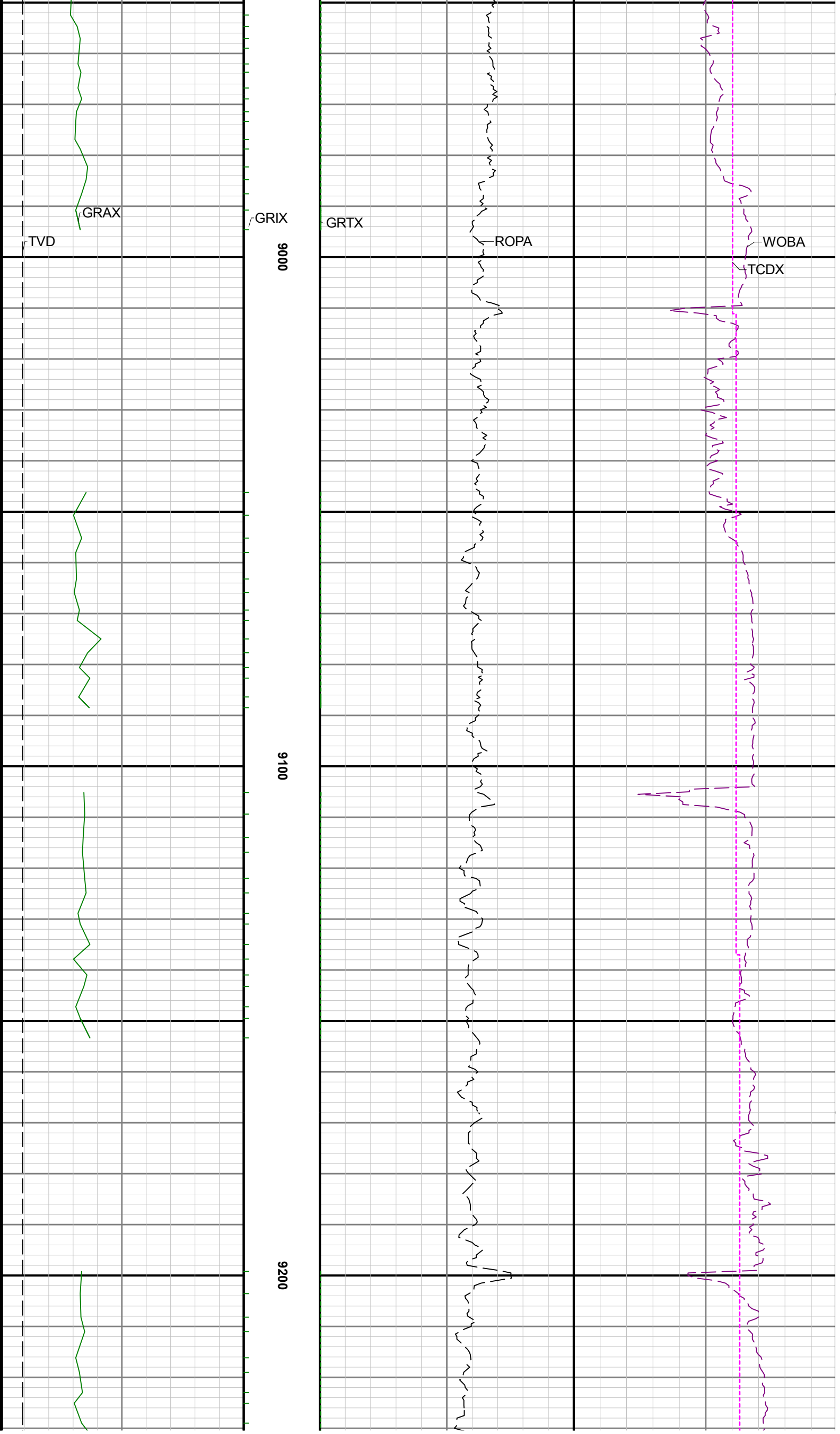
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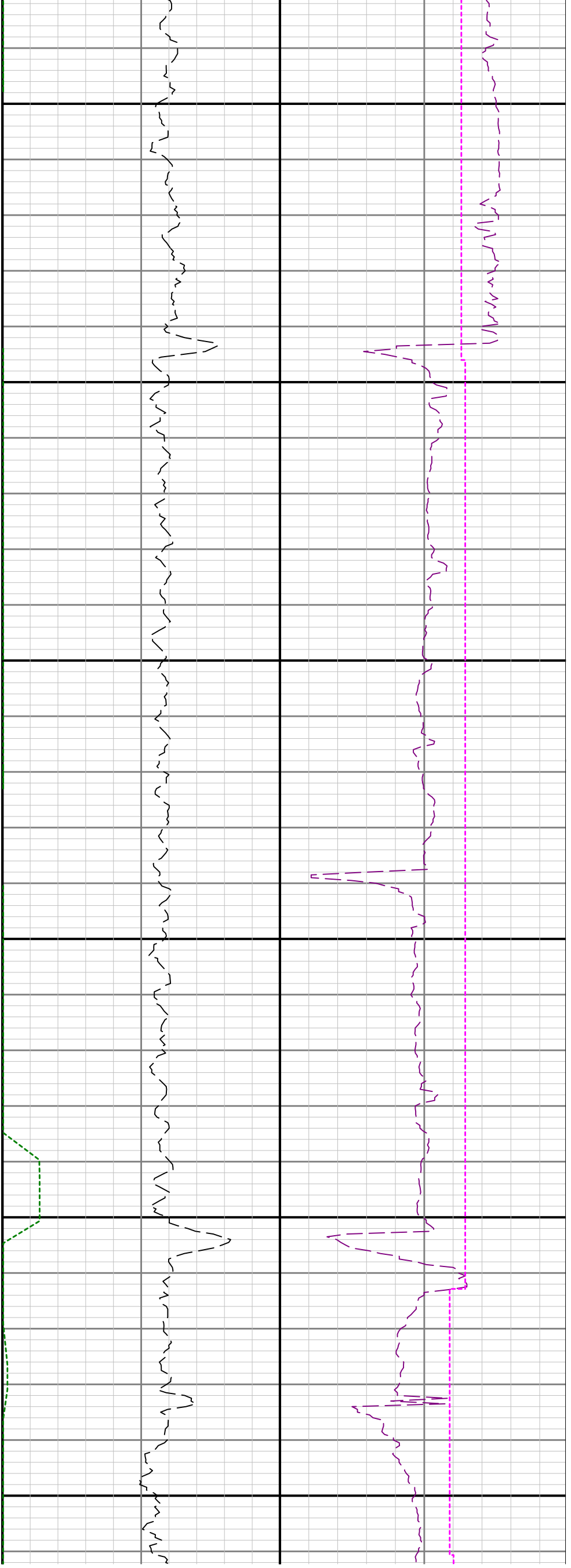
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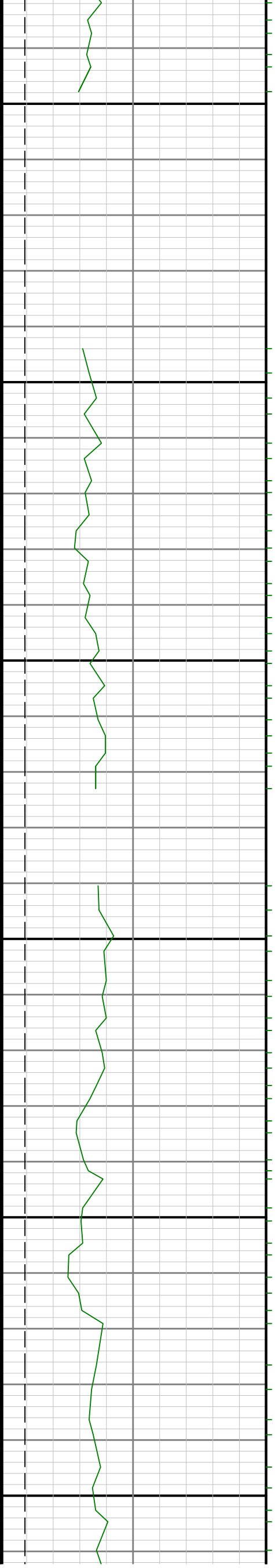


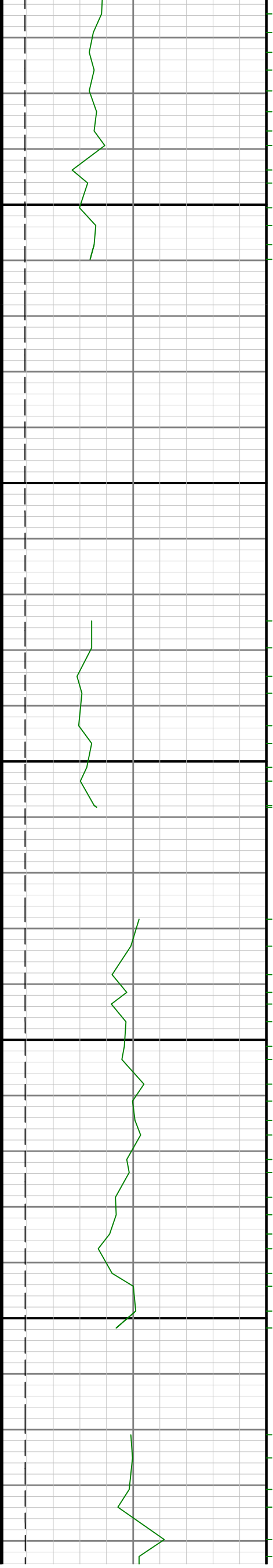


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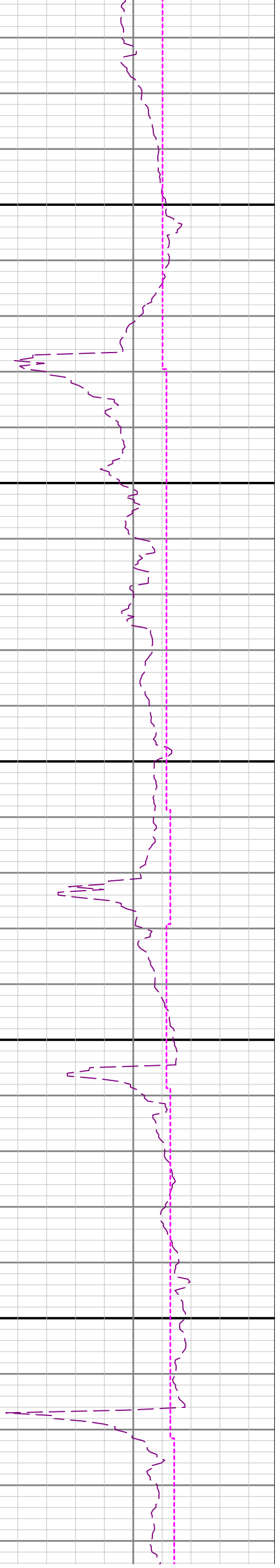
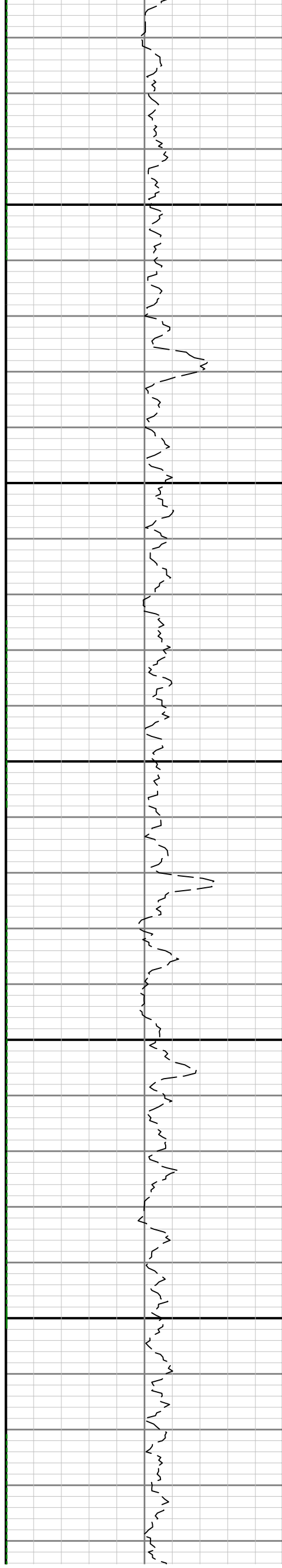
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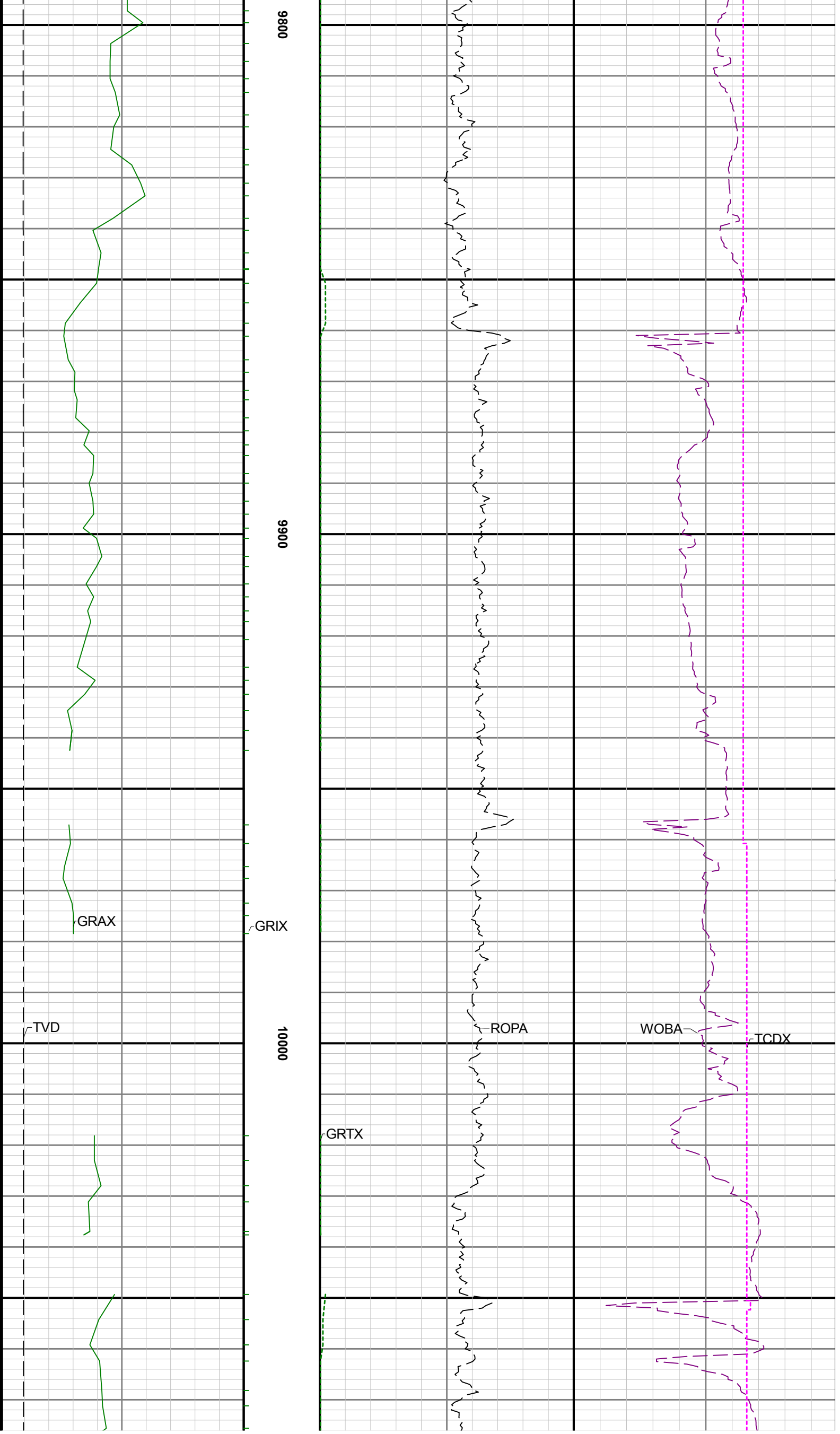


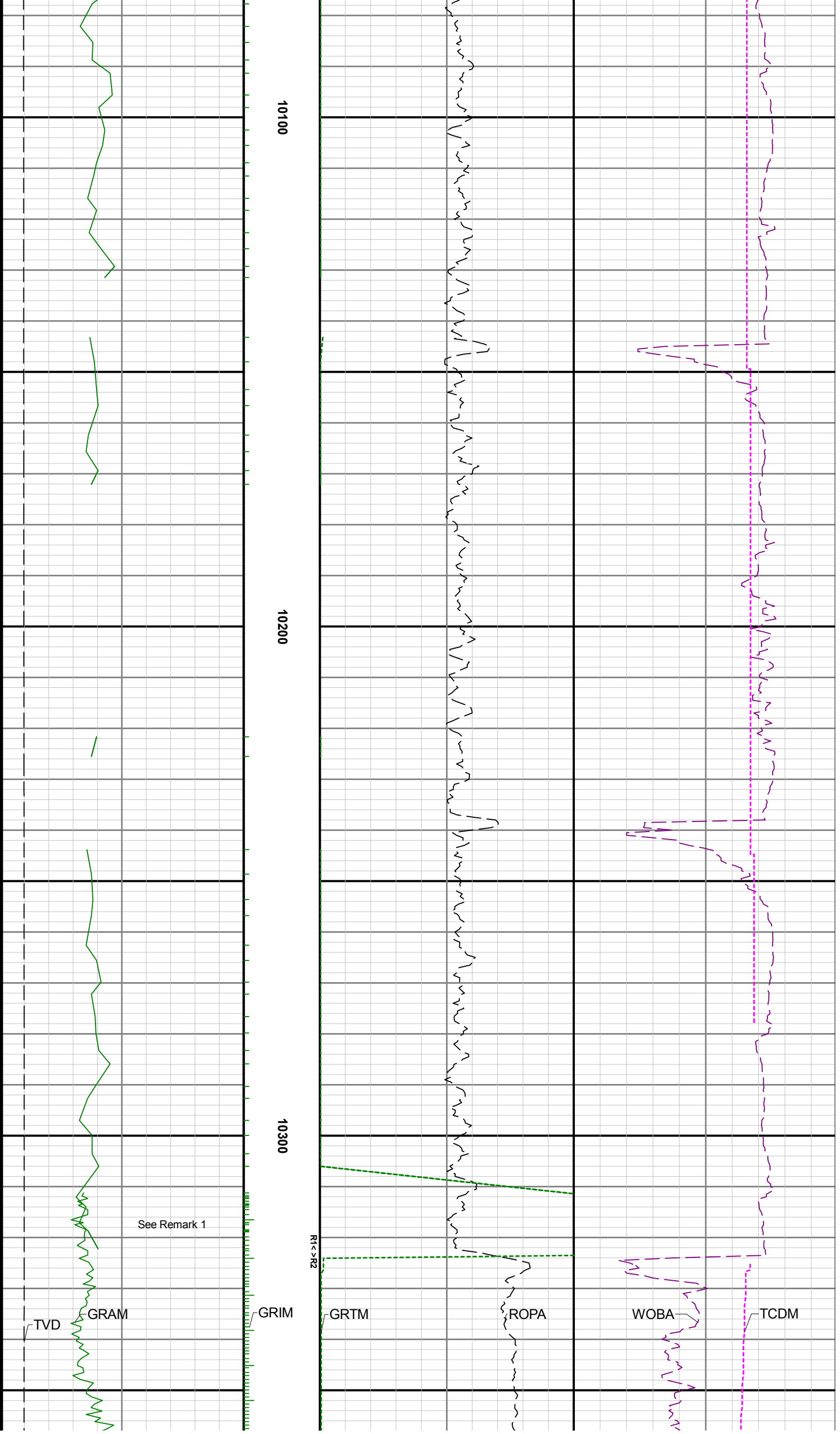


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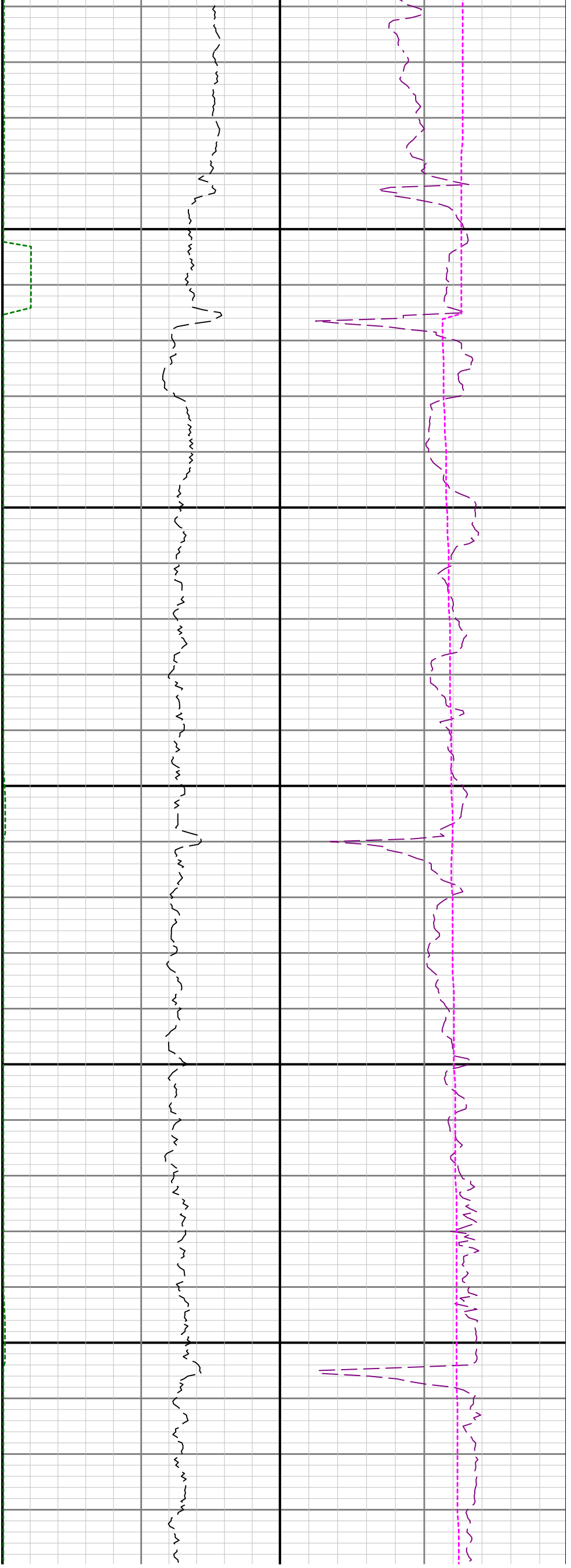
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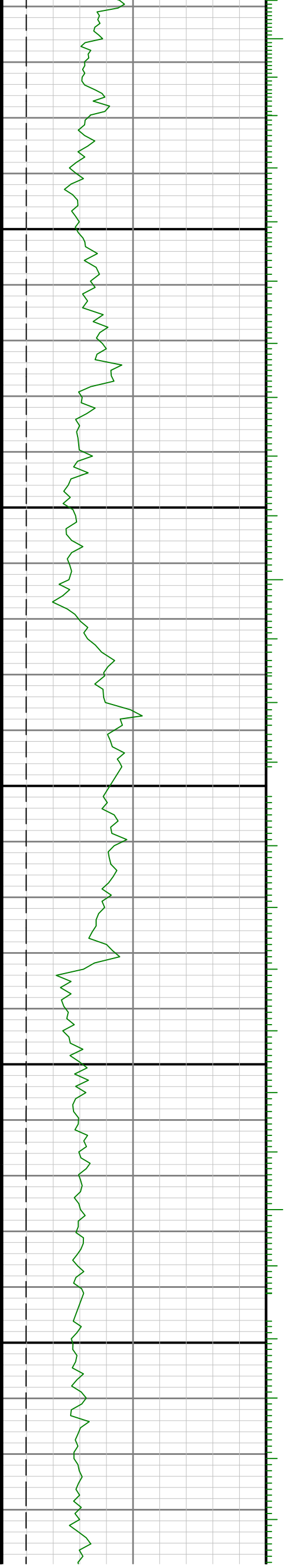


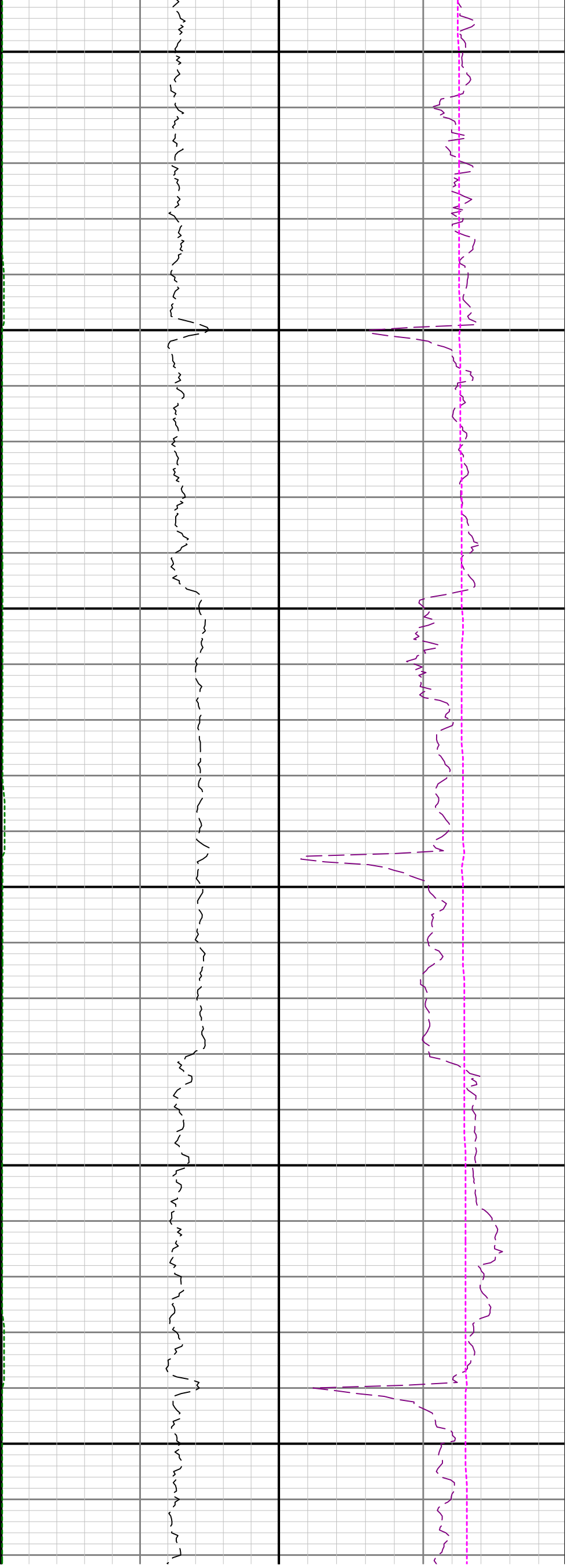


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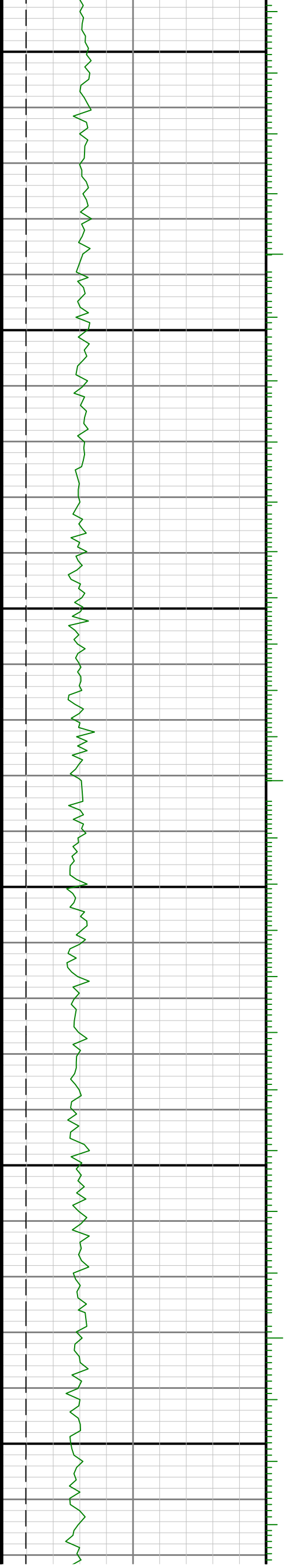


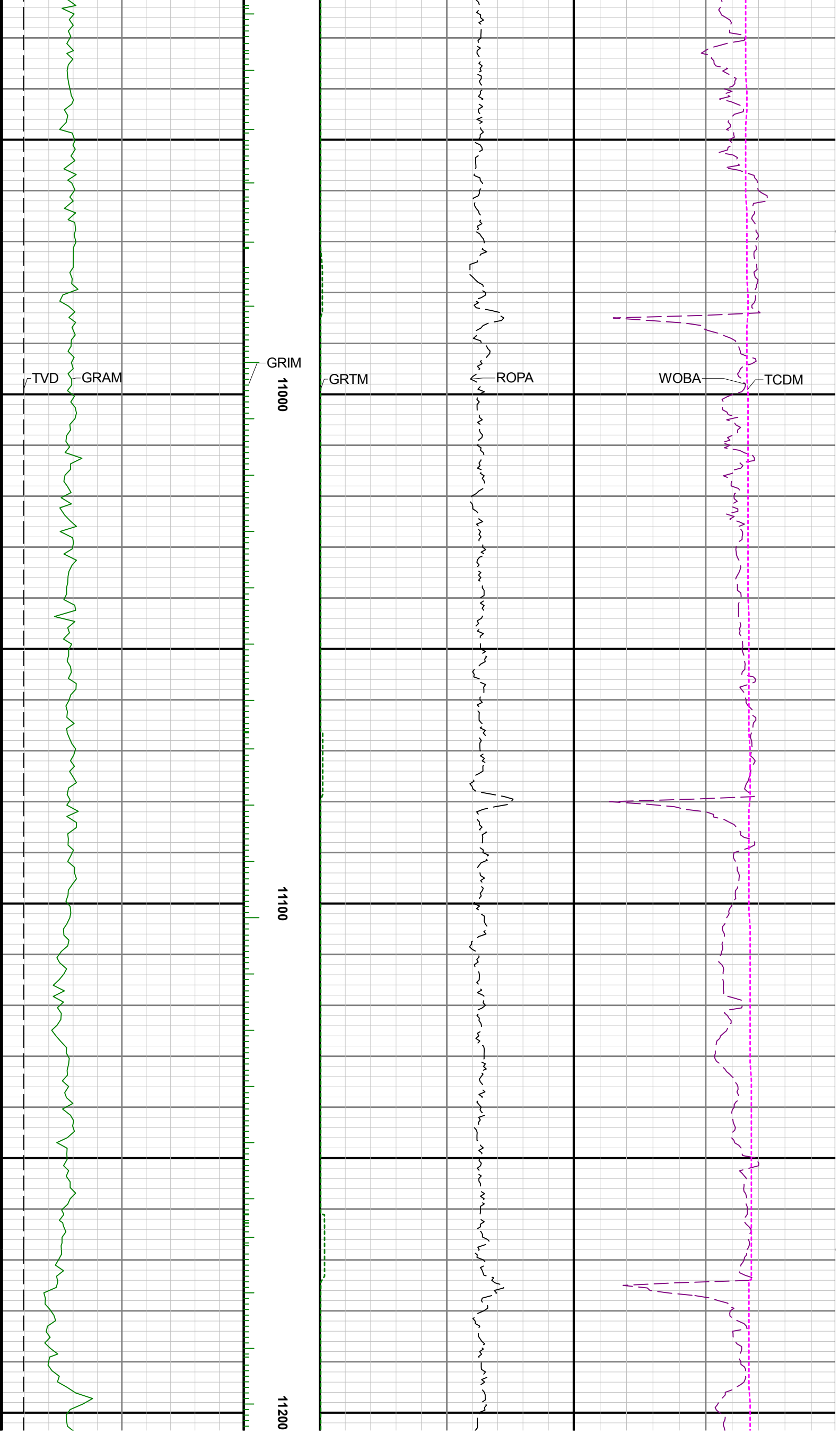


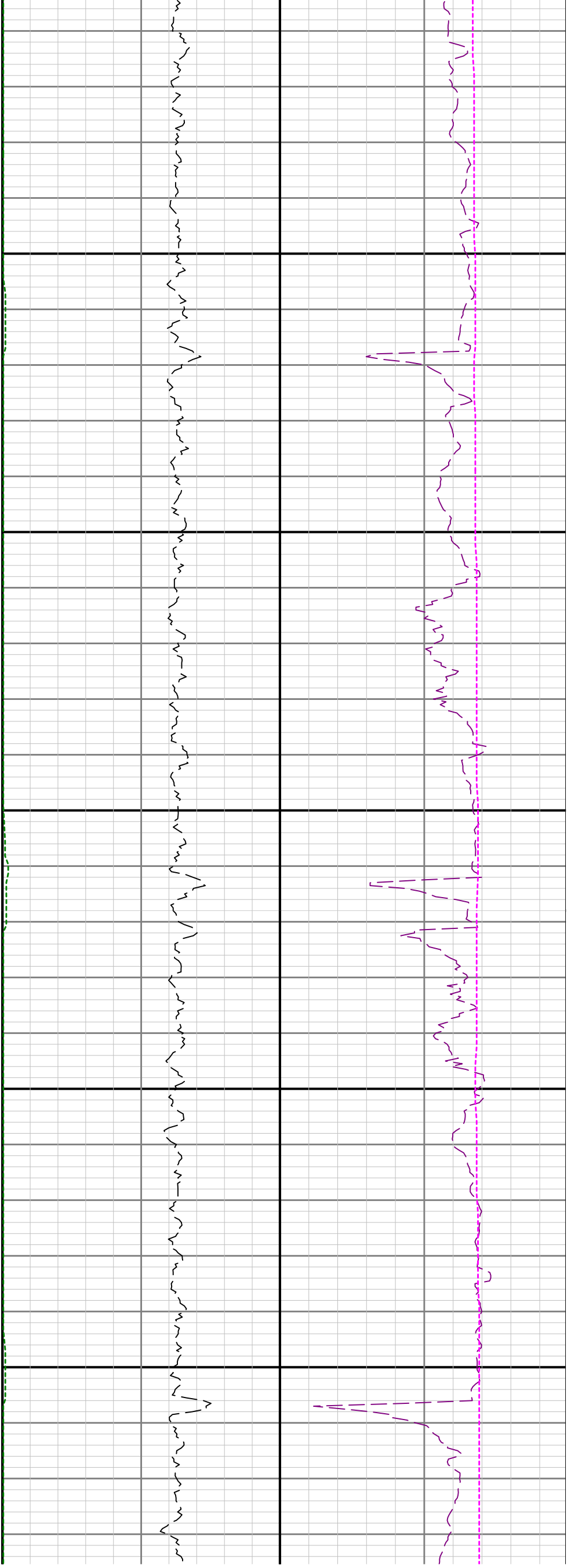
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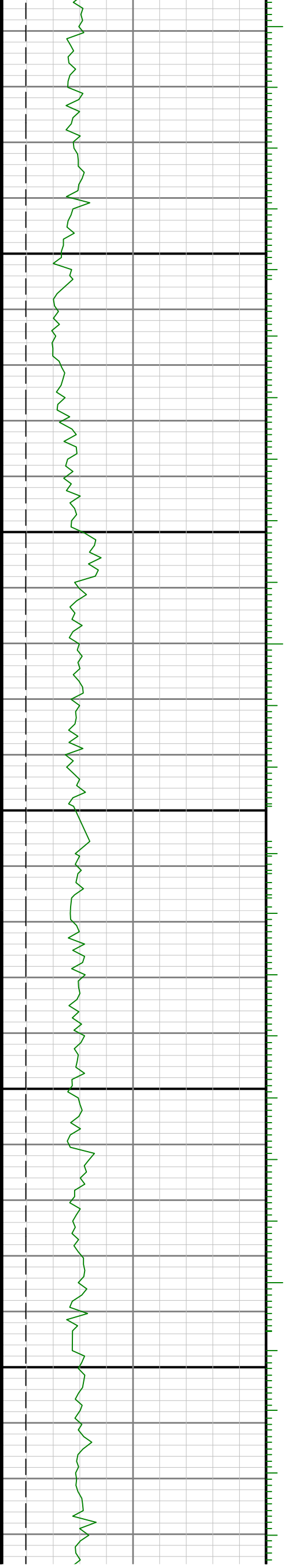


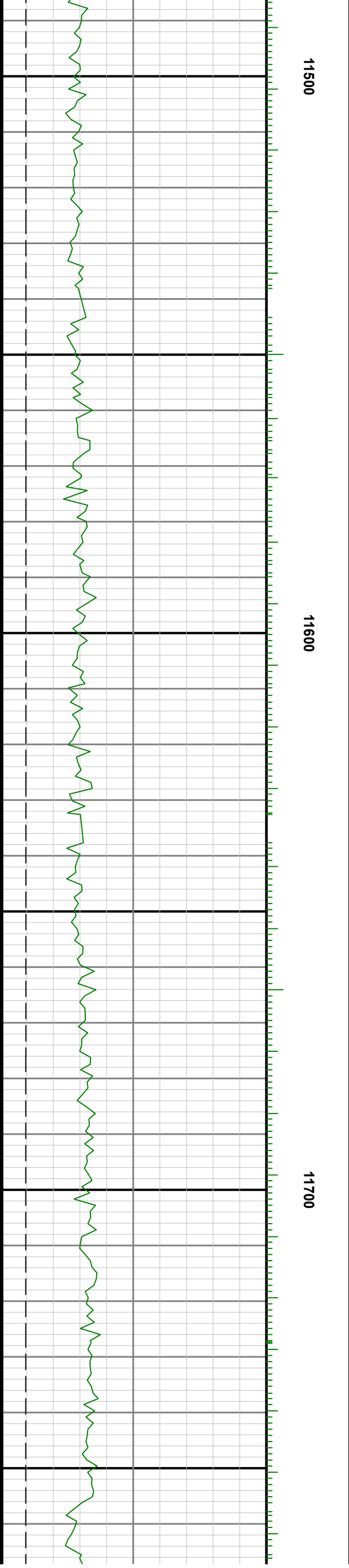
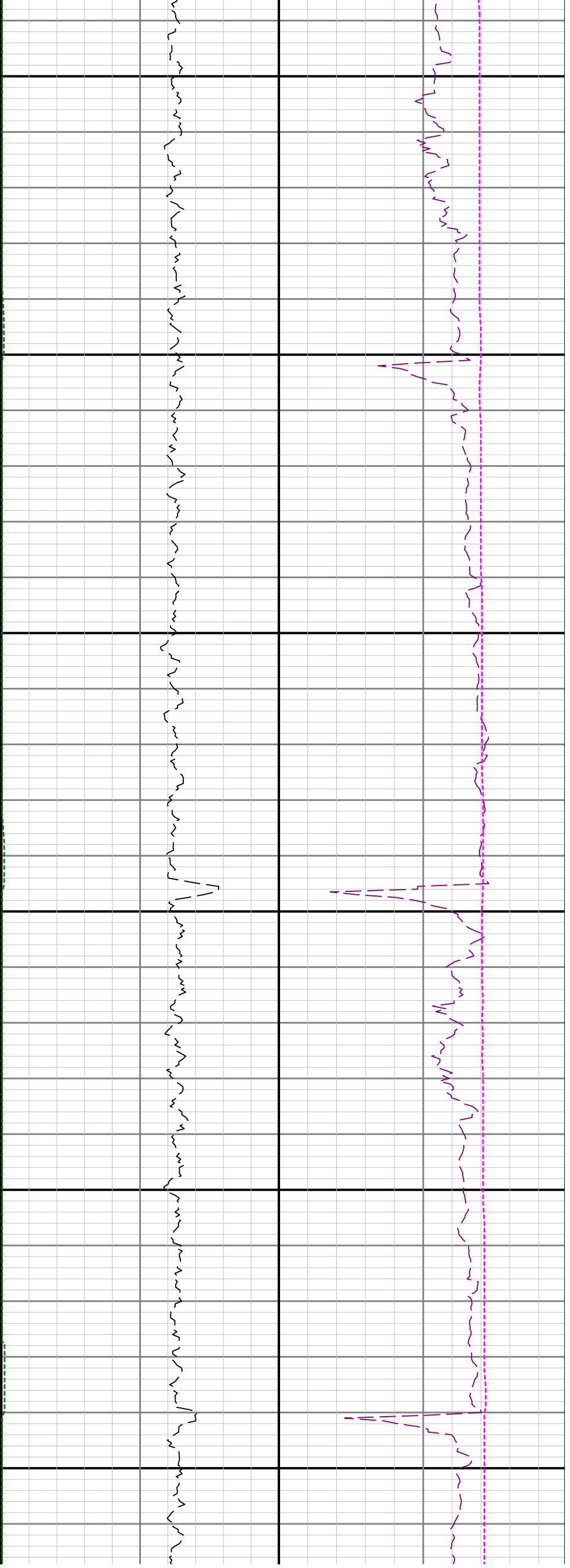


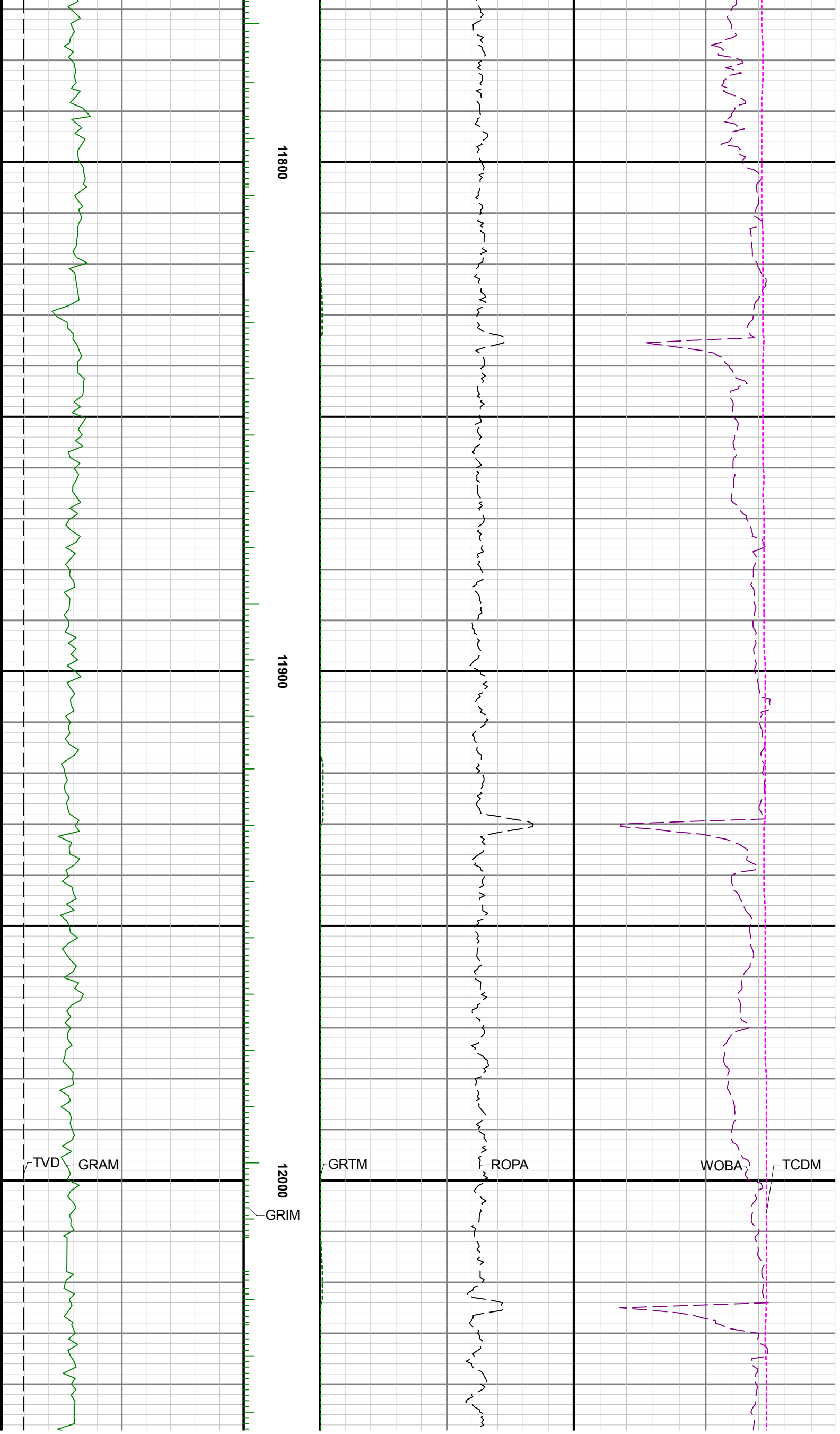


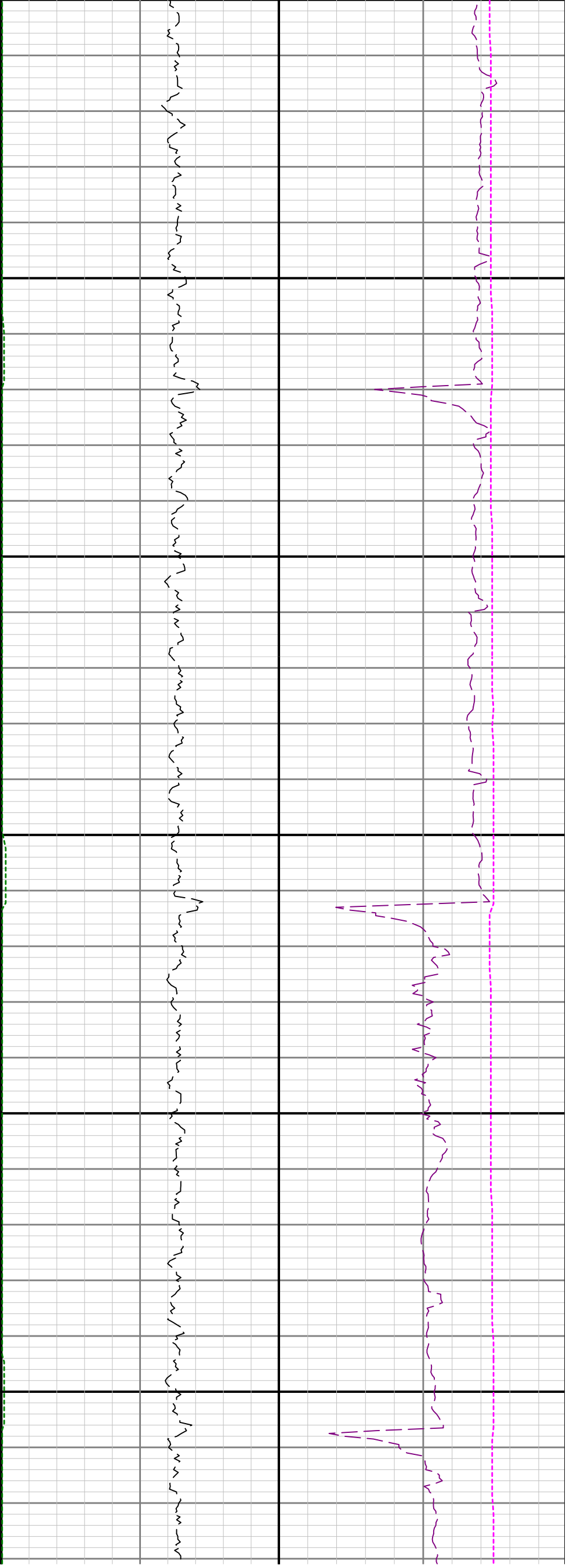
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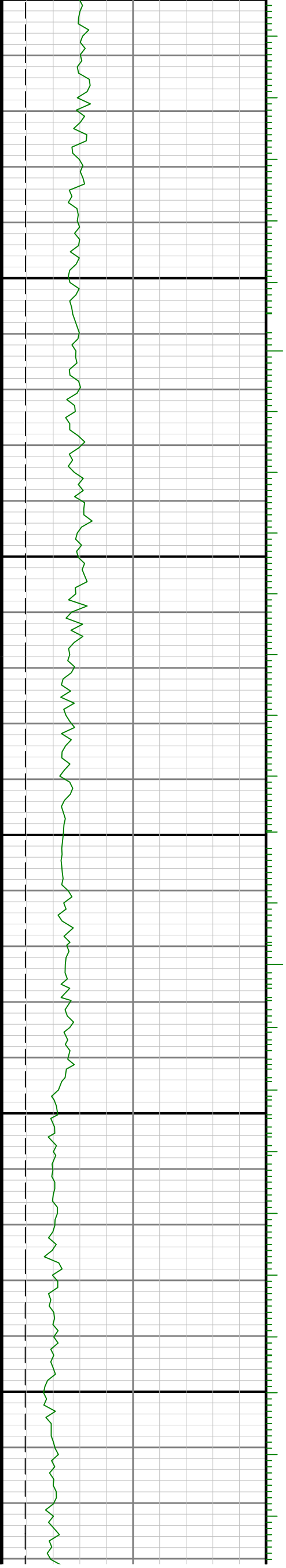


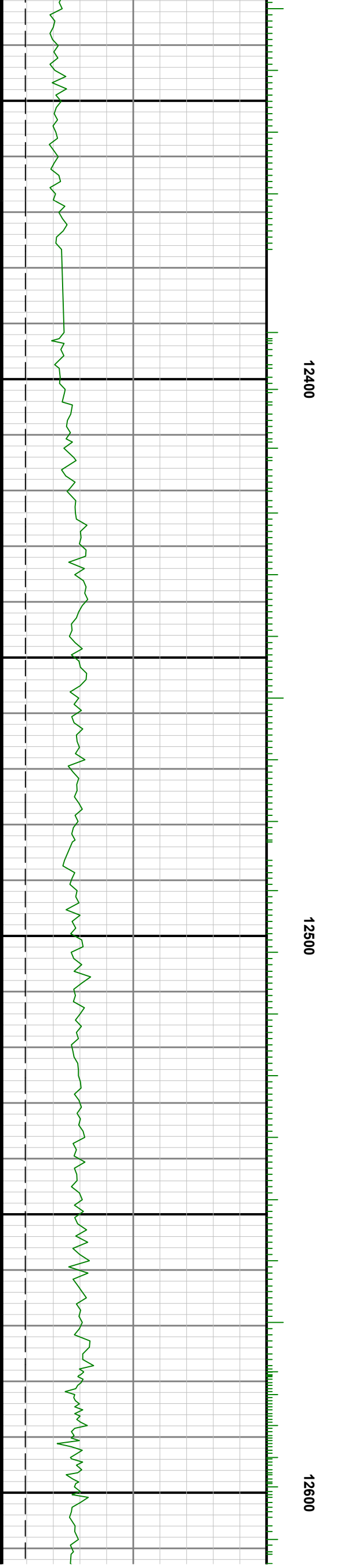
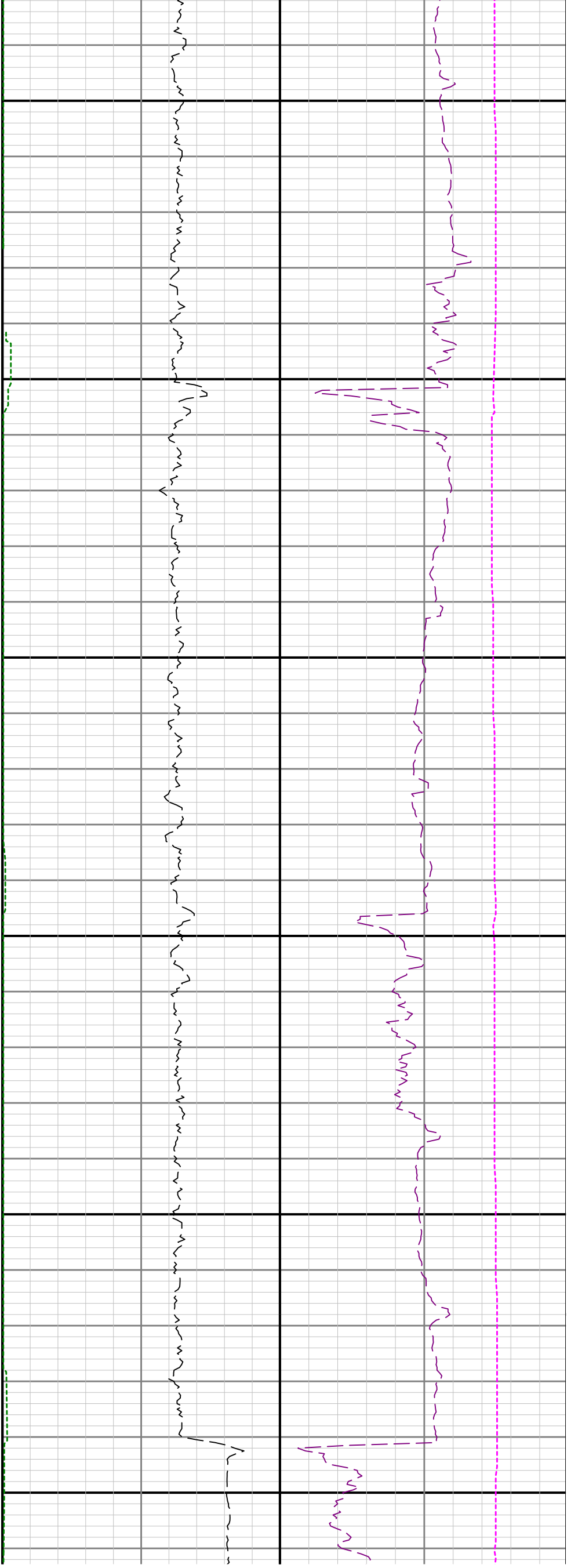


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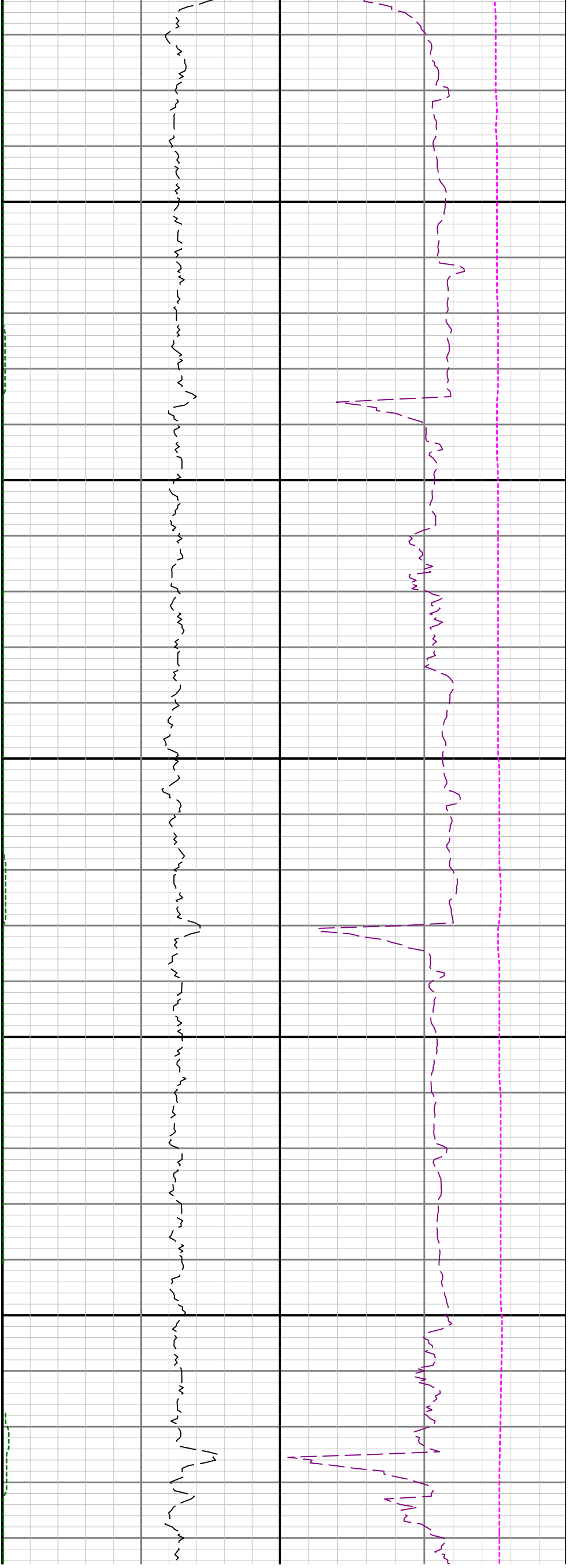
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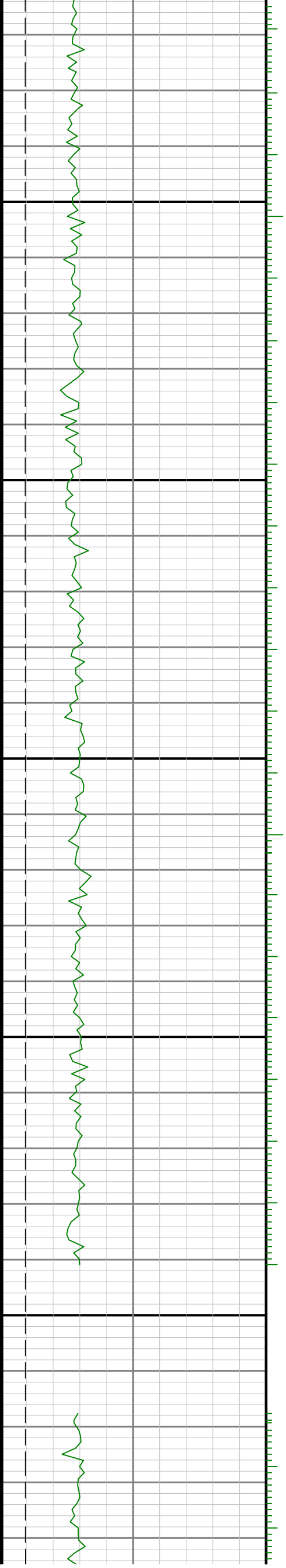


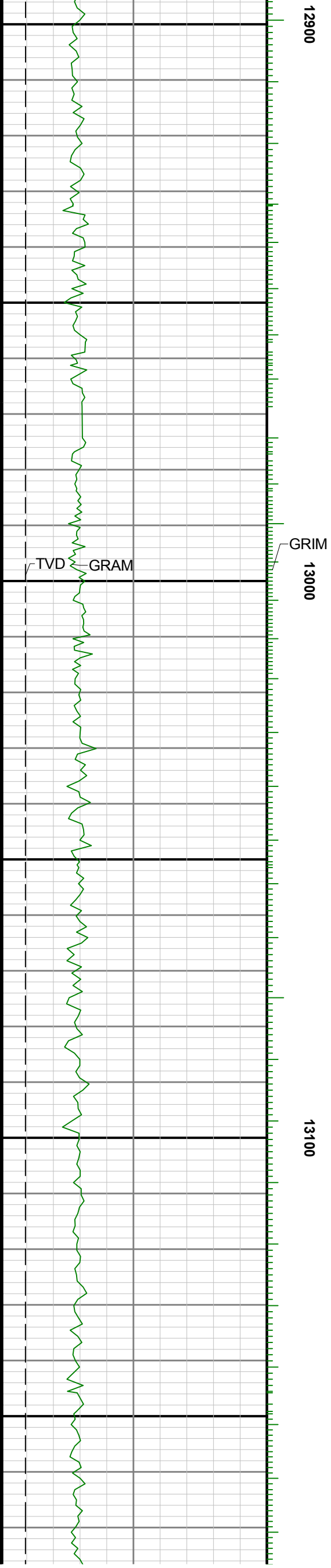
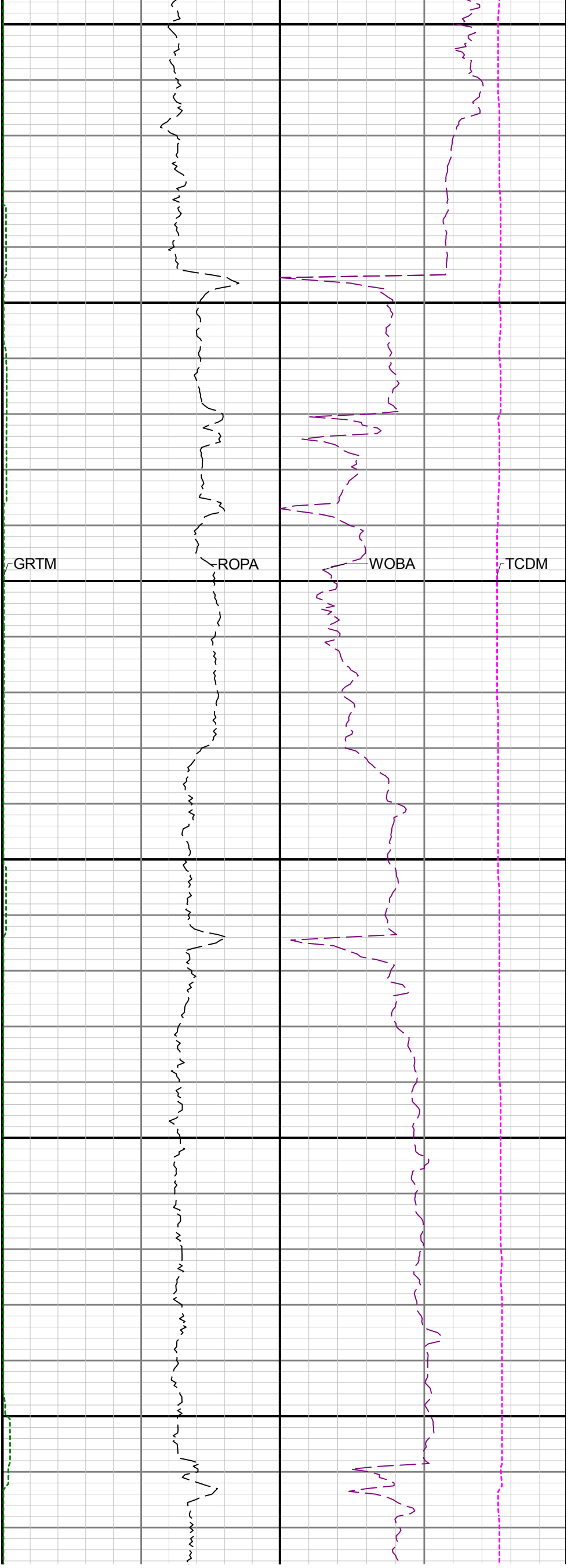


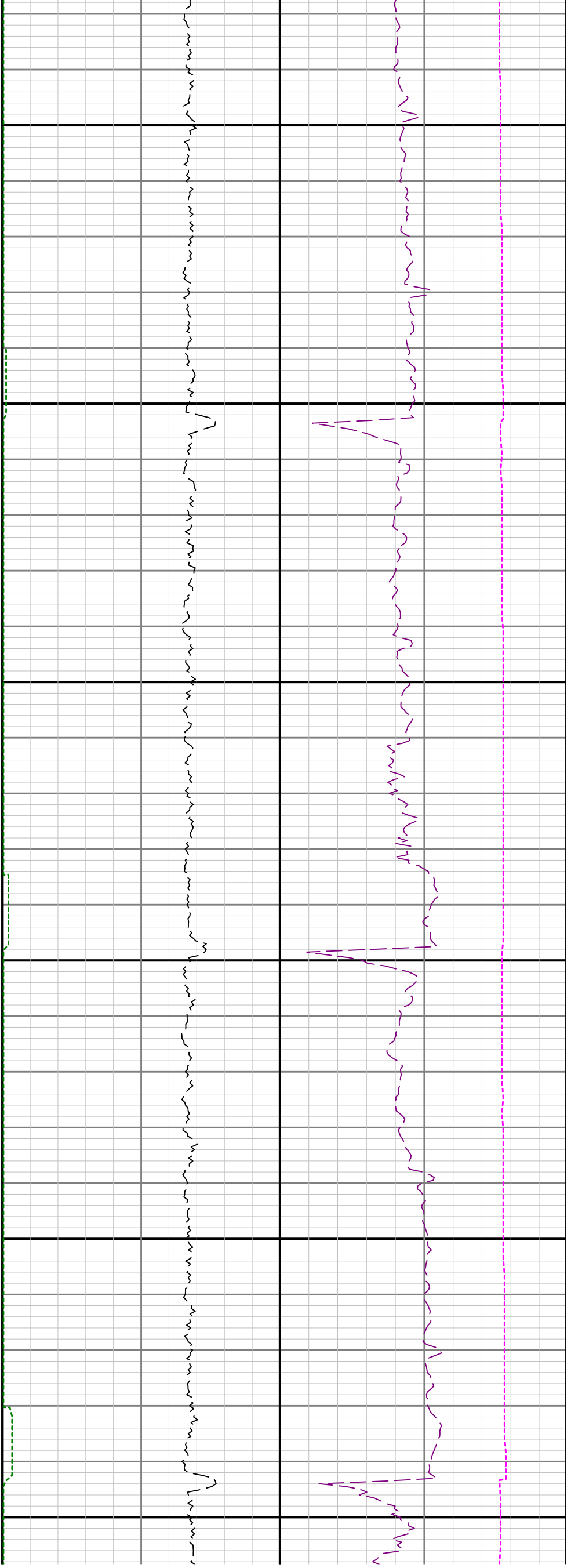


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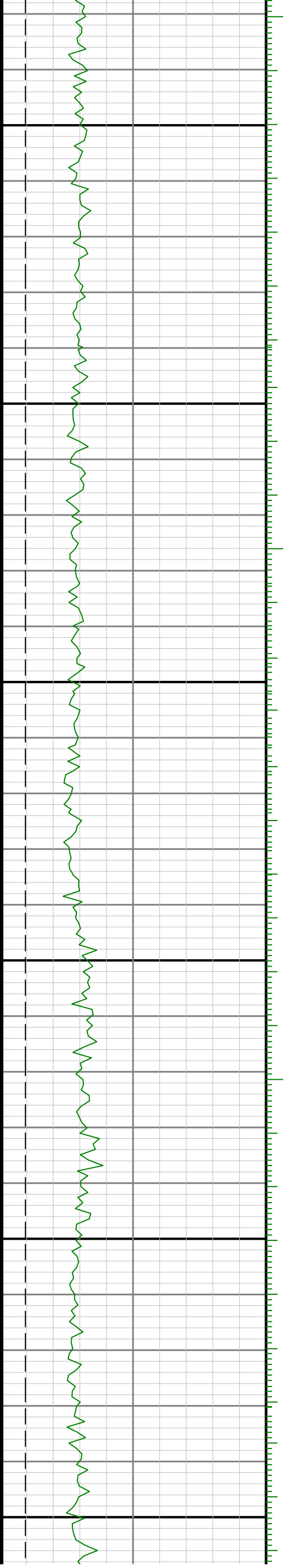


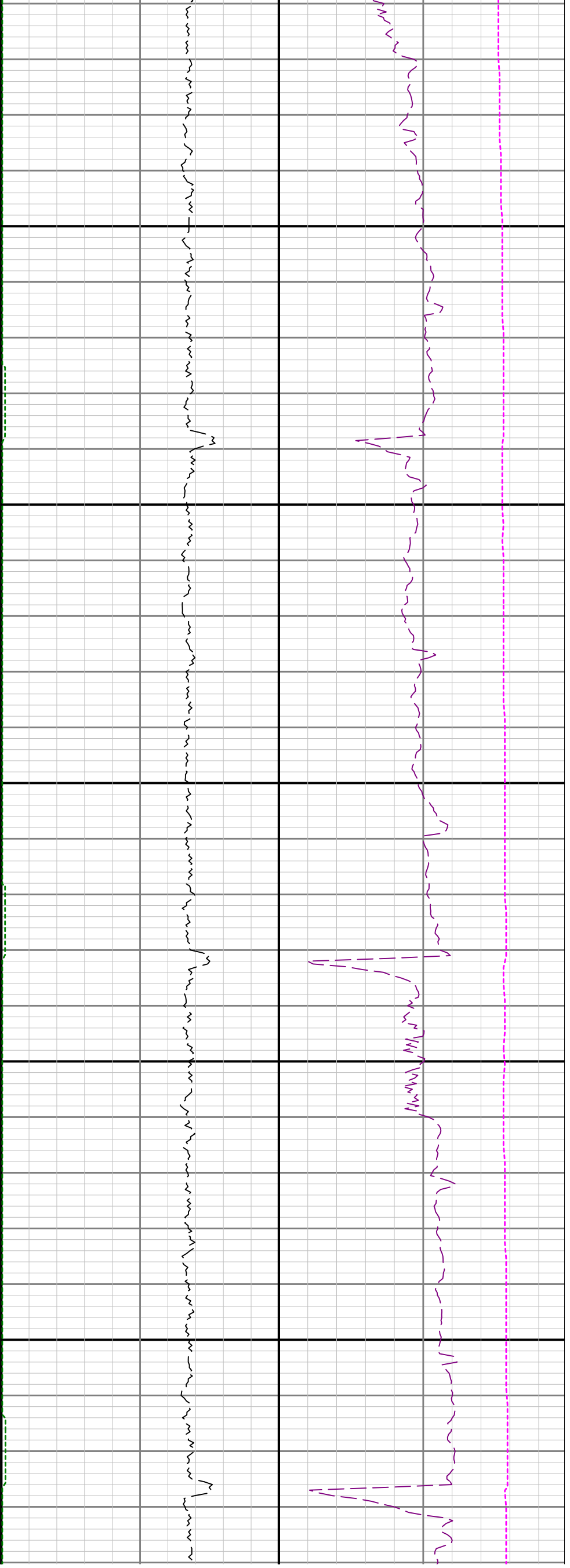


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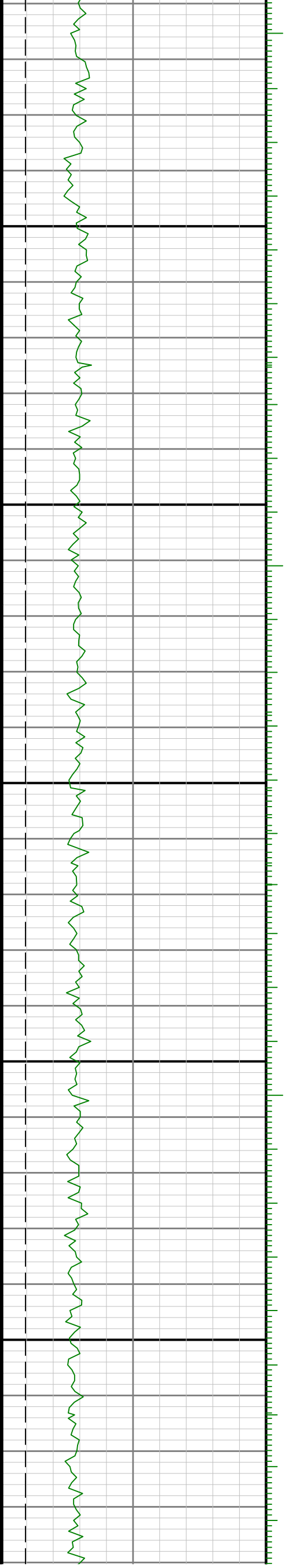


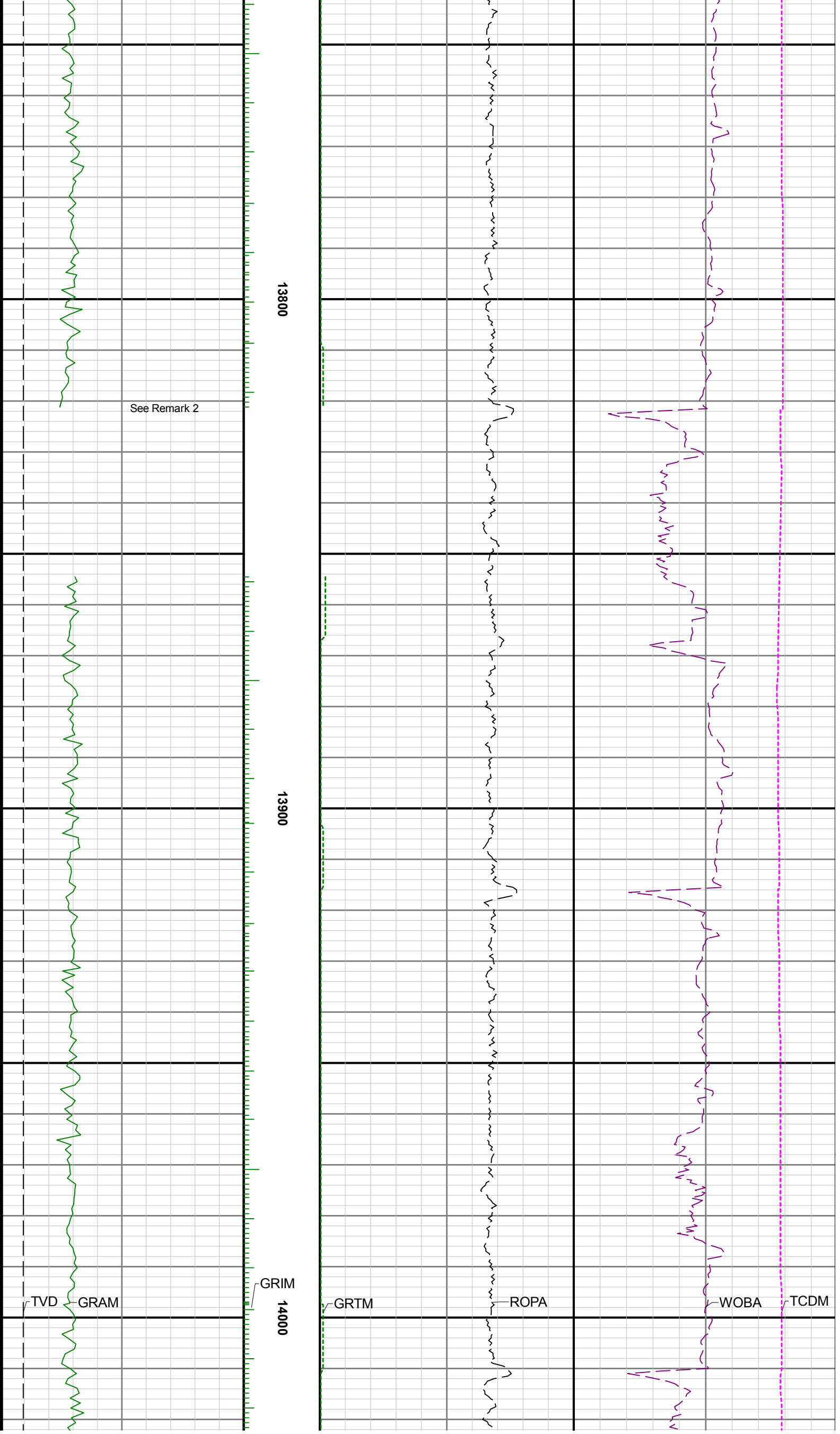


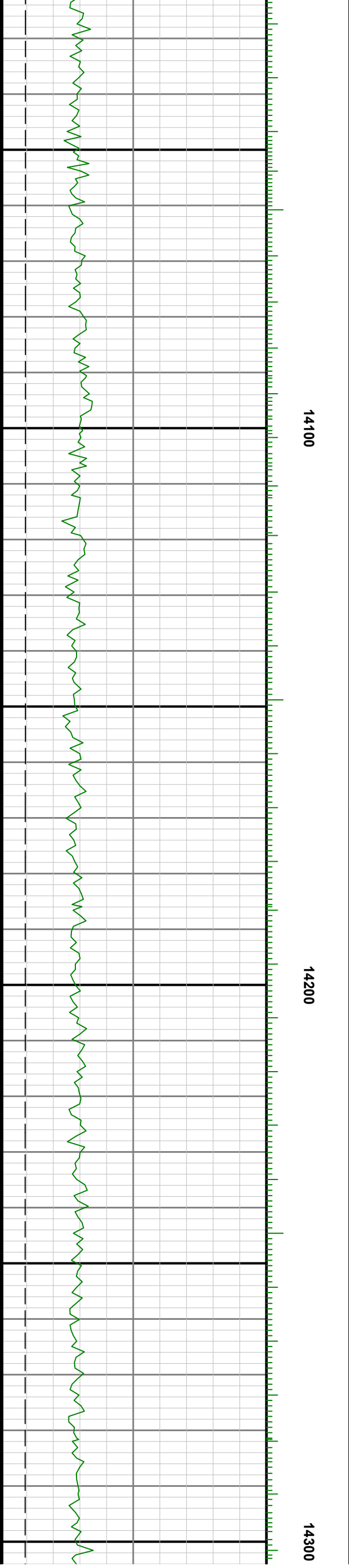
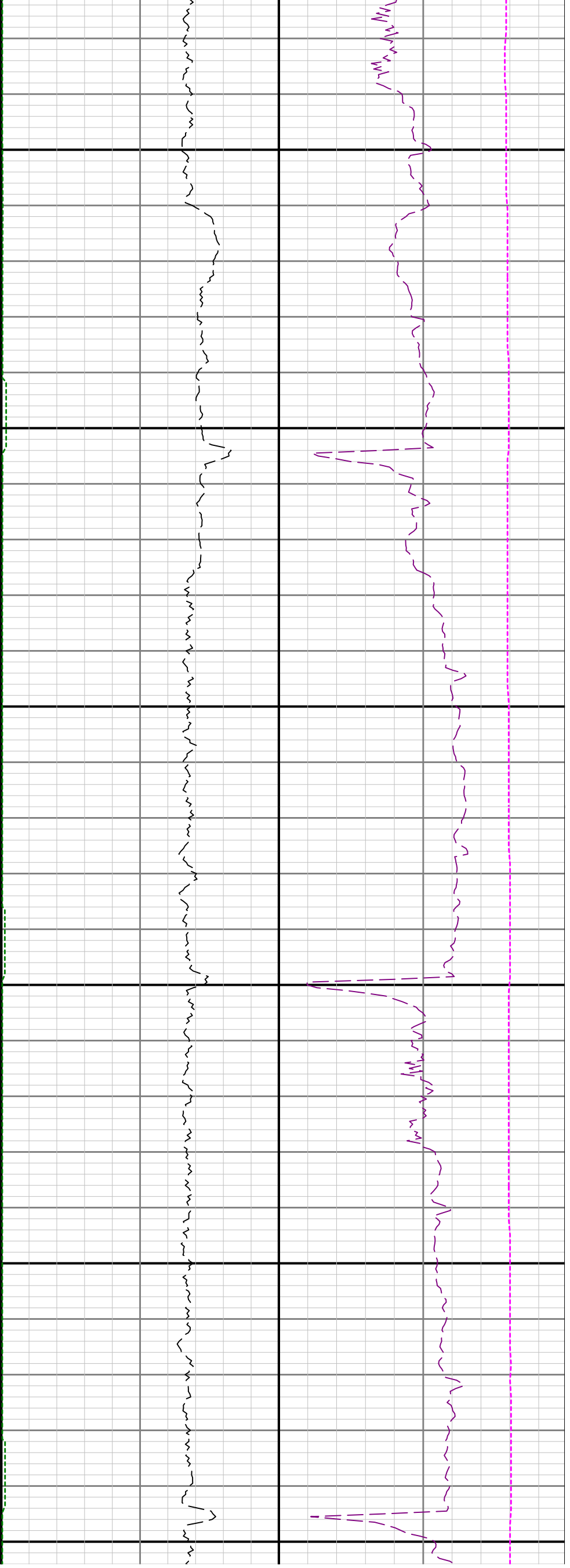
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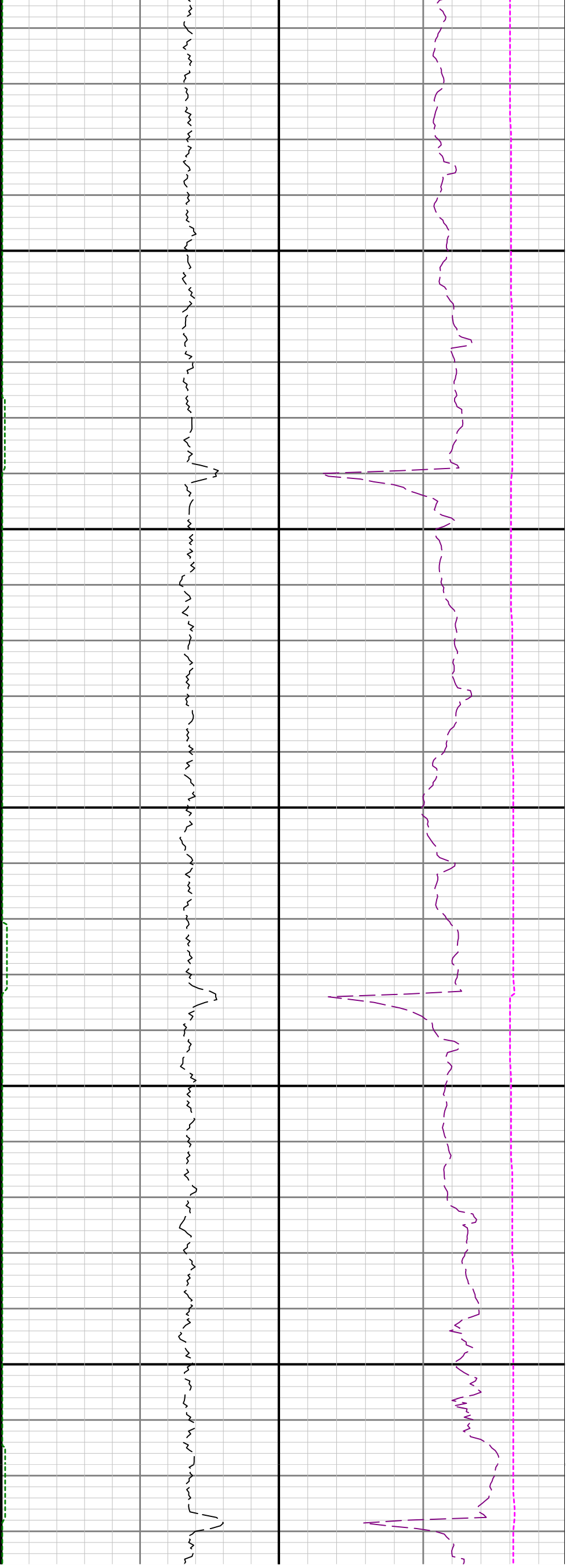
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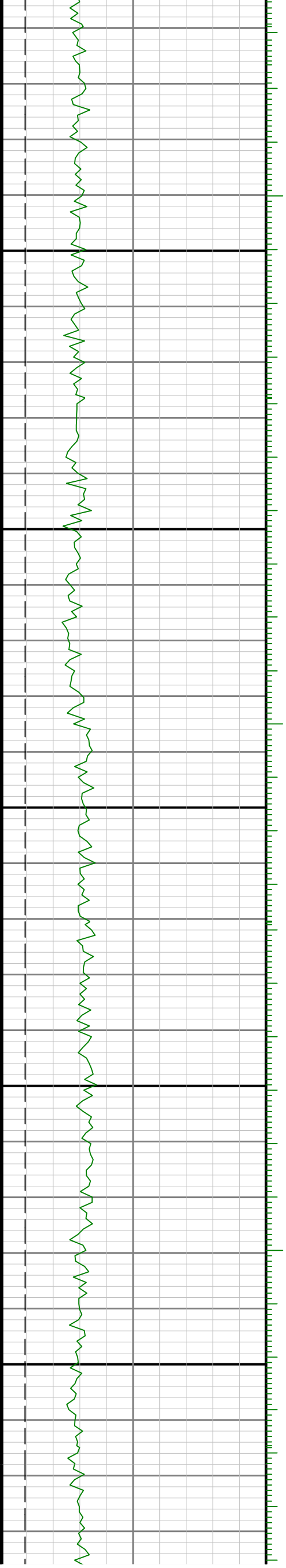


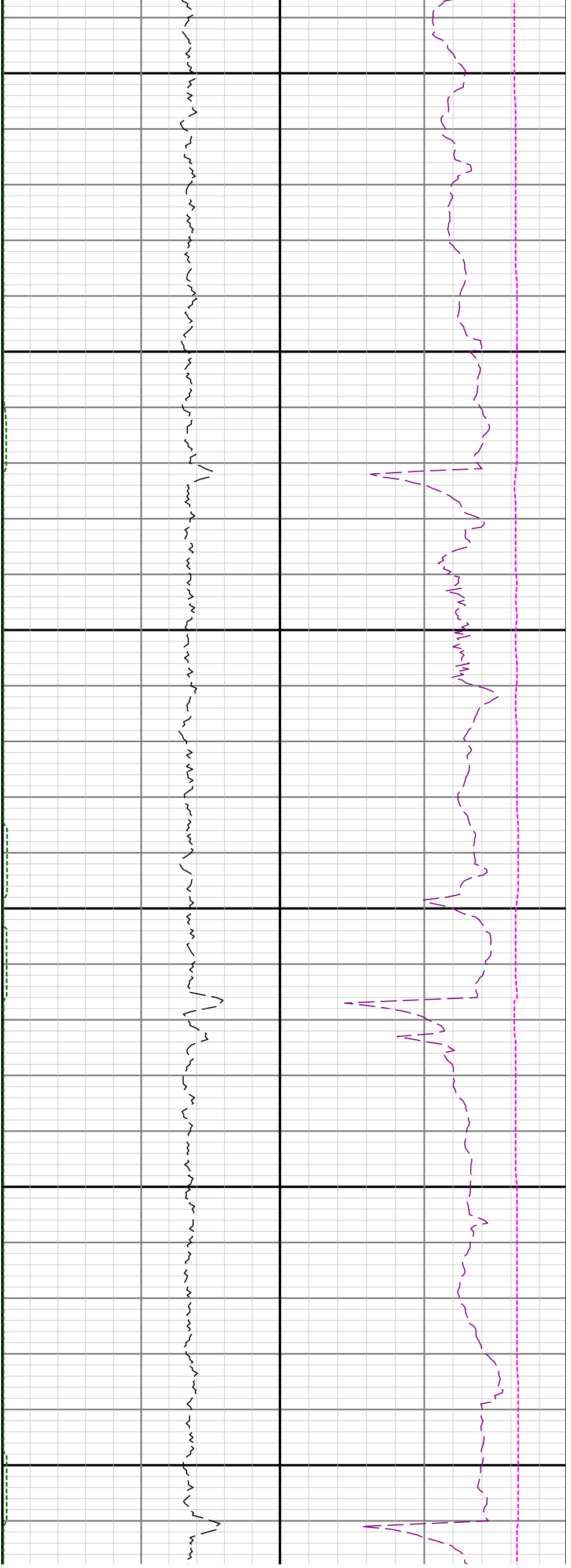




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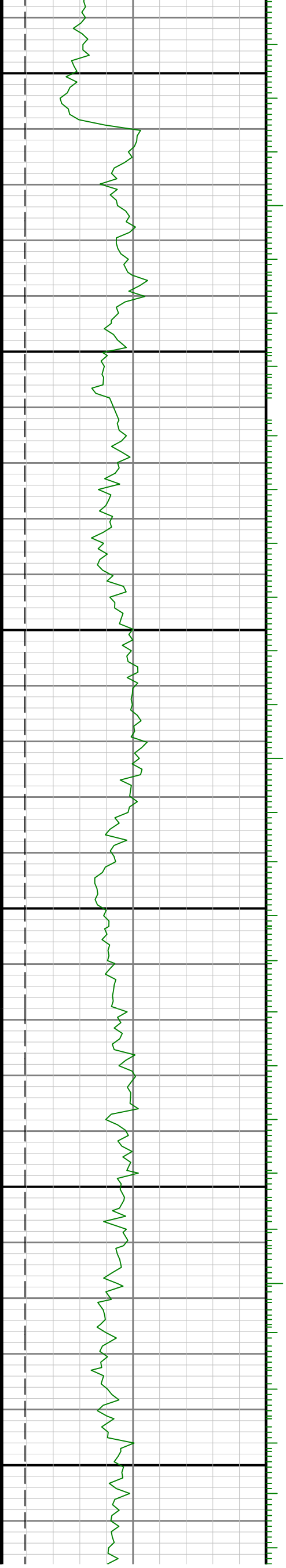




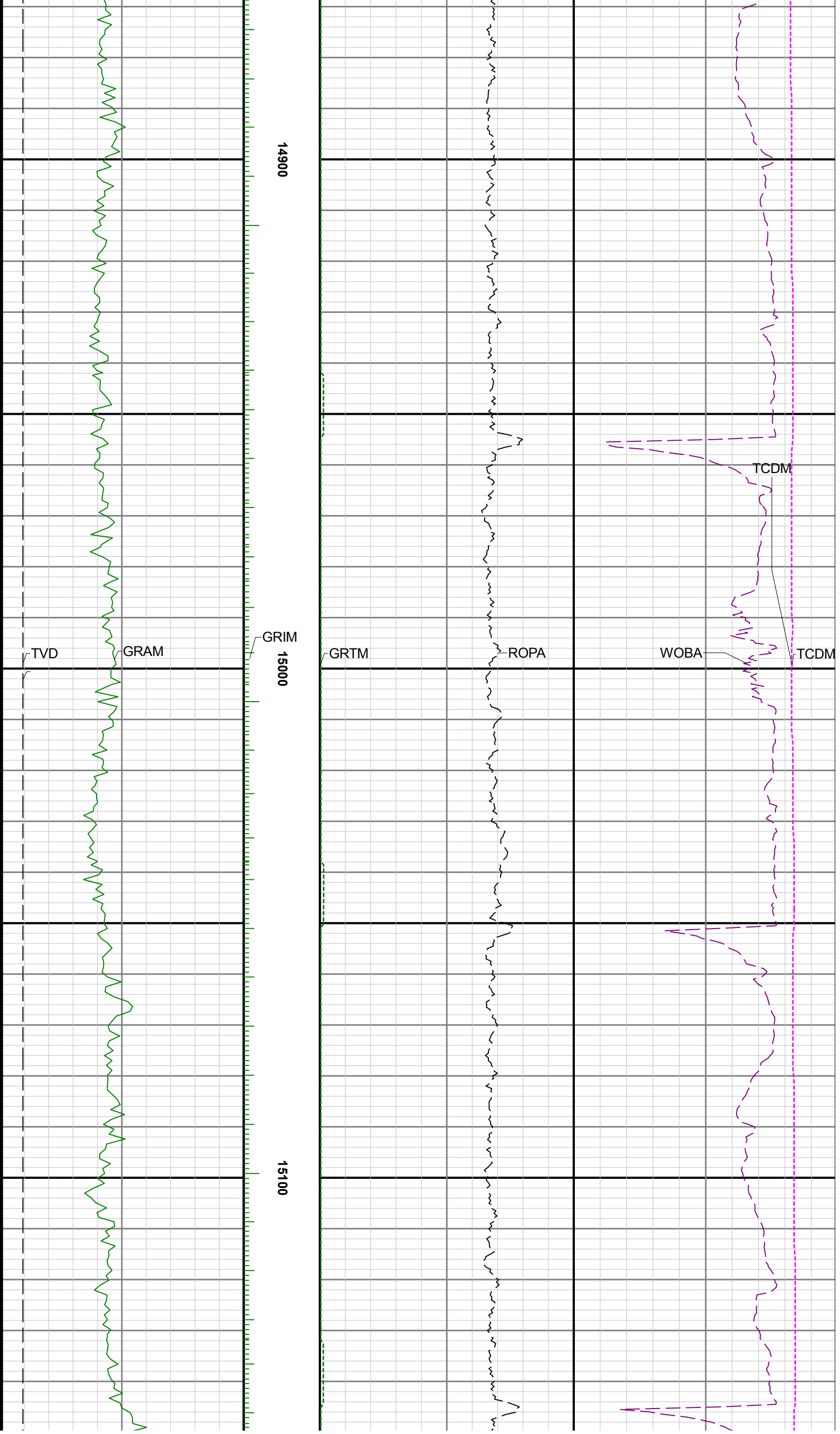
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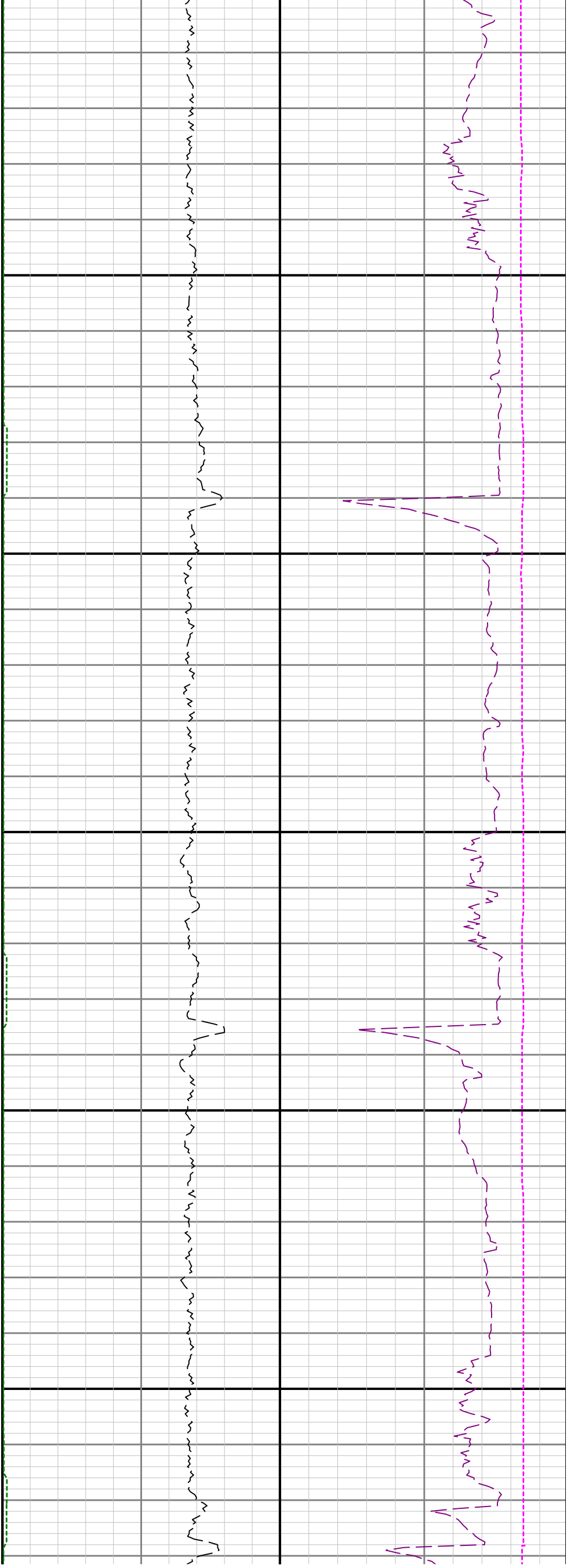
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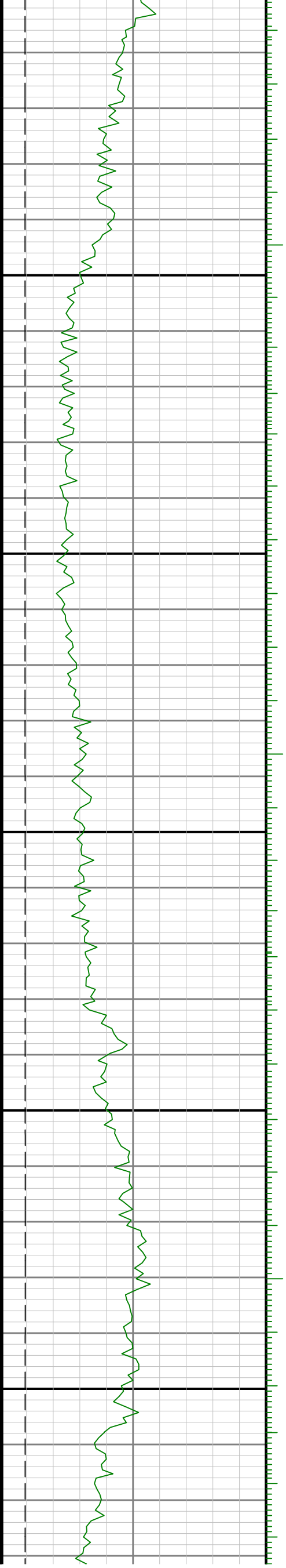


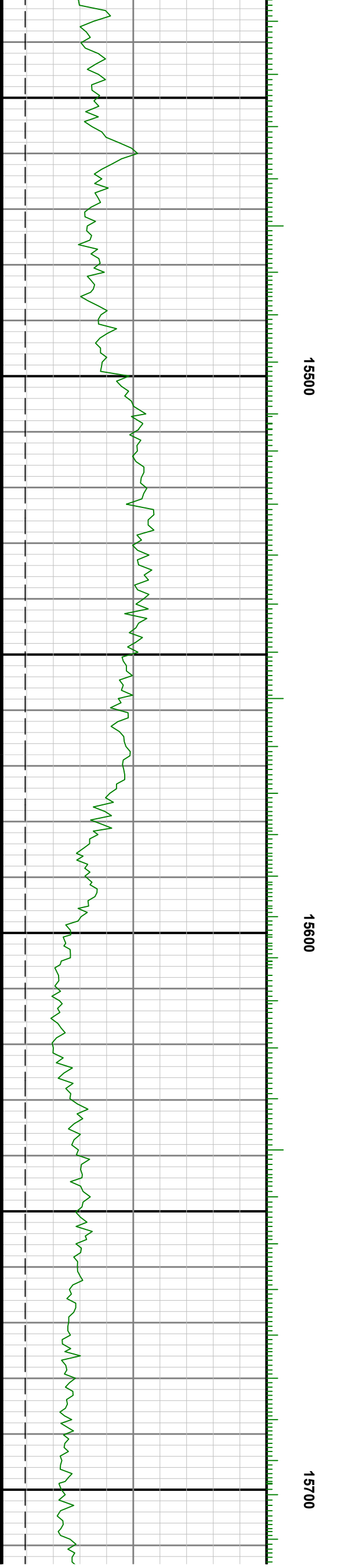
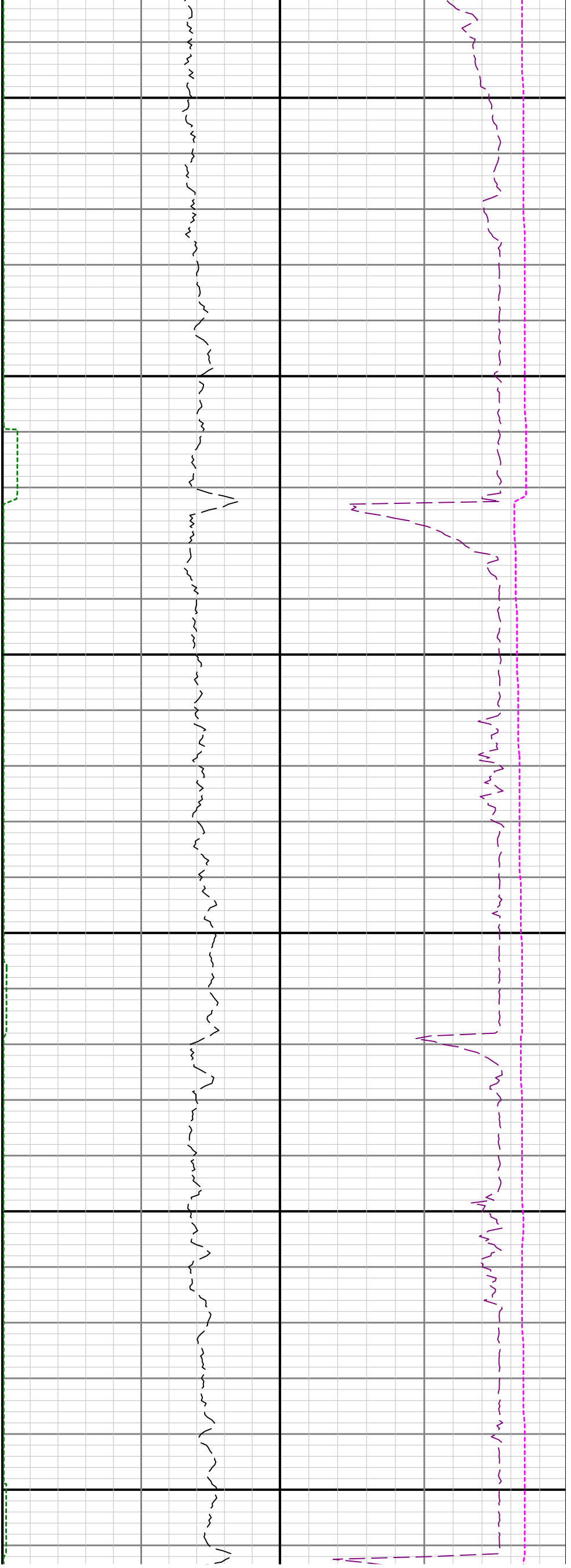


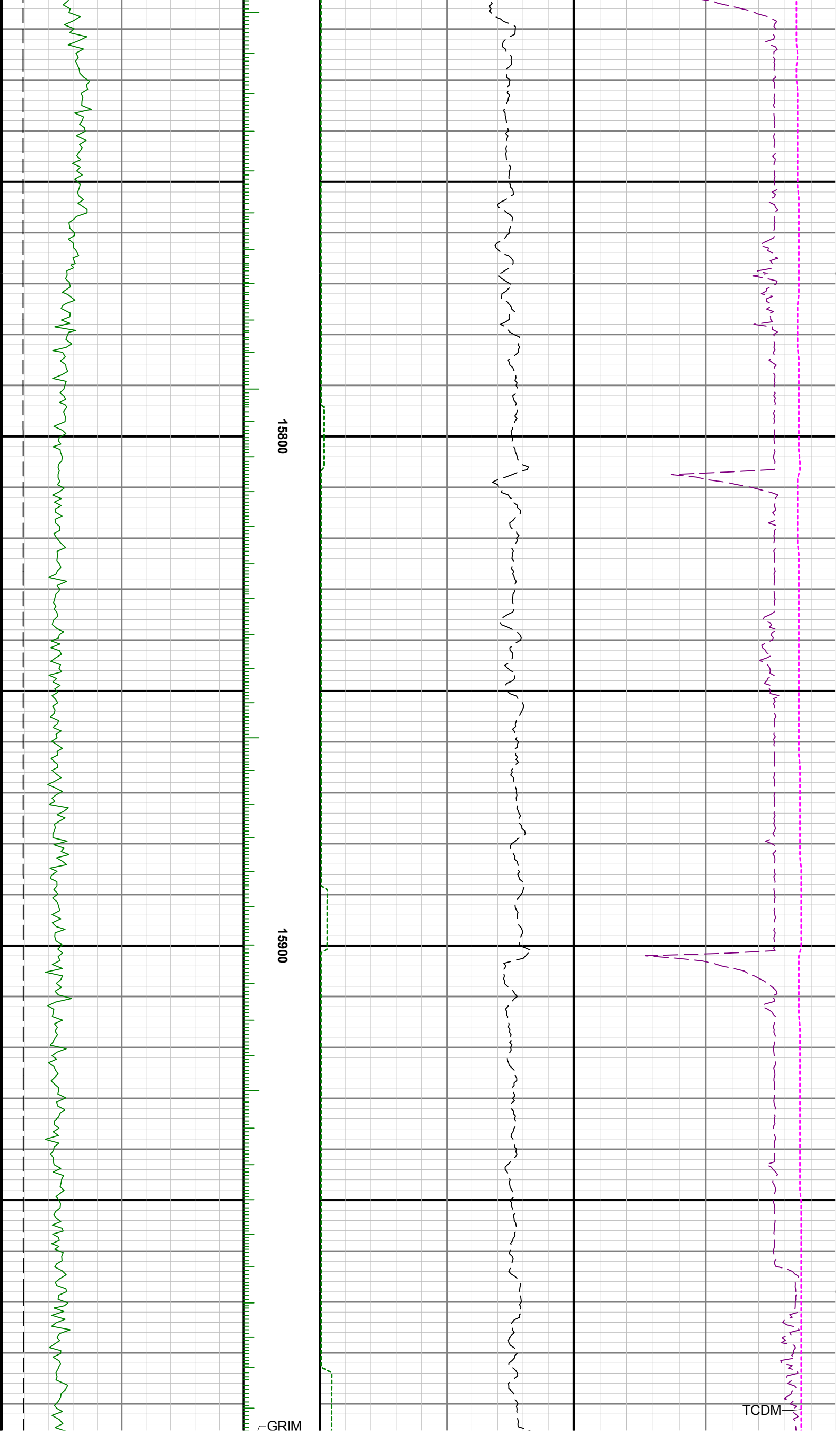
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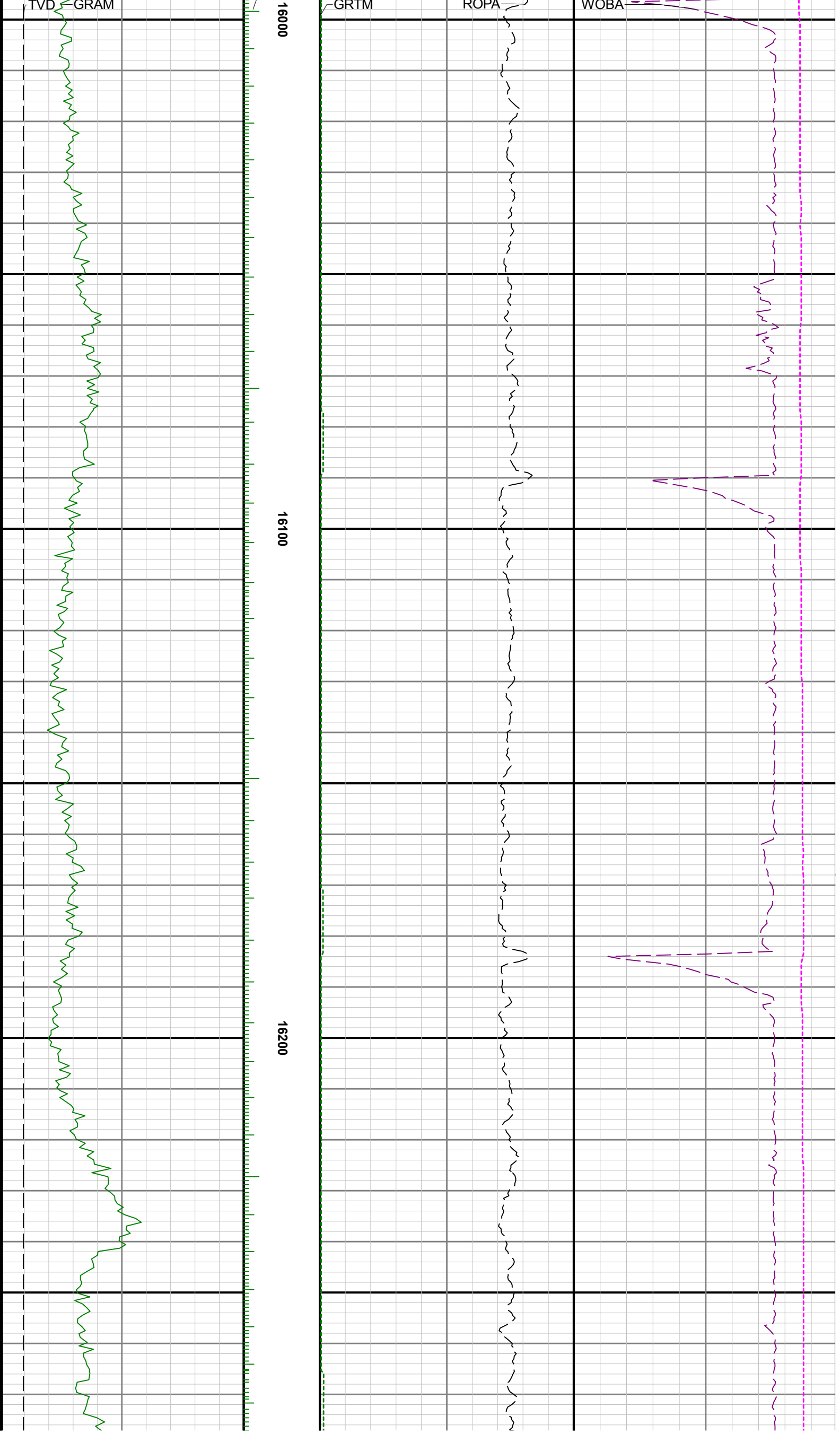
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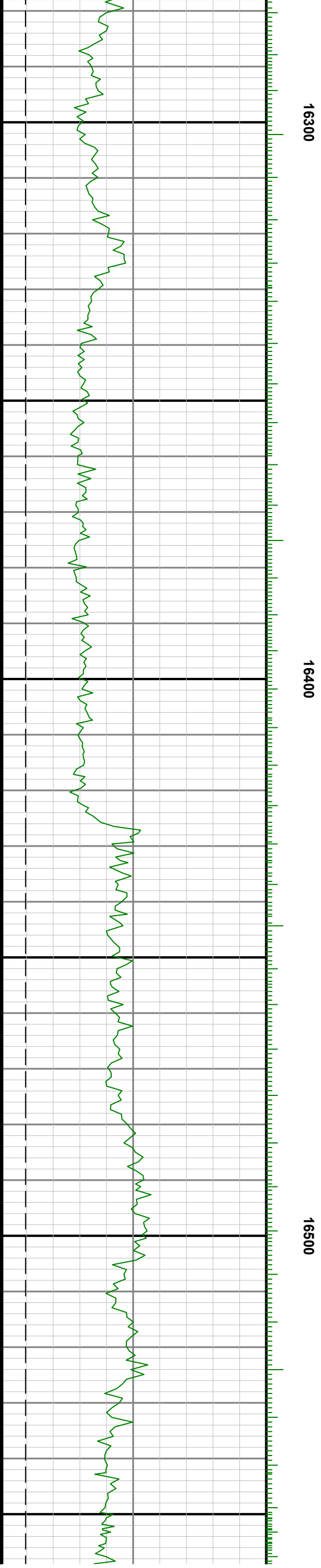
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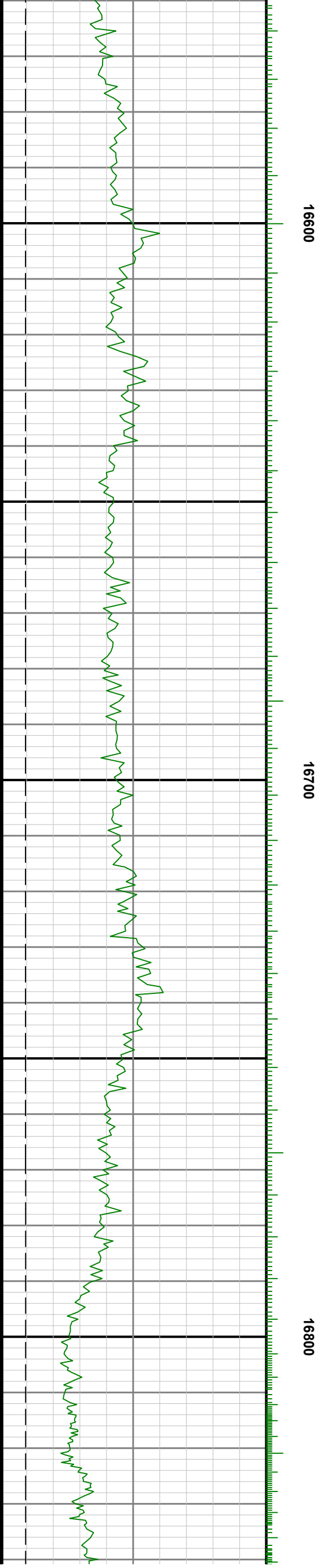
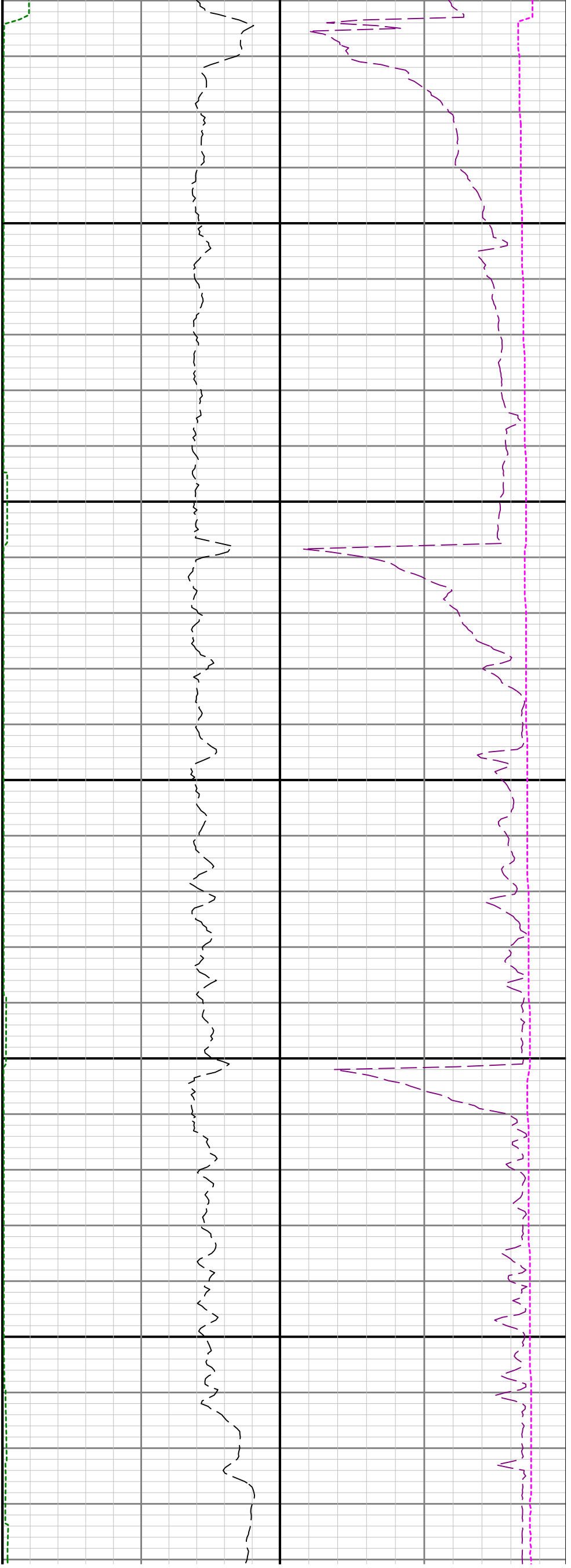


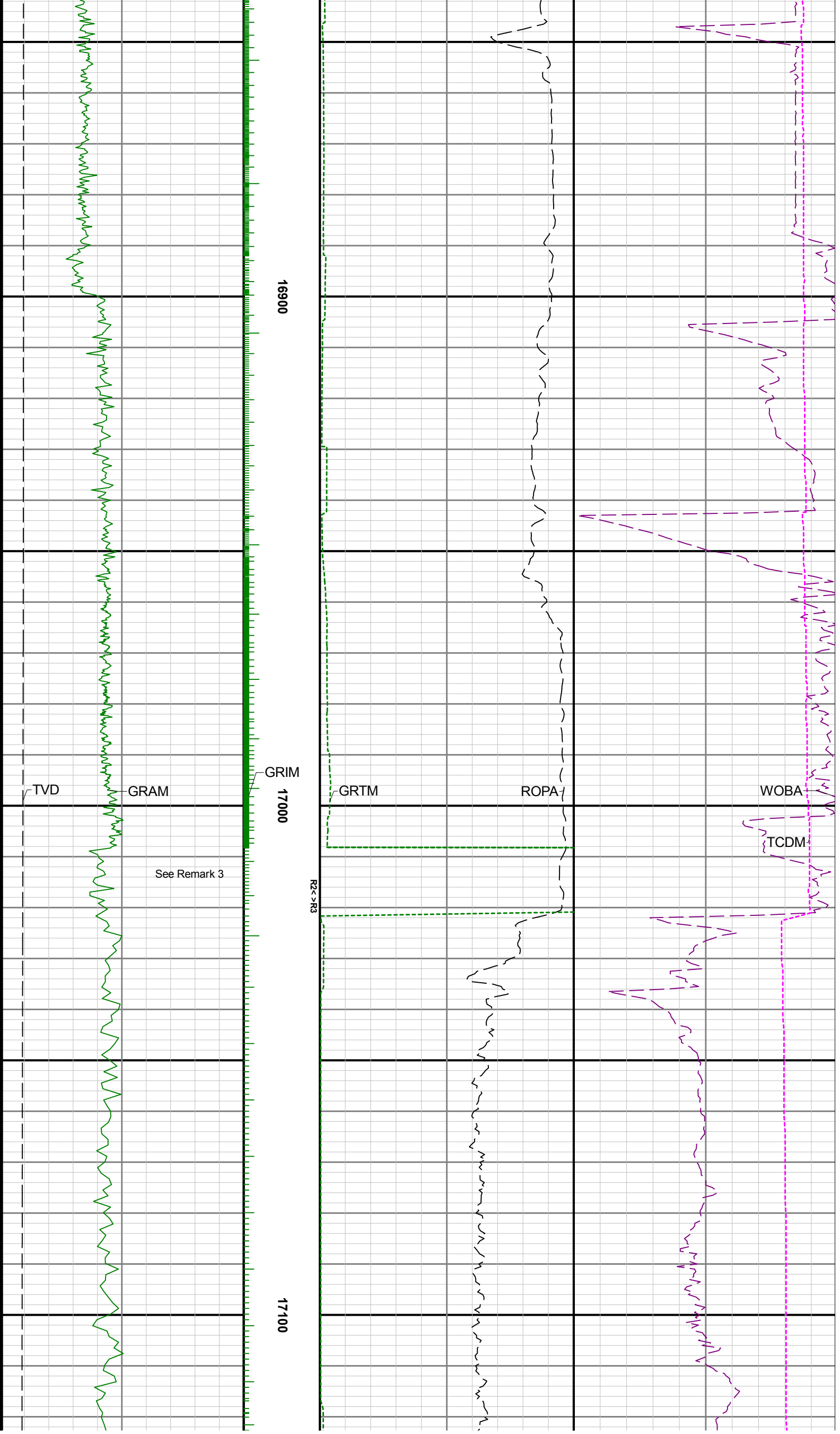




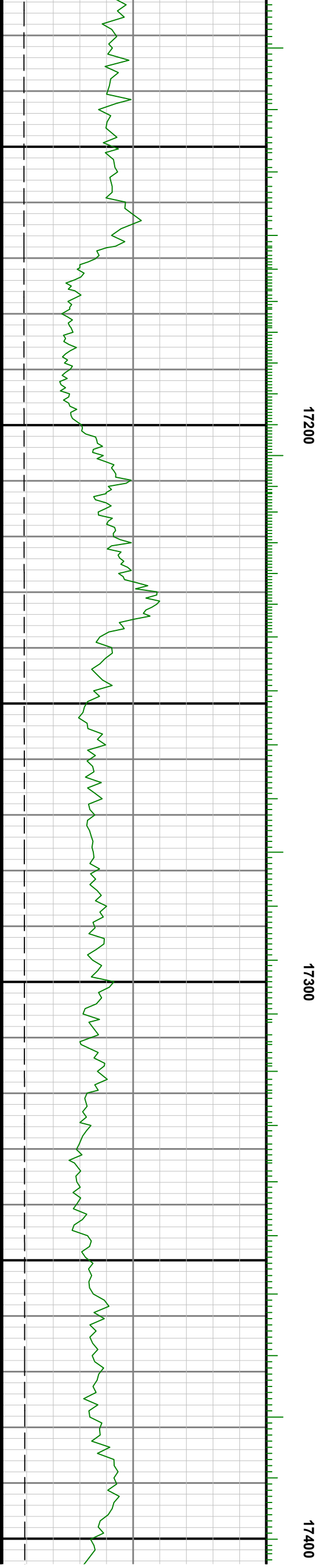


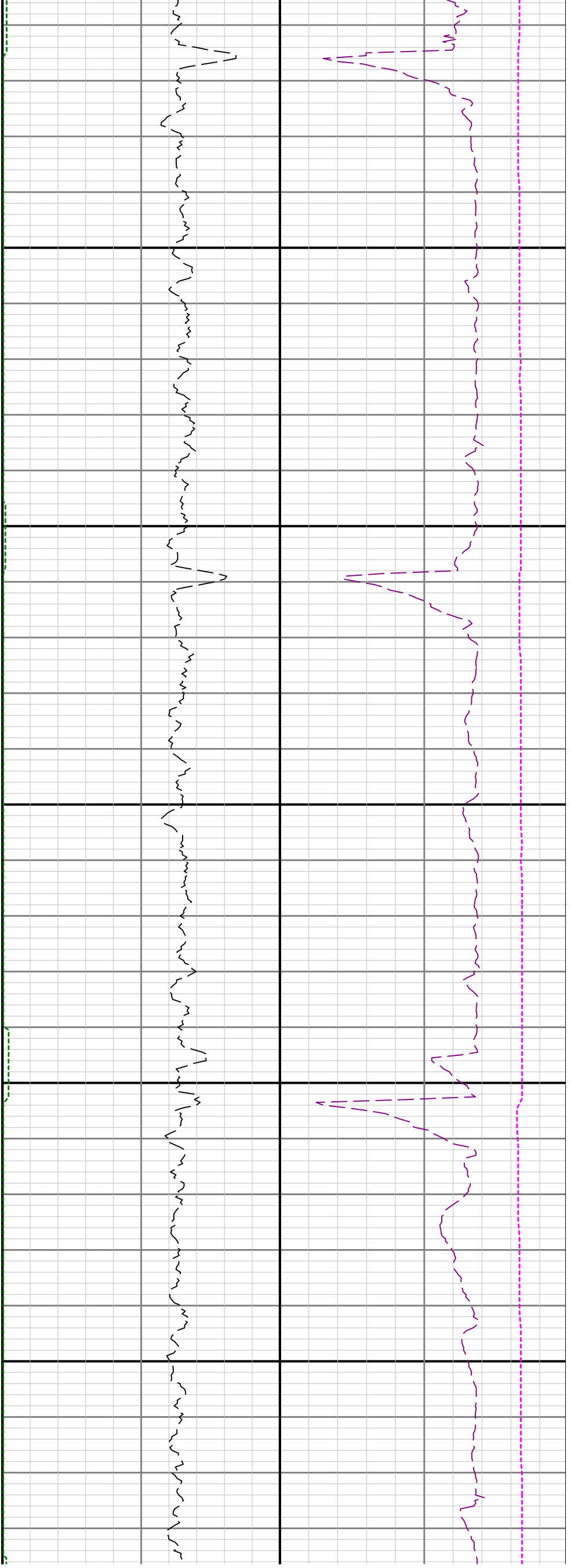












17500

17600

