



LWD MEMORY LOG

Gamma Ray

Scale:

1:240

Measured Depth

Company: Noble Energy
Well: Reveille A33-720
Field: Wattenberg
County: Weld
Country: United States

Driller's Depth

State: Colorado

Status: Final Print

API No: 05-123-50790-00

Job ID: 110727944

Permanent Datum (P.D.): Mean Sea Level

Log Measured From: Rig Floor

Dates

From: 2021-02-21
To: 2021-02-24
Spud: 2021-02-04

Borehole Record

Hole Size (in) From (ft) To (ft) Size (in) Weight (lb/ft) From (ft) To (ft)

13.500 30.00 1938.00 9.625 36.00 30.00 1928.00

8.500 1938.00 17500.00 30.00 17487.00 7.12

8.500 1938.00 17500.00 30.00 17487.00 7.12

Mud Record

Type From (ft) To (ft) Hole Size (in) Interval (ft) Inc | Az (Start) Inc | Az (End)

Oil Based Mud 1938.00 17500.00 8.500 15562.00 0.86 | 229.97 89.82 | 359.98

8.500 1938.00 17500.00 30.00 17487.00 7.12

Acquisition System

Software Version

Cadence RT 5.8
DeliverableGen 5.8.8989.1

Other

Rig: H&P 517
Contractor: Helmerich & Payne Drilling Co
District: RMA Unit: D&E

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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 (h)
						Top (ft)	Bottom (ft)	From (ft)	To (ft)	Start Logging	End Logging	
1	1	8.500	PDC	3.00	AutoTrak Curve	1938.00	6612.00	1938.00	6625.00	2021-02-21 12:30	2021-02-22 07:41	17.18
2	2	8.500	PDC	3.00	AutoTrak Curve	6612.00	17487.54	6625.00	17500.00	2021-02-22 17:56	2021-02-24 09:28	37.67

Crew

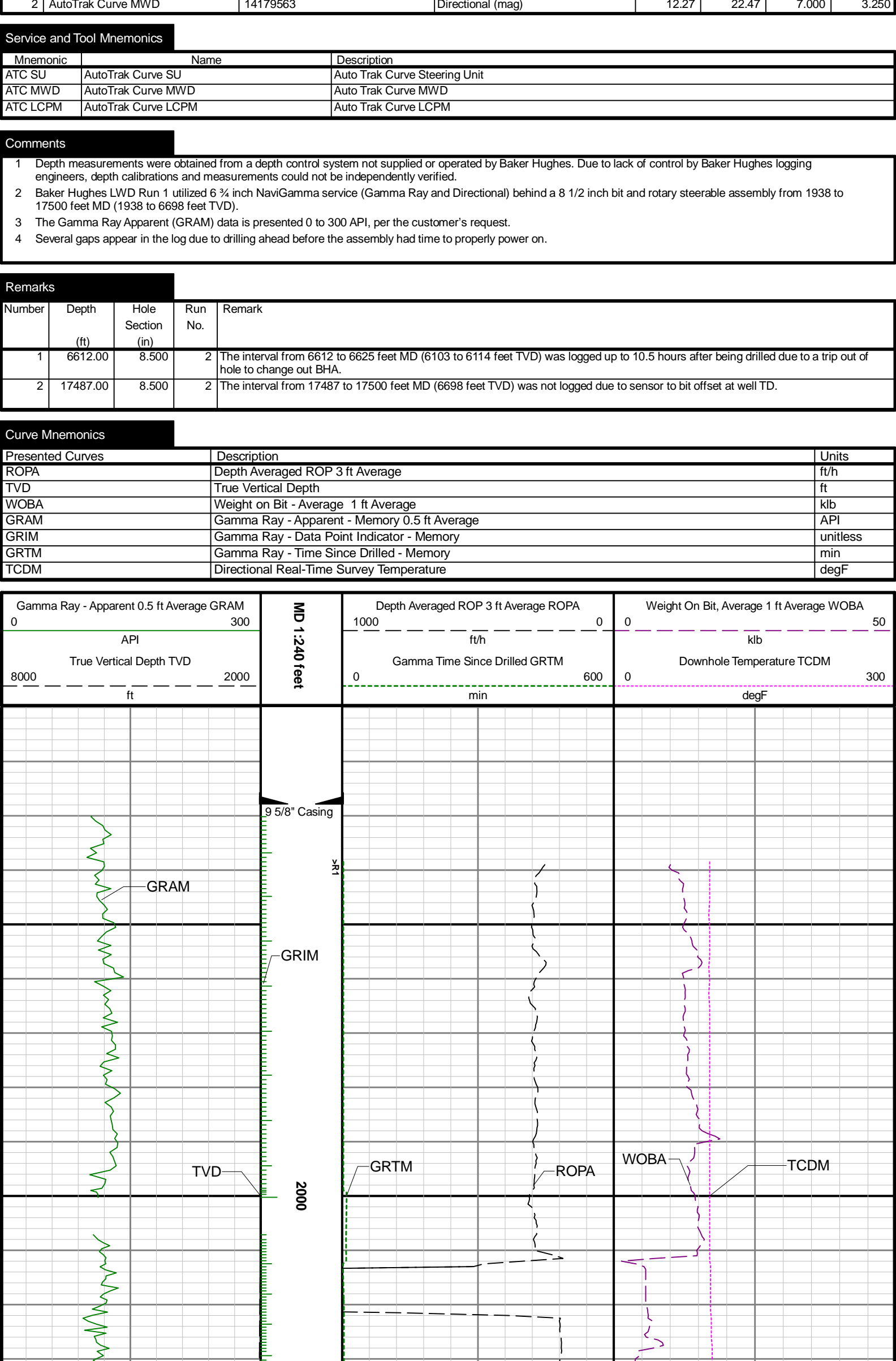
Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite
Tien Bui	2021-02-20	2021-02-24						

Mud Properties Record

Date / Time	Run No.	Depth (ft)	Mud Type	Density (ppg)	Viscosity (cP)	pH	Fluid Loss (cm3)	Oil / Water	Source	Total Chlorides (ppm)	K+ (%)
2021-02-20 17:40	1	1938.00	Oil Based Mud	9.2	11	N/A	19.5	79.5/20.5	Active Pit	27000	0.00
2021-02-22 11:26	2	6625.00	Oil Based Mud	9.5	12	N/A	16.2	77.9/22.1	Active Pit	28500	0.00

Equipment and Service Data

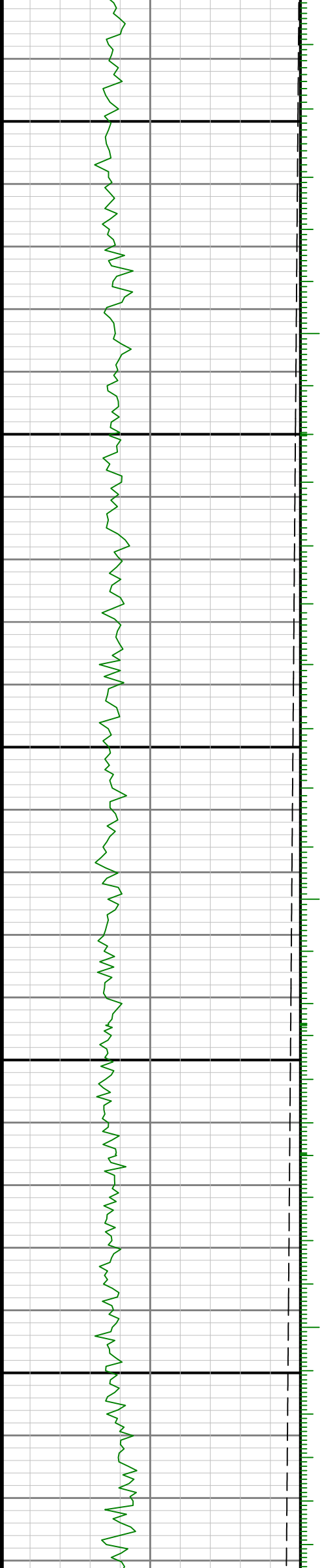
Run No.	Tool	Serial Number	Measurement	Sensor Offset (ft)	Bit Offset (ft)	Max O.D. (in)	Min I.D. (in)
1	AutoTrak Curve Steering Unit	14262247	Near Bit VSS	5.93	6.79	7.000	4.330
1	AutoTrak Curve Steering Unit	14262247	Near Bit Inclination	5.93	6.79	7.000	4.330
1	AutoTrak Curve MWD	12570158	Gamma (single)	2.75	12.96	7.000	3.250
1	AutoTrak Curve MWD	12570158	Directional (mag)	12.27	22.48	7.000	3.250
2	AutoTrak Curve Steering Unit	15103421	Near Bit Inclination	5.93	6.79	7.000	4.330
2	AutoTrak Curve Steering Unit	15103421	Near Bit VSS	5.93	6.79	7.000	4.330
2	AutoTrak Curve MWD	14179563	Gamma (single)	2.76	12.96	7.000	3.250

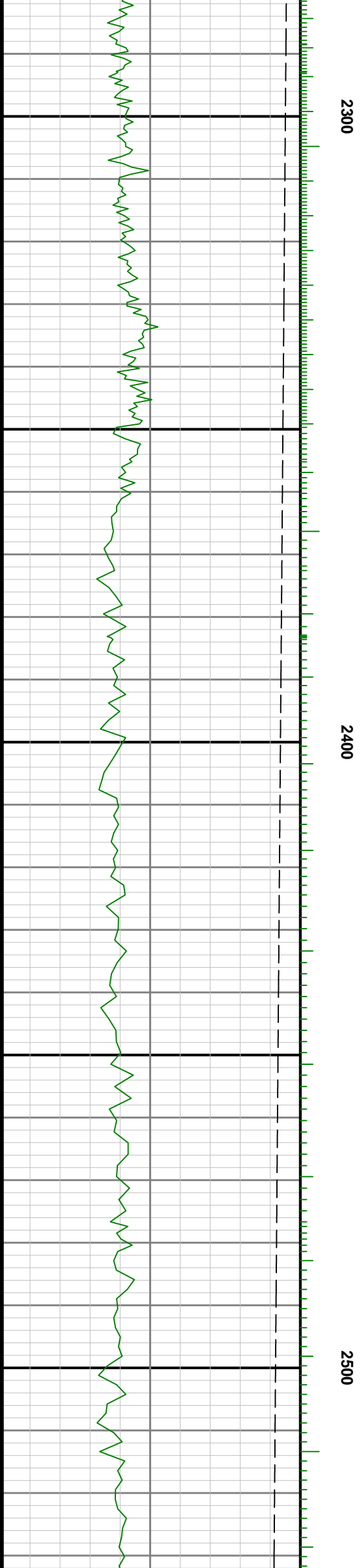
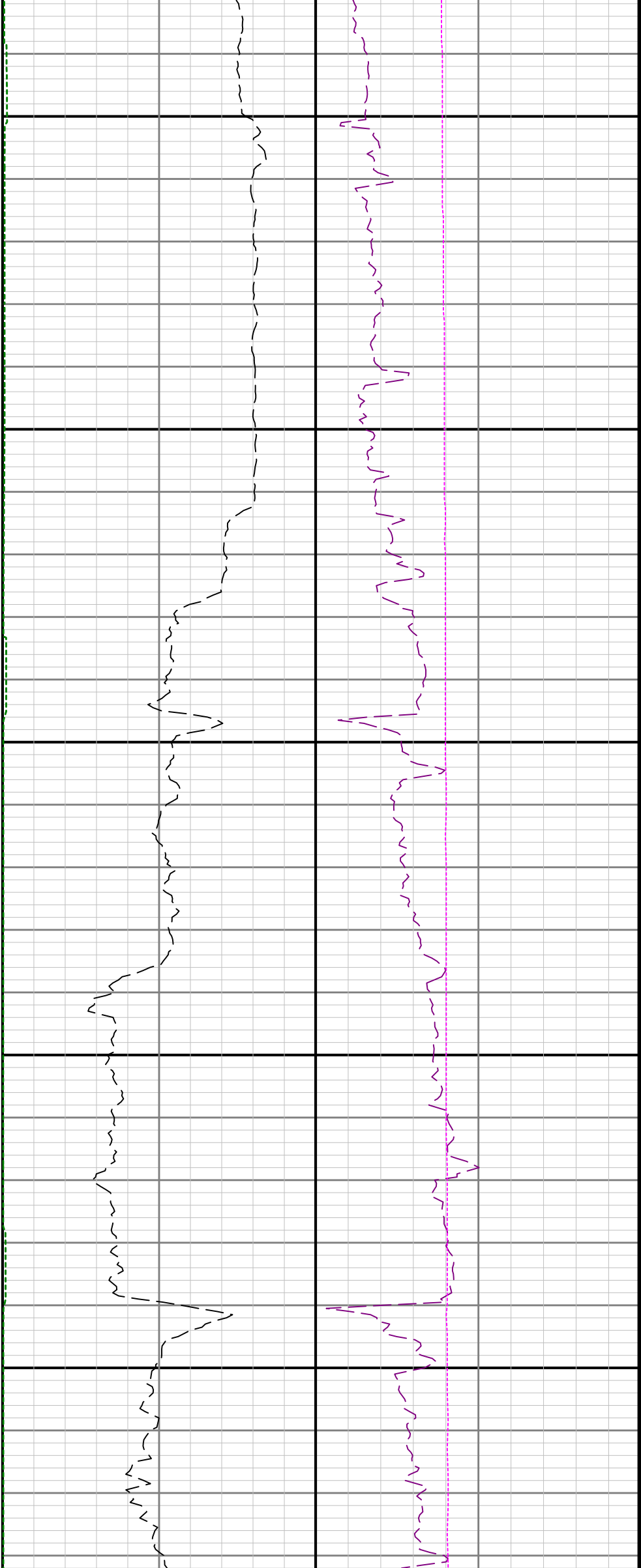


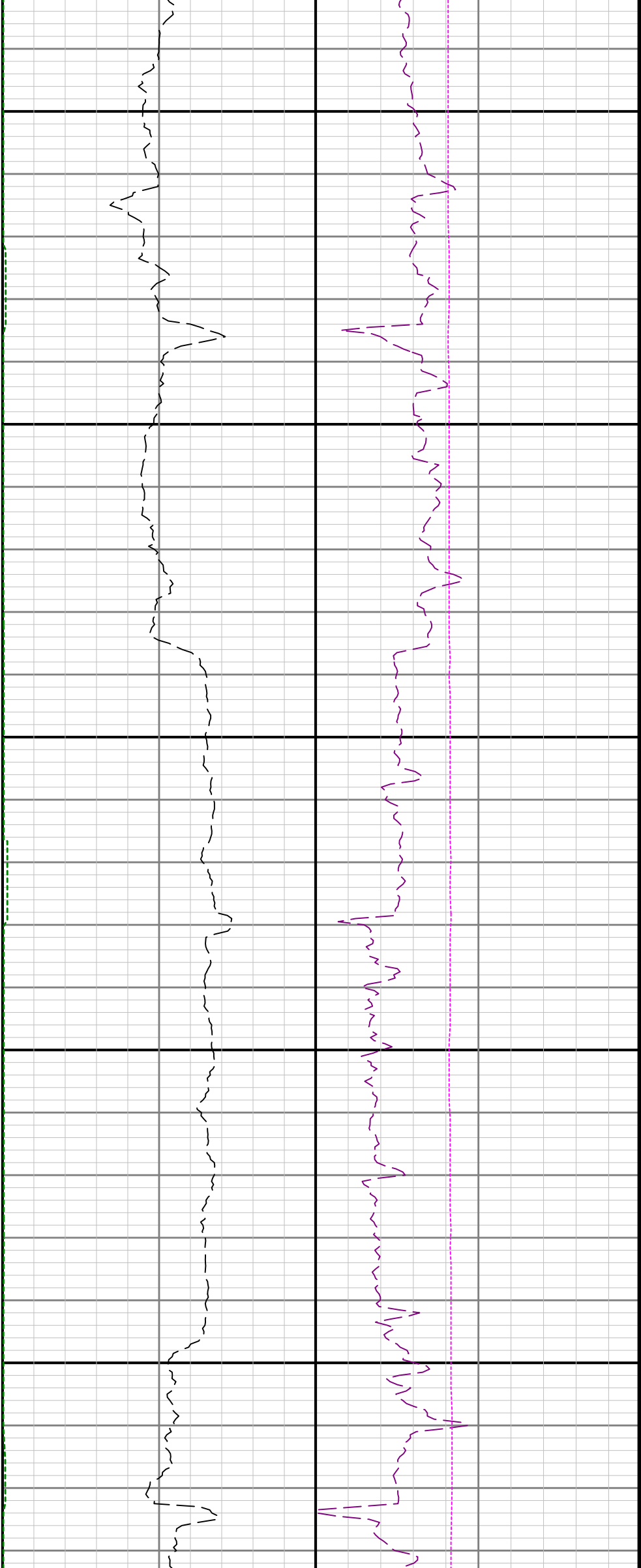


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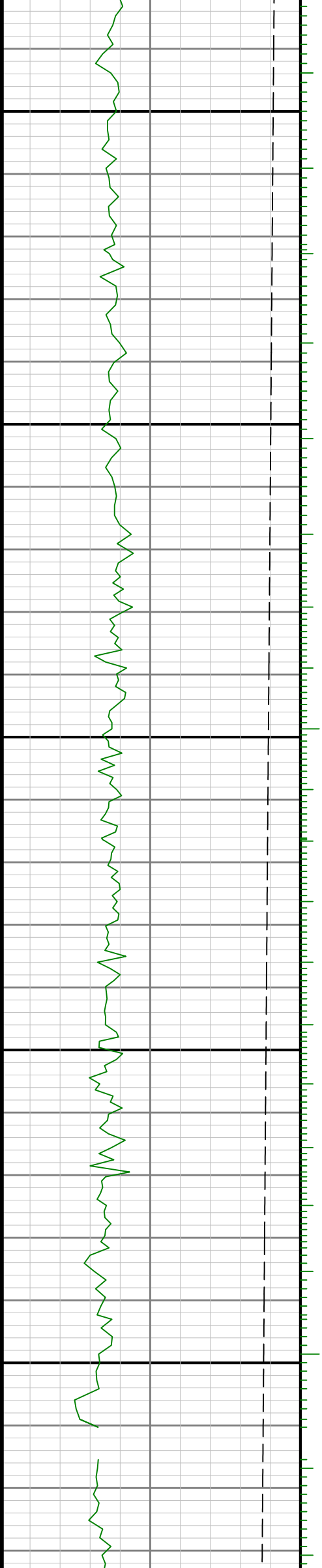


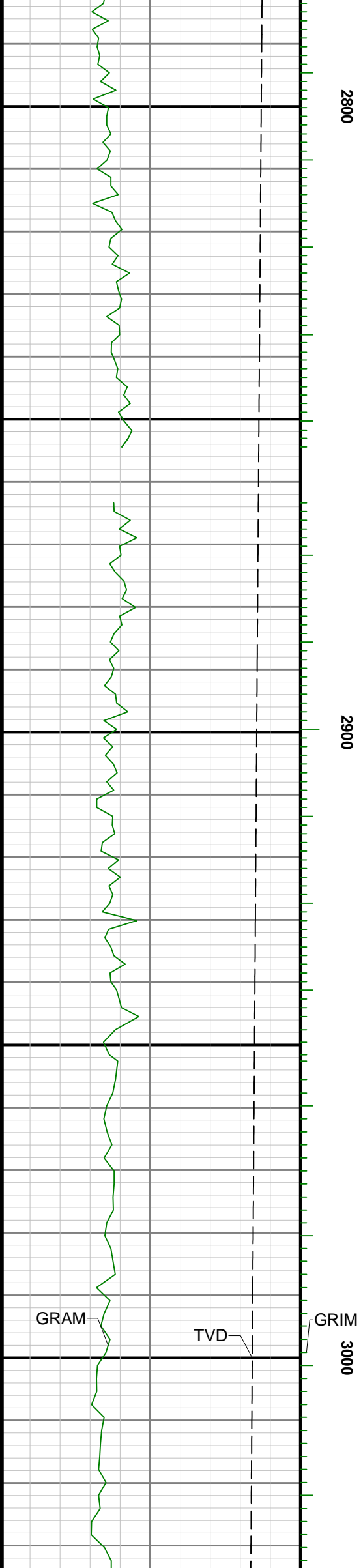
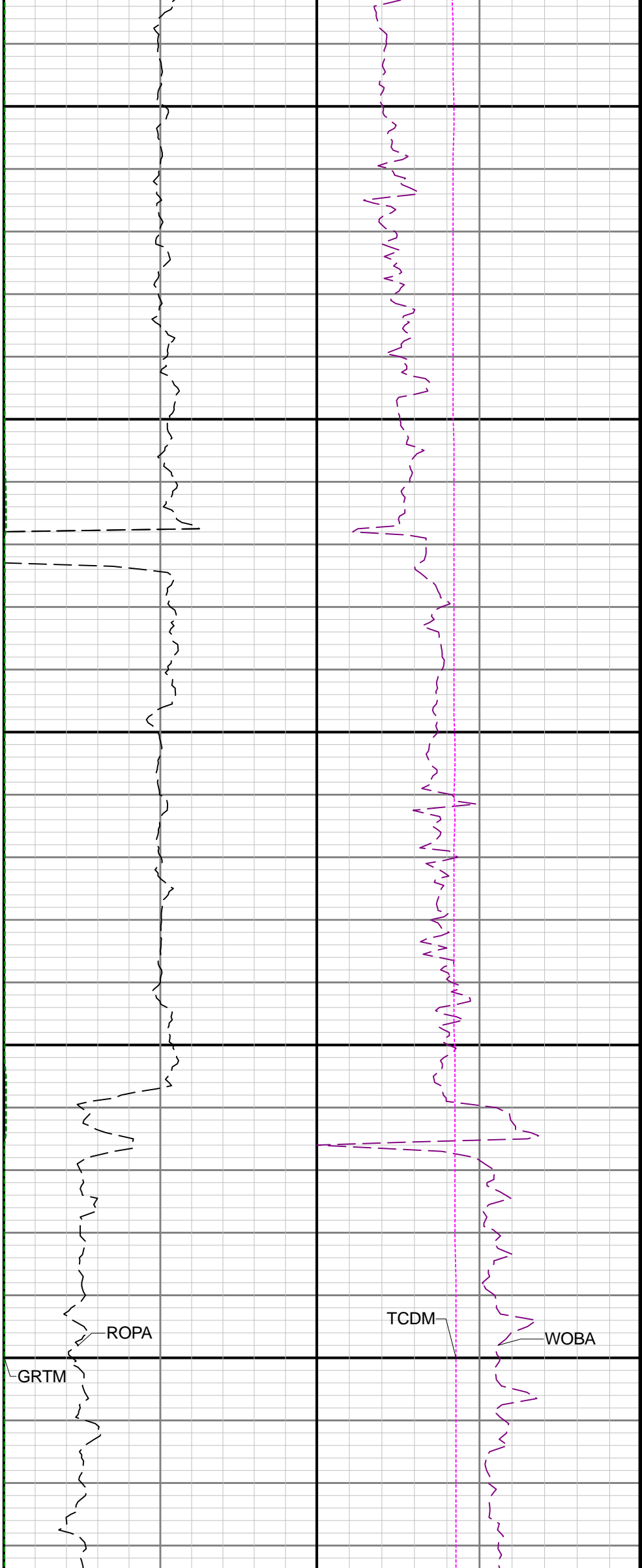


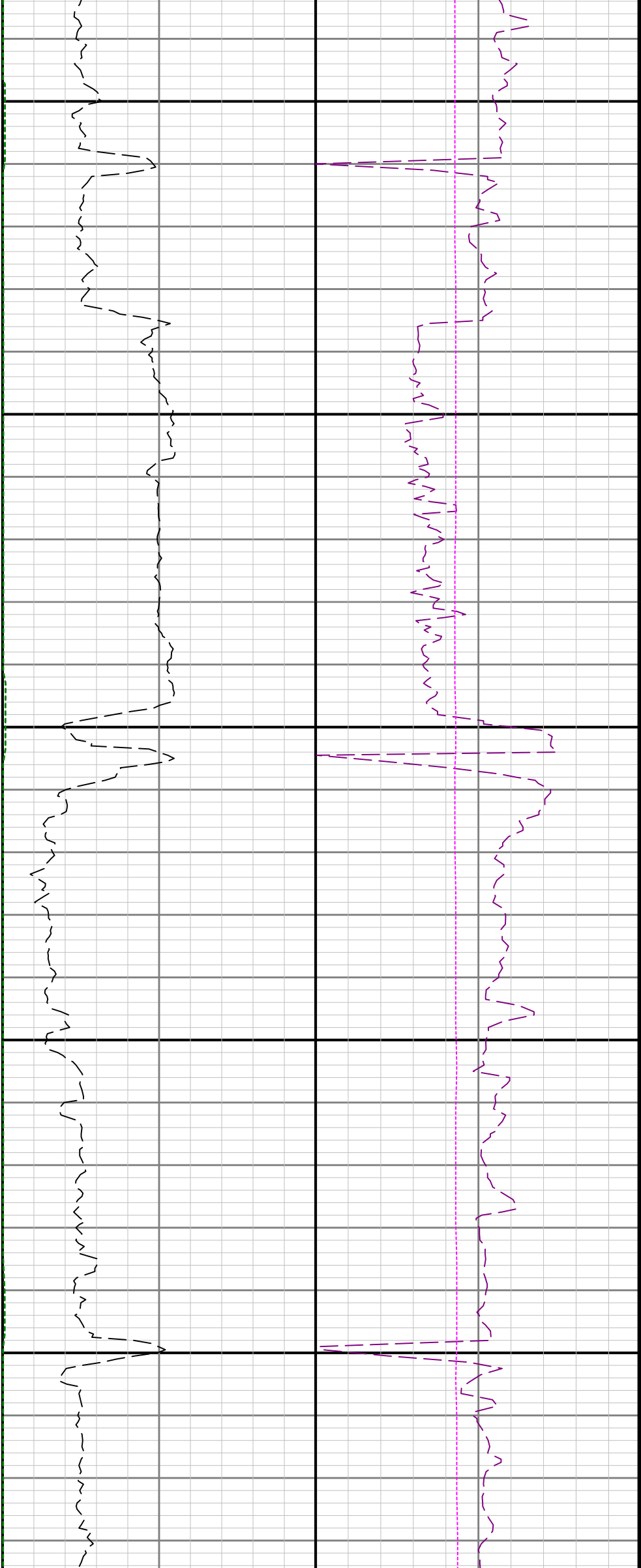


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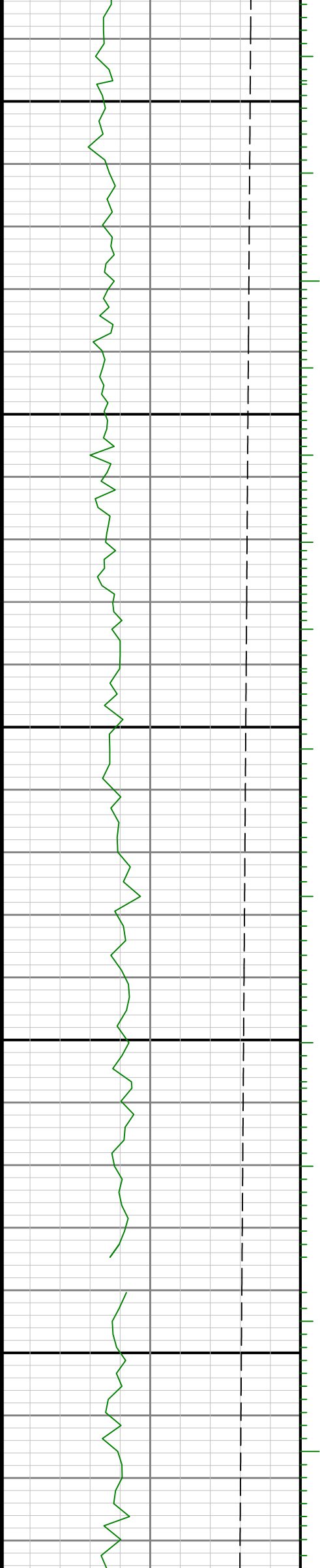


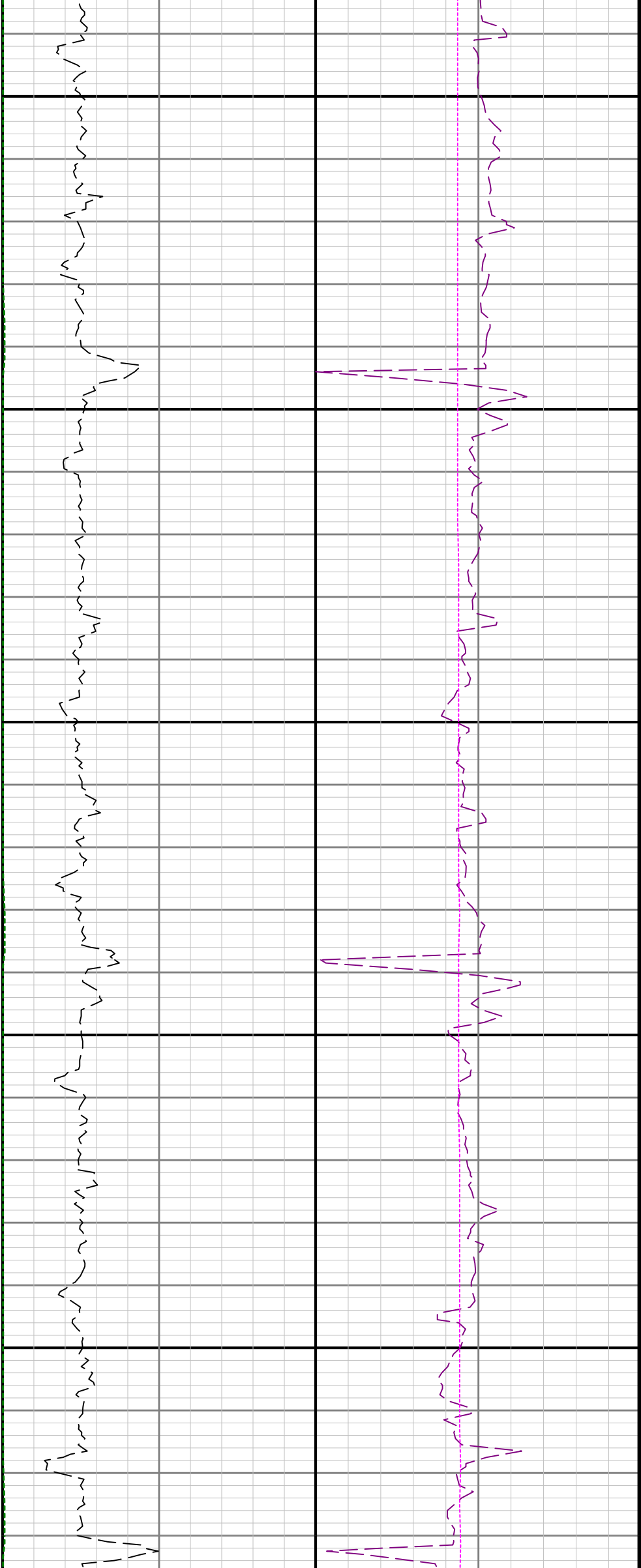




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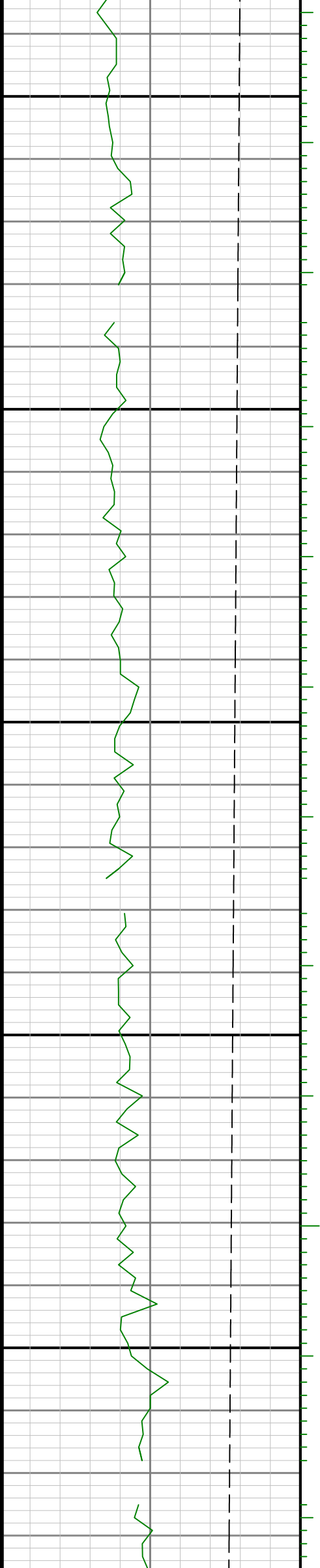


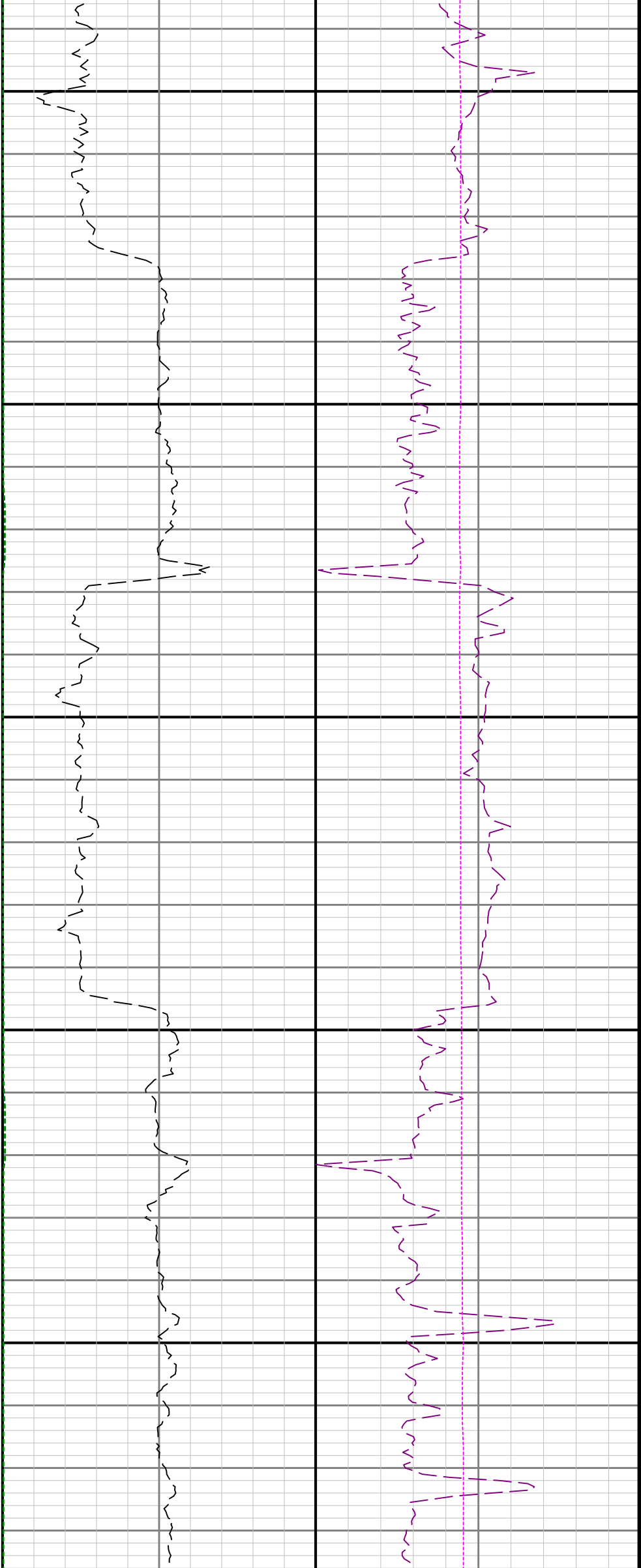


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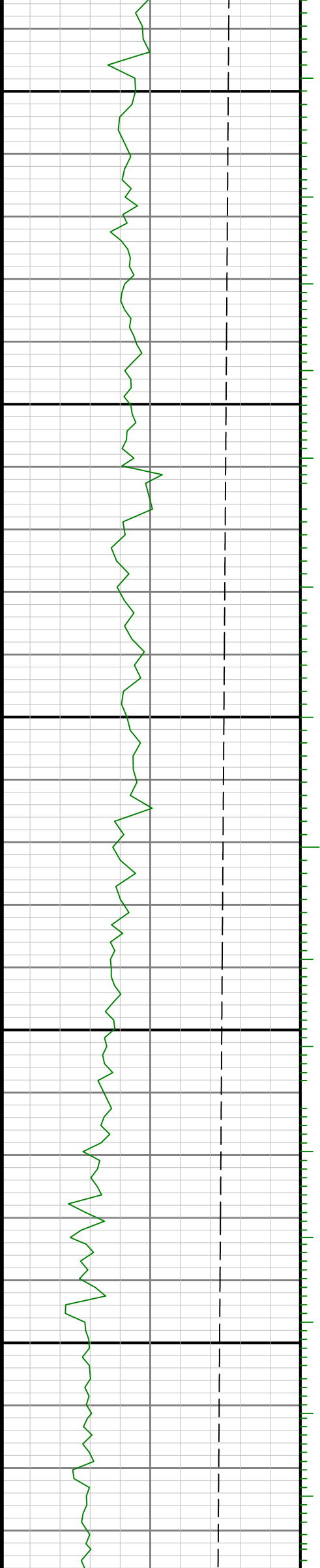
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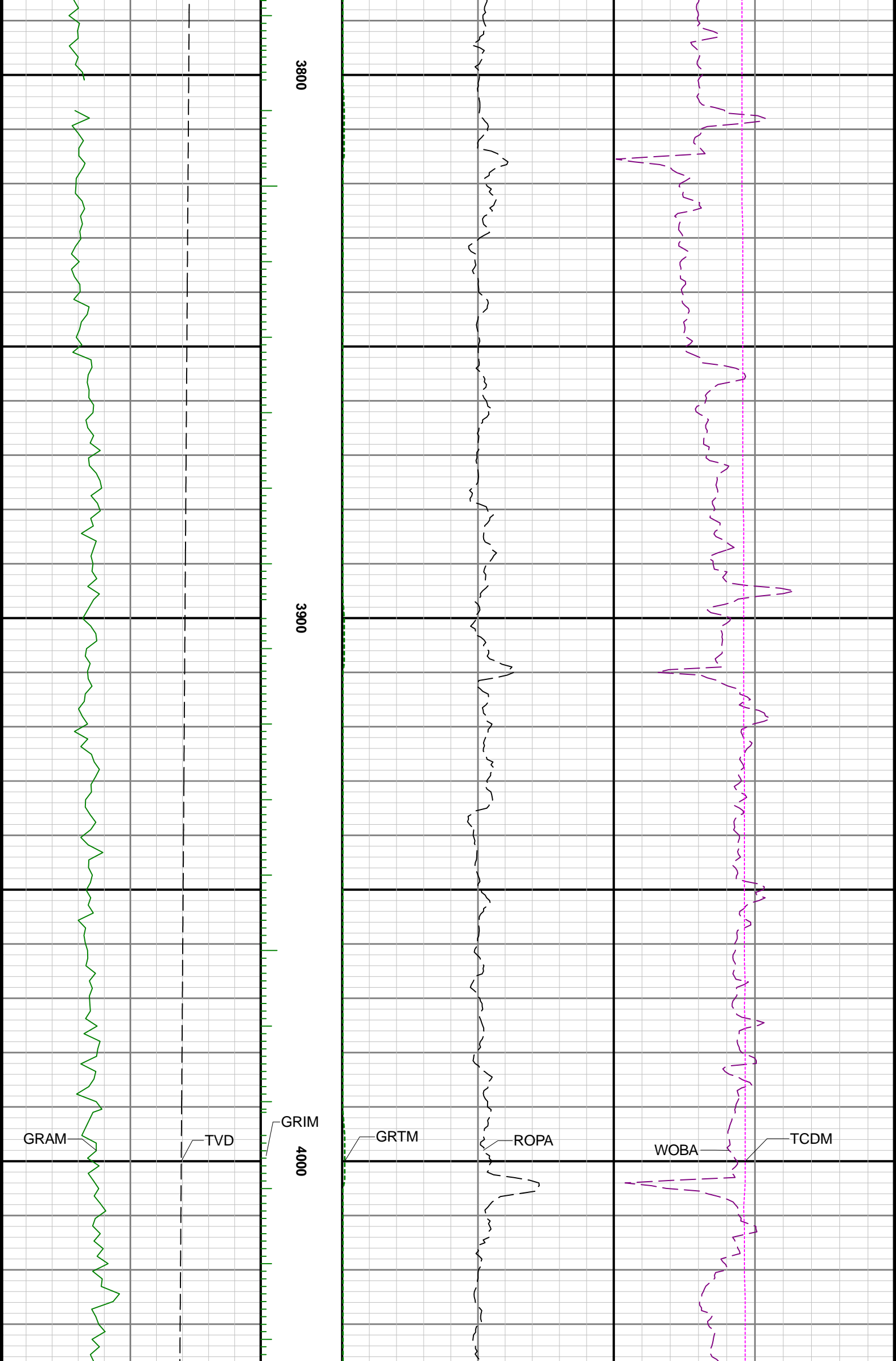


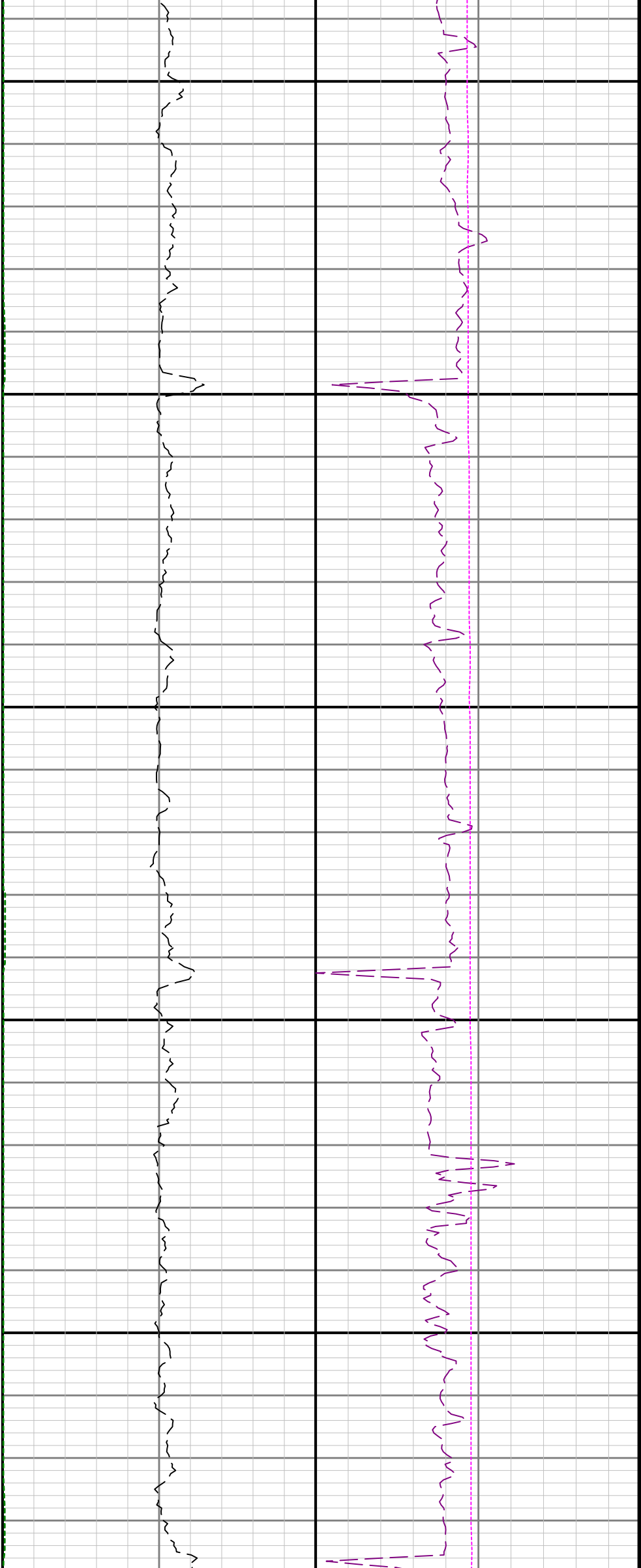


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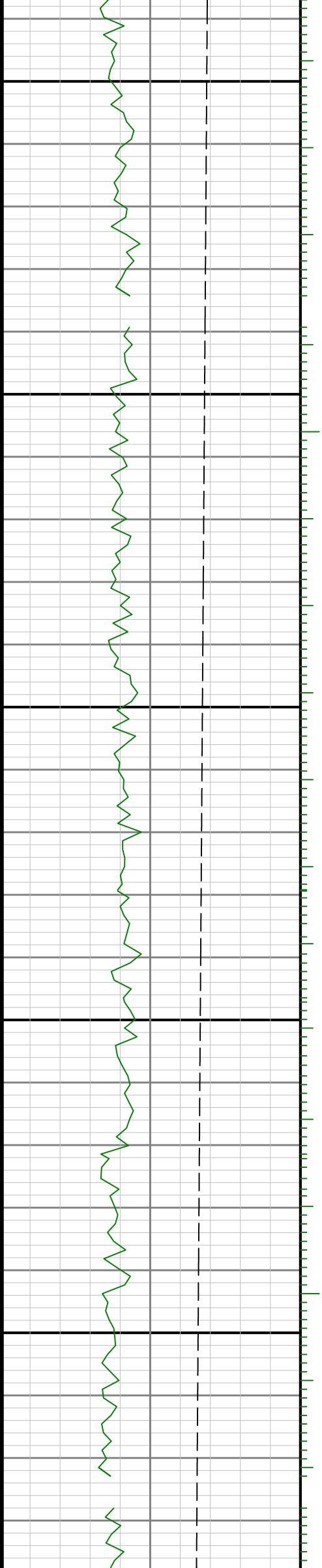






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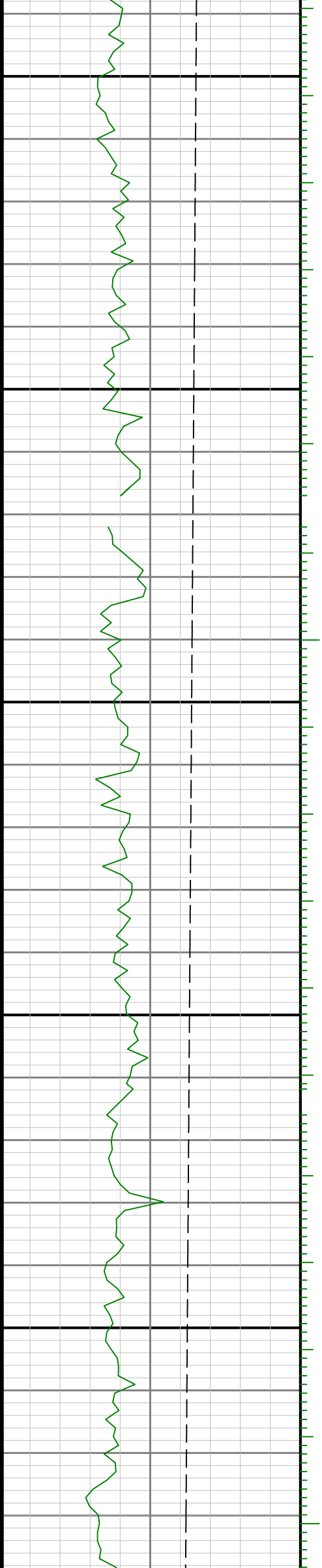


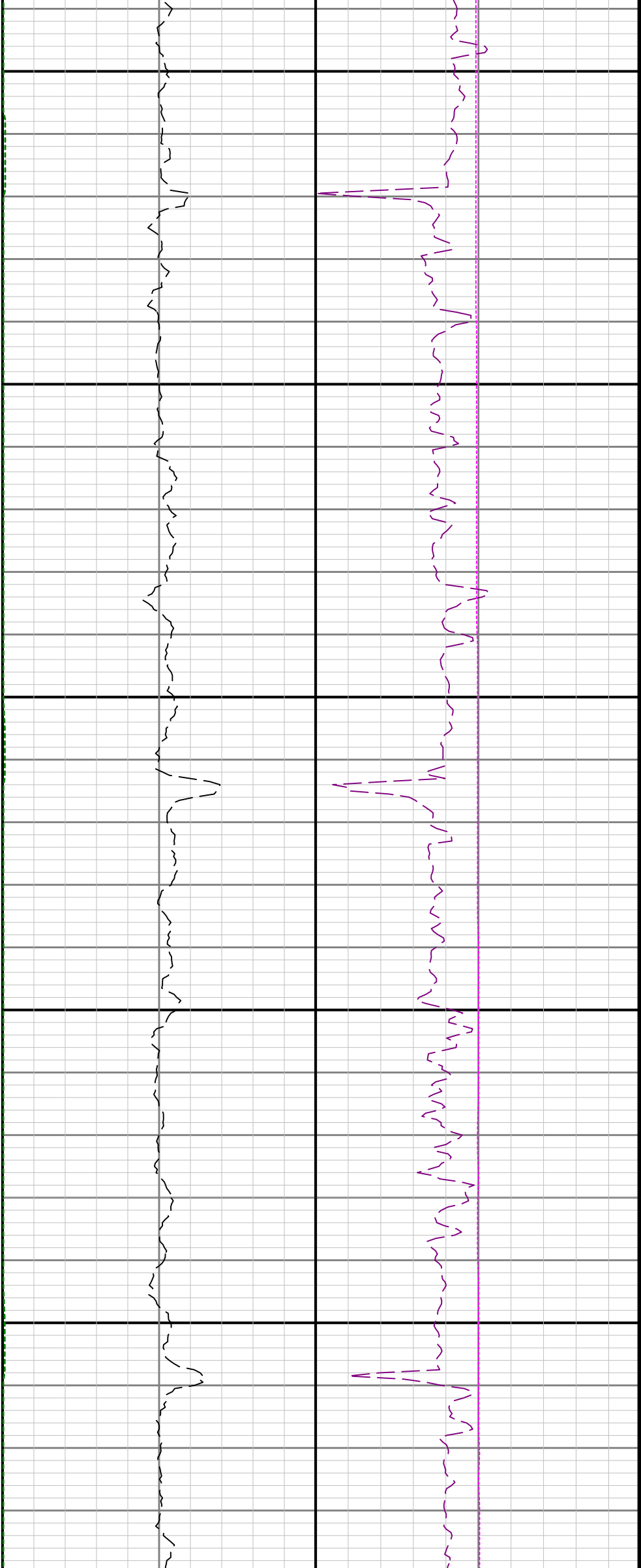


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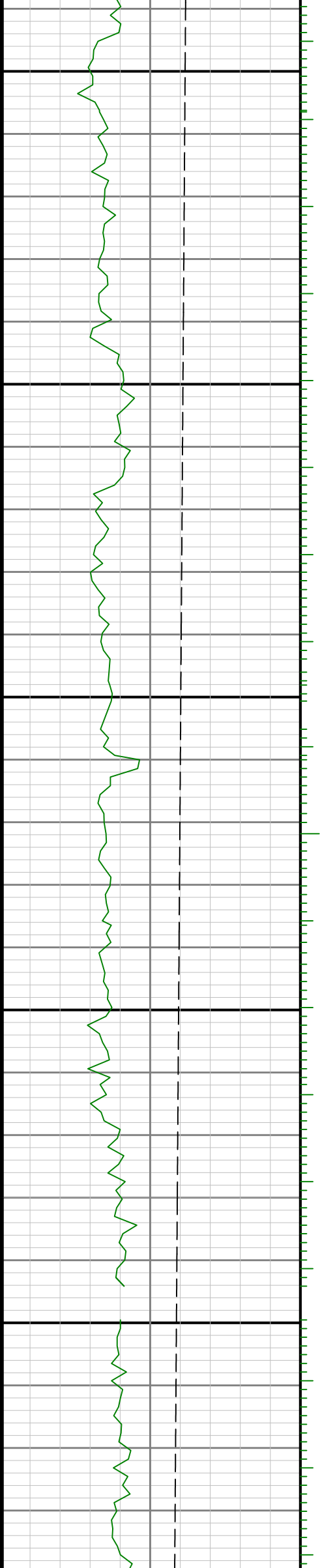
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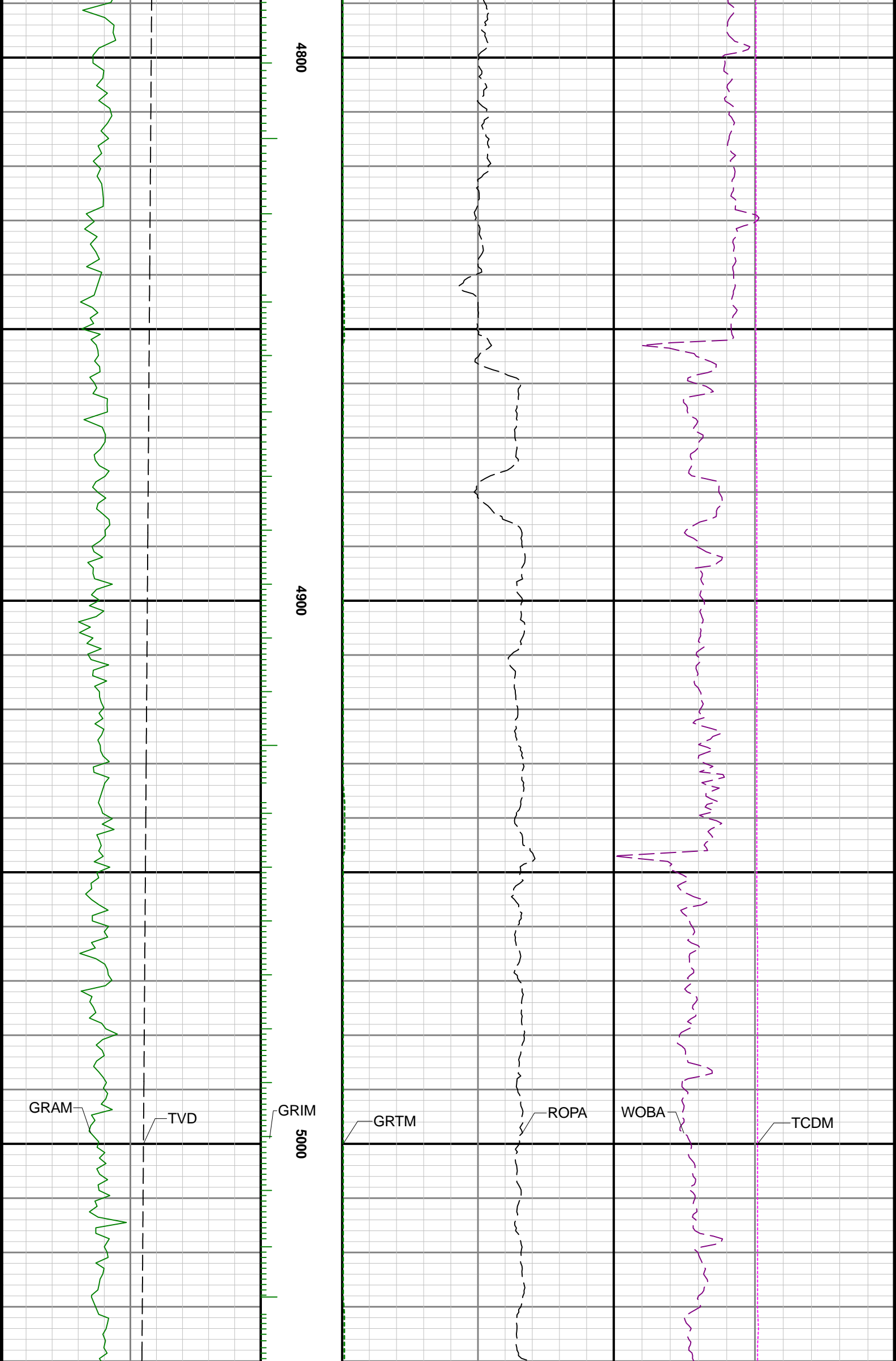


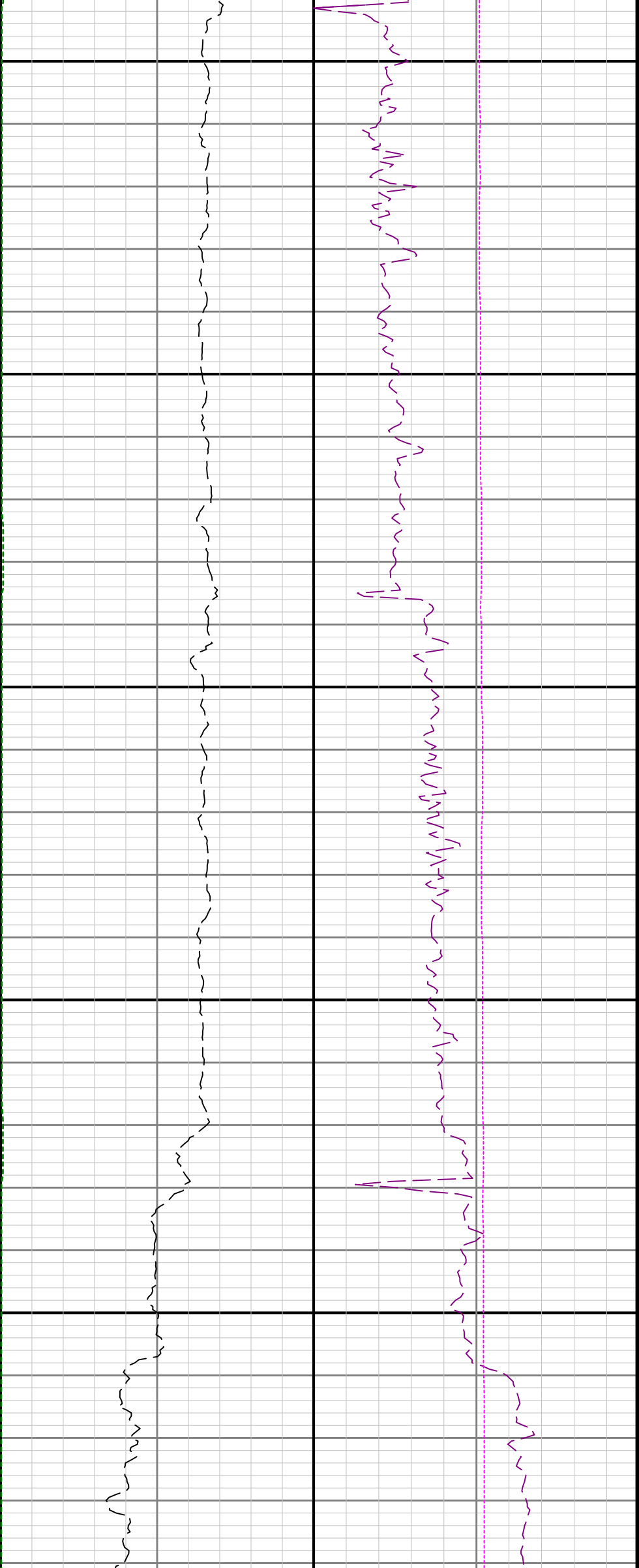


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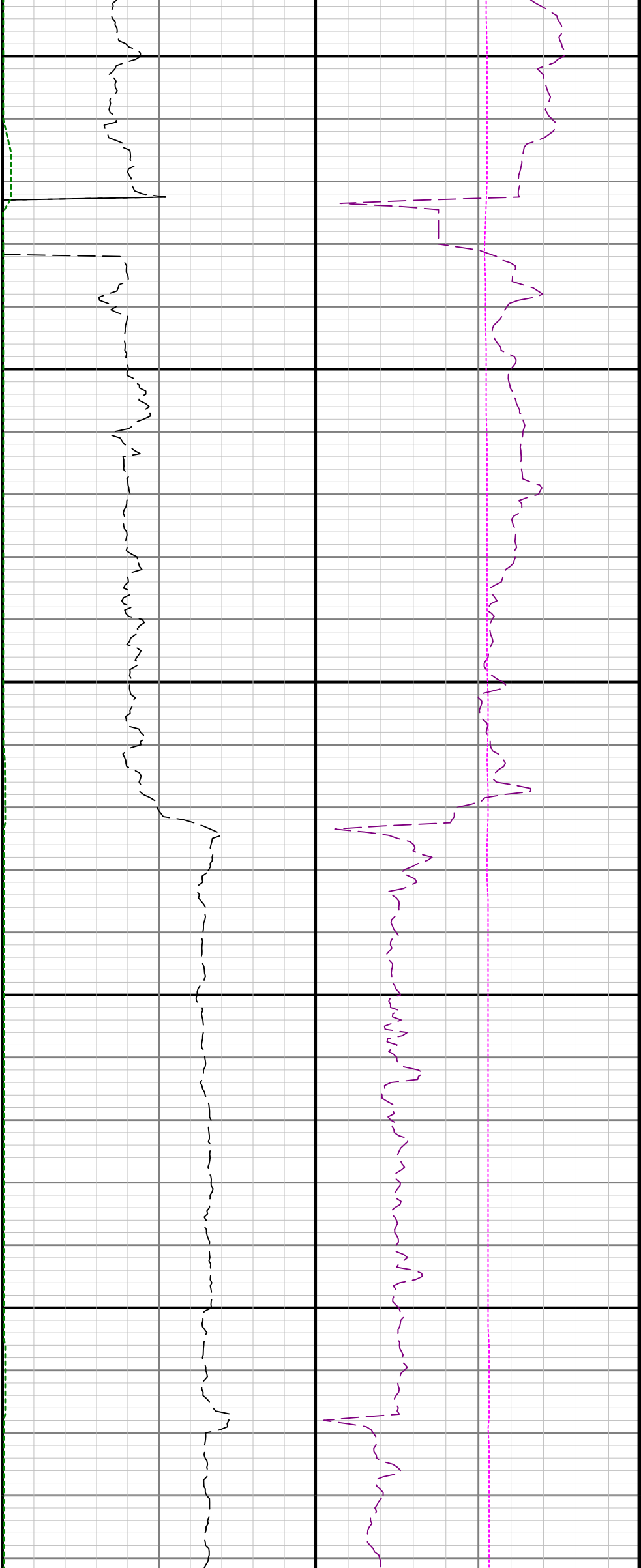






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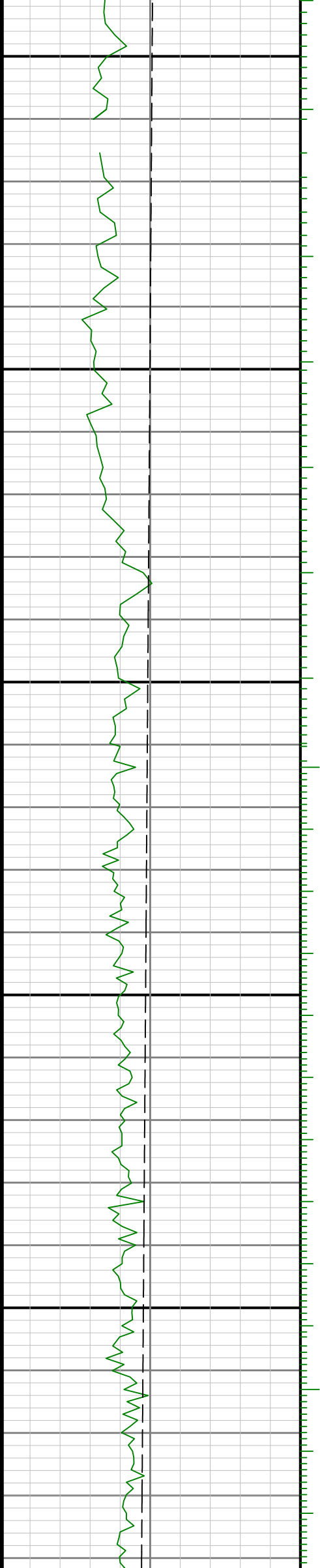
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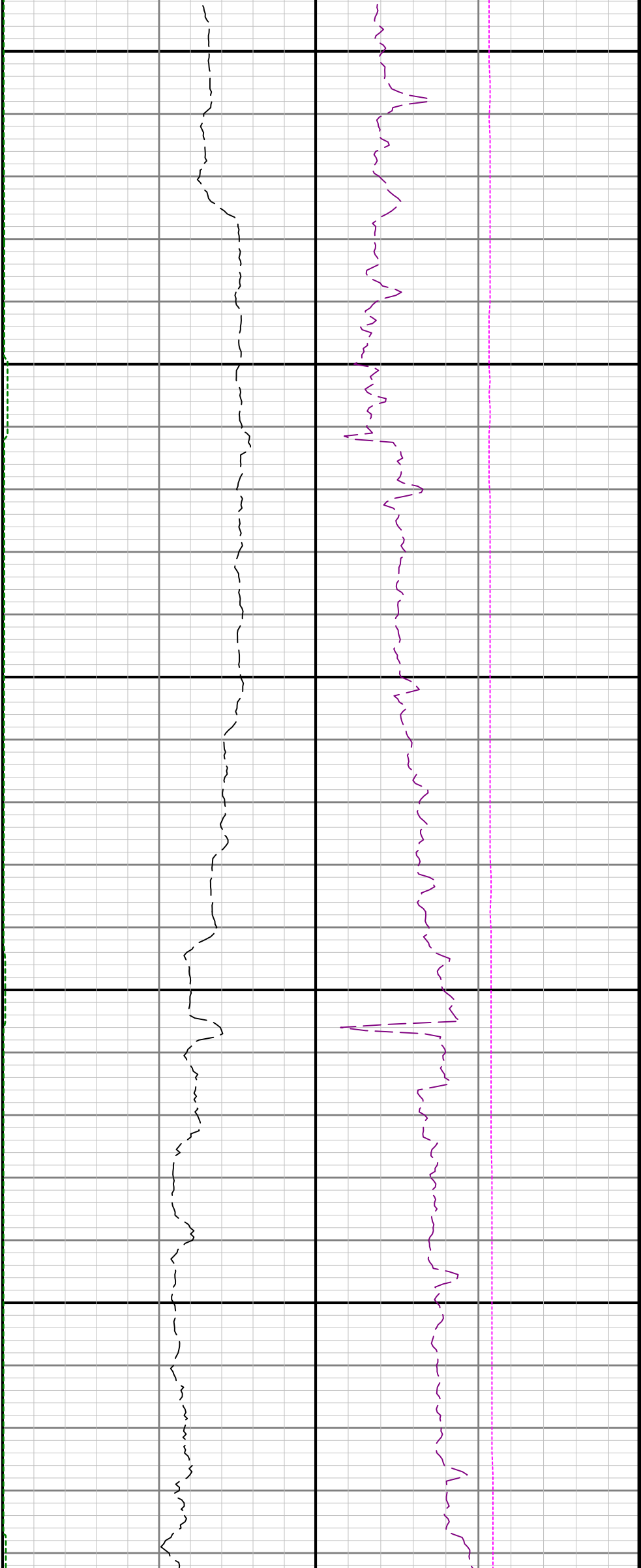


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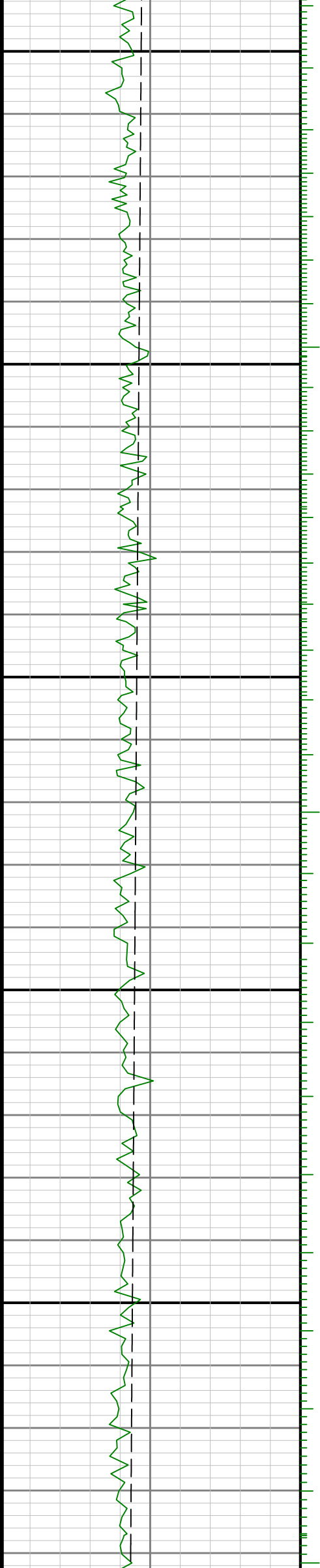
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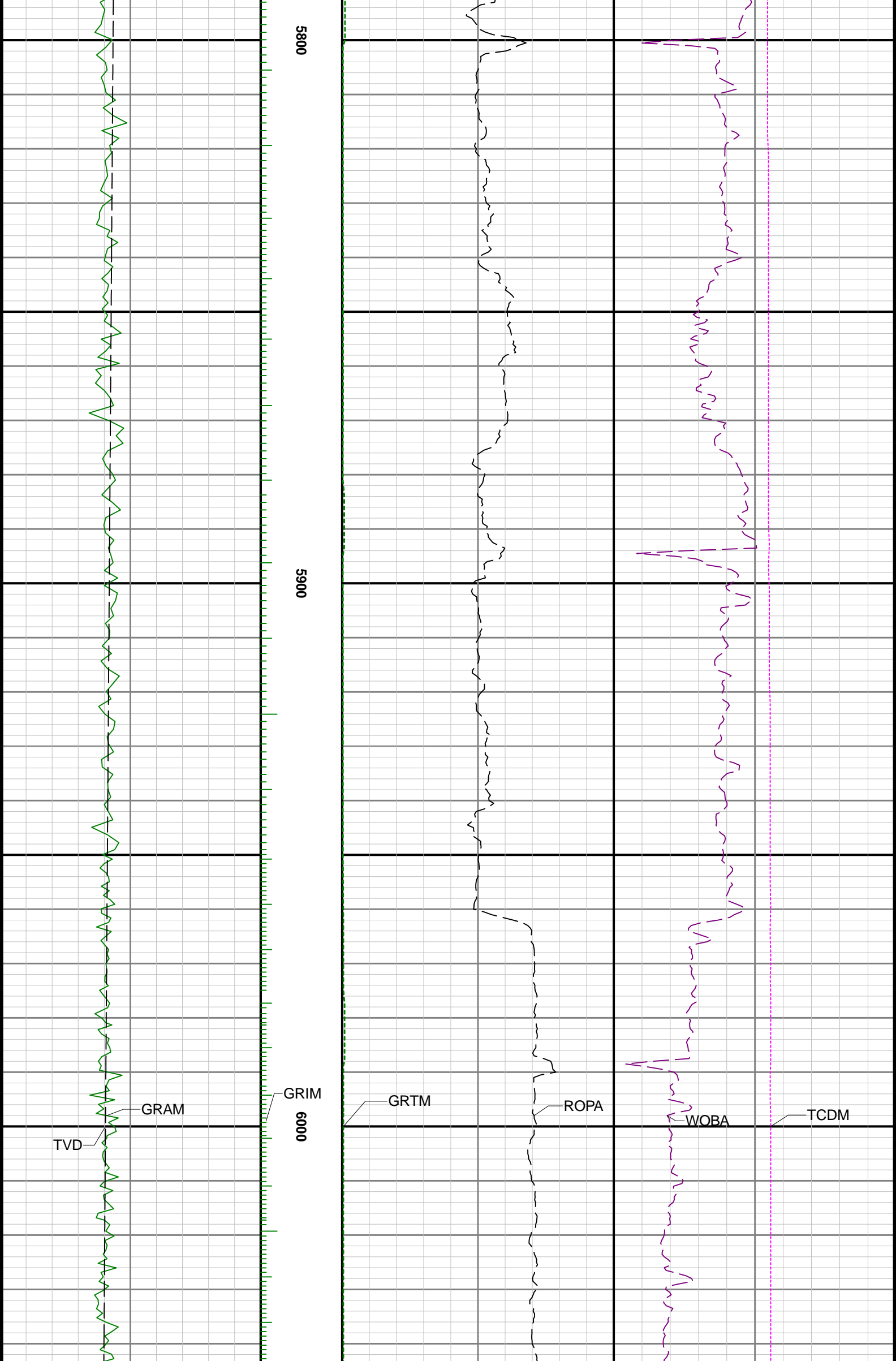


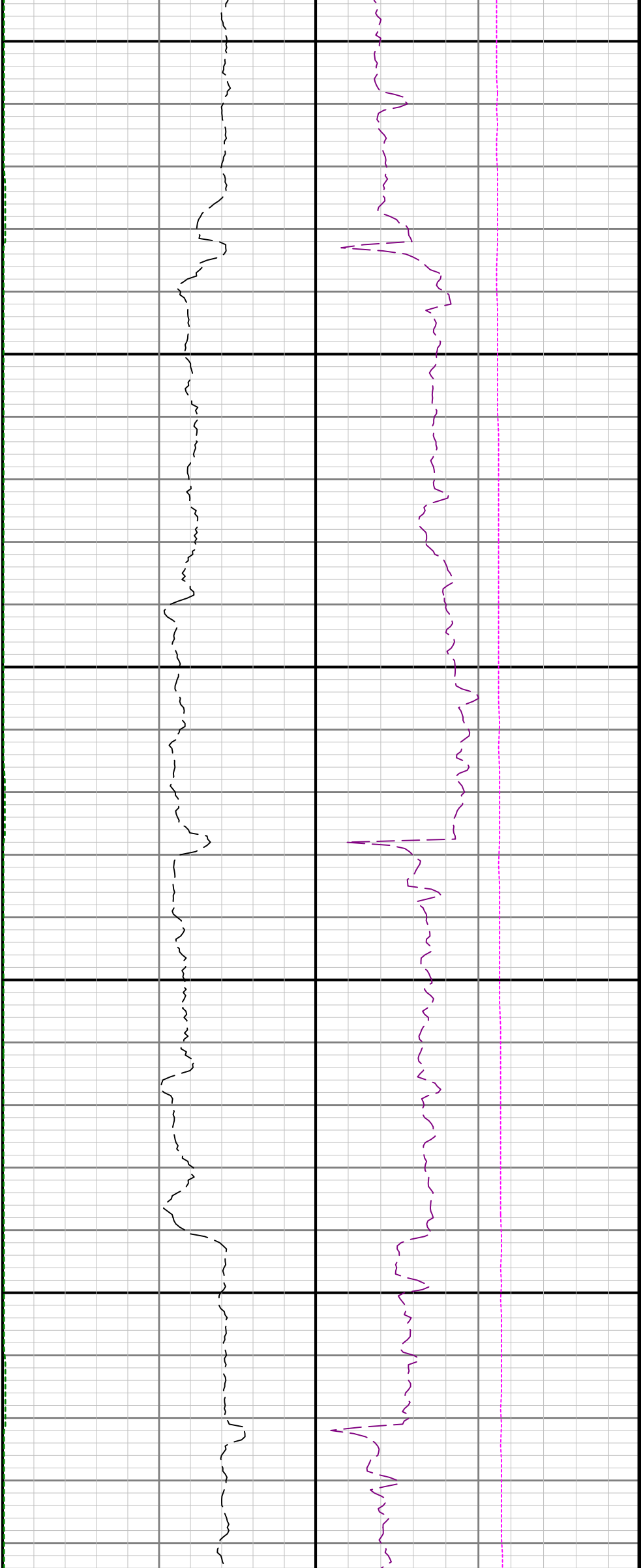


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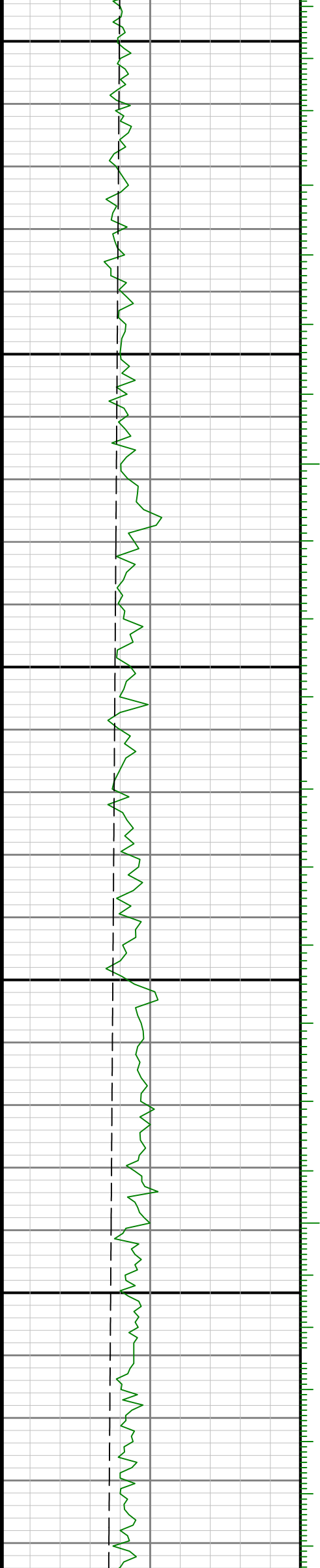


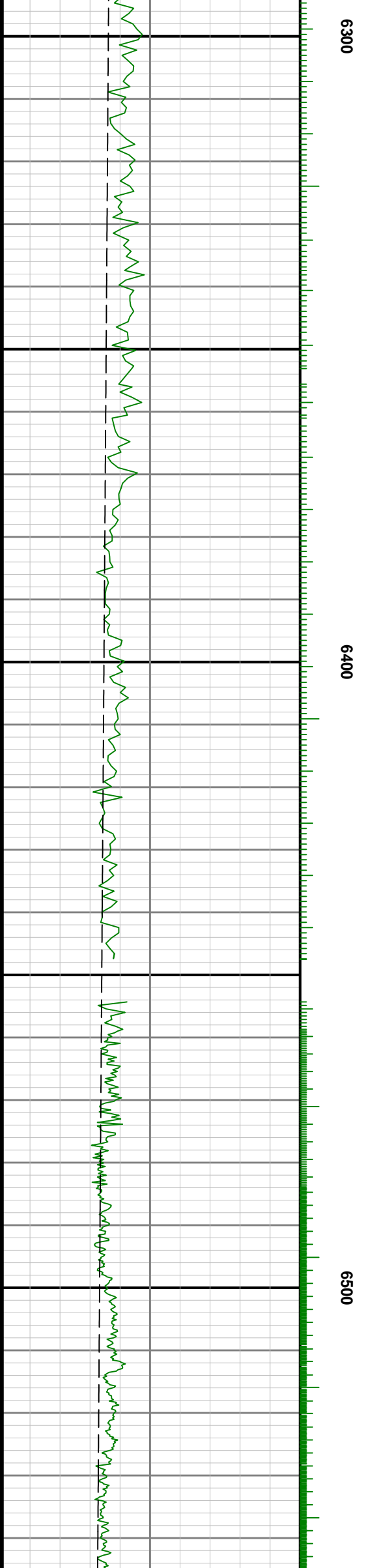
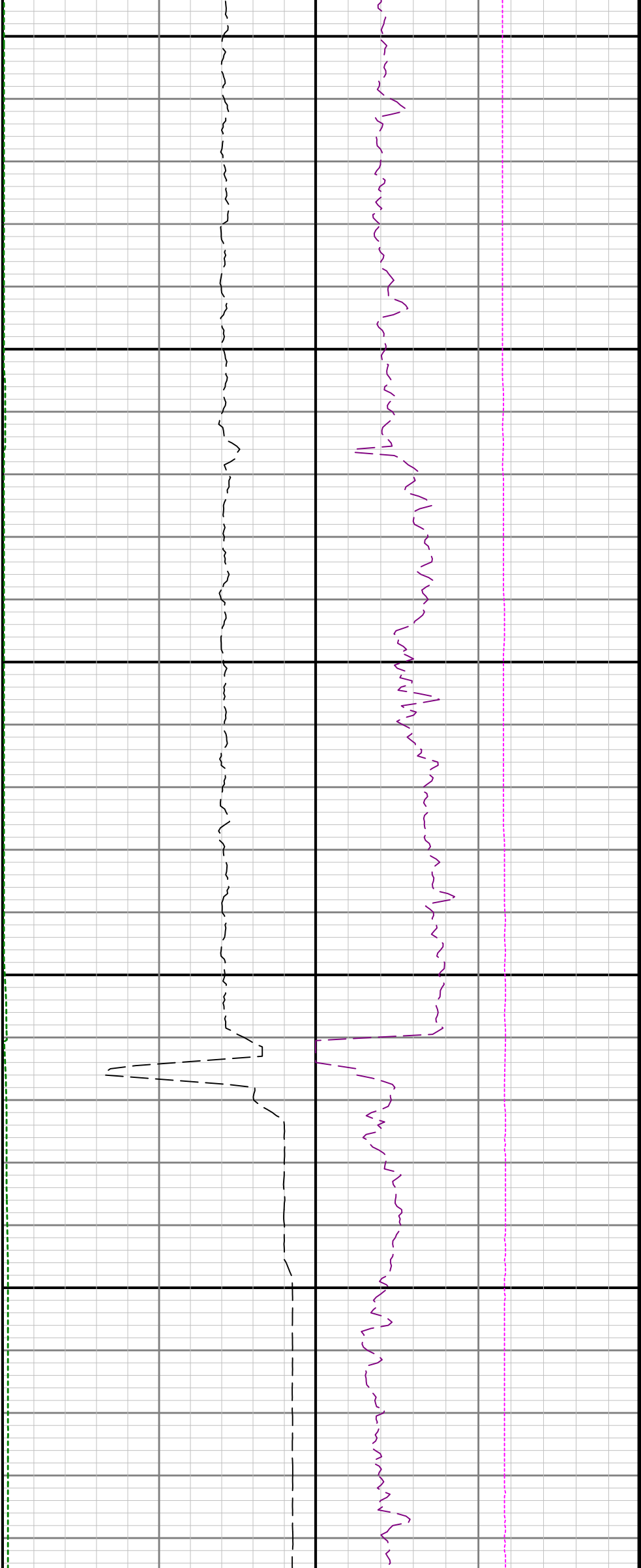


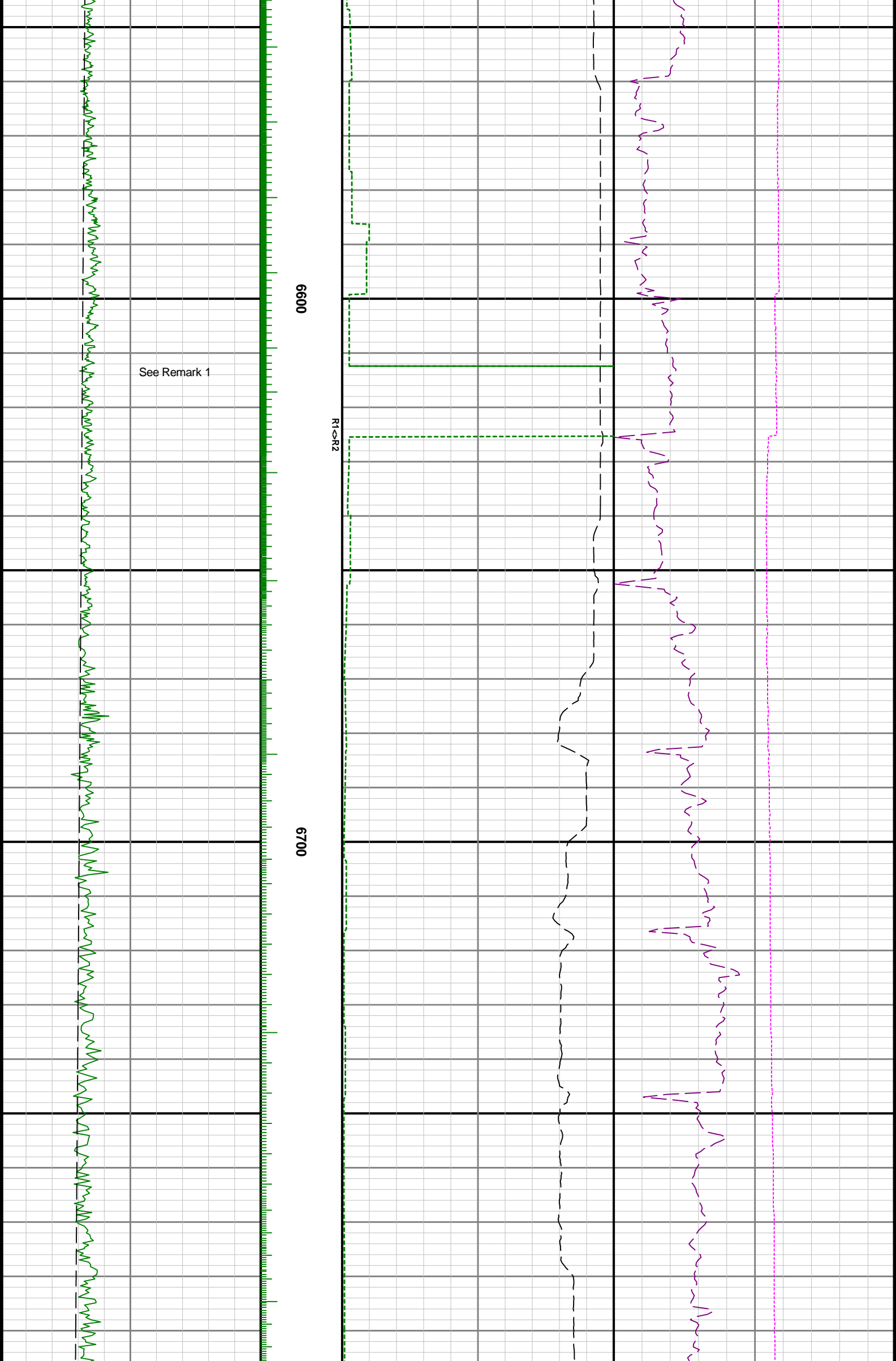


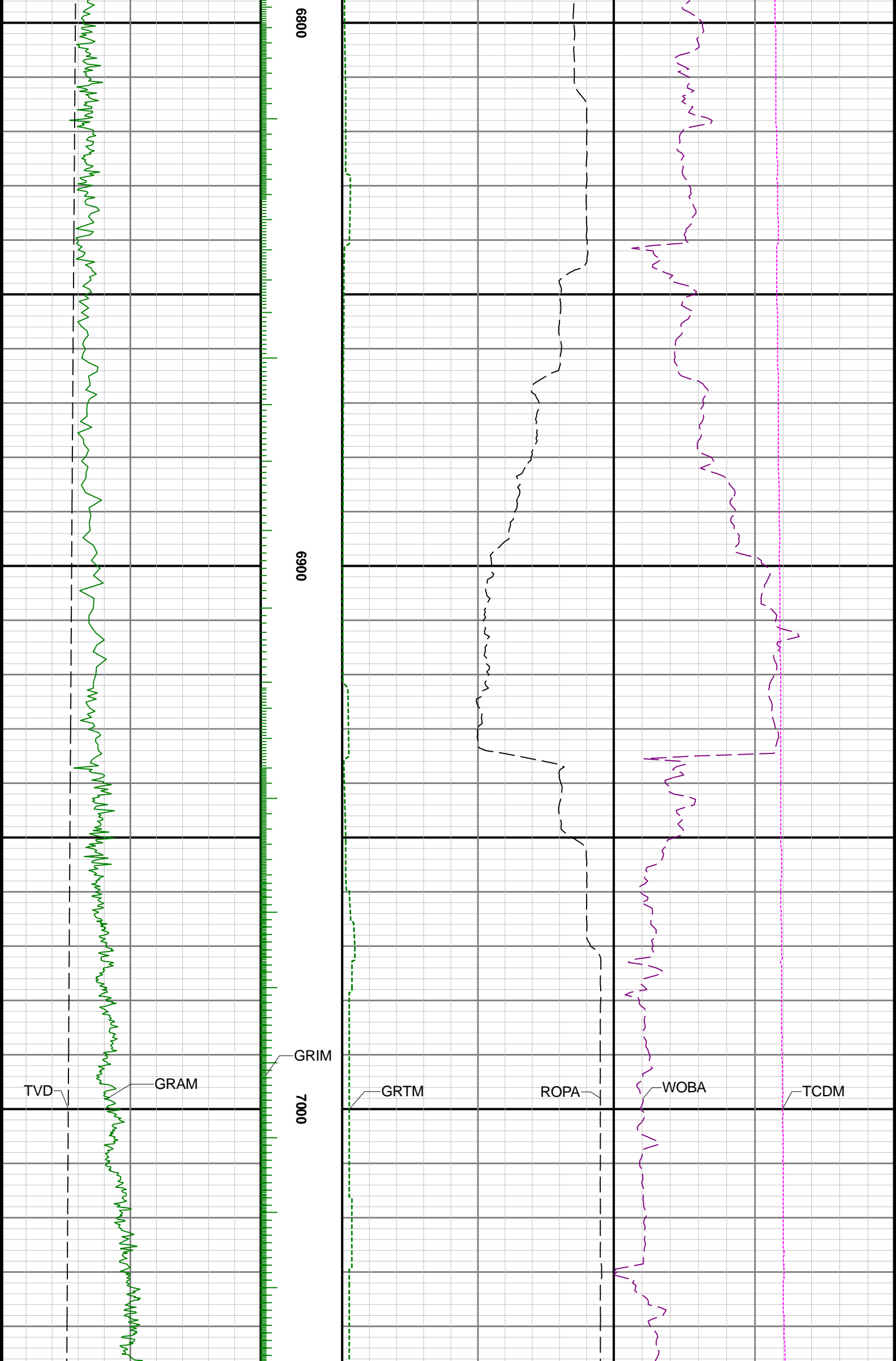
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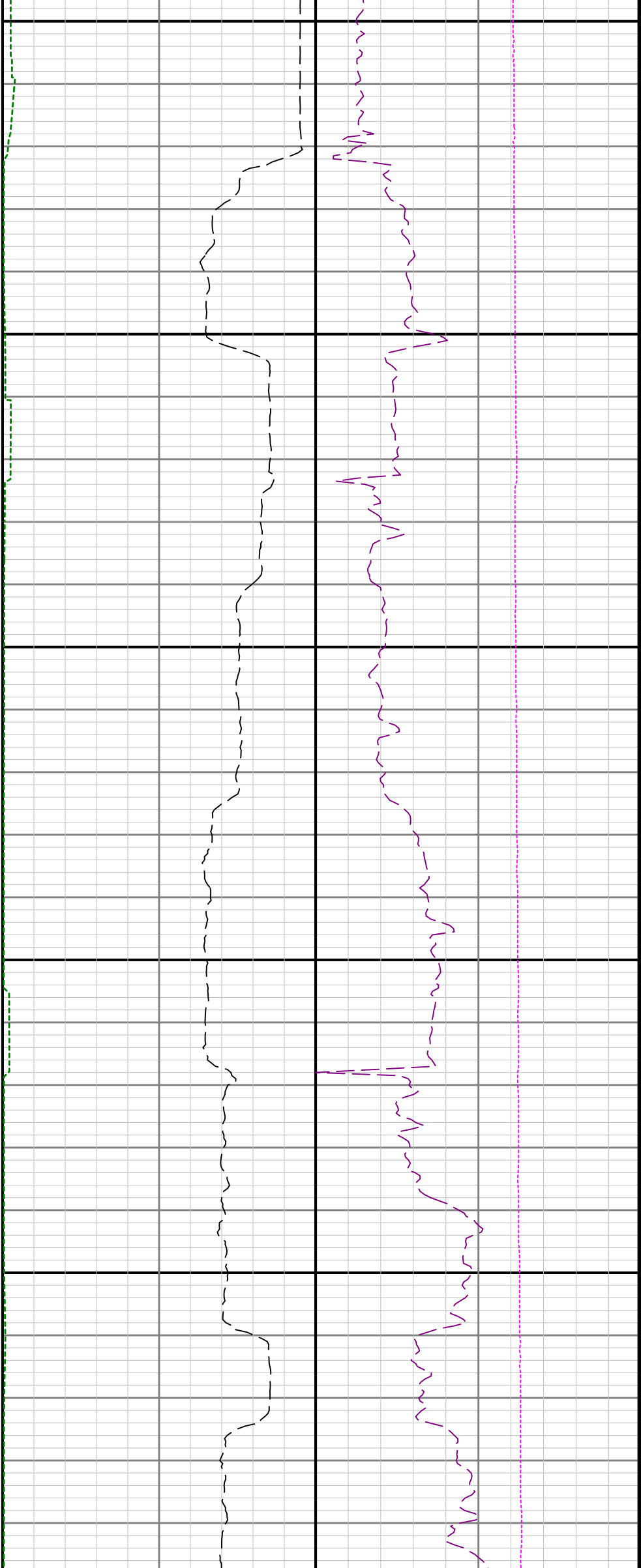
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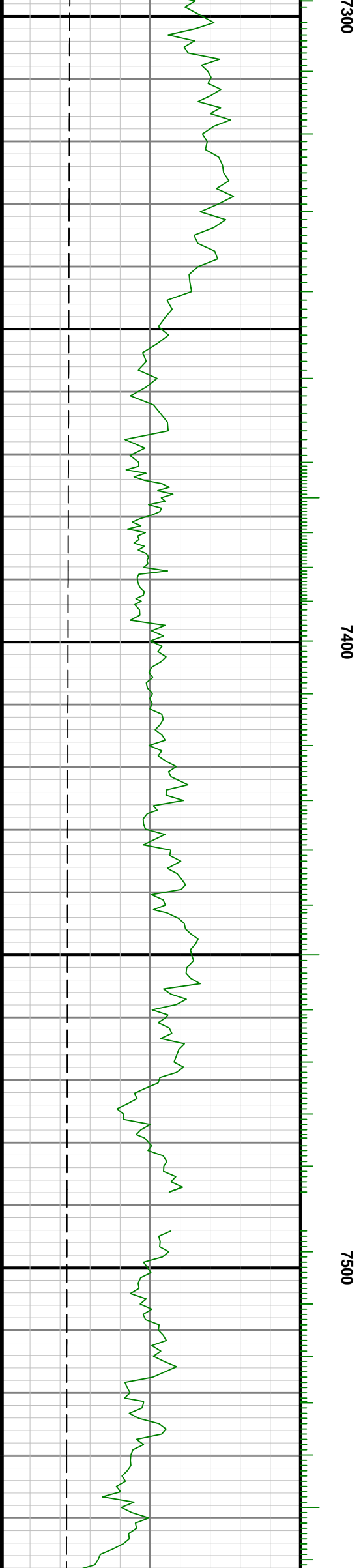
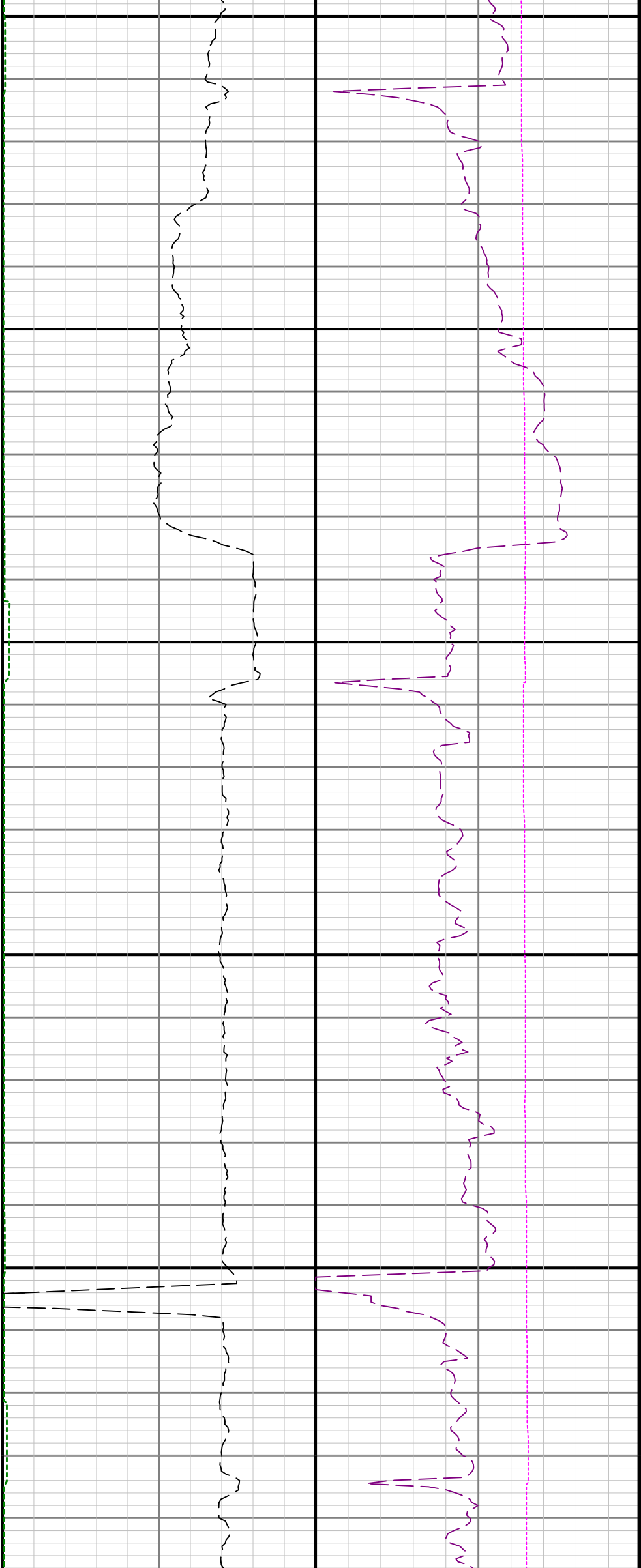


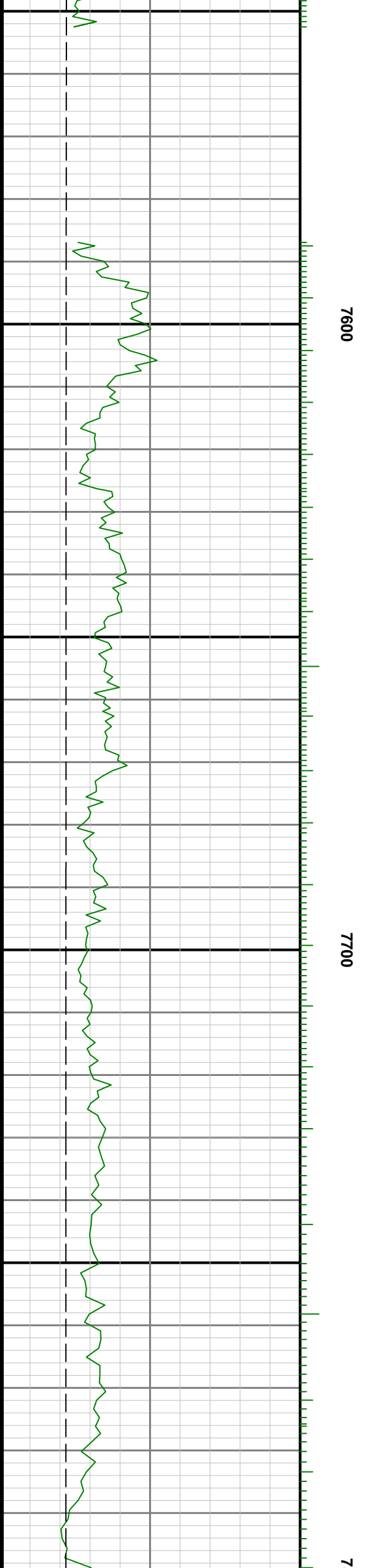
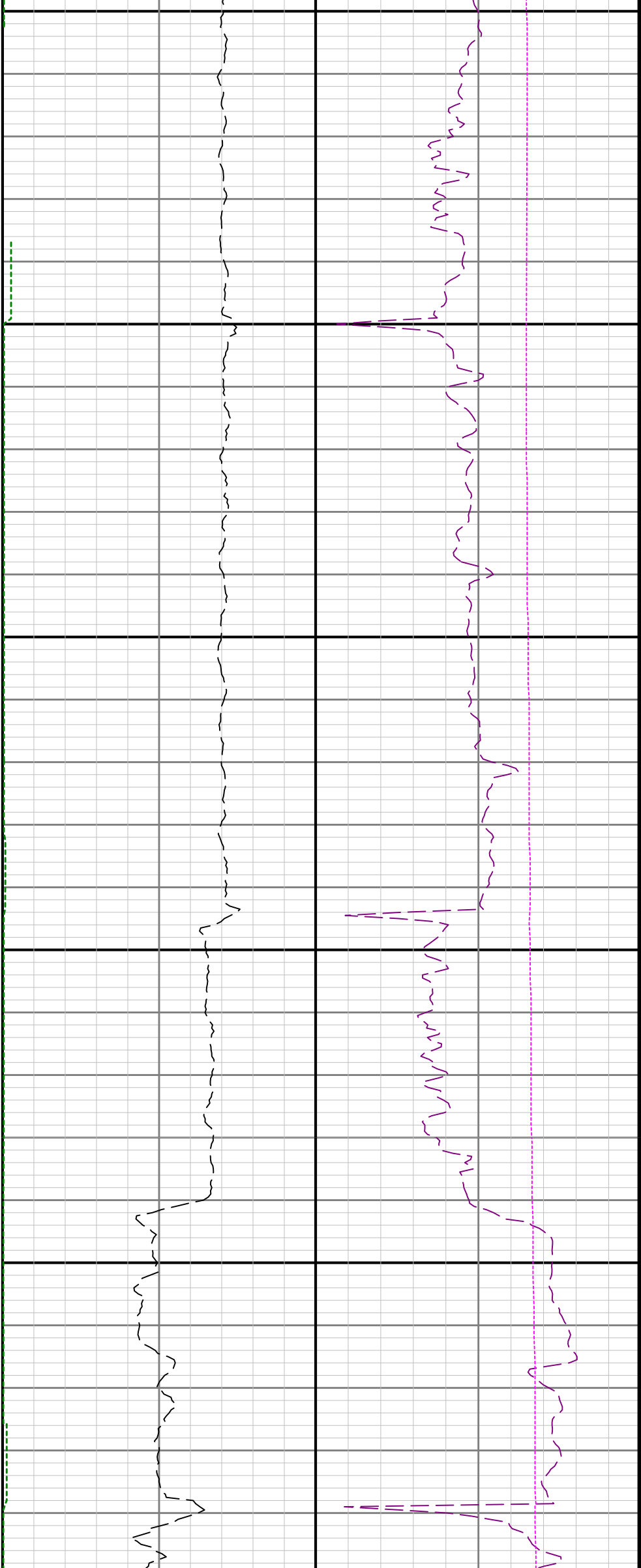


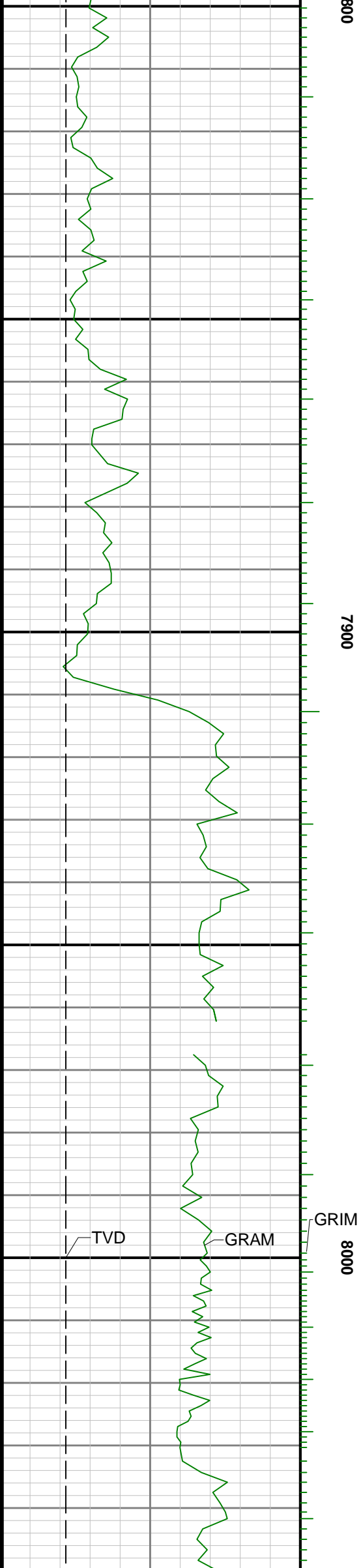


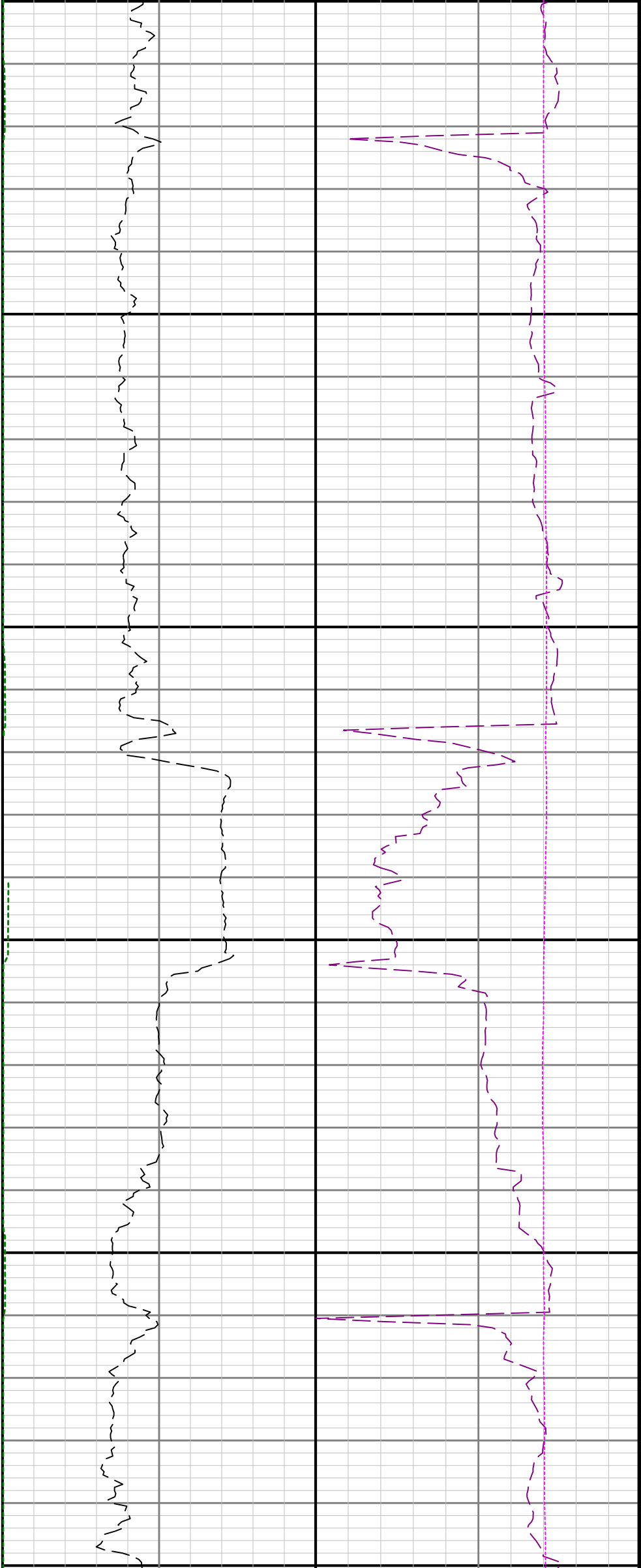
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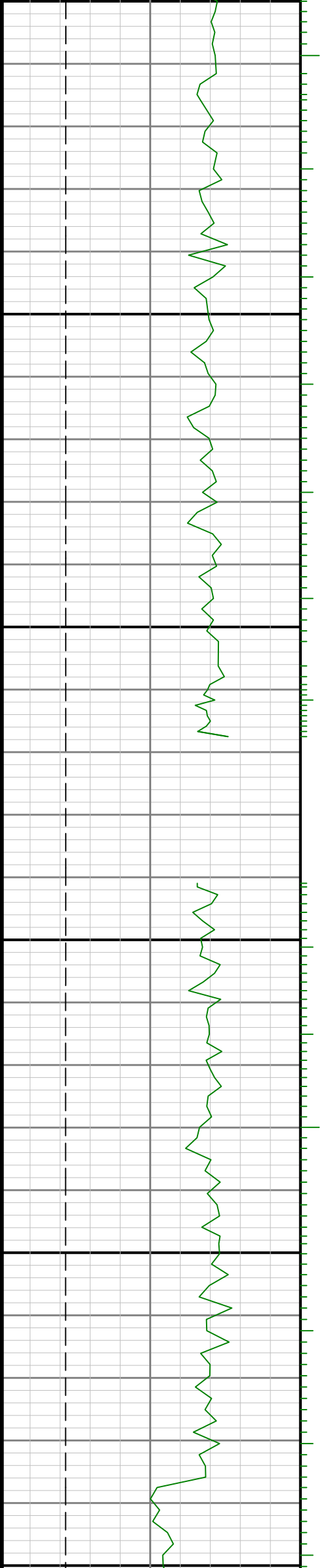


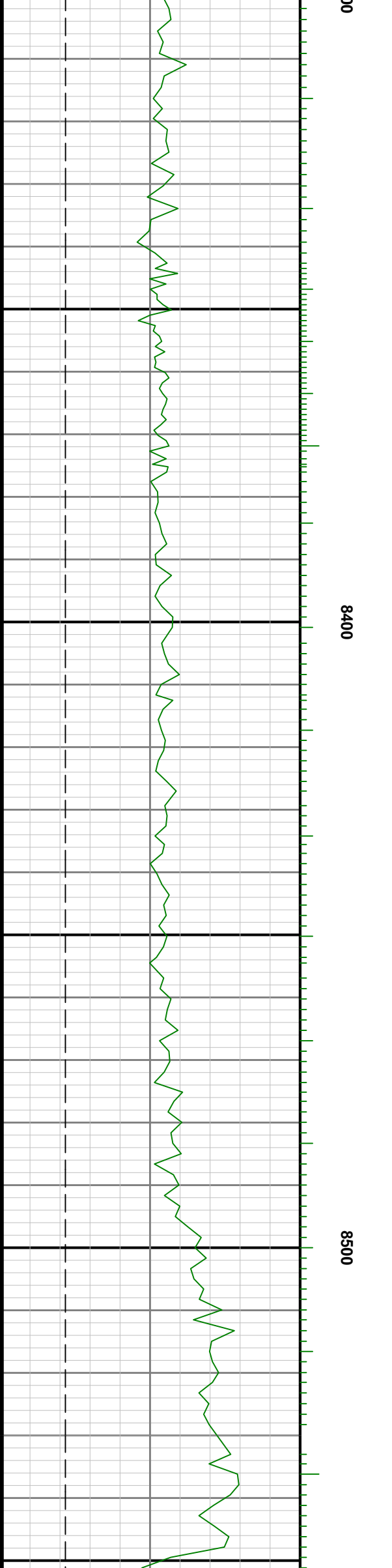
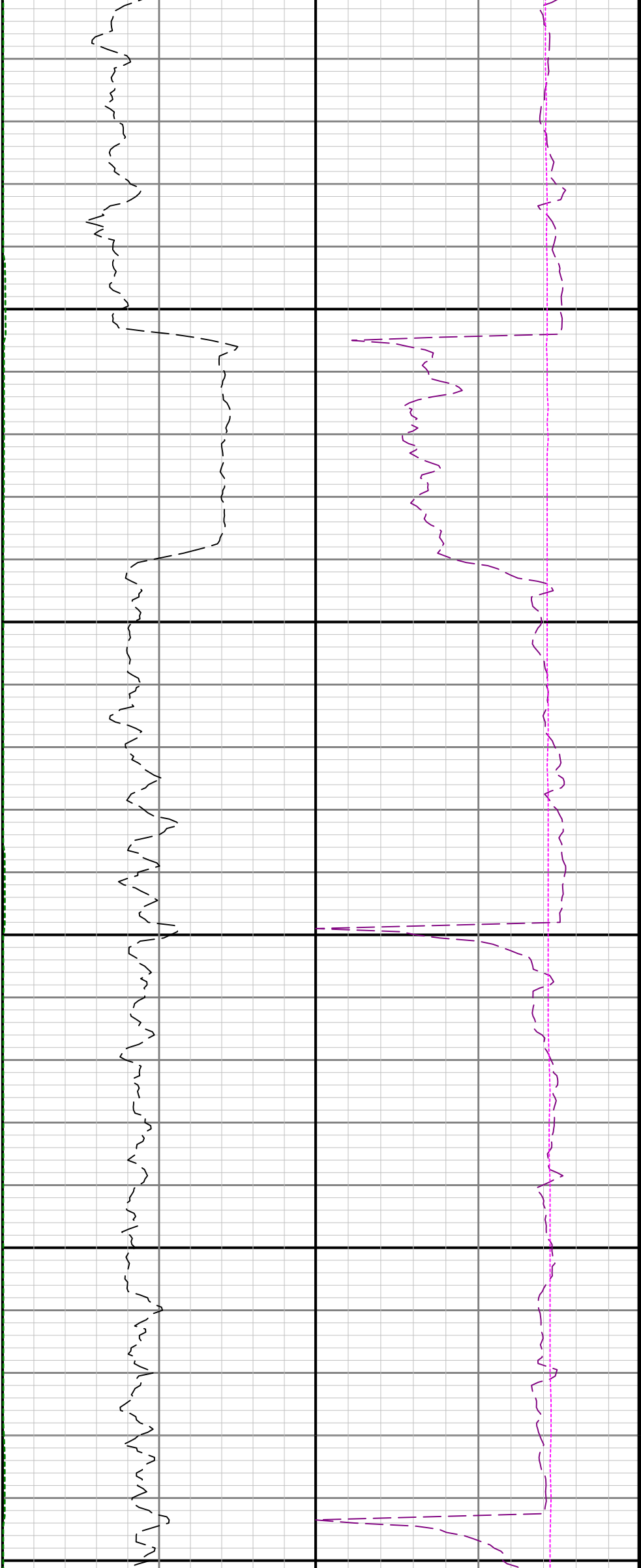


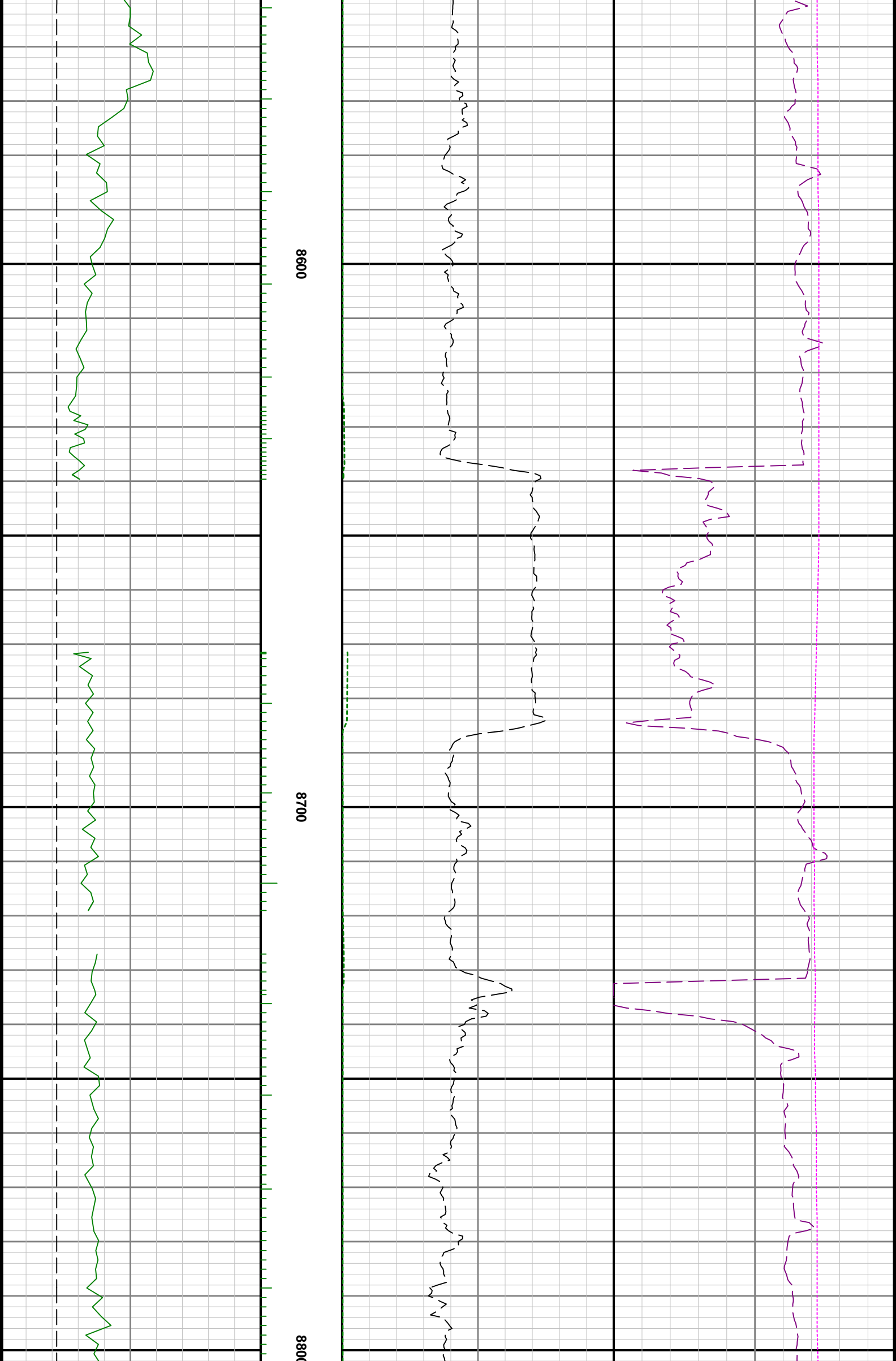
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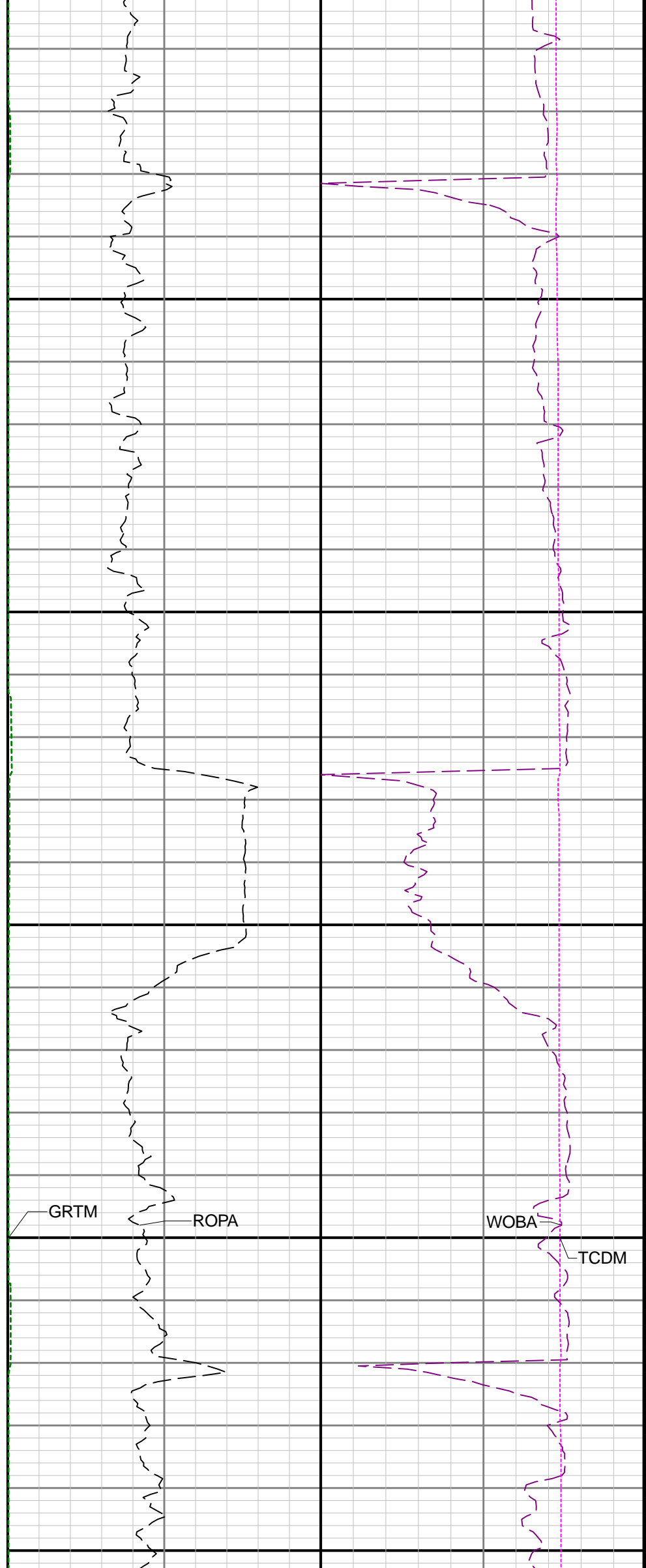
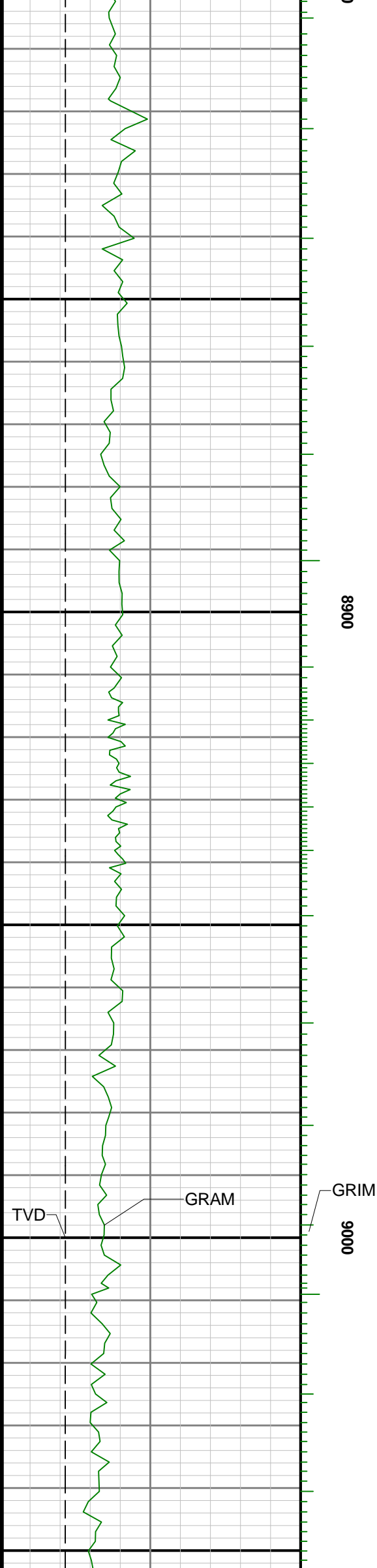
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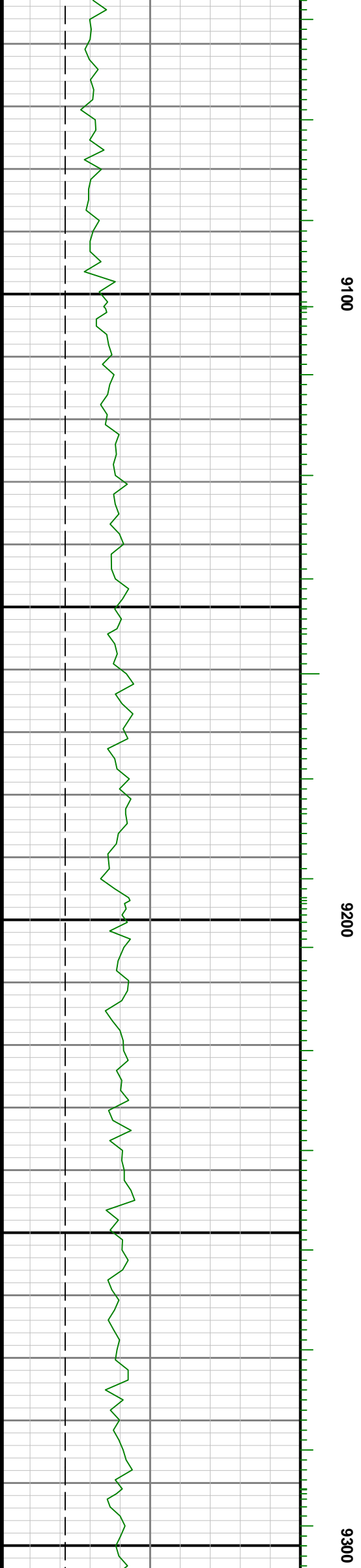
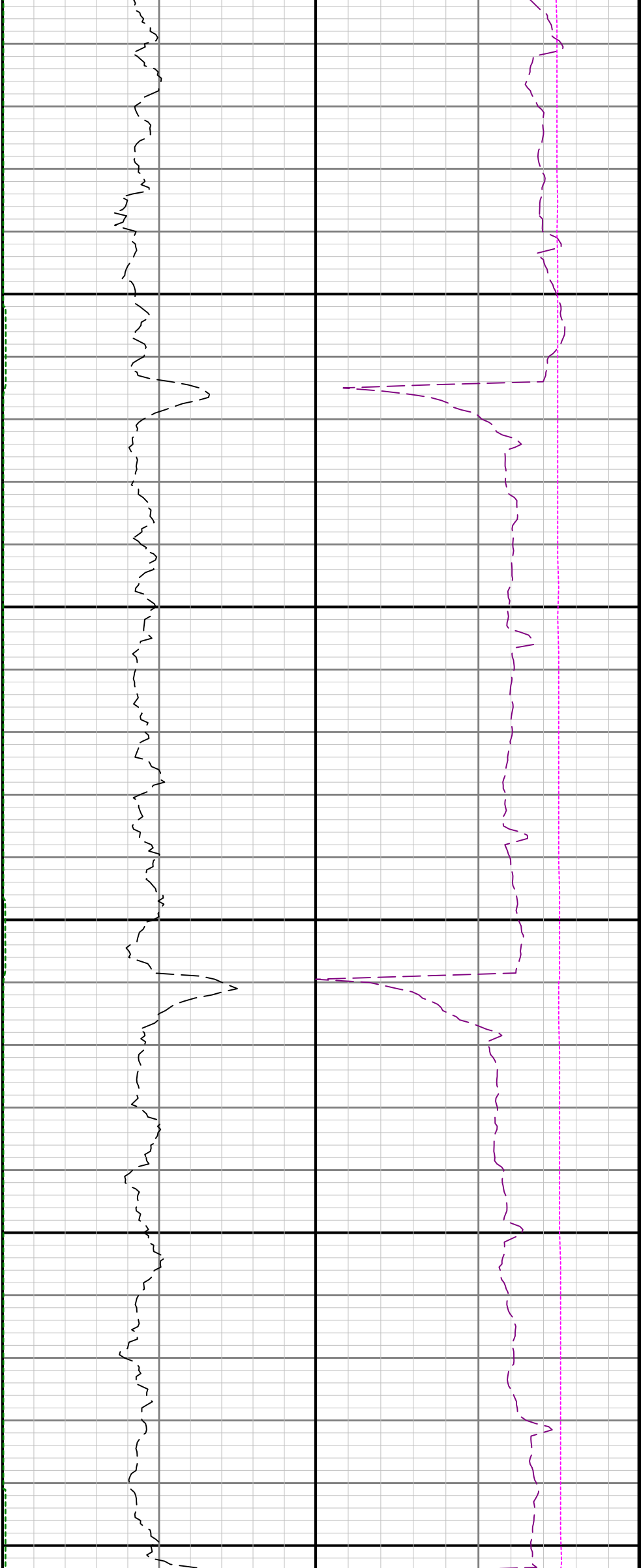
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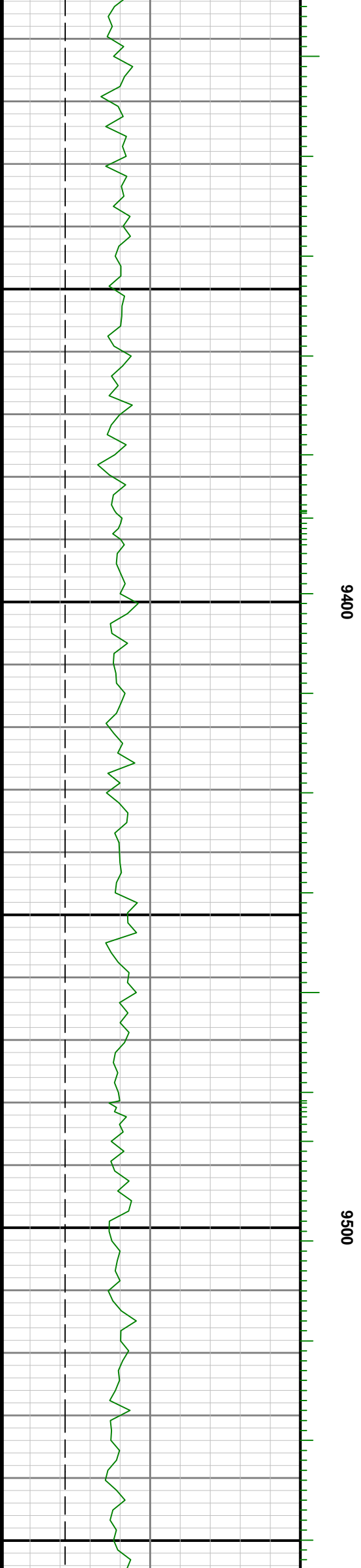
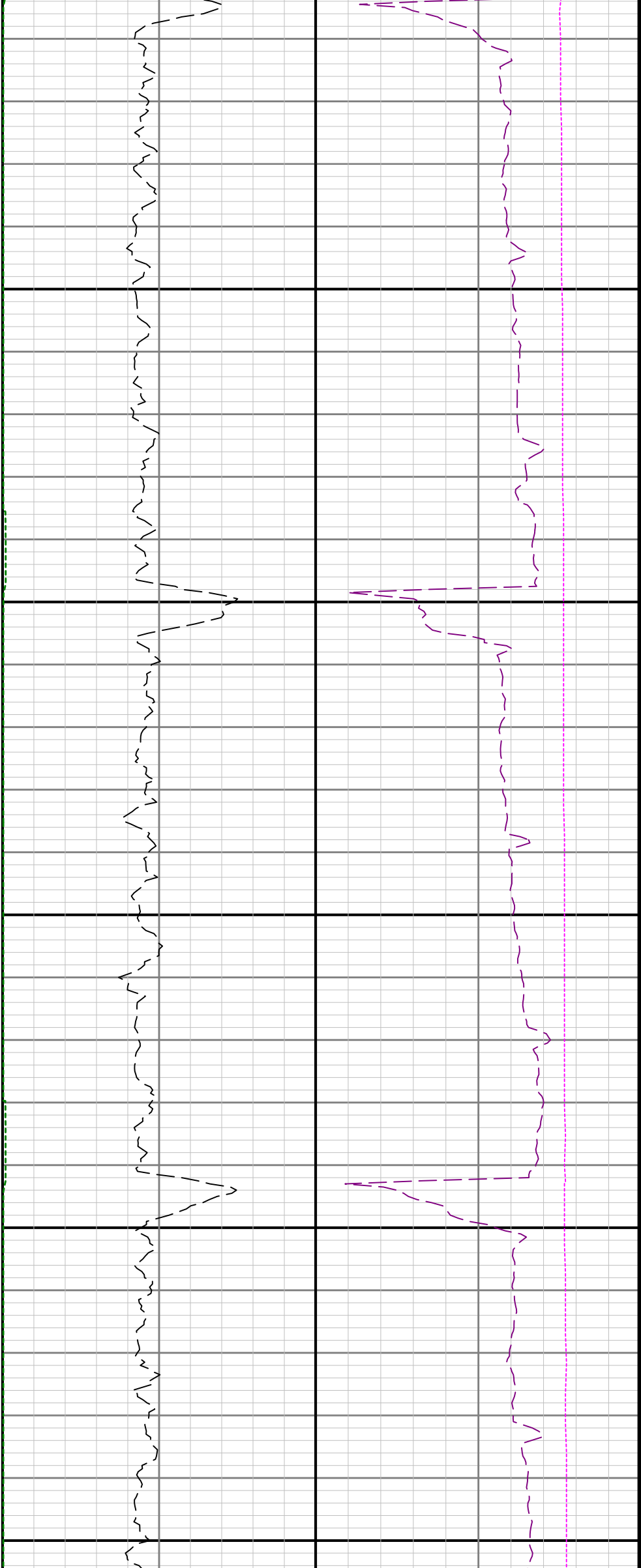


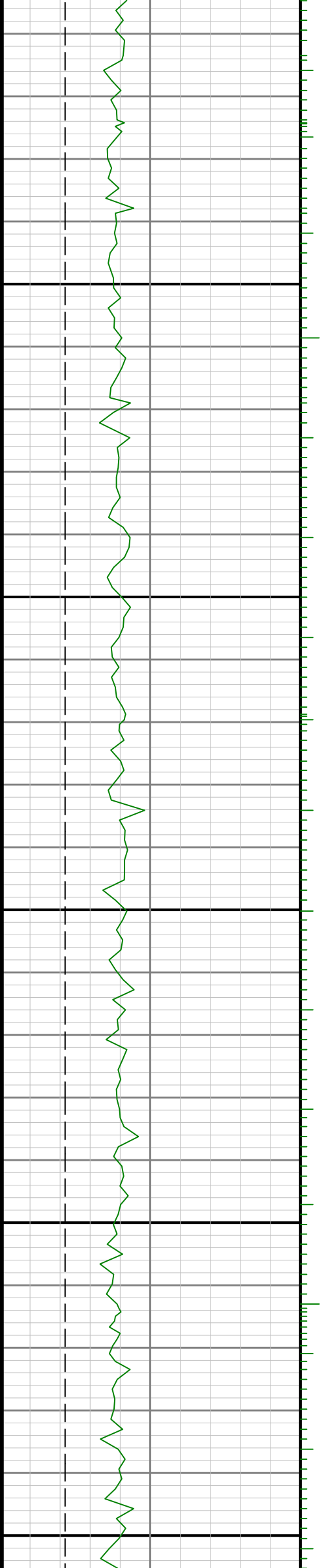








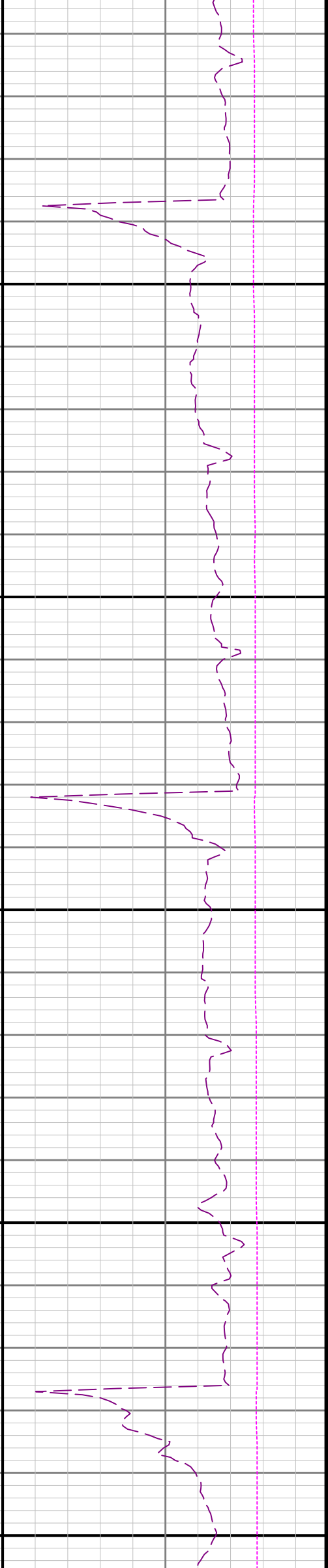


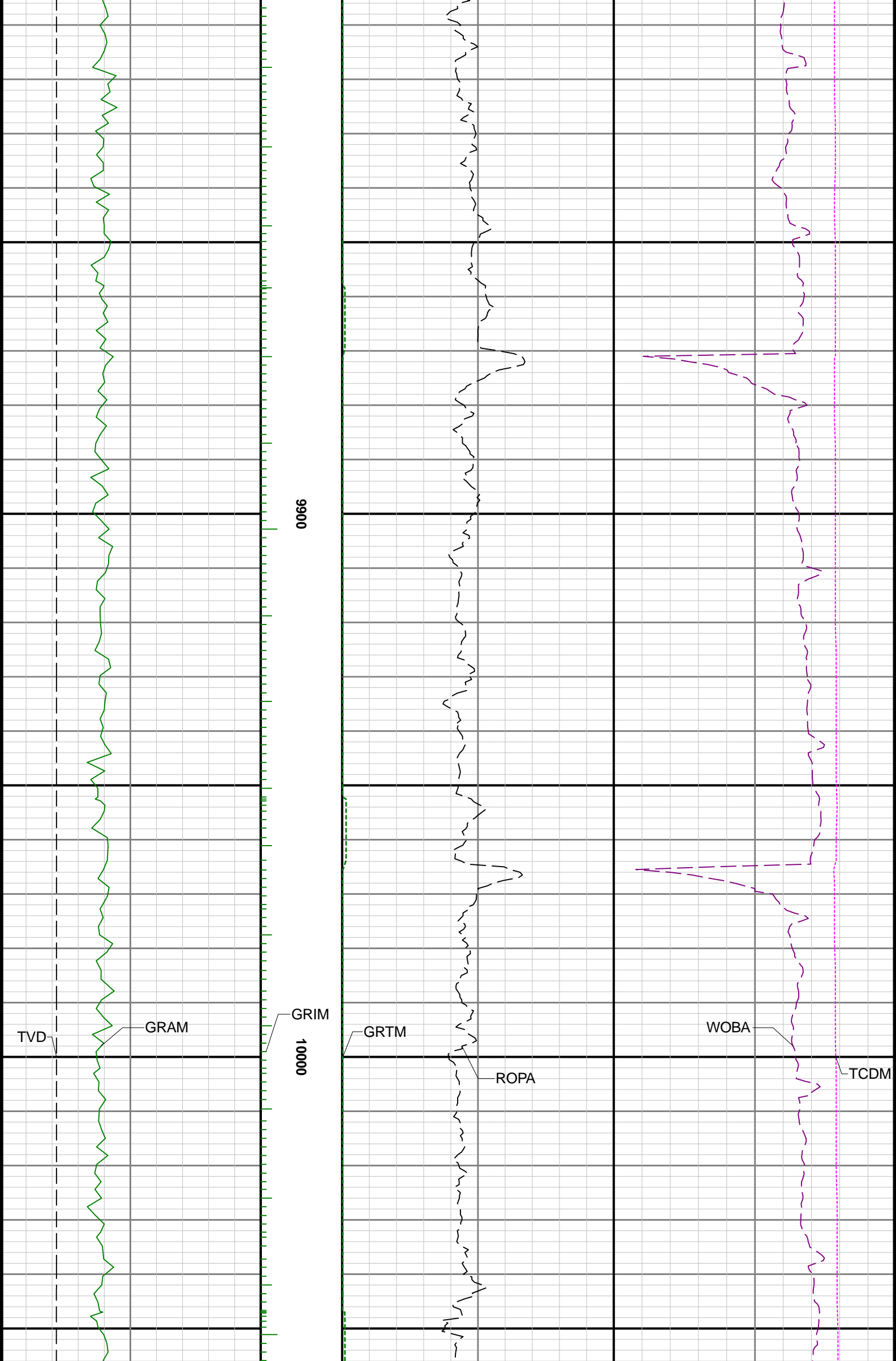


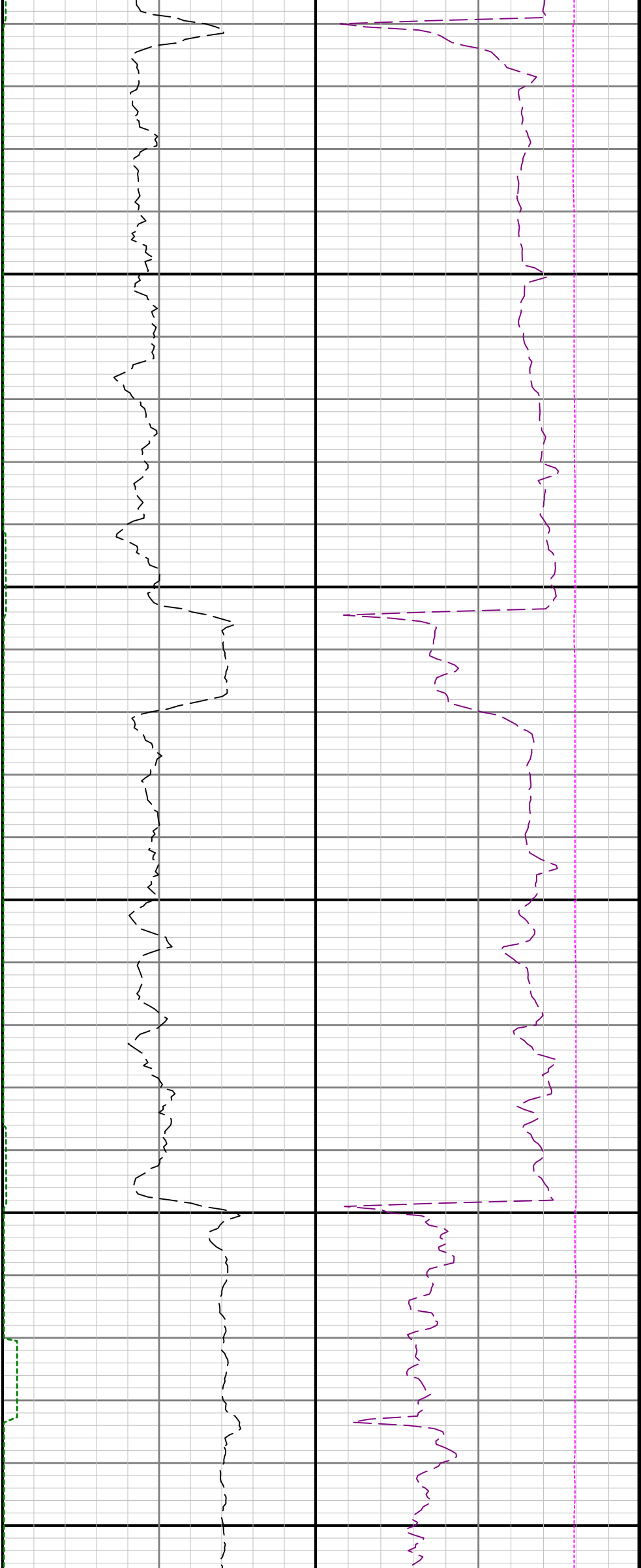
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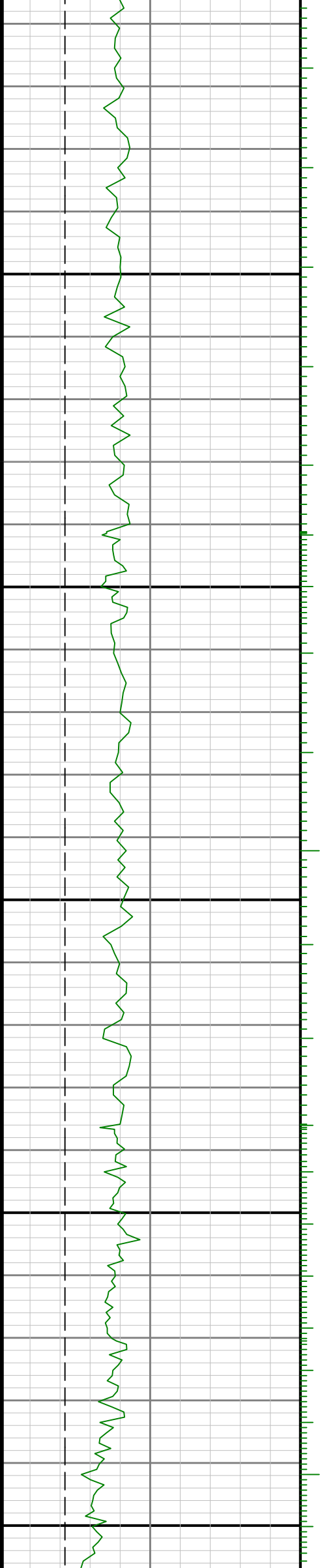


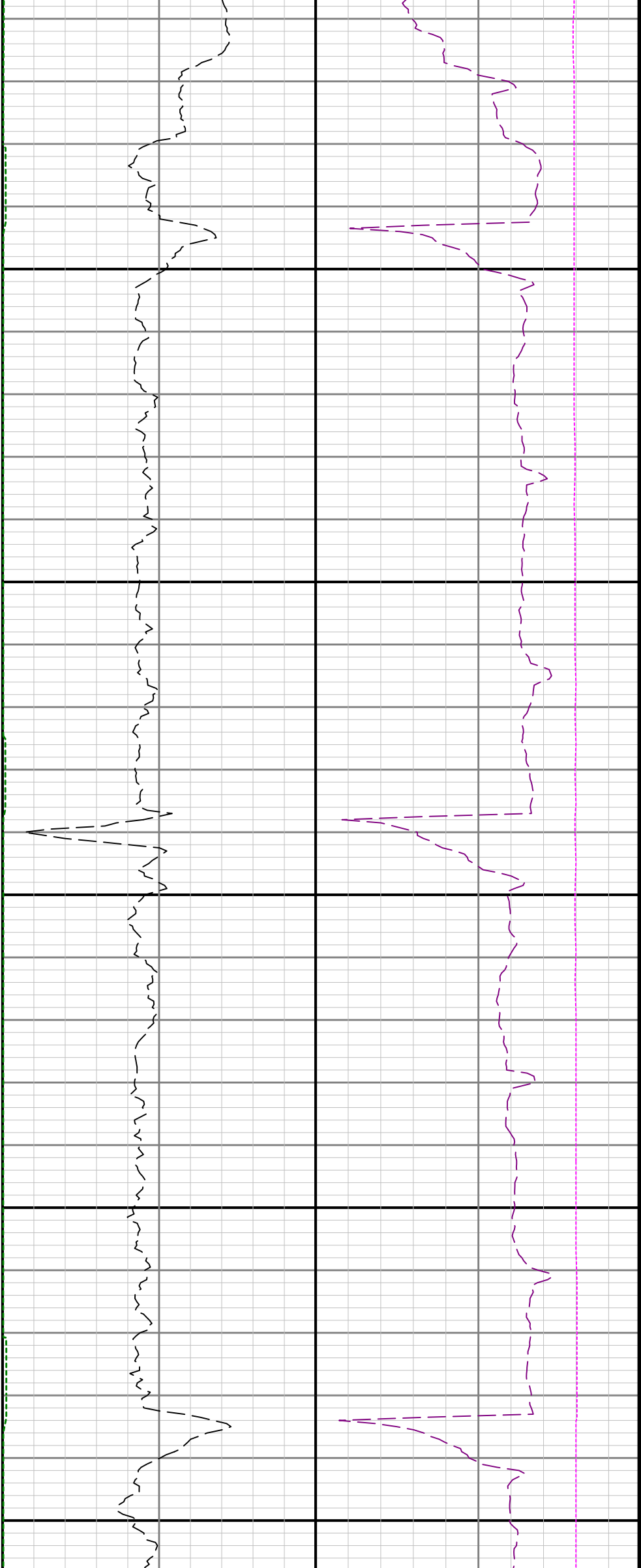


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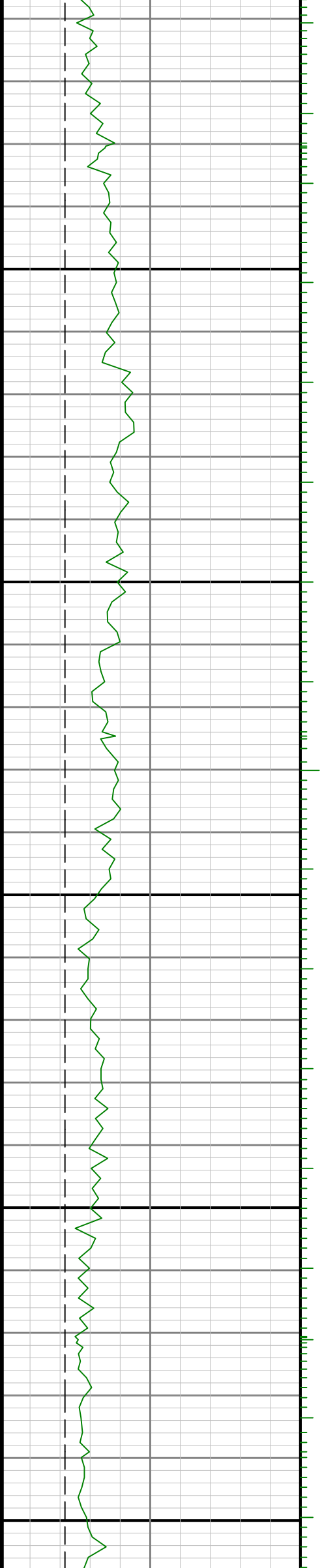
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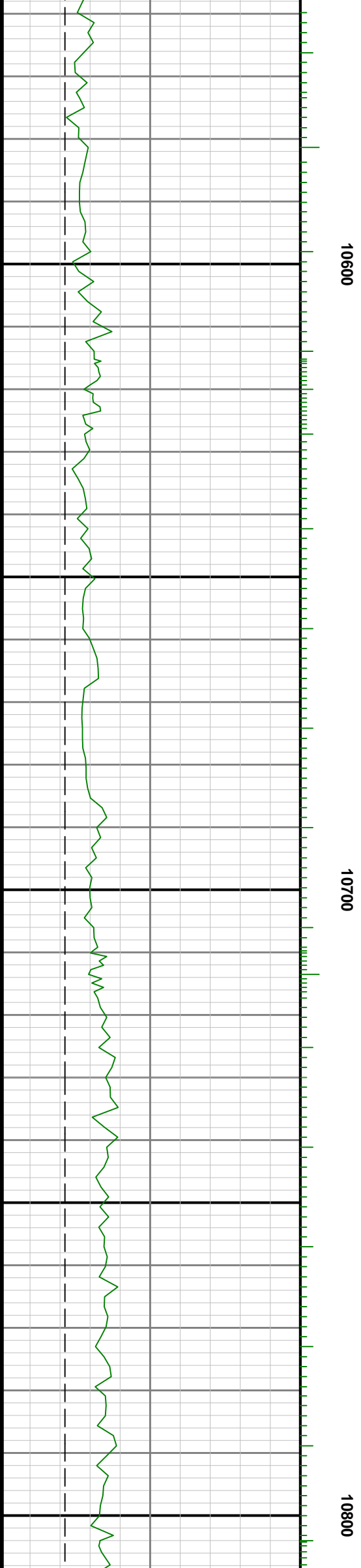
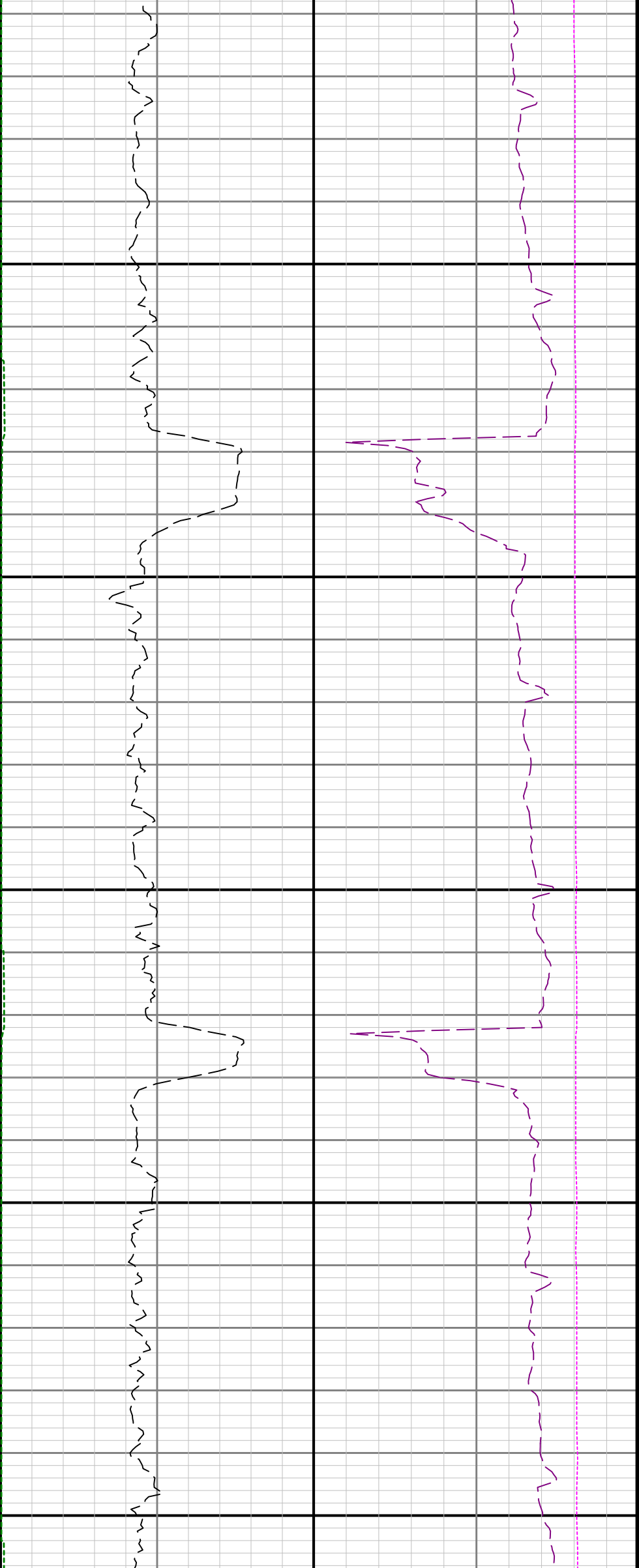


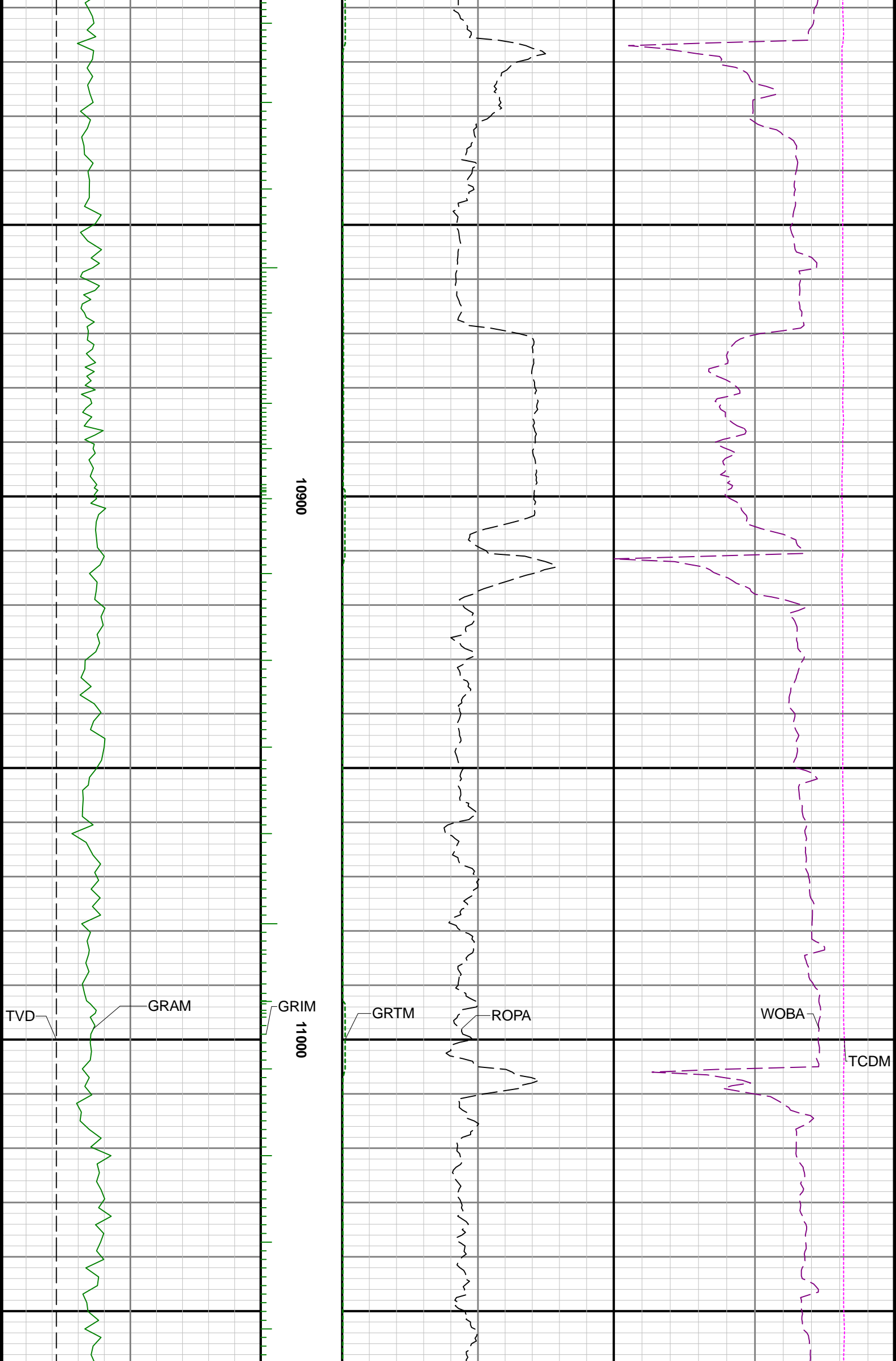


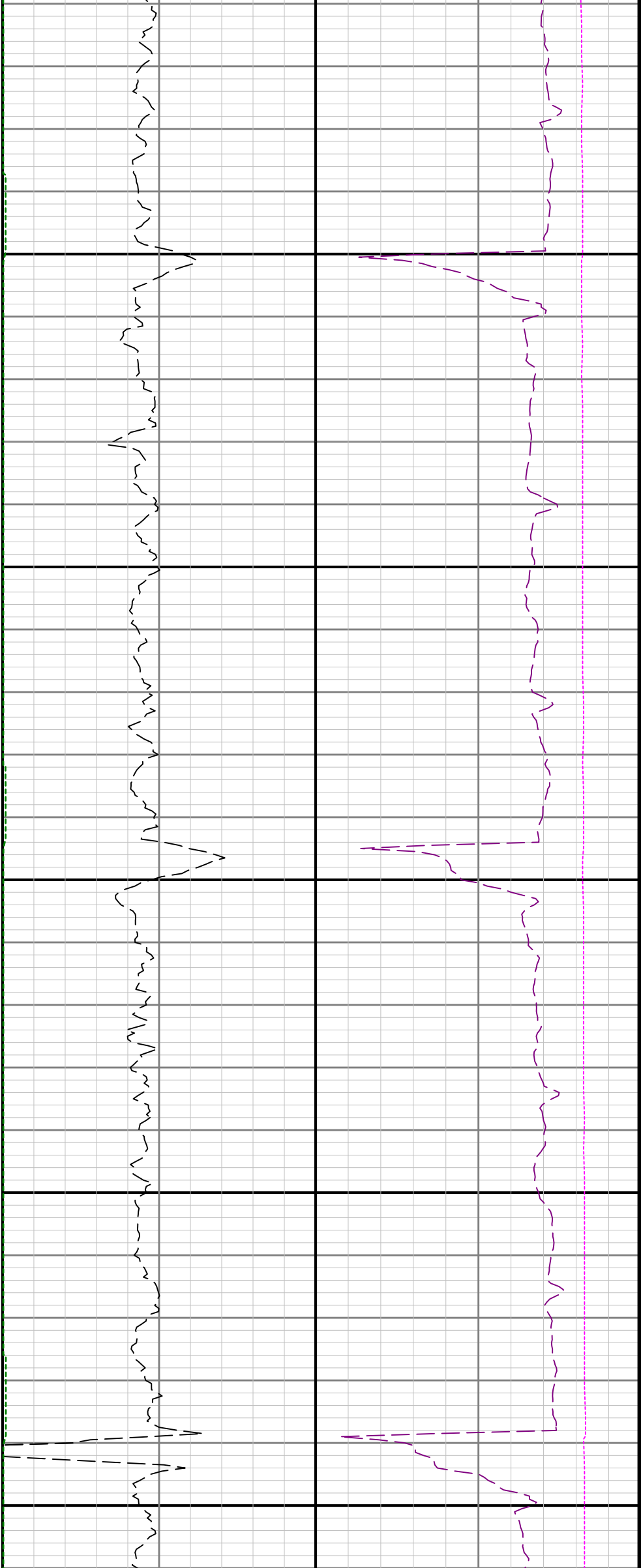
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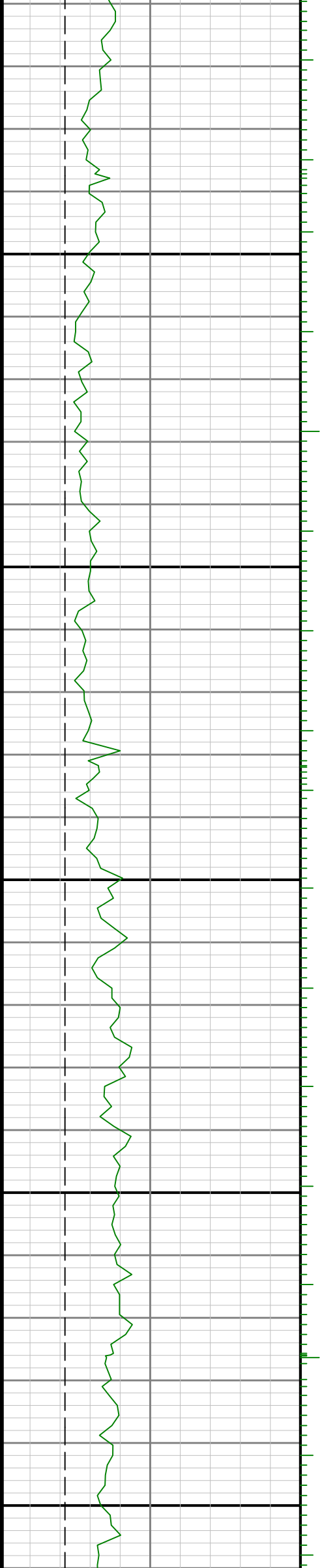


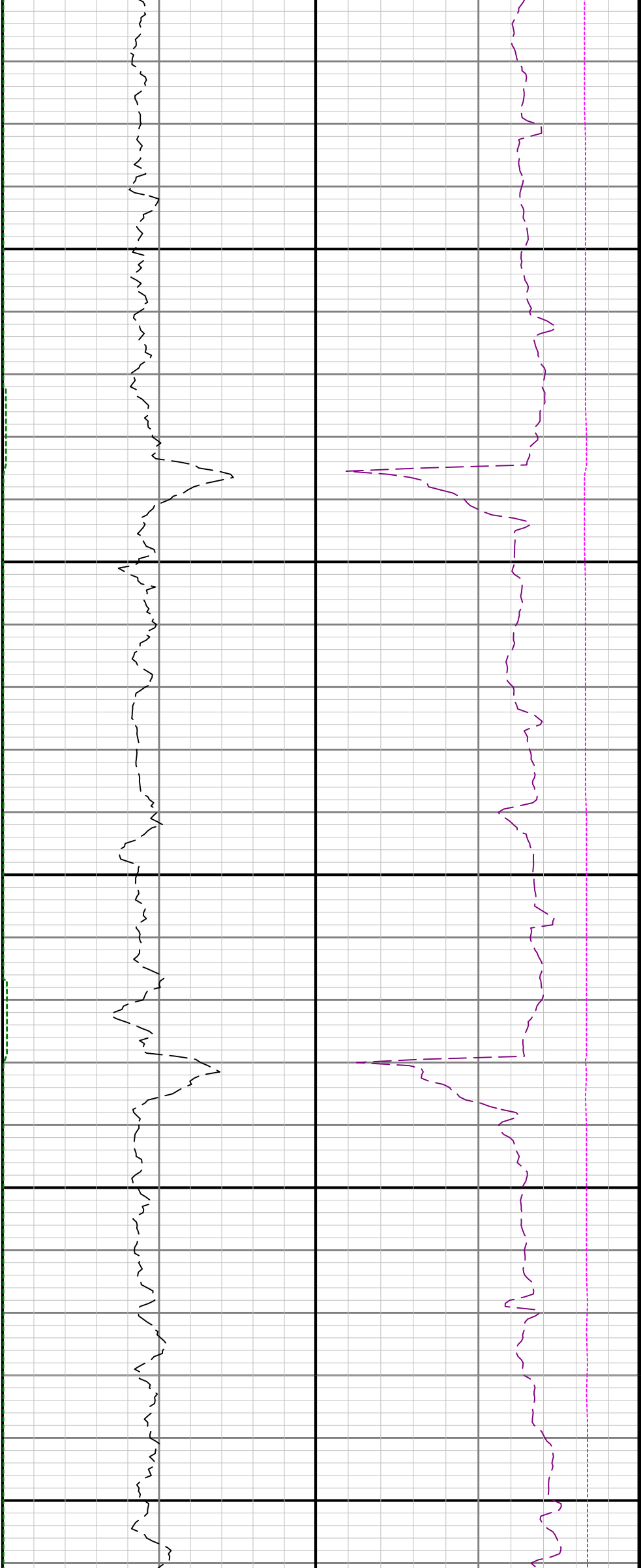


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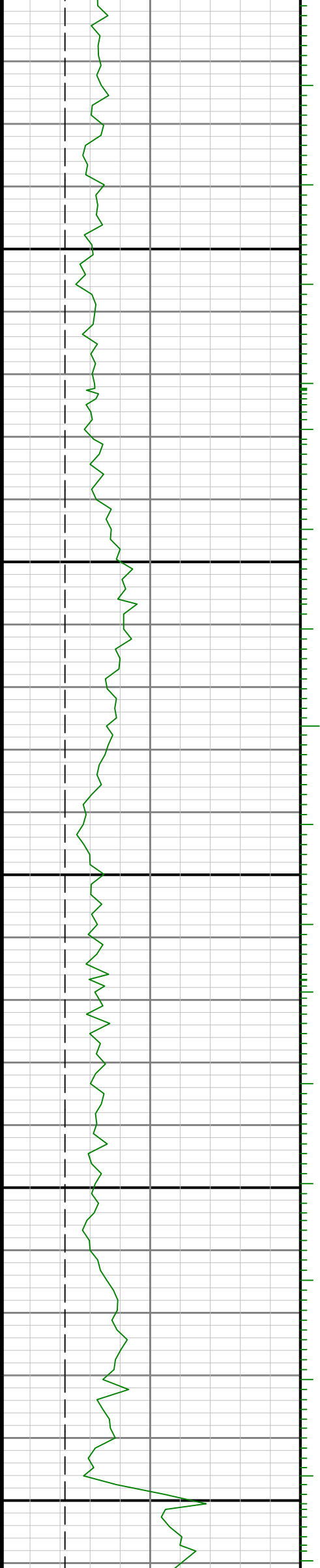
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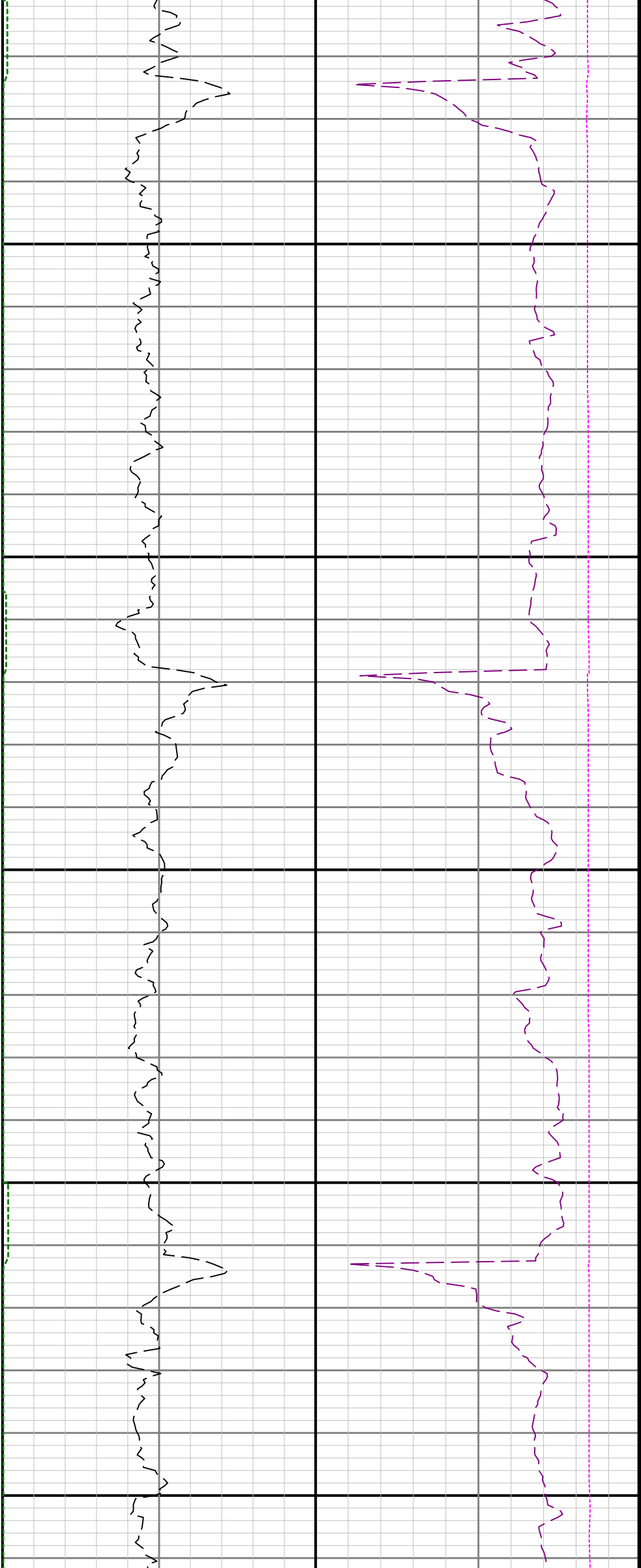




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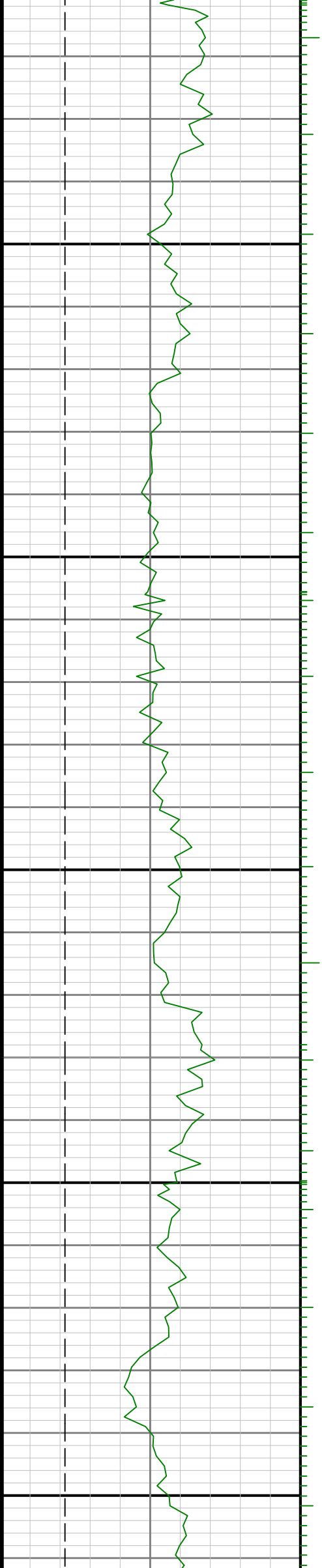


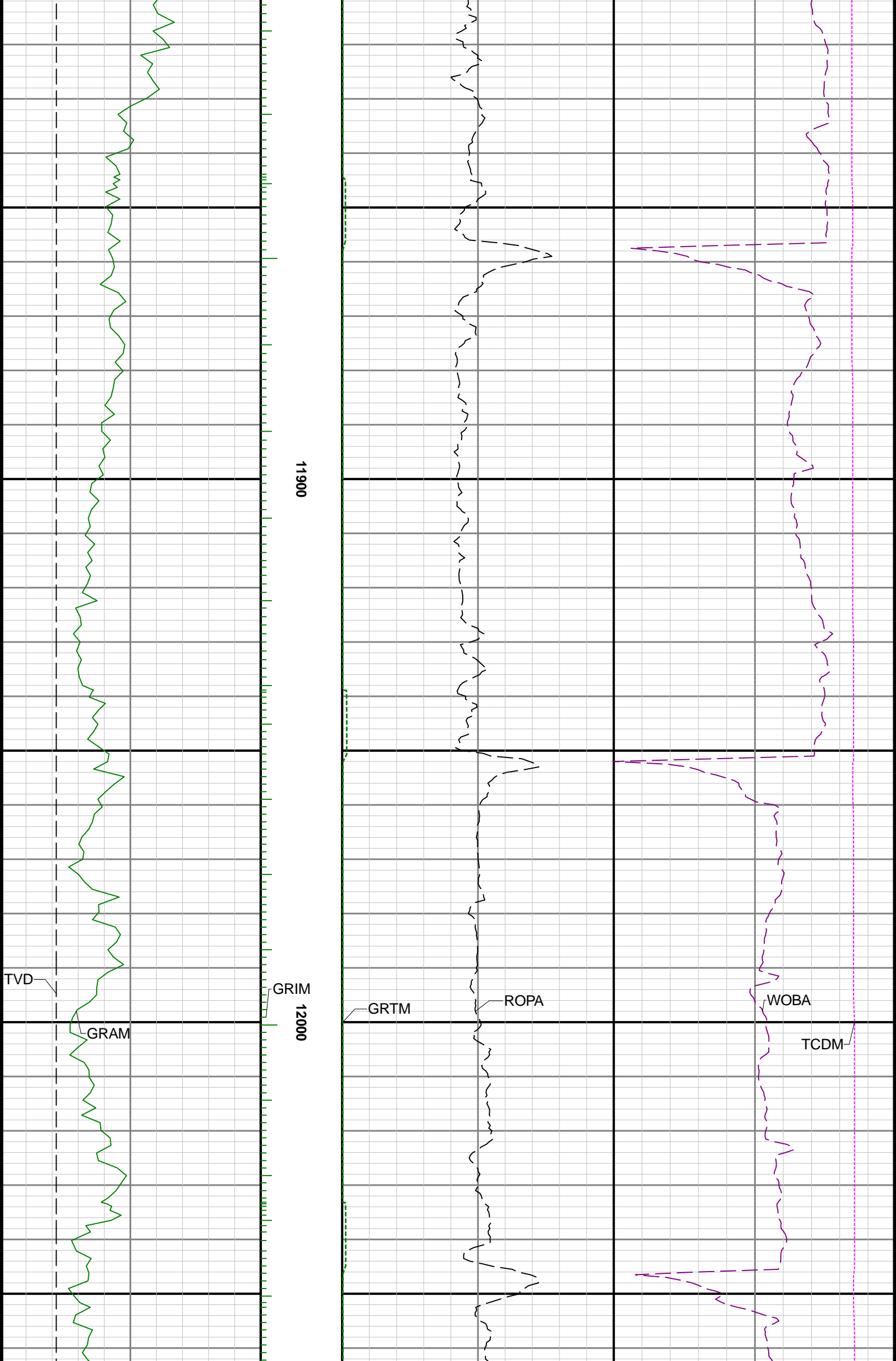


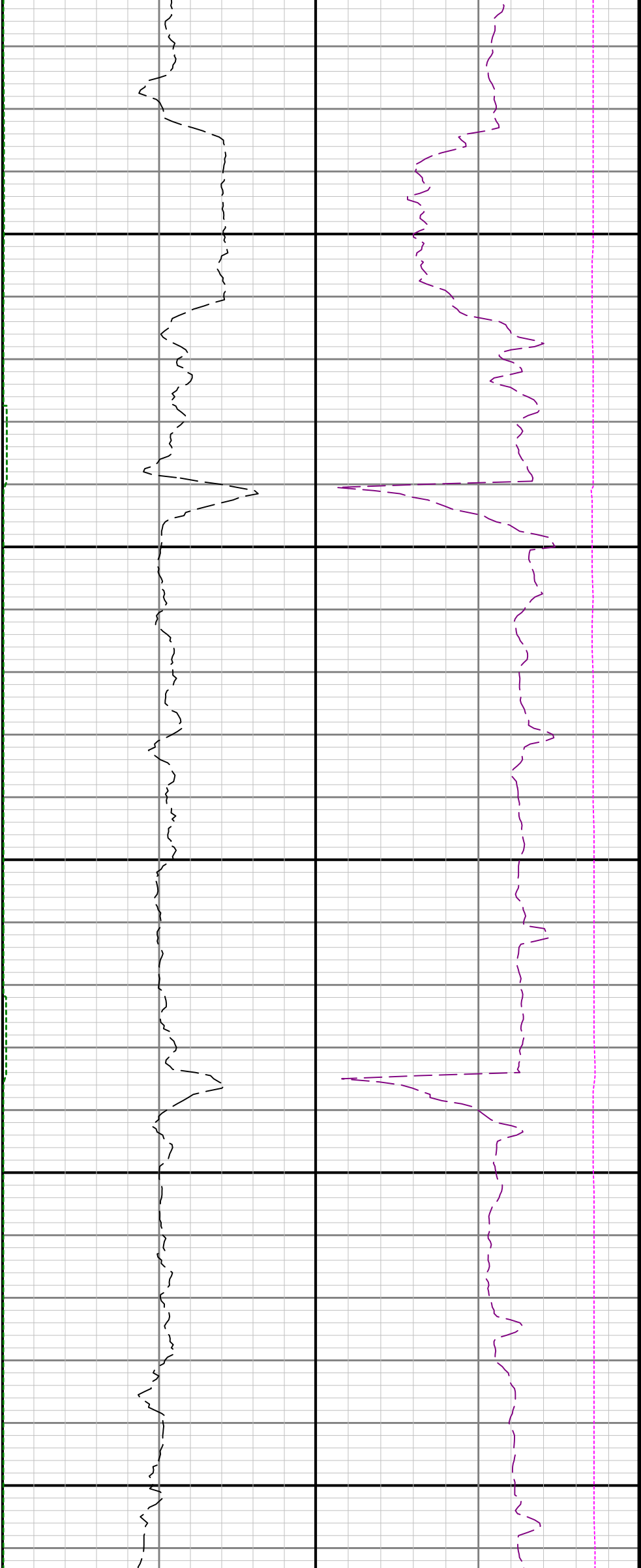
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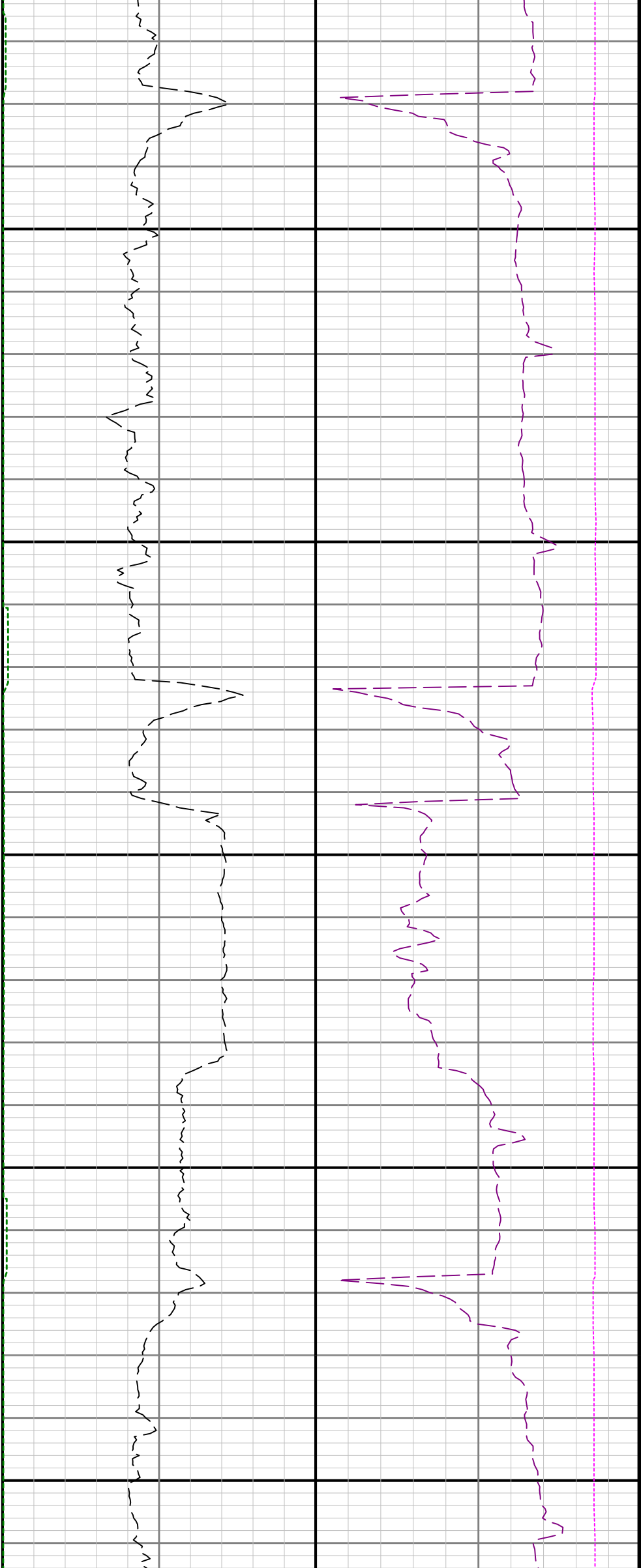




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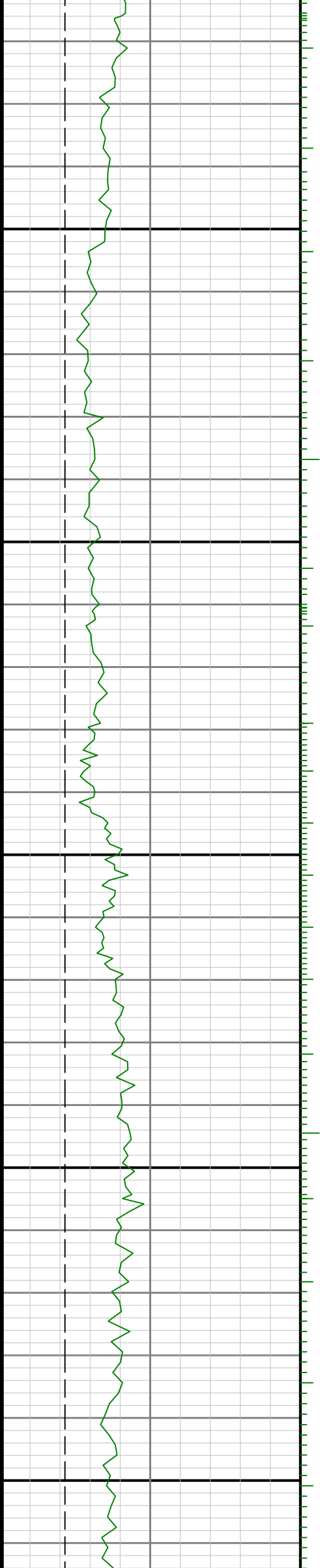
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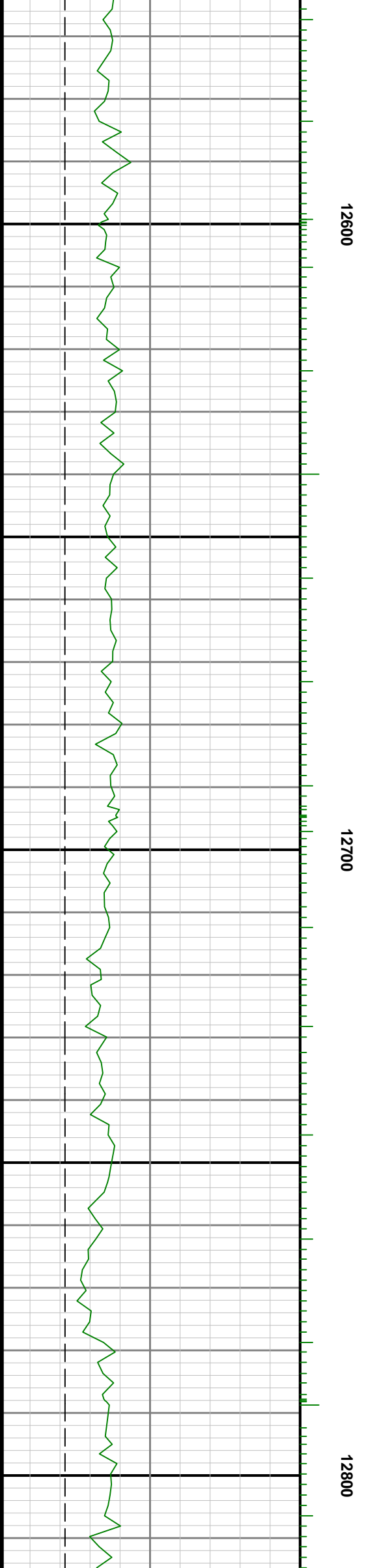
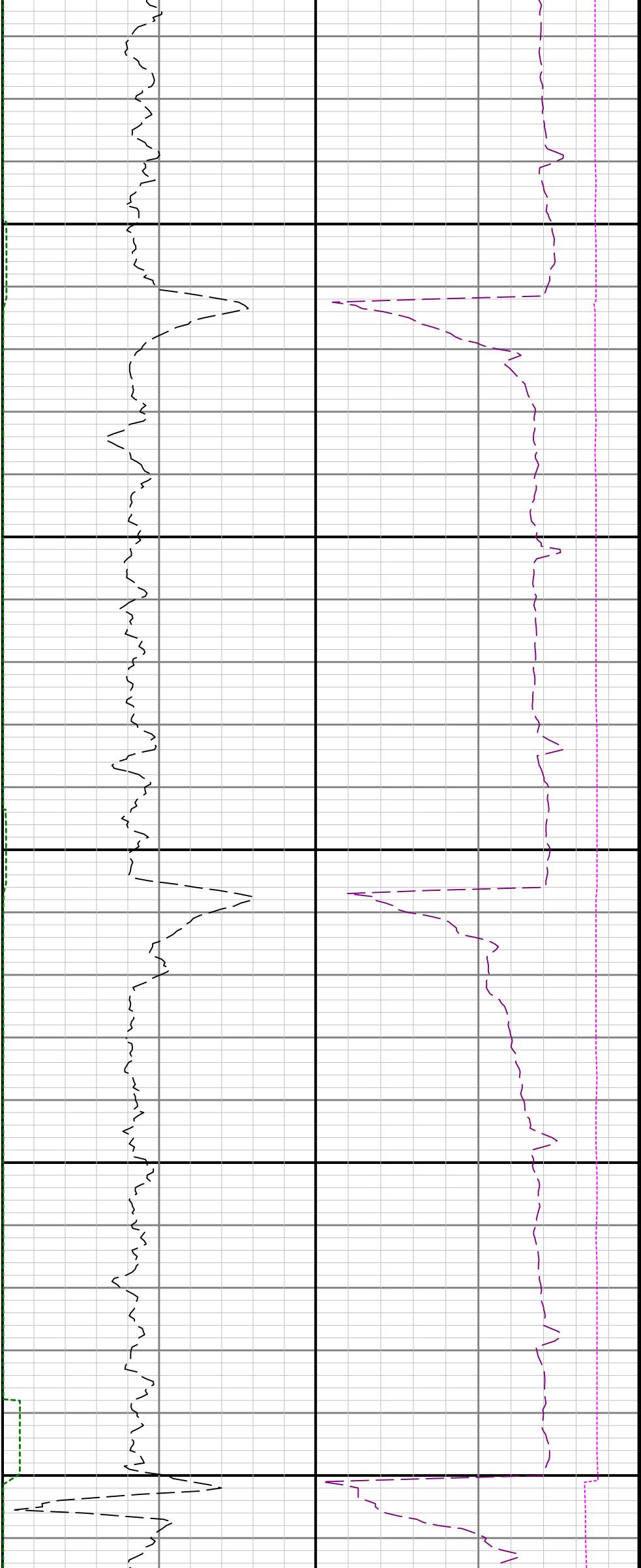
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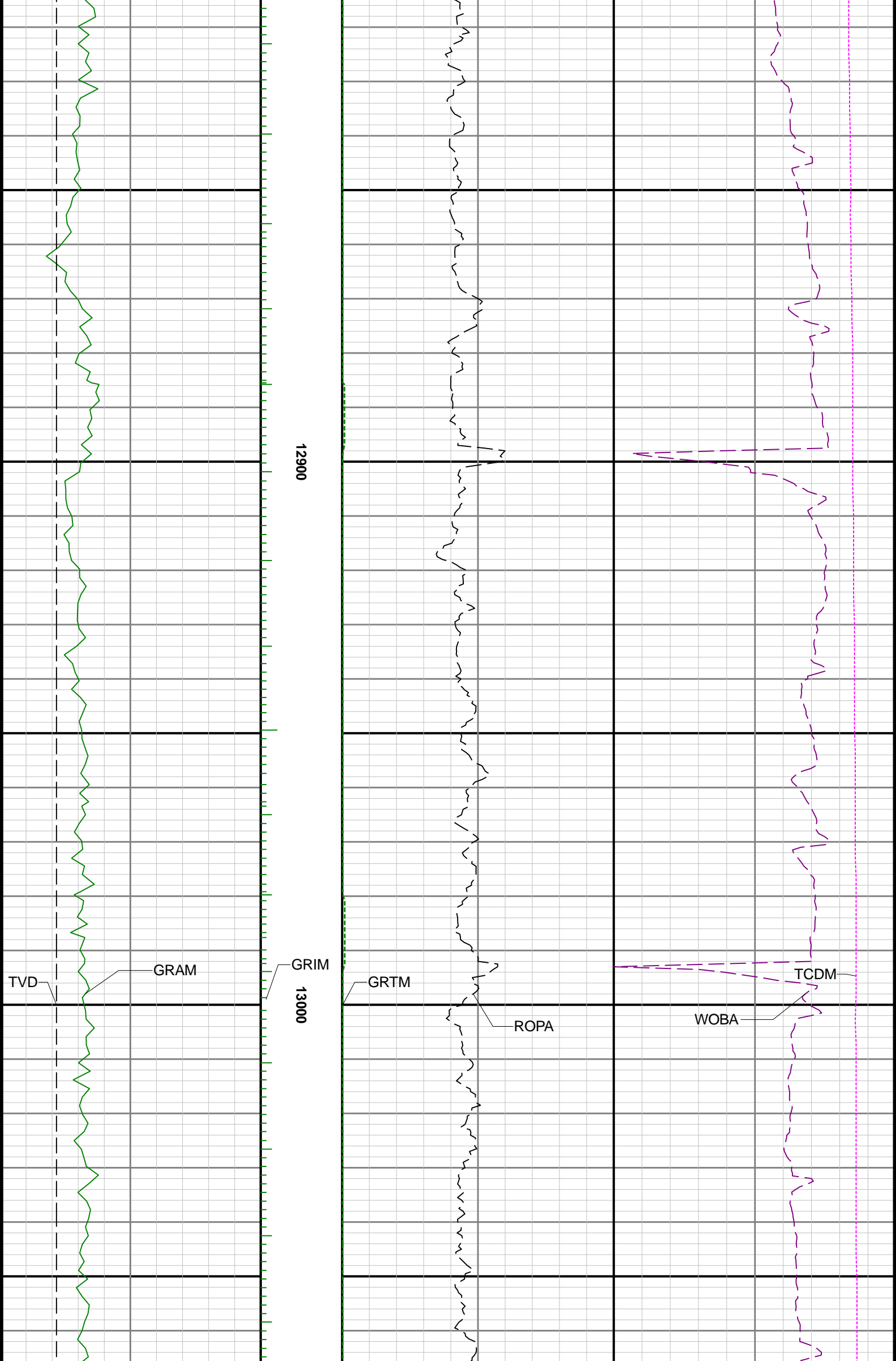


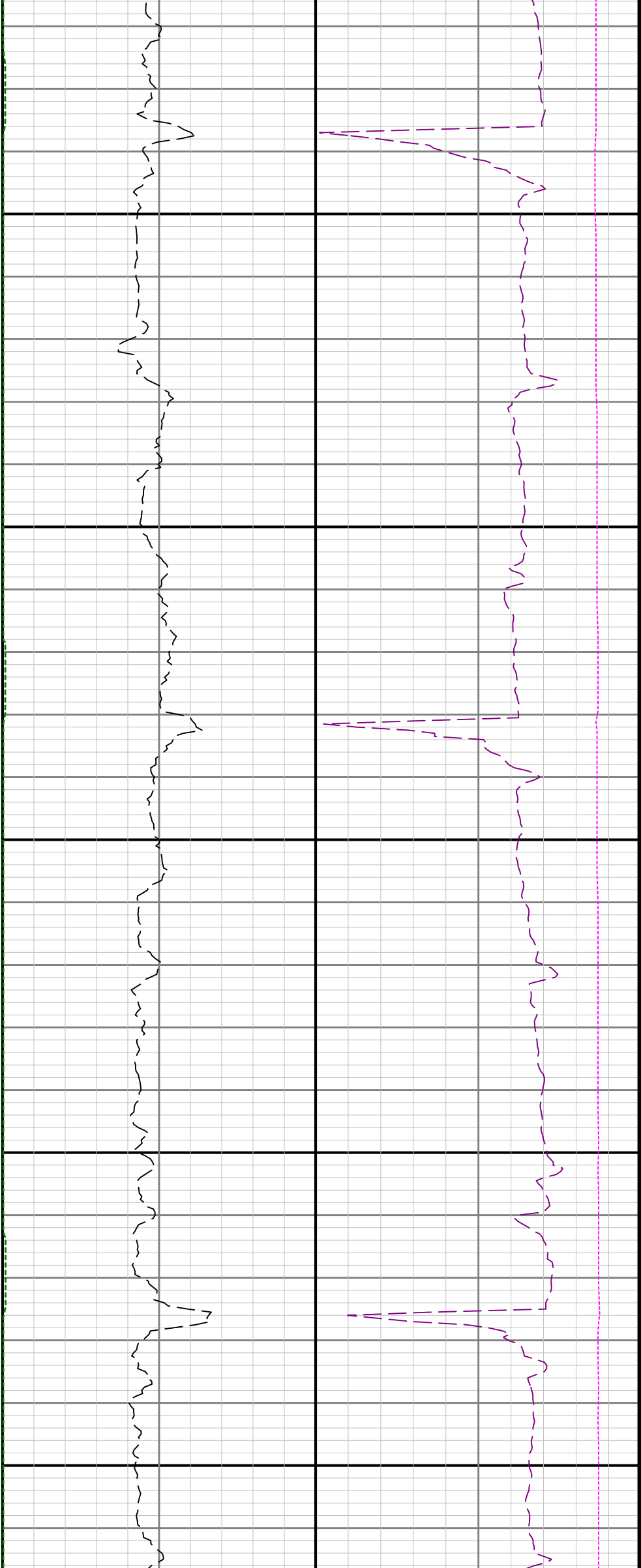
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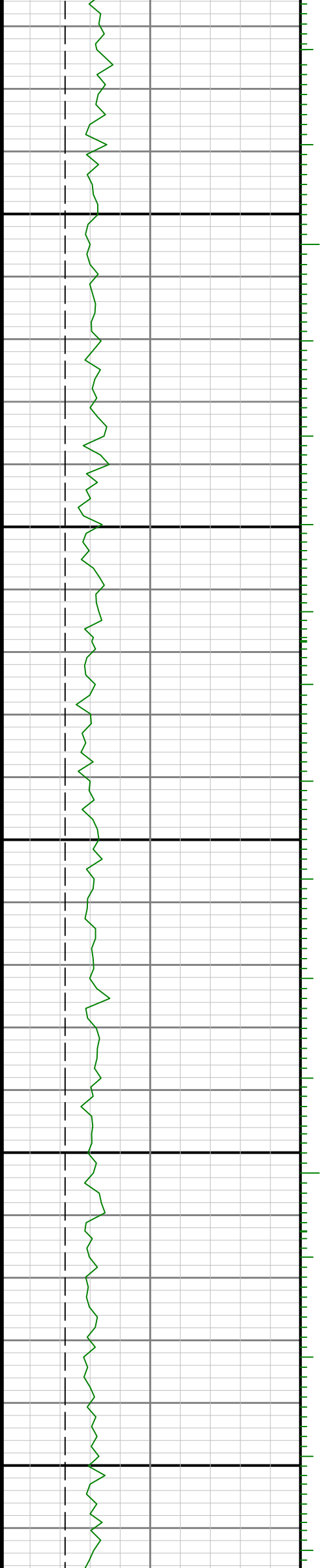


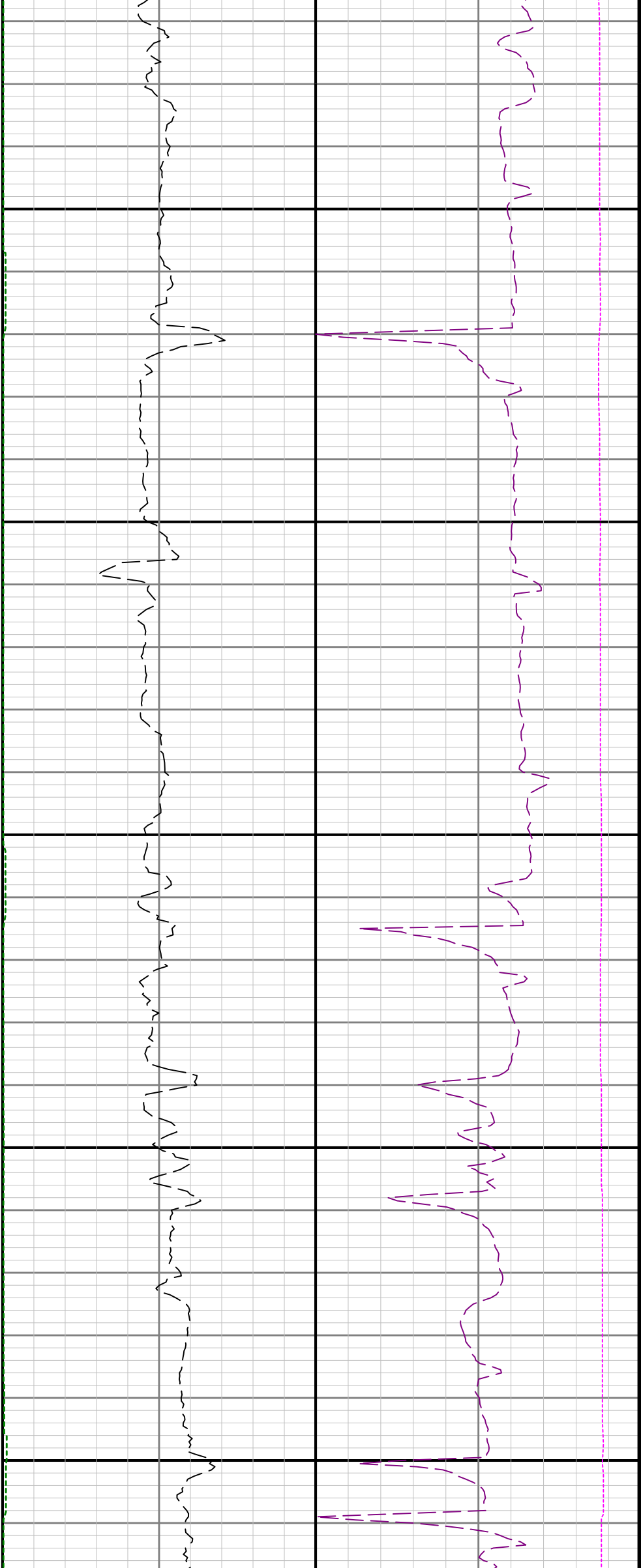


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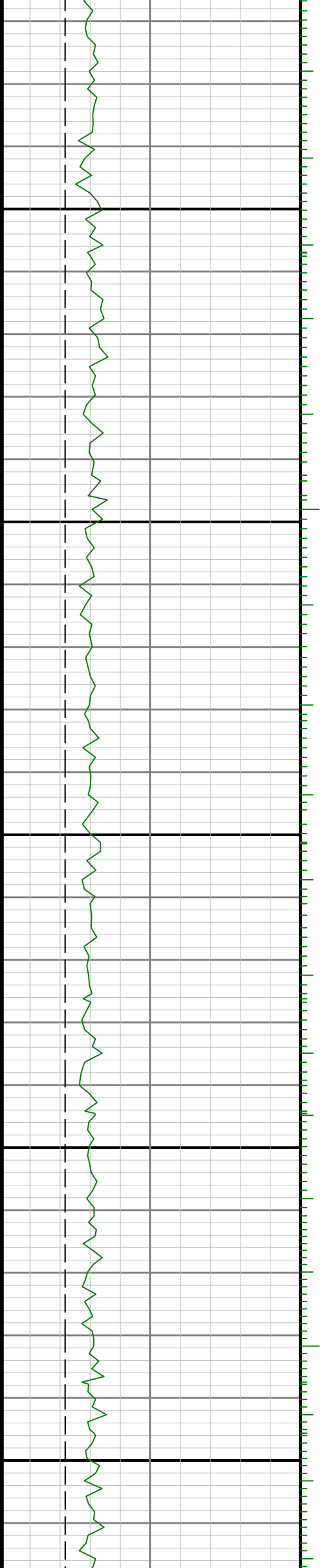
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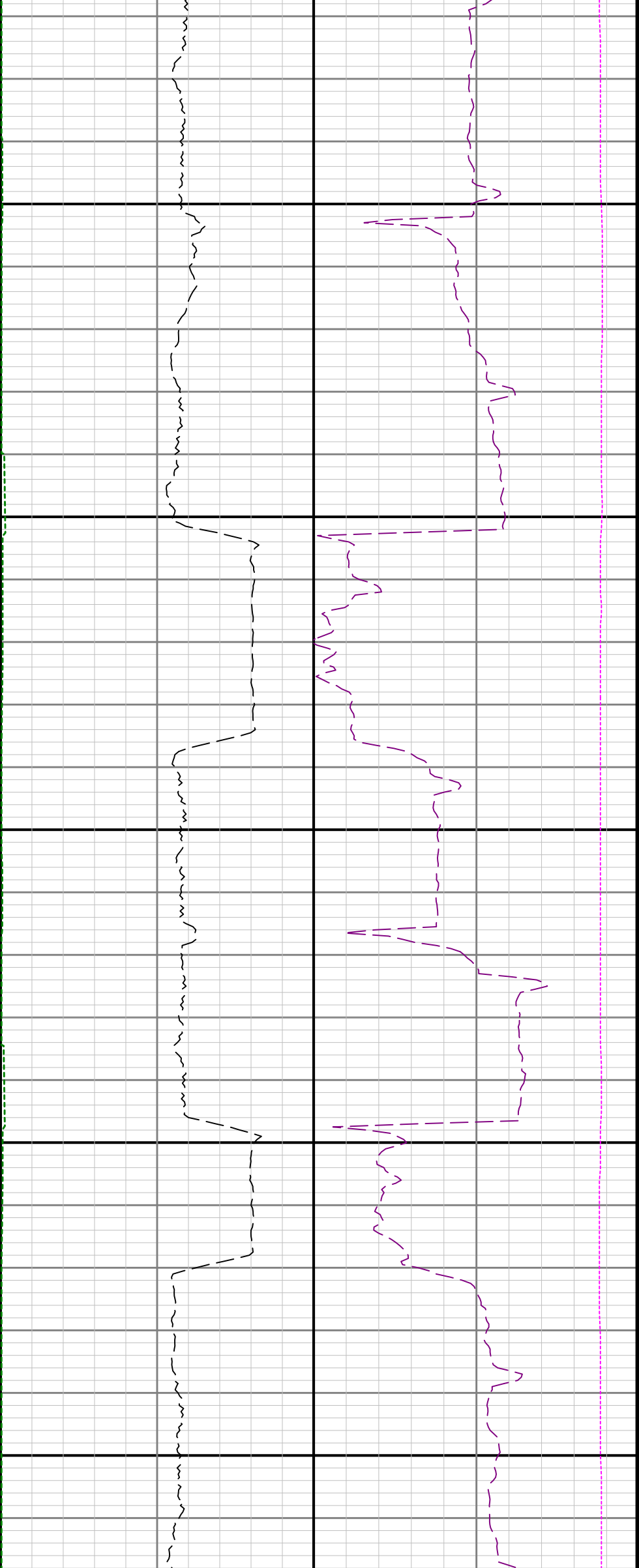




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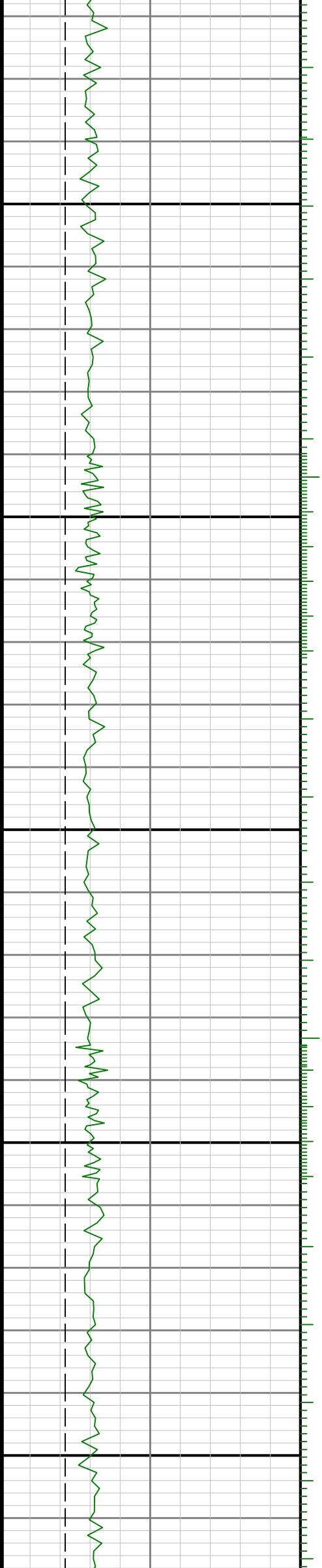


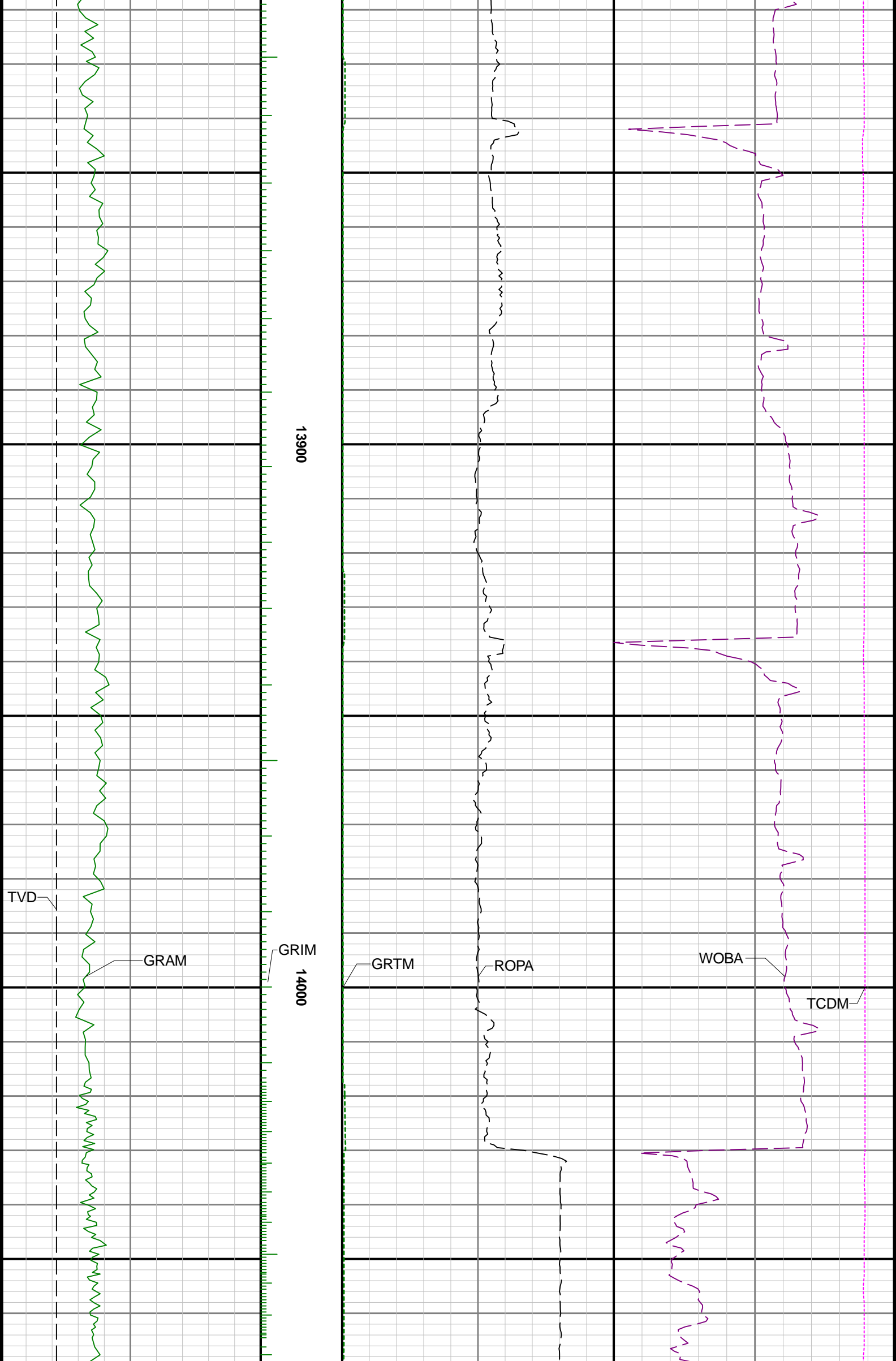


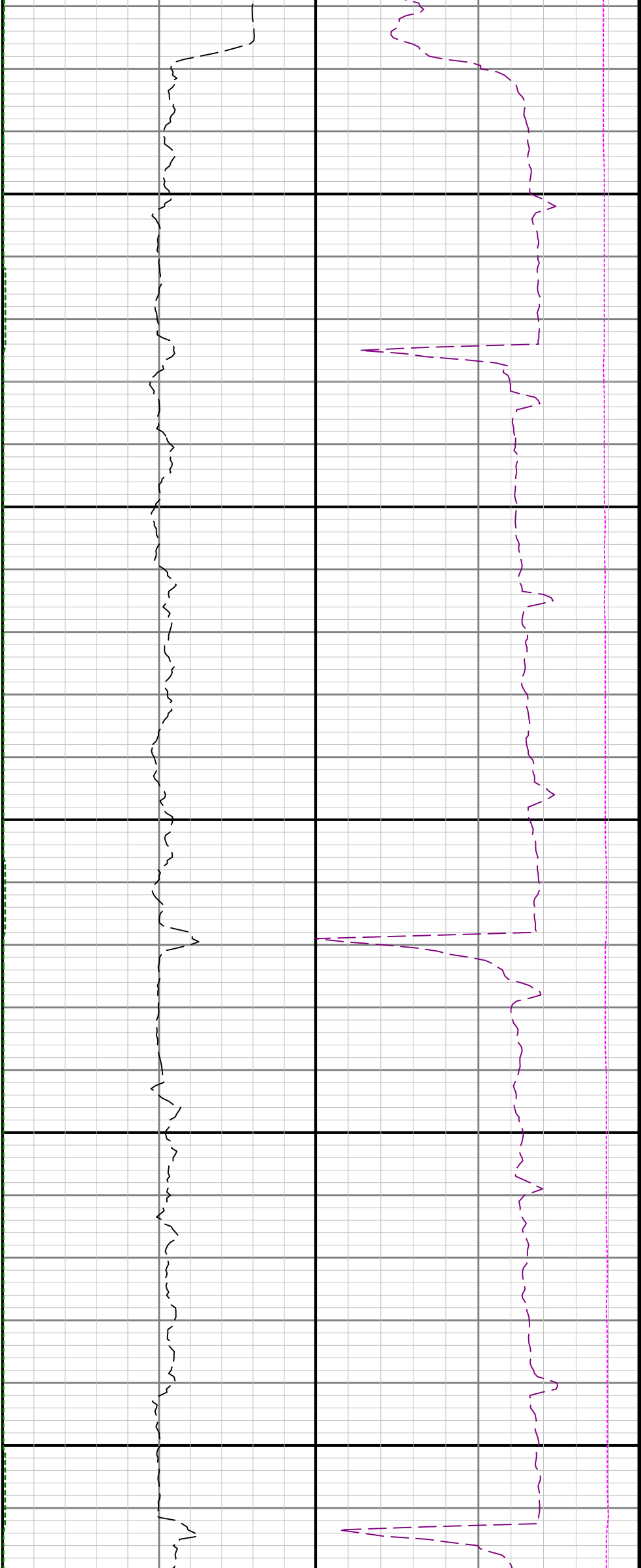
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13800



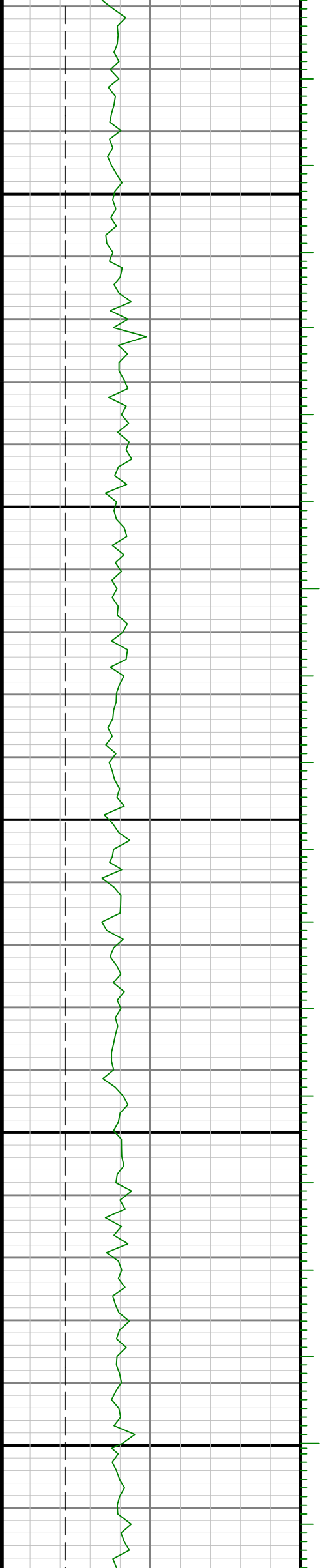




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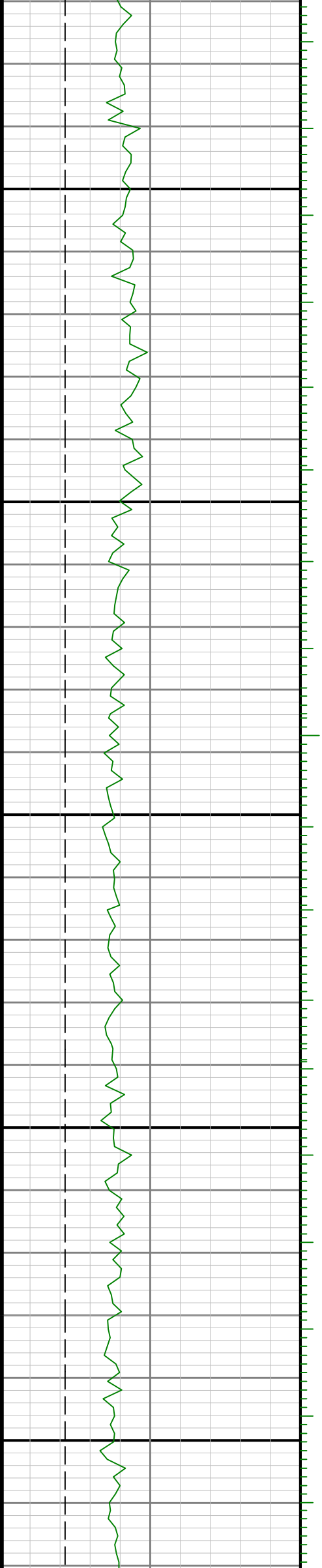
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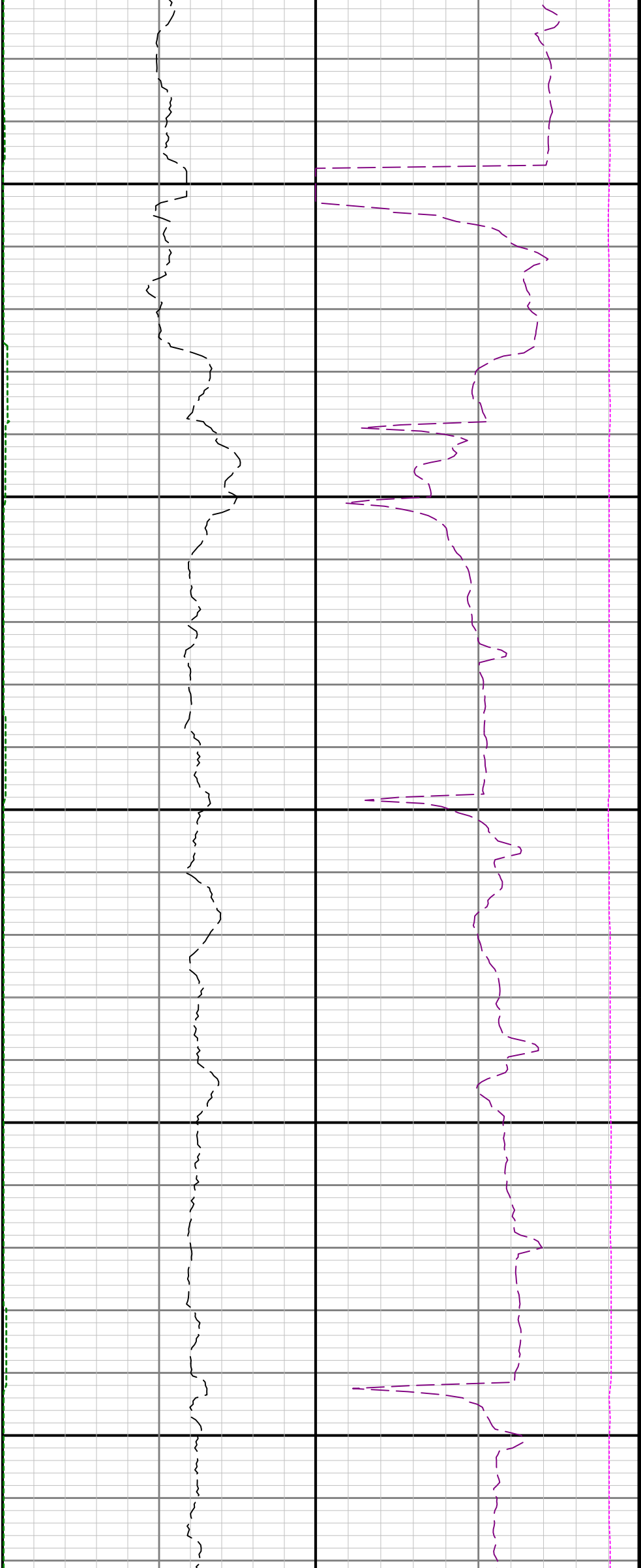




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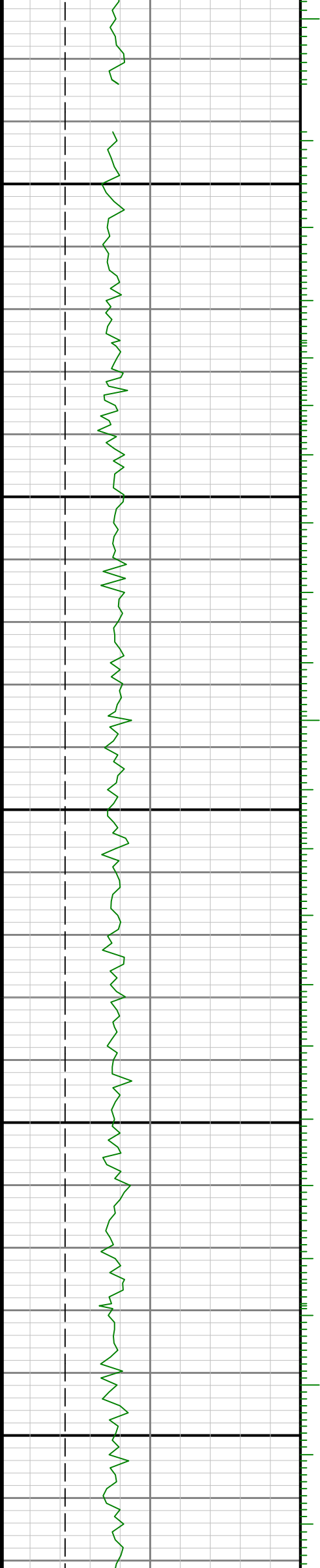


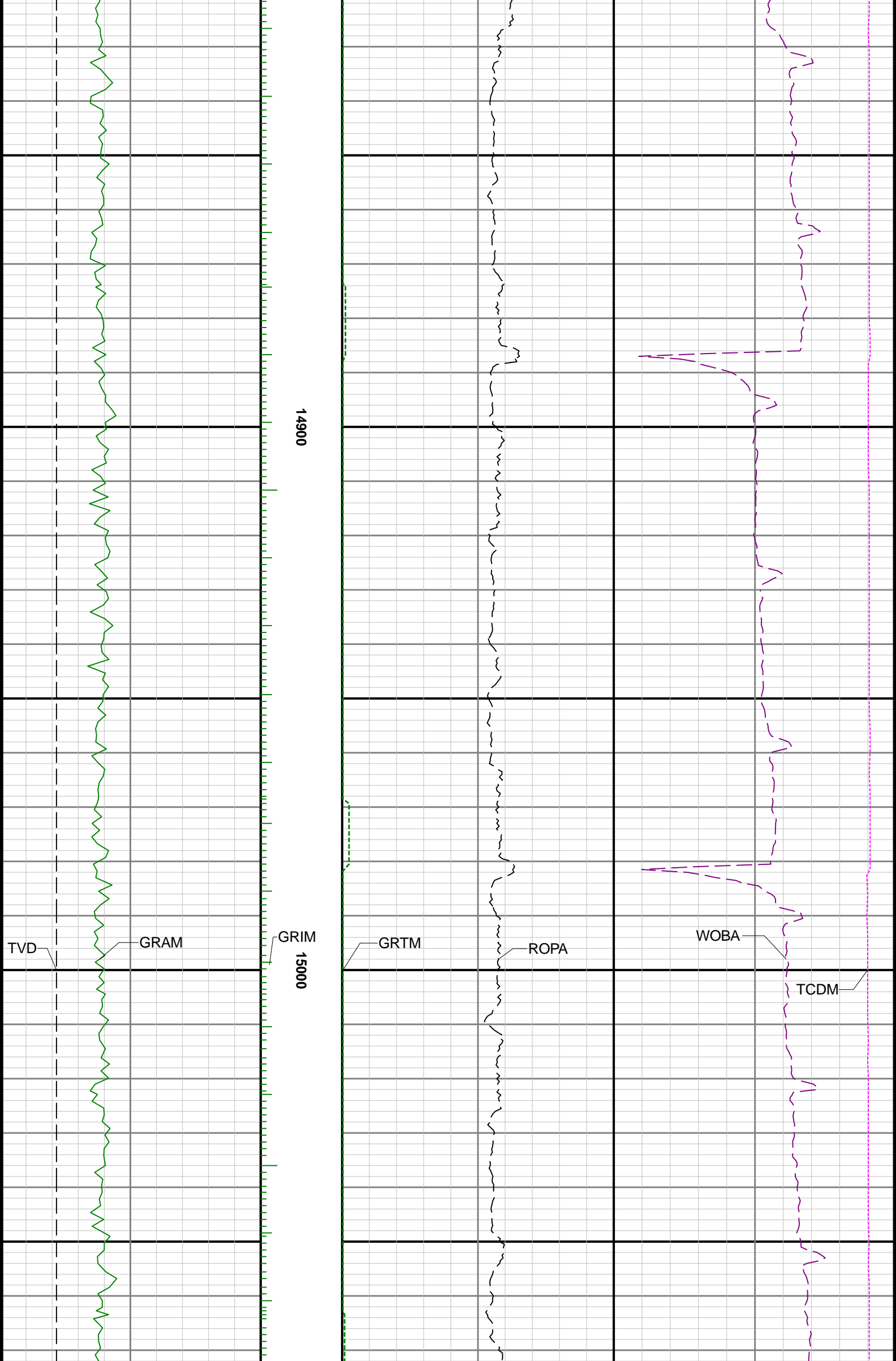


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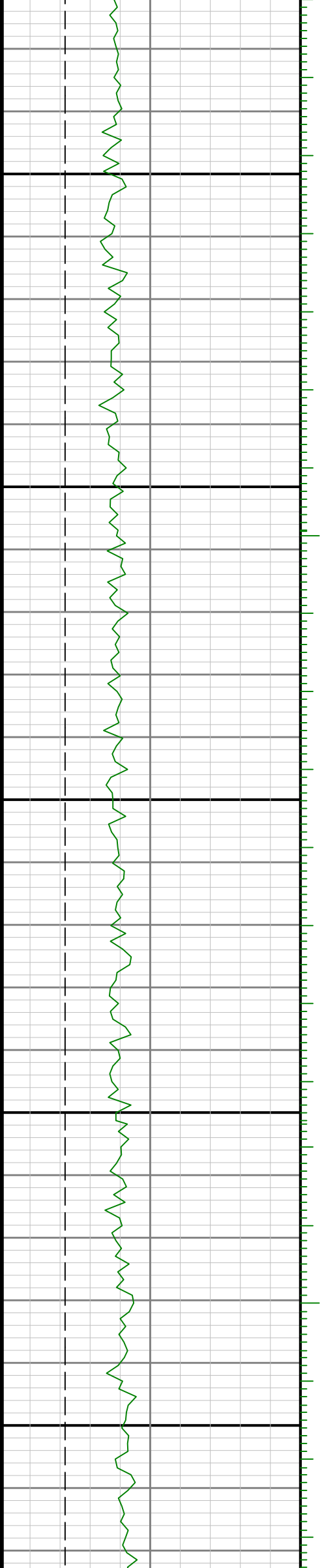




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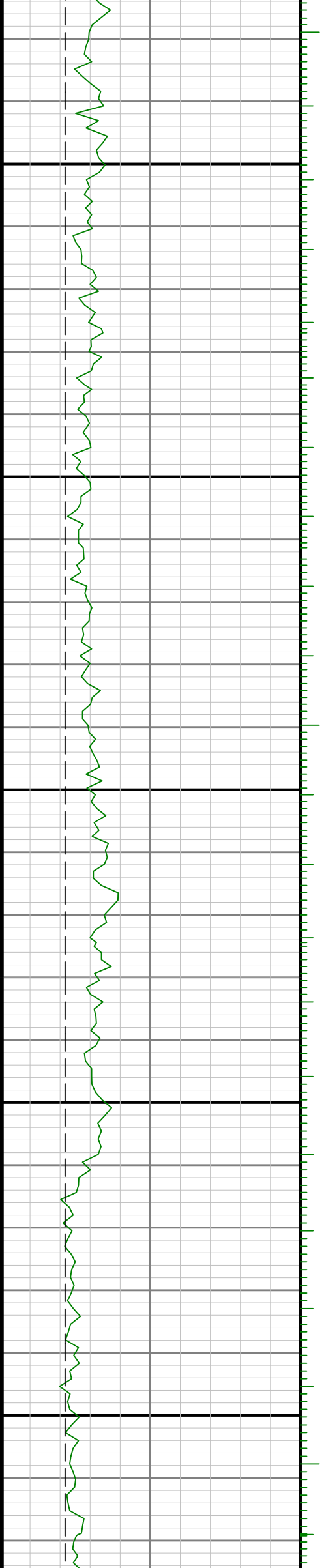


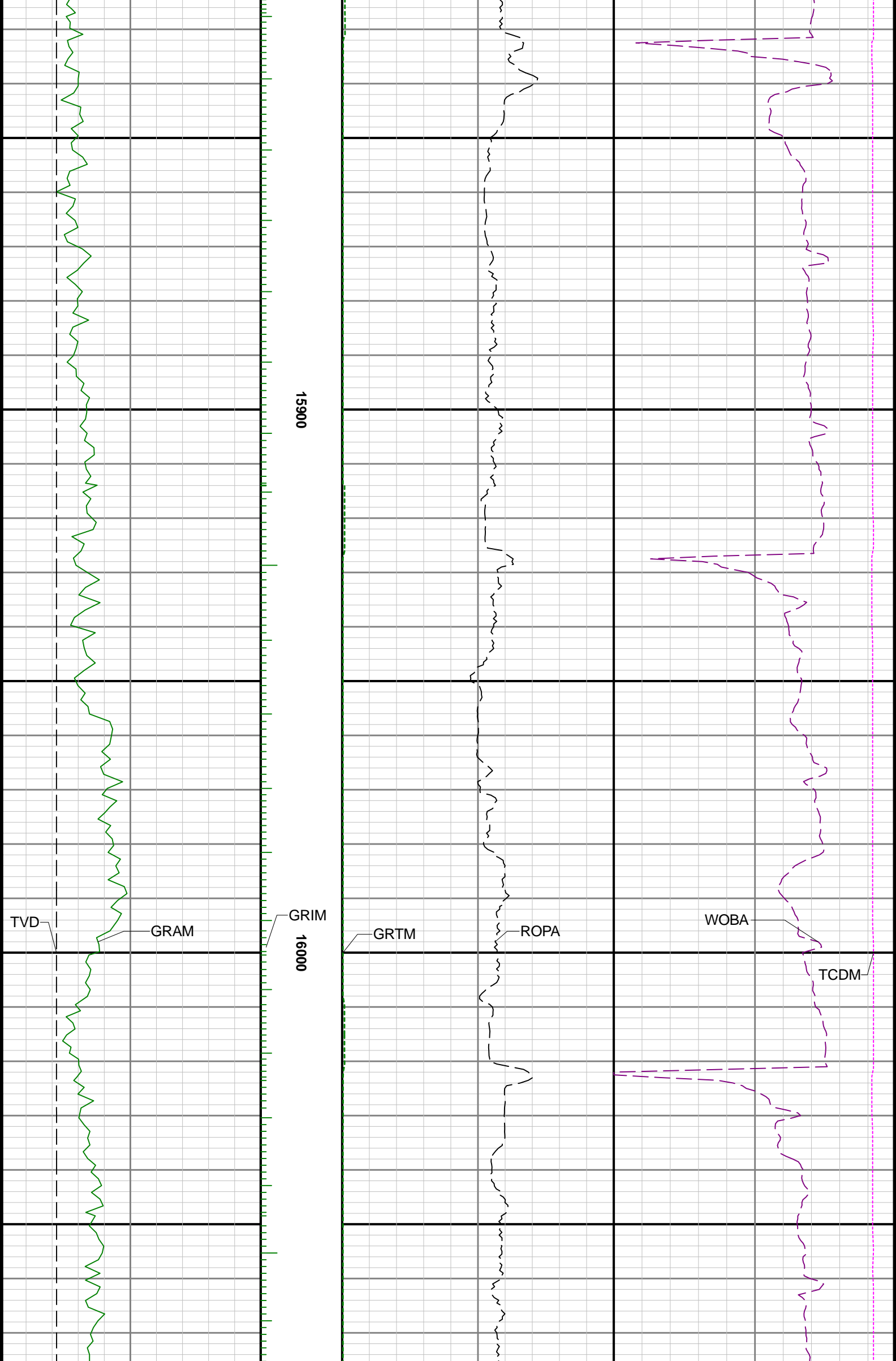


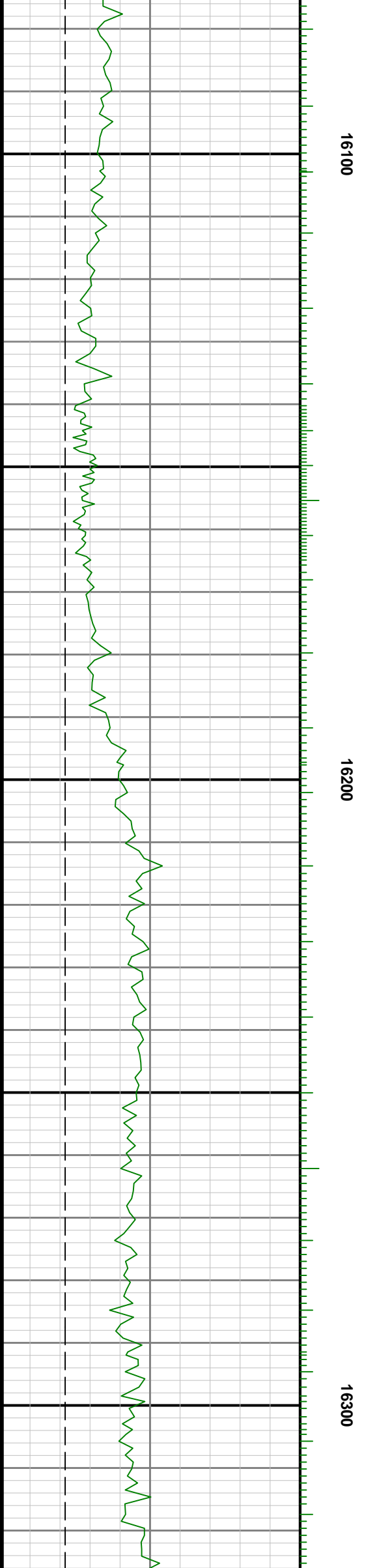
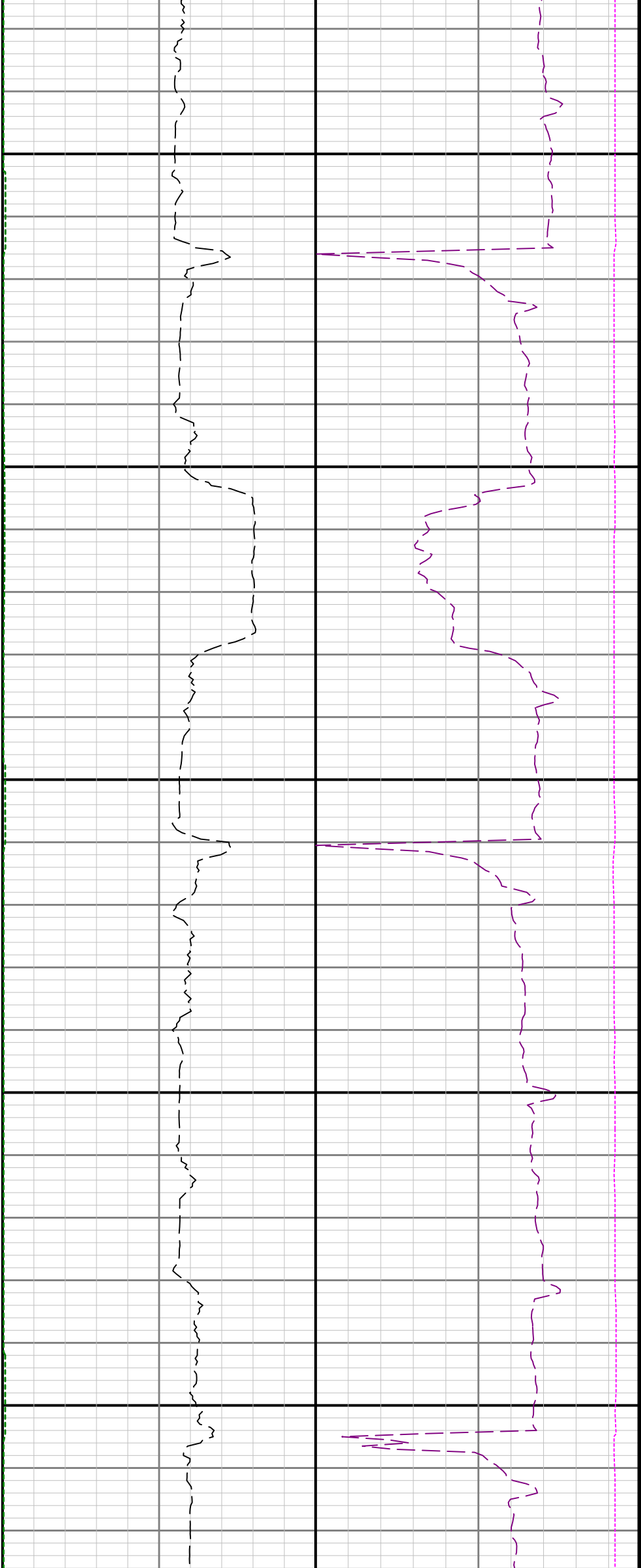
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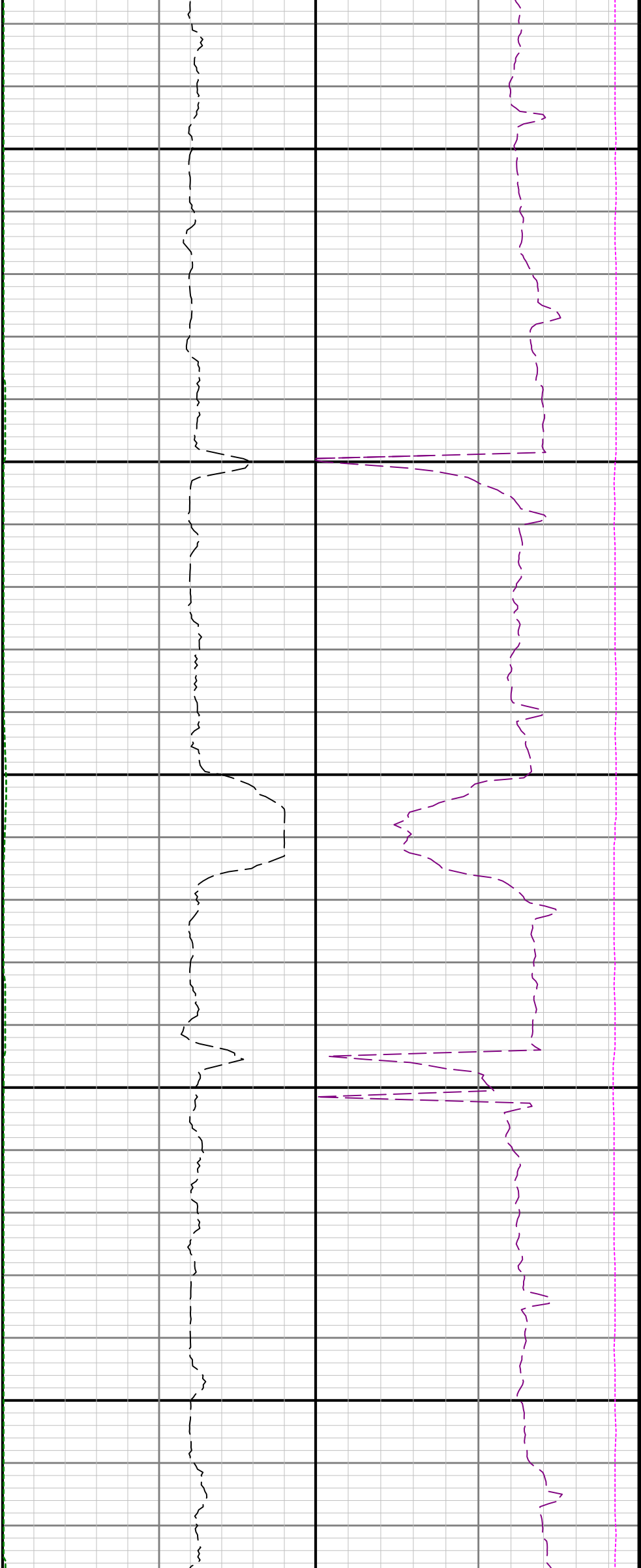
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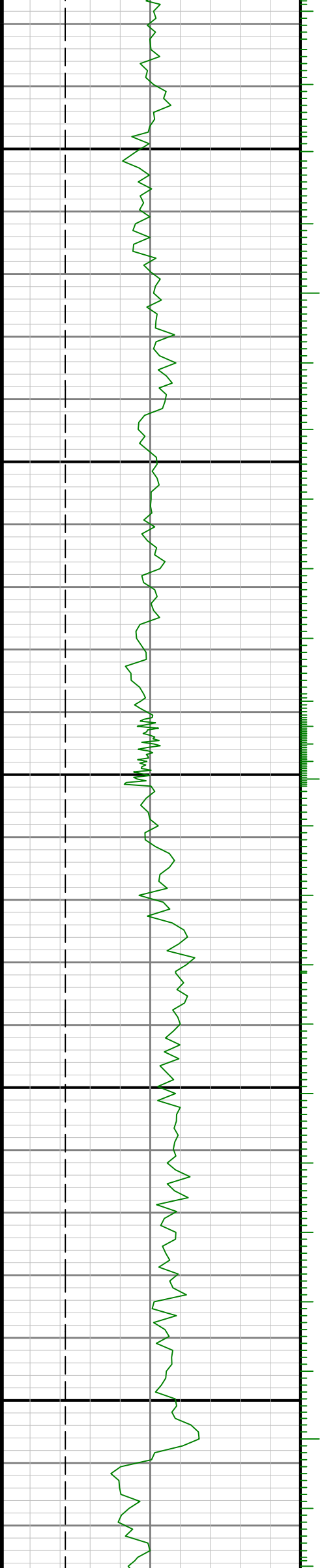


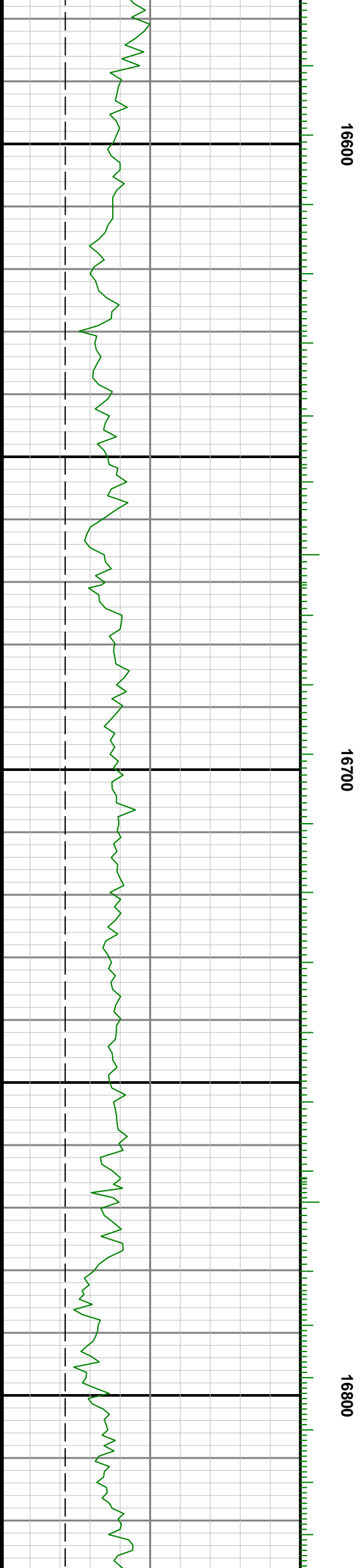
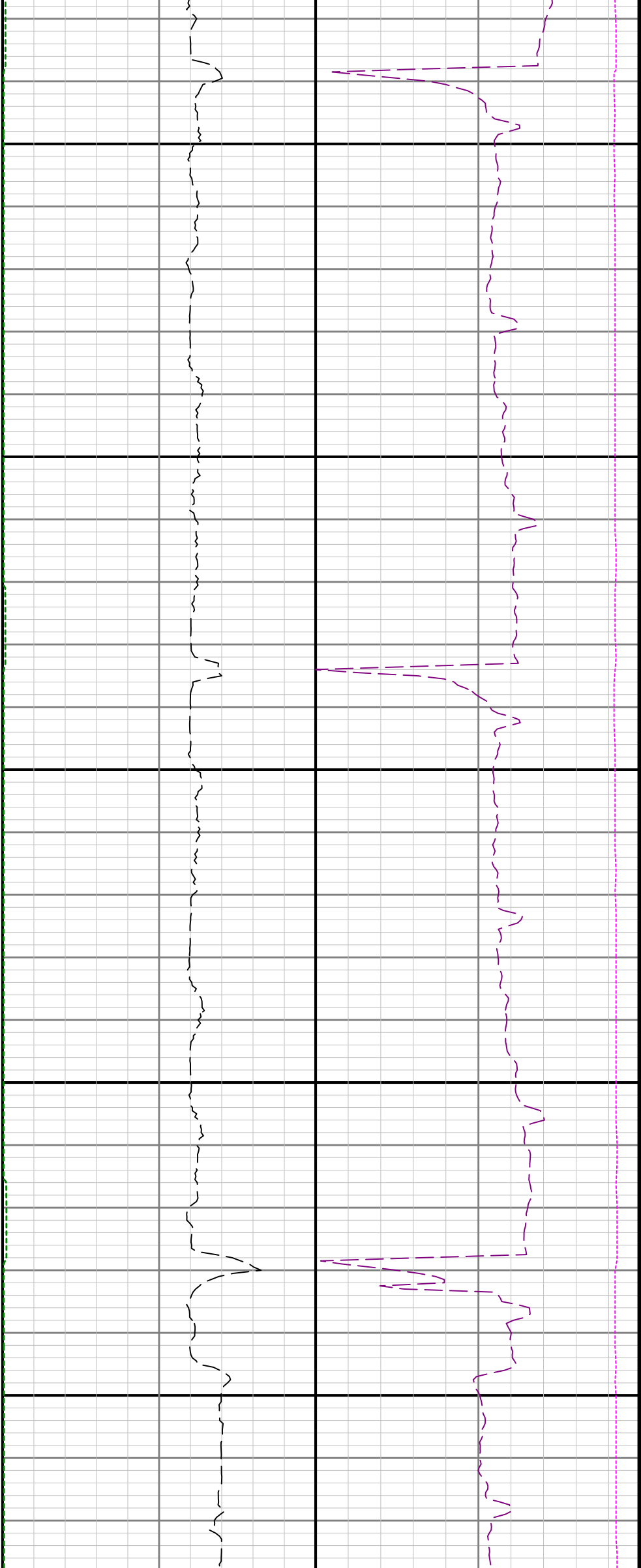


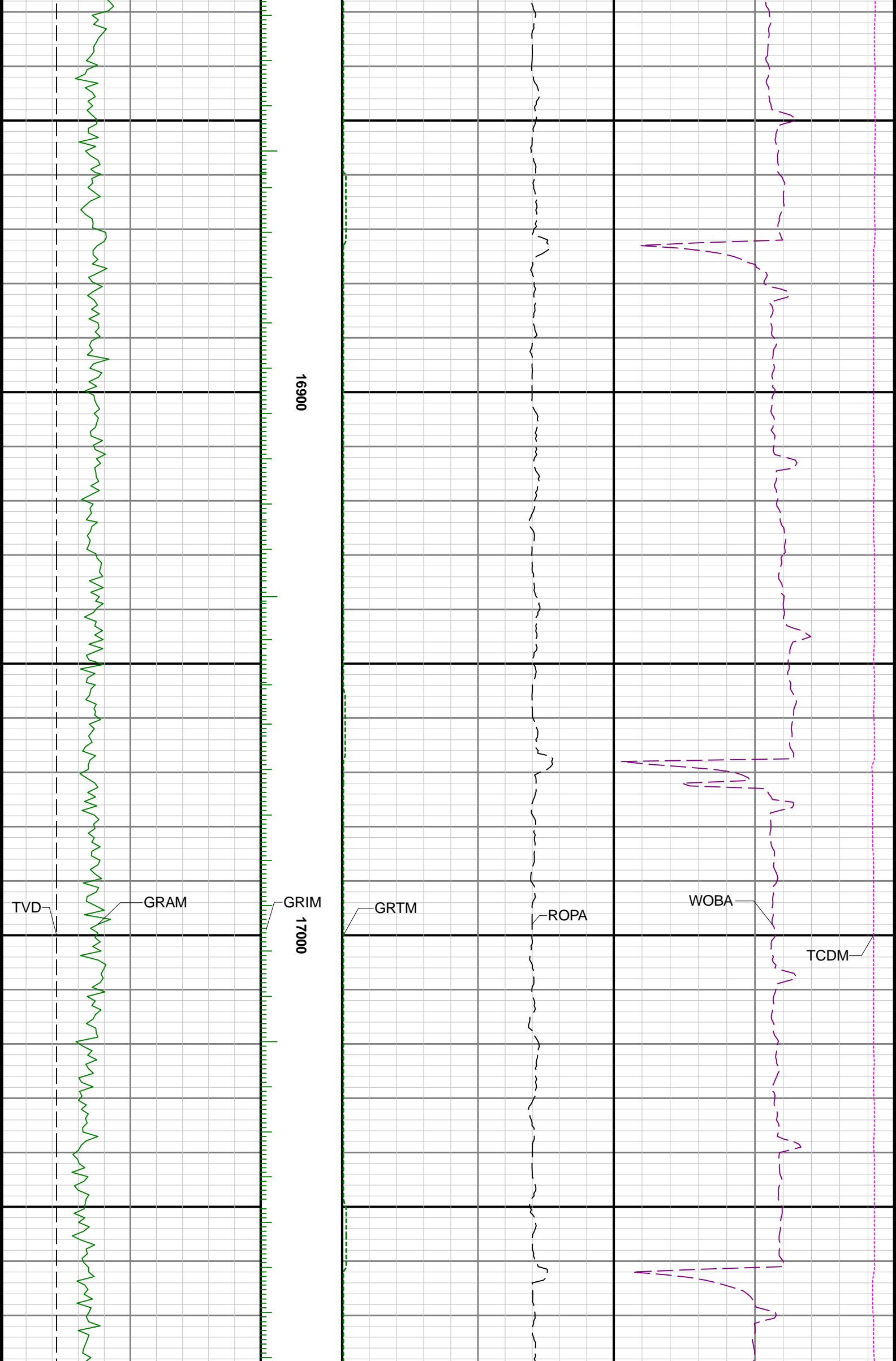


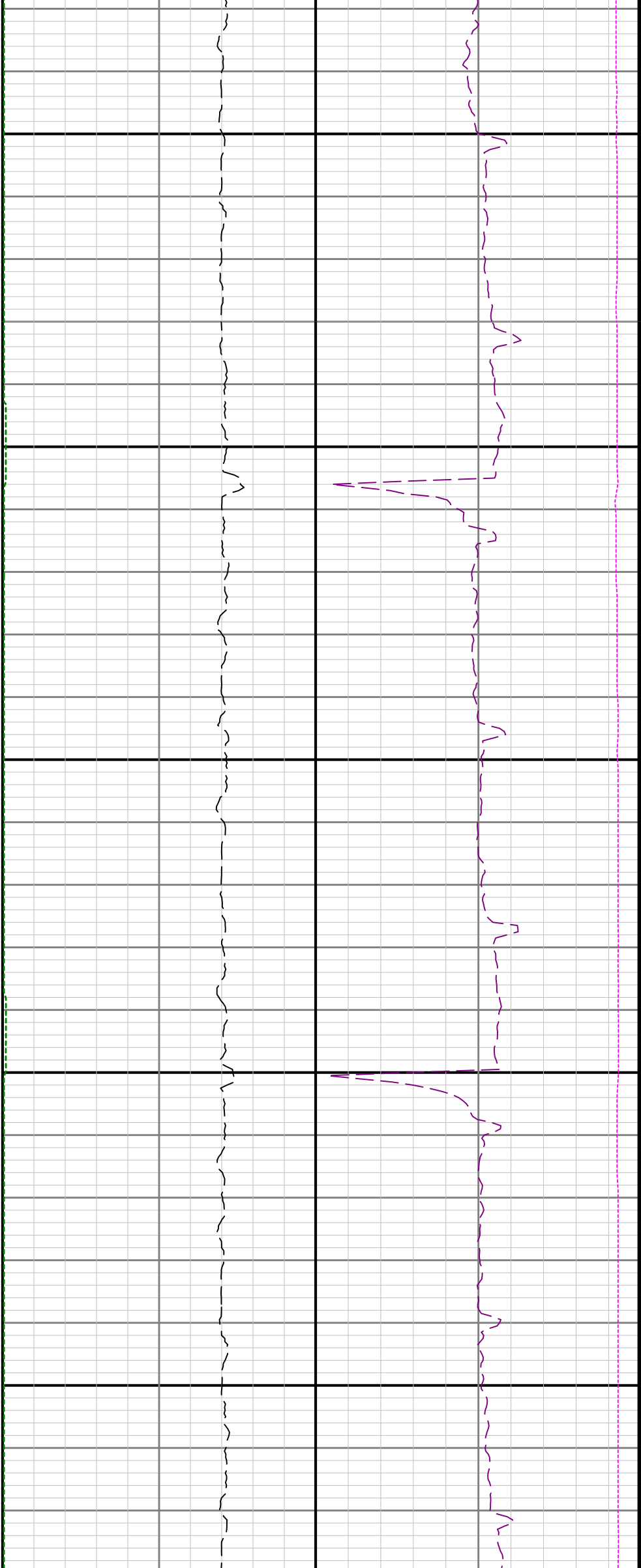
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