



Realtime Log

Natural Formation Evaluation

Scale: Company: Anadarko

1:240 Well: Badding 35N-2HZ

Measured Depth Field: Weld County

Region: Continental US Country: United States

Status: Surface Location: Other Services:

Field Report

API Number: 05-123-38285

SEC: 35 TWN: 2N RNG: 66E

Directional VSS

Permanent Datum (P.D.): Ground Level Elevation: 5116.00 ft.

Elevations: N/A

Log Measured From: Rig Floor 13.00 ft. Above P.D.

KB: N/A
DF: 5116.00 ft.
GL: 0.00 ft.

Depth Reference: Drillers Depth

Interval Logged Dates Magnetic Field Reference

Top: 6746.0 ft. Date From: 29/Dec/13 Dip Angle: 66.61 ° Azi Reference North: True

Bottom: 15133.0 ft. Date To: 06/Jan/14 Total Mag to Reference

Spud Date: 29/Dec/13 Field Strength: 52951.0 nT North Correction: 8.31 °

Borehole Record

Casing Record

Hole Size	From	To	Size	Weight	From	To
8.750 in.	1069.0 ft.	7765.0 ft.	9.625 in.	36.00 lb/ft	Surface	1185.0 ft.
6.120 in.	7765.0 ft.	15188.0 ft.	7.000 in.	26.00 lb/ft	Surface	15188.0 ft.

Mud Record

Deviation Record

Type	From	To	Hole Size	Interval	Inc / Az (Start)	Inc / Az (End)
Water Based	6746.0 ft.	15133.0 ft.	8.750 in.	8387.0 ft.	0.5 ° / 197.8 °	85.3 ° / 180.1 °
			6.125 in.	7413.0 ft.	90.7 ° / 181.3 °	91.0 ° / 178.5 °
					/	/
					/	/
					/	/
					/	/

Acquisition System

Software Version

Other

Advantage	2.20U4	Rig / Contractor:	Ensign 145	/ Ensign Drilling
PATS	6.4.1.34	Job No:	5994933	/ D&E
		District / Unit:	RMD	

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Log Run Summary

LWD Run No.	BHA Run No.	Bit Run No.	Bit Size (in.)	Bit Type	Bit Gauge Length (in.)	Assembly Type	Logged Interval		Bit Depth Interval		Date / Time		Circ. Time (hrs.)
							Top (ft.)	Bottom (ft.)	From (ft.)	To (ft.)	Start	End	
1	1	1	8.750	PDC	1.000	Steerable	6746.0	7721.0	1195.0	7775.0	29 Dec 2013 21:11	01 Jan 2014 21:11	64.5
2	2	2	6.125	PDC	3.000	Steerable	7721.0	15175.0	7775.0	15220.0	02 Jan 2014 17:36	06 Jan 2014 17:36	53.9

Crew

Name	Arrive	Depart	Name	Arrive	Depart	Name	Arrive	Depart
	Wellsite	Wellsite		Wellsite	Wellsite		Wellsite	Wellsite
Mike Gurnsey	29 Dec 2013	06 Jan 2014	Donald Delay	31 Dec 2013	06 Jan 2014			
Peter Adebayo	29 Dec 2013	06 Jan 2014	Babatunde Akinsoyinu	29 Dec 2013	06 Jan 2014			
			Jimmy Nguyen	29 Dec 2013	31 Dec 2013			

Mud Properties Record

Date / Time	LWD Run No.	Measured Depth (ft.)	Mud Type	Density (ppg)	Viscosity (cp)	pH	Fluid Loss (cc/30min)	Oil / Water	Source	Total Chlorides (ppm)	K+ (%)
01/Jan/2014 04:38	1	7775.0	Water Based	9.4	40	8.0	N/A	1/93	Active Mud Pit	800	0.0
04/Jan/2014 07:24	2	11836.0	Water Based	9.9	40	8.5	N/A	2 / 91	Active Mud Pit	800	0.0
04/Jan/2014 07:25	2	11837.0	Water Based	9.4	40	8.0	N/A	1 / 93	Active Mud Pit	800	0.0
04/Jan/2014 07:26	2	11838.0	Water Based	9.6	45	8.5	N/A	2 / 91	Active Mud Pit	900	0.0
04/Jan/2014 07:27	2	11839.0	Water Based	9.7	40	8.5	N/A	1 / 93	Active Mud Pit	800	0.0

Mnemonics

Curve	Description	Units
WOBA	Surface Weight On Bit 1.0 ft Avg	klbf
GRAX	Gamma Ray Apparent	API
GRIX	Gamma Ray Data Point Indicator	points
TVD	True Vertical Depth	ft
ROPA	Rate of Penetration 3.0 ft Avg	ft/hr
GRSIM	Gamma Ray Slide Indicator	unitless
TCDX	Downhole Temperature	deg F
GRTX	Gamma Ray Time Since Drilled	min

Equipment and Service Data

LWD Run No.	Tool	Serial Number	Measurement	Bit Offset (ft.)	Max O.D. (in.)	Min I.D. (in.)
1	DIR	11958754	Directional	55.67	6.750	2.875
1	SRIG	10628857	Gamma	52.30	6.750	2.875
2	DIR	12479874	Directional	53.97	4.750	2.625
2	SRIG	12600750	Gamma	50.59	4.750	2.625

Service and Tool Mnemonics

Mnemonic	Name	Description
DIR	Directional	Wellbore directional survey
SRIG	Inclination and Gamma	Probe based gamma ray and inclination module

Comments

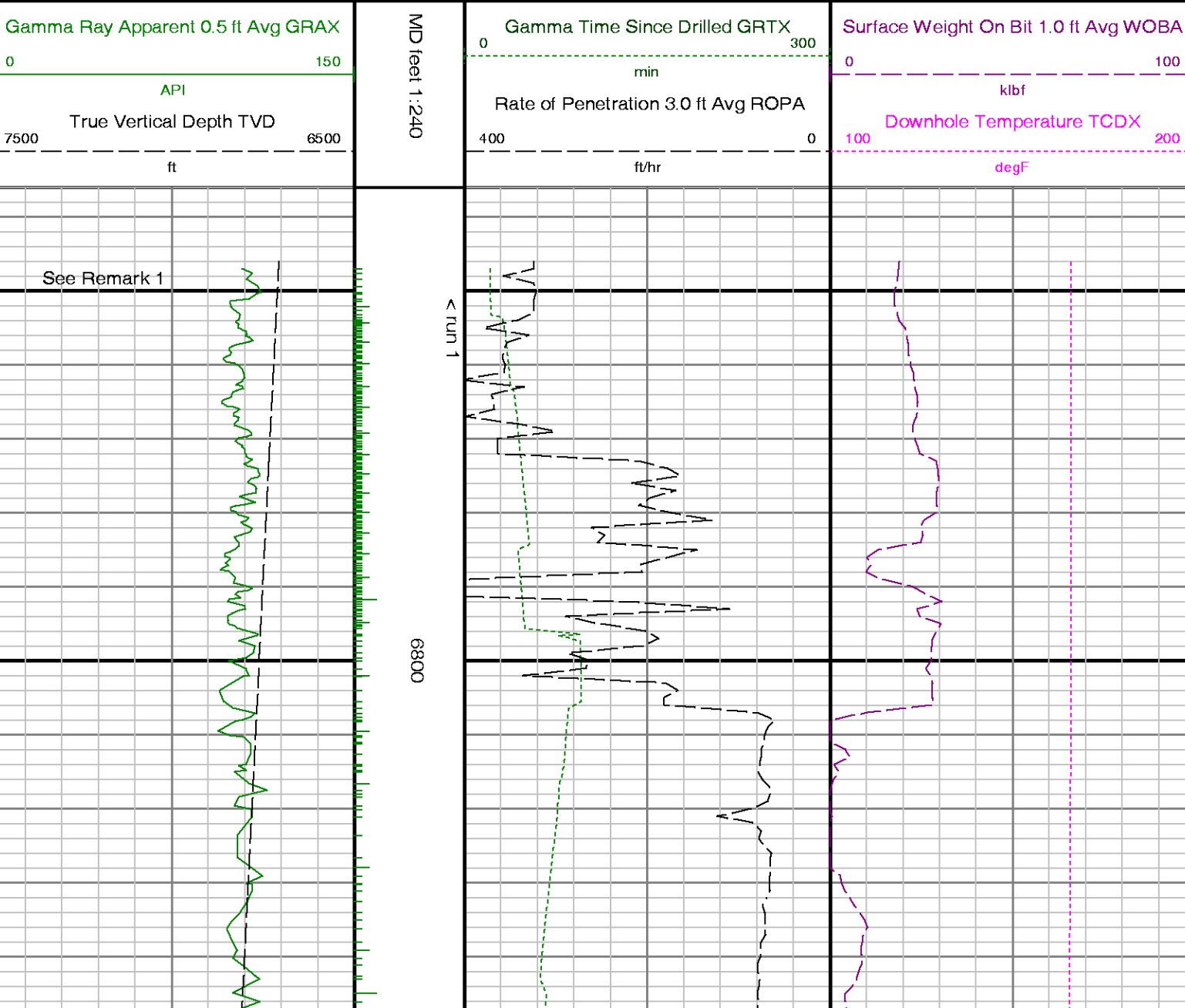
<p>Baker Hughes INTEQ run 1 utilized 6 3/4inch NaviGamma services (Gamma, Directional) behind a 8 3/4inch bit and steerable assembly from 1096 to 7775 feet MD (1096 to 7348 feet TVD)</p> <p>Baker Hughes INTEQ run 1 utilized 4 3/4inch NaviGamma services (Gamma, Directional) behind a 6 1/8inch bit and steerable assembly from 7775 to 15188 feet MD (7348 to 7352 feet TVD)</p> <p>A sliding indicator is shown on the left side of track 1 as an heavy line. This indicator has been shifted to the Gamma Ray sensor offset to correspond with Gamma Ray sensor offset to correspond with Gamma Ray data acquired while sliding.</p> <p>Depth measurements were obtained from a depth control system not supplied or operated by Baker Hughes INTEQ. Due to lack of control by Baker Hughes INTEQ logging engineers, depth calibrations and measurements could not be independently verified, and the unverified depths as supplied to INTEQ are being used to present logging data.</p>
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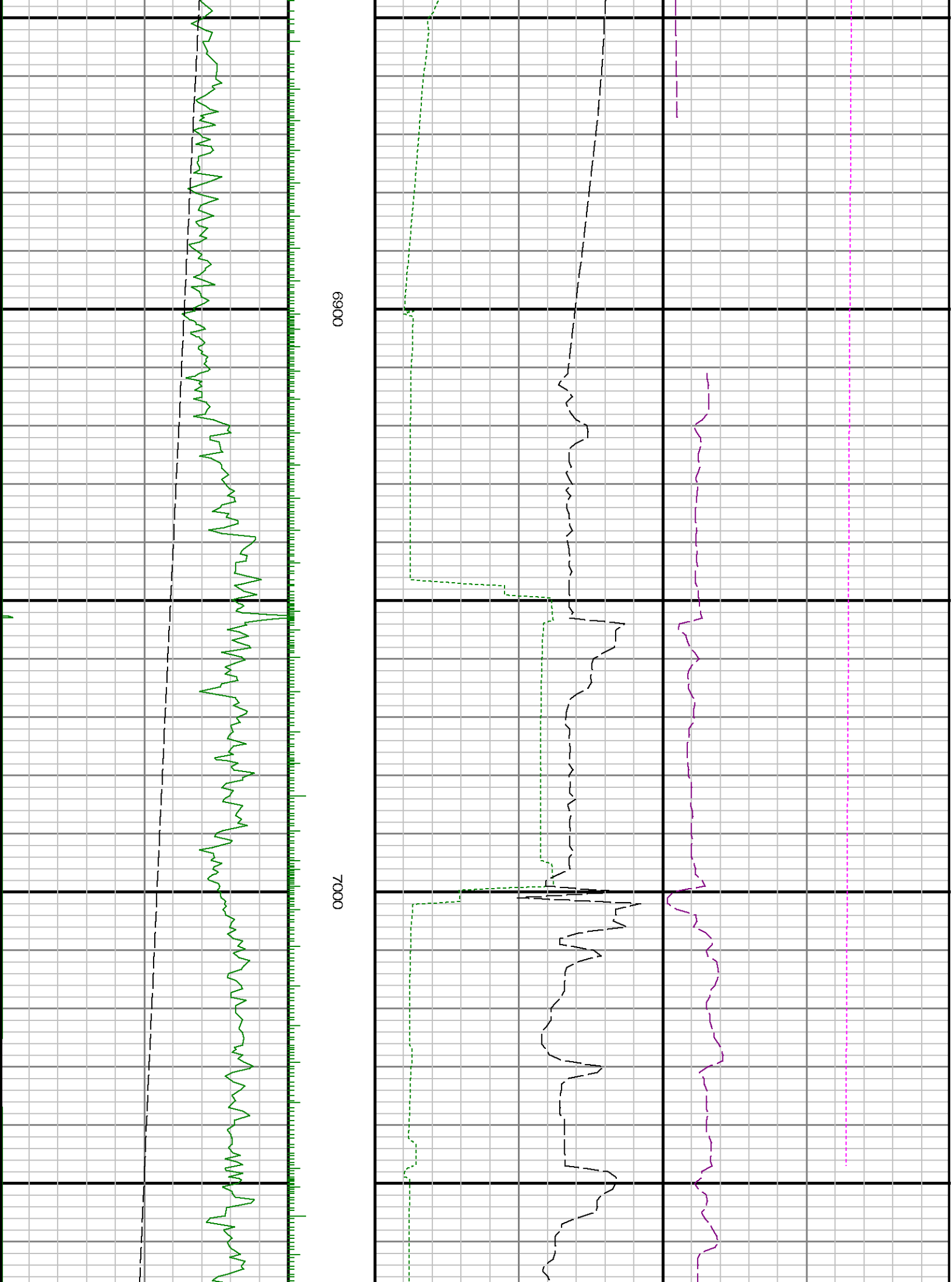
Remarks

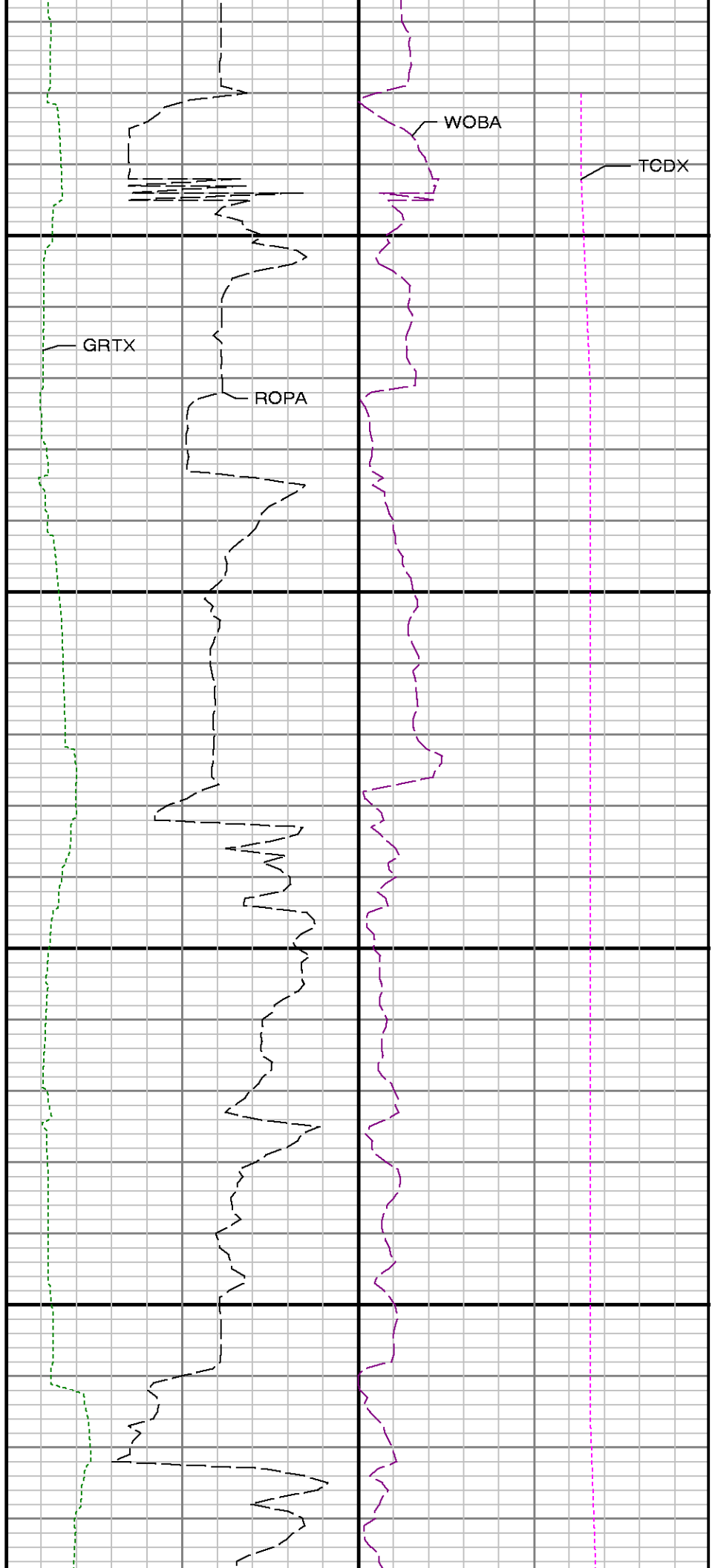
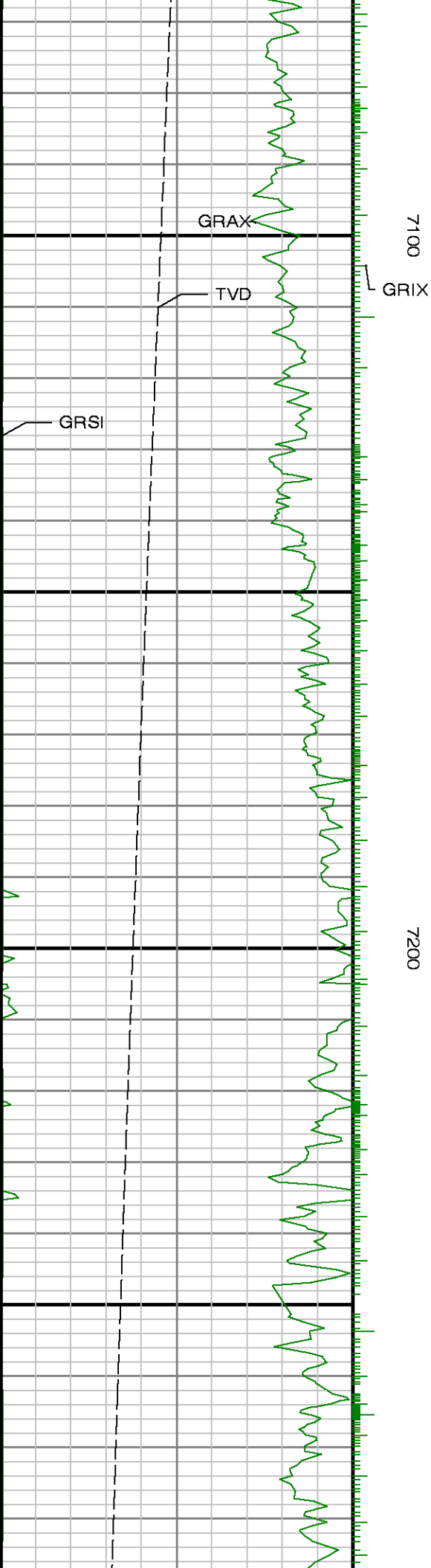
Number	Measured Depth (ft.)	Hole Section (in.)	LWD Run No.	Remark
1	6746	8.750	1	The interval from surface to 6746 feet MD (6705 feet TVD) was not logged since logging service began at the curve kick off point during run 1.
2	7731	6.125	2	The interval from 7731 feet to 7775 feet MD (7347 feet to 7350 feet TVD) was logged up to 23.5 hours after drilling due to casing and cementing operations, and picking up lateral tools.
3	15134	6.125	2	The interval from 15134 feet to 15188 feet MD (7354 feet to 7353 feet TVD) GRAX and GRTX was not looged due to Gamma Ray sensor to bit offset upon completing the lateral section.

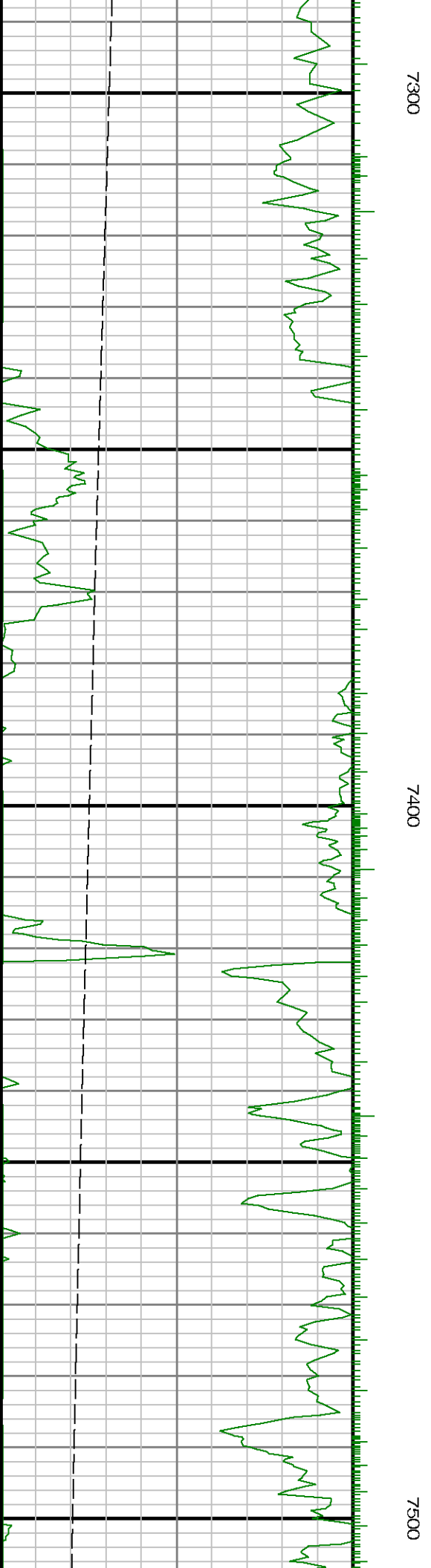
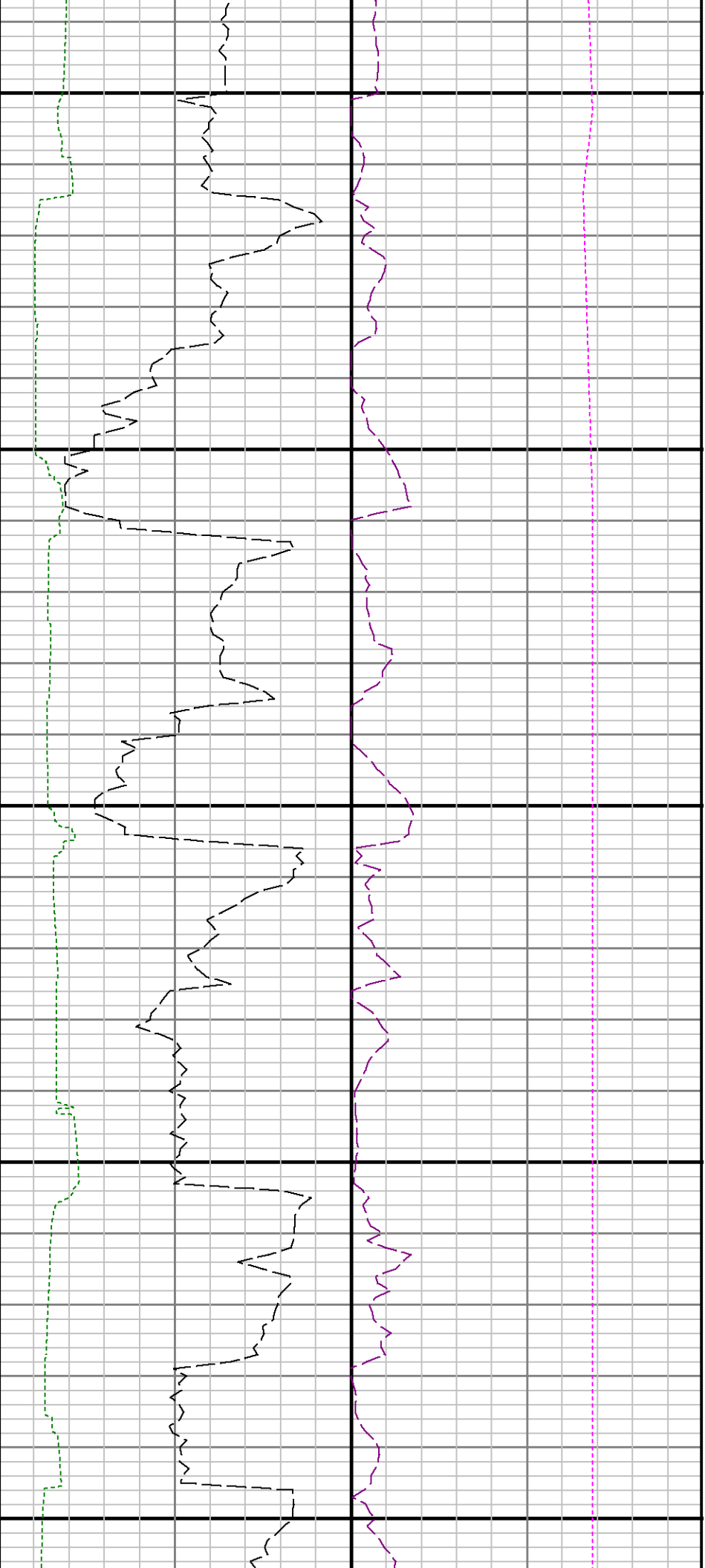


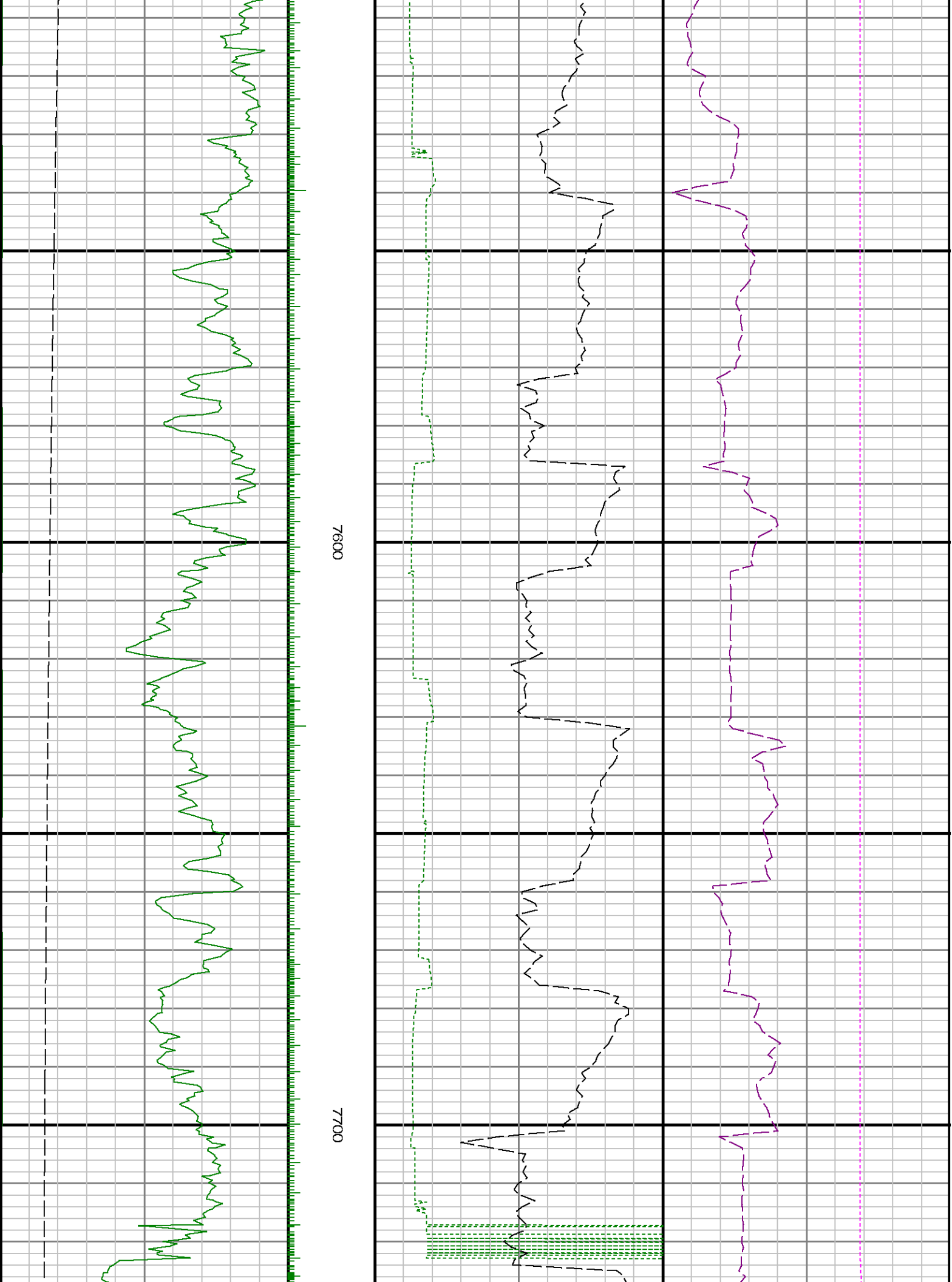
Company : Anadarko
Well : Badding 35N-2HZ
Interval : 6736.00 - 15210.00 feet
Created : 06/Jan/2014 2:09:25 AM

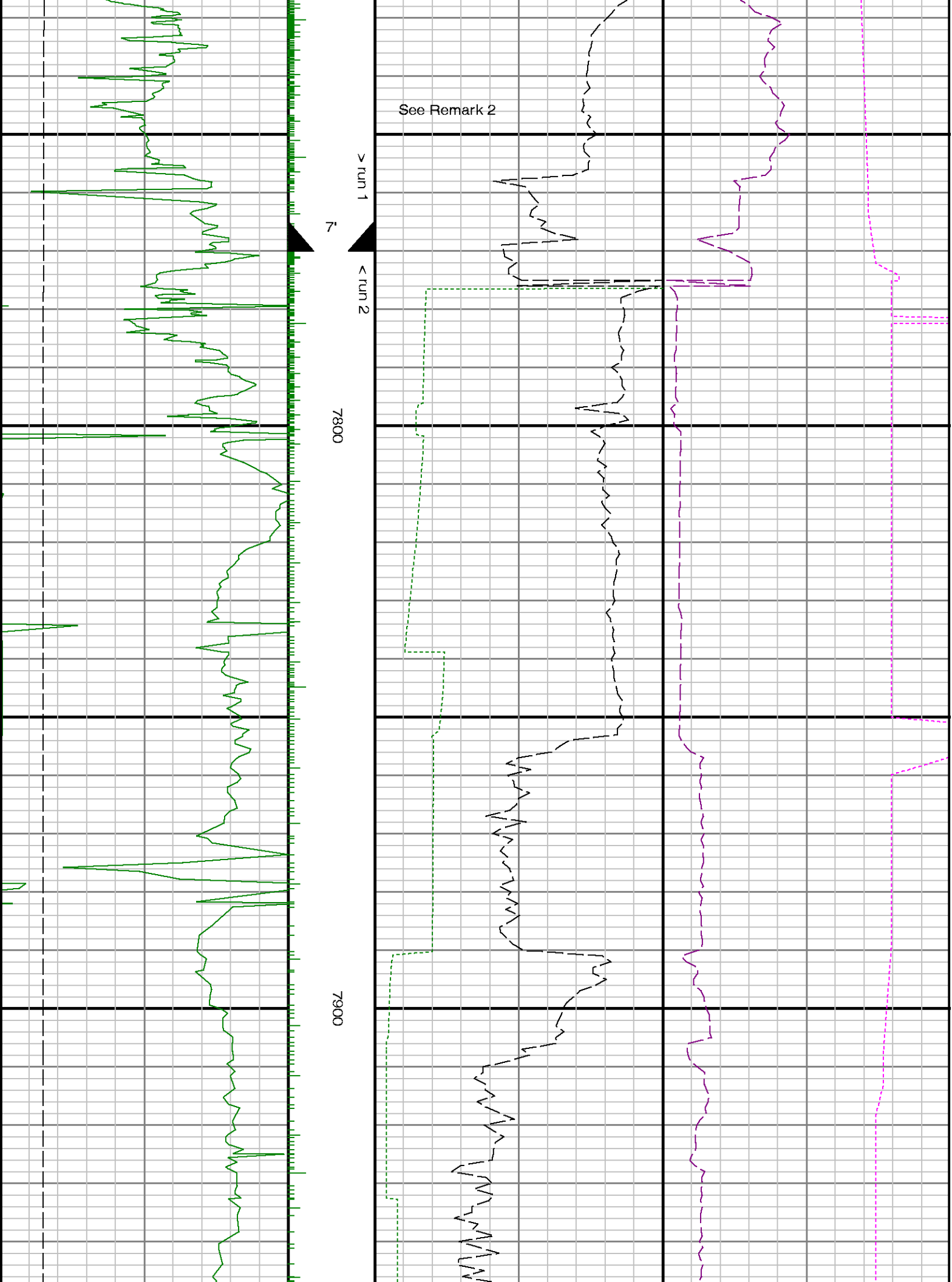


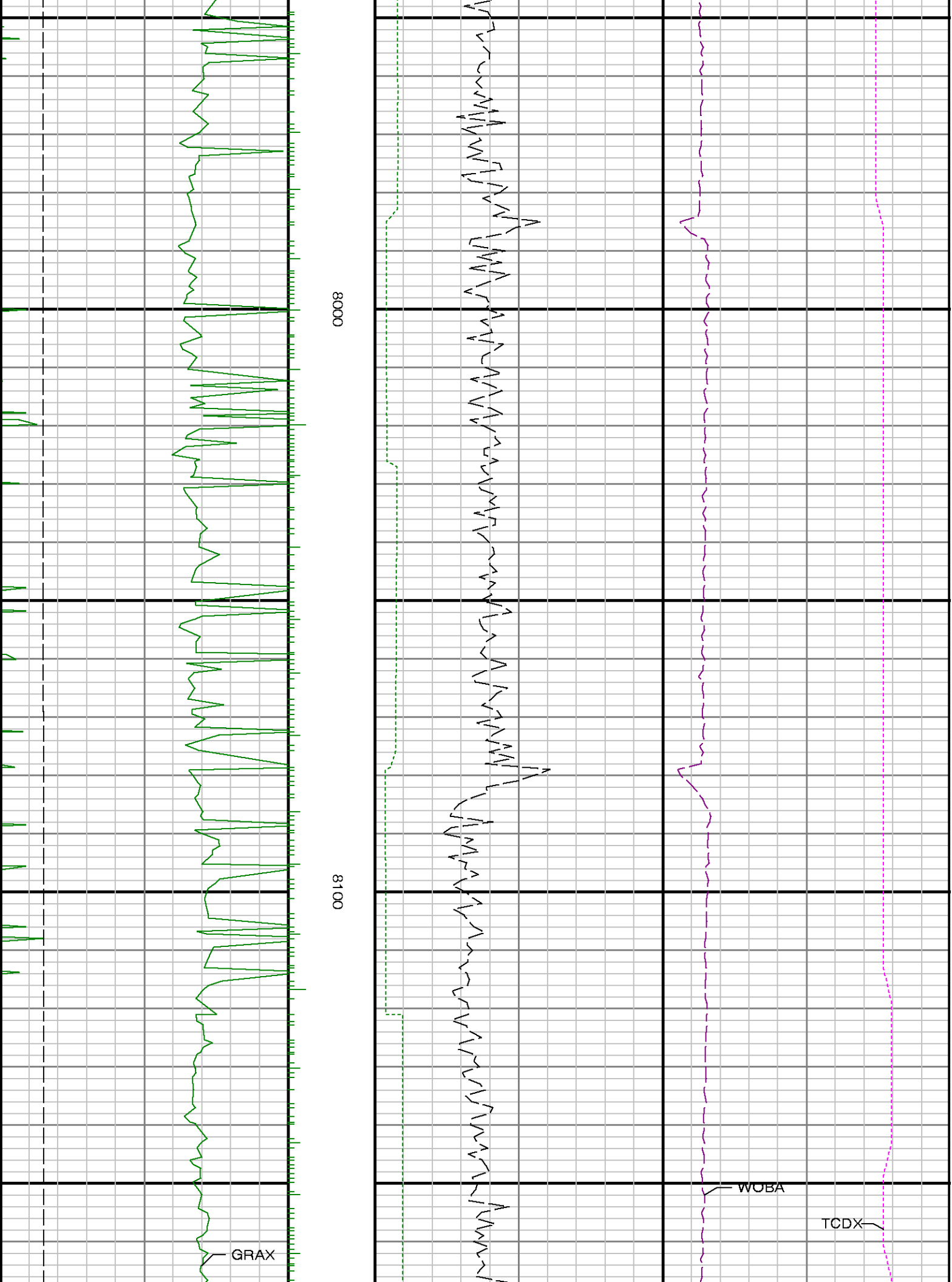


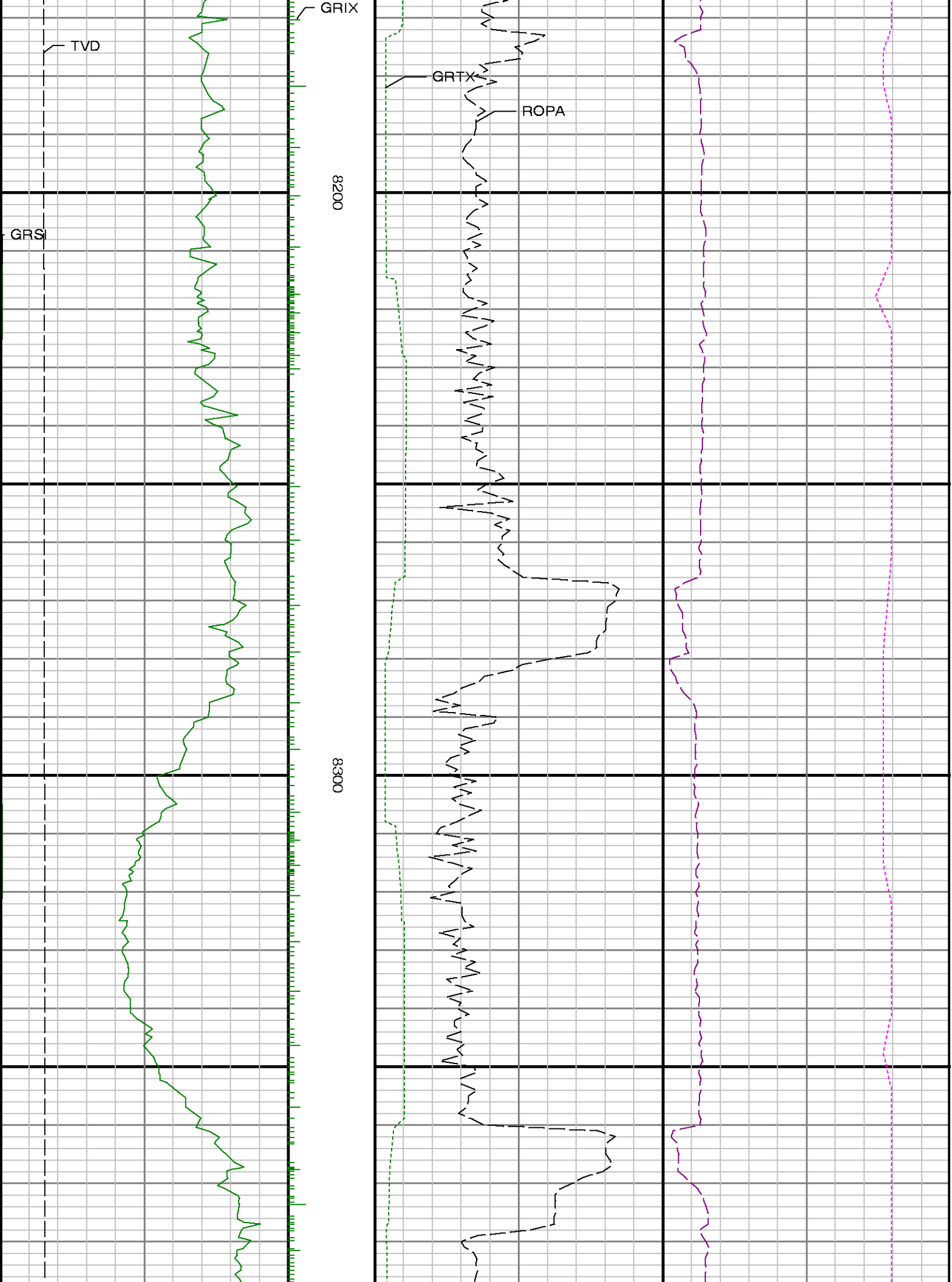


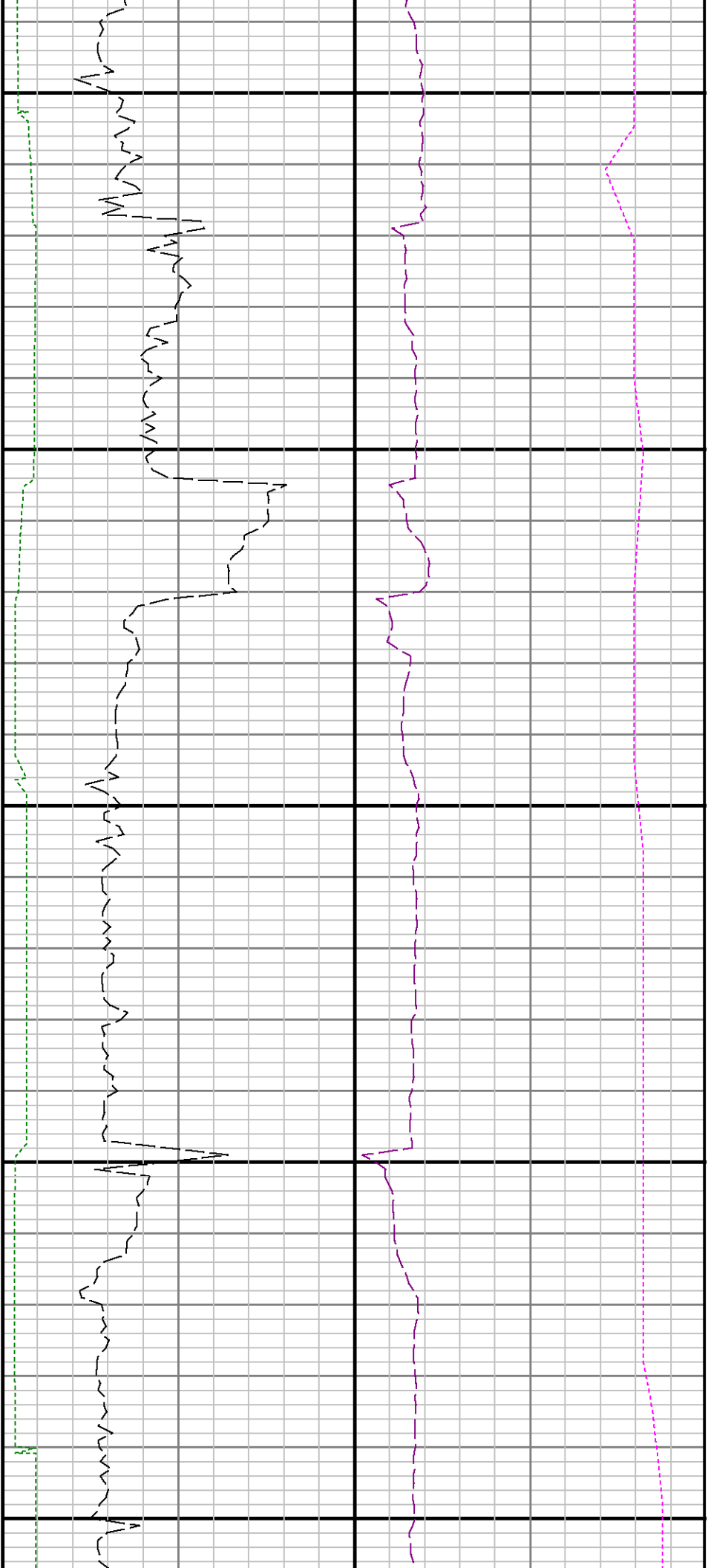








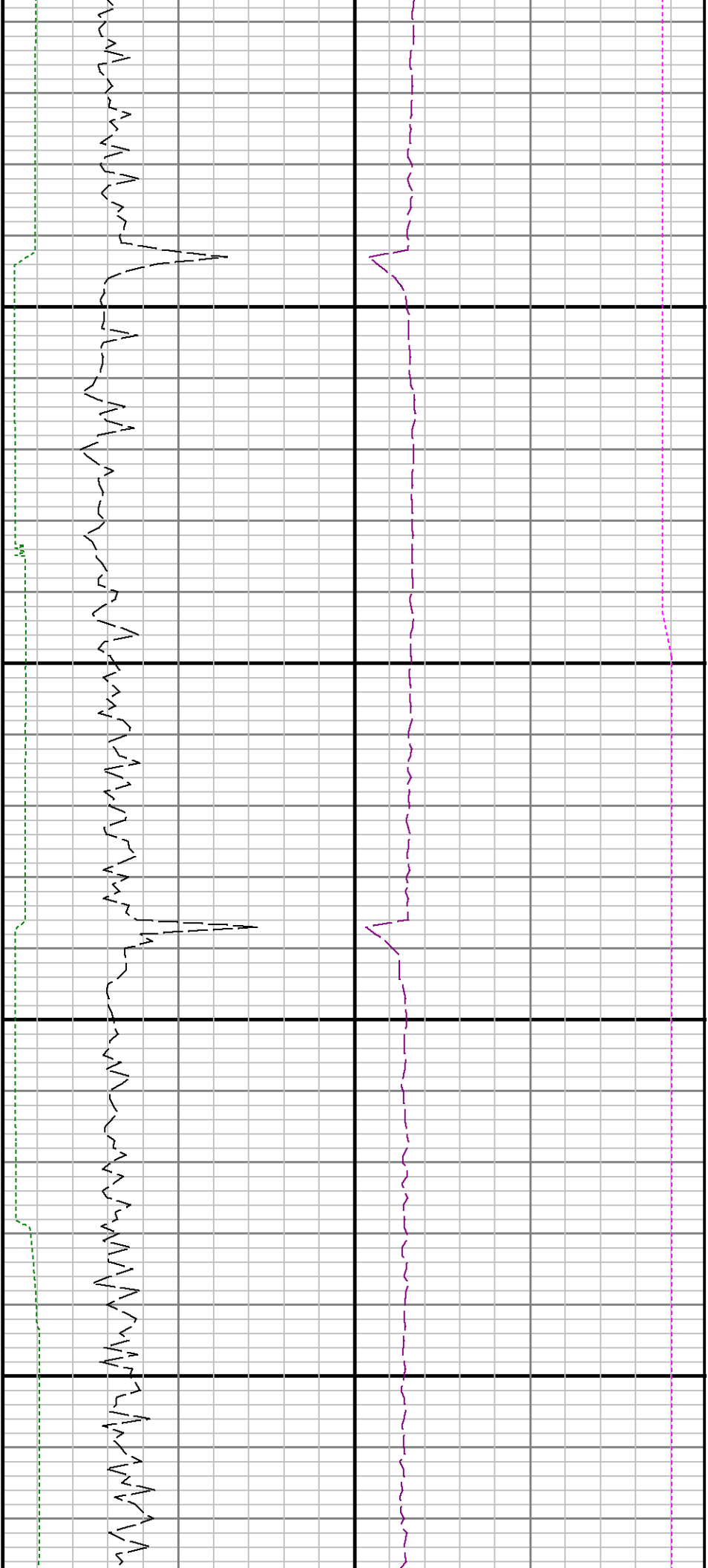




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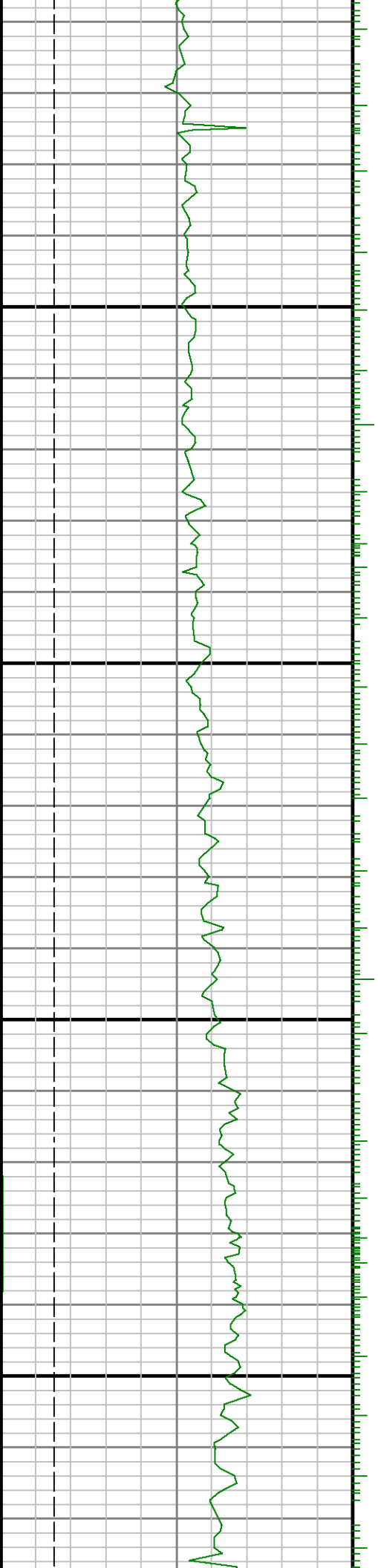
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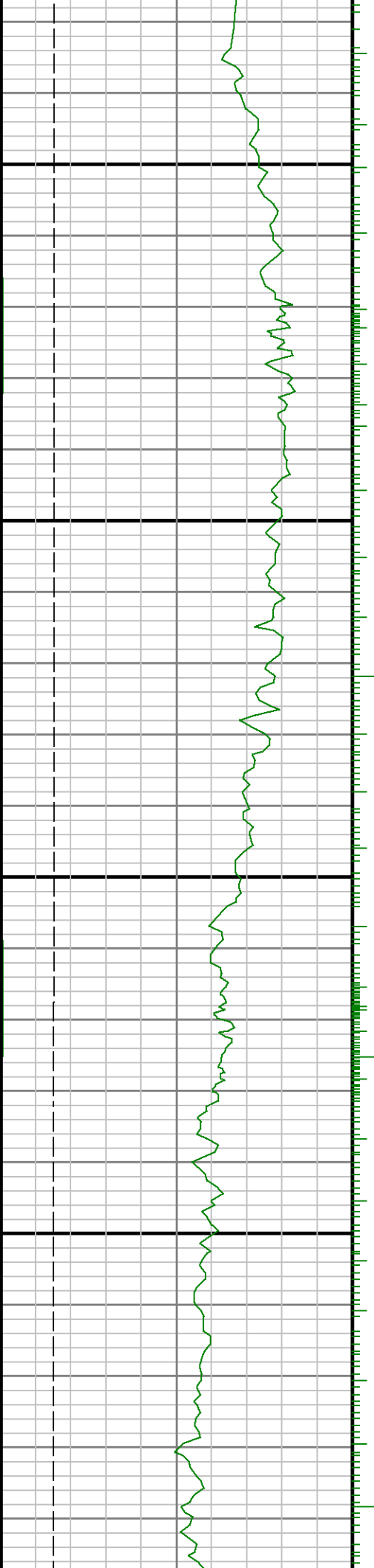
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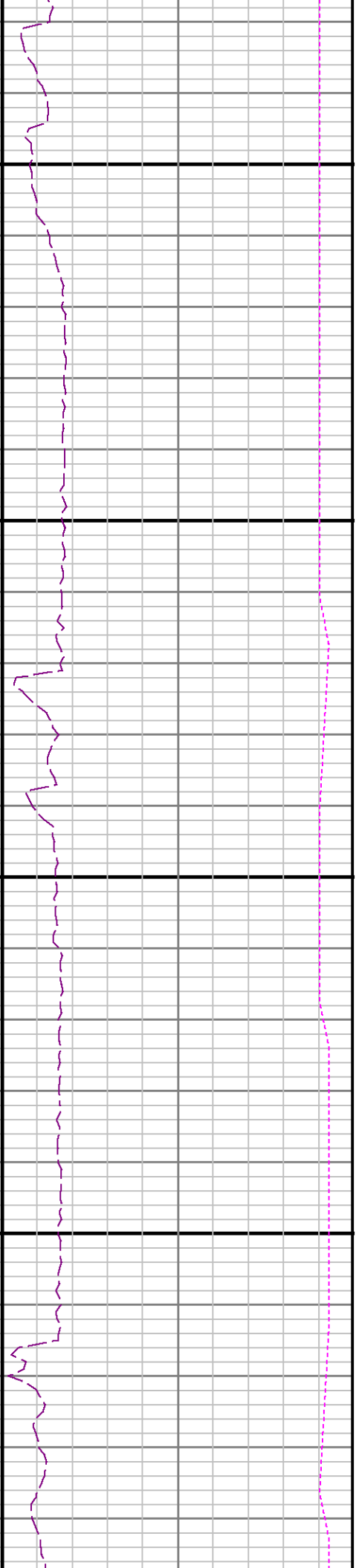
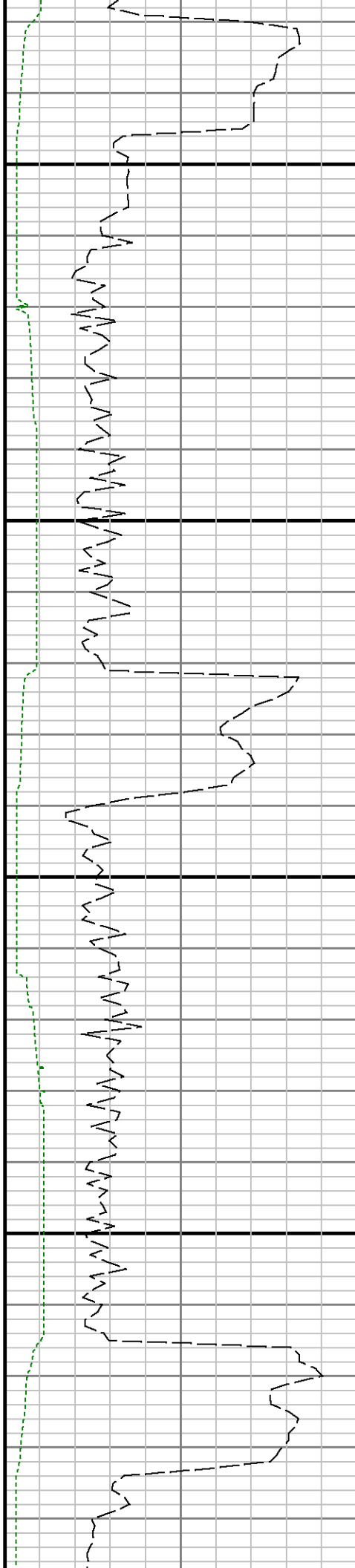
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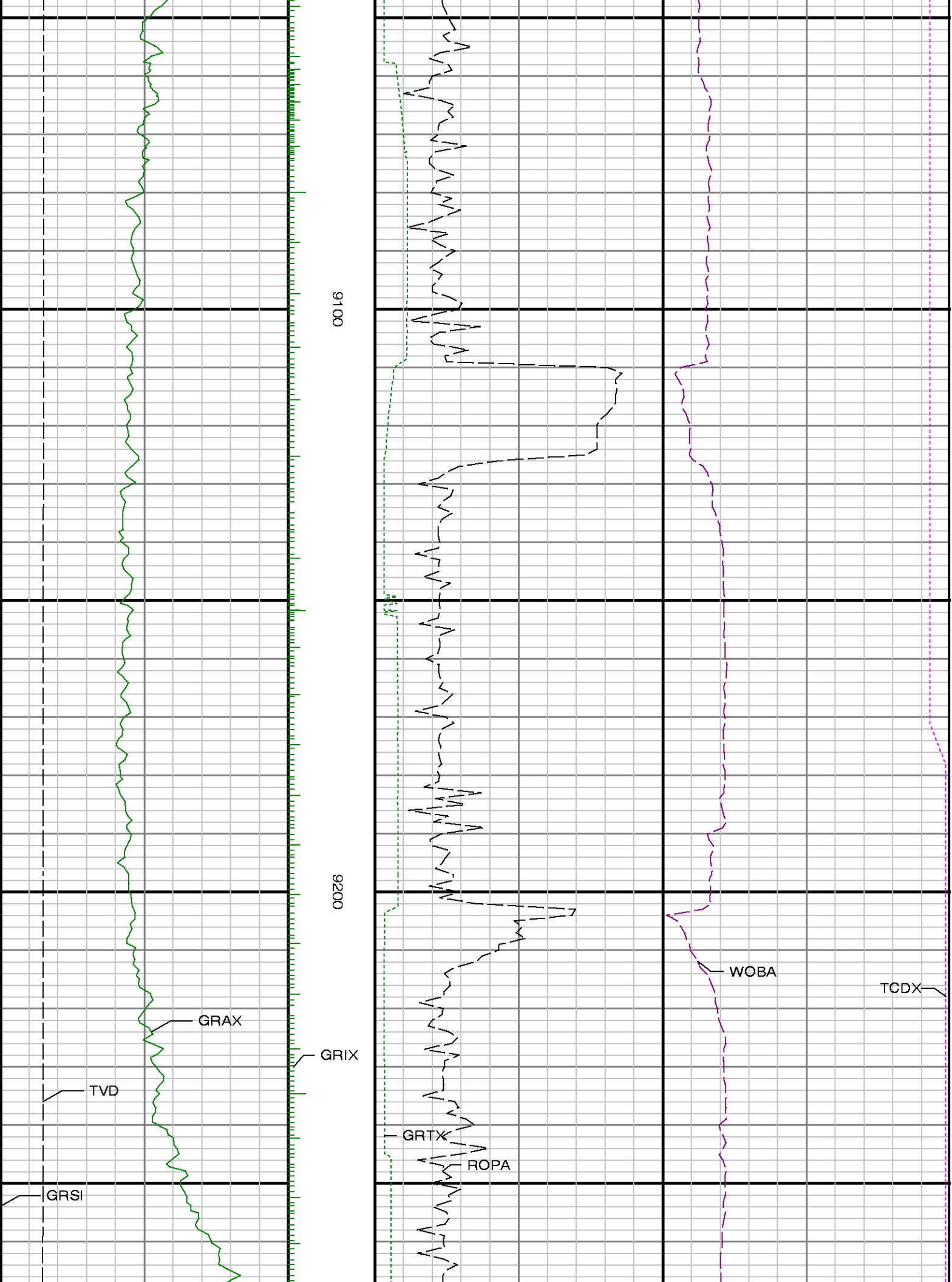


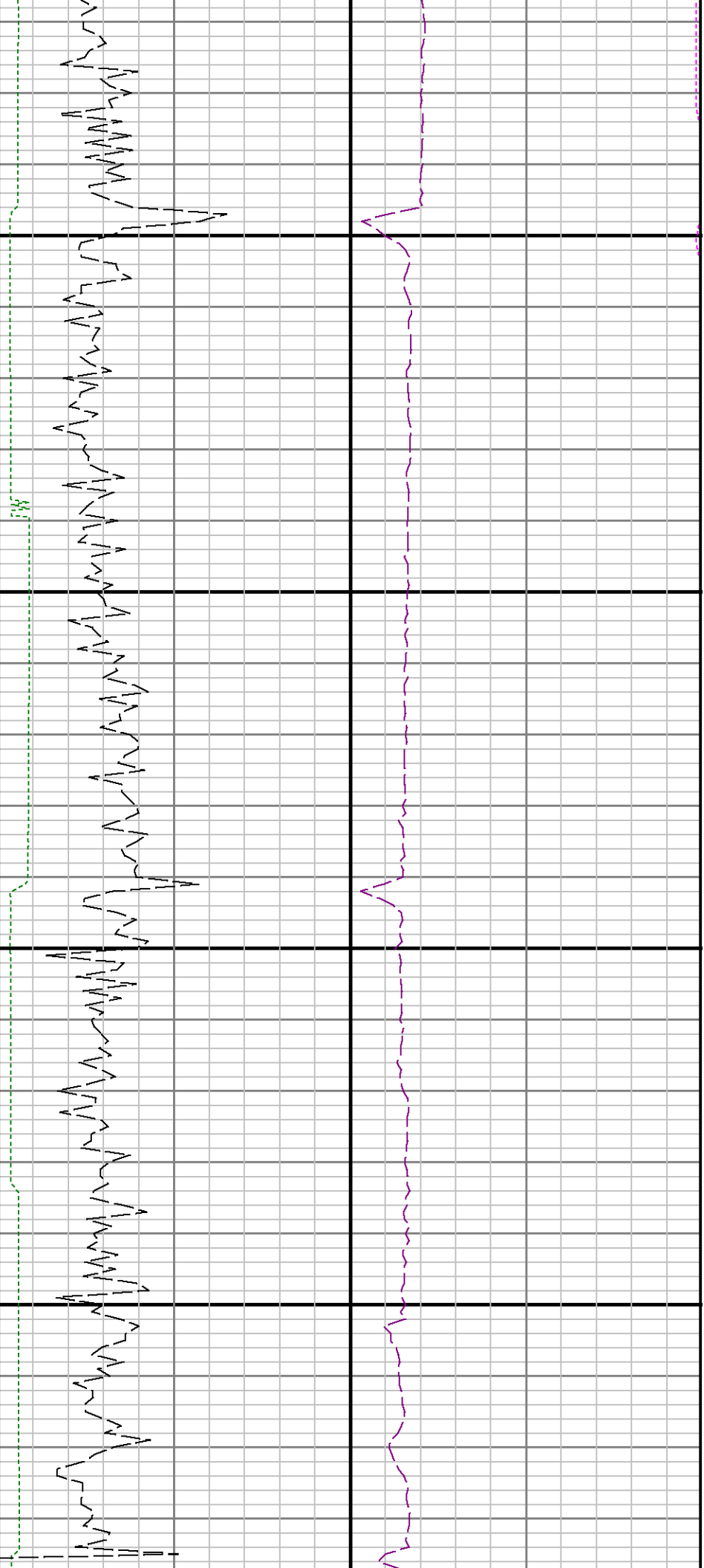


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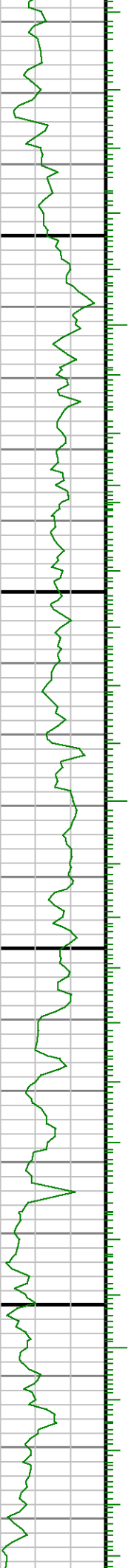


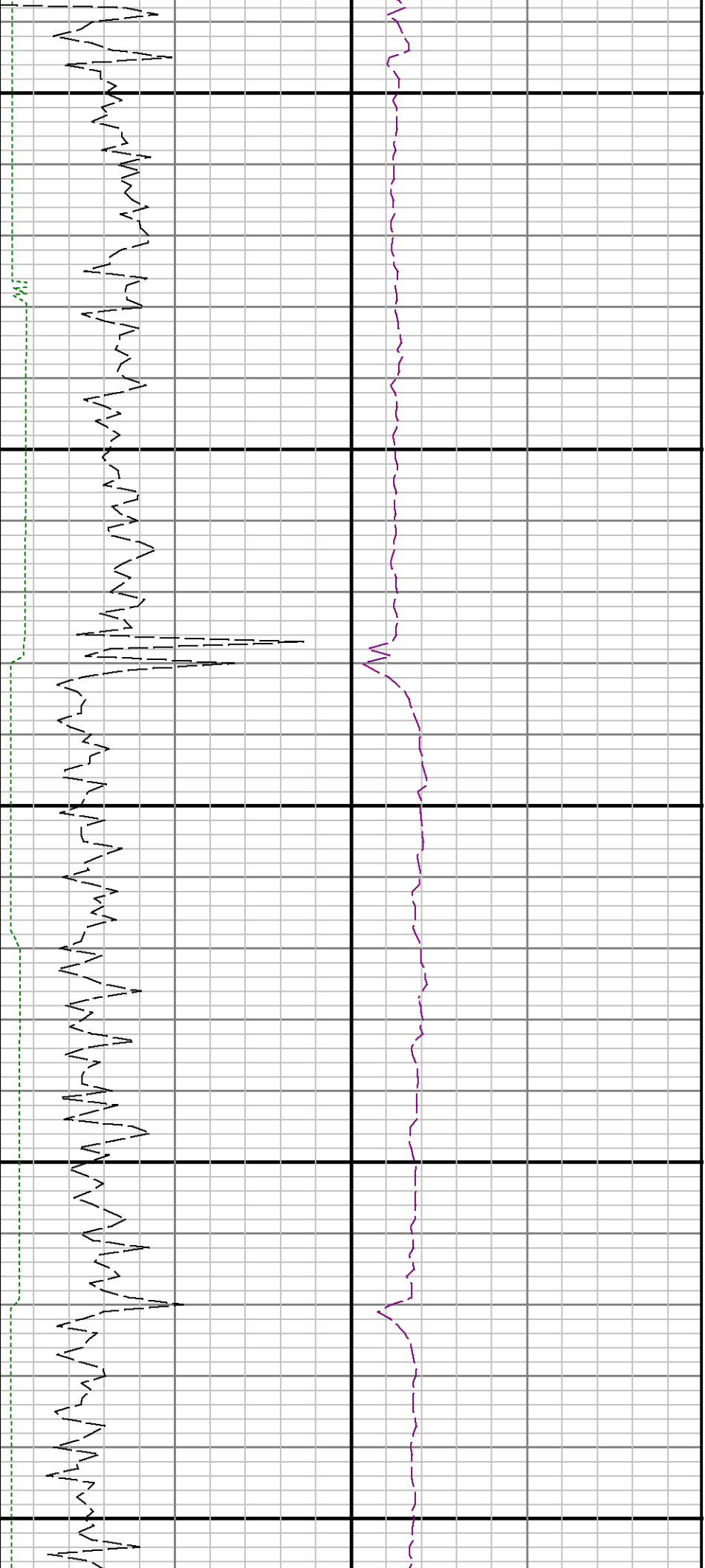




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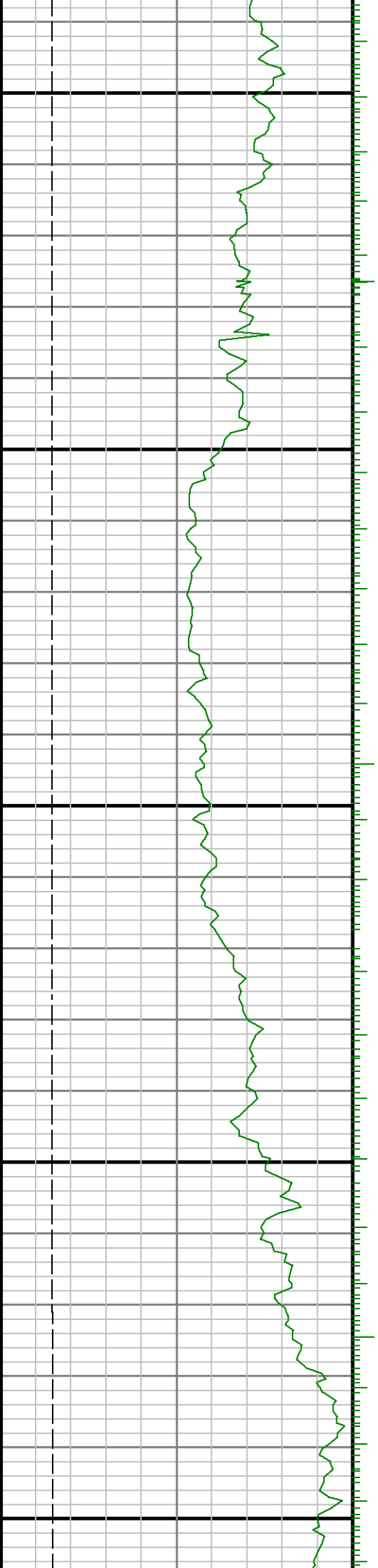
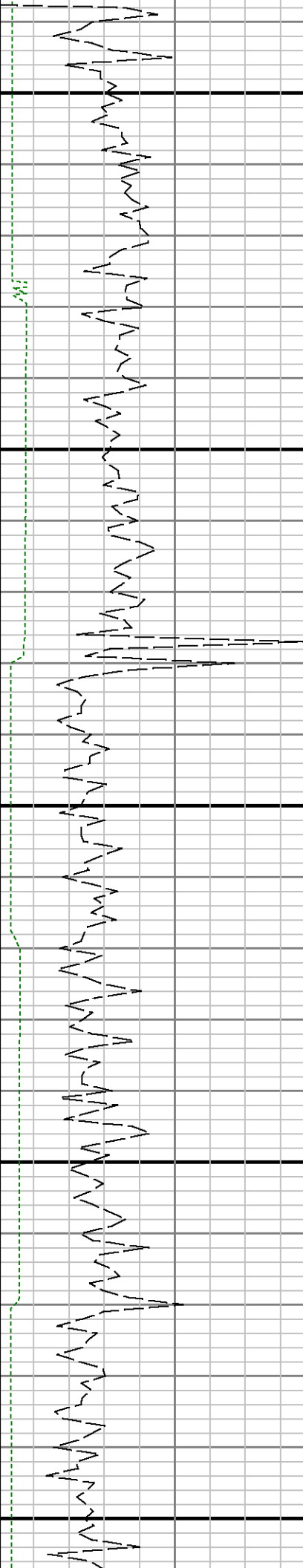


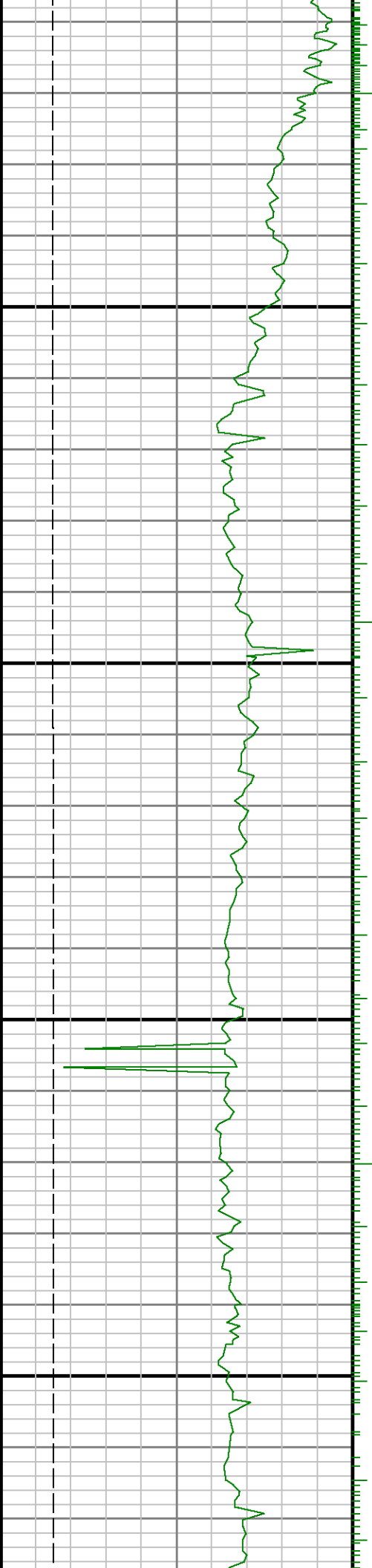


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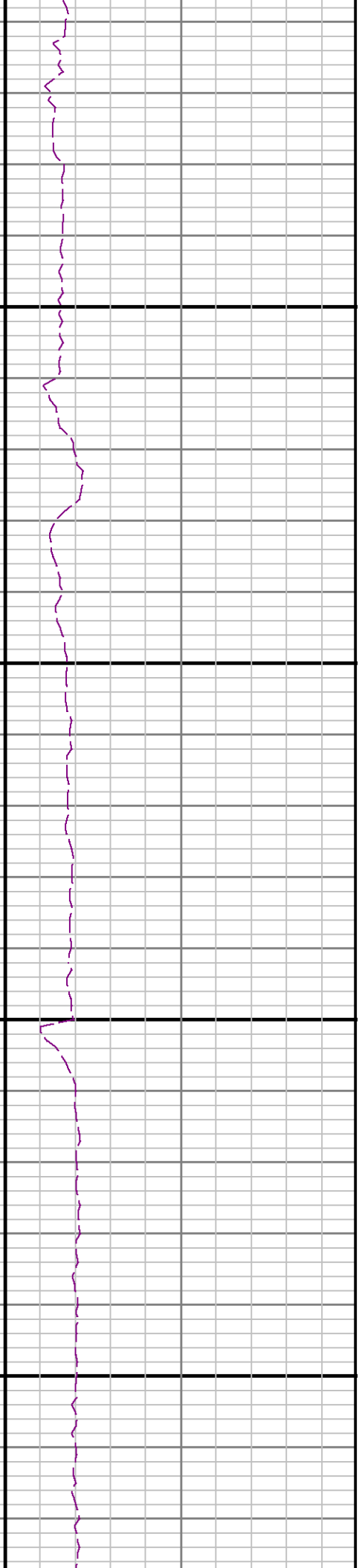
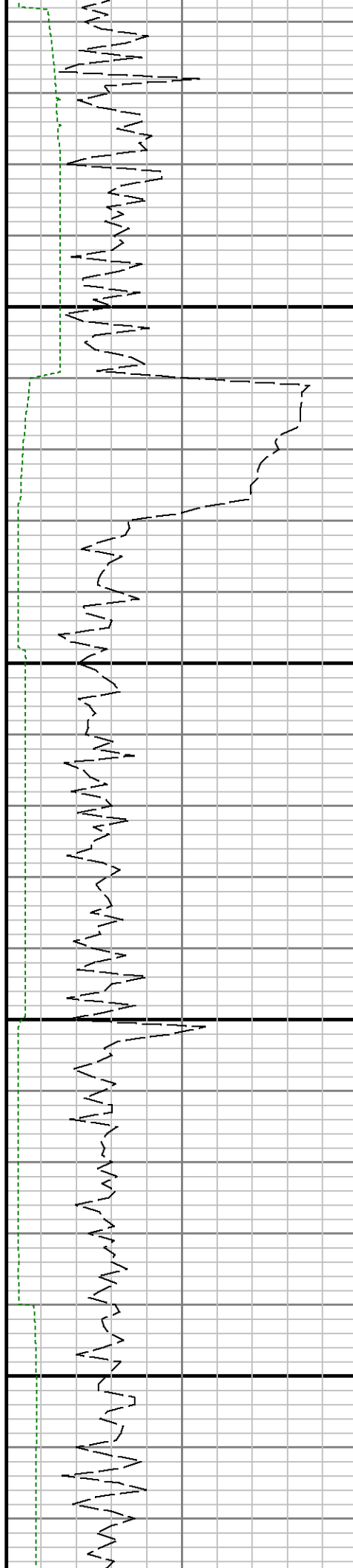
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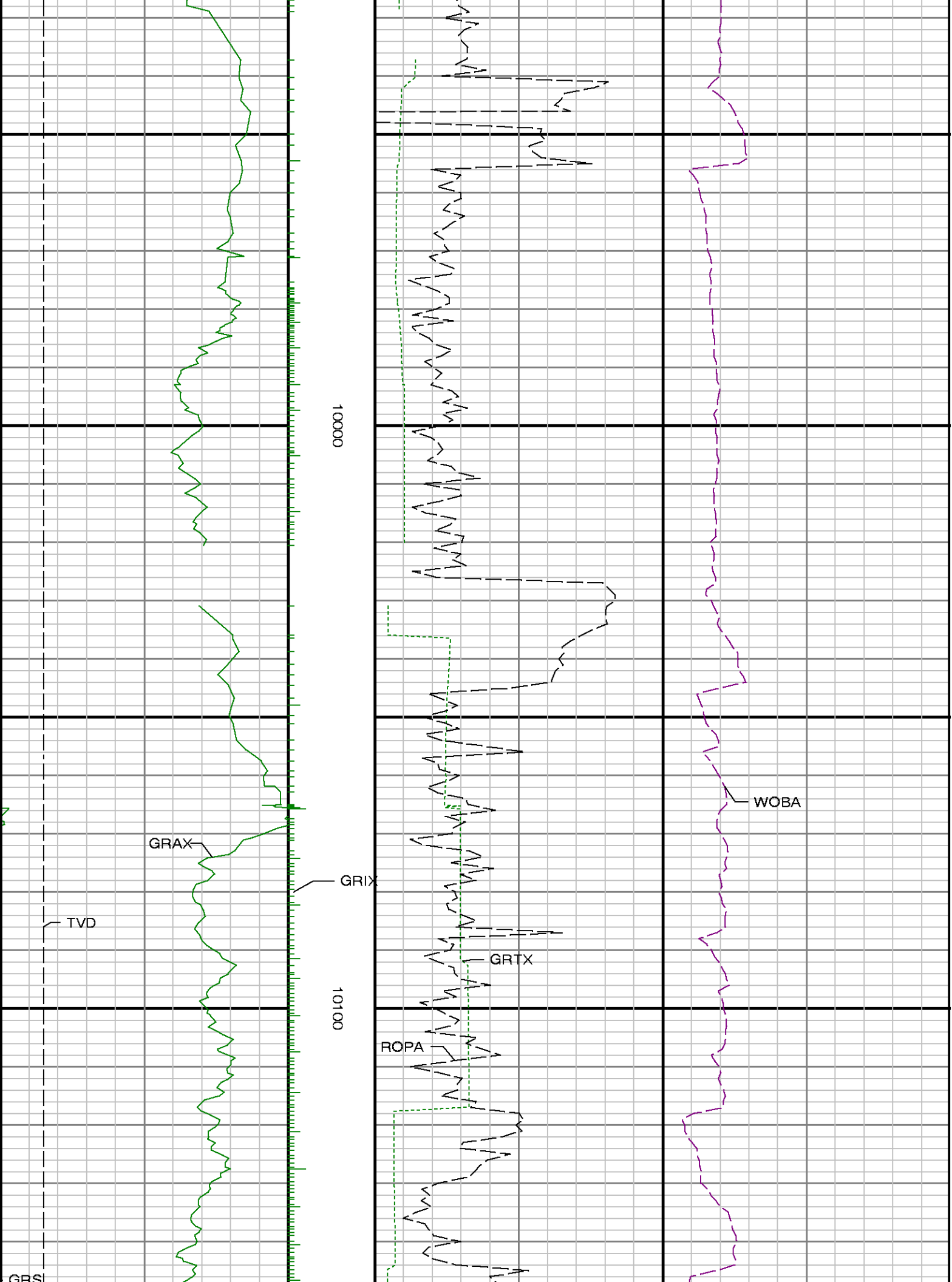




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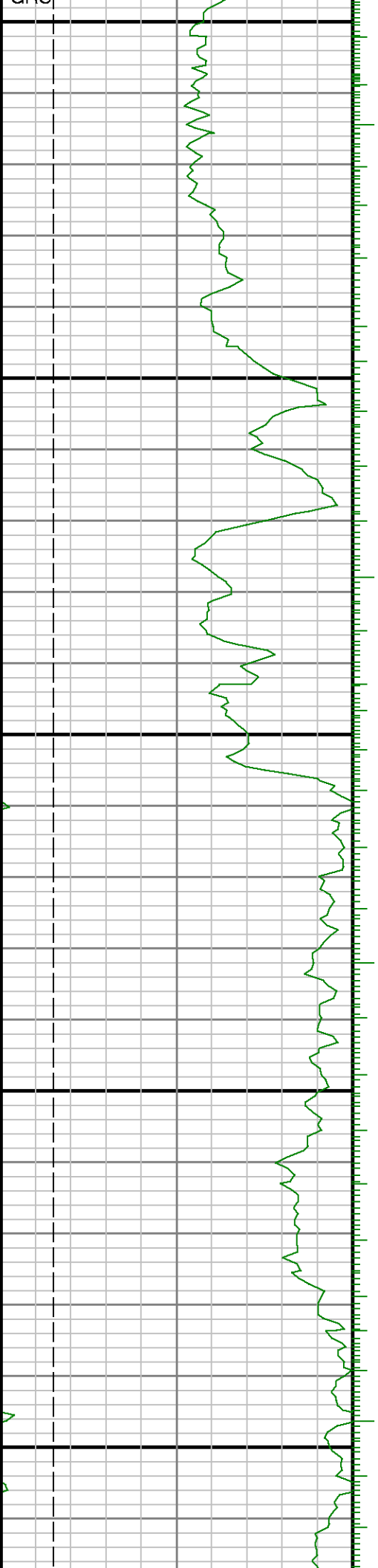


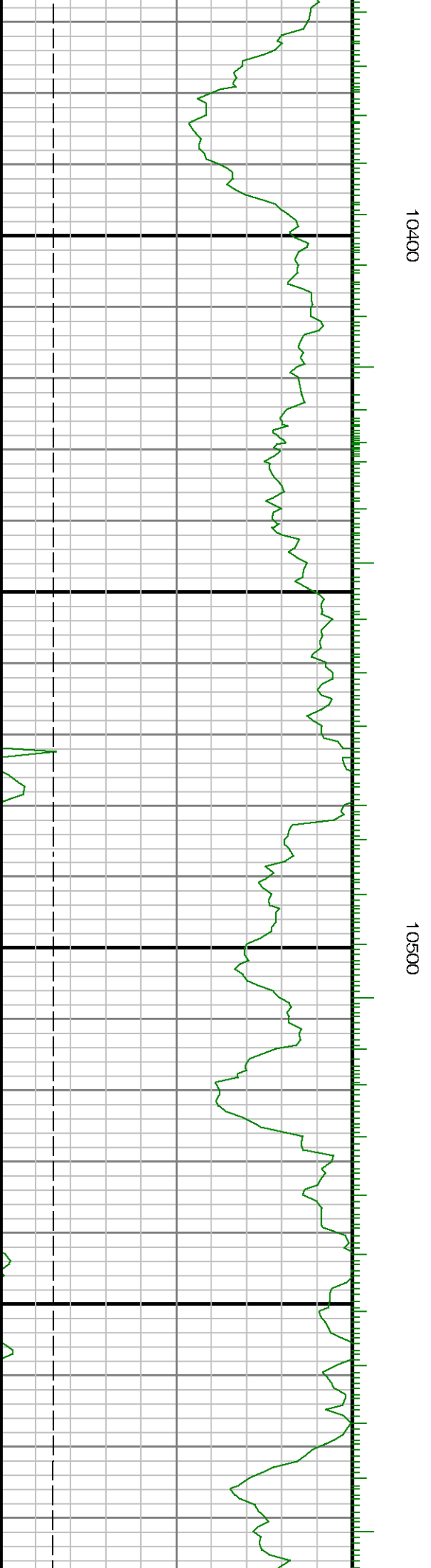
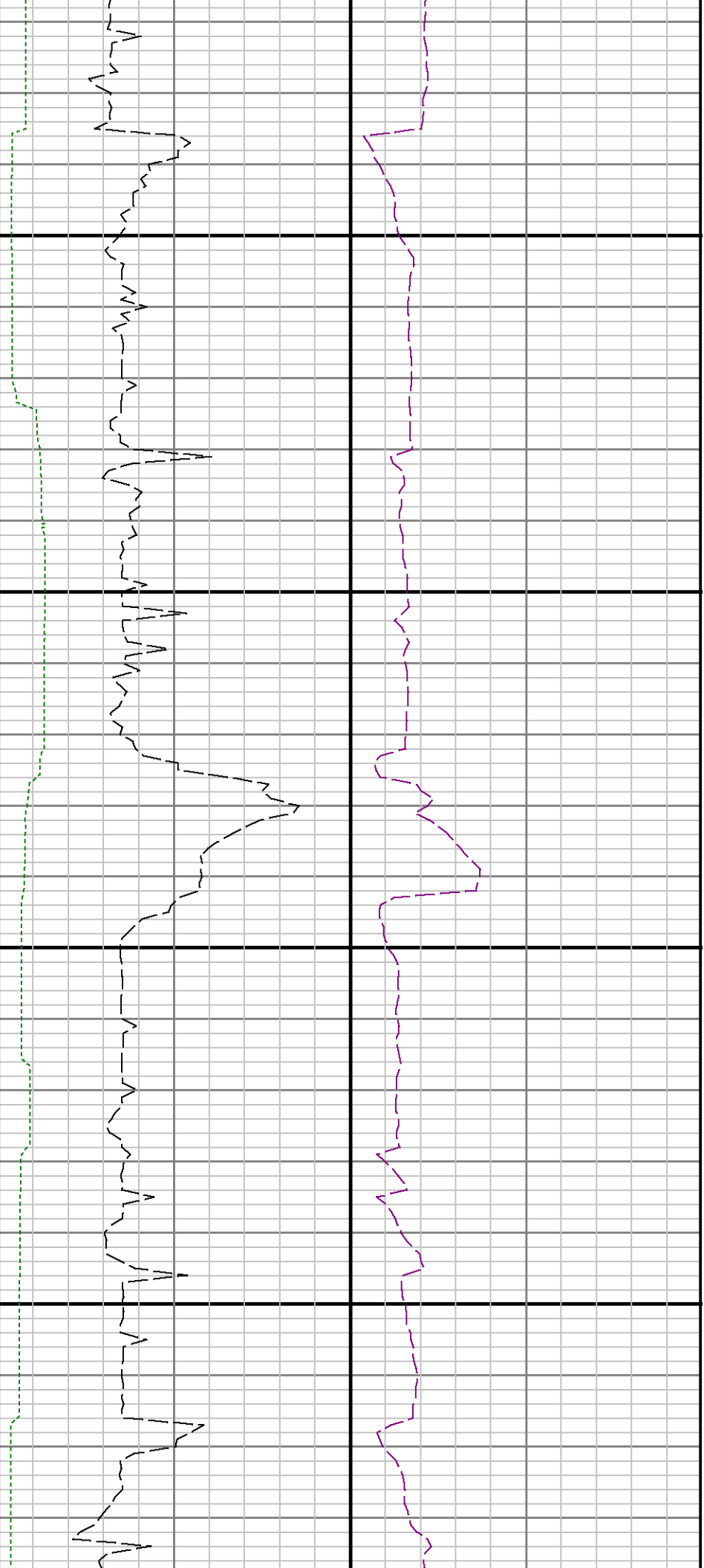


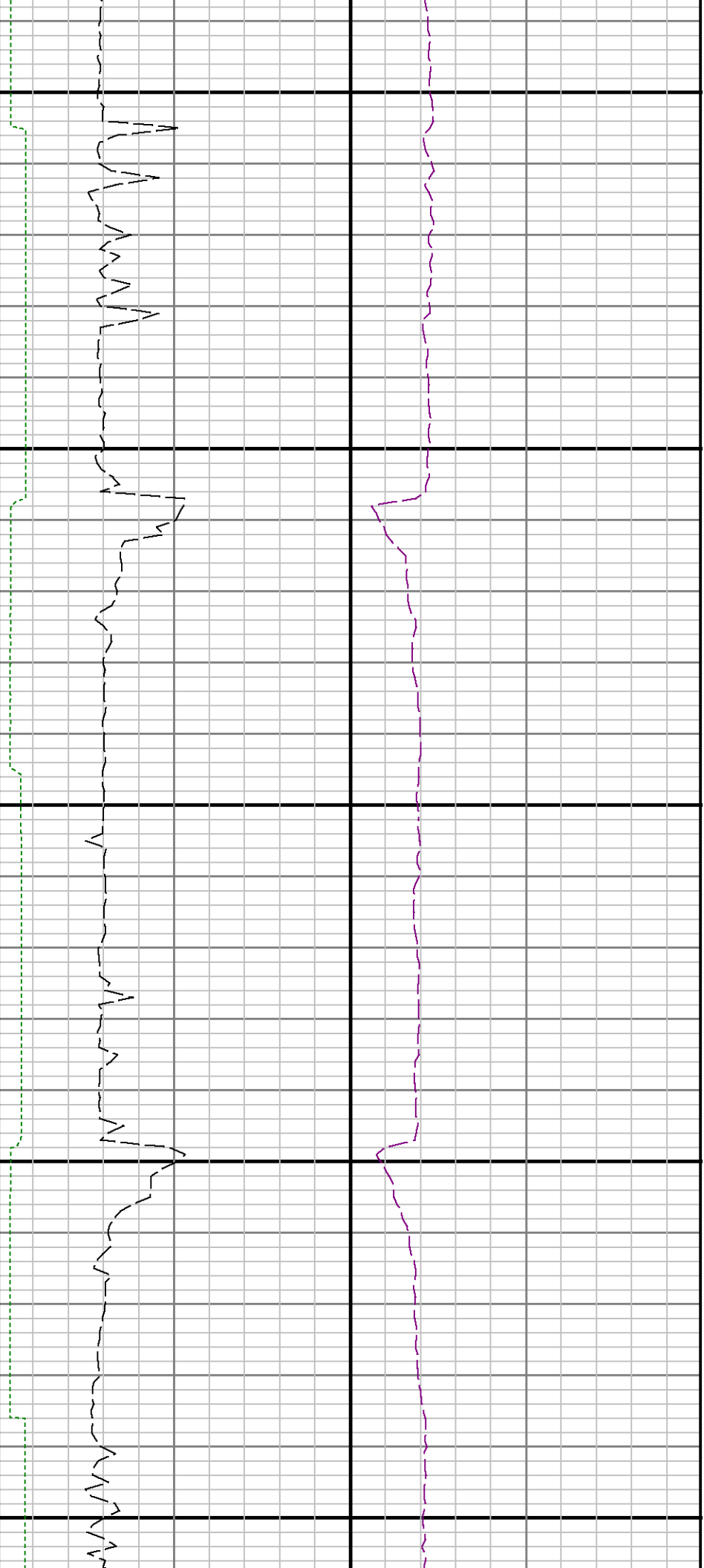


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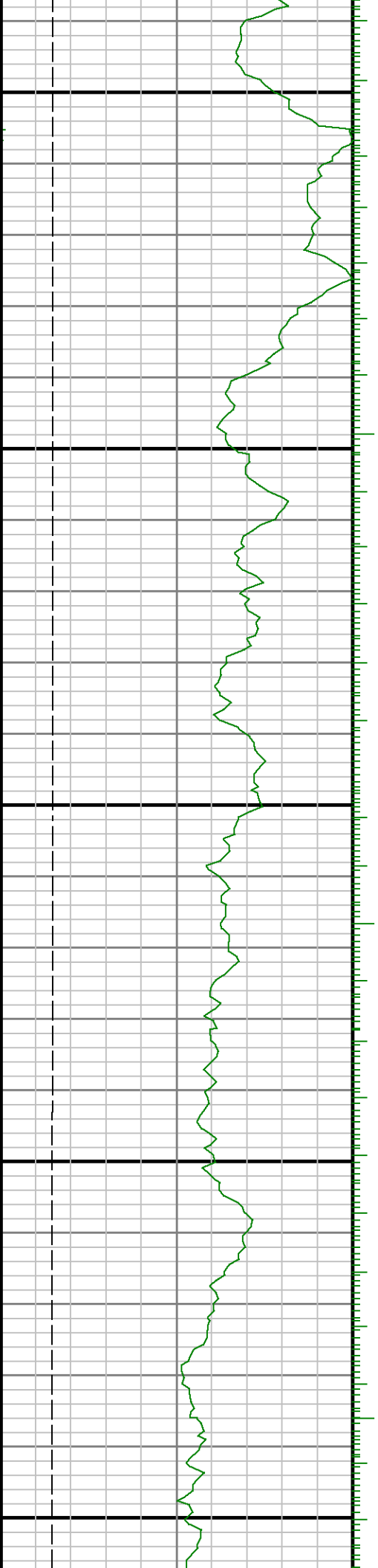




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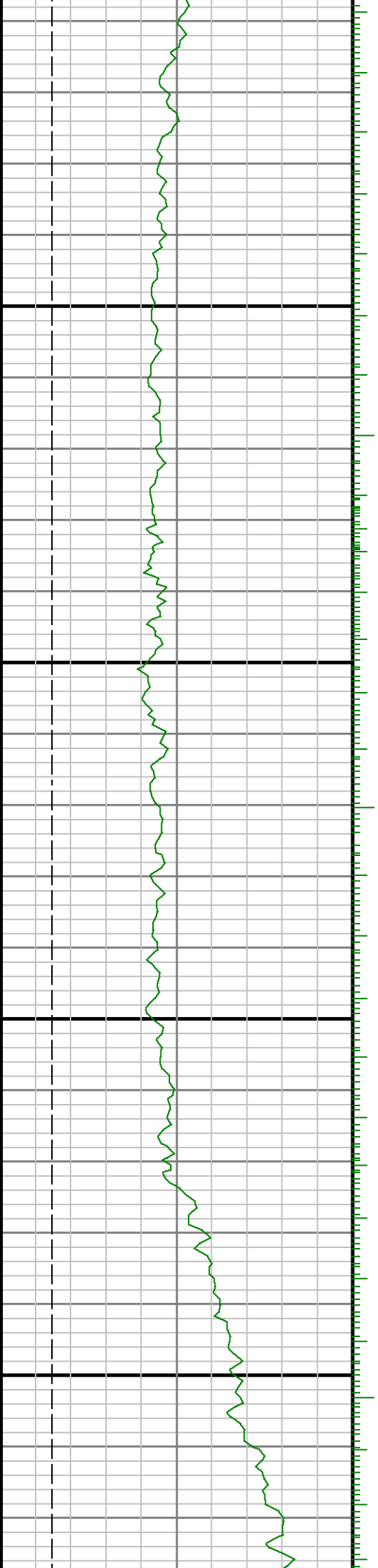
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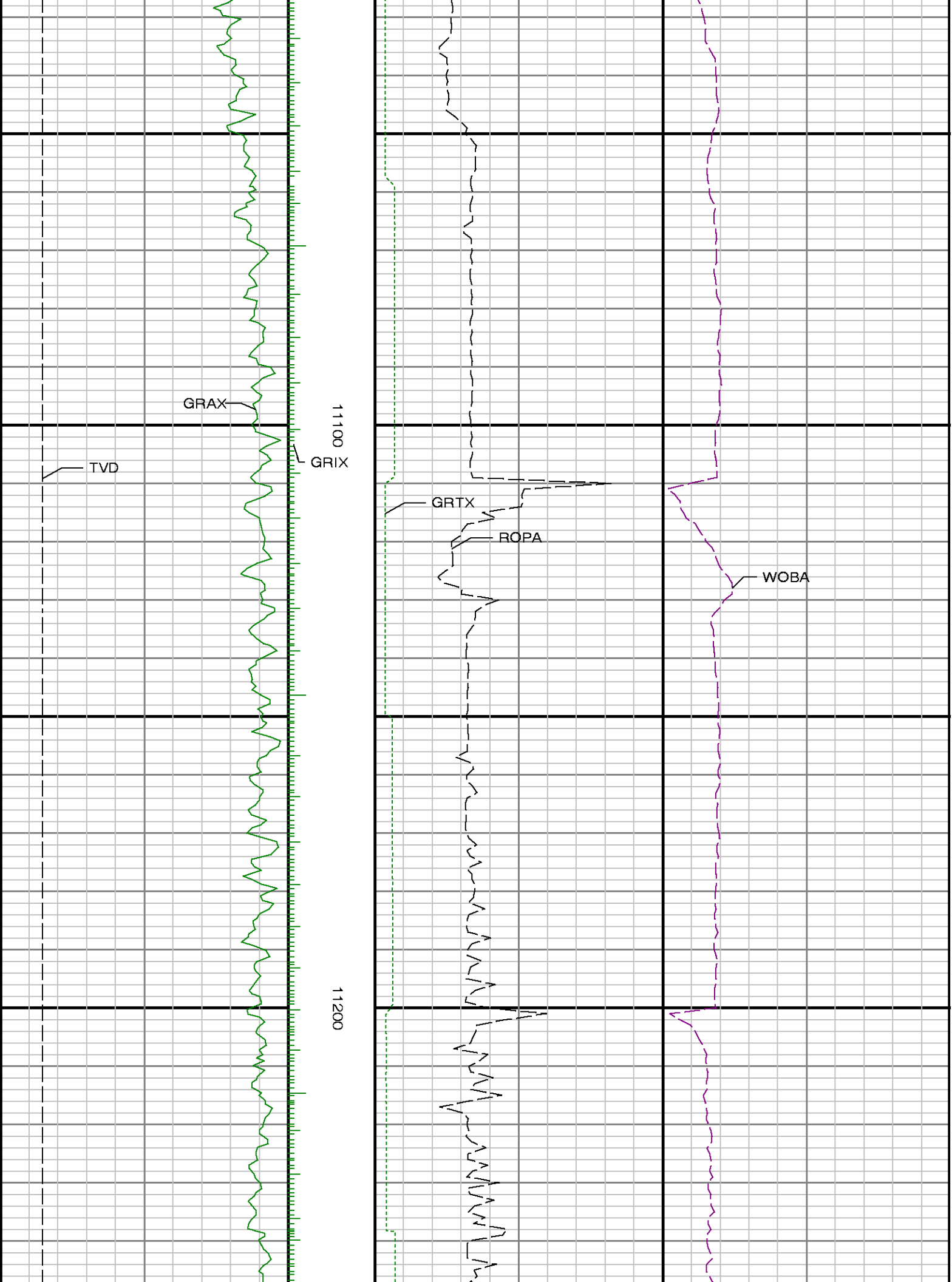




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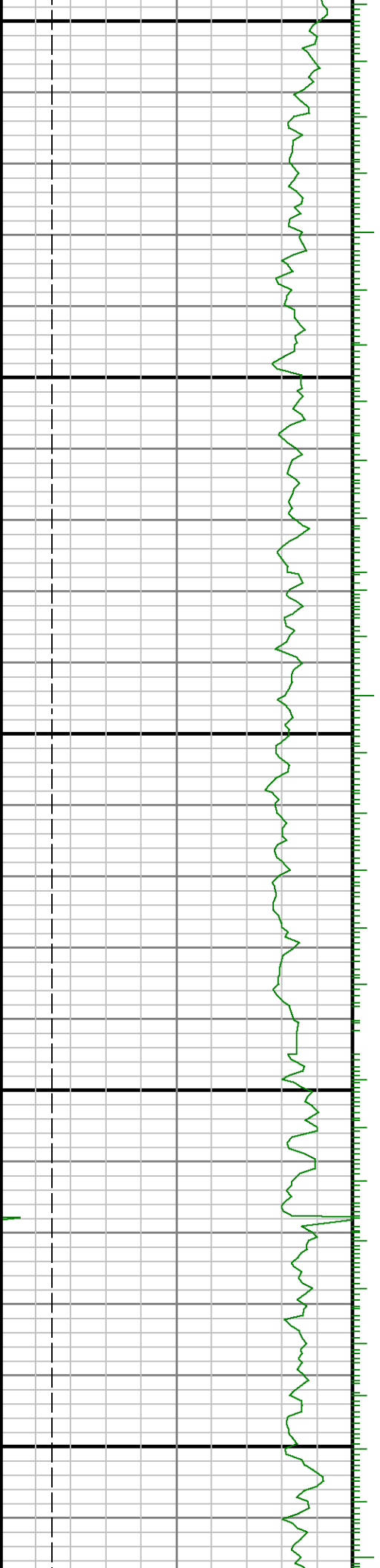


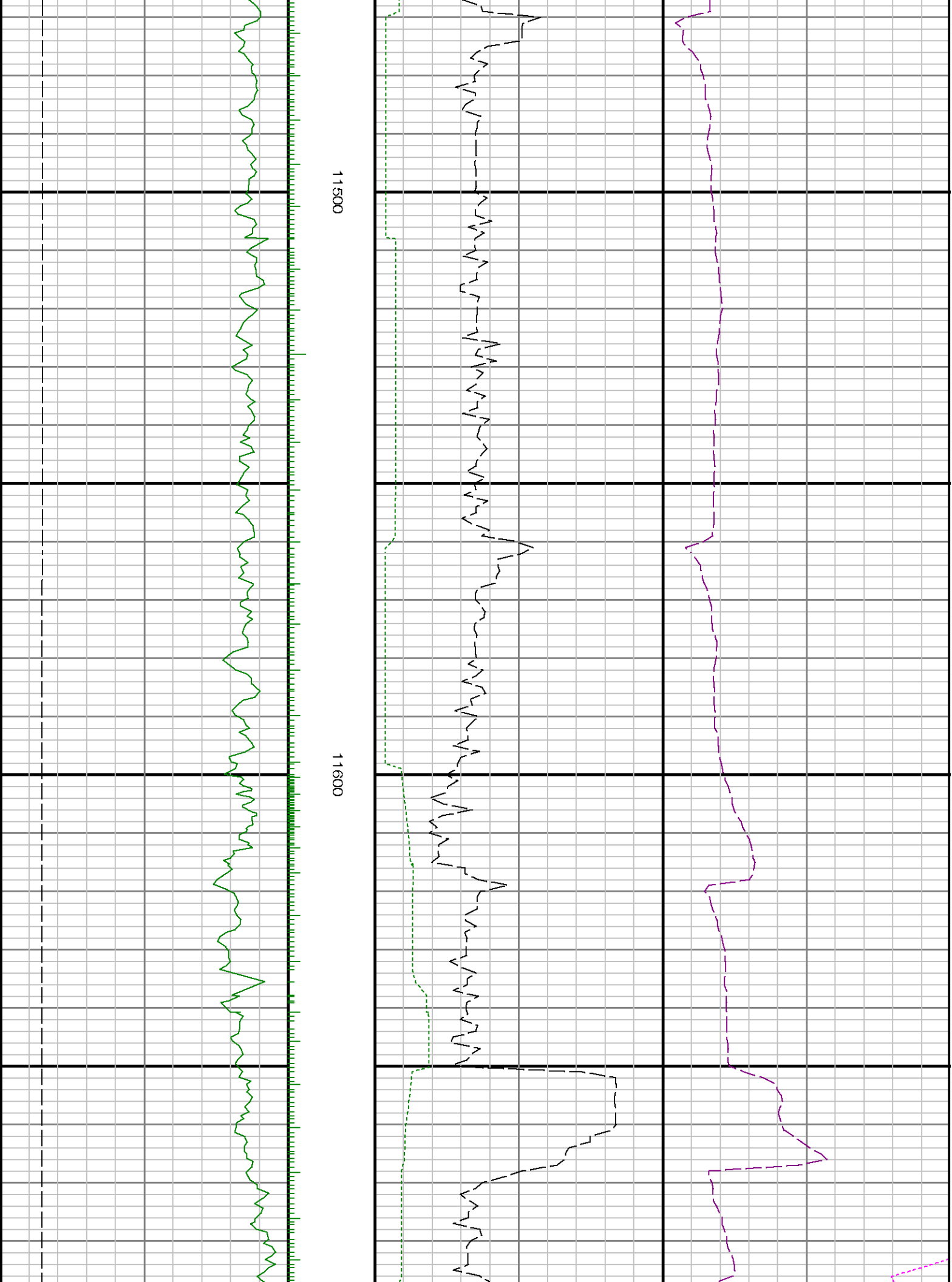


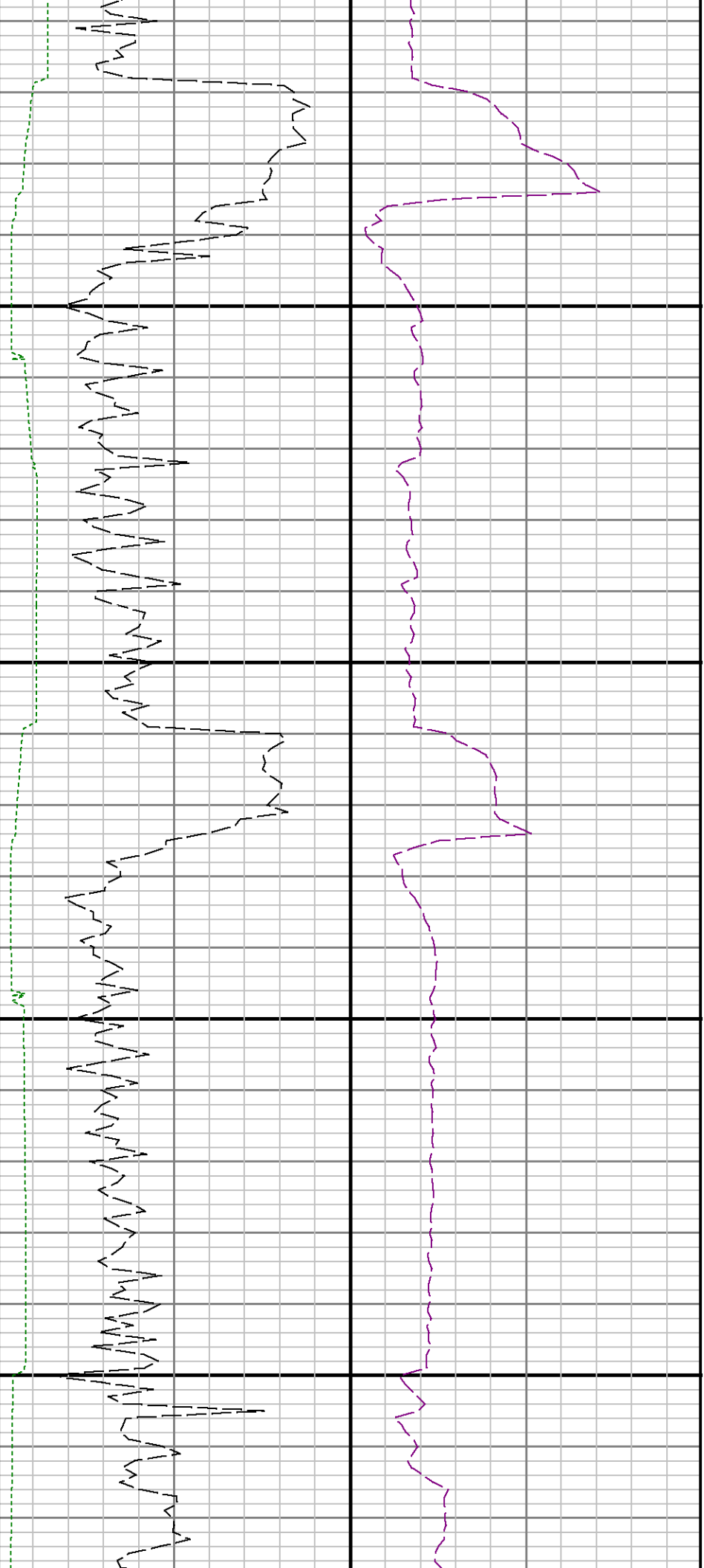


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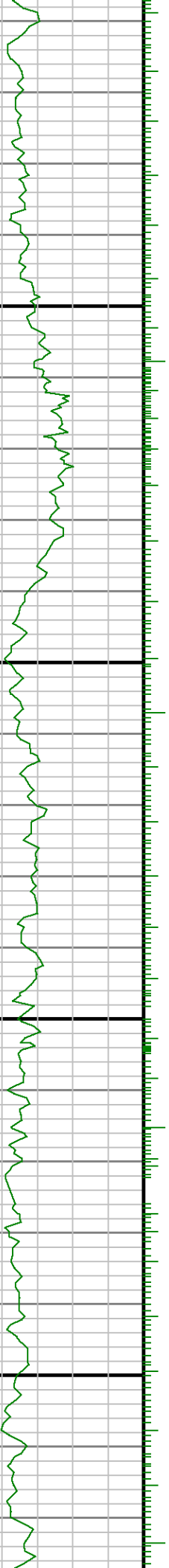
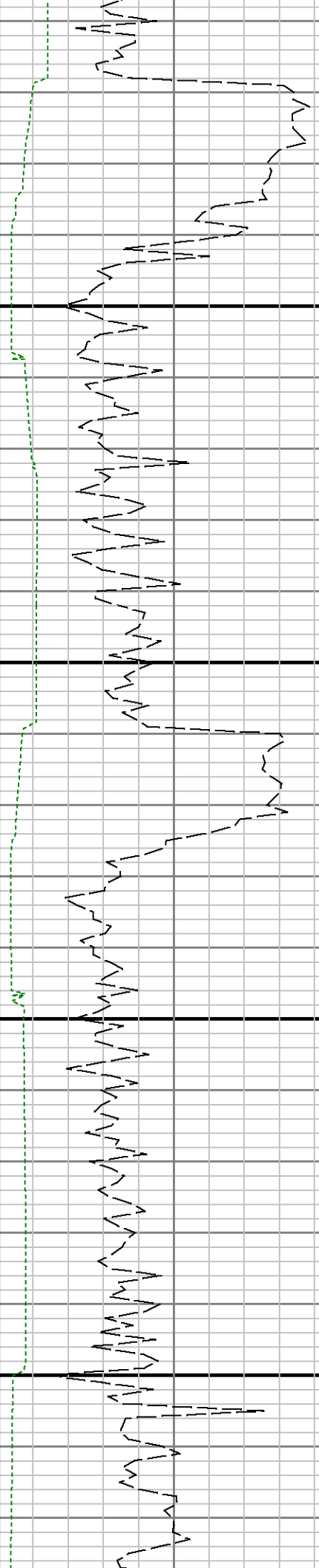


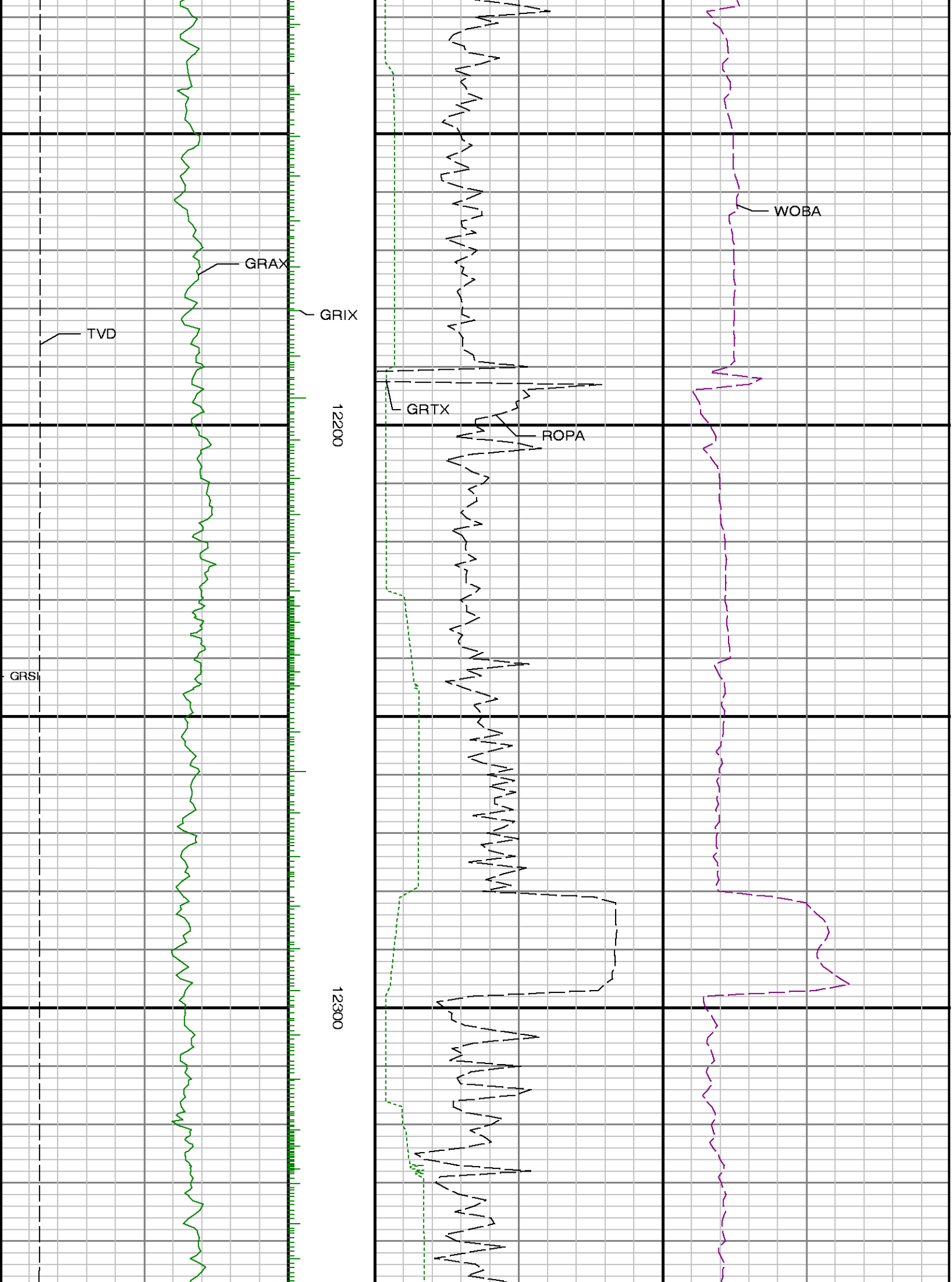


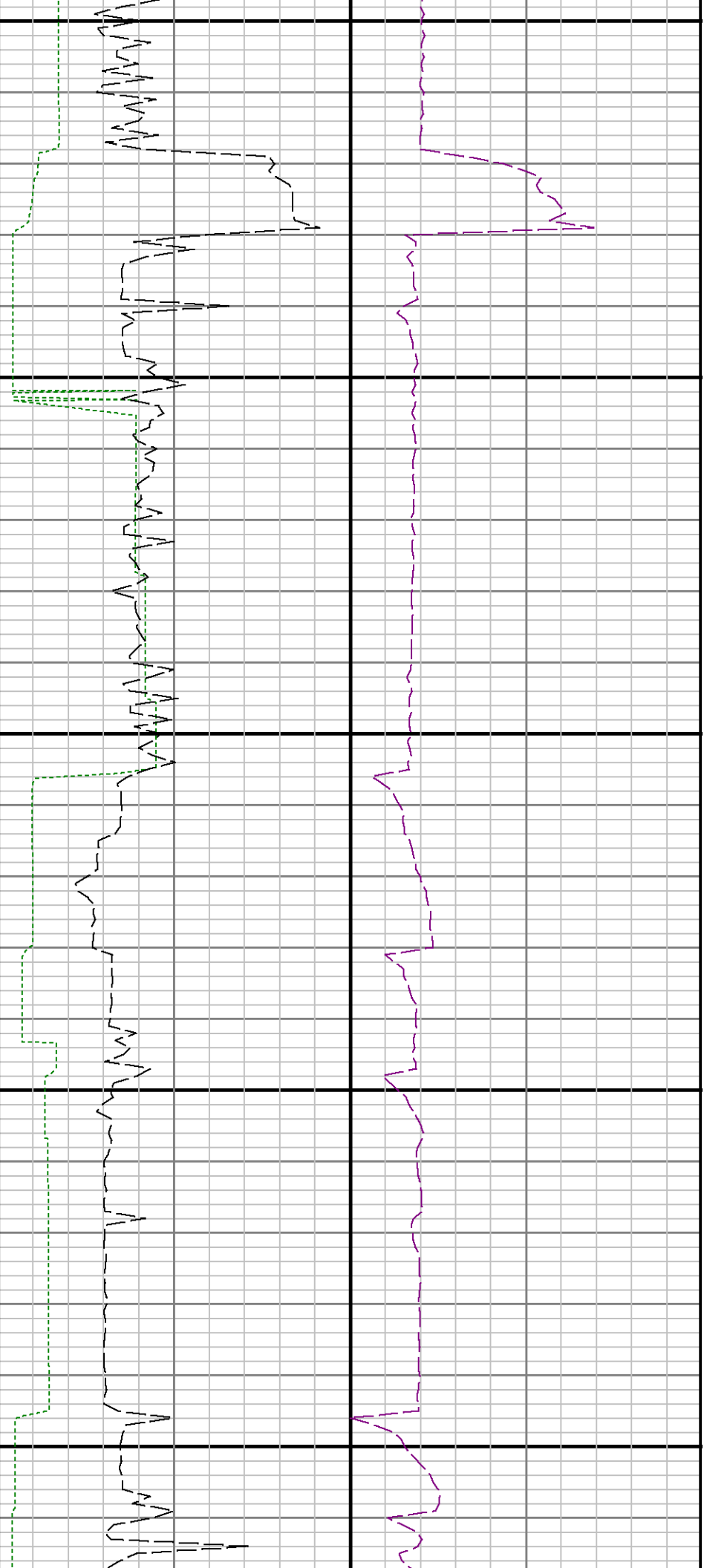


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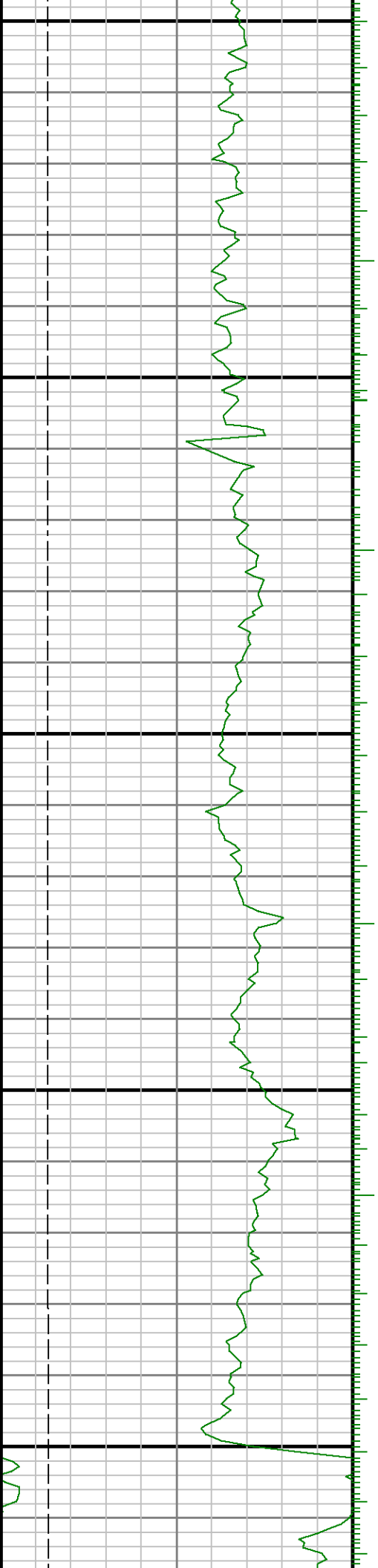


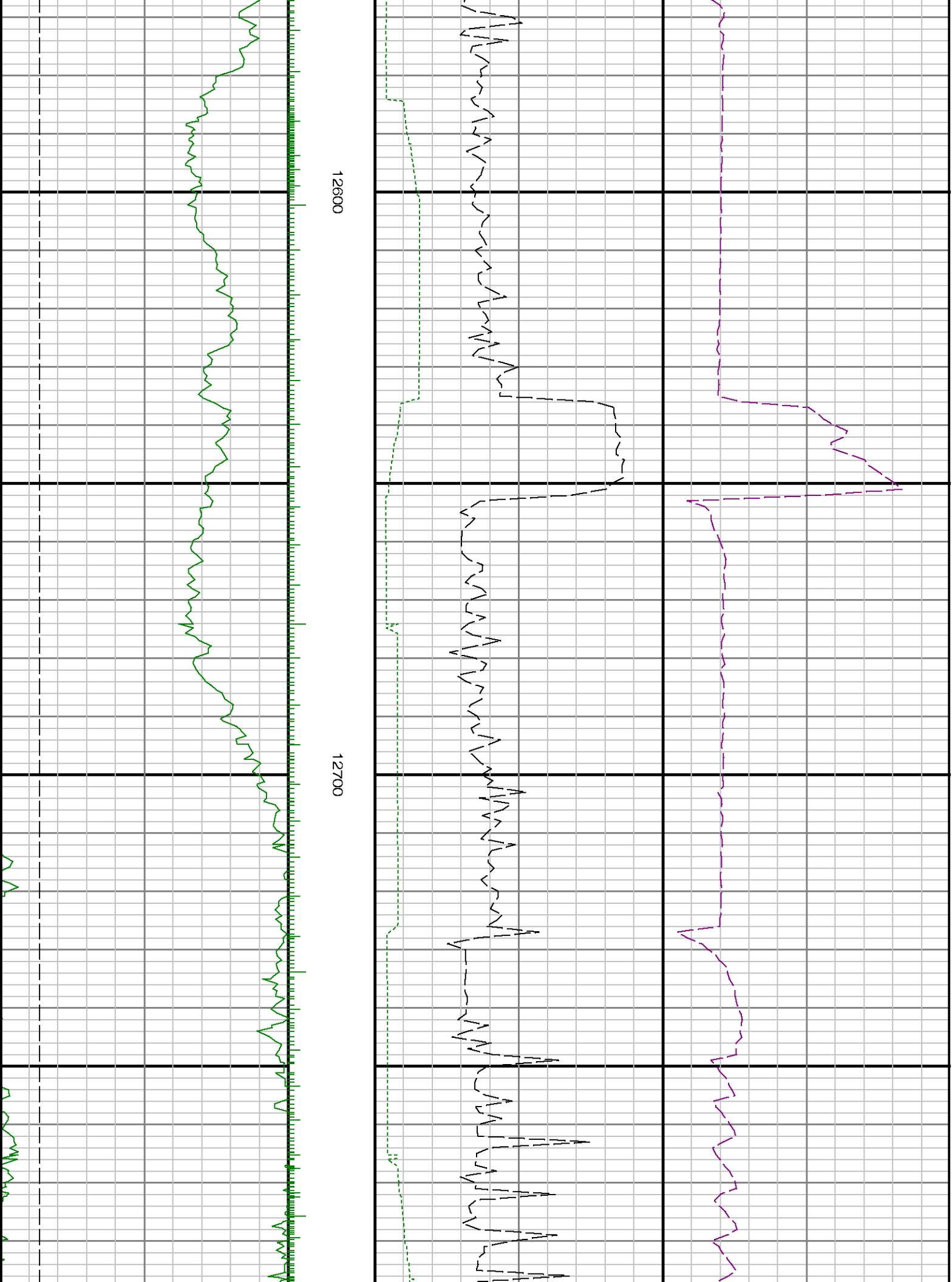


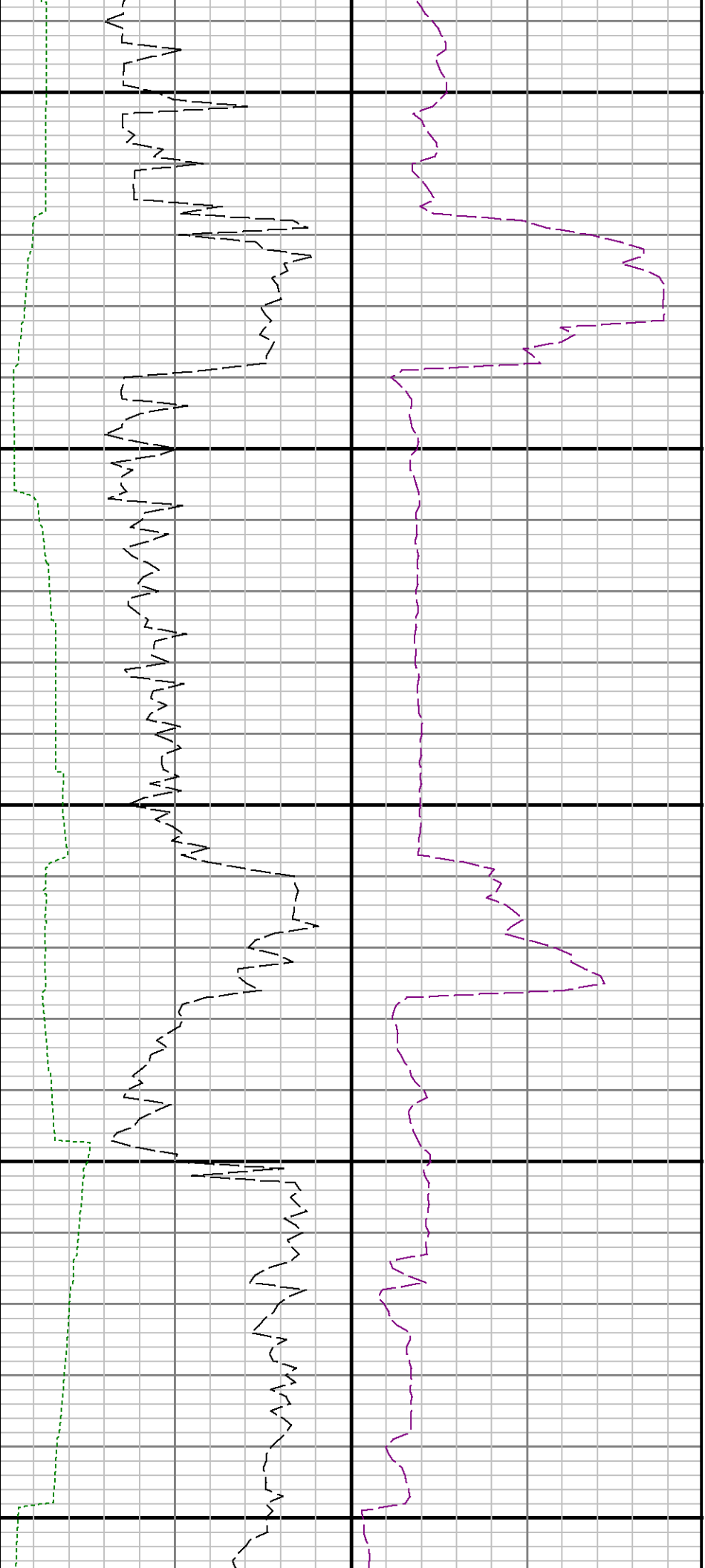


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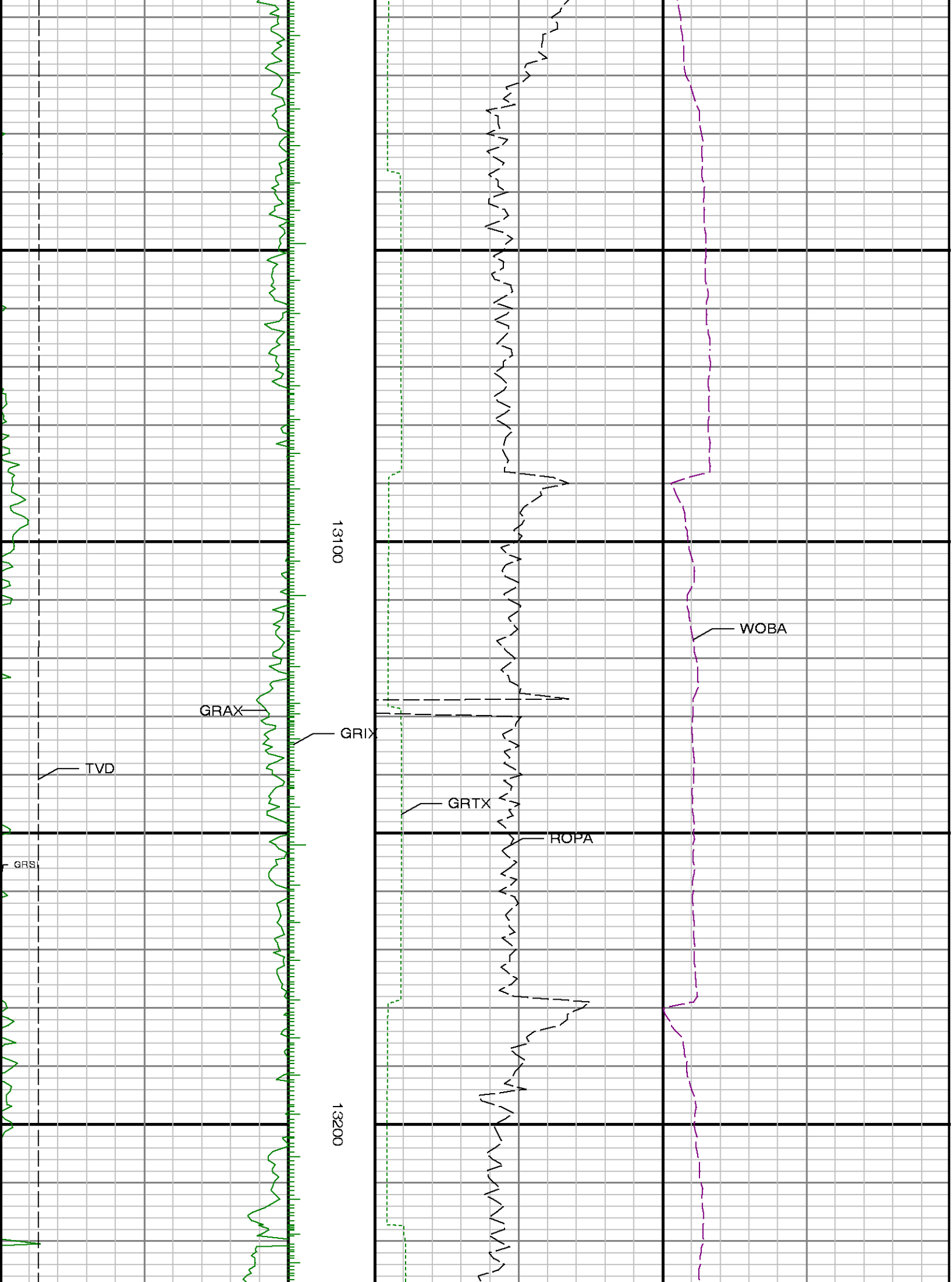


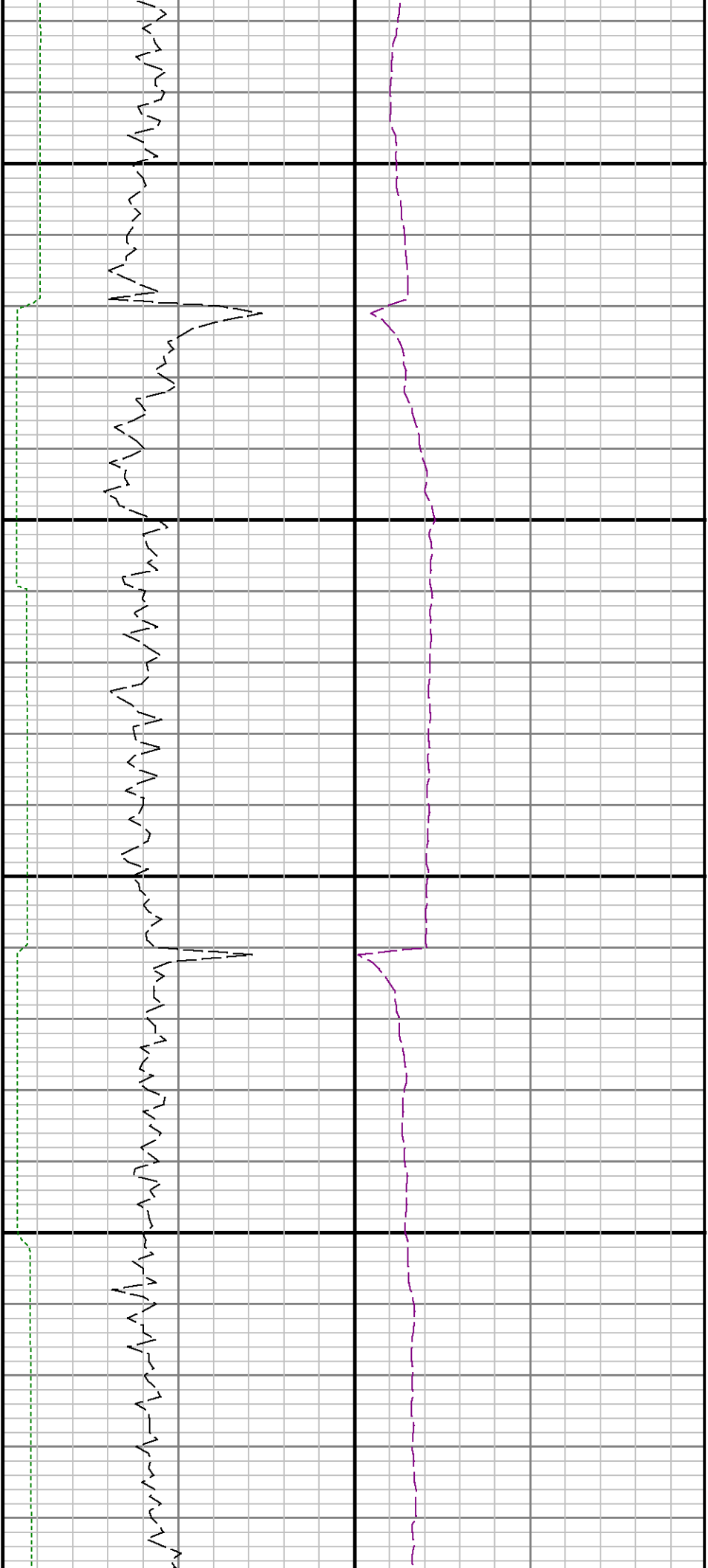


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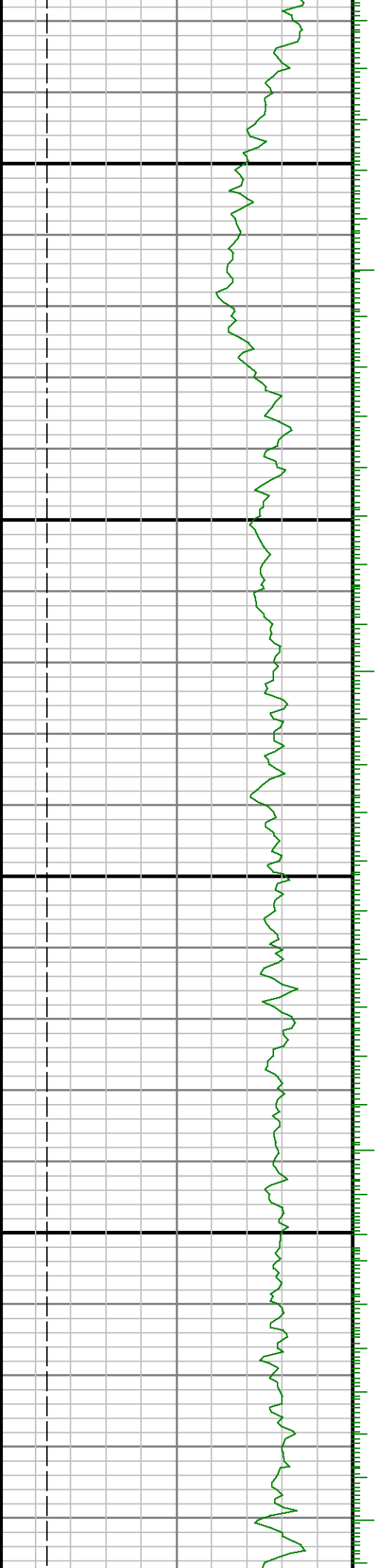
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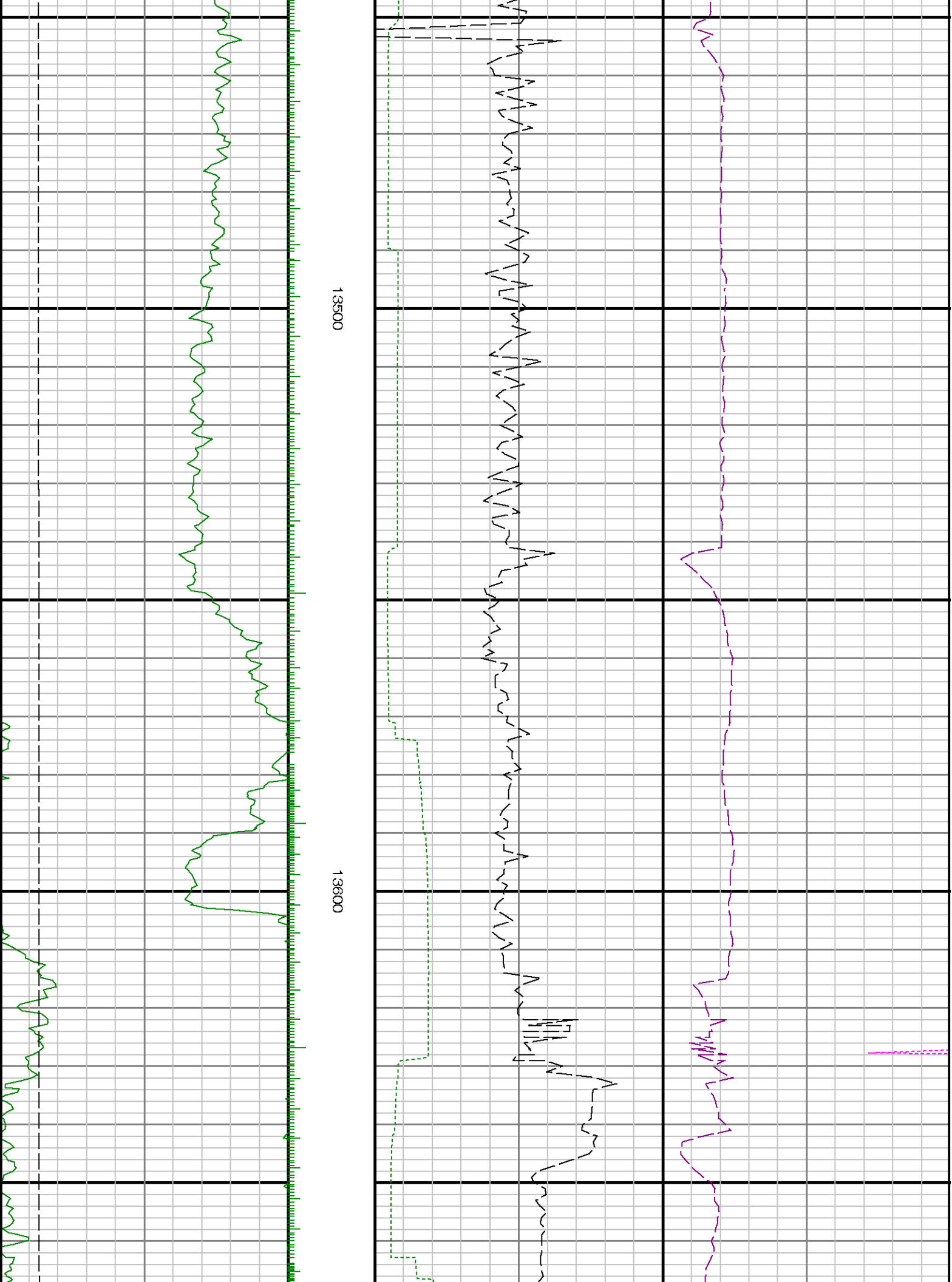


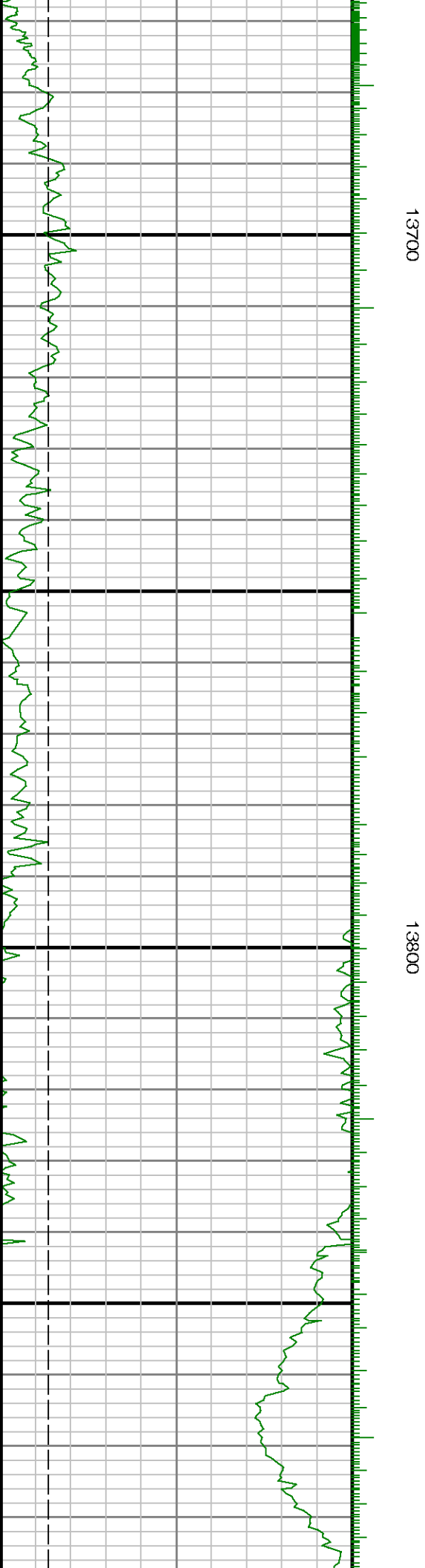
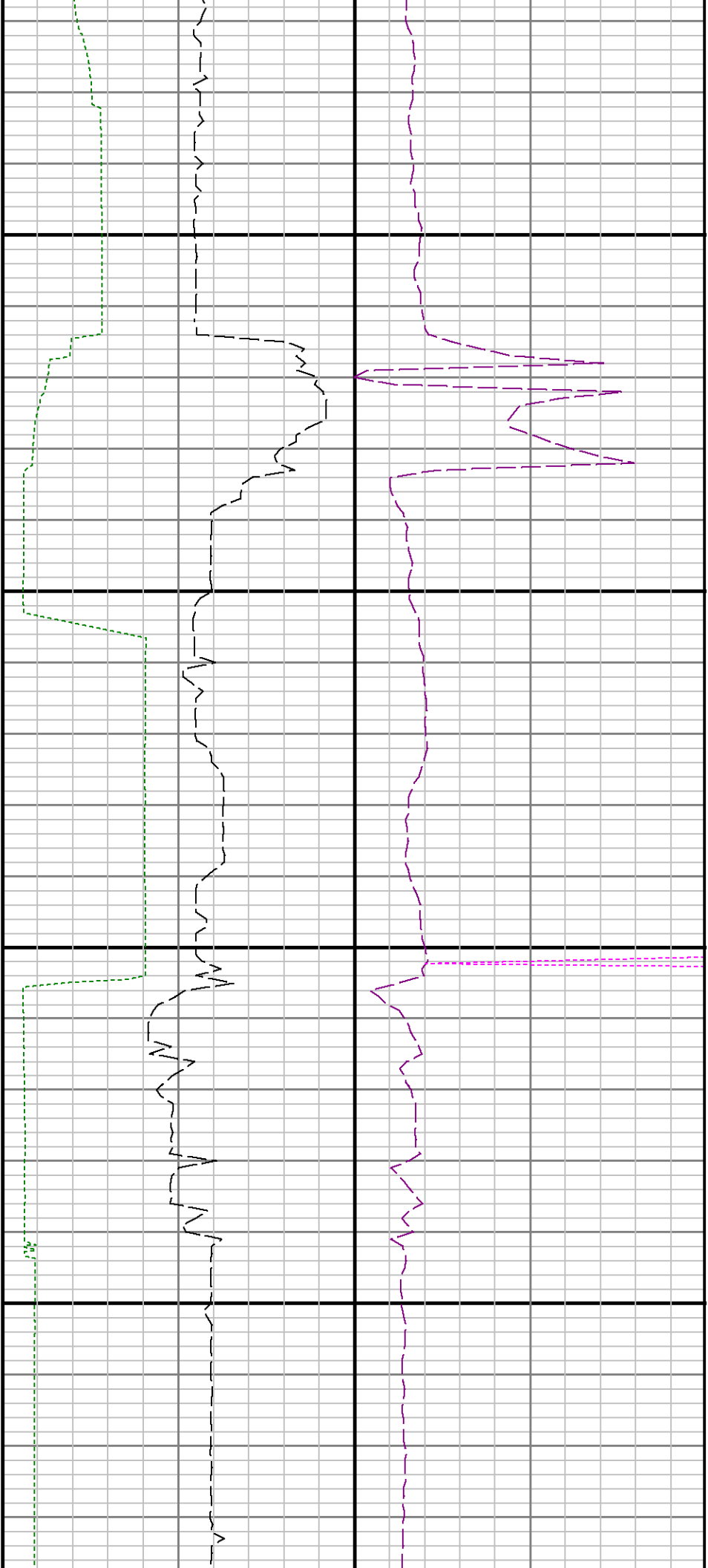


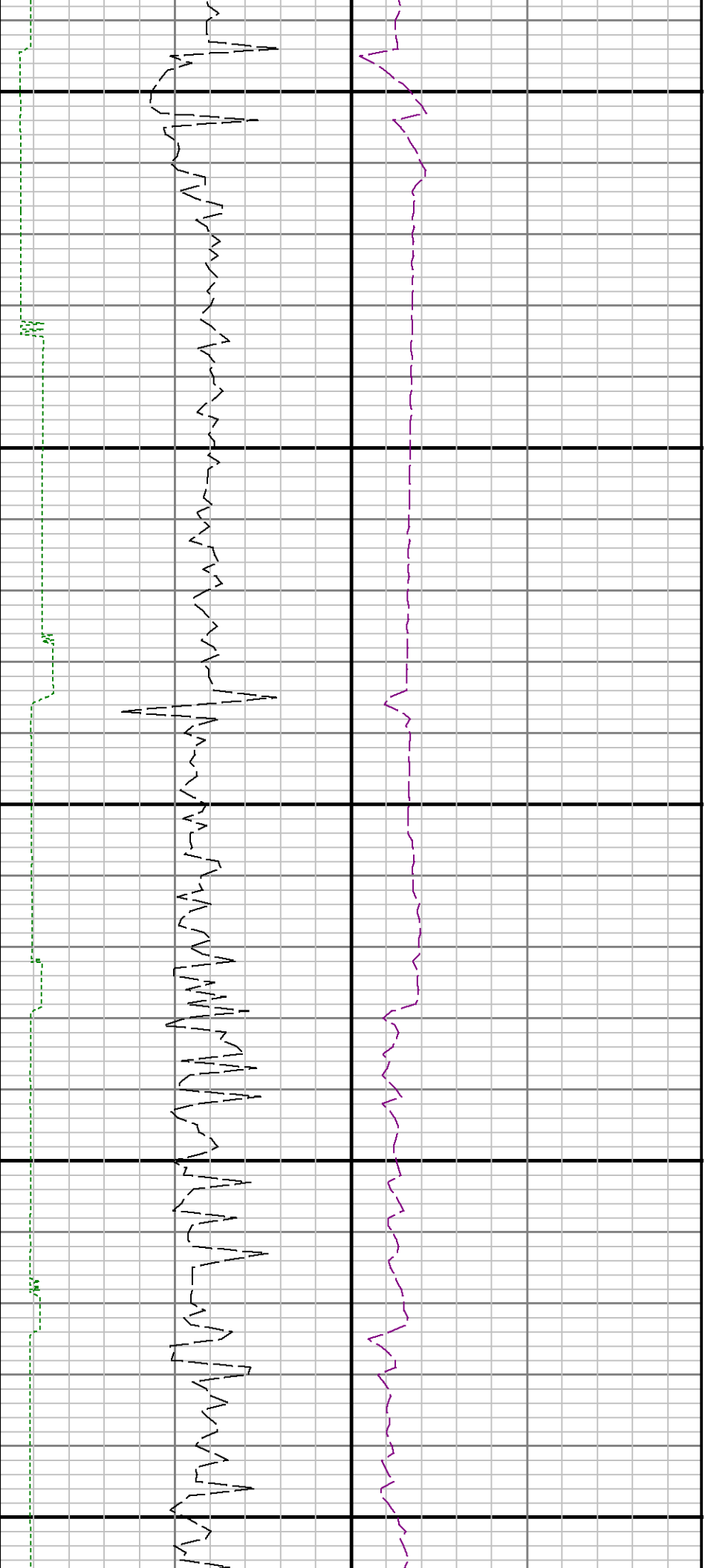
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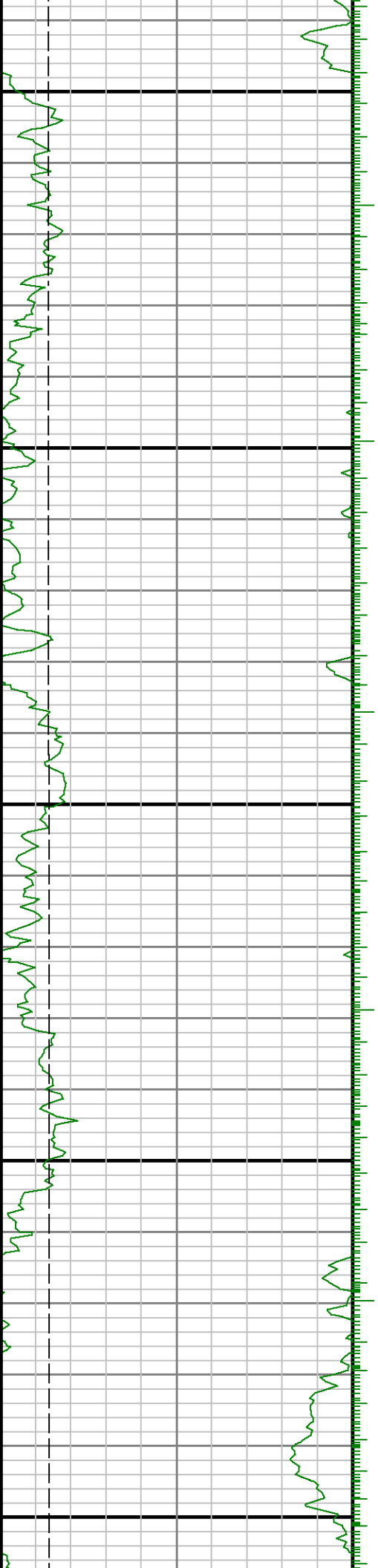


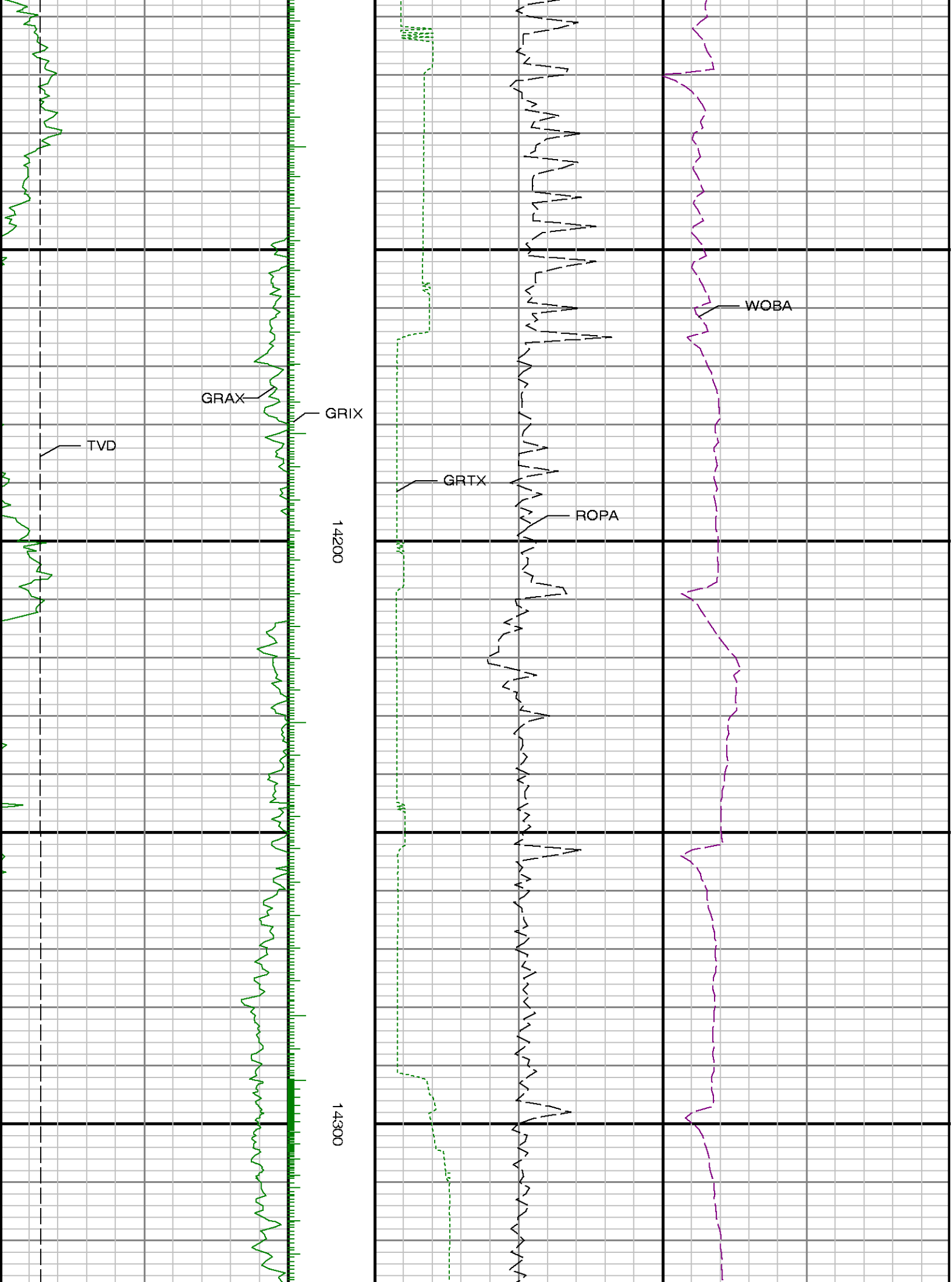


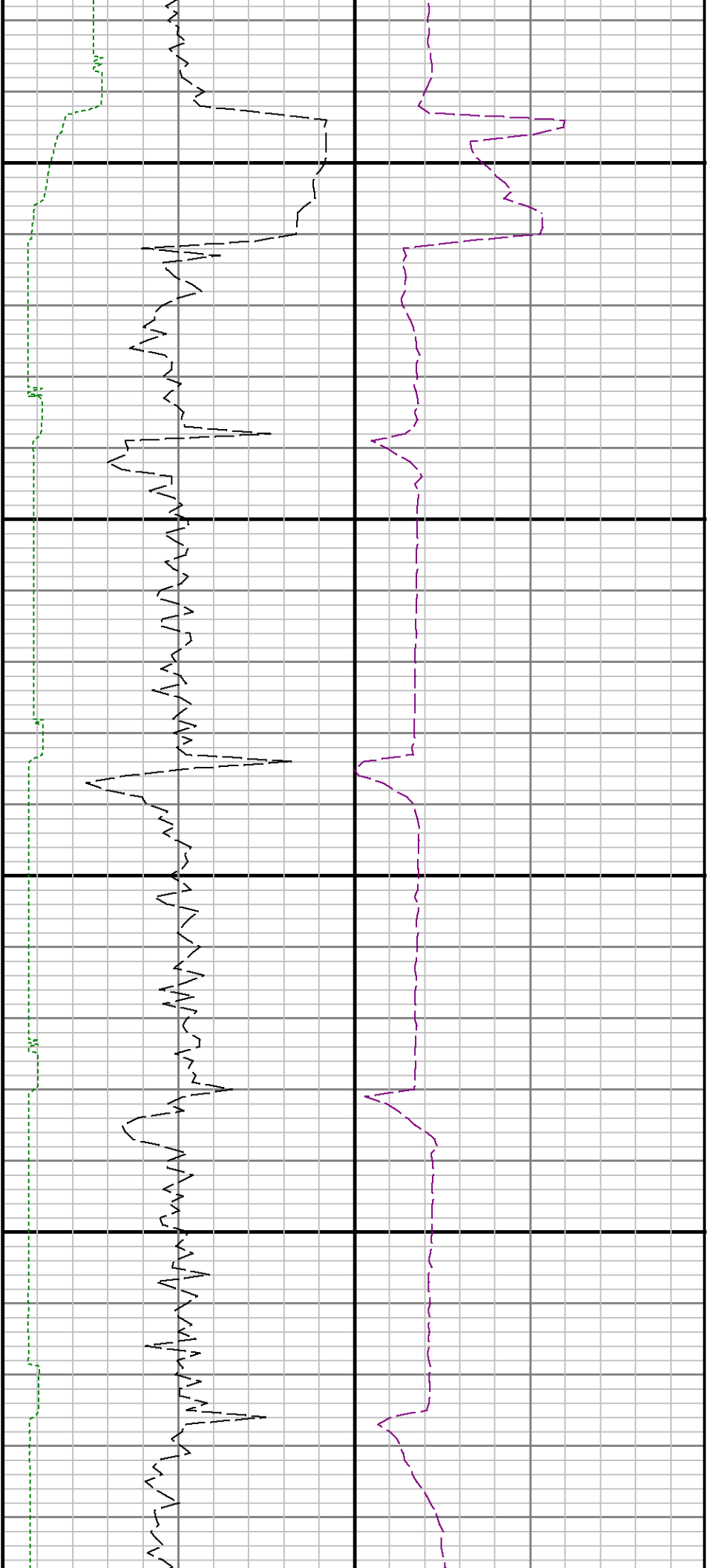
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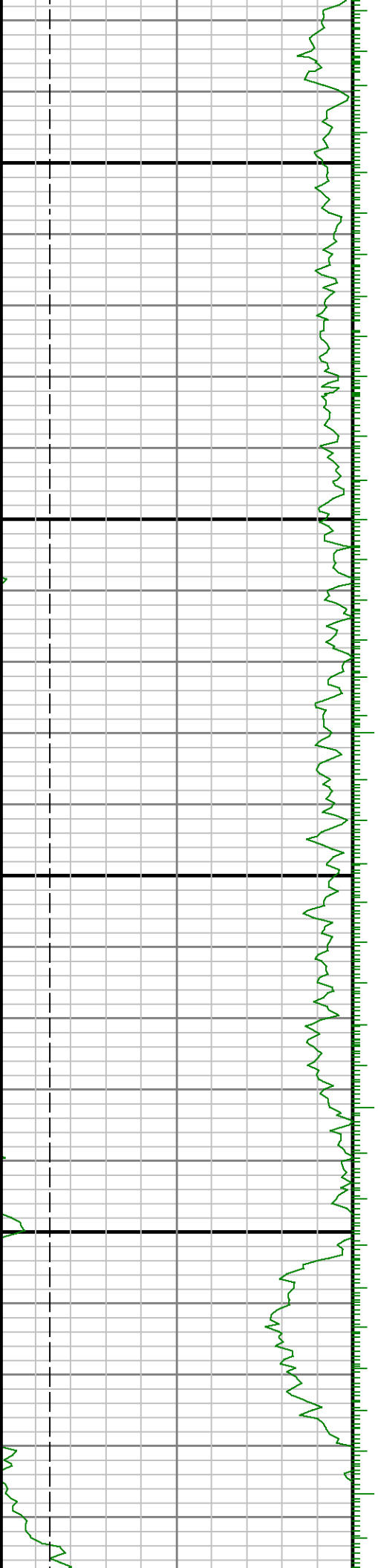


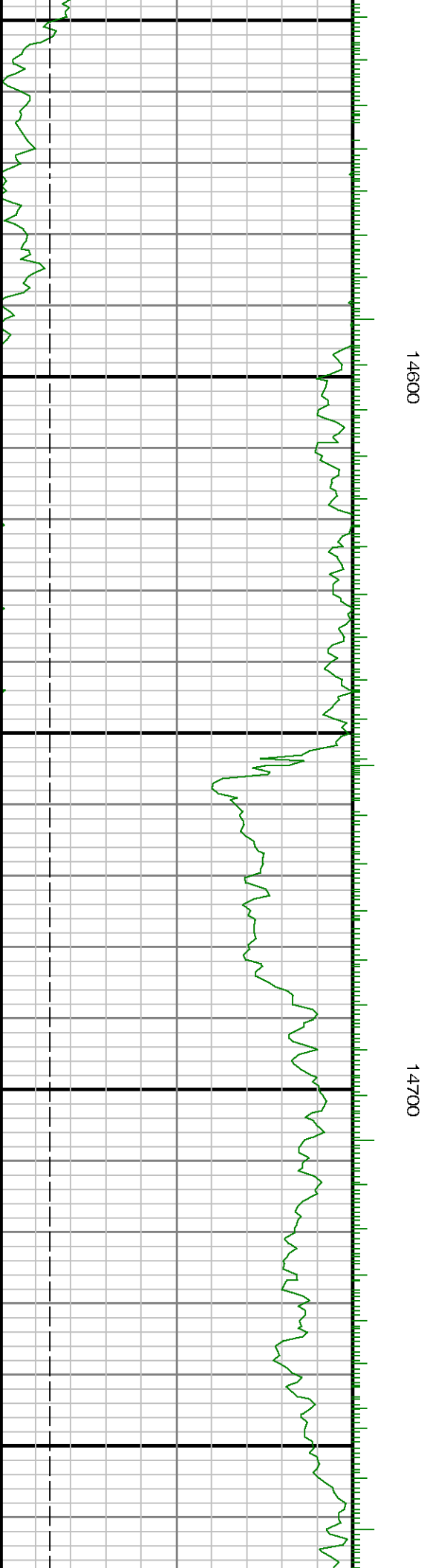
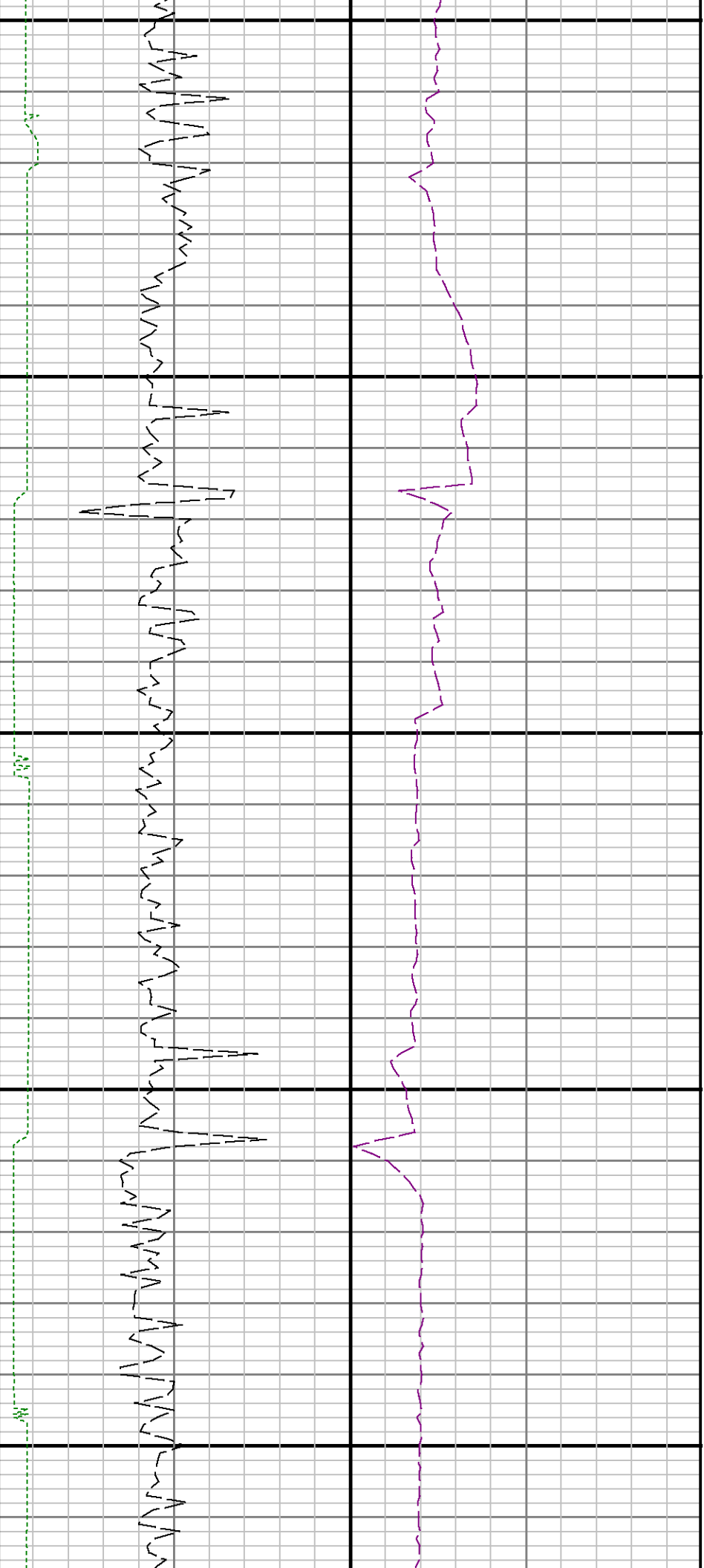


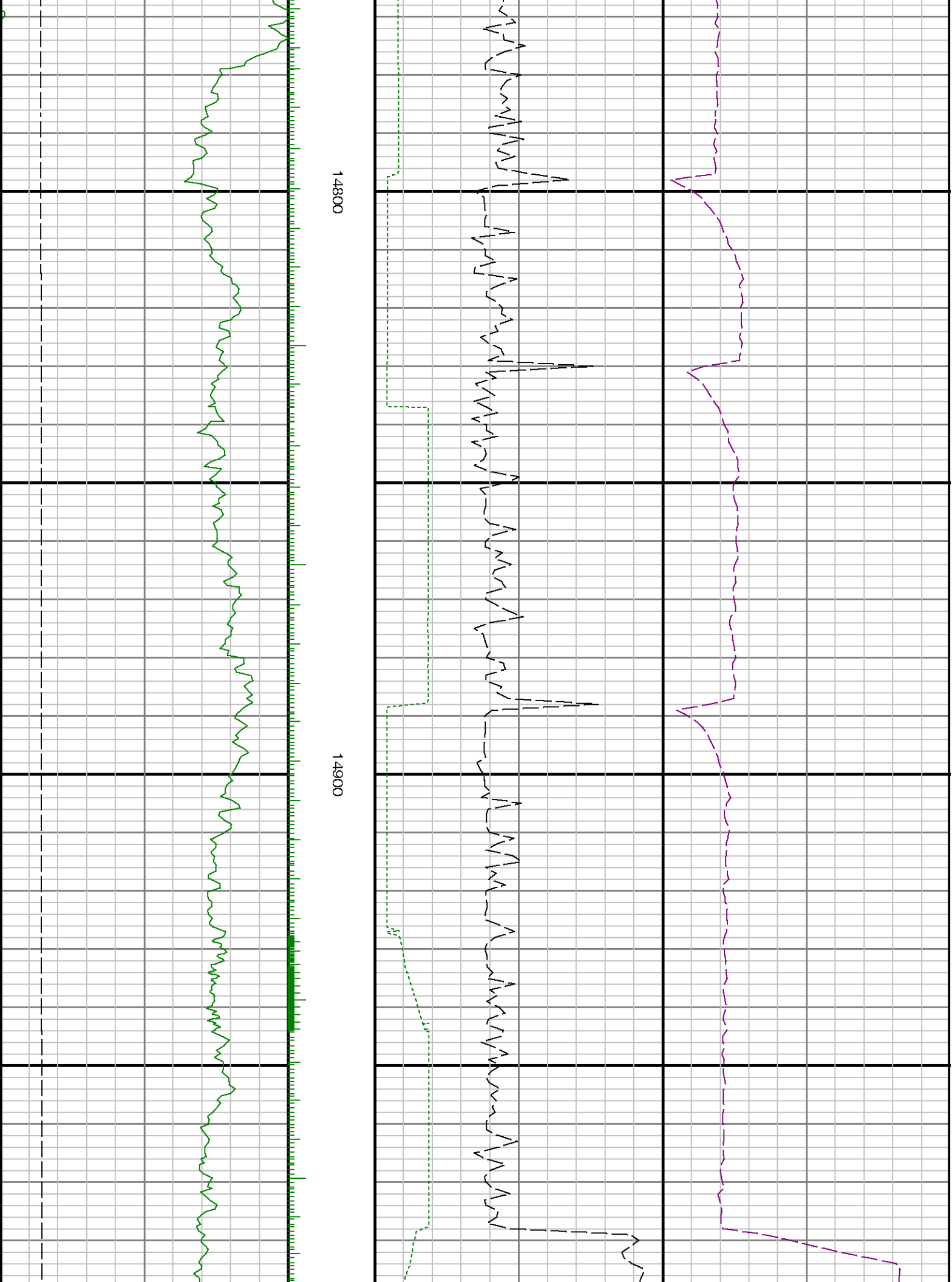


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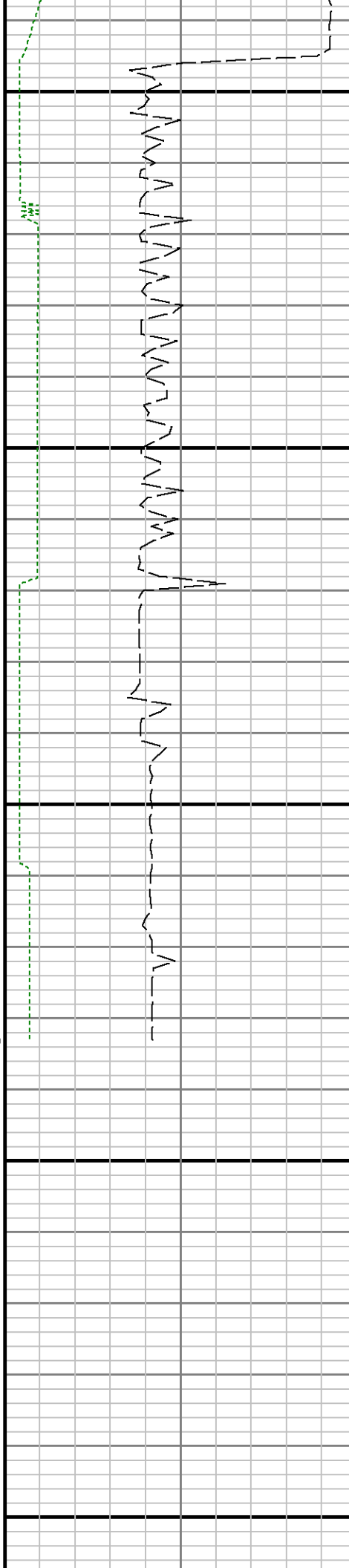
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15100

TD

15200

> run 2



15000

15100

TD

15200

See Remark 3

<p>Gamma Ray Apparent 0.5 ft Avg GRAX</p> <p>0 150</p> <p>API</p> <p>True Vertical Depth TVD</p> <p>7500 6500</p> <p>ft</p>	<p>MD feet 1:240</p>	<p>Gamma Time Since Drilled GRTX</p> <p>0 300</p> <p>min</p> <p>Rate of Penetration 3.0 ft Avg ROPA</p> <p>400 0</p> <p>ft/hr</p>	<p>Surface Weight On Bit 1.0 ft Avg WOB</p> <p>0 100</p> <p>klbf</p> <p>Downhole Temperature TCDX</p> <p>100 200</p> <p>degF</p>
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