



Realtime Logs

Natural Formation Evaluation
Gamma Ray

Scale: Company: Kerr-McGee

1:240

Well: Badding 15N-35HZ

MEASURED DEPTH

Field: Weld County

County: Weld County State: Colorado

Status: Surface Location: Other Services:

Final Print

Latitude: 40° 6' 10.757" N

API Number: 05-123-3841000

Section: 26 TWN: 2N Range66W

Directional

Permanent Datum (P.D.): Ground Level Elevation: 5129.00 ft.

Elevations: 17.00 ft.

Log Measured From: Kelly Bushing 17.00 ft. Above P.D.

KB: 17.00 ft.
DF: 5129.00 ft.
GL: 5112.00 ft.

Depth Reference: Driller's Depth

Interval Logged

Dates

Magnetic Field Reference

Top: 6847.0 ft. Date From: 30/Jan/14 Dip Angle: 66.76 ° Azi Reference North: True

Bottom: 13213.0 ft. Date To: 07/Feb/15 Total Mag to Reference

Spud Date: 29/Jan/14 Field Strength: 52936.0 nT North Correction: 8.31 °

Borehole Record

Casing Record

Hole Size	From	To	Size	Weight	From	To
13,500 in.	Surface	1287.0 ft.	9,625 in.	36.00 lb/ft	Surface	1287.0 ft.
8,750 in.	1287.0 ft.	7791.0 ft.	7,000 in.	26.00 lb/ft	Surface	7671.0 ft.
6,125 in.	7791.0 ft.	13265.0 ft.				

Mud Record

Deviation Record

Type	From	To	Hole Size	Interval	Inc / Az (Start)	Inc / Az (End)
Water Based Mud	Surface	13265.0 ft.	13,500 in.	Surface	0.0 ° / 0.0 °	0.6 ° / 43.9 °
			8,500 in.	Vertical/Curve	0.6 ° / 43.9 °	84.2 ° / 177.8 °
			6,123 in.	Lateral	84.2 ° / 177.8 °	92.3 ° / 179.2 °
					/	/
					/	/
					/	/
					/	/

Acquisition System Software Version

Other

Advantage	2.20U4	Rig: / Contractor:	Xtreme 8	/	X-Treme Coil Drilling
PATS	6.4.1.34	Job No:	6053251		
		District: / Unit:	Rocky Mountain	/	D&E

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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	Bottom	From	To	Start	End	
							(m.)	(m.)	(m.)	(m.)			
1	2	2	8.750	PDC		Mud Motor	6847.0	7743.0	6847.0	7793.0	30/Jan/2014 07:15	02/Feb/2014 03:53	41.09
2	2	2	6.125	PDC		Mud Motor	7743.0	13213.0	7793.0	13265.0	03/Feb/2014 15:30	07/Feb/2015 21:11	54.5

Crew

Name	Arrive	Depart	Name	Arrive	Depart	Name	Arrive	Depart
	Wellsite	Wellsite		Wellsite	Wellsite		Wellsite	Wellsite
Kevin Sheridan	31/Jan/14	07/Feb/14	Shirley Arimah	31/Jan/14	07/Feb/14			

Mud Properties Record

Date / Time		LWD	Measured	Mud	Density	Viscosity	pH	Fluid	Oil /	Source	Total	K+
		Run No.	Depth (m.)	Type	(sg)	(cp)		Loss (cc)	Water		Chlorides (ppm)	(%)
01/Feb/14	12:00	1	7600.0	Water Based Mud	8.4	26	9.5	N/A	0/99.49	Mud Pit	1400	N/A
06/Feb/14	12:00	2	12930.0	Water Based Mud	9.6	36	8.5	N/A	2/91.99	Mud Pit	2300	N/A

Mnemonics

Curve	Description	Units
GRAX	Gamma Ray Apparent, 0.5 ft. Avg	API
GRIX	Gamma Ray Density	points
GRSI	Gamma Ray Sliding Indicator	unitless
ROP_AVG	Rate of Penetration, 3.0 ft. Avg	ft/hr
TCDX	Downhole Temperature	degF
TVD	True Vertical Depth	ft.
WOB_AVG	Surface Weight on Bit, 1.0 ft. Avg	klbs

Equipment and Service Data

LWD	Tool	Serial	Measurement	Bit	Max	Min
Run		Number		Offset	O.D.	I.D.
No.				(m.)	(in.)	(in.)
1	DIR	12456790	Directional	46.71	6.750	2.750
1	SRIG	12578109	Gamma	43.33	6.750	2.750
2	DIR	13108409	Directional	55.41	4.750	2.125
2	SRIG	11602059	Gamma	52.03	4.750	2.125

Service and Tool Mnemonics

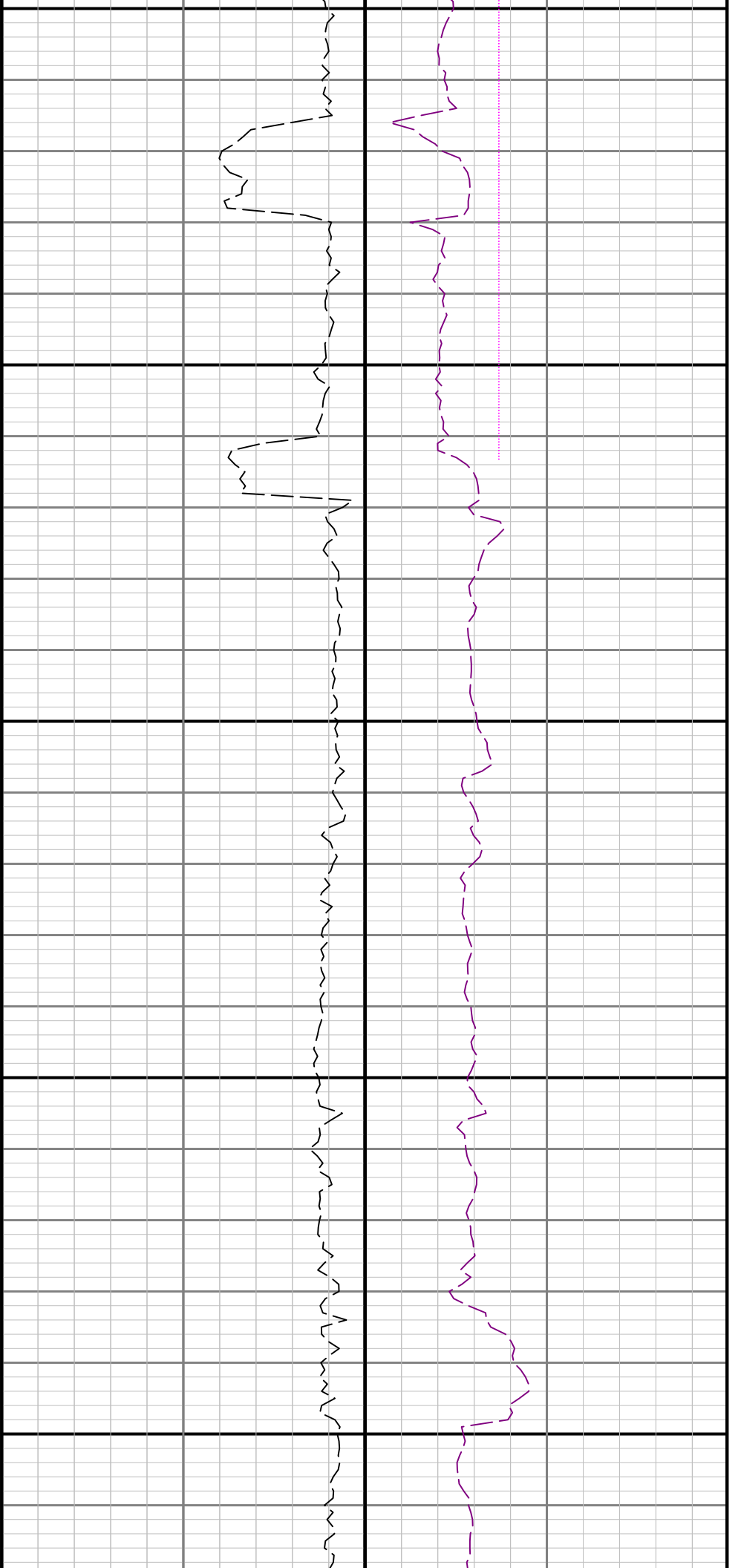
Mnemonic	Name	Description
DIR	Directional	Wellbore directional survey
SRIG	Inclination and Gamma	Probe based gamma ray and inclination module

Comments

(1) Baker Hughes INTEQ run 1 utilized 6 1/2 inch NaviTrak services (Directional) behind an 8 3/4 inch bit and steerable assembly from 1287 to 7791 feet MD (1286 to 7389 feet TVD)
(2) Baker Hughes INTEQ run 2 utilized 4 3/4 inch NaviTrak services (Gamma Ray and Directional) behind an 6 1/8 inch bit and steerable assembly from 7791 to 13265 feet MD (7389 to 7398 feet TVD)

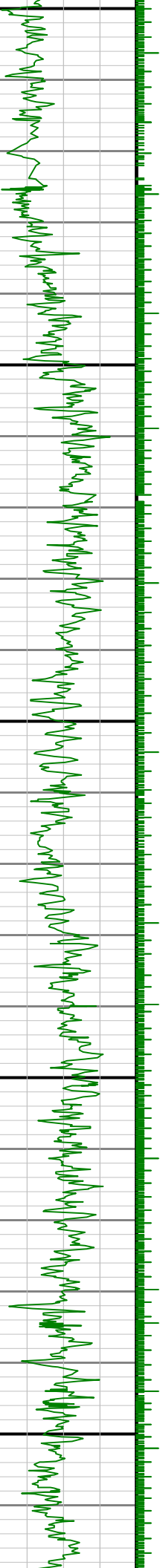
Remarks

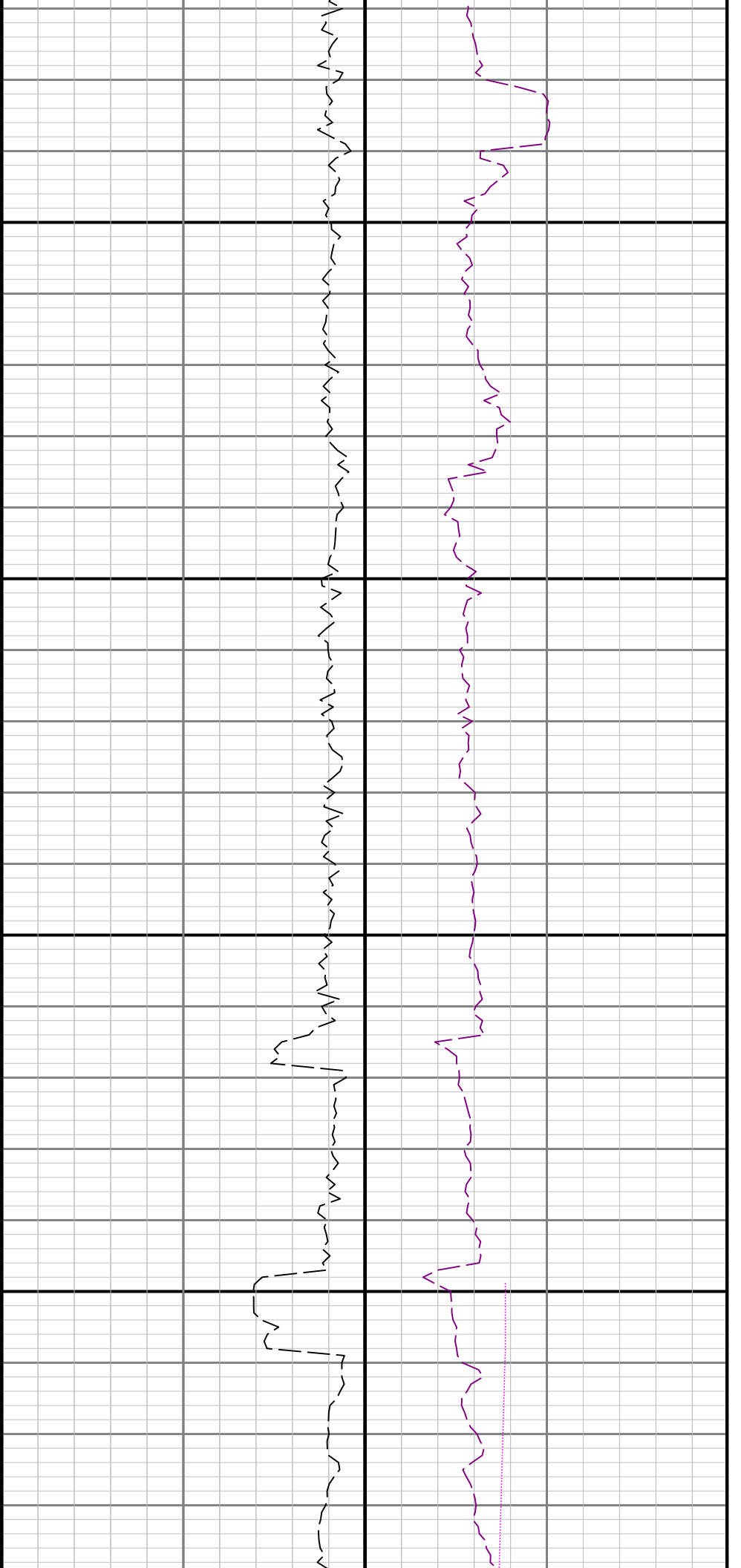
Number	Measured	Hole	LWD	Remark
	Depth (m.)	Section (in.)	Run No.	
1	6847	8.750	1	The interval from Surface to 6847 feet MD (6797 feet TVD) was not logged due to Baker Hughes logging services beginning at the top of the curve section.
2	7743	6.125	2	The interval from 7743 to 7797 feet MD (7386 to 7389 feet TVD) gamma data is missing due to third party depth tracking issues.
3	13213	6.125	2	The interval from 13213 to 13265 feet MD (7400 to 7398 feet TVD) was not logged due to sensor offsets to bit at TD.



7000

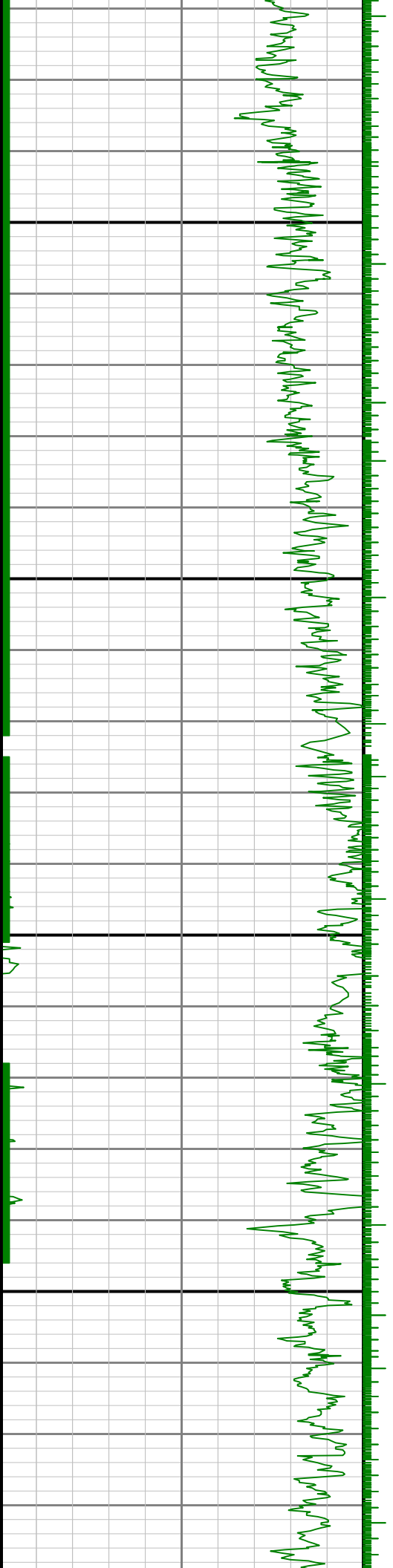
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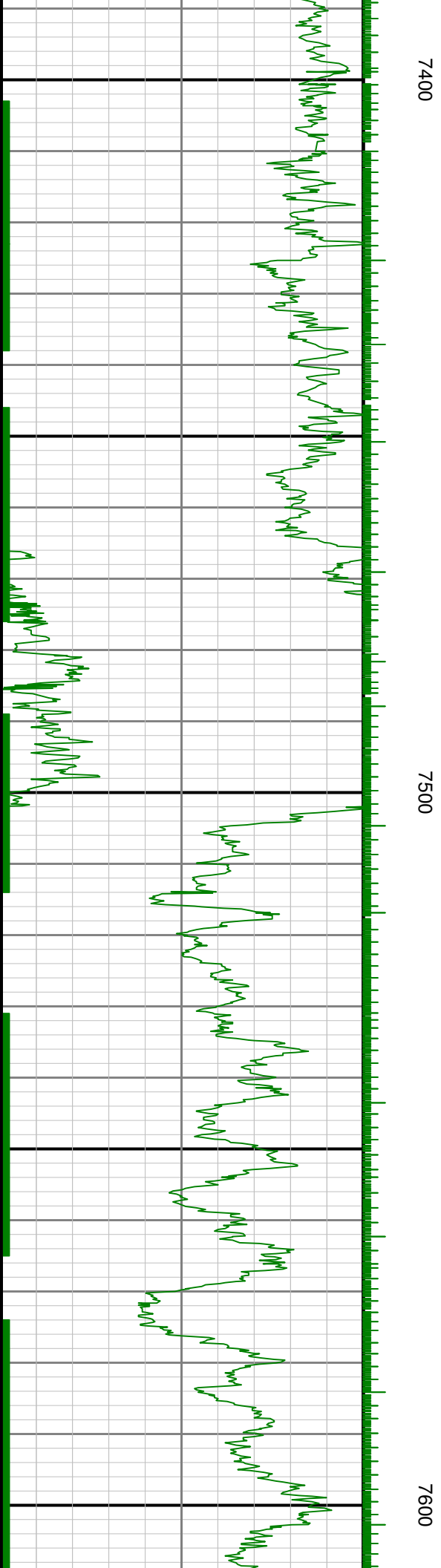
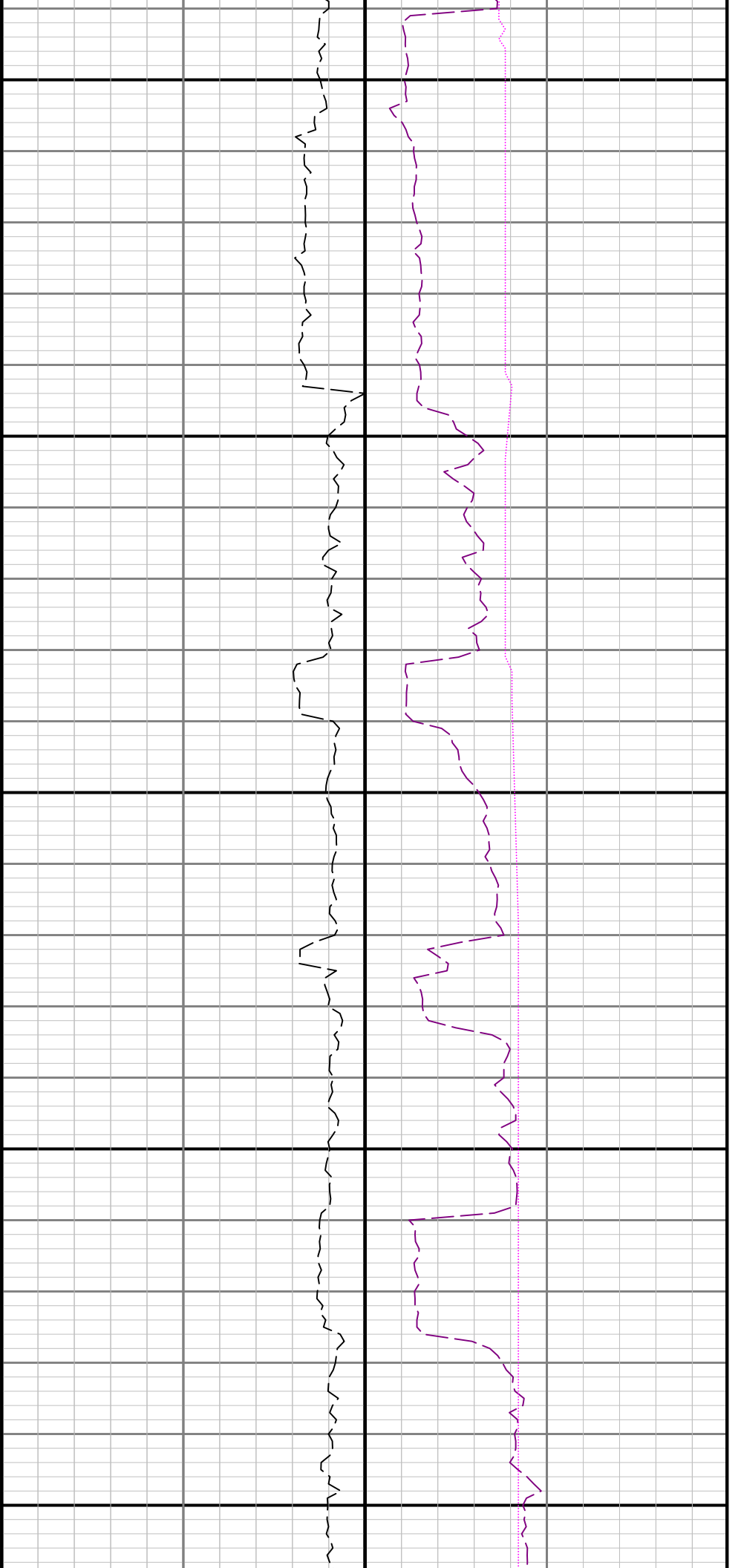


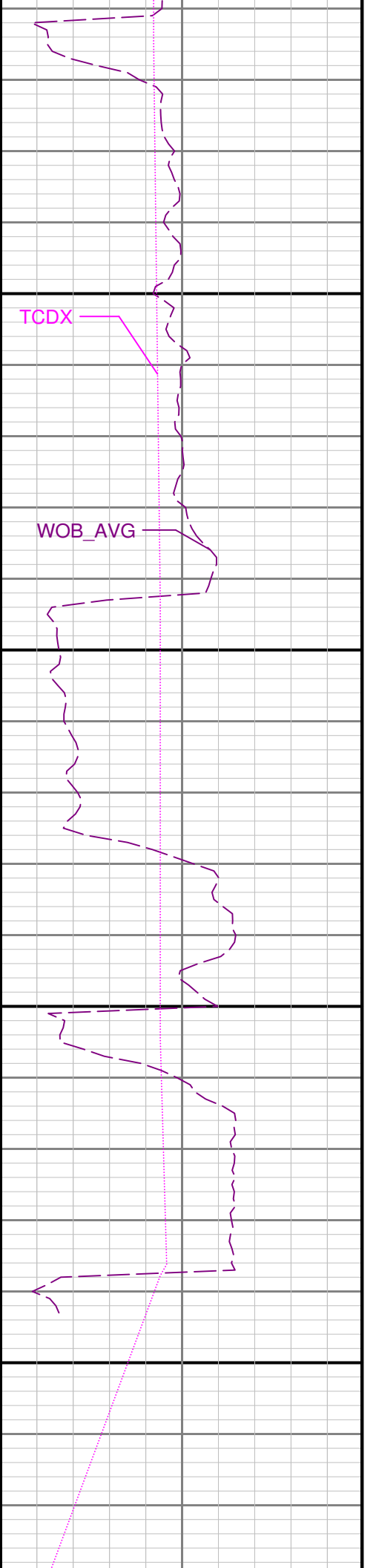
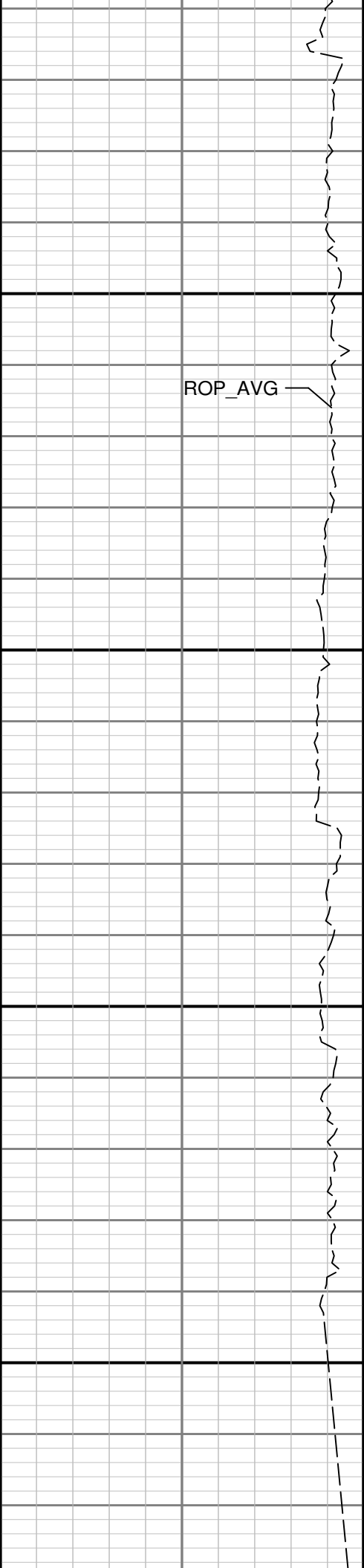
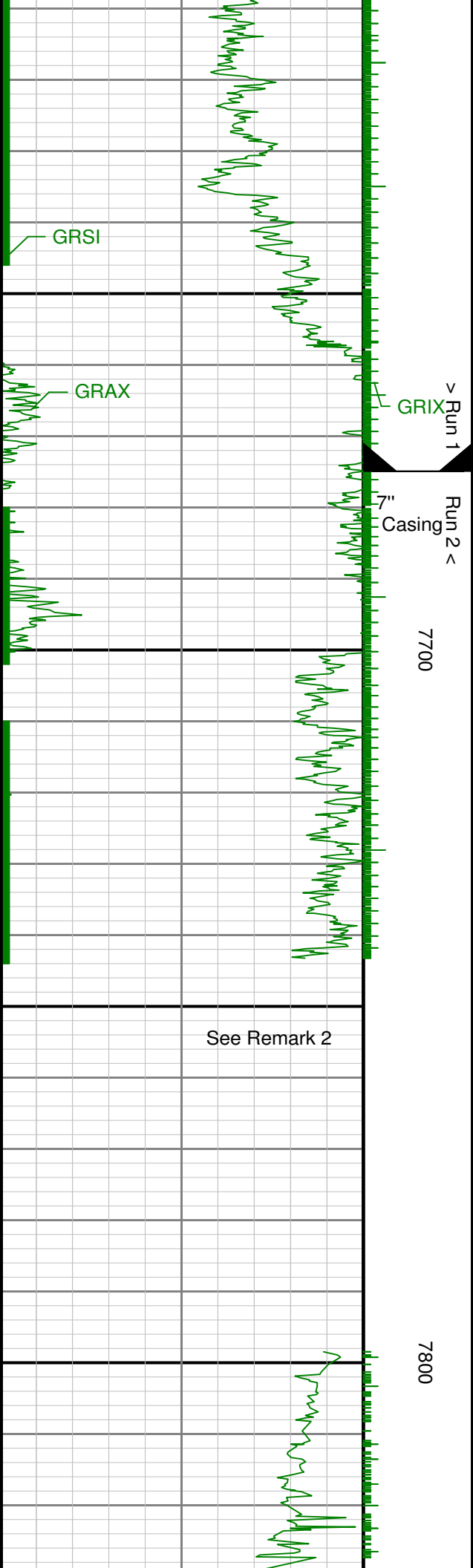


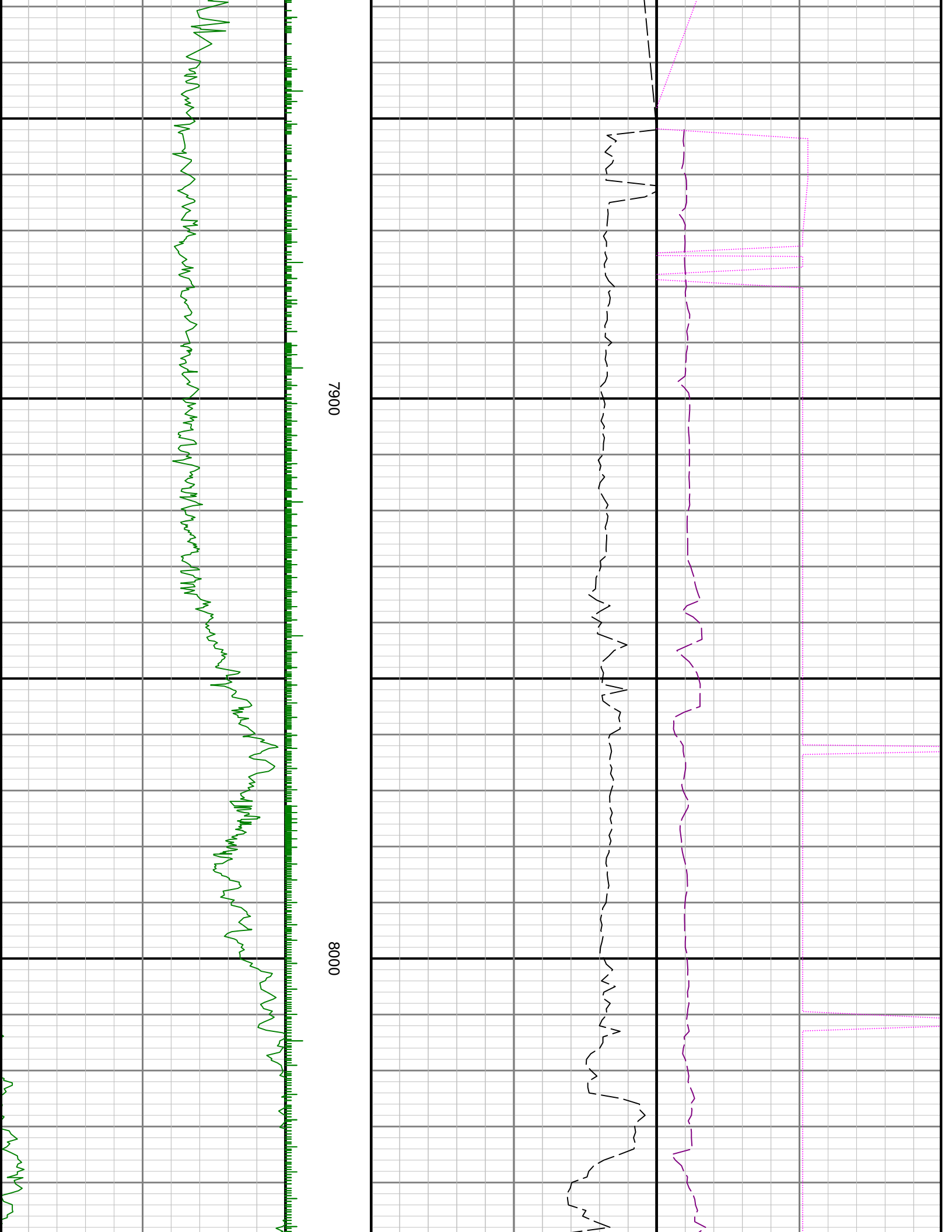
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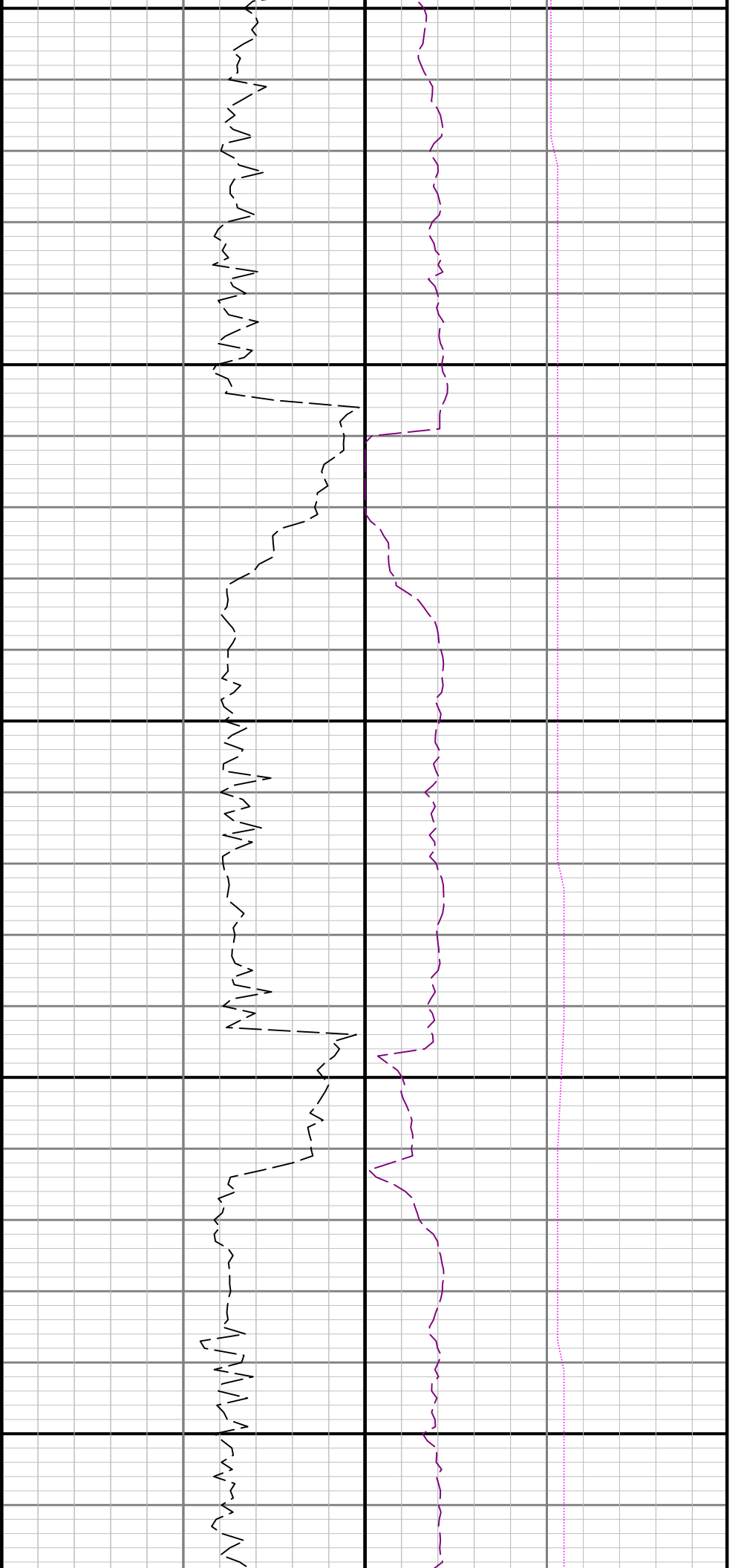
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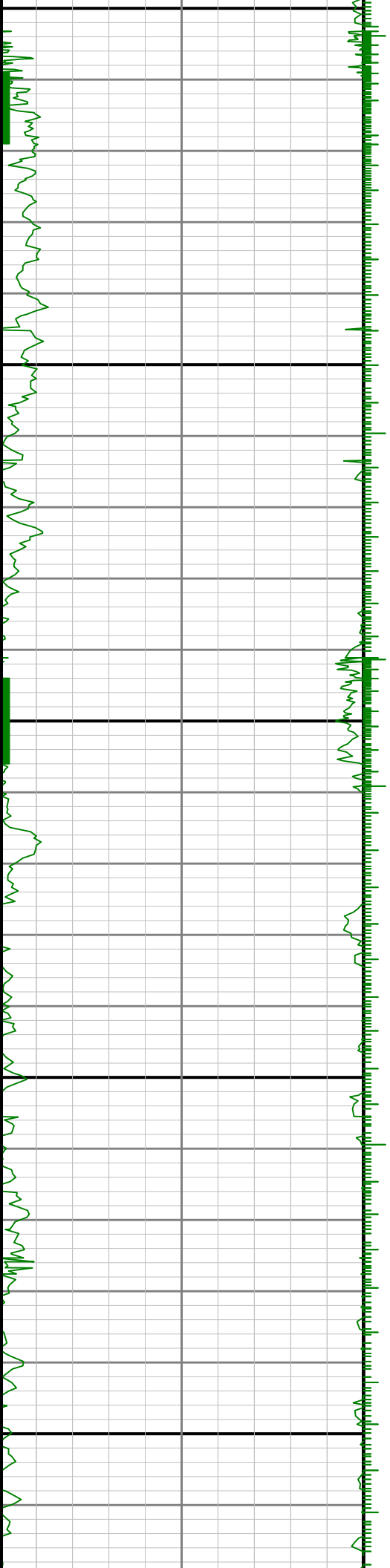


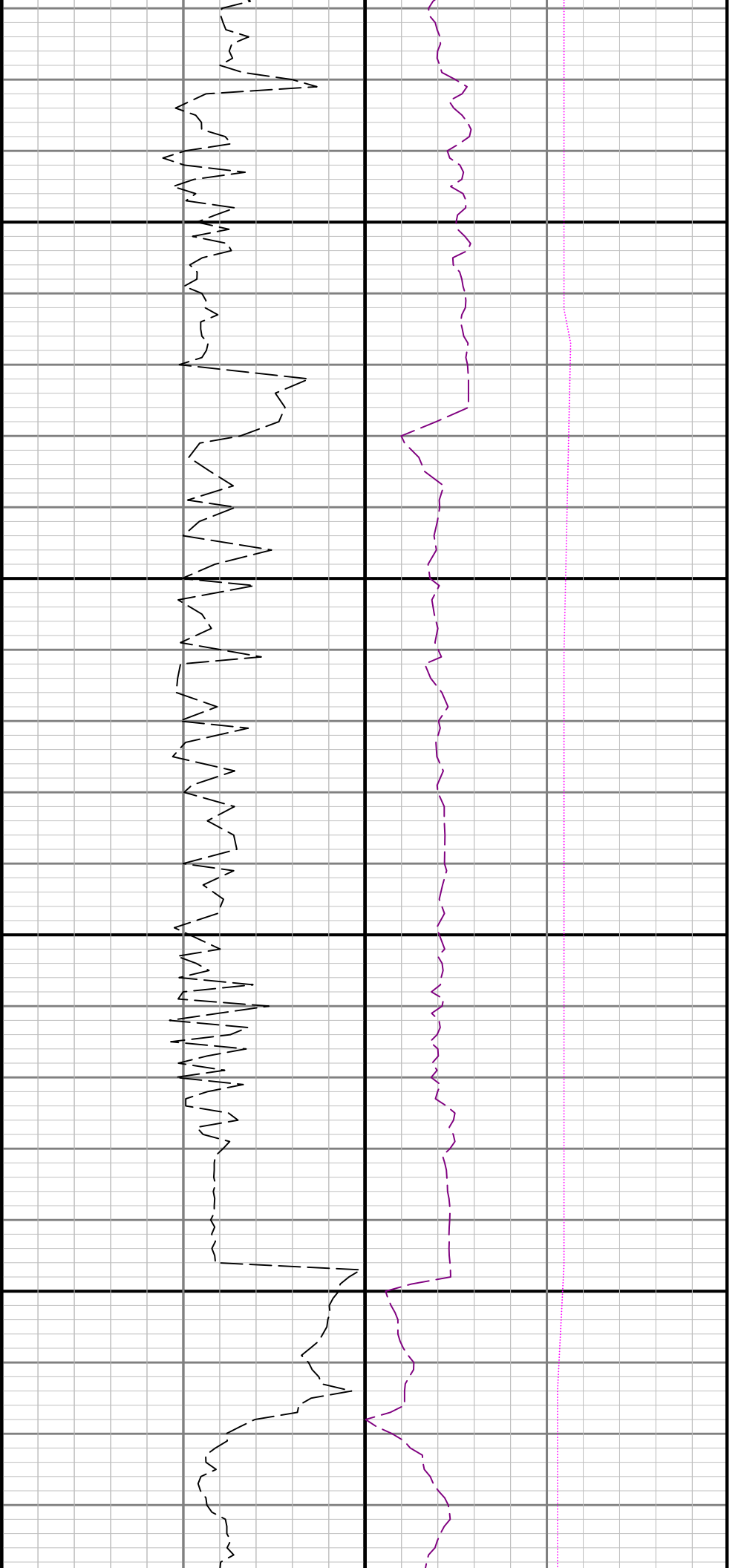




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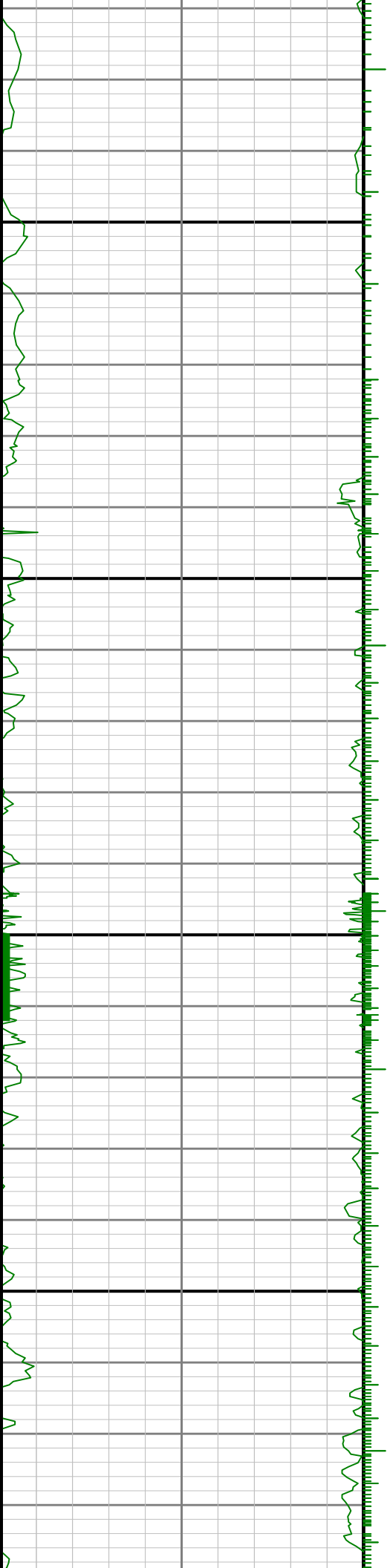
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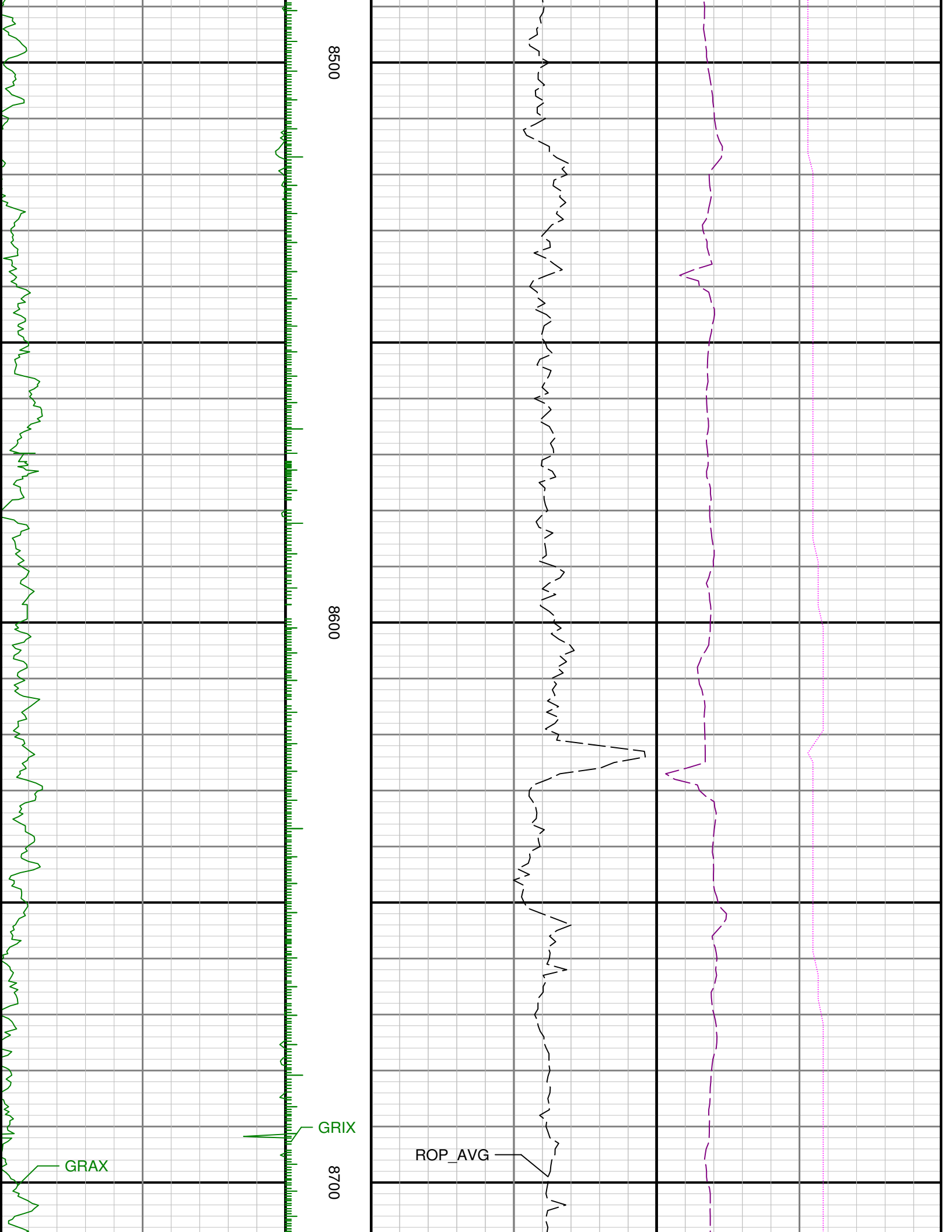


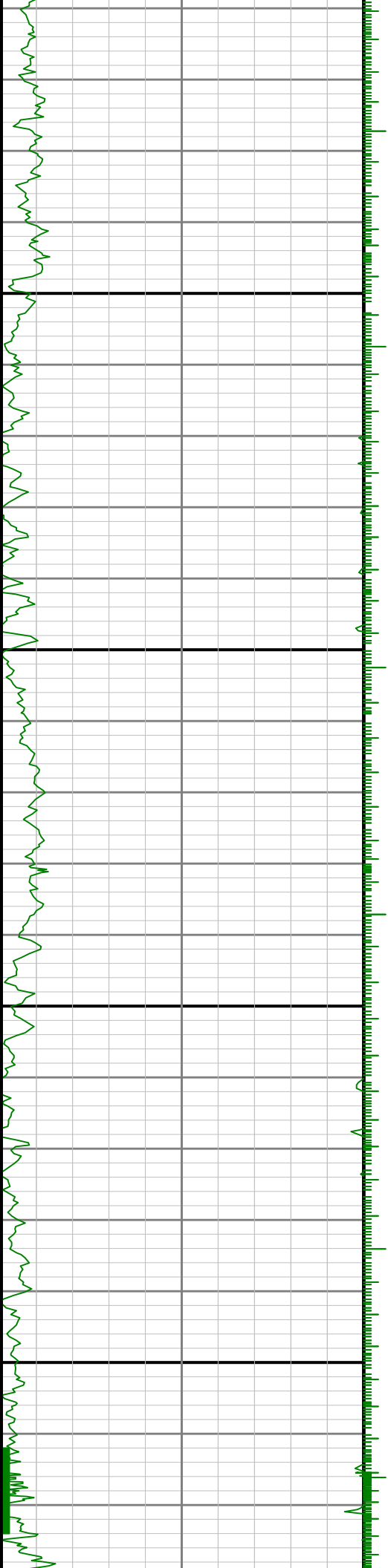


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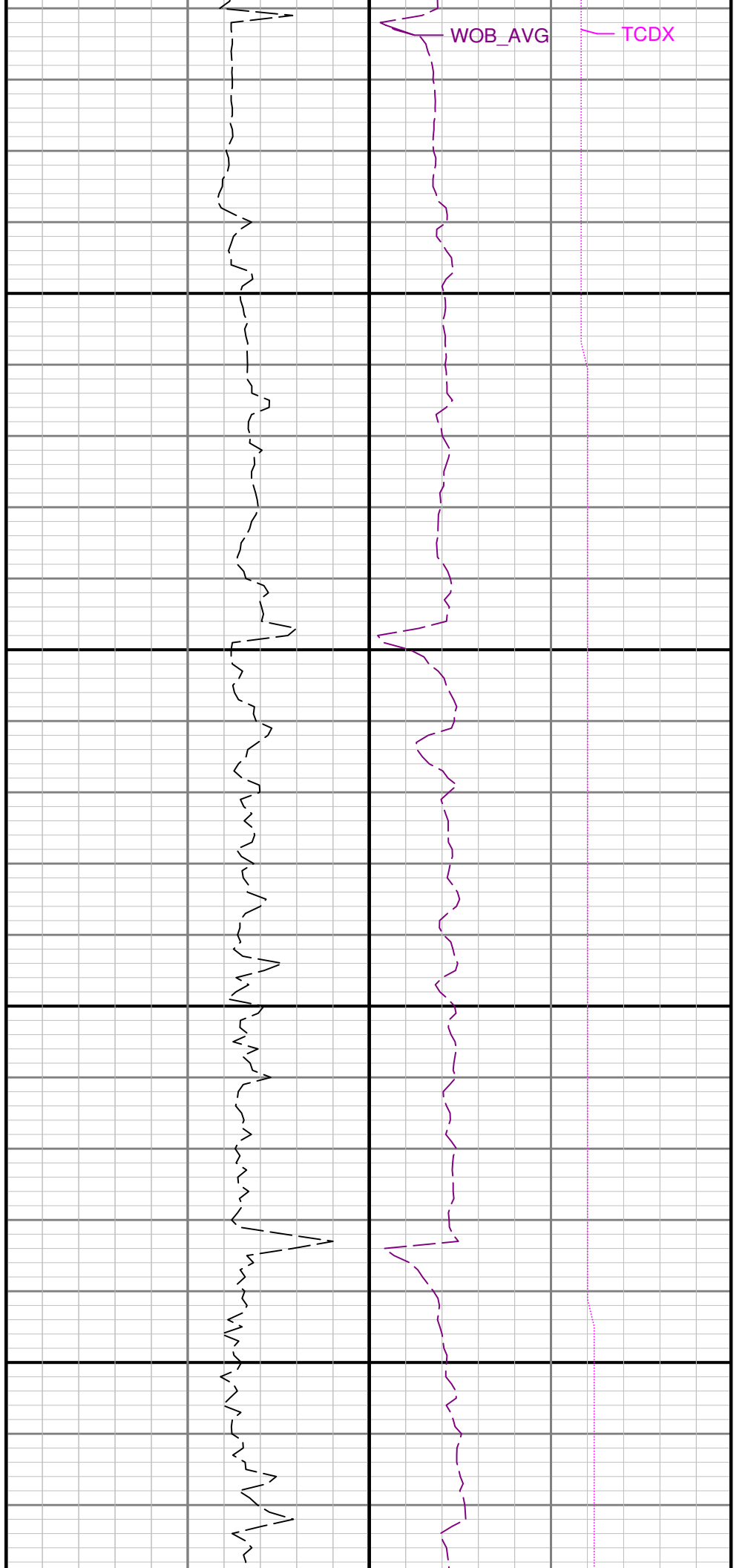






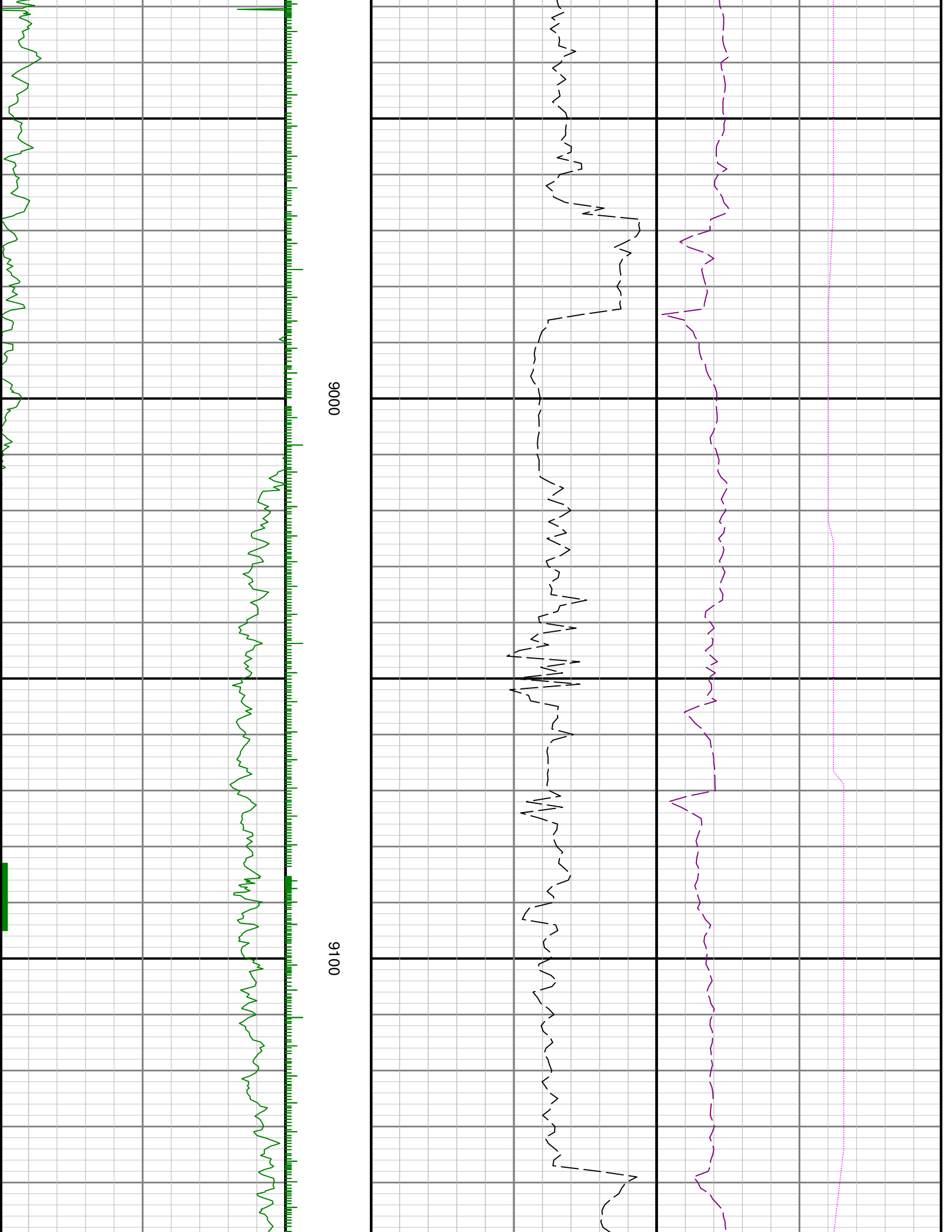
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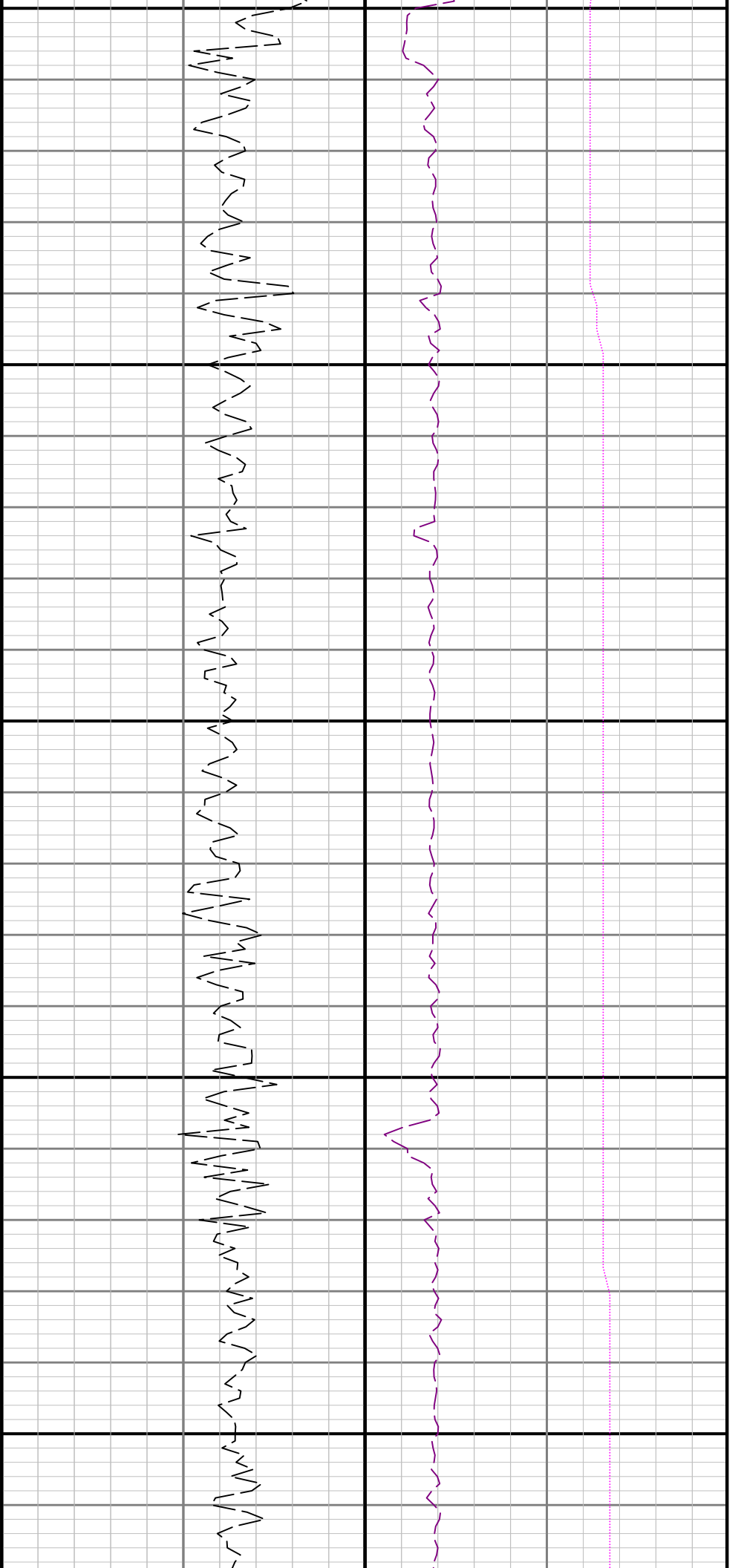
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WOB_AVG

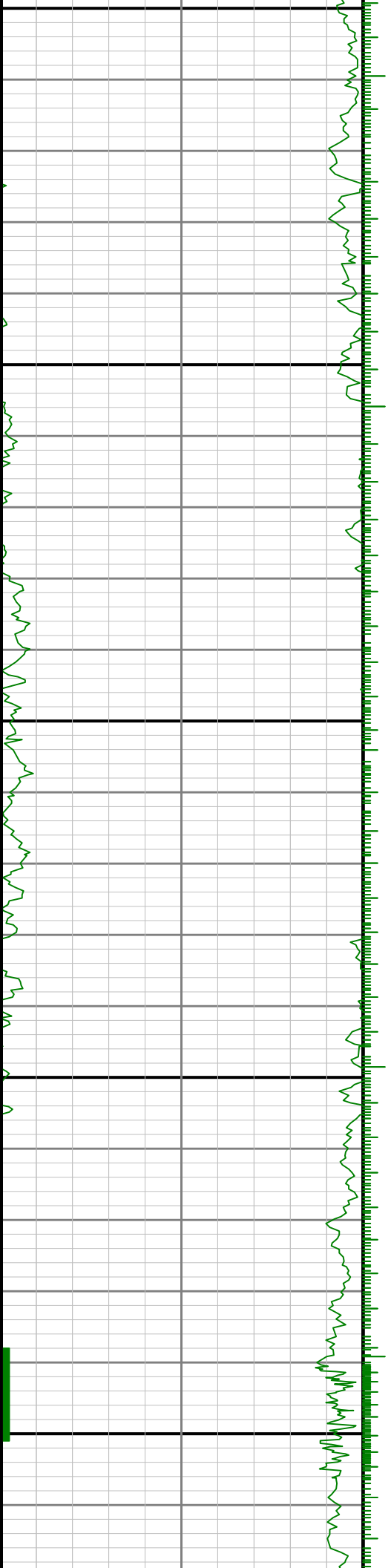
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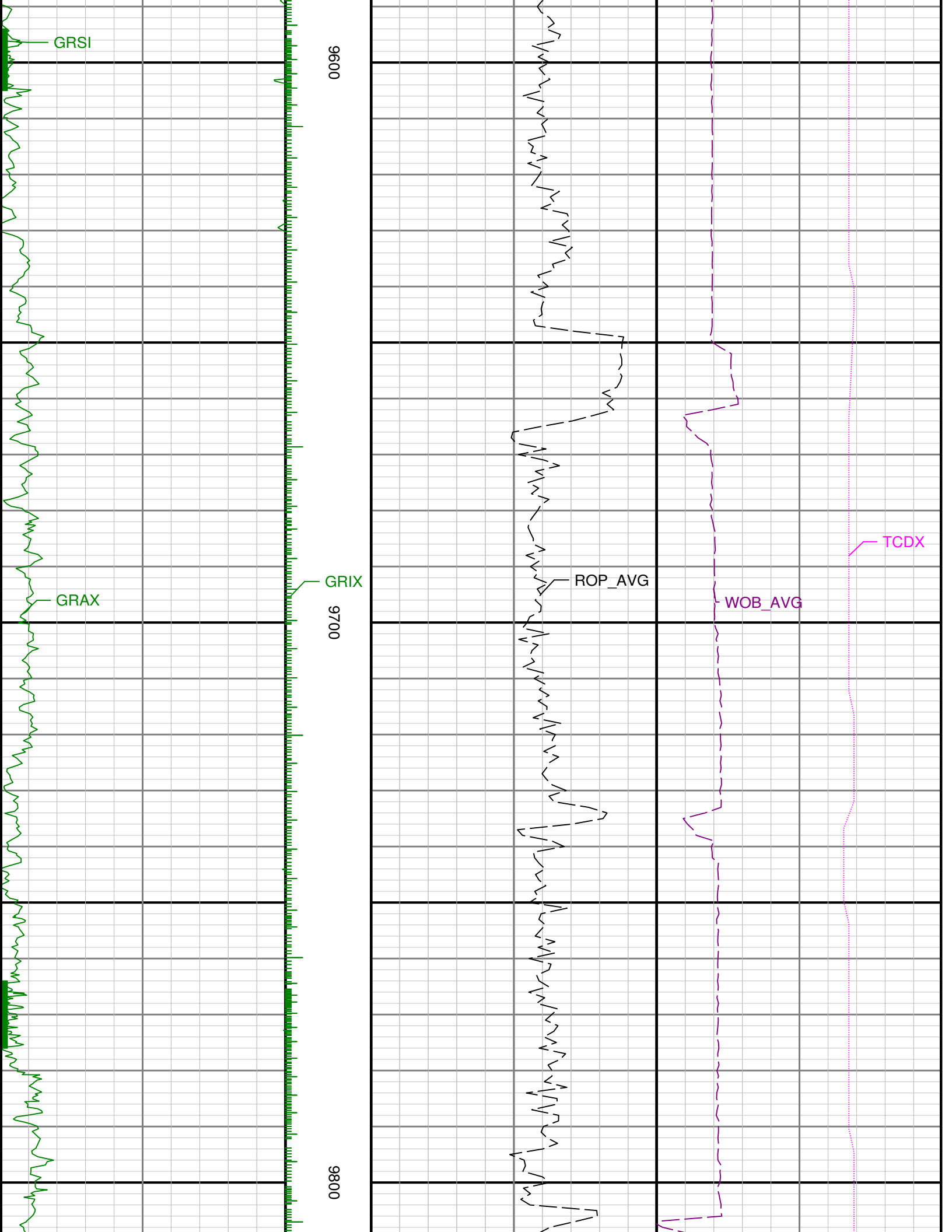


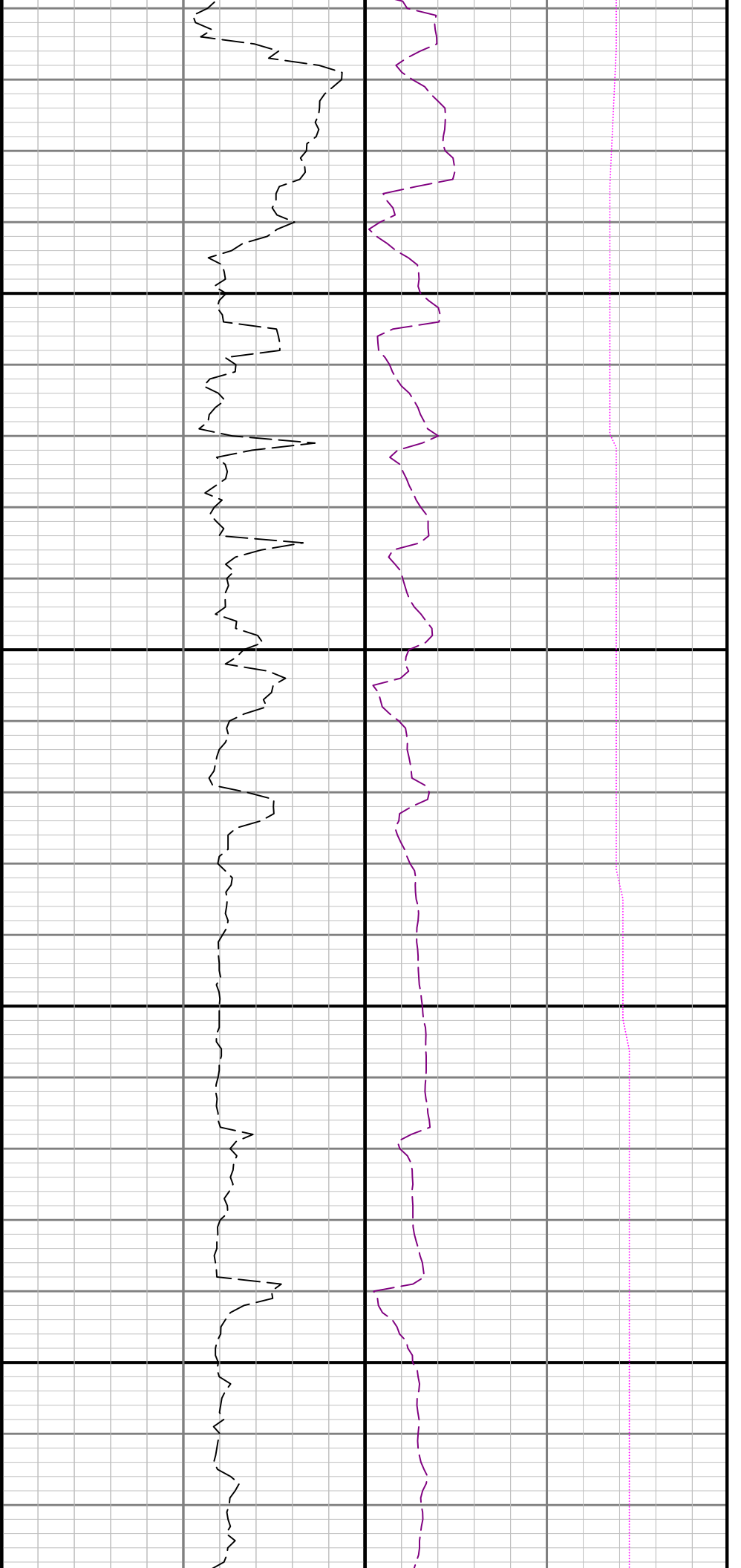


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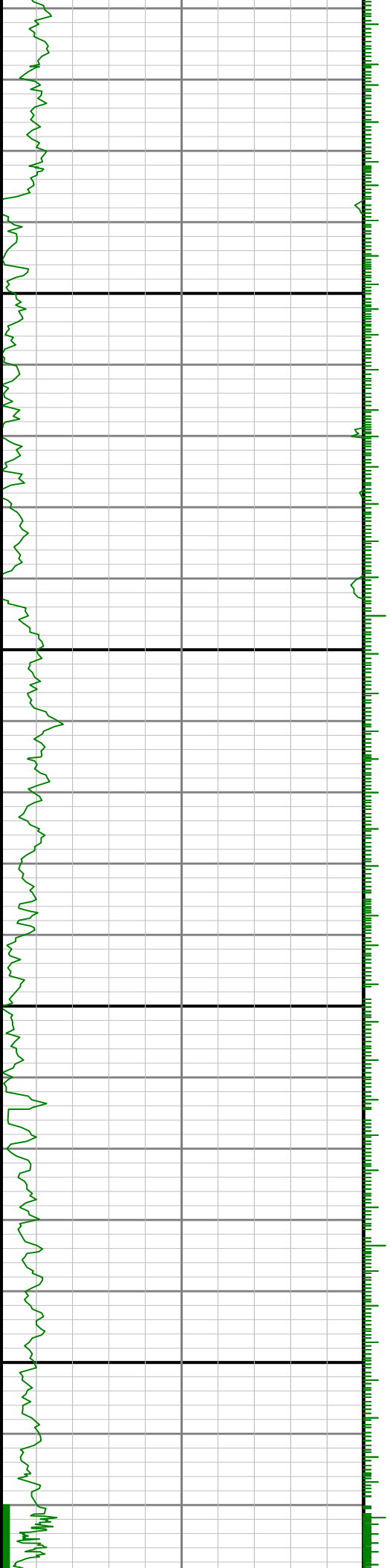


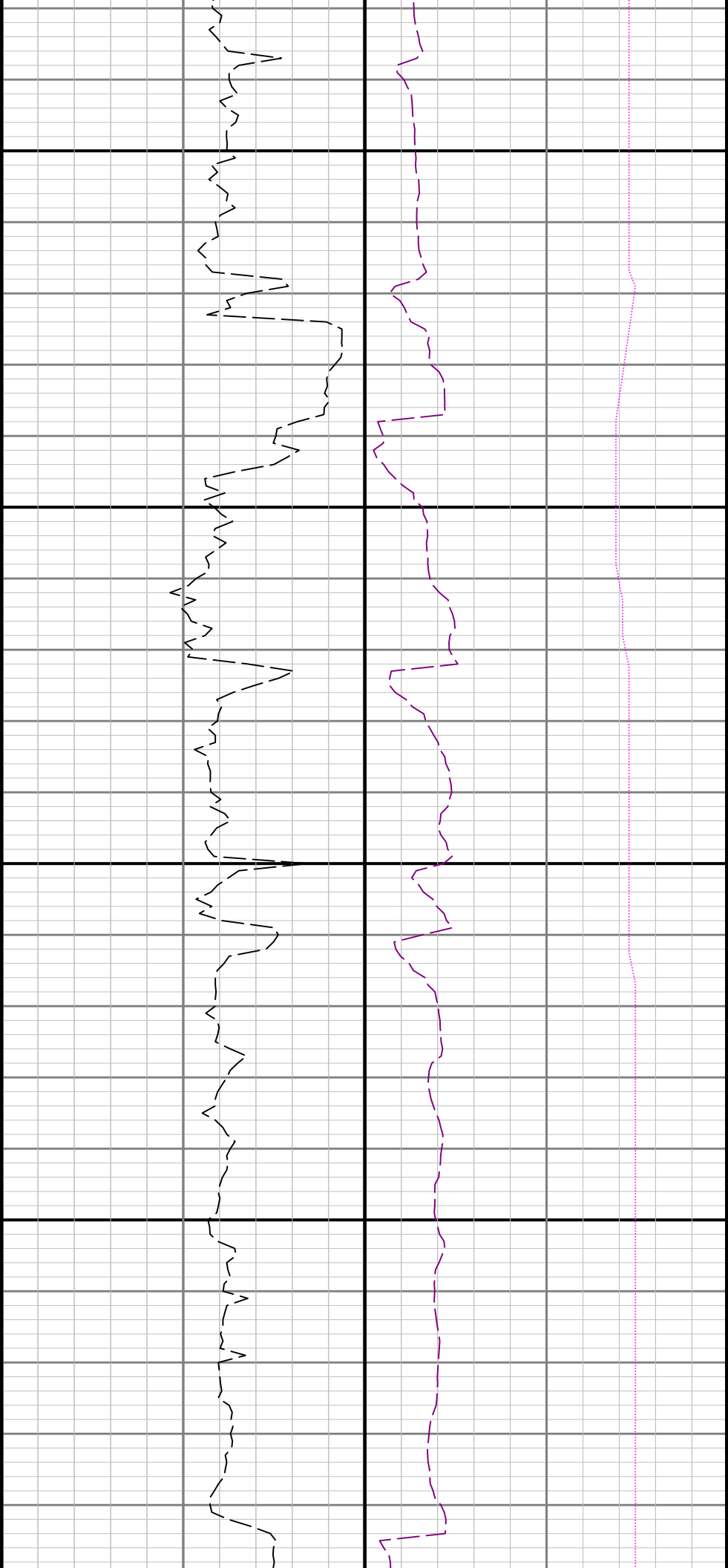




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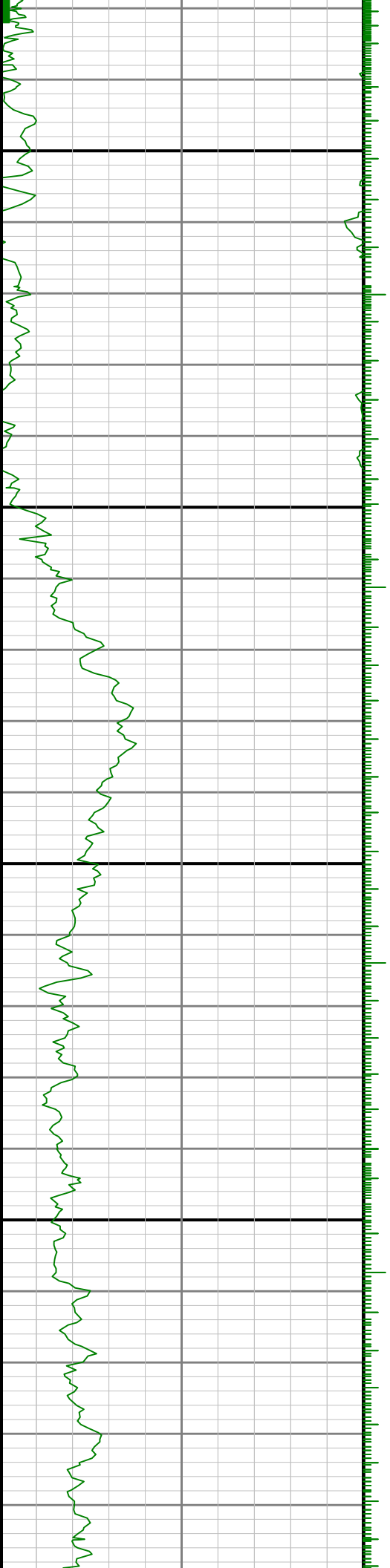
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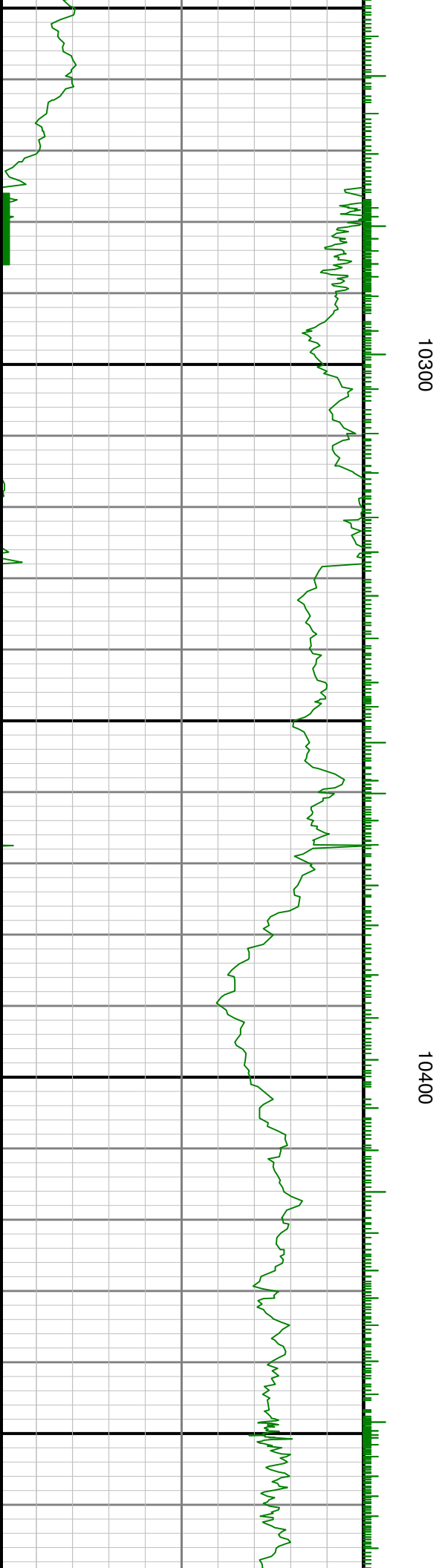
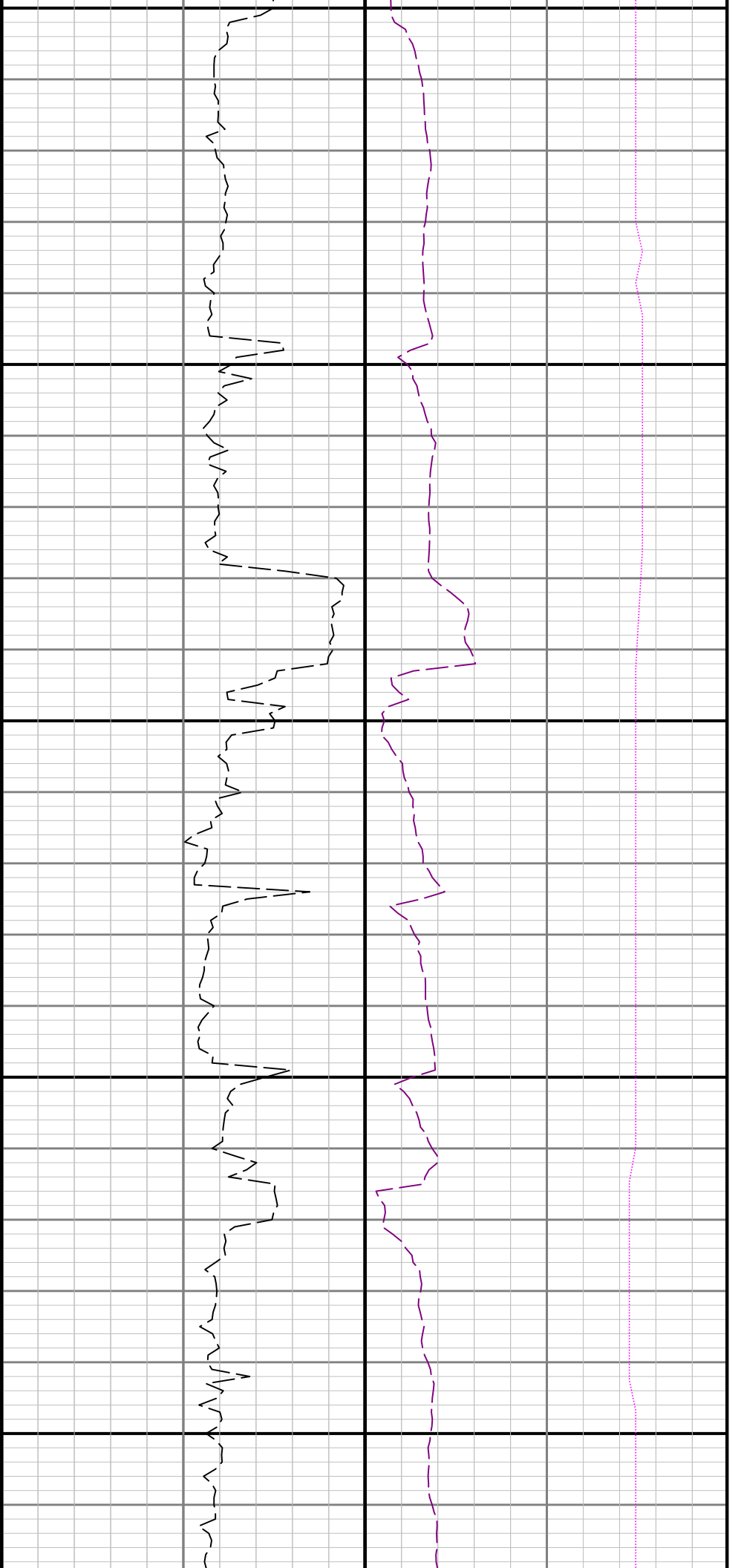


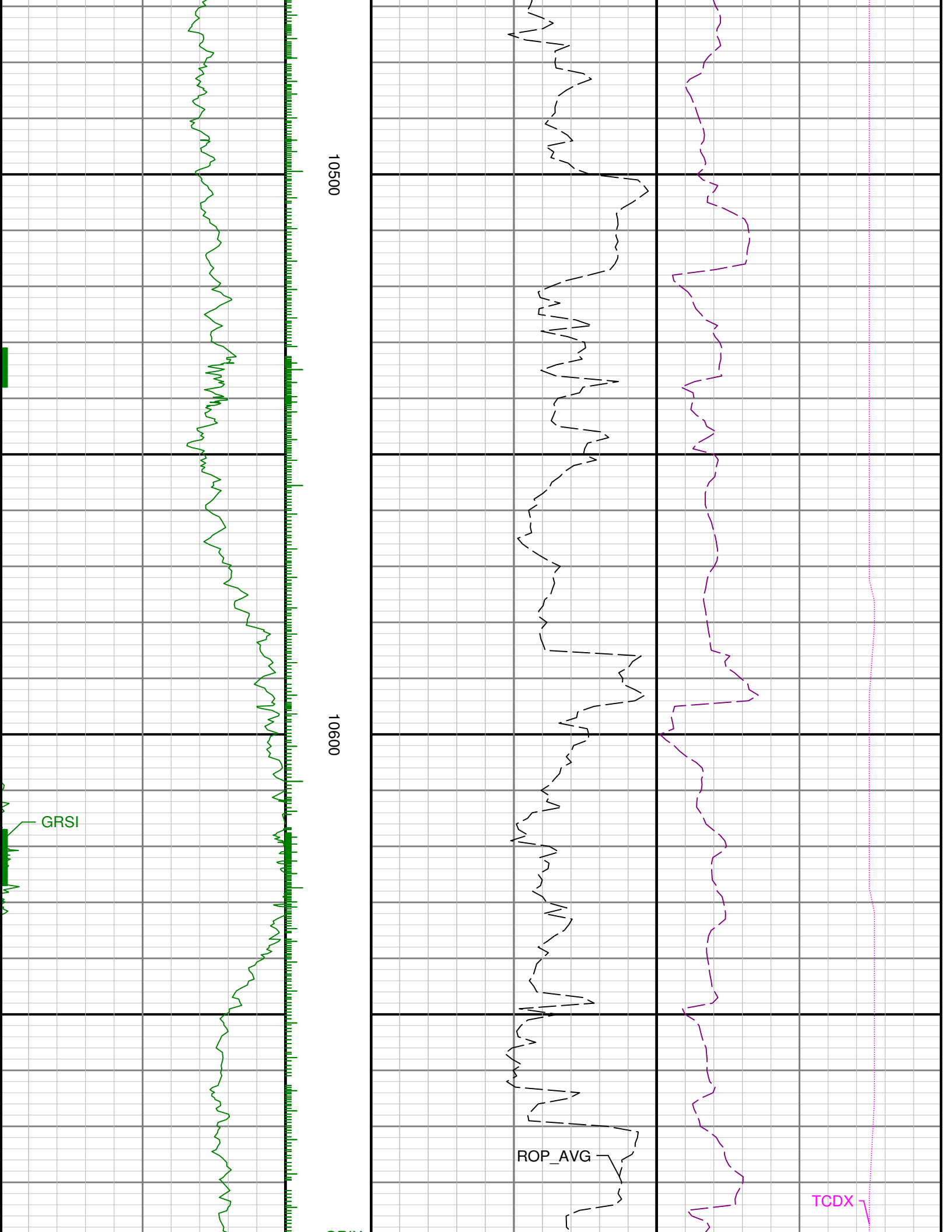


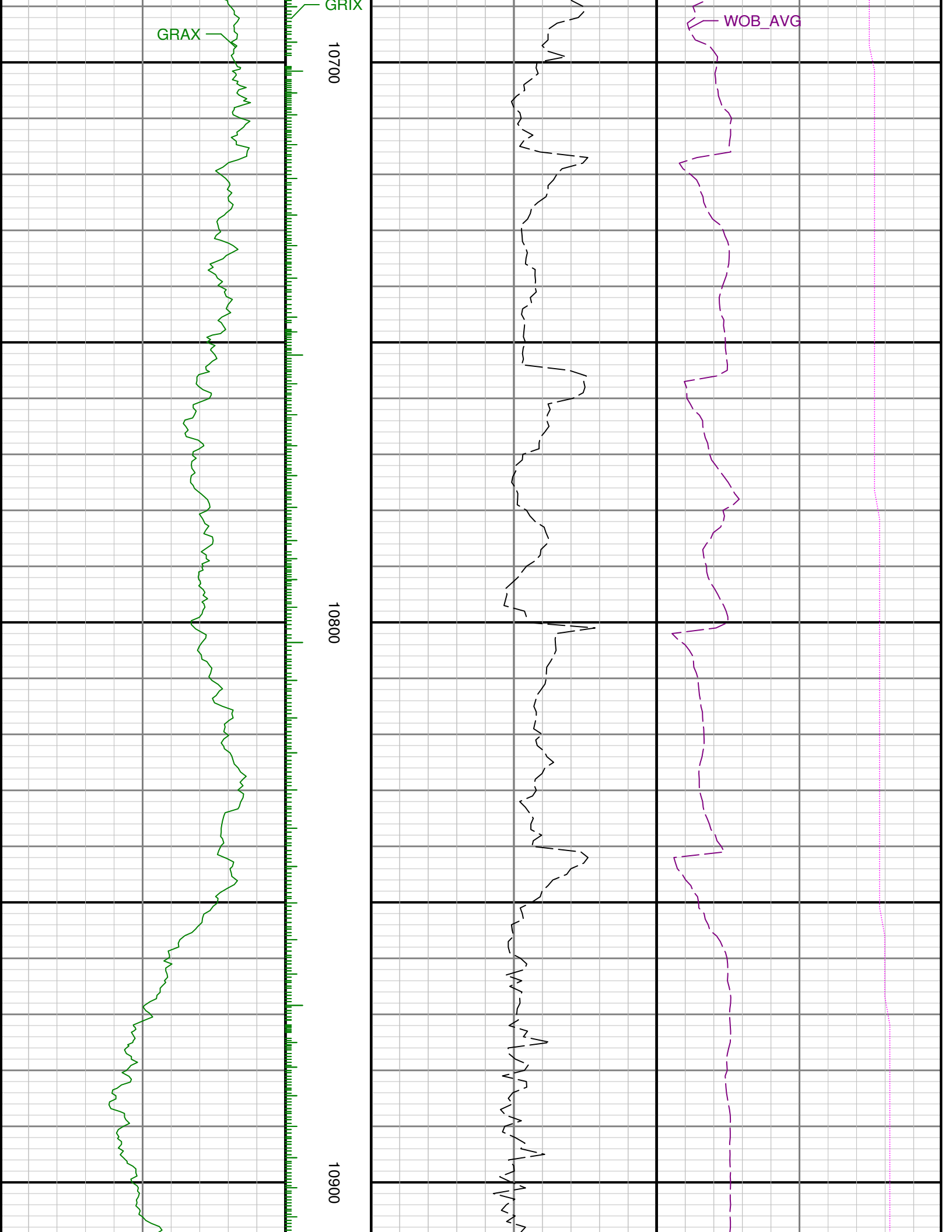
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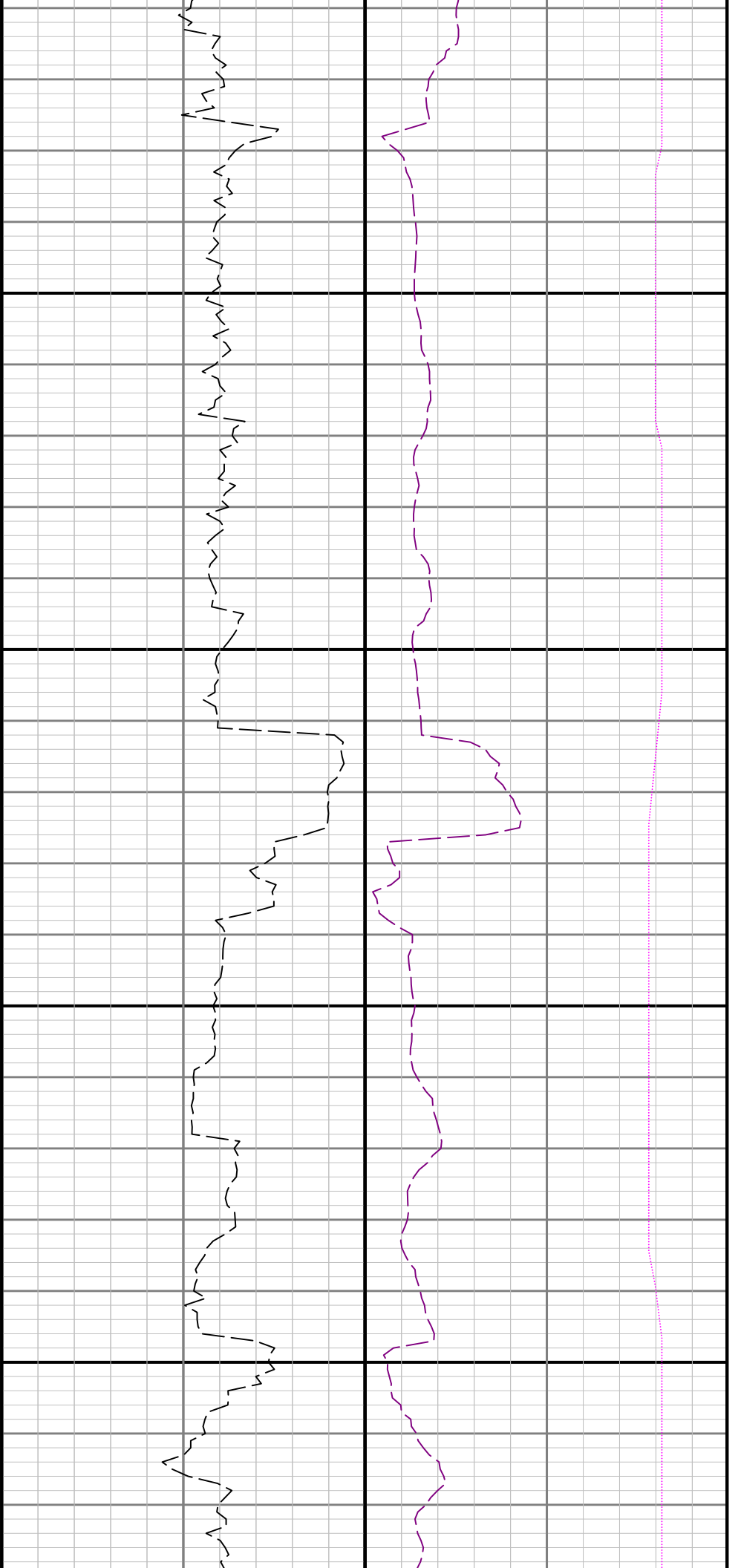
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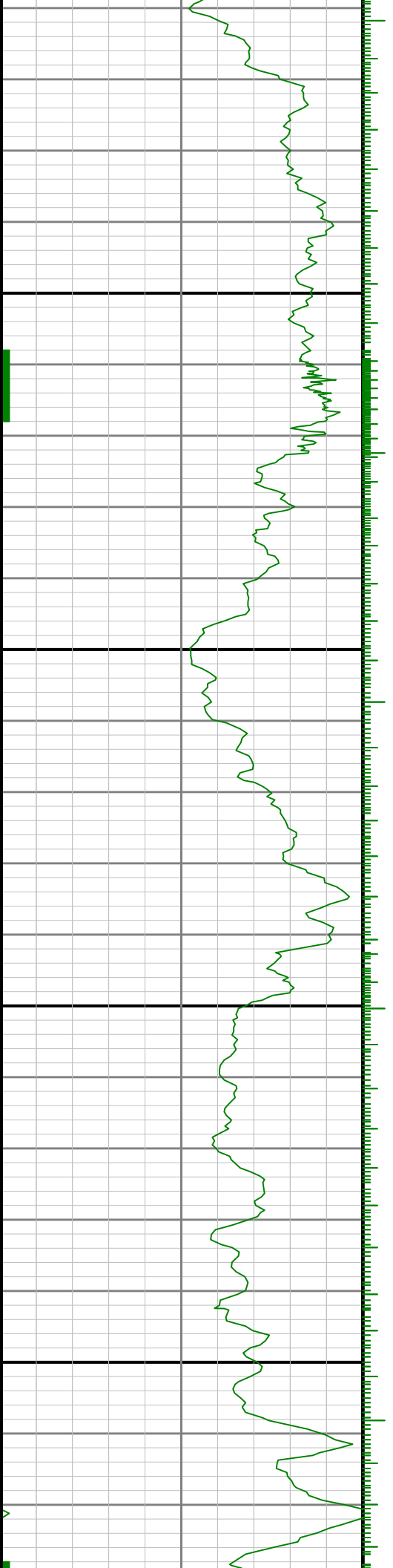


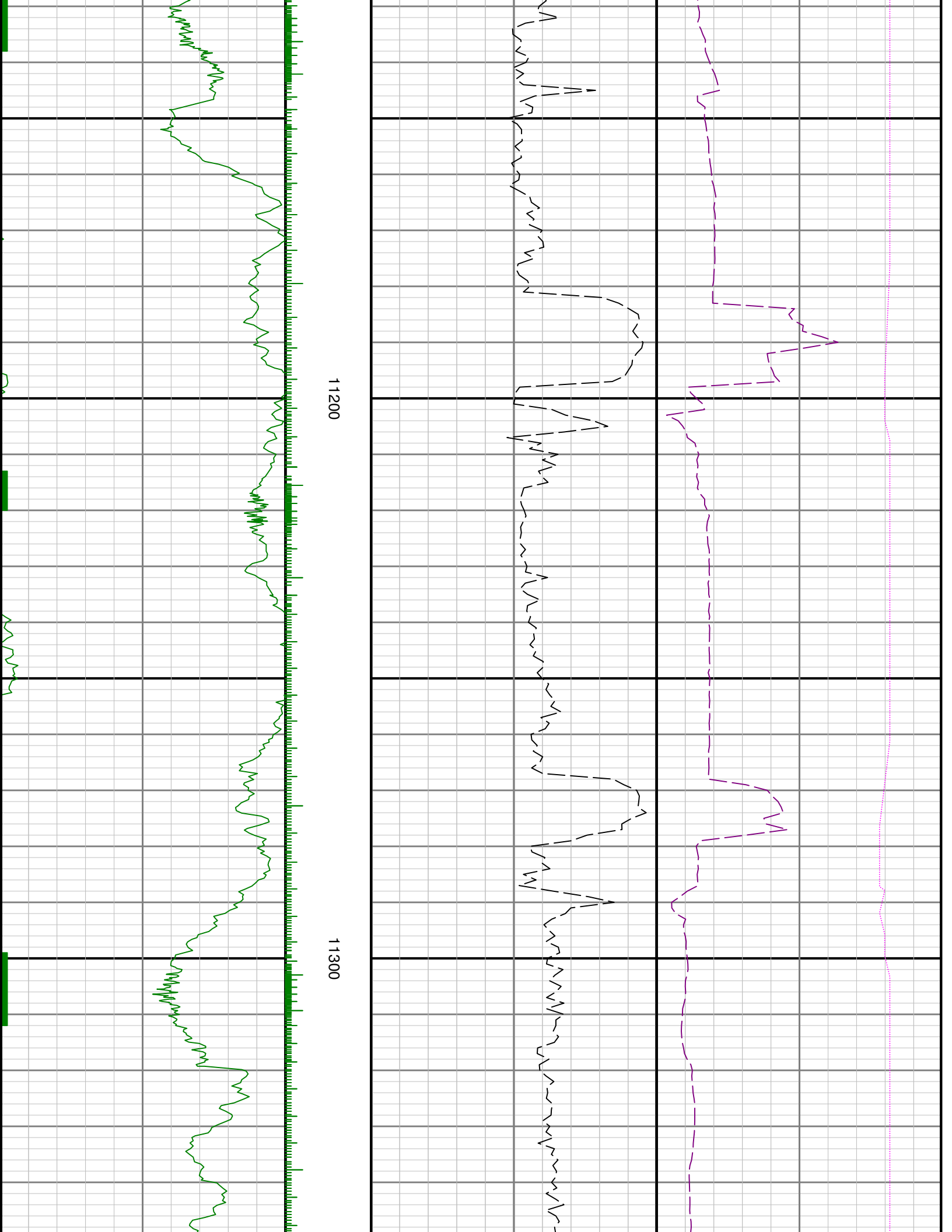


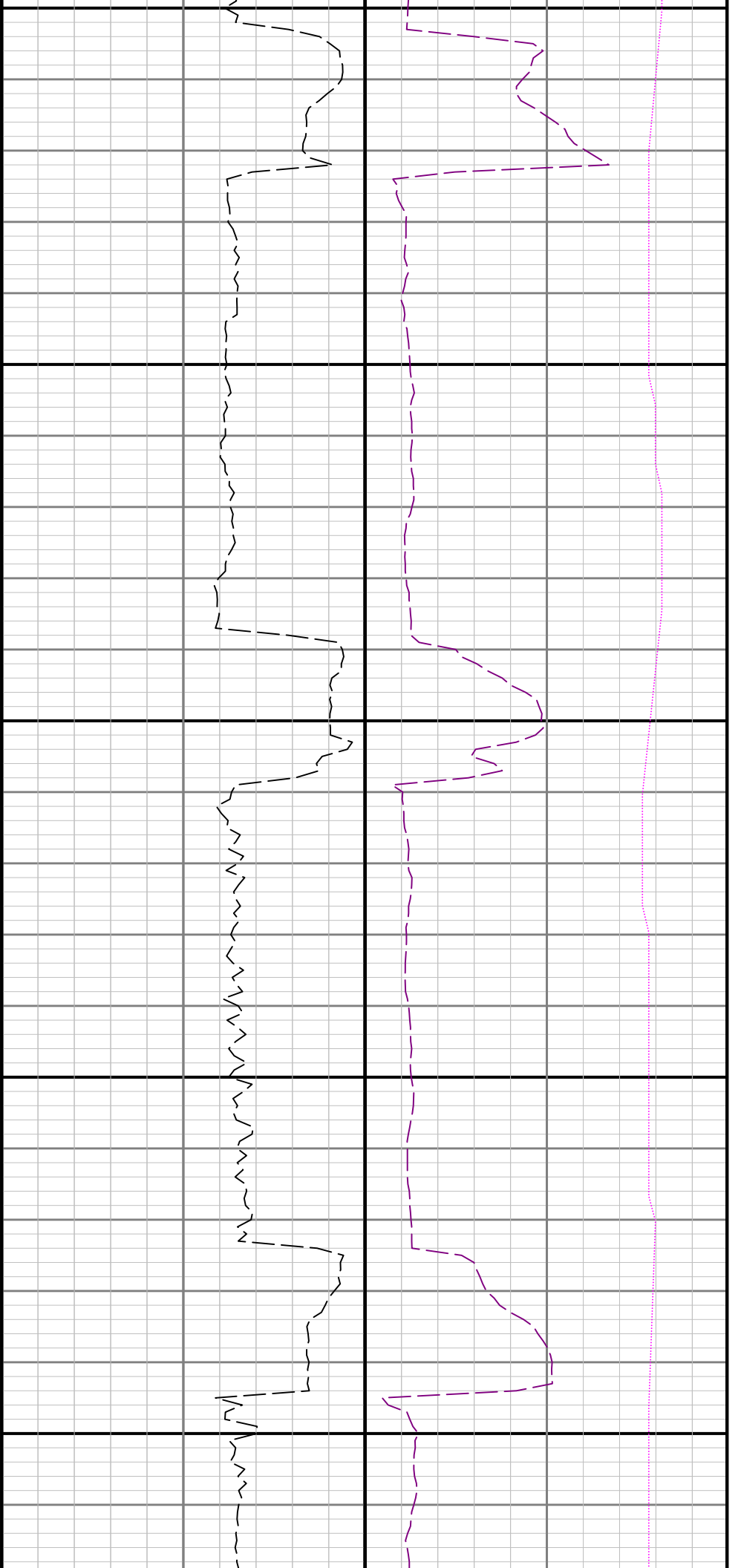


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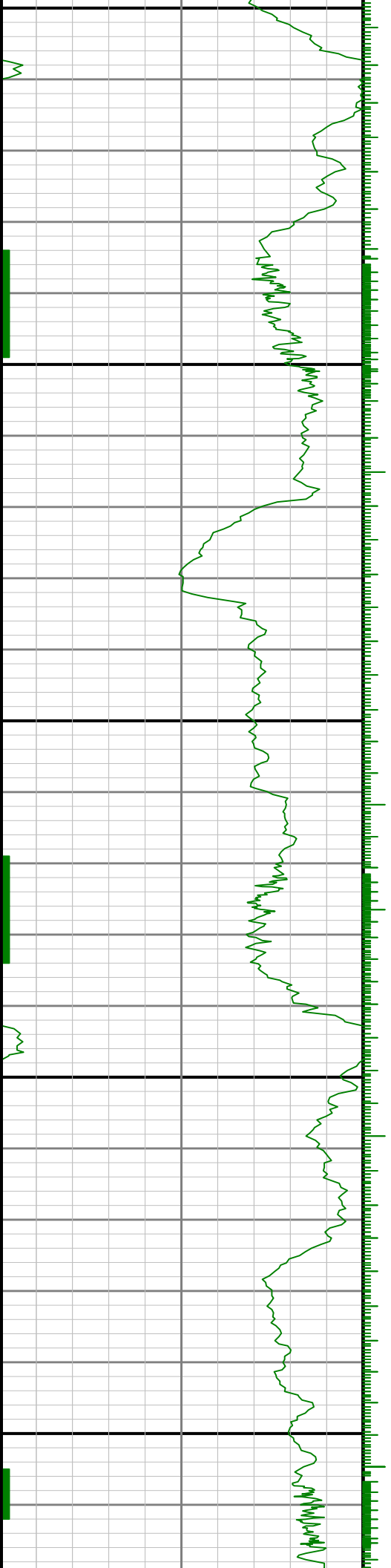


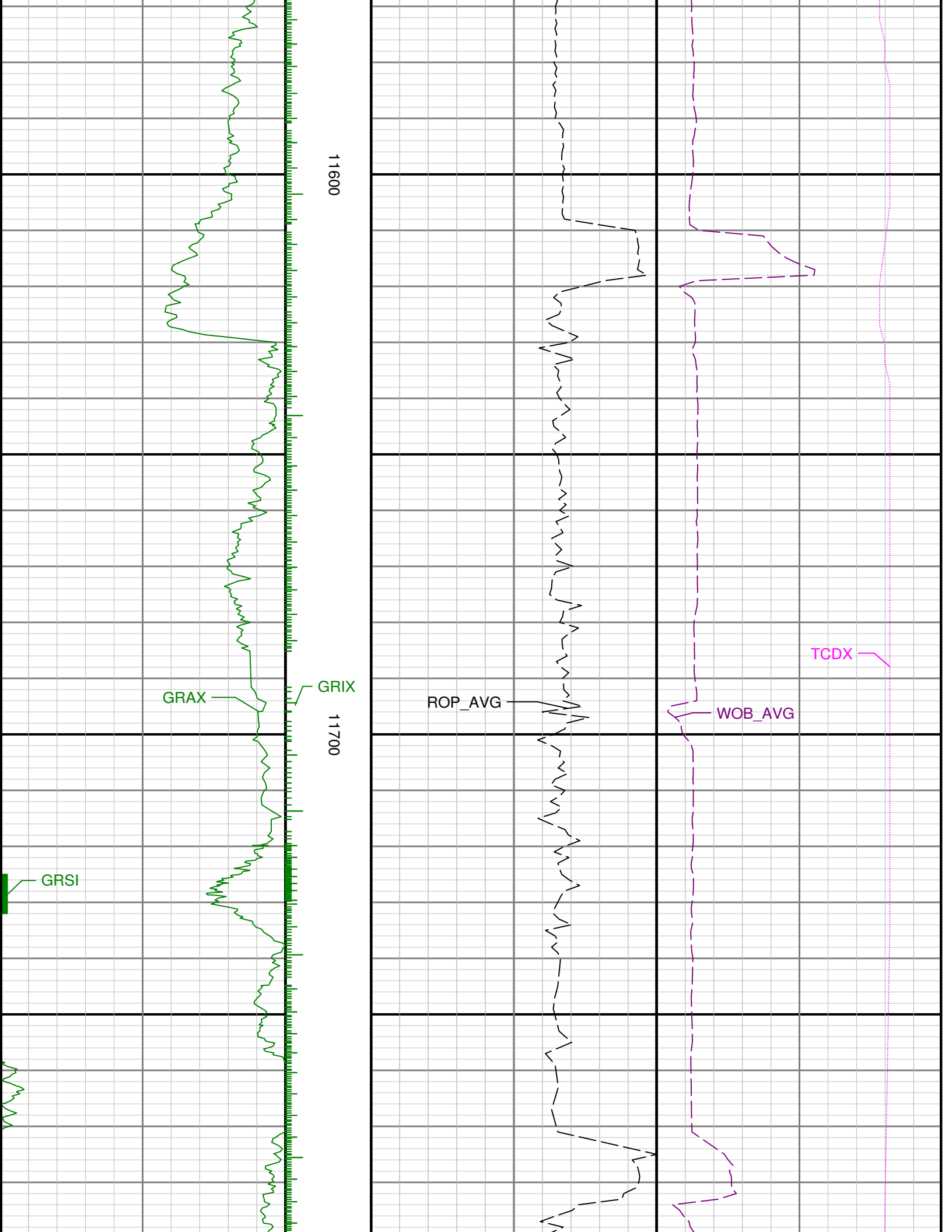


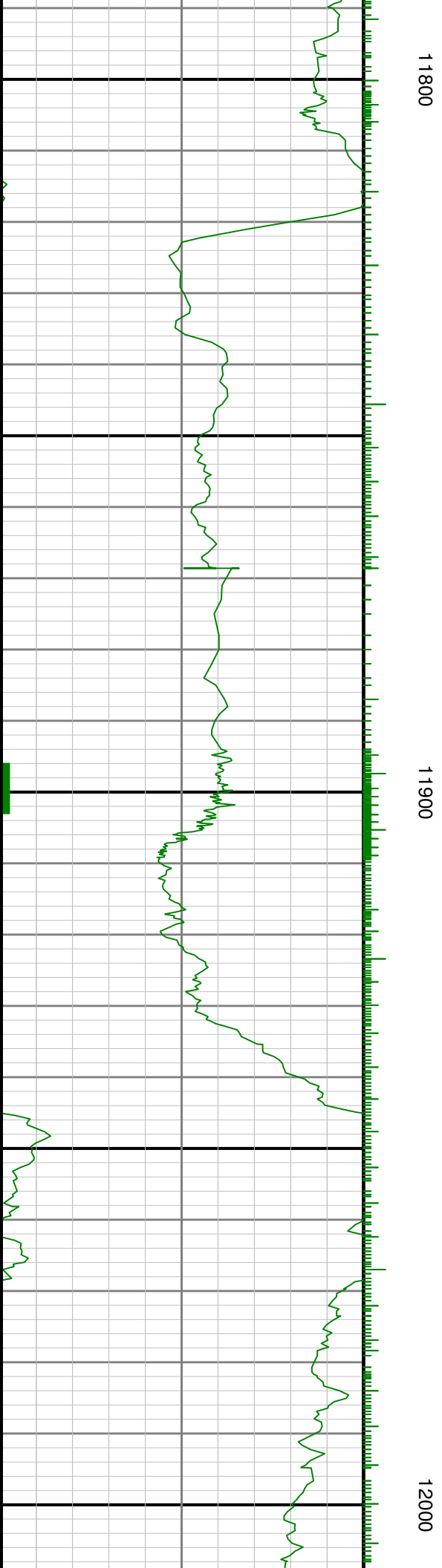
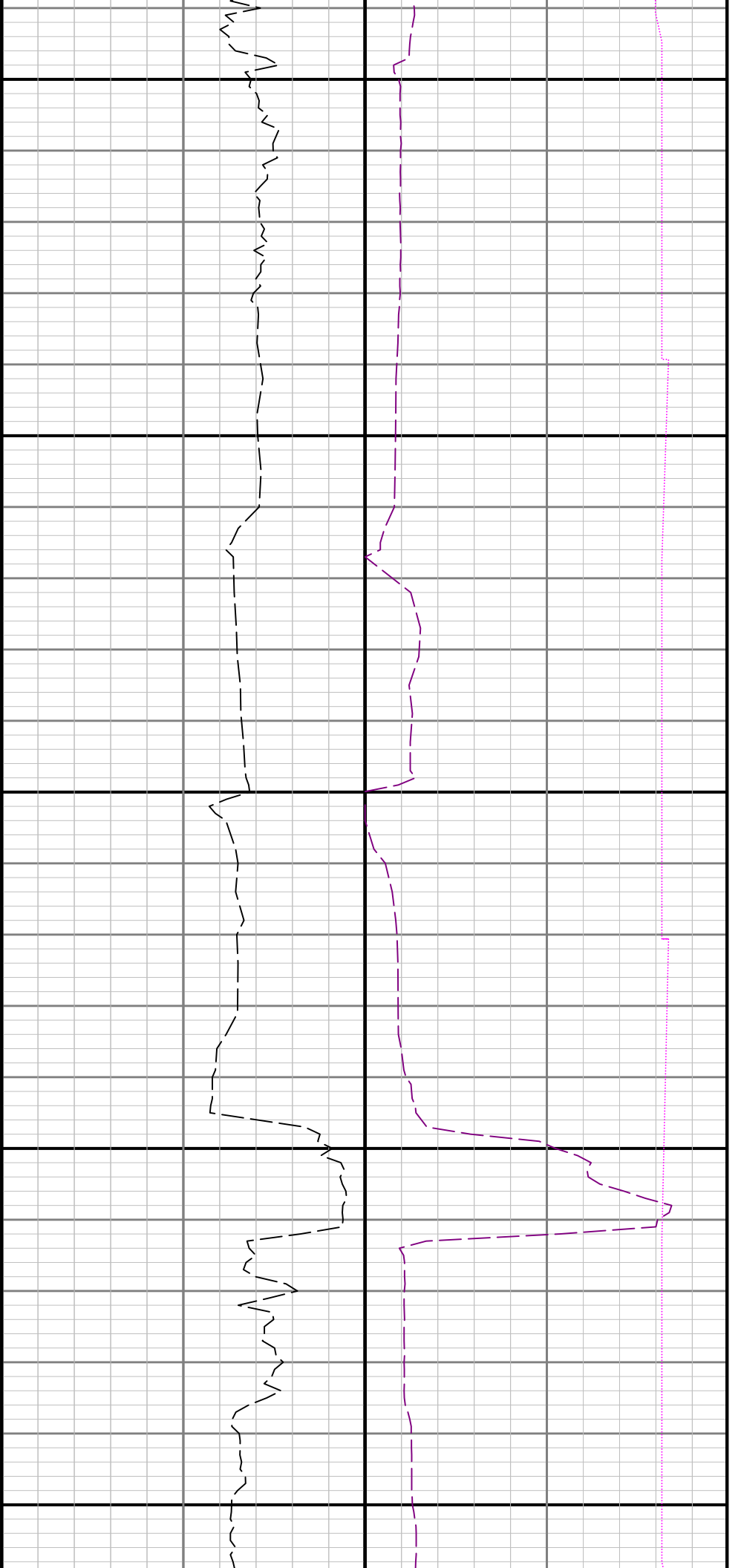


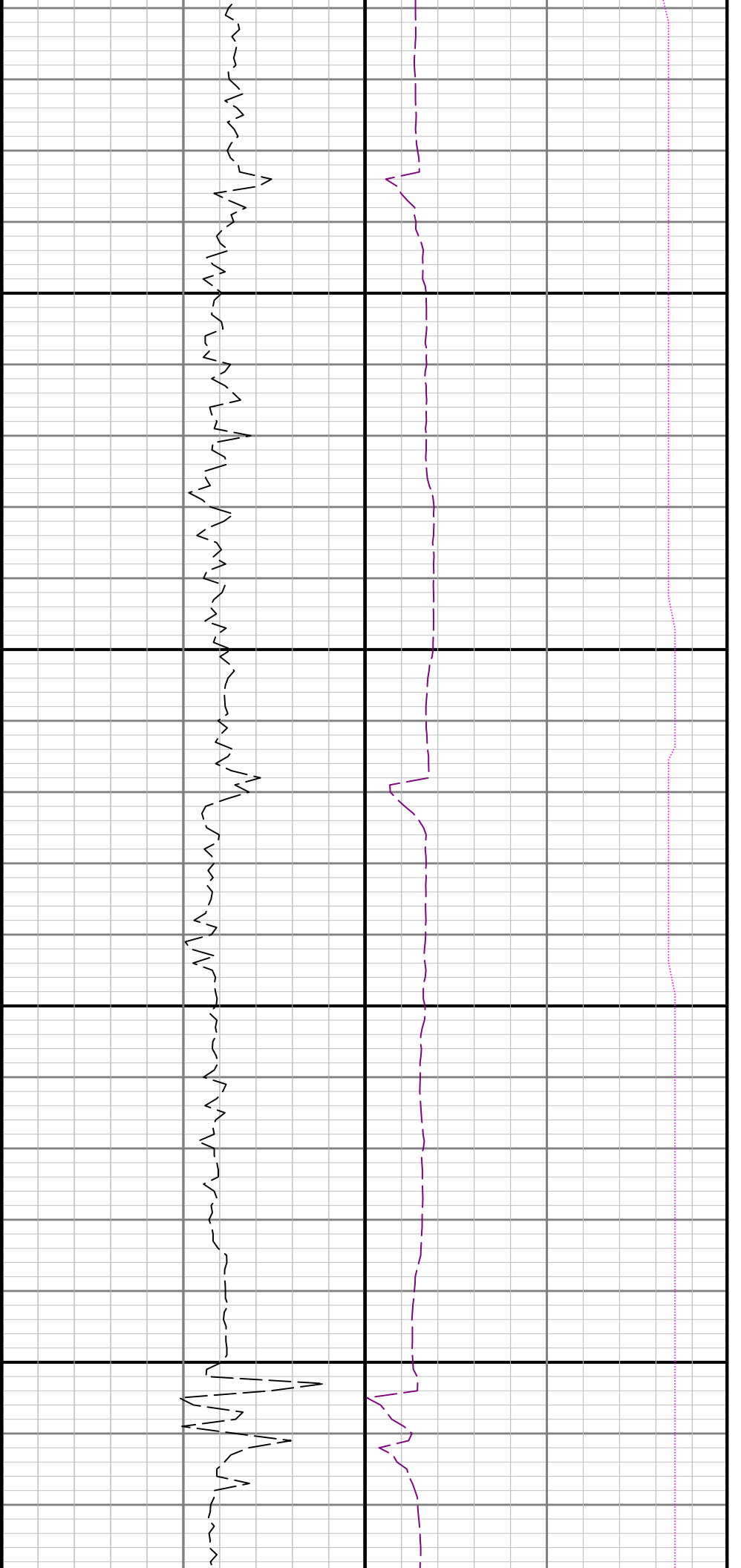
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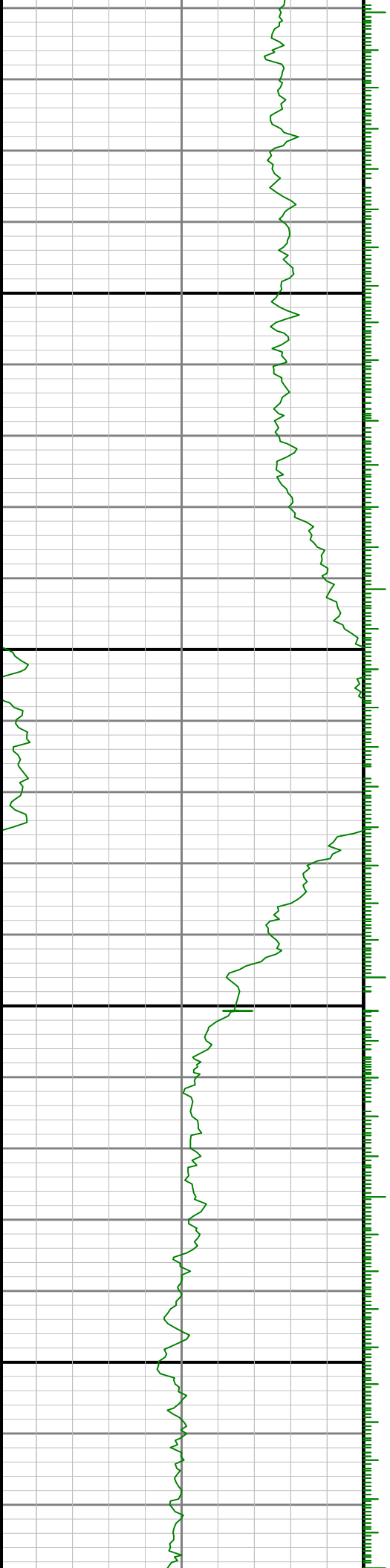


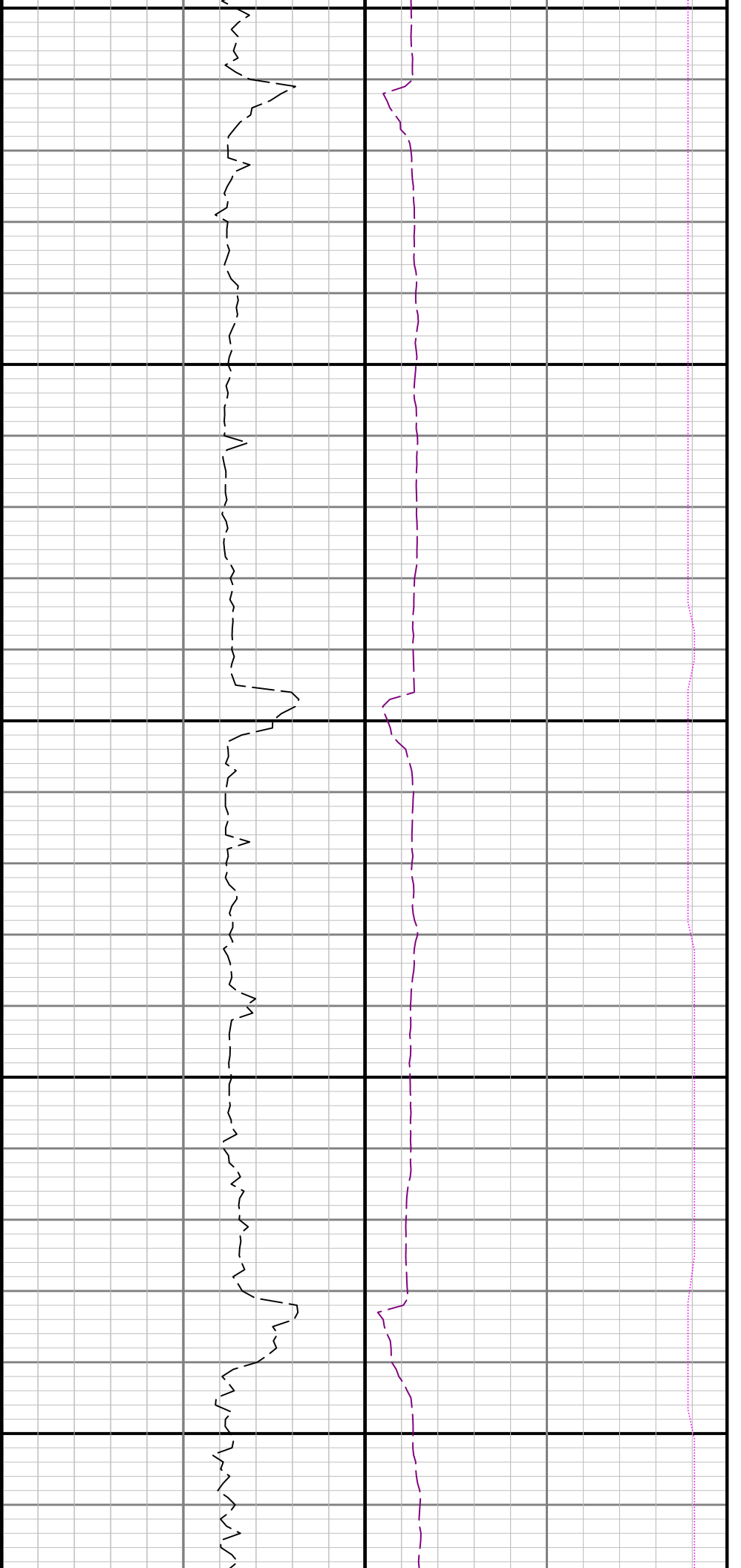




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