

BAKER HUGHES				Real Time Log			
				Natural Formation Evaluation Gamma Ray			
Scale:		Company: Anadarko					
1:240		Well: GreenLeaf 37C-15HZ					
Measured Depth		Field: Weld County(Ker McGee)					
		County: Continental US		State: United States			
Status:	Final Print	Surface Location:		Other Services:			
API Number: 05123379220000		Latitude: 40° 8' 42.641" N Longitude: 104° 38' 55.039" W		Directional VSS			
		SEC: 15 TWP: 2N RNG: 65W					
Permanent Datum (P.D.): Mean Sea Level		Elevation: 4884.00 ft.		Elevations: N/A			
Log Measured From: Rig Floor		16.00 ft.		Above P.D. 4900.00 ft.			
Depth Reference: Driller's Depth				KB: 4884.00 ft. DF: GL:			
Interval Logged		Dates		Magnetic Field Reference			
Top: 6650.0 ft.		Date From: 13 Dec 14		Dip Angle: 66.84 °		Azi Reference North: True	
Bottom: 11814.0 ft.		Date To: 19 Dec 14		Total		Mag to Reference	
		Spud Date: 13 Dec 14		Field Strength: 52656.0 nT		North Correction: 8.36 °	
Borehole Record				Casing Record			
Hole Size	From	To	Size	Weight	From	To	
8.750 in.	6650.0 ft.	7636.0 ft.	7.000 in.	26.00 lb/ft	Surface	7615.0 ft.	
6.125 in.	7636.0 ft.	11814.0 ft.					
Mud Record				Deviation Record			
Type	From	To	Hole Size	Interval	Inc / Az (Start)	Inc / Az (End)	
Water Based Mud	Surface	11814.0 ft.	8.750 in.	85.0 ft.	2.2 ° / 174.0 °	87.0 ° / 180.9 °	
			6.125 in.	85.0 ft.	87.0 ° / 180.9 °	89.7 ° / 181.1 °	
					/	/	
					/	/	
					/	/	
					/	/	
Acquisition System				Other			
Advantage	Software Version	2.20U4	Rig: Xtreme 23	/ Advance Drilling			
PATS	6.4.1.34	Job No: 6737326	District / Unit: RMD	/ 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		
							(ft.)	(ft.)	(ft.)	(ft.)					
1	1	1	8.750	PDC	3.000	Steerable	6650.0	7595.0	6650.0	7636.0	15 Dec 14 10:10	16 Dec 14 06:14		20	
2	2	2	6.125	PDC	3.000	Steerable	7595.0	11767.0	7636.0	11814.0	17 Dec 14 20:11	19 Dec 14 8:28		36	

Crew

Name	Arrive	Depart	Name	Arrive	Depart	Name	Arrive	Depart
	Wellsite	Wellsite		Wellsite	Wellsite		Wellsite	Wellsite
Jason Williams	13 Dec 14	19 Dec 14	Sumanth Belawadi	13 Dec 14	18 Dec 14	Jeremiah Ward	15 Dec 14	19 Dec 14

Mud Properties Record

Date / Time		LWD Run No.	Measured Depth (ft.)	Mud Type	Density  (ppg)	Viscosity  (cp)	pH	Fluid Loss  (cc)	Oil / Water	Source	Total Chlorides  (ppm)	K+  (%)
16 Dec 14	08:00	1	7636.0	Water Based Mud	10.0	10	9.7	N/A	2/88.5	Flow Line	5500	N/A
18 Dec 14	08:00	2	9041.0	Water Based Med	9.8	13	9.9	N/A	1/90.5	Flow Line	5800	N/A

Mnemonics		
Curve	Description	Units
GRAX	Gamma Ray Apparent, 0.5 ft. Avg	API
GRIX	Gamma Ray Data Density	points
GRSI	Gamma Ray Sliding Indicator	unitless
GRTX	Gamma Ray Time Since Drilled	min
ROPA	Rate of Penetration, 3.0 ft. Avg	ft/hr
TCDX	Downhole Temperature	degF
TVD	True Vertical Depth	ft.
WOBA	Surface Weight on Bit, 1.0 ft. Avg.	klbs

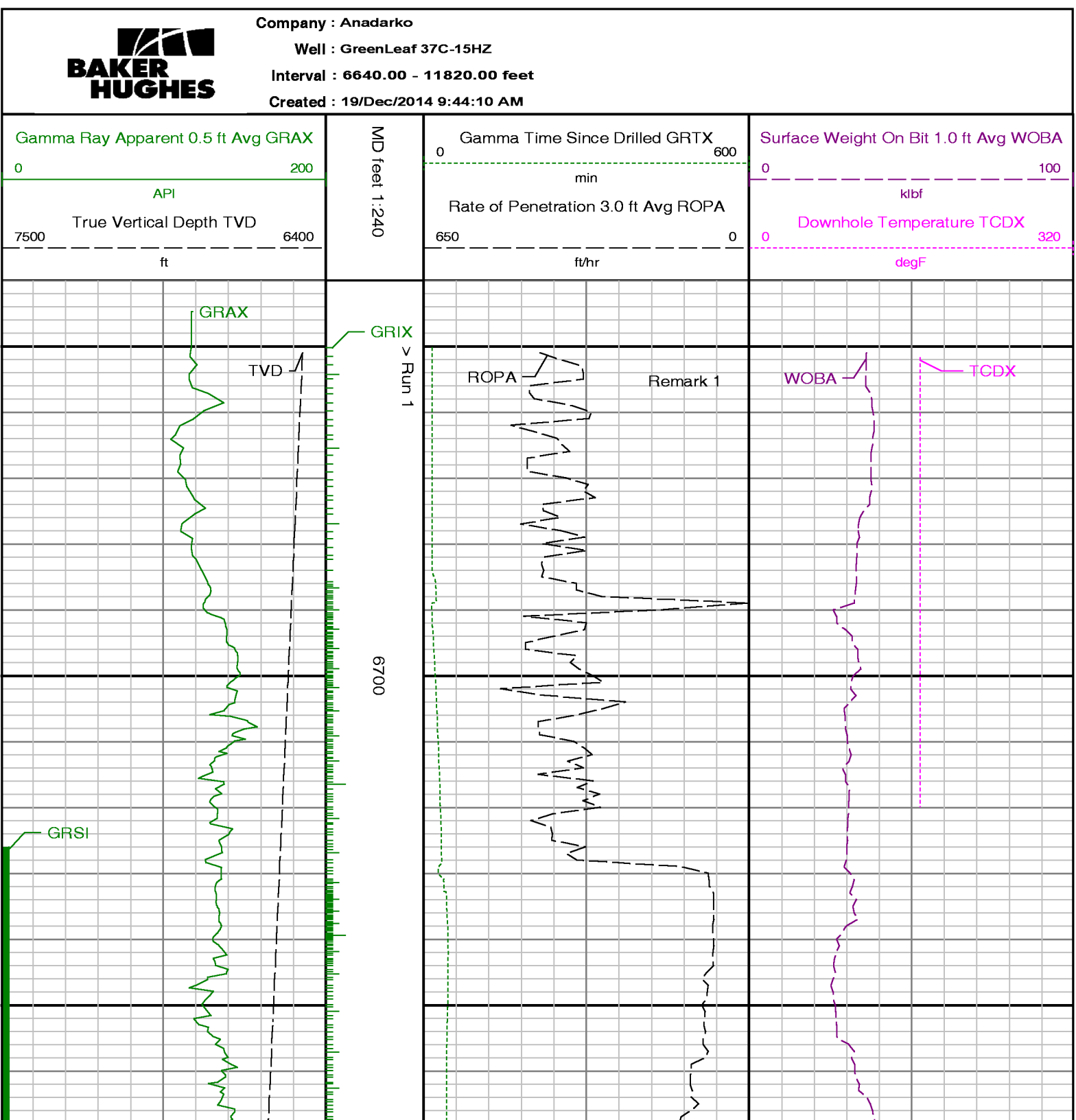
Equipment and Service Data						
LWD Run No.	Tool	Serial  Number	Measurement	Bit  Offset  (ft)	Max  O.D.  (in.)	Min  I.D.  (in.)
1	DIR	13051158	Directional	45.68	6.750	3.250
1	SRIG	12578109	Gamma	42.30	6.750	3.250
2	DIR	11954358	Directional	50.76	4.750	2.750
2	SRIG	10658452	Gamma	47.34	4.750	2.750

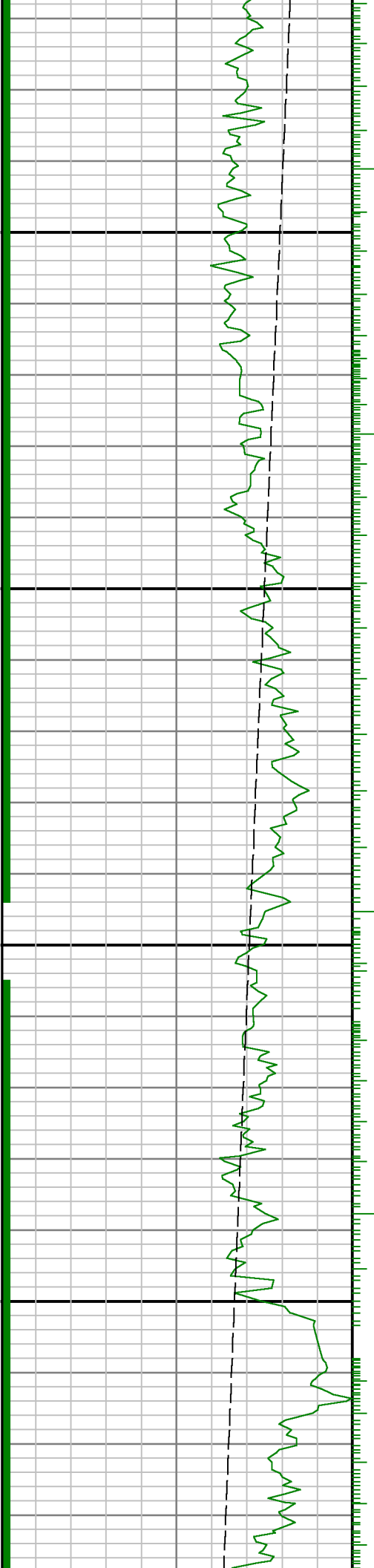
Service and Tool Mnemonics		
Mnemonic	Name	Description
DIR	Directional	Wellbore directional survey
SRIG	Inclination and Gamma	Probe based gamma ray and inclination module

Comments	
<p>1.) Depth measurements were obtained from a depth control system not 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 and the unverified depths as supplied to Baker Hughes are being used to represent logging data</p> <p>2.) Baker Hughes Run 1 utilized a 6 3/4 inch NaviGamma (Directional and Gamma Ray) tool behind an 8 3/4 inch bit and steerable assembly from 6650 to 7636 feet MD (6477.77.85 to 7121.88 feet TVD).</p> <p>3.) Baker Hughes Run 2 utilized a 4 3/4 inch NaviGamma (Directional and Gamma Ray) tool behind an 6 1/8 inch bit and steerable assembly from 7636 to 11814 feet MD (7121.88 to 7129.85 feet TVD).</p> <p>5.) A sliding indicator is shown on the left side of track 1 as a heavy line. This indicator has been depth-shifted to the Gamma Ray sensor offset to correspond with Gamma Ray data acquired while sliding.</p>	

Remarks				
Number	Measured	Hole	LWD	Remark
	Depth  (ft)	Section  (in.)	Run No.	

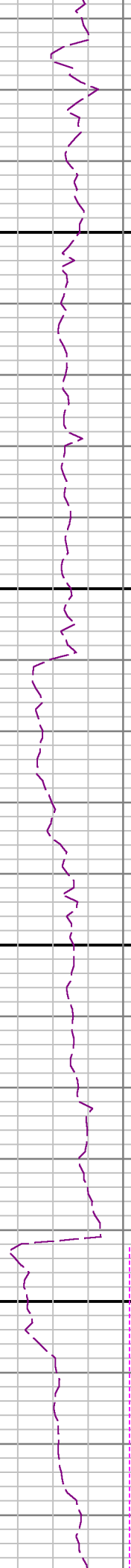
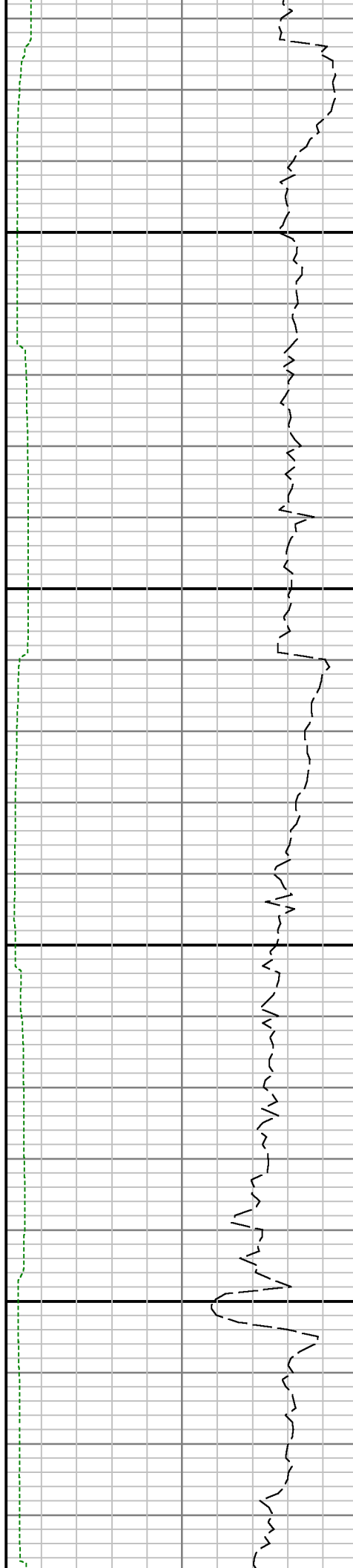
1	6650	8.750	1	No data prior to 6650 per Anadarko do to logging operations started at Kick off Point.
2	7248	8.750	1	The GRTX values were logged up to 6 hours due to tripping out to KOP to repair pumps
3	7595	8.750	1	GRAX, GRIX and GRTX API values from 7595 to 7636 ft. MD (7122.78 to 7121.88 ft. TVD) were logged up to xxx hours after being drilled due to a trip out of hole to run casing and pick up BHA 2
4	11767	6.125	2	GRAX, GRIX and GRTX API values were not logged from 11767 to 11814 ft. MD (7129.49 to 7129.85 ft. TVD) due to sensor offset to bit position in MWD tool at TD. The client decided to abandon the well and cement as the hole would pack off and the drillstring was unable to ge to the bottom.

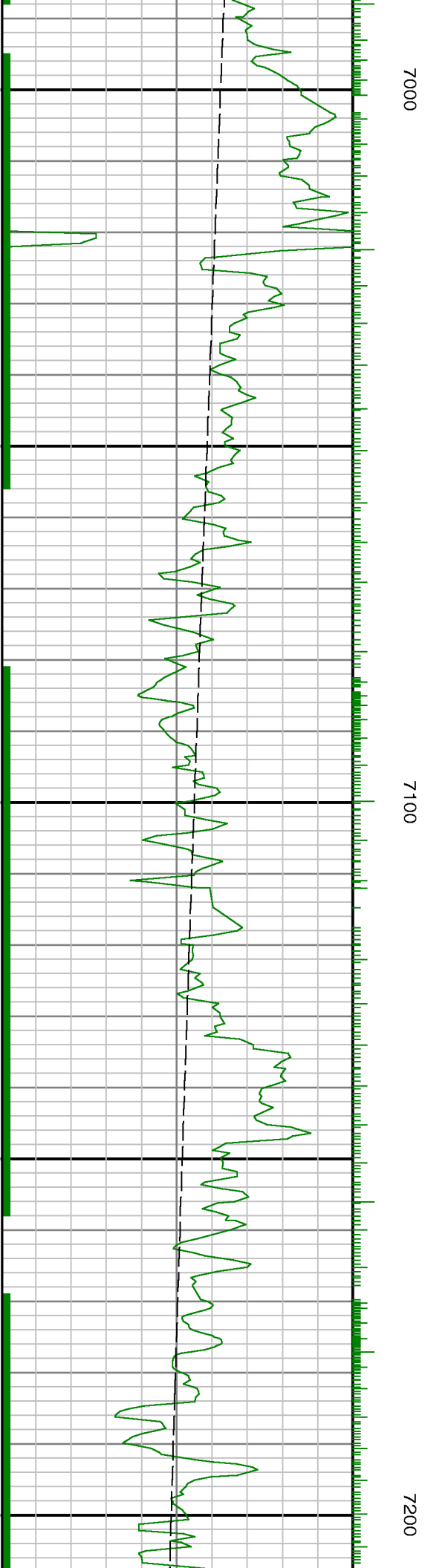
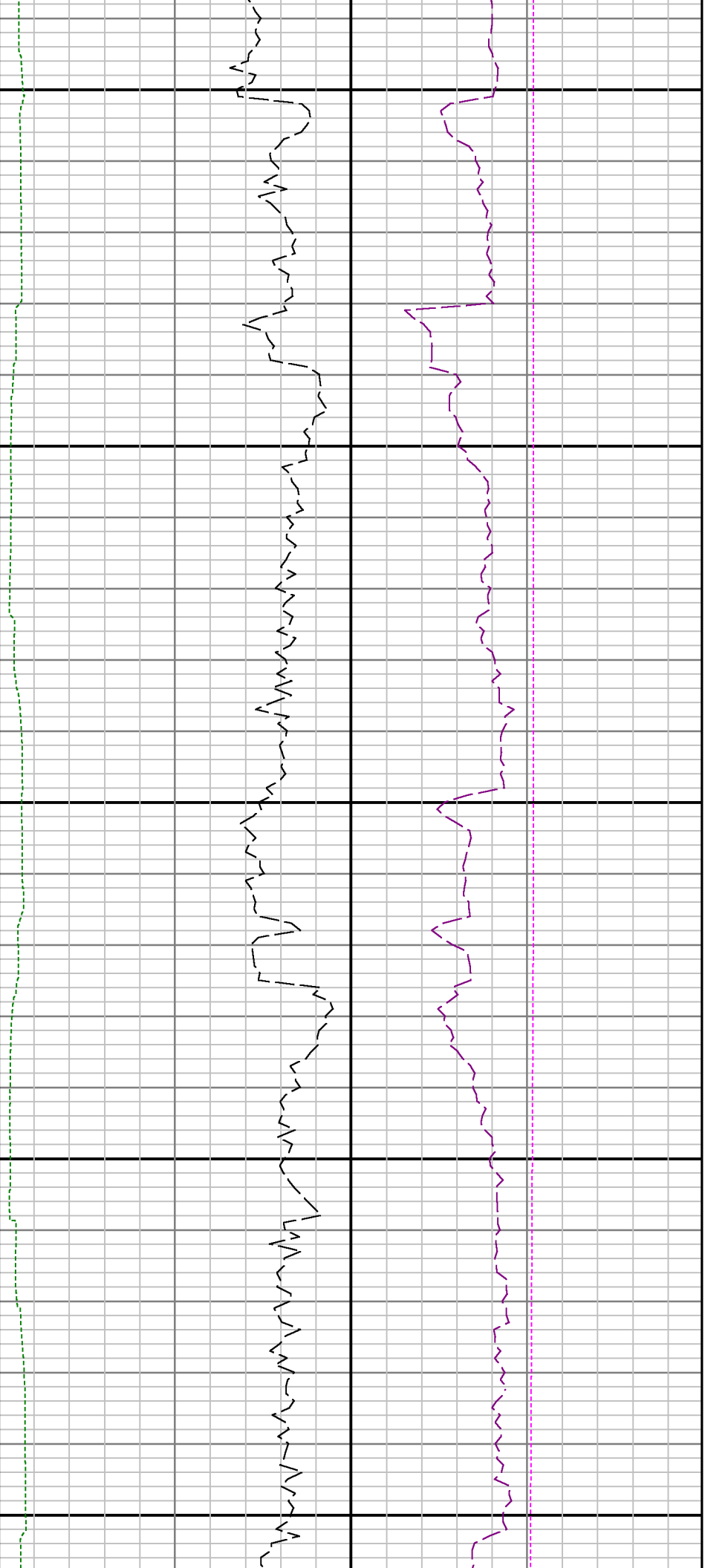


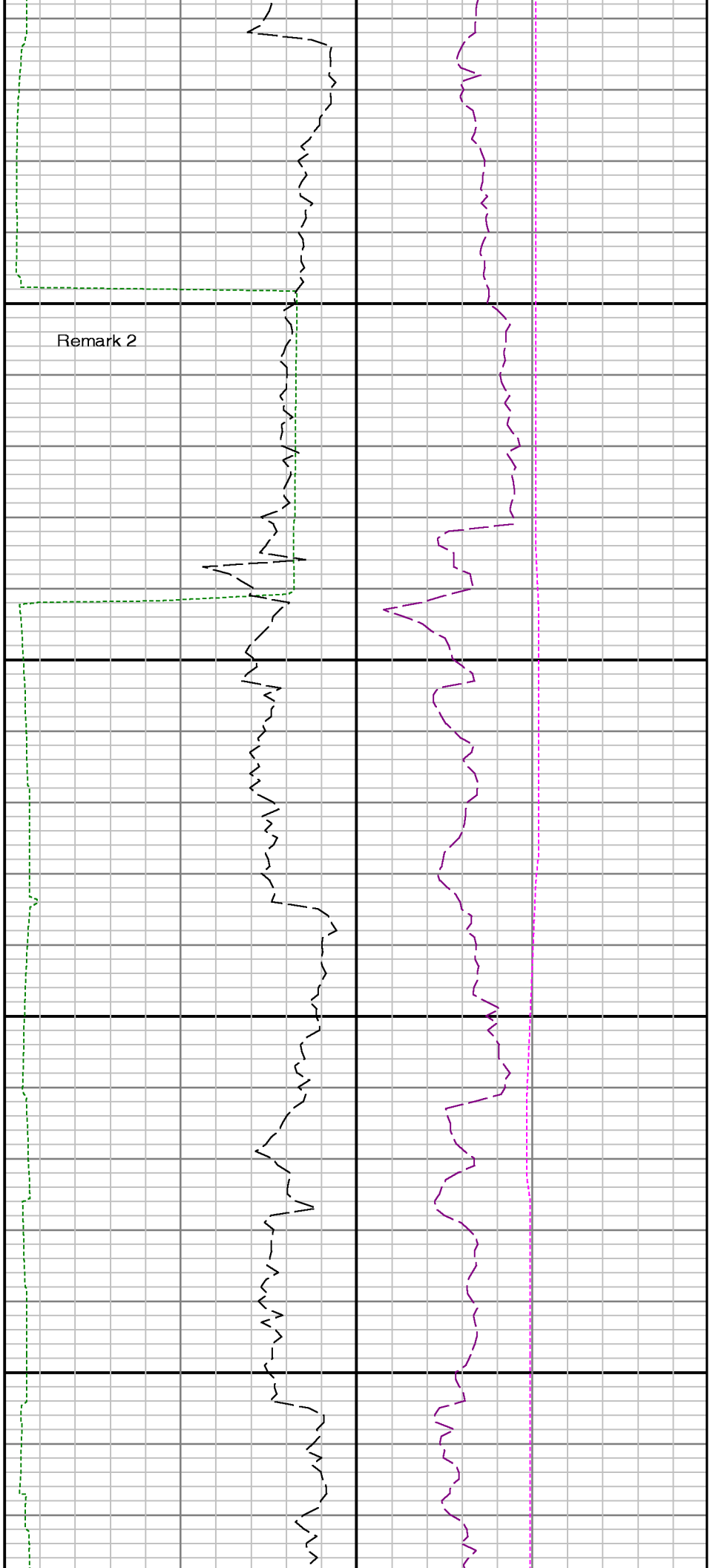


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6900

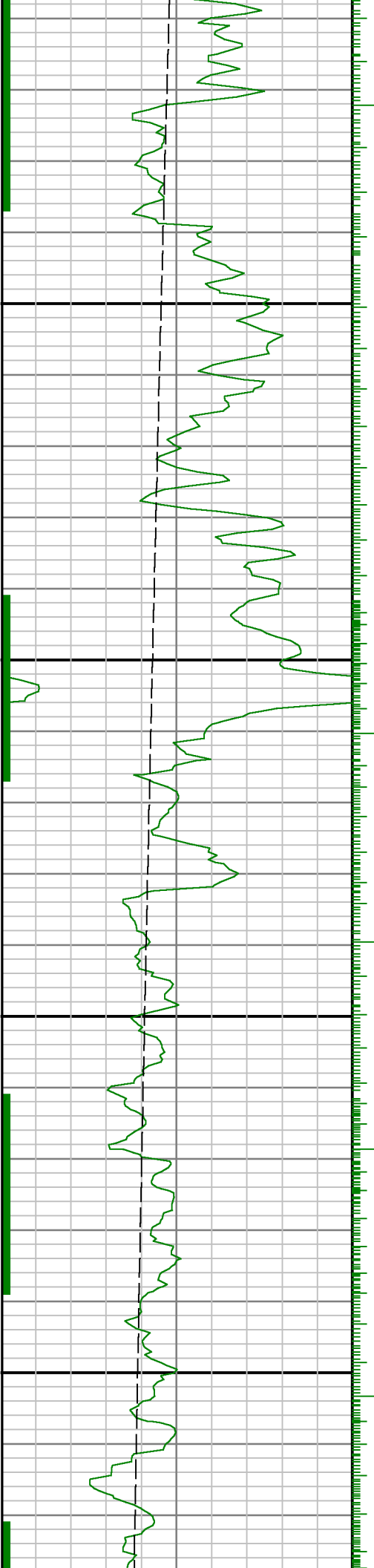


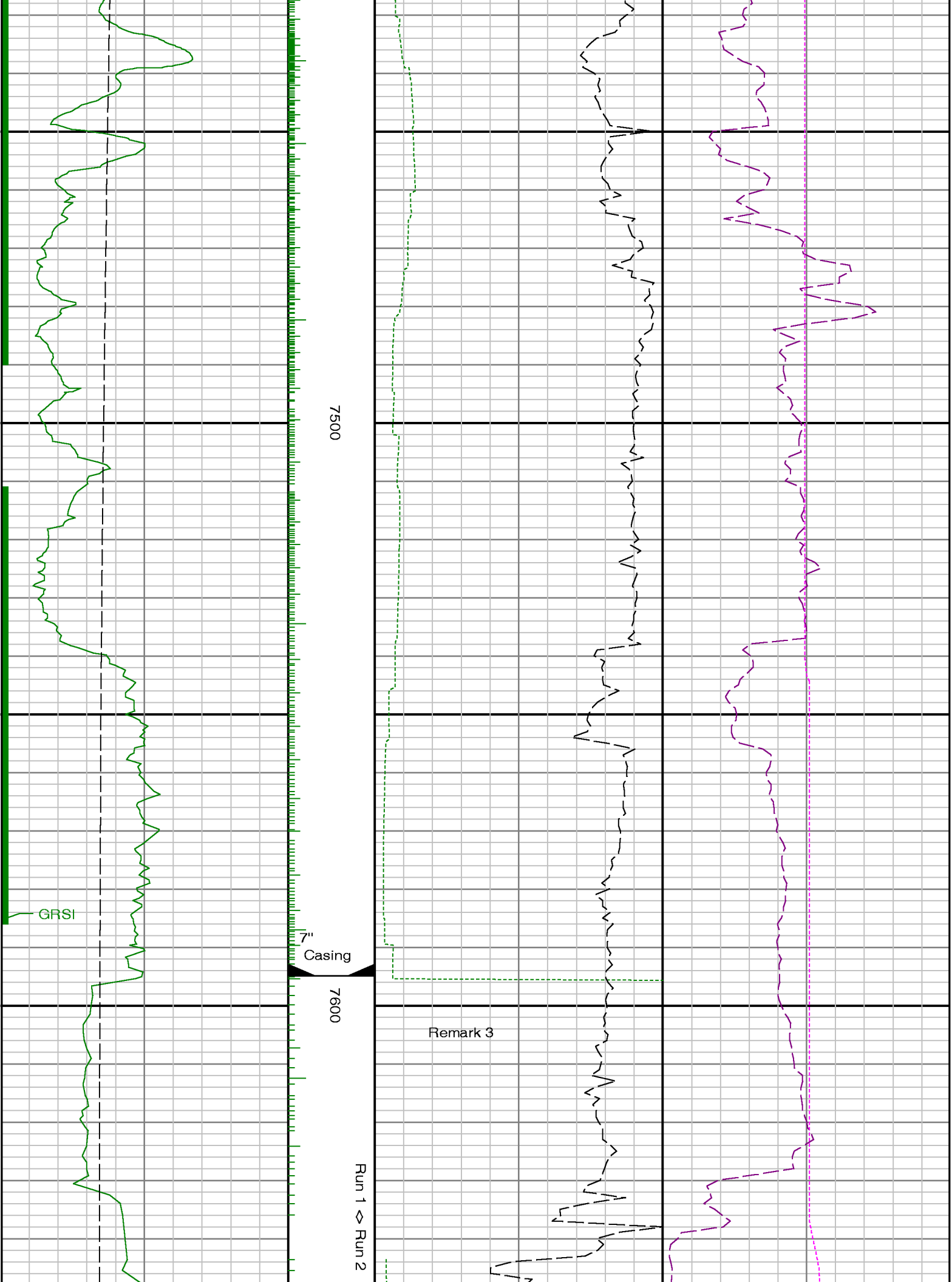


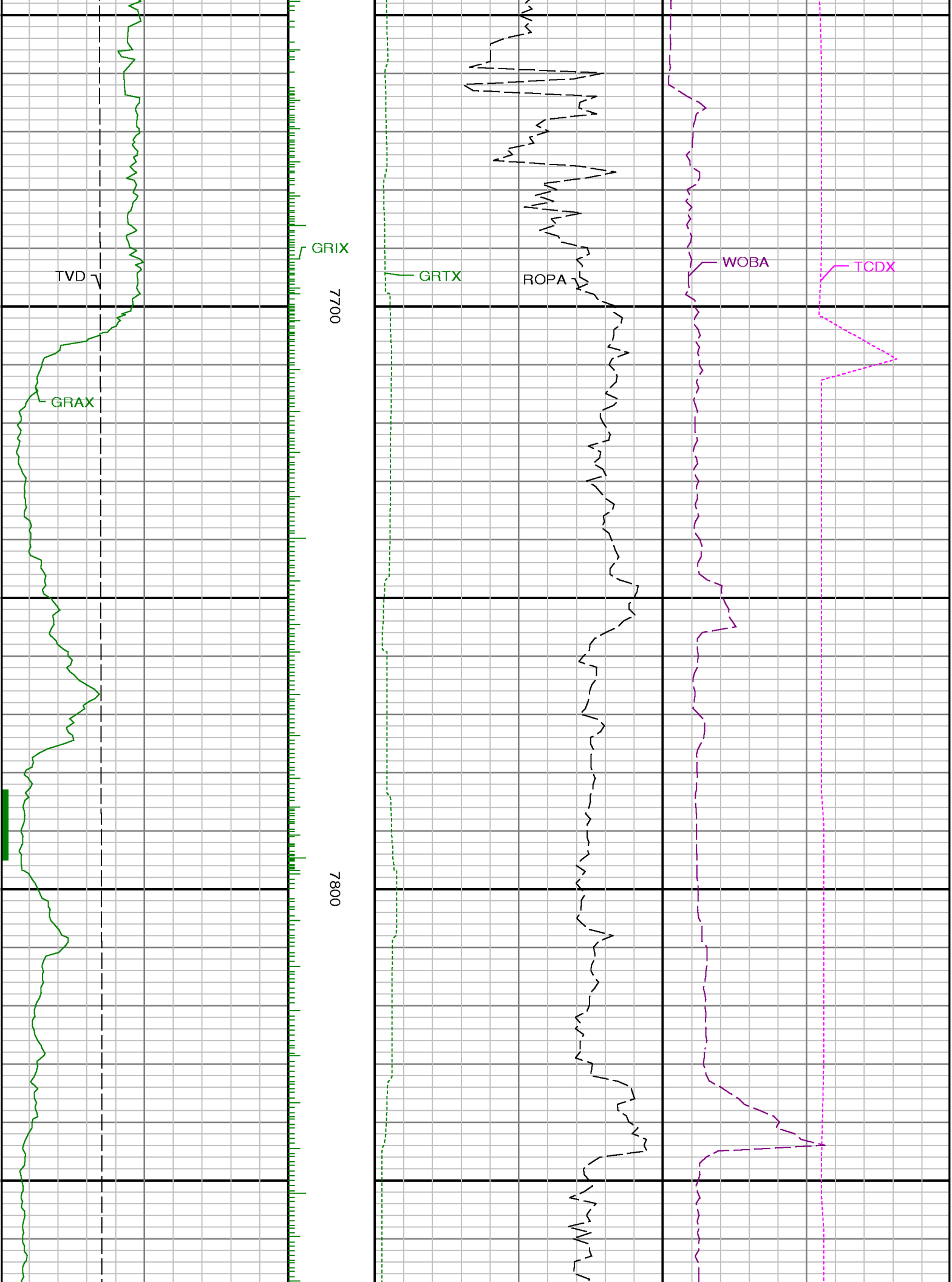


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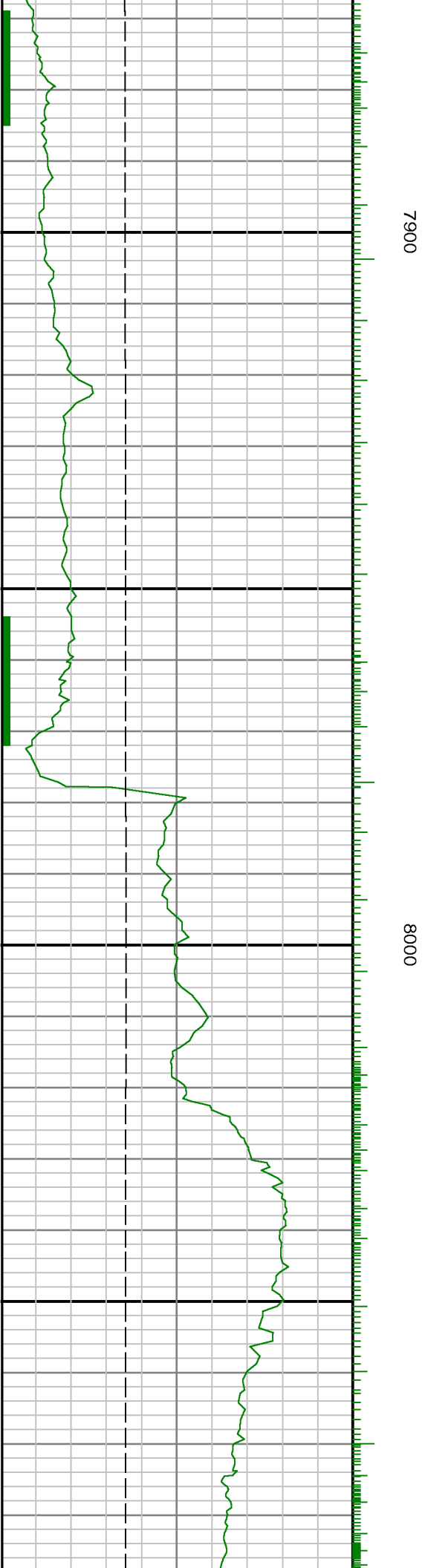
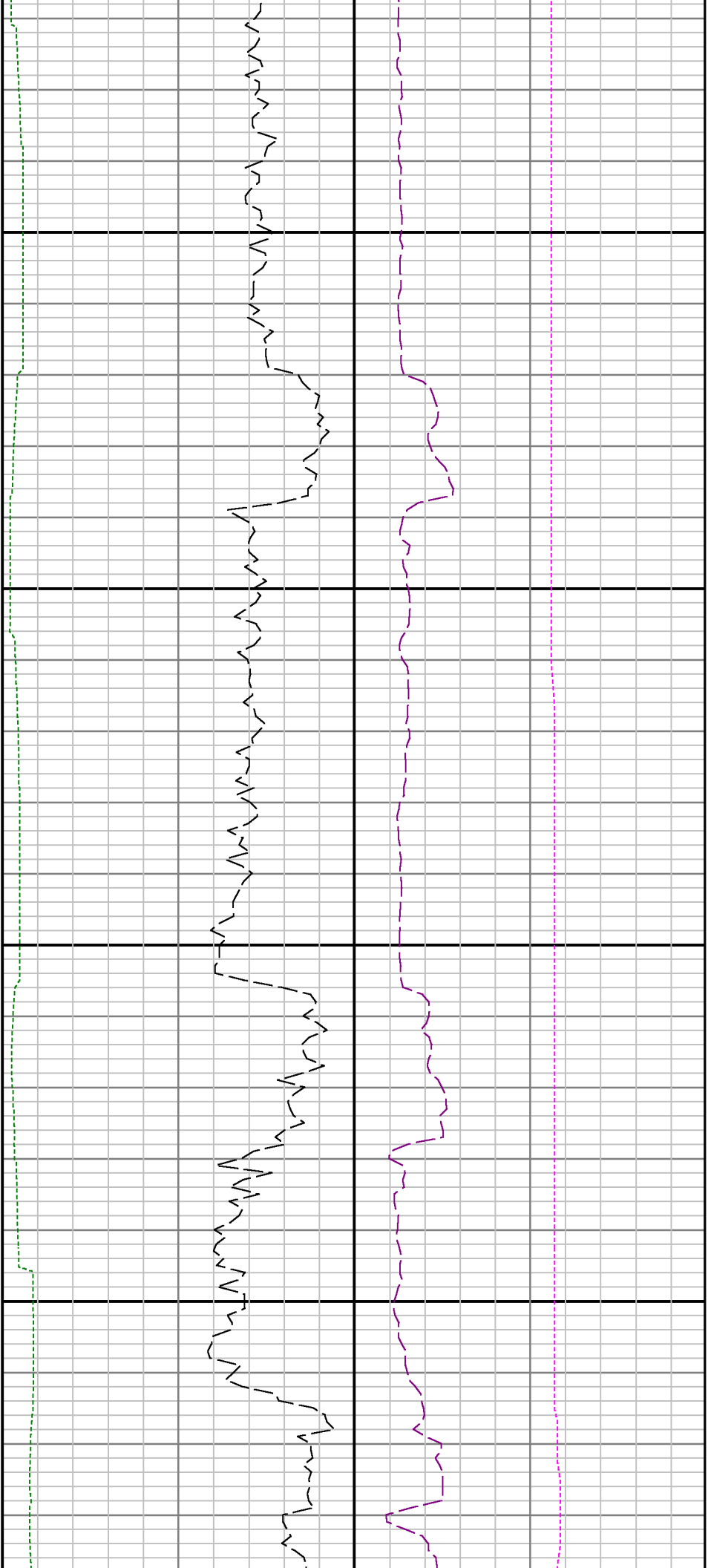
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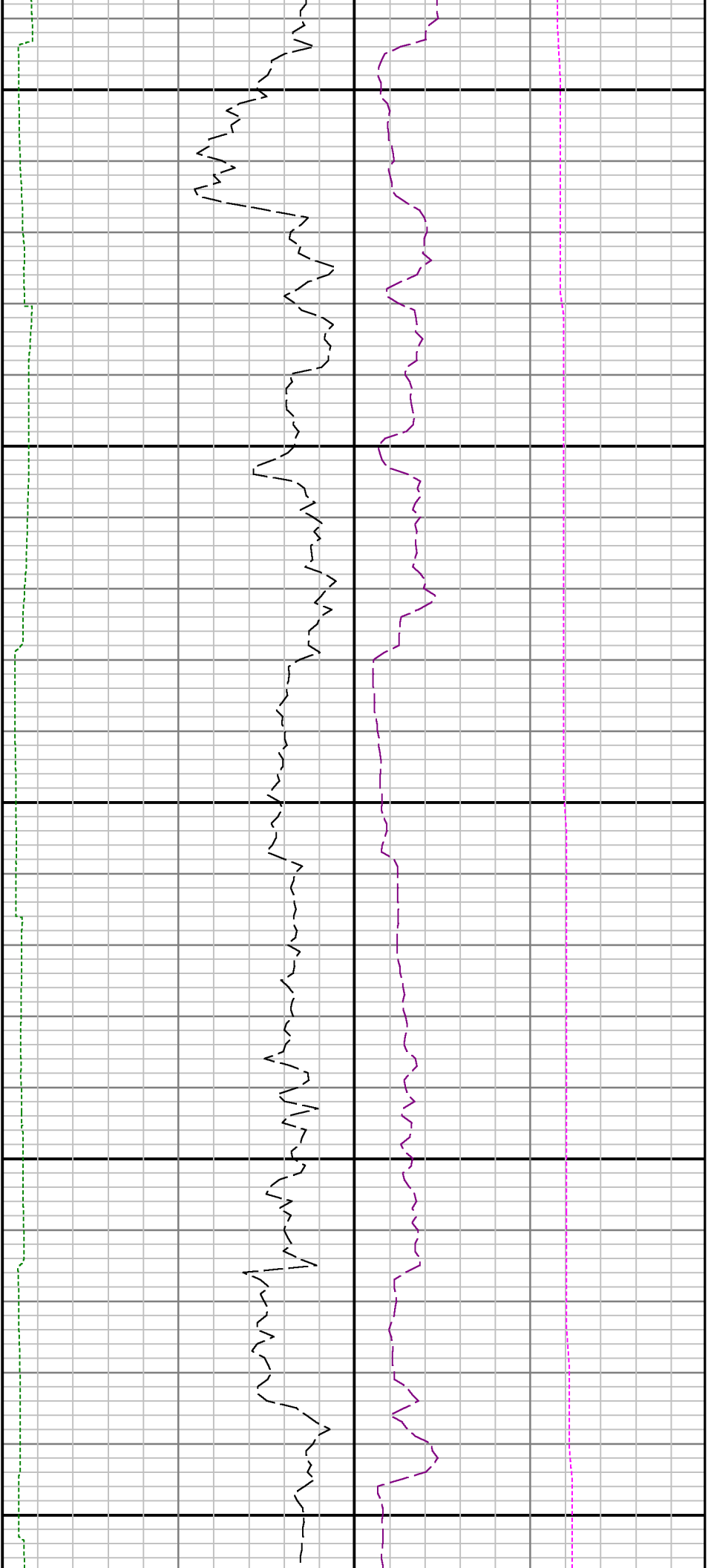








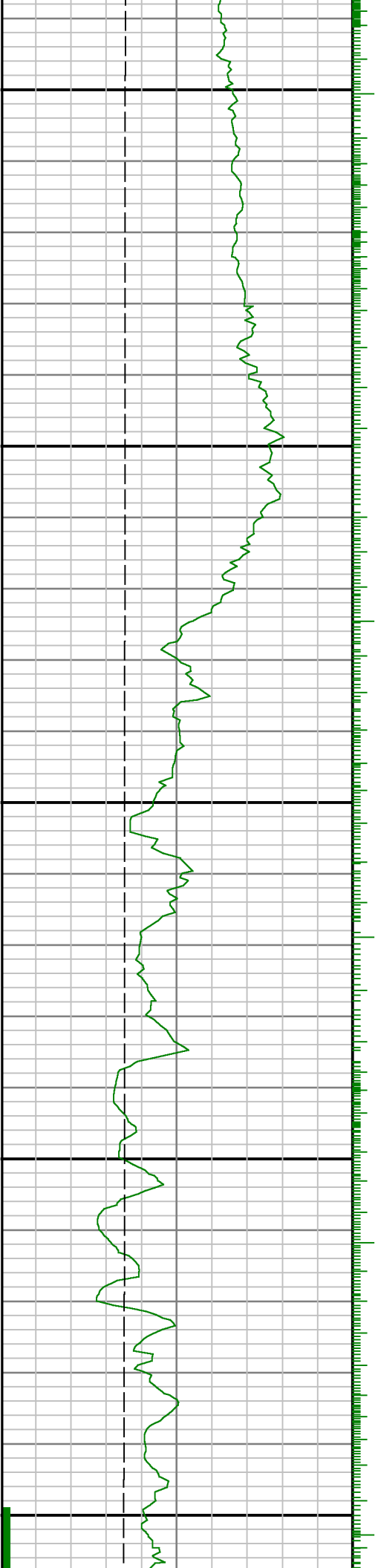




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8200

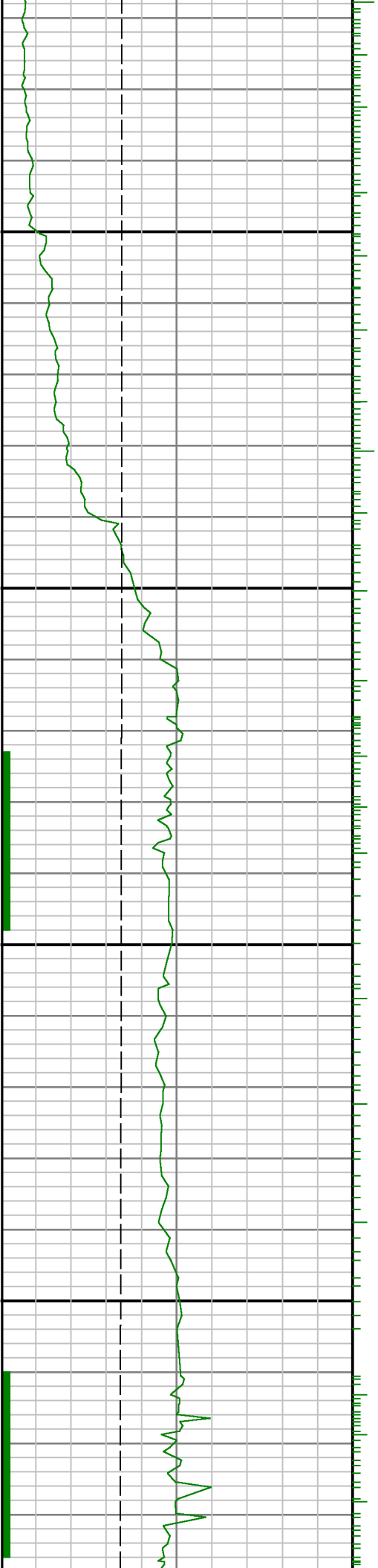
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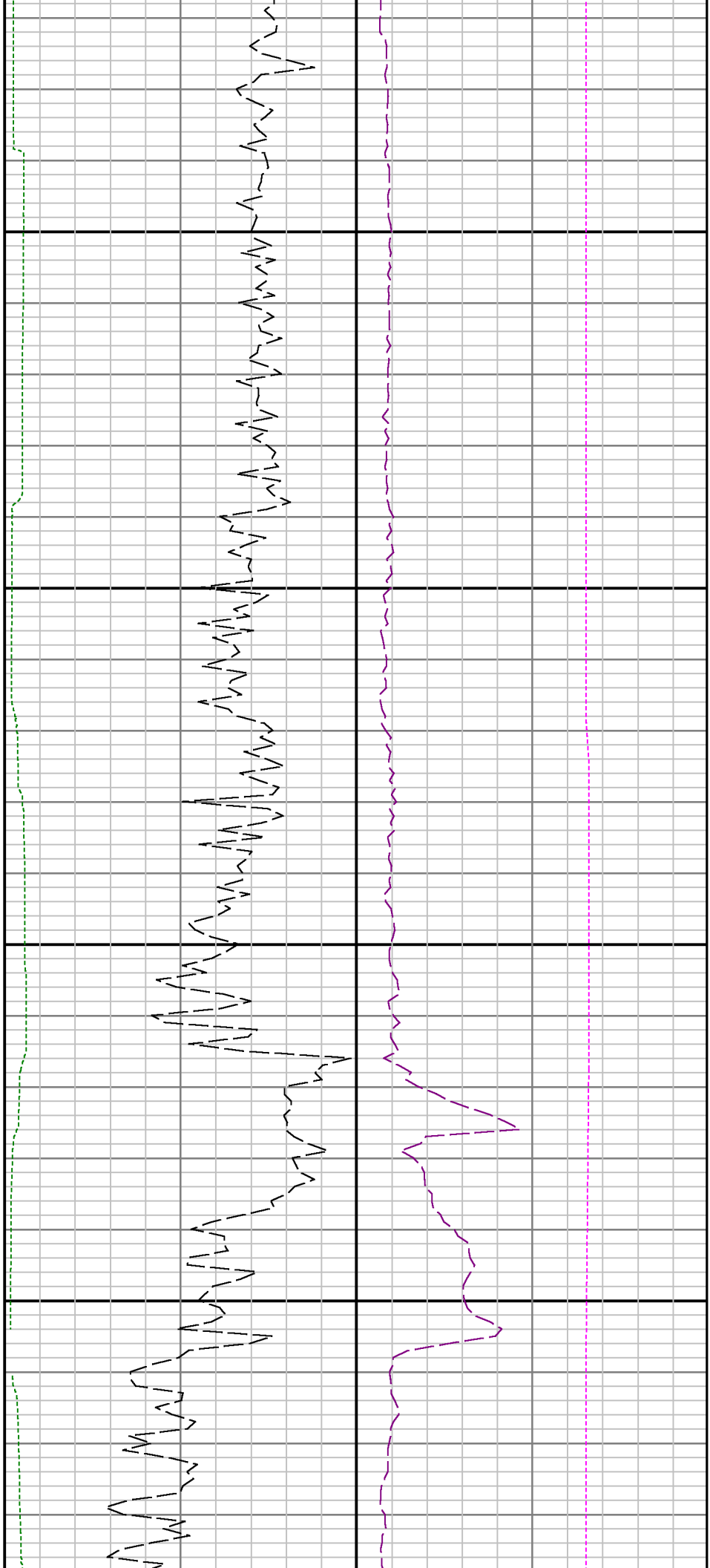


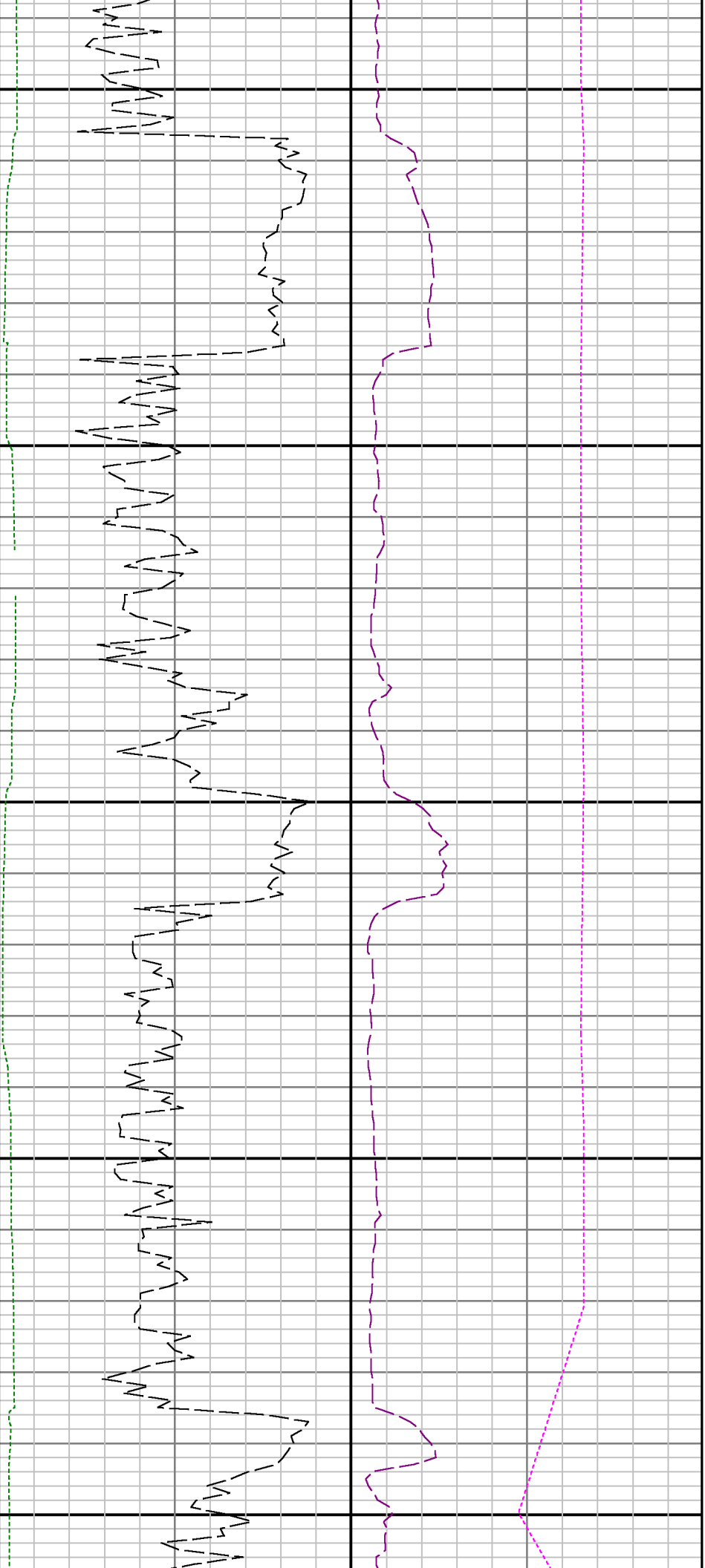




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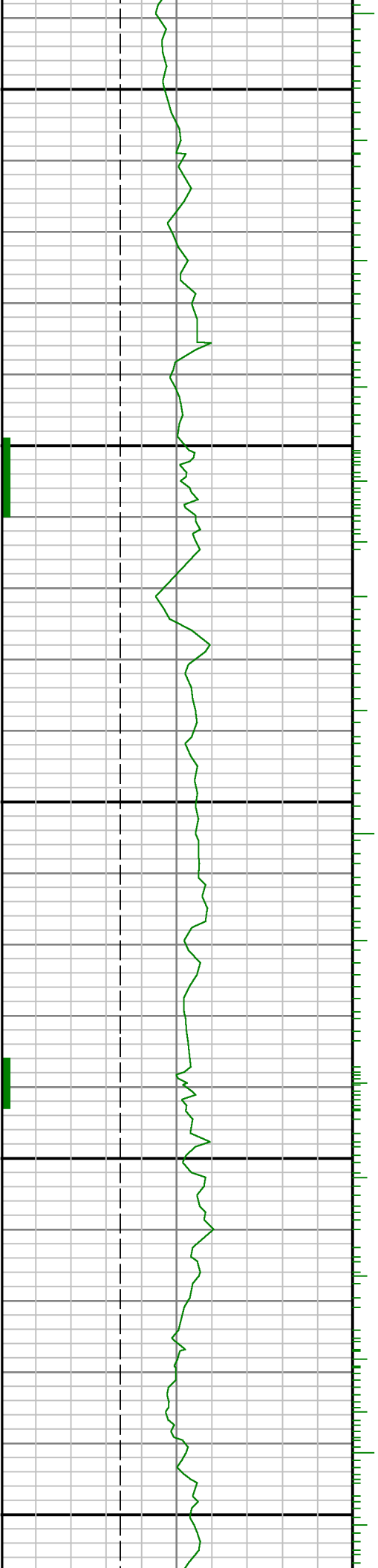


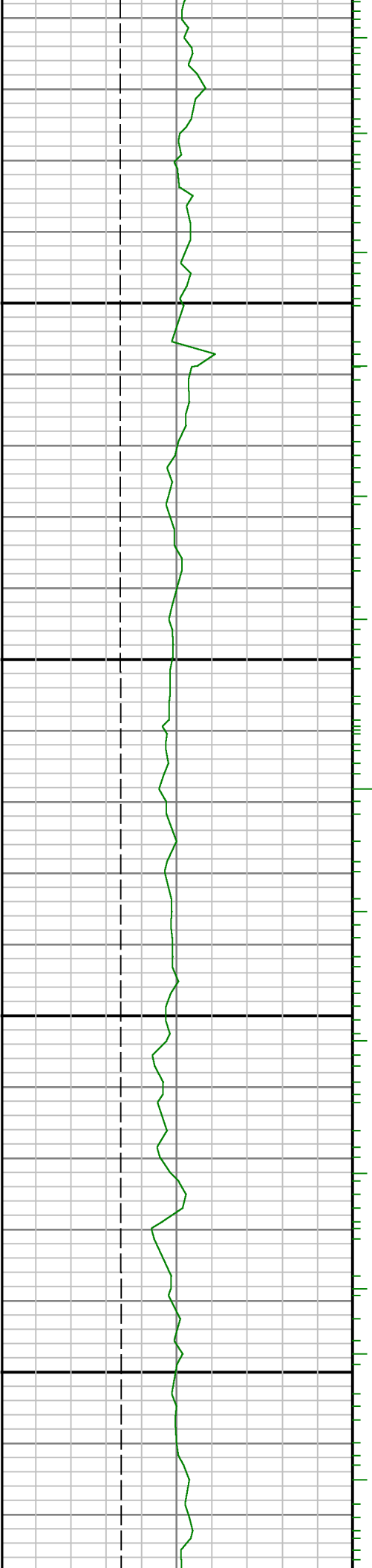


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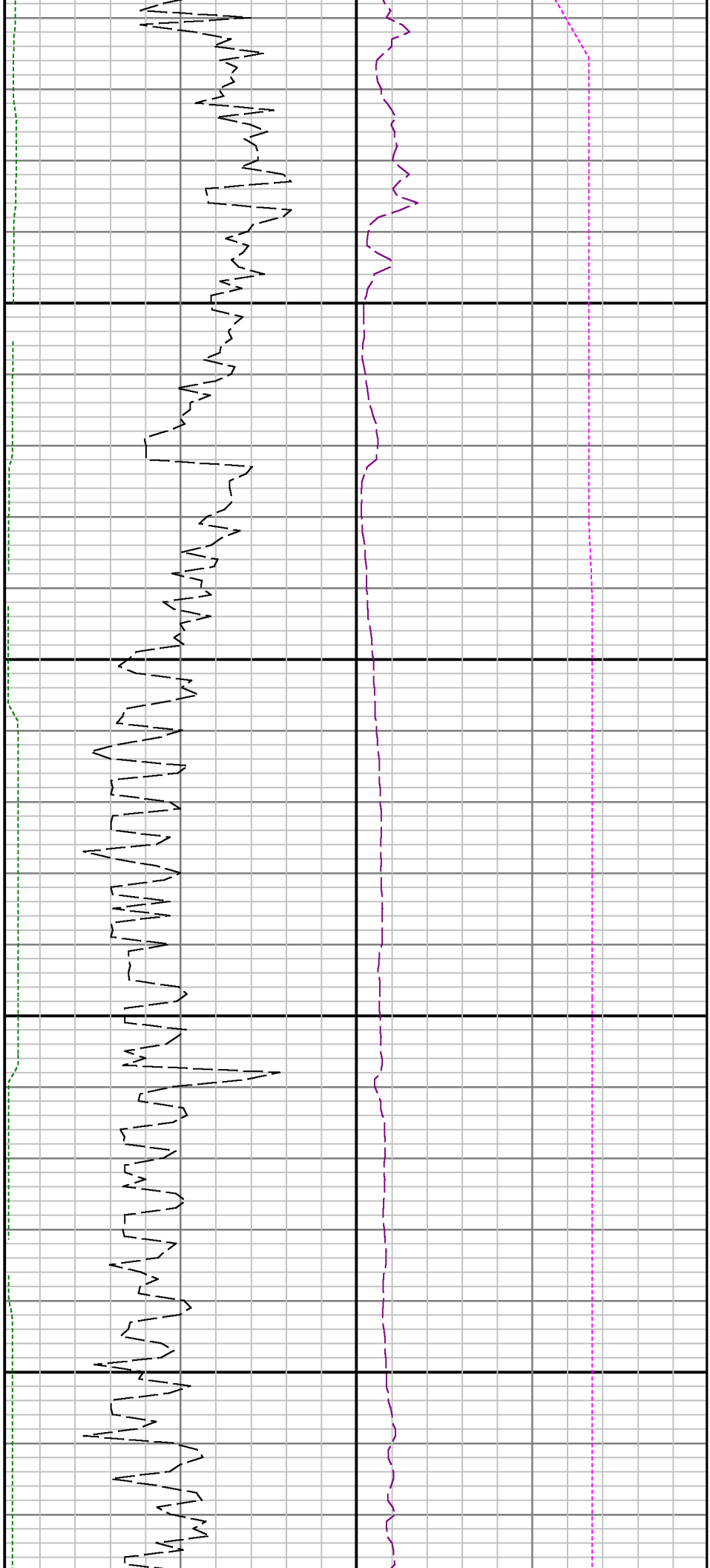
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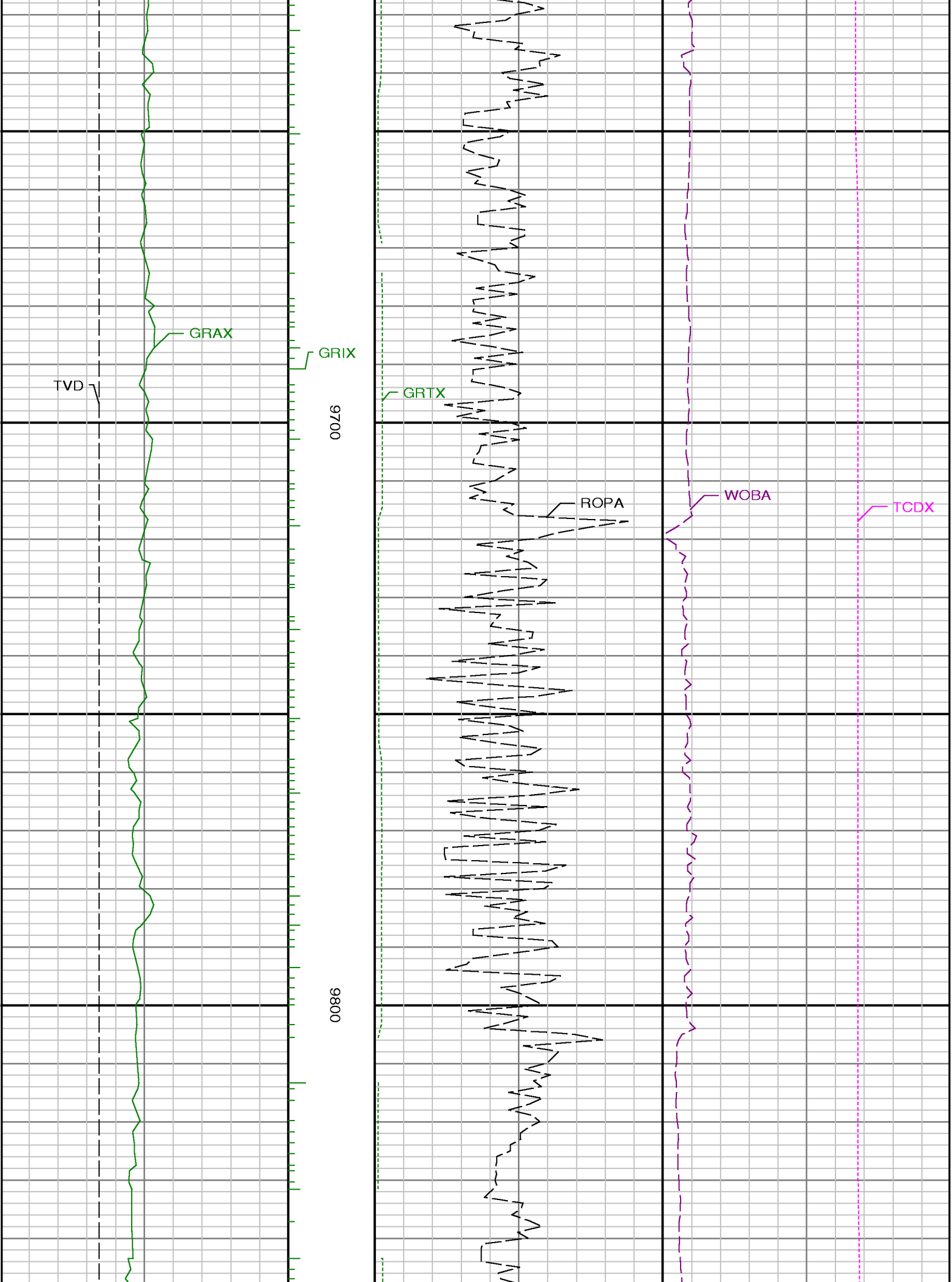


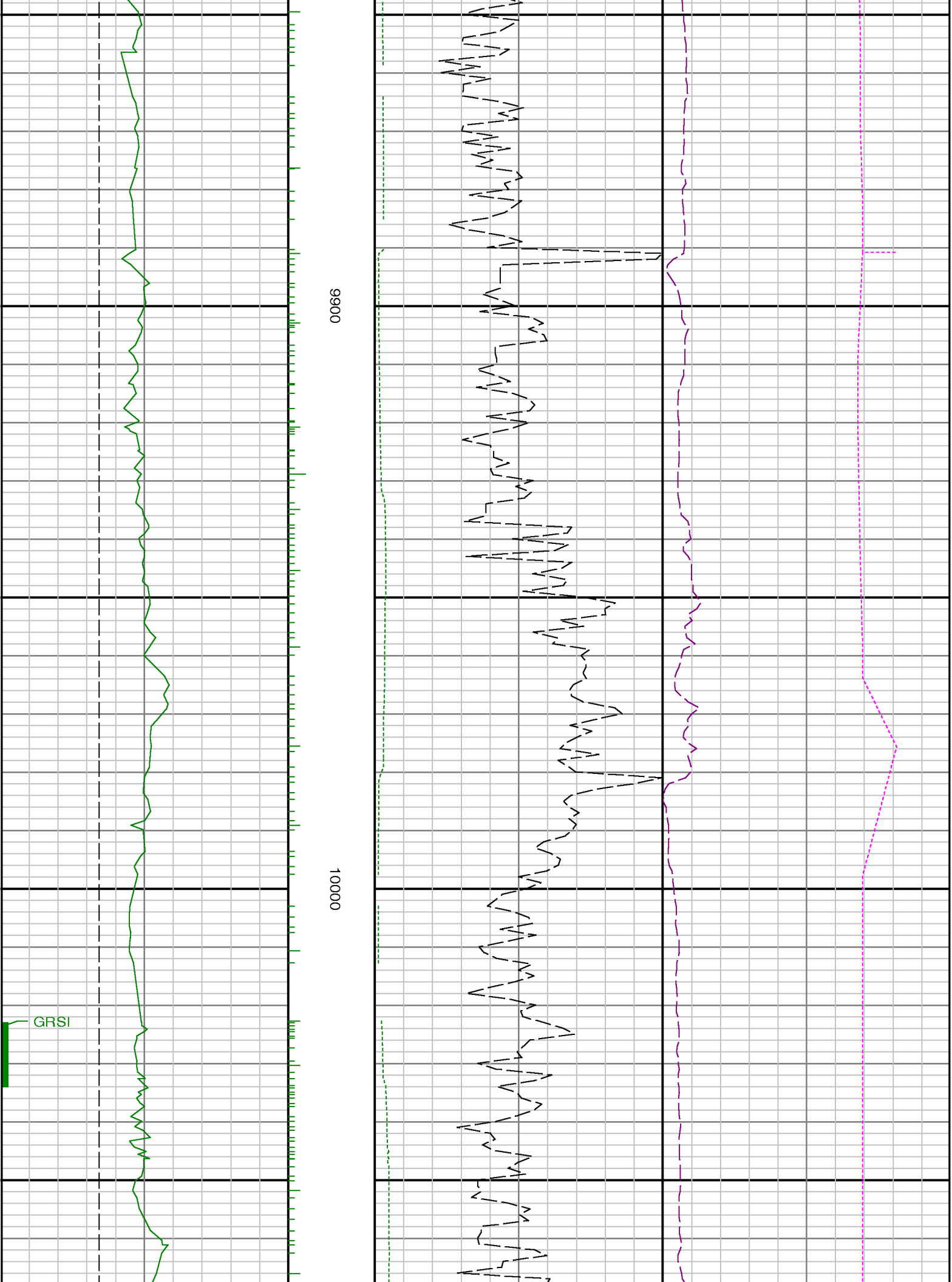
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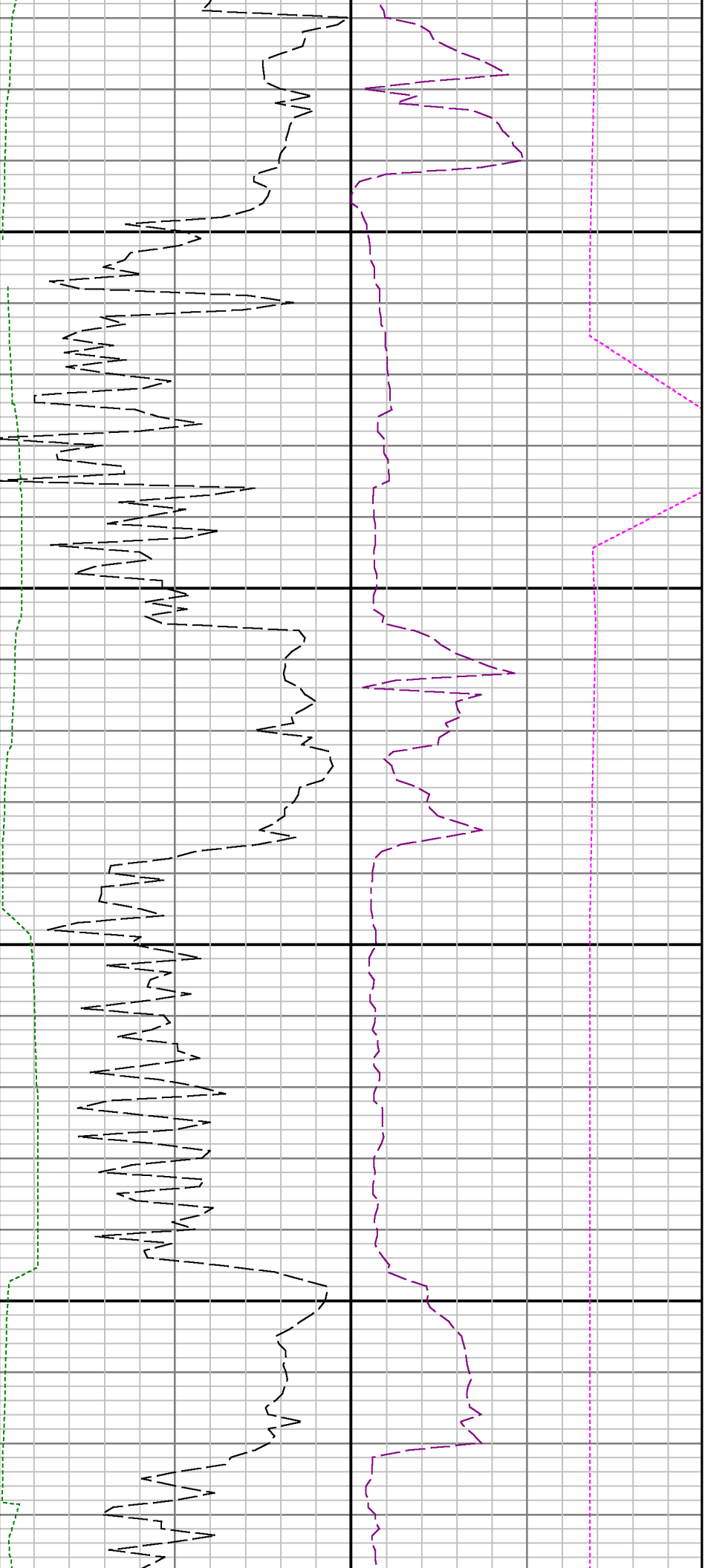
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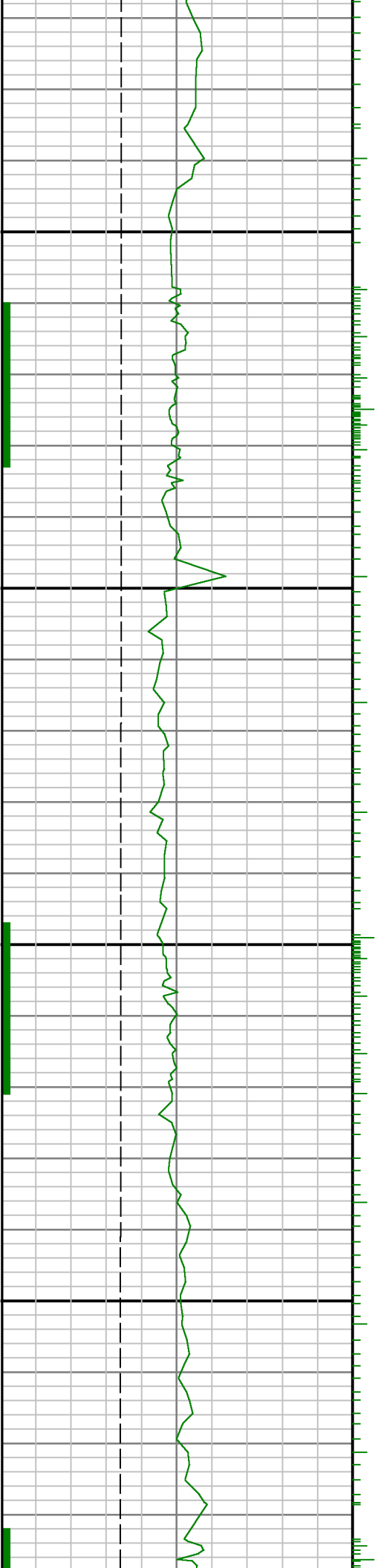


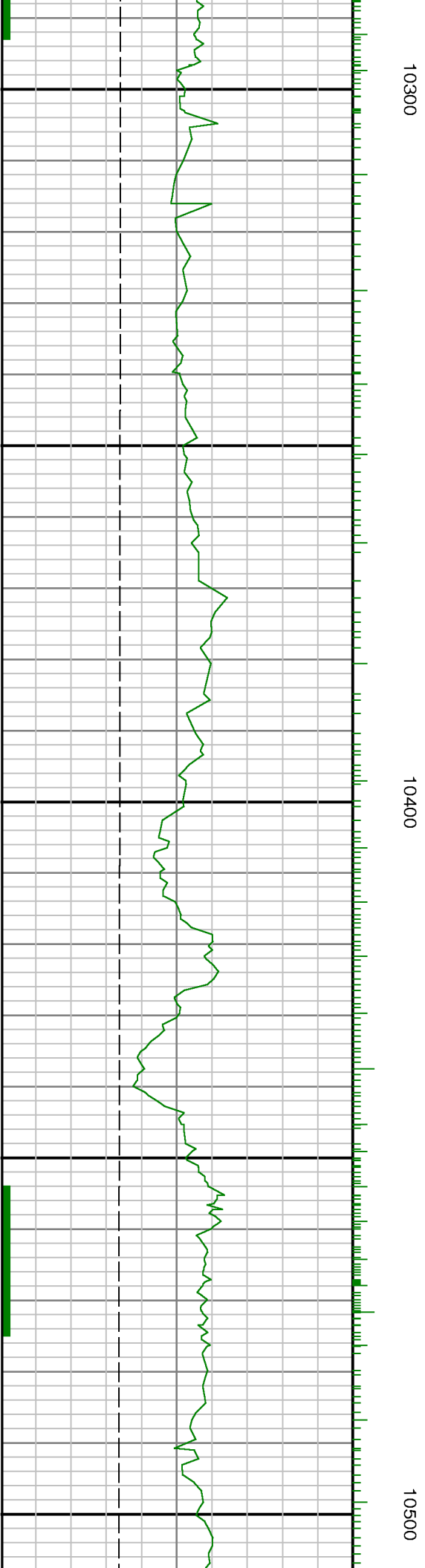
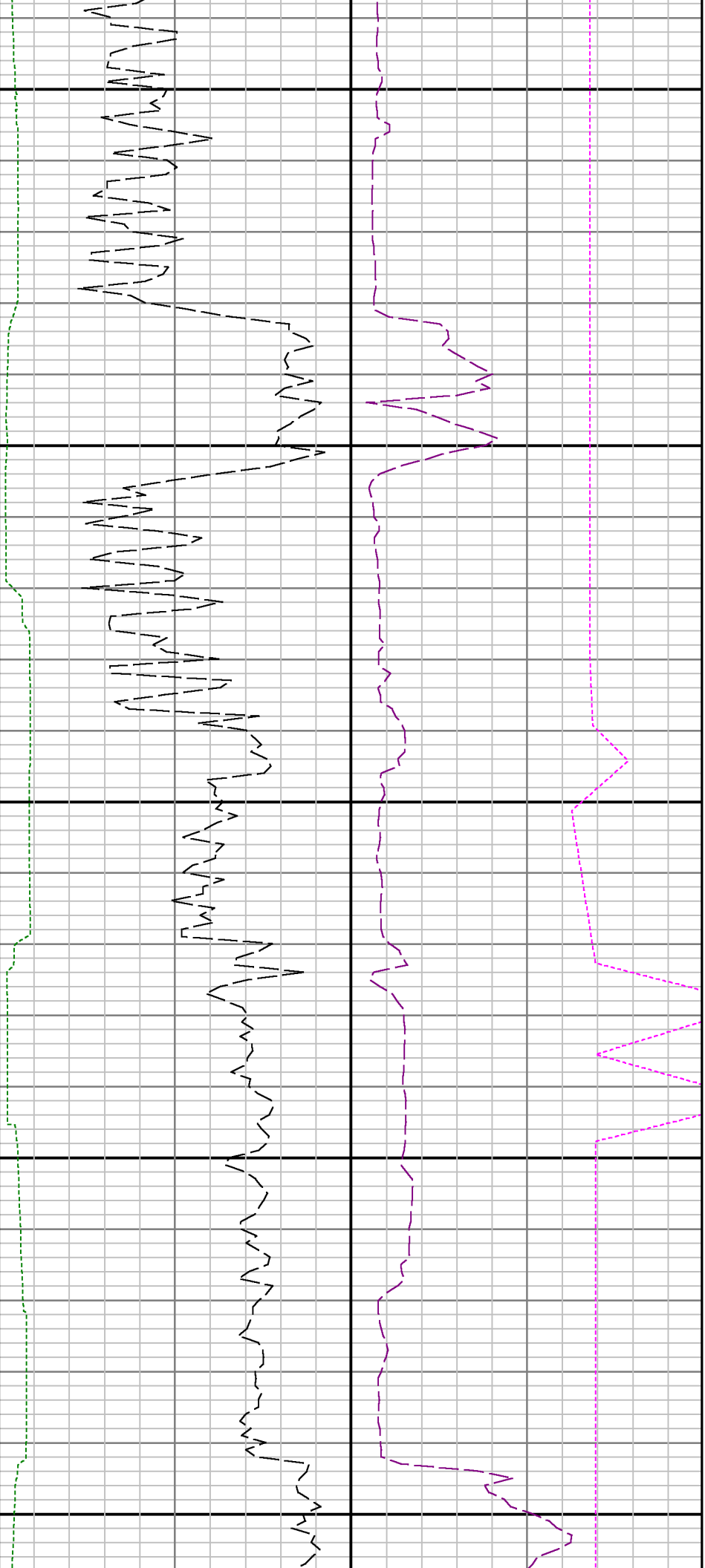


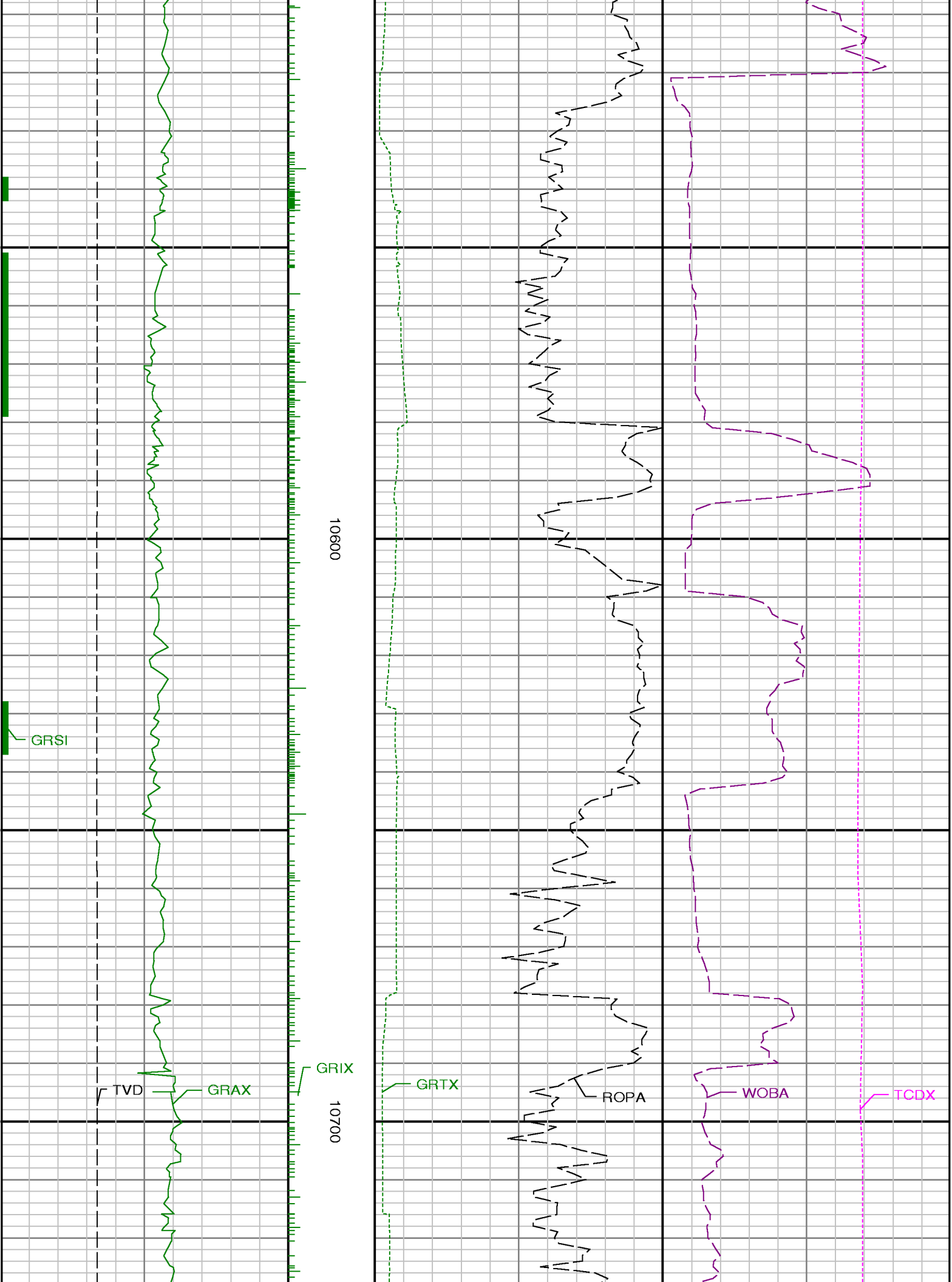


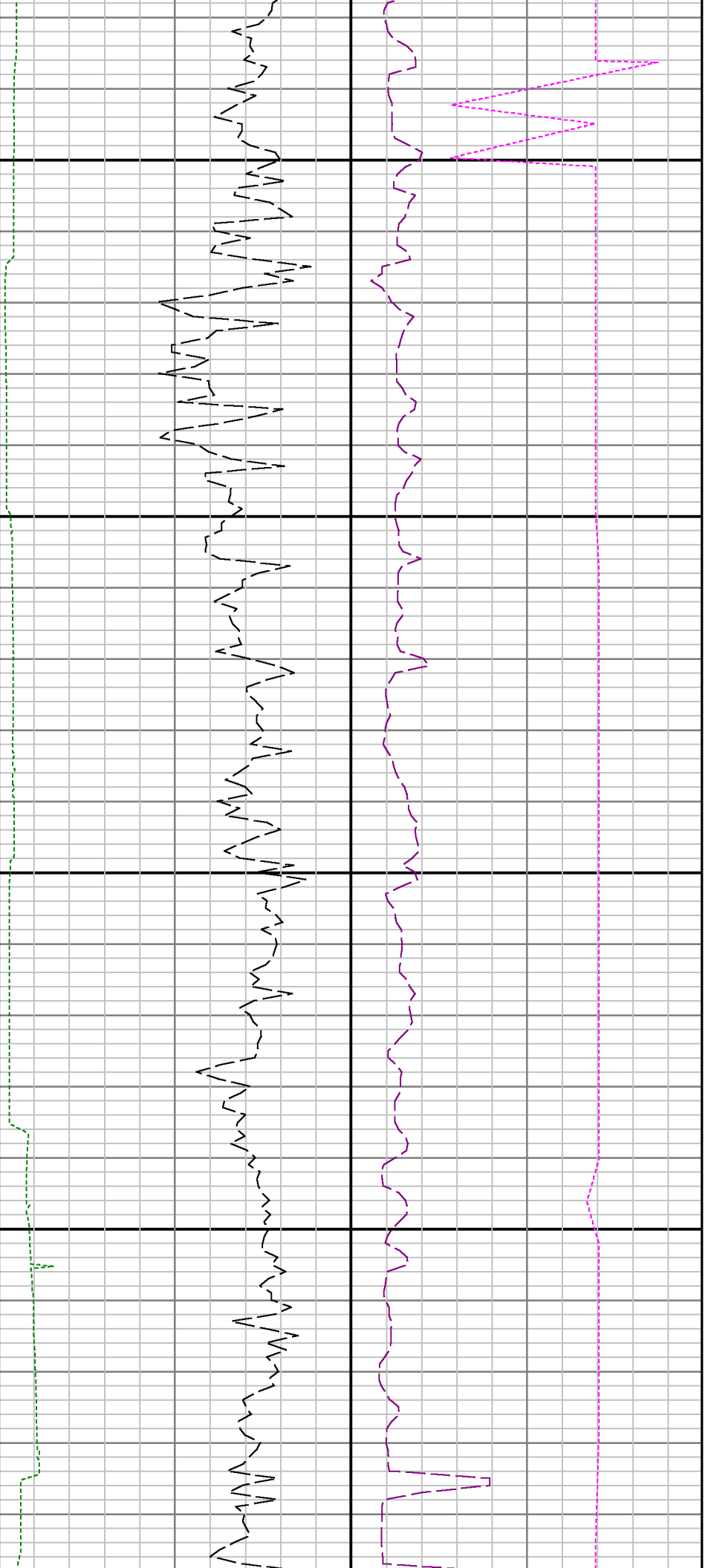
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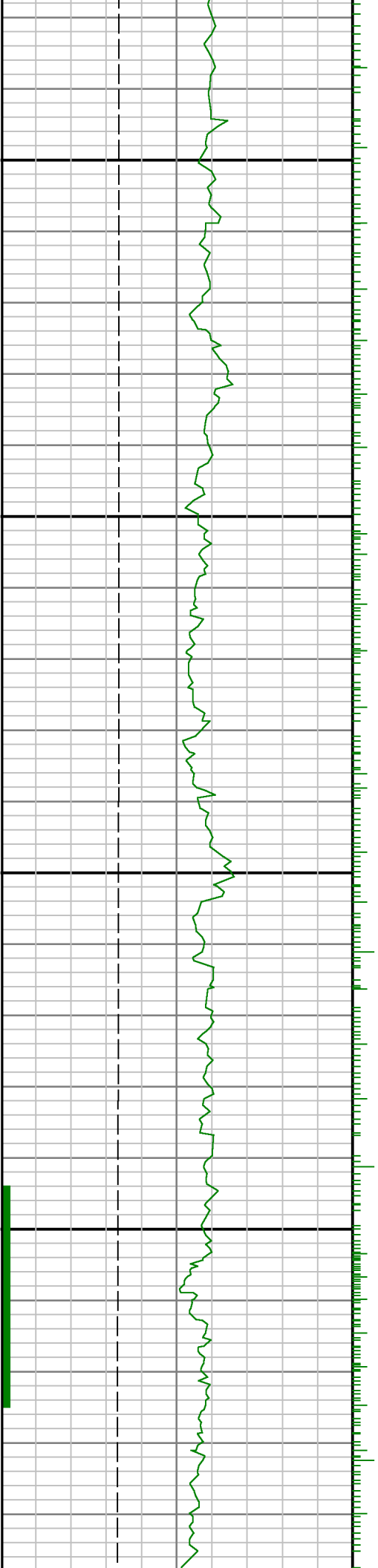


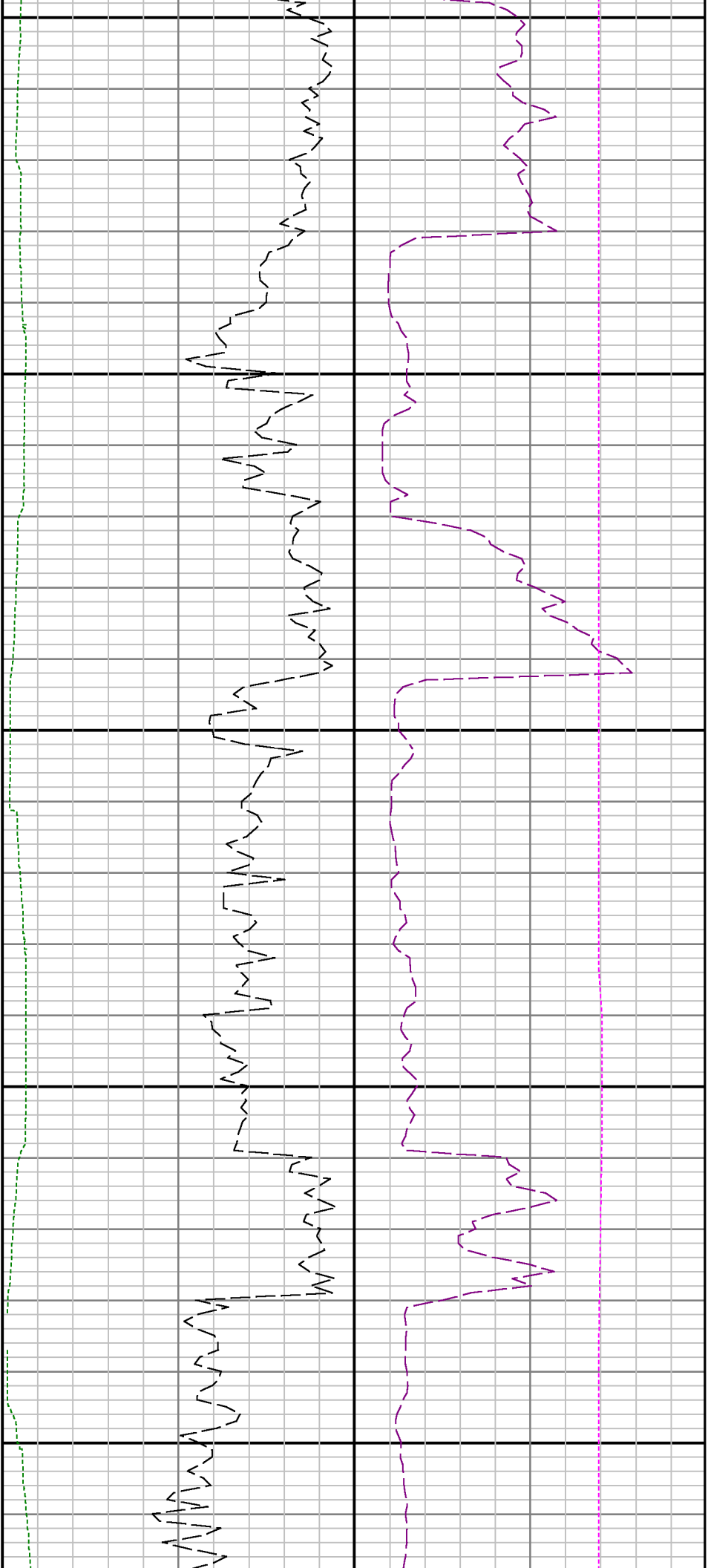




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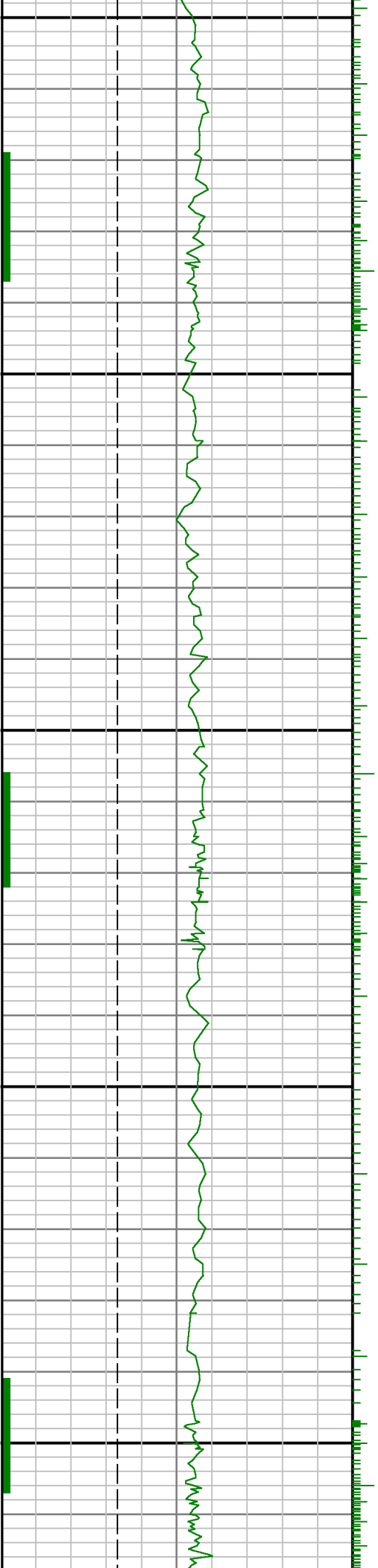
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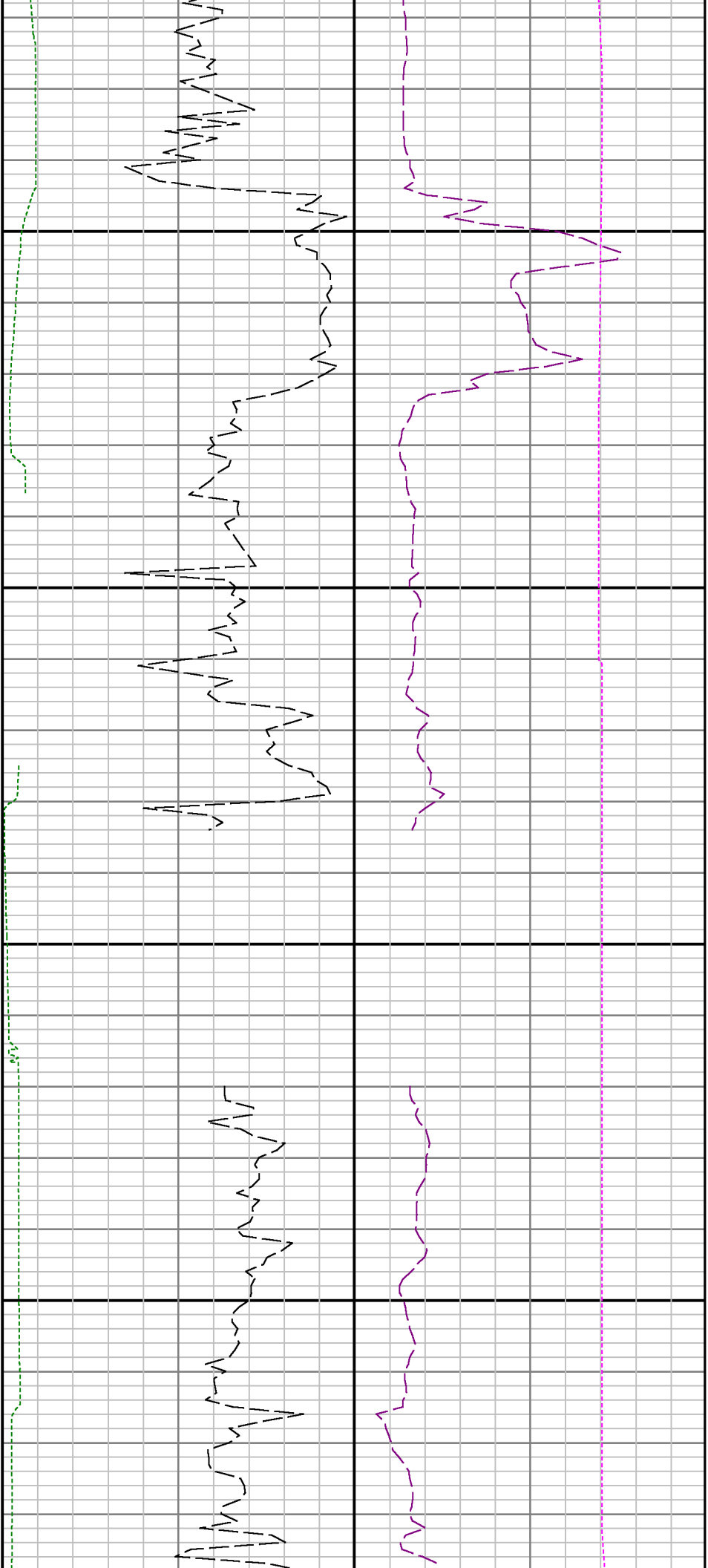




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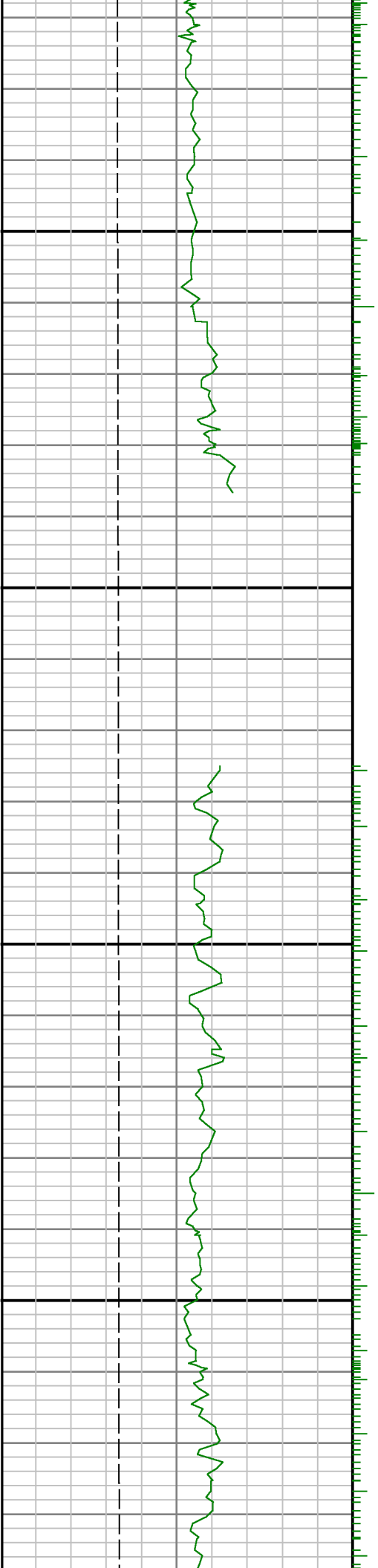
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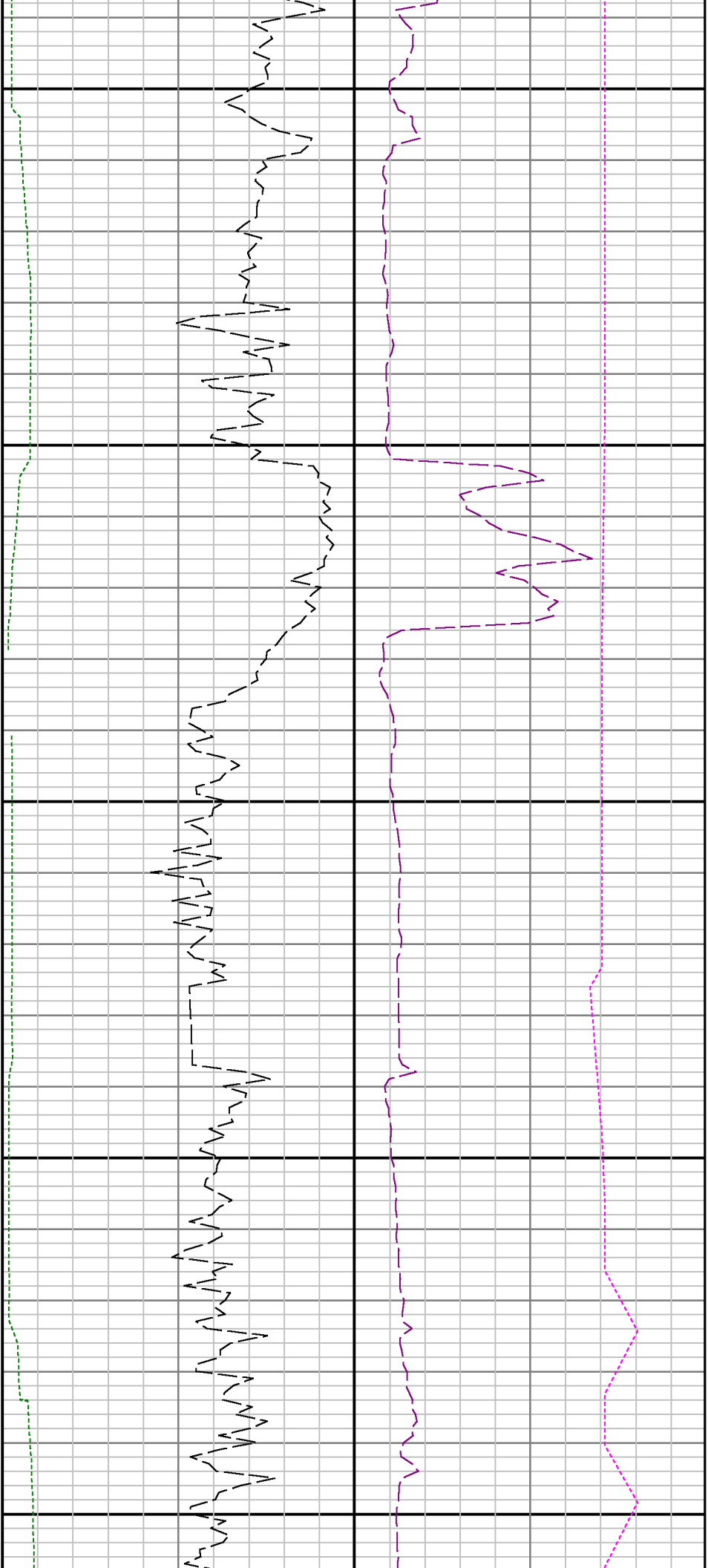


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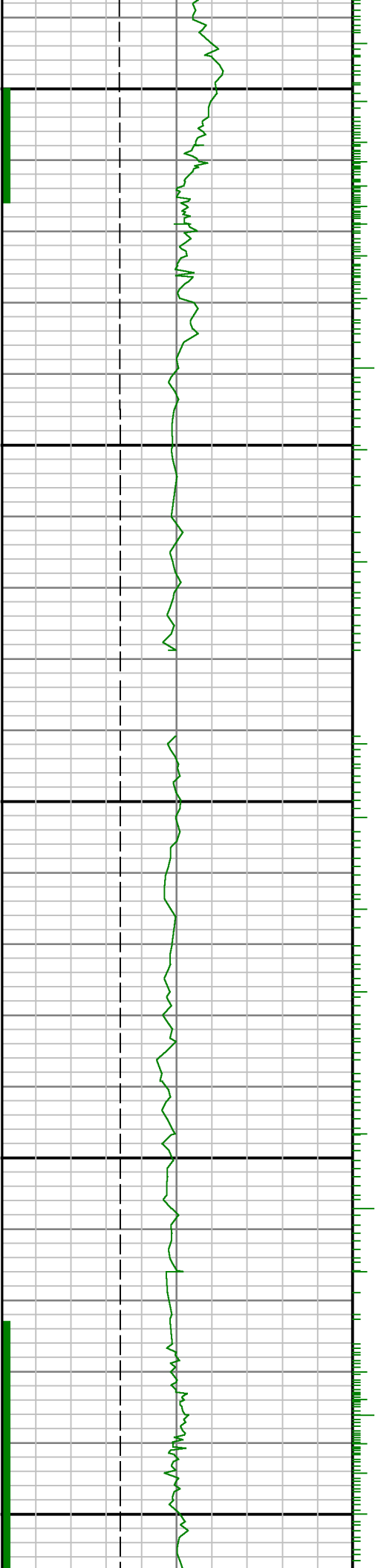


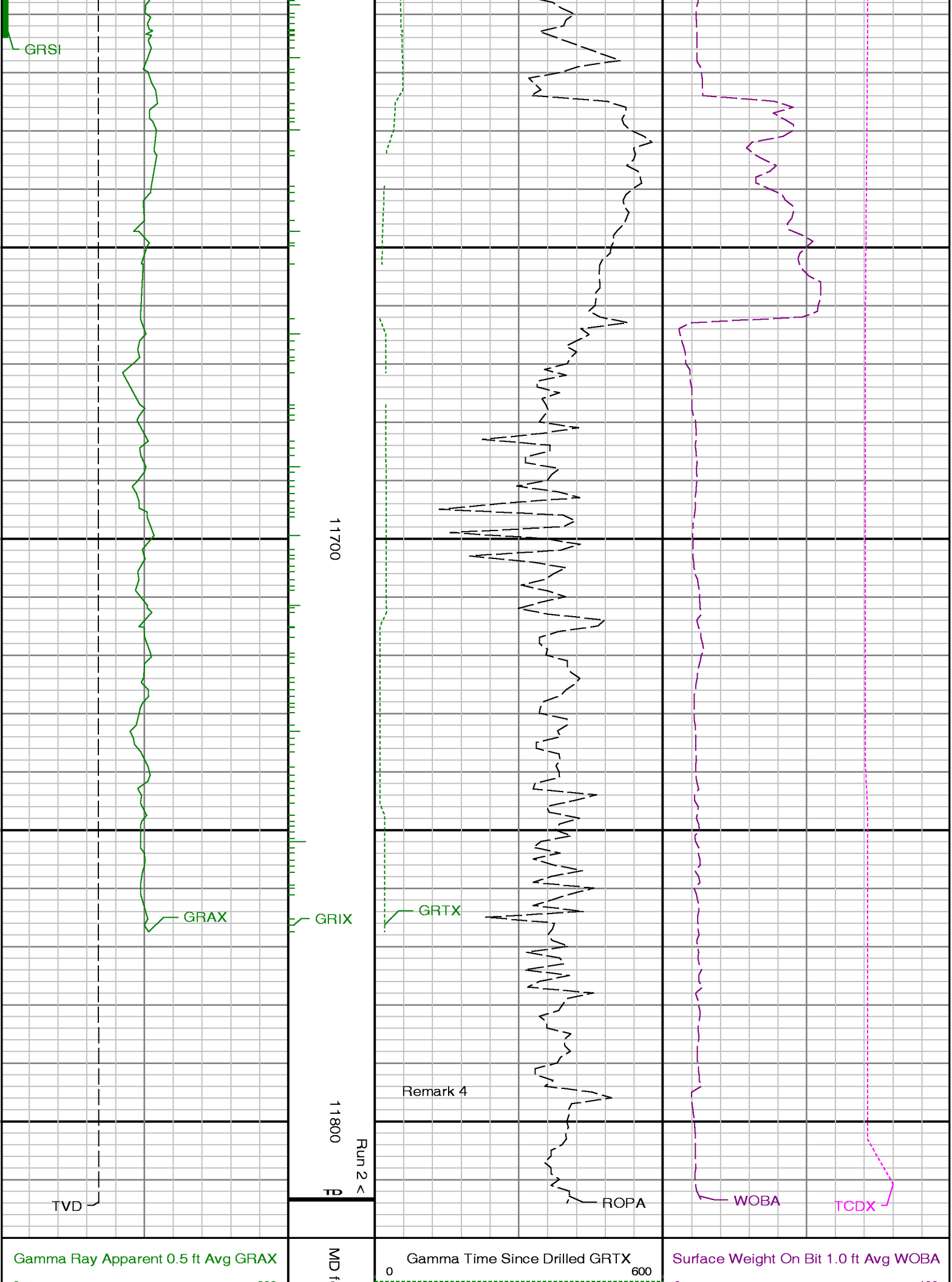


11400

11500

11600





GRSI

GRAX

GRIX

GRTX

ROPA

WOBA

TCDX

TVD

Remark 4

11700

11800

Run 2 <

Gamma Ray Apparent 0.5 ft Avg GRAX

Gamma Time Since Drilled GRTX

Surface Weight On Bit 1.0 ft Avg WOBA

0200		Sheet 1:240	min		0100	
API			Rate of Penetration 3.0 ft Avg ROPA		klbf	
True Vertical Depth TVD					Downhole Temperature TCDX	
7500	6400		650	0	0	320
ft			ft/hr		degF	