

Real Time Log									
<div><div><div>BAKER HUGHES</div></div><div></div></div>				Natural Formation Evaluation					
Scale:				Company: Anadarko					
1:240				Well: Berry Farms 32C-8HZ					
Measured Depth				Field: Weld County (Kerr McGee)					
				Region: RMD Country: U.S.A.					
Status:		Final Print		Surface Location:			Other Services:		
API Number:		05-123-38897		Latitude: 40° 14' 37.576" N Longitude: 104° 54' 21.222" W			Directional VSS		
		SEC: 8 TWN: 3N RNG: 67W							
Permanent Datum (P.D.):		Ground Level		Elevation:		4937.00 ft.		Elevations: N/A	
Log Measured From:		Rig Floor		13.00 ft.		Above P.D.		KB: 4950.00 ft. DF: 4937.00 ft.	
Depth Reference:		Drillers Depth						GL:	
Interval Logged				Dates		Magnetic Field Reference			
Top: 6602.0 ft.		Date From: 13/May/14		Dip Angle: 66.85 °		Azi Reference North: True			
Bottom: 11979.0 ft.		Date To: 21/May/14		Total		Mag to Reference			
		Spud Date: 13/May/14		Field Strength: 52564.0 nT		North Correction: 8.59 °			
Borehole Record									
Casing Record									
Hole Size		From		To		Size		Weight	
13,500 in.		0.0 ft.		818.0 ft.		9.625 in.		36.00 lb/ft	
8,750 in.		818.0 ft.		7558.0 ft.		7.000 in.		26.00 lb/ft	
6,125 in.		7558.0 ft.		12041.0 ft.					
Mud Record									
Deviation Record									
Type		From		To		Hole Size		Interval	
Water Based		0.0 ft.		818.0 ft.		13,500 in.		818.0 ft.	
Water Based		818.0 ft.		7558.0 ft.		8,750 in.		6740.0 ft.	
Water Based		7558.0 ft.		12041.0 ft.		6,125 in.		4483.0 ft.	
Acquisition System Software Version Other									
Advantage		2,20U4		Rig: / Contractor:		Ensign 145		/ Ensign Drilling	
PATS		6,4,1,34		Job No:		6329674			
				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 (ft.)	Bottom (ft.)	From (ft.)	To (ft.)	Start	End	
1	1	1	8.750	PDC	2.000	Steerable	6602.0	6923.0	982.0	6983.0	13/May/2014 16:45	15/May/2014 20:15	30.3
2	2	2	8.750	PDC	2.000	Steerable	6923.0	7505.0	6983.0	7558.0	15/May/2014 21:15	16/May/2014 05:00	16.2
3	3	3	6.125	PDC	6.000	Steerable	7505.0	11979.0	7558.0	12041.0	18/May/2014 04:15	21/May/2014 00:00	38.3

Crew

Name	Arrive	Depart	Name	Arrive	Depart	Name	Arrive	Depart
	Wellsite	Wellsite		Wellsite	Wellsite		Wellsite	Wellsite
Donald Delay	13/May/2014	21/May/2014	Michael Gurnsey	13/May/2014	21/May/2014			
Thanh Hoang Nguyen	13/May/2014	21/May/2014	Alexander Janorschke	15/May/2014	21/May/2014			

			Jason Weltin	16/May/2014	21/May/2014			
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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+ (%)
14/May/2014 21:30	1	5302.0	Water Based Mud	8.7	3	9.2	N/A	0 / 99	Active Mud Pits	1800	N/A
15/May/2014 22:00	2	6982.0	Water Based Mud	10.3	12	9.2	4.0	1 / 90	Active Mud Pits	2000	N/A
16/May/2014 22:00	2	7558.0	Water Based Mud	10.3	12	9.3	4.0	2 / 90	Active Mud Pits	2000	N/A
17/Mar/2014 22:00	3	7758.0	Water Based Mud	10.3	13	9.0	4.0	0 / 90	Active Mud Pits	2000	N/A
18/May/2014 10:00	3	8648.0	Water based Mud	10.2	11	9.0	4.0	0 / 91	Active Mud Pits	2000	N/A
19/Mar/2014 22:00	3	11510.0	Water Based Mud	10.3	13	9.0	4.0	0 / 90	Active Mud Pits	2000	N/A

Mnemonics

Curve	Description	Units
GRAX	Gamma Ray Apparent 0.5 ft. avg.	API
GRIX	Gamma Ray Density	points
GRSI	Gamma Ray Slide Indicator	unitless
GRTX	Gamma Ray Time Since Drilled	min.
ROPA	Rate of Penetration, 3.0 ft. avg	ft. / hr.
TCDX	Downhole Temperature	deg. F
TVD	True Vertical Depth, 3.0 ft. avg.	ft. / hr.
WOBA	Surface Weight on Bit, 1.0 ft. avg.	klbf.

Equipment and Service Data

LWD Run No.	Tool	Serial Number	Measurement	Bit Offset (ft.)	Max O.D. (in.)	Min I.D. (in.)
1	DIR	11592525	Directional	63.09	6.750	2.875
1	SRIG	12376064	Gamma	59.72	6.750	2.875
2	DIR	11592525	Directional	56.38	6.750	2.875
2	SRIG	12376064	Gamma	53.01	6.750	2.875
3	DIR	12093880	Directional	65.80	4.750	2.625
3	SRIG	12554657	Gamma	62.42	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

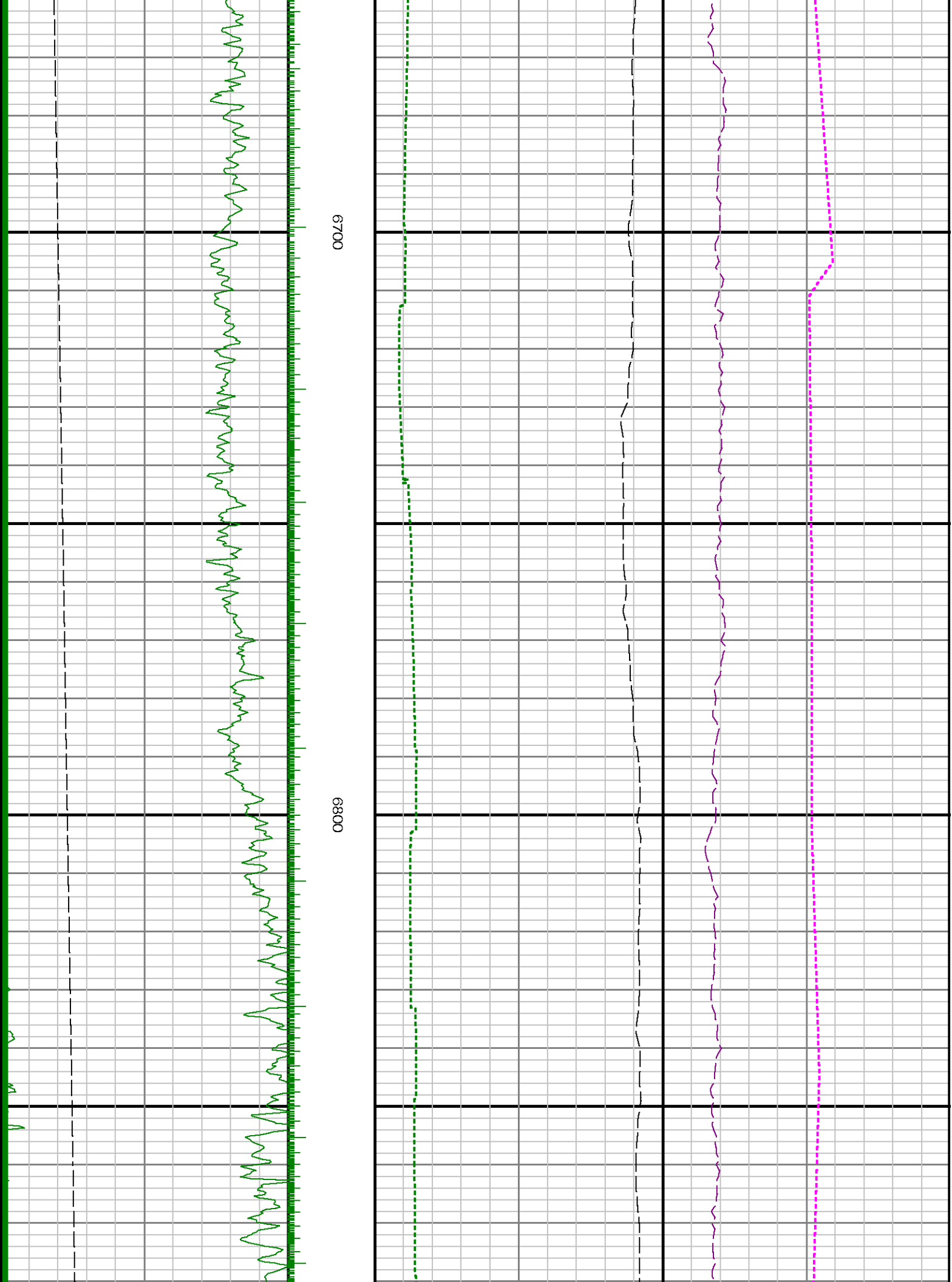
<p>1) Baker Hughes INTEQ runs 1 and 2 utilized 6 1/2 inch NaviGamma services (Directional and Gamma Ray) behind an 8 3/4 inch bit and steerable assembly from 818 to 7558 feet MD (817.96 to 7136.18 feet TVD).</p> <p>2) Baker Hughes INTEQ run 3 utilized 4 3/4 inch NaviGamma services (Directional and Gamma Ray) behind an 6 1/8 inch bit and steerable assembly from 7558 to 12041 feet MD (7136.18 to 7145.82 feet TVD).</p>

4) Depth measurements were obtained from a depth tracking system not supplied or operated by Baker Hughes. Due to lack of control by Baker Hughes LWD logging engineers, depth calibrations could not be independently verified and the unverified depths as supplied to Baker Hughes are being used to present logging data.

Number	Measured	Hole	LWD	Remark
	Depth	Section	Run No.	
	(ft.)	(in.)		
1	6602	8.750	1	Logging services begin. No logging data prior to 6602 feet MD (6503.40 feet TVD) as per client request.
2	6982	8.750	1	In the interval from 6923 to 6982 feet MD (6817.58 to 6871.10 feet TVD), GRTX was logged up to 48 hours after being drilled due to tripping out-of-hole to change motor and bit for the curve assembly.
3	7558	8.750	2	In the interval from 7505 to 7558 feet MD (7133.32 to 7136.18 feet TVD), GRTX was logged up to 107 hours after being drilled due to casing and cementing operations prior to drilling the lateral section.
4	11979	6.125	3	In the interval from 11979 to 12041 feet MD (7144.50 to 7145.82 feet TVD), GRAX, GRIX, and GRTX was not logged due to bit to sensor offset upon reaching terminal depth.

BAKER HUGHES
 Company : Anadarko
 Well : Berry Farms 32C-8HZ
 Interval : 6580.00 - 12060.00 feet
 Created : 17/May/2014 2:02:53 AM

Gamma Ray Apparent 0.5 ft Avg [GRAX]	MD feet 1:240	Rate of Penetration 3.0 ft Avg [ROPA]	Surface Weight On Bit 1.0 ft Avg [WOBA]
0 150 API True Vertical Depth [TVD] 6000 9000 ft		600 0 ft/hr Gamma Time Since Drilled [GRTX] 0 600 min	0 100 klbf Downhole Temperature [TCDX] 0 300 degF
	6600 > Run 1 GRIX	See Remark 1 	





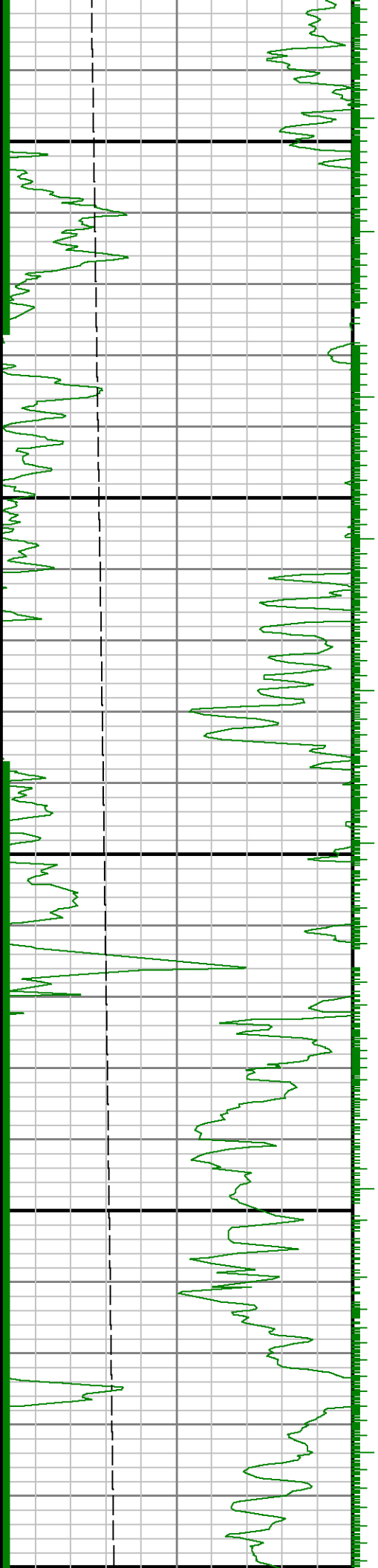
See Remark 2

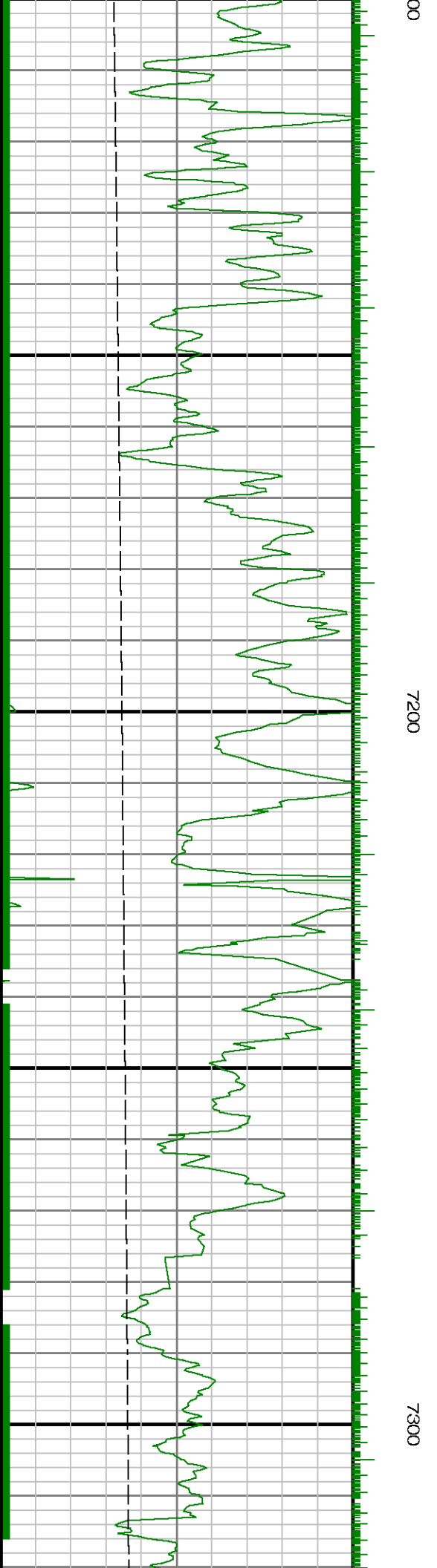
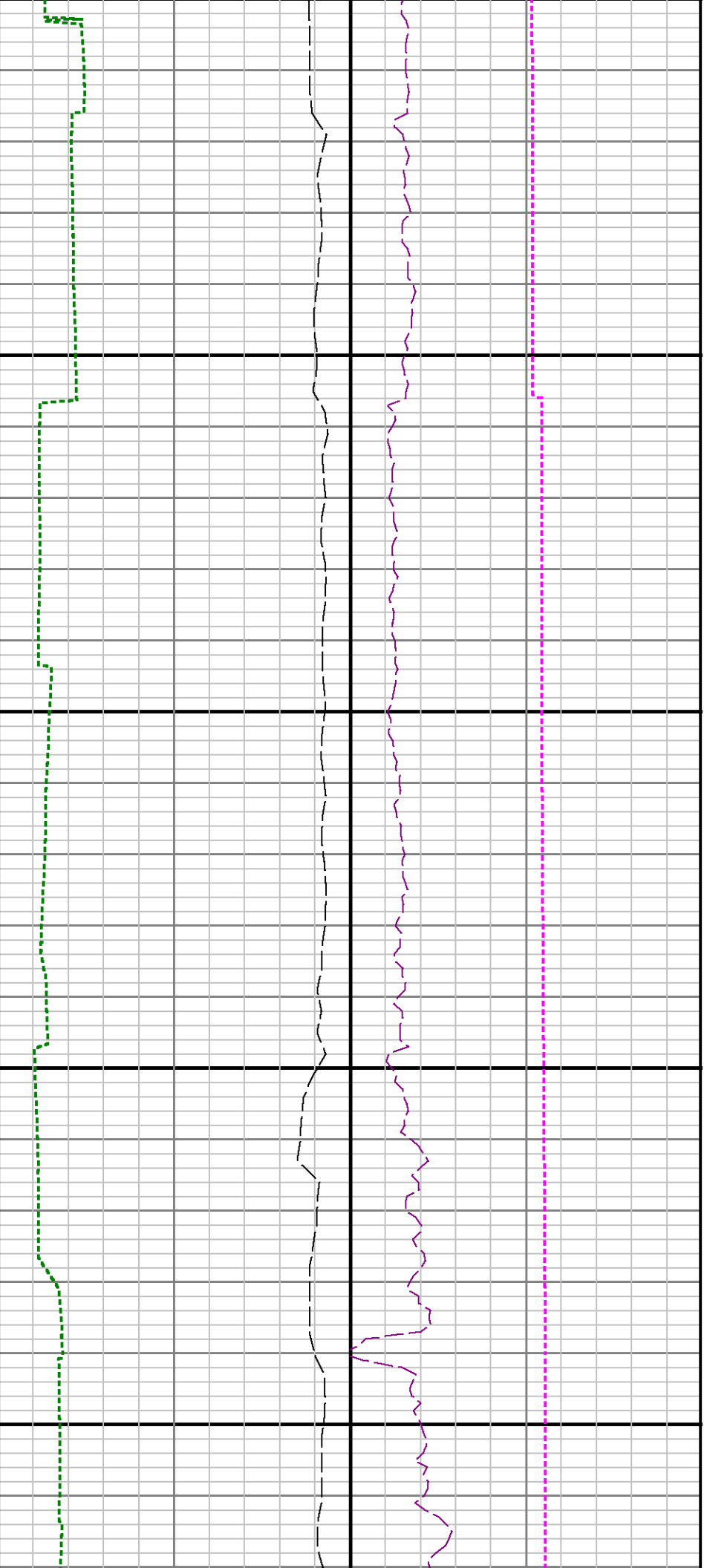
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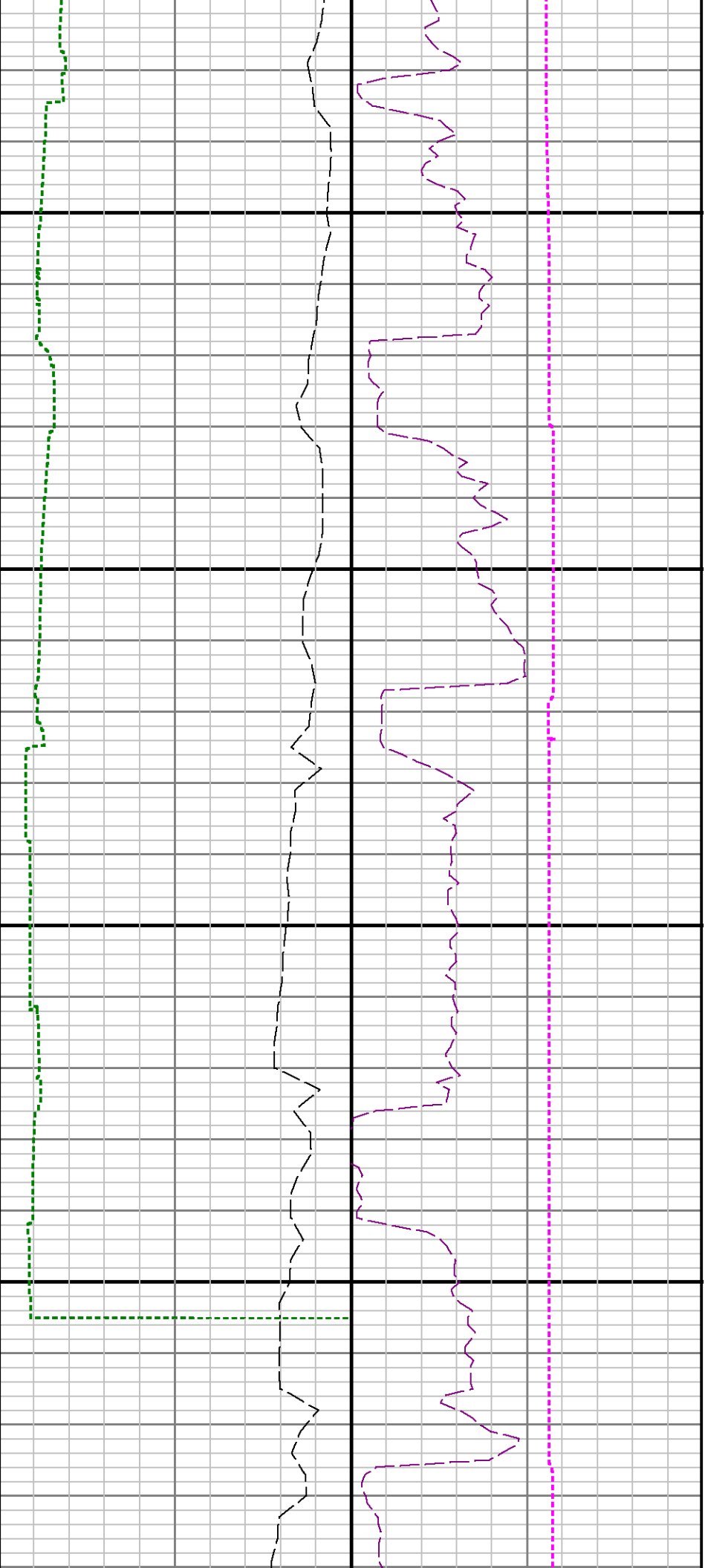
Run 1 < > Run 2

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71



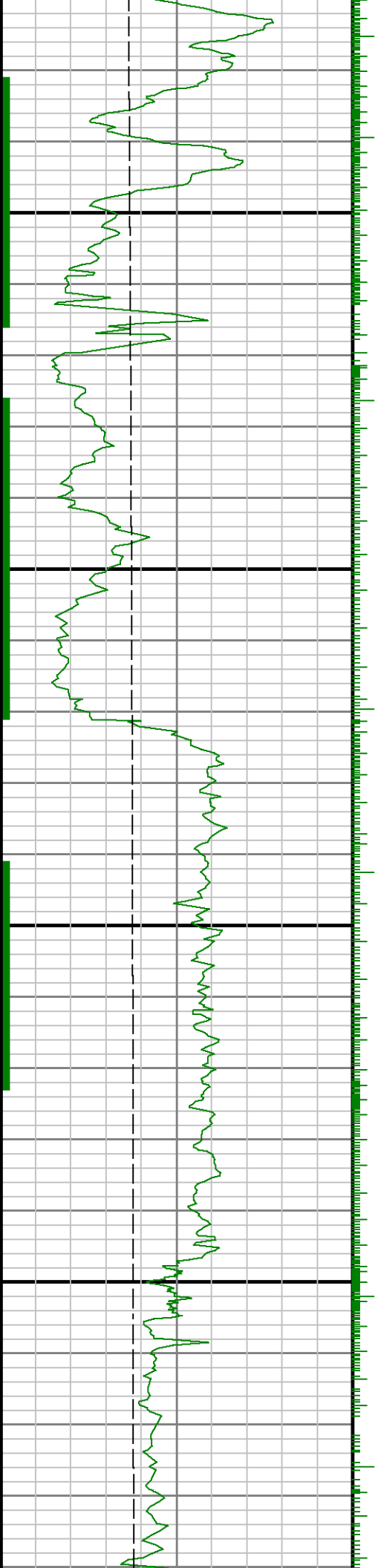


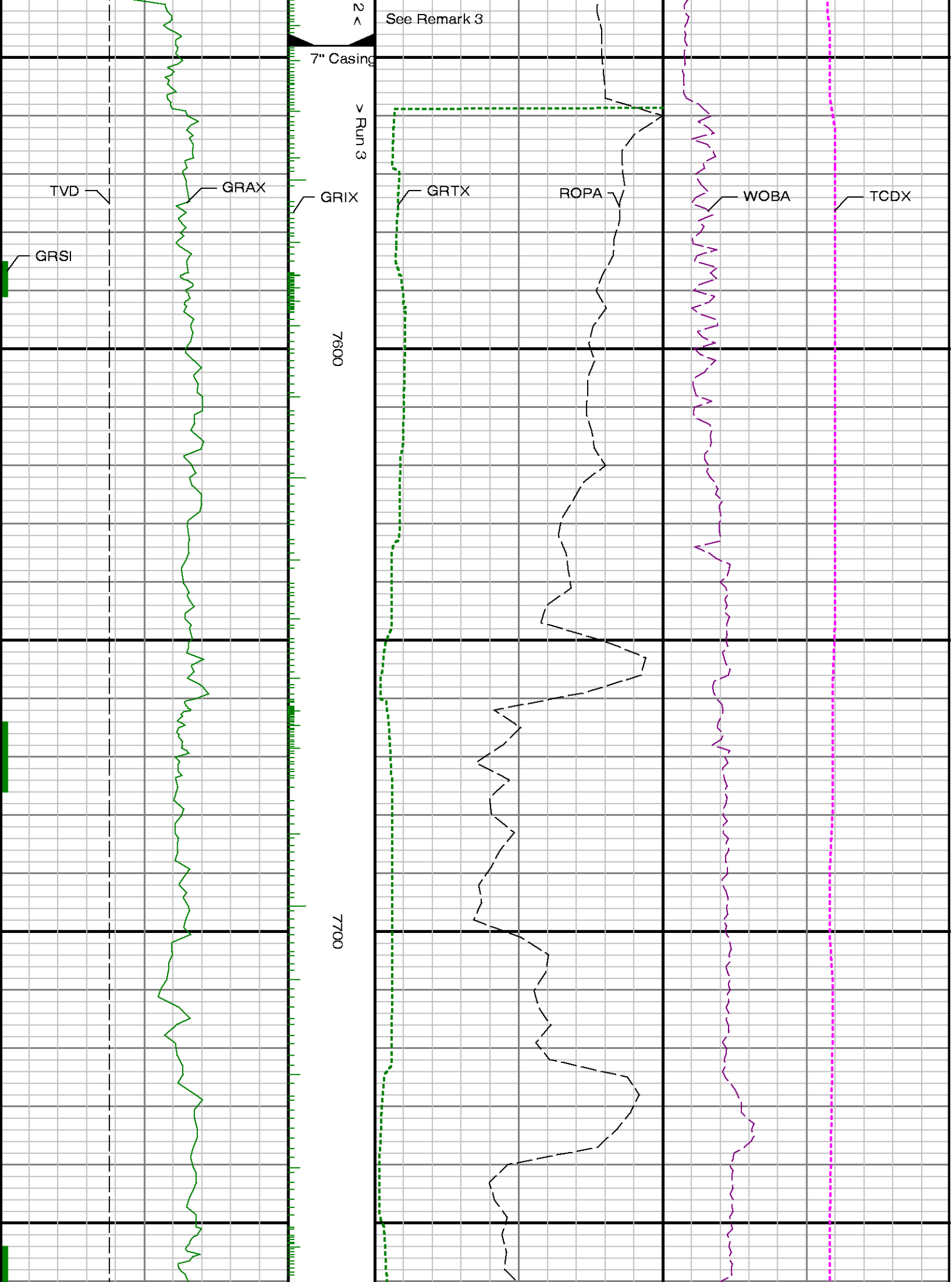


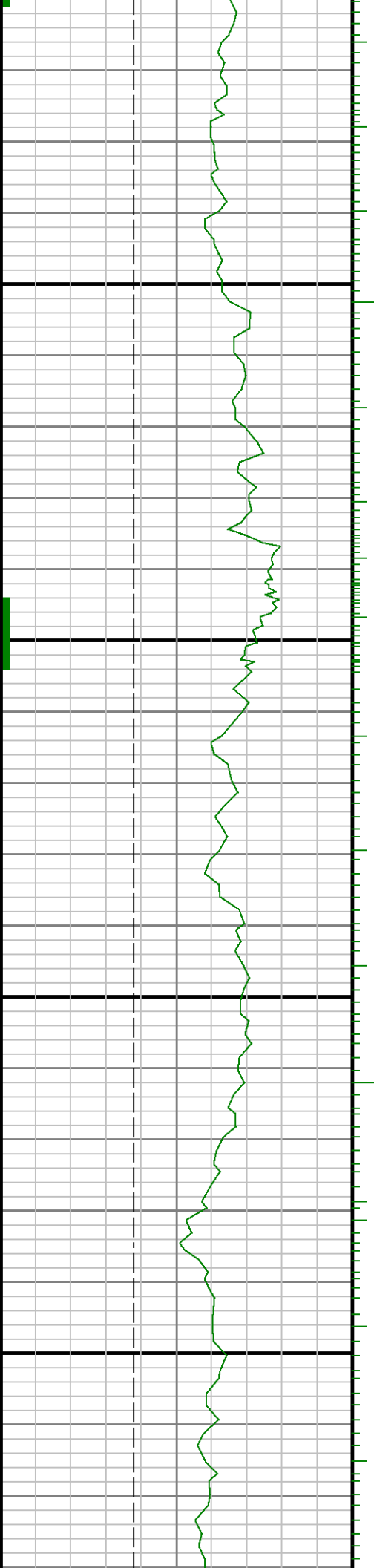
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Run

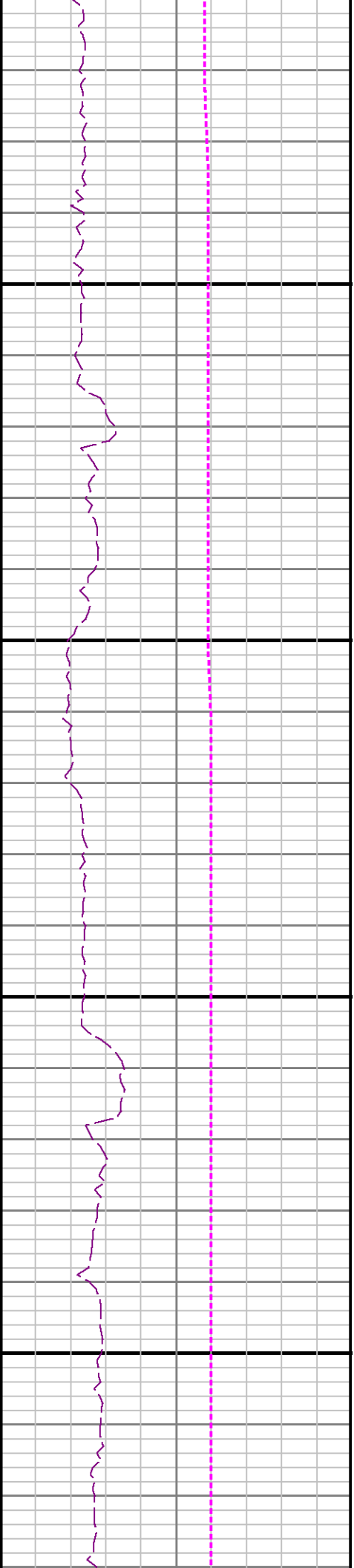


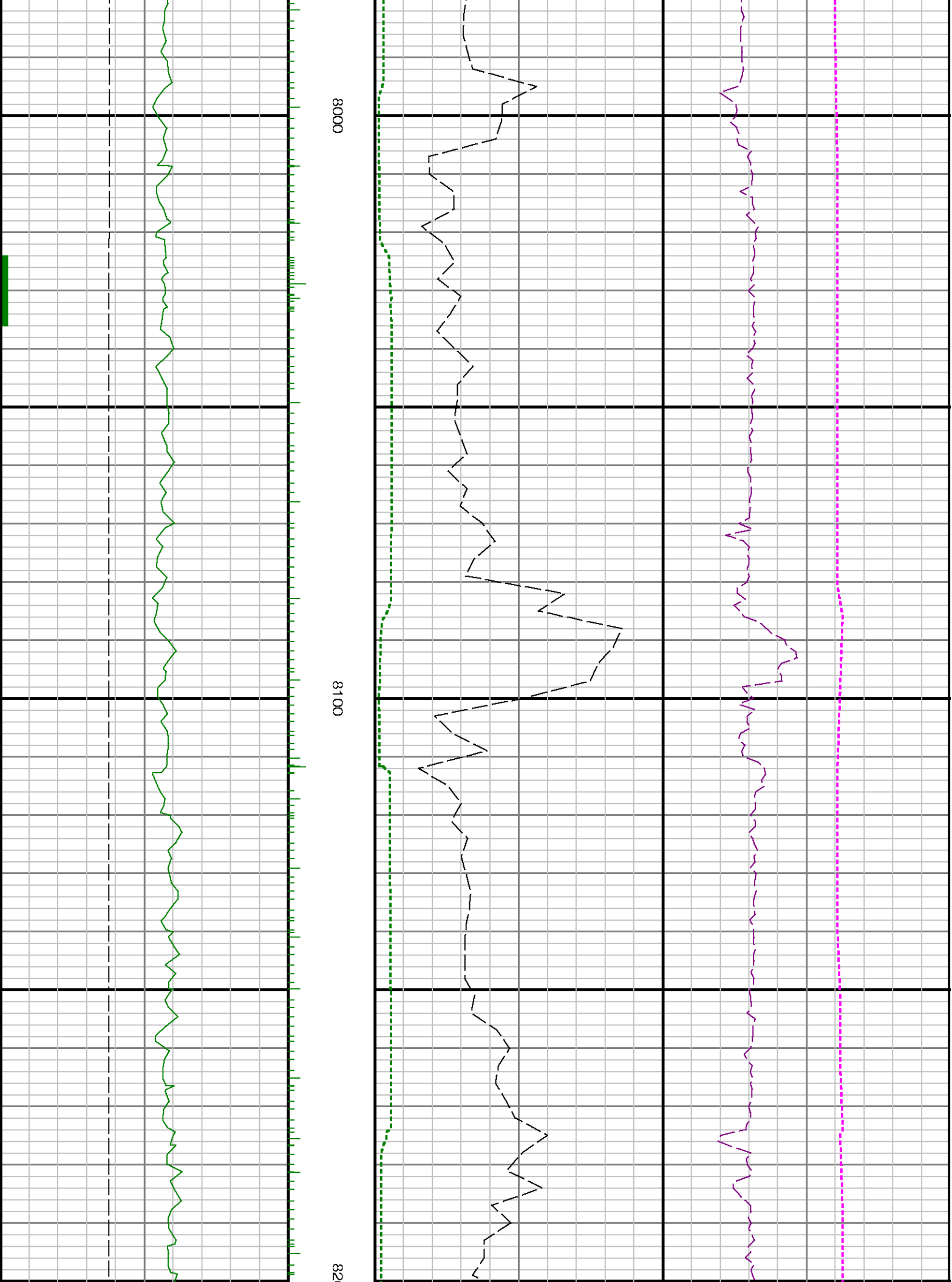


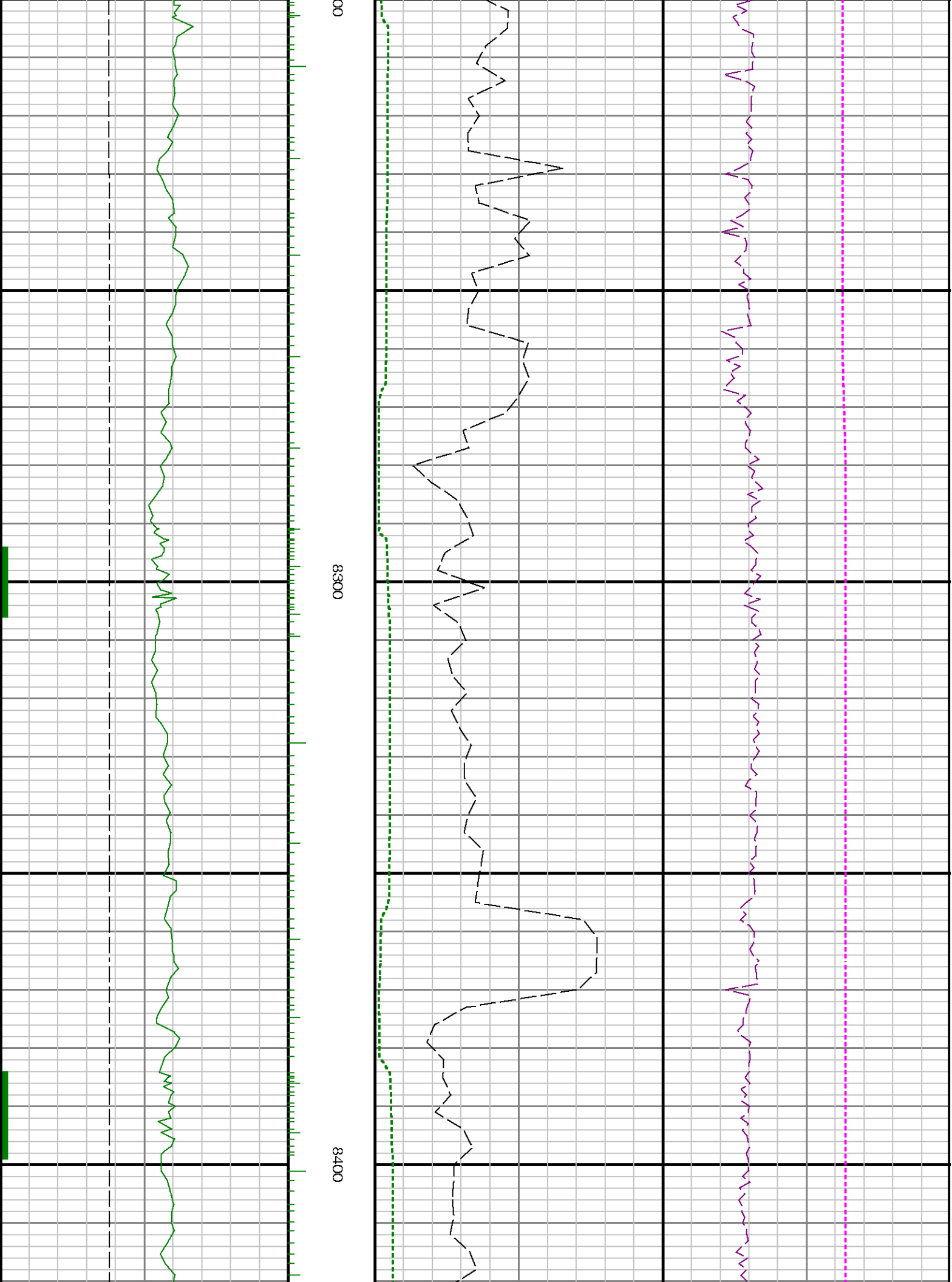


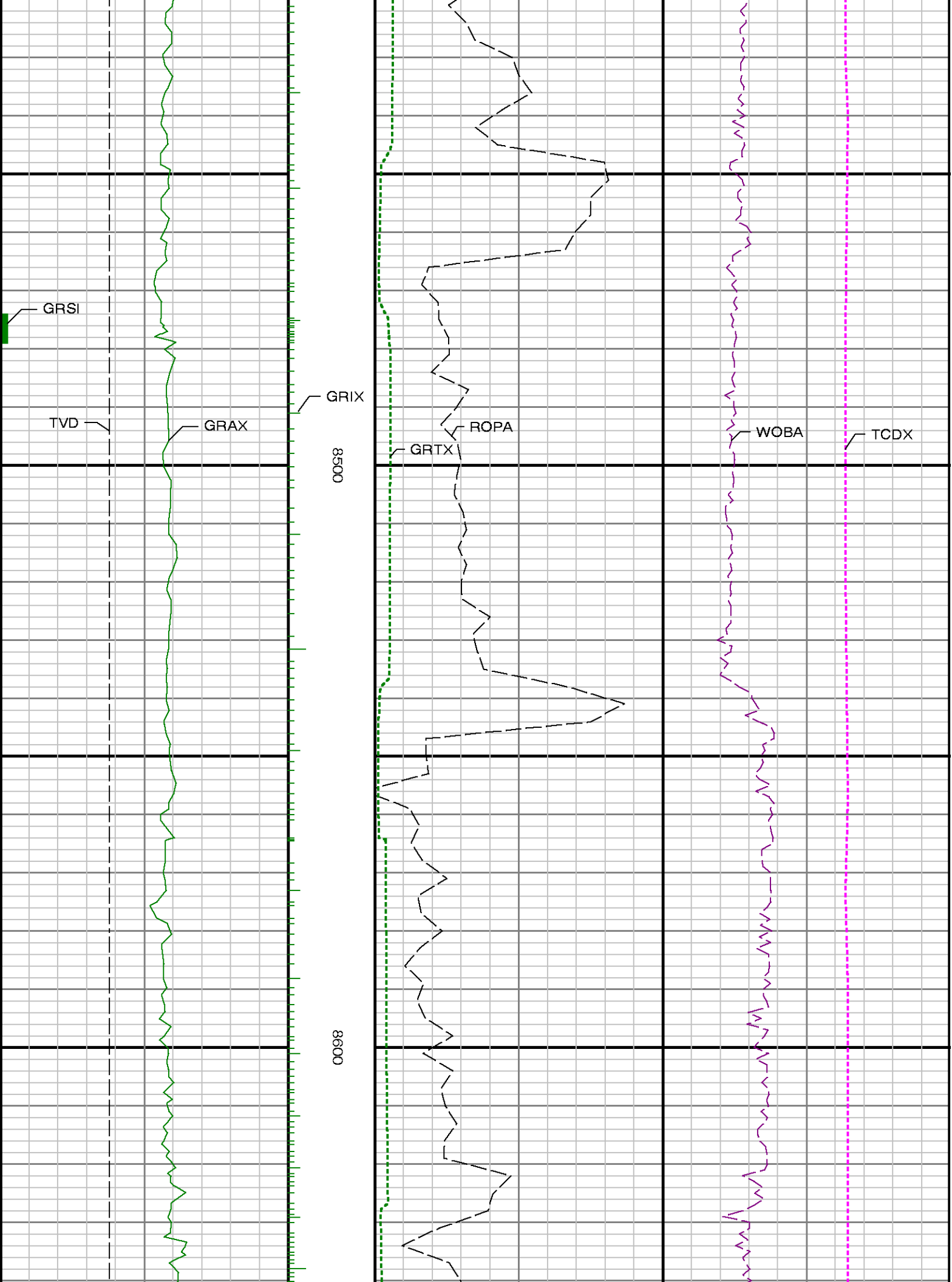
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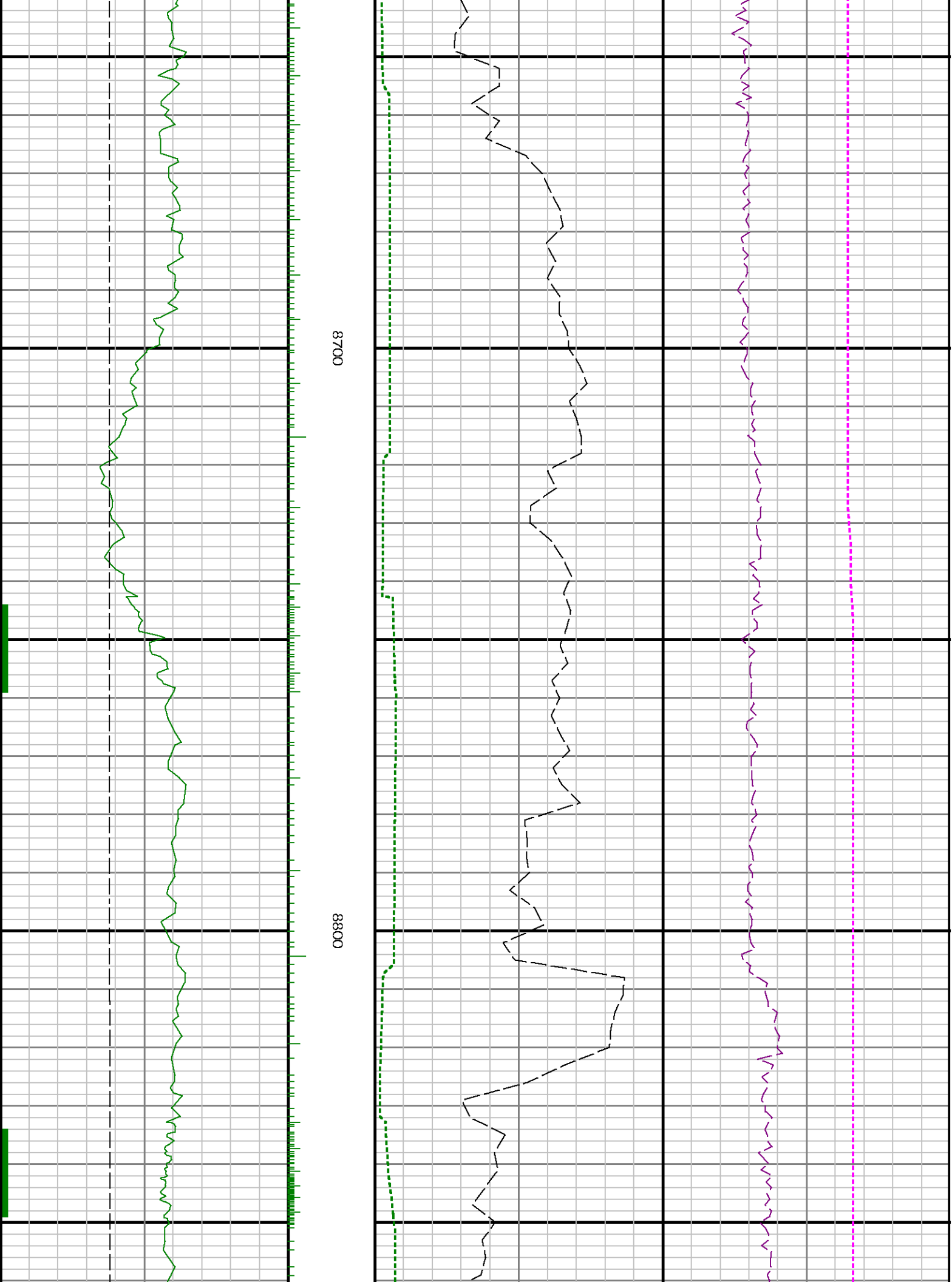
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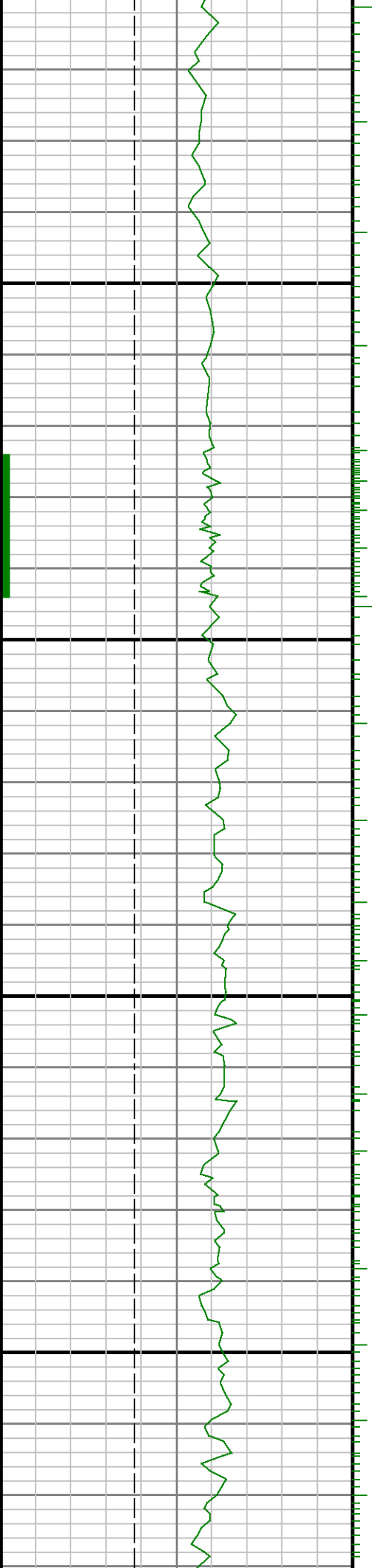






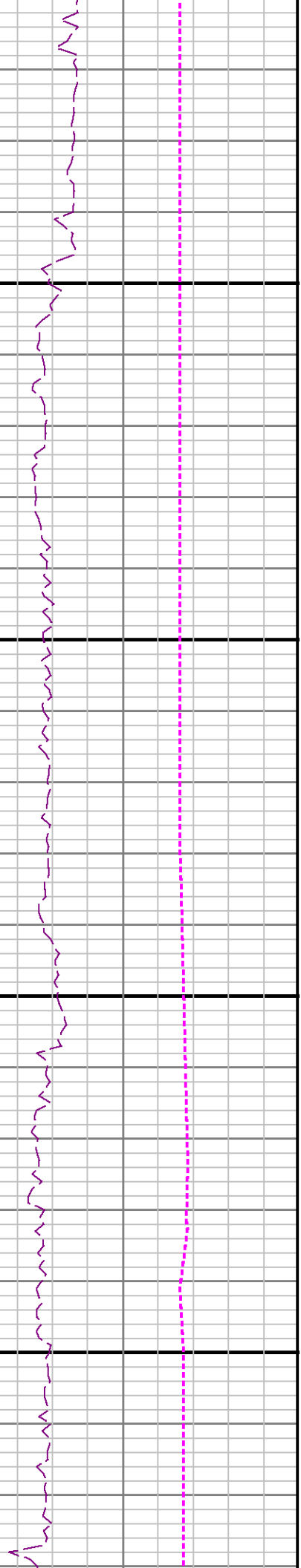
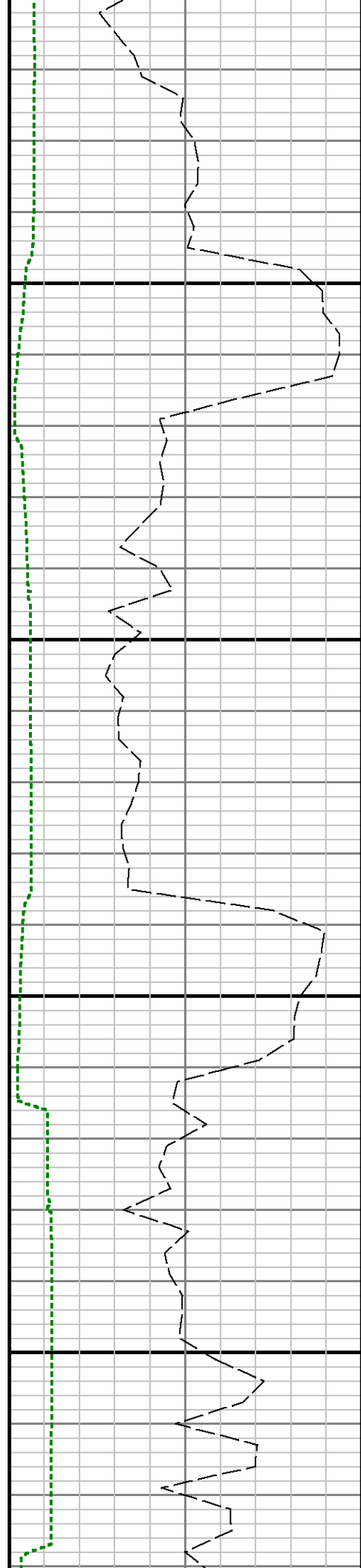




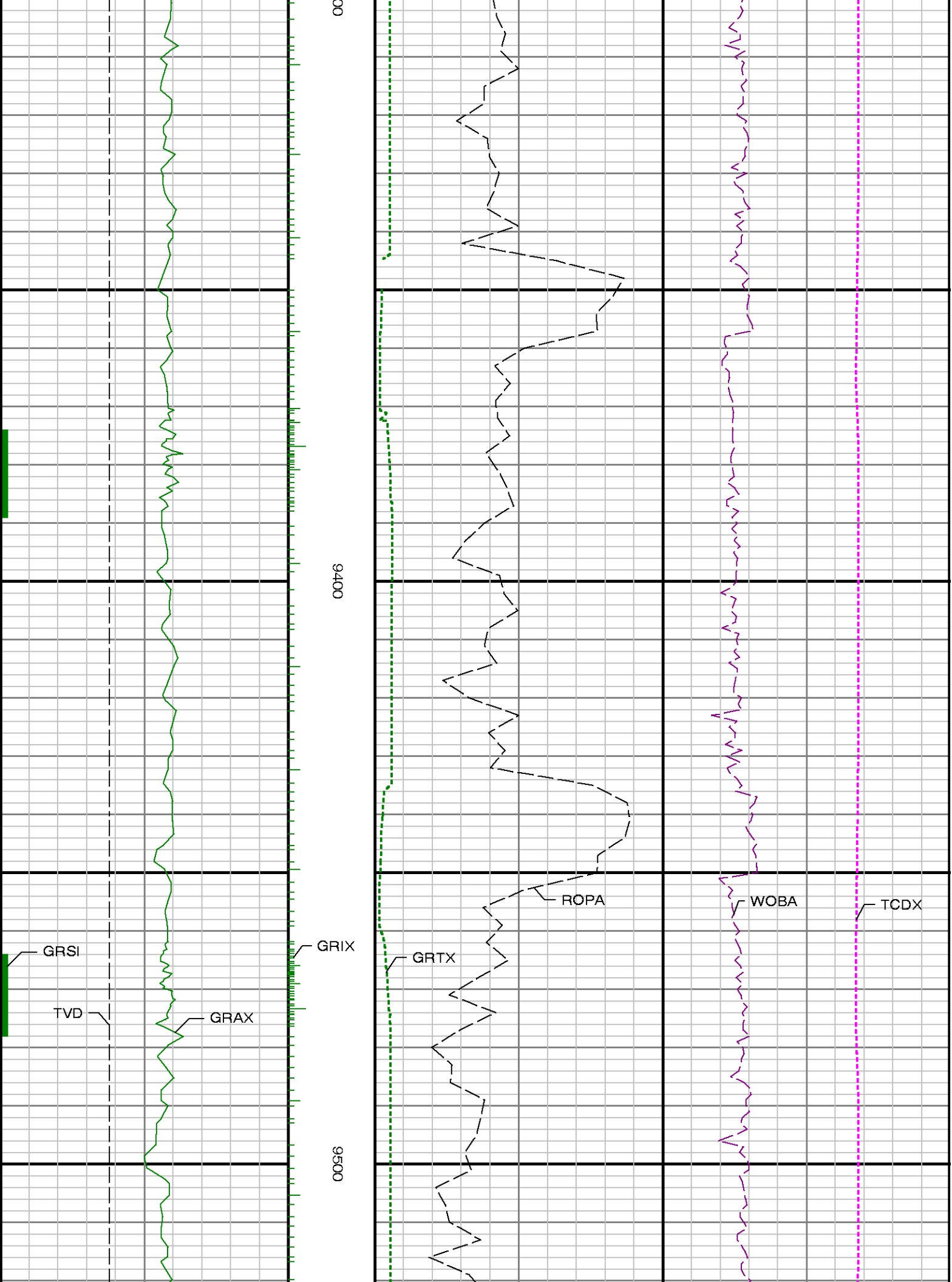


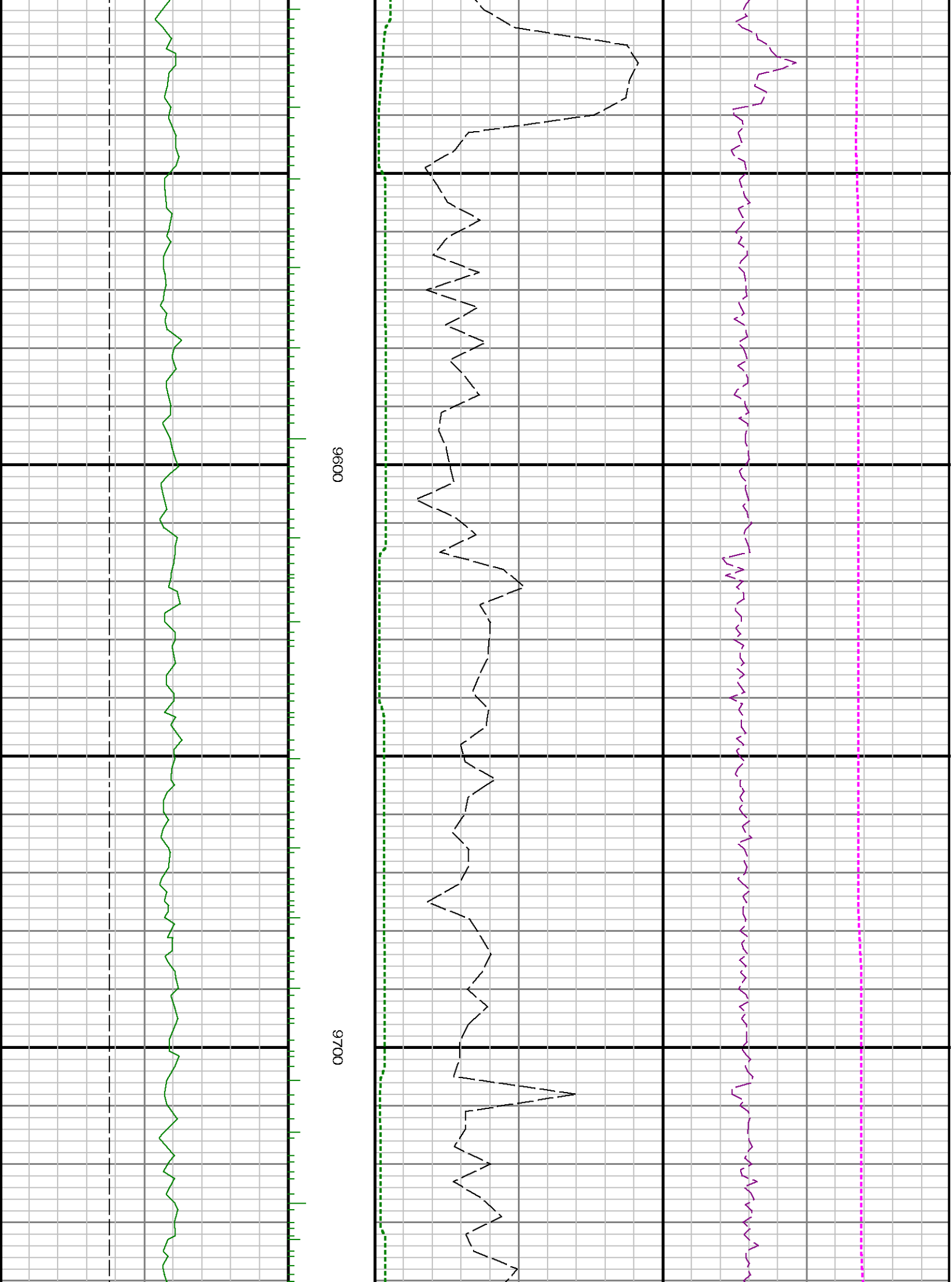
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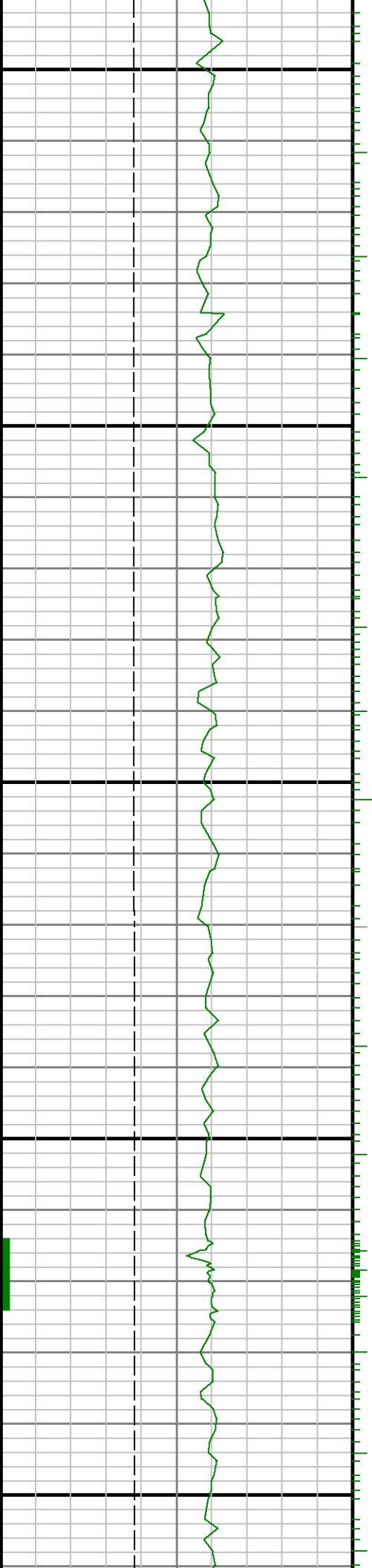
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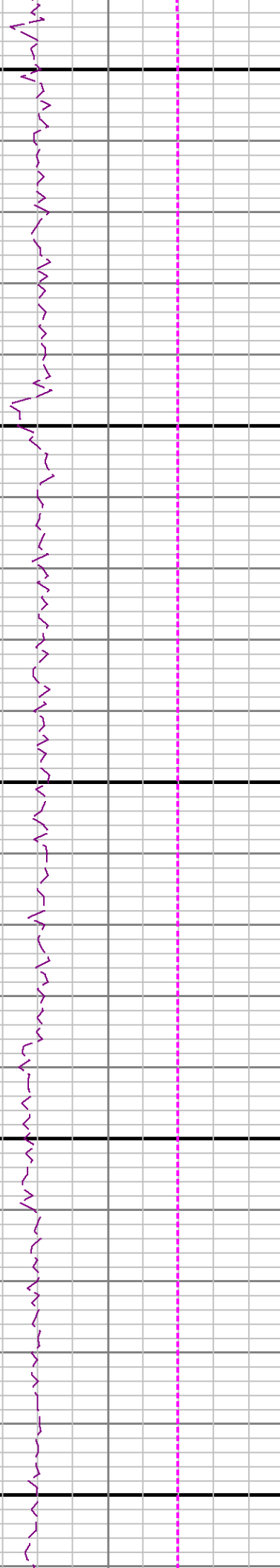
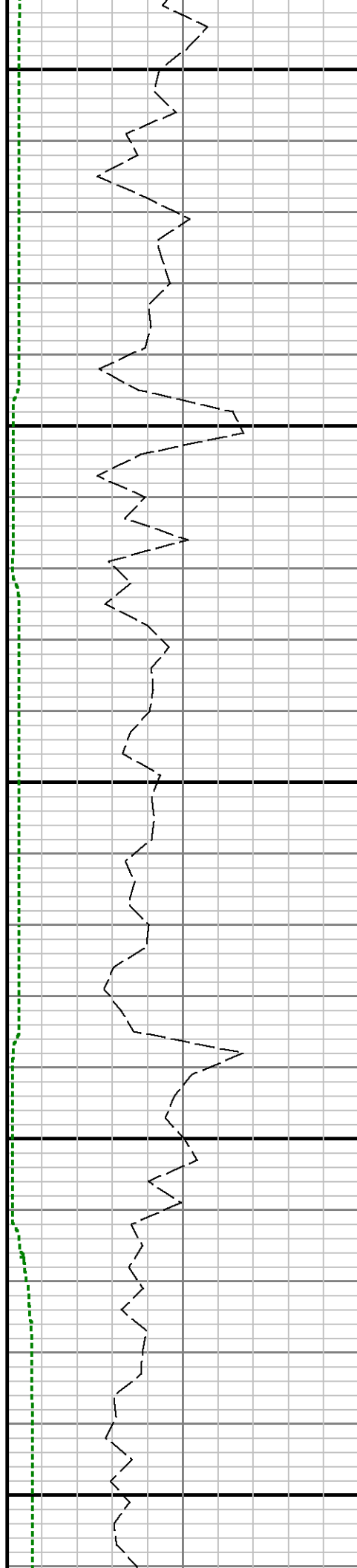


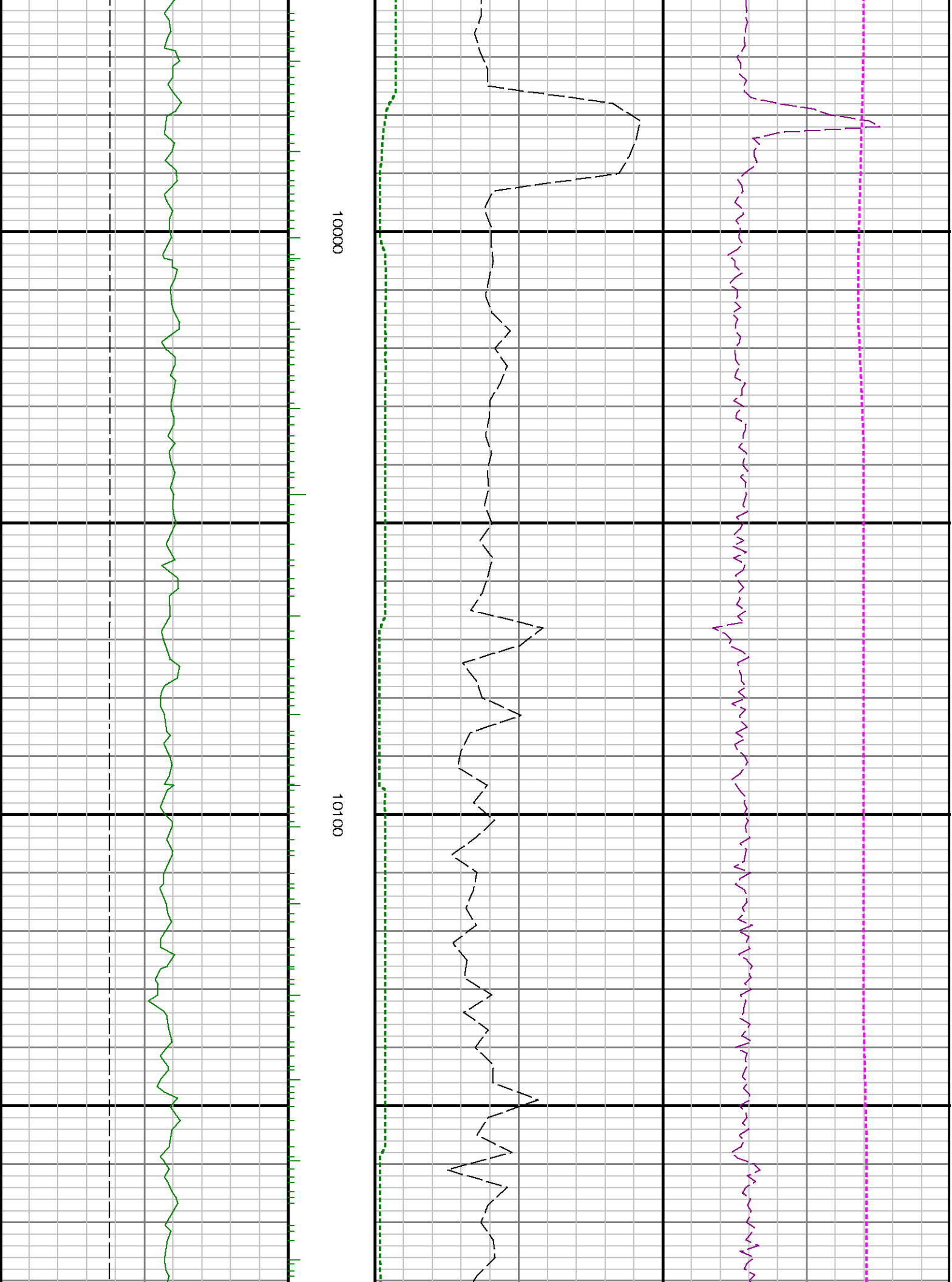


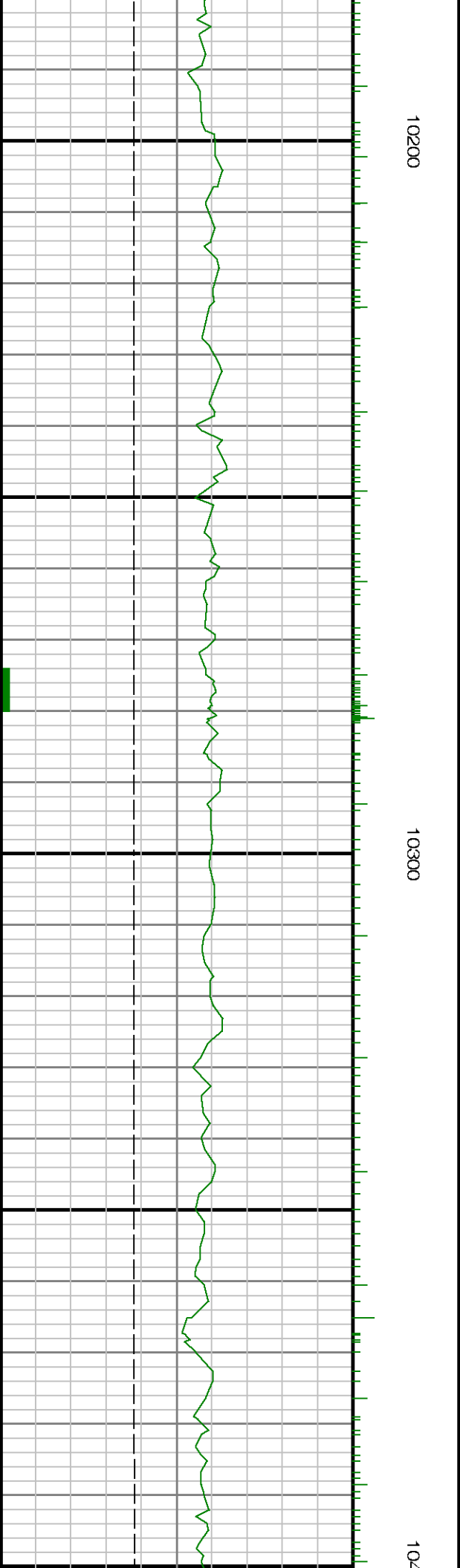
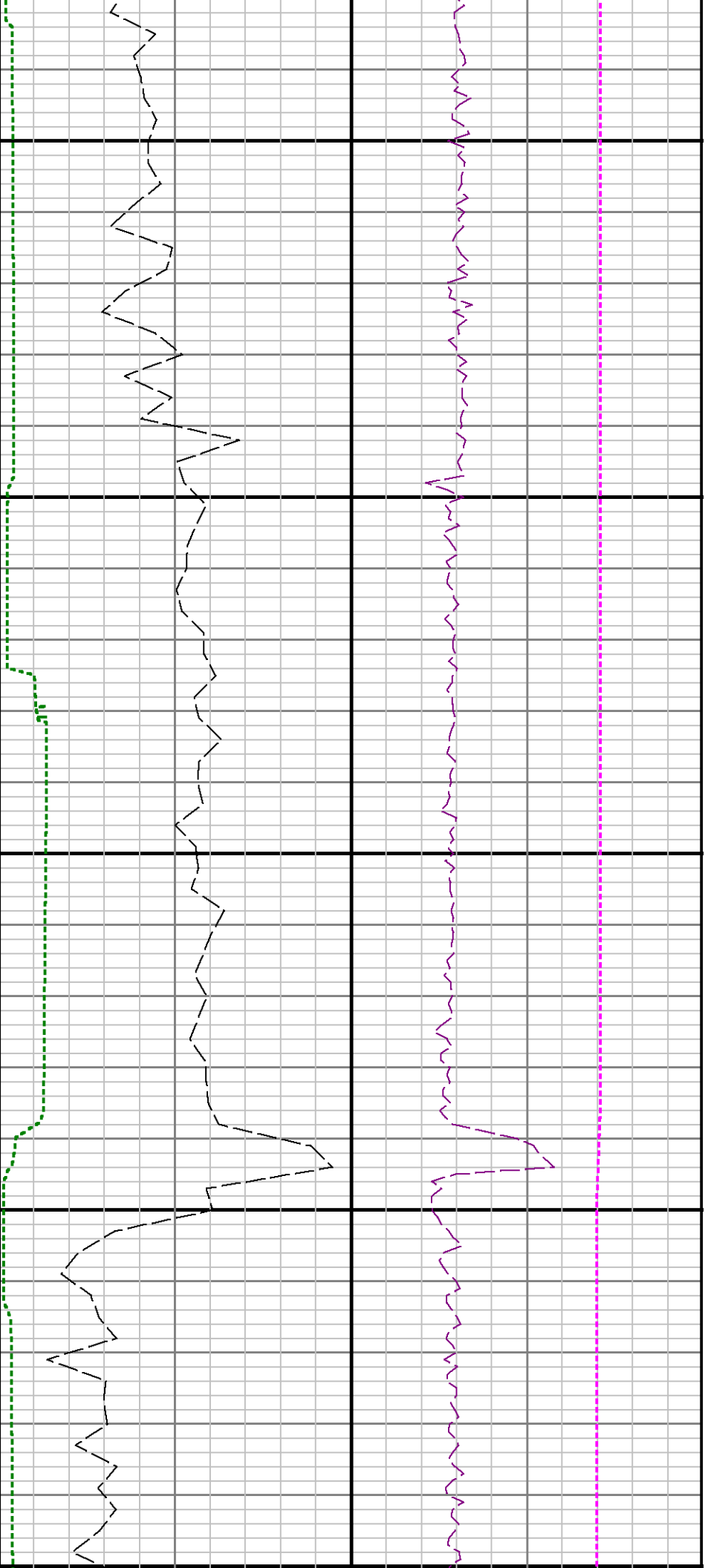


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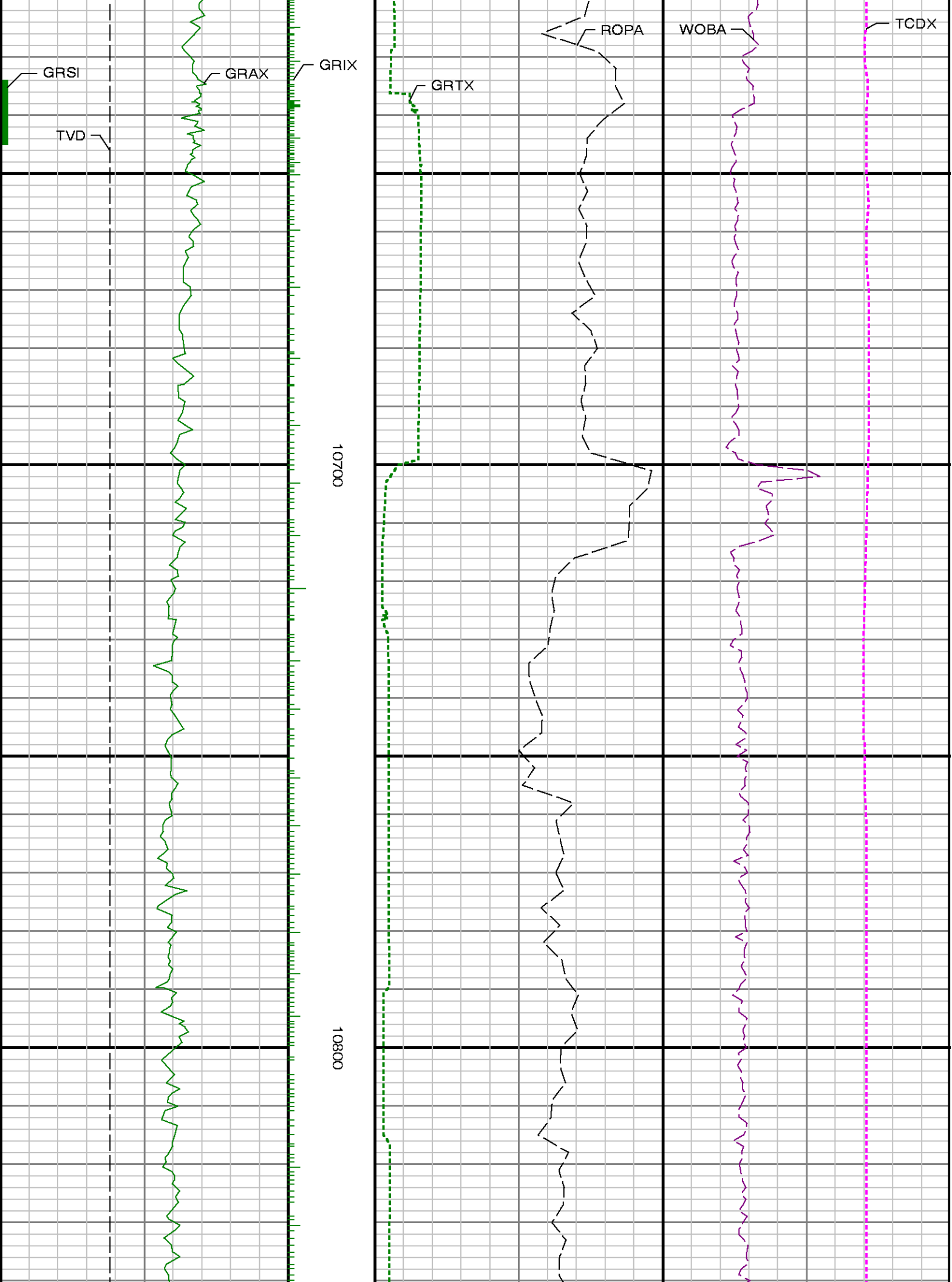
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