



Realtime Log

Natural Formation Evaluation
Gamma Ray

Scale:

Company: Anadarko

1:240

Well: Jester 40N-14HZ

Measured Depth

Field: Weld County (Kerr McGee)

County: Weld State: Colorado

Status:

Final Print

Surface Location:

Latitude: 40° 13' 44.648" N

Longitude: 104° 53' 7.019" W

Other Services:

API Number: 05-123-41347-00

SEC: 15

TWP: 3N

Range: 67W

Directional
VSS

Permanent Datum (P.D.): Ground Level

Elevation: 4793.00 ft.

Elevations:

Log Measured From:

Rig Floor

20.00 ft.

Above P.D.

N/A

Depth Reference:

Driller's Depth

GL:

4813.00 ft.
4793.00 ft.

Interval Logged

Dates

Magnetic Field Reference

Top: 6500.0 ft. Date From: 06/Jul/15 Date To: 15/Jul/15 Dip Angle: 66.88 ° Azi Reference North: True

Bottom: 16573.0 ft. Date To: 15/Jul/15 Total Field Strength: 52467.2 nT North Correction: 8.43 °

Spud Date: 06/Jul/15

Borehole Record

Casing Record

Hole Size From To Size Weight From To

13.500 in. Surface 856.0 ft. 9.625 in. 36.00 lb/ft. Surface 846.0 ft.

8.750 in. 856.0 ft. 7470.0 ft. 7.000 in. 26.00 lb/ft. Surface 7459.0 ft.

6.125 in. 7470.0 ft. 16573.0 ft.

Mud Record

Deviation Record

Type From To Hole Size Interval Inc / Az (Start) Inc / Az (End)

Fresh Water Surface 4500.0 ft. 13.500 in. 836.0 ft. 0.0 ° / 245.1 ° 0.9 ° / 123.4 °

Water Based Mud 4500.0 ft. 16573.0 ft. 8.750 in. 6624.0 ft. 0.9 ° / 123.4 ° 88.9 ° / 94.5 °

Acquisition System Software Version

Other

Advantage 2.20U4 Rig: Precision 460 / Precision Drilling

PATS 6.4.1.34 Job No.: 7282913 / 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	Bottom	From	To	Start		End		
							(ft.)	(ft.)	(ft.)	(ft.)					
1	1	2	8.750	PDC	2.000	Steerable	6500.0	7470.0	856.0	7470.0	06/Jul/2015	19:55	08/Jul/2015	20:20	33
2	2	3	6.125	PDC	4.000	Steerable	7394.0	12300.0	7470.0	12300.0	09/Jul/2015	19:00	11/Jul/2015	19:45	32.3
3	3	4	6.125	PDC	4.000	Steerable	12228.0	14242.0	12300.0	14242.0	11/Jul/2015	21:45	13/Jul/2015	12:30	17.7
4	4	5	6.125	PDC	4.000	Steerable	14167.0	16573.0	14242.0	16573.0	13/Jul/2015	14:40	15/Jul/2015	18:00	24

Crew

Name	Arrive	Depart	Name	Arrive	Depart	Name	Arrive	Depart
	Wellsite	Wellsite		Wellsite	Wellsite		Wellsite	Wellsite
Austin Small	06/Jul/2015	08/Jul/2015				Barry Combs	06/Jul/2015	15/Jul/2015

Matthew Delmore	06/Jul/2015	14/Jul/2015				Chad Hough	09/Jul/2015	15/Jul/2015
Stefani Moore	09/Jul/2015	15/Jul/2015				Brad Leopold	06/Jul/2015	08/Jul/2015
Katie Tokarsky	11/Jul/2015	15/Jul/2015						
Austin Small	14/Jul/2015	15/Jul/2015						

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+ (%)
06/Jul/2015	19:00	1	1000.0	Fresh Water	9.0	35	8.0	10.2	1 / 94	Active Mud Pit	2400	0.0
07/Jul/2015	07:00	1	3897.0	Fresh Water	9.0	39	10.2	13.0	1 / 97	Active Mud Pit	2200	0.0
07/Jul/2015	19:00	1	5782.0	Water Based Mud	9.6	52	9.6	8.6	1 / 91	Active Mud Pit	2200	0.0
08/Jul/2015	07:00	1	7077.0	Water Based Mud	10.1	49	10.1	6.6	3 / 87	Active Mud Pit	2200	0.0
08/Jul/2015	18:30	1	7470.0	Water Based Mud	10.1	56	10.0	5.6	3 / 87	Active Mud Pit	2200	0.0
09/Jul/2015	19:00	2	7470.0	Water Based Mud	9.8	43	9.9	6.2	2 / 88	Active Mud Pit	1700	0.0
10/Jul/2015	07:00	2	8213.0	Water Based Mud	9.8	42	10.1	5.2	2 / 89	Active Mud Pit	1700	0.0
10/Jul/2015	19:00	2	10004.0	Water Based Mud	10.0	50	10.0	5.0	3 / 87	Active Mud Pit	1800	0.0
11/Jul/2015	07:00	2	11778.0	Water Based Mud	10.6	51	9.7	5.0	3 / 83	Active Mud Pit	1800	0.0
11/Jul/2015	19:00	2	12300.0	Water Based Mud	10.7	52	9.7	4.4	3 / 83	Active Mud Pit	1800	0.0
12/Jul/2015	07:00	3	12478.0	Water Based Mud	10.8	52	9.8	4.4	3 / 83	Active Mud Pit	1800	0.0
12/Jul/2015	19:00	3	13735.0	Water Based Mud	10.7	52	9.6	4.0	4 / 81	Active Mud Pit	1800	0.0
13/Jul/2015	19:00	4	14242.0	Water Based Mud	10.6	53	10.0	4.2	4 / 82	Active Mud Pit	1800	0.0
14/Jul/2015	19:00	4	15982.0	Water Based Mud	10.7	51	9.8	3.8	5 / 81	Suction	1700	0.0

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	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	12815870	Directional	64.36	6.750	3.250
1	SRIG	12380940	Gamma	60.98	6.750	3.250
2	DIR	12440863	Directional	78.65	4.750	2.875
2	SRIG	12595025	Gamma	75.31	4.750	2.875
3	DIR	11954358	Directional	76.18	4.750	2.688

3	SRIG	12586753	Gamma	72.84	4.750	2.688
4	DIR	11954358	Directional	76.26	4.750	2.688
4	SRIG	12586753	Gamma	72.92	4.750	2.688

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 LWD run 1 utilized 6 3/4 inch NaviTrak Services (VSS, Directional) from 846 to 6590 ft. MD (845.96 to 6499.71 ft. TVD) and NaviGamma Services (VSS, Directional, Gamma Ray) from 6590 to 7470 ft. MD (6499.71 to 7004.53 ft. TVD) behind an 8 3/4 inch bit and steerable assembly.
- 2.) Baker Hughes LWD runs 2, 3, and 4 utilized 4 3/4 inch NaviGamma Services (VSS, Directional, Gamma Ray) from 7470 to 16573 feet MD (7004 to 7233 feet TVD) behind an 6 1/8 inch bit and steerable assembly.
- 3.) A sliding indicator is shown on the left edge 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.
- 4.) Depth measurements 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.

Remarks

Number	Measured Depth (ft)	Hole Section (in.)	LWD Run No.	Remark
1	7450	6.125	2	The interval from 7409 to 7470 feet MD (6998 to 7003 feet TVD) was logged up to 49 hours after being drilled due to a trip out of the hole to lay down the vertical/curve assembly, perform casing operations, and to pick up a lateral assembly.
2	12250	6.125	3	The interval from 12224 to 12300 feet MD (7079 to 7082 feet TVD) was logged up to 15 hours after being drilled due to a trip out of the hole to lay down the lateral assembly and to pick up a new lateral assembly.
3	14170	6.125	4	The interval from 14169 to 14242 feet MD (7140 to 7145 feet TVD) was logged up to 27 hours after being drilled due to a trip out of the hole to lay down the lateral assembly and to pick up a new lateral assembly.
4	16975	6.125	4	The interval from 16501 to 16573 feet MD (7227 to 7233 feet TVD) does not contain gamma ray logging data due to the bit to sensor offset.



Company : Anadarko

Well : Jester 40N-14HZ

Interval : 6480.00 - 16590.00 feet

Created : 12/Jul/2015 4:52:34 AM

Gamma Ray Apparent 0.5 ft Avg GRAX

0150

API

True Vertical Depth TVD

74006400

ft

MD feet 1:240

Gamma Time Since Drilled GRTX

0600

min

Rate of Penetration 3.0 ft Avg ROPA

5000

ft/hr

Surface Weight On Bit 1.0 ft Avg WOBA

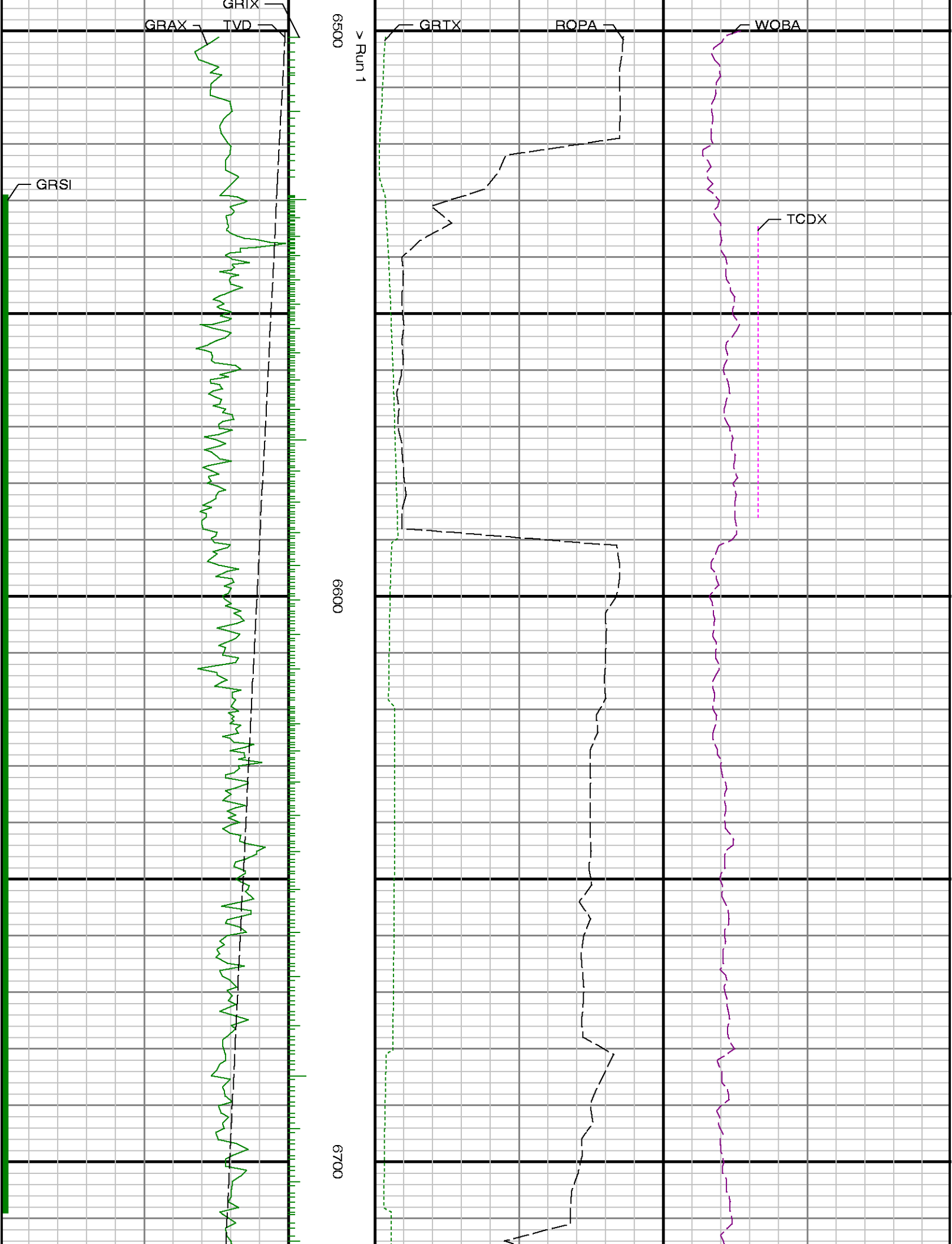
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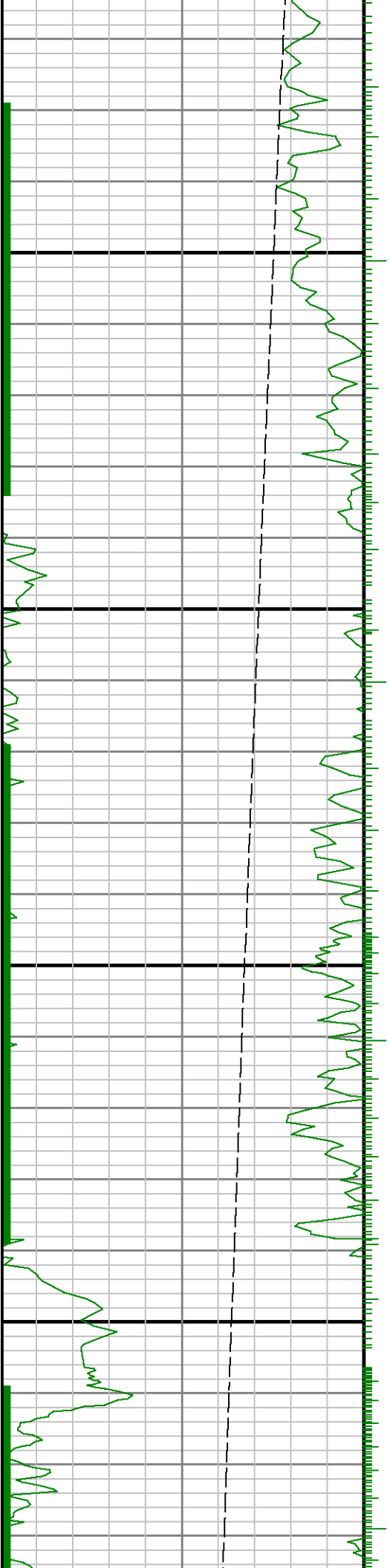
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Downhole Temperature TCDX

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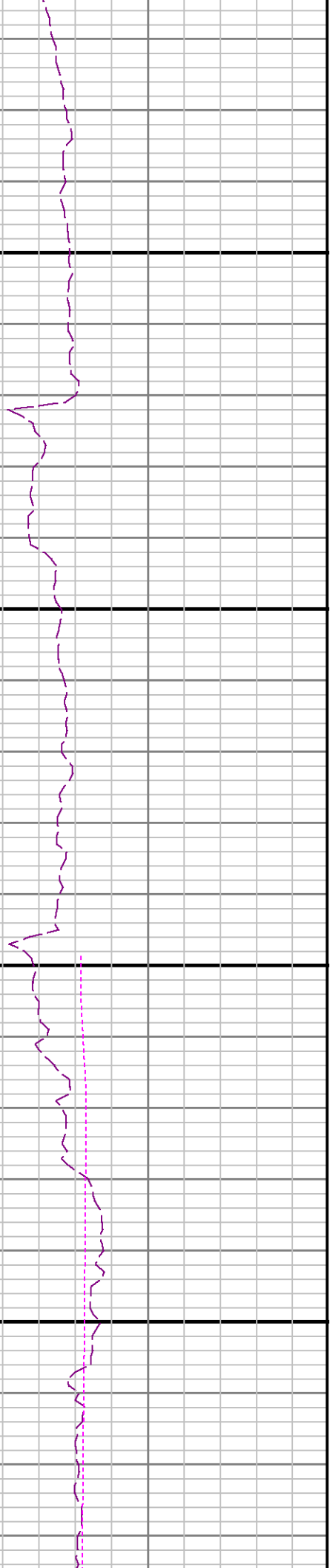
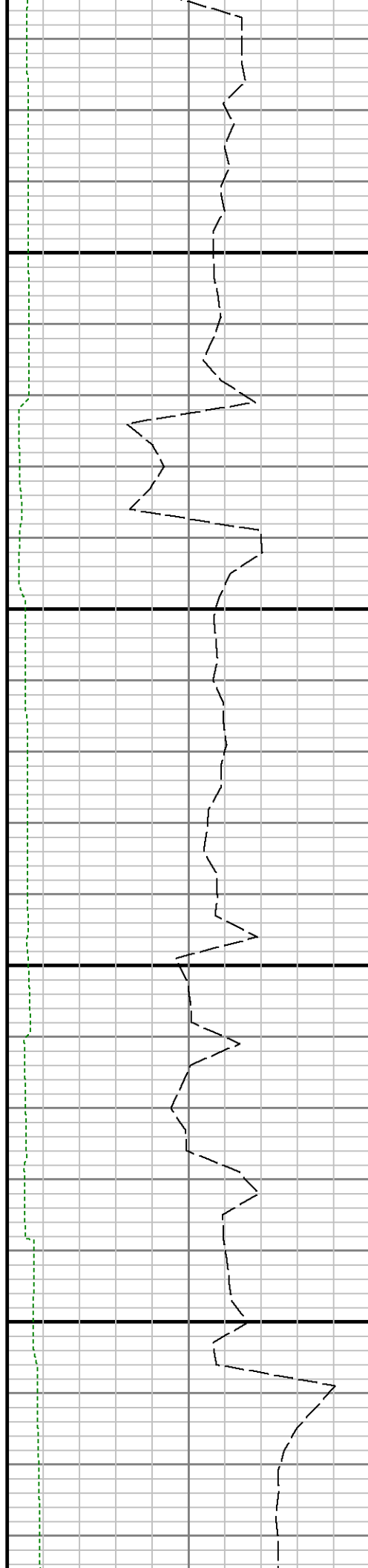
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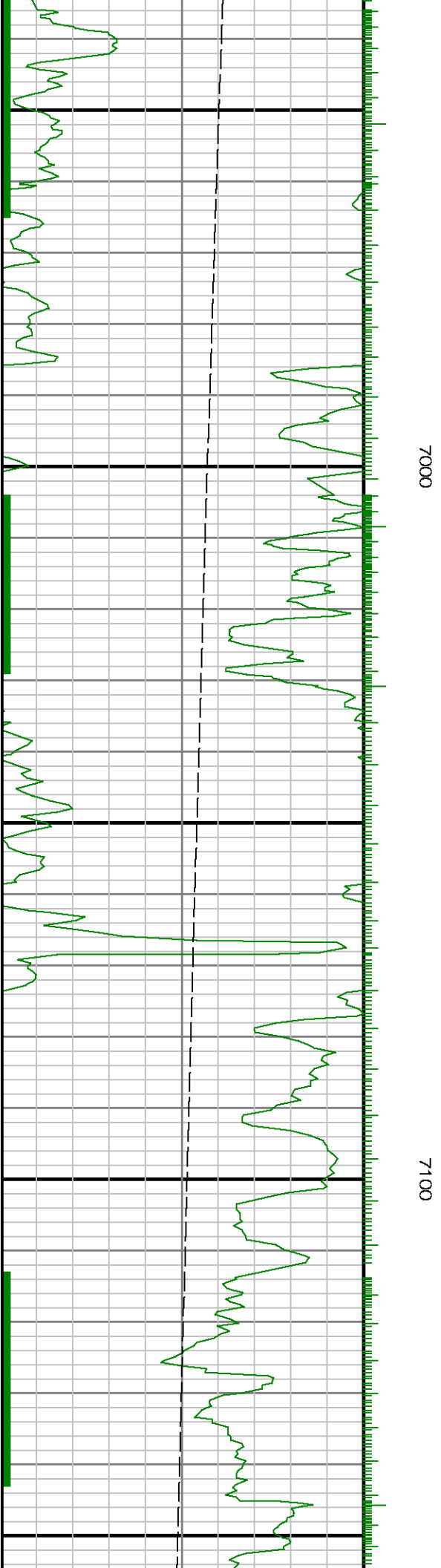
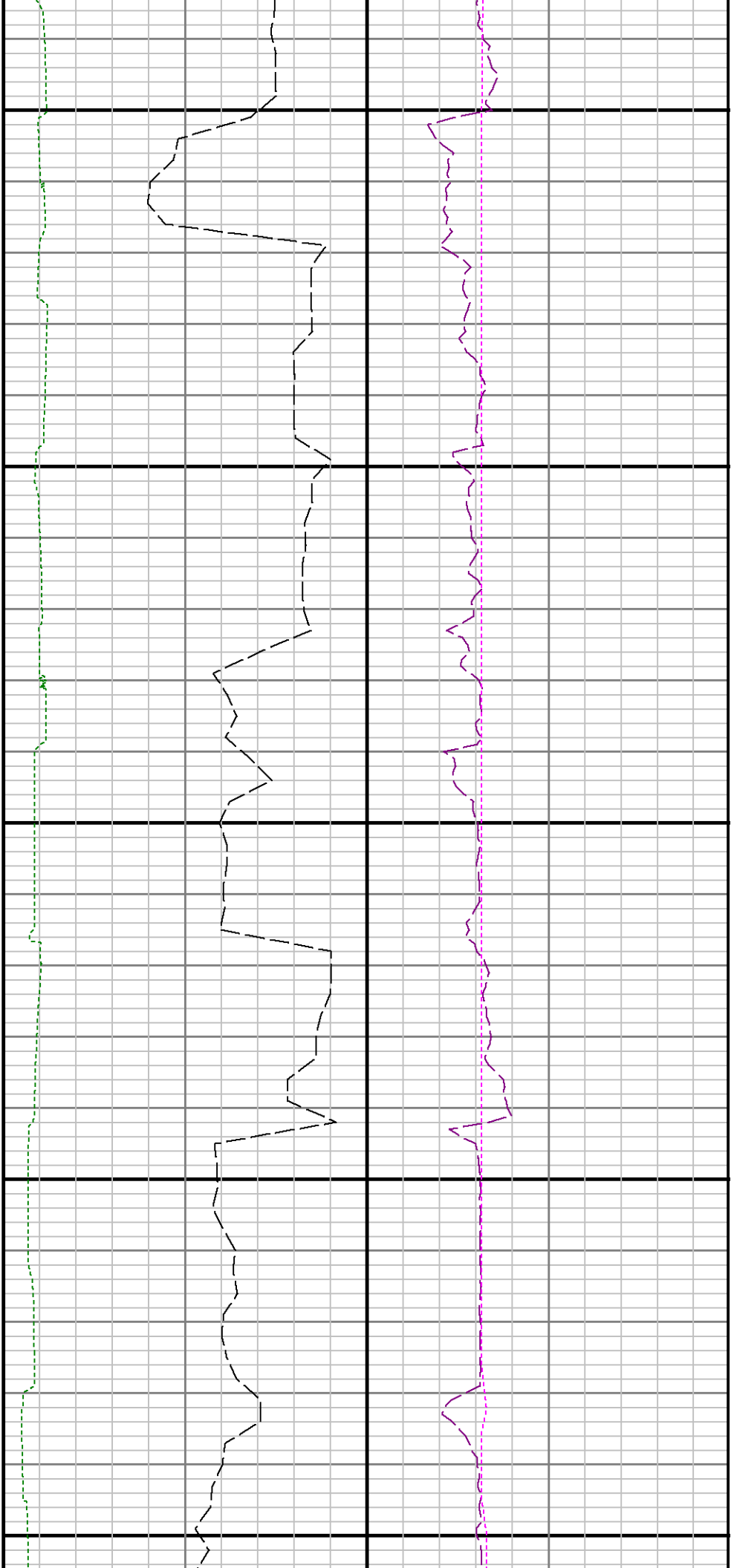


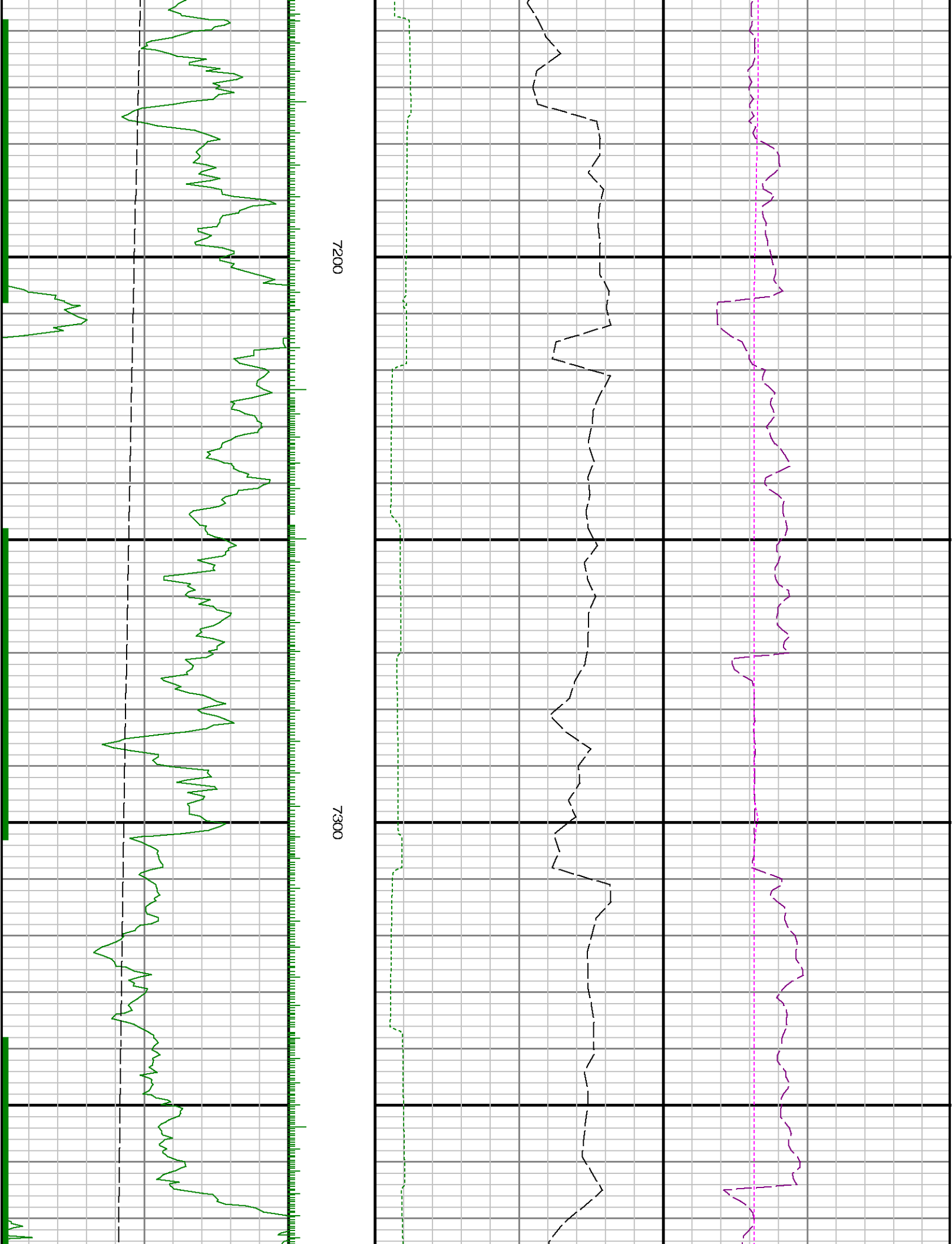


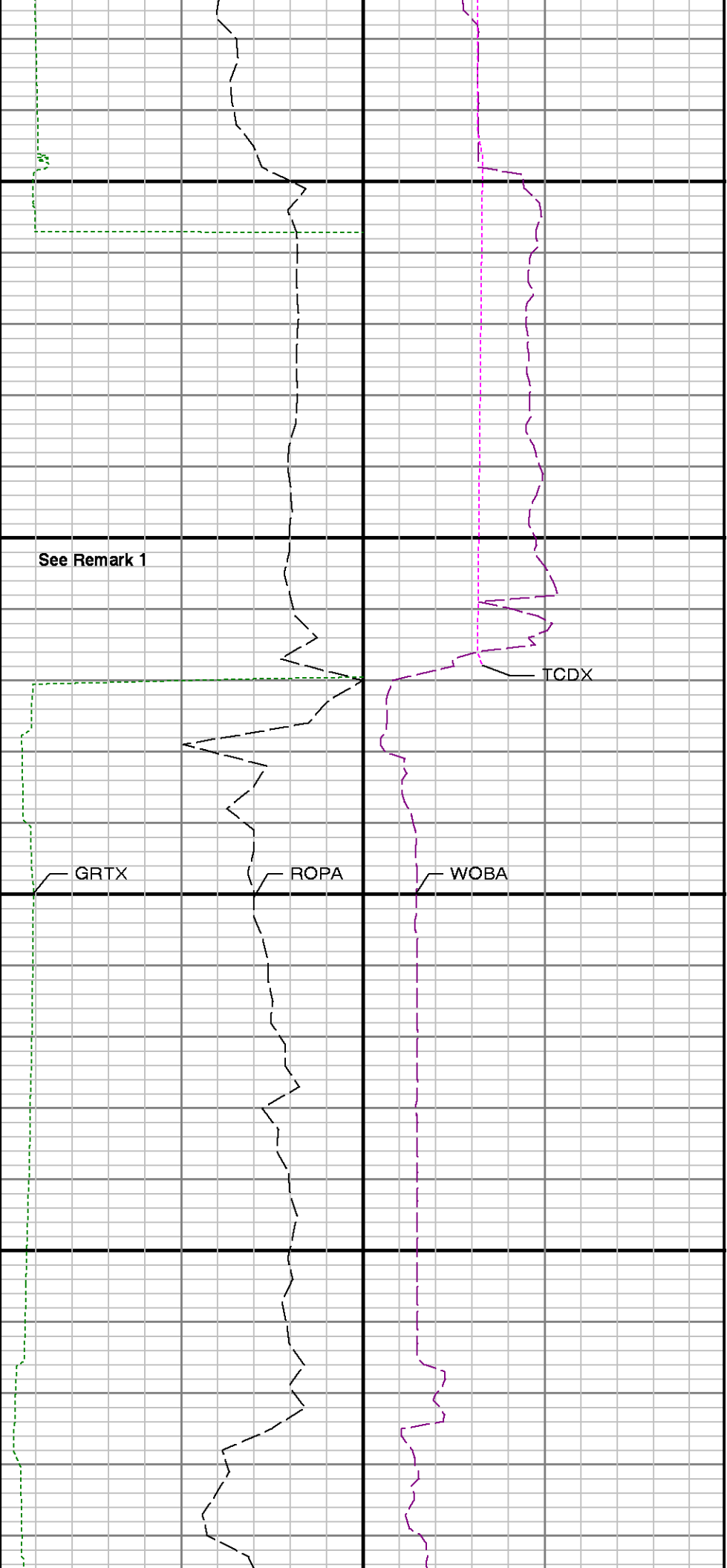
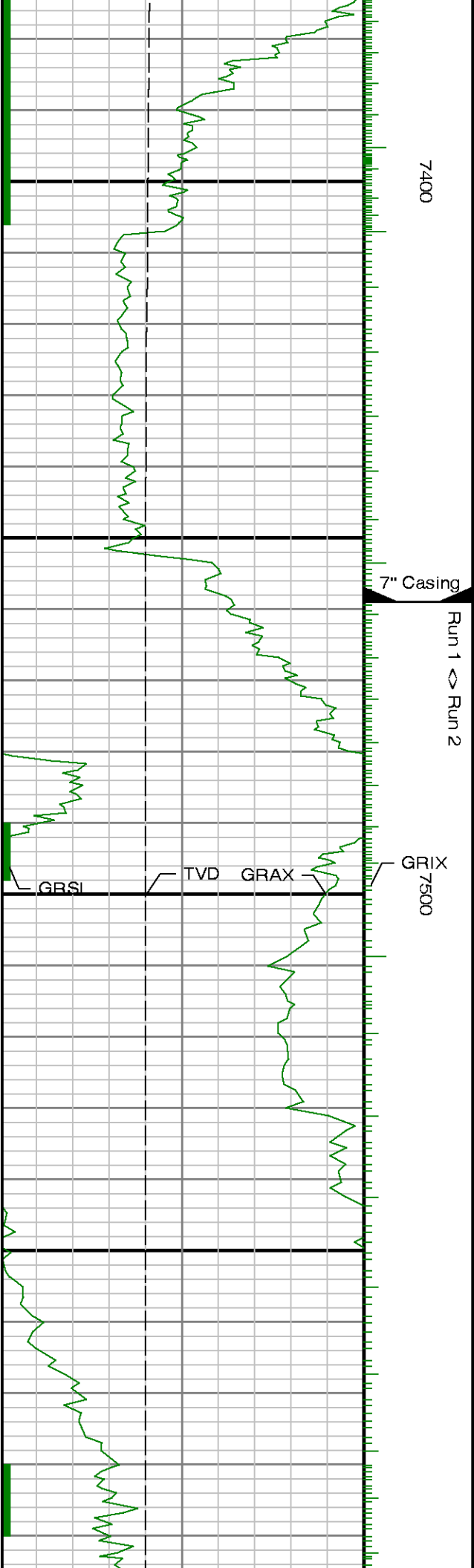
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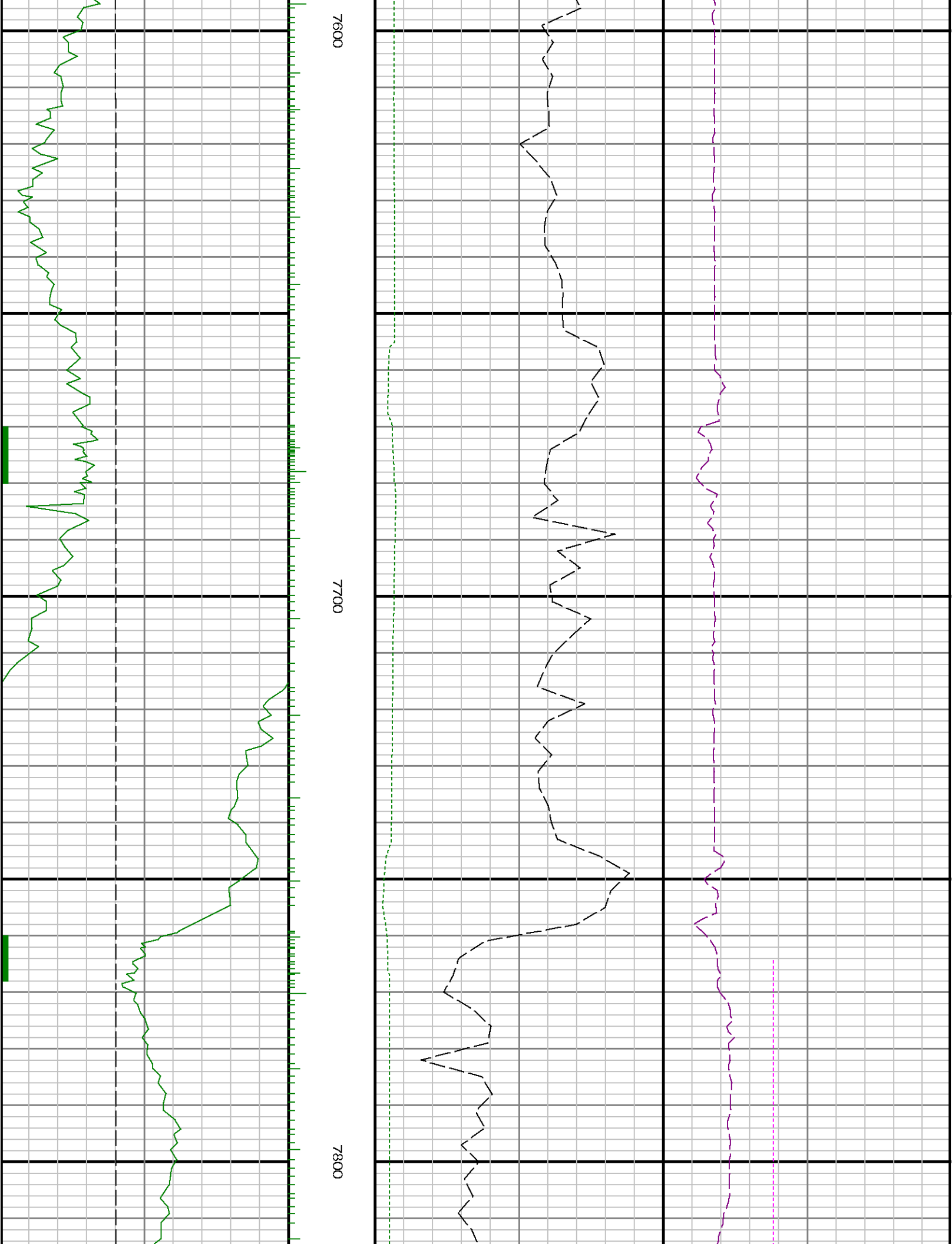
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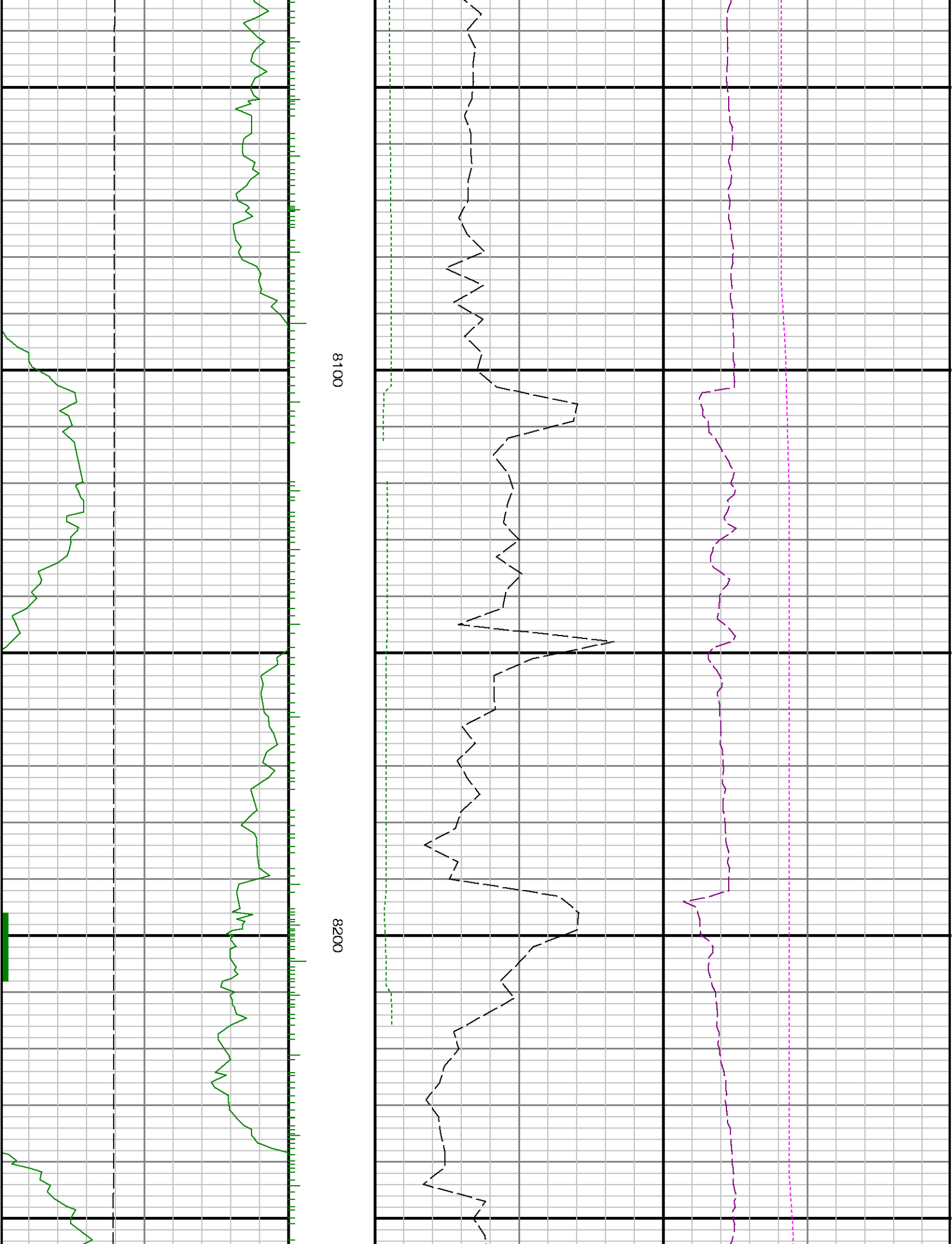


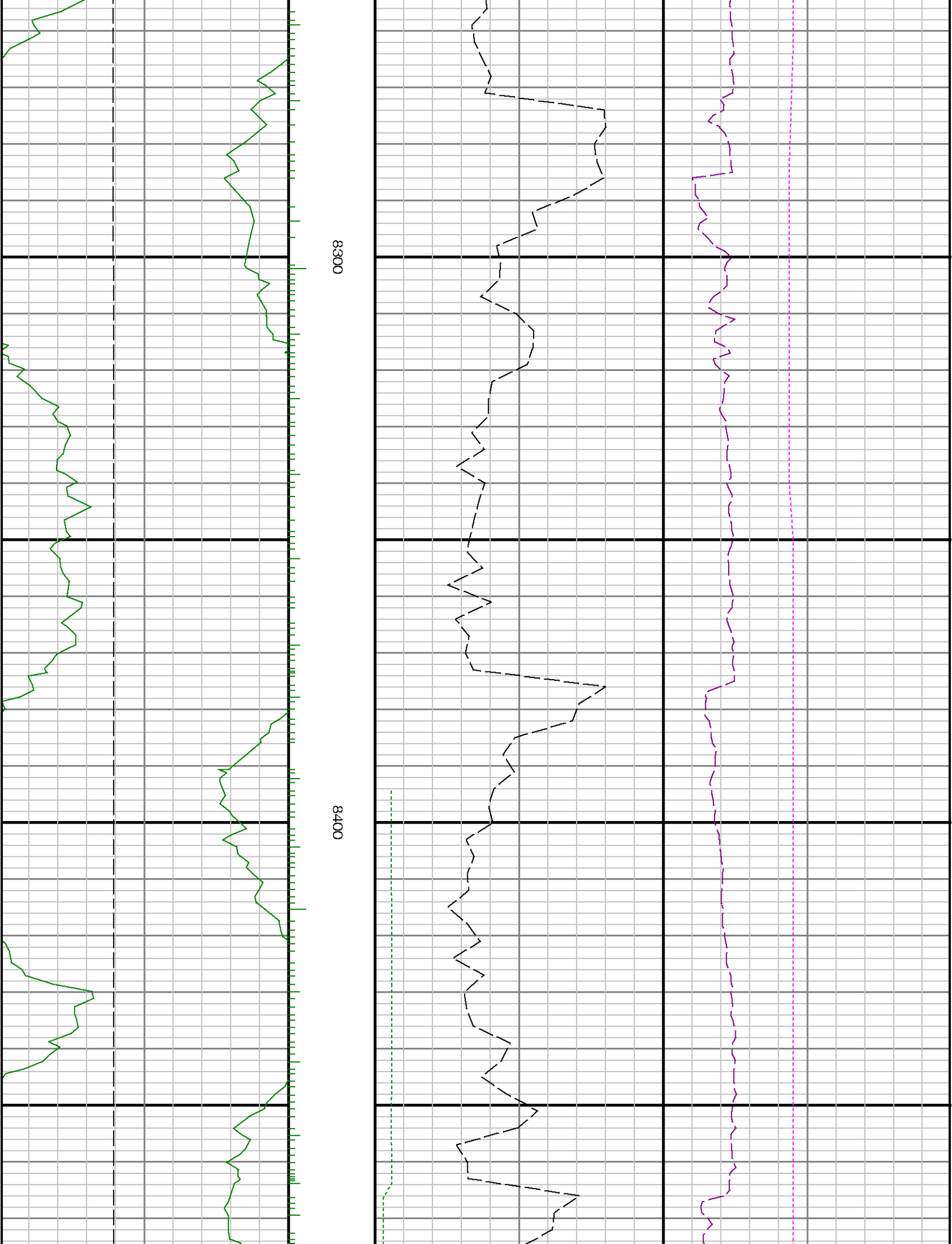


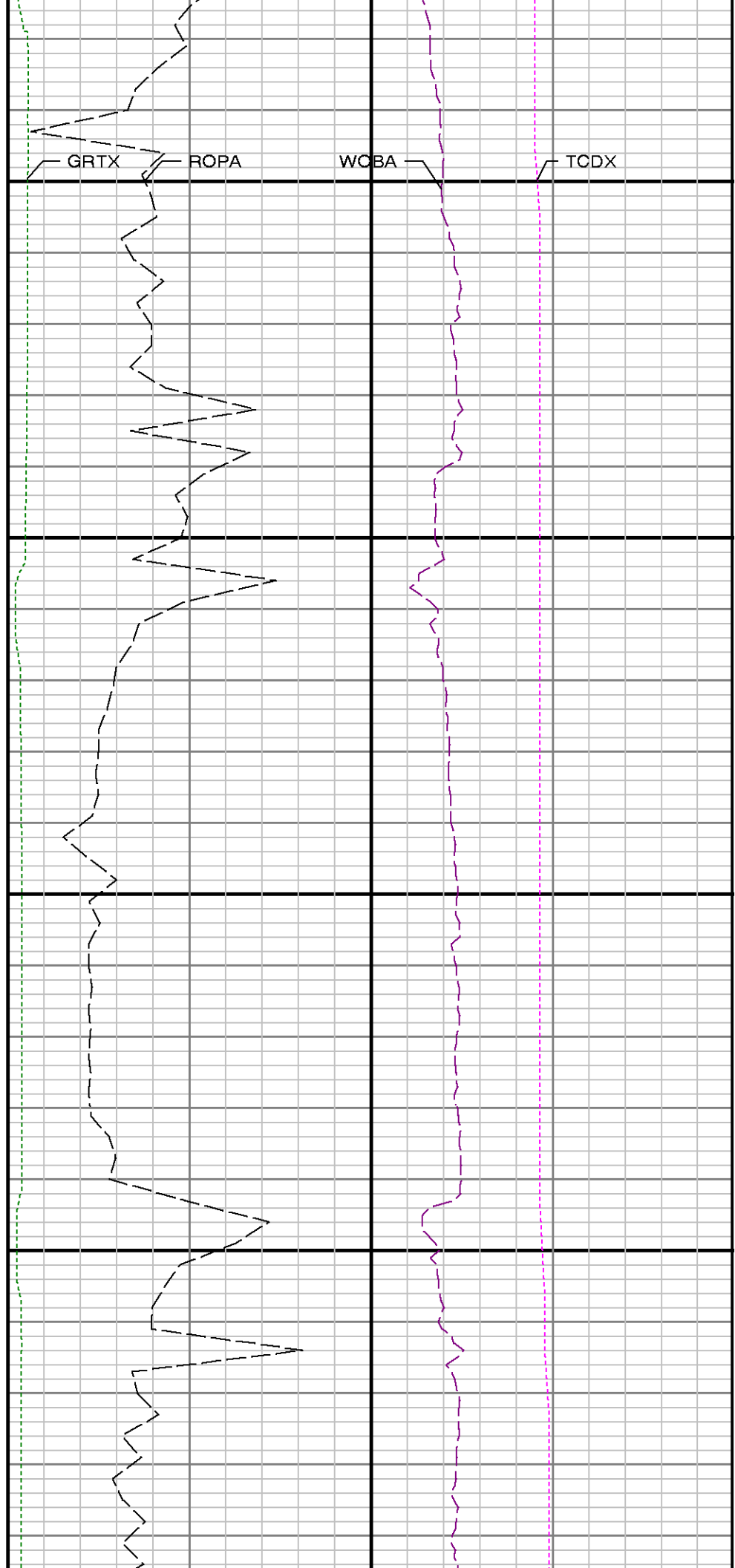
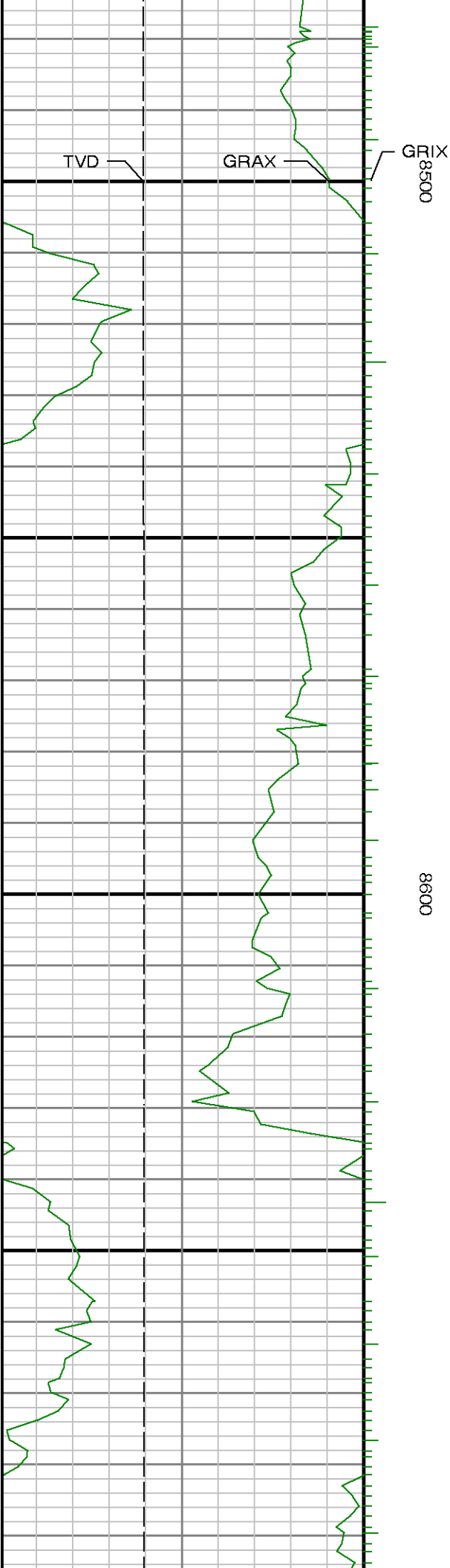


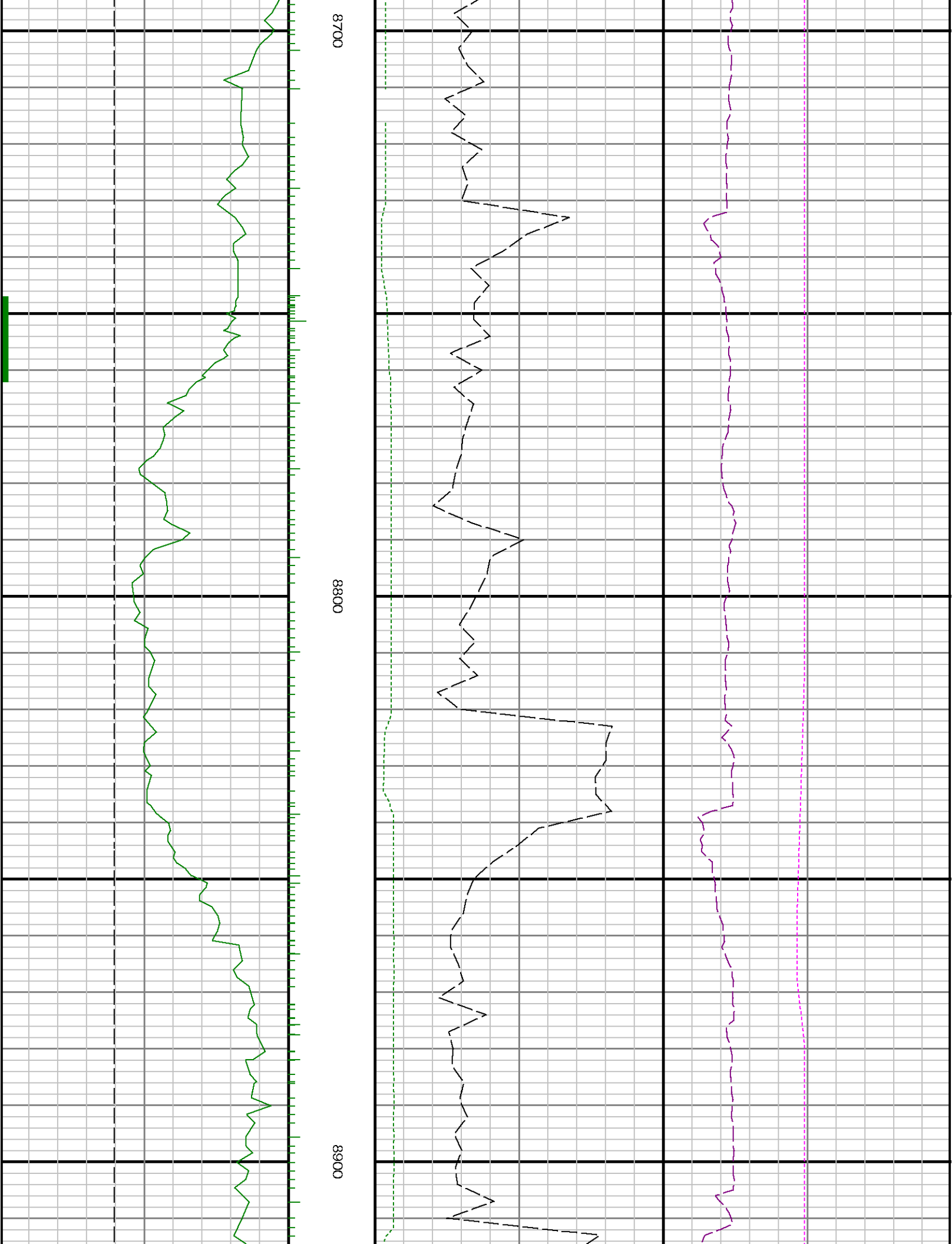


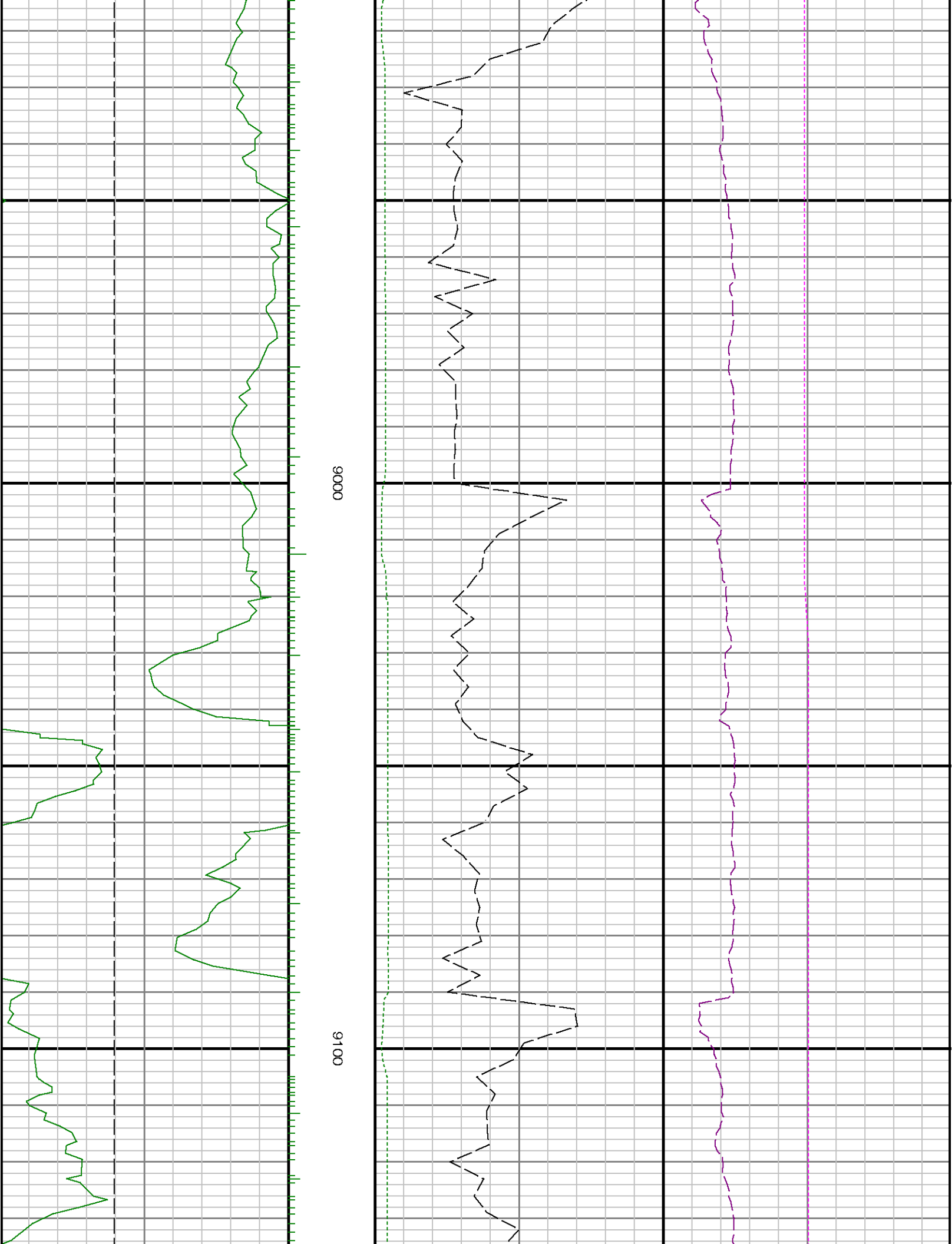


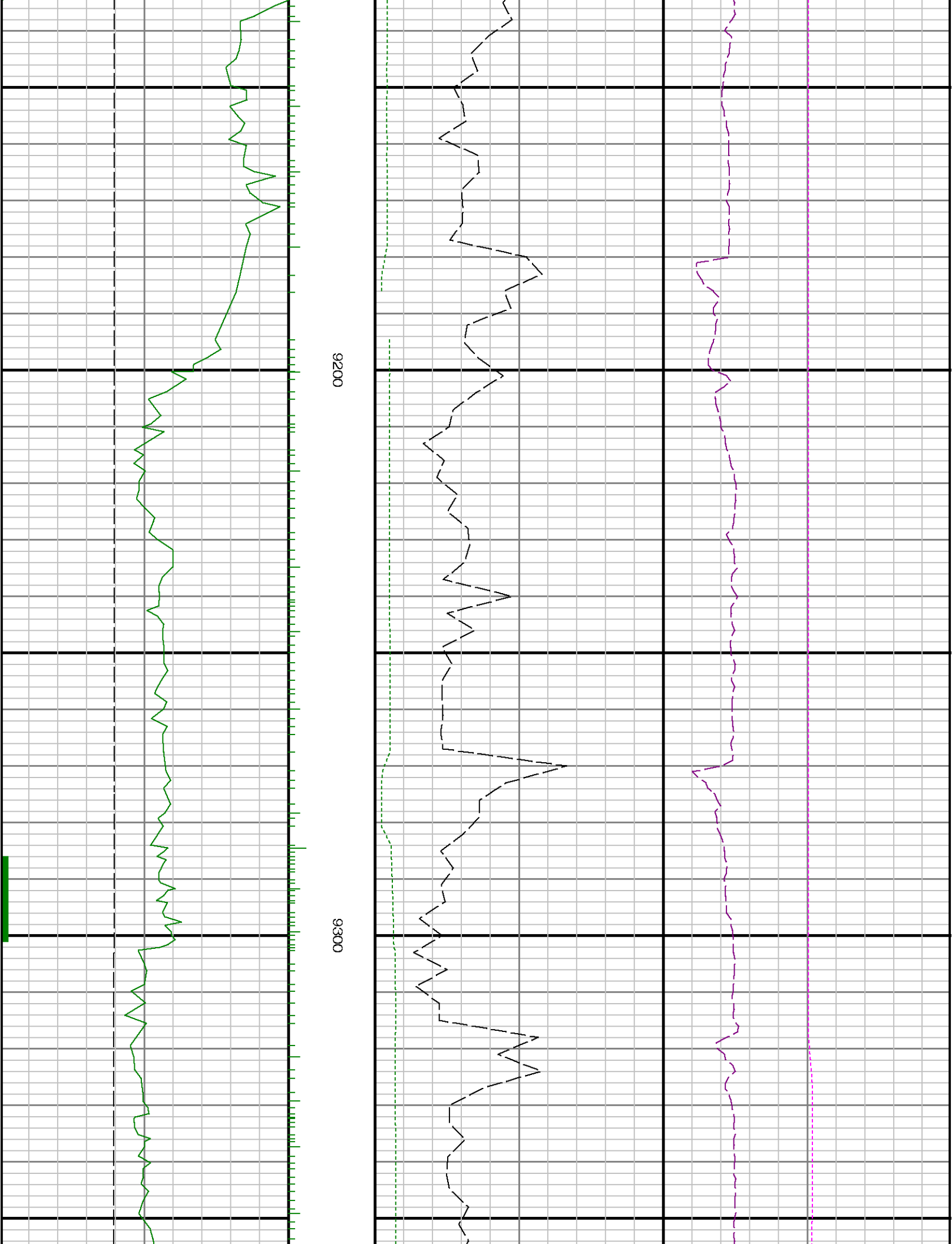


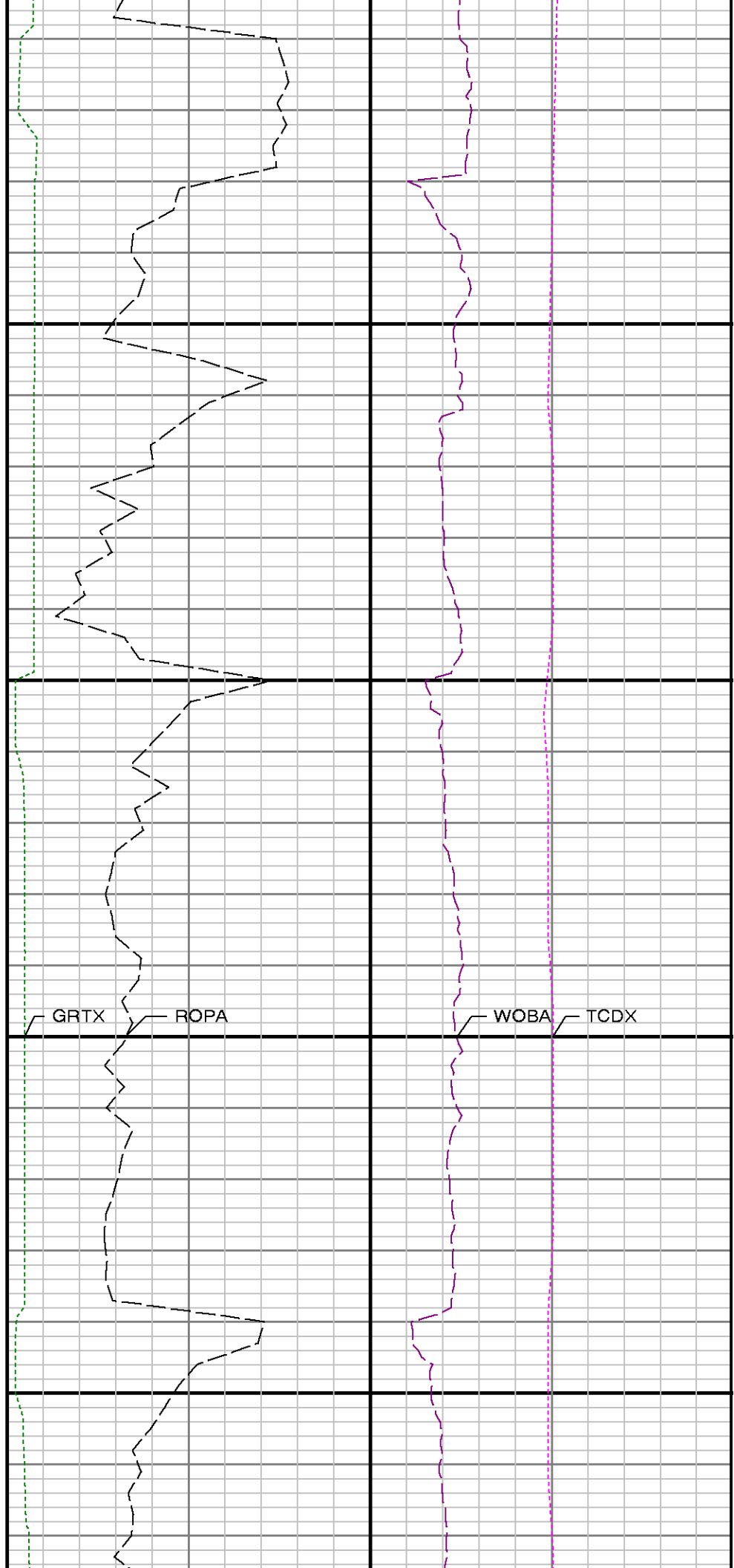
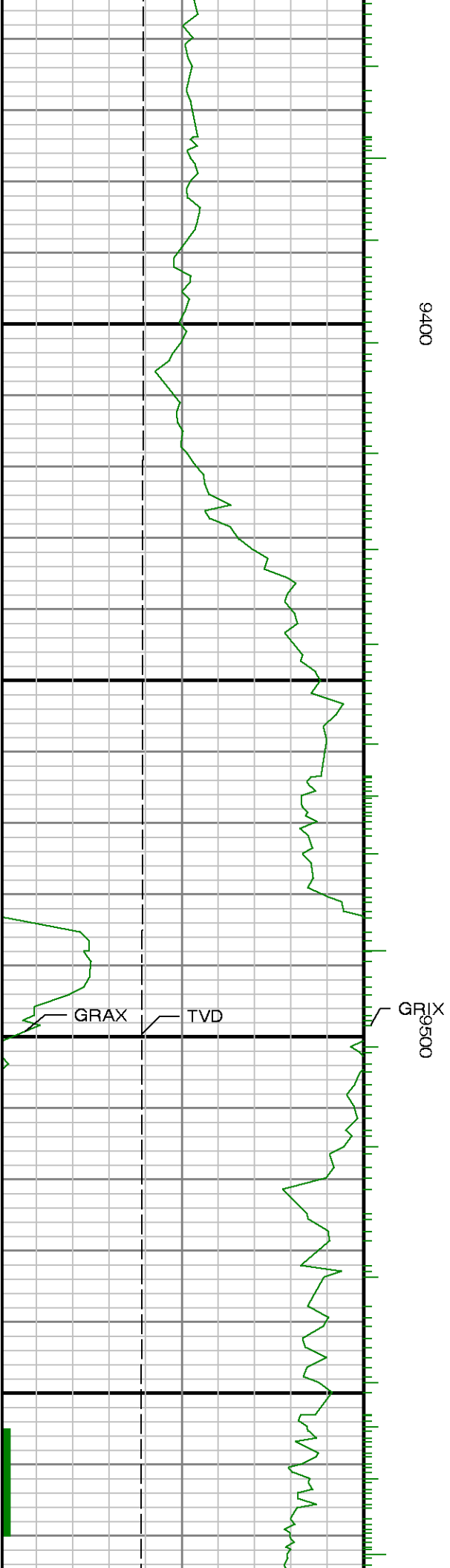


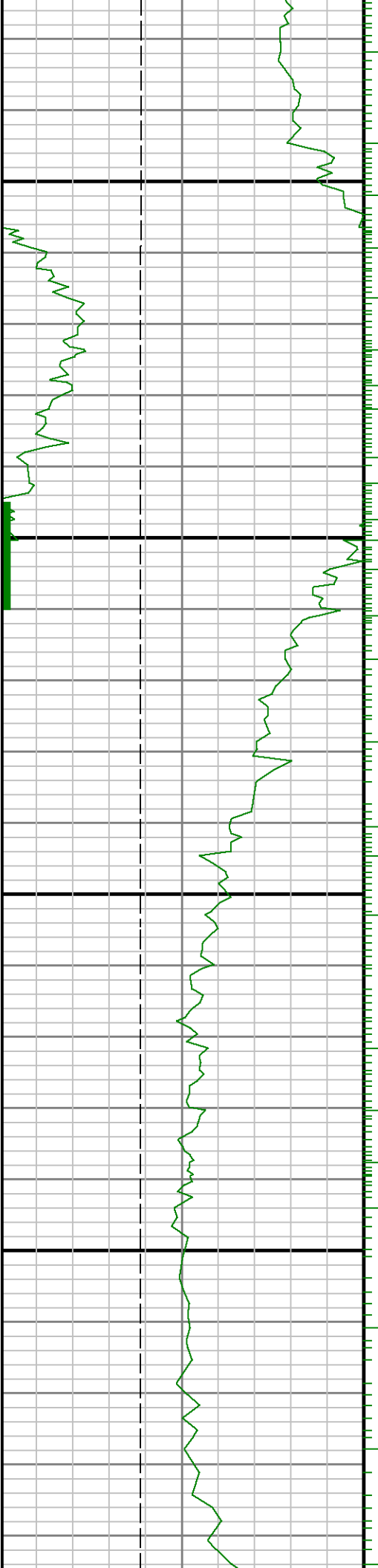






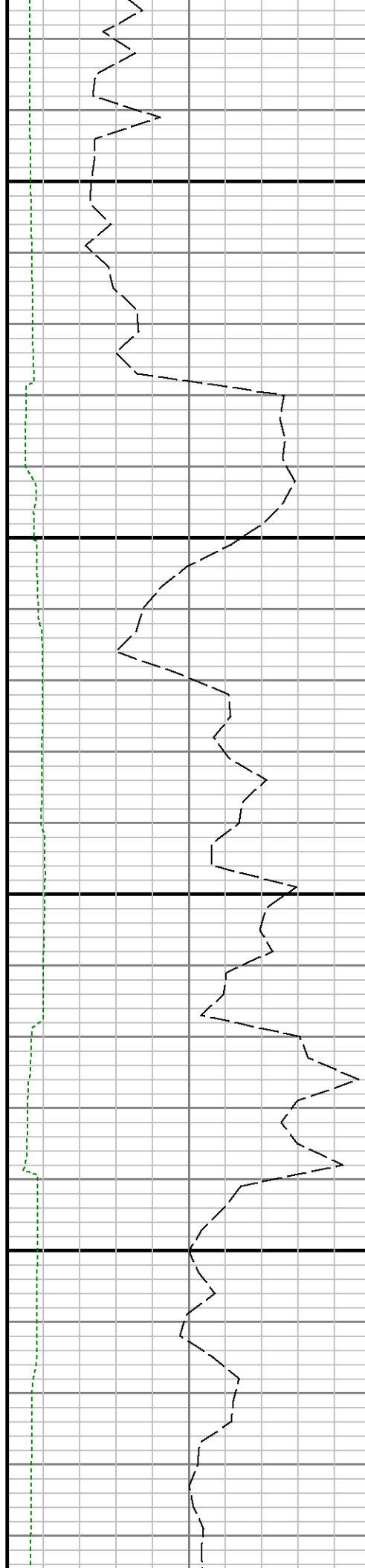


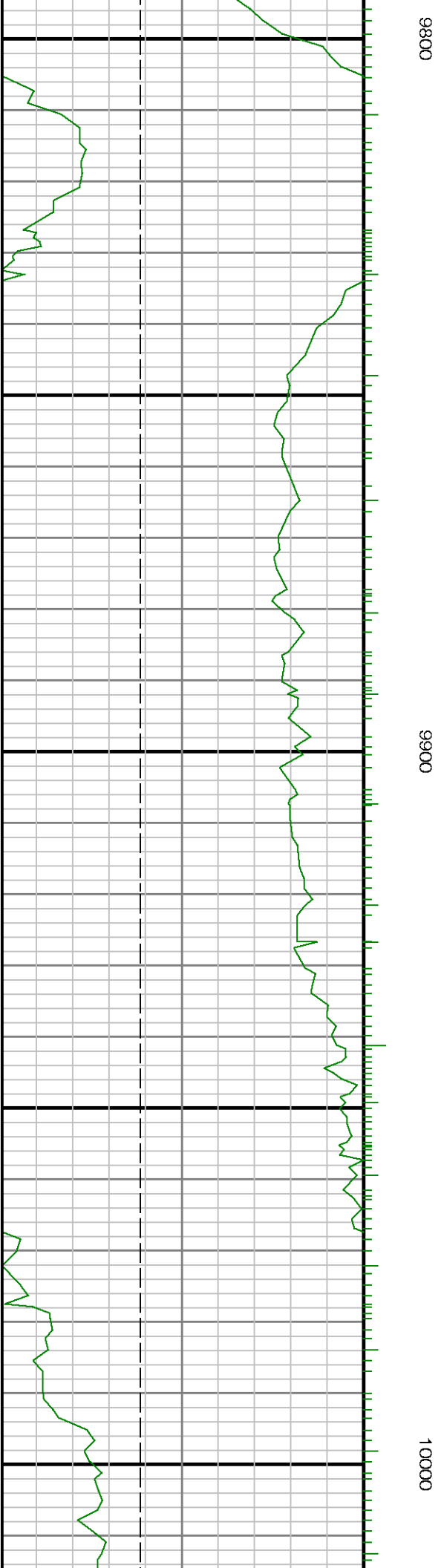
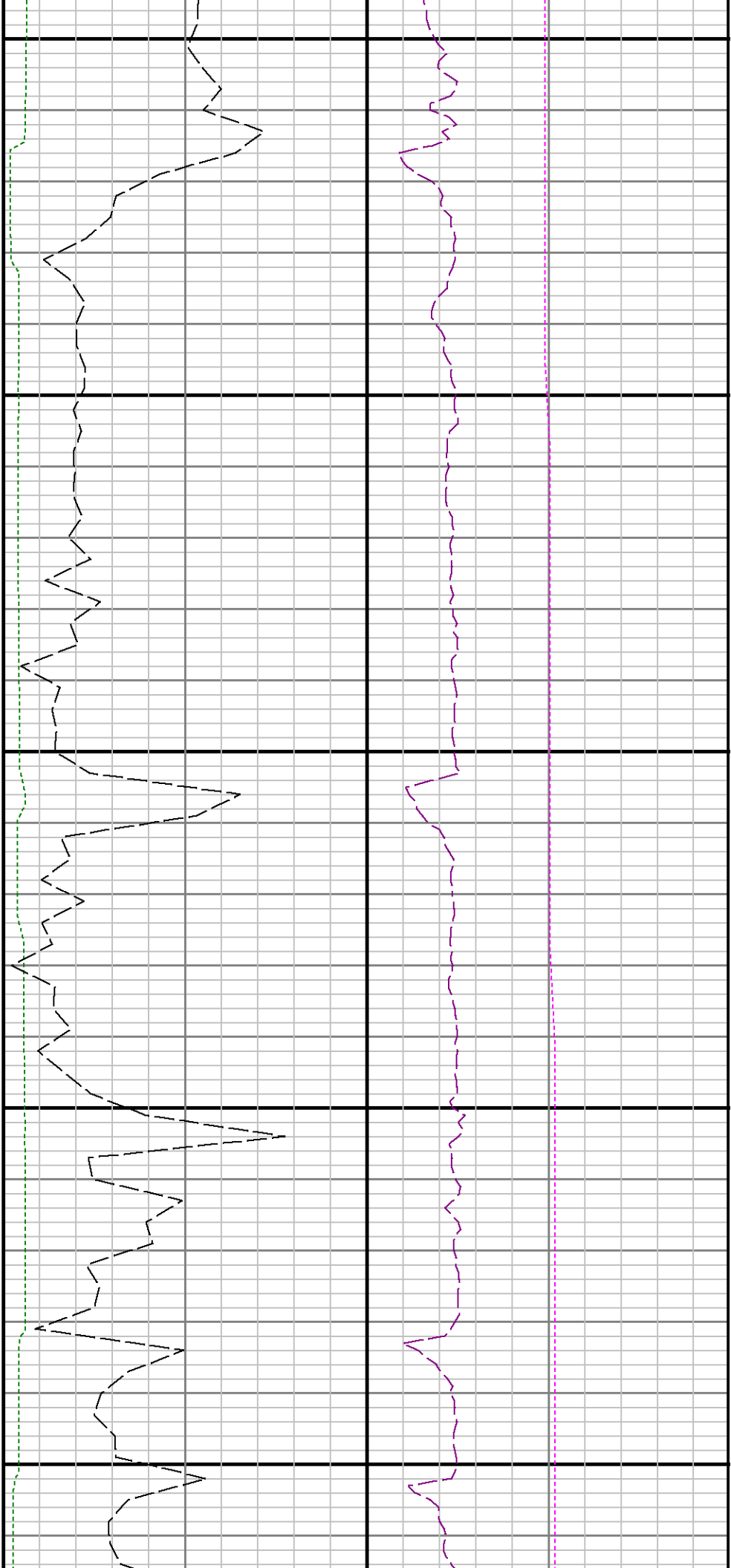


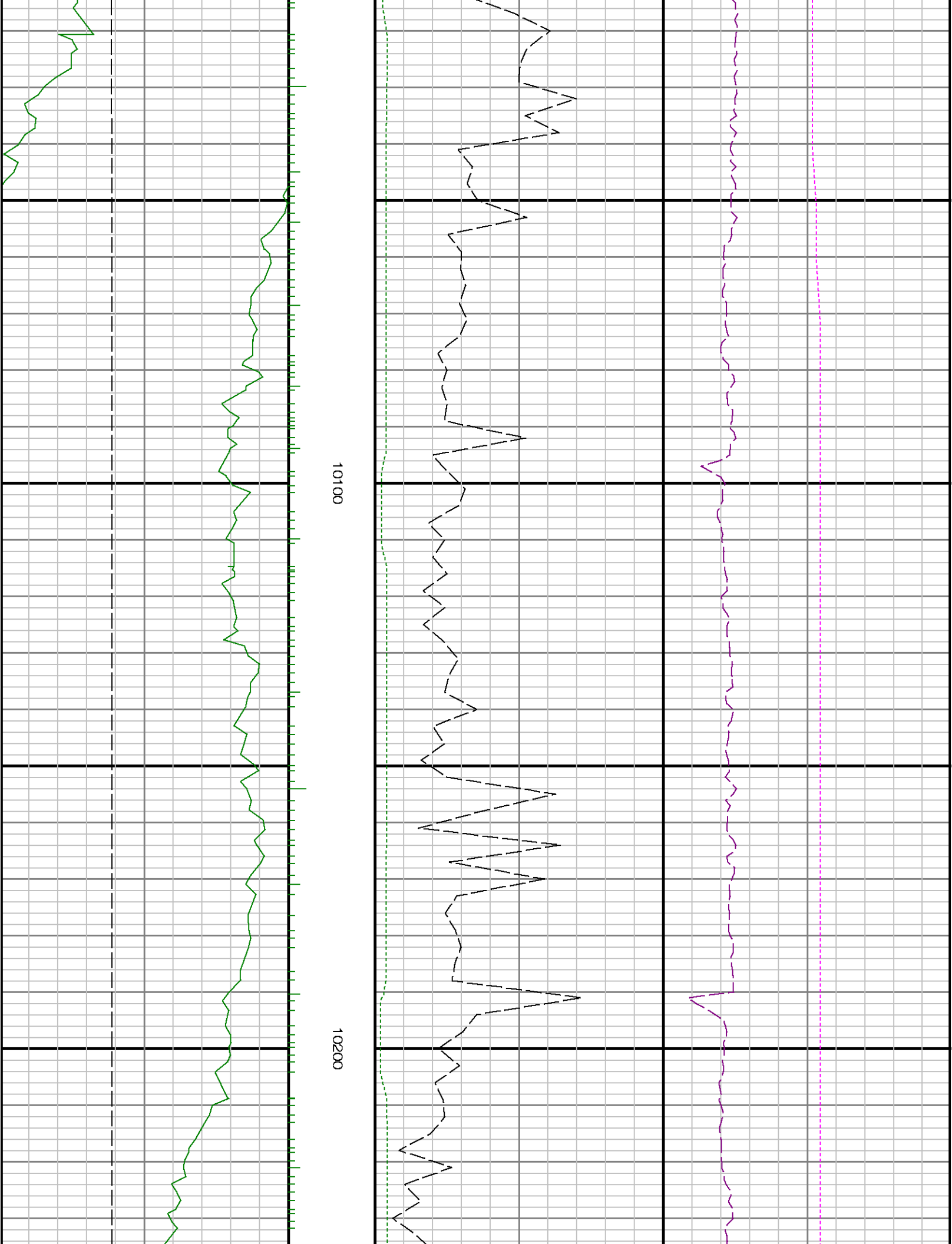


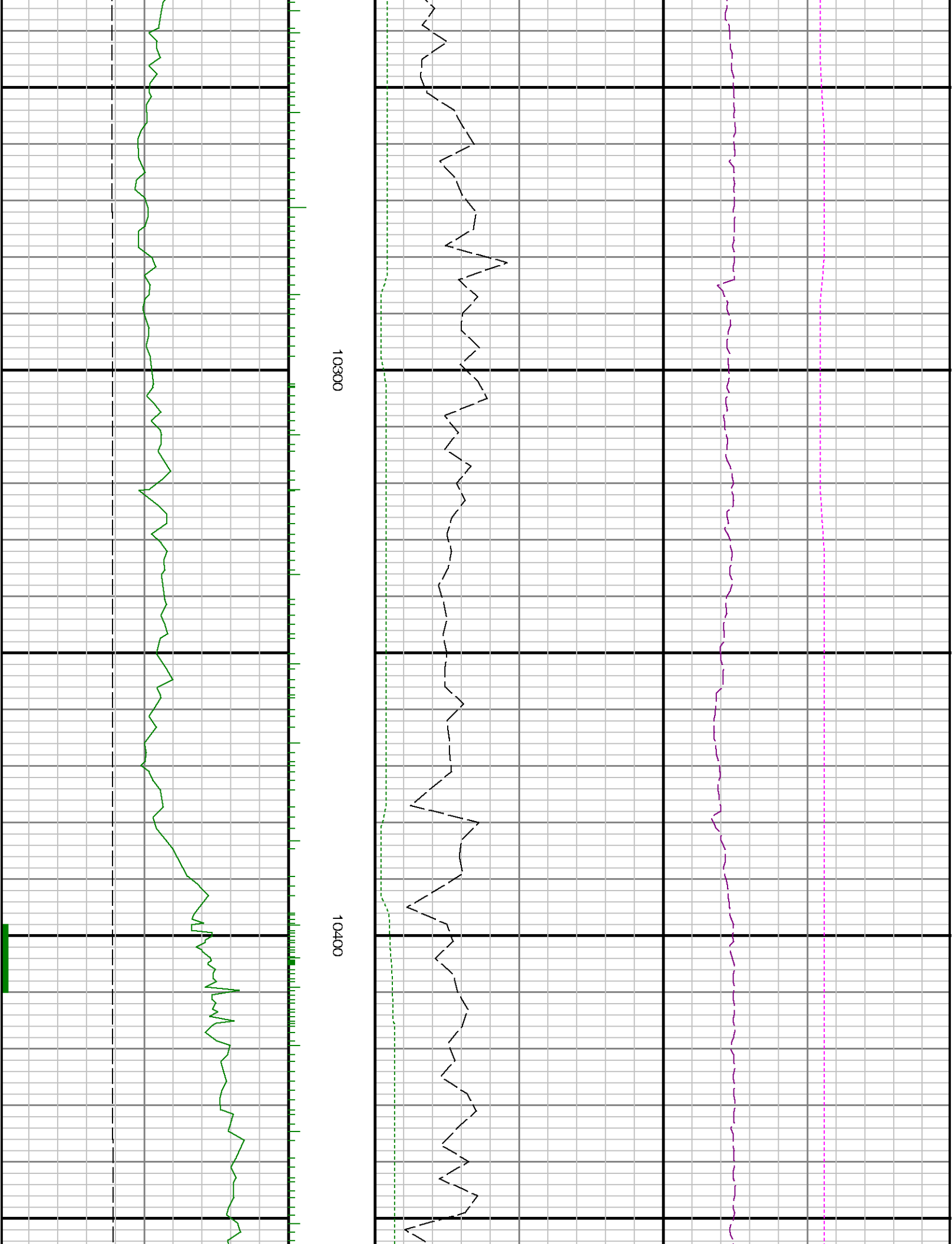
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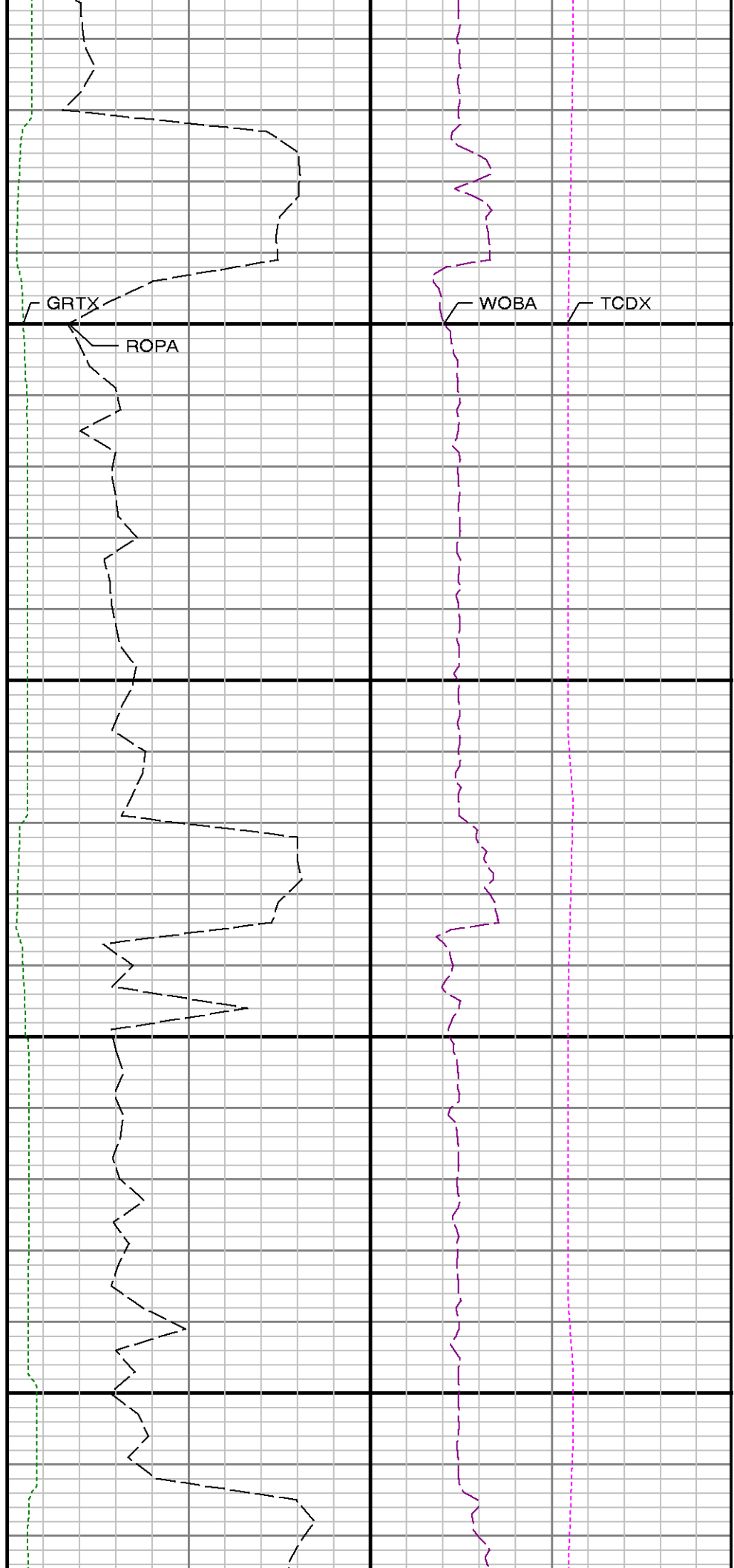
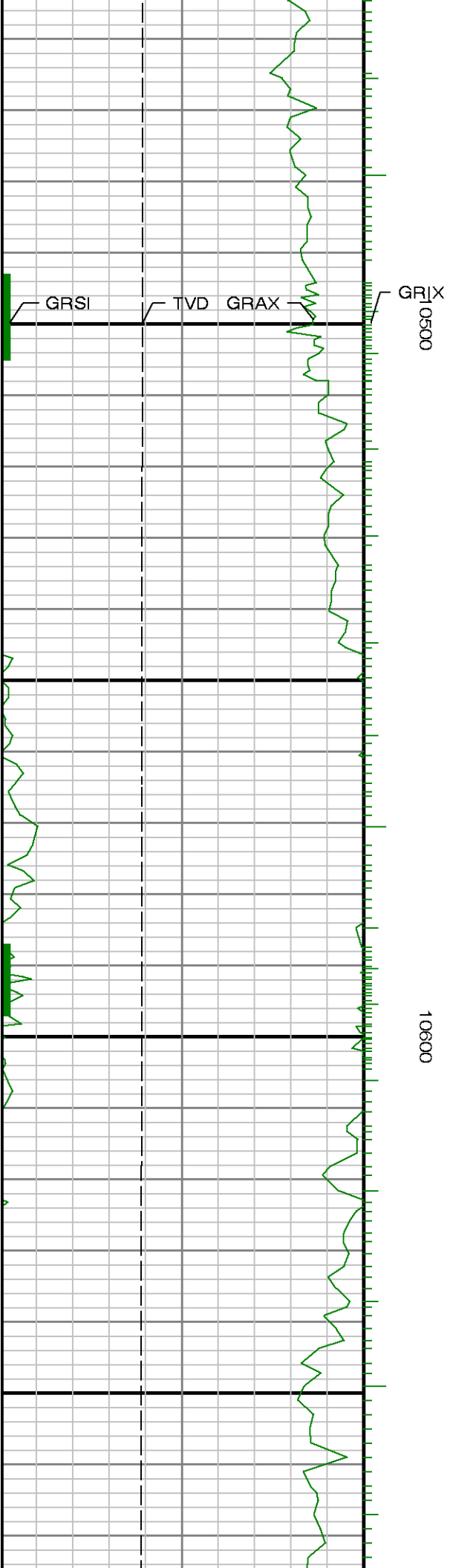
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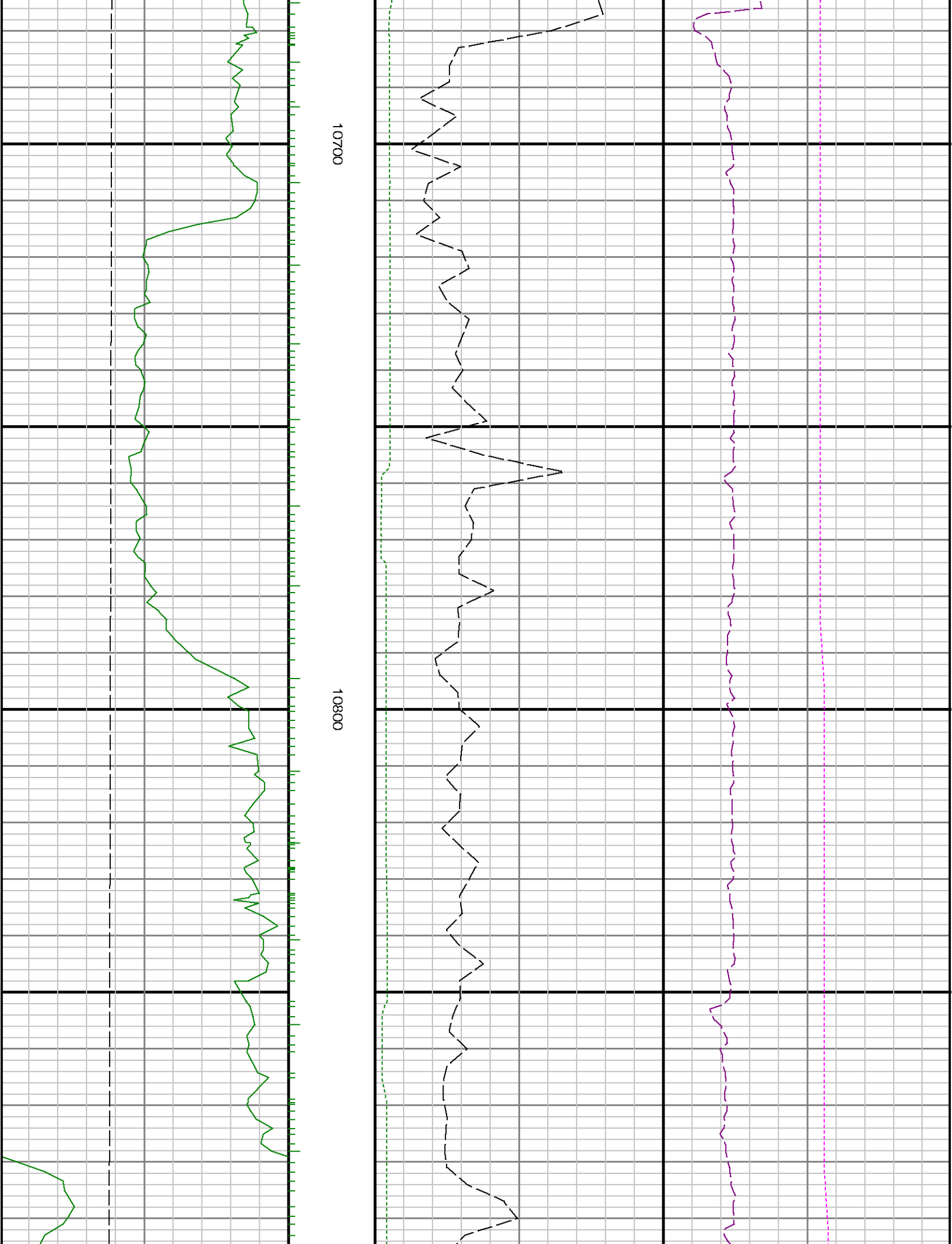


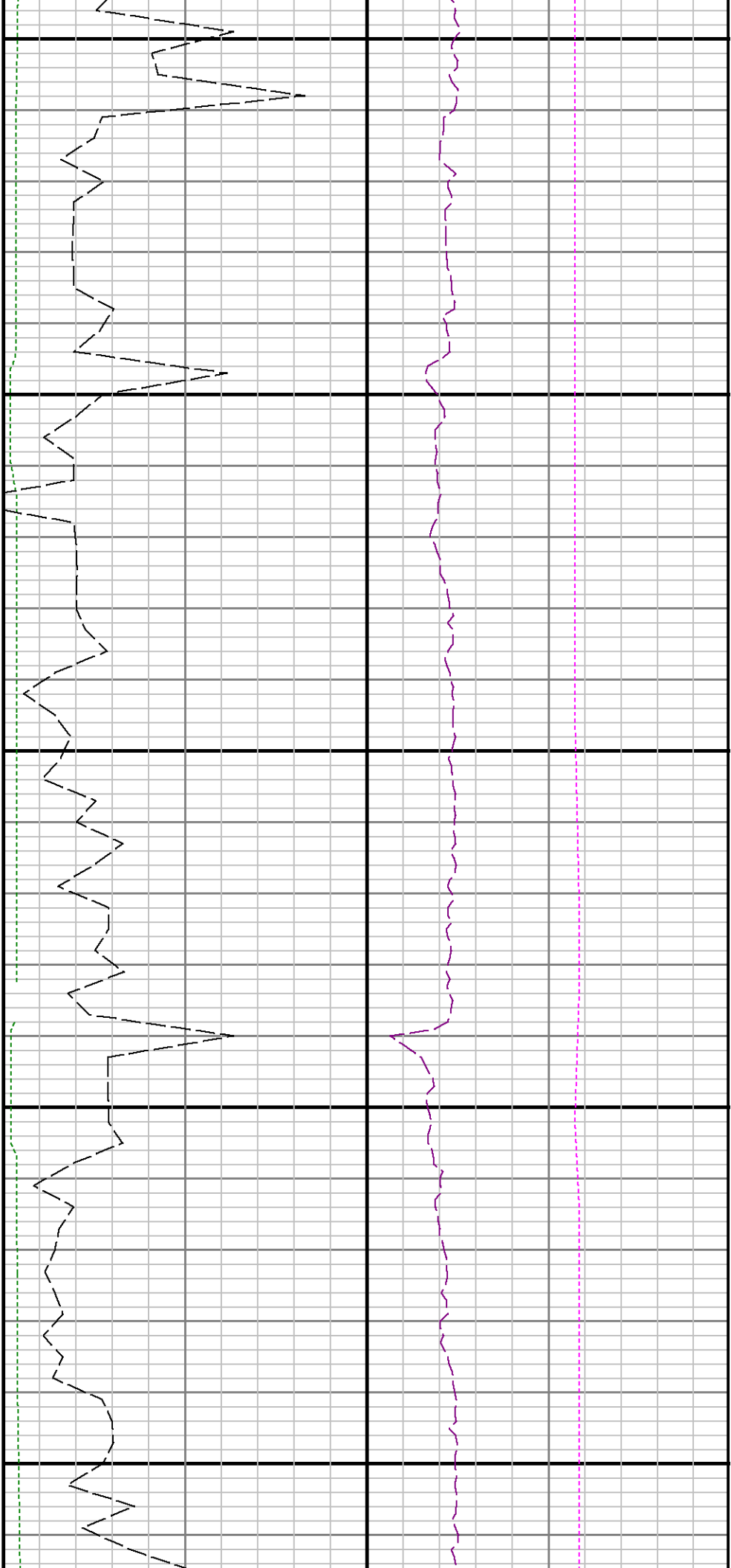








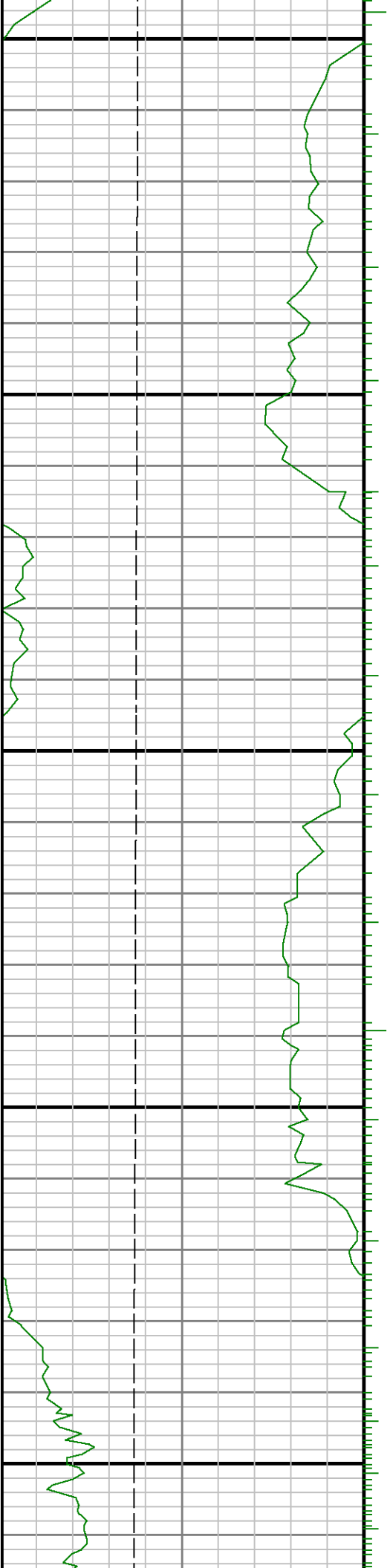


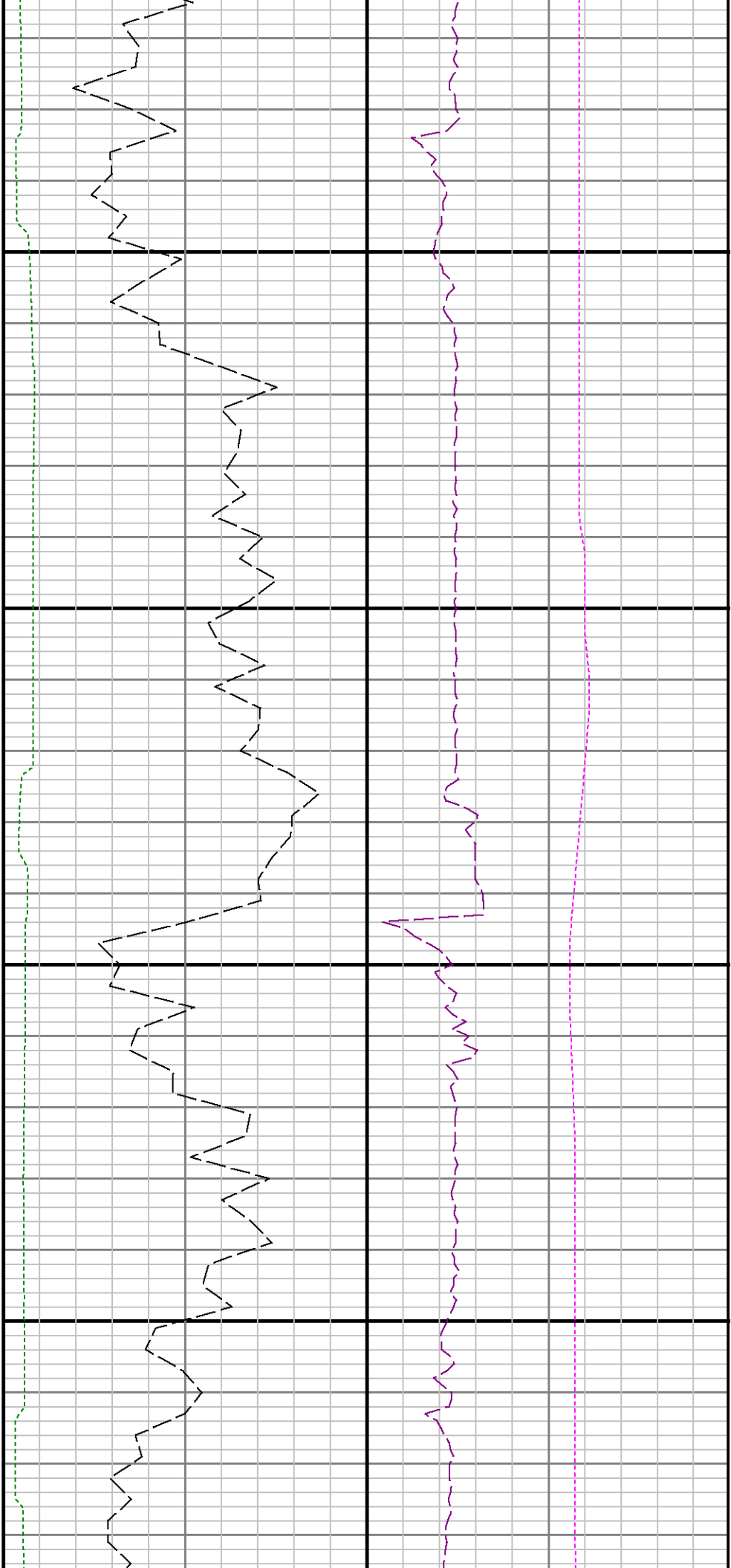


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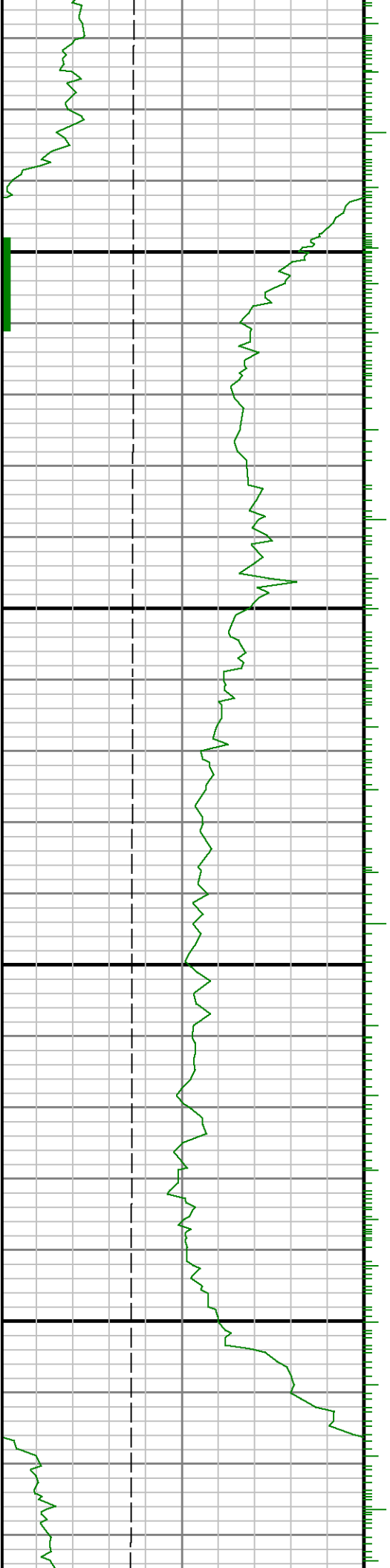
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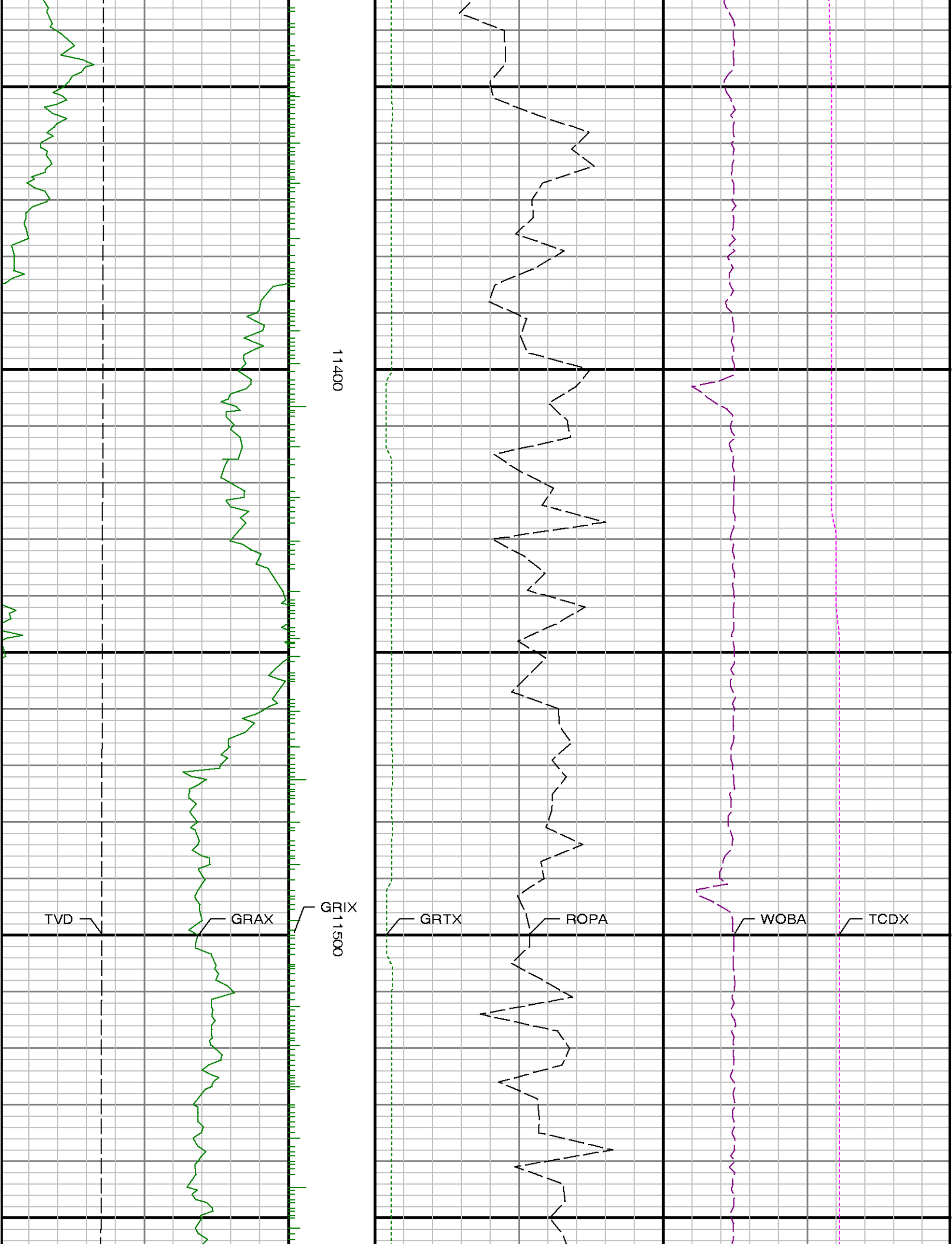


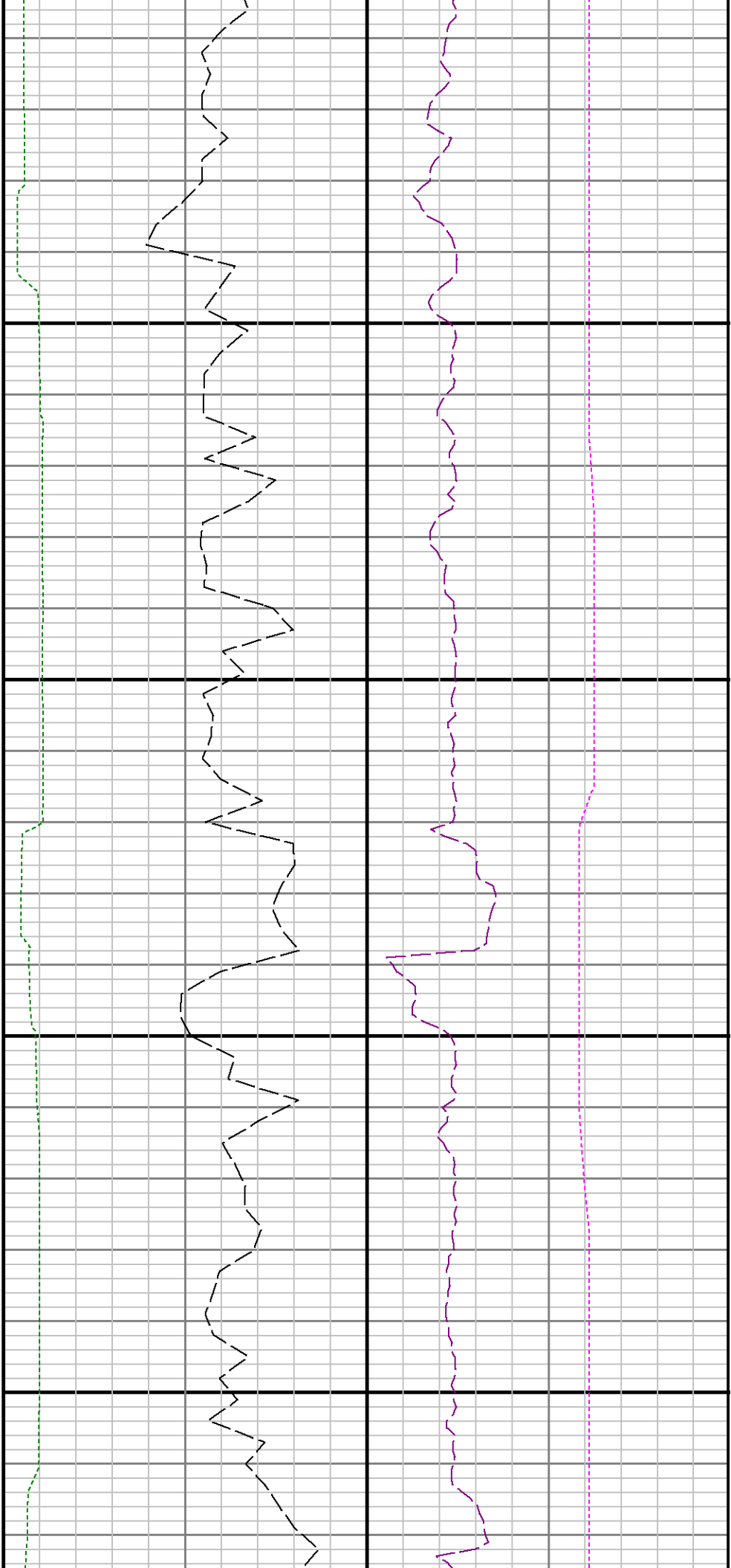


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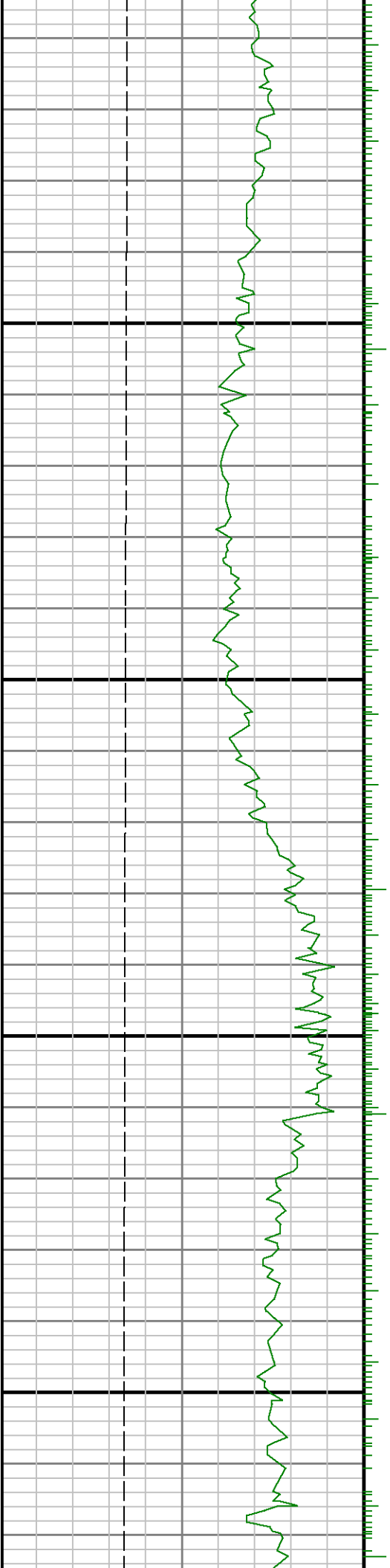


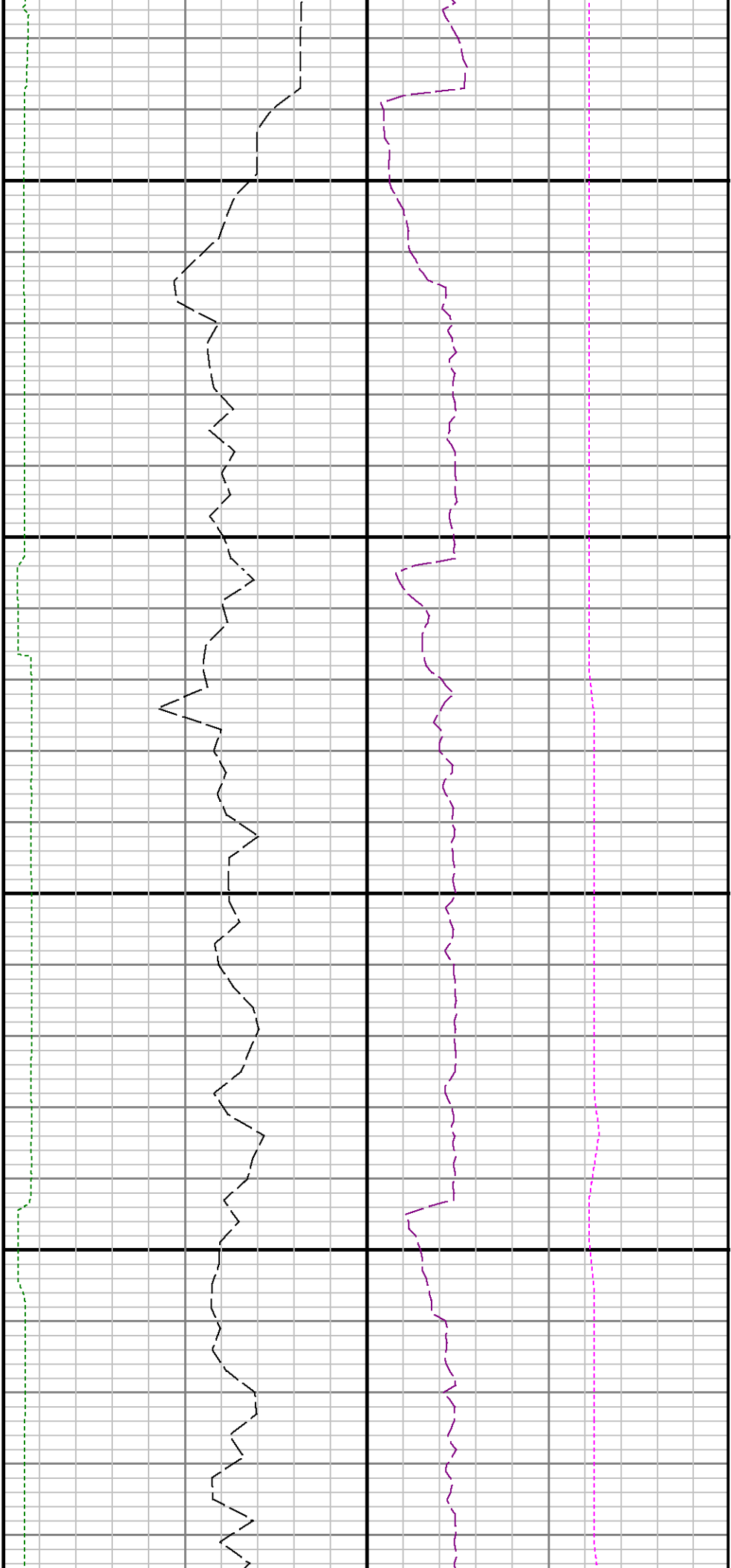




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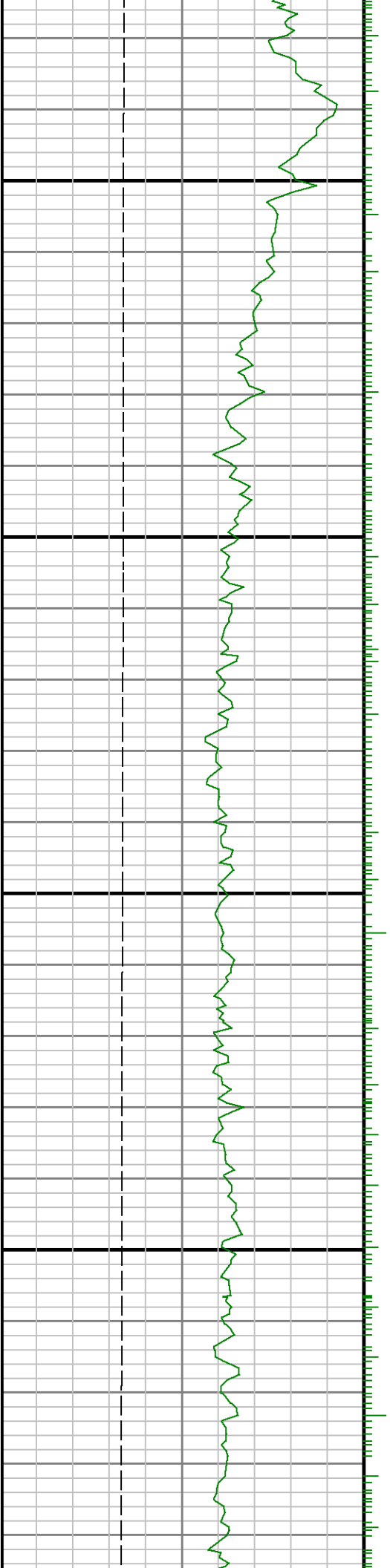
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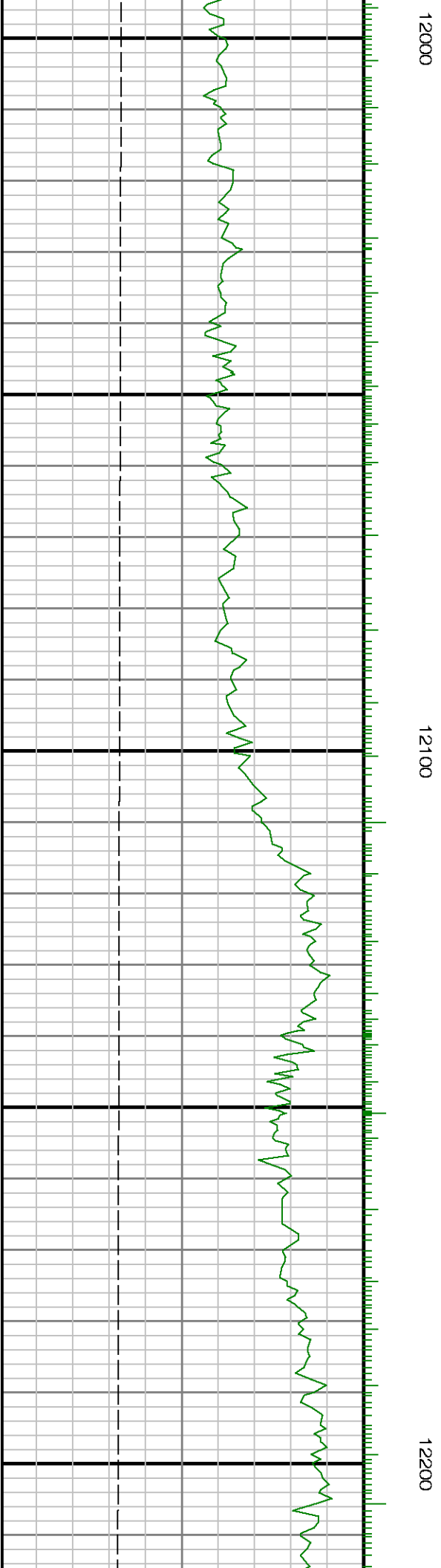
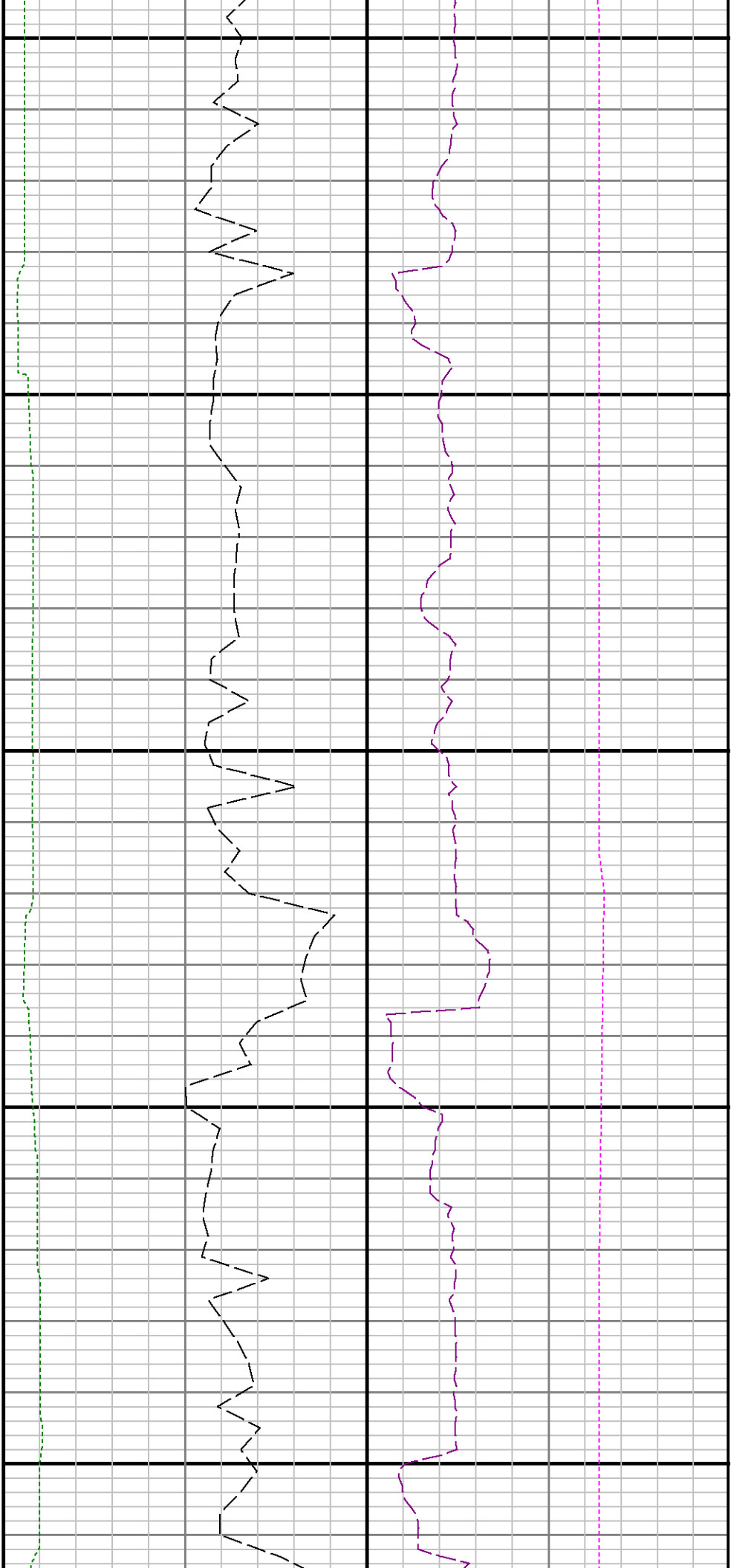


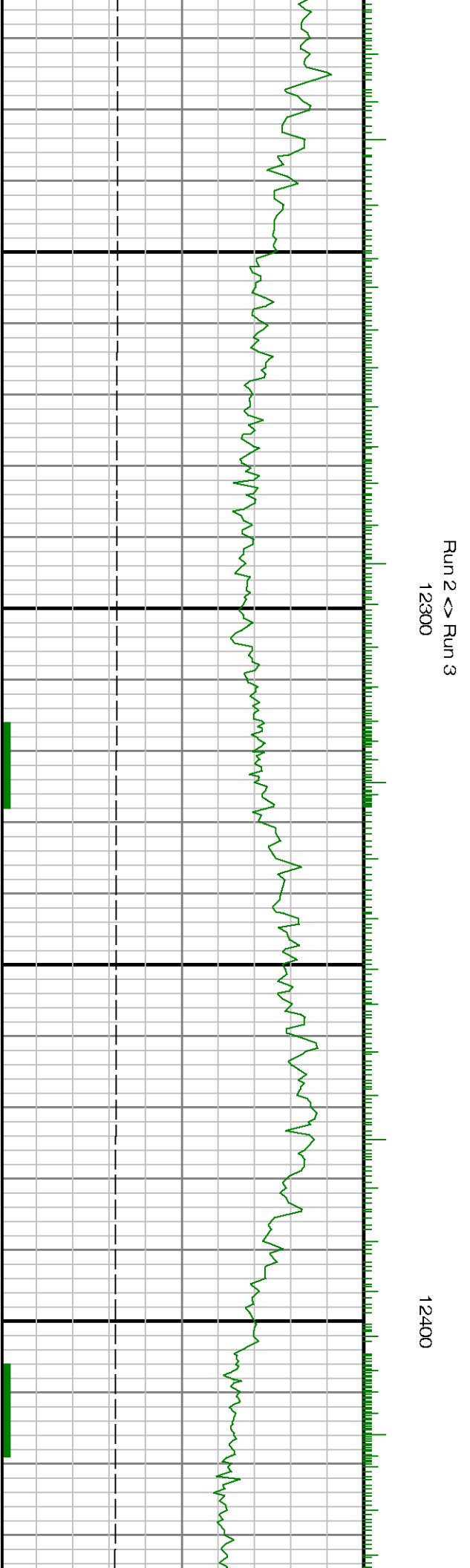
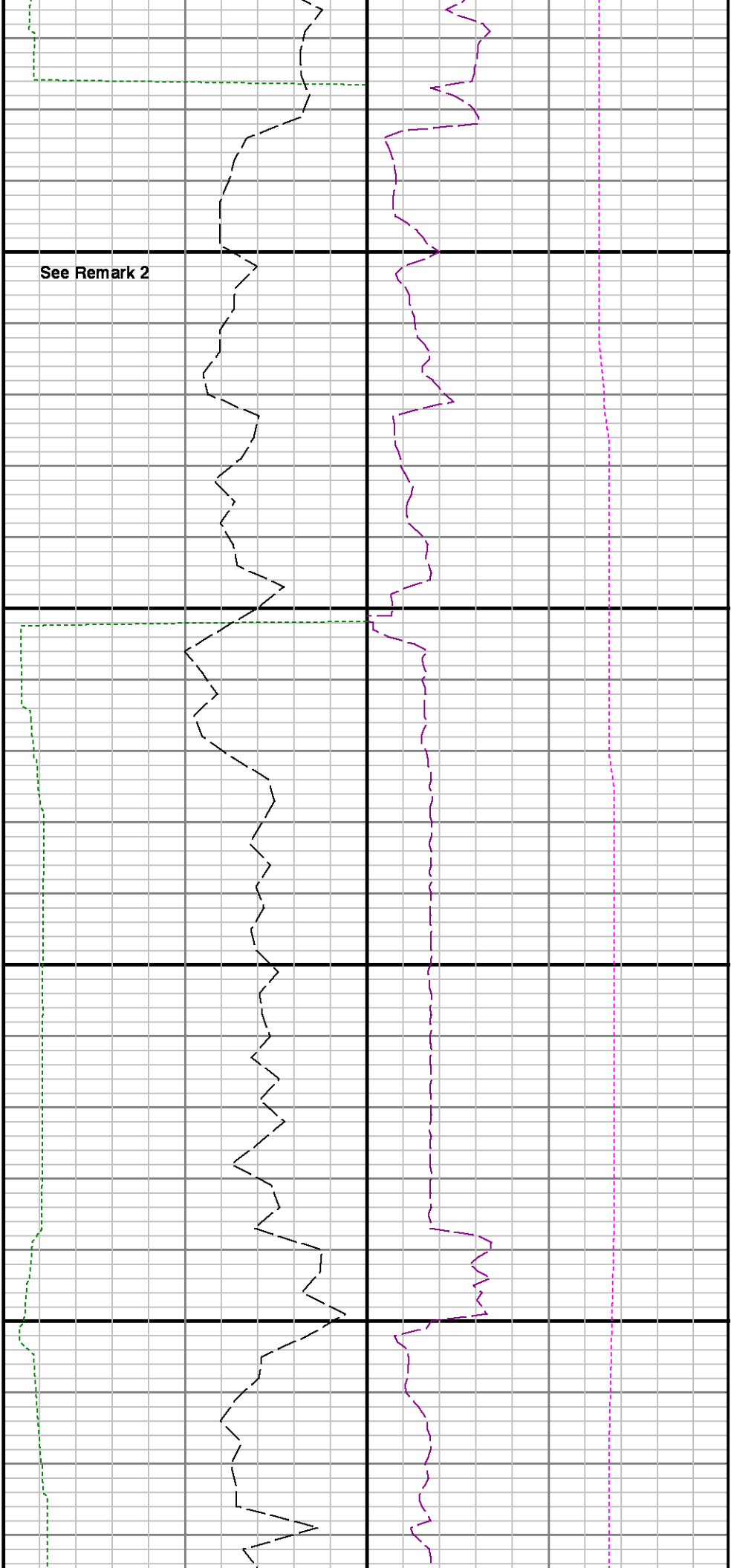


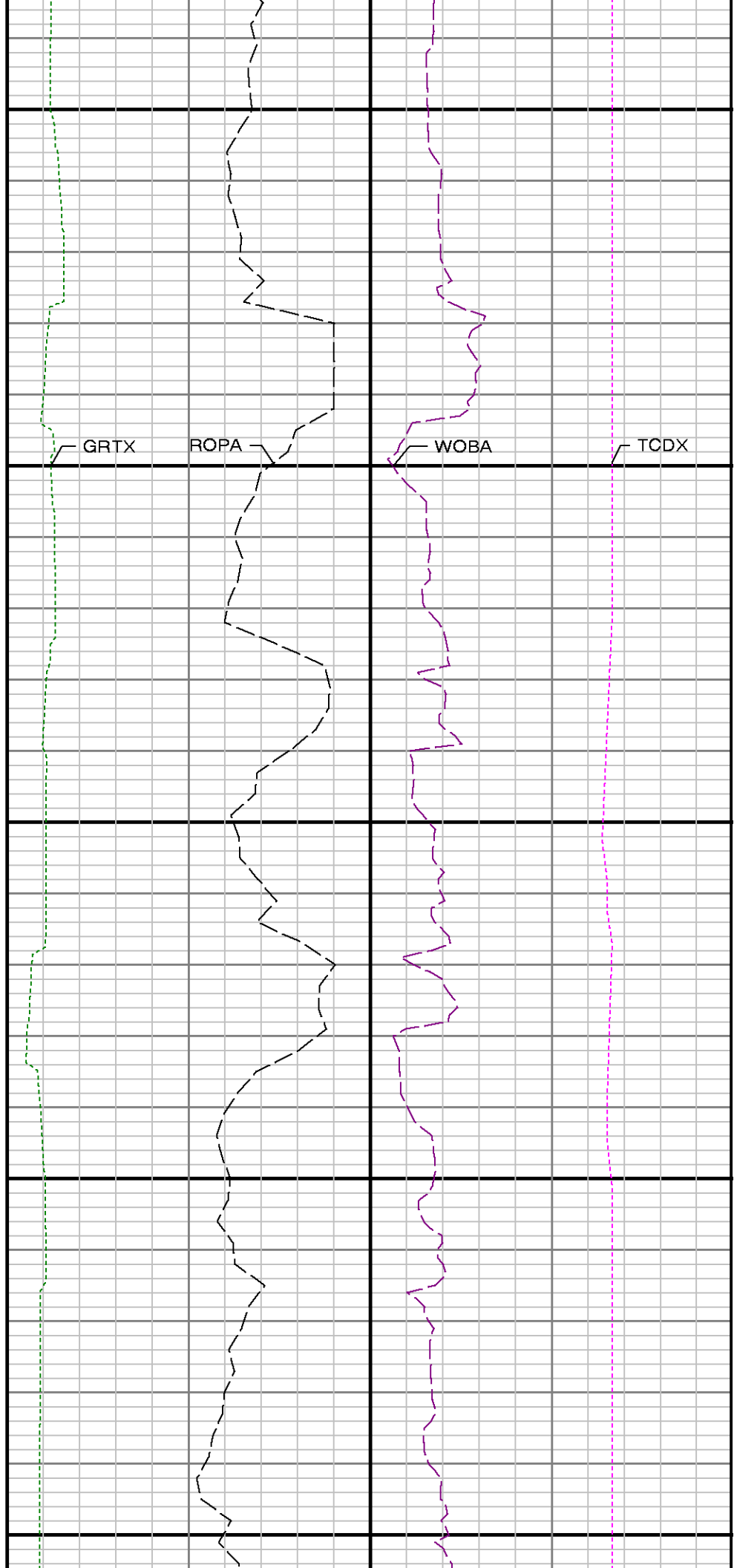
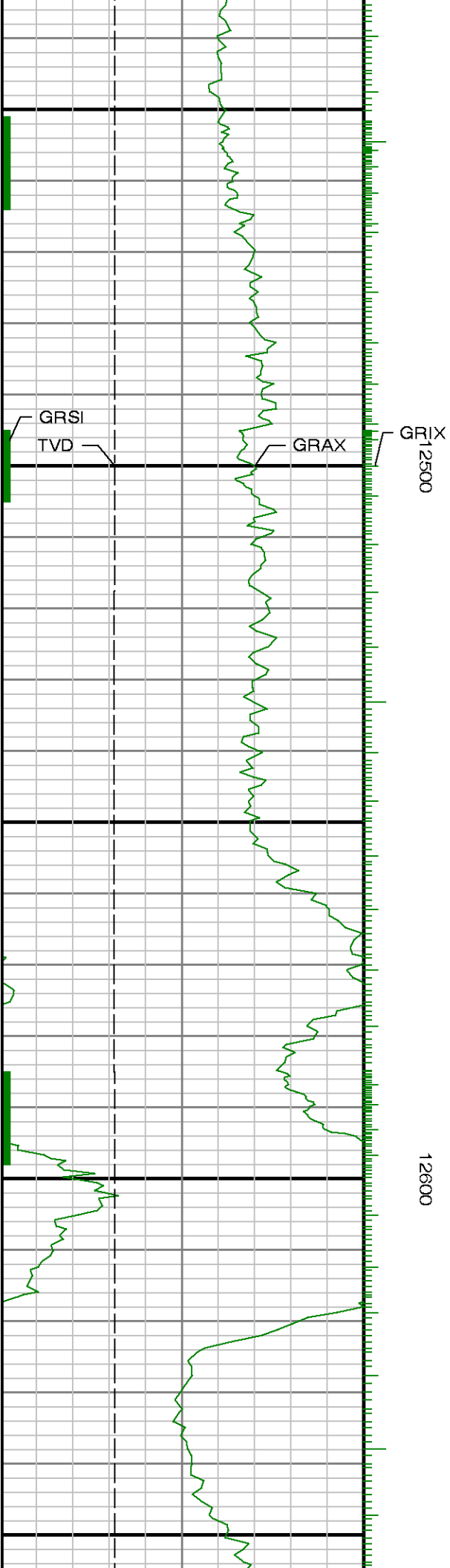
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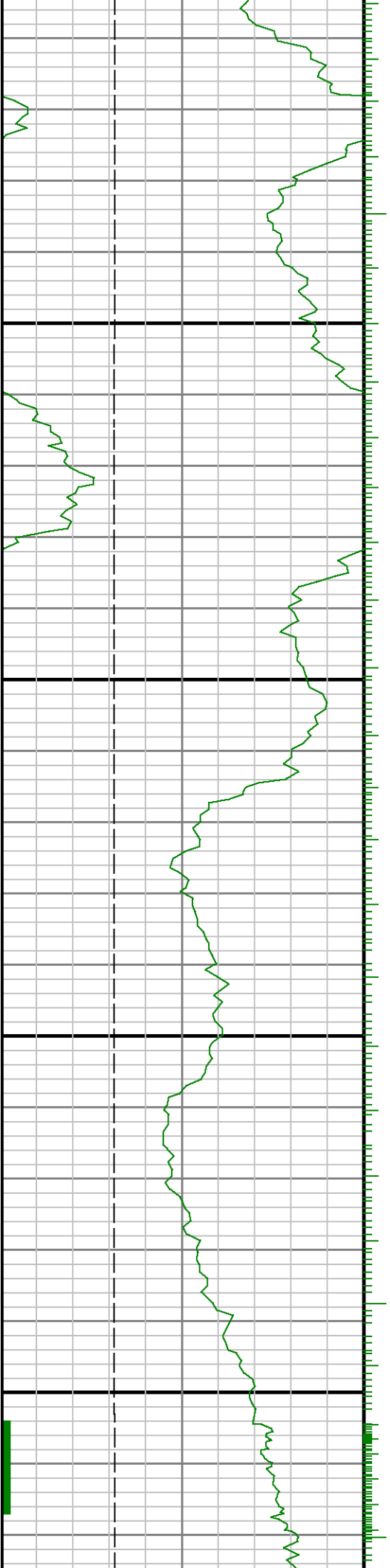


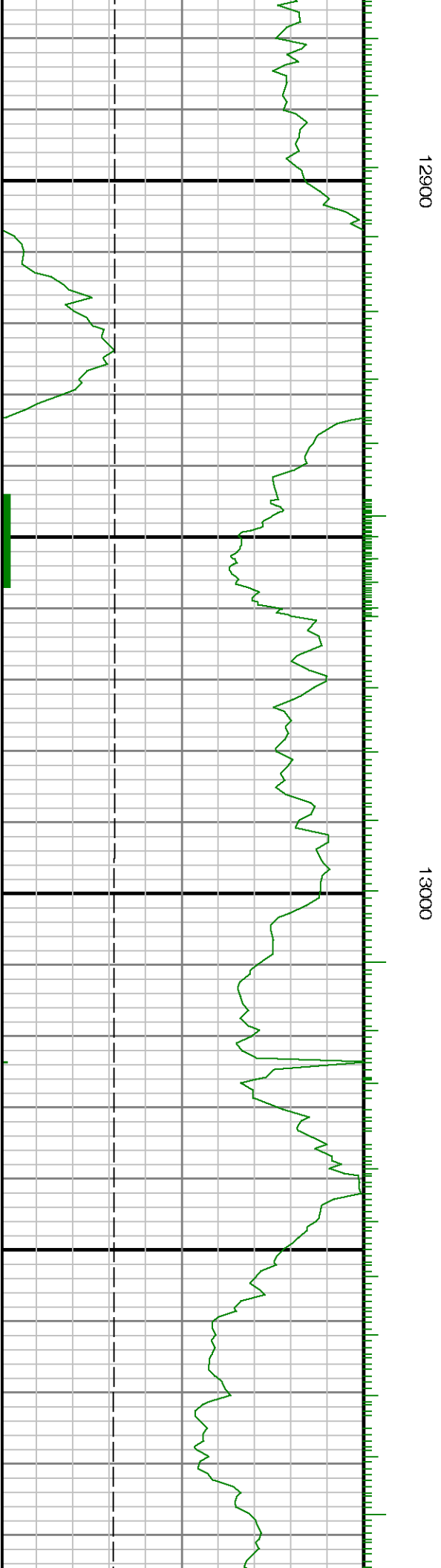


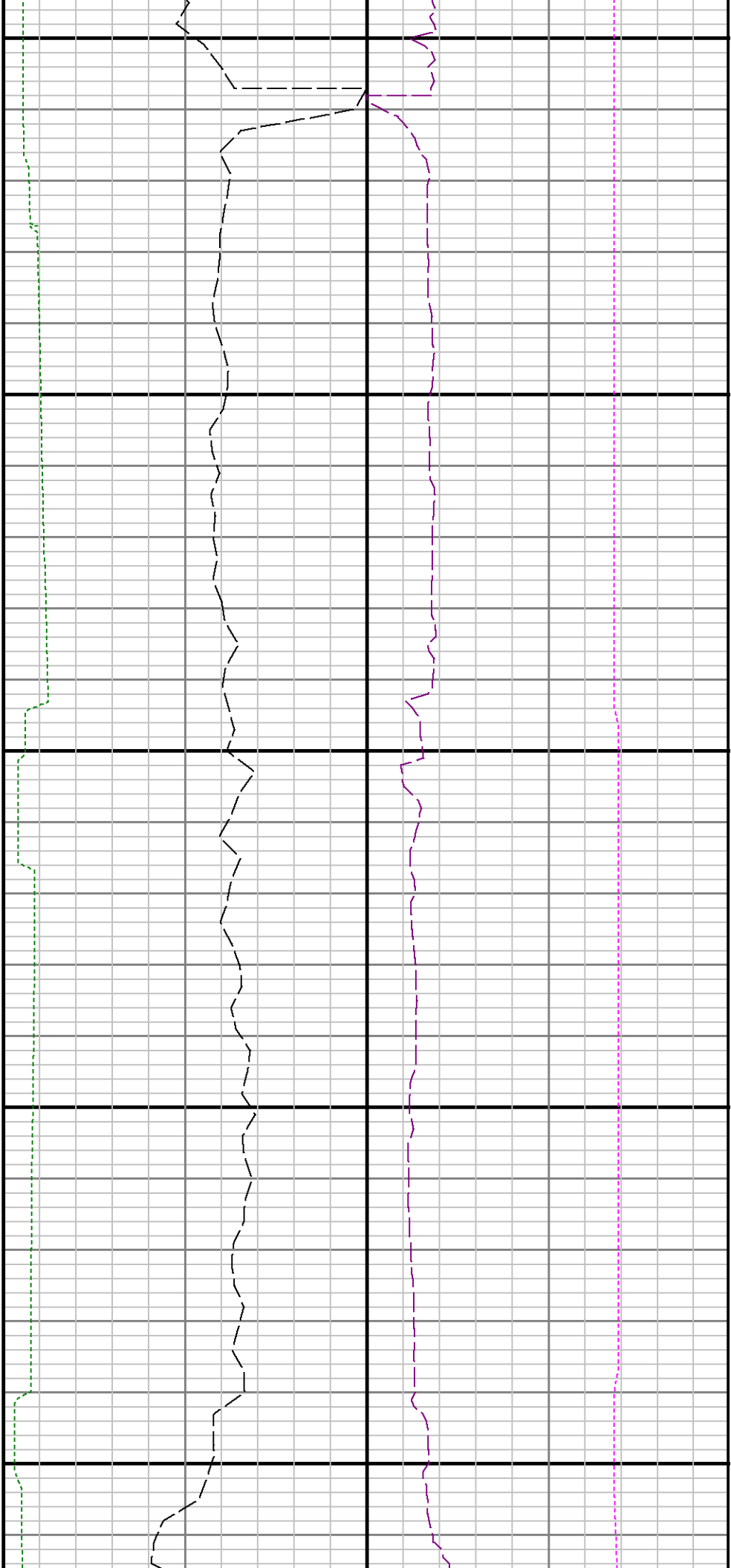


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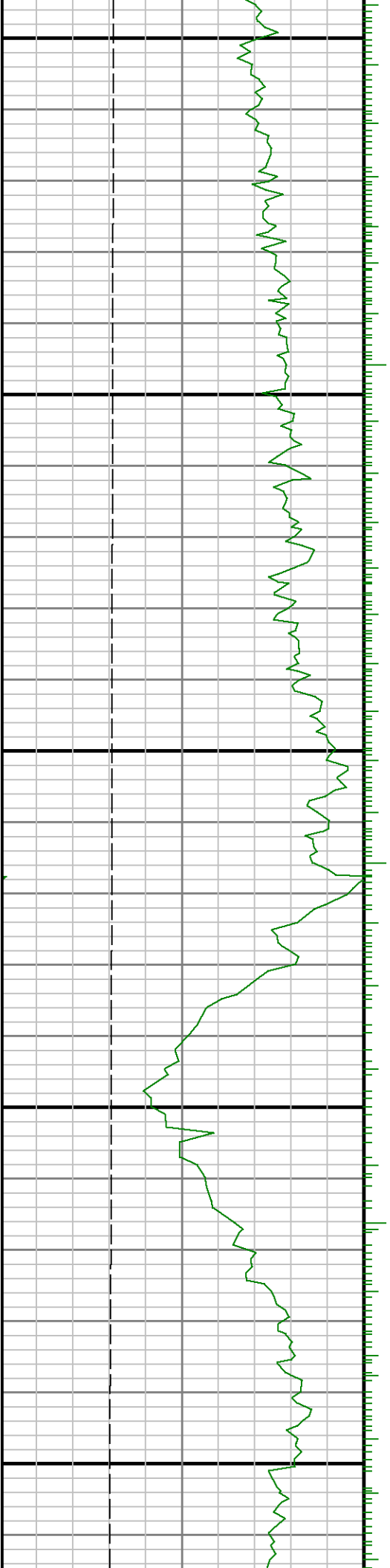


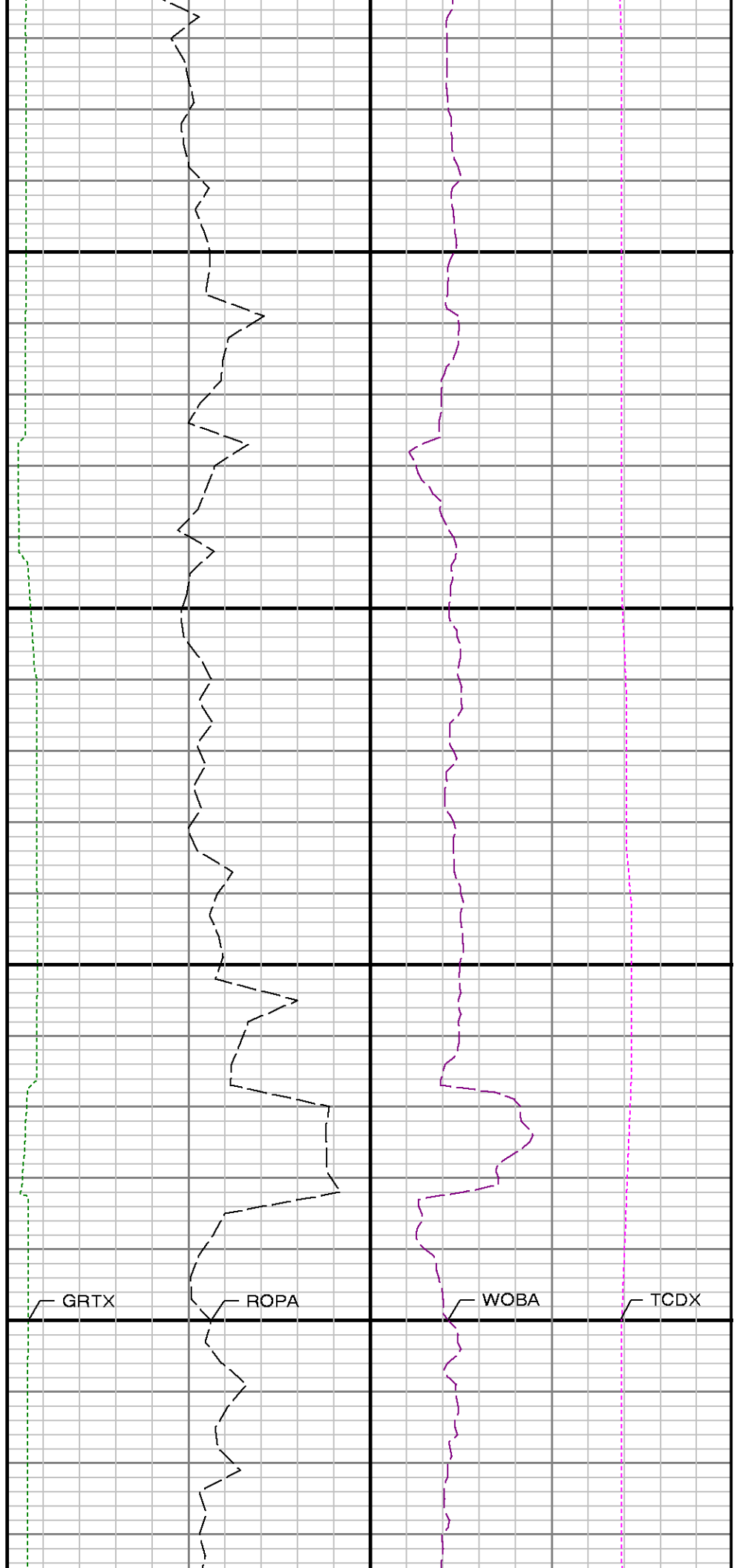
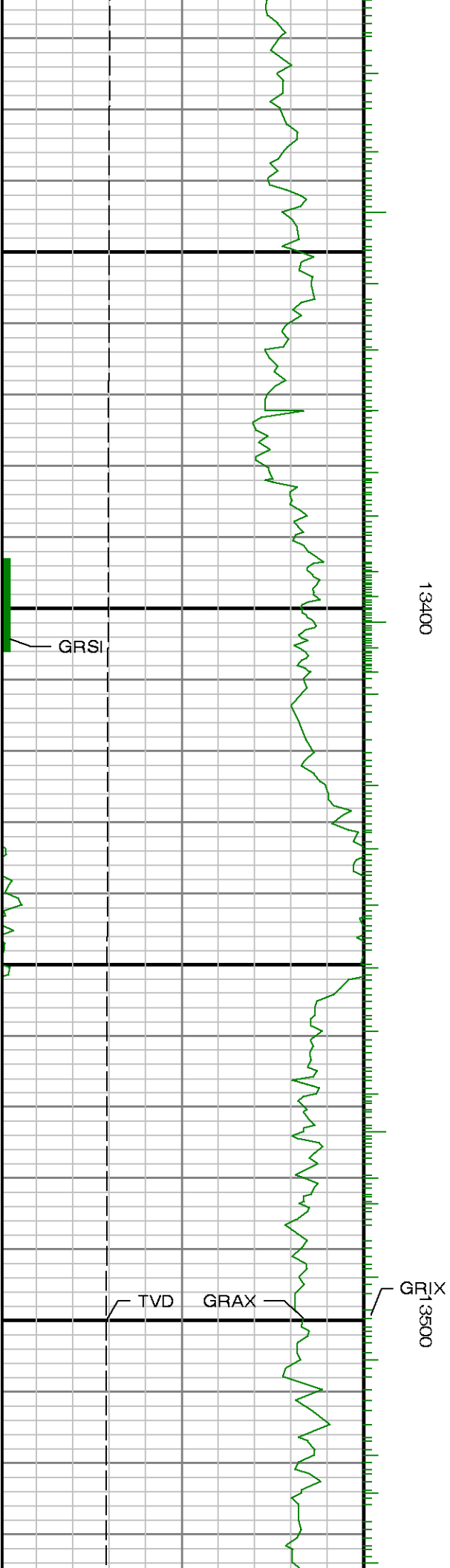


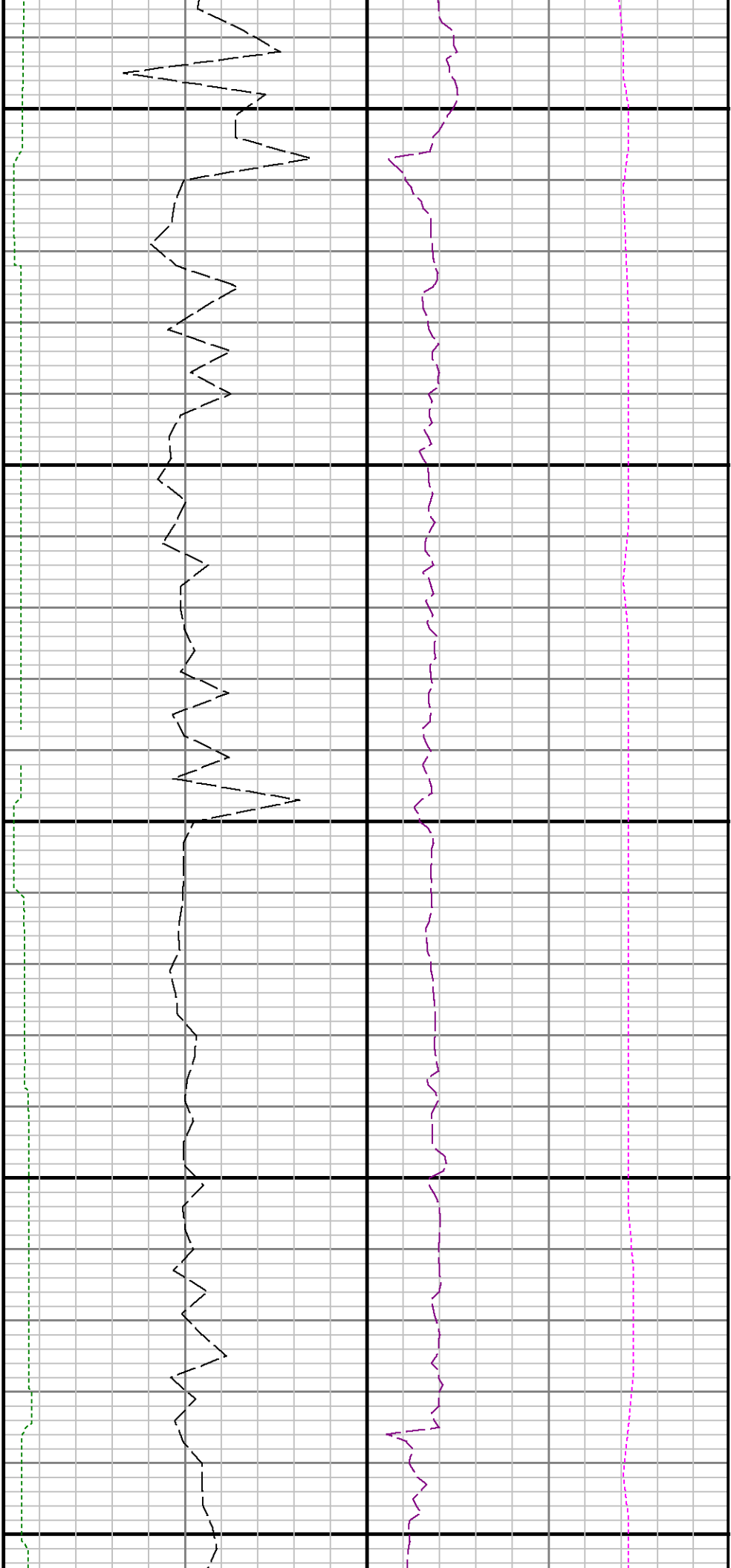
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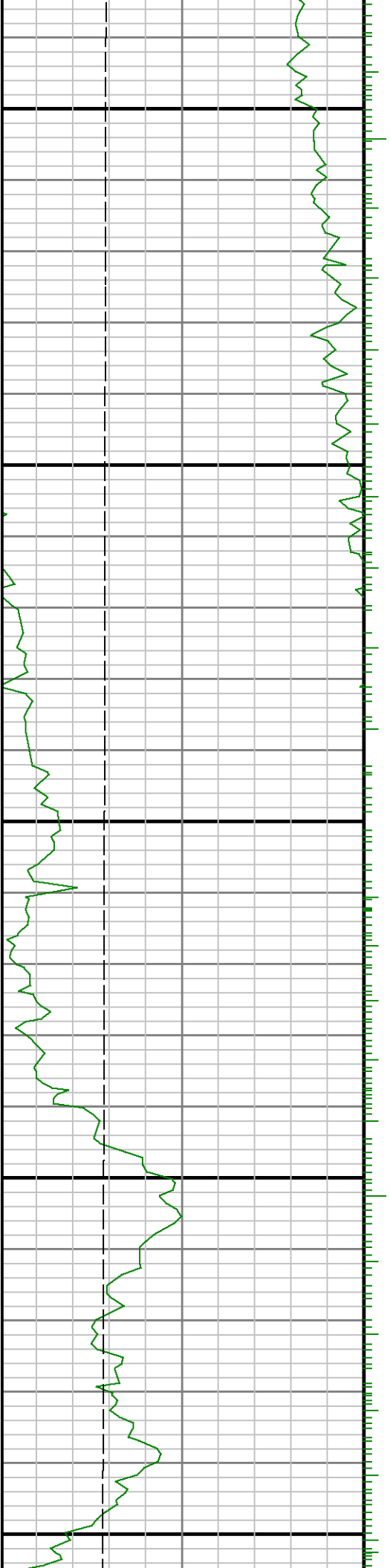






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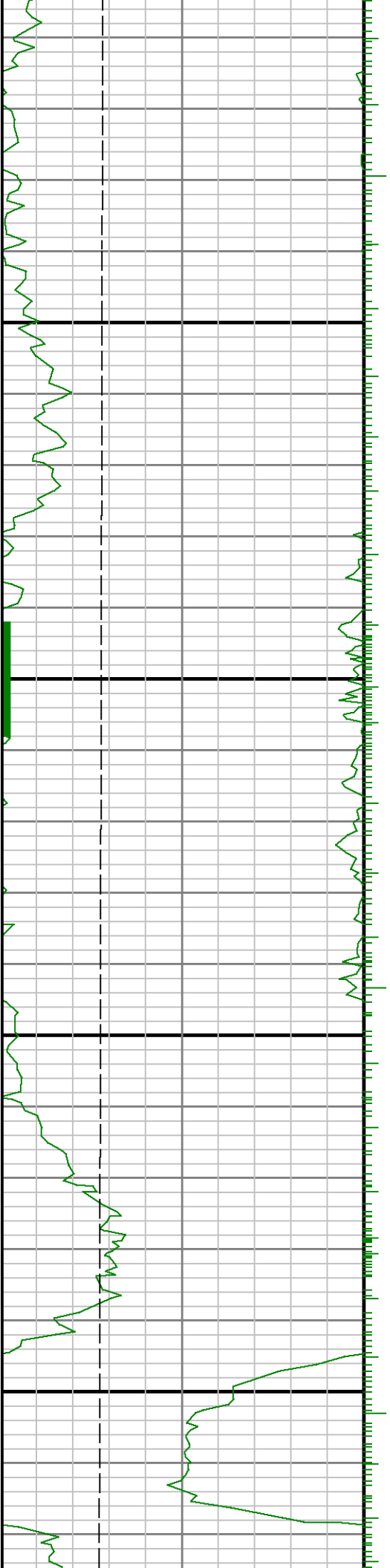
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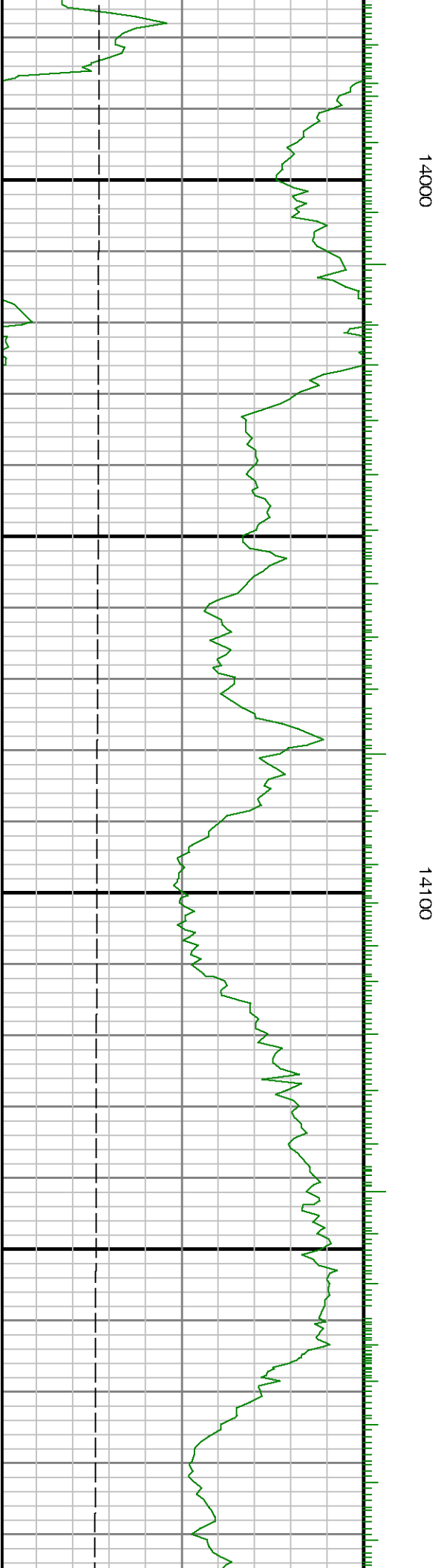
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See Remark 3



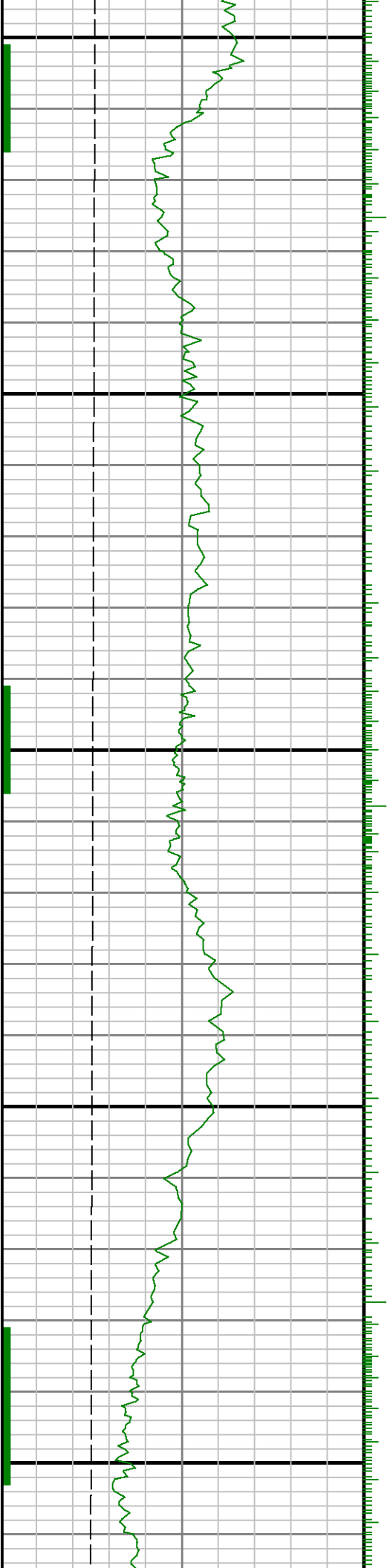


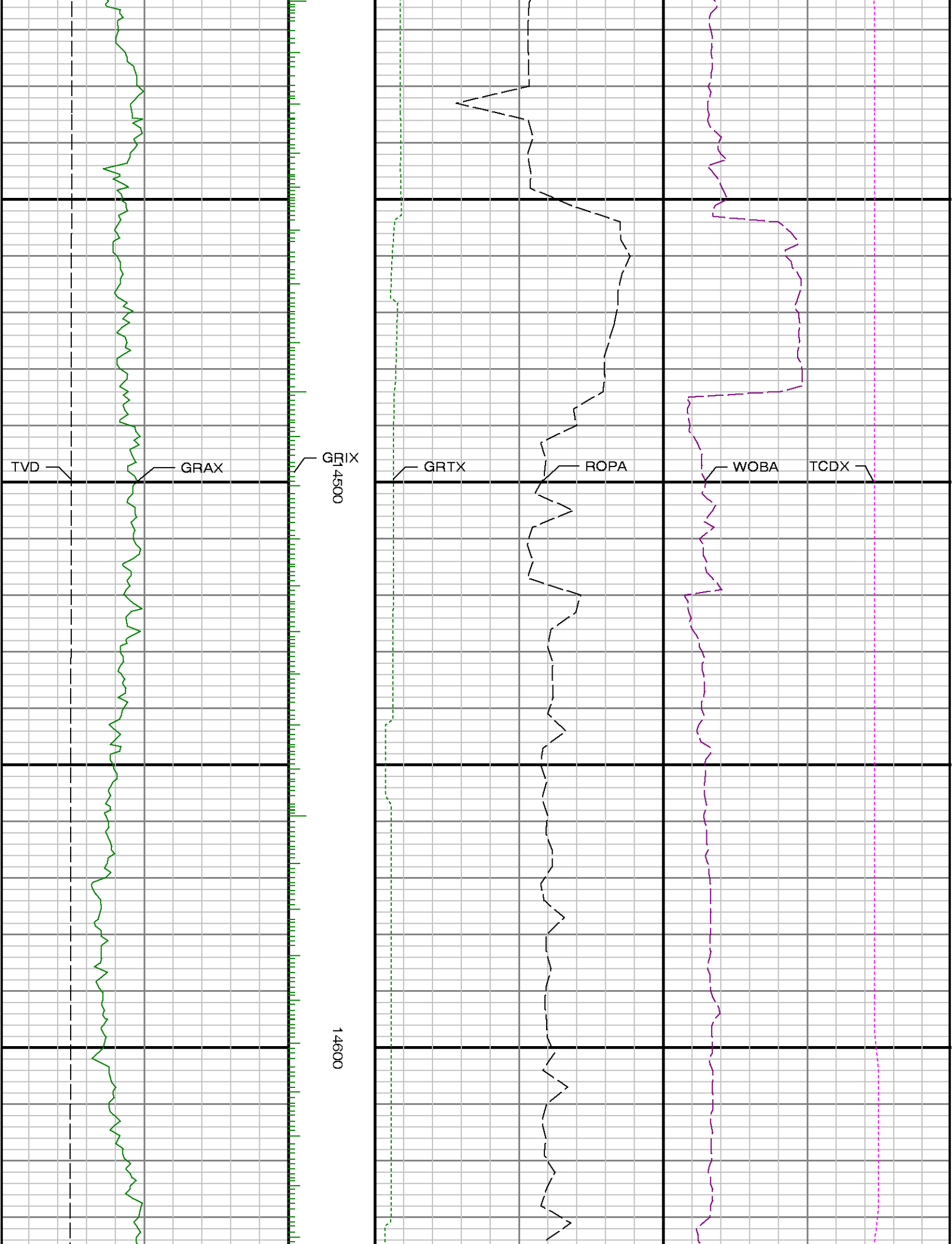
Run 3 <> Run 4

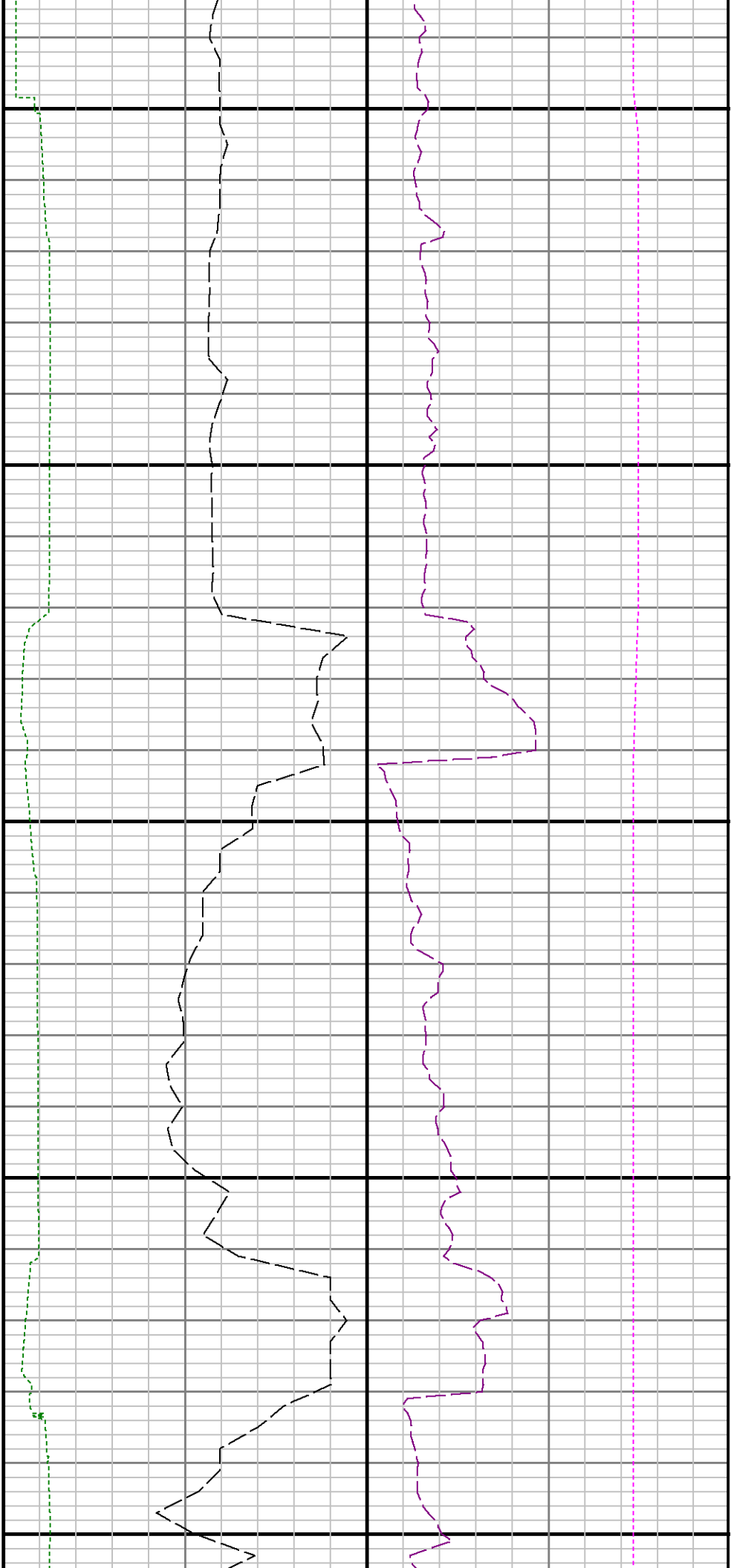
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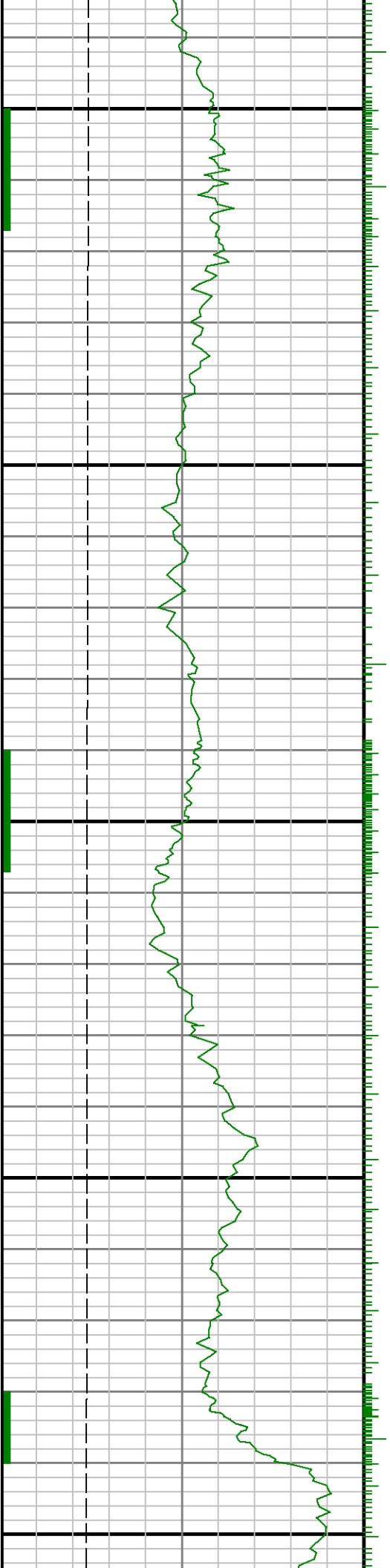


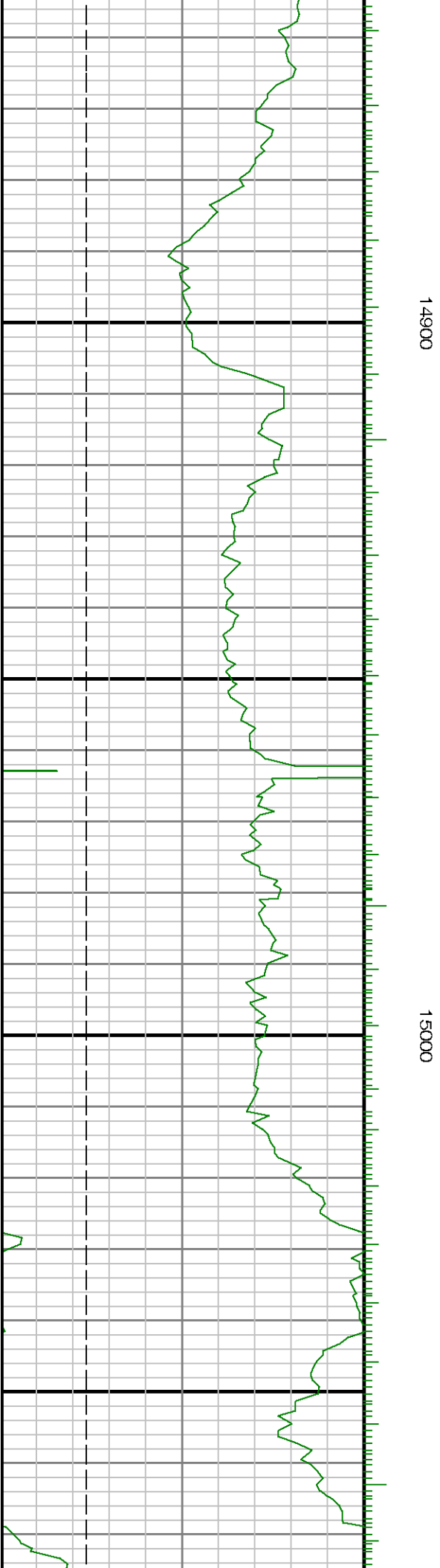
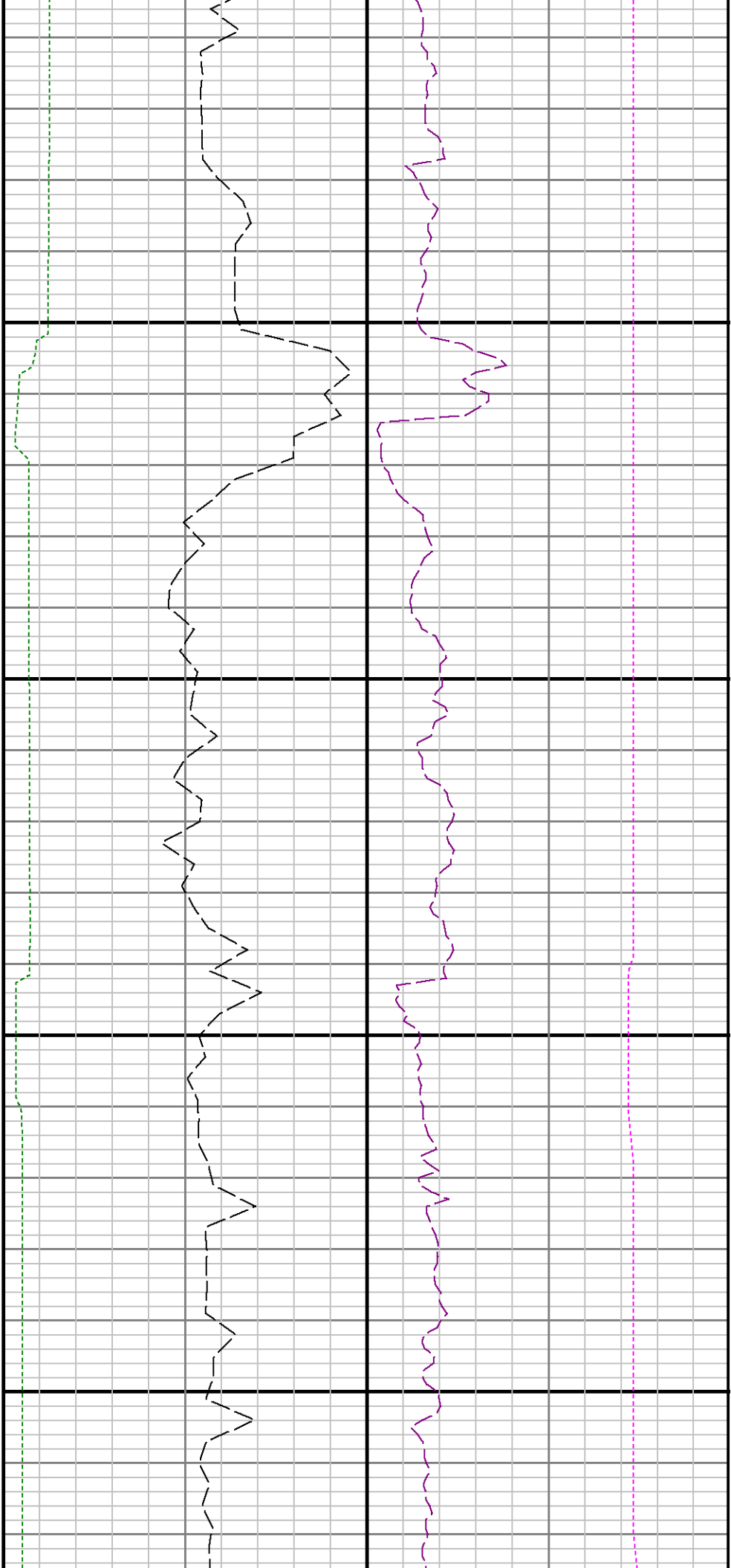


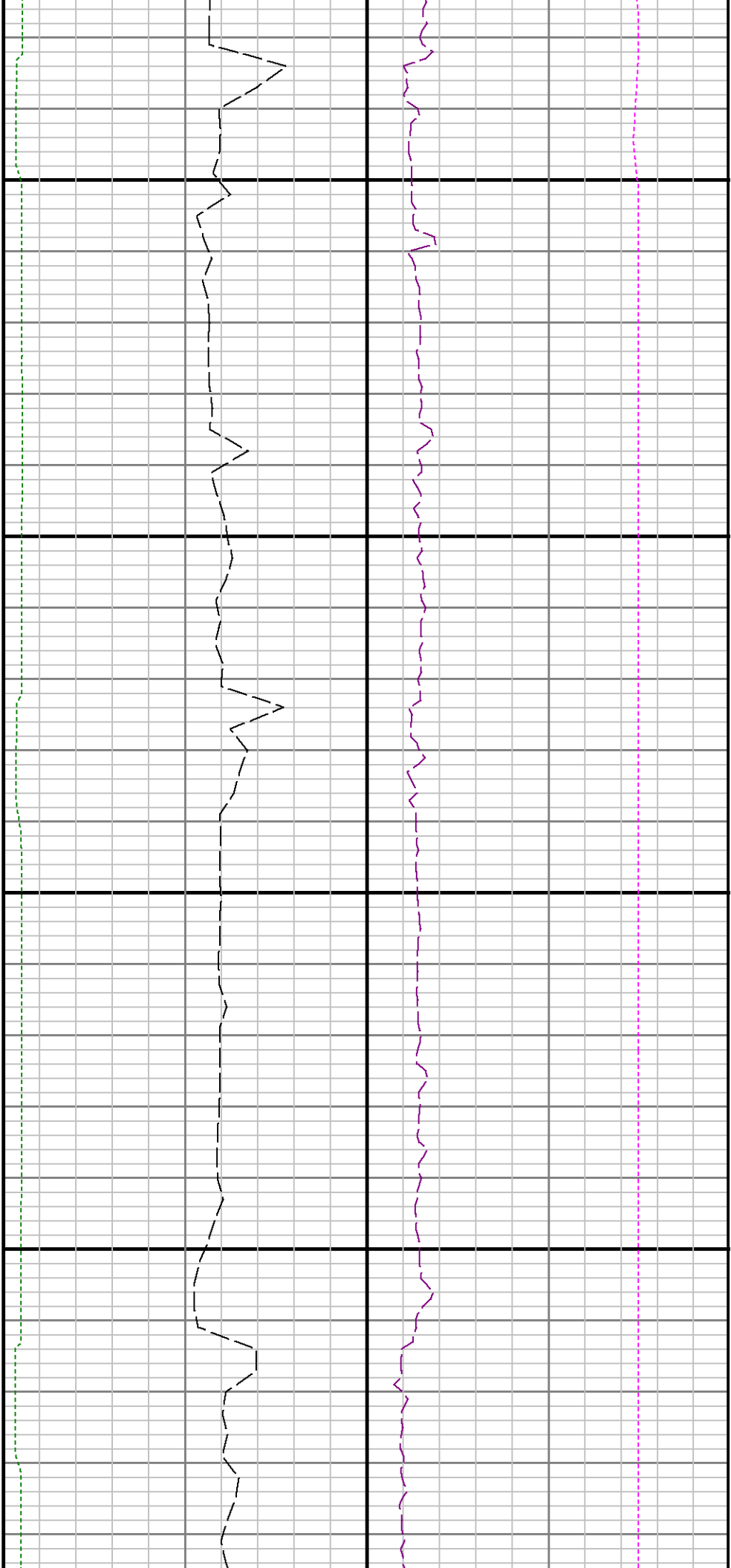


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14800

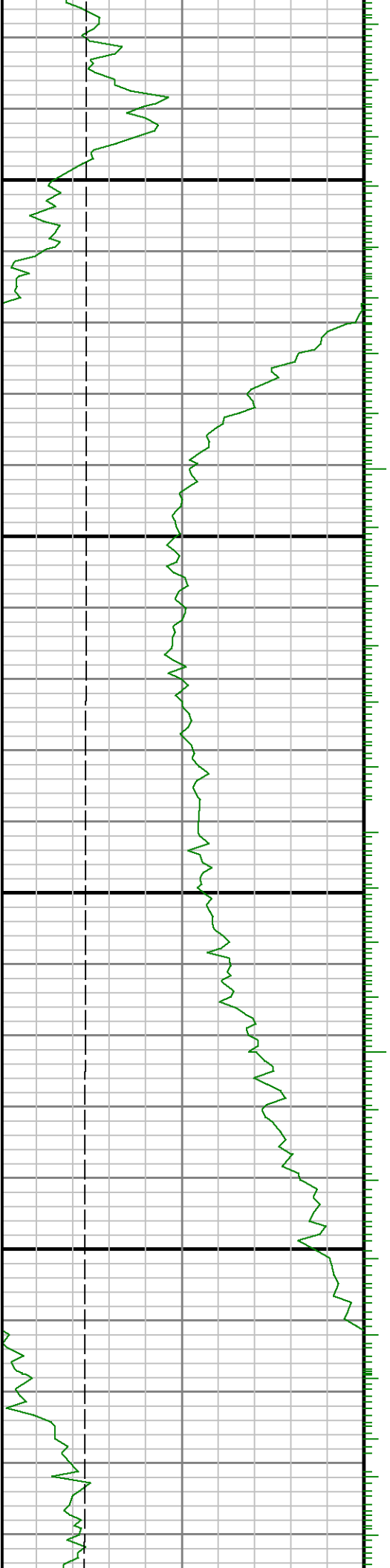


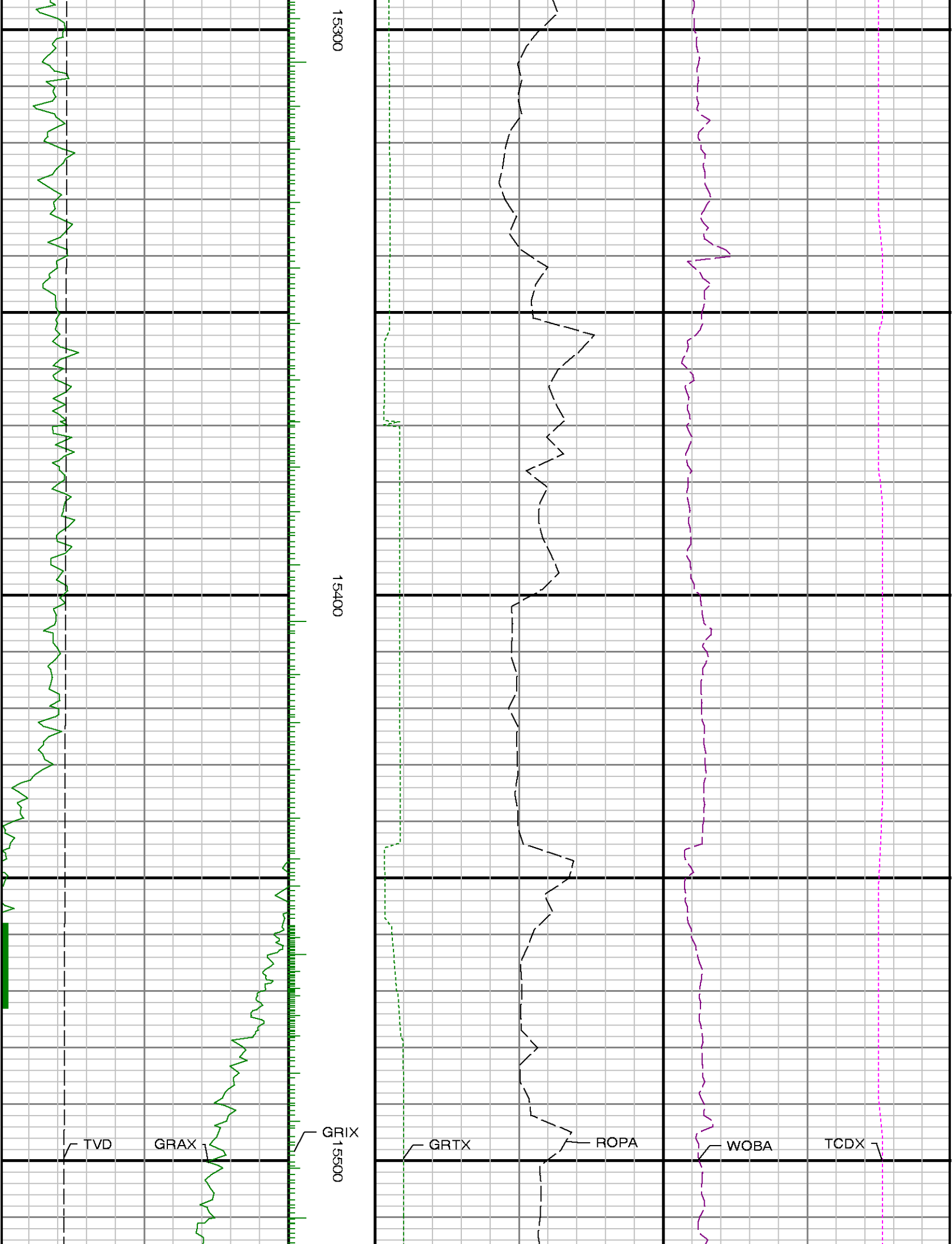


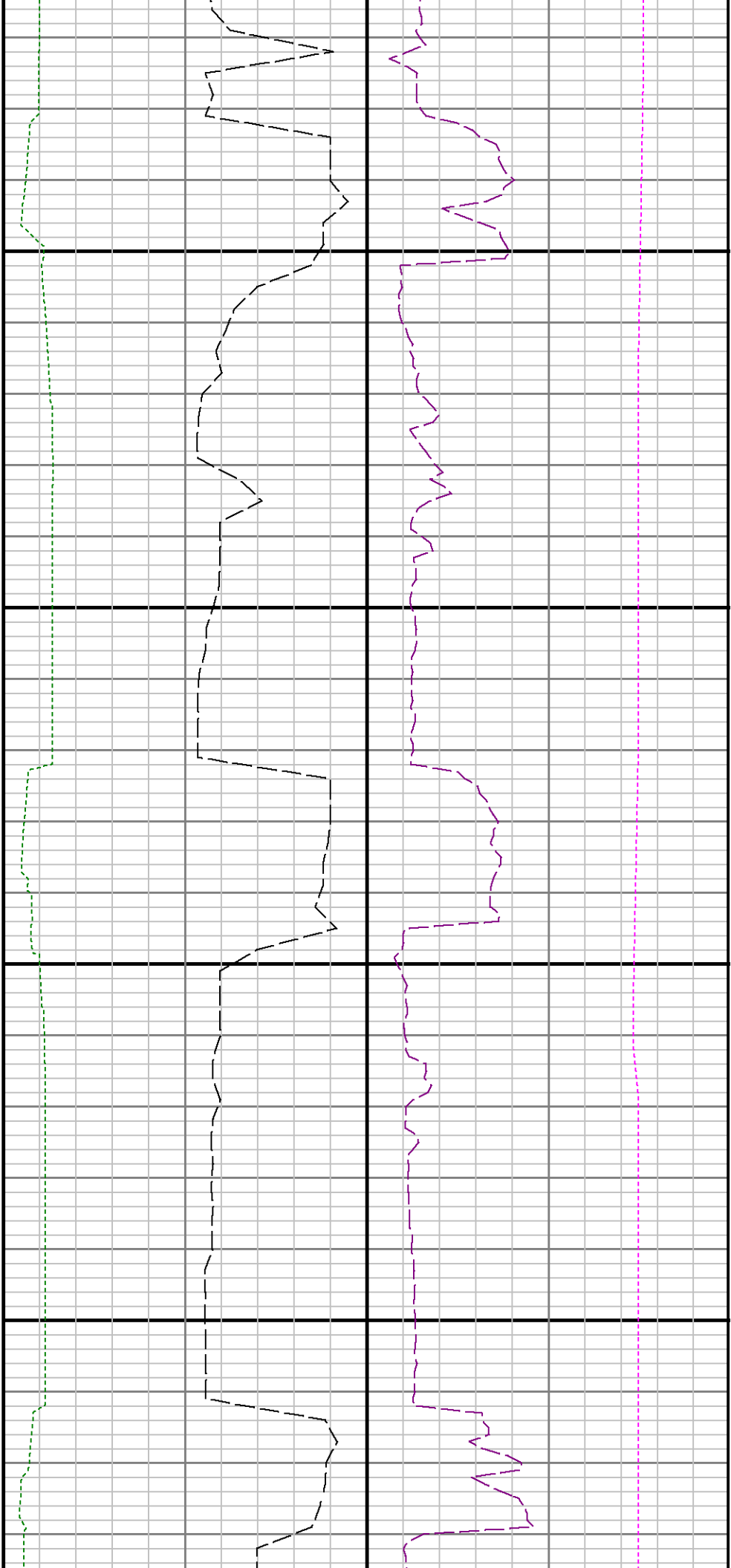


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15200

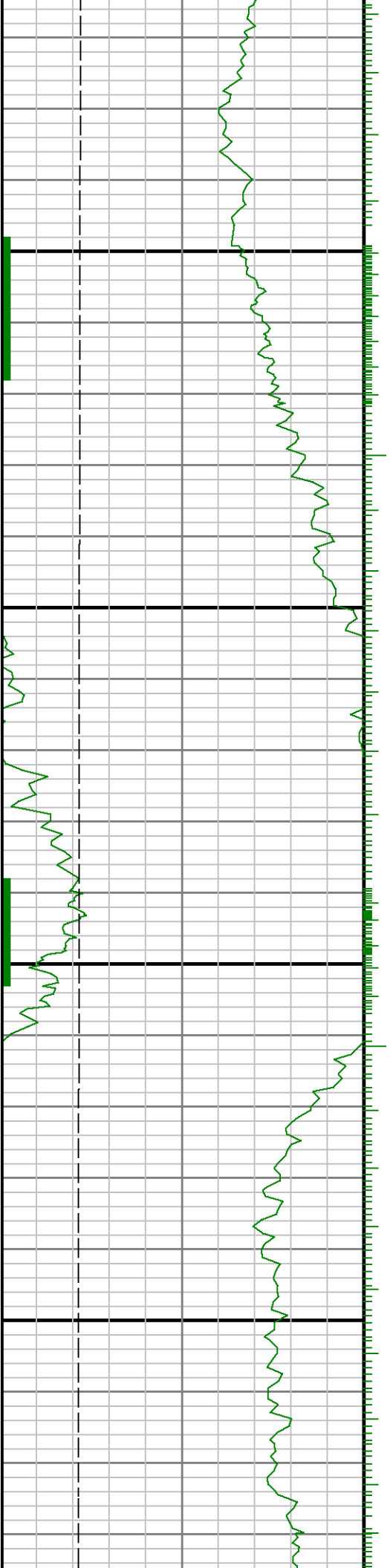


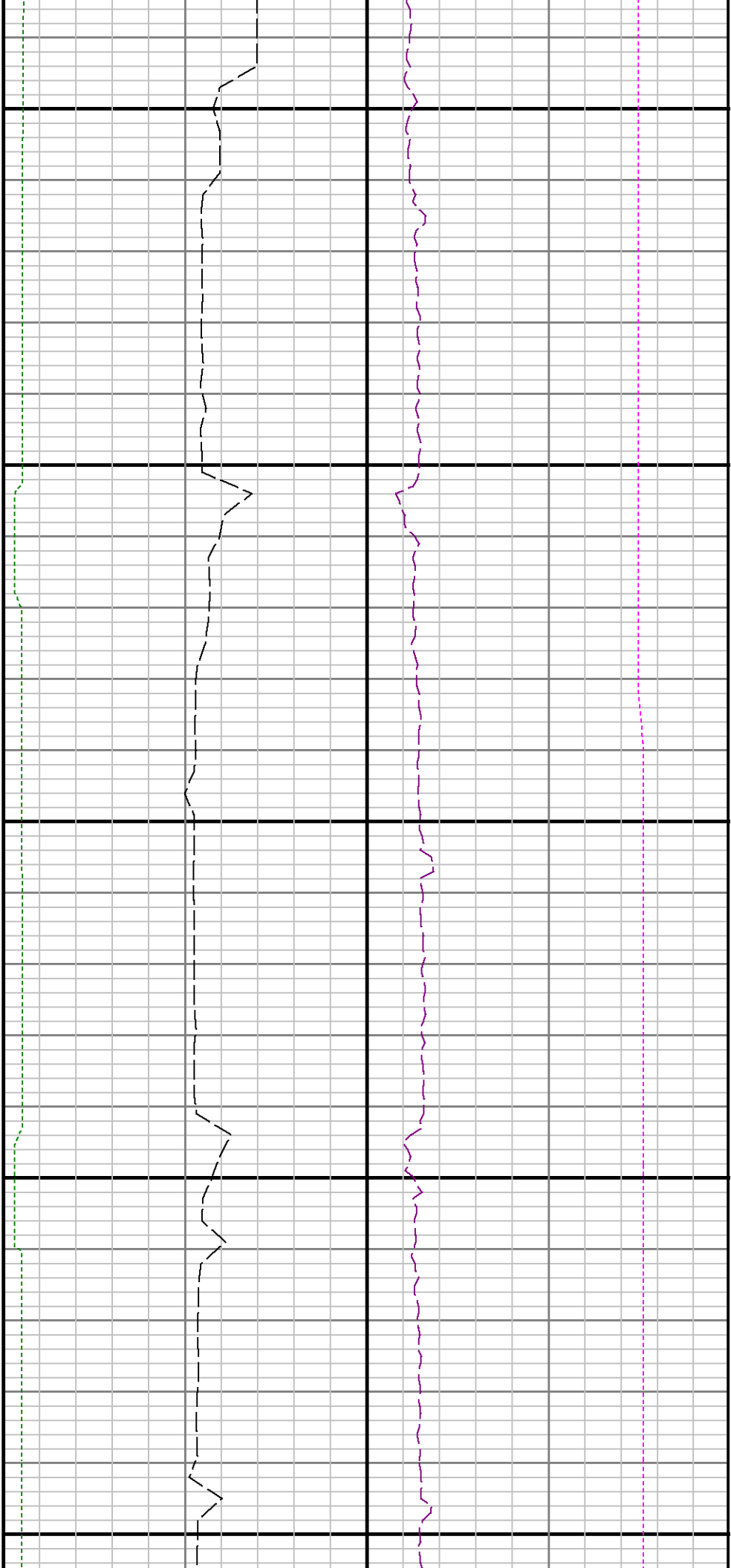




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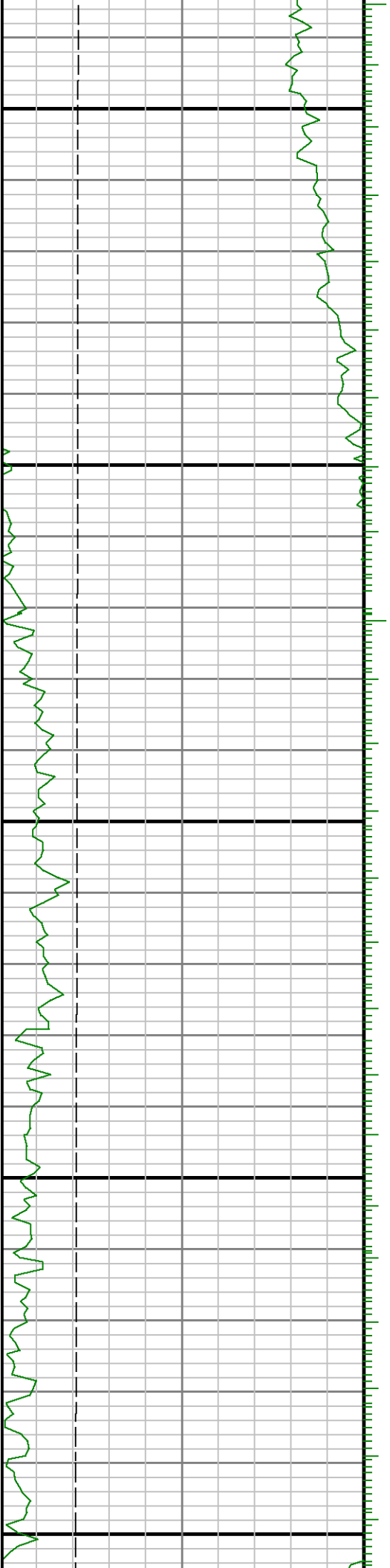
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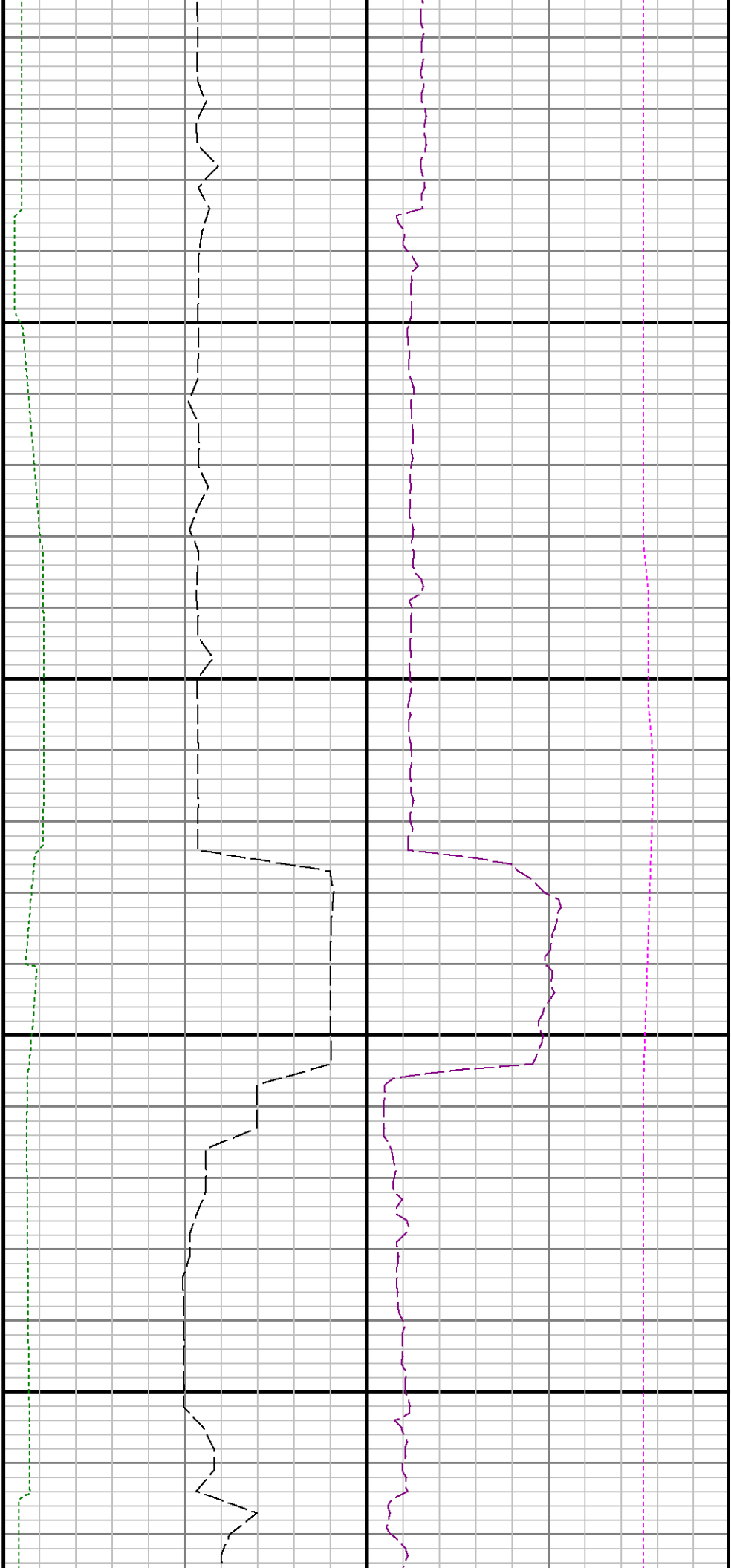




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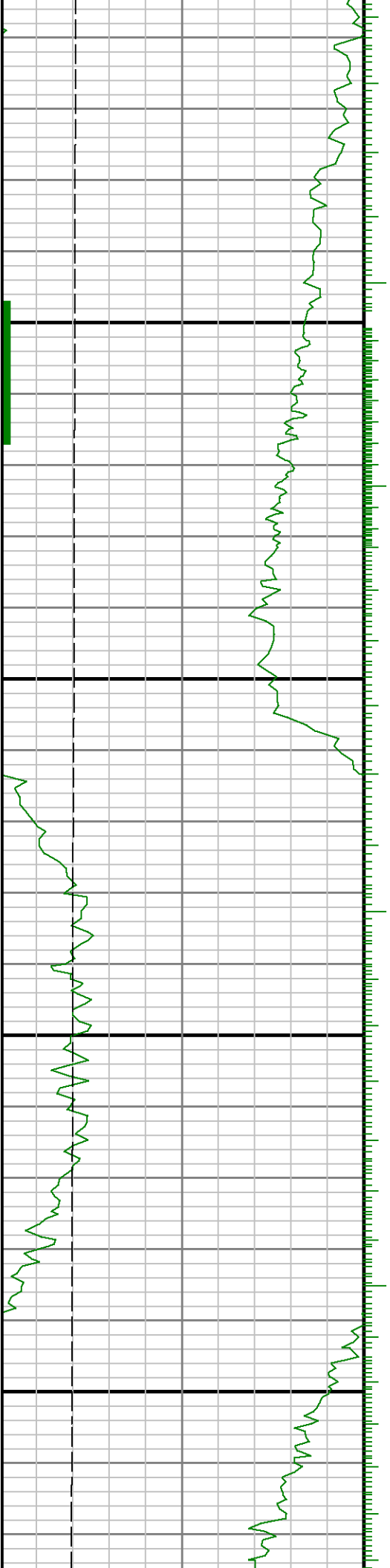
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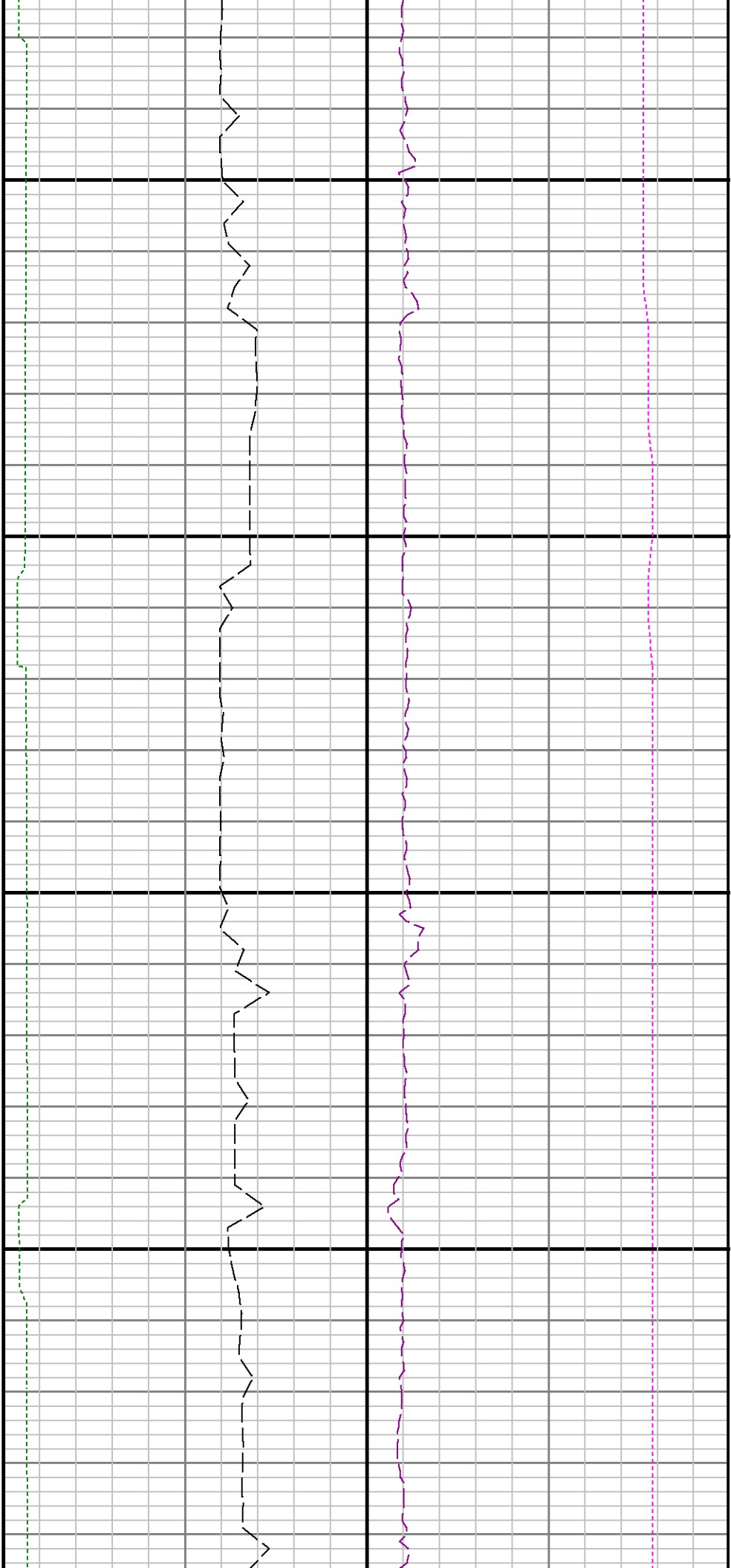




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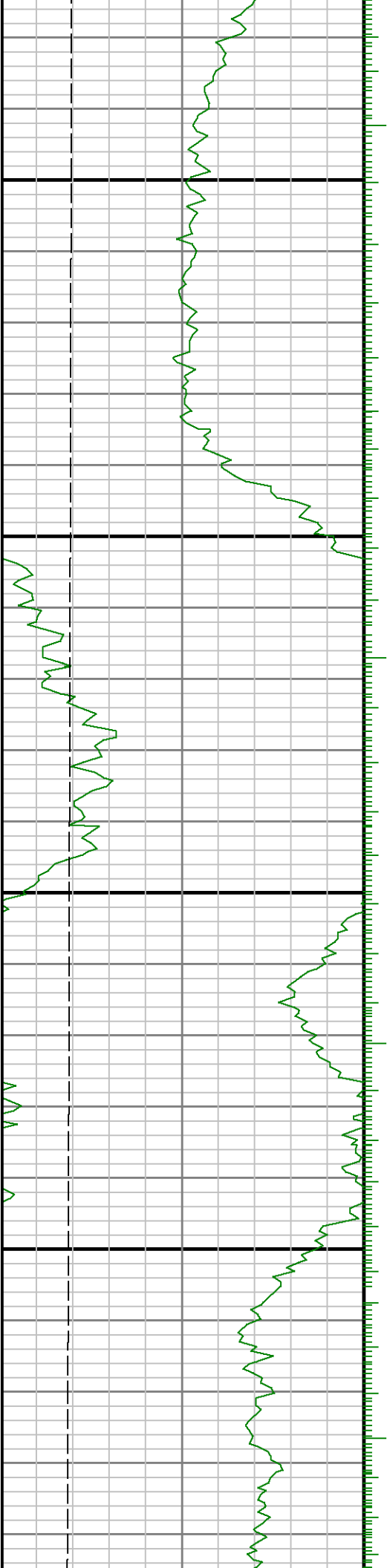
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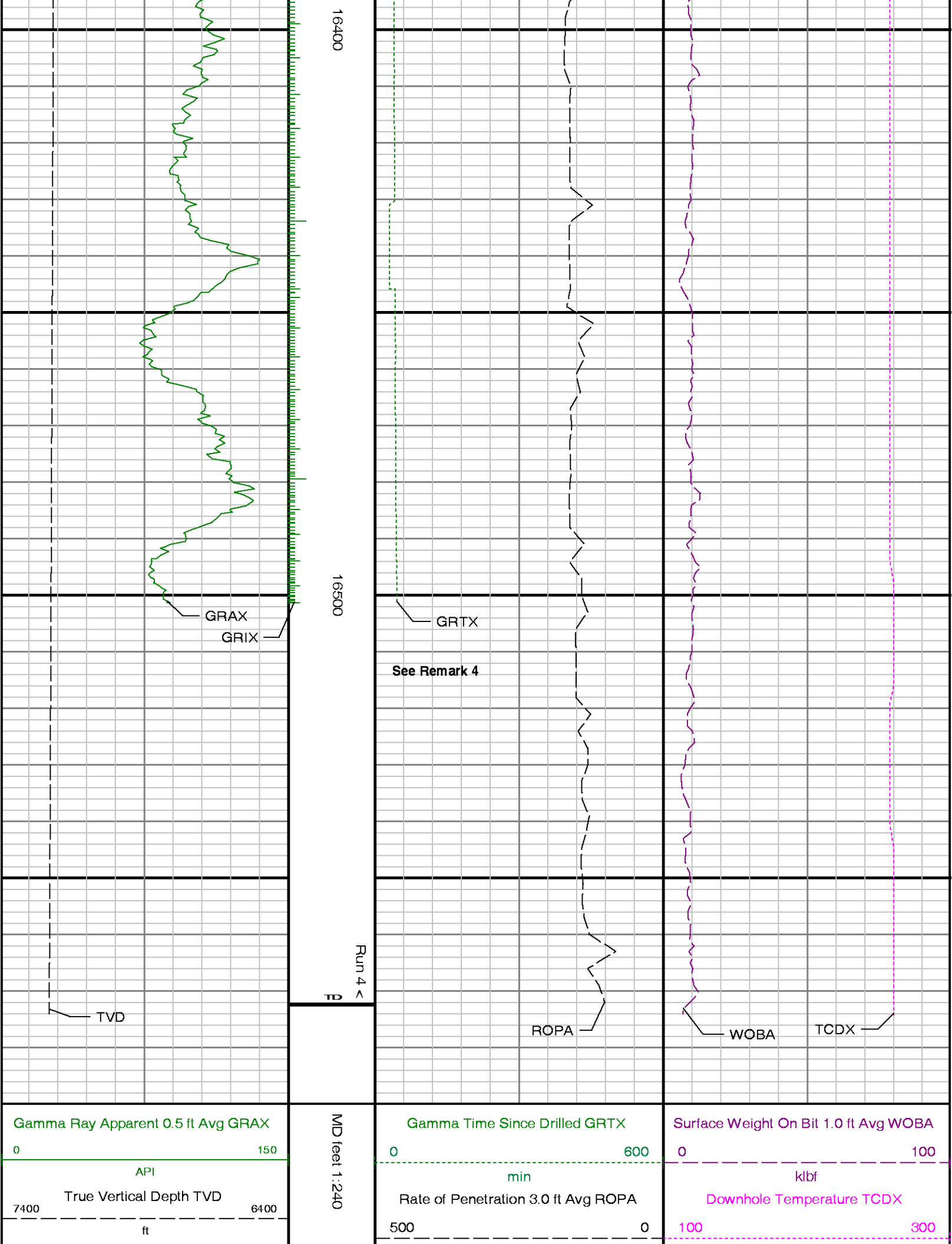




16200

16300





ft/hr

degF