



LWD MEMORY LOG

Gamma Ray

Scale: **Company: SRC Energy**

1:240 MD	Well: Boomerang 32C-6-M
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Weld County

Driller's Depth	County: Weld	Country: United States
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Status:	Surface Location:	Other Services:
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Final Print	Latitude:	El €\Ad 0EeG 14	El €\Ad 0EeG 14
	Longitude:	El €\Ad 0EeG 14	El €\Ad 0EeG 14

API No: 05-123-45395-00

Job ID: 8924844	SEC:	5	TWN:	5N	RGE:	66
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Log Measured From:	Rig Floor	Above P.D.	20.00 ft	Elev. Gt.:
				47

Dates	Interval Logged	Magnetic Field Reference
11/1/2011	11/1/2011 - 11/2/2011	11/1/2011 - 11/2/2011
11/2/2011	11/2/2011 - 11/3/2011	11/2/2011 - 11/3/2011
11/3/2011	11/3/2011 - 11/4/2011	11/3/2011 - 11/4/2011
11/4/2011	11/4/2011 - 11/5/2011	11/4/2011 - 11/5/2011
11/5/2011	11/5/2011 - 11/6/2011	11/5/2011 - 11/6/2011
11/6/2011	11/6/2011 - 11/7/2011	11/6/2011 - 11/7/2011
11/7/2011	11/7/2011 - 11/8/2011	11/7/2011 - 11/8/2011
11/8/2011	11/8/2011 - 11/9/2011	11/8/2011 - 11/9/2011
11/9/2011	11/9/2011 - 11/10/2011	11/9/2011 - 11/10/2011
11/10/2011	11/10/2011 - 11/11/2011	11/10/2011 - 11/11/2011
11/11/2011	11/11/2011 - 11/12/2011	11/11/2011 - 11/12/2011
11/12/2011	11/12/2011 - 11/13/2011	11/12/2011 - 11/13/2011
11/13/2011	11/13/2011 - 11/14/2011	11/13/2011 - 11/14/2011
11/14/2011	11/14/2011 - 11/15/2011	11/14/2011 - 11/15/2011
11/15/2011	11/15/2011 - 11/16/2011	11/15/2011 - 11/16/2011
11/16/2011	11/16/2011 - 11/17/2011	11/16/2011 - 11/17/2011
11/17/2011	11/17/2011 - 11/18/2011	11/17/2011 - 11/18/2011
11/18/2011	11/18/2011 - 11/19/2011	11/18/2011 - 11/19/2011
11/19/2011	11/19/2011 - 11/20/2011	11/19/2011 - 11/20/2011
11/20/2011	11/20/2011 - 11/21/2011	11/20/2011 - 11/21/2011
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11/23/2011	11/23/2011 - 11/24/2011	11/23/2011 - 11/24/2011
11/24/2011	11/24/2011 - 11/25/2011	11/24/2011 - 11/25/2011
11/25/2011	11/25/2011 - 11/26/2011	11/25/2011 - 11/26/2011
11/26/2011	11/26/2011 - 11/27/2011	11/26/2011 - 11/27/2011
11/27/2011	11/27/2011 - 11/28/2011	11/27/2011 - 11/28/2011
11/28/2011	11/28/2011 - 11/29/2011	11/28/2011 - 11/29/2011
11/29/2011	11/29/2011 - 11/30/2011	11/29/2011 - 11/30/2011
11/30/2011	11/30/2011 - 12/1/2011	11/30/2011 - 12/1/2011
12/1/2011	12/1/2011 - 12/2/2011	12/1/2011 - 12/2/2011
12/2/2011	12/2/2011 - 12/3/2011	12/2/2011 - 12/3/2011
12/3/2011	12/3/2011 - 12/4/2011	12/3/2011 - 12/4/2011
12/4/2011	12/4/2011 - 12/5/2011	12/4/2011 - 12/5/2011
12/5/2011	12/5/2011 - 12/6/2011	12/5/2011 - 12/6/2011
12/6/2011	12/6/2011 - 12/7/2011	12/6/2011 - 12/7/2011
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12/14/2011	12/14/2011 - 12/15/2011	12/14/2011 - 12/15/2011
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12/22/2011	12/22/2011 - 12/23/2011	12/22/2011 - 12/23/2011
12/23/2011	12/23/20	

Date From:	2018-03-16	lop: (ft)	1826.00	AZI Reference North:	True	Dip Angle: (deg)
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Squad Date:	2017-12-28		Map to Reference North Correction: (deg)	7.56 E
Date:	2017-12-28	Measurement ('')	Reference Magnitude & Name Catalogue ('')	2017-12-28

Borehole Record

Hole Size (in)	From (ft)	To (ft)	Size (in)	Weight (lb/ft)	From (ft)	To (ft)
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13.500	20.00	1826.00	9.625	36.00	20.00	1819.00
9.700	40.00	4500.00				

[illegible][illegible]

[illegible]

Mud Record Deviation Record

Type	From (ft)	To (ft)	Hole Size (in)	Interval (ft)	Inc Az (Start)	Inc Az (End)
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Water Based Mud	20.00	1826.00	13.500	1806.00	0.00	0.00	12.32	41.96
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[illegible][illegible]

Acquisition System	Software Version	Other
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PlotStudio 4.1.7763.3 Contractor: Precision Drilling

	District:	RMD	Unit:	D&
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Log Run Summary

Run No	Bit Run No.	Bit Size (in)	Bit Type	Bit Gauge Length (in)	Assembly Type	Logged Interval		Bit Depth Interval		Date / Time		Circ. Hours (h)
						Top	Bottom	From	To	Start Logging	End Logging	
						(ft)	(ft)	(ft)	(ft)			
2	2	8.500	PDC	3.00	AutoTrak Curve	1826.00	15889.00	1826.00	15902.00	2018-03-16 11:03	2018-03-19 06:19	60.51

Crew

Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite
John Bryson	2018-03-16	2018-03-19						

Mud Properties Record

Date / Time	Run No.	Measured Depth (ft)	Mud Type	Density (ppg)	Viscosity (cP)	pH	Fluid Loss (cm3)	Oil / Water	Source	Total Chlorides (ppm)	K+ (%)
2018-03-16 16:00	2	2817.00	Diesel-Oil Based Mud	10.2	14	N/A	6.4	77/23	Suction	35000	0.00
2018-03-17 04:00	2	4762.00	Diesel-Oil Based Mud	10.2	16	N/A	6.6	77/23	Suction	45000	0.00
2018-03-17 16:00	2	7555.00	Diesel-Oil Based Mud	10.6	21	N/A	9.5	74/26	Suction	38000	0.00
2018-03-18 04:00	2	10548.00	Diesel-Oil Based Mud	10.7	25	N/A	9.8	73/27	Suction	44000	0.00
2018-03-18 16:00	2	12782.00	Diesel-Oil Based Mud	10.7	24	N/A	9.9	72/28	Suction	45000	0.00
2018-03-19 04:00	2	15304.00	Diesel-Oil Based Mud	10.6	21	N/A	9.9	75/25	Suction	39000	0.00

Equipment and Service Data

Run No.	Tool	Serial Number	Measurement	Sensor Offset (ft)	Bit Offset (ft)	Max O.D. (in)	Min I.D. (in)
2	ATC_SU	12339221	Near Bit Inclination	5.93	6.73	7.000	4.330
2	ATC_SU	12339221	Near Bit VSS	5.93	6.73	7.000	4.330
2	ATC_MWD	12398198	Gamma (single)	2.75	12.90	7.000	3.250
2	ATC_MWD	12398198	Directional (mag)	12.27	22.42	7.000	3.250

Service and Tool Mnemonics

Mnemonic	Name	Description
ATC_SU	ATC_SU	Auto Trak Curve Steering Unit
ATC_MWD	ATC_MWD	Auto Trak Curve MWD
ATC_LCPM	ATC_LCPM	Auto Trak Curve LCPM

Comments

1	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.
2	Baker Hughes LWD Run 1 utilized 8 inch APS EM Services (Directional only) behind a 13 1/2 inch bit and steerable assembly from surface to 1826 feet MD (surface to 1799 feet TVD). No logging data was acquired during this run.
3	Baker Hughes LWD Run 2 utilized 6 3/4 inch NaviGamma services (Gamma Ray and Directional) behind an 8 1/2 inch bit and rotary steerable assembly from 1826 to 15902 feet MD (1799 to 7051 feet TVD).
4	Gamma Ray Curve (GRAM) is presented 0 to 300 API per customer request.

Remarks

Number	Measured Depth (ft)	Hole Section (in)	Run No.	Remark
1	14564.00	8.500	2	The interval from 14564 to 14577 feet MD (7056 feet TVD) is missing Gamma data due to a depth tracking issue during this interval.
2	15889.00	8.500	2	The interval from 15889 to 15902 feet MD (7051 feet TVD) was not logged due to sensor to bit offset at well TD.

Curve Mnemonics

Presented Curves	Description	Units
ROPA	Depth Averaged ROP 3 ft Average	ft/h
TVD	True Vertical Depth	ft
WOBA	Weight On Bit, Average 1 ft Average	klb
GRAM	Gamma Ray - Apparent - Memory 0.5 ft Average	API
GRIM	Gamma Ray - Data Point Indicator - Memory	unitless
GRTM	Gamma Ray - Time Since Drilled - Memory	min
GRADM	Gamma Ray - Apparent - Down Quadrant - Memory 0.5 ft Average	API
GRAUM	Gamma Ray - Apparent - Up Quadrant - Memory 0.5 ft Average	API
TCDM	Downhole Temperature	degF

Company

Well

Date From:

SRC Energy

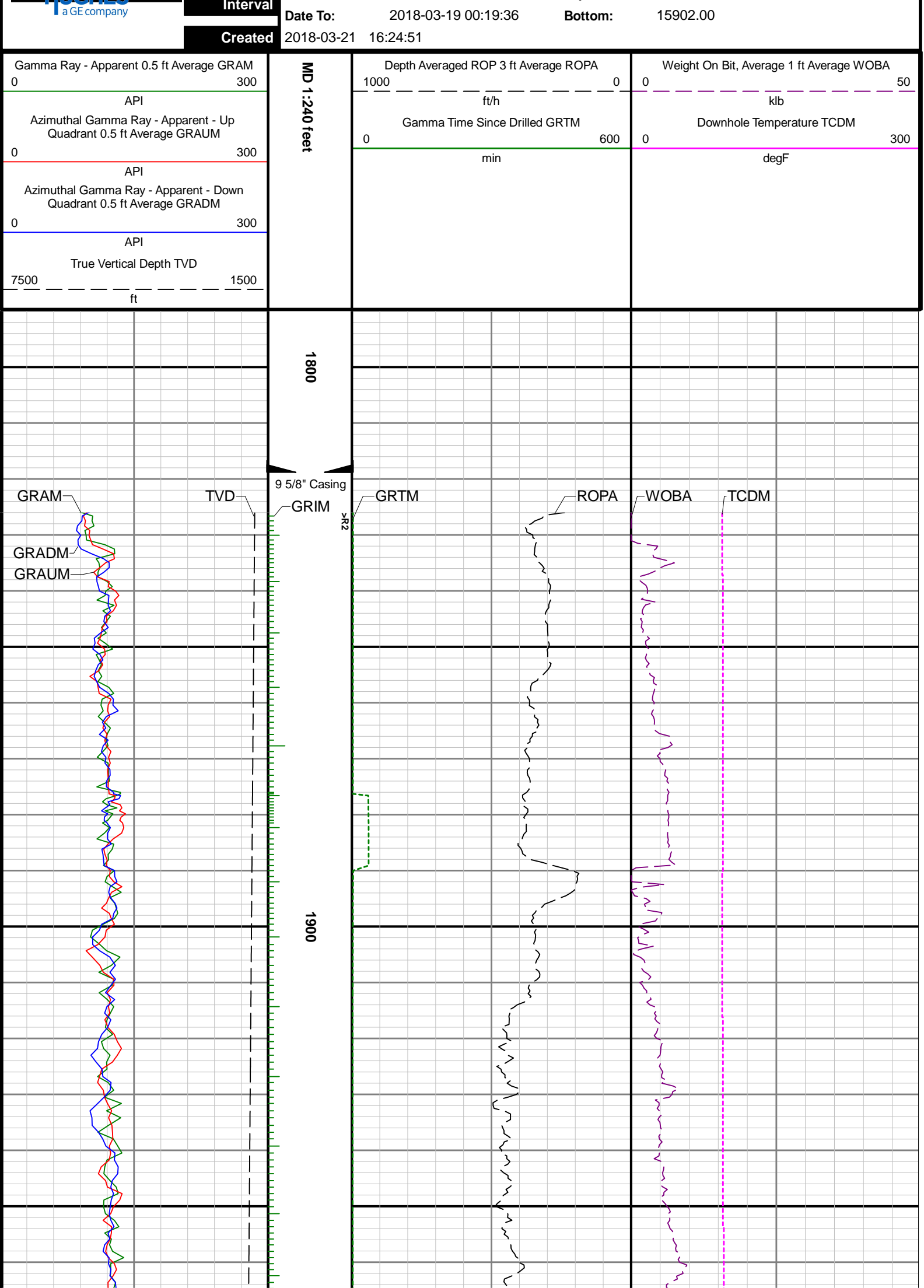
Boomerang 32C-6-M

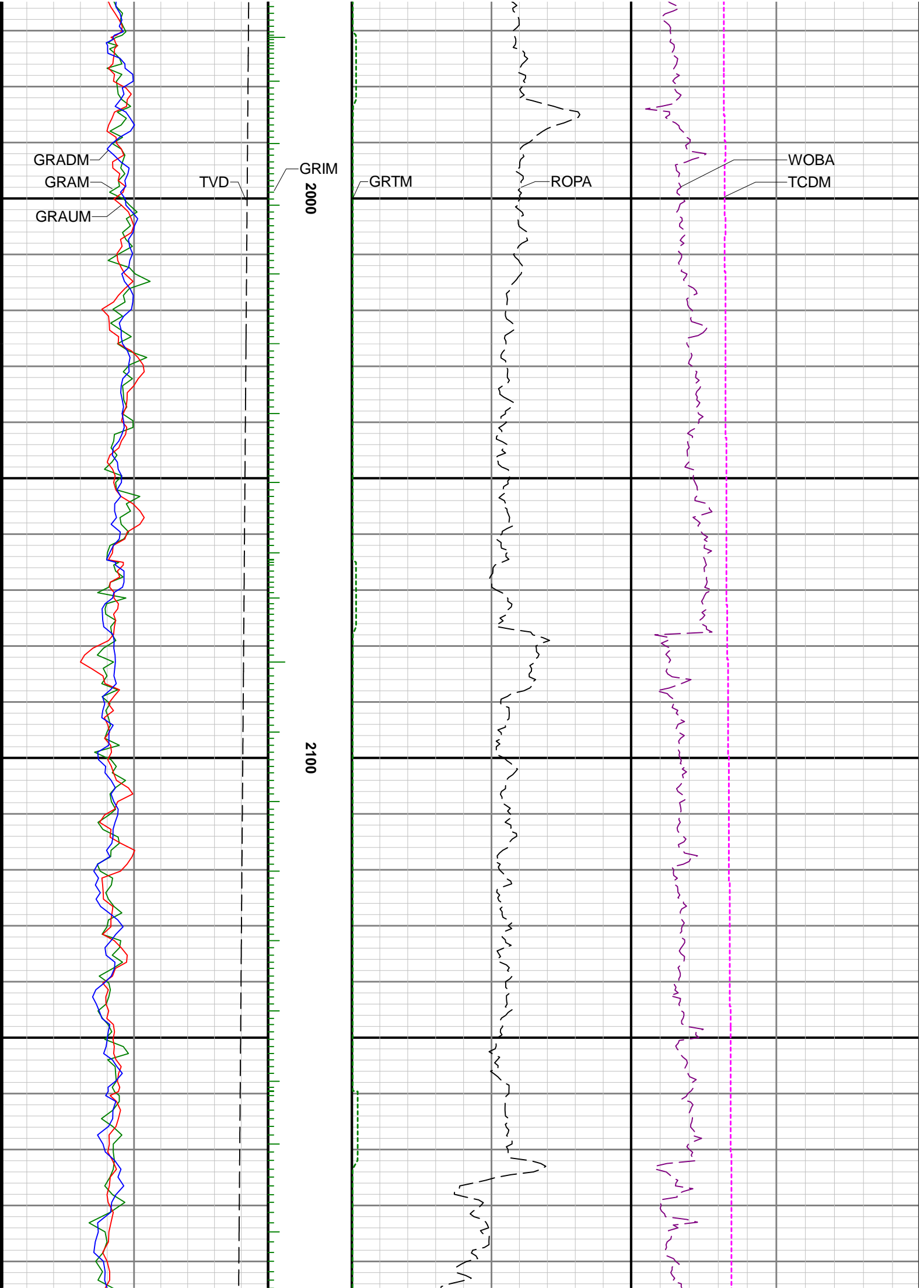
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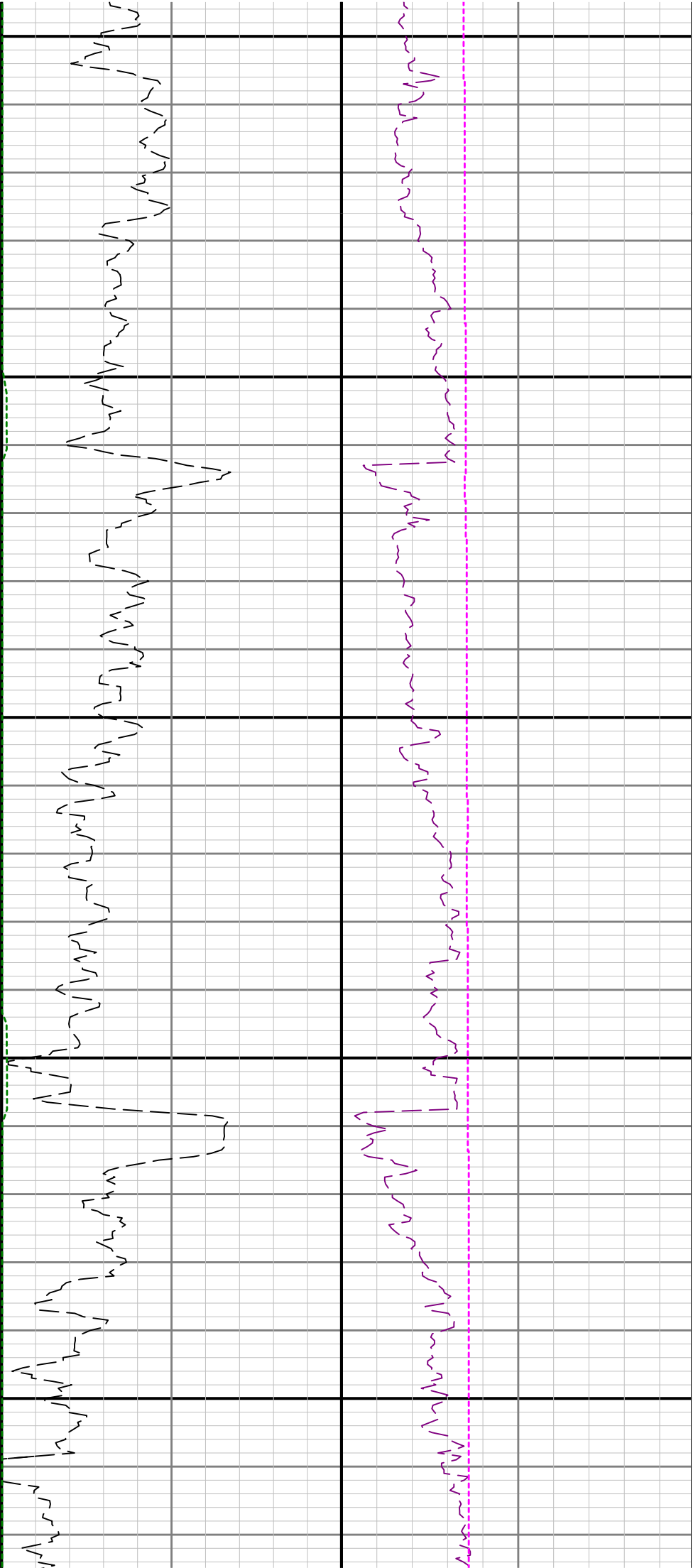
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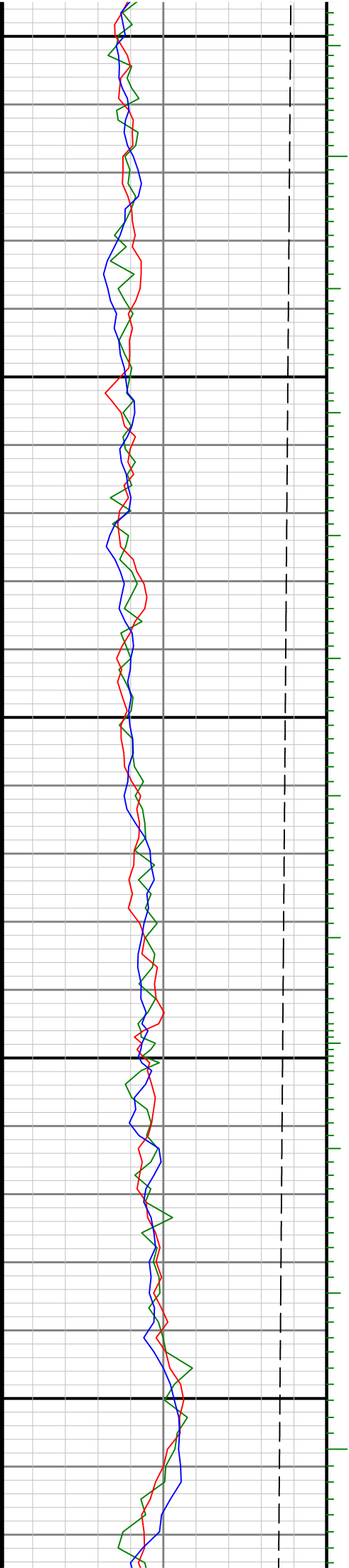


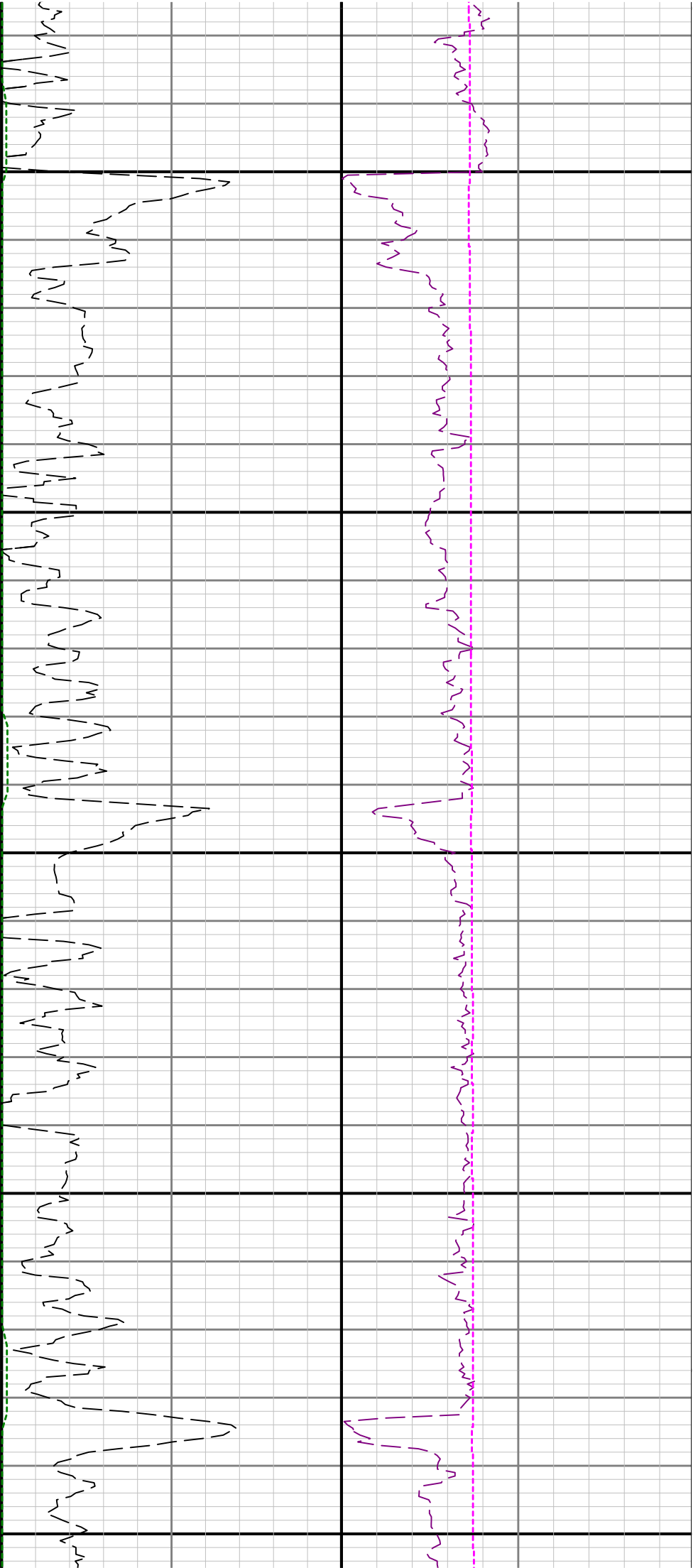


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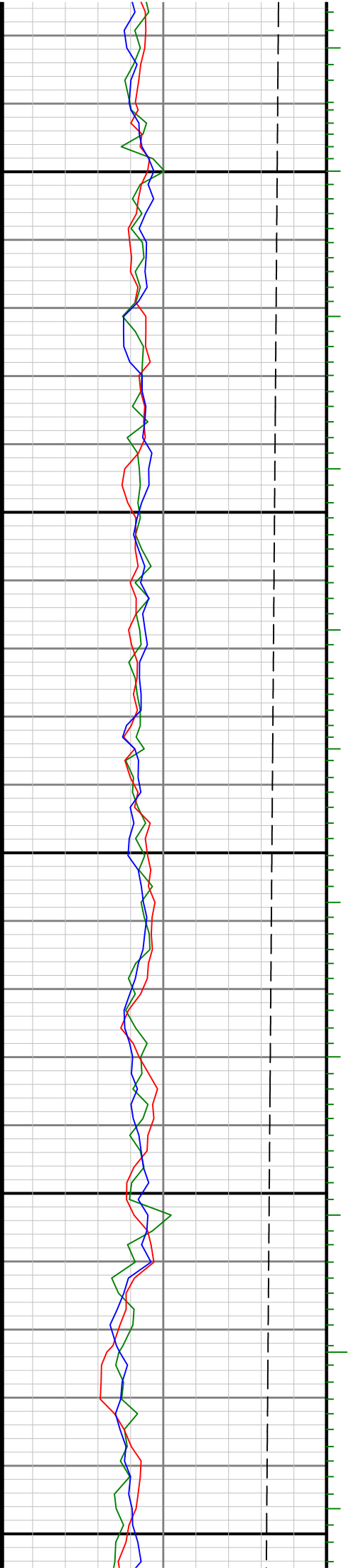
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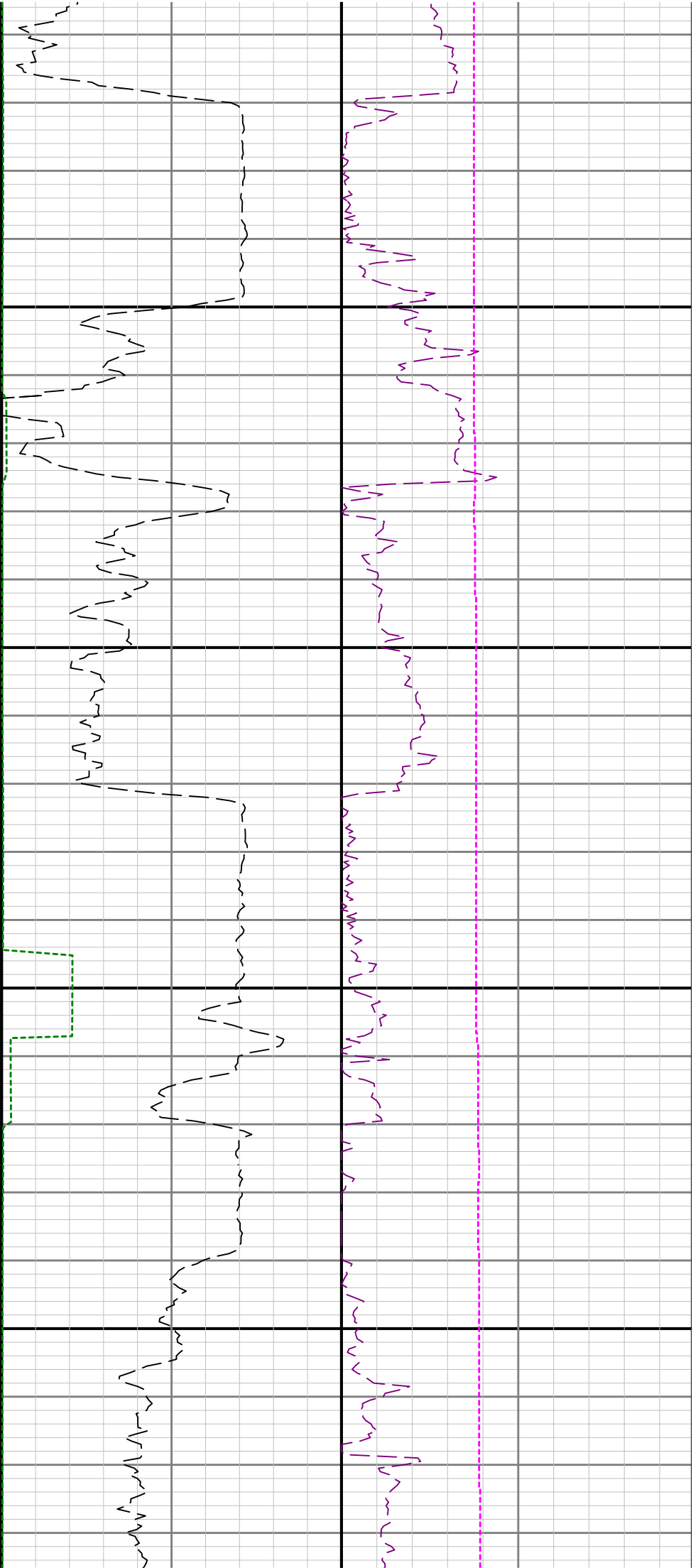




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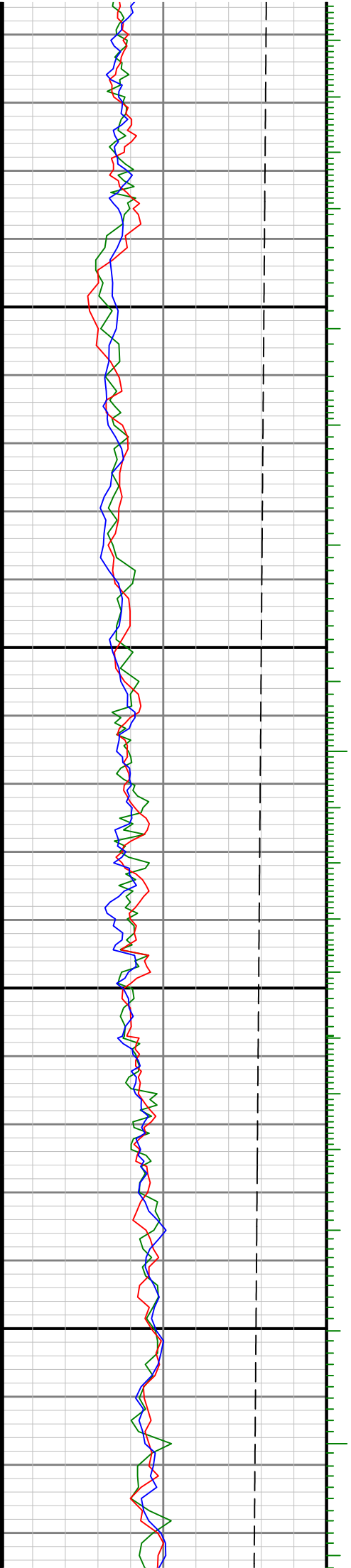
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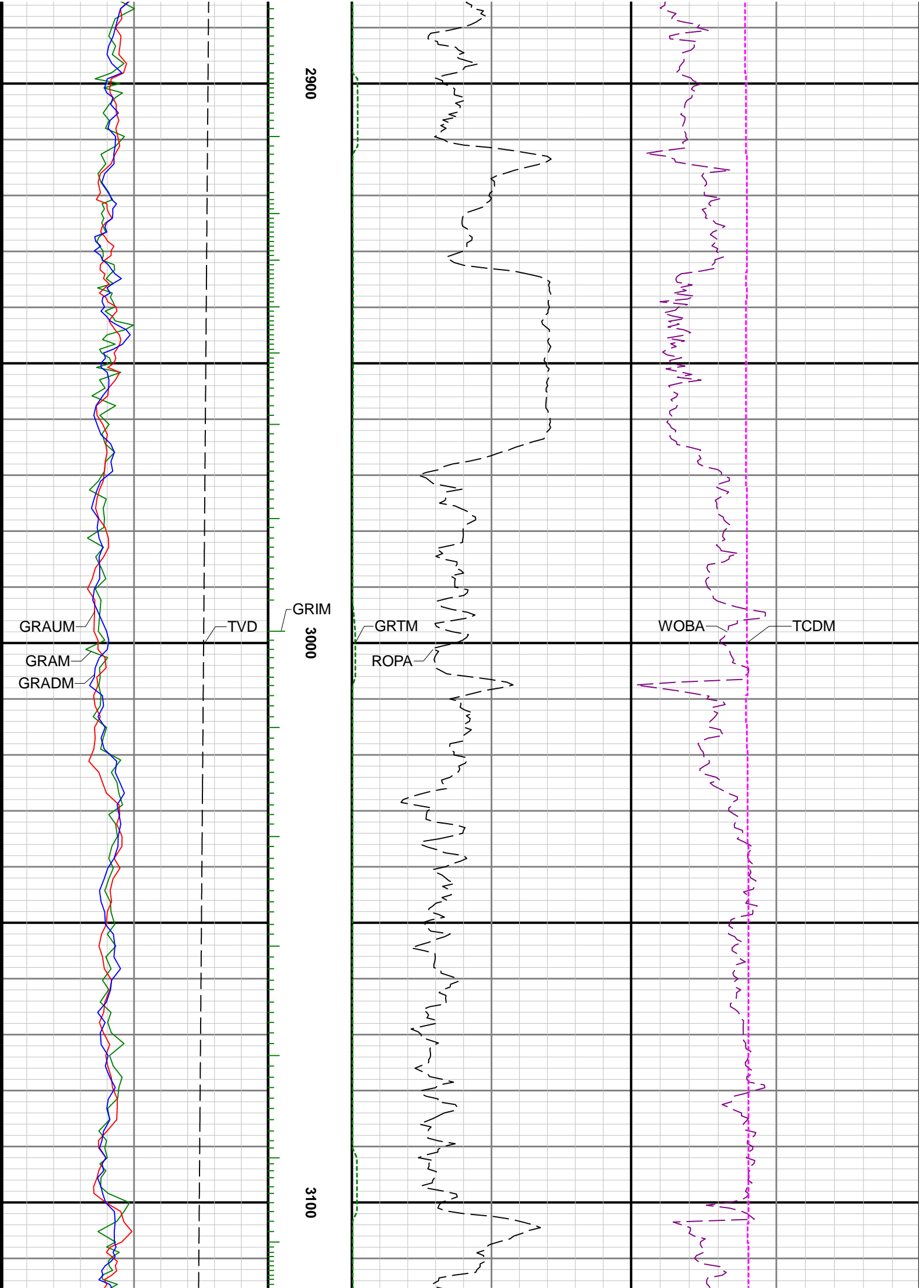


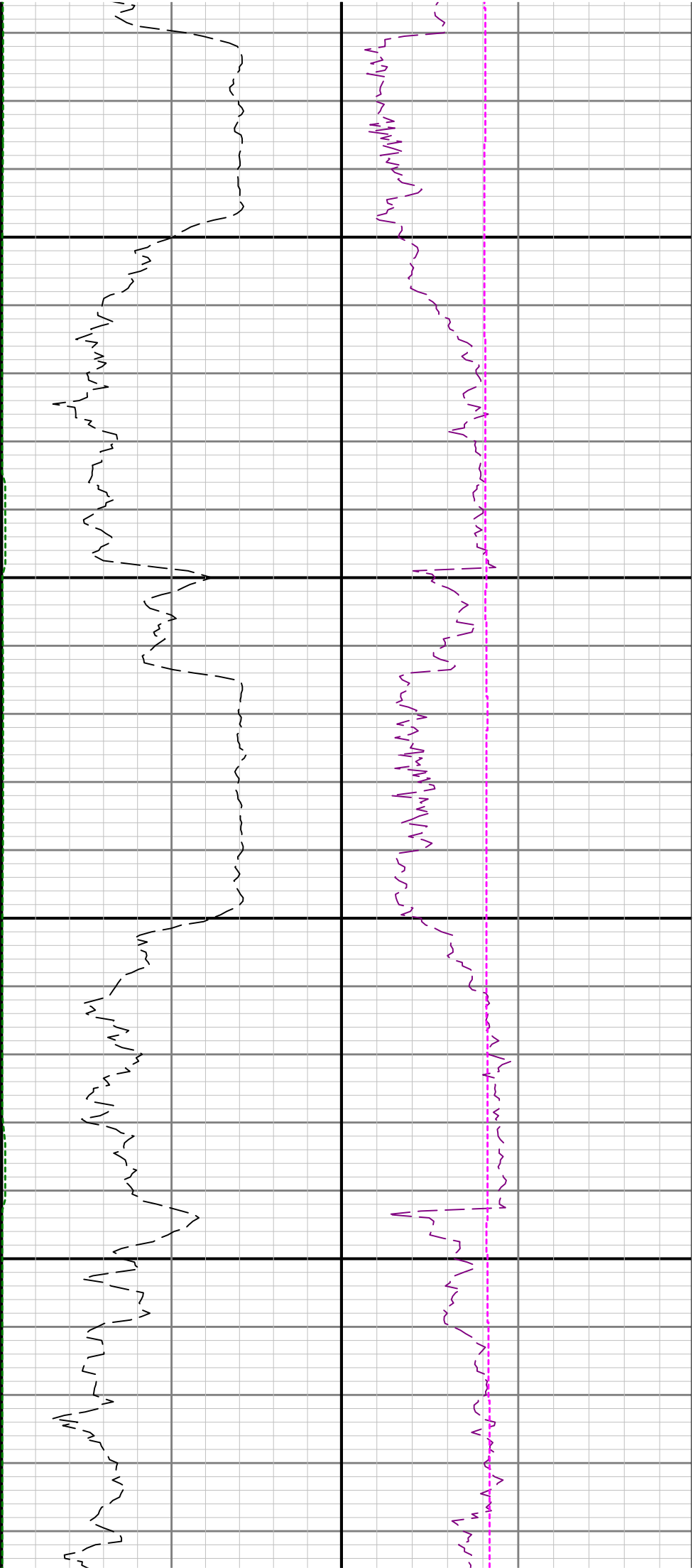


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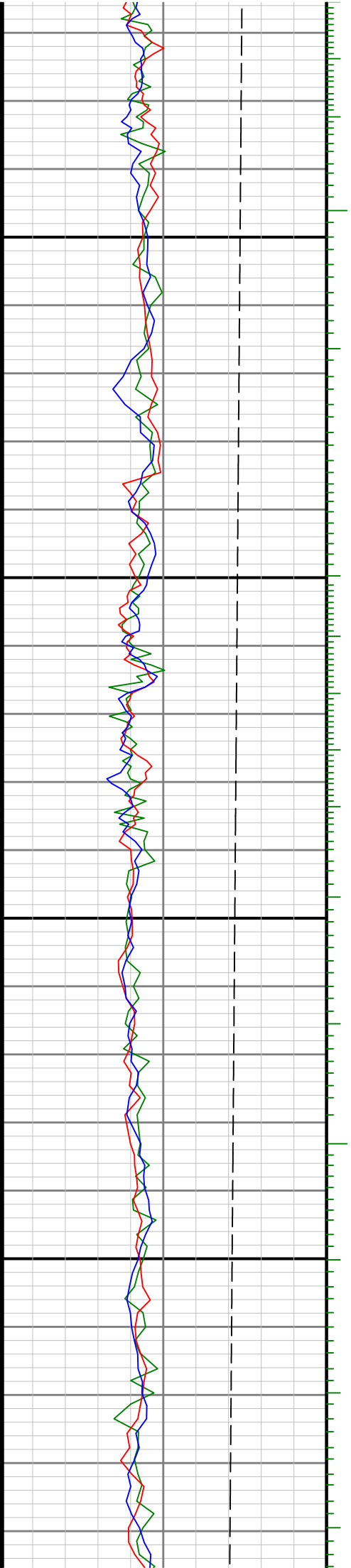


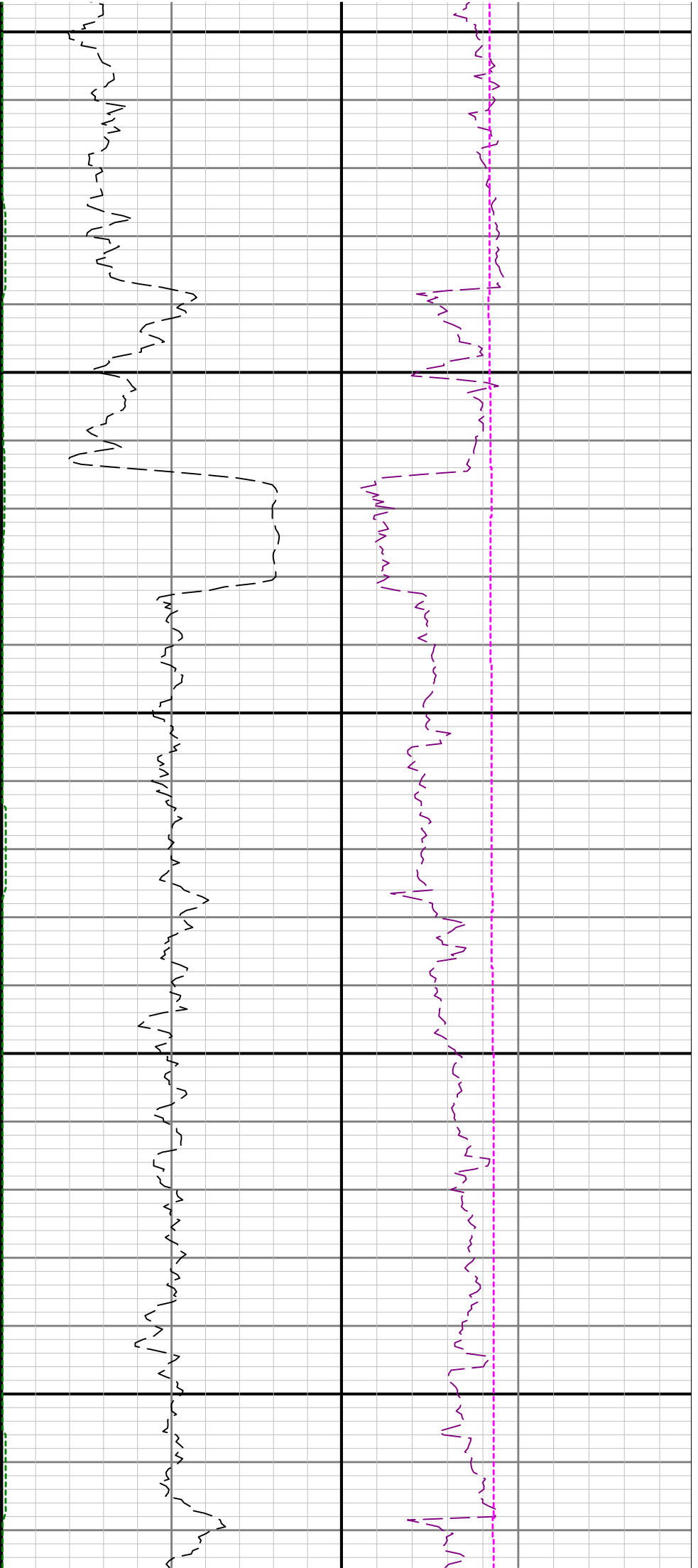




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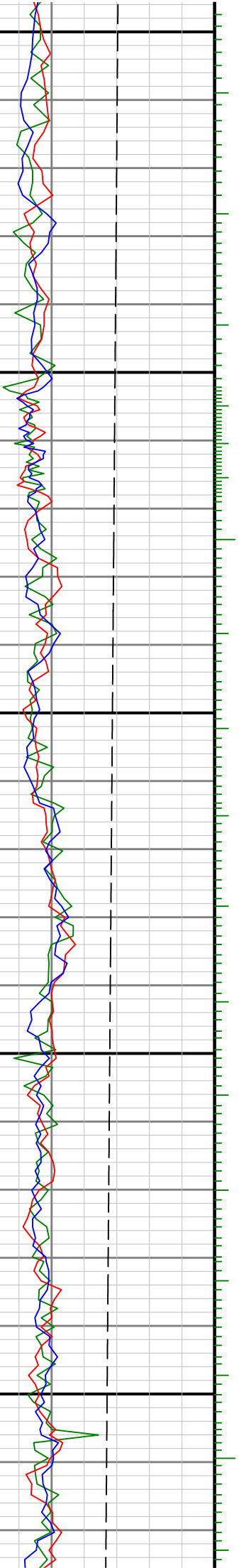
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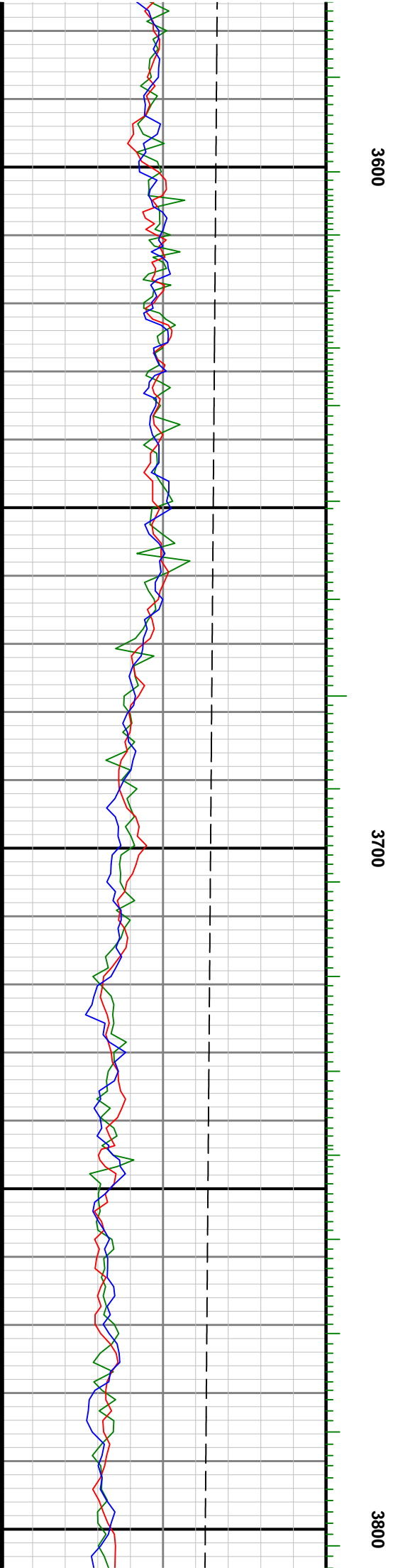
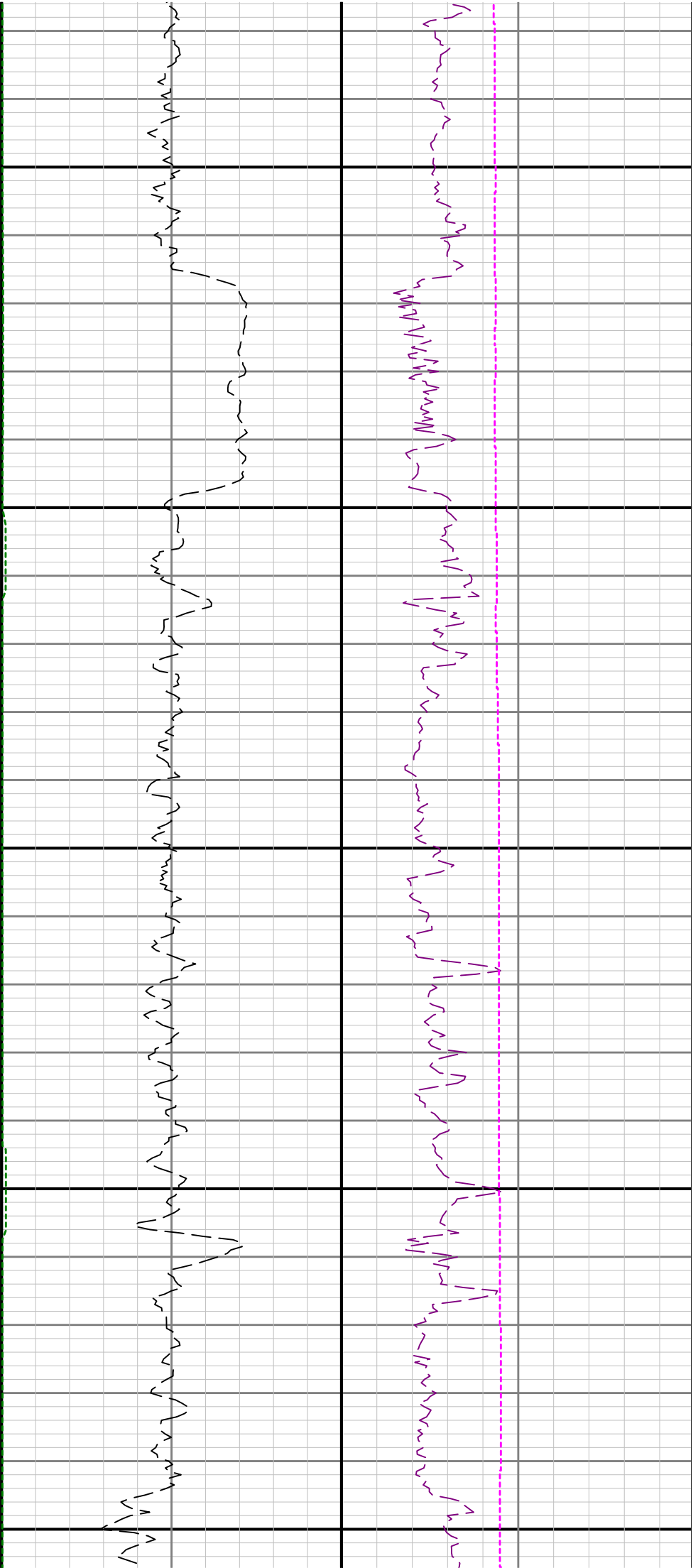


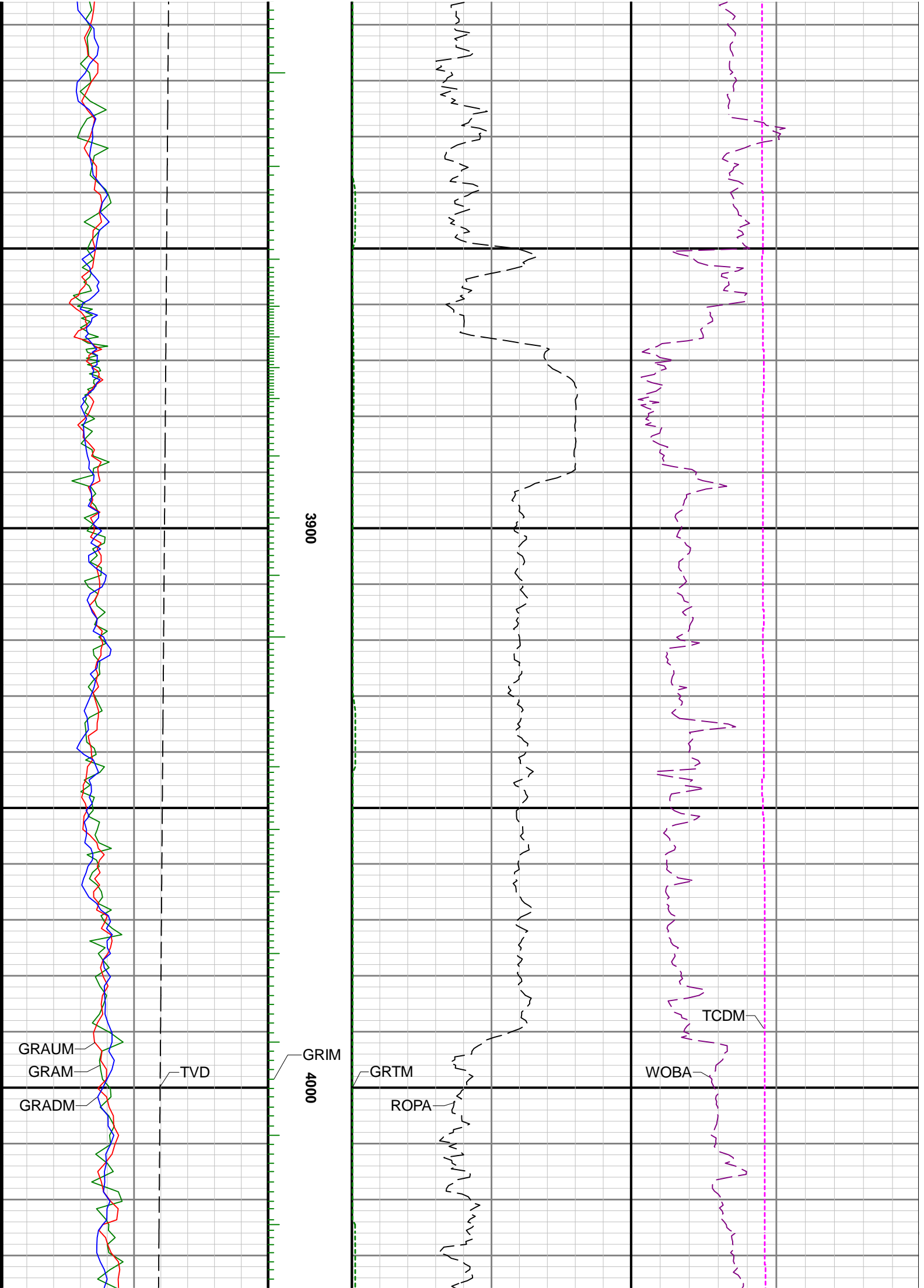


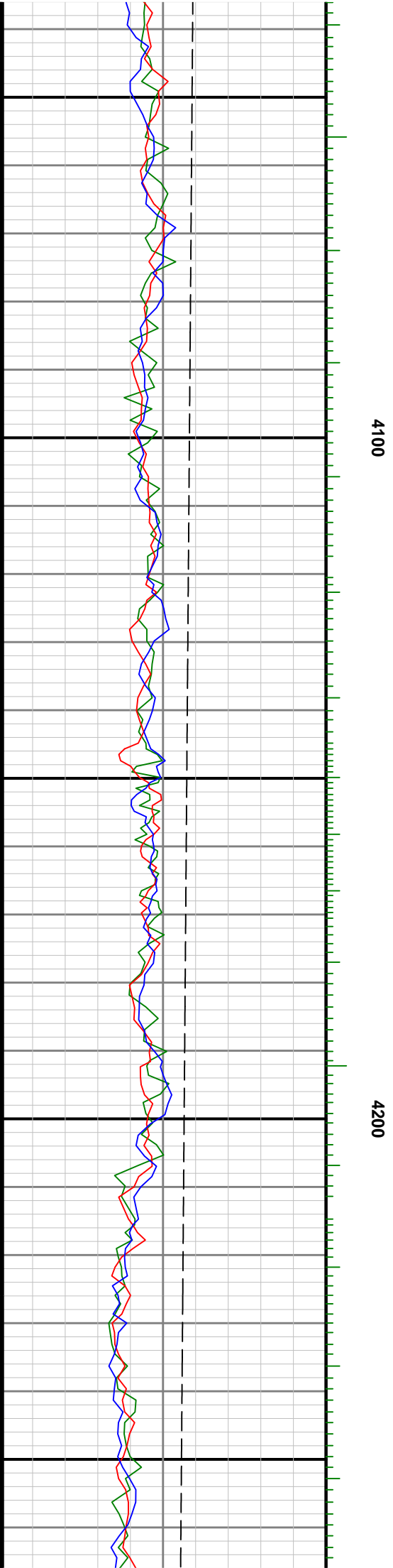
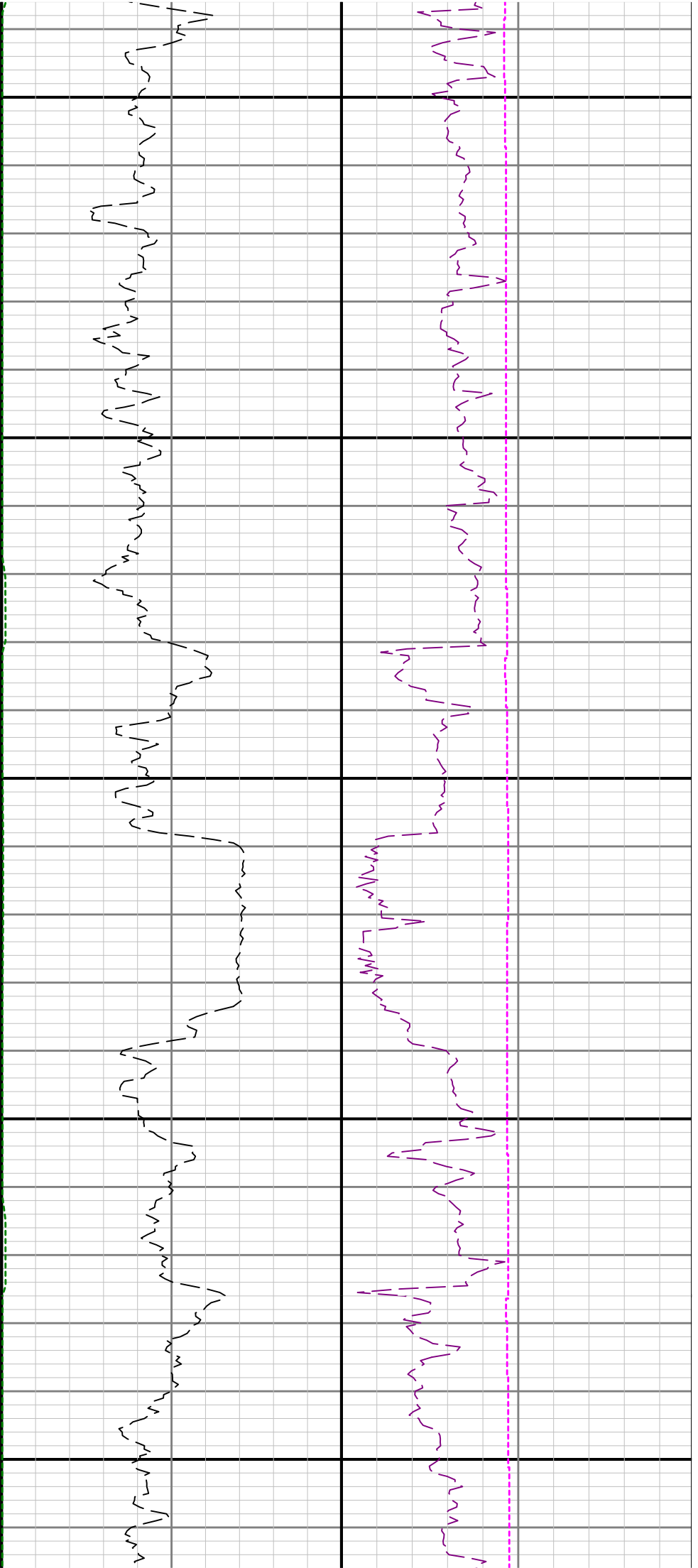
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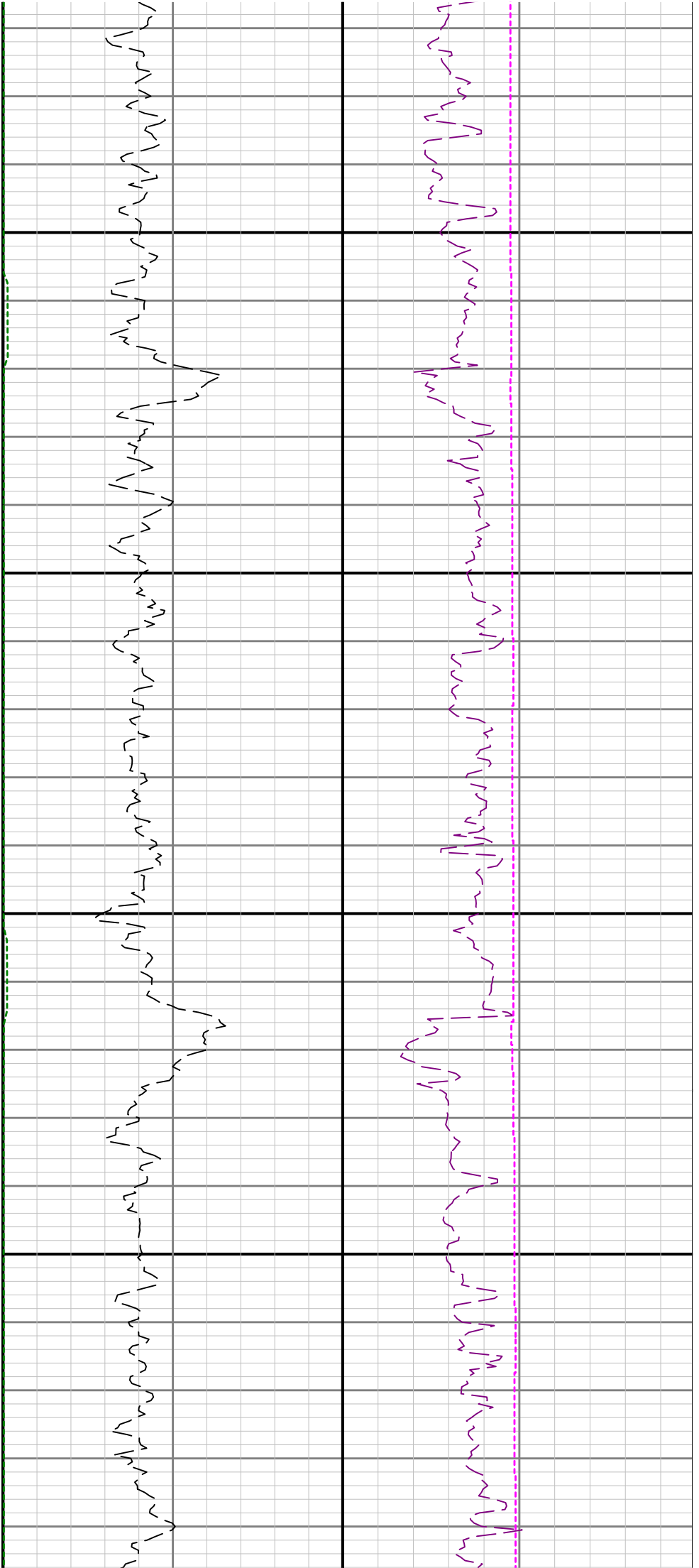
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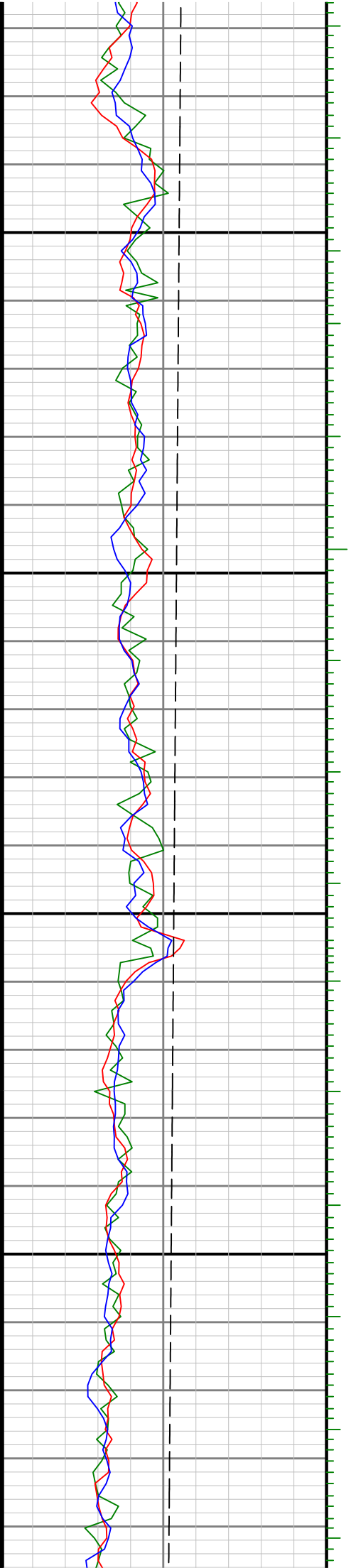


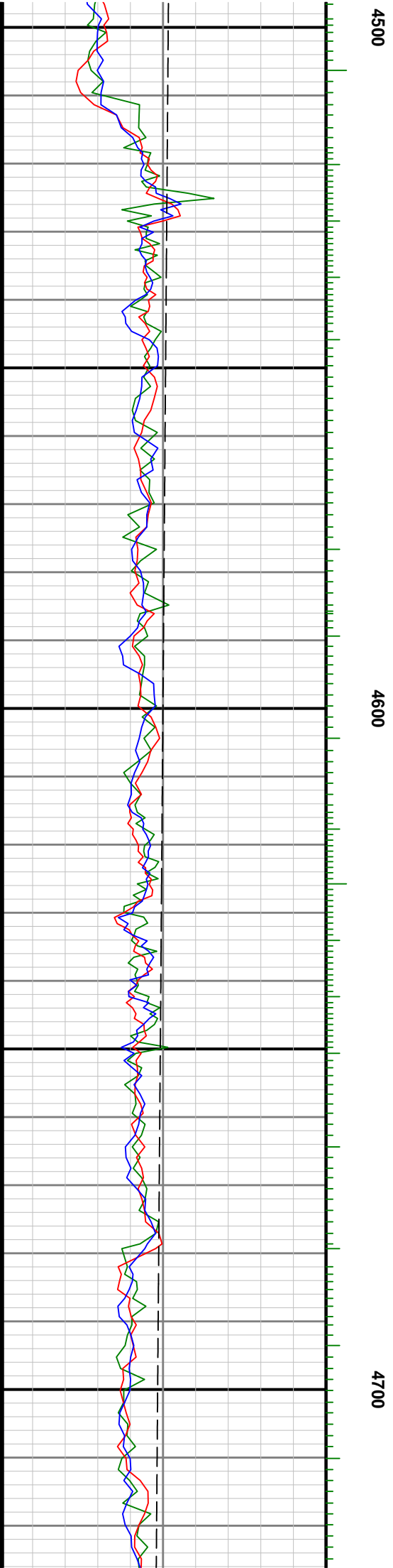
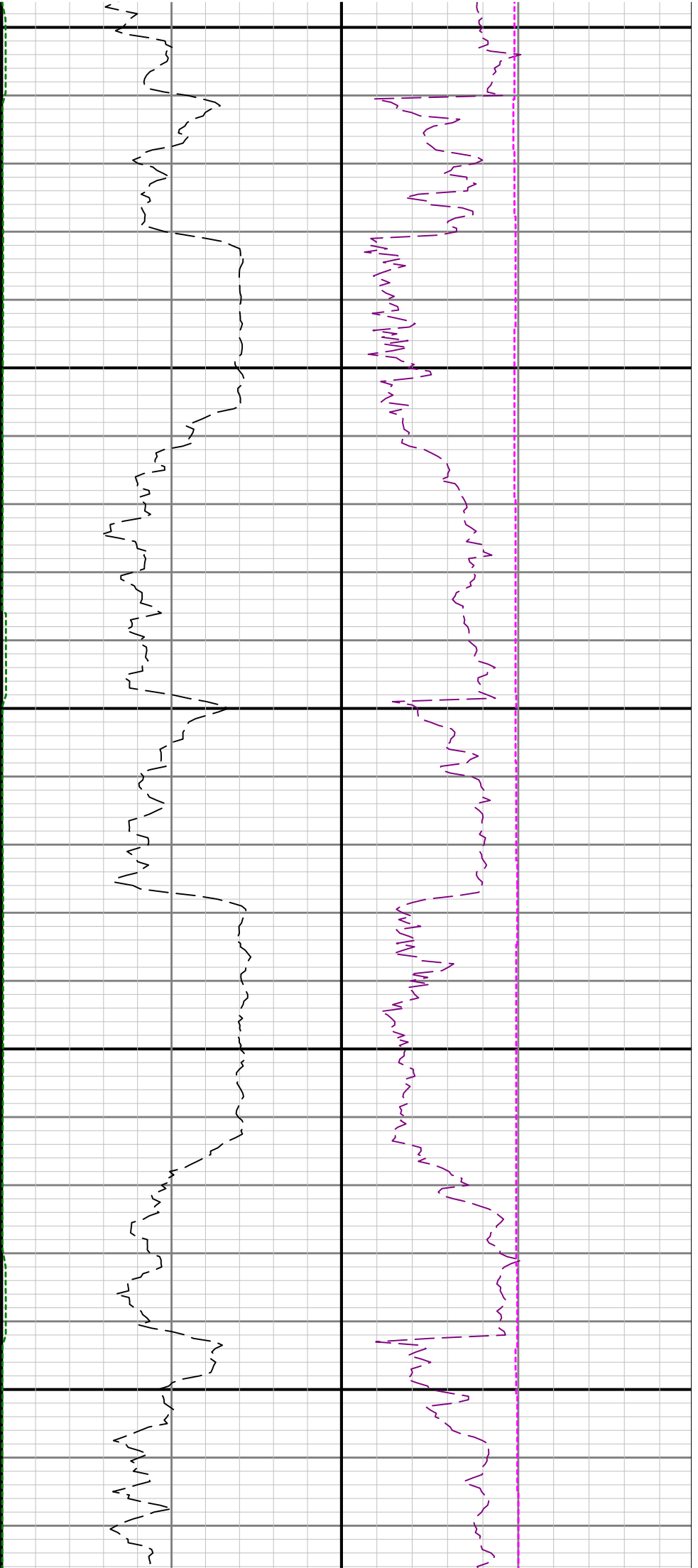


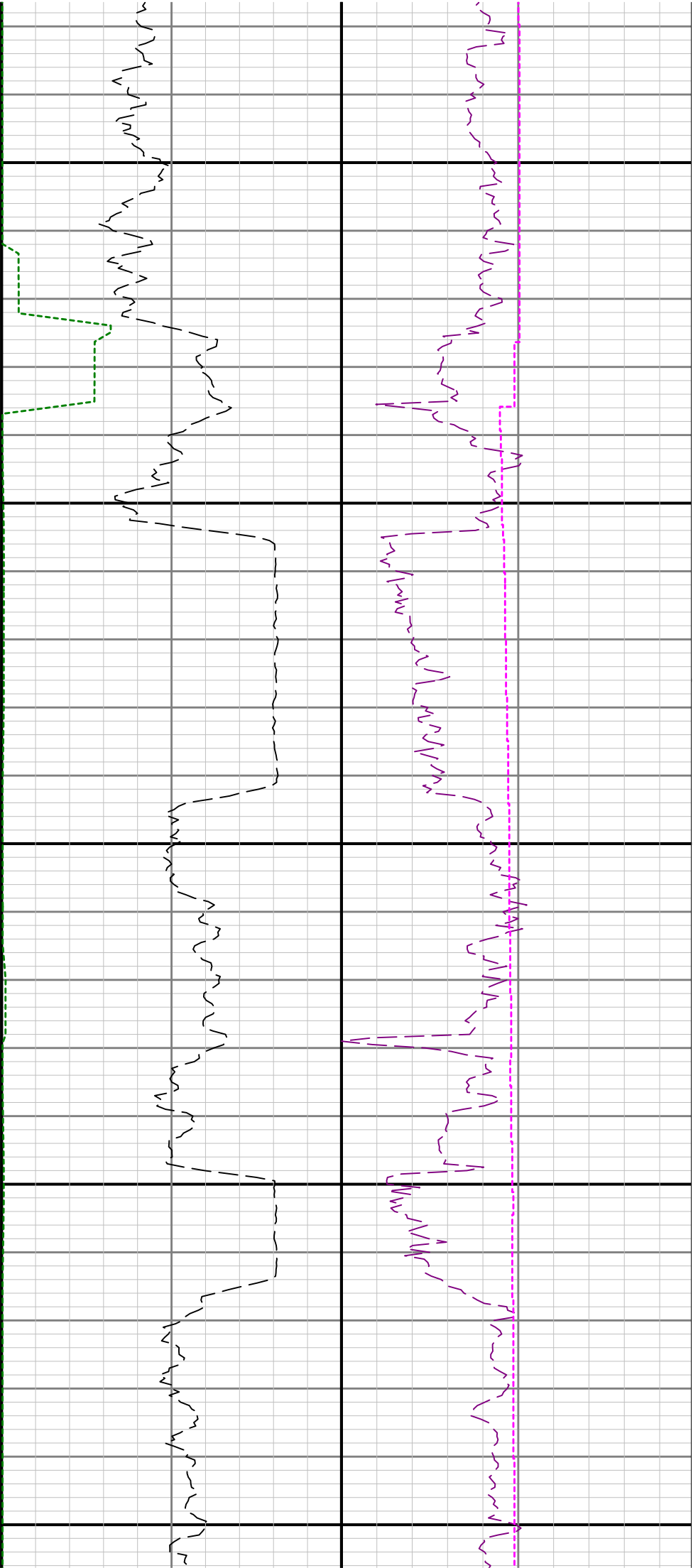


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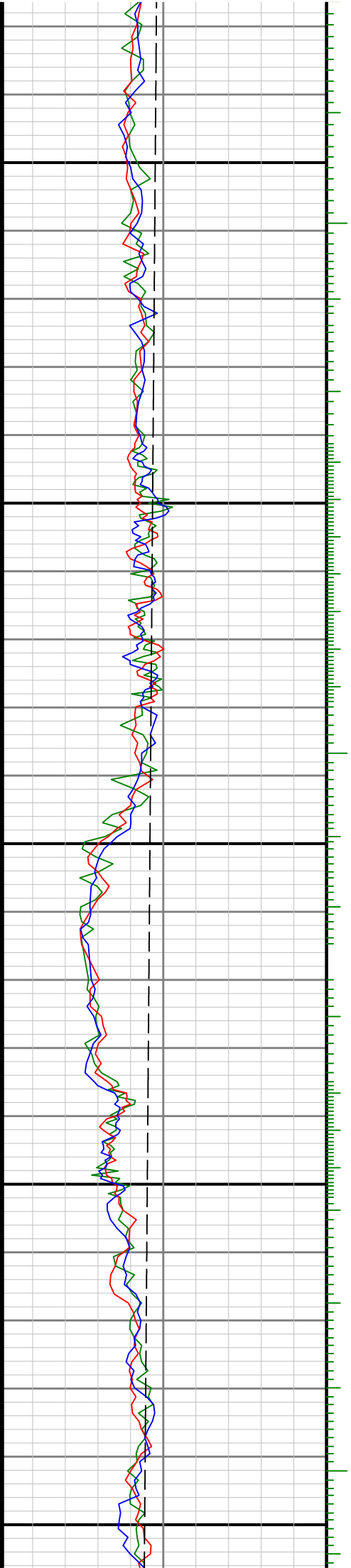


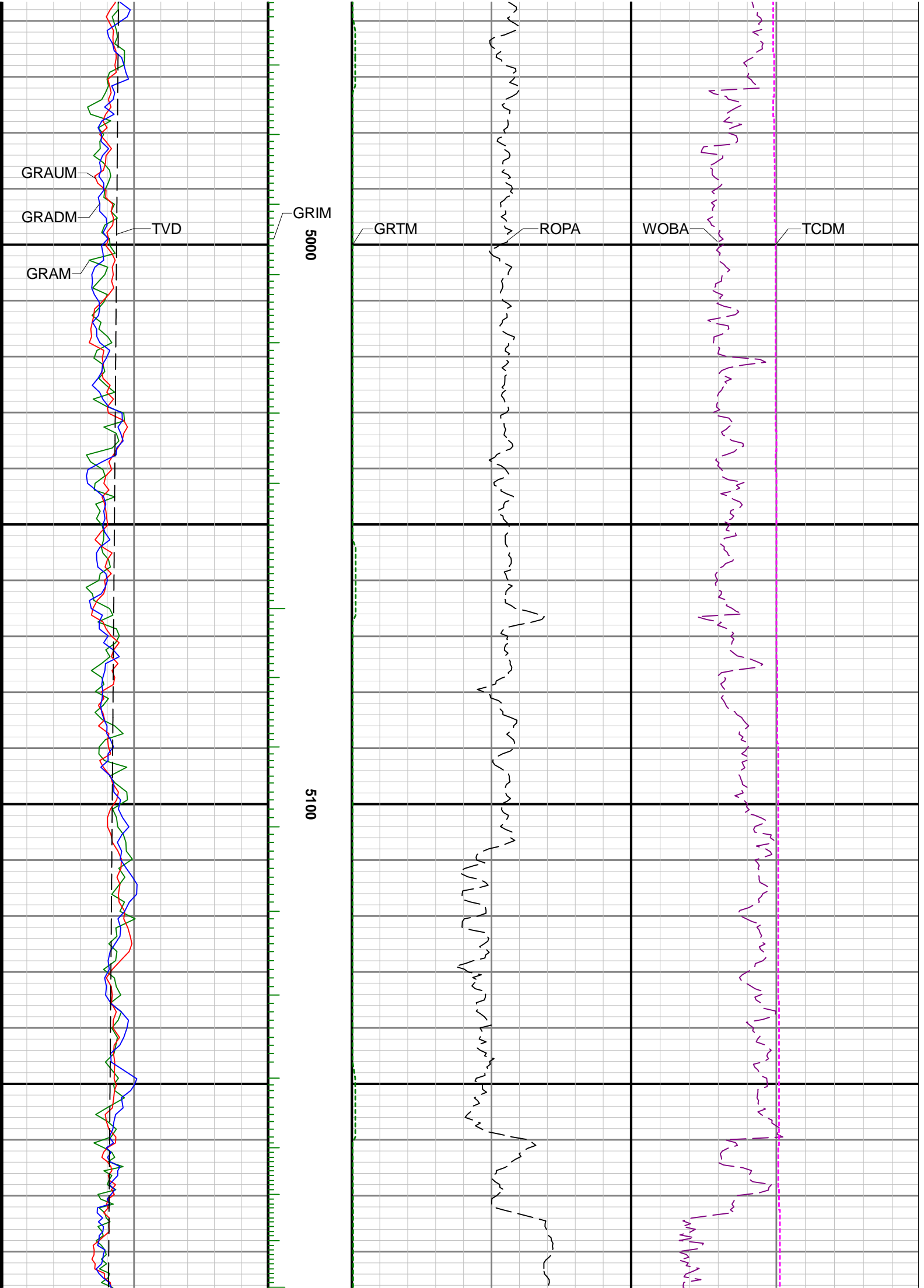


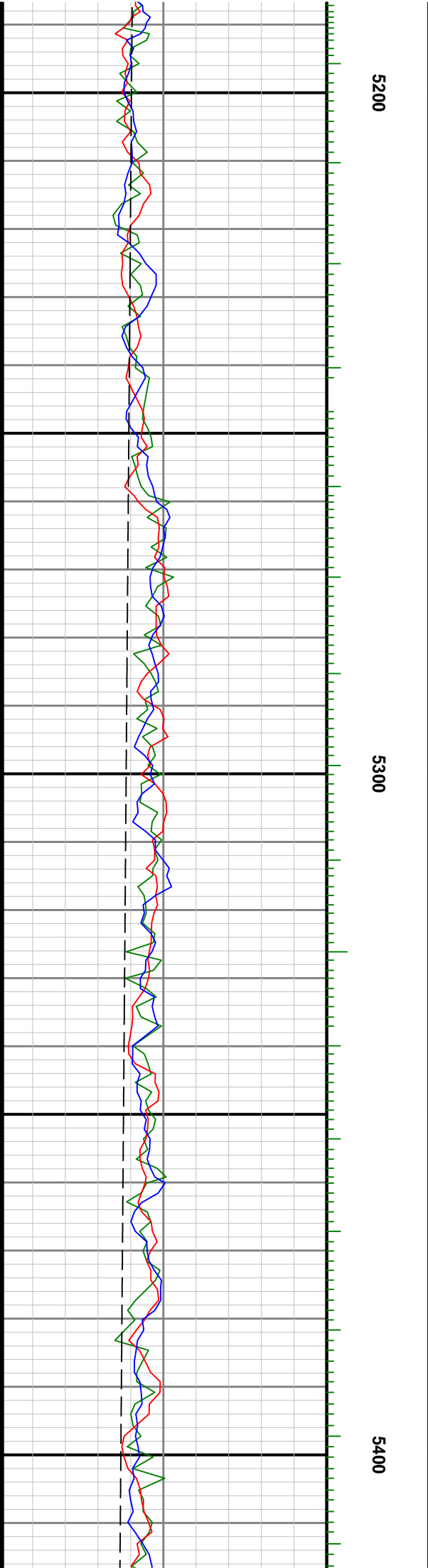
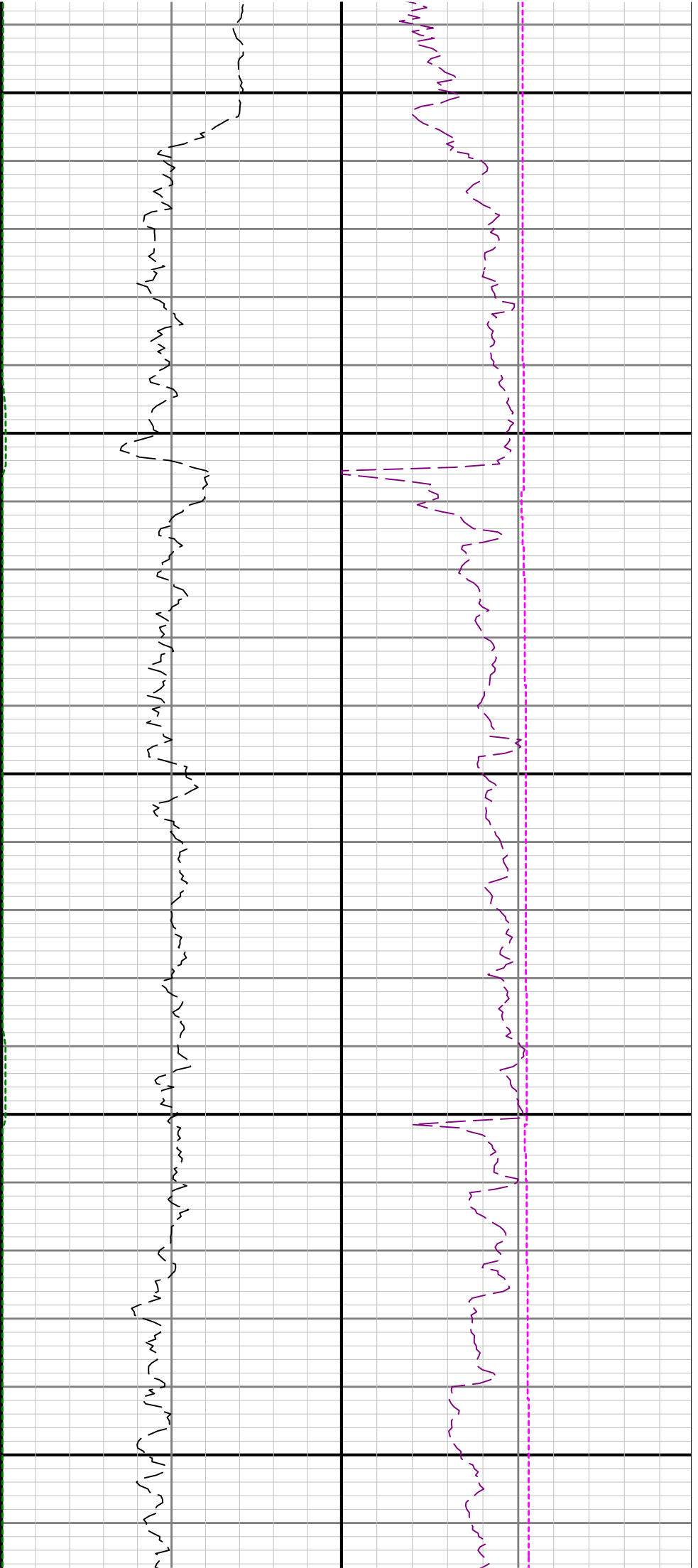


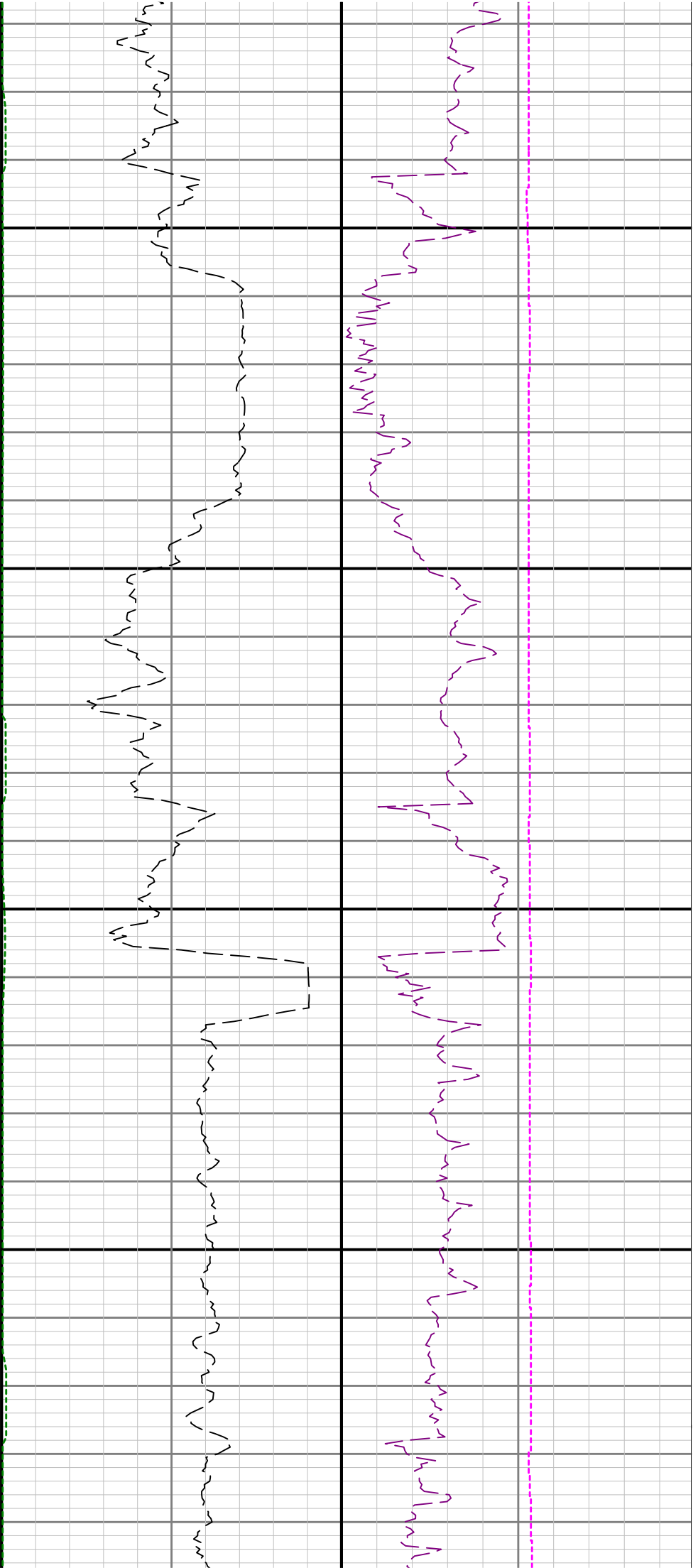
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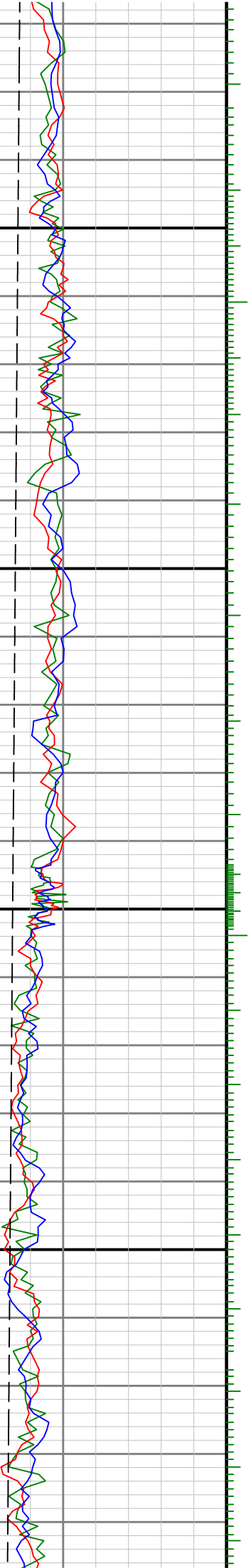


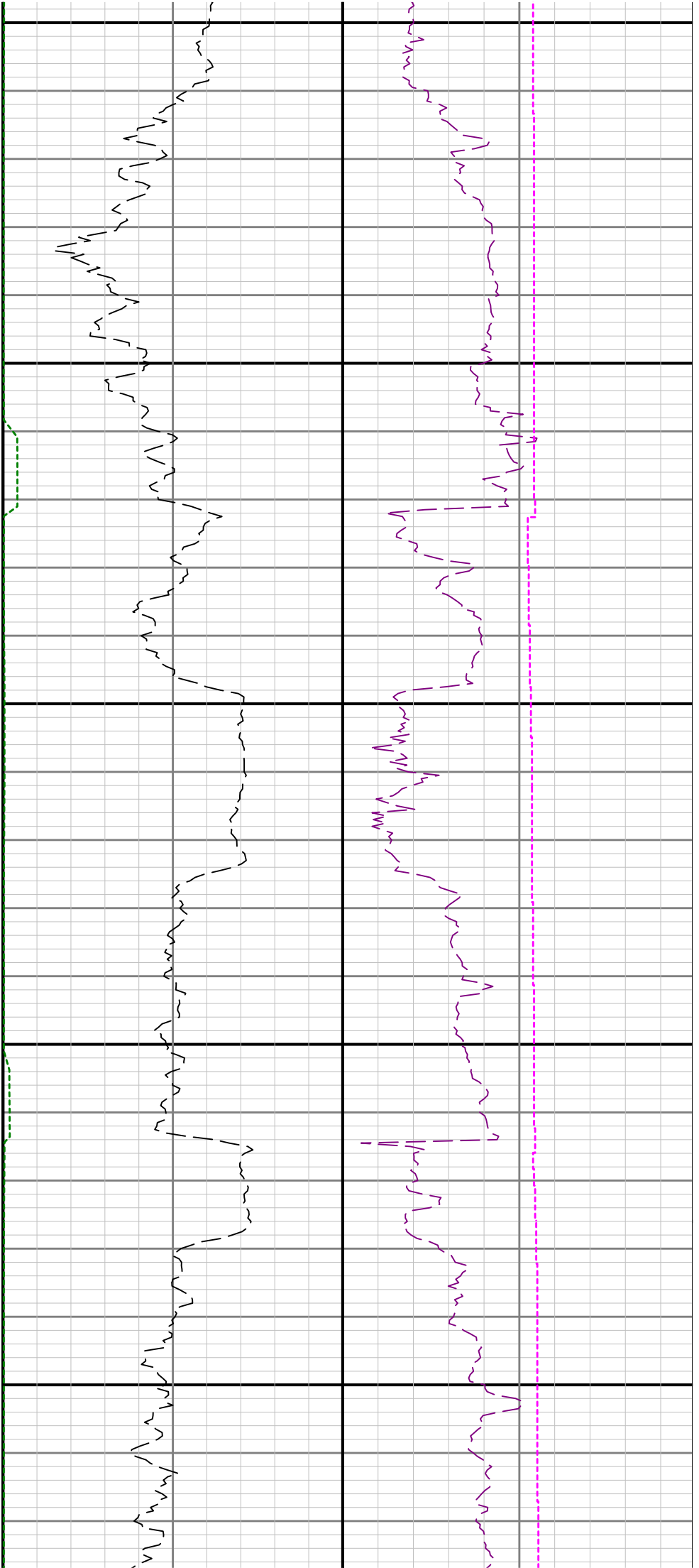




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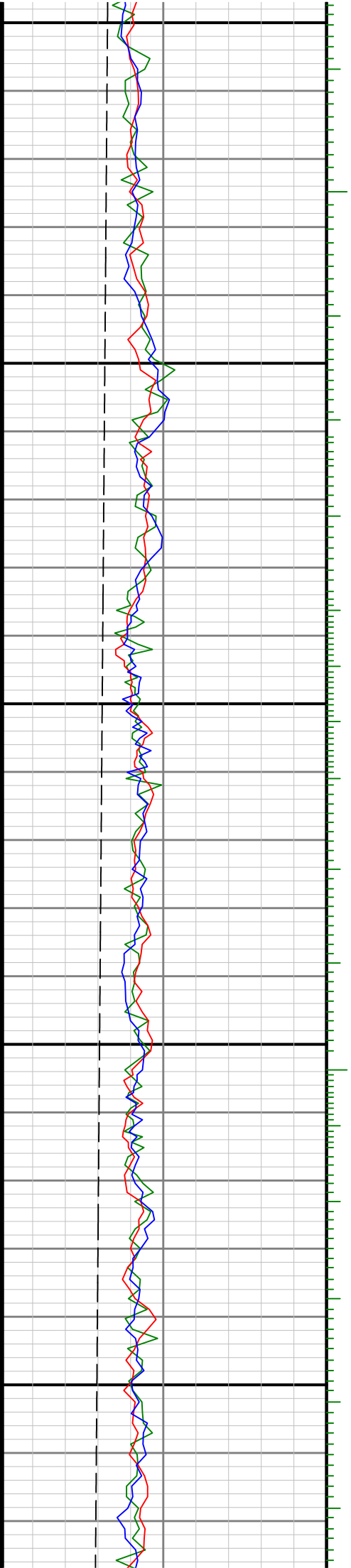
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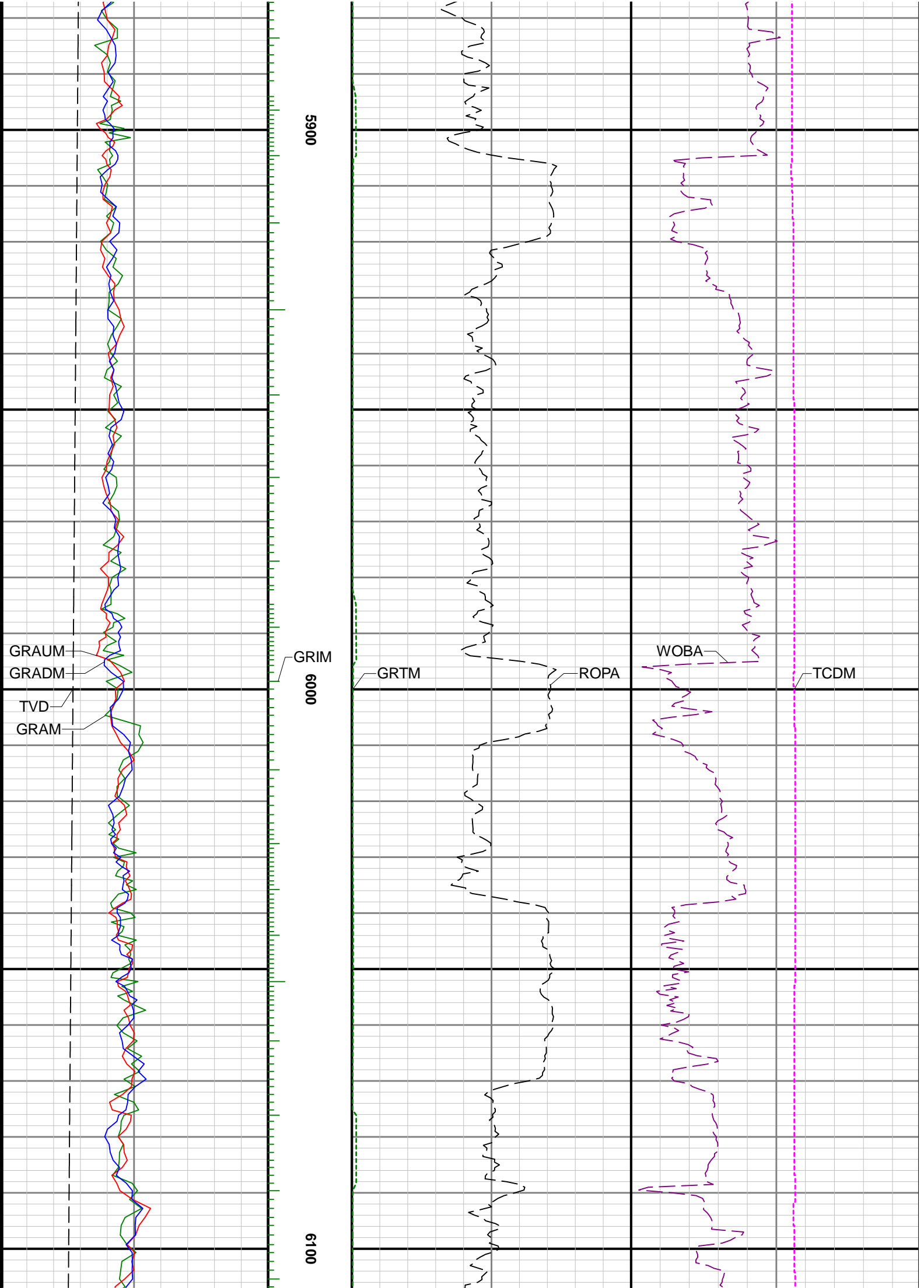


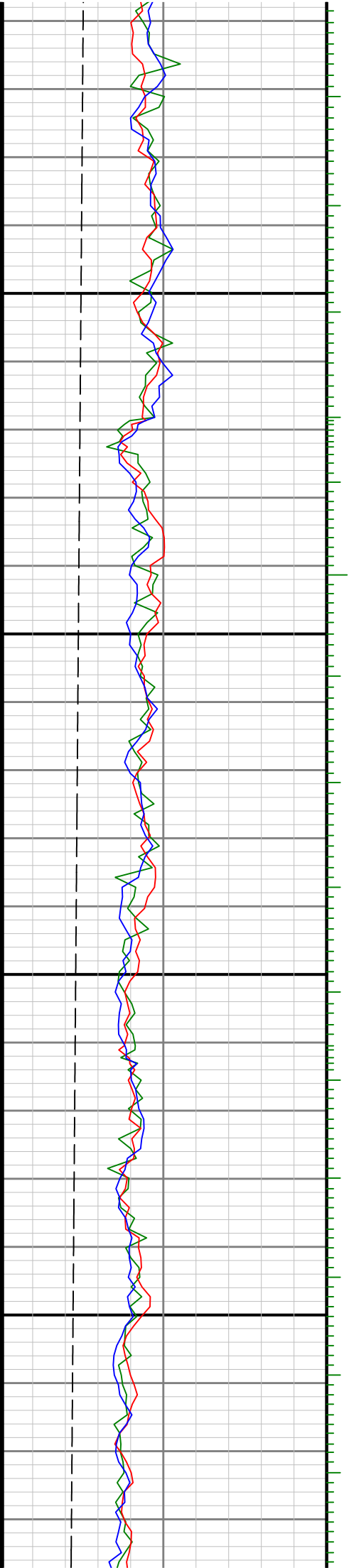
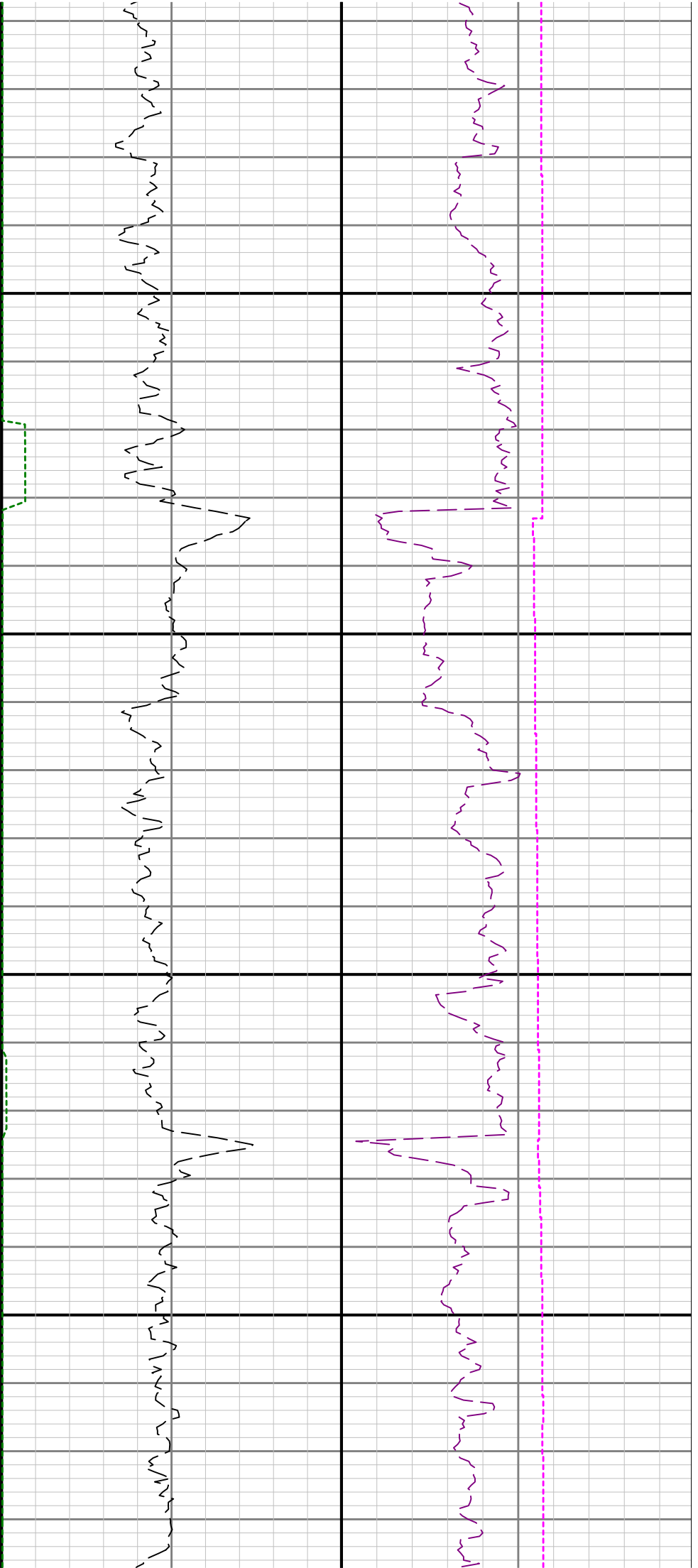


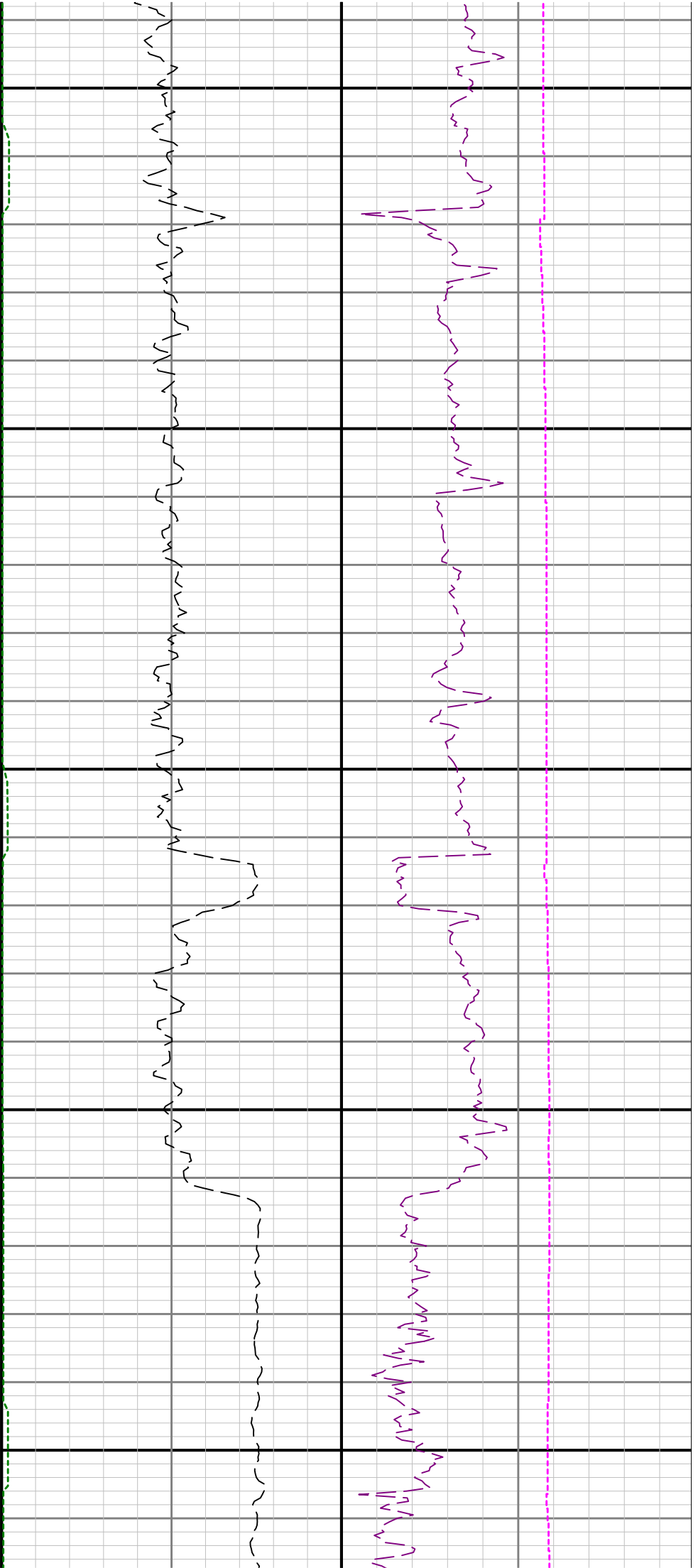
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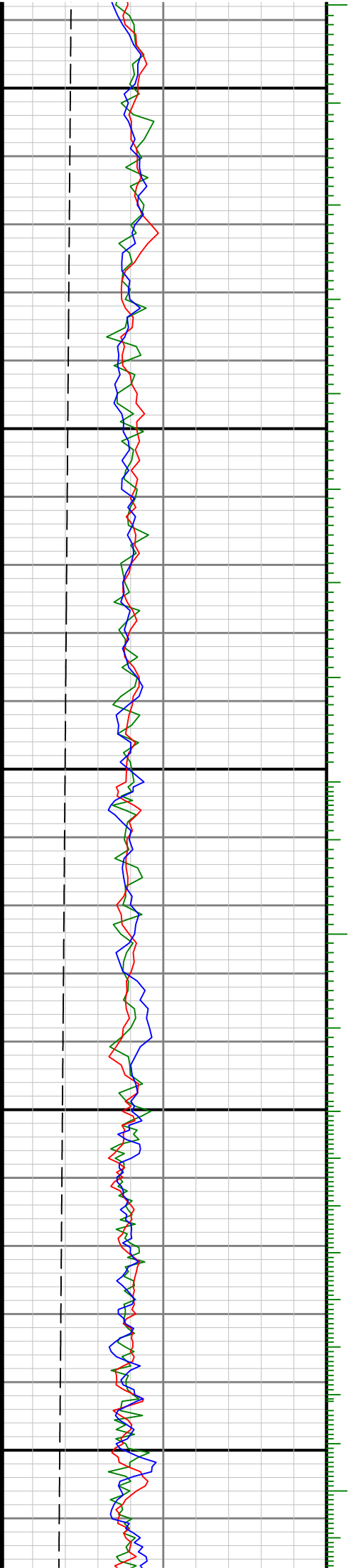


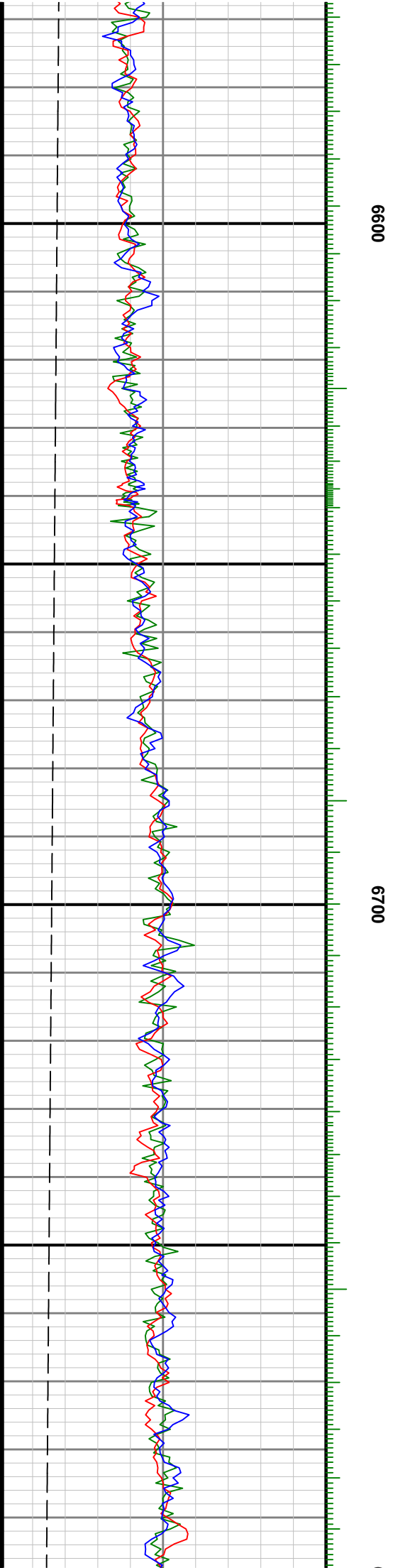
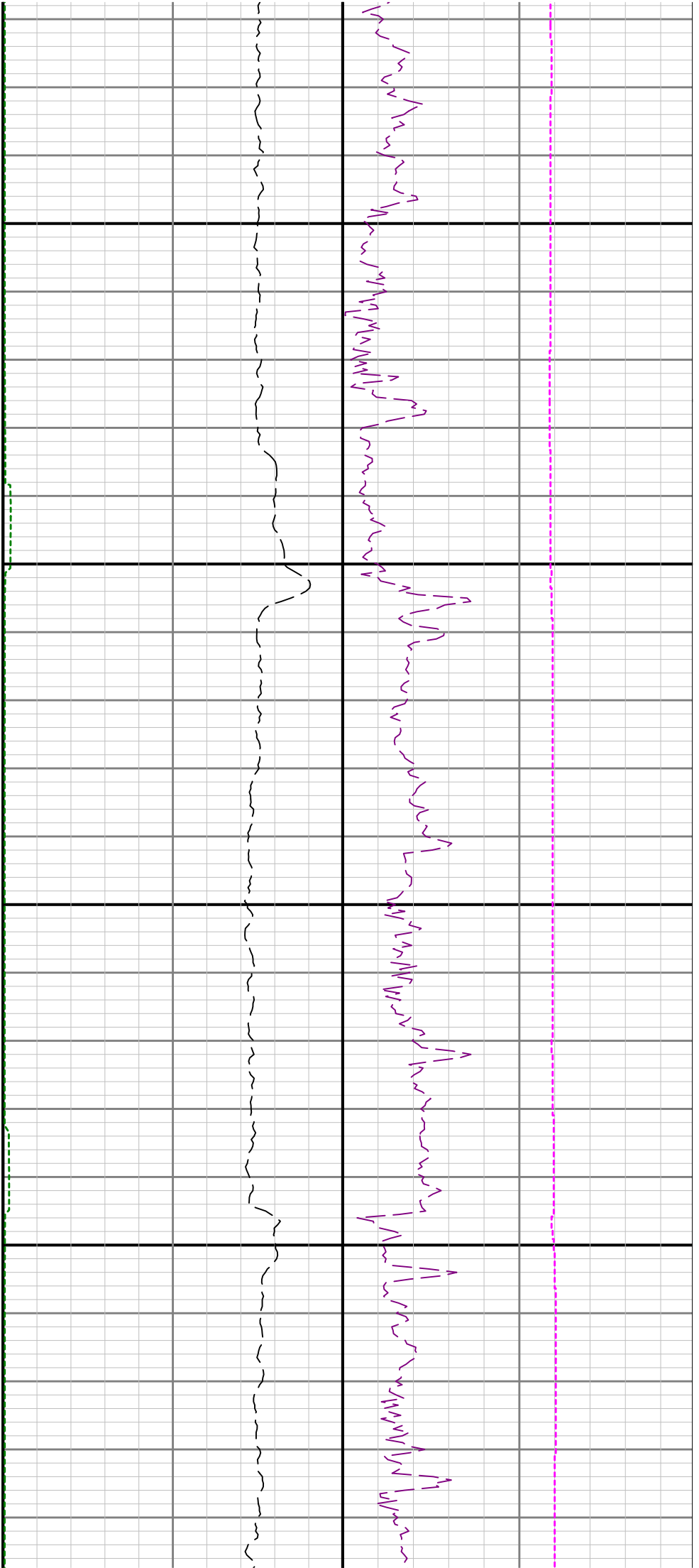


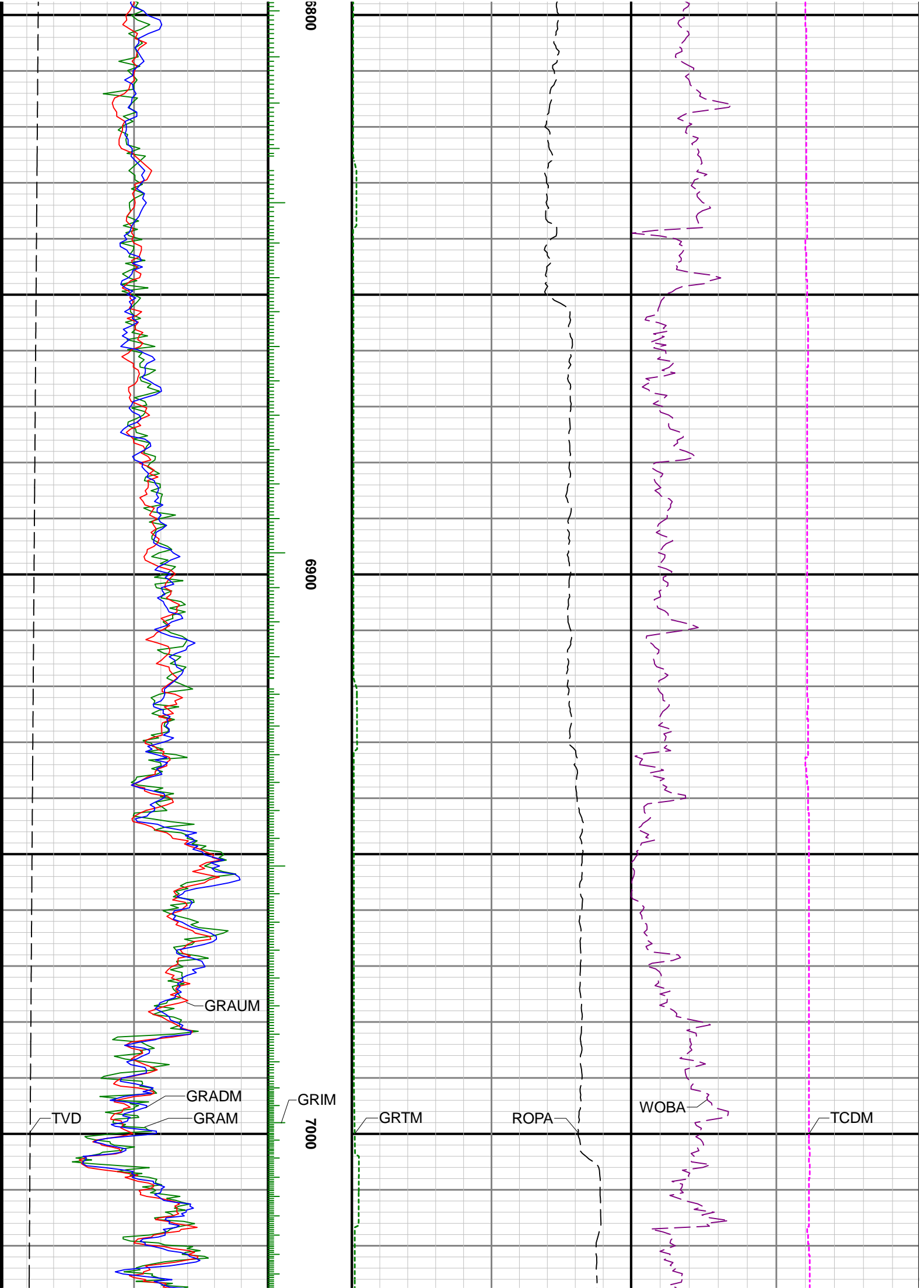


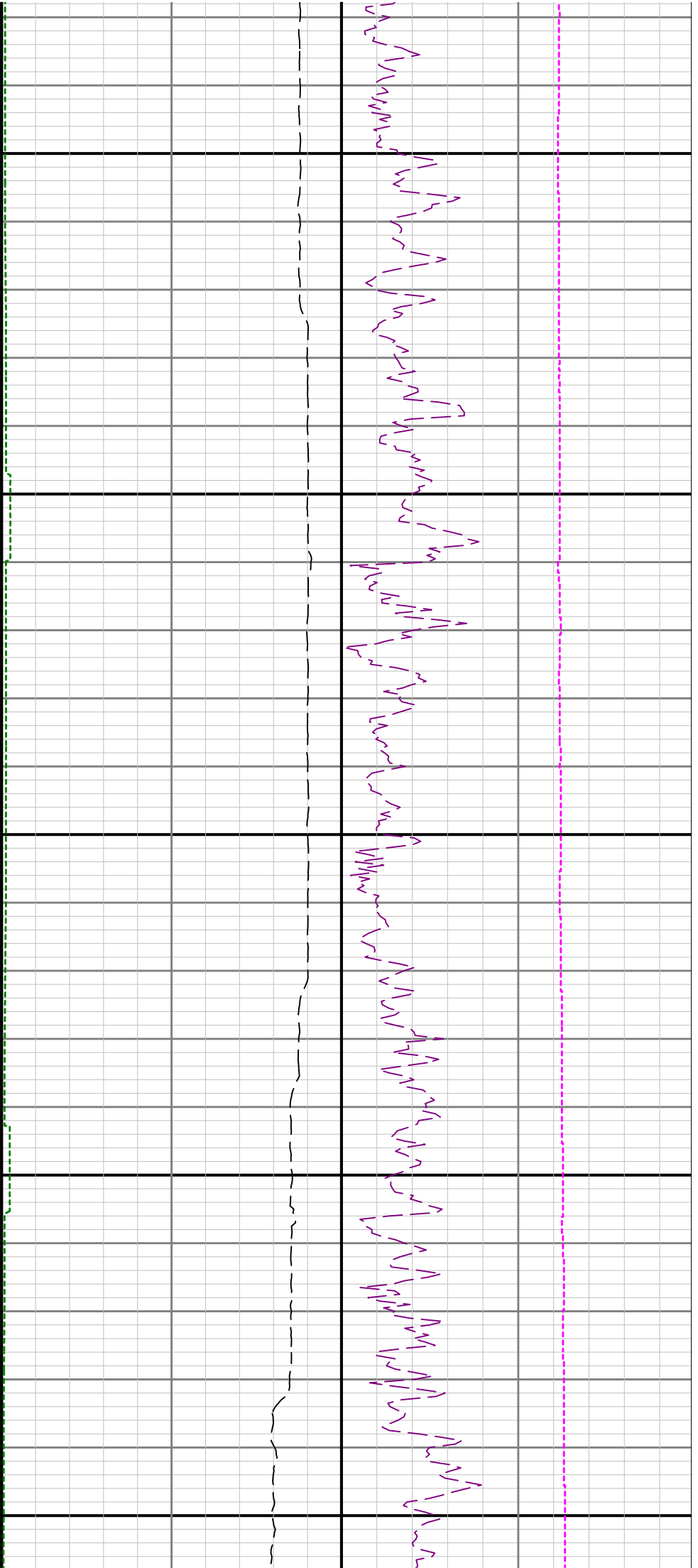
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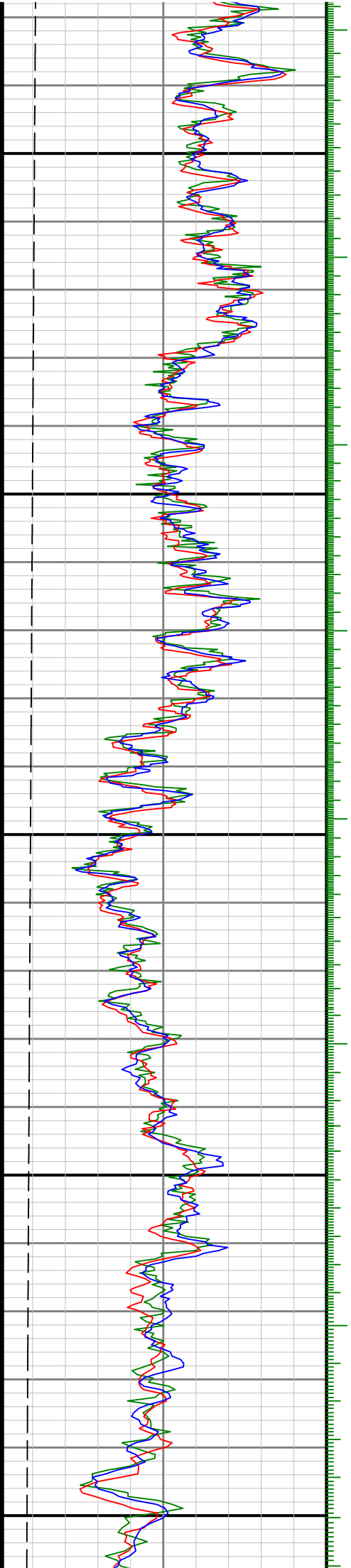


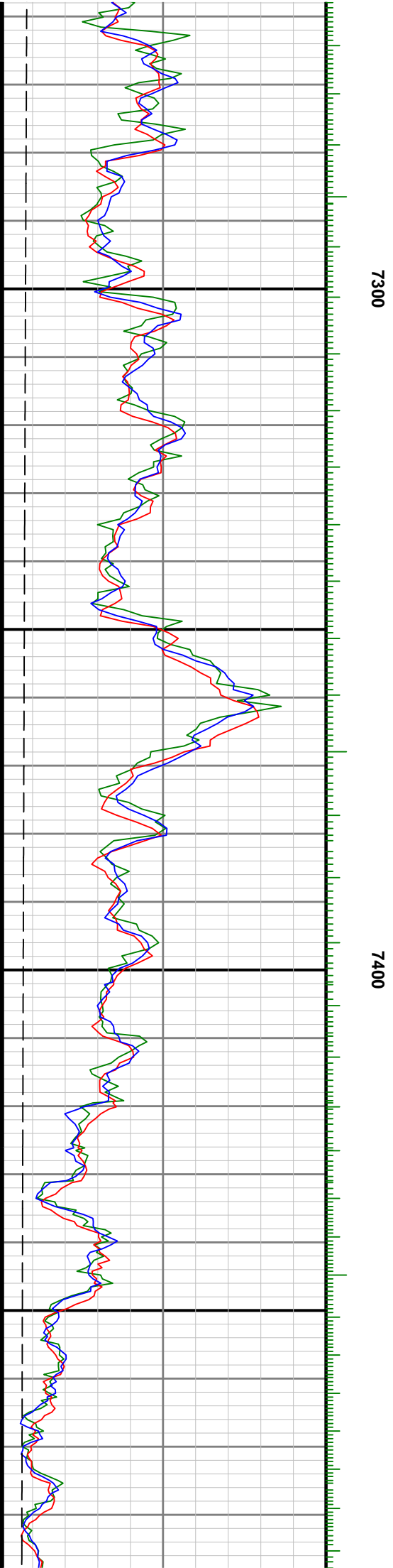
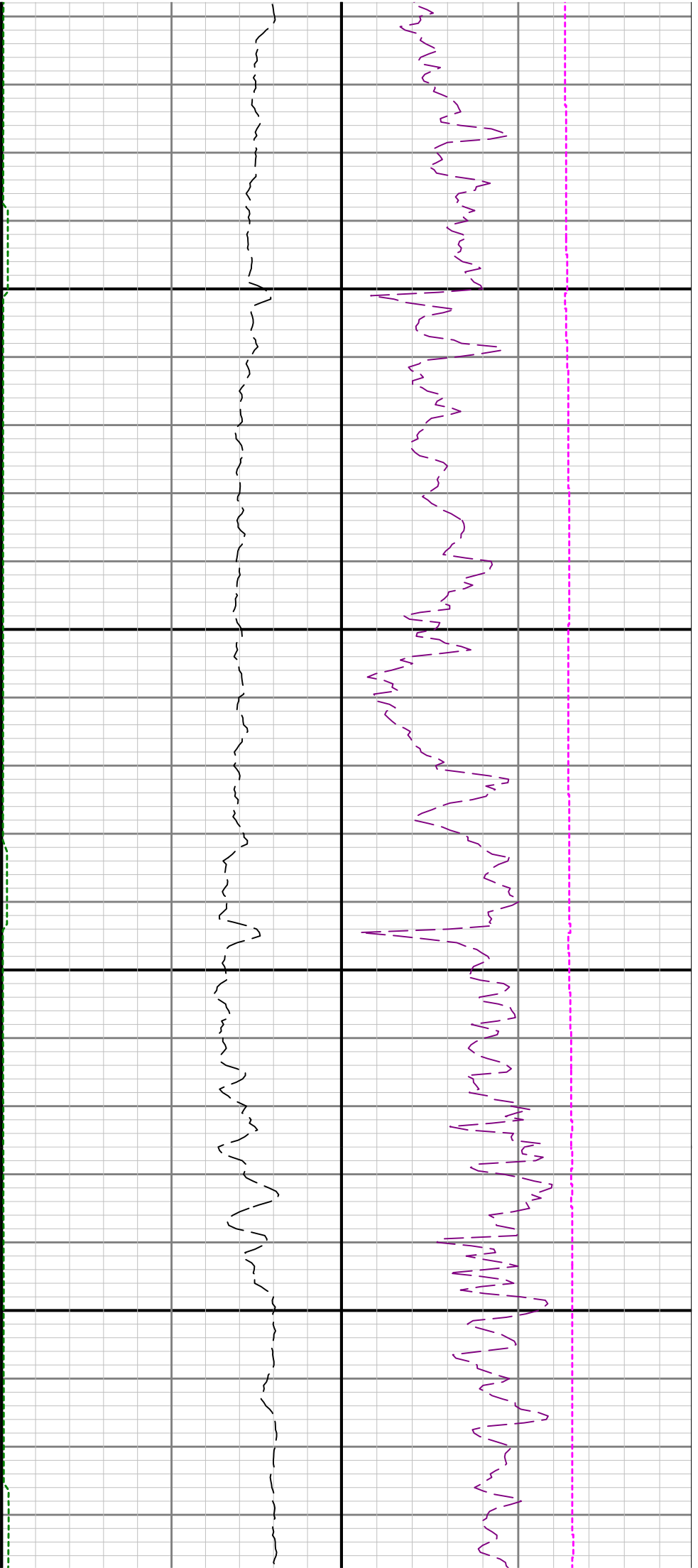


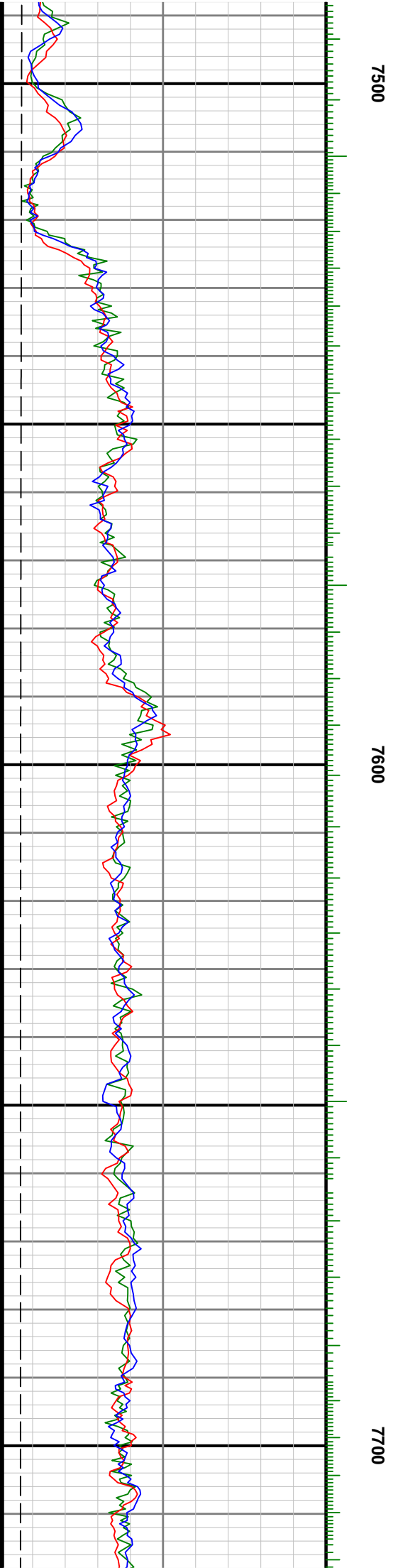
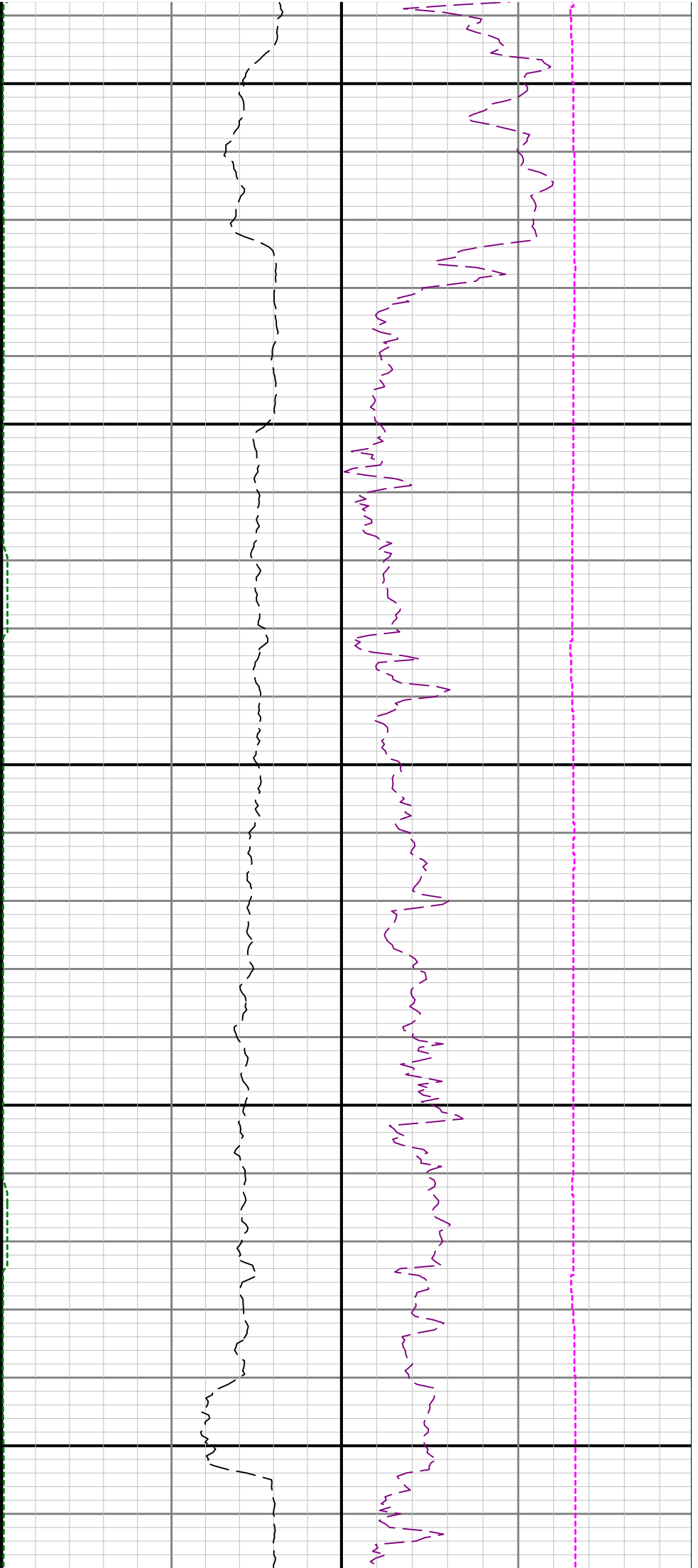


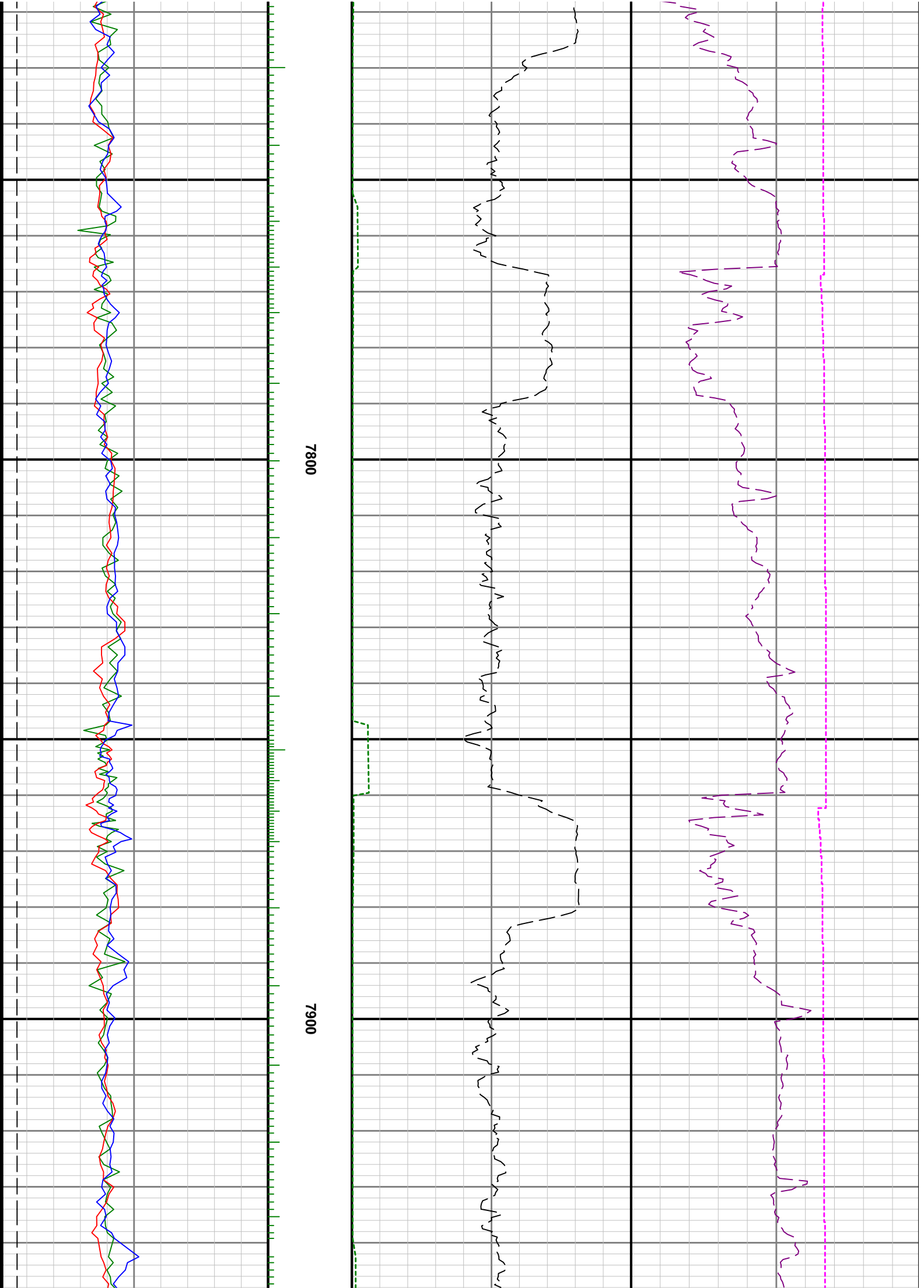
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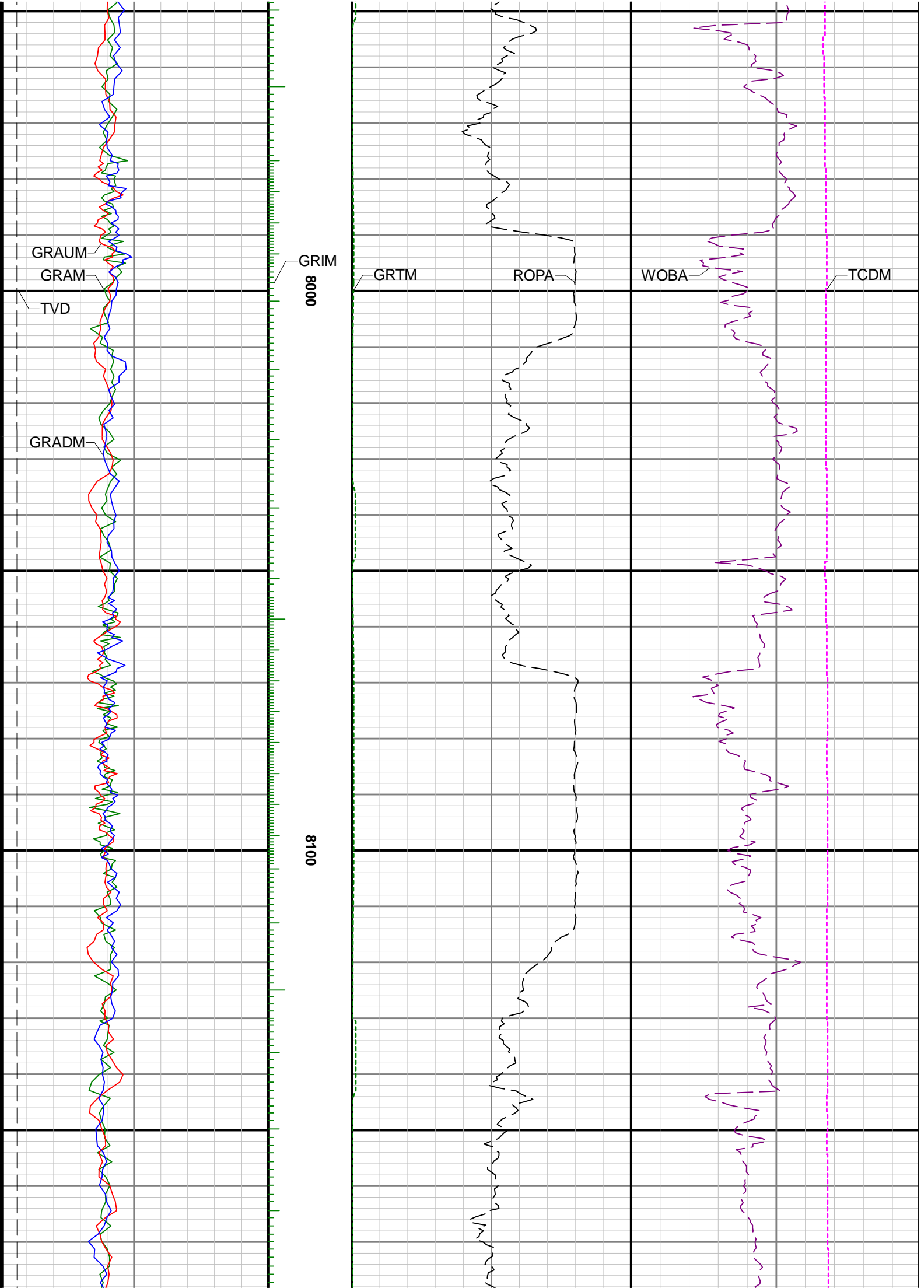
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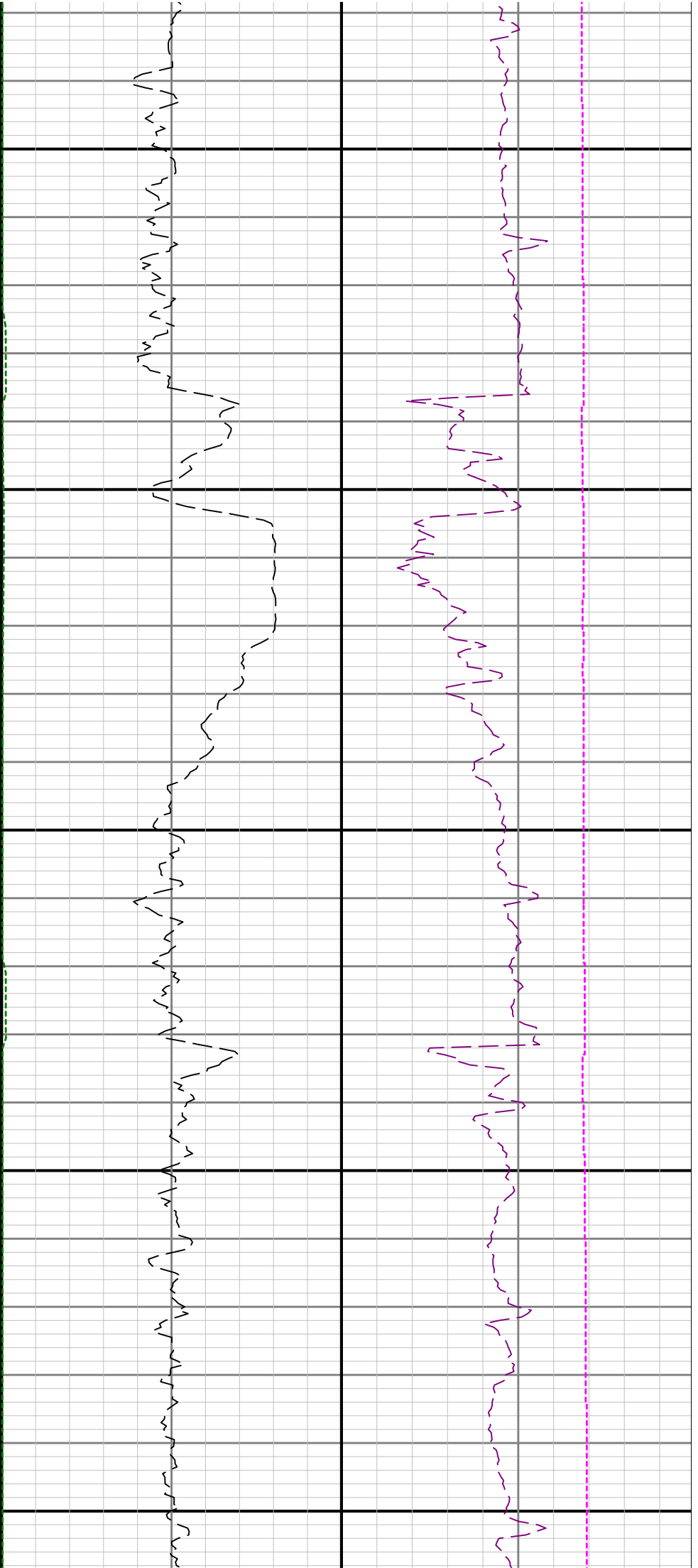








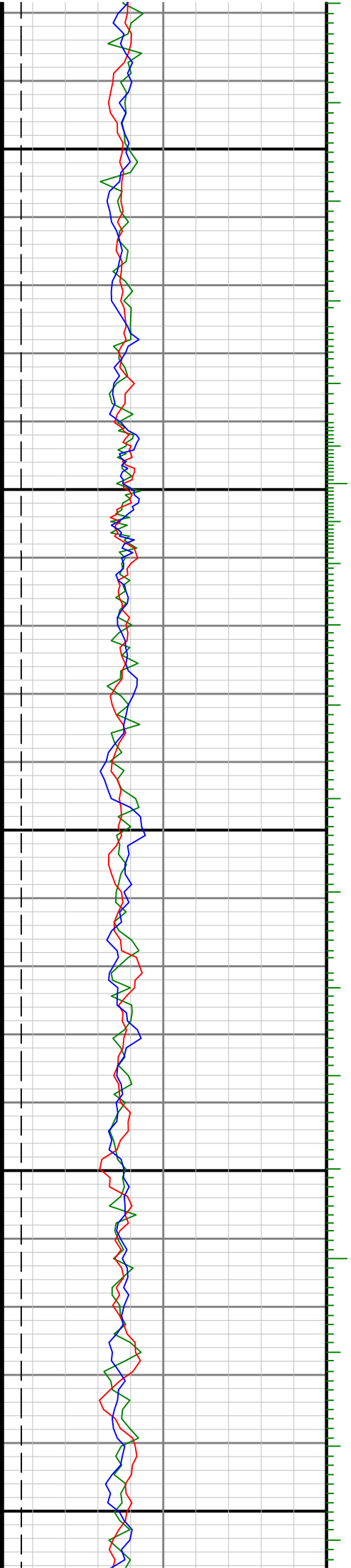


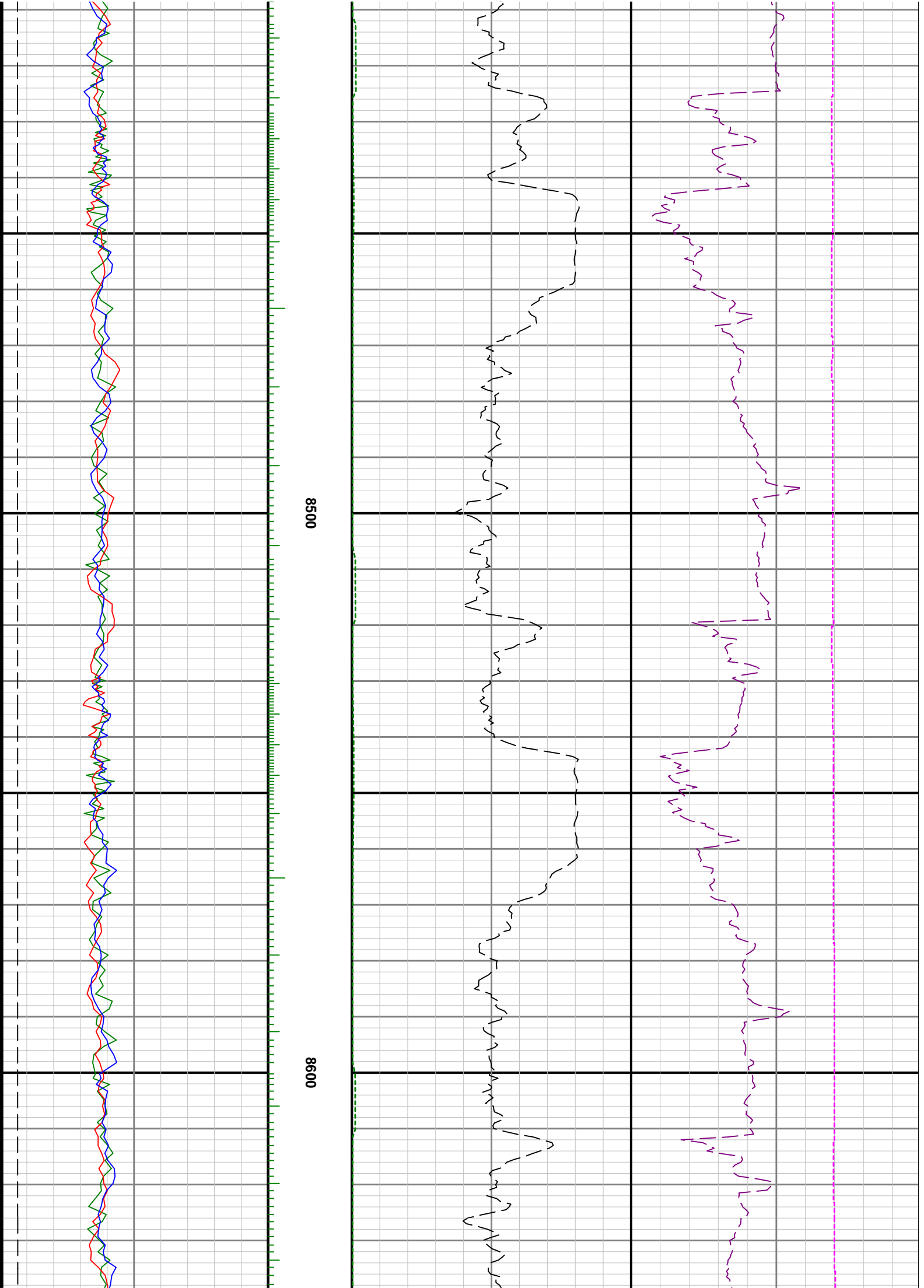


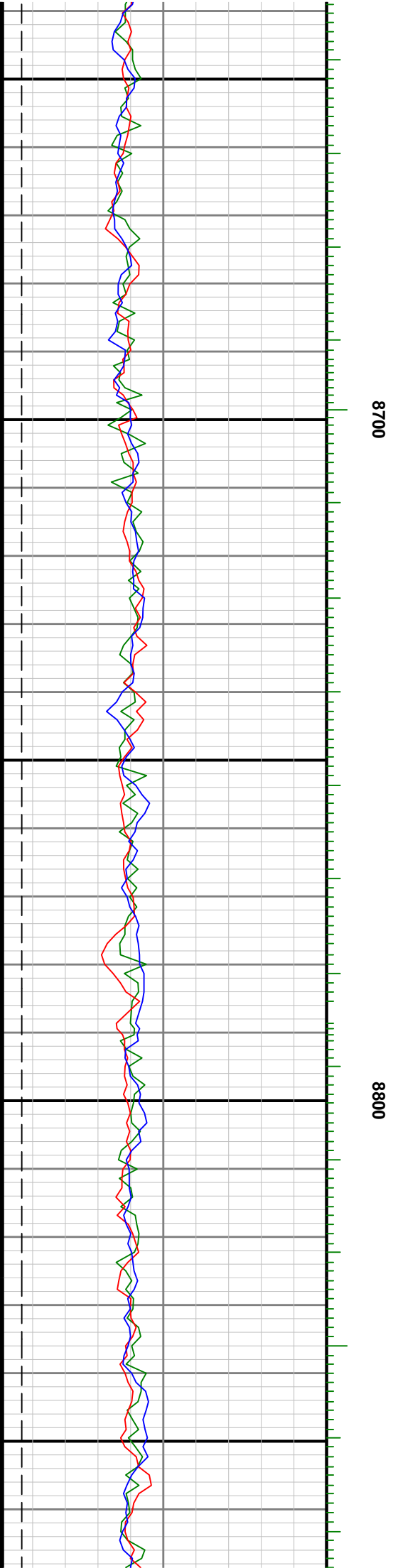
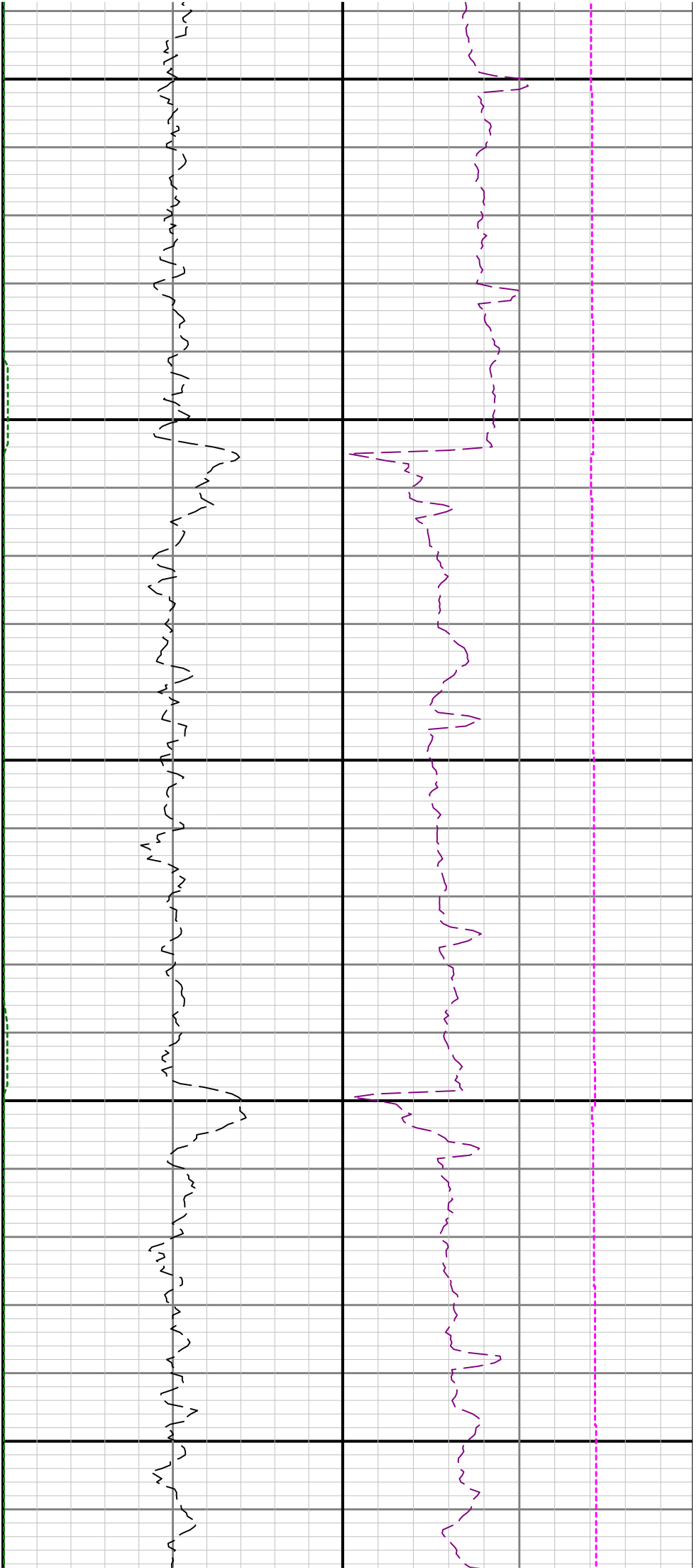
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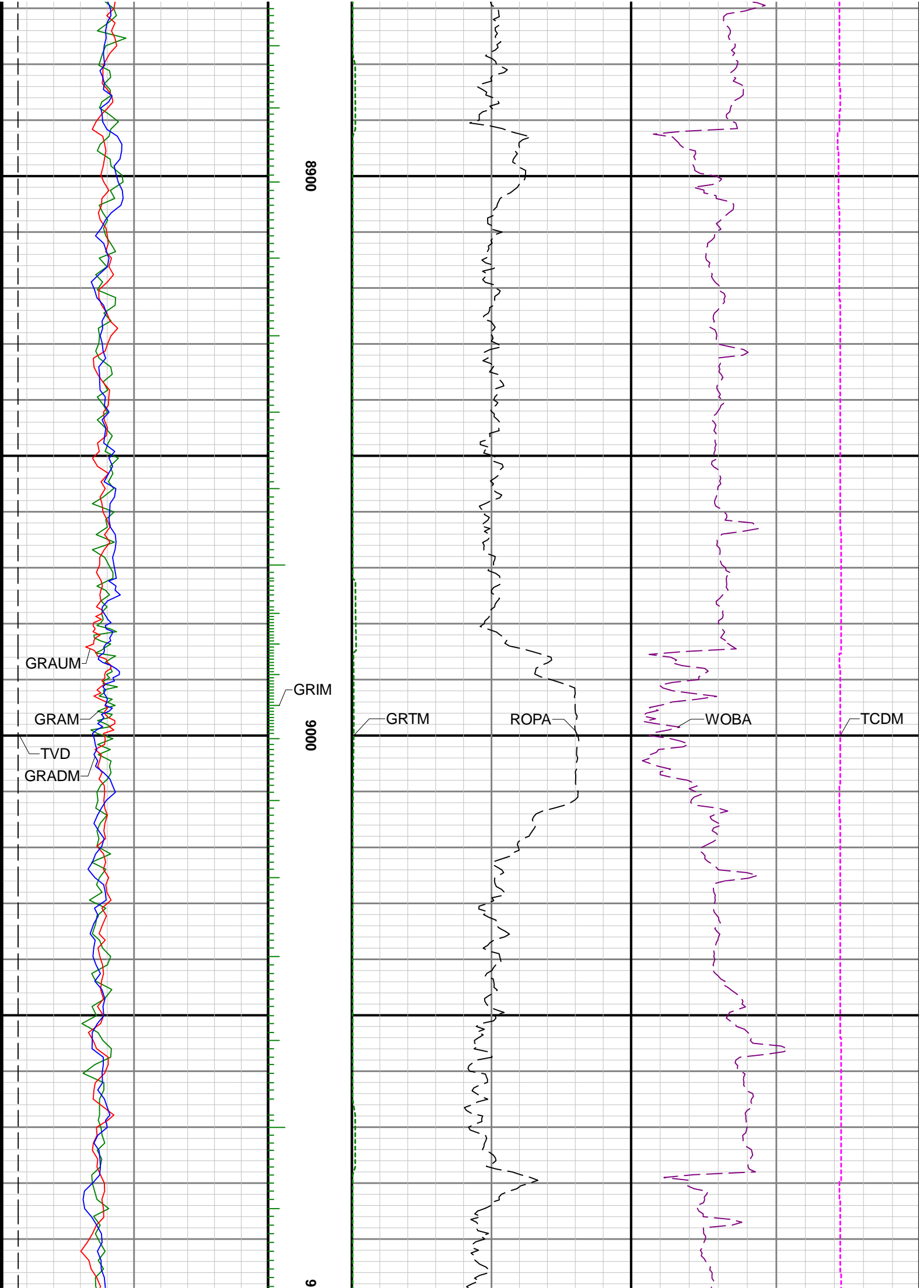
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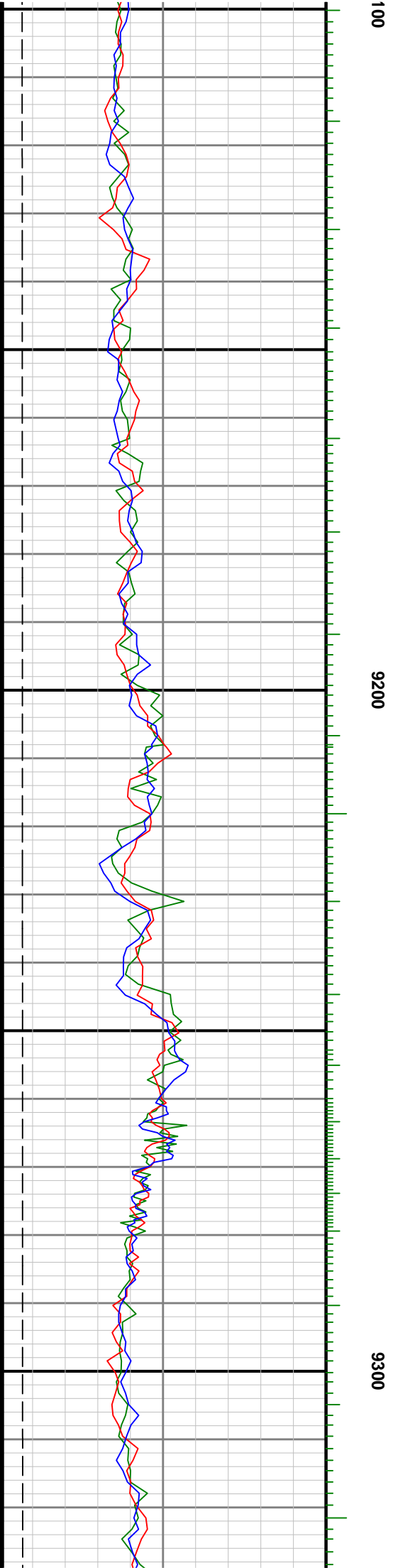
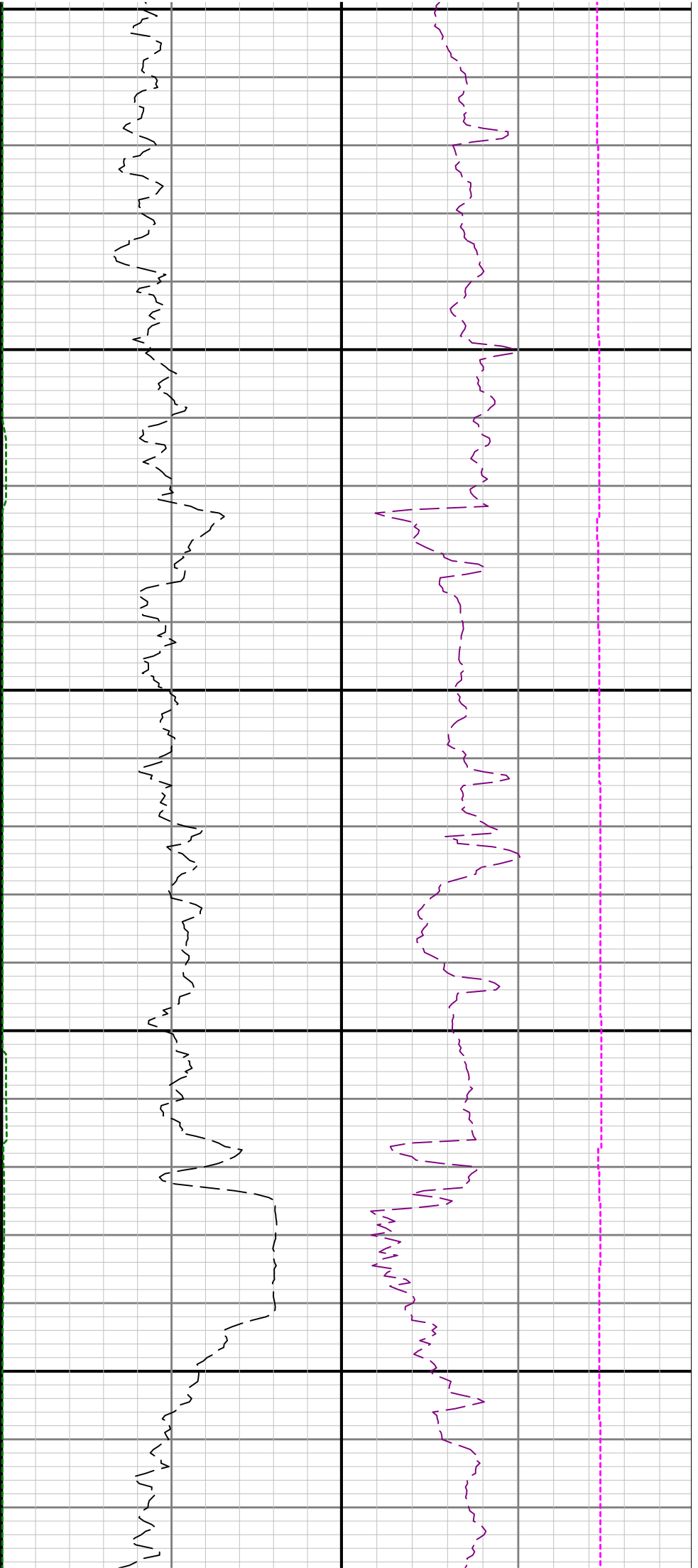
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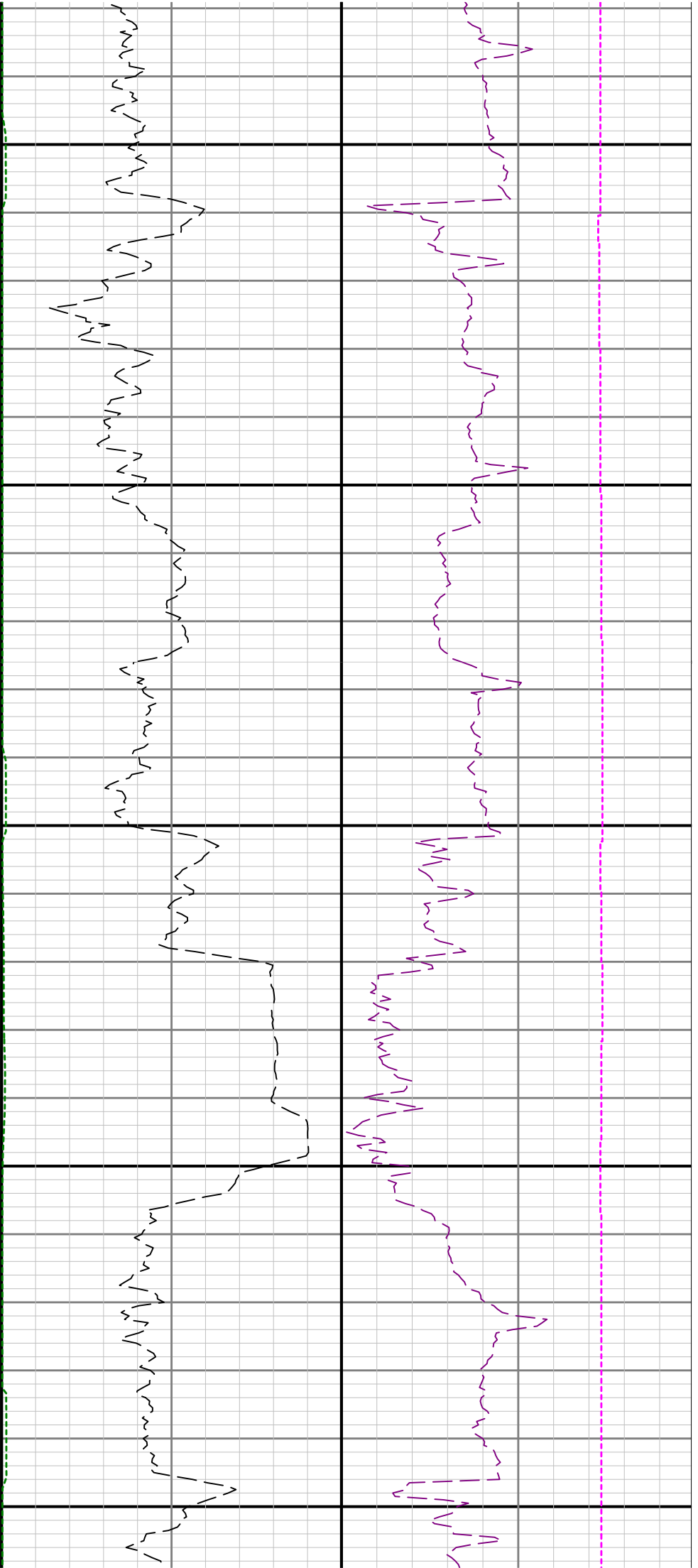






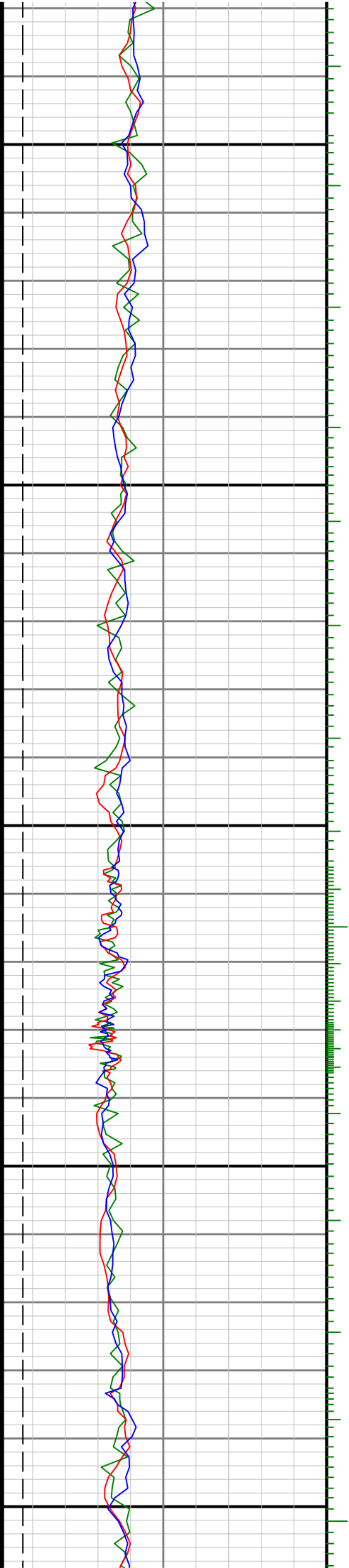


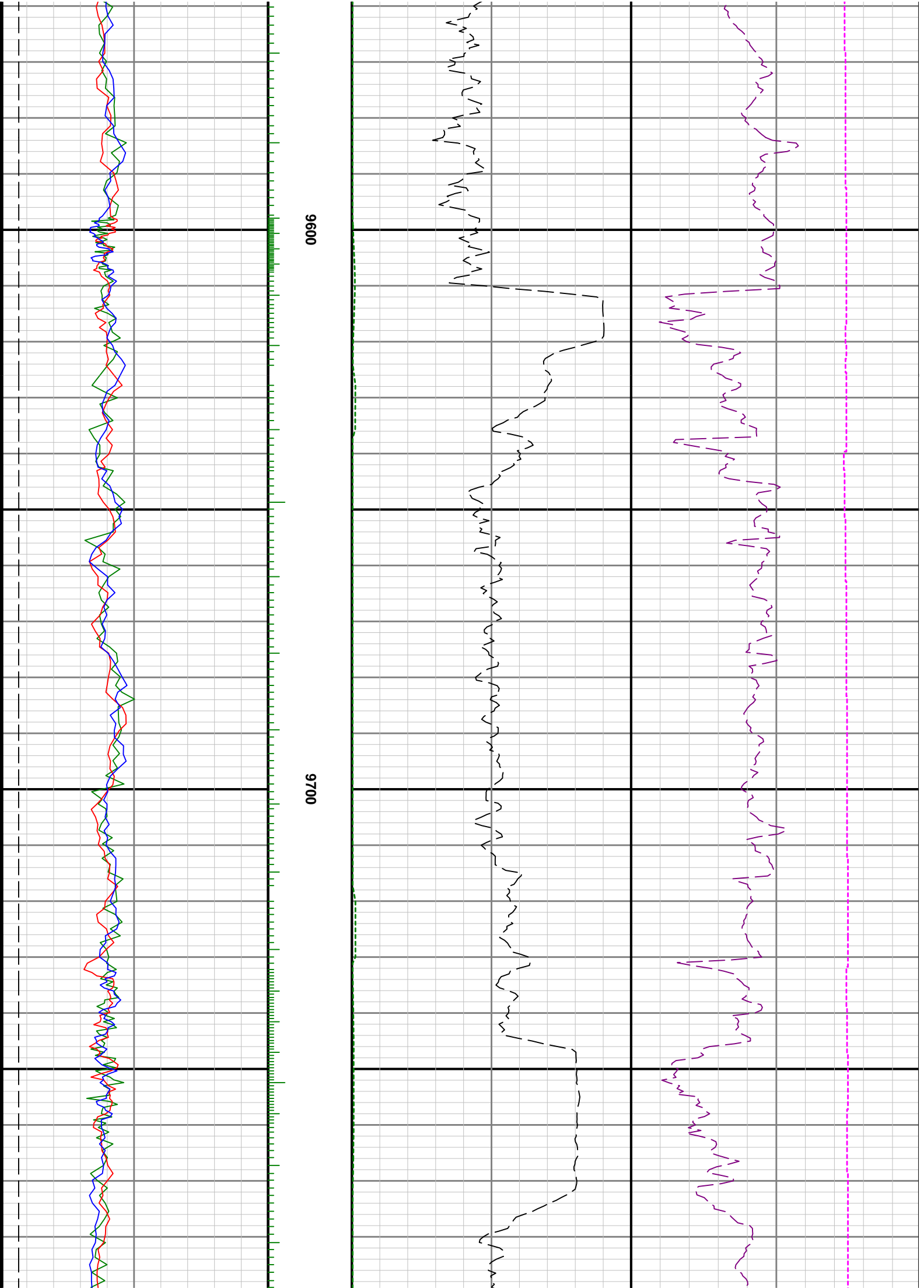


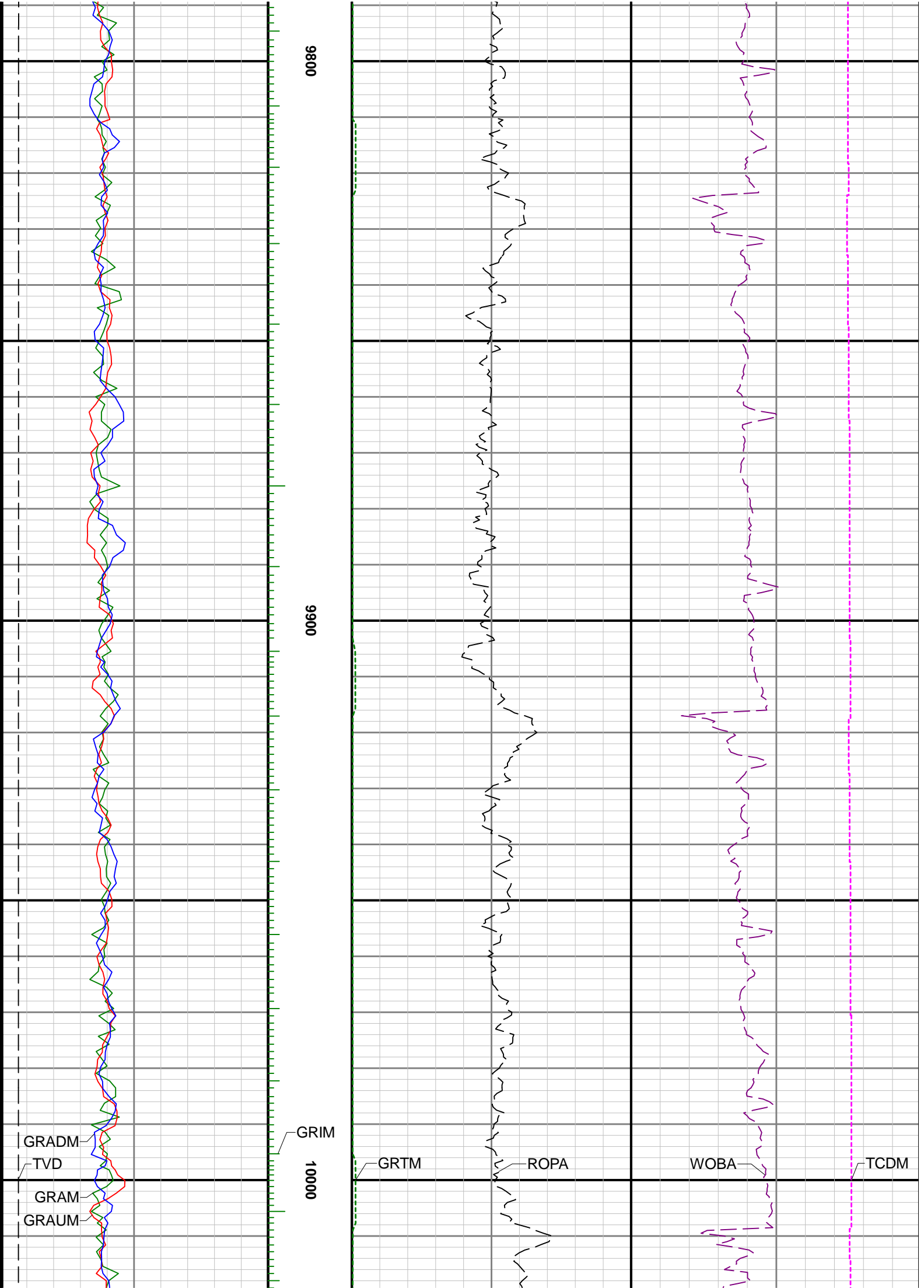


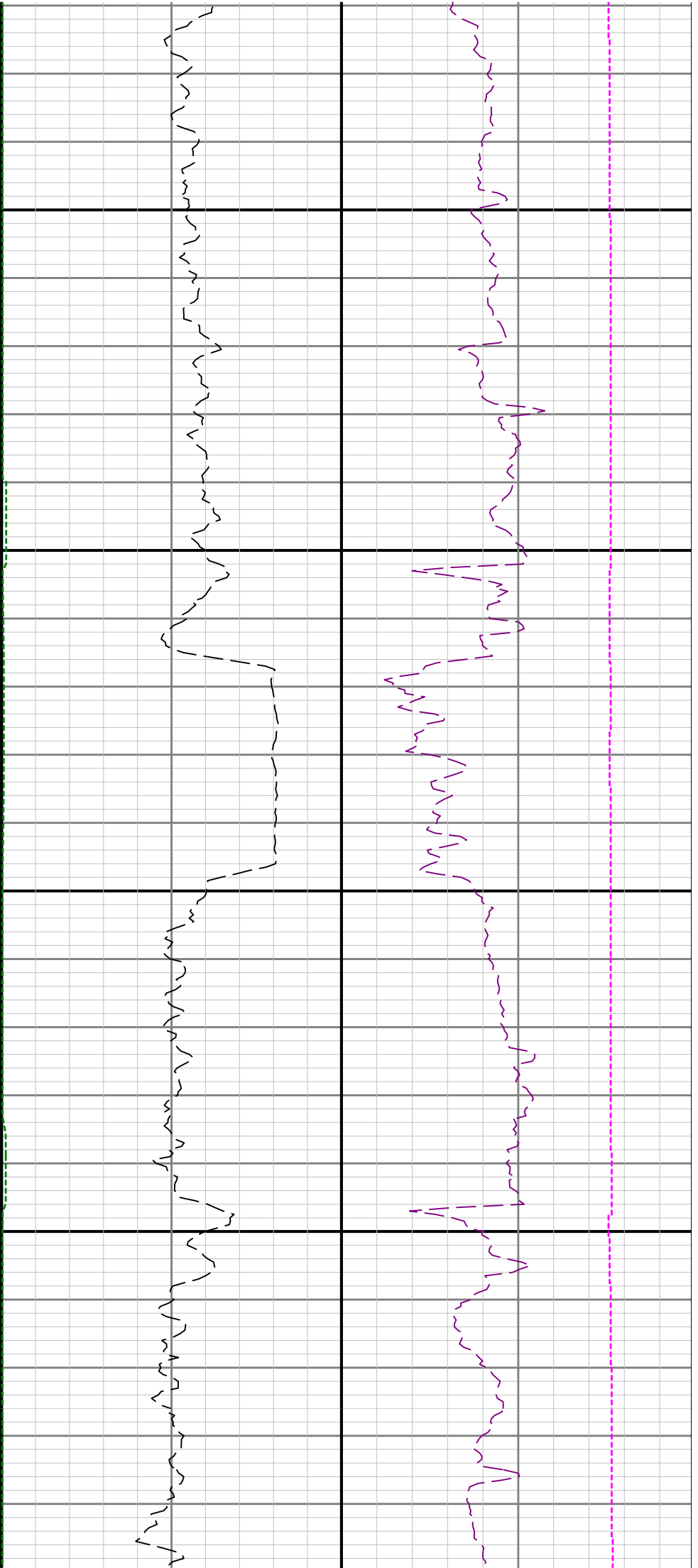
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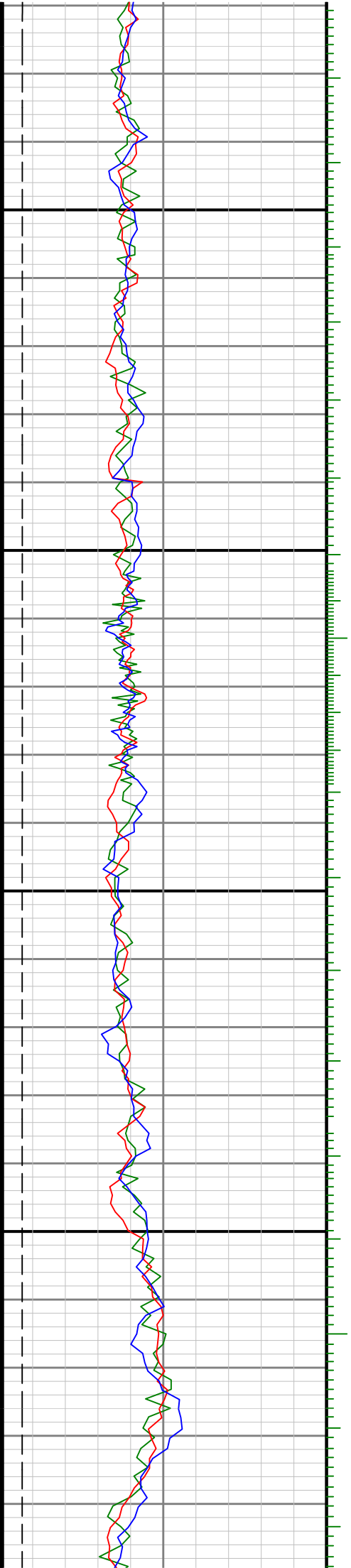


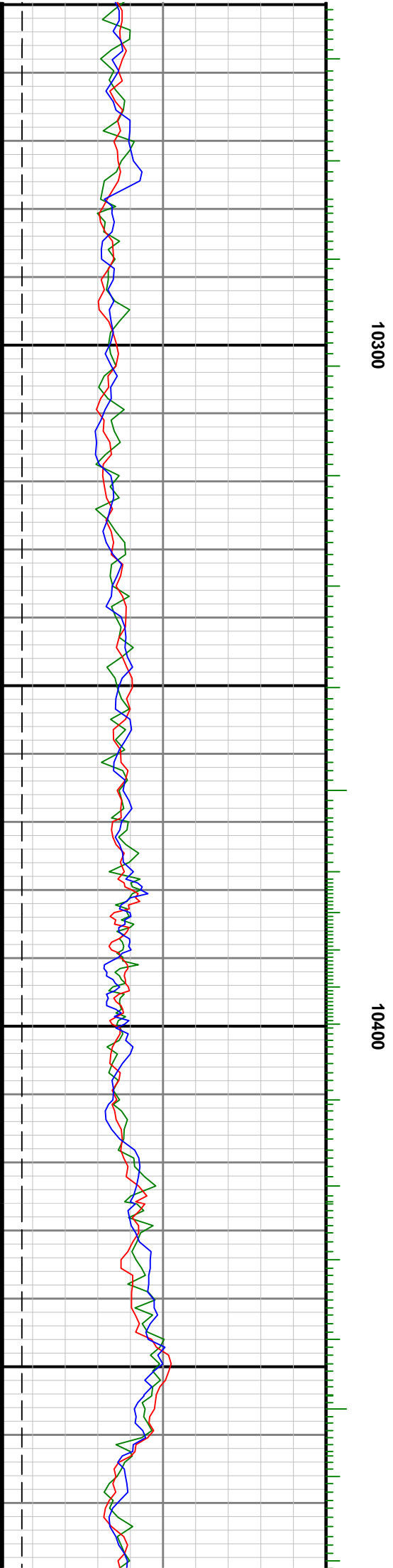
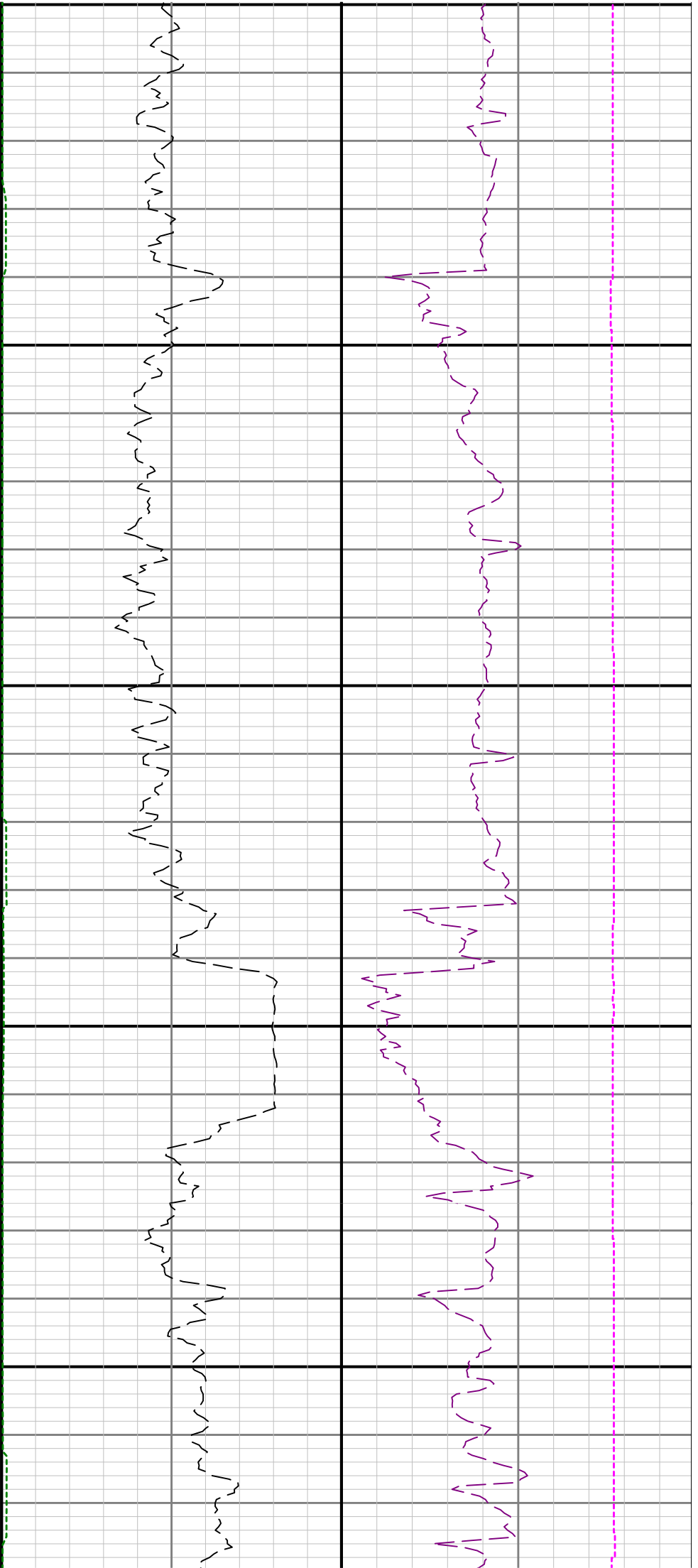


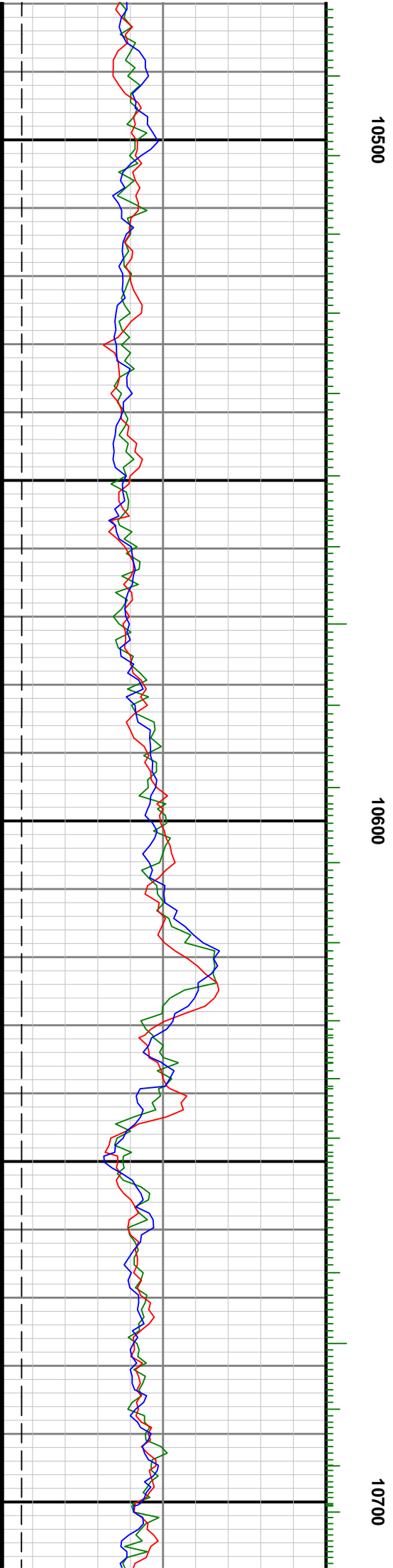
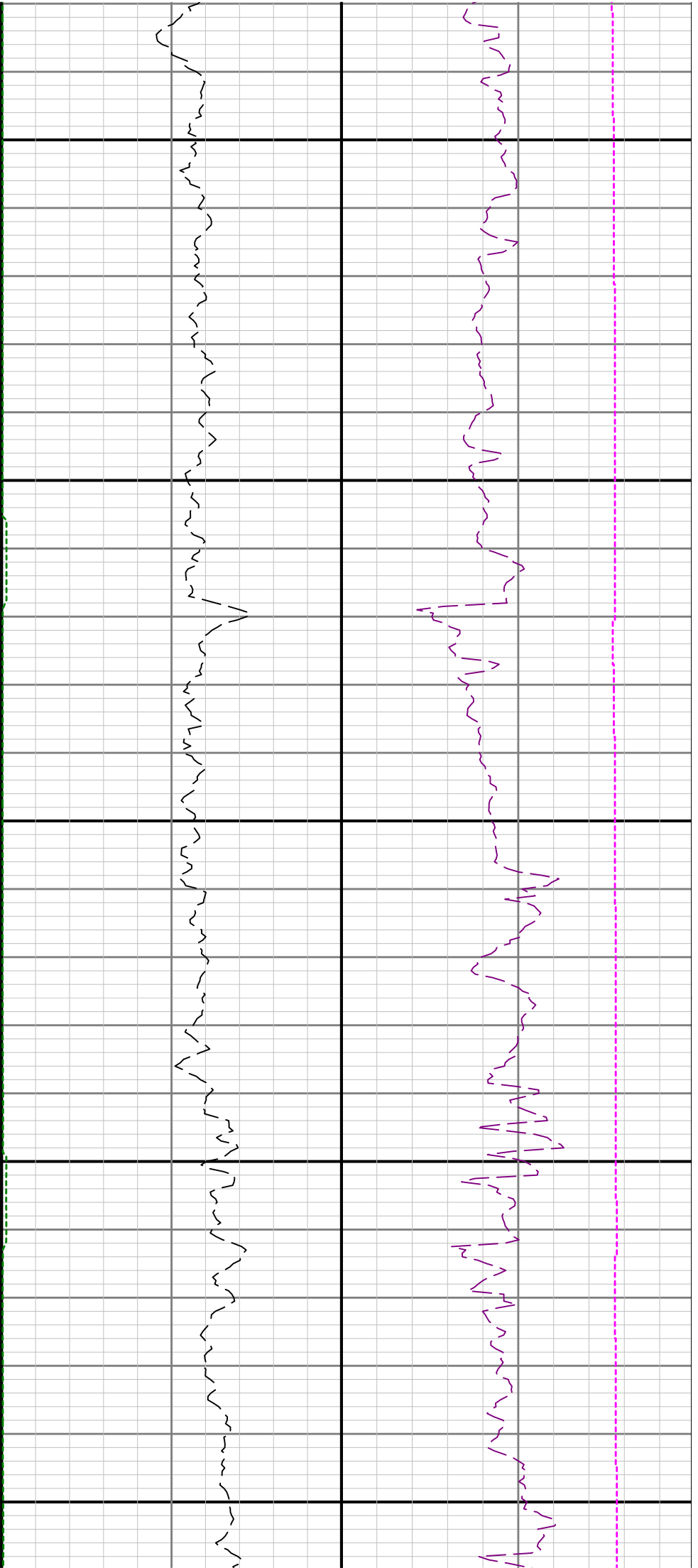


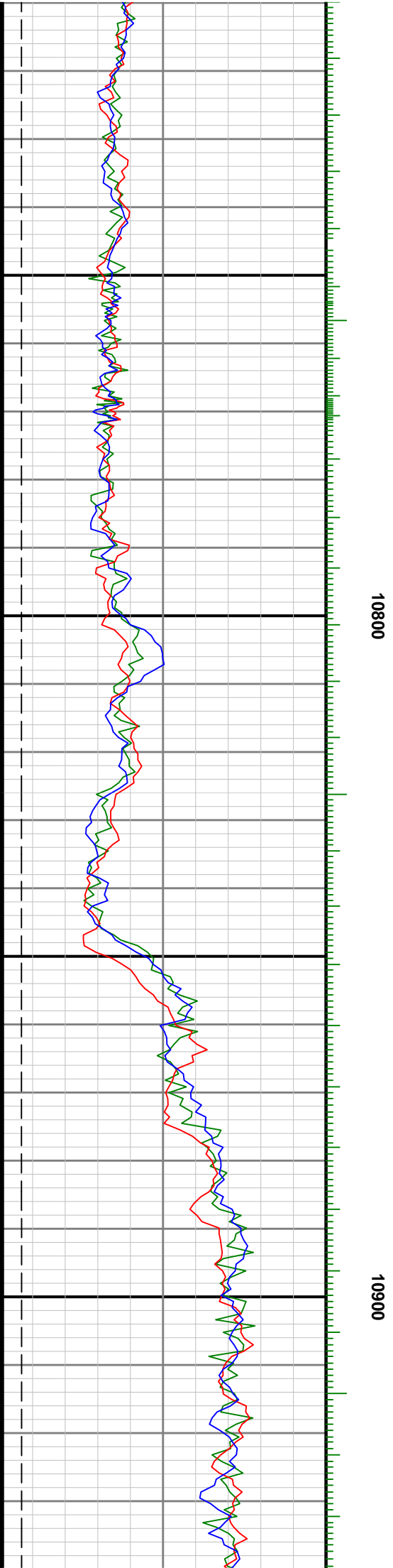
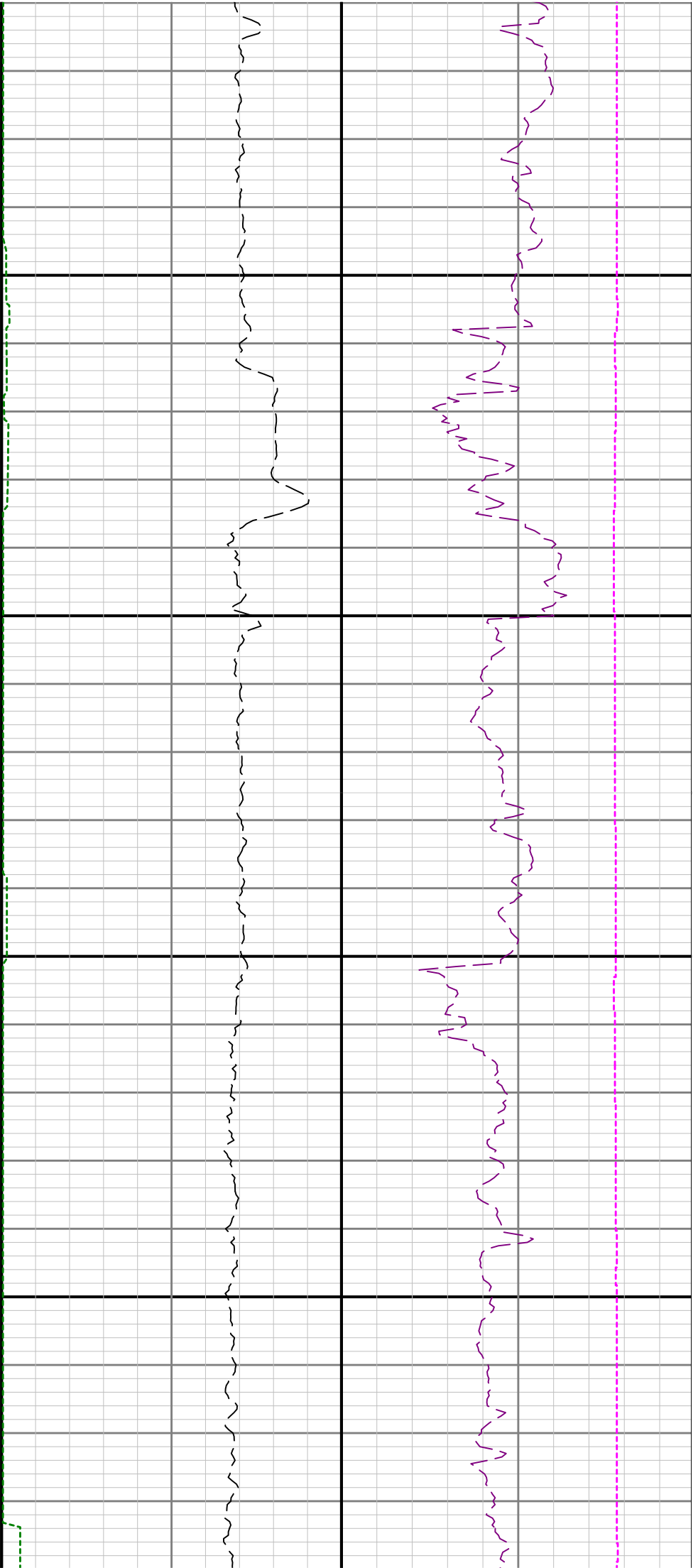
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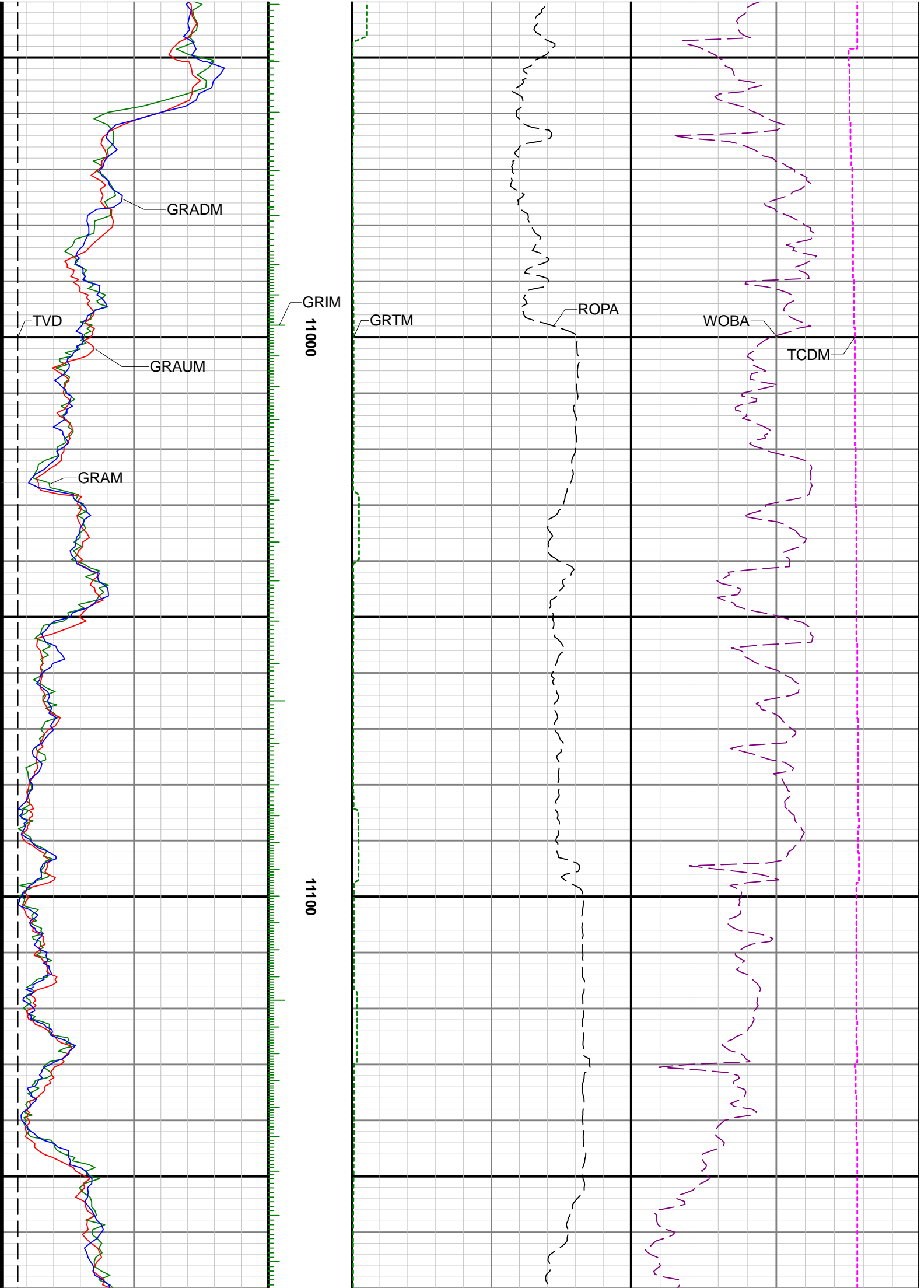
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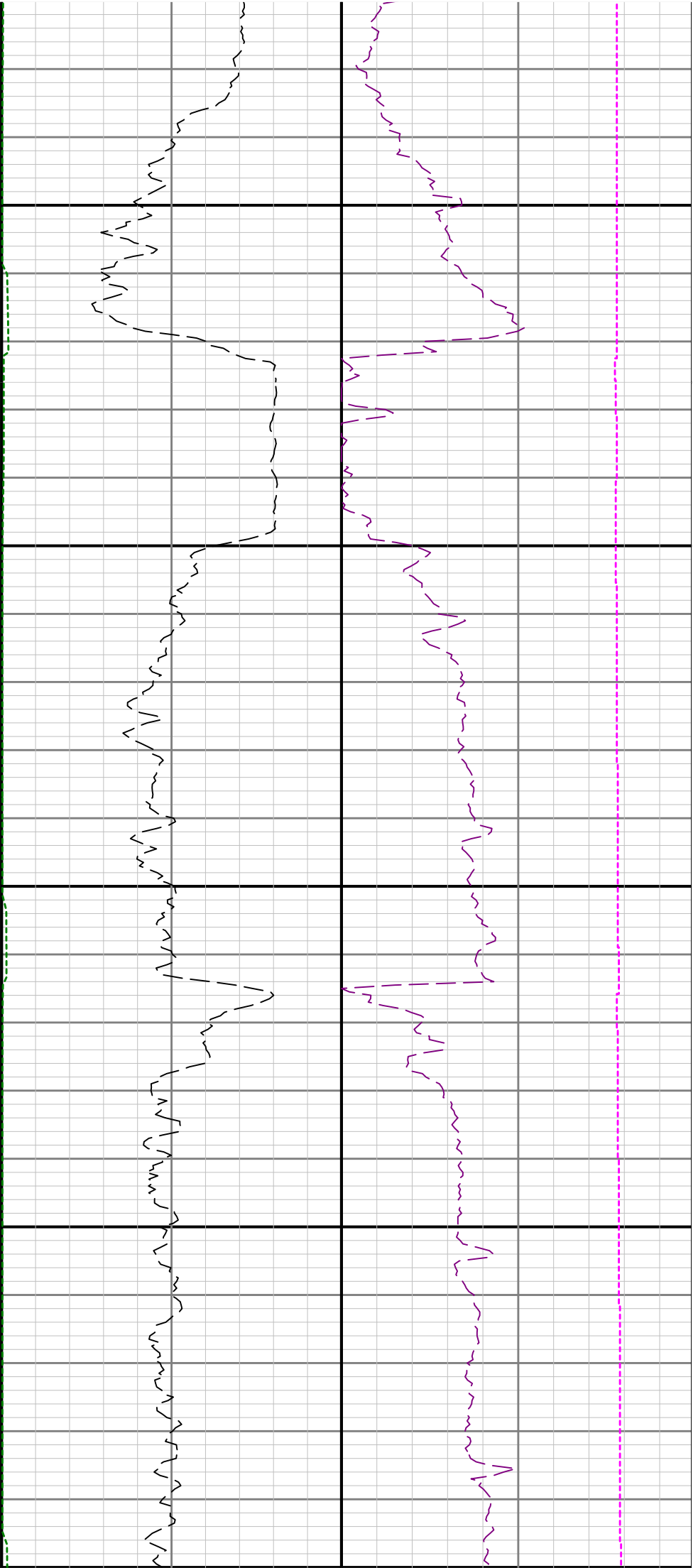








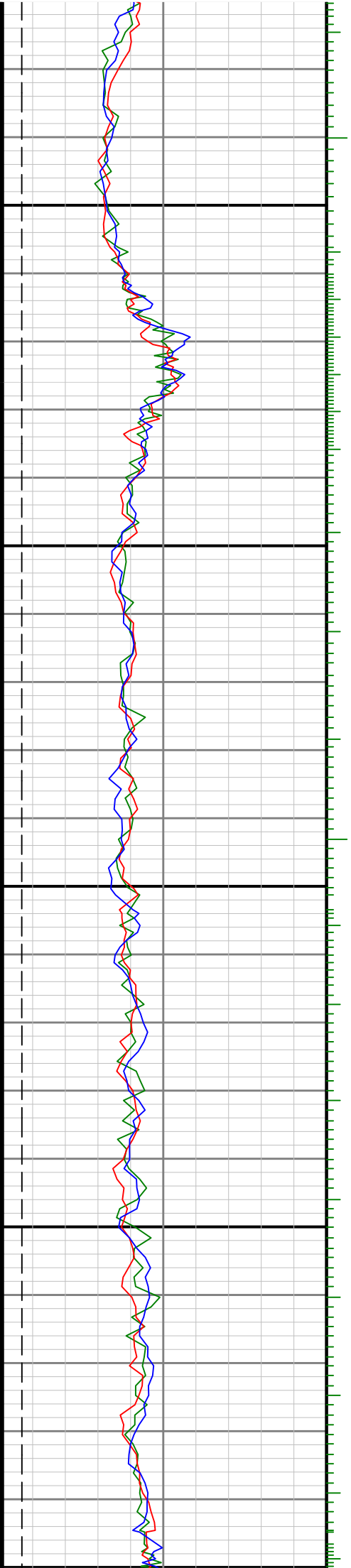


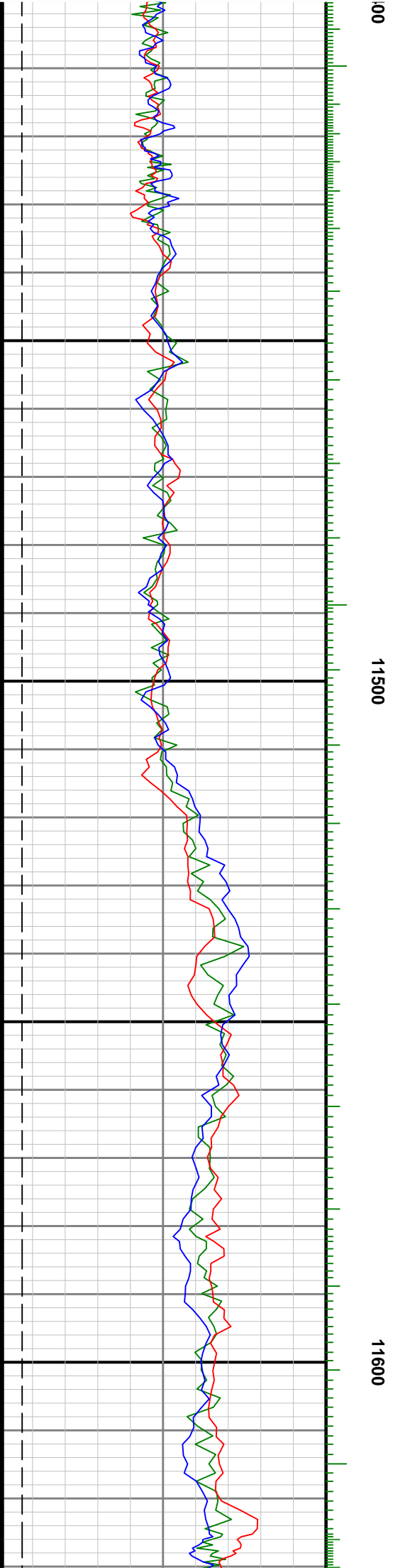
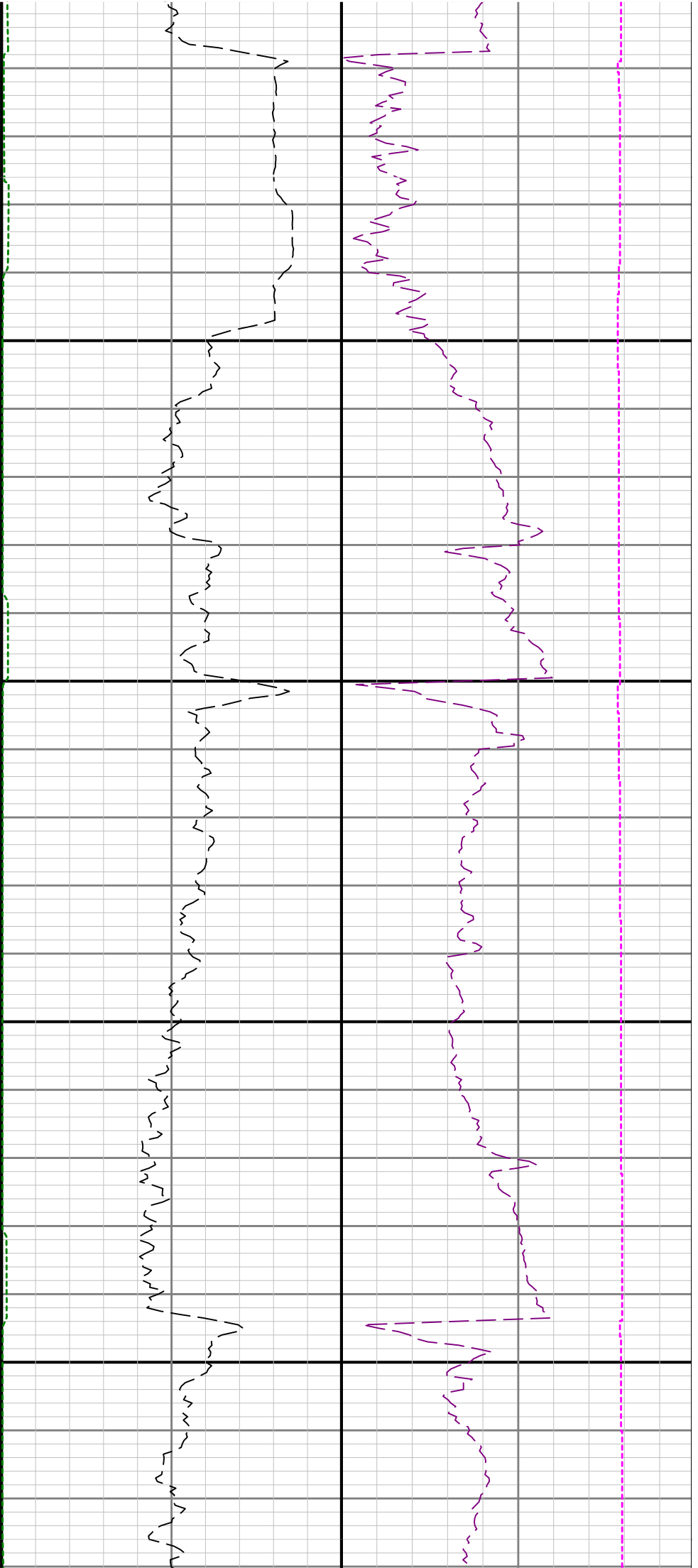


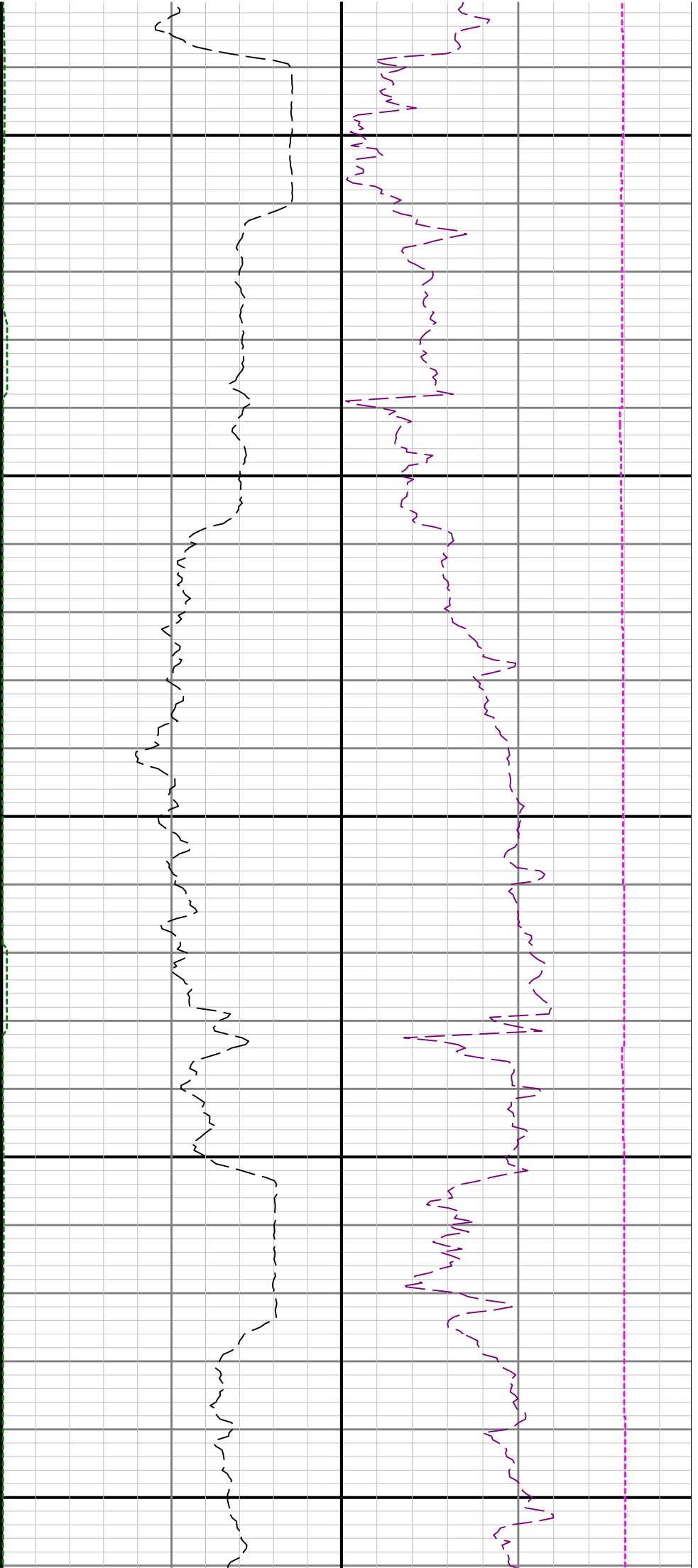
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11300

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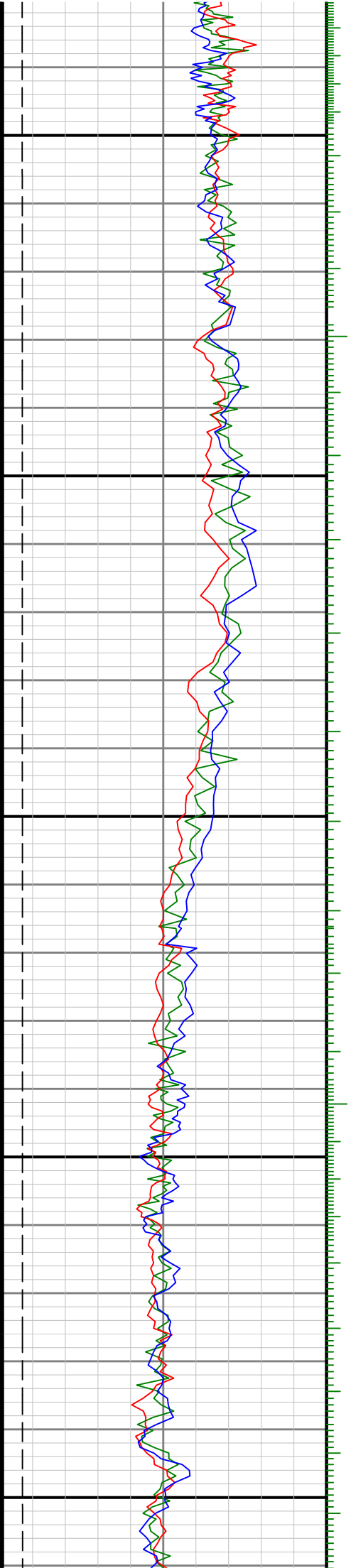


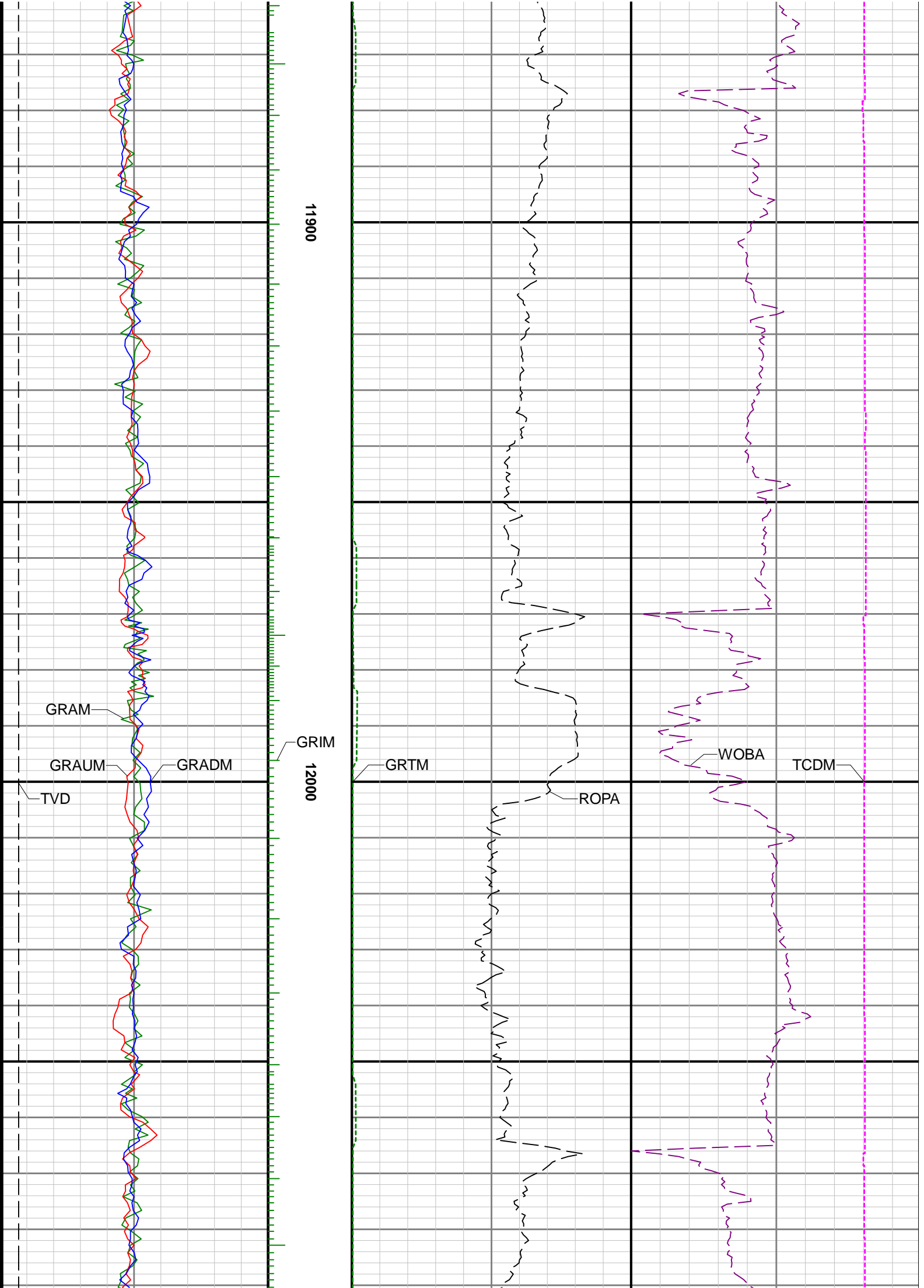


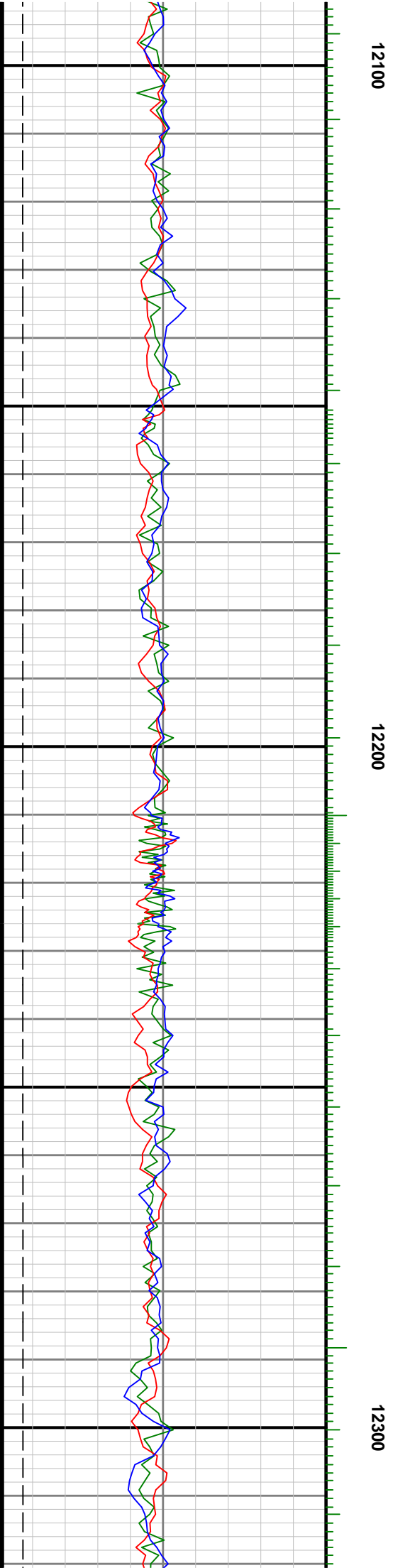
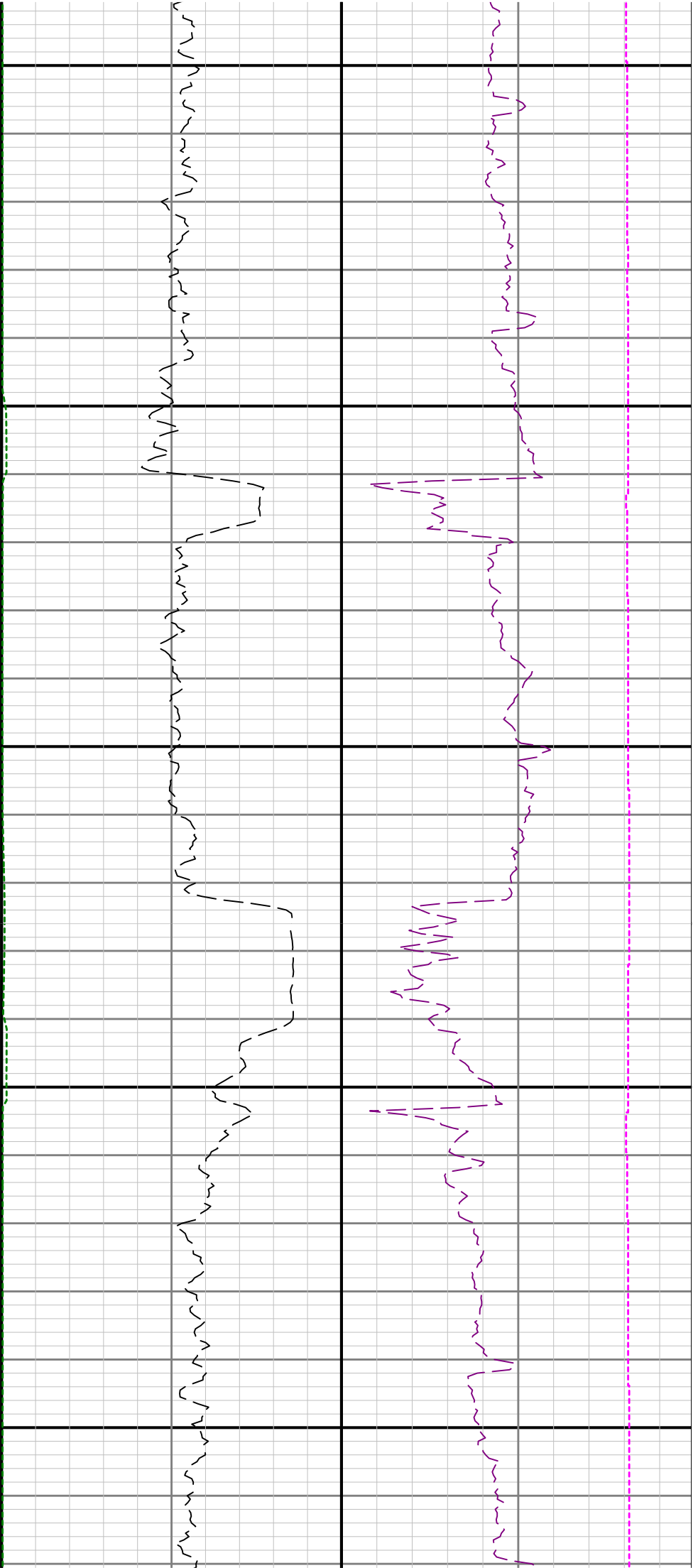


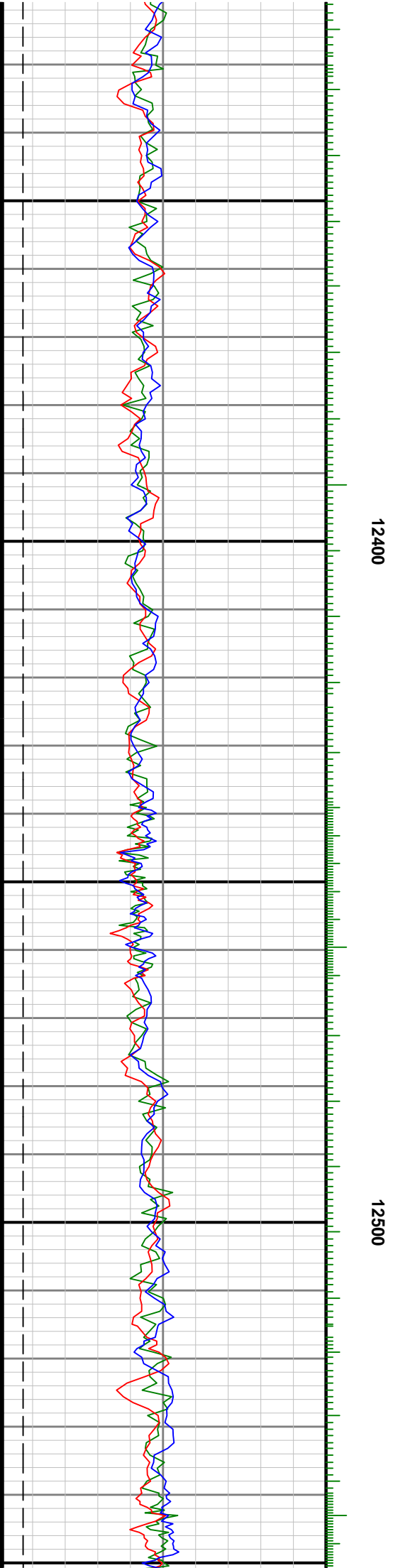
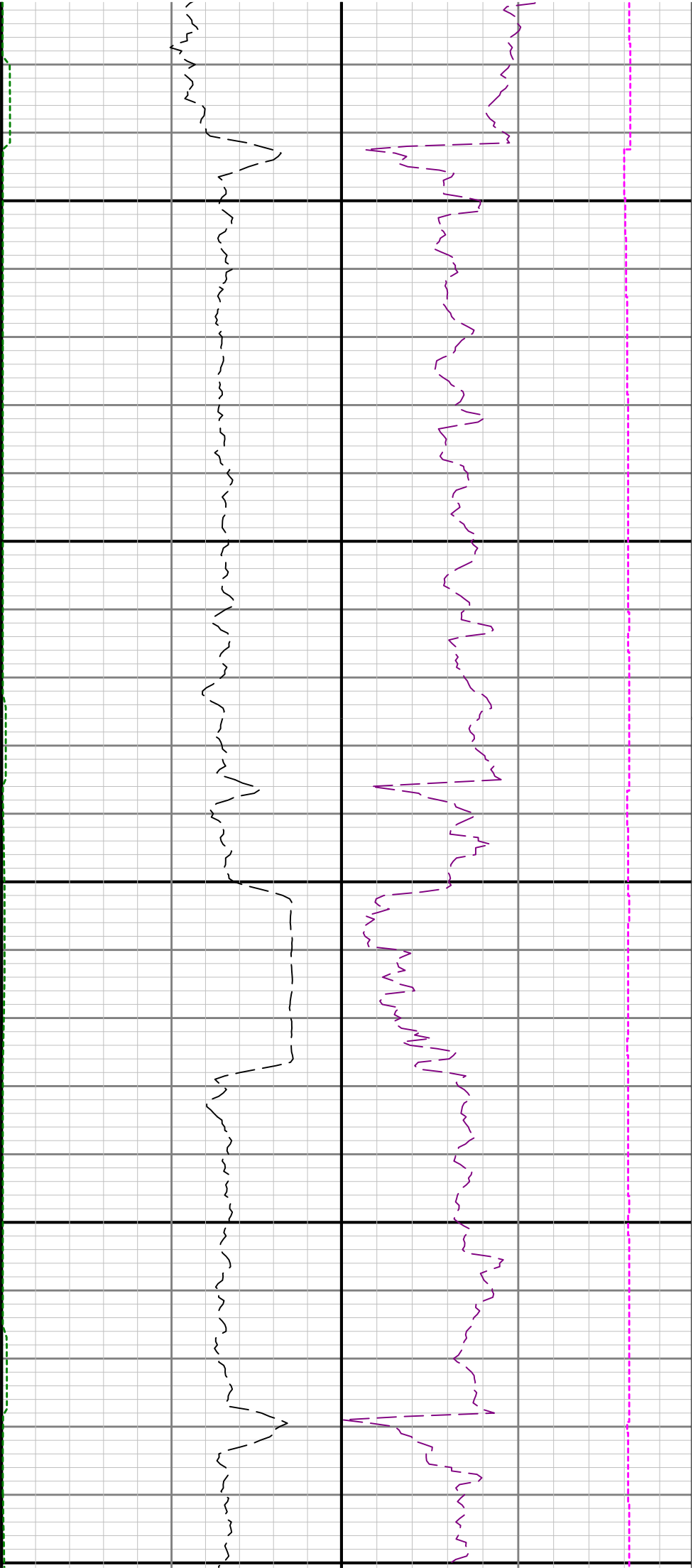
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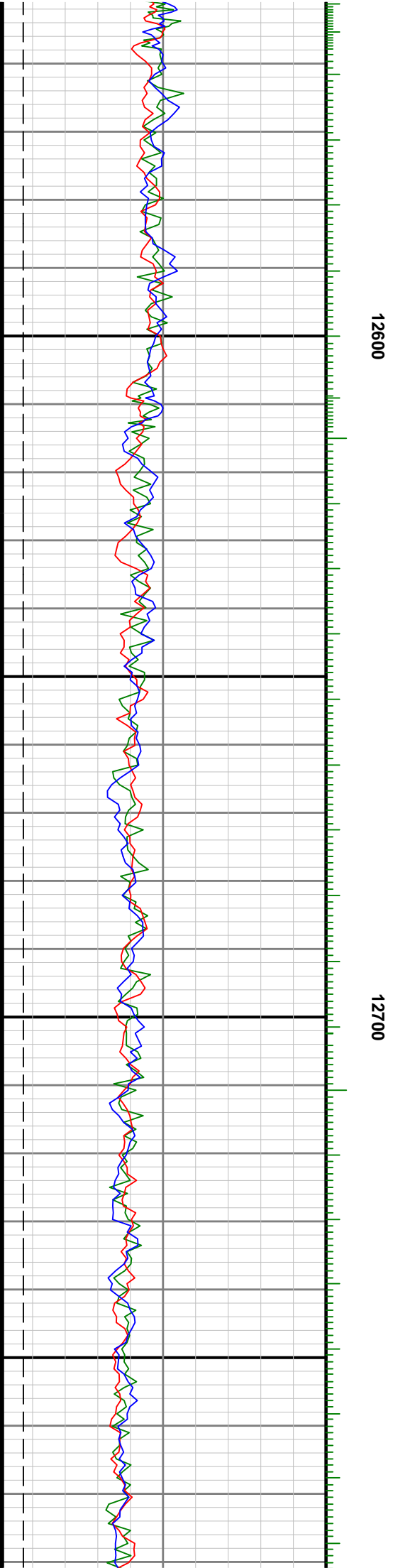
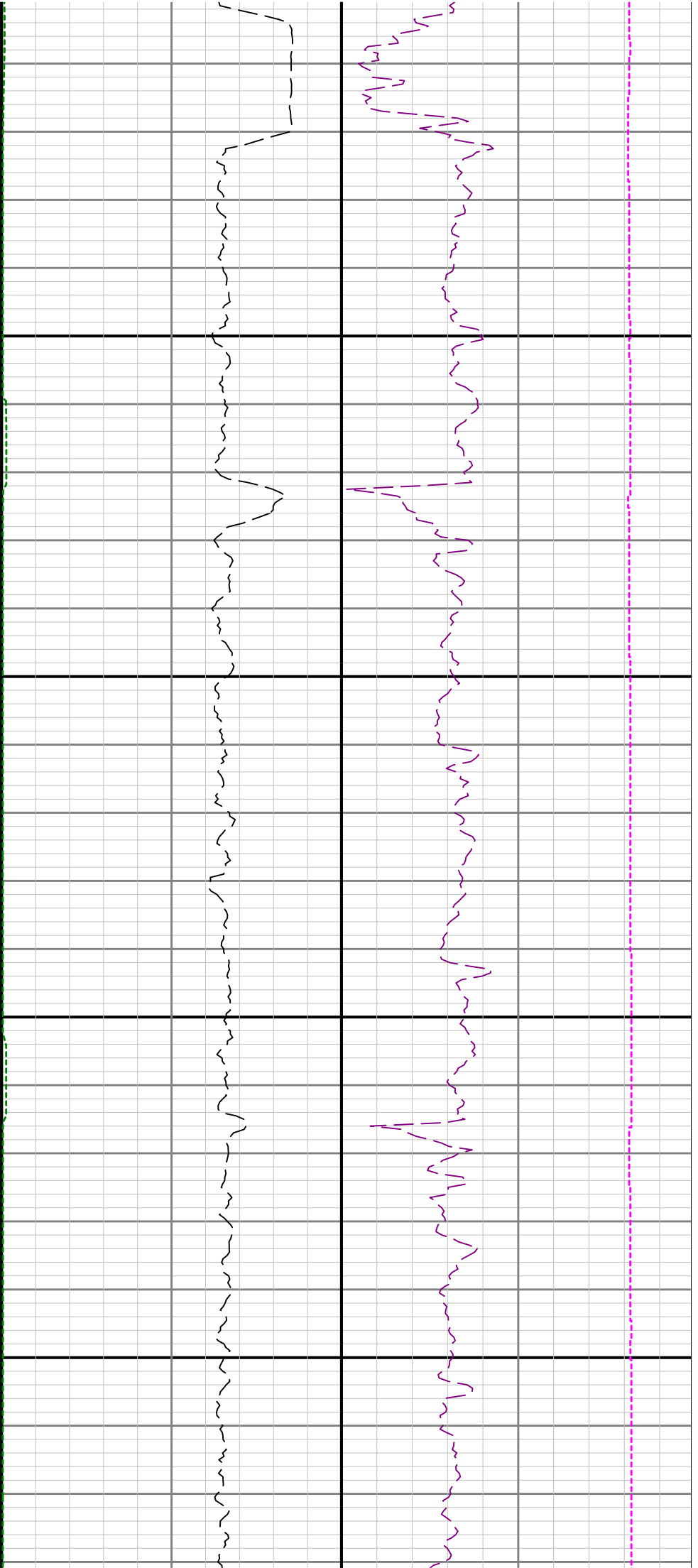
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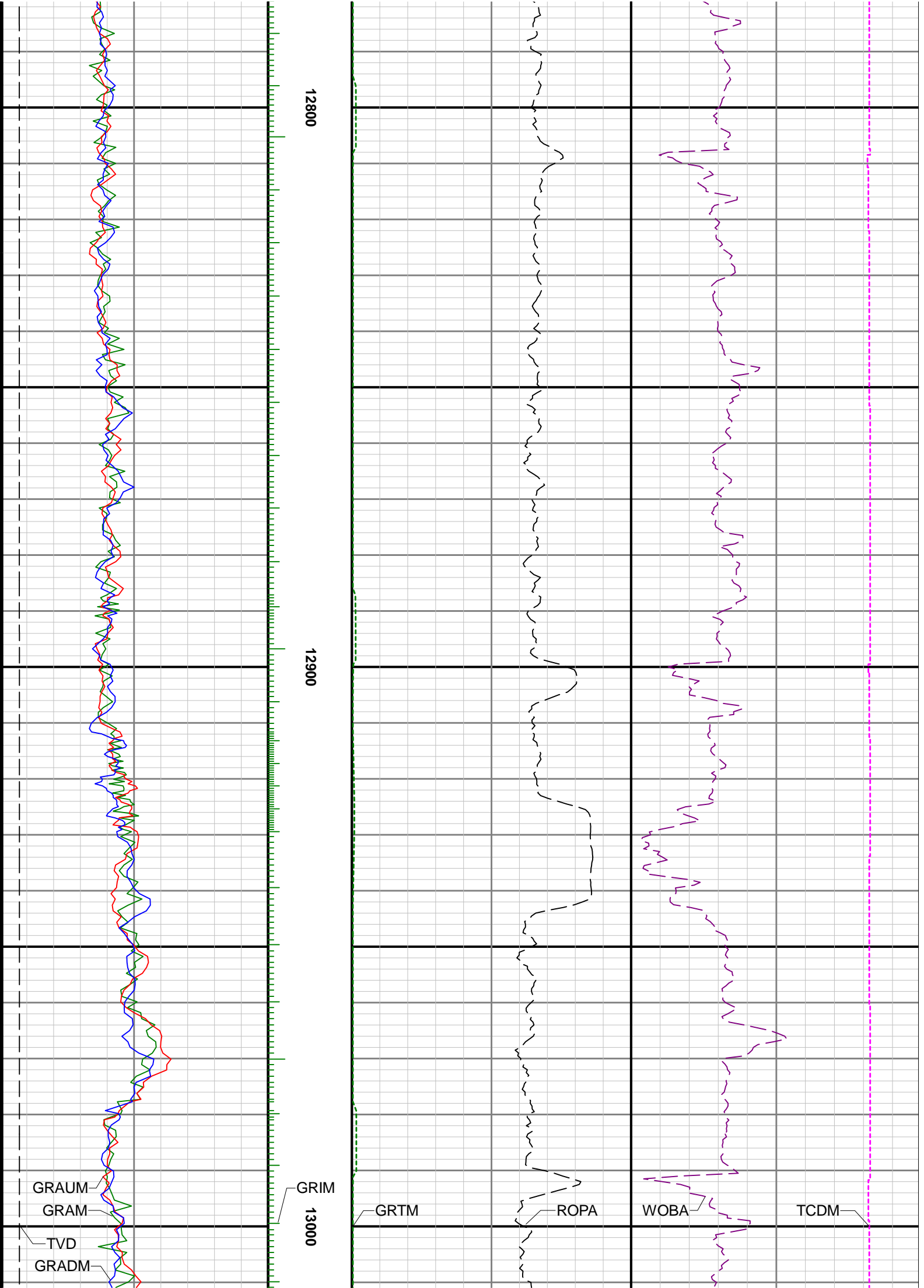


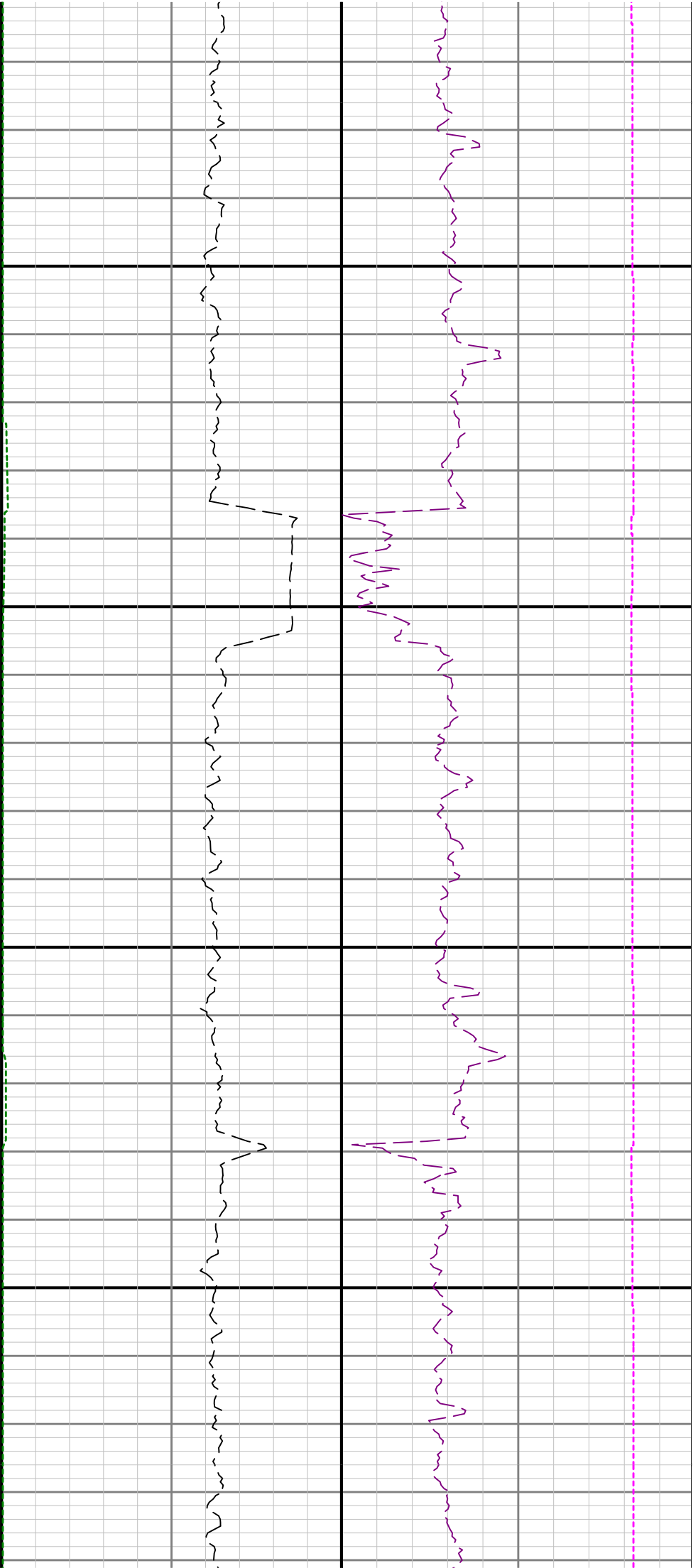






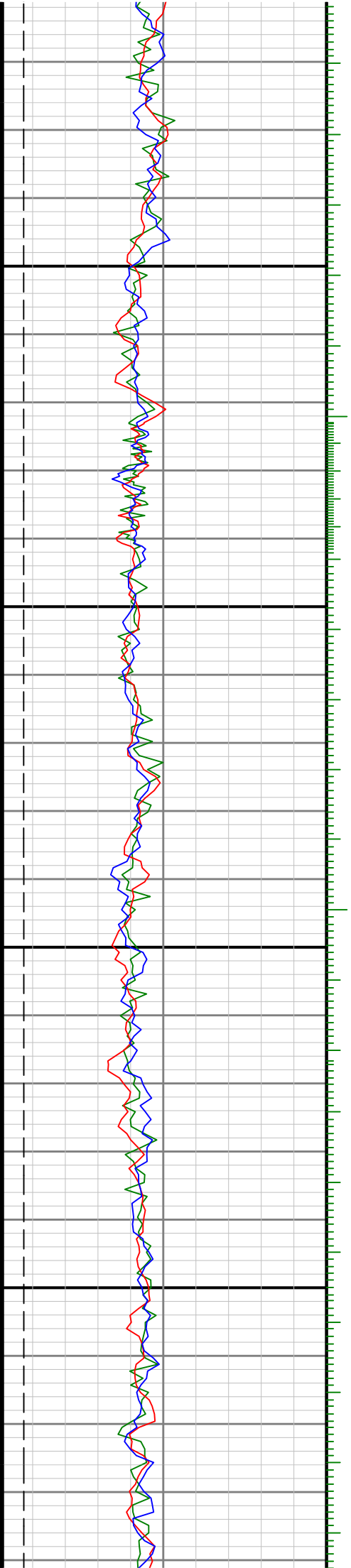


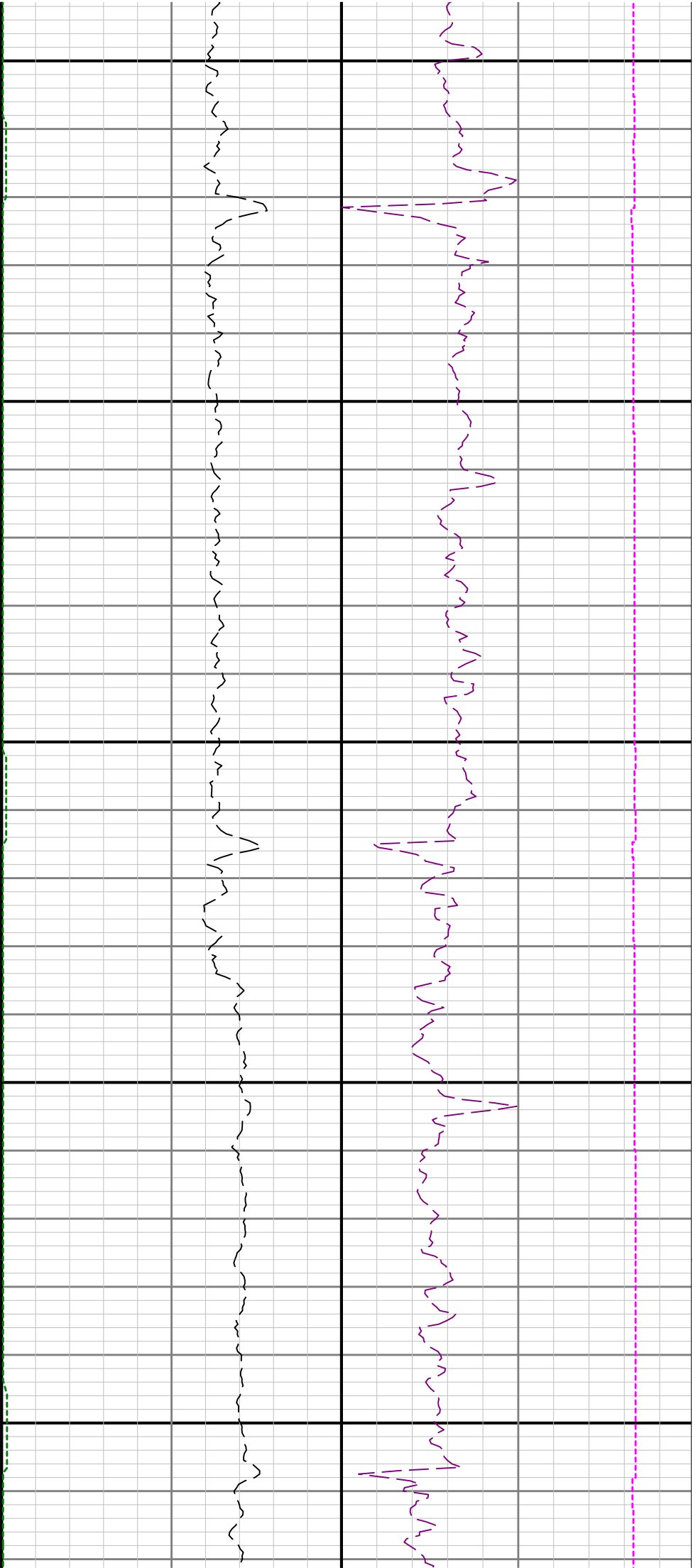




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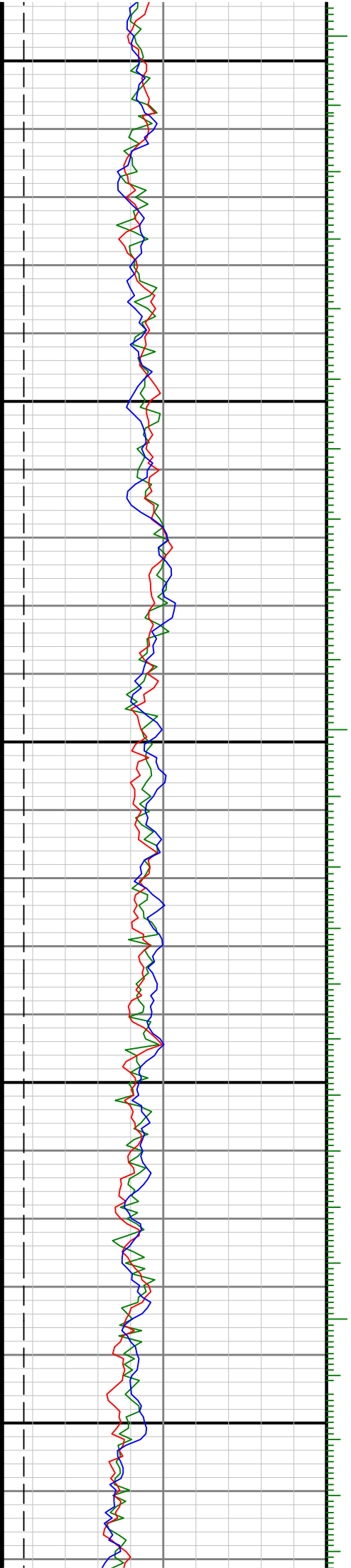
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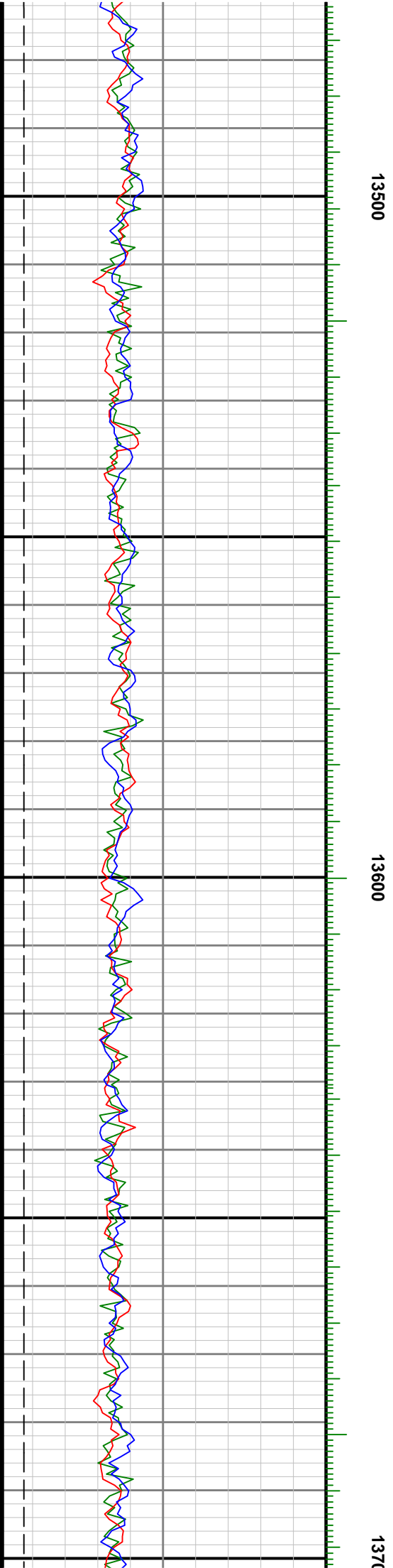
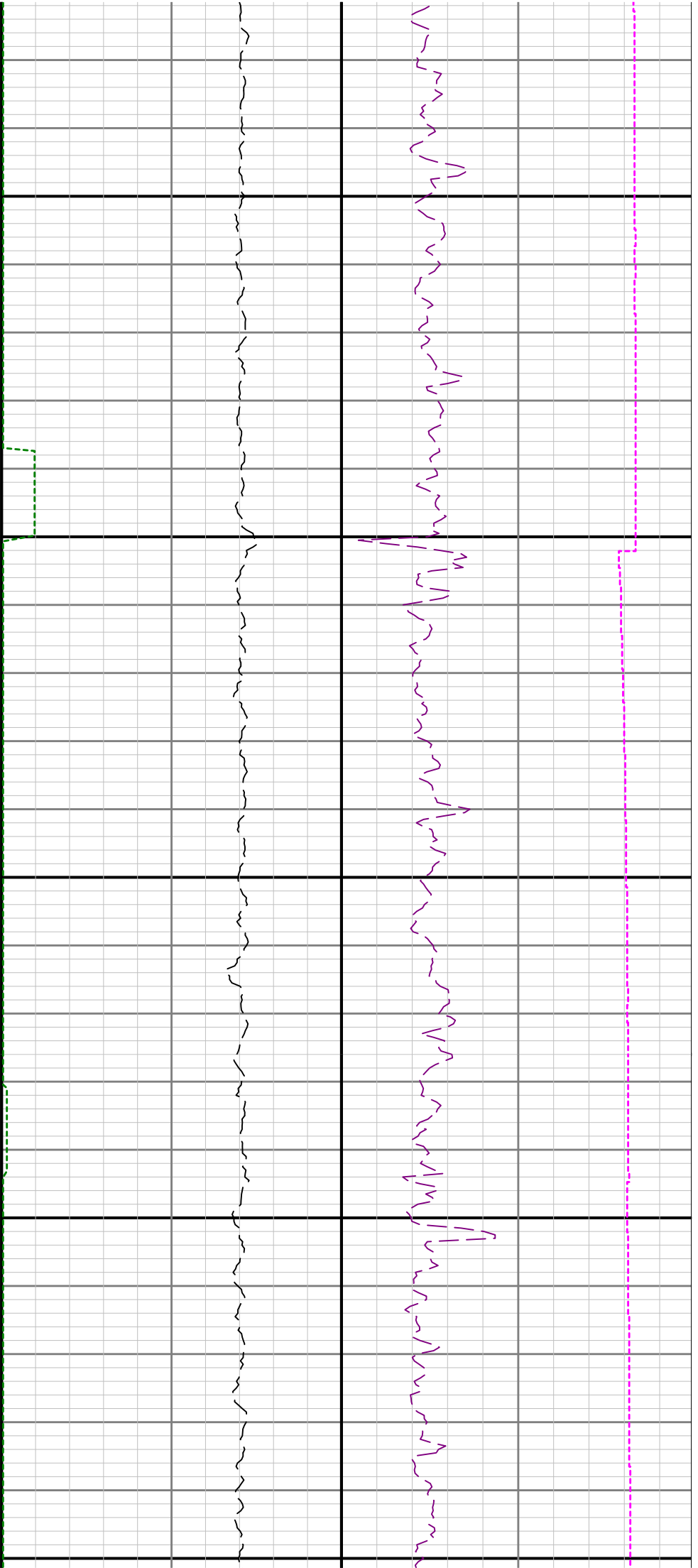


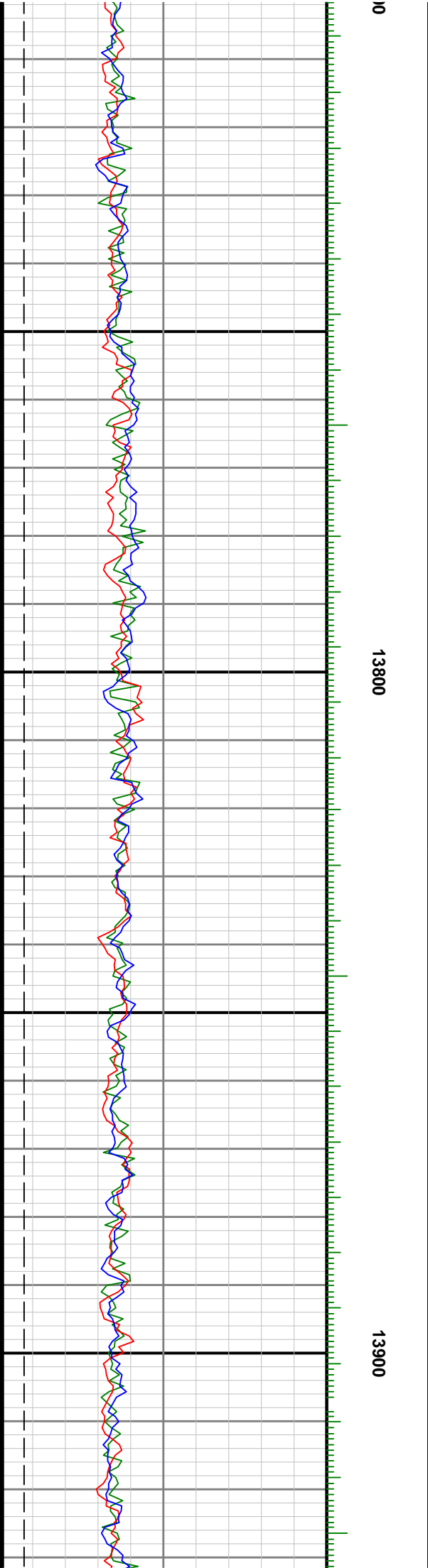
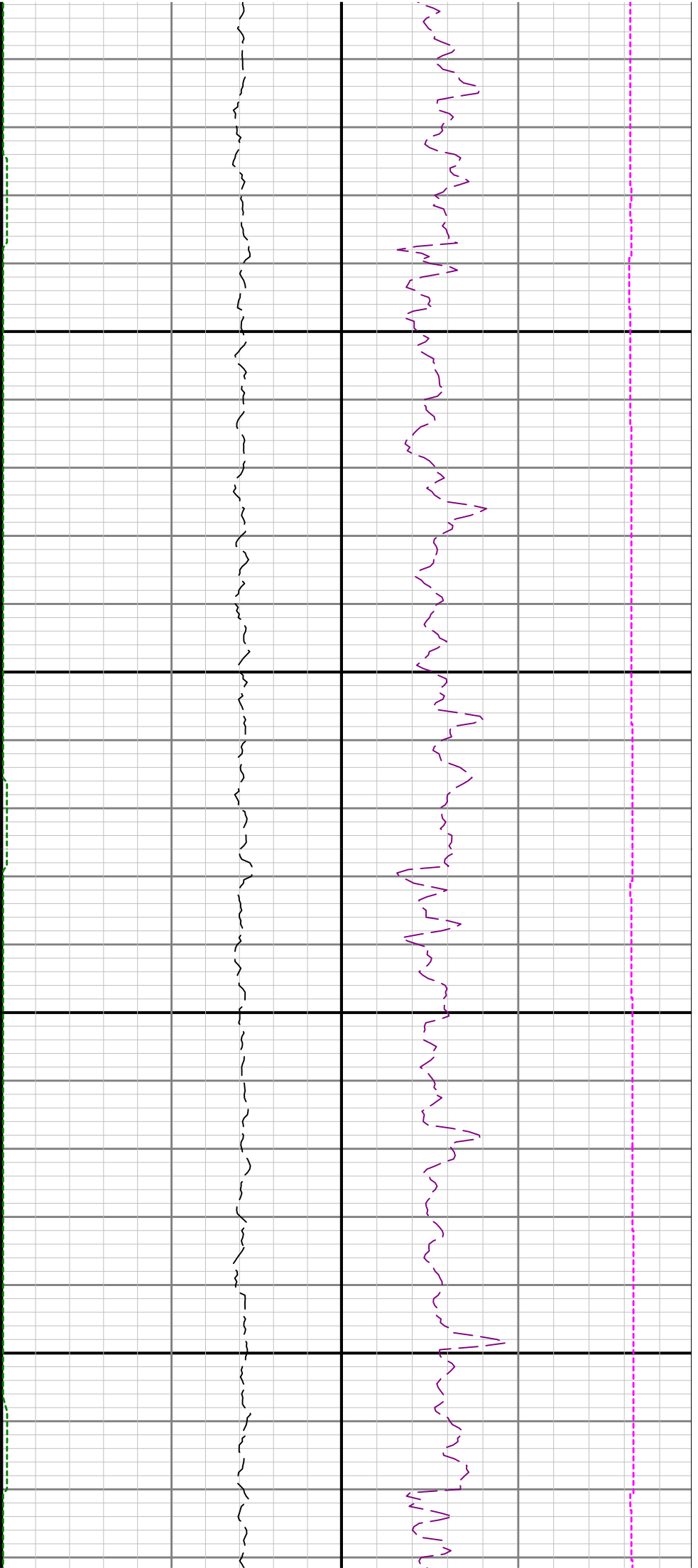


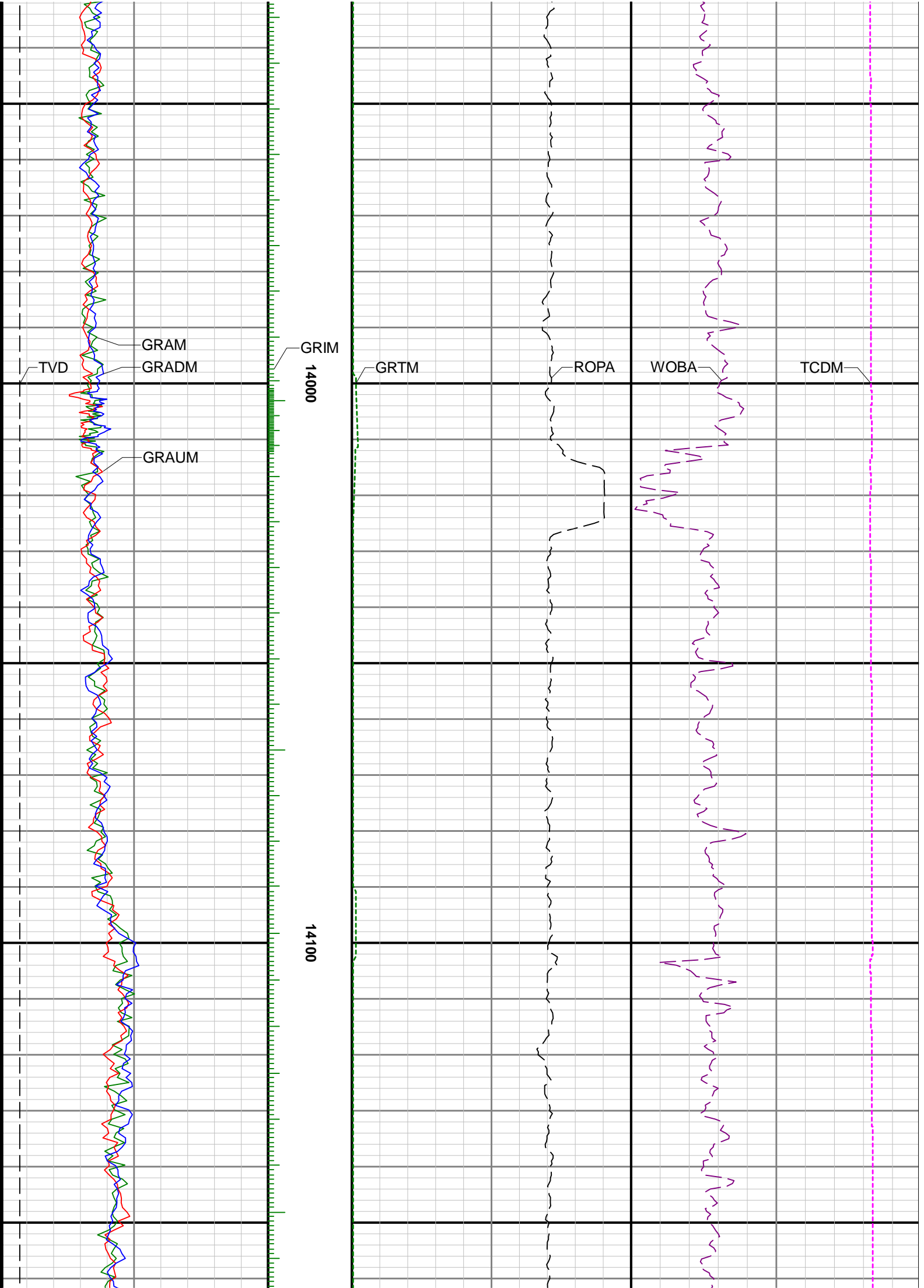
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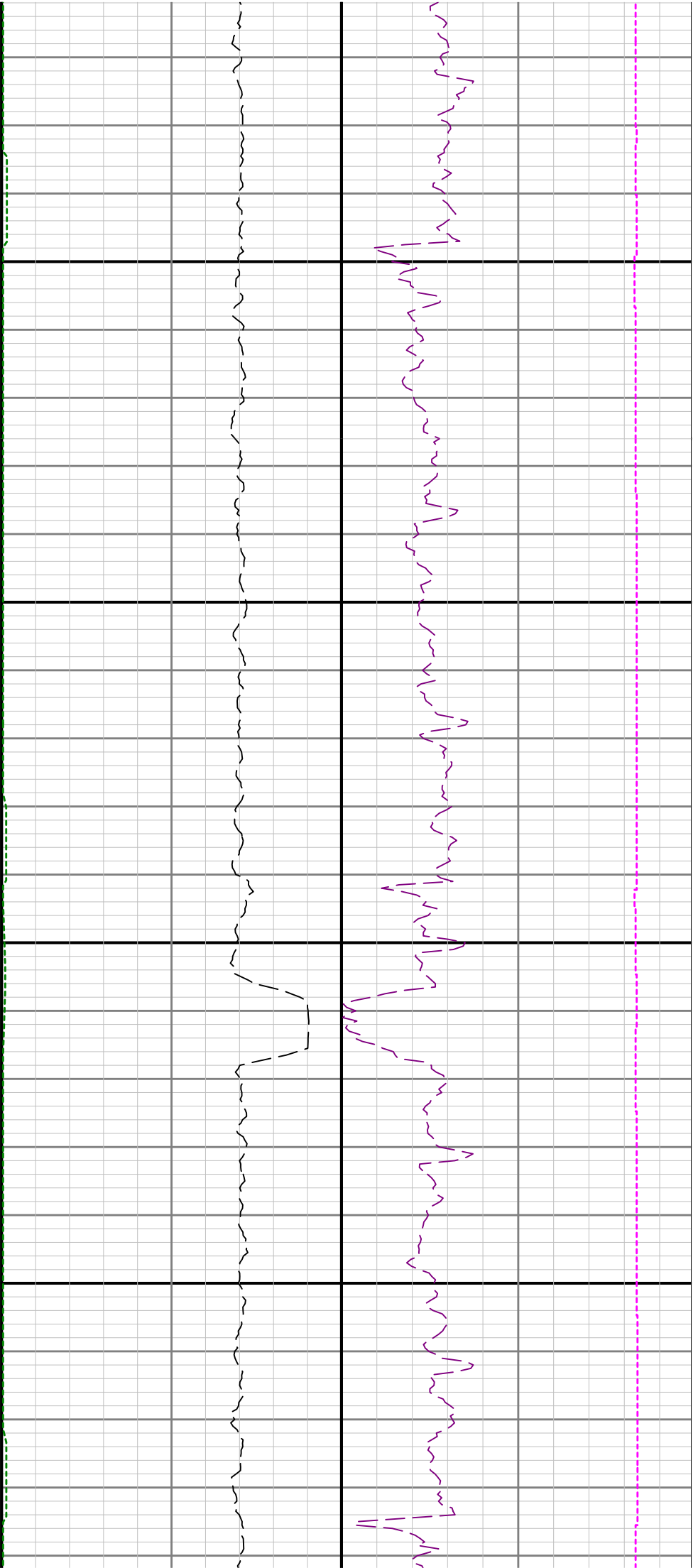
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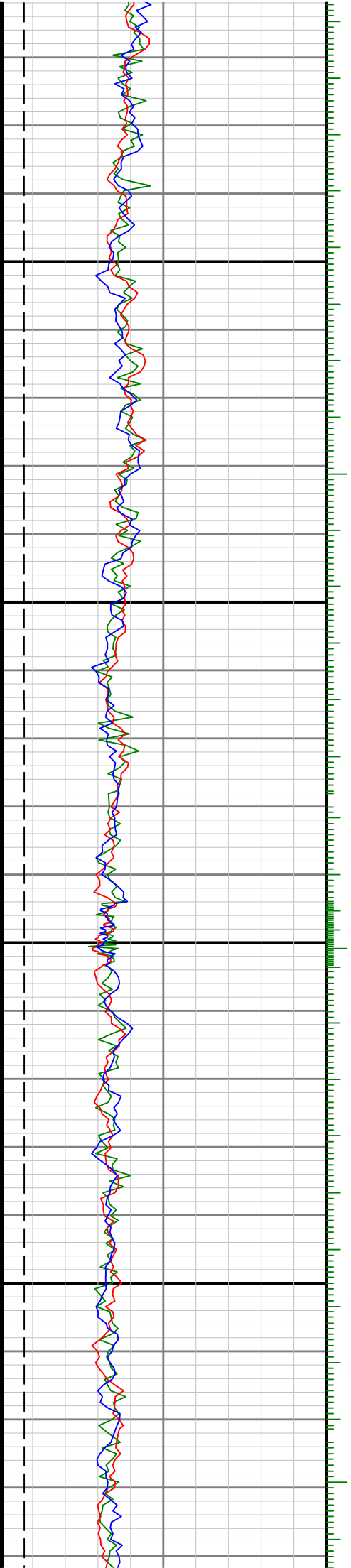


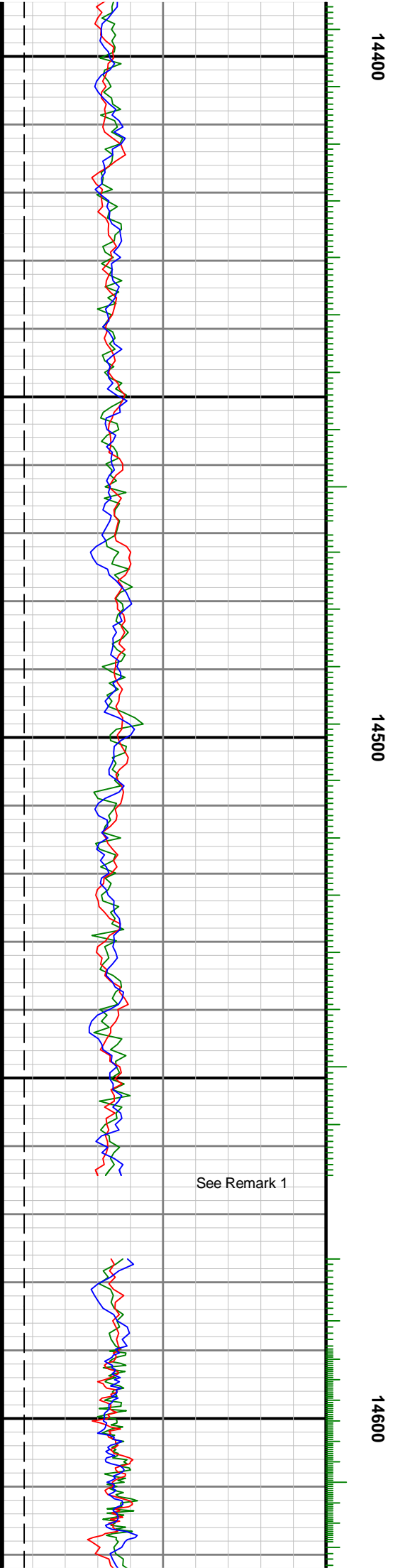
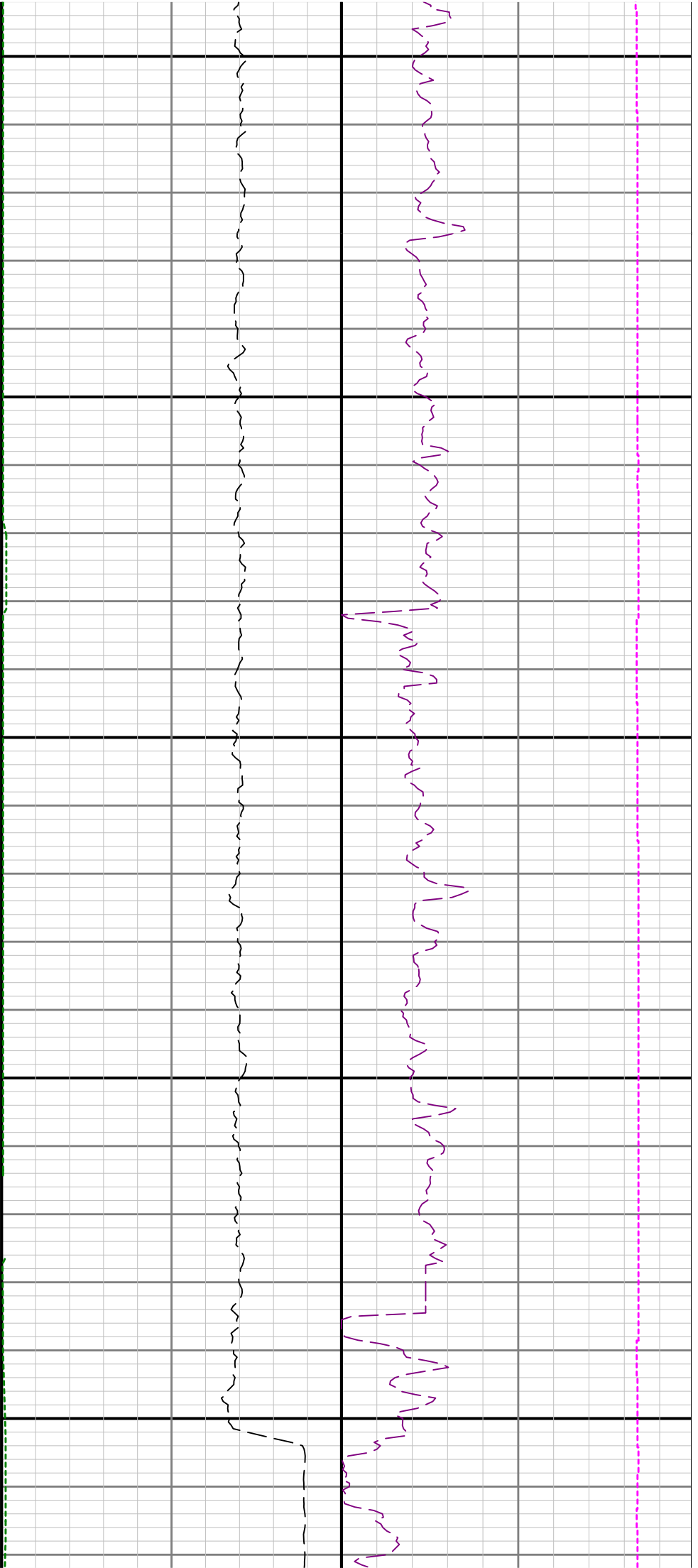


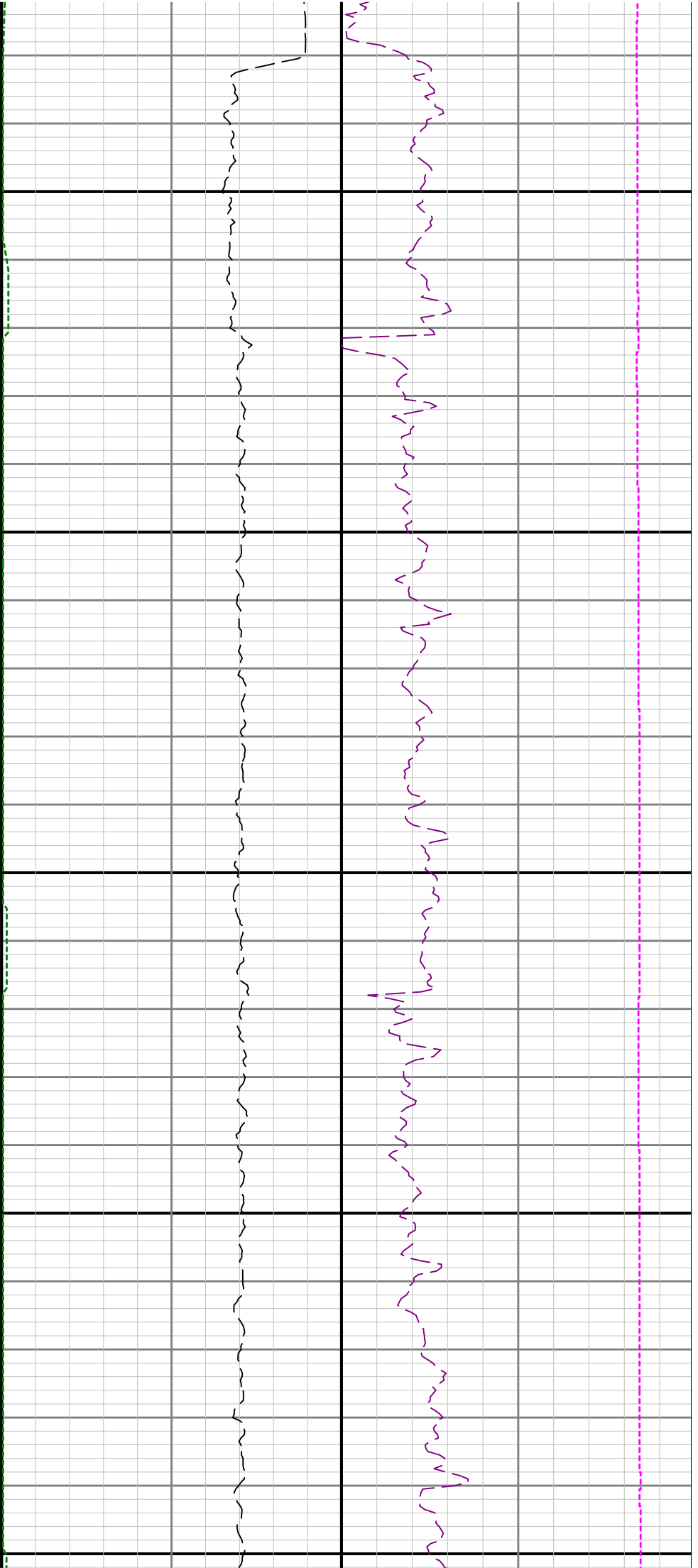


14200

14300







14700

14800

