

<div><div><div>BAKER HUGHES</div><div></div></div><div>Gamma Ray</div></div>				LWD REALTIME LOG					
Scale: 1:240 MD		Company: Great Western		Well: Raindance FC 26-369HC					
Depth Reference:		Field: Wattenberg		Country: United States					
Driller's Depth		County: Weld		State: Colorado					
Status:	Final Print	Surface Location:		Other Services:					
API No:	0156451001	Latitude:		Directional					
Job ID:	1111F11	Longitude:							
Permanent Datum (P.D.): Mean Sea Level		Elevation:		Elev. KB: 67W					
Log Measured From: Rig Floor		Above P.D.		Elev. DF: 67W					
Dates		Interval Logged		Magnetic Field Reference					
Date From: 2017-08-31		Top: (ft)		Azi Reference North:		True		Dip Angle: (deg)	
Date To: 2017-09-04		Bottom: (ft)		Total Magnetic Field Strength: (nT)				52421	
Spud Date: 2017-08-30				Mag to Reference North Correction: (deg)				8.45 E	
Borehole Record				Casing Record					
Hole Size (in)	From (ft)	To (ft)	Size (in)	Weight (lb/ft)	From (ft)	To (ft)			
13.500	20.00	1558.00	9.625	36.00	20.00	1548.00			
8.500	1558.00	20475.00							
Mud Record				Deviation Record					
Type	From (ft)	To (ft)	Hole Size (in)	Interval (ft)	Inc Azi (Start)	Inc Azi (End)			
Oil Based Mud	1558.00	20475.00	8.500	18917.00	18.75 172.25	93.70 270.97			
Acquisition System		Software Version		Other					
Baker Hughes Cadence		RT4.1		Rig: PD 460		Contractor: Precision Drilling			
PlotStudio		4.1.7763.3		District: D&E		Unit: RMA			

"These interpretations and analyses ("Interpretations") are opinions provided by Baker Hughes Oilfield Operations, Inc ("Baker Hughes"), based upon industry practice, empirical relationships, assumptions and measurements, (many of which may be provided by the customer). The Interpretations are not infallible and may be subject to different opinions. Vjwu."Dcmgt"Jwi jgu"fqgu"pqv"ycttcpv"vjgkt"ceewtce{."eqttgevpguu."qt"eqorngvgpguu."qt"vjcv"vjg"ewuvqogtøu"cpflqt"cp{"vjktf"rctv{øu"tgnkcpeg"qp"uwej"Kpvgtrtgvcvkqpu"yknn"ceeqornkuj"cp{"rctvkewnct"tguwnvu0"Vjg"ewuvqogt"cuuwogu"hwnn"responsibility for the use of the Interpretations and for decisions based thereon and the customer agrees to release, defend and indemnify Baker Hughes, its parent, subsidiaries and affiliated or related entities, and subcontractors, together with its and their officers, directors, employees, agents and invitees against, any and all claims, losses, damages, or expenses sustained by the customer or any third party arising out of reliance upon or use of the Interpretations, without regard to the cause(s) thereof, including without limitation any form of negligence on the part of Baker Hughes. Unless other contract terms have been agreed to by the parties, each party's liabilities and qdnkicvkqpu"ujcnn"dg"iqxgtpgf"d{"Dcmgt"Jwi jgu"Kpeqtrqtcvvgføu"Yqtnfykfg"Vgtou"cpf"Eqpfkvkqpu0\$""

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 (ft)	Bottom (ft)	From (ft)	To (ft)	Start Logging	End Logging	
1	1	8.500	PDC	3.00	AutoTrak Curve	1558.00	20462.00	1558.00	20475.00	2017-08-31 18:47	2017-09-04 23:15	86.41

Crew

Name		Arrive Wellsite	Depart Wellsite	Name		Arrive Wellsite	Depart Wellsite	Name		Arrive Wellsite	Depart Wellsite
Andrew Clancy		2017-08-30	2017-09-04	Pierce Lovesee		2017-08-30	2017-09-05	Bryan Severson		2017-09-04	2017-09-05

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+ (%)
2017-08-31 19:00	1	1597.00	Oil Based Mud	10.0	28	N/A	0.0	70/30	Active Pit	24000	0.00
2017-09-01 12:00	1	4200.00	Oil Based Mud	10.0	30	N/A	0.0	70/30	Active Pit	25000	0.00
2017-09-02 19:00	1	11329.00	Oil Based Mud	10.1	29	N/A	0.0	71/29	Active Pit	23000	0.00
2017-09-03 19:00	1	14815.00	Oil Based Mud	10.0	34	N/A	0.0	72/28	Active Pit	24000	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)
1	ATC_SU	14192925	Near Bit Inclination	5.93	6.73	6.750	4.330
1	ATC_SU	14192925	Near Bit VSS	5.93	6.73	6.750	4.330
1	ATC_MWD	12706130	Gamma (single)	2.74	12.90	7.000	3.250
1	ATC_MWD	12706130	Directional (mag)	12.26	22.42	7.000	3.250

Service and Tool Mnemonics

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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

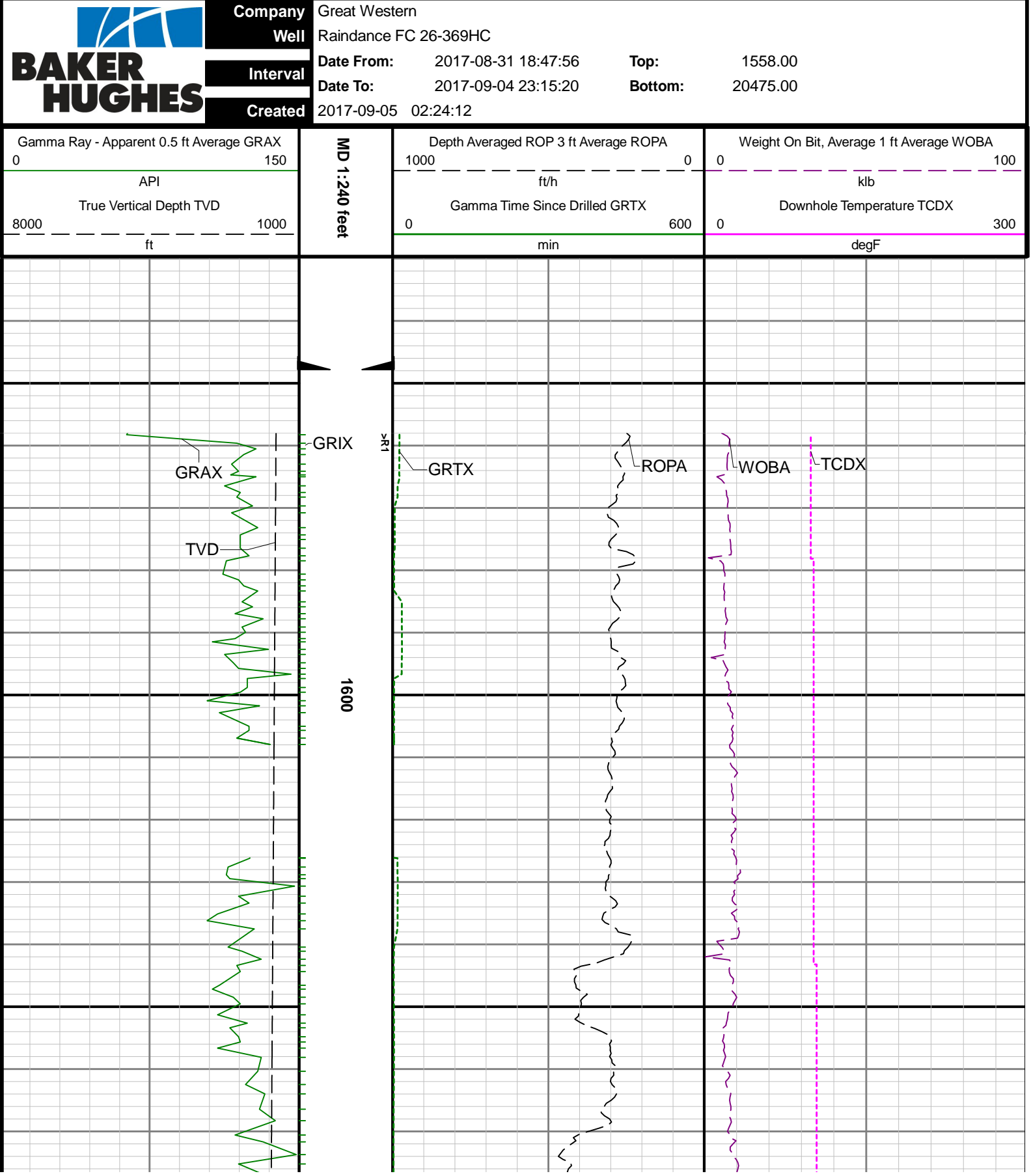
- 1
- Depth measurements were obtained from a depth control system not supplied or operated by Baker Hughes. Due to lack of control by Baker Hughes logging engineers, depth calibrations and measurements could not be independently verified
- 2
- Óæ^!P`@•SY ÖÜ` } /Á cã^ãÄ /Ä &Öæã æ { æ^!cã^!Öæ { æÜæ^ã^ãÖã^&ã } æÜæ^ã^ã /FDã &Öæã^ã^ cæ^!cã^!æ^!æ^! æ^! æ^! /Á { /Á i i /Á /Á 20475 feet MD (1540 to 6949 feet TVD).
- 3
- Gaps in Gamma Ray data are present throughout the log due to downlinking while drilling ahead.

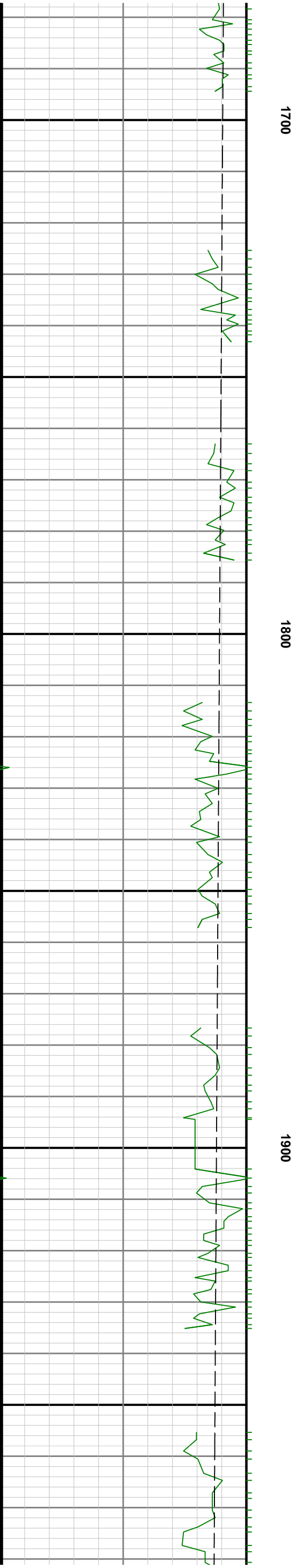
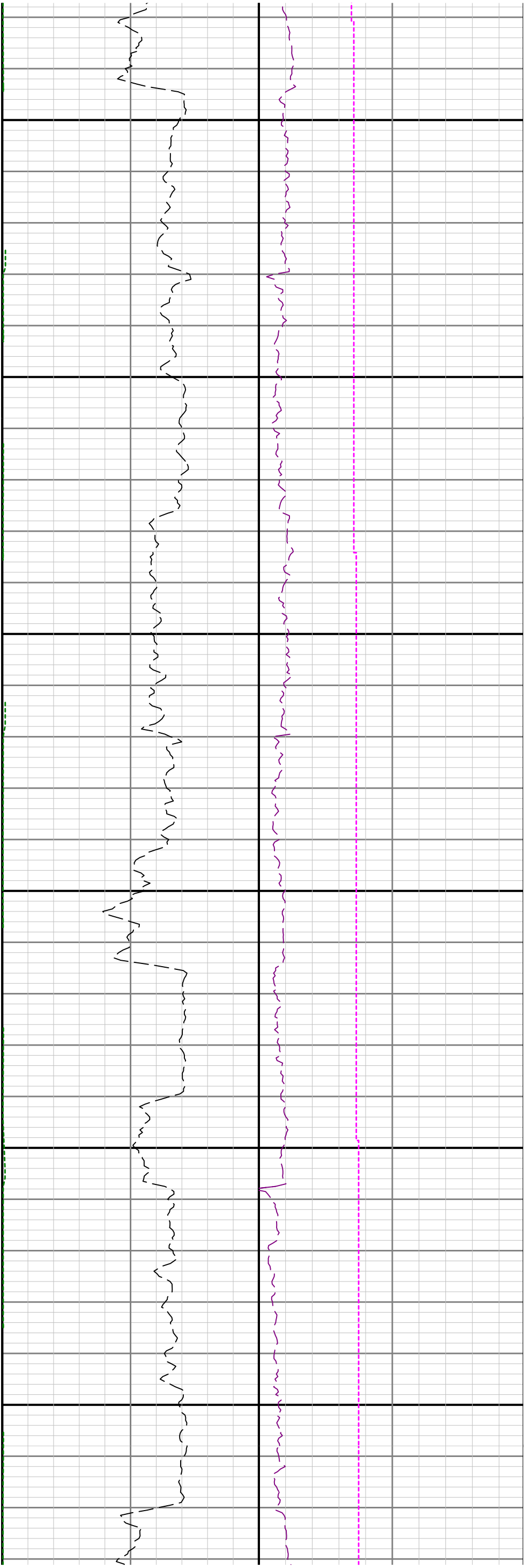
Remarks

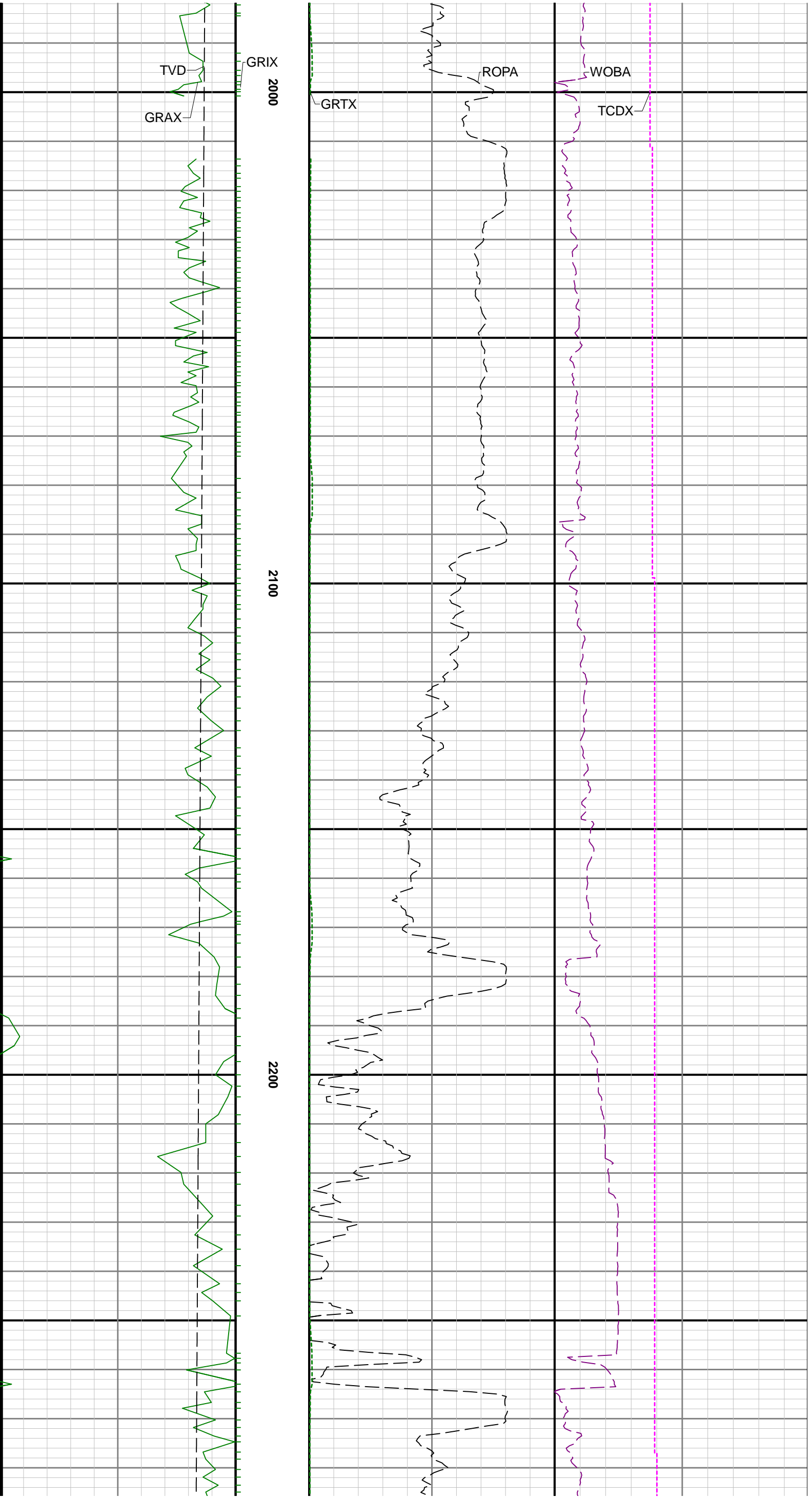
Number	Measured Depth (ft)	Hole Section (in)	Run No.	Remark
1	20462.00	8.500	1	The interval from 20462 to 20475 feet MD (6949 feet TVD) was not logged due to sensor to bit offset at well TD.

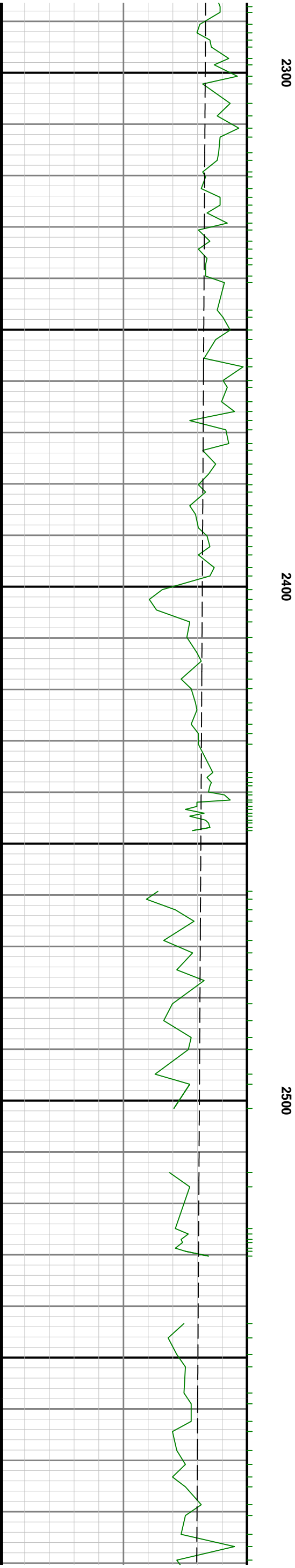
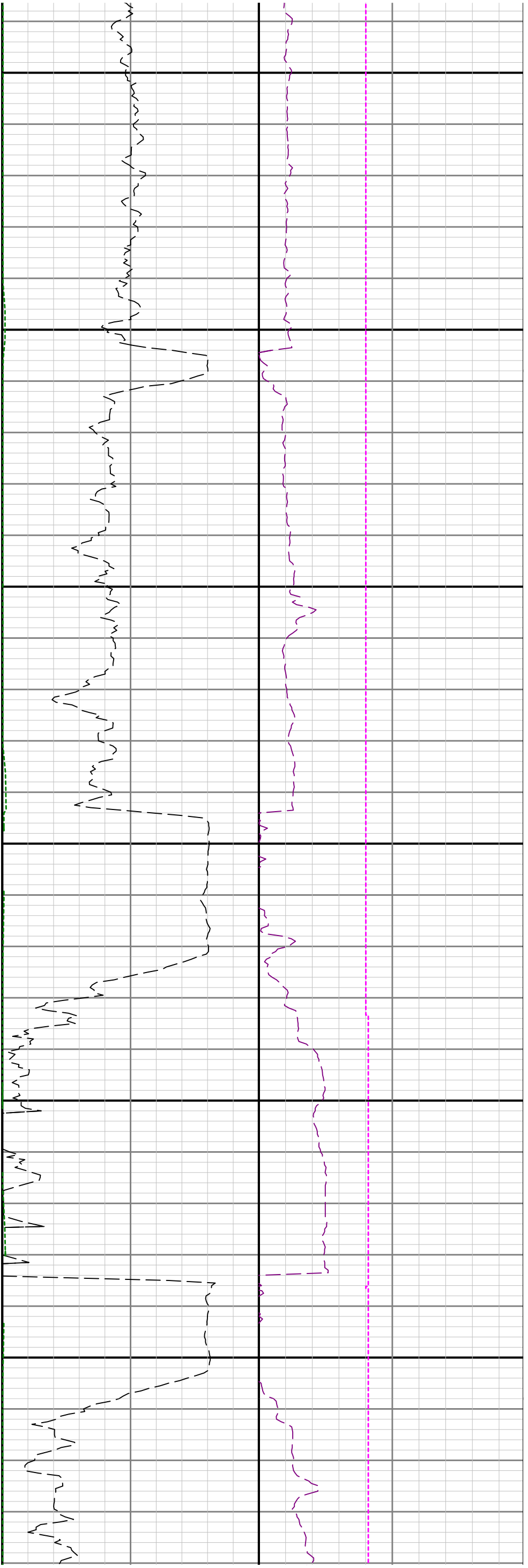
Curve Mnemonics

Presented Curves	Description	Units
TCDX	Downhole Temperature	degF
ROPA	Depth Averaged ROP 3 ft Average	ft/h
TVD	True Vertical Depth	ft
WOBA	Weight On Bit, Average 1 ft Average	klb
GRAX	OnTrak - Gamma Ray - Apparent - Real-Time 0.5 ft Average	API
GRIX	OnTrak - Gamma Ray - Data Point Indicator - Real-Time	unitless
GRTX	OnTrak - Gamma Ray - Time Since Drilled - Real-Time	min







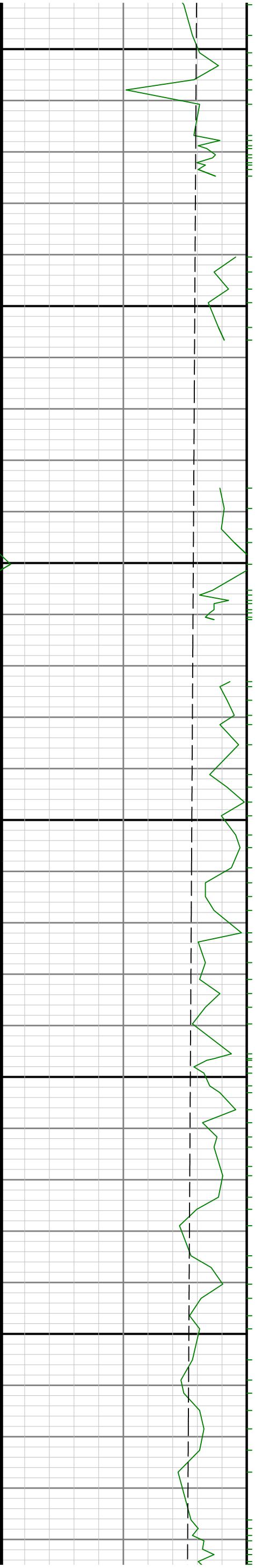


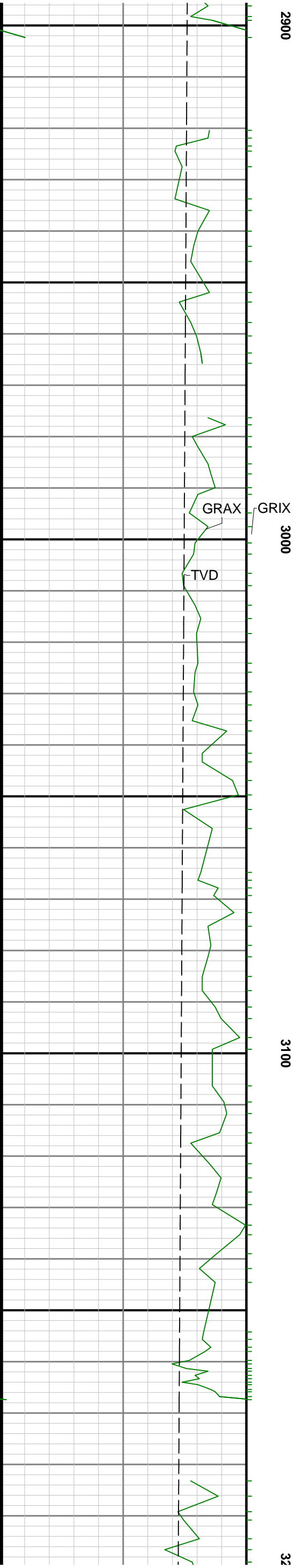
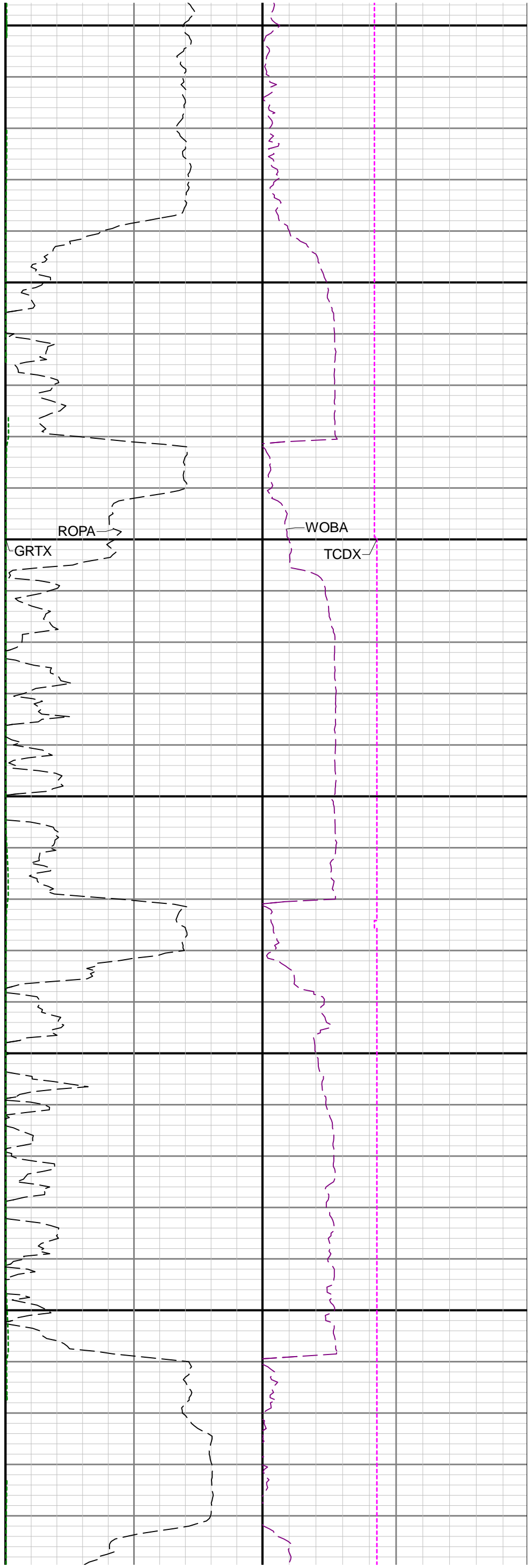


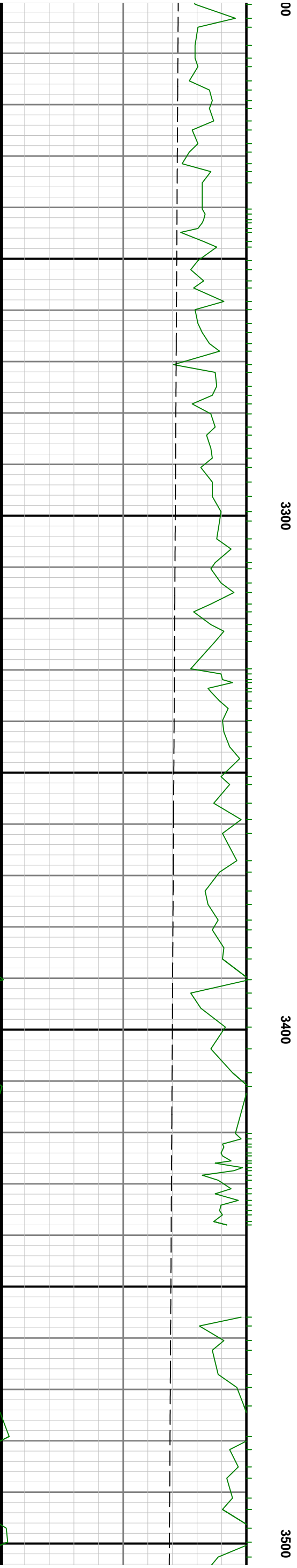
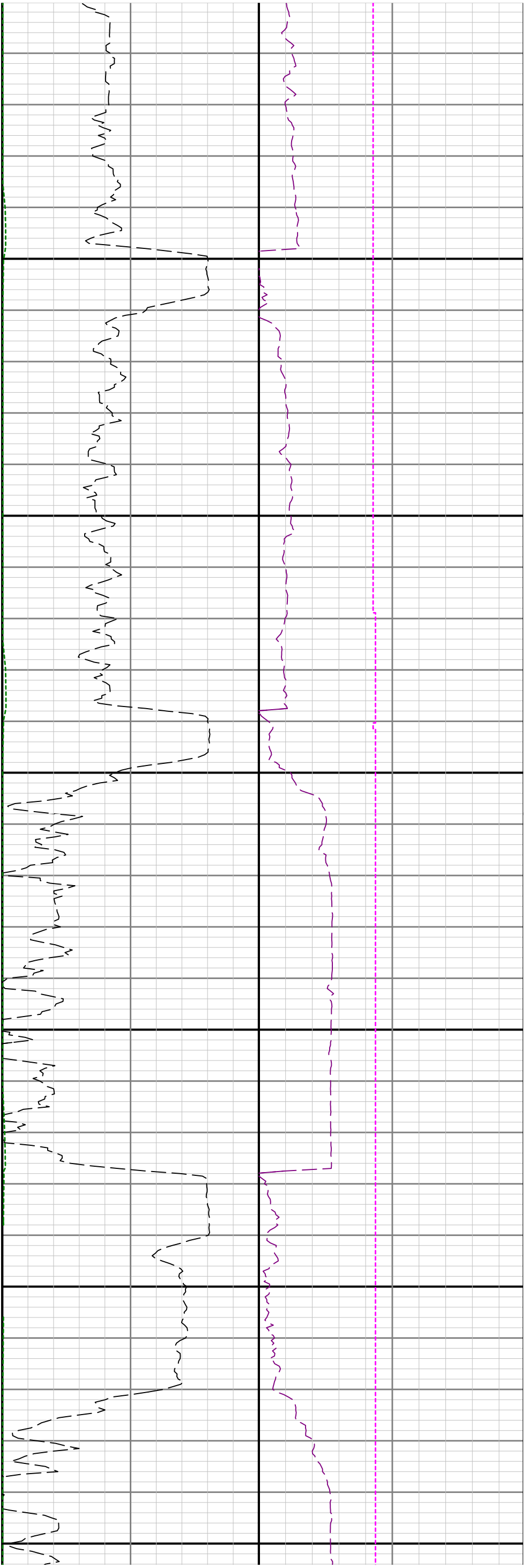
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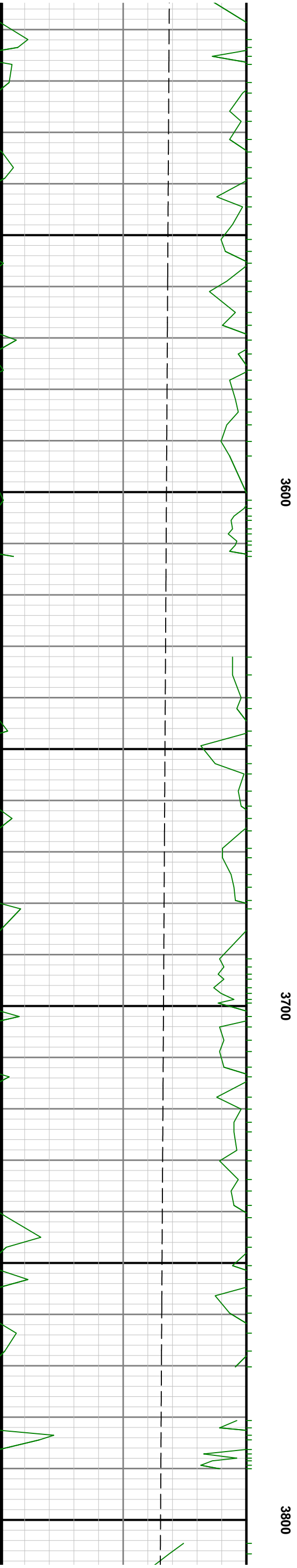
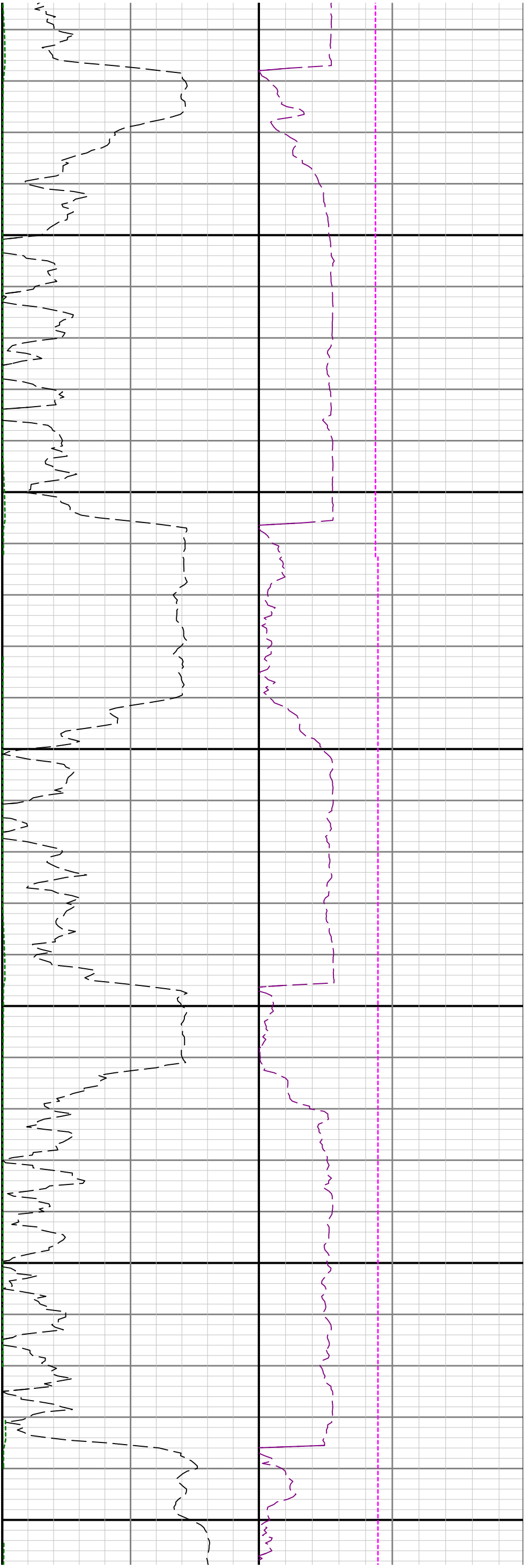
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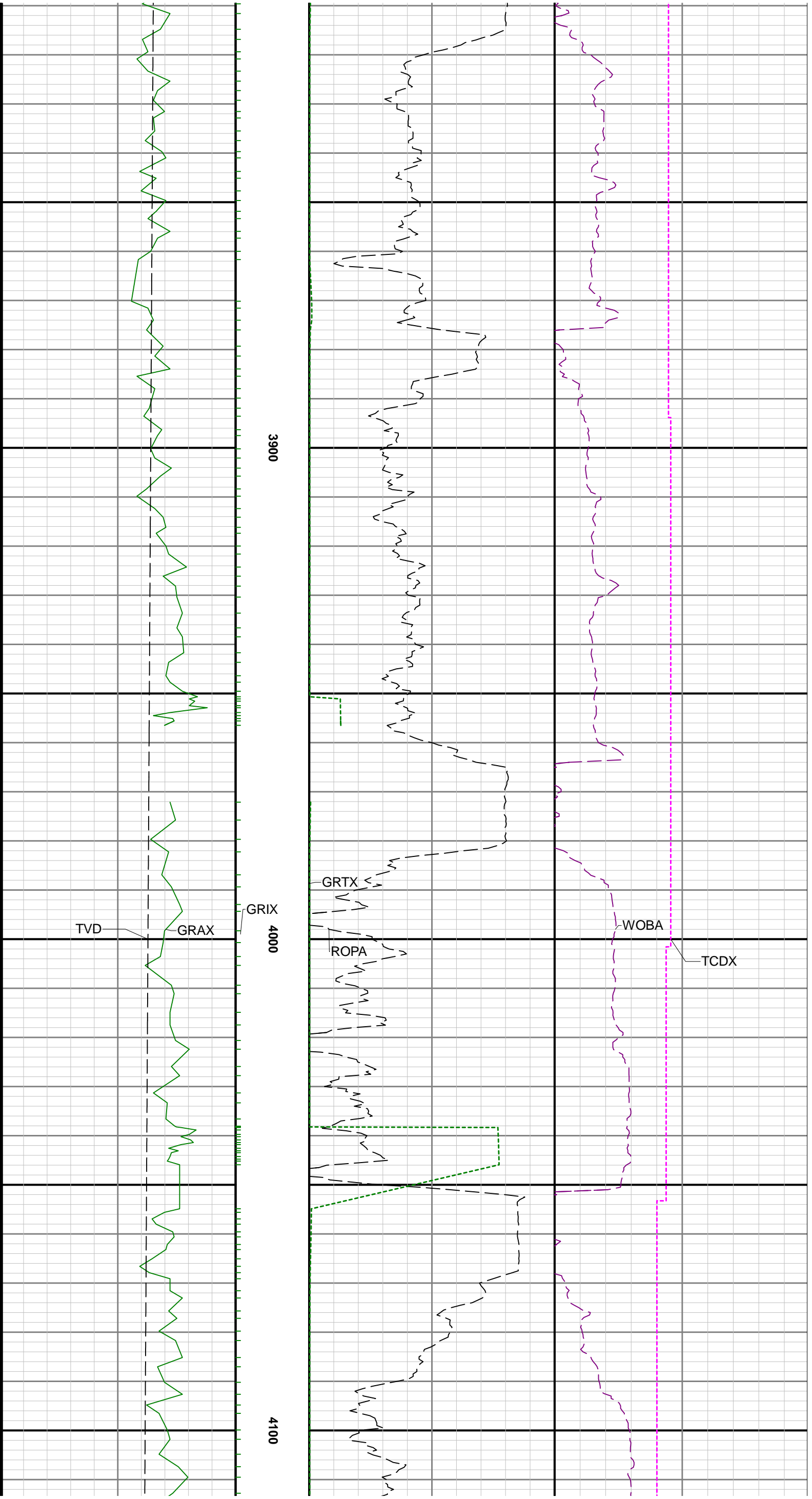
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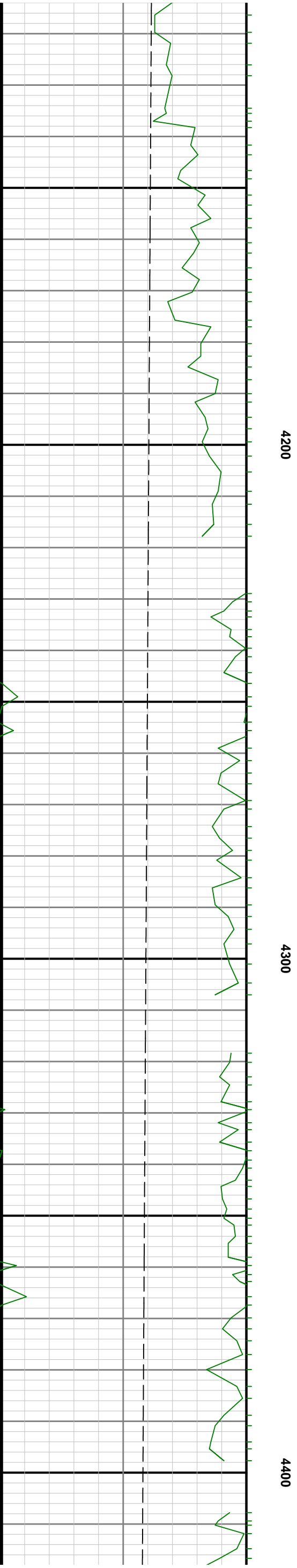
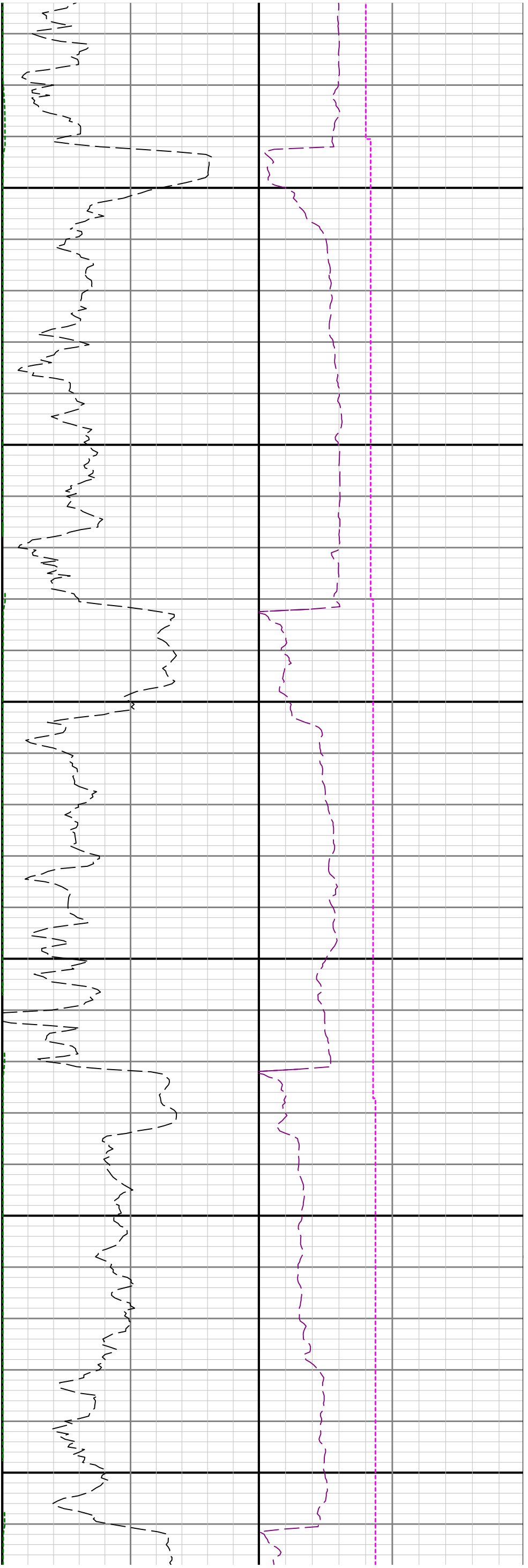


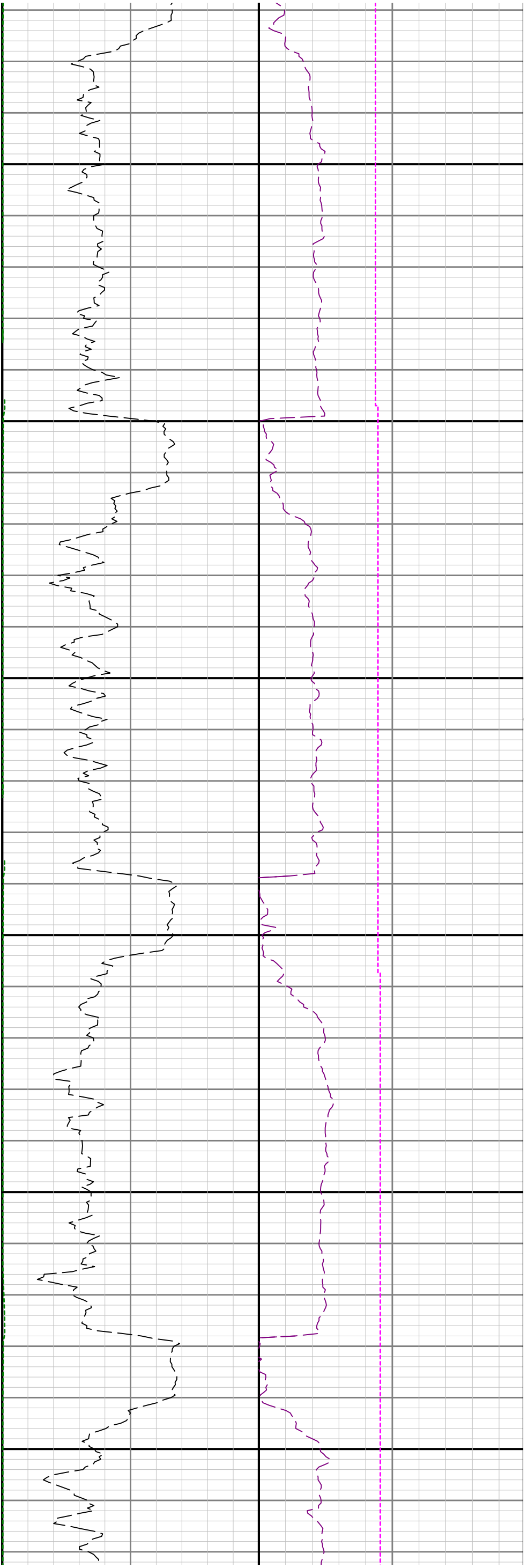








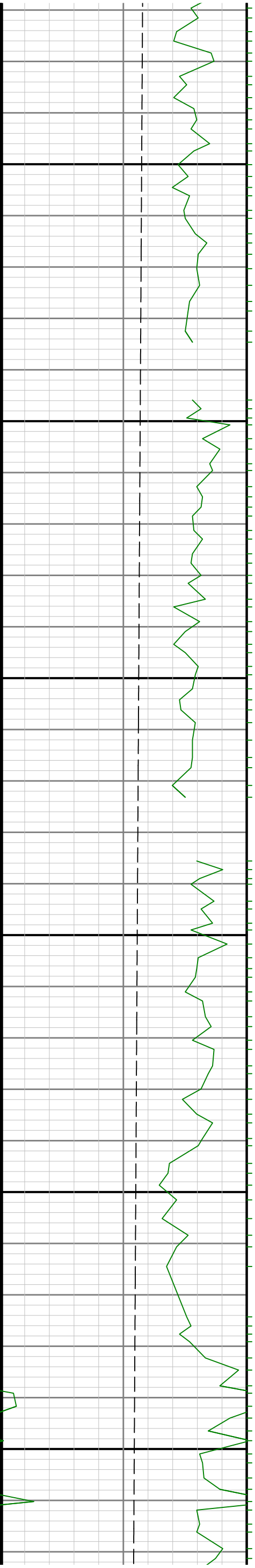


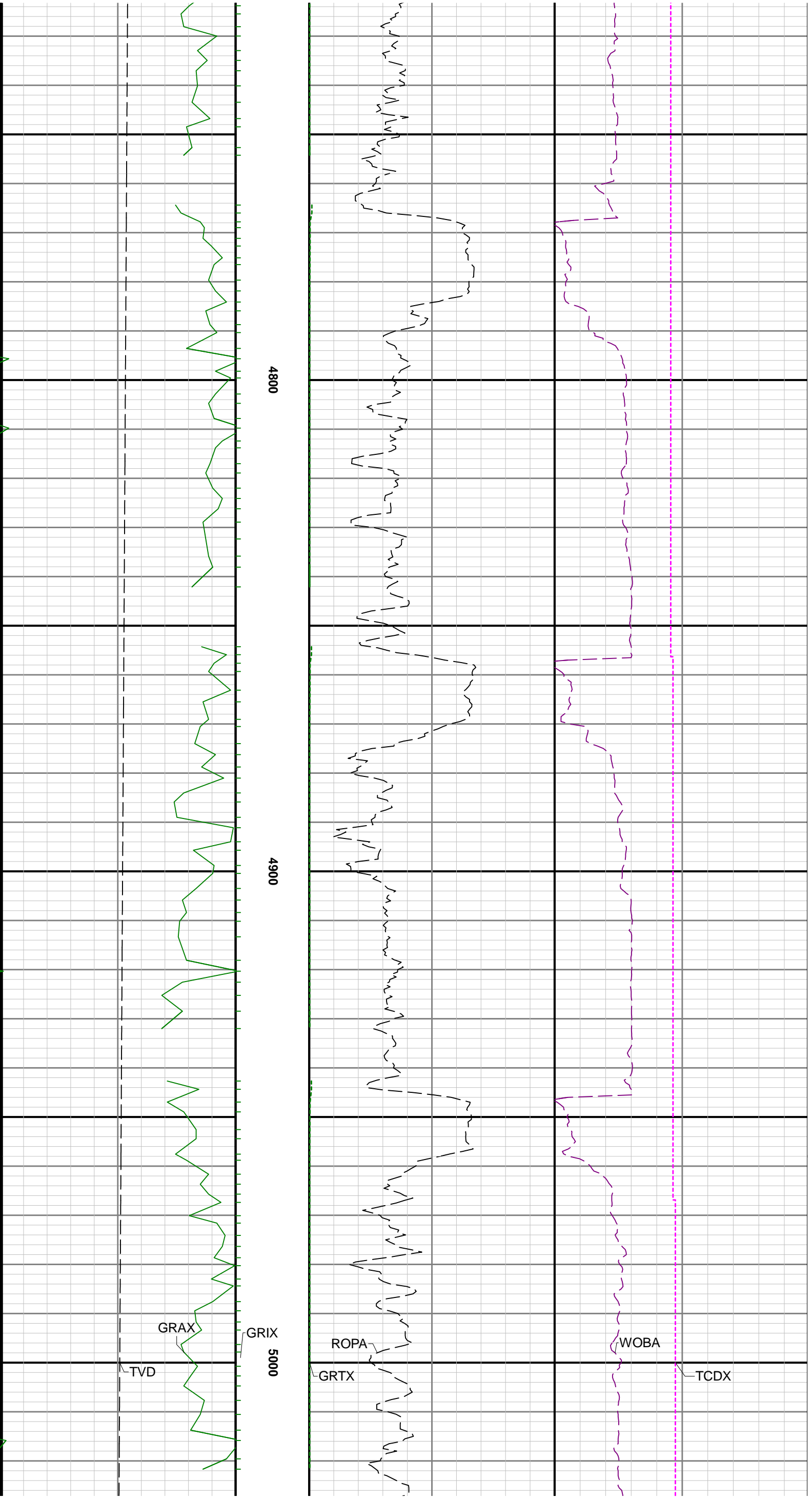


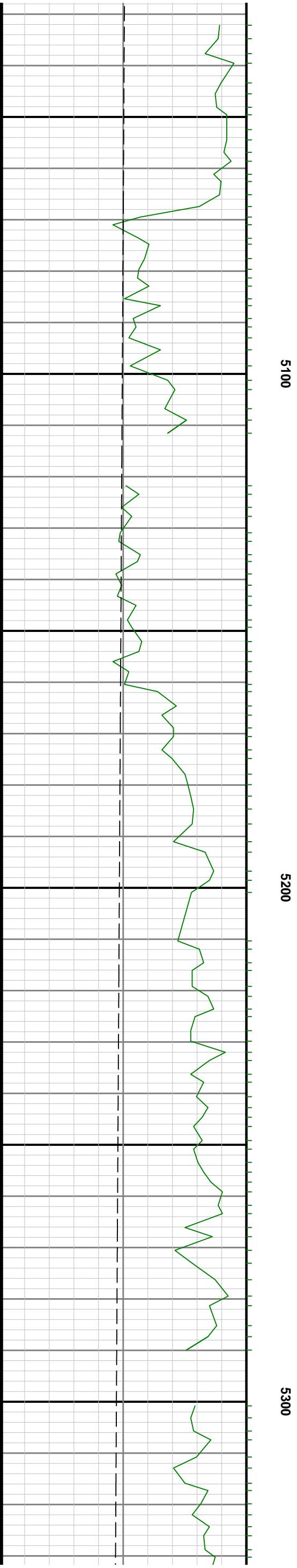
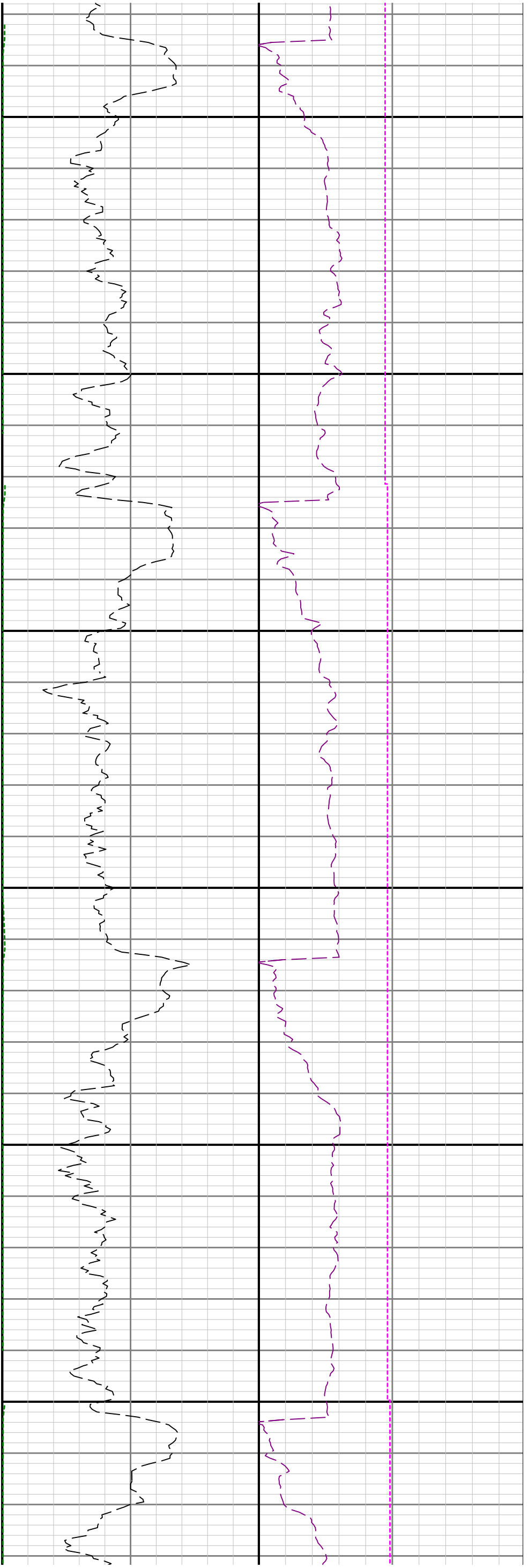
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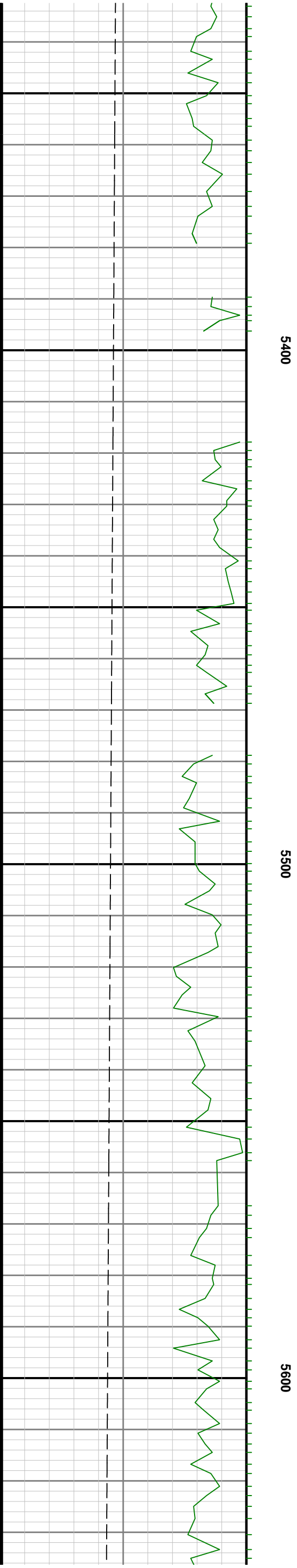
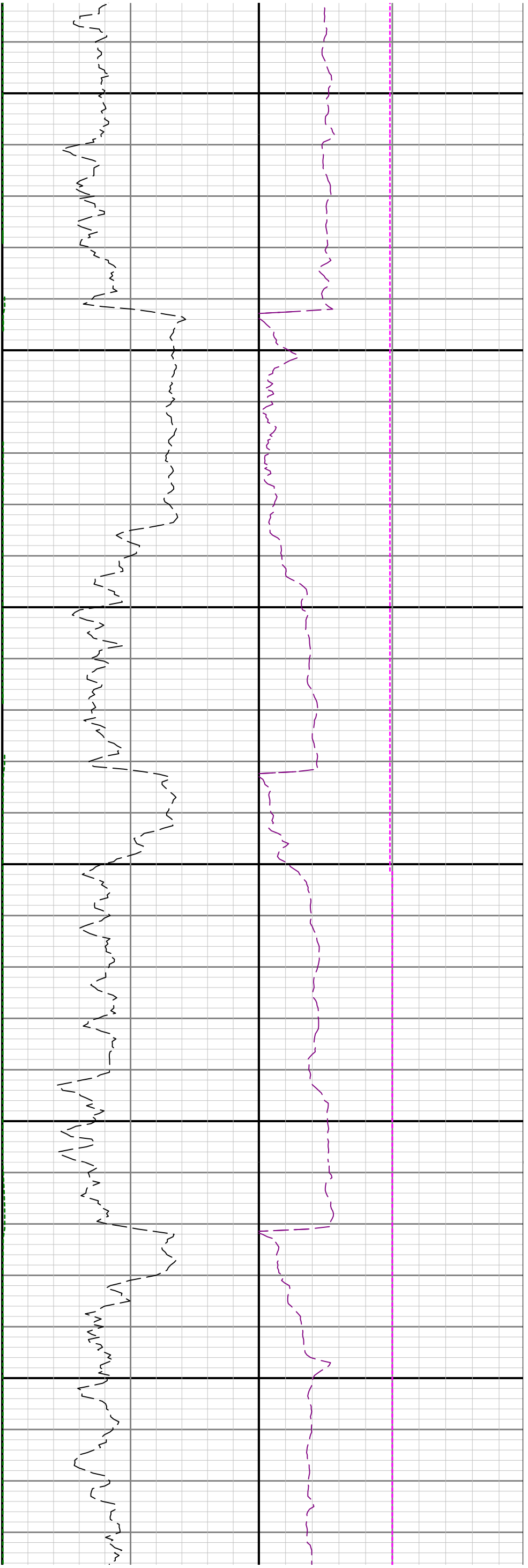
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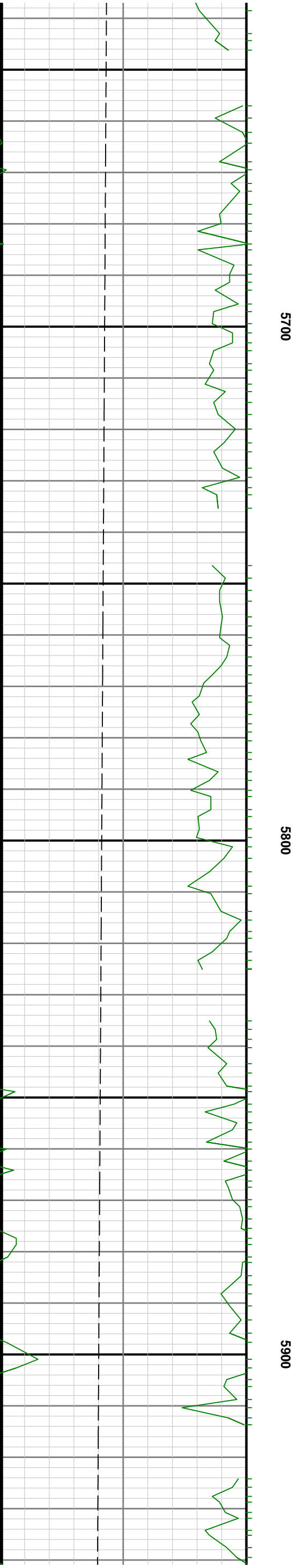
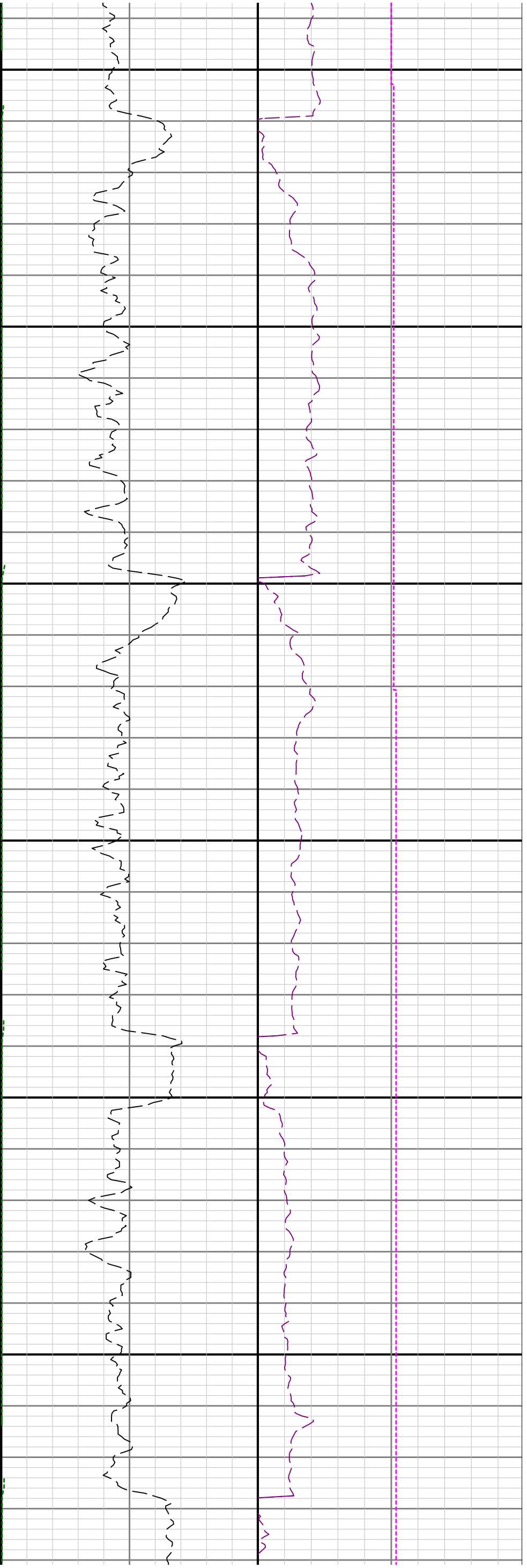
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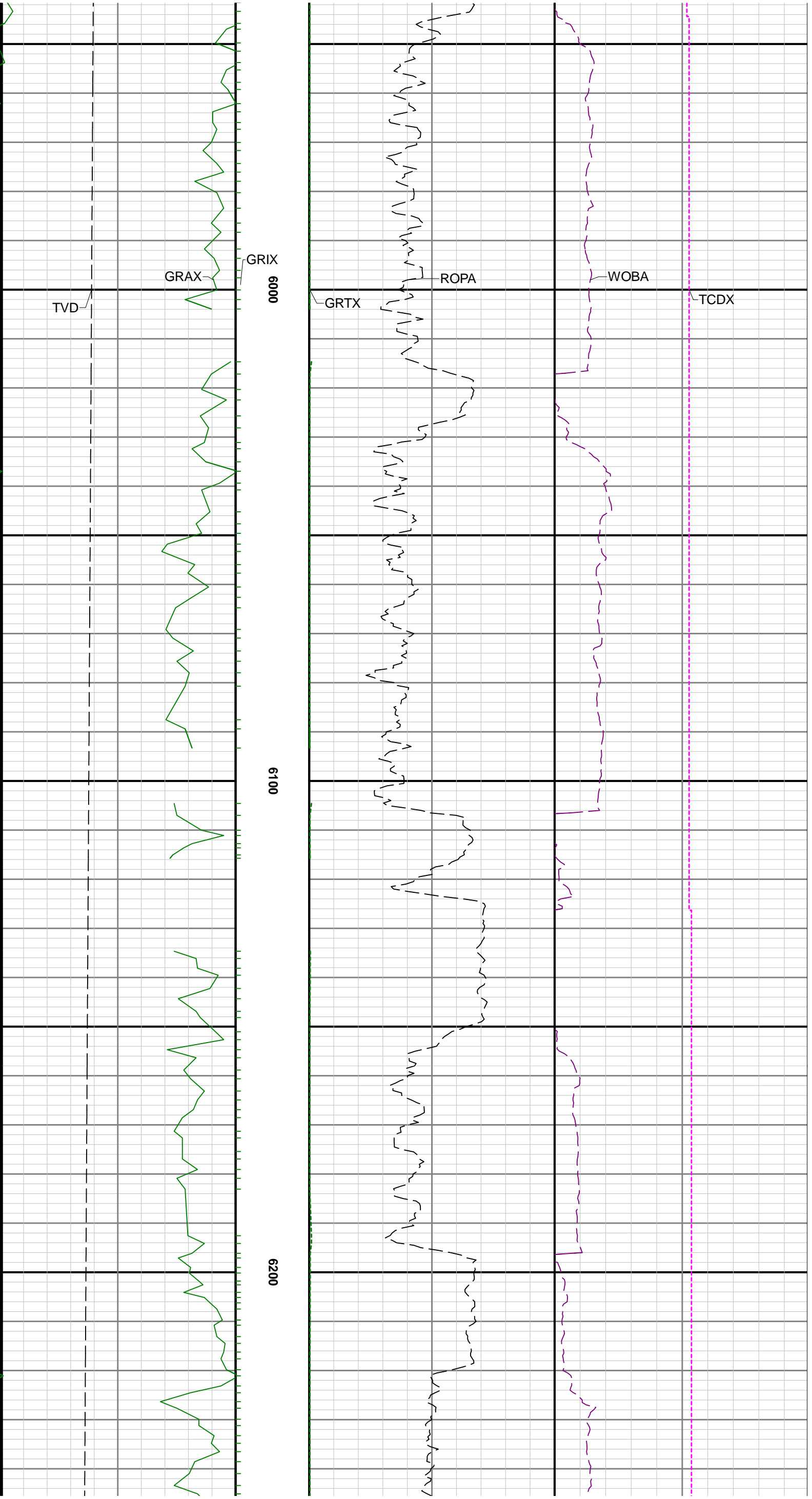


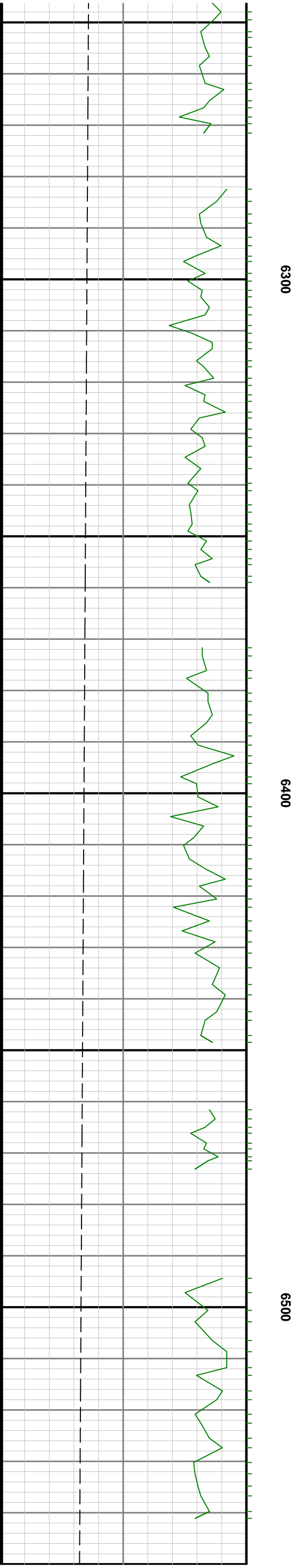
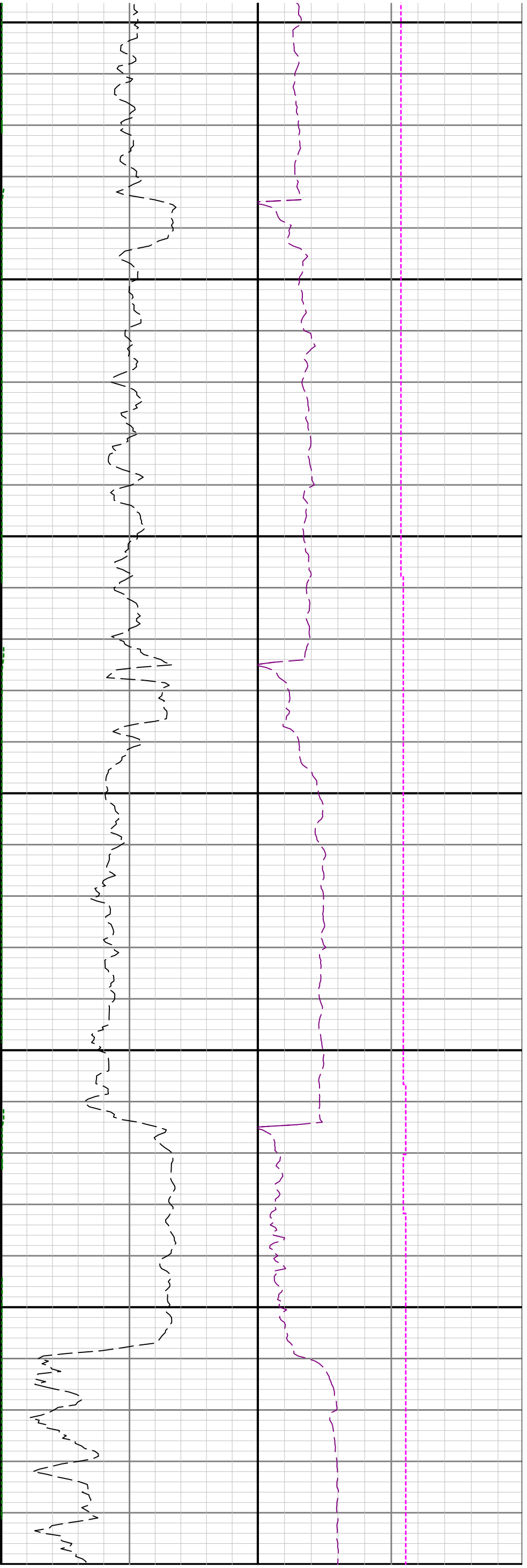


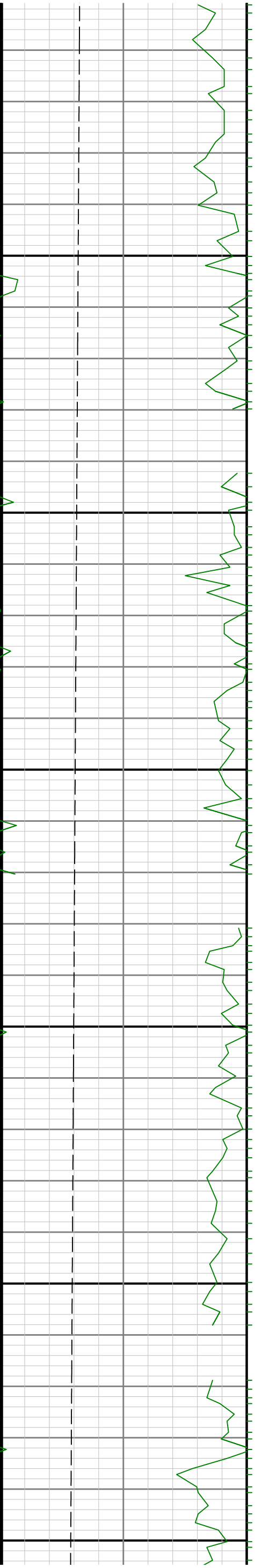








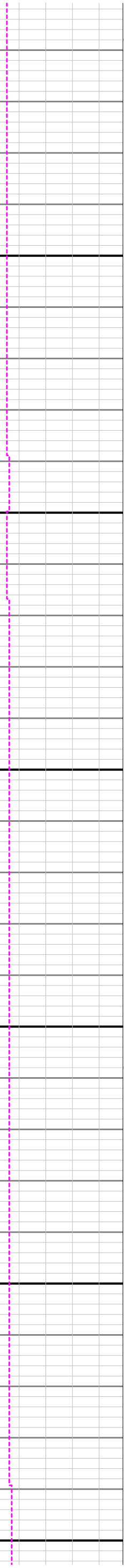


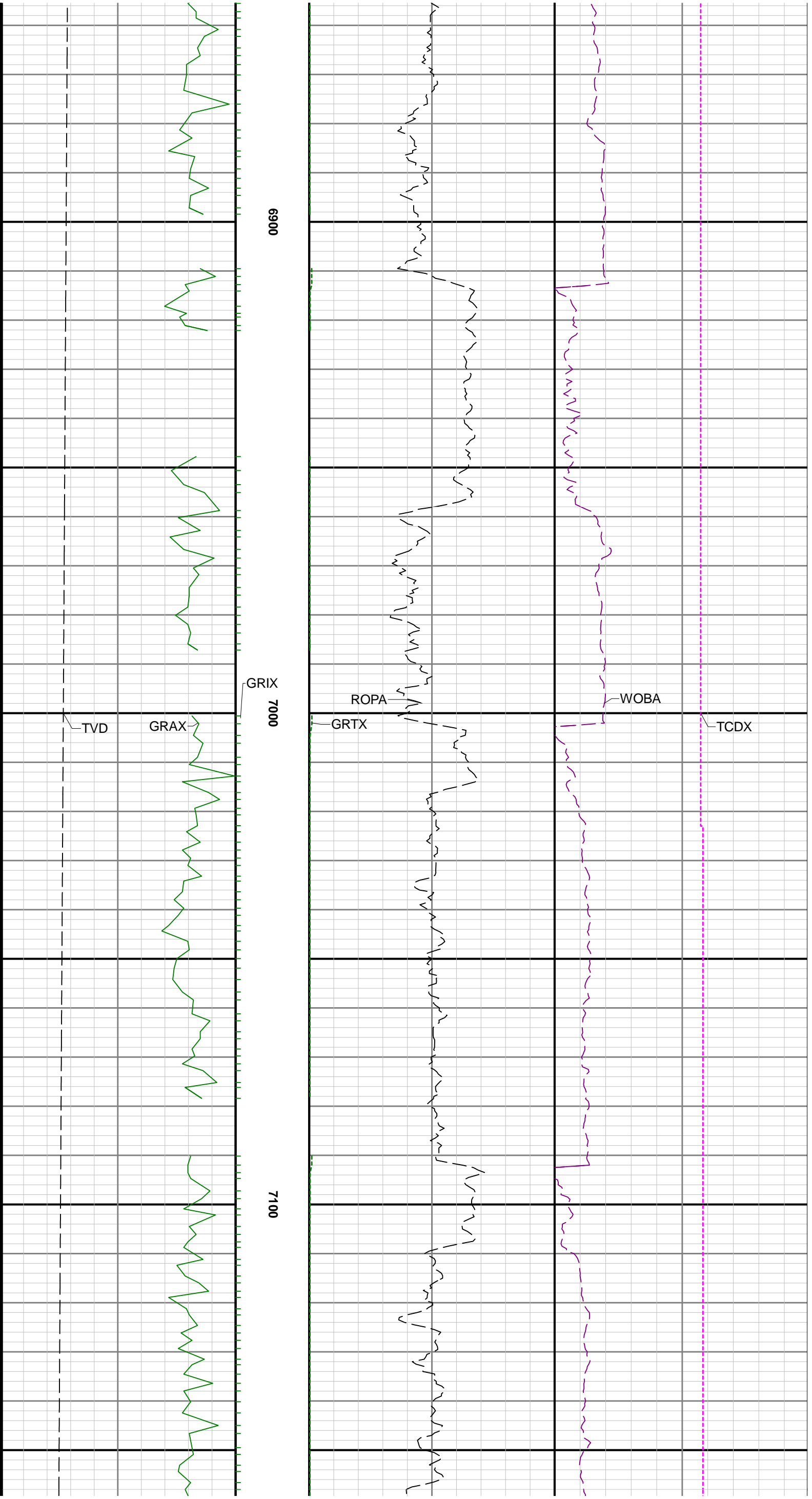


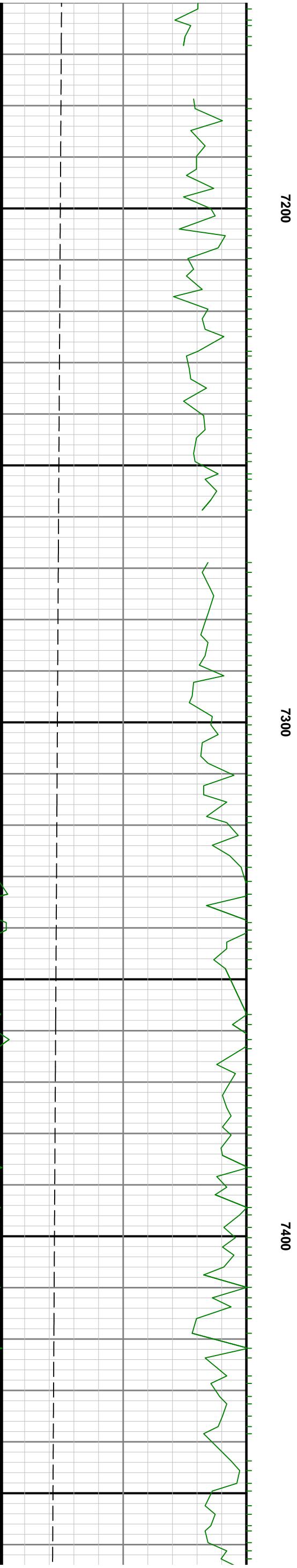
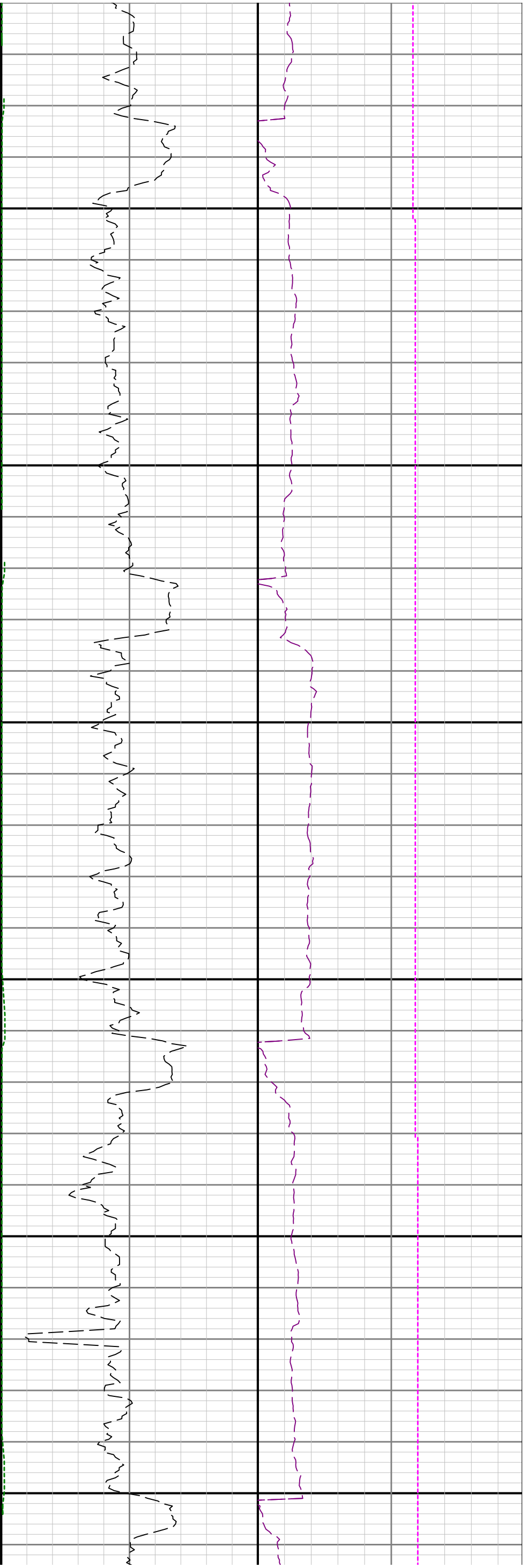
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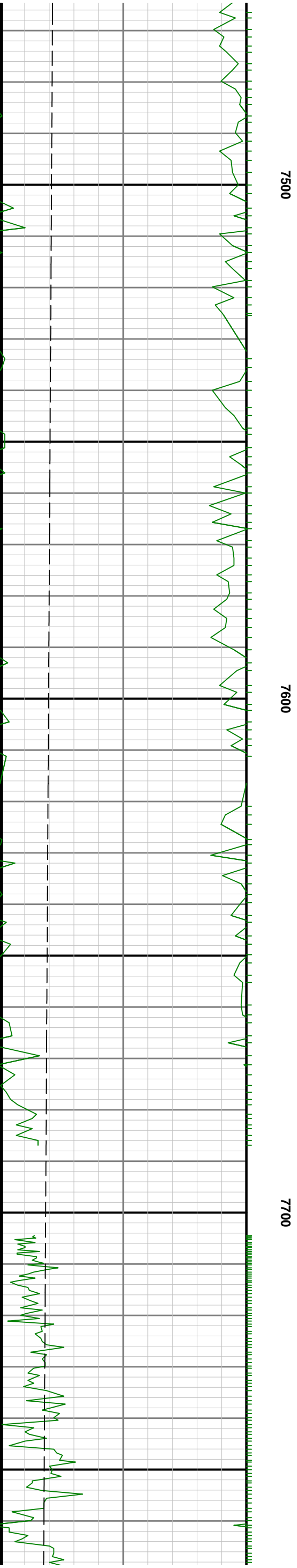
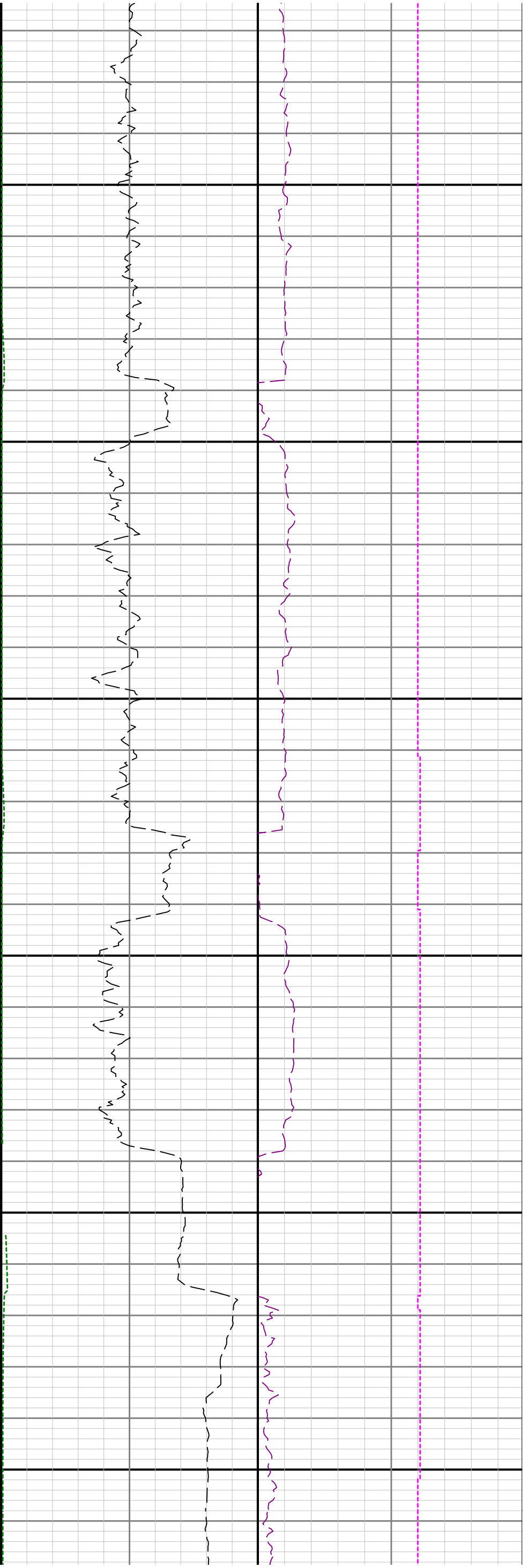
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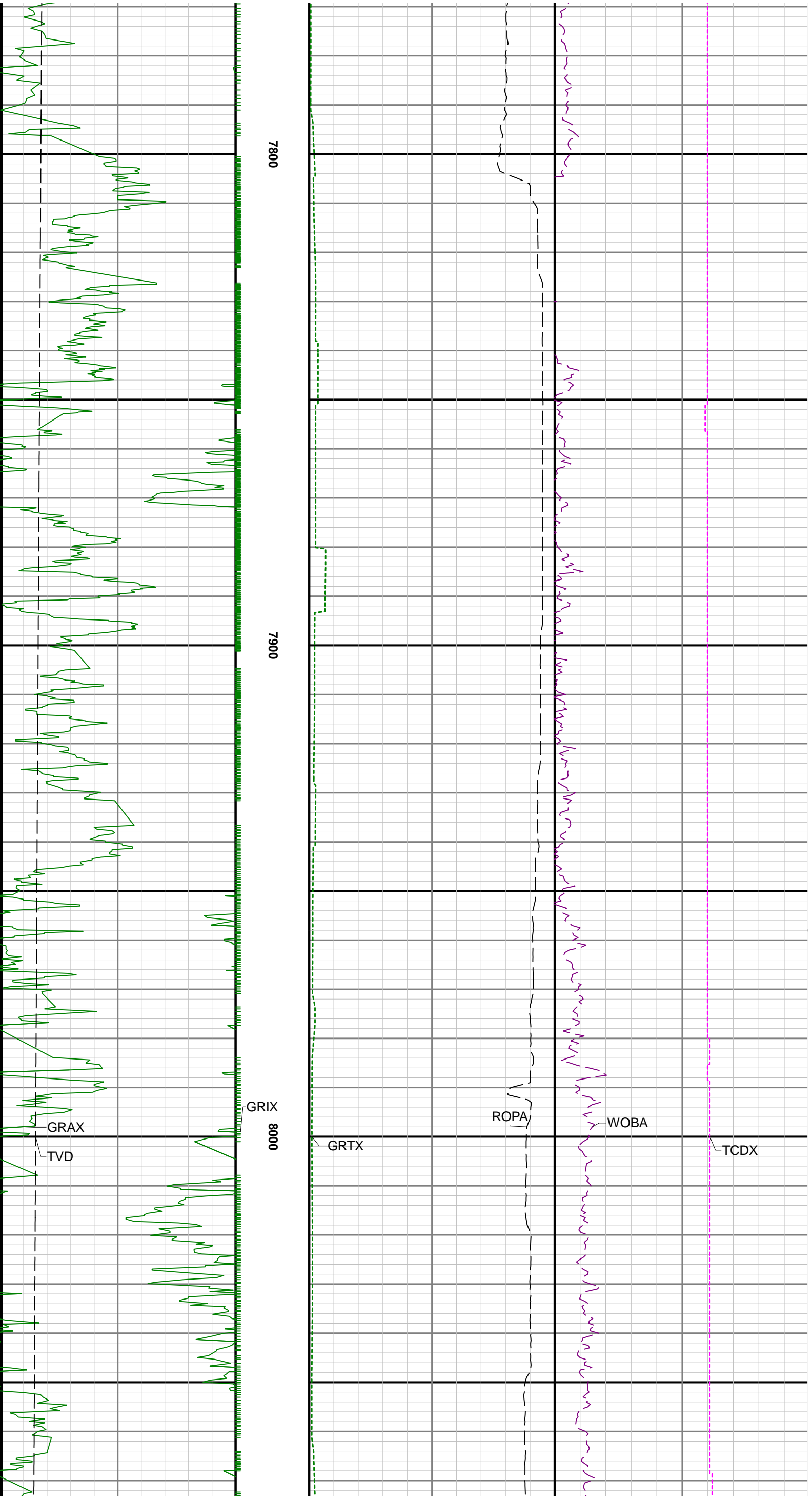
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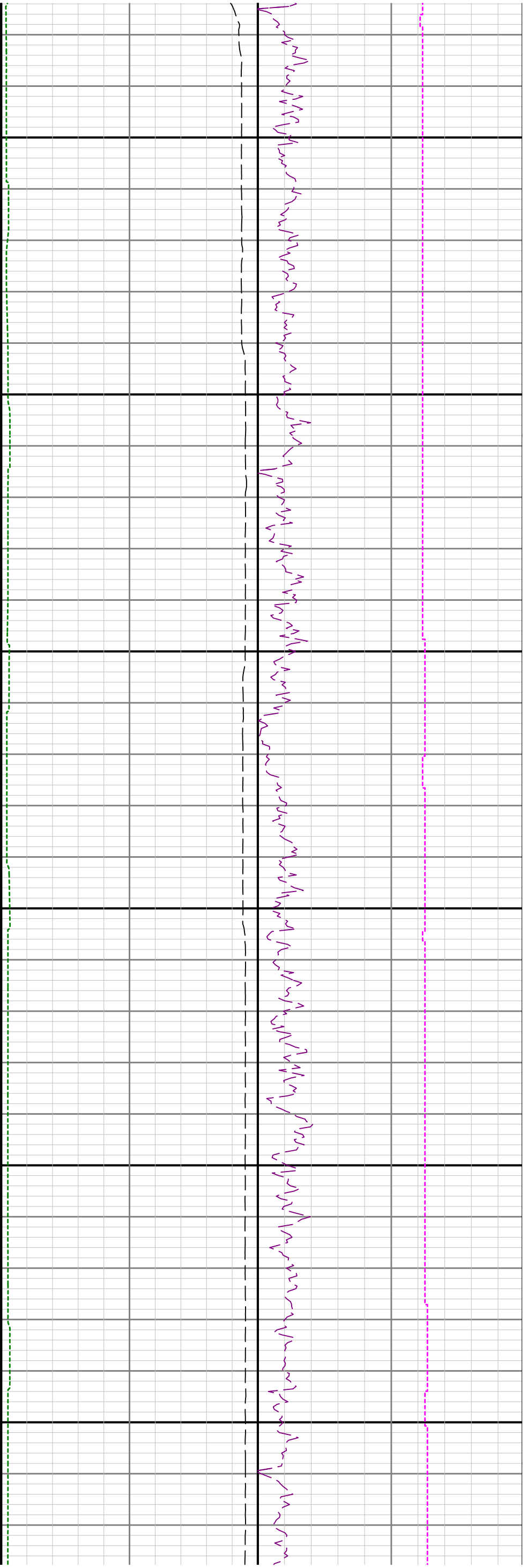








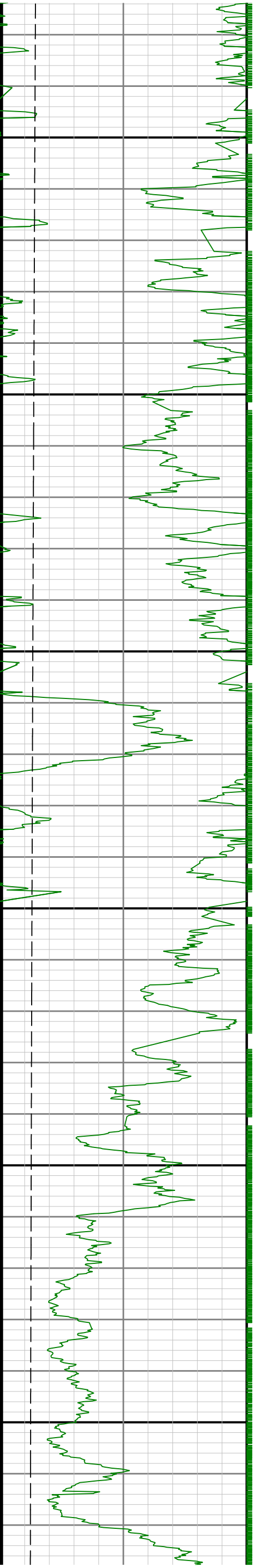


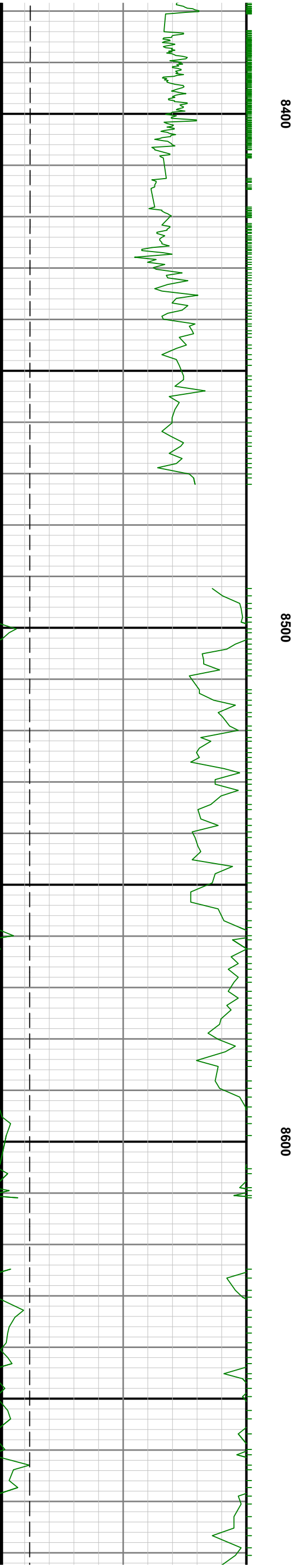
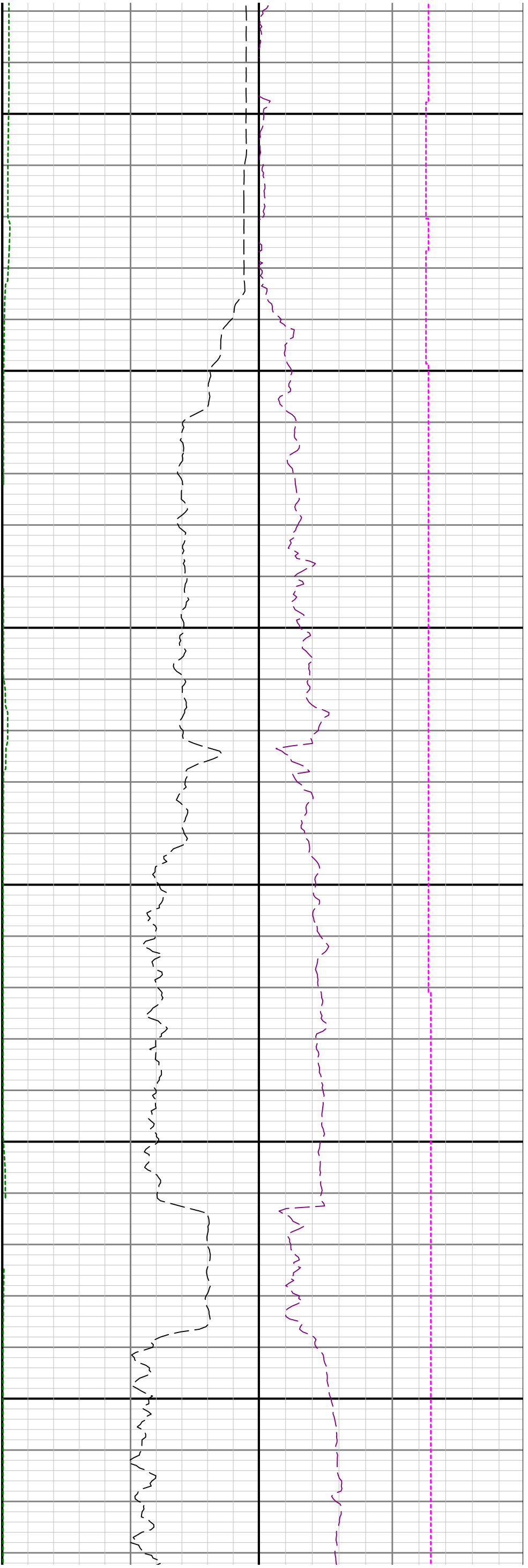


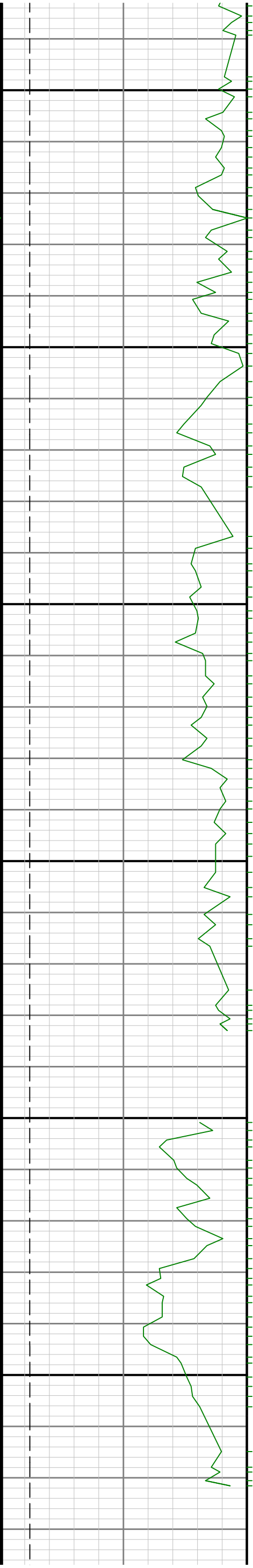
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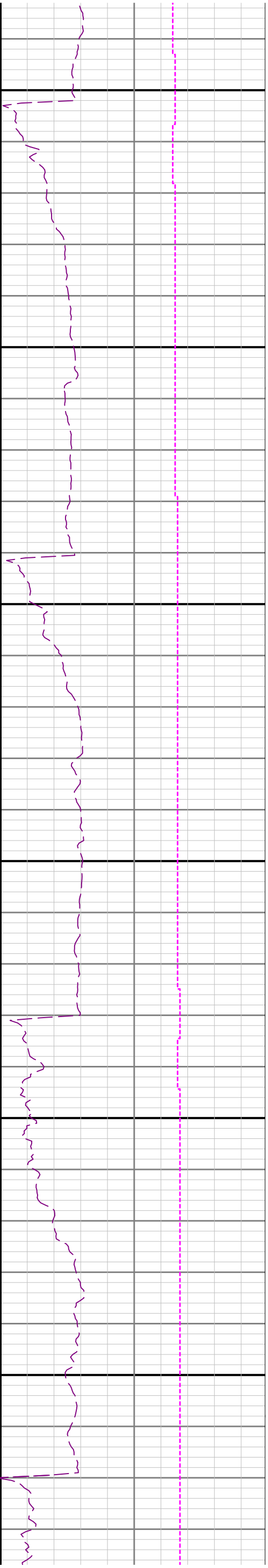


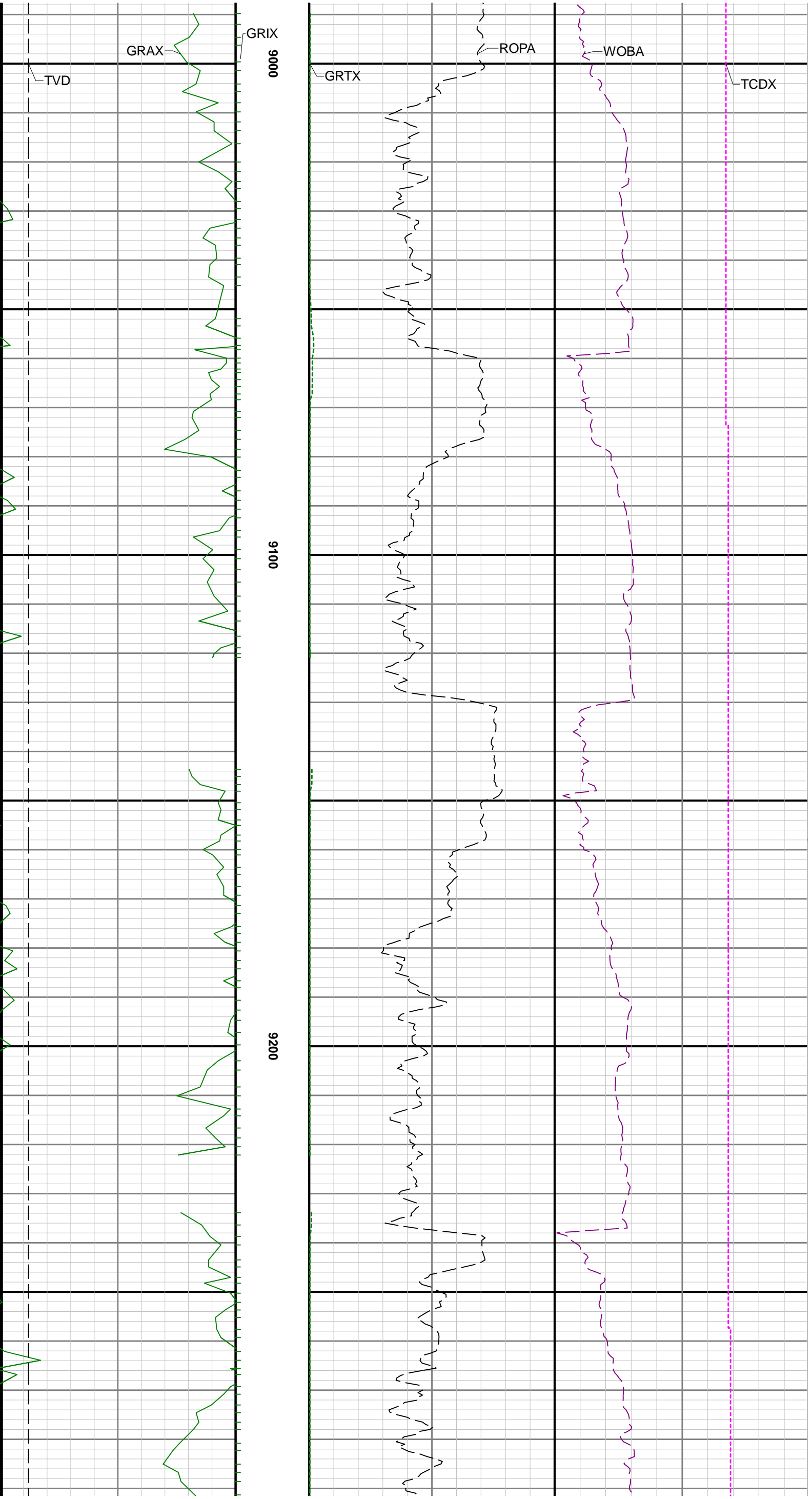


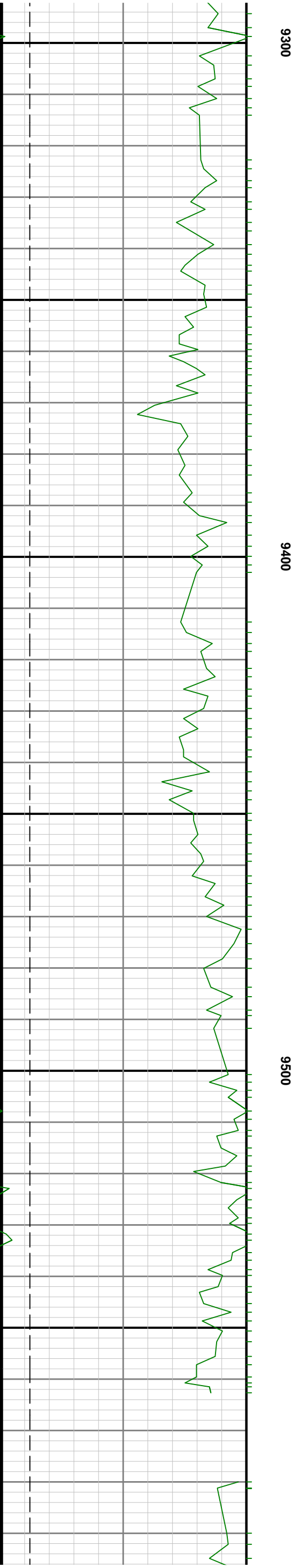
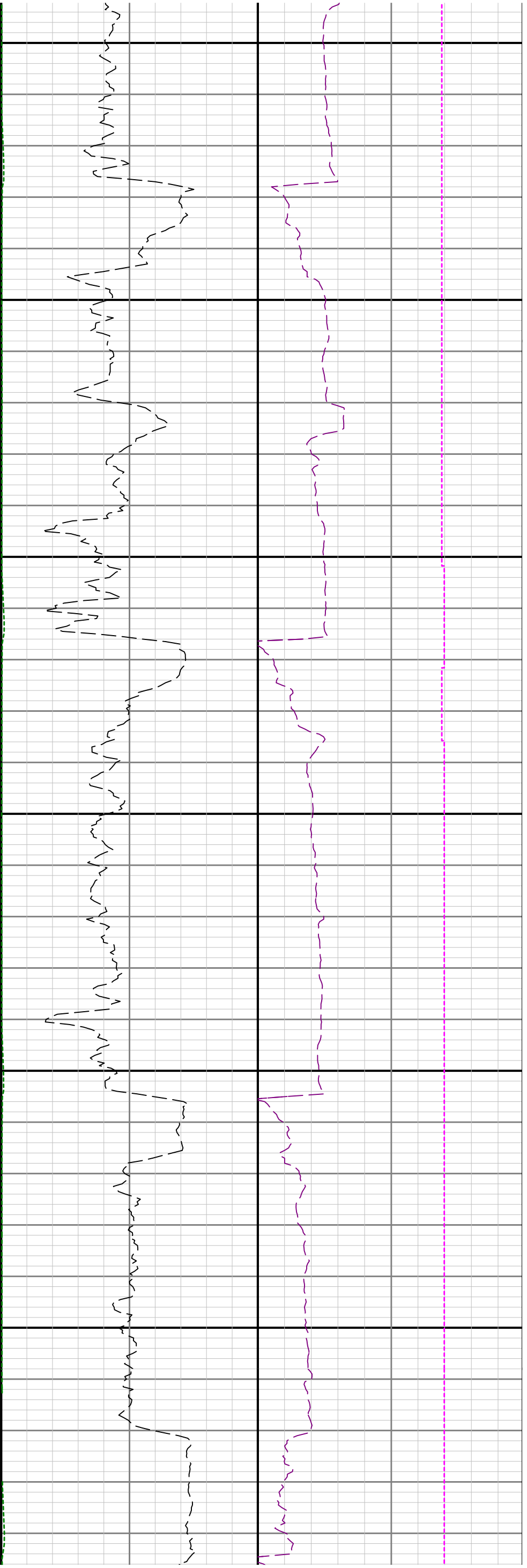
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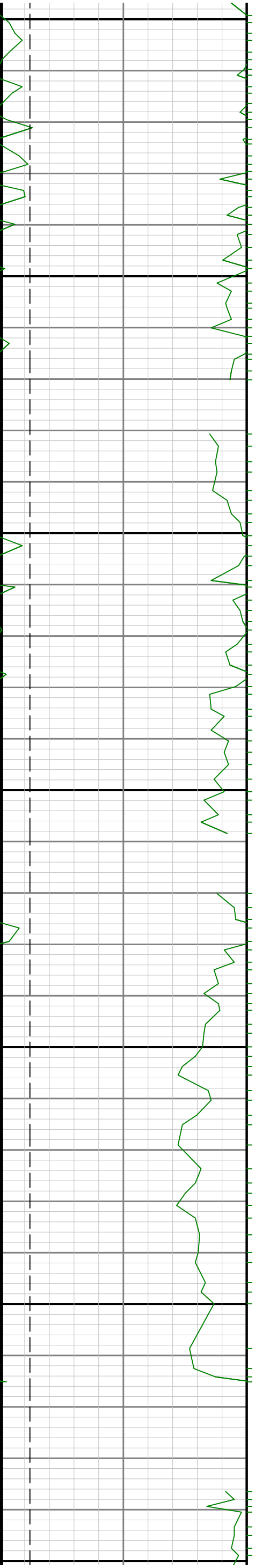
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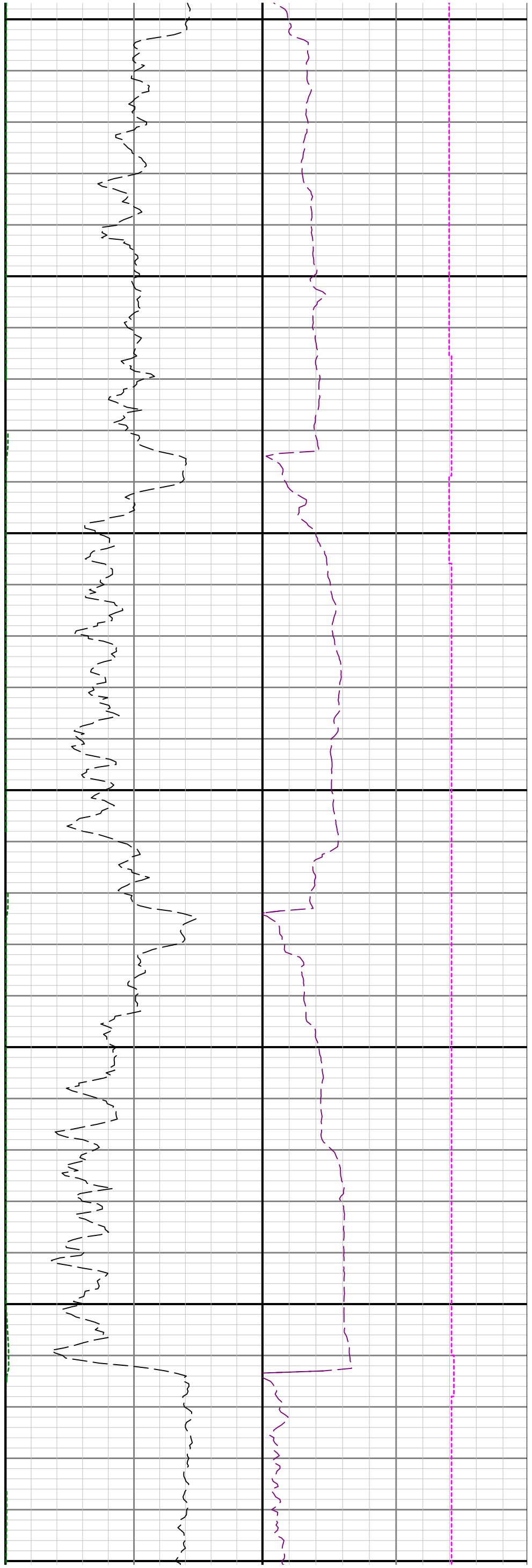


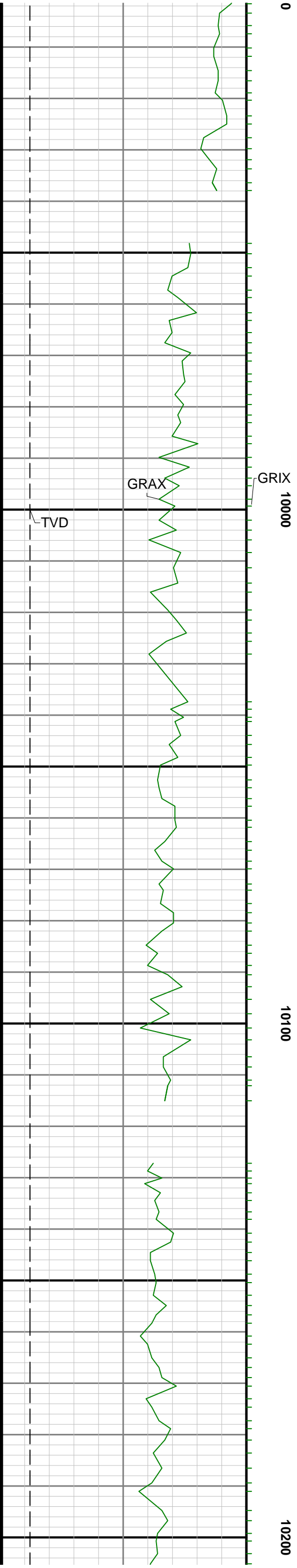
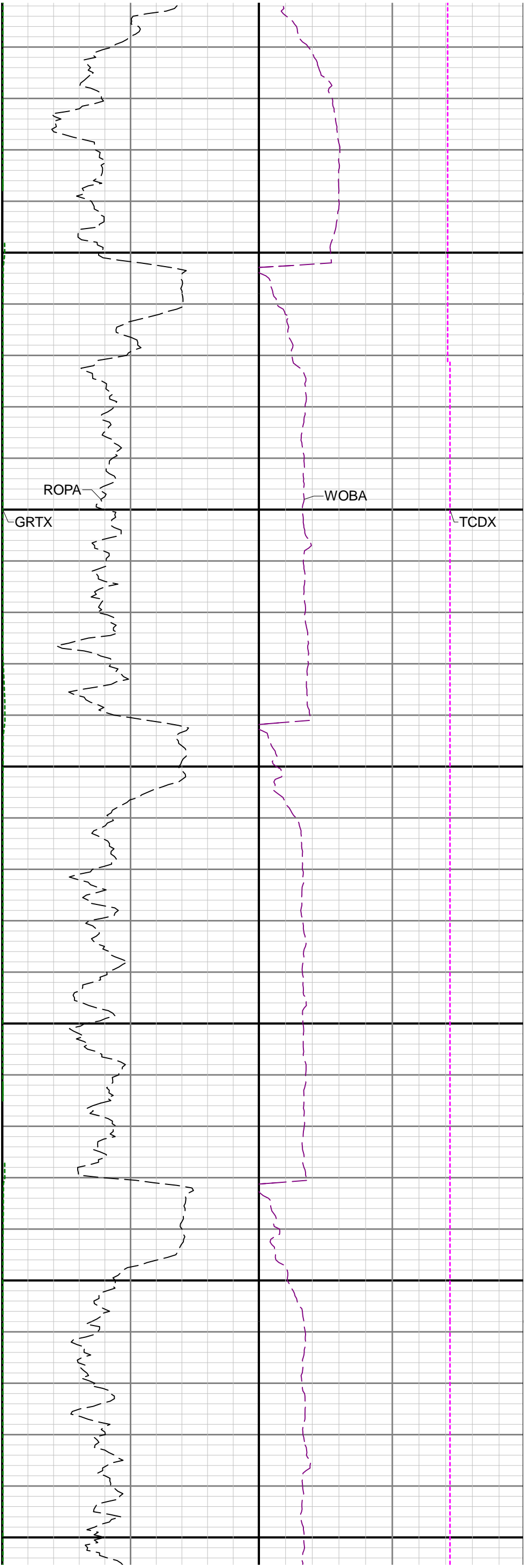


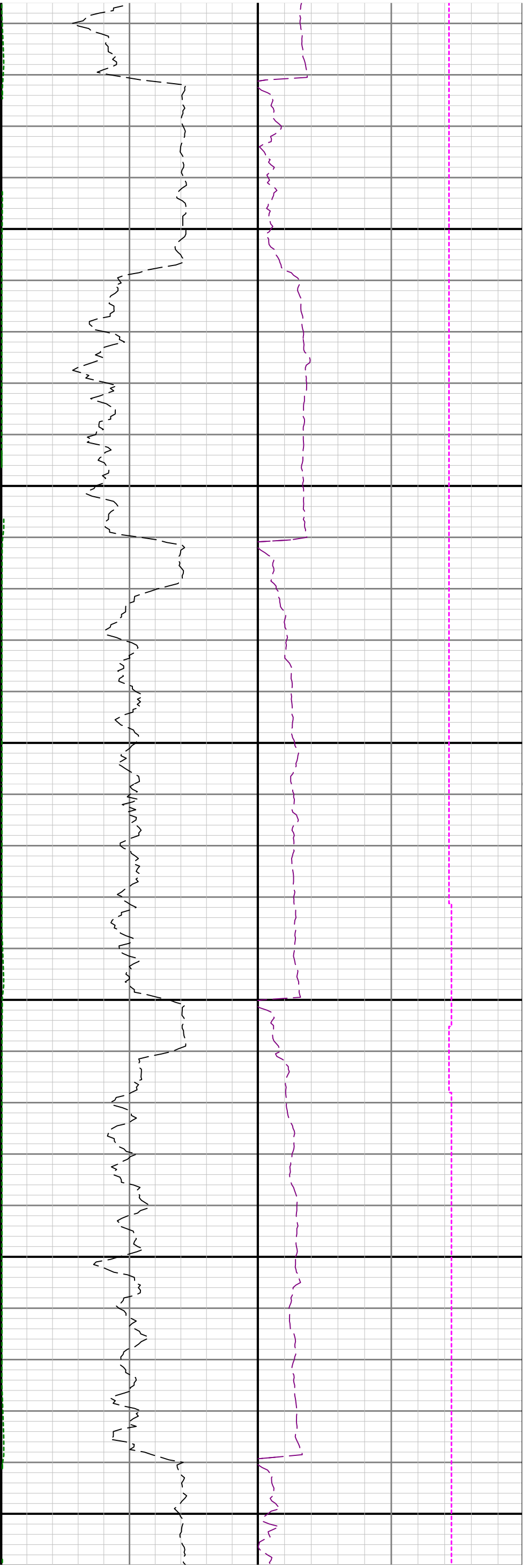




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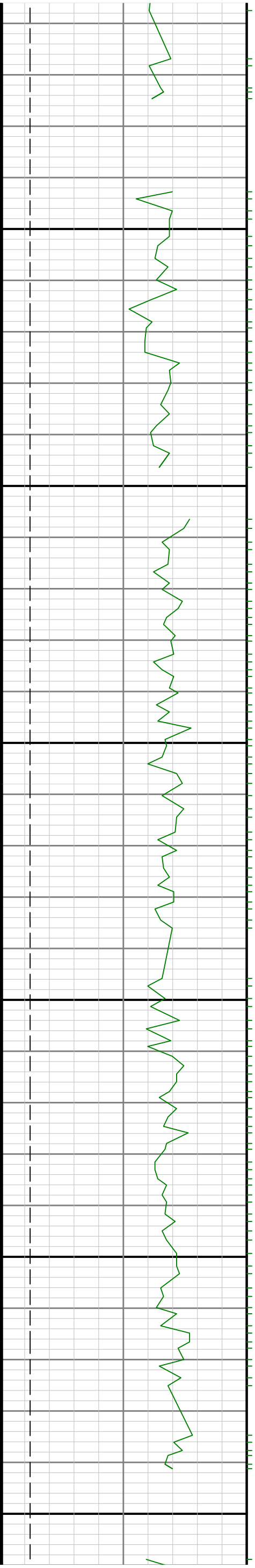


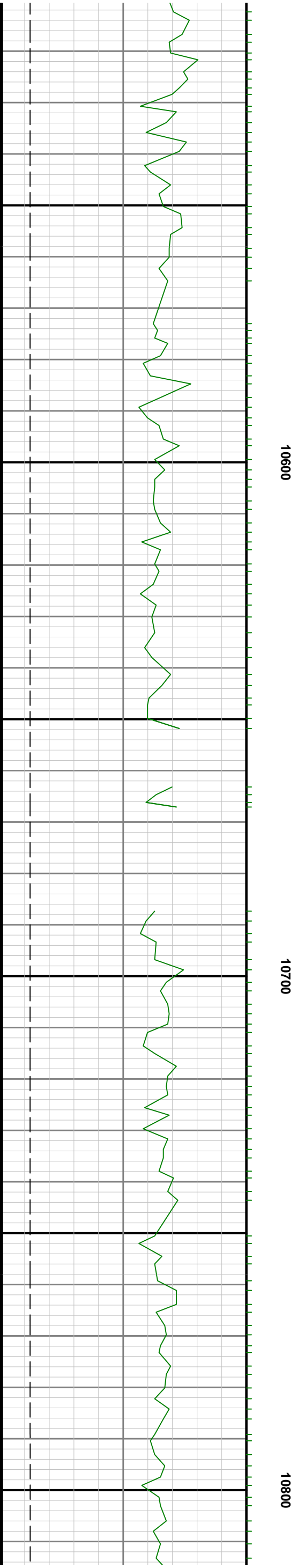
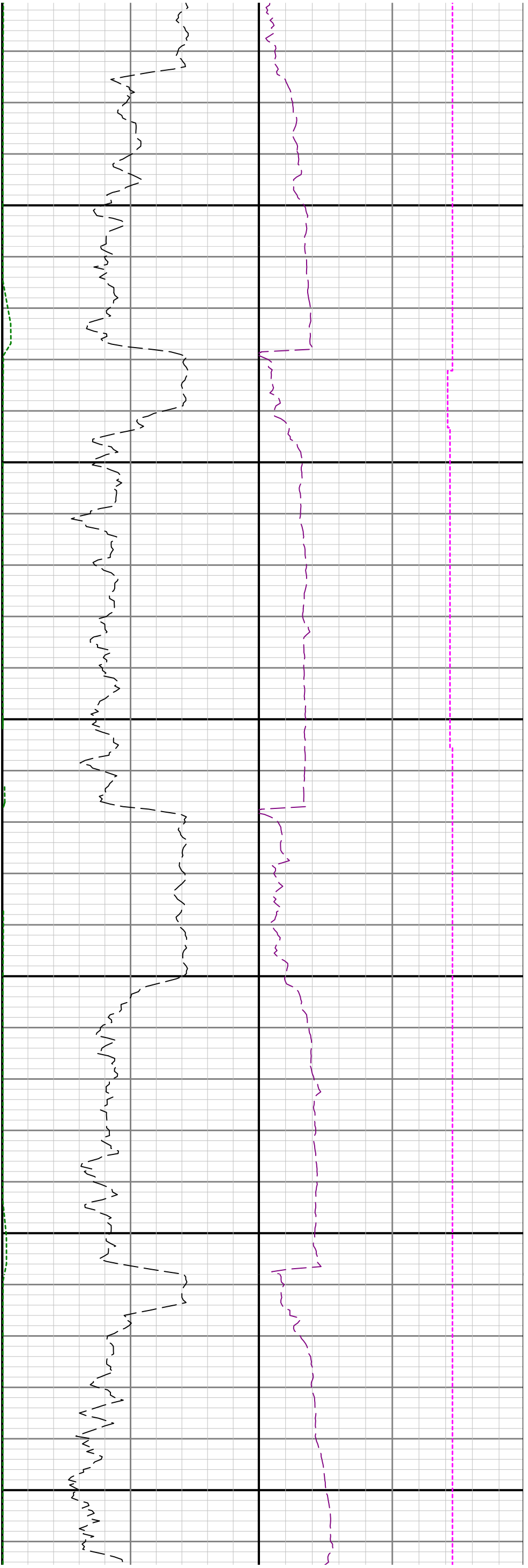


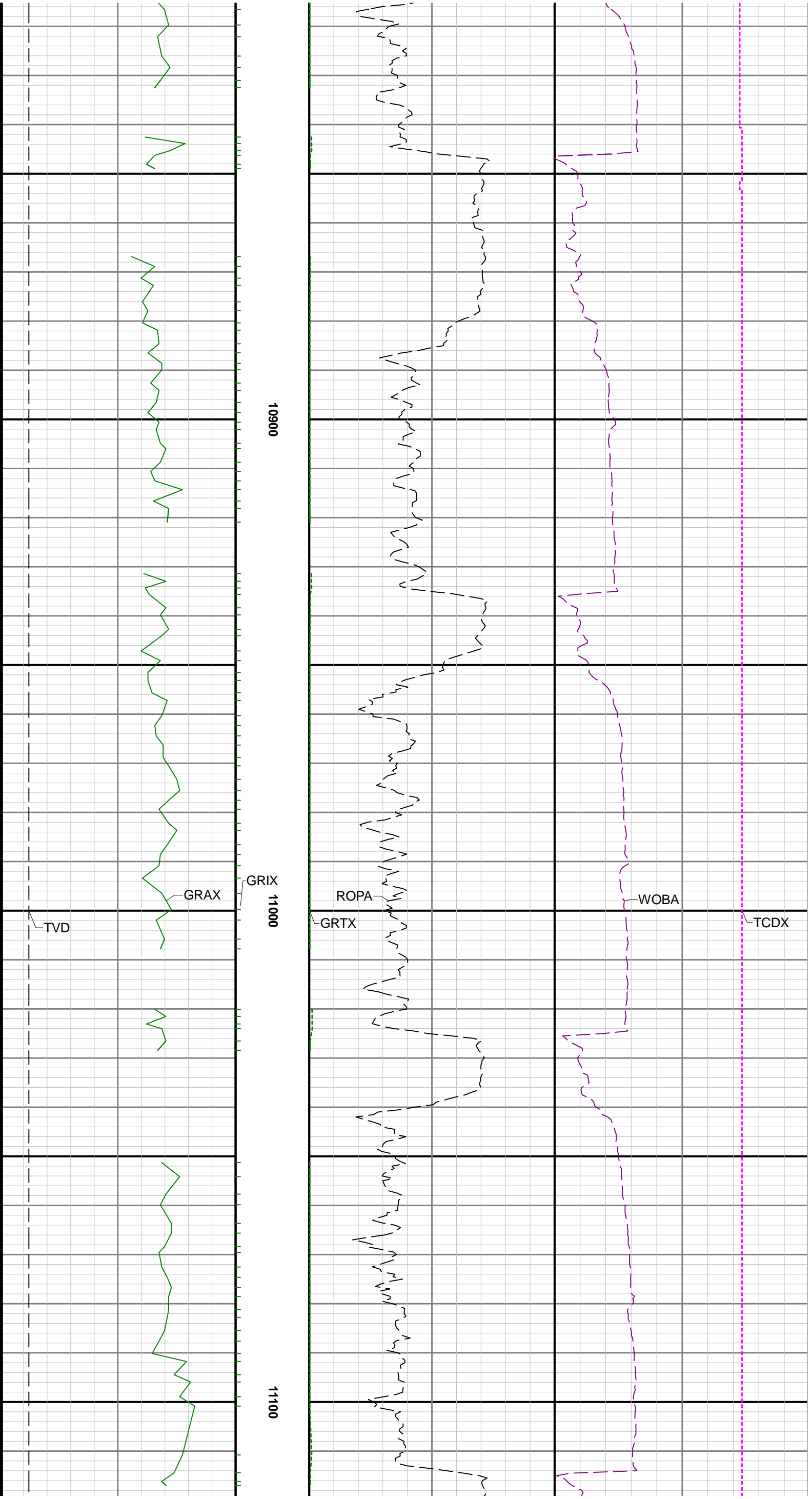
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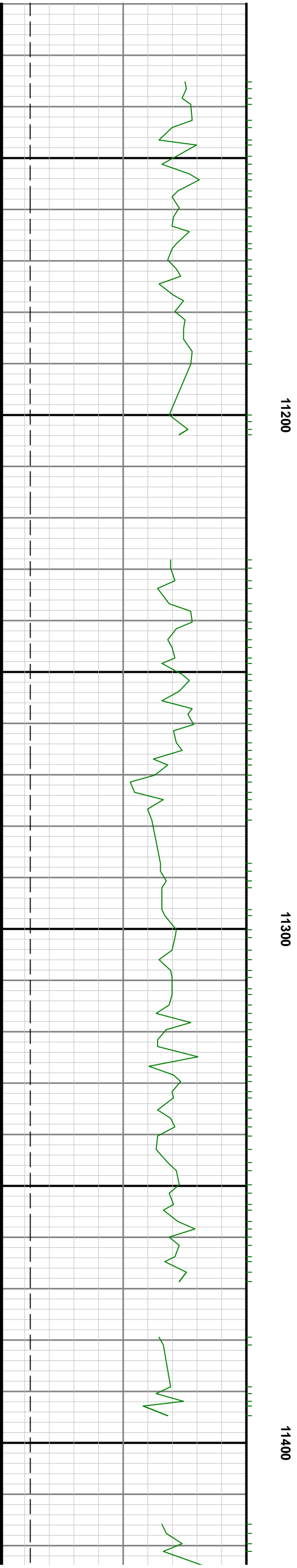
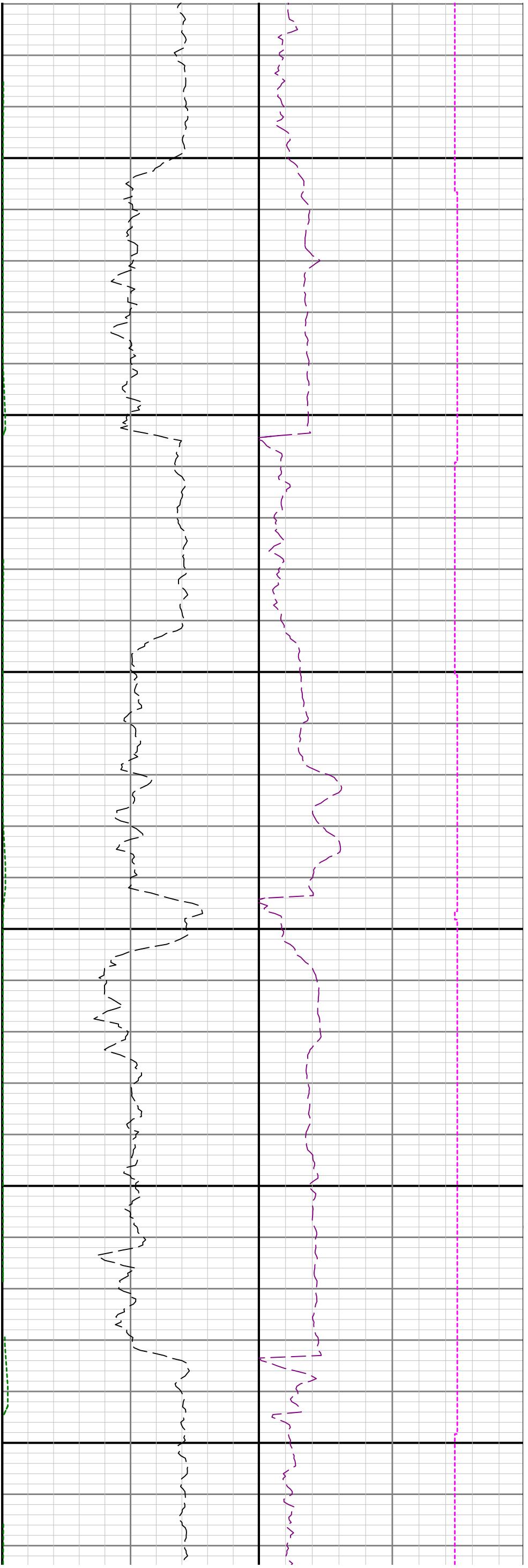
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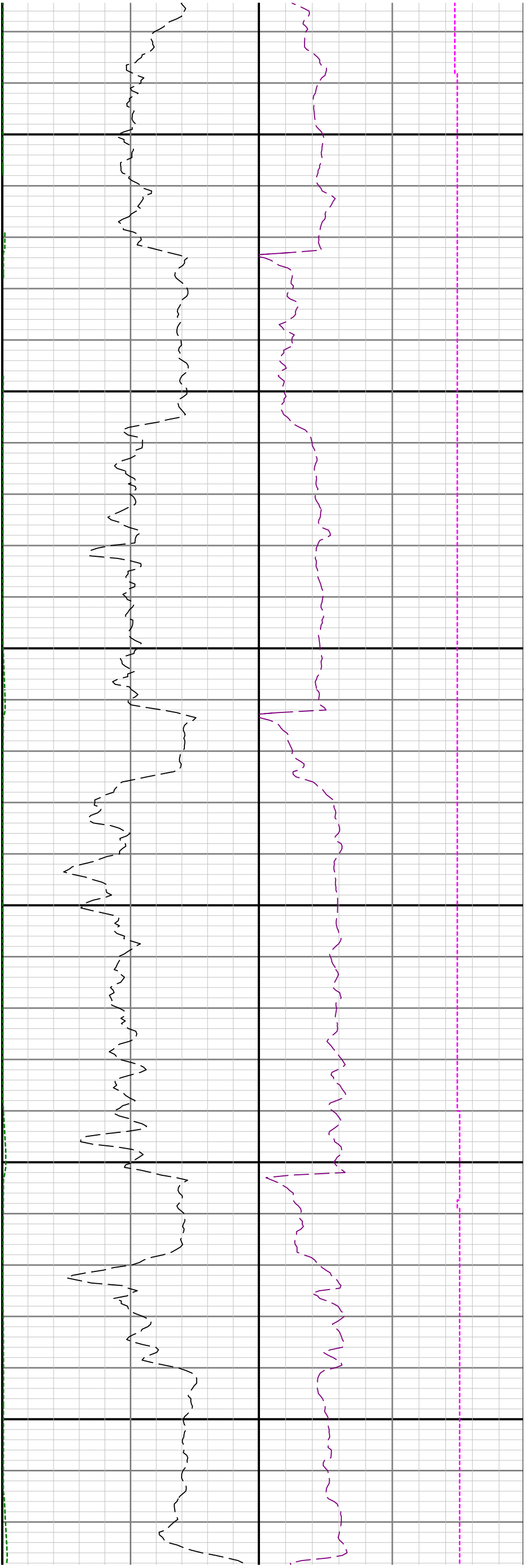
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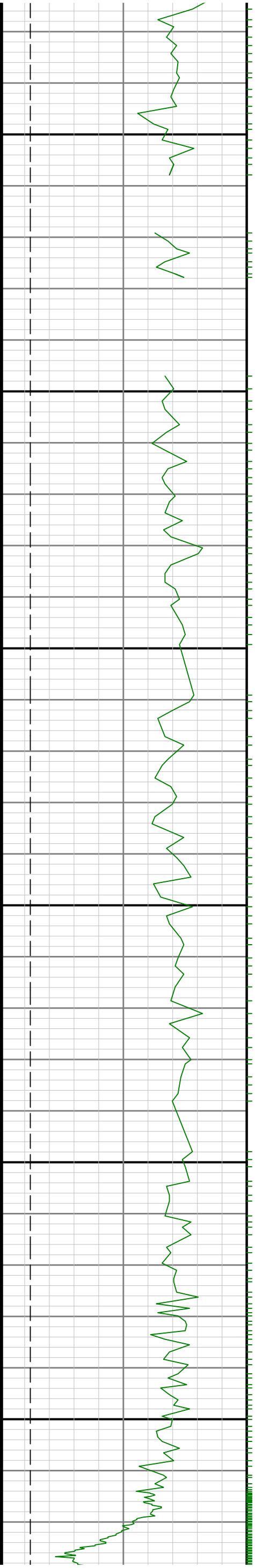


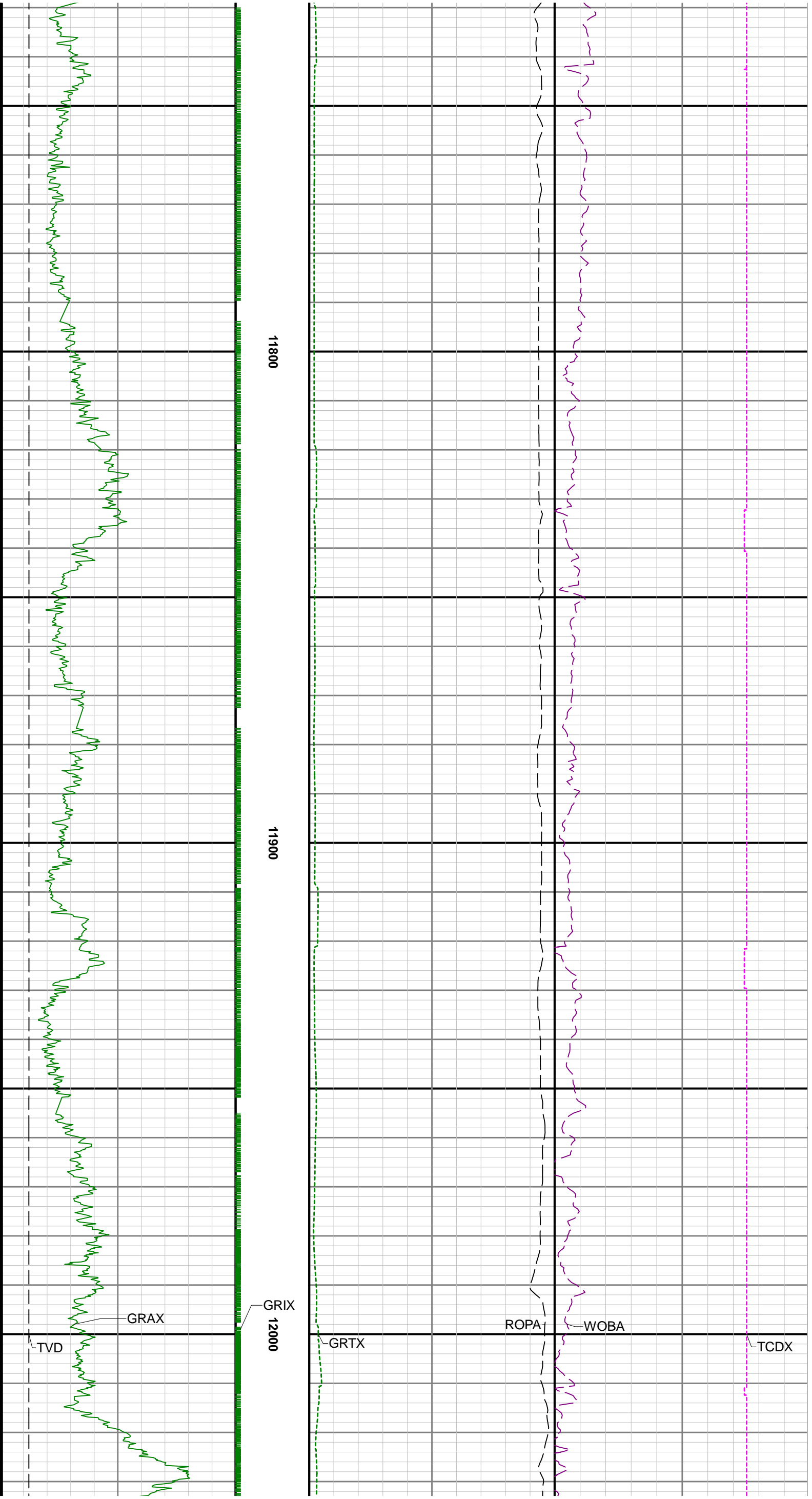


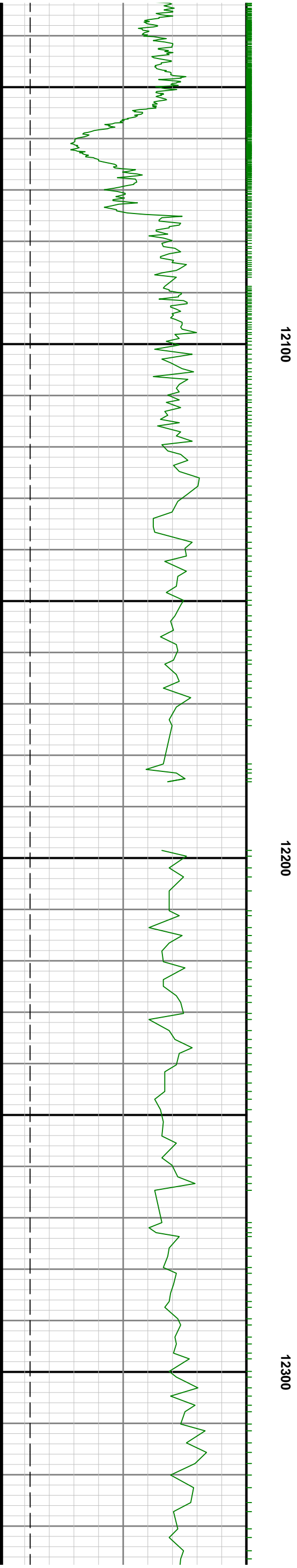
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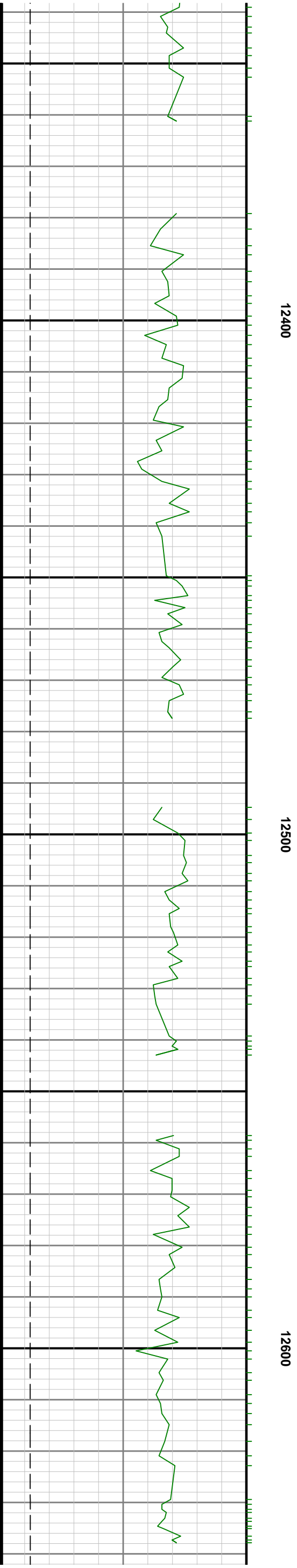
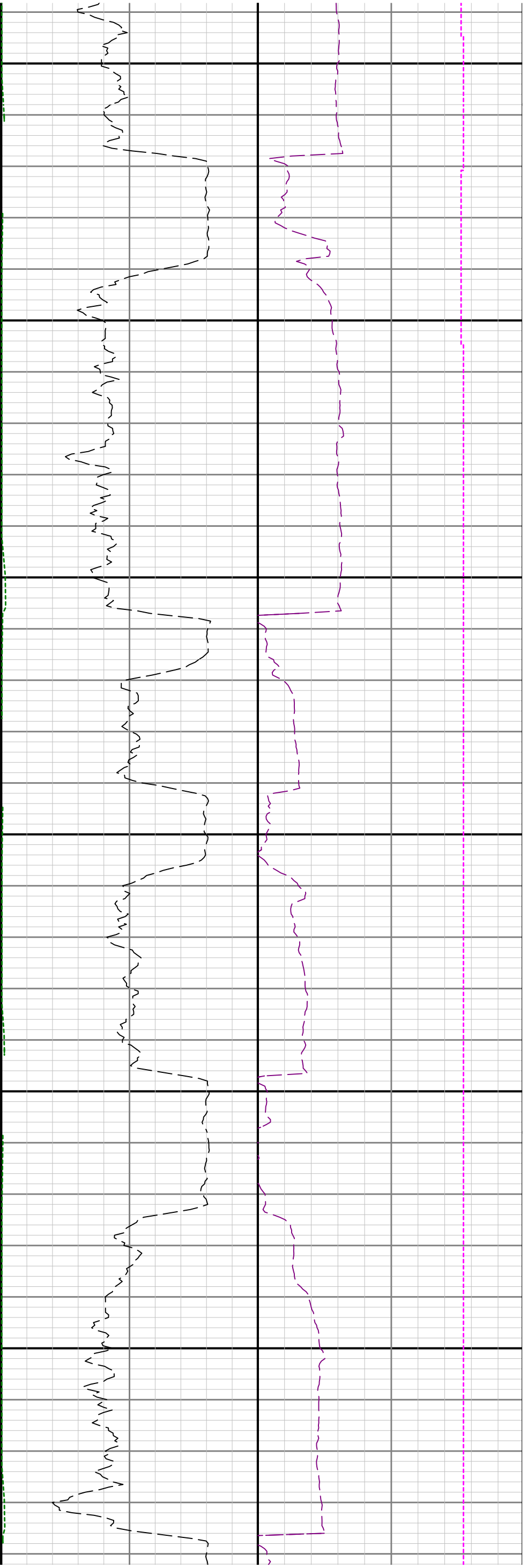
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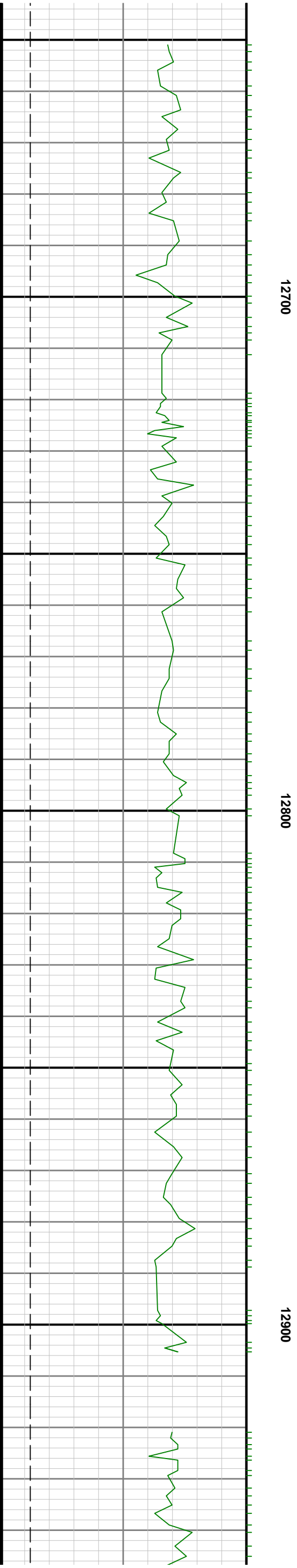
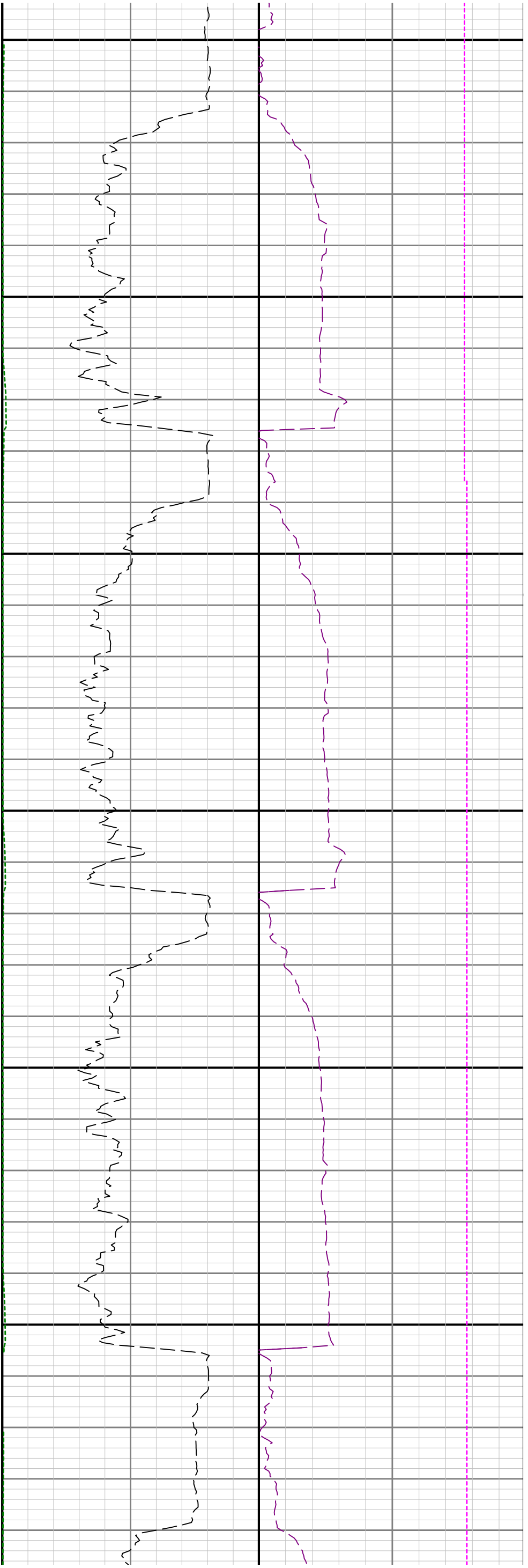
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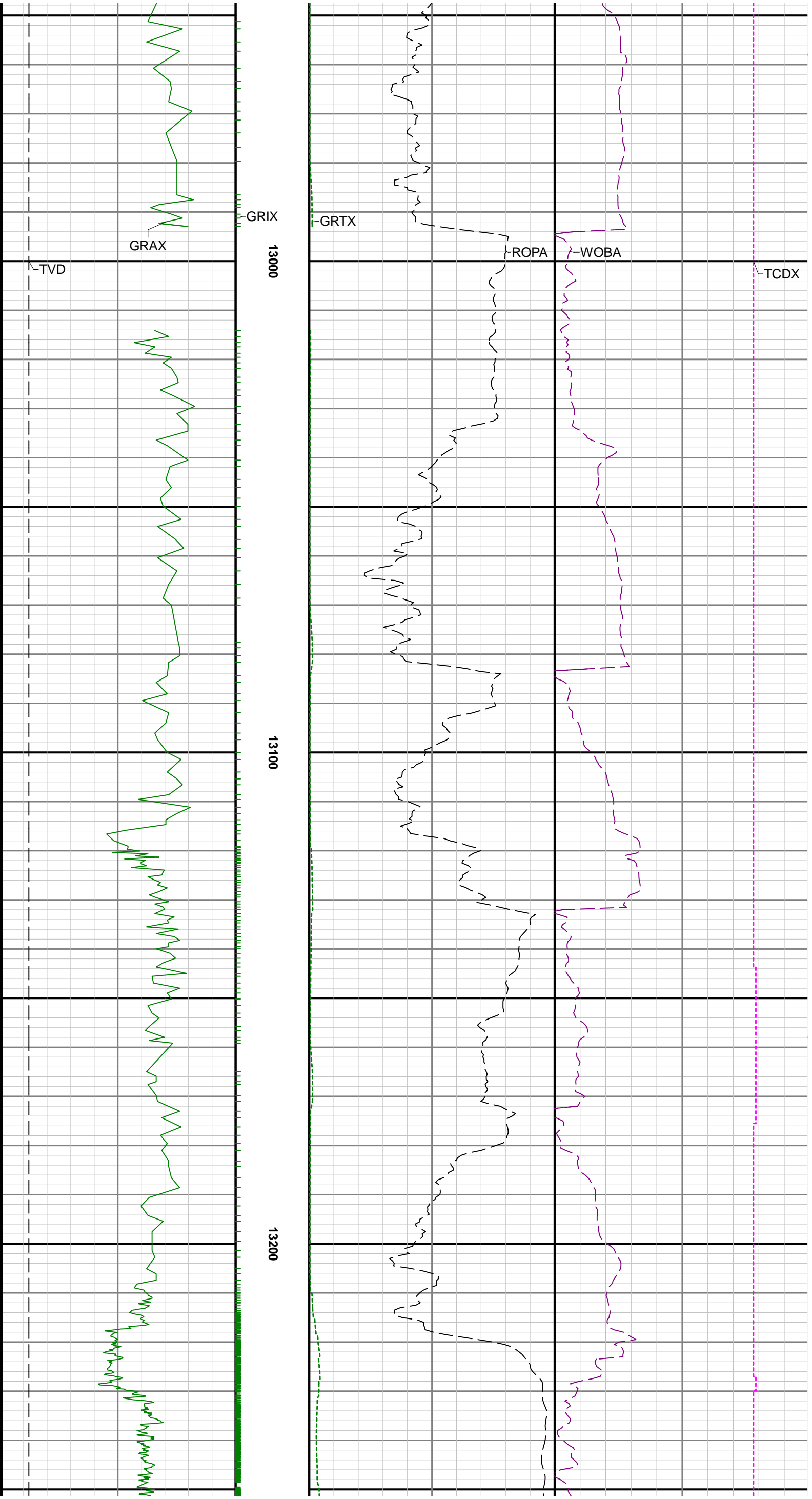


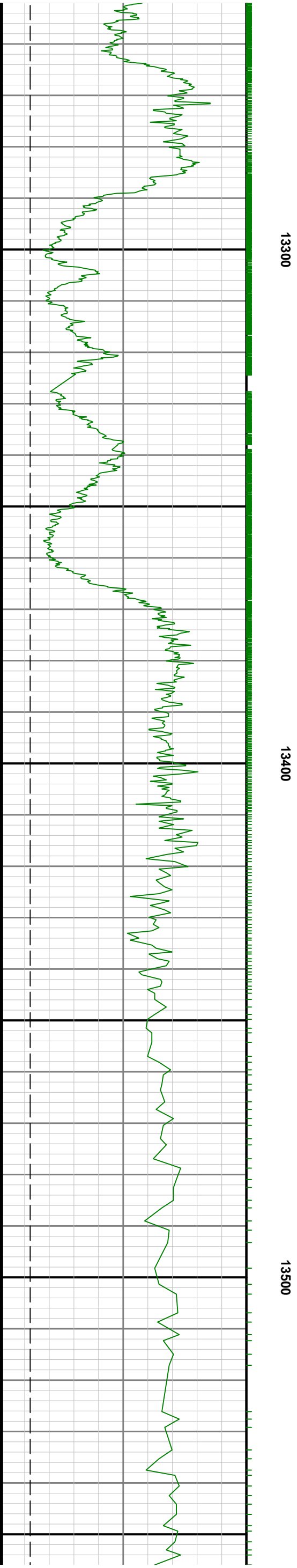


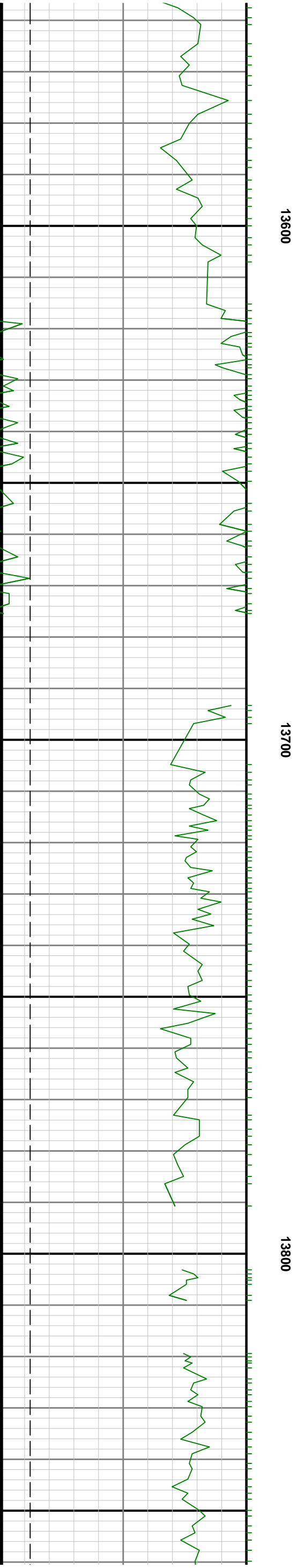
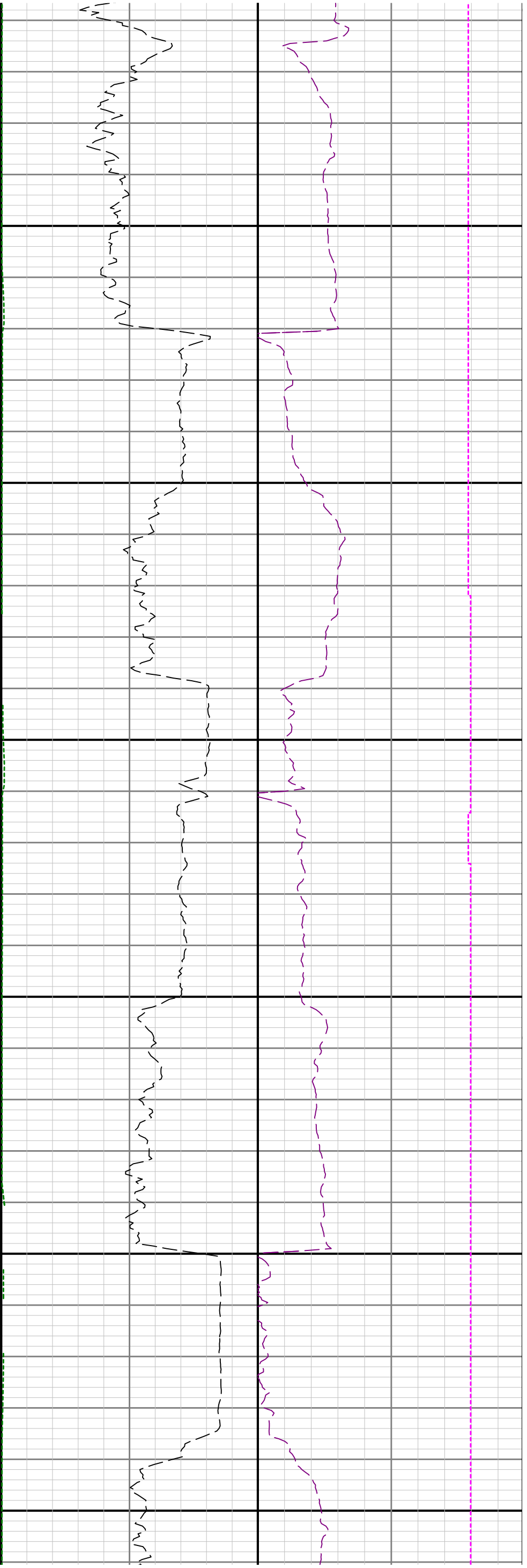


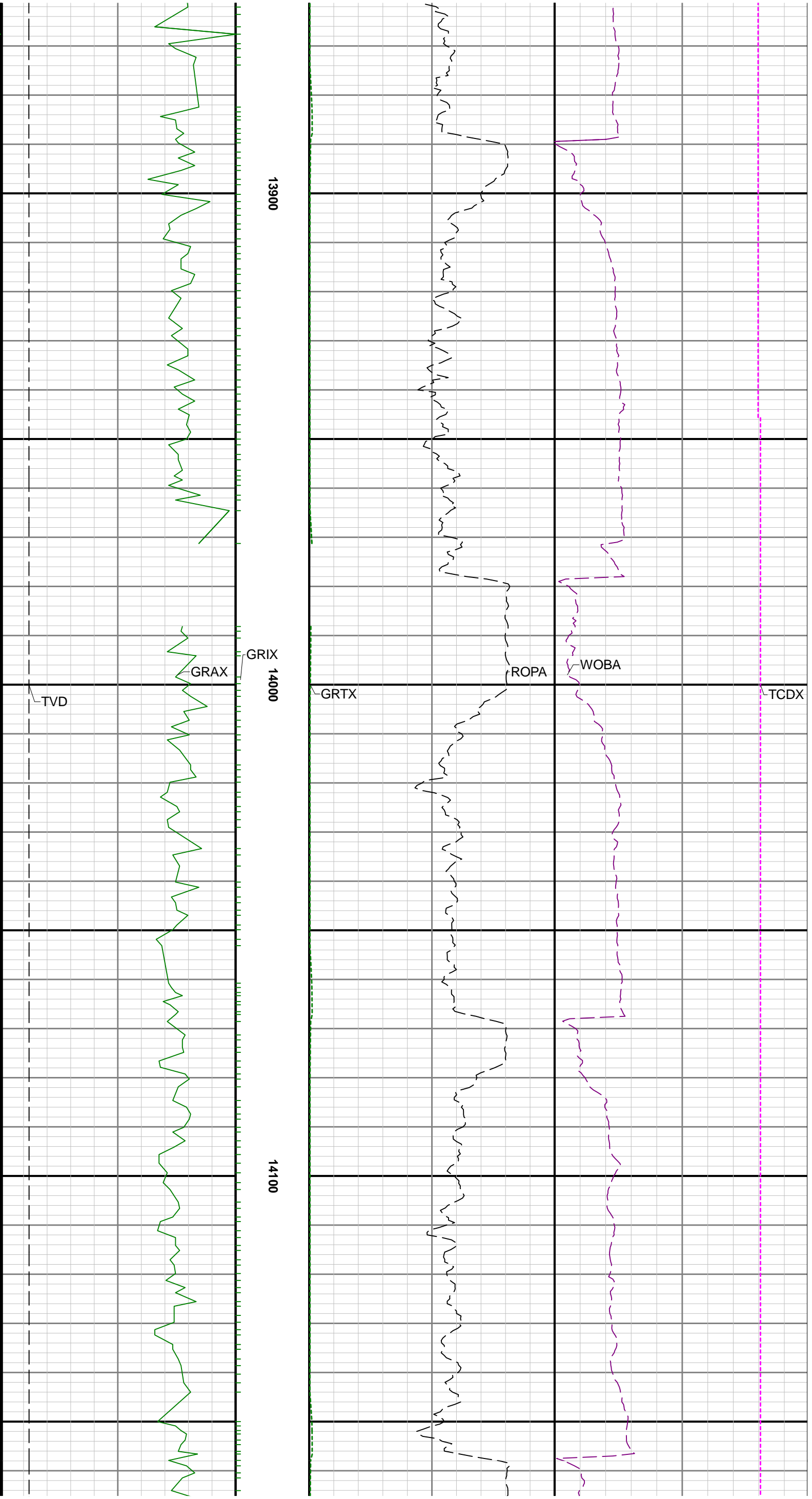


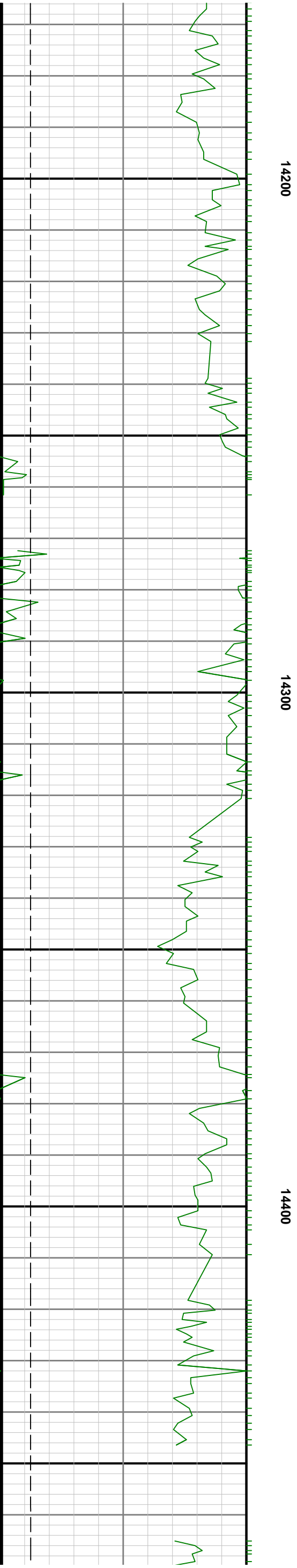
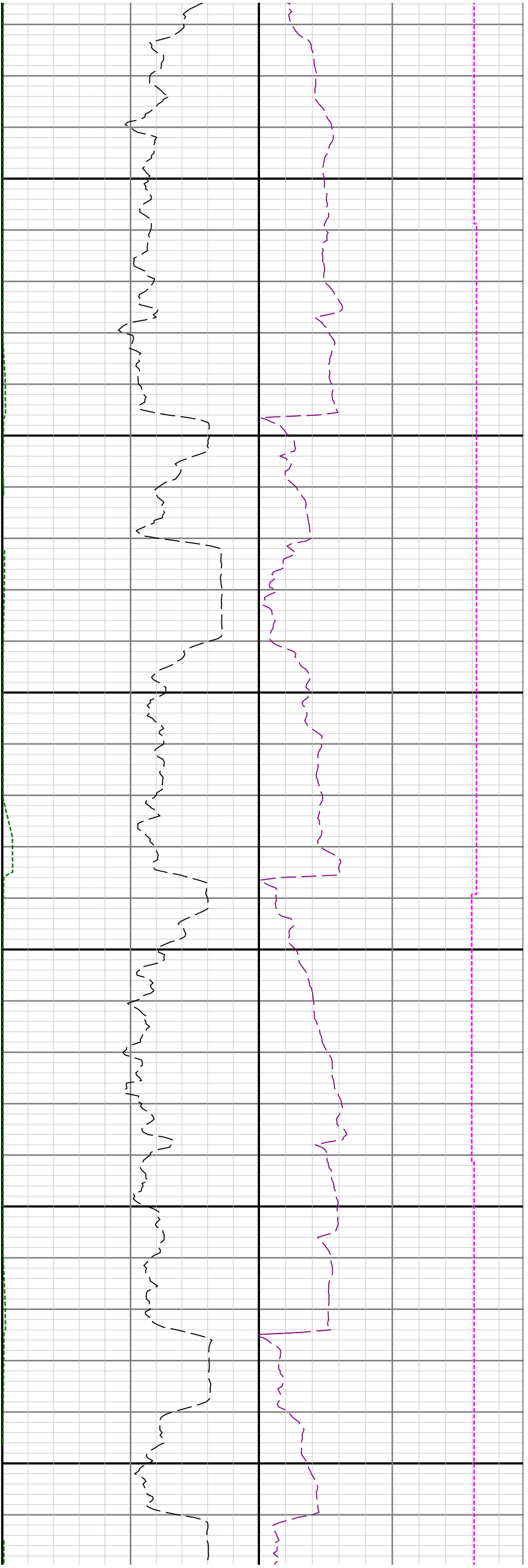


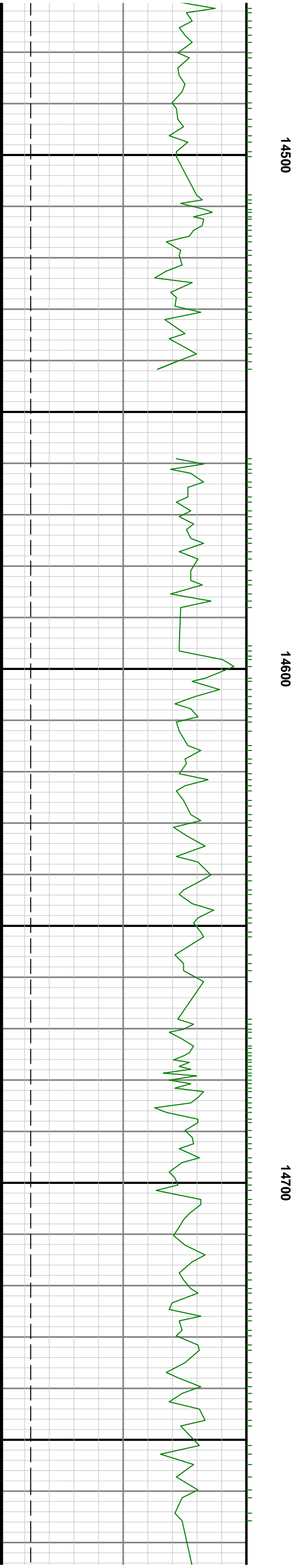


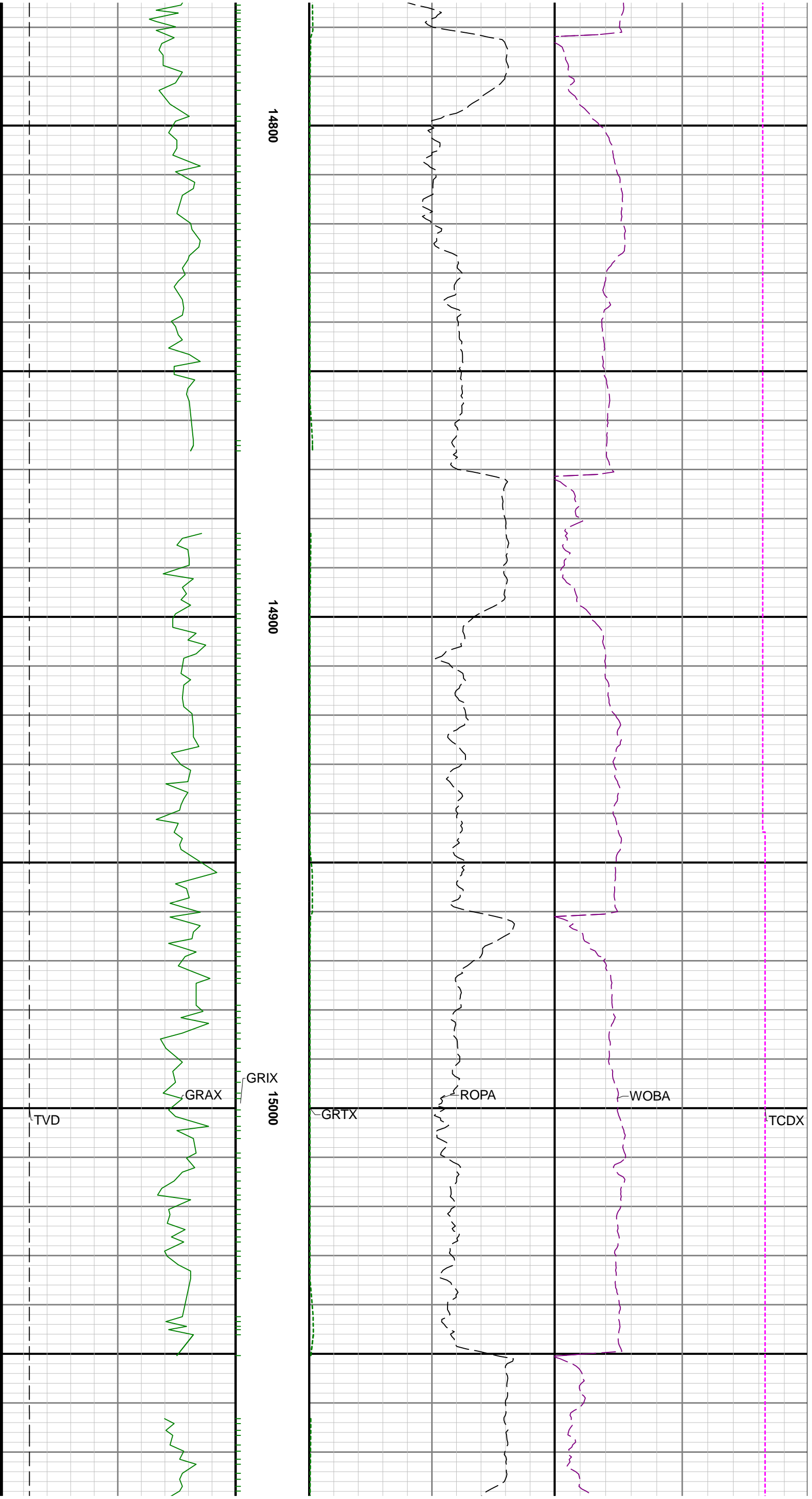


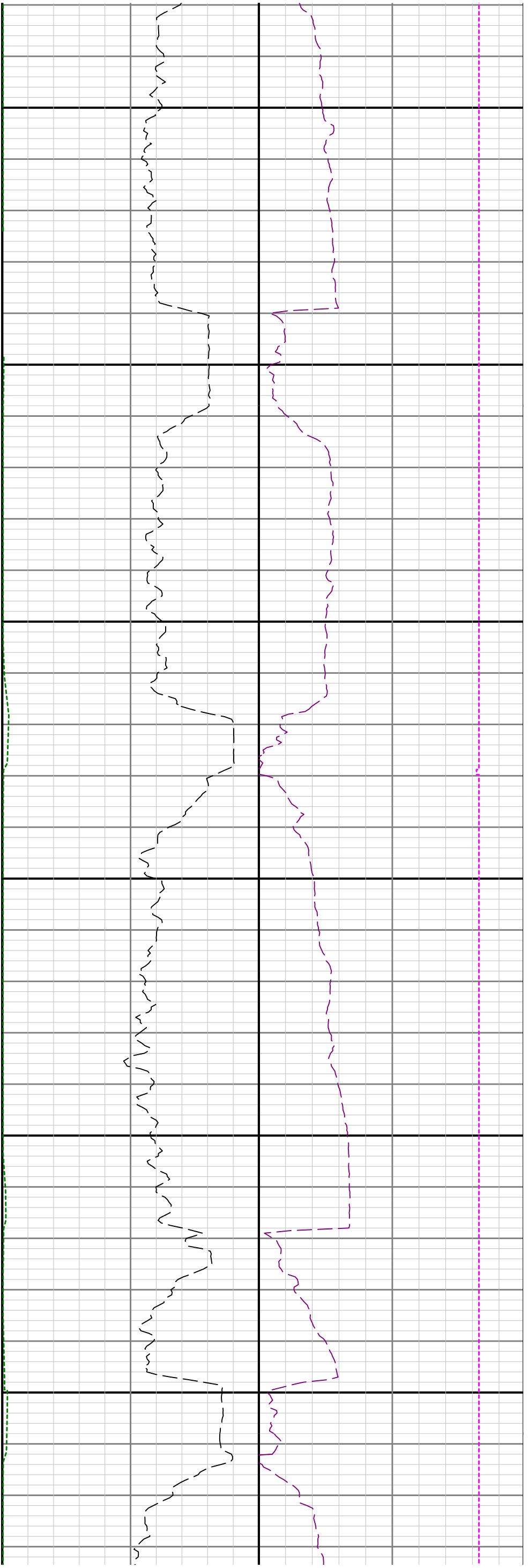












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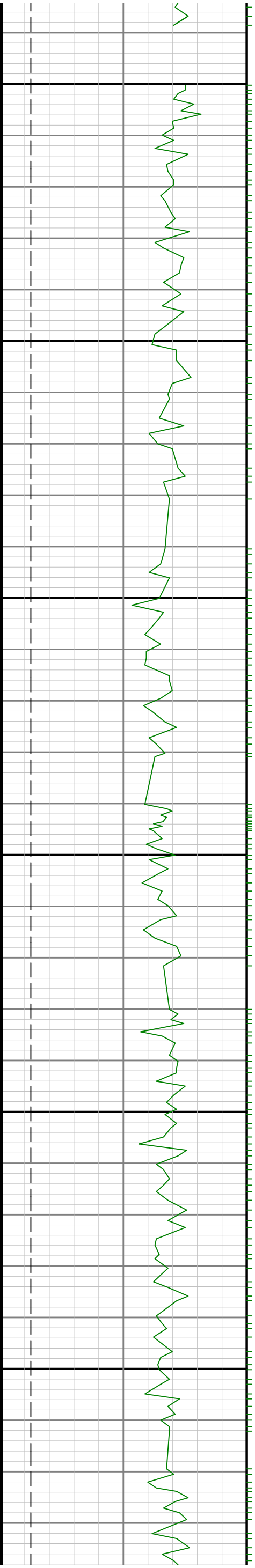
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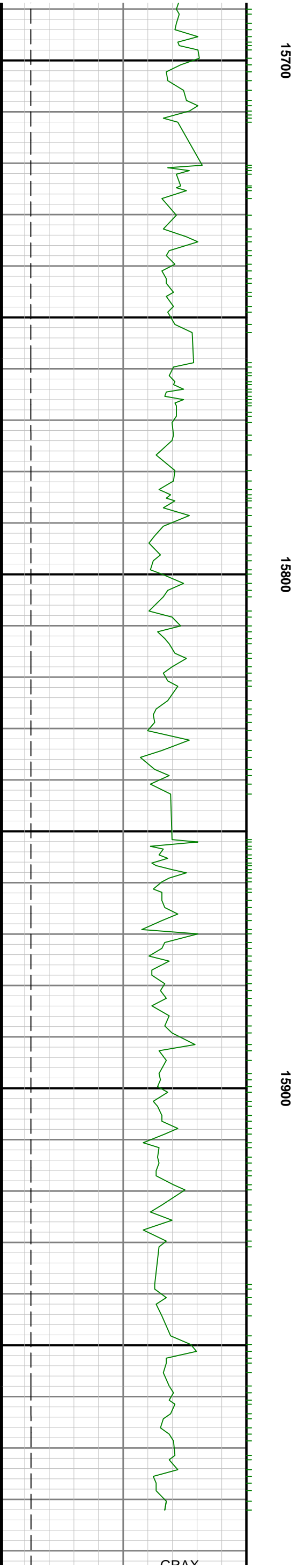
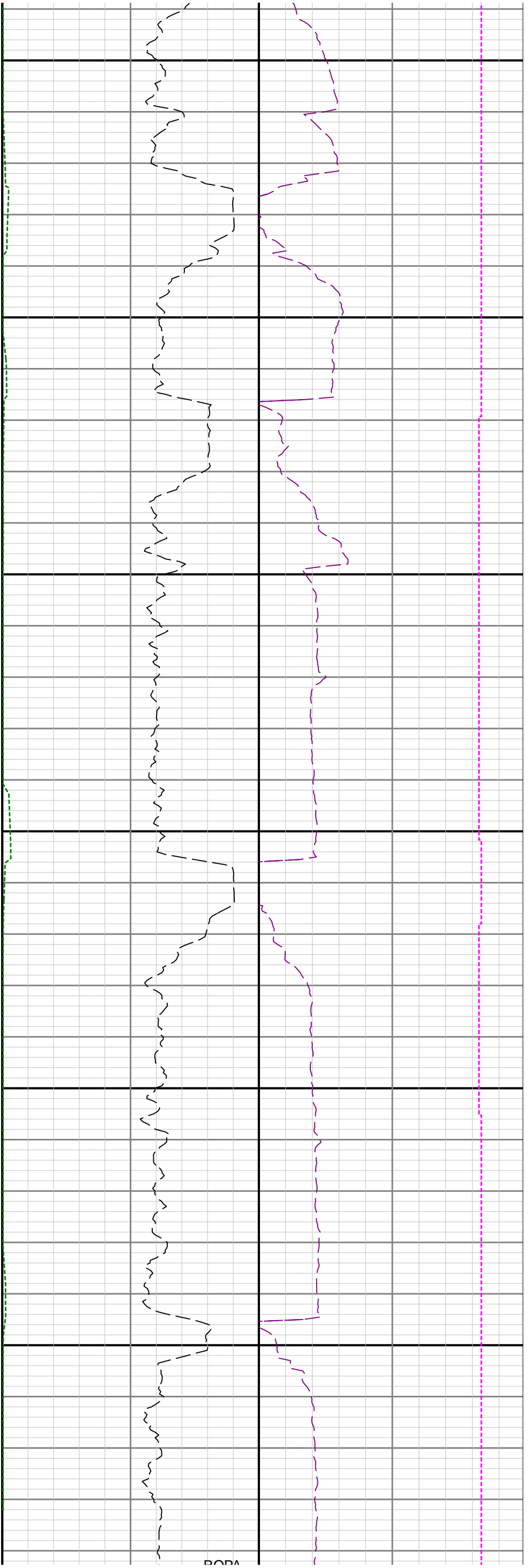


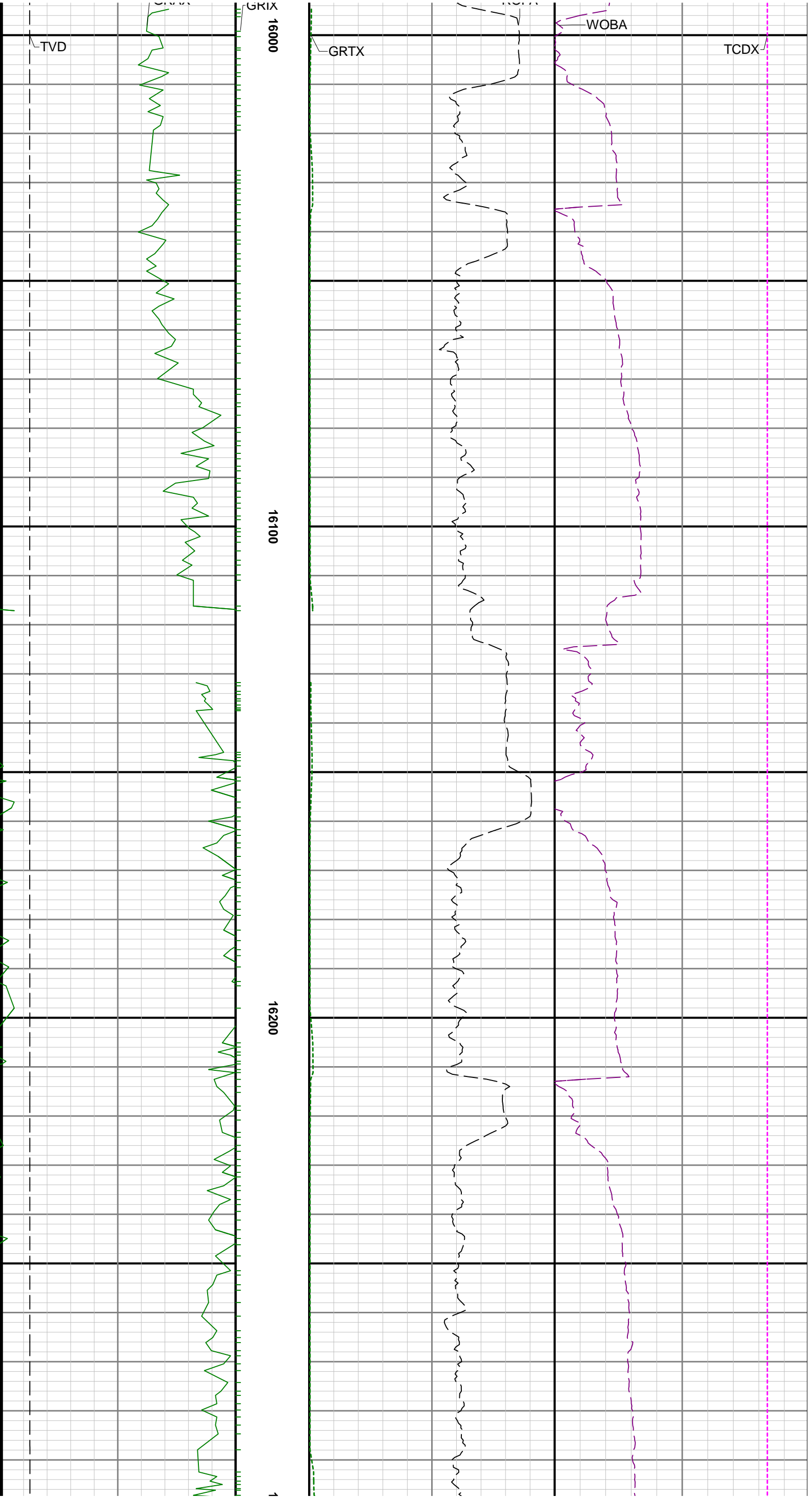
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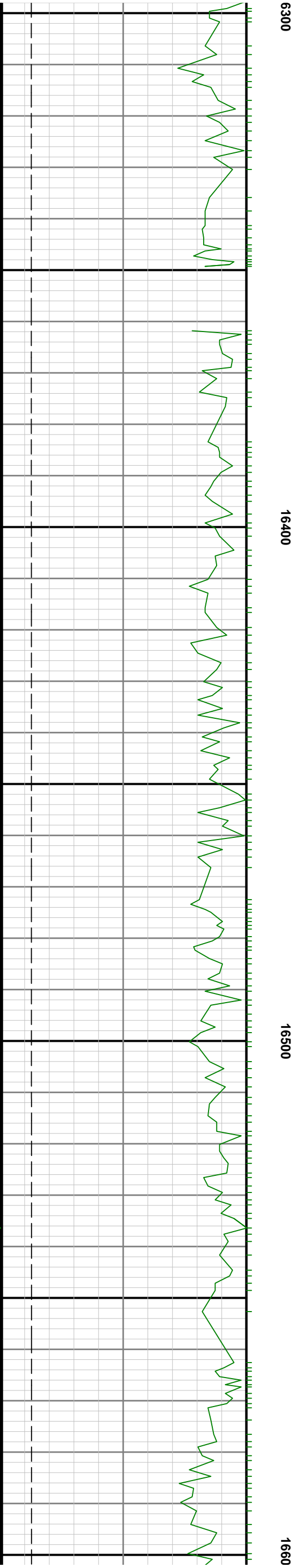
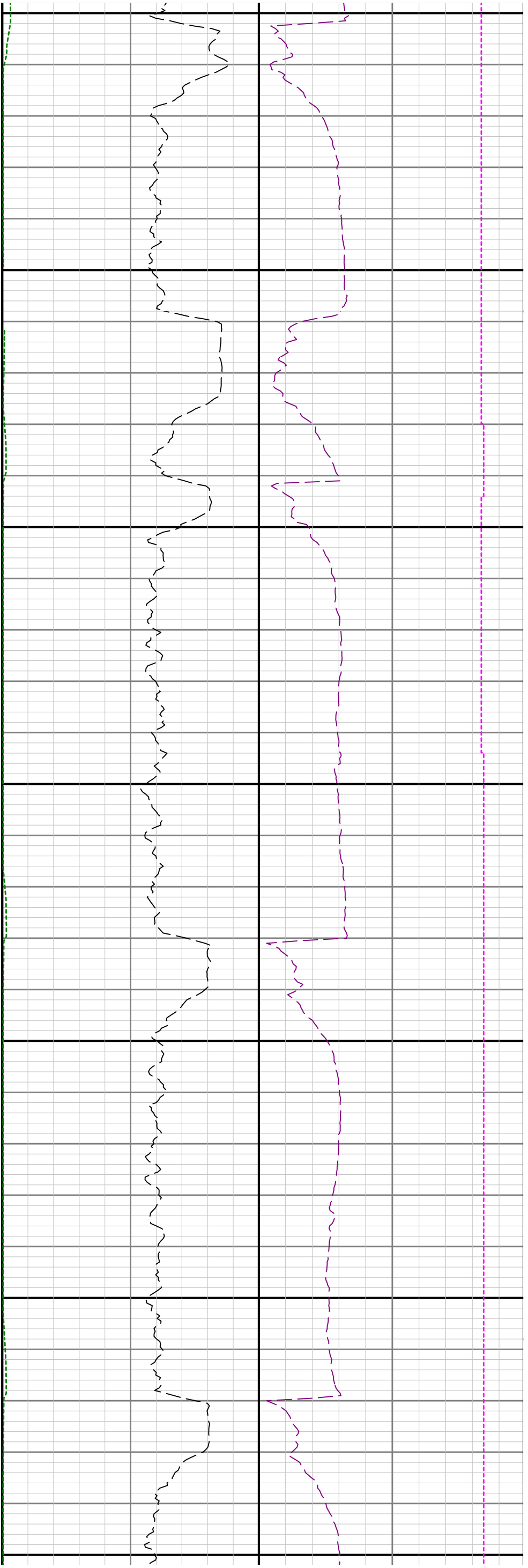
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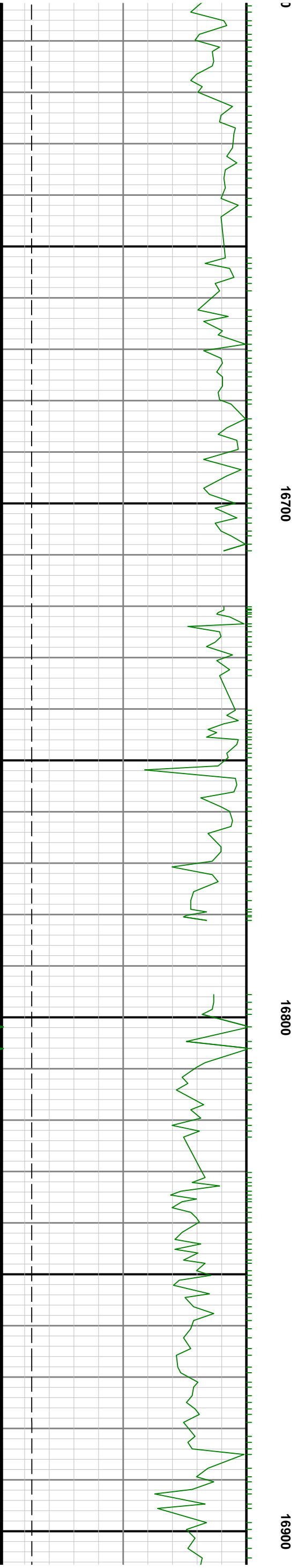
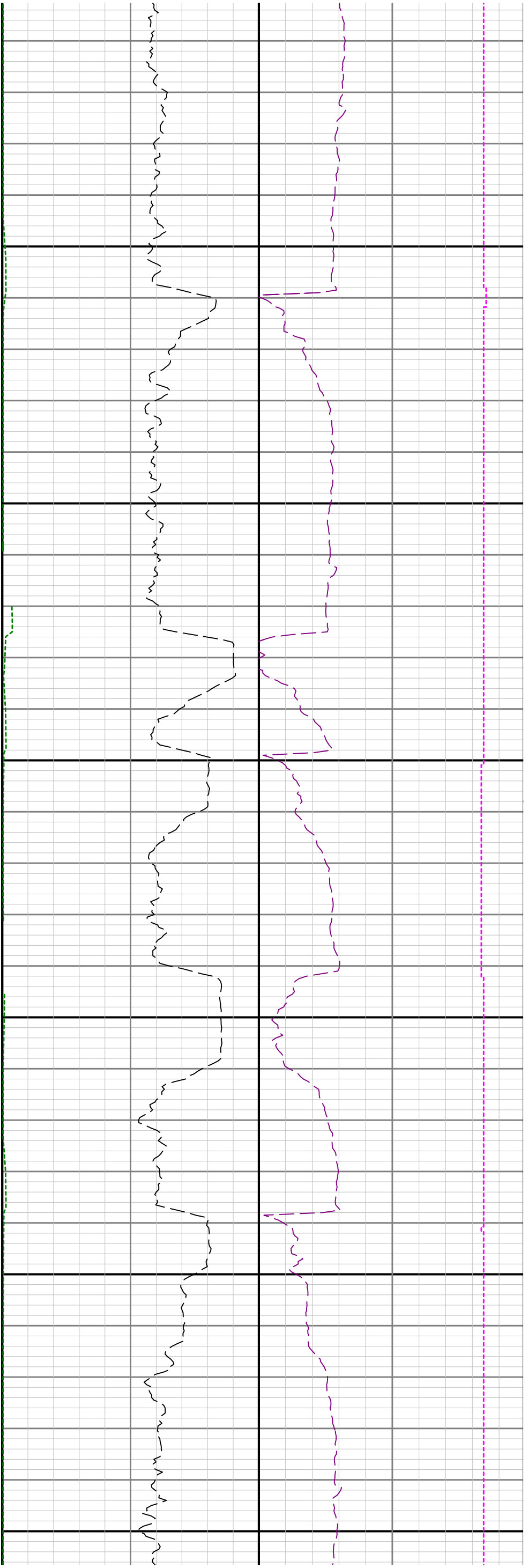
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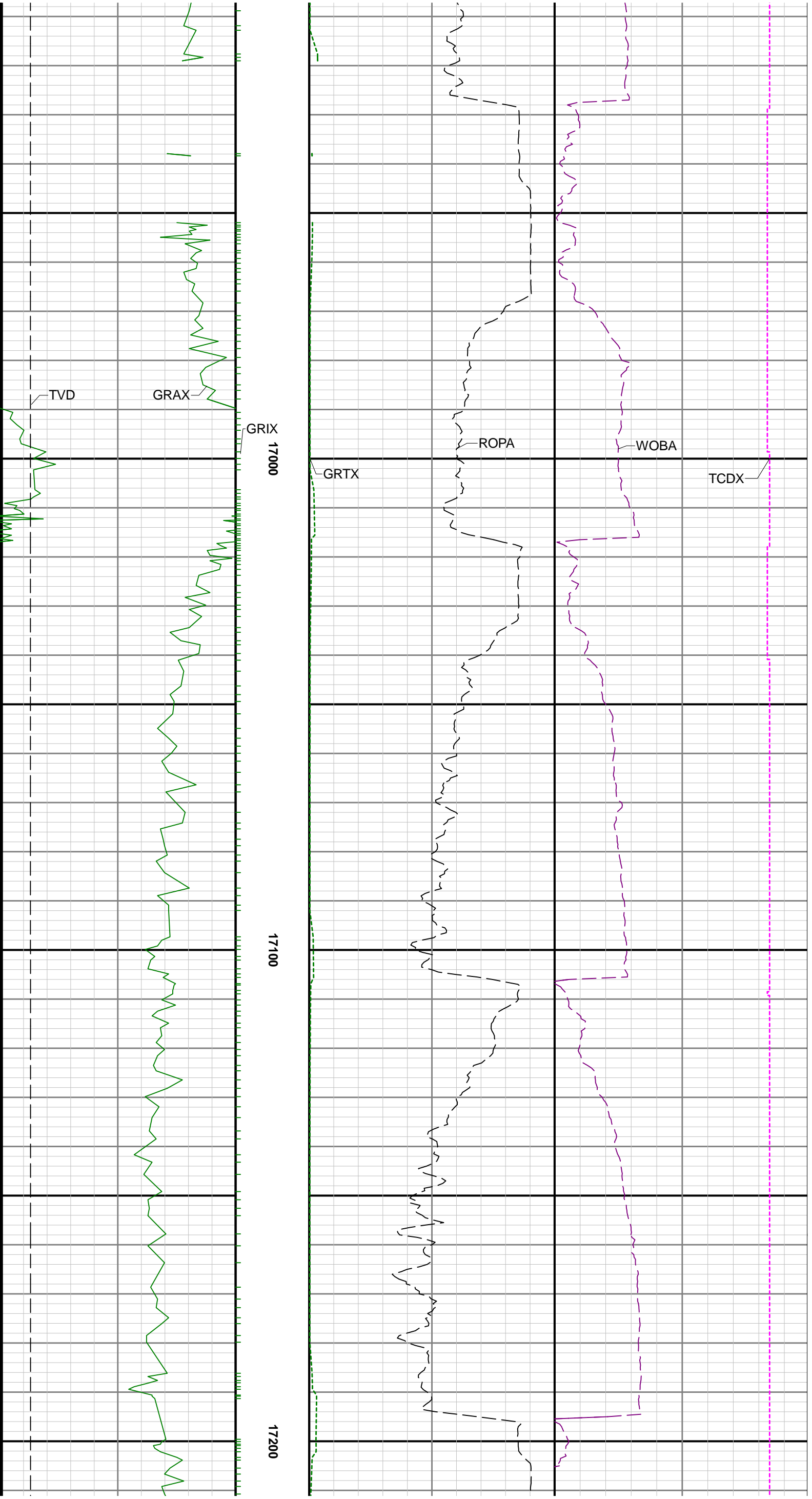


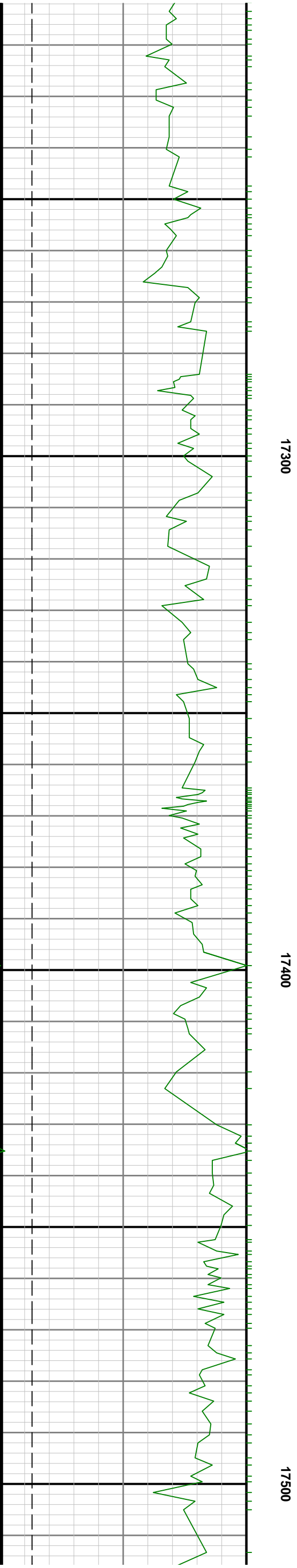


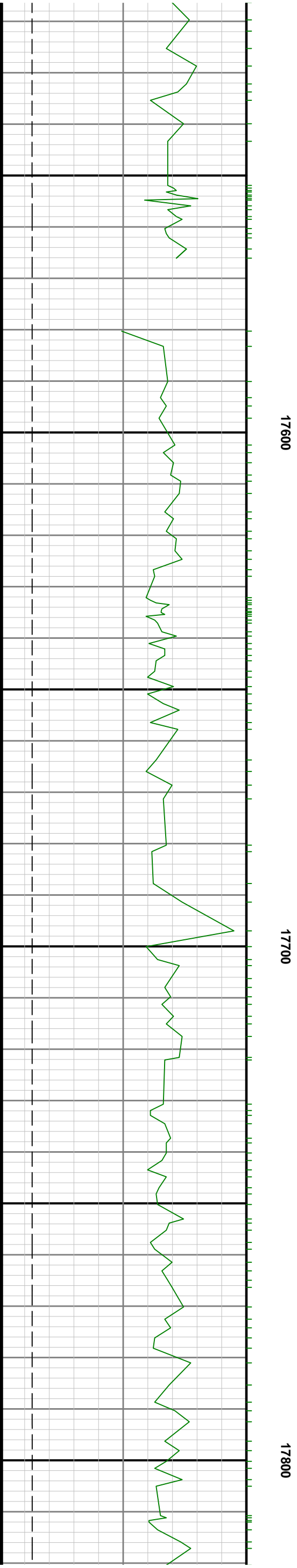
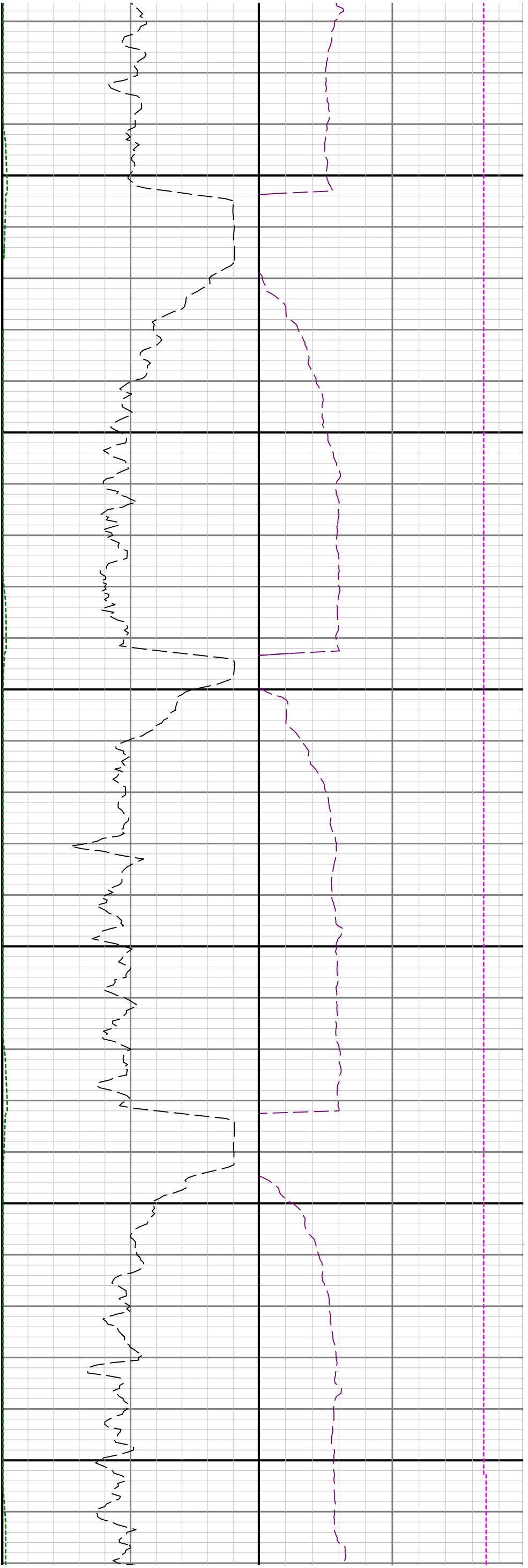


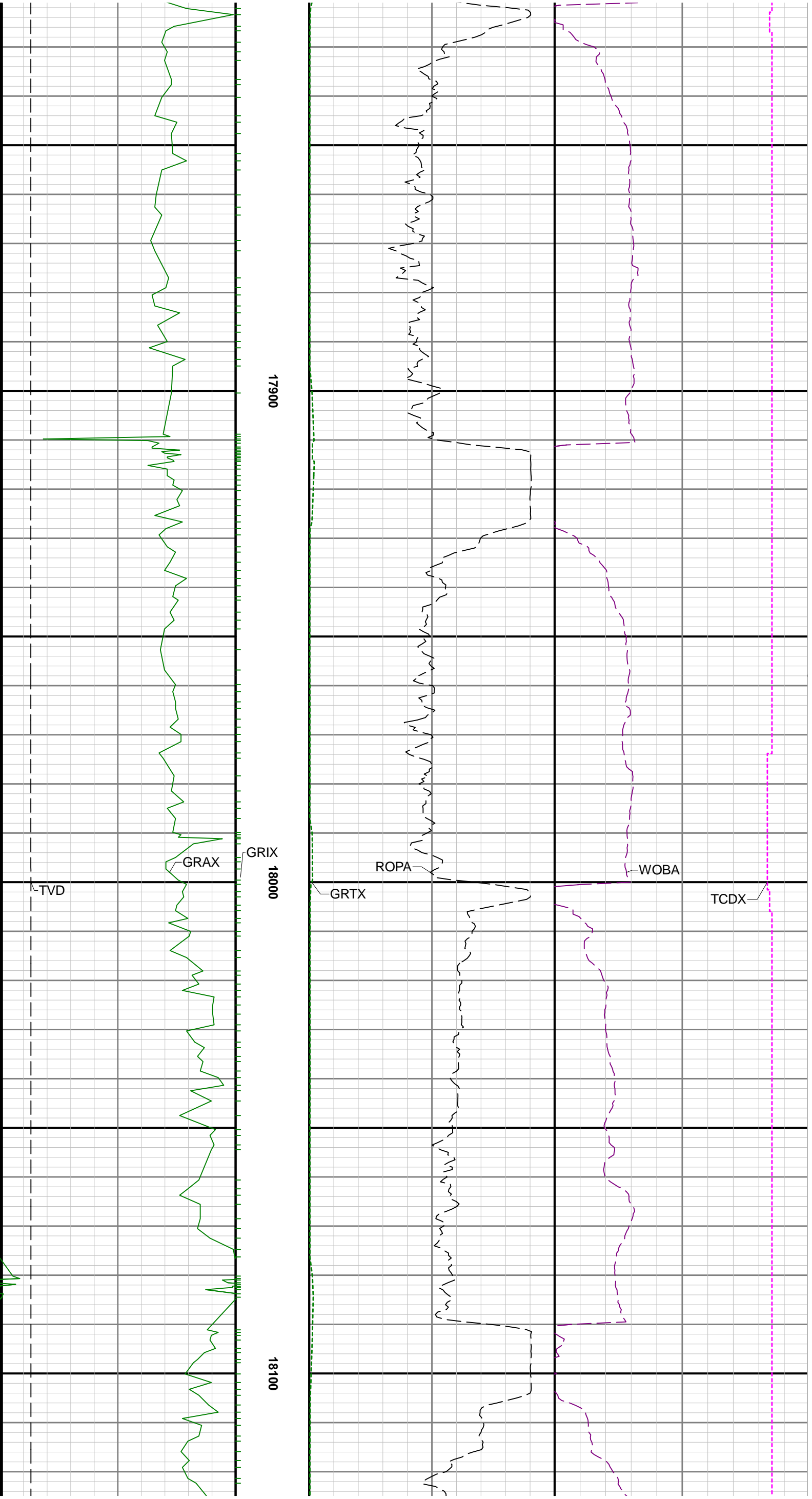


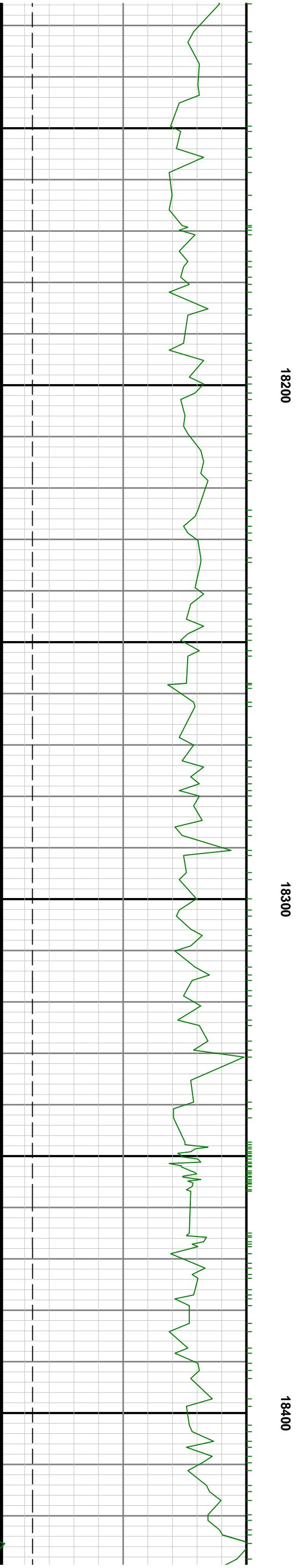
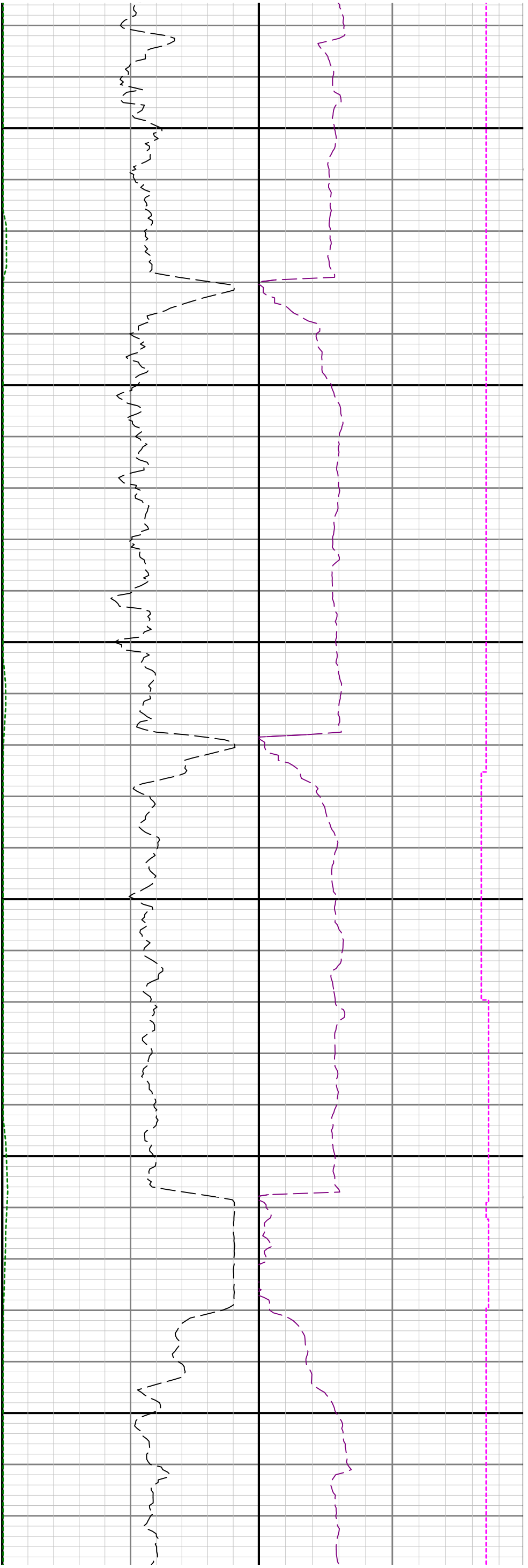


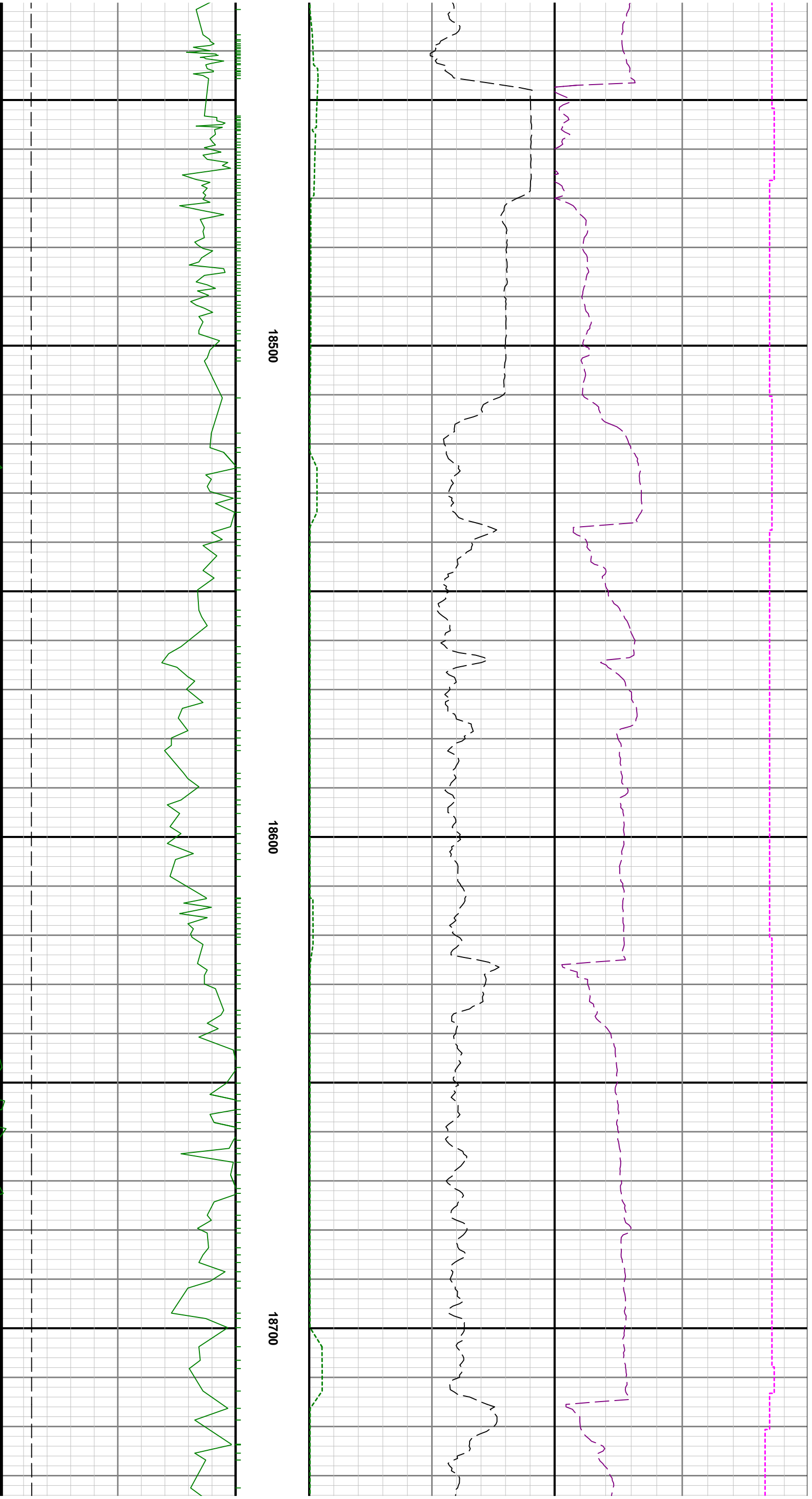


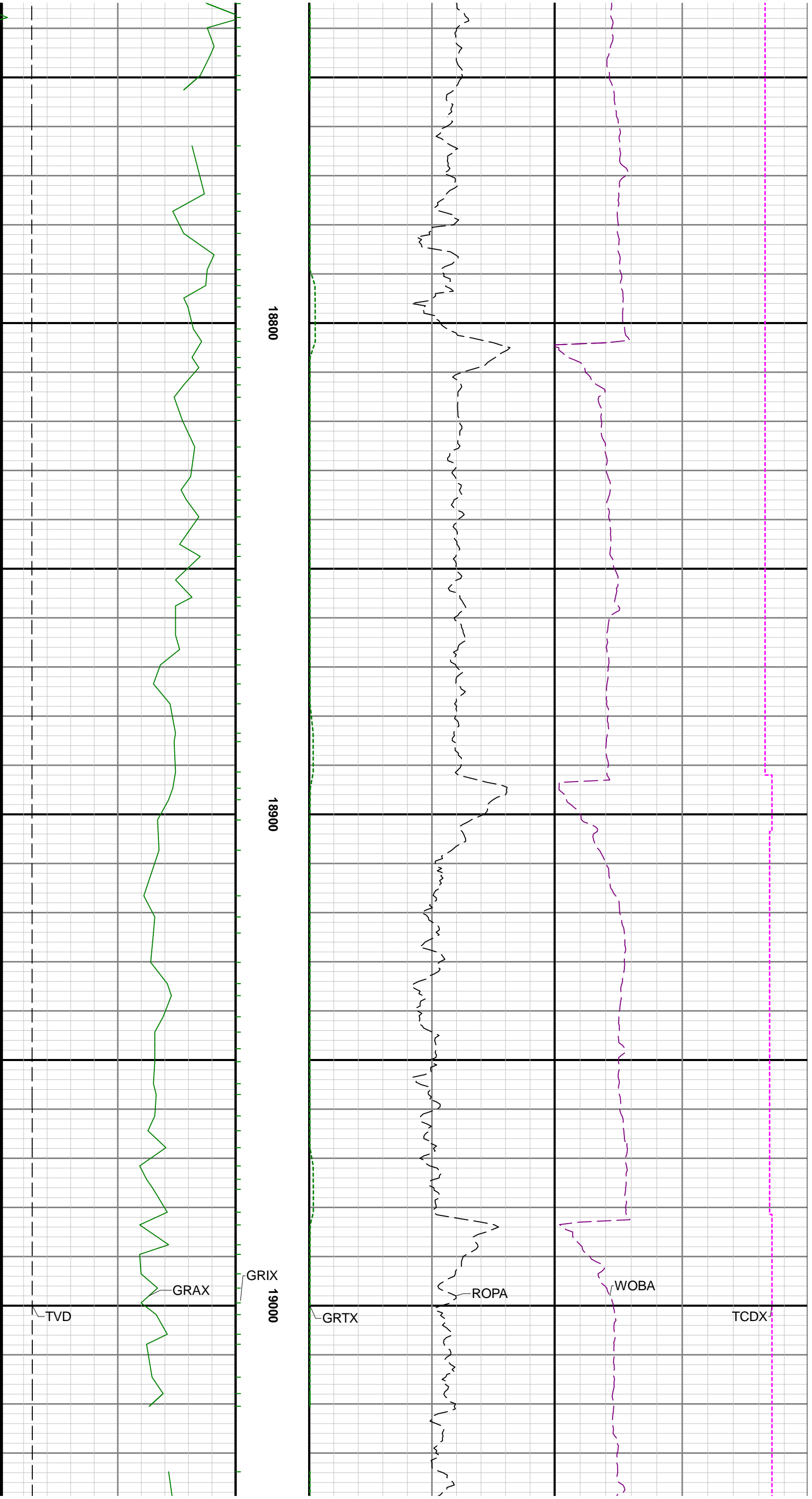


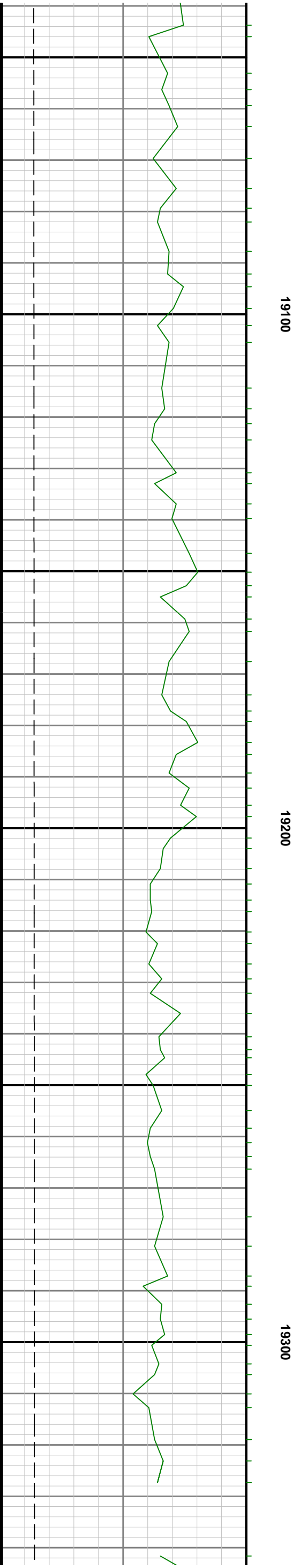
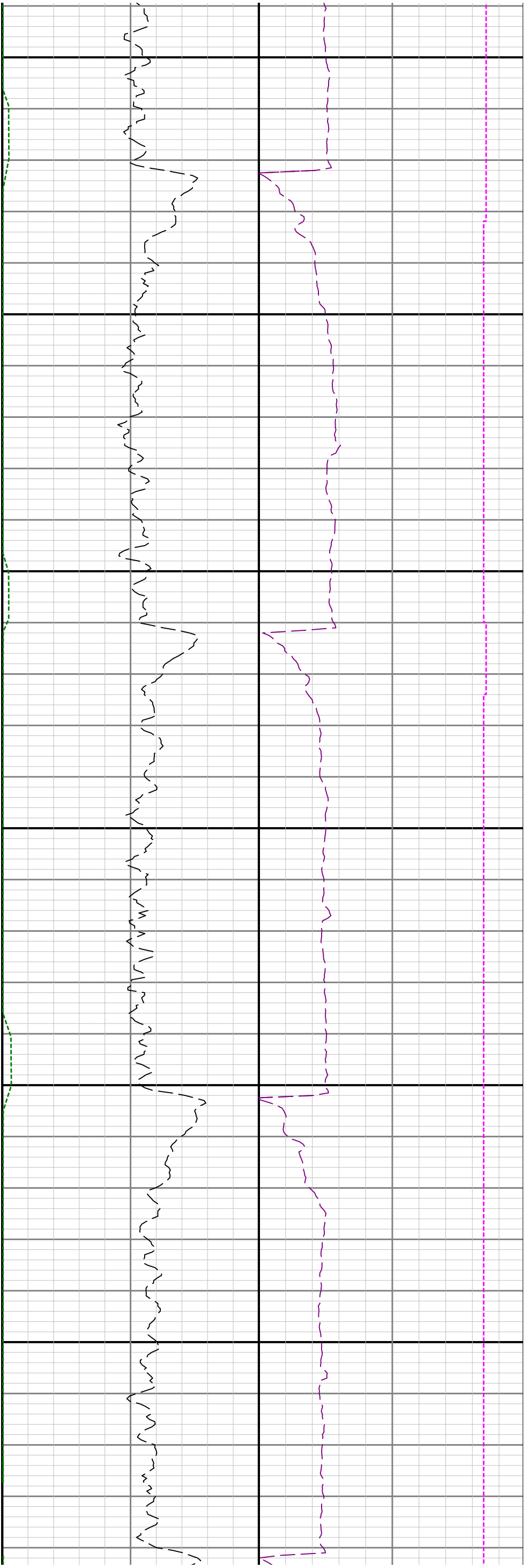










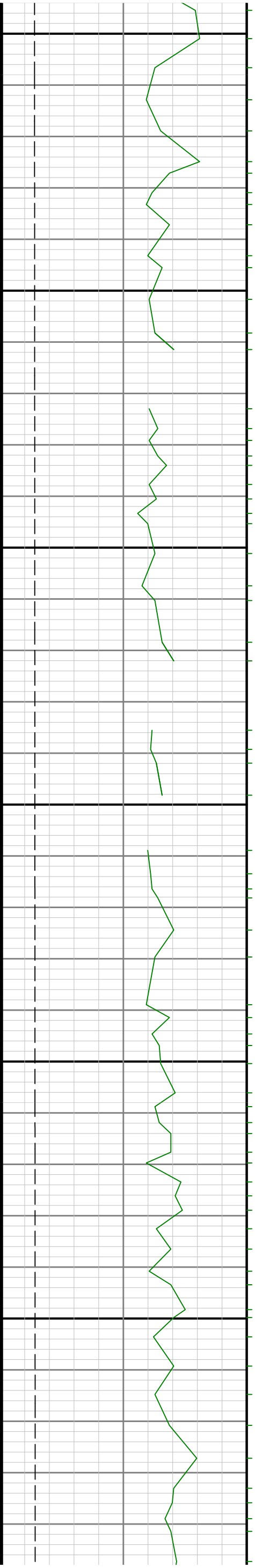




19400

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19700

19800

19900



