

Crew								
Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite
Eugene Igwe	2017-09-30	2017-10-03	Remote Operations Team	2017-09-30	2017-10-03			

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+ (%)
2017-09-30 07:37	2	1678.24	Oil Based Mud	9.1	48	N/A	11.0	72/28	Active Pit	30888	0.00
2017-10-01 13:47	2	6096.00	Oil Based Mud	9.1	45	N/A	10.8	74/26	Active Pit	30888	0.00
2017-10-02 06:46	2	8688.90	Oil Based Mud	9.2	46	N/A	10.8	74/26	Active Pit	28958	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	NaviTrak	12366178	Directional (mag)	16.00	52.09	8.000	3.250	
1	NaviTrak	12366178	VSS	16.00	52.09	8.000	3.250	
2	ATC_SU	14279933	Near Bit Inclination	5.93	6.93	7.000	4.330	
2	ATC_SU	14279933	Near Bit VSS	5.93	6.93	7.000	4.330	
2	ATC_MWD	12070163	Gamma (single)	2.73	13.10	7.000	3.250	
2	ATC_MWD	12070163	Directional (mag)	12.27	22.64	7.000	3.250	



Service and Tool Mnemonics		
Mnemonic	Name	Description
NTK	NaviTrak	Probe Based Directional Module, NaviTrak Platform
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

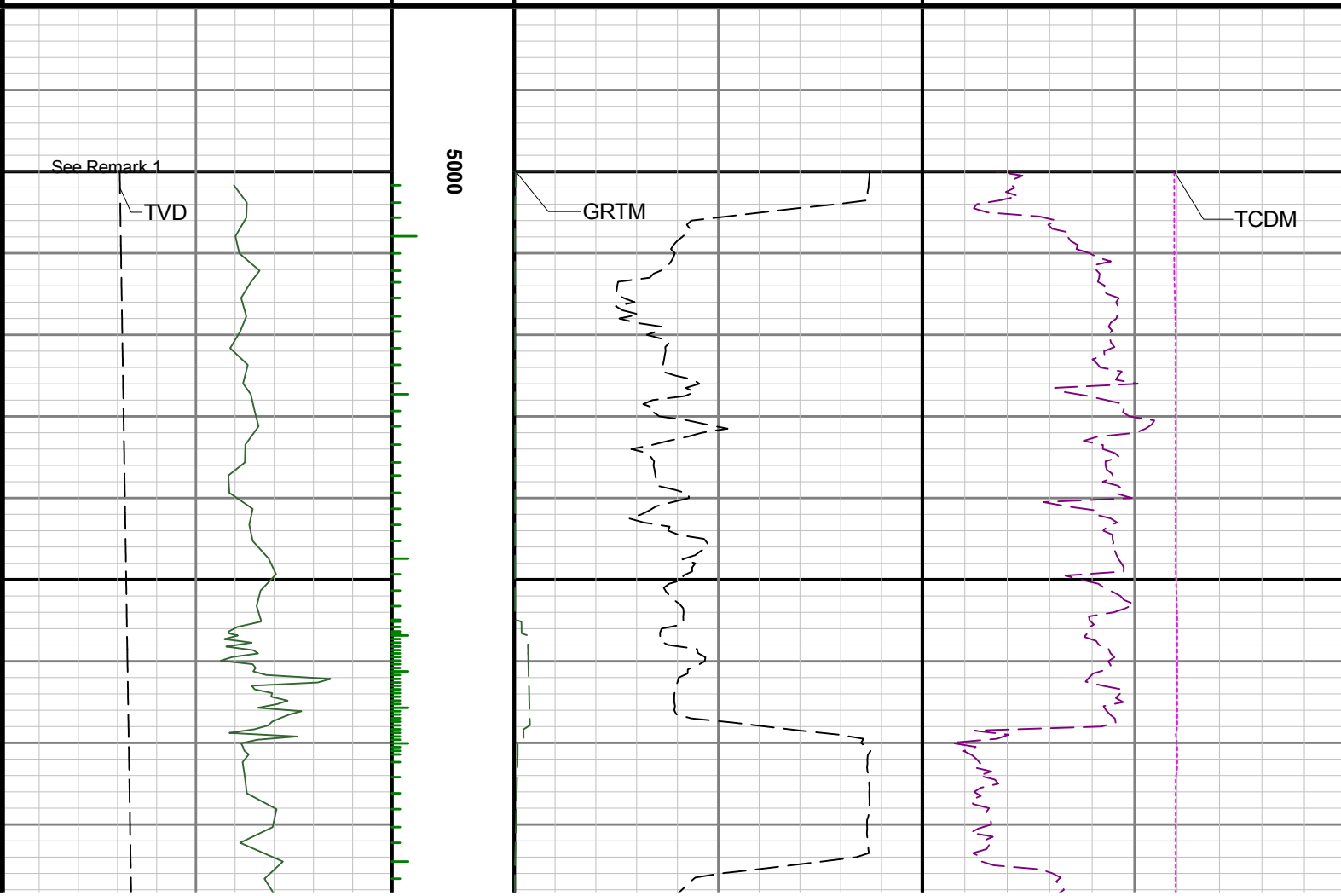
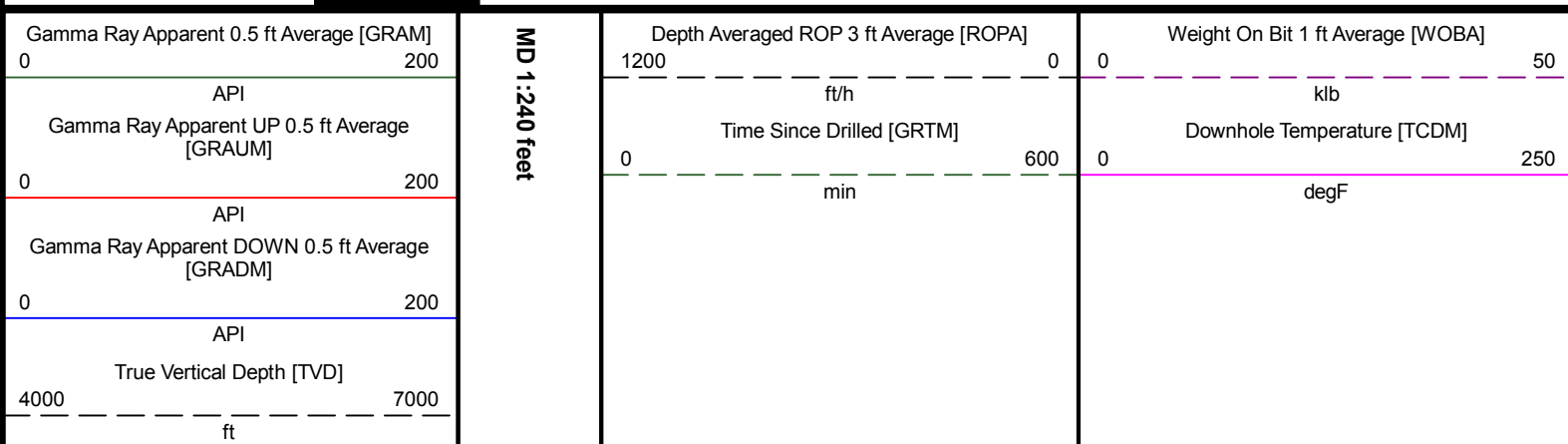
Comments	
1	Baker Hughes LWD Run 2 utilized 6 3/4 inch Navigamma services (Gamma Ray and Directional) behind an 8 1/2 inch bit and rotary steerable assembly from 1678 to 11015 feet MD (1672 to 6437 feet TVD).
2	Depth measurements were obtained from a depth control system not supplied or operated by Baker Hughes. Due to lack of control by Baker Hughes logging engineers, depth calibrations and measurements could not be independently verified.

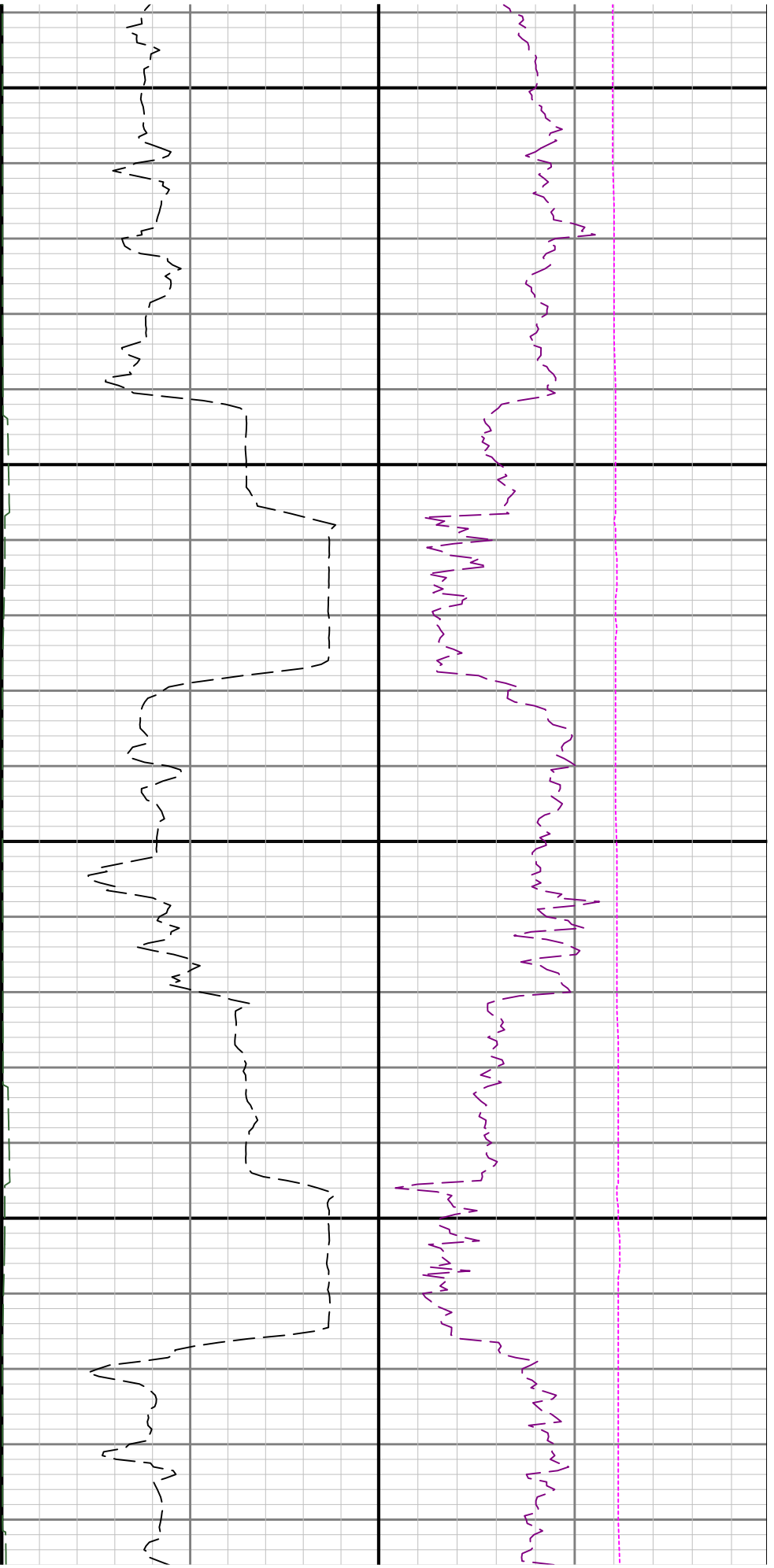
Remarks				
Number	Measured Depth (ft)	Hole Section (in)	Run No.	Remark
1	5000.00	8.500	2	Baker Hughes LWD began logging services at 5000 feet MD (4917 feet TVD) per client request.
2	11002.00	8.500	2	The interval from 11002 to 11015 feet MD (6437 feet TVD) was not logged due to sensor to bit offset 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	OnTrak - Gamma Ray - Apparent - Memory 0.5 ft Average	API
GRIM	OnTrak - Gamma Ray - Data Point Indicator - Memory	unitless
GRTM	OnTrak - Gamma Ray - Time Since Drilled - Memory	min
GRADM	OnTrak - Gamma Ray - Apparent - Down Quadrant - Memory 0.5 ft Average	API
GRAUM	OnTrak - Gamma Ray - Apparent - Up Quadrant - Memory 0.5 ft Average	API
TCDM	Downhole Temperature	degF

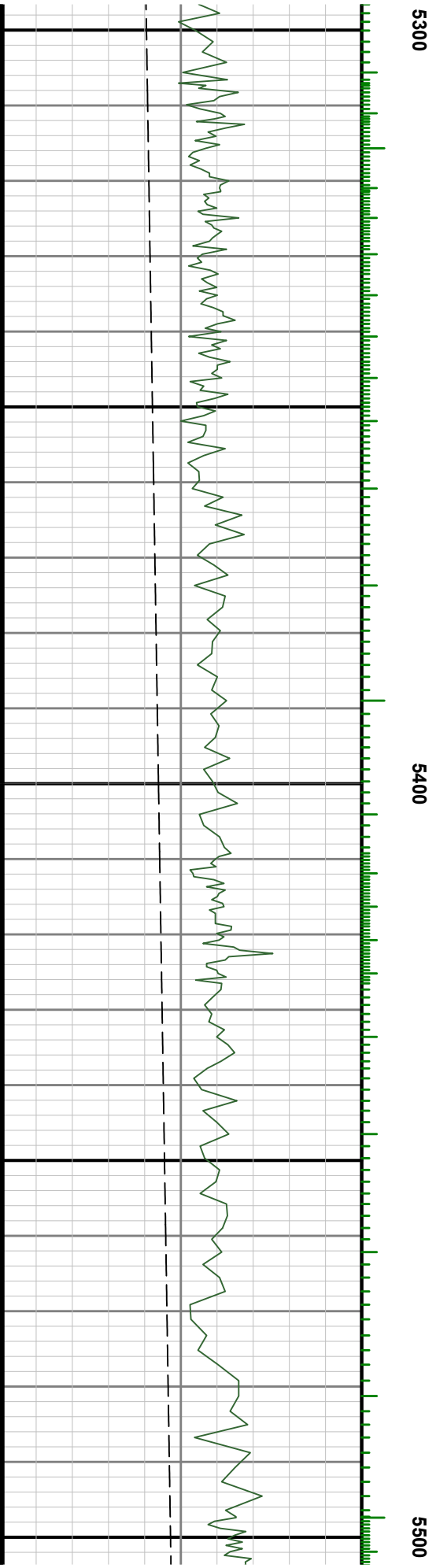
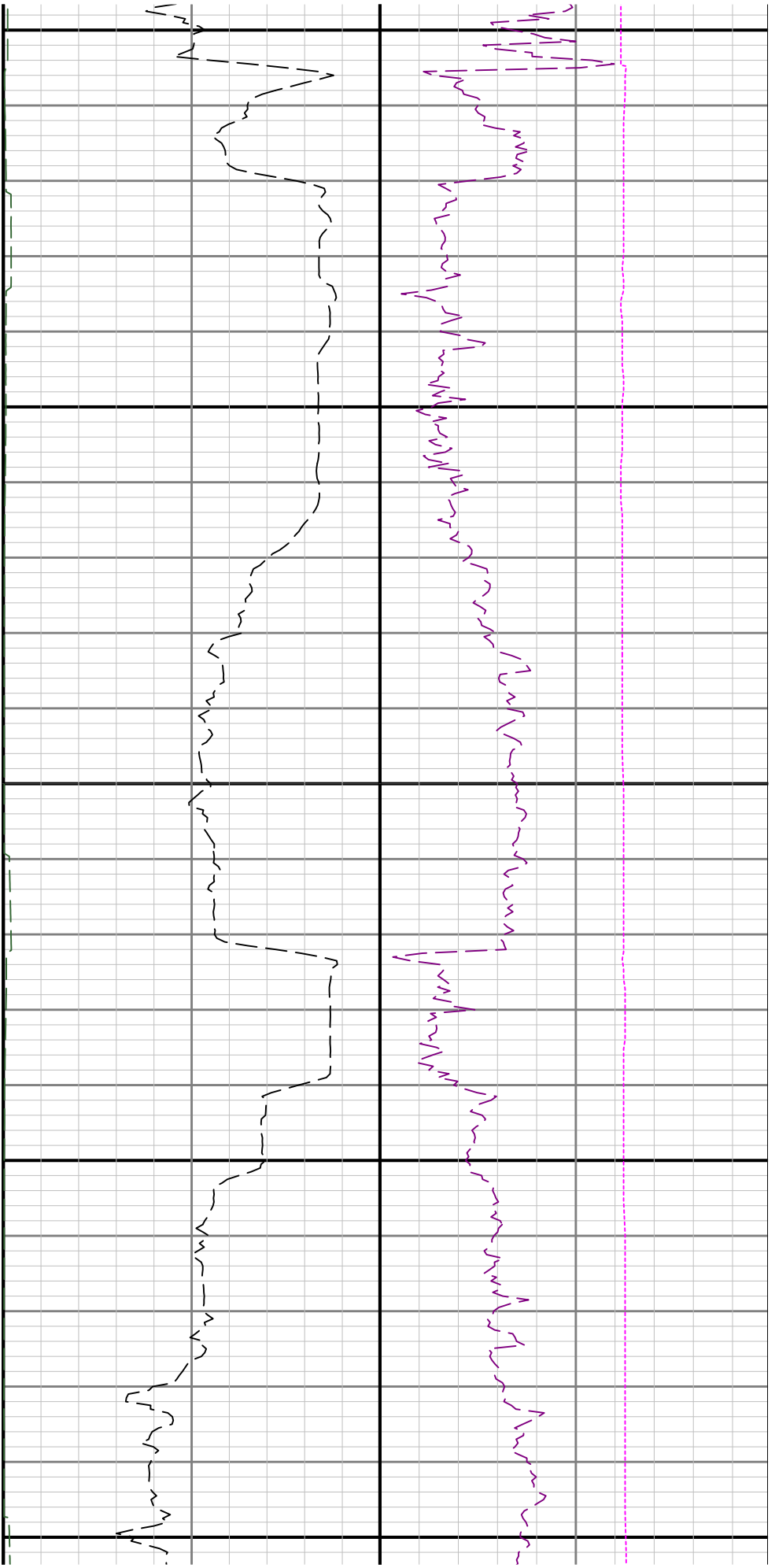
 	Company	Bonanza Creek Oil Company			
	Well	State North Platte A11-E14-26HNC			
	Interval	Date From:	2017-10-01 01:58:51	Top:	5000.00
	Created	Date To:	2017-10-02 12:32:30	Bottom:	11015.00
		2017-10-03 16:55:18			

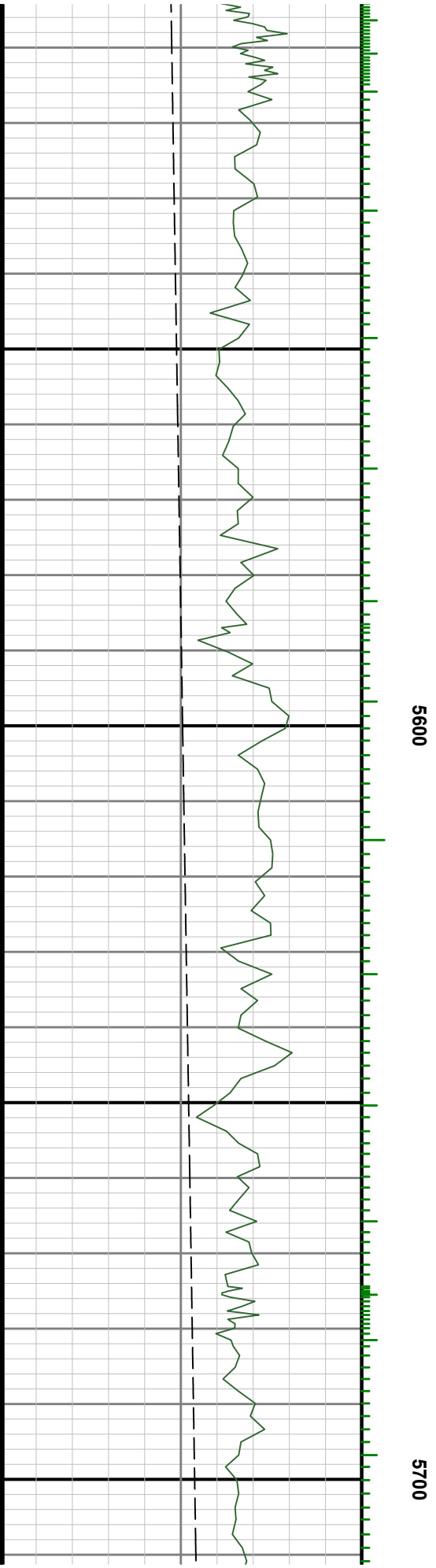
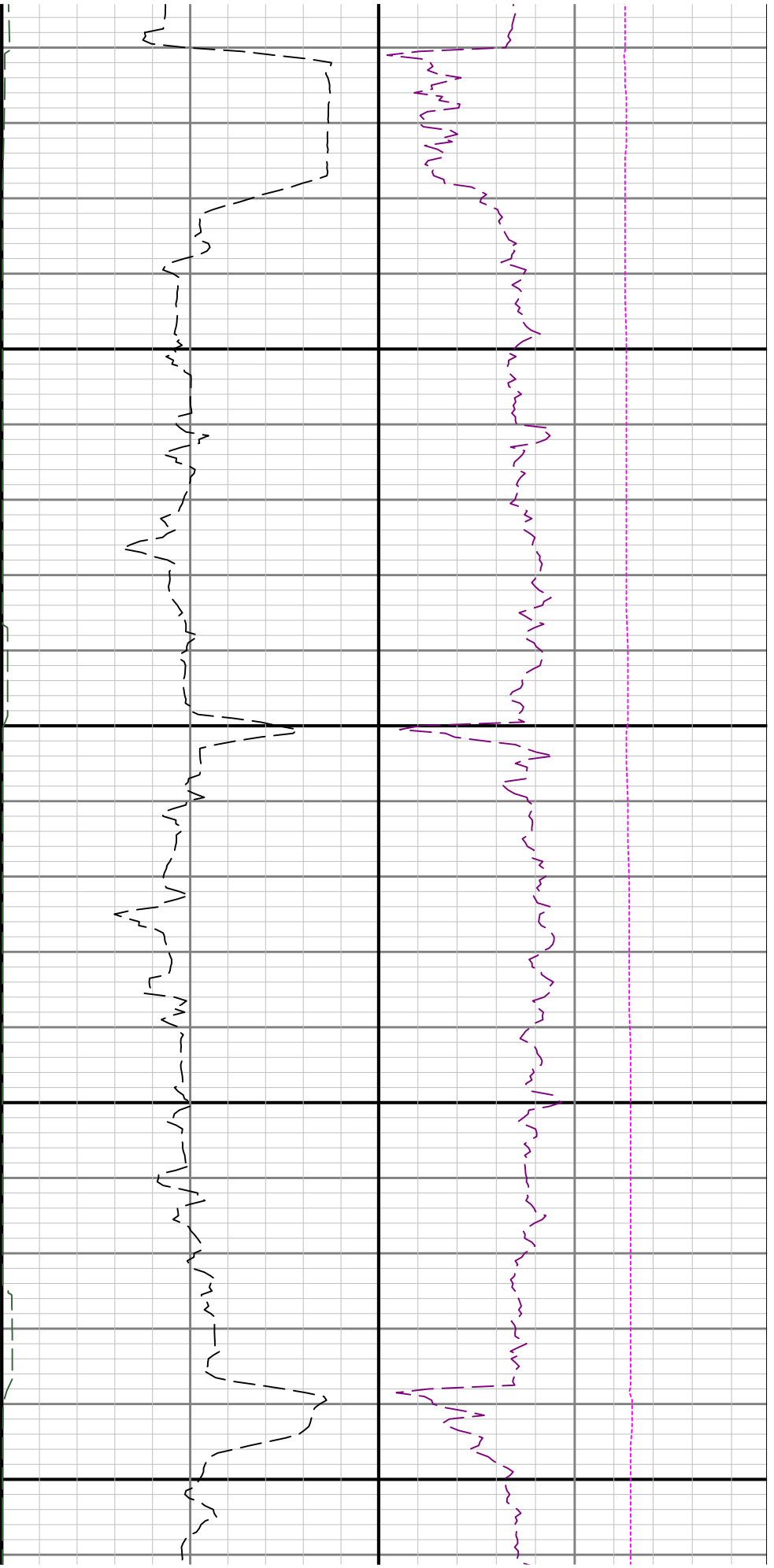


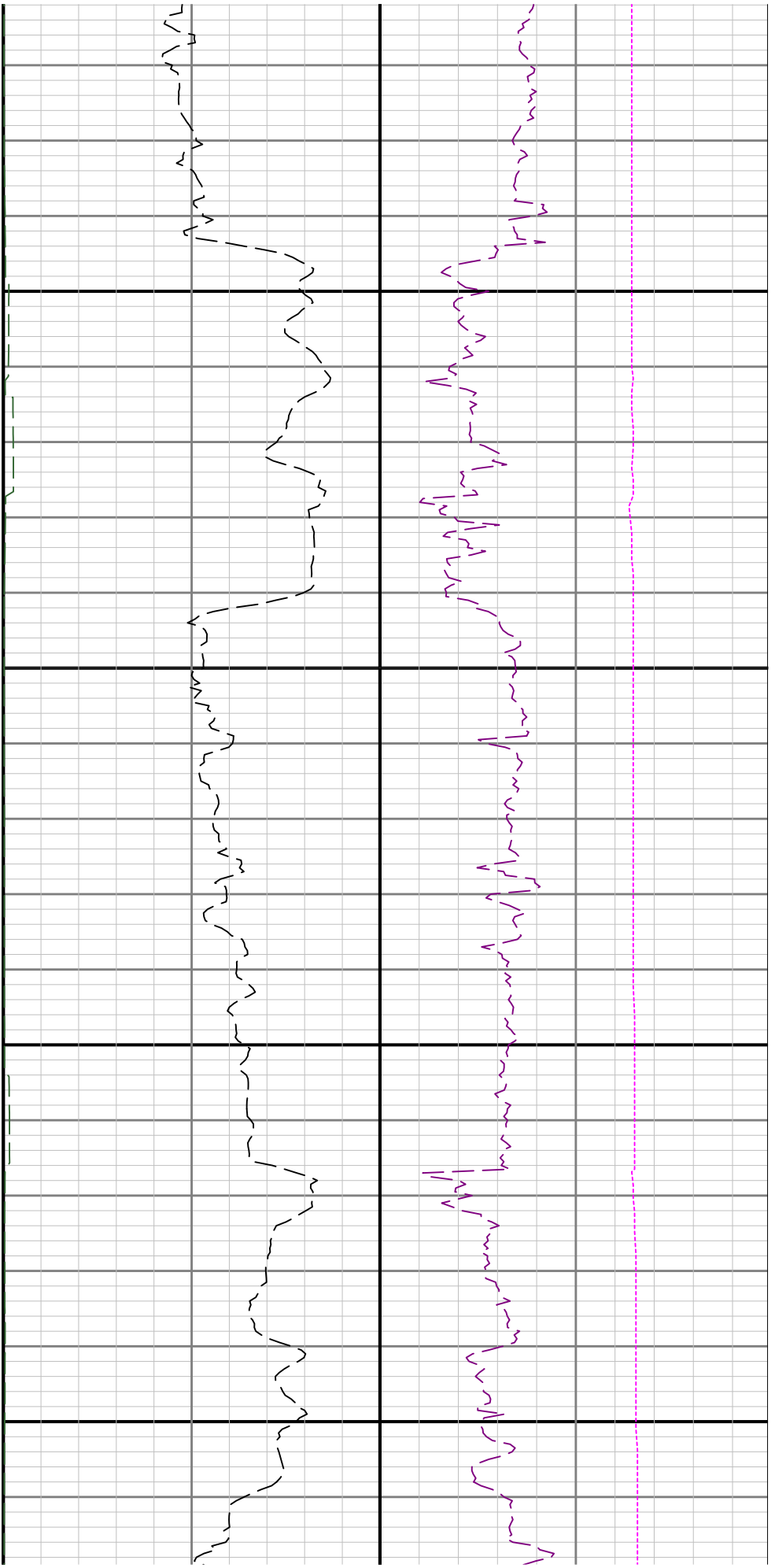


5100

5200

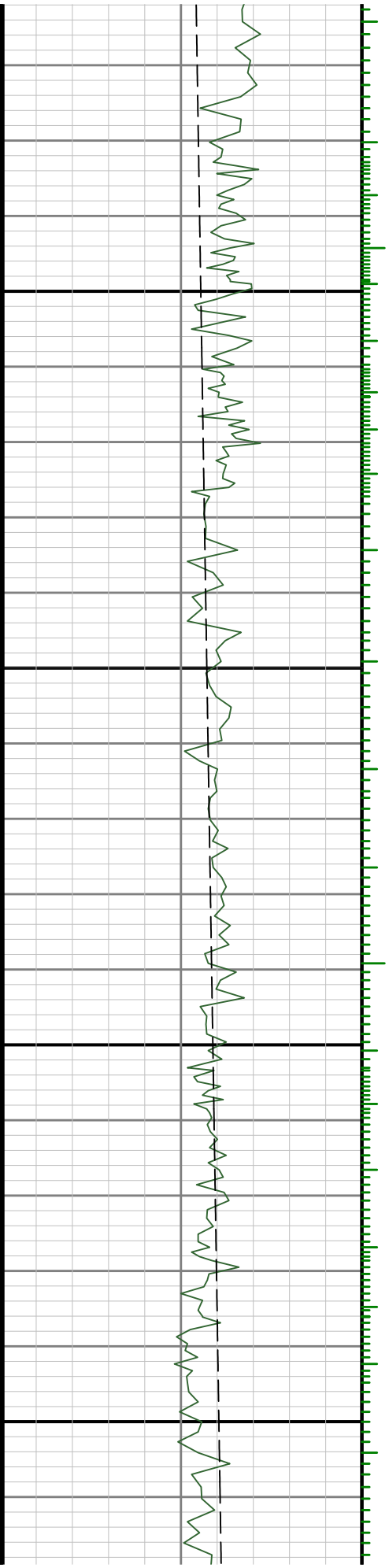


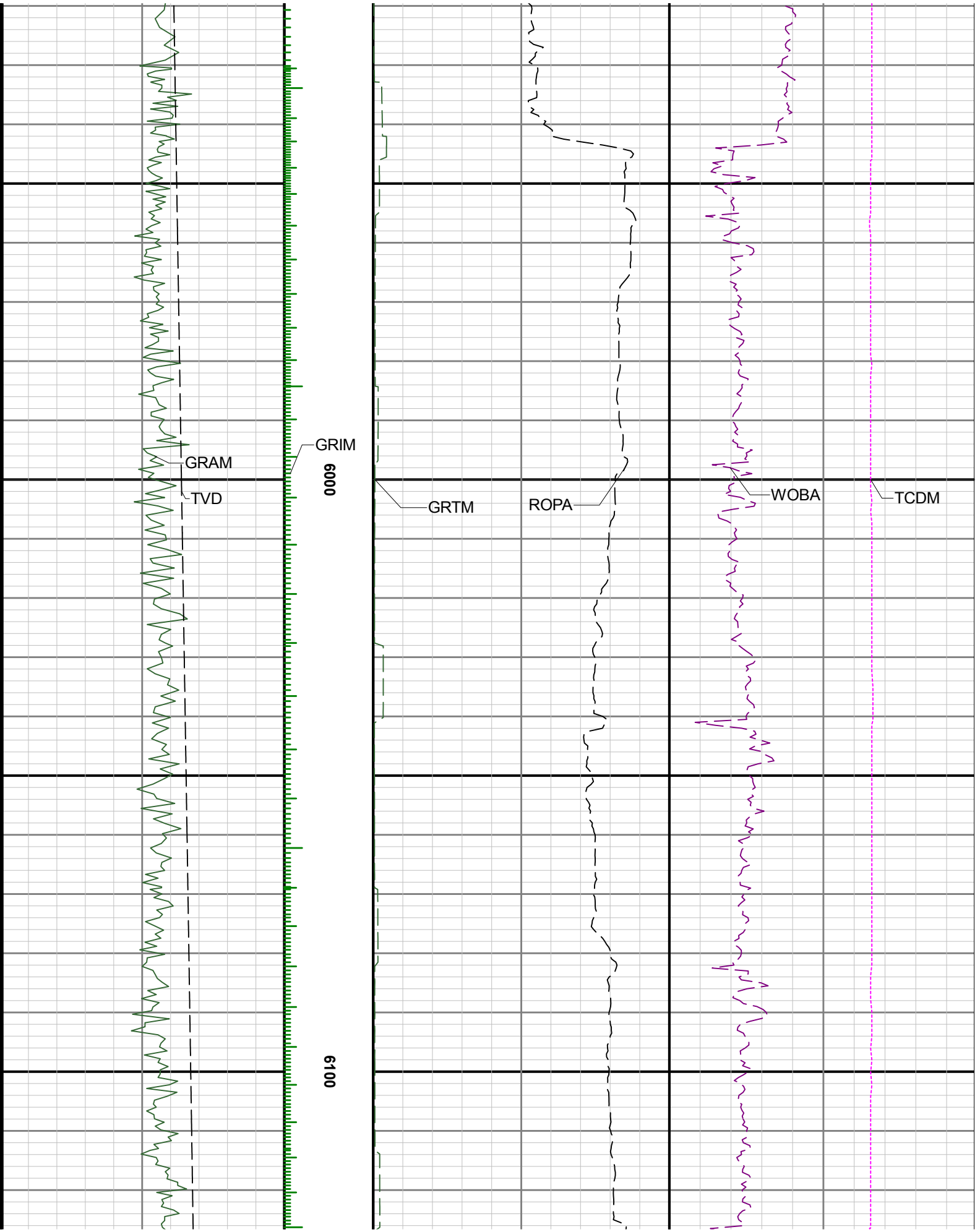


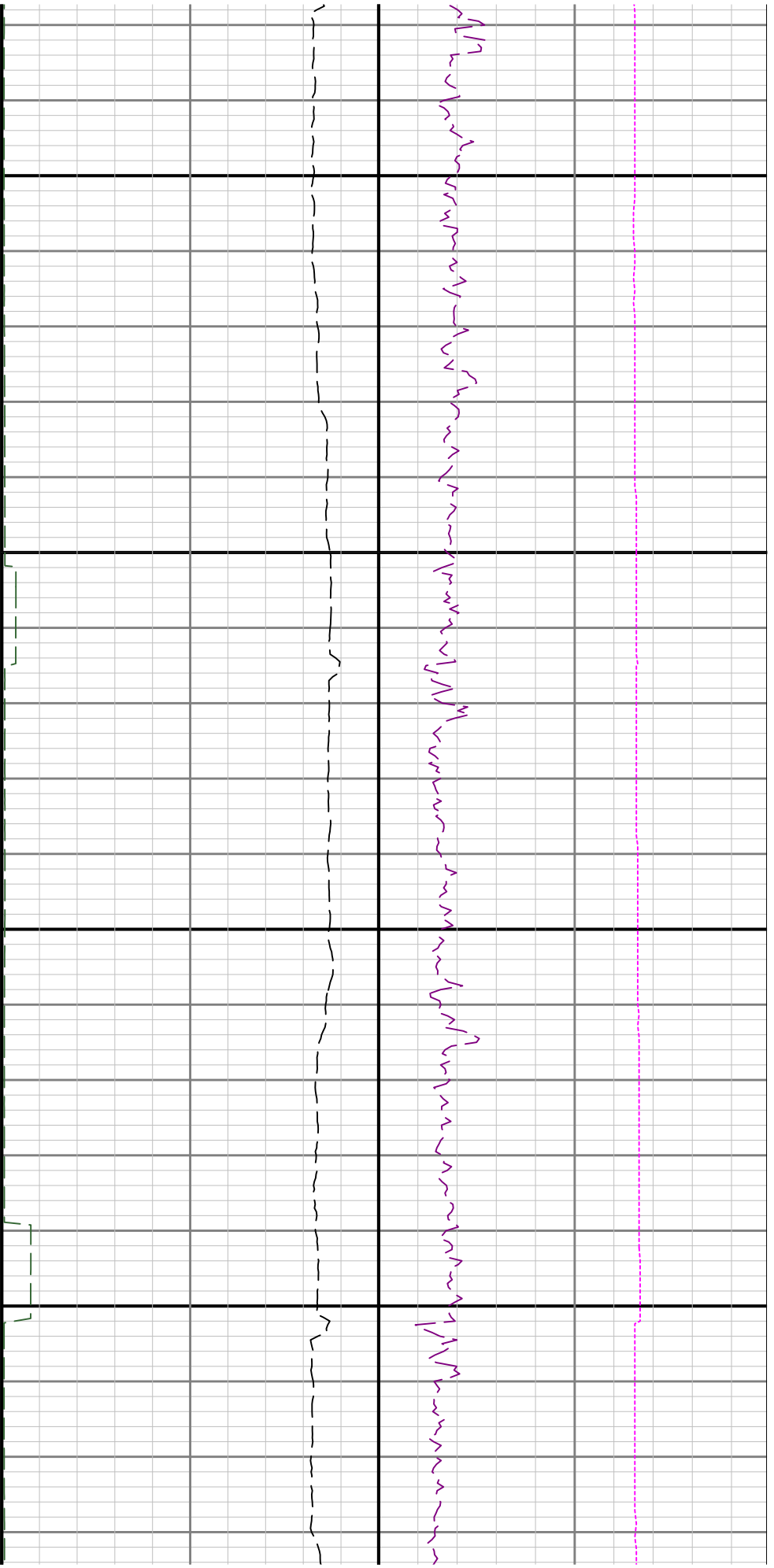


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5900

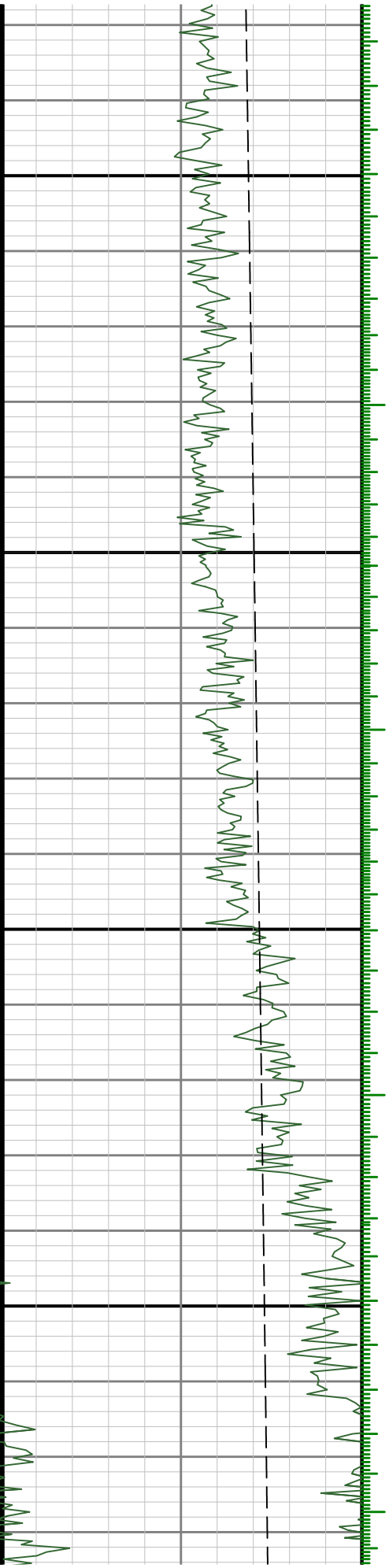


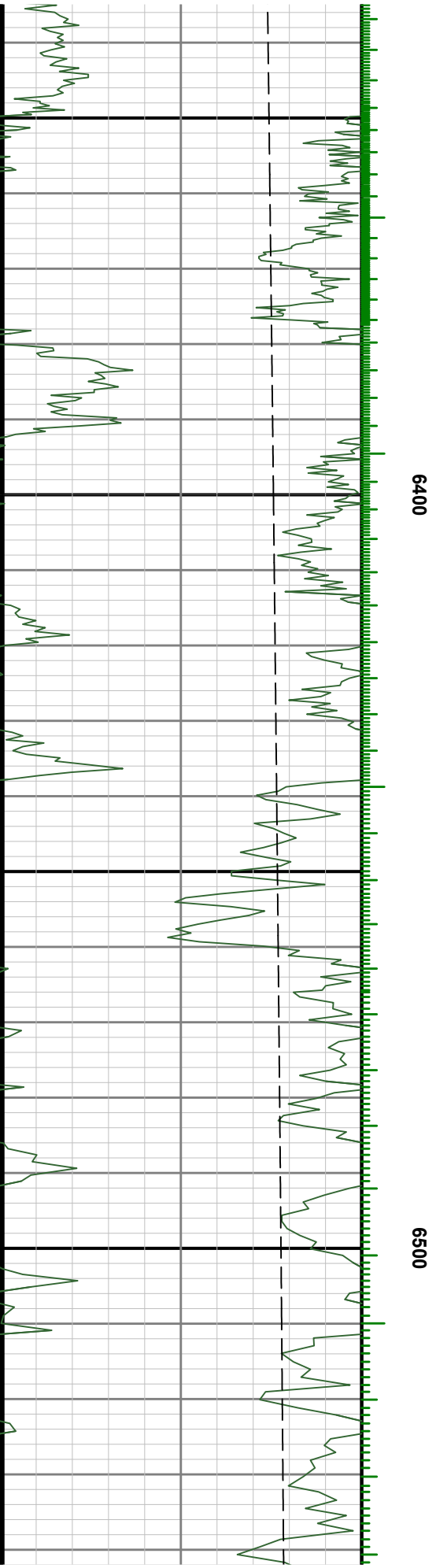
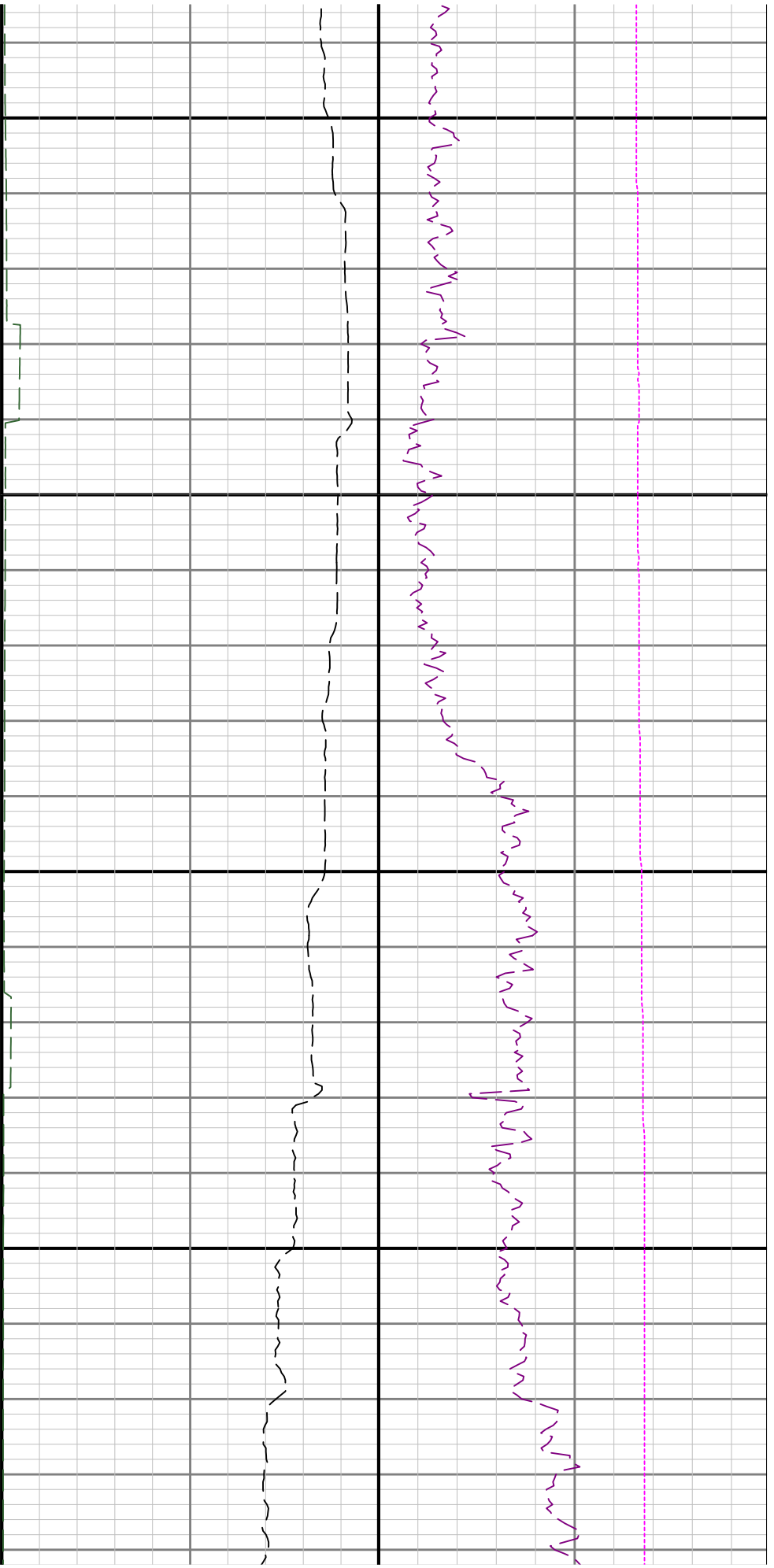


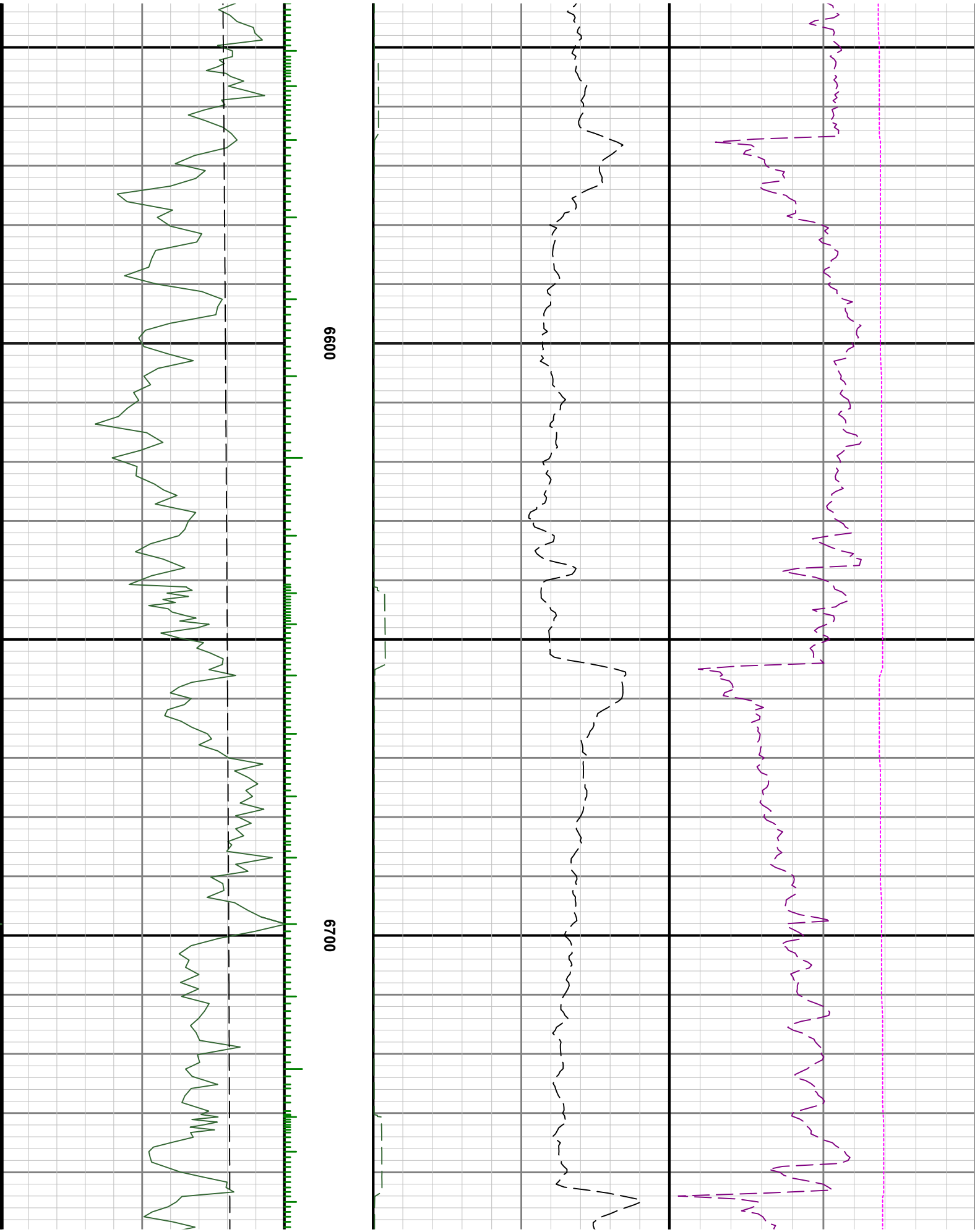


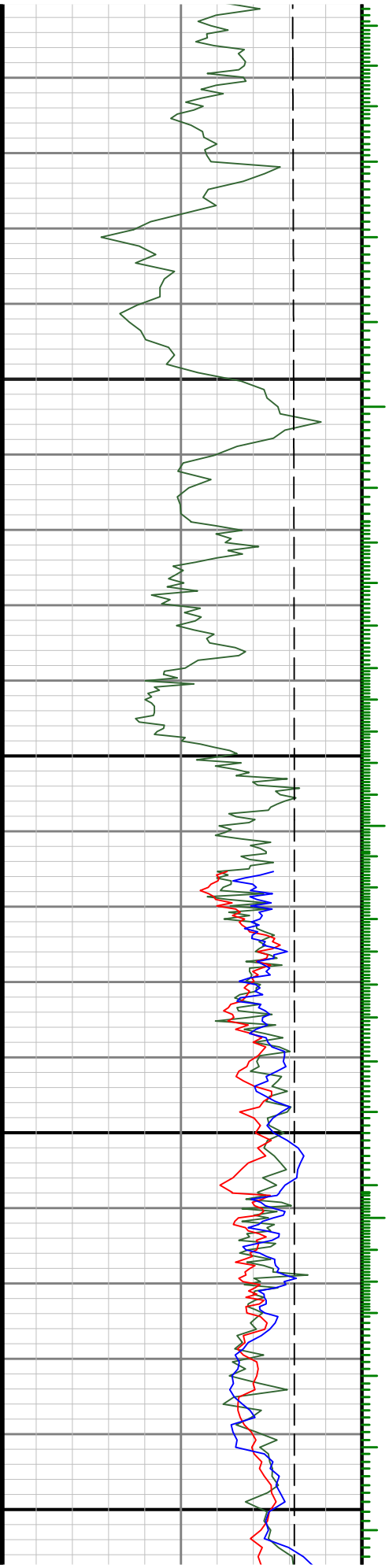
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6300



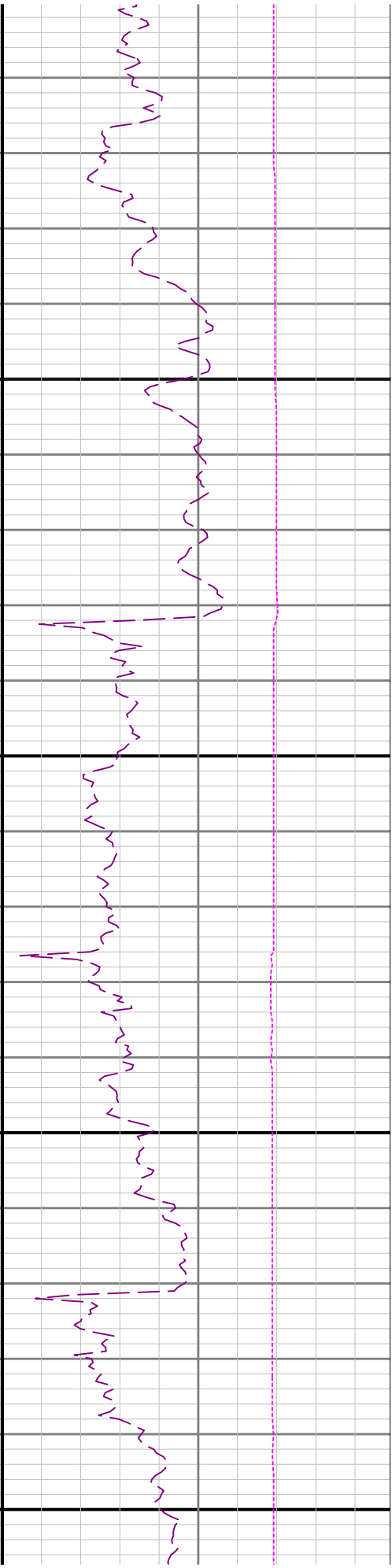


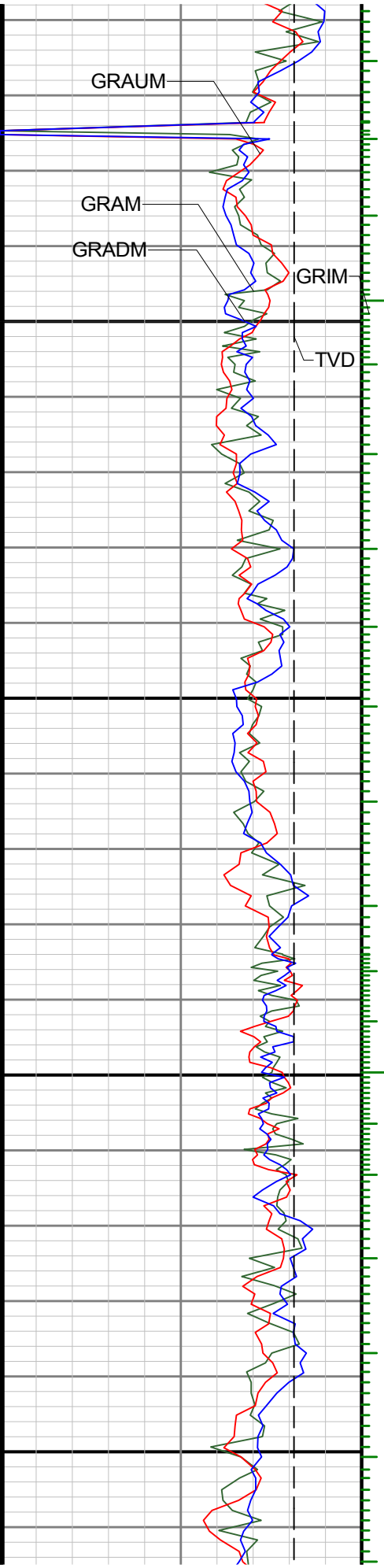




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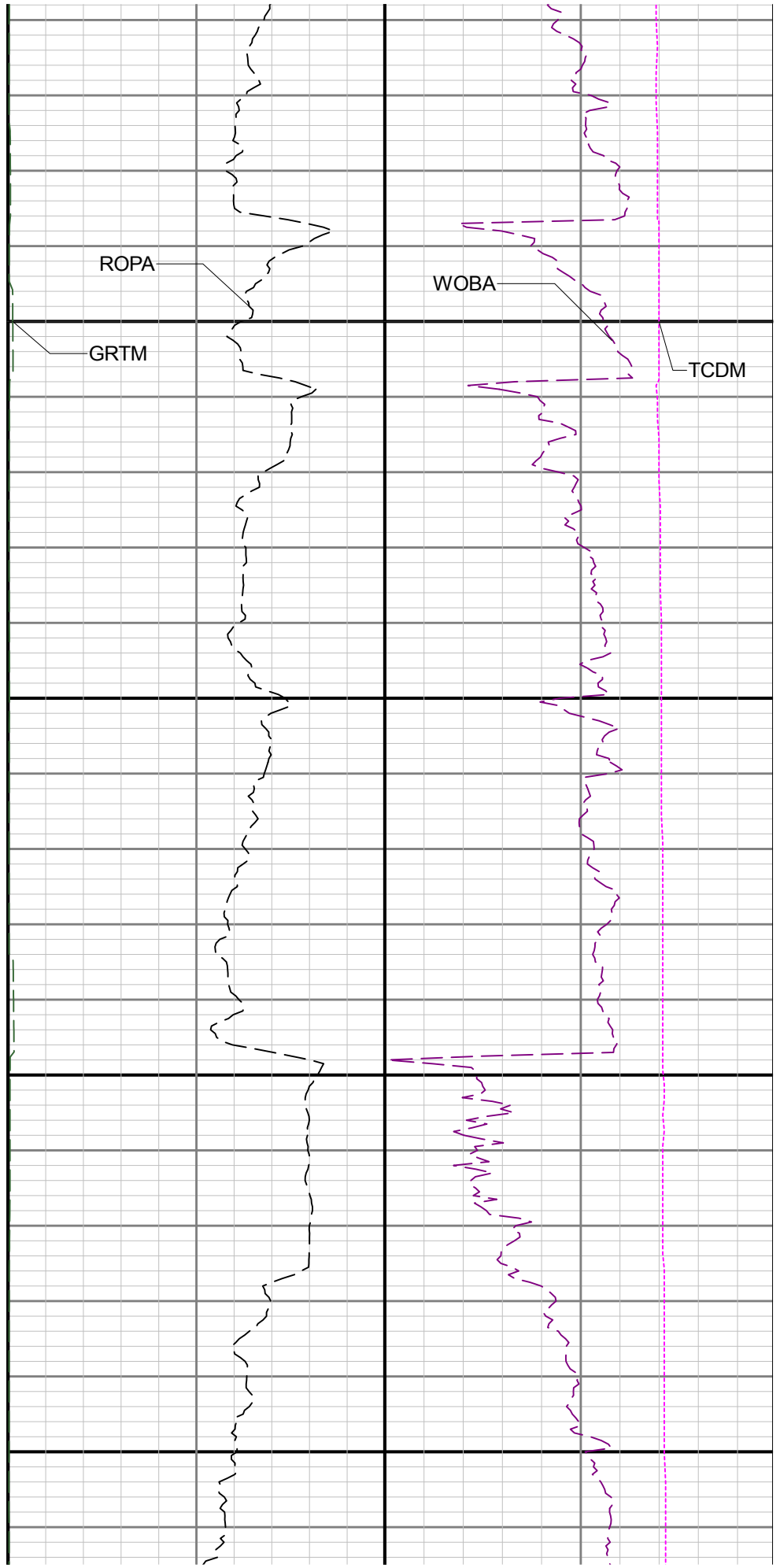
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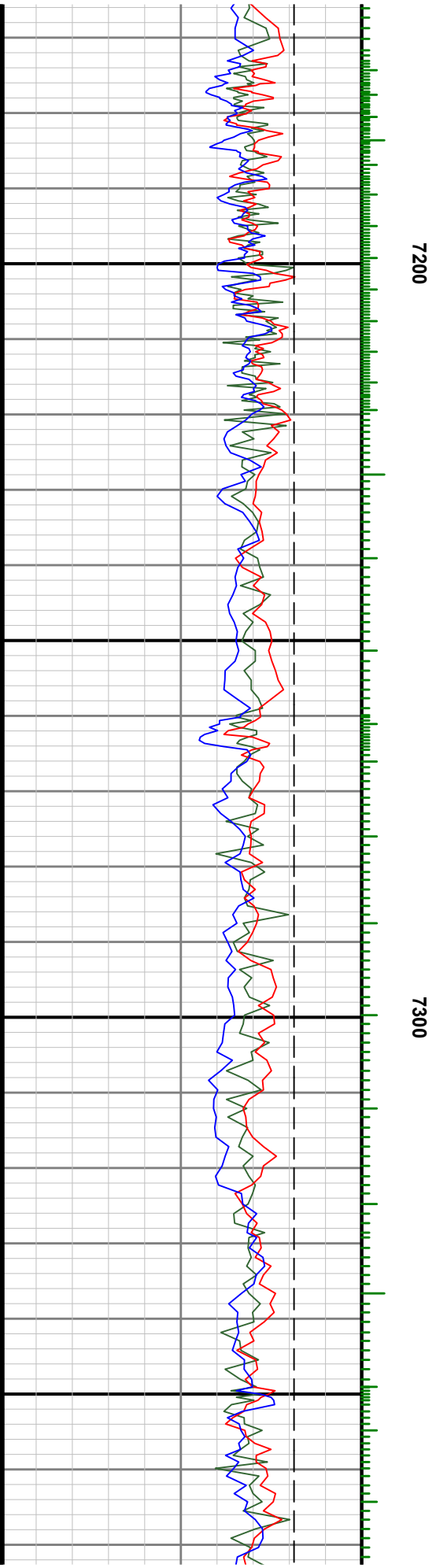
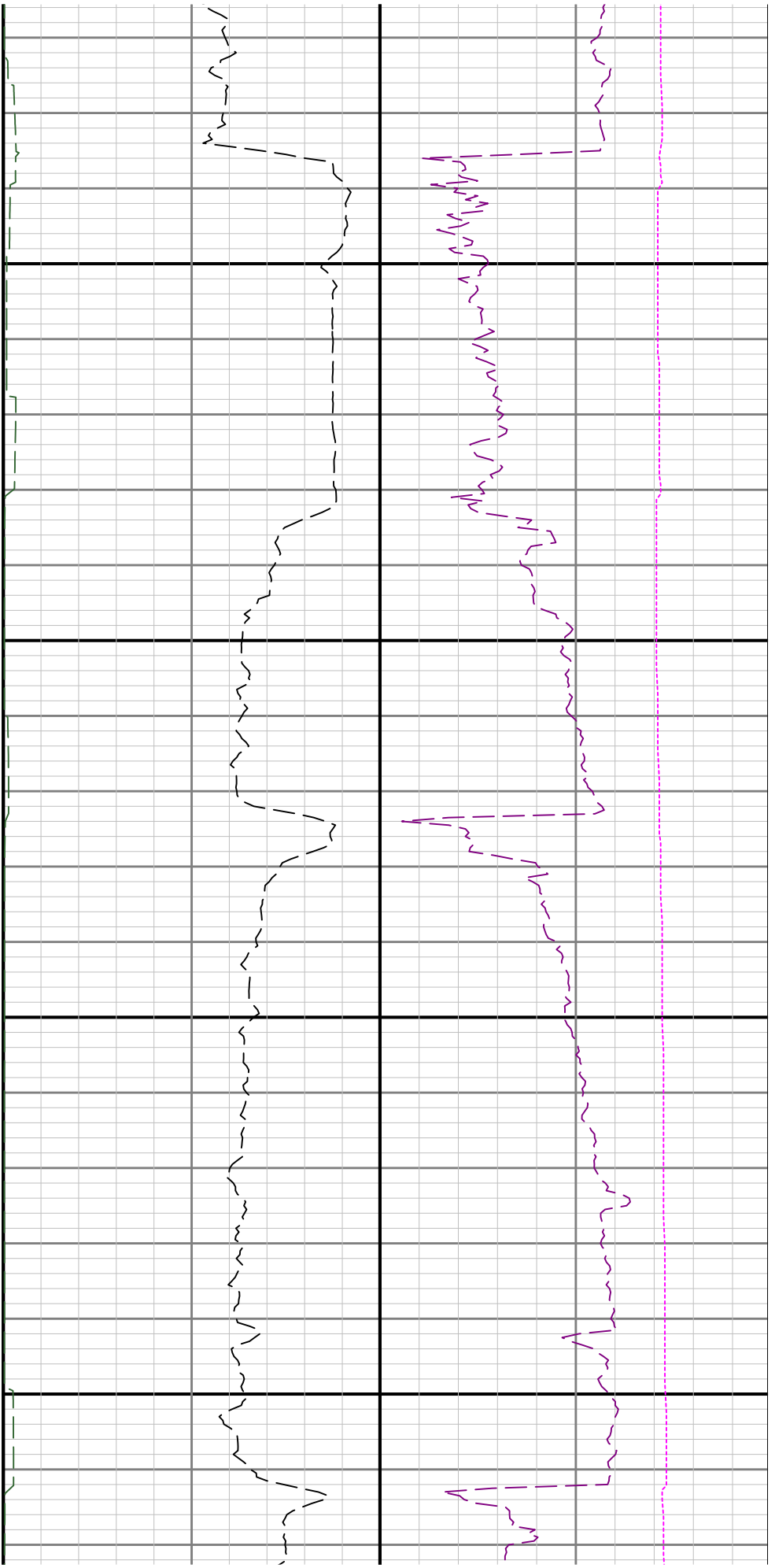


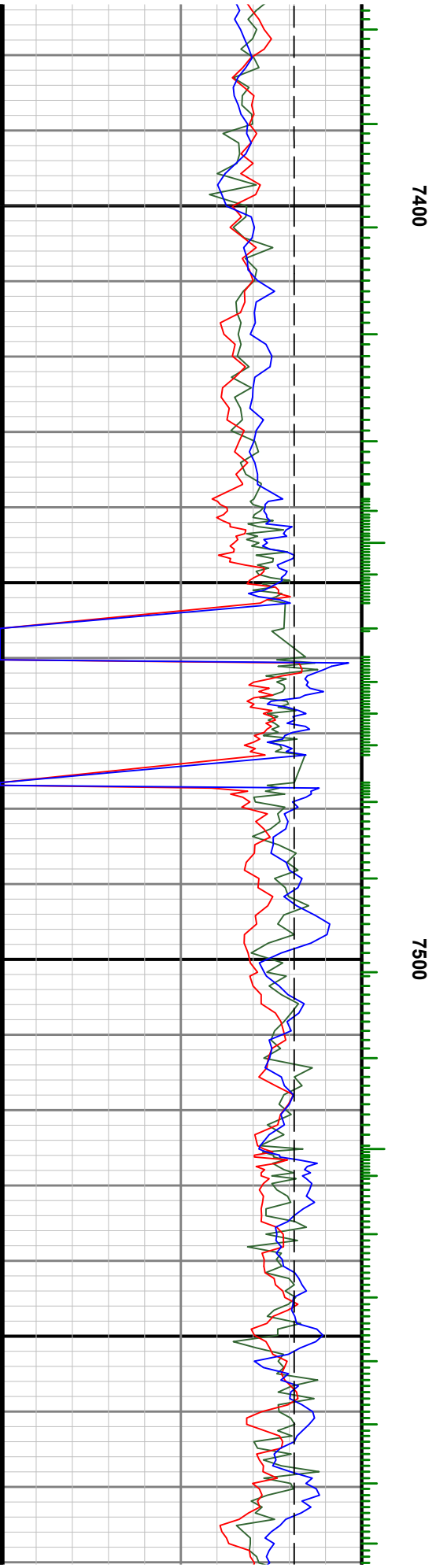
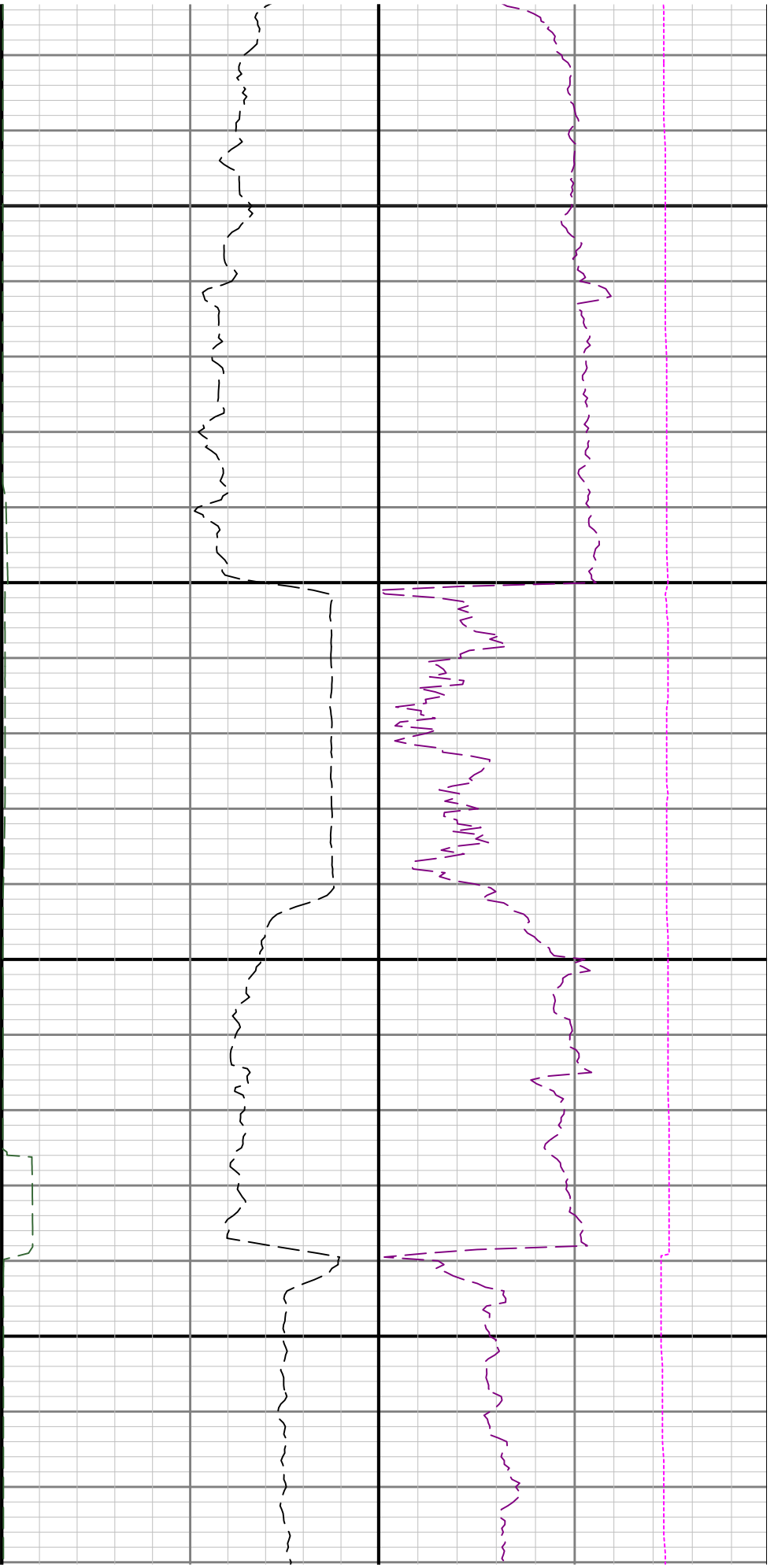


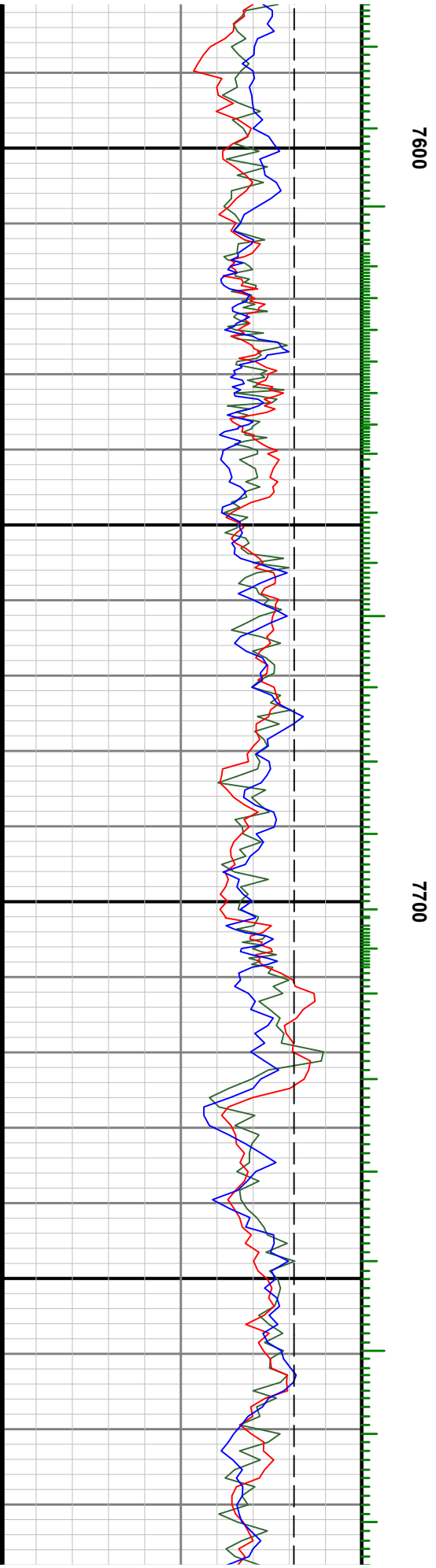
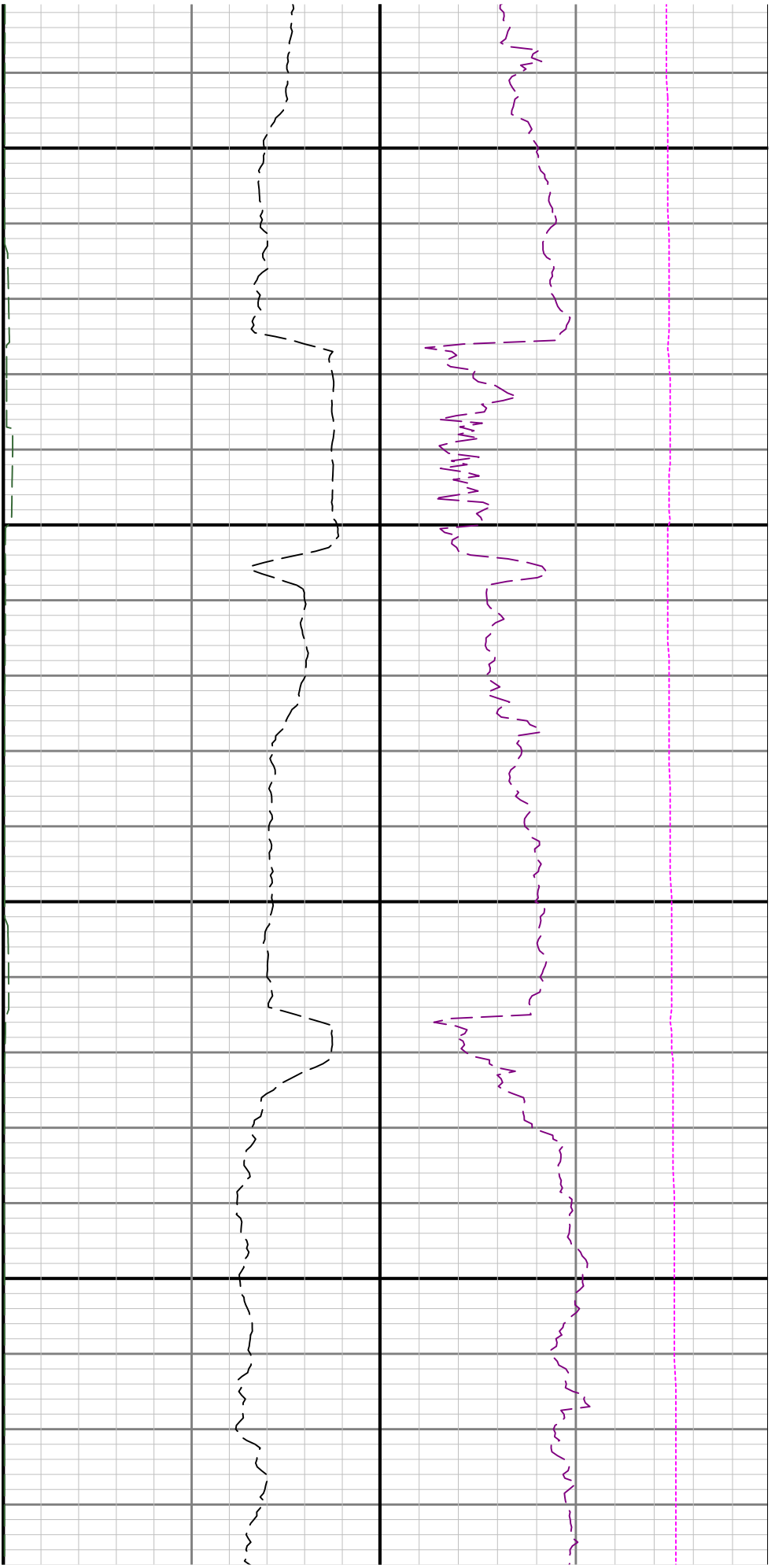
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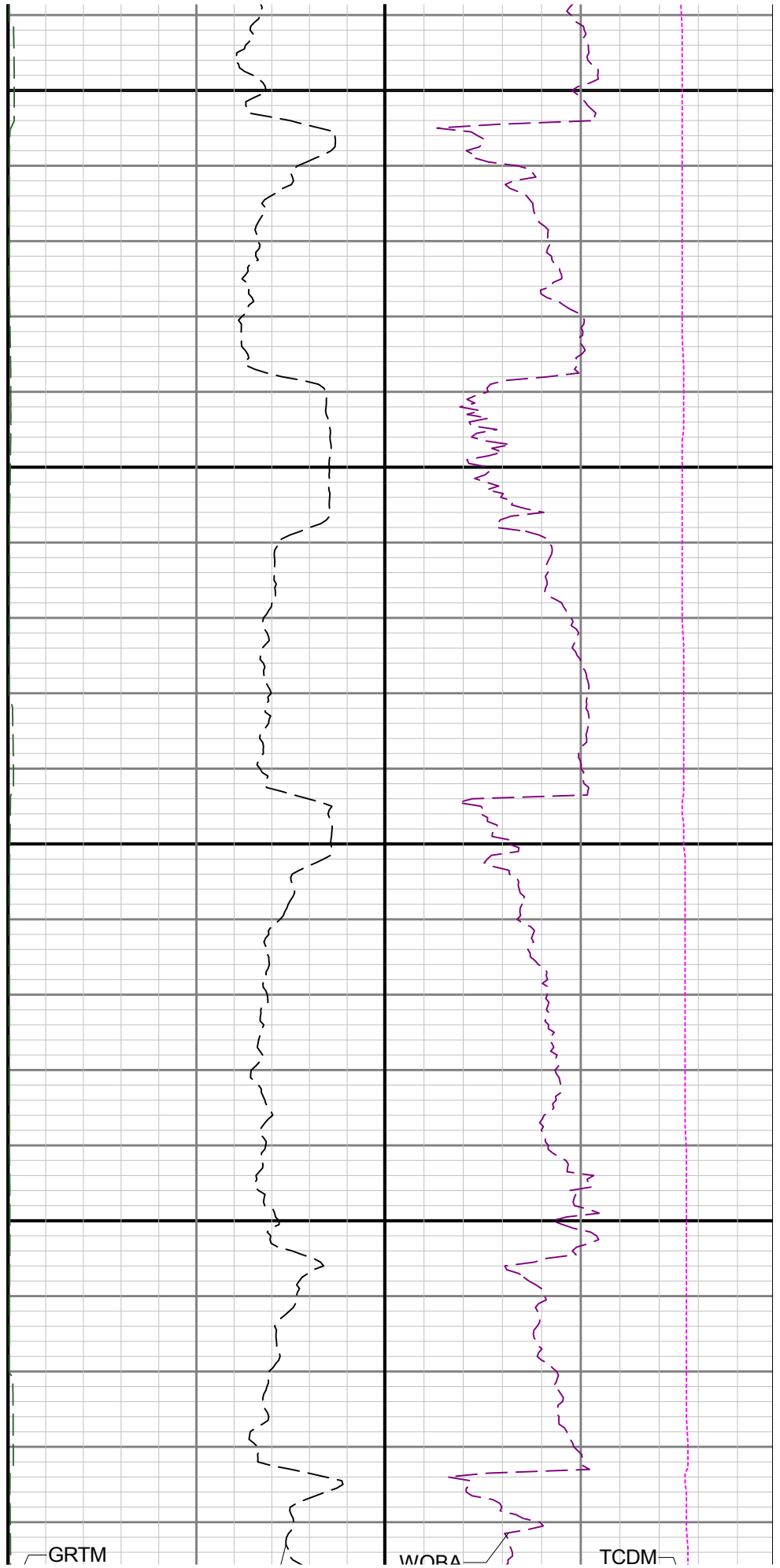
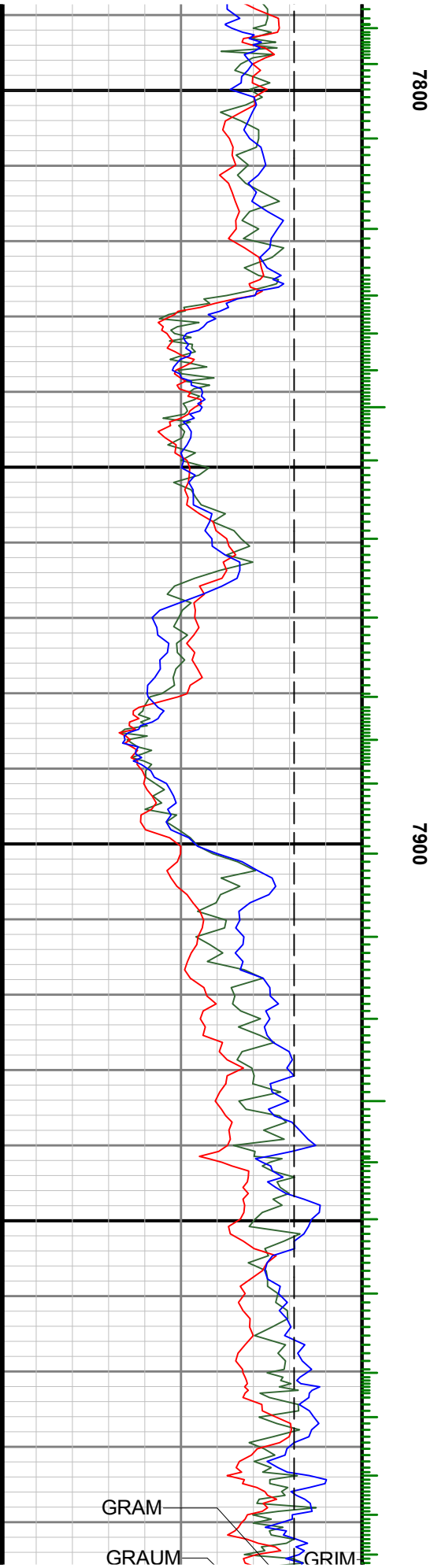
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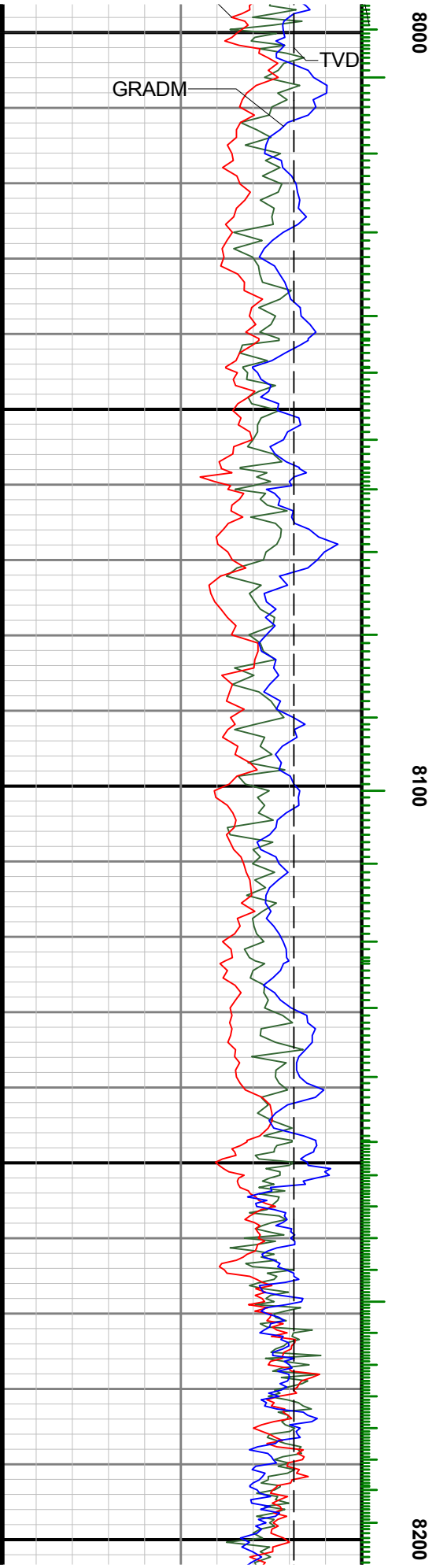
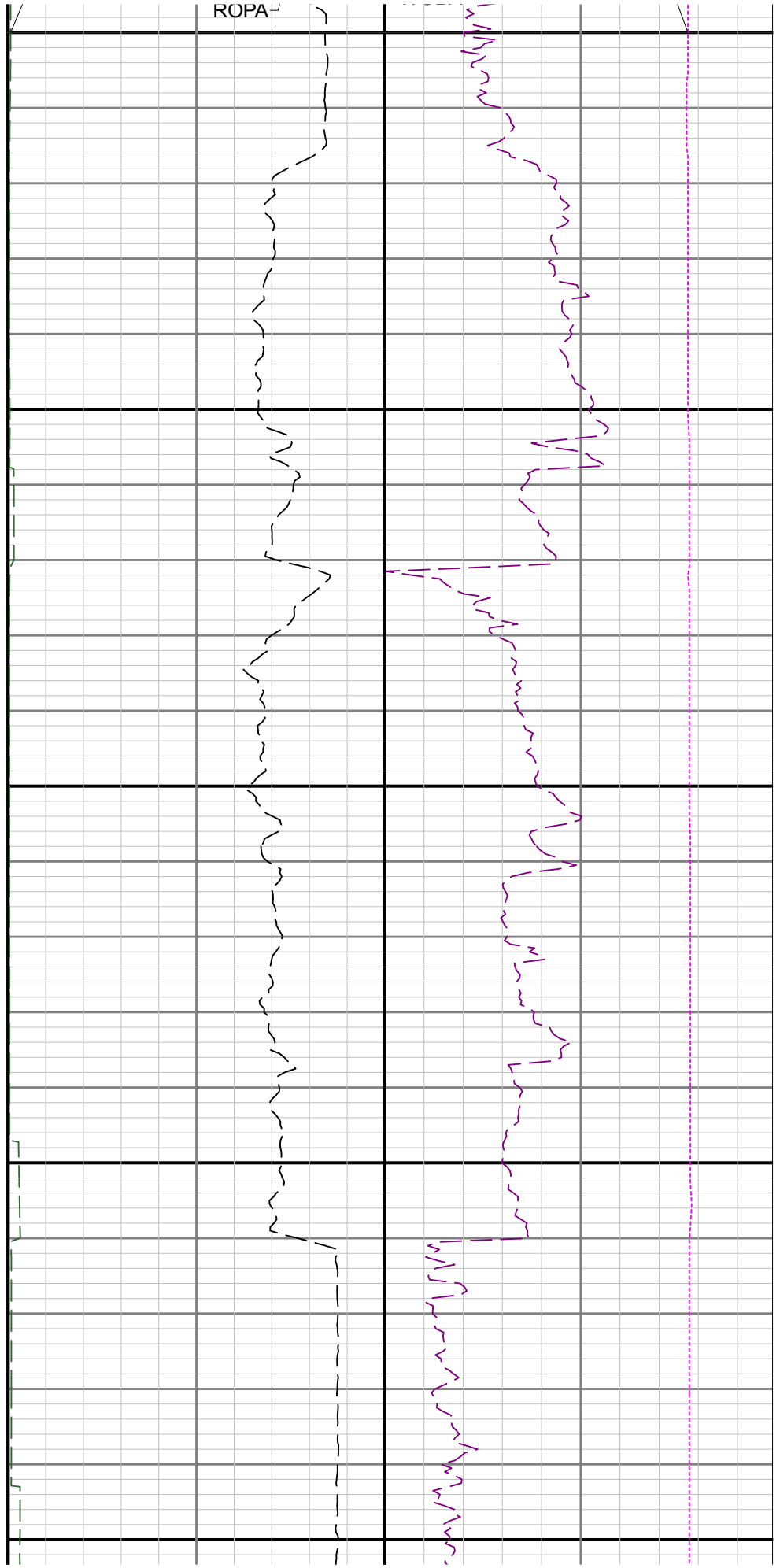


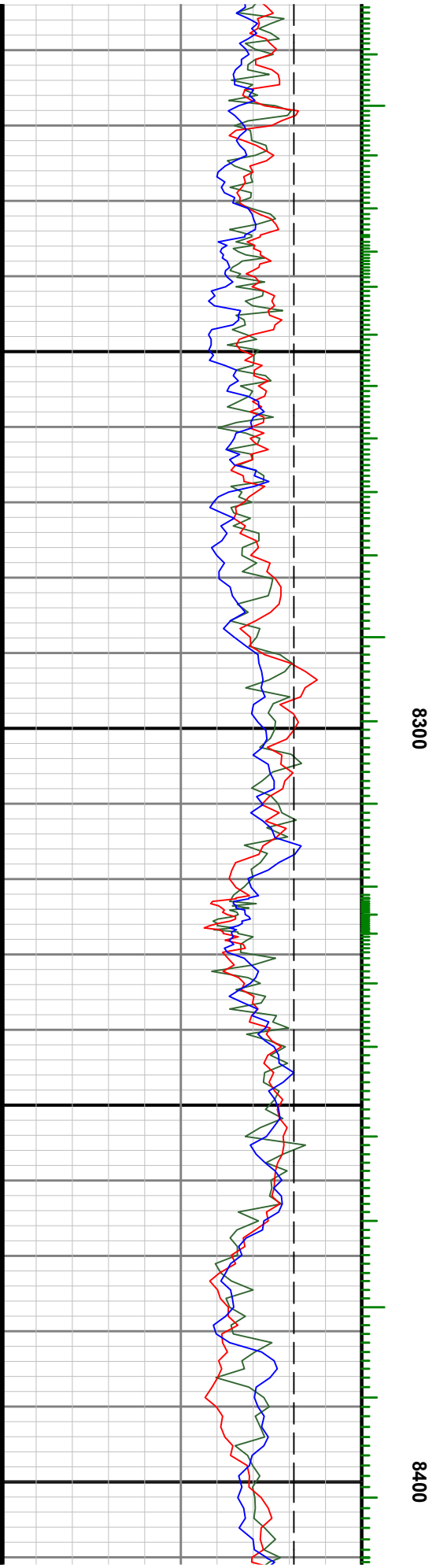
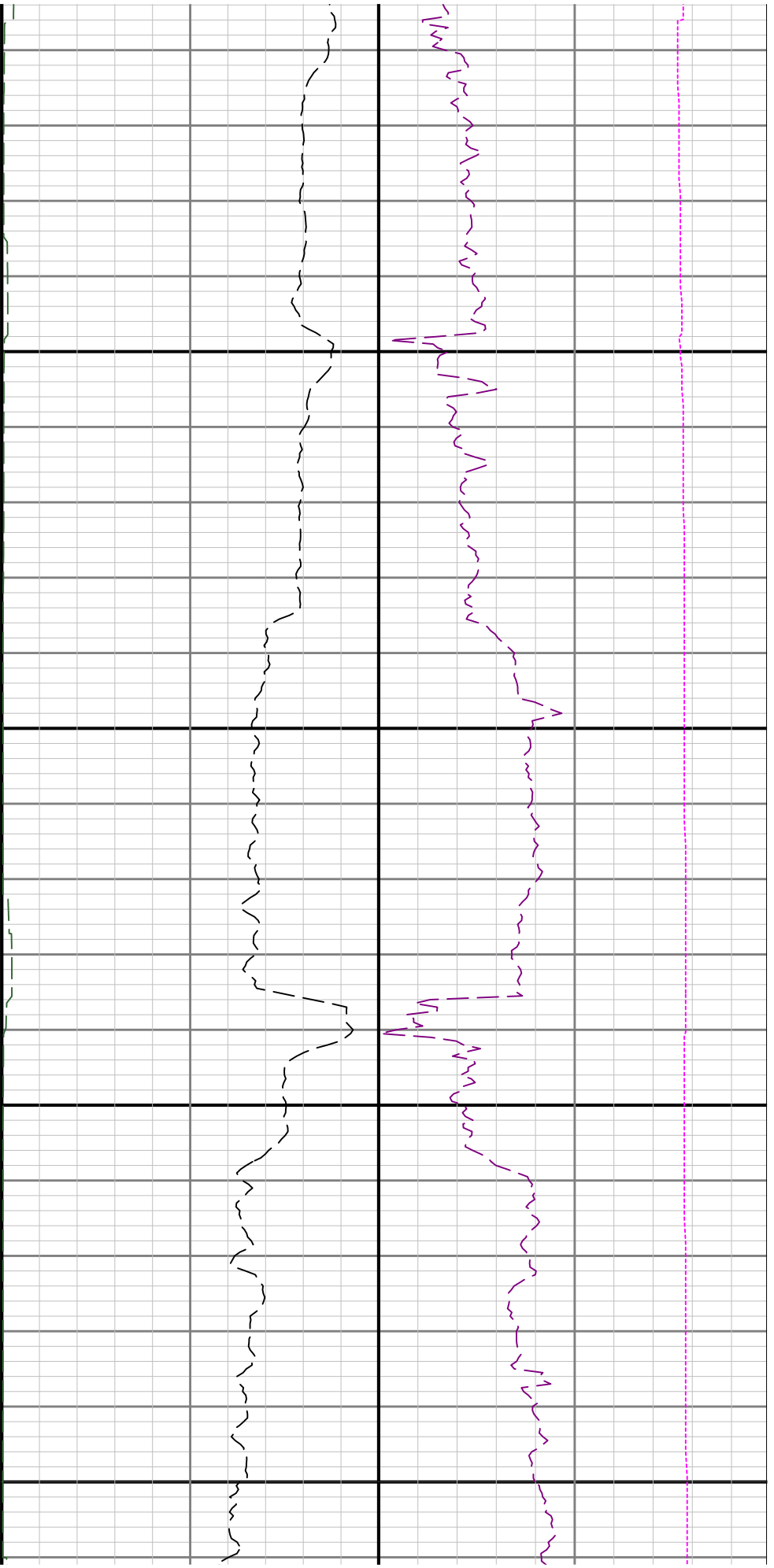


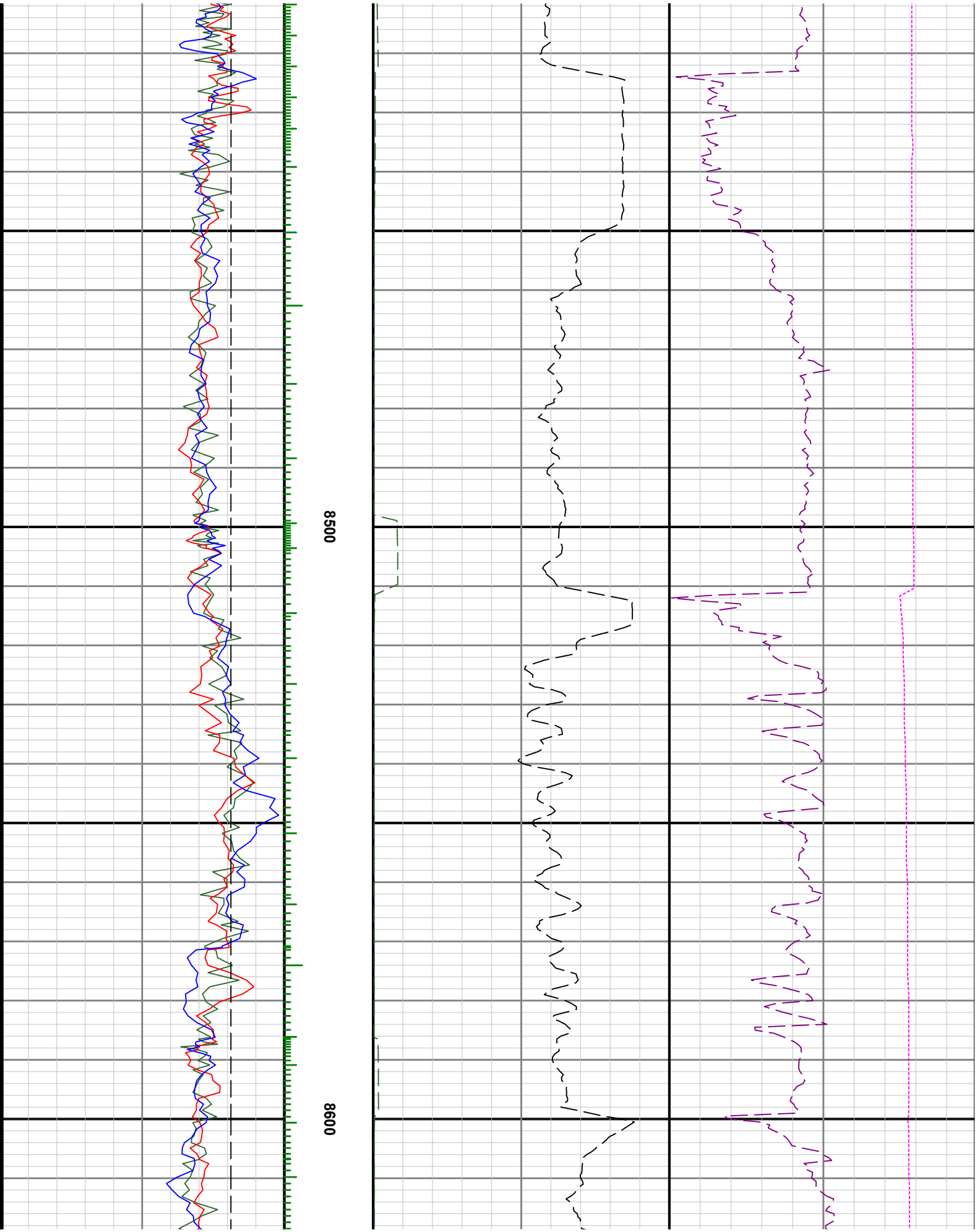


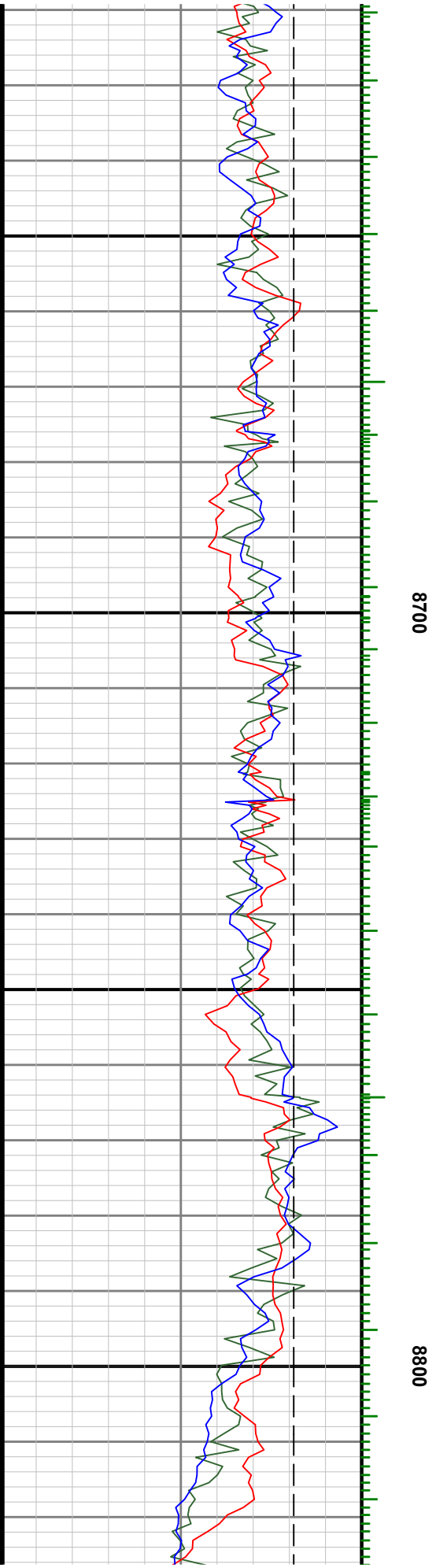
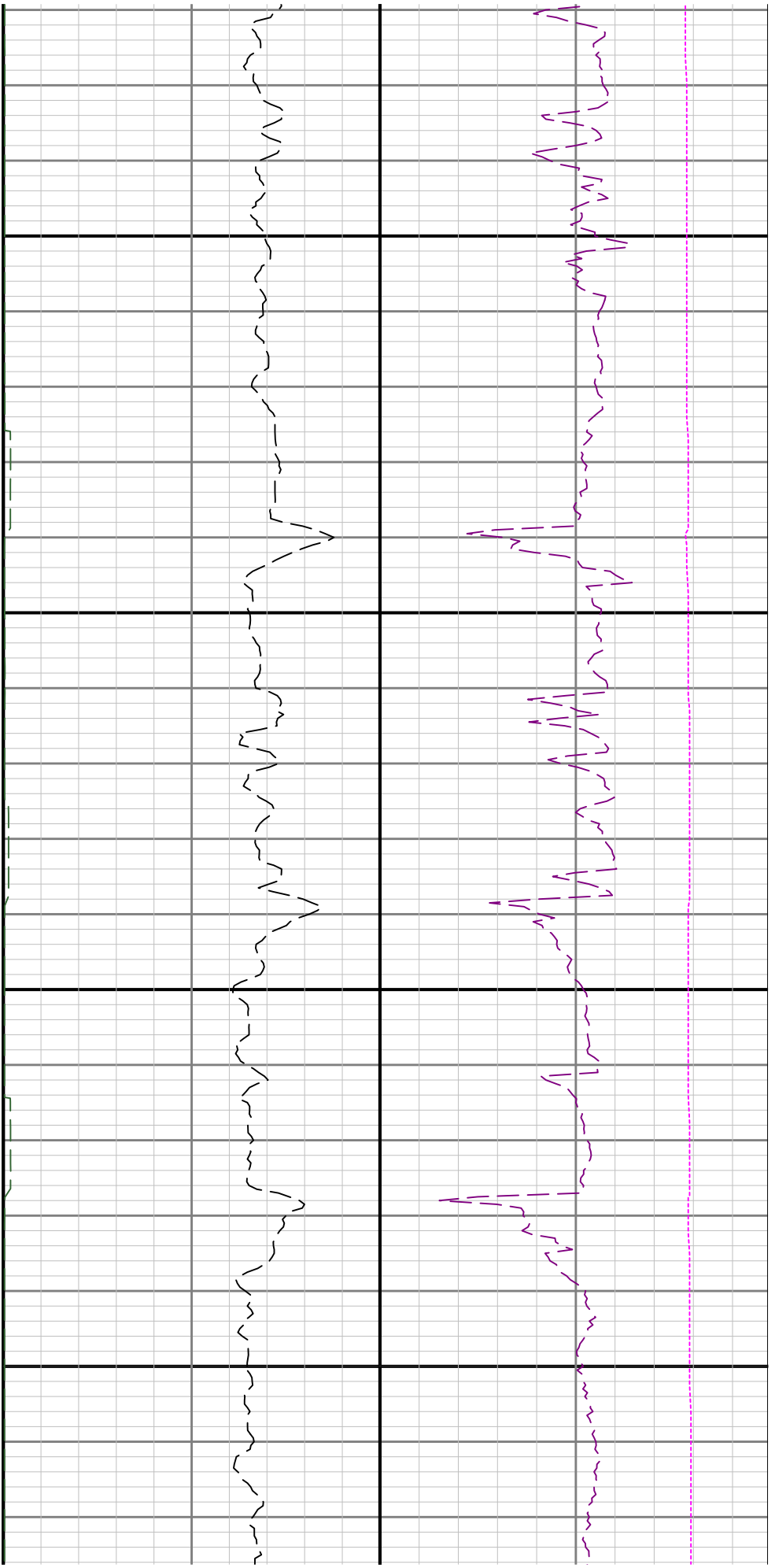


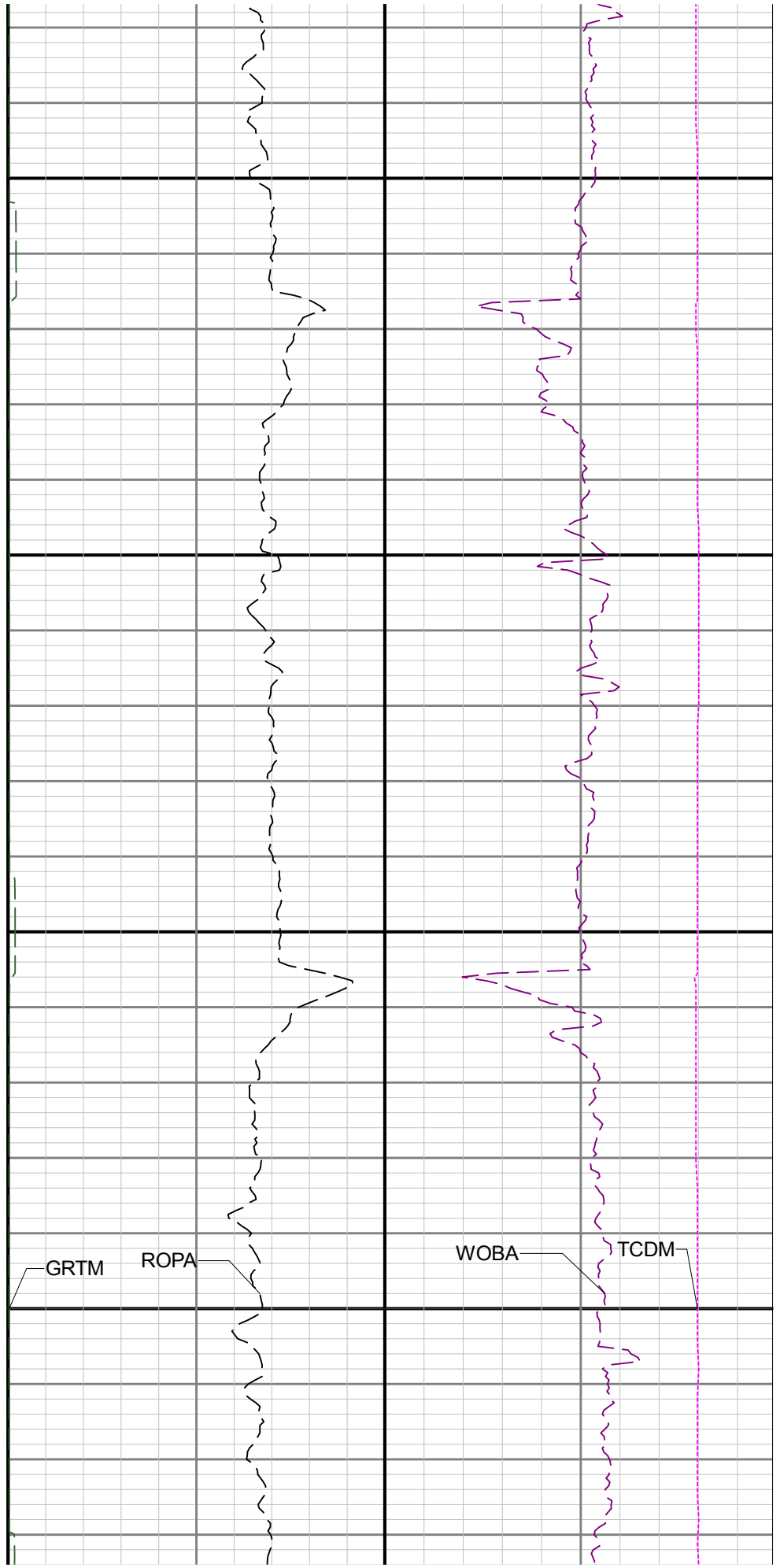
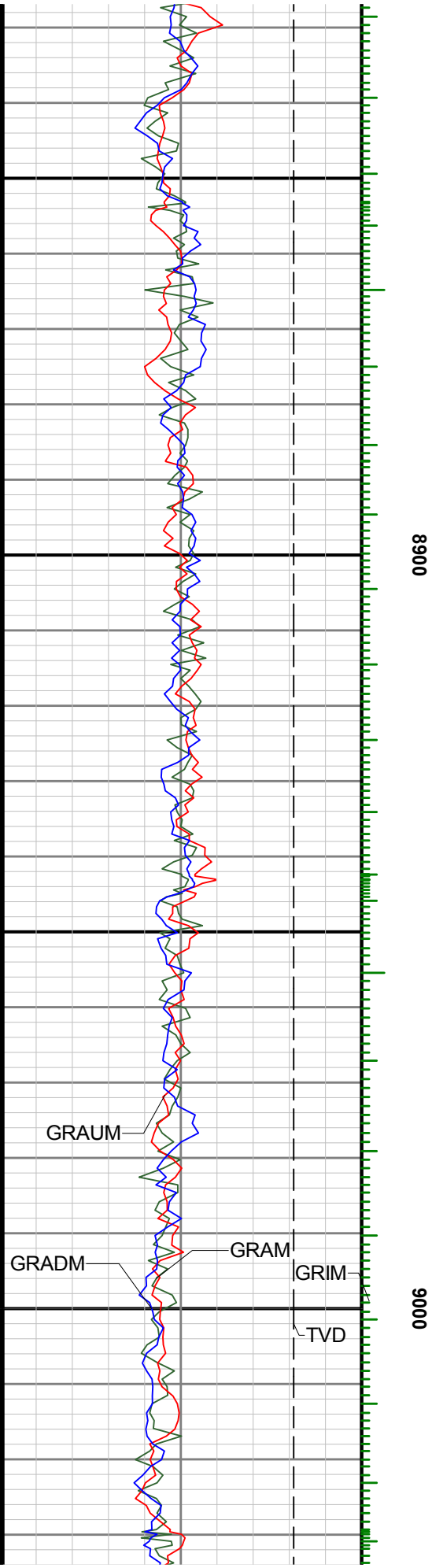


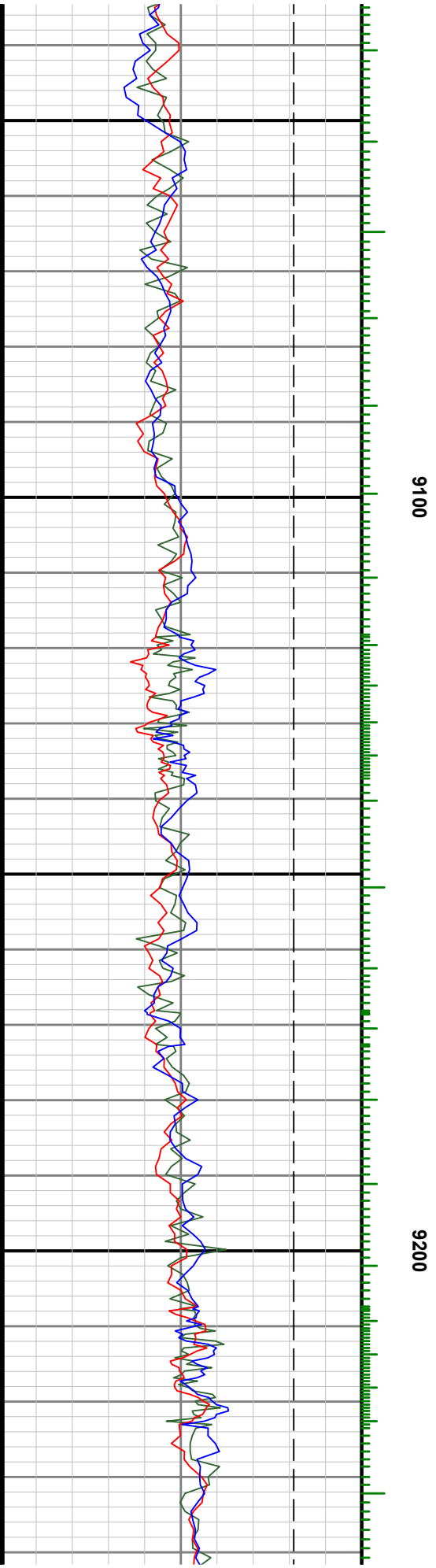
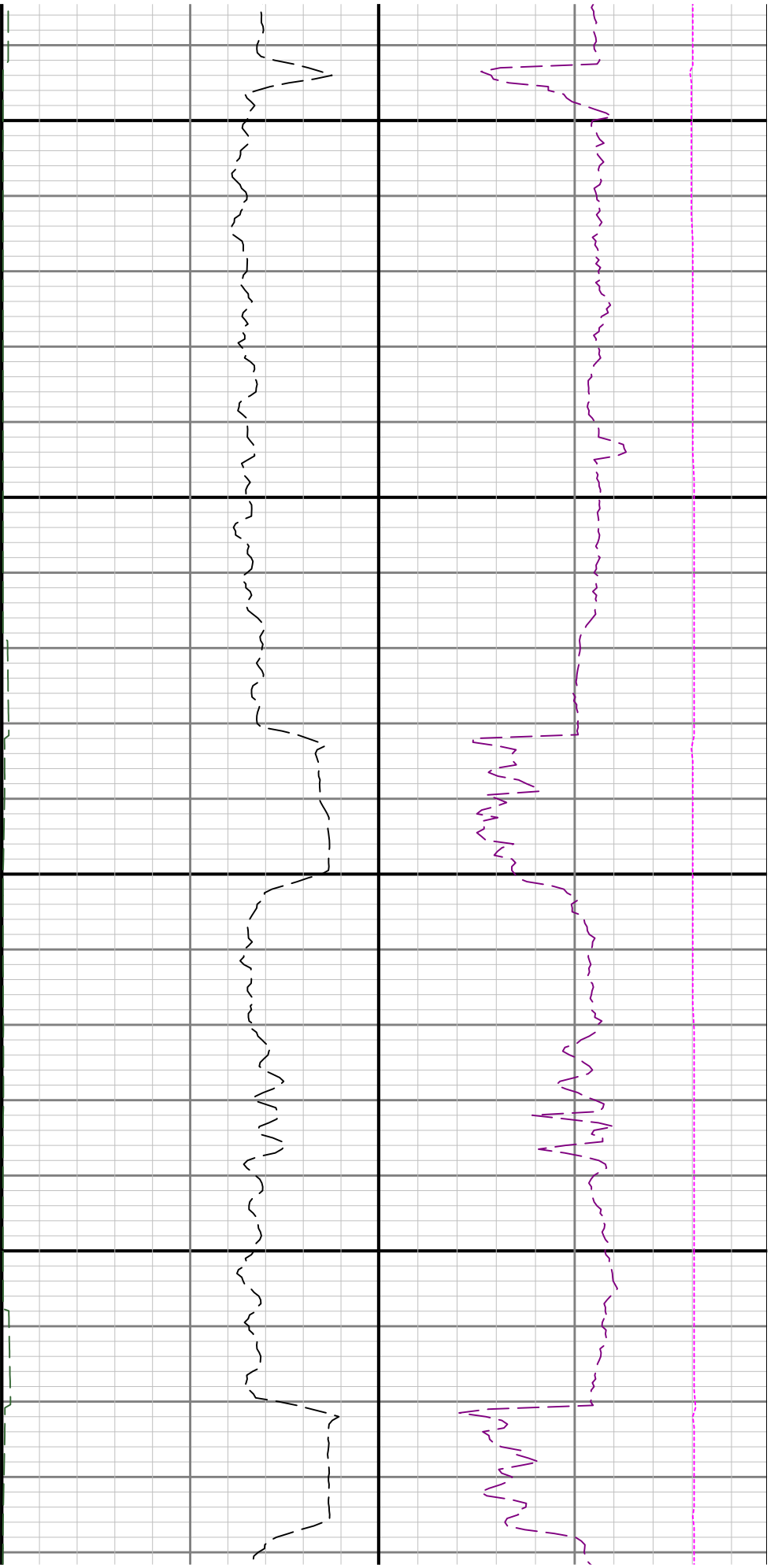


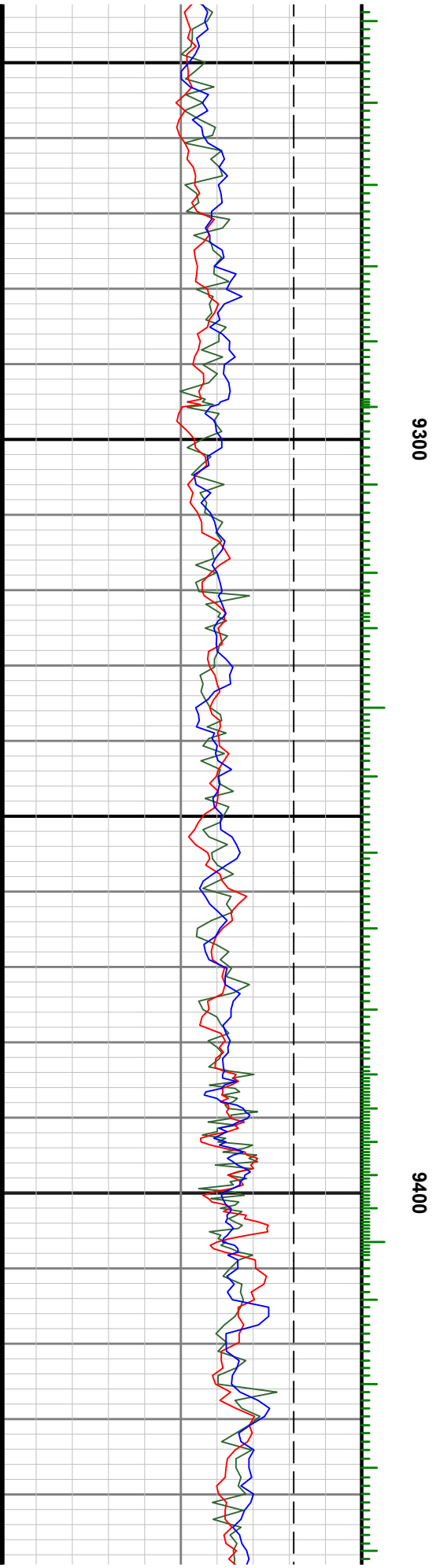
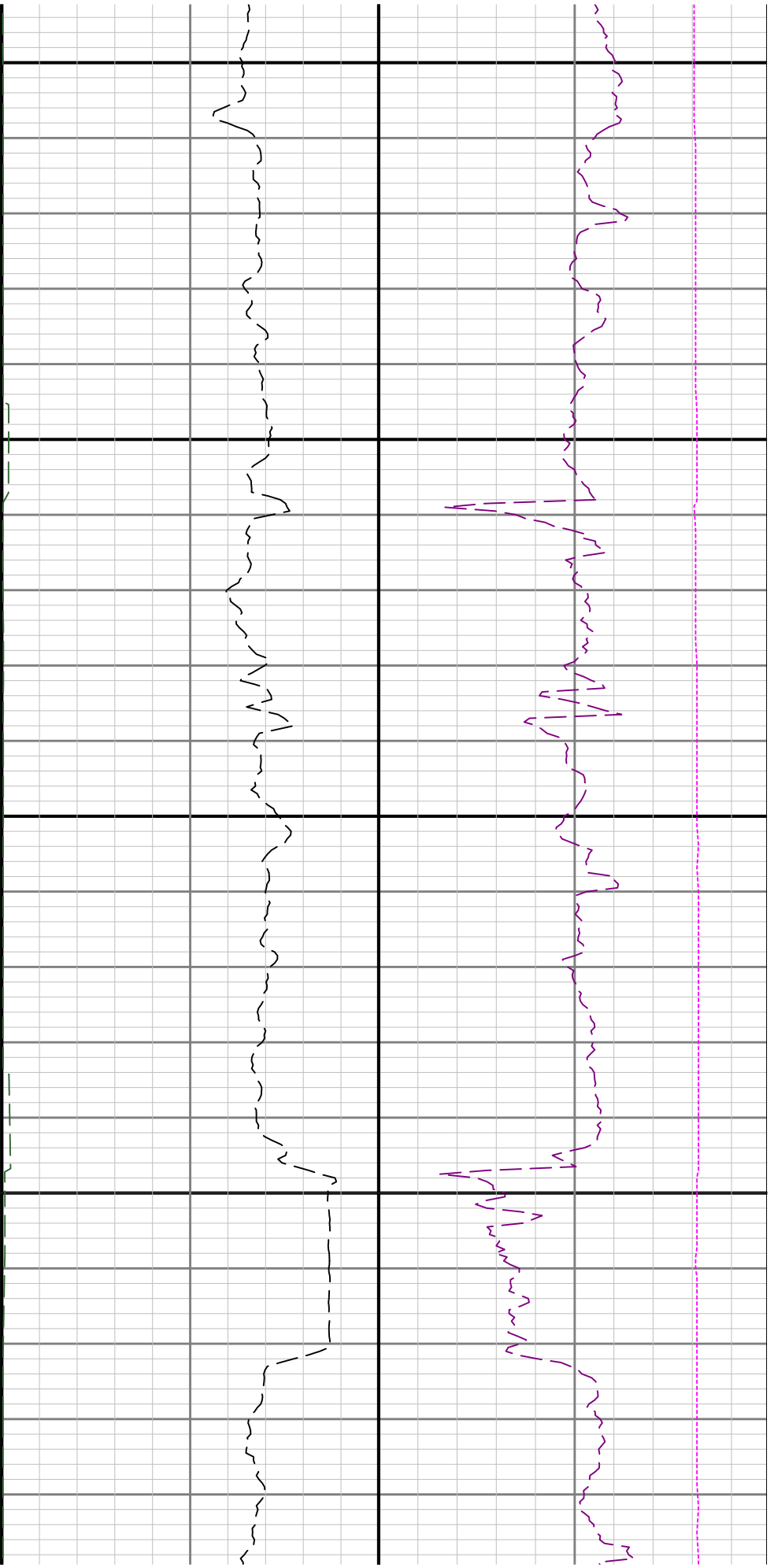


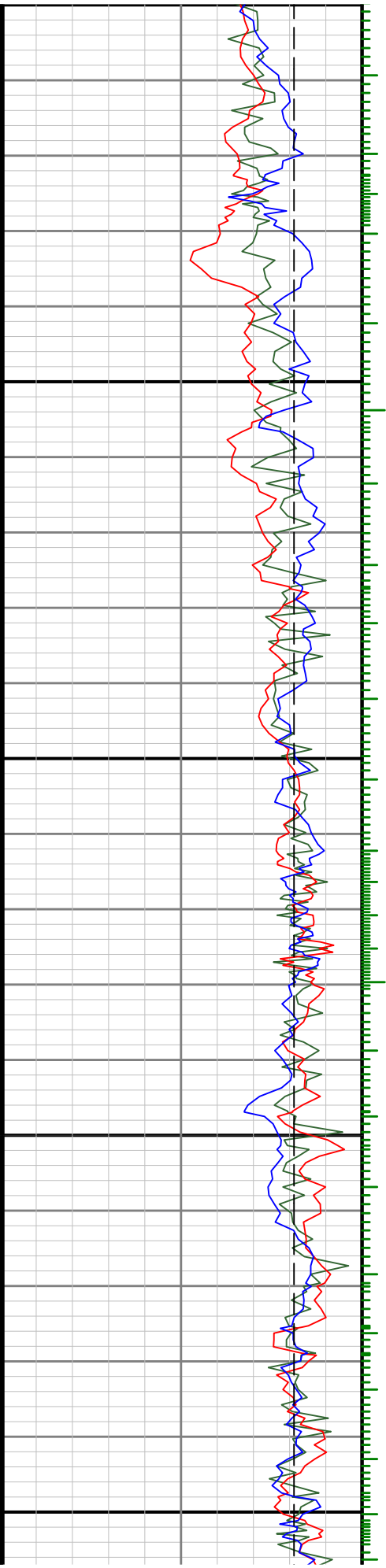






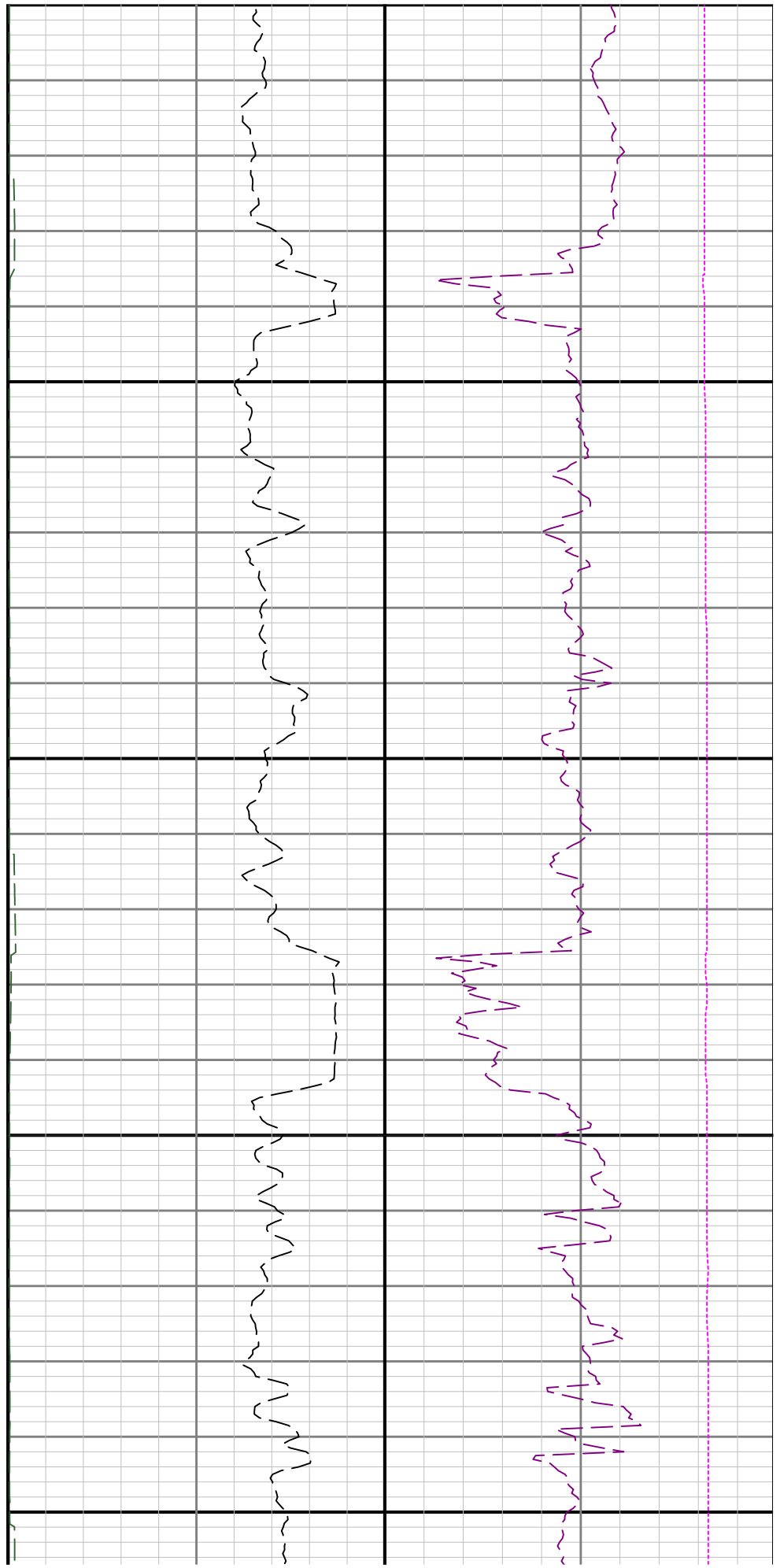


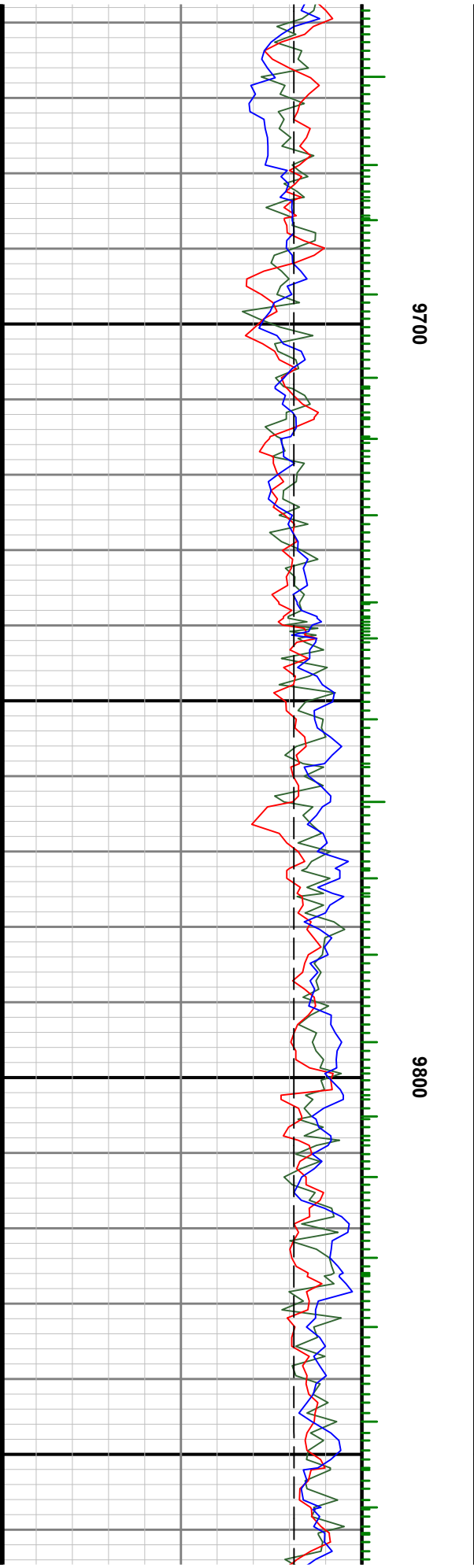
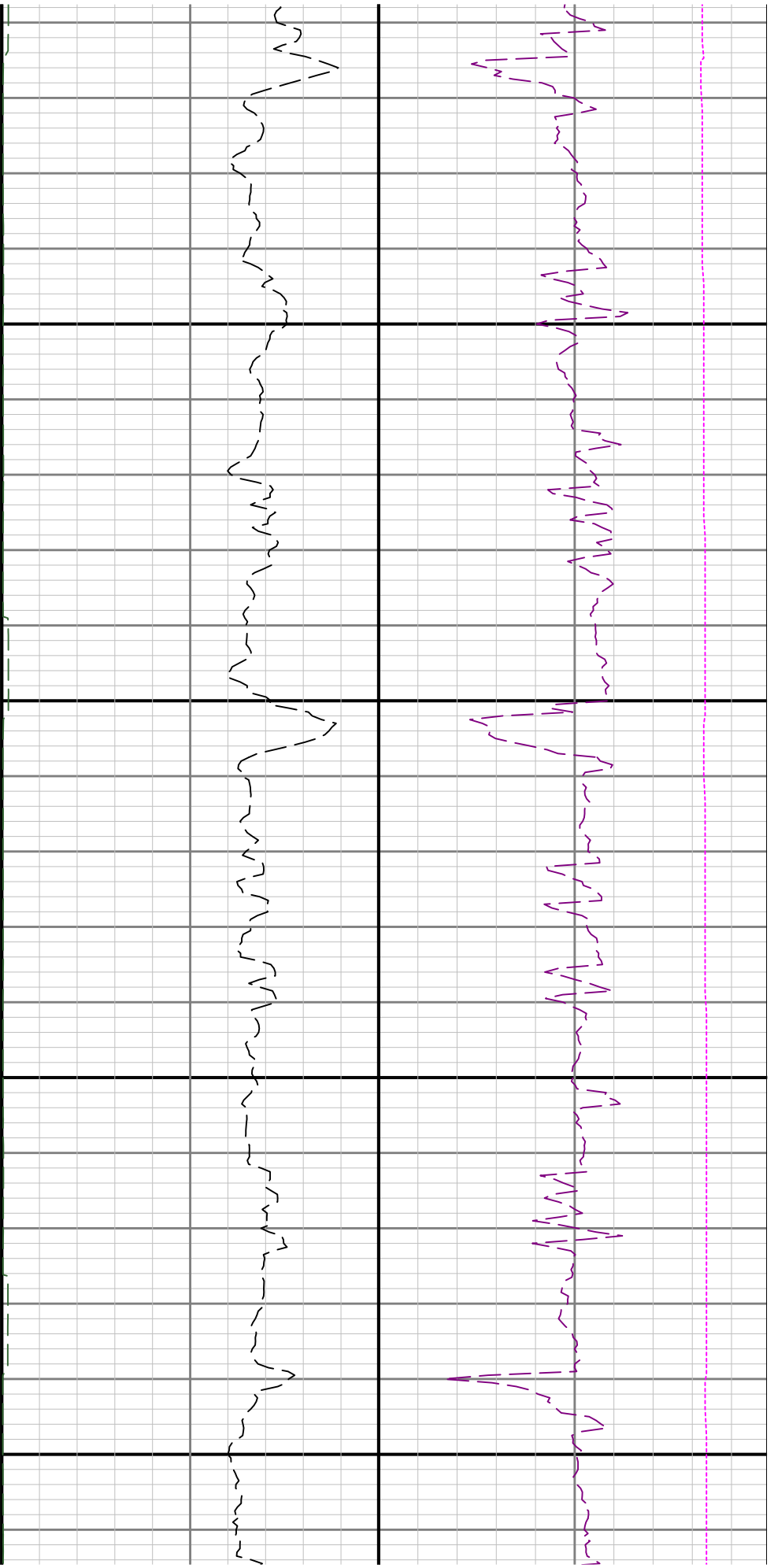


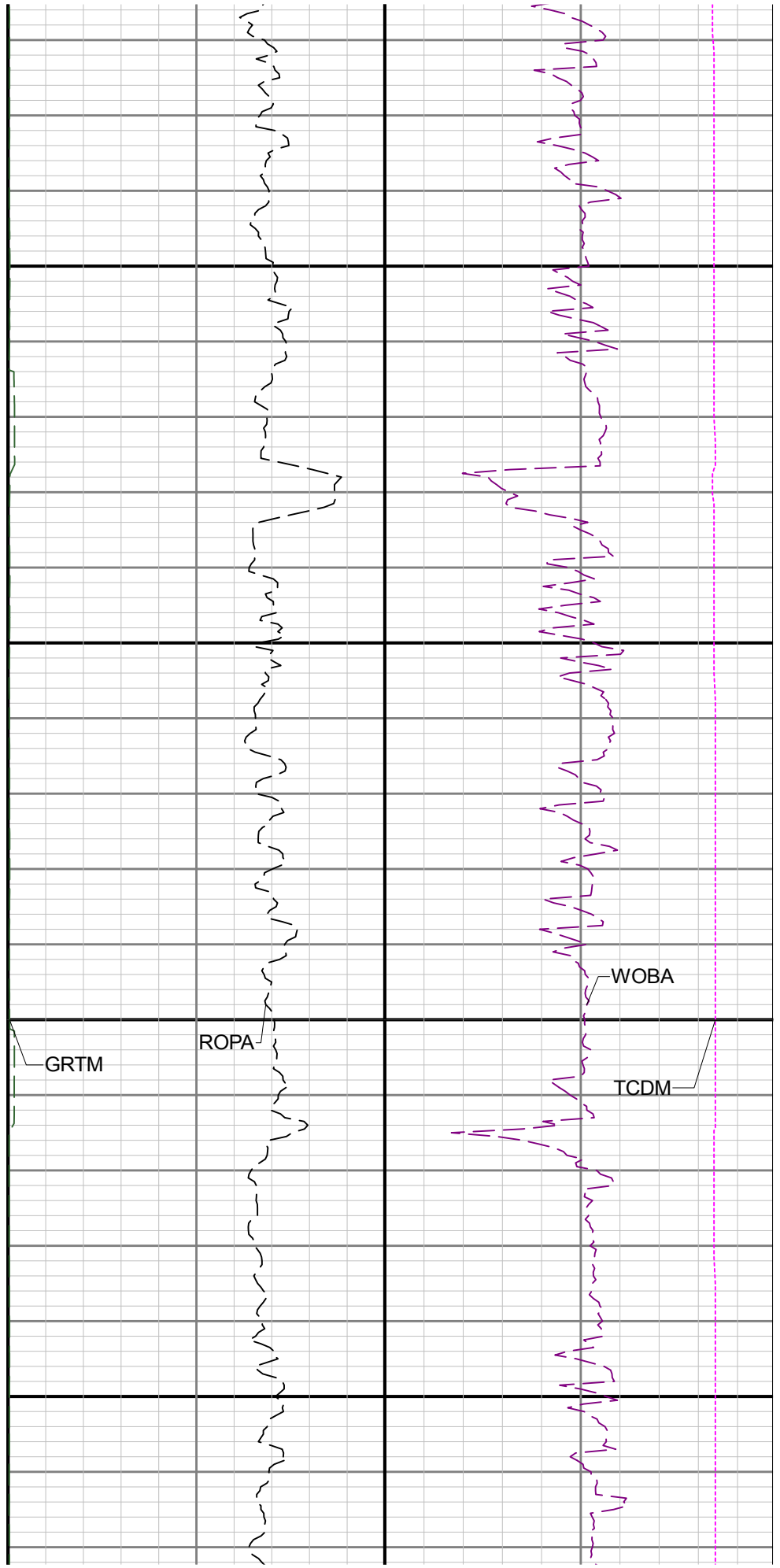
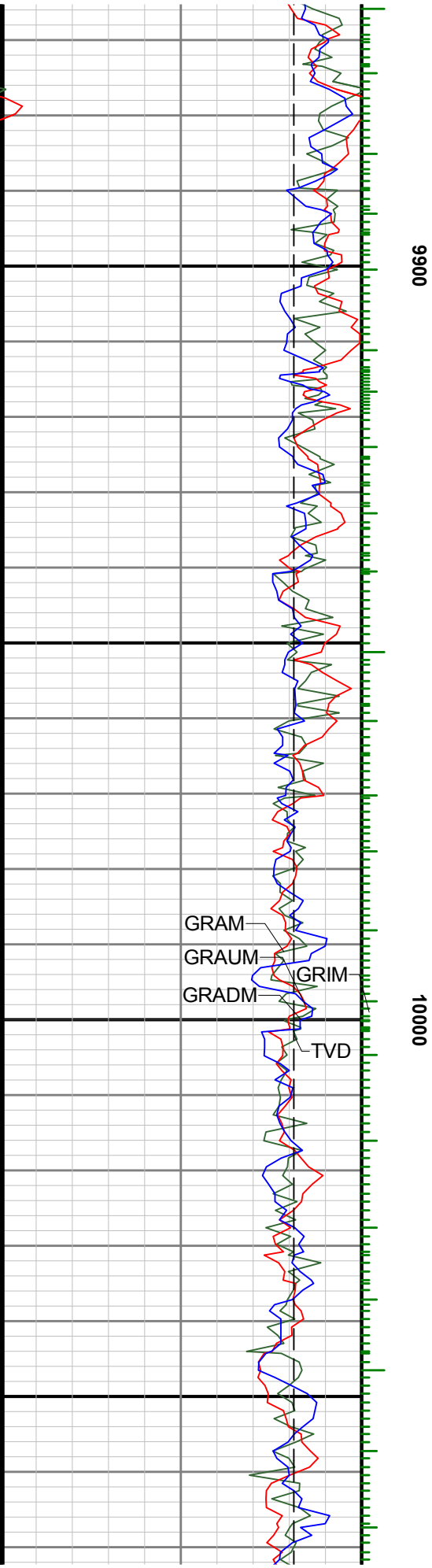


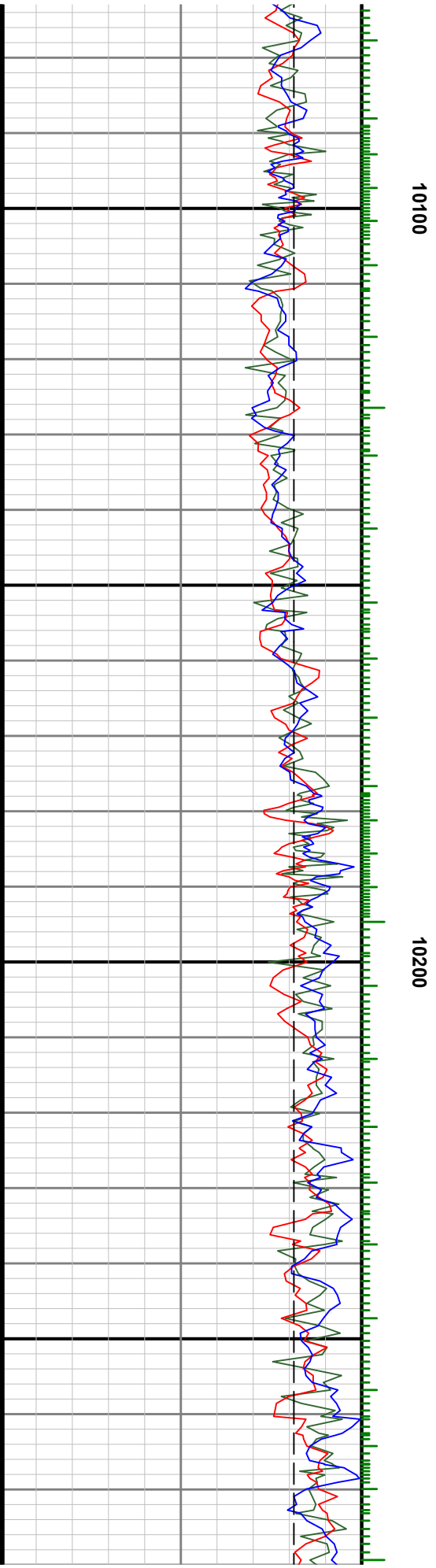
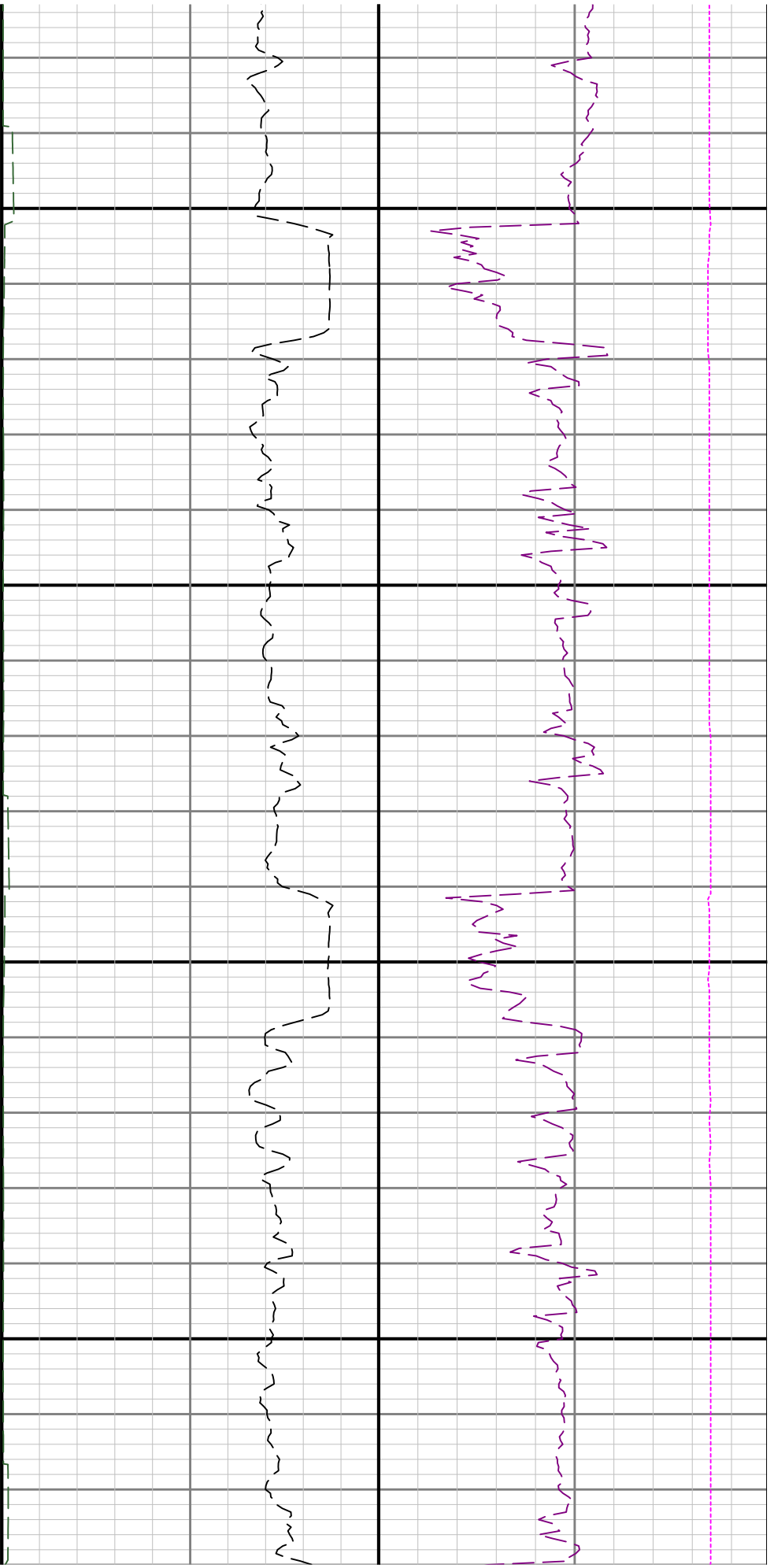
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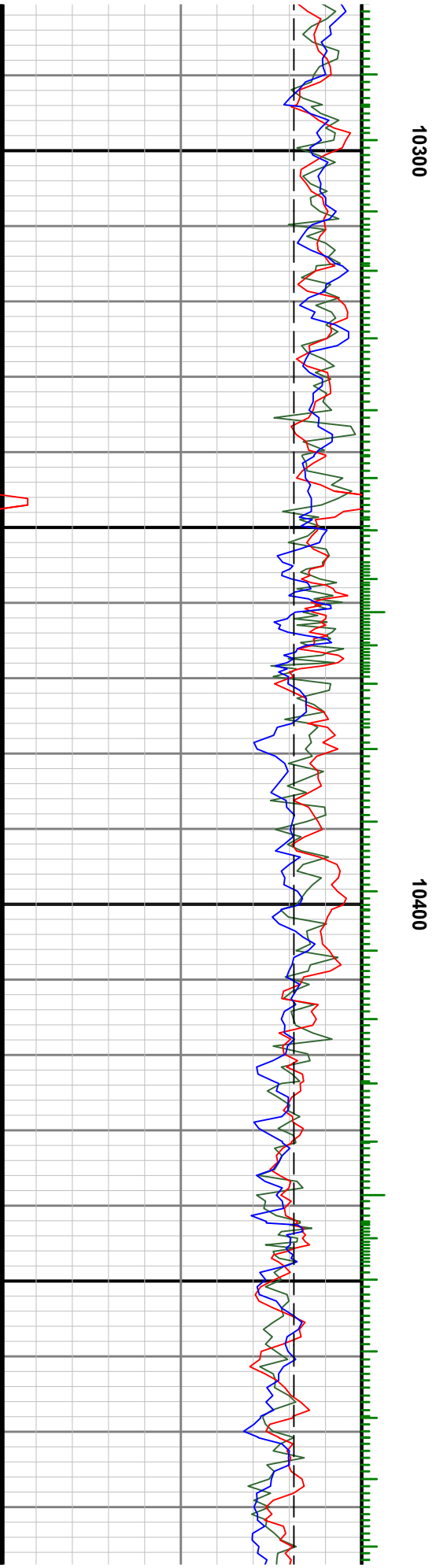
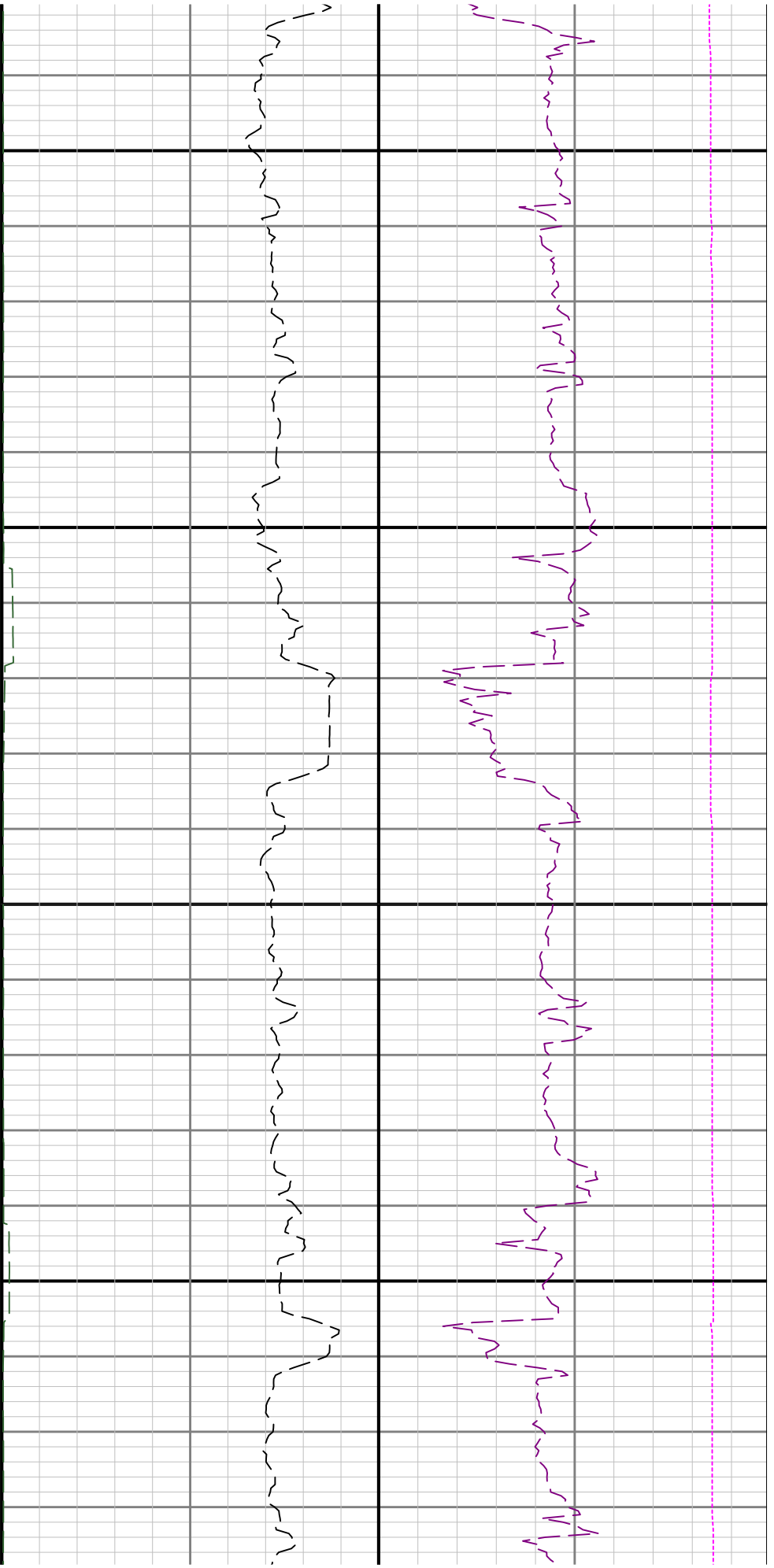
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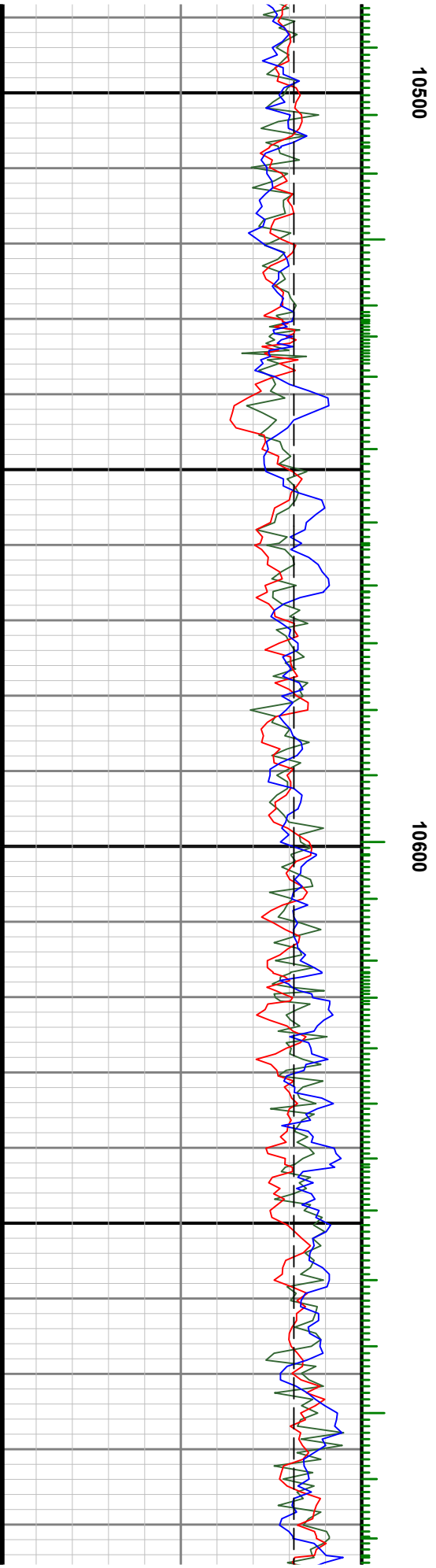
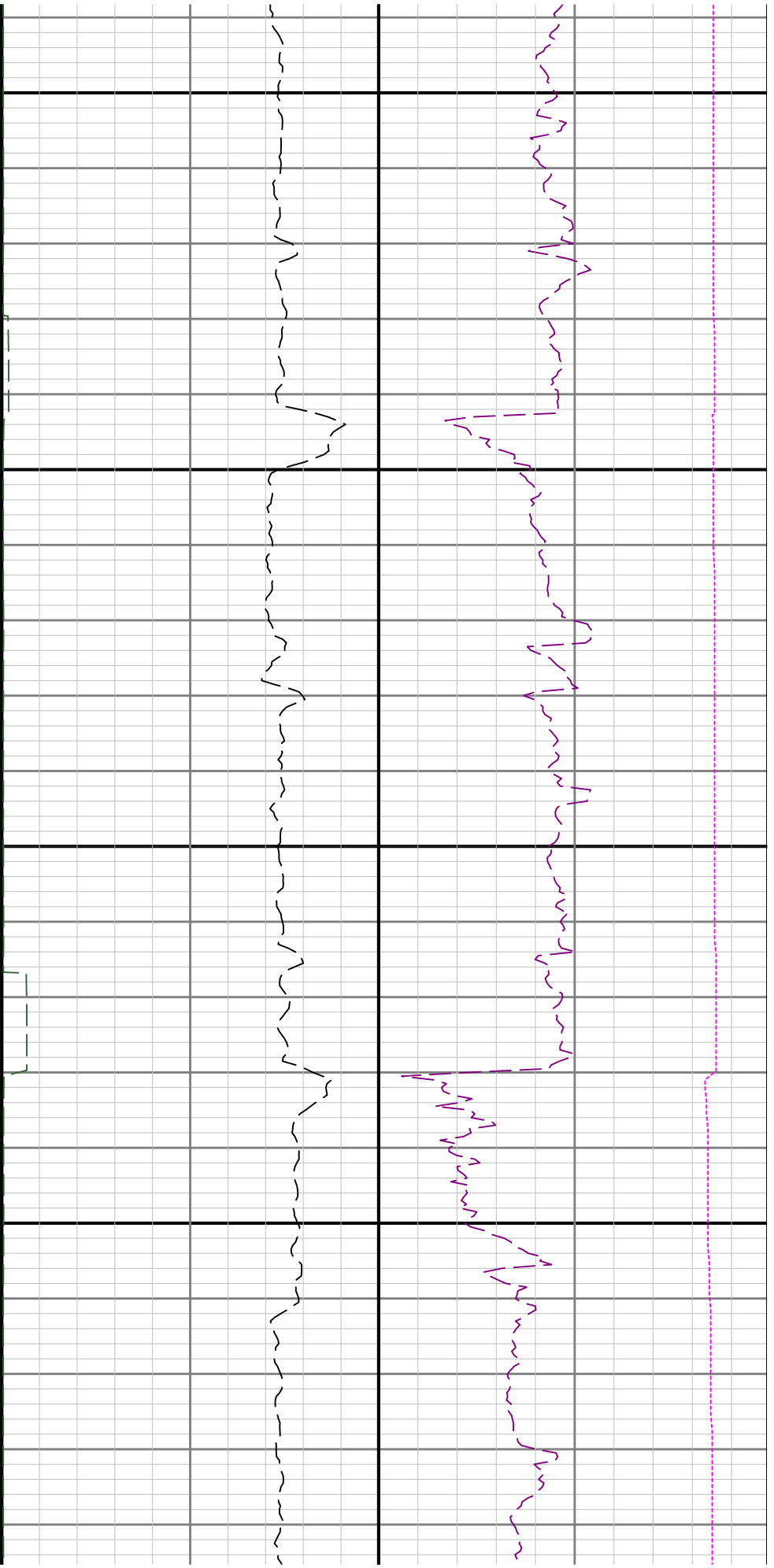


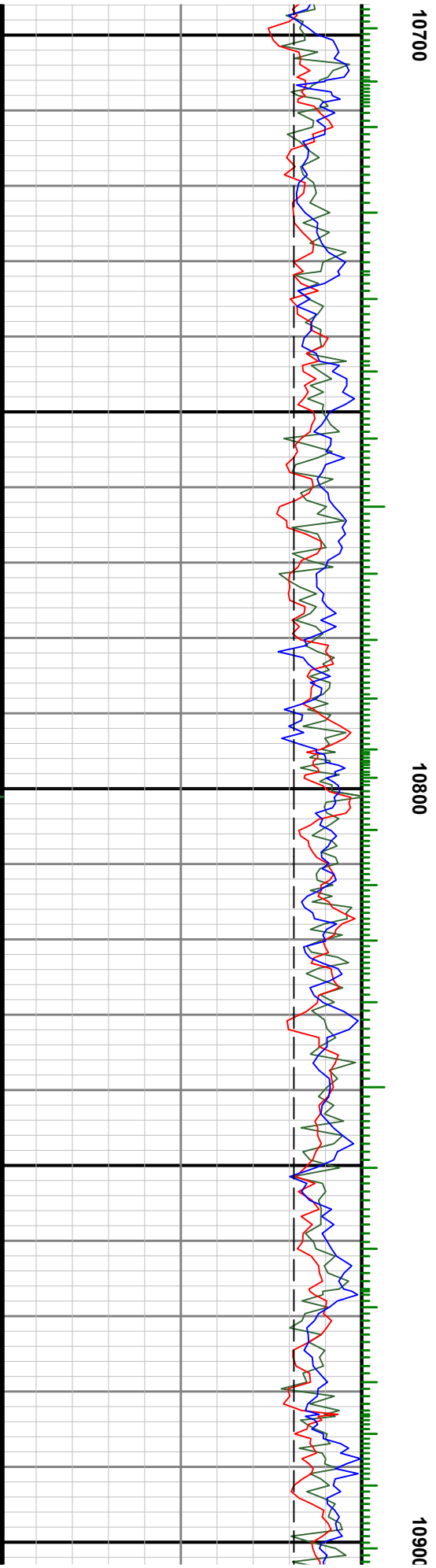
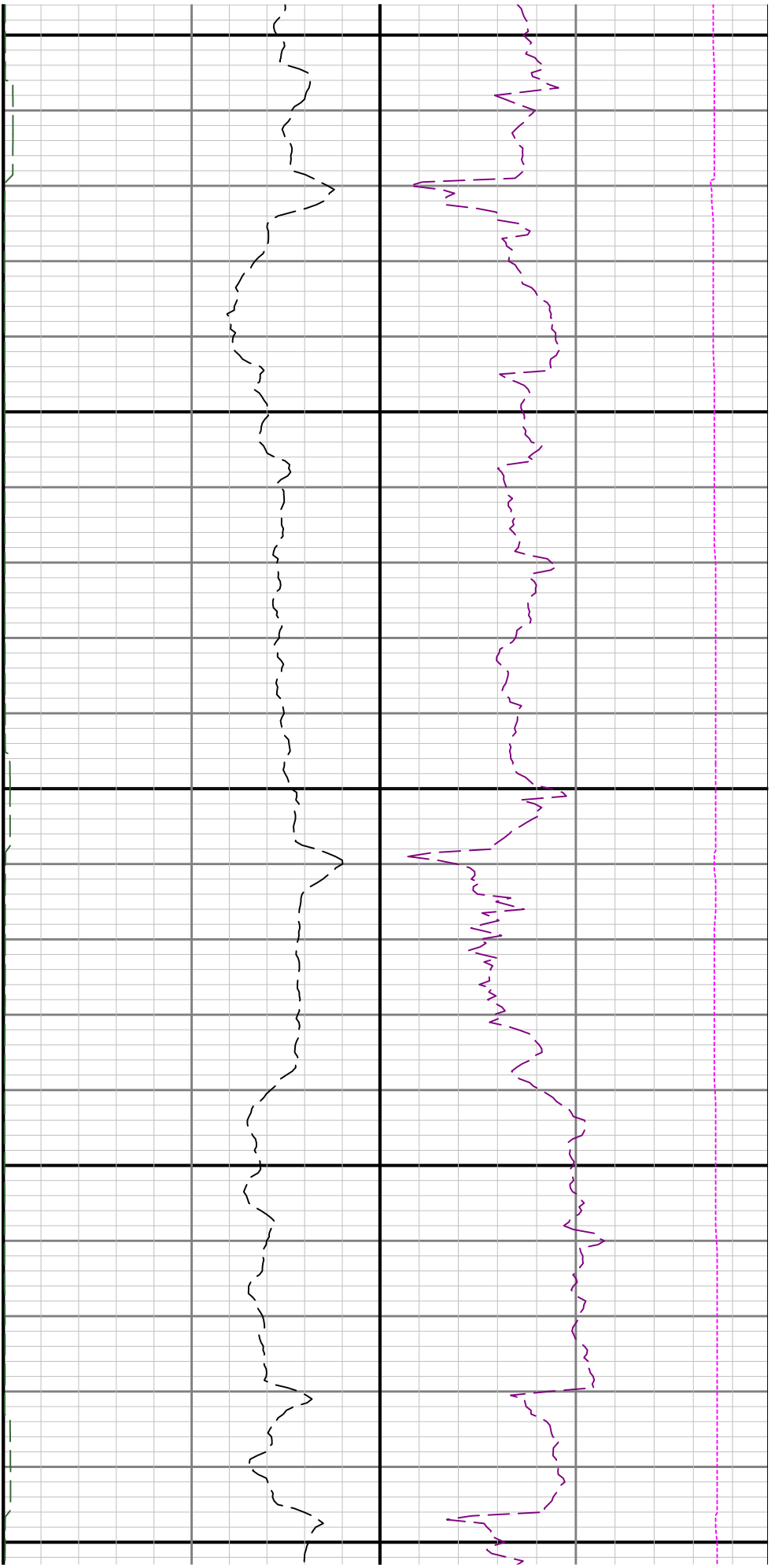


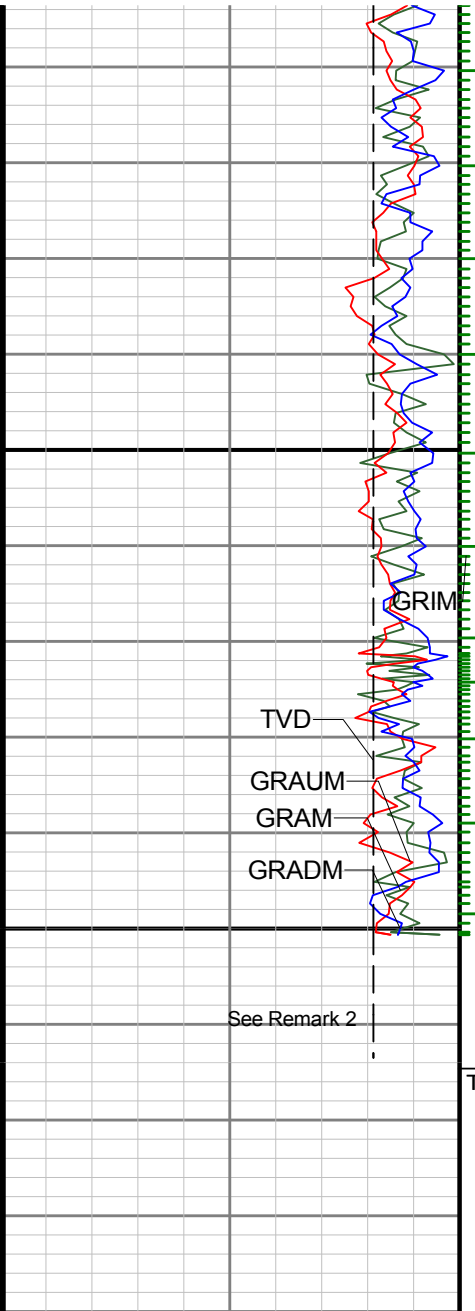






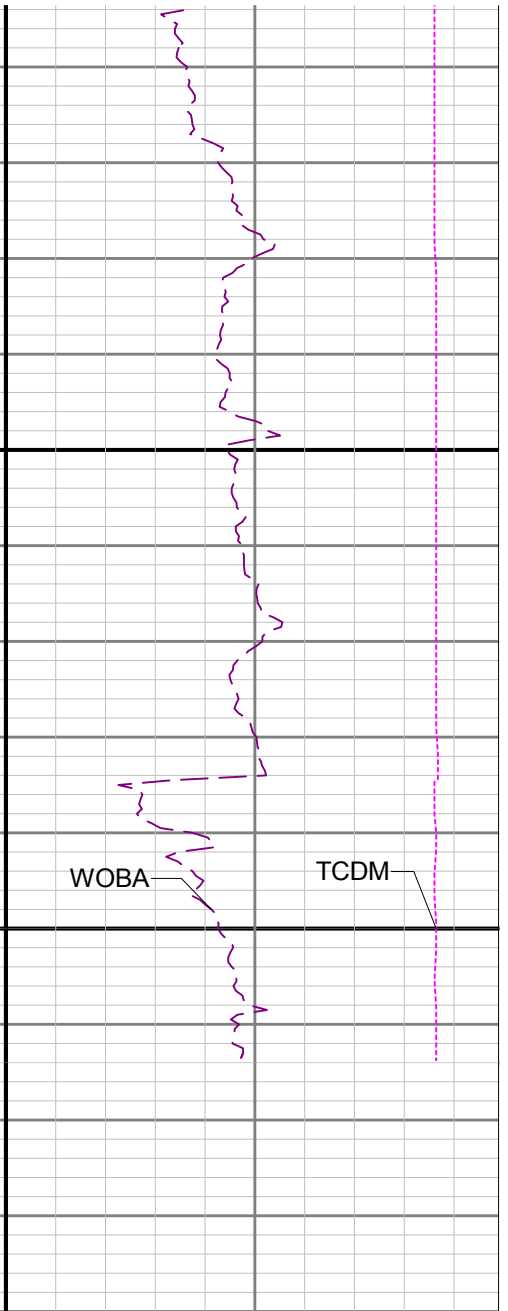
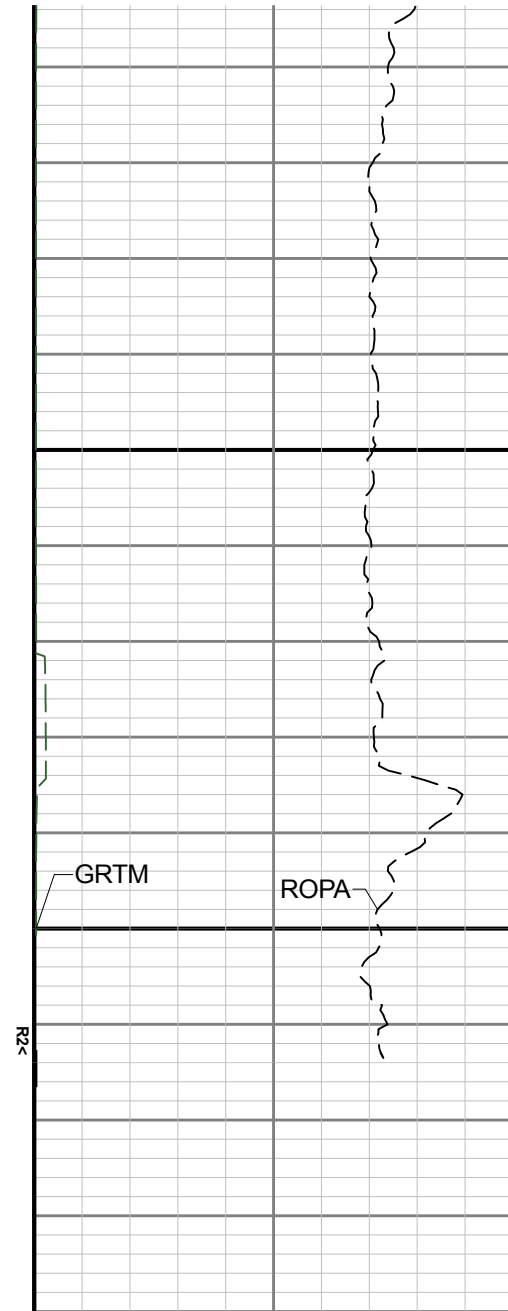






11000

TD



Gamma Ray Apparent 0.5 ft Average [GRAM]	
0	200
API	
Gamma Ray Apparent UP 0.5 ft Average [GRAUM]	
0	200
API	
Gamma Ray Apparent DOWN 0.5 ft Average [GRADM]	
0	200
API	
True Vertical Depth [TVD]	
4000	7000
ft	

MD 1:240 feet

Depth Averaged ROP 3 ft Average [ROPA]	
1200	0
ft/h	
Time Since Drilled [GRTM]	
0	600
min	

Weight On Bit 1 ft Average [WOBA]	
0	50
klb	
Downhole Temperature [TCDM]	
0	250
degF	