


LWD MEMORY LOG														
<div><div><div>BAKER HUGHES</div><div>a GE company</div></div><div></div></div>			Multiple Propagation Resistivity Gamma Ray											
Scale:			Company: Bonanza Creek Oil Company											
1:240 MD			Well: North Platte F-J-28HNC											
Depth Reference:			Field: Weld County											
Driller's Depth			County: Weld State: Colorado Country: United States											
Status:			Surface Location:						Other Services:					
Final Print			Latitude: 040° 22' 53.990" N Longitude: 104° 26' 43.422" W						Directional					
API No: 05-123-47012-00			SEC: 21 TWN: 5N RGE: 63W						Elev. KB: N/A Elev. DF: 4570.00 ft Elev. GL: 4553.00 ft					
Job ID: 109388021			Permanent Datum (P.D.): Mean Sea Level						Elevation: Above P.D. 4570.00 ft					
Log Measured From: Rig Floor			Interval Drilled						Magnetic Field Reference					
Dates			Date From: 2018-09-06 Top: (ft) 17.00 Date To: 2018-09-21 Bottom: (ft) 11610.00 Spud Date: 2018-09-06						Azi Reference North: True Total Magnetic Field Strength: (nT) 52308 Mag to Reference North Correction: (deg) 8.10					
Borehole Record			Casing Record											
Hole Size (in)			From (ft)		To (ft)		Size (in)		Weight (lb/ft)		From (ft)		To (ft)	
13.500			17.00		1616.00		9.625		36.00		17.00		1605.00	
8.500			1616.00		11610.00									

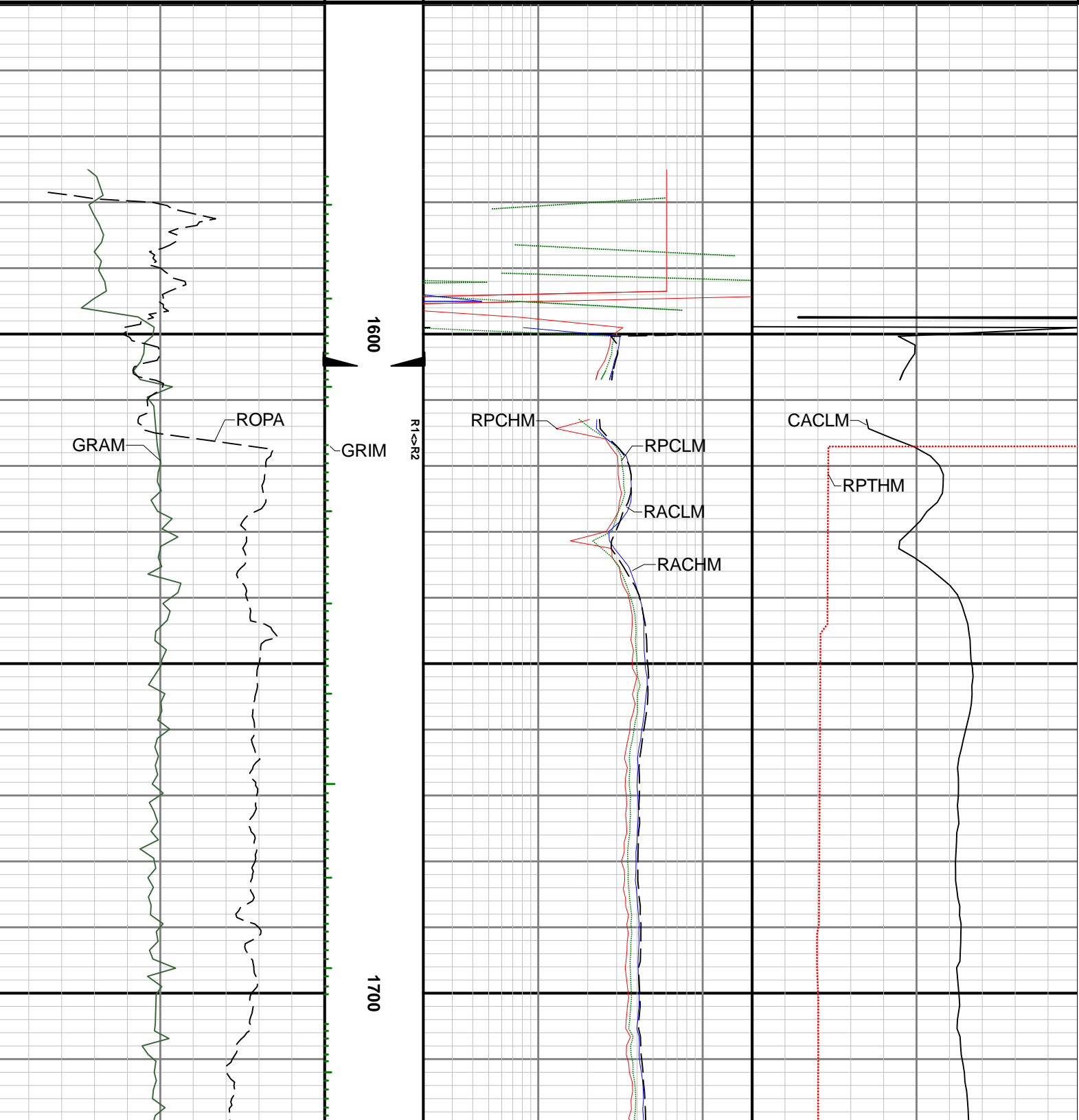
Comments			
1	Depth measurements were obtained from a depth control system not supplied or operated by Baker Hughes. Due to the lack of control by Baker Hughes, depth calibrations and measurements could not be independently verified.		
2	Baker Hughes LWD Run 1 used the 8 inch NaviTrak service (Directional) behind a 13 1/2 inch bit and steerable assembly to drill from 17 to 1616 feet MD (17 to 1616 feet TVD).		
3	Baker Hughes LWD run 2 utilized a 6.75 inch OnTrak service (Multiple Propagation Resistivity and Gamma Ray) behind and 8.5 inch bit and rotary steerable assembly to perform a MAD (measurement after drilling) Pass from 1616 to 6115 feet MD (1616 to 6017 feet TVD). The data collected during this run was ream logged more than 10 hours after being drilled and presented independent of the drilled log.		
4	The Gamma Ray Apparent (GRAM) data is presented from 0 to 200 API, per customer's request.		

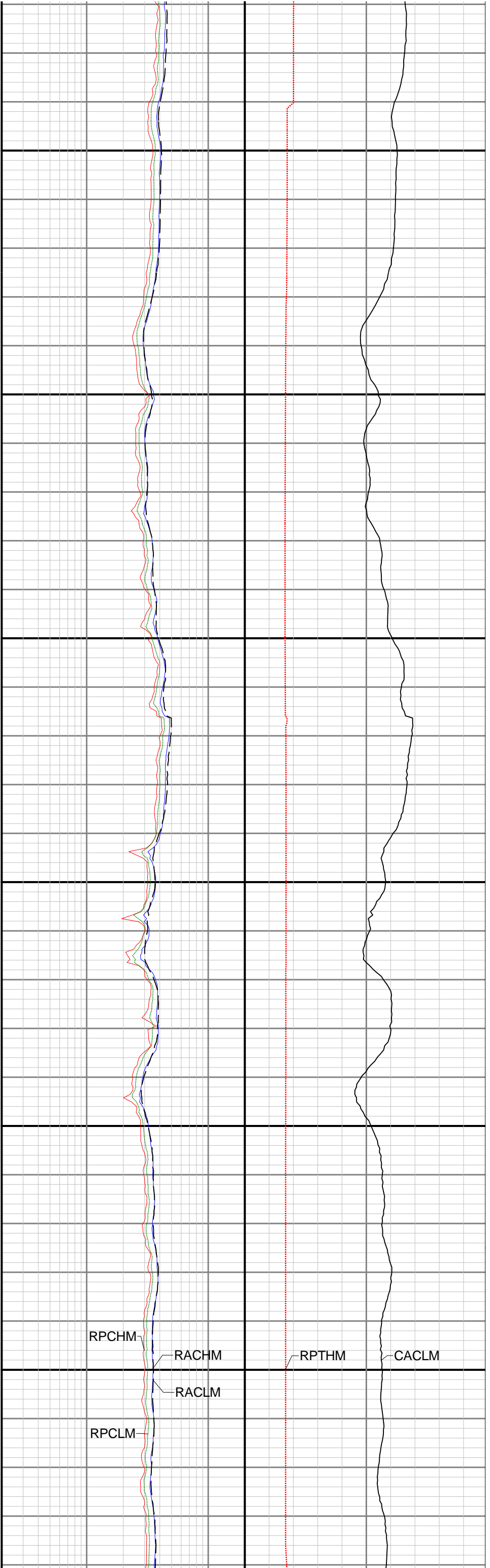
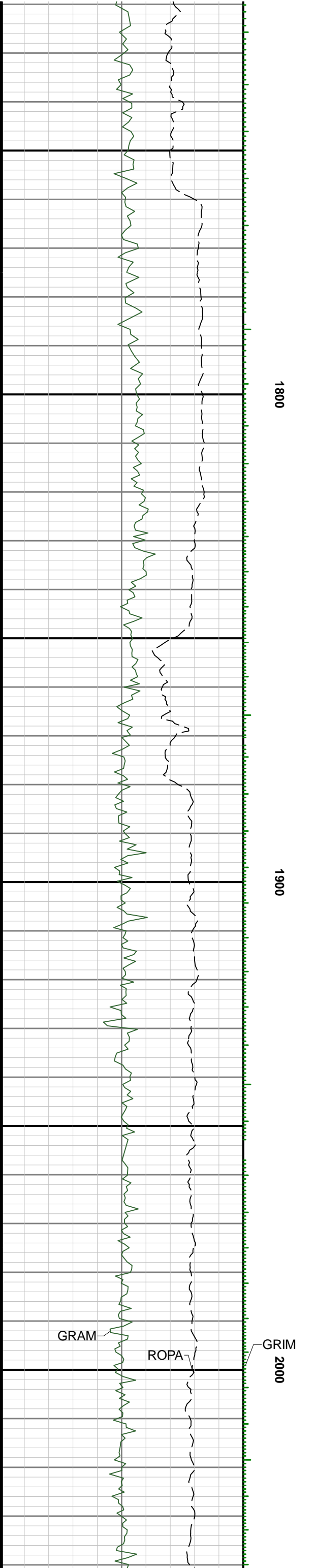
Remarks				
Number	Measured Depth (ft)	Hole Section (in)	Run No.	Remark
1	6120.00	8.500	2	The interval from 6115 to 11610 was not logged due to sensor to bit offset at well TD.

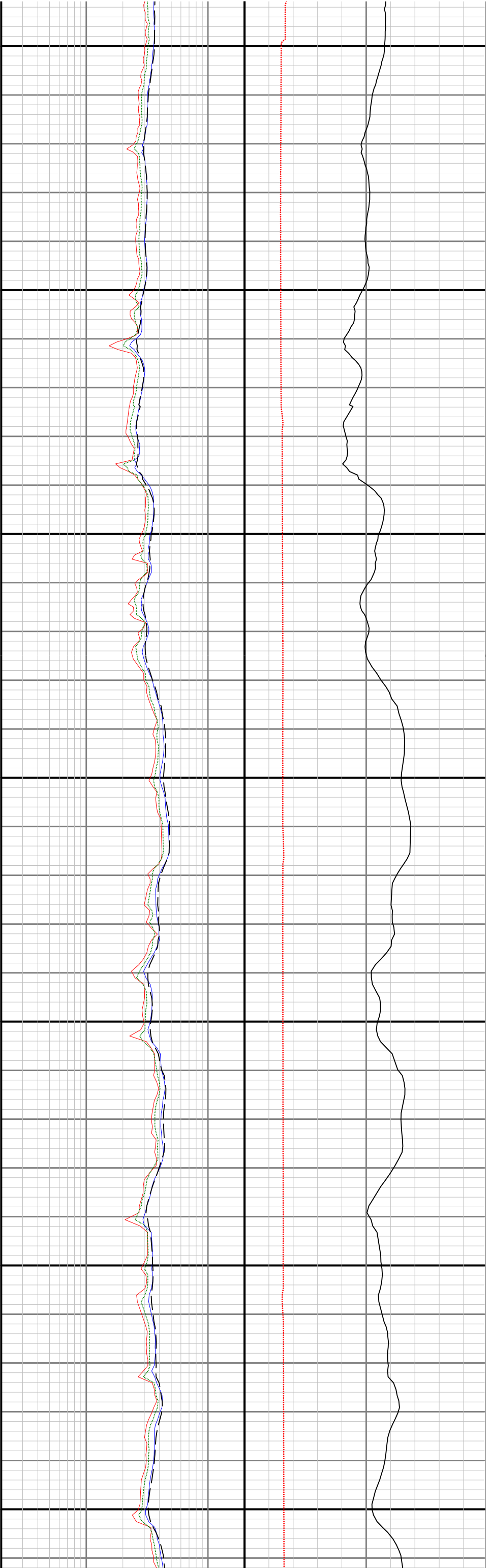
Curve Mnemonics	
Presented Curves	Description Units
CACLM	Conductivity Attenuation - Corrected - 400kHz mmho/m
RACHM	Resistivity Attenuation - Corrected - 2MHz ohm.m
RACLM	Resistivity Attenuation - Corrected - 400kHz ohm.m
RPCHM	Resistivity Phase - Corrected - 2MHz ohm.m
RPCLM	Resistivity Phase - Corrected - 400kHz ohm.m
RPTHM	Resistivity Time Since Drilled min
ROPA	Depth Averaged ROP 3 ft Average ft/h
GRAM	Gamma Ray - Apparent - Memory 0.5 ft Average API
GRIM	Gamma Ray - Data Point Indicator - Memory unitless

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	Well	North Platte F-J-28HNC			
	Interval	Date From: 2018-09-06 08:16	Top: 17.00 ft	Date To: 2018-09-21 18:48	Bottom: 11610.00 ft
	Created	2018-11-30 12:22:54			

Gamma Ray - Apparent 0.5 ft Average [GRAM]	MD 1:240 feet	Resistivity Phase - Corrected - 2MHz [RPCHM]	Conductivity Attenuation - Corrected - 400kHz [CACLM]
0 200		0.2 20	650 0
API		ohm.m	mmho/m
Depth Averaged ROP 3 ft Average [ROPA]		Resistivity Phase - Corrected - 400kHz [RPCLM]	Resistivity Time Since Drilled [RPTHM]
1200 0		0.2 20	0 1000
ft/h		ohm.m	min
		Resistivity Attenuation - Corrected - 2MHz [RACHM]	
		0.2 20	
		ohm.m	
		Resistivity Attenuation - Corrected - 400kHz [RACLM]	
		0.2 20	
		ohm.m	



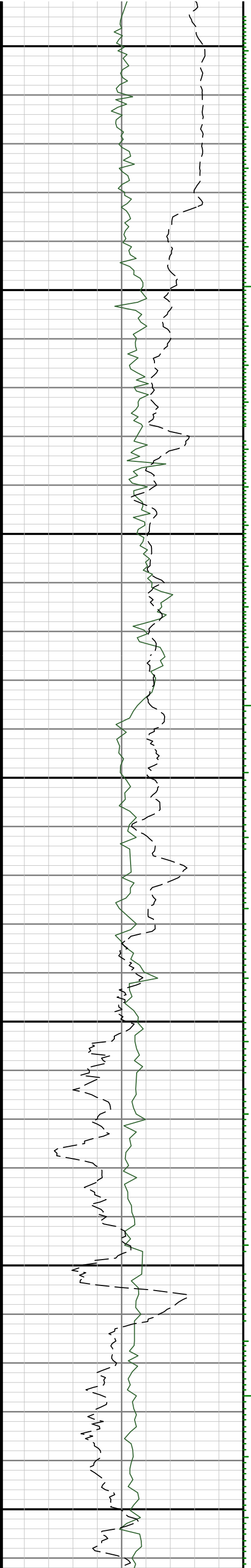


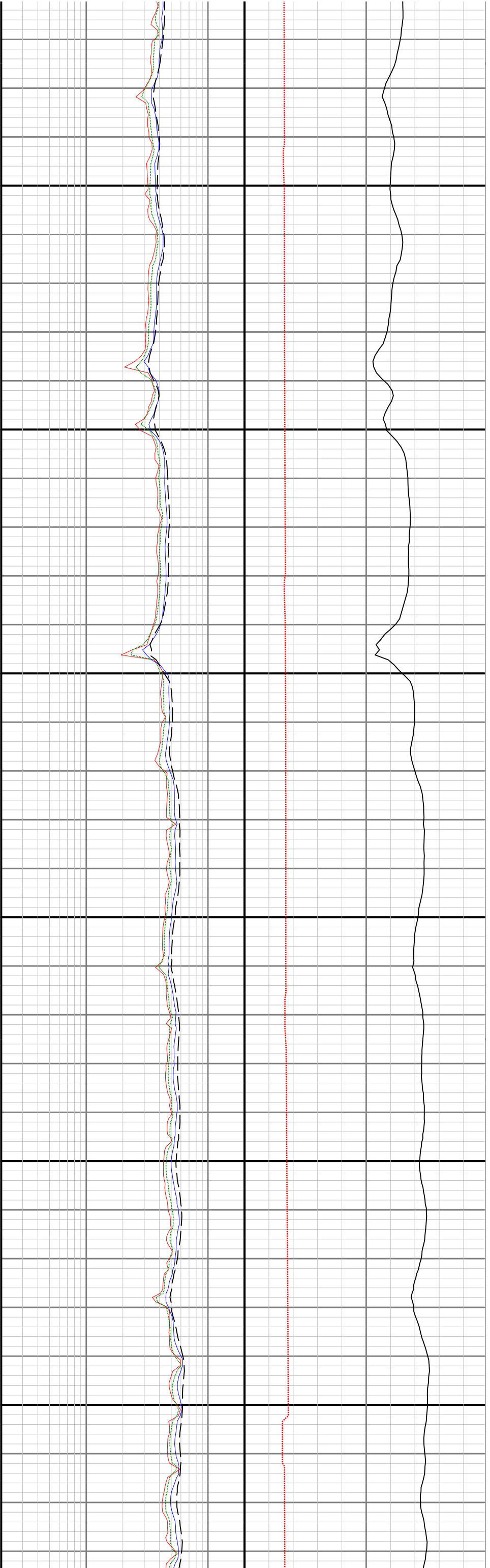


2100

2200

2300

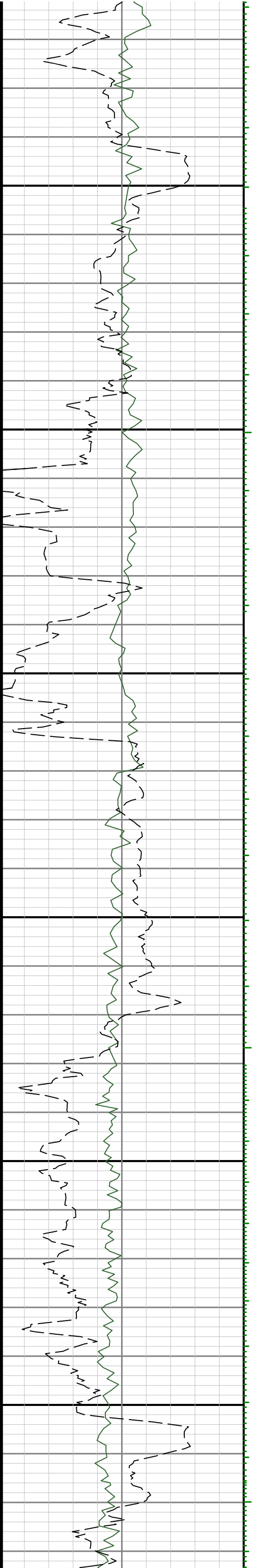


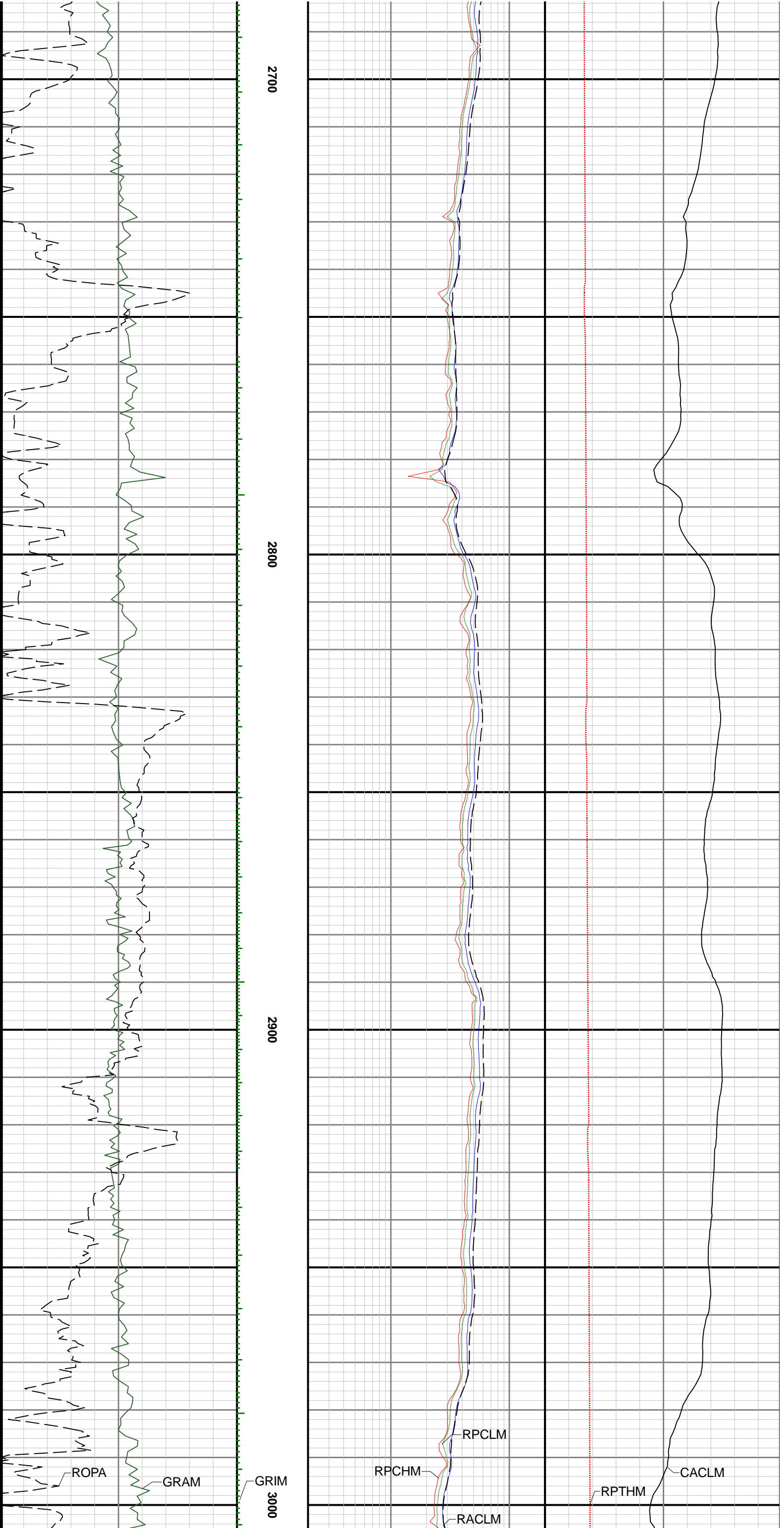


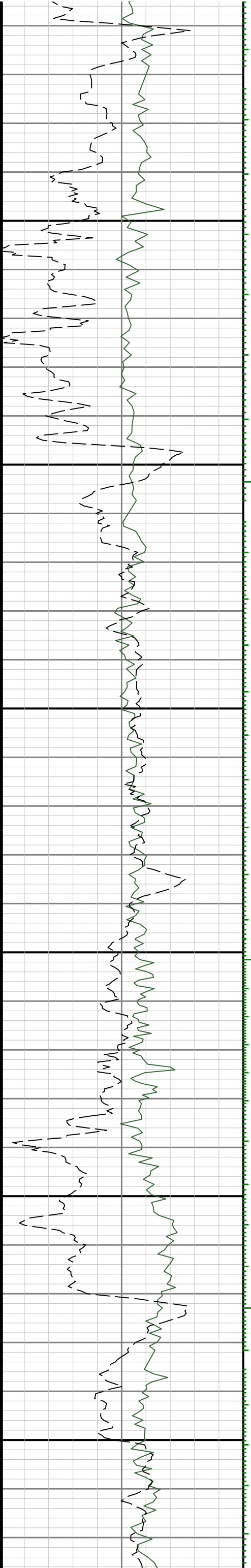
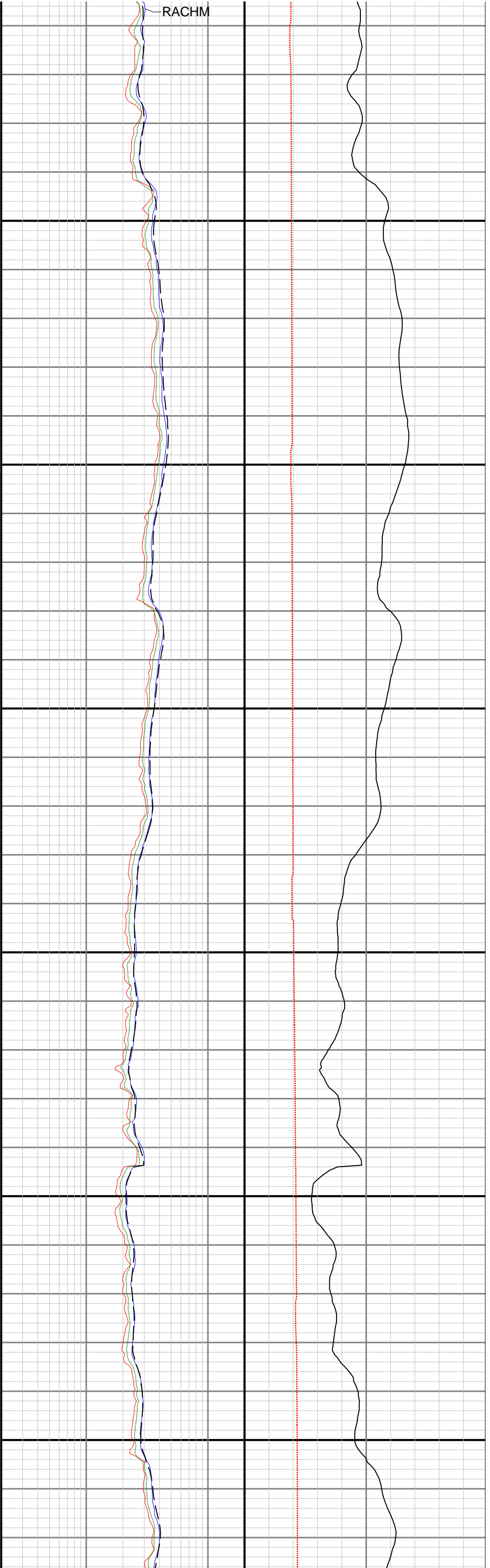
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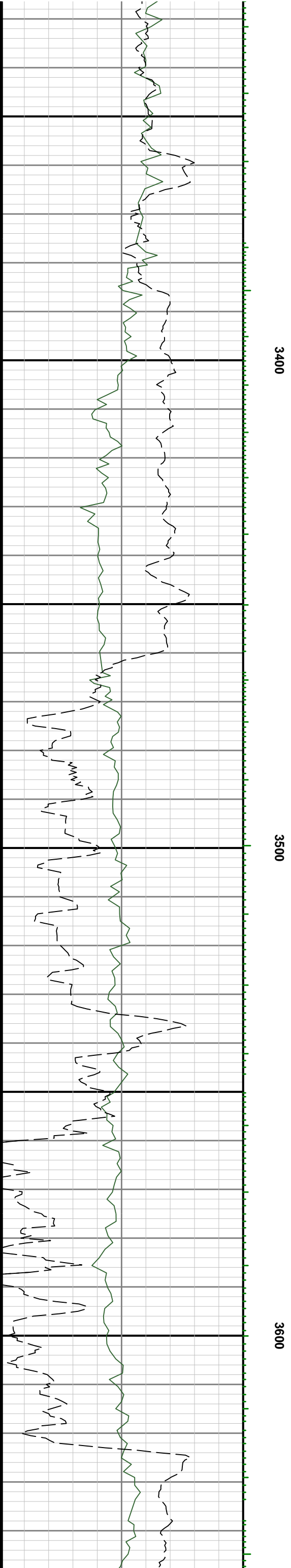
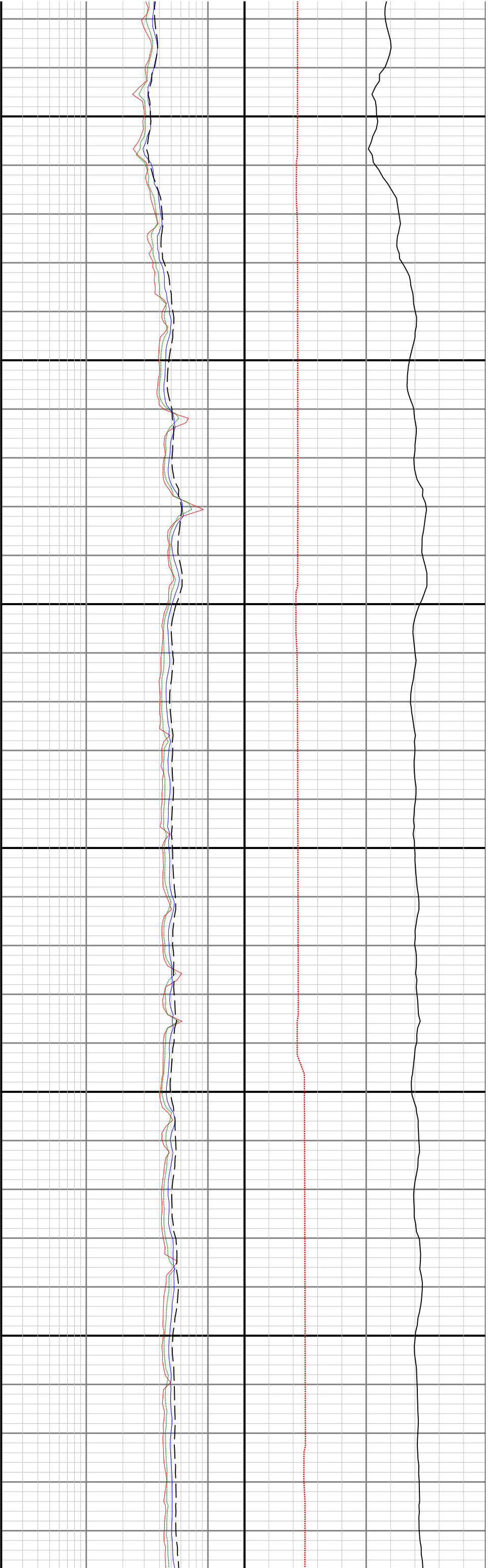
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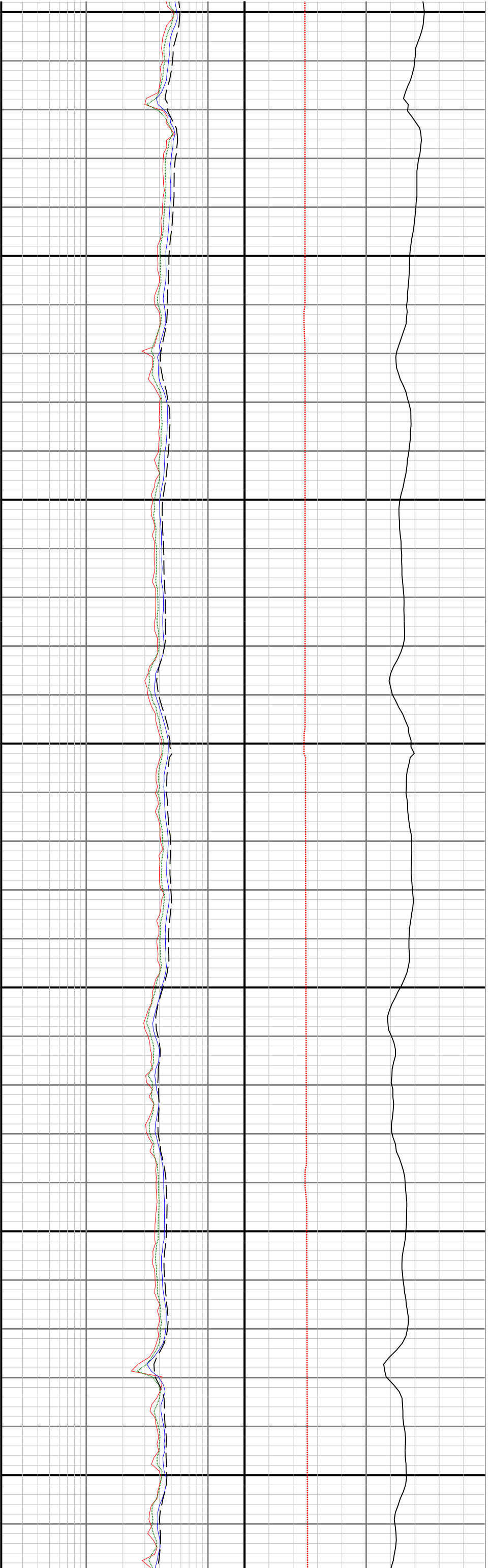
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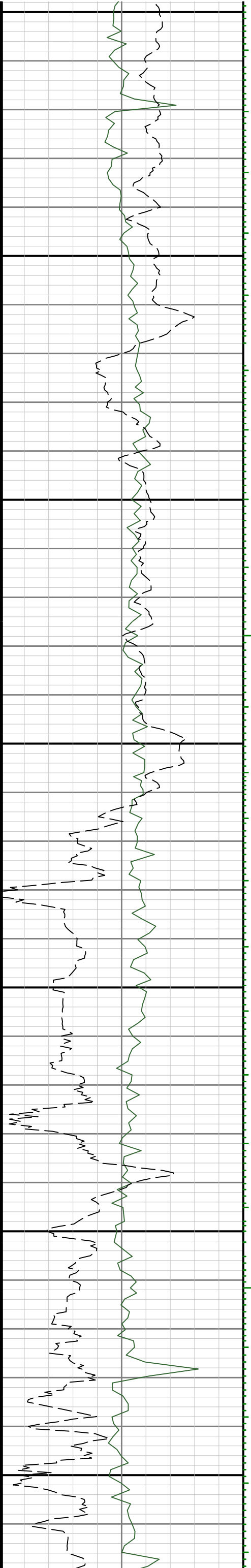


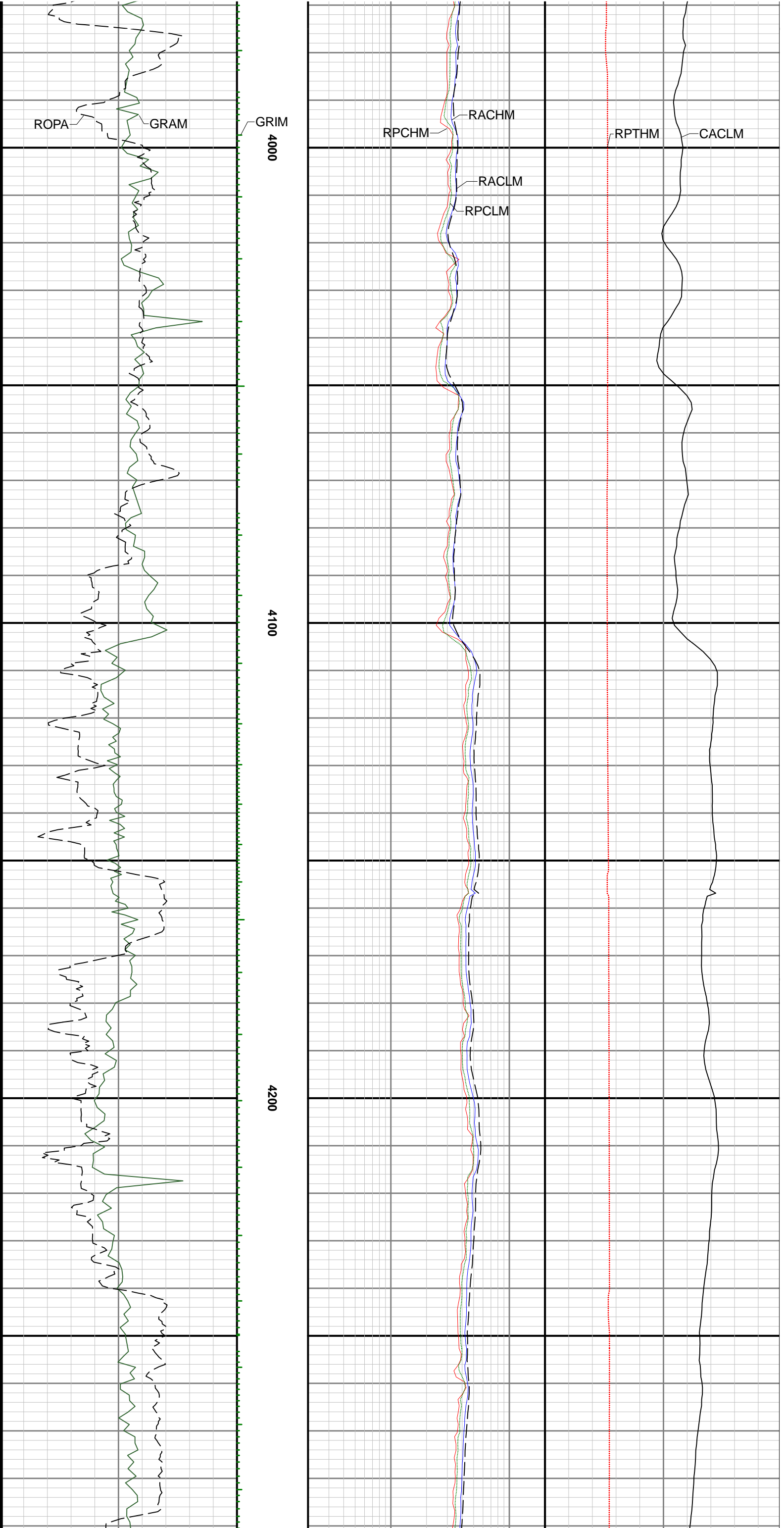


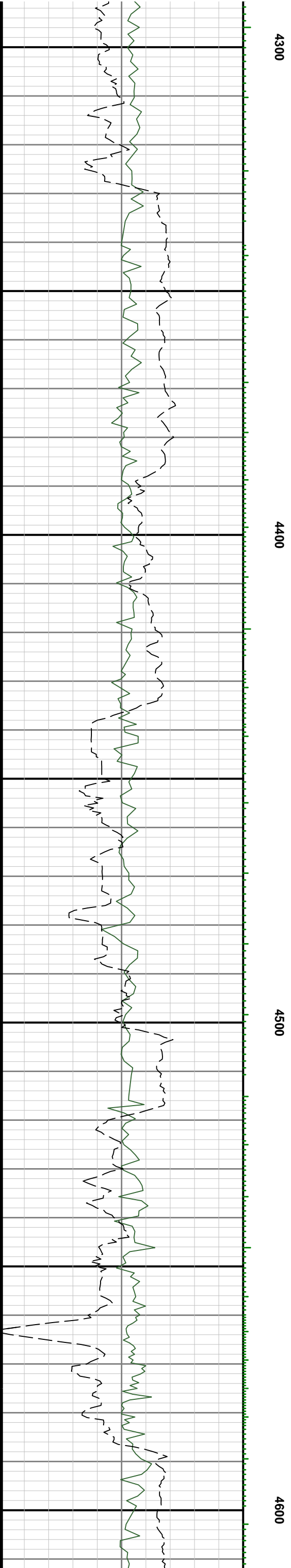
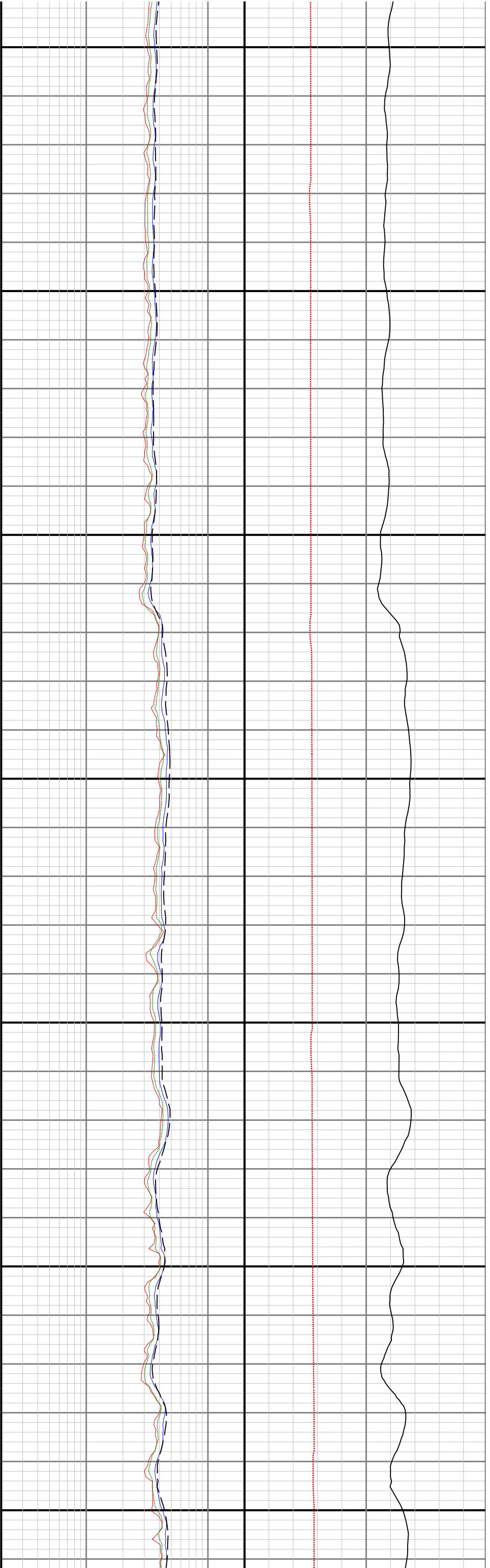
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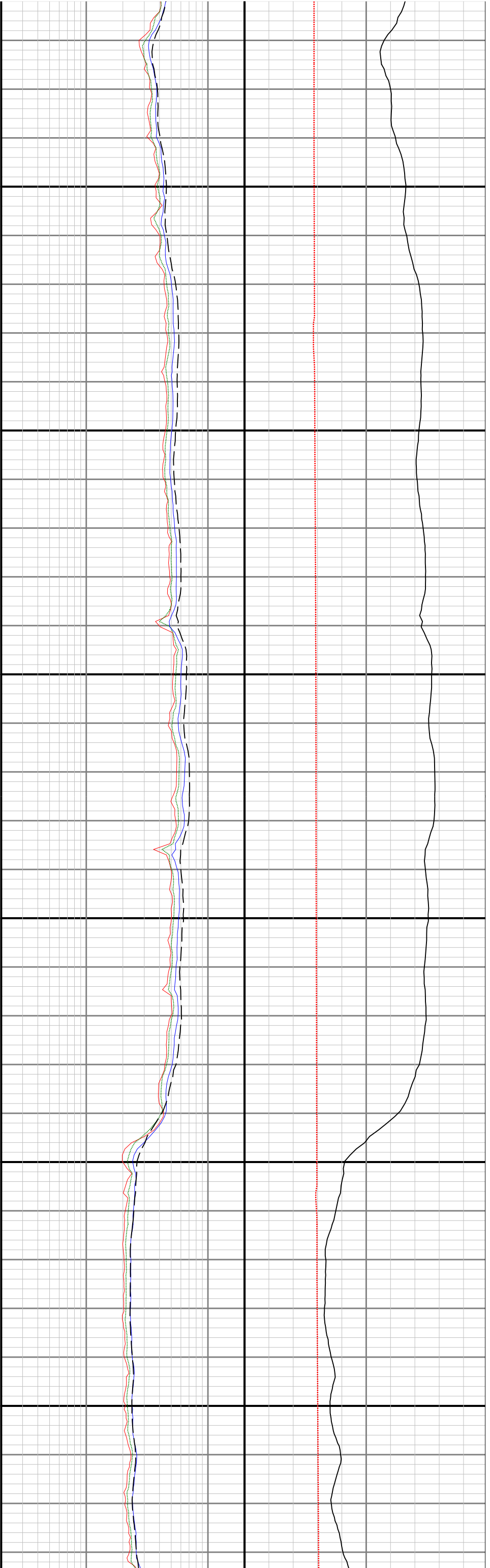
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3900





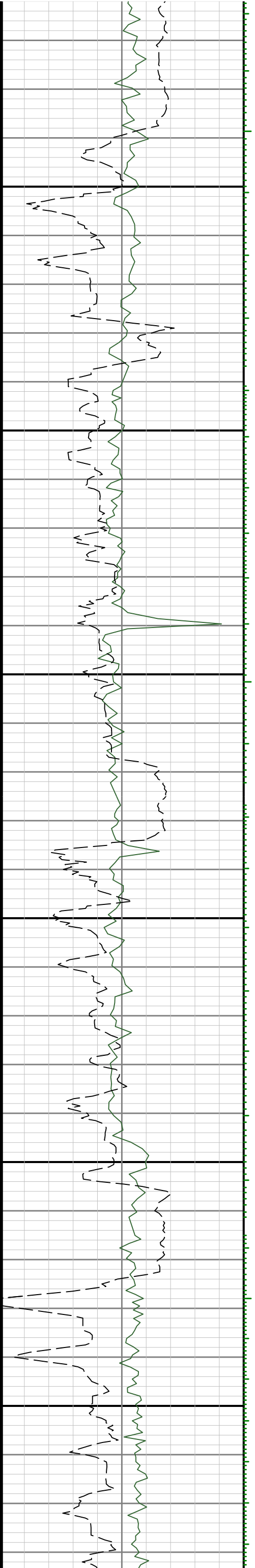


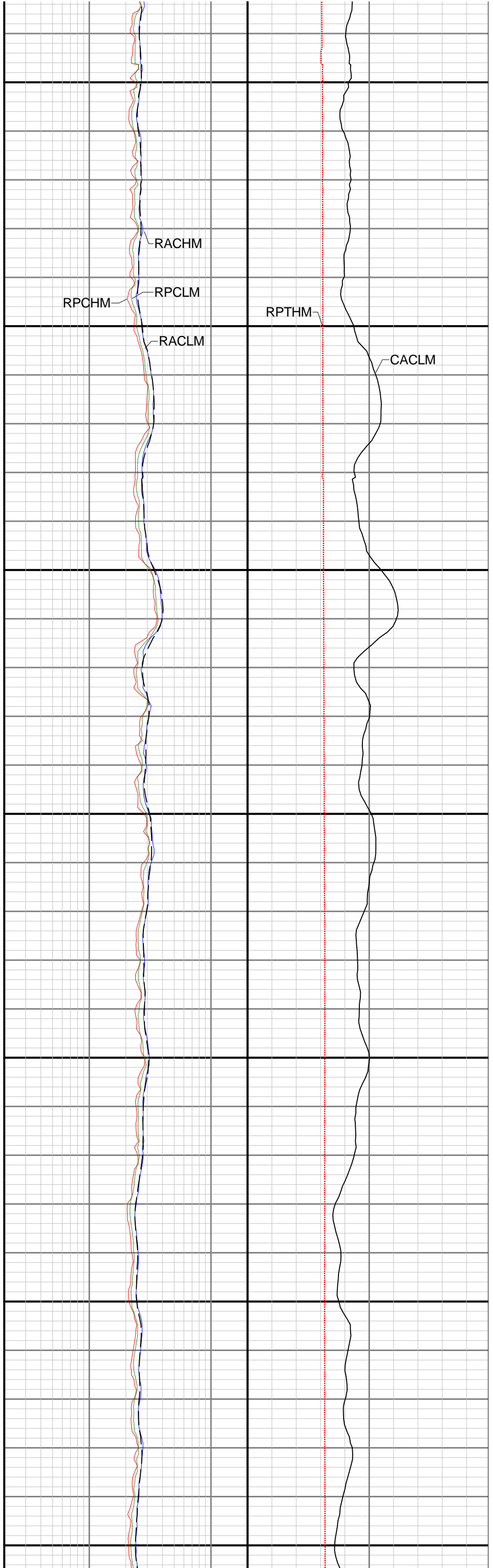
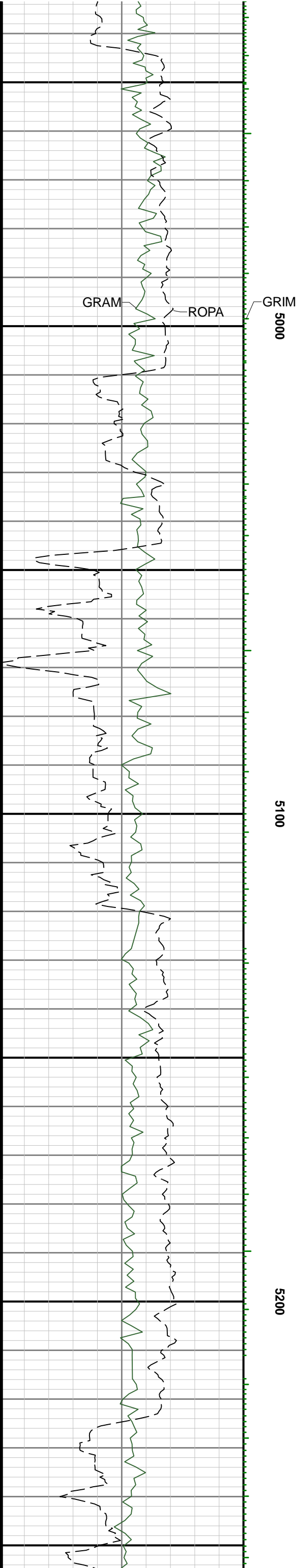


4700

4800

4900



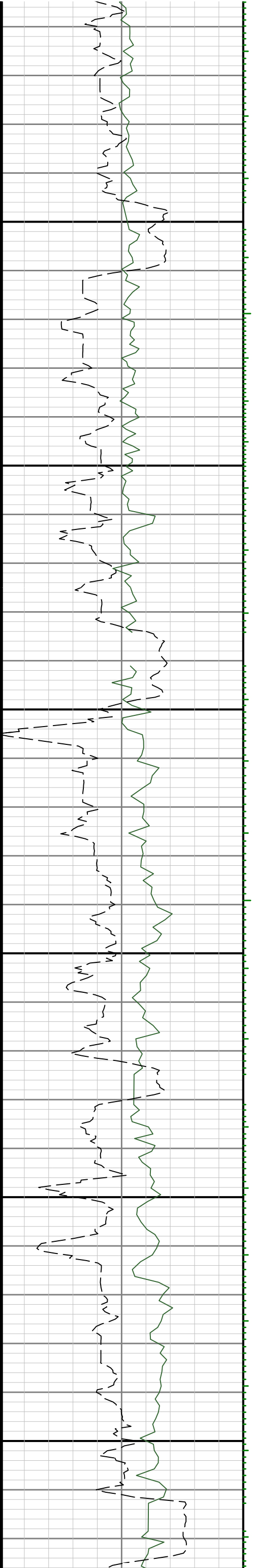


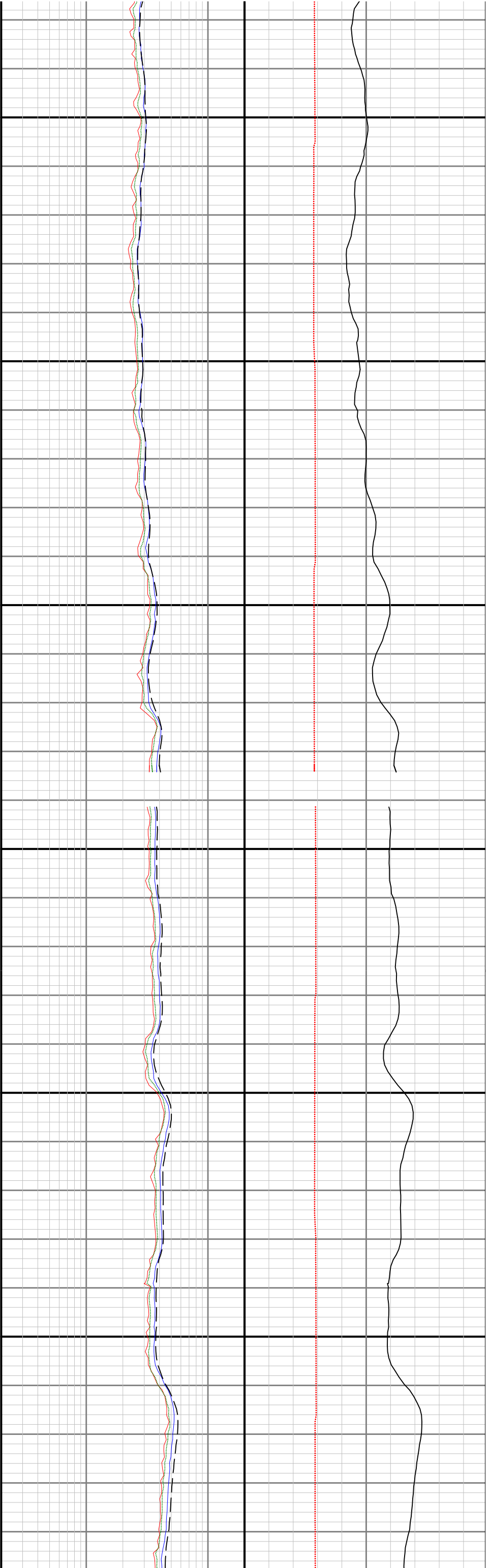


5300

5400

5500





5600

5700

5800



