



**CEMENT BOND LOG W/
VARIABLE DENSITY,
GAMMA RAY, CCL, TEMP**

Company		Great Western	
Well		OTTESEN LE 06-290HN	
Field		Wattenberg	
County		Weld	
State		Colorado	
Location:		API # : 05-123-44335	
SEC 33 TWP 1N RGE 66W		NWSE	
Permanent Datum		GL	Elevation
Log Measured From		KB	5076.5'
Drilling Measured From		KB	Elevation
			K.B. 5096.5'
			D.F. ----
			G.L. 5076.5'
Date		25-JAN-2019	
Run Number		TWO	
Depth Driller		17953	
Depth Logger		9901'	
Bottom Logged Interval		9896'	
Top Log Interval		Surface	
Open Hole Size		8 5/8"	
Type Fluid		Fresh Water	
Density / Viscosity		8.4	
Max. Recorded Temp.		250	
Estimated Cement Top		SEE LOG	
Time Well Ready		ROA	
Time Logger on Bottom		11:12AM	
Equipment Number		80	
Location		Platteville, CO	
Recorded By		JOSEPH FRESQUEZ	
Witnessed By		ETHAN SAVOYA	
JAMES VALENTINE			
Run Number		Bit	
From		To	
Size		Weight	
From		To	
Casing Record		Size	
Surface String		9-5/8"	
Prot. String		36#	
Production String		5-1/2"	
Liner		17#	
		SURFACE	
		17953'	

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

Cement Bond Log ran as per customer request
Depth Correlated to Casing Tally reported Marker Joint @ 9654 FT
Adjusted log +15 FT to correlate with Marker Joint
Gauge Ring/Junk Basket ran to 9960 FT with no debris
Log ran from 9901 FT to surface
Log ran with 0 PSI Surface Induced Pressure.

Thank you for choosing KLX Energy Services!!

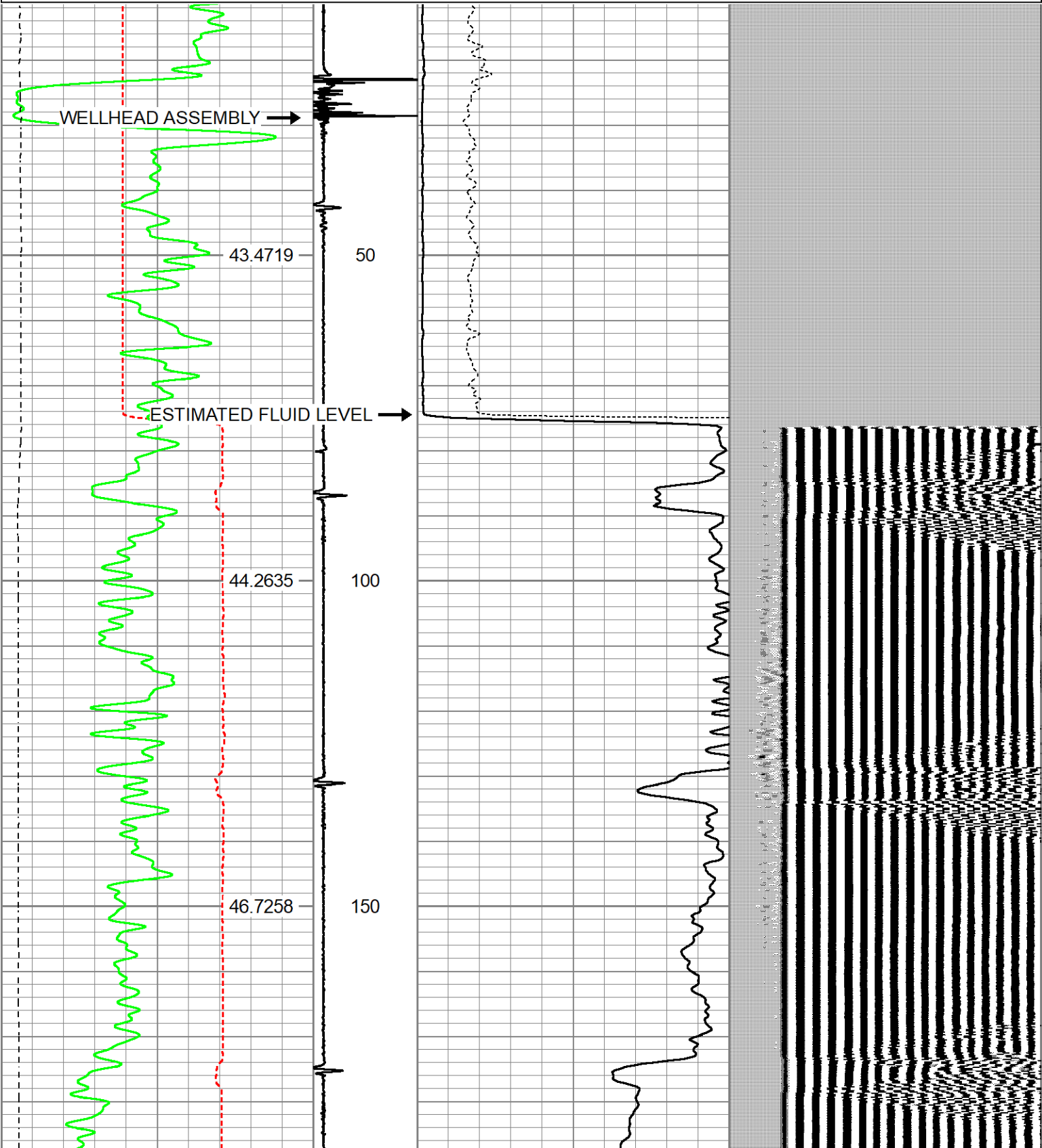


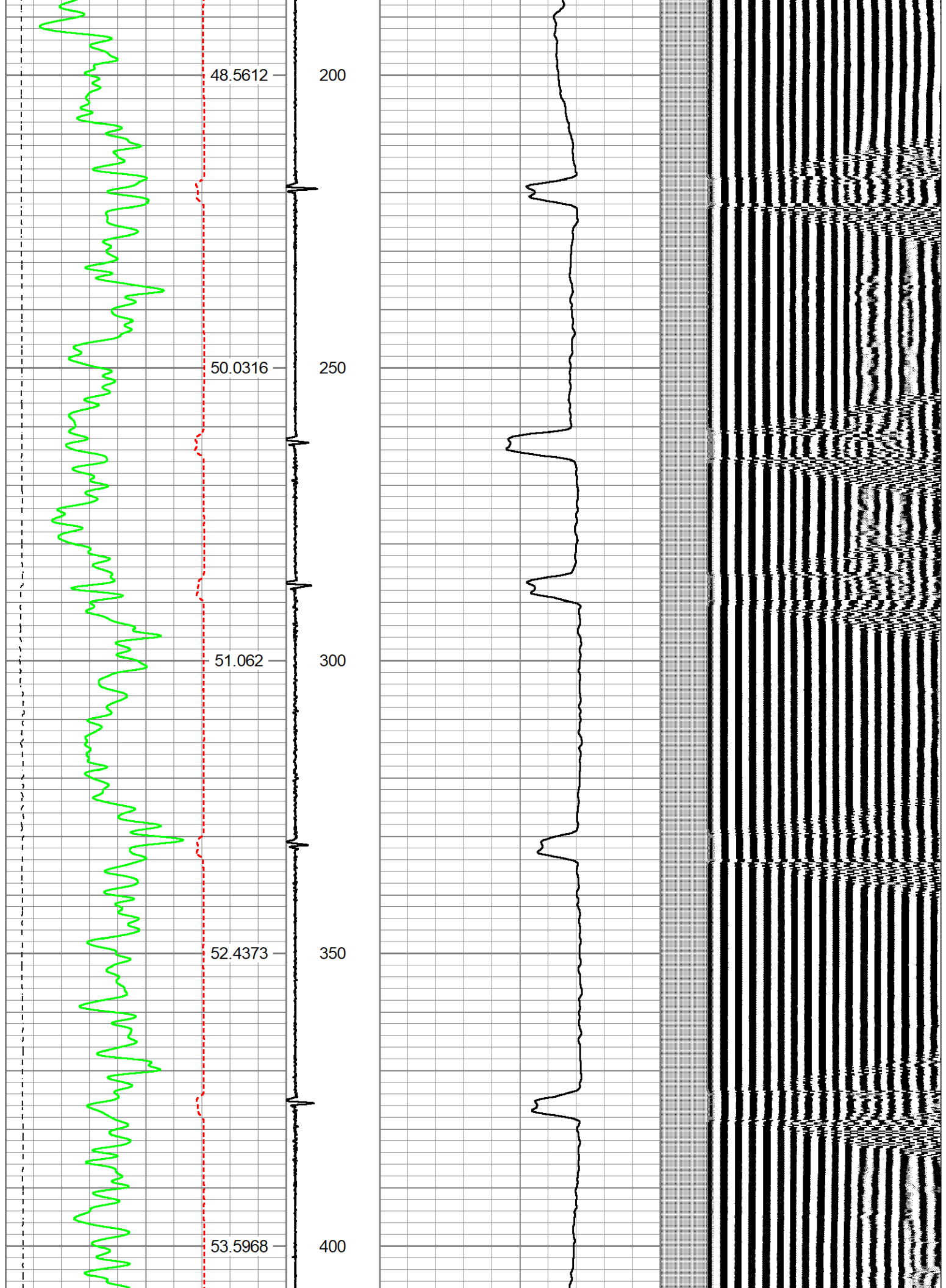
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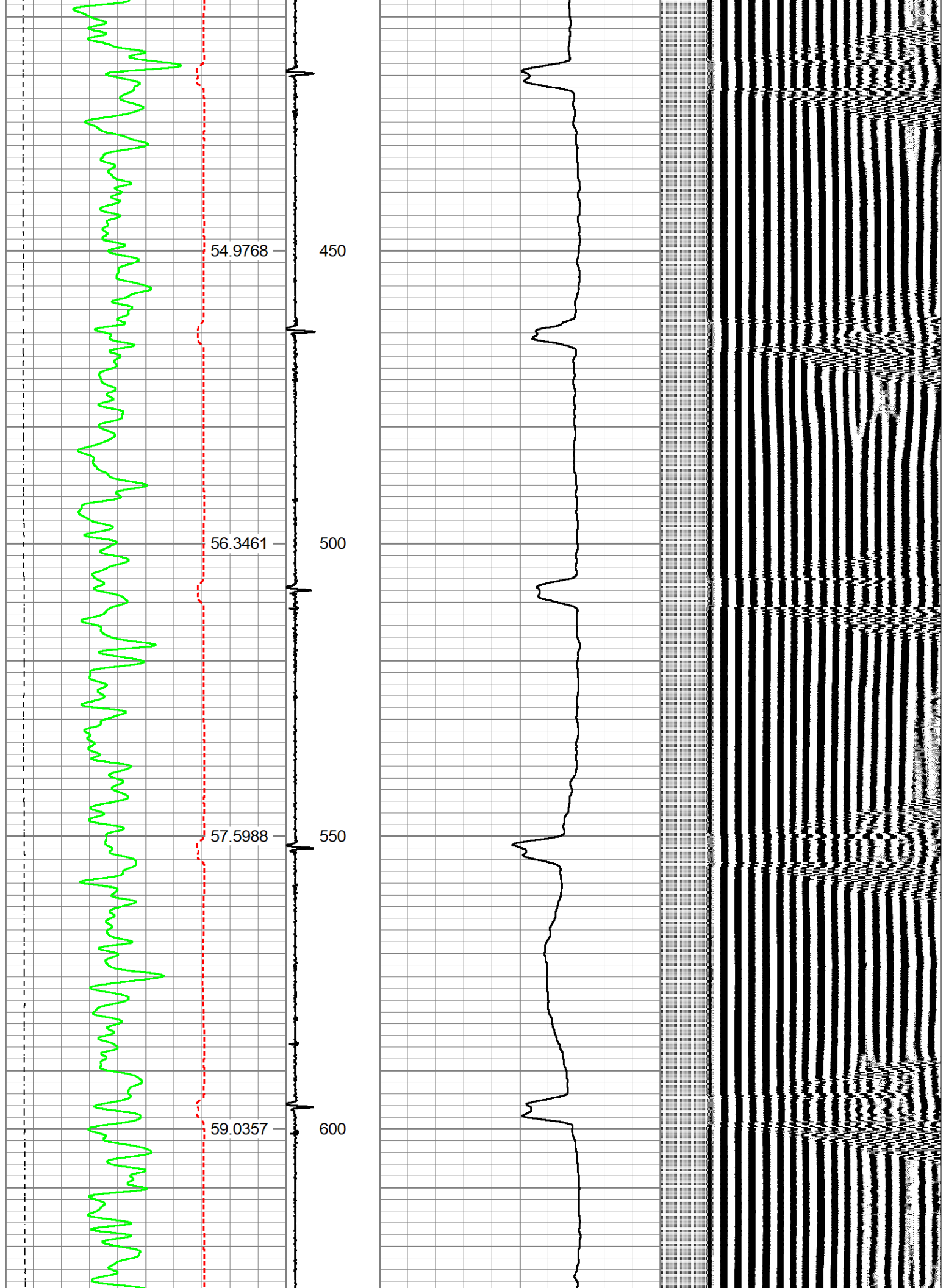
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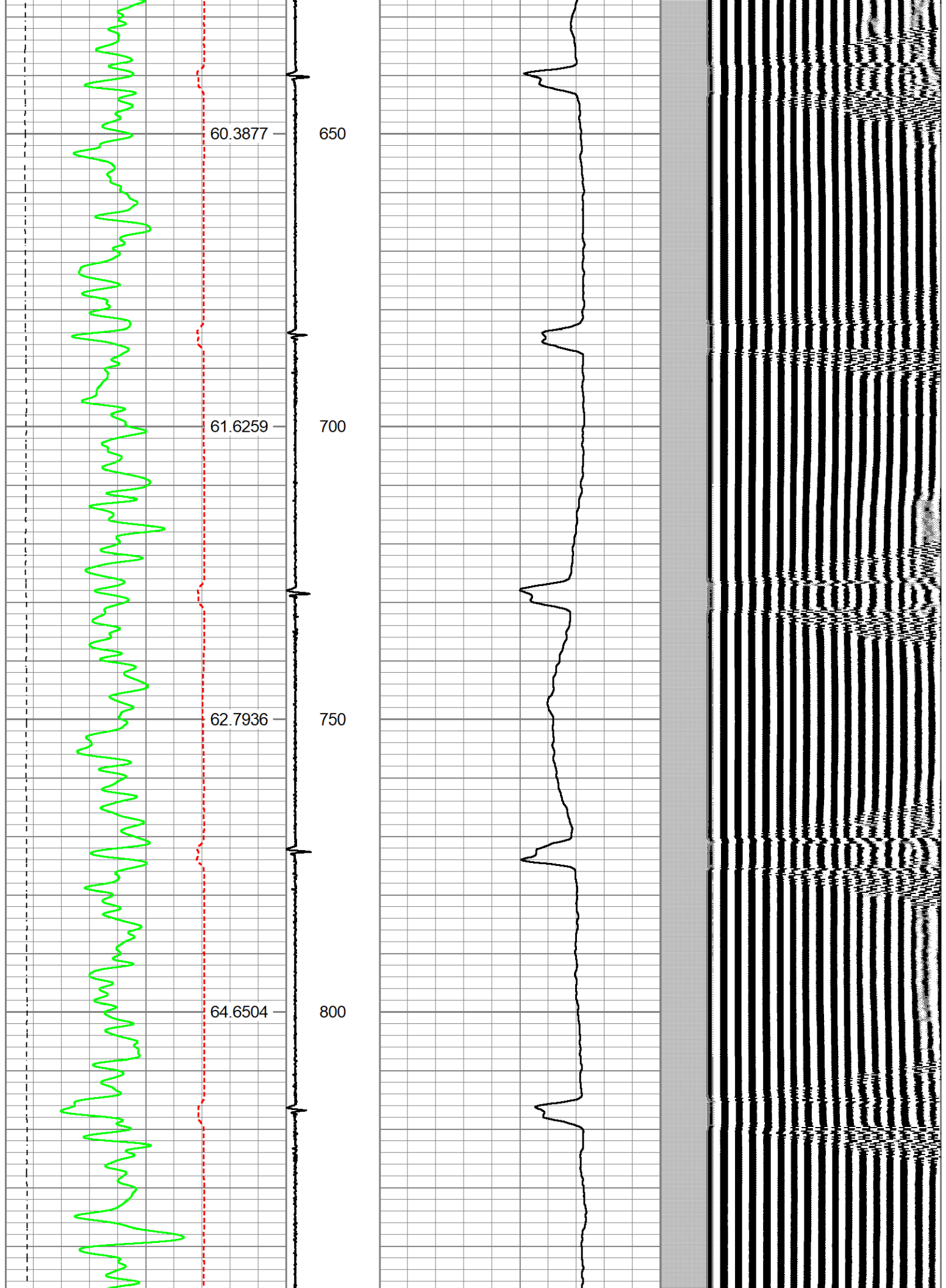
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Presentation Format	cblgct
Dataset Creation	Sat Jan 26 14:15:23 2019
Charted by	Depth in Feet scaled 1:240

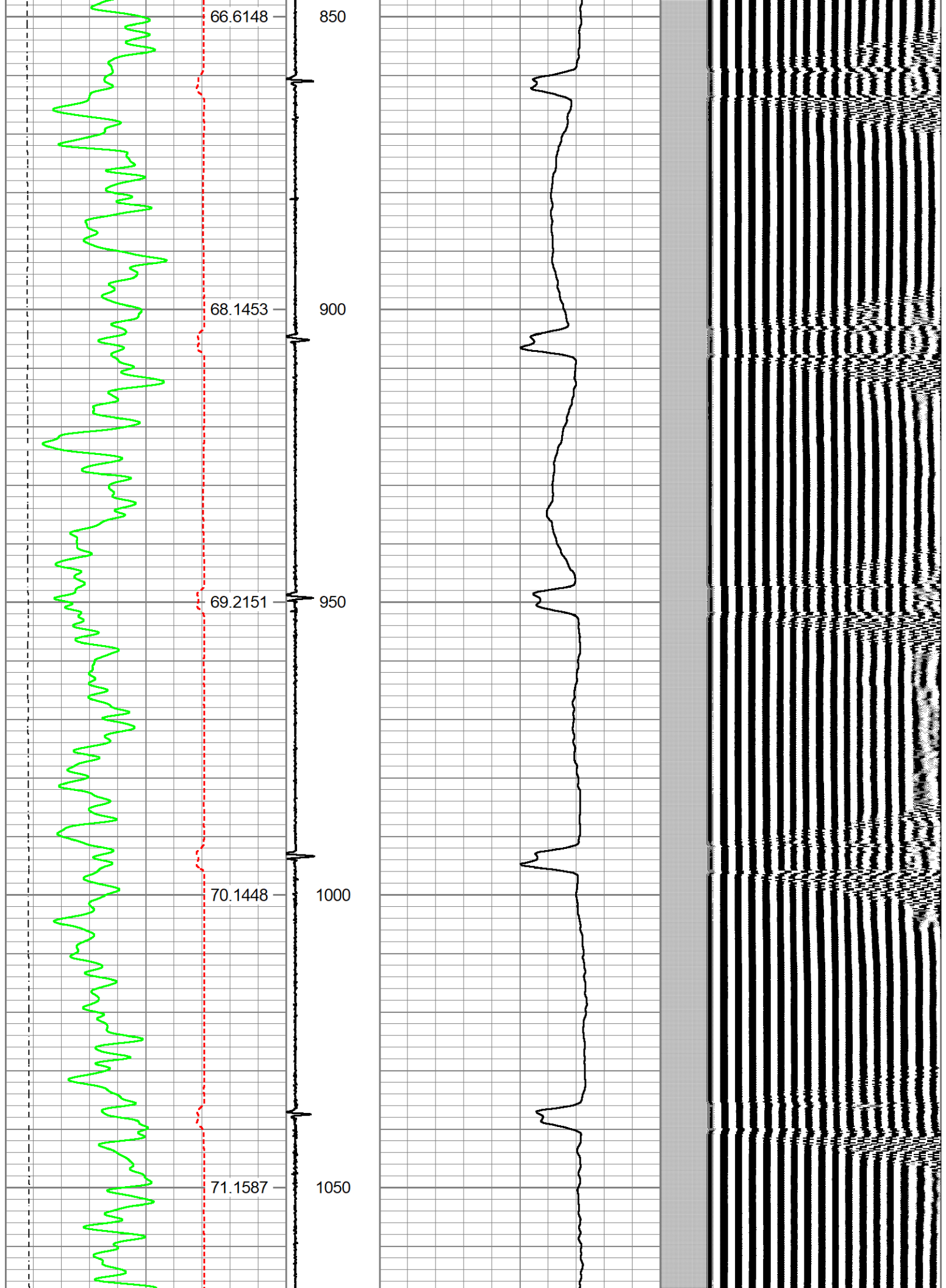
400	Travel Time (usec)	200	CCL	0	Amplitude (mV)	100	200	Variable Density (usec)	1200
0	Gamma Ray (GAPI)	150		0	Amplified Amplitude (mV)	10			
0	Line Tension (lb)	4000							
	TEMP								
	(degF)								

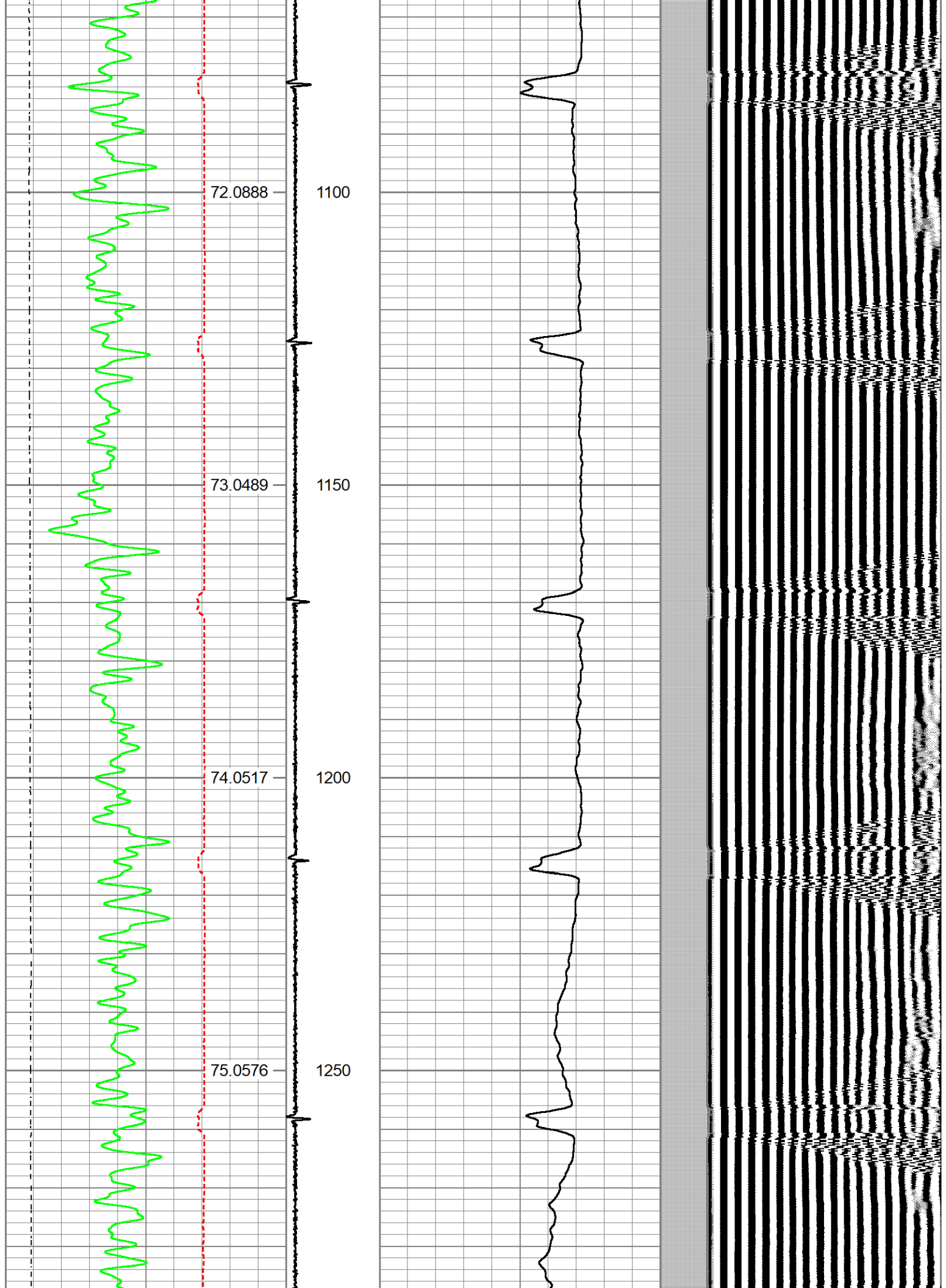


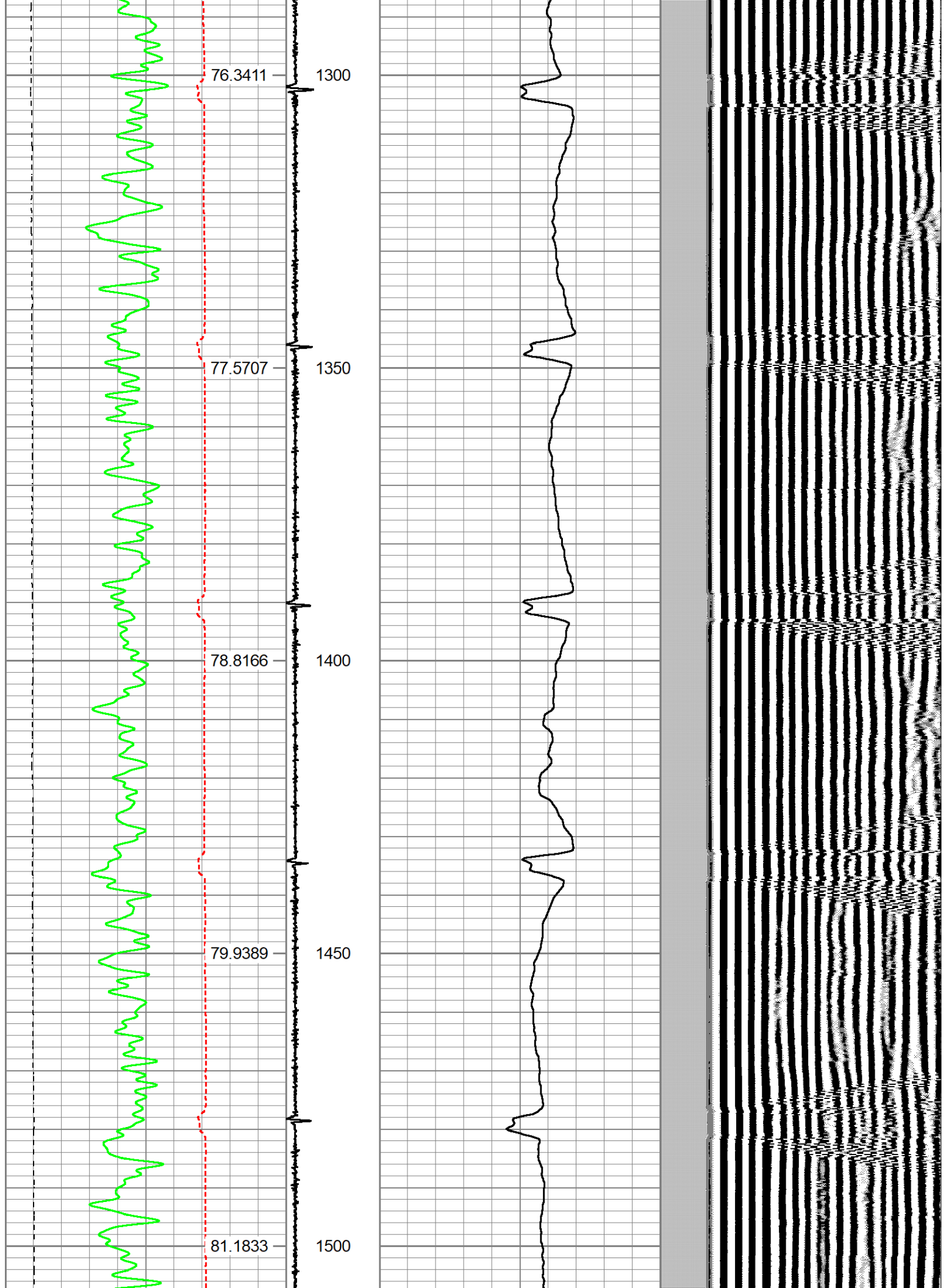


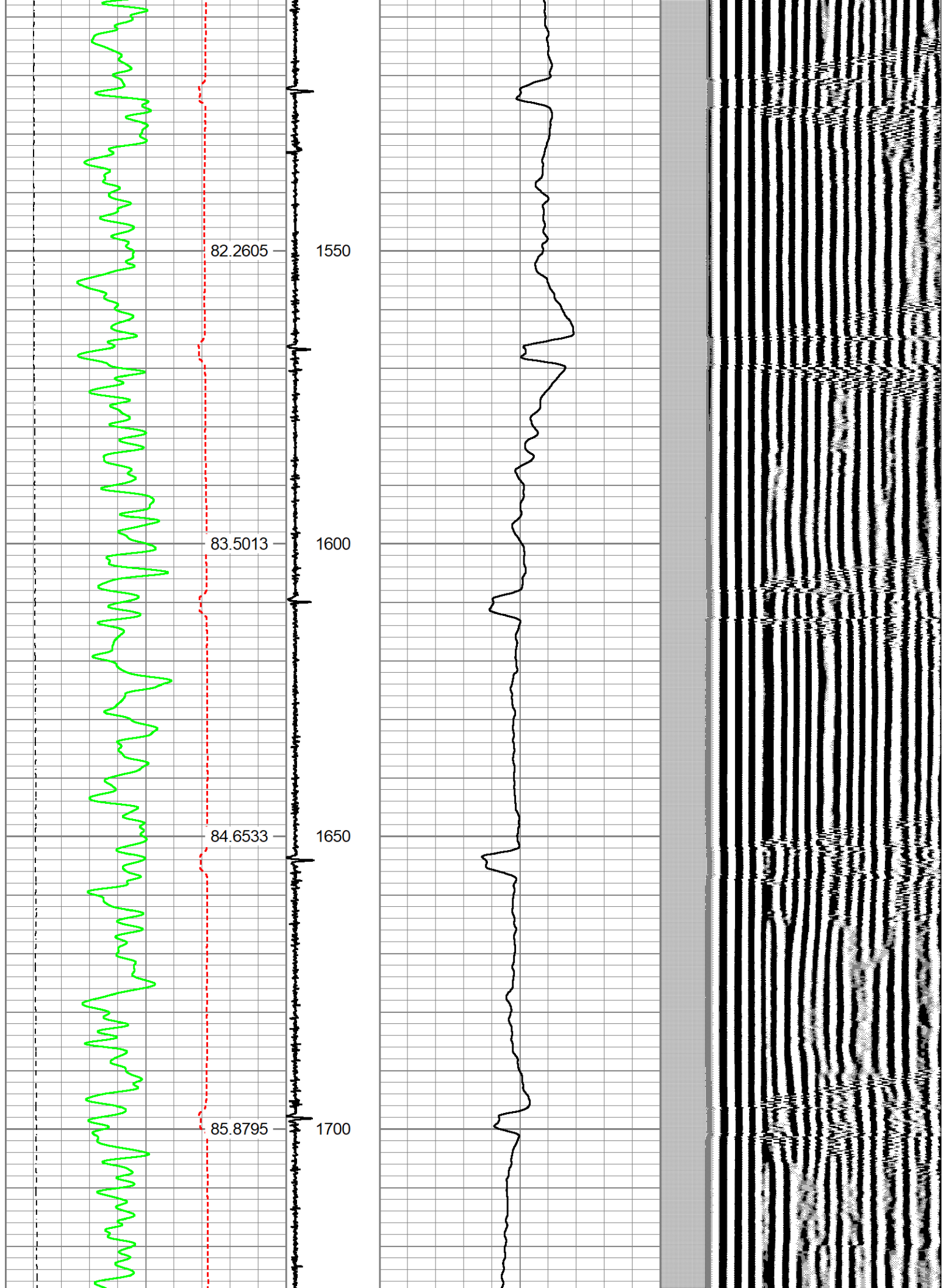


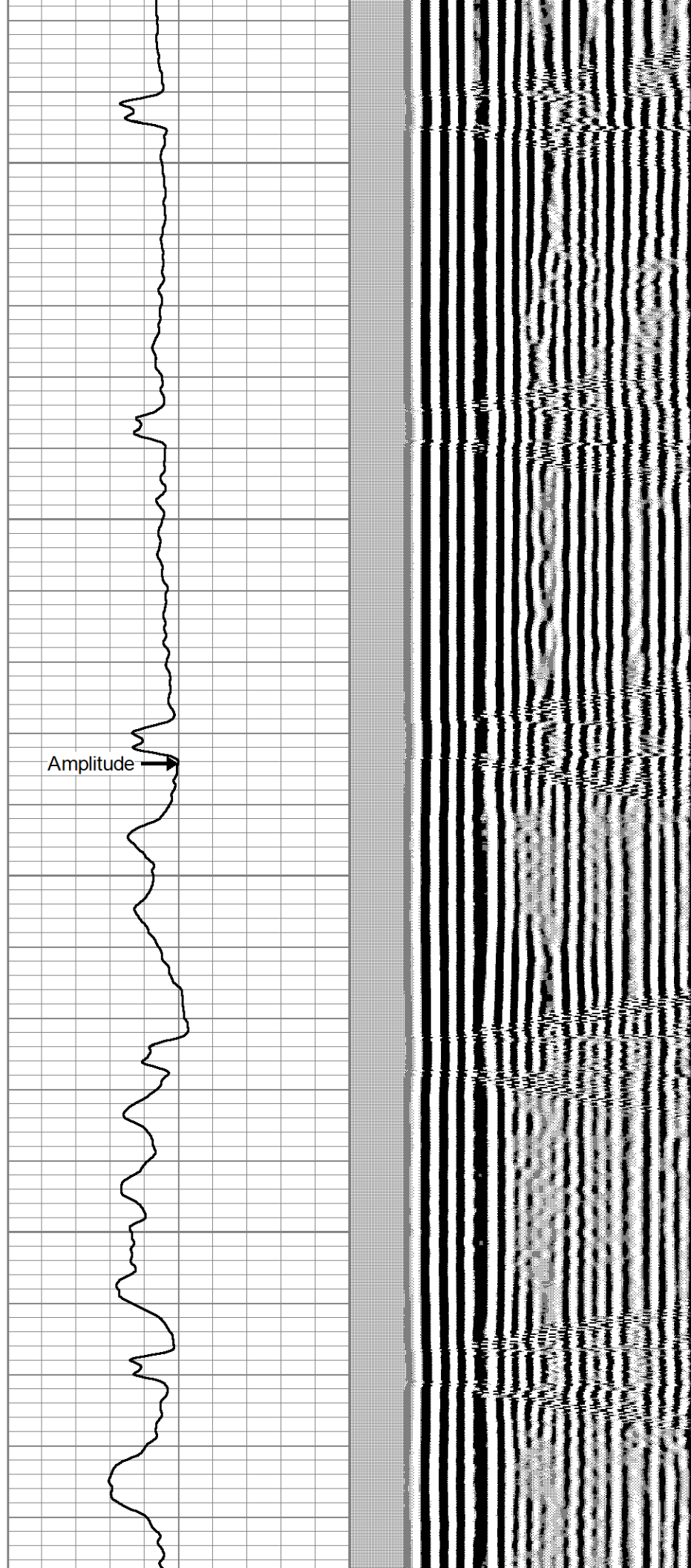
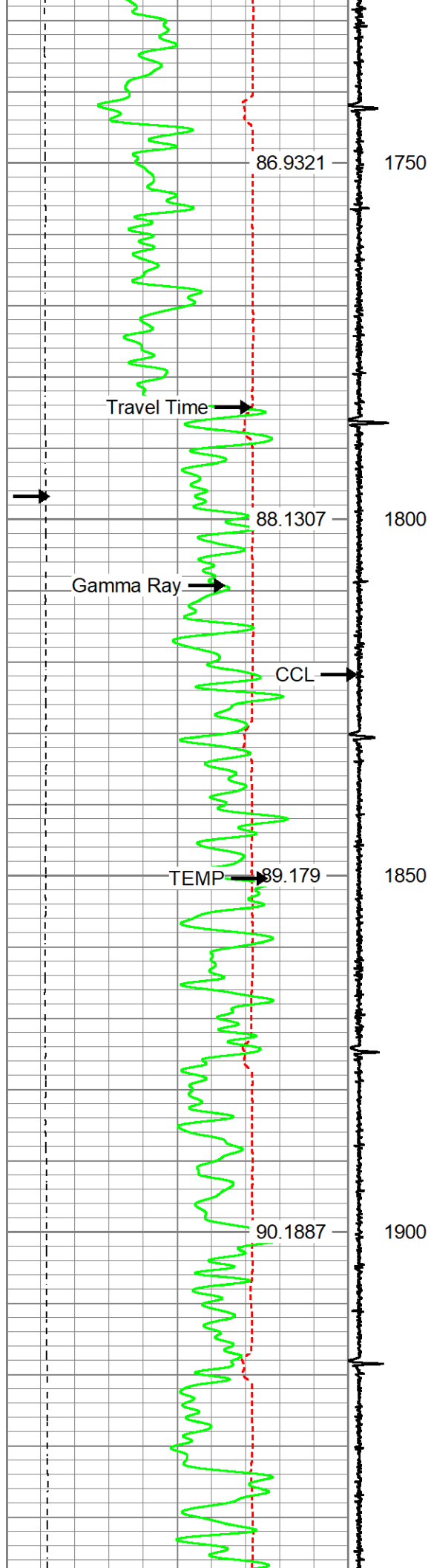


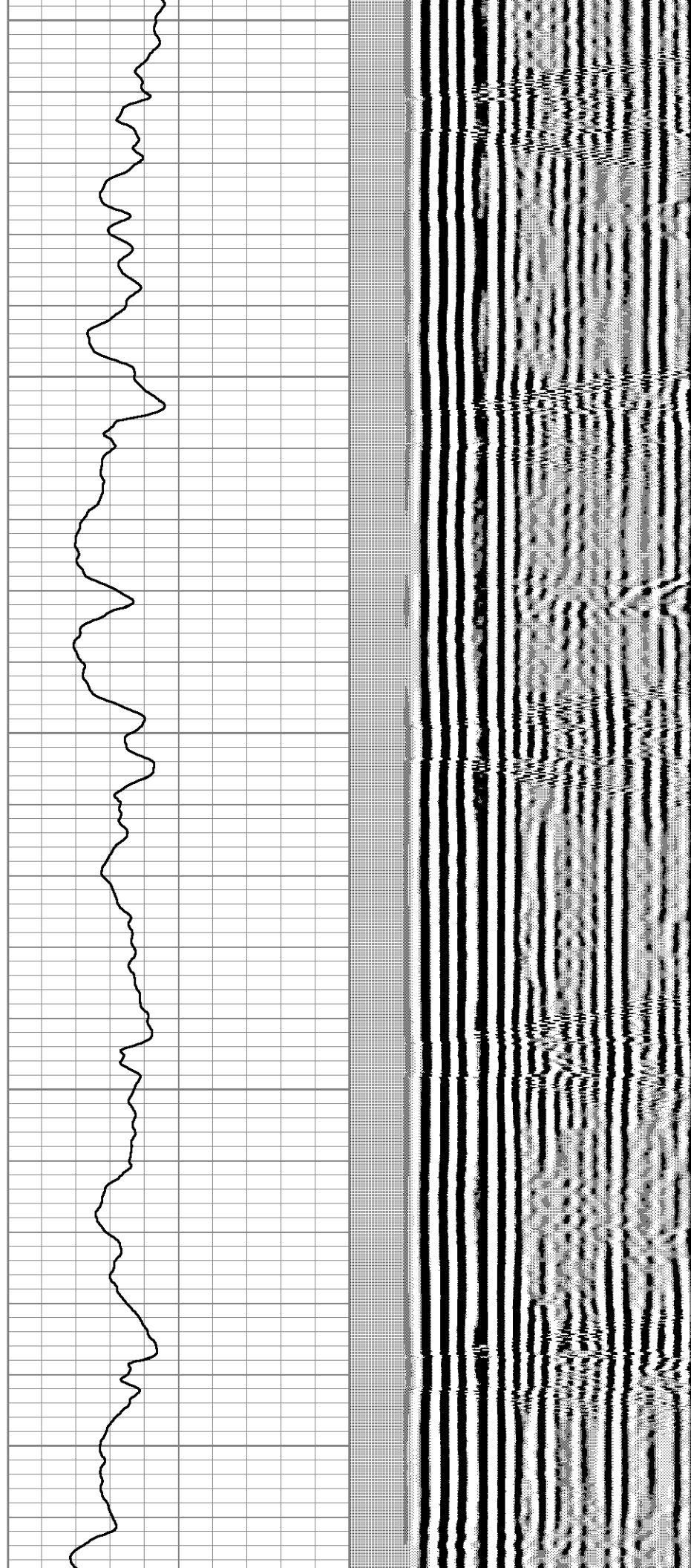
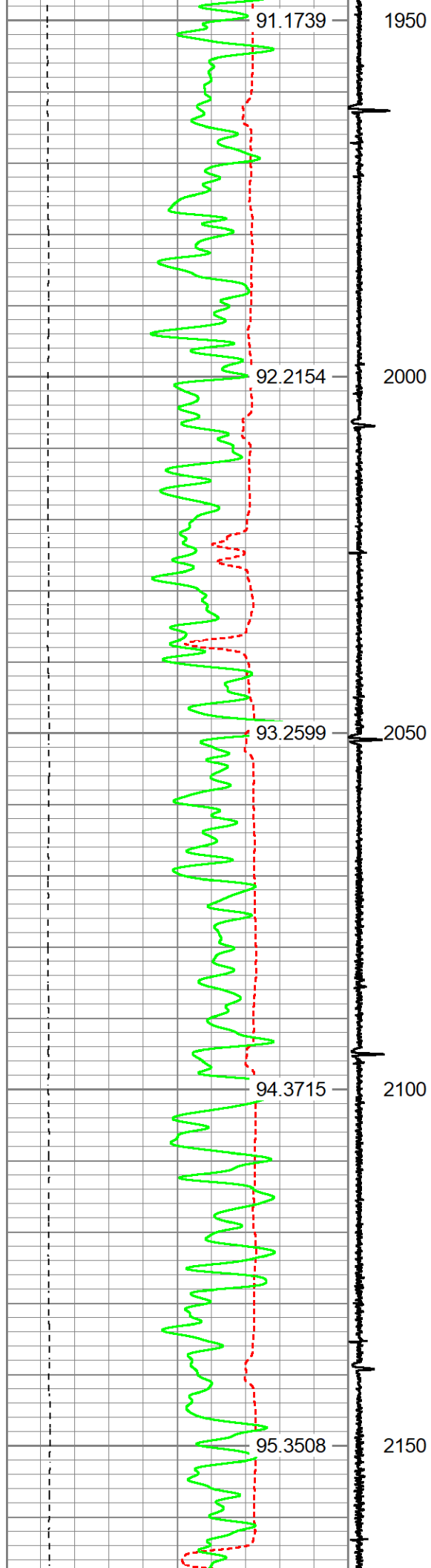


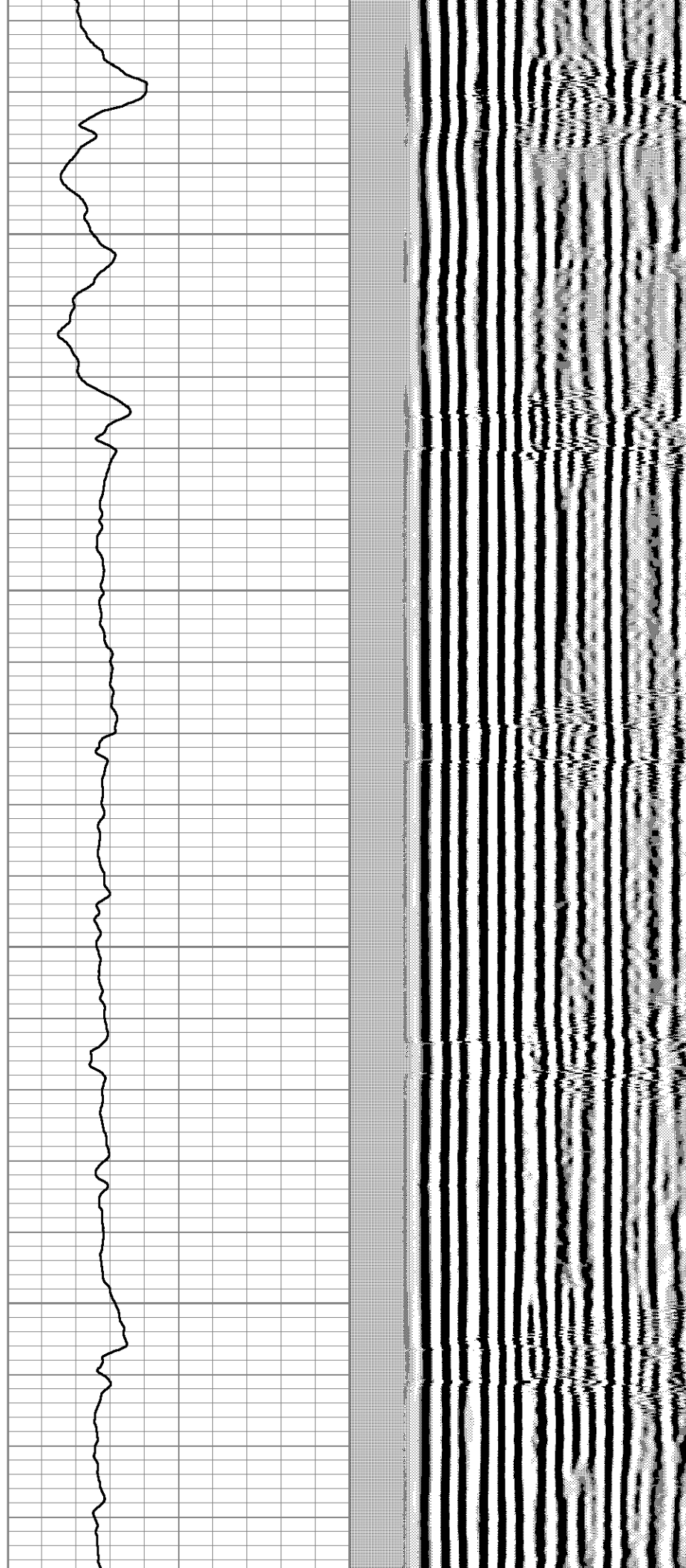
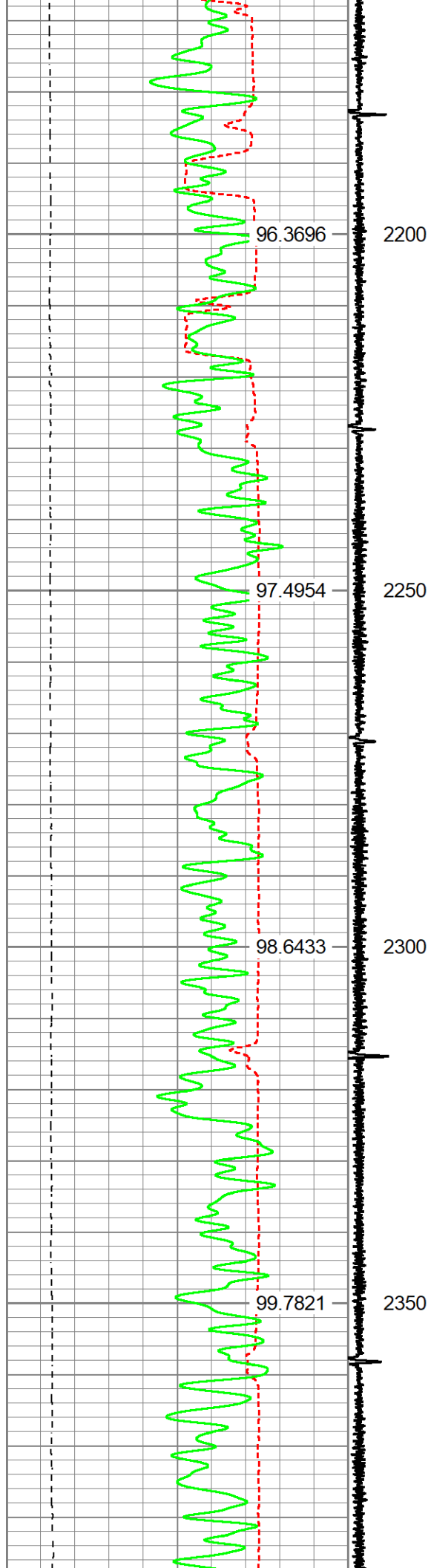


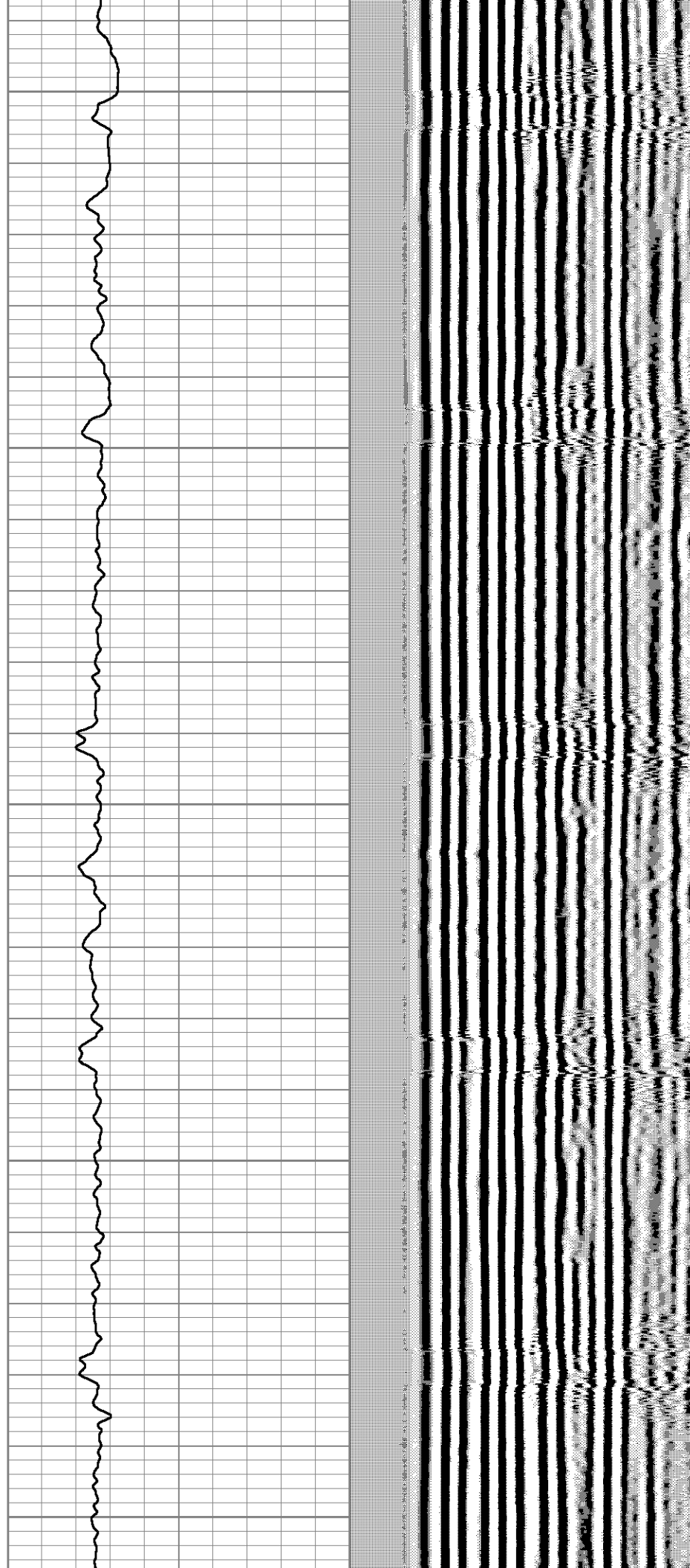
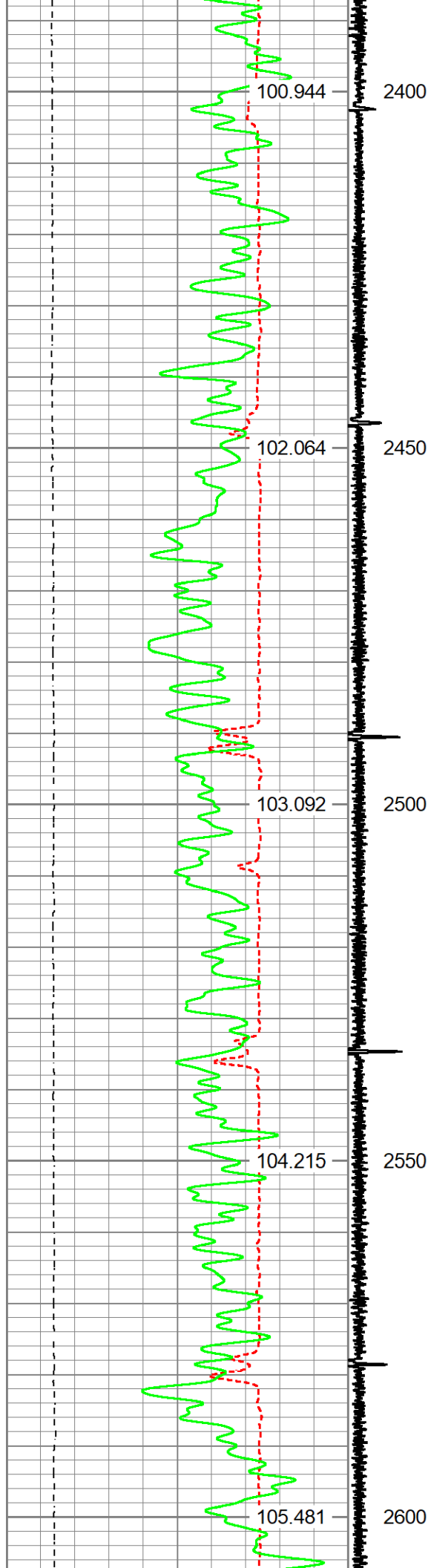


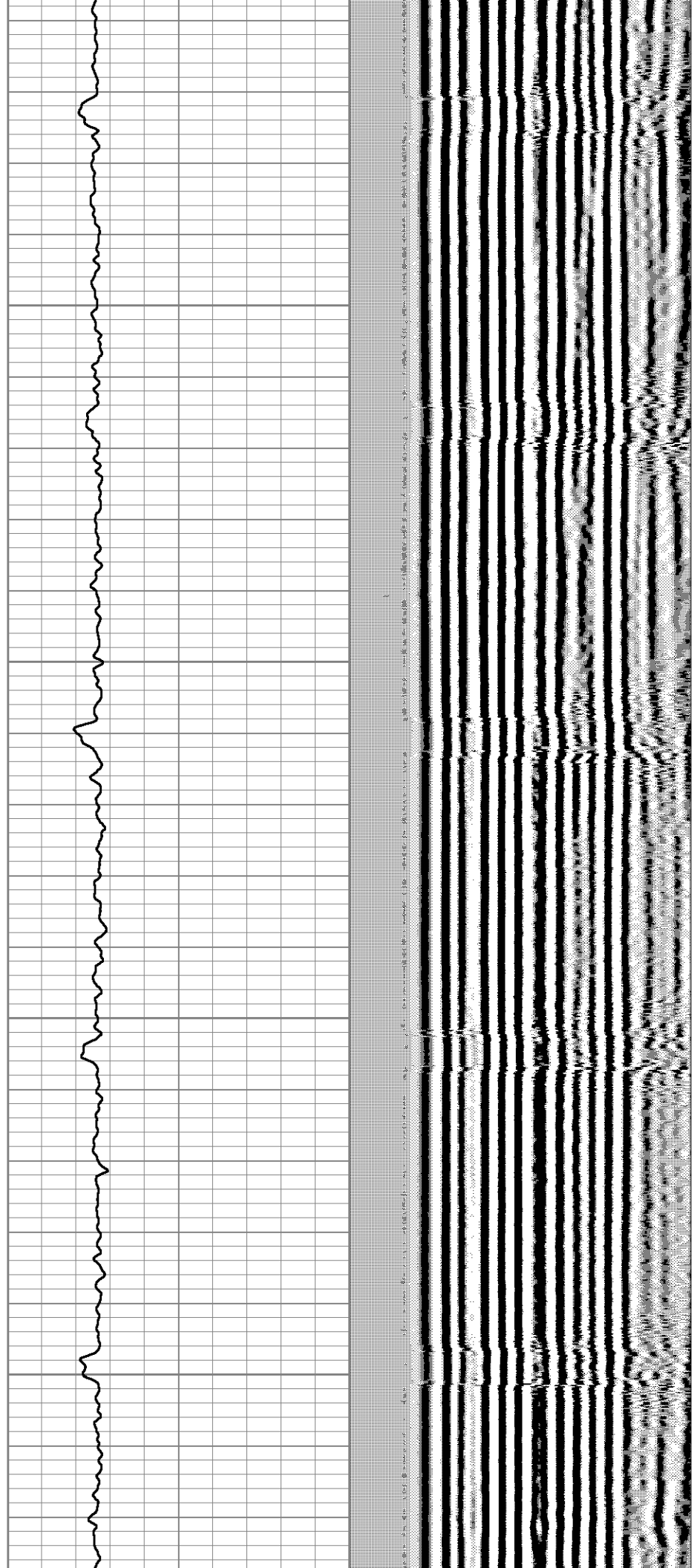
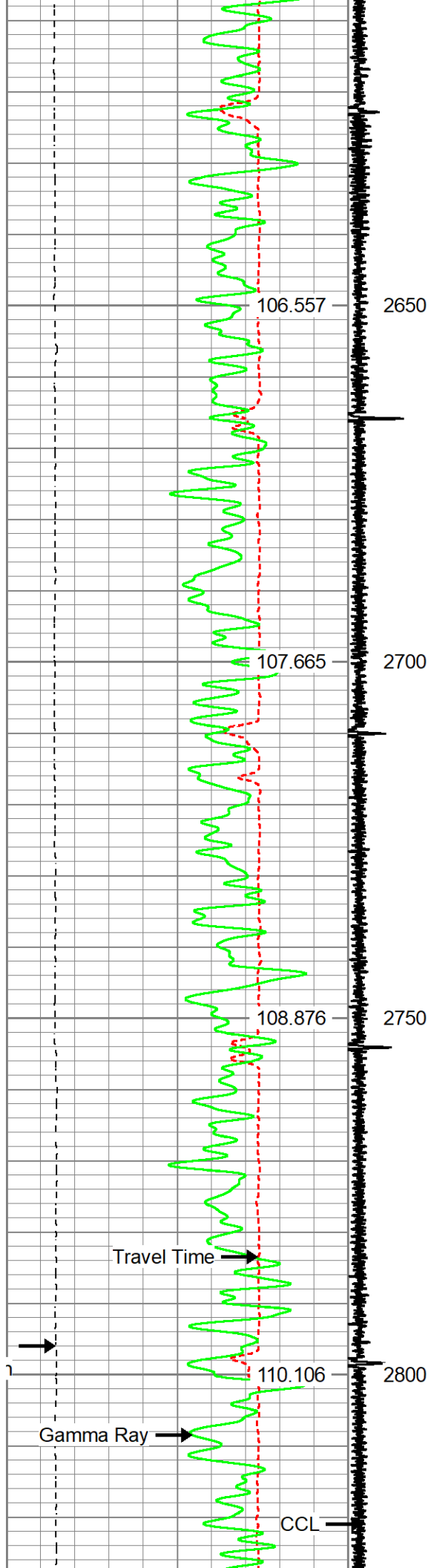


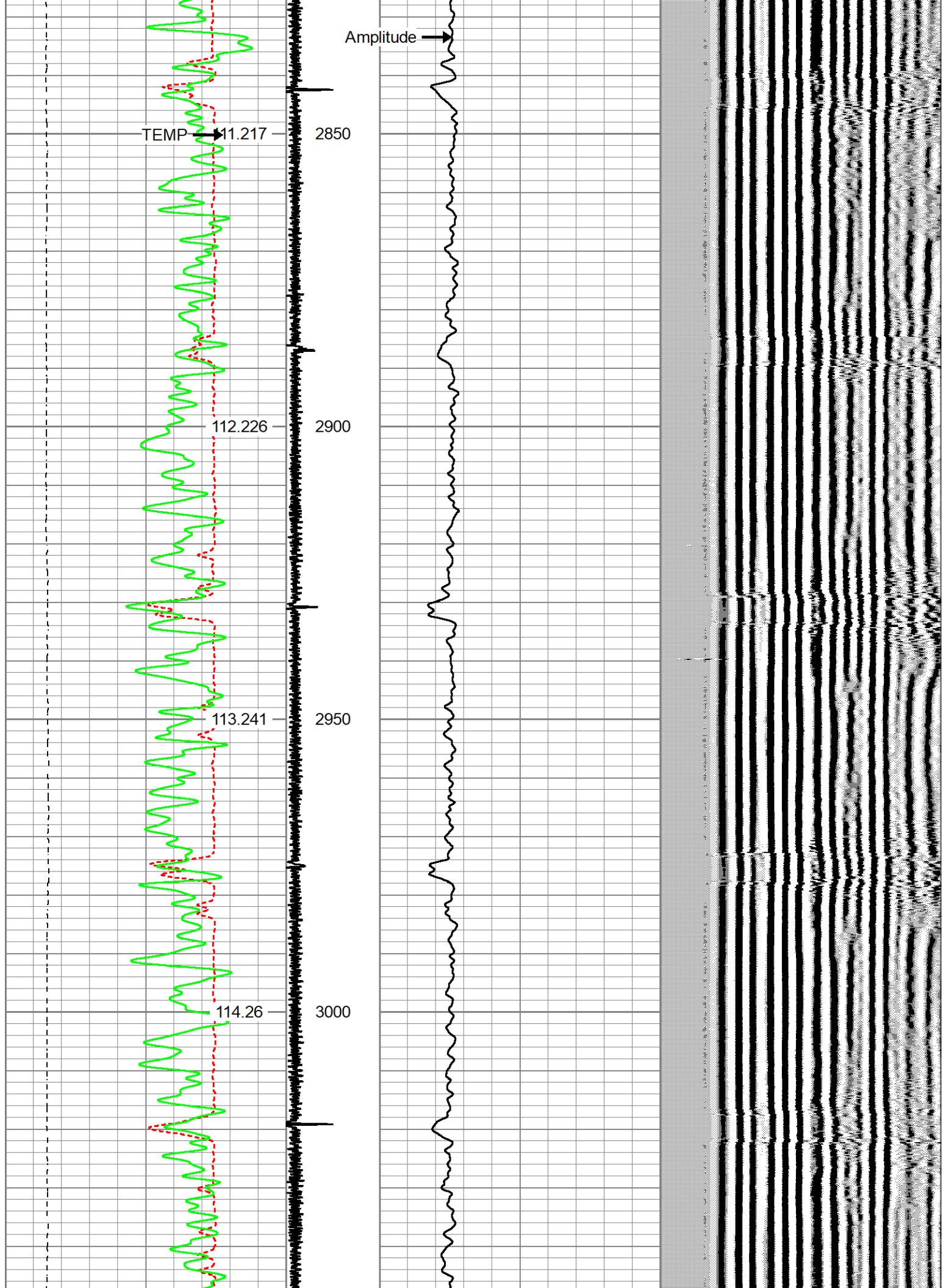


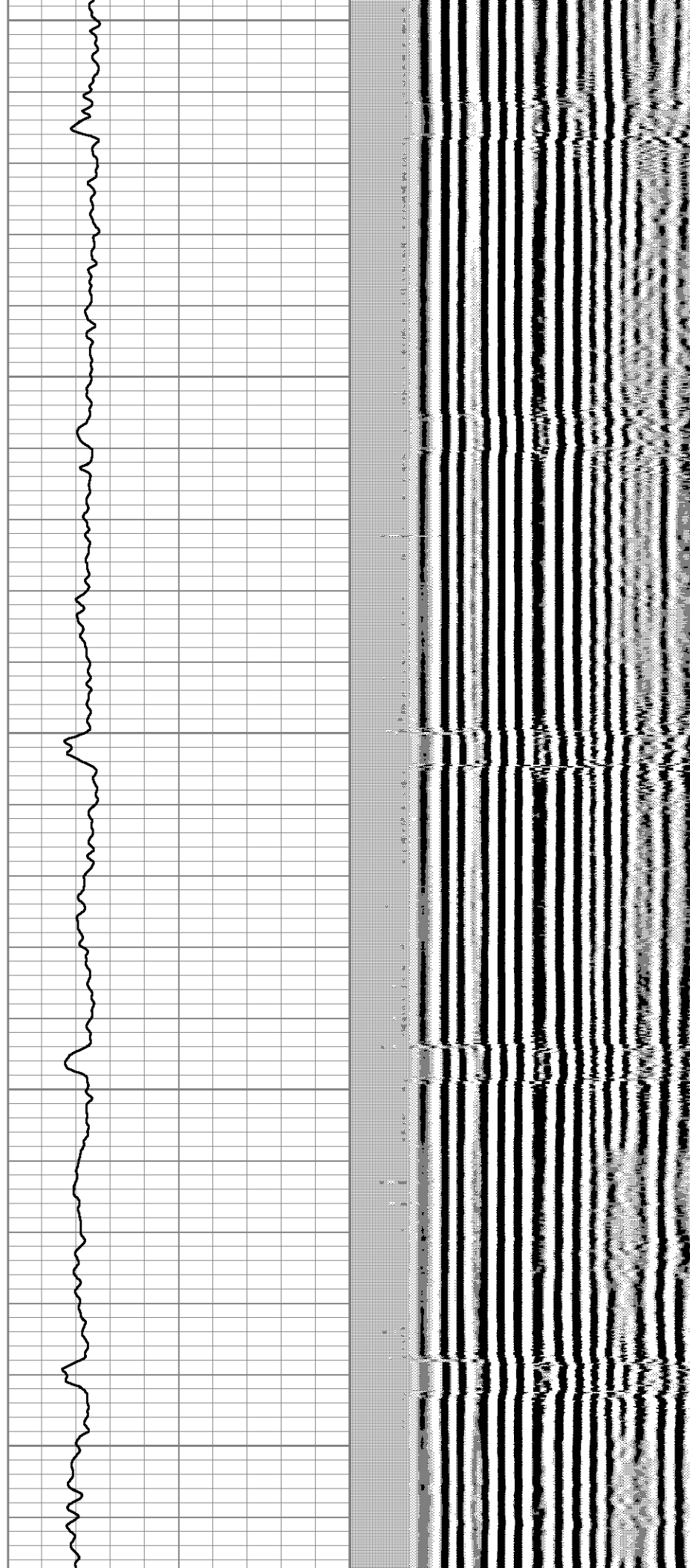
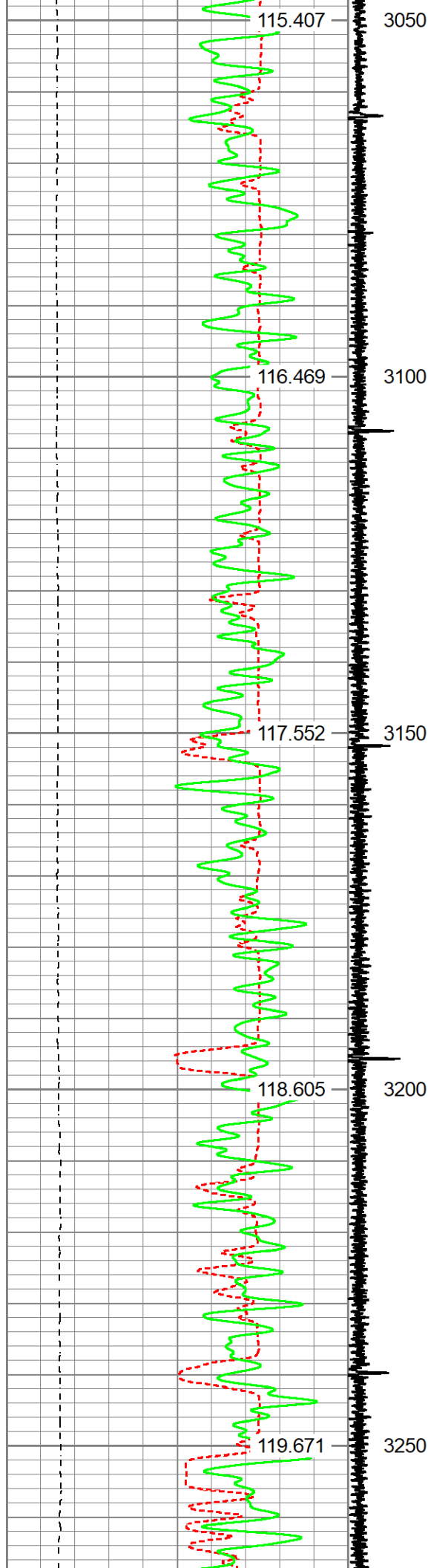


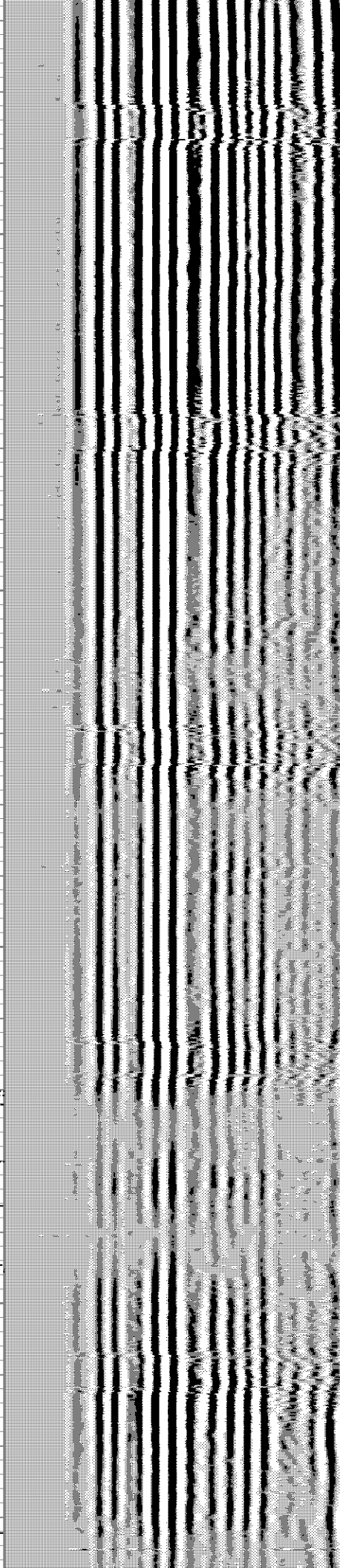
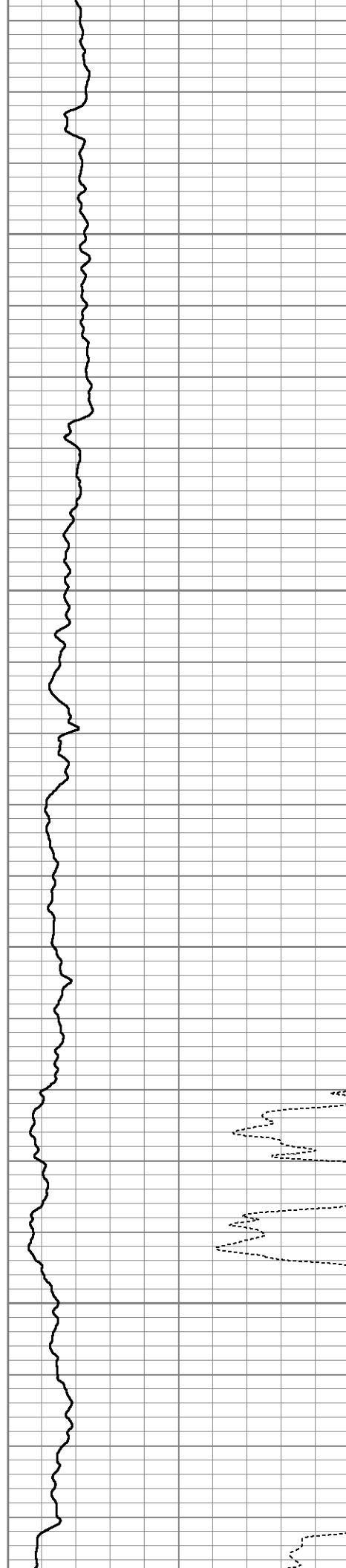
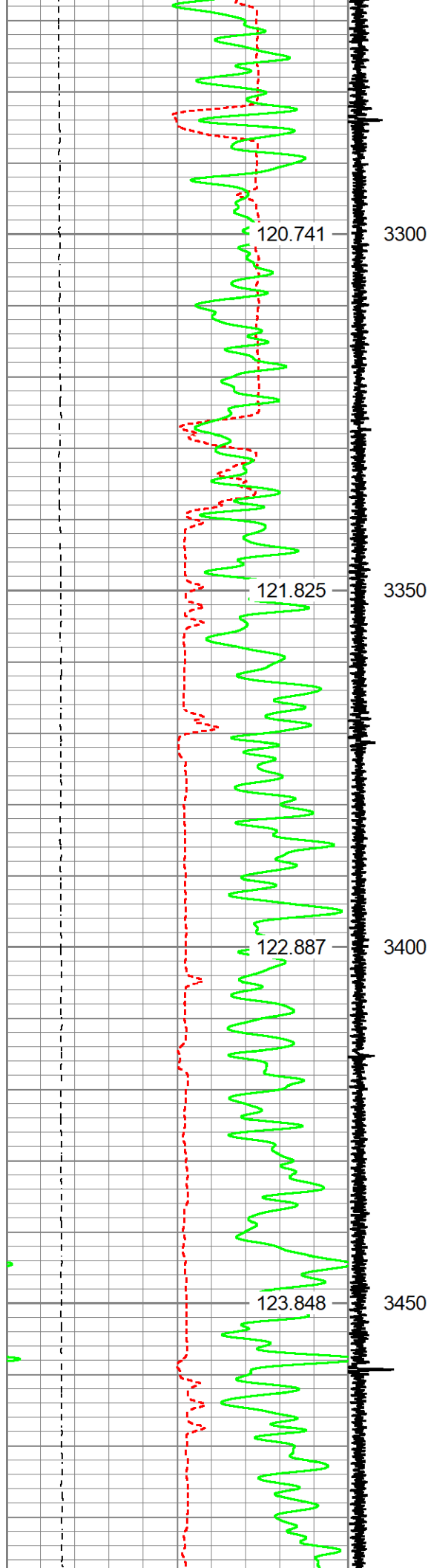


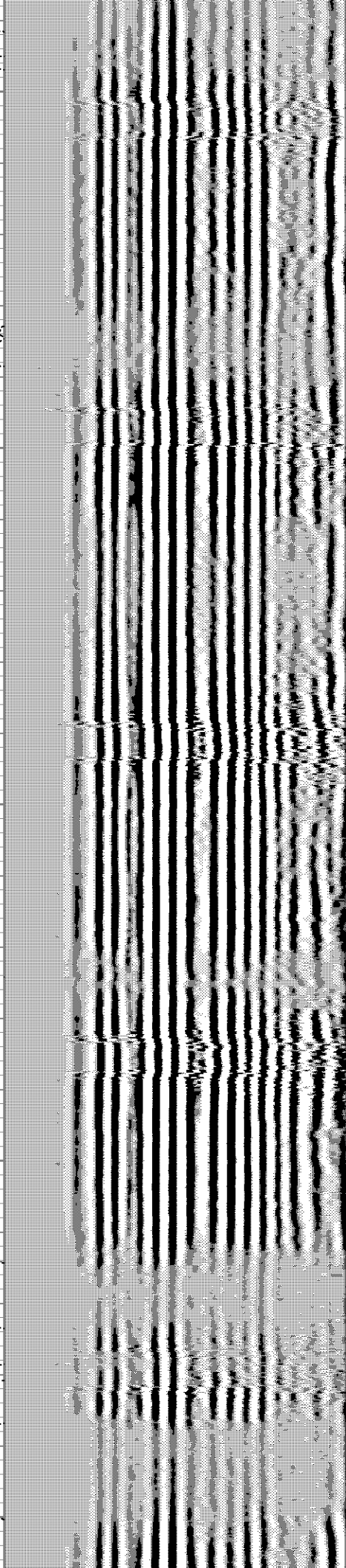
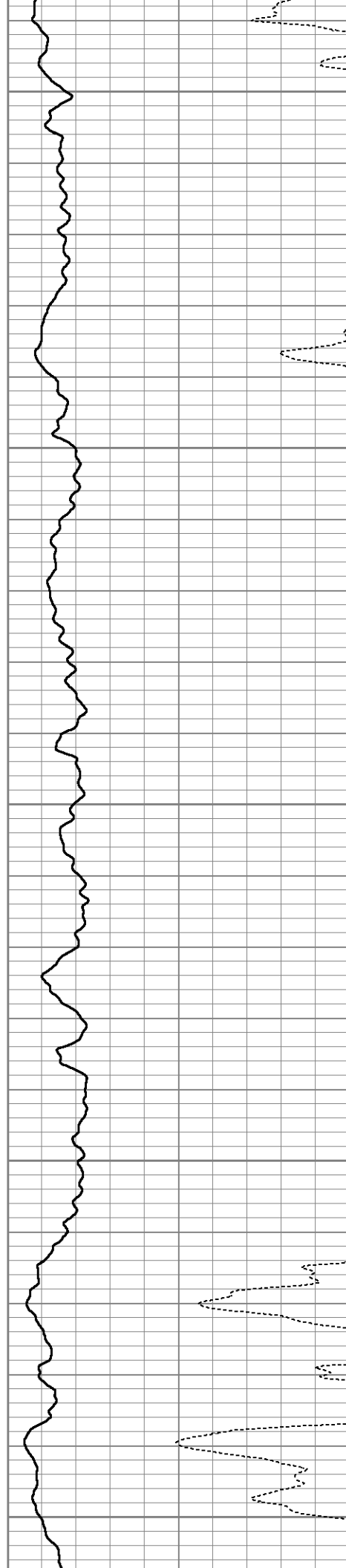
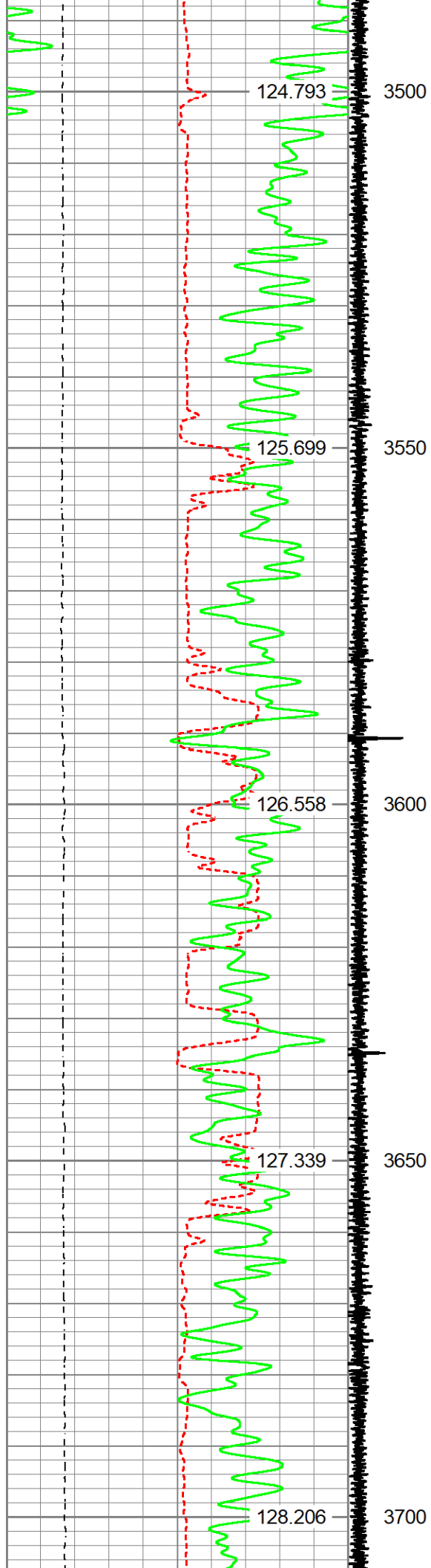


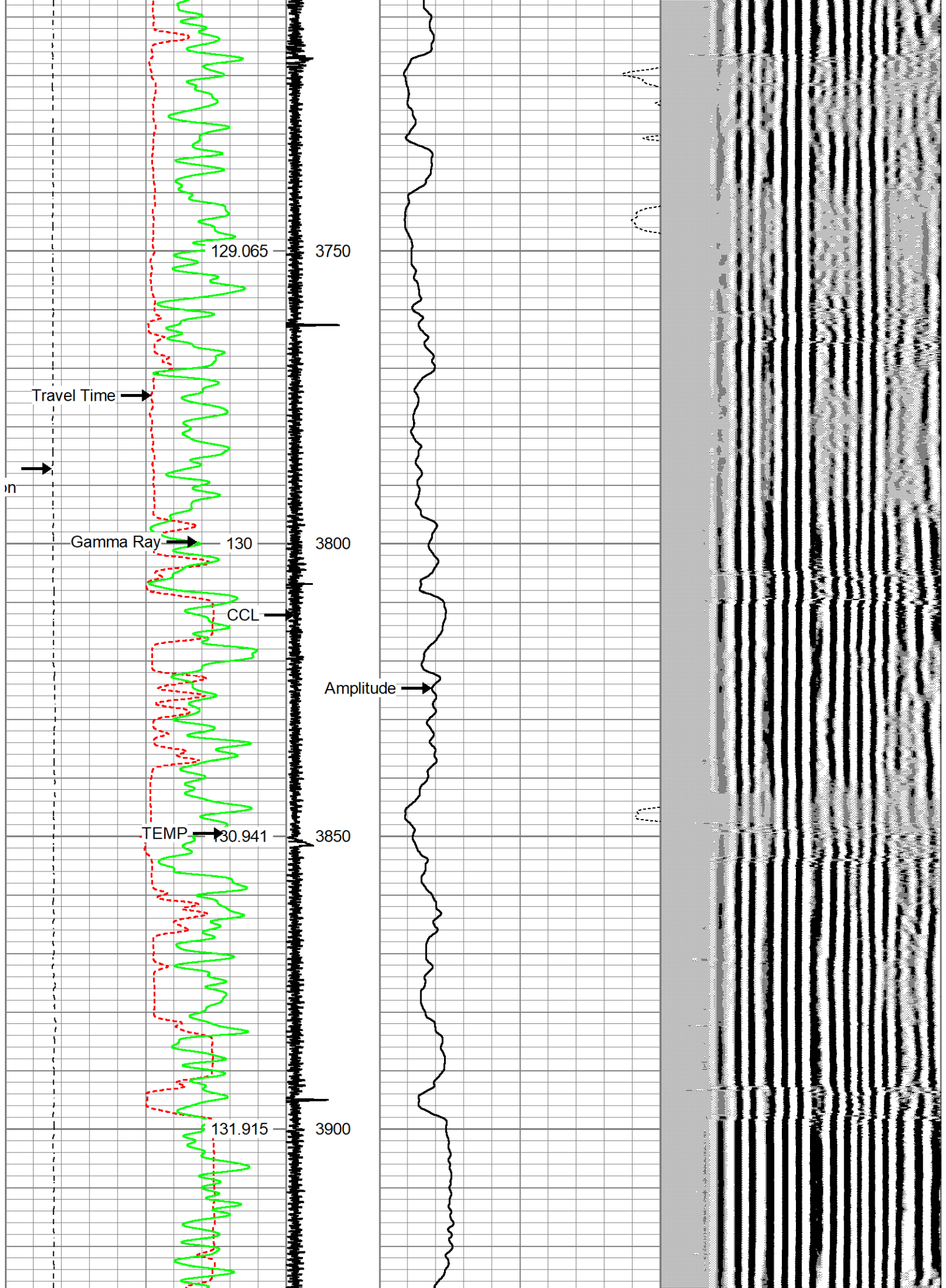


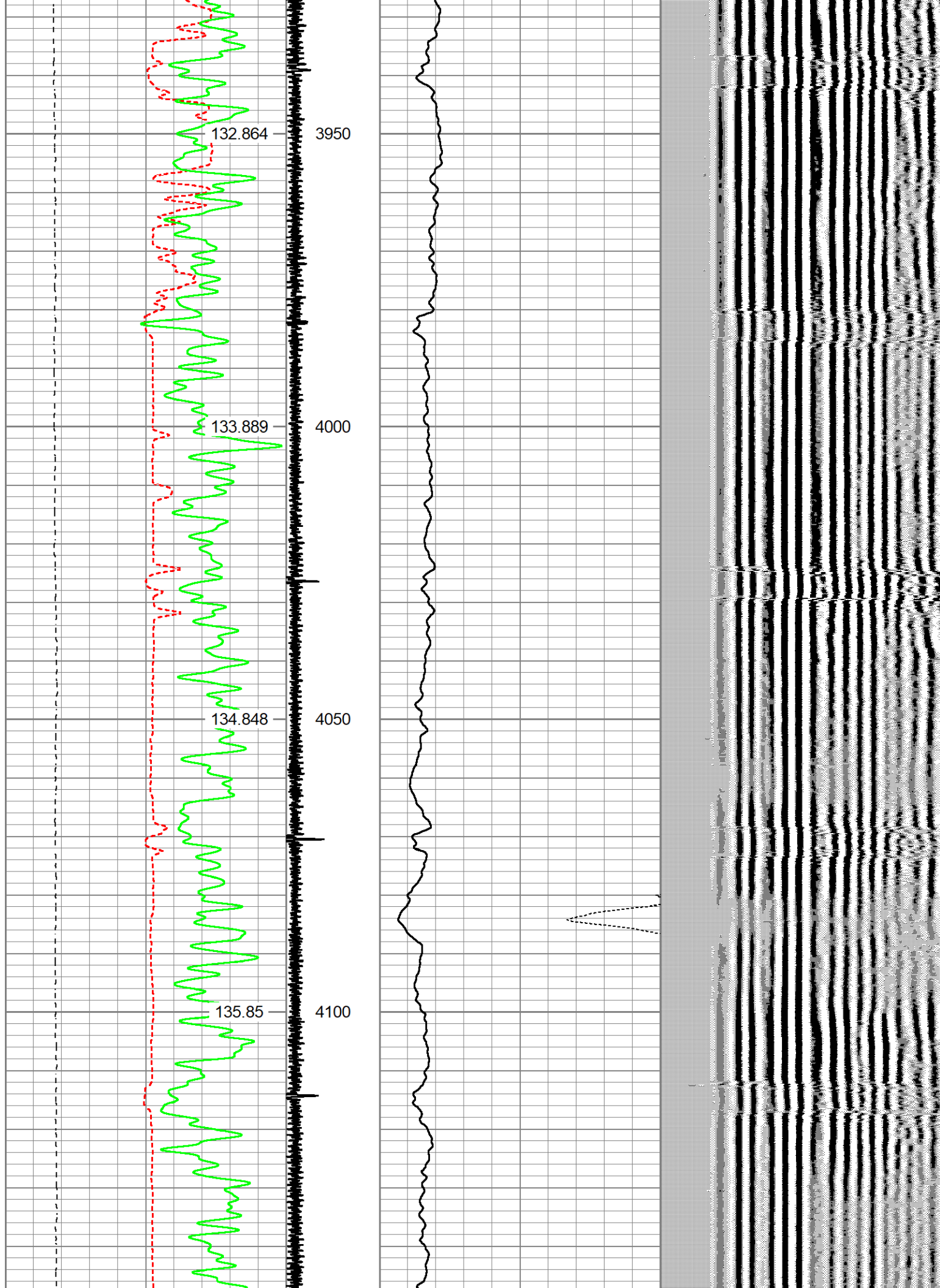


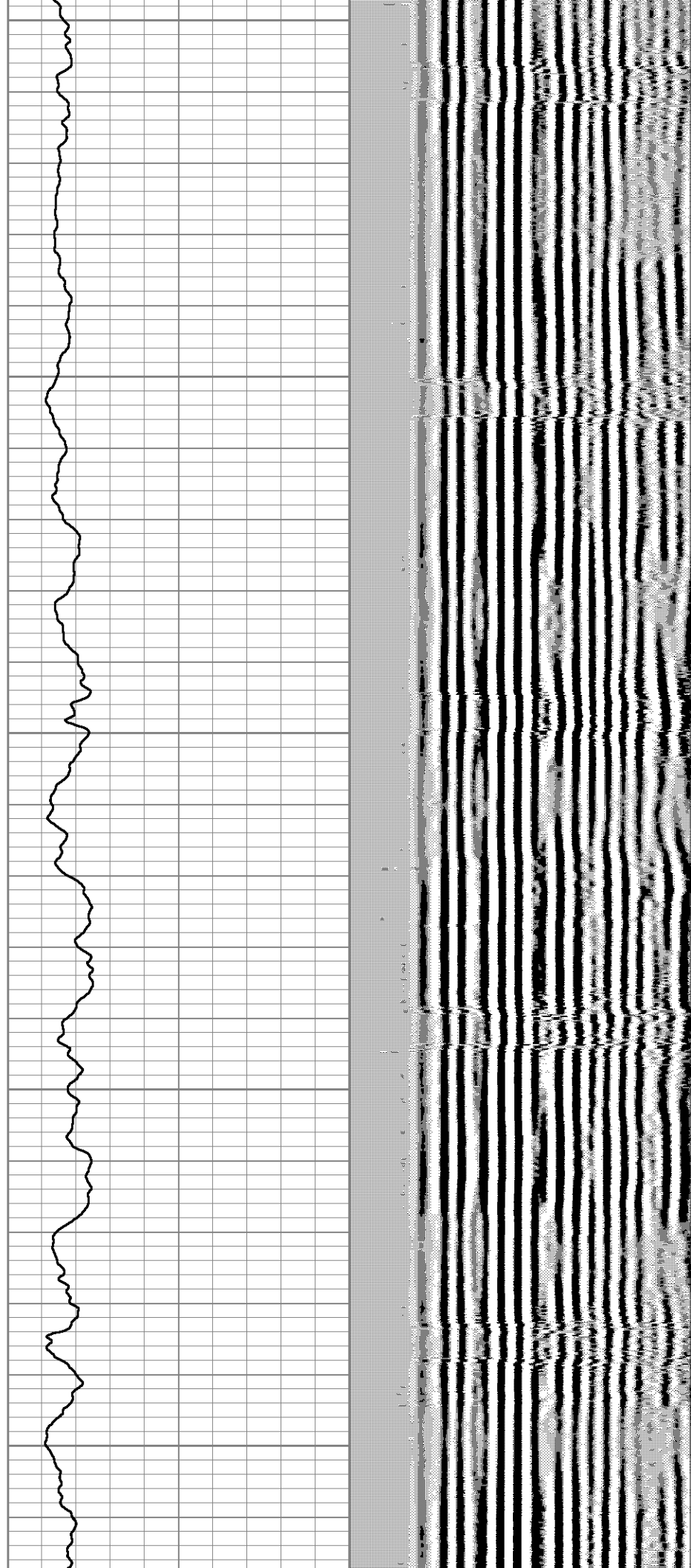
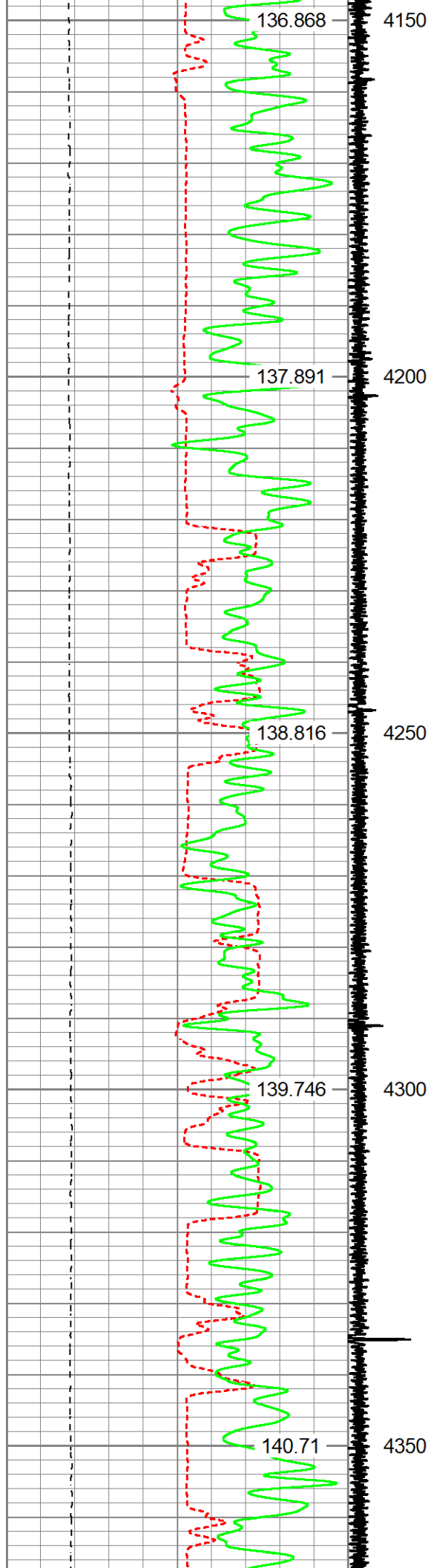


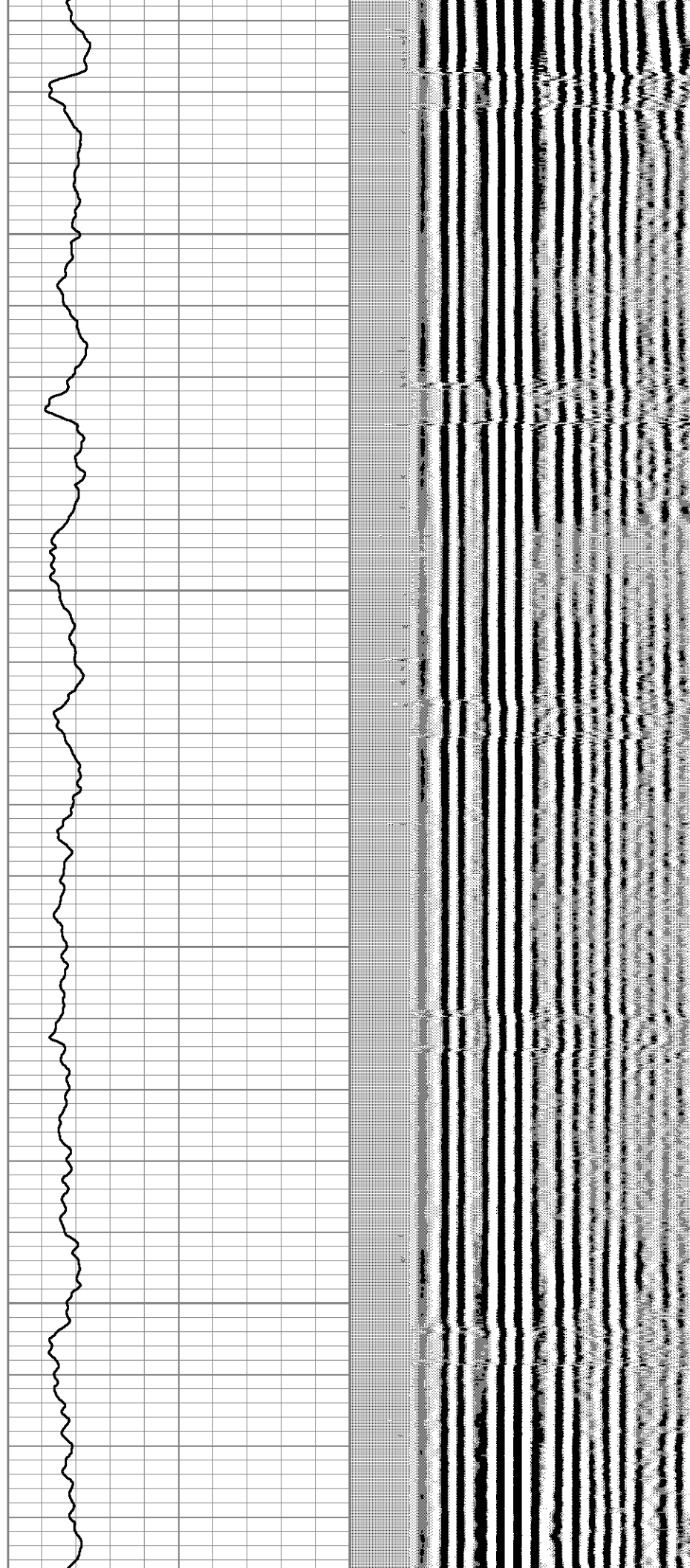
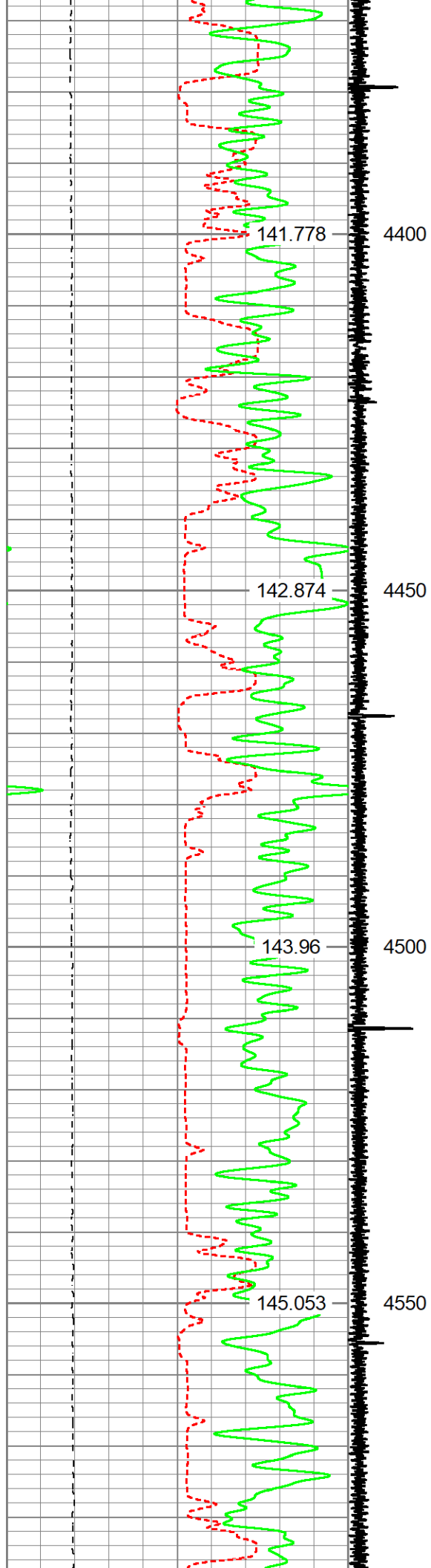


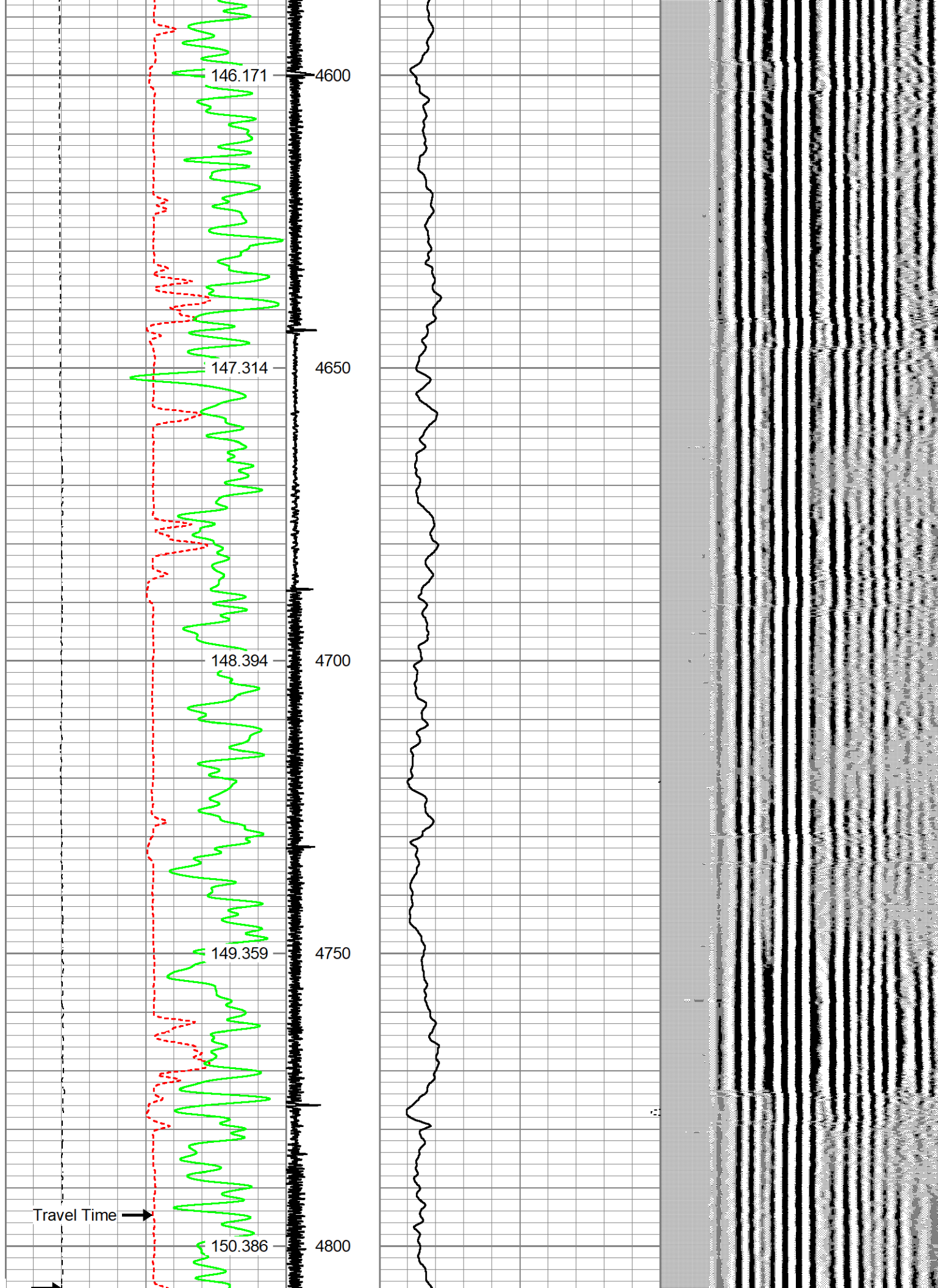


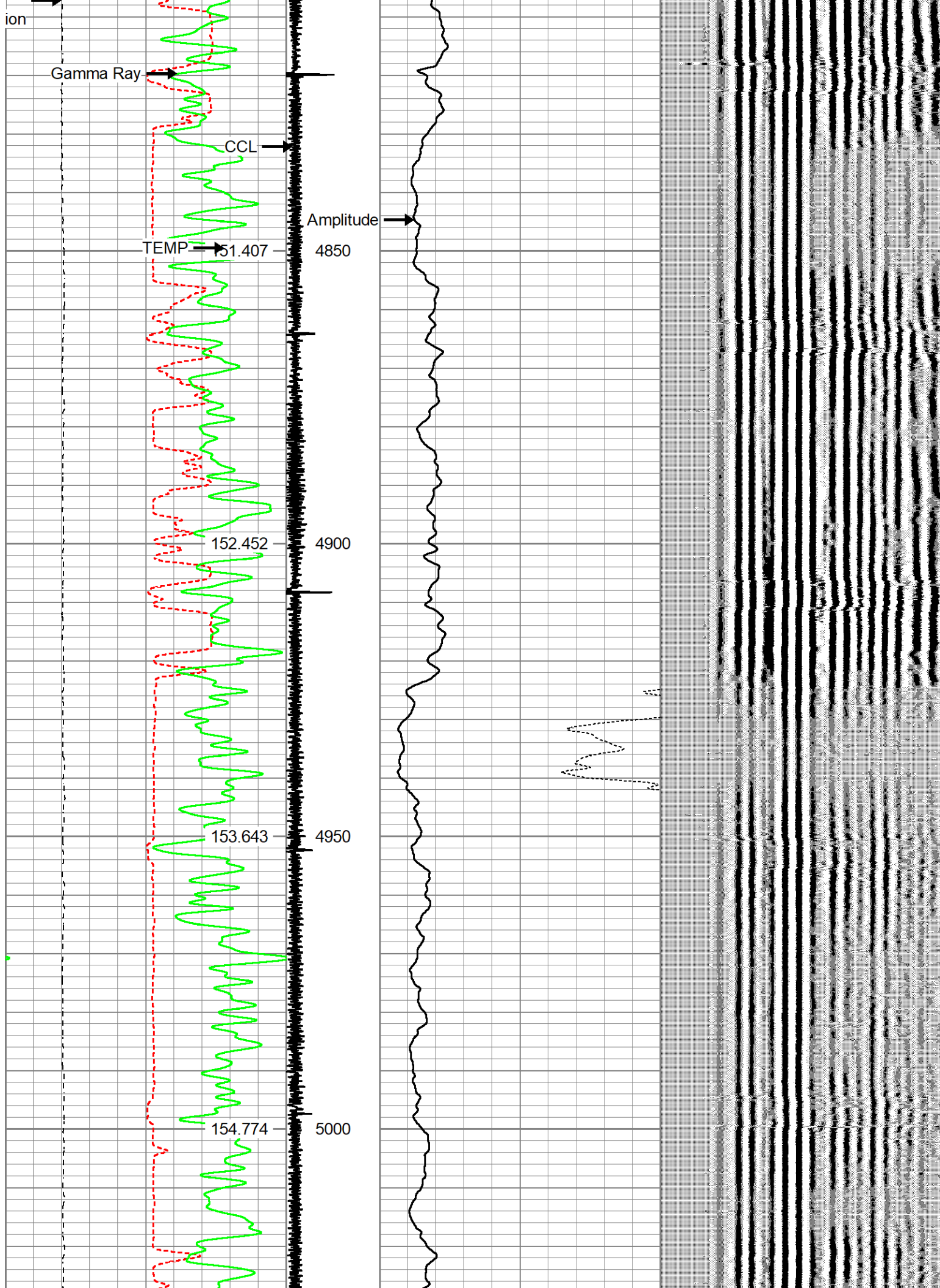


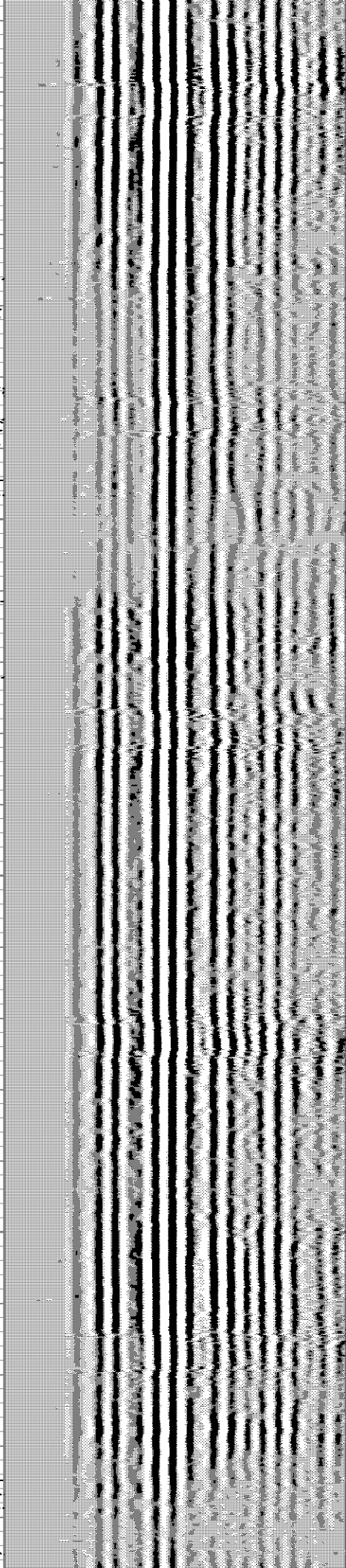
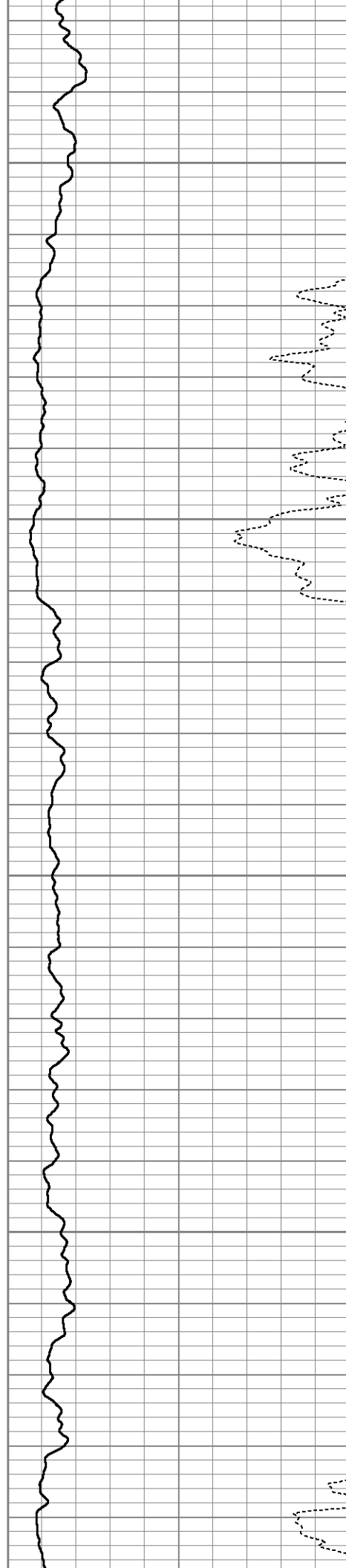
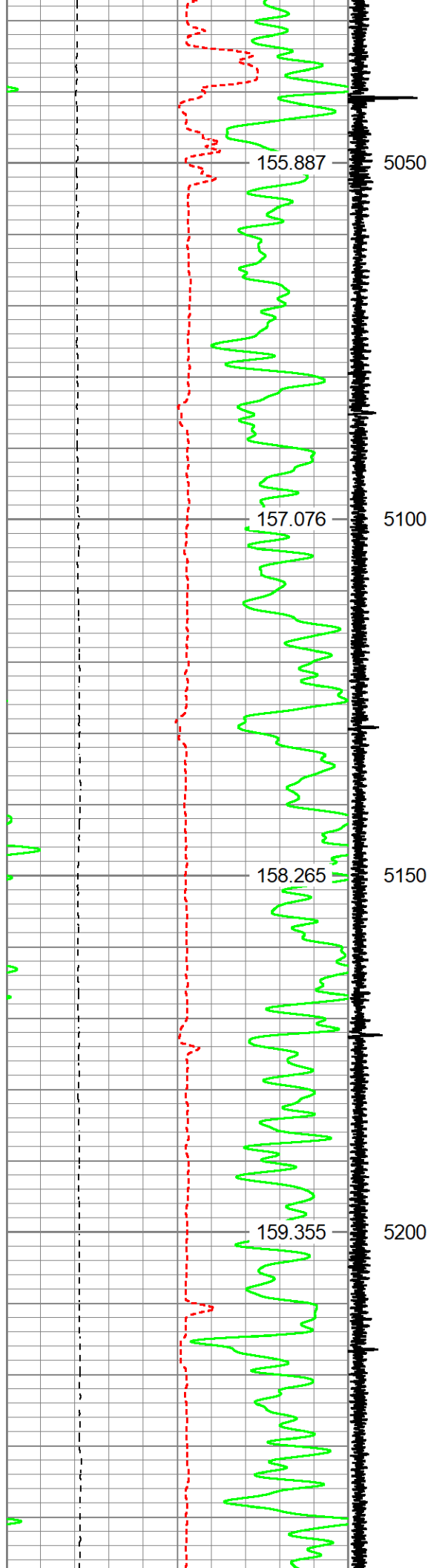


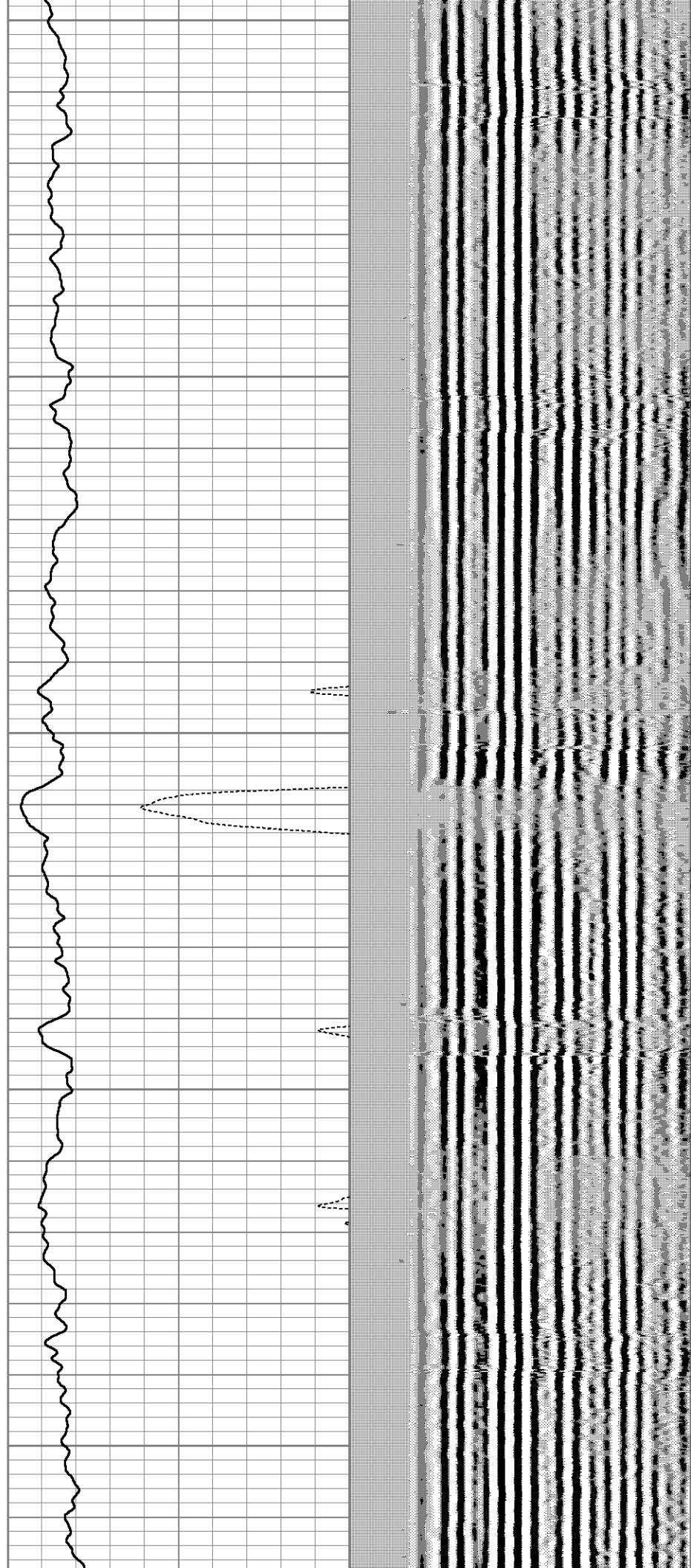
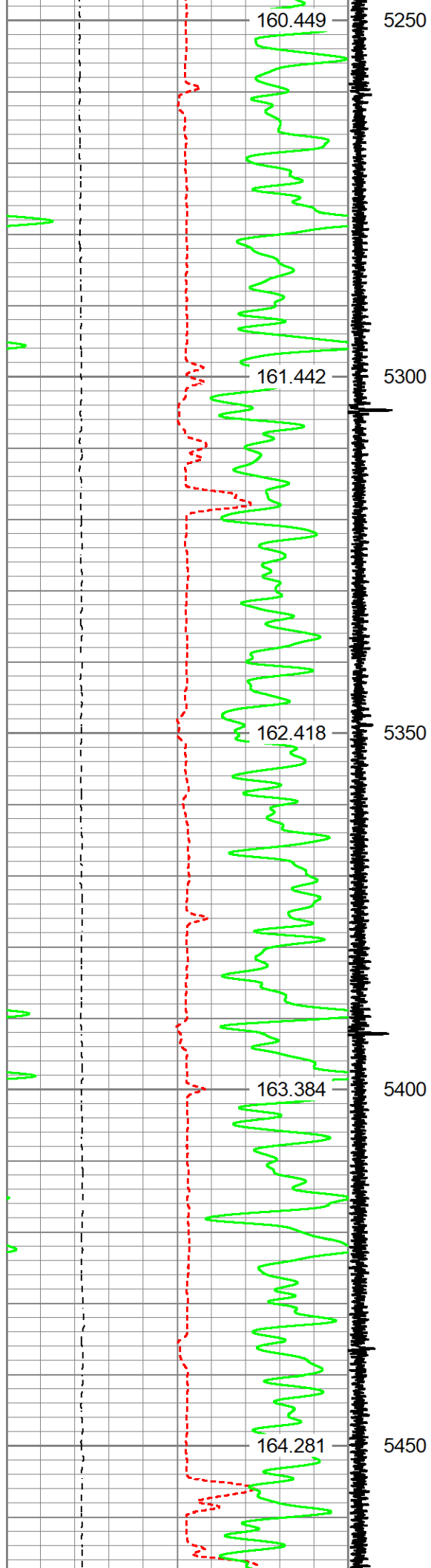


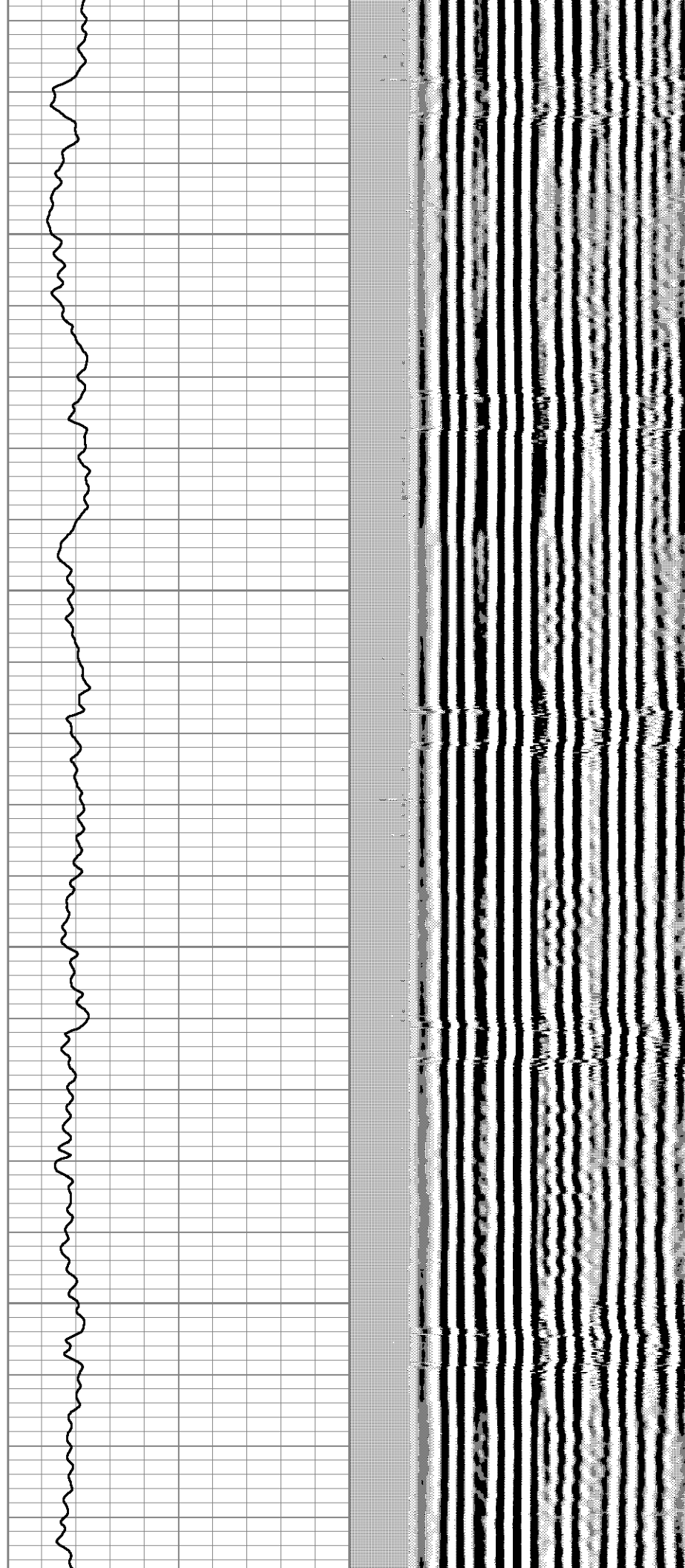
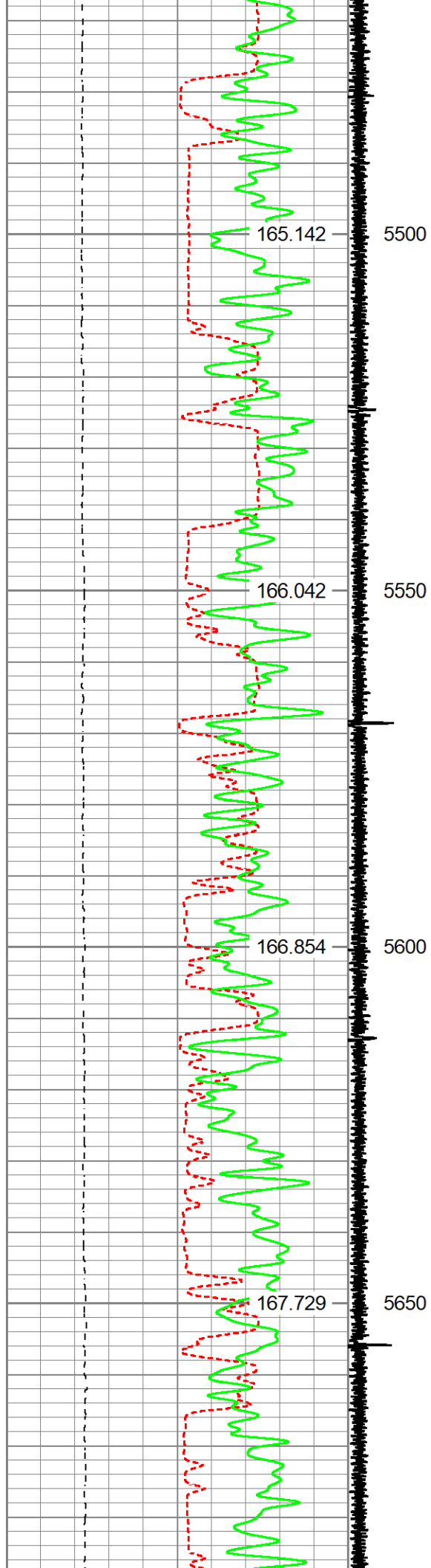


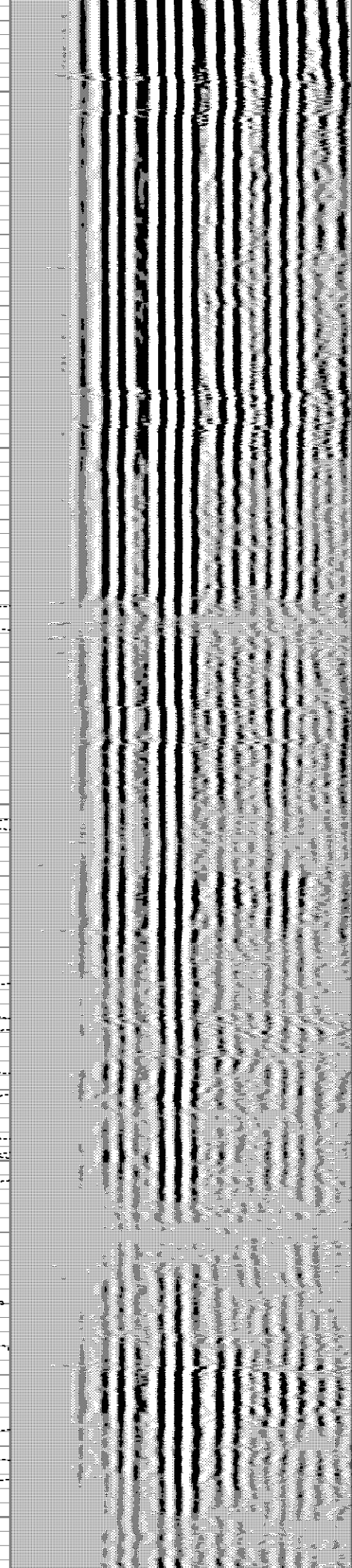
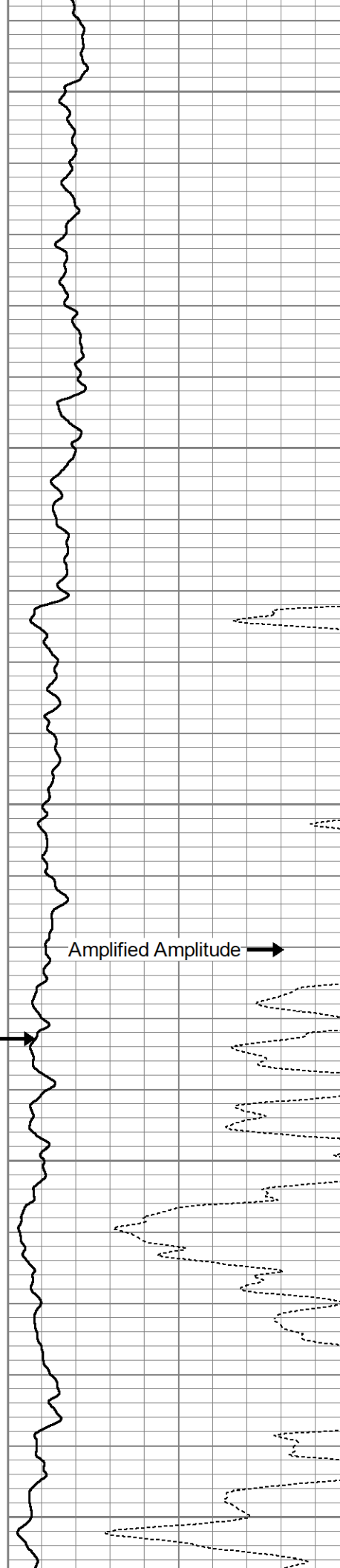
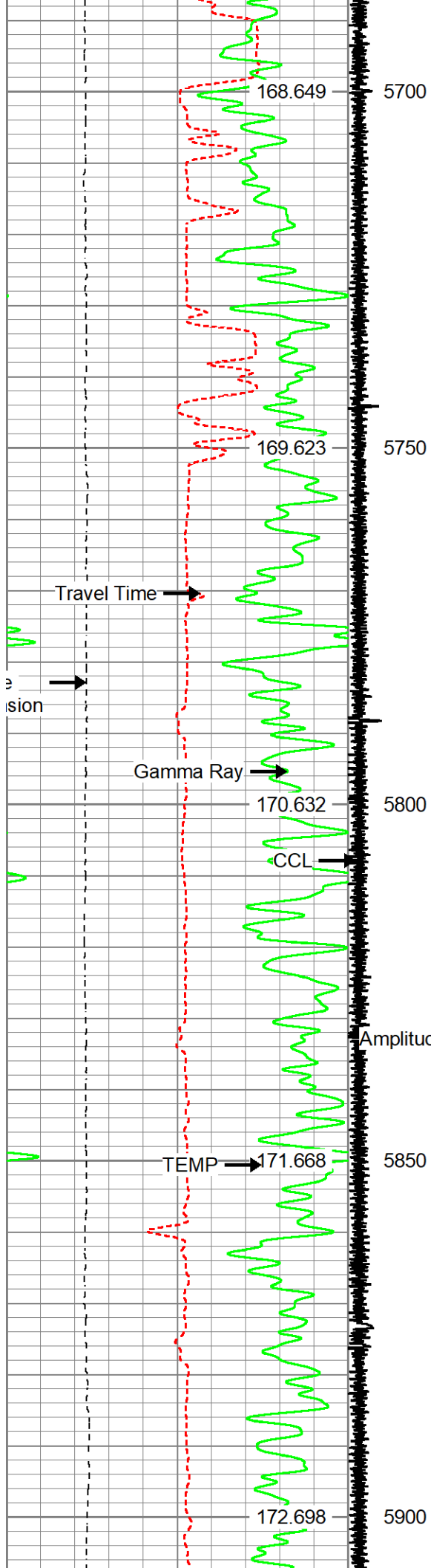


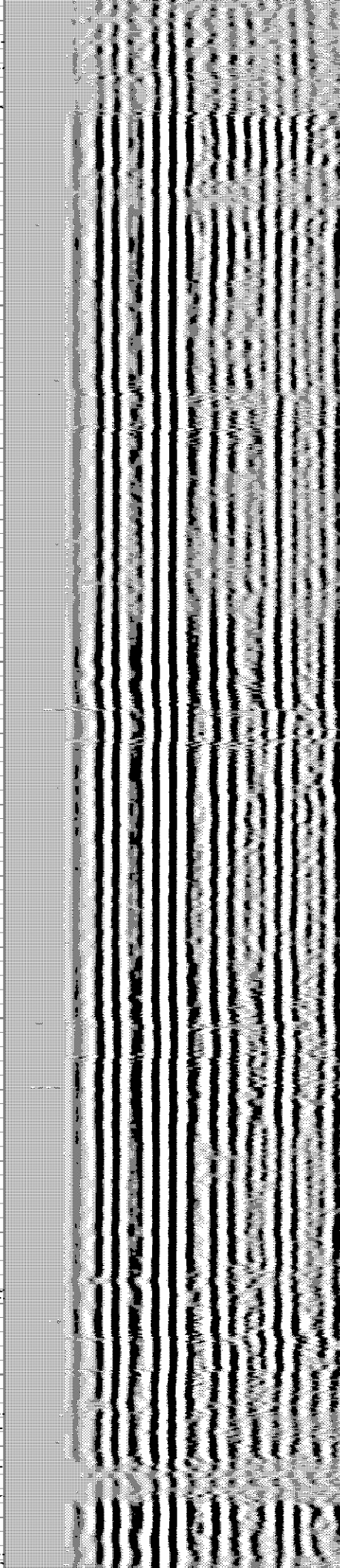
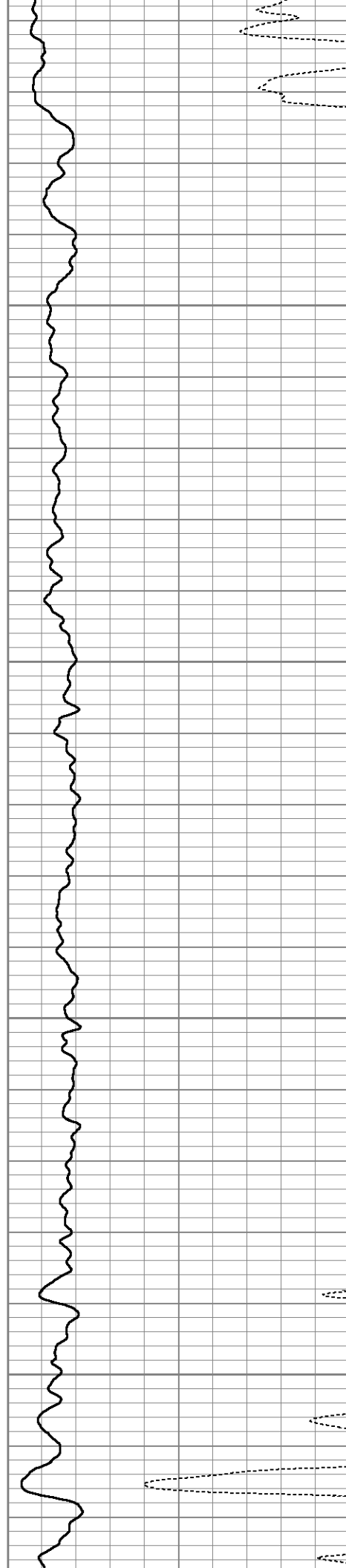
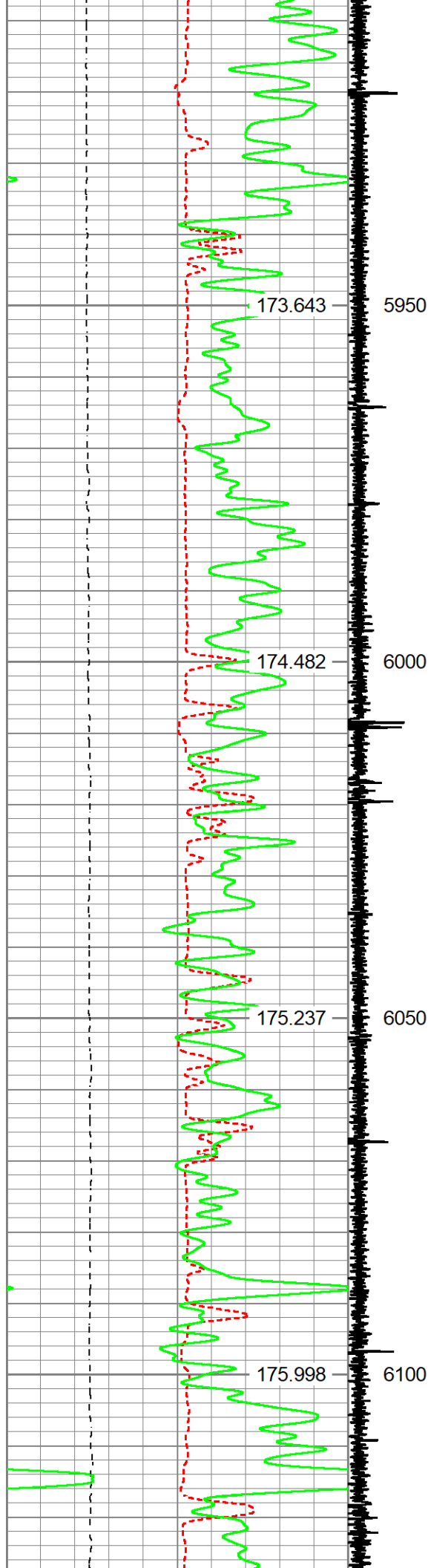


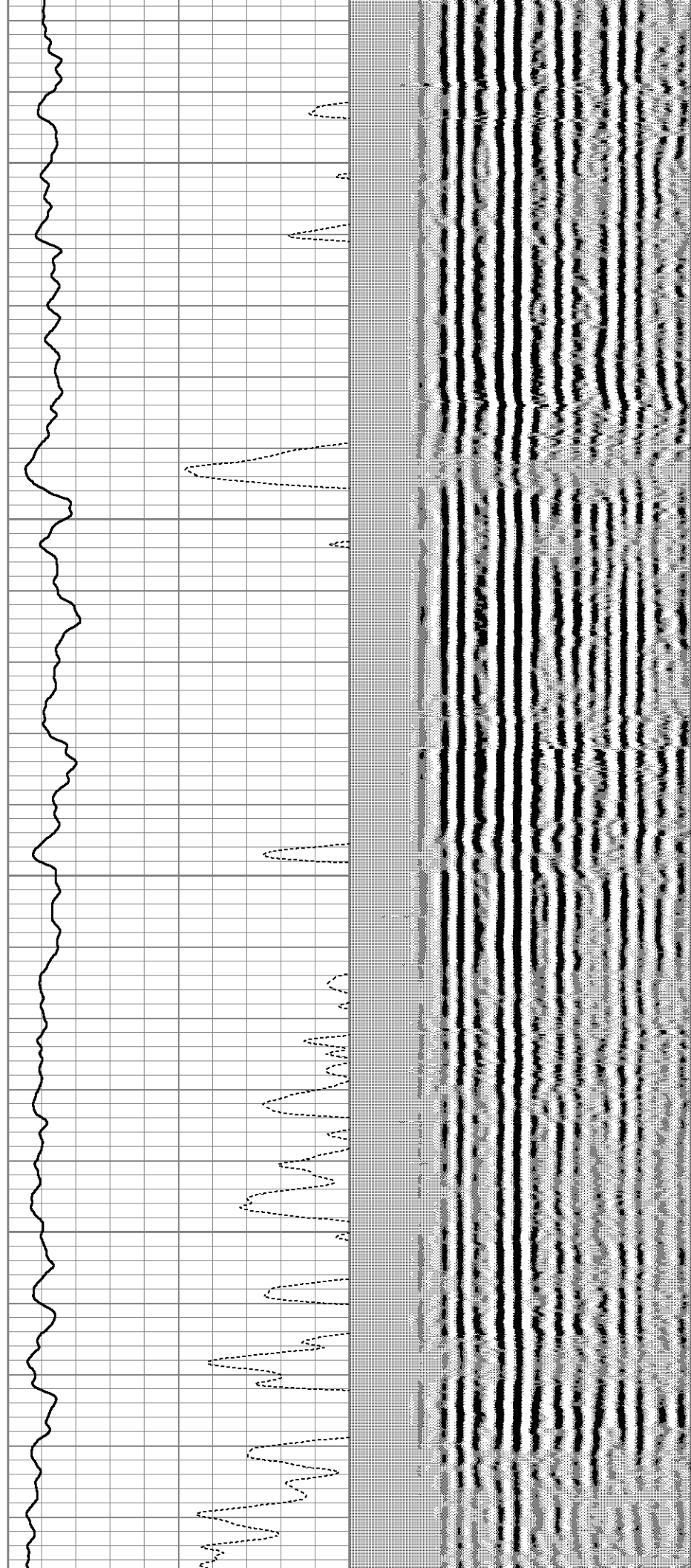
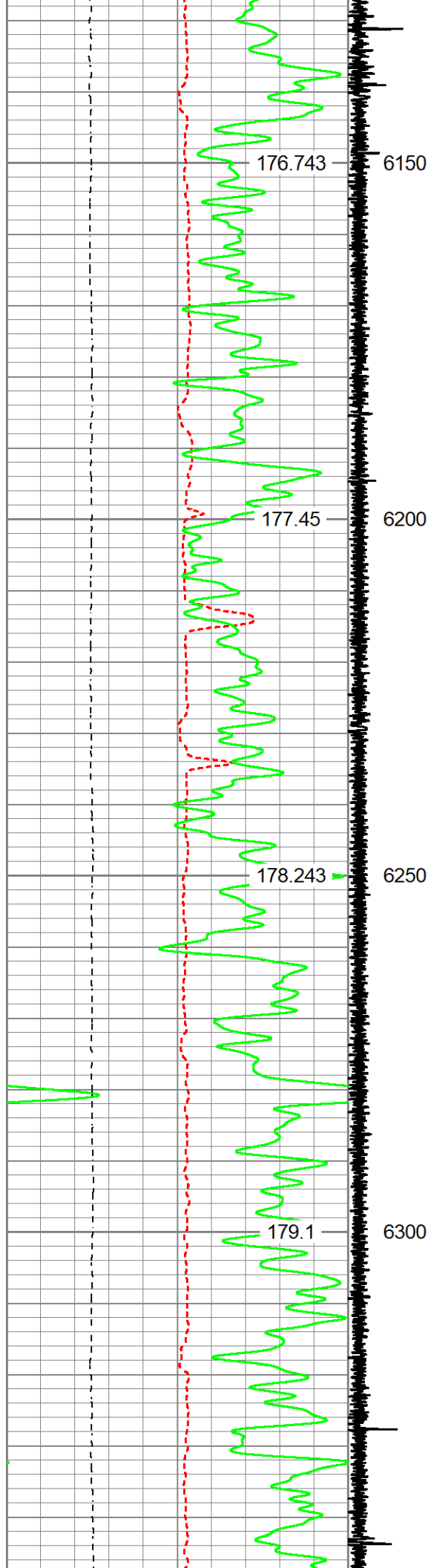


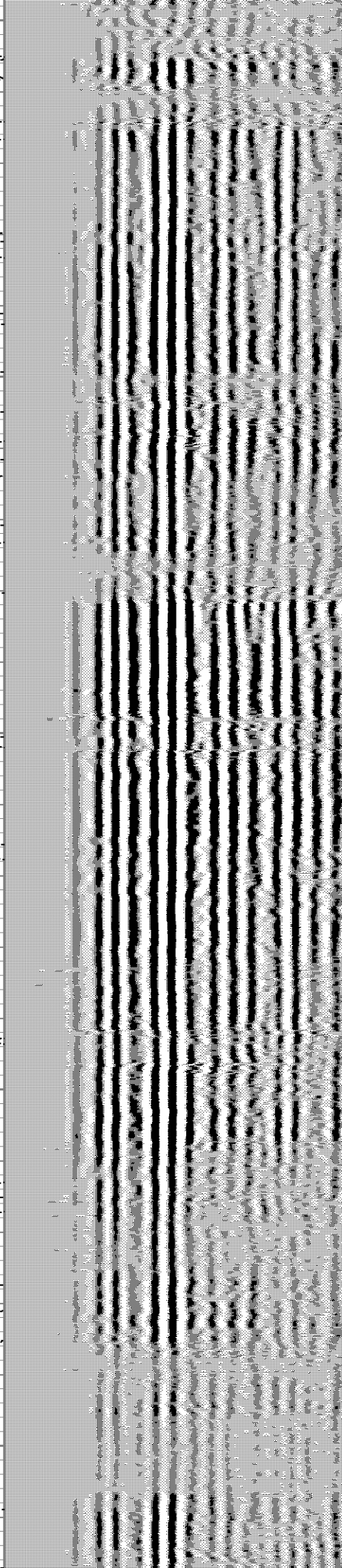
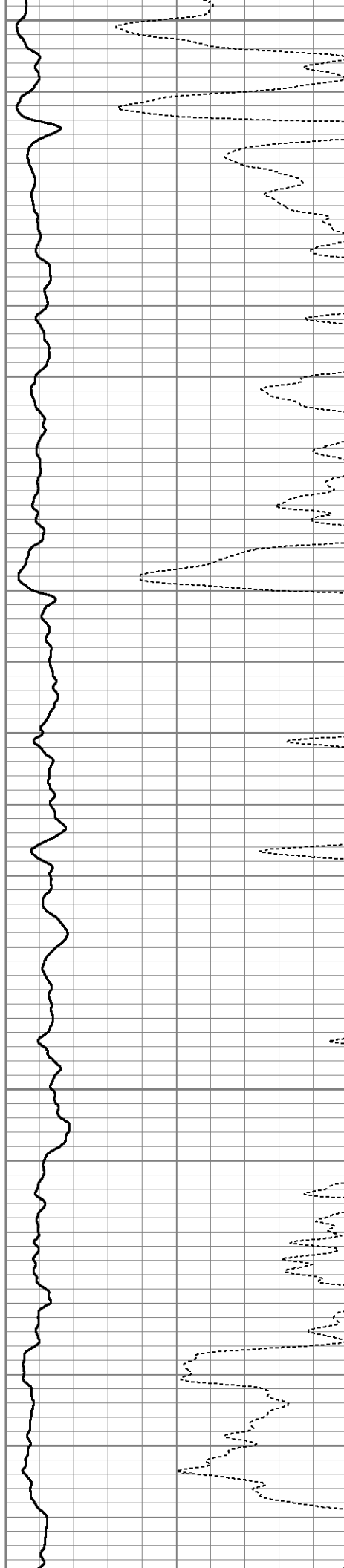
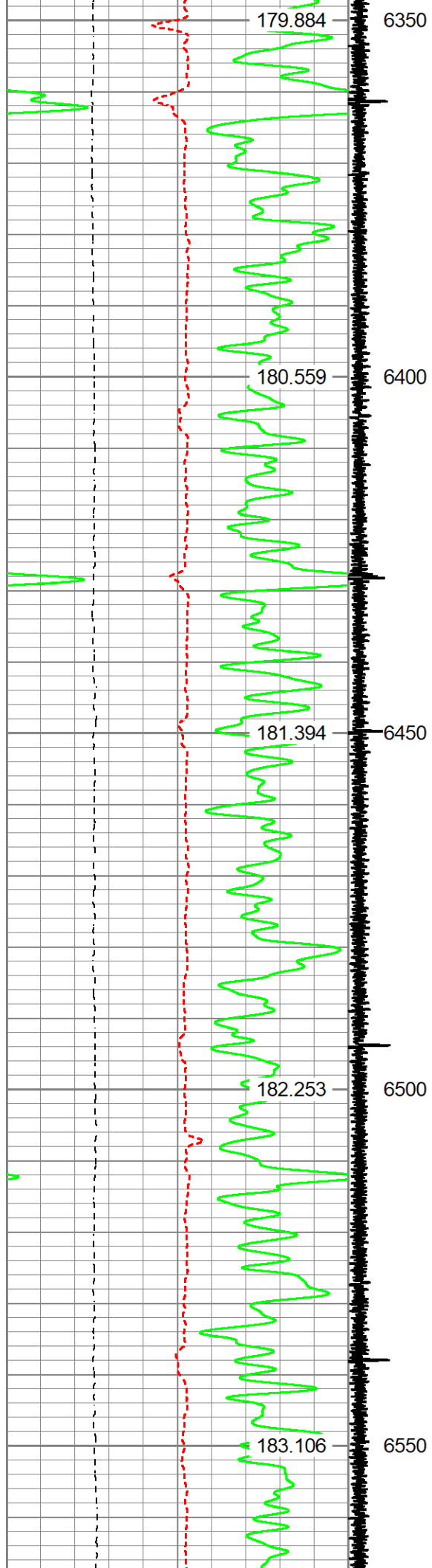


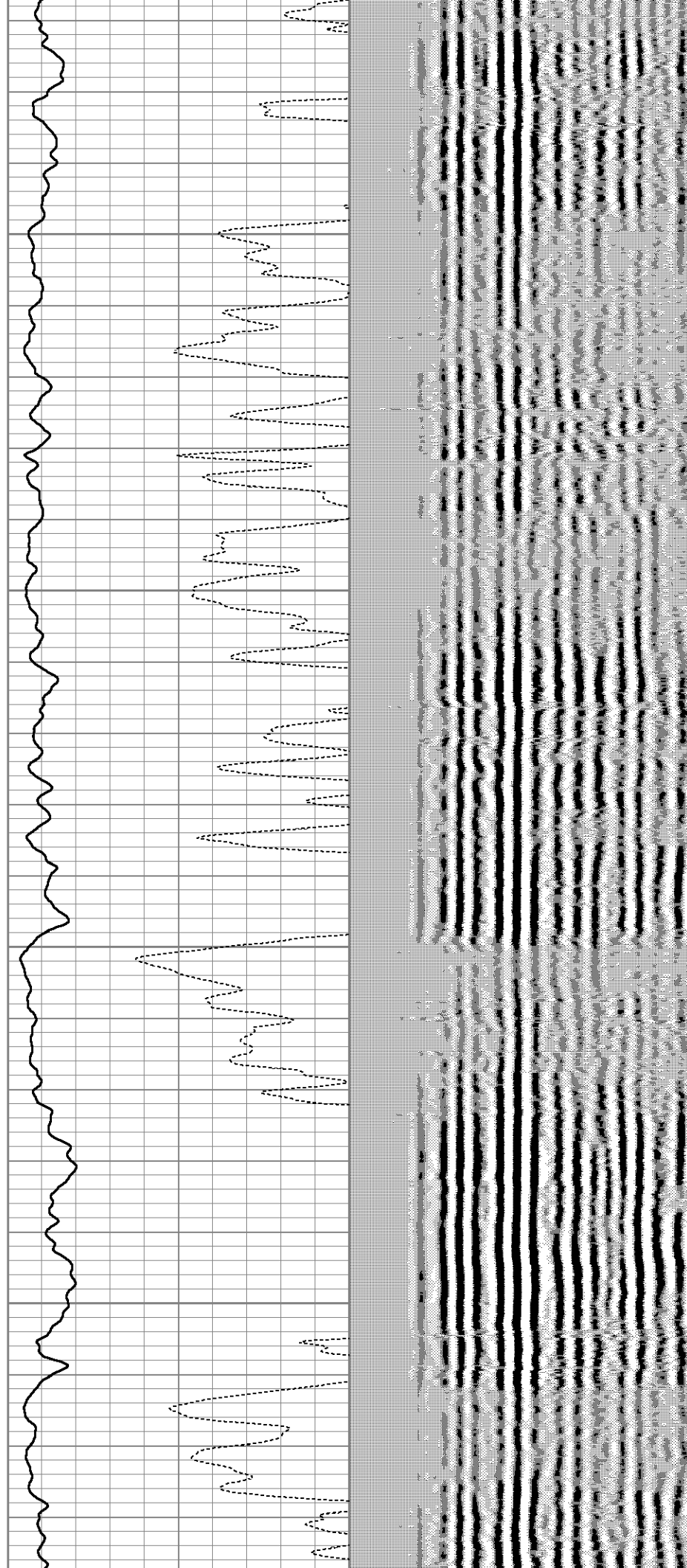
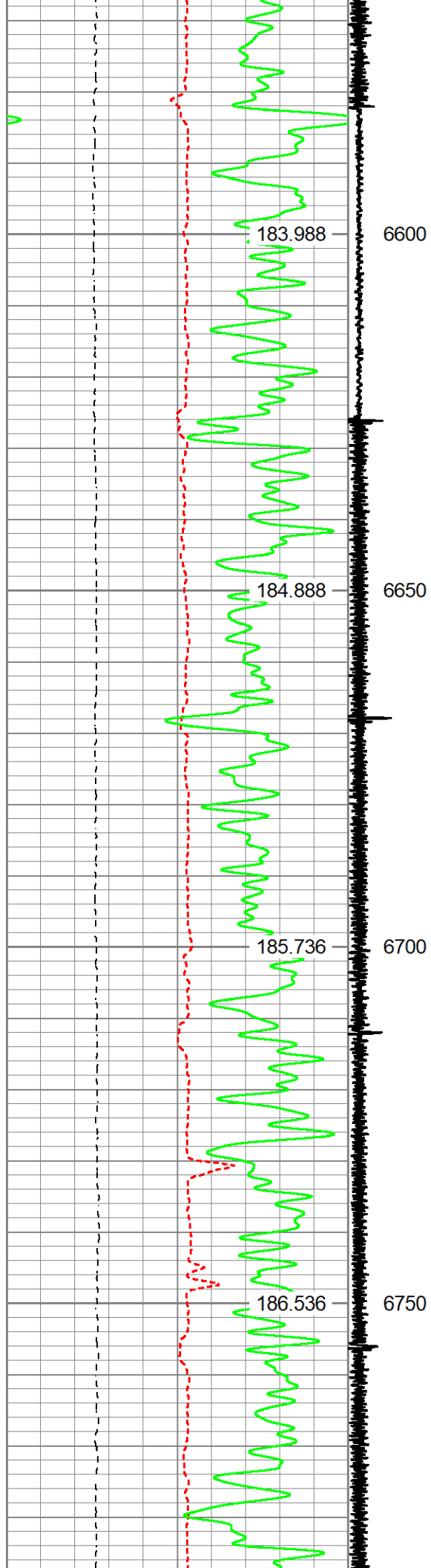


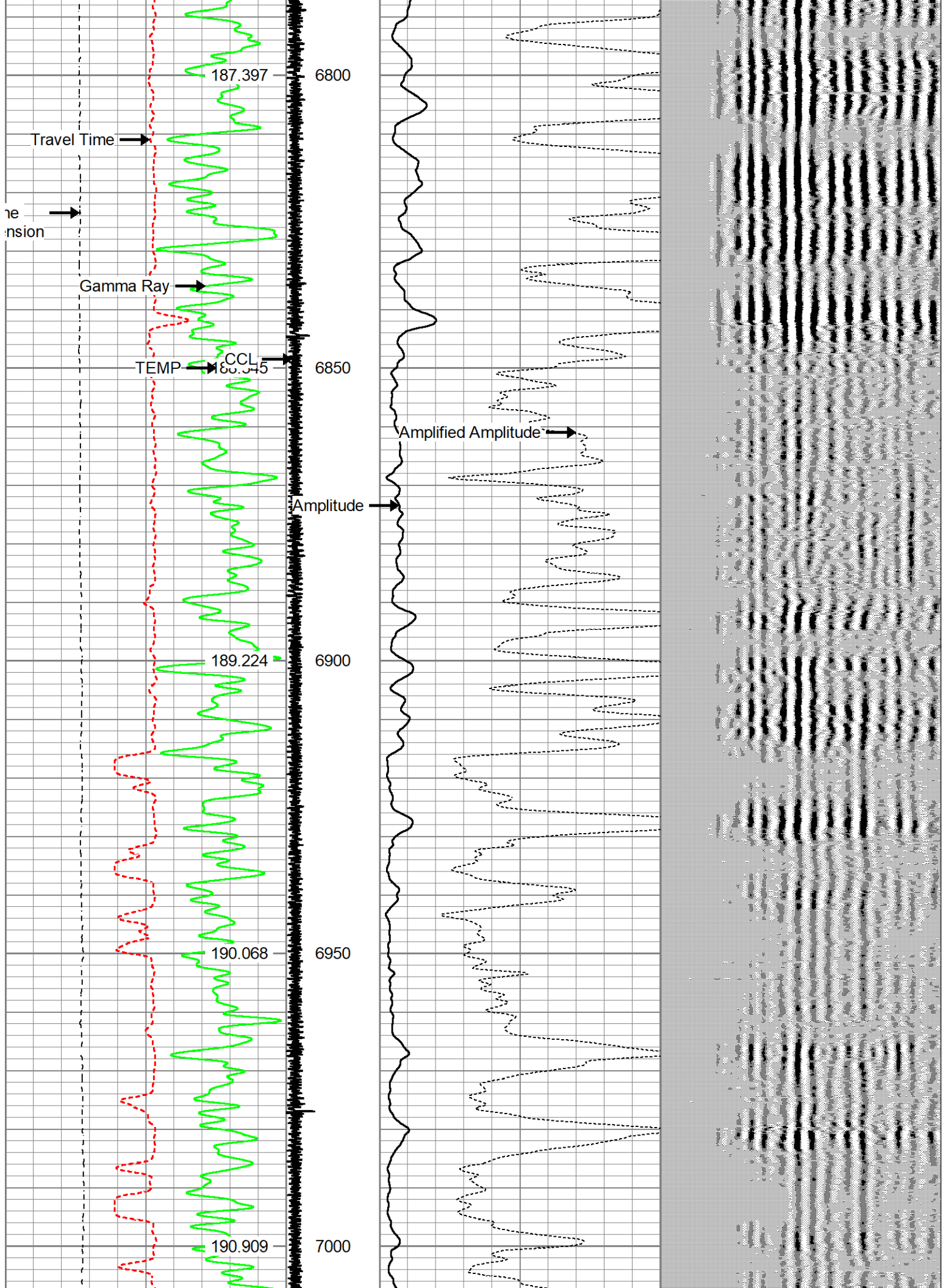


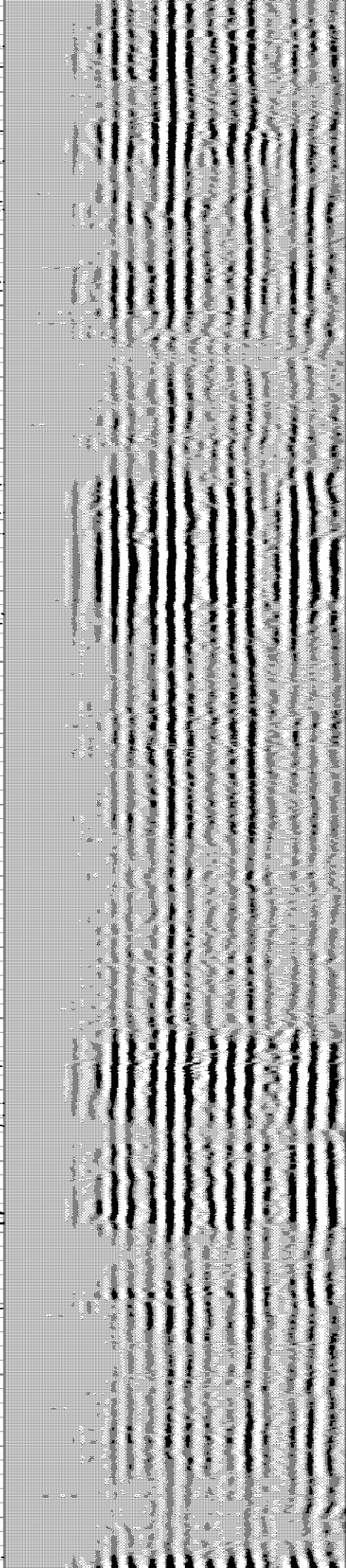
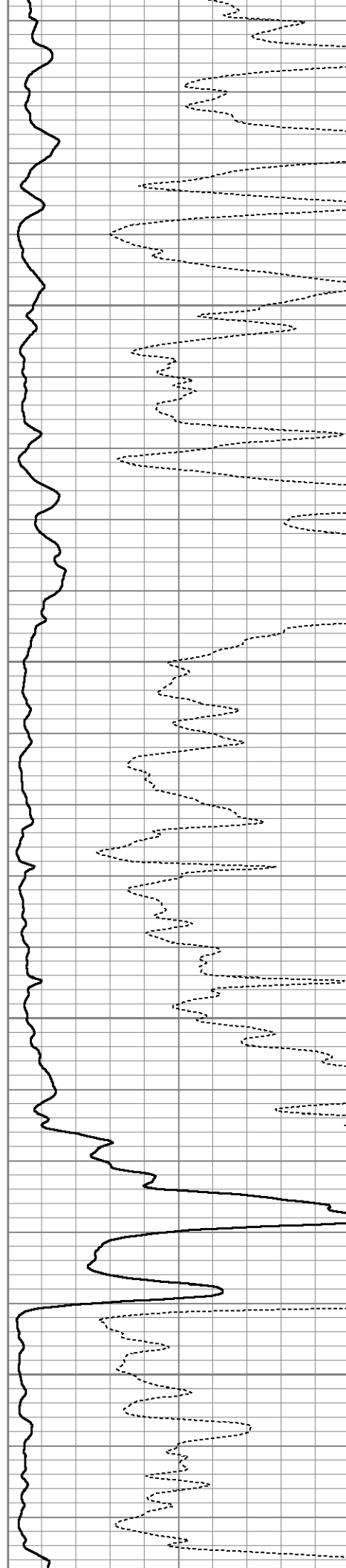
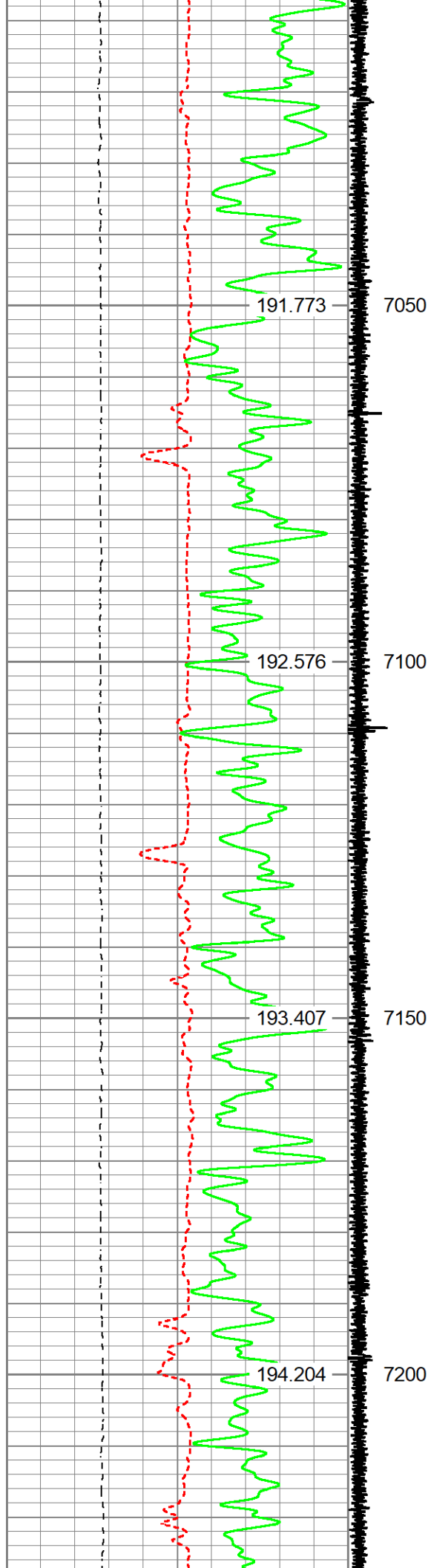


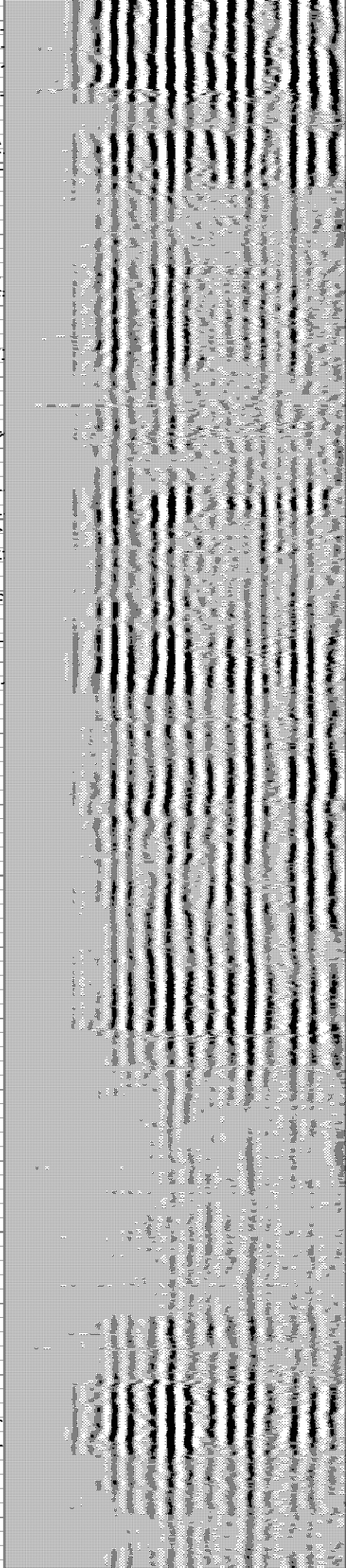
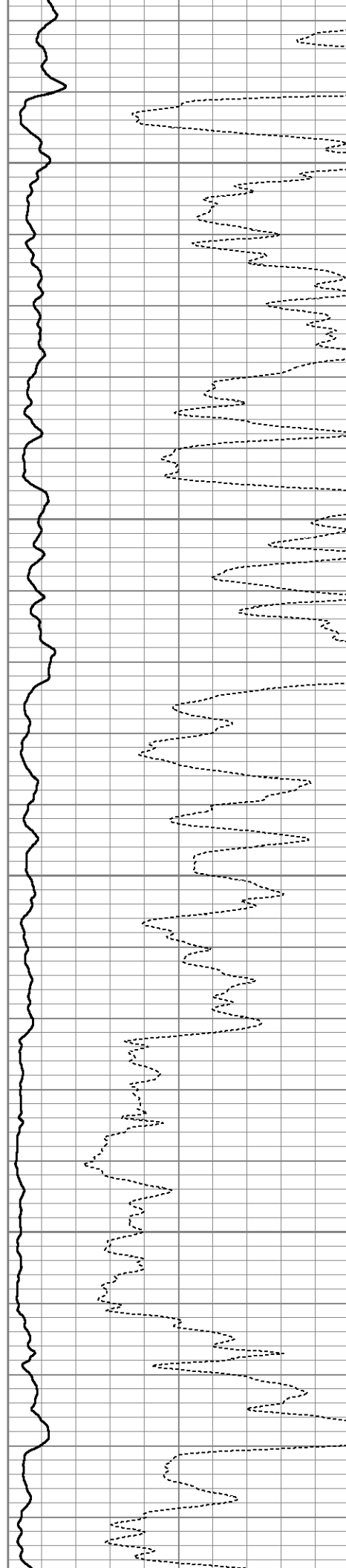
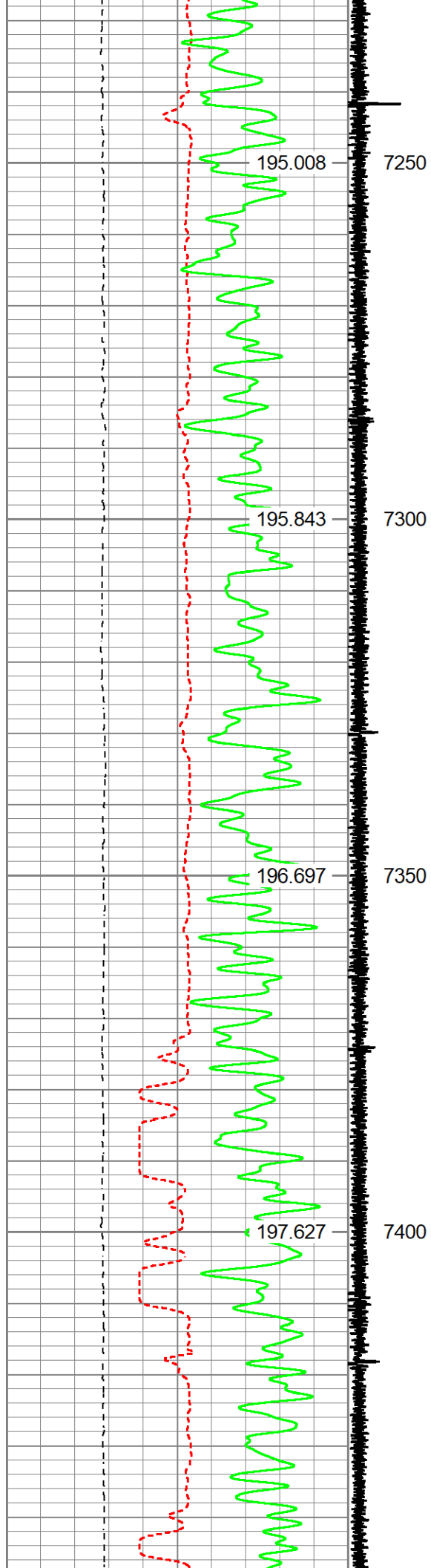


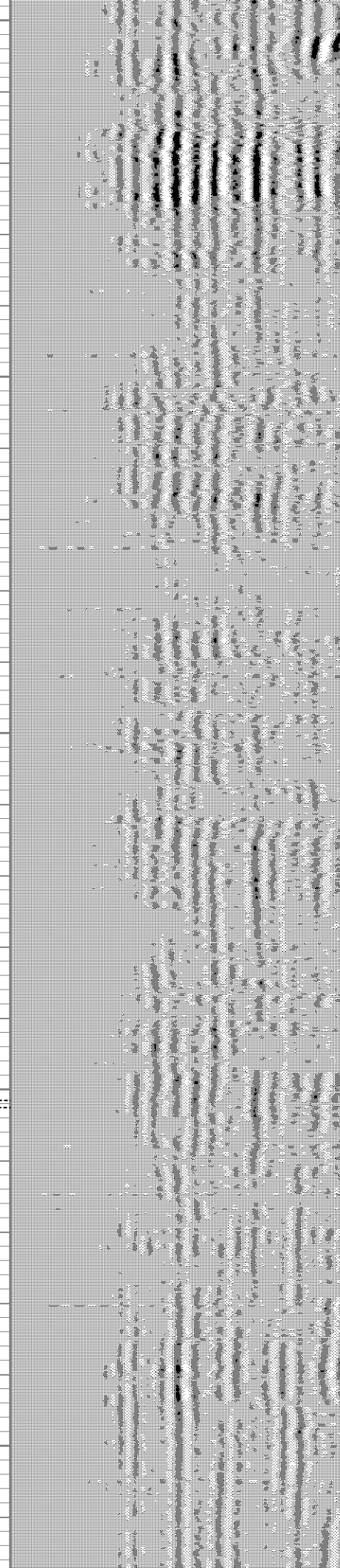
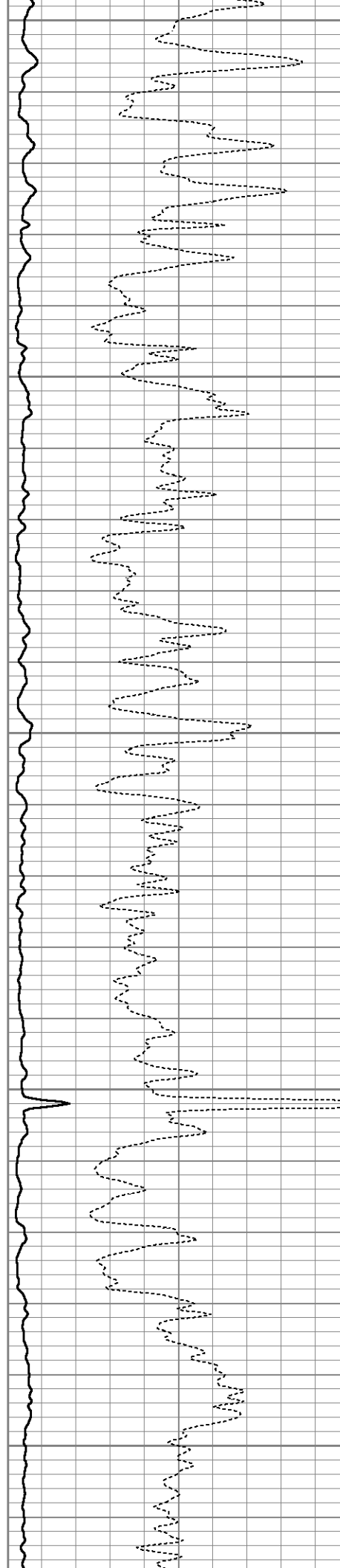
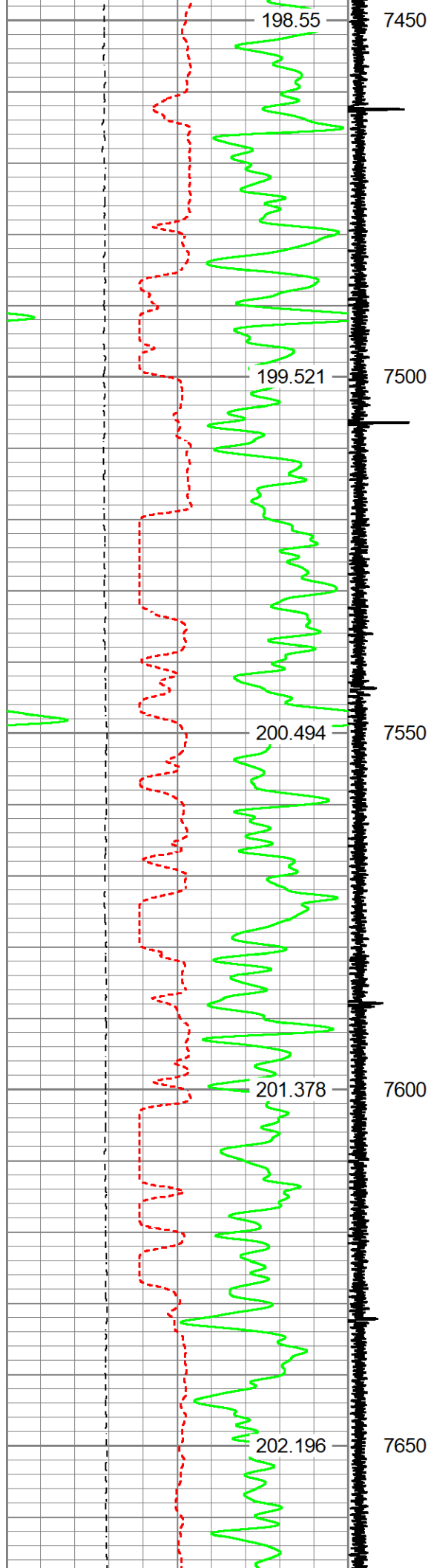


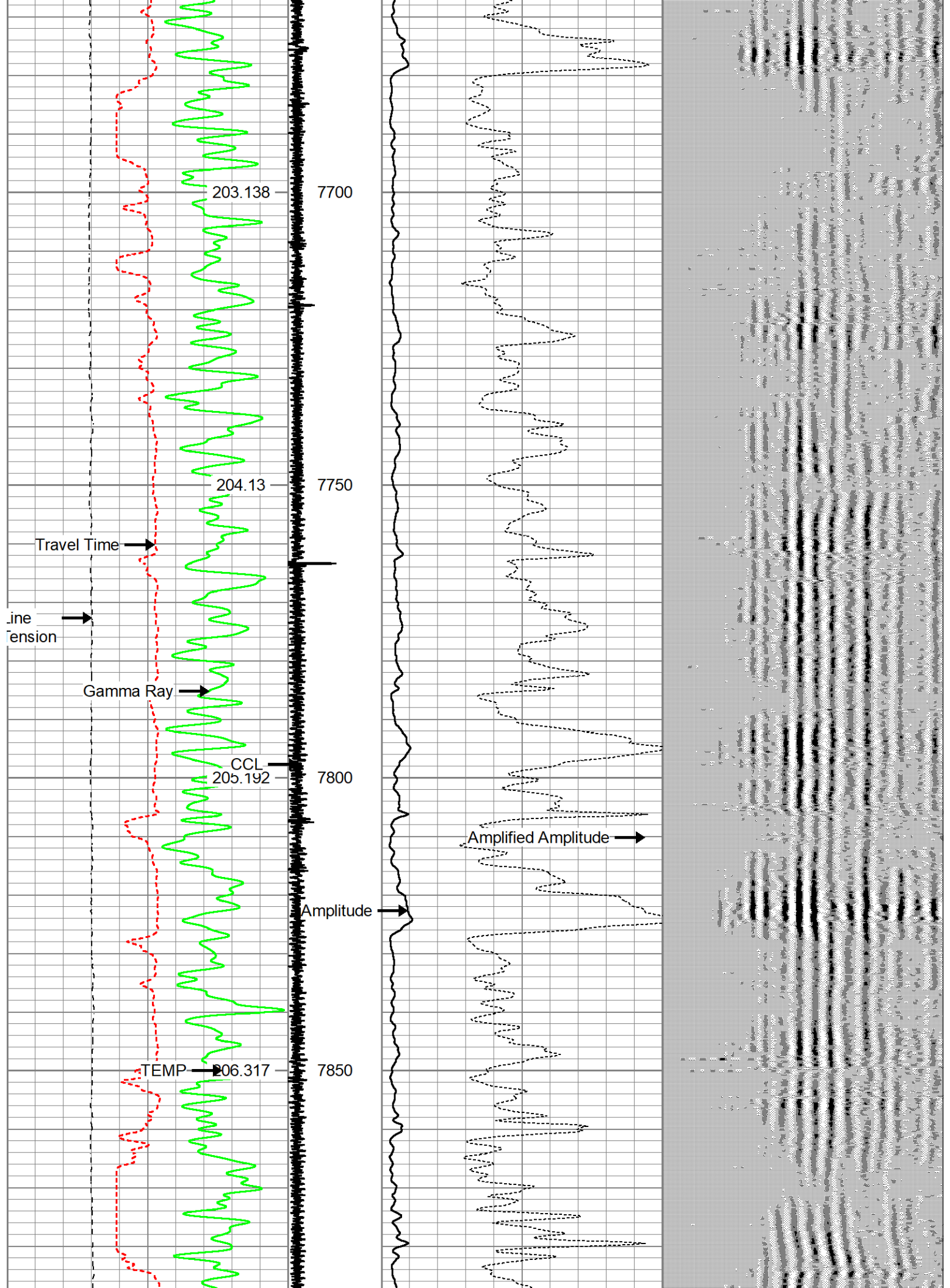


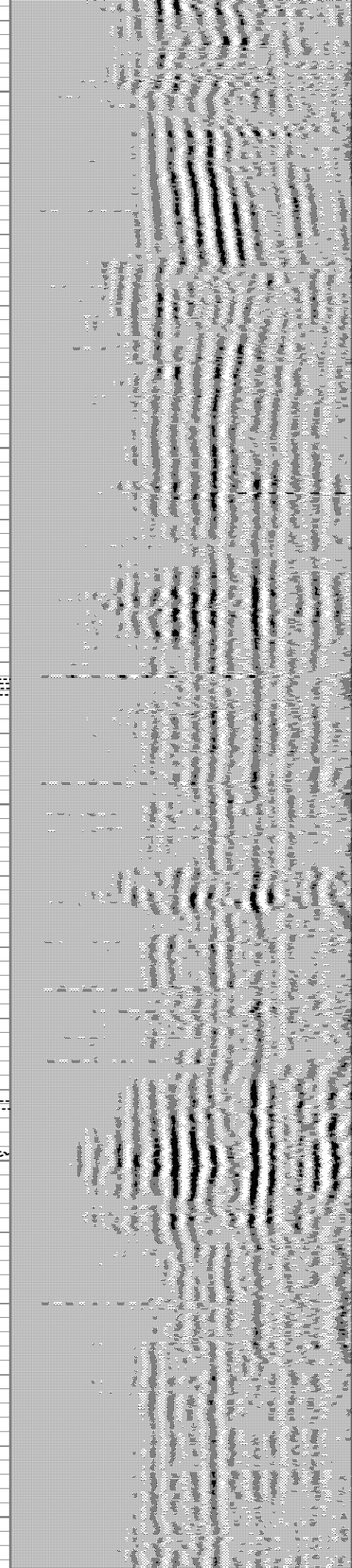
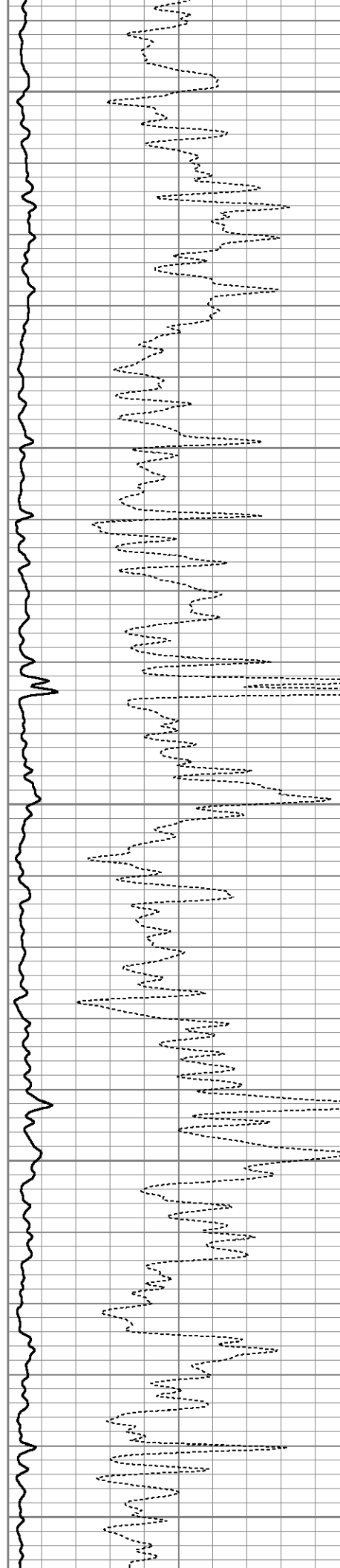
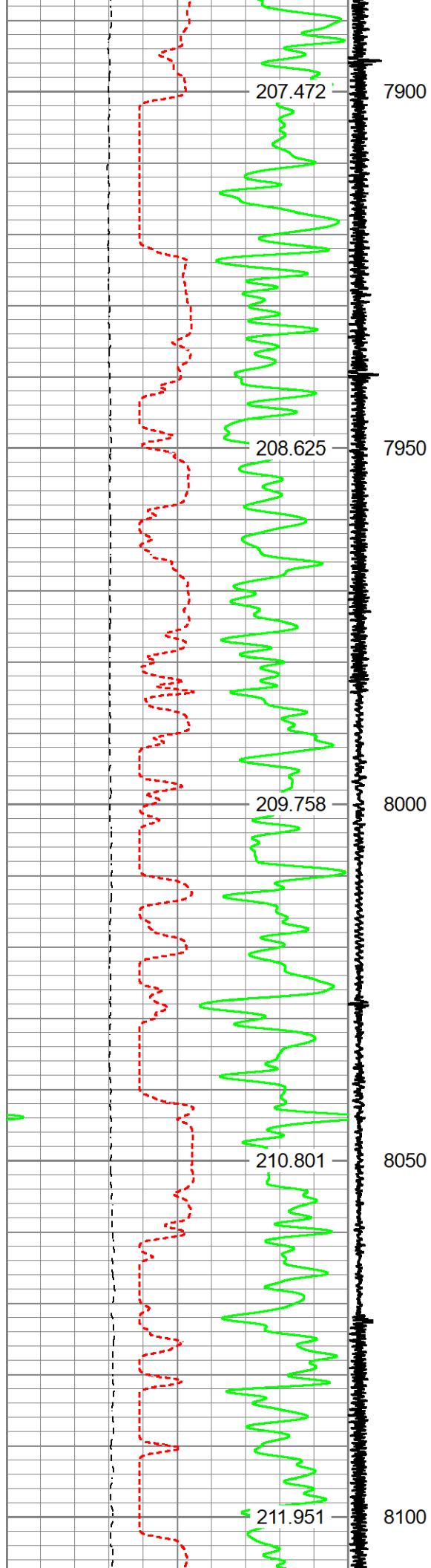


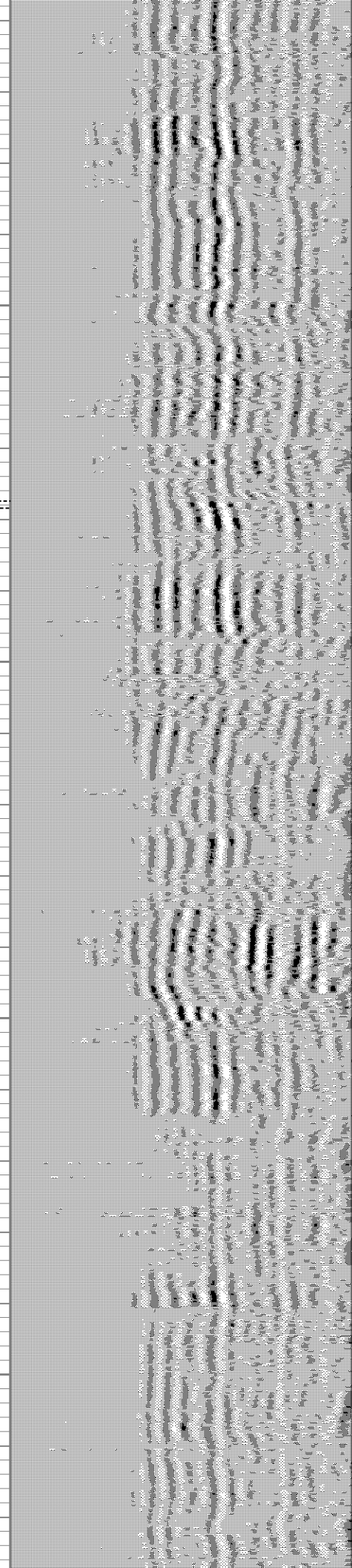
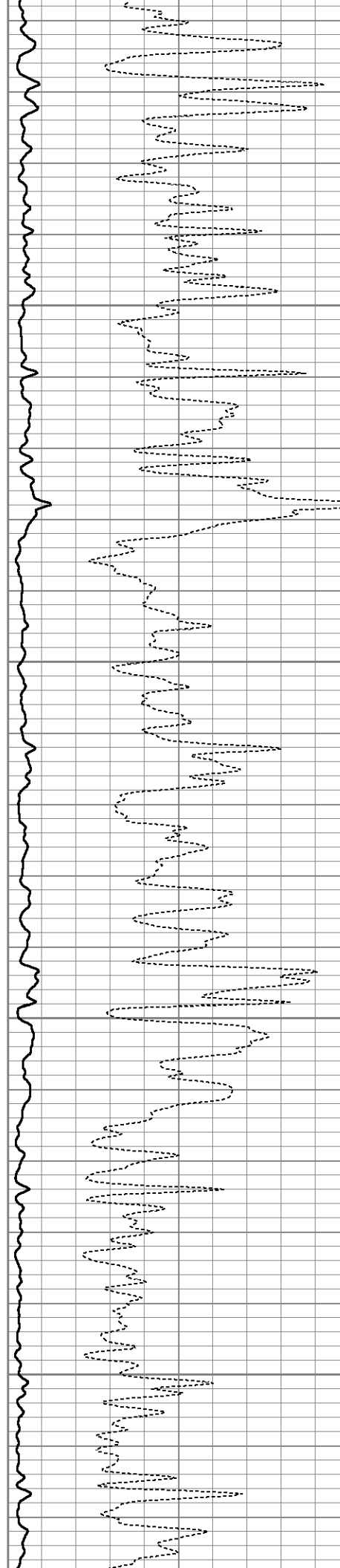
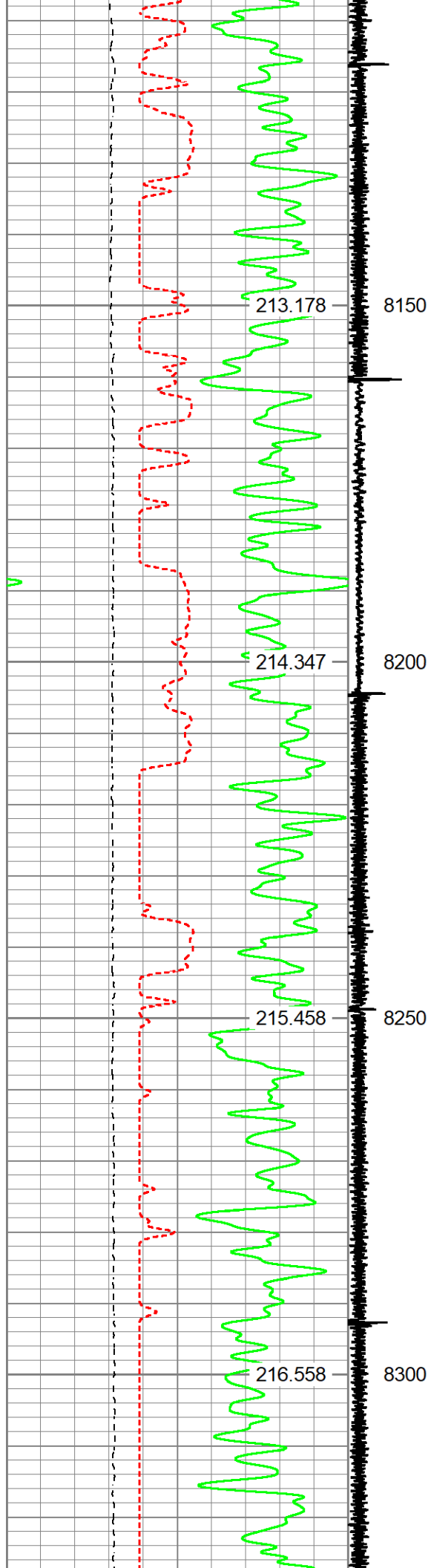


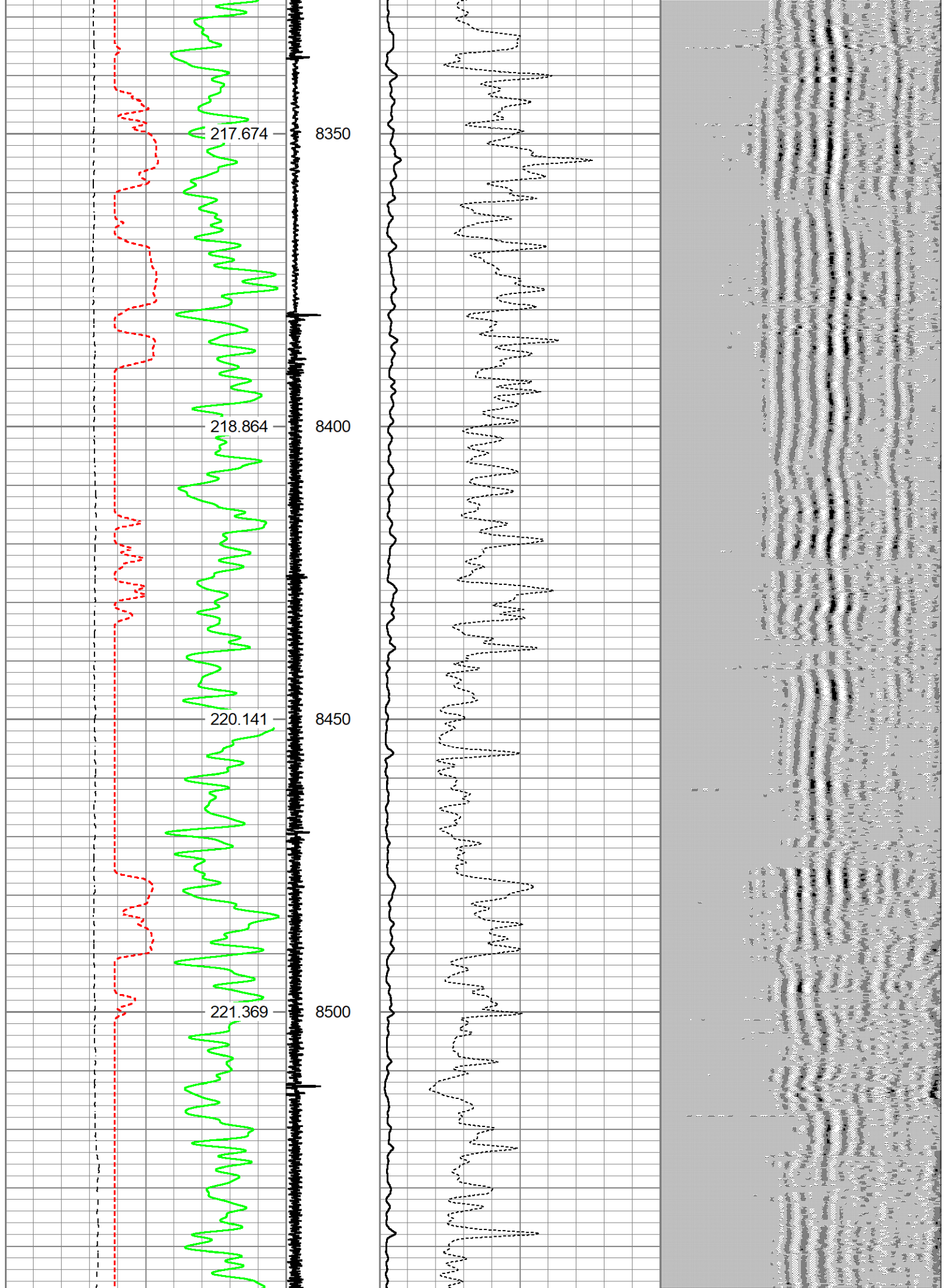


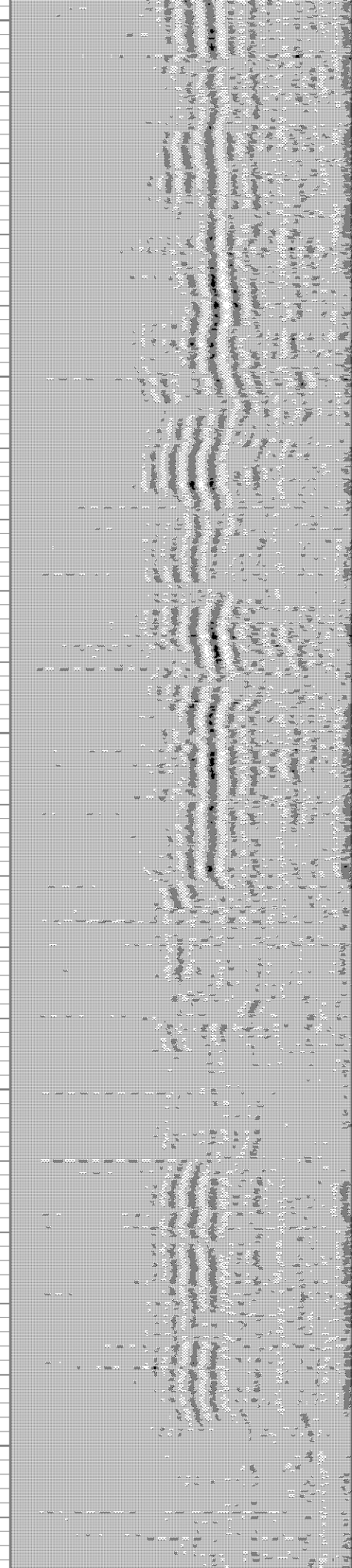
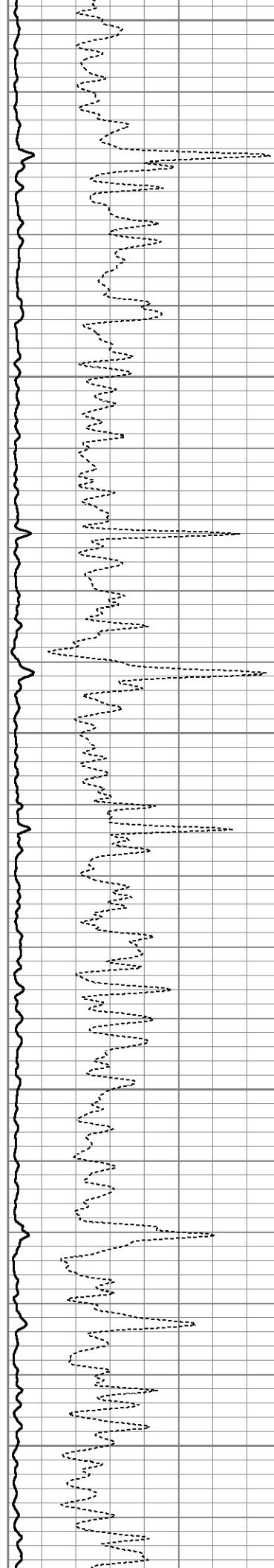
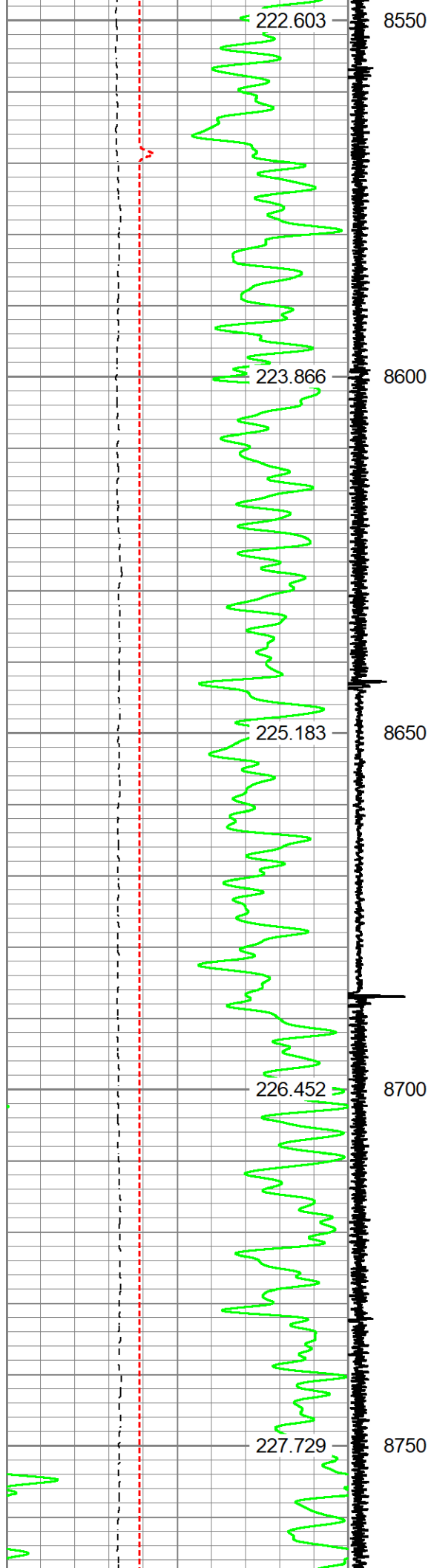


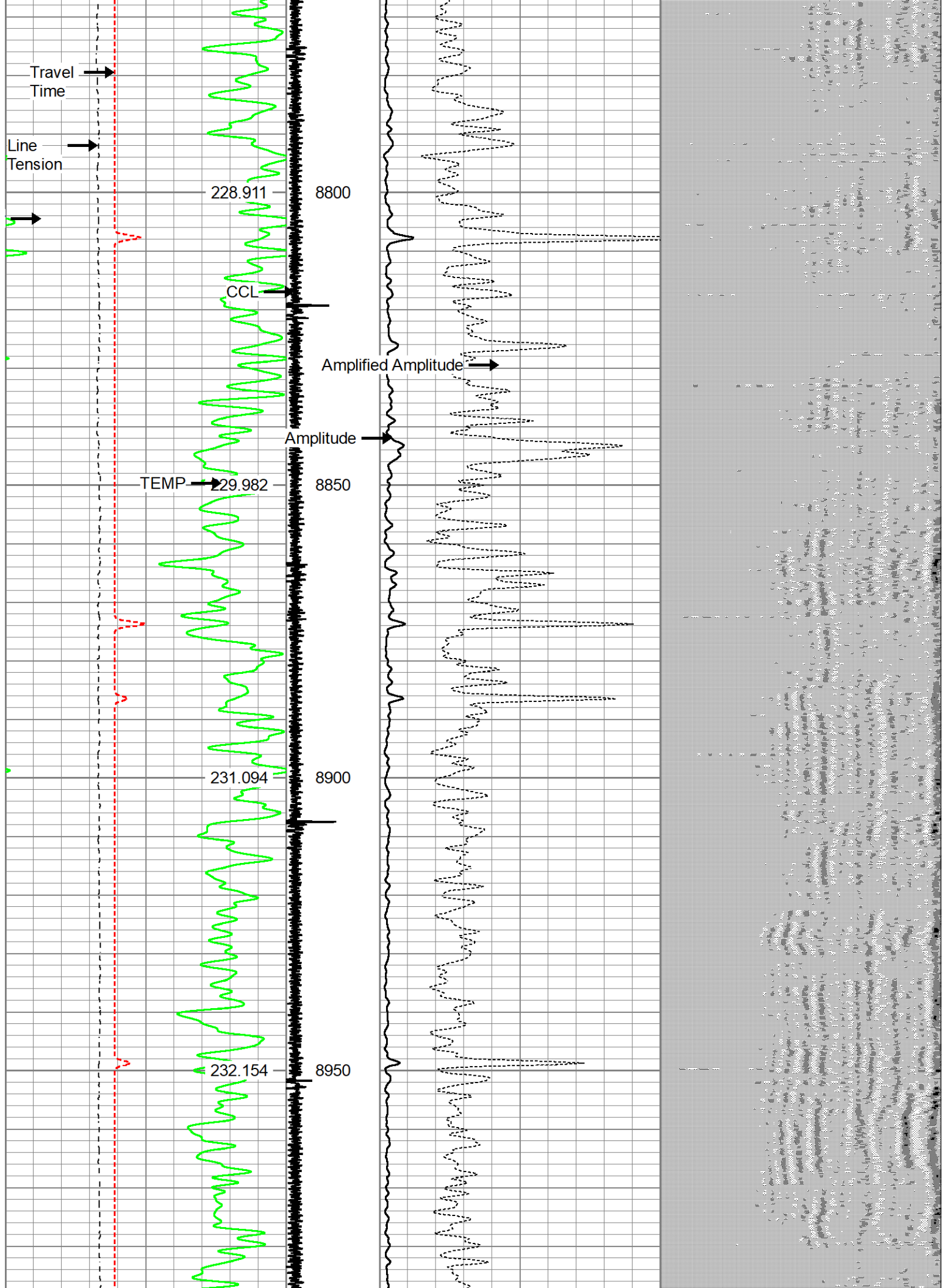


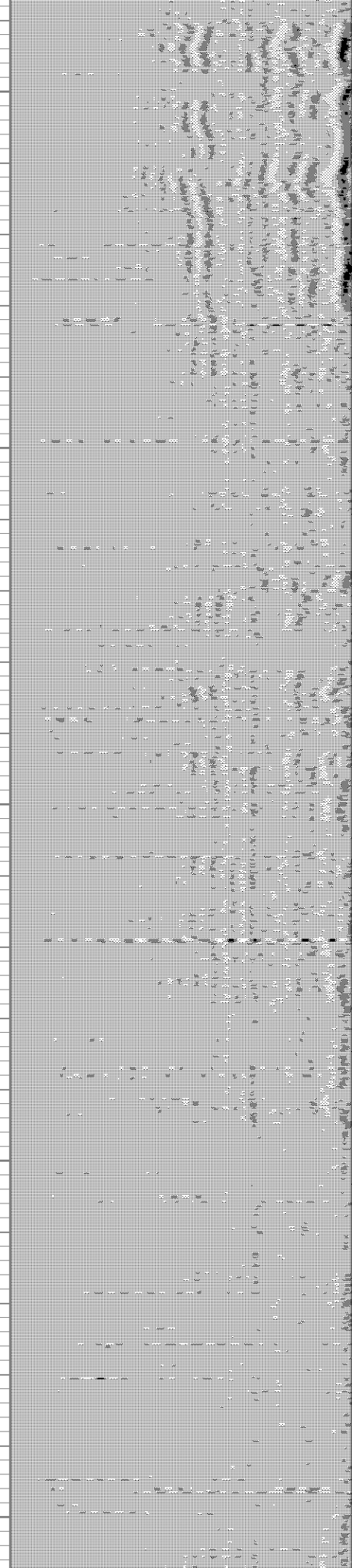
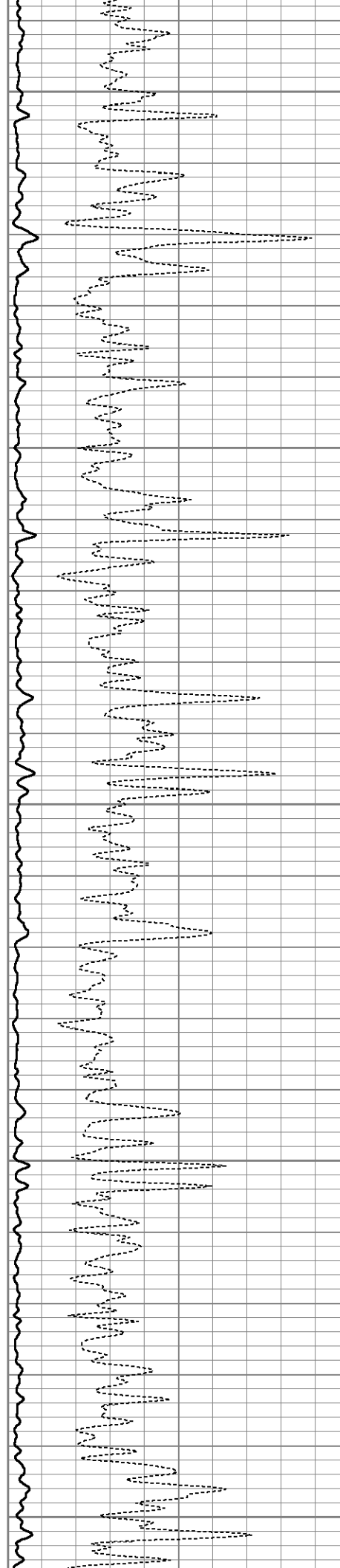
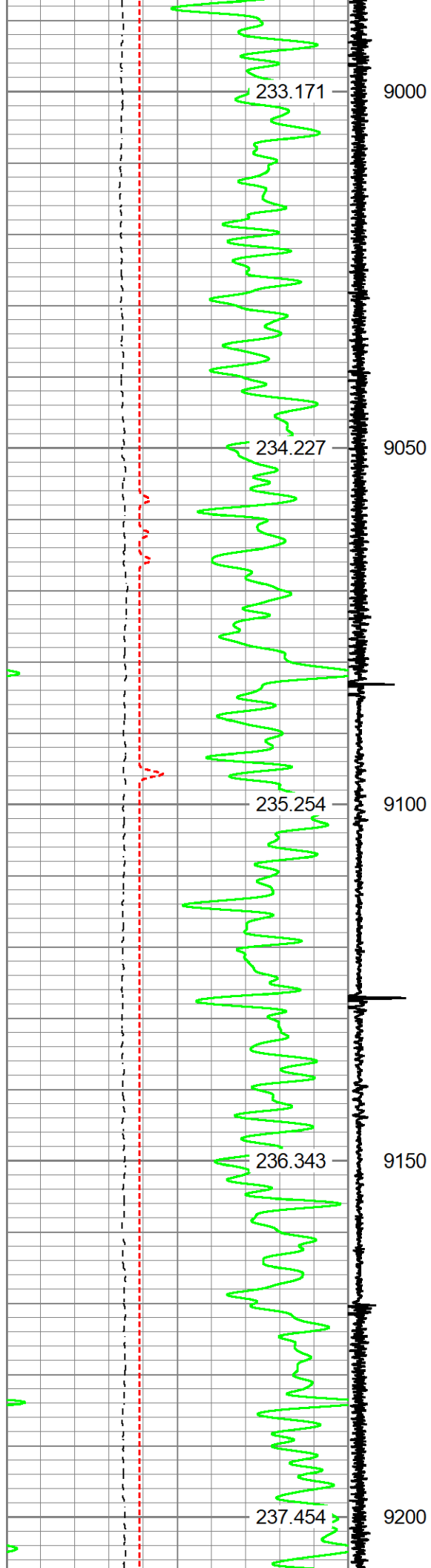


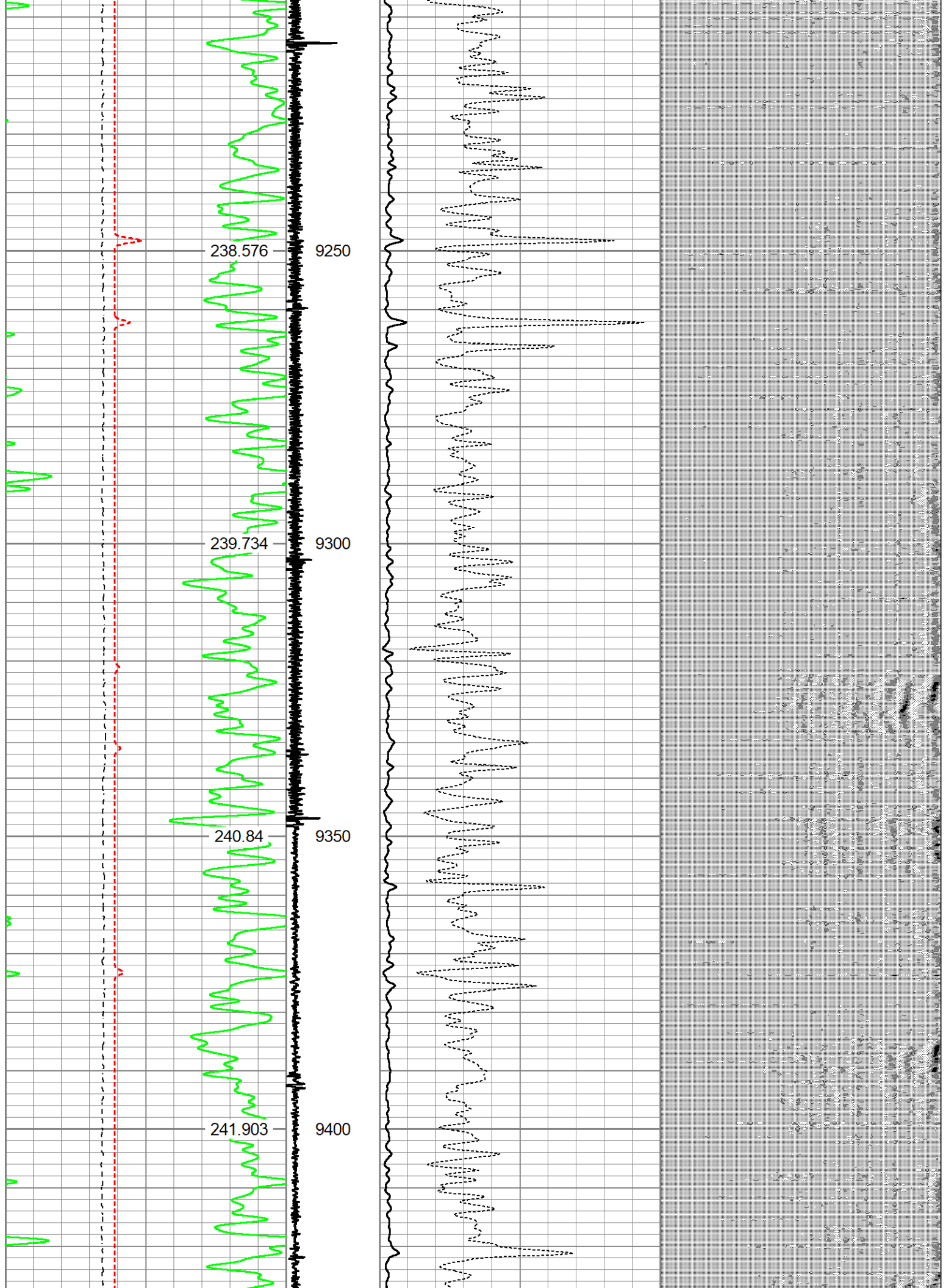


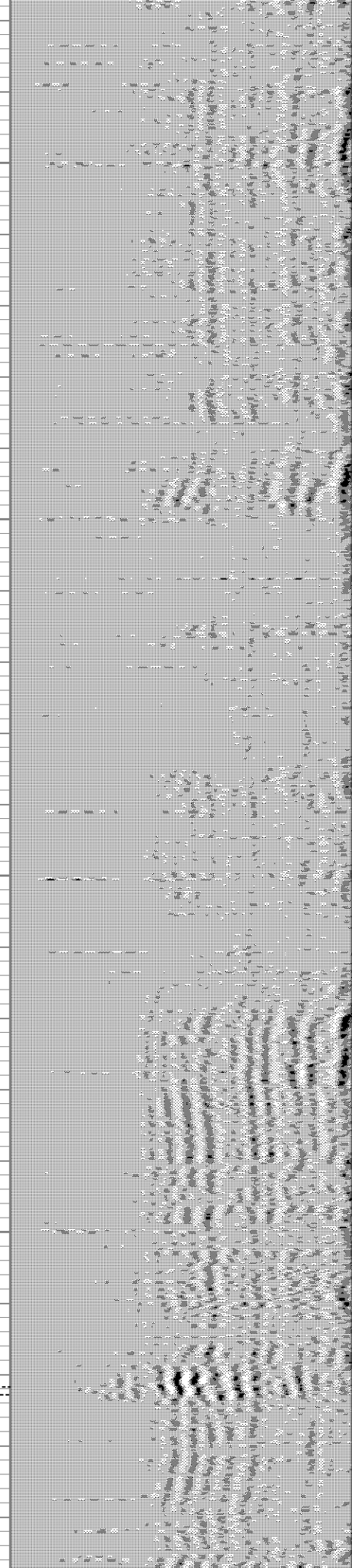
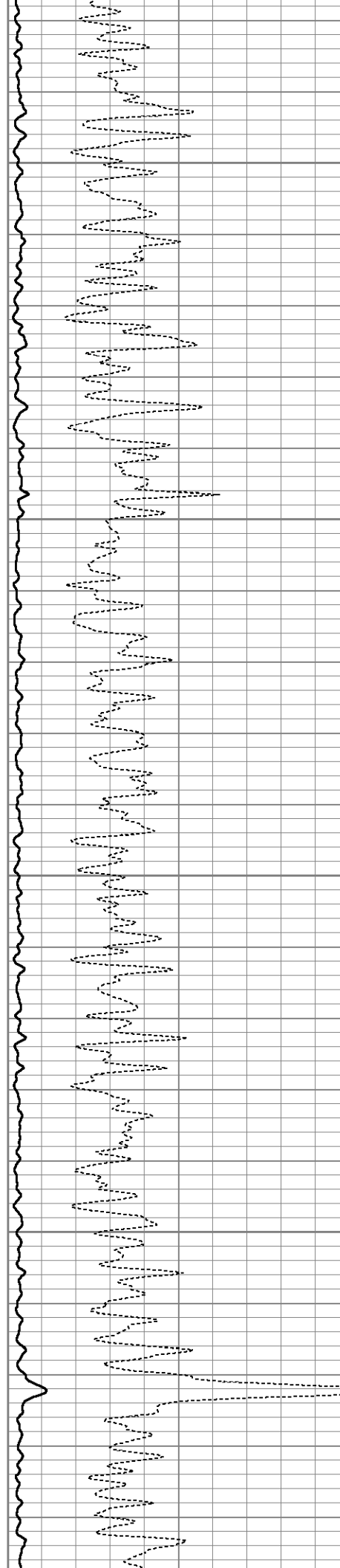
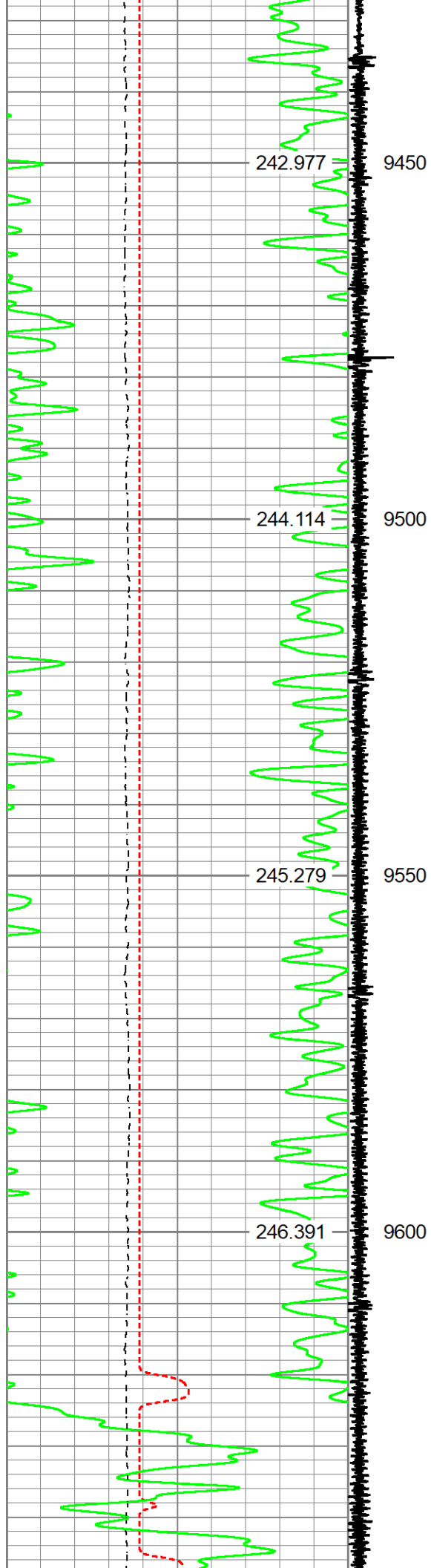


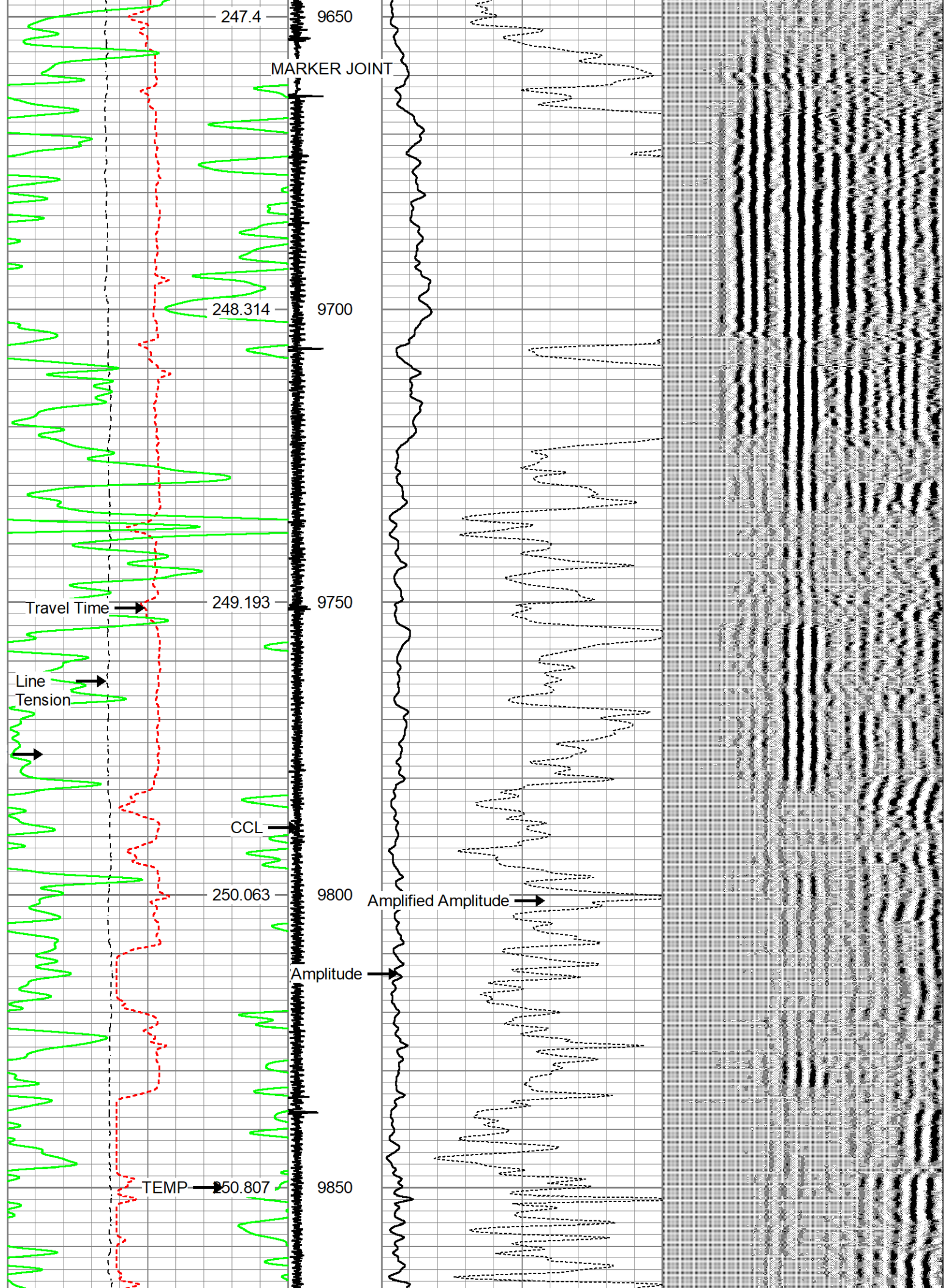


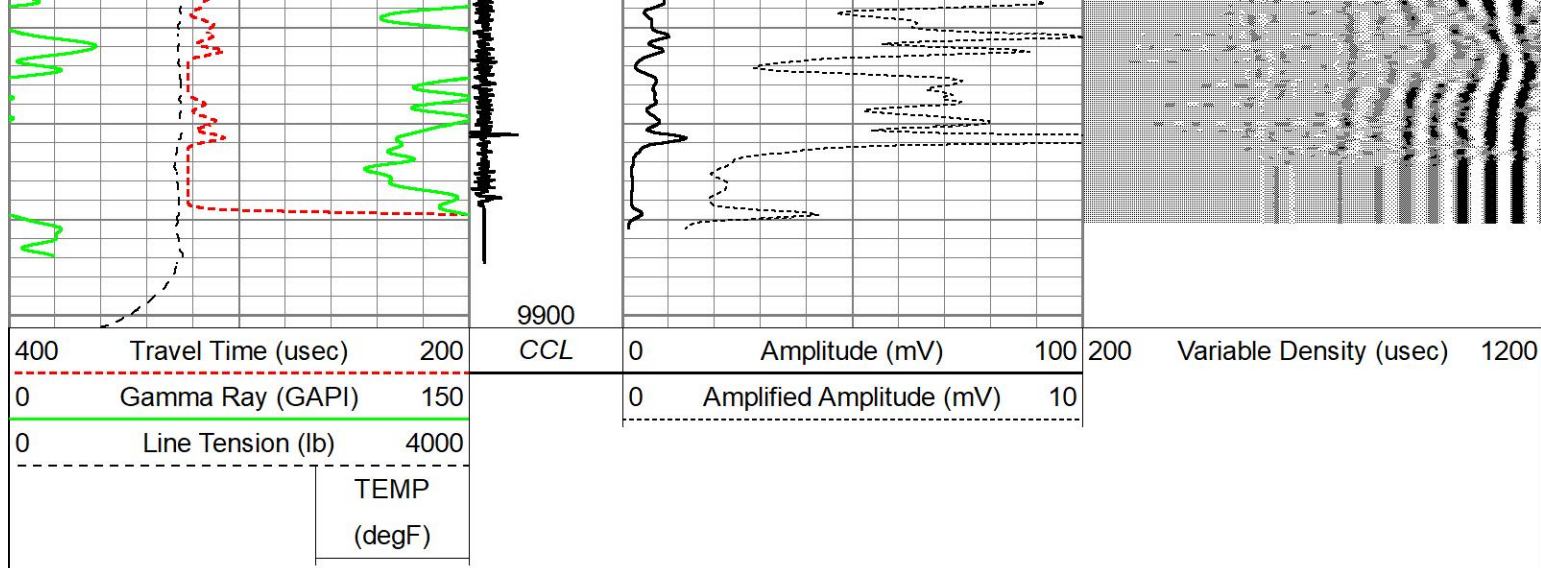








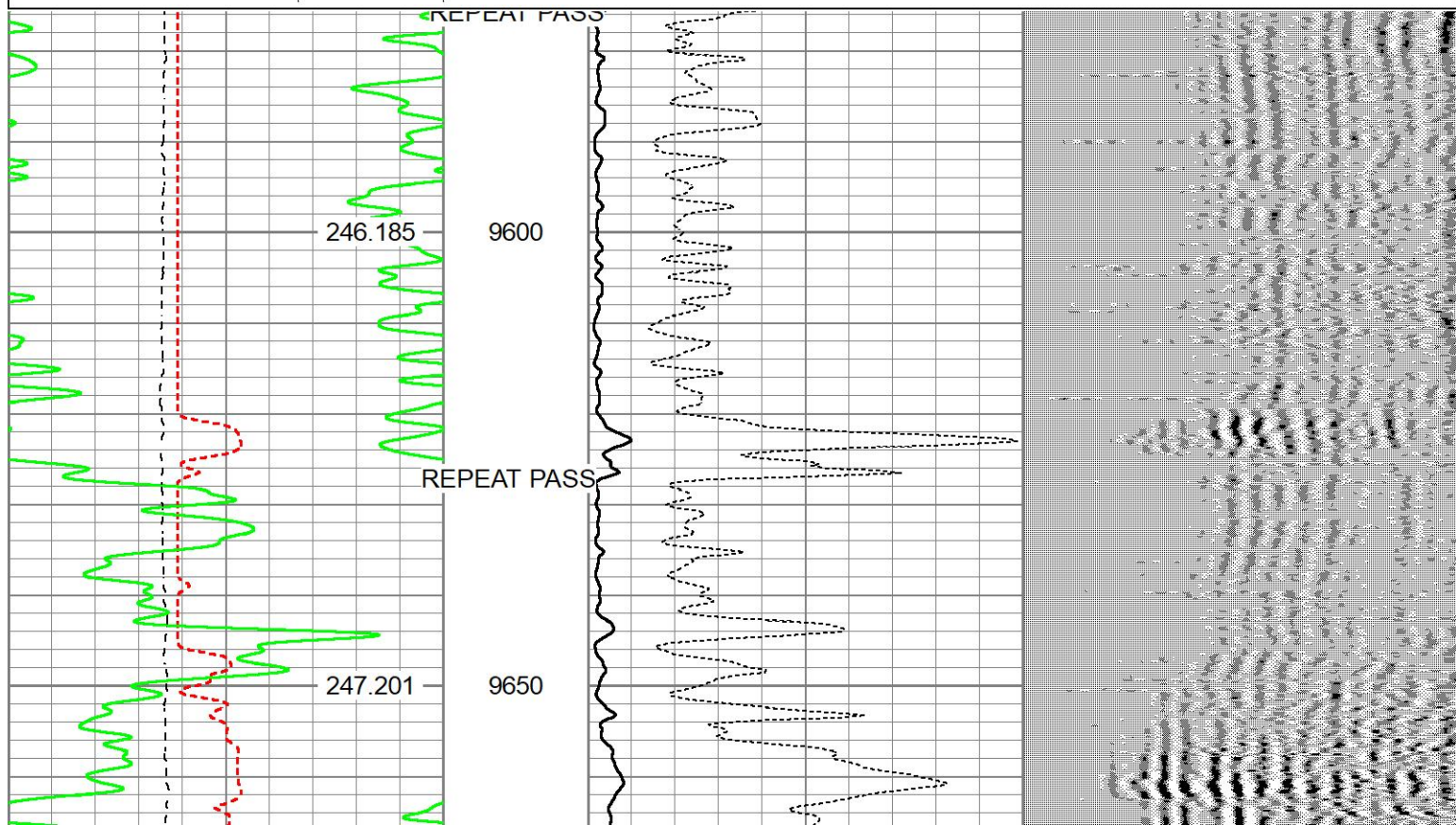
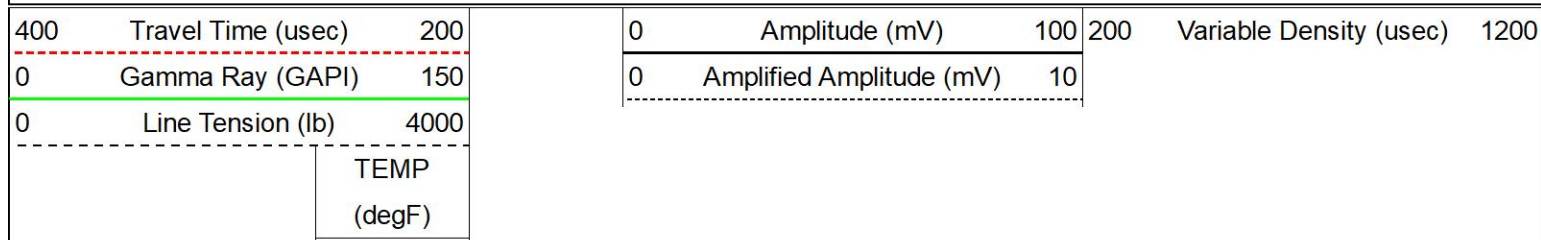


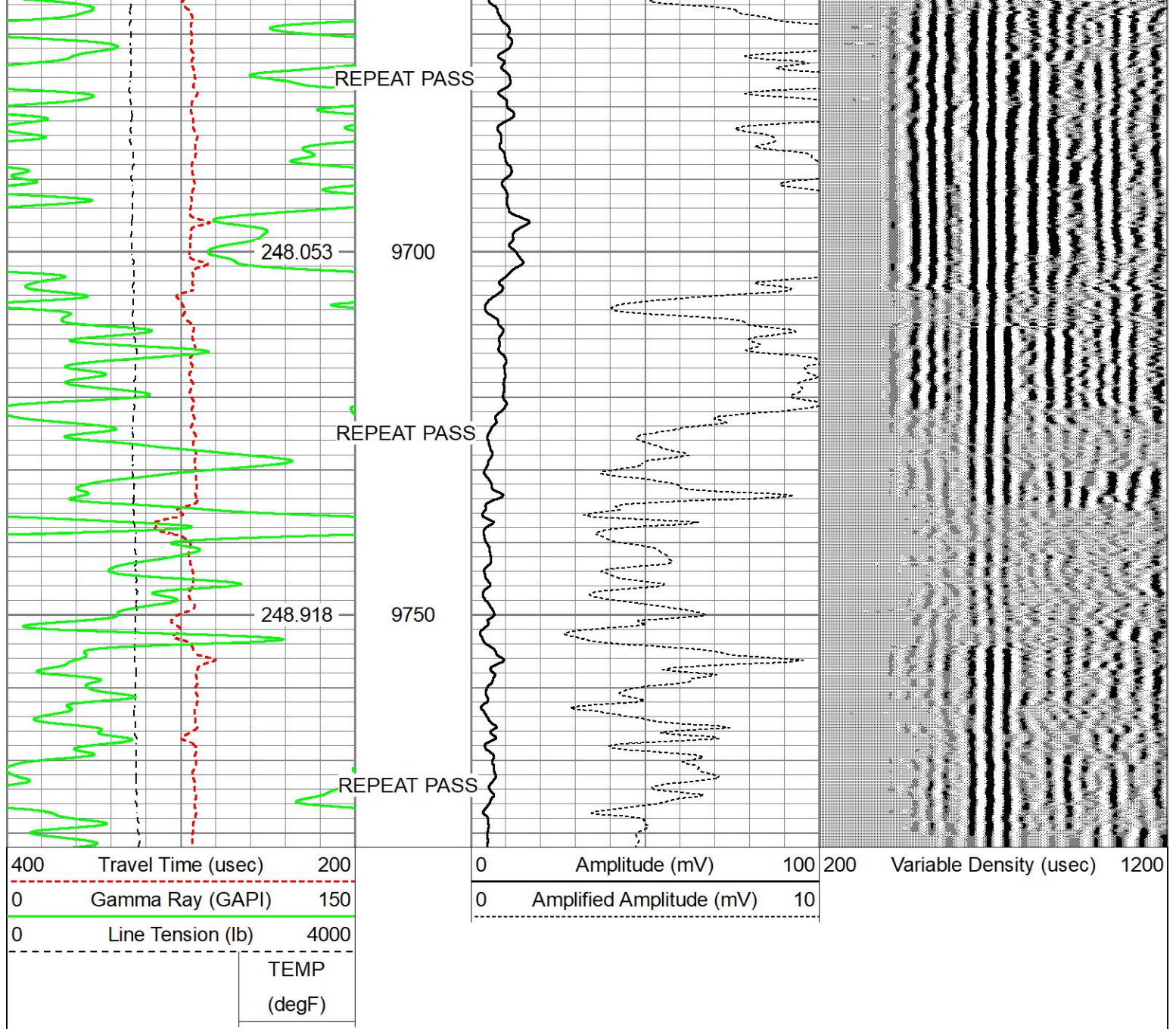



REPEAT PASS

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 Presentation Format cblgct
 Dataset Creation Fri Jan 25 11:07:03 2019
 Charted by Depth in Feet scaled 1:240





Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
ErrCt	18.89		RBT-Probe 2.75 Radii HT (FW1307-48) RADII HT	11.28	2.75	130.00

Tool Joint / Component	Length (ft)	Weight (lb)	O.D. (in)	Notes	Length (ft)	Weight (lb)	O.D. (in)
WVFS8	11.79						
WVFS7	11.79						
WVFS6	11.79						
WVFS5	11.79						
WVFS4	11.79						
WVFS3	11.79						
WVFS2	11.79						
WVFS1	11.79						
WVFCAL	11.79						
WVF3FT	11.79						
WVF5FT	10.79						
CCL\$2	6.64						
CCL\$1	6.64						
GCT_Temp	6.09						
GR	5.22						
				GC-GCT275-0000 (GCT275 0000_base) Probe GCT275-0000 w/Temp	4.77	2.75	55.00
				CENT-PTS275 BC275-0000 Centralizer	2.83	2.75	24.00
Dataset: gw_ottesen_le06290hn_25_jan_2019_cbl.db: field/well1/run1/pass11.3 Total length: 18.89 ft Total weight: 209.00 lb O.D.: 2.75 in							

Gamma Ray Calibration Report

Segmented Cement Bond Log Calibration Report

Serial Number: FW1307-48
Tool Model: Probe 2.75 Radii HT

Calibration Casing Diameter: 5.500 in
Calibration Depth: 0.000 ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.002	0.565	1.000	71.921	194.386	1.376
CAL	0.000	0.497				
5'	-0.003	0.498	1.000	71.921	219.259	1.000
SUM						
S1	-0.056	0.542	0.000	100.000	167.079	9.400
S2	-0.023	0.532	0.000	100.000	180.191	4.217
S3	-0.018	0.534	0.000	100.000	181.090	3.219
S4	-0.022	0.559	0.000	100.000	172.347	3.731
S5	-0.022	0.579	0.000	100.000	166.388	3.739
S6	-0.033	0.588	0.000	100.000	161.053	5.332
S7	-0.031	0.569	0.000	100.000	166.639	5.168
S8	-0.023	0.563	0.000	100.000	170.727	3.940

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.000	0.497	1.000	0.000

Air Zero Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.000		0.000		0.000	
5'	0.000		0.000		0.000	
SUM						
S1	0.000		0.000		0.000	
S2	0.000		0.000		0.000	
S3	0.000		0.000		0.000	
S4	0.000		0.000		0.000	
S5	0.000		0.000		0.000	
S6	0.000		0.000		0.000	
S7	0.000		0.000		0.000	
S8	0.000		0.000		0.000	



Company Great Western
Well OTTESEN LE 06-290HN
Field Wattenberg
County Weld
State Colorado

Country