



**Cement Bond
Variable Density Log
W/ Gamma Ray/CCL**

Company		Bonanza Creek Energy	
Well		Antelope 11-14-15HNB	
Field		Wattenberg	
County		Weld	
State		Colorado	
Location:		API # : 05-123-39888	
SEC 15 TWP 5N RGE 62W		NONE	
Permanent Datum		Ground Level	
Log Measured From		Elevation 4698'	
Drilling Measured From		K.B. 4715'	
		D.F. 4716'	
		G.L. 4698'	
Date		9/17/2014	
Run Number		1	
Depth Driller			
Depth Logger		6548'	
Bottom Logged Interval		6536'	
Top Log Interval		500'	
Open Hole Size			
Type Fluid		Fresh Water	
Density / Viscosity		8.4ppm	
Max. Recorded Temp.		220	
Estimated Cement Top		5850'	
Time Well Ready		1530	
Time Logger on Bottom		20:30	
Equipment Number		13033	
Location		Brighton	
Recorded By		J.Markham	
Witnessed By		M.Schmidt	
Run Number			
Bit		From To	
Size		Weight From To	
Casing Record		Size Wgt/Ft Top Bottom	
Surface String		9.625" 36# 0' 442'	
Prot. String		7" 26# 0' 6776'	
Production String		4.5 11.6# 6526'	
Liner			

<<< Fold Here >>>

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

Logged From Liner Top To 180'

Main Pass and Repeat Pass logged with 0 PSI

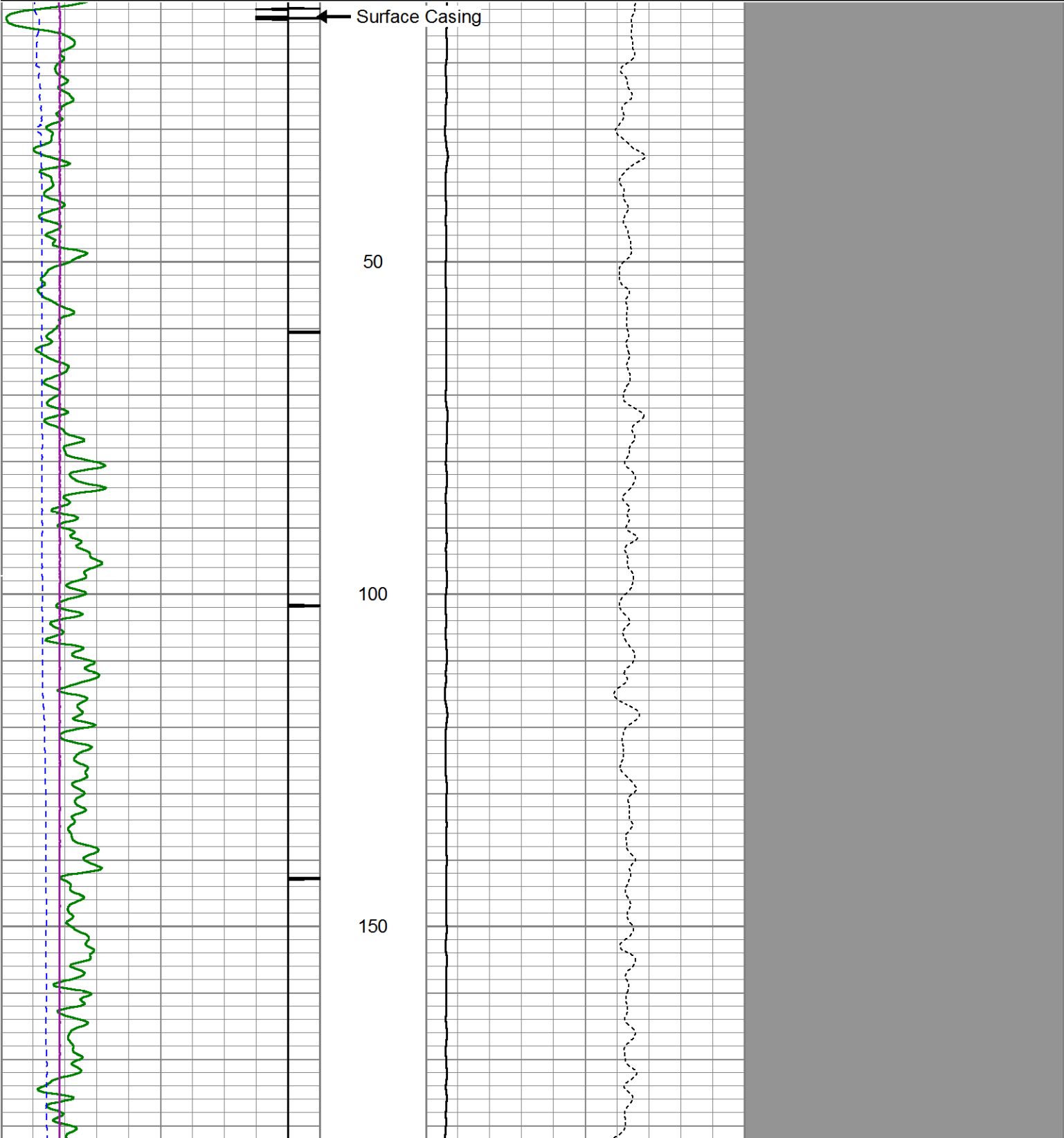
Thank You For using Allied Horizontal Wireline

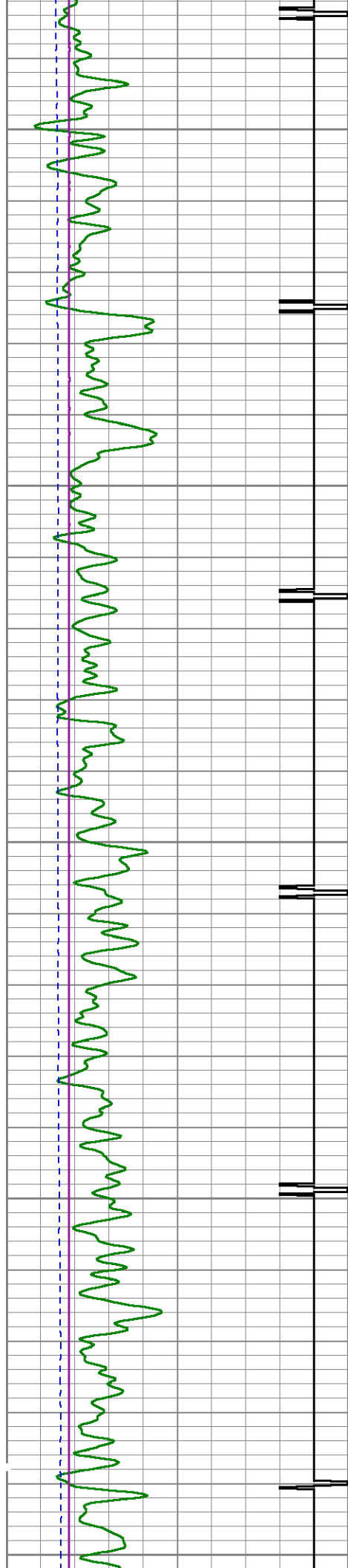
(303) 659-4609



Main Pass

400	Travel Time (usec)	200	0	Amplitude (mV)	100	200	Variable Density	1200
9	Casing Collar	-1	0	Amplified Amplitude (mV)	10			
0	Gamma Ray (GAPI)	300						
0	Line Tension (lb)	2000						
0	TEMP (degF)	400						





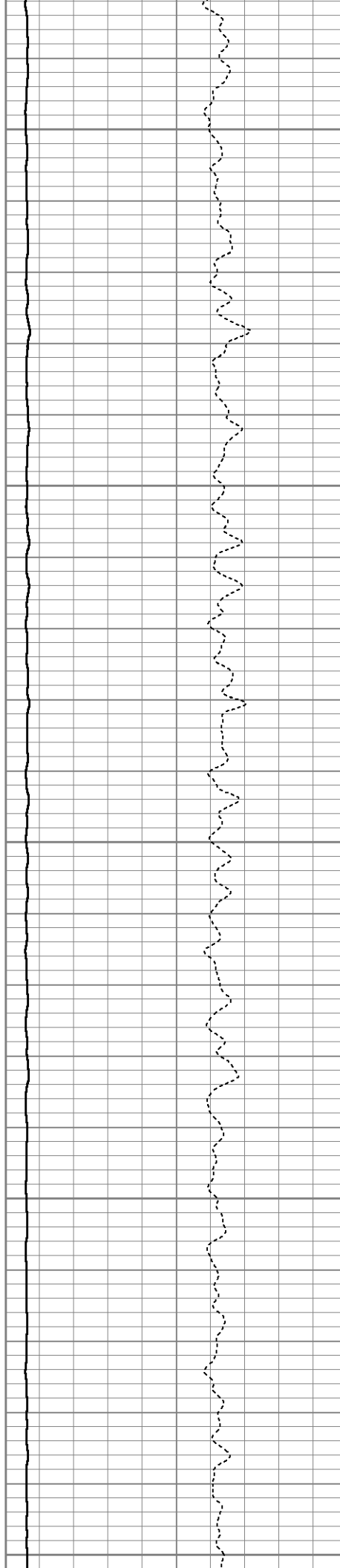
200

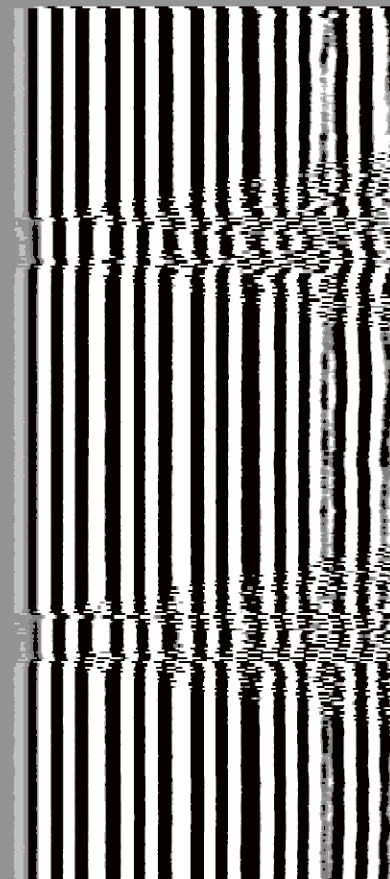
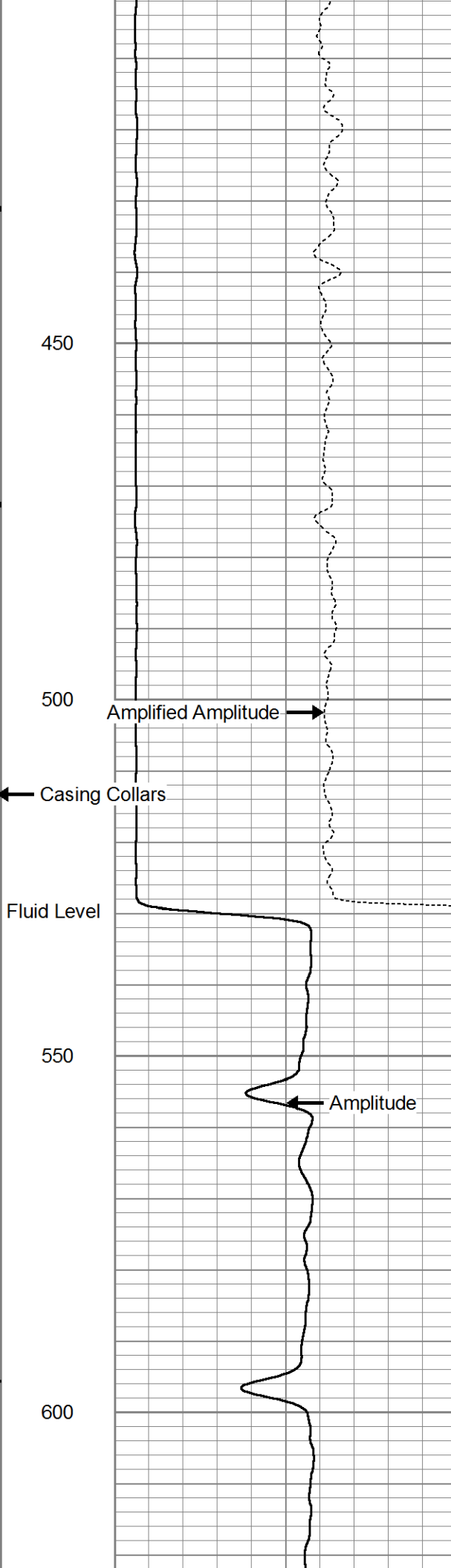
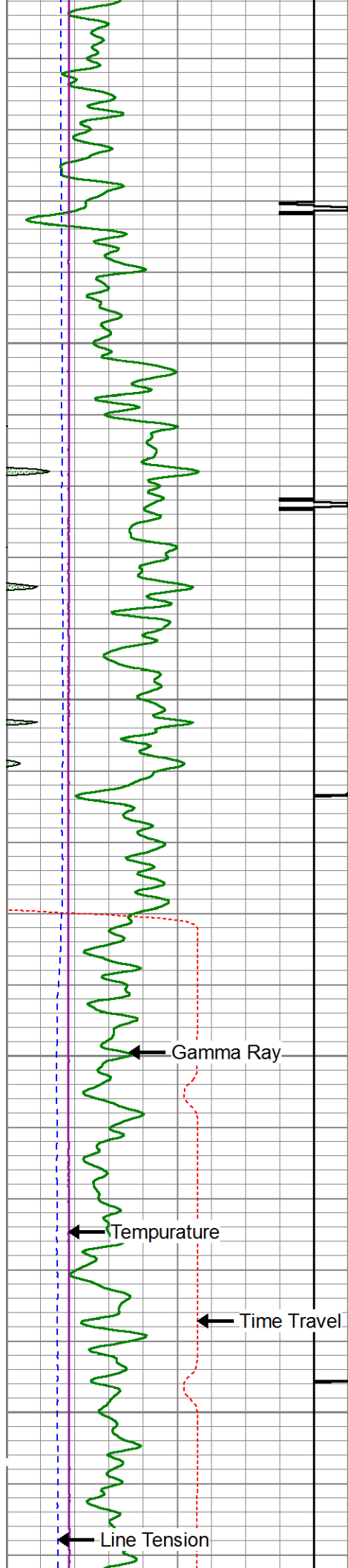
250

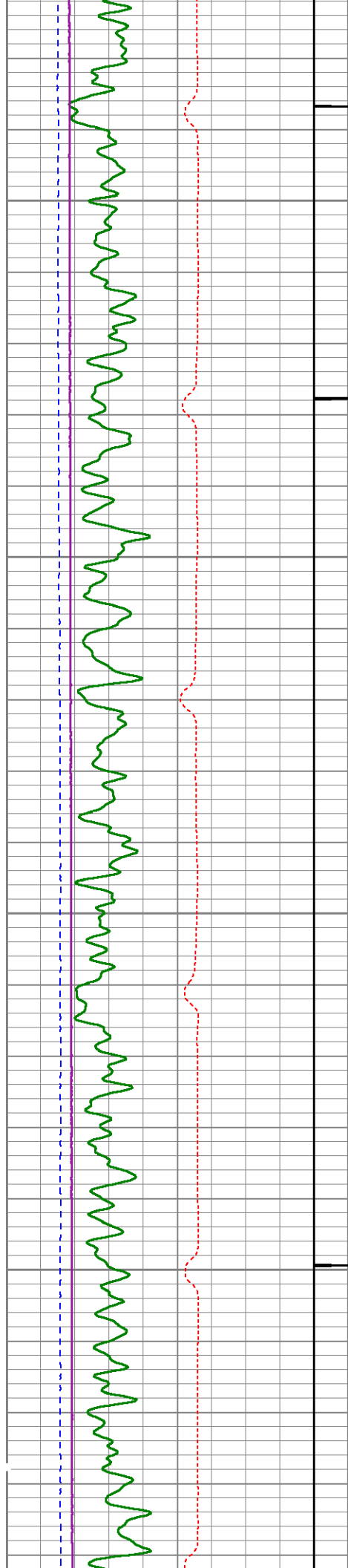
300

350

400





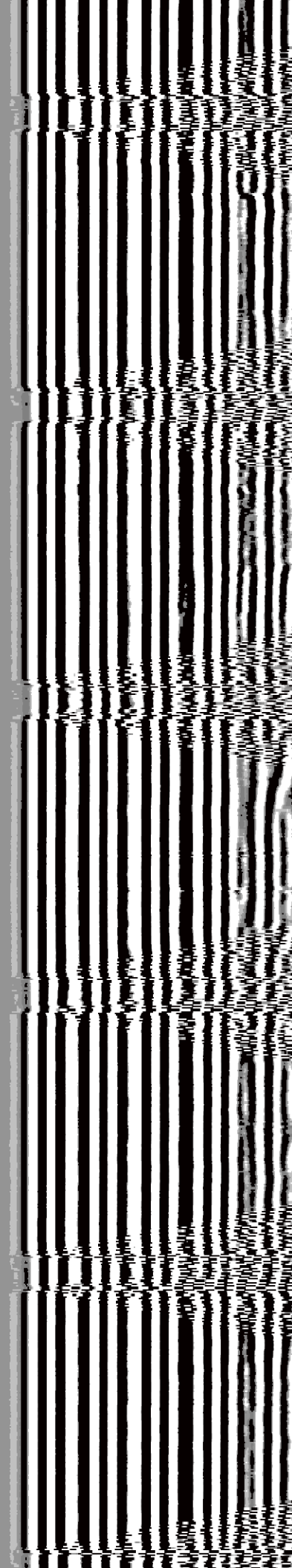
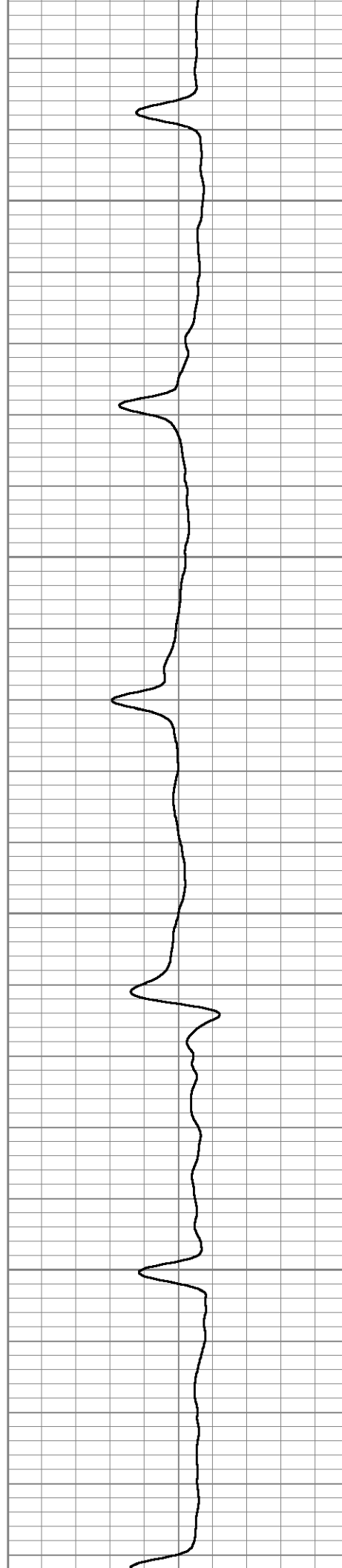


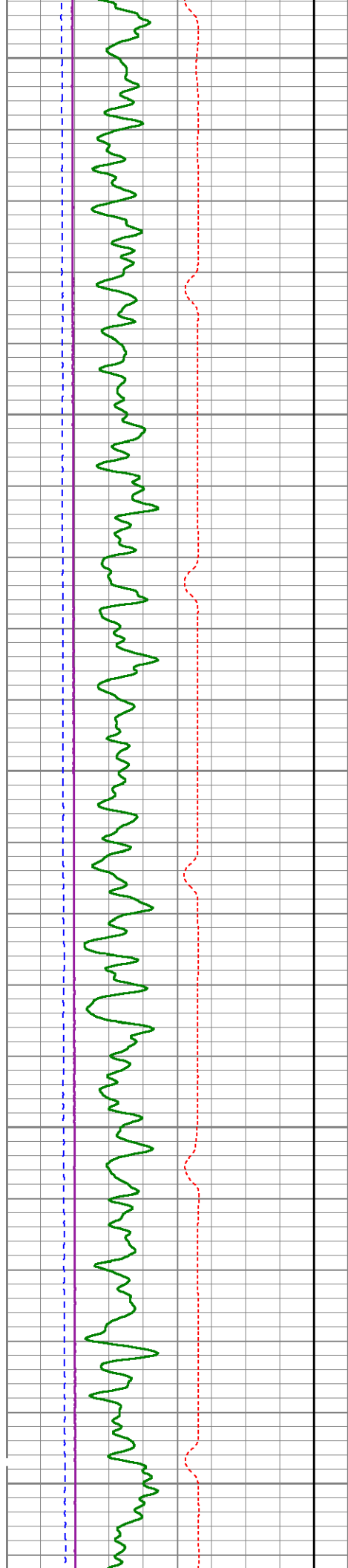
650

700

750

800





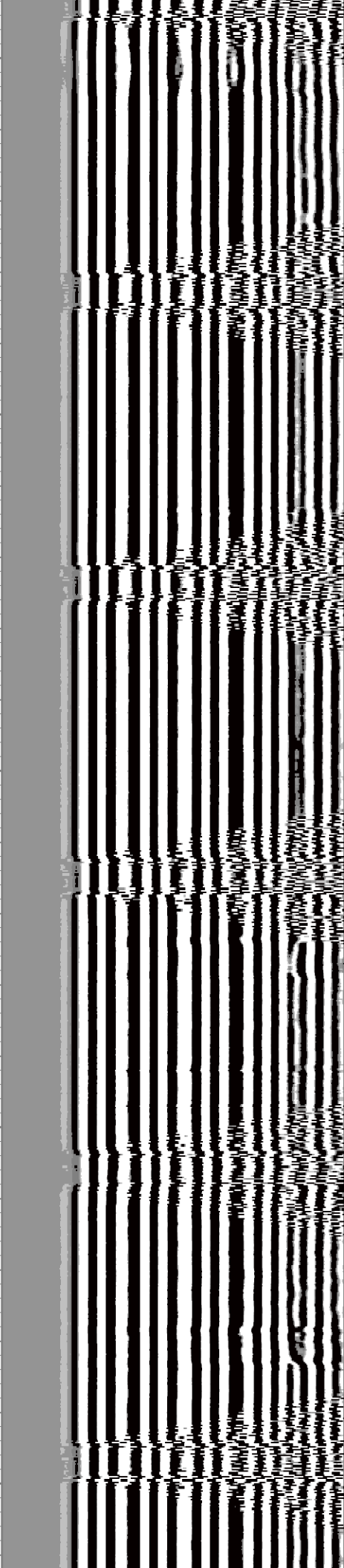
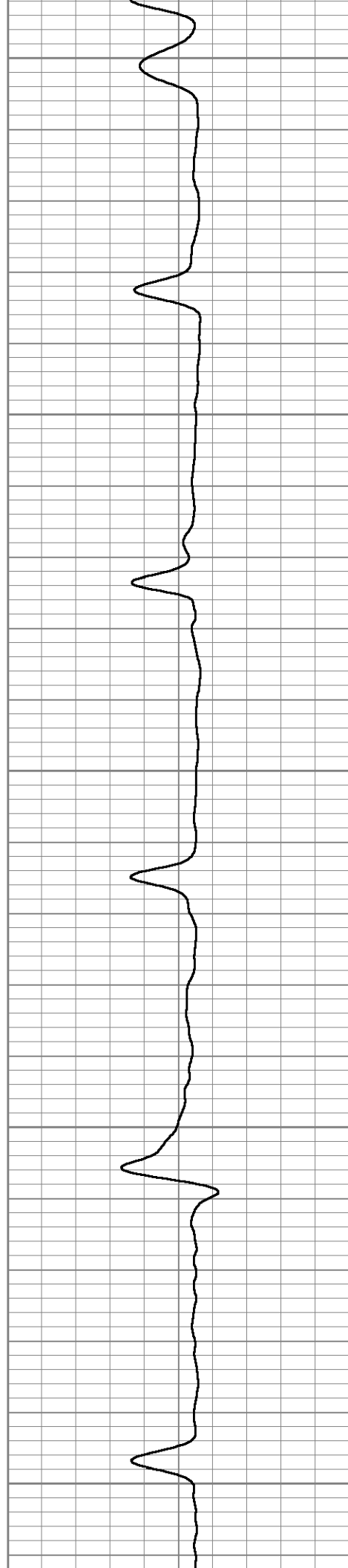
850

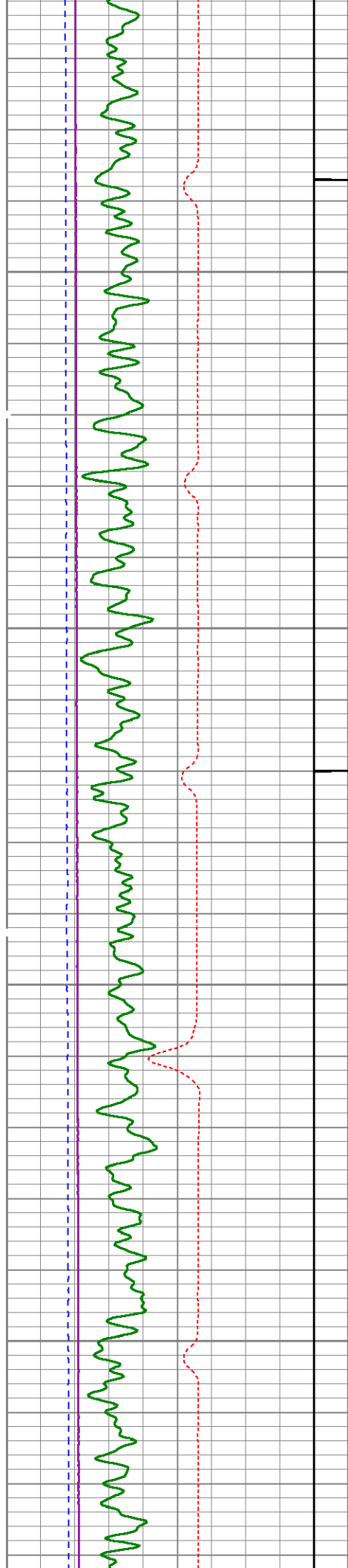
900

950

1000

1050



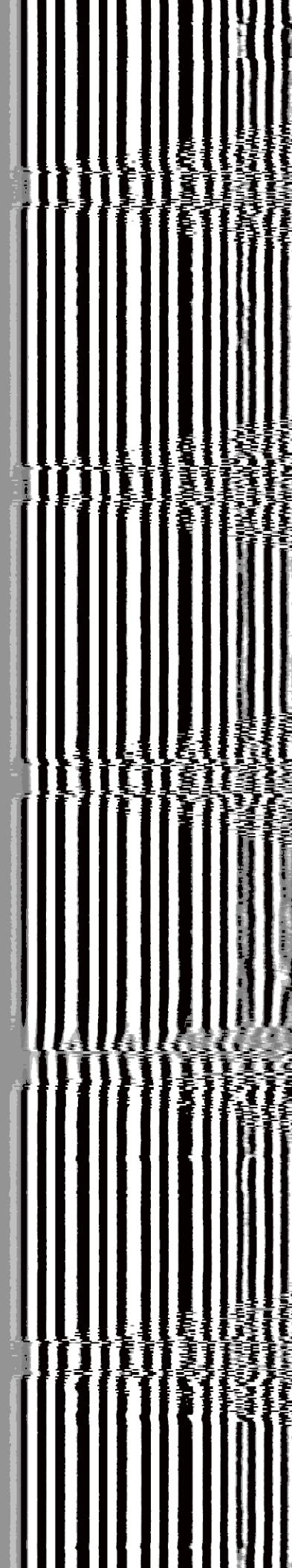
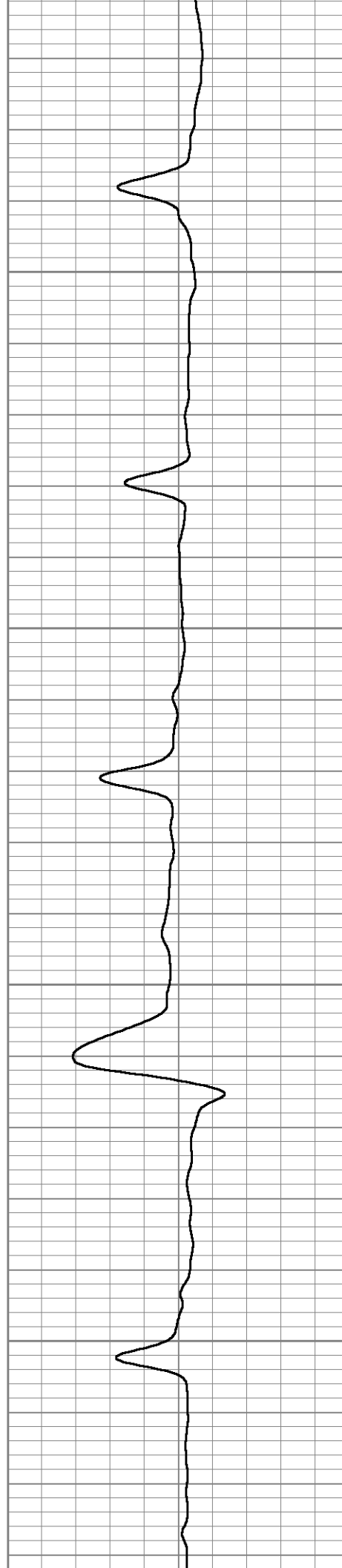


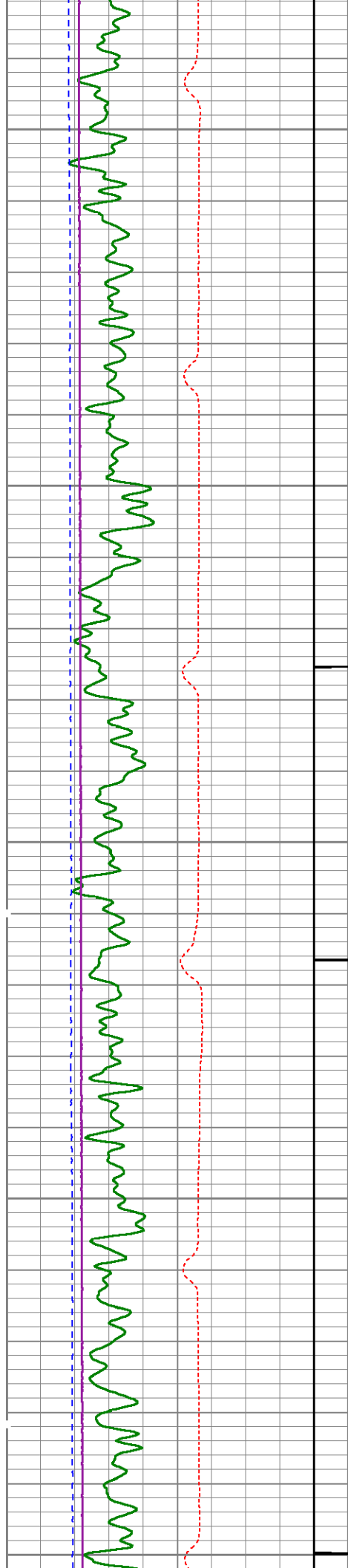
1100

1150

1200

1250





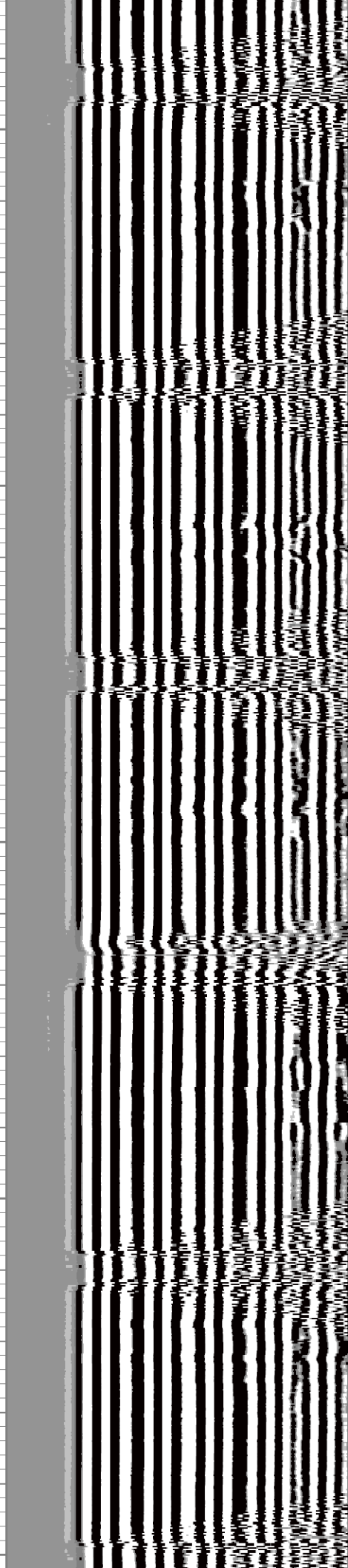
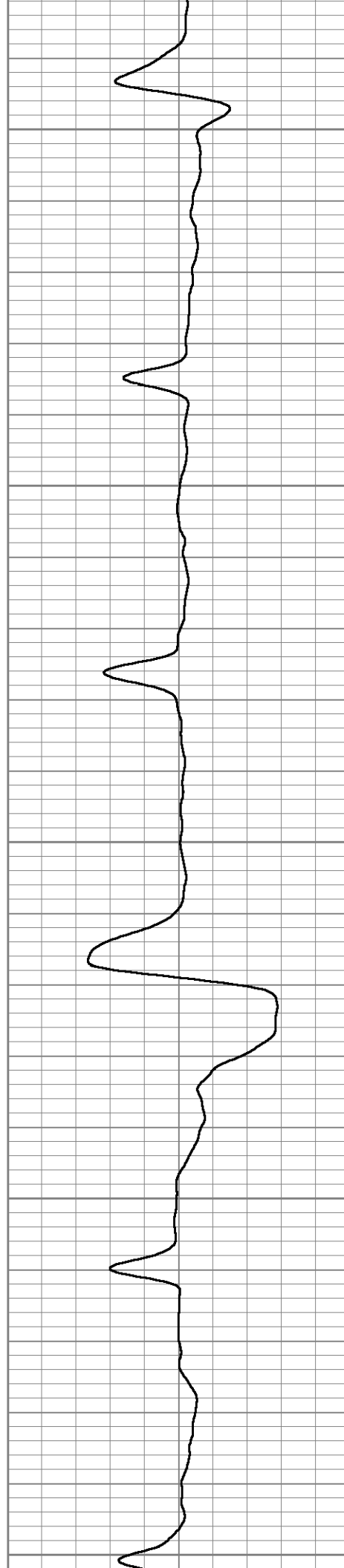
1300

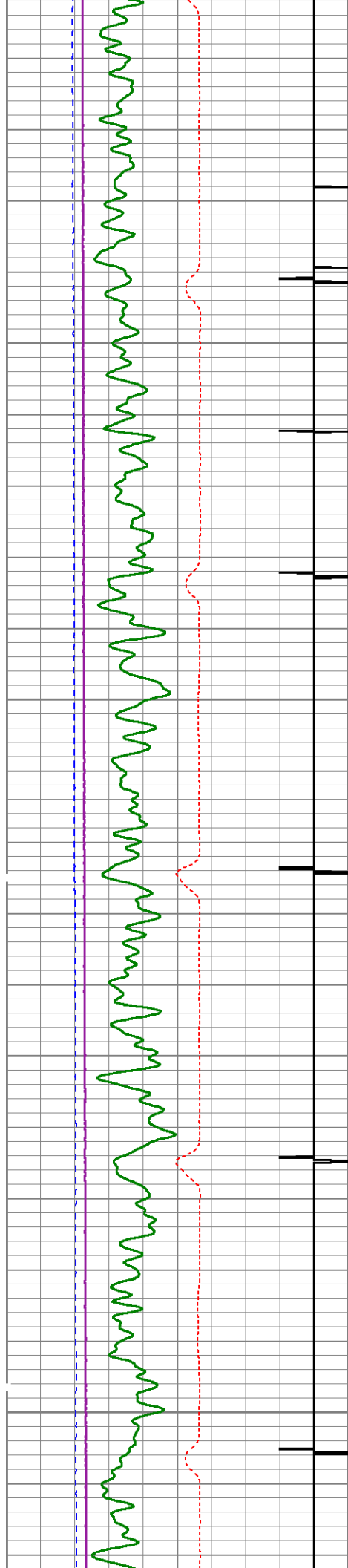
1350

1400

1450

1500



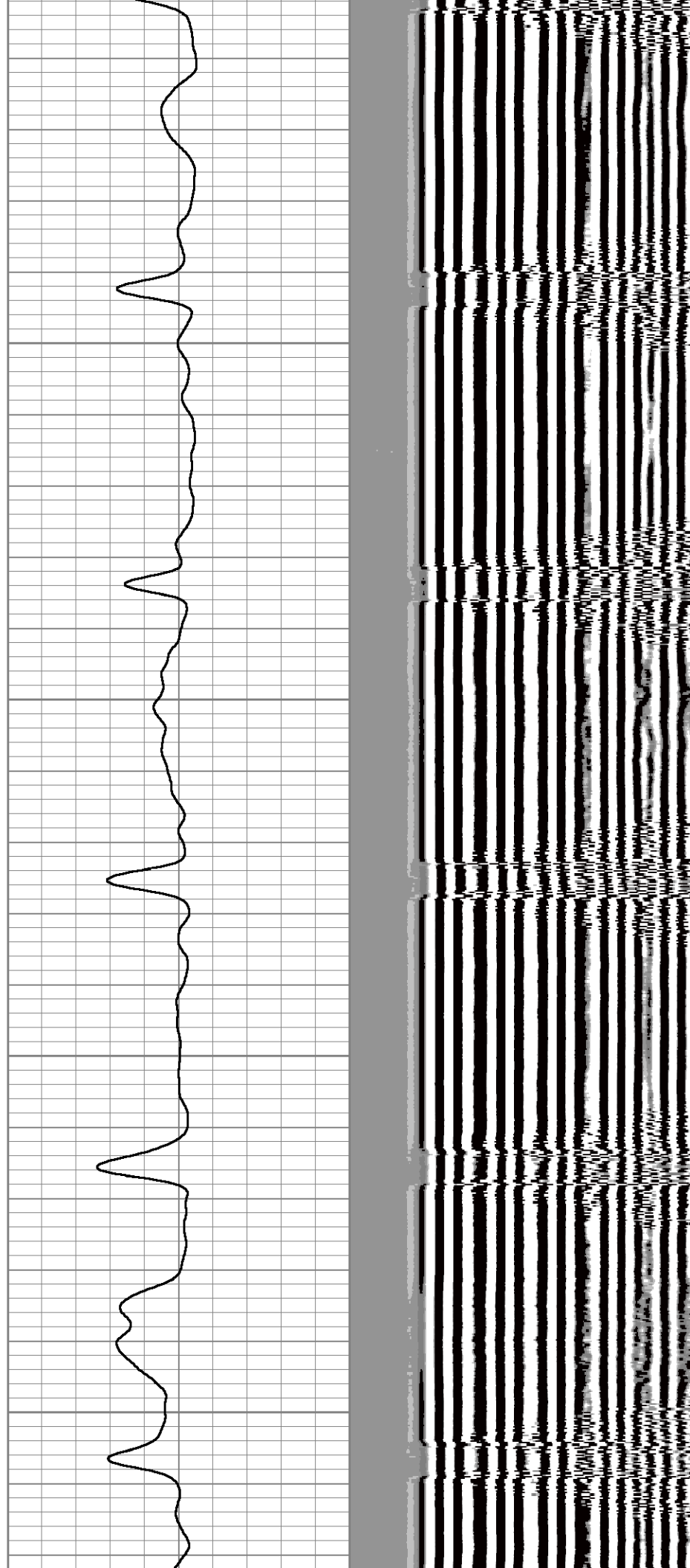


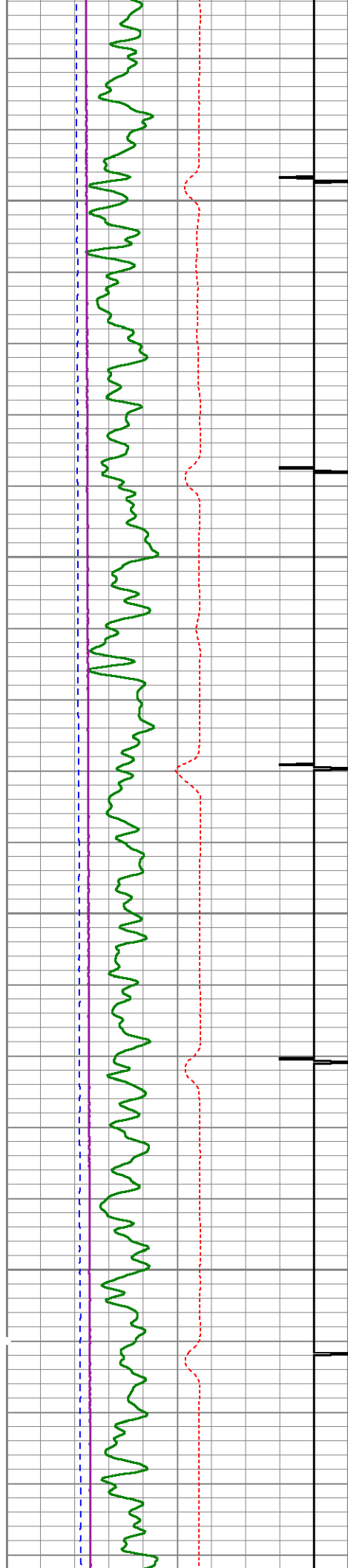
1550

1600

1650

1700



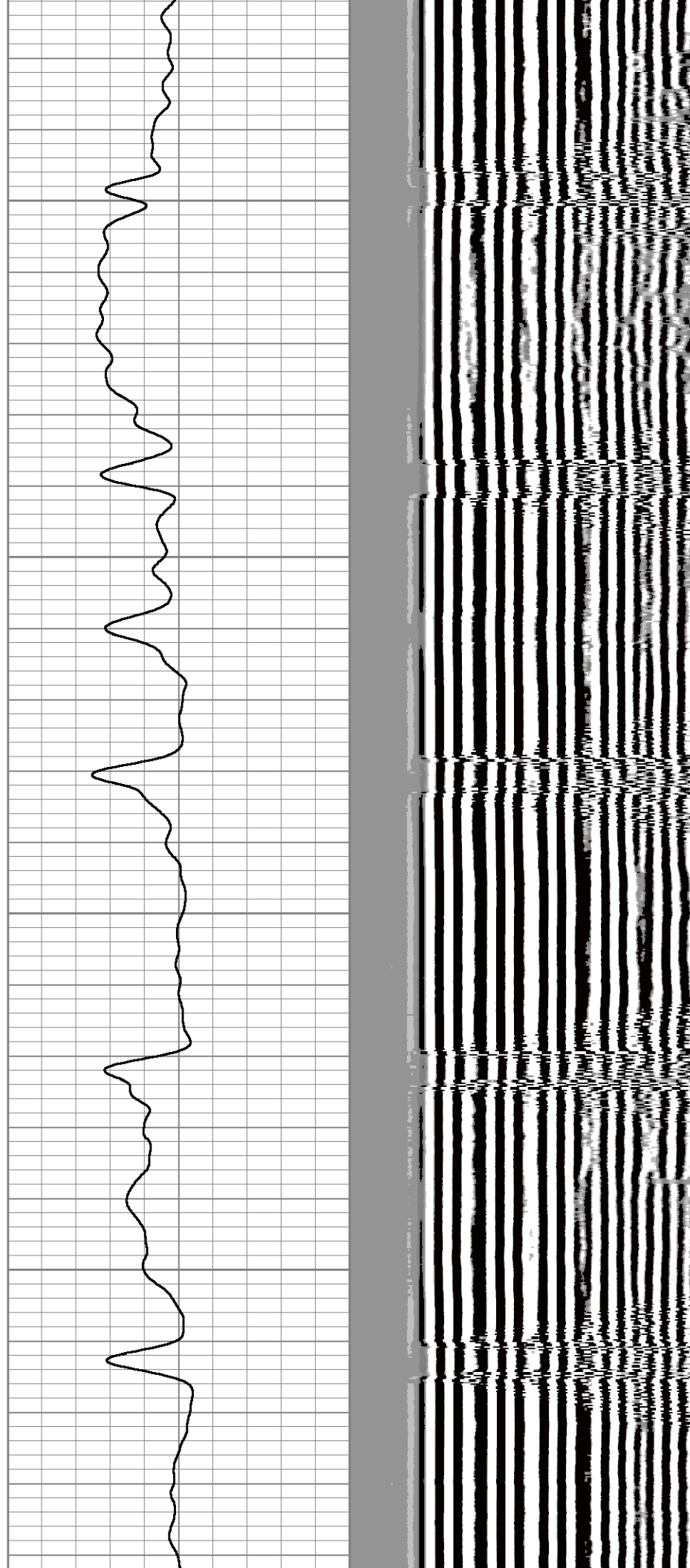


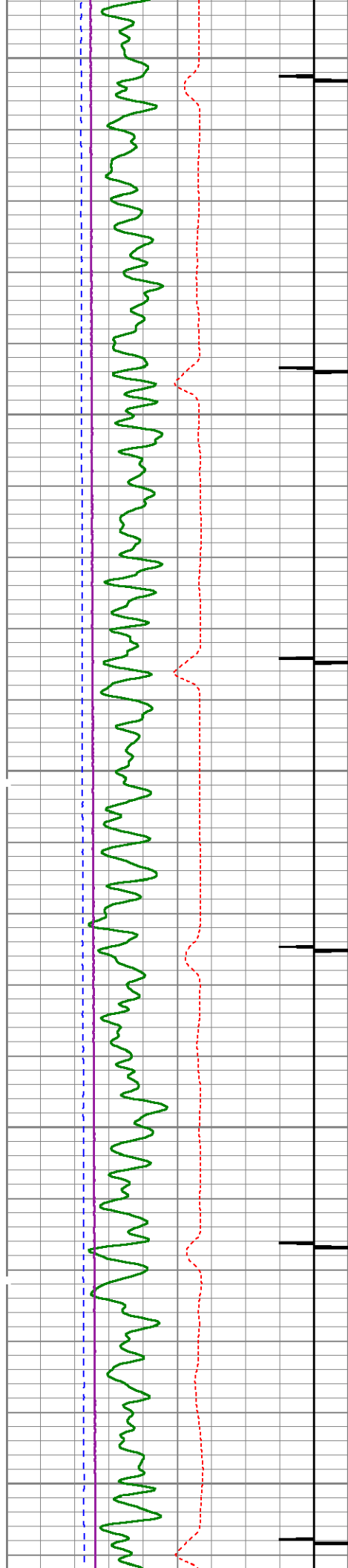
1750

1800

1850

1900





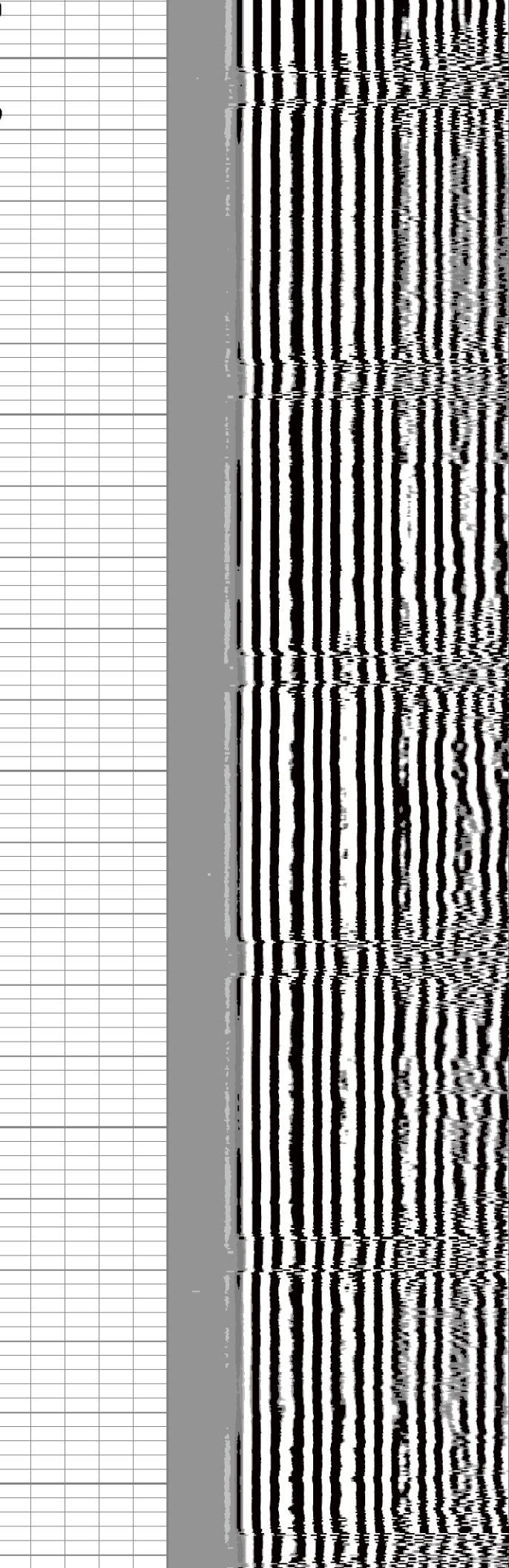
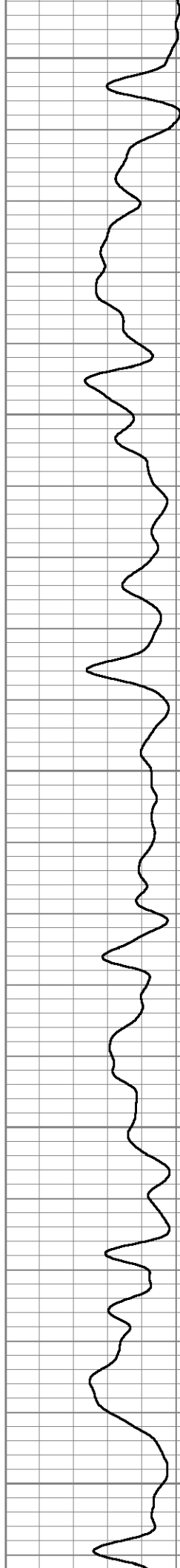
1950

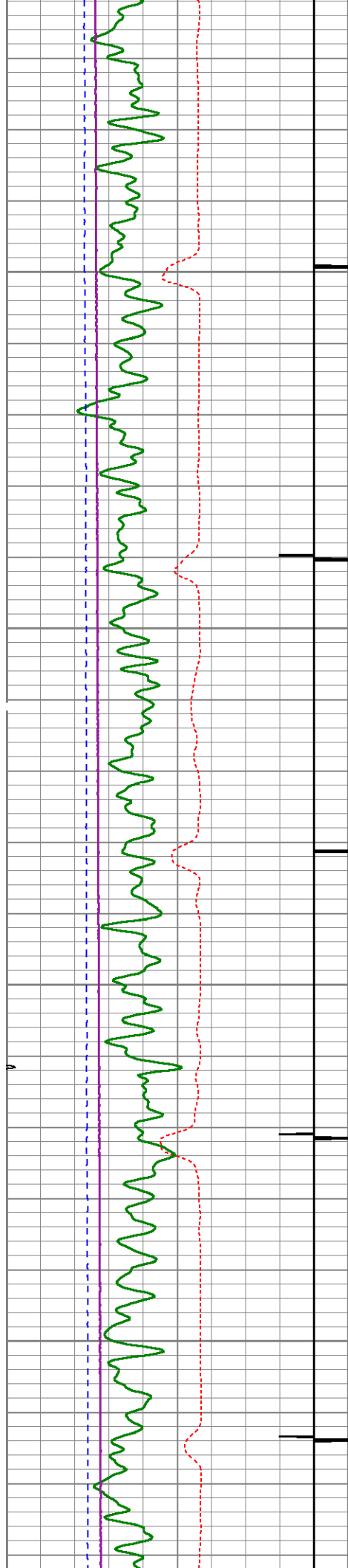
2000

2050

2100

2150



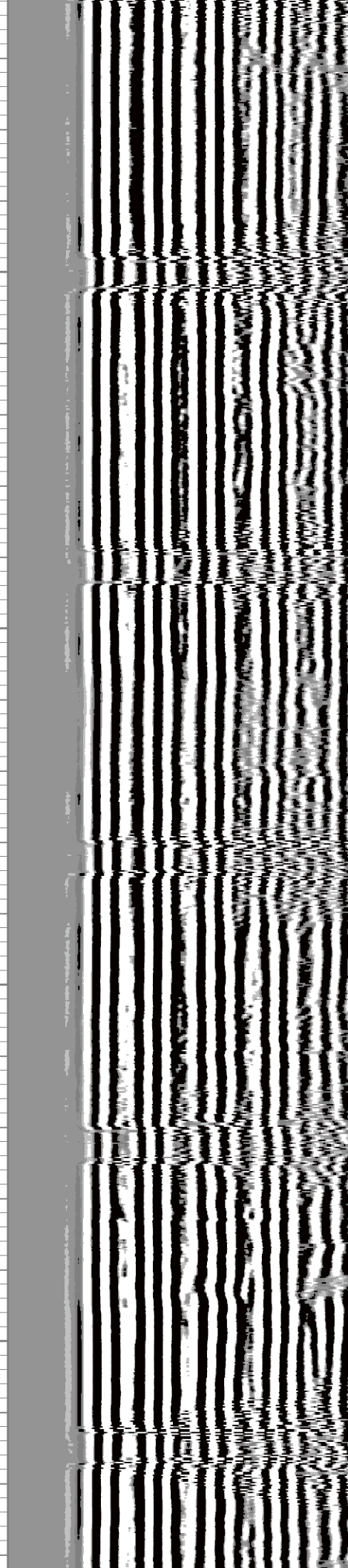
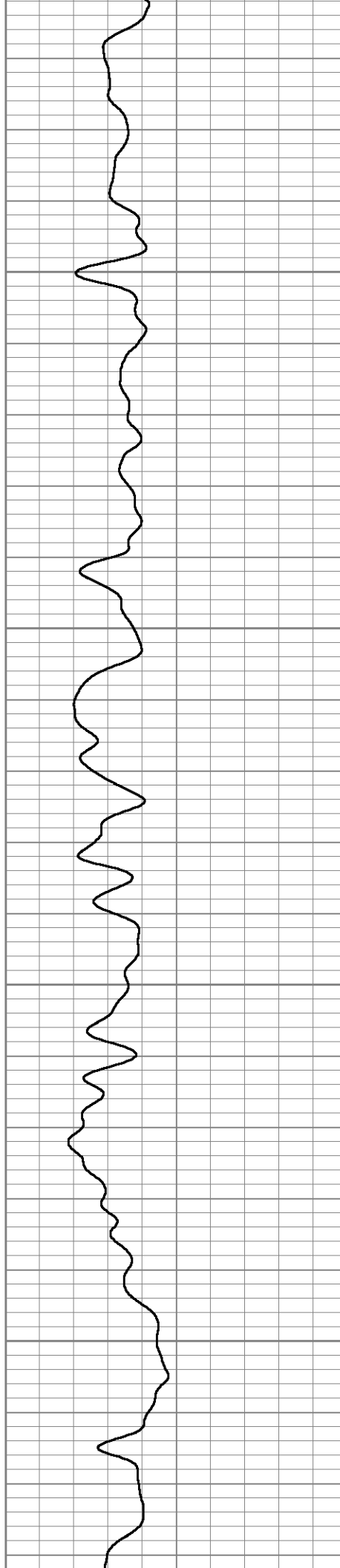


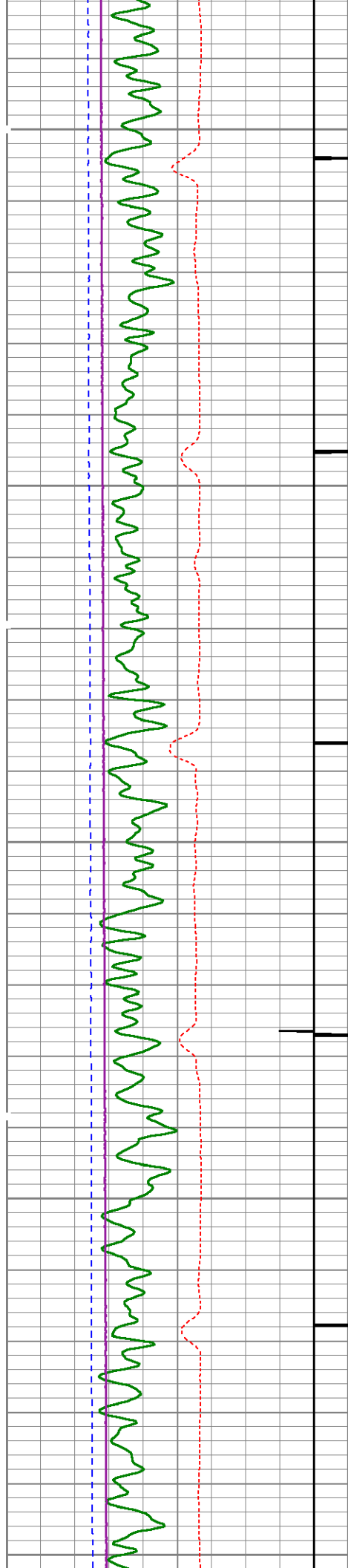
2200

2250

2300

2350





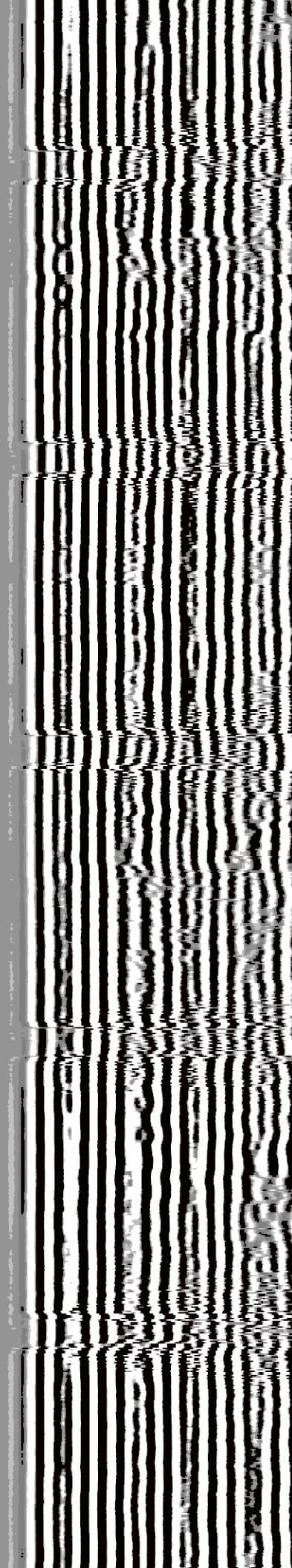
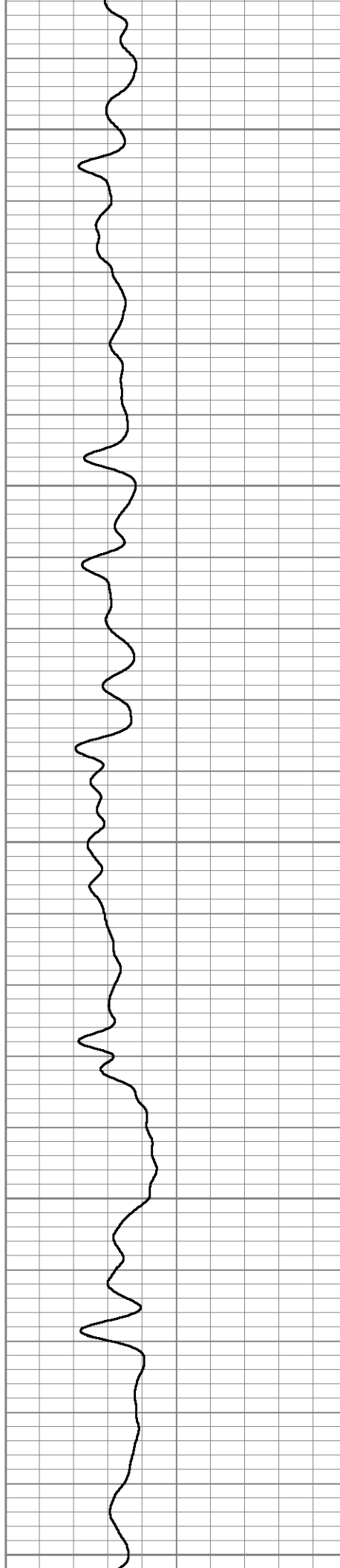
2400

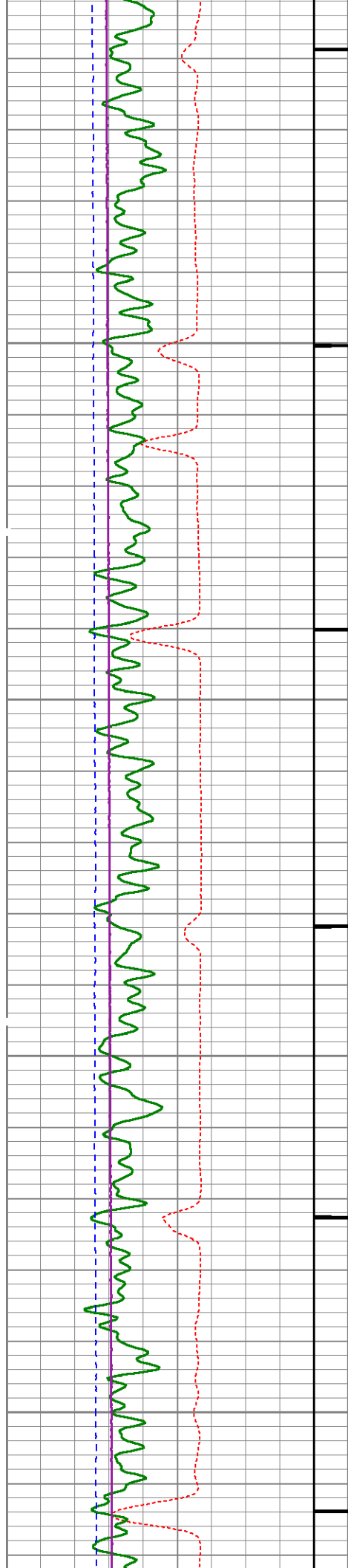
2450

2500

2550

2600



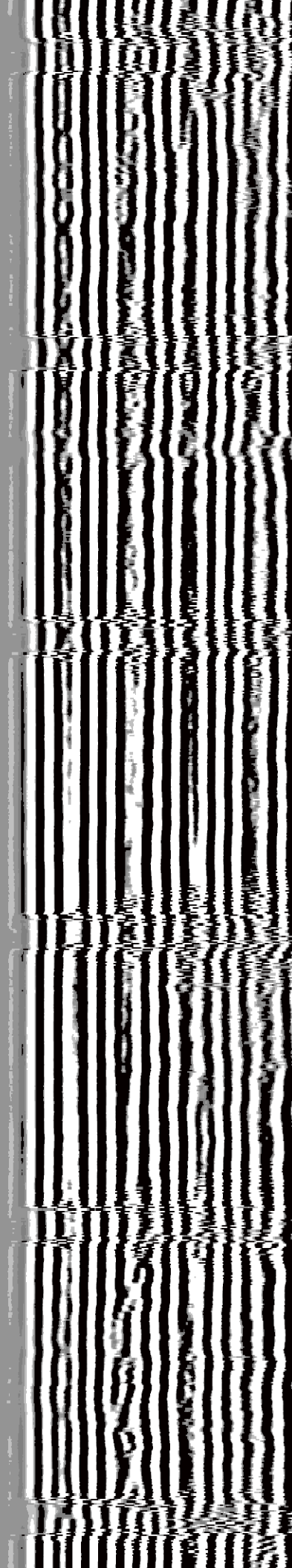
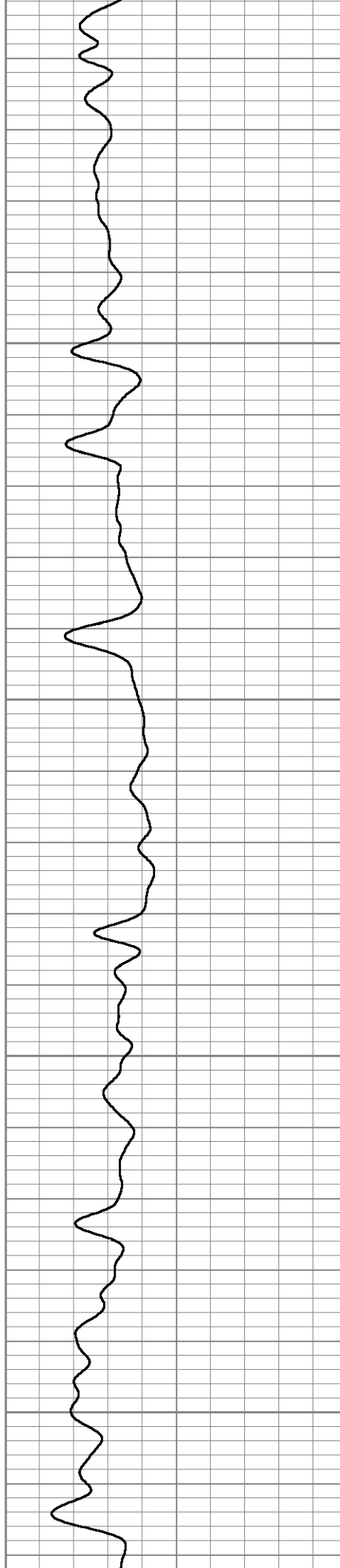


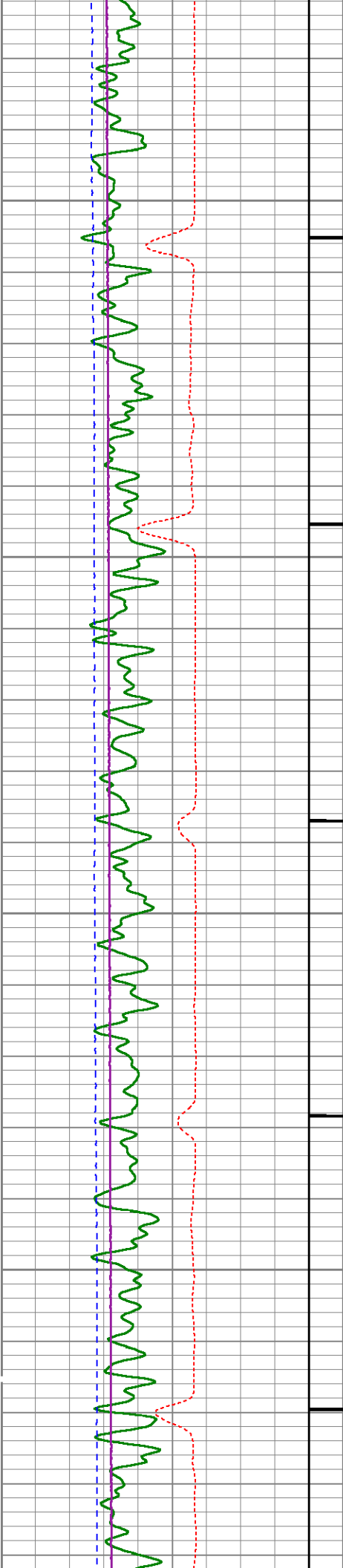
2650

2700

2750

2800



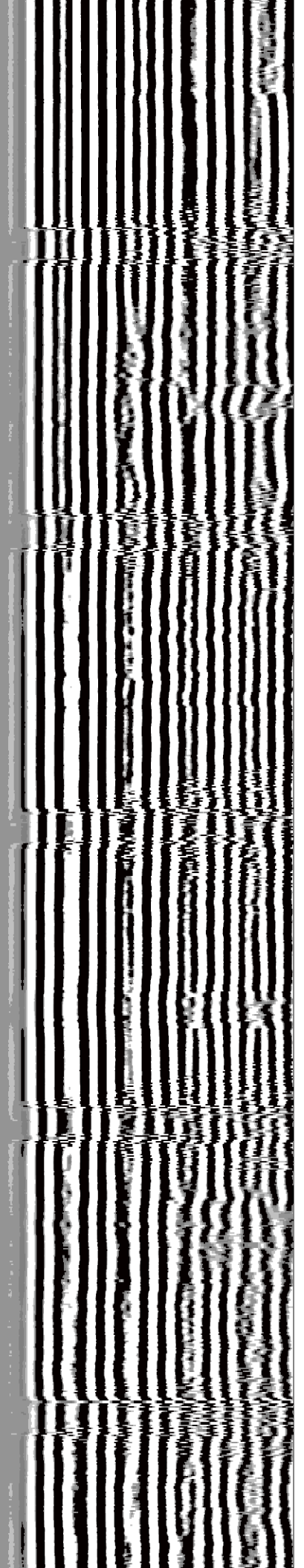
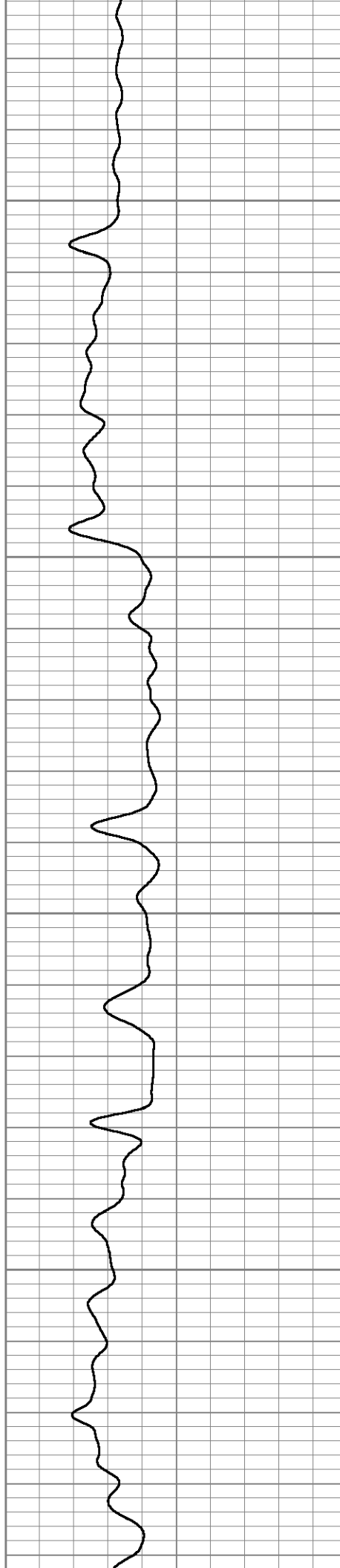


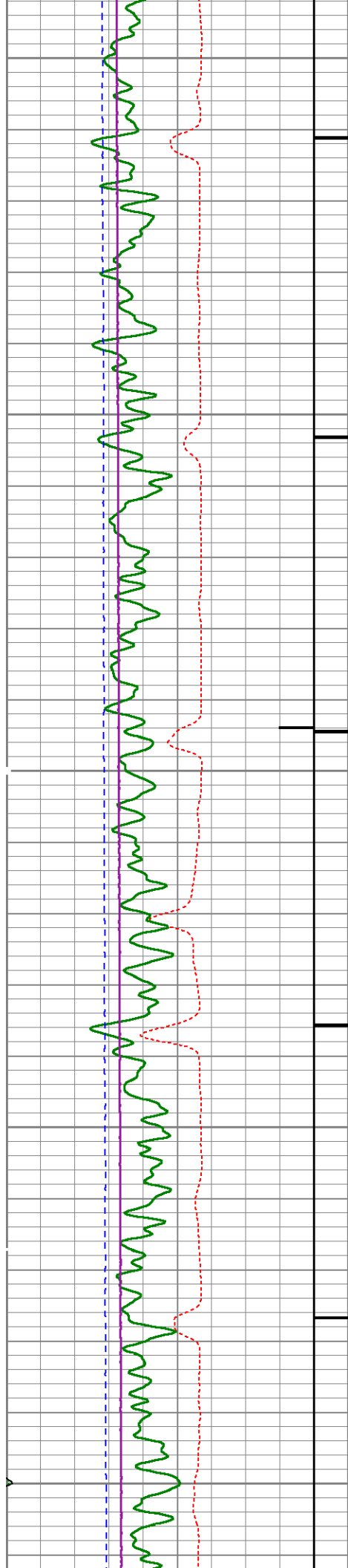
2850

2900

2950

3000





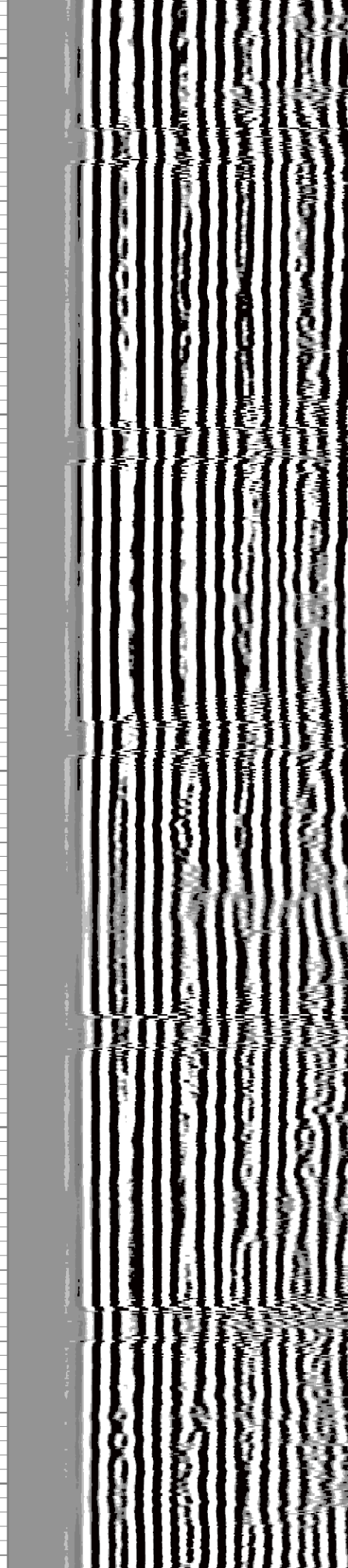
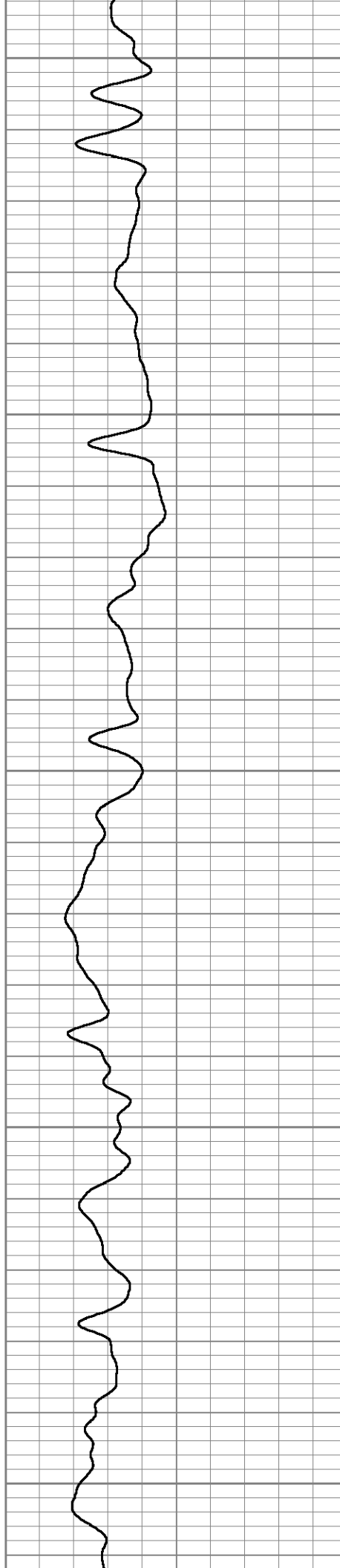
3050

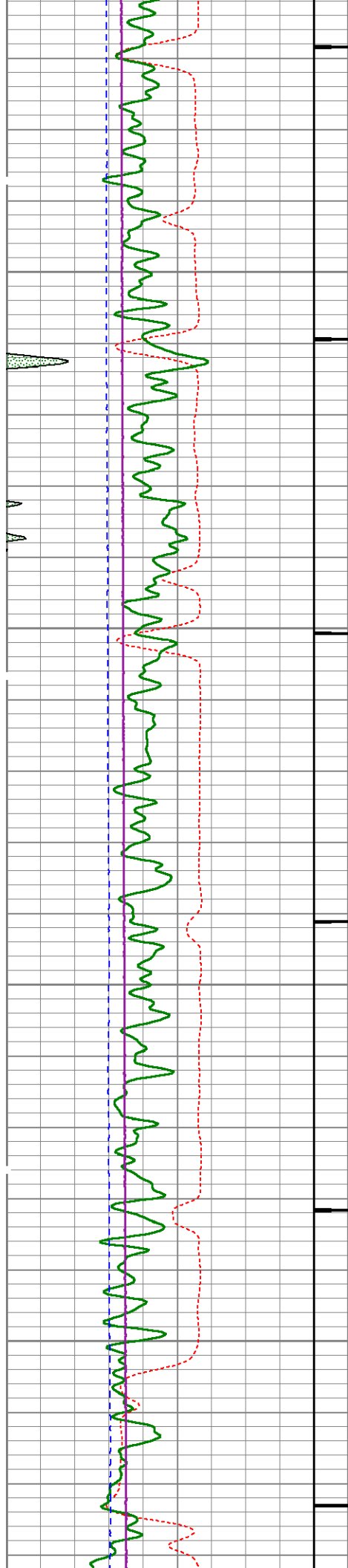
3100

3150

3200

3250



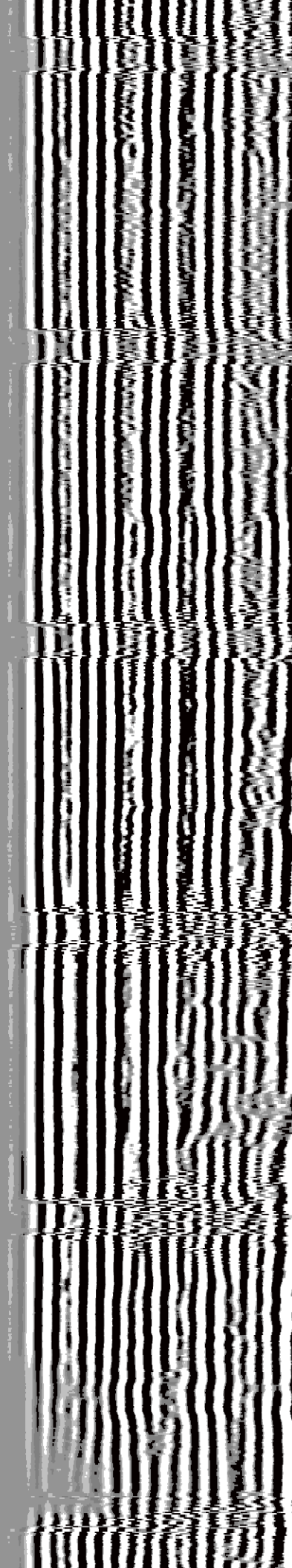
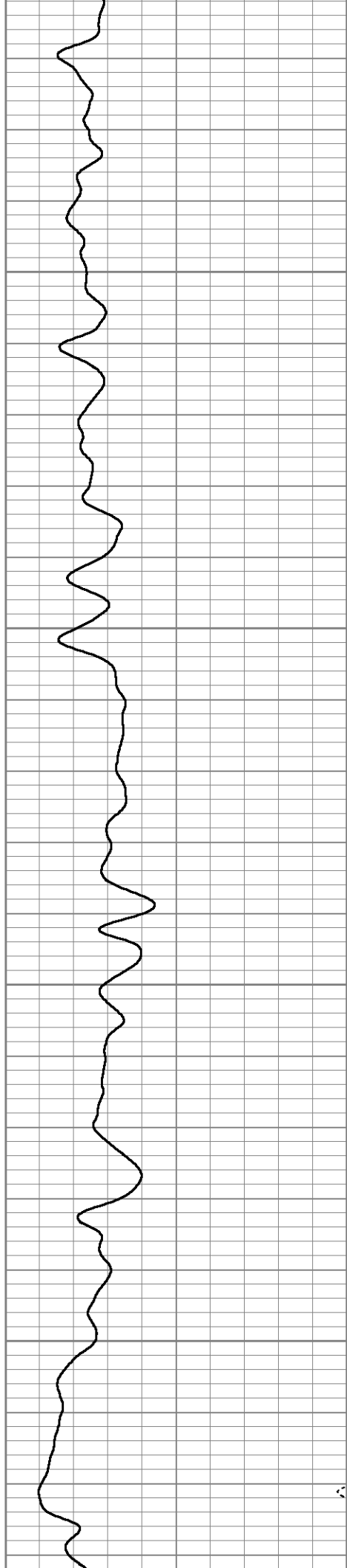


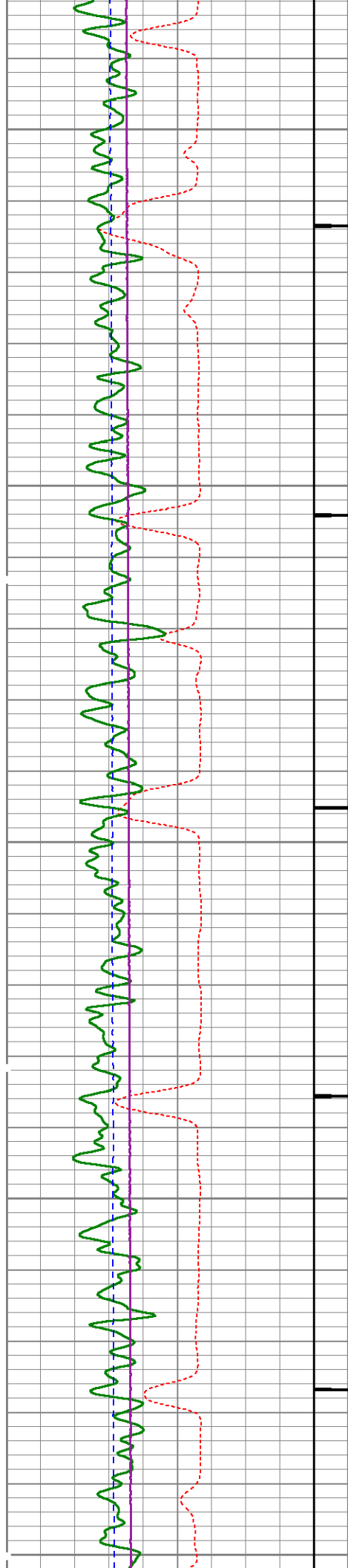
3300

3350

3400

3450





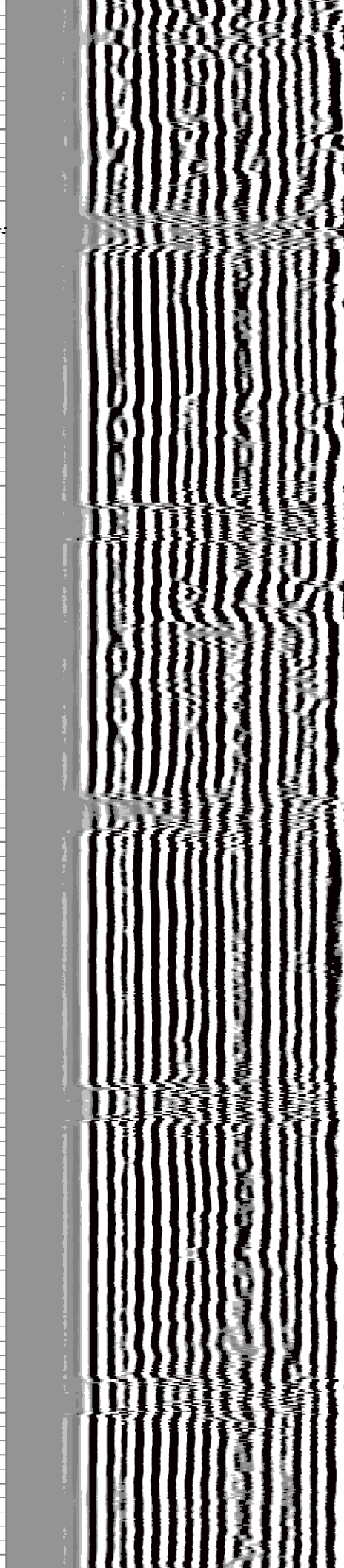
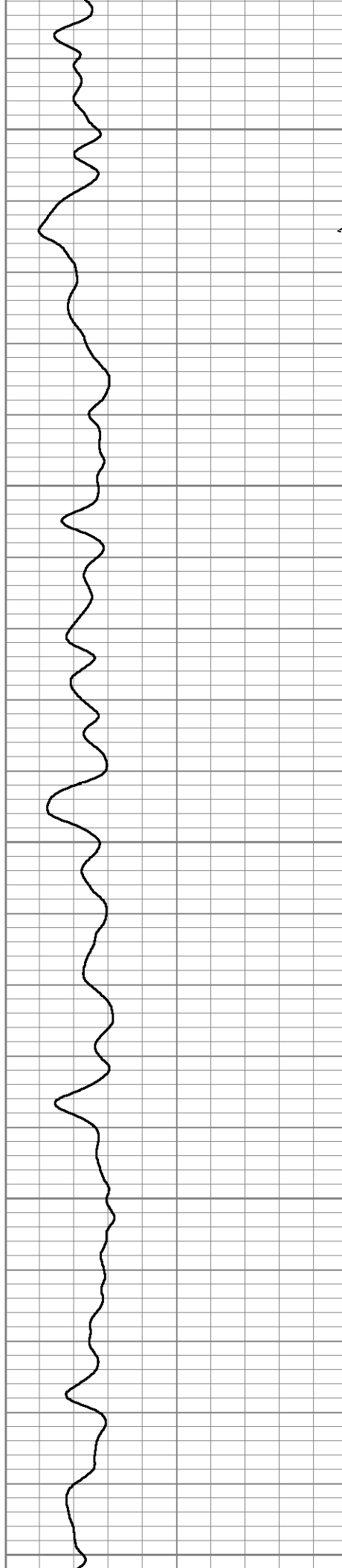
3500

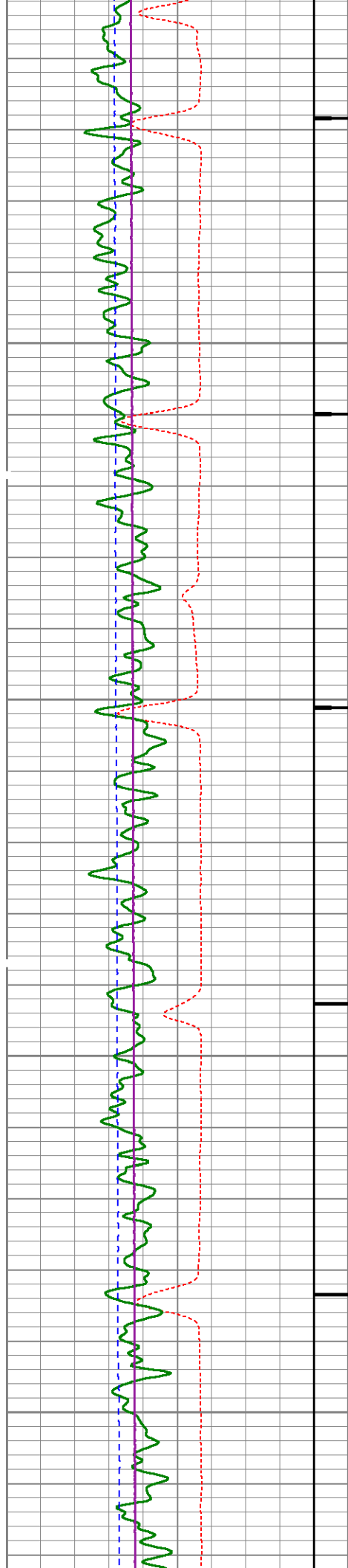
3550

3600

3650

3700



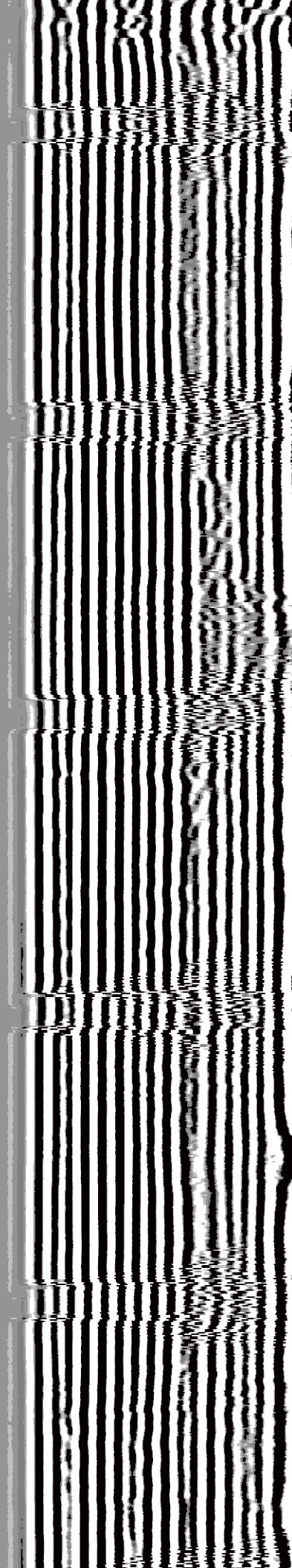
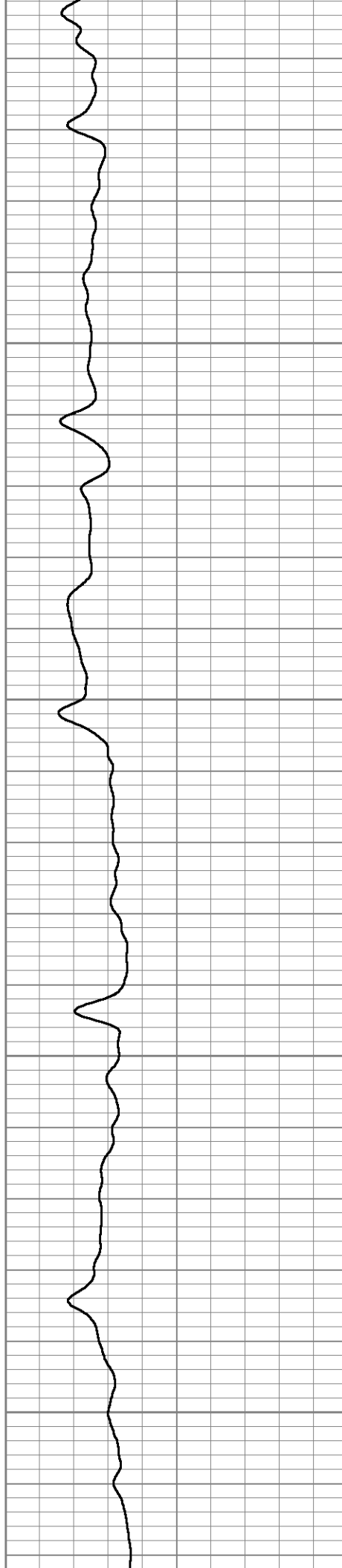


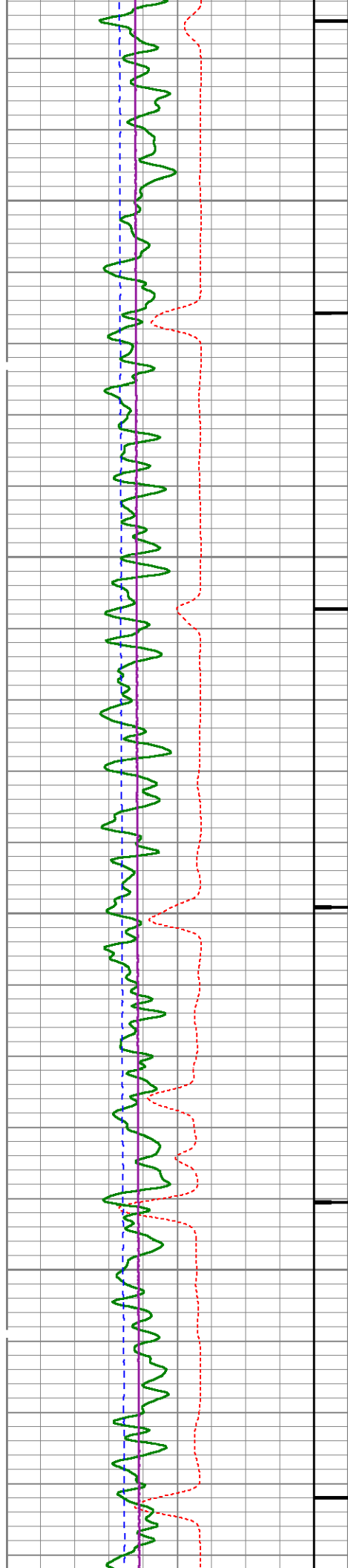
3750

3800

3850

3900



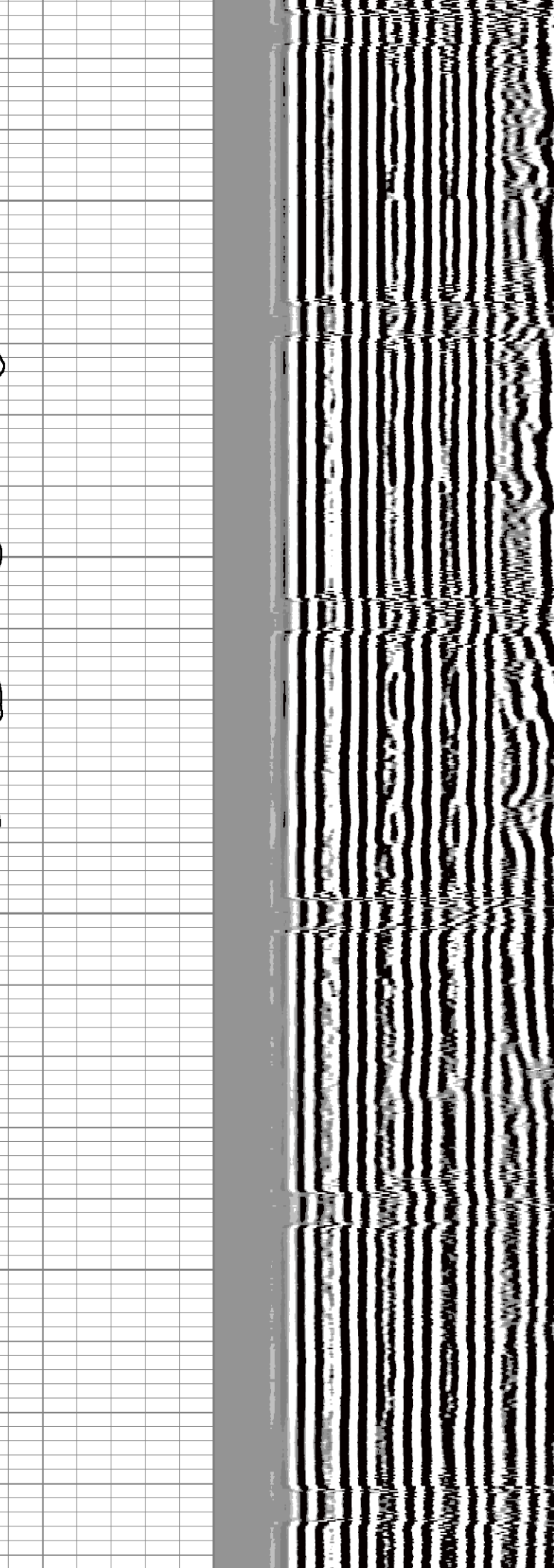


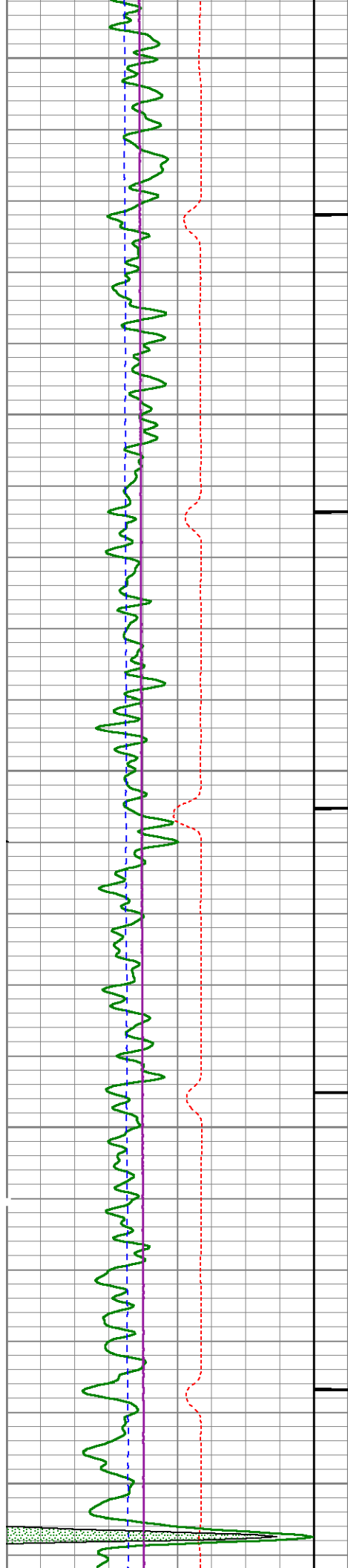
3950

4000

4050

4100





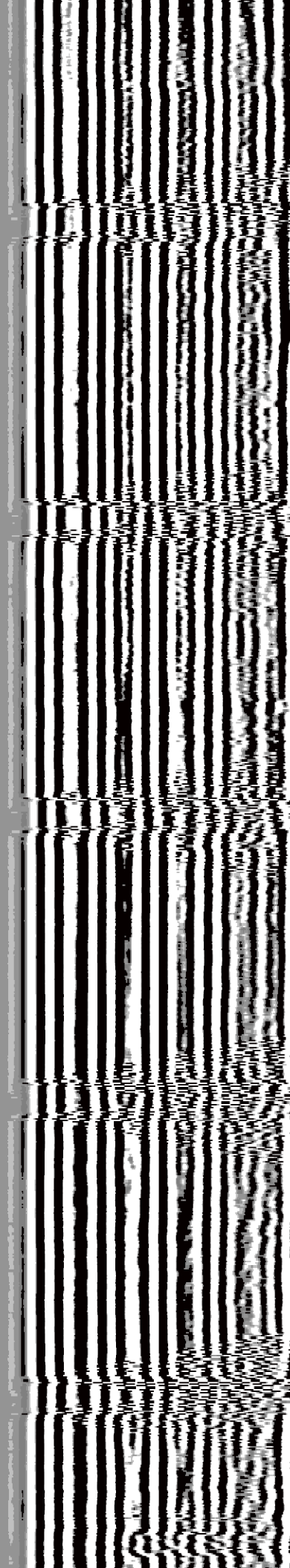
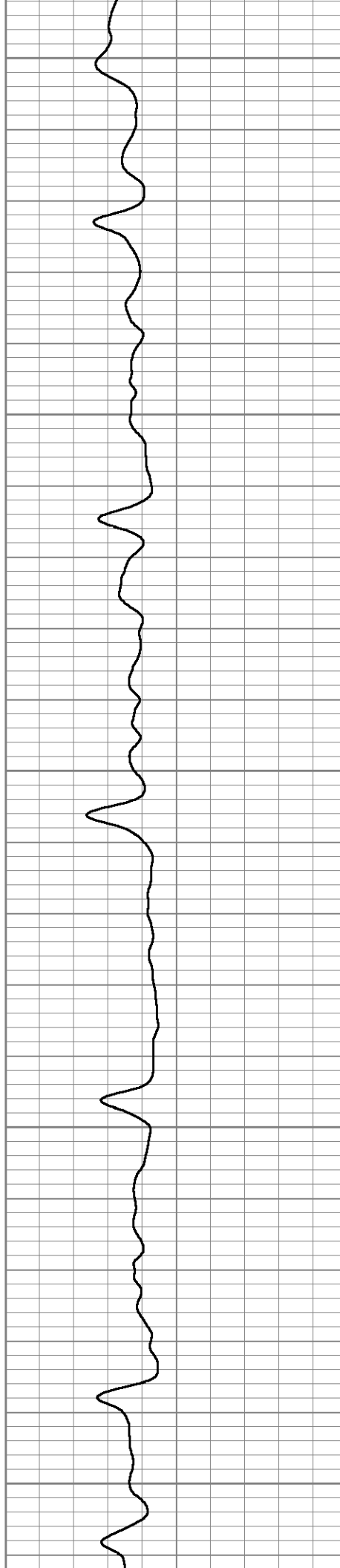
4150

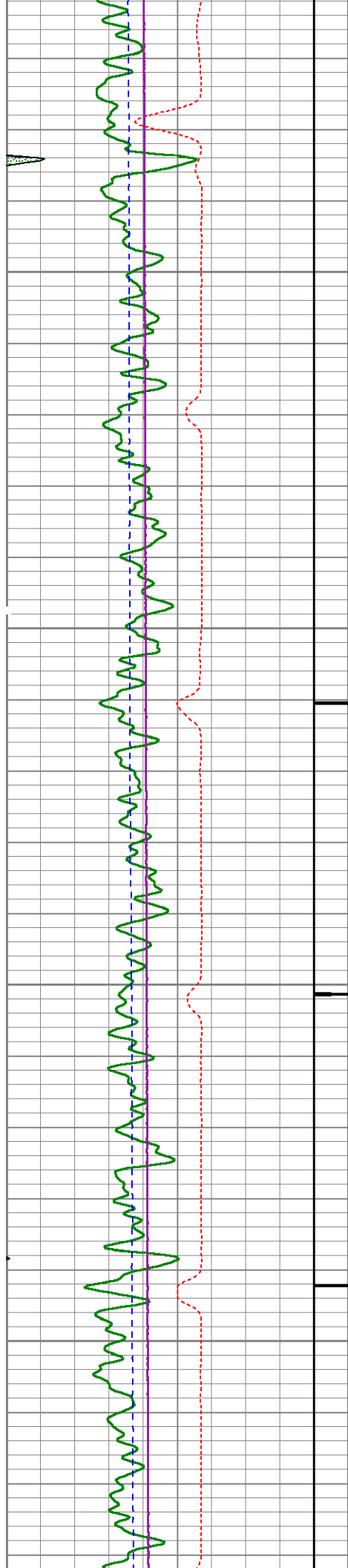
4200

4250

4300

4350



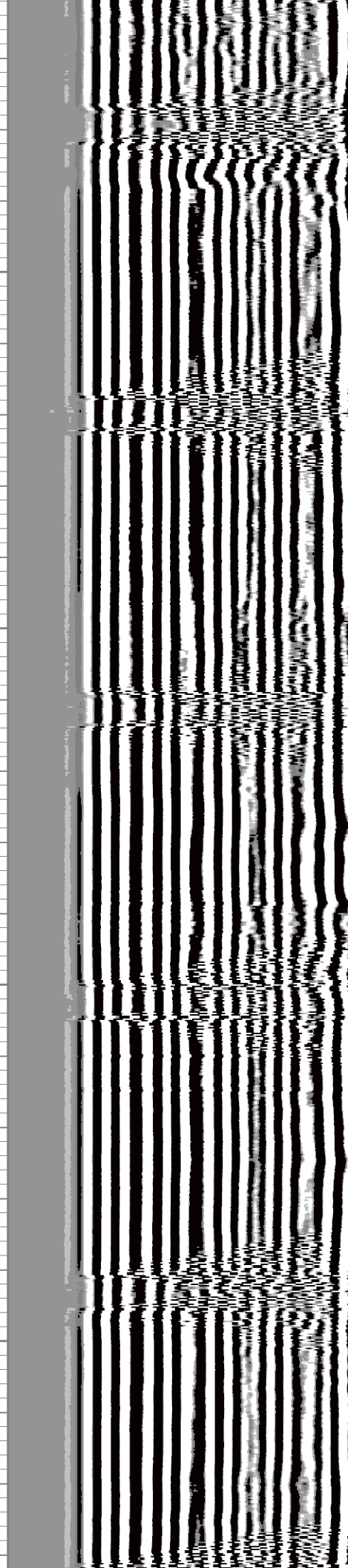
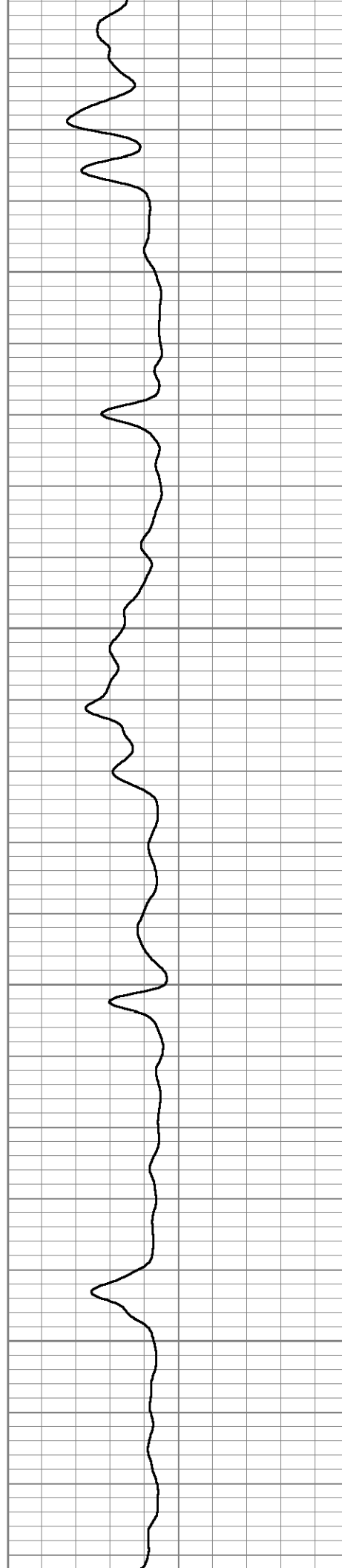


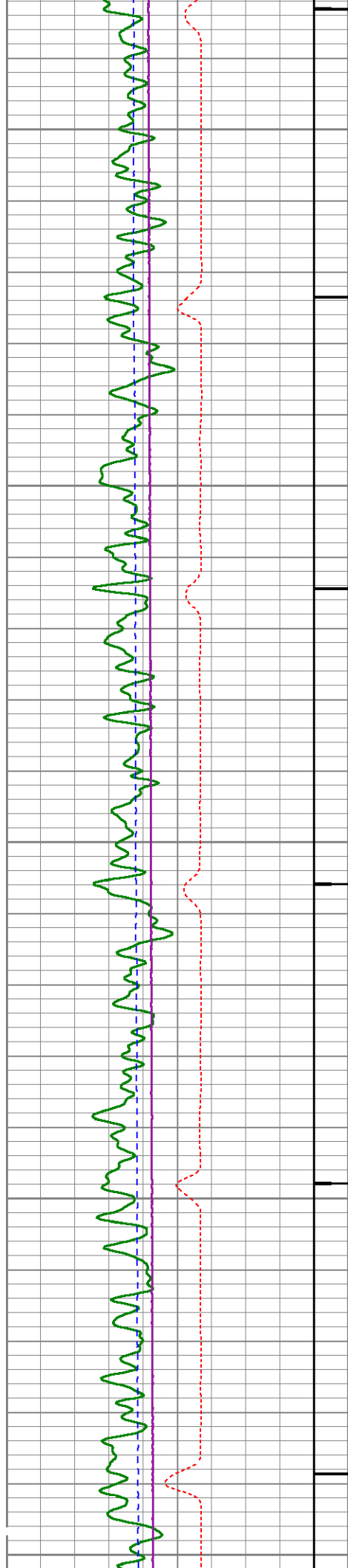
4400

4450

4500

4550





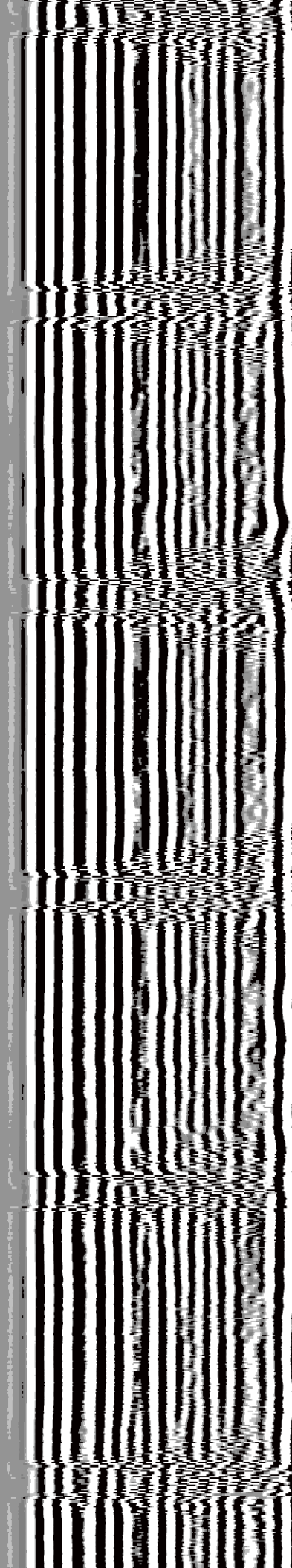
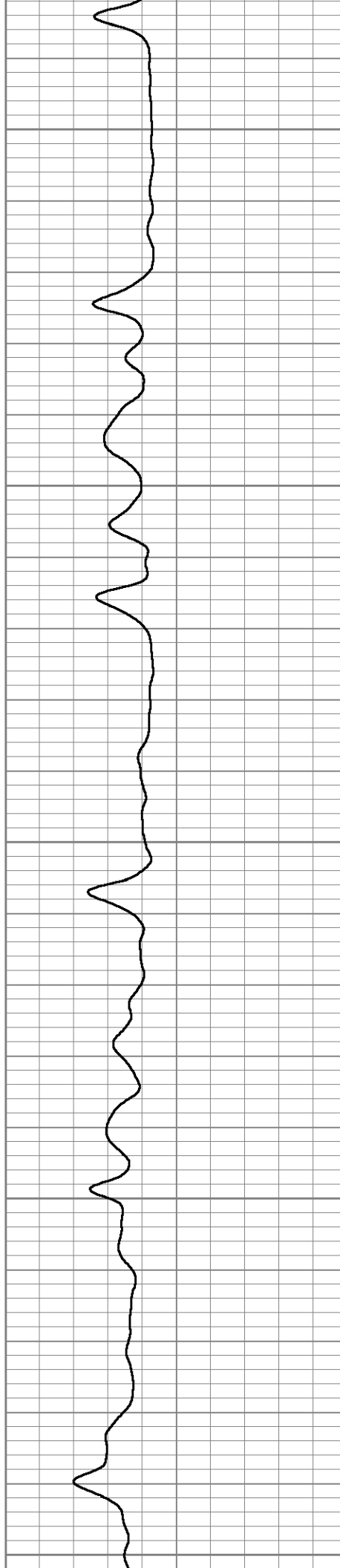
4600

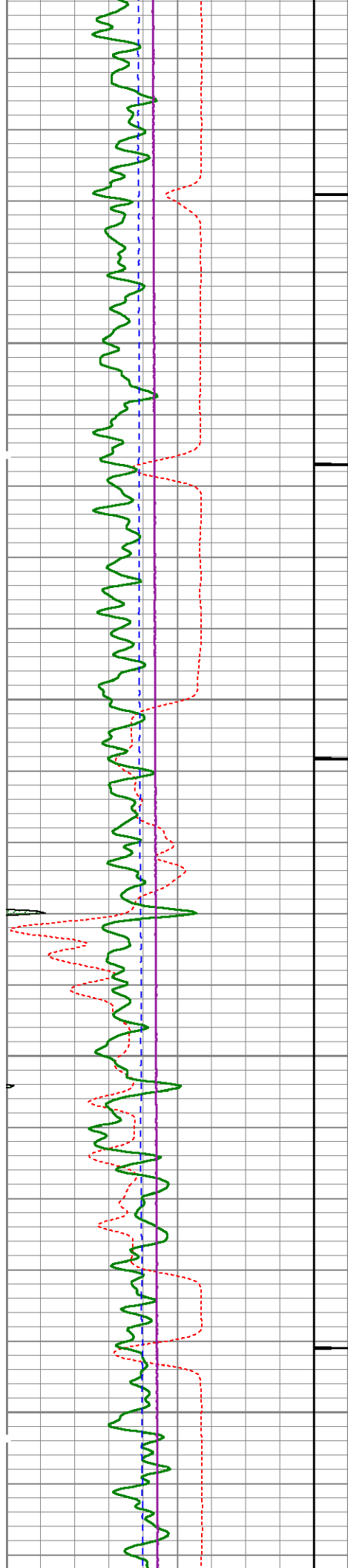
4650

4700

4750

4800



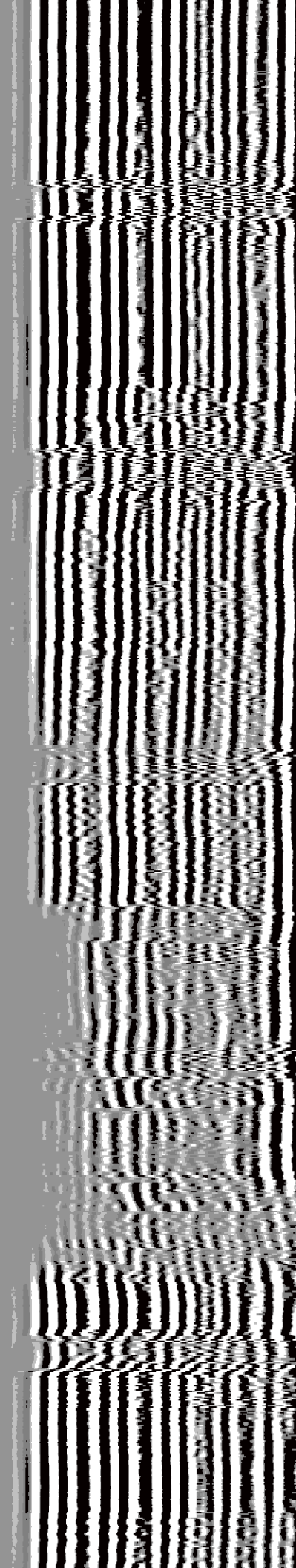
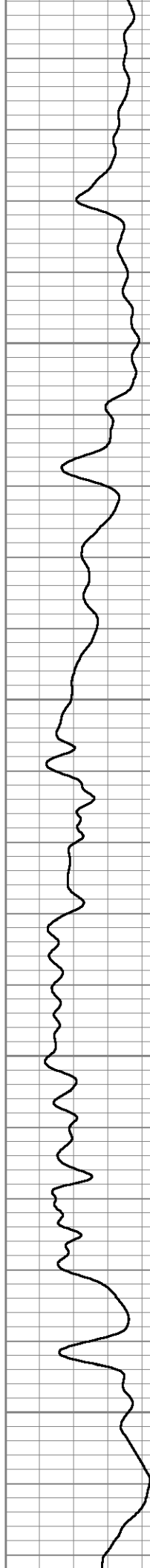


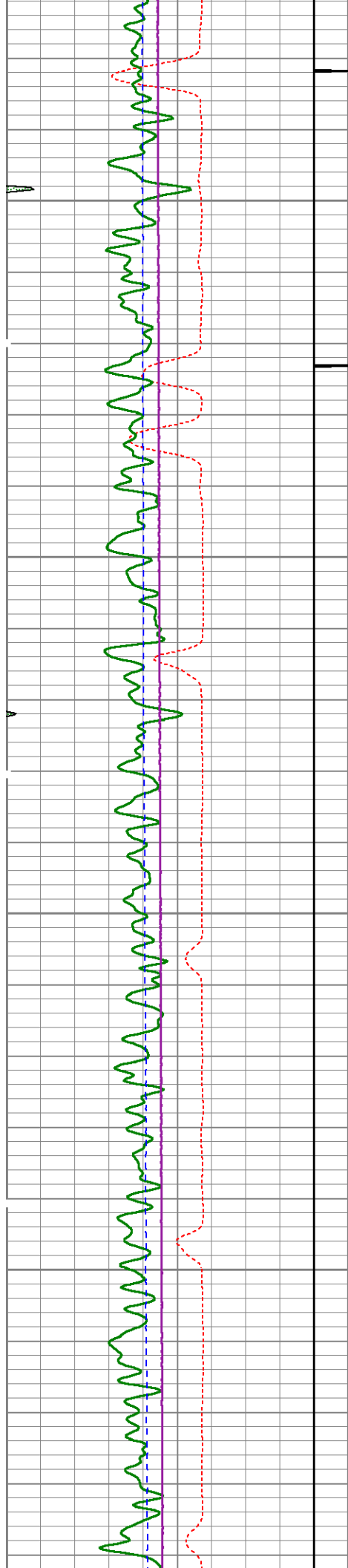
4850

4900

4950

5000



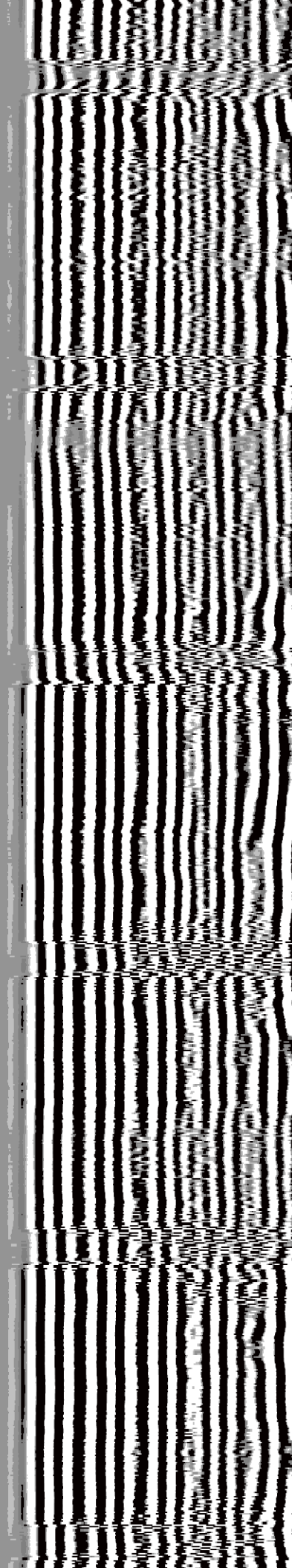
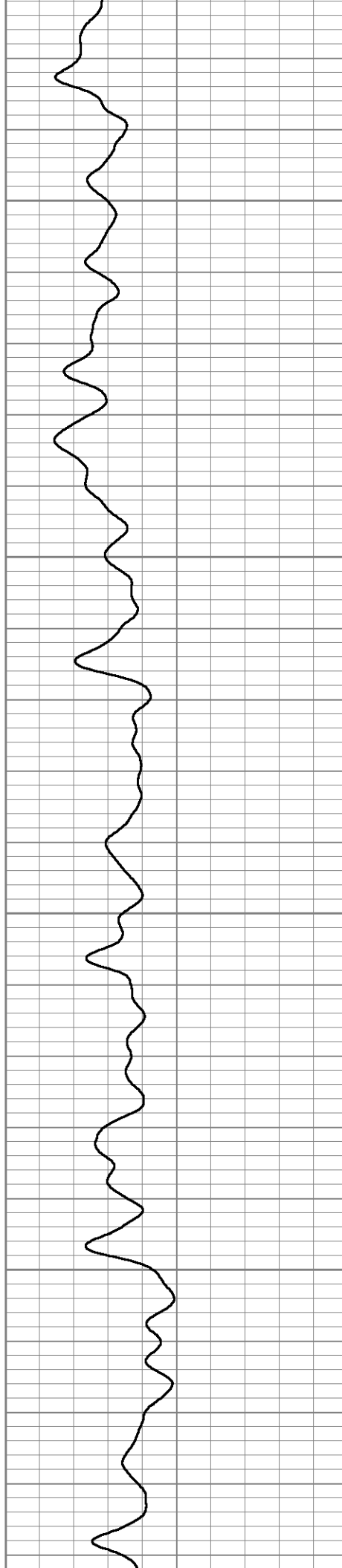


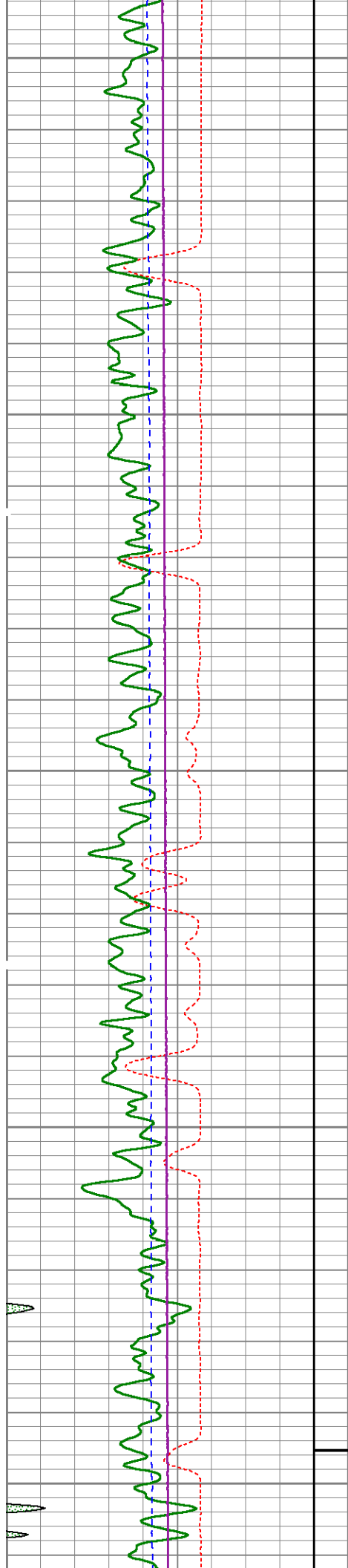
5050

5100

5150

5200





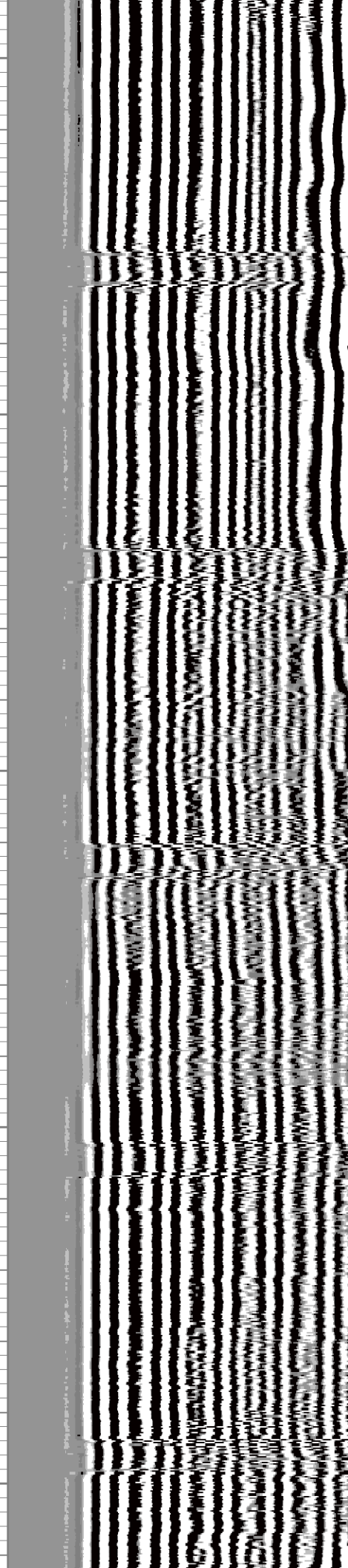
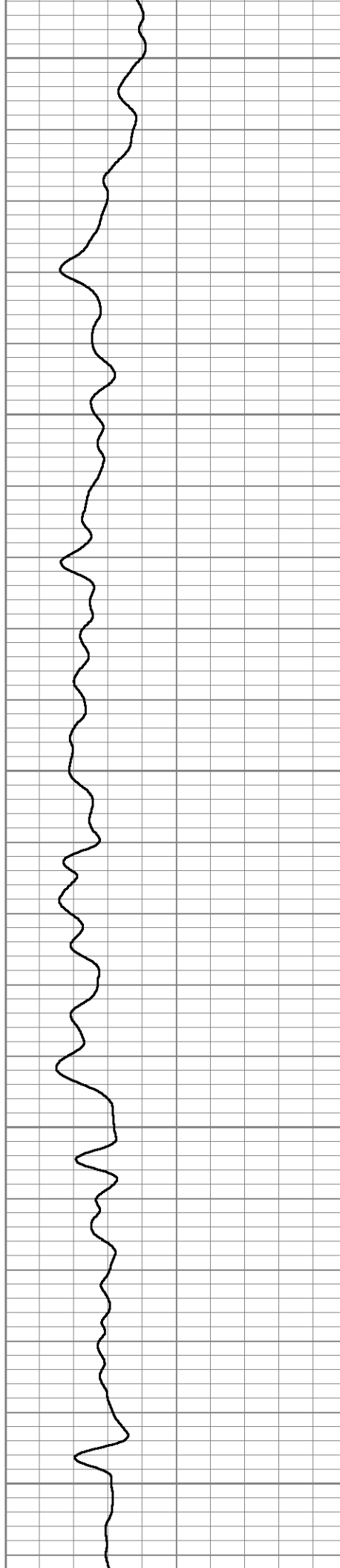
5250

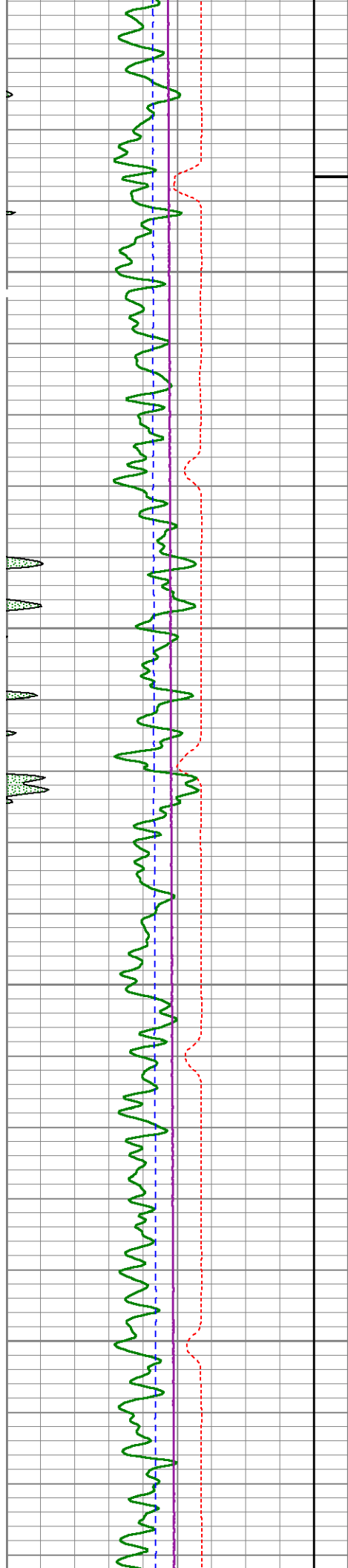
5300

5350

5400

5450



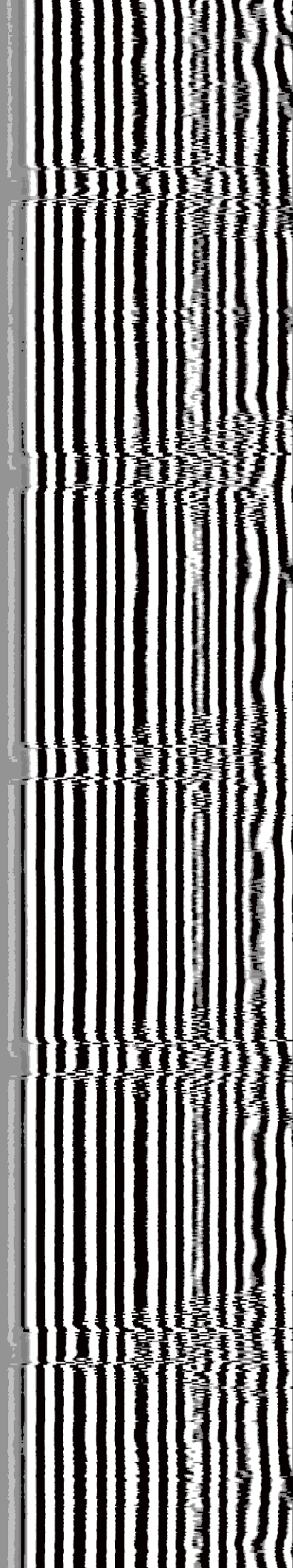
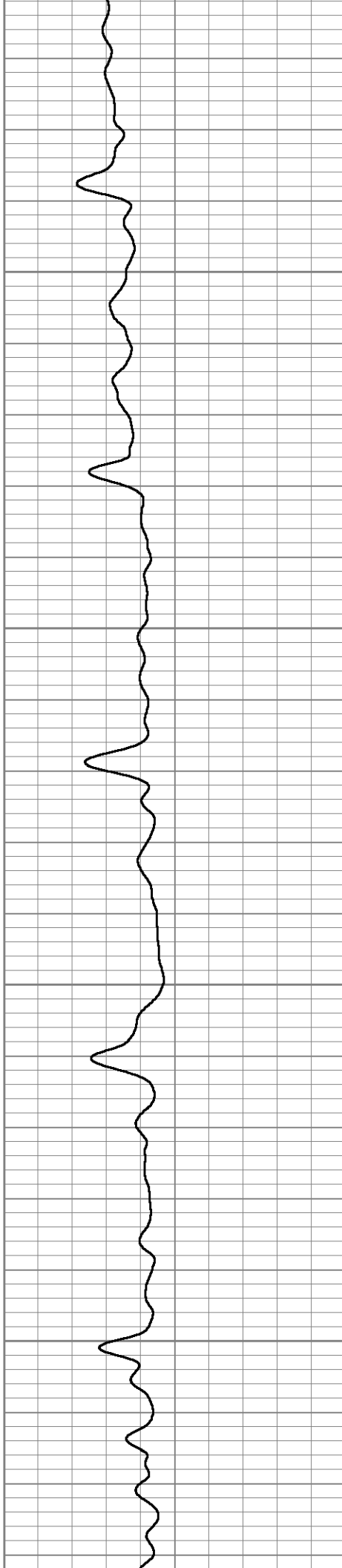


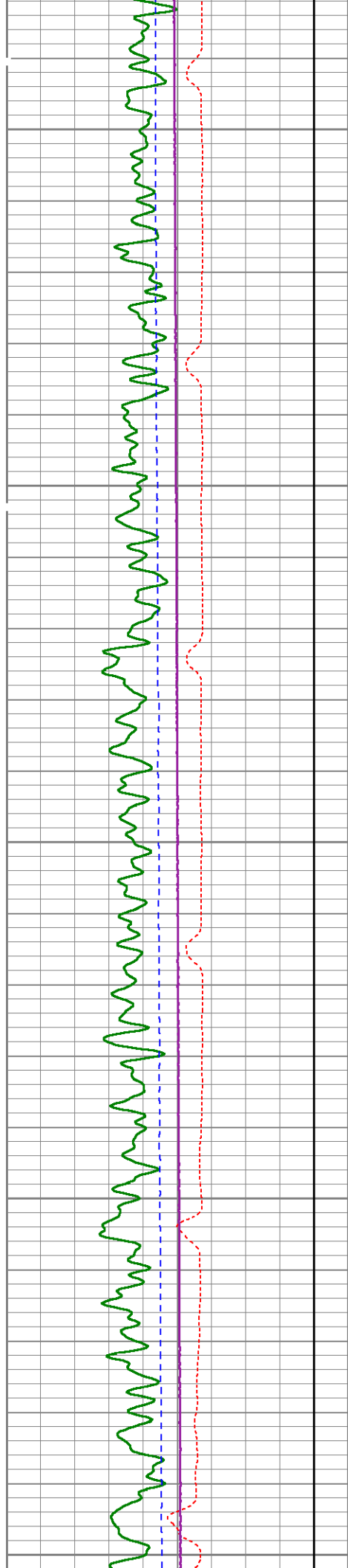
5500

5550

5600

5650





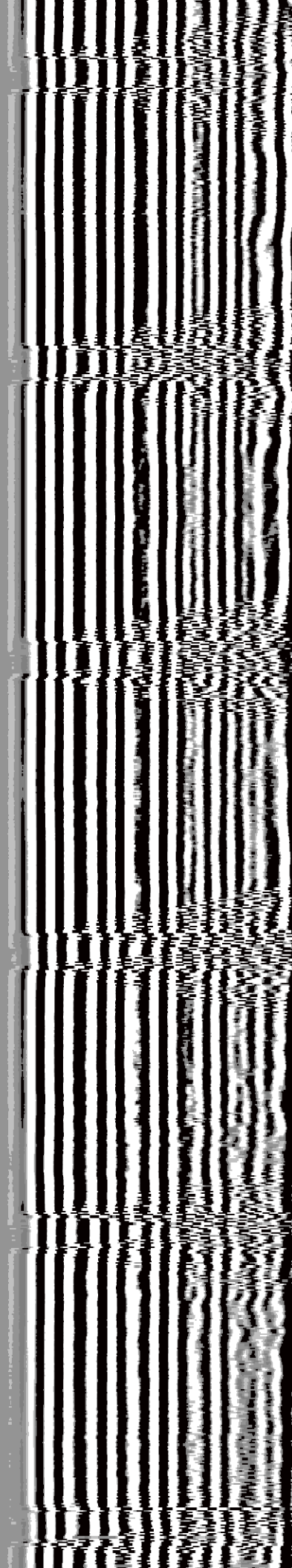
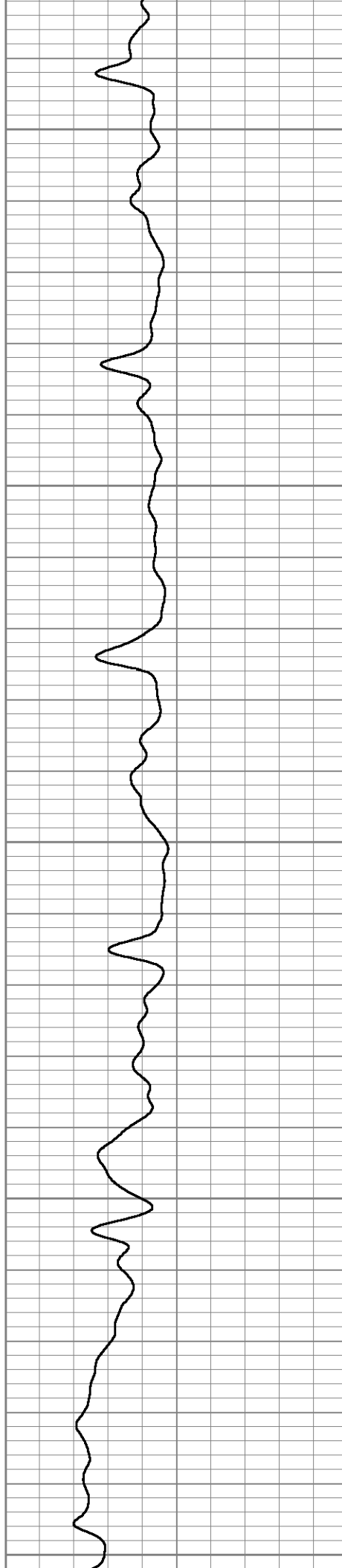
5700

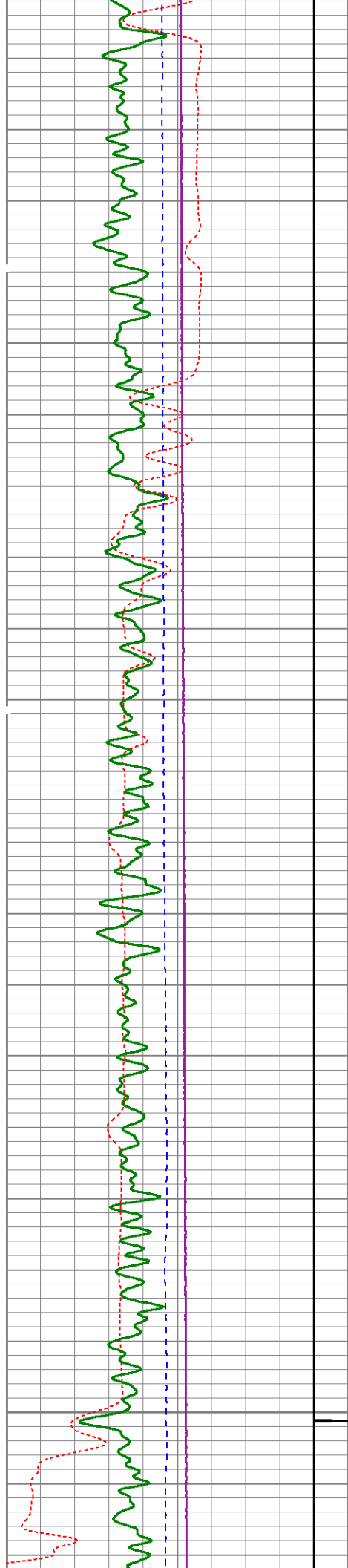
5750

5800

5850

5900



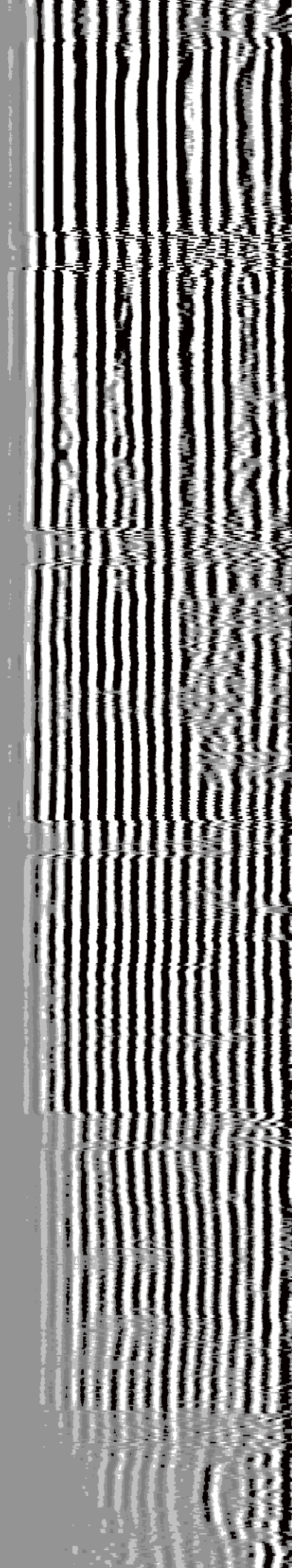
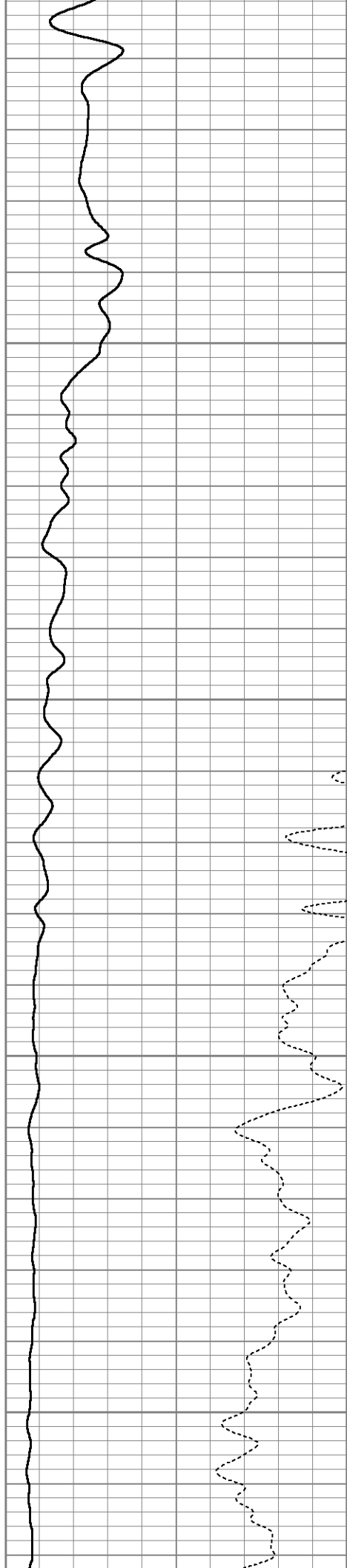


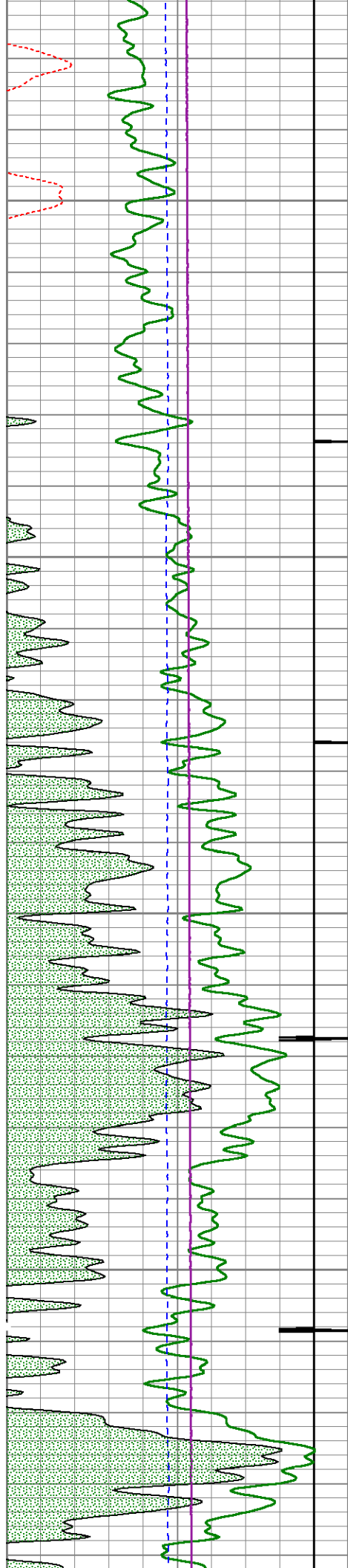
5950

6000

6050

6100



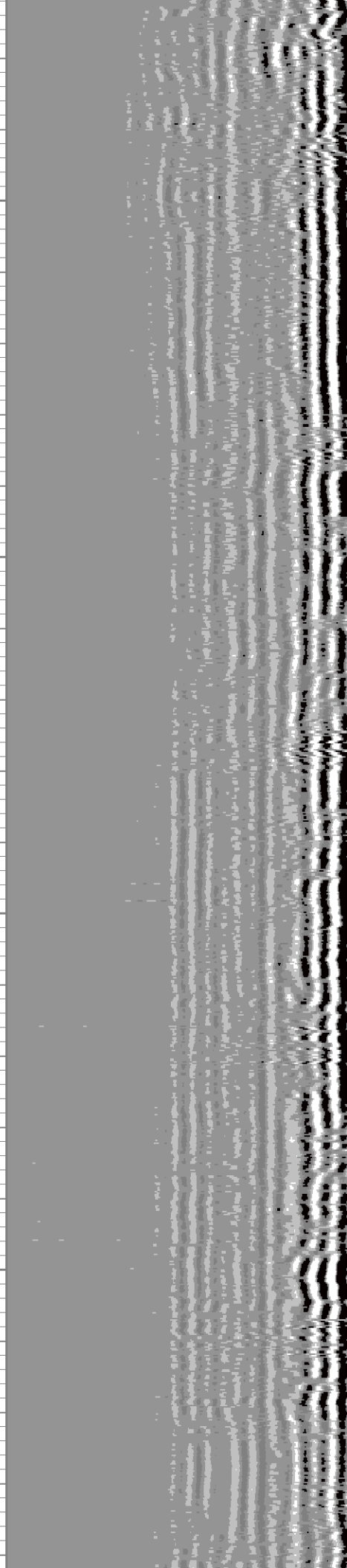
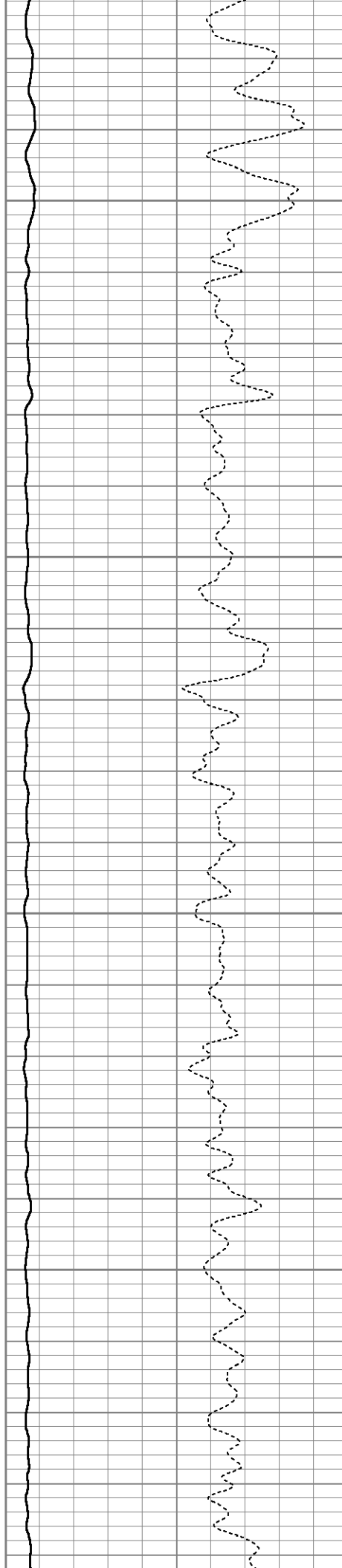


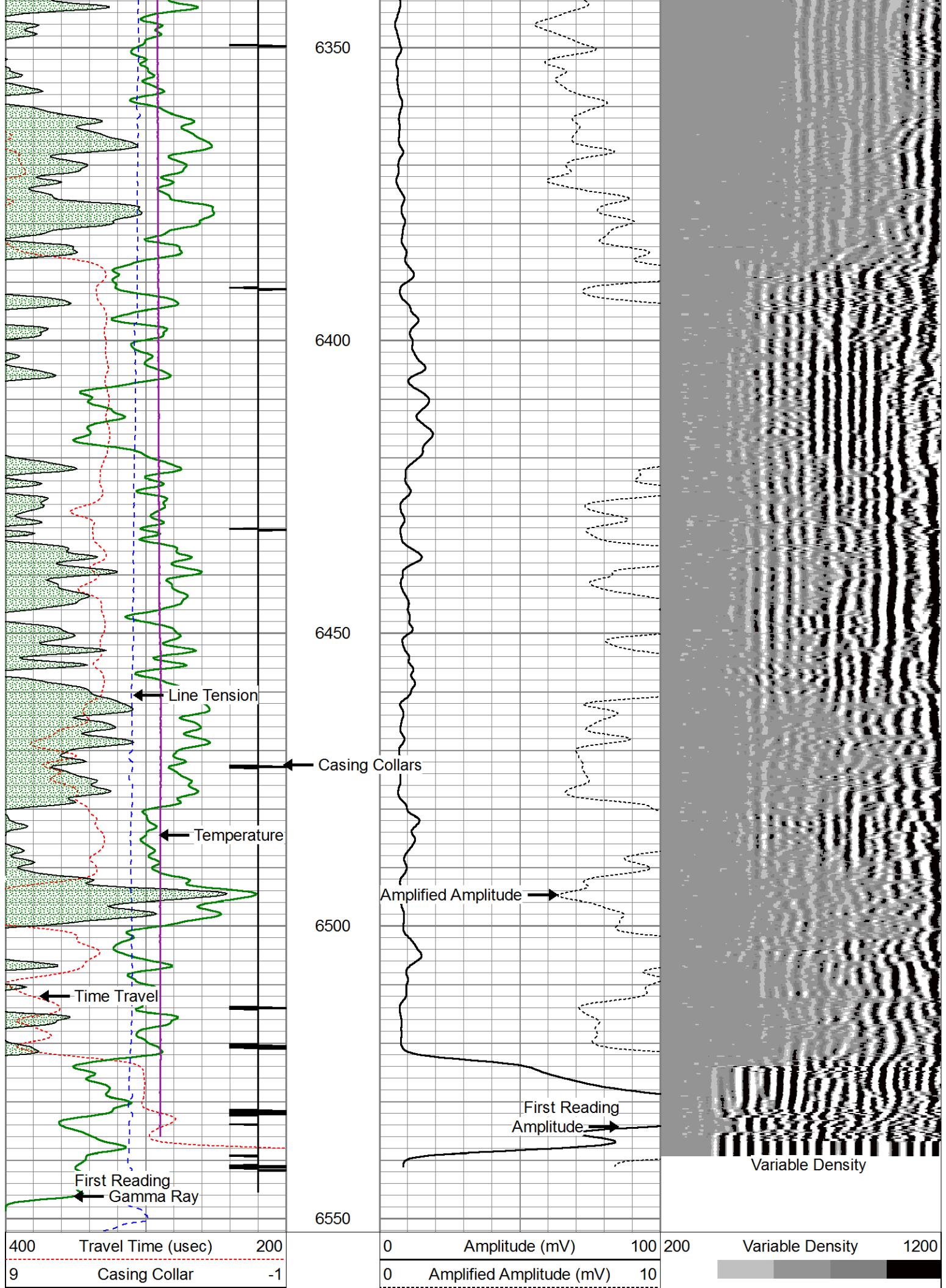
6150

6200

6250

6300





0	Gamma Ray (GAPI)	300
0	Line Tension (lb)	2000
0	TEMP (degF)	400

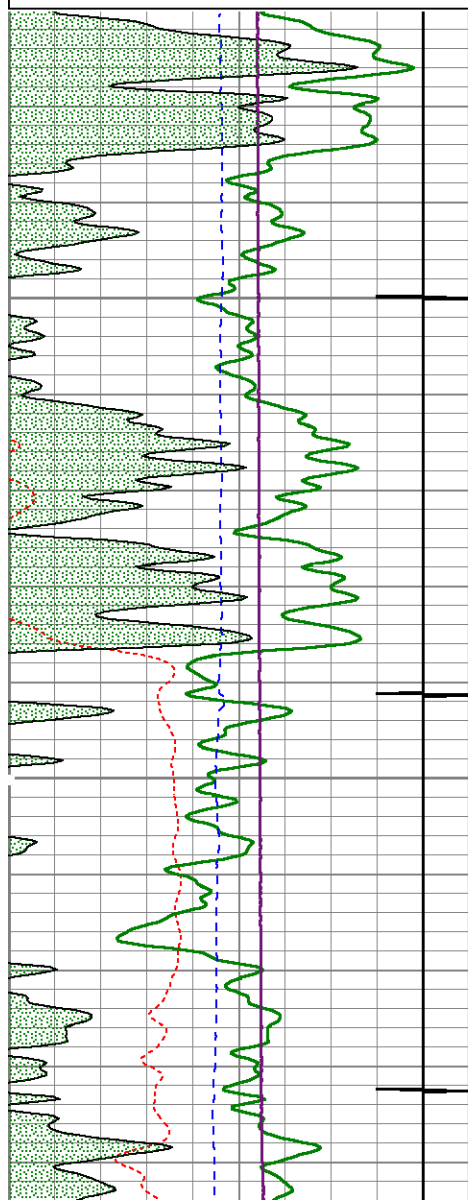


Repeat Pass

Database File: e:\bonanza creek_ant.db
 Dataset Pathname: Ranch_70/11_14_15H/run1/pass6.2
 Presentation Format: cblprobe
 Dataset Creation: Sat Sep 20 11:31:26 2014 by Calc SCH 120430
 Charted by: Depth in Feet scaled 1:240

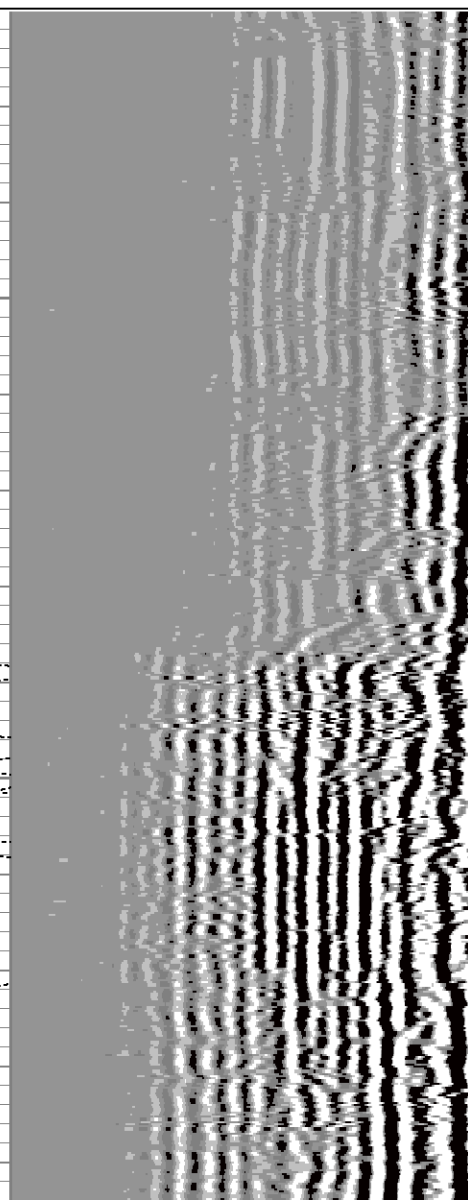
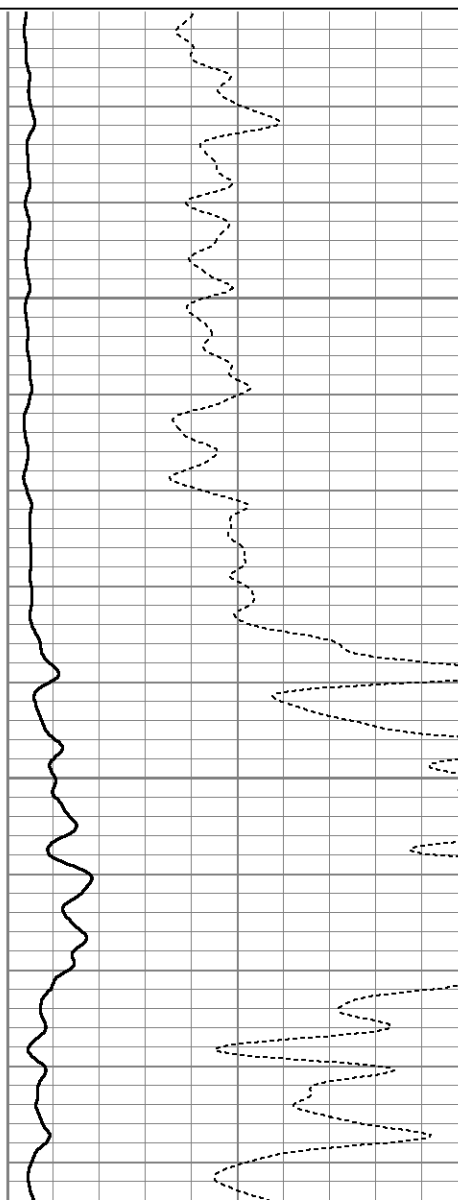
400	Travel Time (usec)	200
9	Casing Collar	-1
0	Gamma Ray (GAPI)	300
0	Line Tension (lb)	2000
0	TEMP (degF)	400

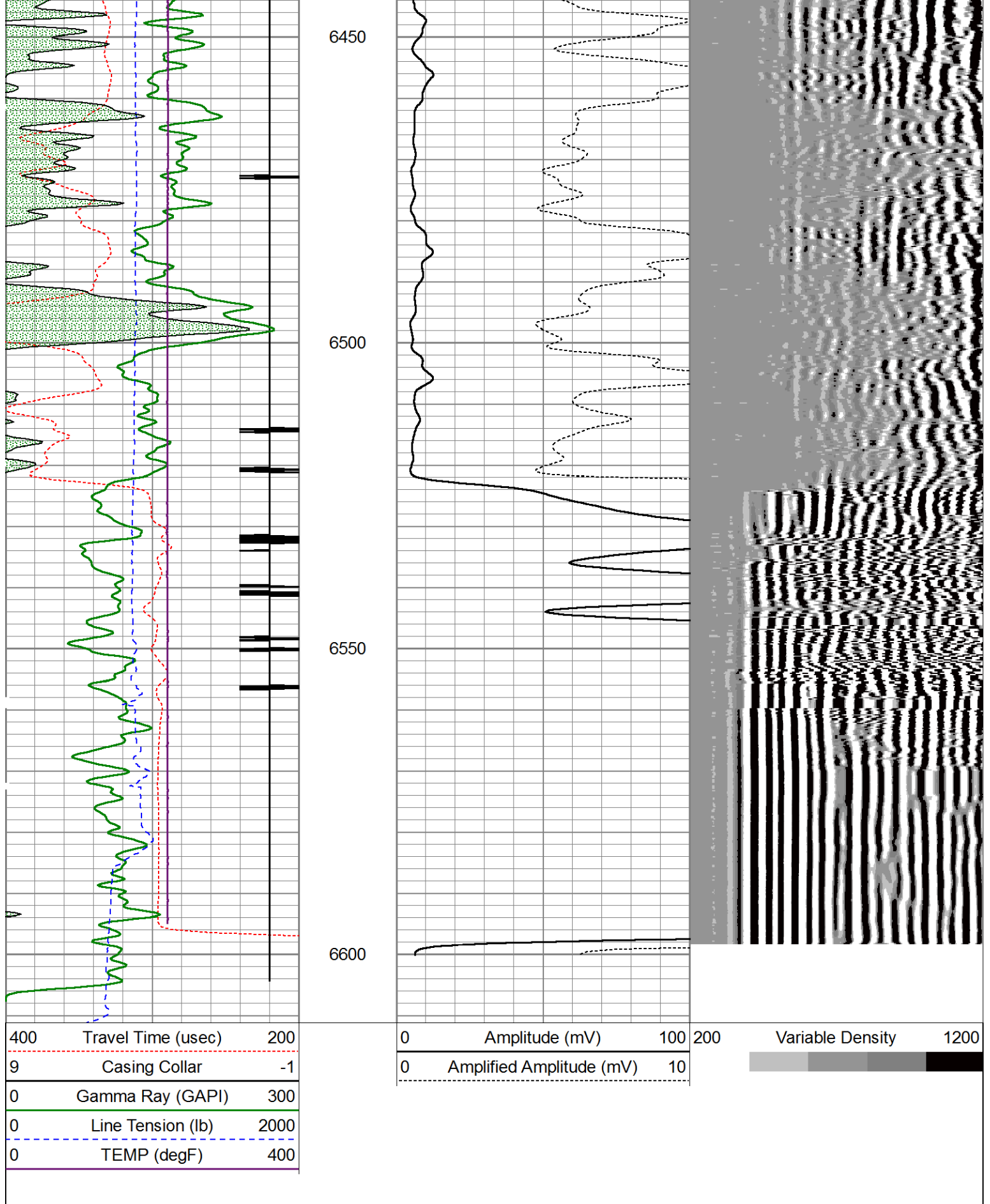
0	Amplitude (mV)	100	200	Variable Density	1200
0	Amplified Amplitude (mV)	10			

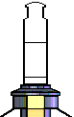


6350

6400





Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			Titan Cable_head	1.00	1.44	10.00

			Probe275 2.75" Centralizer	2.88	2.75	20.00
TEMP	16.17					
WVF3FT	13.94		RBT-Probe Radii CBL W/inline temp GR/C9.20fw140(2.75) Probe Radii Bond Tool with Digital Telemetry			90.00
WVFCAL	13.94					
WVFS1	13.94					
WVFS2	13.94					
WVFS3	13.94					
WVFS4	13.94					
WVFS5	13.94					
WVFS6	13.94					
WVFS7	13.94					
WVFS8	13.94					
WVF5FT	12.94					
			Probe275 2.75" Centralizer	2.88	2.75	20.00
CCL	6.75					
GR	5.42		GR-Probe275 (FW1408-36) Probe 2 3/4" Logging Gamma Ray	4.00	2.75	57.00
			Probe275 2.75" Centralizer	2.88	2.75	20.00
Dataset: bonanza creek_ant.db: Ranch_70/11_14_15H/run1/pass8.5 Total Length: 22.82 ft Total Weight: 217.00 lb O.D. 2.75 in						

Calibration Report

Database File: e:\bonanza creek_ant.db
 Dataset Pathname: Ranch_70/11_14_15H/run1/pass8.5
 Dataset Creation: 2014-06-25 10:34 AM
 Dataset Modified: 2014-06-25 10:34 AM

Gamma Ray Calibration Report

Serial Number:	FW1408-36	
Tool Model:	Probe275	
Performed:	Sun Jun 13 13:33:21 1993	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.0000	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	fw1406126	
Tool Model:	Probe Radii CBL W/inline temp GR/CCL	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	1544.518	ft

Master Calibration, performed Wed Sep 17 17:35:26 2014:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.016	0.399	2.000	62.165	113.080	8.389
CAL	-0.017	1.003				
5'	-0.021	0.492	2.000	62.165	89.692	1.887
SUM						
S1	-0.035	0.466	0.000	100.000	199.392	7.056
S2	-0.017	0.423	0.000	100.000	227.549	3.778
S3	-0.015	0.418	0.000	100.000	231.399	3.390
S4	-0.015	0.411	0.000	100.000	234.687	3.567
S5	-0.015	0.403	0.000	100.000	239.497	3.561
S6	-0.015	0.393	0.000	100.000	244.800	3.732
S7	-0.016	0.393	0.000	100.000	244.486	4.005
S8	-0.016	0.401	0.000	100.000	239.462	3.923

Internal Reference Calibration, performed Wed Dec 31 17:00:00 1969:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.017	1.003	1.000	0.000

Air Zero Calibration, performed Wed Dec 31 17:00:00 1969:

	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

Temperature Calibration Report

Serial Number: fw1406126
Tool Model: Probe Radii CBL W/inline temp GR/CCL
Performed: Sun Jun 13 13:33:21 1993

Reference

Reading

Low Reference: 0.00 degF 0.00 degF

High Reference: 1.00 degF 1.00 degF

Gain: 1.00

Offset: 0.00

Delta Spacing 1