

**Cement Bond  
Gamma Ray Ccl  
Log**

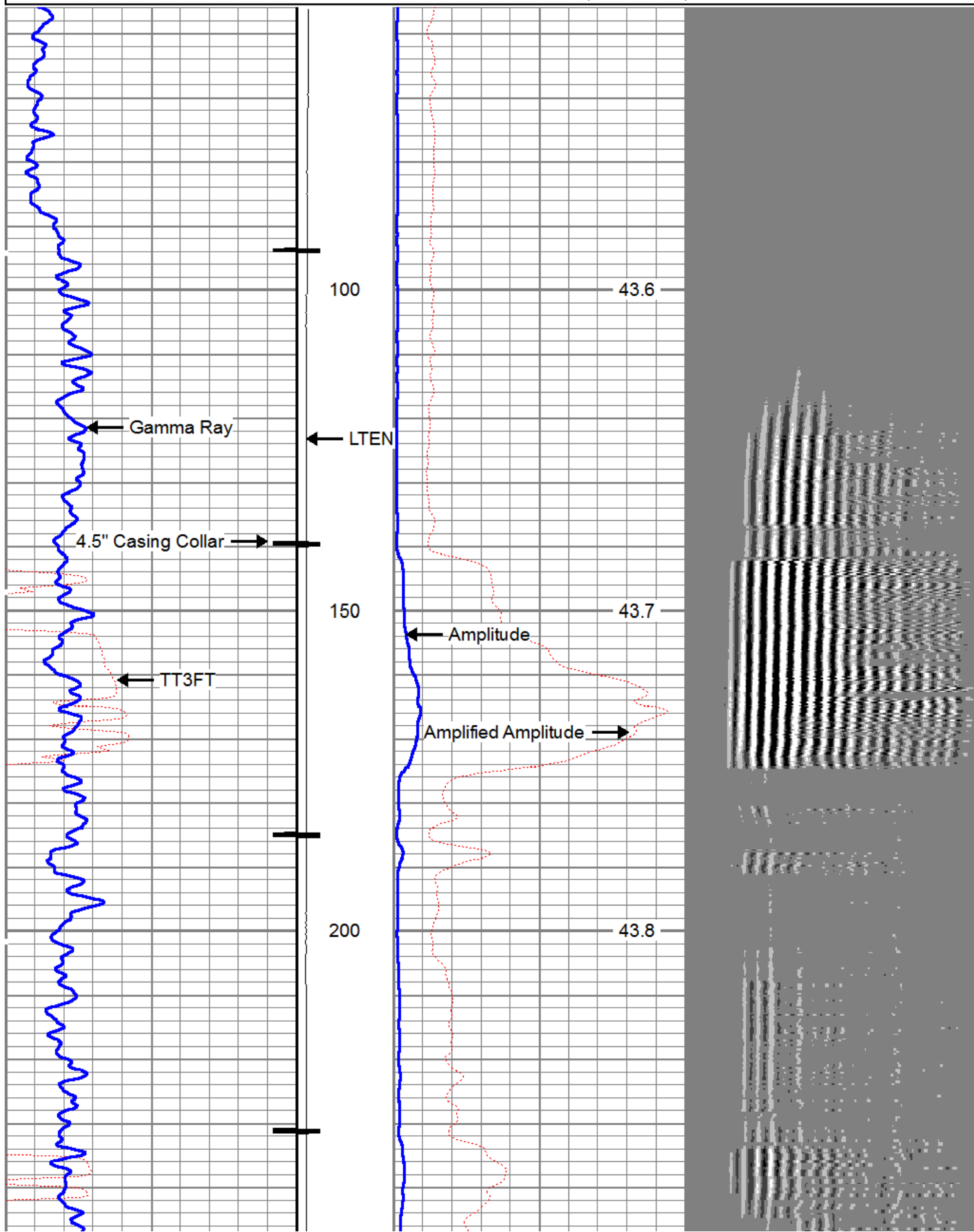
Company Whiting Oil & Gas		Well WRD 23-33-R		Field White River Dome		County Rio Blanco		State CO.							
Location:		API		Other Services JBGR CIBP											
Permanent Datum		G.L.		Elevation		6168'									
Log Measured From		K.B.		32 FT. AGL											
Drilling Measured From		K.B.				K.B. 6200' D.F. 6199' G.L. 6168'									
Date															
Run Number		1													
Depth Driller		NA													
Depth Logger		11230'													
Bottom Logged Interval		11215'													
Top Log Interval		100'													
Open Hole Size															
Type Fluid															
Density / Viscosity															
Max. Recorded Temp.		233 Deg. F.													
Estimated Cement Top		Surface													
Time Well Ready		O/A													
Time Logger on Bottom		9:30													
Equipment Number		100113													
Location		Vernal, UT.													
Recorded By		Cliff Edmunds													
Witnessed By		Ryan Swann													
Borehole Record					Tubing Record										
Run Number		Bit		From		To		Size		Weight		From		To	
Casing Record		Size		Wgt/Ft		Top		Bottom							
Surface String		9.625"		53.5#		Surface		10171'							
Prot. String															
Production String		7.0"		29#		9865'		13340'							
Liner		4.50"		13.5#		surface		12968'							

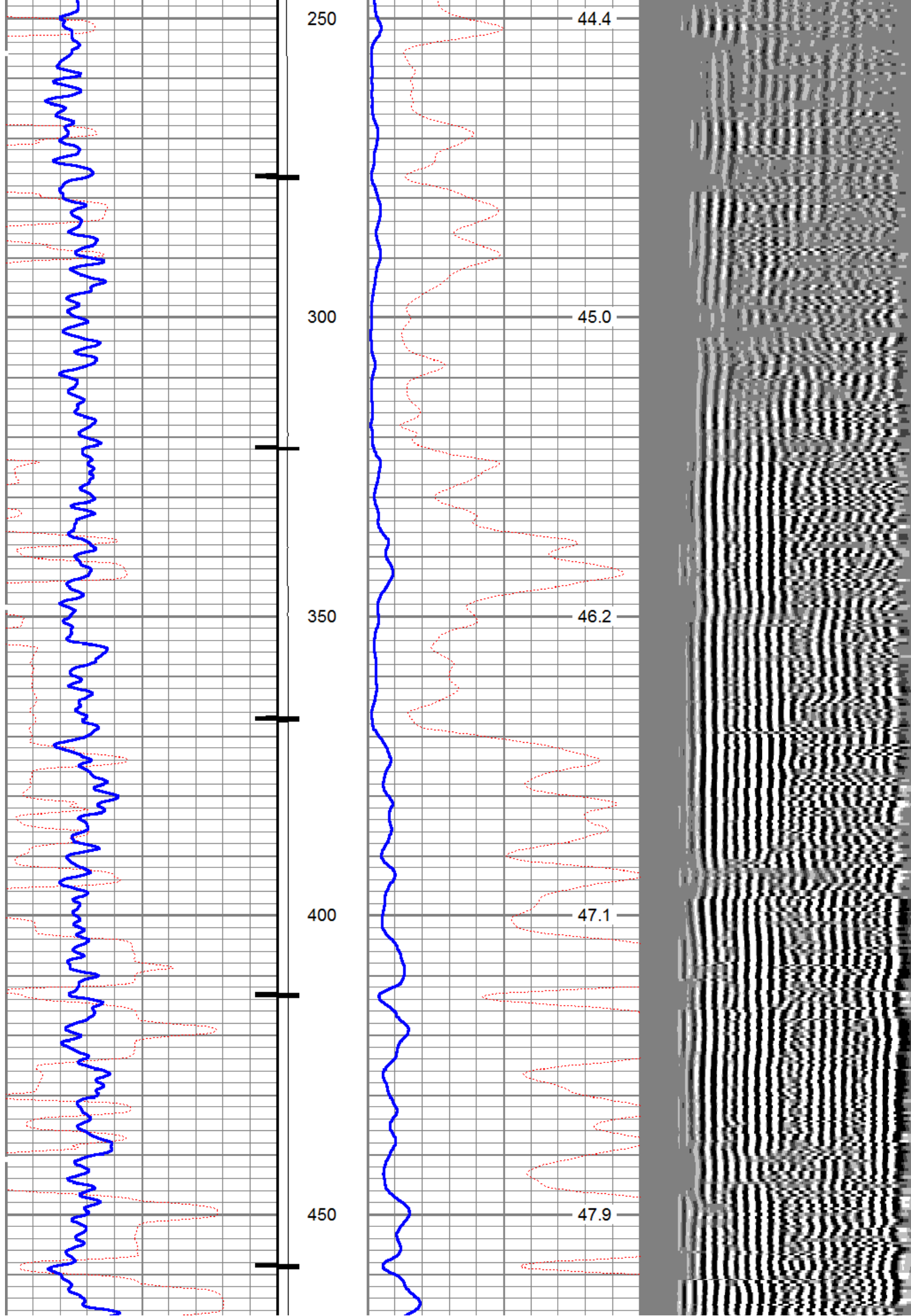
<<< Fold Here >>>

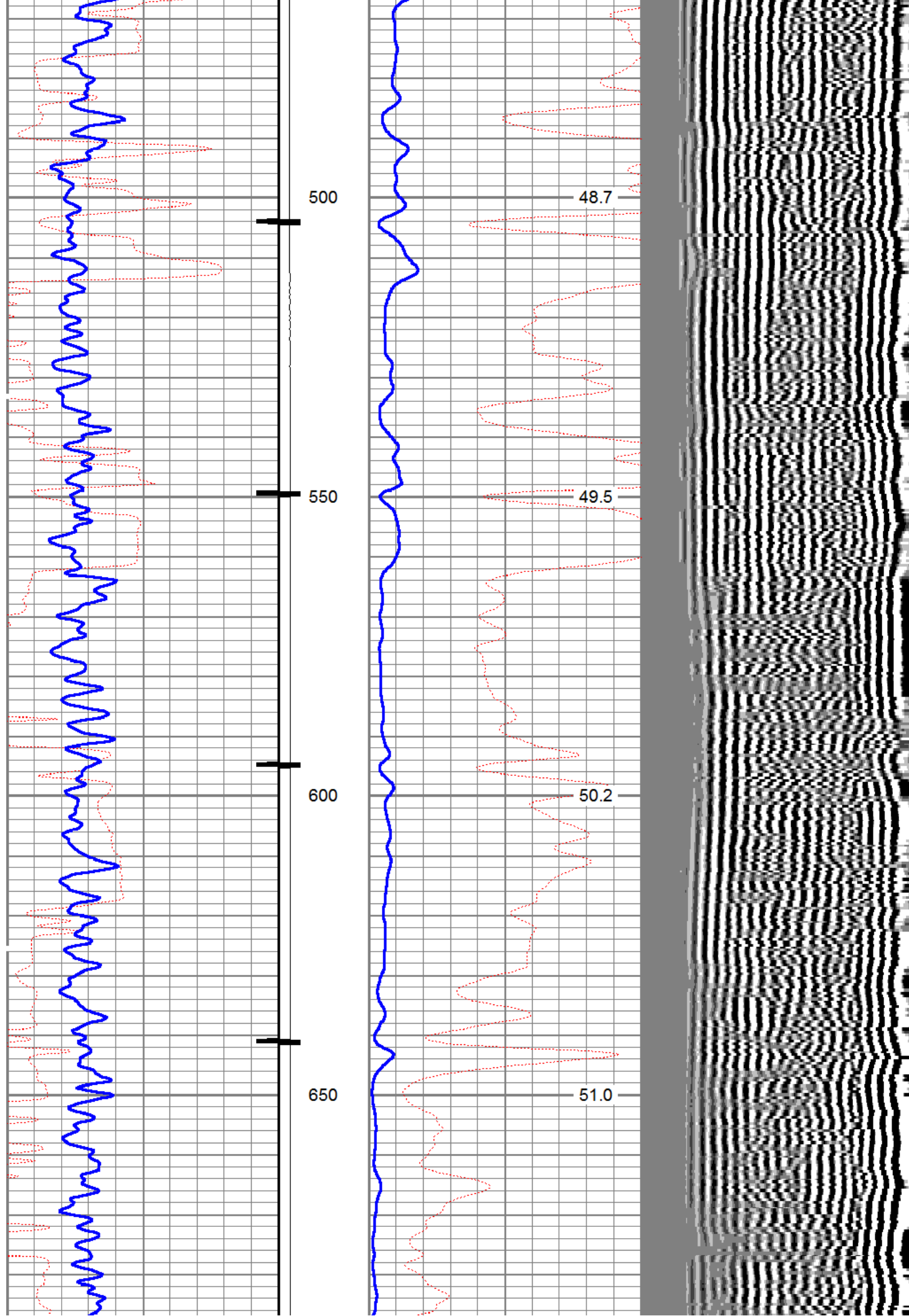
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

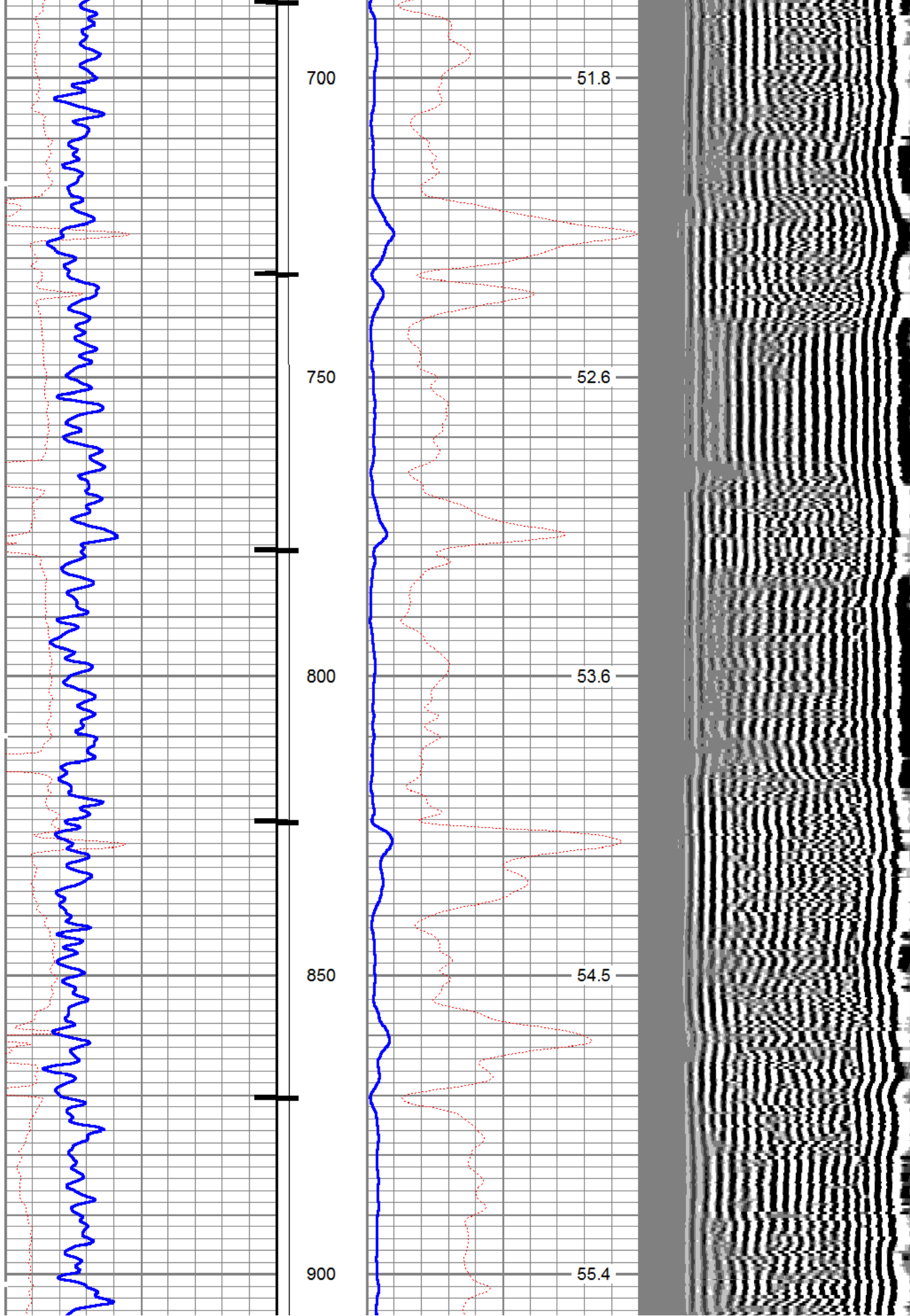
**Comments**

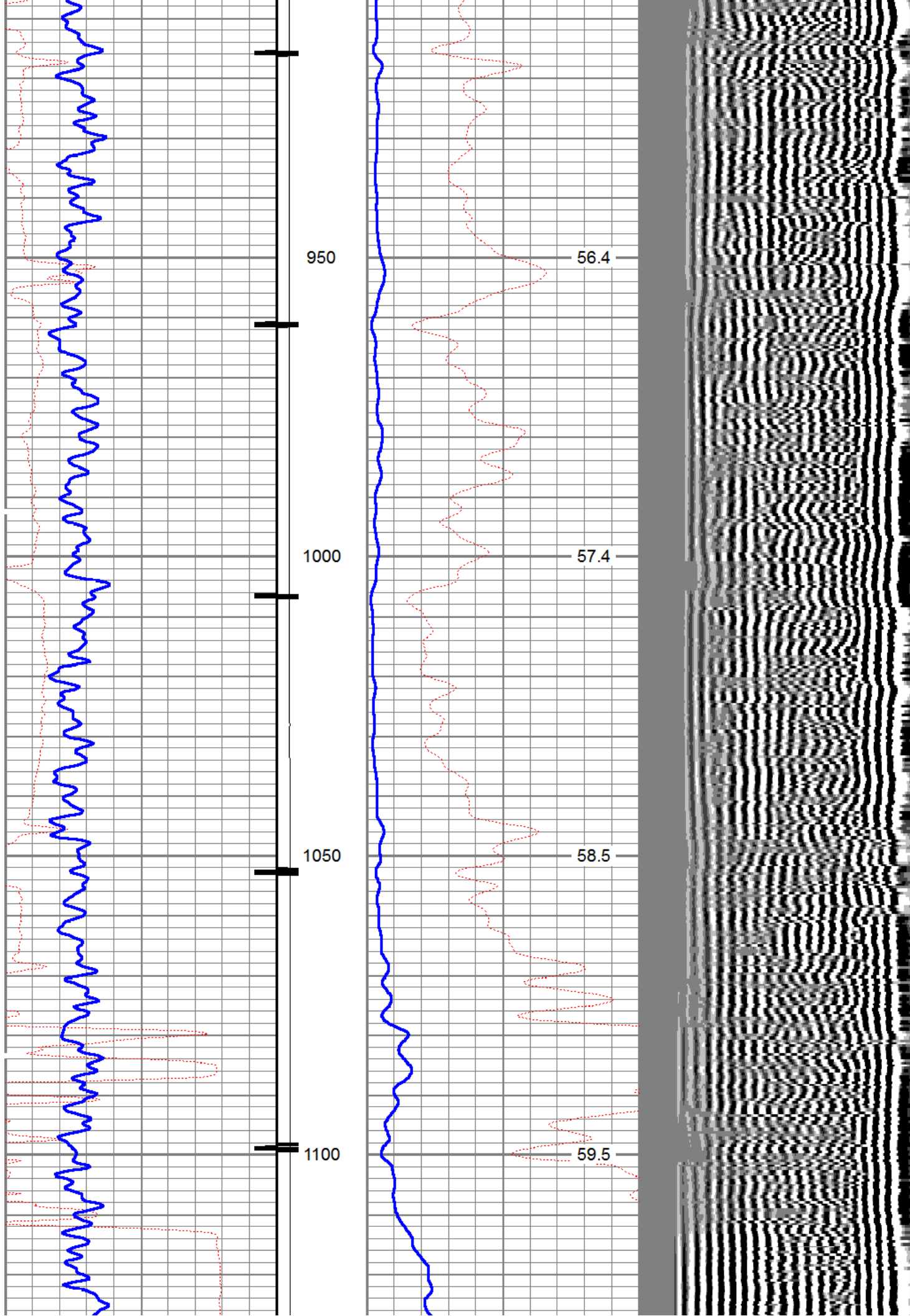
290	Travel Time (usec)	190	LTEN	0	Amplitude (mV)	100	200	Variable Density	1200
0	Gamma Ray (GAPI)	150	(lb)	0	Amplified Amplitude (mV)	10			
		CCL	3000			TEMP			
						(degF)			

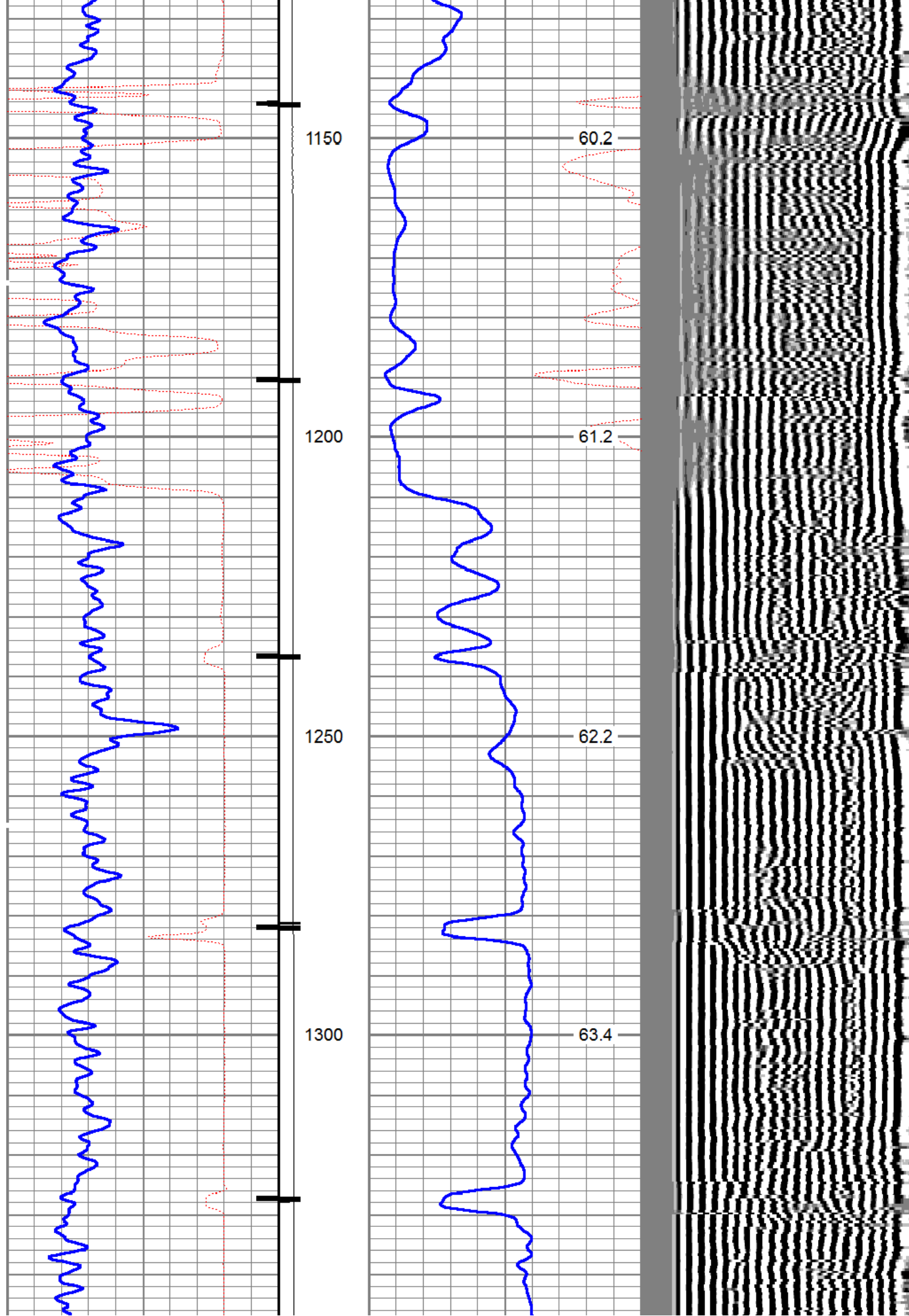


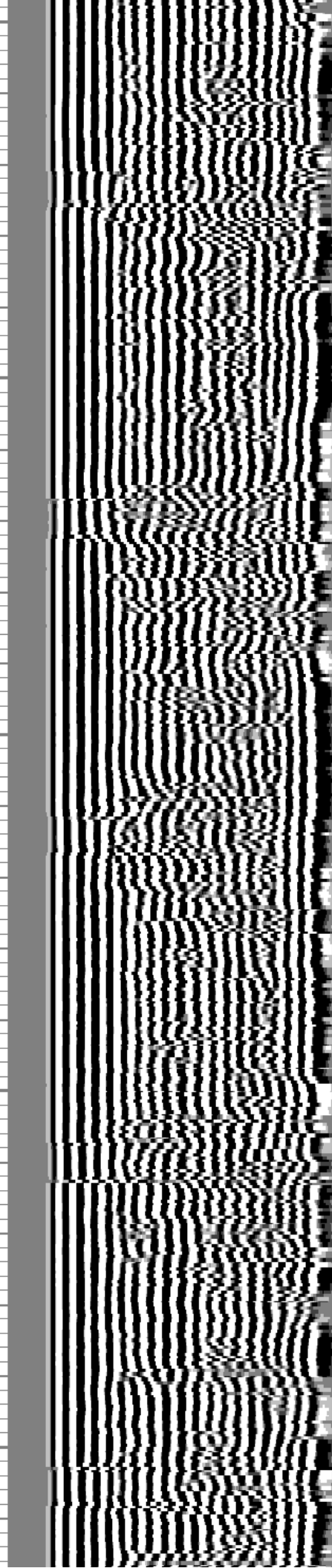
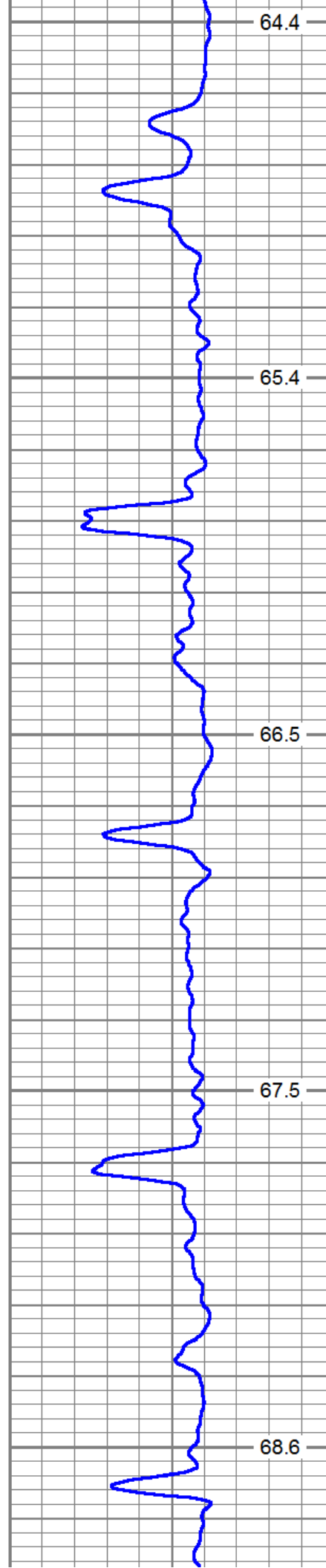
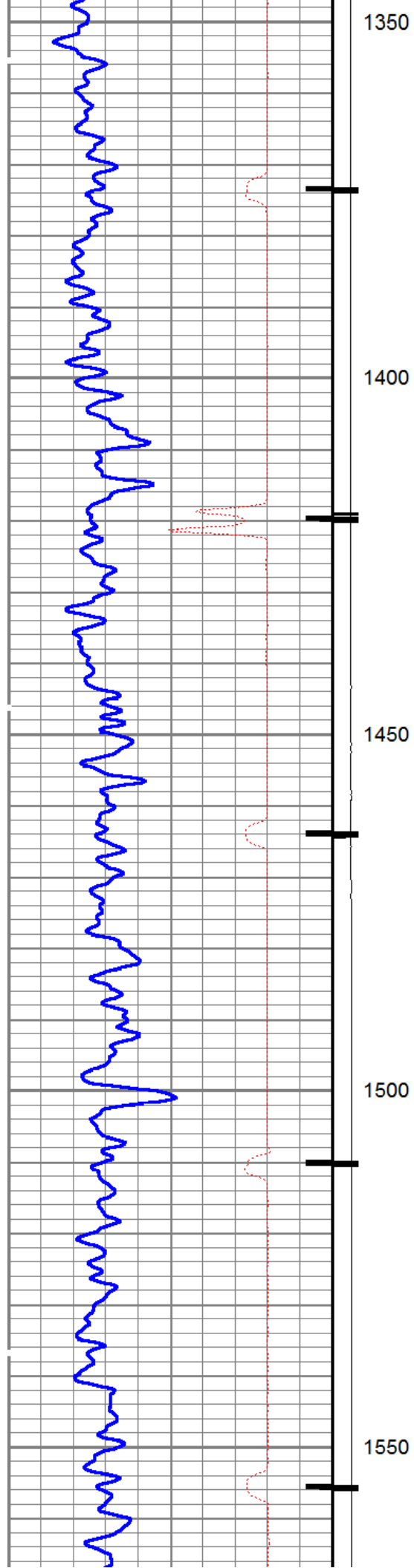


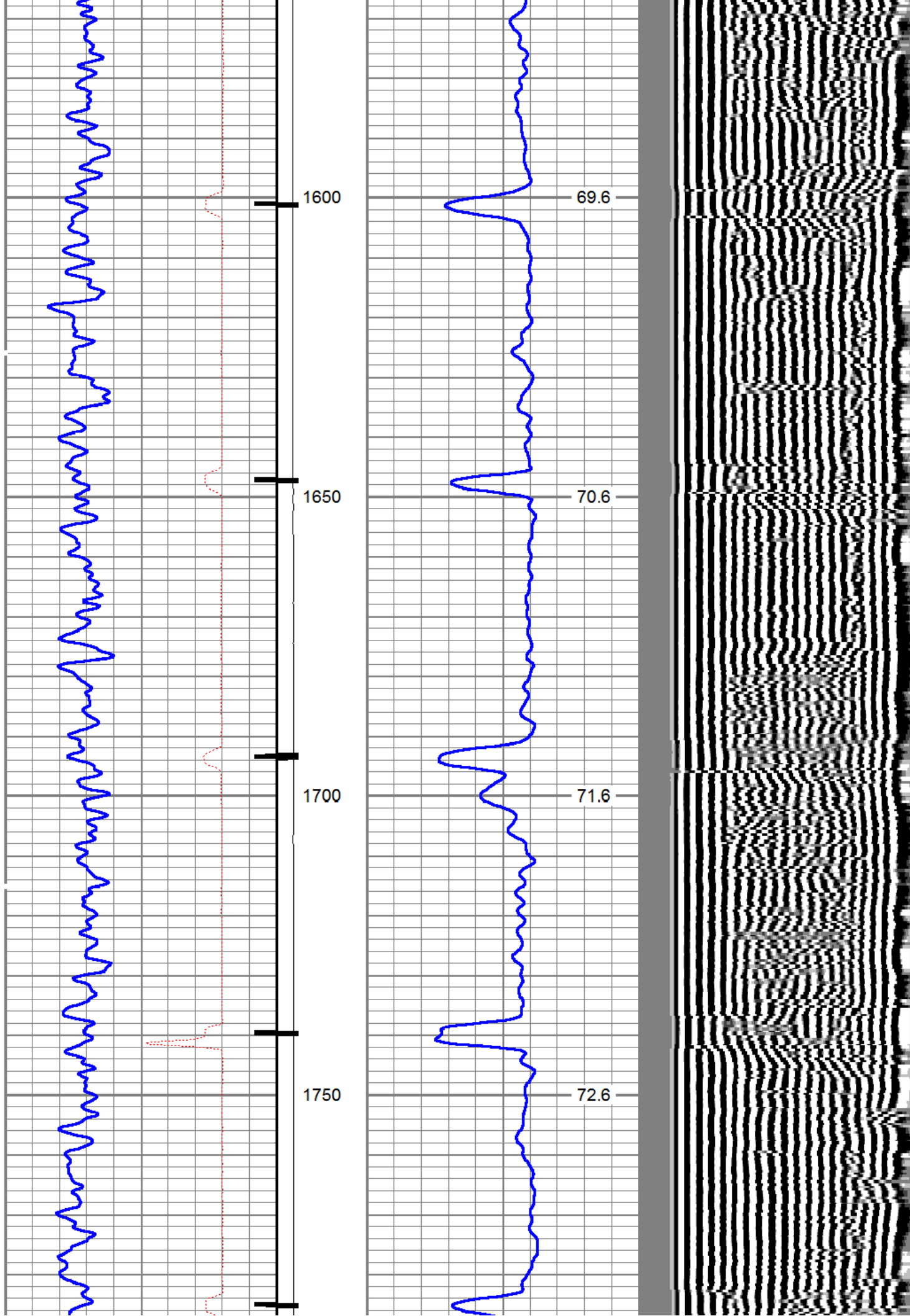


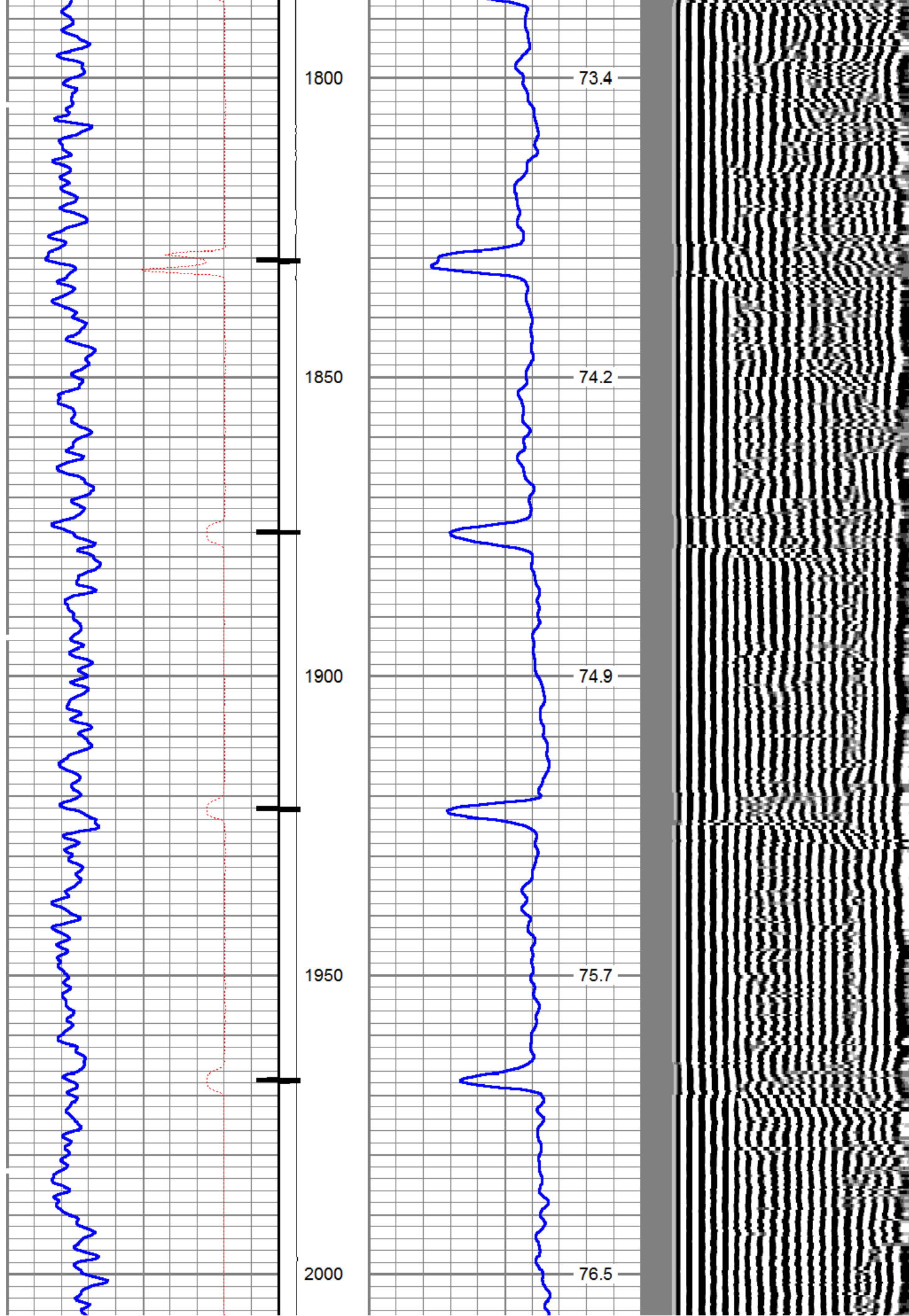


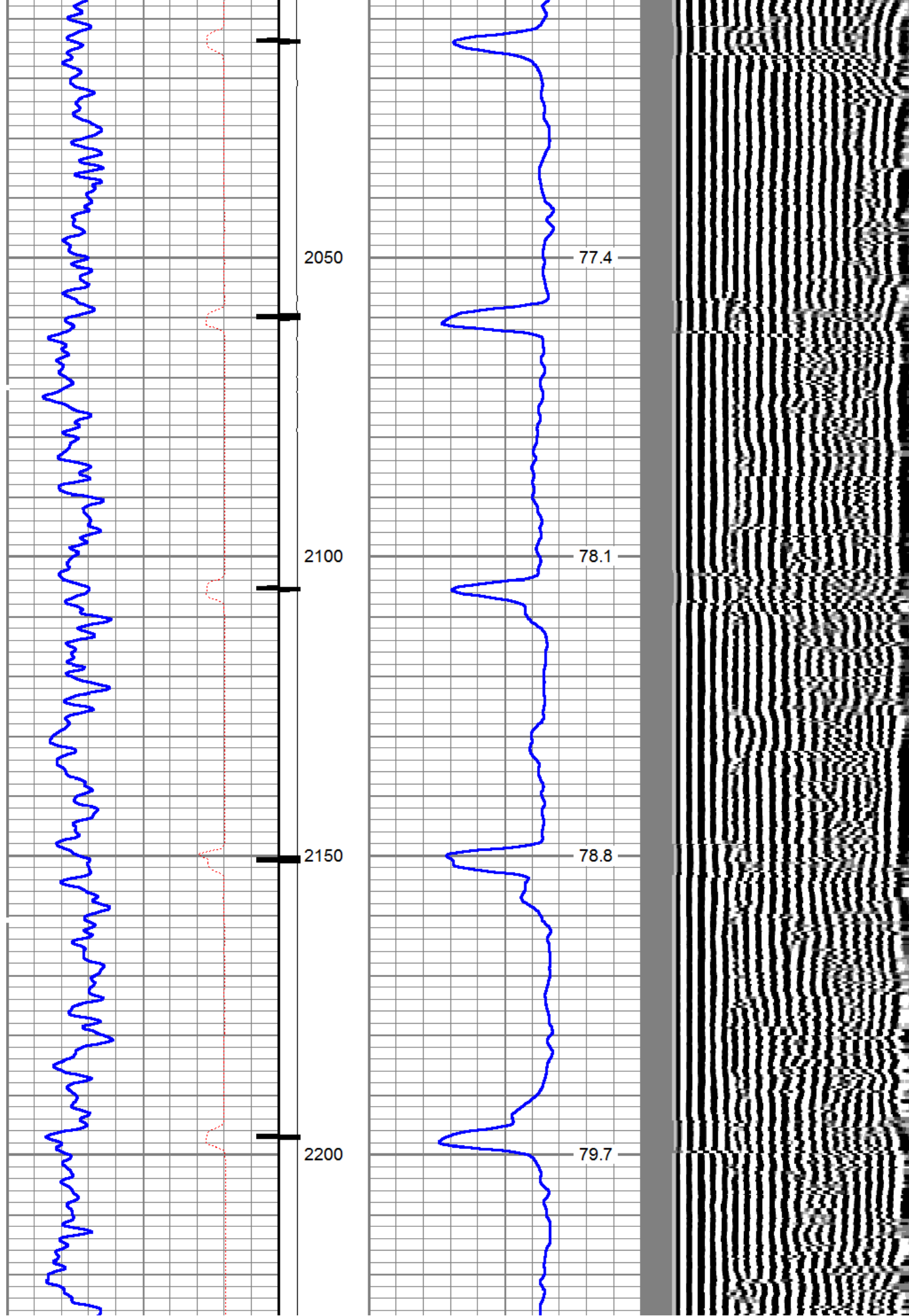


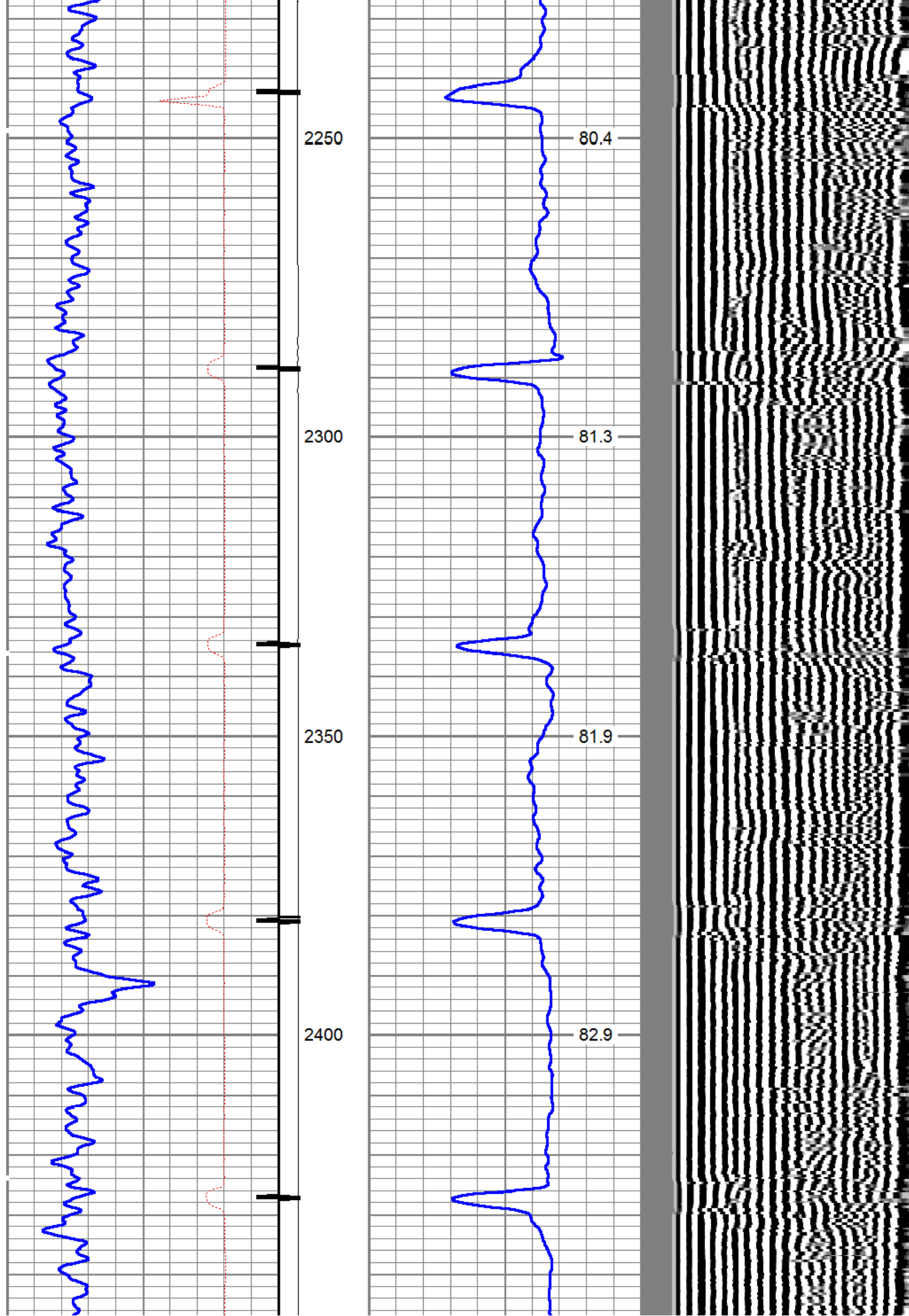


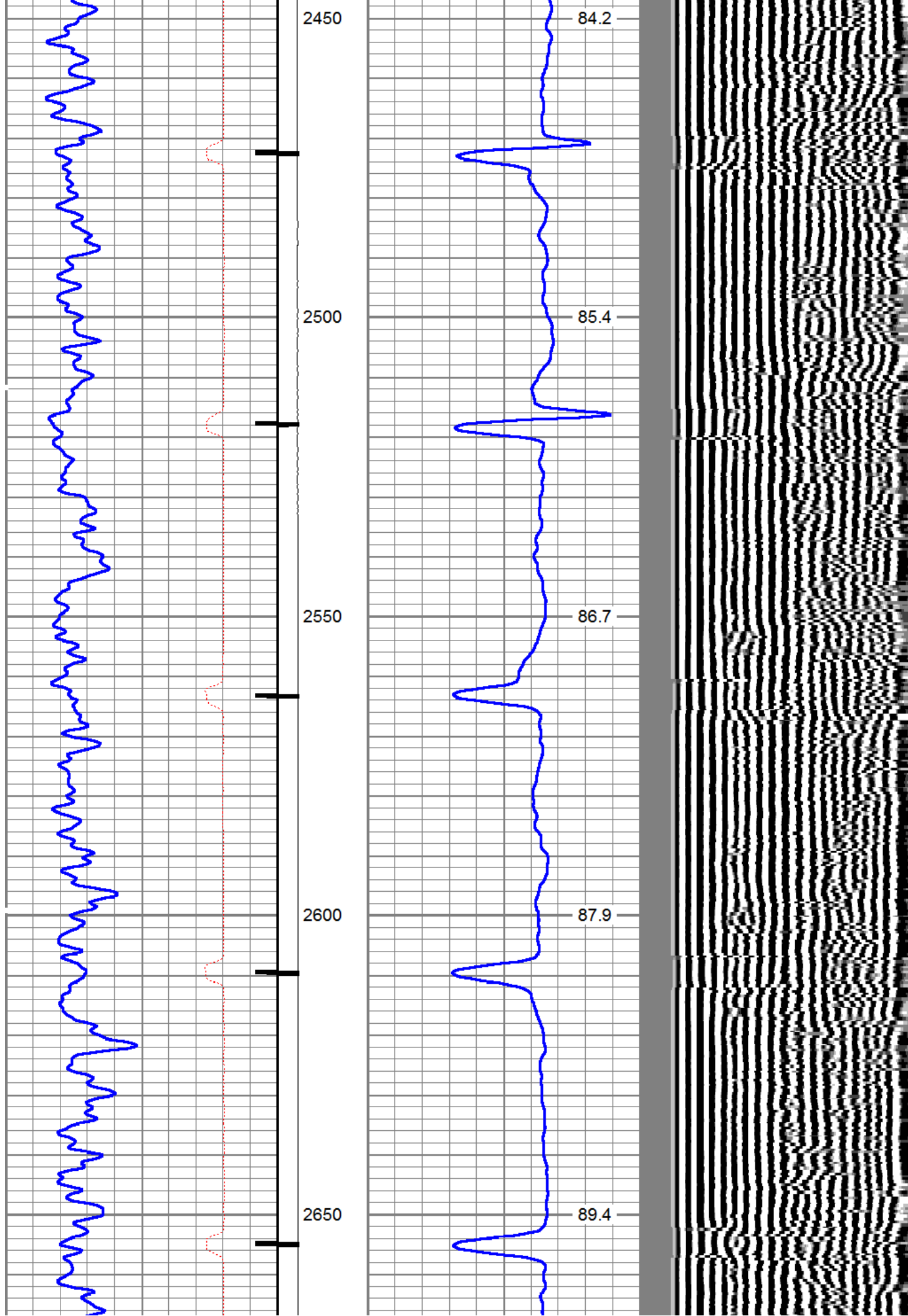


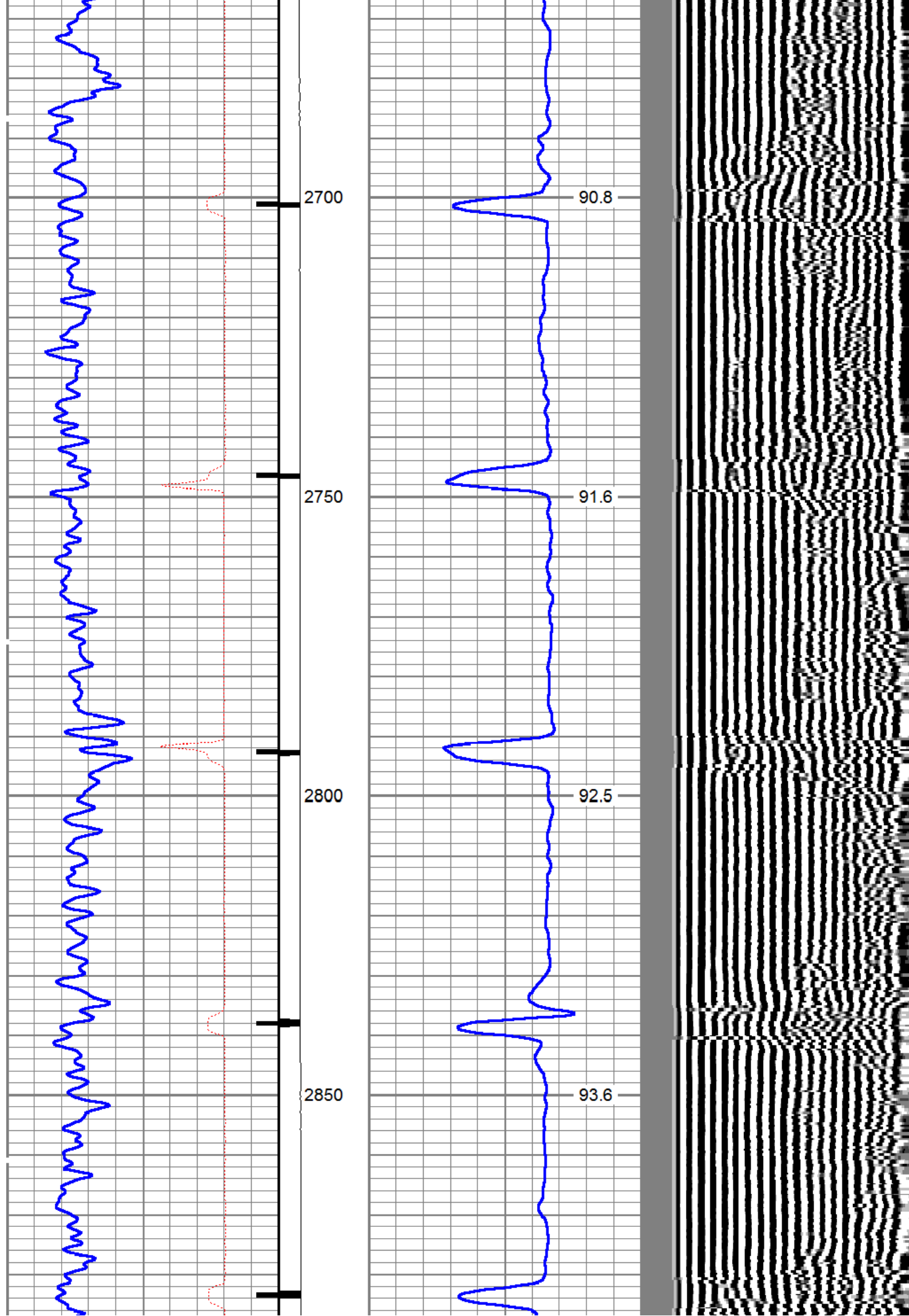


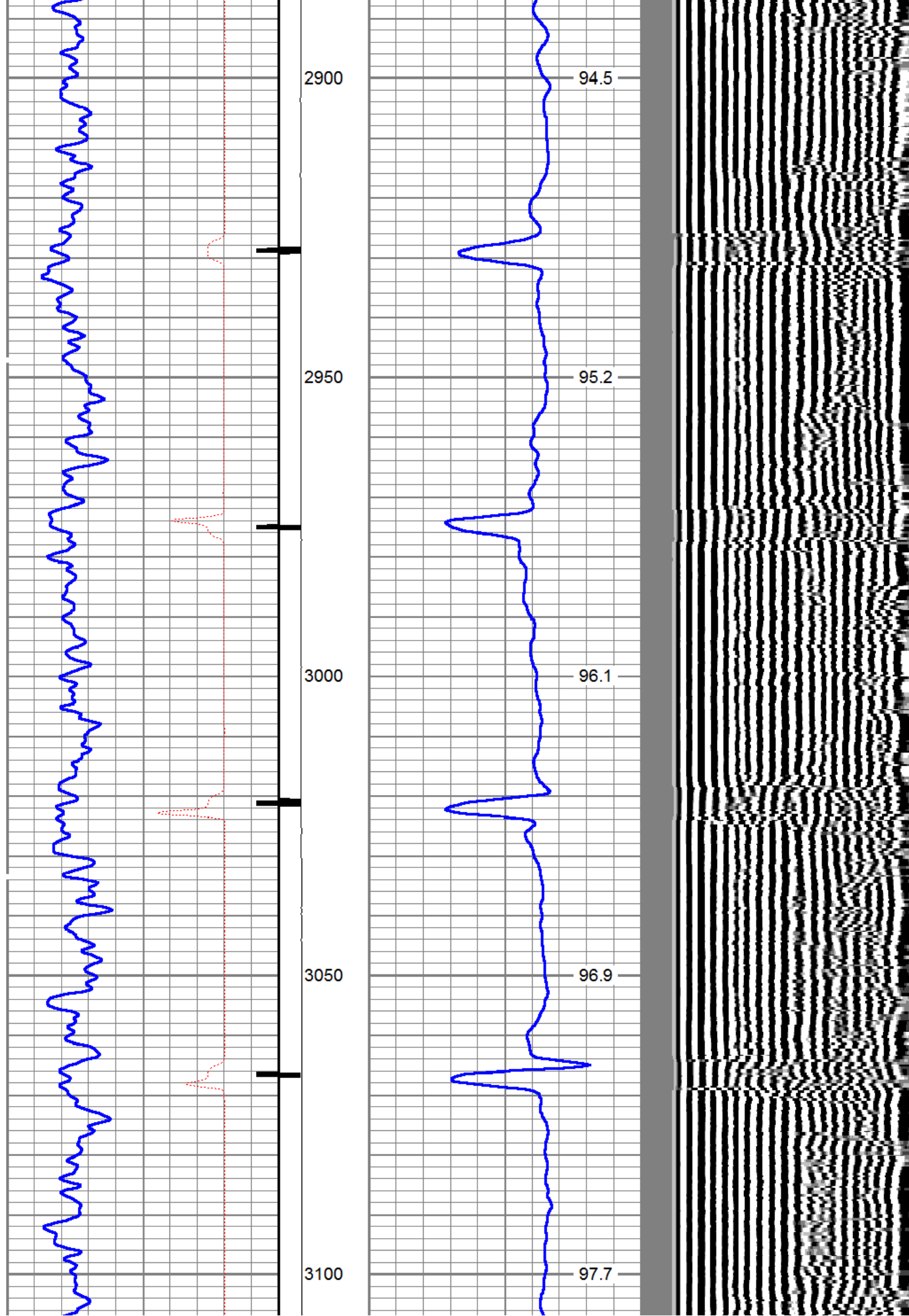


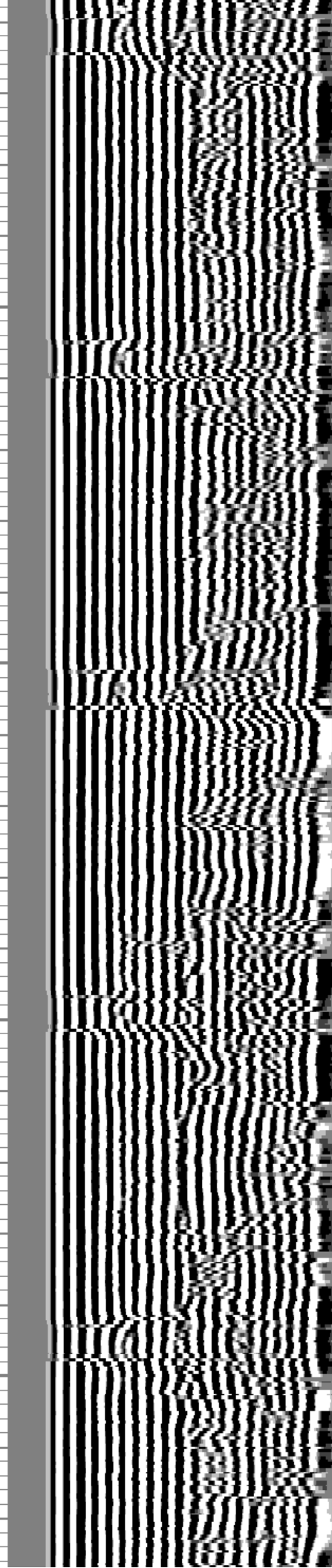
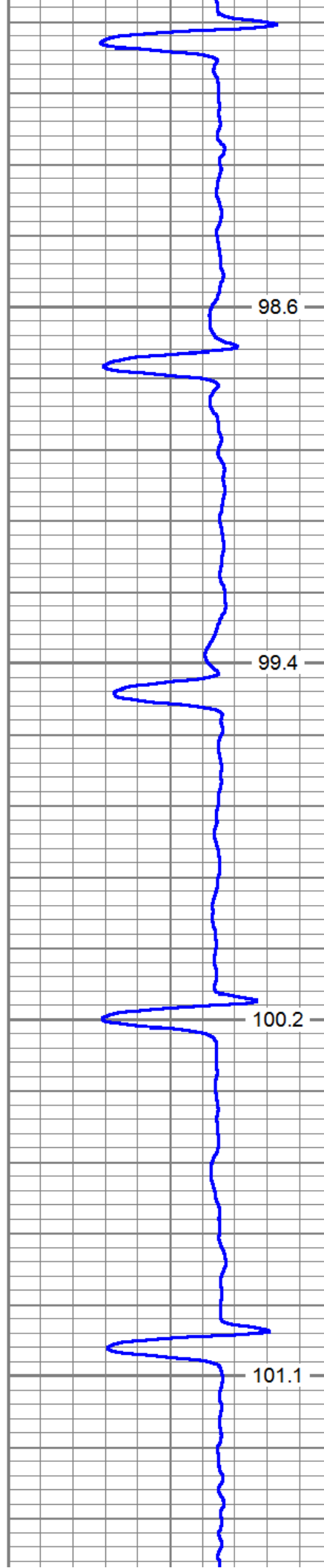
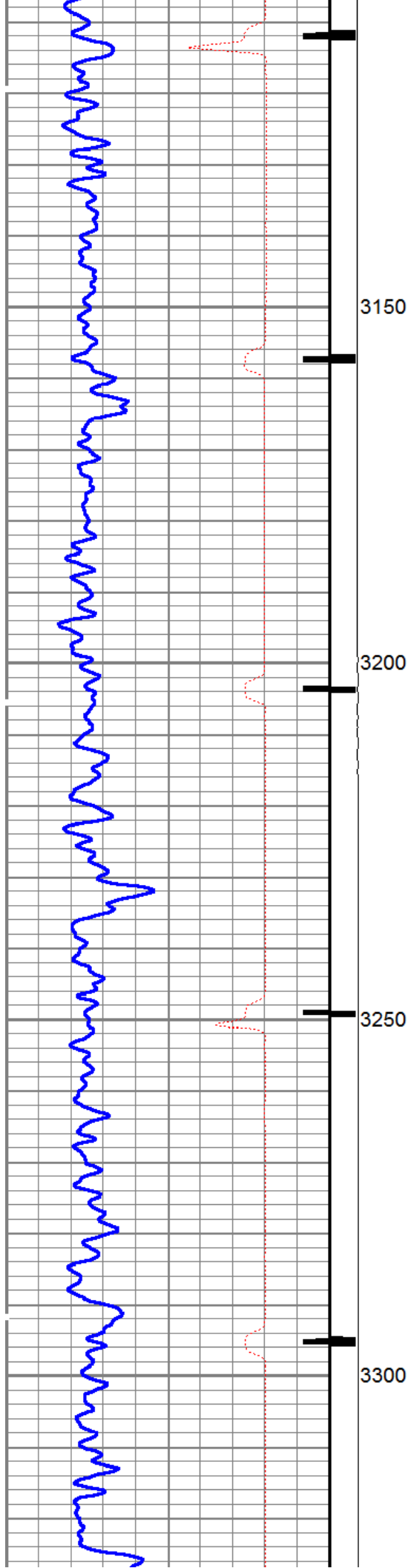


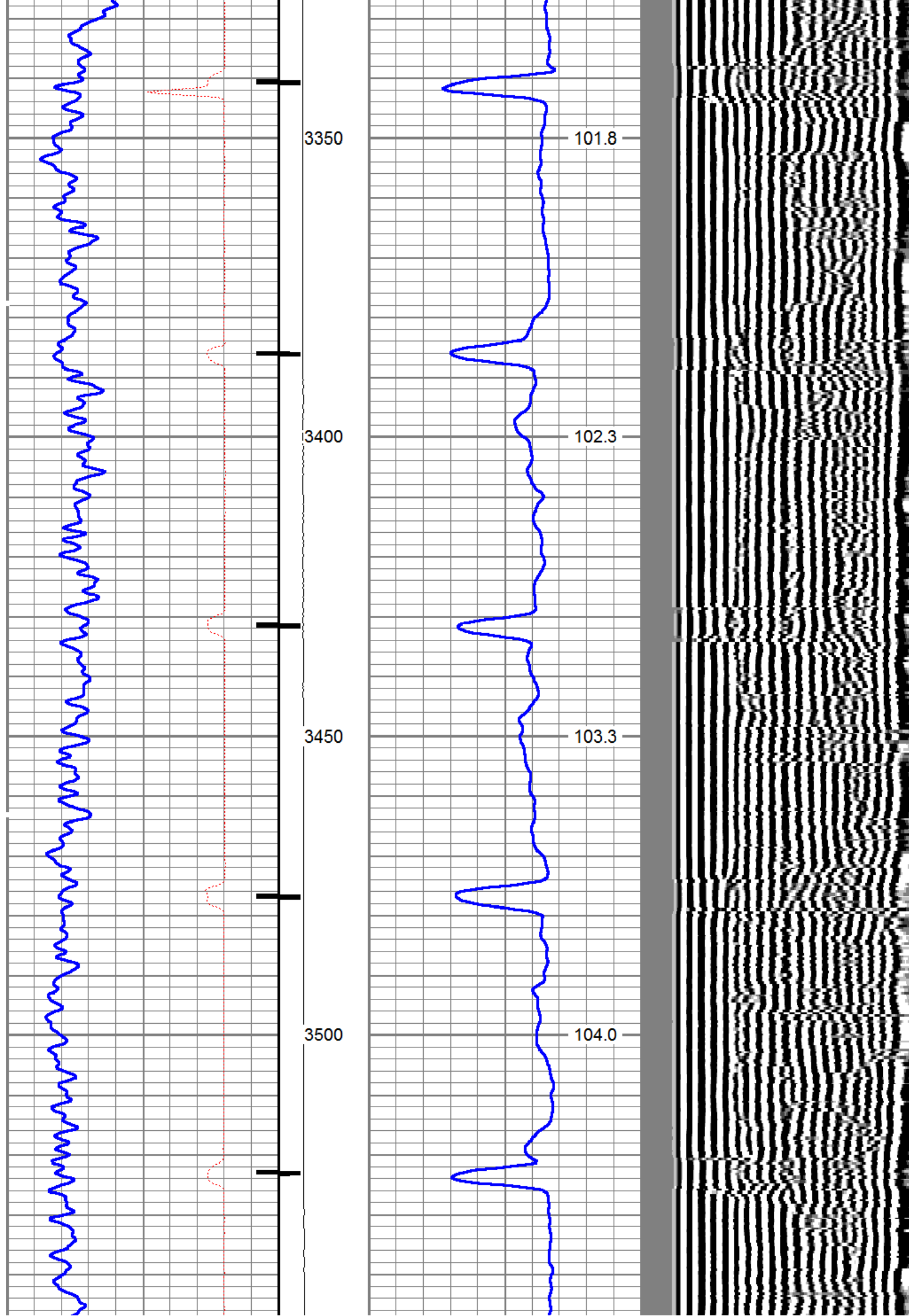


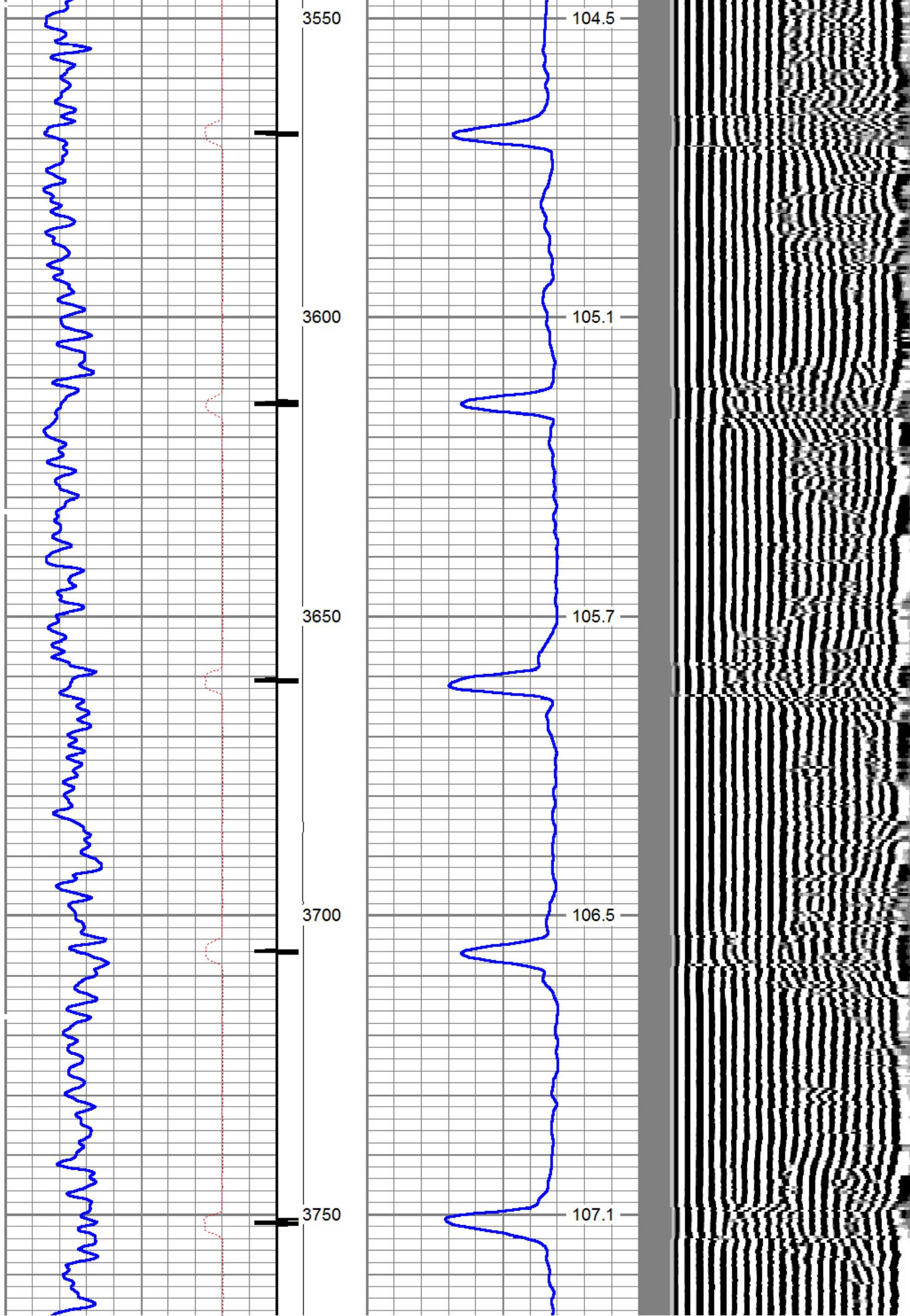


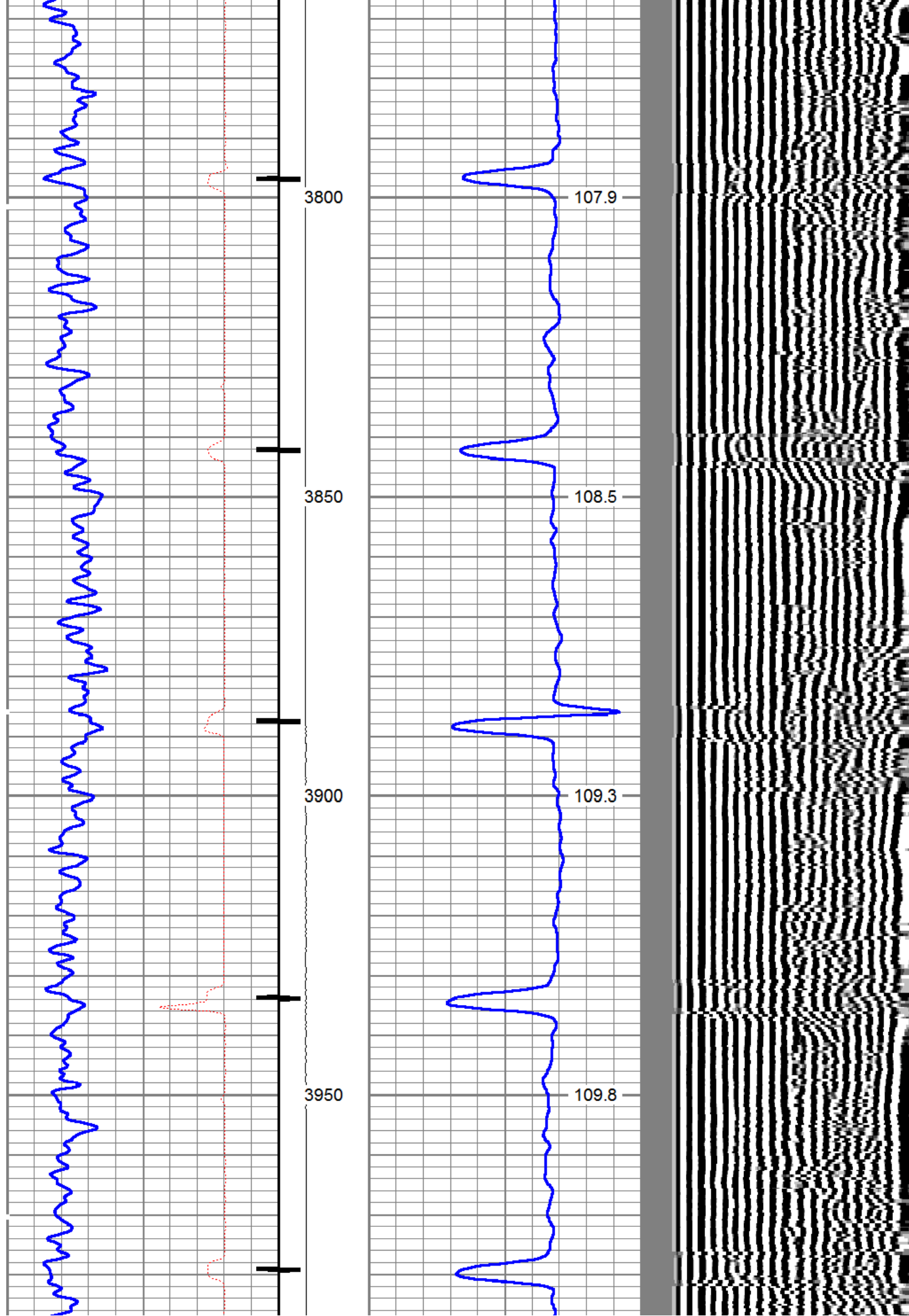


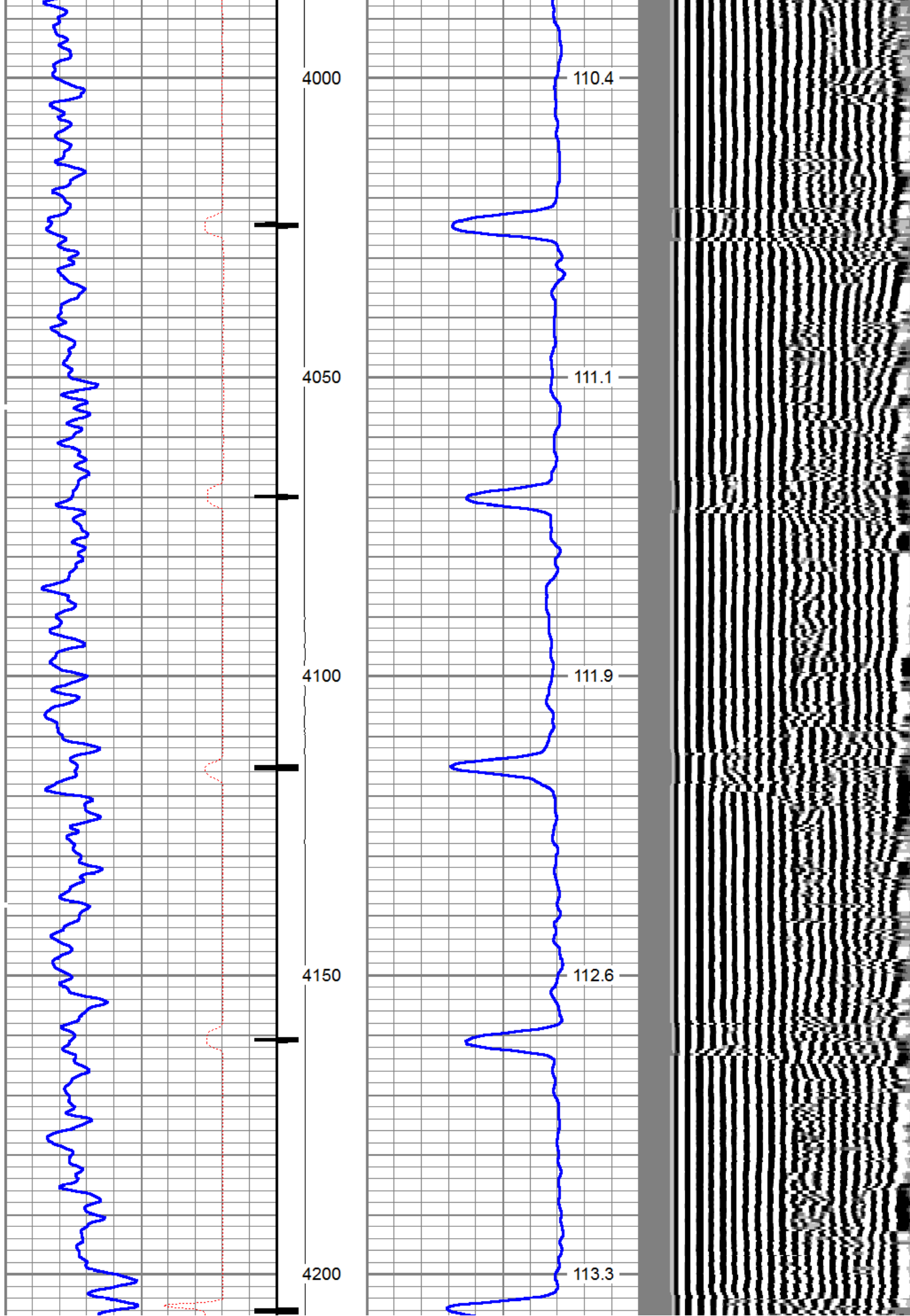


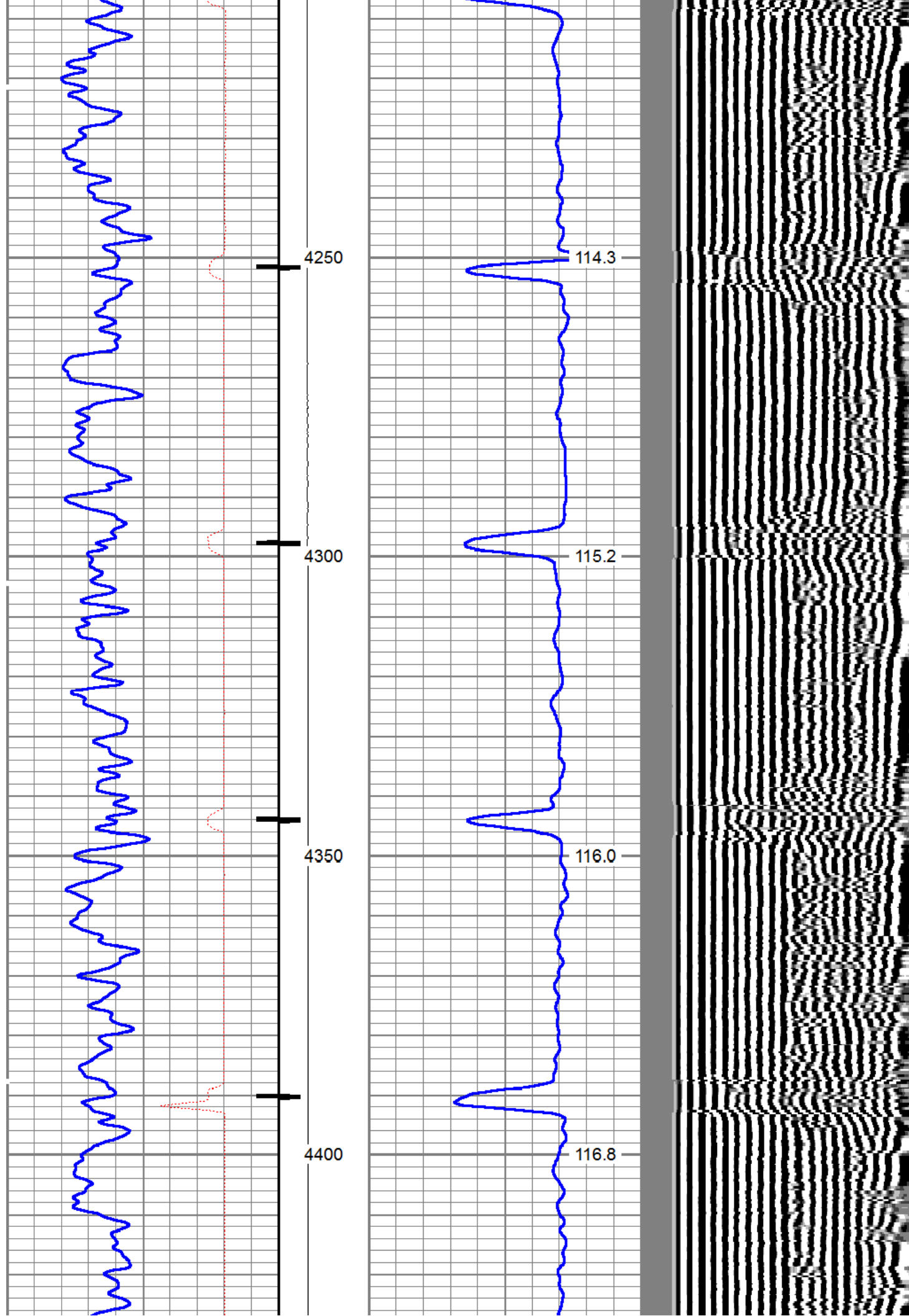


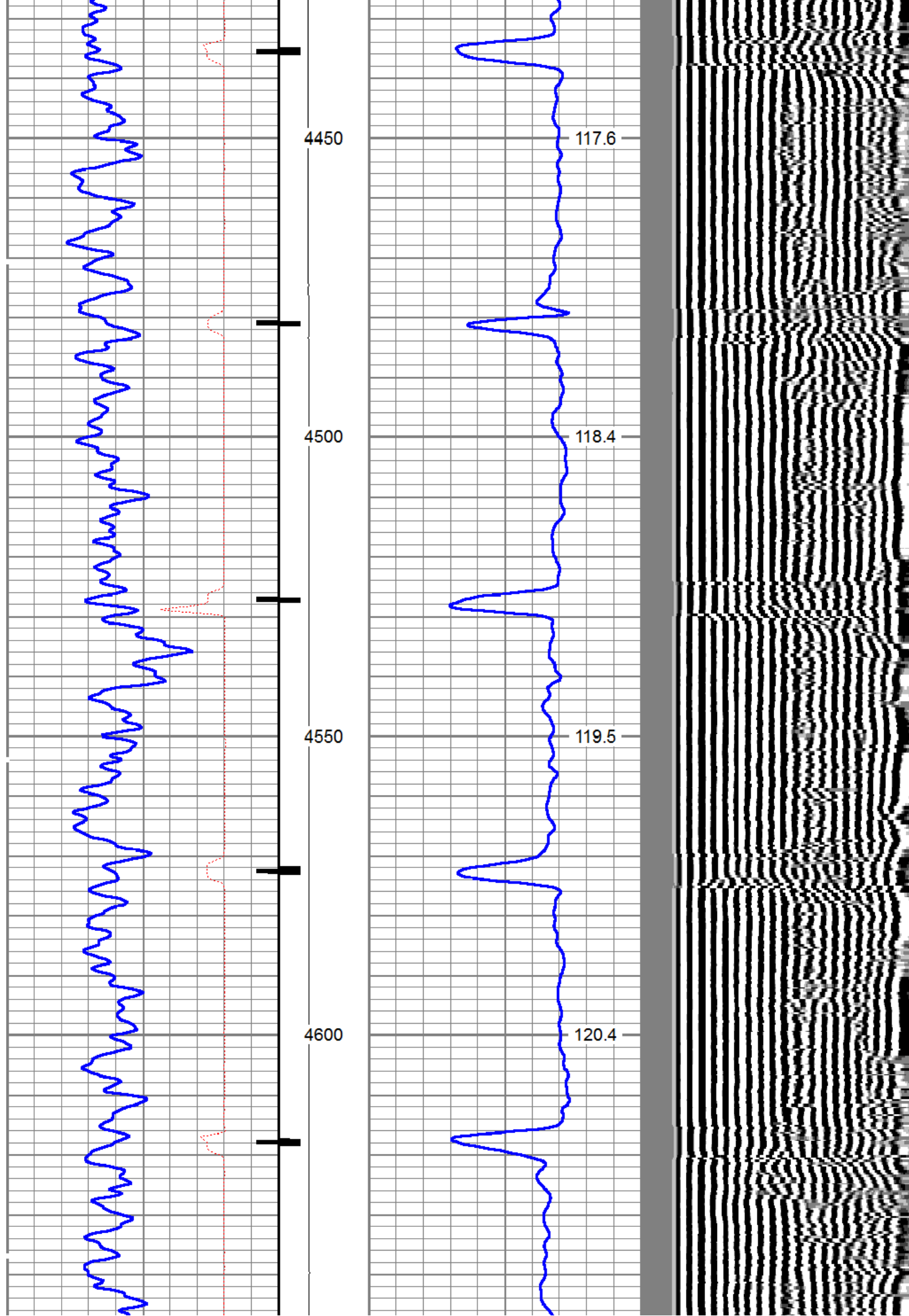


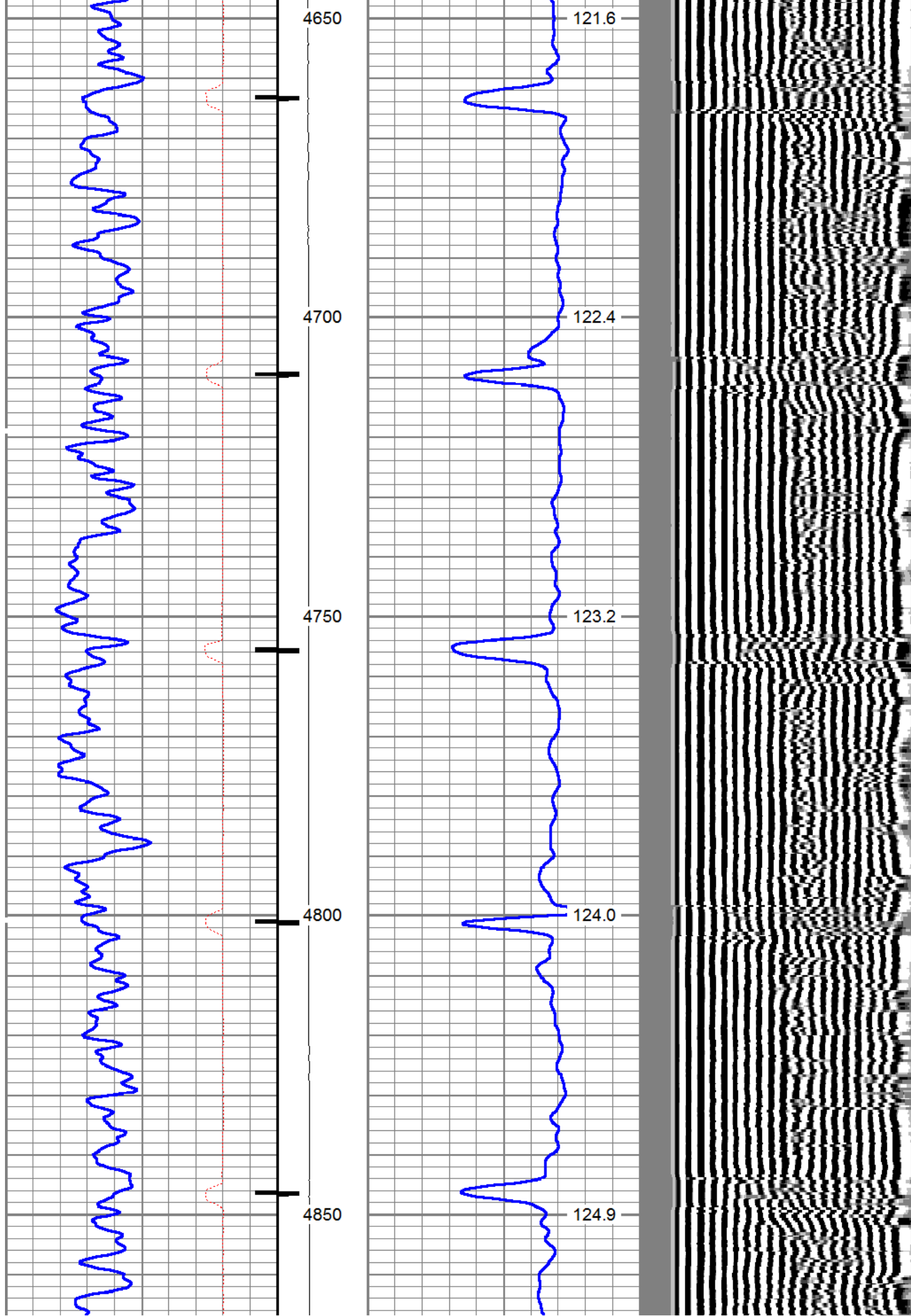


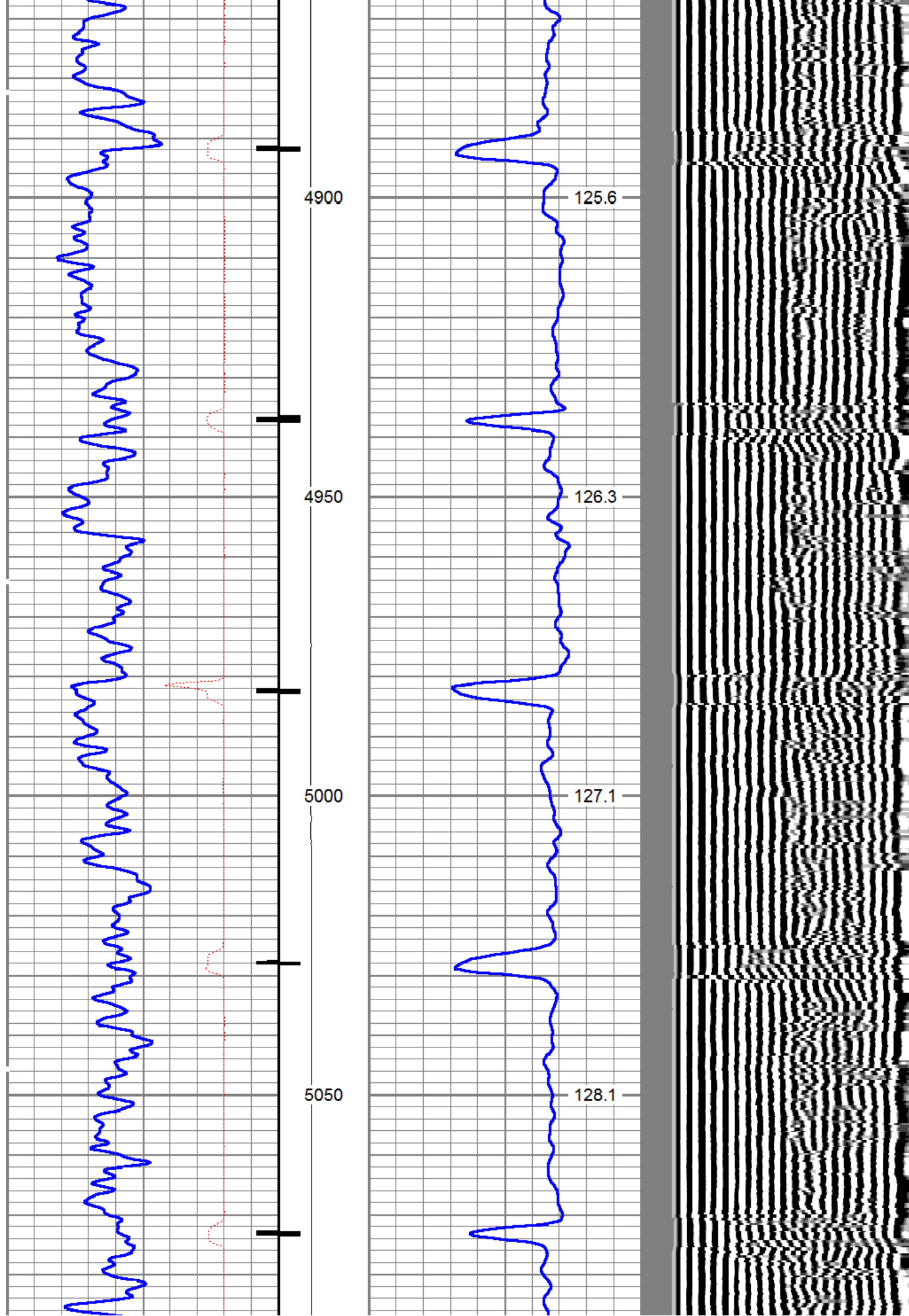


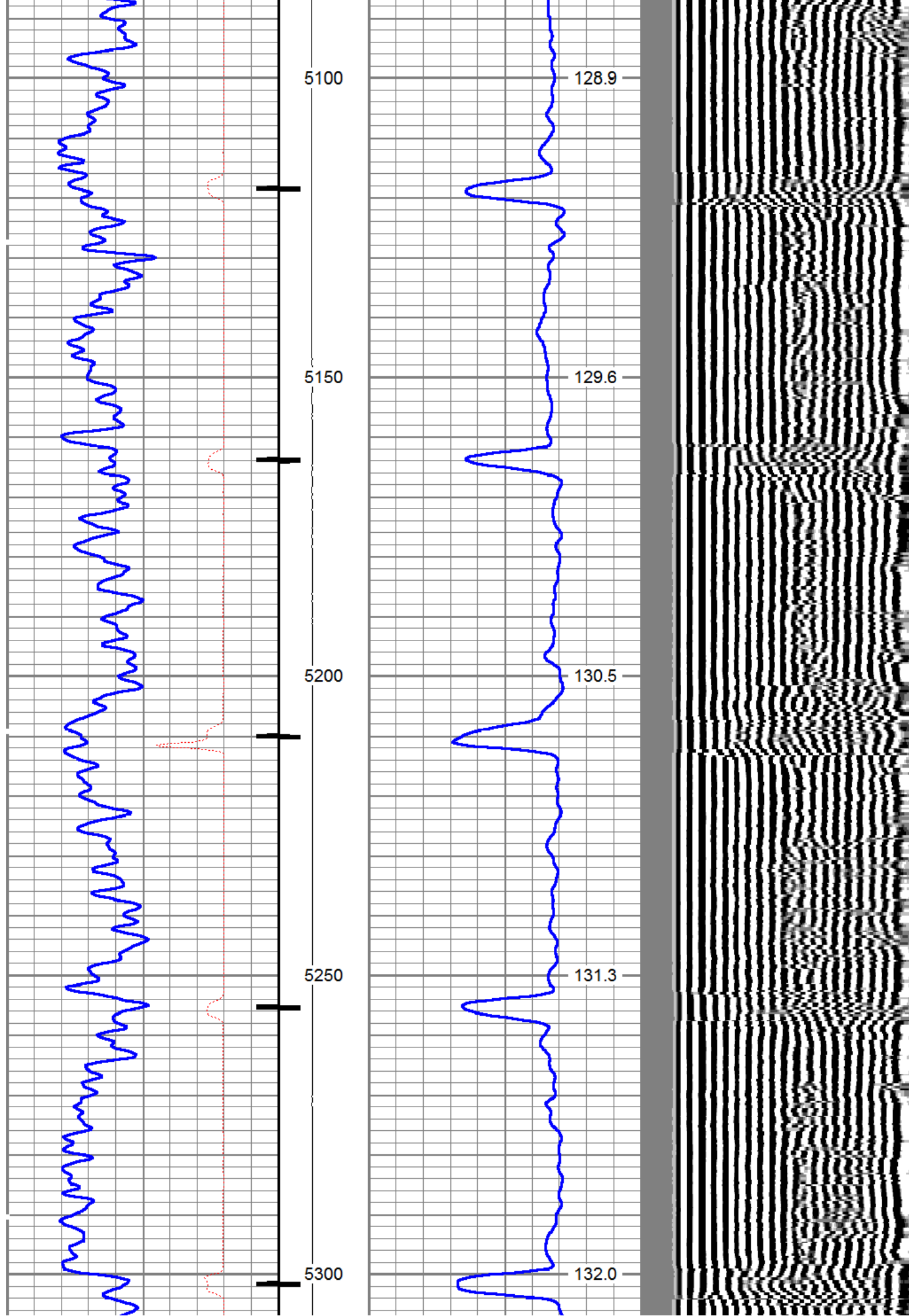


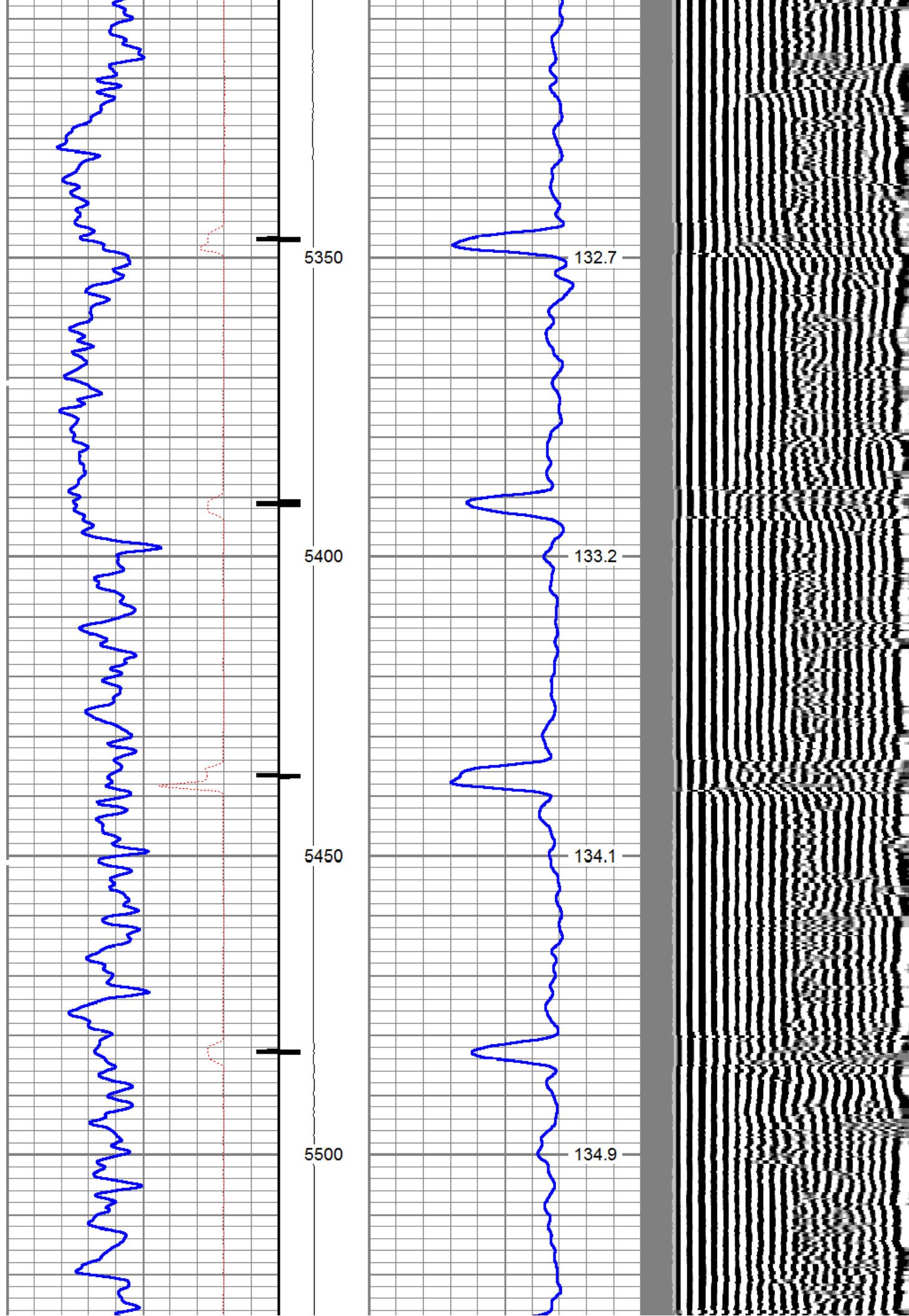


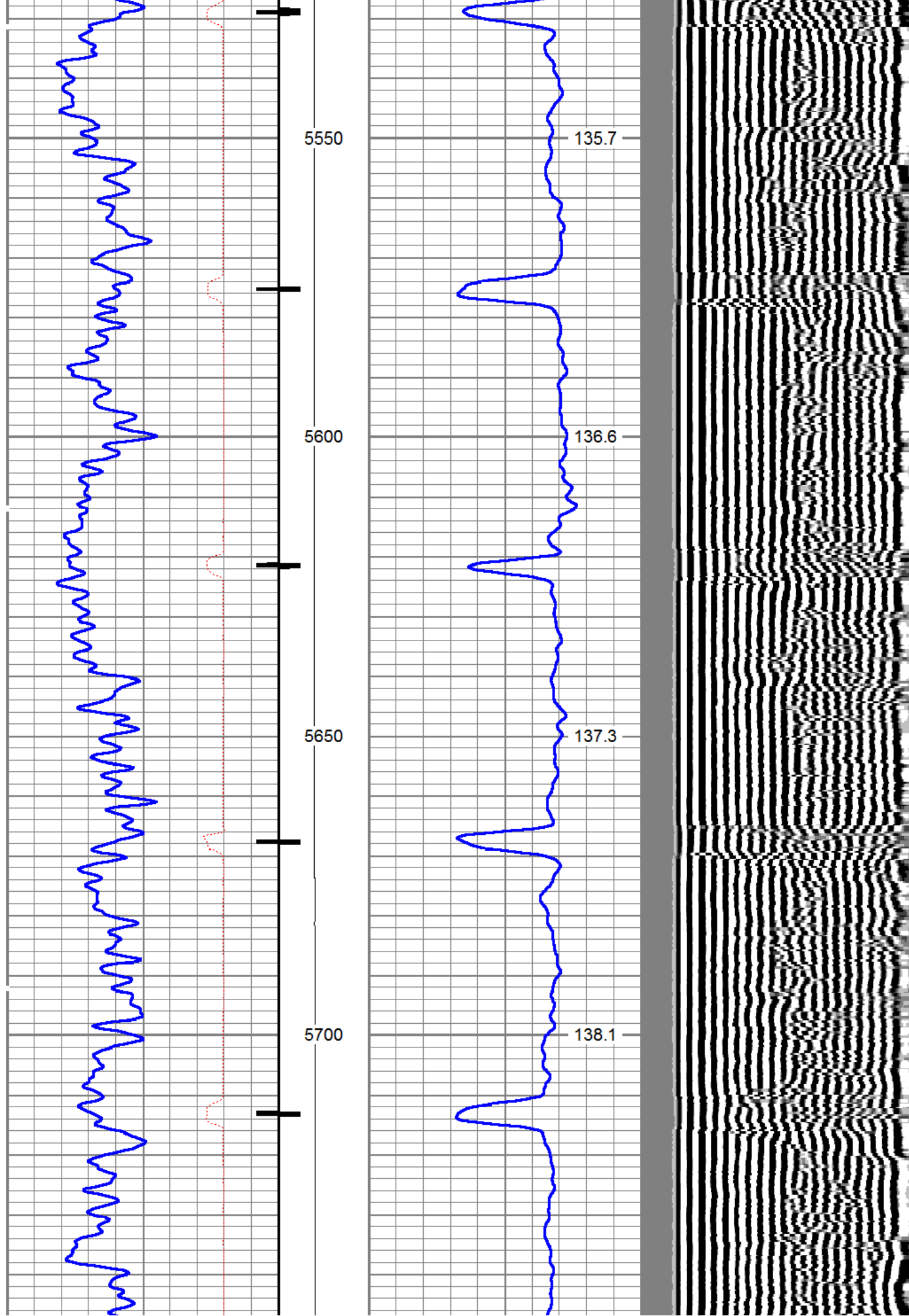


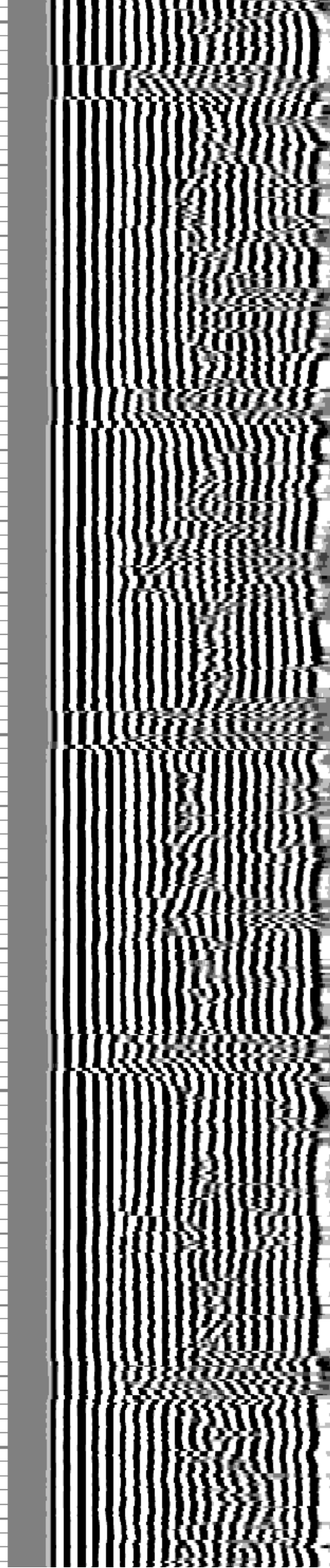
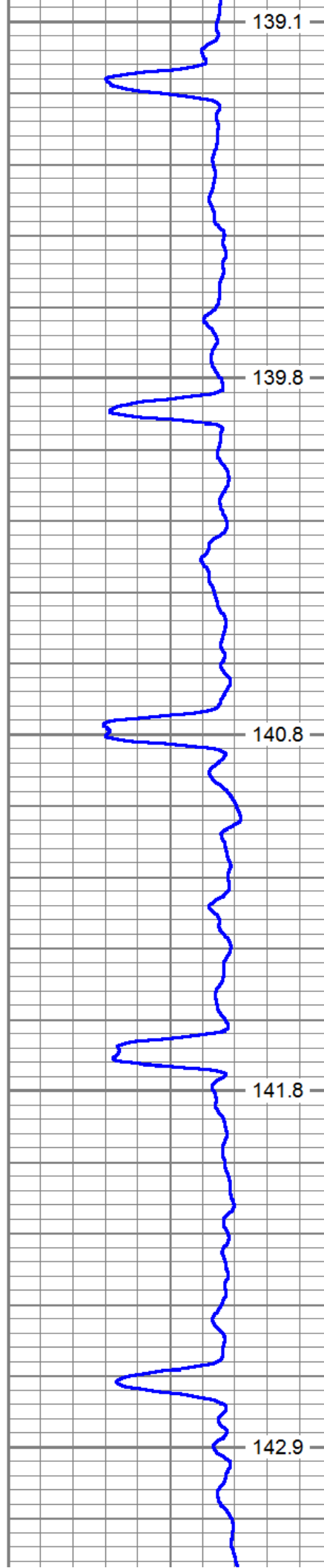
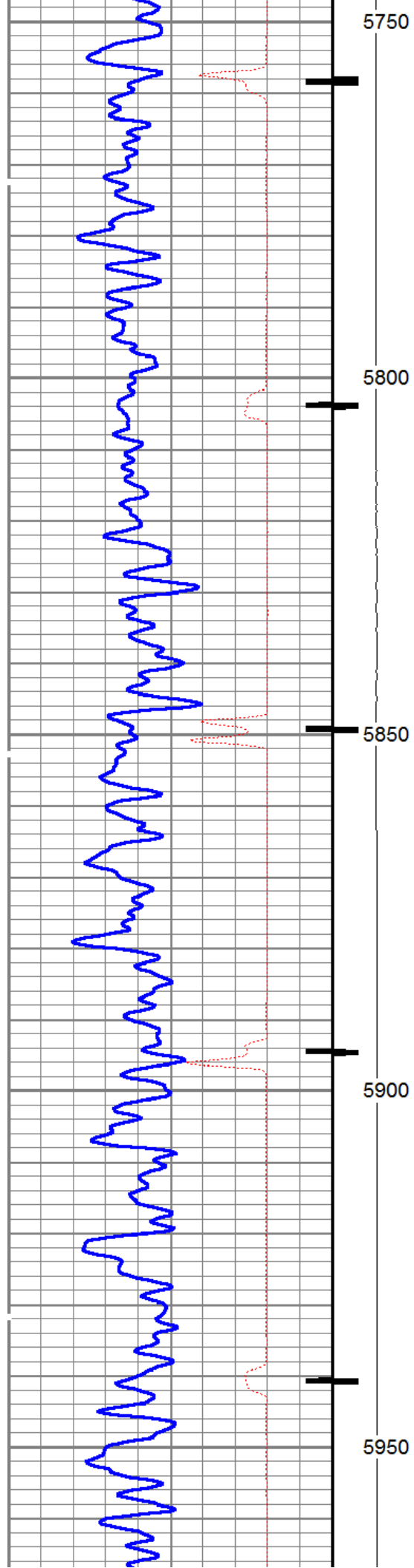


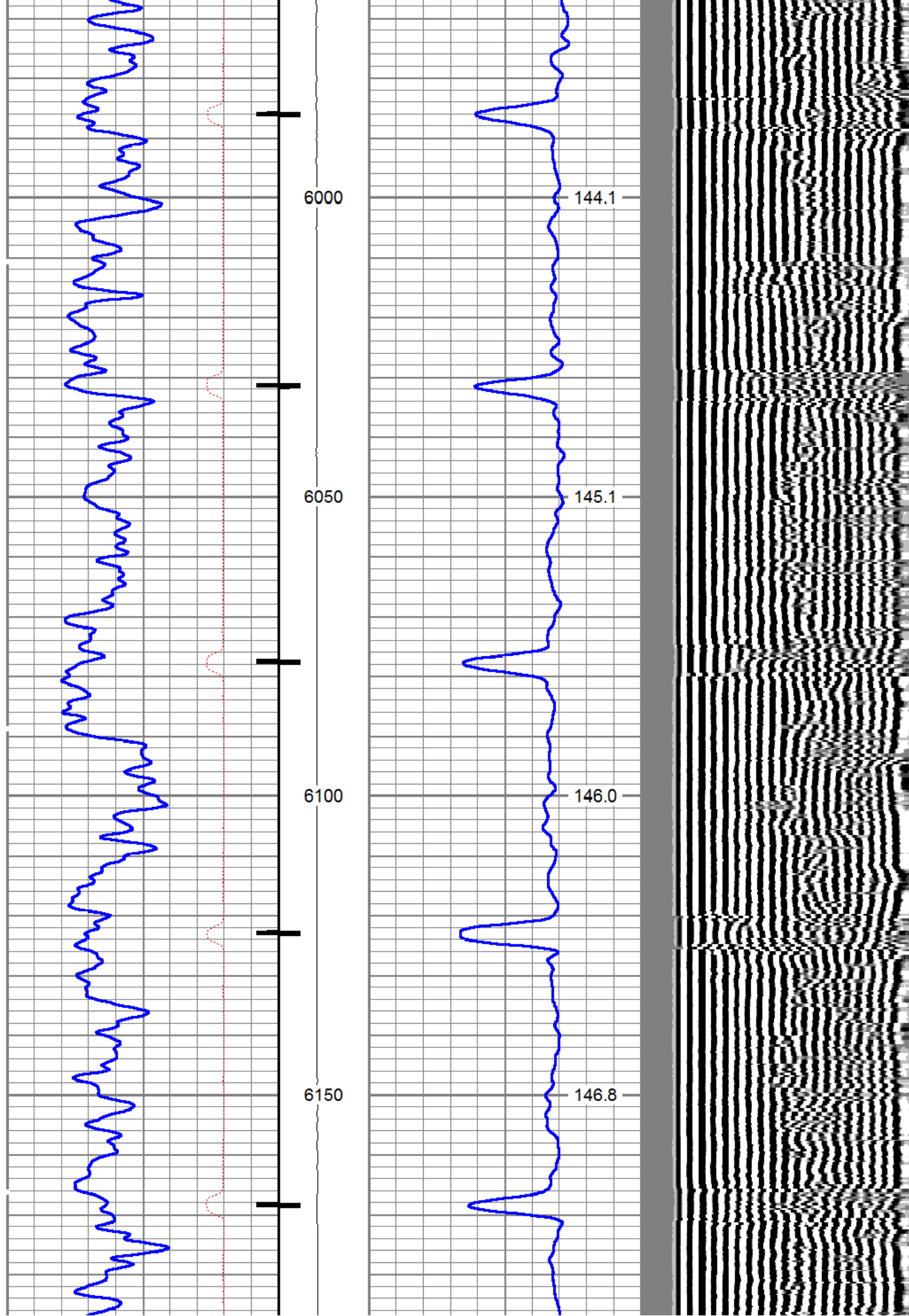


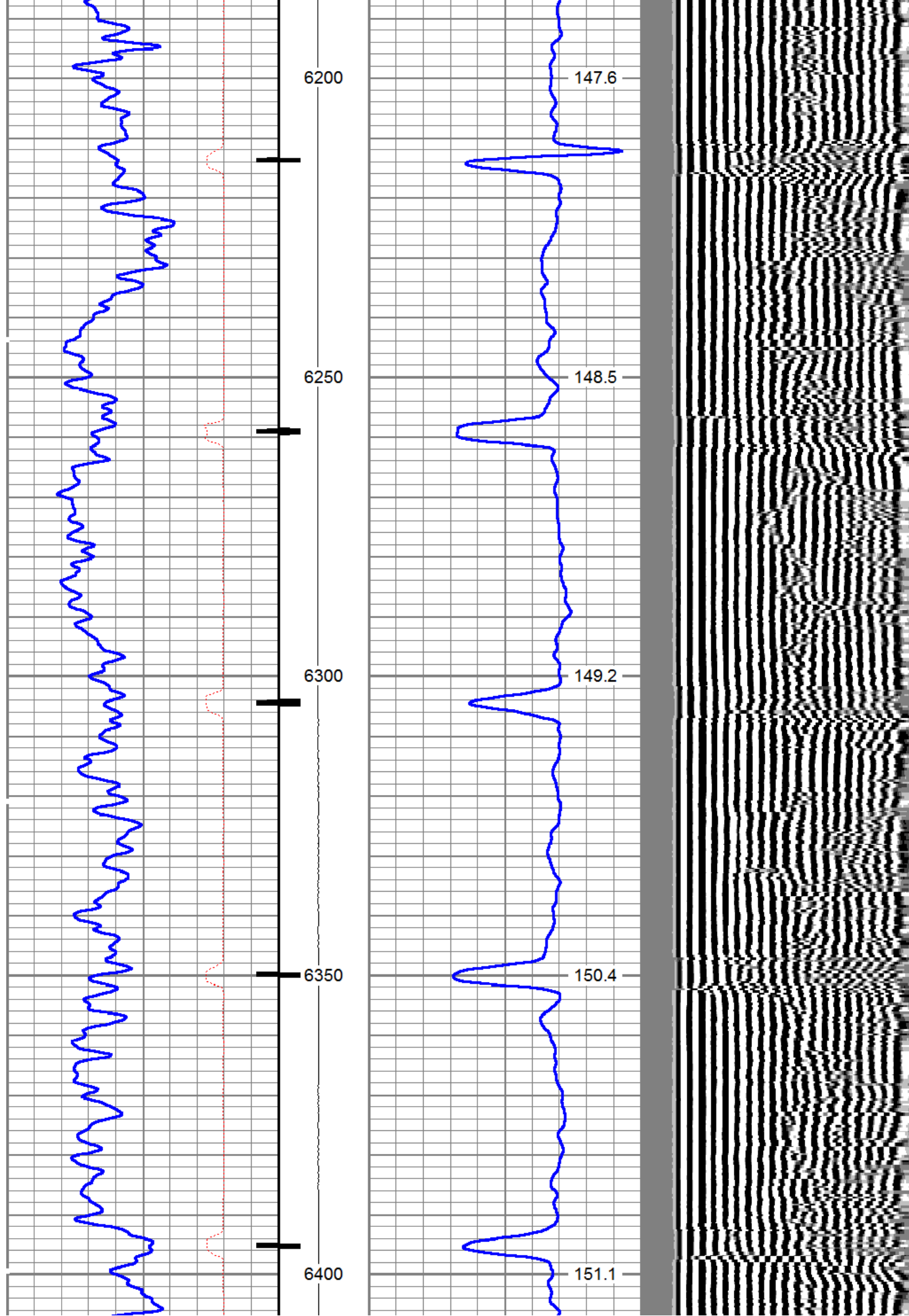


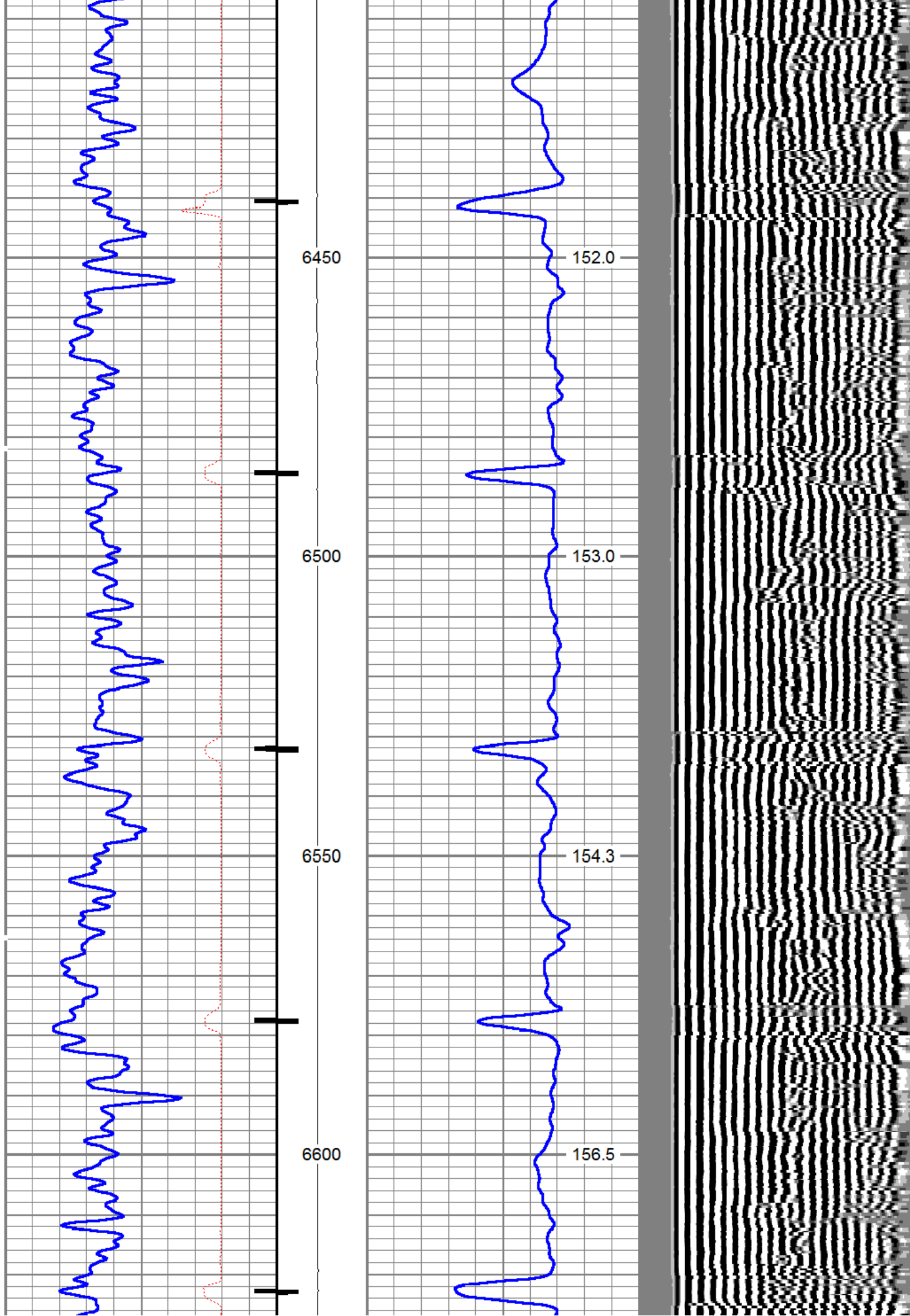


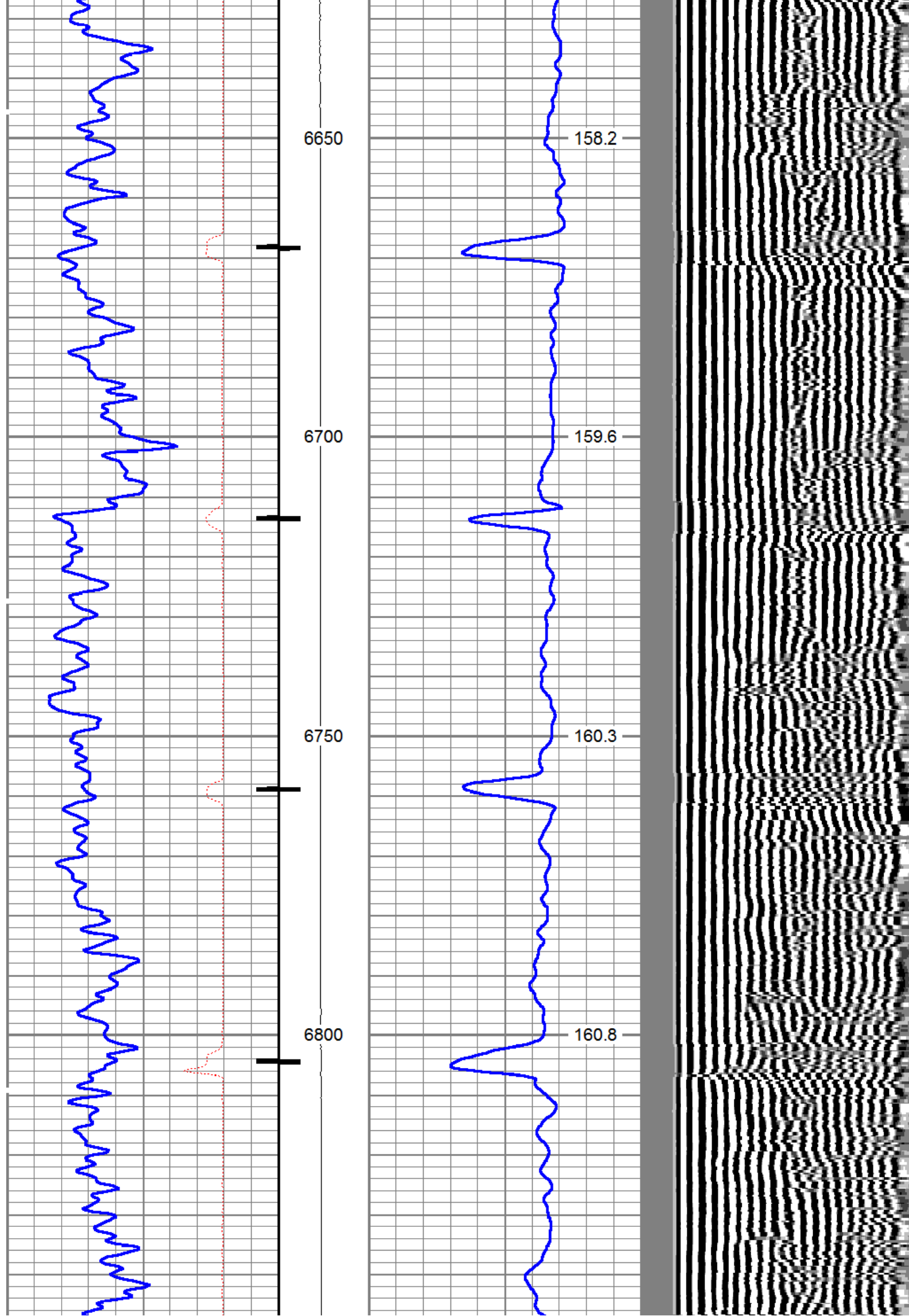


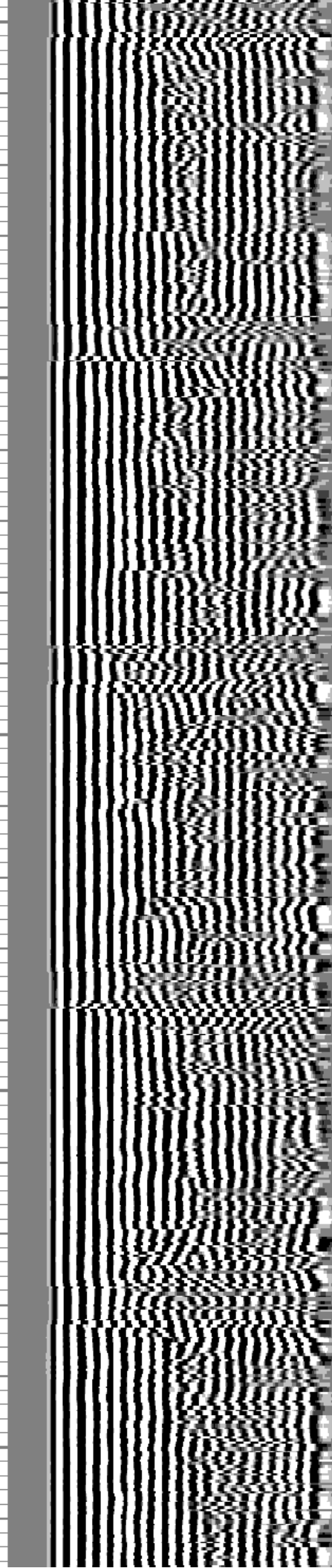
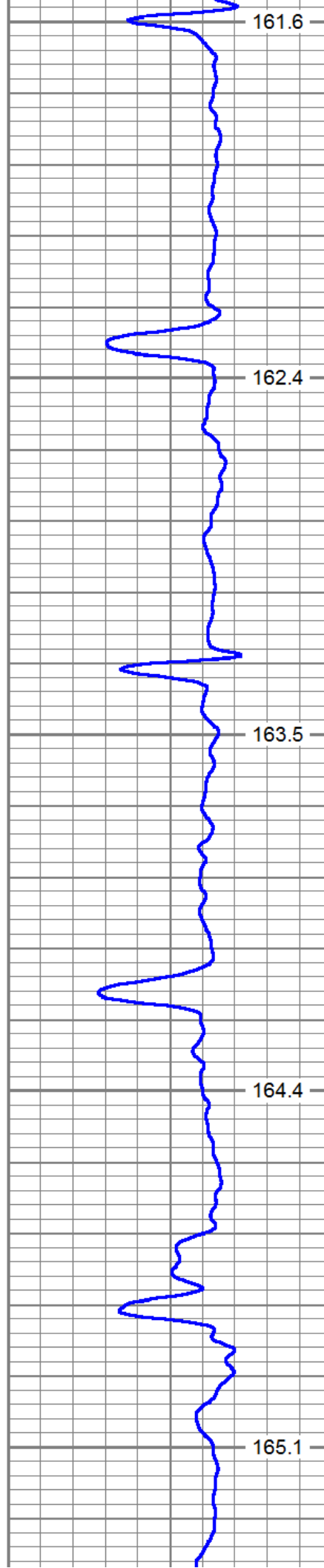
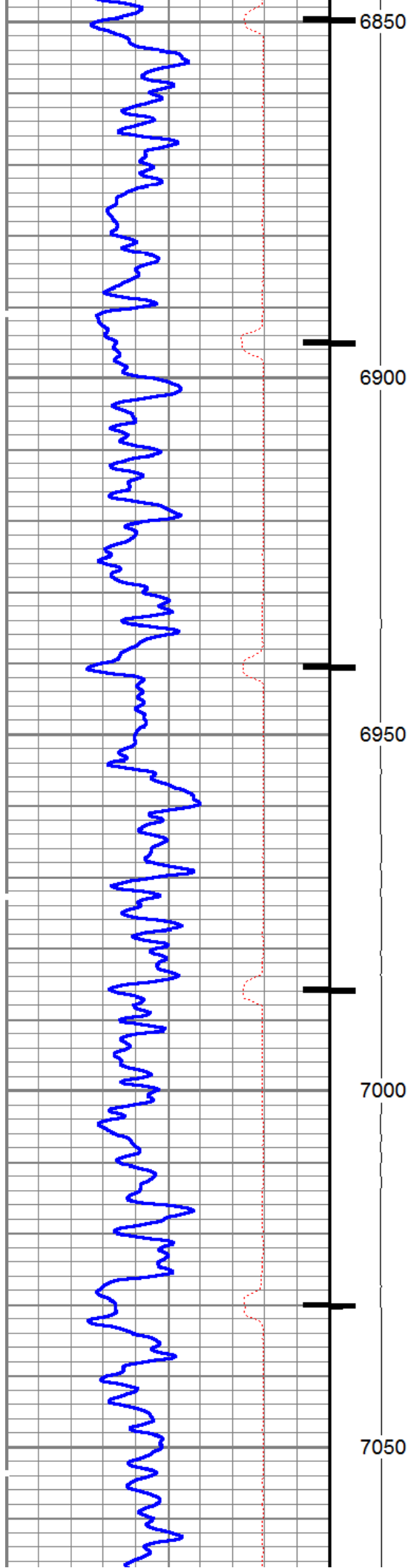


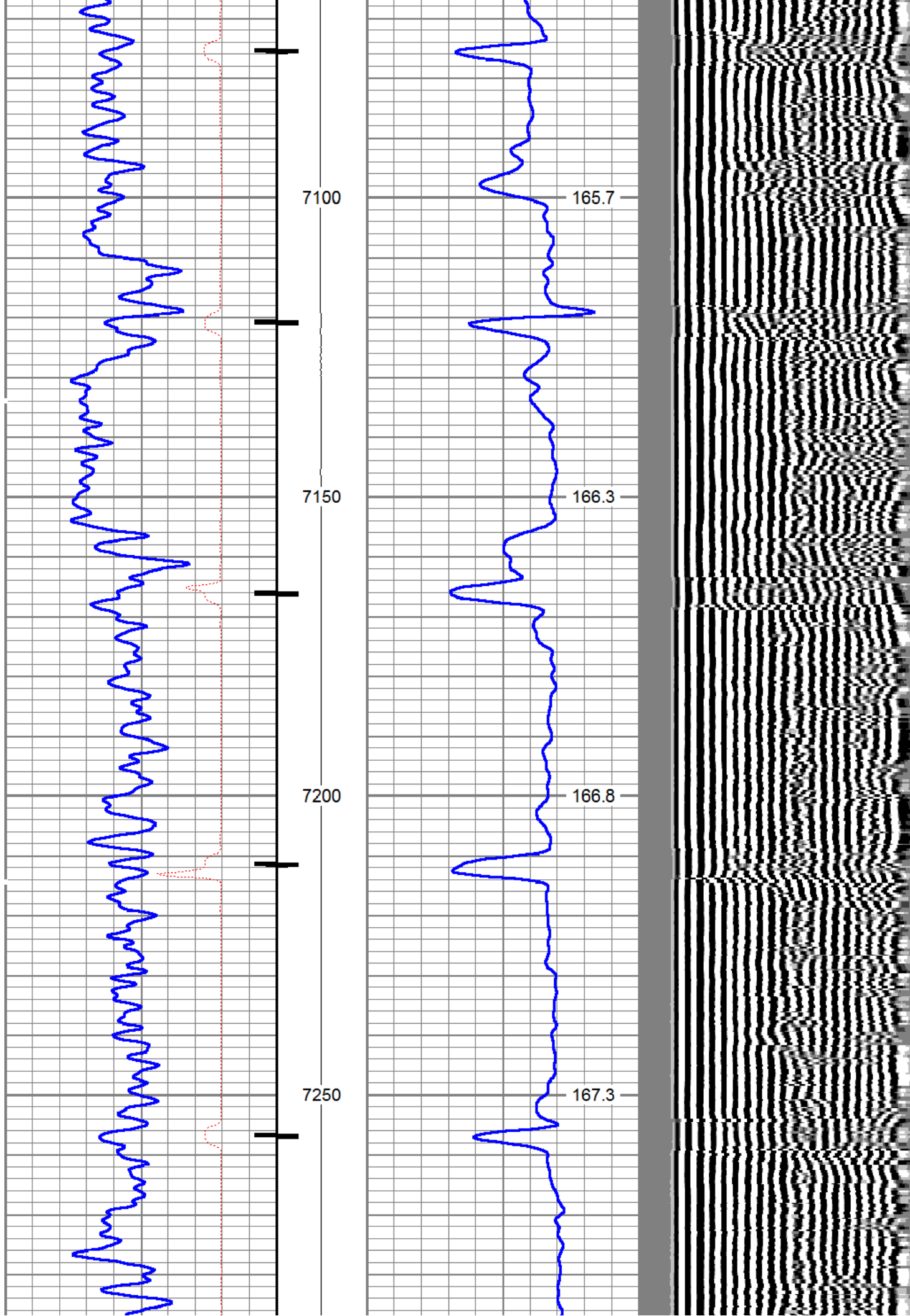


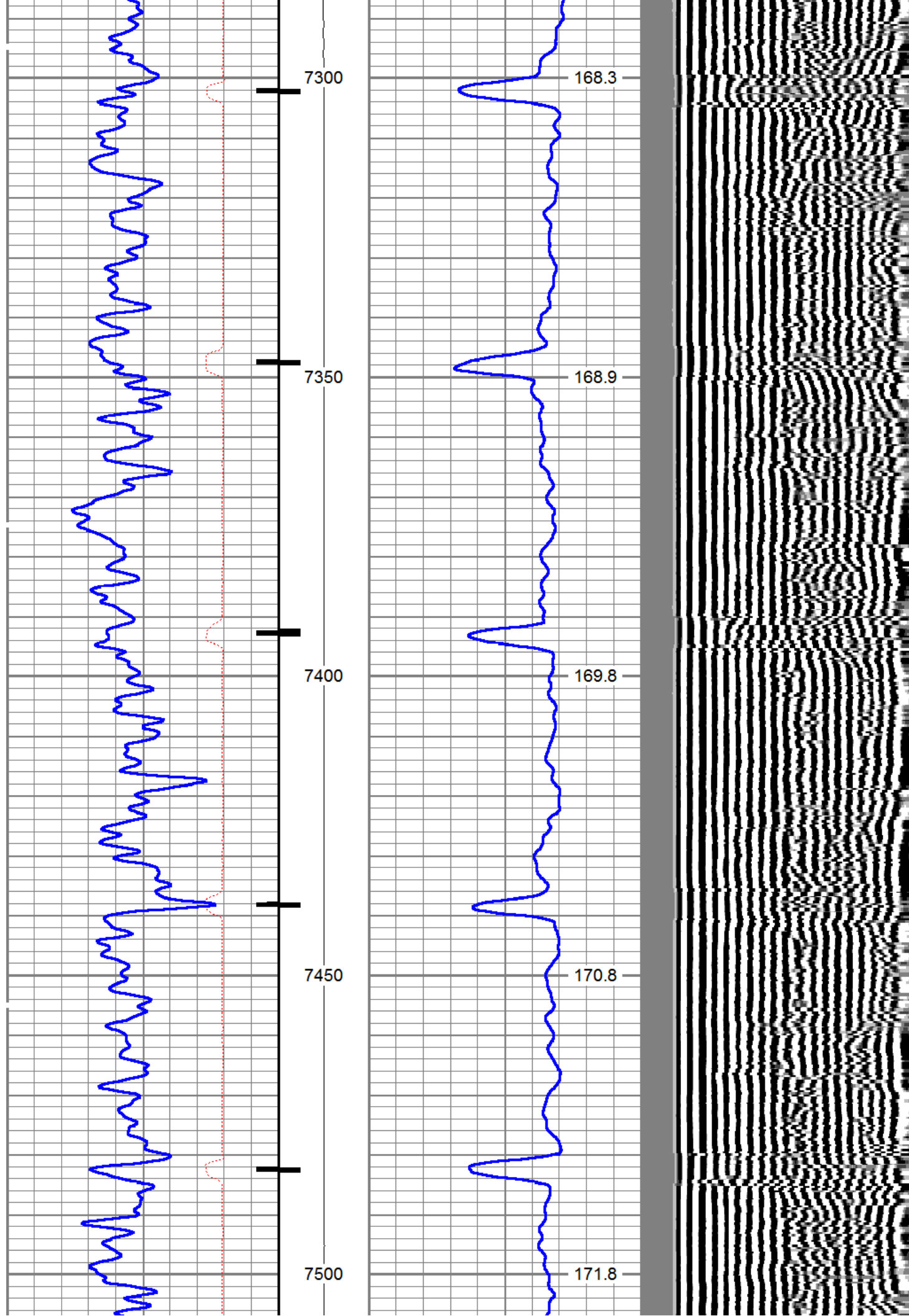


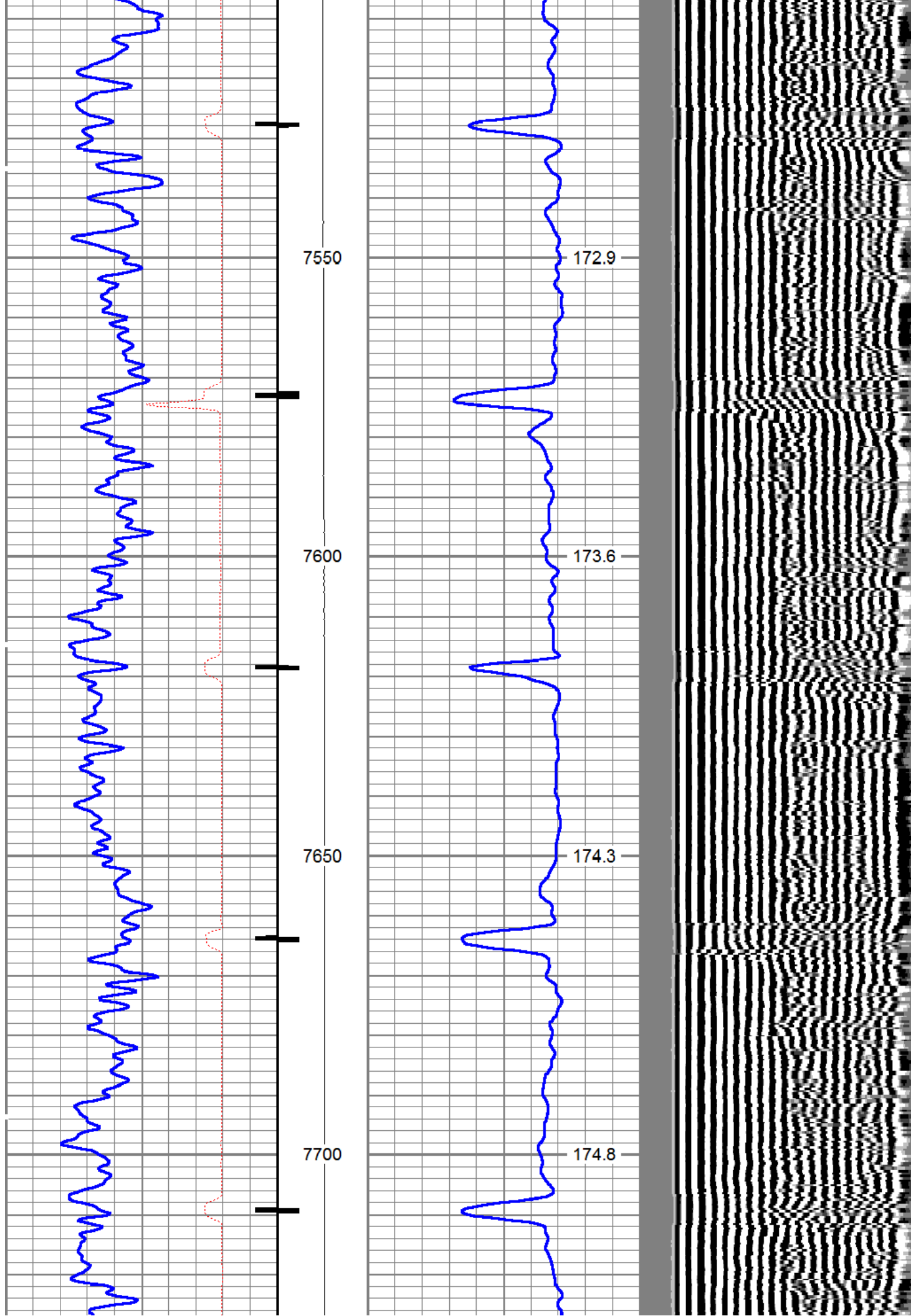


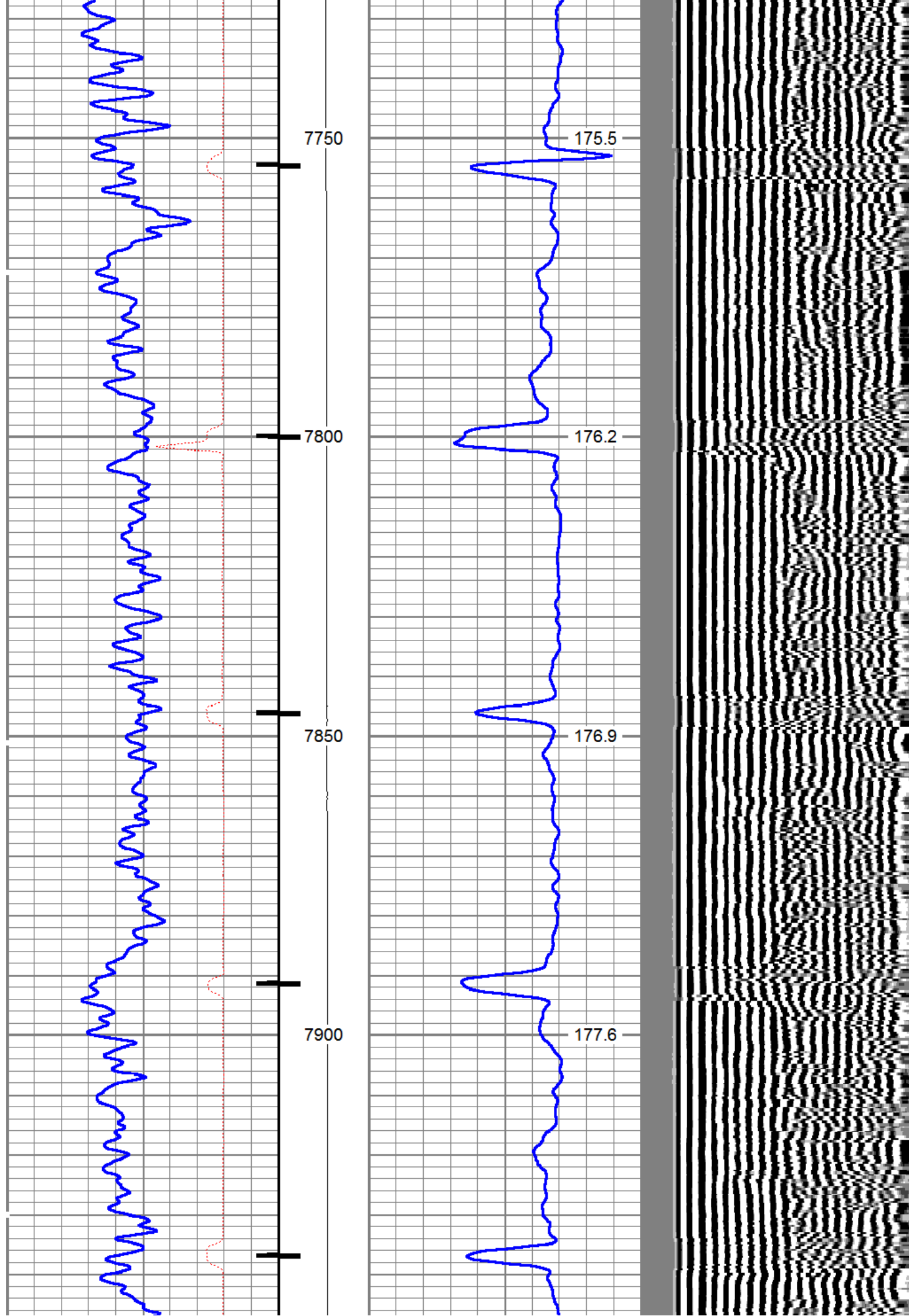


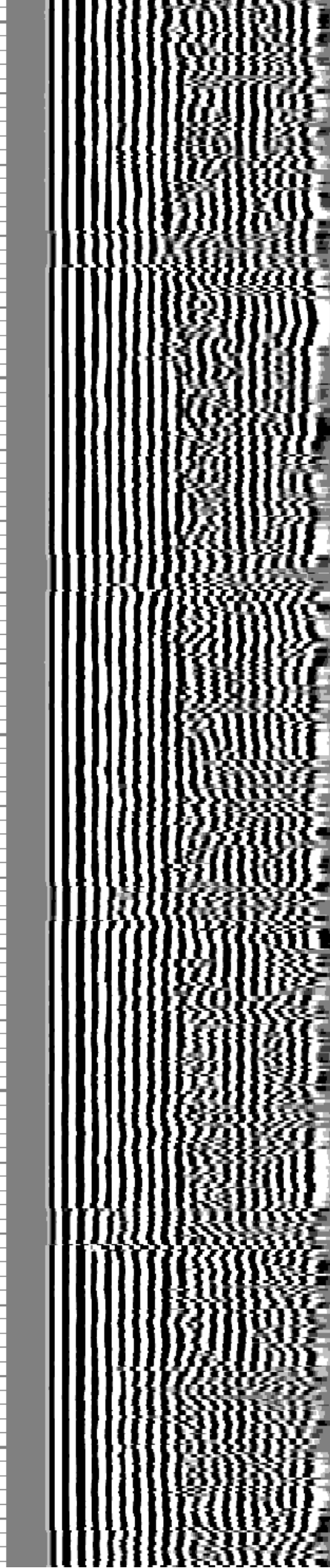
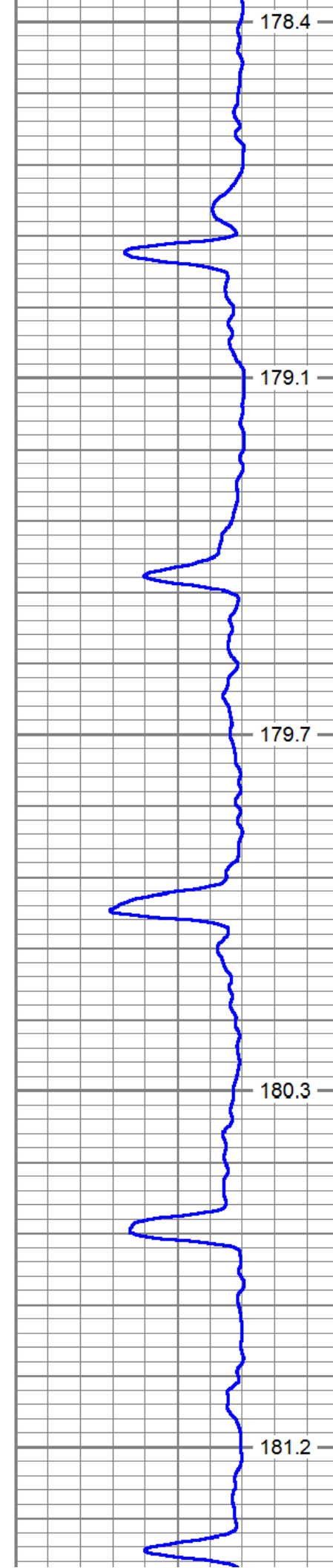
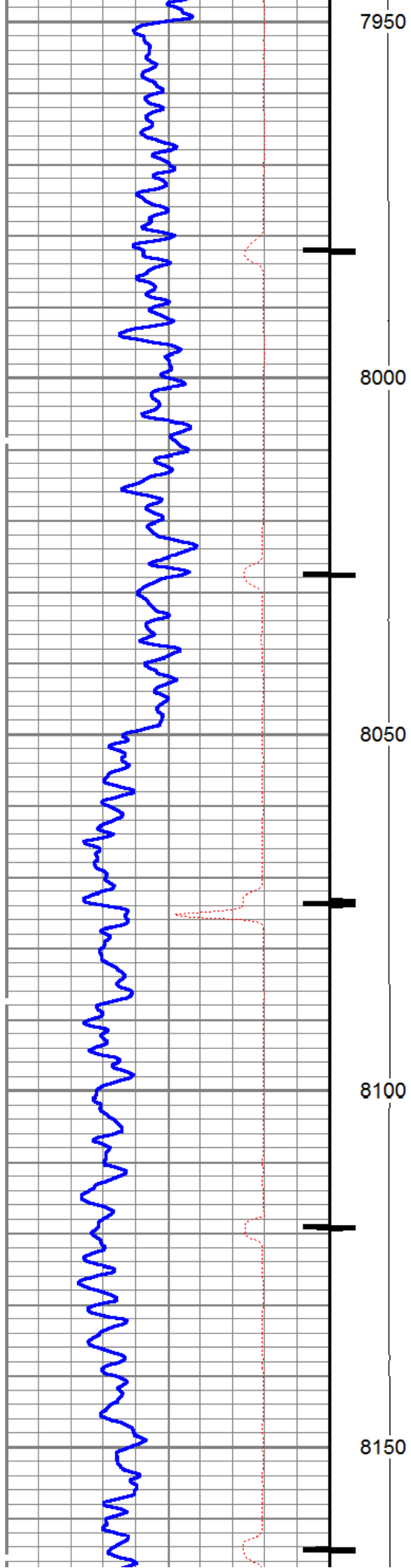


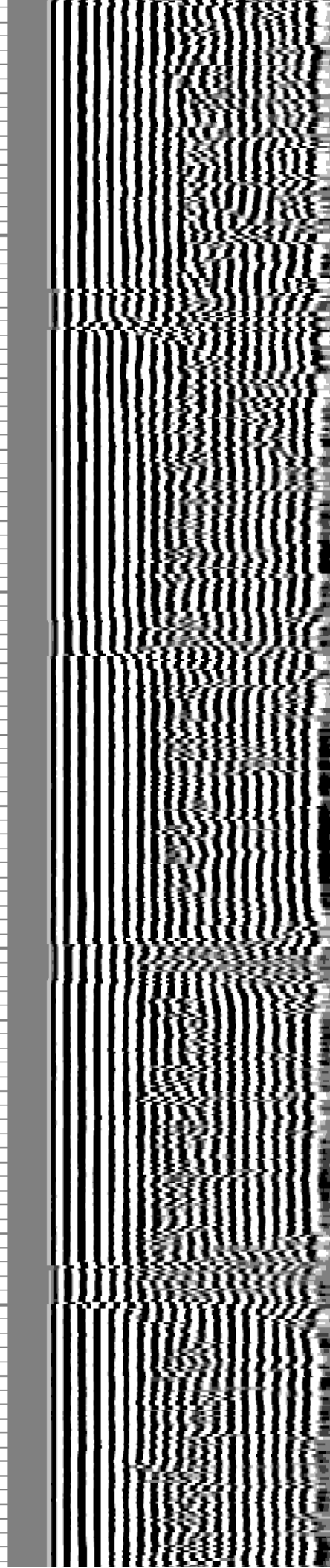
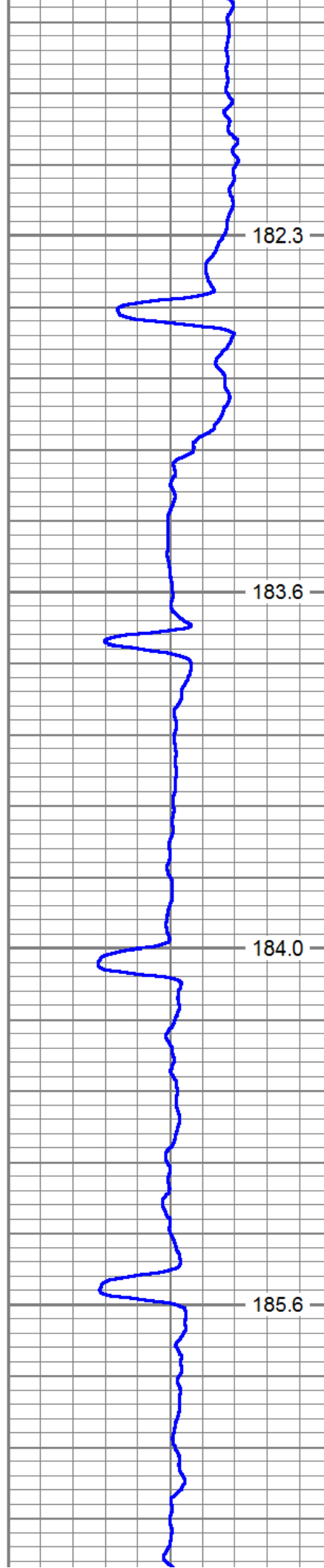
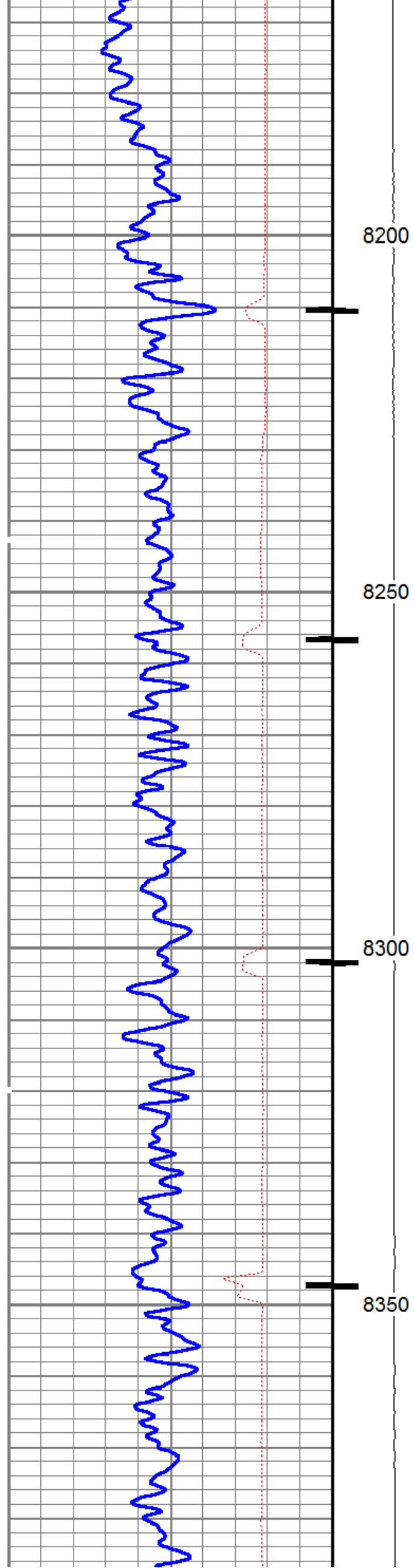


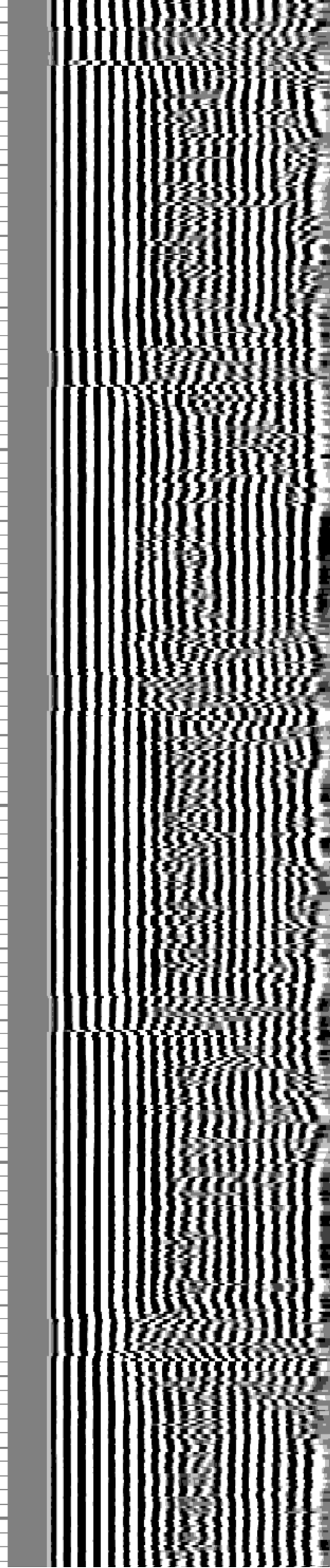
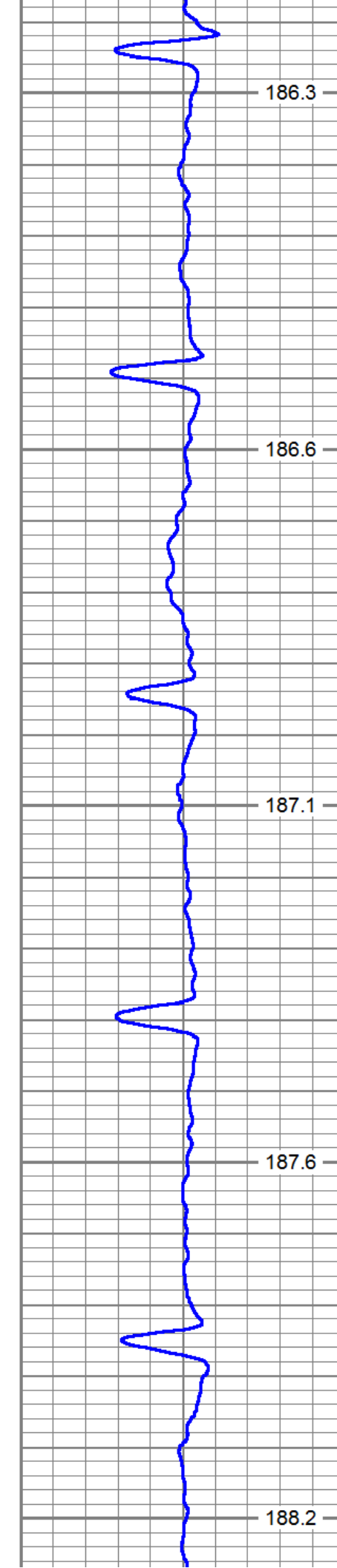
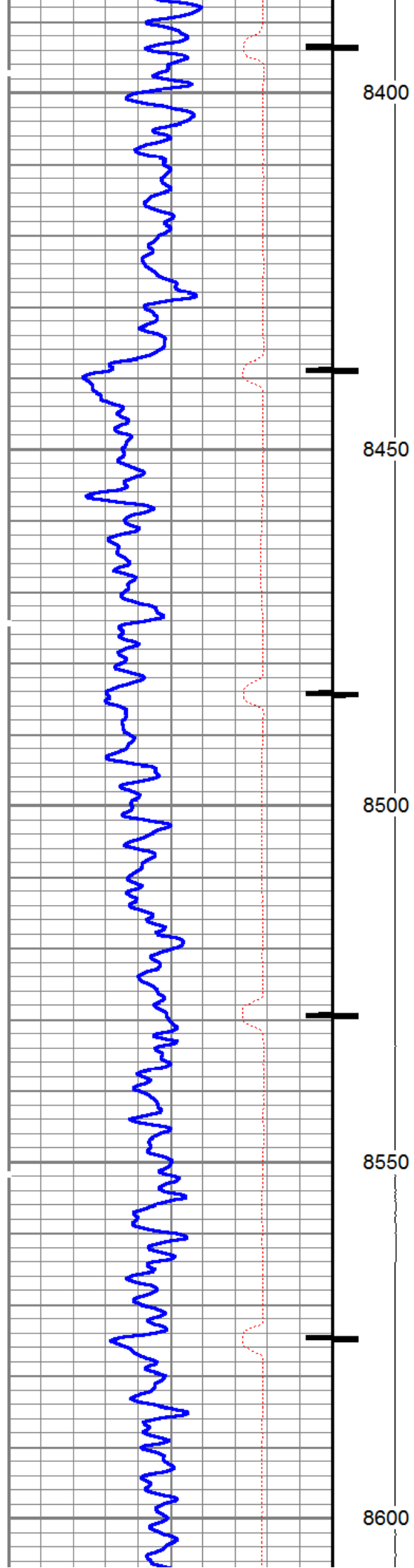


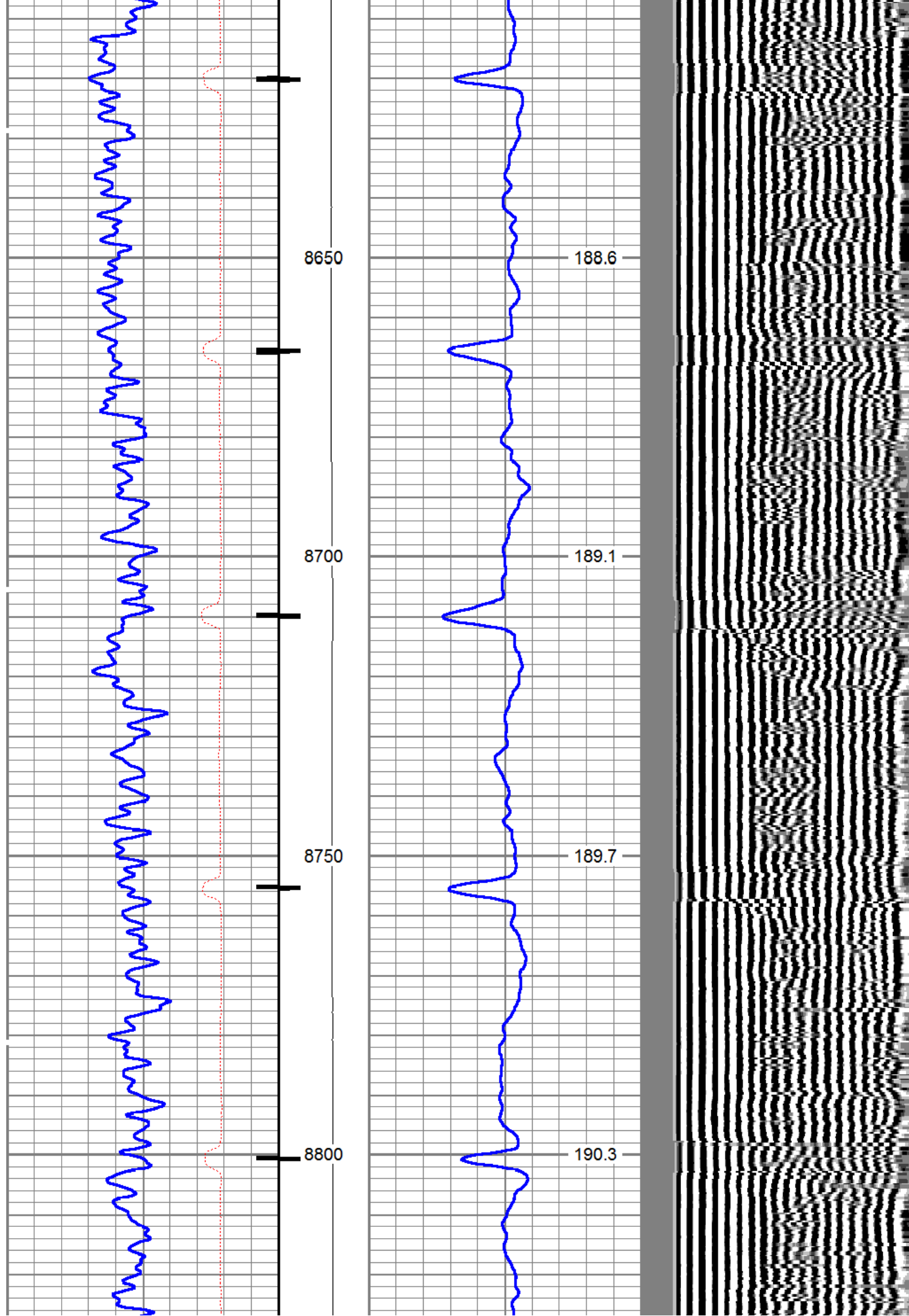


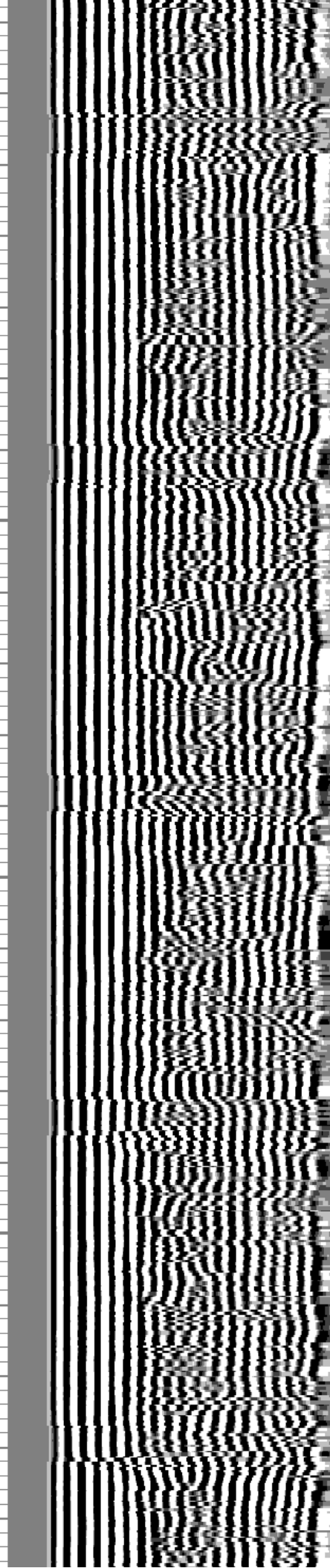
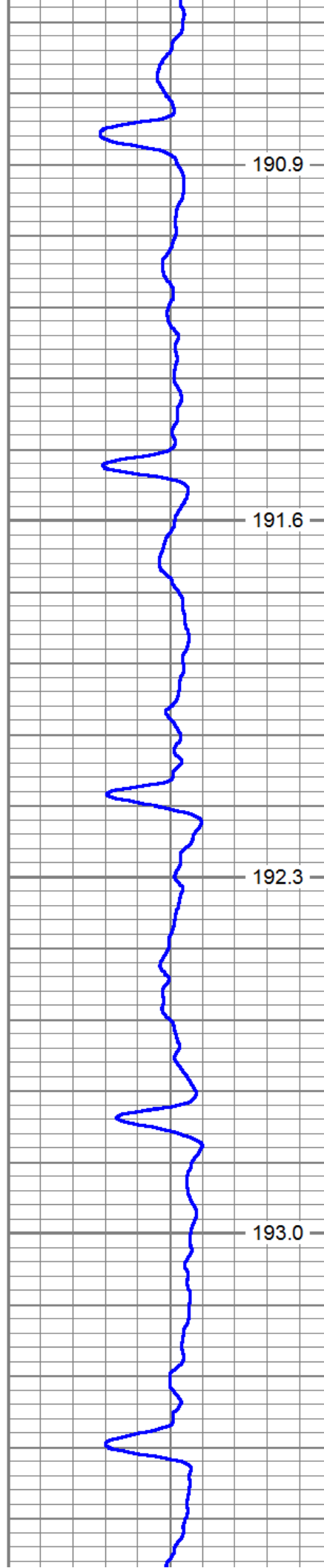
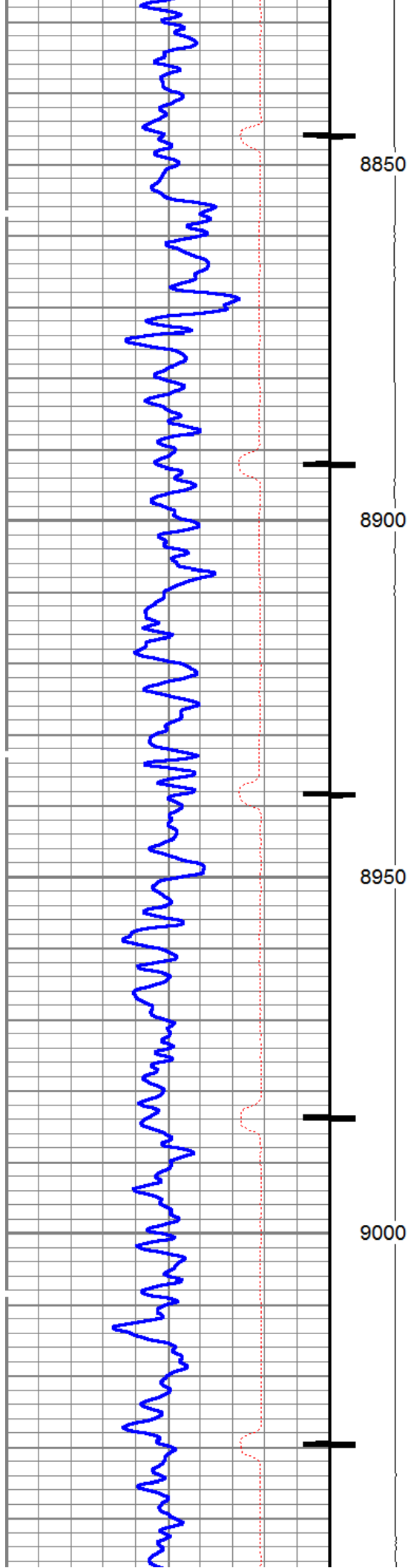


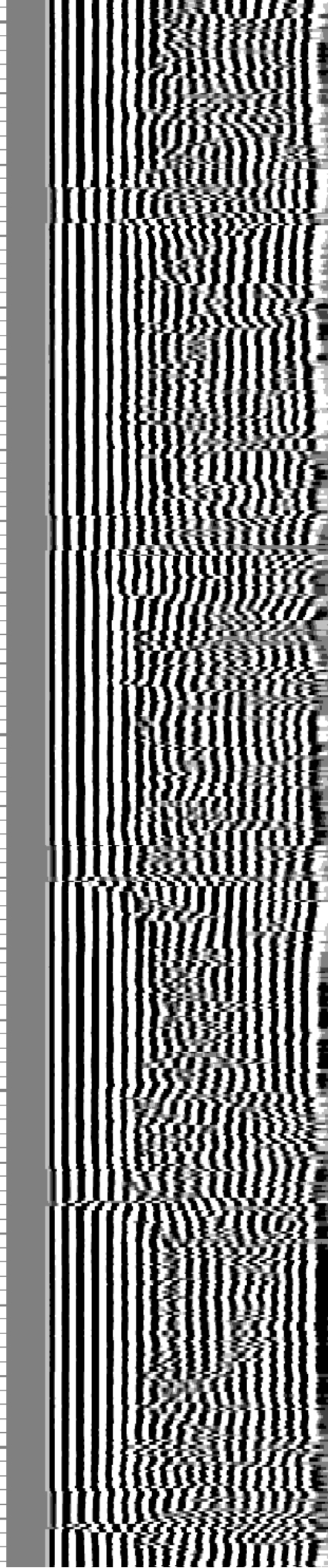
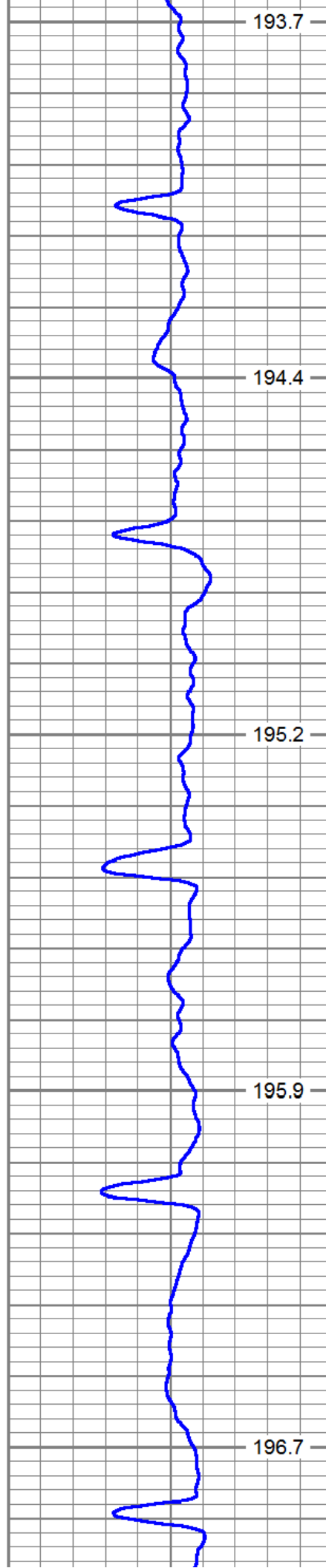
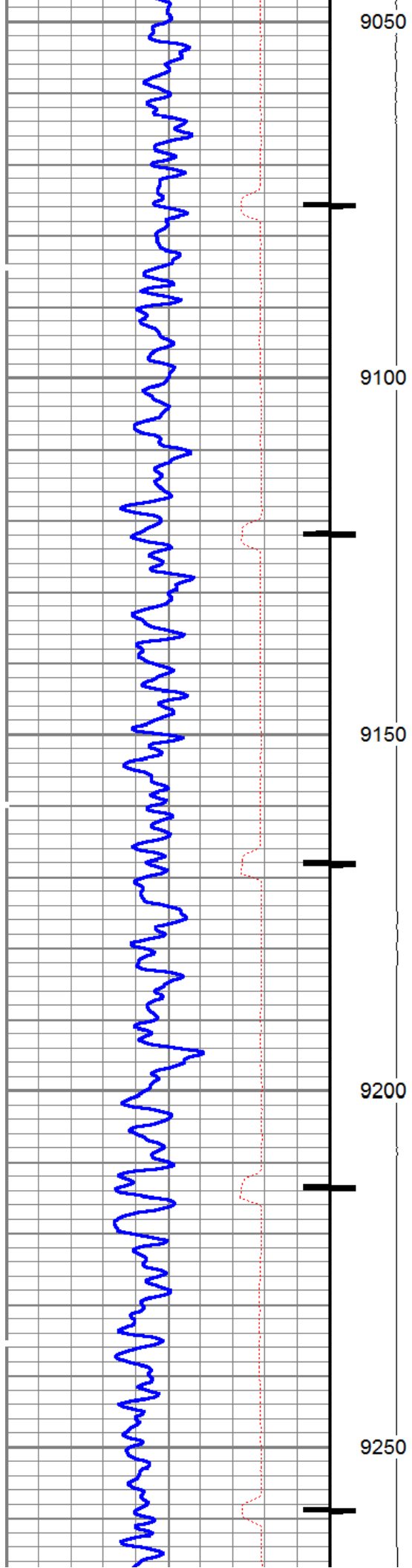


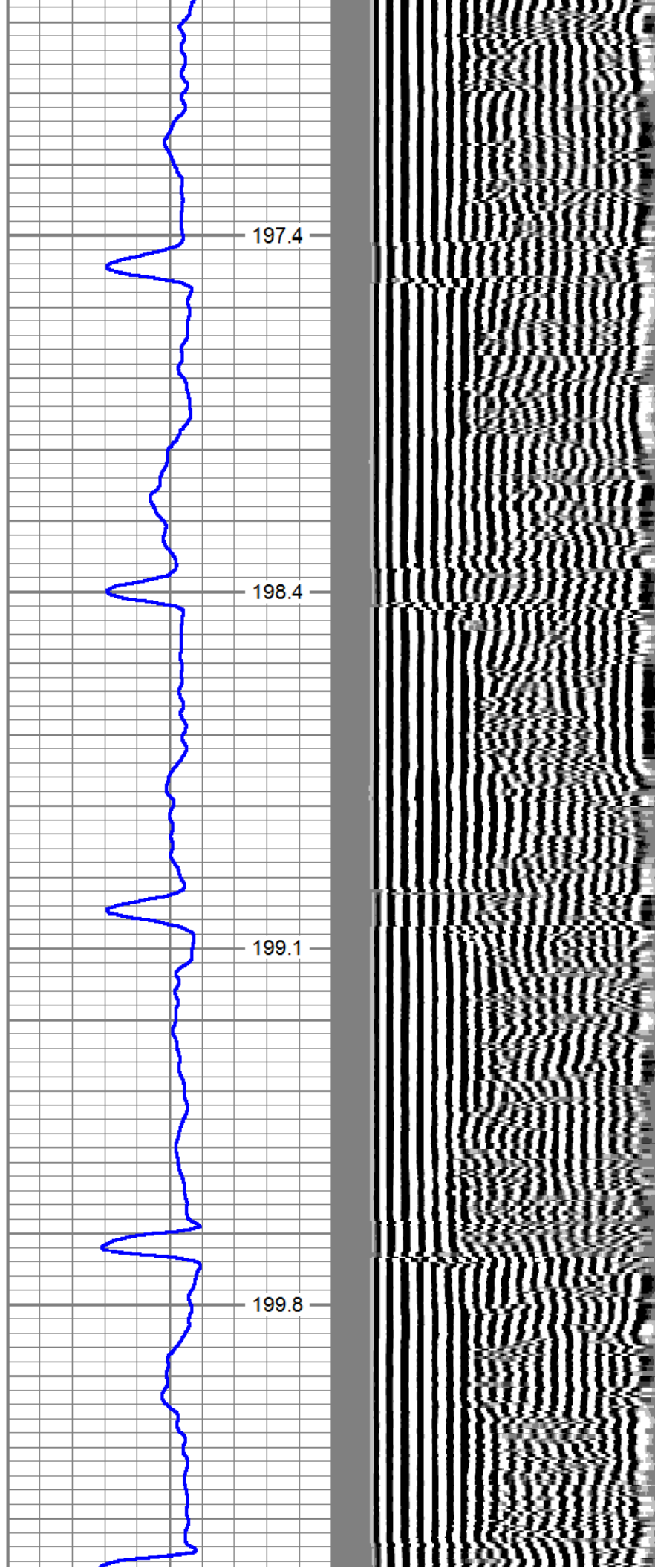
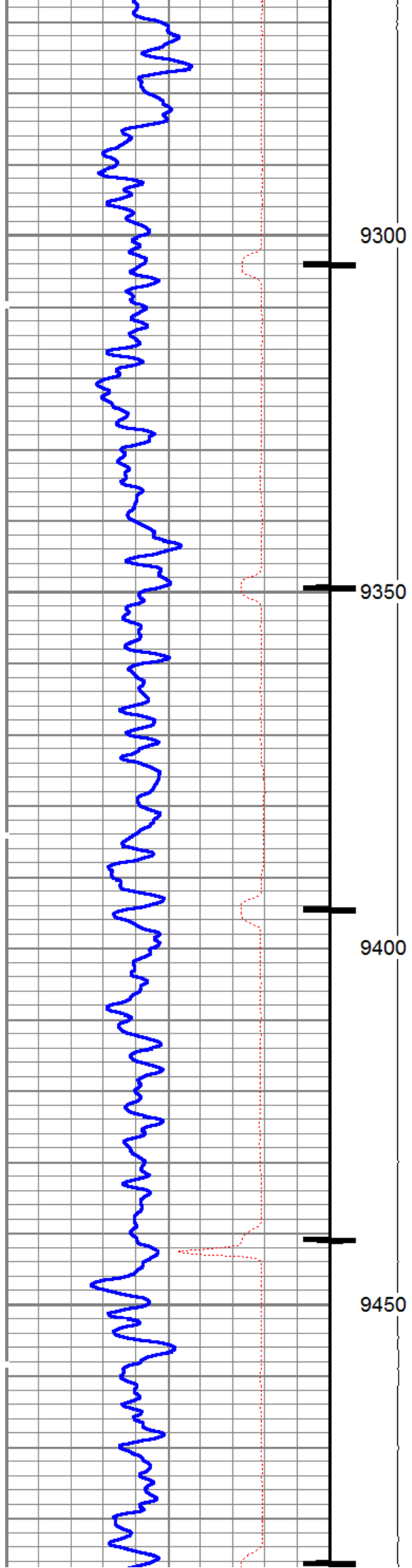


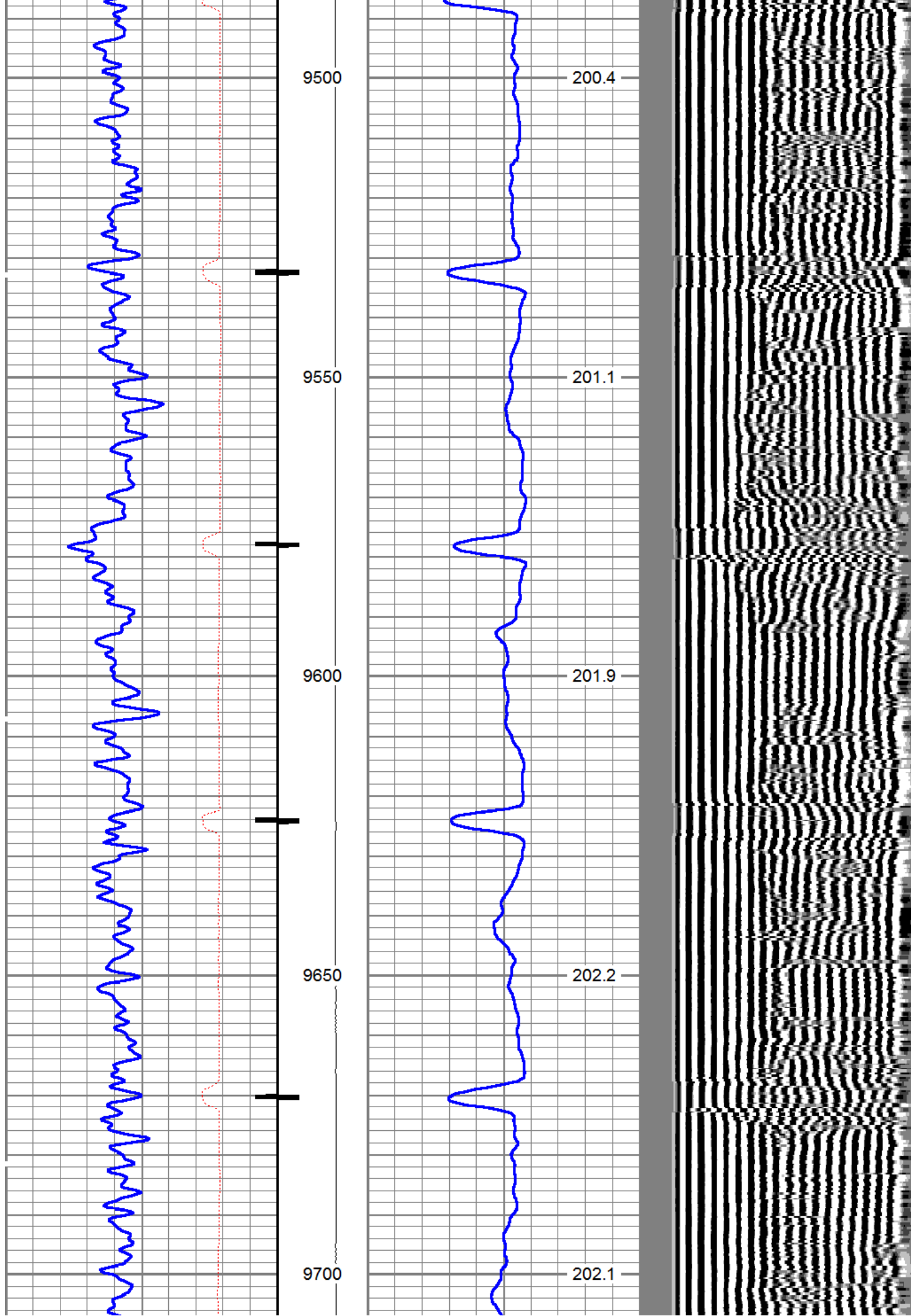


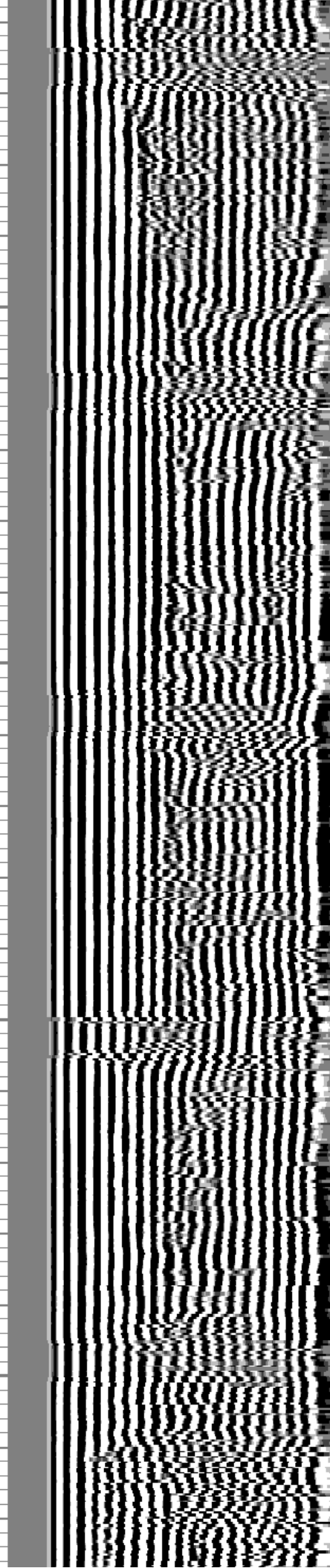
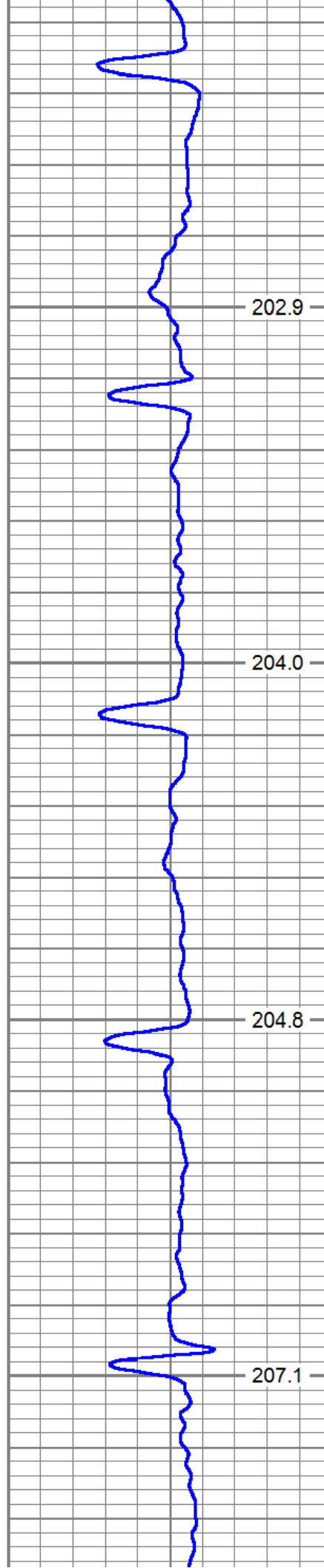
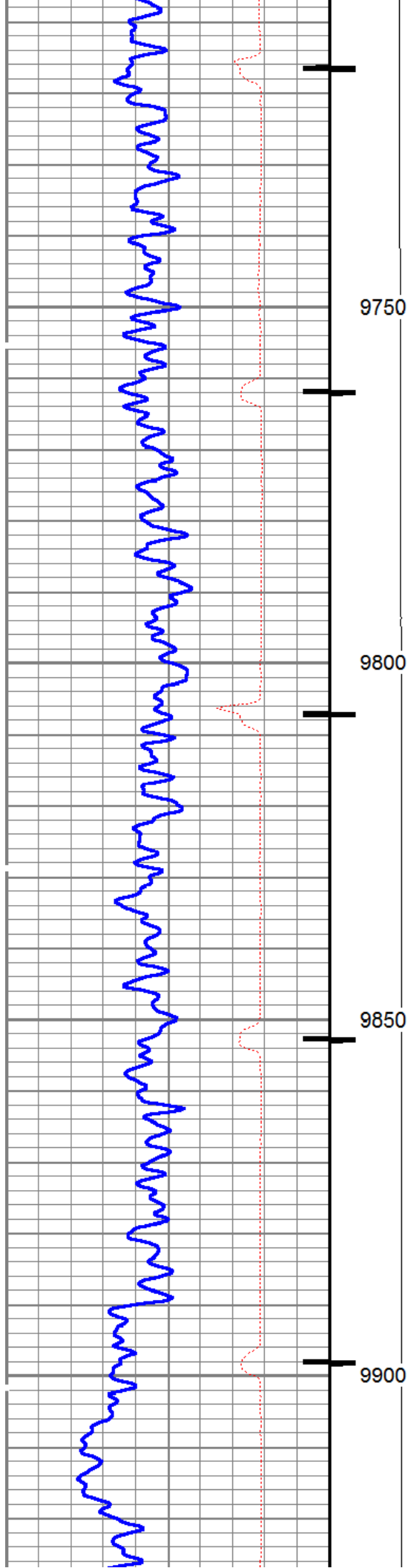


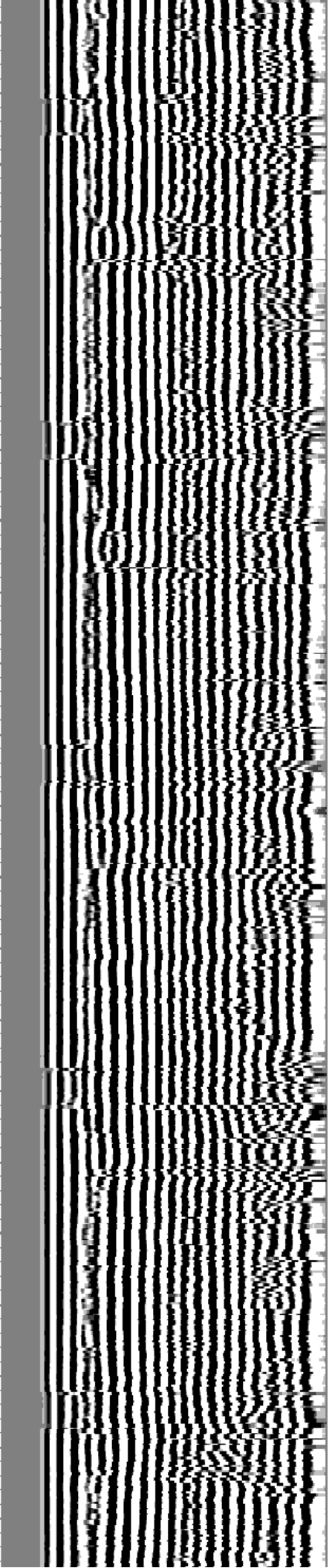
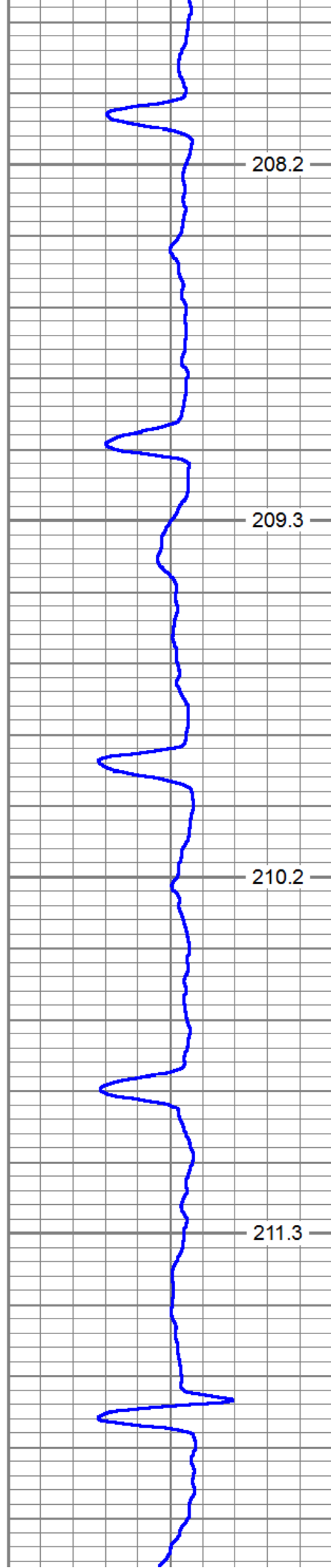
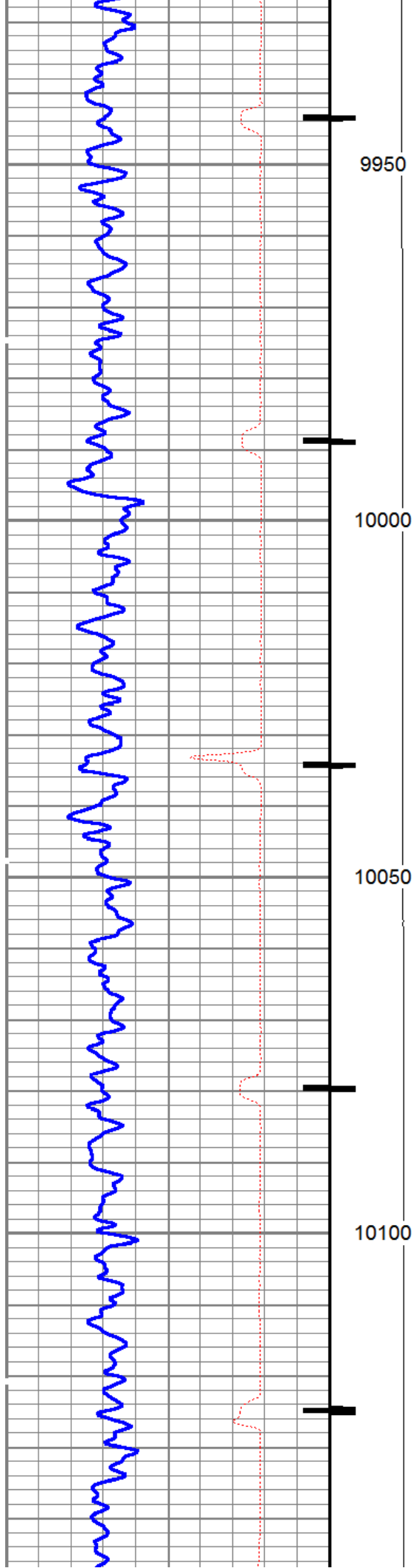


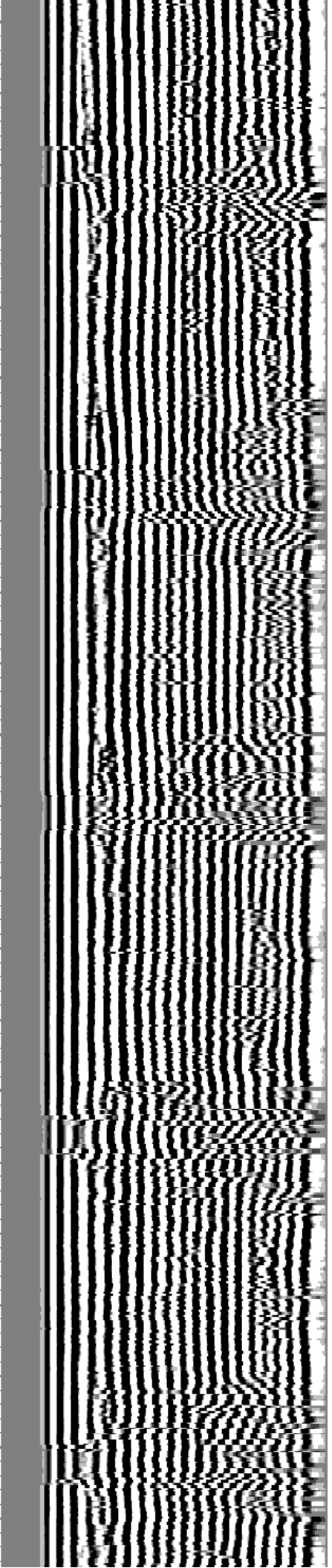
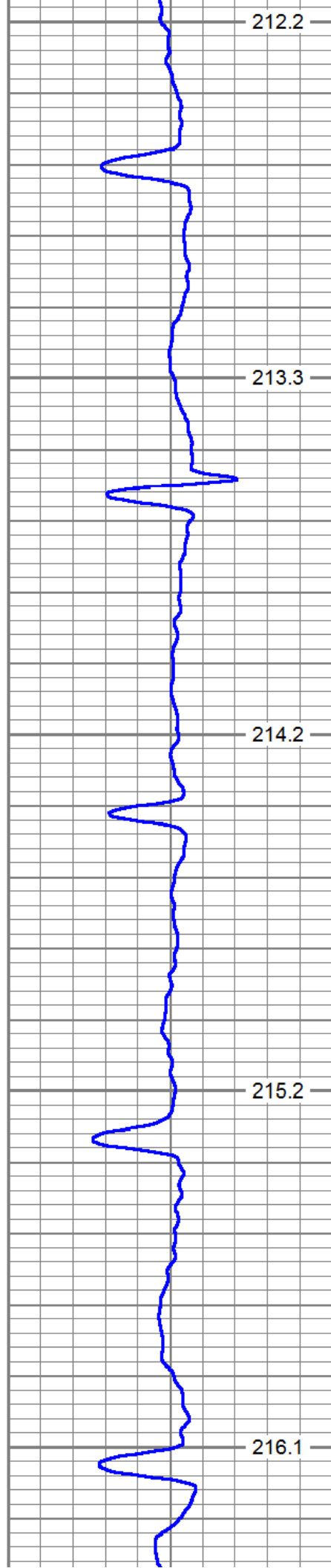
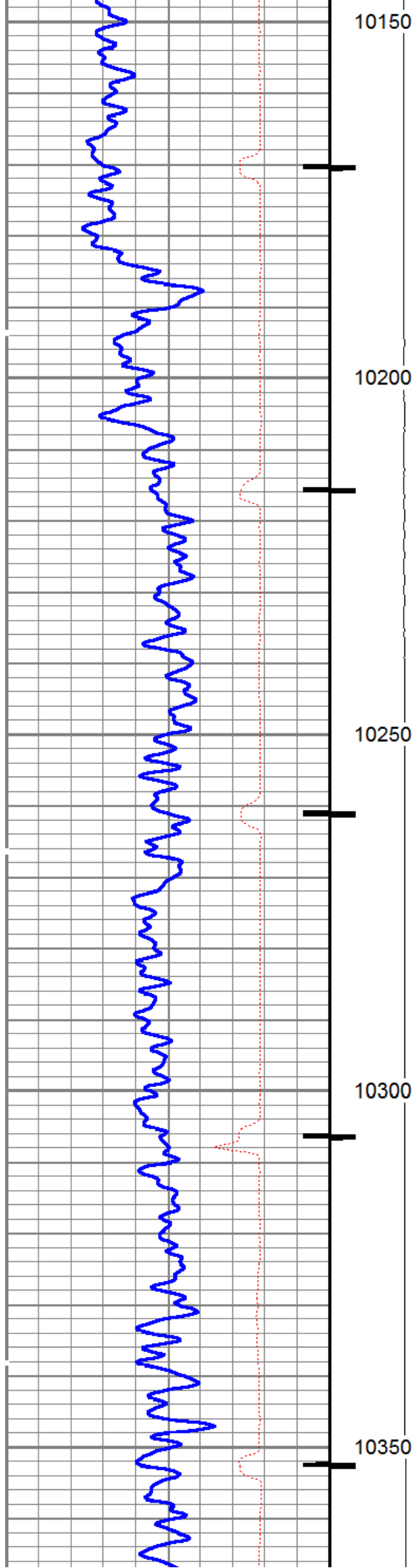


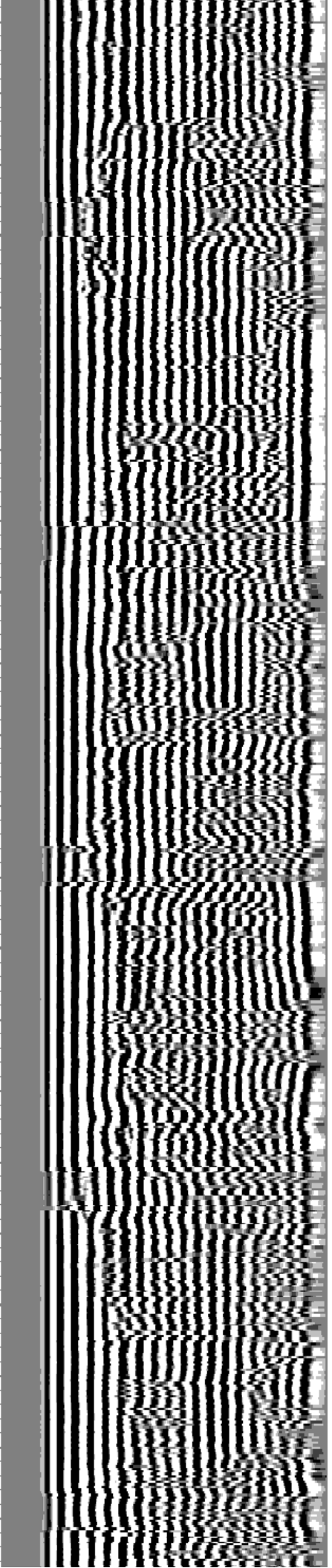
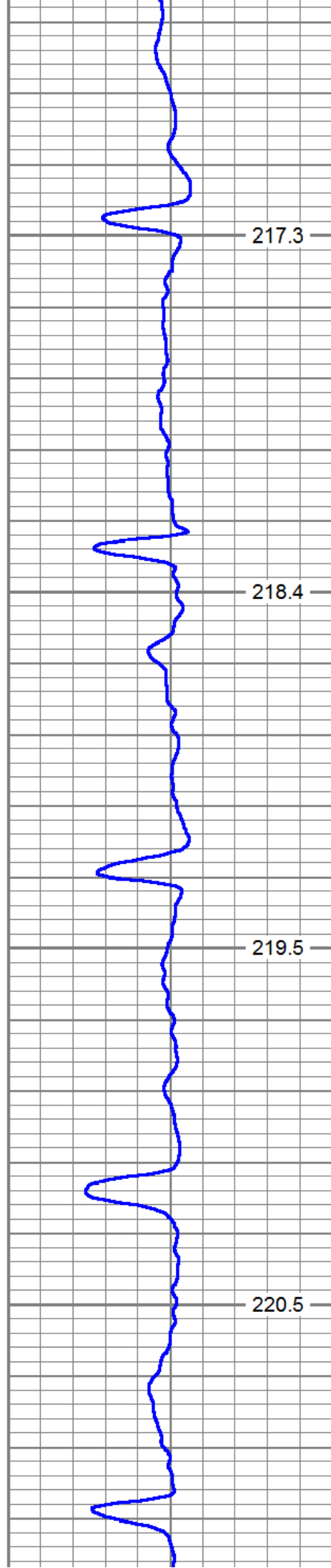
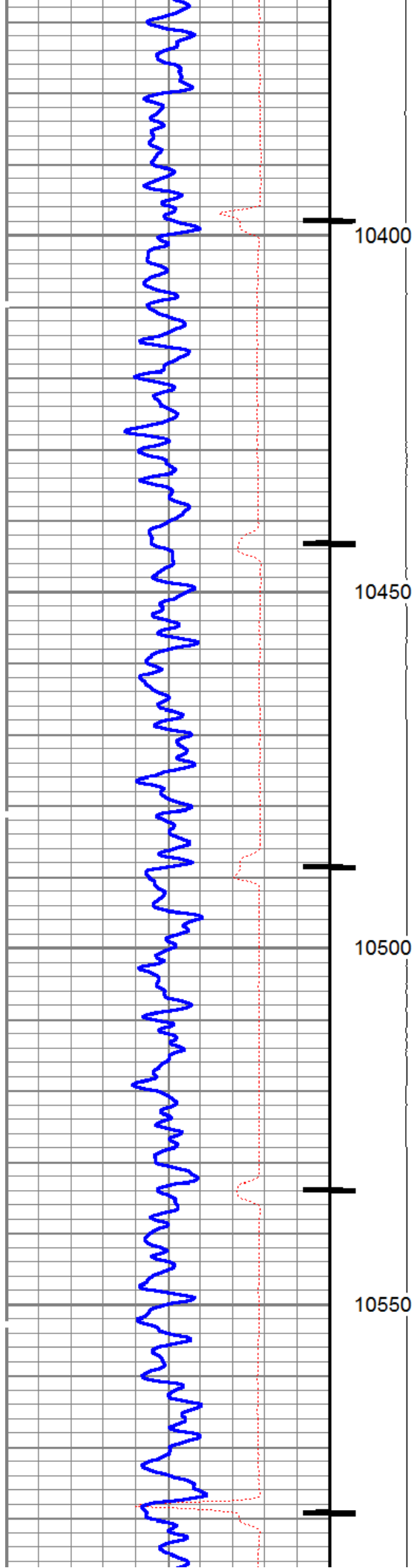


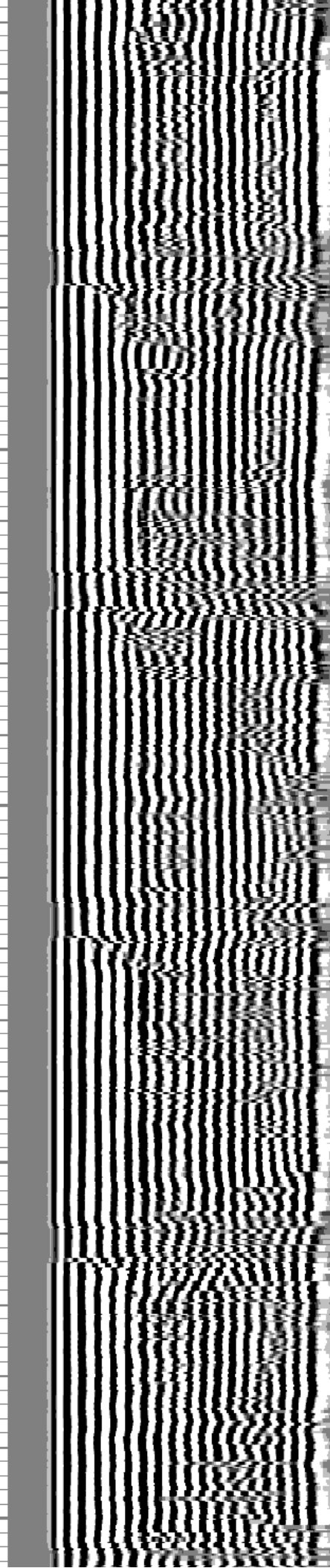
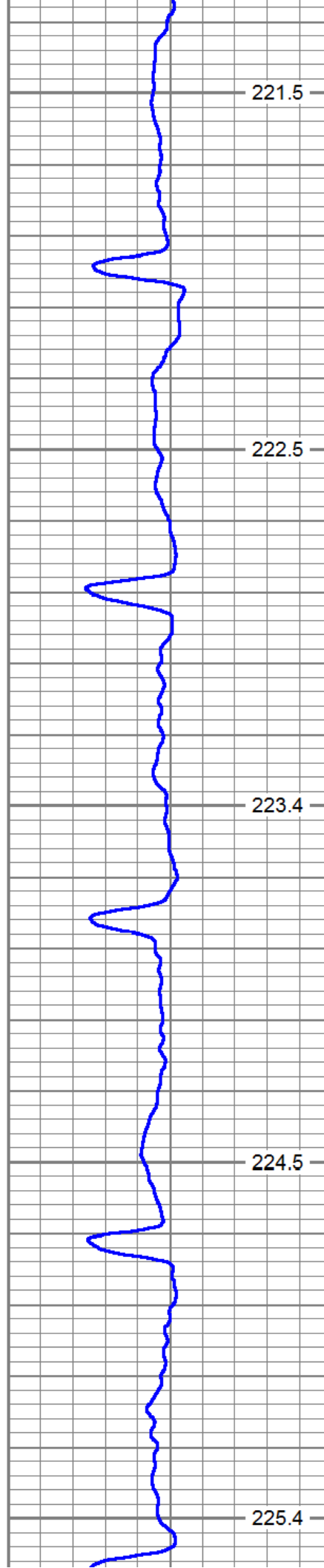
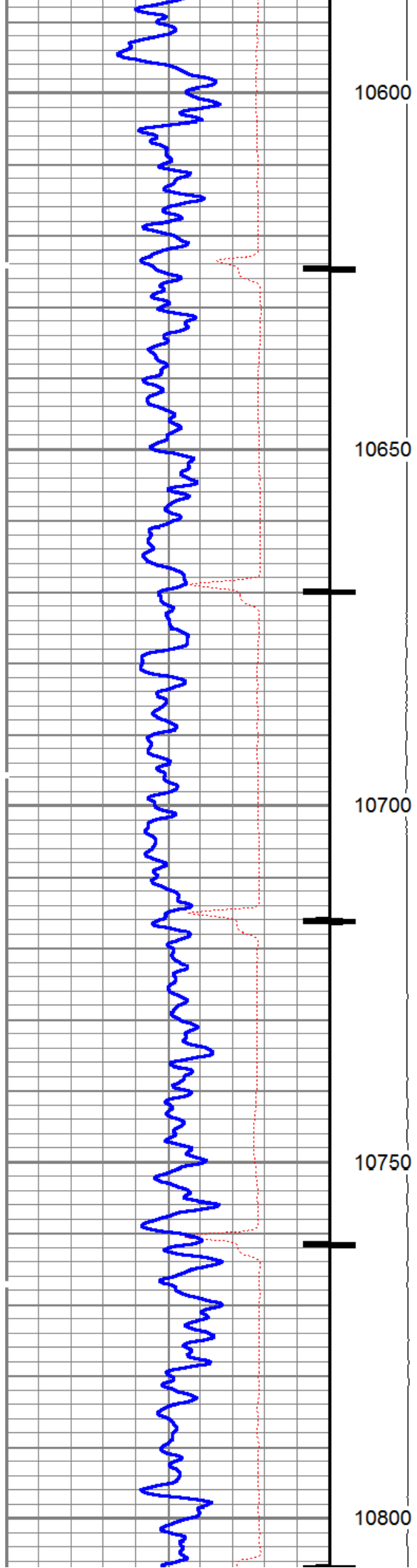


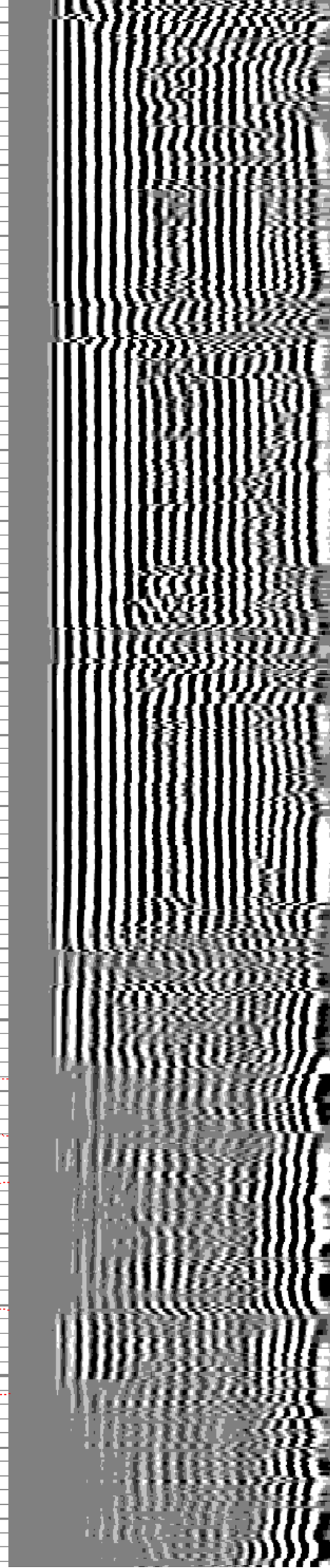
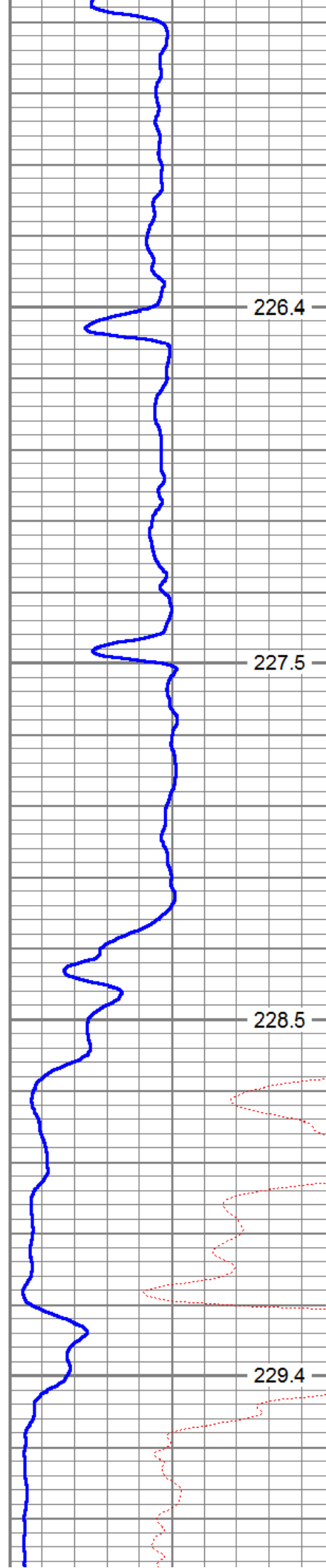
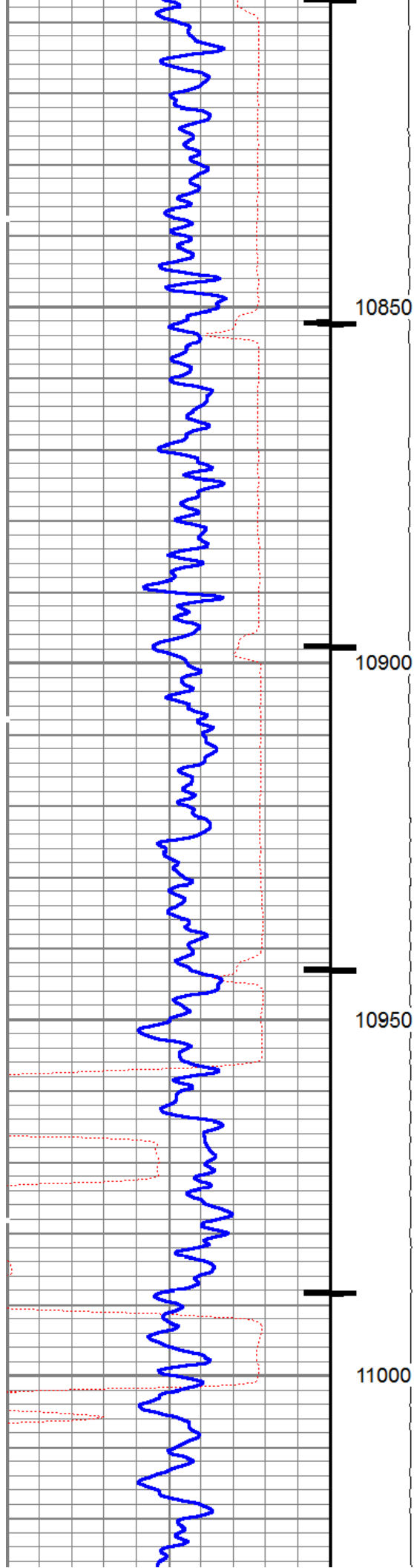


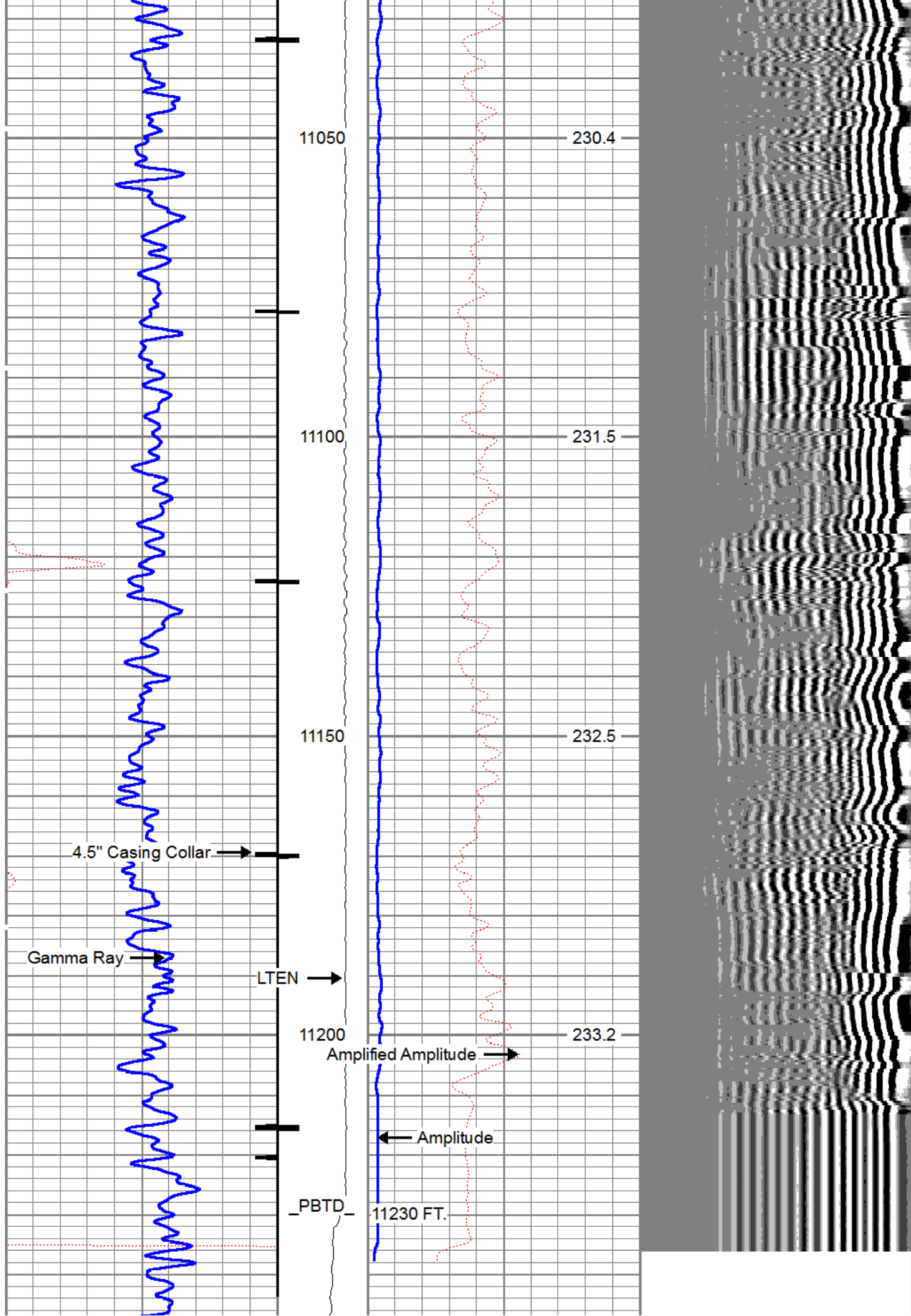




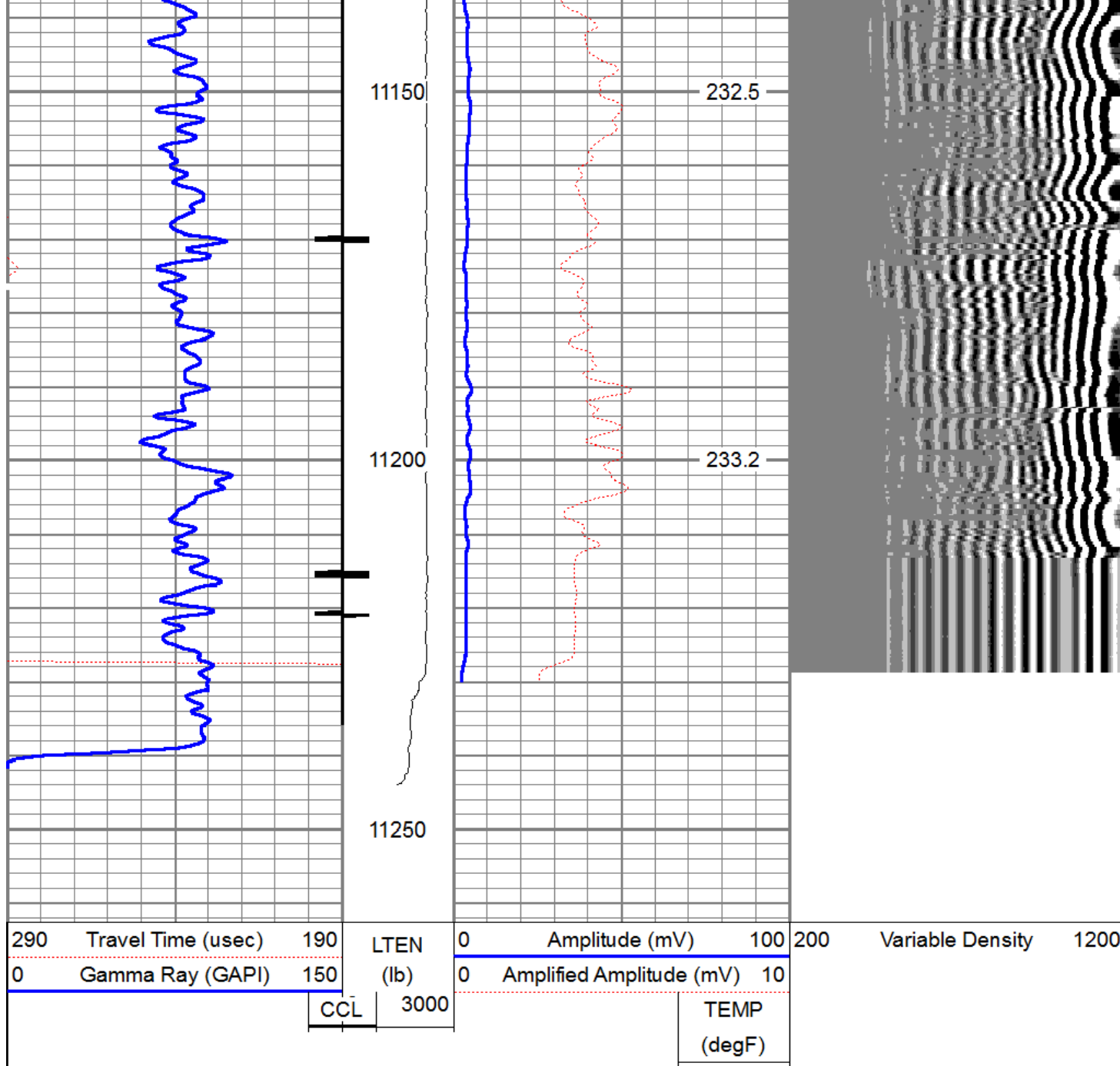












## Log Variables

Database: C:\Warrior\Data\v-8116 wrd 23-33 cbl.db  
Dataset: field/well/run1/pass9

### Top - Bottom

PPT uSec 0	CASEWGHT lb/ft 13.5	MAXAMPL mV 82	MINAMPL mV 1	MINATTN db/ft 0.8	CASEOD in 4.5	PERFS 0
TDEPTH ft 0	BOTTEMP degF 100	BOREID in 7.875				

### Calibration Report

Database File: v-8116 wrd 23-33 cbl.db  
Dataset Pathname: pass9  
Dataset Creation: Thu Oct 15 08:18:57 2015 by Log 7.0 B1

## Gamma Ray Calibration Report

Serial Number: GRS275.5  
 Tool Model: TEKHTGRS275  
 Performed: Thu Aug 06 09:52:56 2015  
  
 Calibrator Value: 1.0 GAPI  
  
 Background Reading: 0.0 cps  
 Calibrator Reading: 1.0 cps  
  
 Sensitivity: 0.7500 GAPI/cps

## Segmented Cement Bond Log Calibration Report

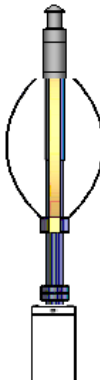
Serial Number: 3SCBL2.75  
 Tool Model: SCBL  
 Performed: Thu Oct 15 08:02:11 2015  
  
 Depth: 26.492 ft  
 Casing Diameter: 4.500 in

	References (mv)		Readings (v)		Results	
	Zero	Reference	Zero	Reference	m	b
3'	1.000	81.196	-0.014	0.734	107.208	2.546
5'	1.000	81.196	-0.020	0.919	85.405	2.745
S1	0.000	100.000	0.038	0.988	105.296	-4.019
S2	0.000	100.000	0.039	0.943	110.680	-4.348
S3	0.000	100.000	0.025	0.923	111.394	-2.792
S4	0.000	100.000	0.034	0.931	111.486	-3.767
S5	0.000	100.000	0.039	0.904	115.550	-4.491
S6	0.000	100.000	0.040	0.860	121.870	-4.838
S7	0.000	100.000	0.035	0.835	125.113	-4.431
S8	0.000	100.000	0.035	0.903	115.201	-4.060

## Temperature Calibration Report

Serial Number: 3SCBL2.75  
 Tool Model: SCBL  
 Performed: Mon Sep 30 18:01:29 2013

	Reference		Reading	
Low Reference:	0.00	degF	0.00	usec
High Reference:	1.00	degF	1.00	usec
Gain:	0.33			
Offset:	0.00			
Delta Spacing	1			

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			1.4375CHD Titan Cable Head 1 7/16	1.00	1.44	10.00
			CENTTEK1.3 1 3/4" APPLIED CENTRALIZER	3.00	1.75	10.00



