



**RADIAL CEMENT BOND  
GAMMA RAY/CCL/VDL**

Company ANTERO RESOURCES CORPORATION  
 Well SPOCK UNIT 2H  
 Field MARCELLUS  
 County TYLER  
 State W.V.

Company ANTERO RESOURCES CORPORATION  
 Well SPOCK UNIT 2H  
 Field MARCELLUS  
 County TYLER State W.V.

Location: API #: 47095024270000

Other Services

Permanent Datum	SEC	TWP	RGE	Elevation	N/A	K.B. N/A
Log Measured From						D.F. N/A
Drilling Measured From						G.L. N/A

Date	2/3/19						
Run Number	ONE						
Depth Driller	17051'						
Depth Logger	6921'						
Bottom Logged Interval	6921'						
Top Log Interval	SURFACE						
Open Hole Size	8.5"						
Type Fluid	H2O						
Density / Viscosity	N/A						
Max. Recorded Temp.	142 DEG						
Estimated Cement Top	900 FT						
Time Well Ready	N/A						
Time Logger on Bottom	N/A						
Equipment Number	340						
Location	BRIDGEPORT.WV						
Recorded By	JBOGGS						
Witnessed By	JAY TEPPER						
Borehole Record		Casing Record					
Run Number	Bit	From	To	Size	Weight	From	To
				5.5	23	0	17051

<<< 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**

THANK YOU FOR USING KLX ENERGY SERVICES  
 LOG WAS SHIFTED 2' DOWN HOLE TO MATCH CASING TALLY  
 TOP OF CEMENT @ 900 FT  
 BOTTOM HOLE TEMP- 142 DEG  
 MARKER JOINT @ 6081'-6090'



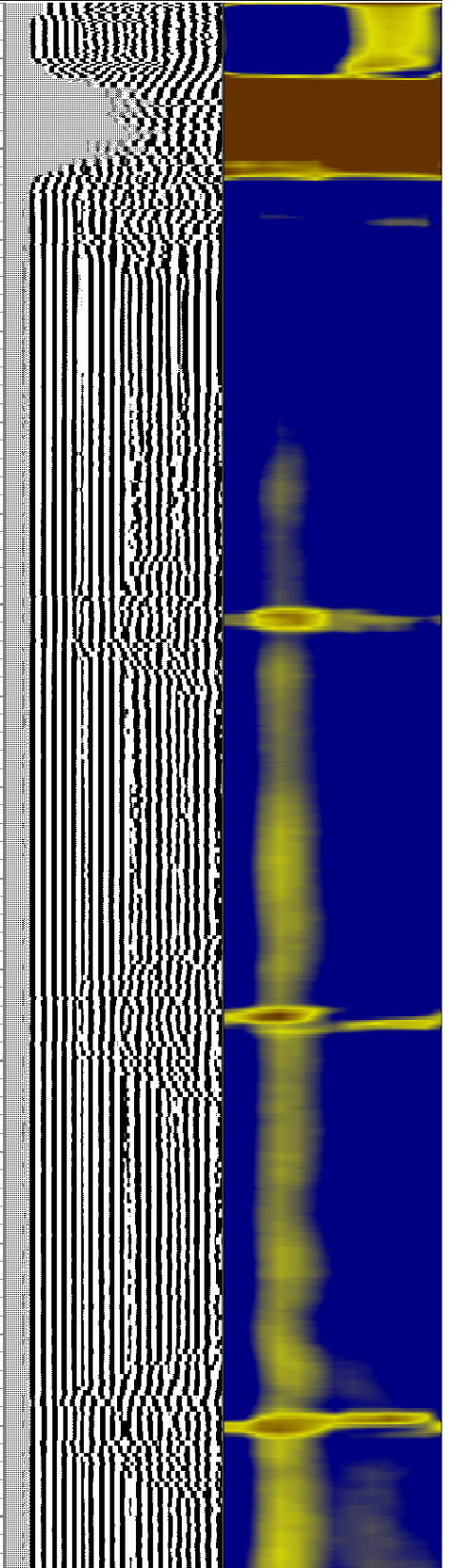
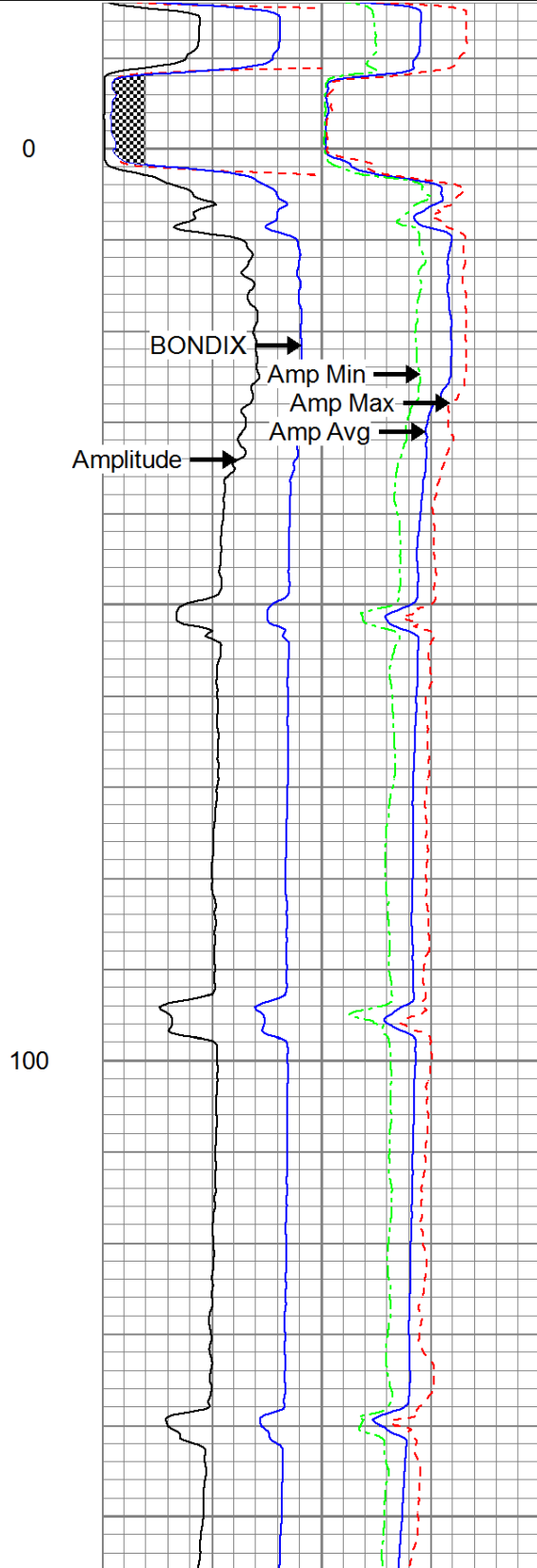
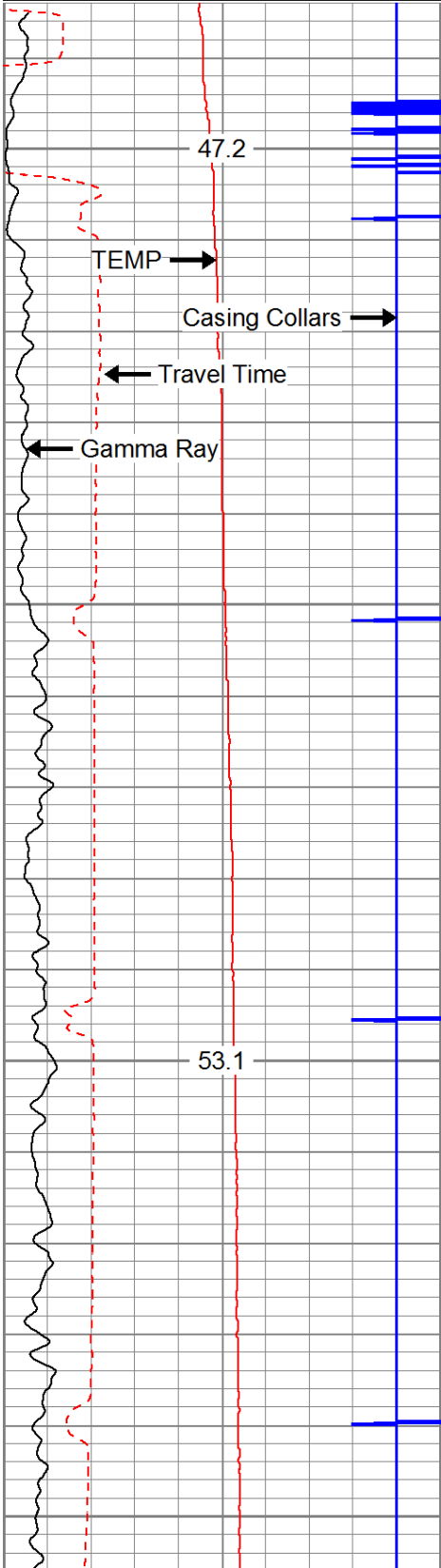
**MAIN PASS 1500 PSI**

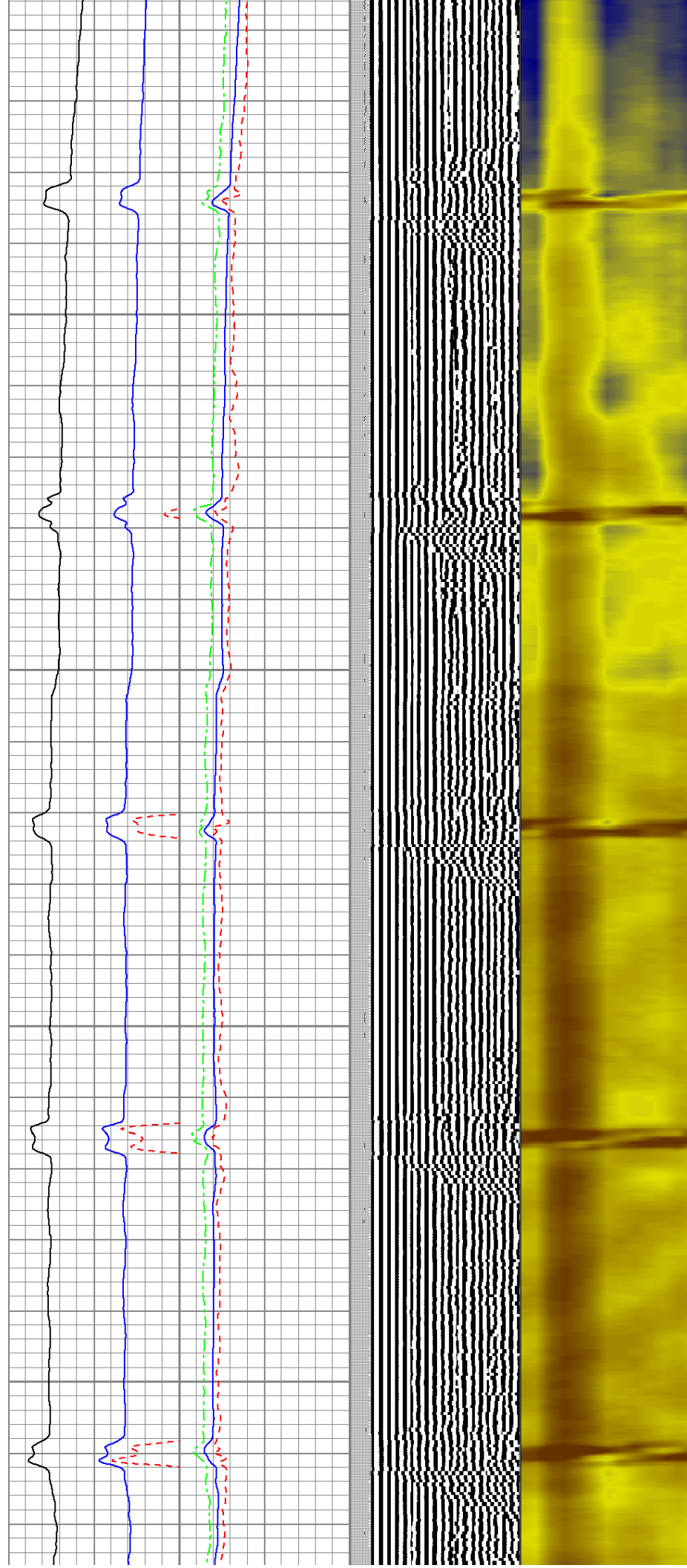
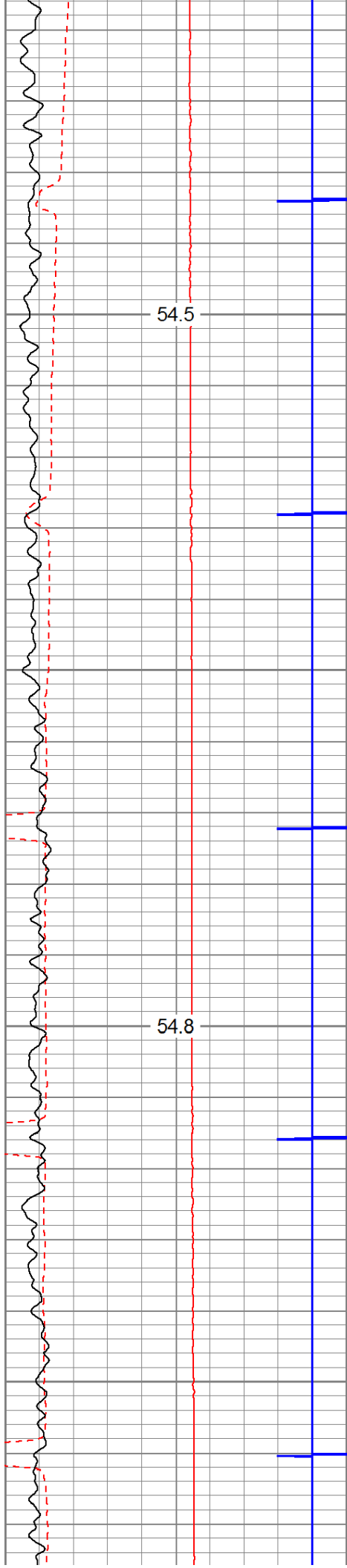
Database File: f:\2019 antero\pyle run\spock2h.db  
 Dataset Pathname: pass5.1  
 Presentation Format: antero  
 Dataset Creation: Mon Feb 04 01:08:29 2019 by Calc 7.0 B1  
 Charted by: Depth in Feet scaled 1:240

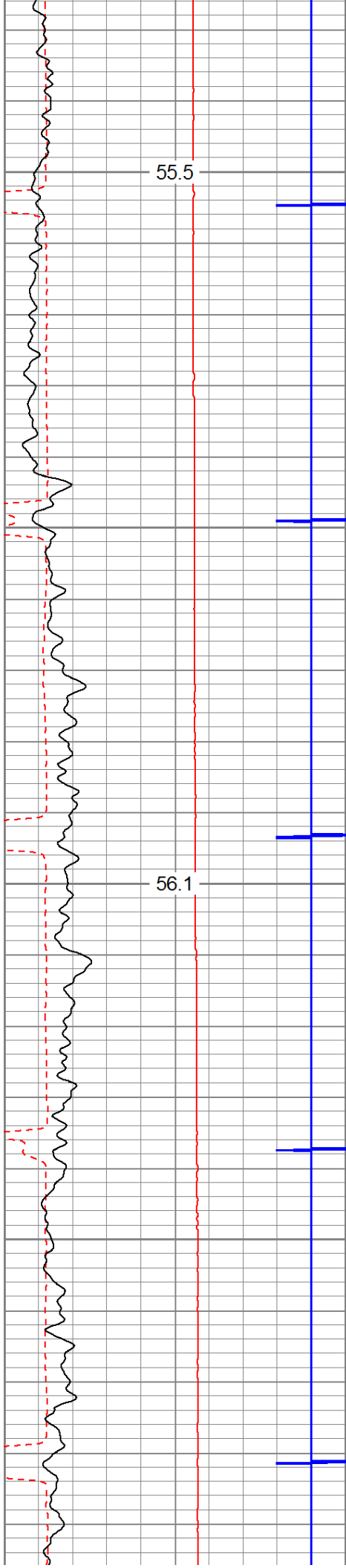
225	Travel Time (usec)	125
9	Casing Collars	-1
0	Gamma Ray	180
0	TEMP (degF)	100
TEMP (degF)		

Amplitude	0	Amp Avg	150
(mV)	100	Amp Max	150
AmpX5 (mV)	20	Amp Min	150
BONDIX	0		

200 VDL 1200 1 Sector Map 12  
 20 60

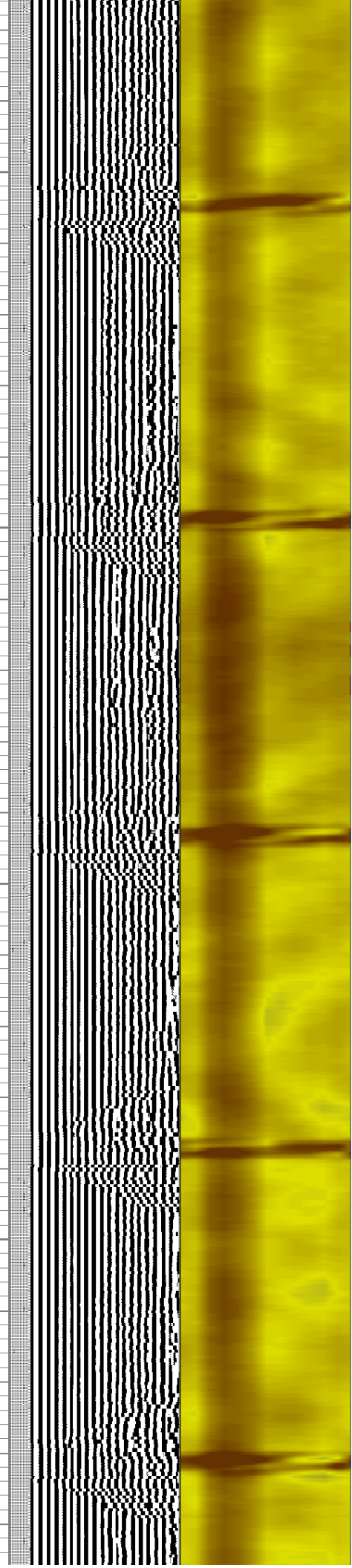
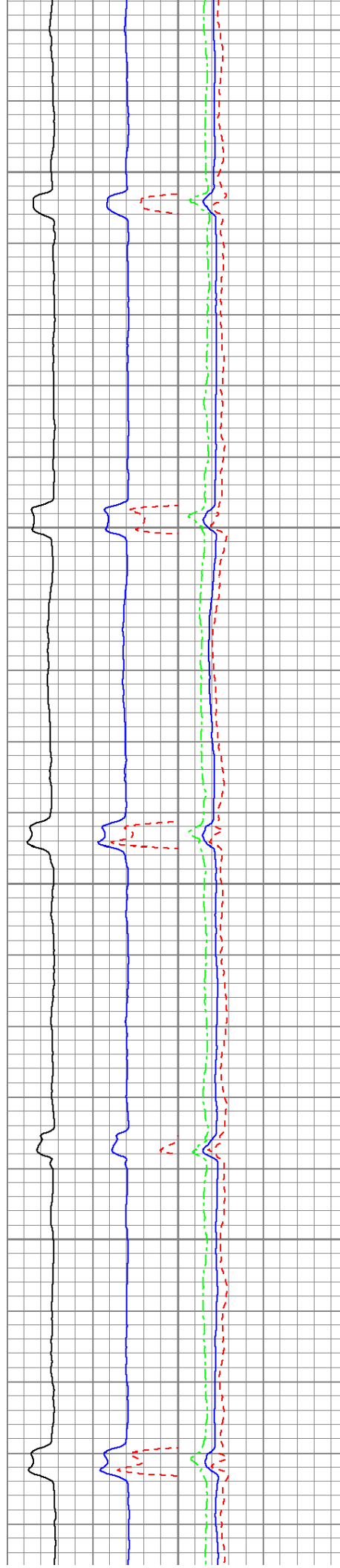


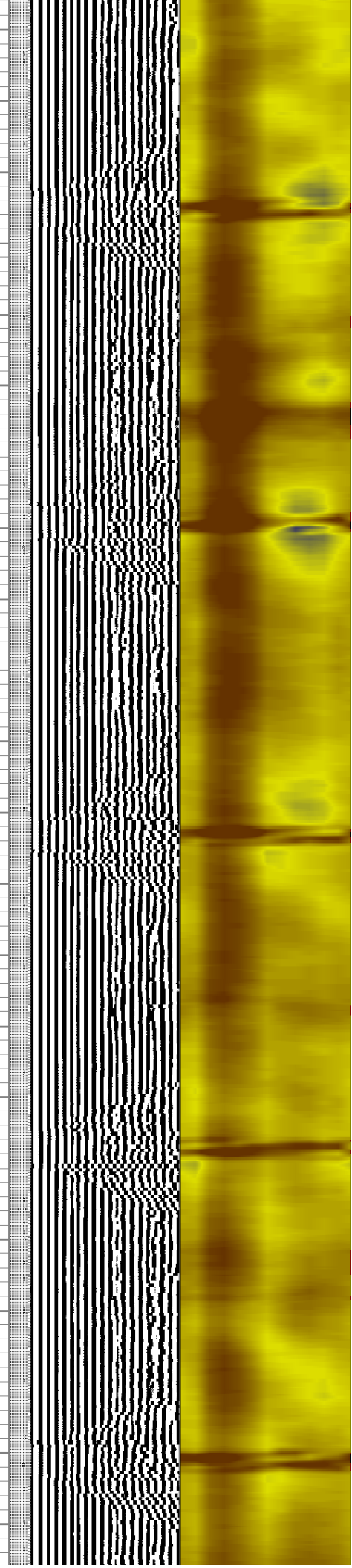
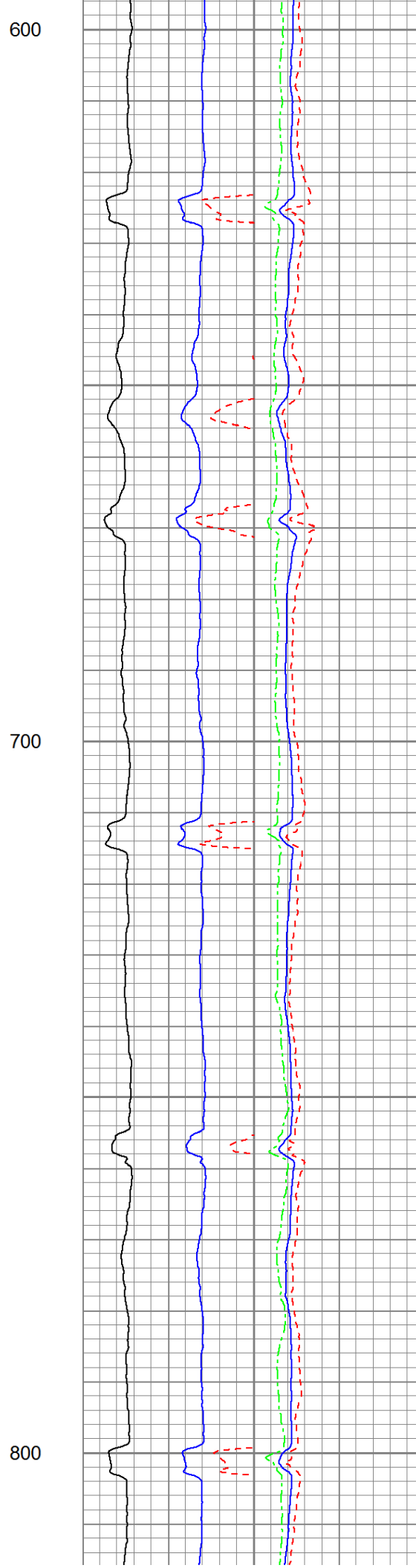
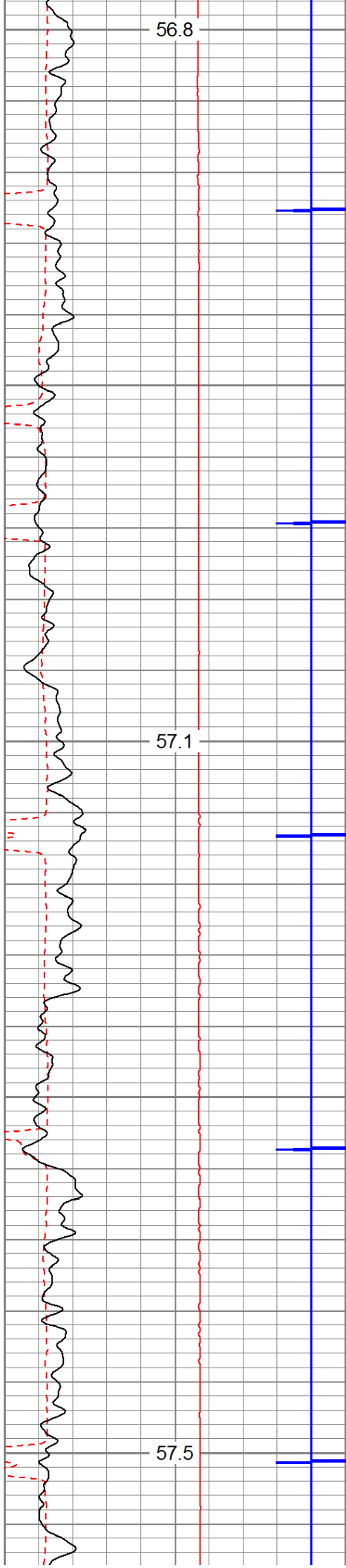


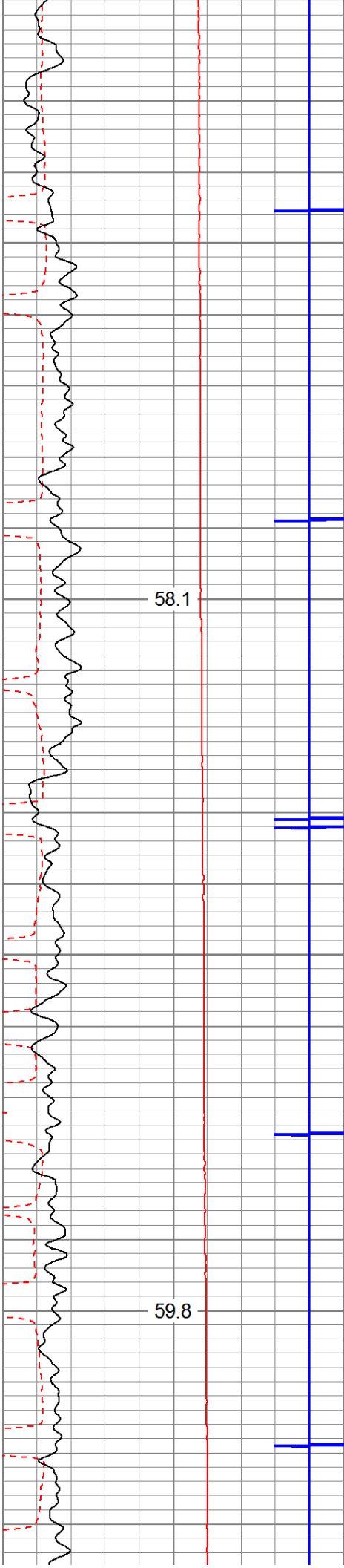


400

500

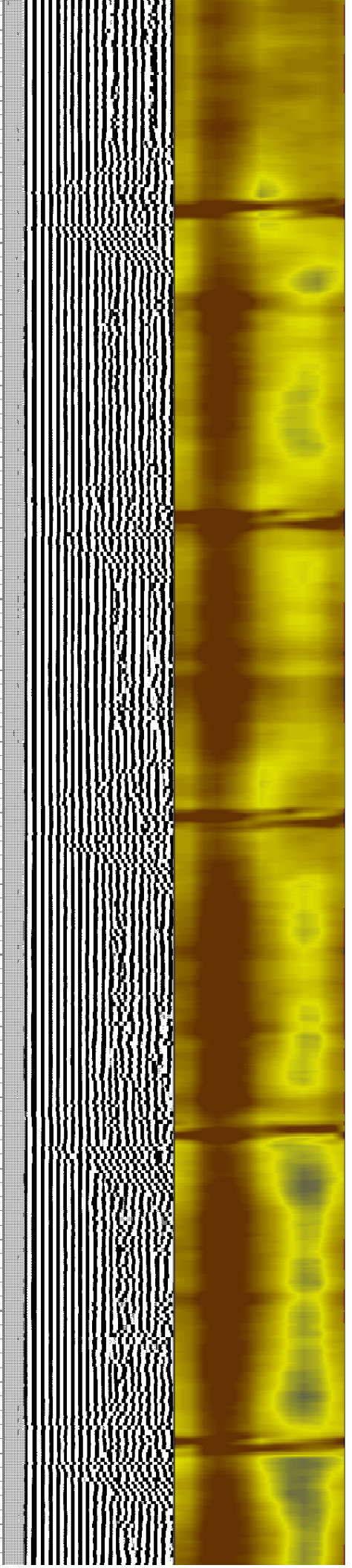
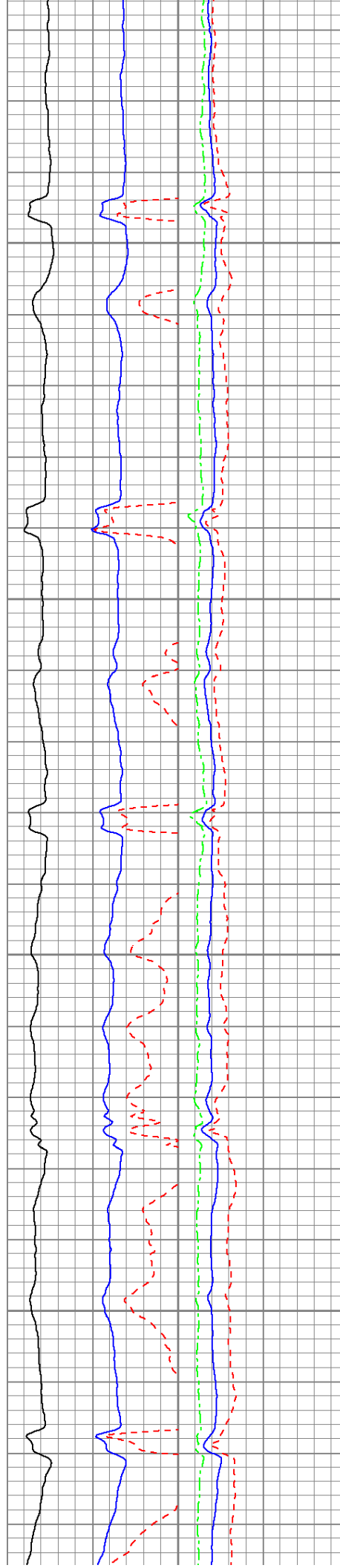


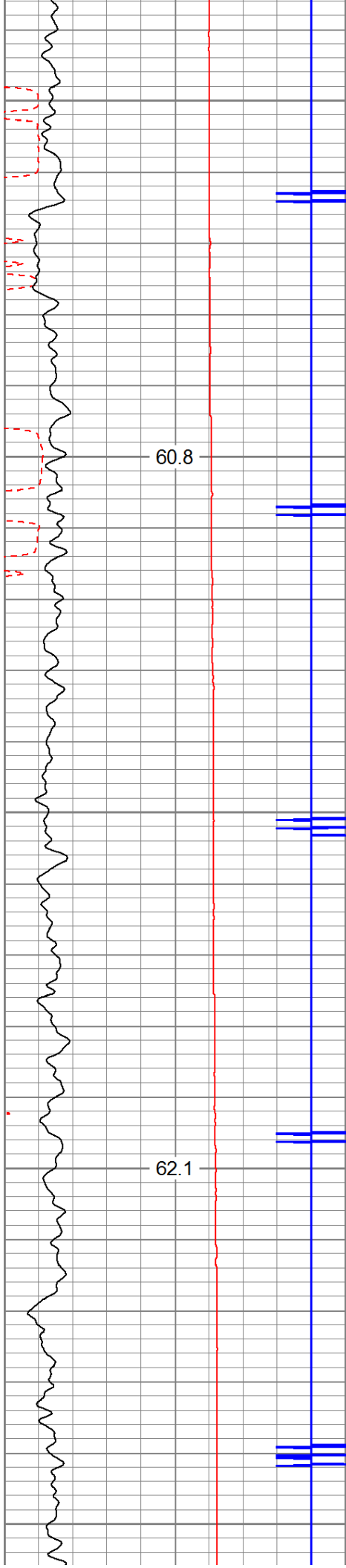




900

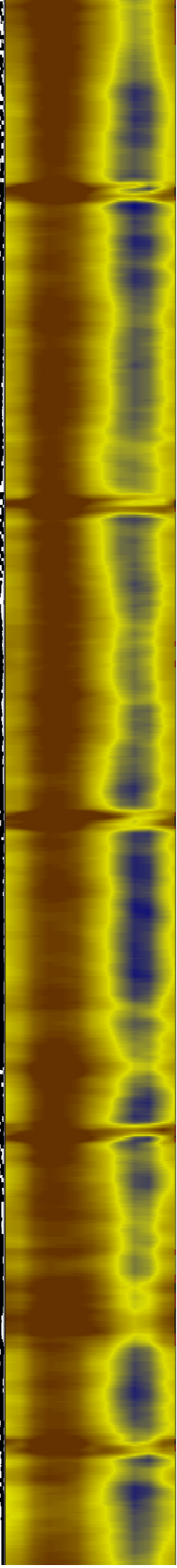
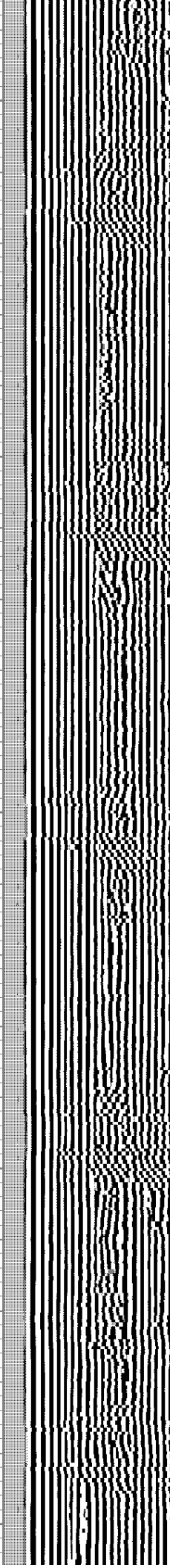
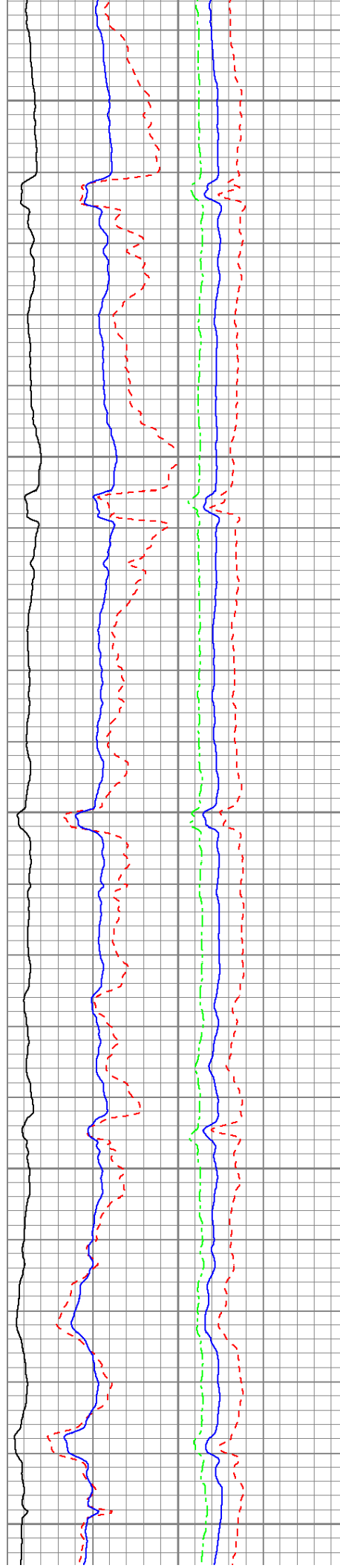
1000

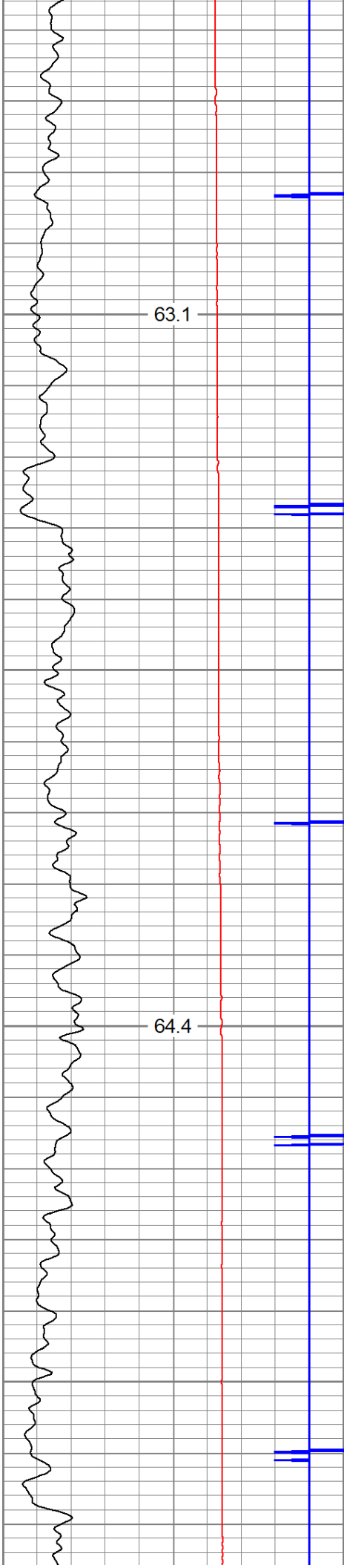




1100

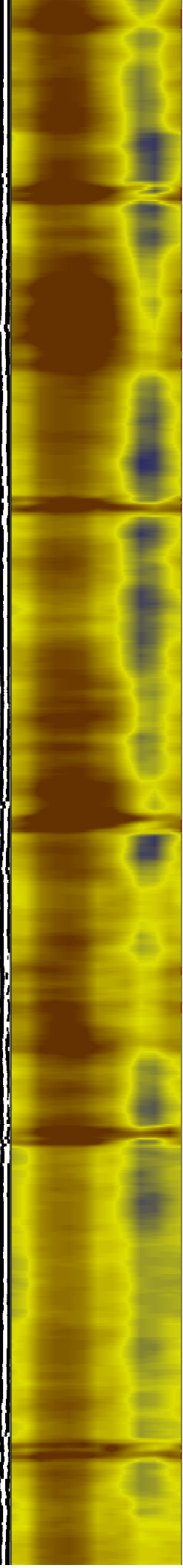
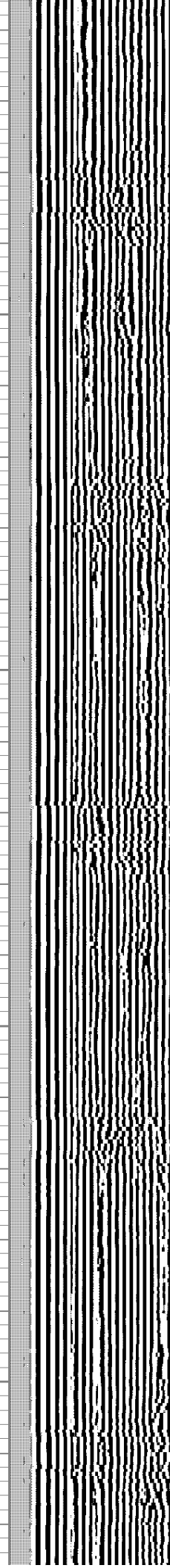
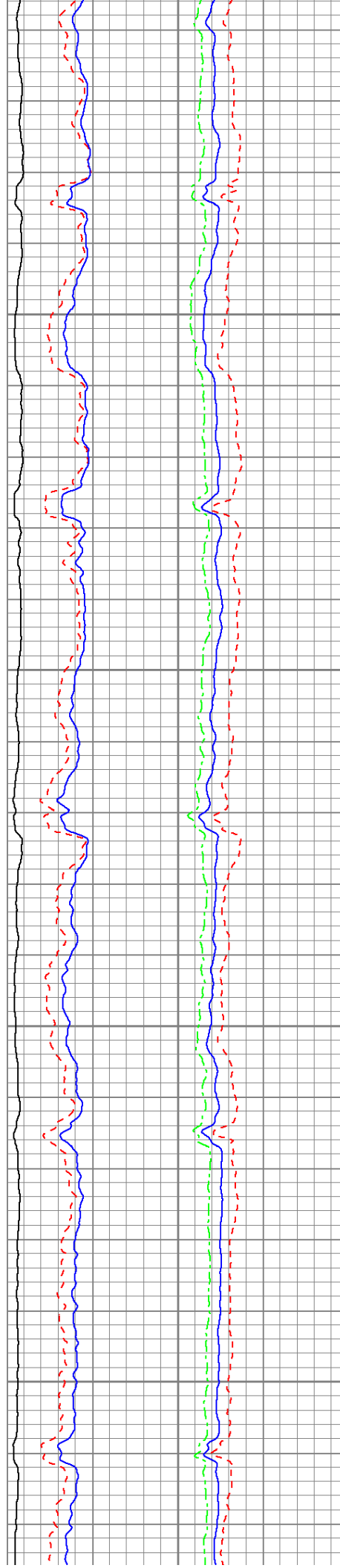
1200



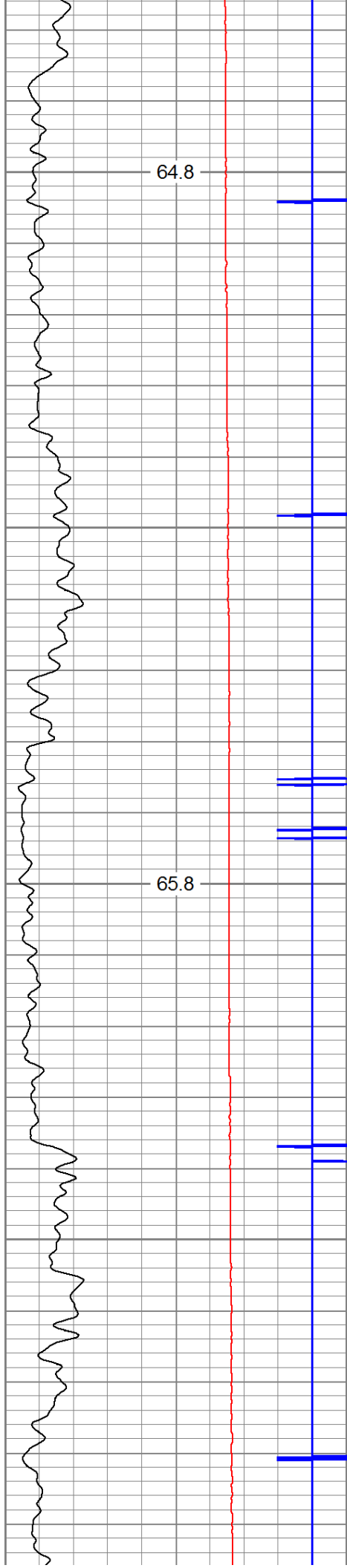


1300

1400





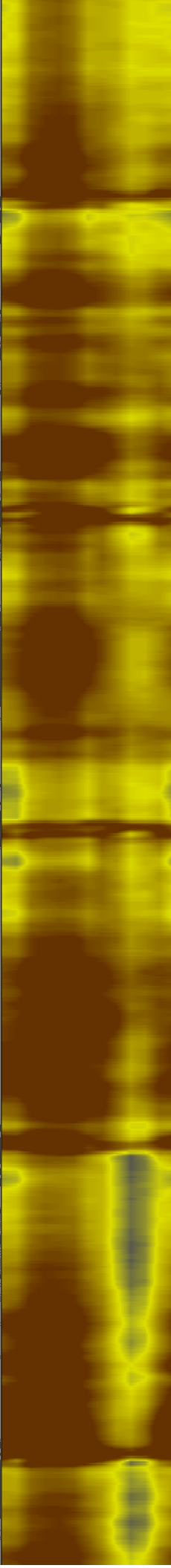
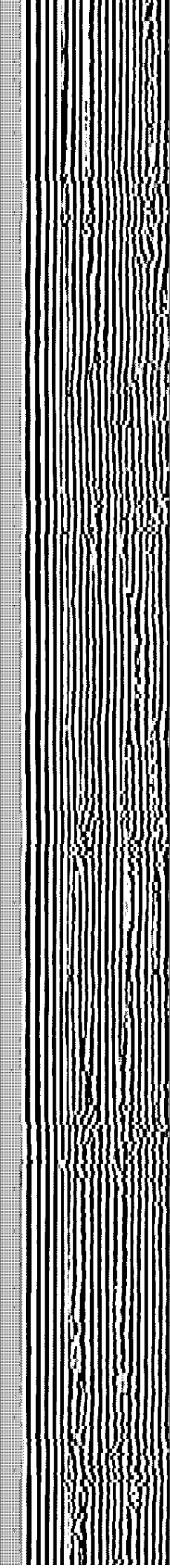
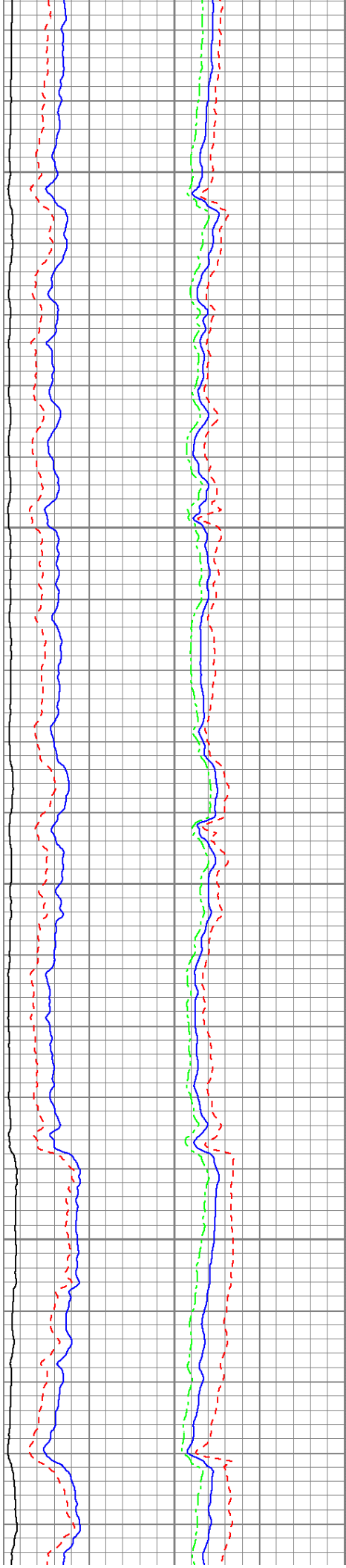


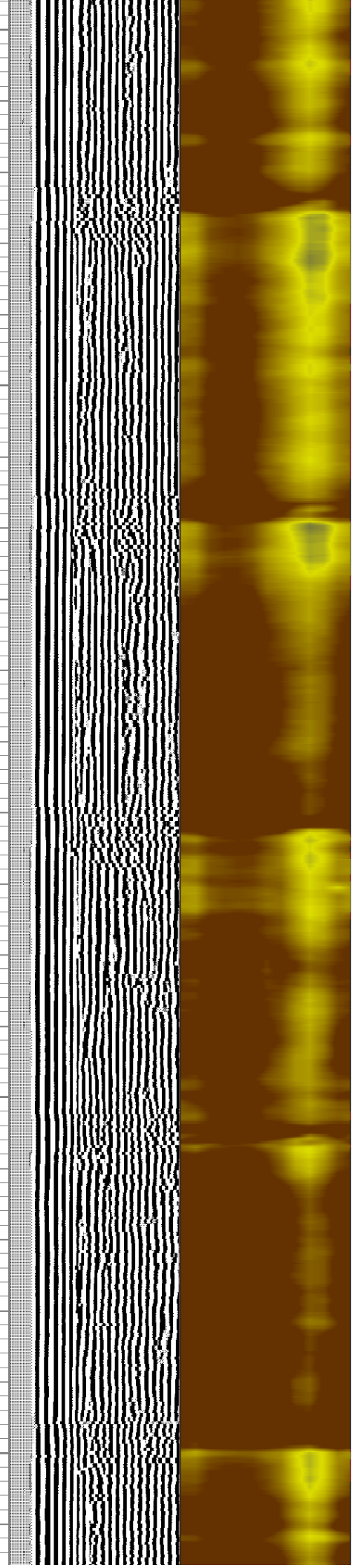
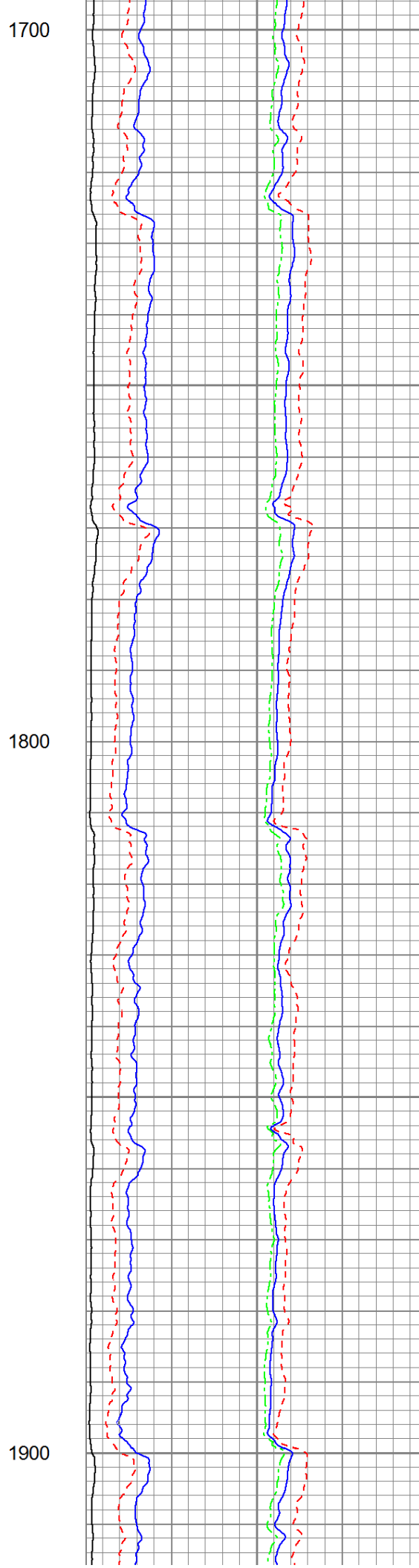
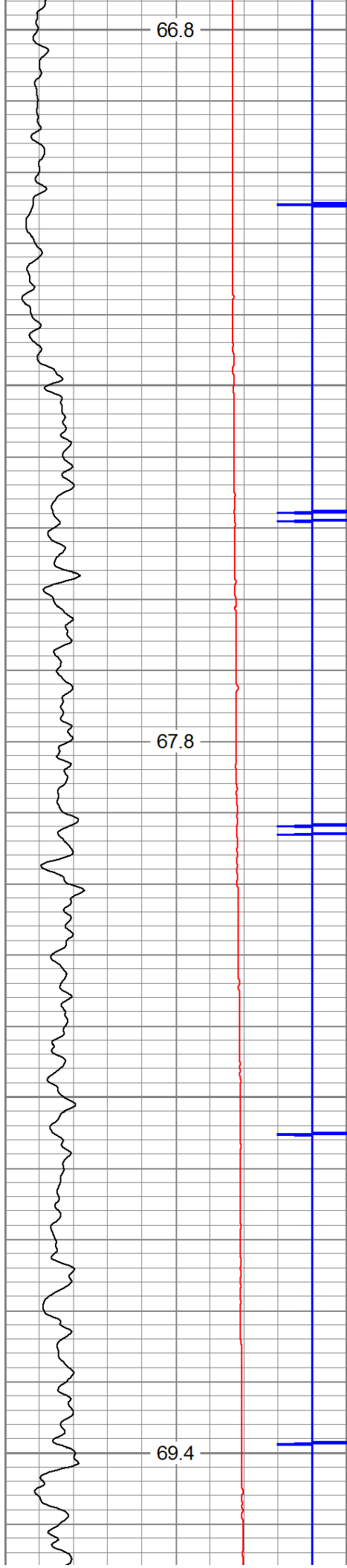
64.8

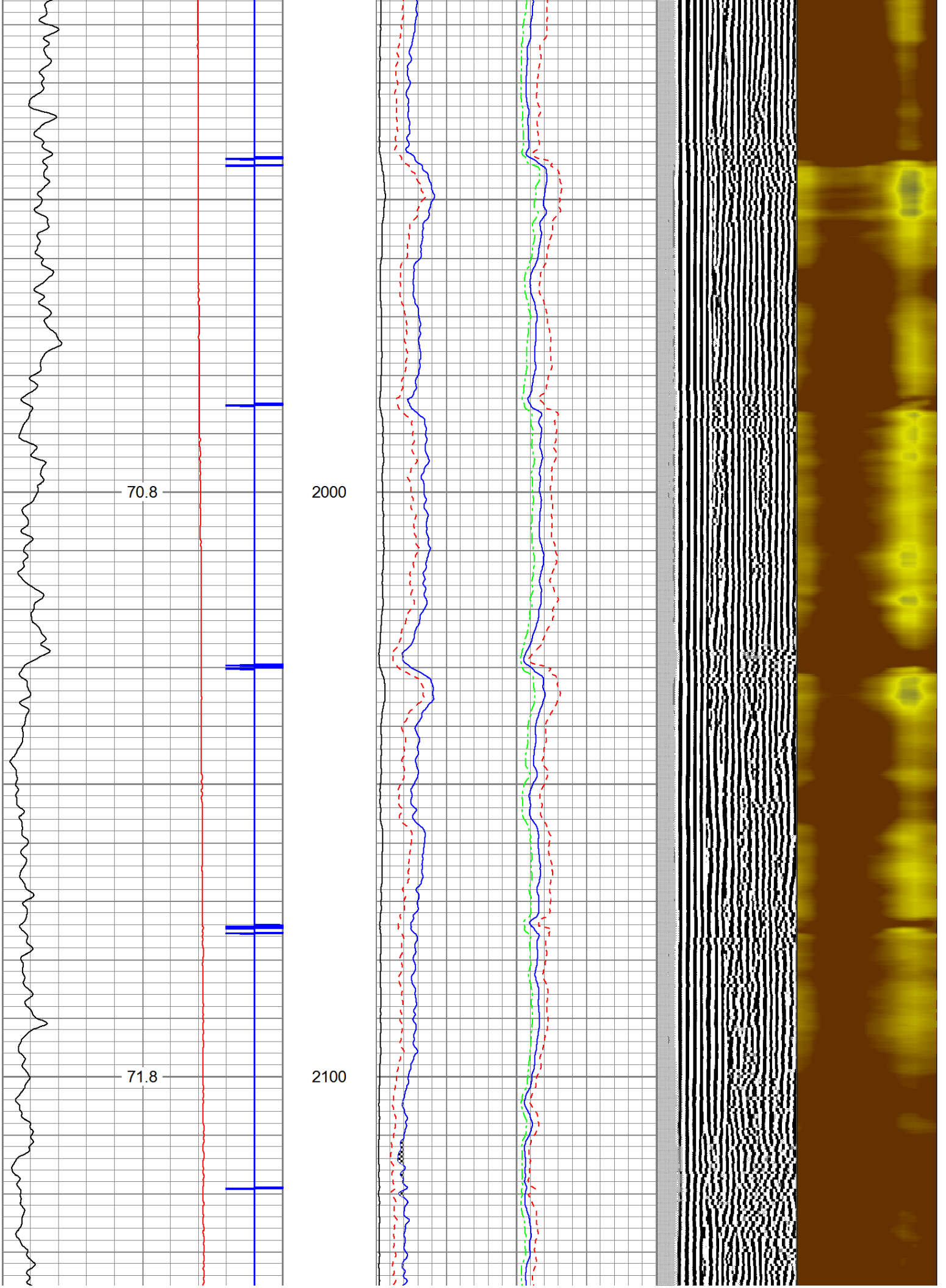
1500

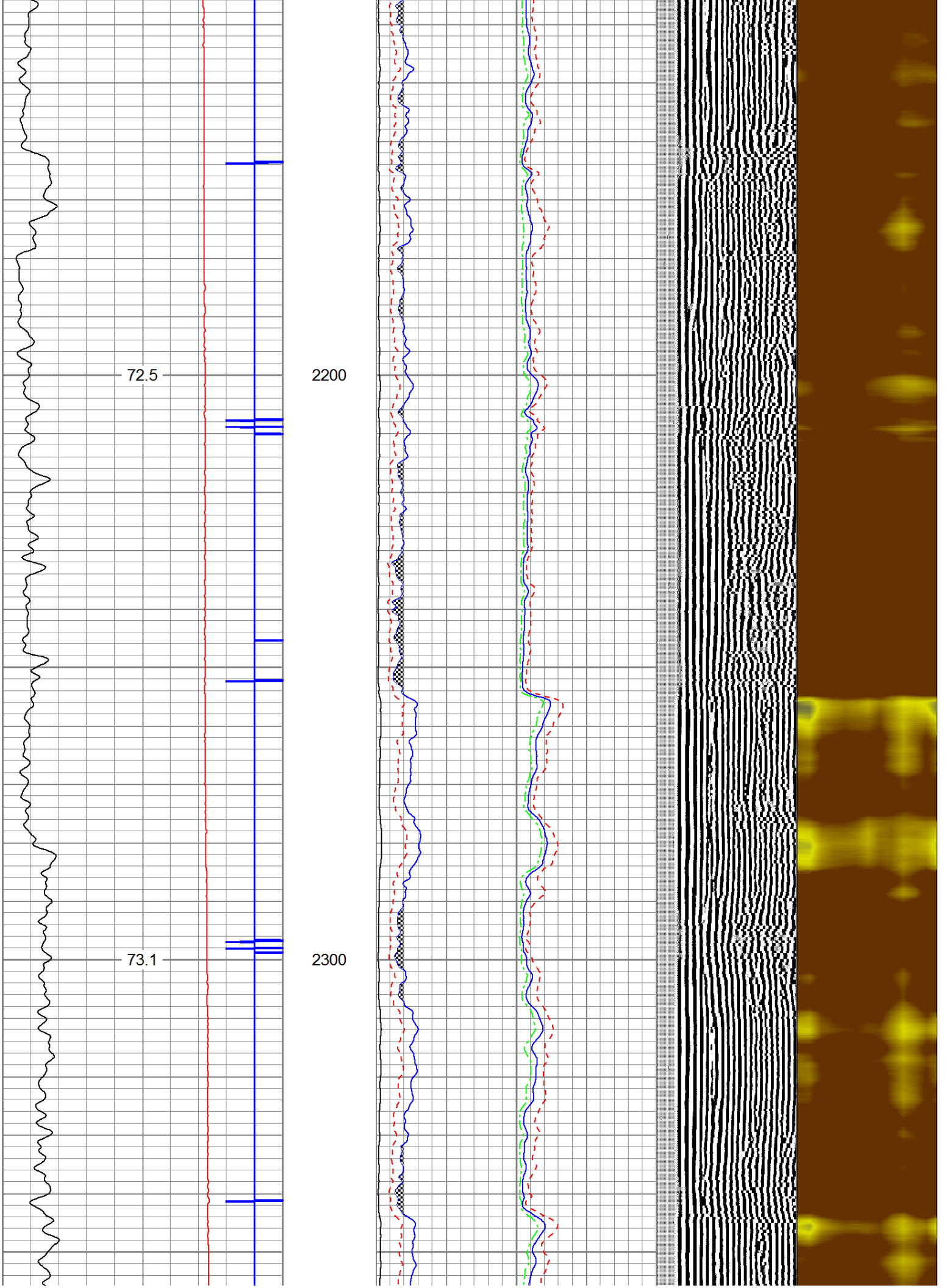
65.8

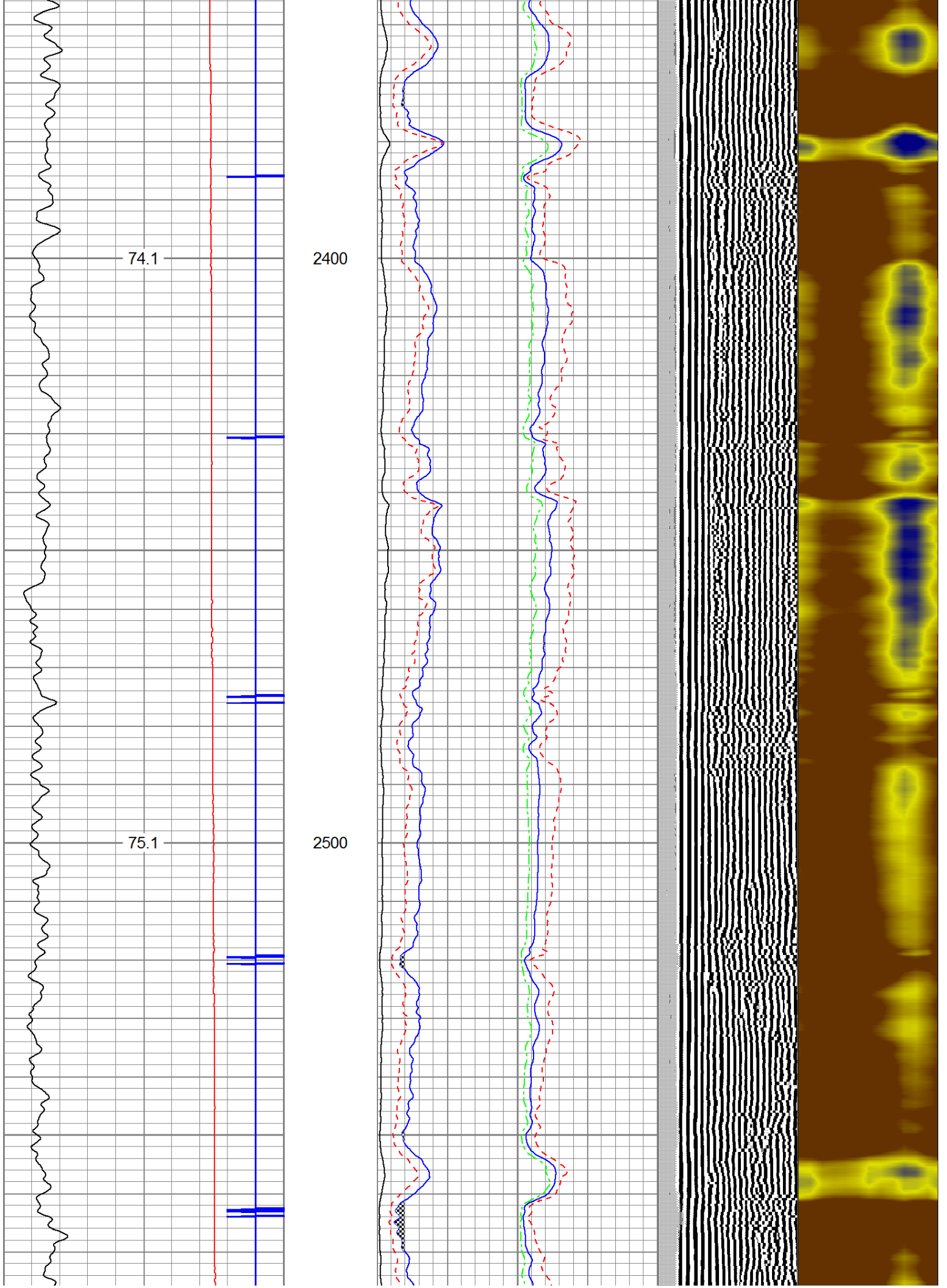
1600

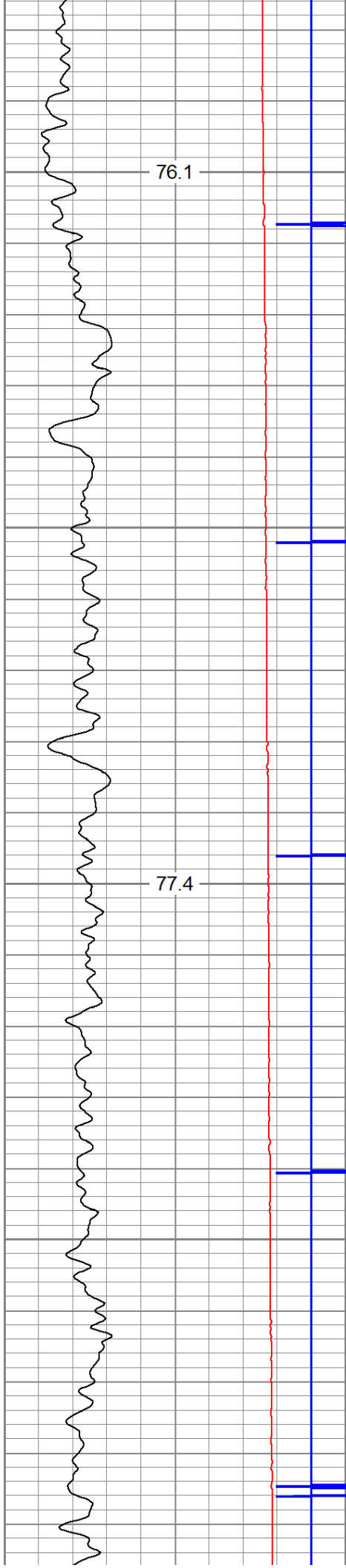






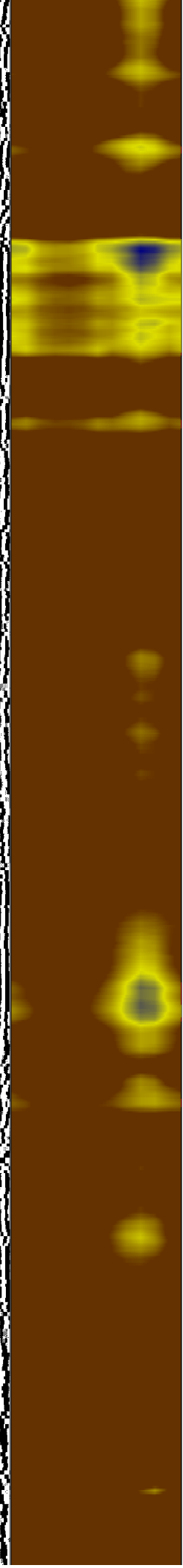
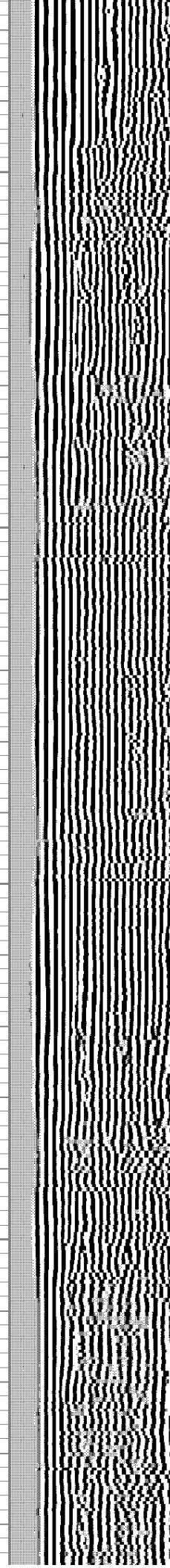
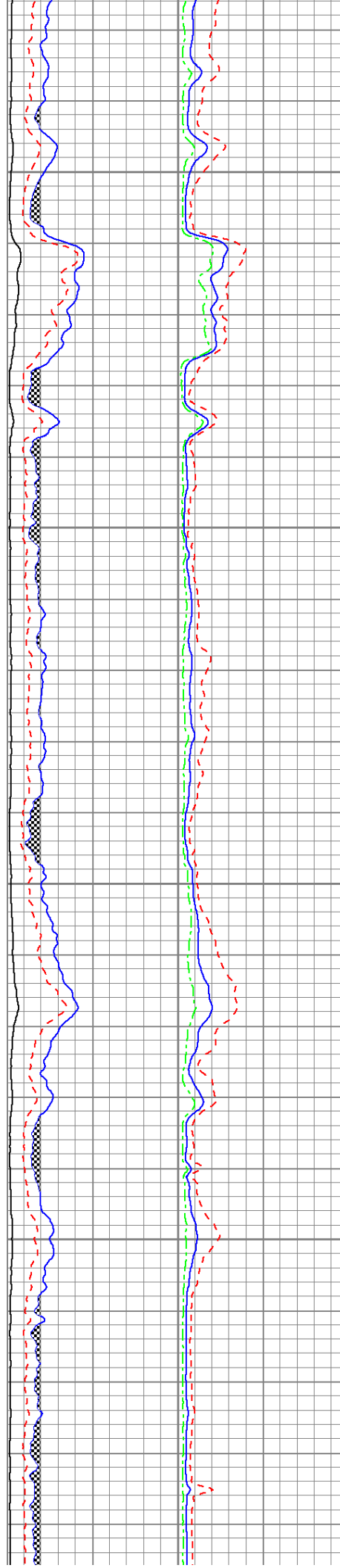


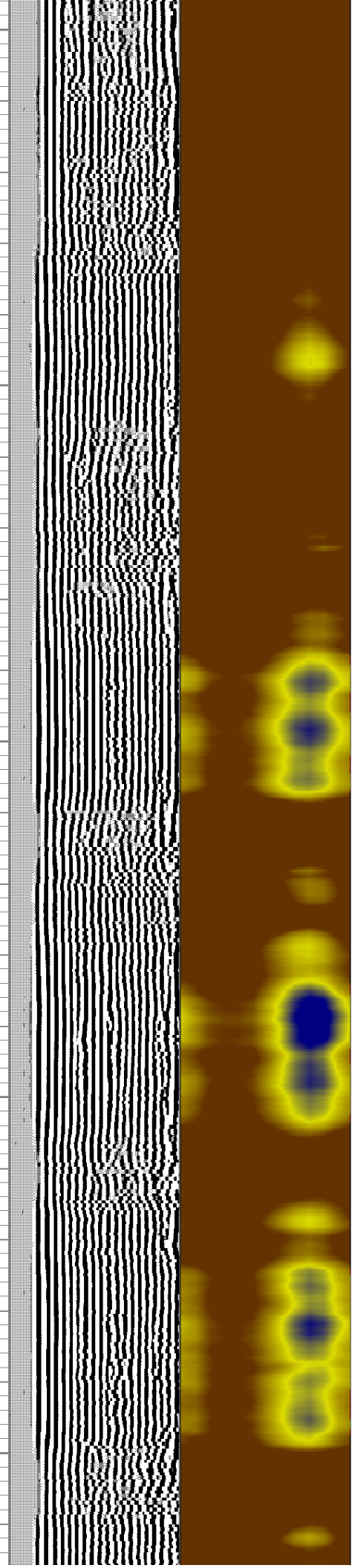
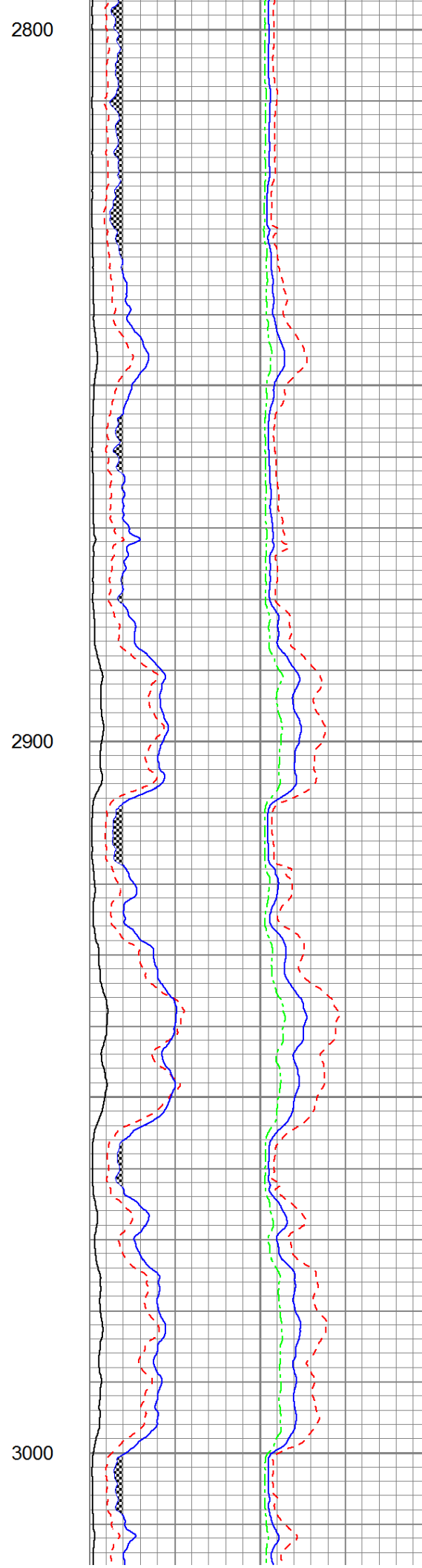
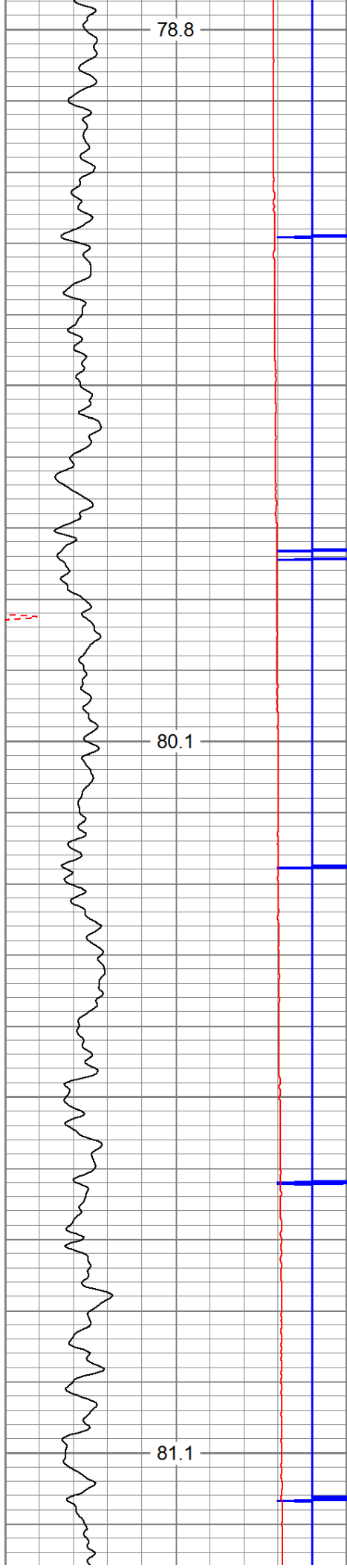


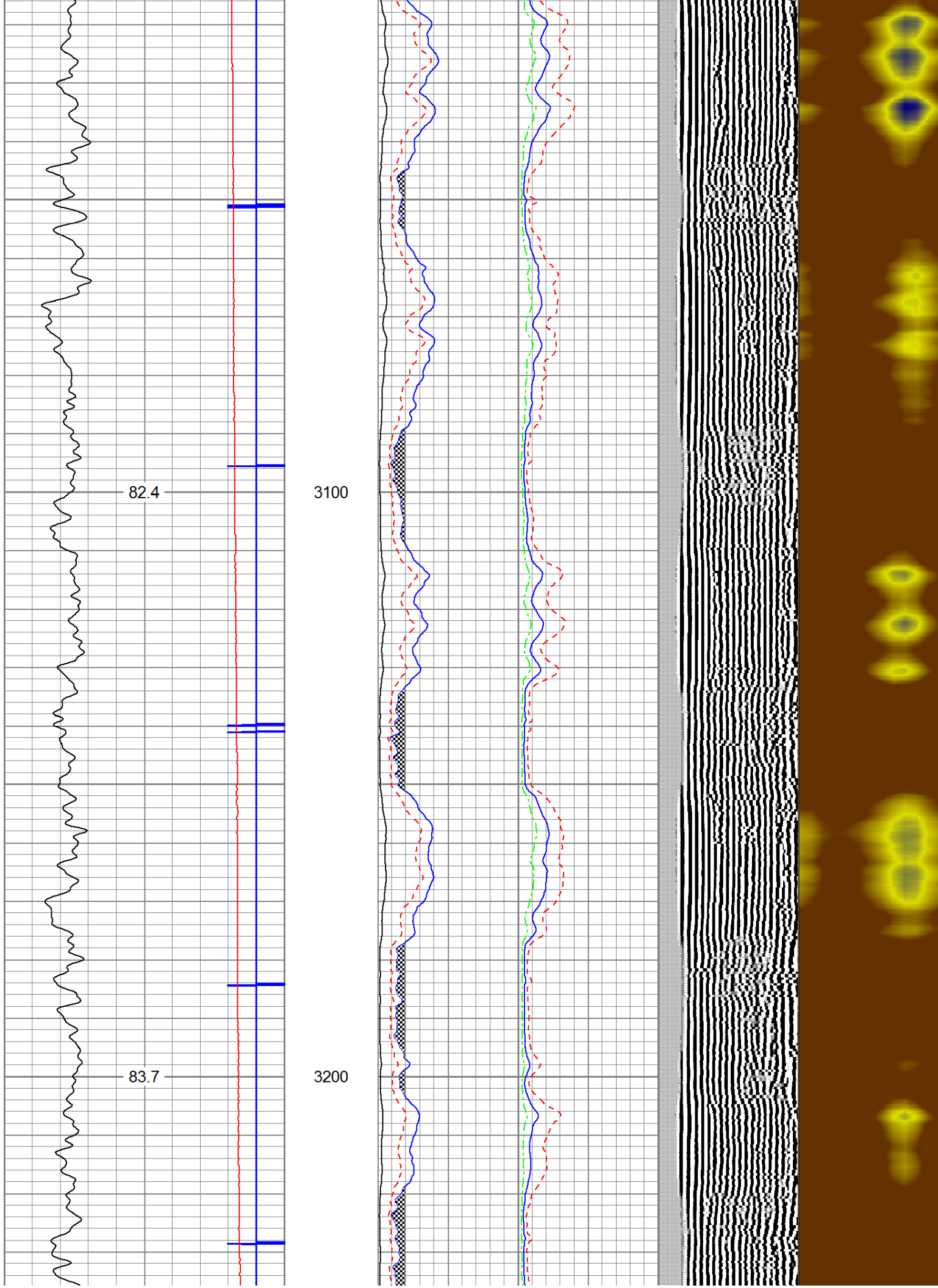


2600

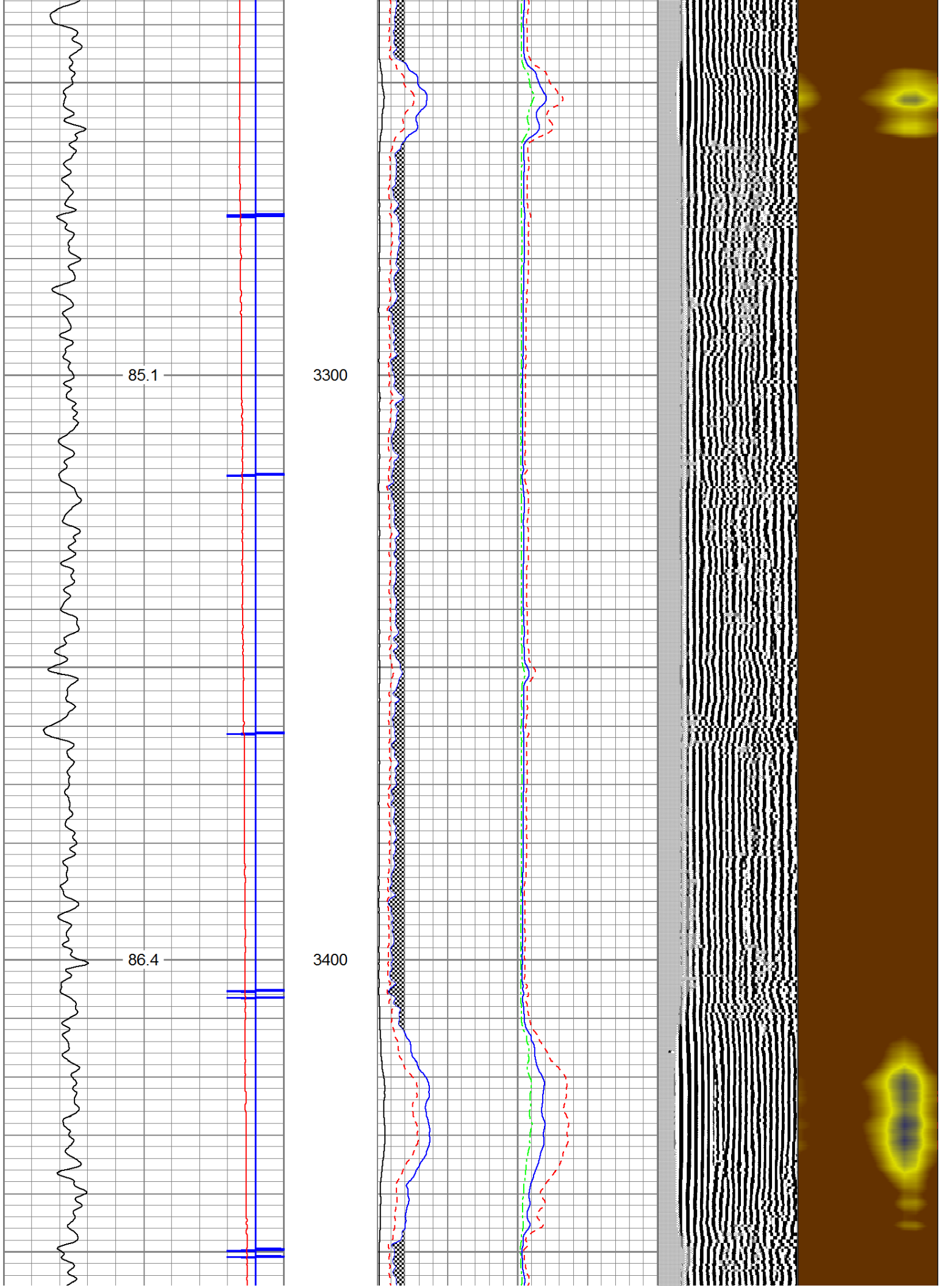
2700

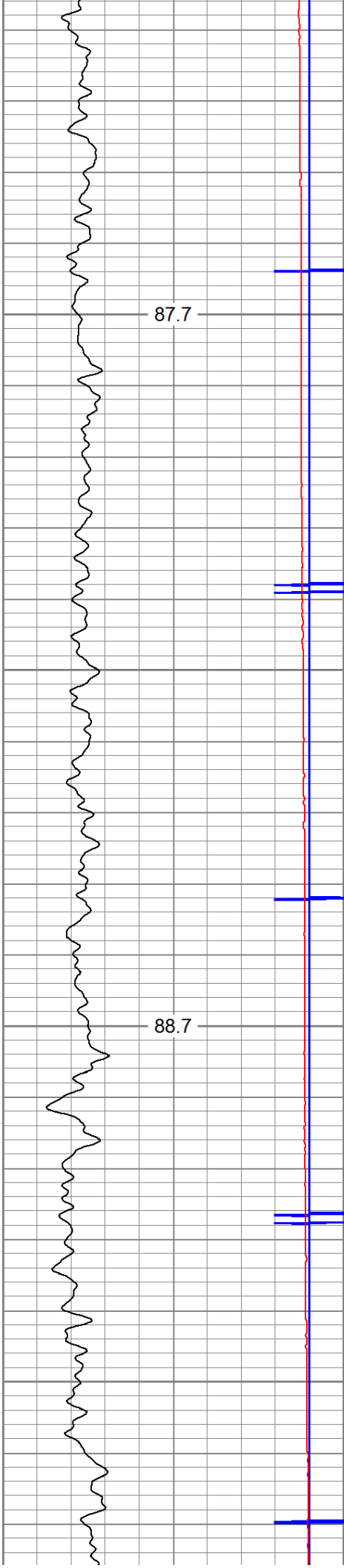






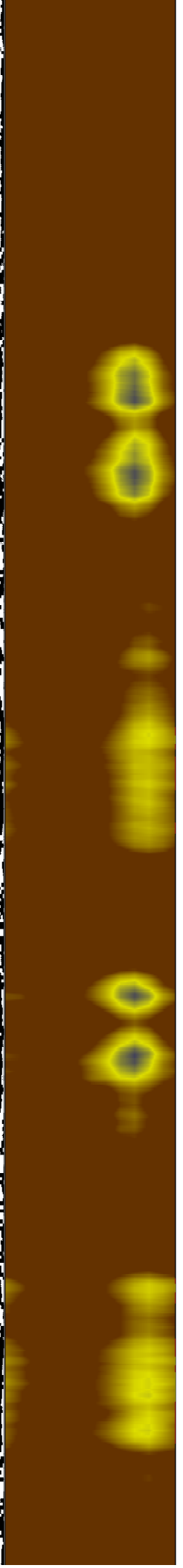
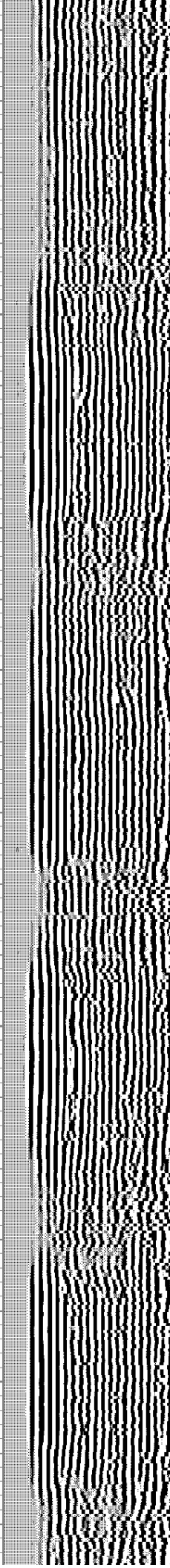
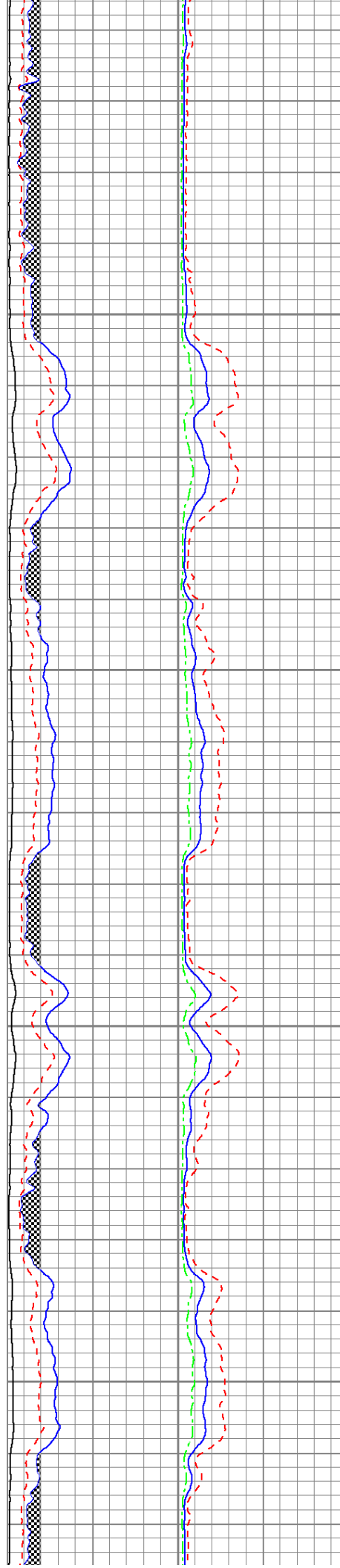


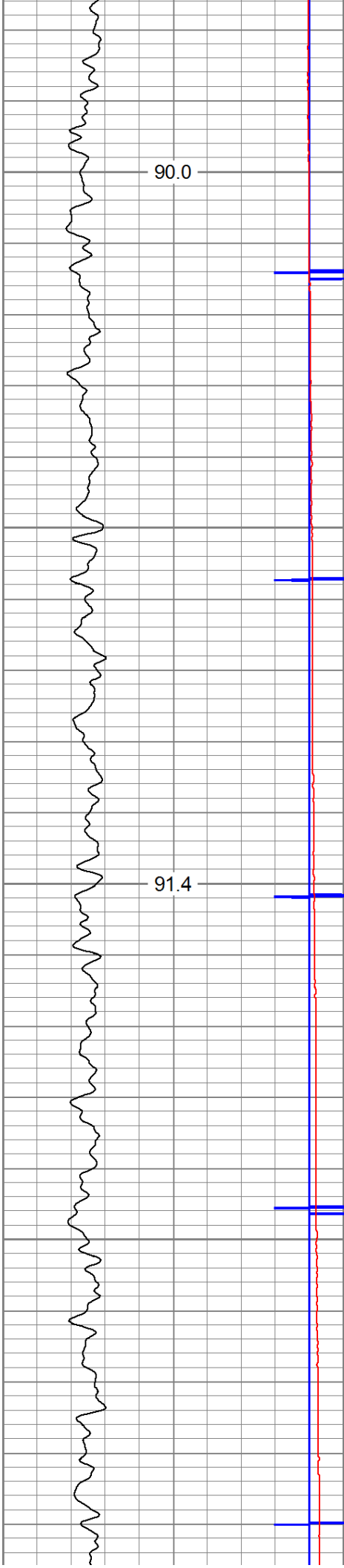




3500

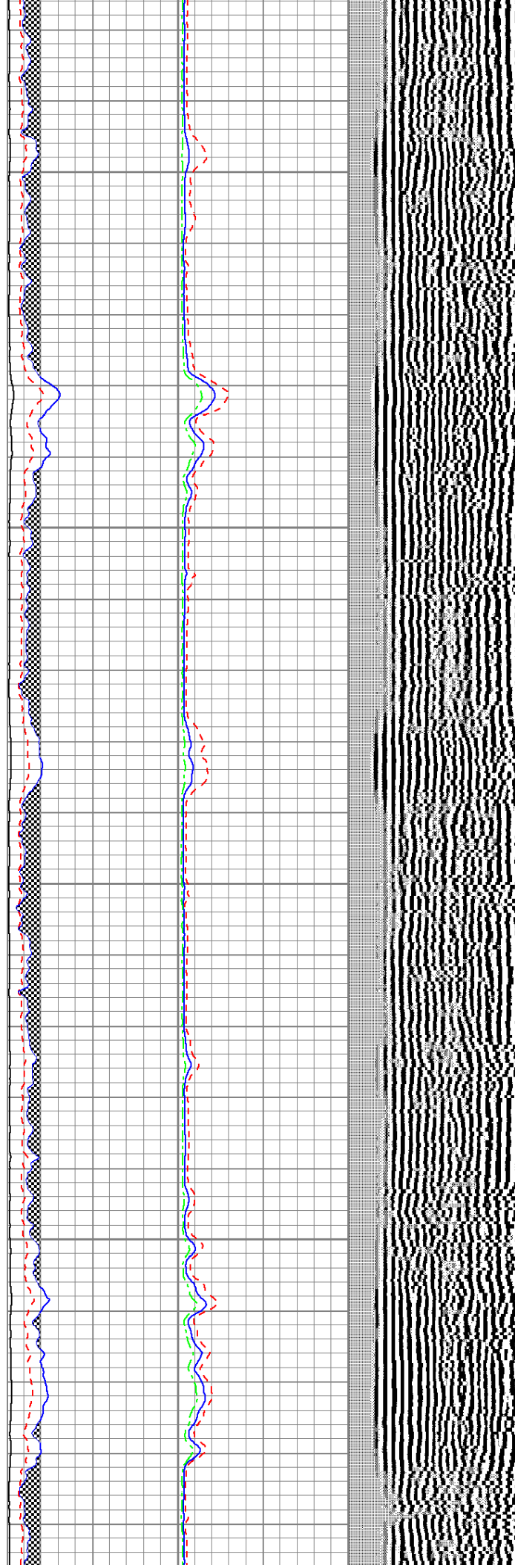
3600

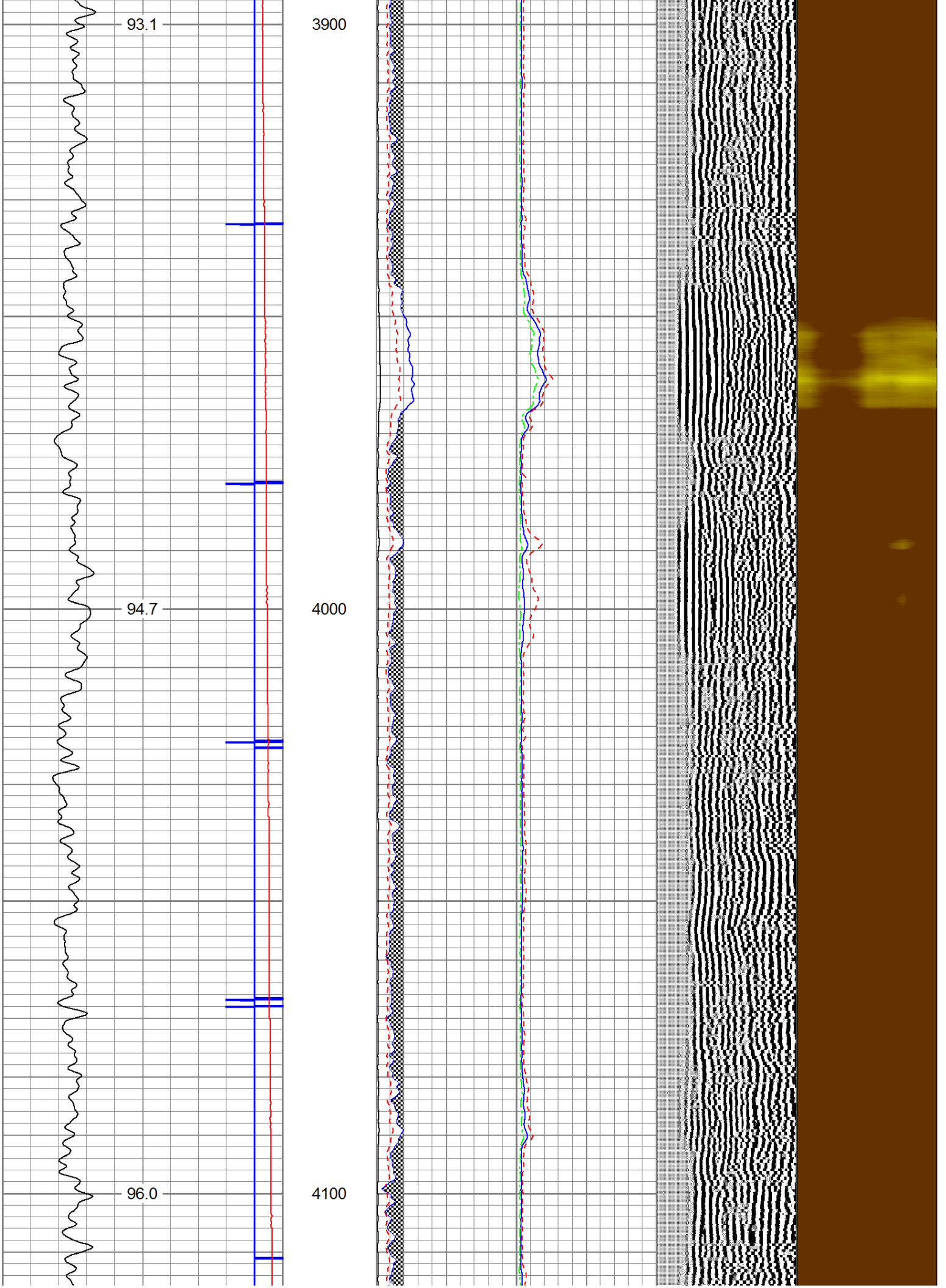


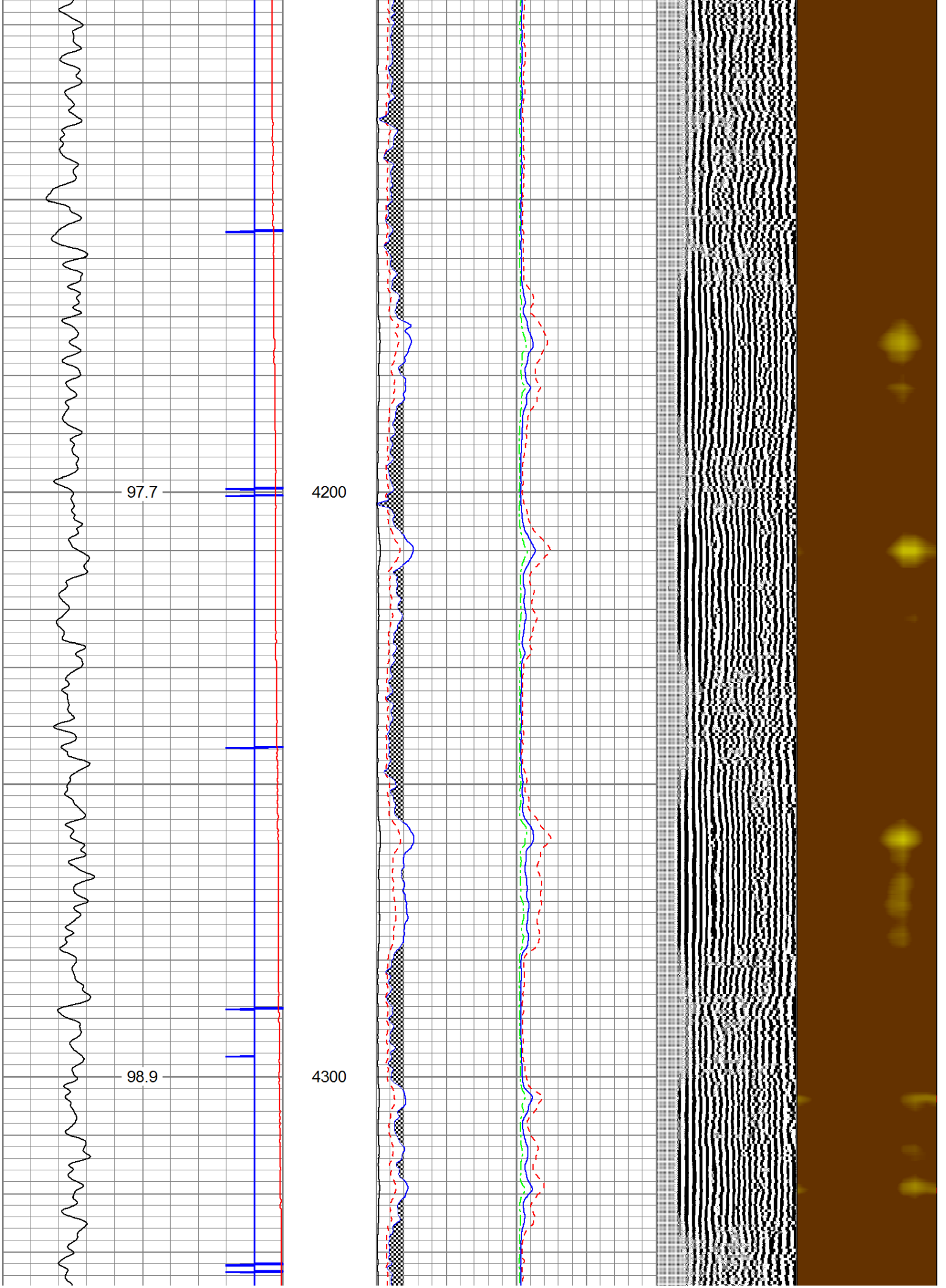


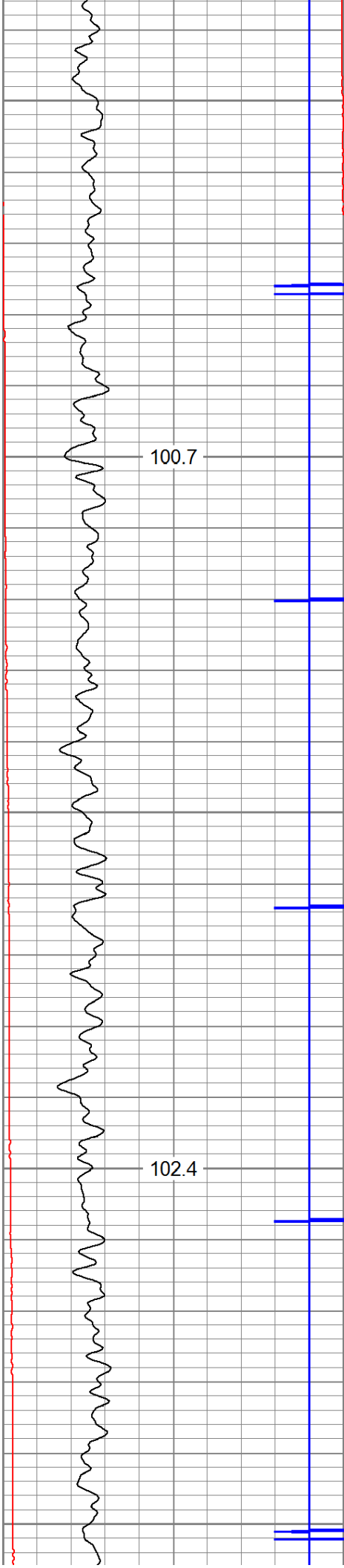
3700

3800



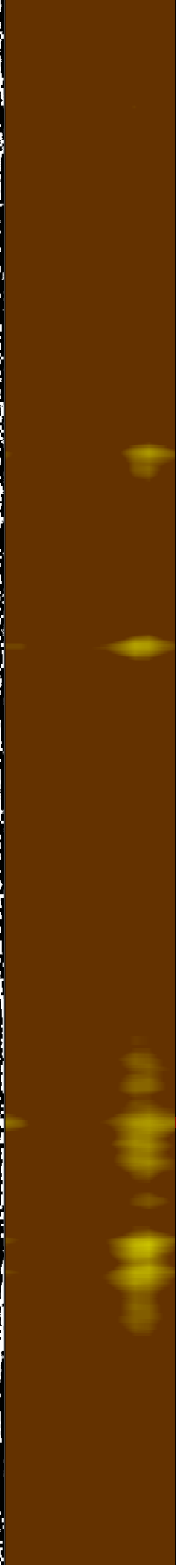
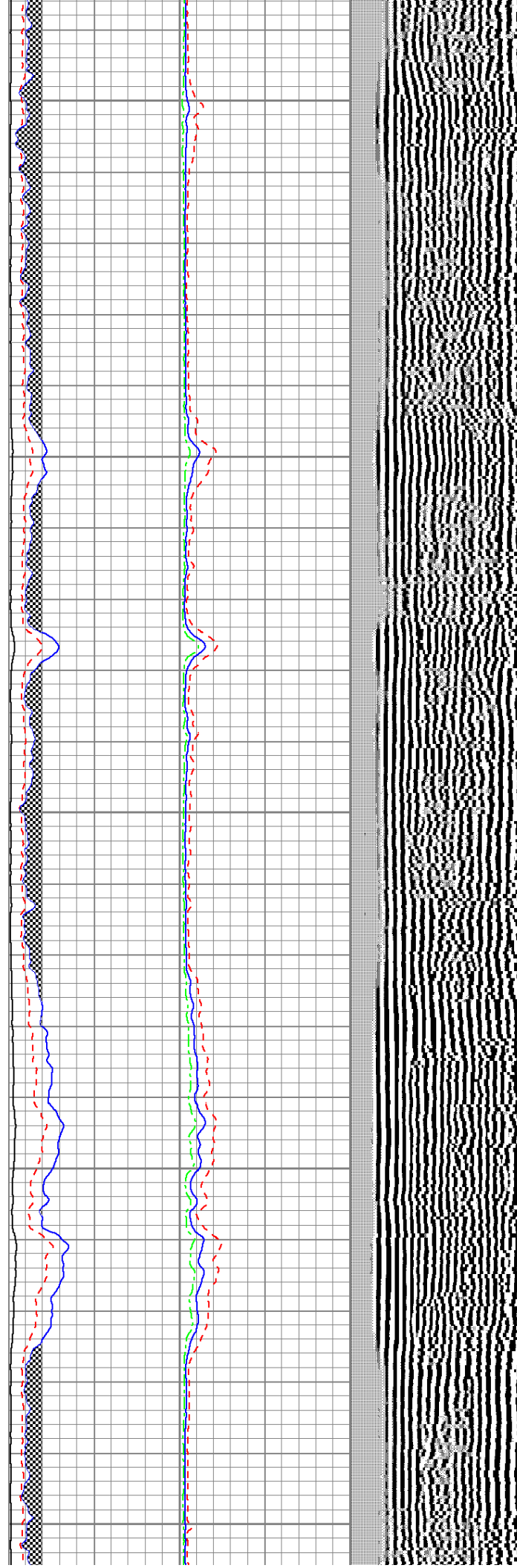


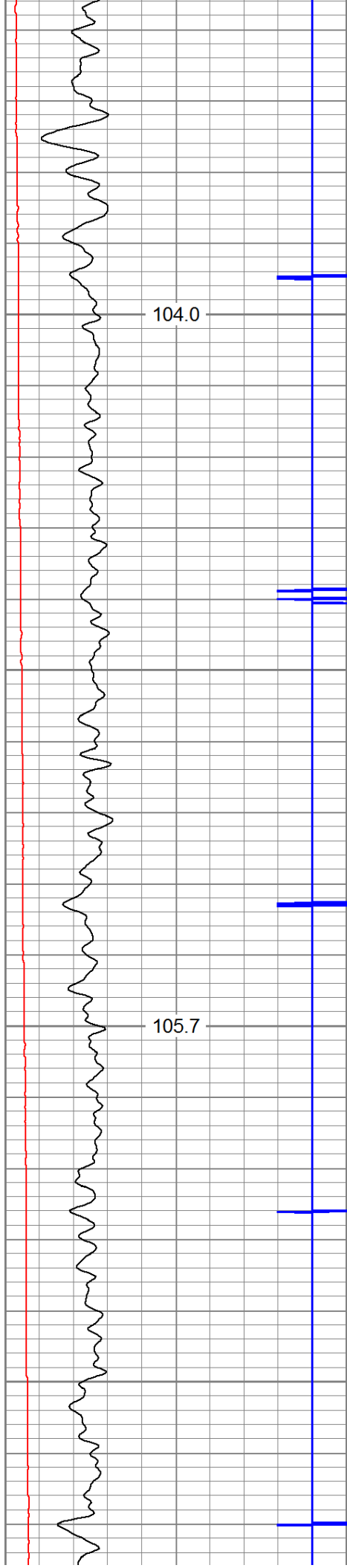




4400

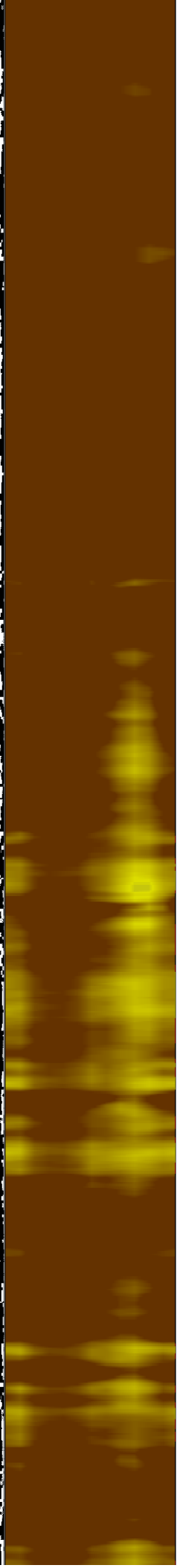
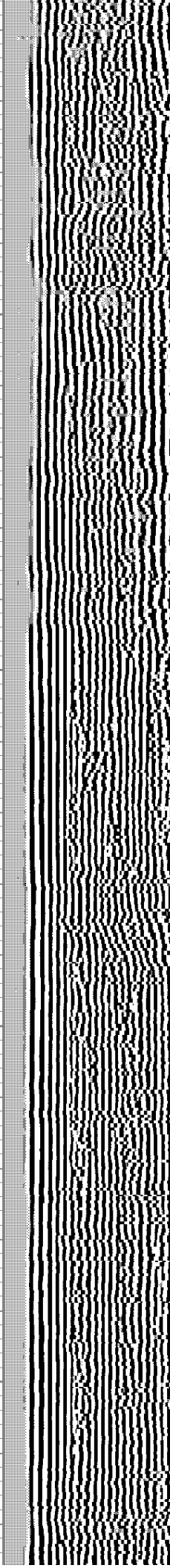
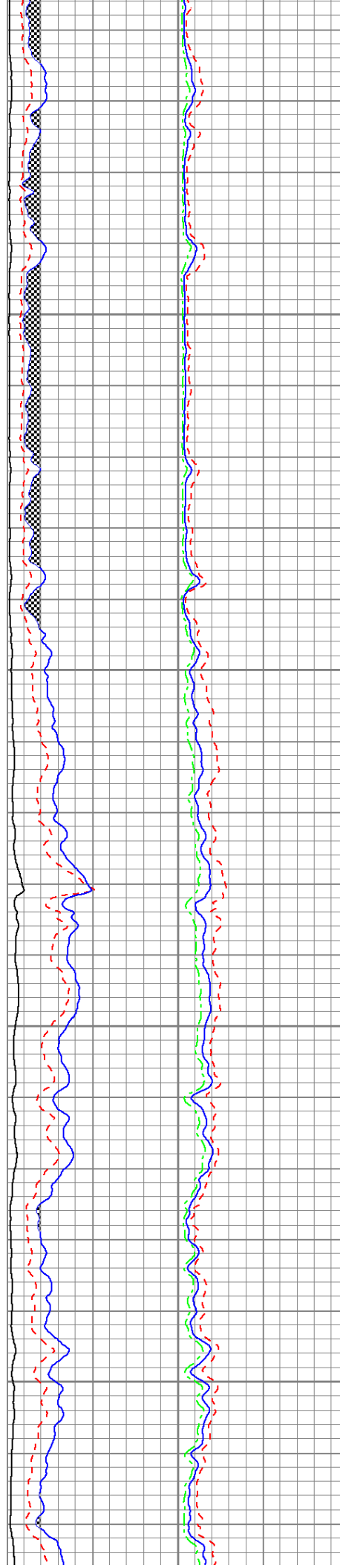
4500

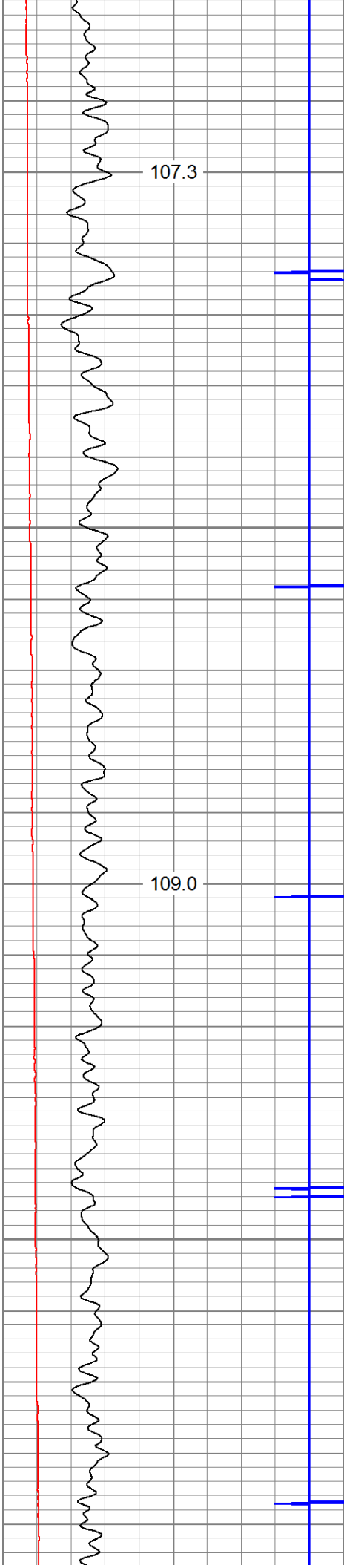




4600

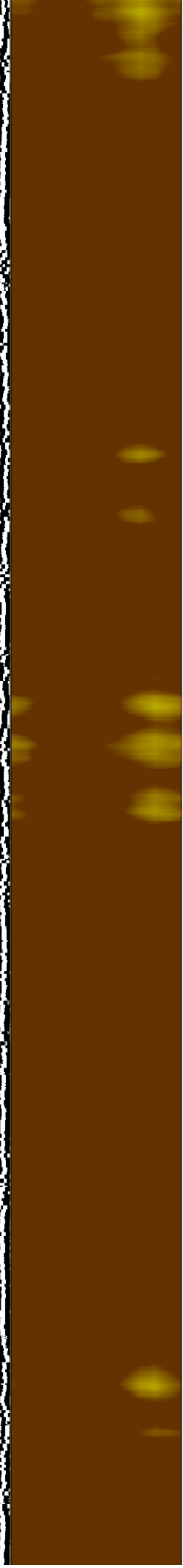
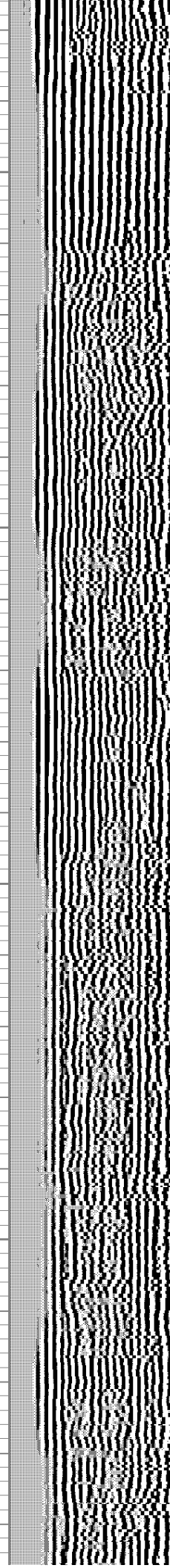
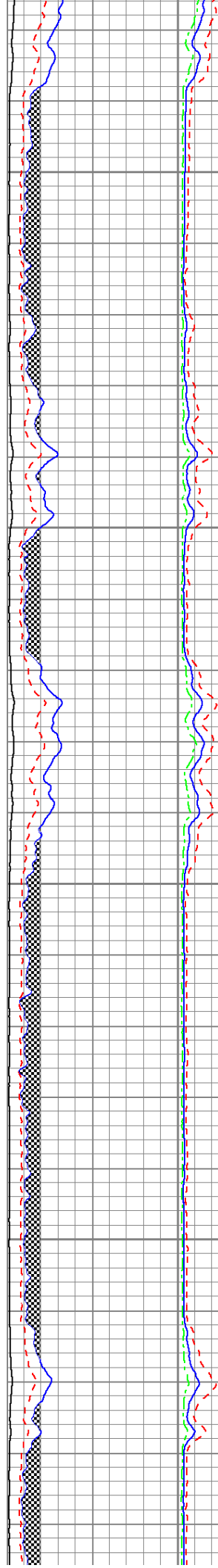
4700



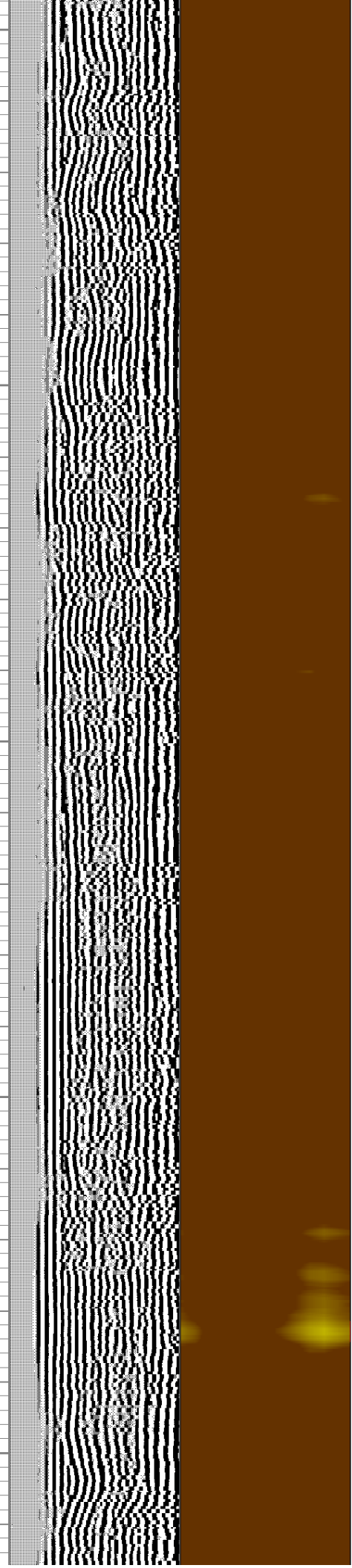
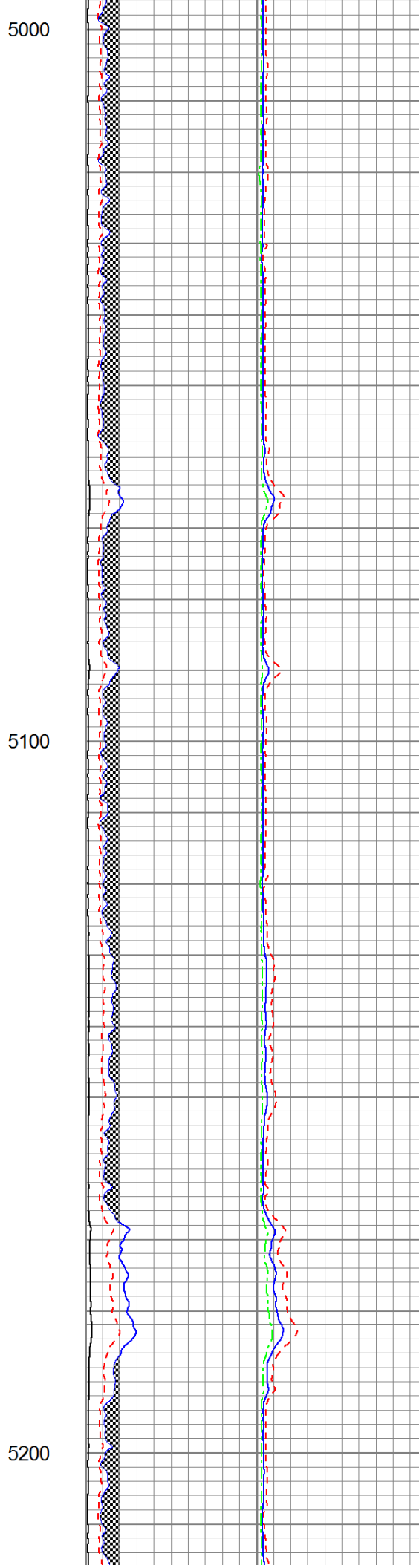
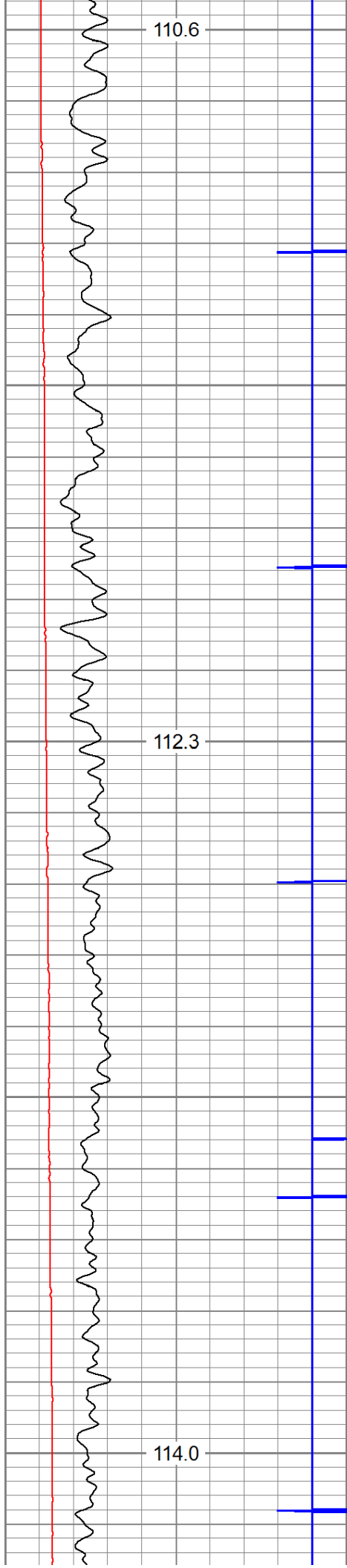


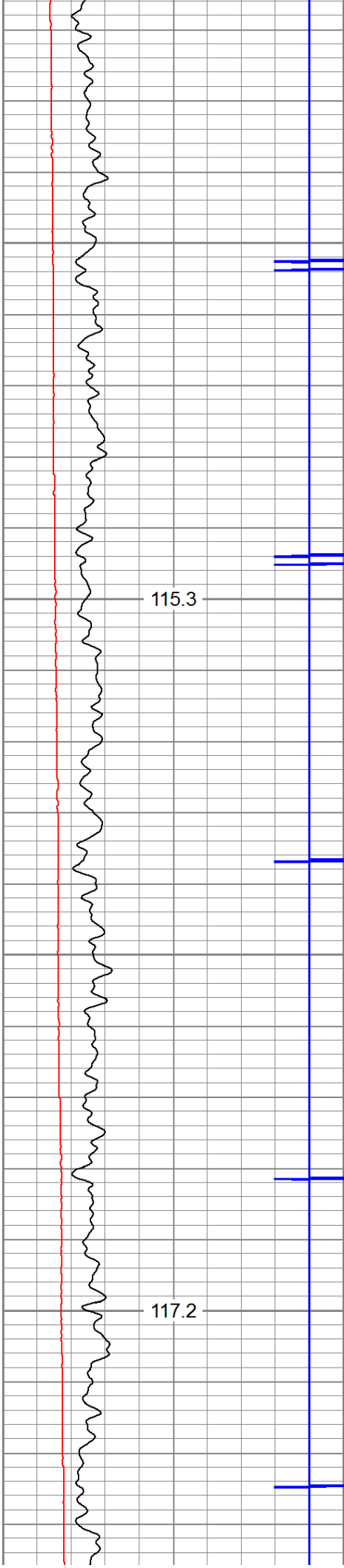
4800

4900



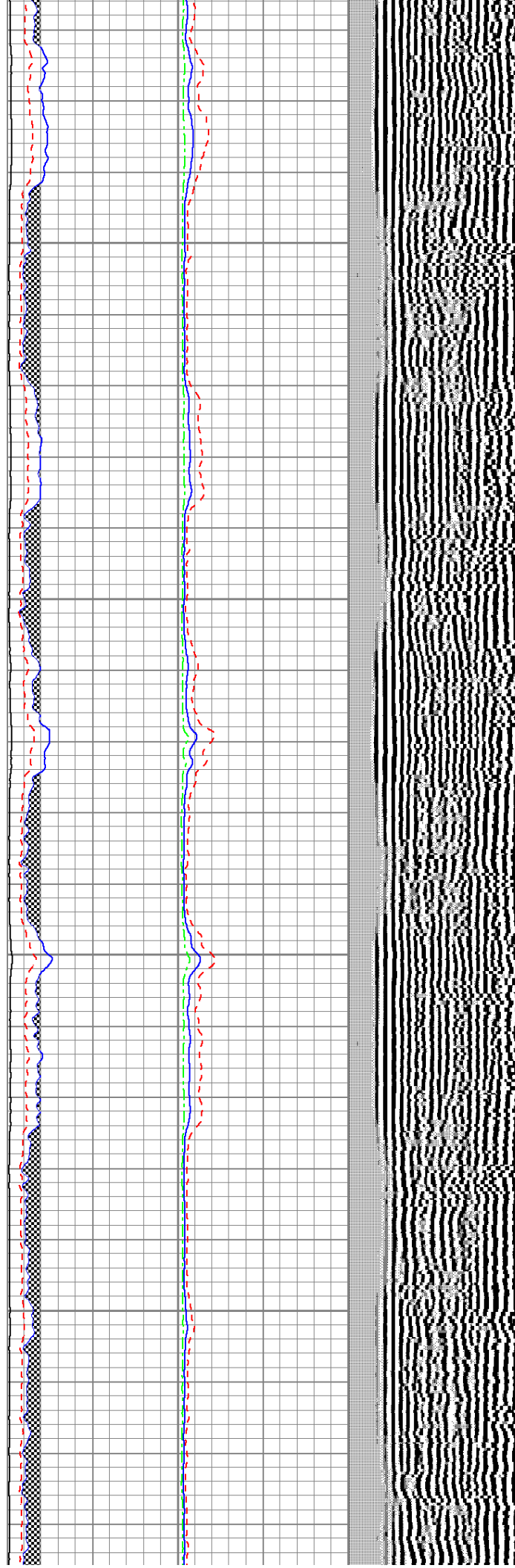


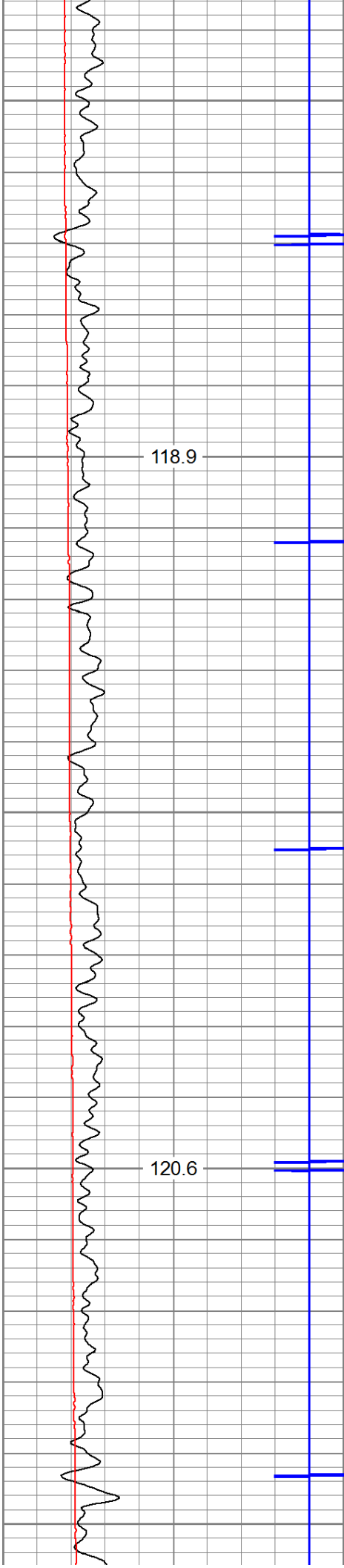




5300

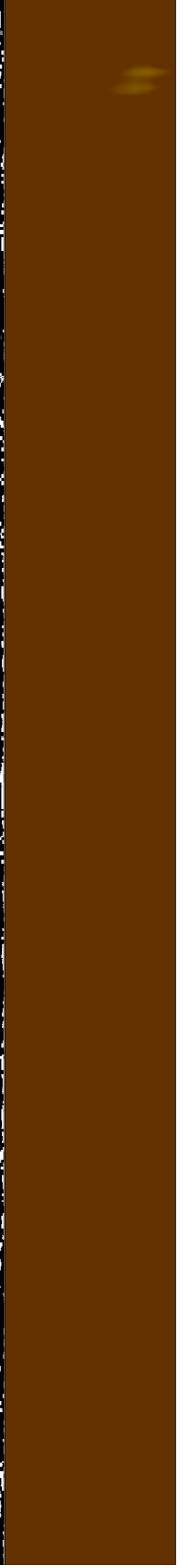
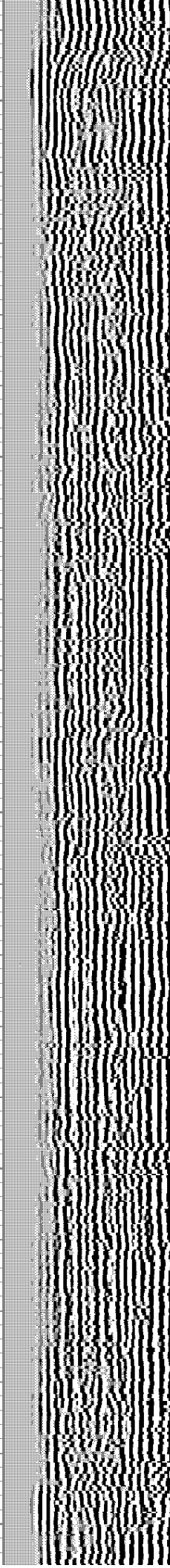
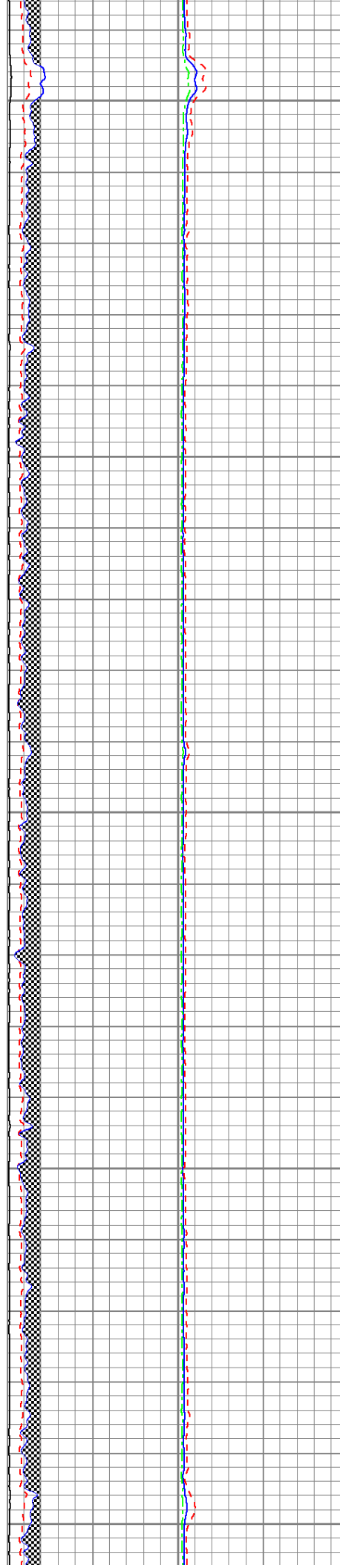
5400

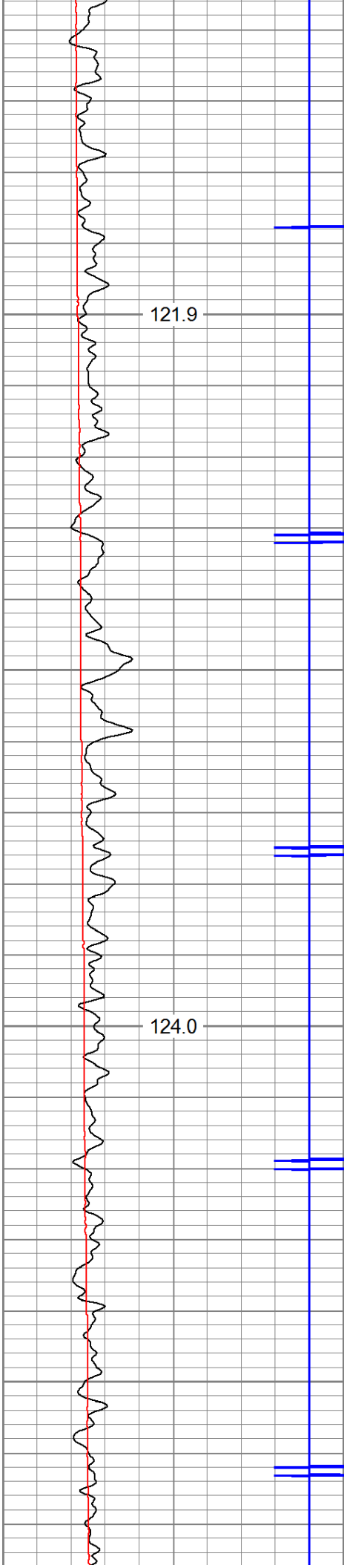




5500

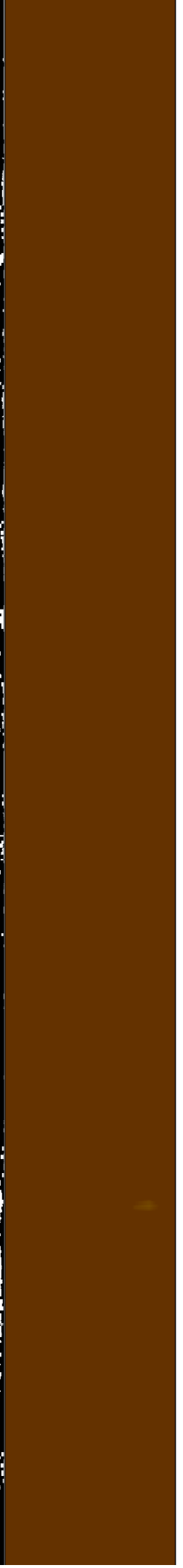
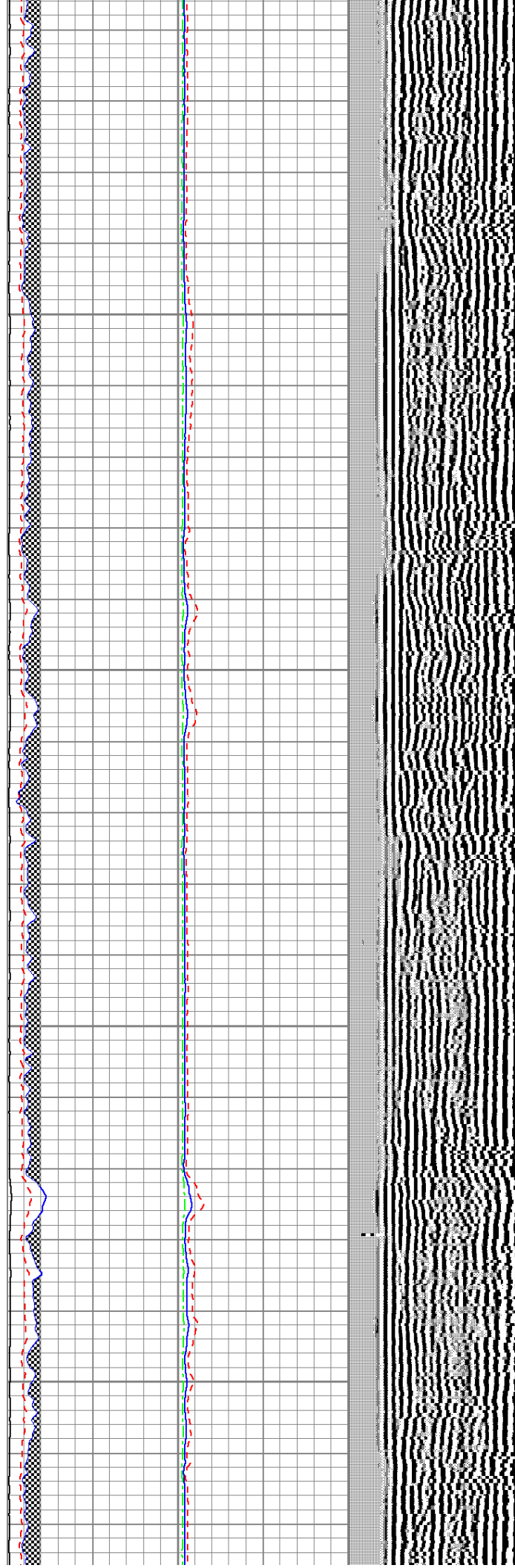
5600

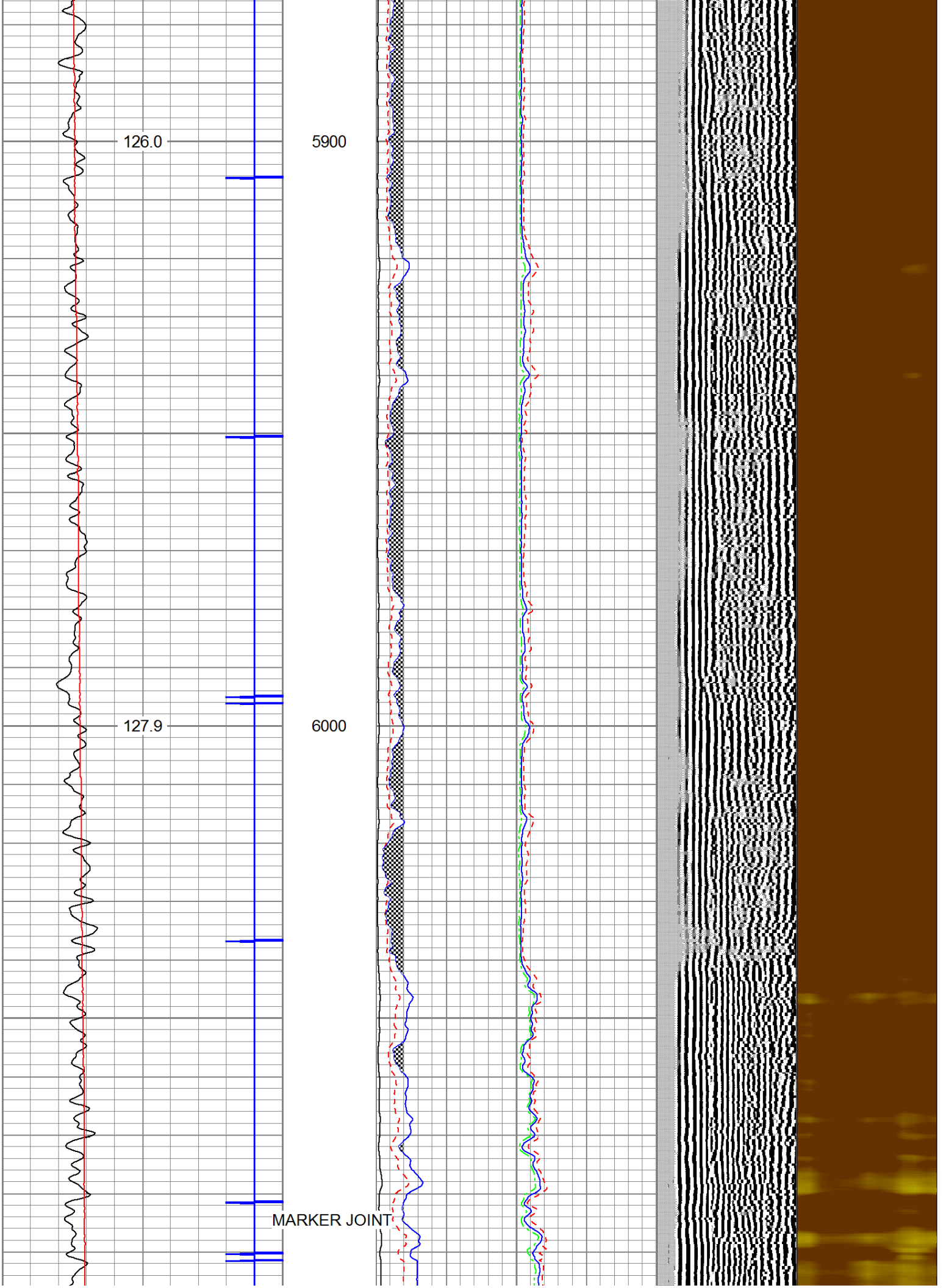


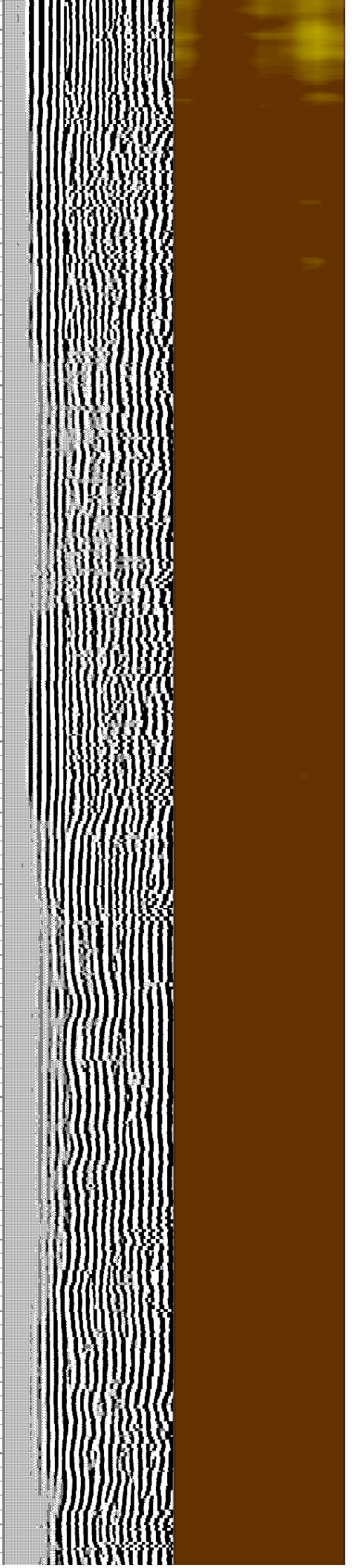
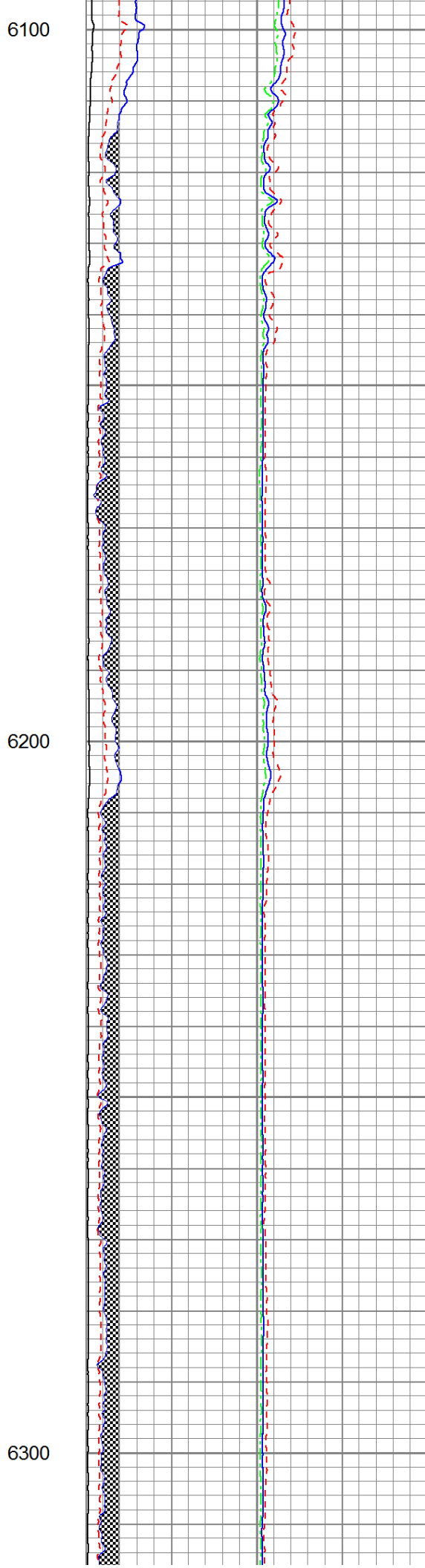
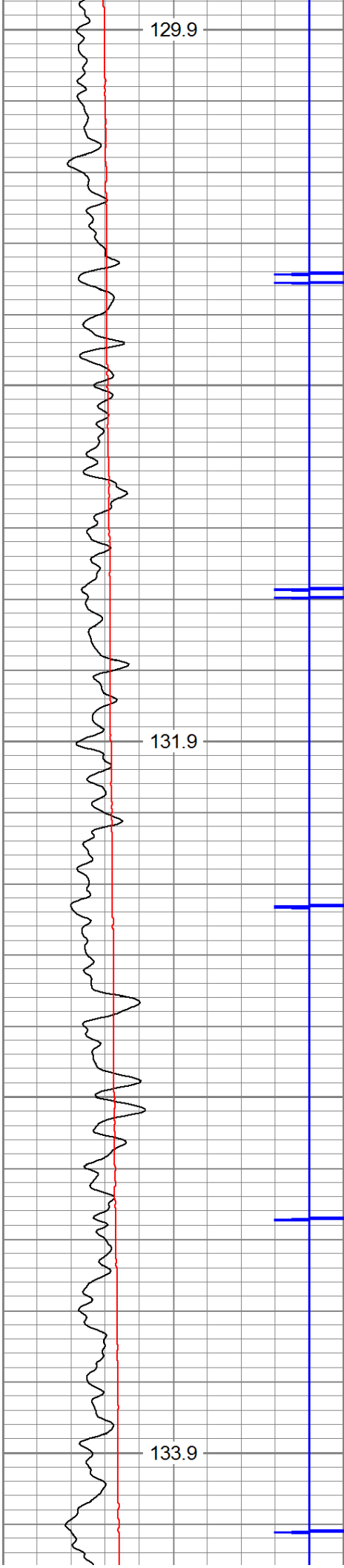


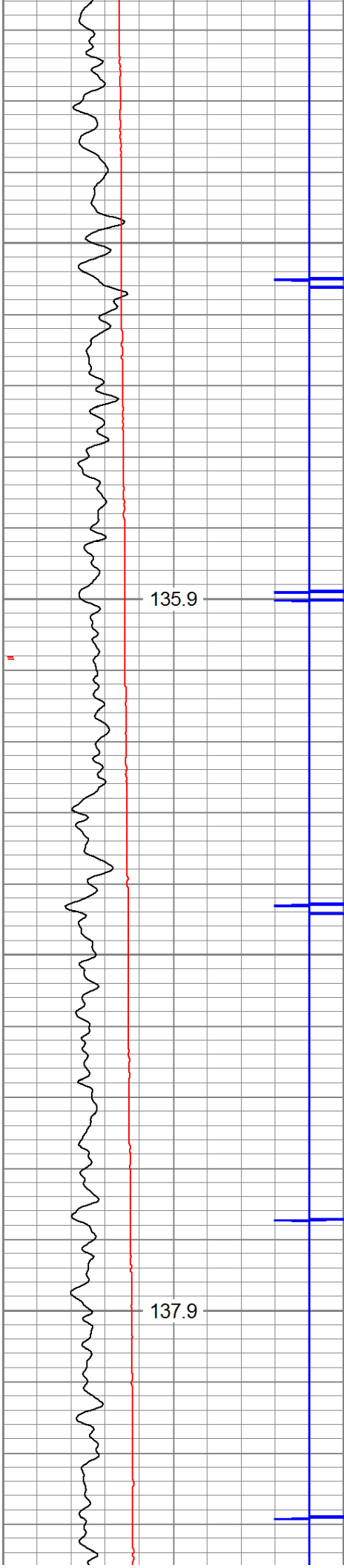
5700

5800







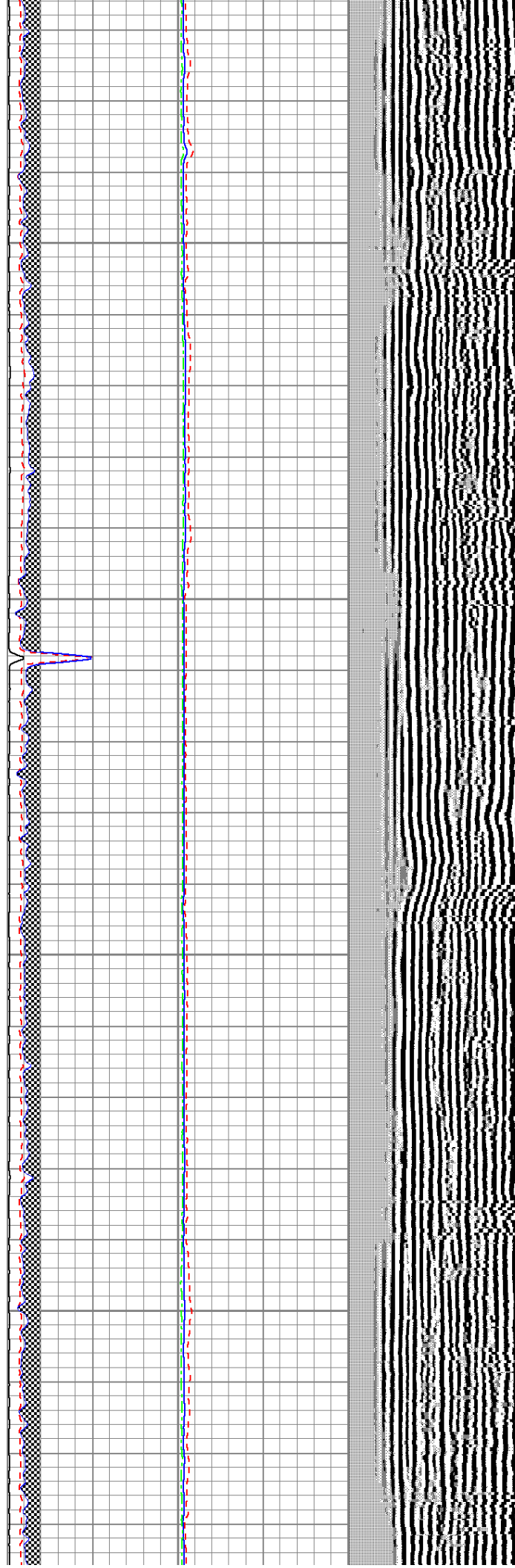


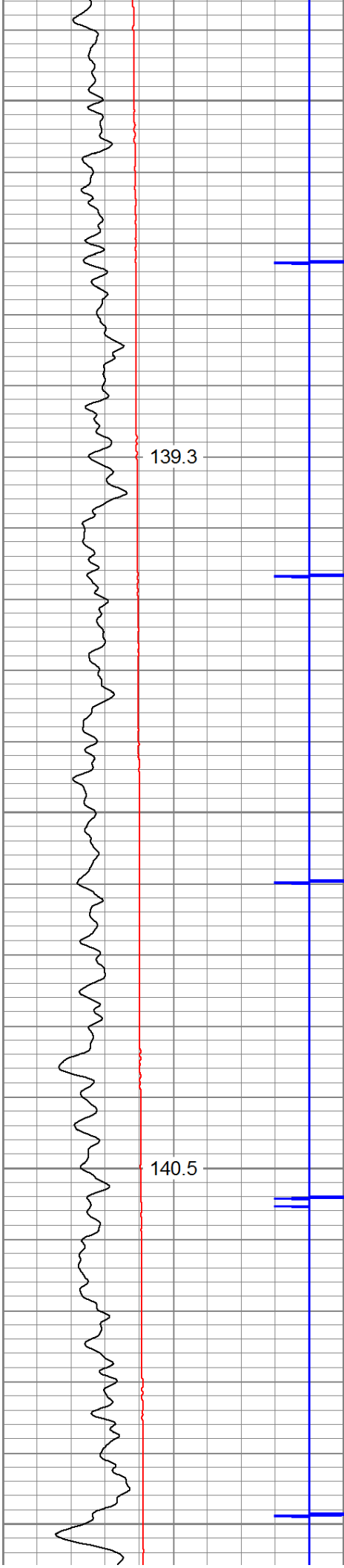
135.9

137.9

6400

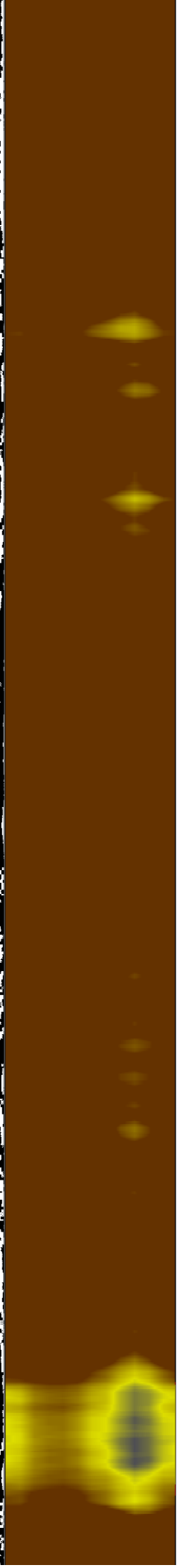
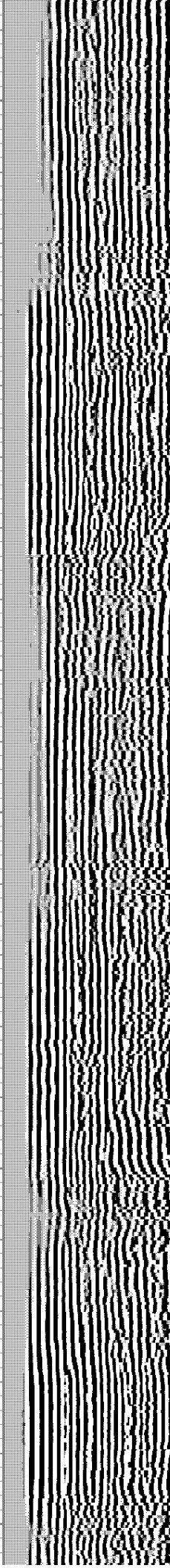
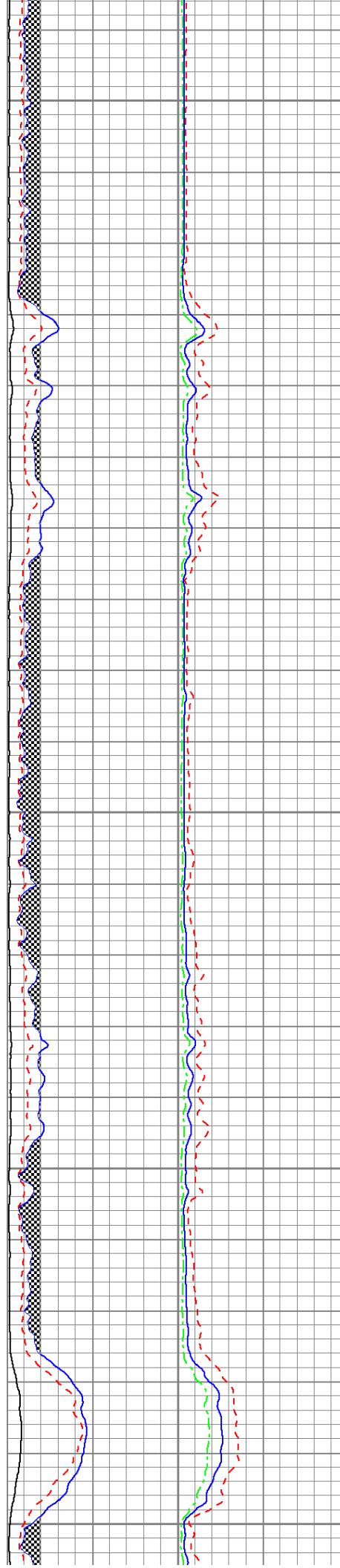
6500



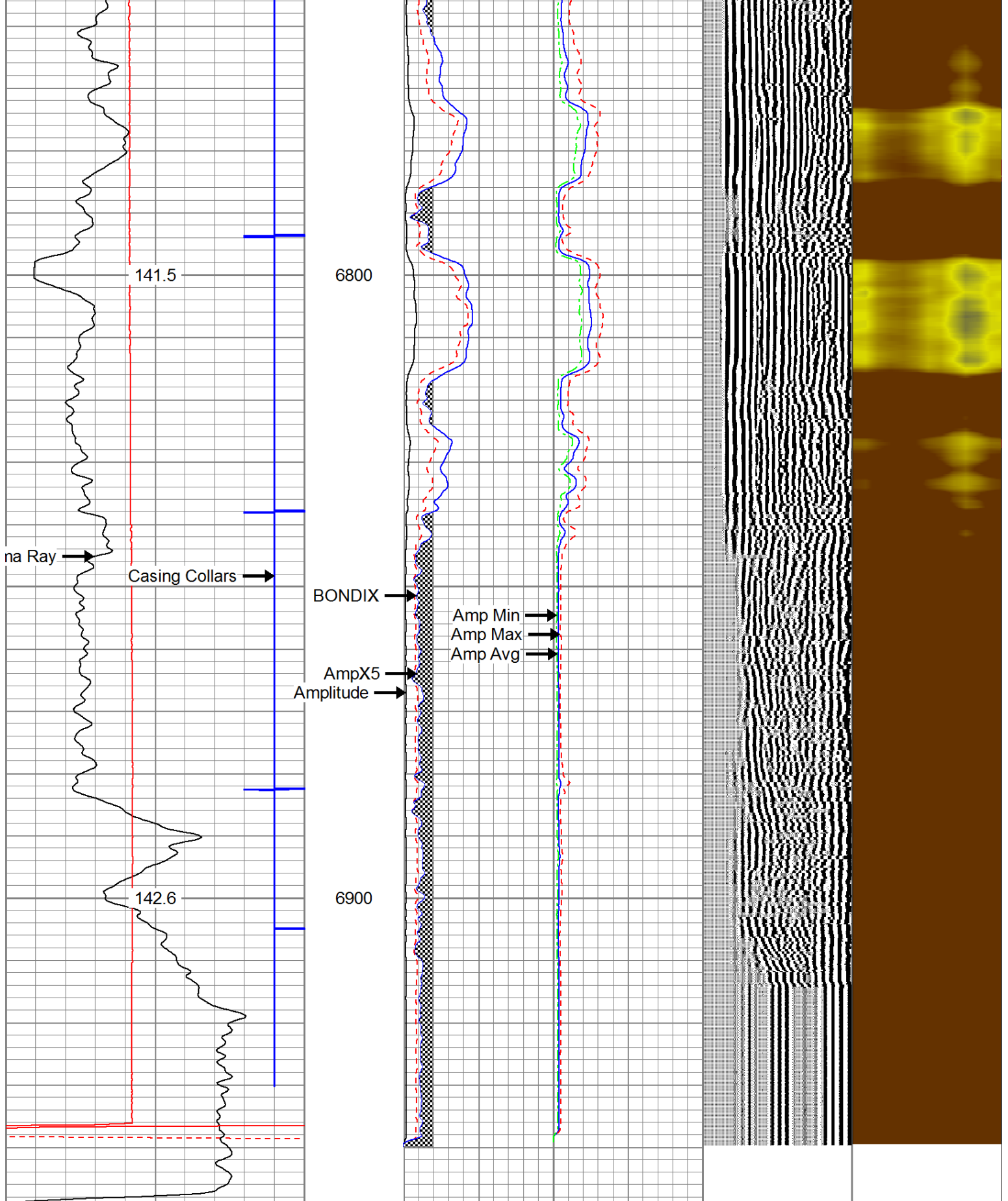


6600

6700







225	Travel Time (usec)	125
9	Casing Collars	-1
0	Gamma Ray	180
0	TEMP (degF)	100

0	Amplitude	0	Amp Avg	150
0	(mV)	100	Amp Max	150
0	AmpX5 (mV)	20	Amp Min	150
1	BONDIX	0		

200	VDL	1200	1	Sector Map	12
			20		60

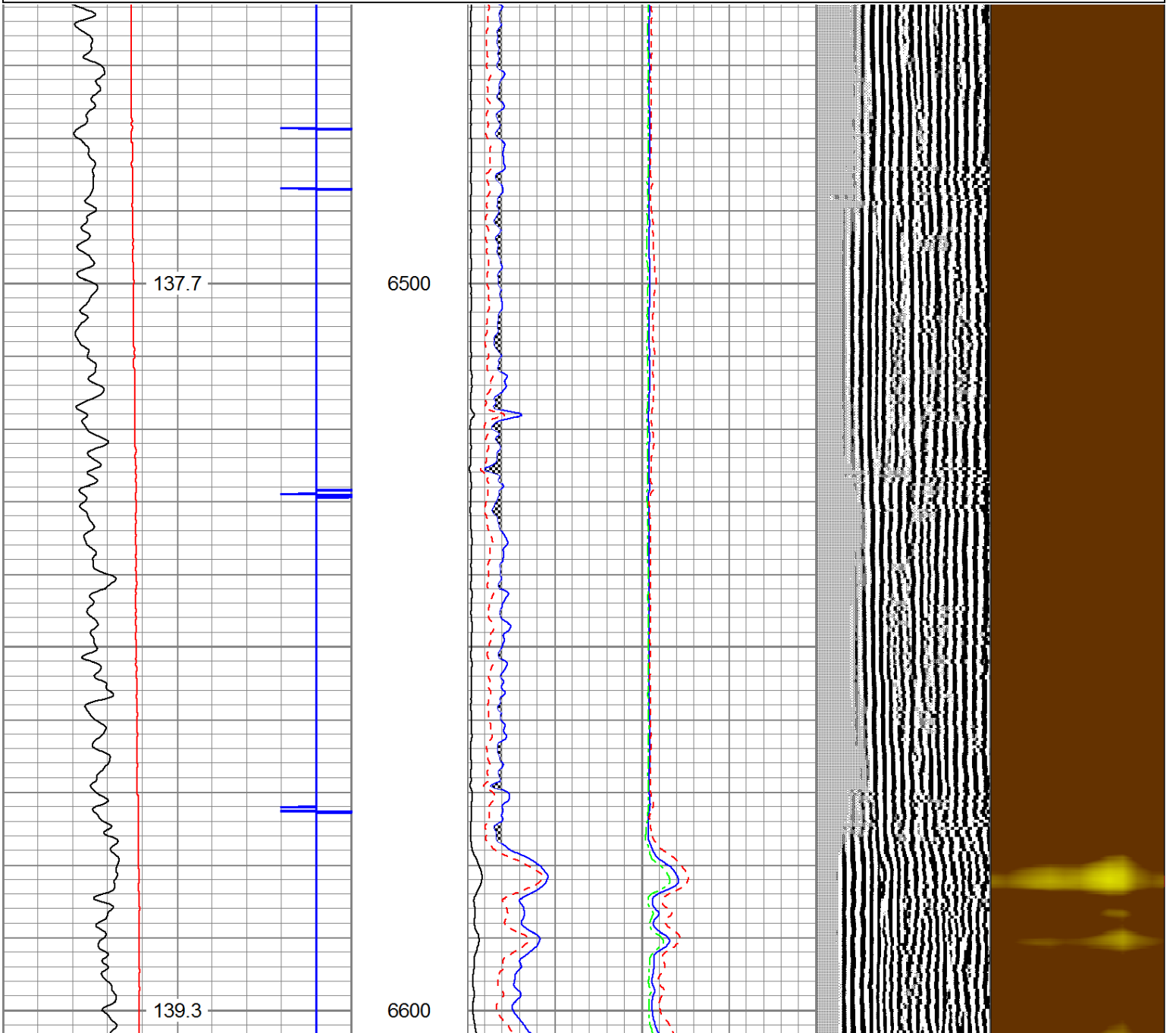
TEMP  
(degF)

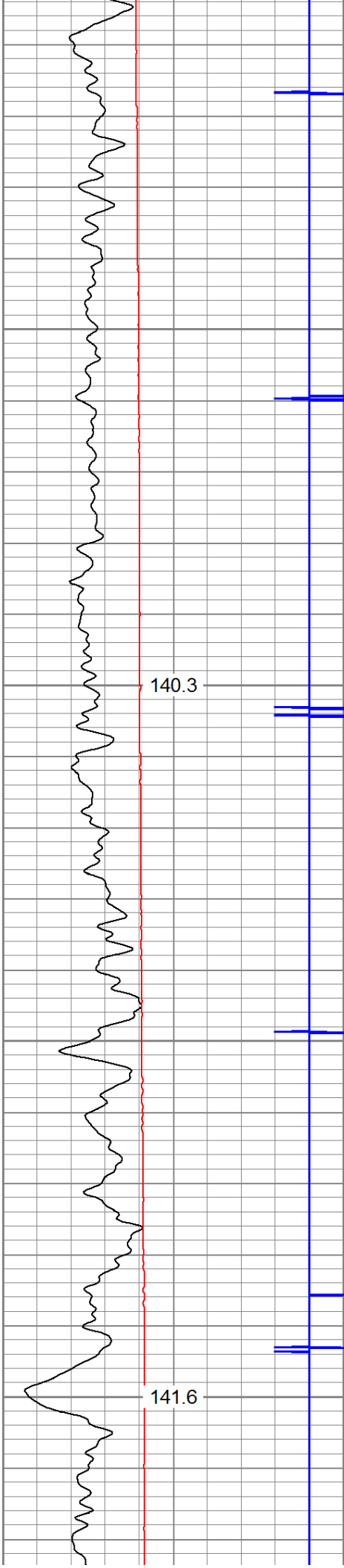


# REPEAT PASS 0 PSI

Database File: f:\2019 antero\pyle run\spock2h.db  
 Dataset Pathname: pass4  
 Presentation Format: antero  
 Dataset Creation: Sun Feb 03 23:11:56 2019 by Log 7.0 B1  
 Charted by: Depth in Feet scaled 1:240

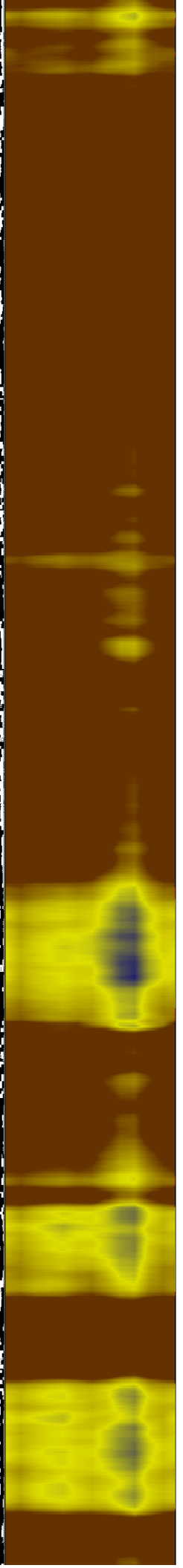
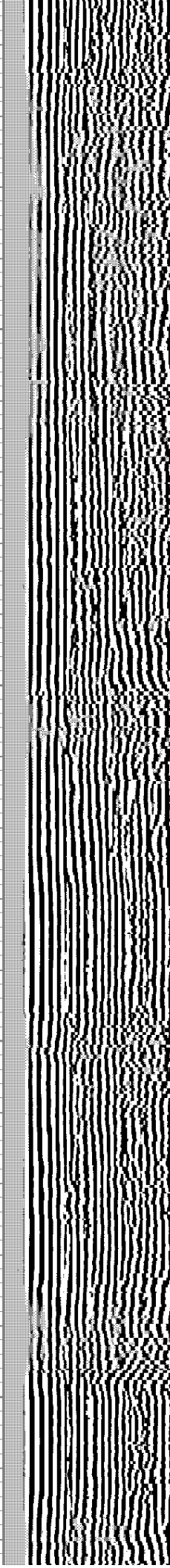
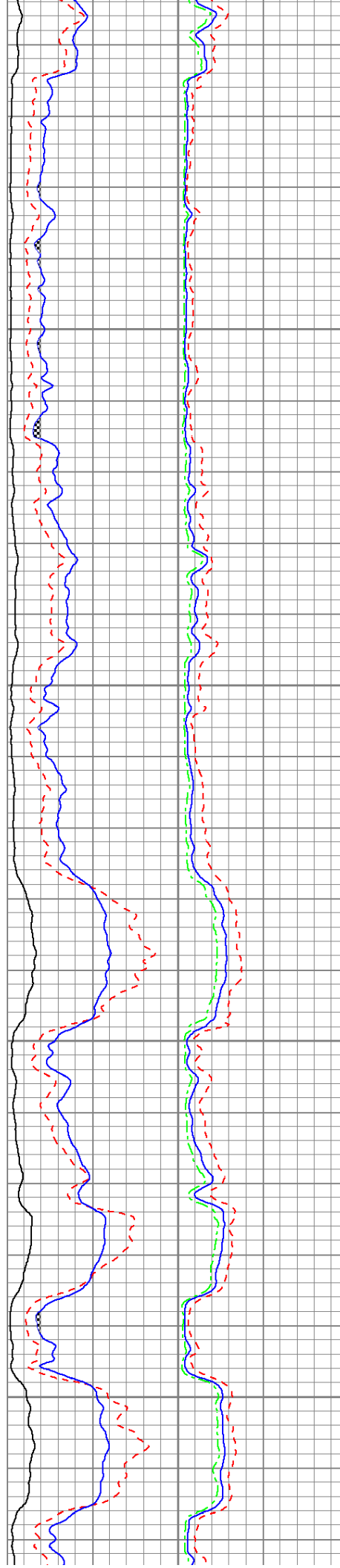
225	Travel Time (usec)	125	Amplitude	0	Amp Avg	150	200	VDL	1200	1	Sector Map	12
9	Casing Collars	-1	0	(mV)	100	0	Amp Max	150		20		60
0	Gamma Ray	180	0	AmpX5 (mV)	20	0	Amp Min	150				
0	TEMP (degF)	100	1	BONDIX	0							

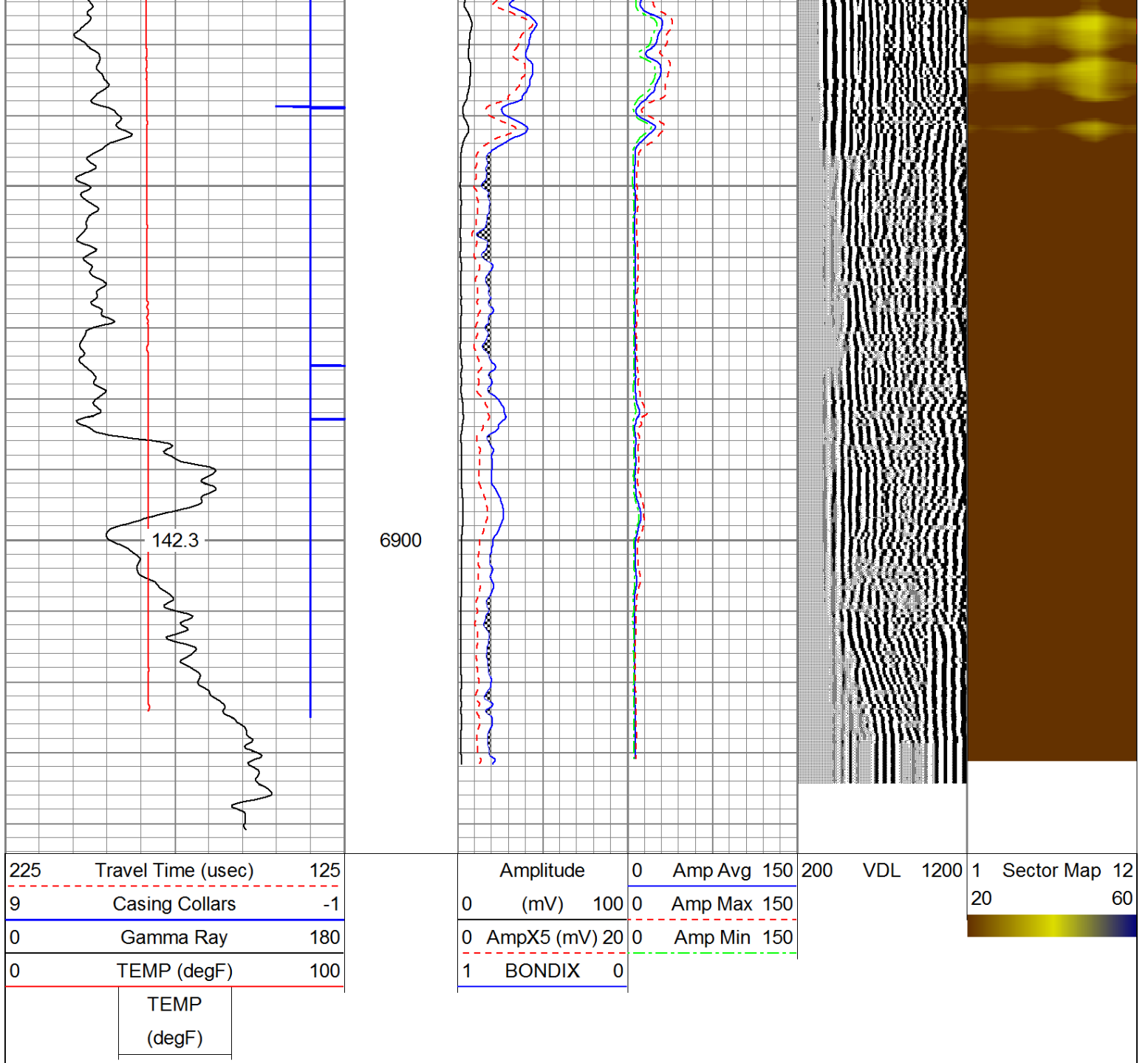


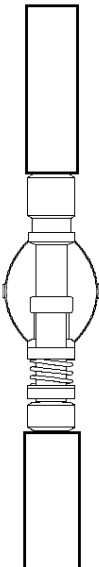


6700

6800





Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
CCL	18.93		CCL-312tekco (3.12TEKCO) Tekco 3 1/8" 450 Deg. "F" SmCo Logging CCL	1.82	3.12	25.00
			2.75 2 3/4" Tekco Adjustable Centralizer	2.73	2.75	25.00



Temperature Calibration Report

Serial Number: IOL40-05  
Tool Model: Tek12  
Performed: Wed Jul 31 10:53:14 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	2			



Company	ANTERO RESOURCES		
Well	SPOCK UNIT 2H		
Field	MARCELLUS		
County	TYLER		
State	W.V.	Country	USA