



Radial Cement Bond Log

Gamma Ray

CCL

Company	KERR MCGEE OIL AND GAS		
Well	CLARK FRANCIS UT B 1		
Field	WATTENBERG		
County	WELD		
State	COLORADO		
Company	KERR MCGEE OIL AND GAS		
Well	CLARK FRANCIS UT B 1		
Field	WATTENBERG		
County	WELD		
State	COLORADO		
Location:	API # : 05-123-07740		
Permanent Datum	GL	Elevation	4984'
Log Measured From	K.B. 10'		
Drilling Measured From	KB		
SHL: 1120' FSL 990' FWL SW/SW LAT: 40.04690 LONG: -104.86370 SEC 14 TWP 1N RGE 67W			
Other Services			

Date	8-18-2015		
Run Number	ONE		
Depth Driller	8172		
Depth Logger	4183'		
Bottom Logged Interval	4174'		
Top Log Interval	SURFACE		
Open Hole Size	7.625		
Type Fluid	WATER		
Density / Viscosity	1.0		
Max. Recorded Temp.	141 DEG F		
Estimated Cement Top	269'		
Time Well Ready	N/A		
Time Logger on Bottom	N/A		
Equipment Number	3812		
Location	GREELEY		
Recorded By	N.POLLOCK		
Witnessed By	B.SMITH		
Borehole Record		Tubing Record	
Run Number	Bit	From	To
ONE			
TWO			

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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

RAN C.B.L. TO VERIFY CEMENT TOP

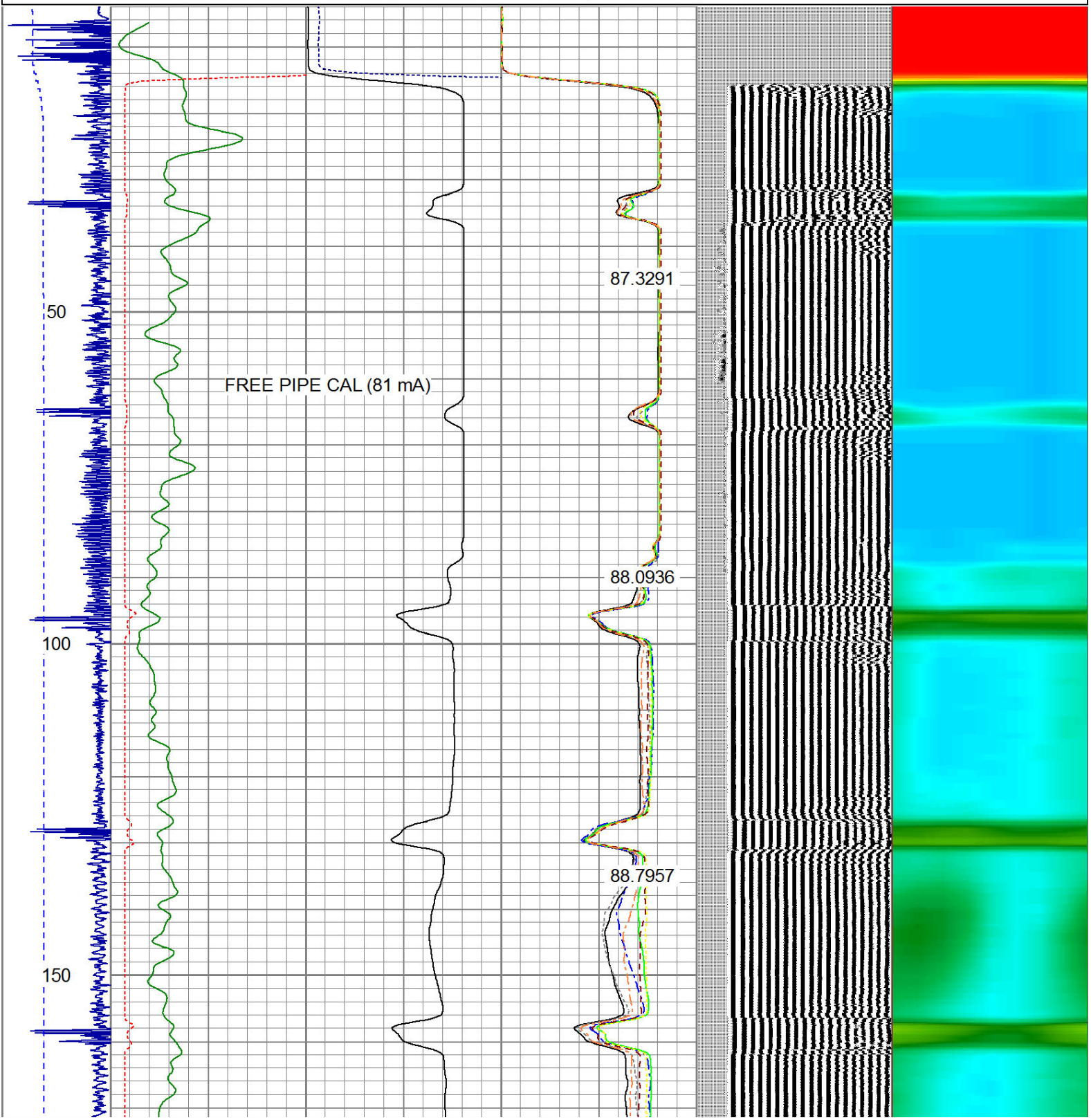
FREE PIPE CALIBRATION 61.7' (81mA)
CORRELATED 9' INHOLE TO DV TOOL

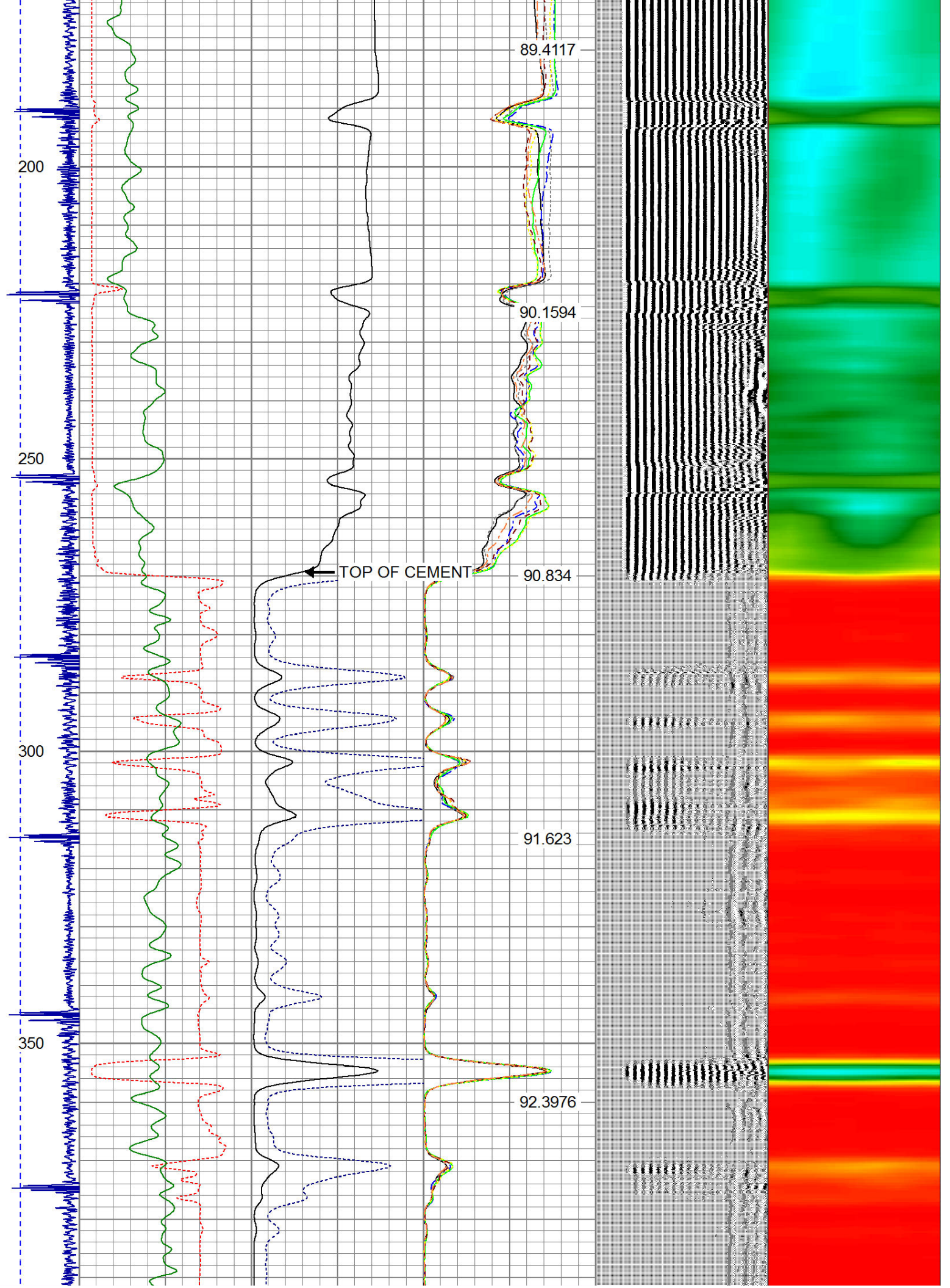
THANK YOU FOR USING WARRIOR ENERGY SERVICES!

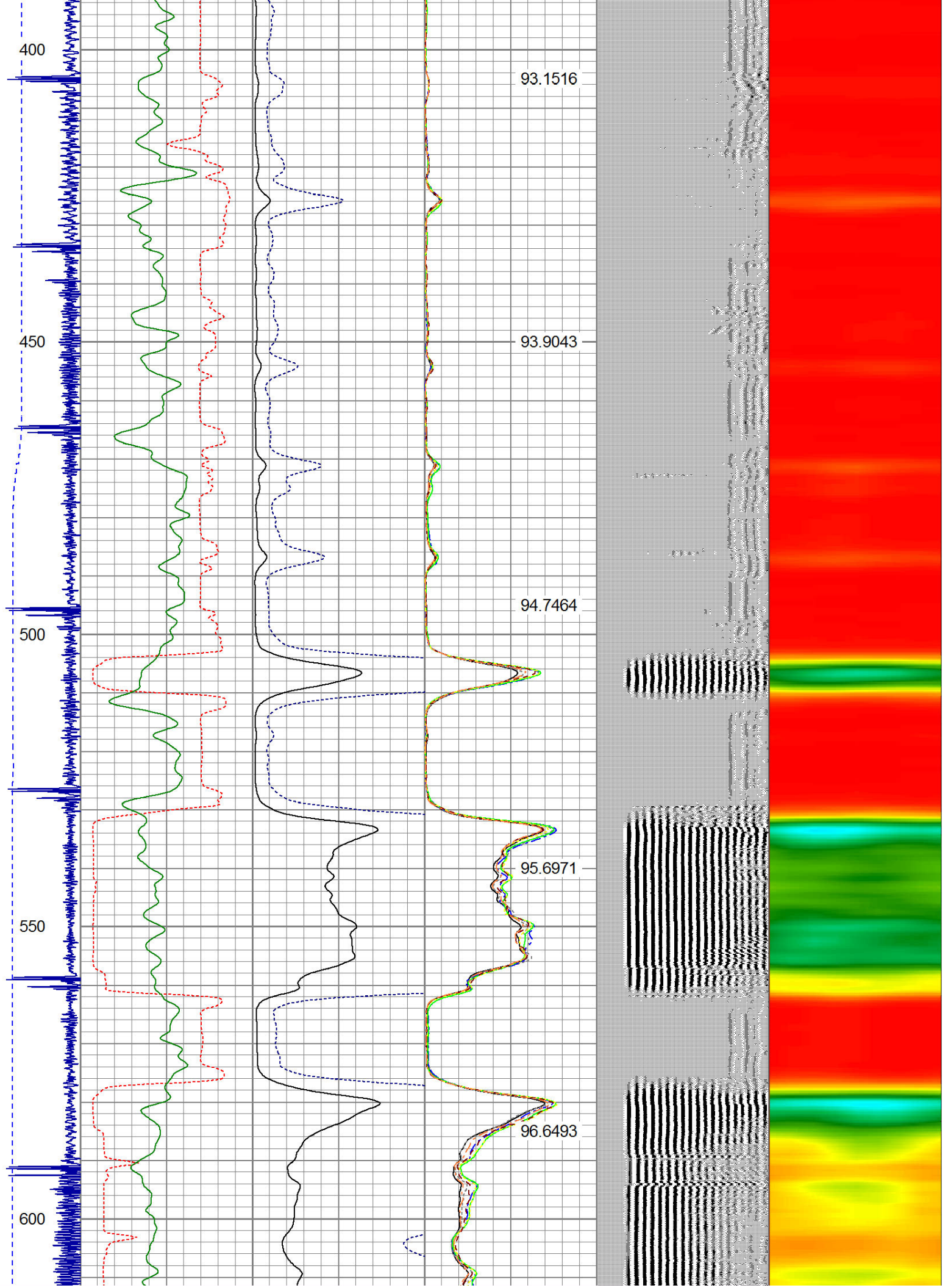
Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
CENT	19.08					

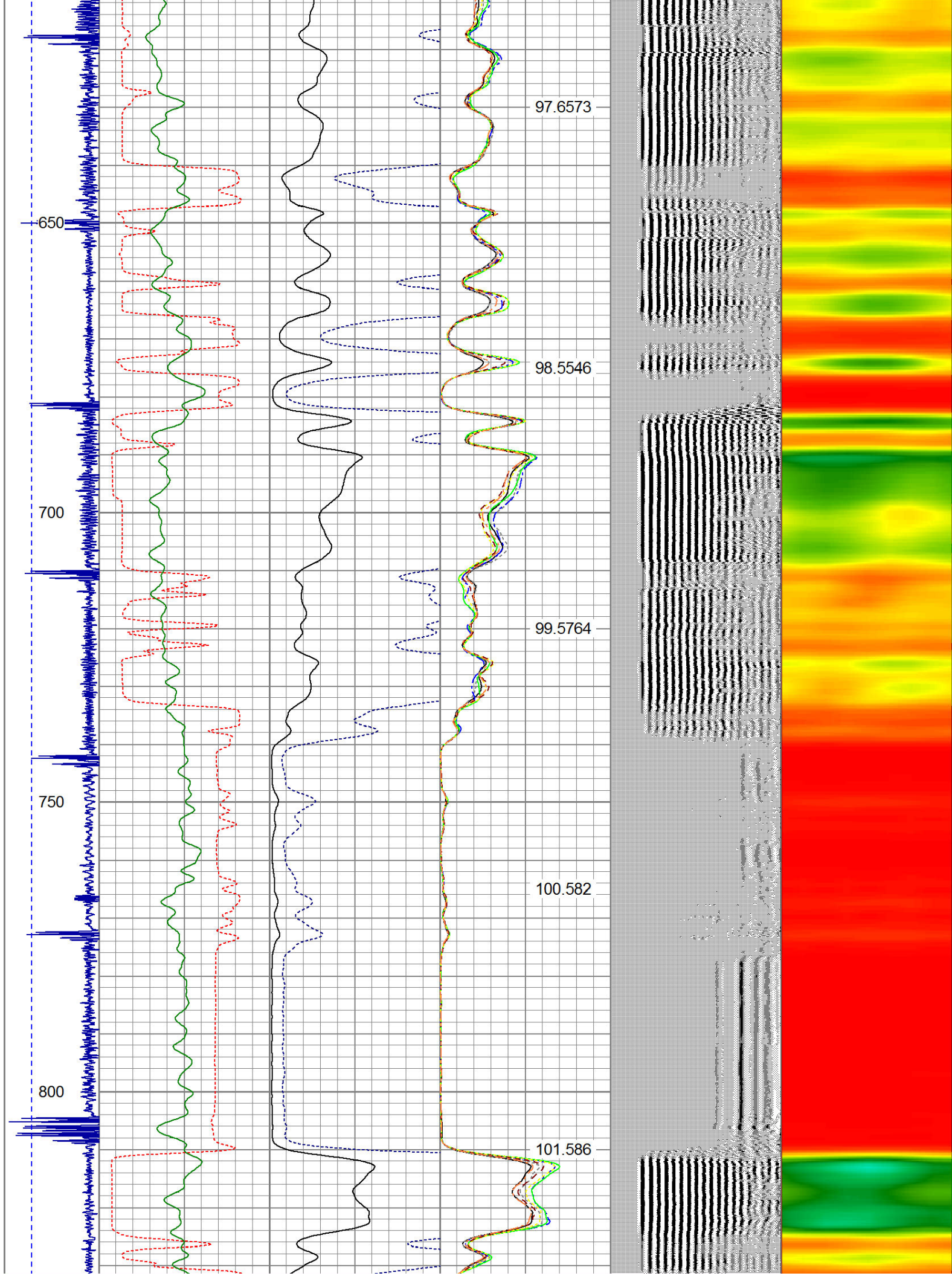
Tool Joint	Length (ft)	Weight (lb)	O.D. (in)	Notes
HEADVOLT	16.25			
RBT	16.25			
IntTemp	14.83			
WVF3FT	11.58			
WVFCAL	11.58			
WVFS1	11.58			
WVFS2	11.58			
WVFS3	11.58			
WVFS4	11.58			
WVFS5	11.58			
WVFS6	11.58			
WVFS7	11.58			
WVFS8	11.58			
WVF5FT	10.58			
CNLSC	6.00			
CNSSC	5.17			
GR	4.33			
CCL	3.64			
GR	0.90			
PTS275		2.83	2.75	
RBT-Probe (Base)		8.92	2.75	Probe Radii Bond Tool with Digital Telemetry
CNT-Probe_B (275)		3.00	2.75	6 bow centralizer
GR-Probe (275)		4.33	2.75	Probe 2.75"
Dataset: clark francis ut b 1.db: field/well/run1/pass8 Total Length: 19.08 ft Total Weight: 160.00 lb O.D.: 2.75 in				

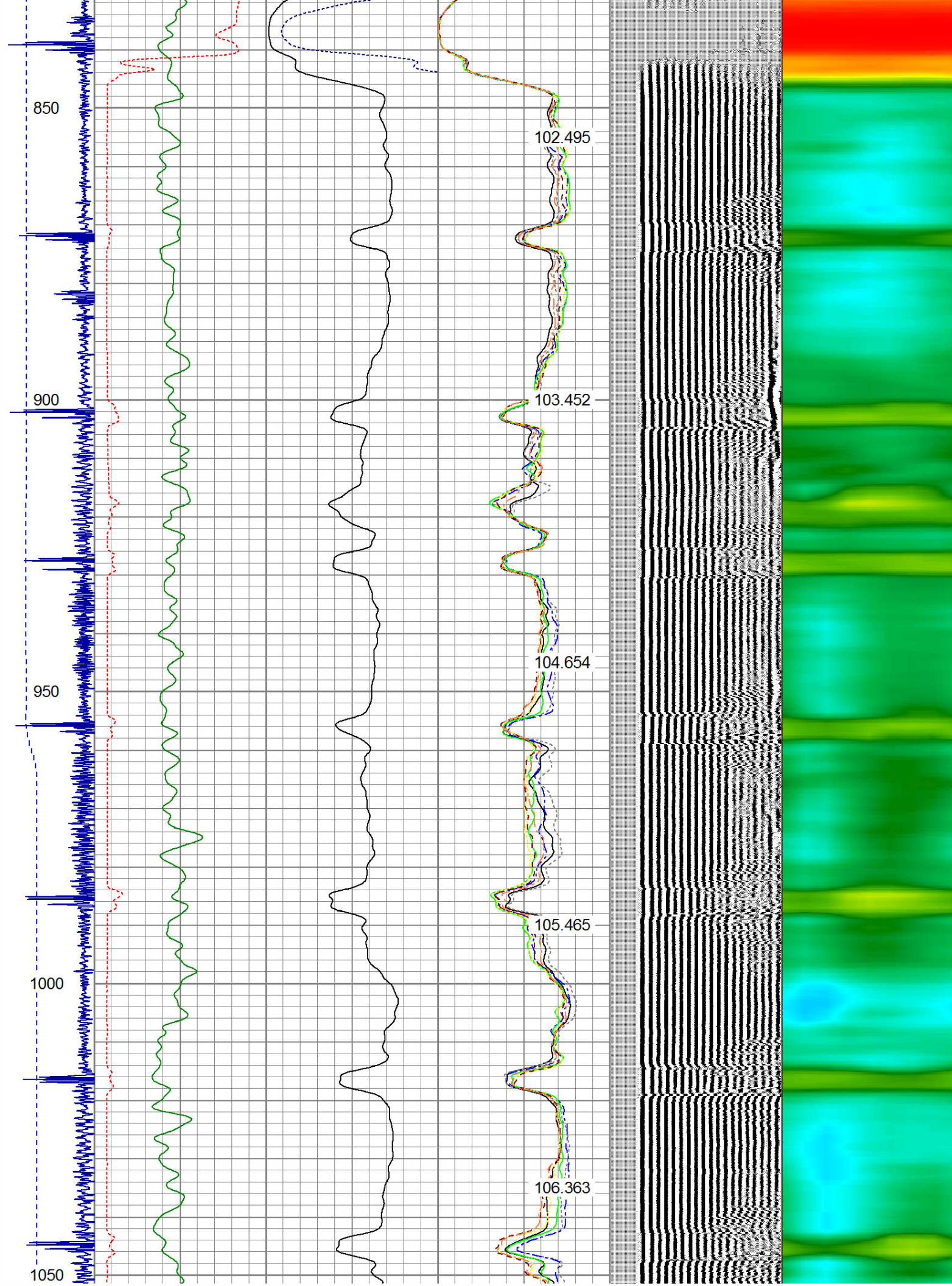
-9	CCL	1	200	TT (usec)	1000	0	AMP (mV)	100	0	AMPS1	100	200	VDL	1200	1	Cement Map	8
LSPD			0	GR (cps)	200	0	AMPx5 (mV)	20	0	AMPS2	100				1		100
(ft/min)			200	GR (cps)	400				0	AMPS4	100						
0	250								0	AMPS5	100						
									0	AMPS6	100						
									0	AMPS7	100						
									0	AMPS8	100						
										IntTemp							
										(degF)							

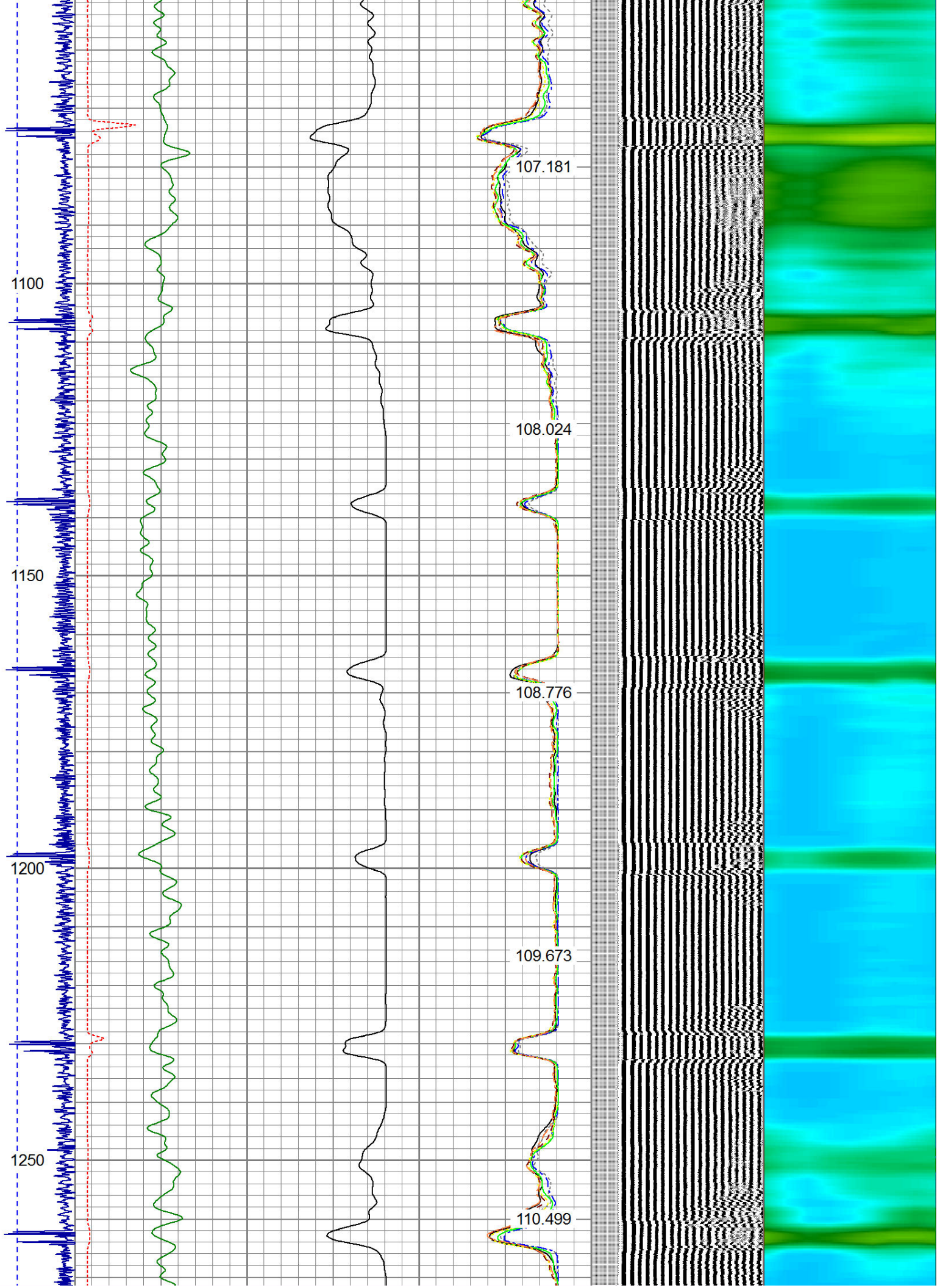


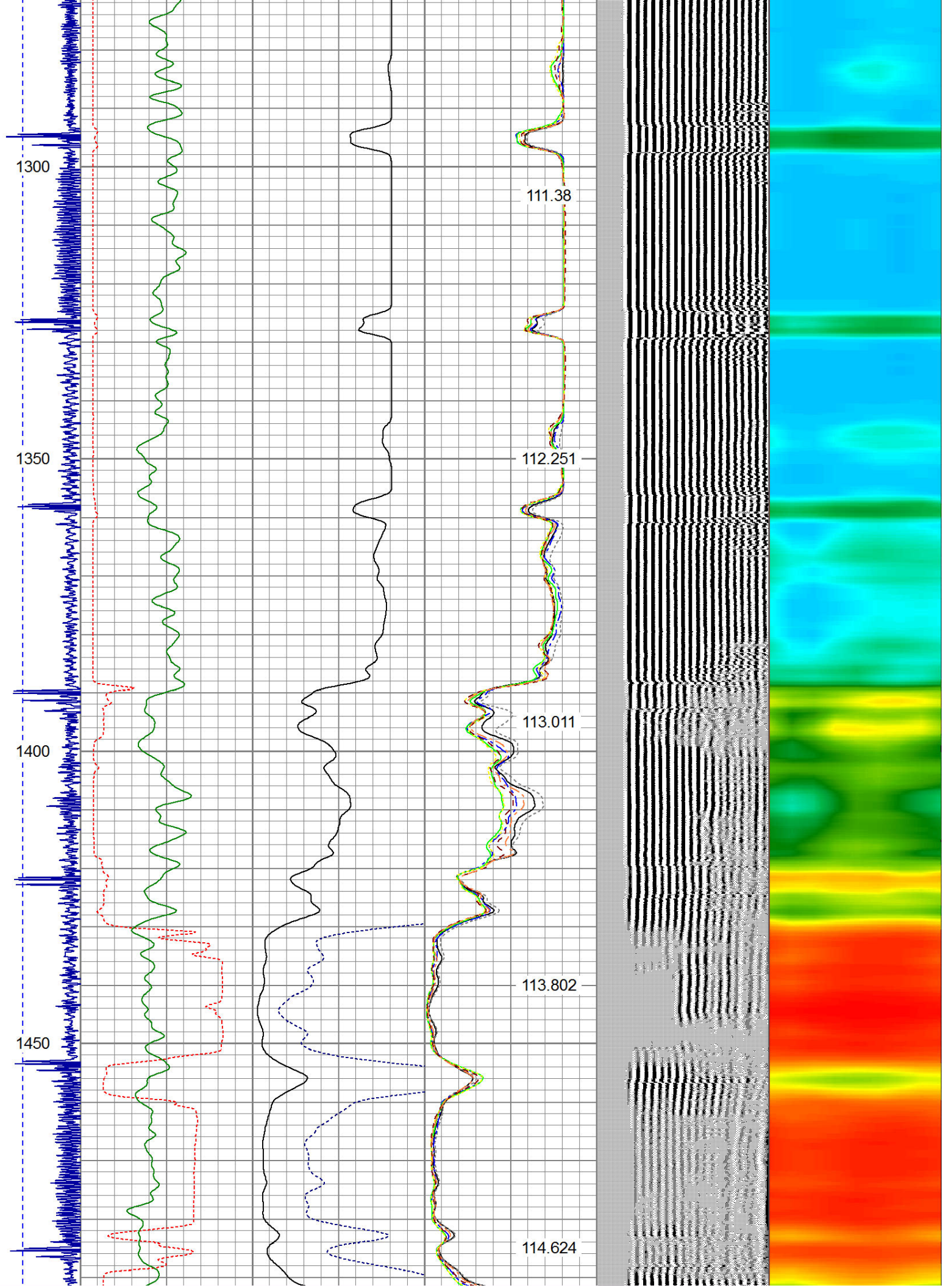


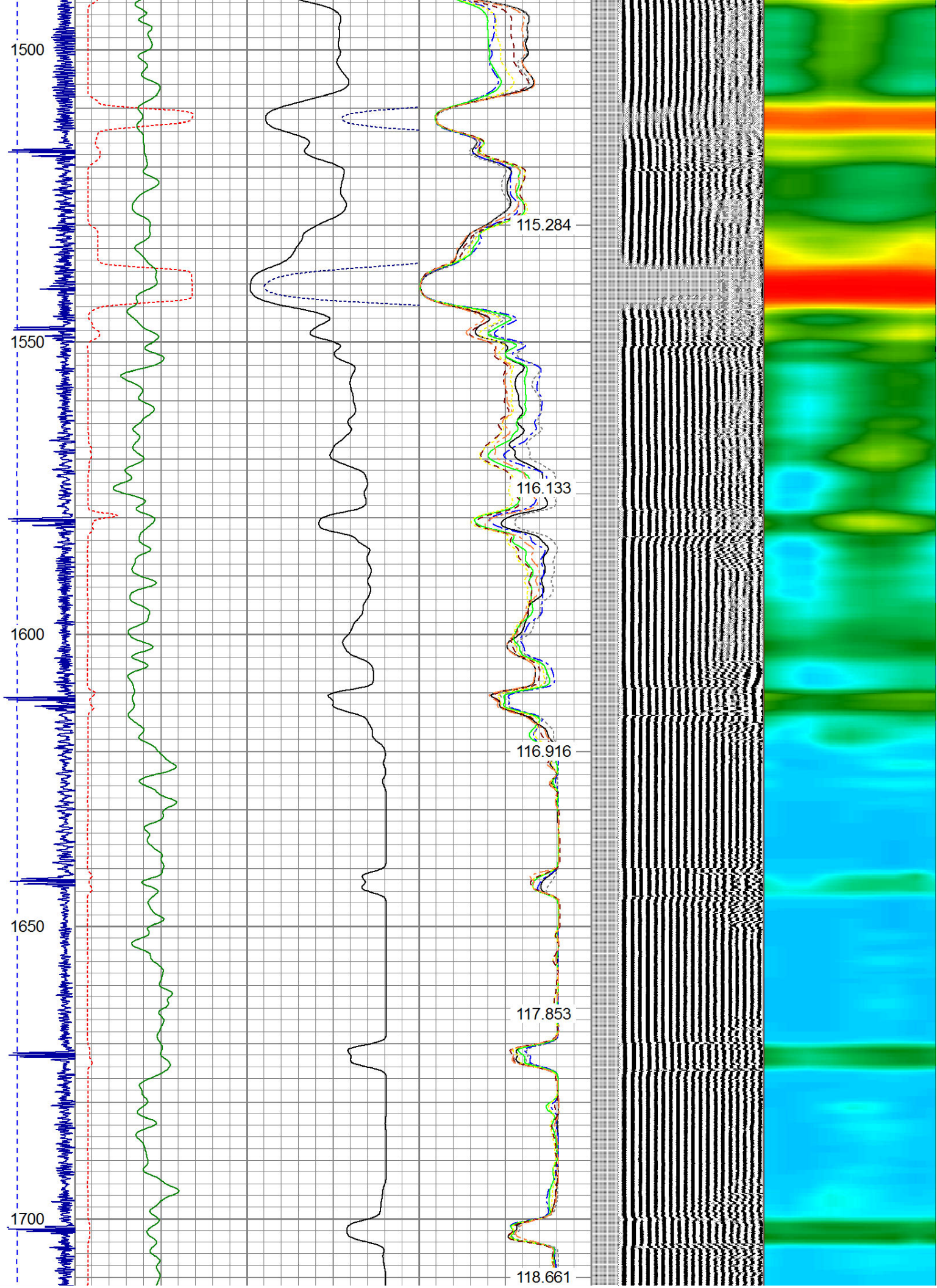


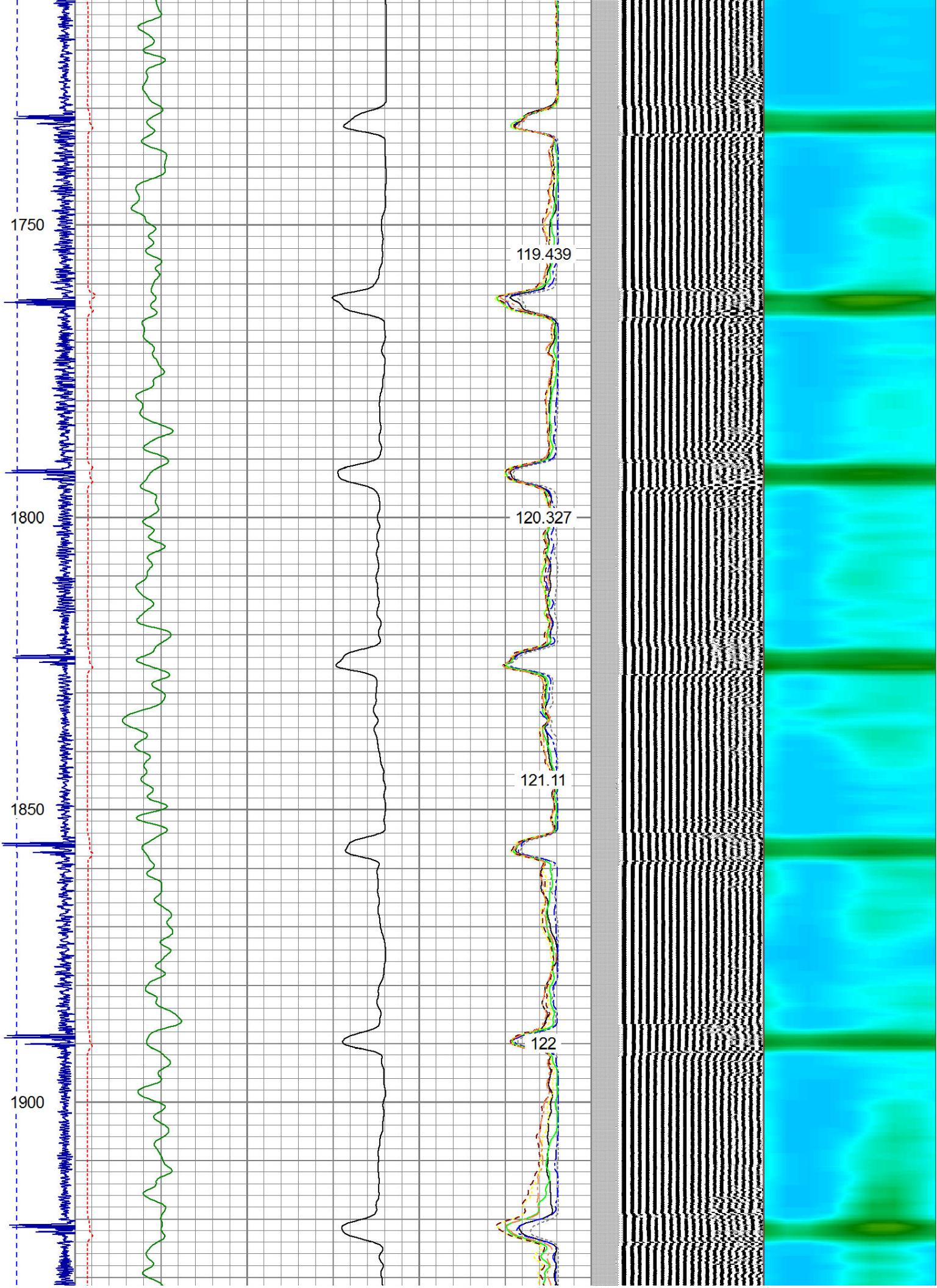


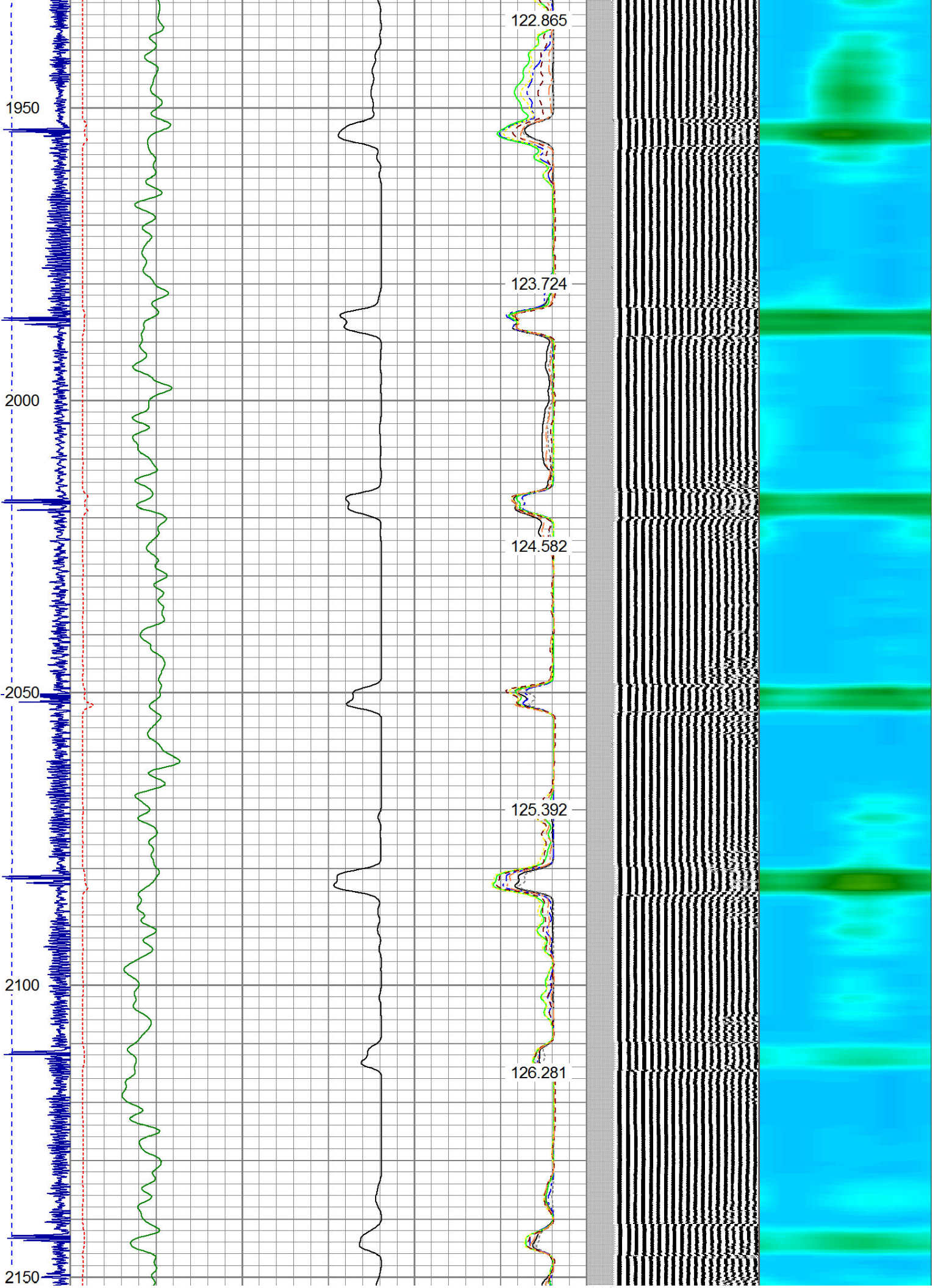


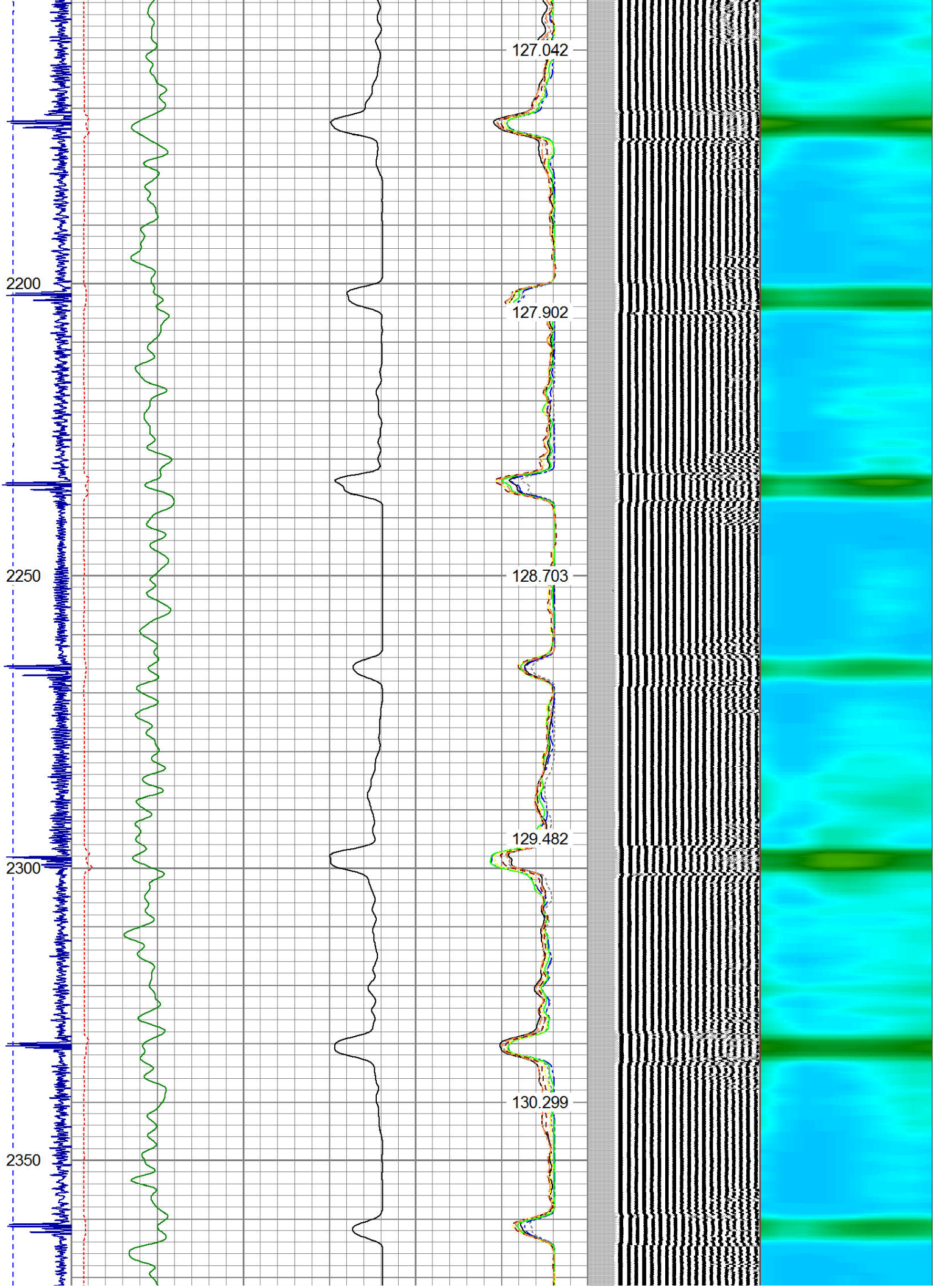


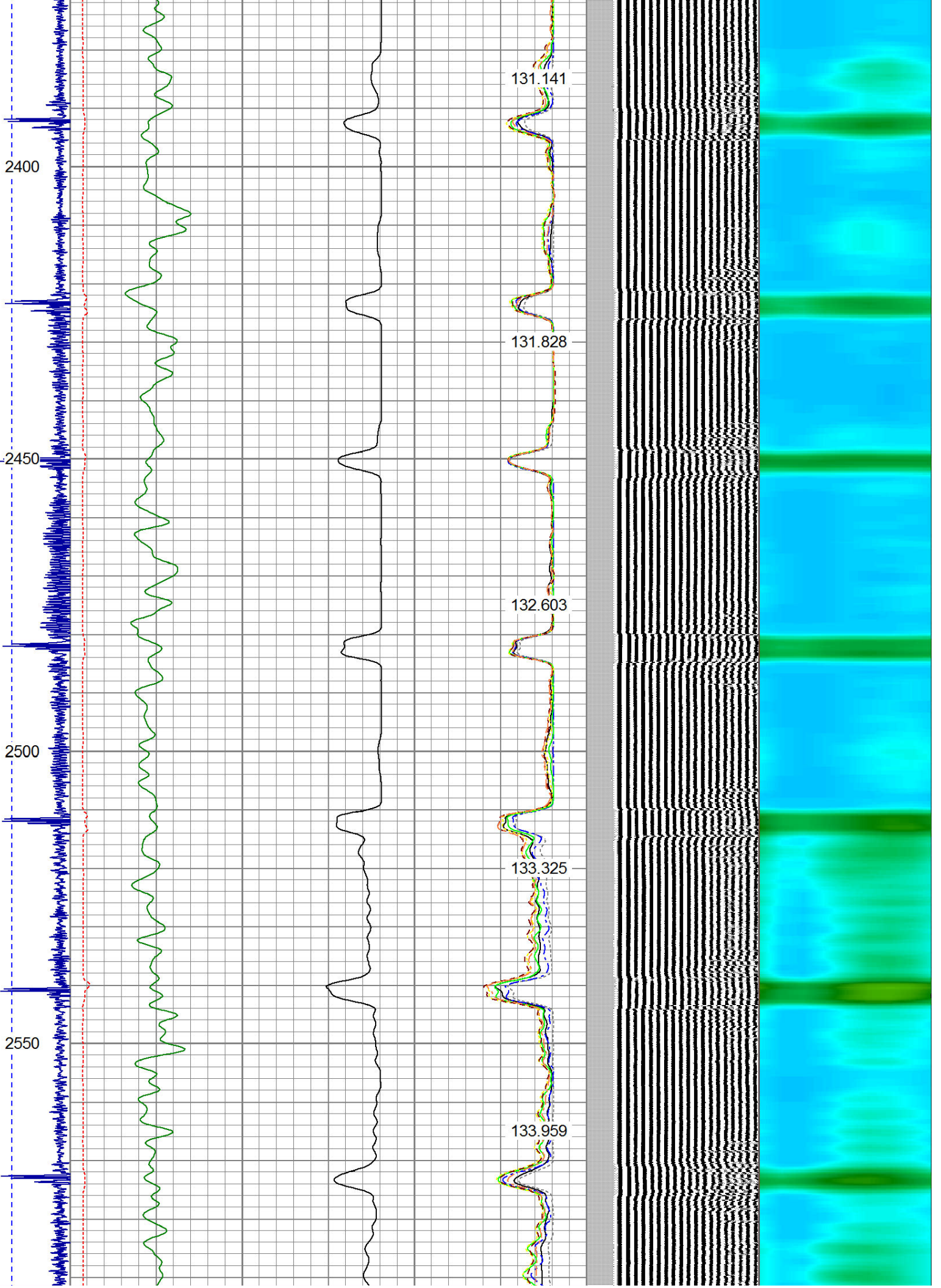


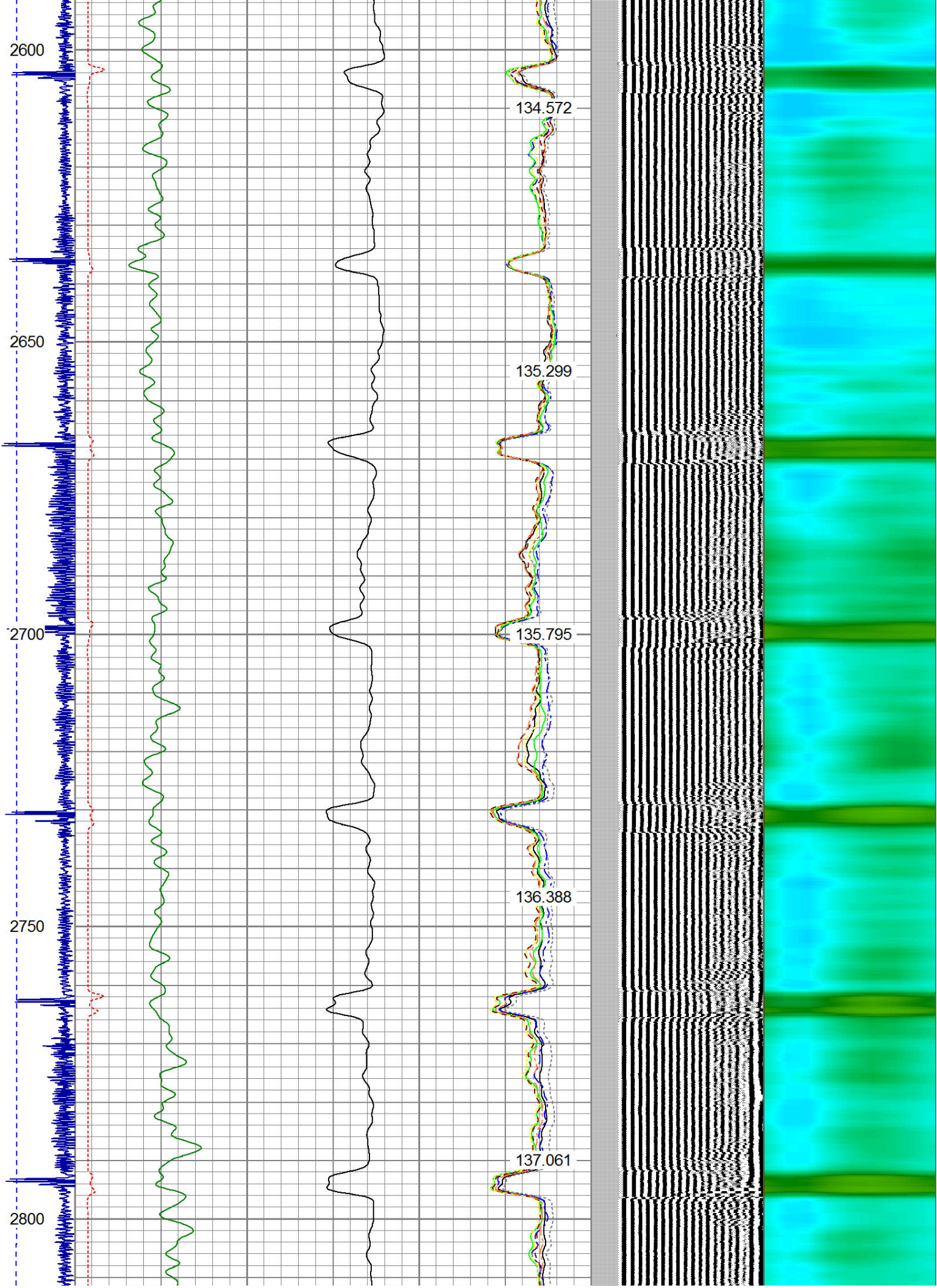


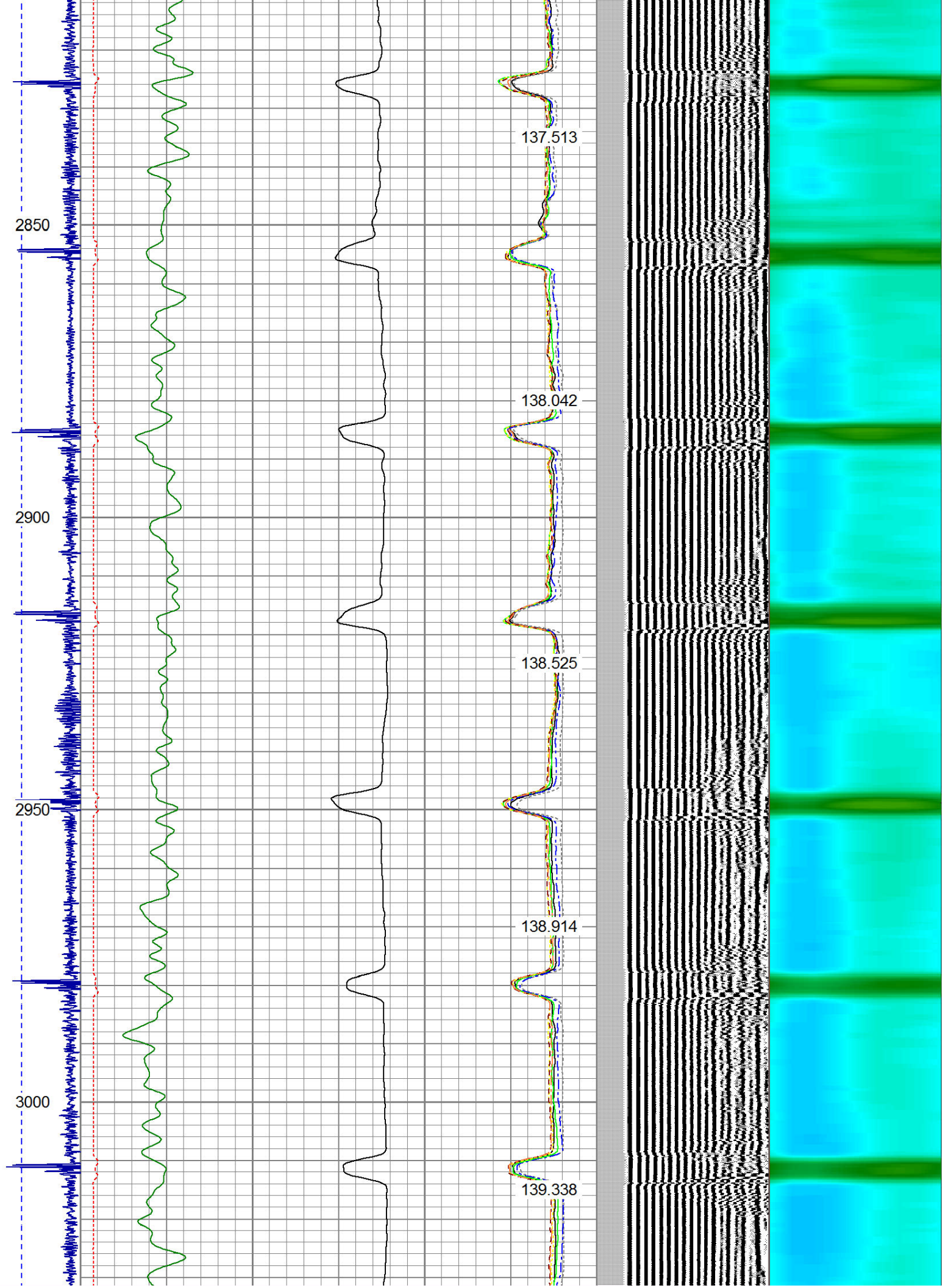


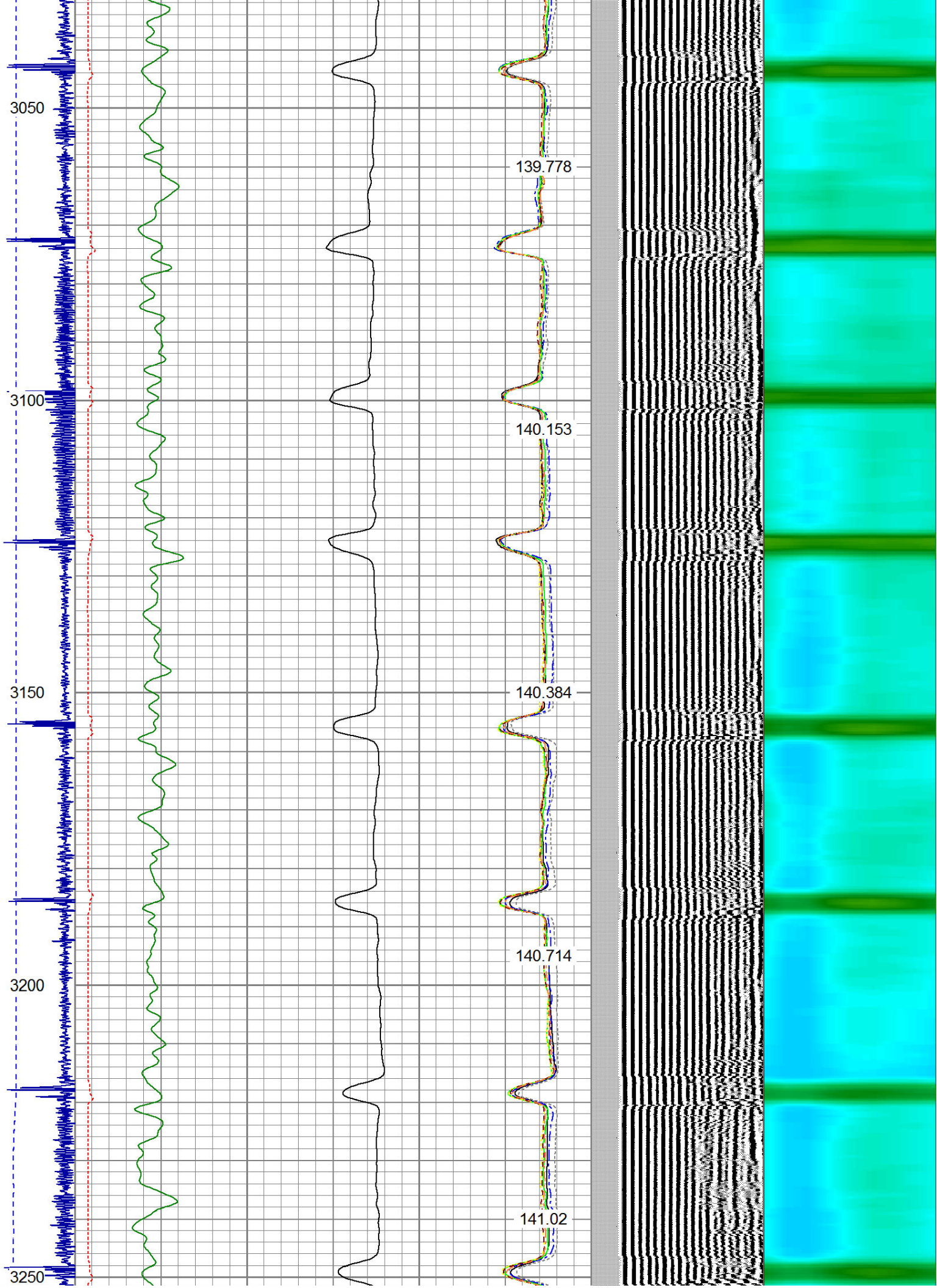


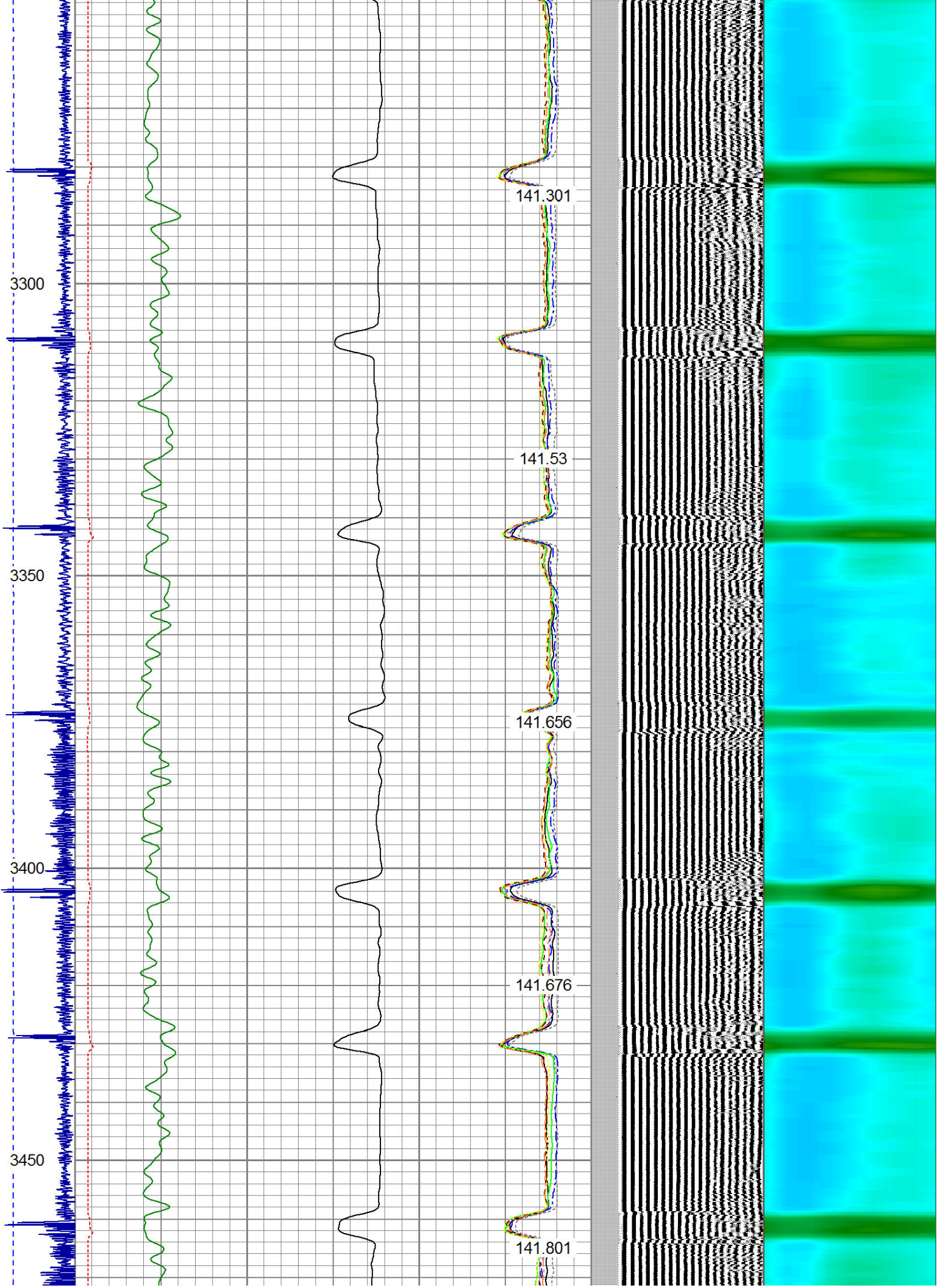


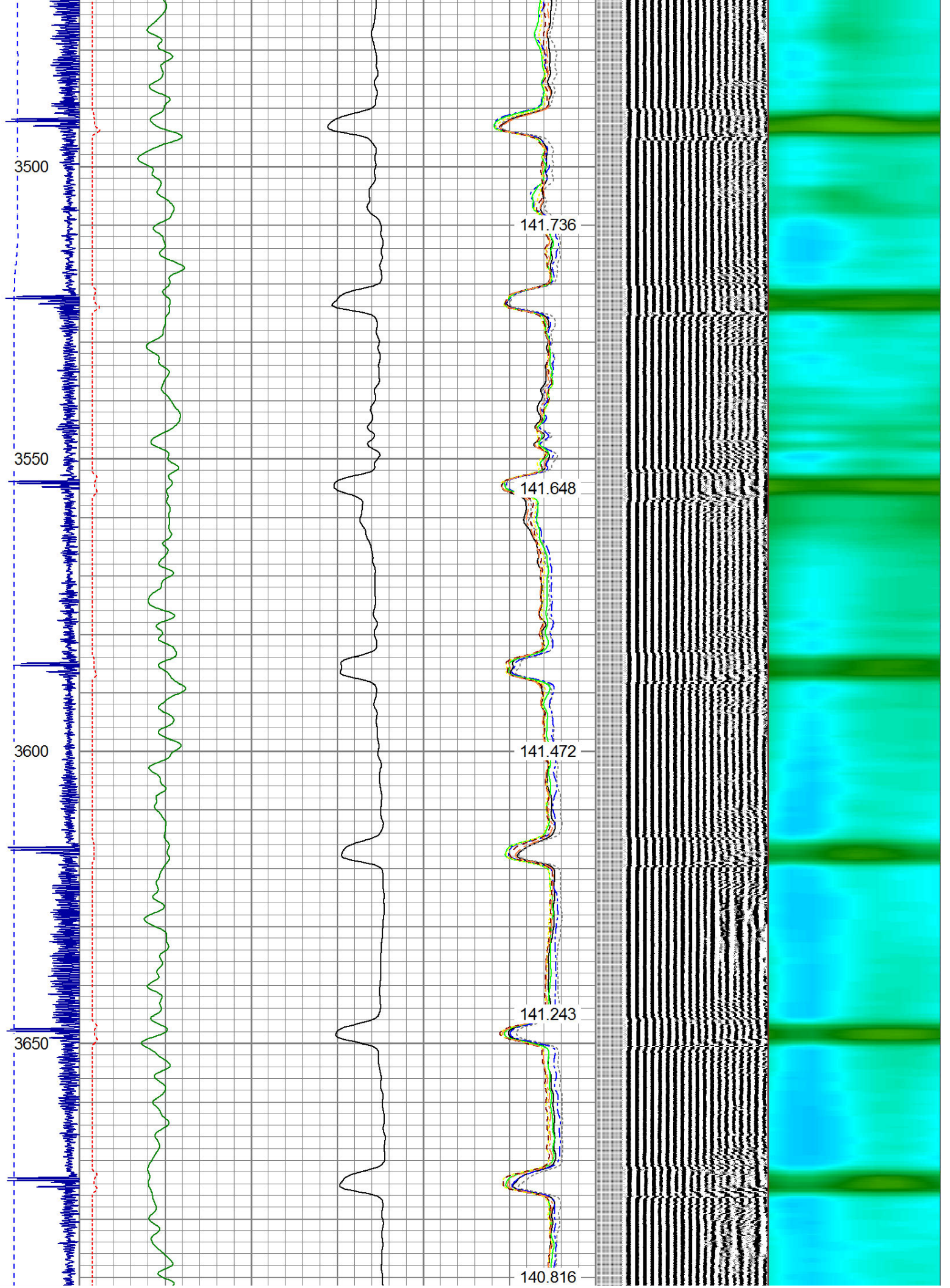


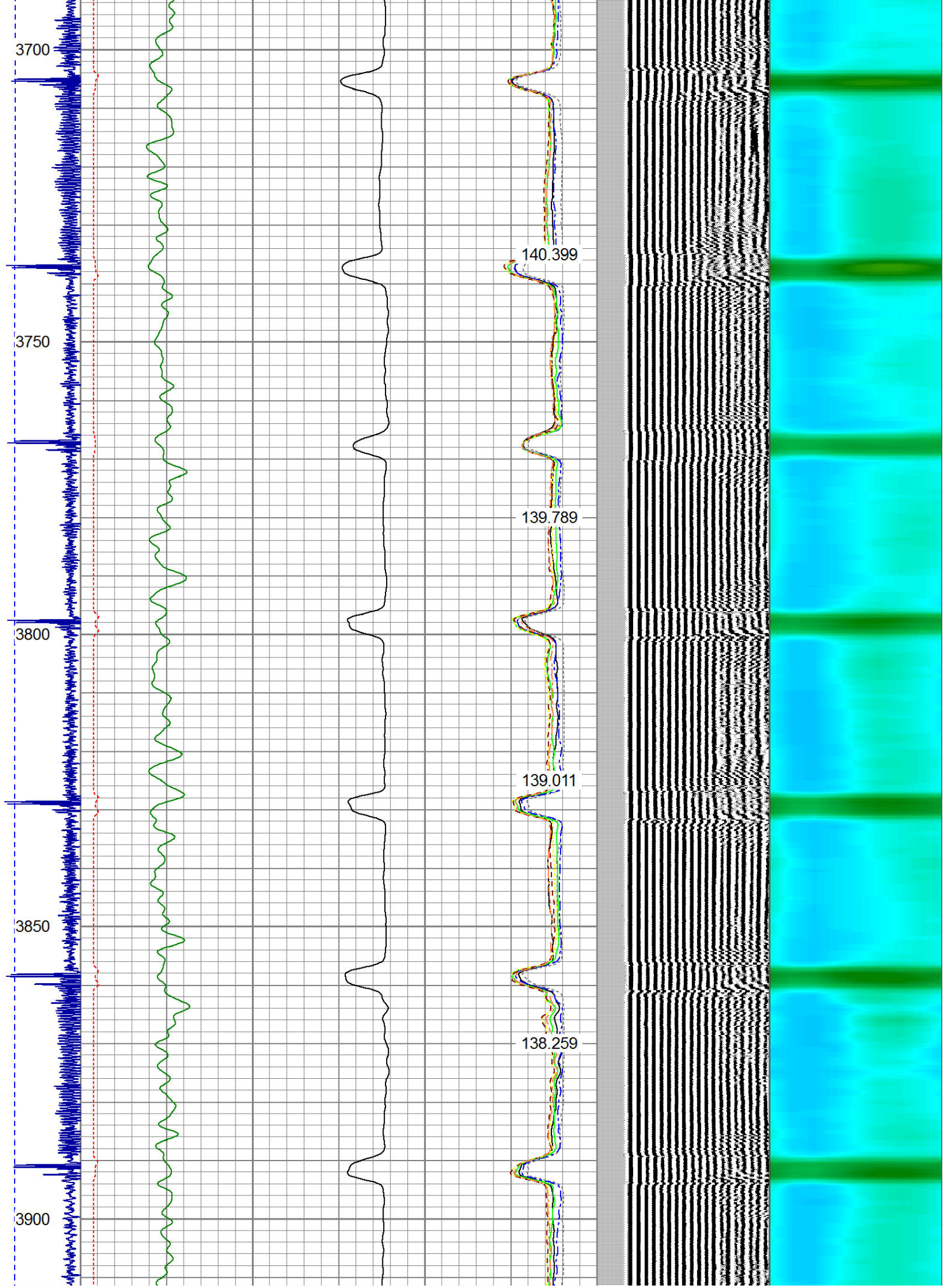


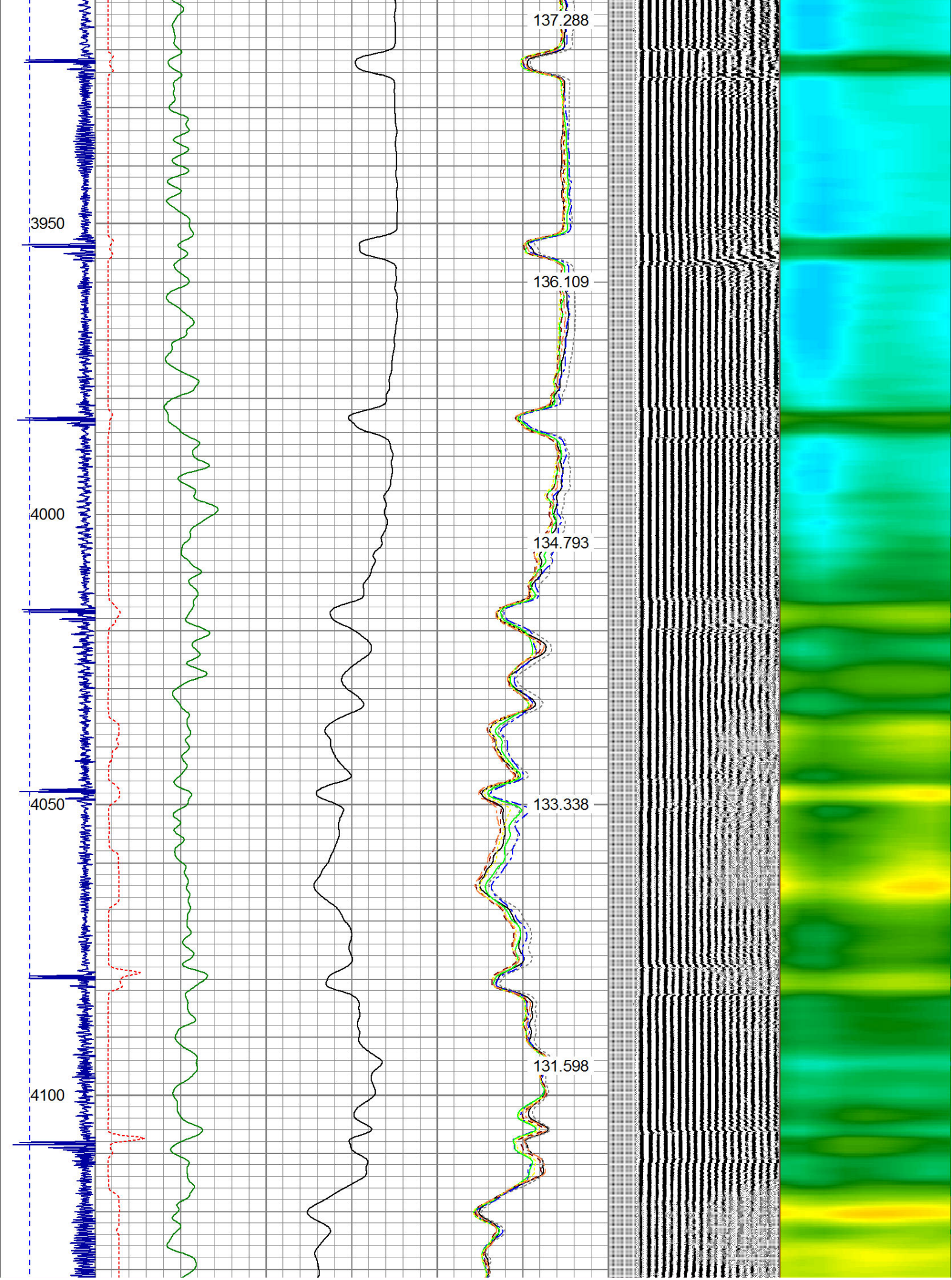


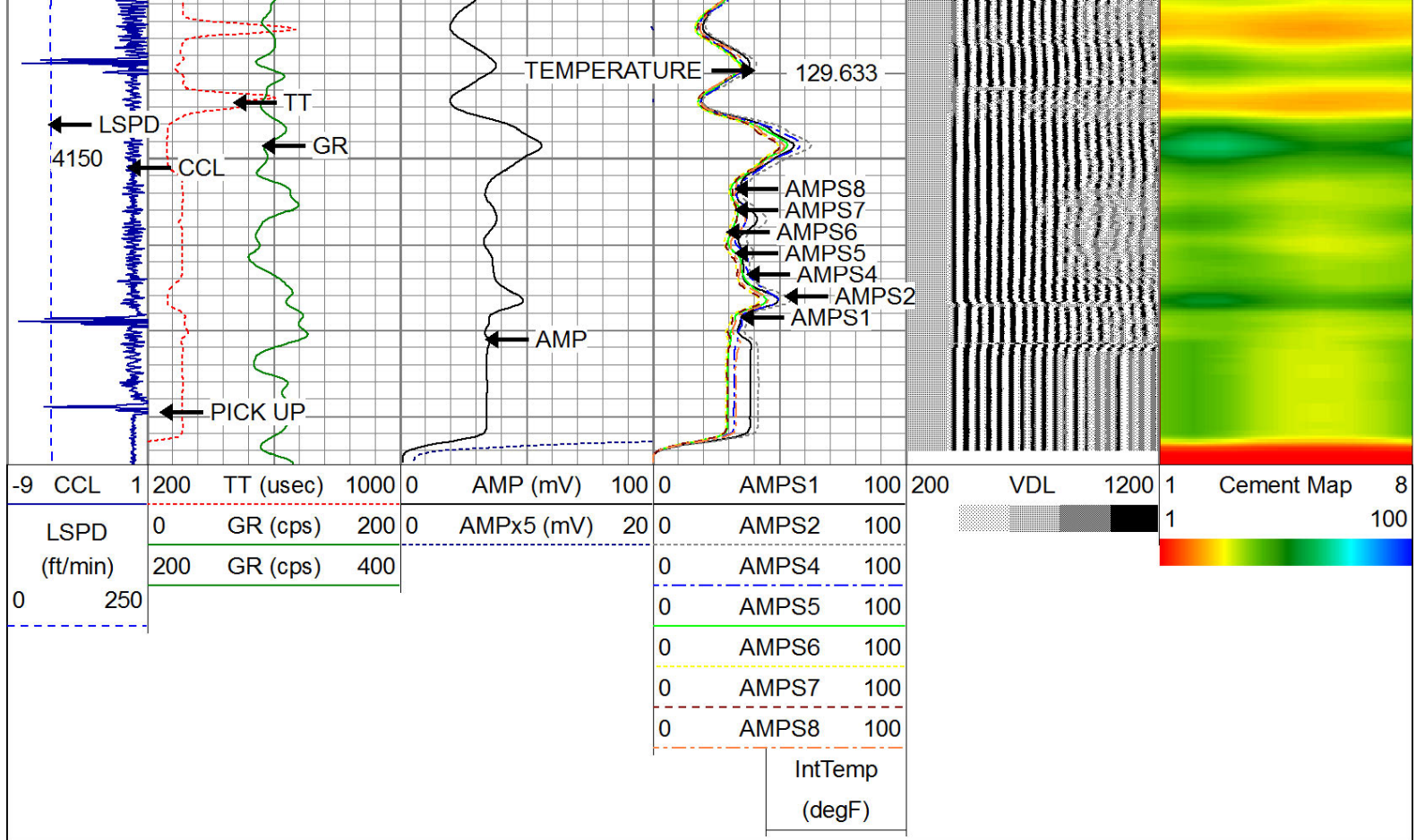












Calibration Report

Database File: clark francis ut b 1.db
 Dataset Pathname: pass8
 Dataset Creation: Tue Aug 18 07:49:06 2015 by Log 7.0 B1

Gamma Ray Calibration Report

Serial Number: 275
 Tool Model: Probe
 Performed: Wed Jul 16 08:14:01 2014

Calibrator Value: 120.0 cps

Background Reading: 30.0 cps
 Calibrator Reading: 210.0 cps

Sensitivity: 0.8000 cps/cps

Compensated Neutron Calibration Report

Serial Number: 275
 Tool Model: Probe_B

CALIBRATION Wed Jul 30 08:47:19 2008

Detector	Readings	Target	Normalization
Short Space	5001.20 cps	0.00 cps	1.0000
Long Space	1029.31 cps	0.00 cps	1.0000

PRE-SURVEY VERIFICATION

Detector	Readings	Measured	Target
1) Short Space	cps		
Long Space	cps	pu	pu

2)	Short Space	cps	
	Long Space	cps	pu
3)	Short Space	cps	
	Long Space	cps	pu

POST-SURVEY VERIFICATION			
	Detector	Readings	Measured Target
1)	Short Space	cps	
	Long Space	cps	pu
2)	Short Space	cps	
	Long Space	cps	pu
3)	Short Space	cps	
	Long Space	cps	pu

Segmented Cement Bond Log Calibration Report			
Serial Number:		Base	
Tool Model:		Probe	
Calibration Casing Diameter:		4.500	in
Calibration Depth:		61.721	ft

Master Calibration, performed Tue Aug 18 07:33:10 2015:						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.012	2.500	1.500	81.196	32.033	1.114
CAL	1.553	2.500				
5'	0.011	2.356	1.500	81.196	33.984	1.118
SUM						
S1	0.011	2.500	0.500	81.000	32.343	0.142
S2	0.012	2.500	0.500	81.000	32.350	0.124
S3	0.010	2.500	0.500	81.000	32.333	0.167
S4	0.010	2.500	0.500	81.000	32.335	0.162
S5	0.011	2.500	0.500	81.000	32.348	0.129
S6	0.010	2.483	0.500	81.000	32.552	0.161
S7	0.015	2.464	0.500	81.000	32.871	0.001
S8	0.012	2.485	0.500	81.000	32.550	0.125

Internal Reference Calibration, performed Tue Jun 05 07:53:42 2012:						
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	1.553	2.500	1.000	0.000

Air Zero Calibration, performed Tue Aug 18 07:29:42 2015:			
	Raw (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



WARRIOR
ENERGY SERVICES

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Field WATTENBERG

County WELD

State COLORADO