



RADIAL
BOND
LOG

Company ANTERO
Well ORNER UNIT 1H
Field MARCELLUS
County WETZEL
State WV

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Well ORNER UNIT 1H
Field MARCELLUS
County WETZEL
State WV

Location: API #: 47103034280000

SEC	TWP	RGE	Elevation	30'	Other Services
Permanent Datum	GL				GR
Log Measured From	KB				CCL
Drilling Measured From	KB				
					Elevation
					K.B. 1338'
					D.F. 1337'
					G.L. 1308'

Date	1-15-2022						
Run Number	ONE						
Depth Driller	23,718'						
Depth Logger	8058'						
Bottom Logged Interval	8042'						
Top Log Interval	SURFACE						
Open Hole Size	8.50"						
Type Fluid	PRODUCED						
Density / Viscosity	8.3#						
Max. Recorded Temp.	146°F						
Estimated Cement Top	6782'						
Time Well Ready	1230						
Time Logger on Bottom	1325						
Equipment Number	TK 111						
Location	CHARLEROI, PA						
Recorded By	D. JOSEPHIK						
Witnessed By	REDGIE TAYLOR						
Borehole Record							
Run Number	Bit	From	To	Size	Weight	From	To
Tubing Record							
Casing Record	Size	Wgt/Ft	Top	Bottom			
Surface String	13.375"	54.5#	SURFACE	665'			
Prot. String	9.625"	36#	SURFACE	2759'			
Production String	5.5"	23#	SURFACE	23699'			
Liner							

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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

RECEIVED
Office of Oil and Gas
FEB 07 2023
WV Department of Environmental Protection

LOG CORRELATED TO MARKER JOINT (7025-7035) PER CASING TALLY

100% FREE = 71.9MV
100% BOND = 2.2MV
ETOC = 6782'

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			CHD-Titan Standard 1 7/16" Cable Head	1.02	1.44	1.00

			CENT-BC275-0000 Probe 2.75" Bowspring Centralizer	2.83	2.75	24.00
Temp	17.20					
WVFS8	14.97		RBT-Probe275T (FW1312-32) Probe 2.75" Radial with Integral Temperature Sub	9.39	2.75	90.00
WVFS7	14.97					
WVFS6	14.97					
WVFS5	14.97					
WVFS4	14.97					
WVFS3	14.97					
WVFS2	14.97					
WVFS1	14.97					
WVF3FT	14.97					
WVF5FT	13.97					
HeadVolt	10.72					
WVFCAL	10.72					
			CENT-BC275-0000 Probe 2.75" Bowspring Centralizer	2.83	2.75	24.00
CCL	6.98					
GR	5.64		GR-Probe (FW1211-86) Probe 2 3/4" Logging Gamma Ray	4.78	2.75	57.00
			CENT-BC275-0000 Probe 2.75" Bowspring Centralizer	2.83	2.75	24.00
			Bull_Plug-1_7/16_GO Titan 1 7/16" Female Bull Plug	0.27	1.44	1.00

Dataset: antero_dogwood_orner1h_rcbl-1-15-22.db: field/well/RCBL/MAIN.3
 Total length: 23.96 ft
 Total weight: 221.00 lb
 O.D.: 2.75 in



MAIN LOG

1500 PSI APPLIED

Database File antero_dogwood_orner1h_rcbl-1-15-22.db
 Dataset Pathname RCBL/MAIN.3
 Presentation Format rcbl 2
 Dataset Creation Sat Jan 15 16:38:09 2022
 Charted by Depth in Feet scaled 1:240

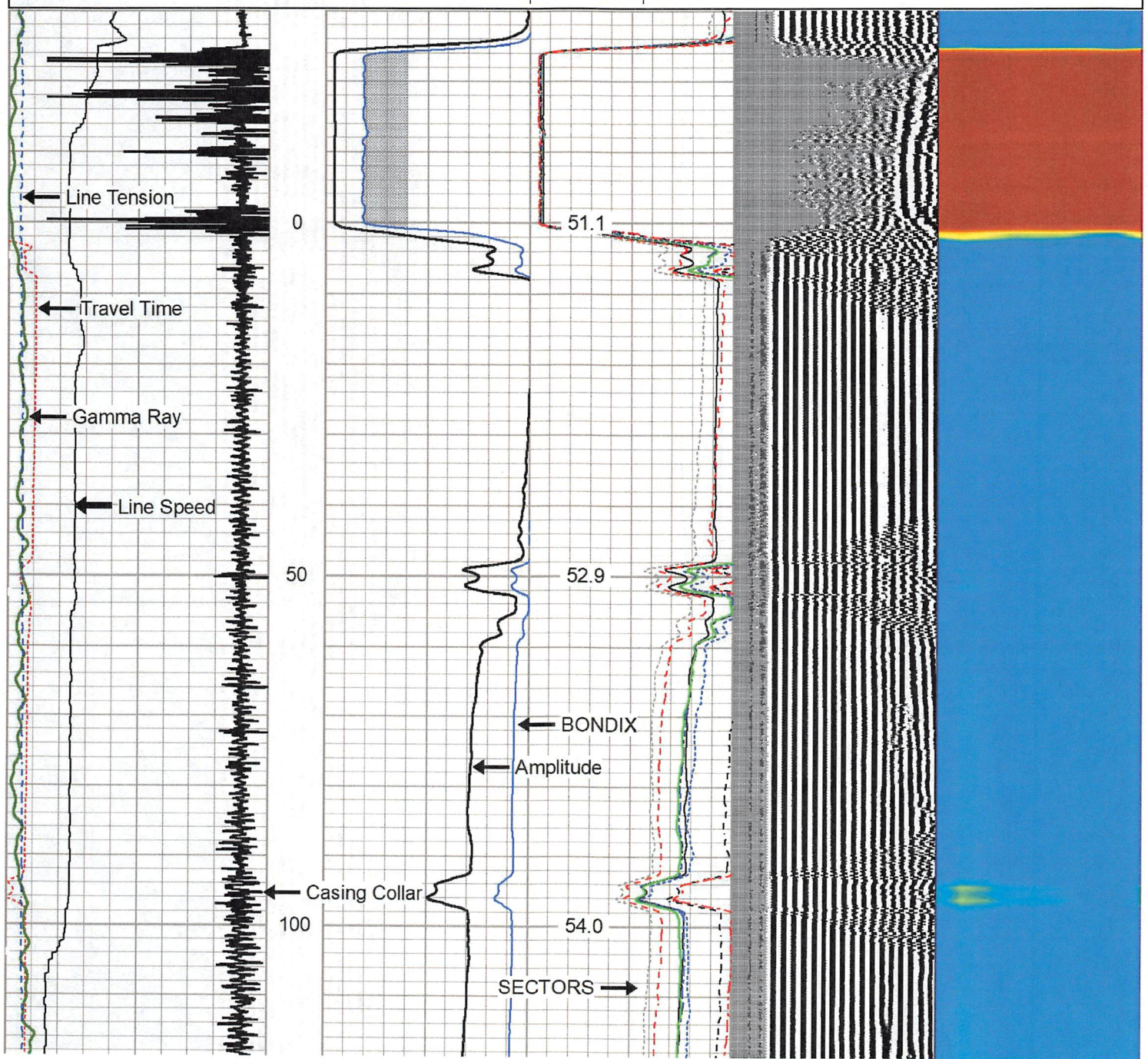
295	Travel Time (usec)	195
9	Casing Collar	-1
0	Gamma Ray (GAPI)	150
0	Line Tension (lb)	5000
-100	LSPD (ft/min)	100

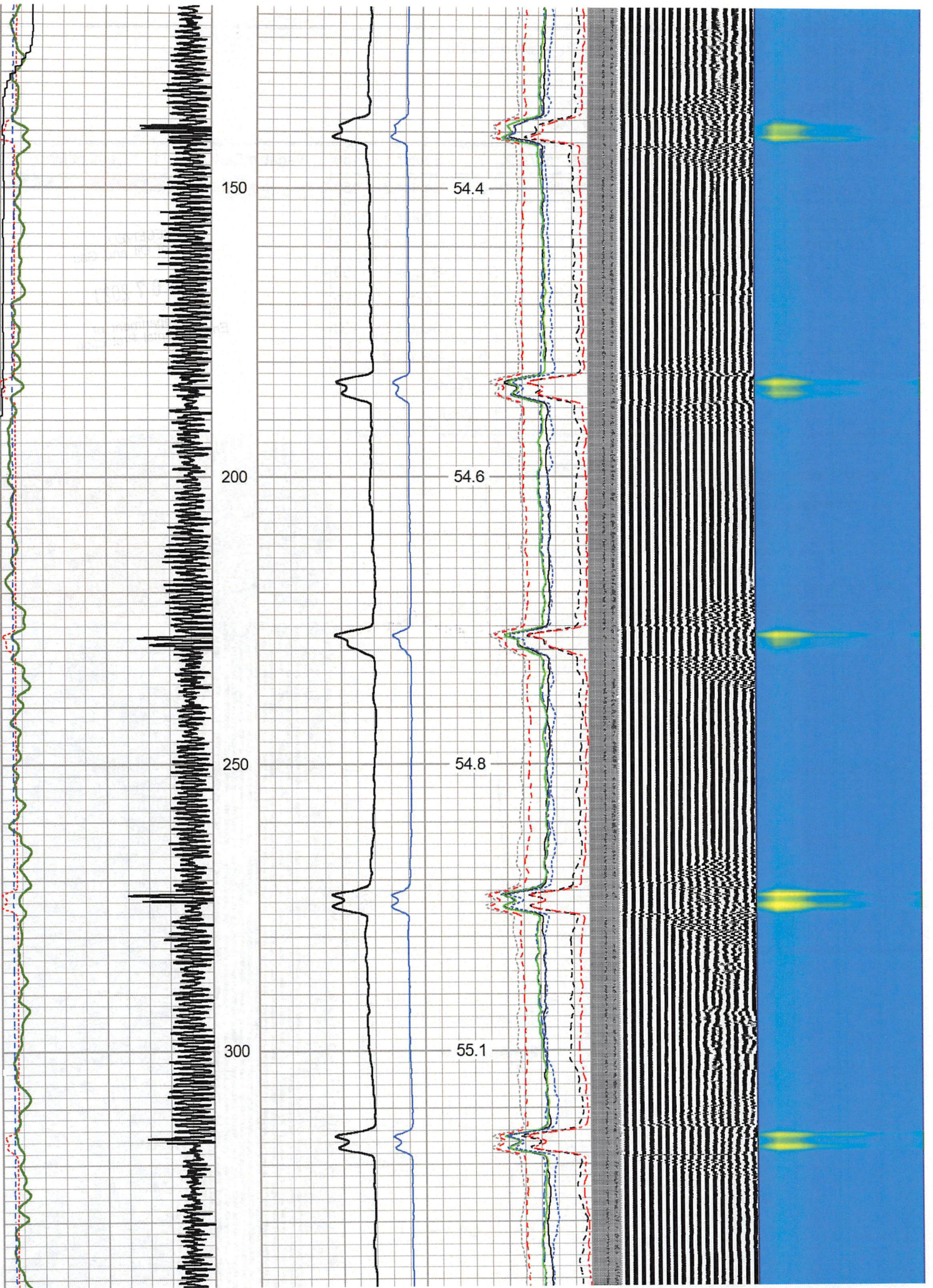
0	Amplitude (mV)	100	-5	Sector 1	150
1	BONDIX	0	-5	Sector 2	150
			-5	Sector 3	150
			-5	Sector 4	150
			-5	Sector 5	150
			-5	Sector 6	150
			-5	Sector 7	150
			-5	Sector 8	150

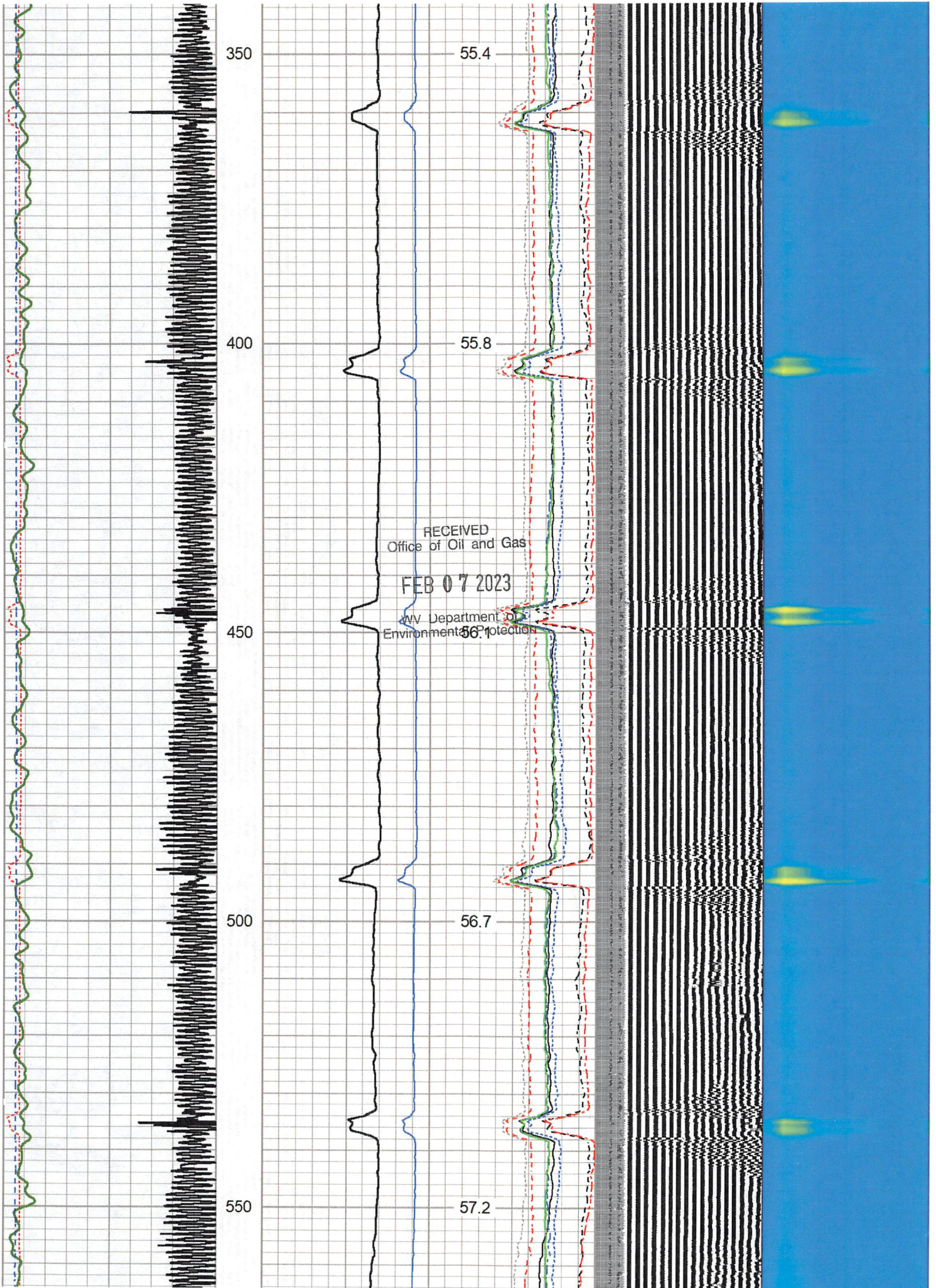
Variable Density 1 Cement Map 8
 200 (usec) 1200

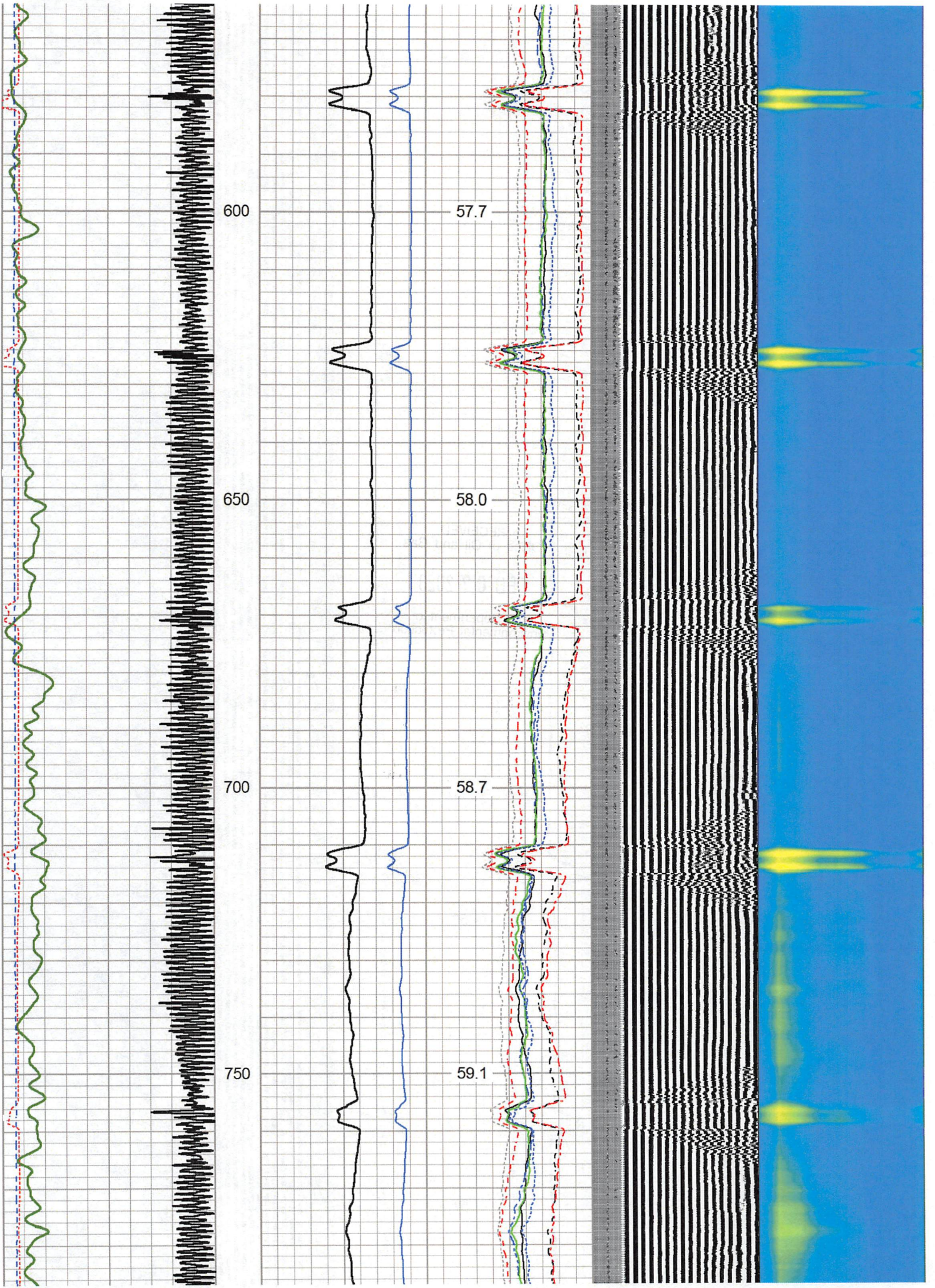
RECEIVED
 Office of Oil and Gas
FEB 07 2023
 WV Department of
 Environmental Protection

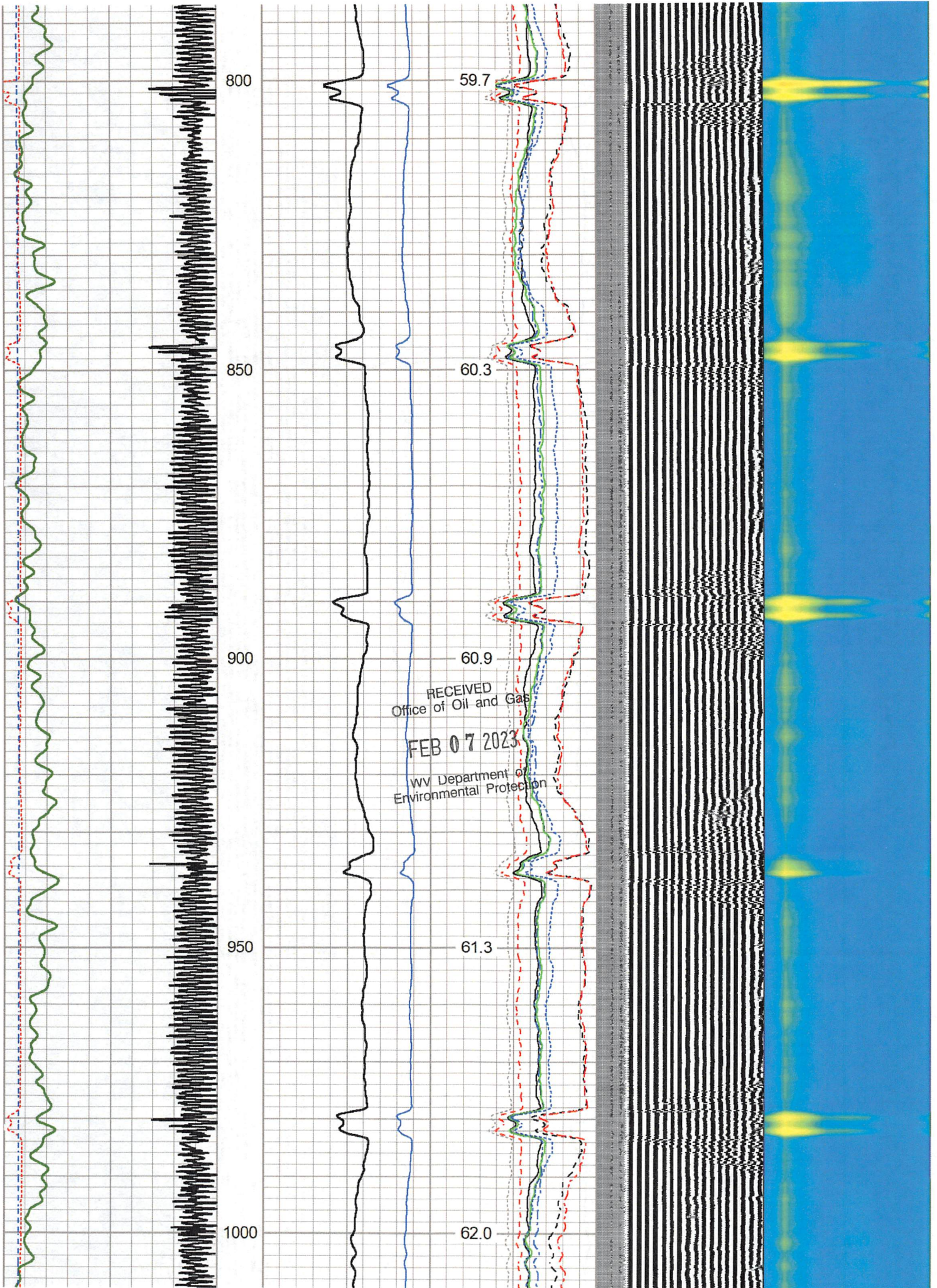
TEMP
 (degF)

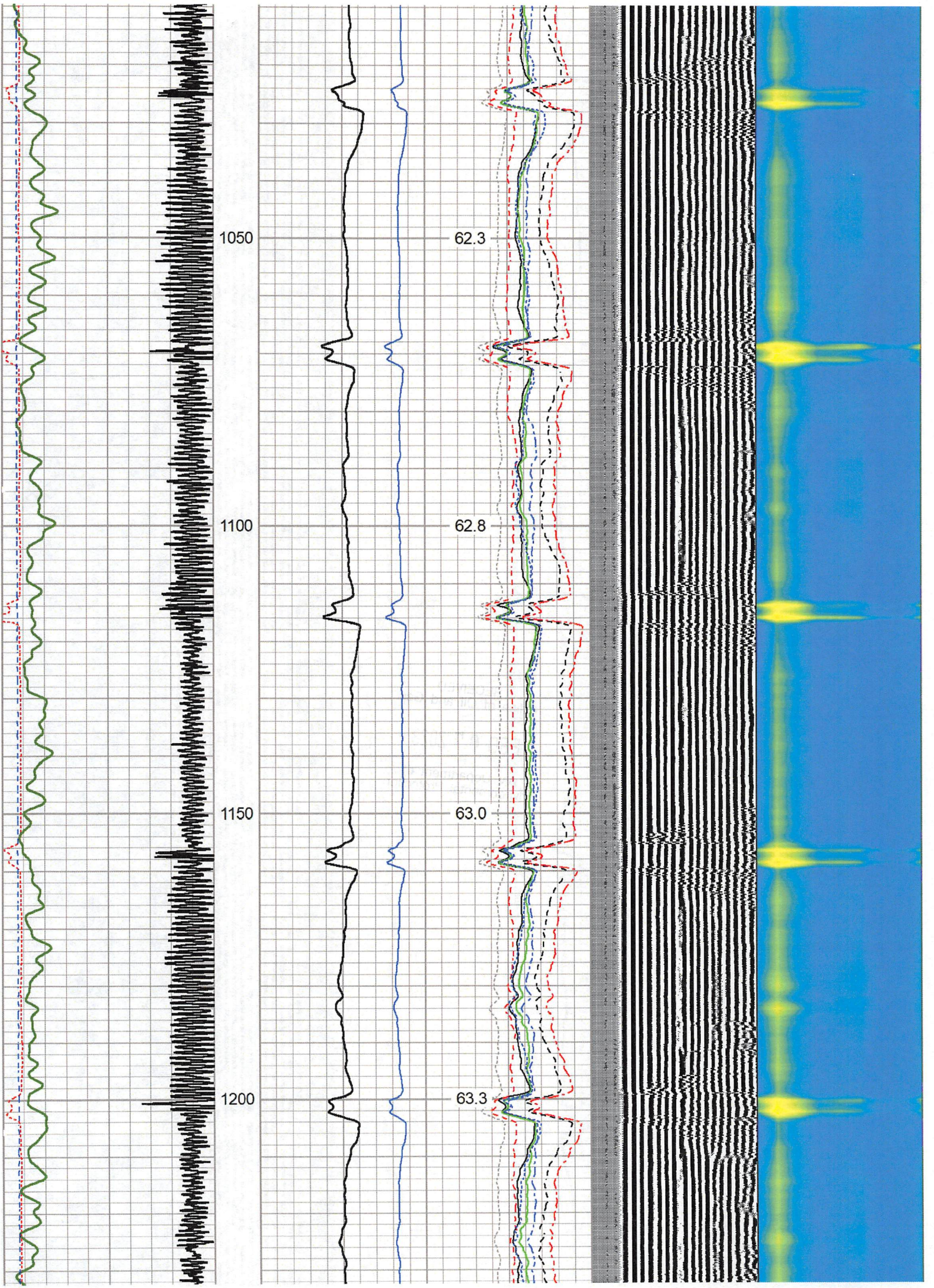


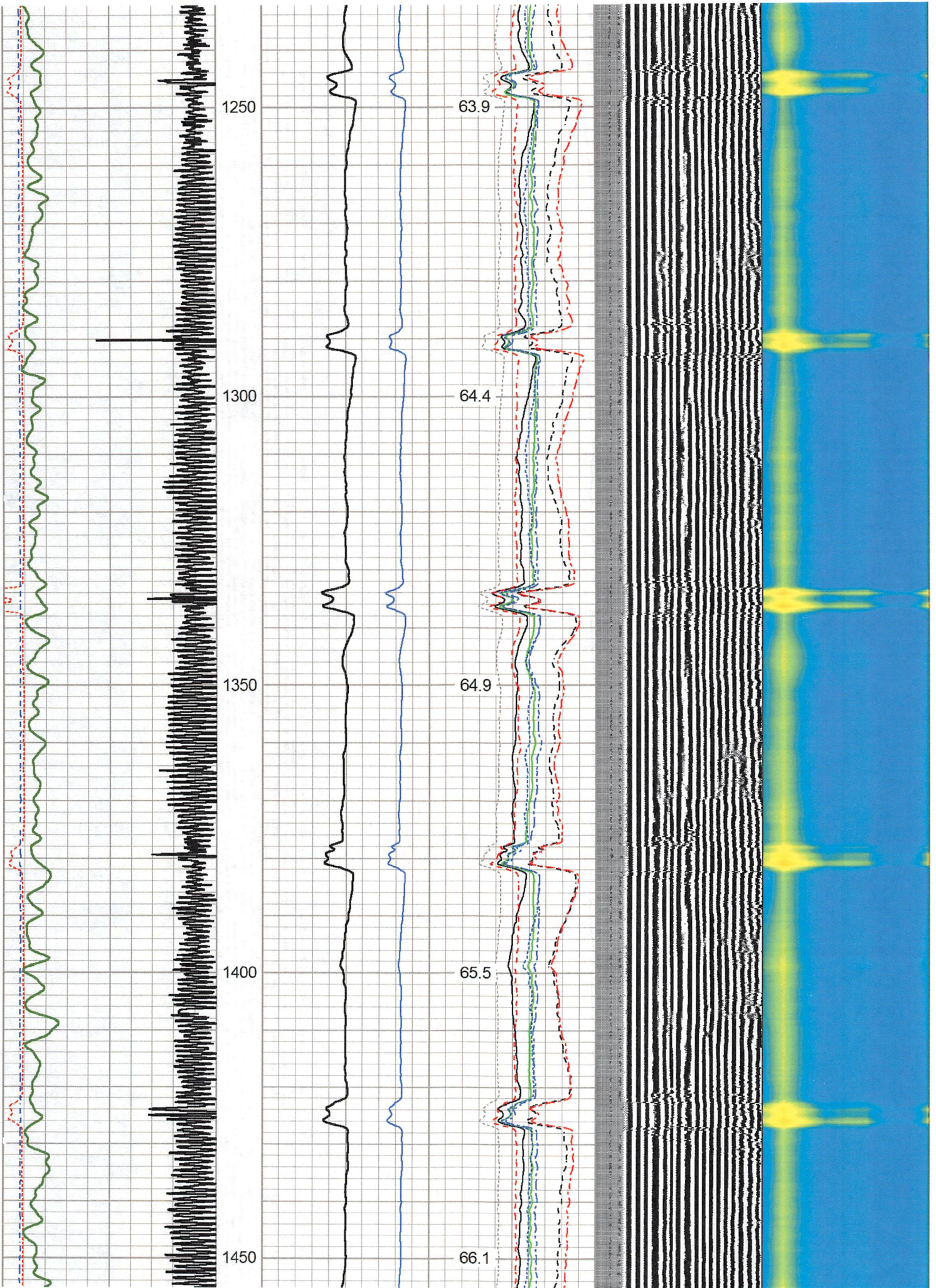


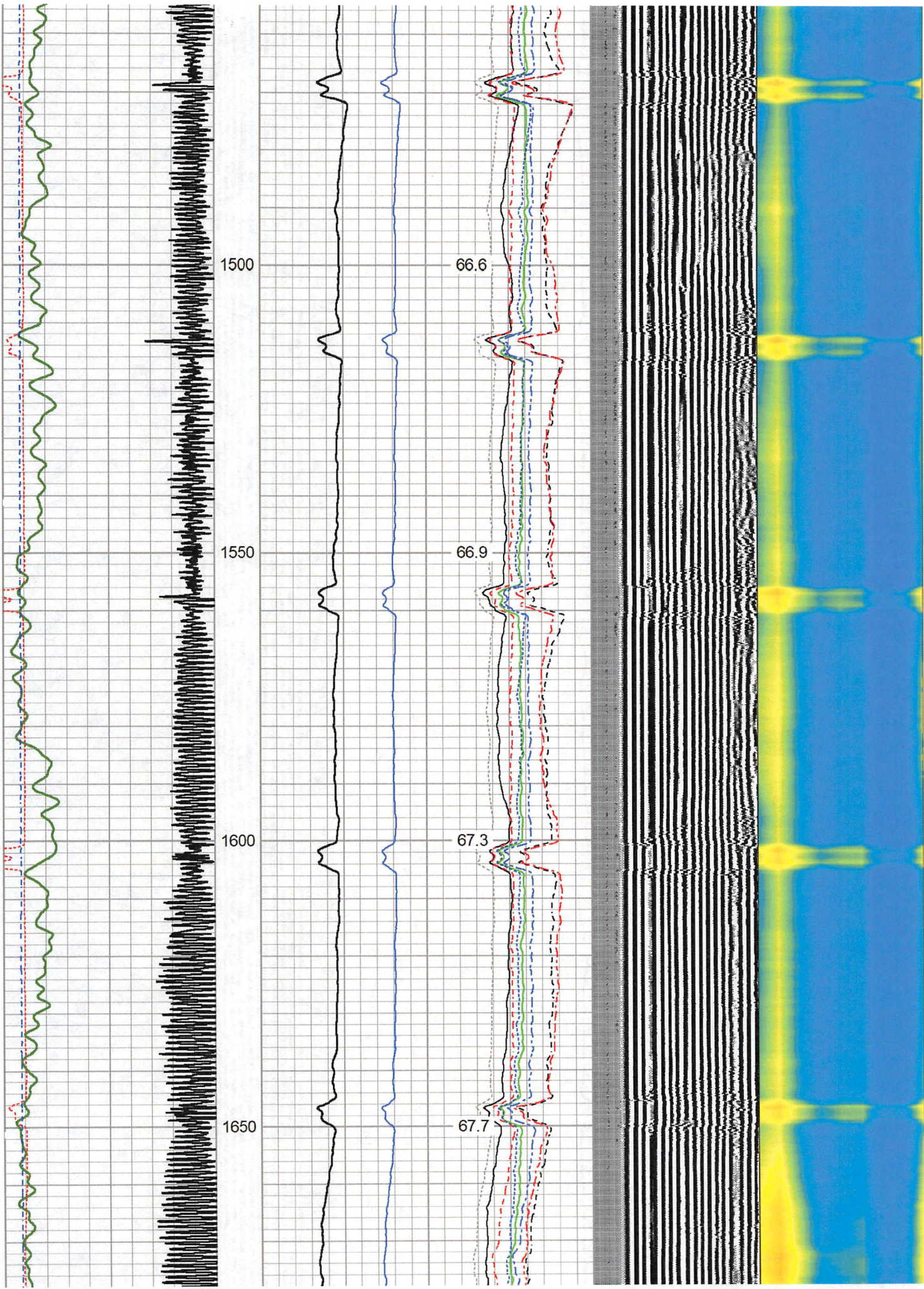


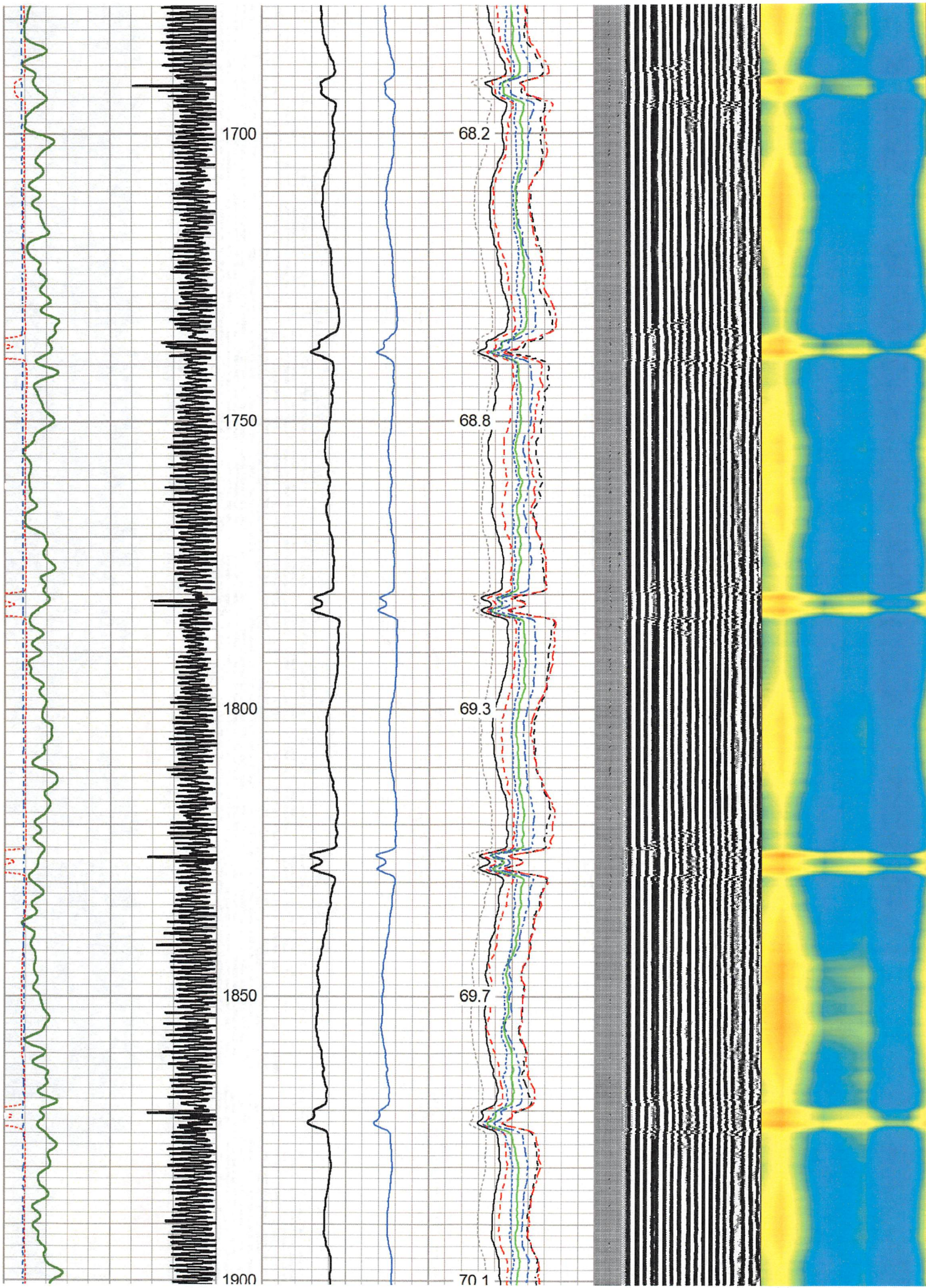


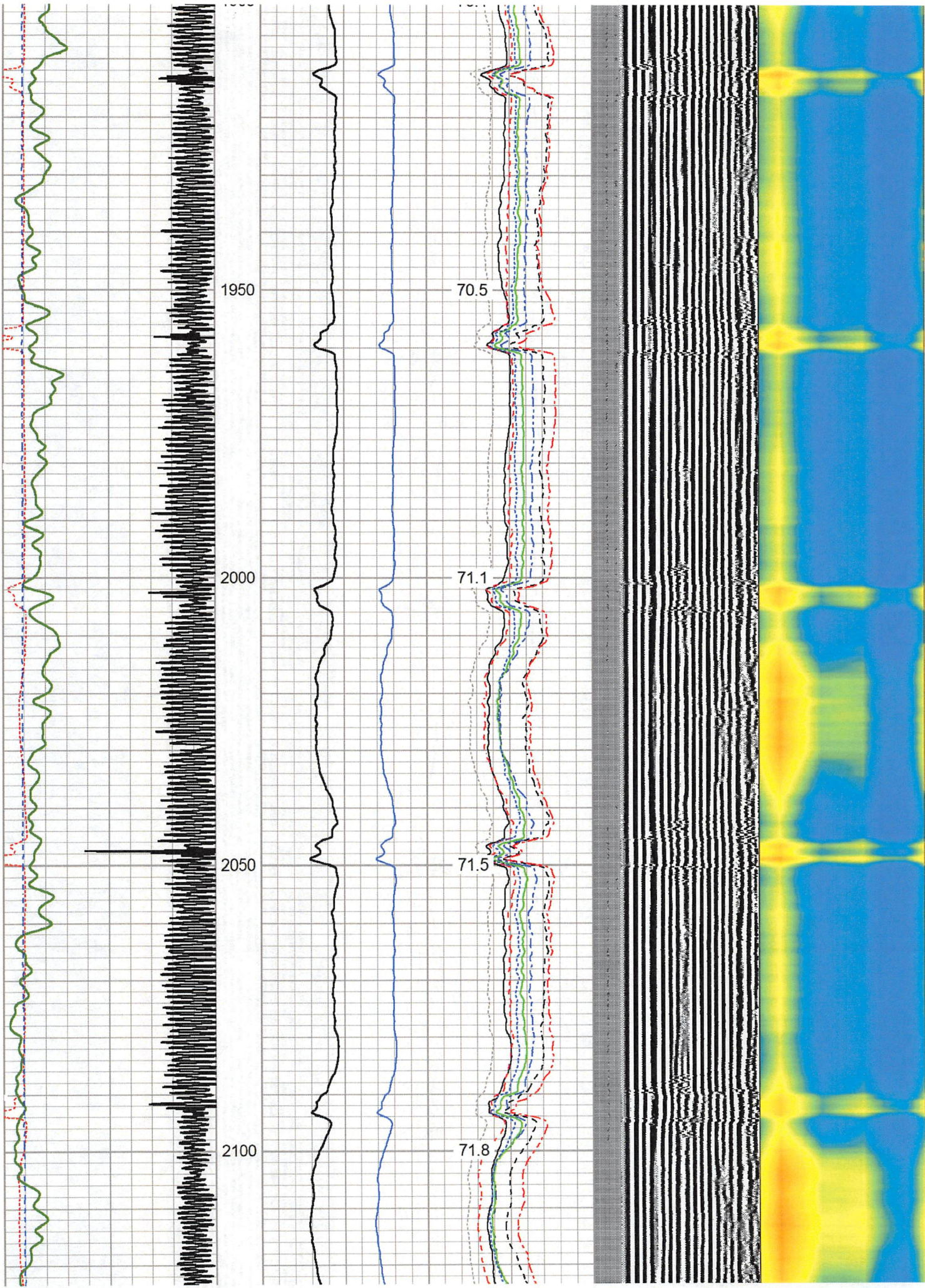


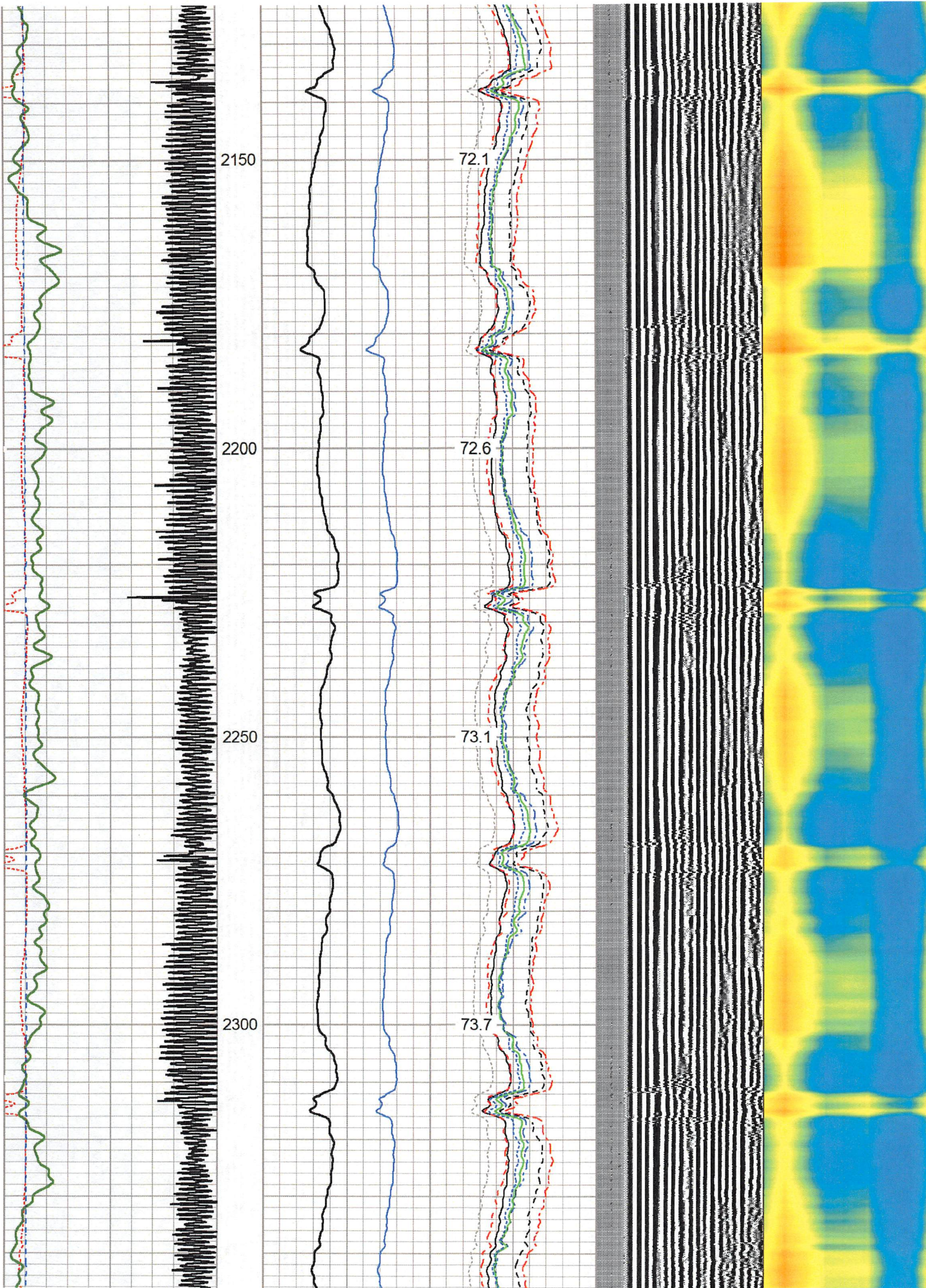


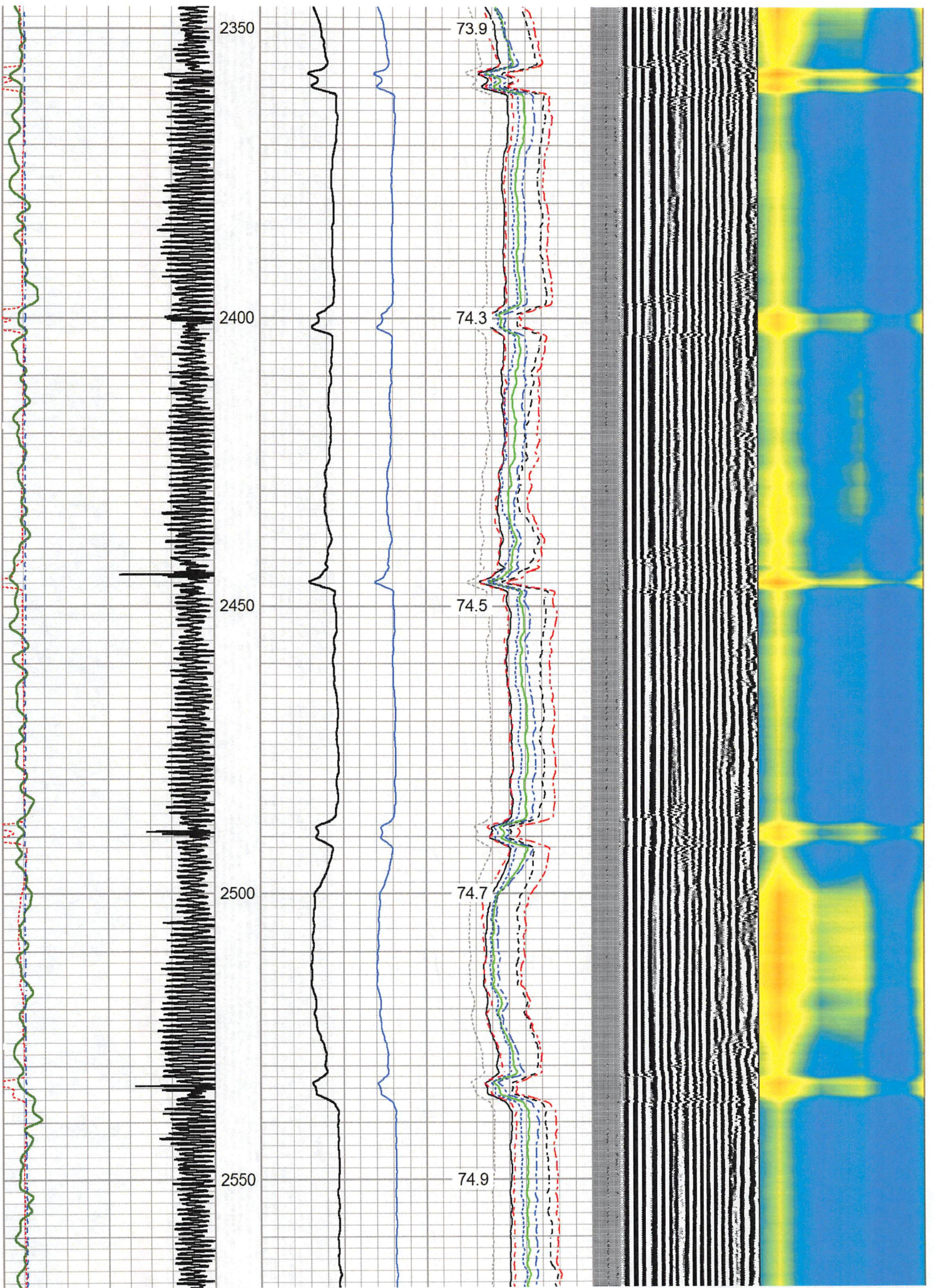


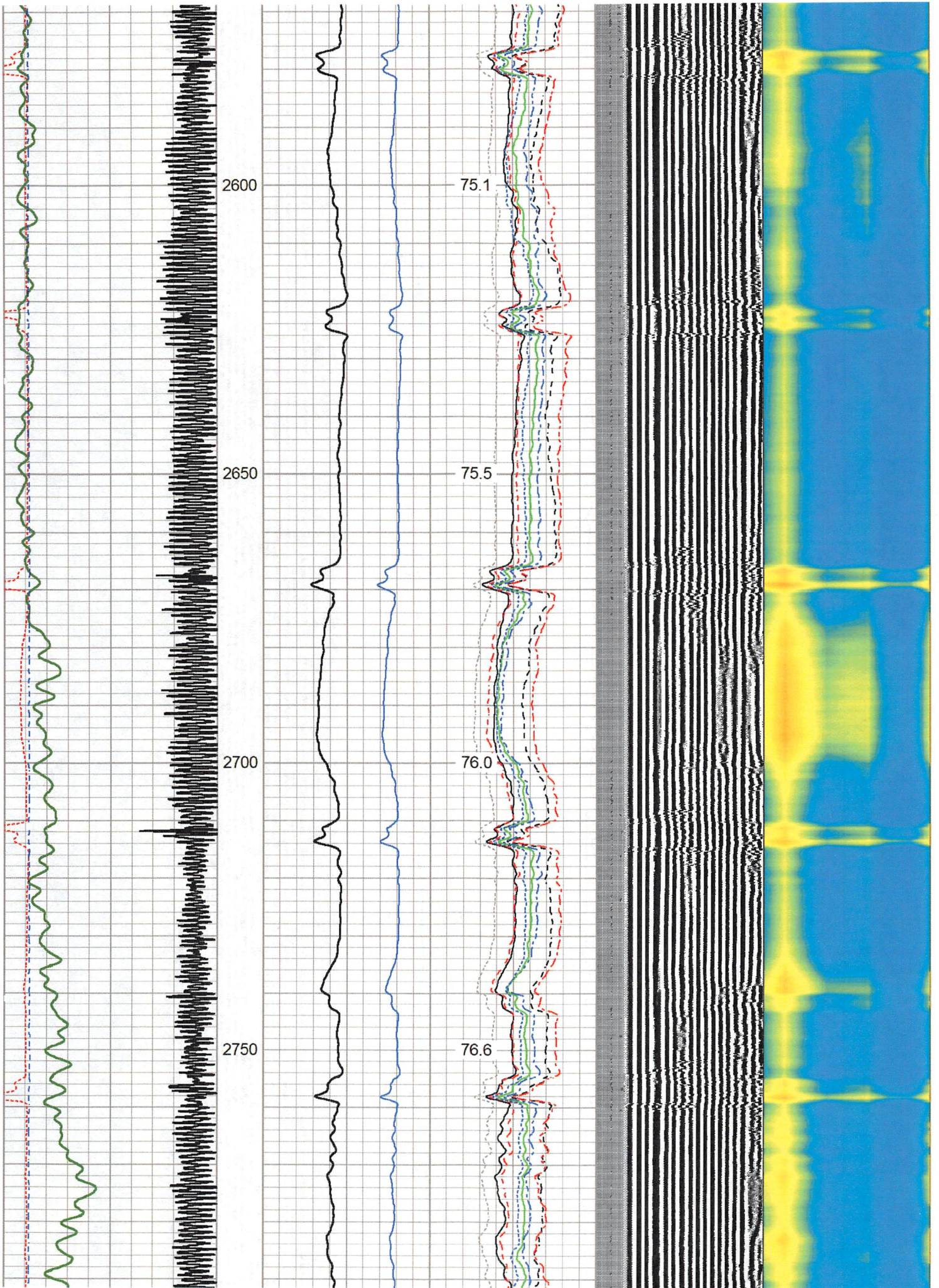


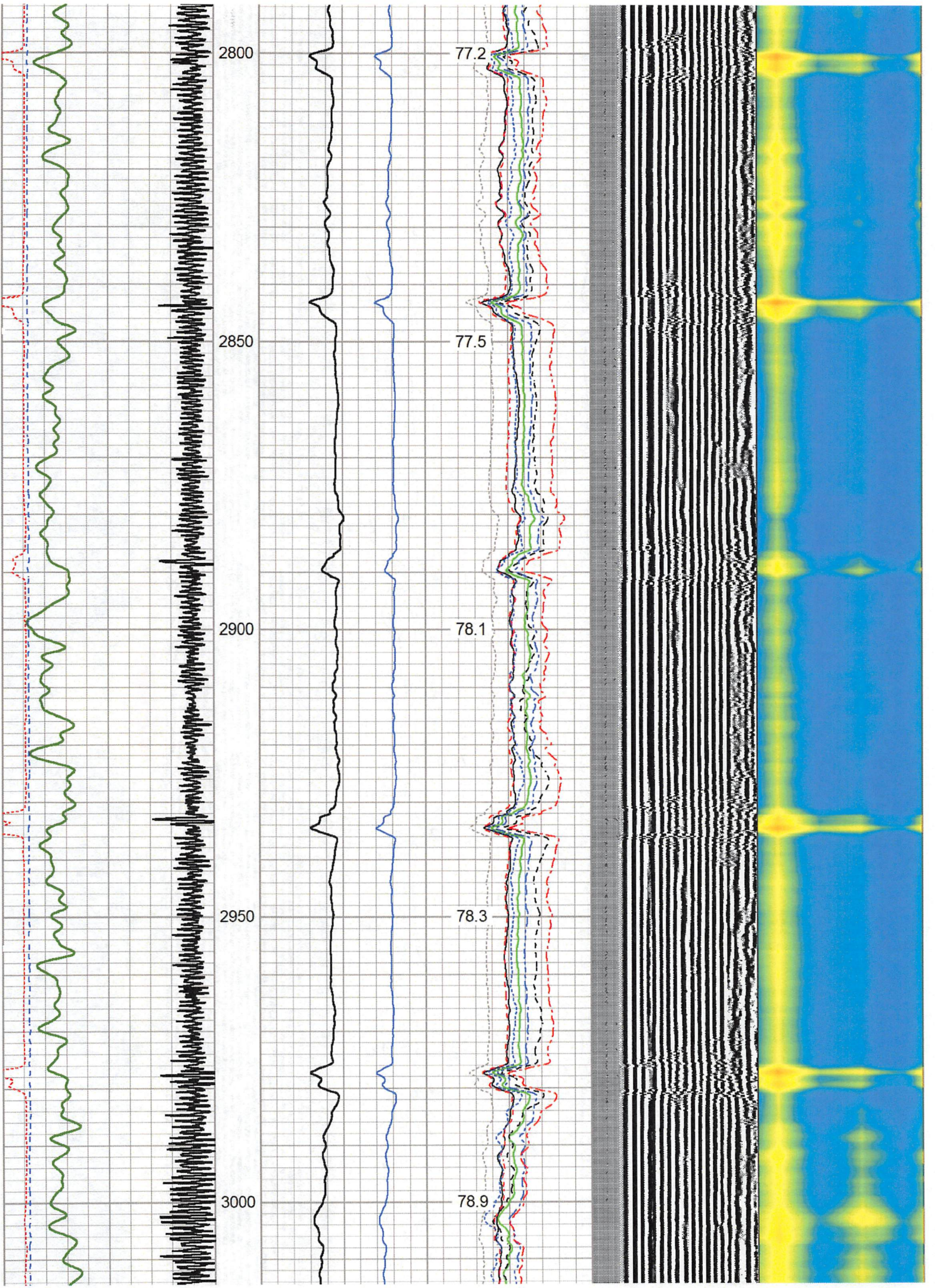


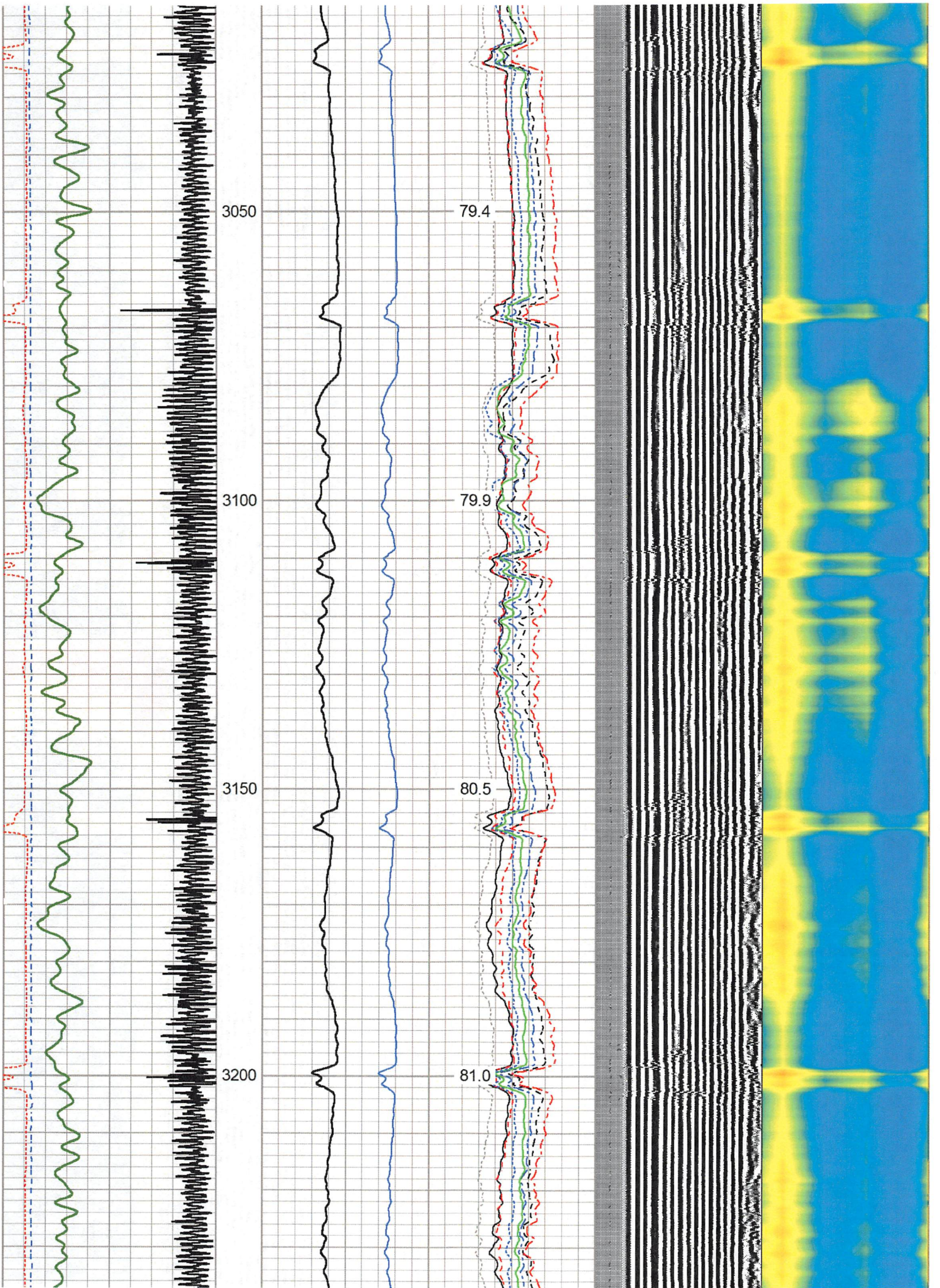


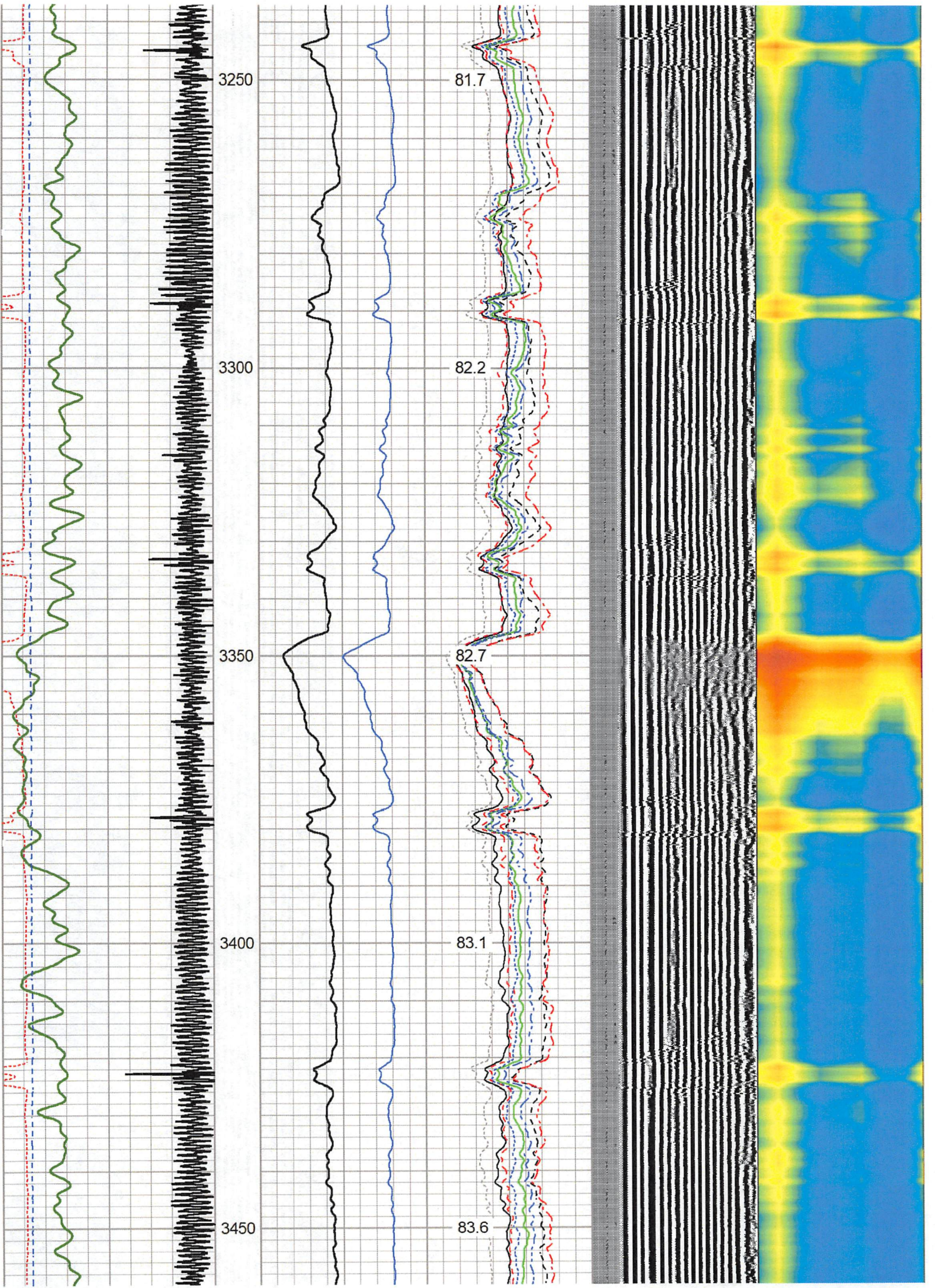


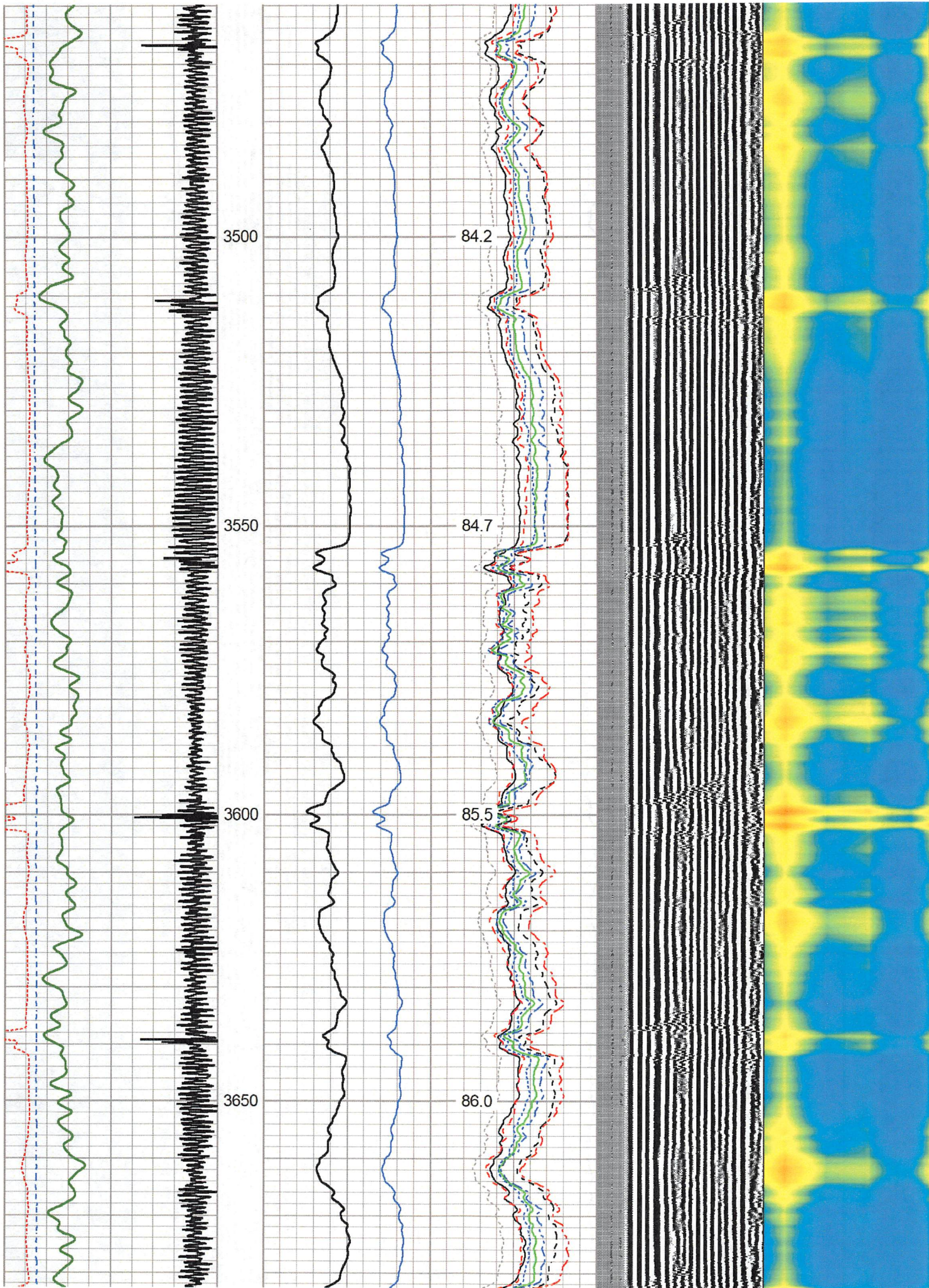


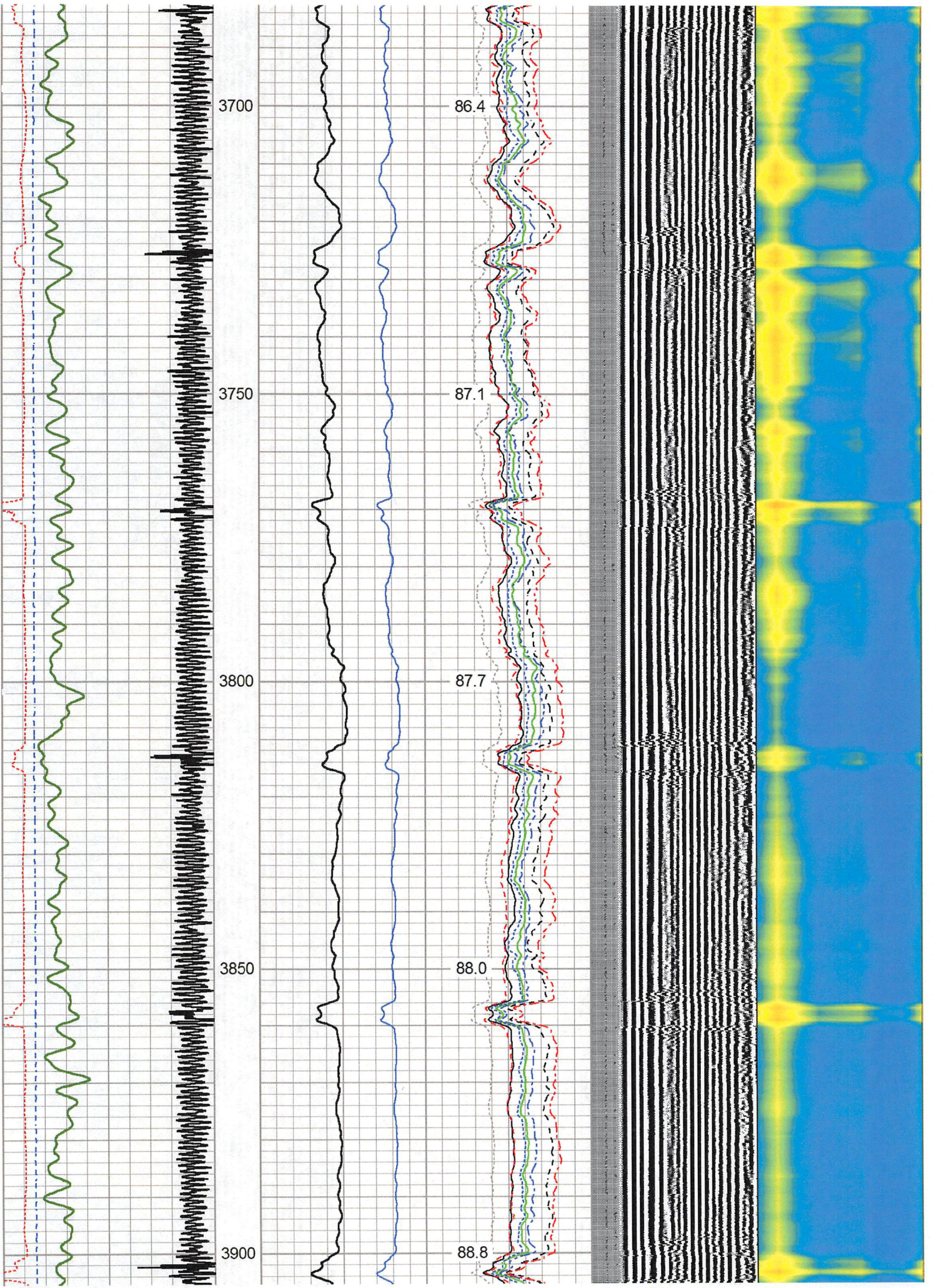


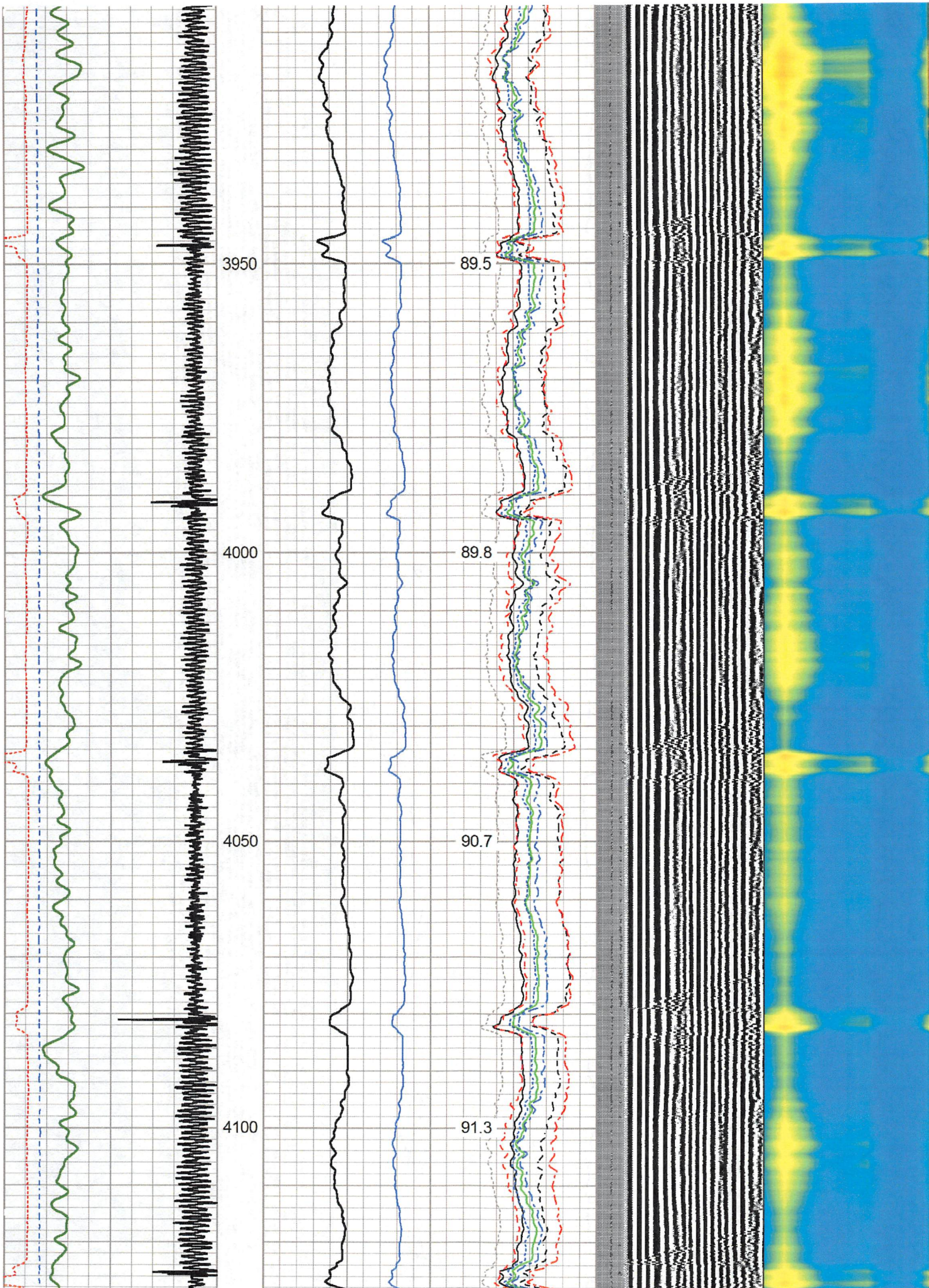


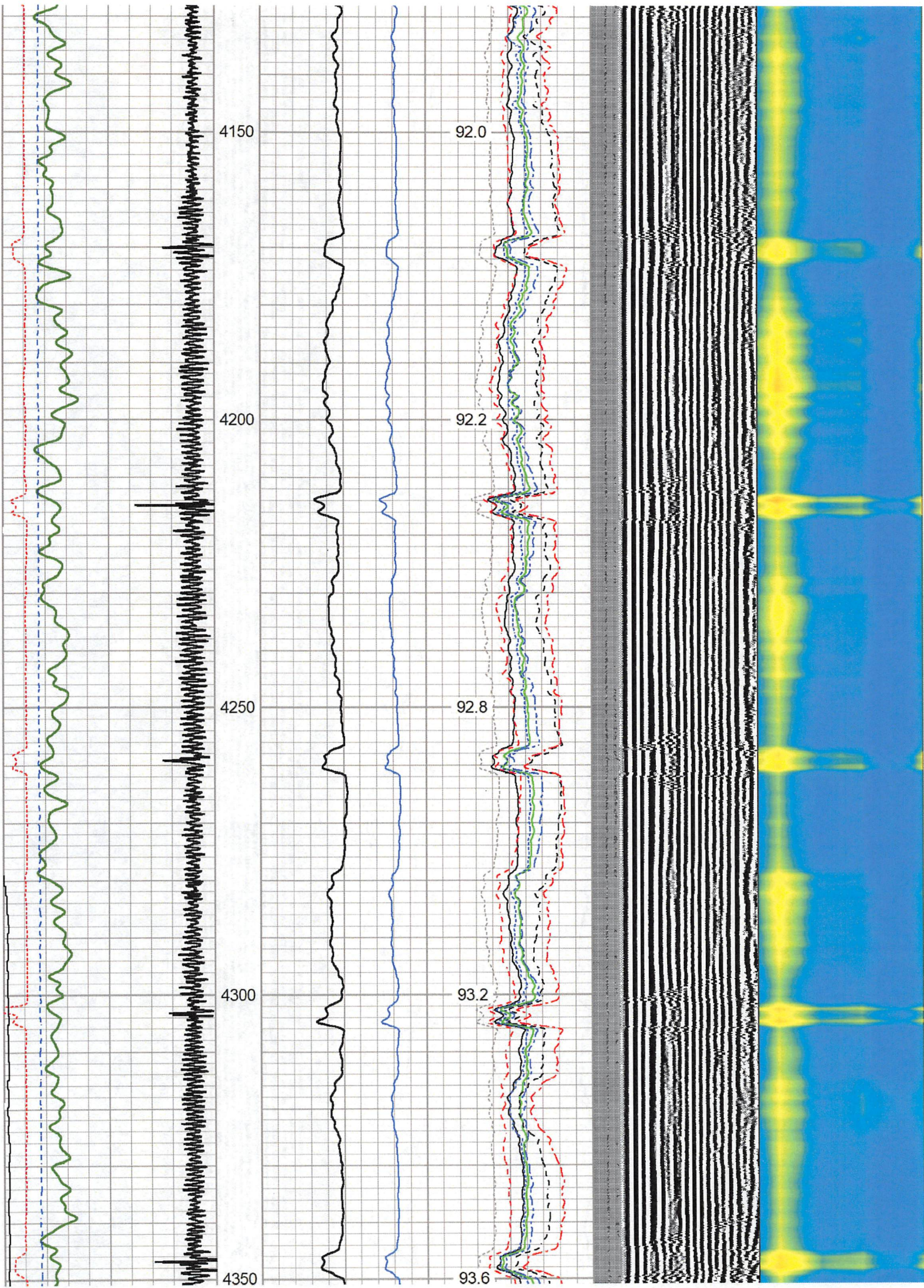


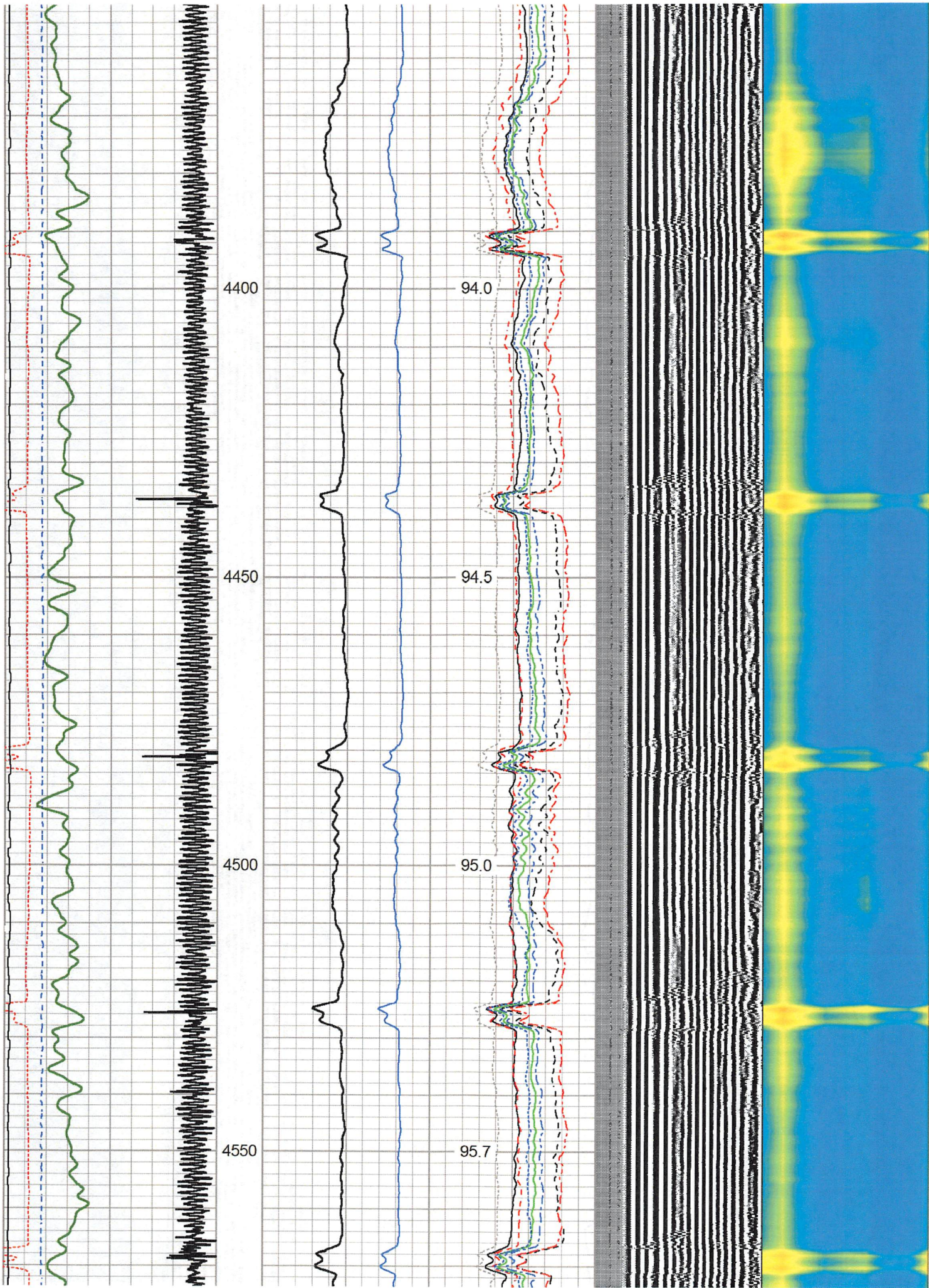


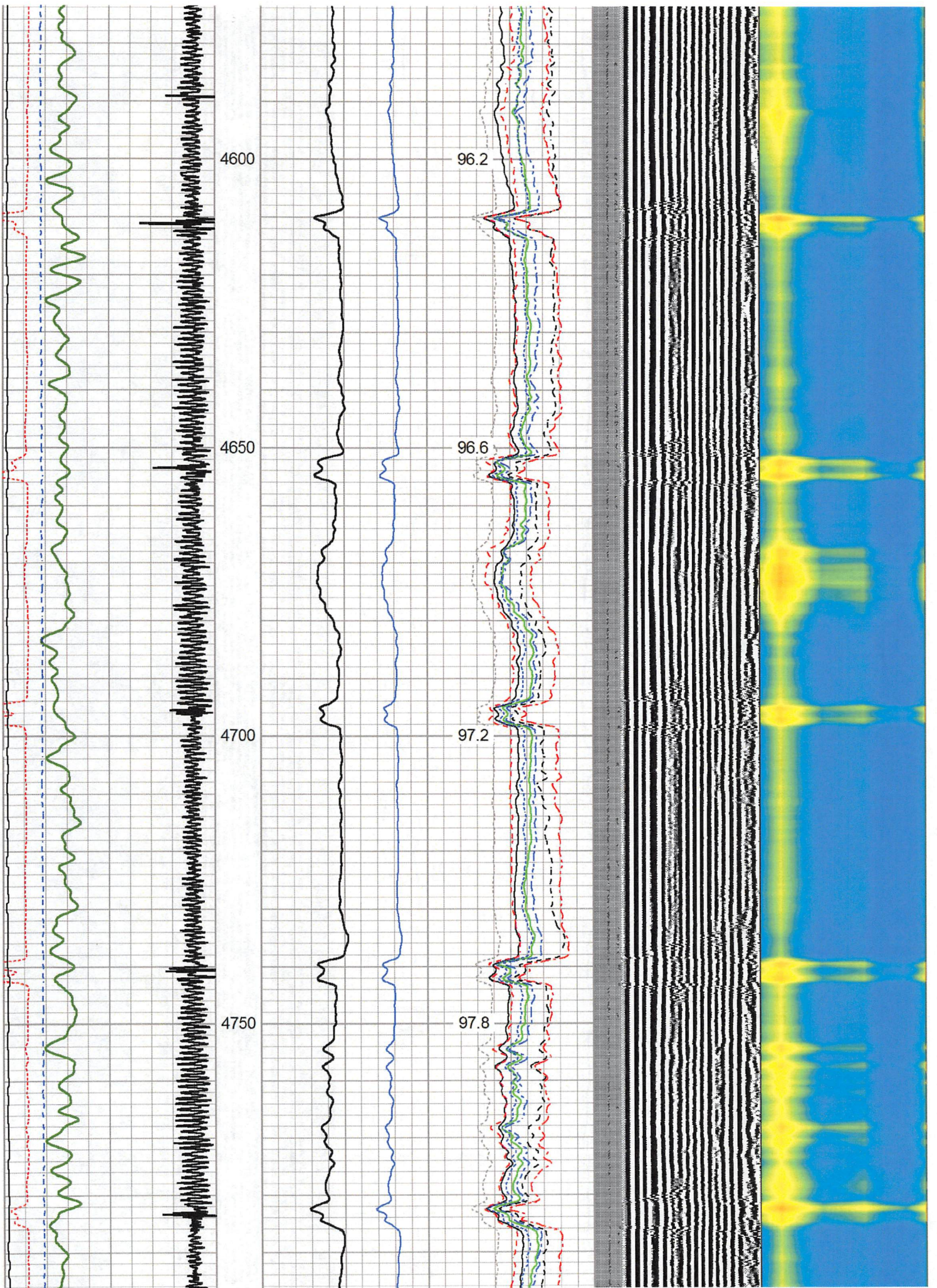


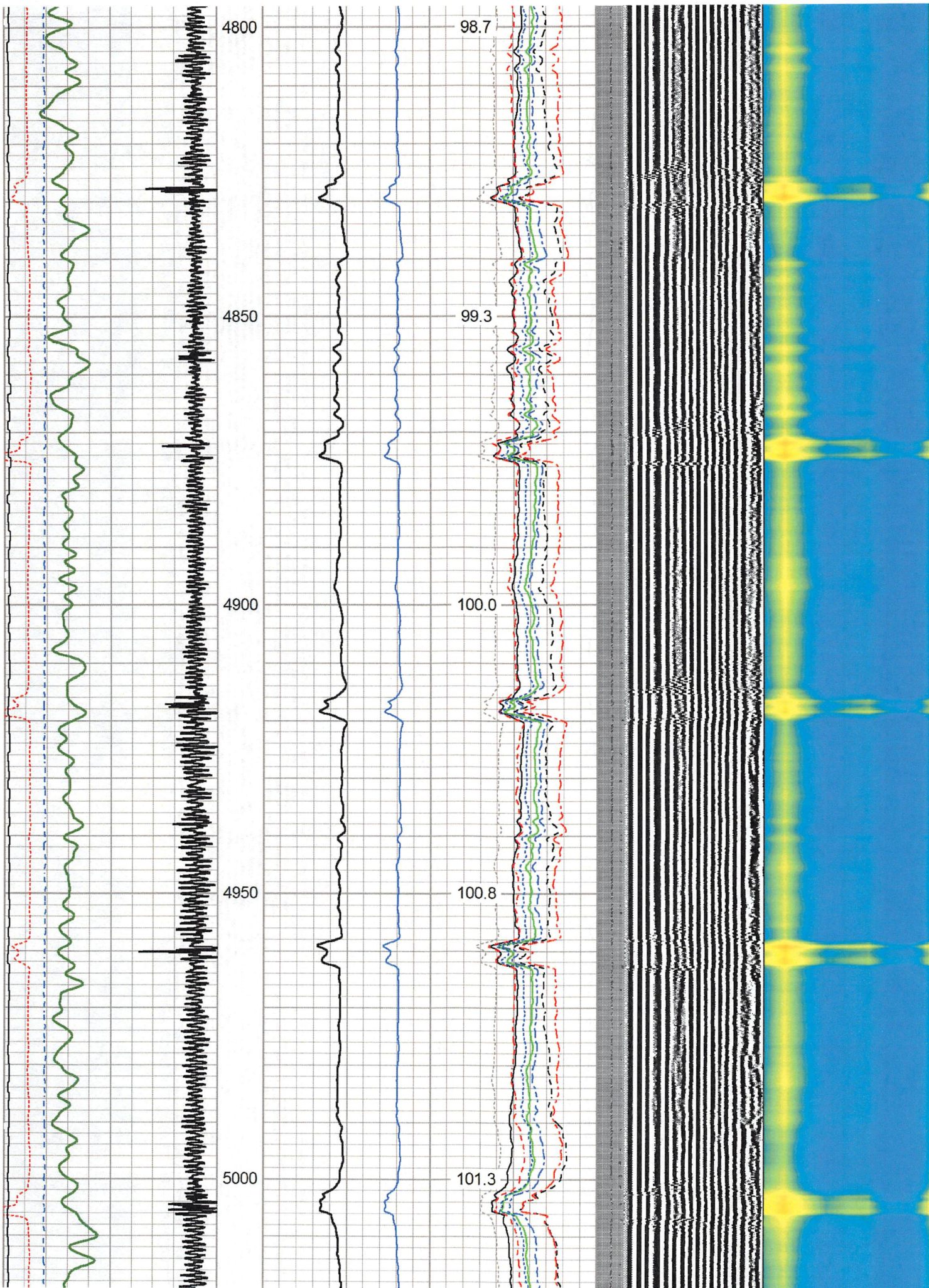


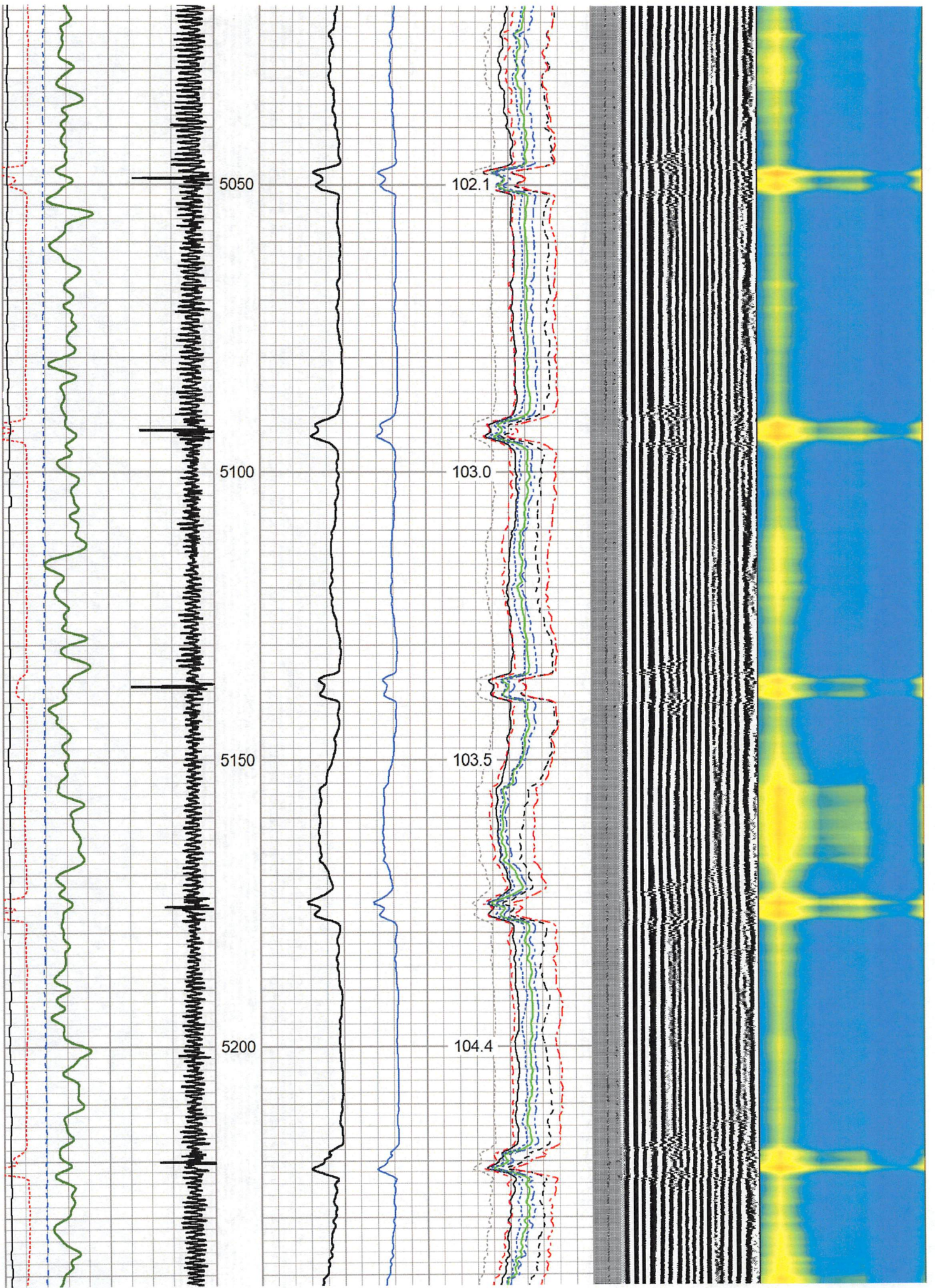


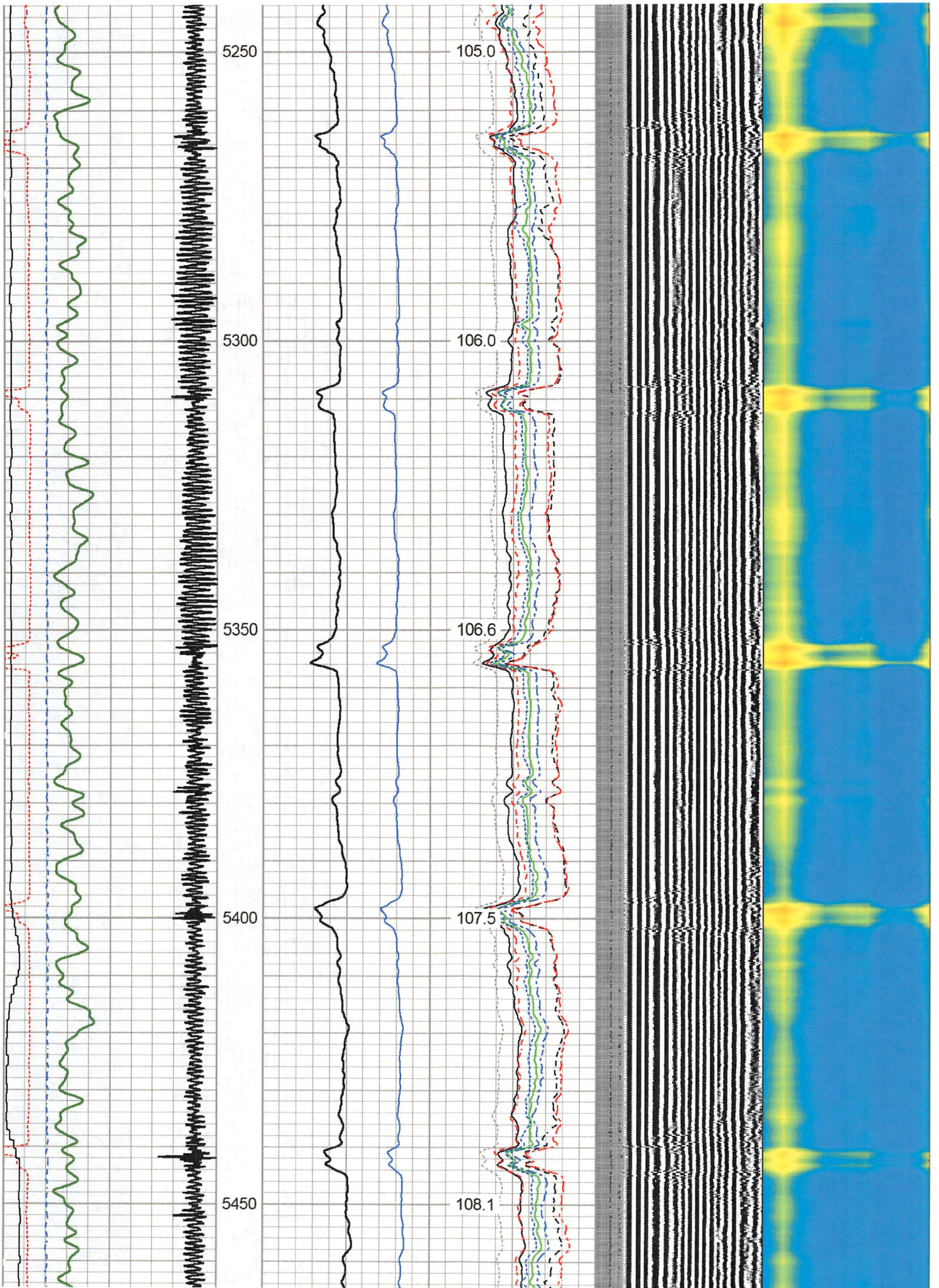


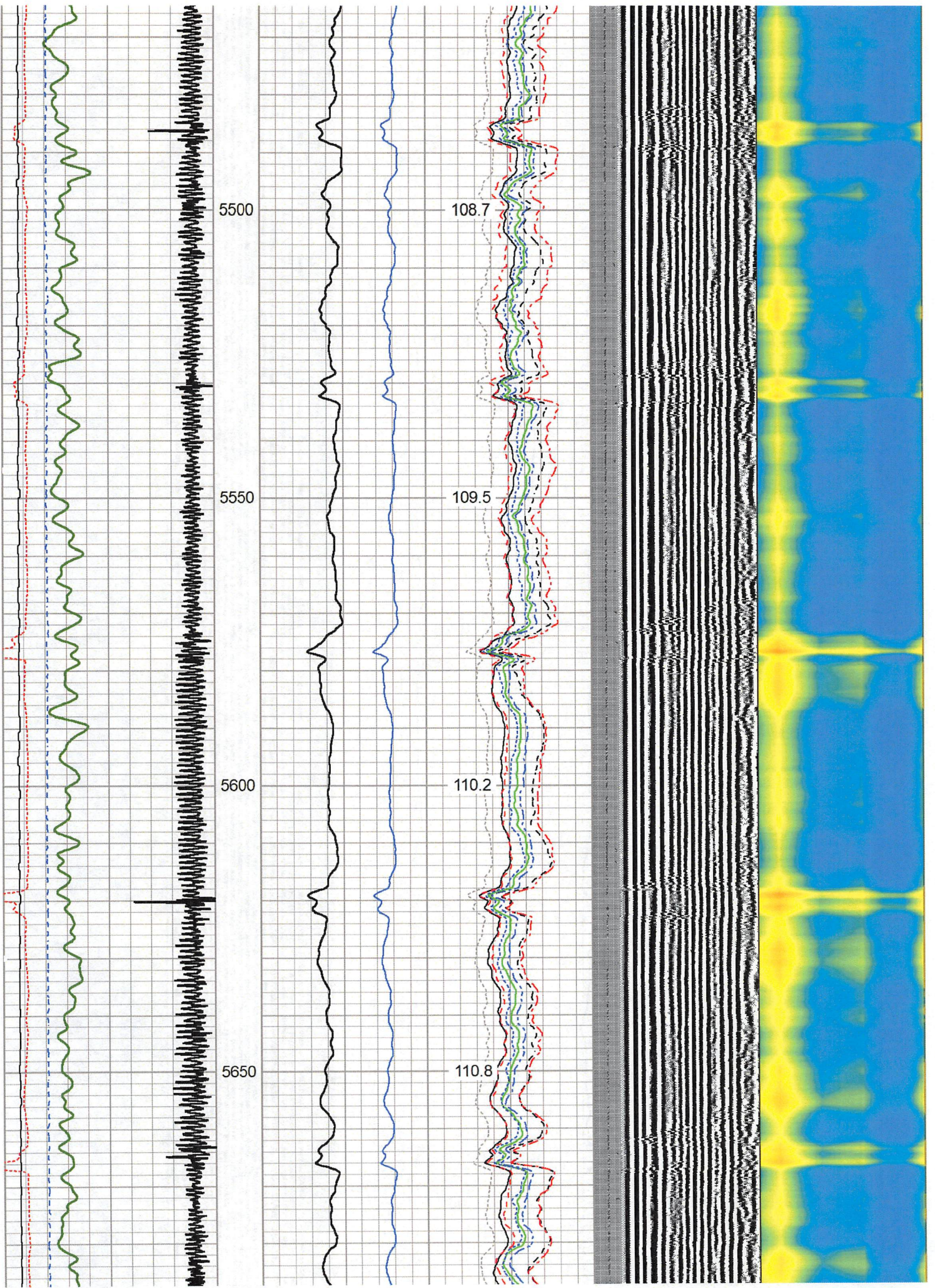


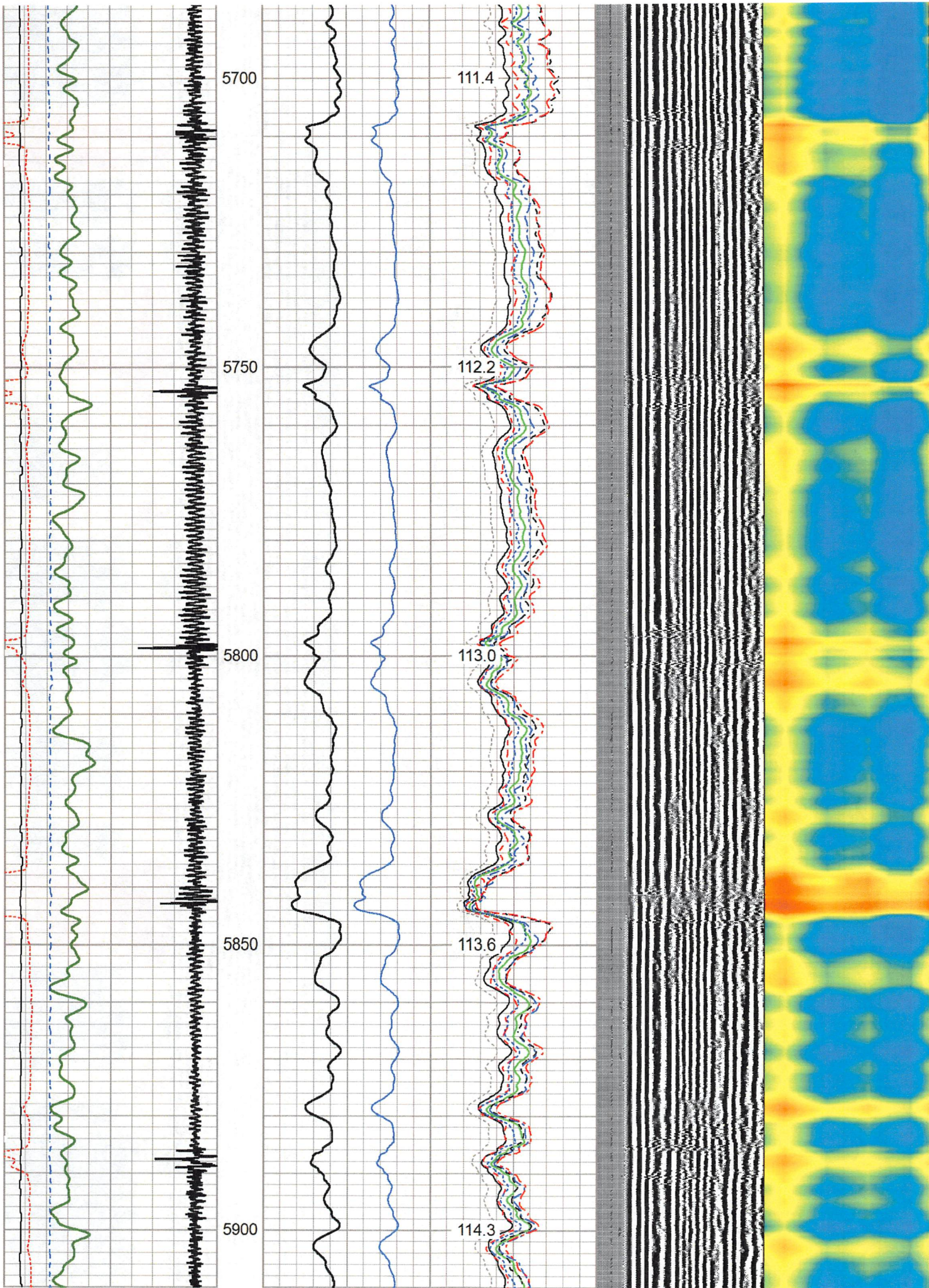


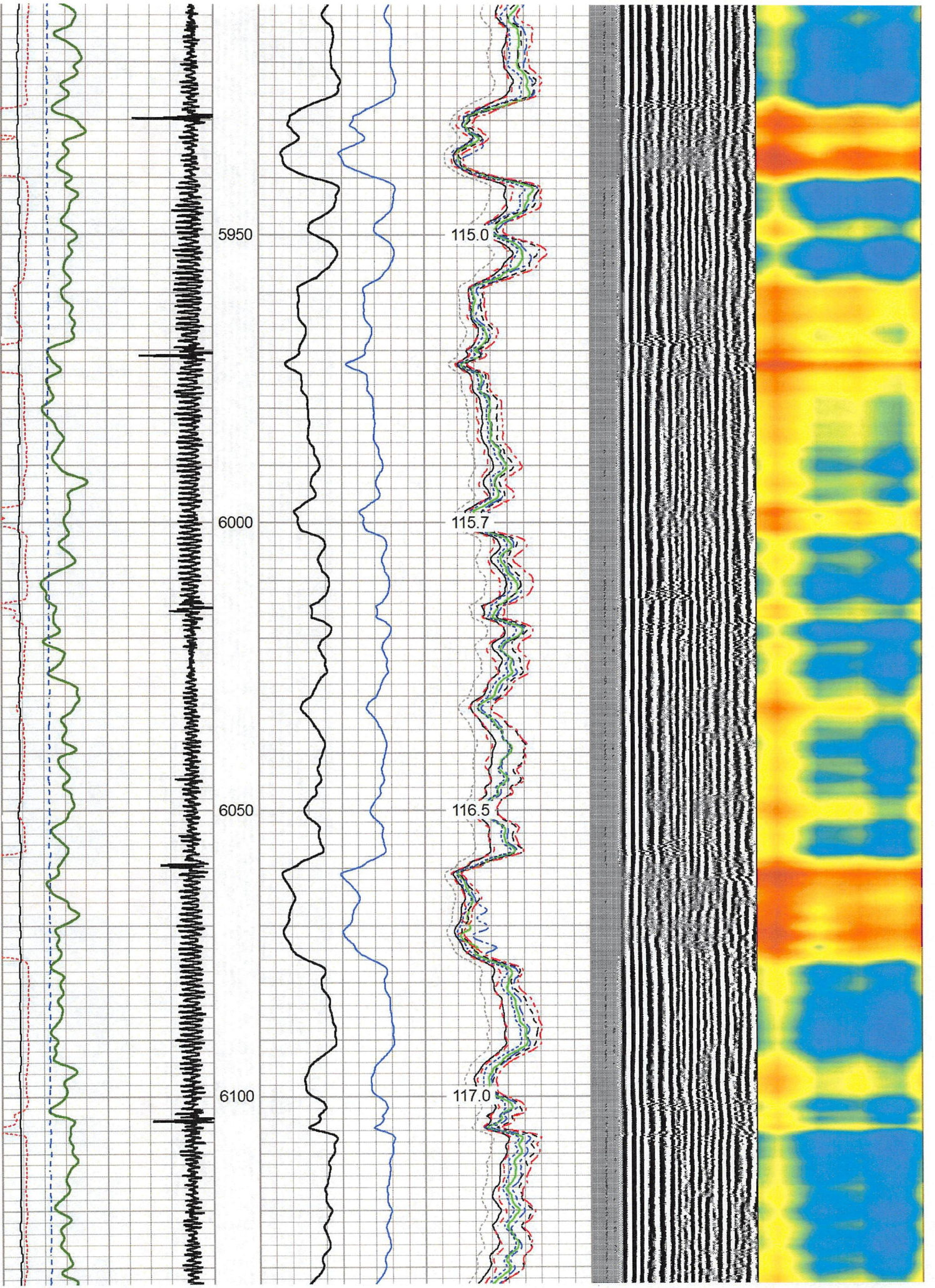


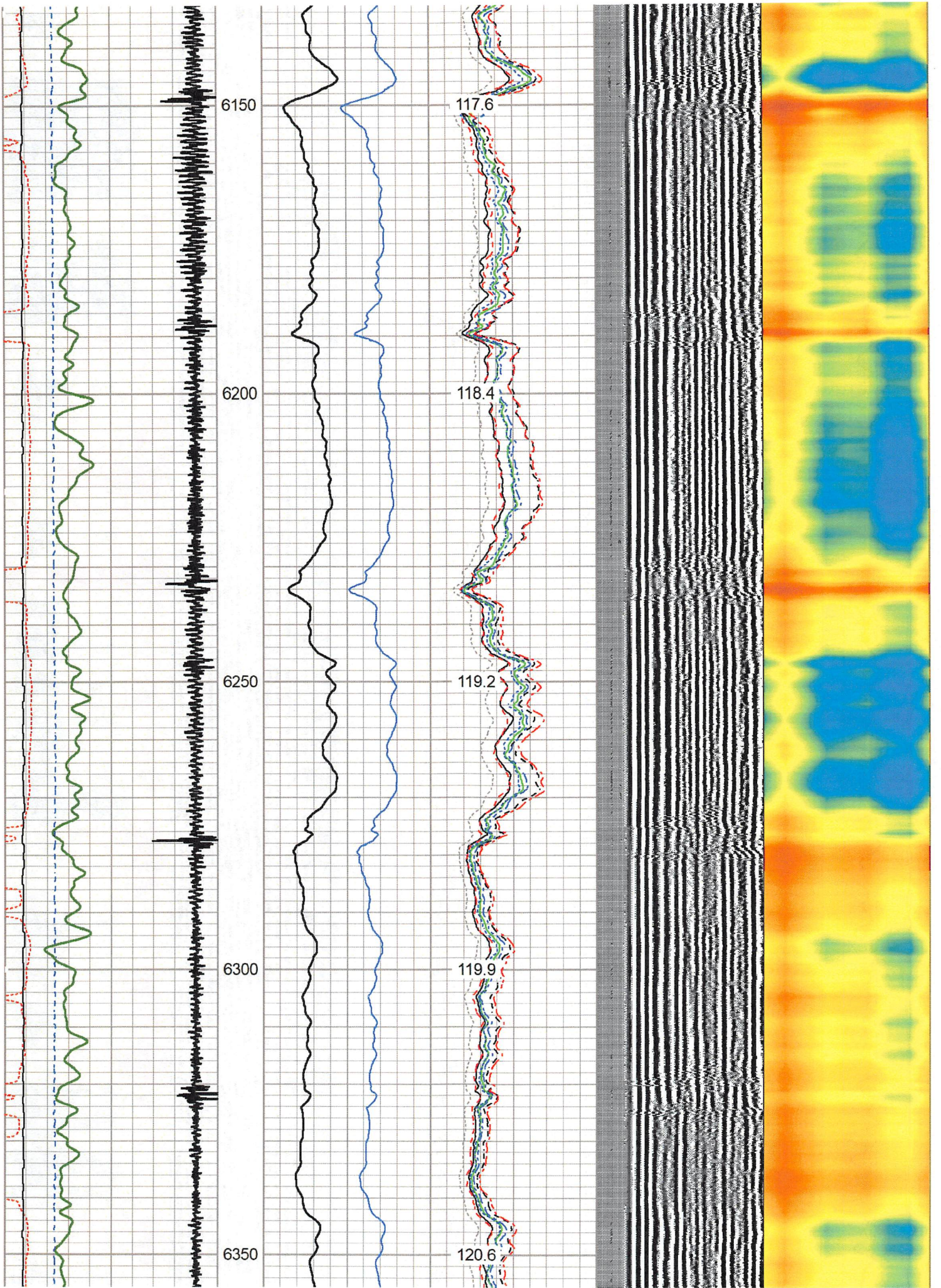


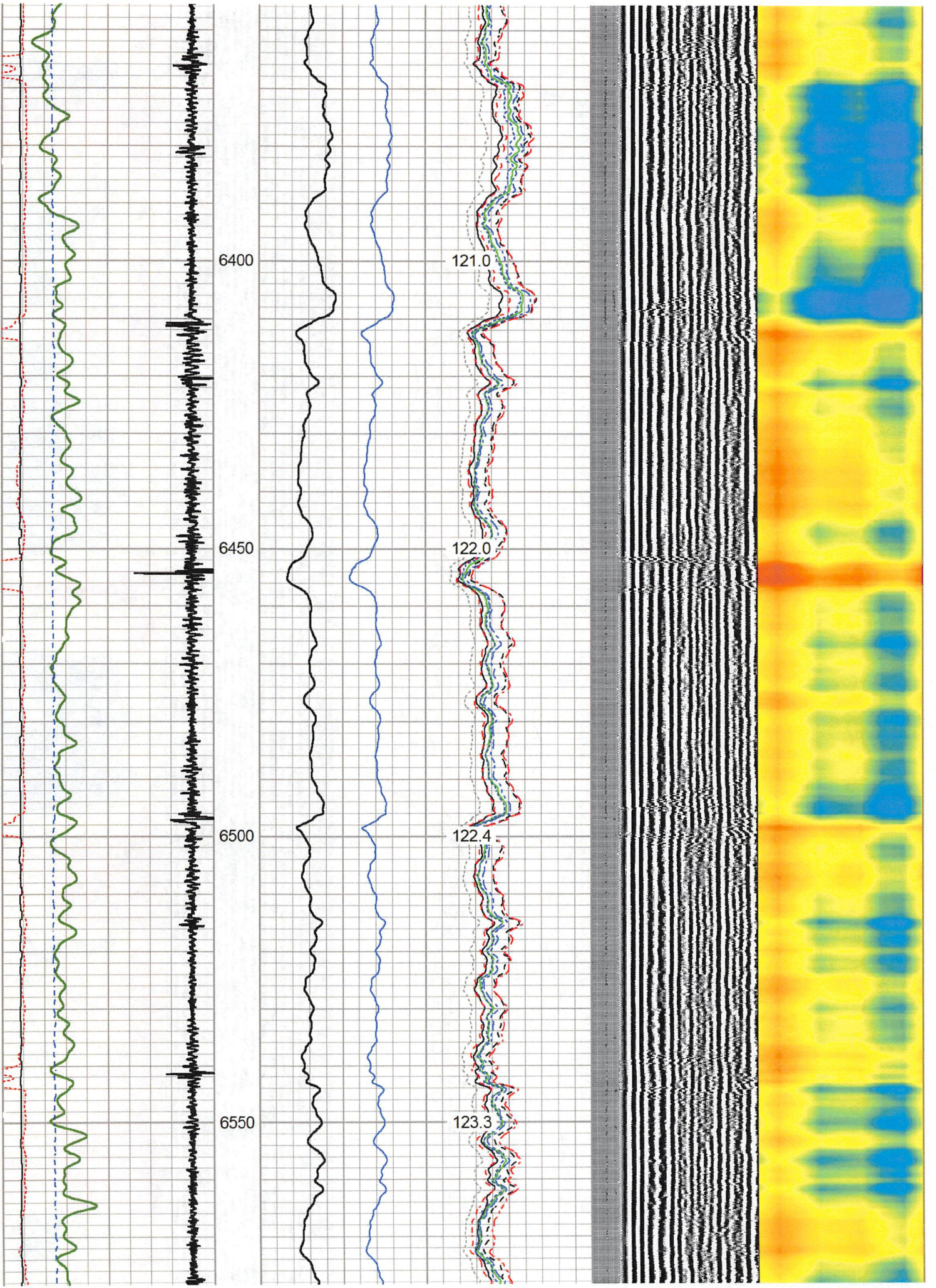


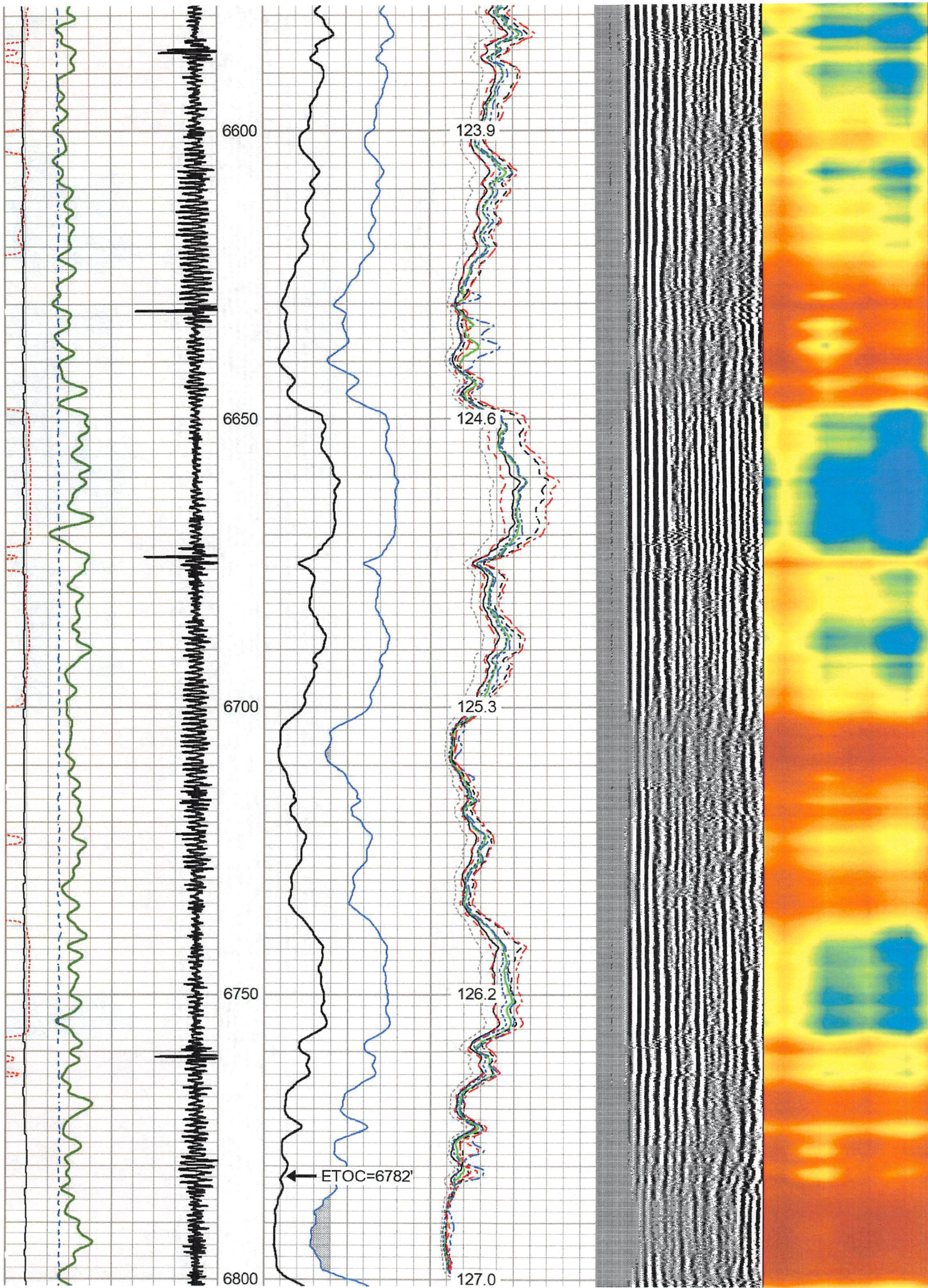


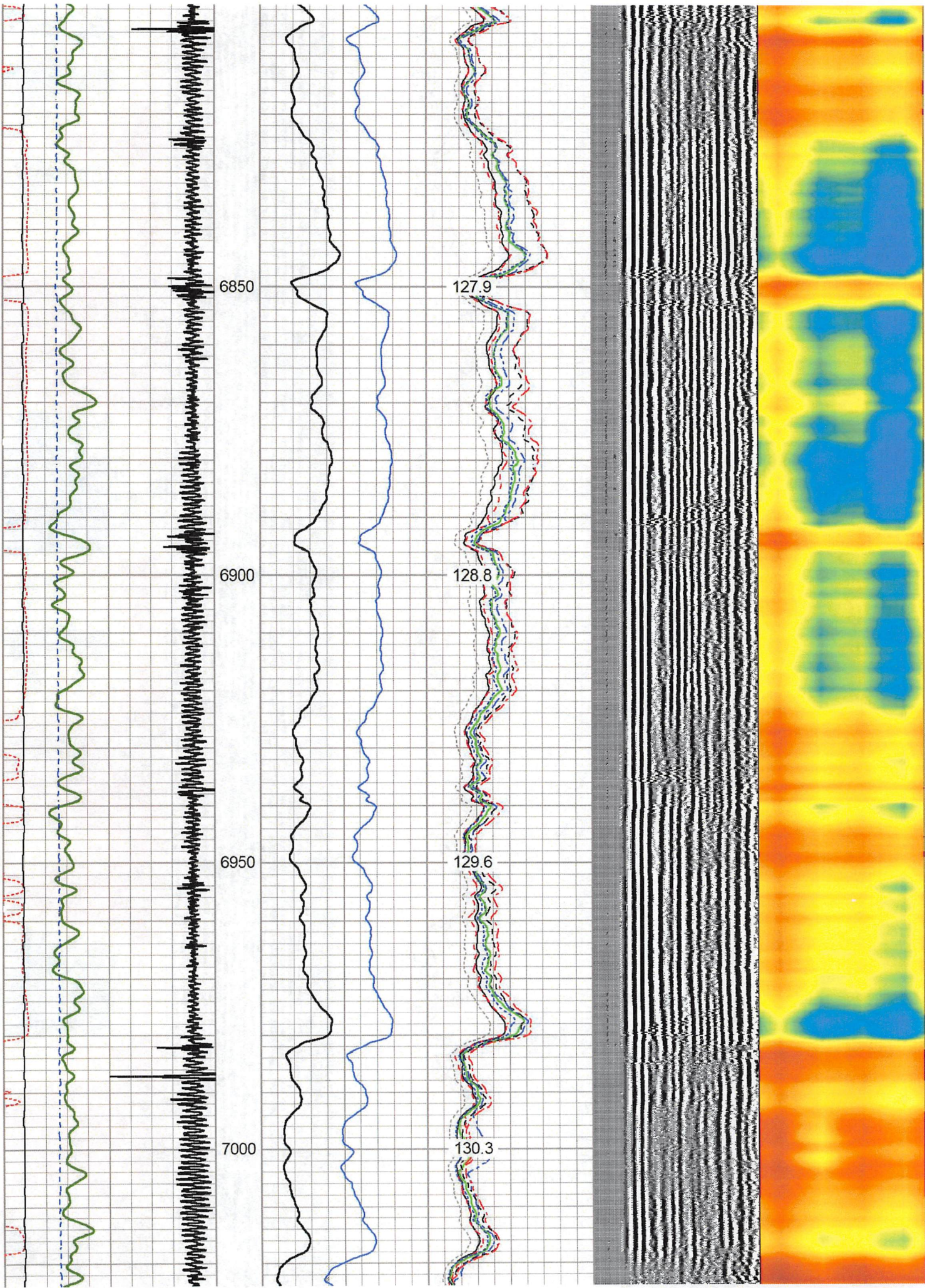












6850

127.9

6900

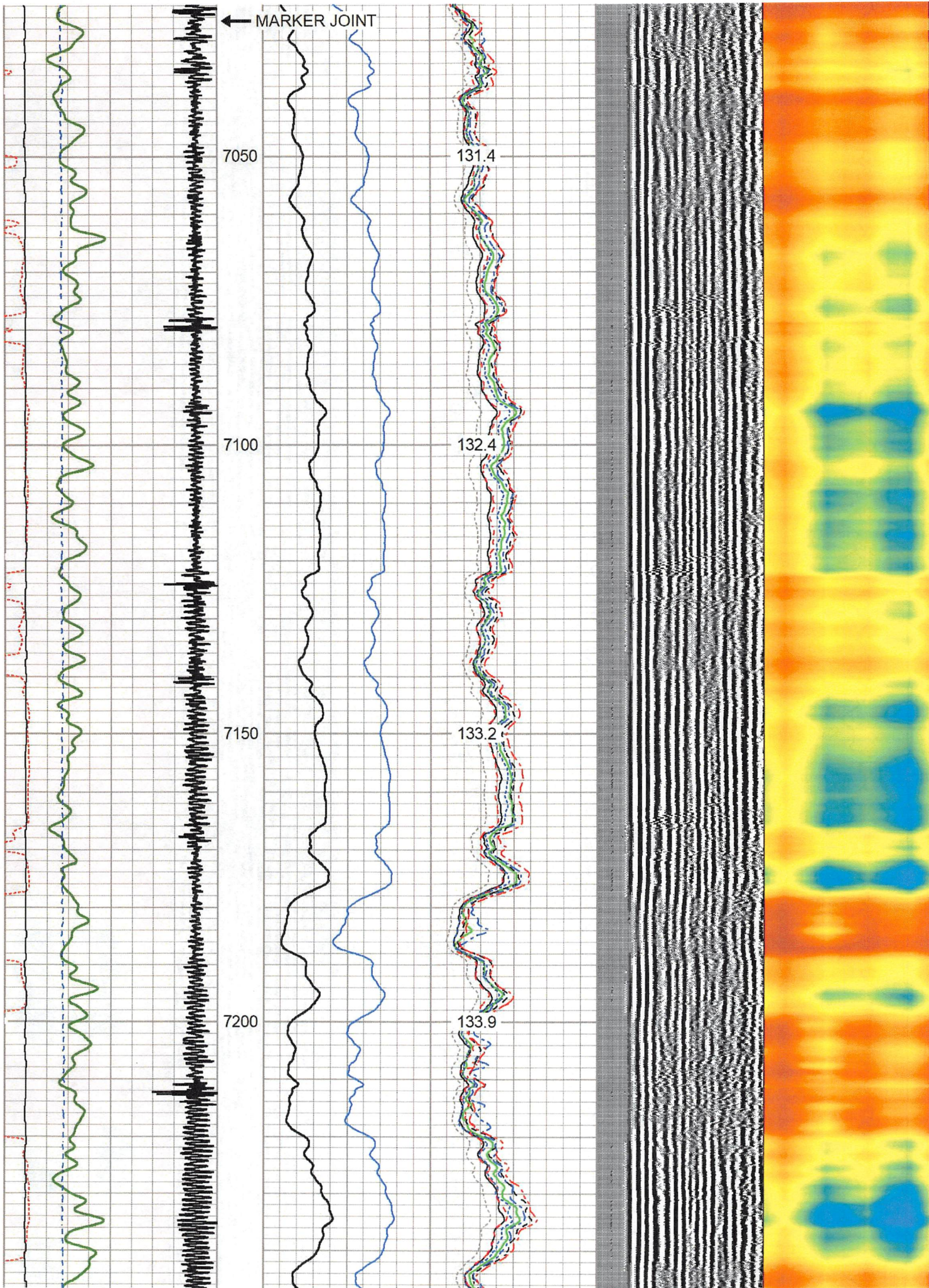
128.8

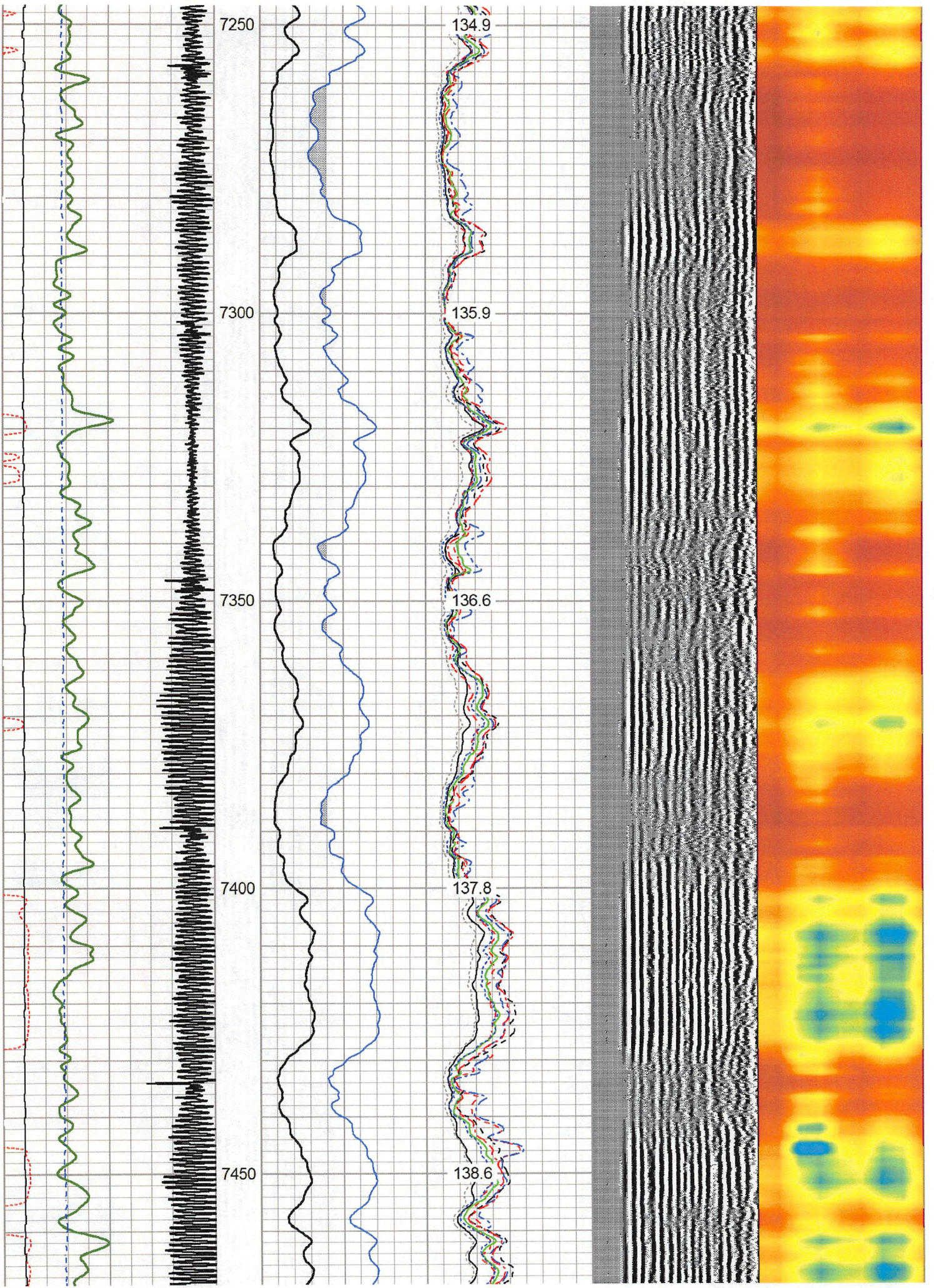
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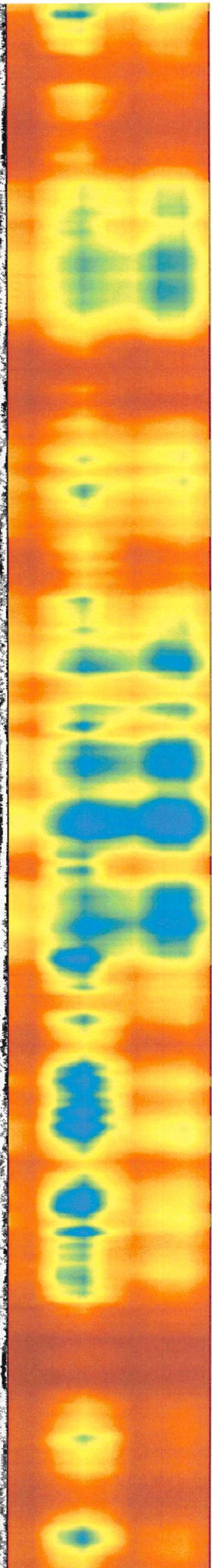
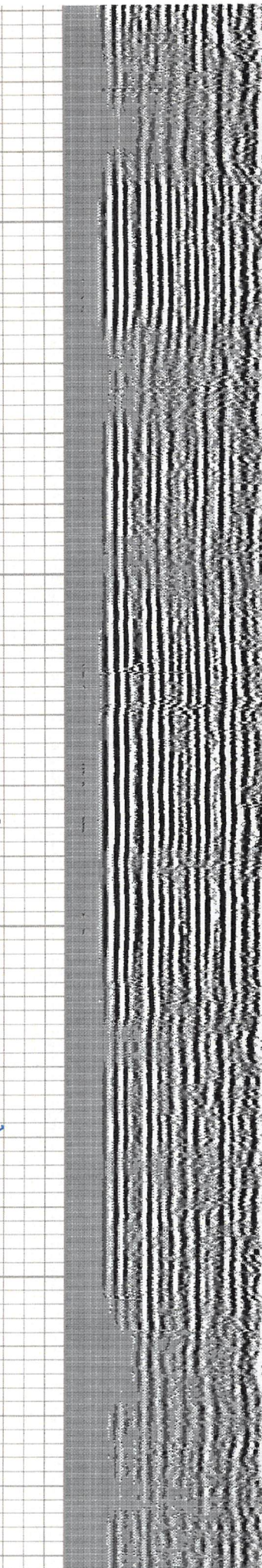
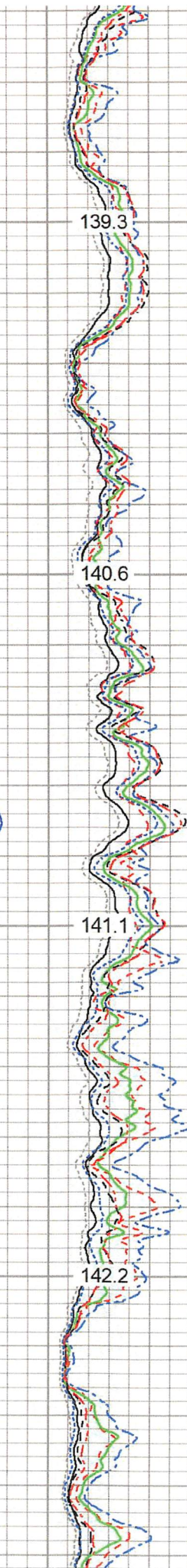
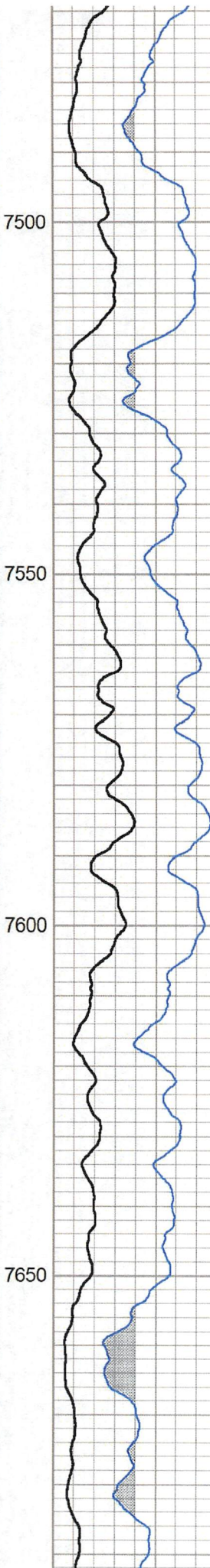
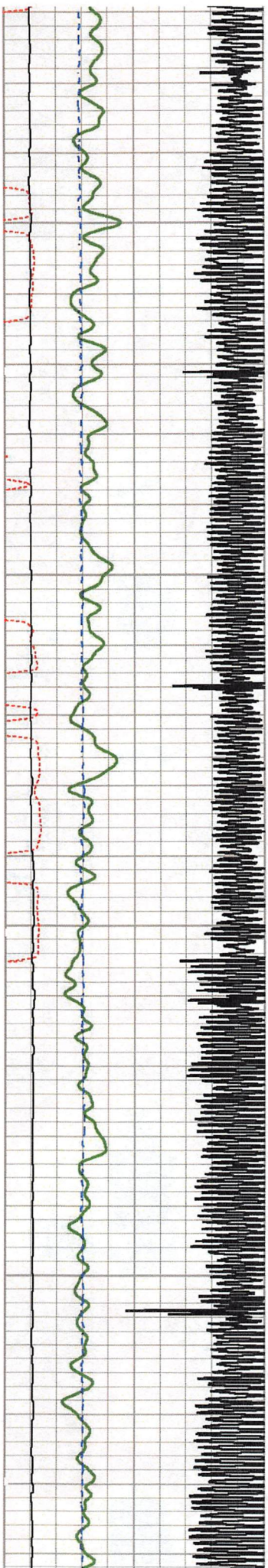
129.6

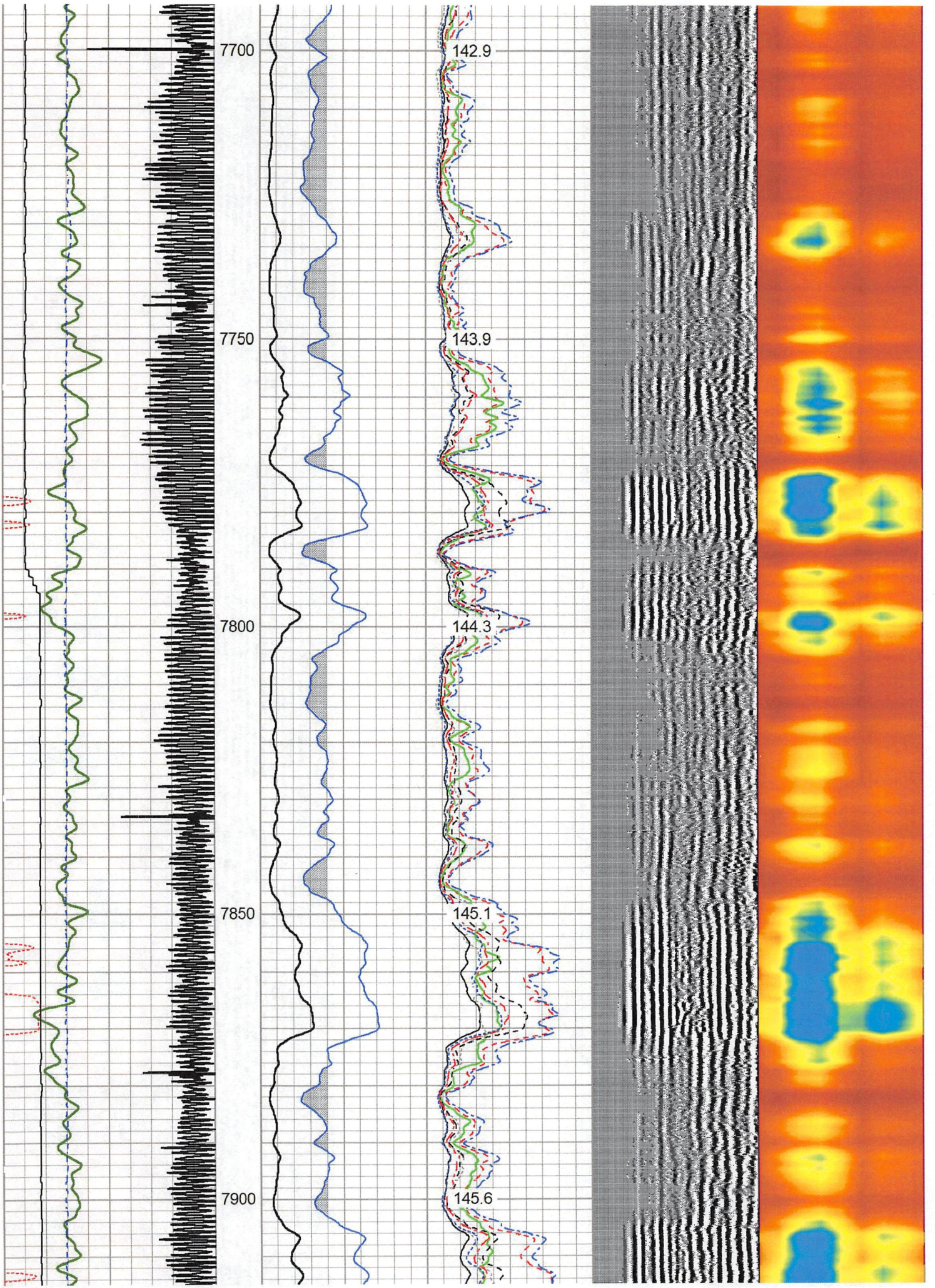
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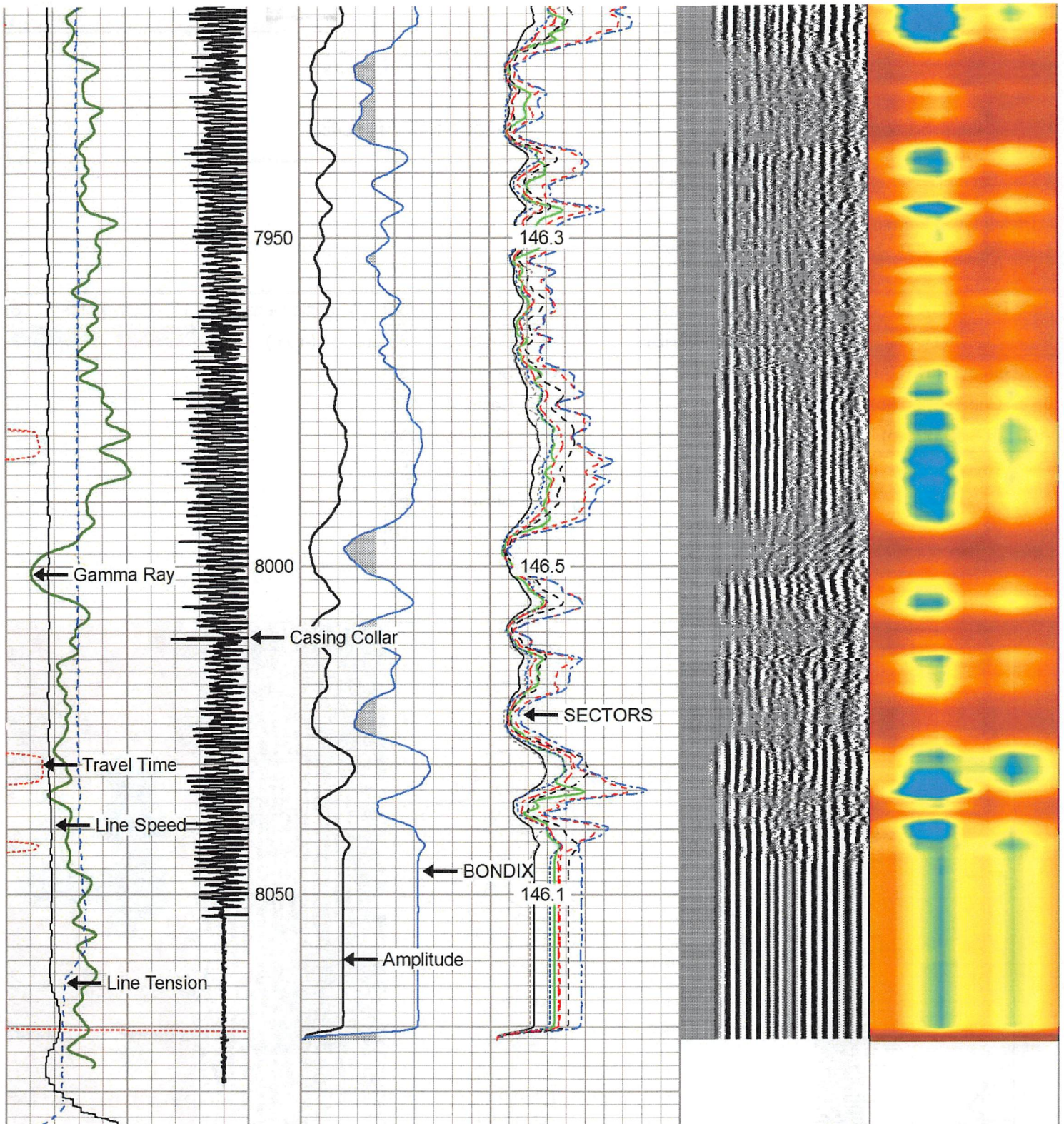
130.3











295	Travel Time (usec)	195
9	Casing Collar	-1
0	Gamma Ray (GAPI)	150
0	Line Tension (lb)	5000
-100	LSPD (ft/min)	100

0	Amplitude (mV)	100	-5	Sector 1	150
1	BONDIX	0	-5	Sector 2	150
			-5	Sector 3	150
			-5	Sector 4	150
			-5	Sector 5	150
			-5	Sector 6	150
			-5	Sector 7	150
			-5	Sector 8	150

TEMP
(degF)

Variable Density	1	Cement Map	8
200 (usec)	1200		

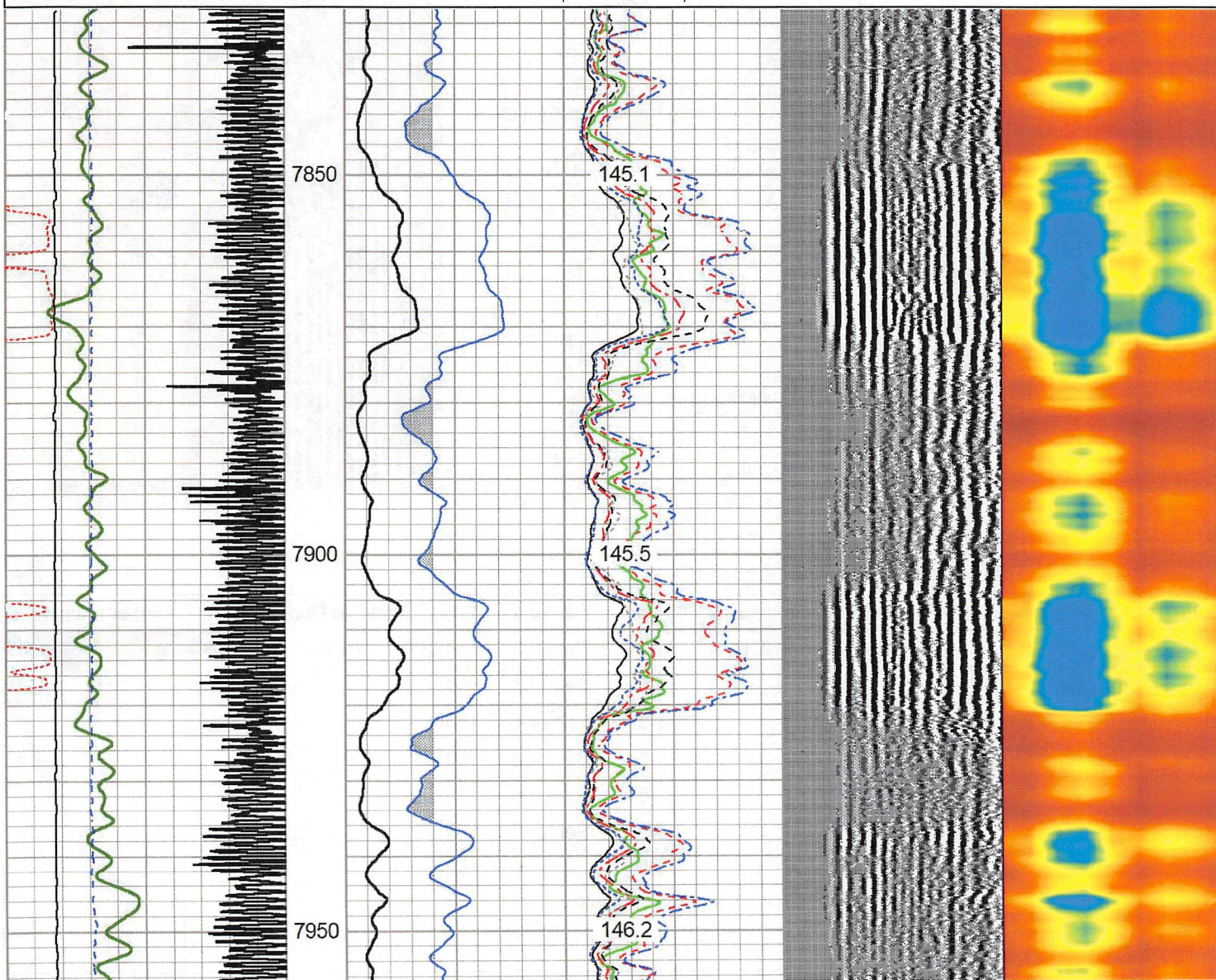


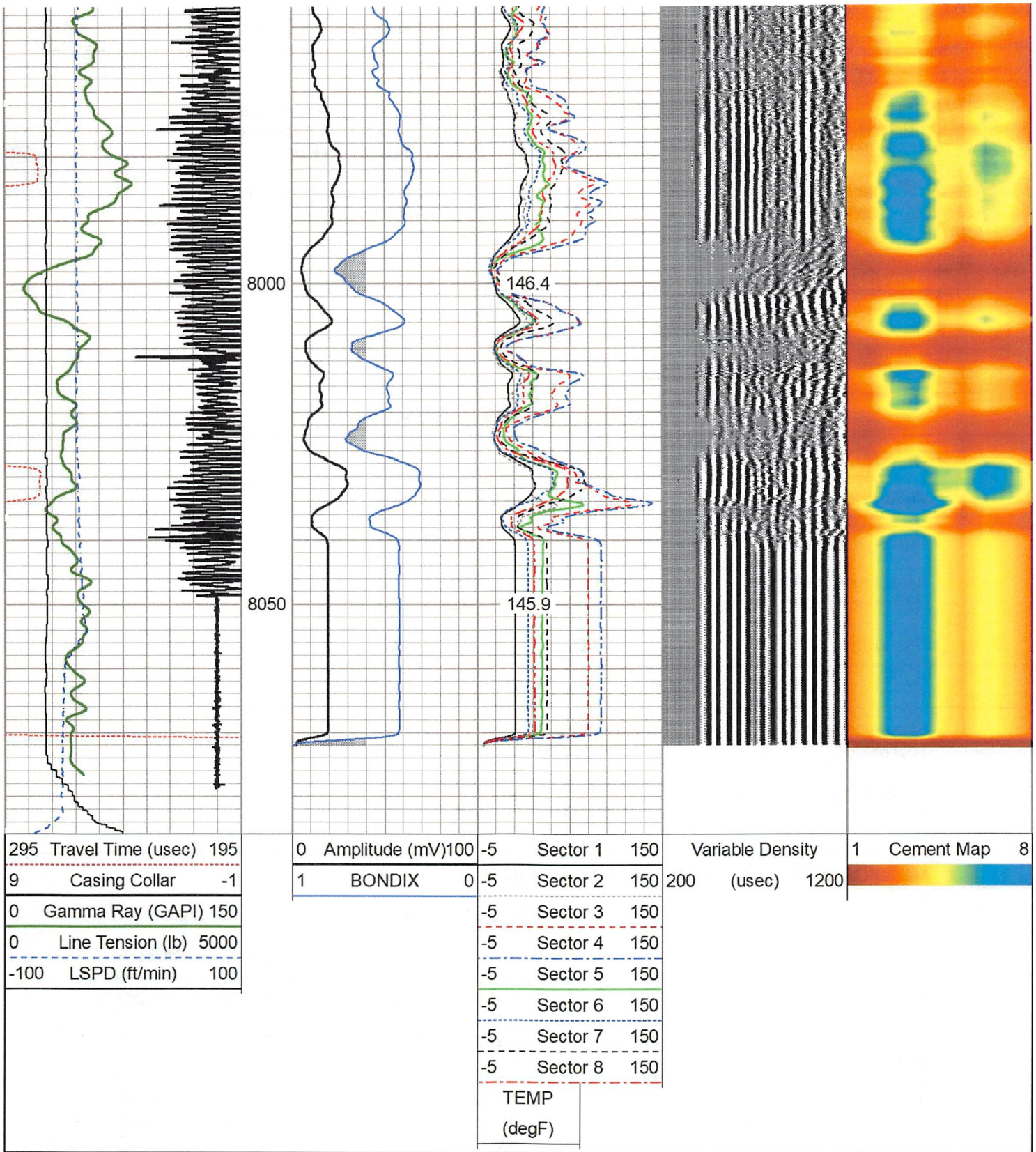
REPEAT LOG

1500 PSI APPLIED

Database File antero_dogwood_orner1h_rcbl-1-15-22.db
 Dataset Pathname RCBL/REPEAT.3
 Presentation Format rcbl 2
 Dataset Creation Sat Jan 15 16:40:22 2022
 Charted by Depth in Feet scaled 1:240

295	Travel Time (usec)	195	0	Amplitude (mV)	100	-5	Sector 1	150	Variable Density	1	Cement Map	8
9	Casing Collar	-1	1	BONDIX	0	-5	Sector 2	150	(usec)	200		
0	Gamma Ray (GAPI)	150				-5	Sector 3	150				
0	Line Tension (lb)	5000				-5	Sector 4	150				
-100	LSPD (ft/min)	100				-5	Sector 5	150				
						-5	Sector 6	150				
						-5	Sector 7	150				
						-5	Sector 8	150				
							TEMP					
							(degF)					





Log Variables		DatabaseC:\ProgramData\Warrrior\Data\antero_dogwood_orner1h_rcbl-1-15-22.db Dataset field/well/RCBL/MAIN.3/_vars_					
Top - Bottom							
BHTEMP_Src	BOREID	BOTTEMP	CASEOD	CASETHCK	CASEWGHT	MAXAMPL	MINAMPL
TEMP	in	degF	in	in	lb/ft	mV	mV
	7.875	100	5.5	0	23	71.9	2.2
MINATTN	PERFS	PPT	SRFTEMP	TDEPTH			
db/ft		usec	degF	ft			

0.8	No	260	0	0
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Variable Description

BHTEMP_Src : BHTEMP Input Source Selector	MINAMPL : Minimum Amplitude
BOREID : Borehole I.D.	MINATTN : Minimum Attenuation
BOTTEMP : Bottom Hole Temperature	PERFS : Perforation Flag
CASEOD : Casing O.D.	PPT : Predicted Pipe Time
CASETHCK : Casing Thickness	SRFTEMP : Surface Temperature
CASEWGHT : Casing Weight	TDEPTH : Total Depth
MAXAMPL : Maximum Amplitude	

Calibration Report

Database File antero_dogwood_orner1h_rcbl-1-15-22.db
Dataset Pathname RCBL/MAIN.3
Dataset Creation Sat Jan 15 16:38:09 2022

Gamma Ray Calibration Report

Serial Number: FW1211-86
Tool Model: Probe
Performed: Sun Aug 29 01:22:07 2021

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.5000 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: FW1312-32
Tool Model: Probe275T

Calibration Casing Diameter: 5.500 in
Calibration Depth: 253.808 ft

Master Calibration, performed Sat Jan 15 12:39:45 2022:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.001	1.160	2.200	71.921	50.057	2.267
CAL	-0.001	0.854				
5'	-0.001	1.436	2.200	71.921	48.498	2.258
SUM						
S1	-0.001	1.564	0.000	100.000	63.884	0.073
S2	-0.001	1.608	0.000	100.000	62.139	0.073
S3	-0.001	1.307	0.000	100.000	76.466	0.086
S4	-0.001	1.079	0.000	100.000	92.558	0.105
S5	-0.001	1.078	0.000	100.000	92.697	0.106
S6	-0.001	1.087	0.000	100.000	91.917	0.109
S7	-0.001	1.095	0.000	100.000	91.205	0.118
S8	-0.001	1.232	0.000	100.000	81.108	0.088

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.001	0.854	1.000	0.000

Air Zero Calibration, performed Sat Jan 15 12:04:54 2022:

	Raw (v)	Calibrated (v)	Results
	<u>Zero</u>	<u>Zero</u>	<u>Offset</u>
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 ANTERO
Well ORNER UNIT 1H
Field MARCELLUS
County WETZEL
State WV