



Radial Cement Bond
Variable Density Log
W/CCL/Gamma Ray/Temp

Company Antero Resources Well Journeyman Welder 2H Field Utica County Wetzel State WV	Company Antero Resources		Well Journeyman Welder 2H		Field Utica		County Wetzel		State WV		
	Location:				API #: 4710303462		Other Services				
	SEC		TWP		RGE		Elevation				
	Permanent Datum		Ground Level		Elevation		K.B.		D.F.		G.L.
	Log Measured From		Kelly Bushing 30' A.P.D.		Drilling Measured From		Kelly Bushing				
Date	07-May-2022										
Run Number	One										
Depth Driller											
Depth Logger	7,604'										
Bottom Logged Interval	7,650'										
Top Log Interval	Surface										
Open Hole Size											
Type Fluid	Water										
Density / Viscosity											
Max. Recorded Temp.	145 Deg.F.										
Estimated Cement Top											
Time Well Ready	10:30										
Time Logger on Bottom	11:00										
Equipment Number	104 (P2)(G1)										
Location	Charleroi, PA										
Recorded By	Matt McNally										
Witnessed By	Keith										
Borehole Record					Tubing Record						
Run Number	Bit	From	To	Size	Weight	From	To				
Casing Record		Size	Wgt/Ft	Top	Bottom						
Conductor String											
Surface String											
Intermediate String											
Intermediate String											
ProductionString		5 1/2"	23#	Surface							

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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

Primary Log on Well

Log Correlated to Kelly Bushing 30' Above Ground Level
 Marker Joint at 6,672'-6,682'

100 % Free Pipe = 71.9 mv
 100 % Cement = 3.4mv

Thank You For Choosing Nine Energy Service. Charleroi, PA



Main Pass 1,500 PSI

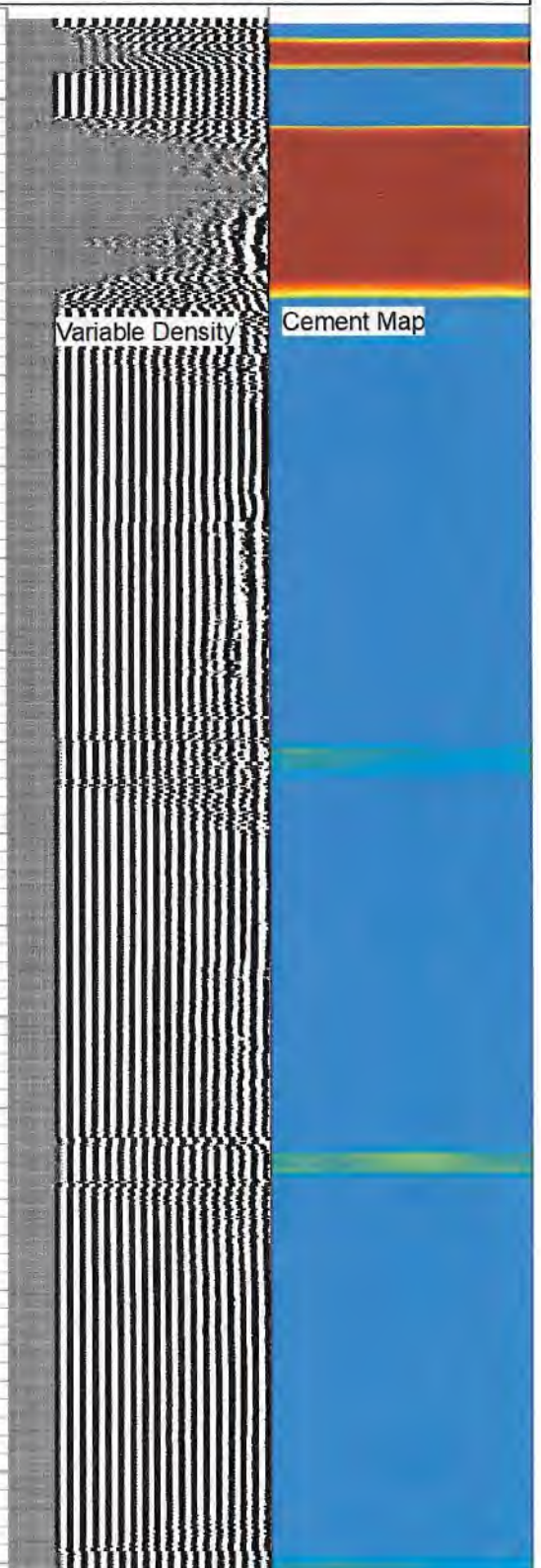
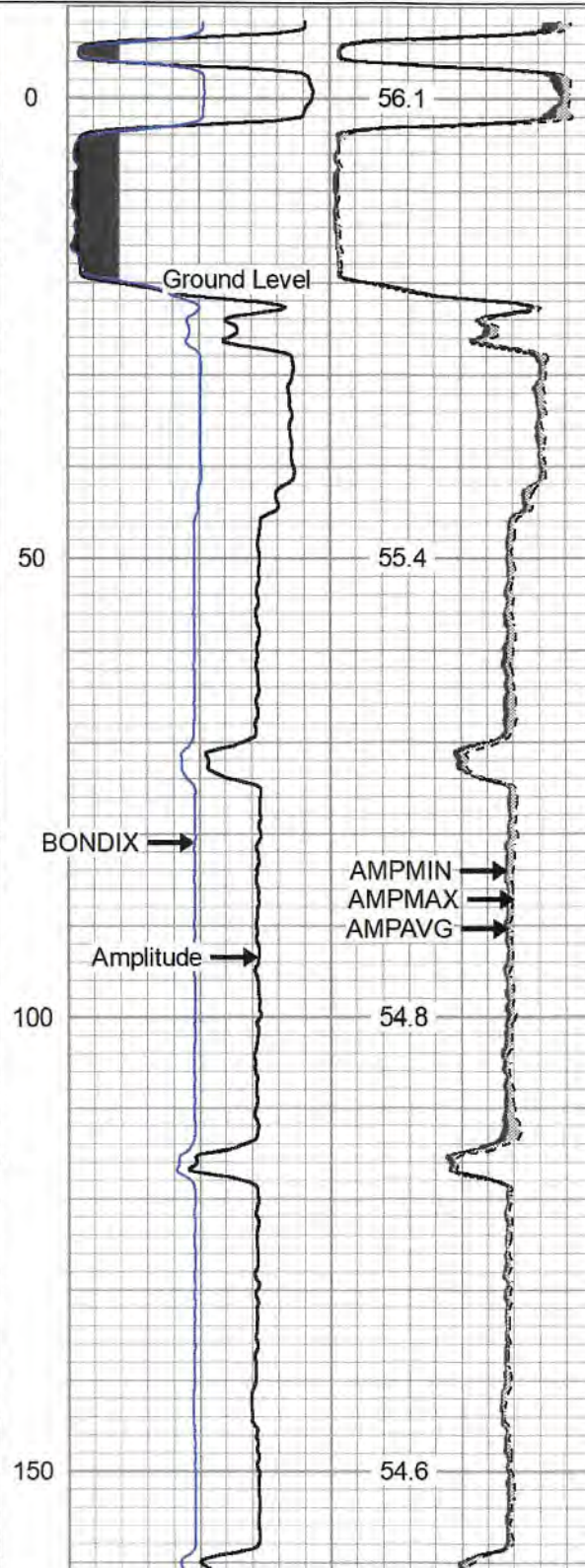
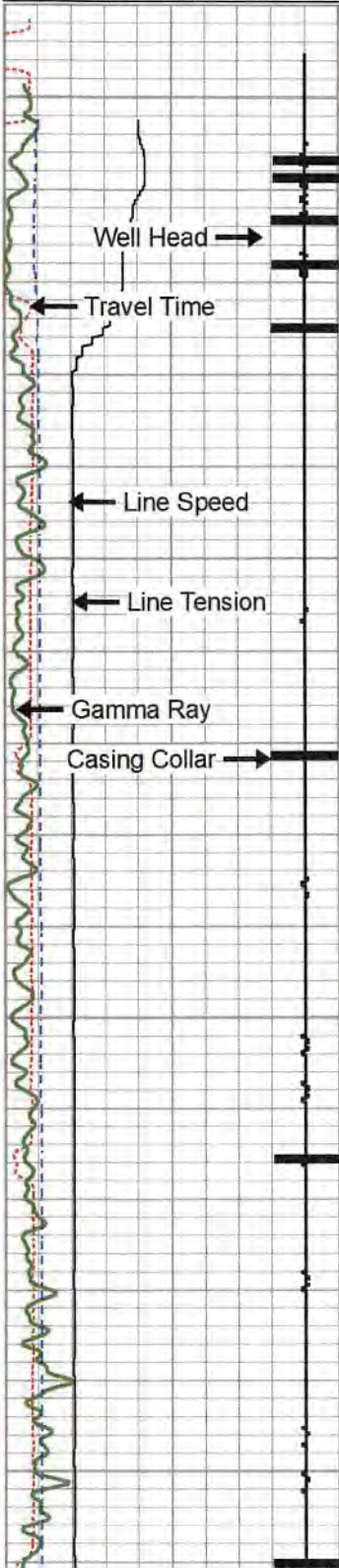


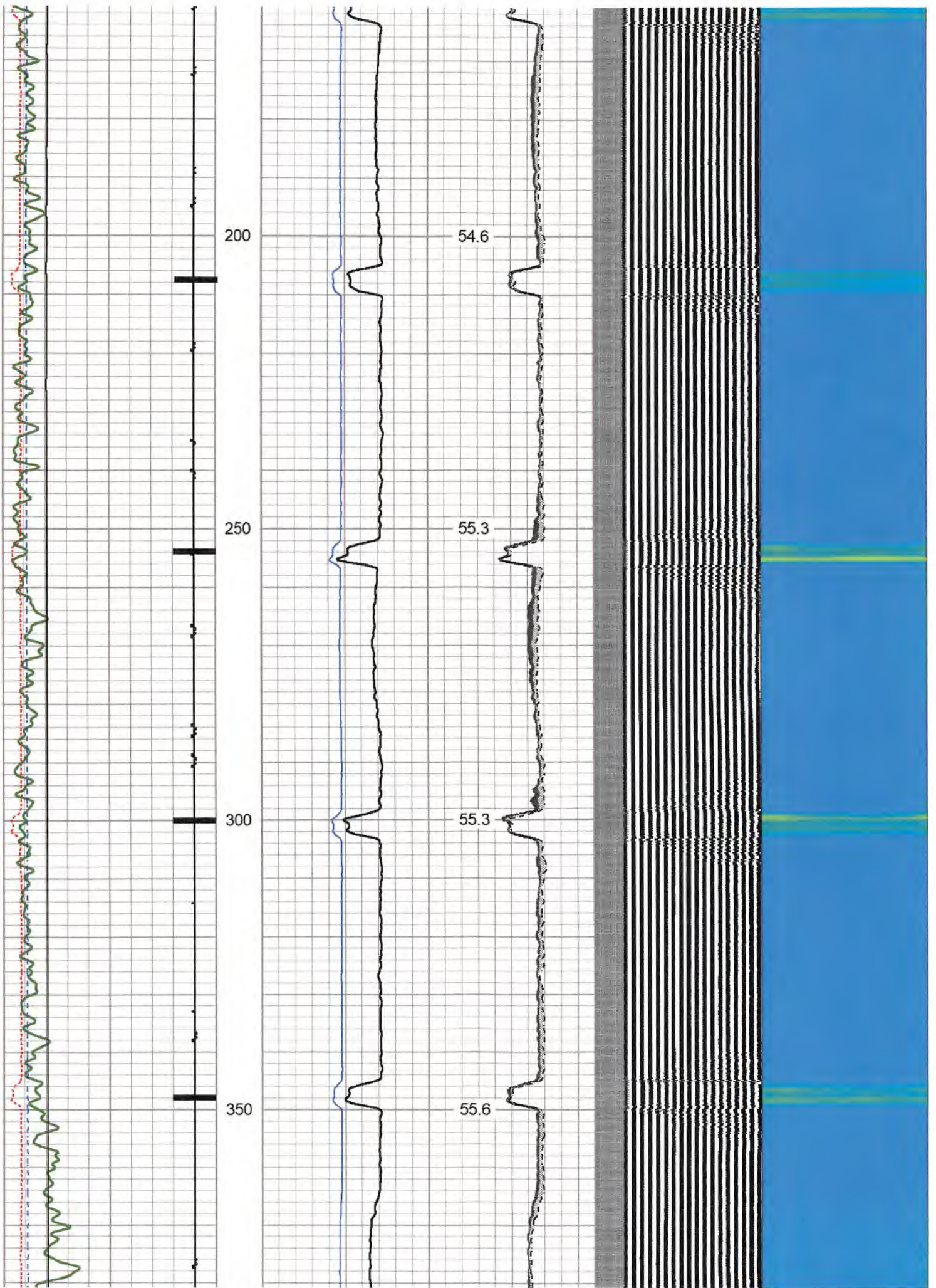
Database File c:\users\warrior\desktop\antero journeyman rcbls 7-may-22\antero welder 2h rcbl 7 - may -2022\antero_we
 Dataset Pathname welder2h/run1/pass10
 Presentation Format rcbl-bond index 1020
 Dataset Creation Sat May 07 10:53:46 2022
 Charted by Depth in Feet scaled 1:240

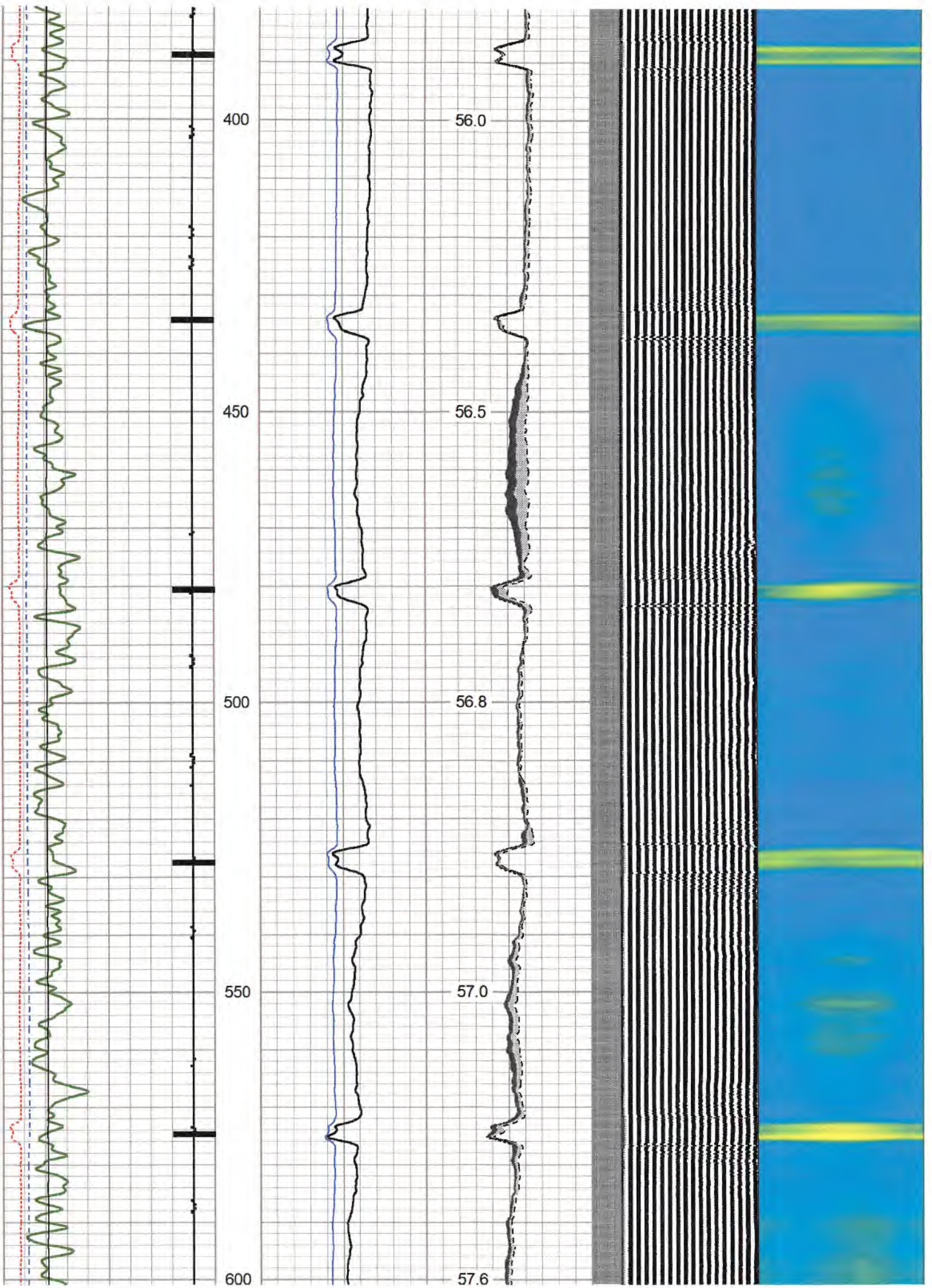
270	Travel Time (usec)	160
Casing Collar		
0	Gamma Ray (GAPI)	150
Line Speed		
-200	(ft/min)	200
0	Line Tension (lb)	3000

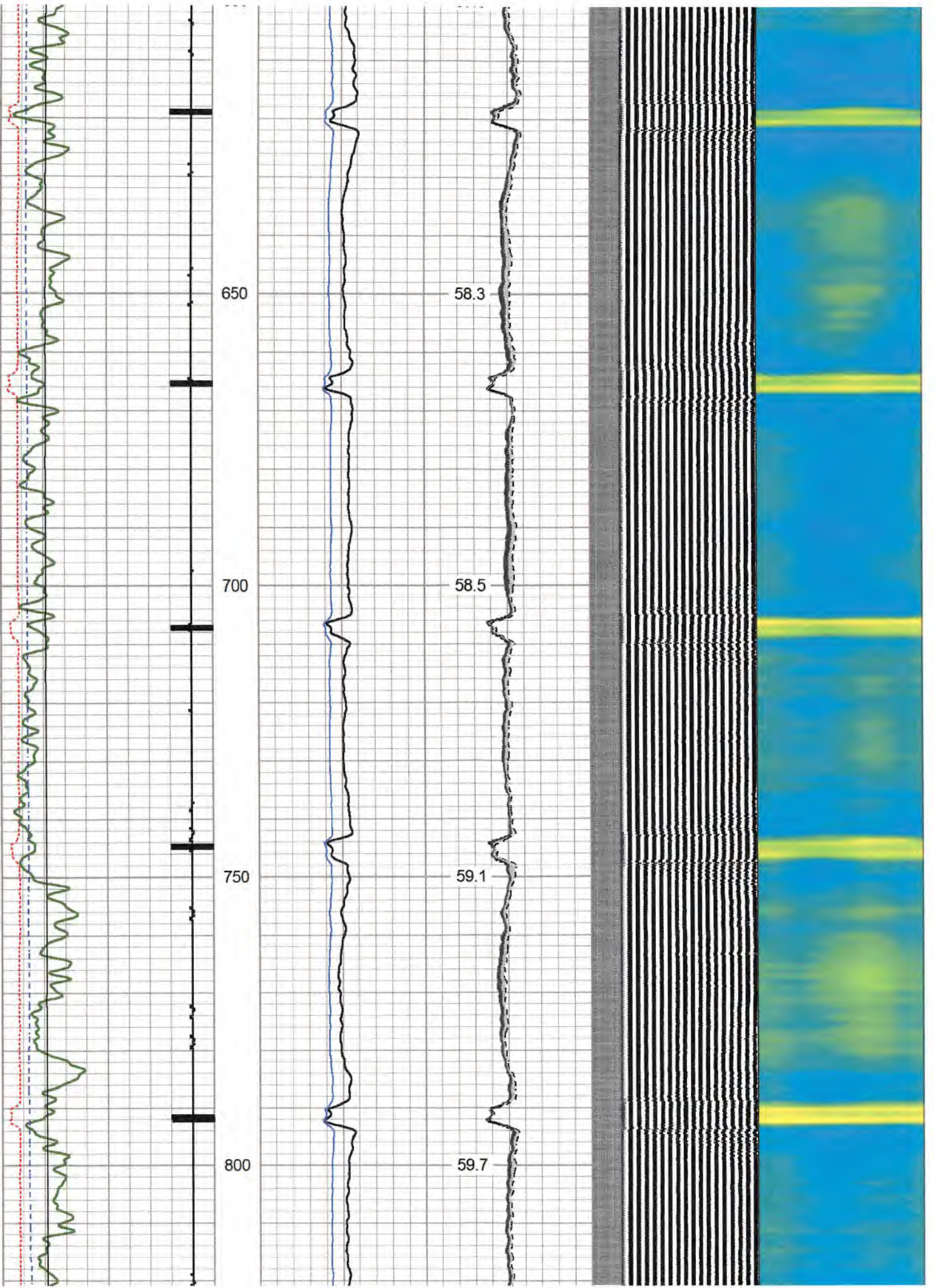
0	Amplitude (mV)	100	-5	AMP	MIN	150
1	BONDIX	0	-5	AMP	MAX	150
			-5	AMP	AVG	150
TEMP						
(degF)						

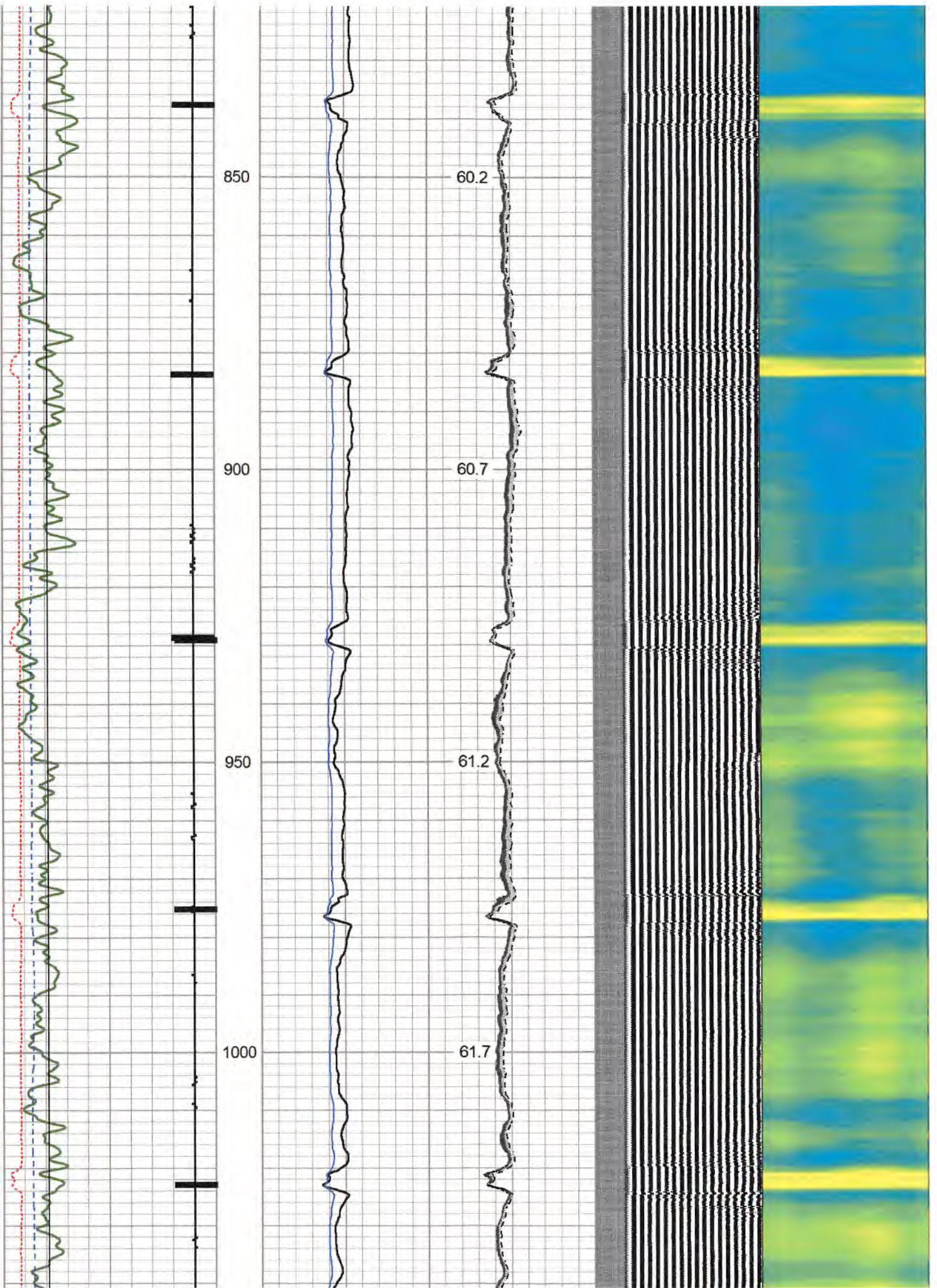
Variable Density	1	Cement Map	8
(usec)	200		1200

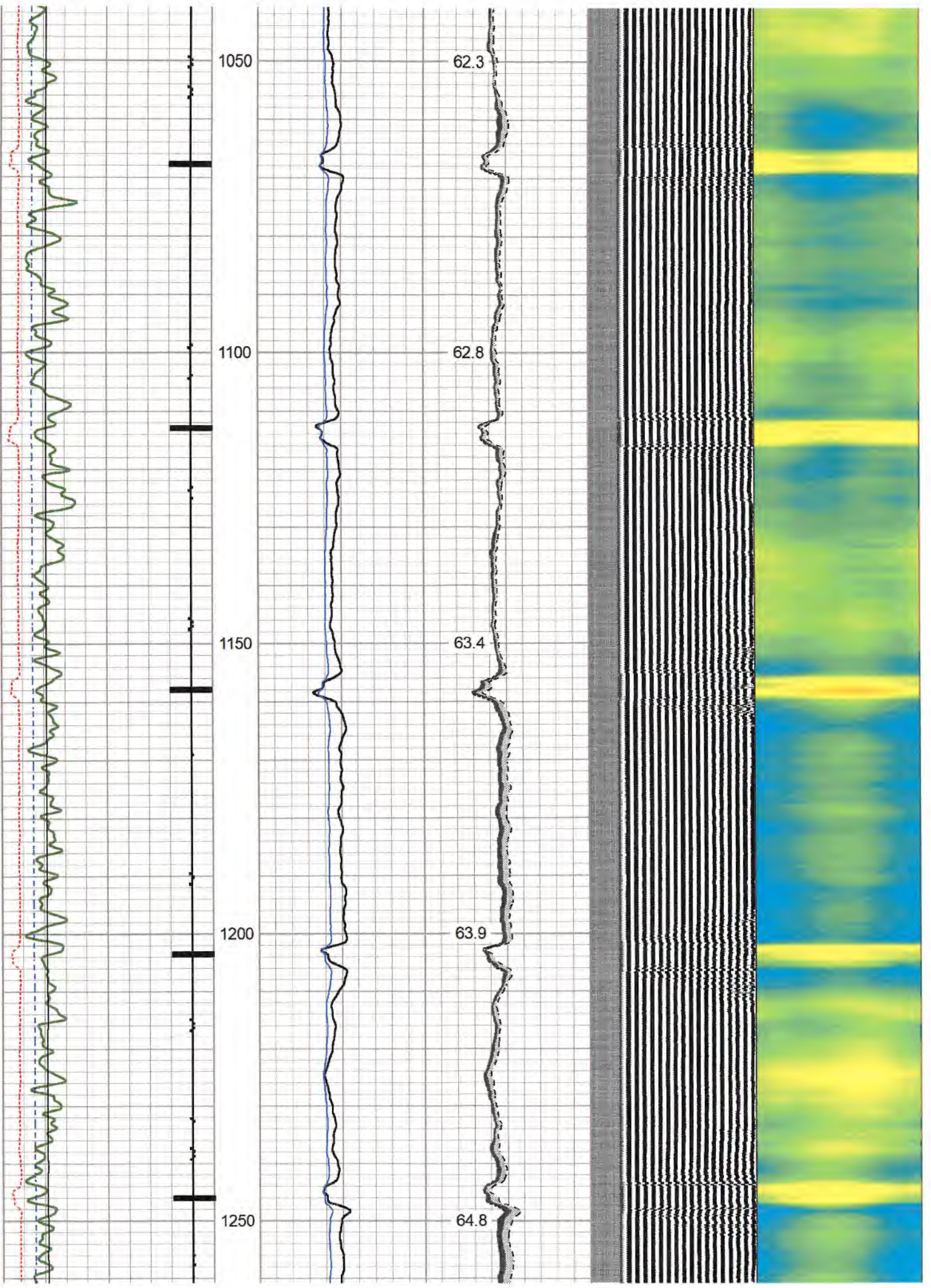


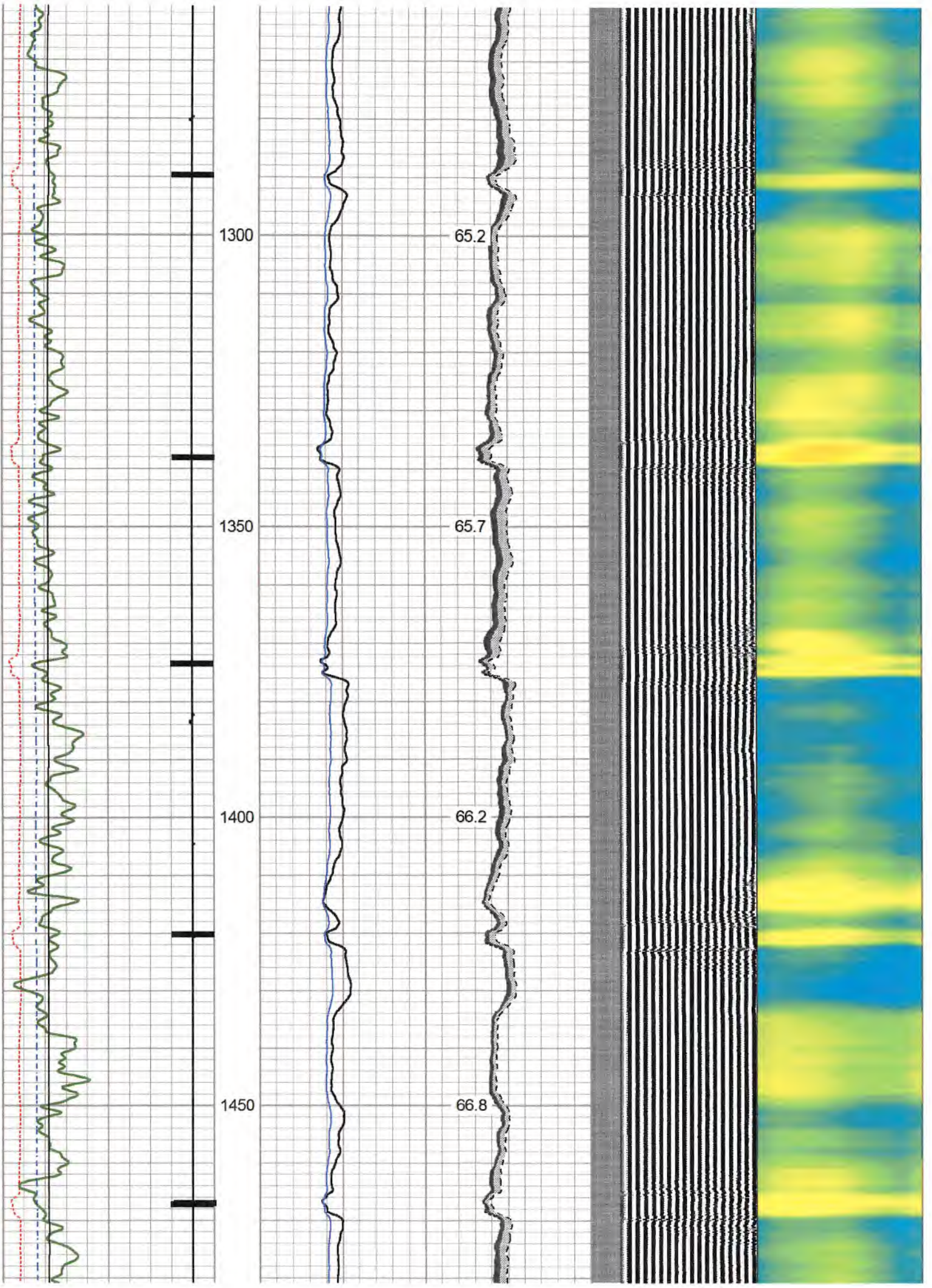


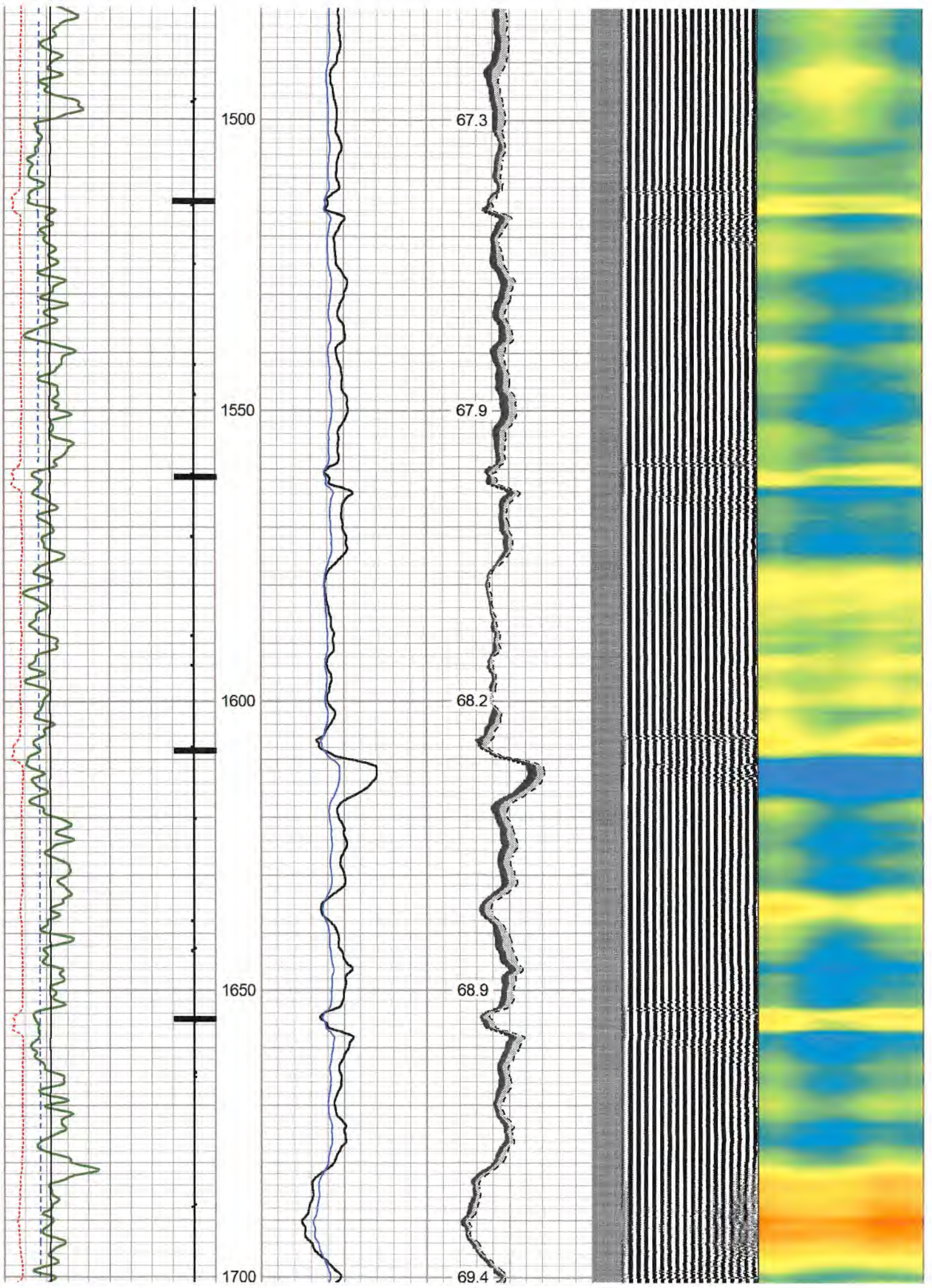


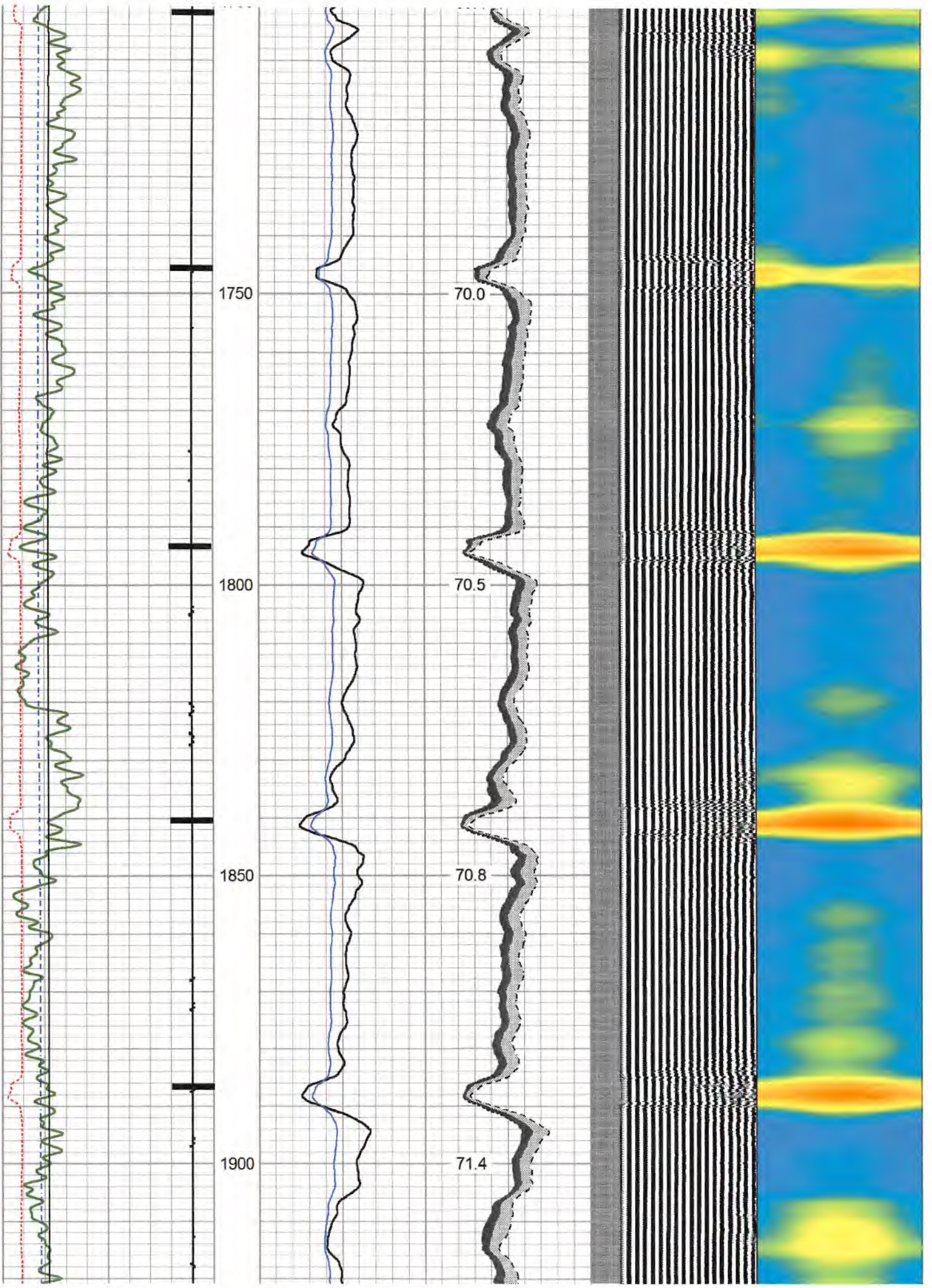


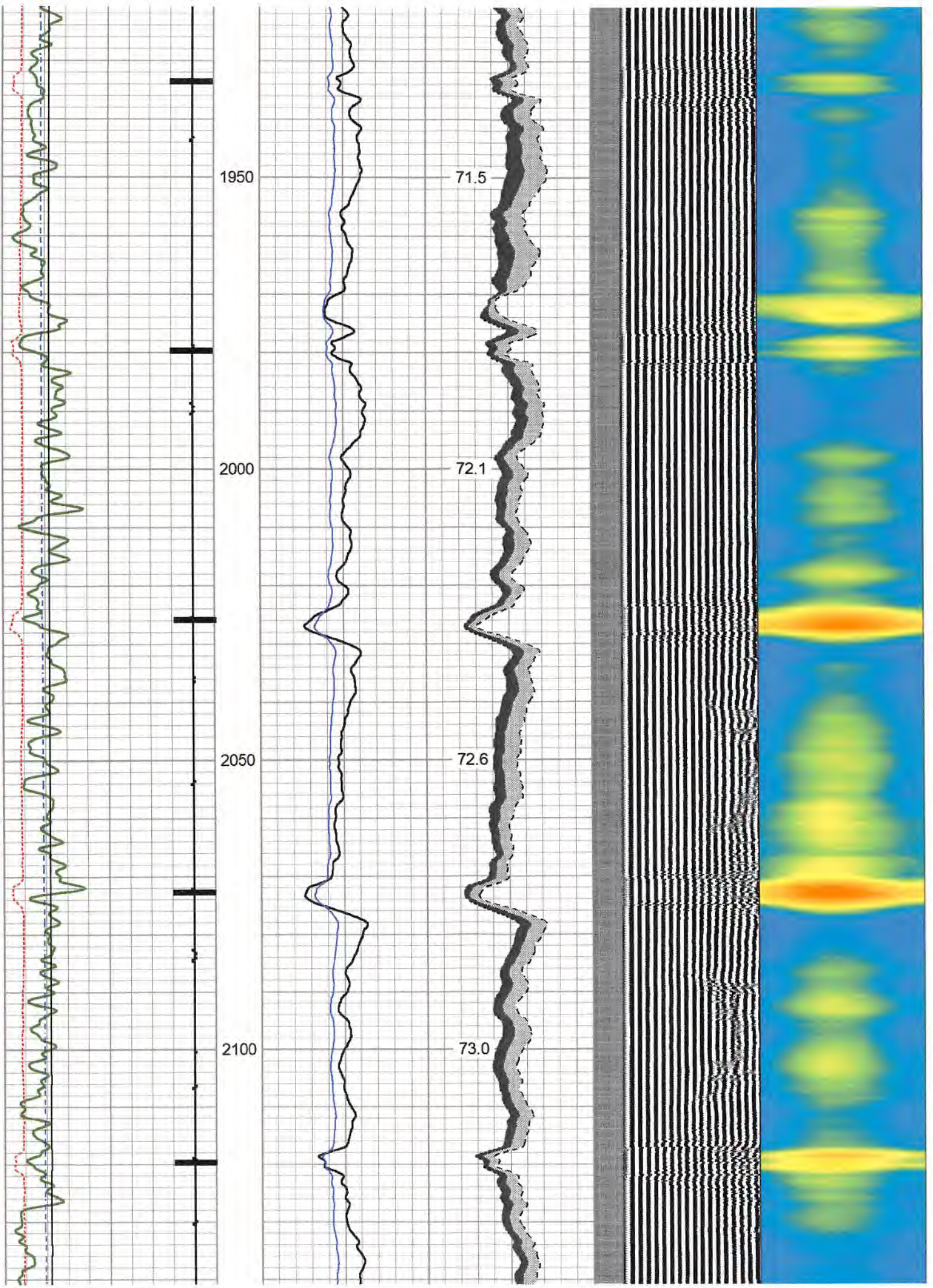


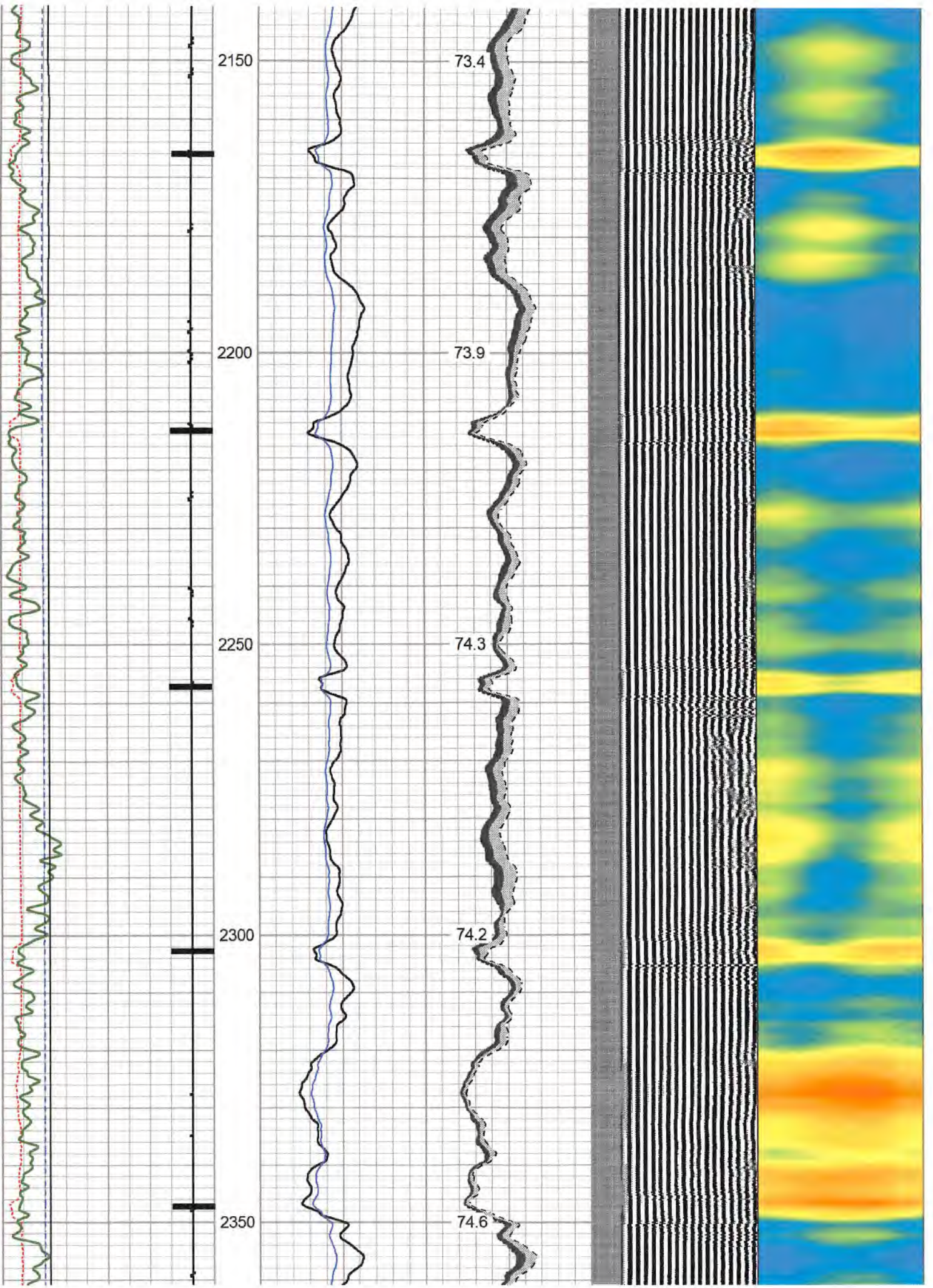


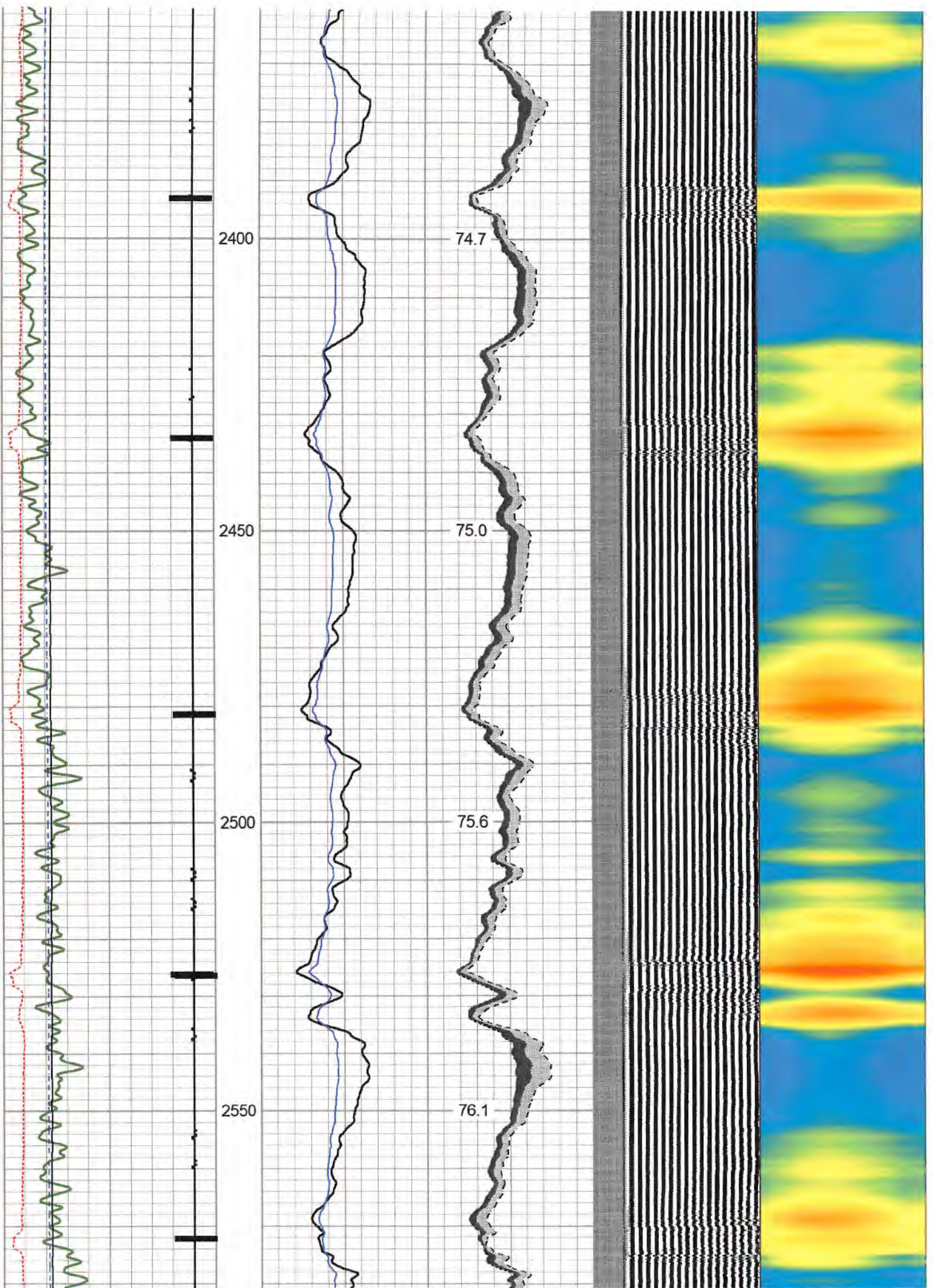


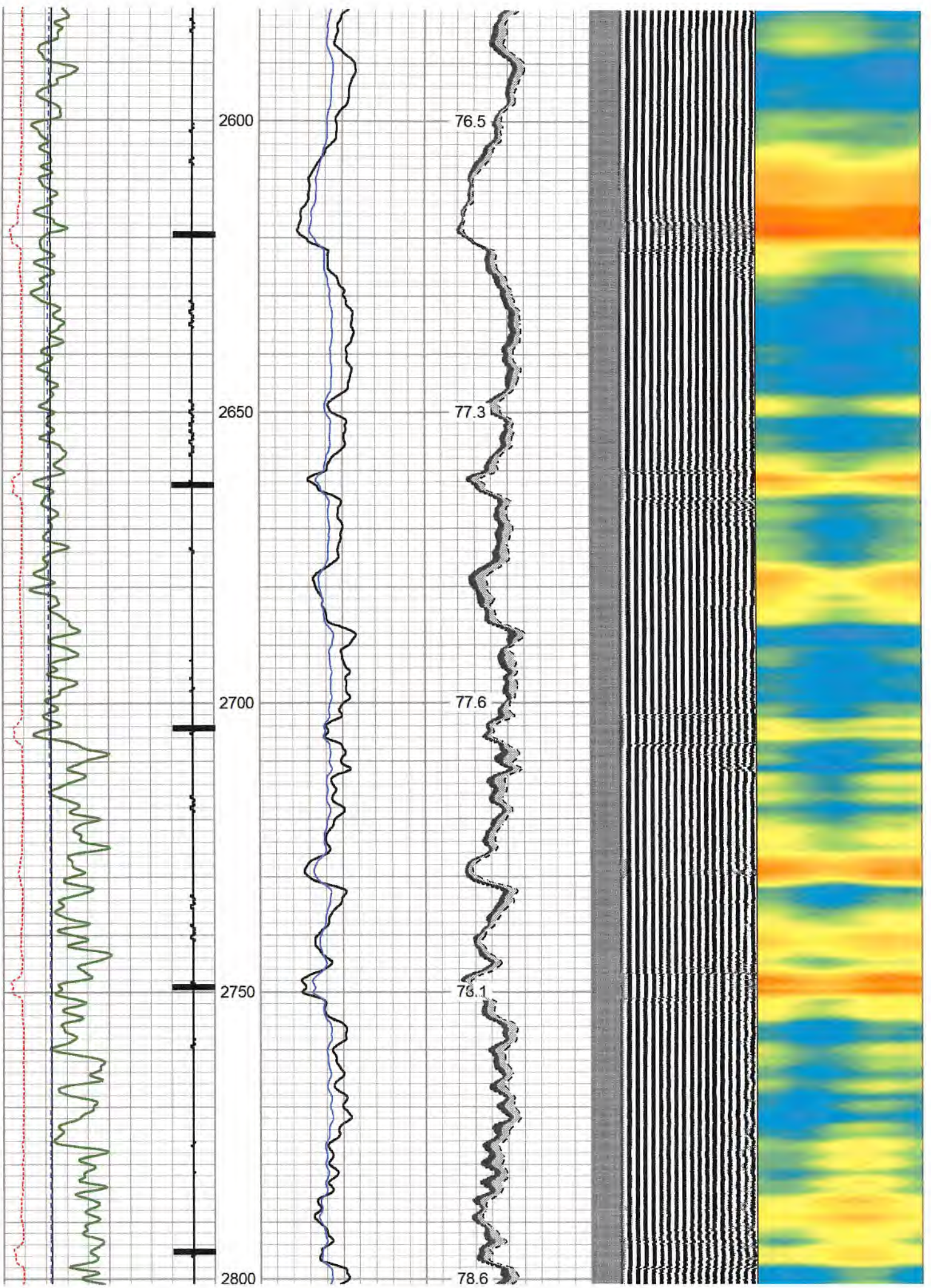


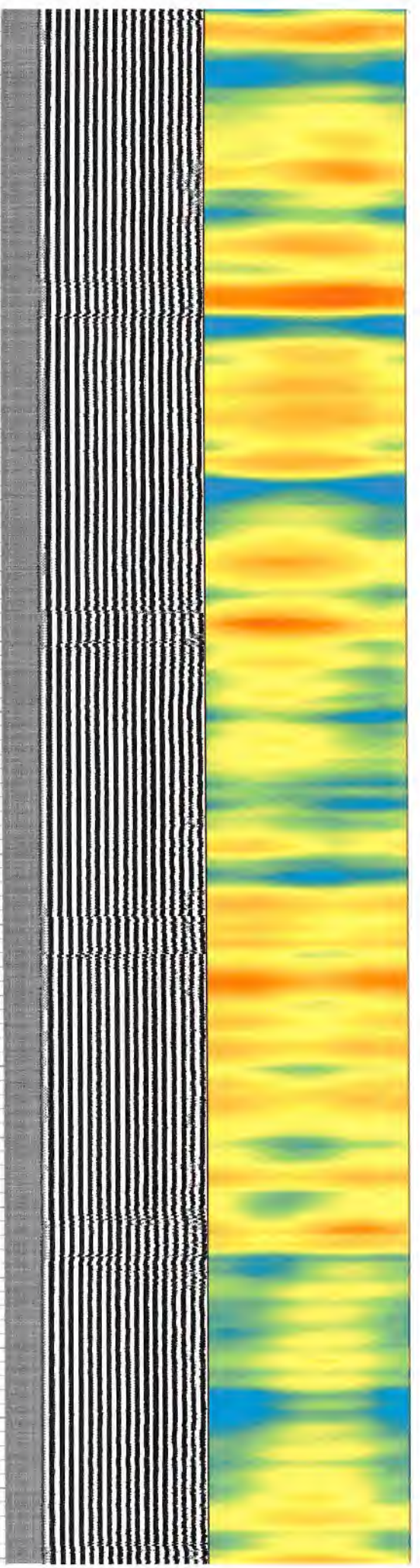
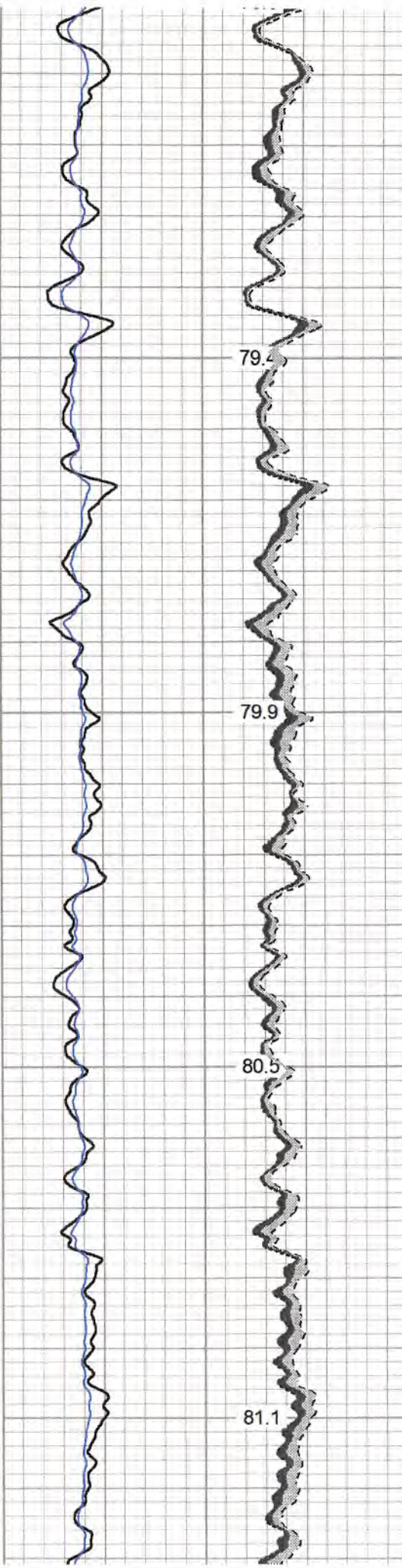
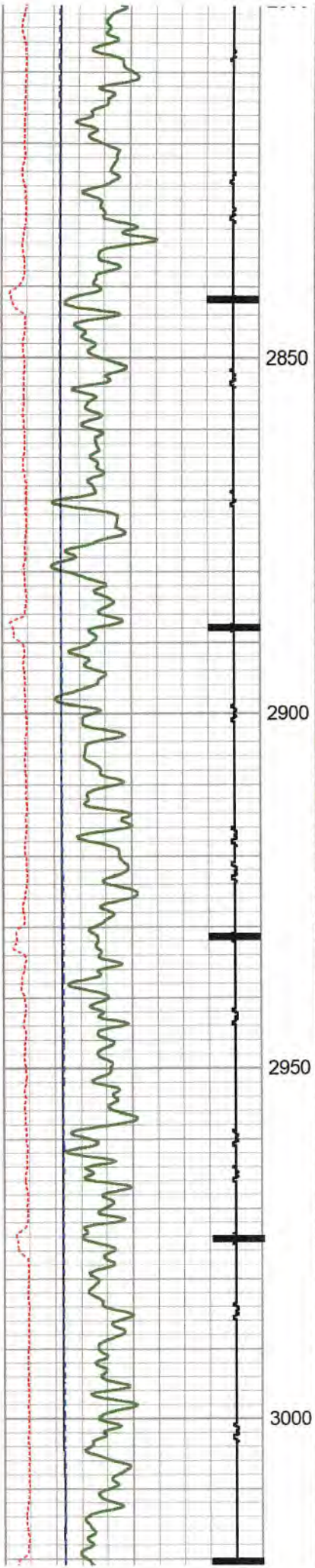


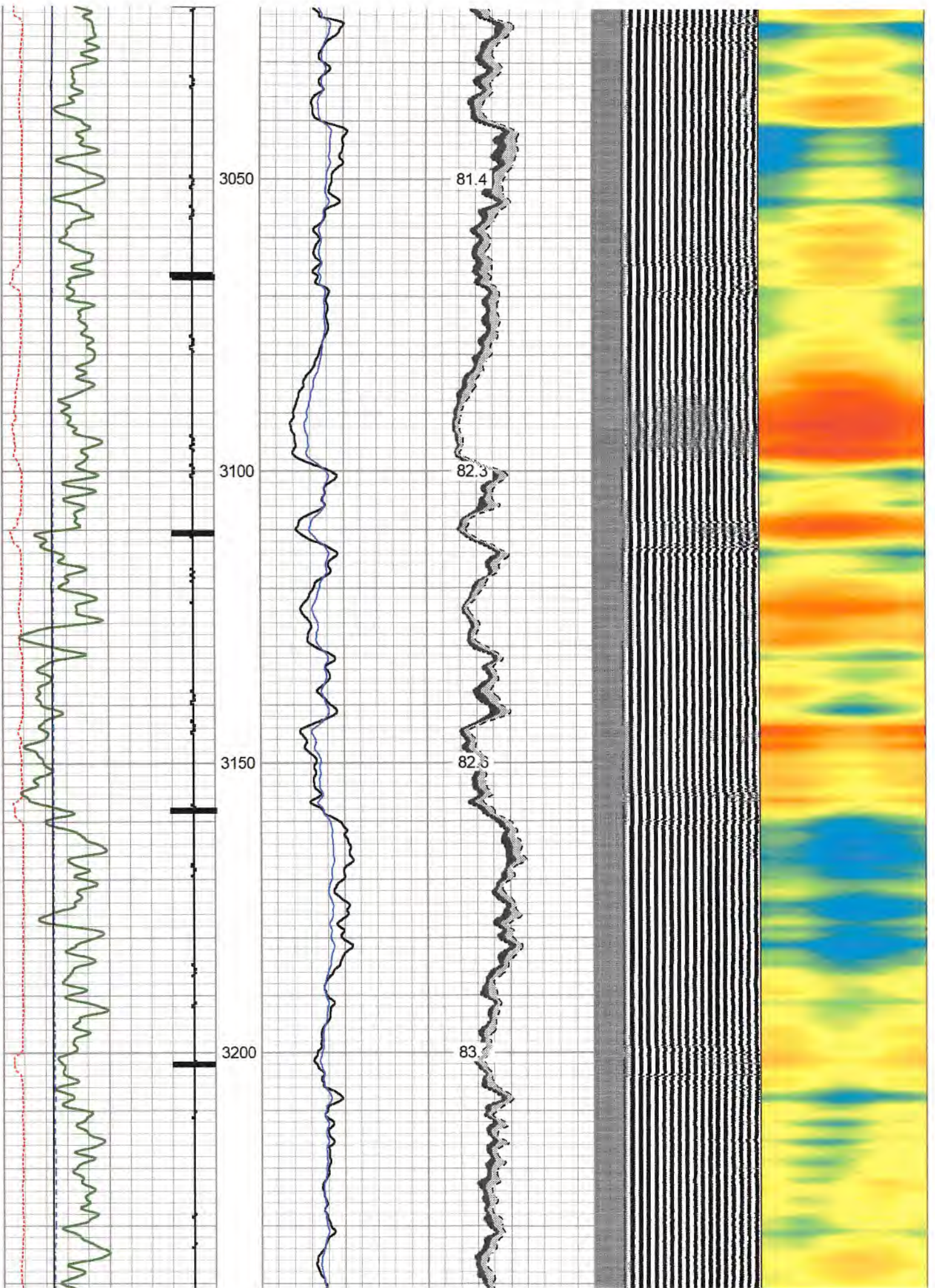


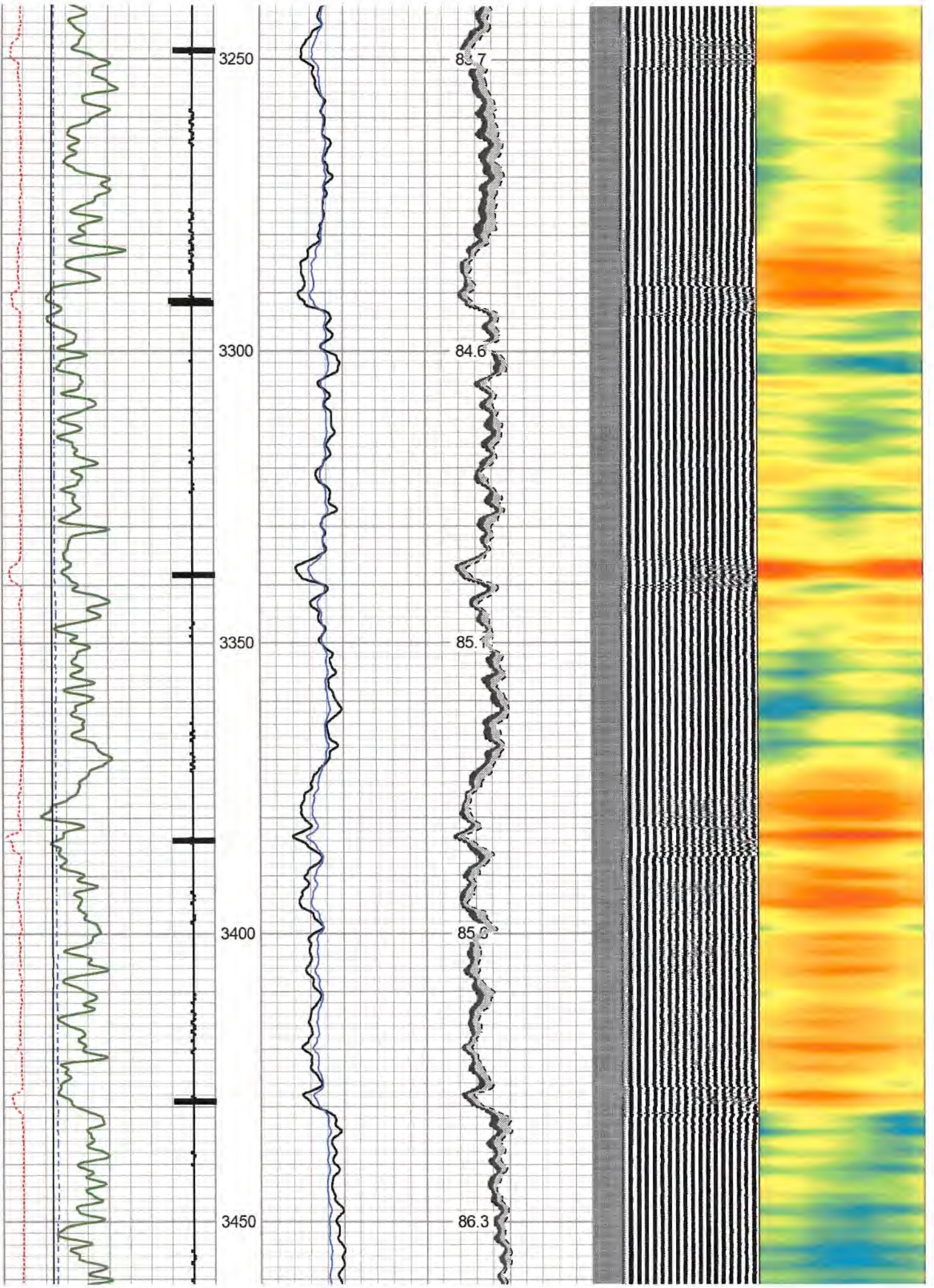


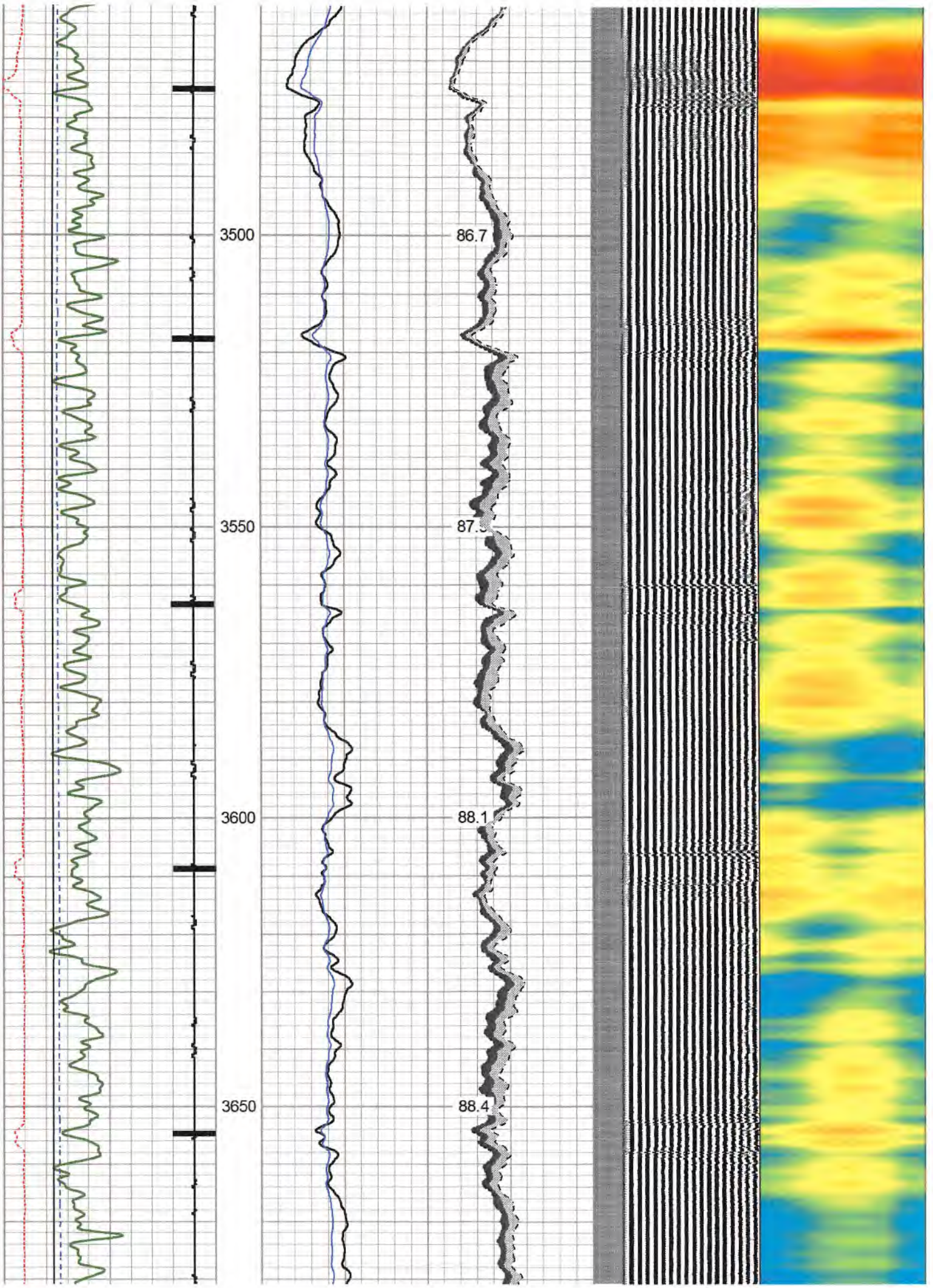


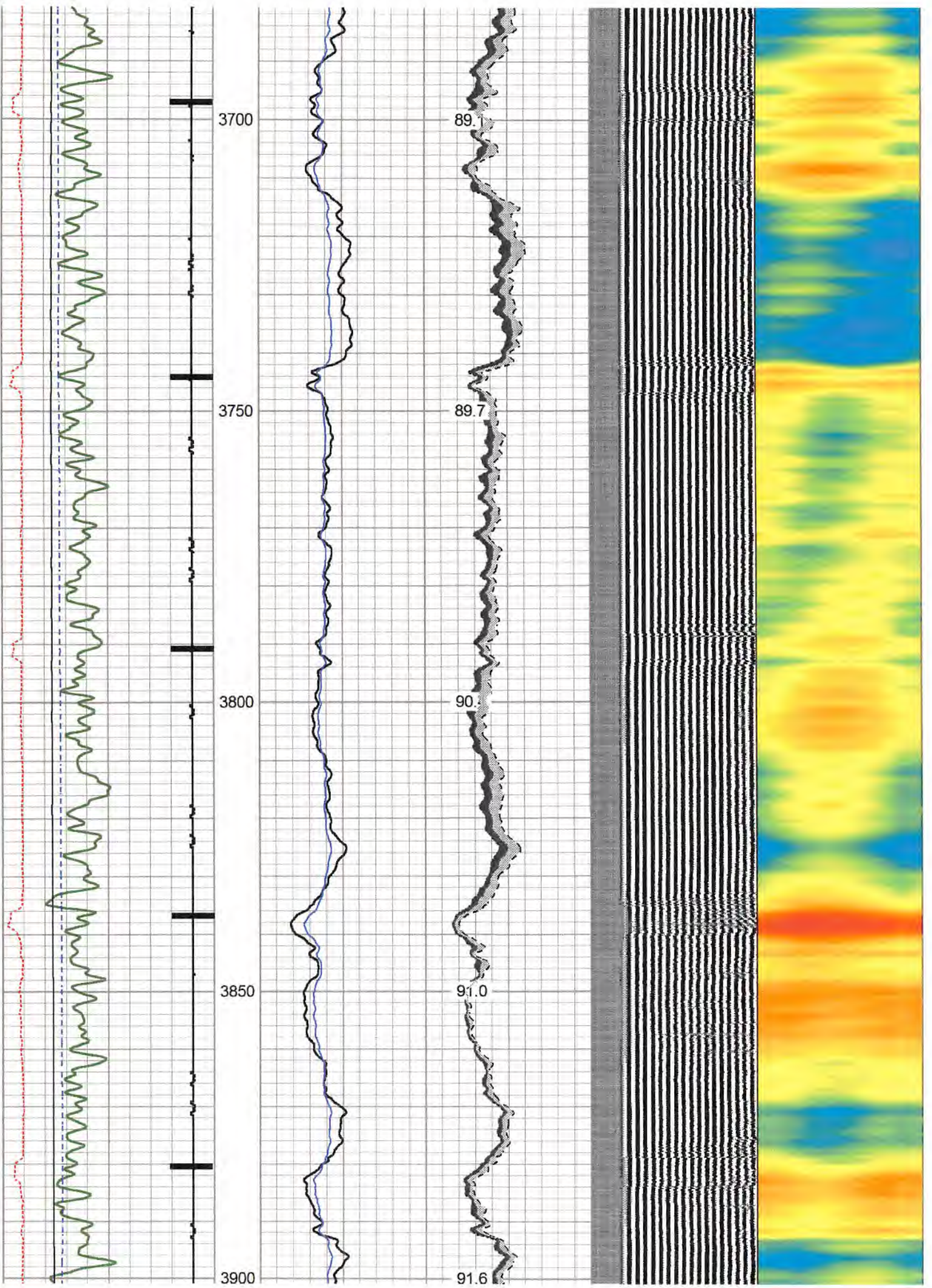


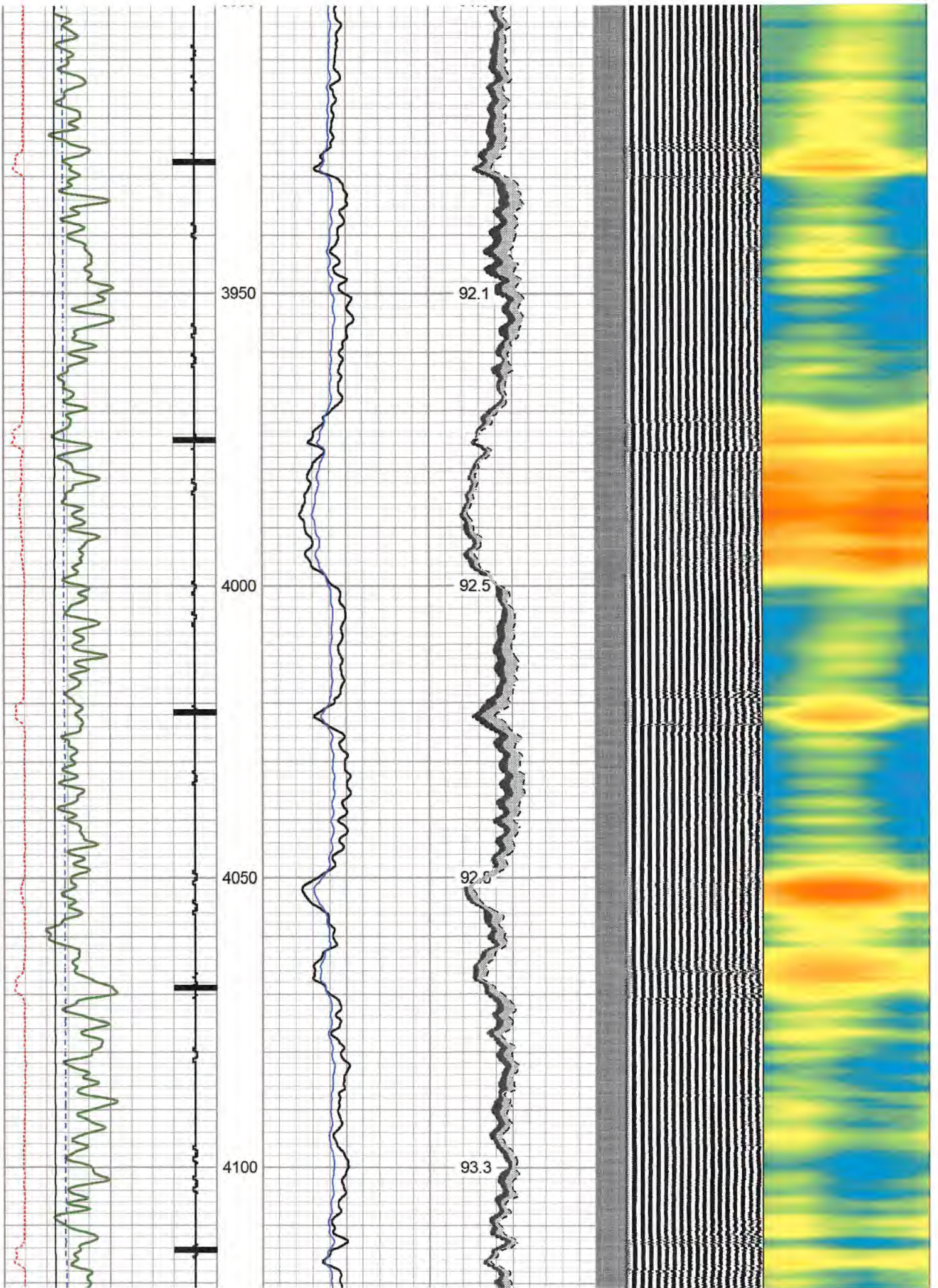


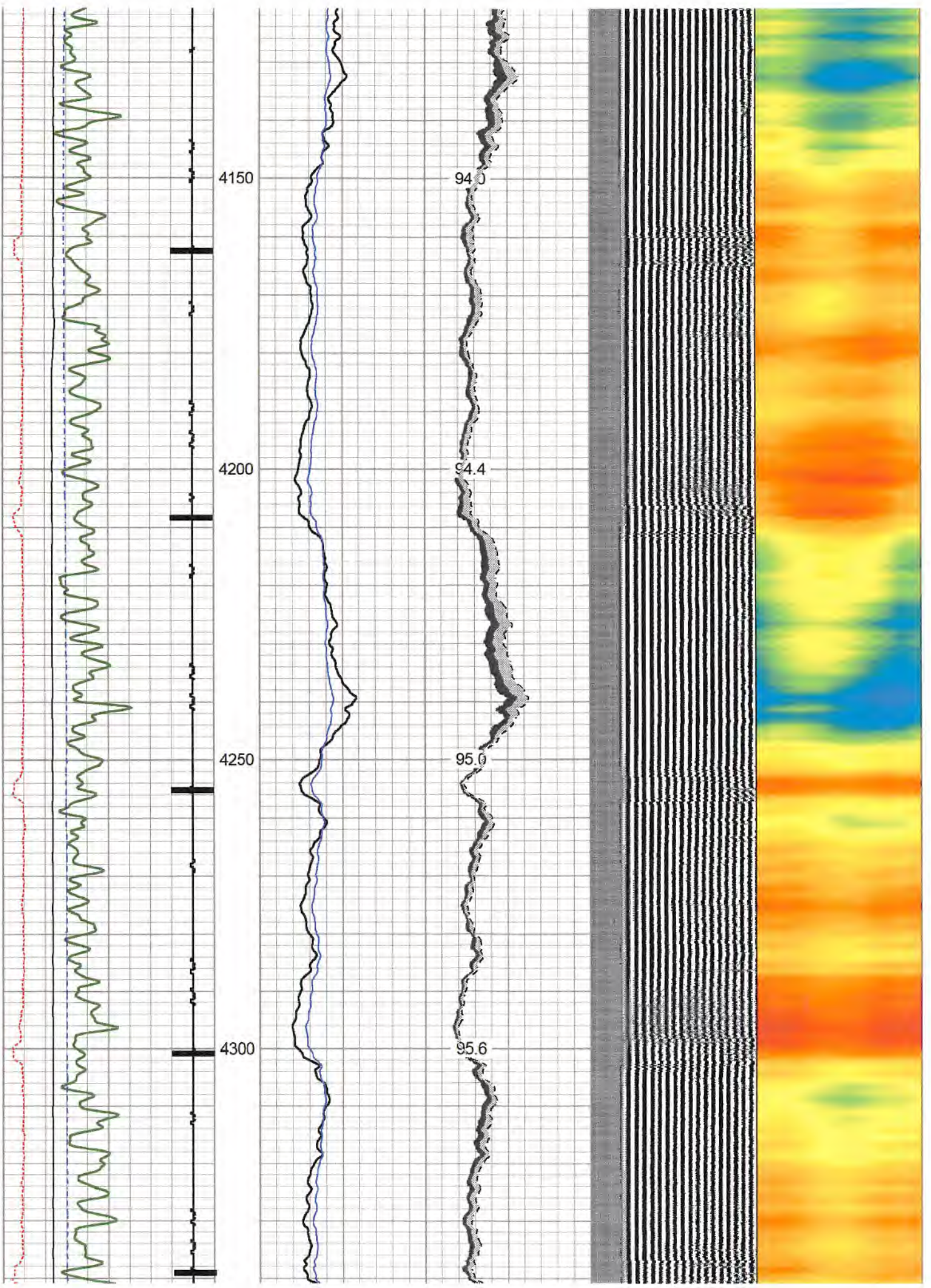


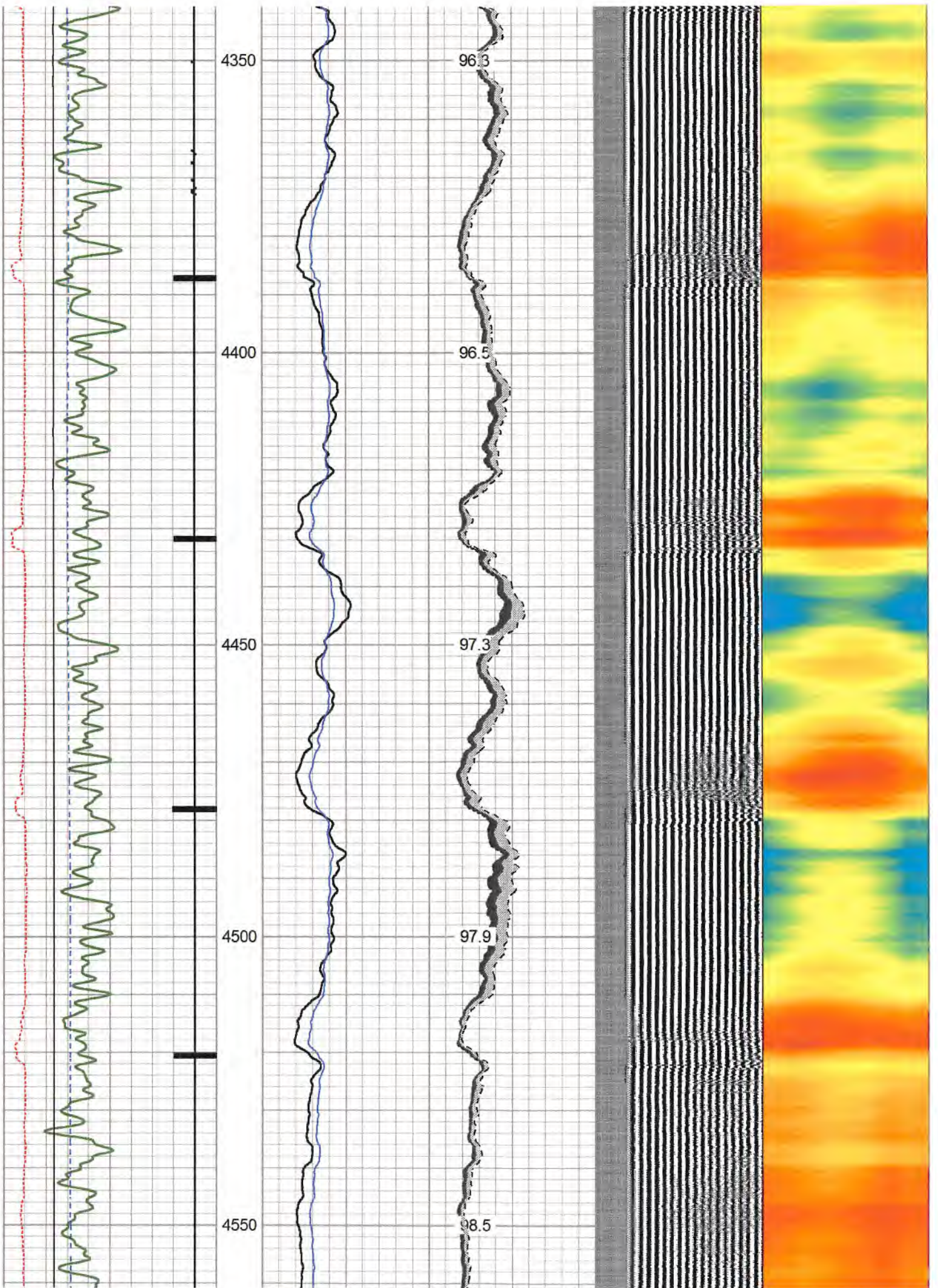


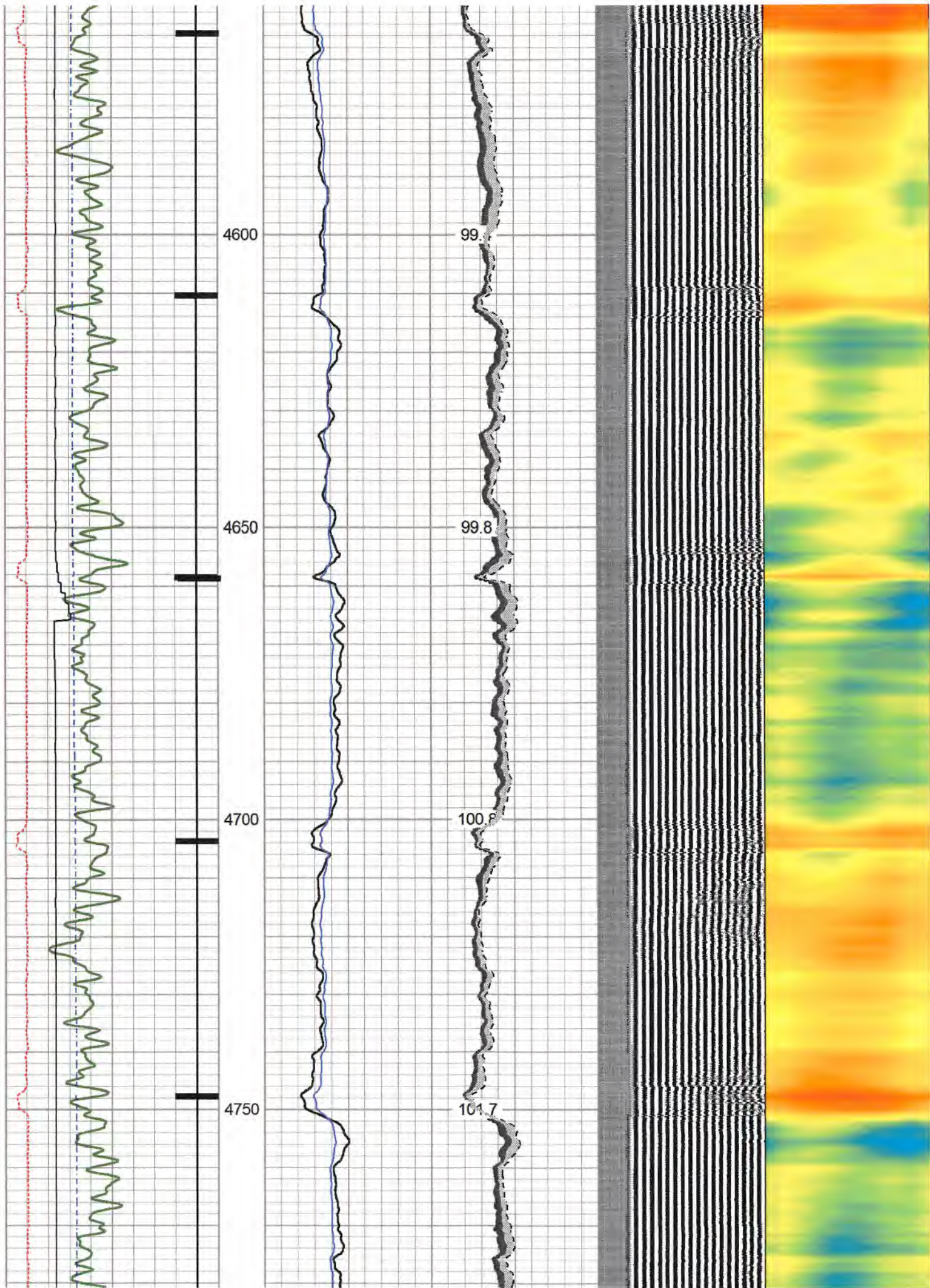


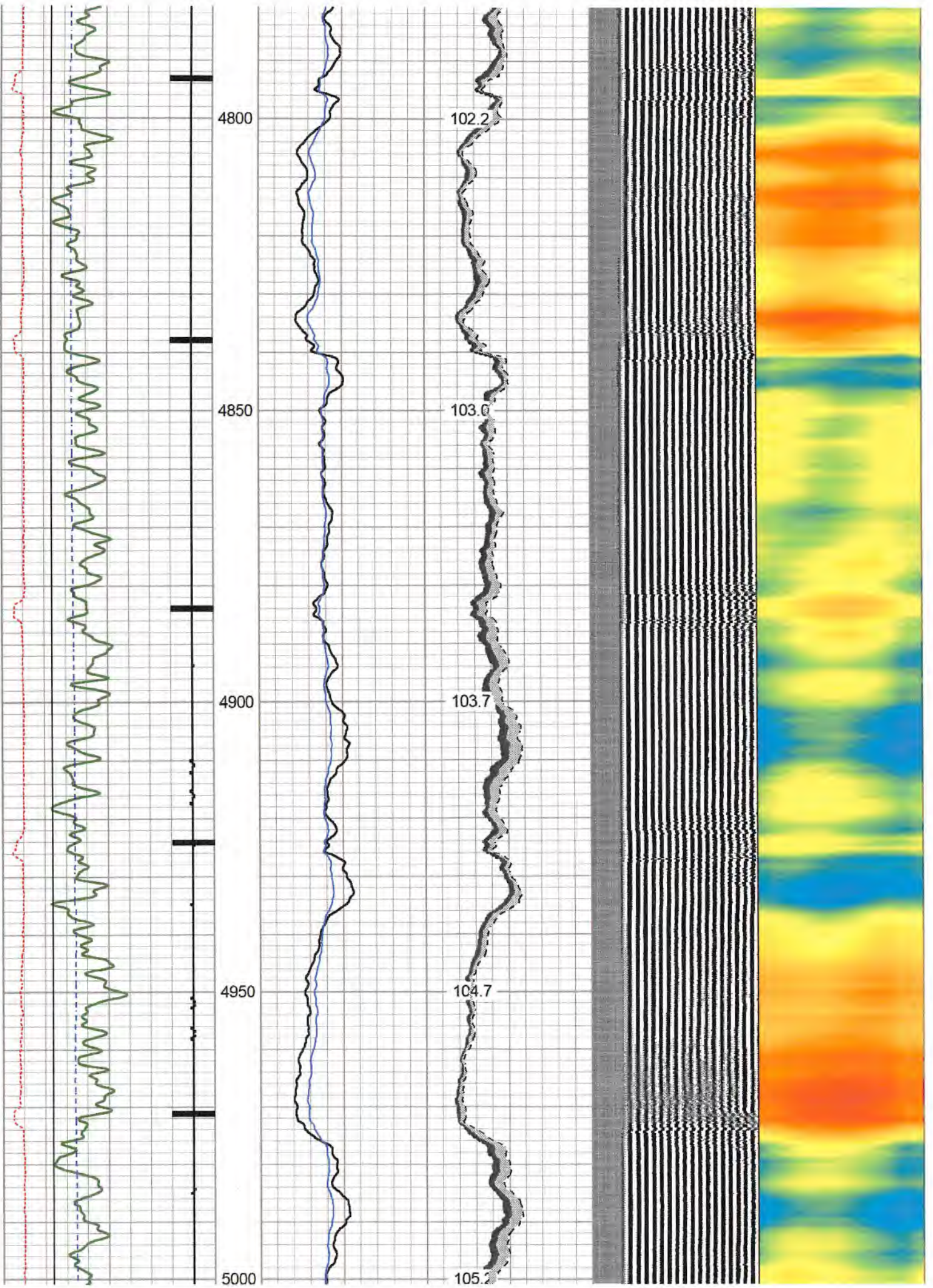


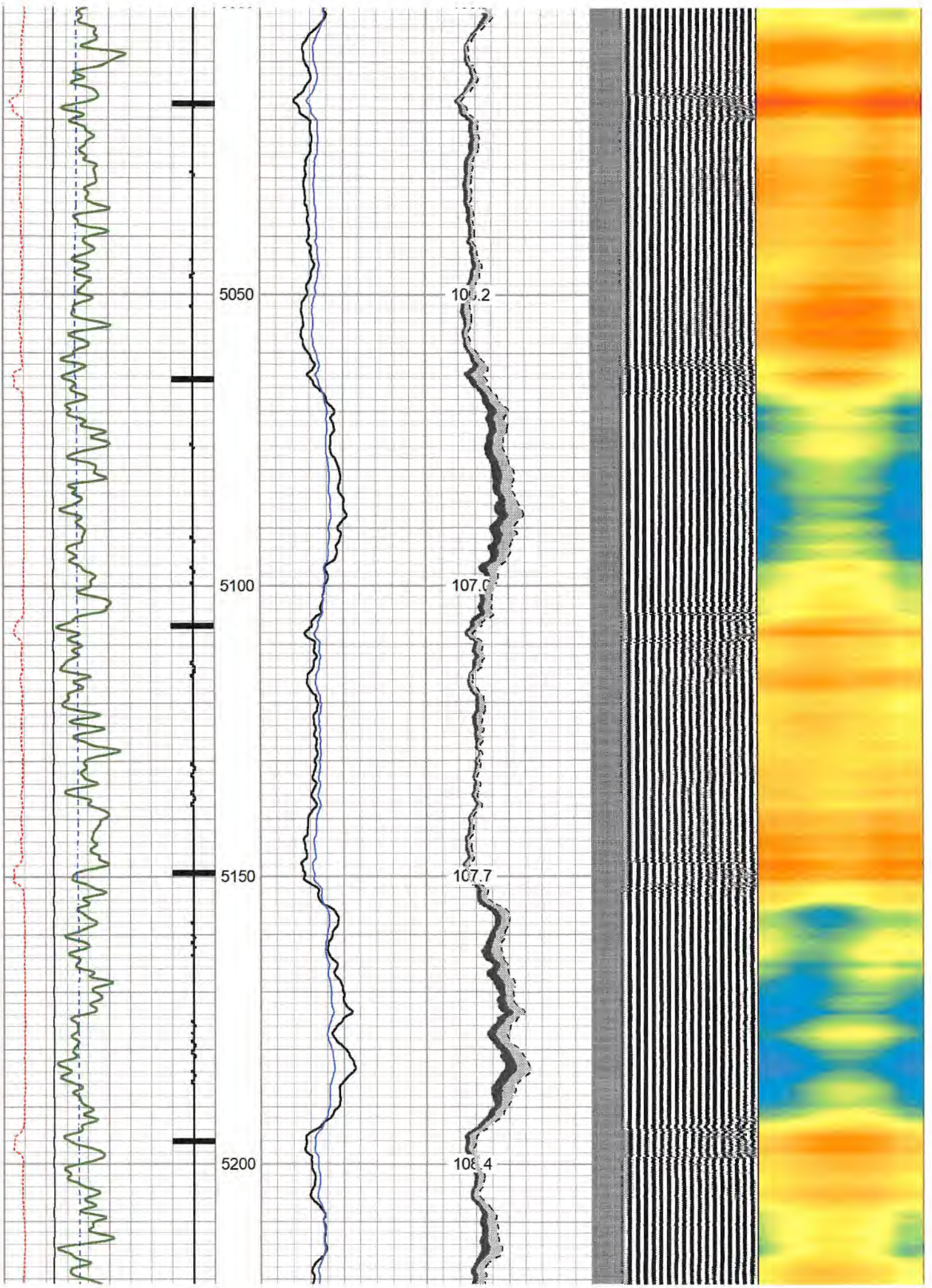


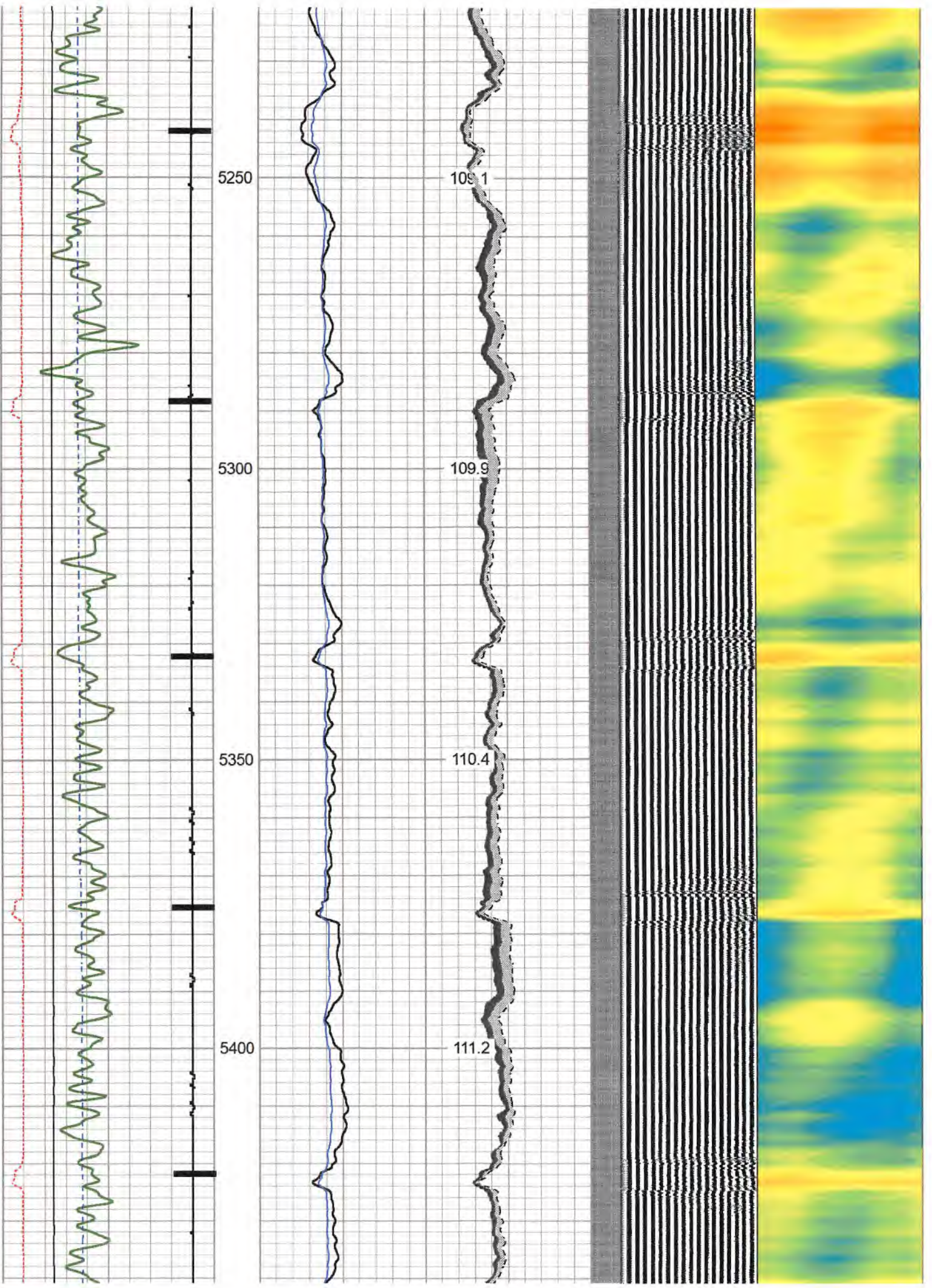


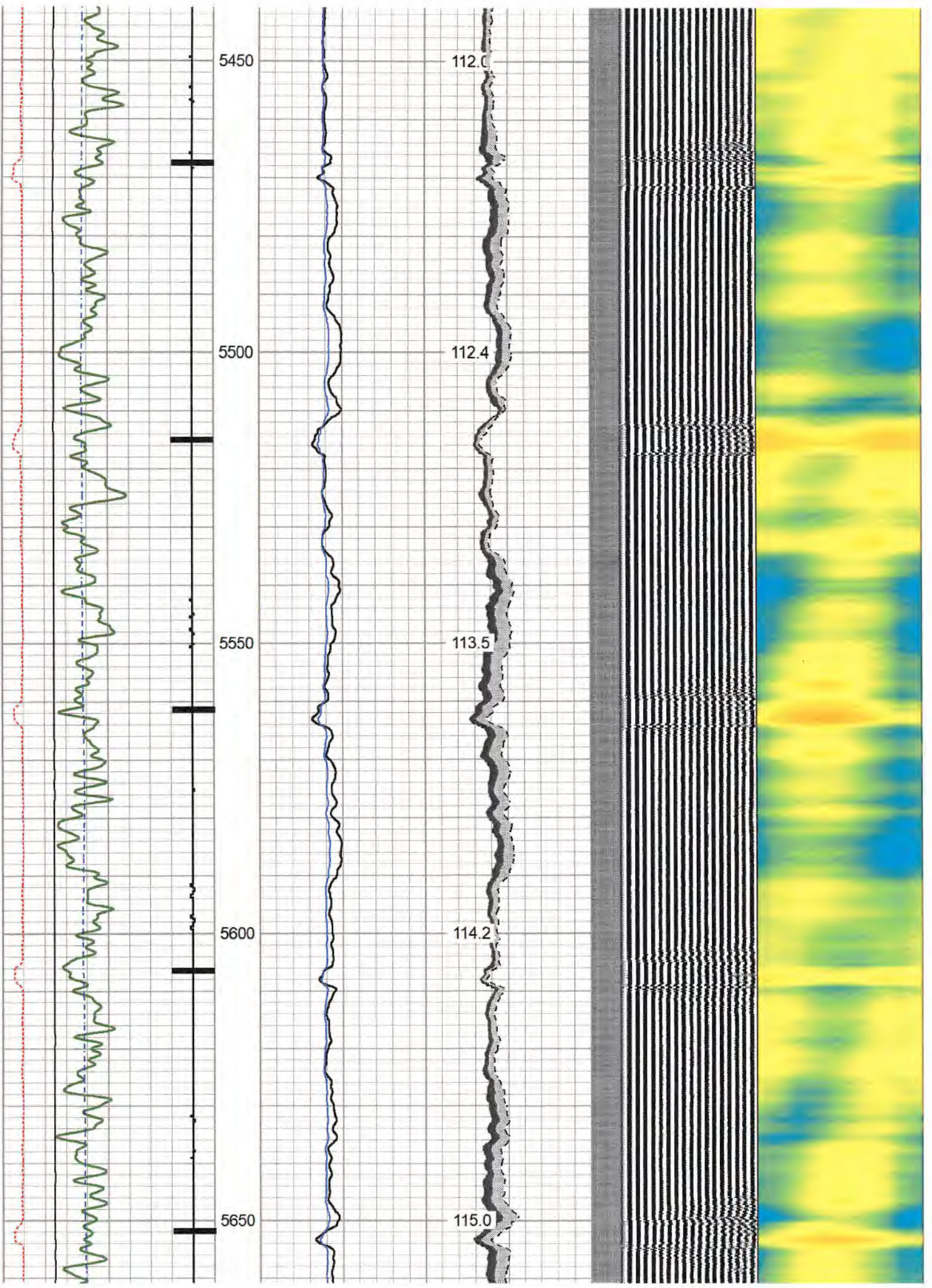


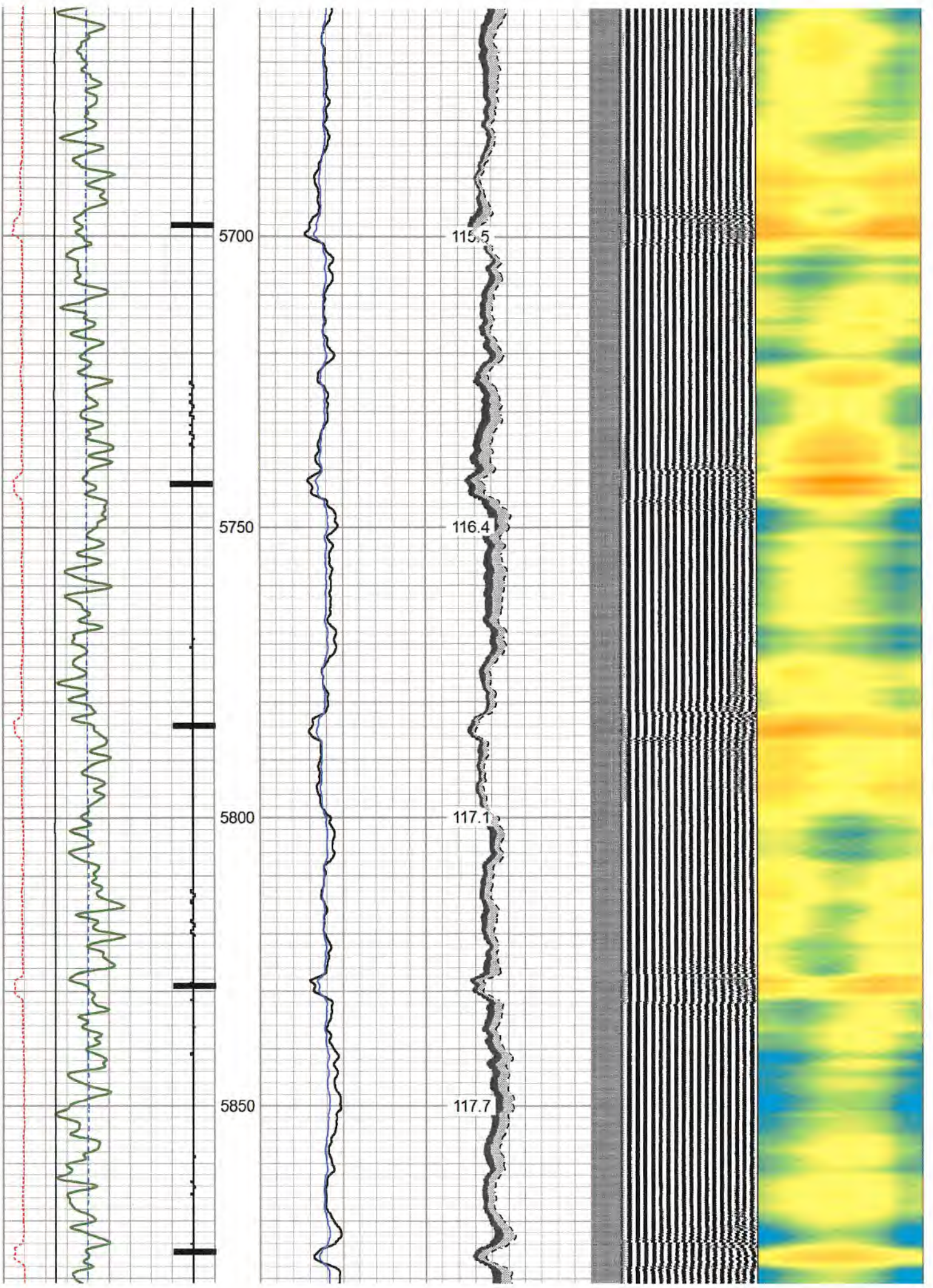


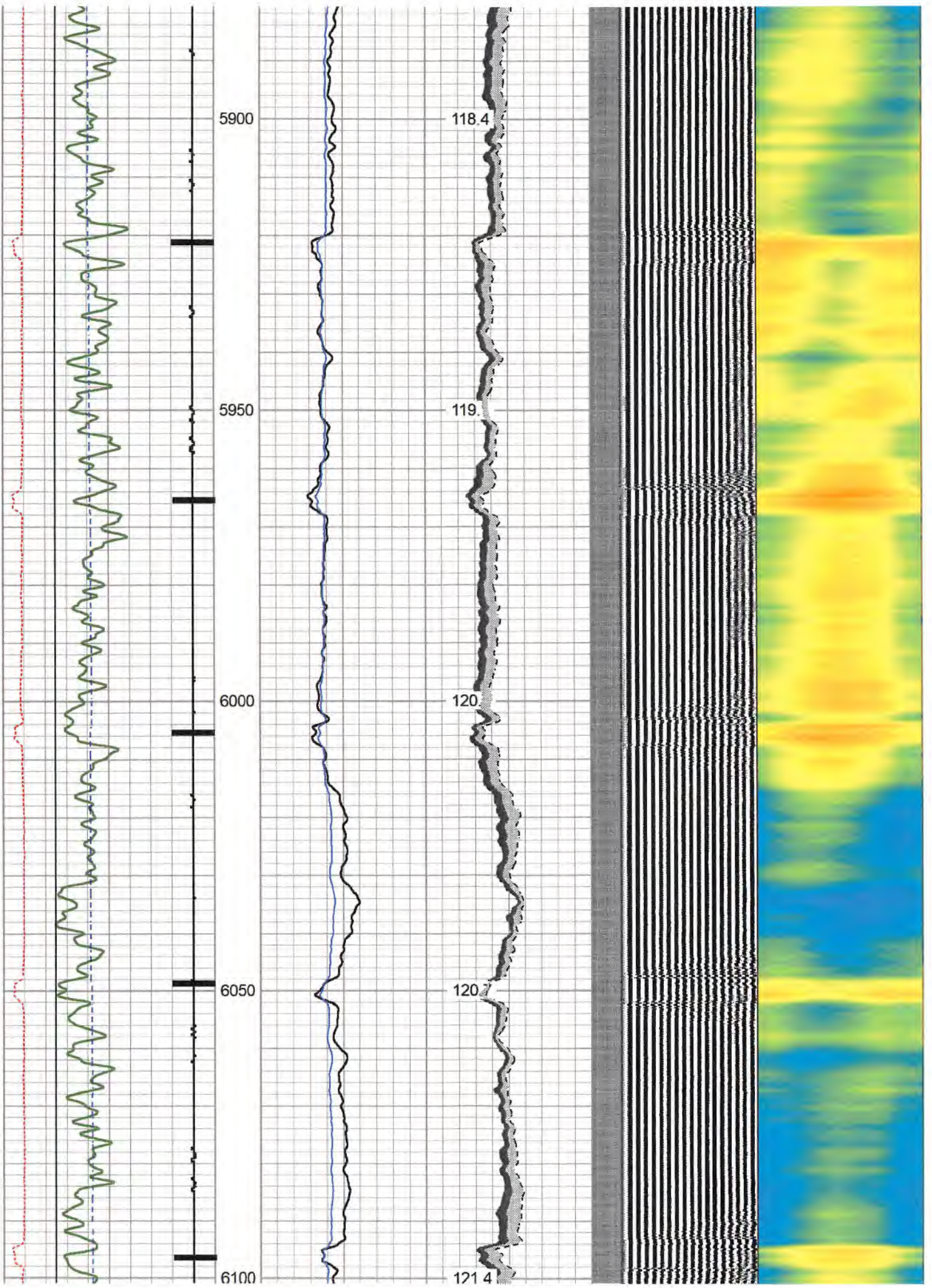


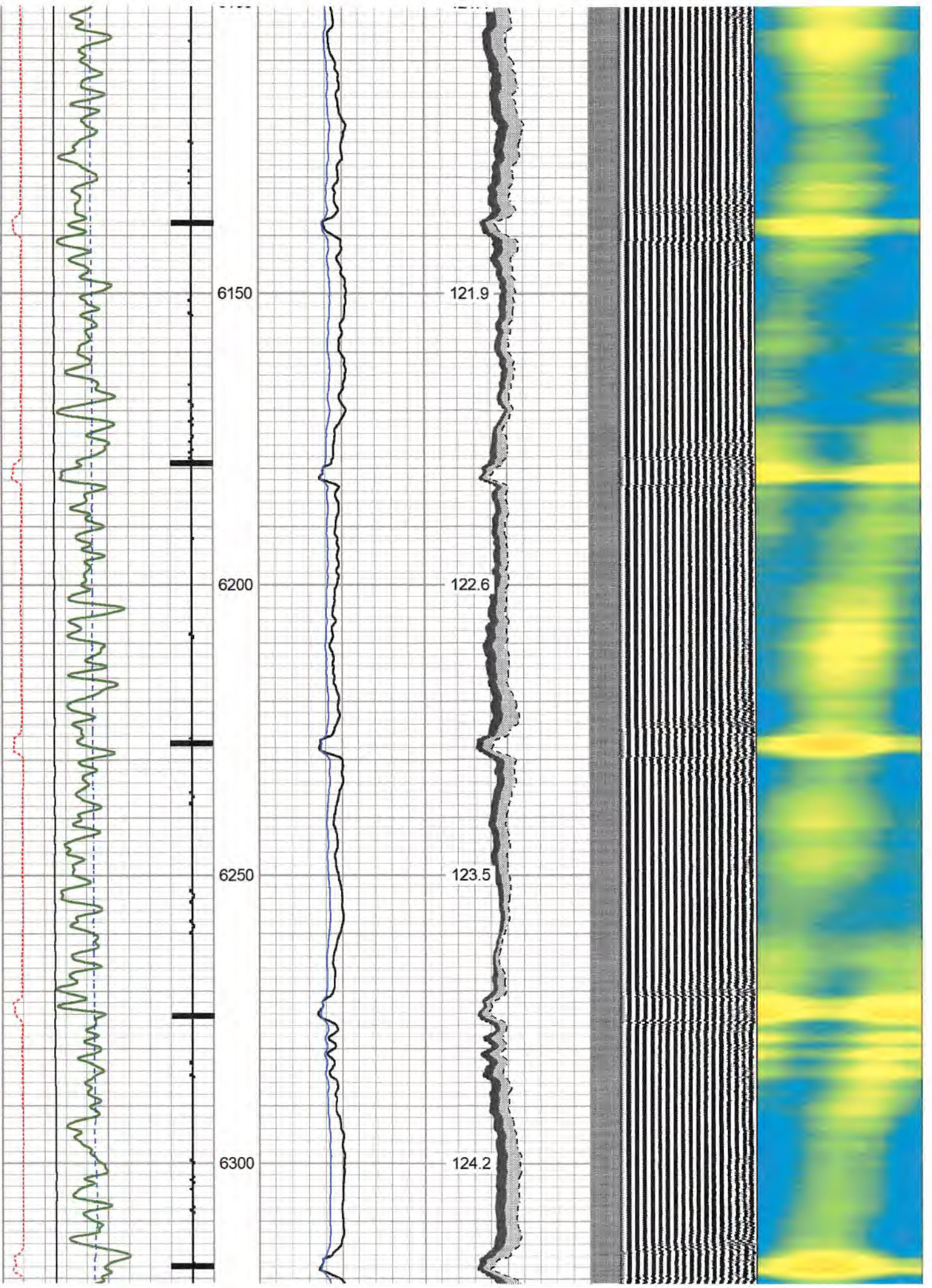


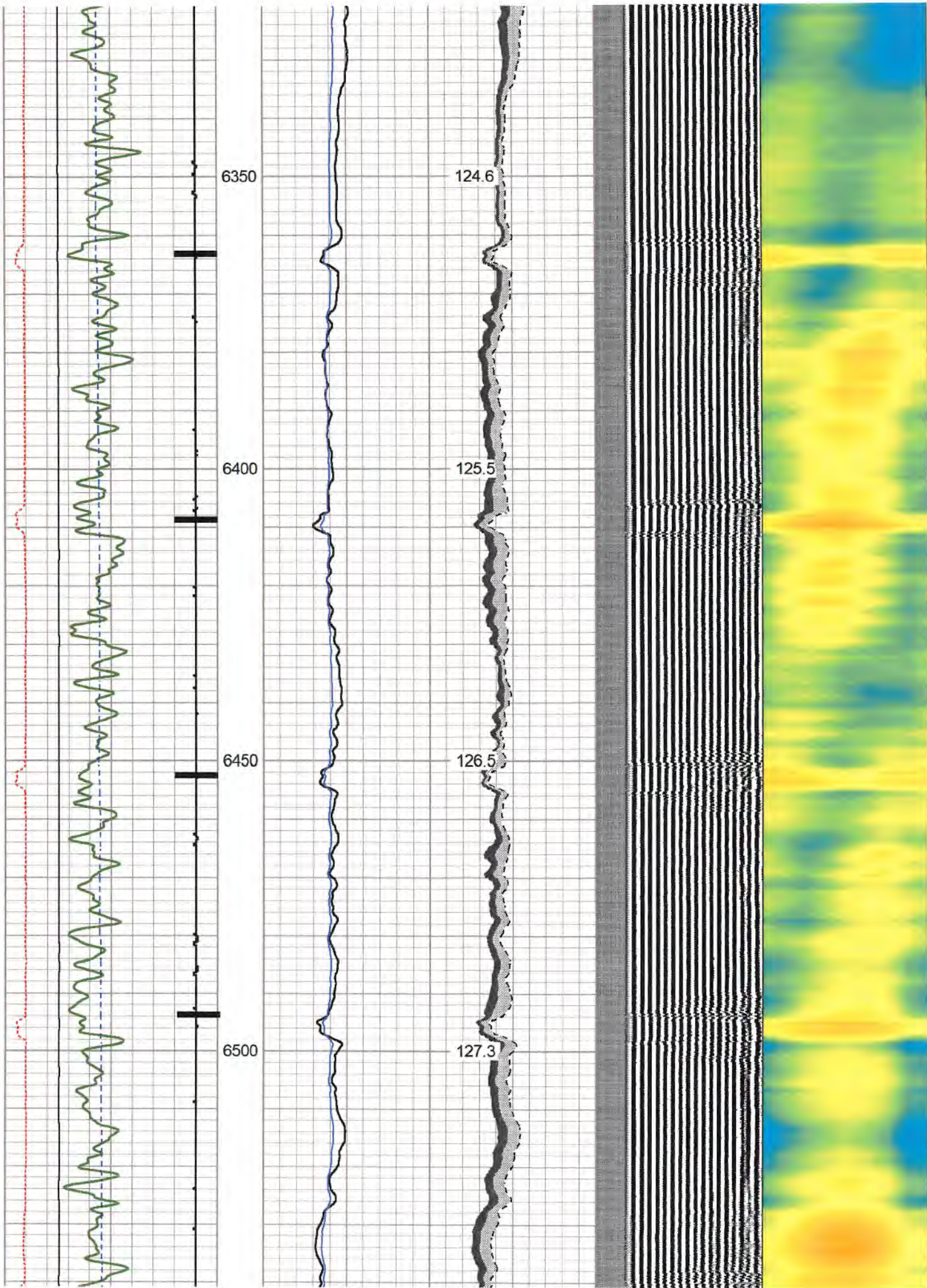


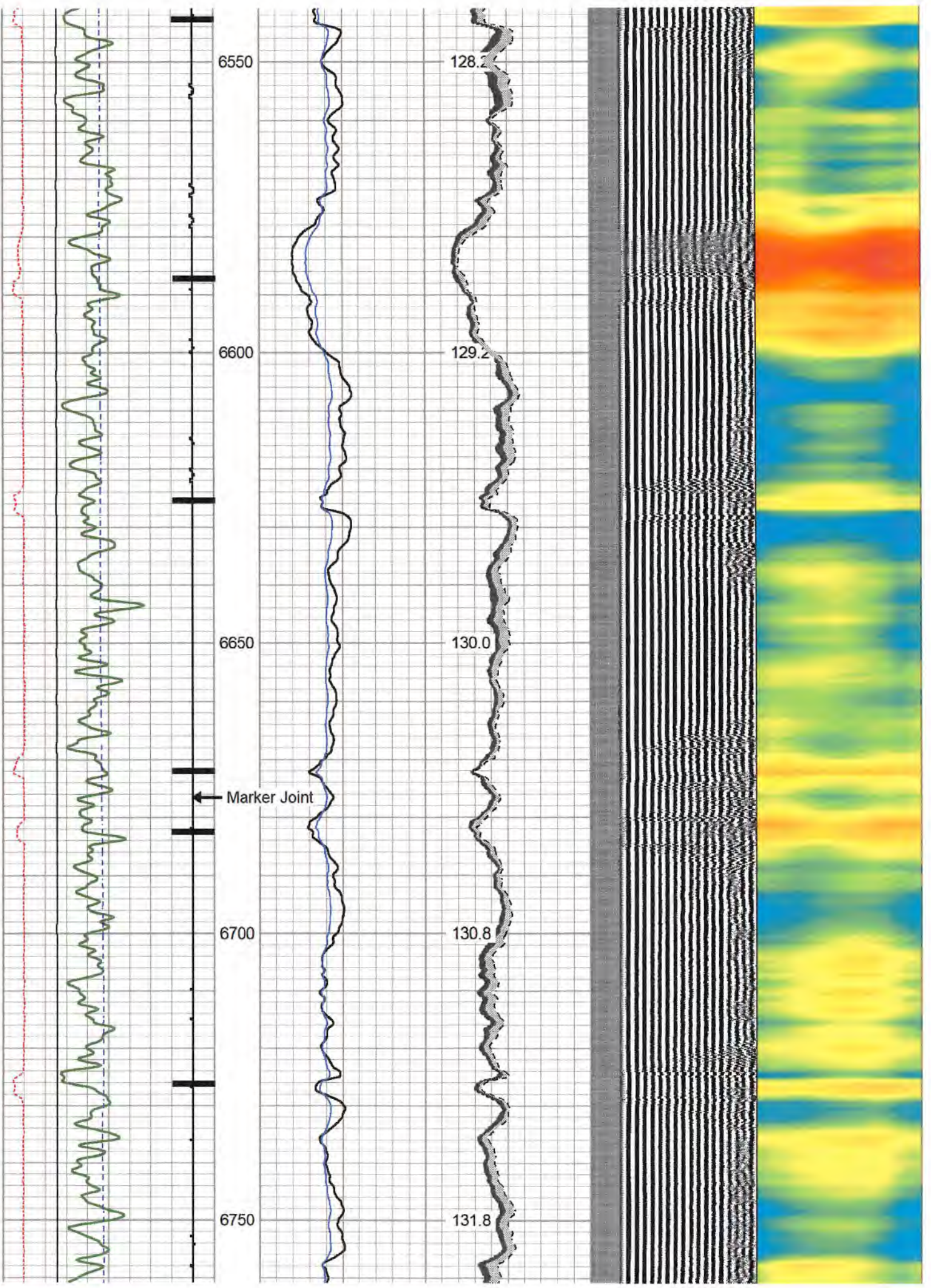


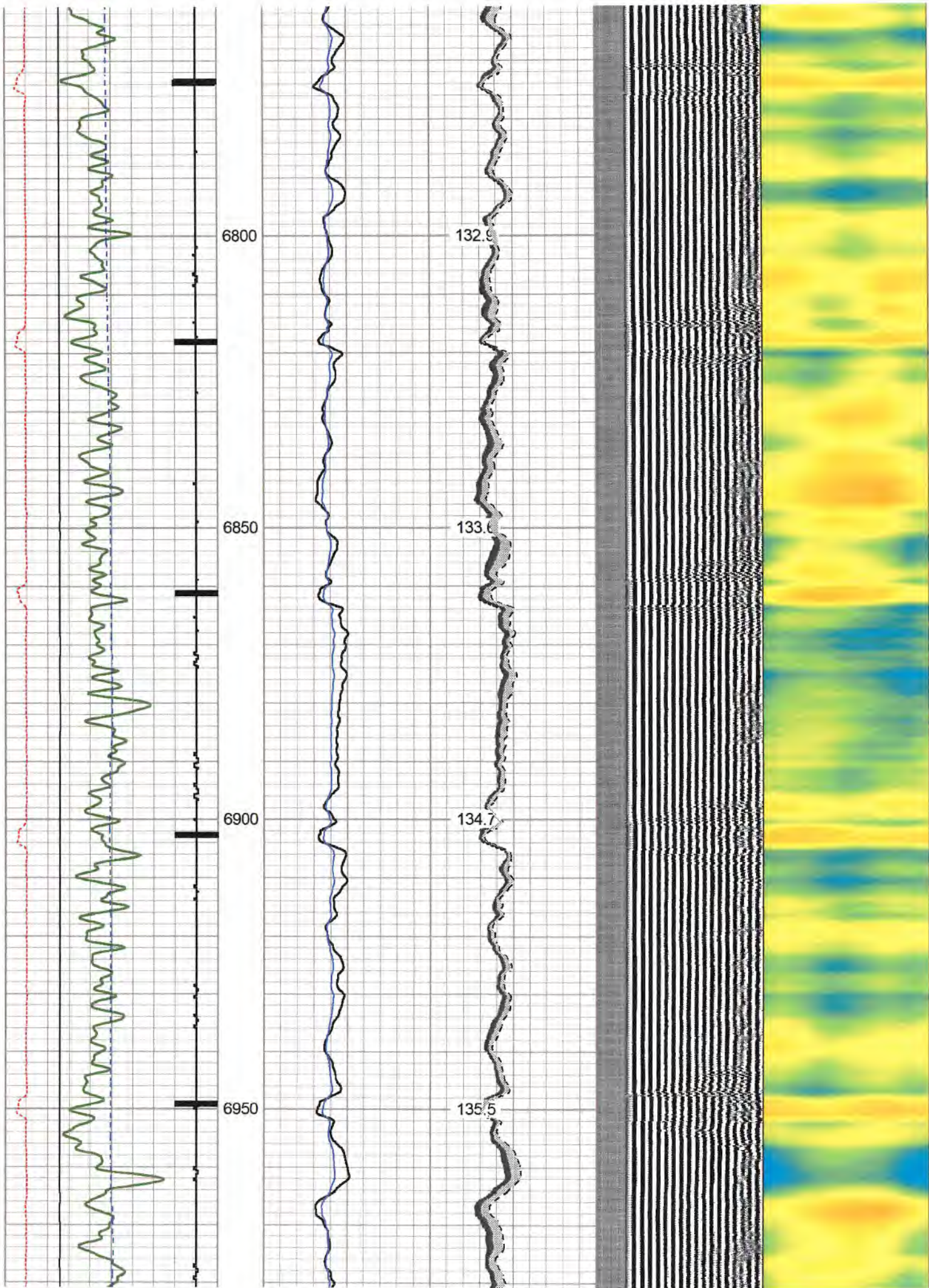


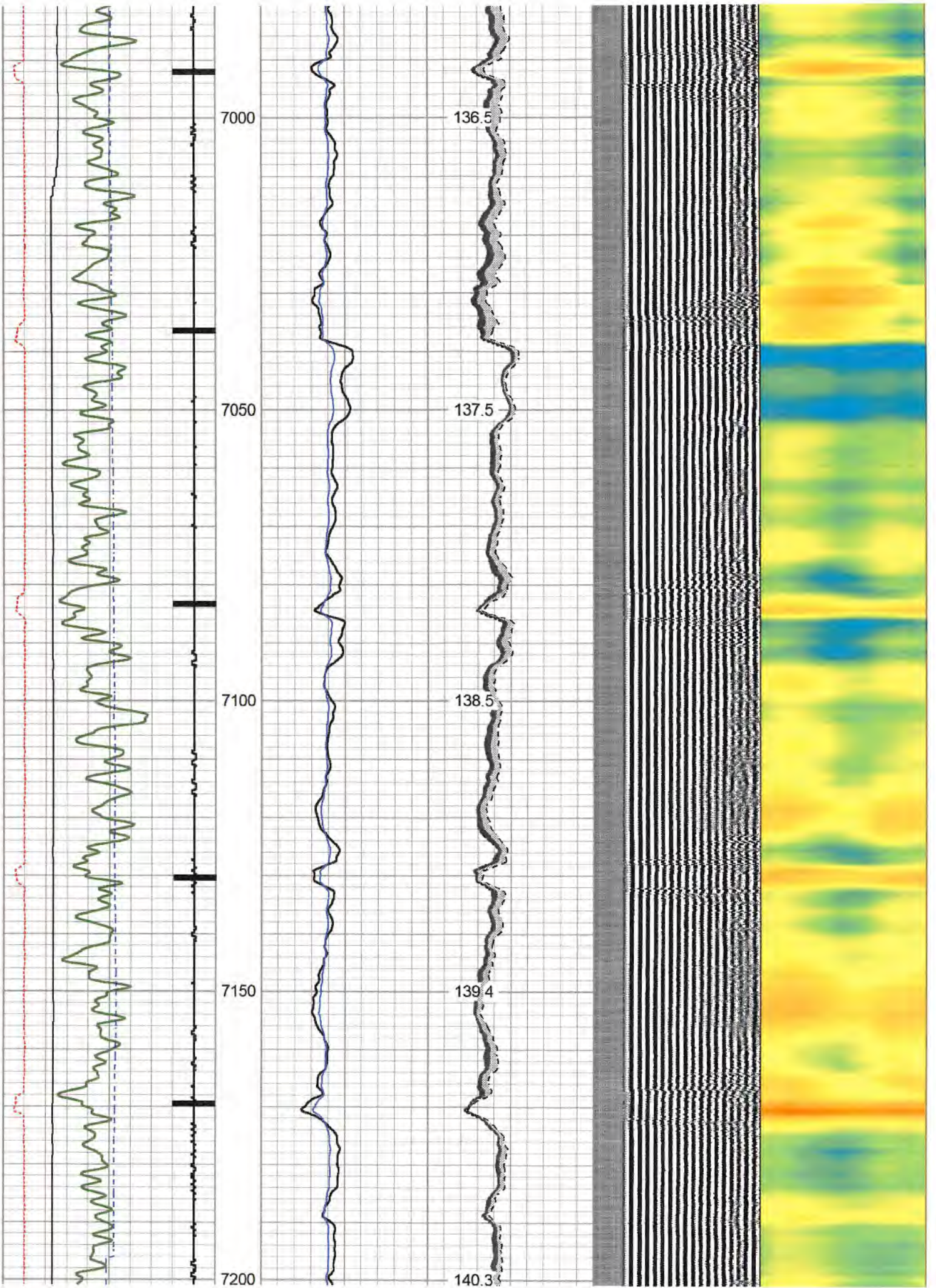


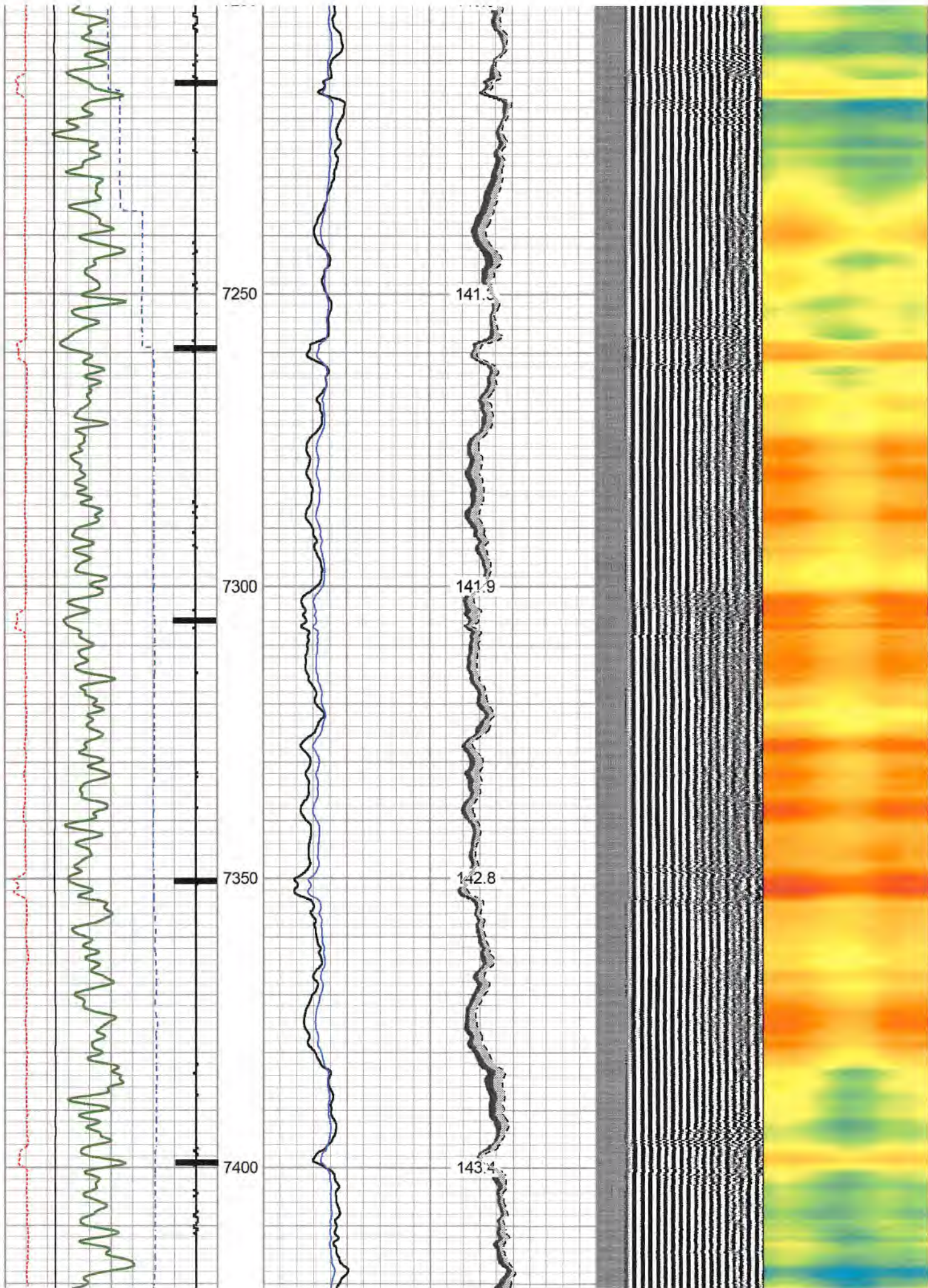


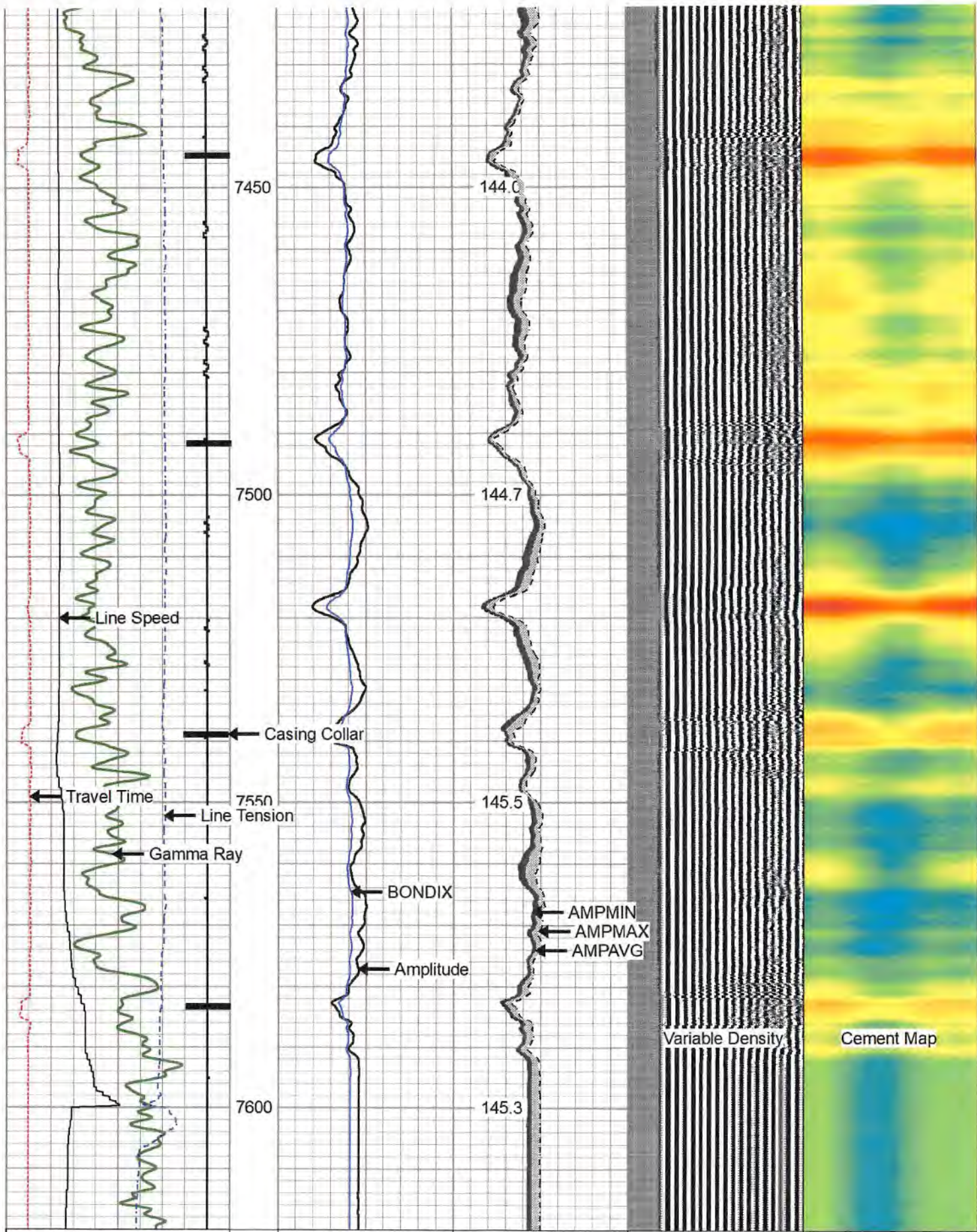












270	Travel Time (usec)	160
Casing Collar		
0	Gamma Ray (GAPI)	150
Line Speed		

0	Amplitude (mV)	100	-5	AMPMIN	150
1	BONDIX	0	-5	AMPMAX	150
			-5	AMPAVG	150
TEMP					

200	Variable Density	1200
(usec)		

1	Cement Map	8
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-200 (ft/min) 200
 0 Line Tension (lb) 3000

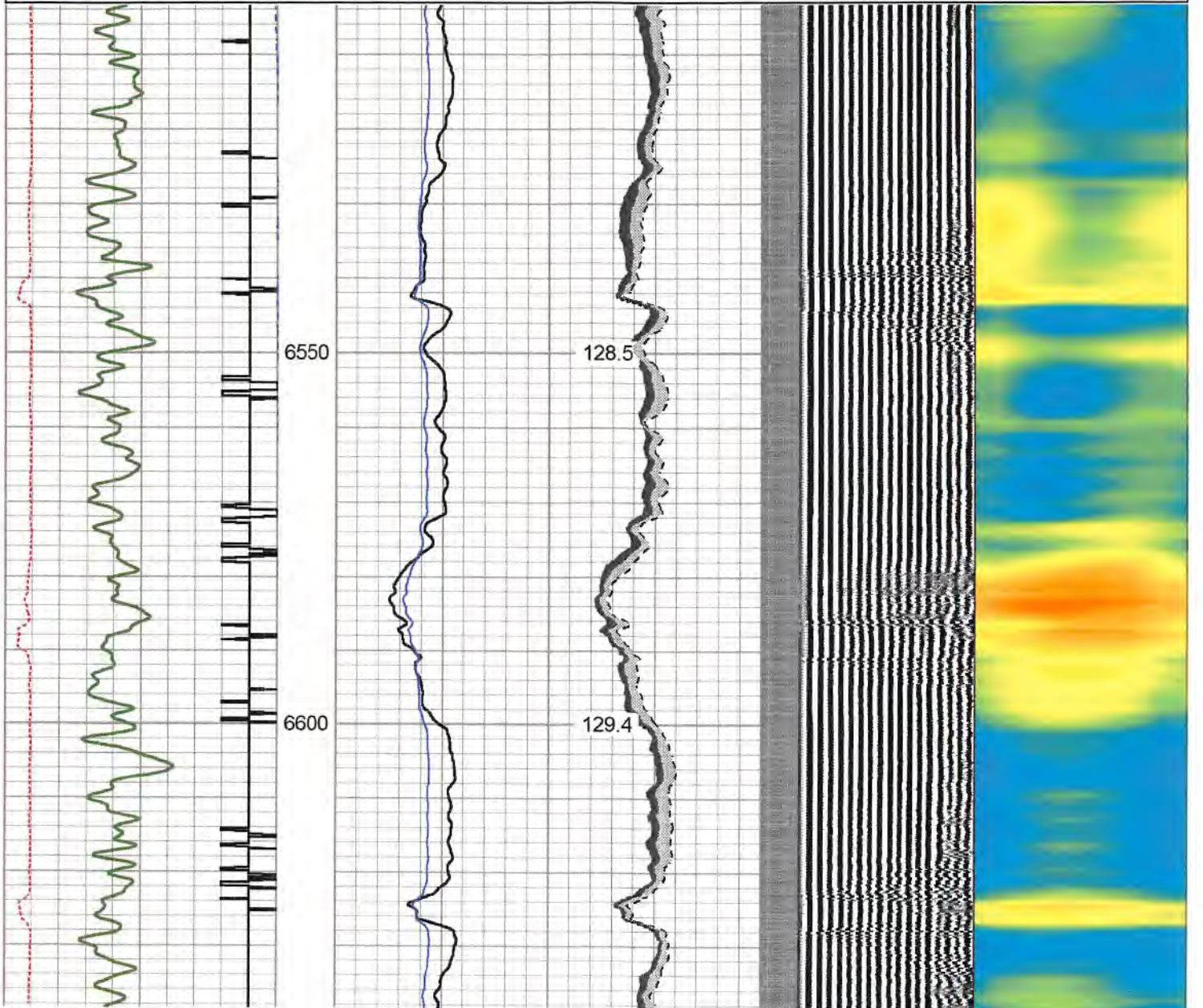
(degF)

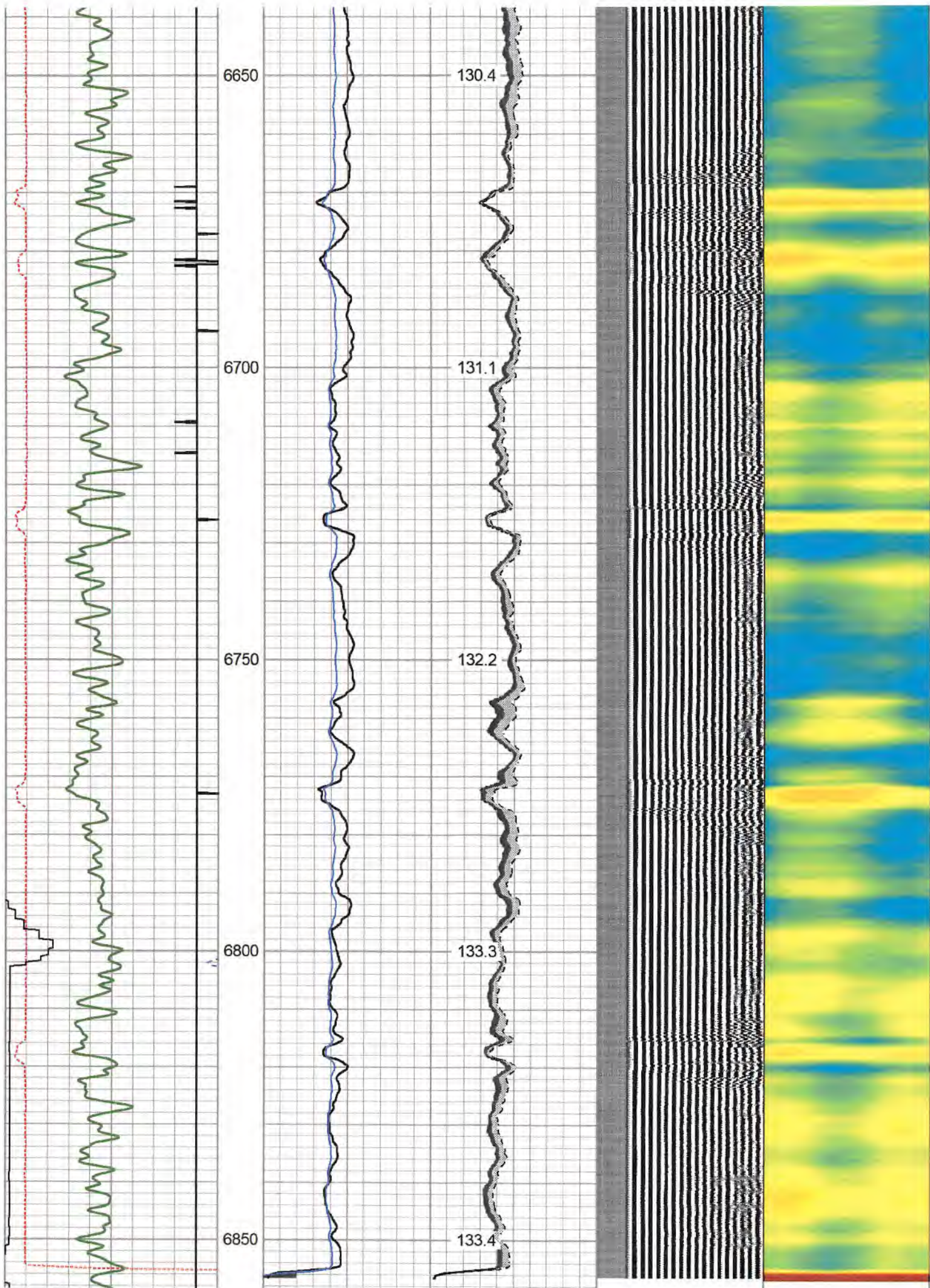


Repeat Pass 0 PSI

Database File c:\users\warrior\desktop\antero journeyman rcbls 7-may-22\antero welder 2h rcbl 7 - may -2022\antero_w
 Dataset Pathname welder2h/run1/pass8
 Presentation Format rcbl-bond index 1020
 Dataset Creation Sat May 07 10:45:02 2022
 Charted by Depth in Feet scaled 1:240

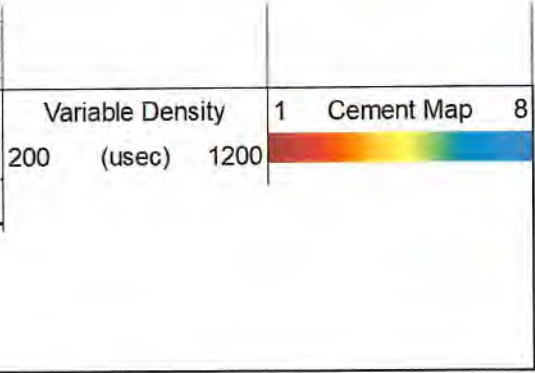
270 Travel Time (usec) 160	0 Amplitude (mV)100	-5 AMPMIN 150	Variable Density	1 Cement Map 8
9 Casing Collar -1	1 BONDIX 0	-5 AMPMAX 150	200 (usec) 1200	
0 Gamma Ray (GAPI) 150		-5 AMPAVG 150		
Line Speed		TEMP		
-100 (ft/min) 100		(degF)		
0 Line Tension (lb) 2000				





270	Travel Time (usec)	160
9	Casing Collar	-1
0	Gamma Ray (GAPI)	150
Line Speed		
-100	(ft/min)	100
0	Line Tension (lb)	2000

0	Amplitude (mV)	100	-5	AMPMIN	150
1	BONDIX	0	-5	AMPMAX	150
			-5	AMPAVG	150
TEMP					
(degF)					



Log Variables DatabaseC:\Users\Warrior\Desktop\Antero Journeyman rcbls 7-May-22\Antero Welder 2H RCBL 7 Dataset field/welder2h/run1/pass10/_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	0.415	23	71.9	3.4
MINATTN	PERFS	PPT	SRFTEMP	TDEPTH			
db/ft		usec	degF	ft			
9.6	No	260	50	8000			

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	C:\Users\Warrior\Desktop\Antero Journeyman rcbls 7-May-22\Antero Welder 2H RCBL 7 - May -2022\anter
Dataset Pathname	welder2h/run1/pass10
Dataset Creation	Sat May 07 10:53:46 2022

Gamma Ray Calibration Report		
Serial Number:	FW1211-86	
Tool Model:	Probe	
Performed:	Fri Apr 22 08:17:13 2022	
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:	148.683	ft

Master Calibration, performed Sat May 07 10:24:54 2022:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.005	0.795	3.400	71.921	86.746	2.993
CAL	0.089	1.109				
5'	0.003	0.818	3.400	71.921	84.022	3.170
SUM						
S1	0.004	0.743	0.000	100.000	135.345	-0.542
S2	0.004	0.764	0.000	100.000	131.660	-0.579
S3	0.005	0.789	0.000	100.000	127.423	-0.576
S4	0.004	0.815	0.000	100.000	123.338	-0.530
S5	0.004	0.832	0.000	100.000	120.835	-0.541
S6	0.005	0.830	0.000	100.000	121.153	-0.572
S7	0.014	0.800	0.000	100.000	127.280	-1.832
S8	0.004	0.759	0.000	100.000	132.606	-0.586

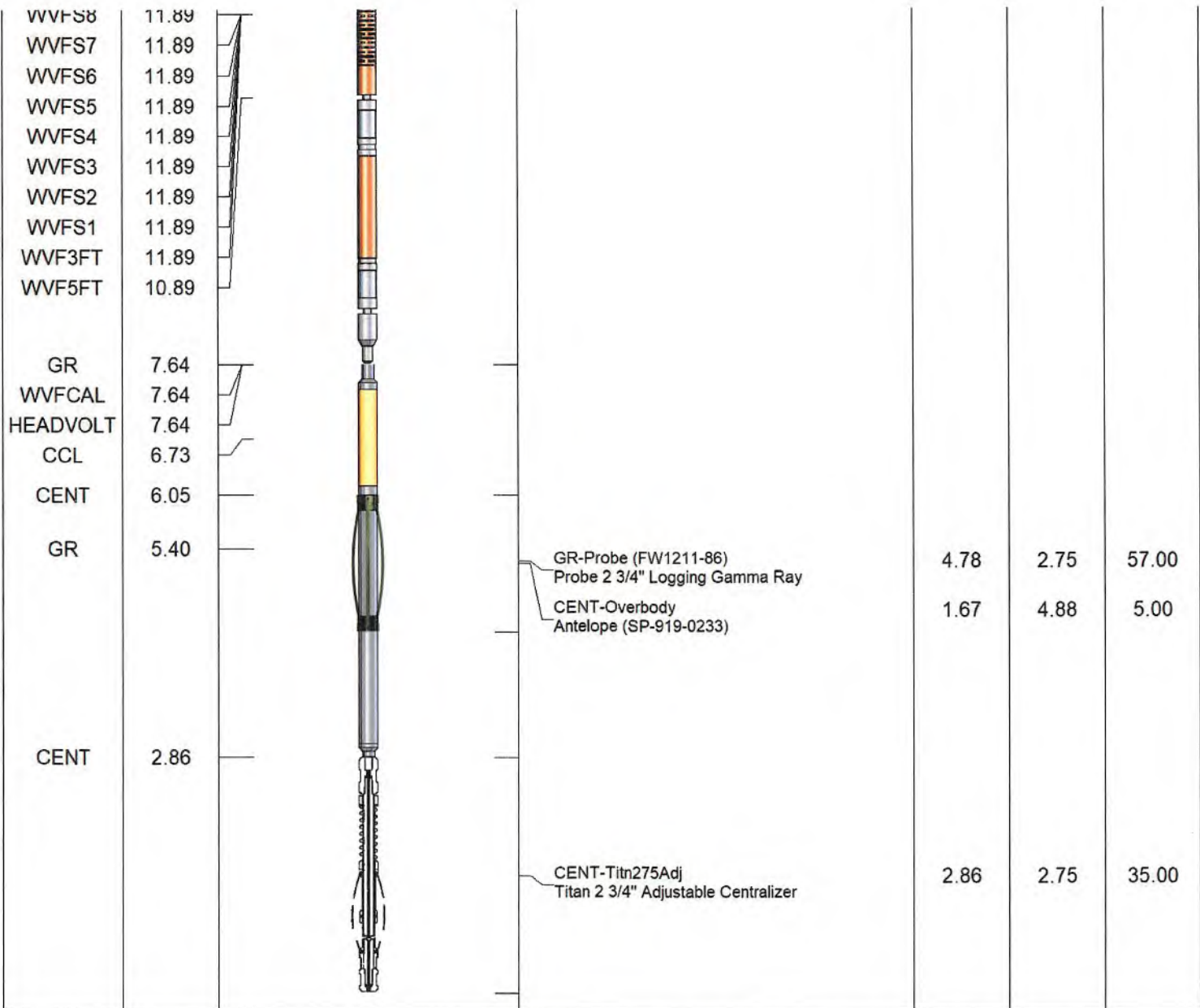
Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.089	1.109	1.000	0.000

Air Zero Calibration, performed Sat May 07 10:01:22 2022:

	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	

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
CHD	18.05		CHD-Titan Standard 1 7/16" Cable Head	1.02	1.44	1.00
RBT HeadVolt	17.03 16.97		CENT-Overbody Antelope (SP-919-0233)	1.67	4.88	5.00
CENT	15.97		RBT-Probe275T (FW1312-32) Probe 2.75" Radial with Integral Temperature Sub	9.39	2.75	90.00
Temp	14.12					



Dataset: antero_welder_2h_rcbl_07_may-2022.db: field/welder2h/run1/pass10
 Total length: 18.05 ft
 Total weight: 193.00 lb
 O.D.: 4.88 in

	Company	Antero Resources
	Well	Journeyman Welder 2H
	Field	Utica
	County	Wetzel
	State	WV