

Company: Noble Energy Inc

Well: Rohn State LD03-64-1HN
Field: Wildcat
County: Weld State: Colorado

County: Weld		USI-LITE (2500 psi)	
Field: Wildcat			
Location: NESE Sec. 4 T9N R58W			
Well: Rohn State LD03-64-1HN			
Company: Noble Energy Inc			
LOCATION			
Permanent Datum:		GL	Elev: K.B. 4727.0 F
Log Measured From:		KB	G.L. 4703.0 F
Drilling Measured From:		KB	D.F. 4726.0 F
Logging Date	API Serial No. 05-123-37462-0000	Section 4	Township 9N
Run Number	Run 1		Range 58W
Depth Driller	6067.0 F		
Schlumberger Depth	5750.0 F		
Bottom Log Interval	5750.0 F		
Top Log Interval	50.0 F		
Casing Fluid Level	8.0 F		
Salinity			
Density	8.40 LB/G		
Fluid Level	8.0 F		
BIT/CASING/TUBING STRING			
Bit Size	8.750 IN		
From	5750.0 F		
To	-999.2 F		
Casing Size	7.00 IN		
Weight	26.00 LB/F		
Grade	P110		
From	24.0 F		
To	6057.2 F		
Max Recorded Temp	219.9		
Logger on bottom (date)	15-Oct-2014		
Location	Ft Morgan CO		
Recorded By	MK Henrikson/K Ondrus		
Witnessed By			

DEPTH SUMMARY LISTING

DEPTH SYSTEM EQUIPMENT

Depth Measuring Device	Tension Device	Logging Cable
Type: Serial Number: Calibration Date: Calibration Cable Type: Wheel Correction 1: Wheel Correction 2:	Type: Serial Number: 2858 Calibration Date: Calibrator Serial Number: Number Of Calibration Points: Calibration RMS: Calibration Peak Error:	Serial Number: F713711 Length: 17300.00000

DISCLAIMER

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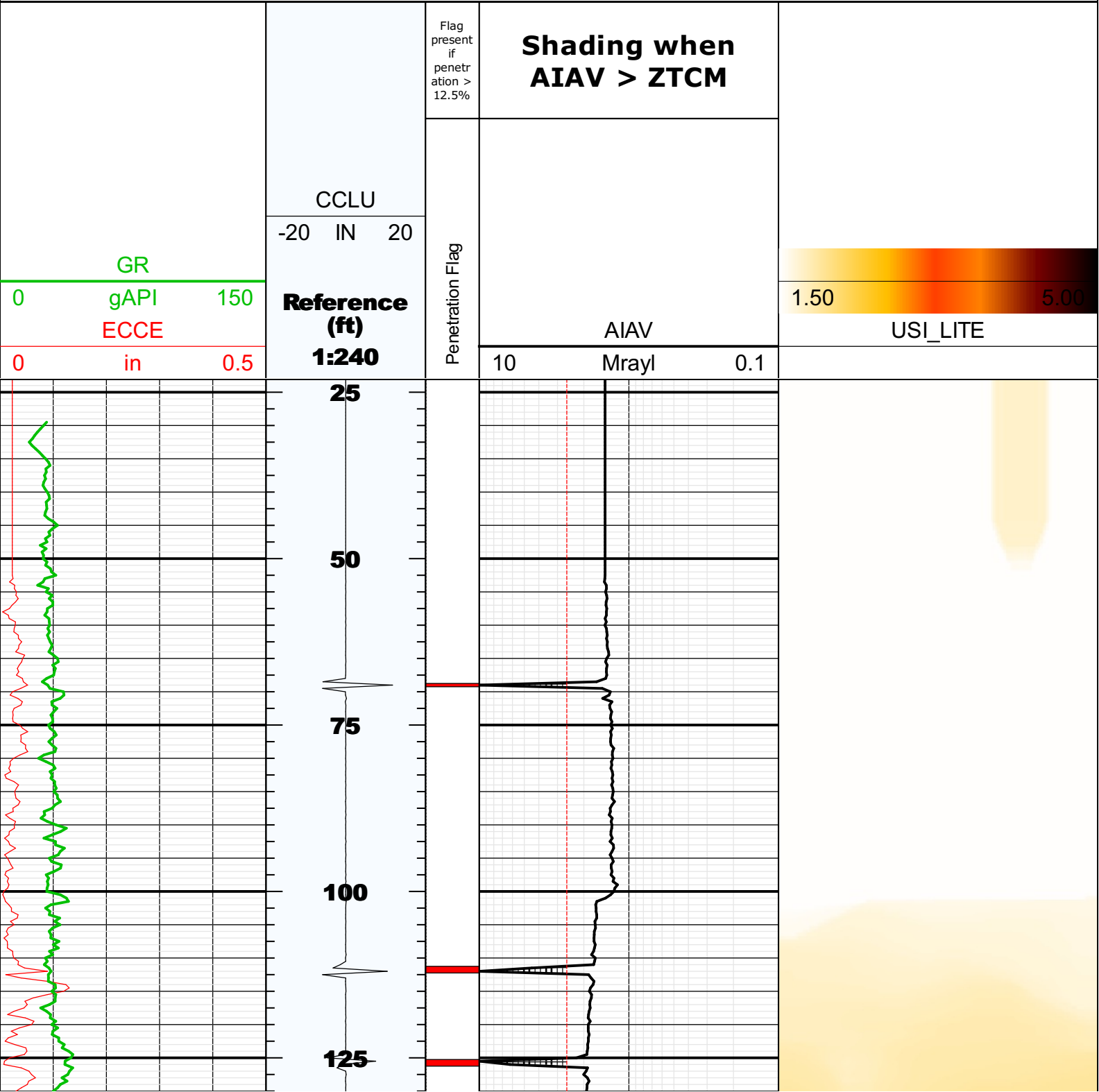
11.5 PPG spacer 12.5 PPG lead cement and 13 PPG tail cement
During cement job 3000 PSI held for 3 minutes bled off to 770 PSI and held. Floats held.

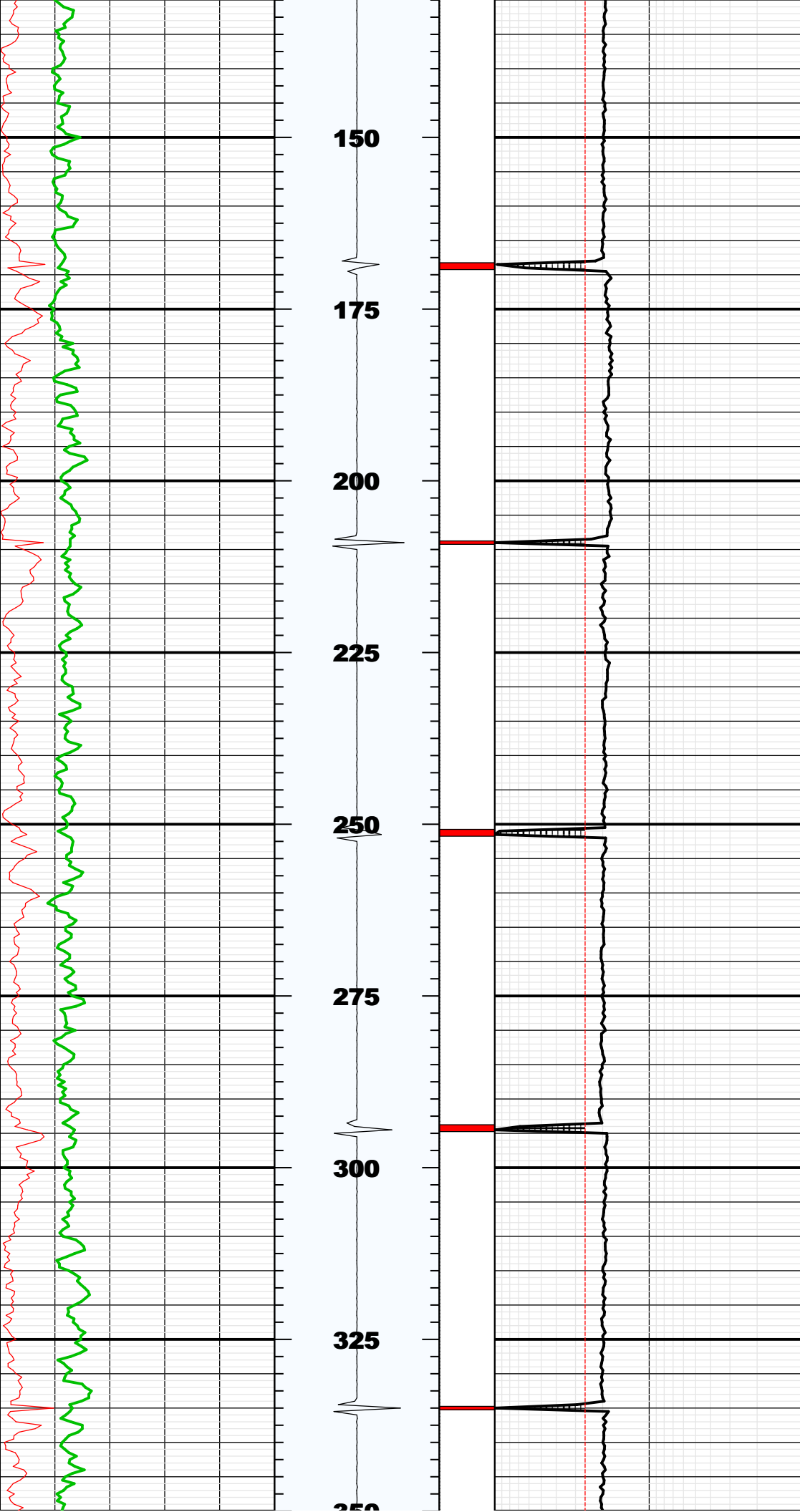
0 PSI repeat pass and 2500 PSI main pass.
Estimated TOC @ 620'. Expected TOC @ 850'.
Top of 4.5" liner at 5766.9'.

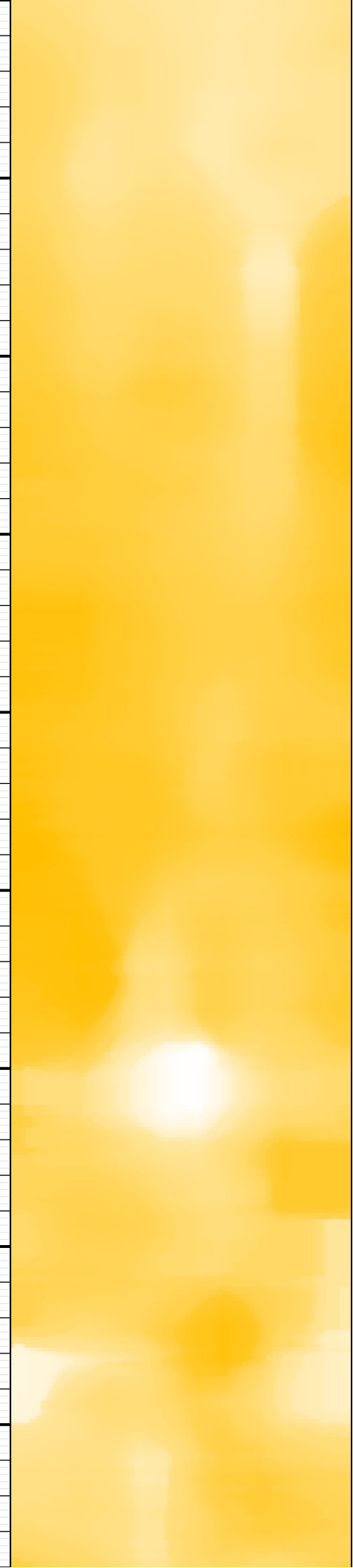
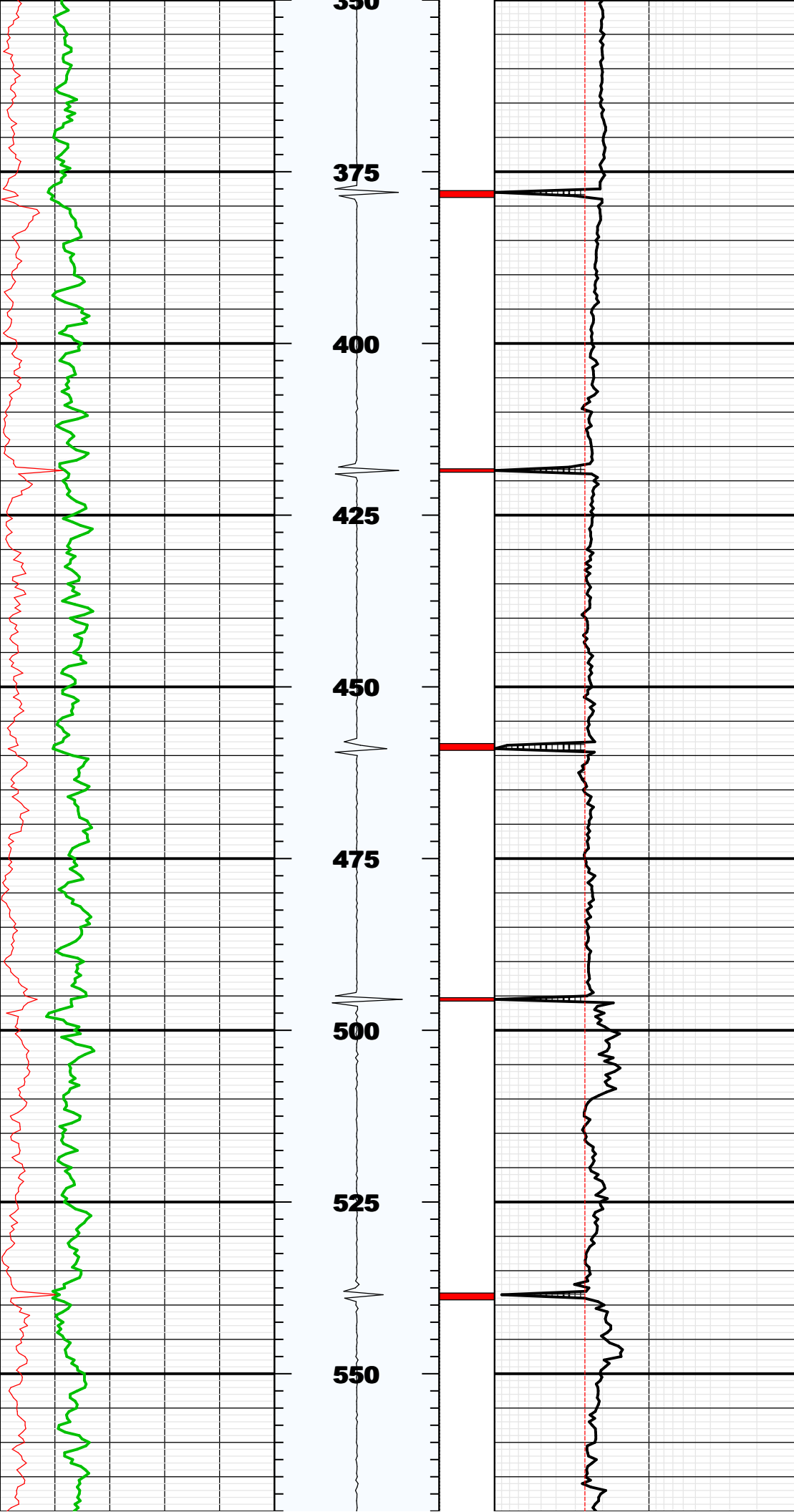
Bottom log interval 5750' to maintain distance from liner. Sub would not spin due to debris. Debris impacted bottom 15' of log
Bottom hole temperature was 219.96 degF.
The Niobrara formation was not visible.

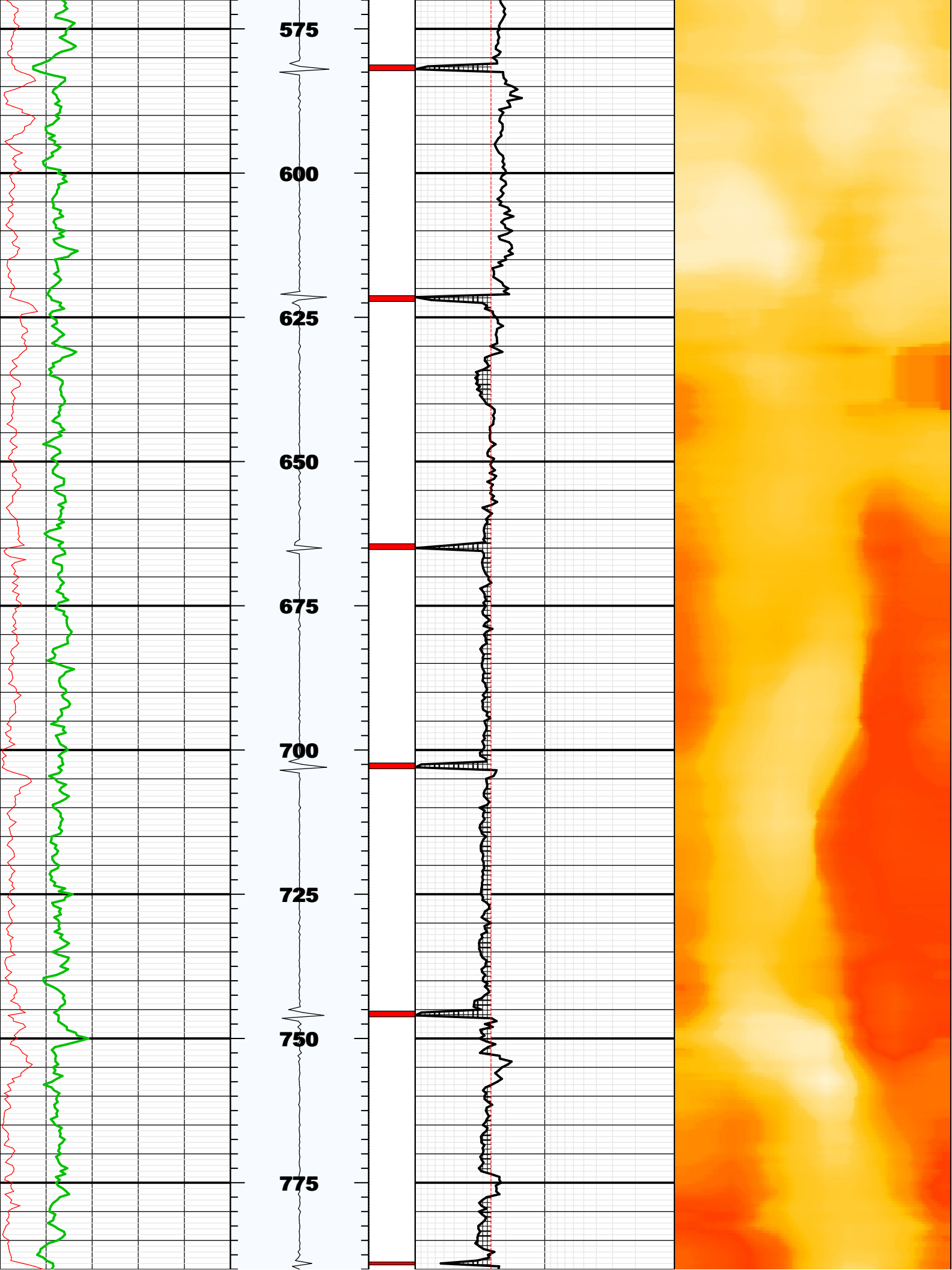
Main Pass

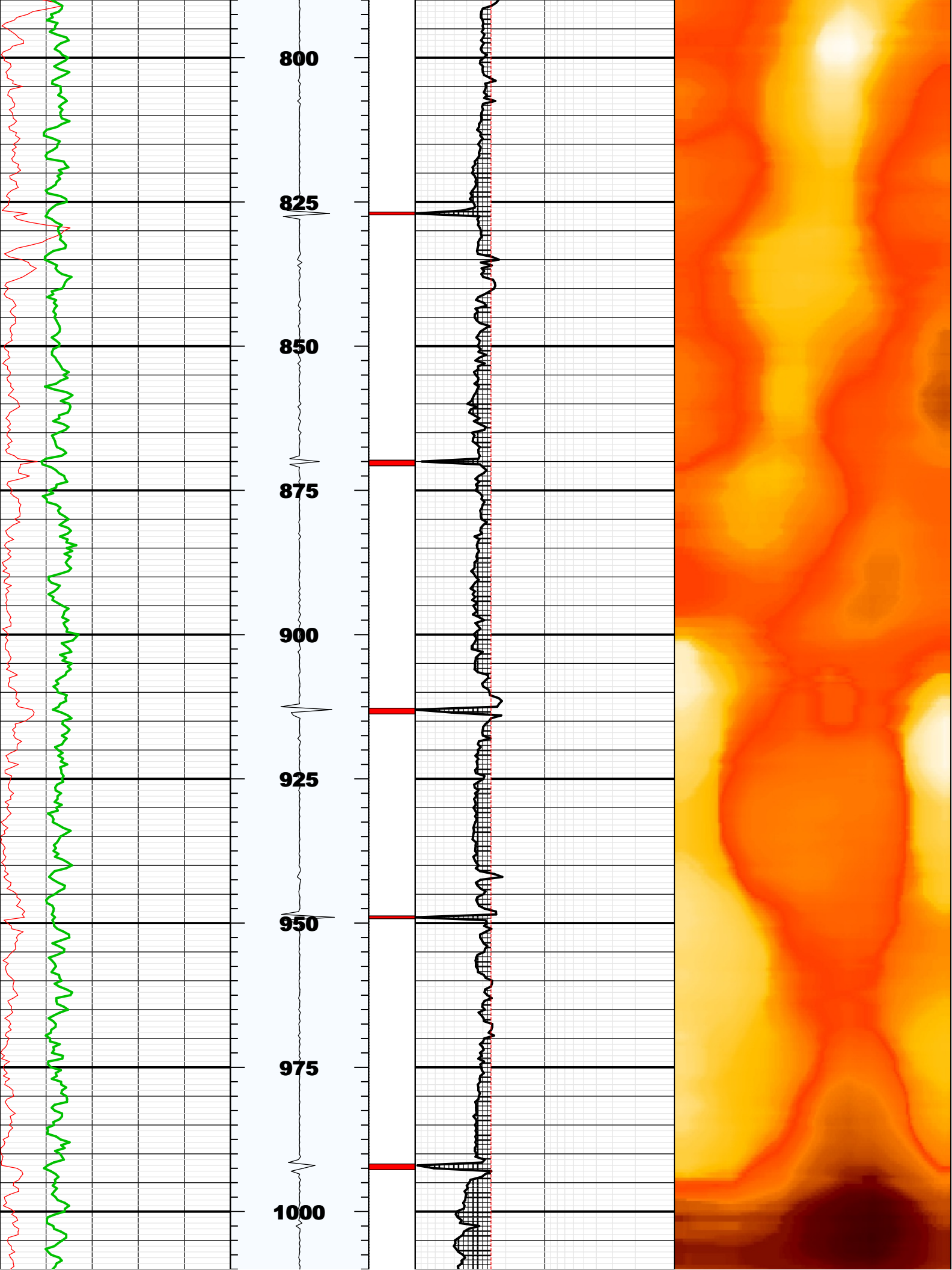
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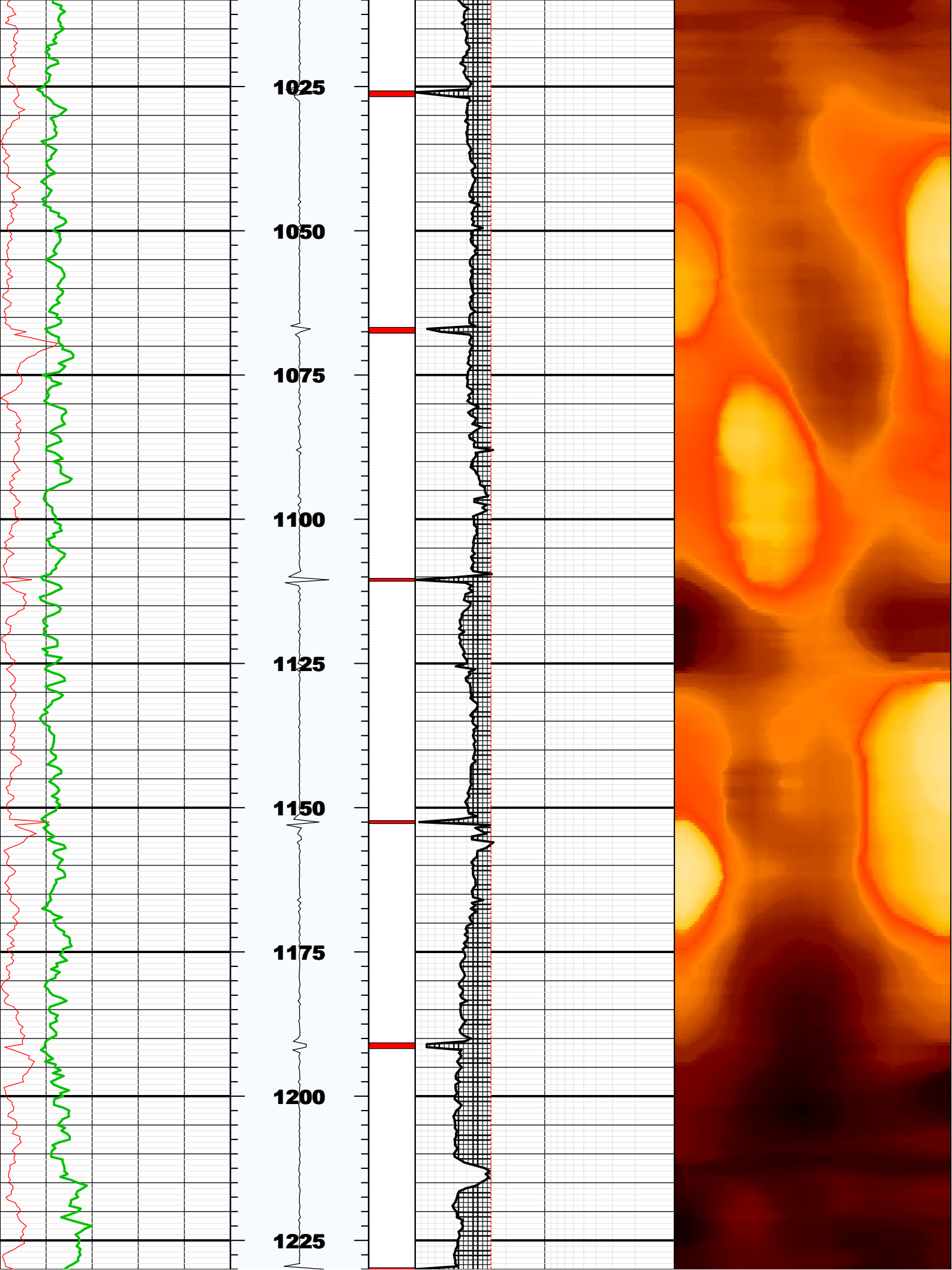


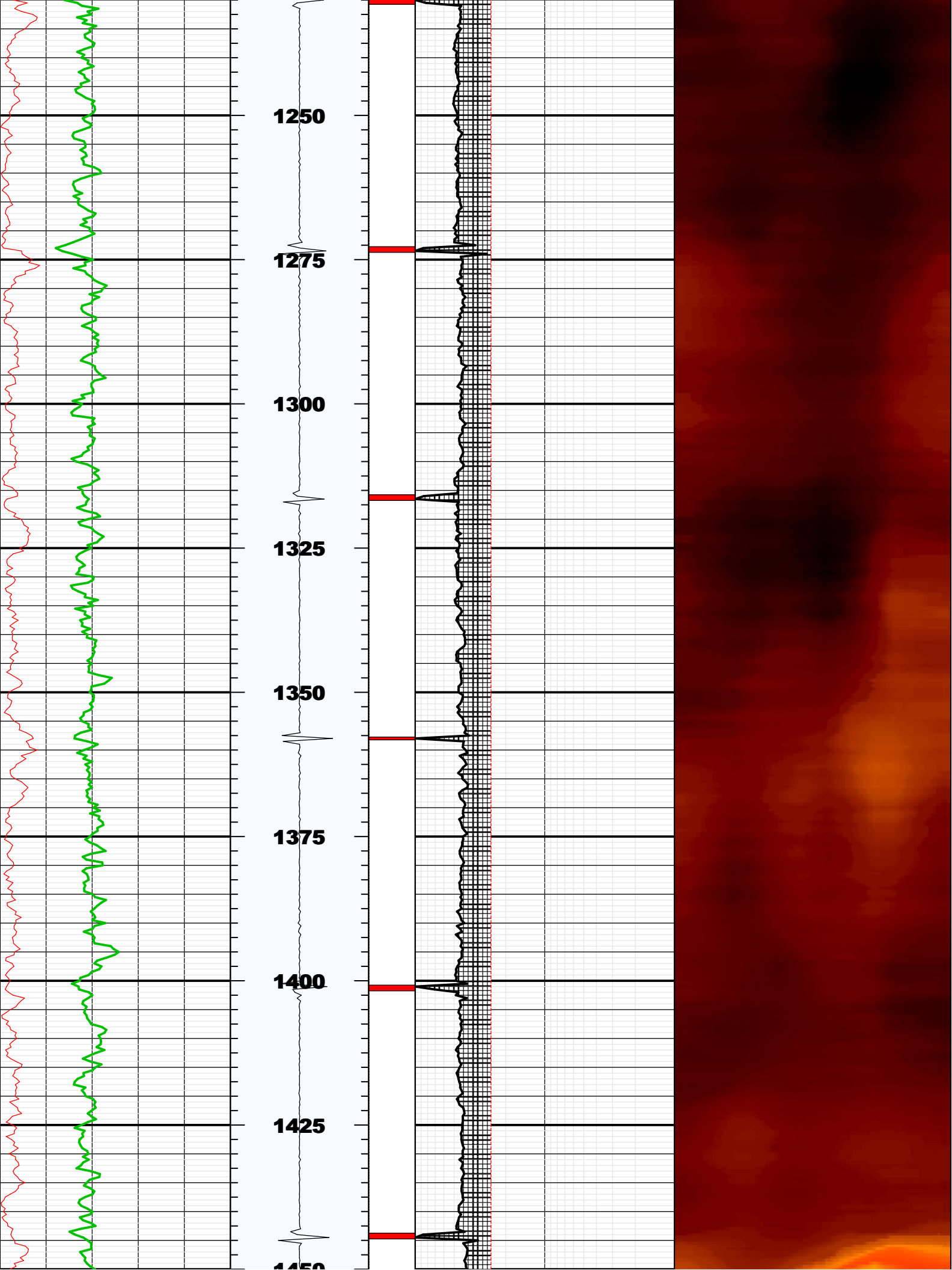


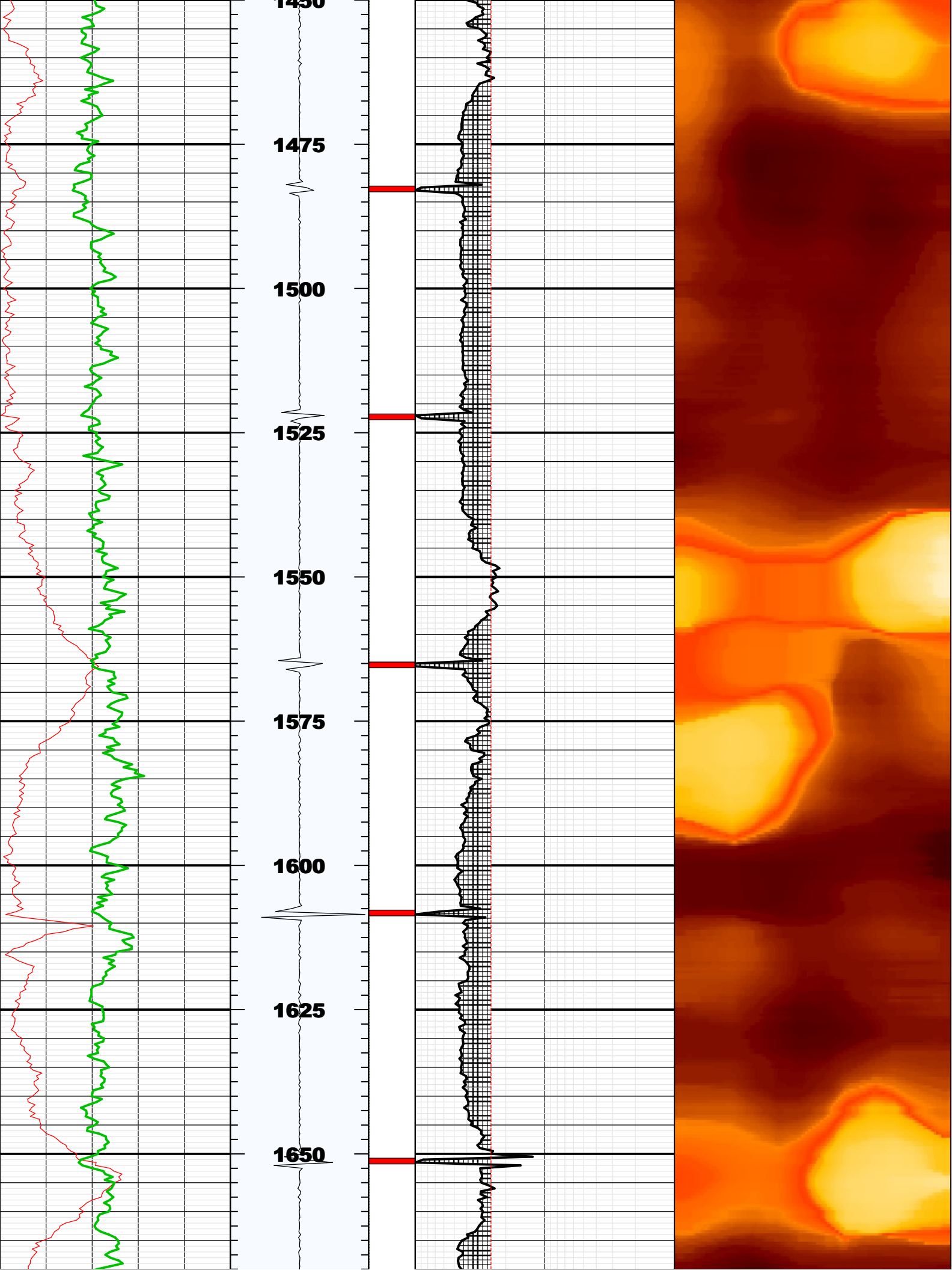


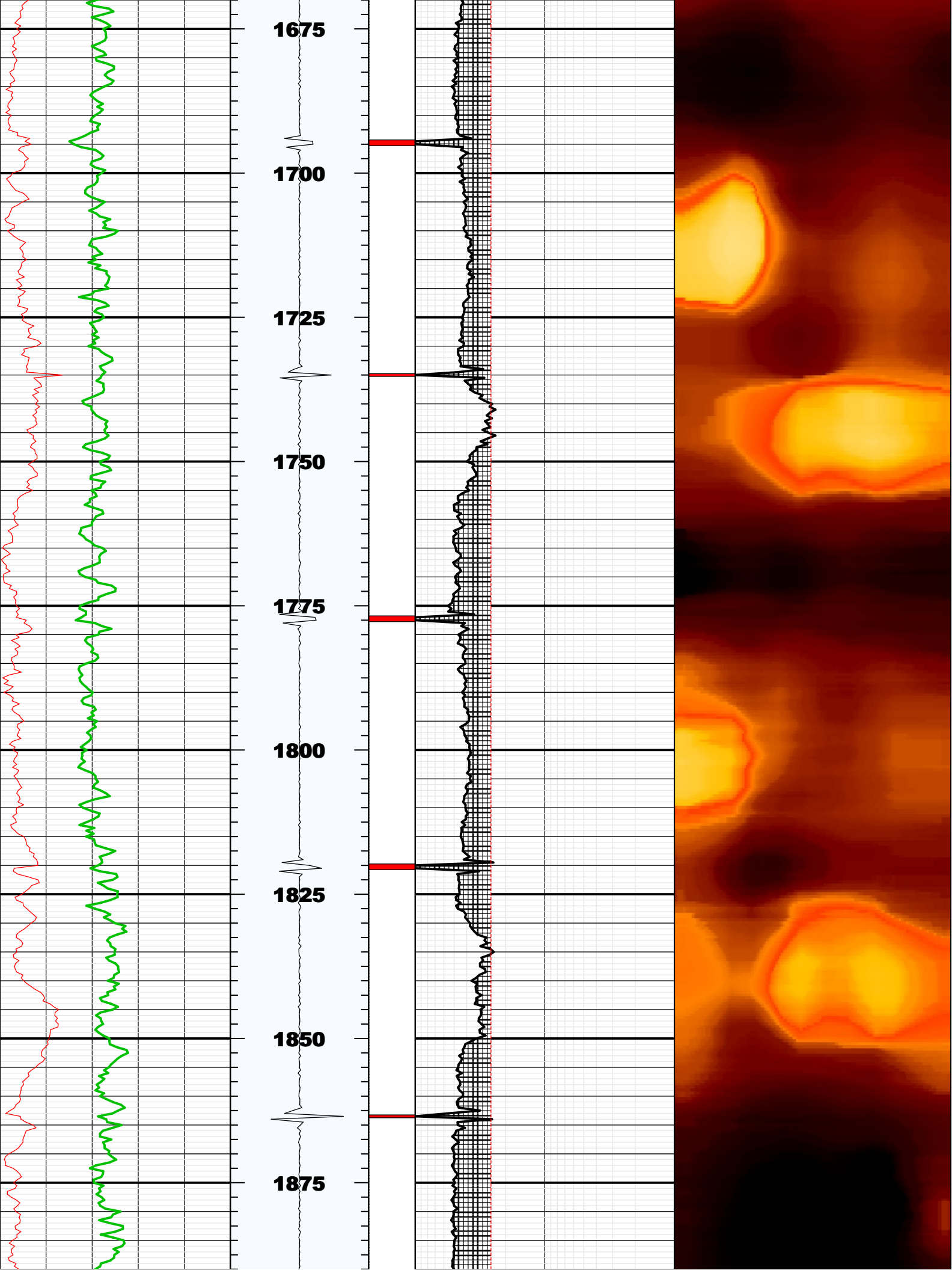


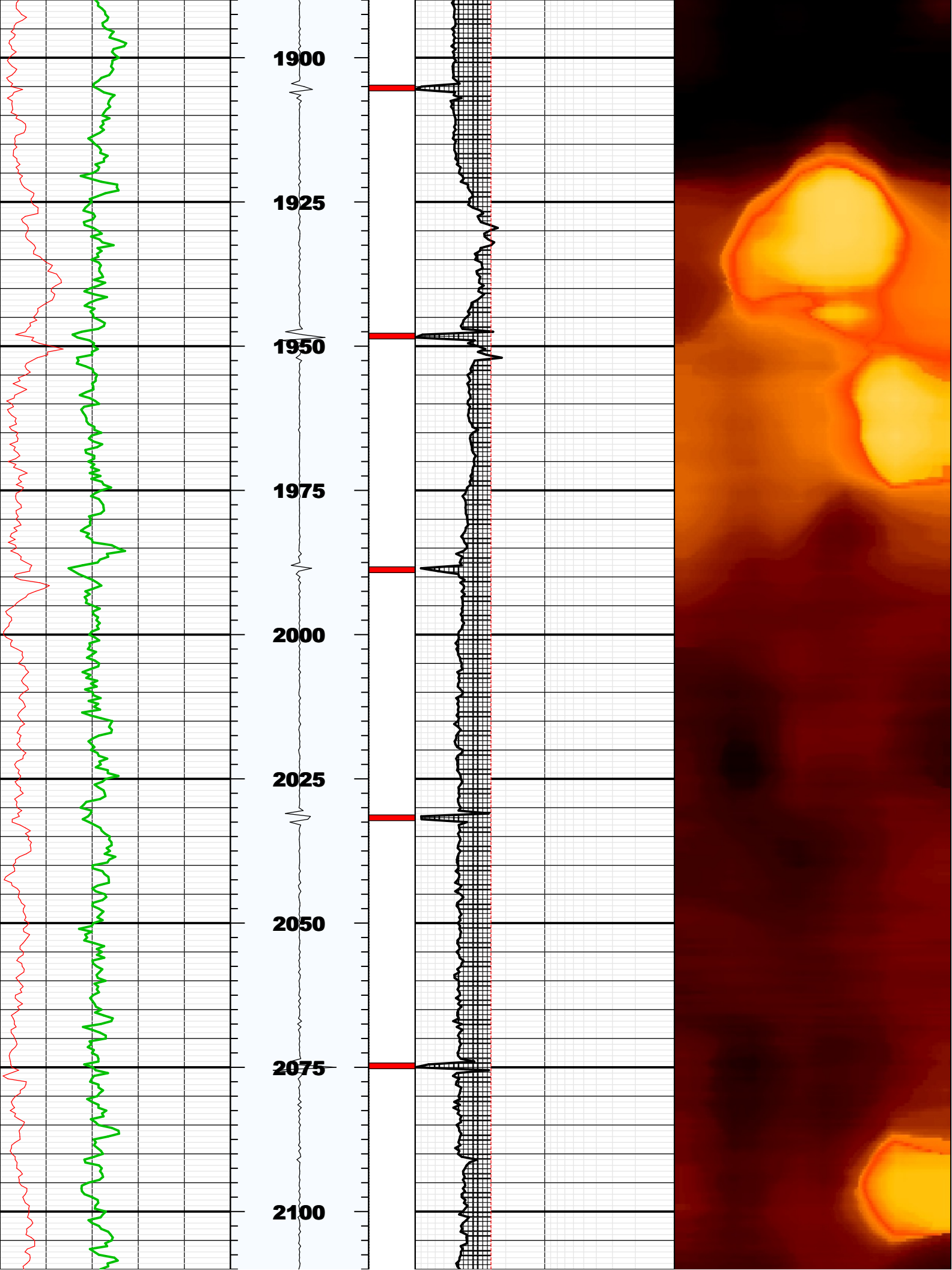


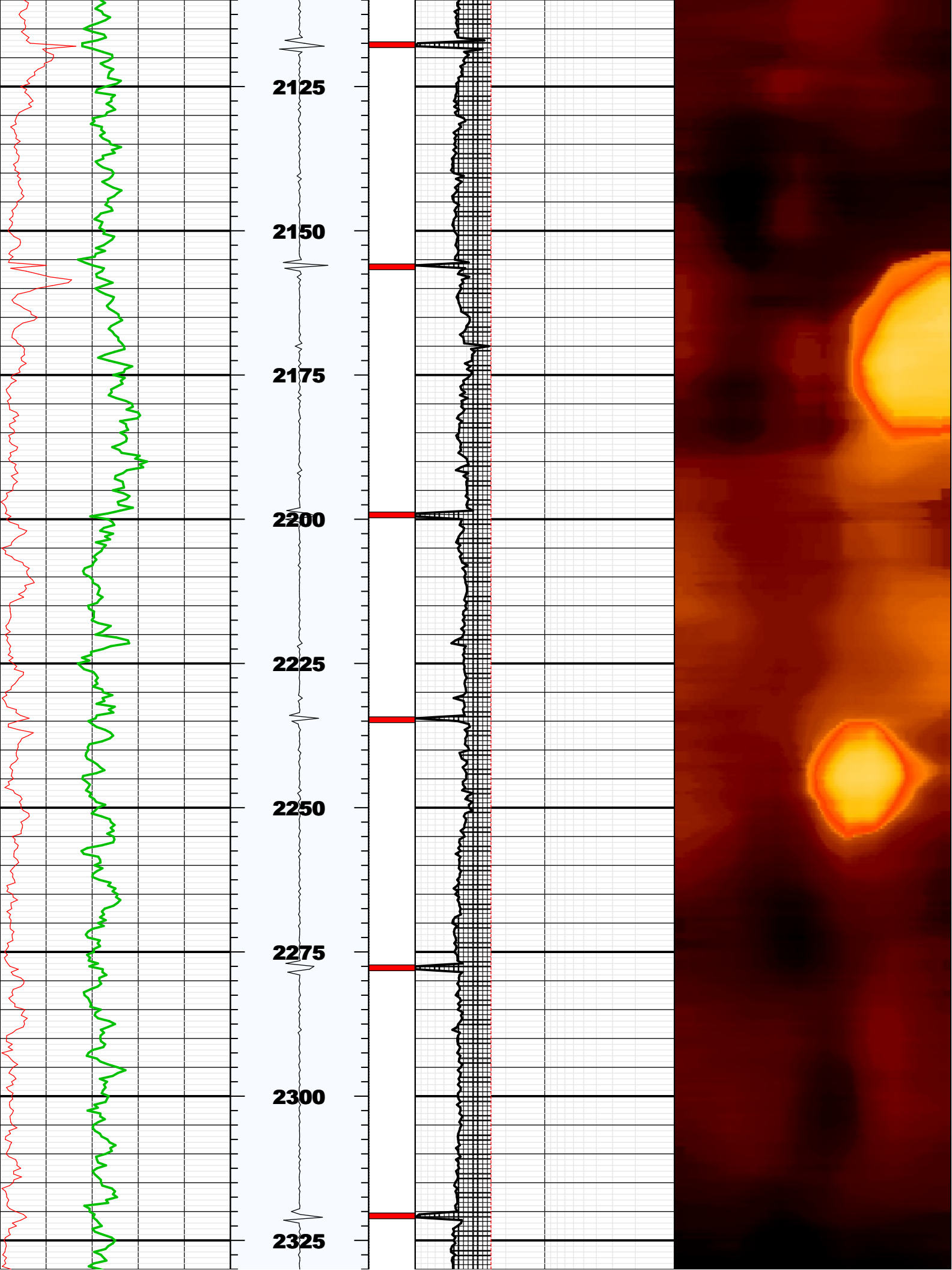


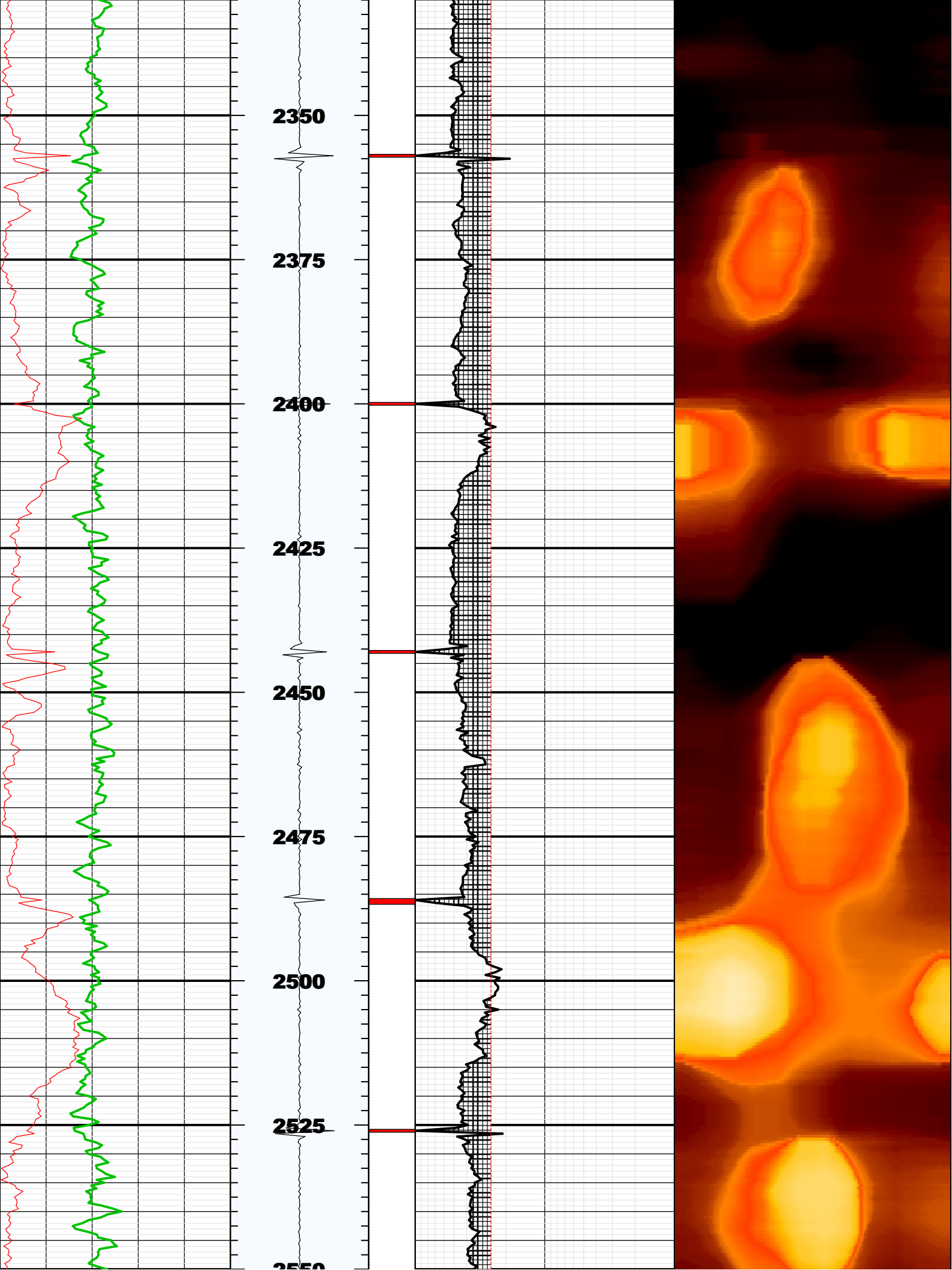


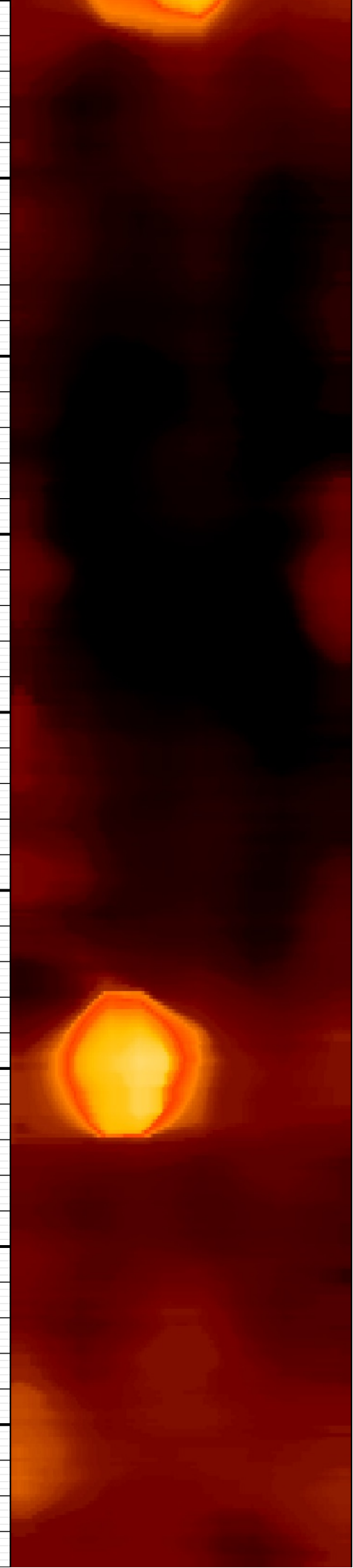
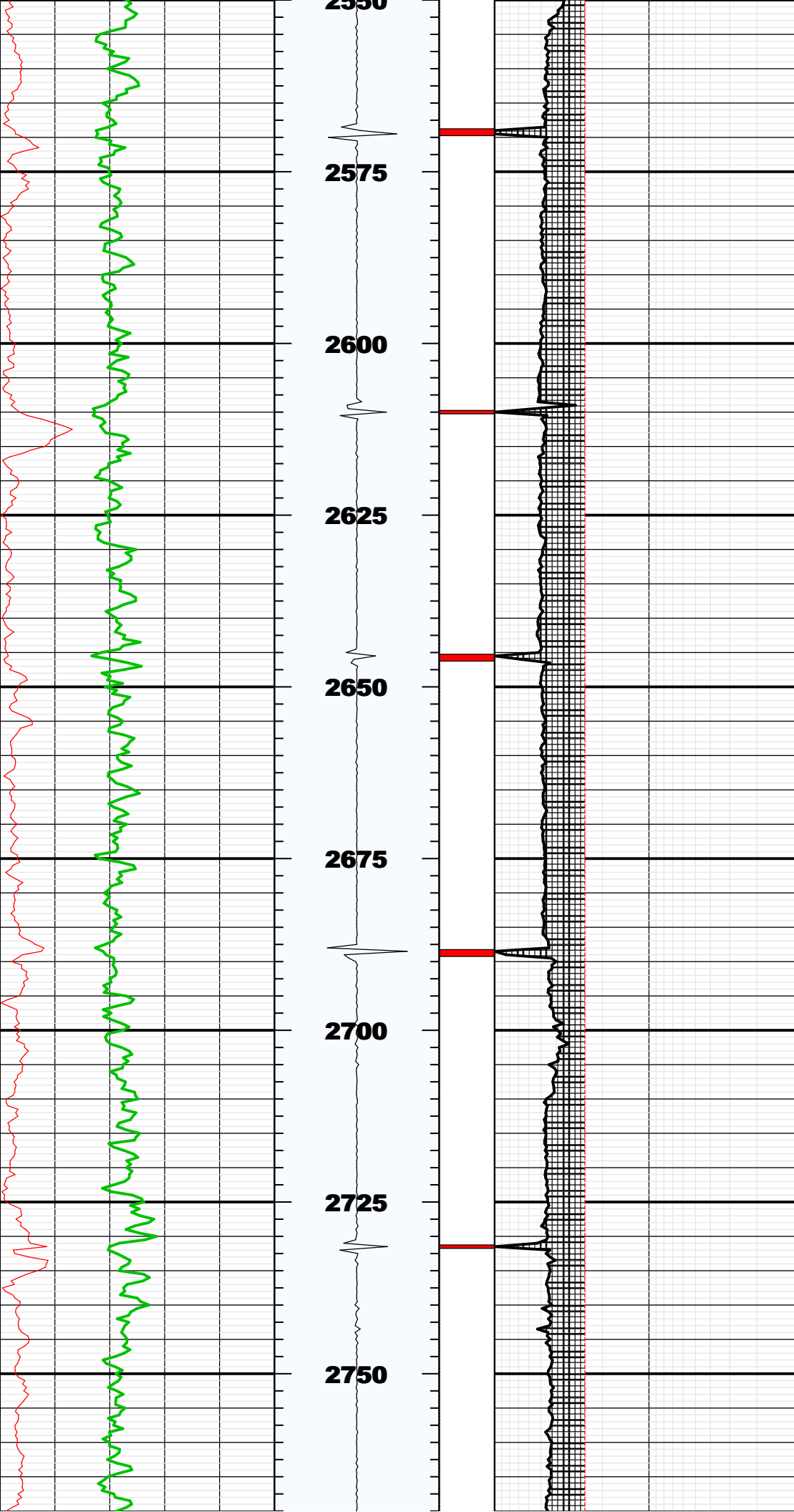


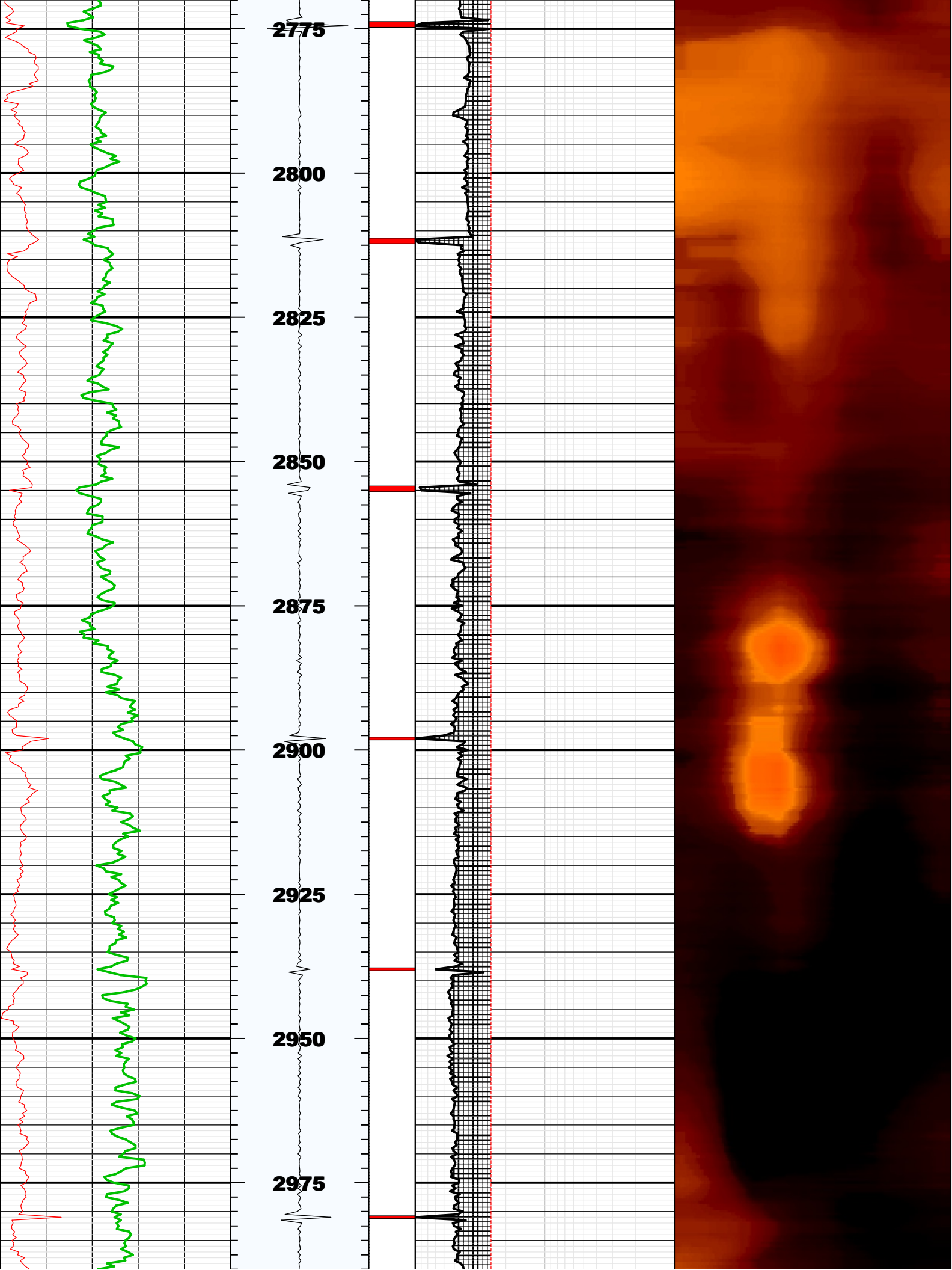


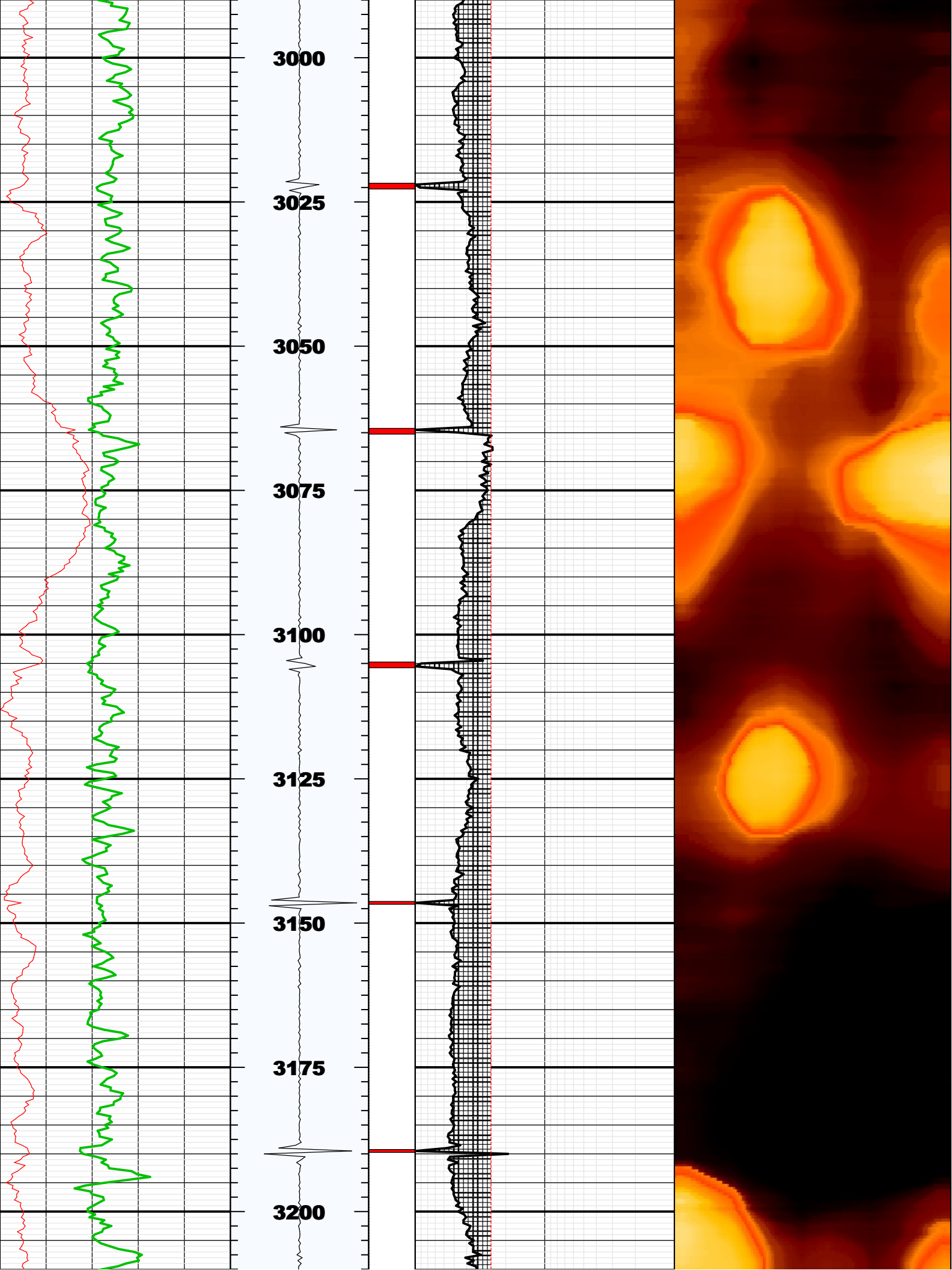


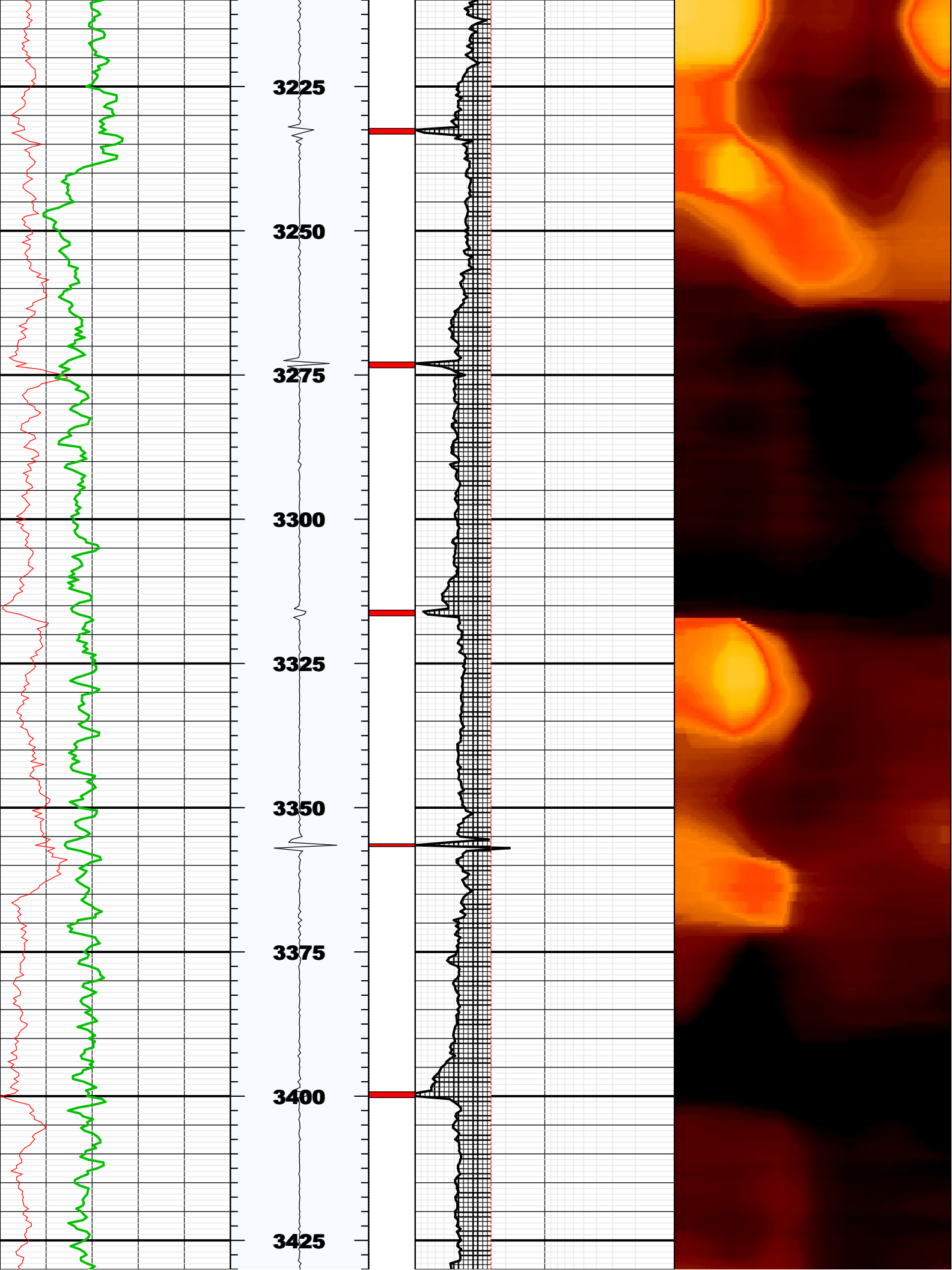


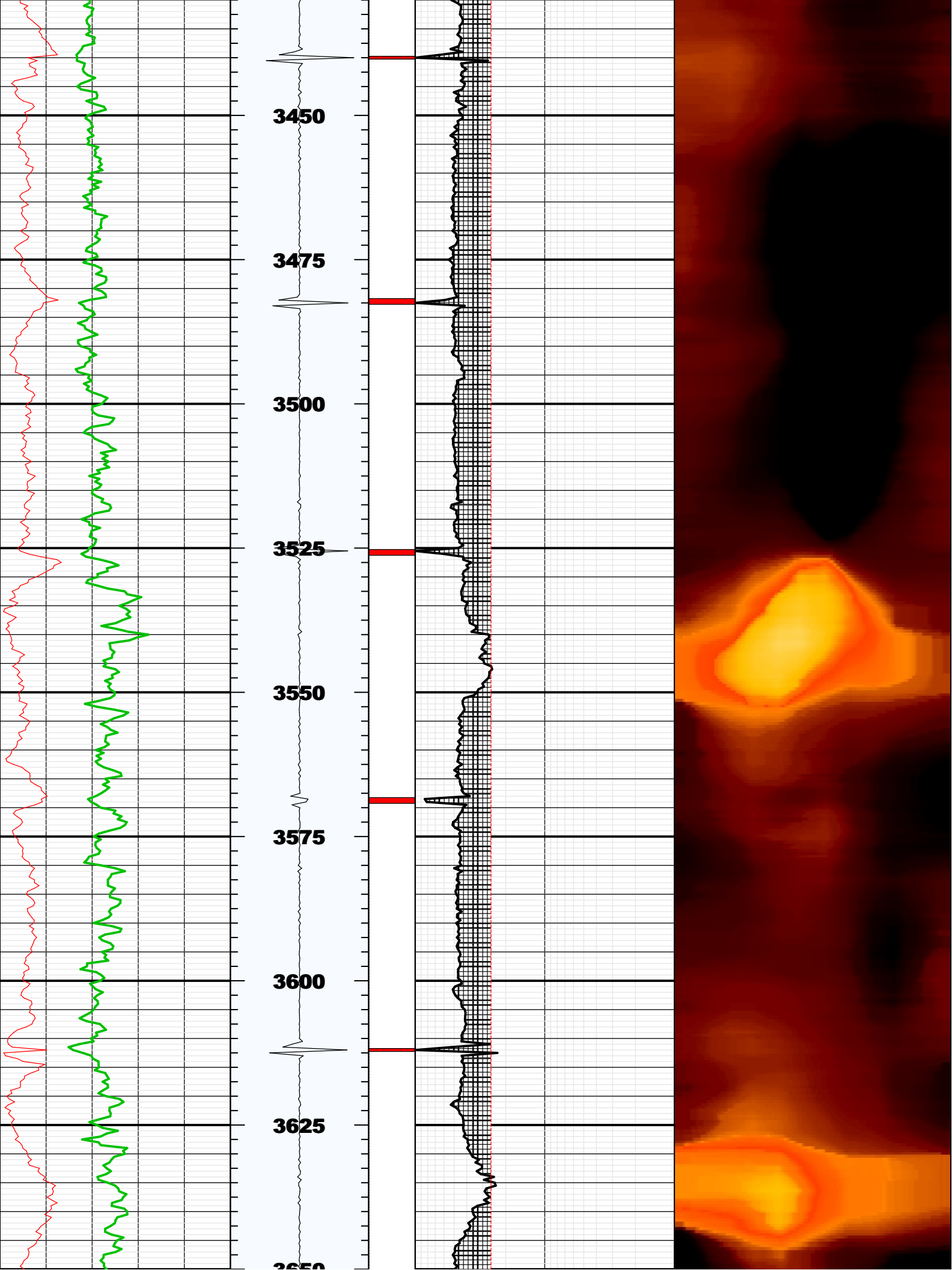


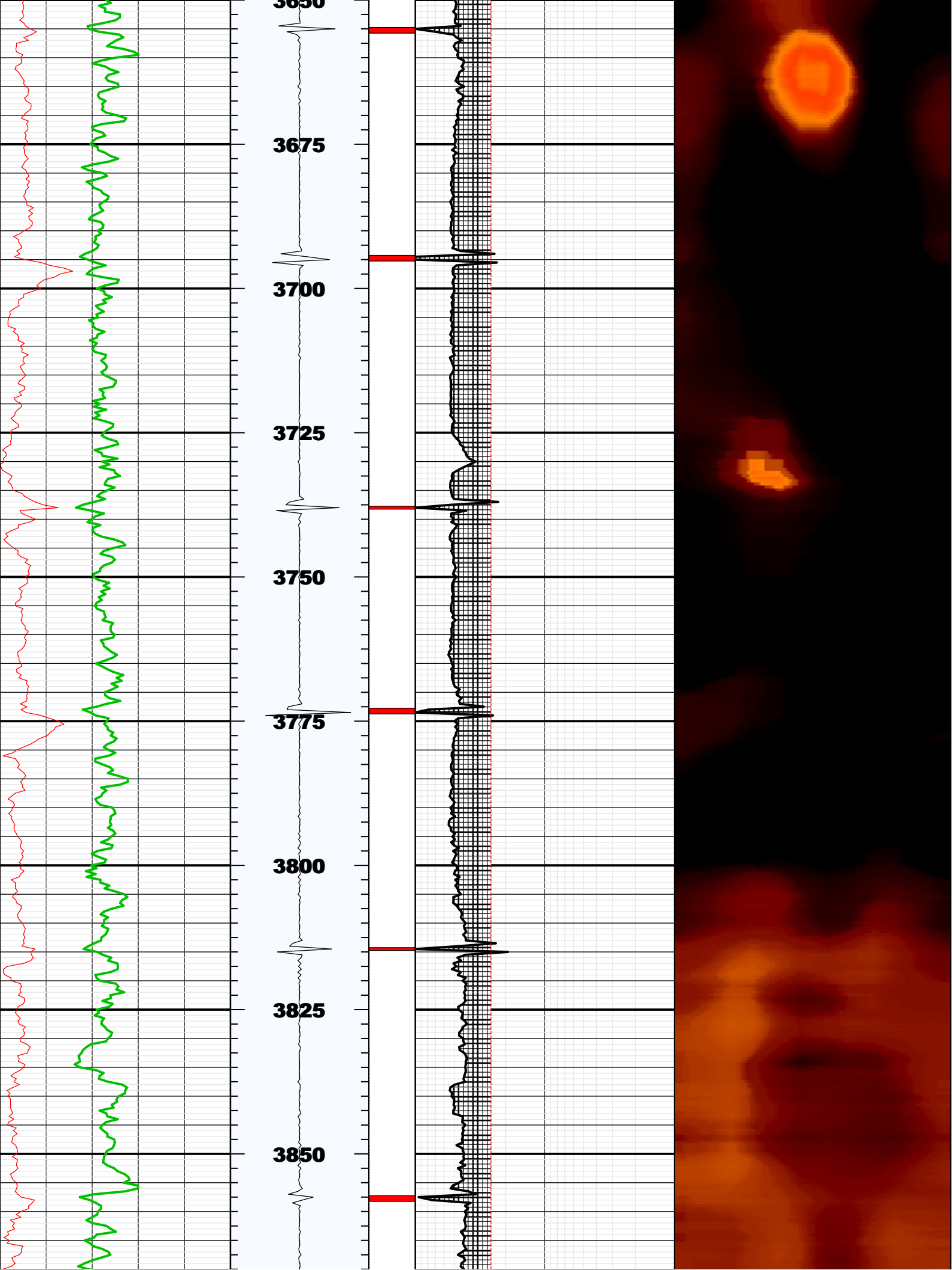


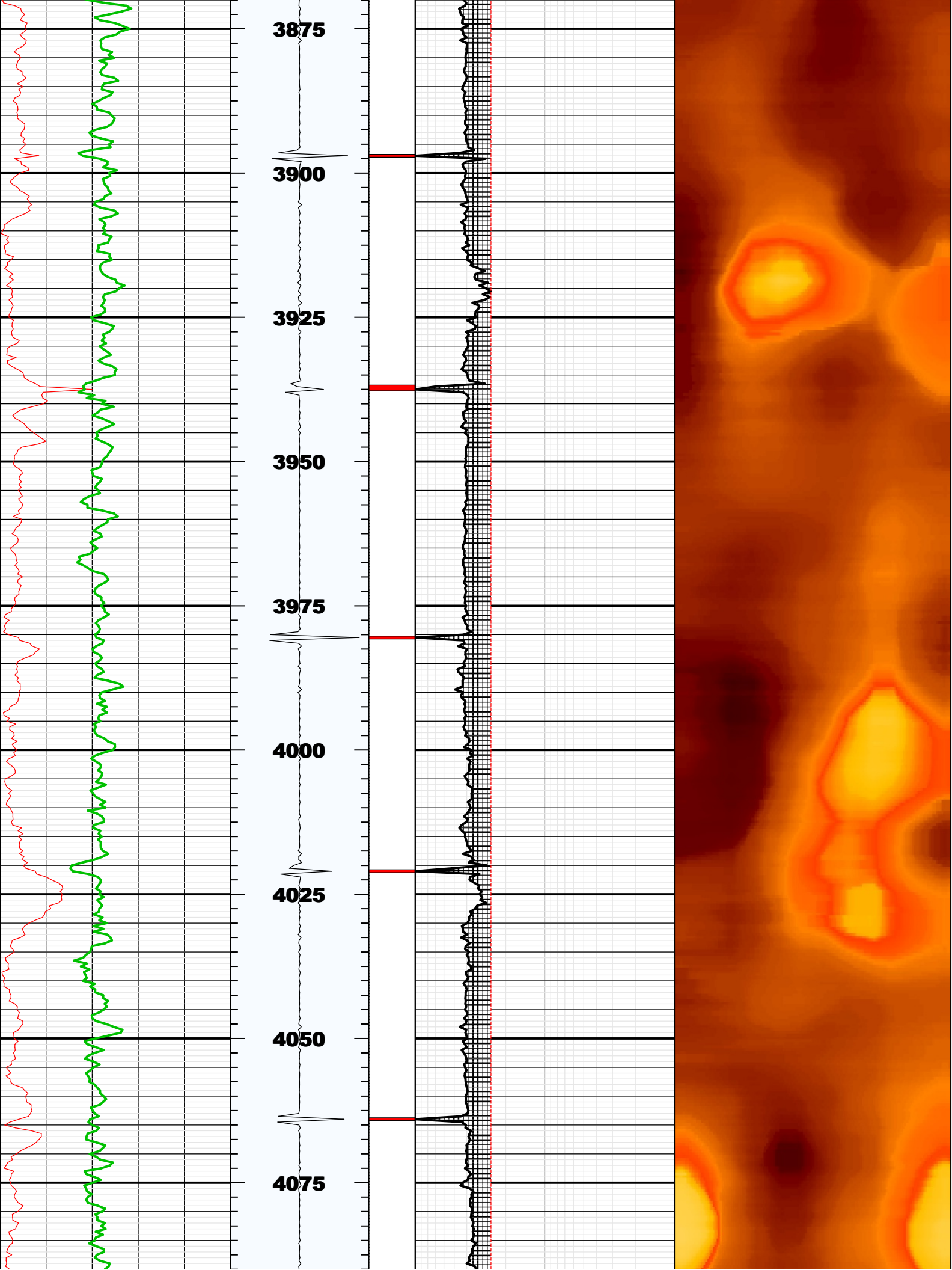


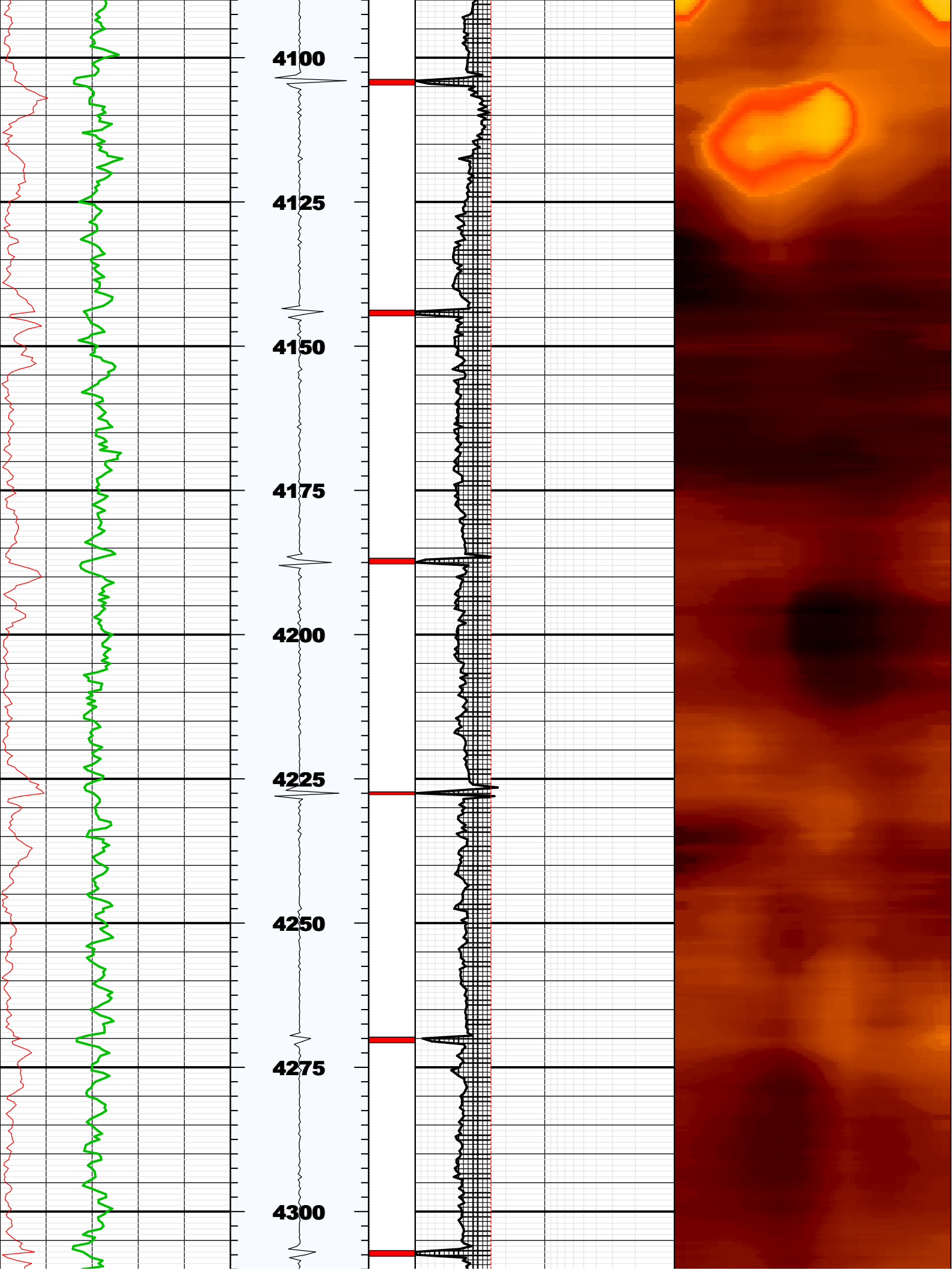


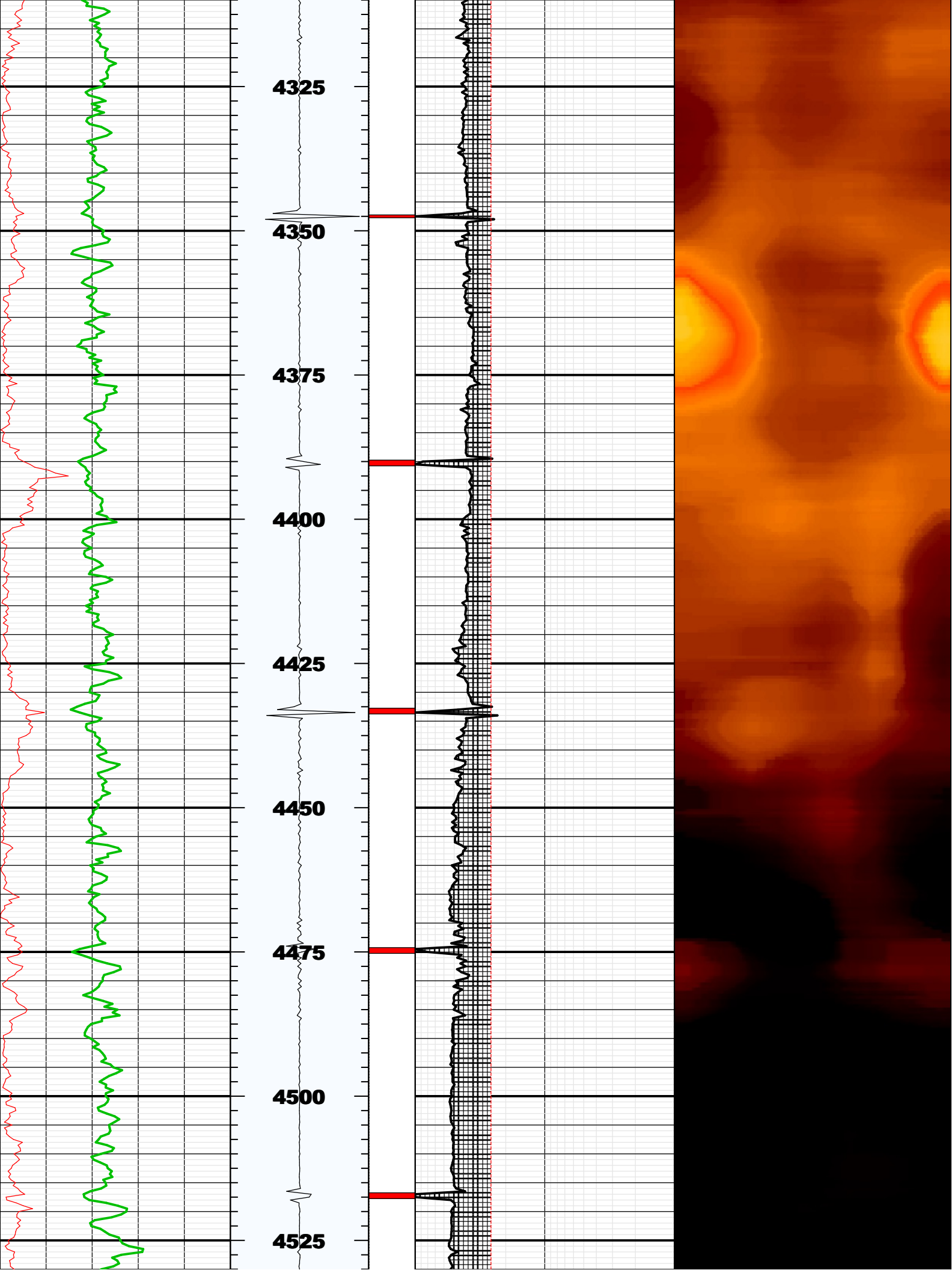


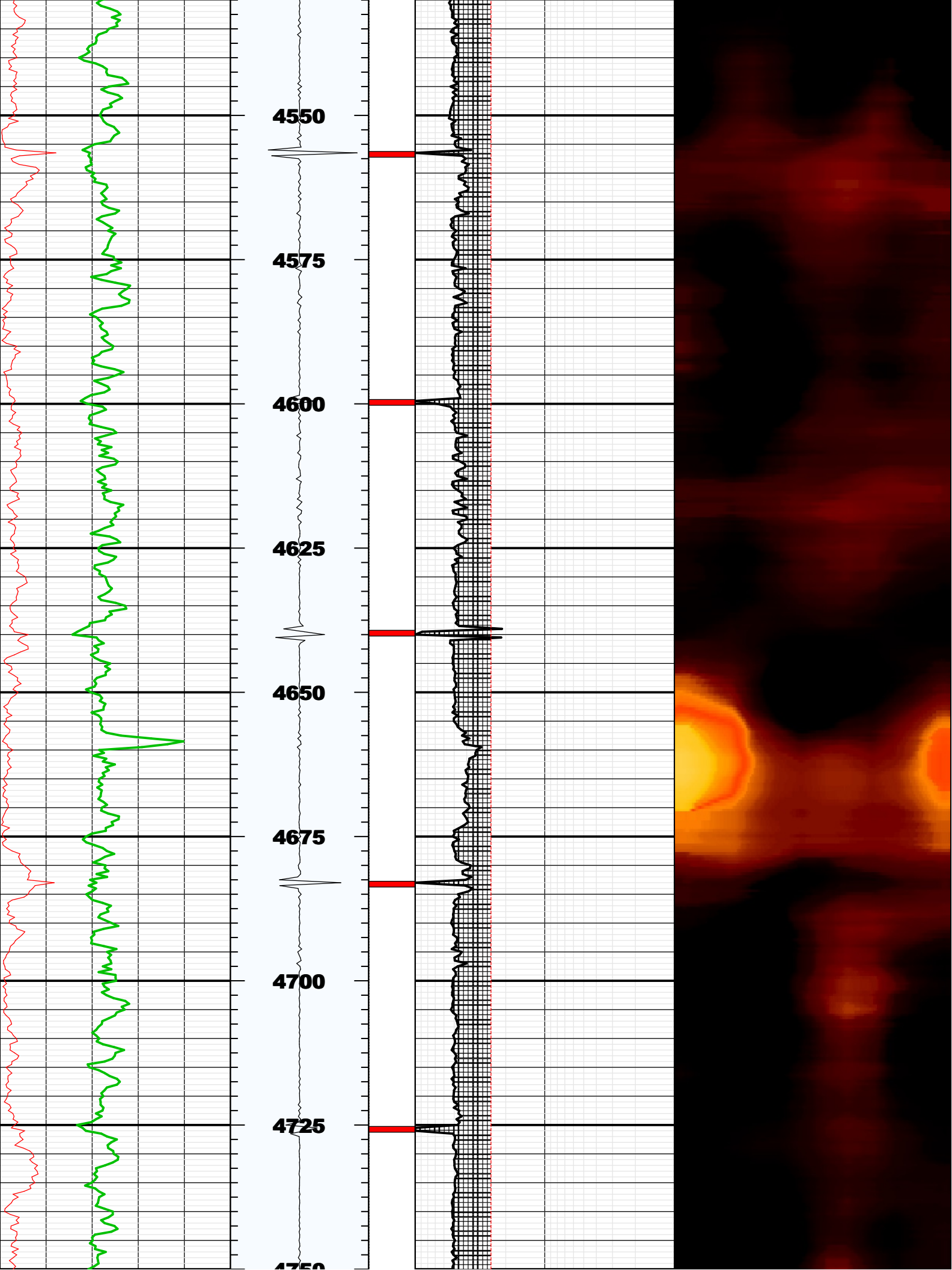


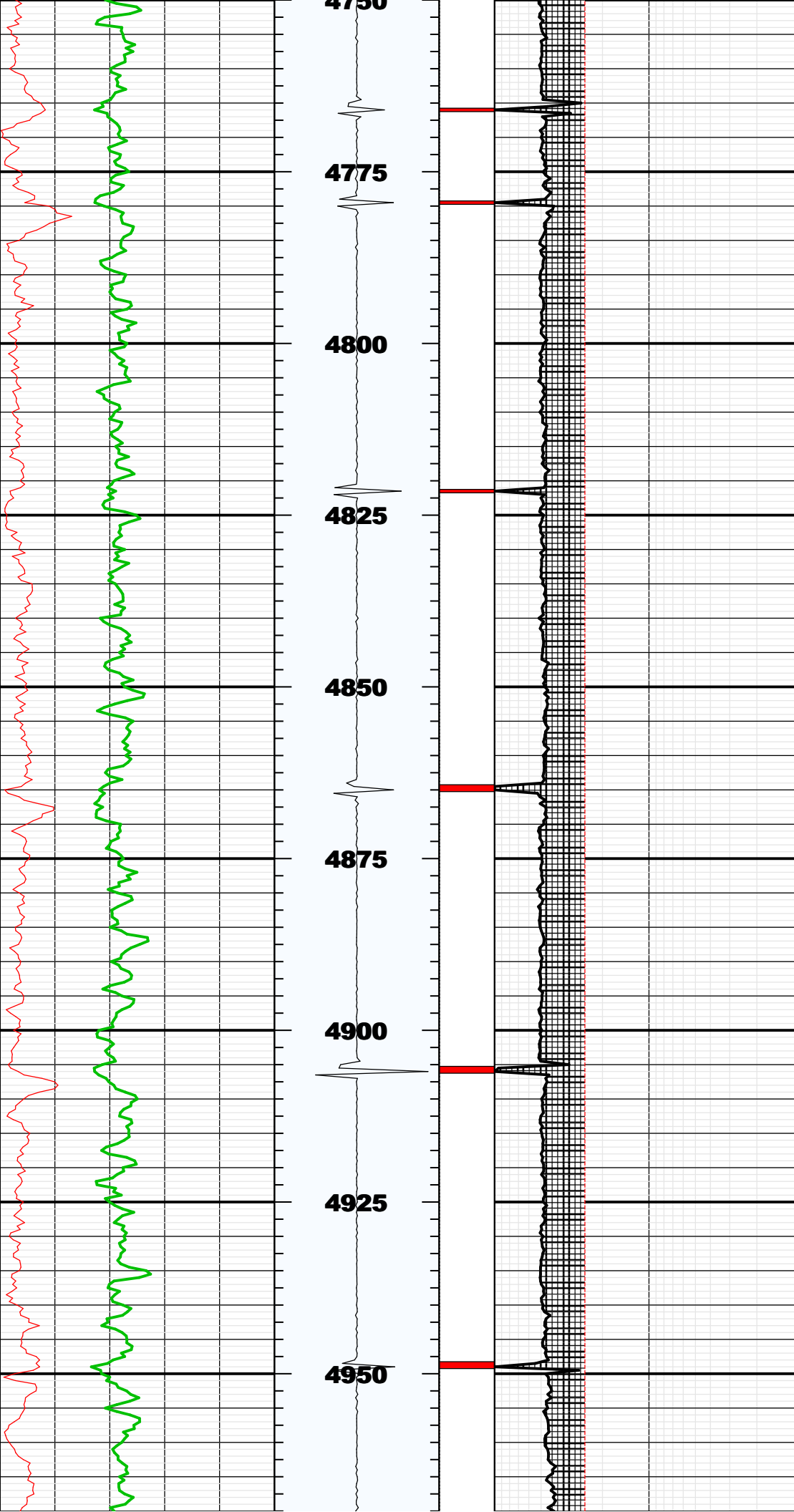


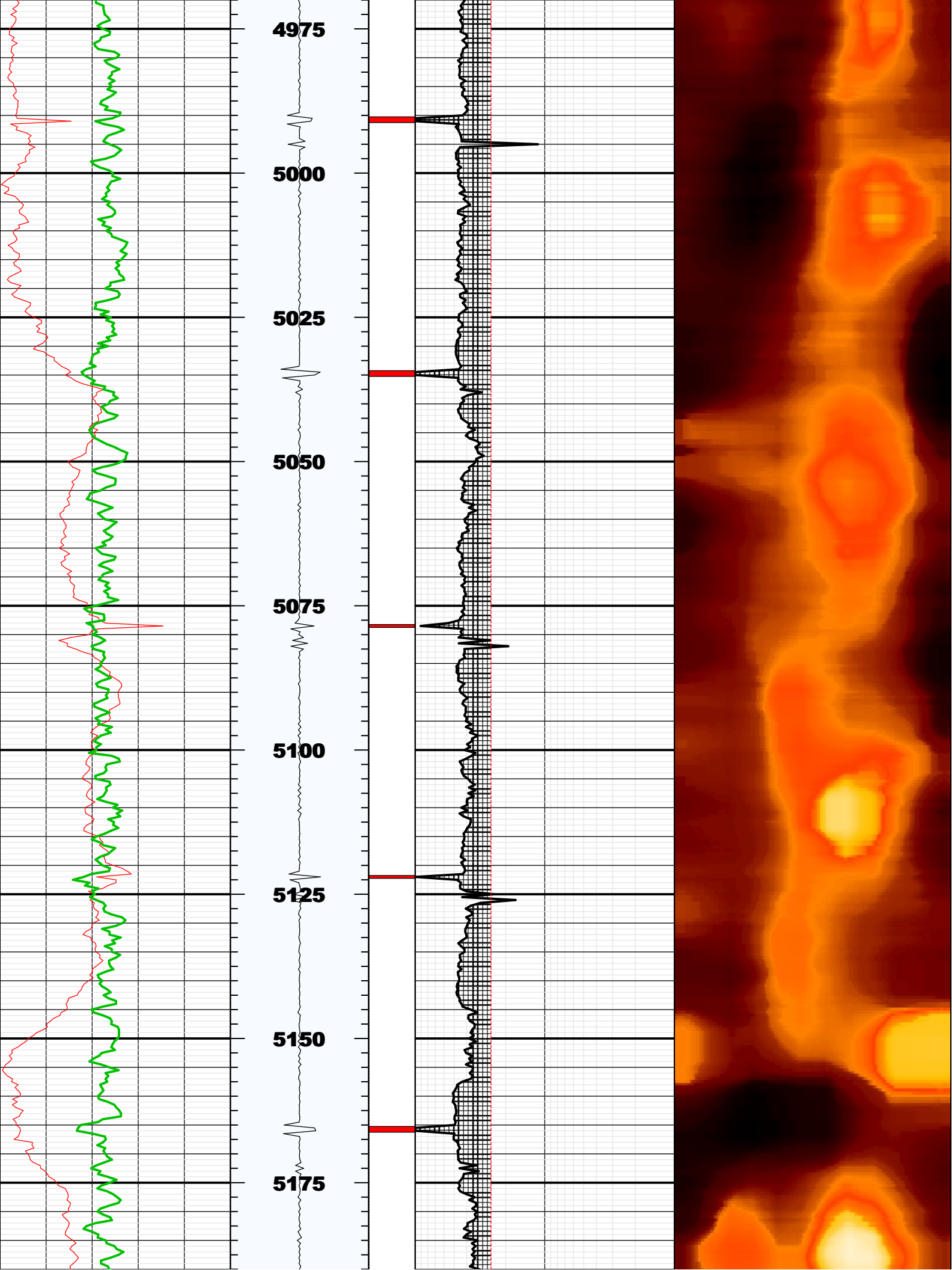


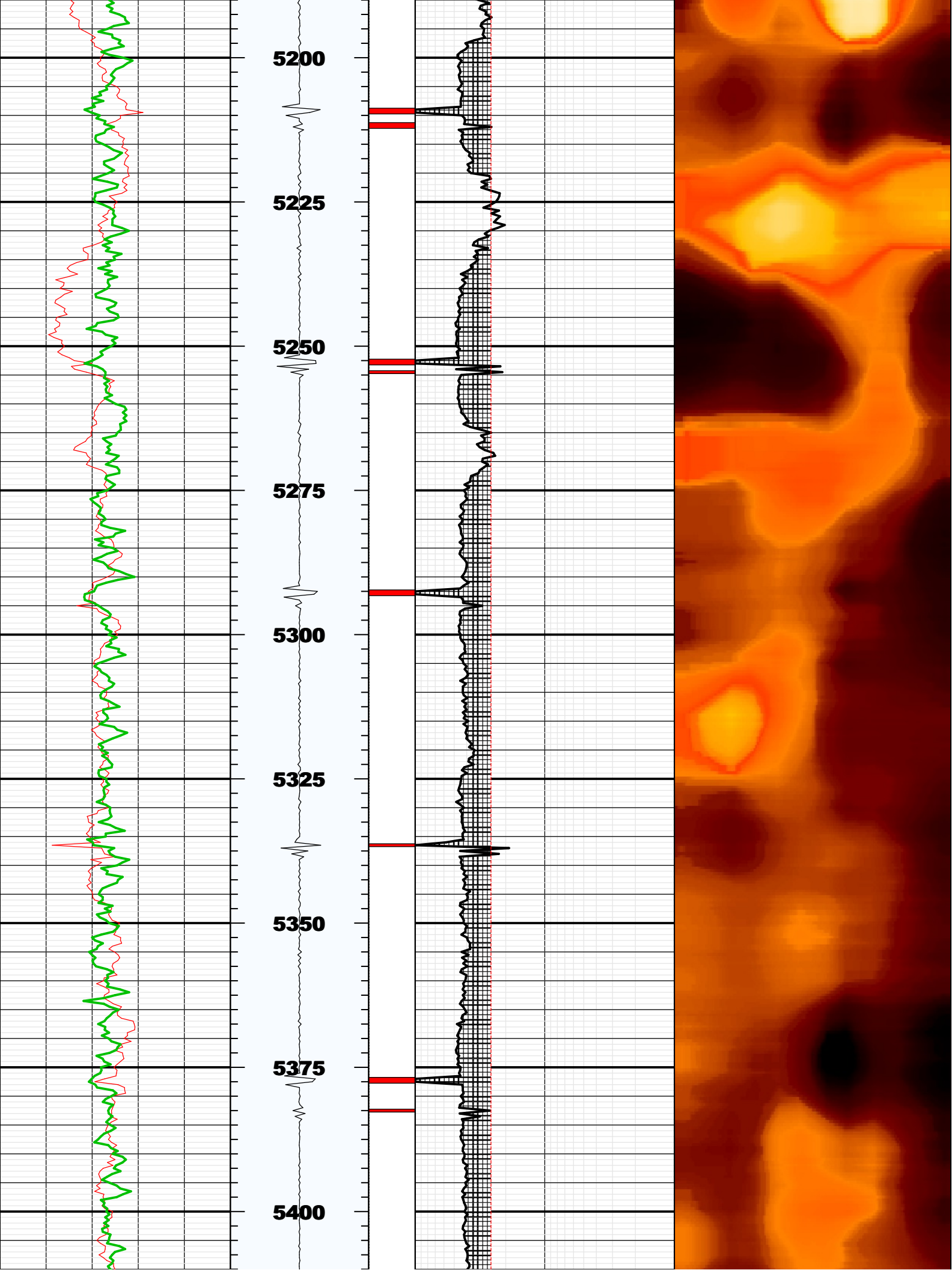


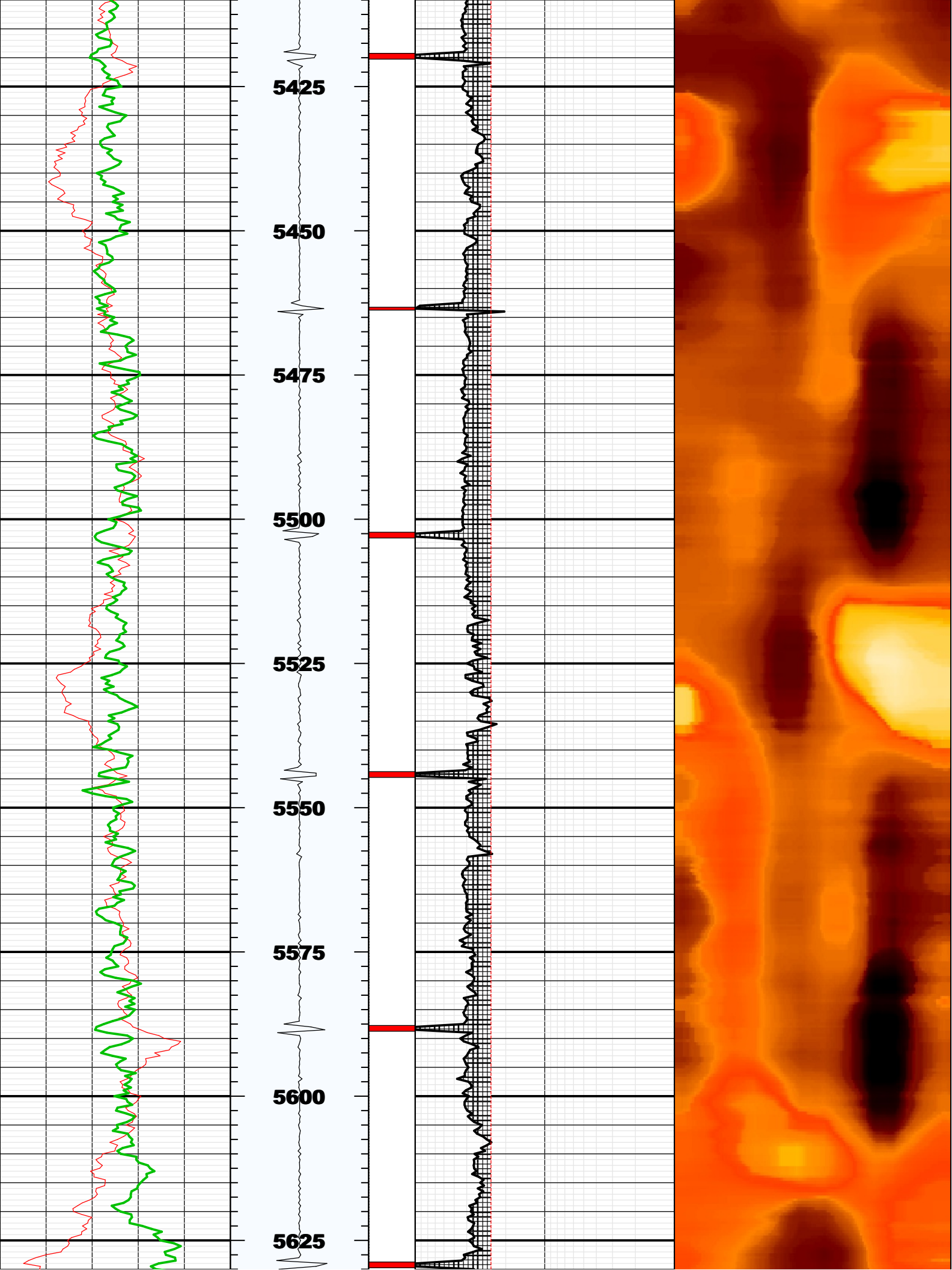


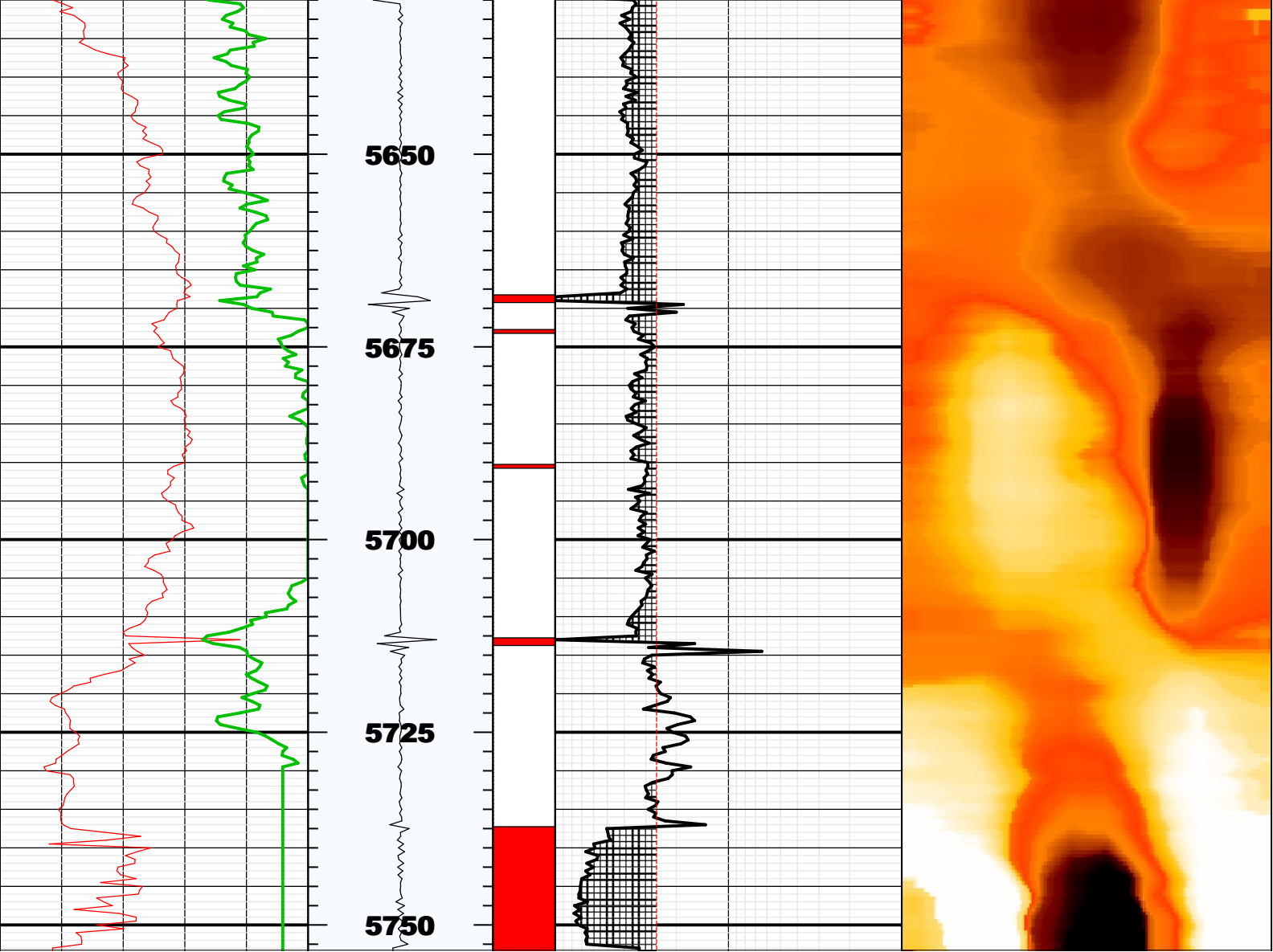








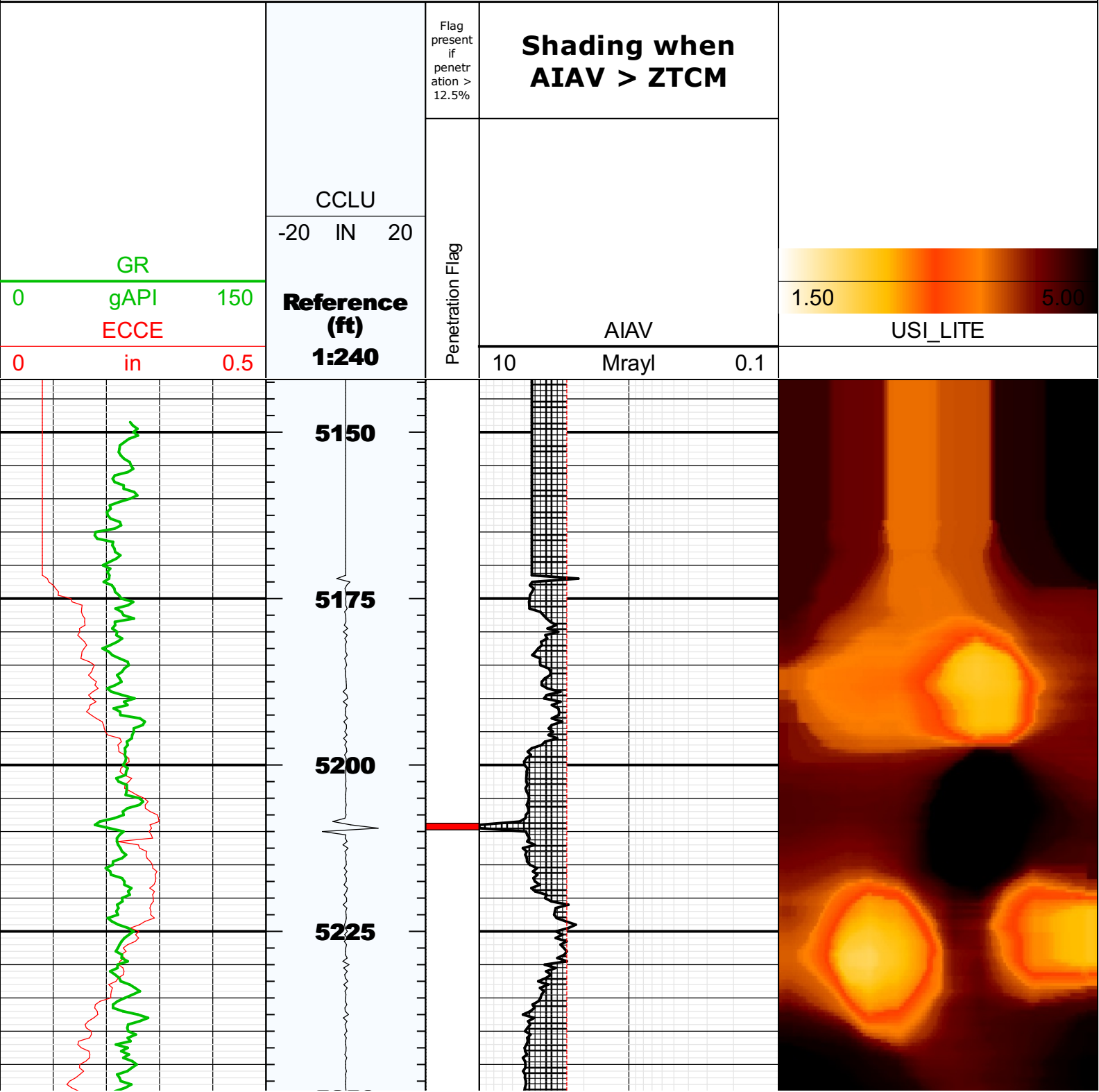


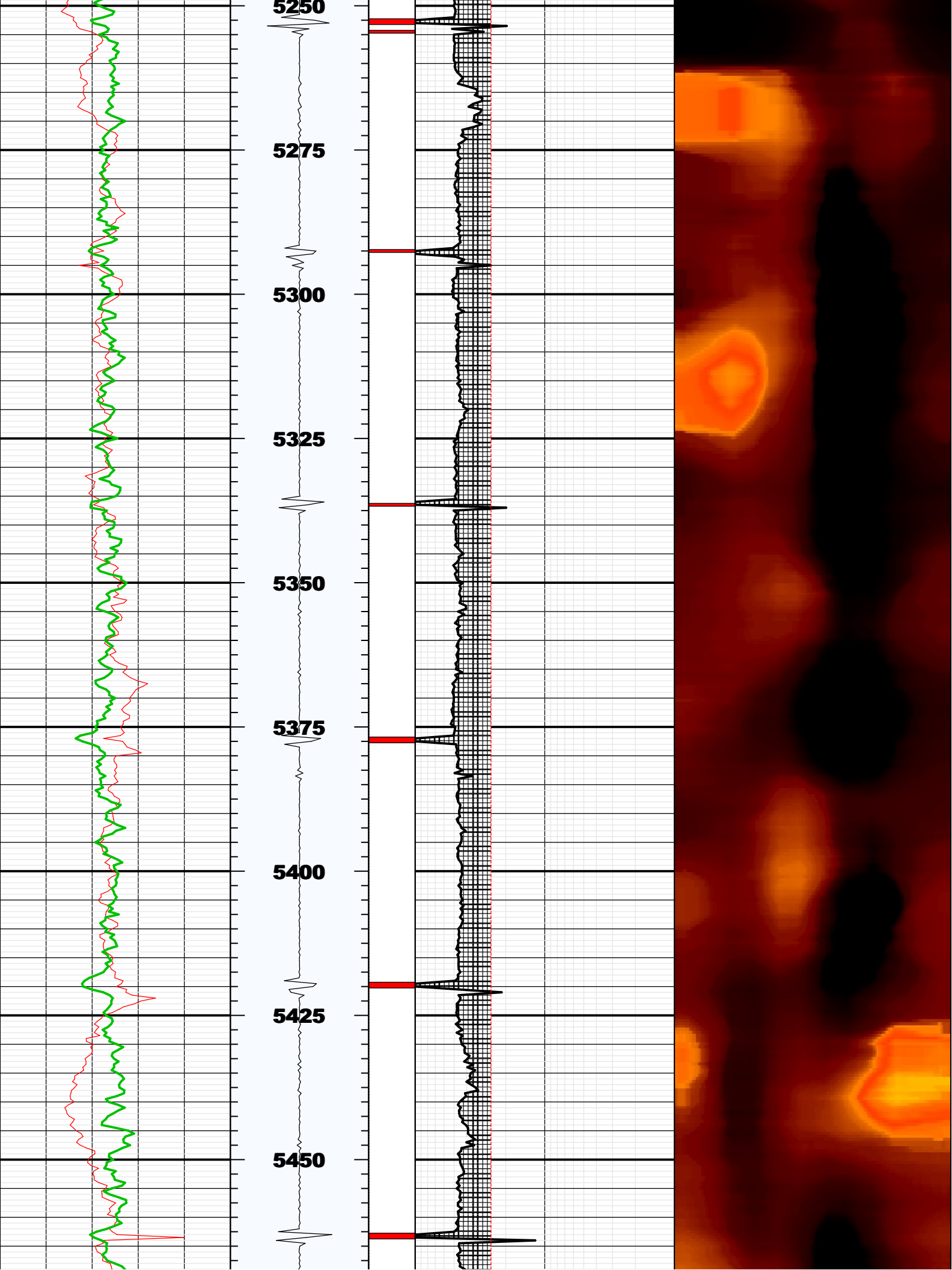


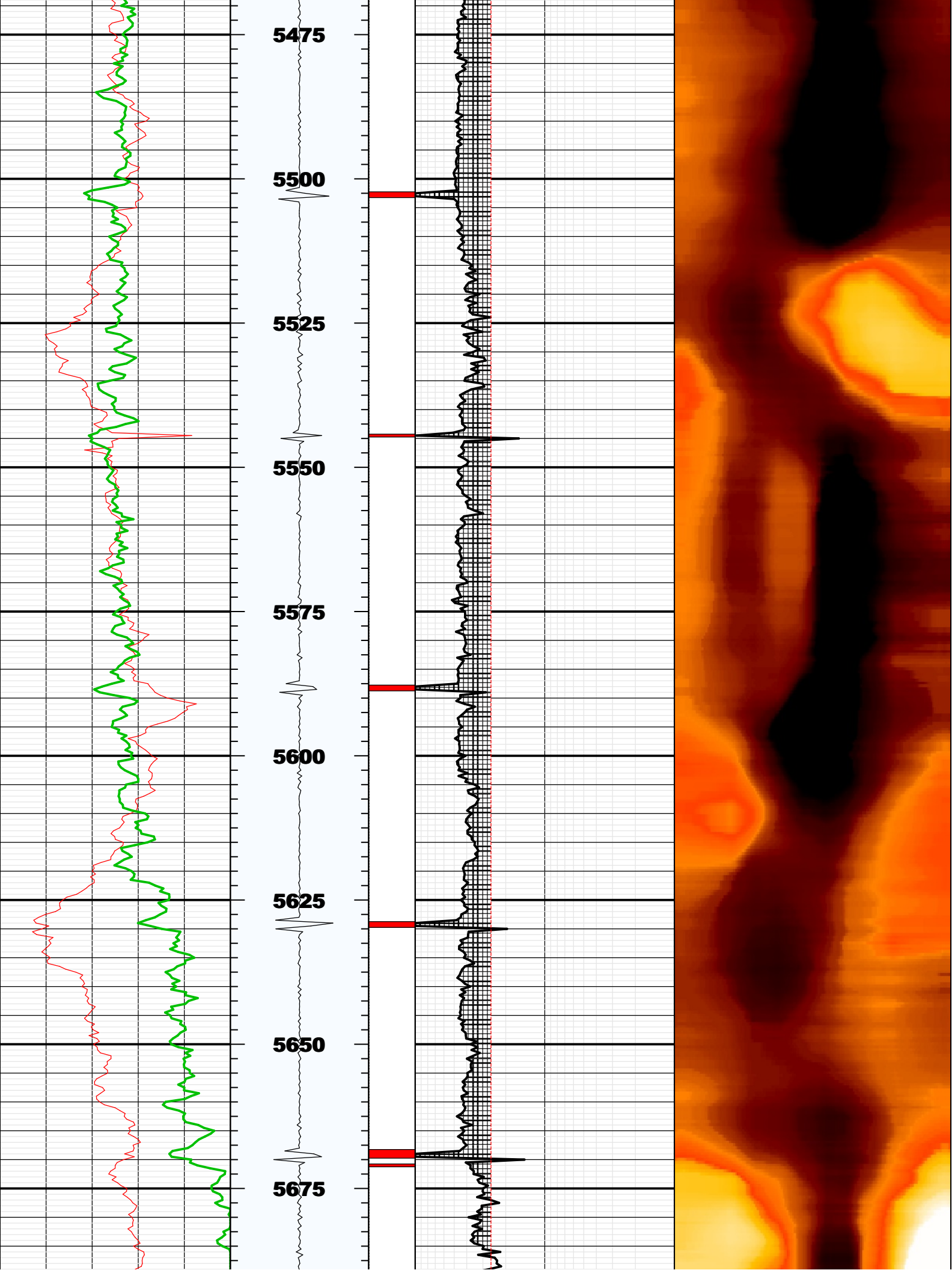
BS	8.75000	IN	Bit Size
CASG	P110		Casing Grade
CDIA	7.00000	IN	Casing Outer Diameter
CSID			
CSIZ	7.00000	IN	Current Casing Size
CWEI	26.00000	LB/F	Casing Weight
DFD	8.40000	LB/G	Drilling Fluid Density
DFVL	206.00000	US/F	Default Fluid Velocity
DO			
DOT	2.87400	IN	Diameter of Transducer Sensor
EMXV	0	V	EMEX Voltage
FDII	0.00000	F	FPM Data Interpolation Interval
FSOD	0_OFF		Fluid Slowness Fits Casing Outer Diameter
LOGMODE			
PP			
STEP	-0.5	F	STEP
THDH	130.00000	%	Maximum Search Thickness (percentage of nominal)
THDL	70.00000	%	Minimum Search Thickness (percentage of nominal)
THDP	Fundamental		Thickness Detection Policy
THNO	0.36200	IN	Nominal Thickness of Casing
TMUC	WRM		Type of Mud
U-USIT_DT3P			
UPAT	375K		Emission Pattern
USUB	7INC		USIT Sub Identifier
UWKM	D603010L		Working Mode
VCAS	51.40000	US/F	Ultrasonic Transversal Velocity in Casing
WINB	37.34345	US	Window Begin Time
WINE	78.40100	US	Window End Time
ZCAS	46.25000	MRAY	Acoustic Impedance of Casing
ZINI	-1.00000	MRAY	Initial Estimate of Cement Impedance
ZMUD	1.80000	MRAY	Acoustic Impedance of Mud
ZTCM	2.60000	MRAY	Acoustic Impedance Threshold for Cement
ZTGS	0.30000	MRAY	Acoustic Impedance Threshold for Gas
WLEN	22.50350	US	T ³ Processing Length

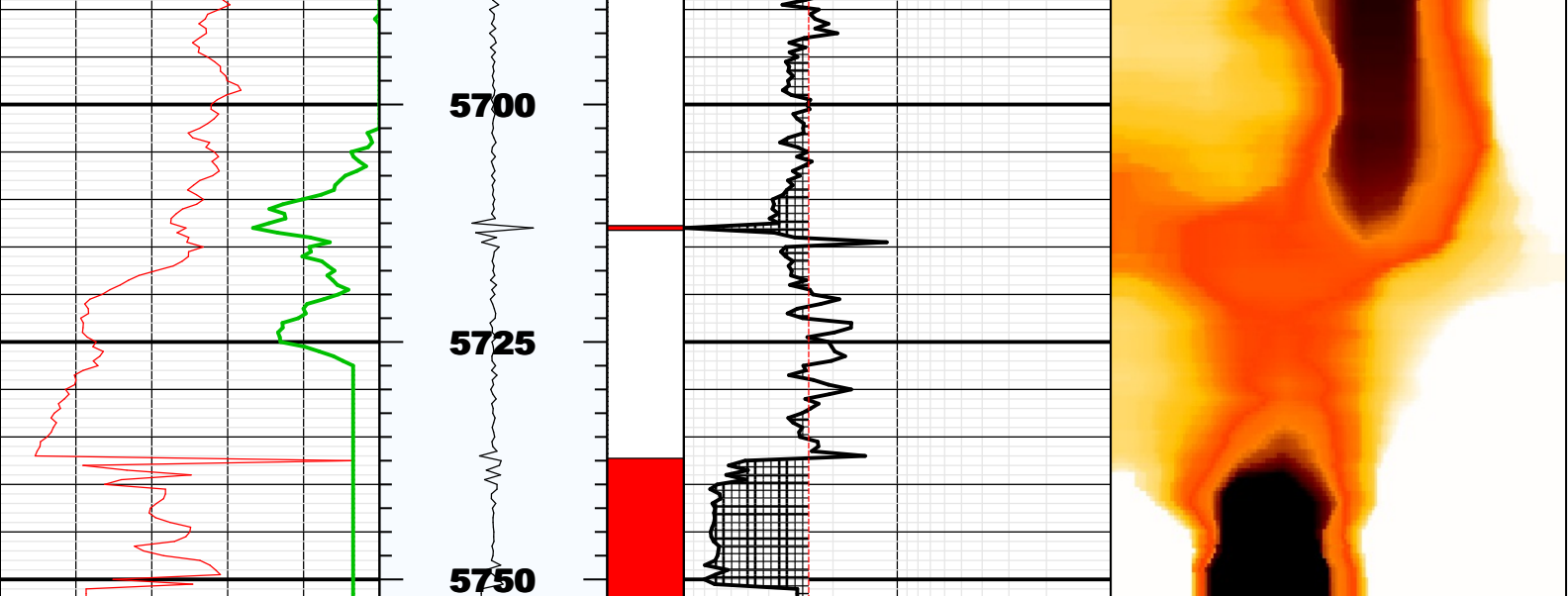
Repeat Pass

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Fluid Properties Used for Main Pass

