

Company: Noble Energy Inc

Well: Wells Ranch AE30-65-1HNC
Field: Wattenberg
County: Weld State: Colorado

County: Weld	USI-LITE		
Field: Wattenberg			
Location: NWSW Sec. 29 T6N R62W			
Well: Wells Ranch AE30-65-1HNC			
Company: Noble Energy Inc			
Logging Date	LOCATION		
	Permanent Datum: Log Measured From: Drilling Measured From:	GL KB KB	Elev: K.B. 4787.0 F G.L. 4757.0 F D.F. 4786.0 F
Run Number	API Serial No. 05-123-38646-0000	Section 29	Township 6N
Depth Driller	24-May-2014		Range 62W
Schlumberger Depth	11987.0 F		
Bottom Log Interval	11987.0 F		
Top Log Interval	6764.9 F		
Casing Fluid Level	-999.2 F		
Salinity	0.0 F		
Density			
Fluid Level	8.40 LB/G		
BIT/CASING/TUBING STRING	0.0 F		
Bit Size			
From	8.750 IN		
To	-999.2 F		
Casing Size	11987.0 F		
Weight	7.00 IN		
Grade	26.00 LB/F		
From	P110		
To	0.0 F		
Max Recorded Temp	6955.0 F		
Logger on bottom (date)	-999.2		
Location	24-May-2014		
Recorded By	Fl. Morgan CO		
Witnessed By	Tim Hoffman		
	Bill Mansfield		

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: 1109 Calibration Date: Calibrator Serial Number: Number Of Calibration Points: Calibration RMS: Calibration Peak Error:	Serial Number: Length: 12800.00000

DISCLAIMER

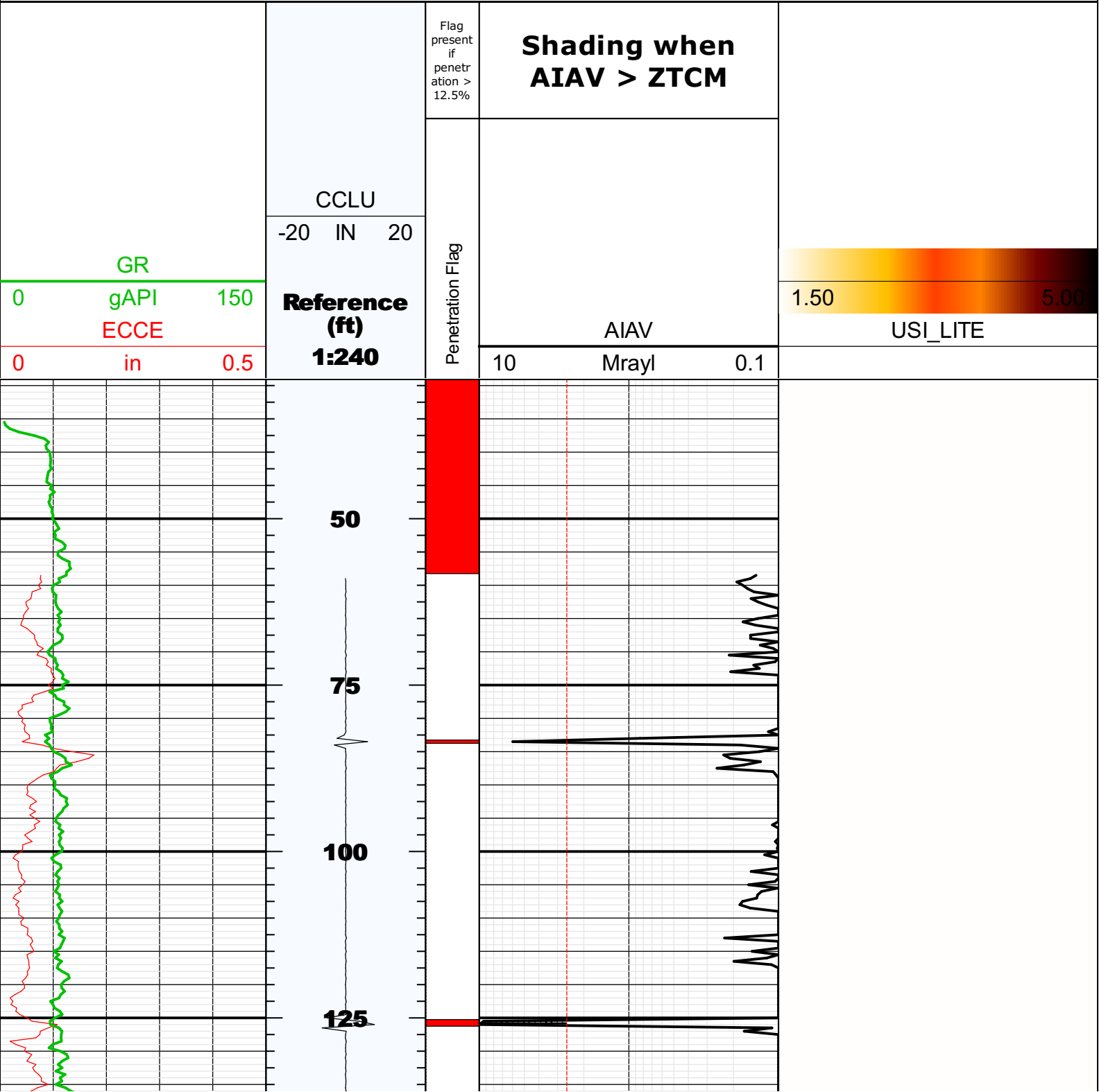
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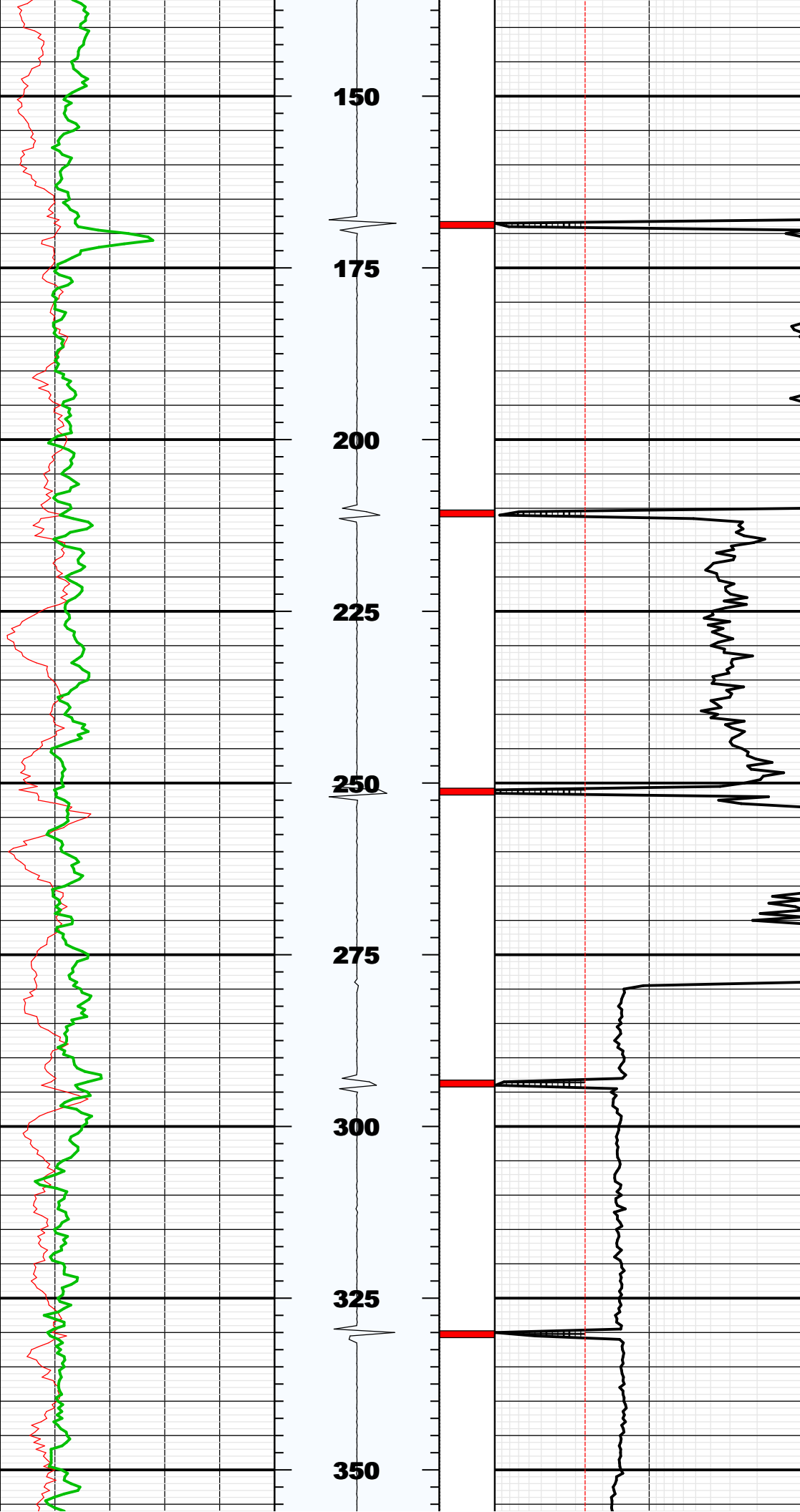
This is the first run in hole
Toolstring run as per tool sketch
12.5 ppg lead cement
13.8 ppg tail cement
0 PSI repeat pass
2500 PSI main pass
Top of cement 500 ft

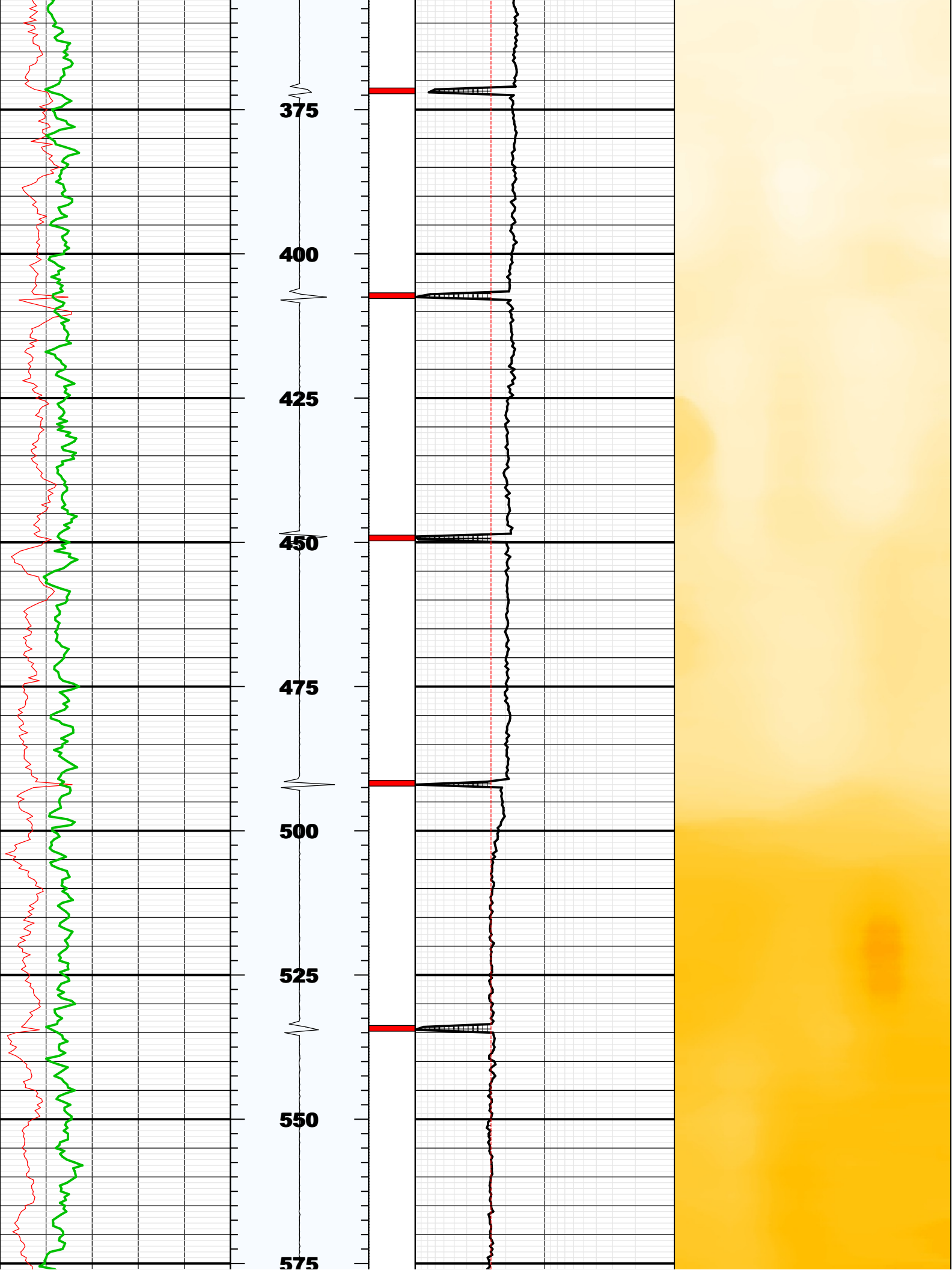
Crew Troy Ocanas Jay Musgrave

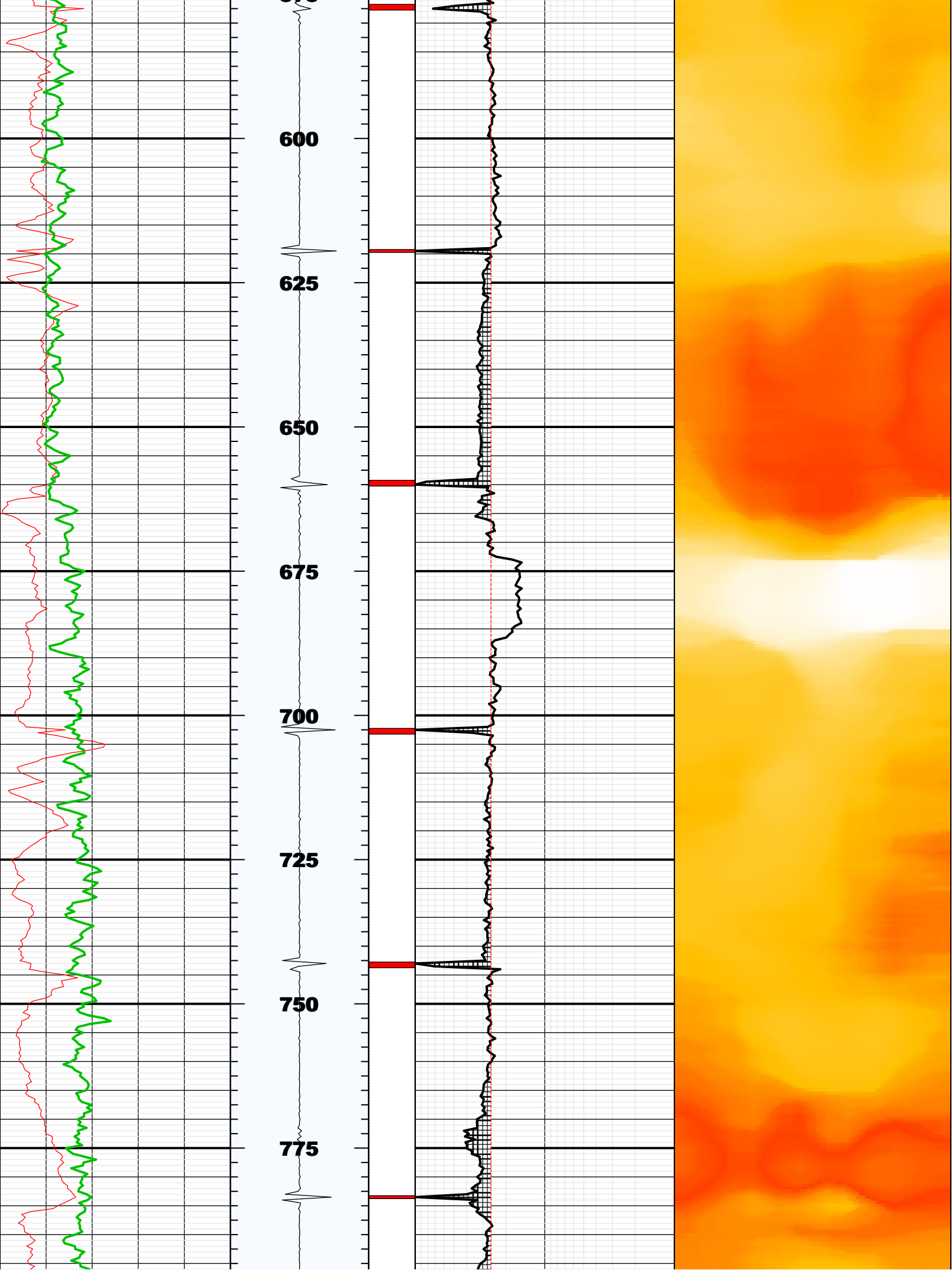
Main Pass

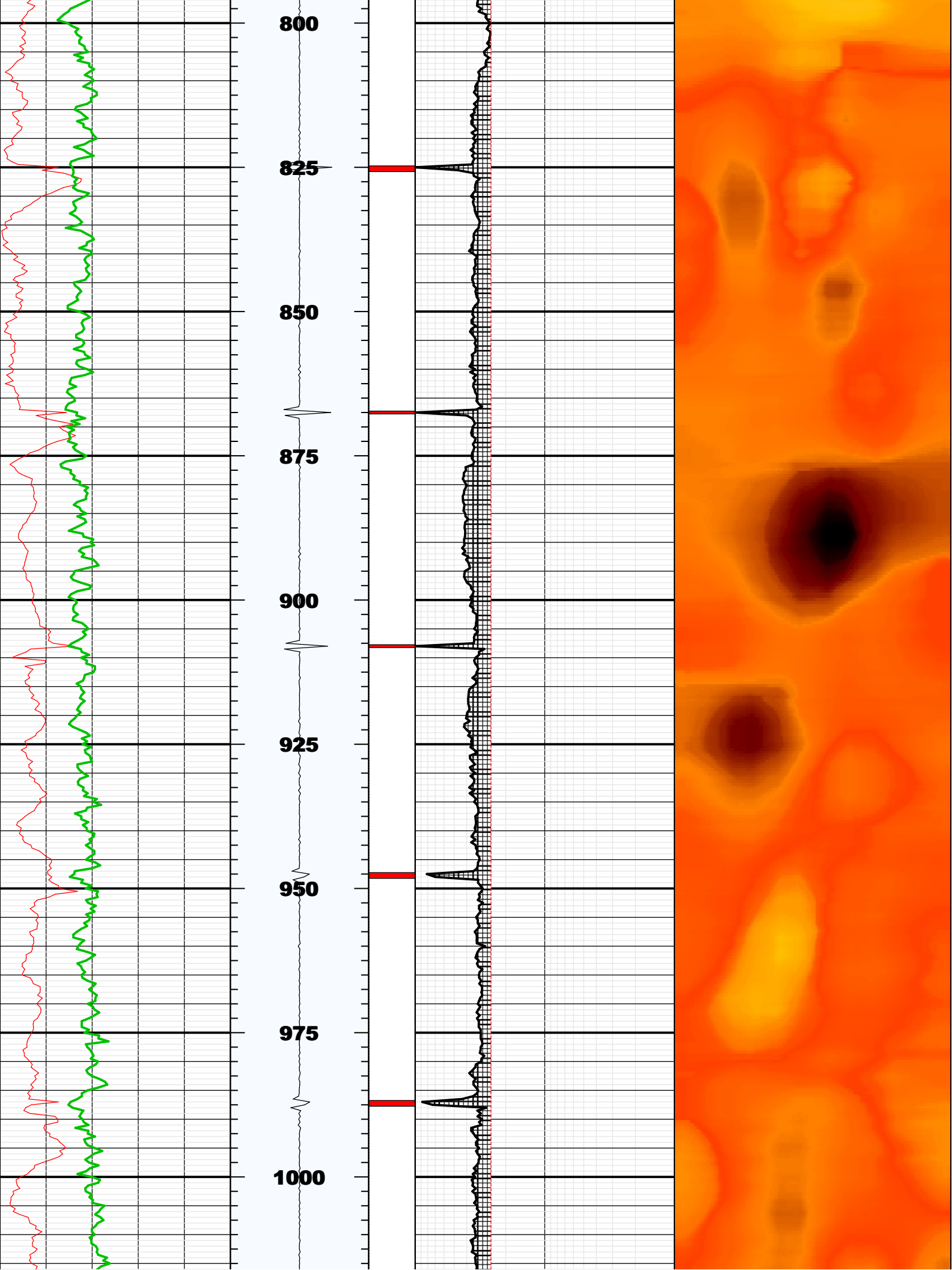
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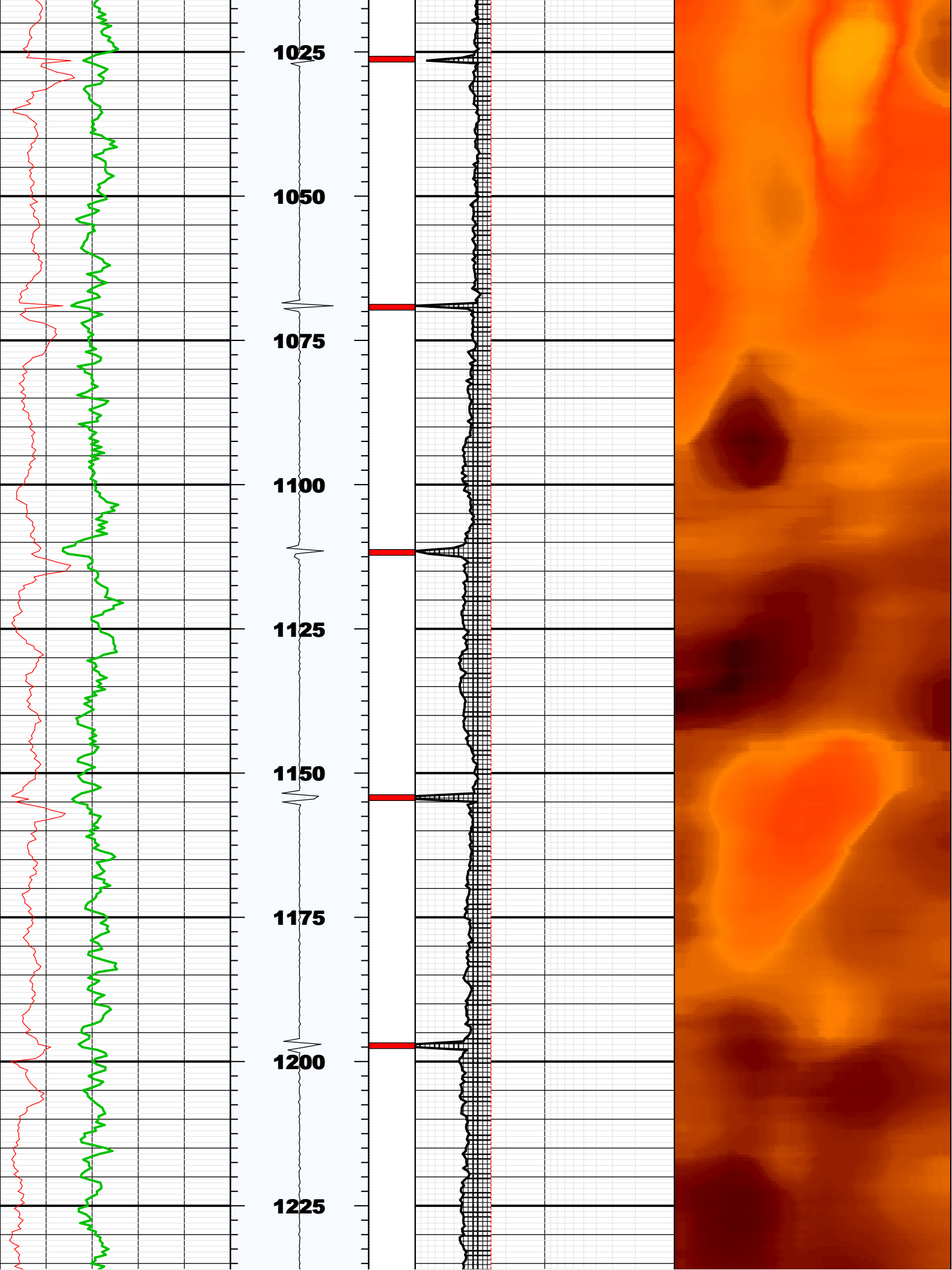


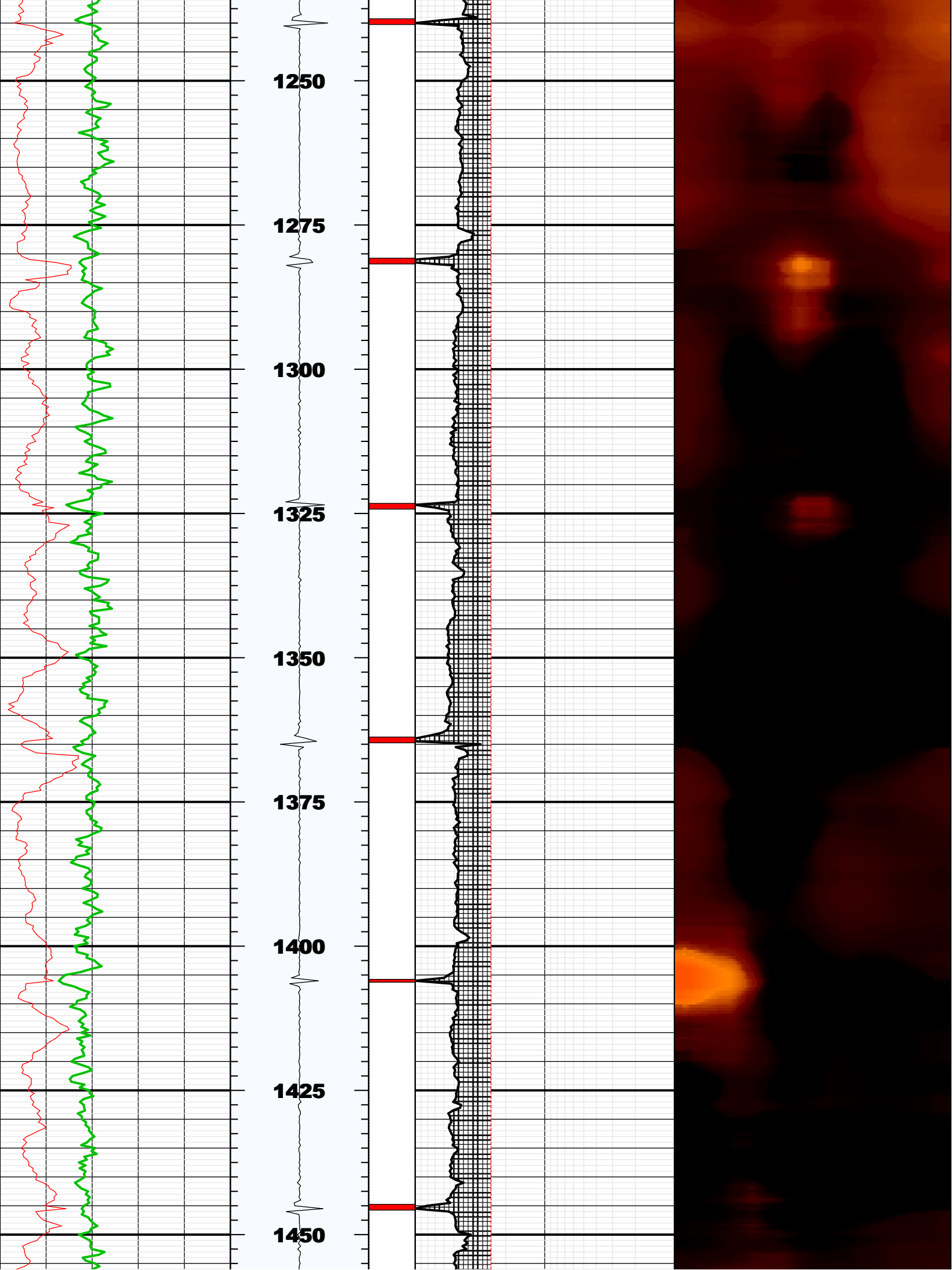


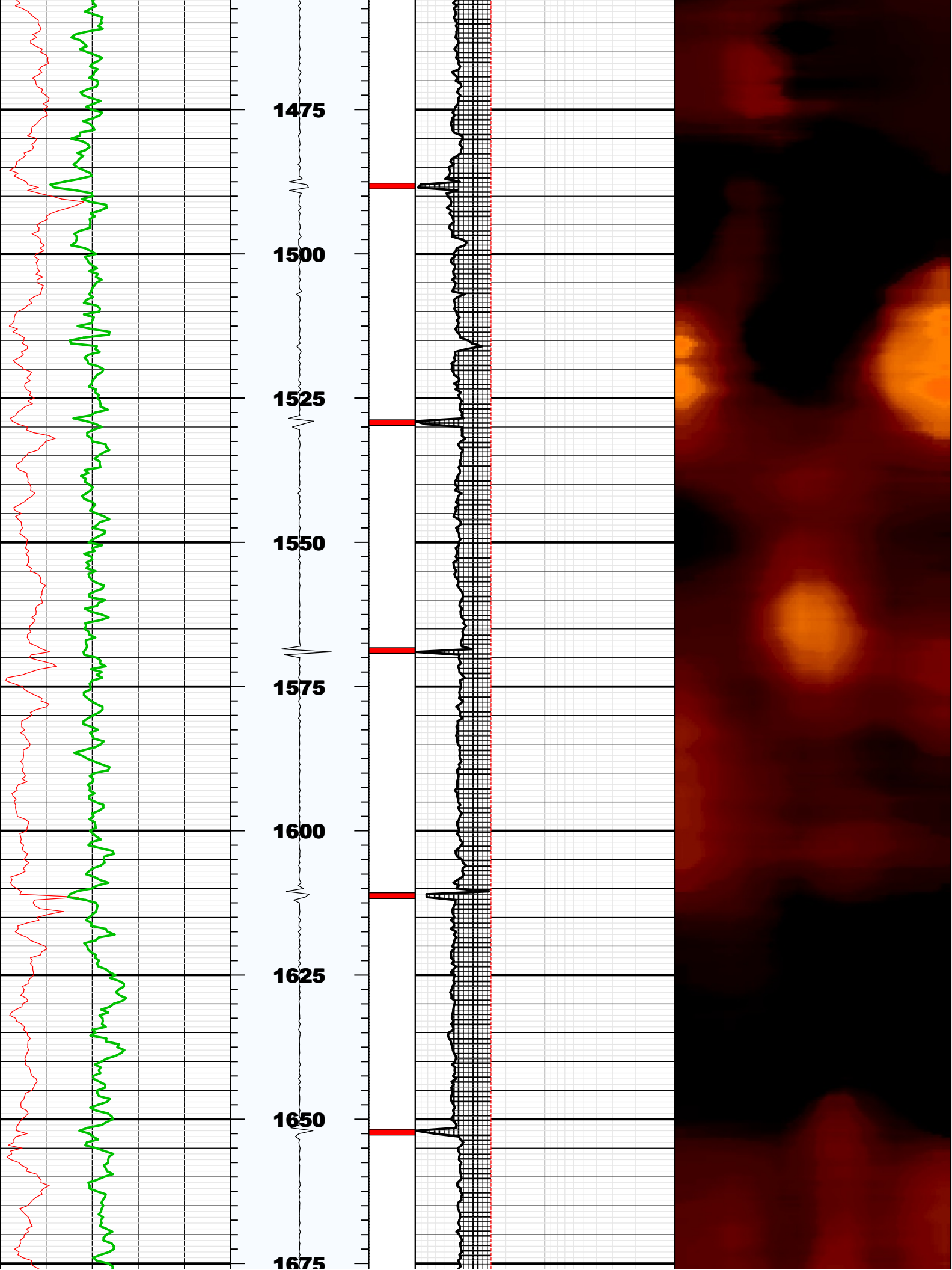


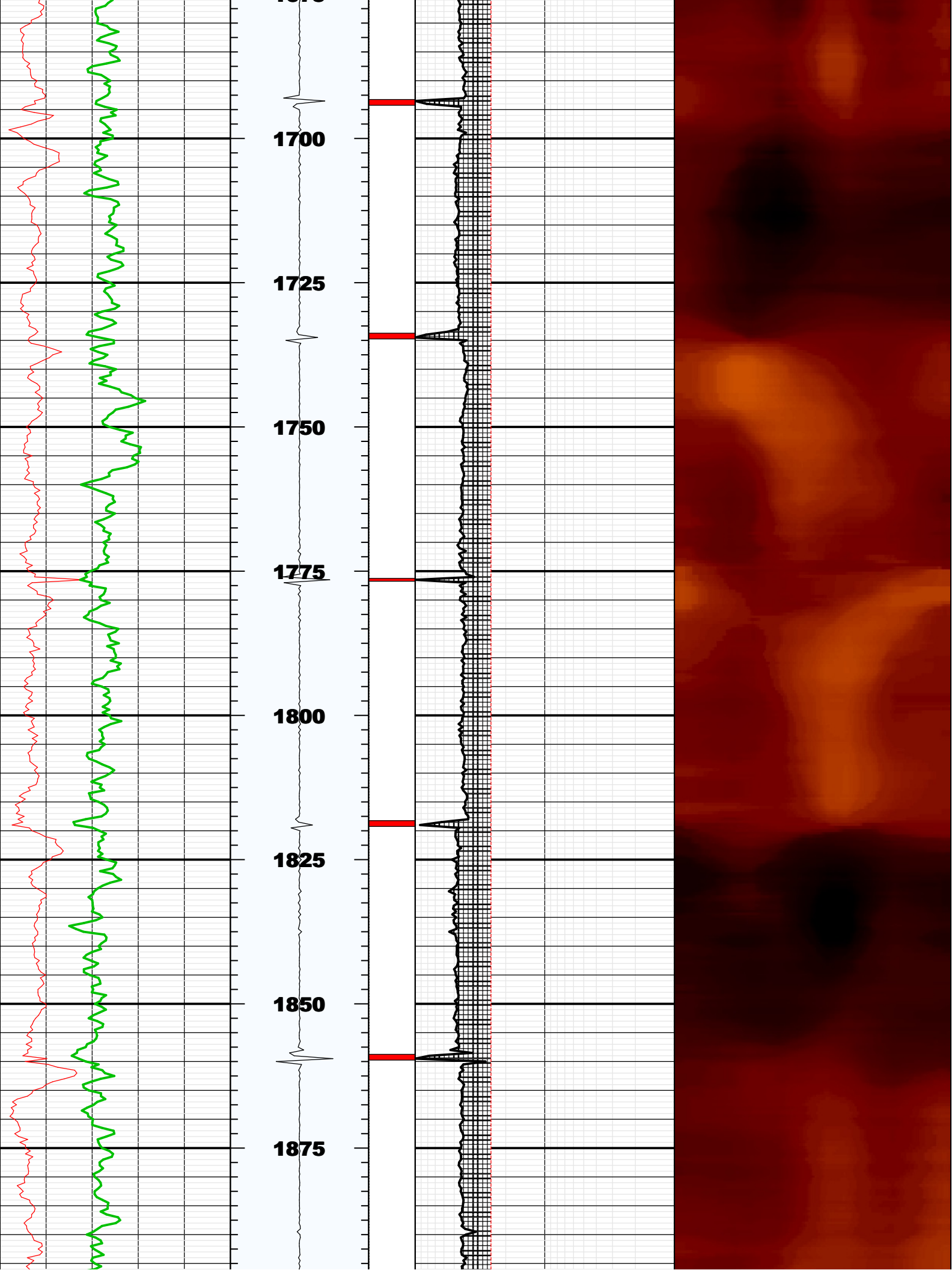


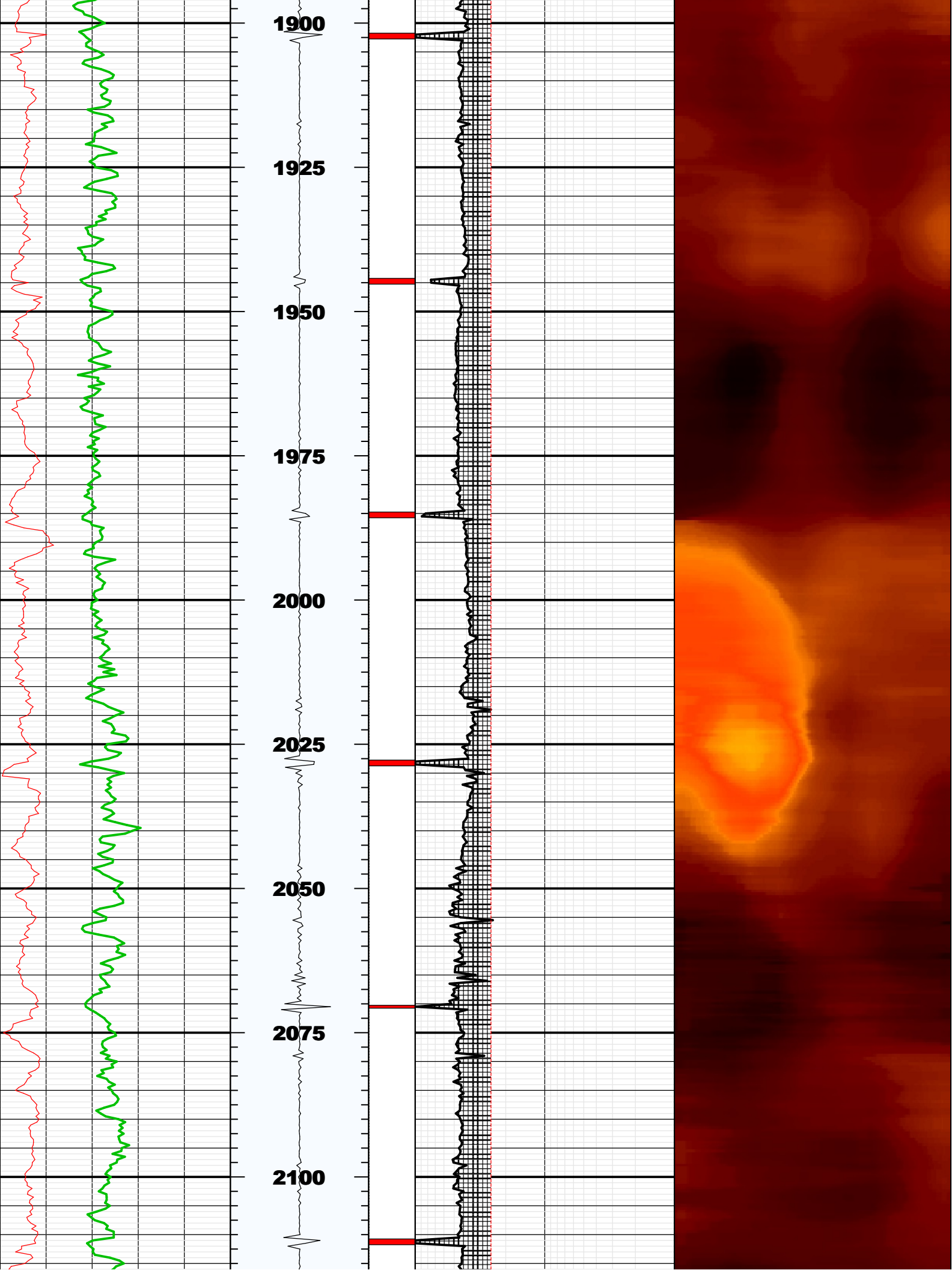


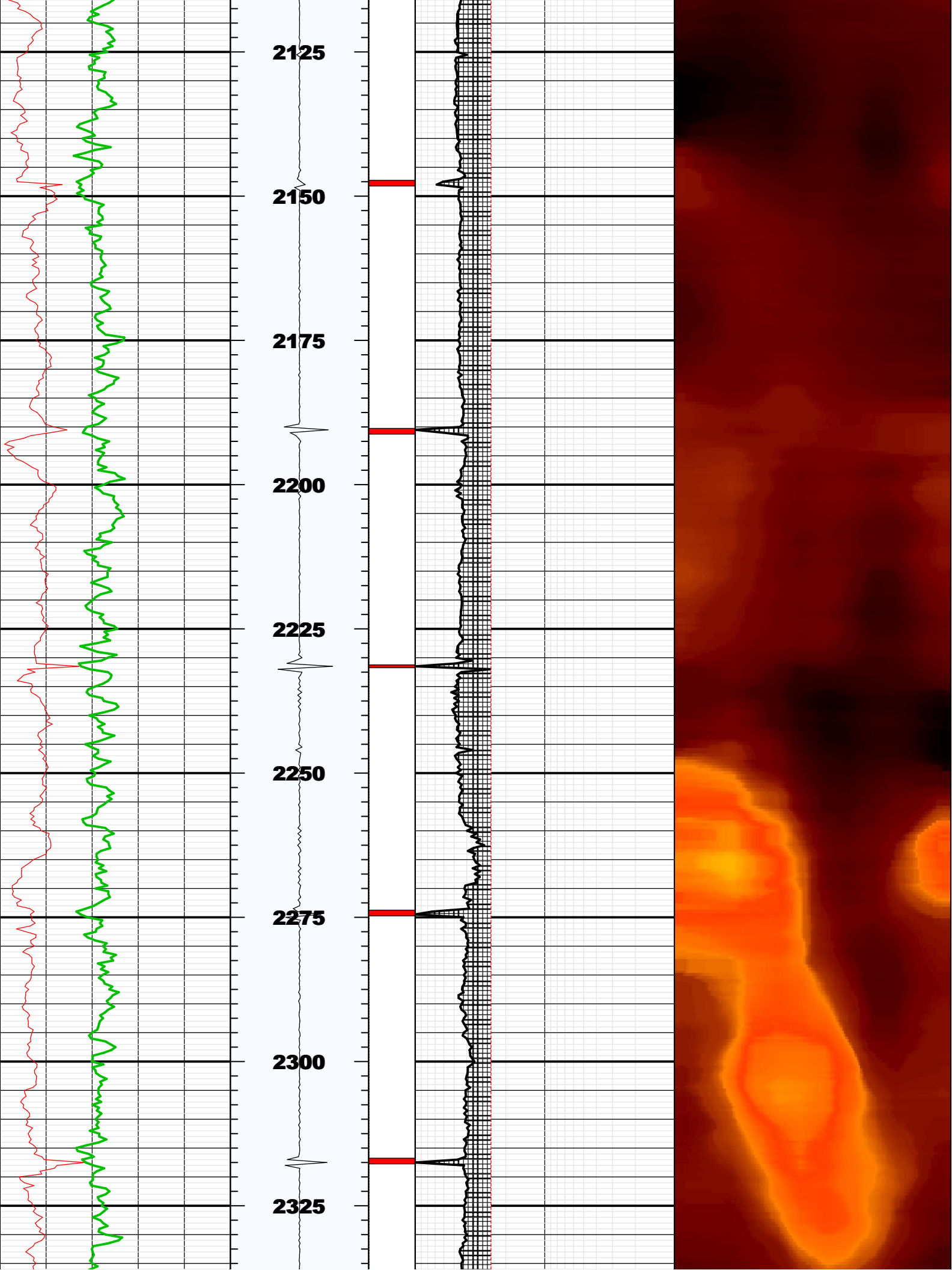


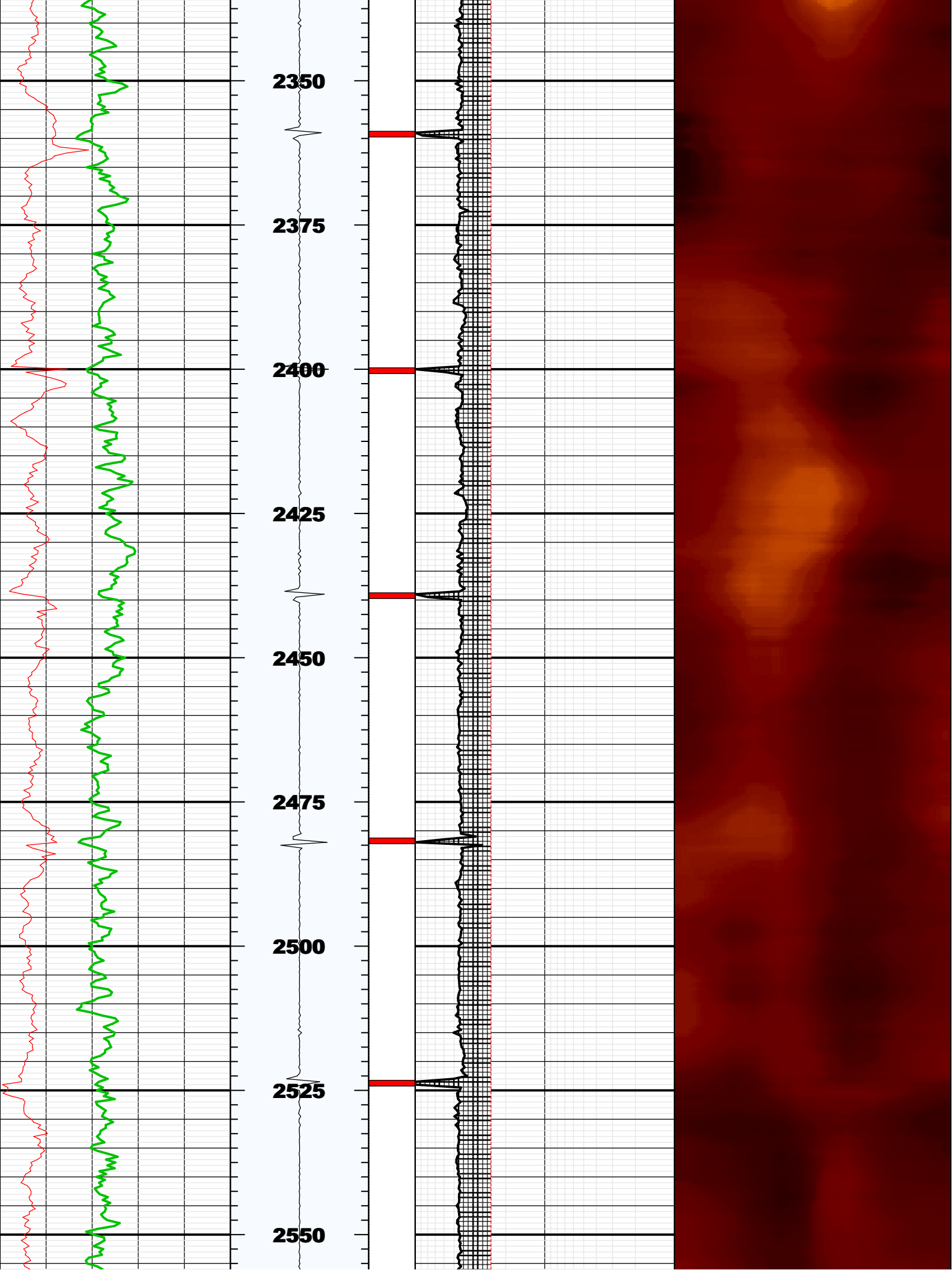


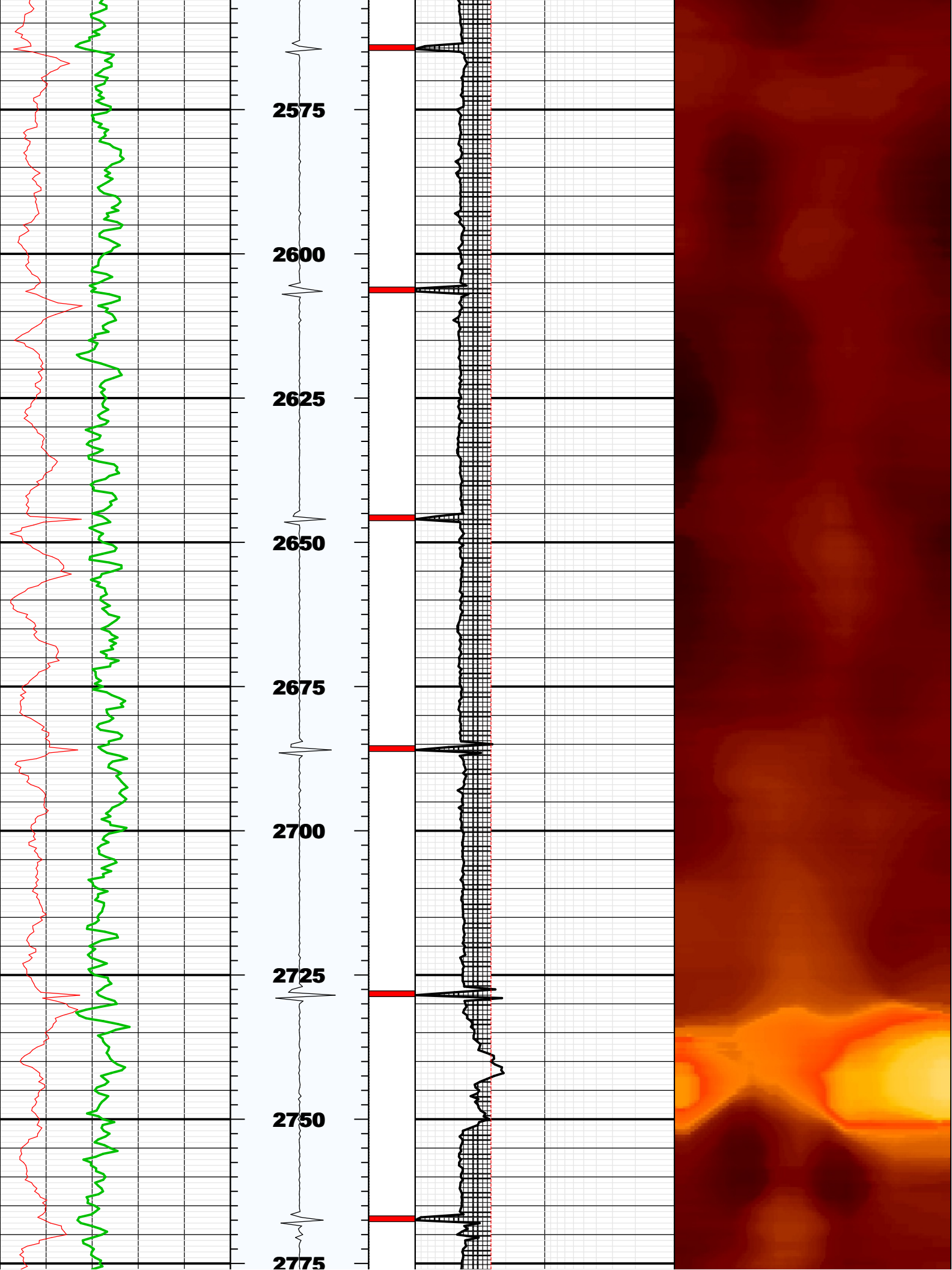


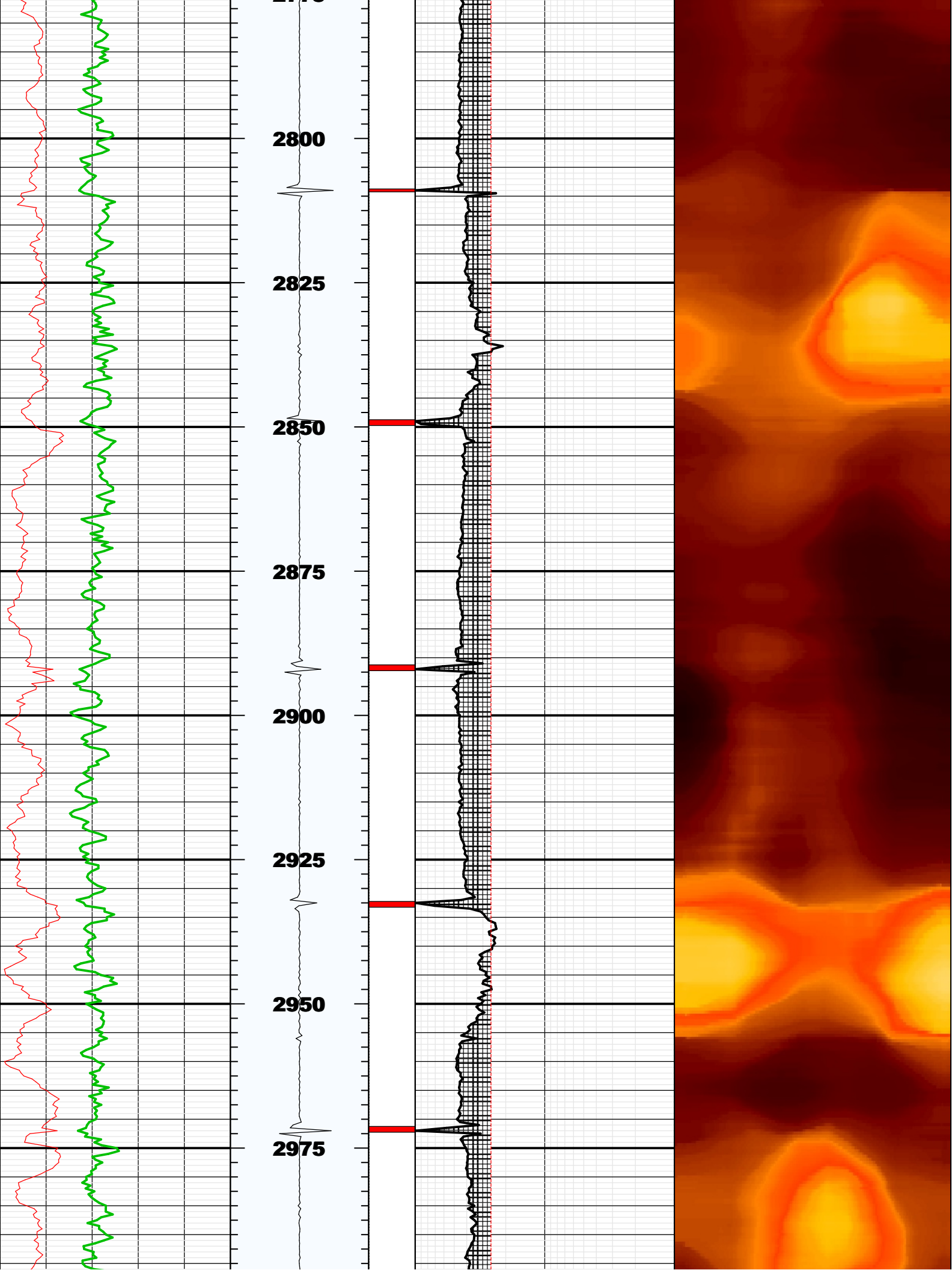


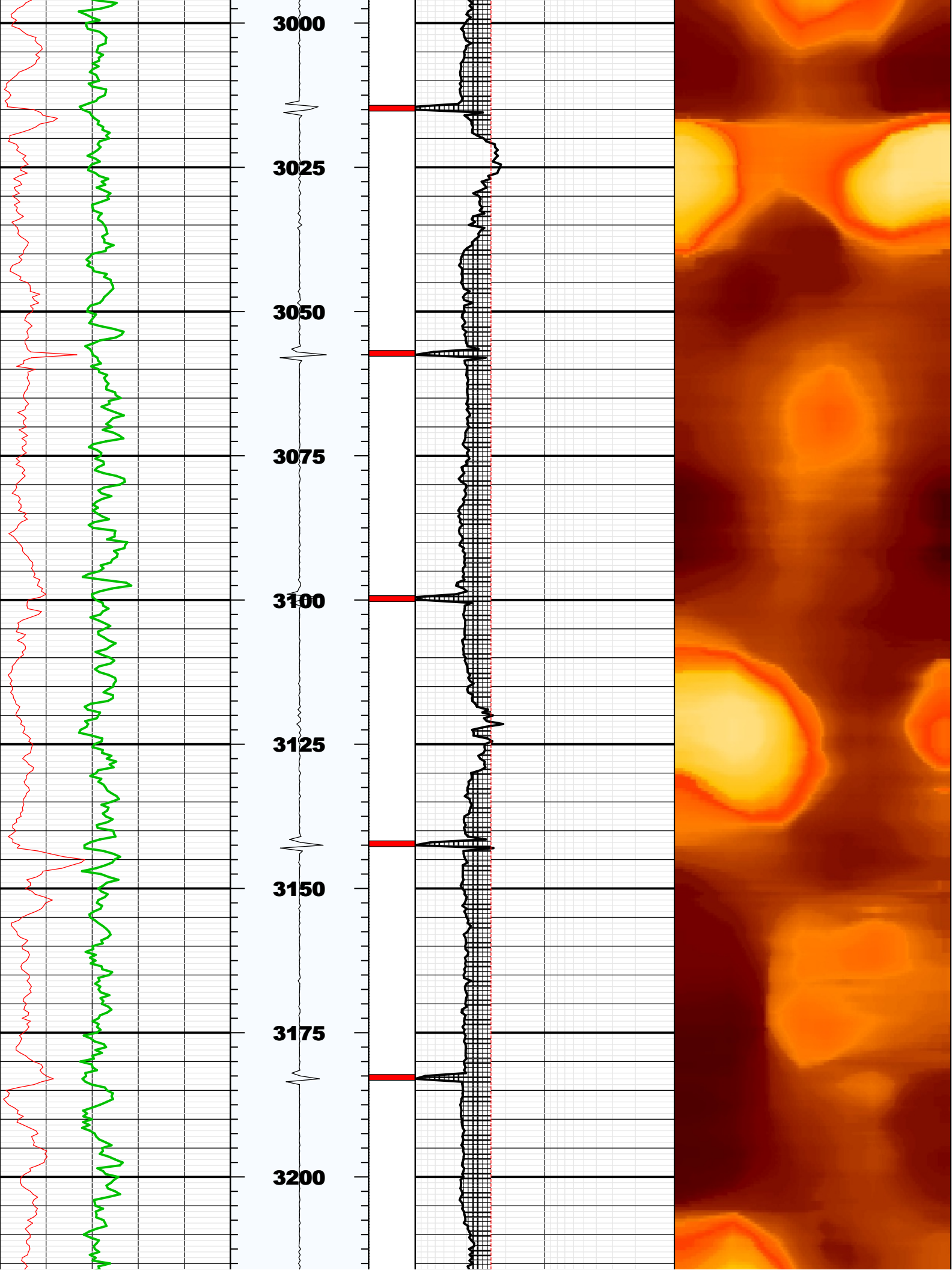


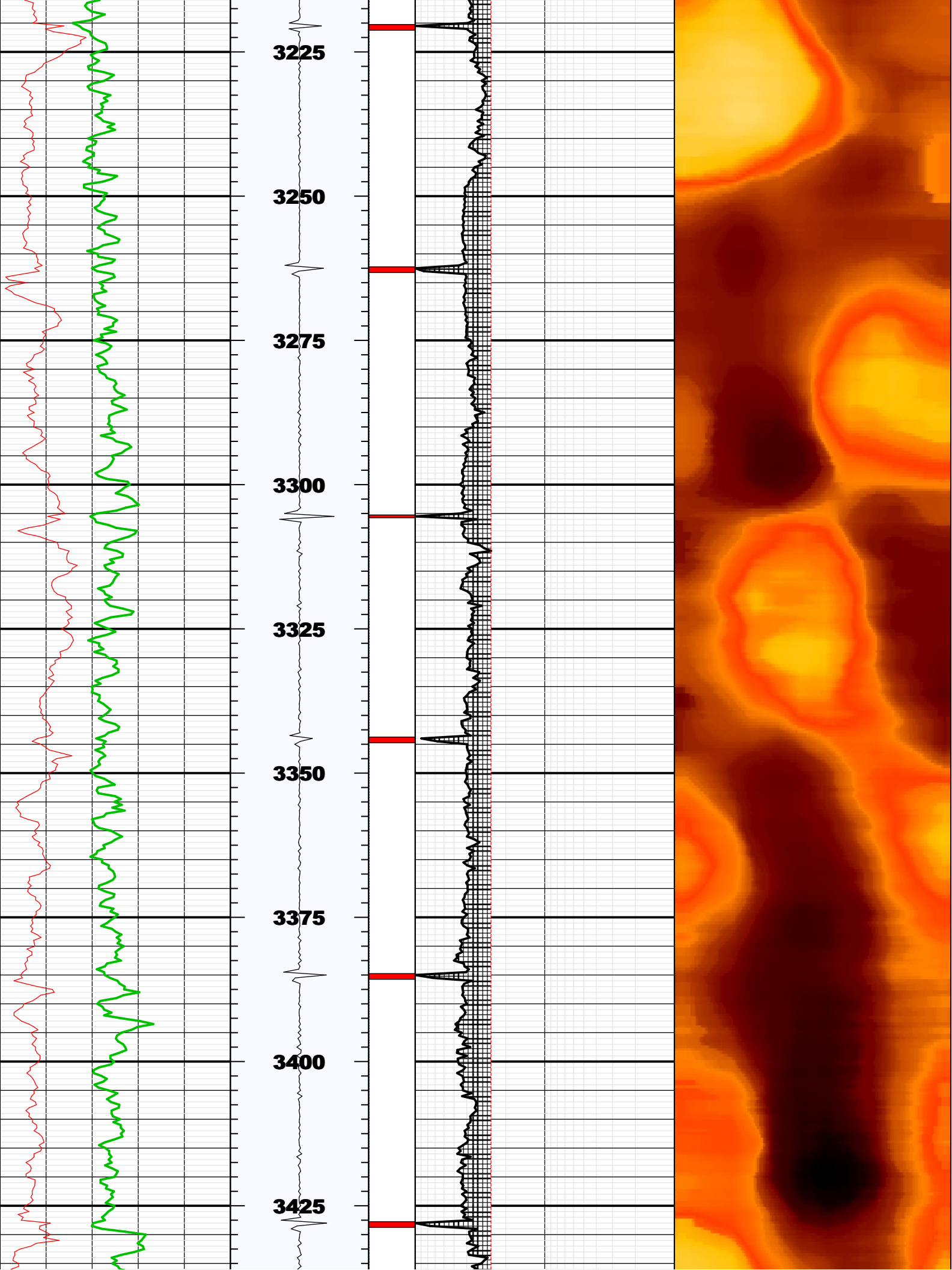


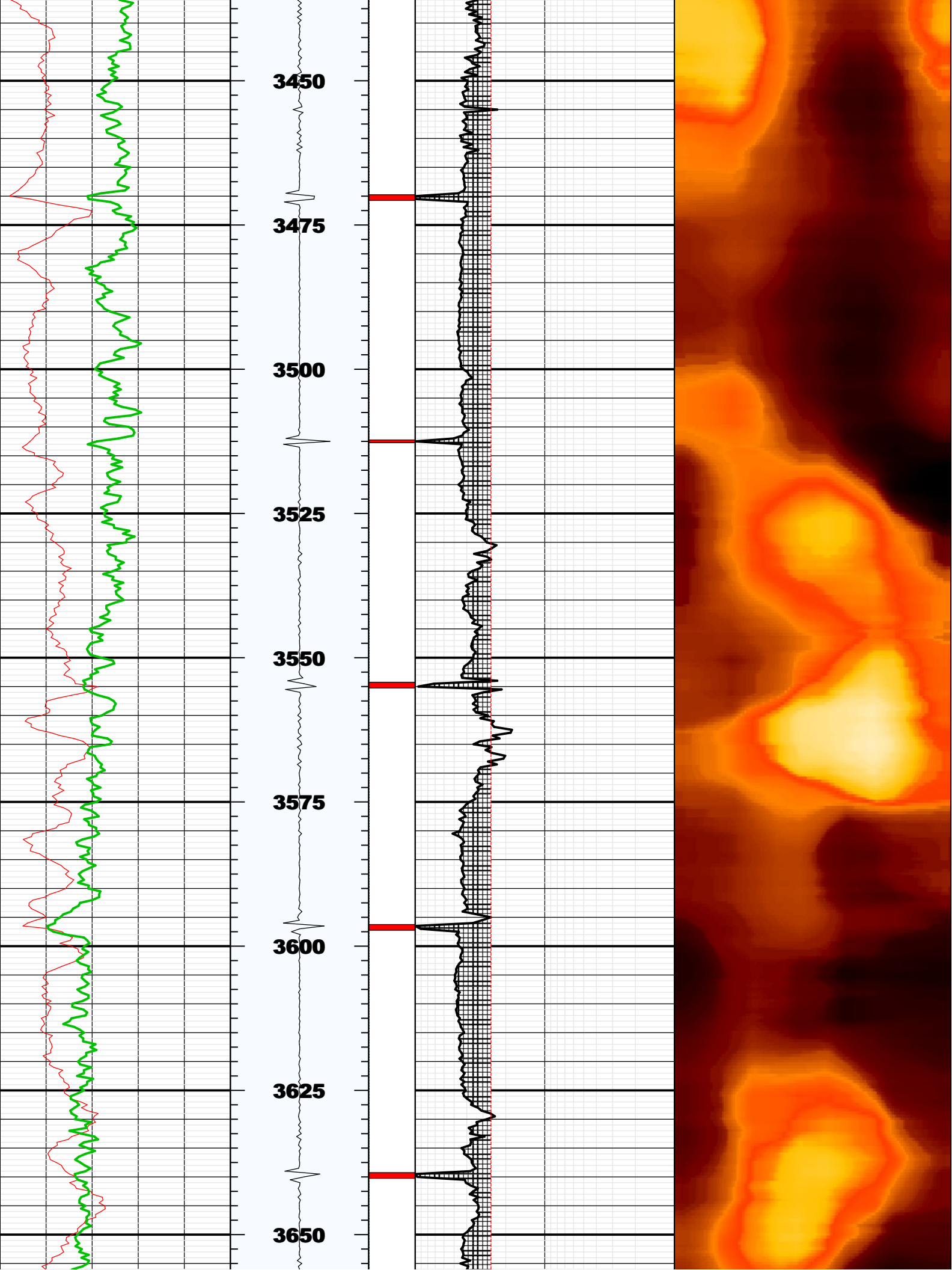


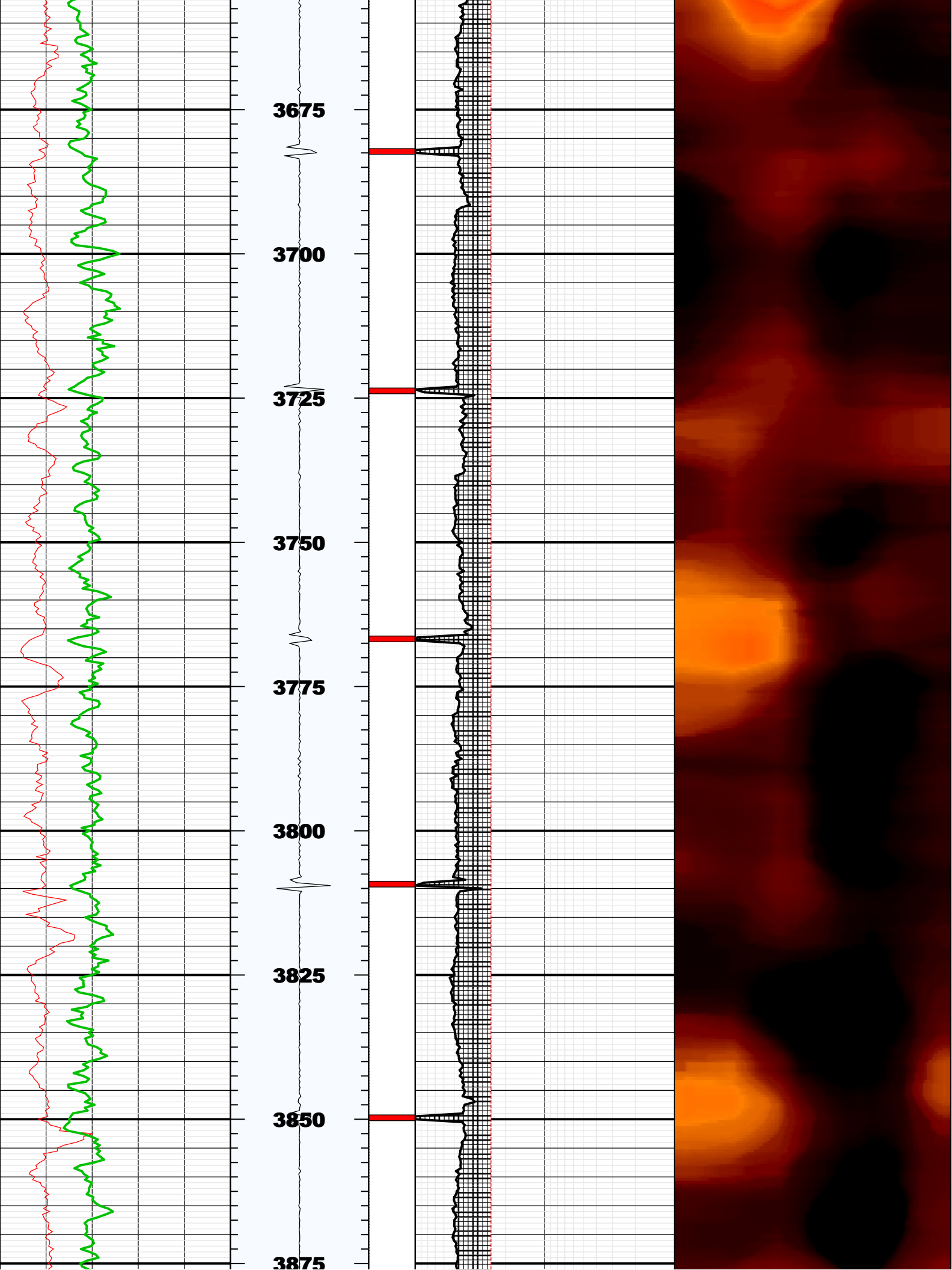


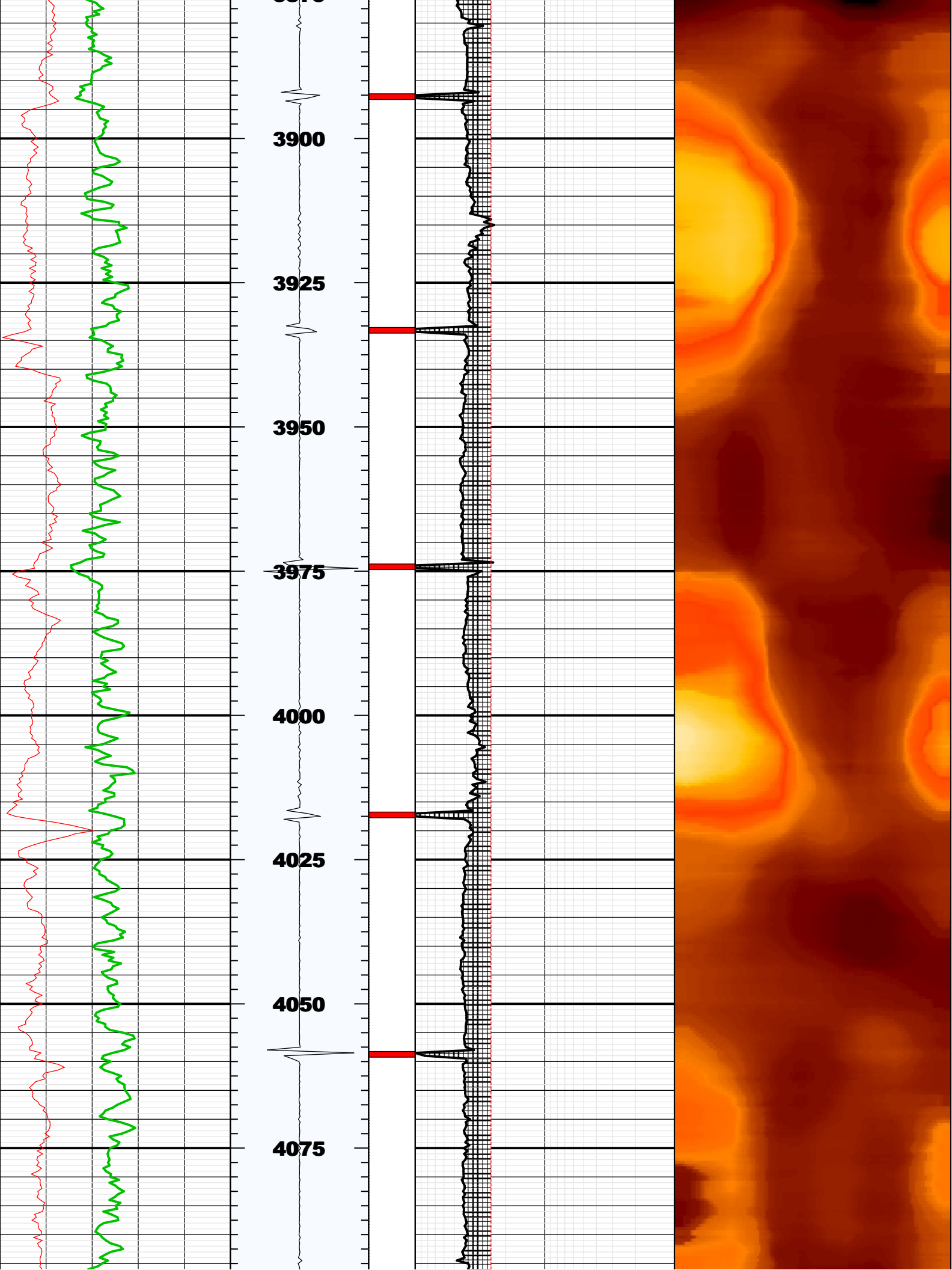


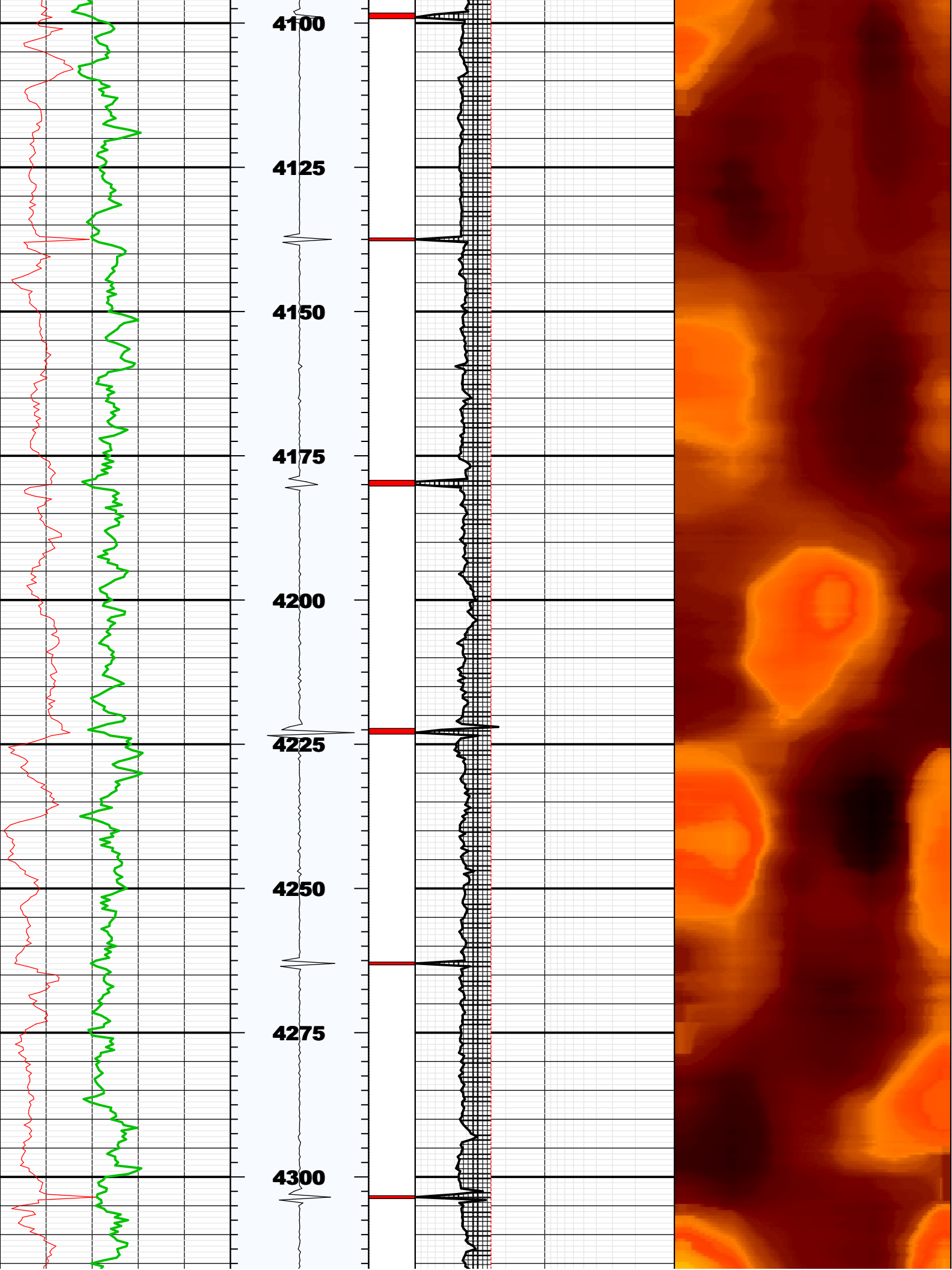


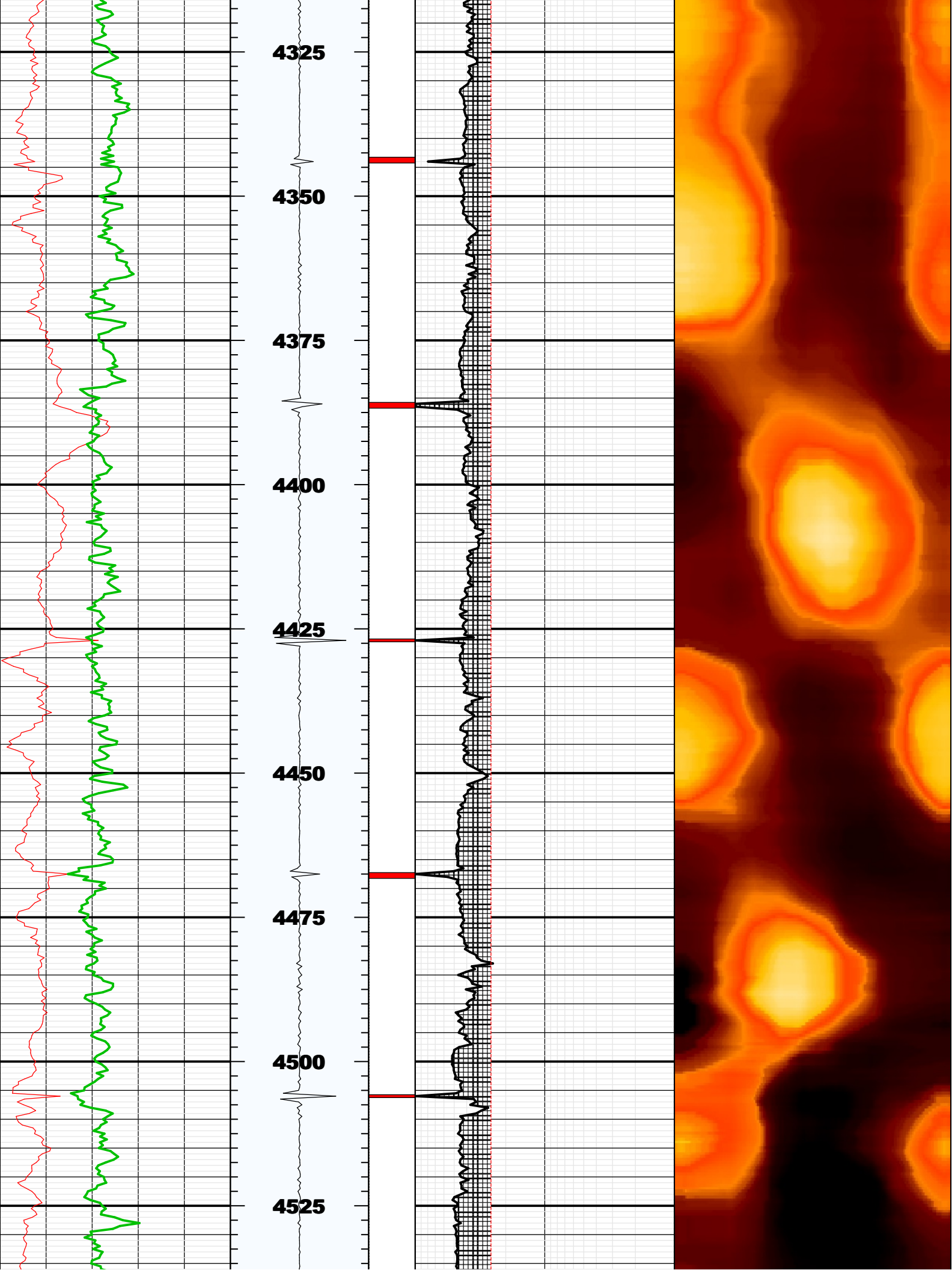


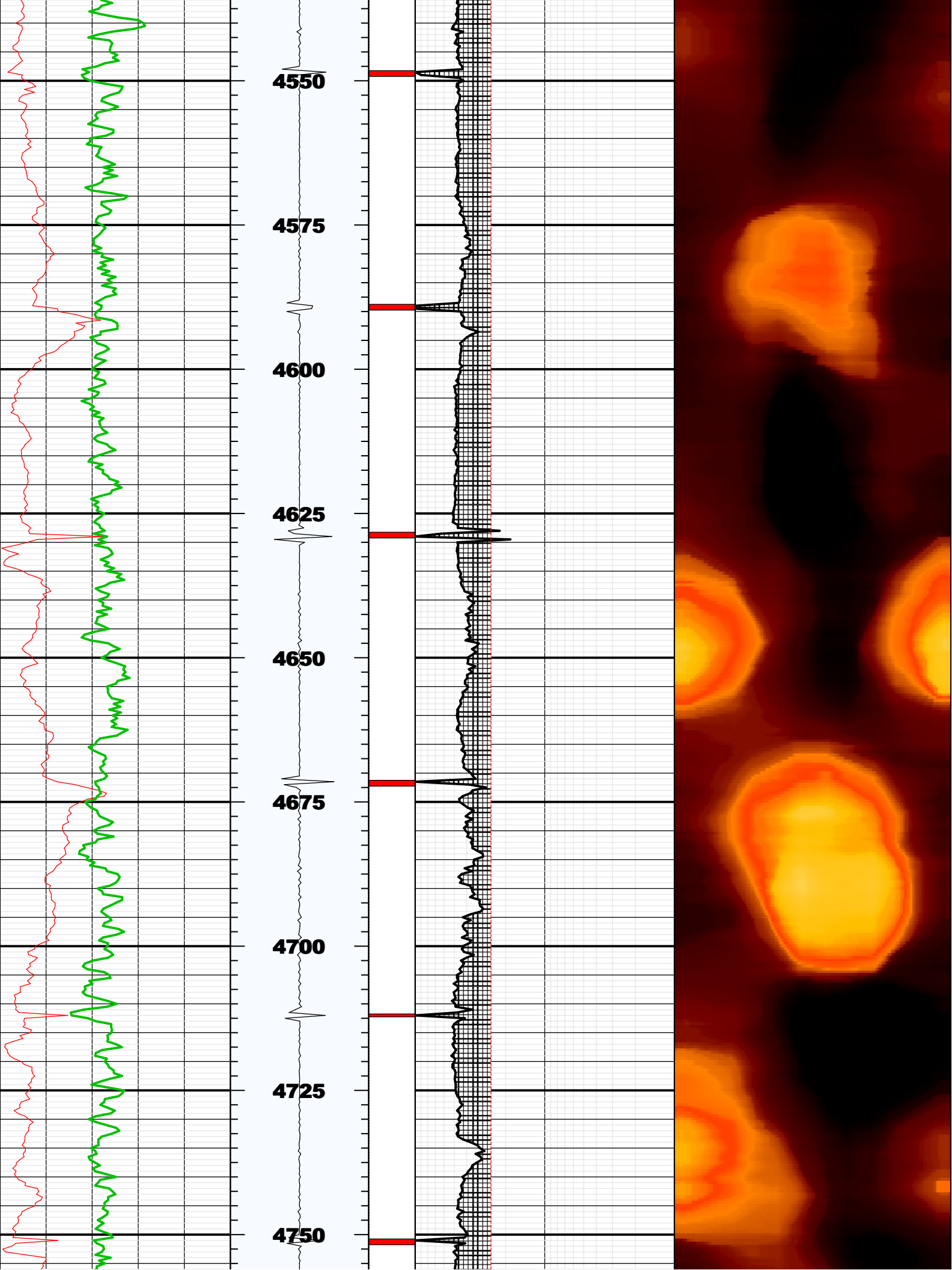


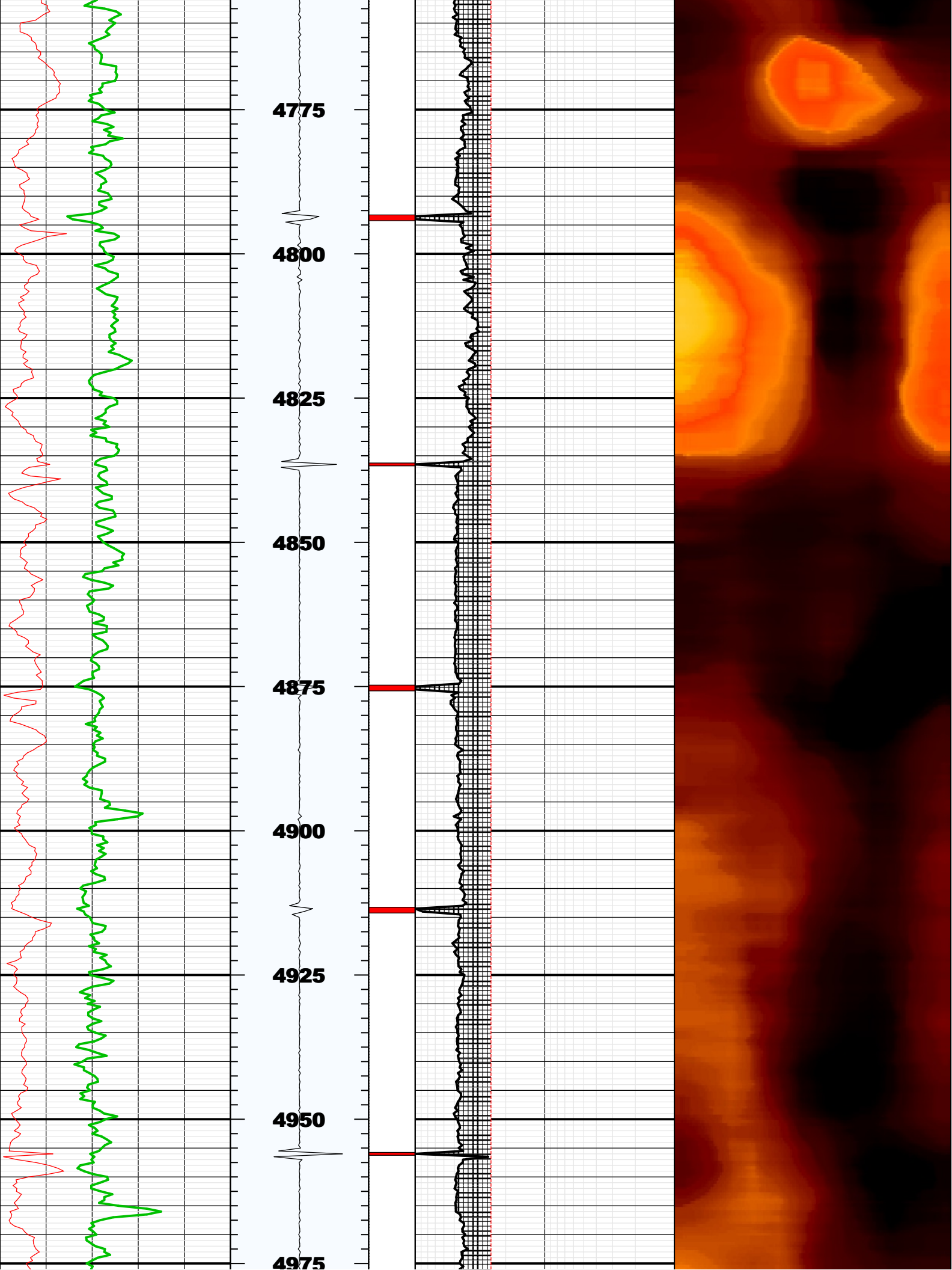


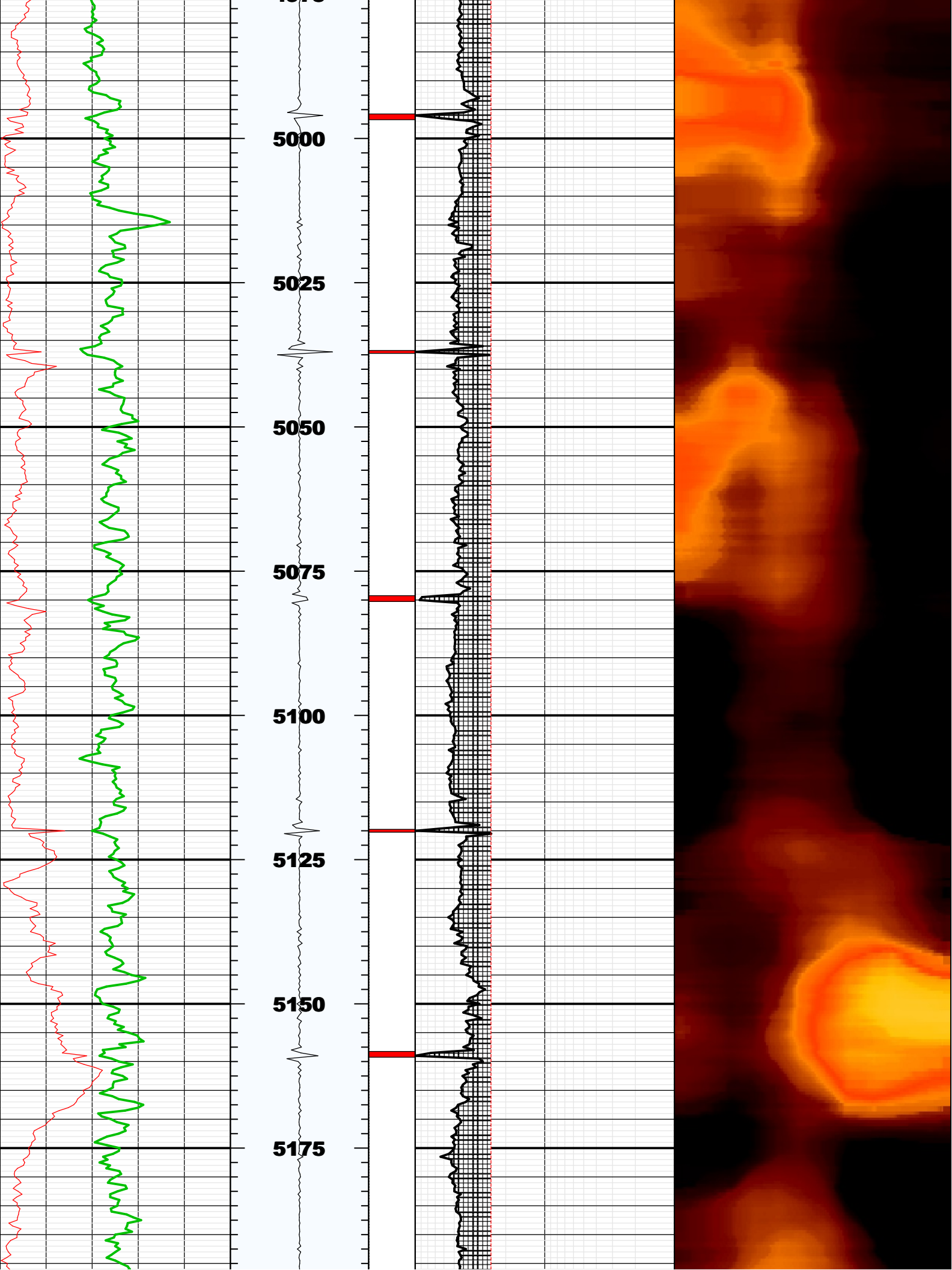


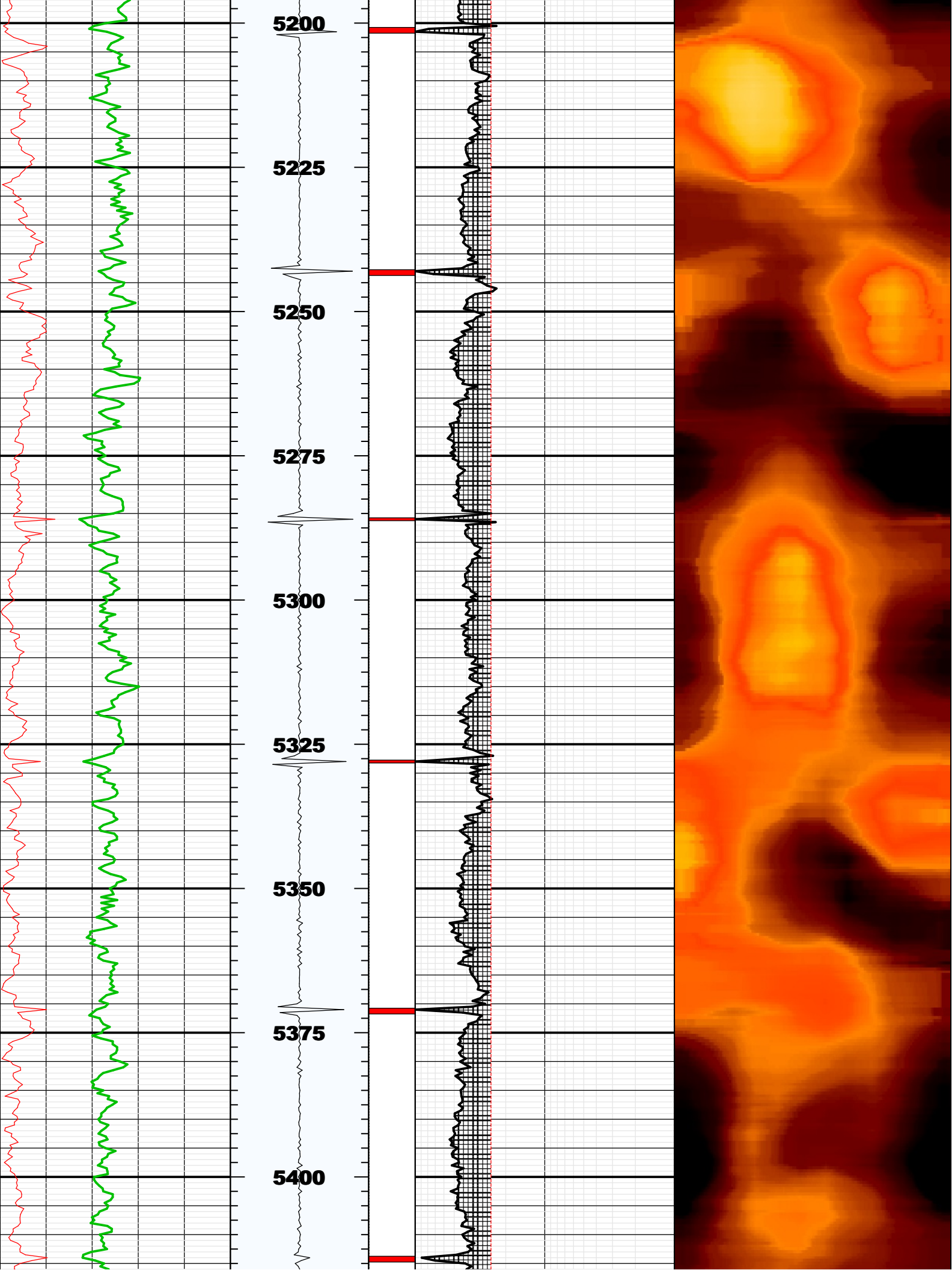


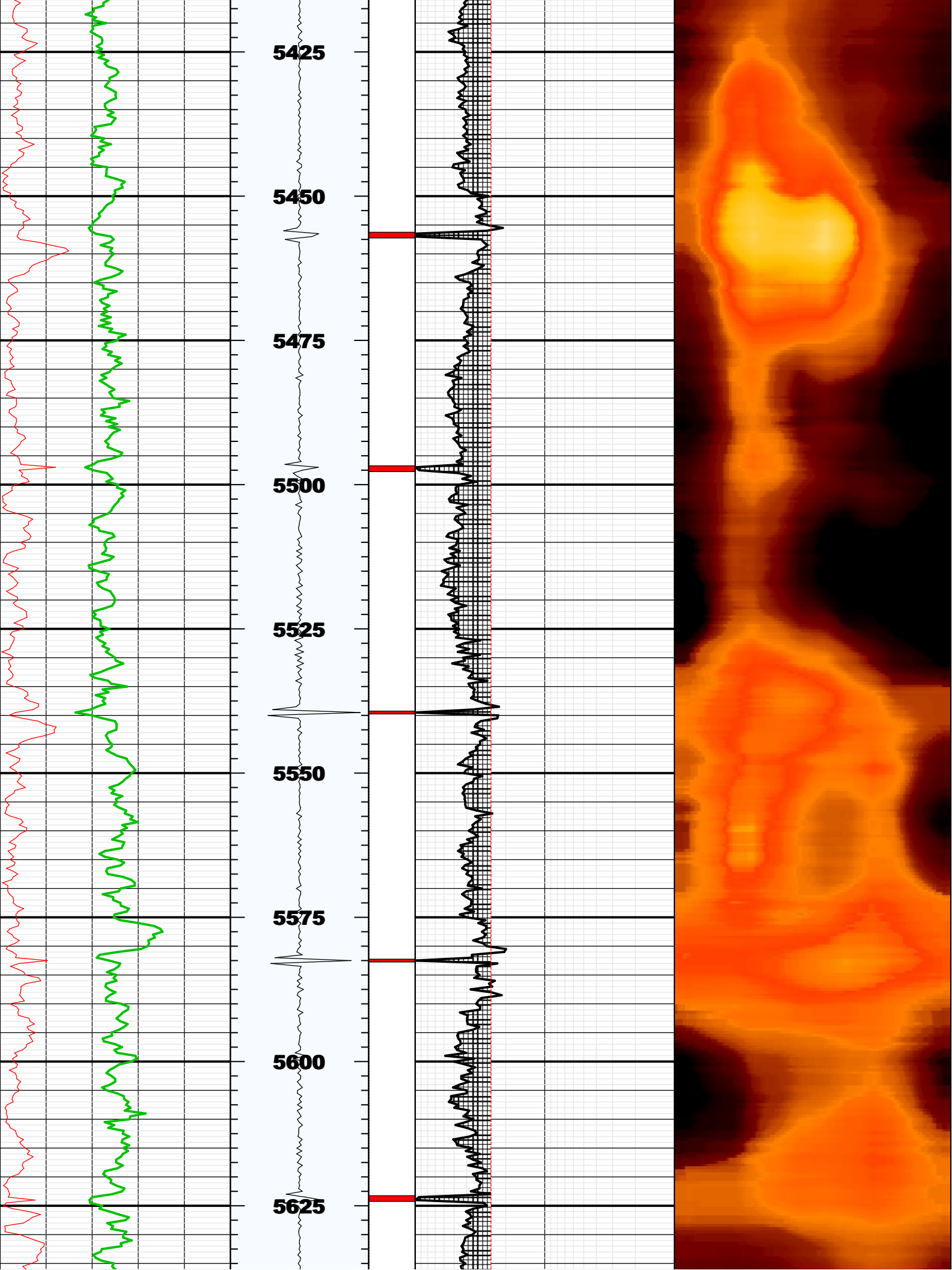


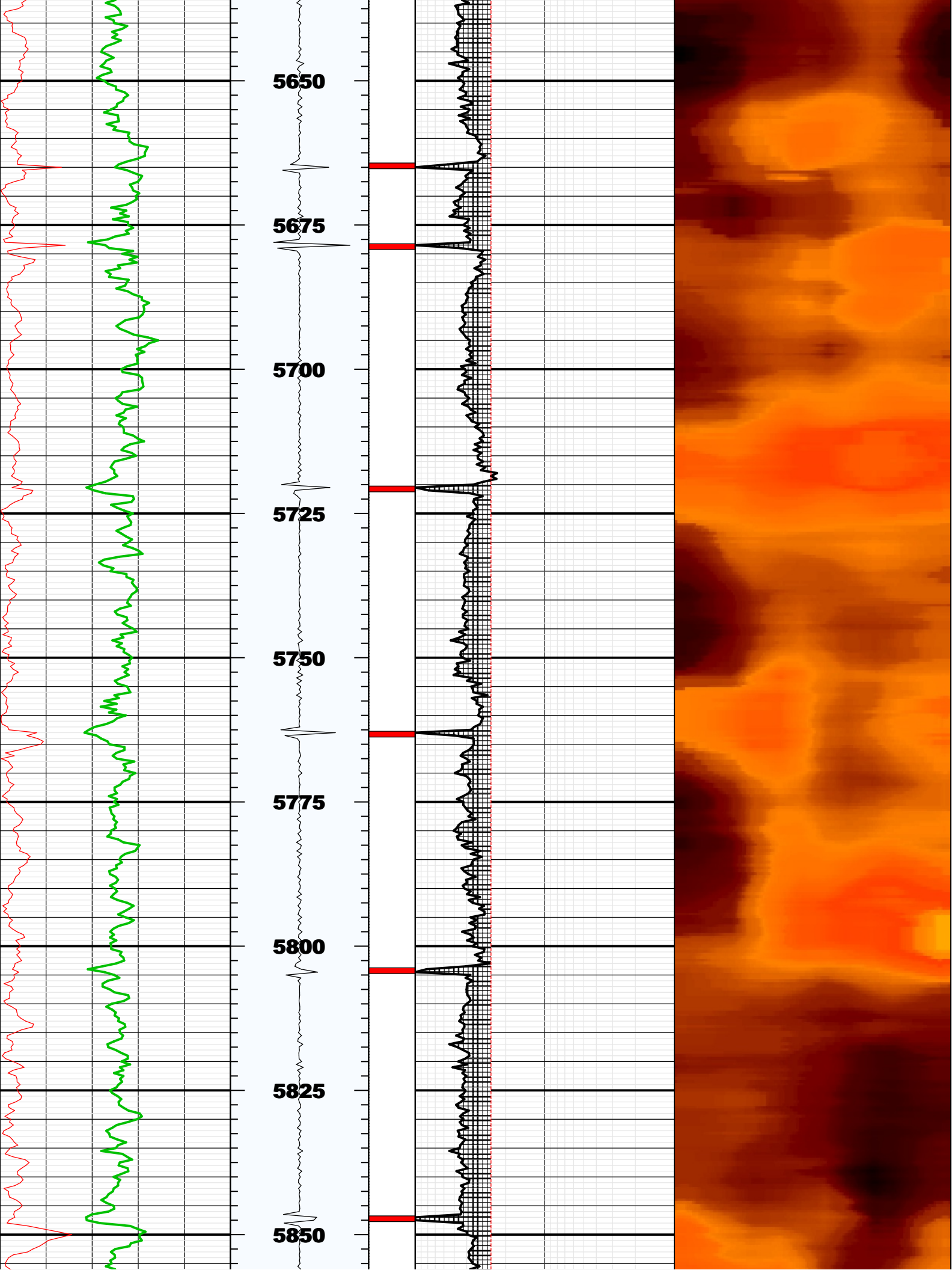


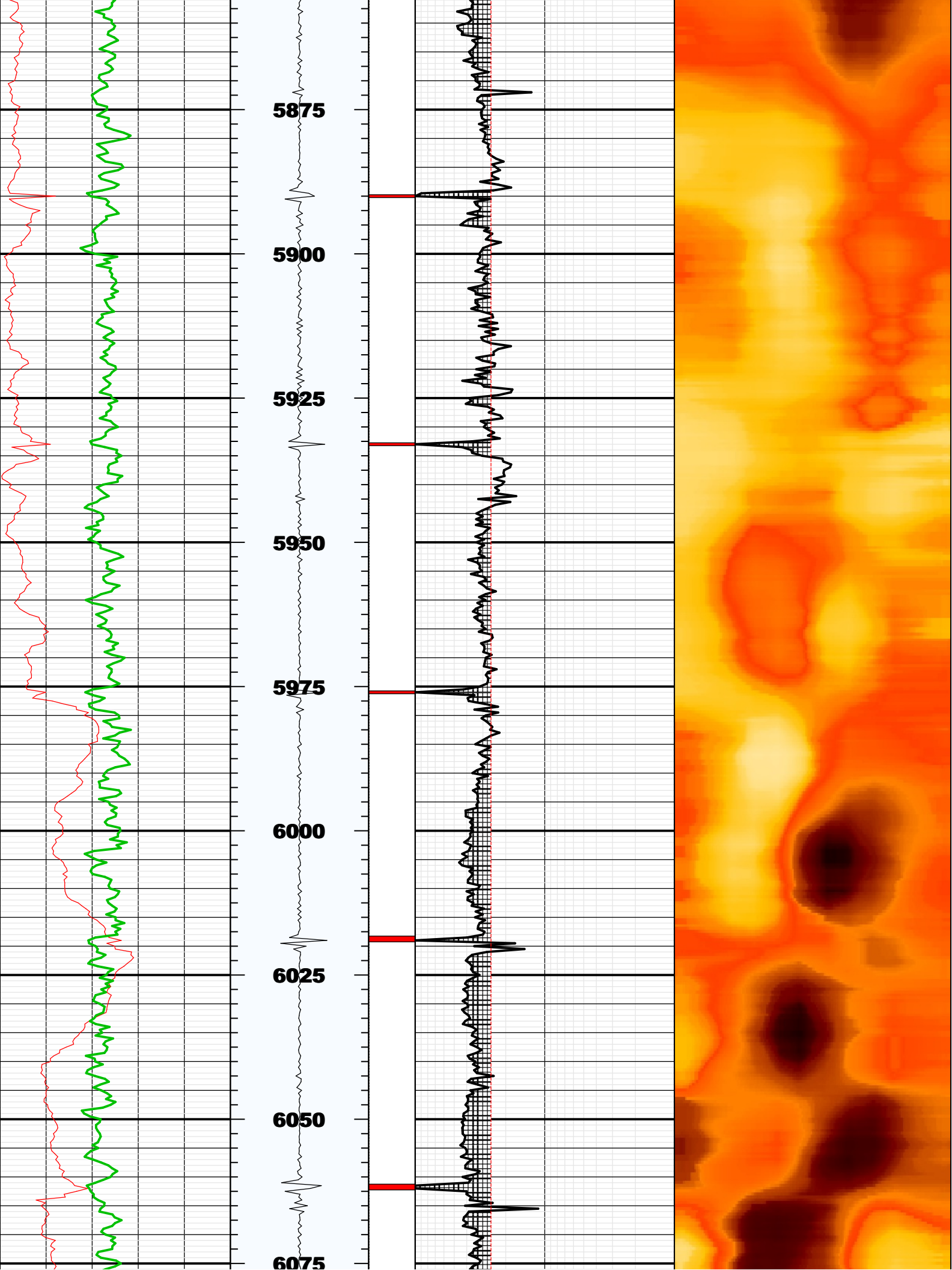


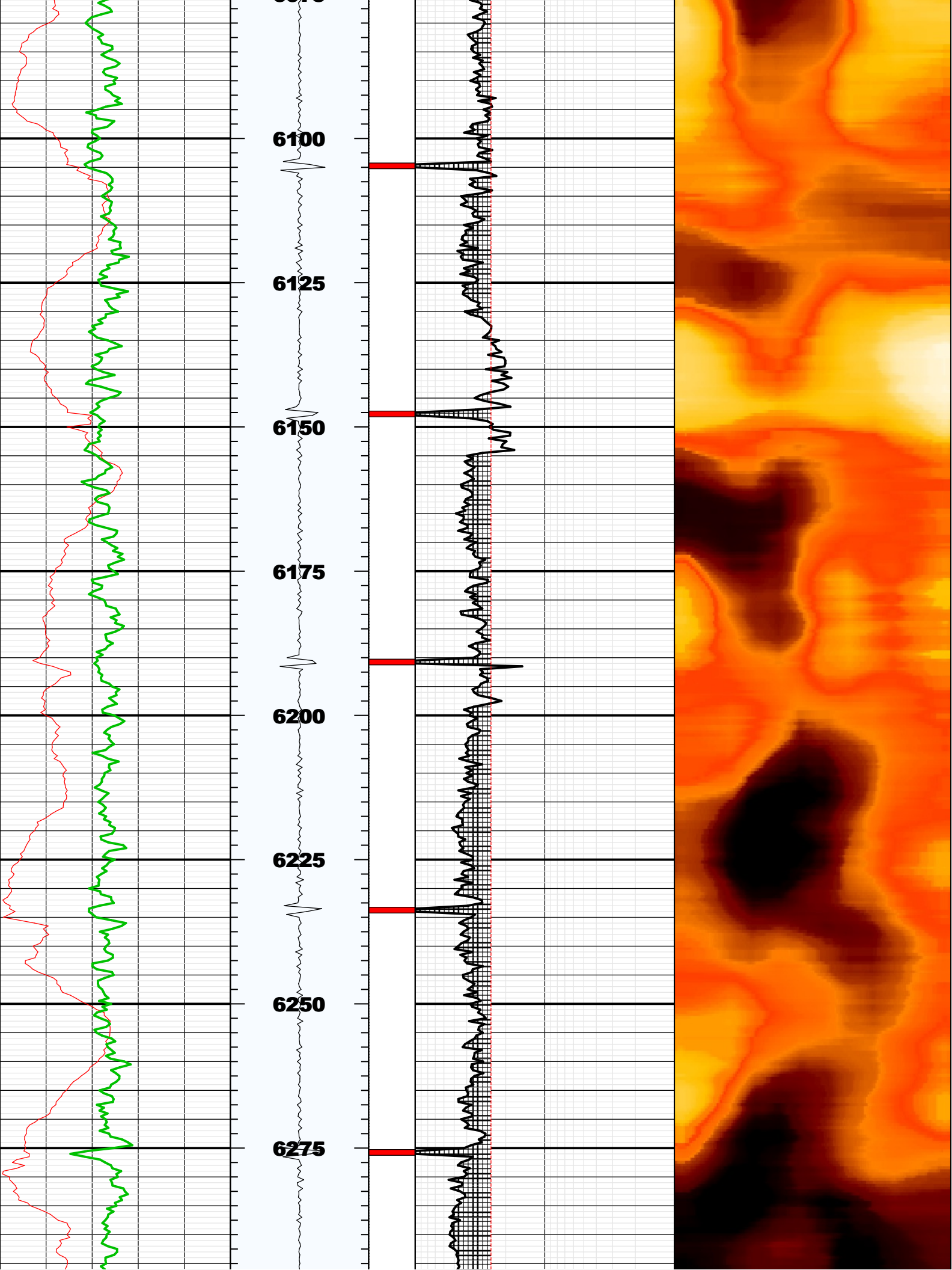


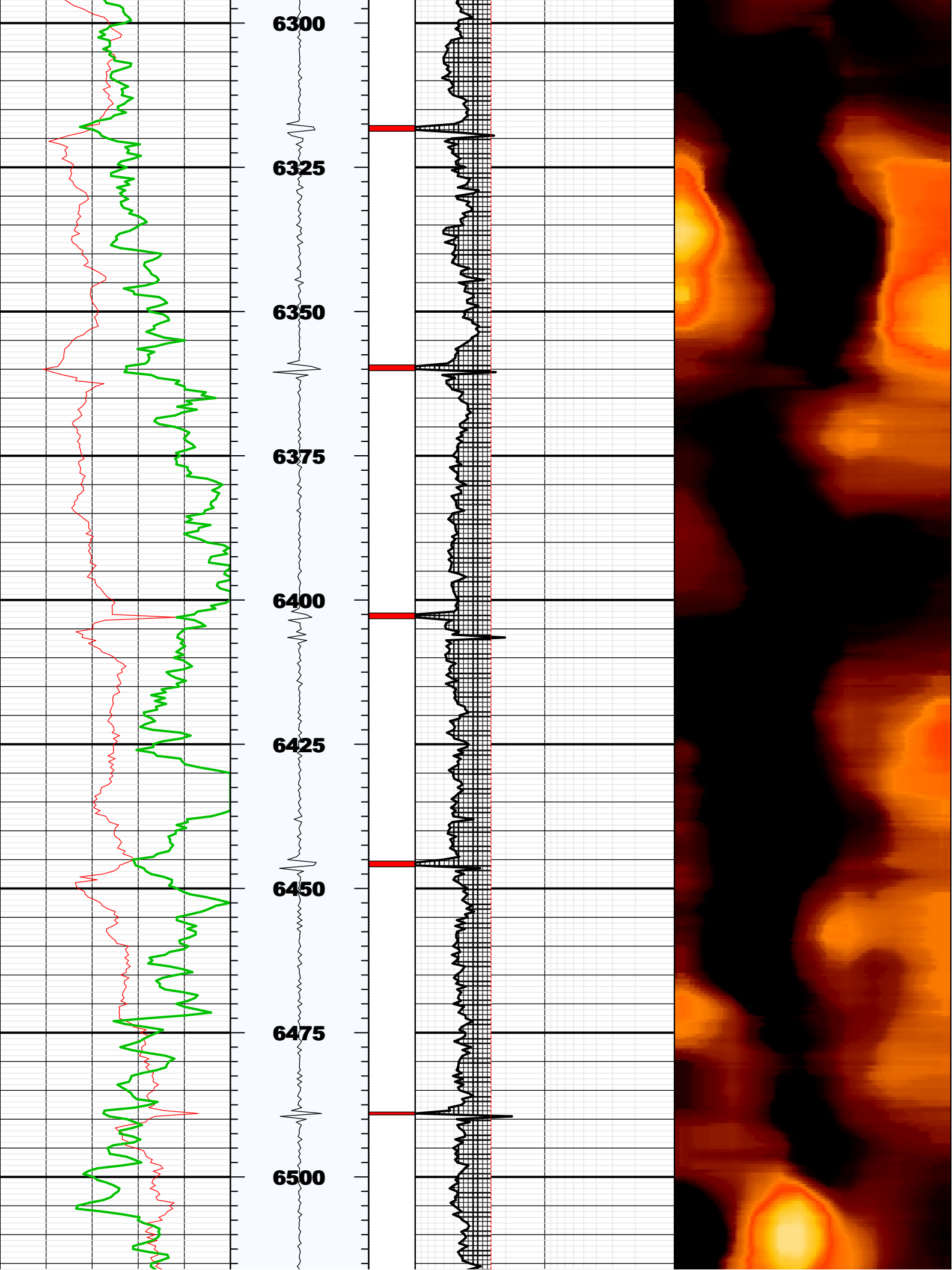


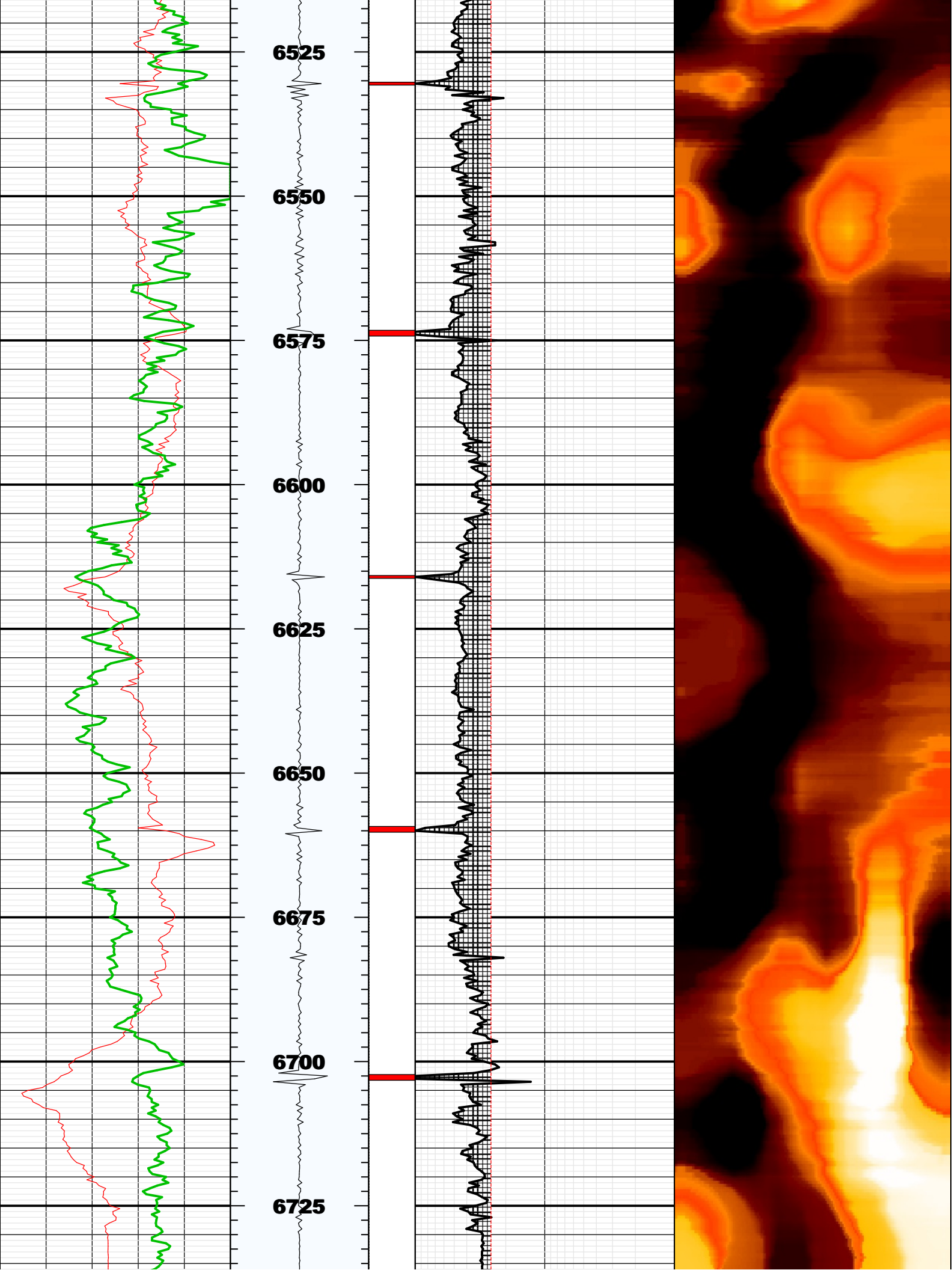


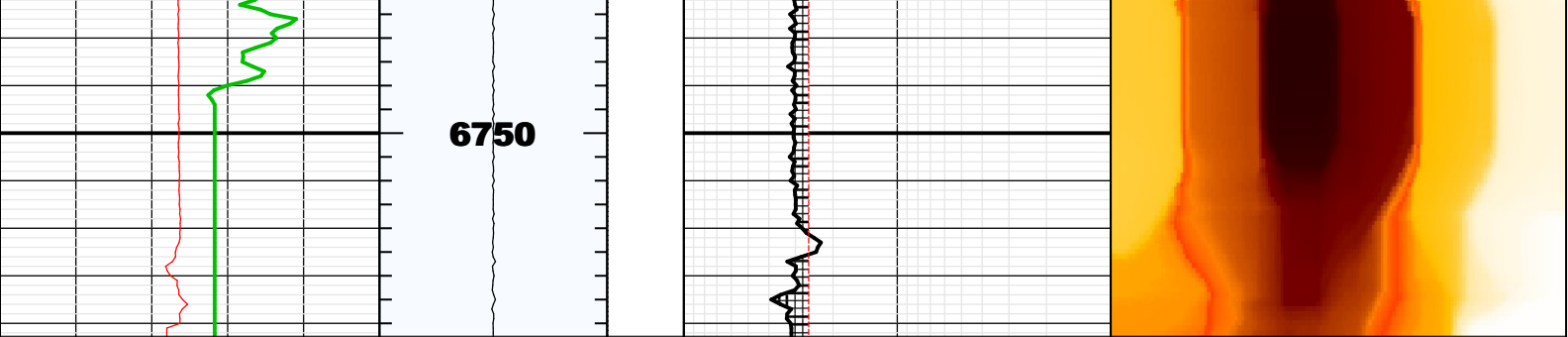








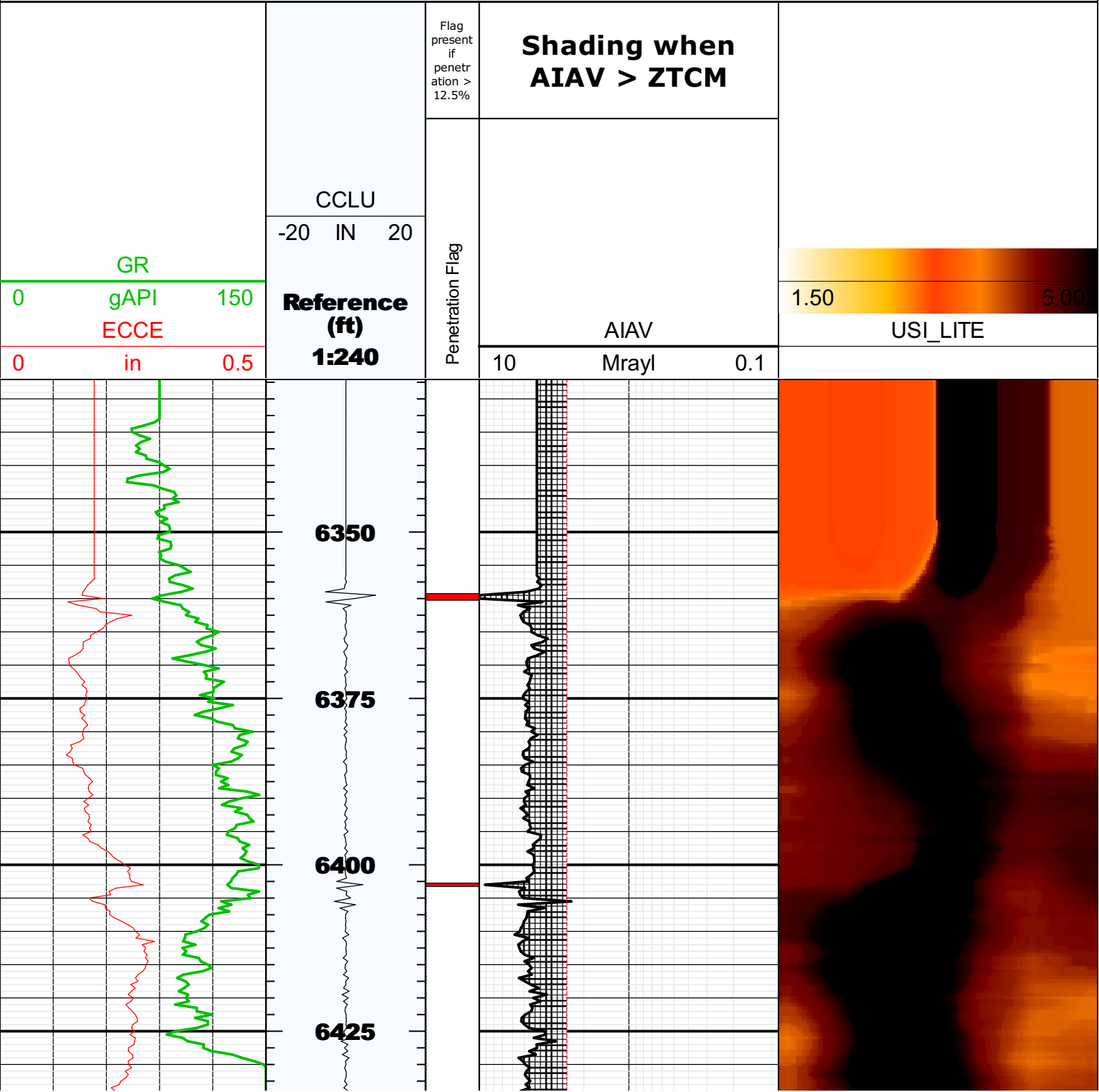


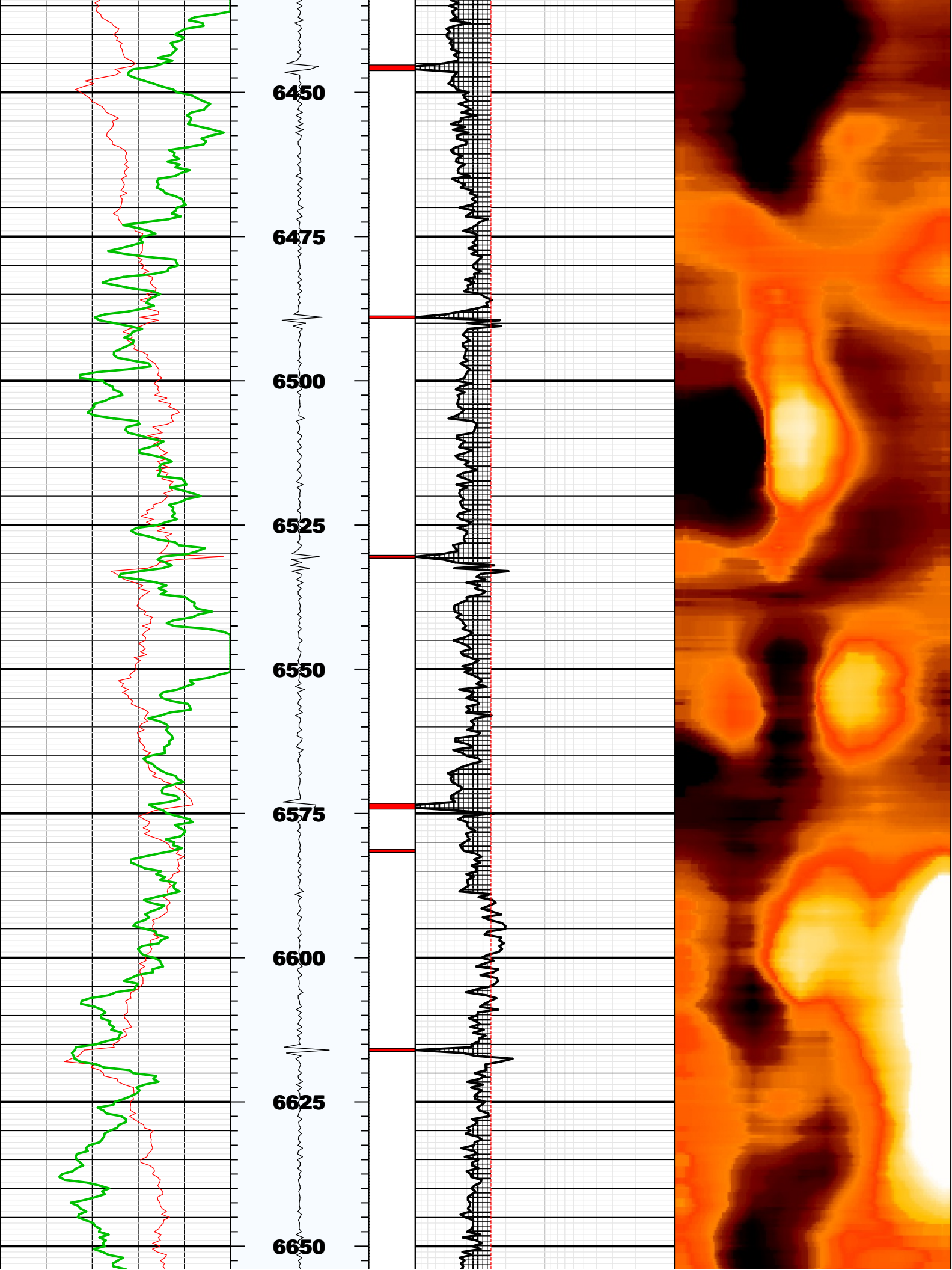


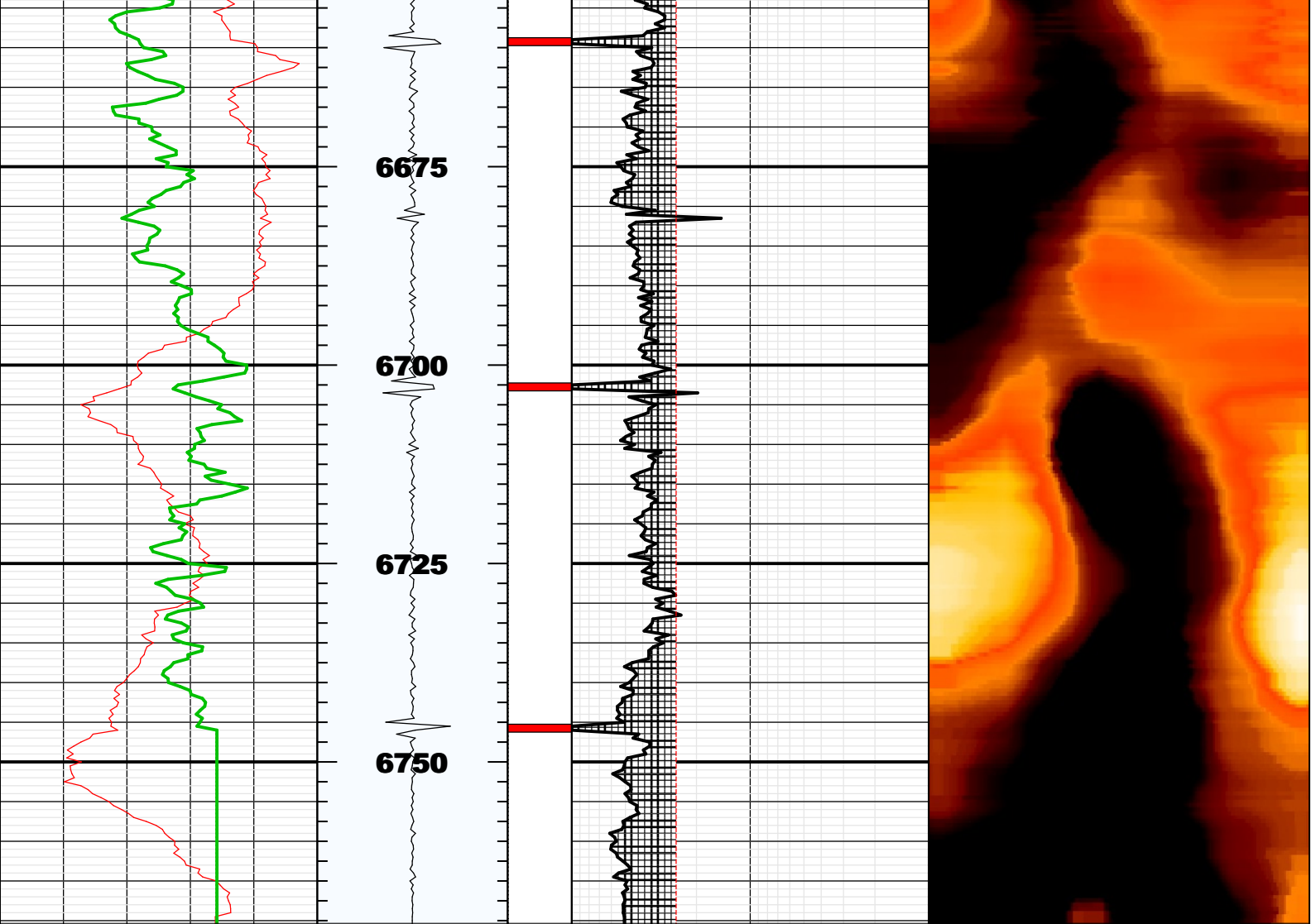
BS	8.75000	IN	Bit Size
CASG	P110		Casing Grade
CDIA	7.00000	IN	Casing Outer Diameter
CSID			
CSIZ	7.00000	IN	Current Casing Size
CWEI	26.00000	LB/F	Casing Weight
DFD	8.40000	LB/G	Drilling Fluid Density
DFVL	190.00000	US/F	Default Fluid Velocity
DO			
DOT	2.87400	IN	Diameter of Transducer Sensor
EMXV	50	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	33.86500	US	Window Begin Time
WINE	73.86501	US	Window End Time
ZCAS	46.25000	MRAY	Acoustic Impedance of Casing
ZINI	-1.00000	MRAY	Initial Estimate of Cement Impedance
ZMUD	1.78000	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

Company: Noble Energy Inc
Well: Wells Ranch AE30-65-1HNC
Field: Wattenberg







Fluid Properties Used for Main Pass

