

Company: Noble Energy Inc

Well: Oscar Y10-77HN
Field: Wattenberg
County: Weld

State: Colorado

County: Weld			
Field: Wattenberg			
Location: NESW Sec. 10 T2N R64W			
Well: Oscar Y10-77HN			
Company: Noble Energy Inc			
USI-LITE	LOCATION		
	Permanent Datum: Log Measured From: Drilling Measured From:		GL KB KB
			Elev: K.B. 4945.0 F G.L. 4929.0 F D.F. 4944.0 F
Logging Date	10-May-2014		
Run Number	1		
Depth Driller	7353.0 F		
Schlumberger Depth	7353.0 F		
Bottom Log Interval	7185.9 F		
Top Log Interval	40.0 F		
Casing Fluid Level	0.0 F		
Salinity			
Density	8.40 LB/G		
Fluid Level	0.0 F		
BIT/CASING/TUBING STRING			
Bit Size	8.750 IN		
From	1178.0 F		
To	7353.0 F		
Casing Size	7.00 IN		
Weight	26.00 LB/F		
Grade	P110		
From	16.0 F		
To	7343.0 F		
Max Recorded Temp	222.9		
Logger on bottom (date)	10-May-2014		
Location	Fort Morgan CO		
Recorded By	Elizabeth Wilson		
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: F7136711 Length: 18200.00000

DISCLAIMER

THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIIONS ON USE OF THE RECORDED-DATA (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF ANR RELIANCE UPN THE RECORDED-DATA; AND (c)CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISIONS MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA

Toolstring ran as per tool sketch

Repeat pass ran under 0 psi

Main pass ran under 2500 psi

Lead cement 13.1 ppg

Tail cement 15.2 ppg

Estimated top of cement 1100 ft

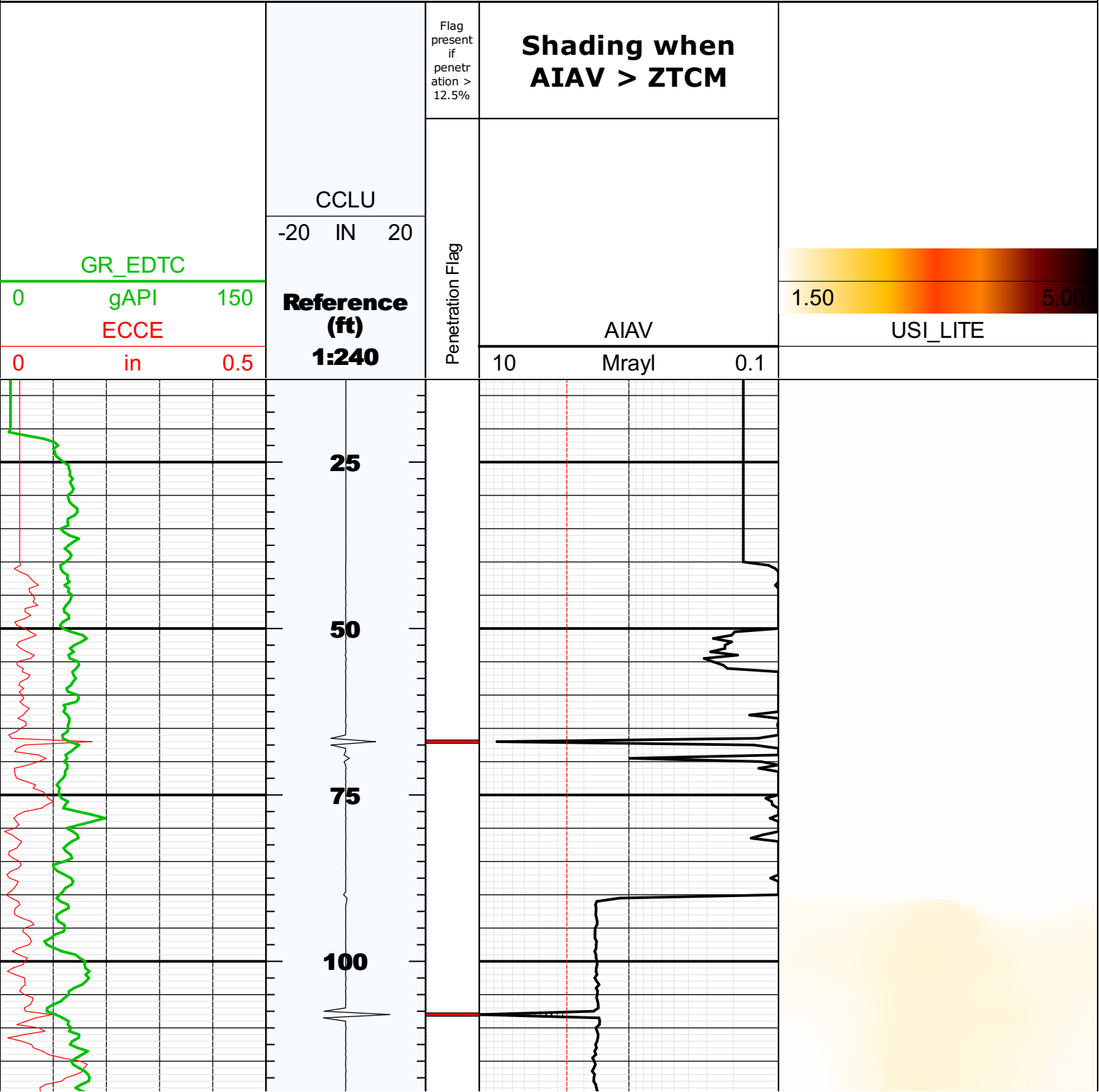
Casing wear anomalies logged in high resolution and included in Casing Integrity print

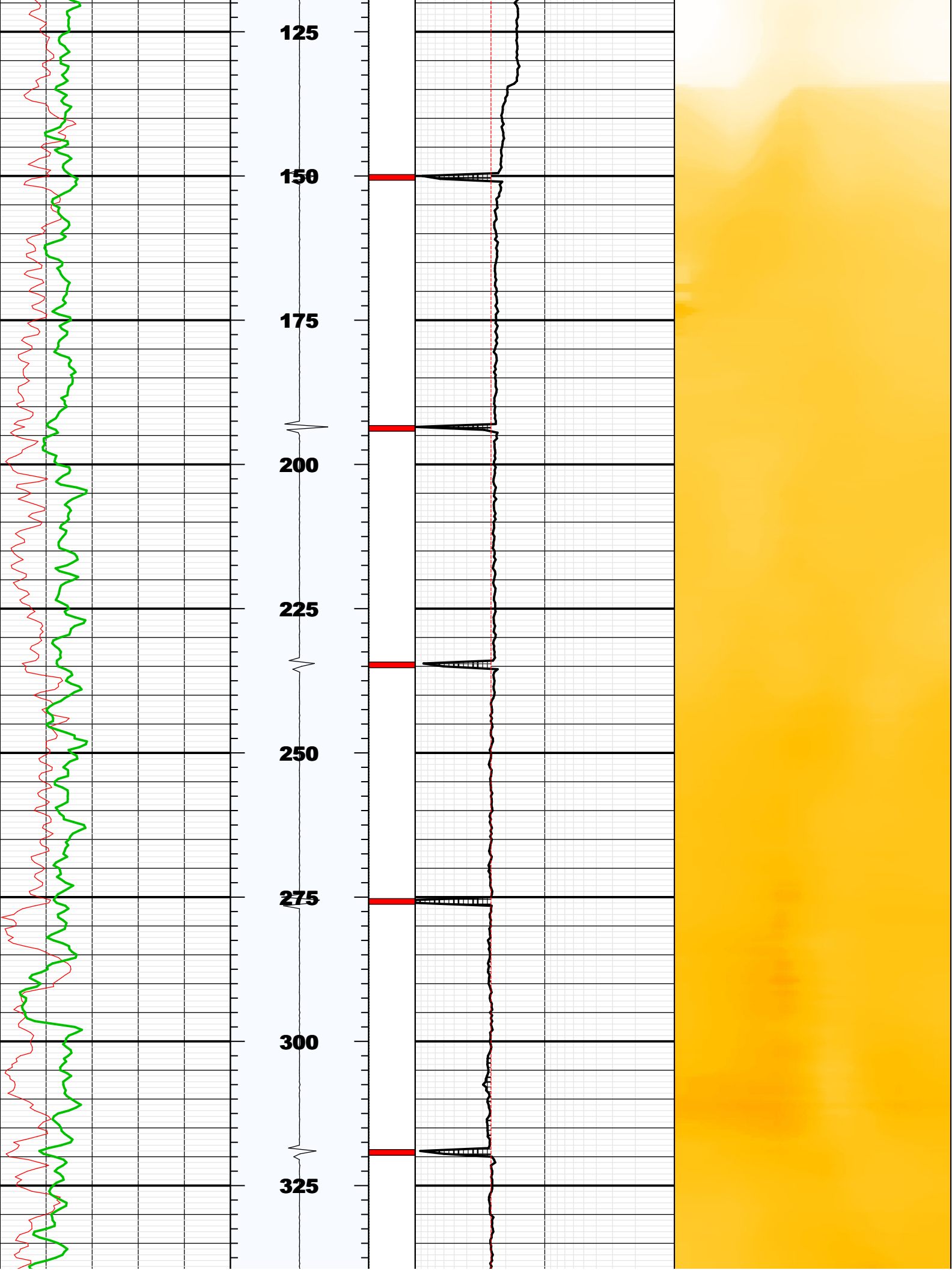
Crew Ian Derry Josh Strand Elizabeth Wilson

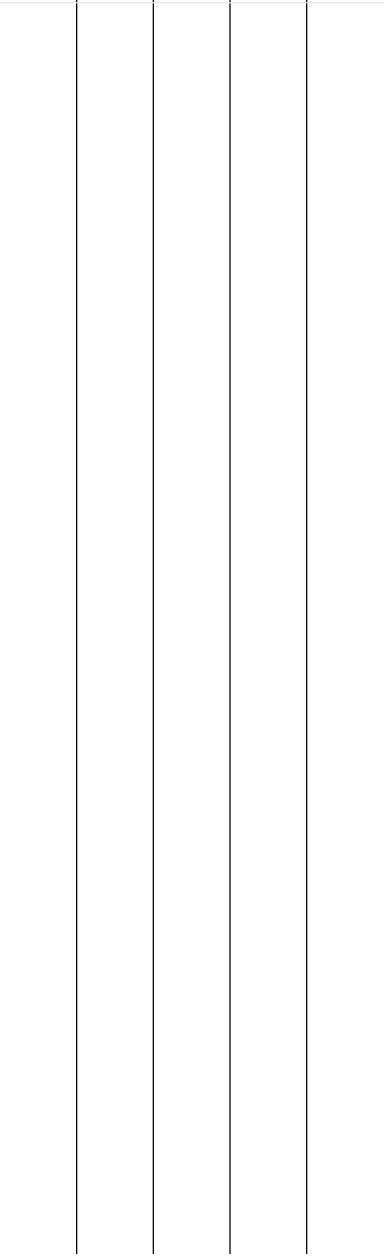
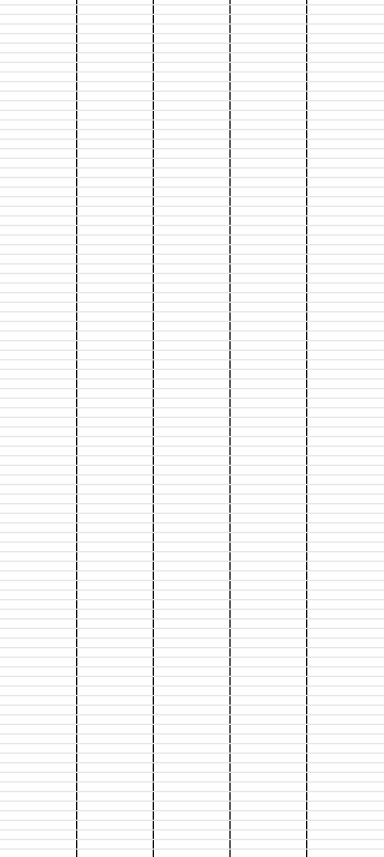
Thank you for choosing Schlumberger Wireline Services

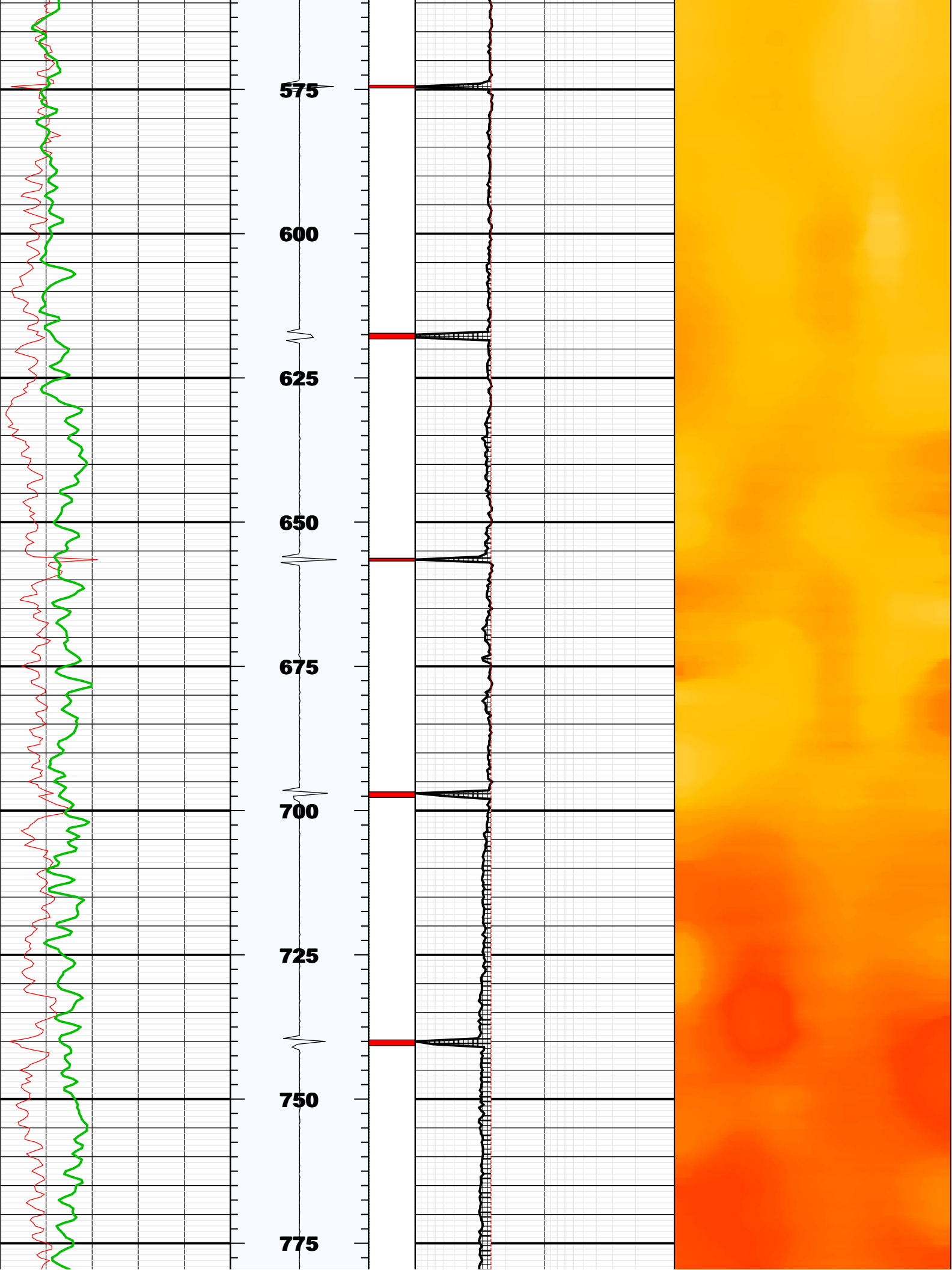
Main Pass

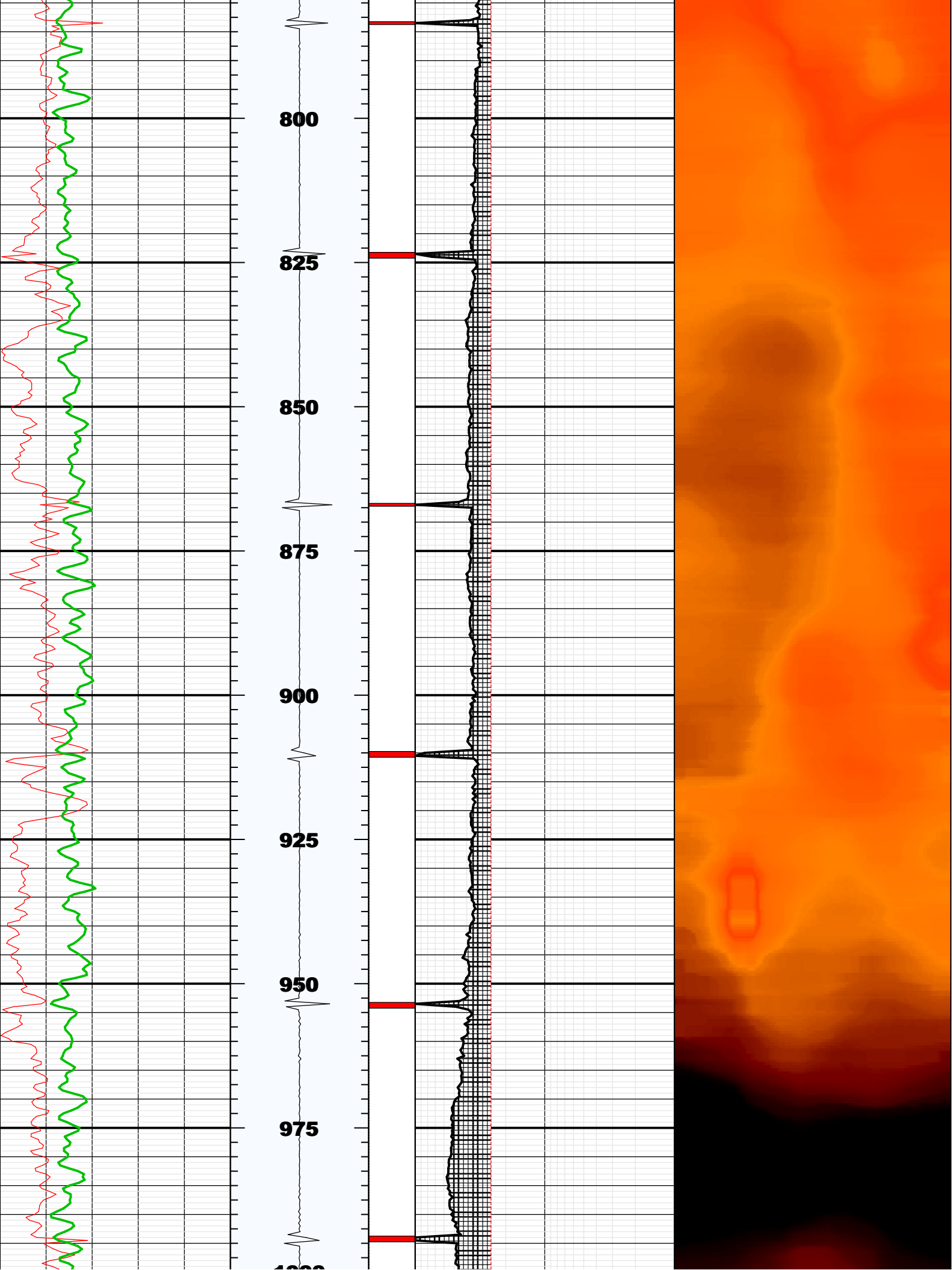
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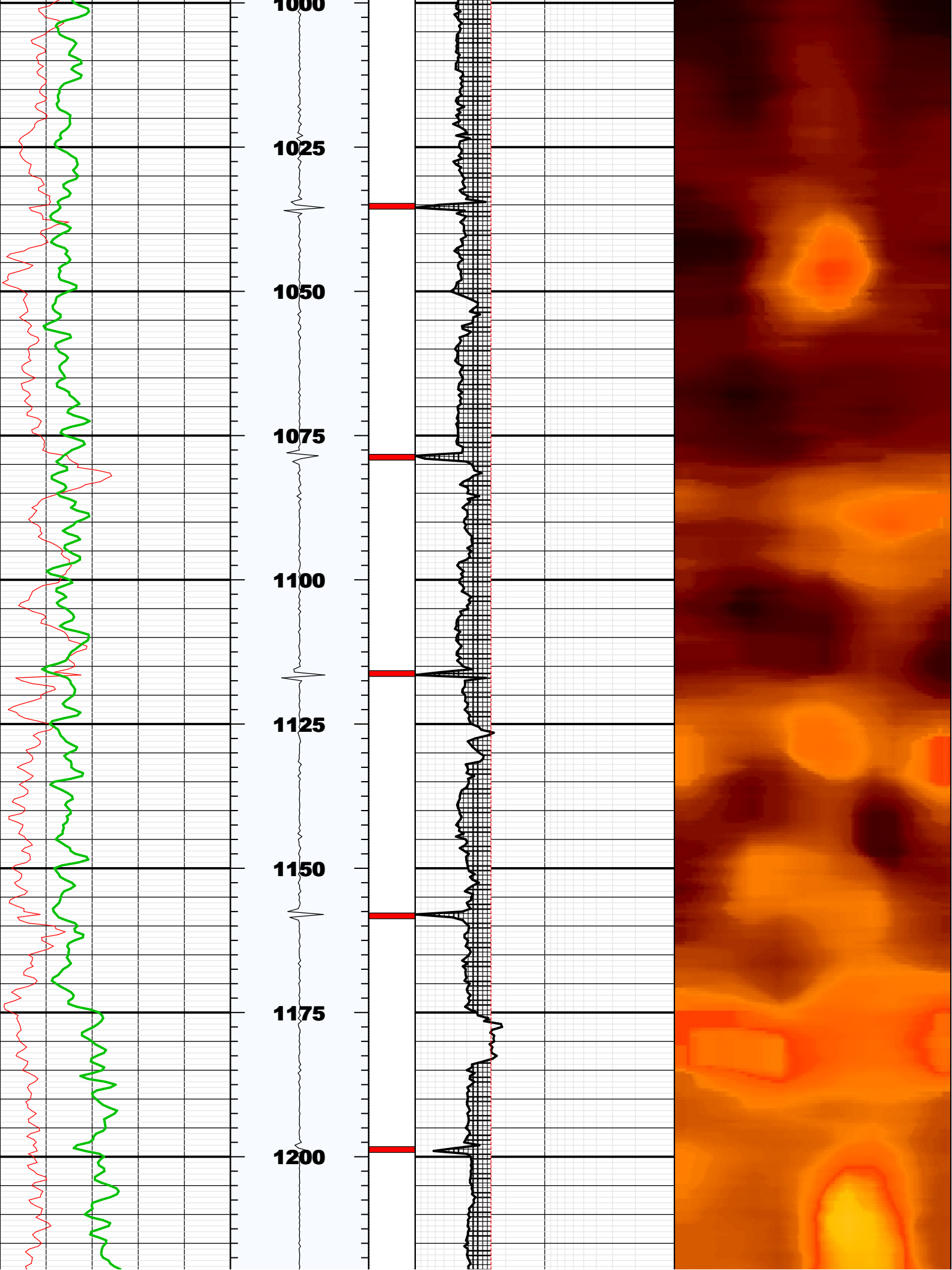


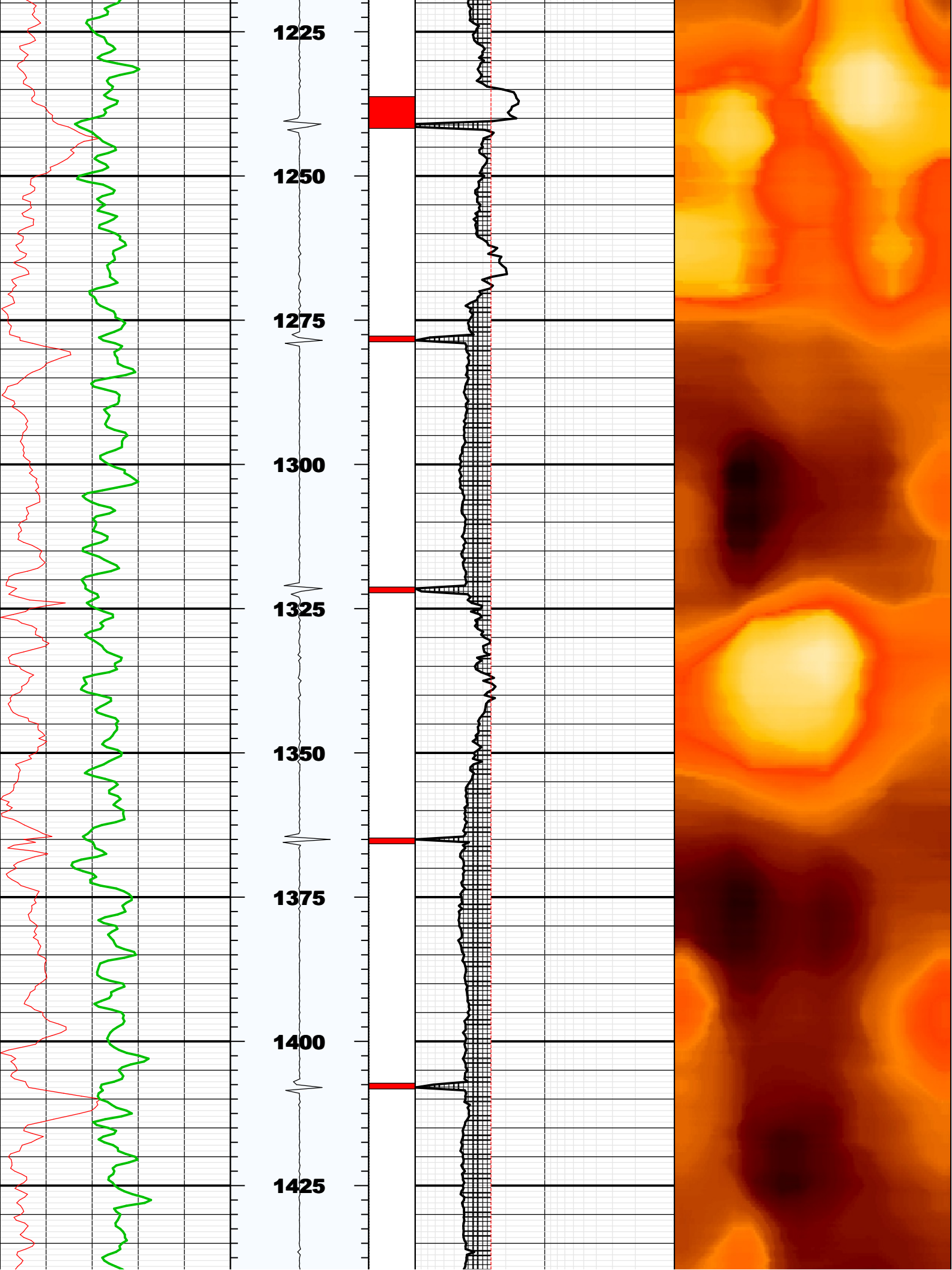


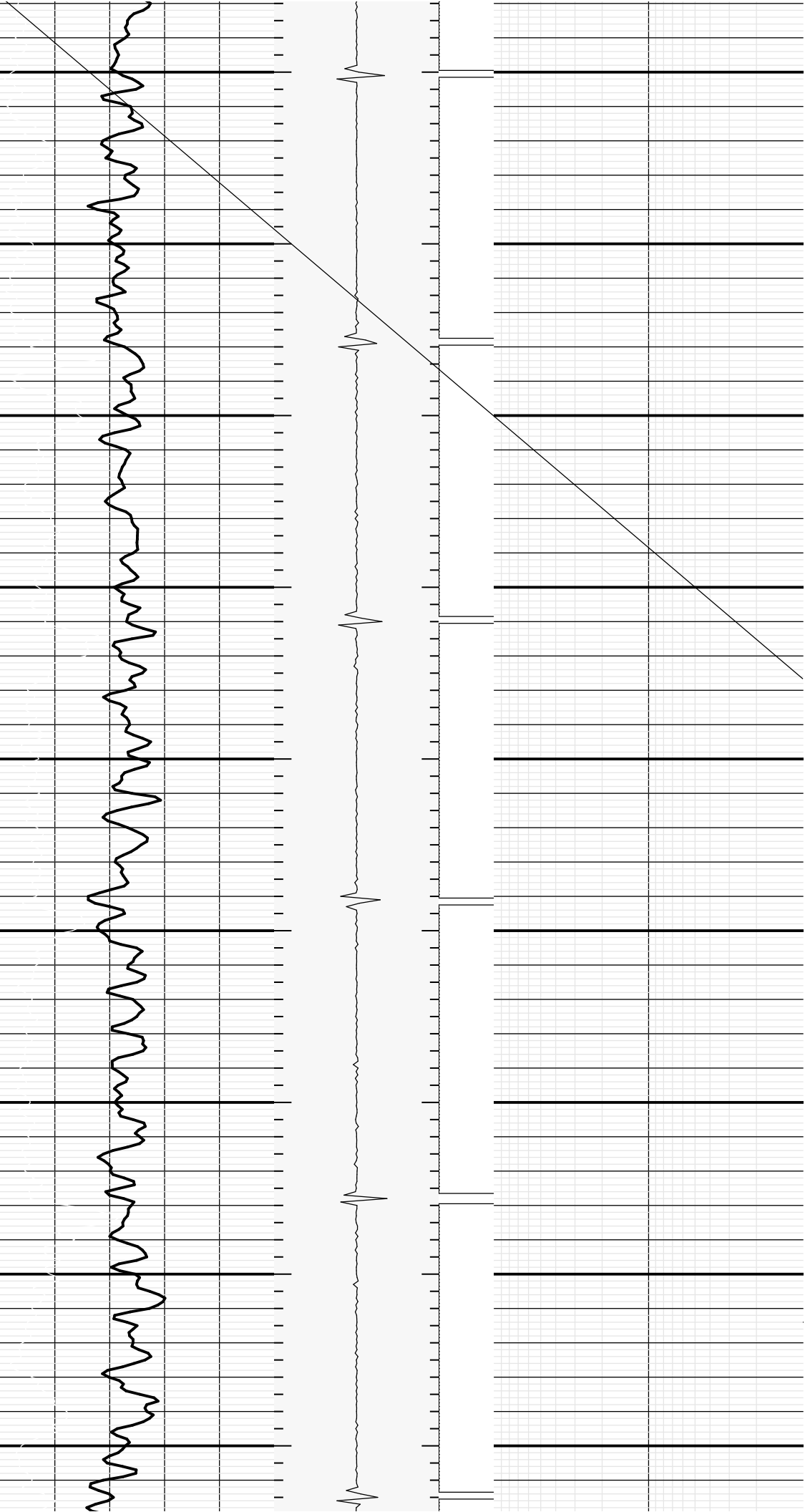


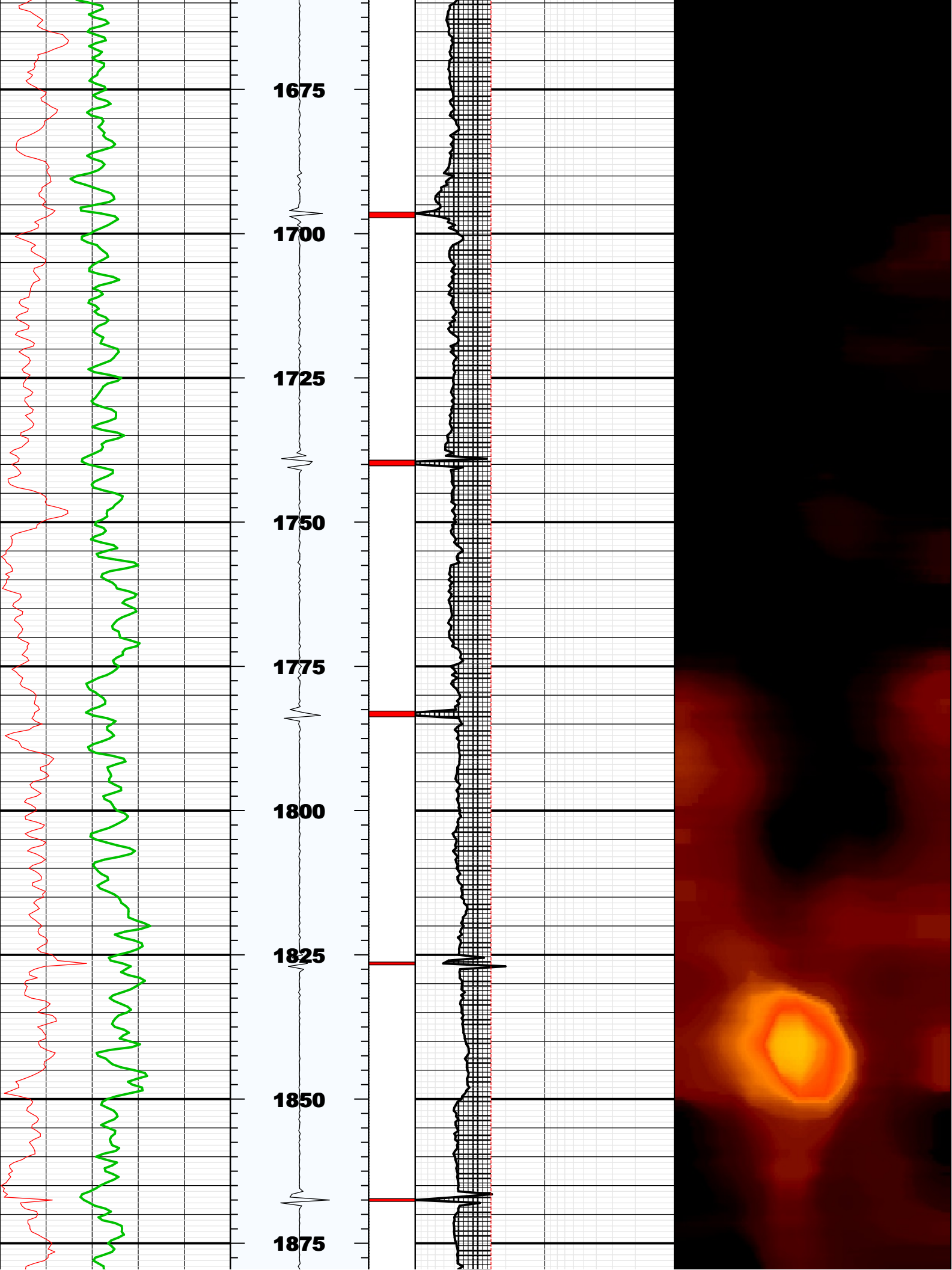


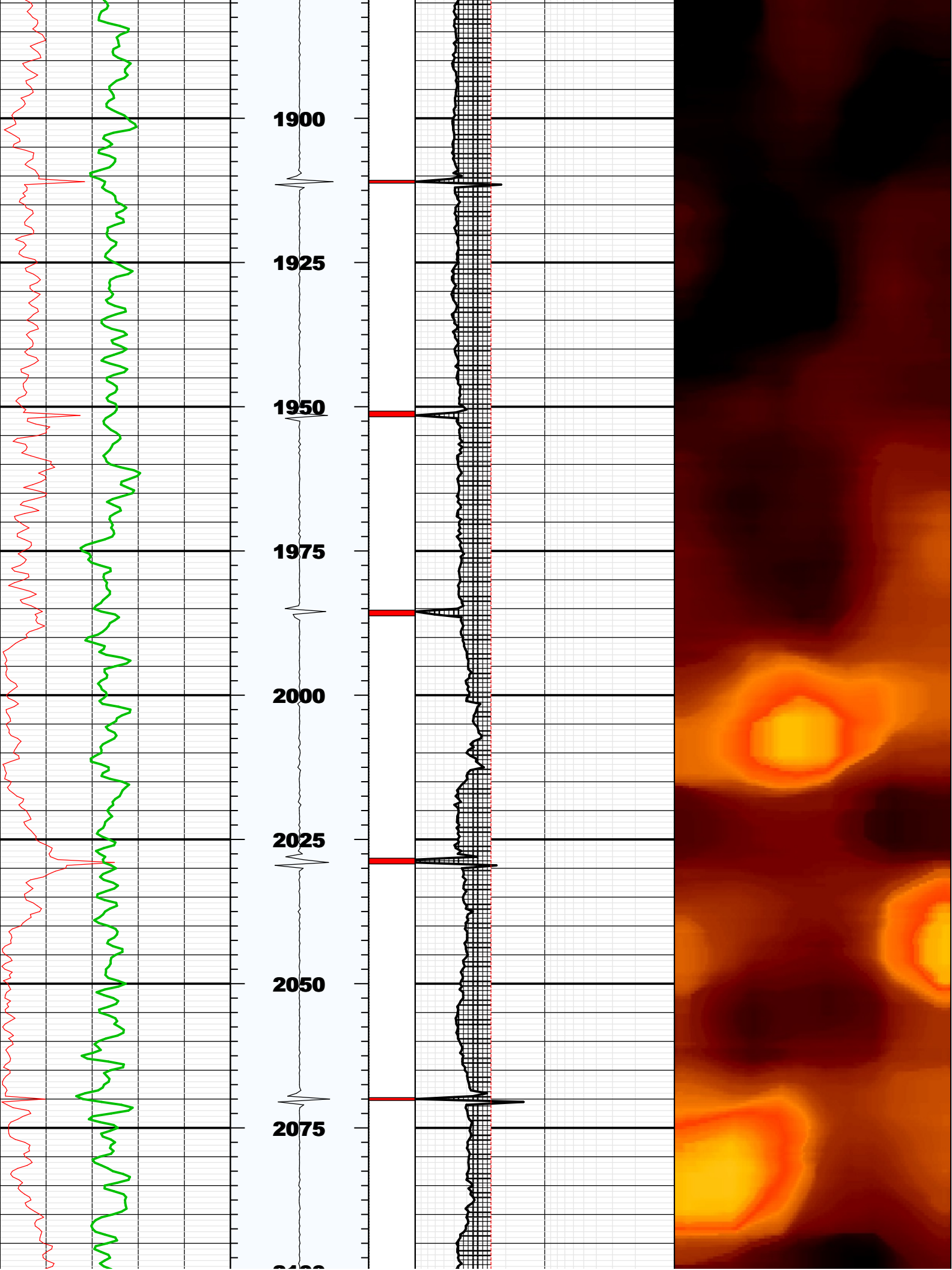


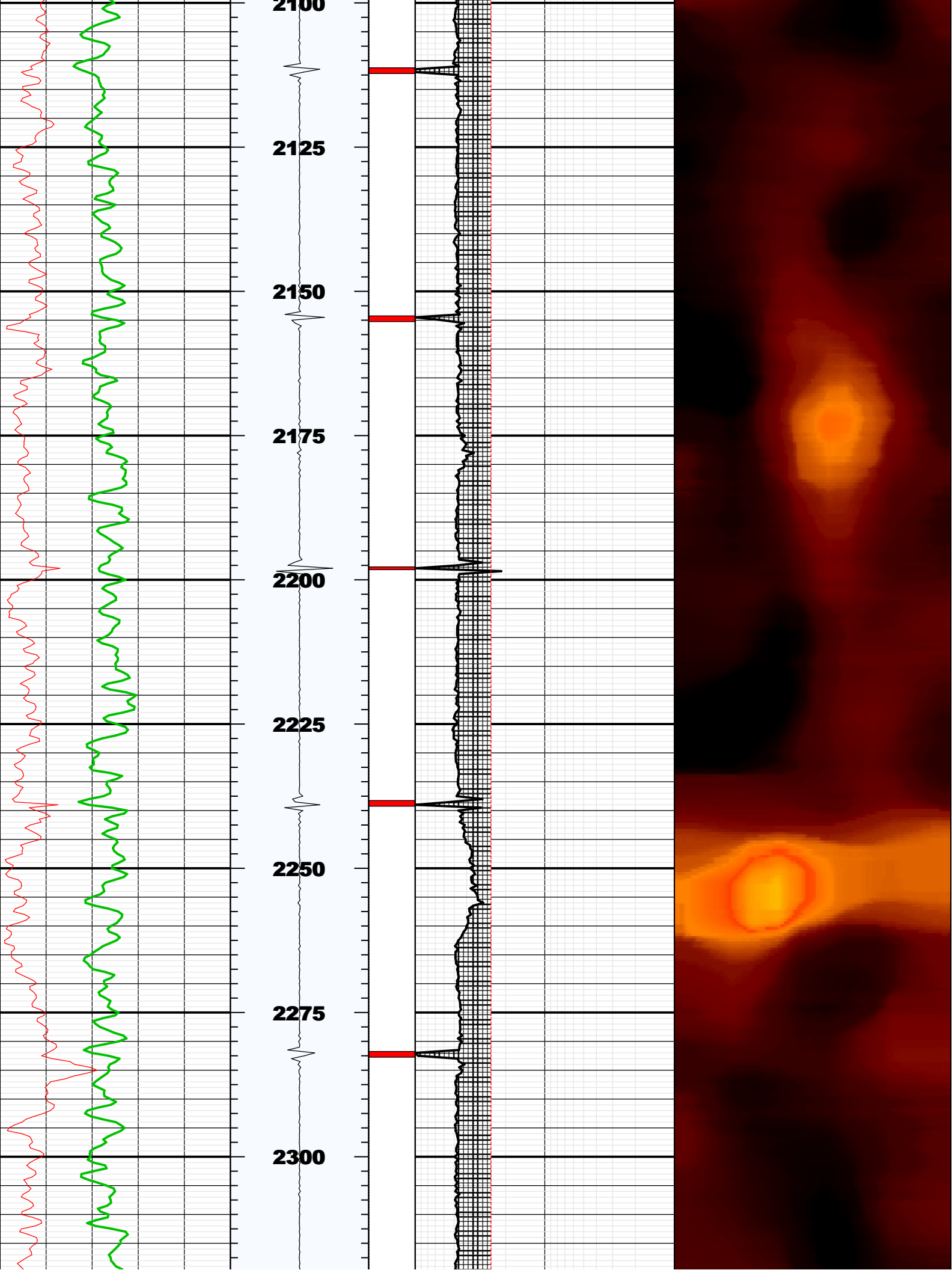


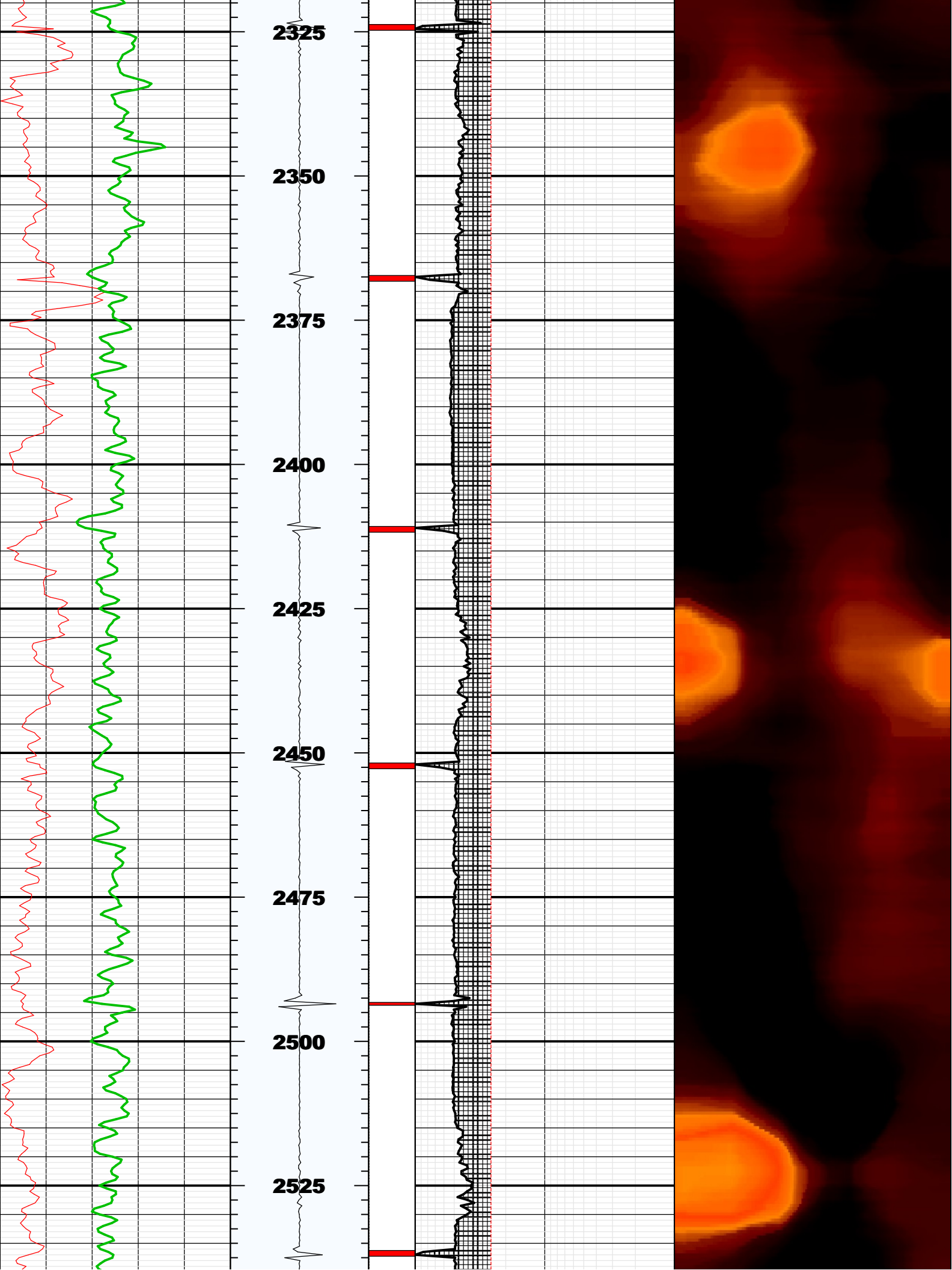




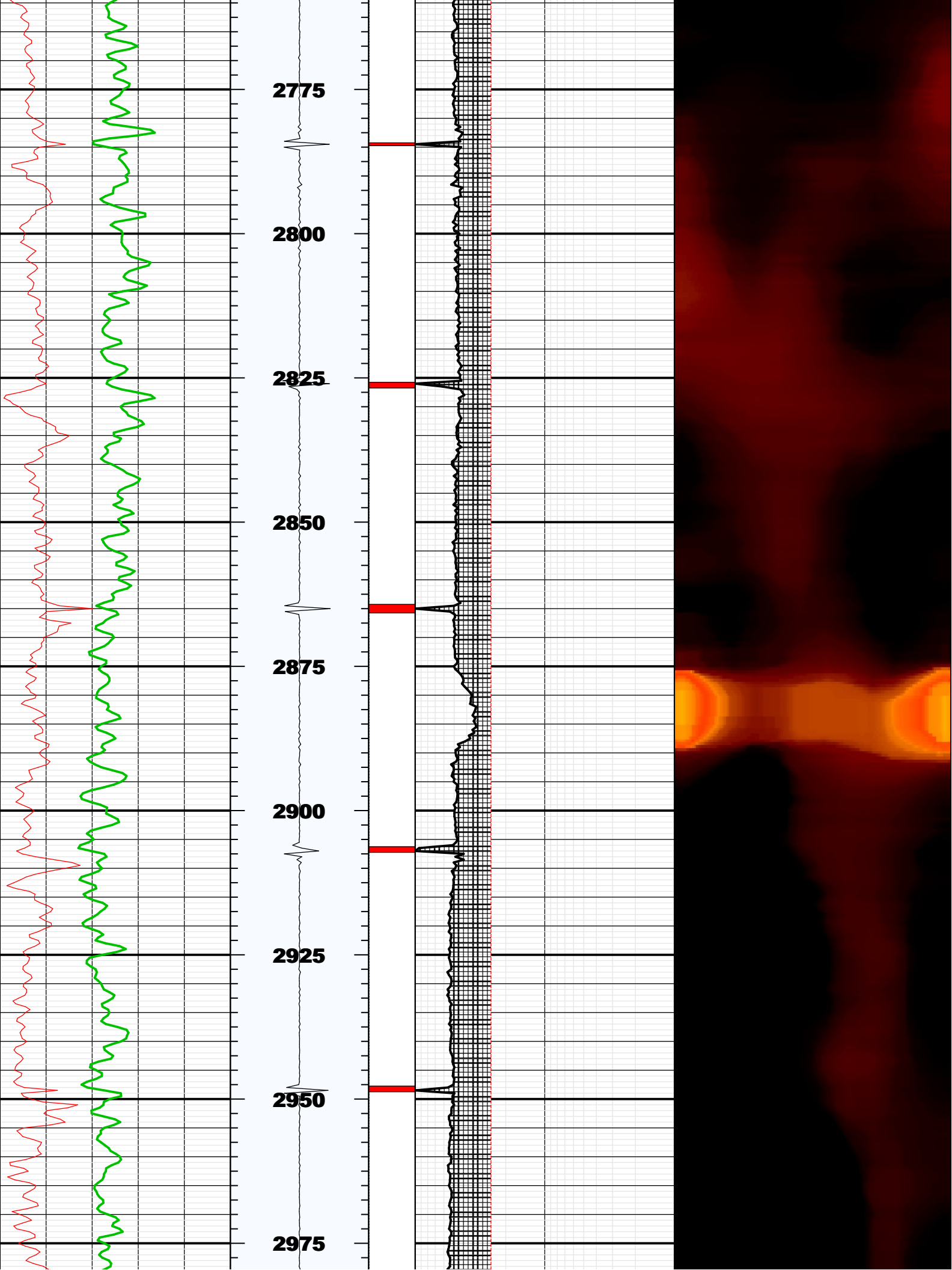


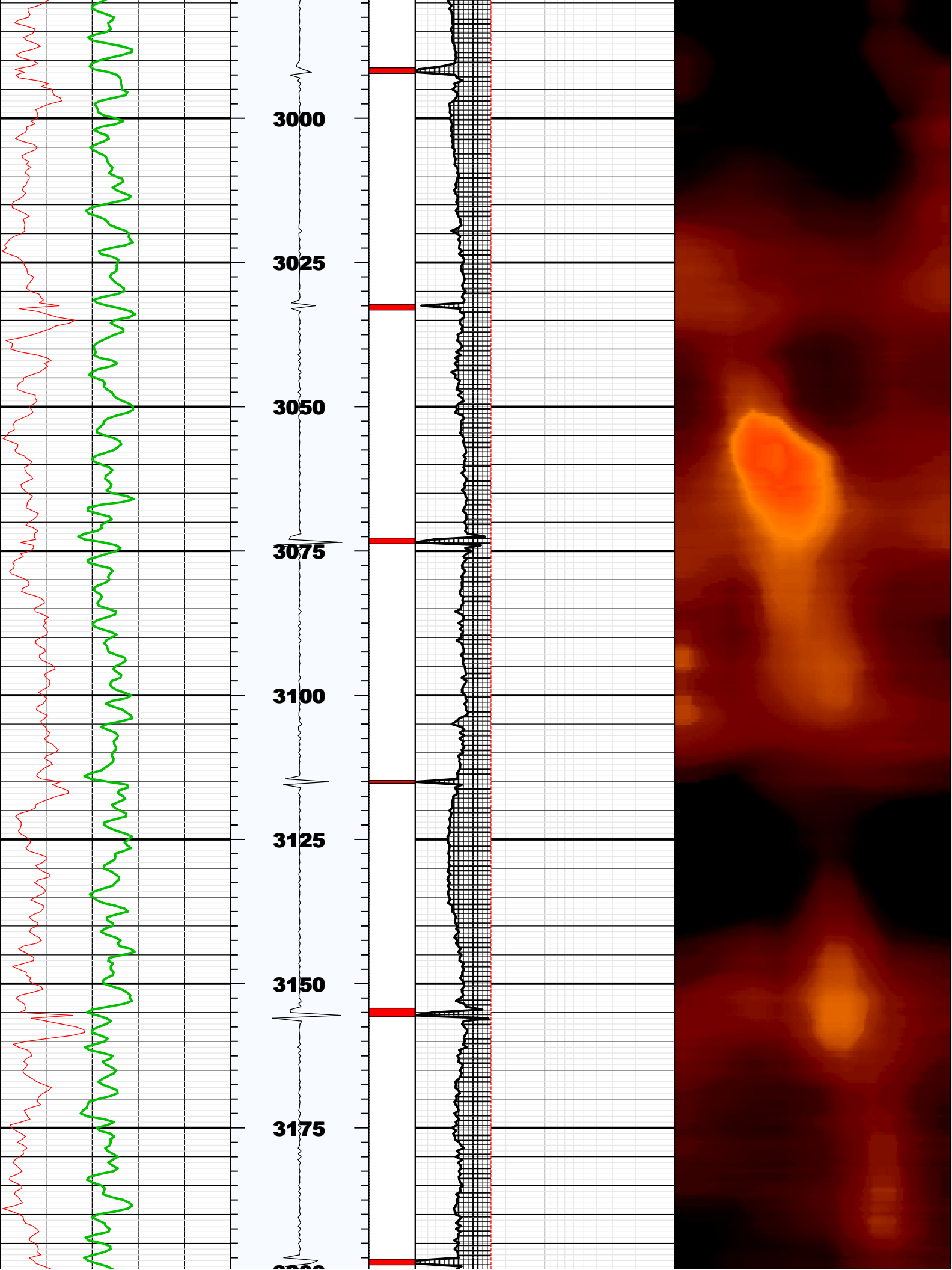


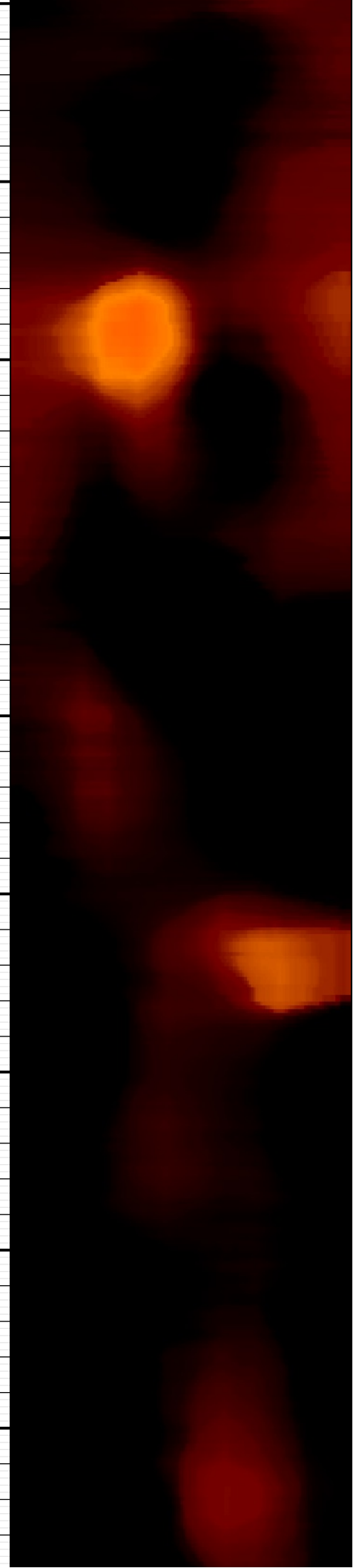
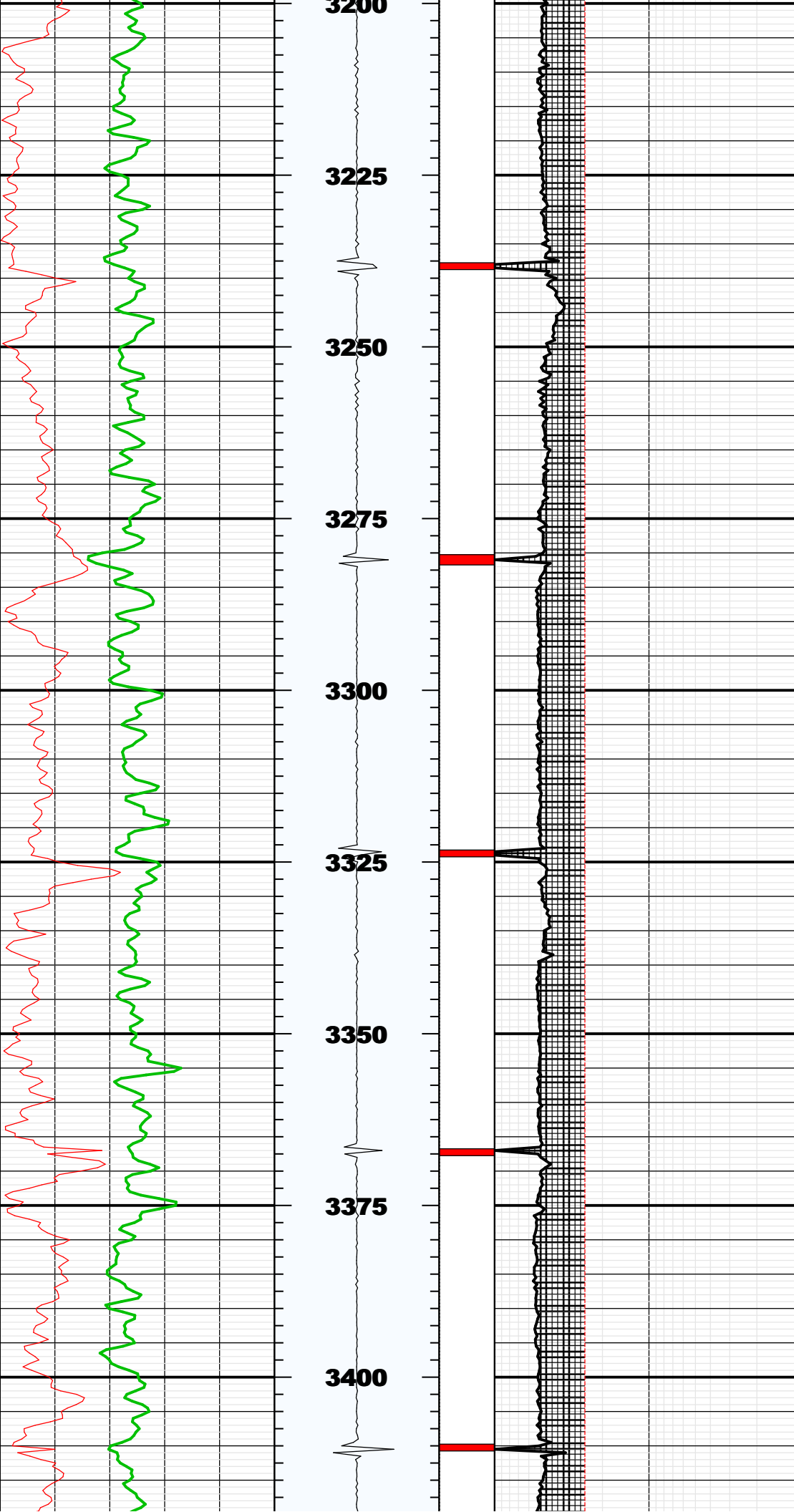


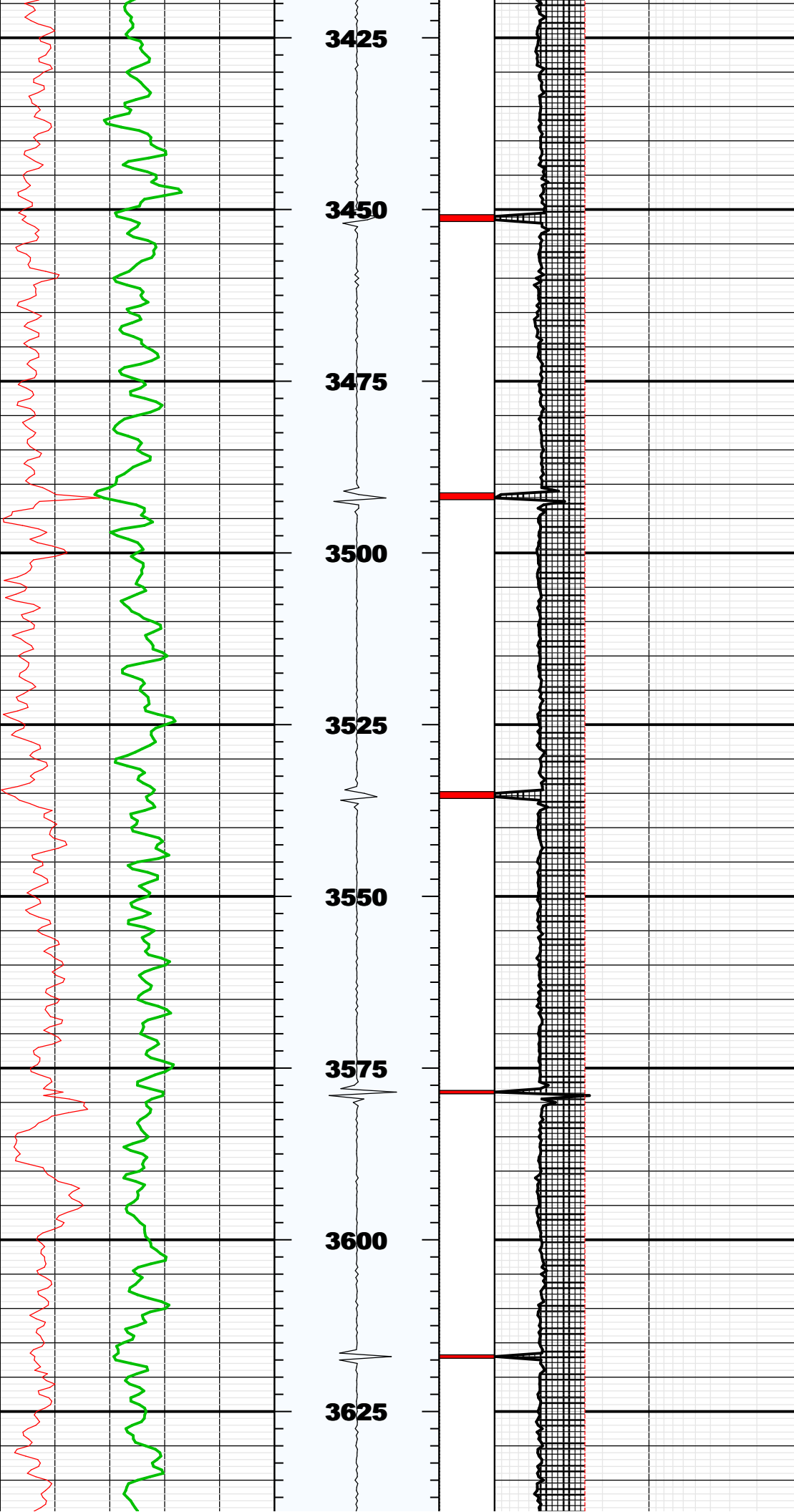


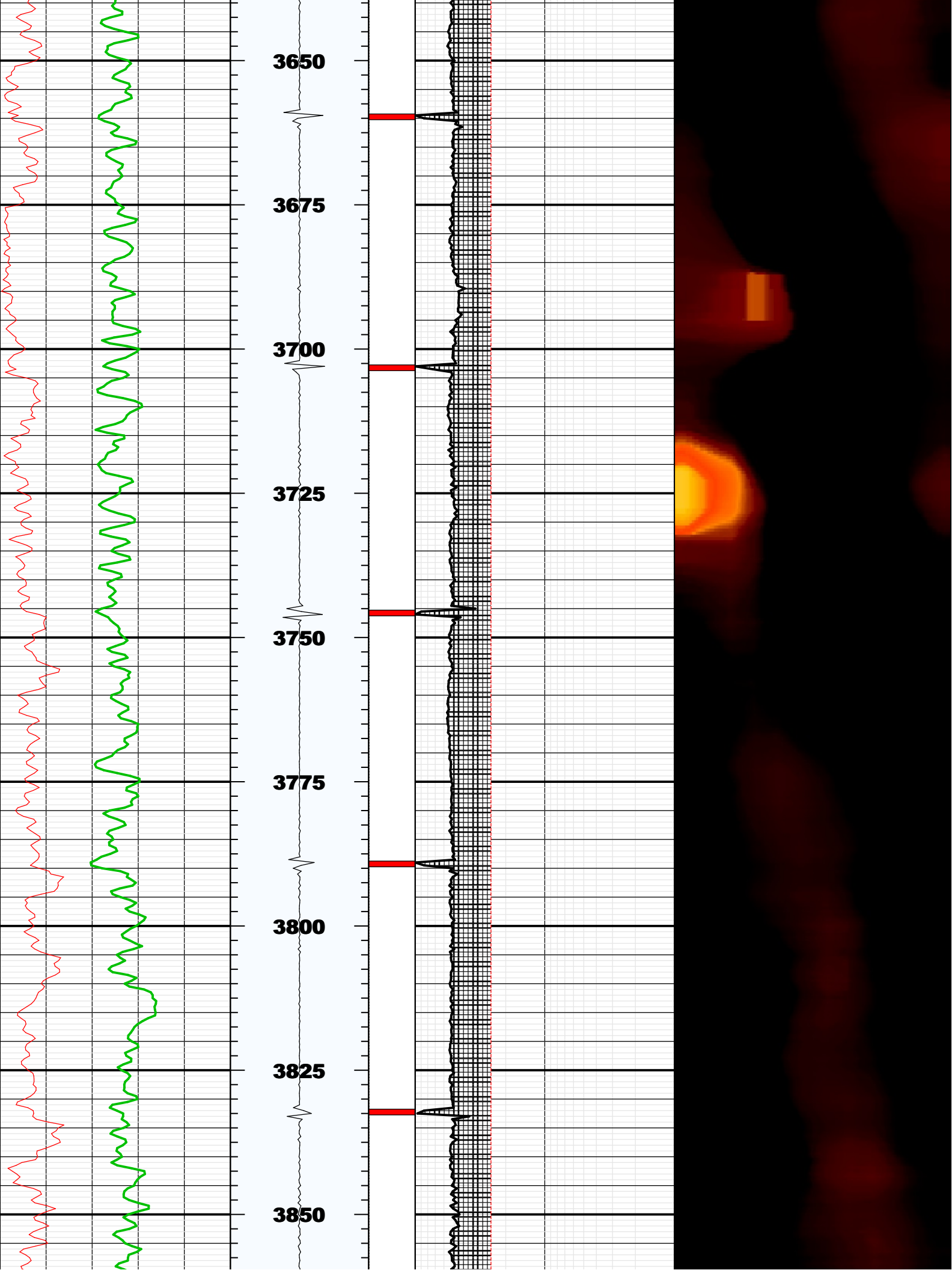


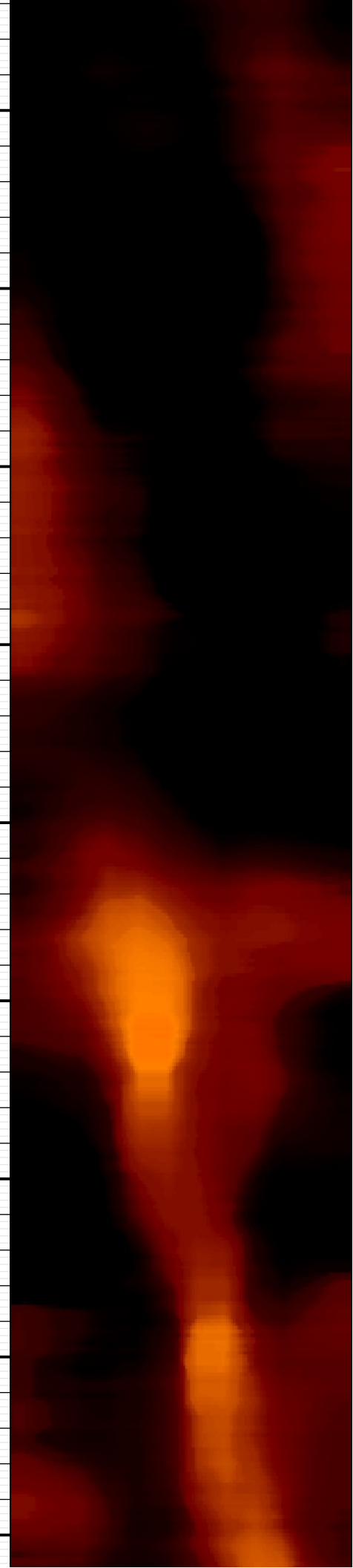
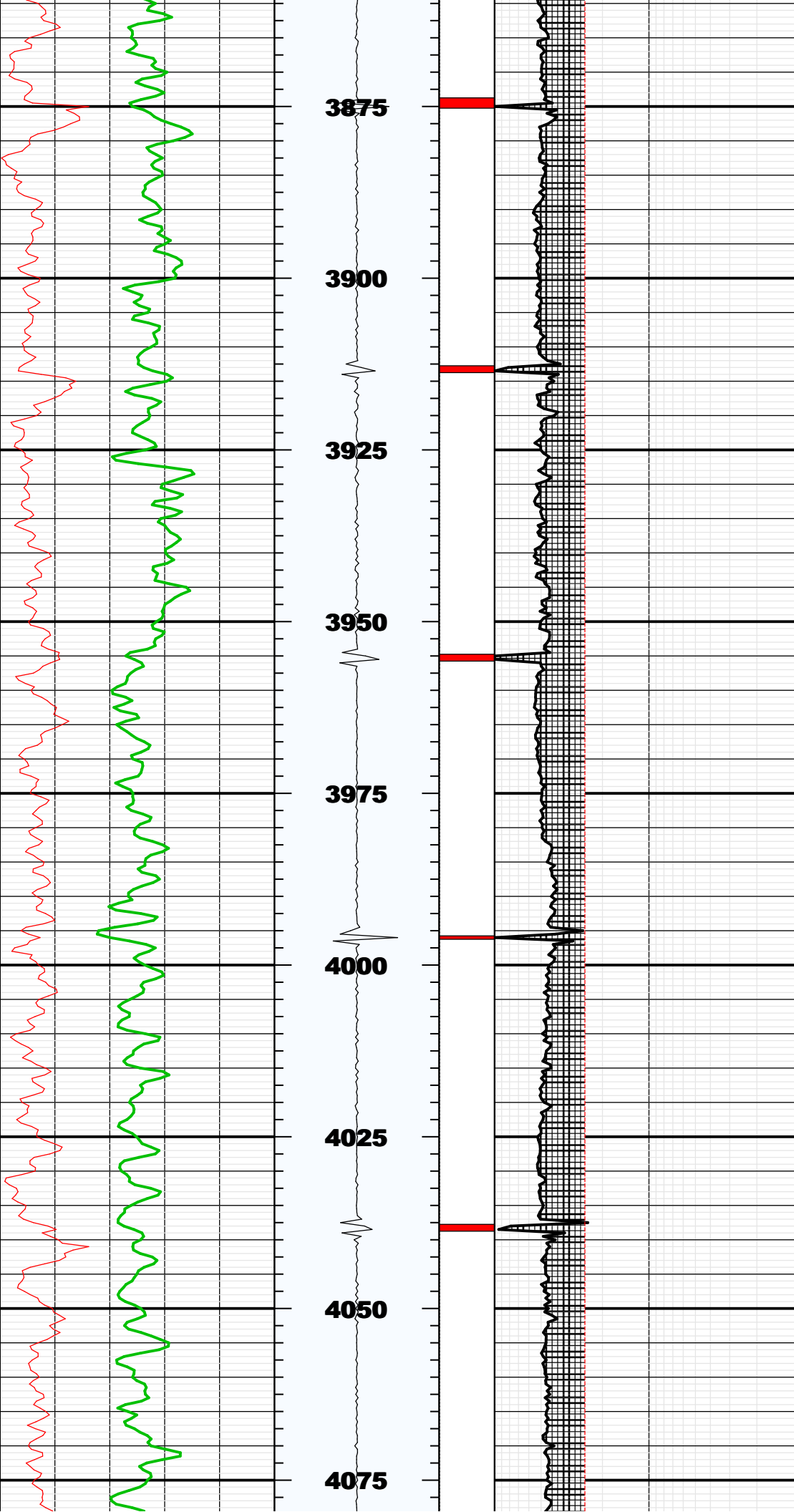


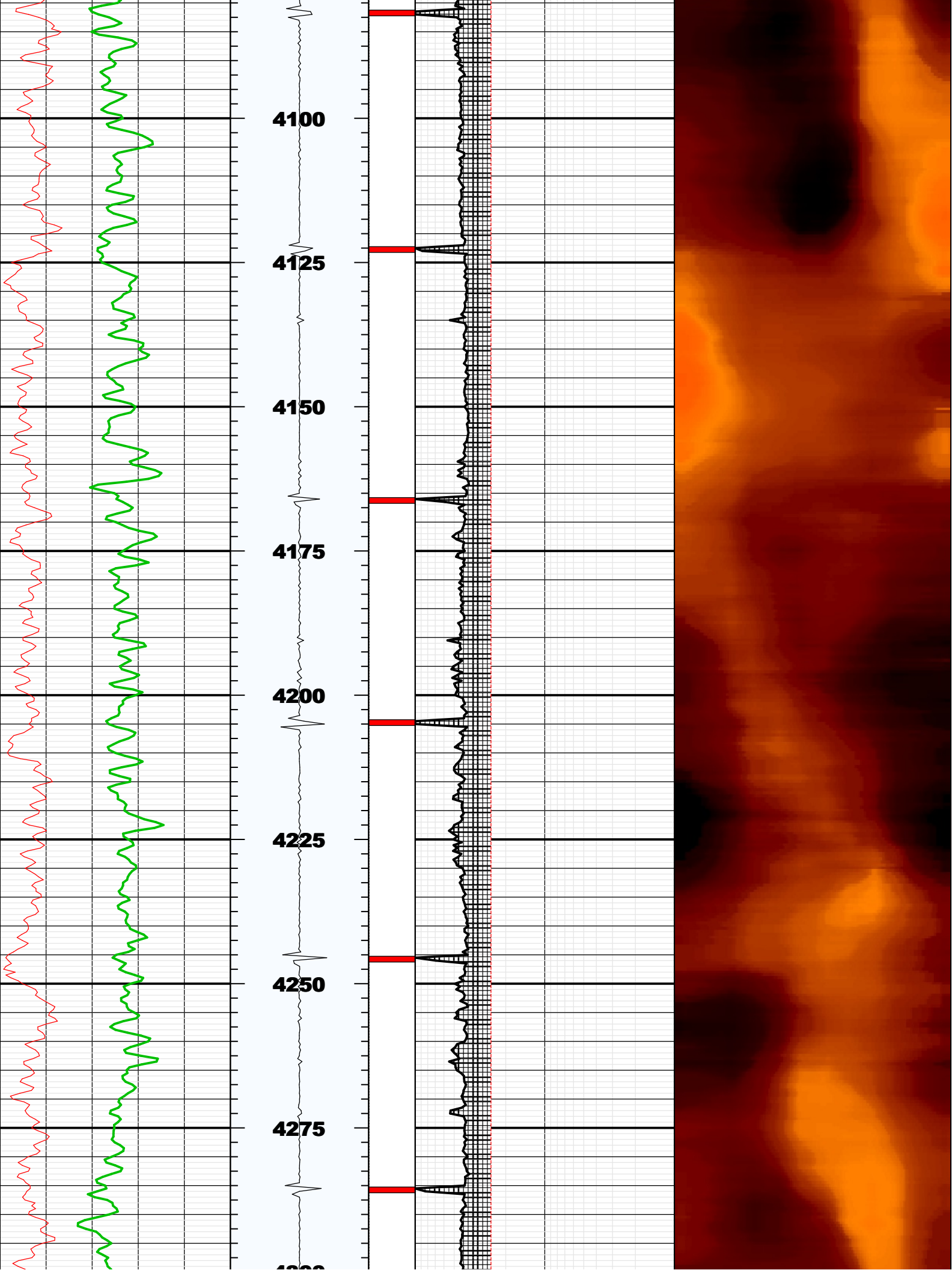


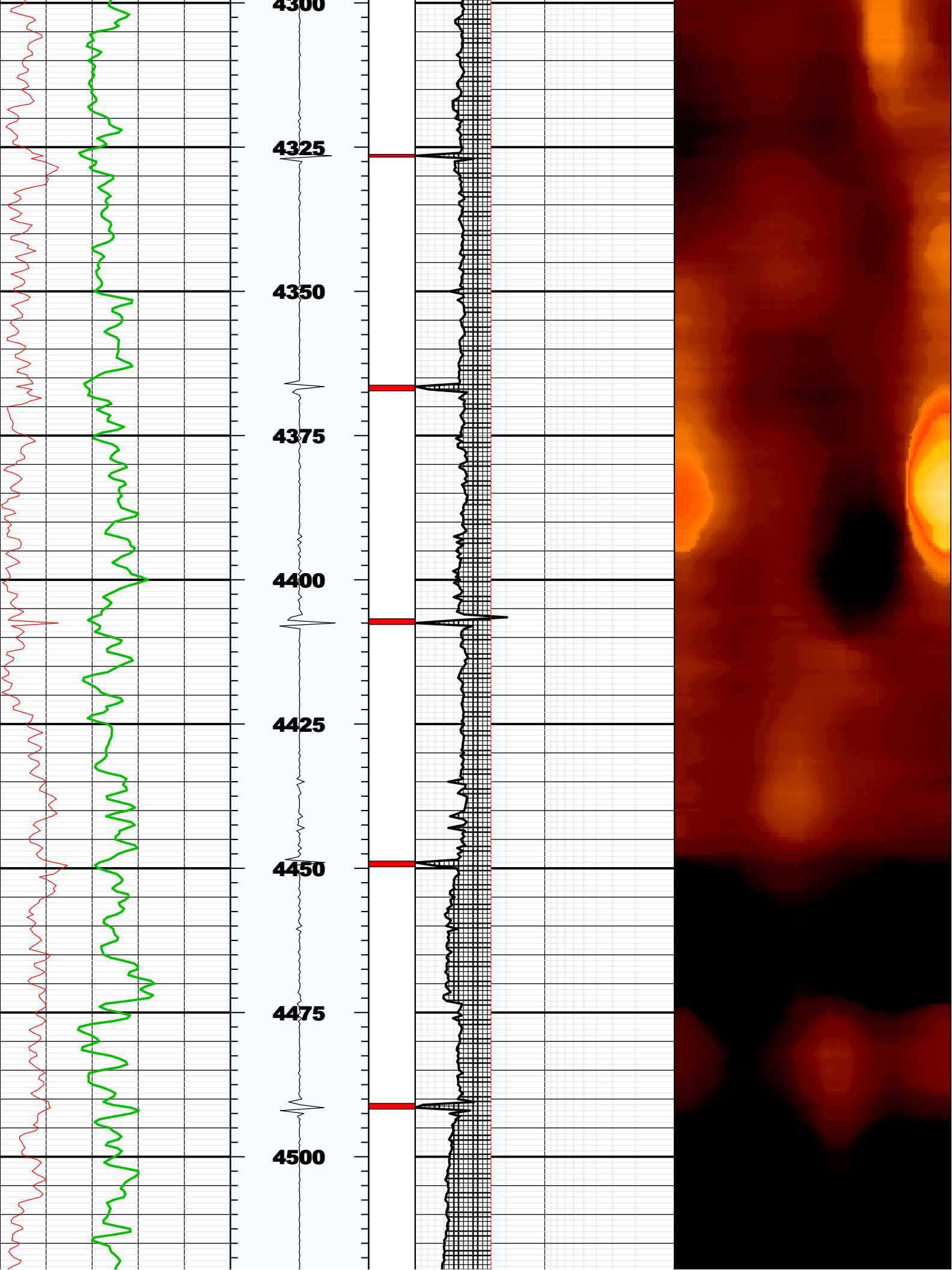


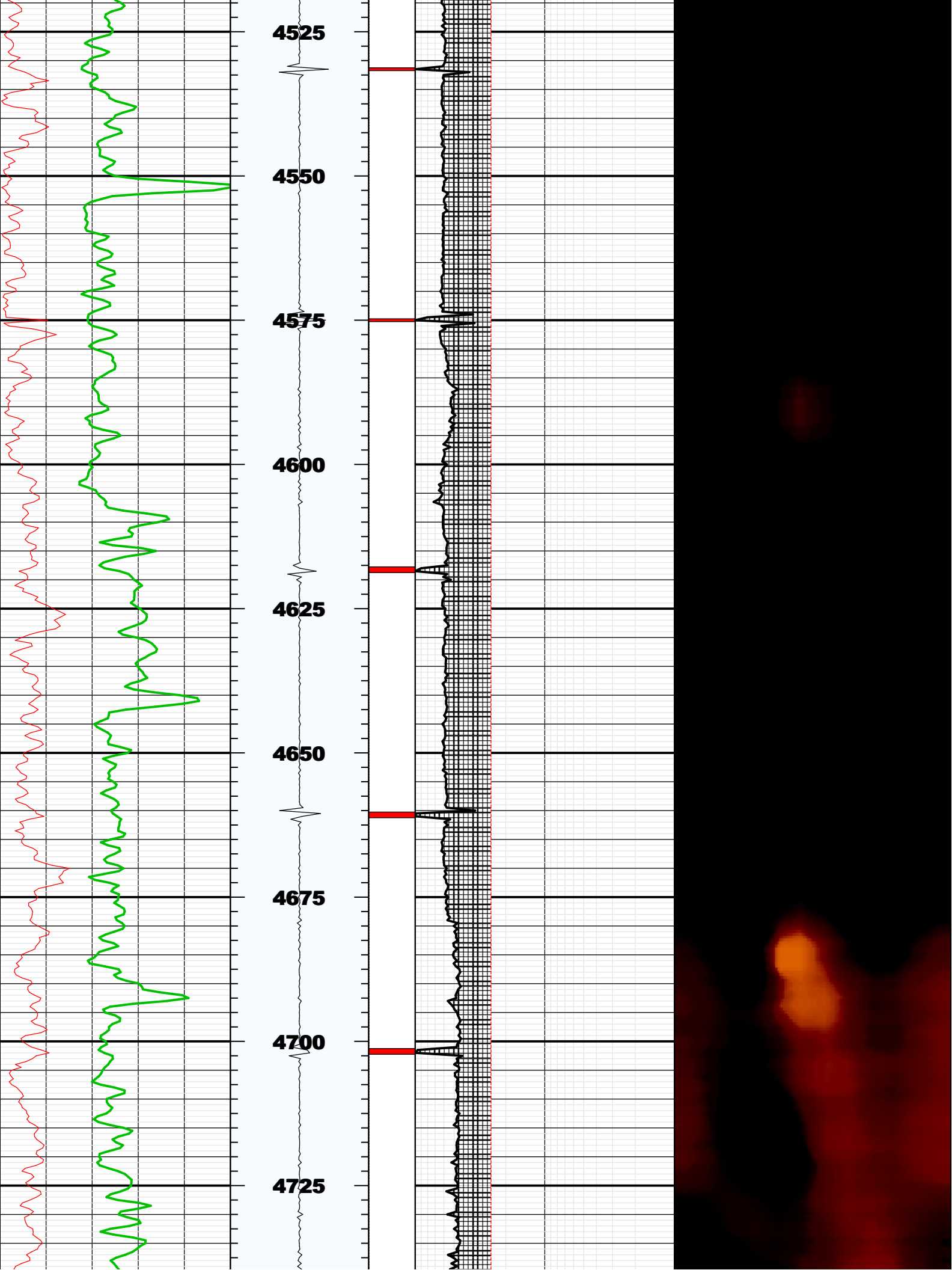


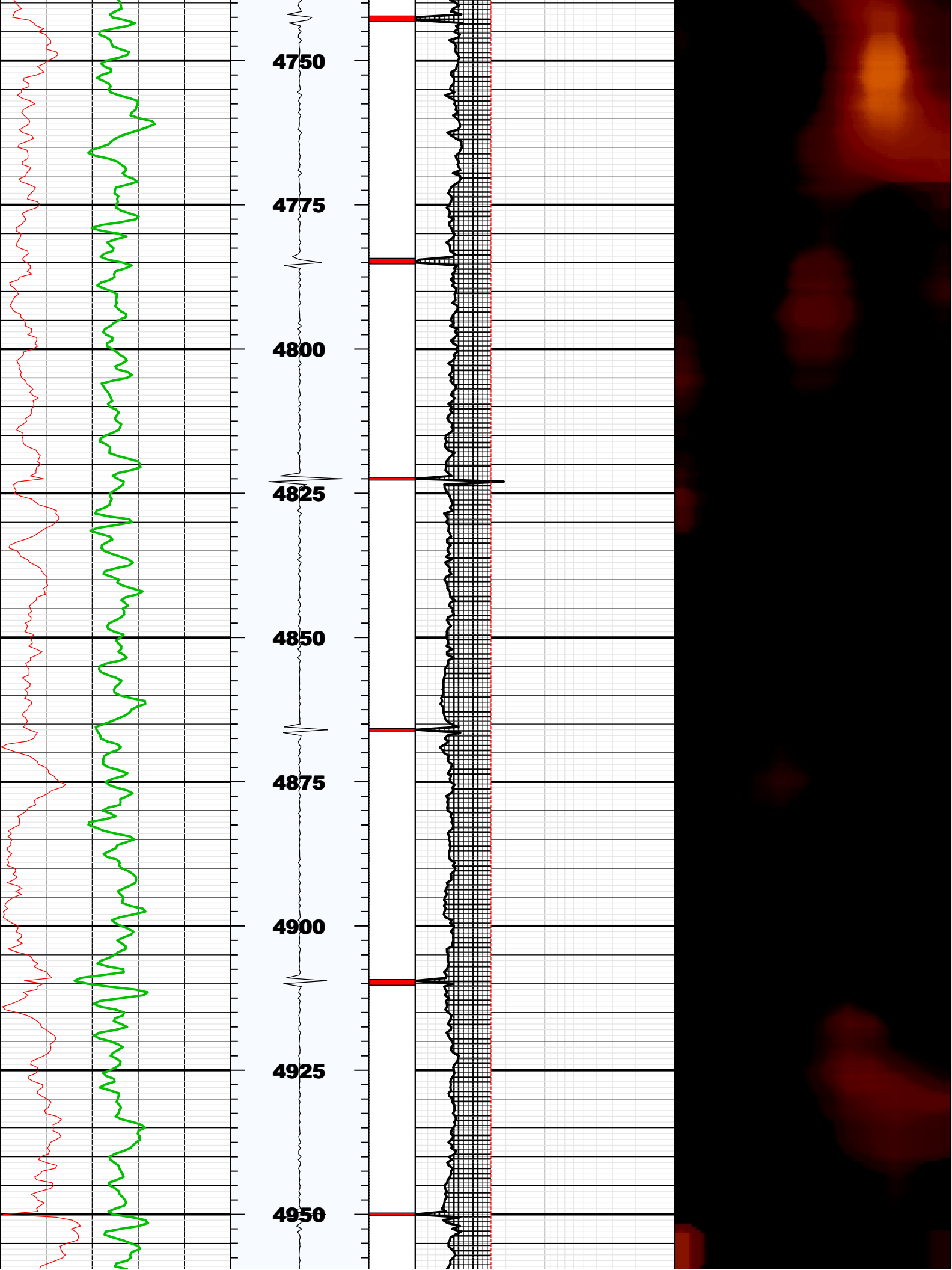


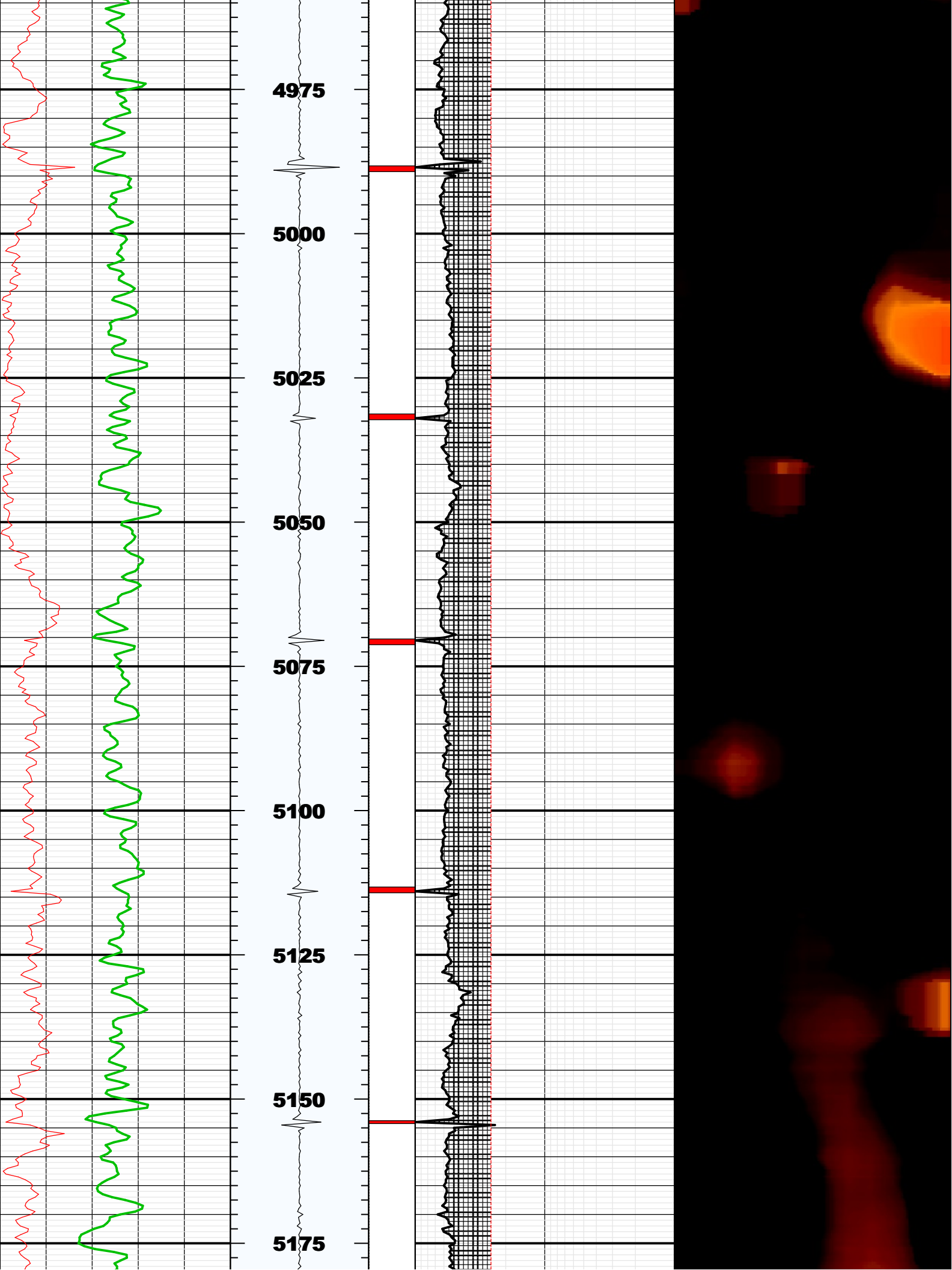


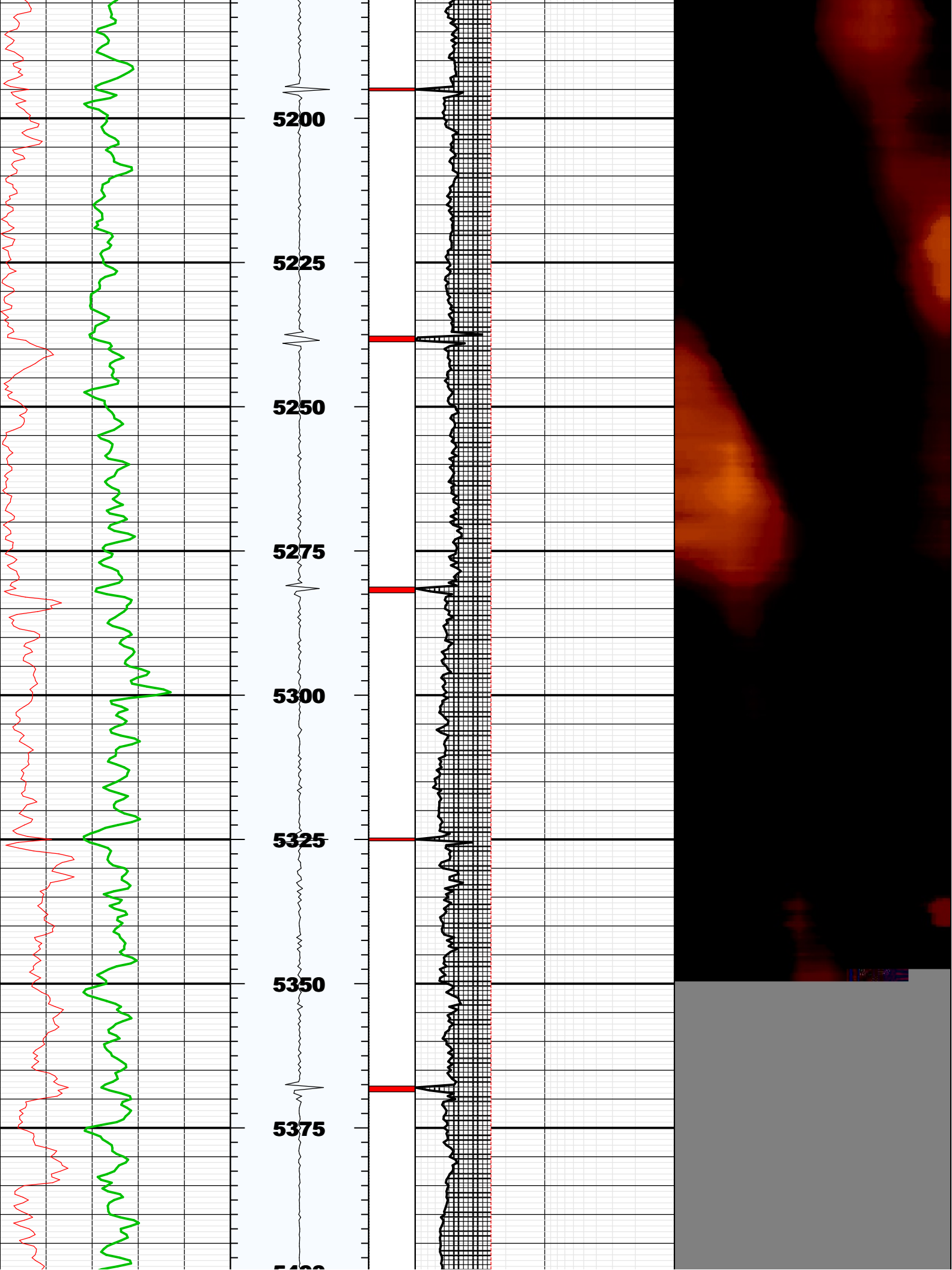


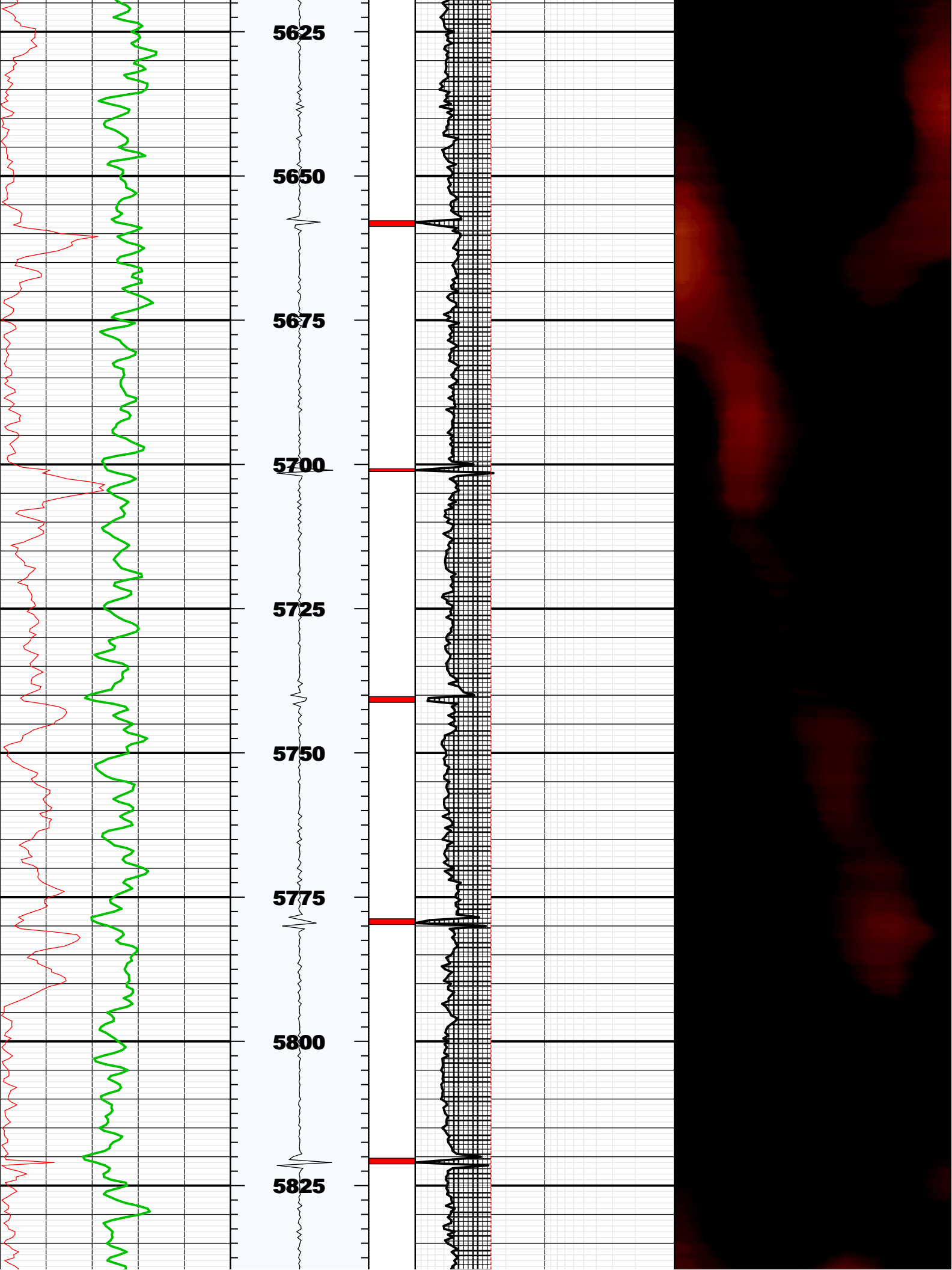


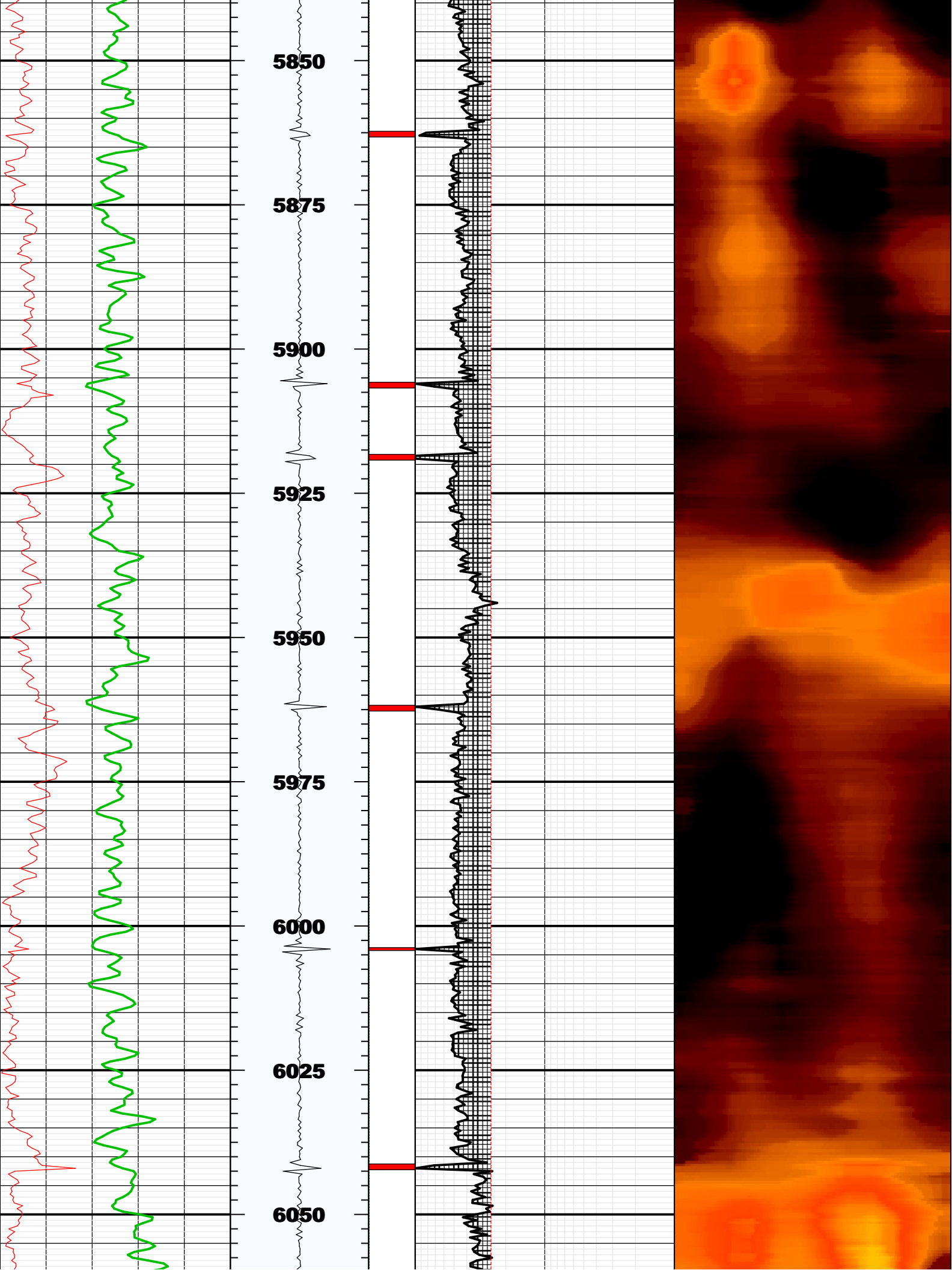


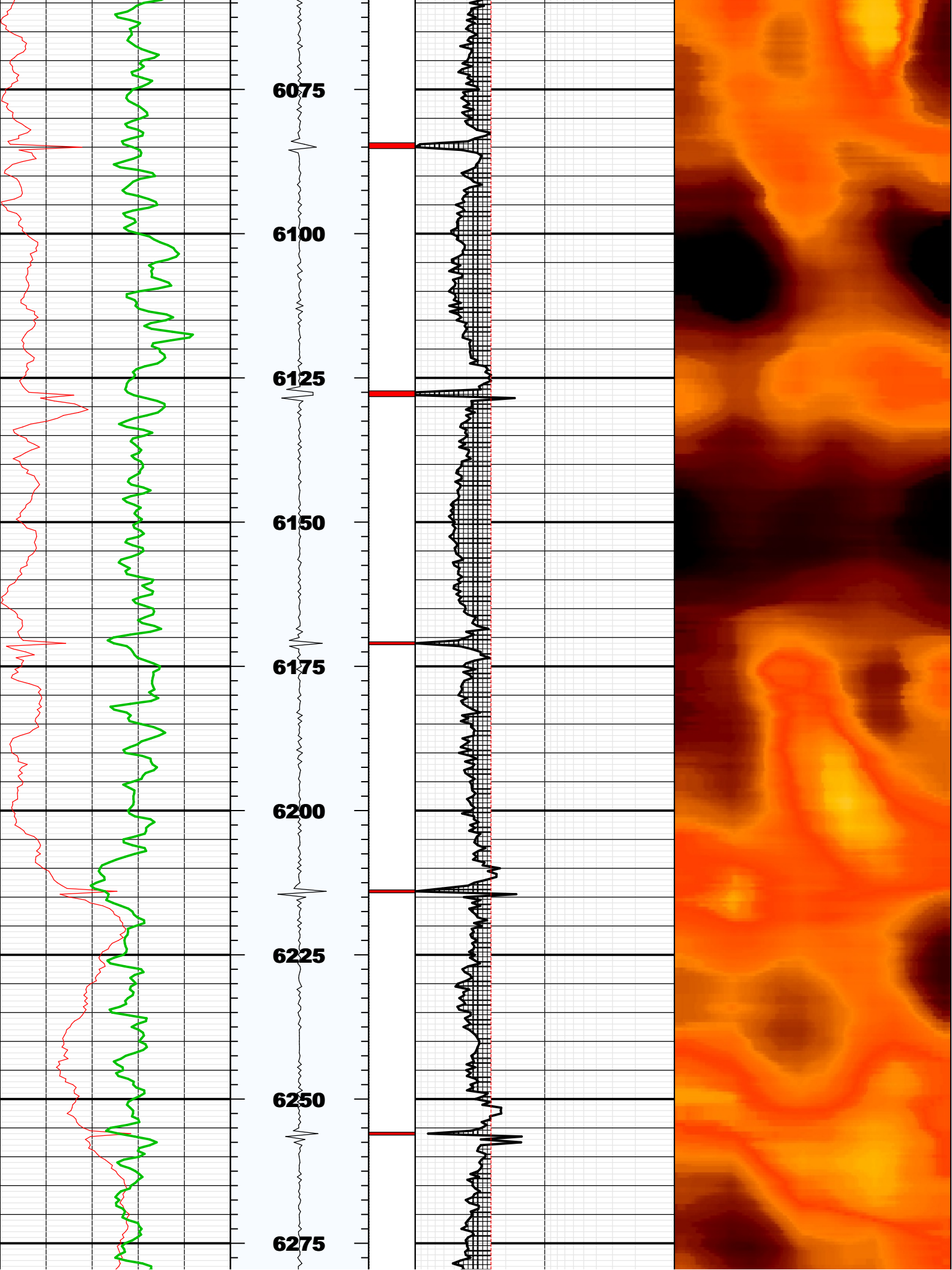


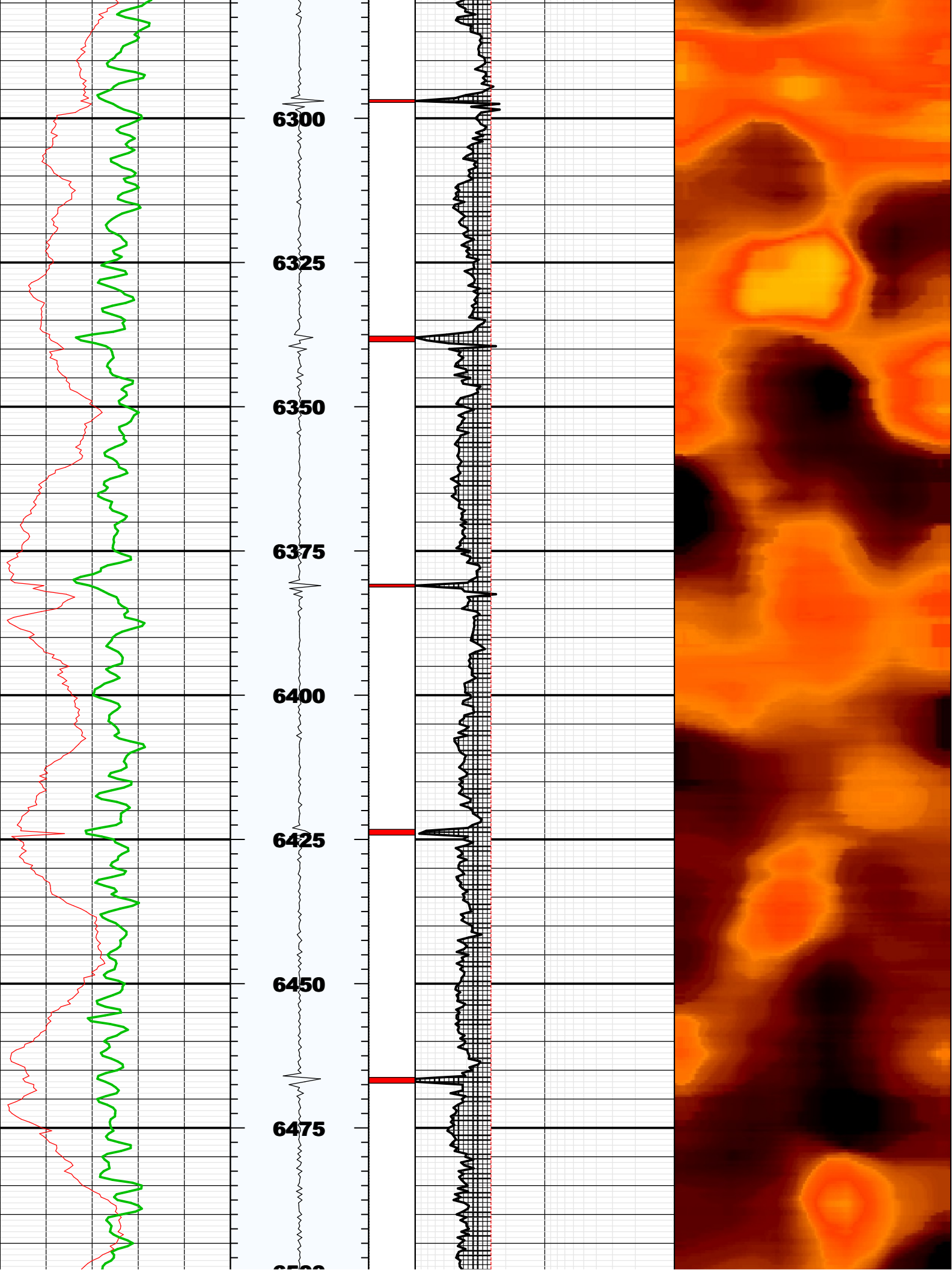


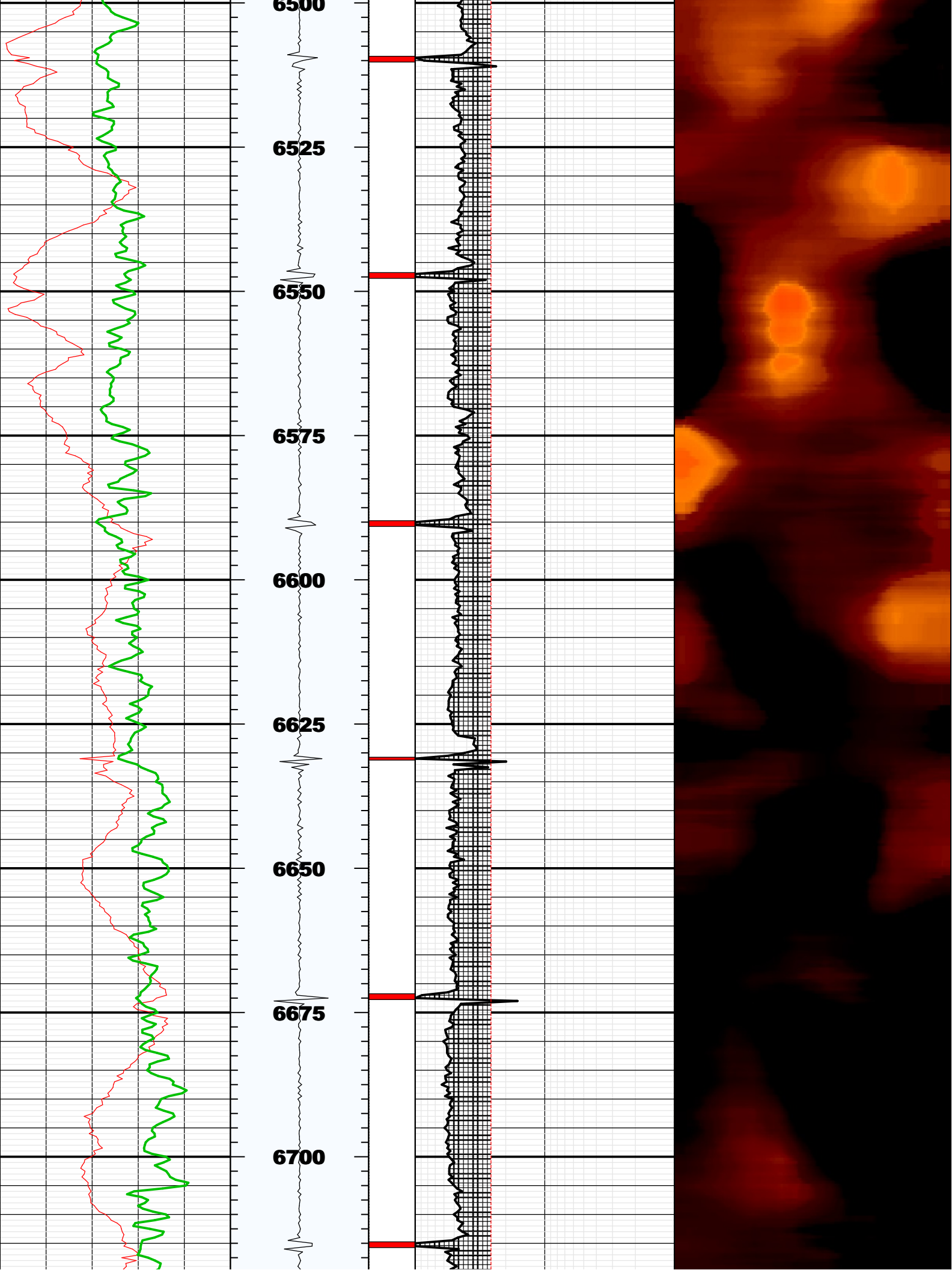


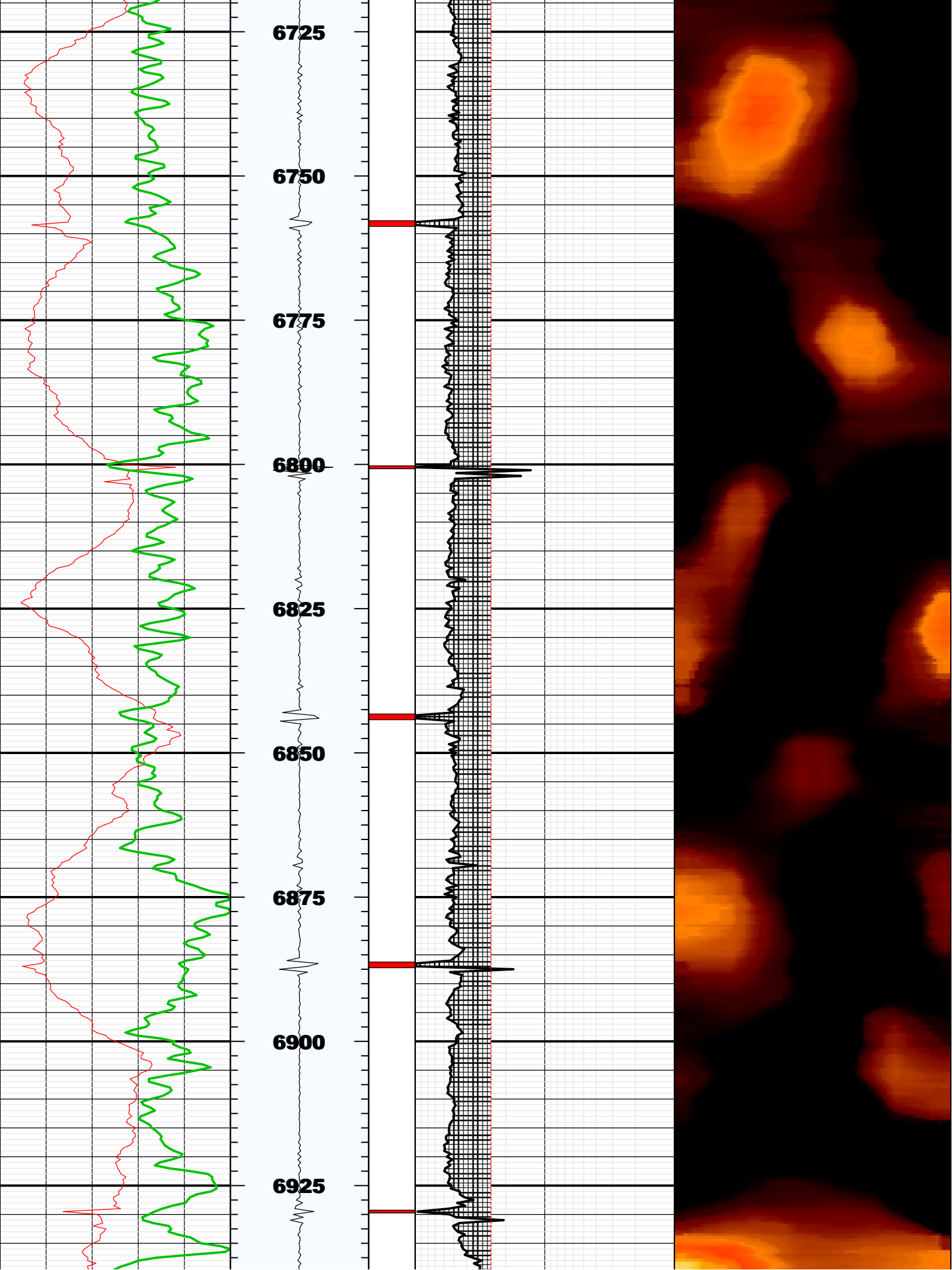


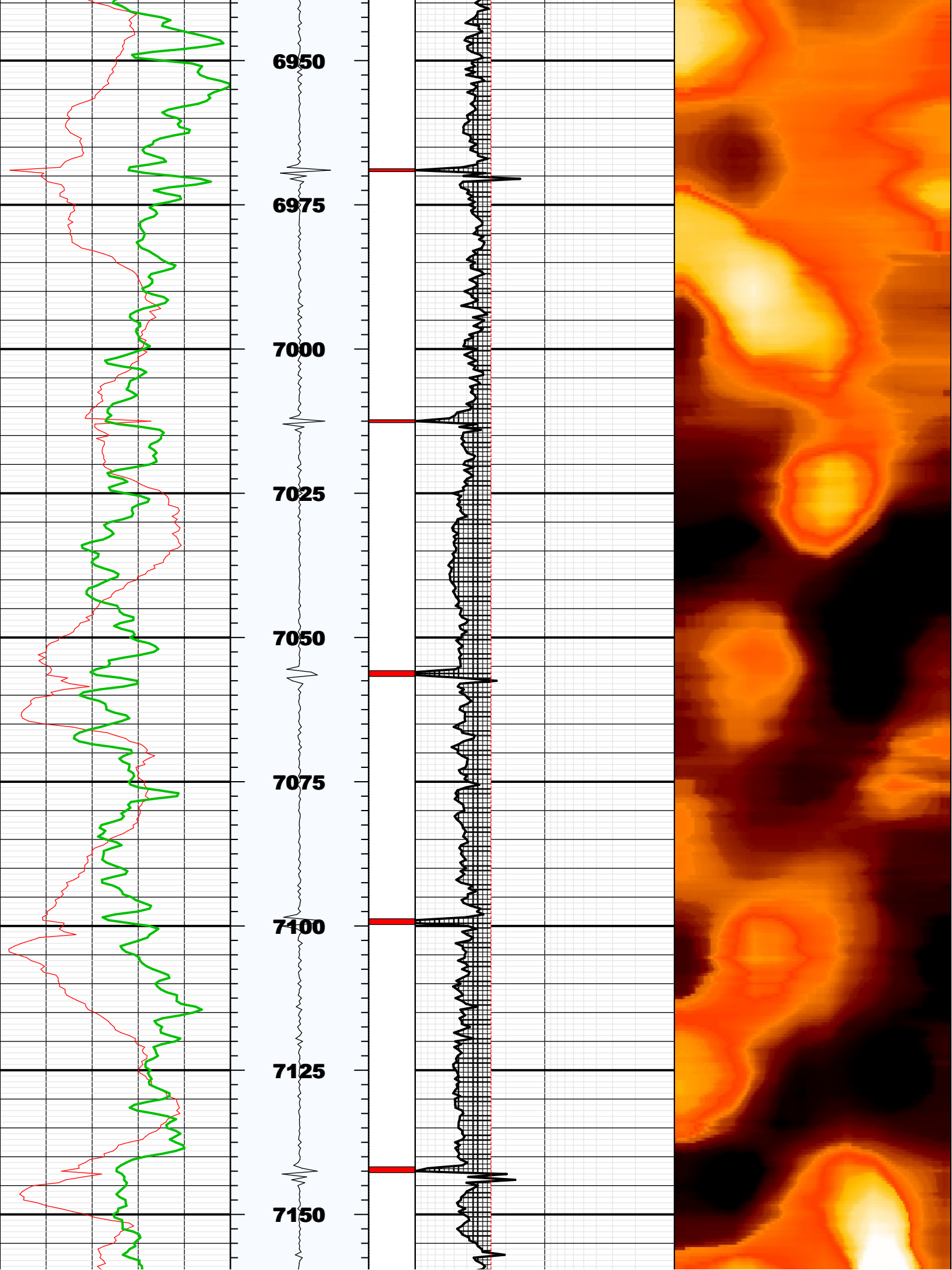


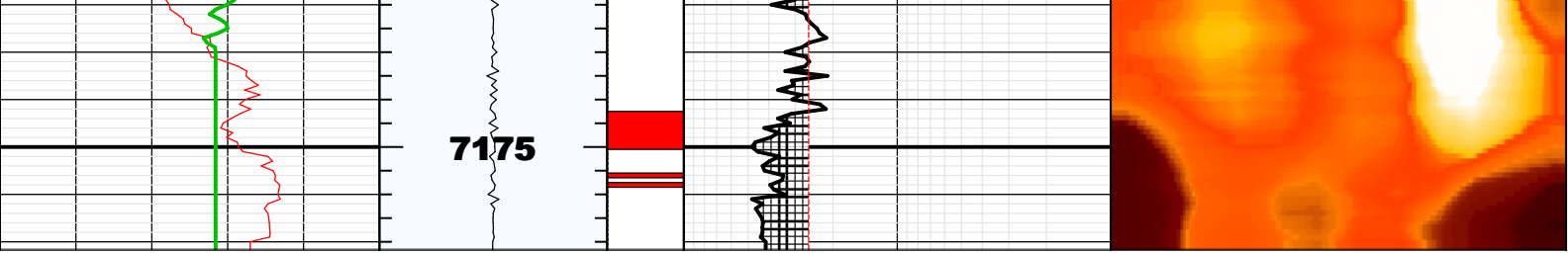








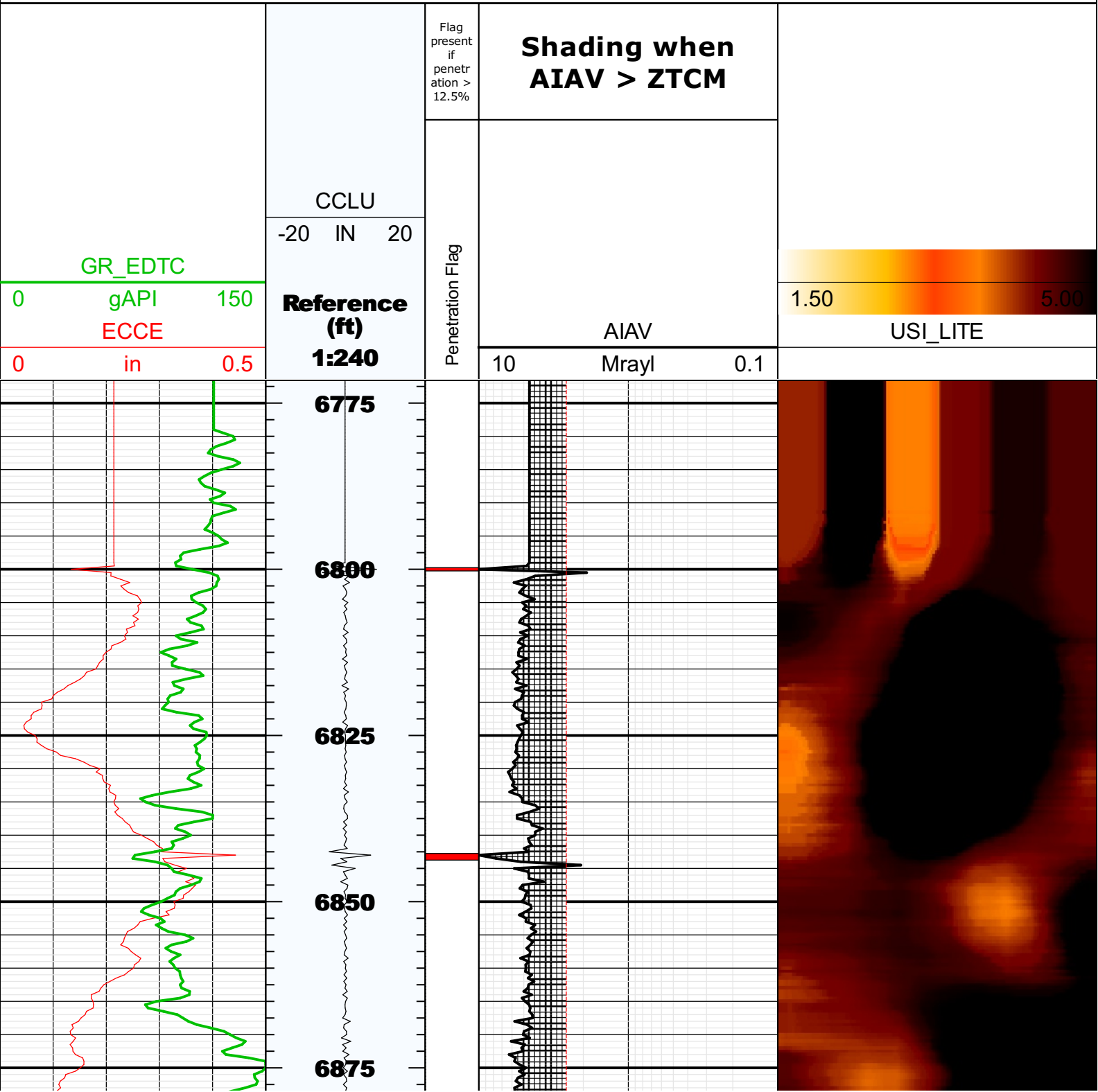


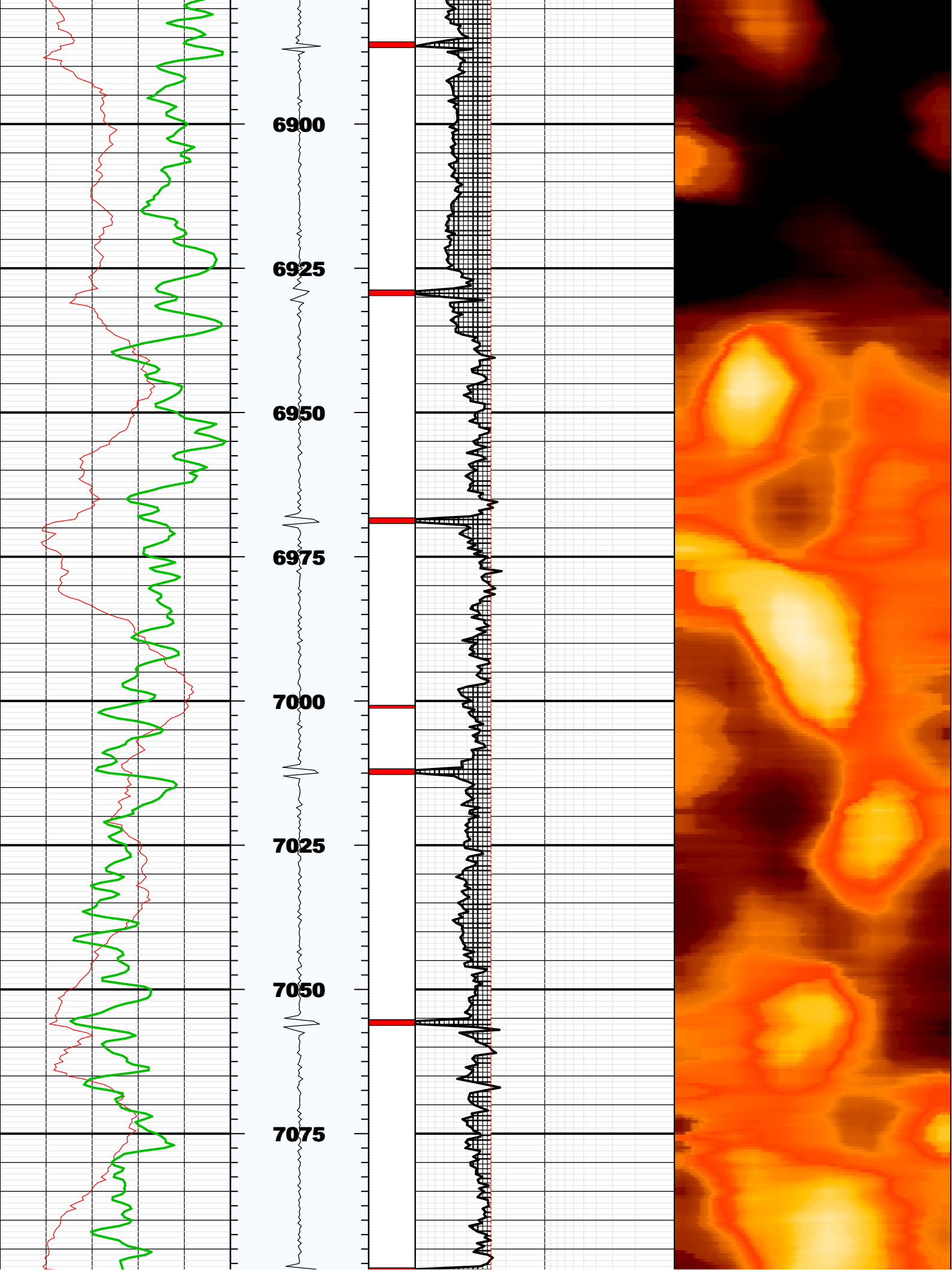


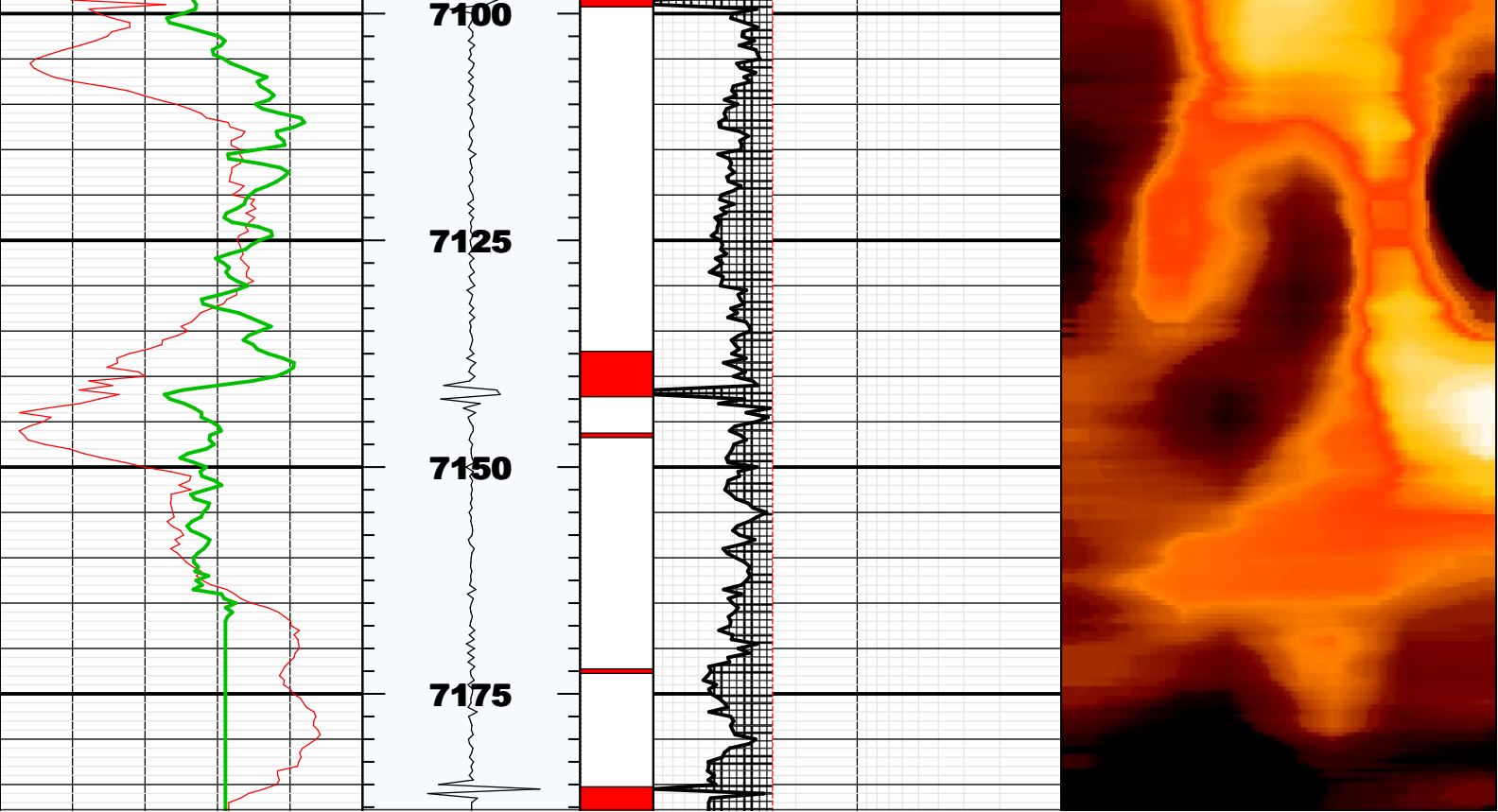
BS	8.75000	IN	Bit Size
CASG	P110		Casing Grade
CDIA	7.00000	IN	Casing Outer Diameter
CSID			
CSIZ	7.00000	IN	Current Casing Size
CWEI	26.00000	LB/F	Casing Weight
DFD	8.40000	LB/G	Drilling Fluid Density
DFVL	190.00000	US/F	Default Fluid Velocity
DO			
DOT	2.87400	IN	Diameter of Transducer Sensor
EMXV	80	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	1.77000	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: Oscar Y10-77HN
Field: Wattenberg







Fluid Properties Used for Main Pass

