

Company: Noble Energy Inc.

Well: Upchurch State LD02-76-1AHN
Field: Wildcat
County: Weld State: Colorado

County: Weld		Field: Wildcat		Location: SHL SESW 615' FSL & 1642' FW		Well: Upchurch State LD02-76-1AHN		Company: Noble Energy Inc.																																											
Logging Date		Run Number		Depth Driller		Schlumberger Depth		Bottom Log Interval		Top Log Interval		Casing Fluid Level		Salinity		Density		Fluid Level		BIT/CASING/TUBING STRING		Bit Size		To		Casing Size		Weight		Grade		From		To		Max Recorded Temp		Logger on bottom (date)		Location		Recorded By		Witnessed By							
29-Jan-2015		Run 1		6020.0 F		6020.0 F		5766.0 F		40.0 F		0.0 F										8.750 IN		-999.2 F		6020.0 F		7.00 IN		26.00 LB/F		P110		0.0 F		6015.0 F		207.0		29-Jan-2015		Fort Morgan CO		Kevin Crow		Bill Mansfield					
API Serial No. 05-123-39814		Section 2		Township 9N		Range 58W																																													
Permanent Datum:		Log Measured From:		Drilling Measured From:		GL KB KB		Elev: K.B. G.L. D.F.		4772.0 F 4742.0 F 4771.0 F																																									

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: 16500.00000

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) RESTRCTIONS 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

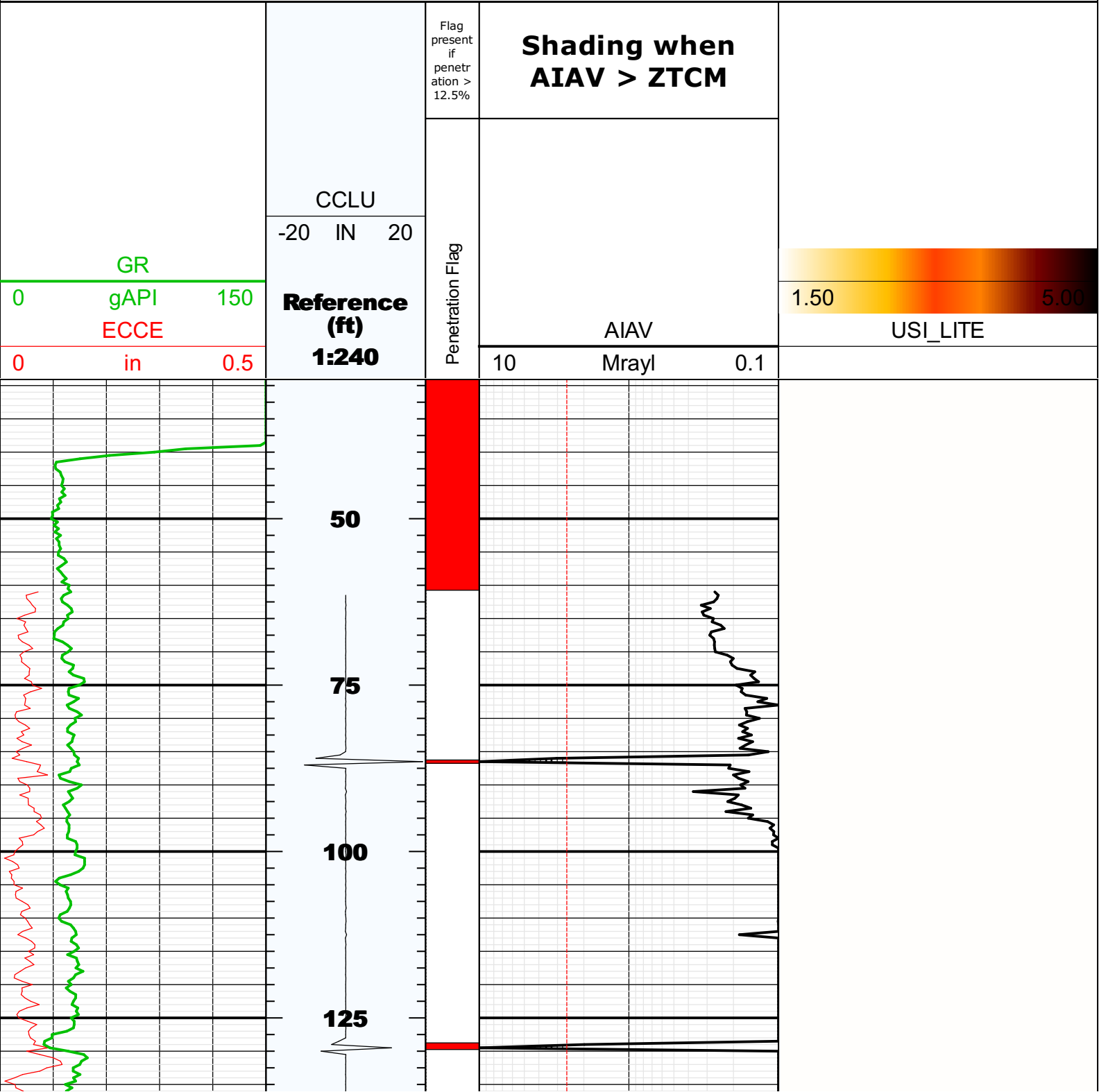
Ran log with 0 psi on Repeat and 2500 psi on Main log

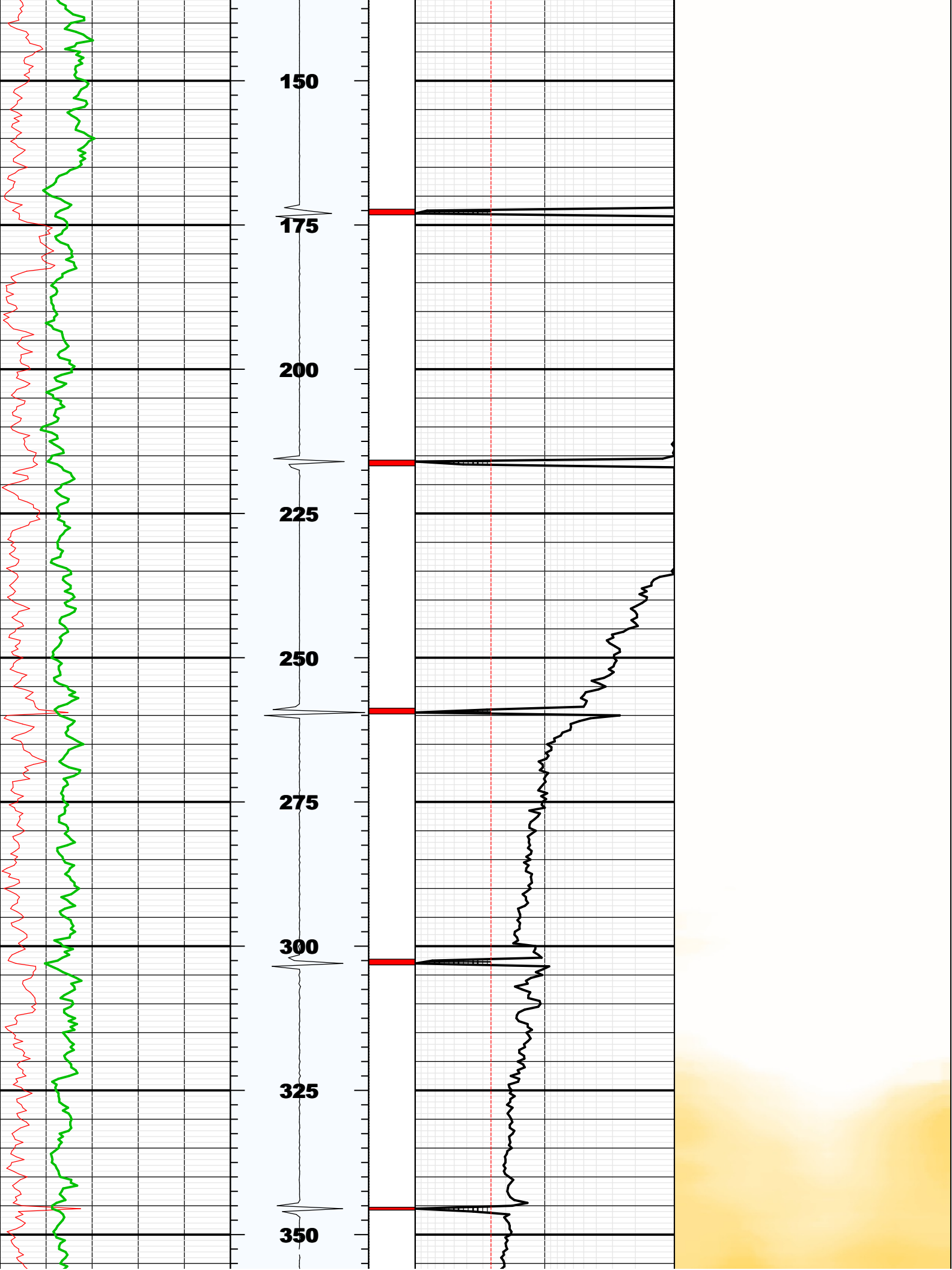
Top of cement seen at 425'.

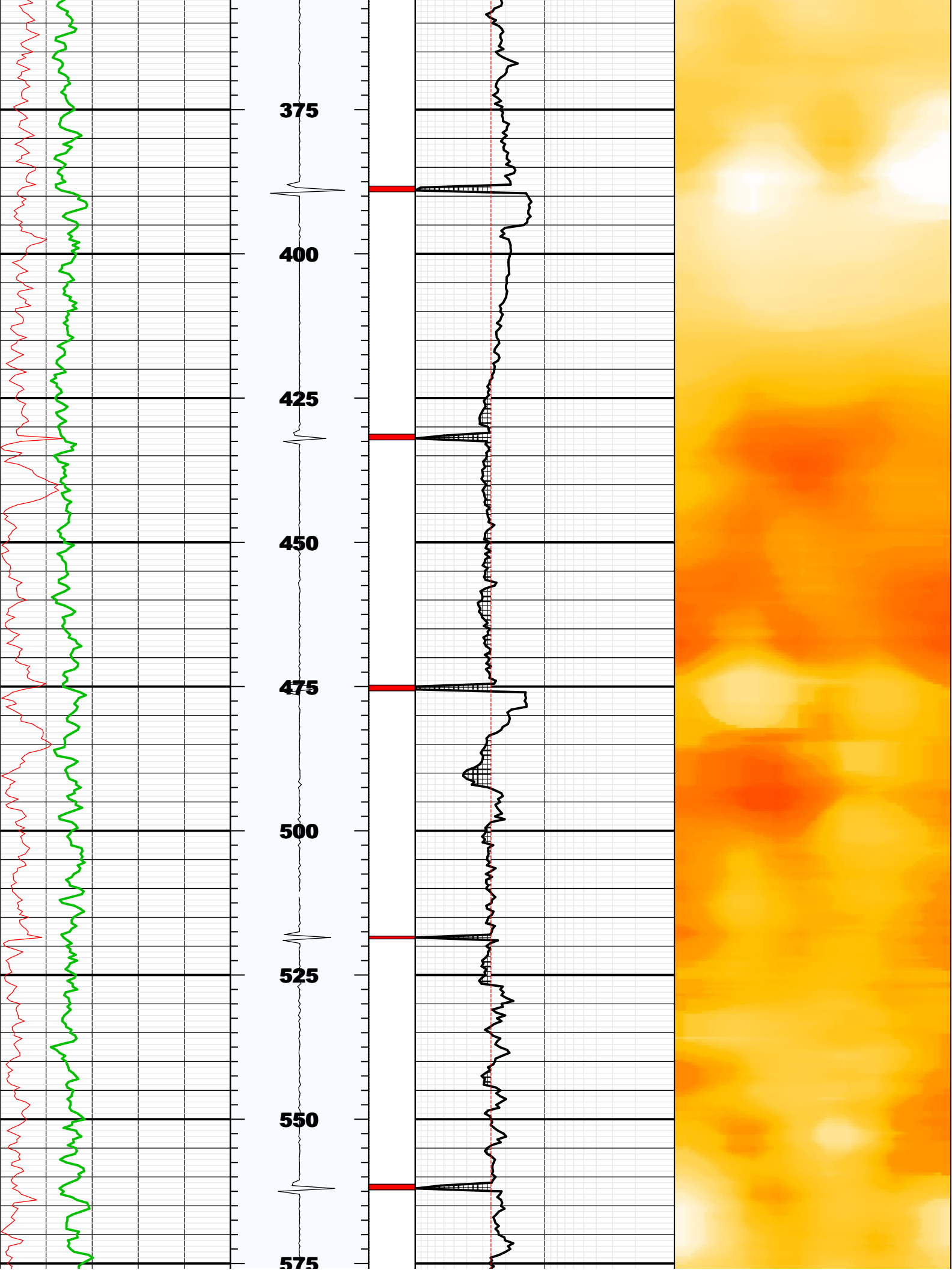
BHT was 207 degF measured at depth.

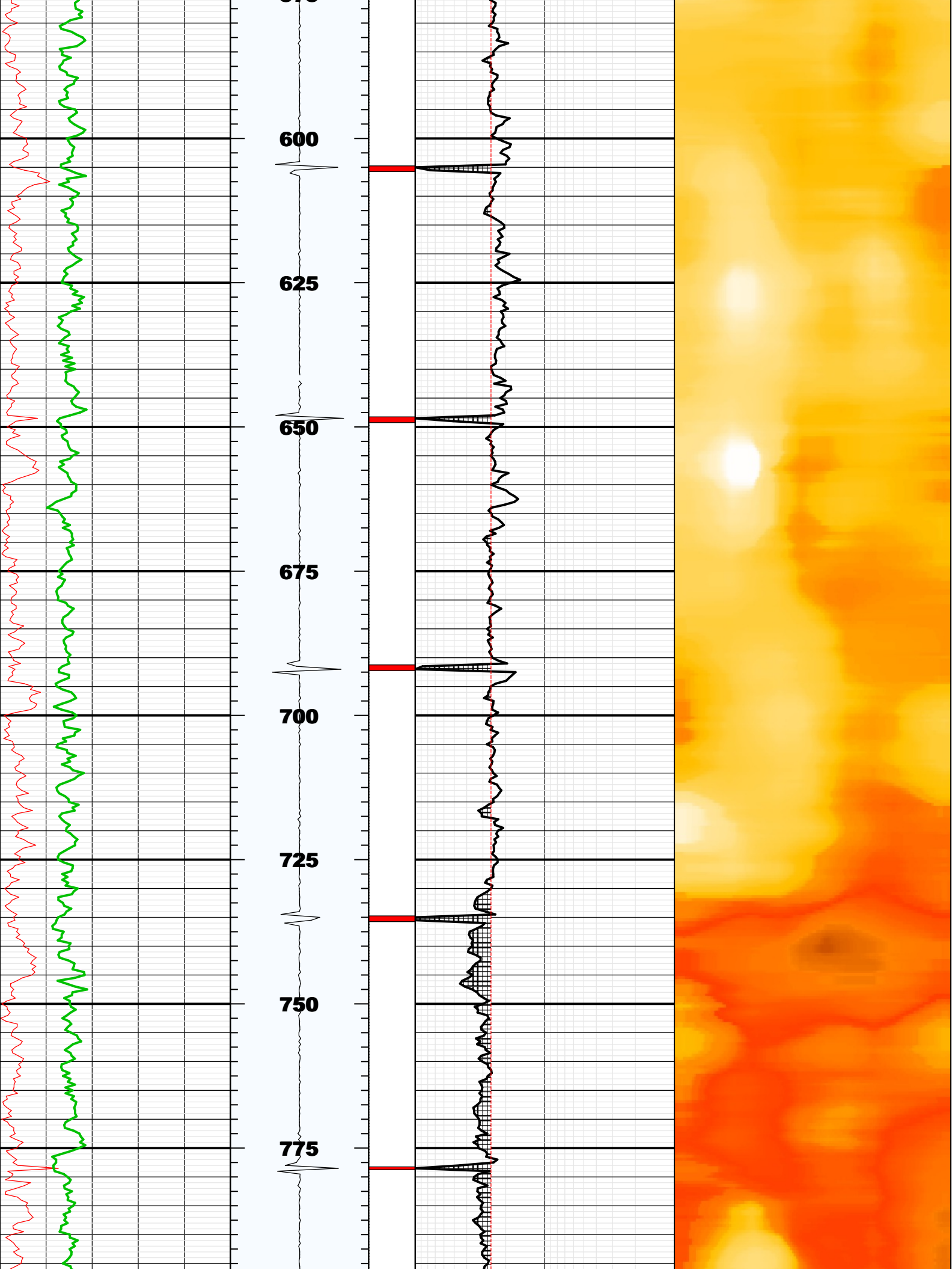
Main Pass

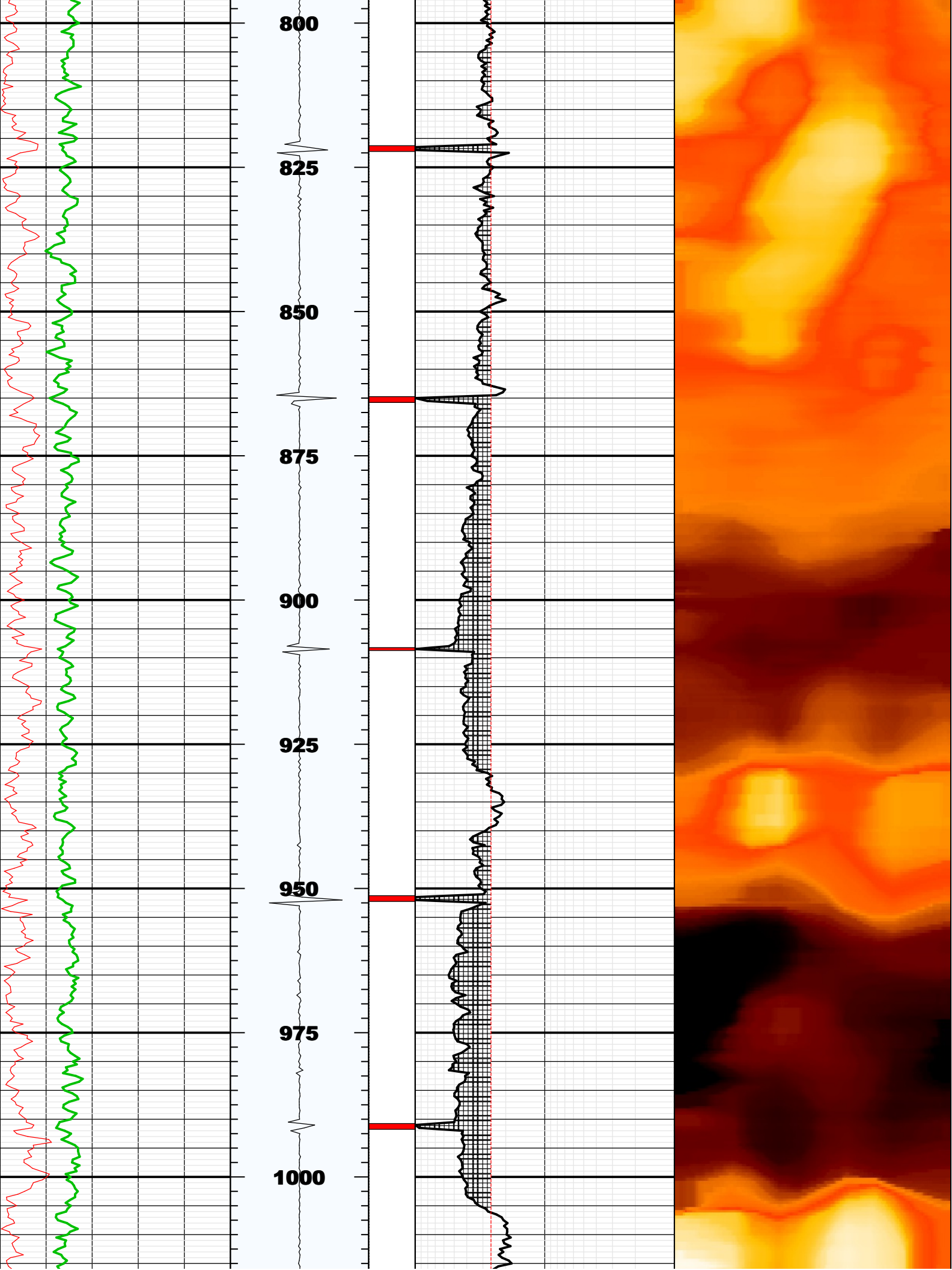
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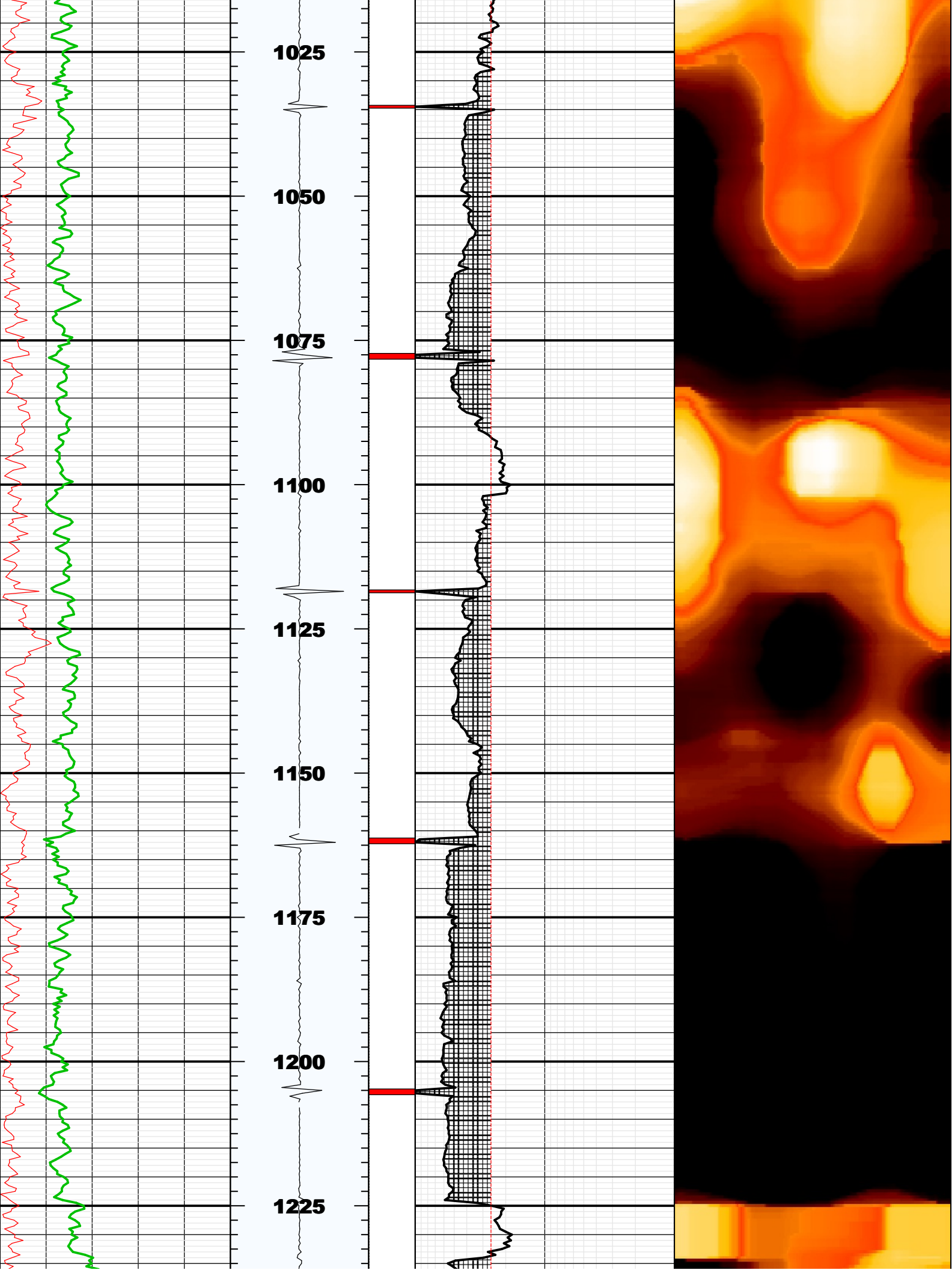


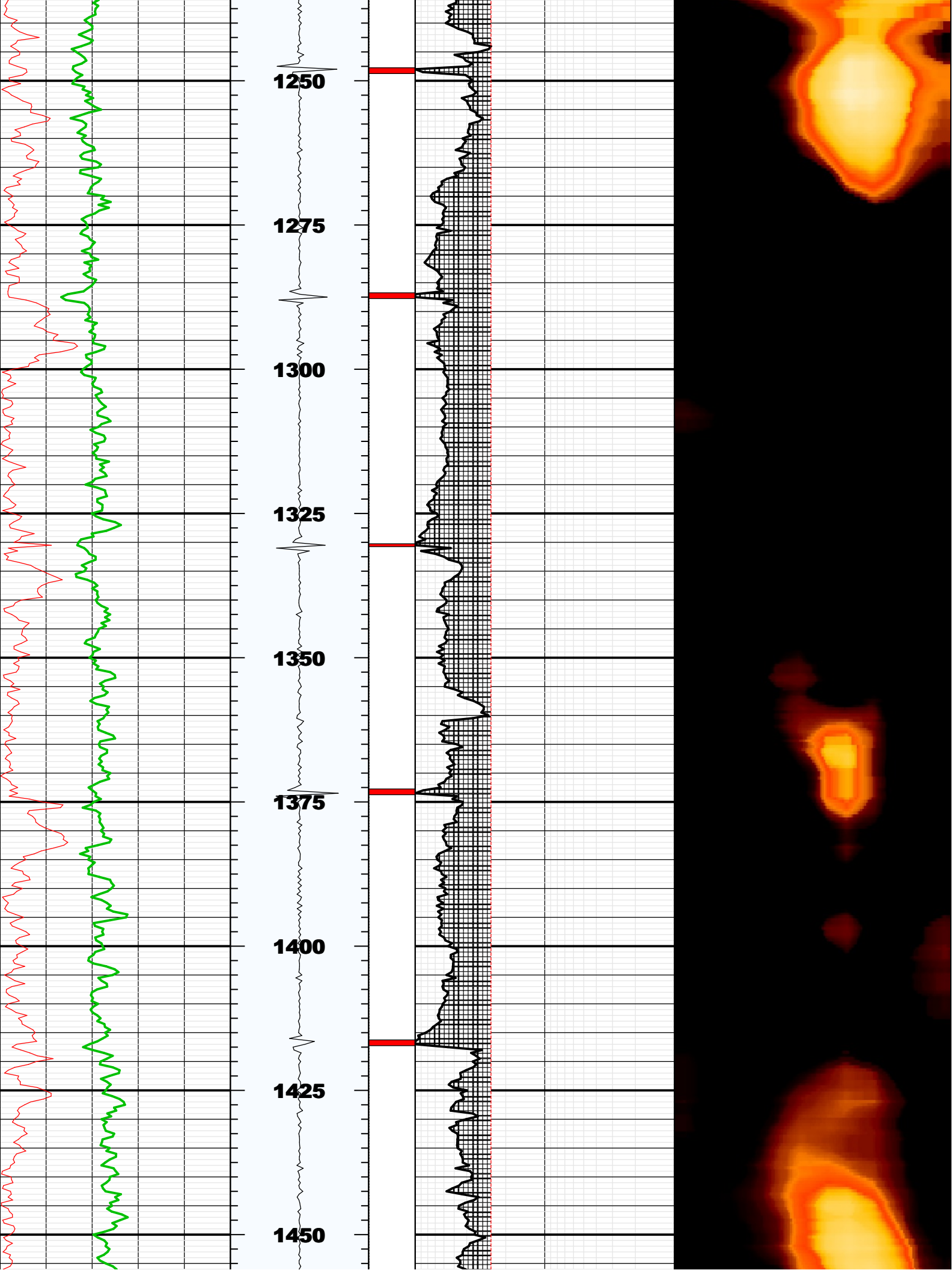


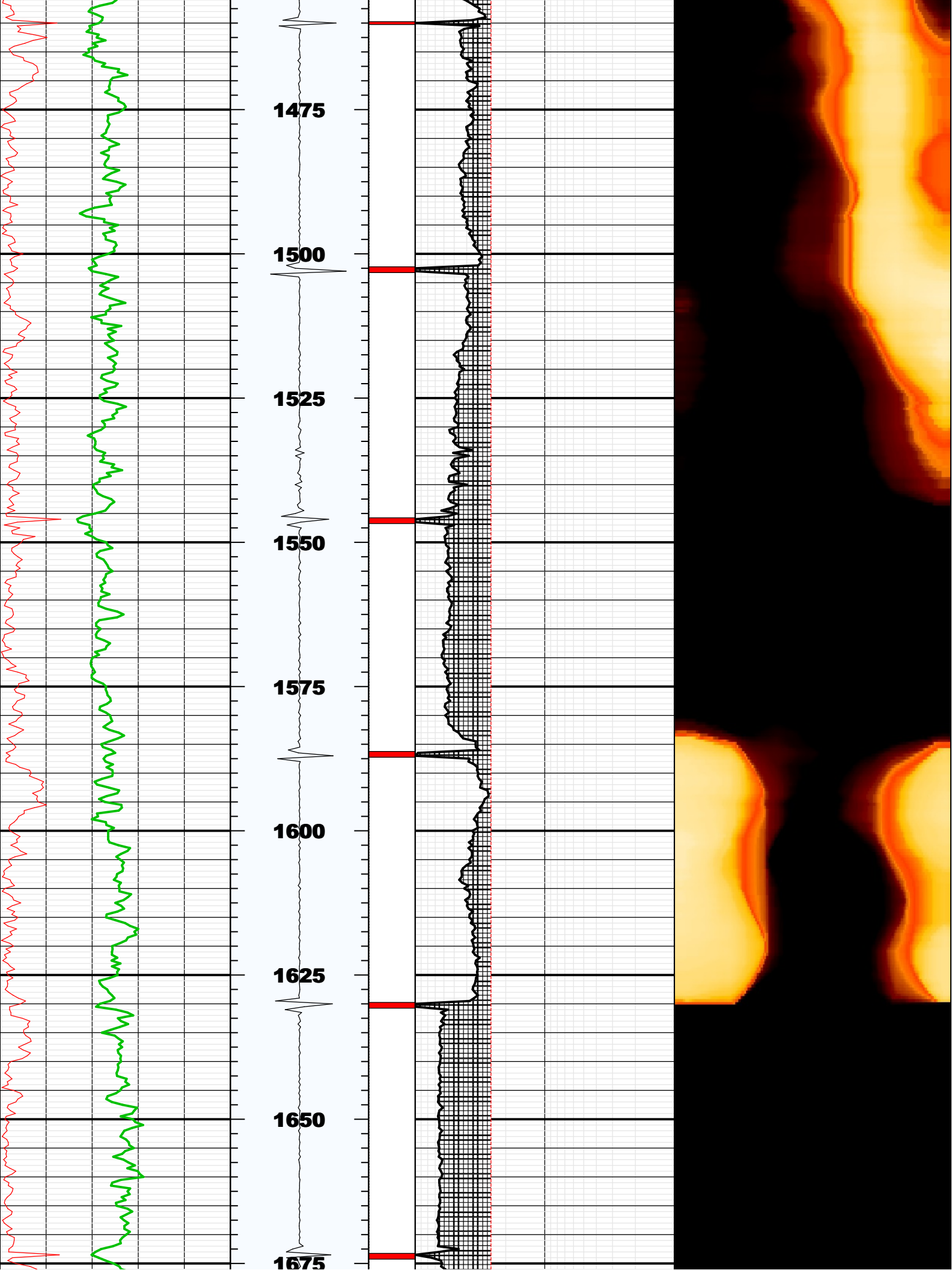


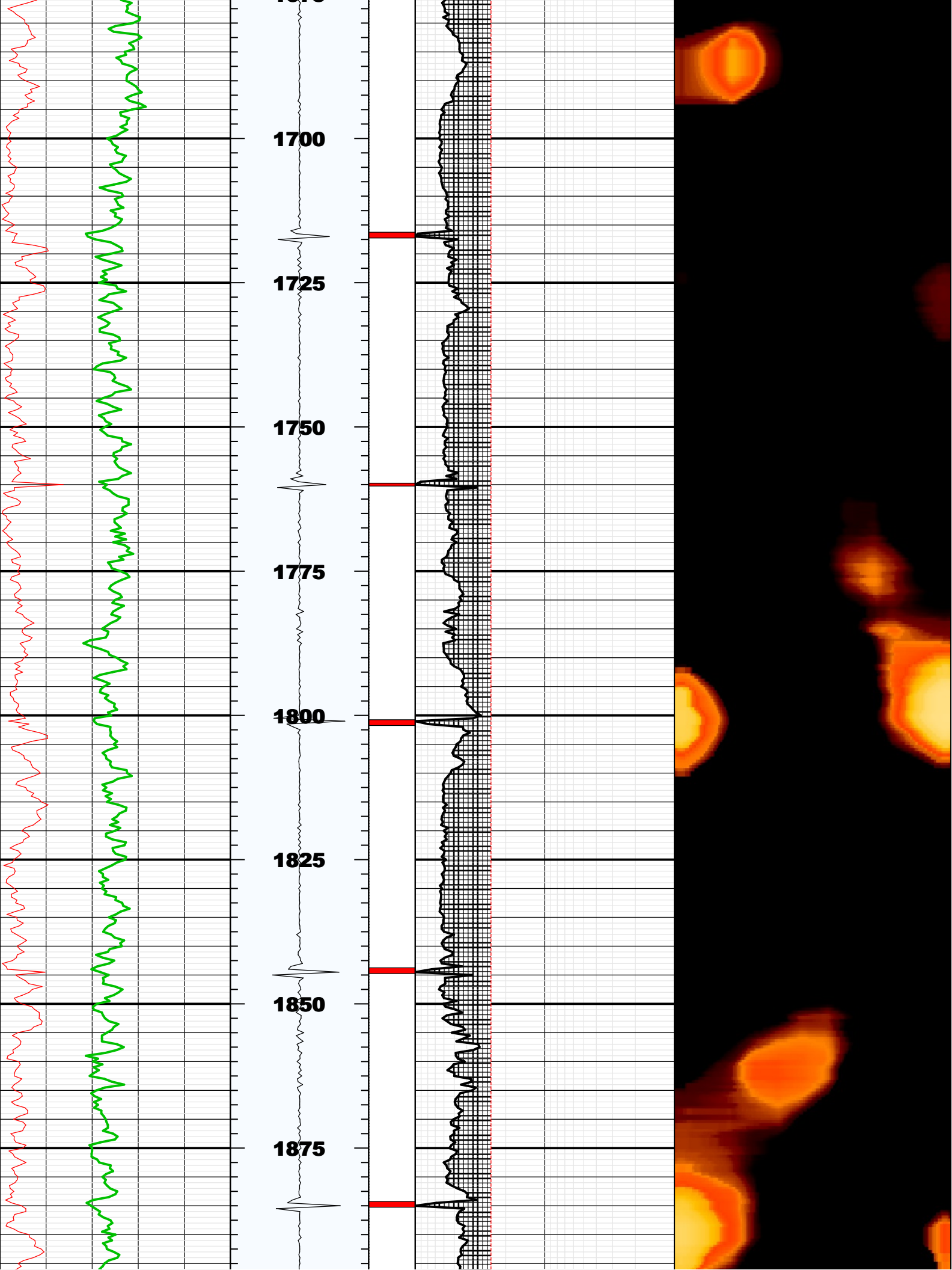


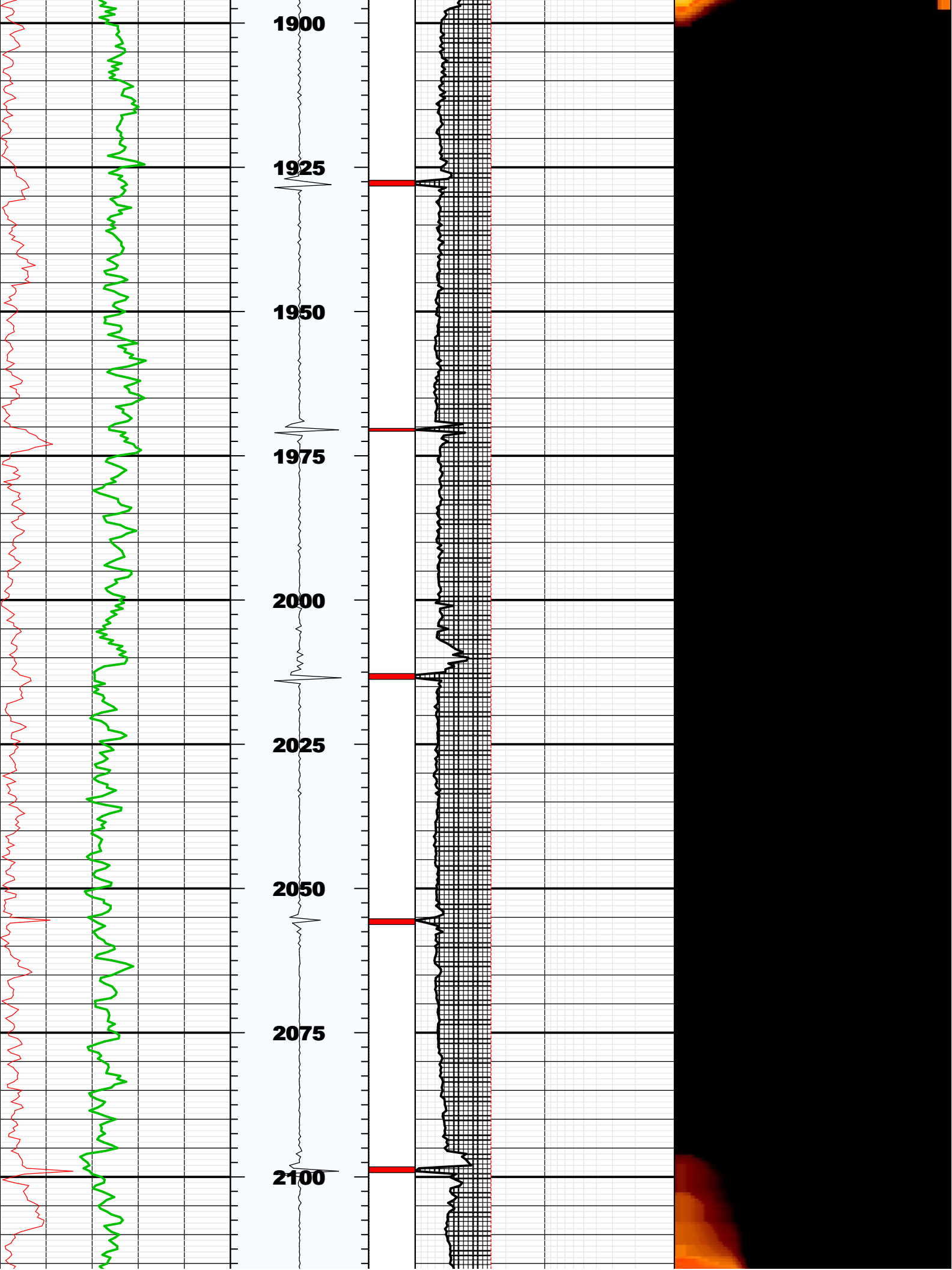


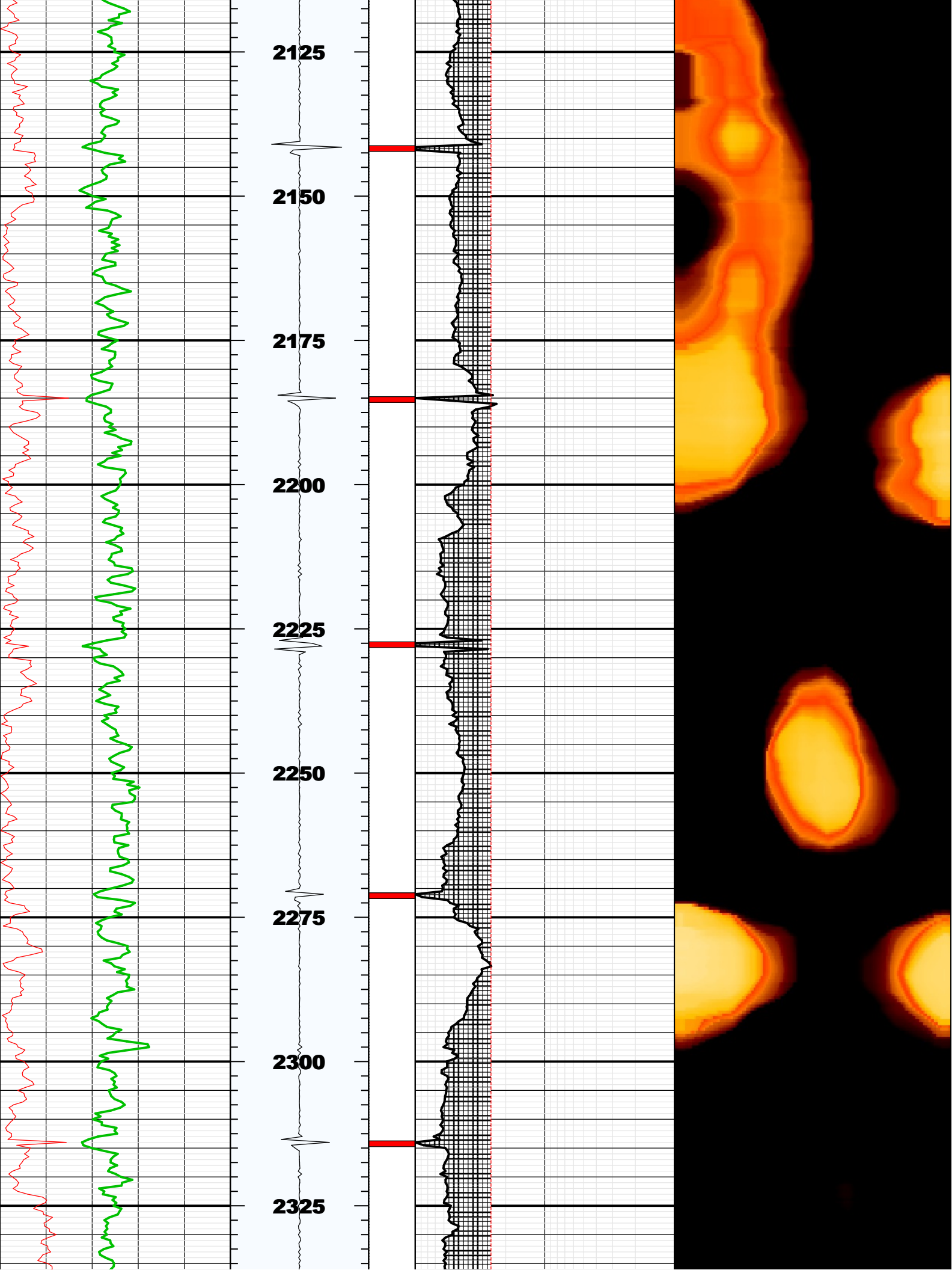


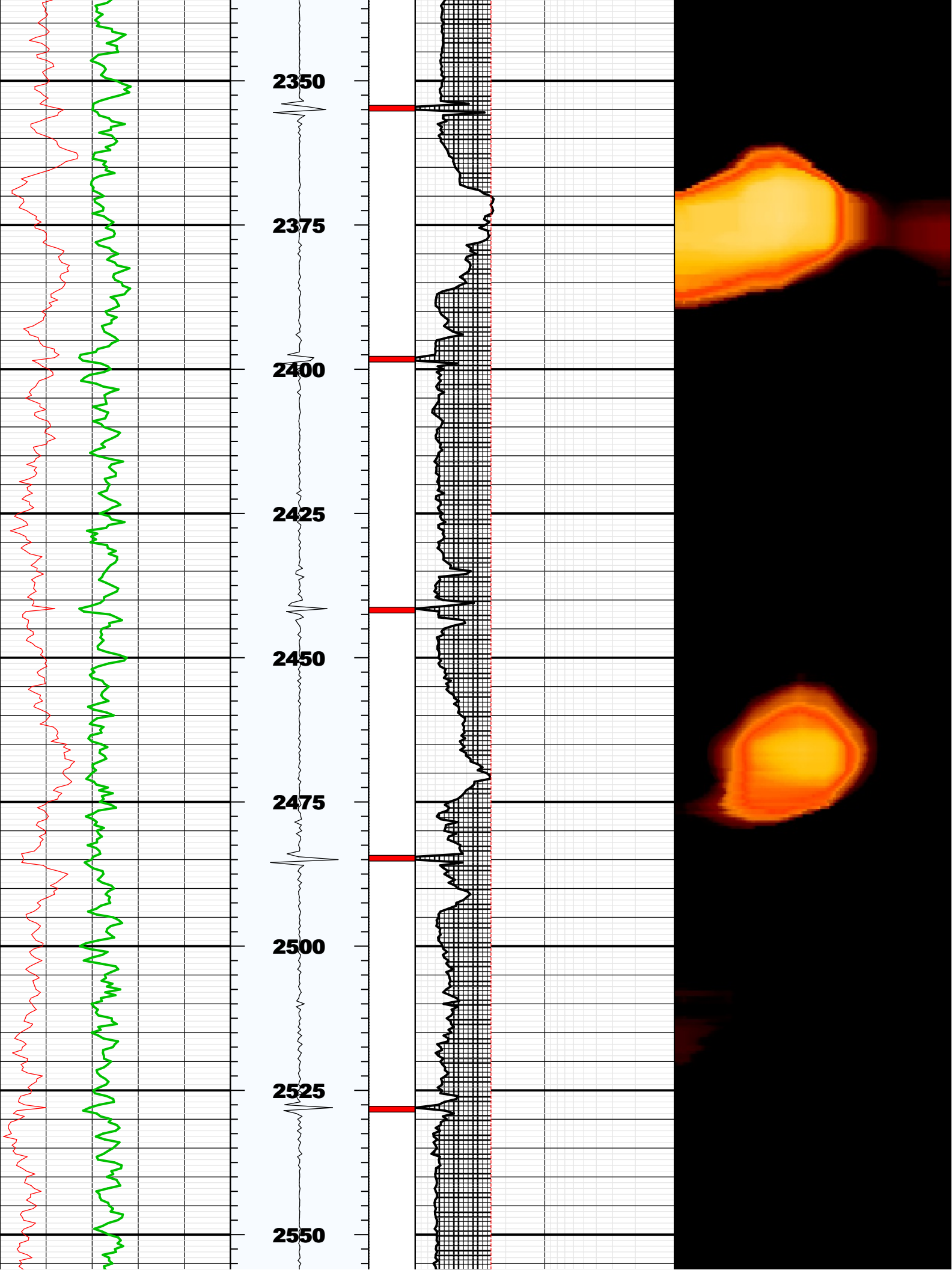


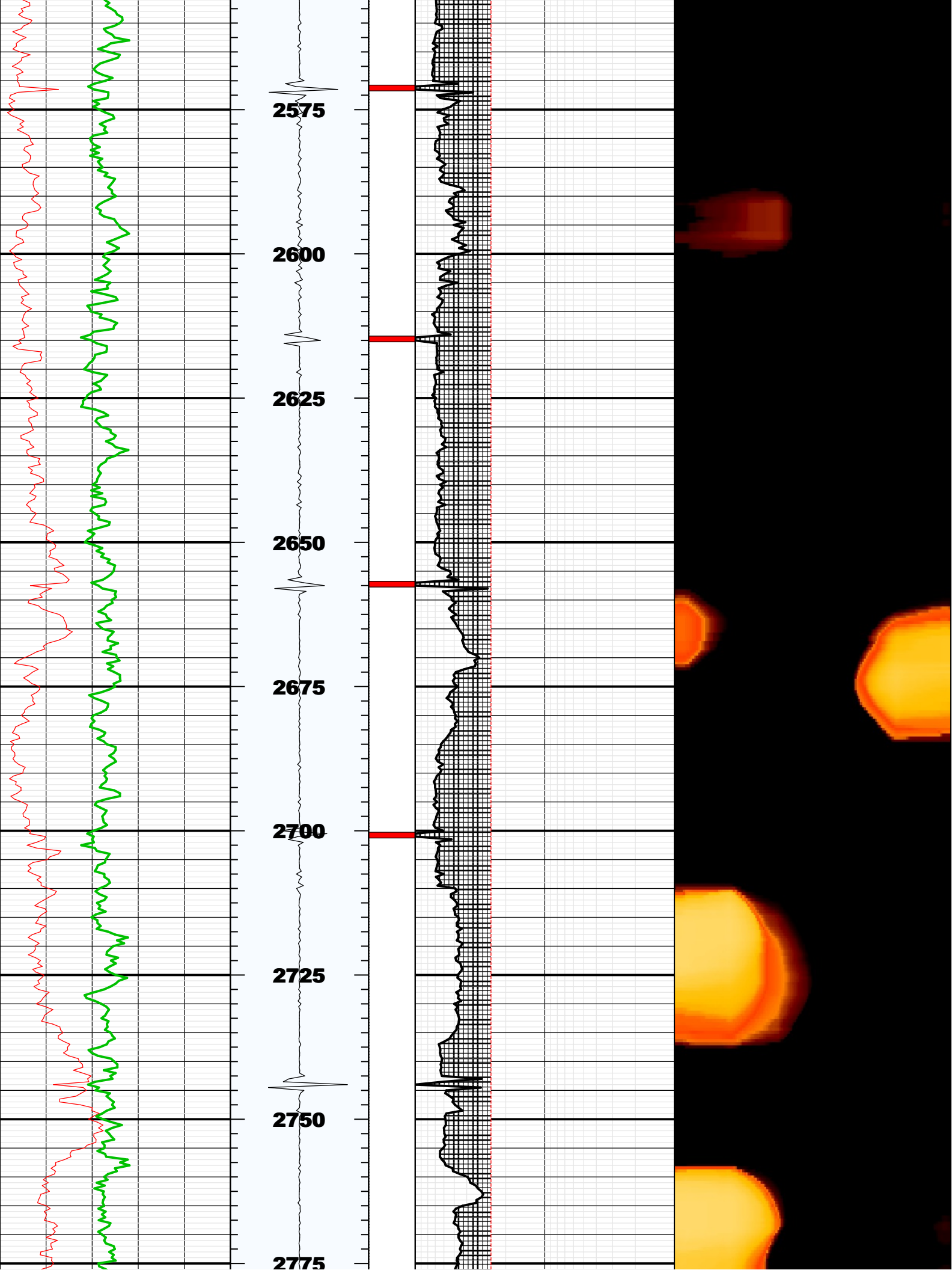


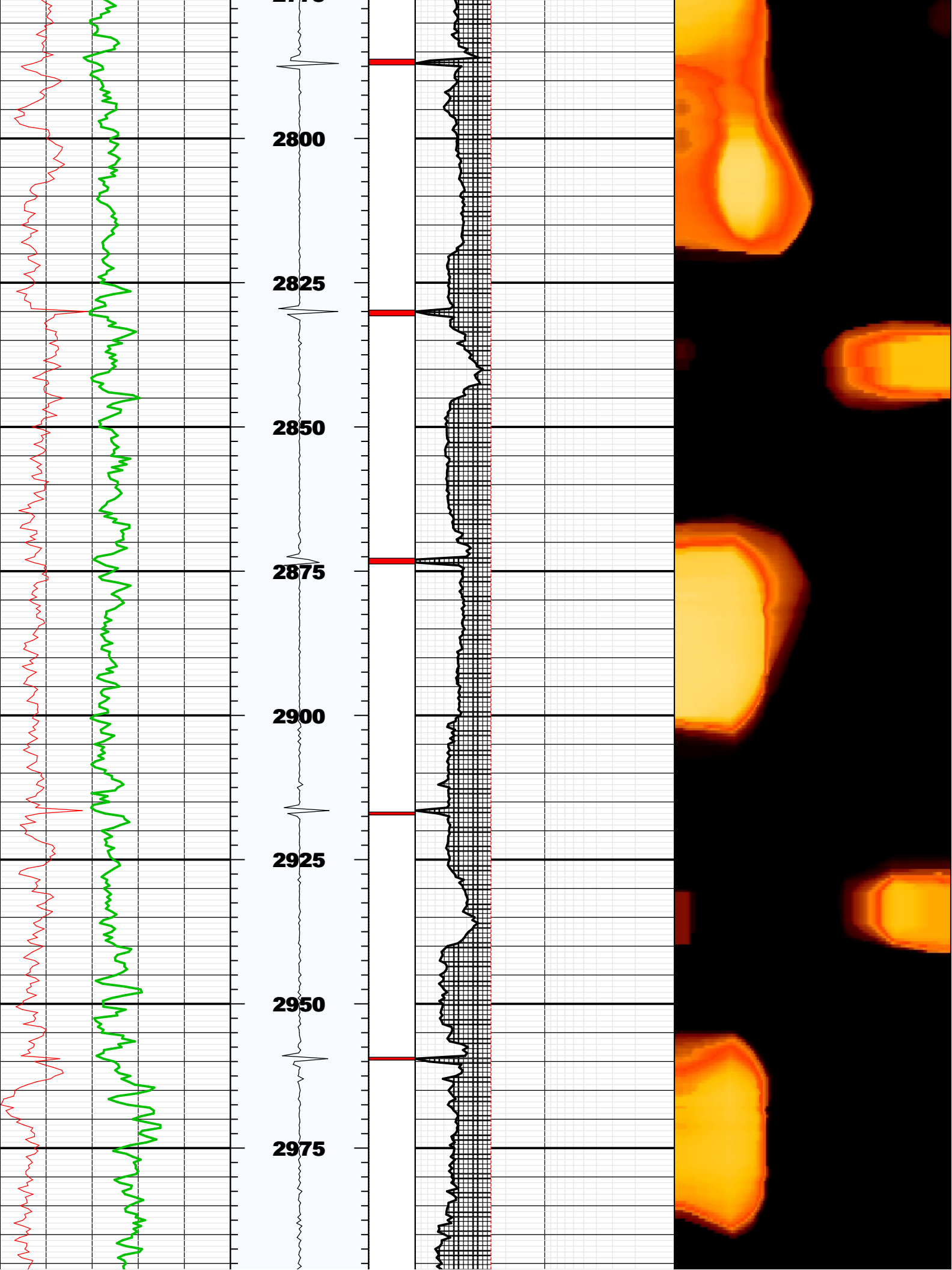


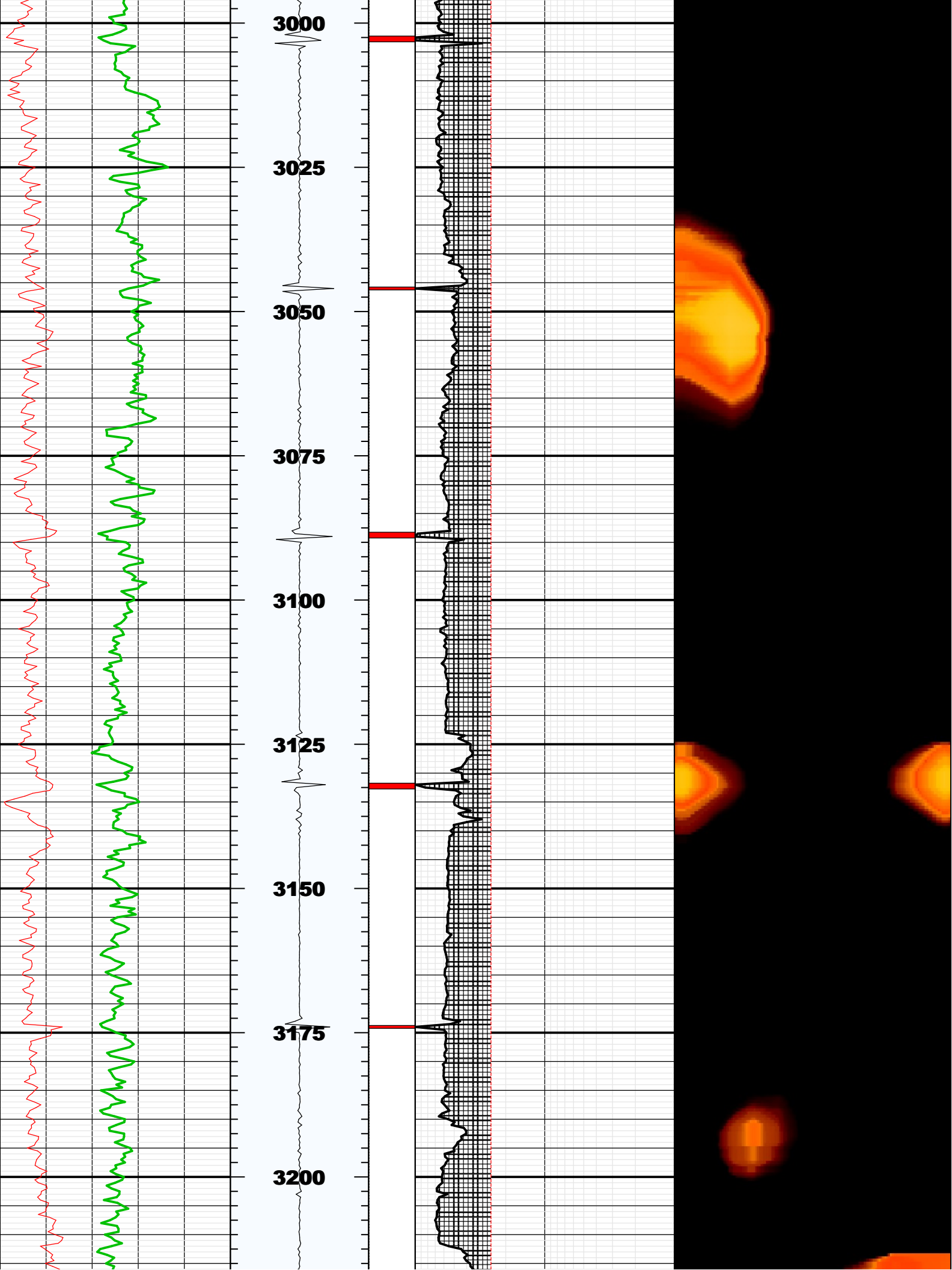


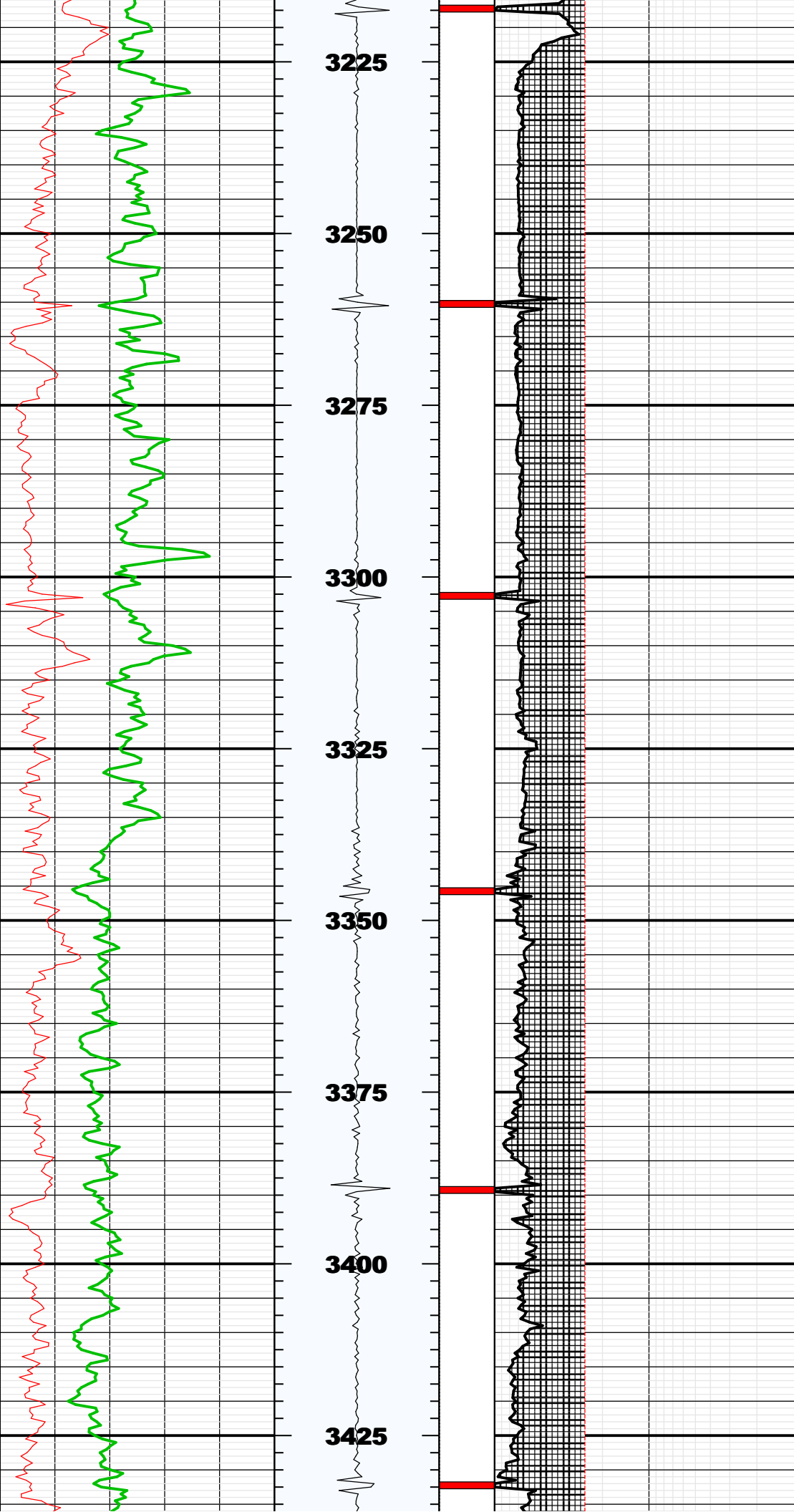


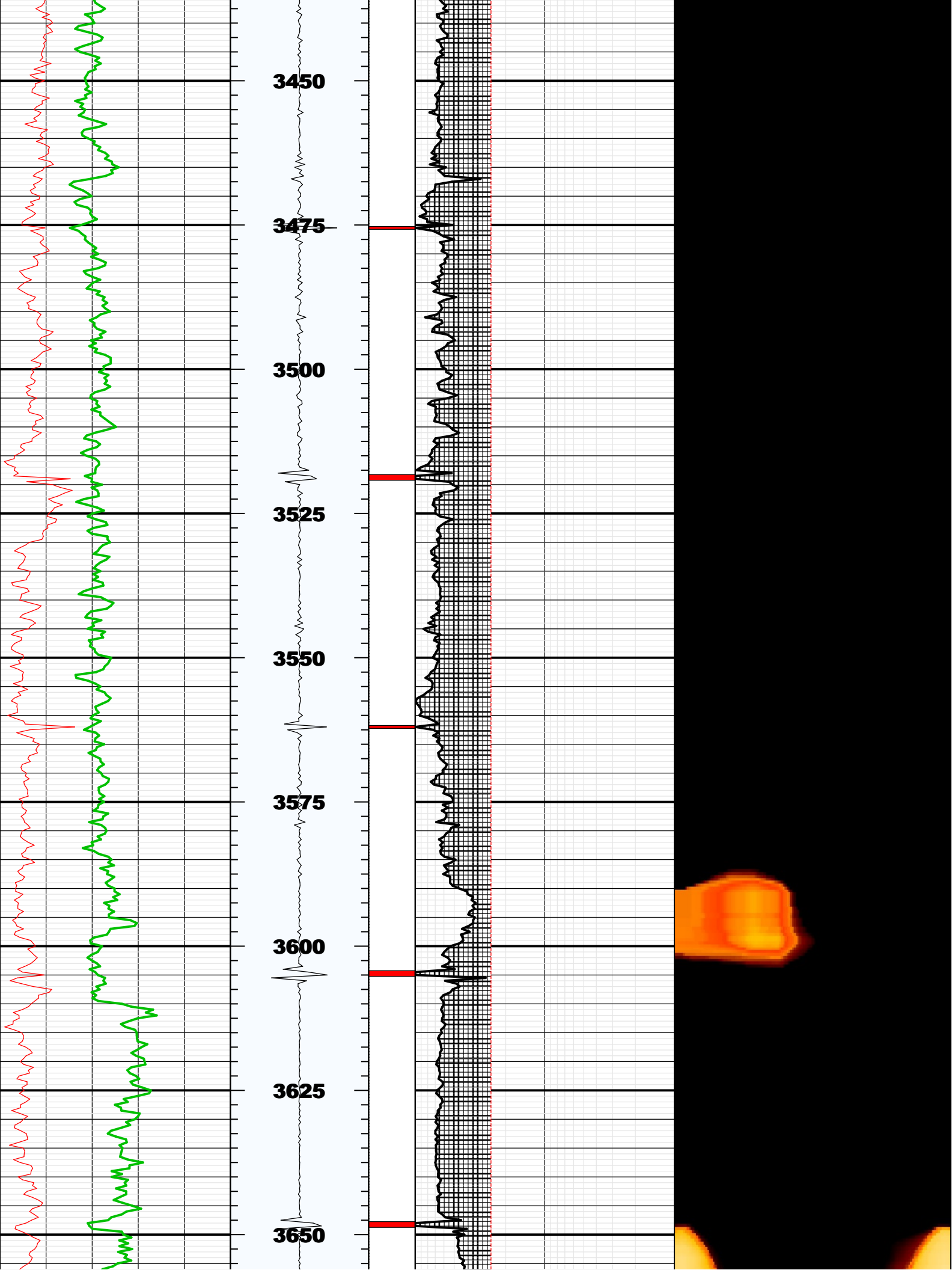


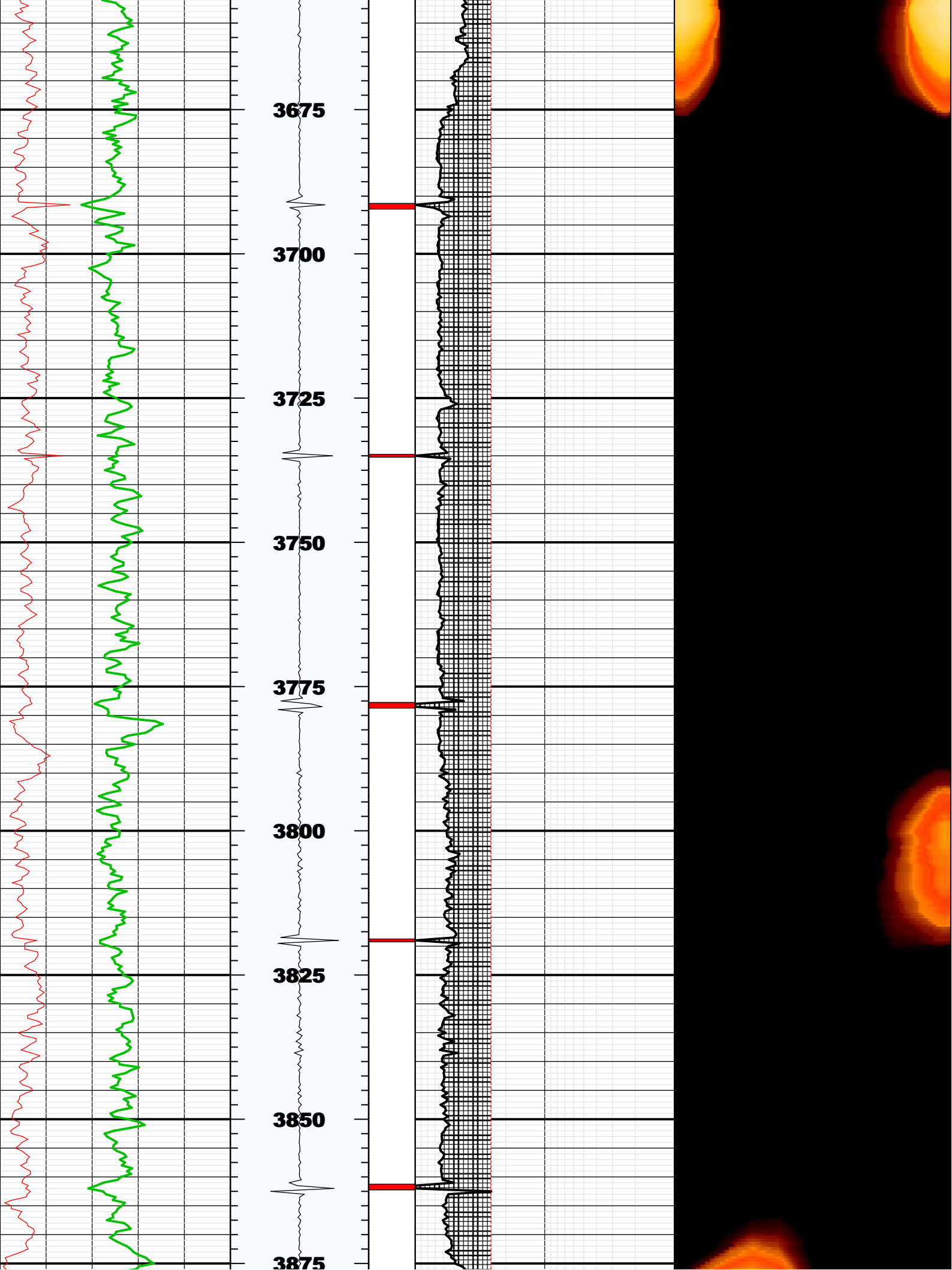


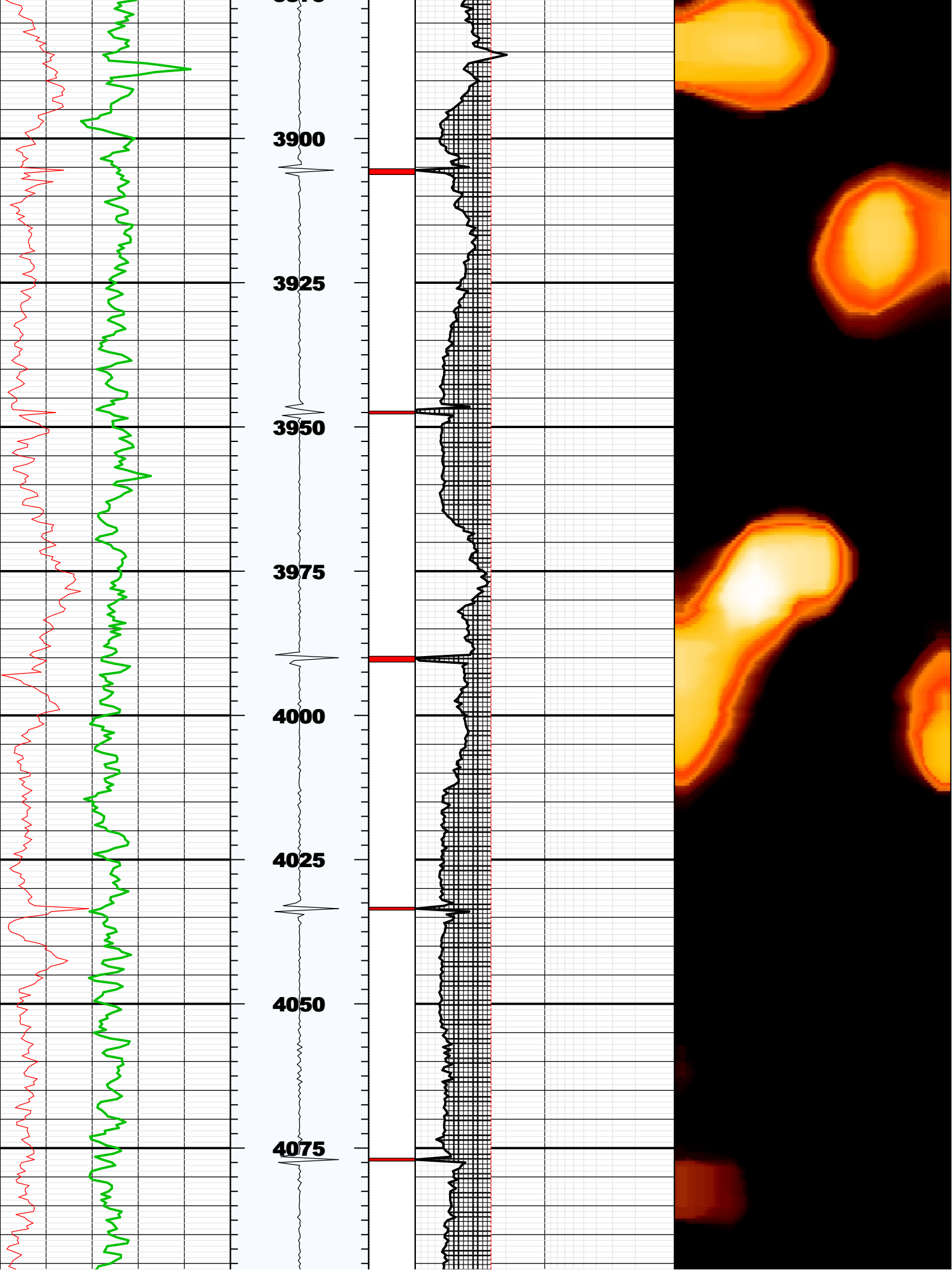


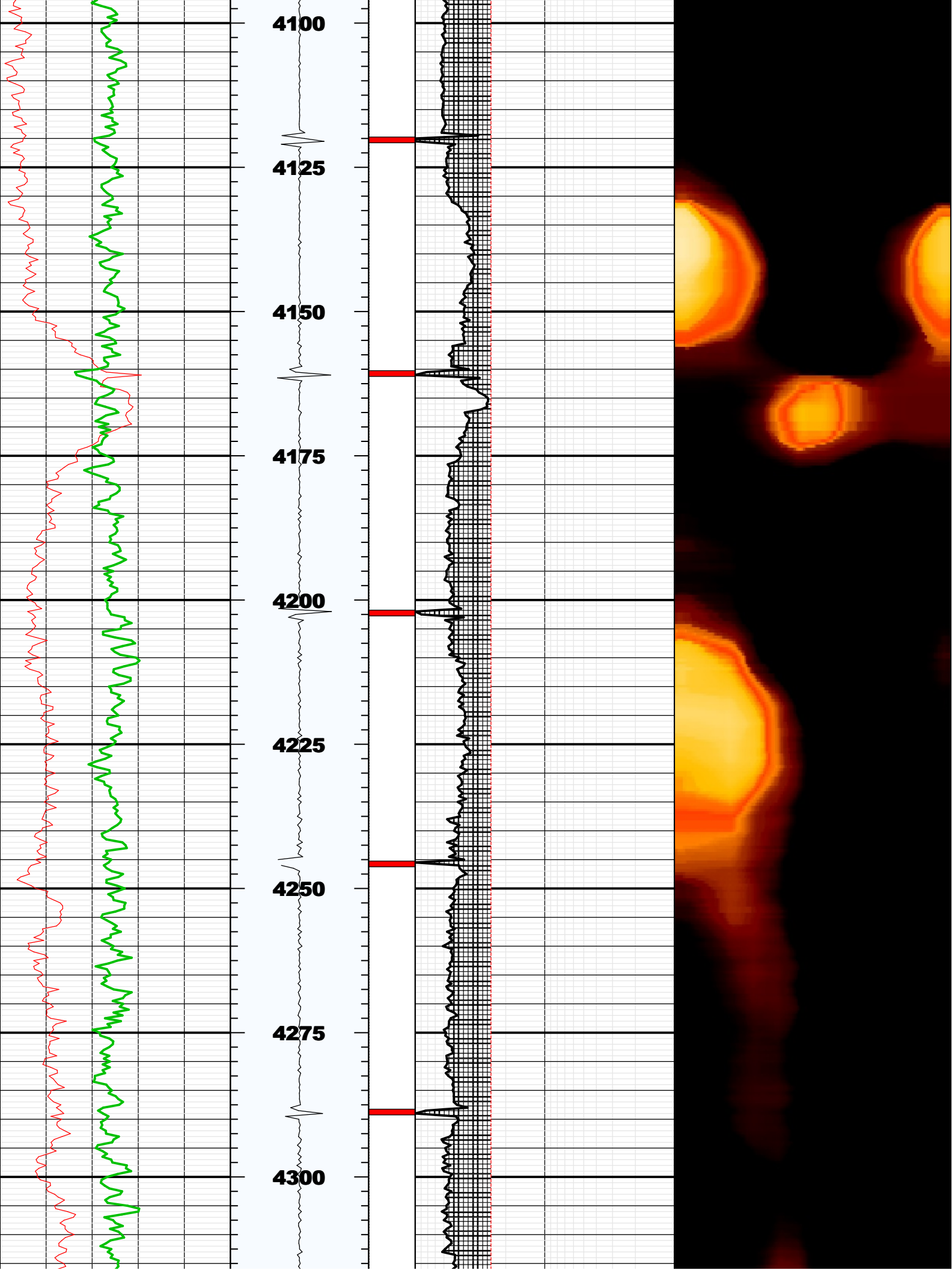


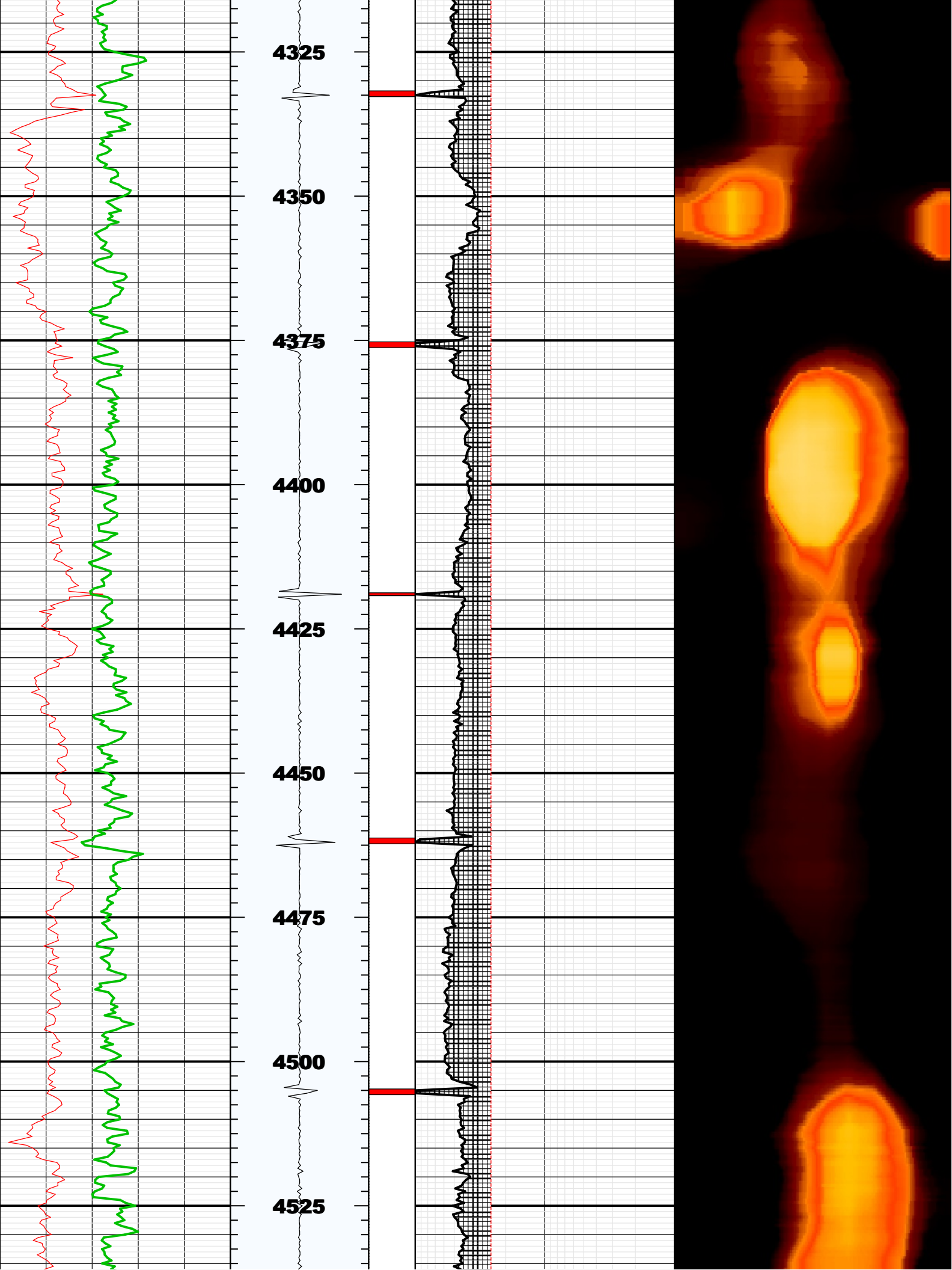


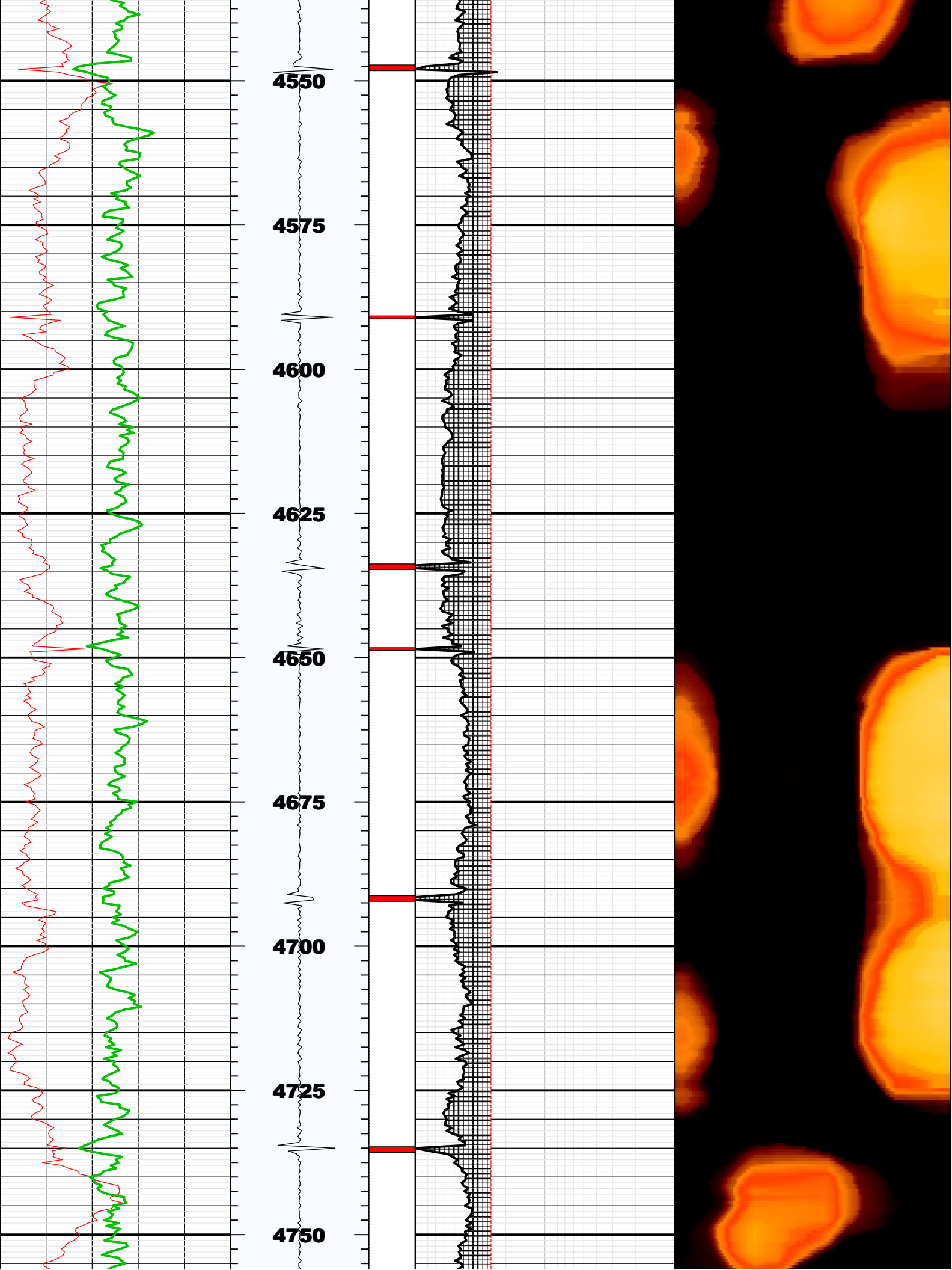


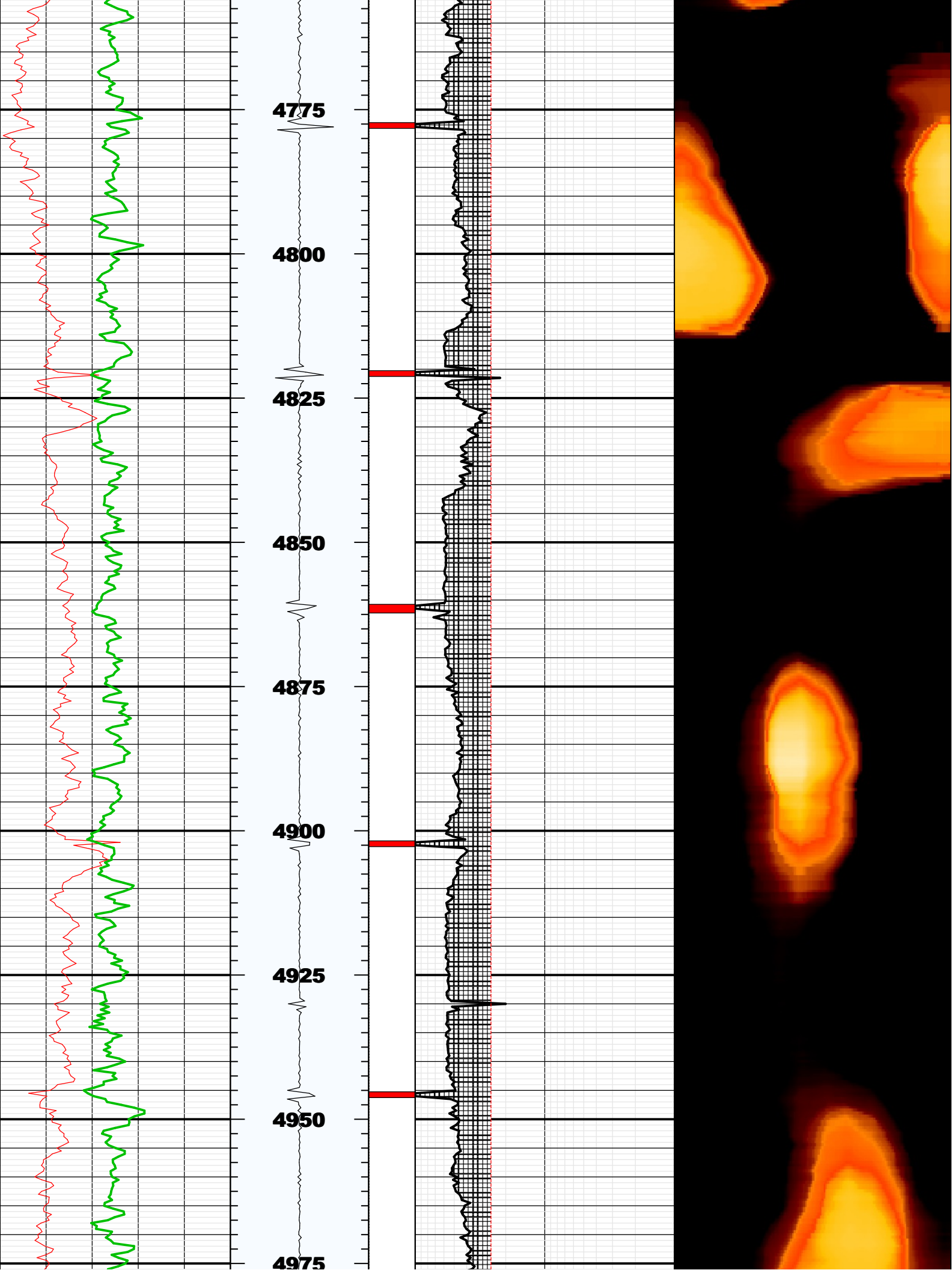


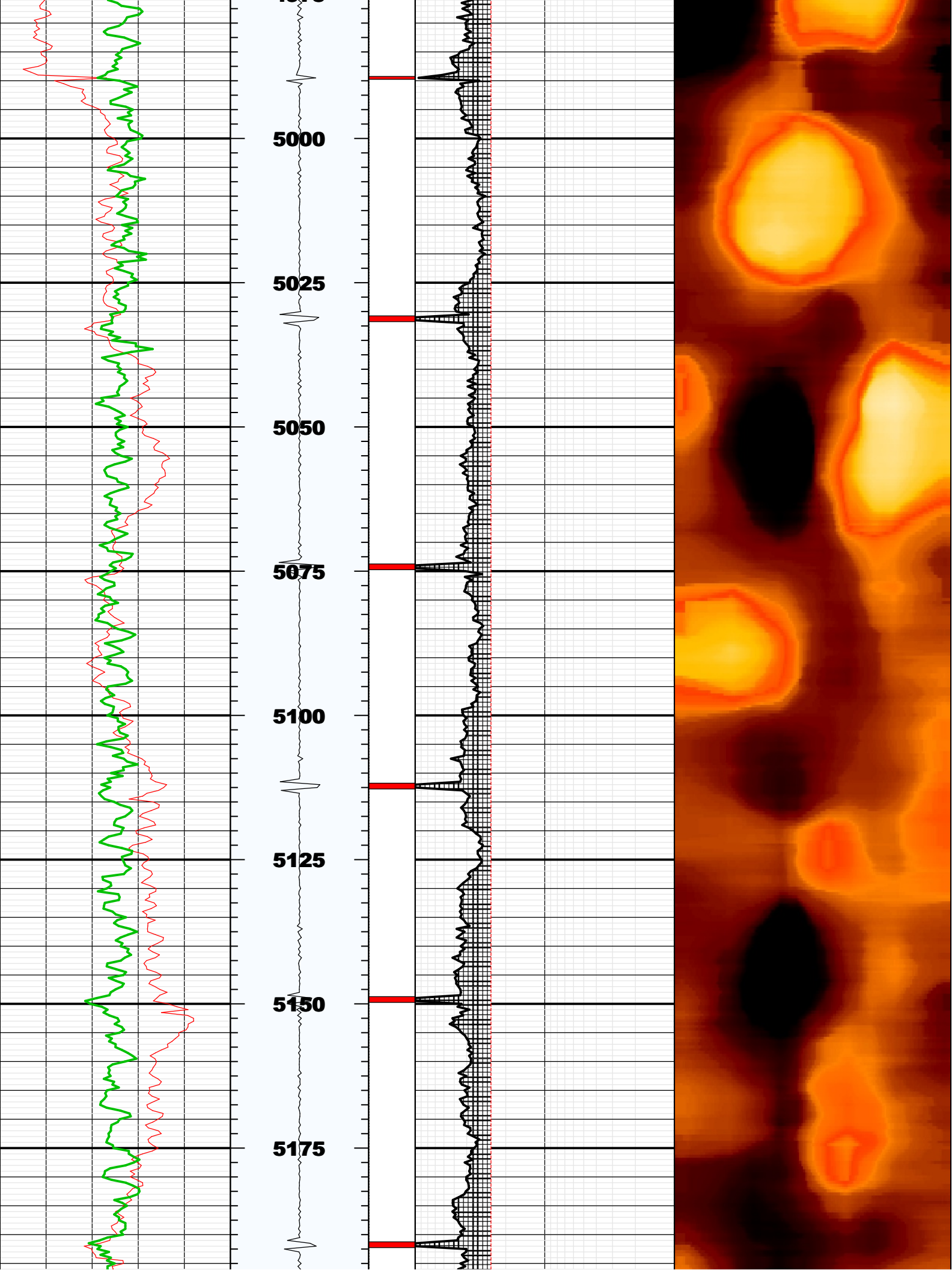


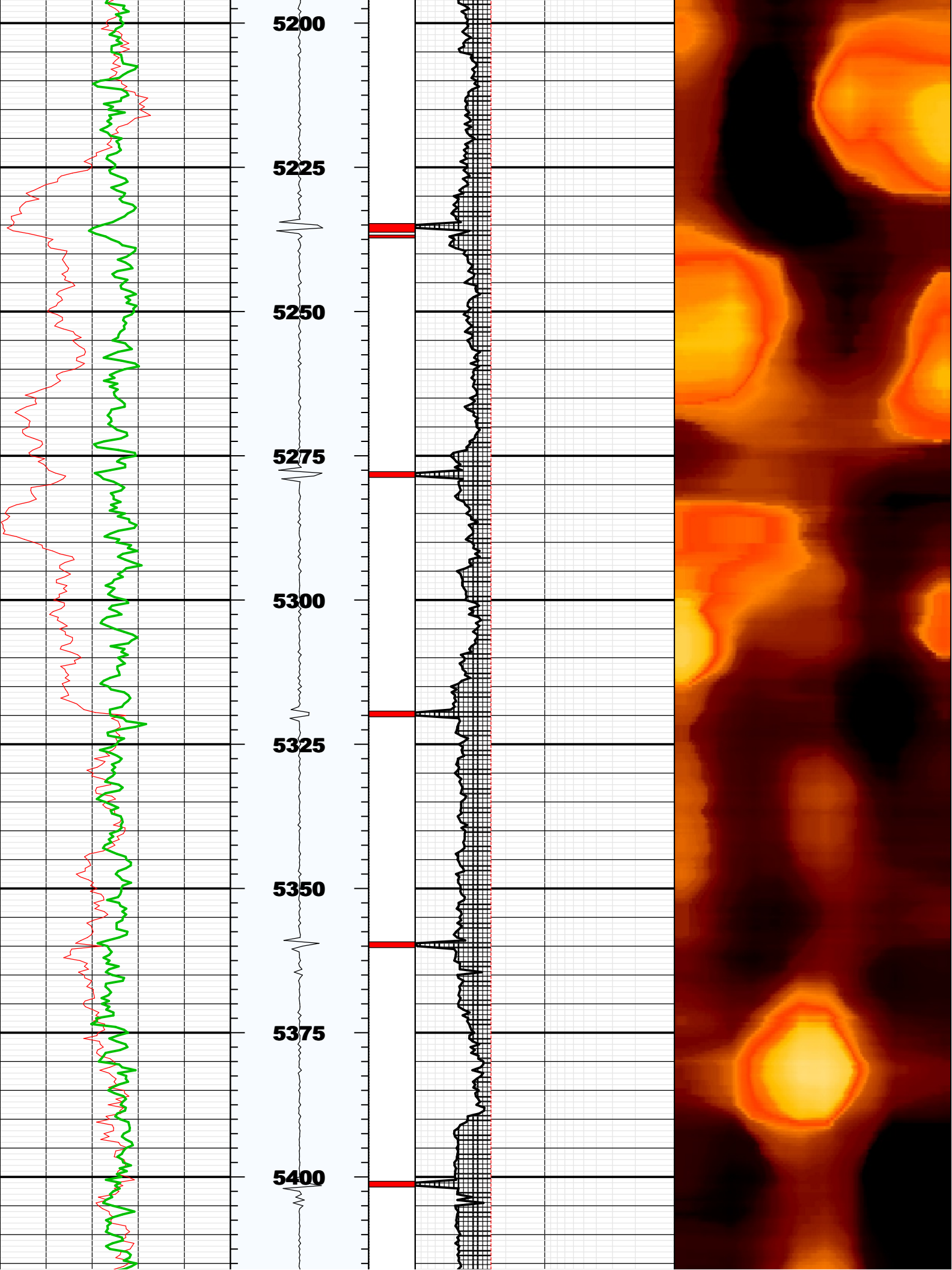


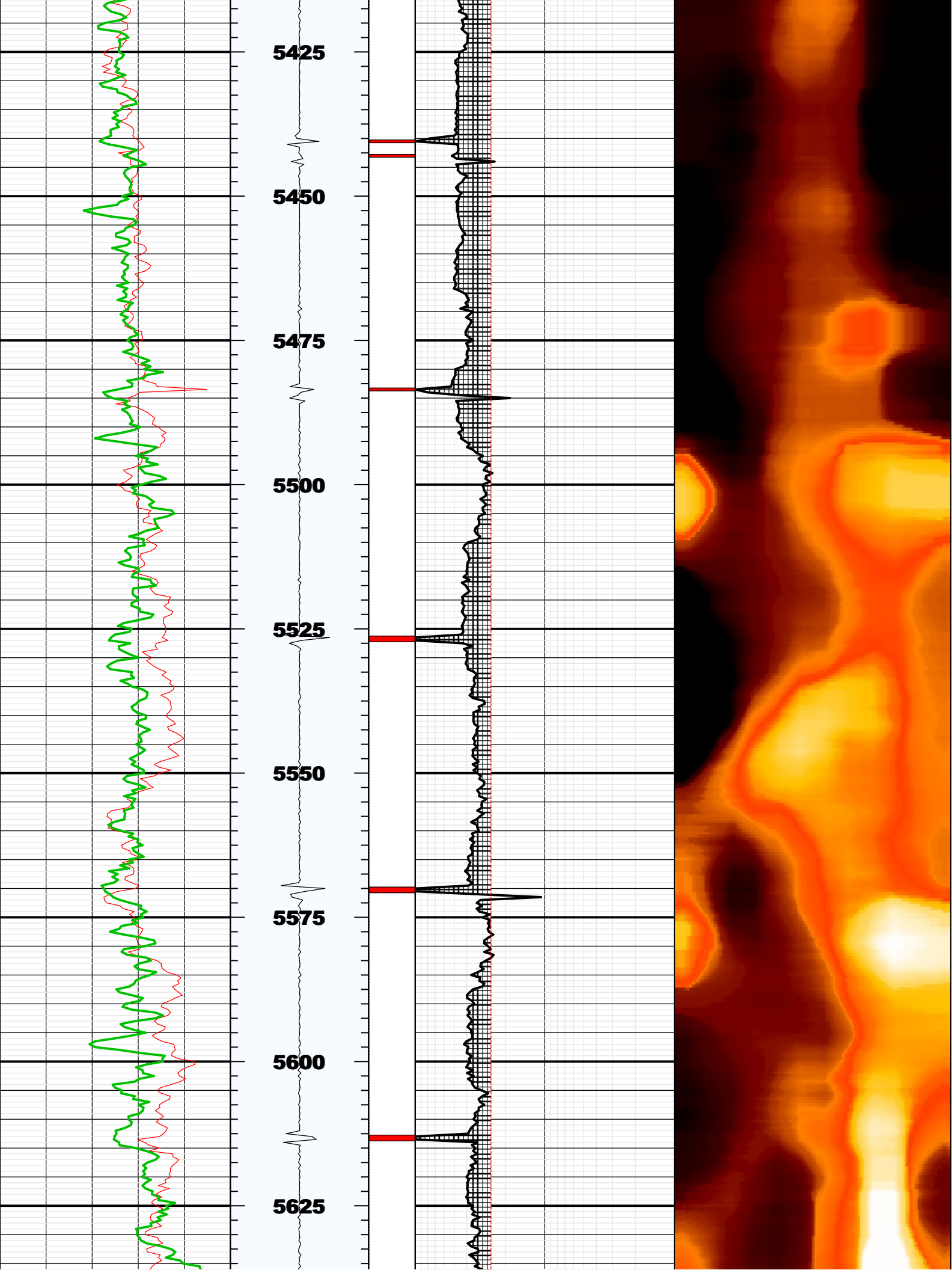


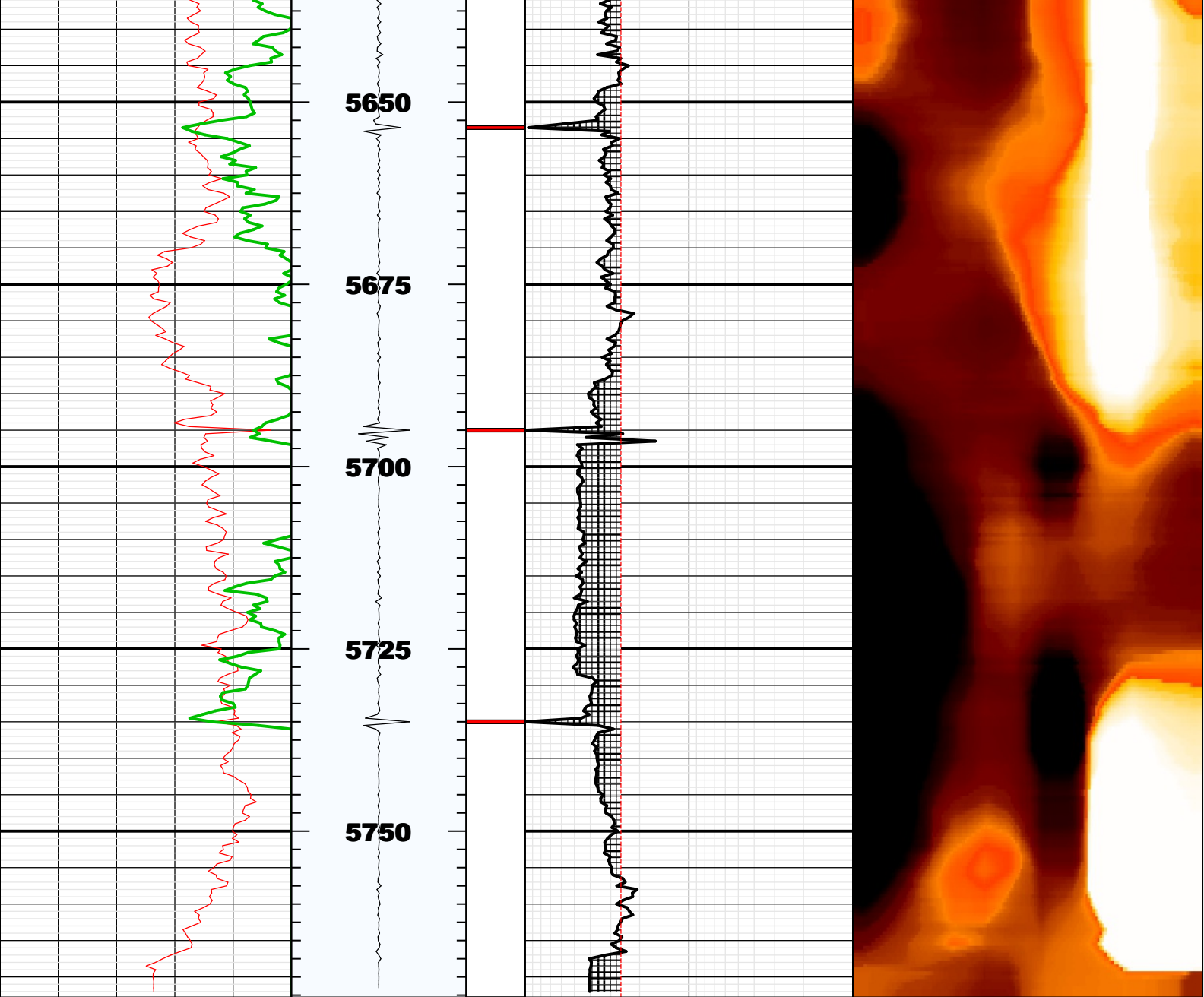








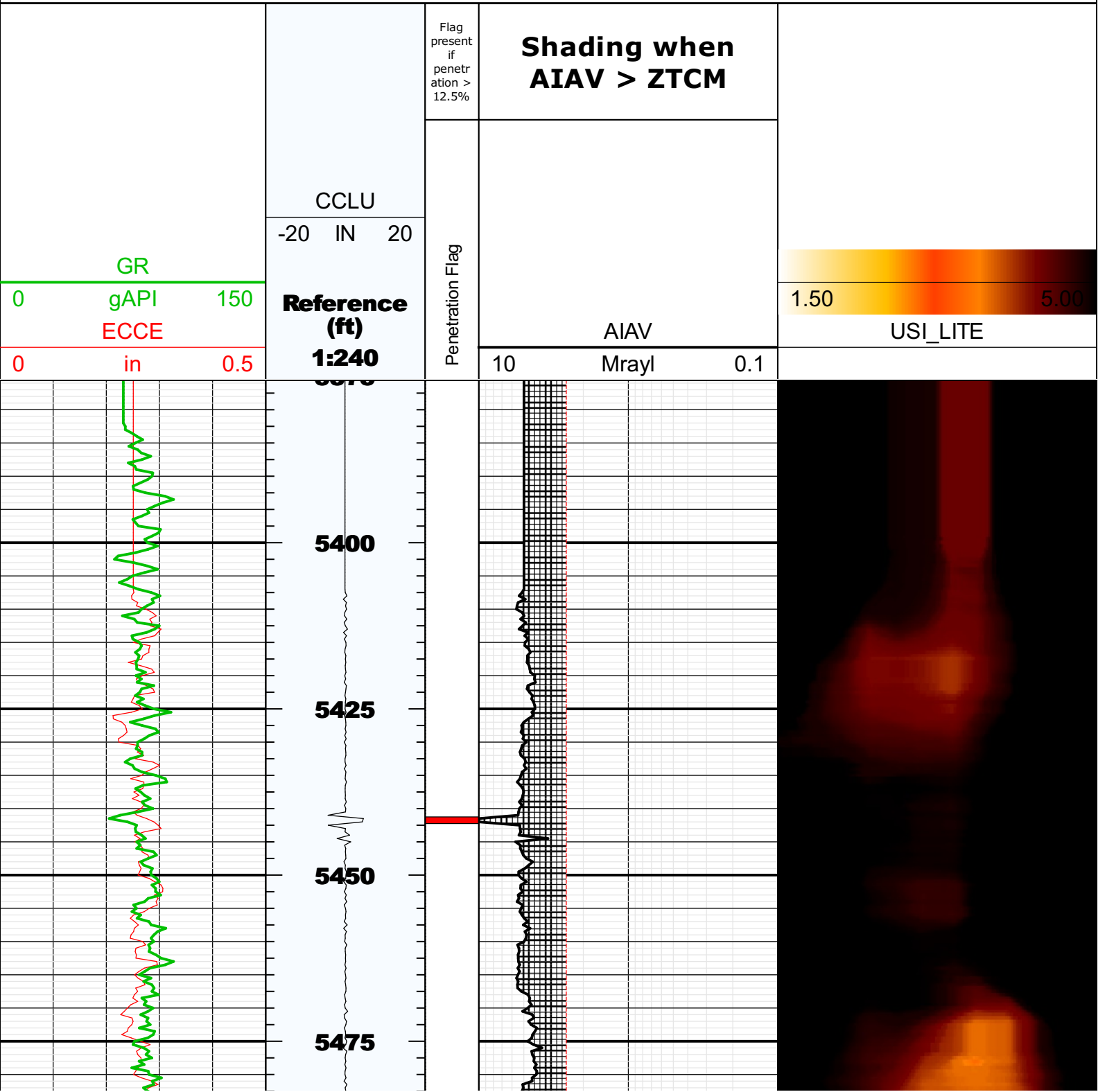


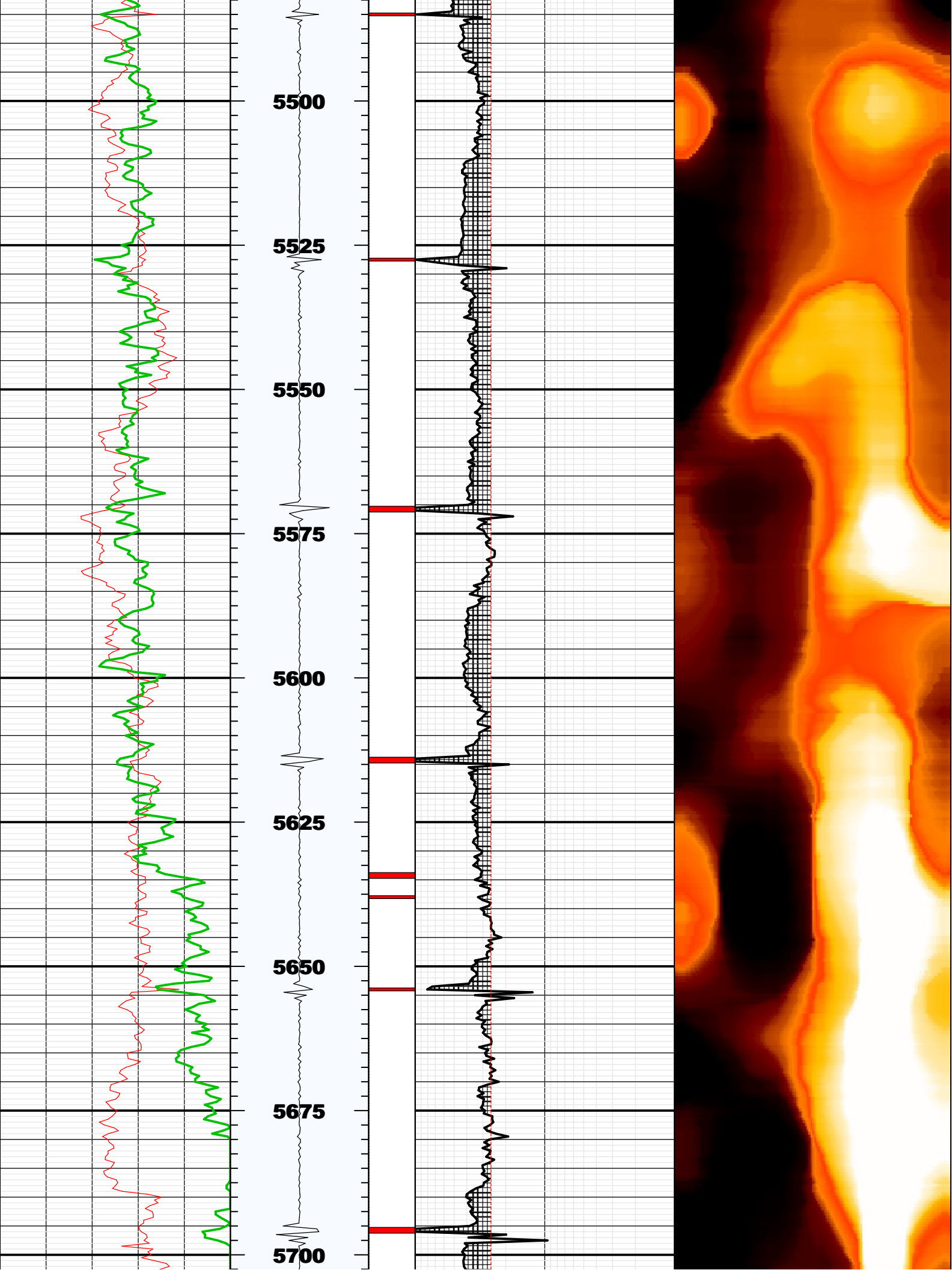


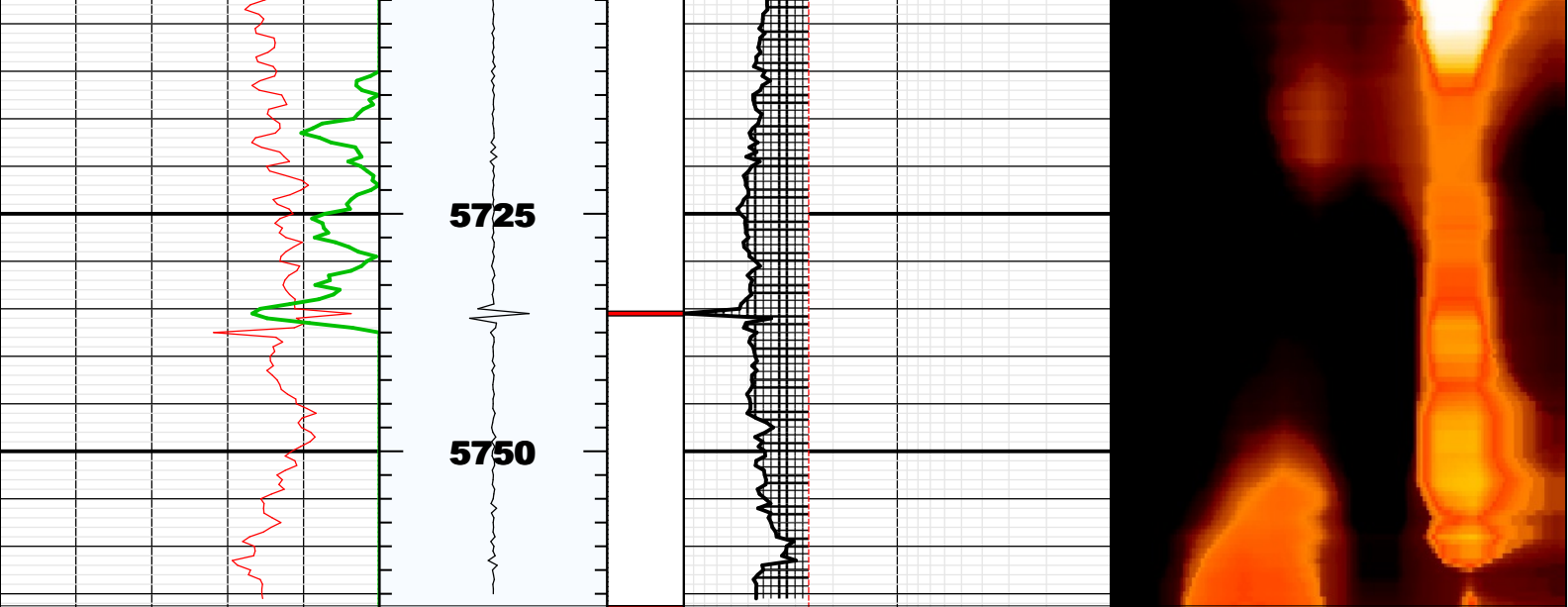
BS	8.75000	IN	Bit Size
CASG	P110		Casing Grade
CDIA	7.00000	IN	Casing Outer Diameter
CSID	6.27600	IN	Casing Inner Diameter
CSIZ	7.00000	IN	Current Casing Size
CWEI	26.00000	LB/F	Casing Weight
DFD	8.40000	LB/G	Drilling Fluid Density
DFVL	190.00000	US/F	Default Fluid Velocity
DO			
DOT	2.87400	IN	Diameter of Transducer Sensor
EMXV	60	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	BRINE		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	30.00000	US	Window Begin Time
WINE	80.00000	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.
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Fluid Properties Used for Main Pass

