

Company: Noble Energy Inc

Well: Wells Ranch AE30-63-1HNC  
Field: Wattenberg  
County: Weld State: Colorado

County: Weld		<b>USI-LITE</b>	
Field: Wattenberg			
Location: SWSW Sec. 29 T6N R62W			
Well: Wells Ranch AE30-63-1HNC			
Company: Noble Energy Inc			
LOCATION			
Permanent Datum:		Elev: K.B. 4776.0 F	
Log Measured From:		G.L. 4752.0 F	
Drilling Measured From:		D.F. 4774.9 F	
GL			
KB			
KB			
API Serial No.			
05-123-38692-0000			
Section 29			
Township 6N			
Range 62W			
Logging Date		12-Jul-2014	
Run Number		Run1 USIT	
Depth Driller		12033.0 F	
Schlumberger Depth		12033.0 F	
Bottom Log Interval		6721.0 F	
Top Log Interval		-999.2 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		-999.2 F	
To		12033.0 F	
Casing Size		7.00 IN	
Weight		26.00 LB/F	
Grade		P110	
From		0.0 F	
To		6901.0 F	
Max Recorded Temp		-999.2	
Logger on bottom (date)		12-Jul-2014	
Location		Fl. Morgan CO	
Recorded By		Tim Hoffman	
Witnessed By		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: 12000.00000

DISCLAIMER

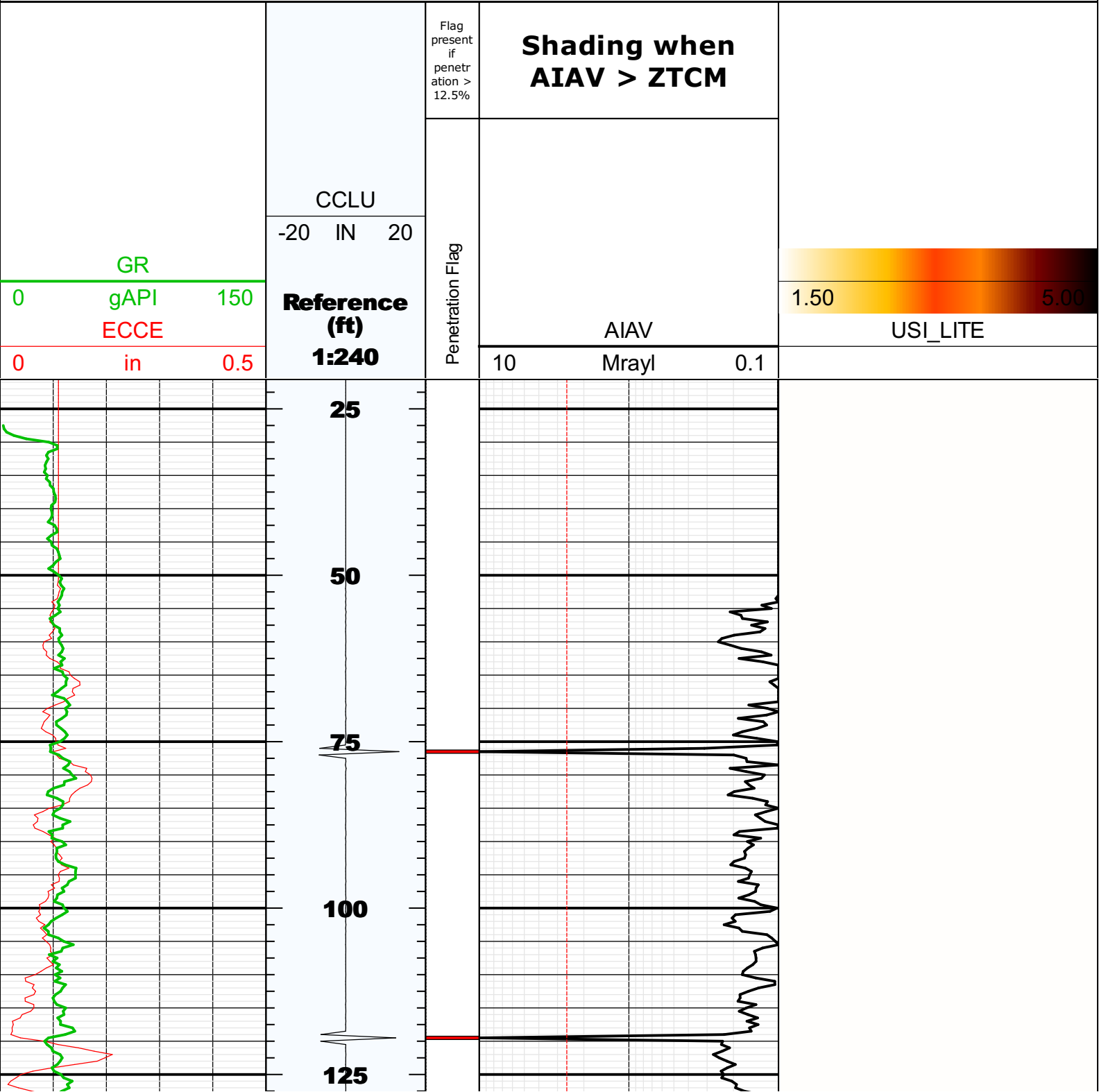
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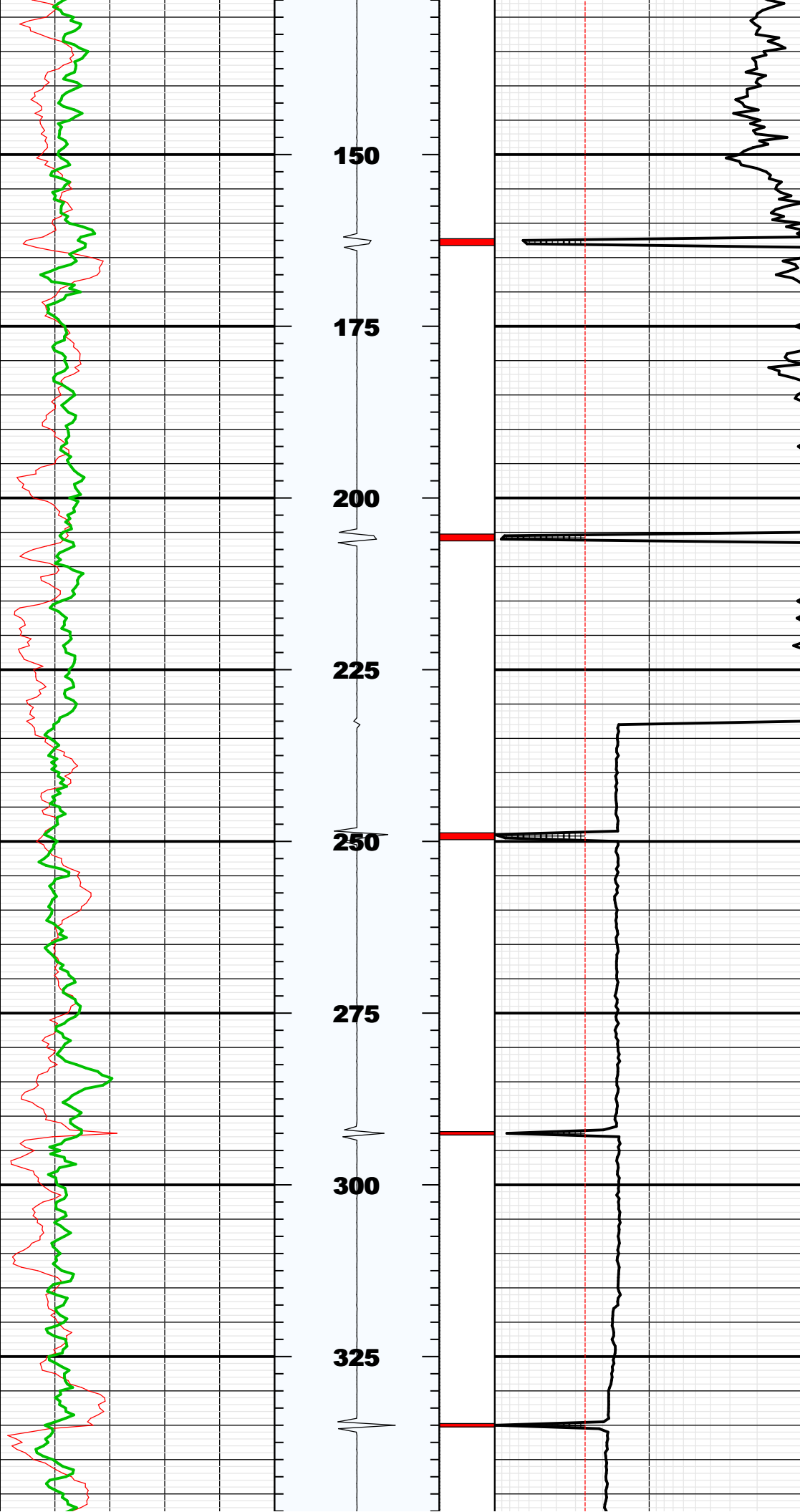
This is the first run in hole  
Toolstring run as per tool sketch  
12.5 ppg lead cement  
13.8 ppg tail cement  
0 PSI repeat pass  
2500 PSI main pass

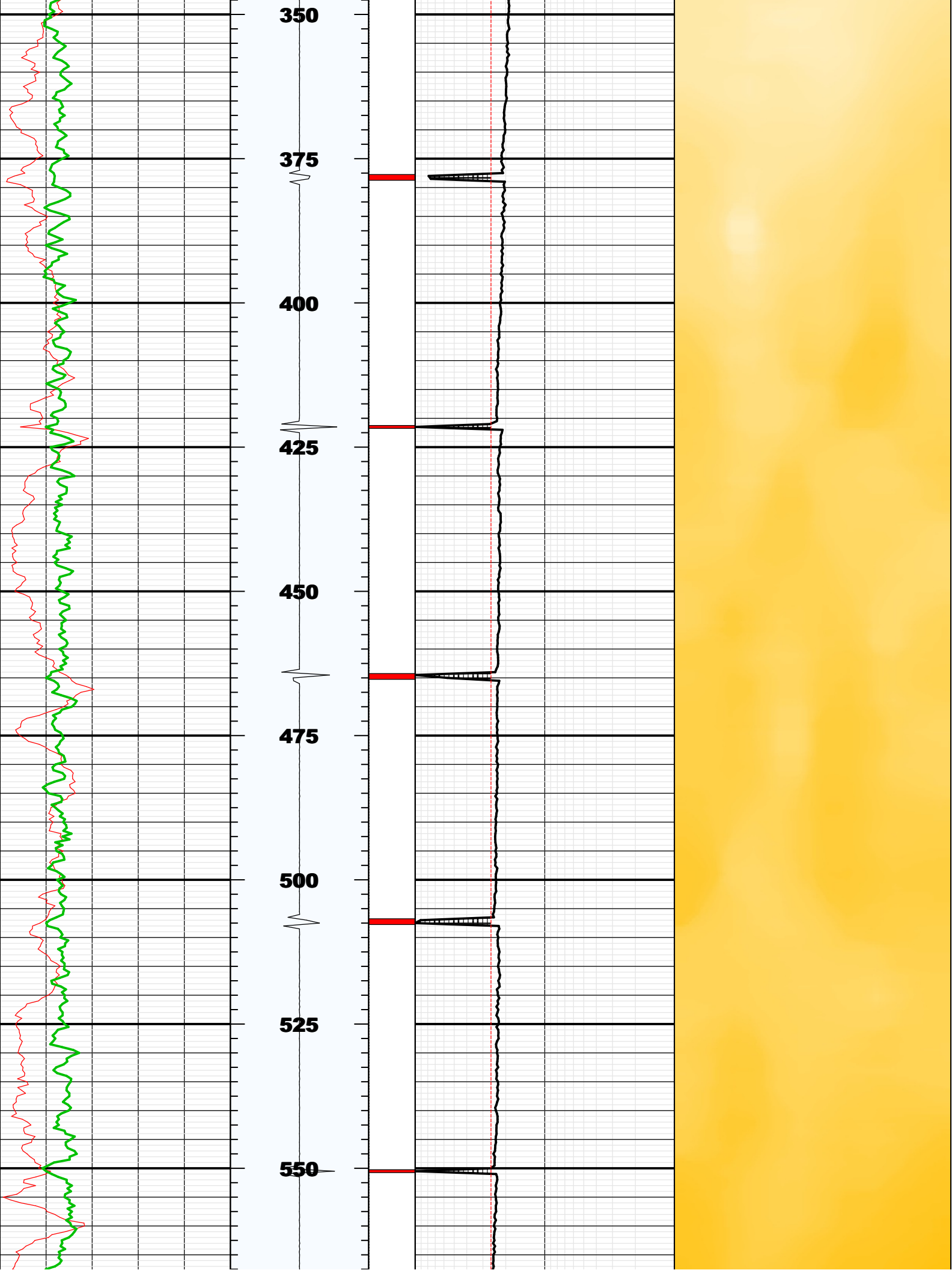
Bottom log temperature 225 degF  
Top of cement 580 ft  
Crew Jay Musgrave Tyler Riter

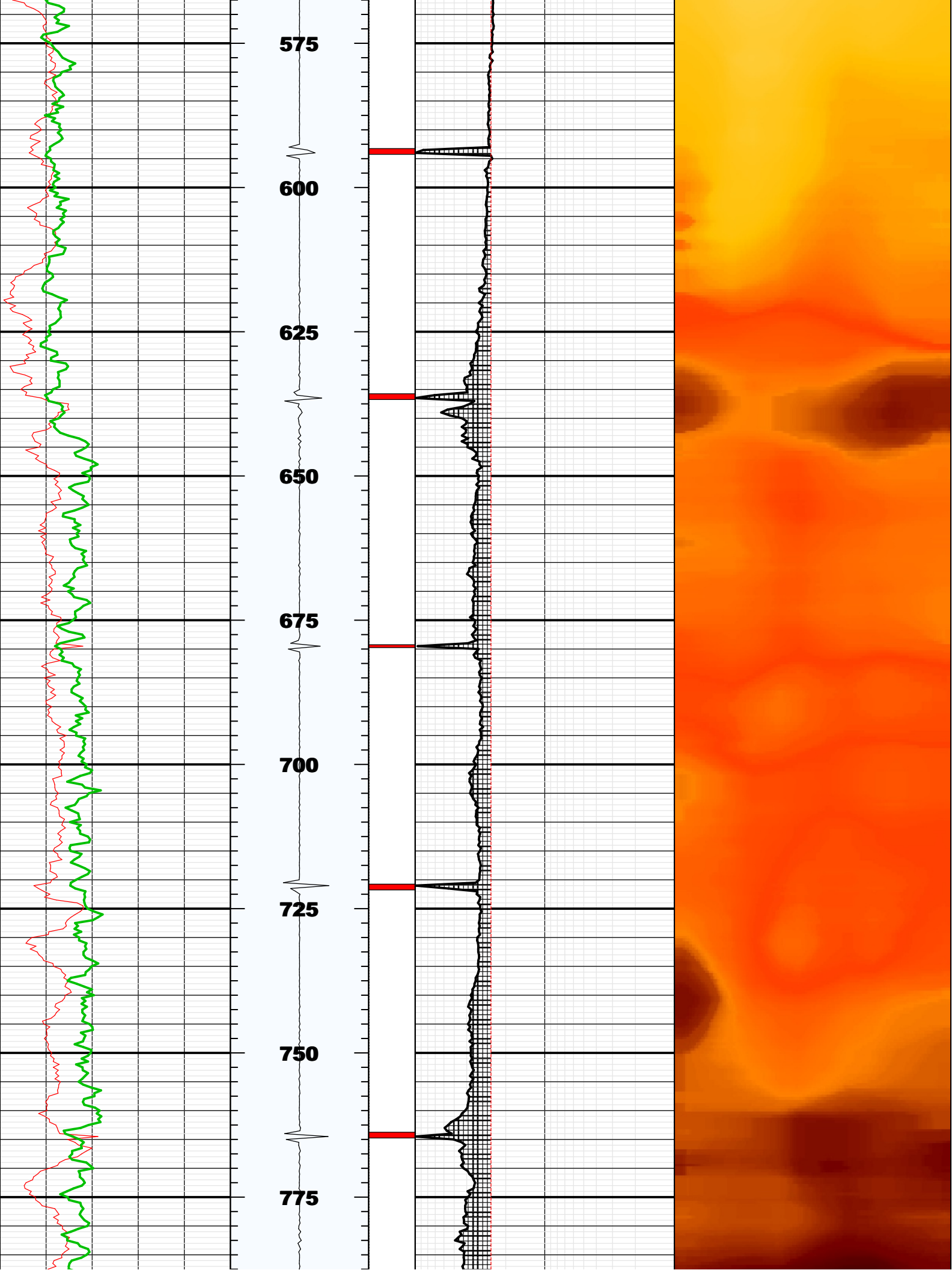
Main Pass

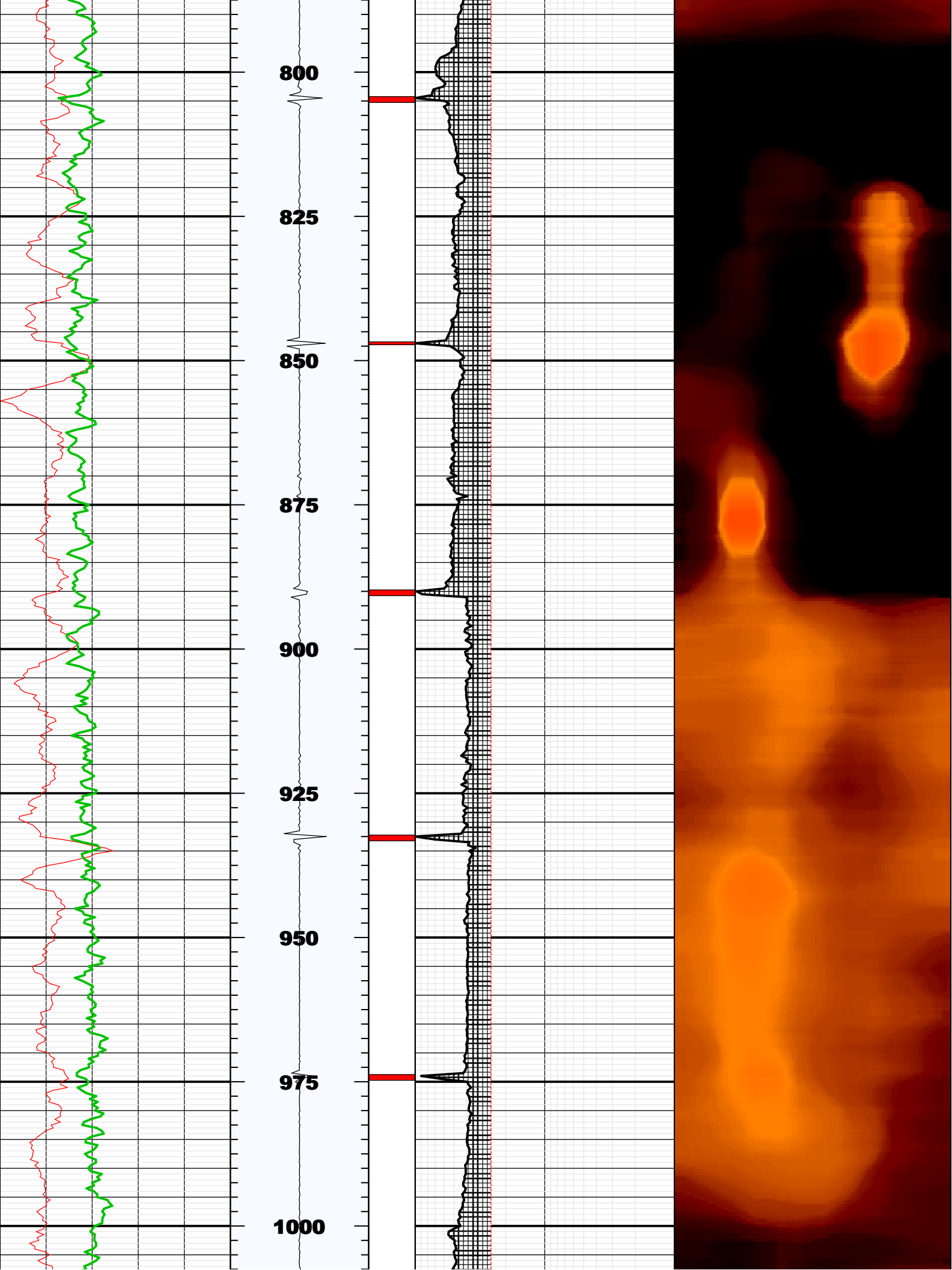
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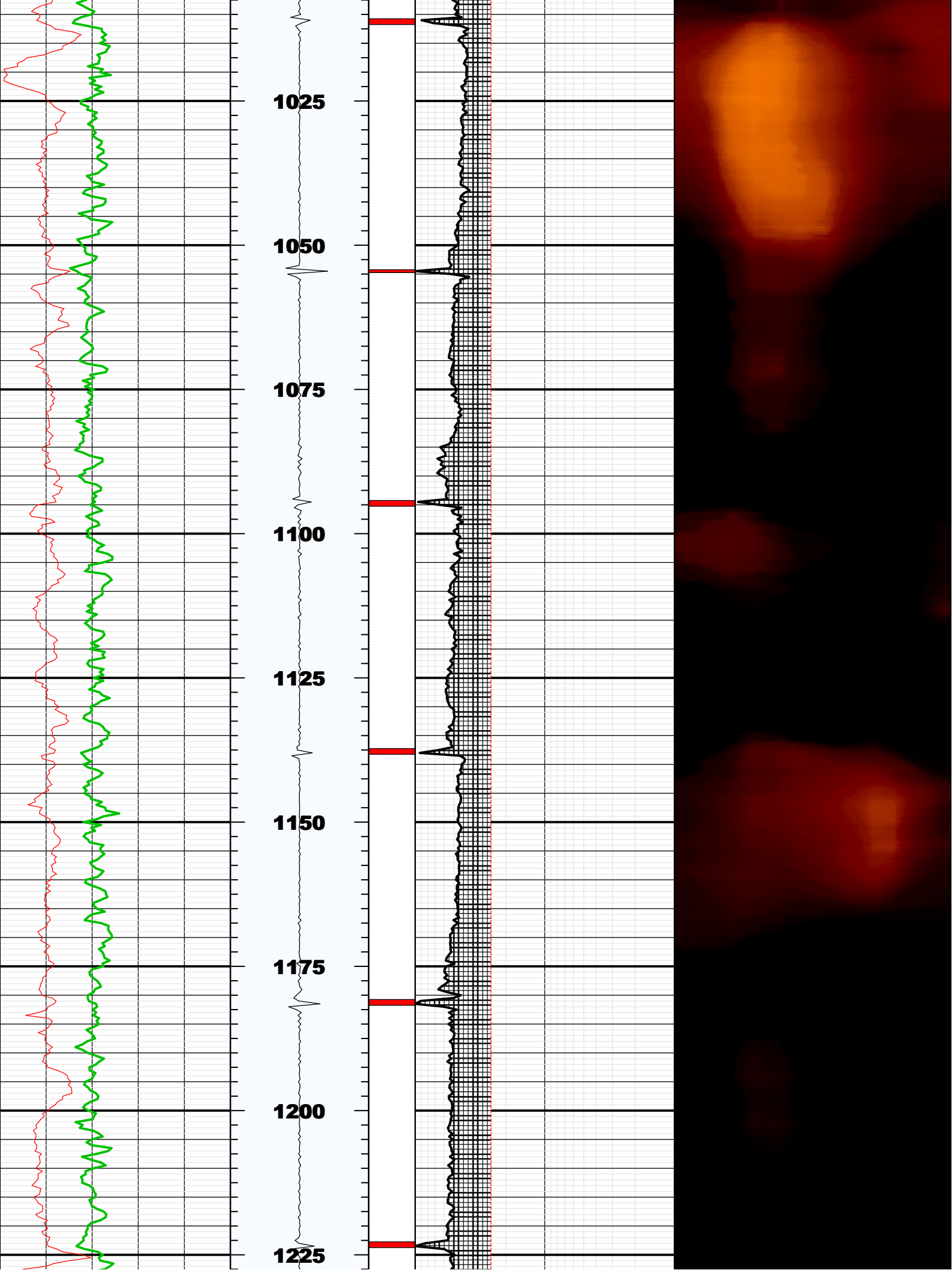




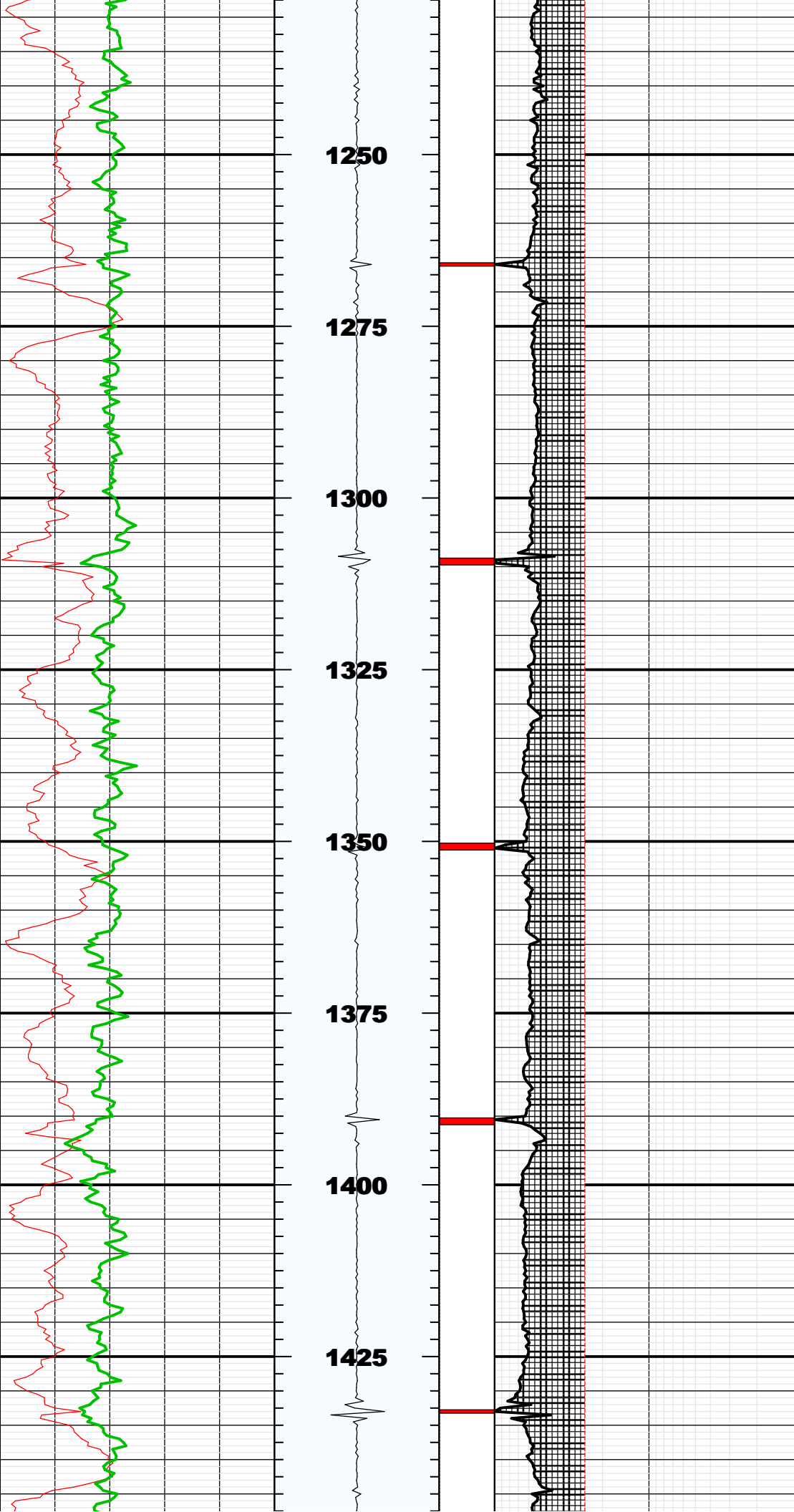


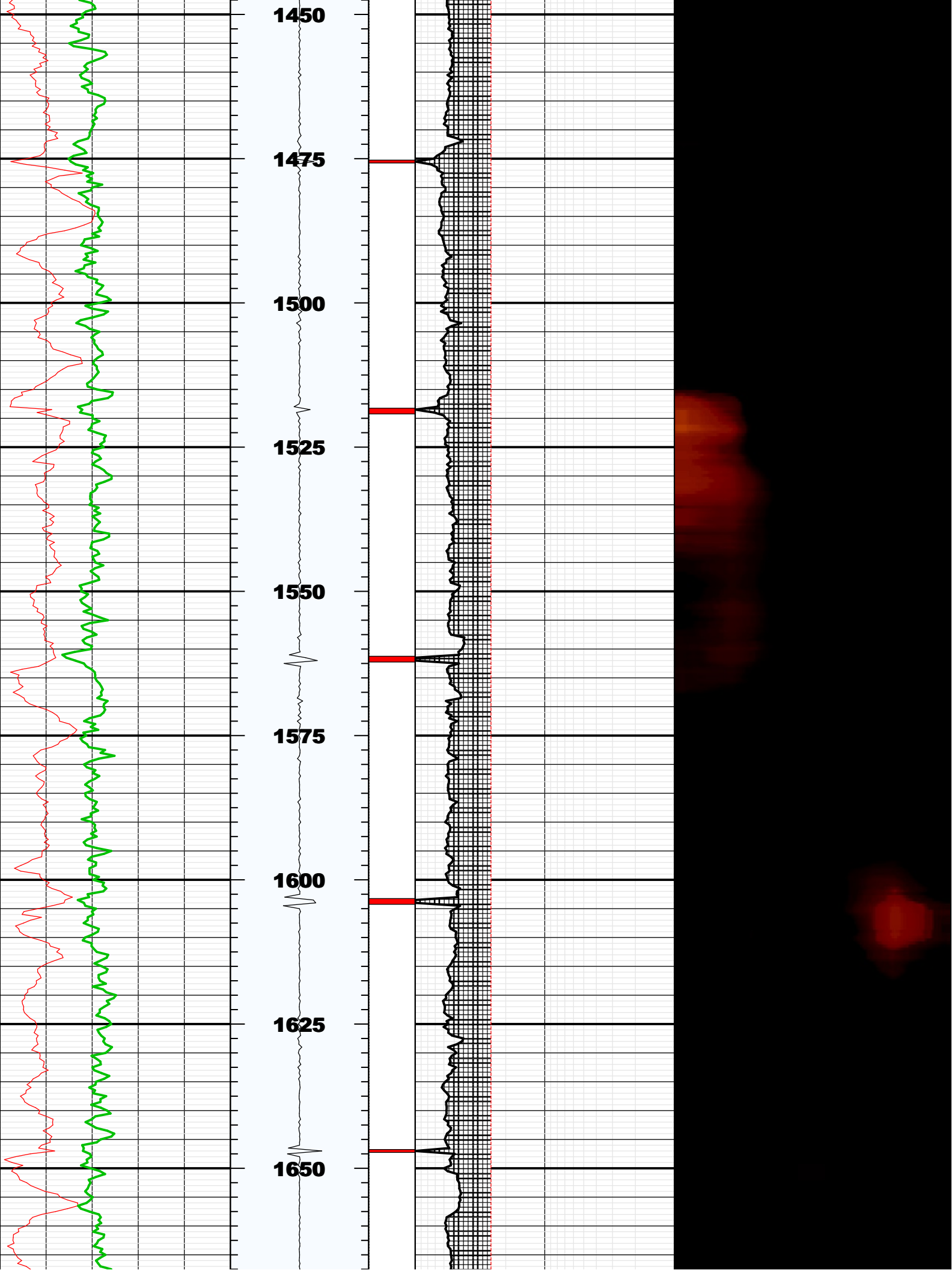


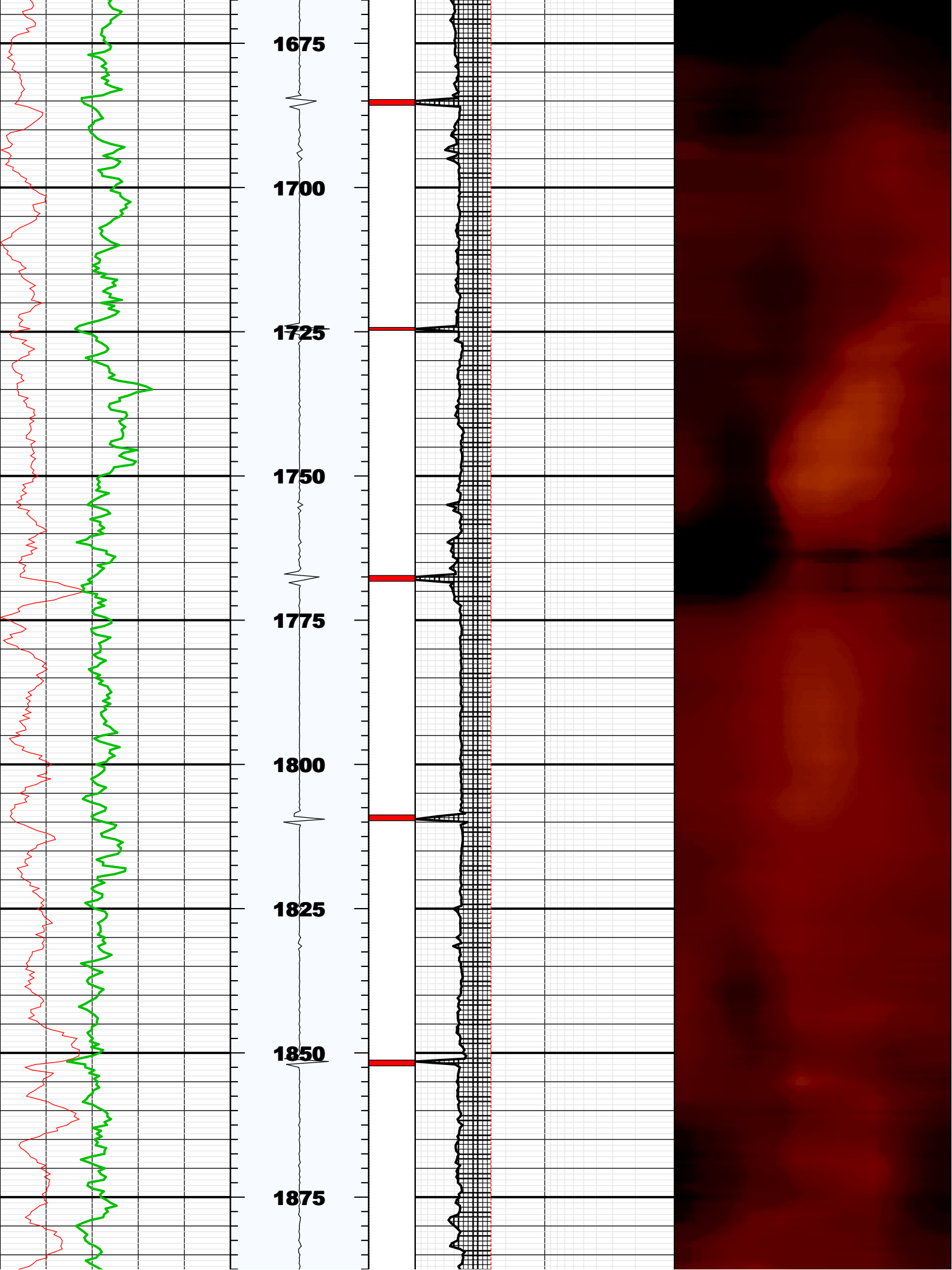


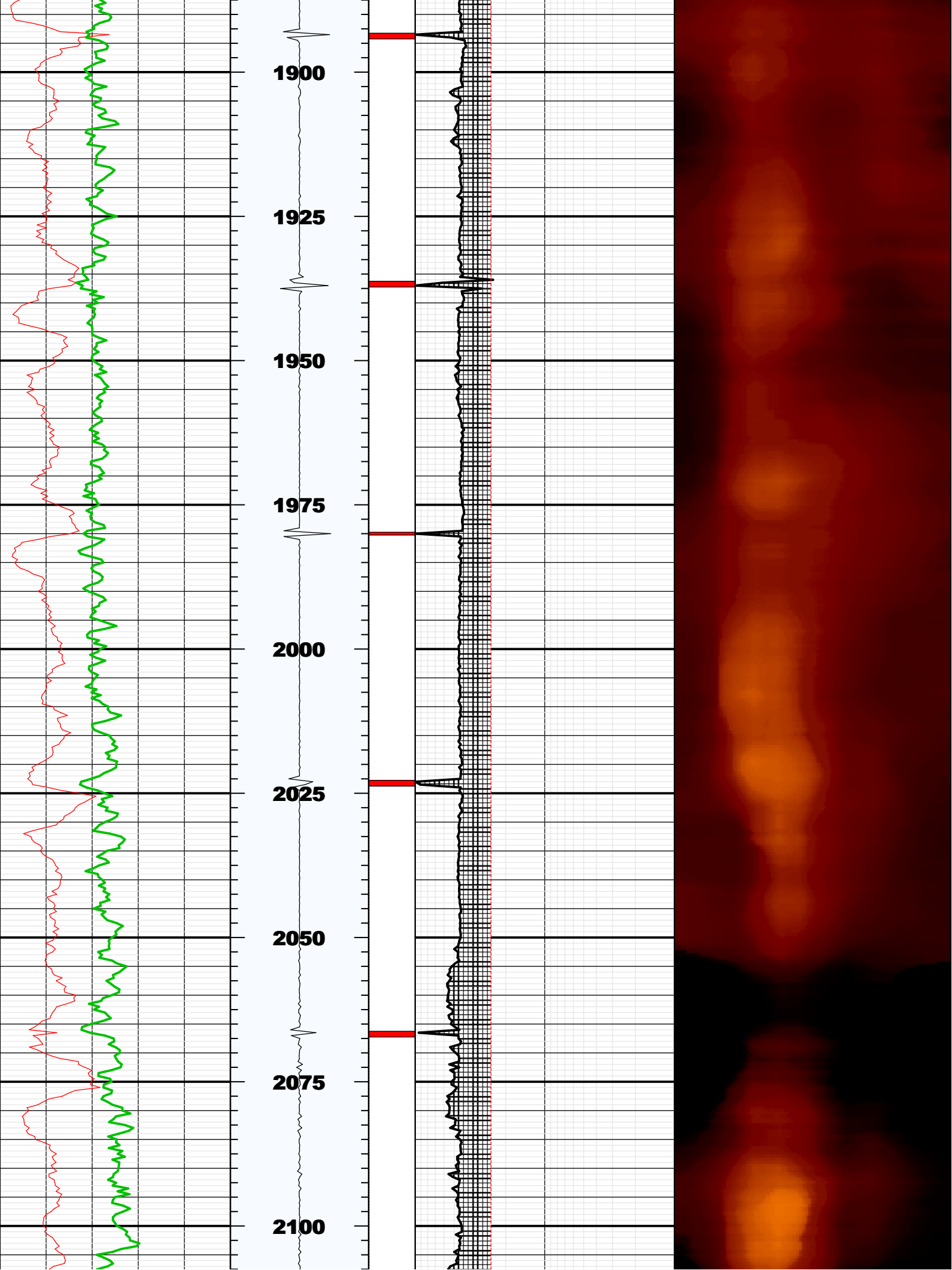


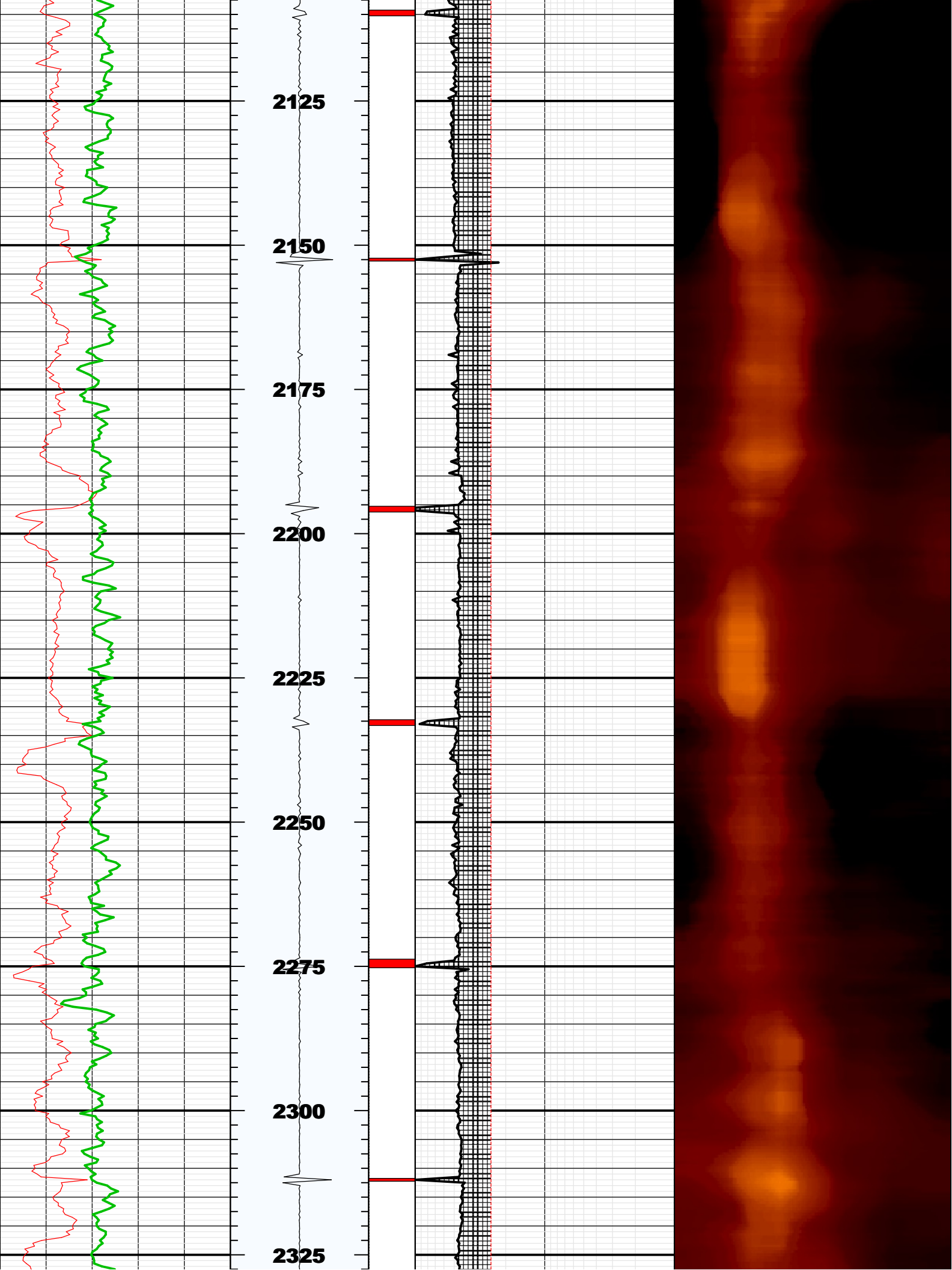




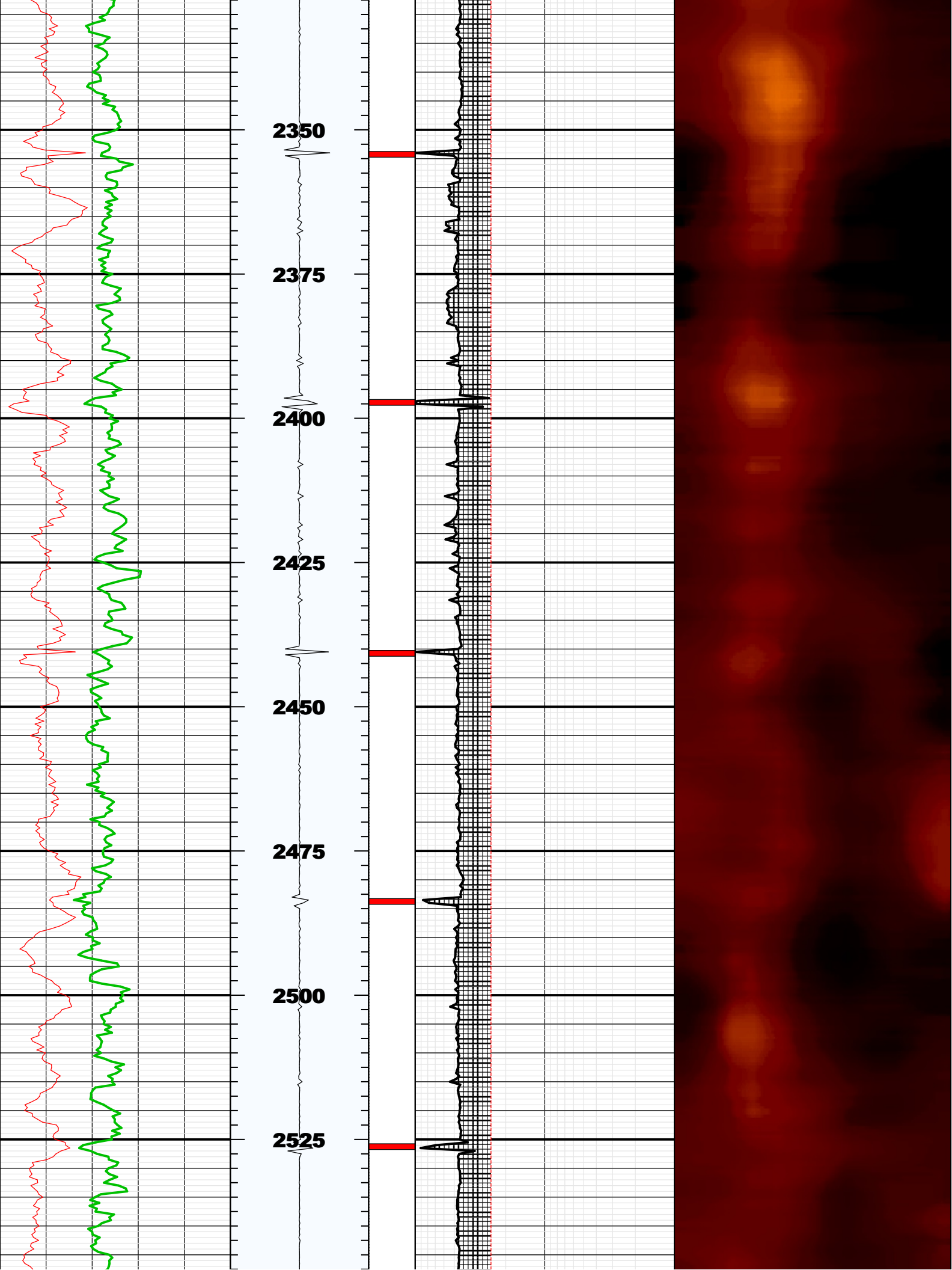


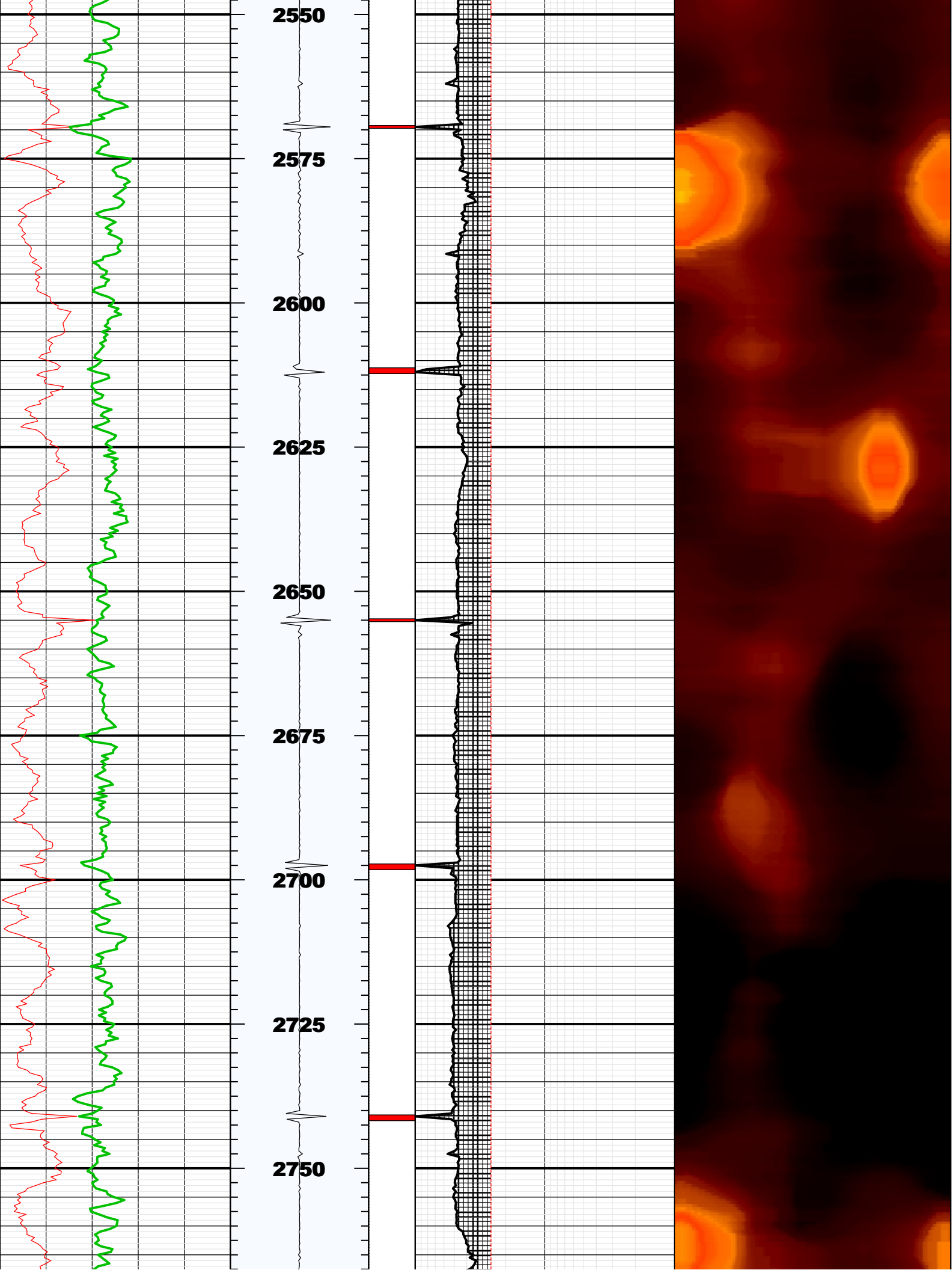


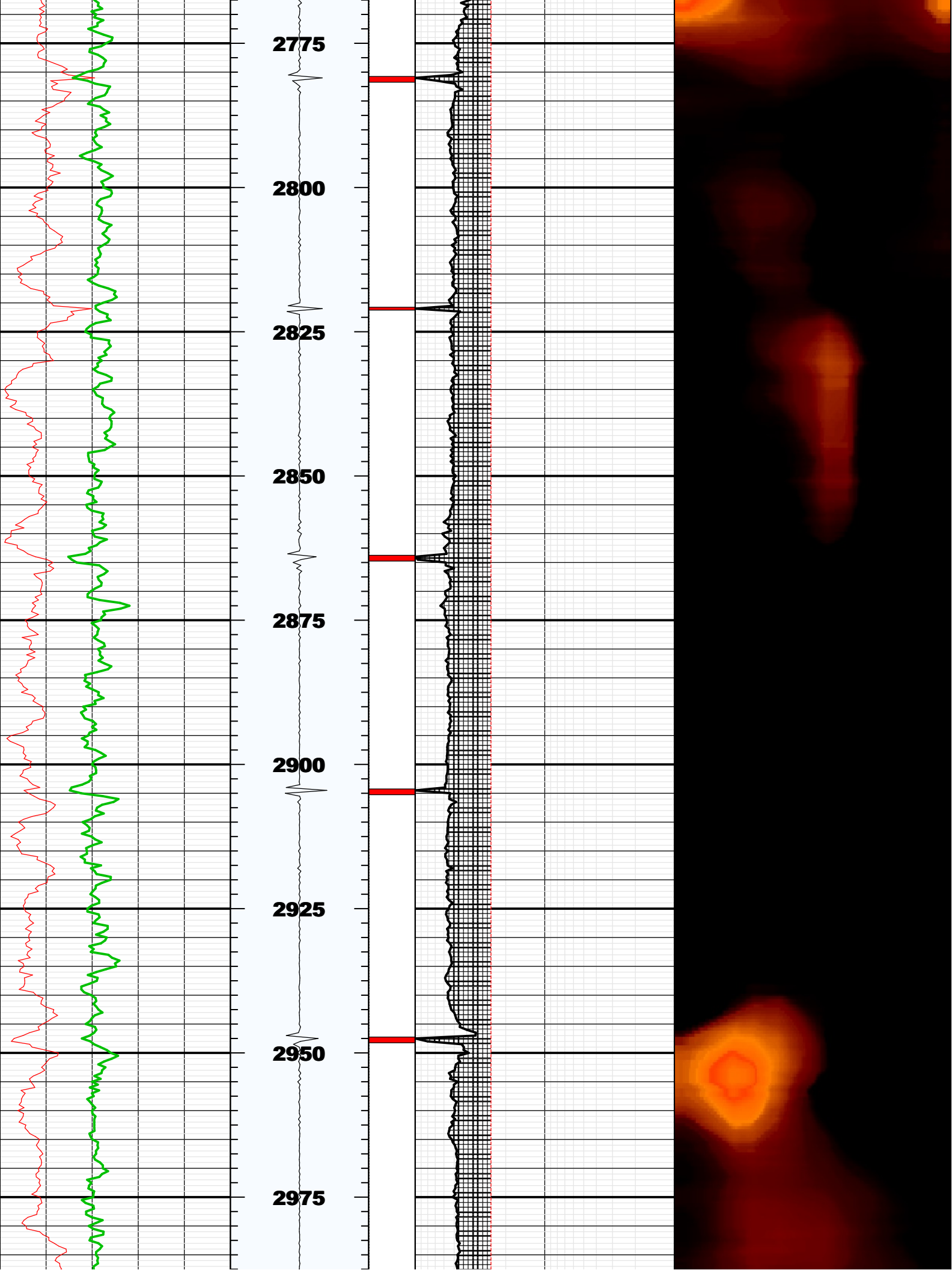




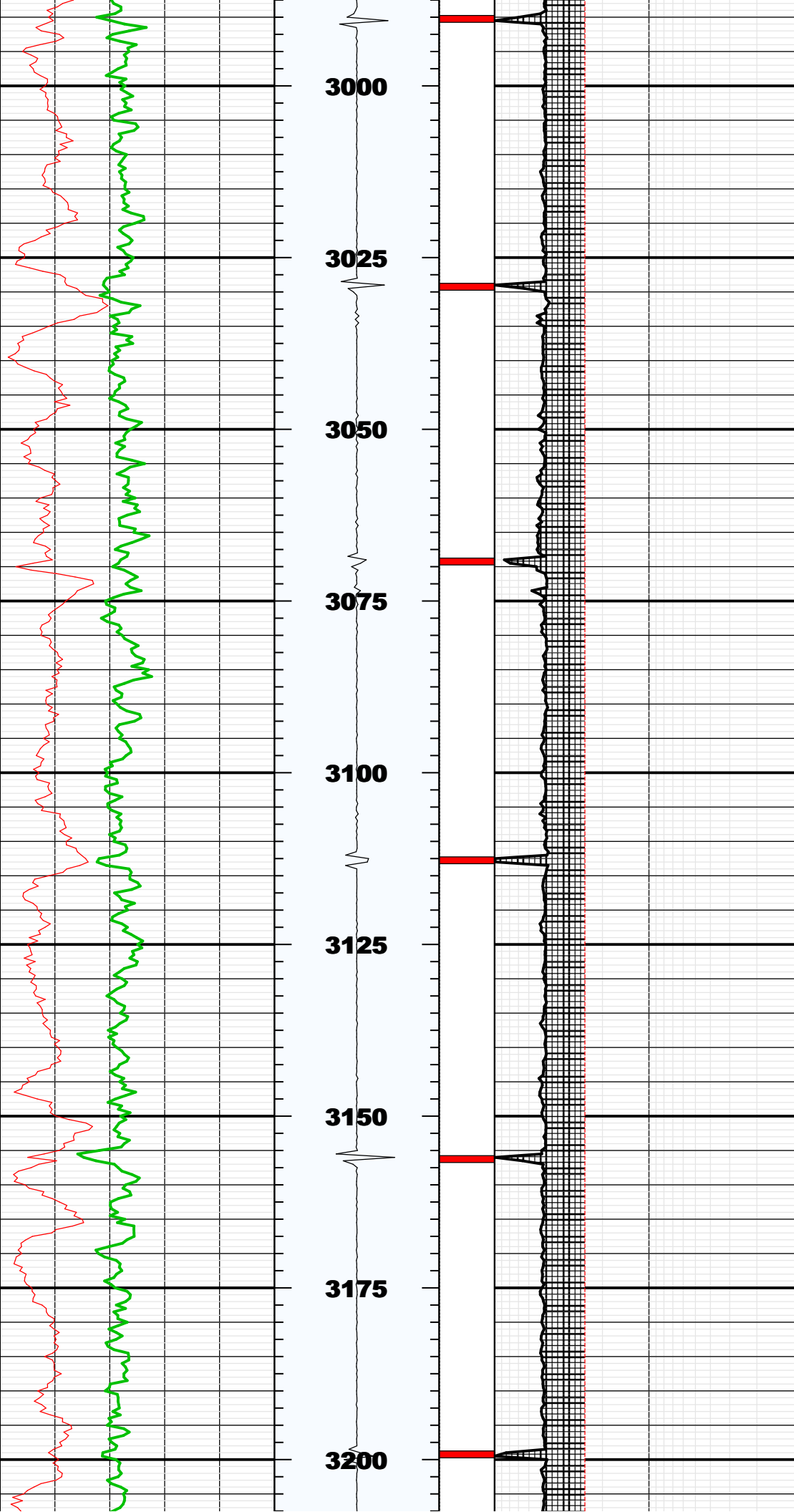


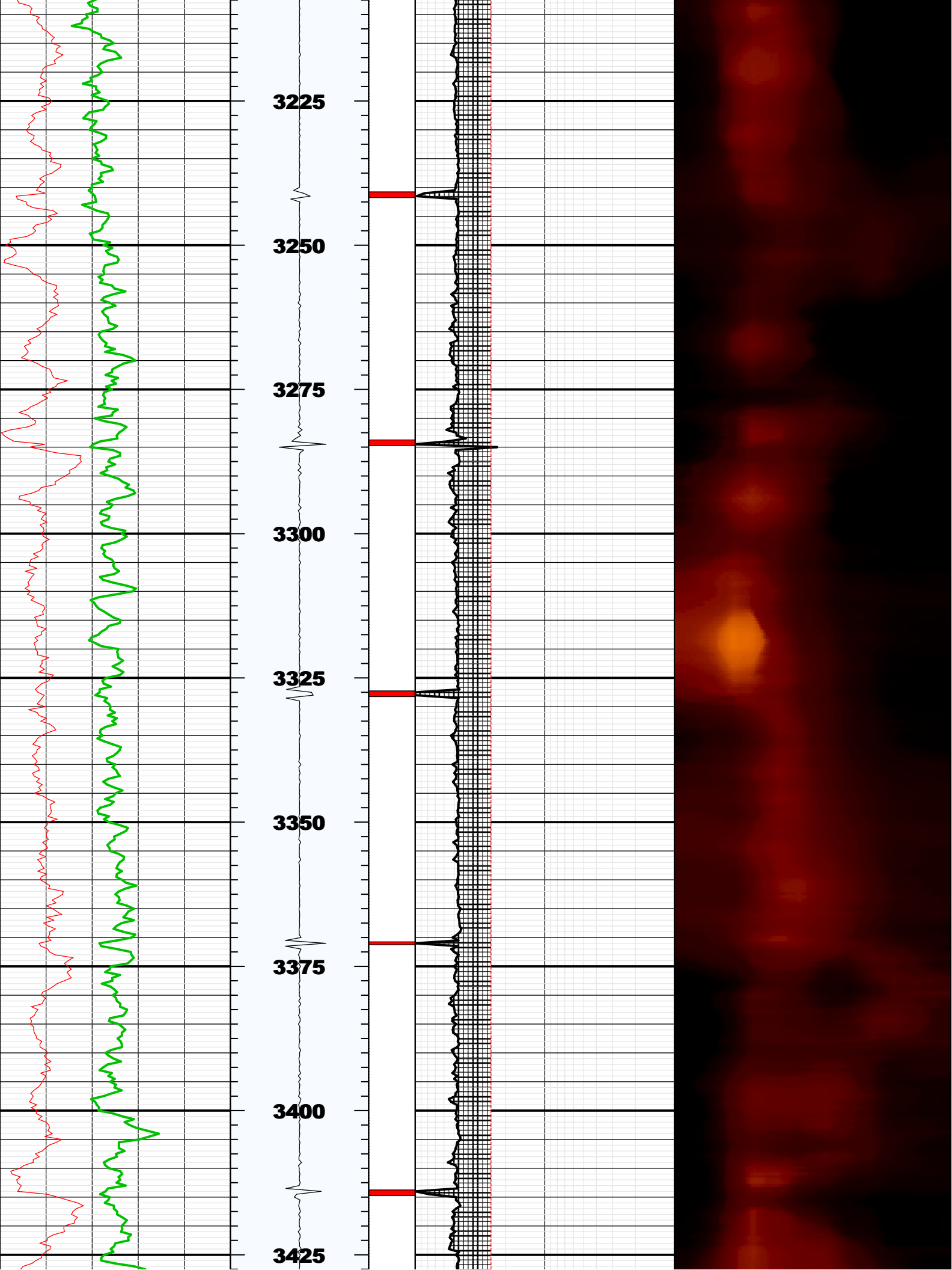


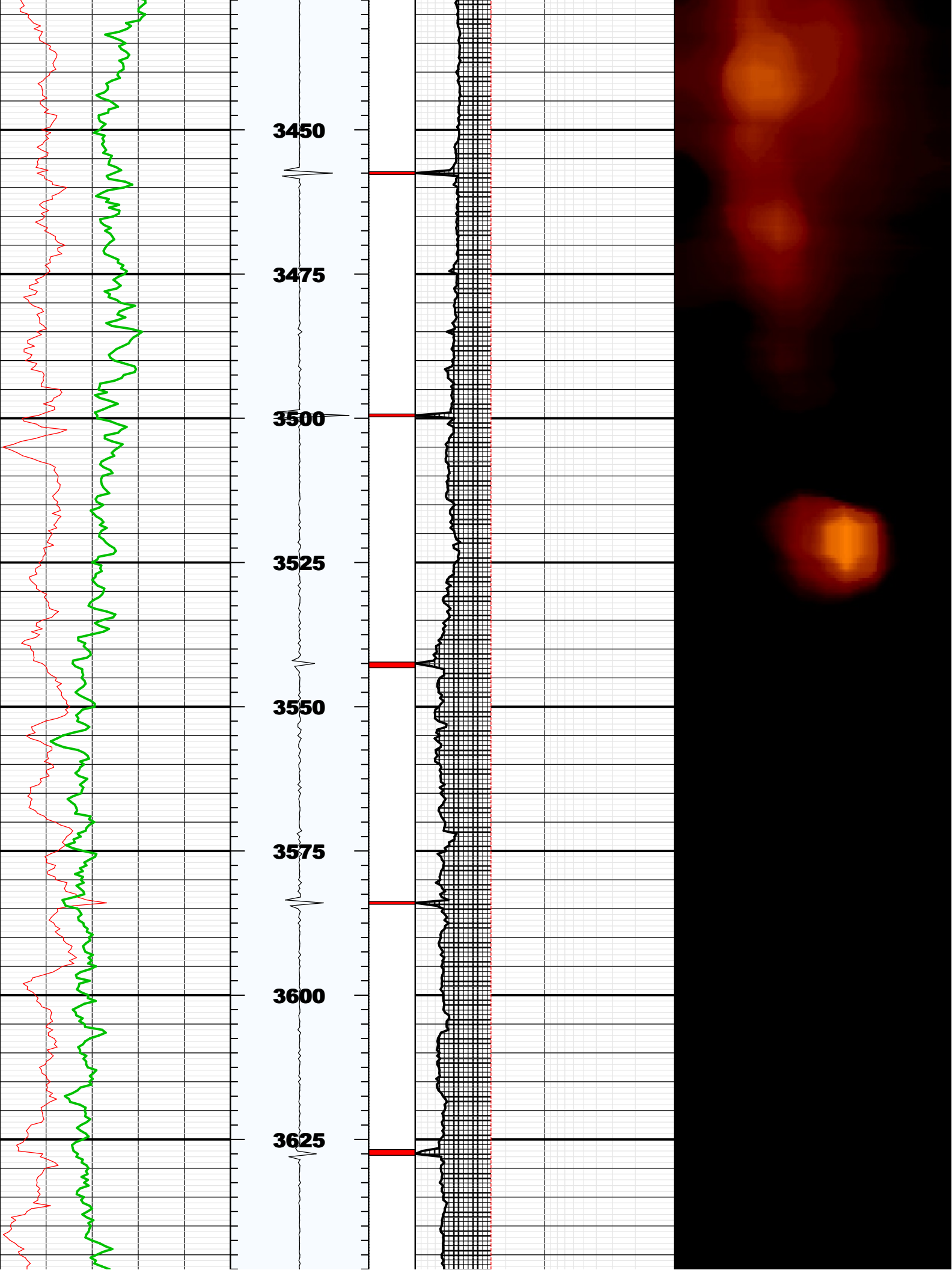


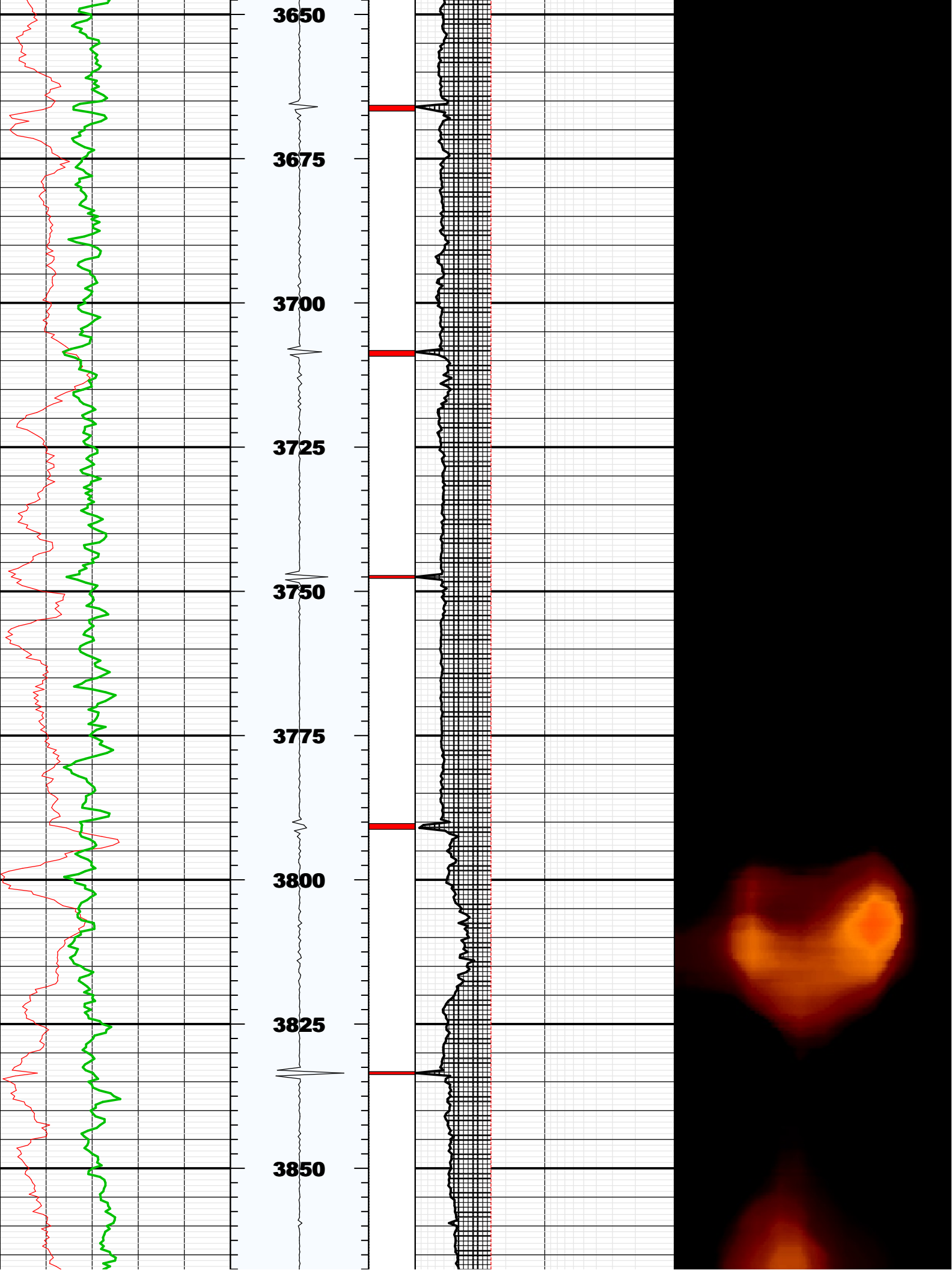


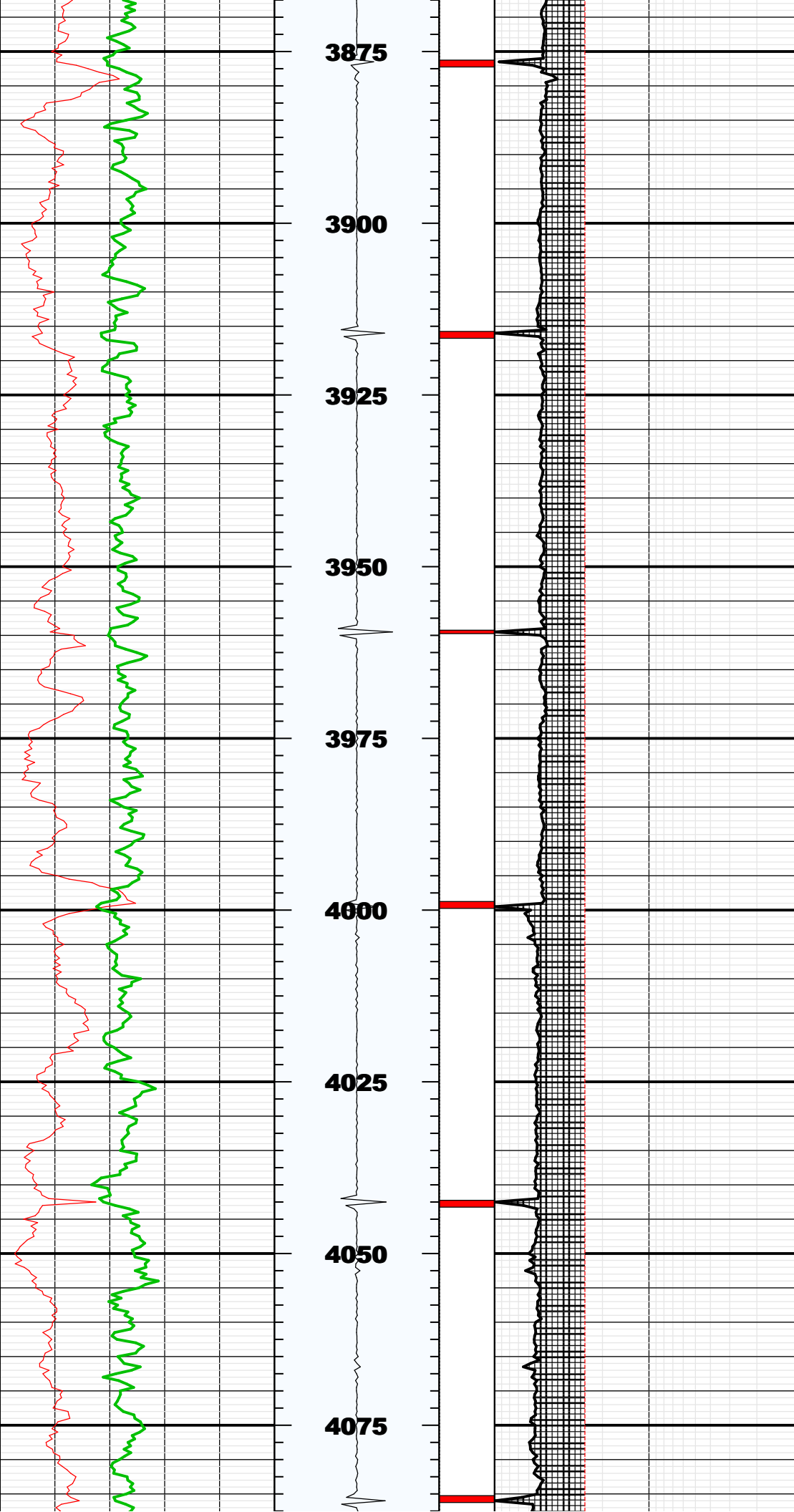




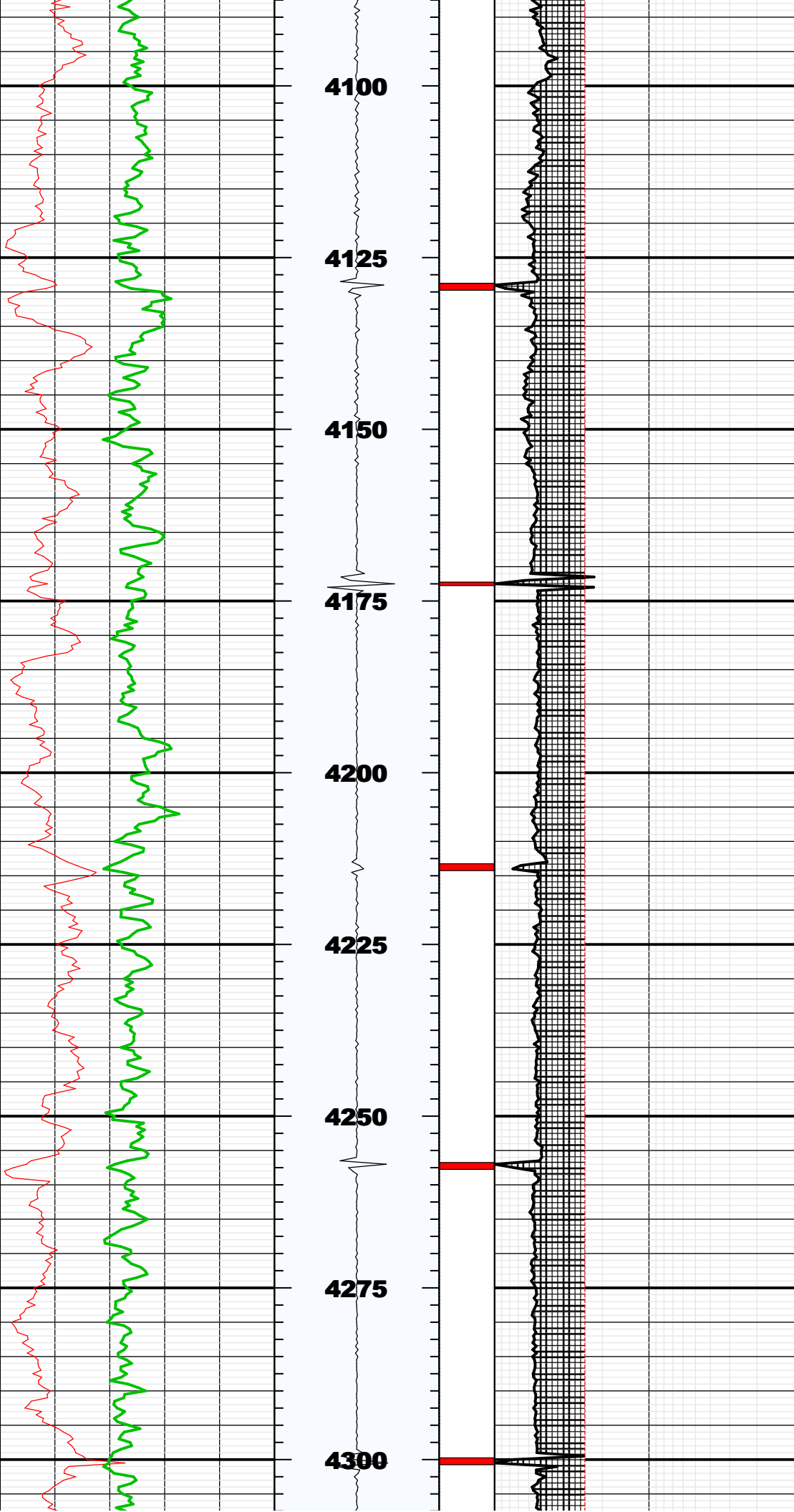


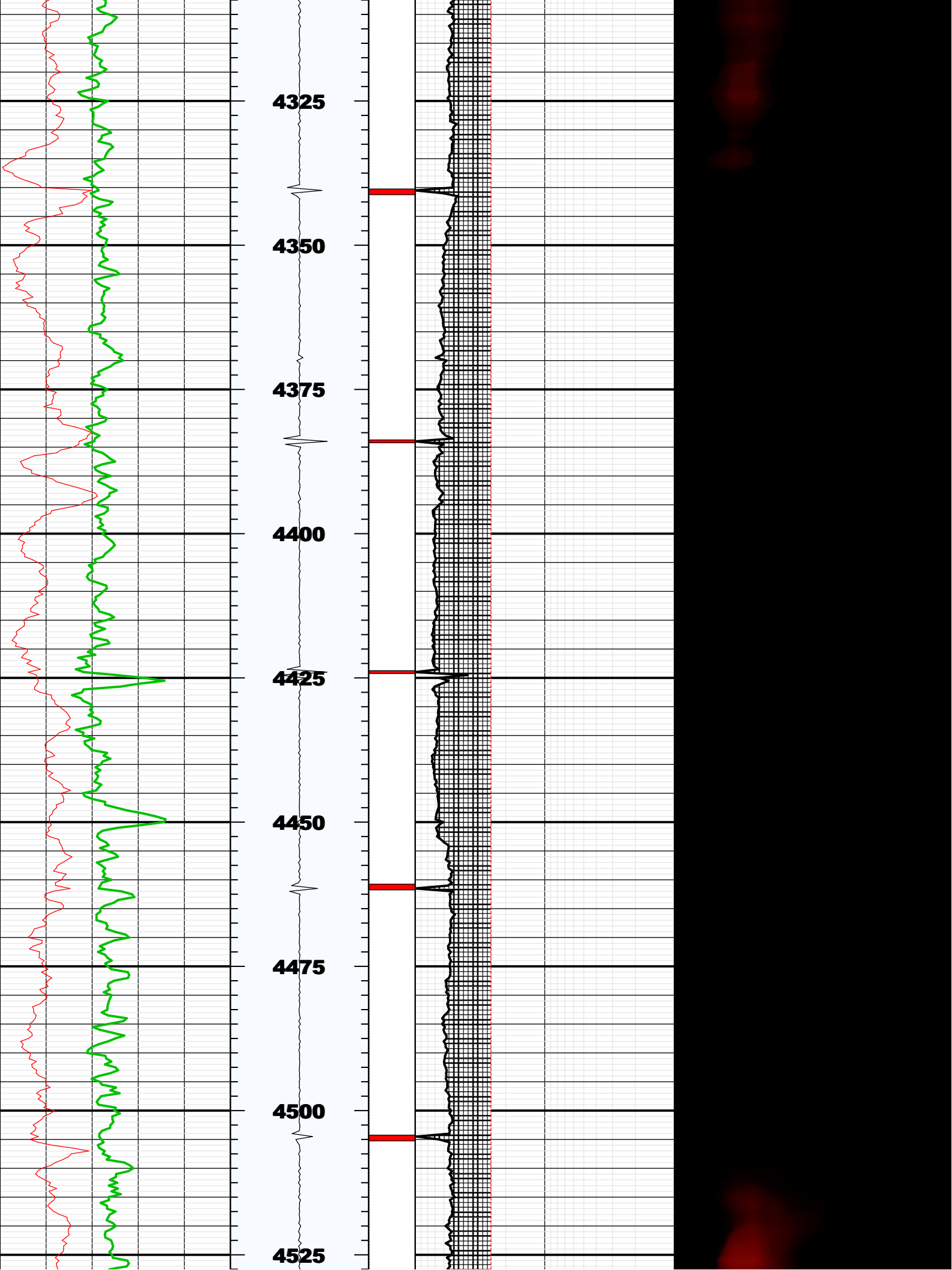


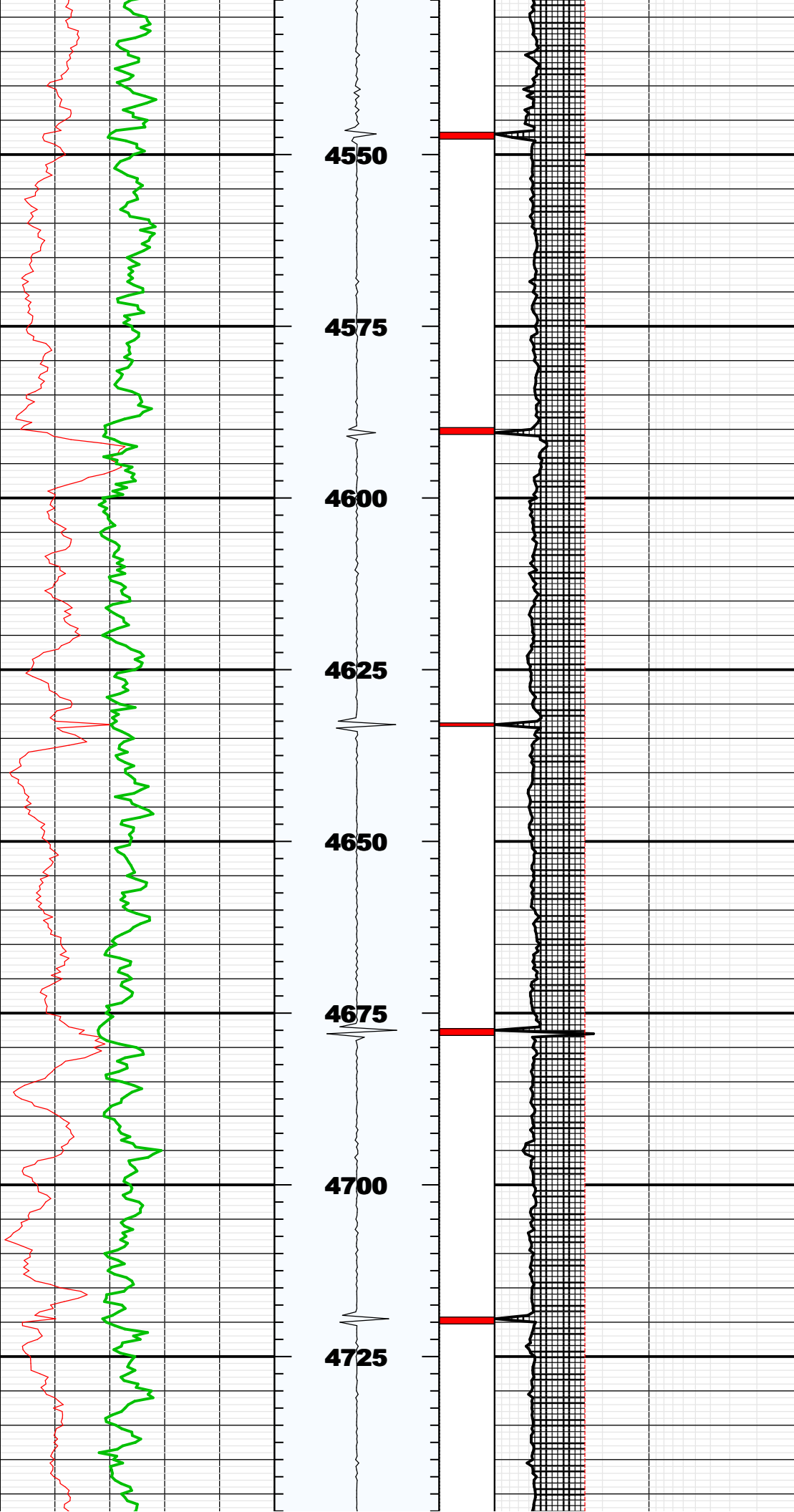




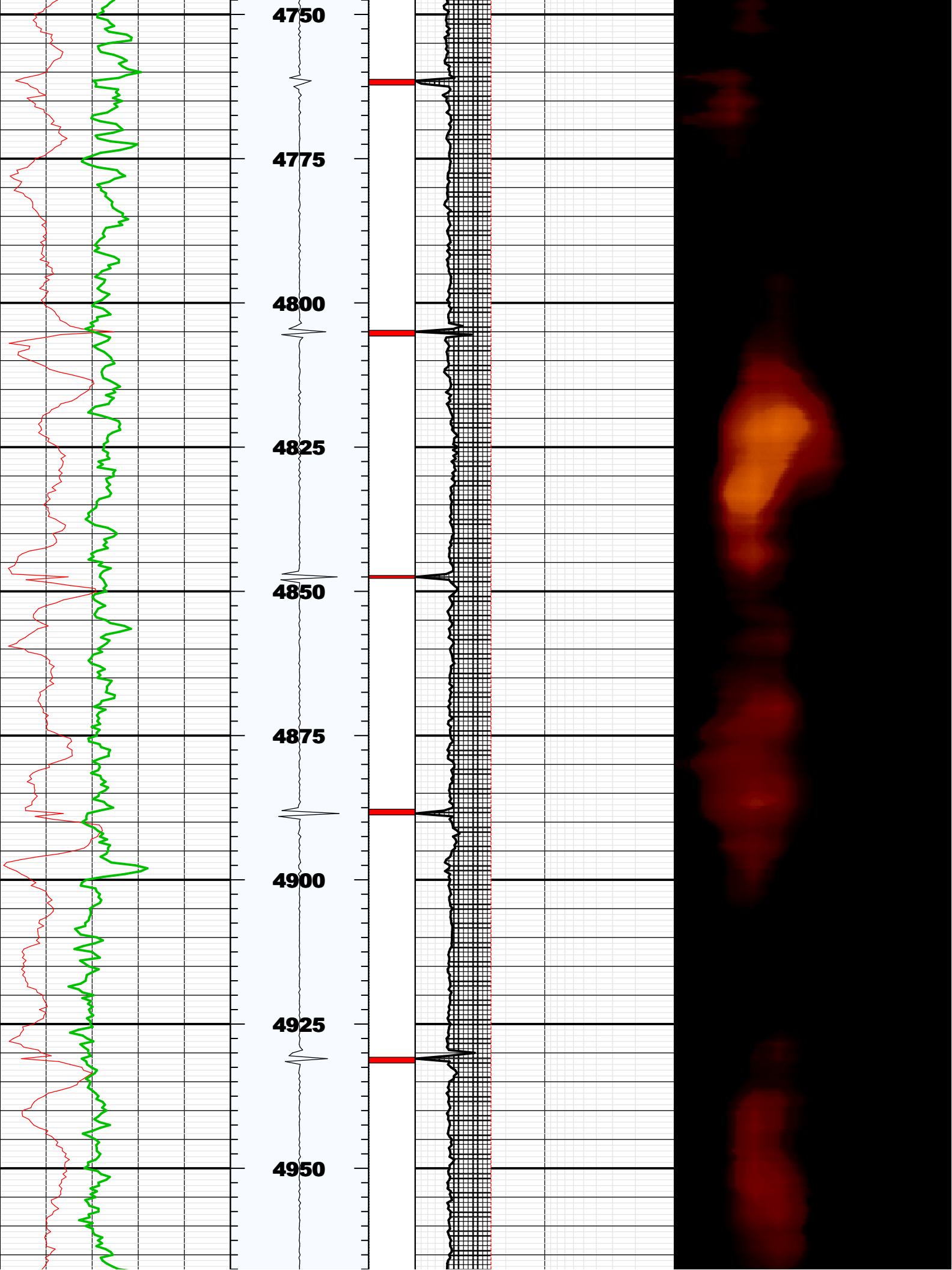


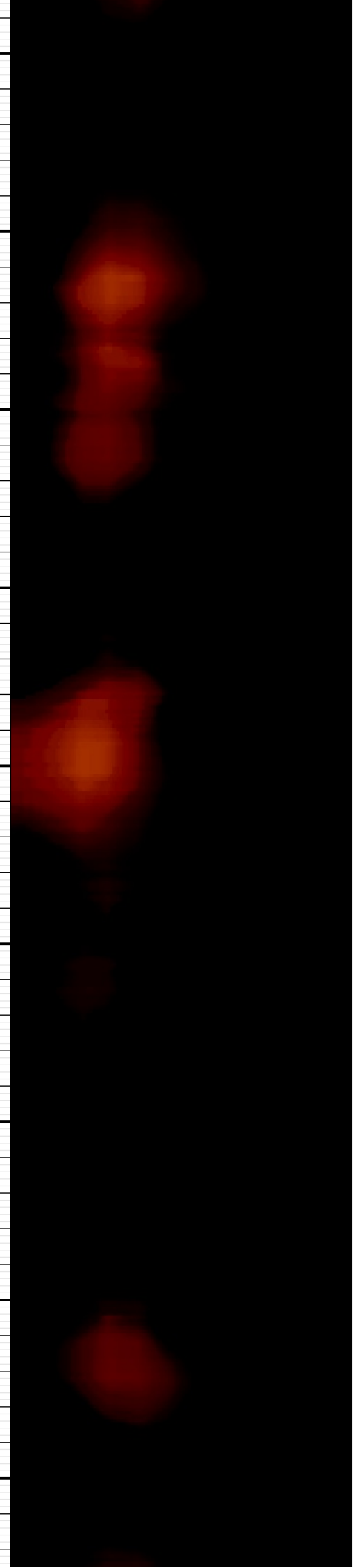
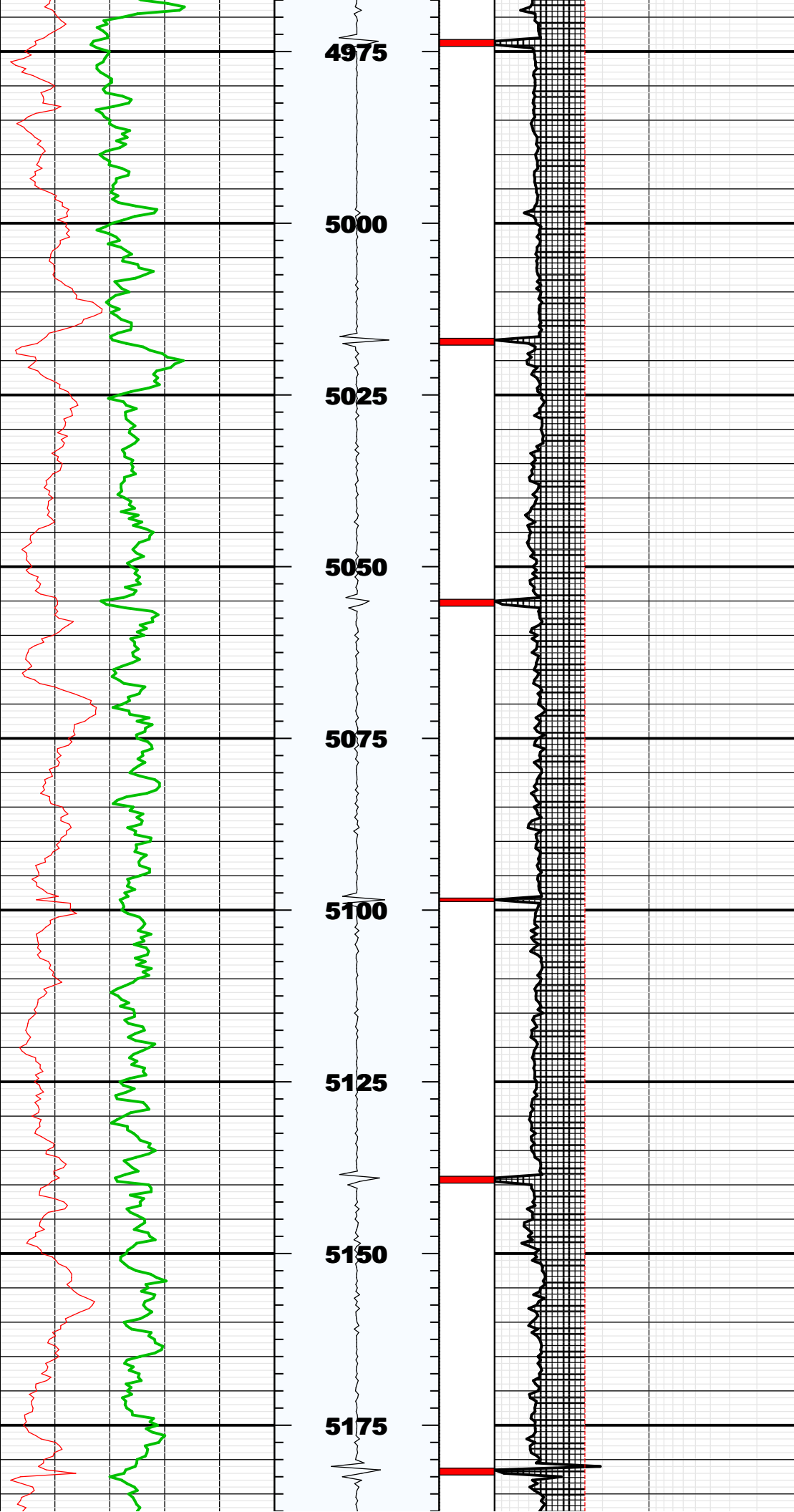


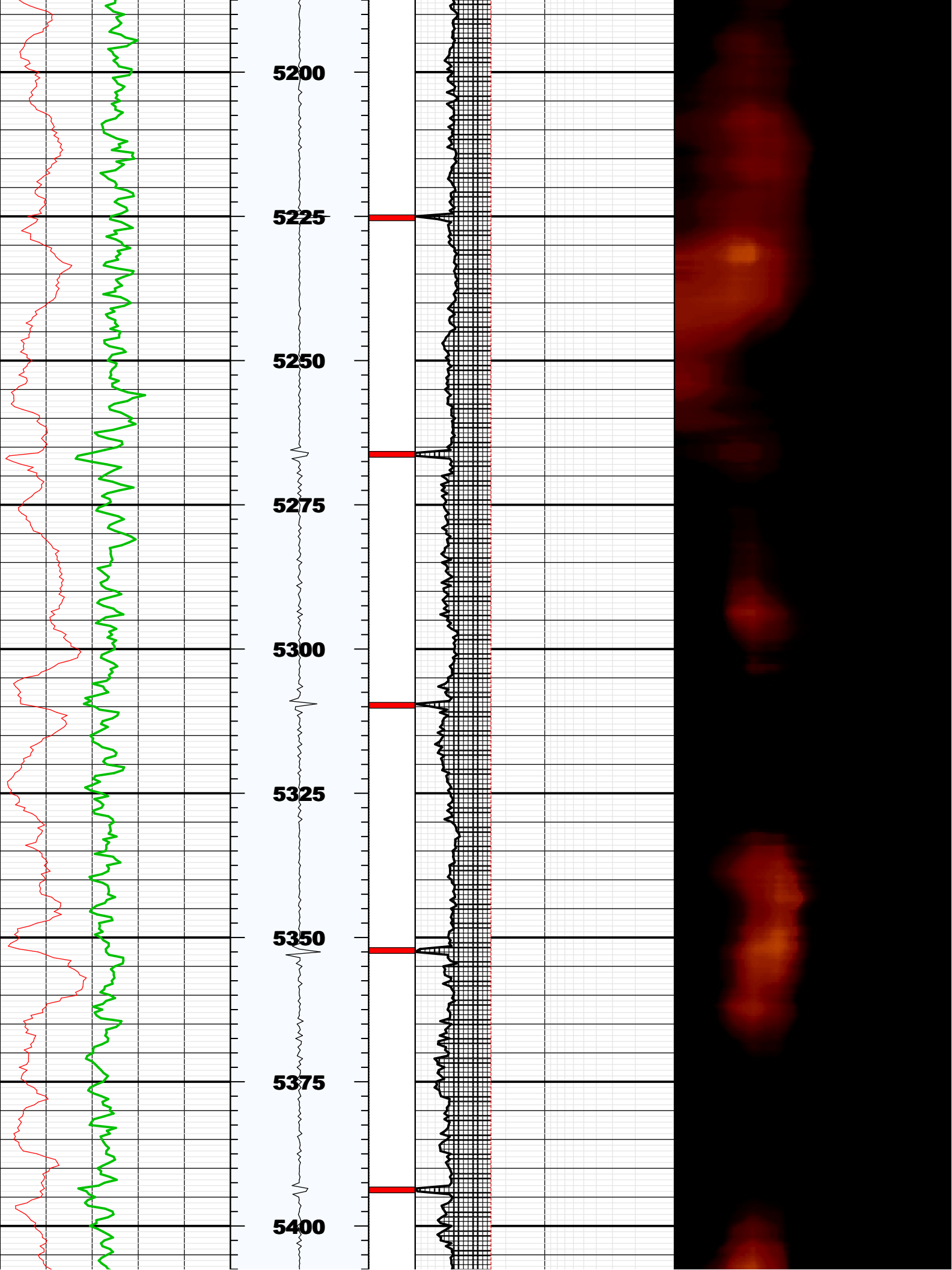


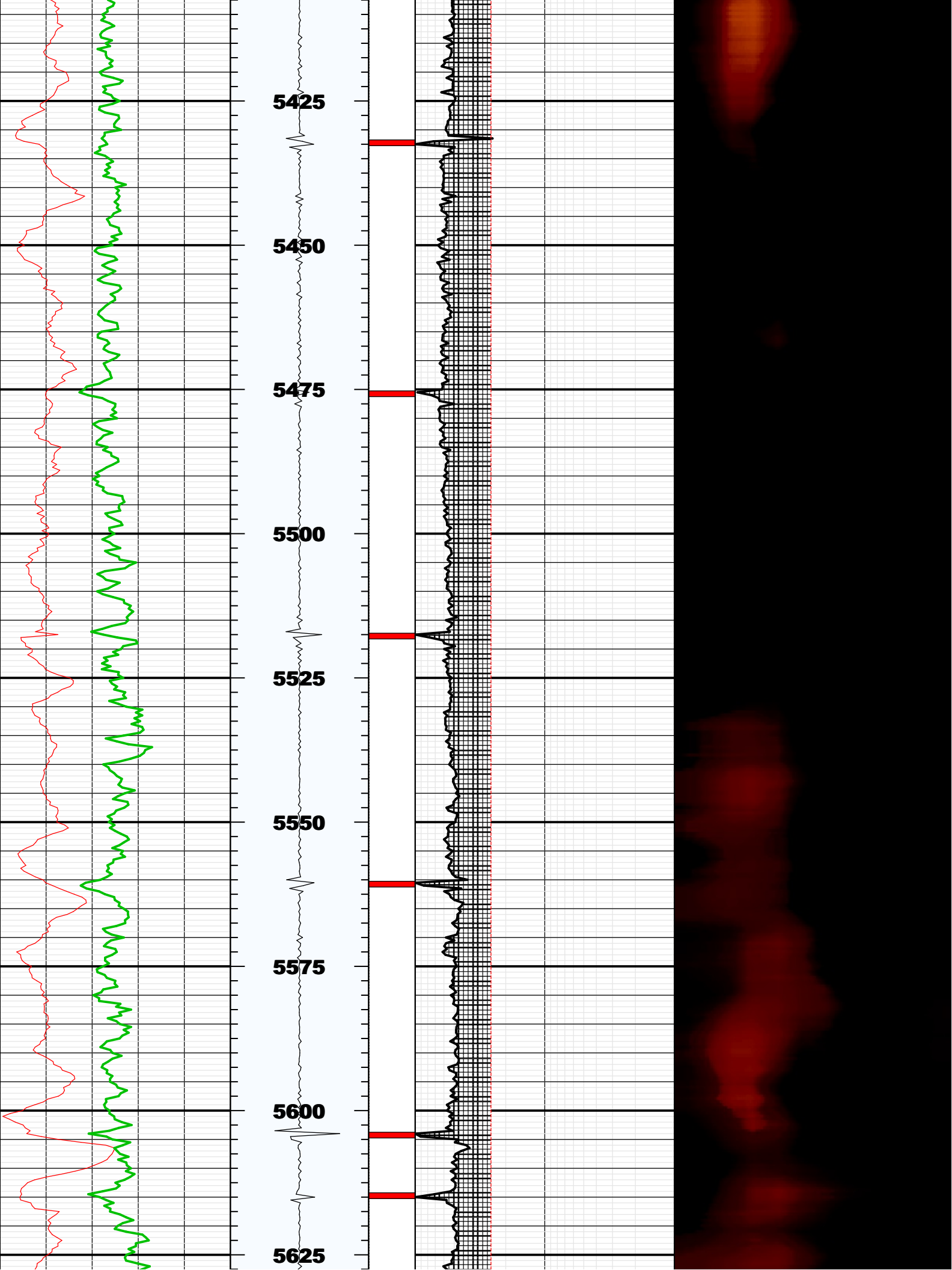


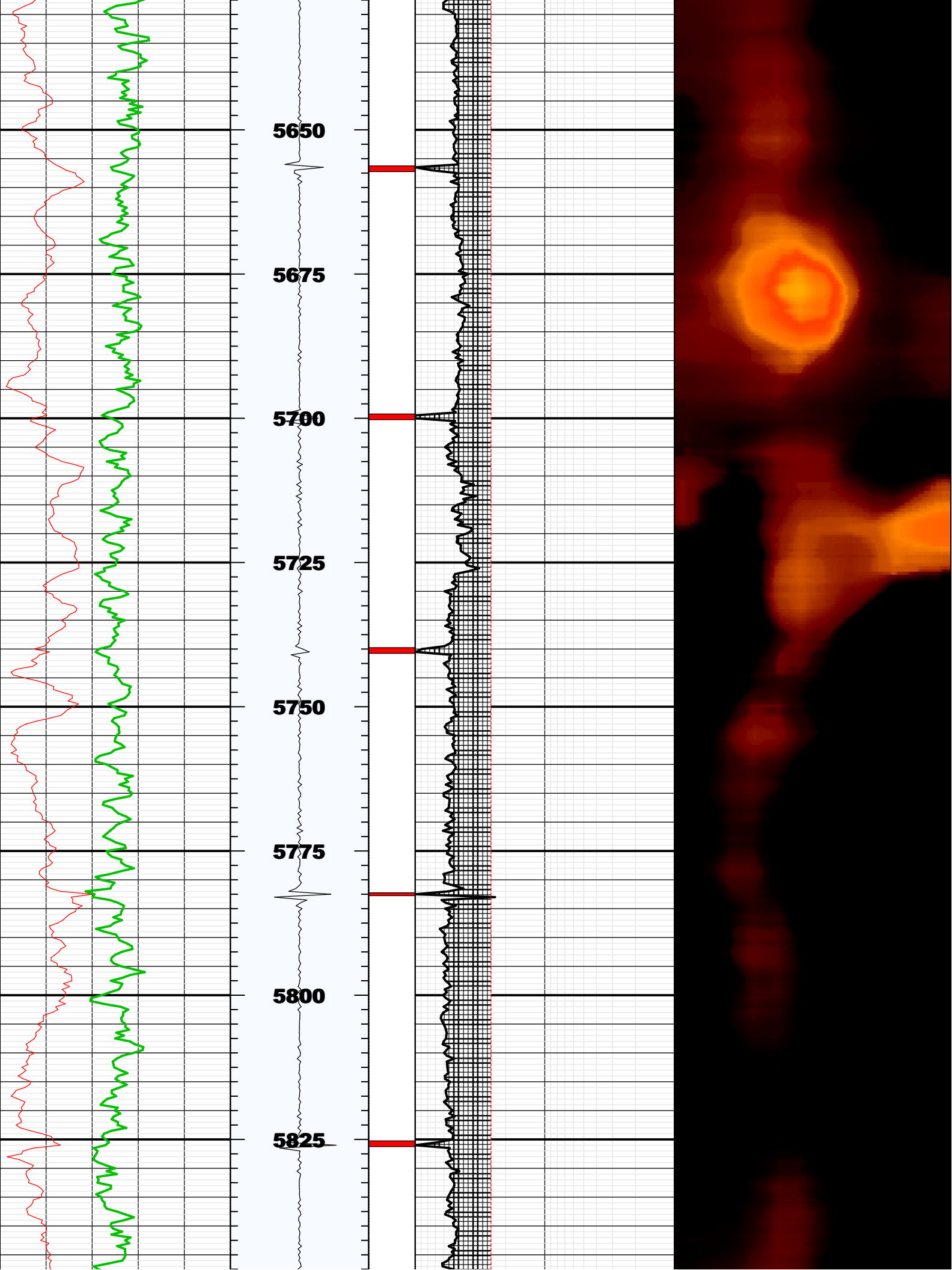




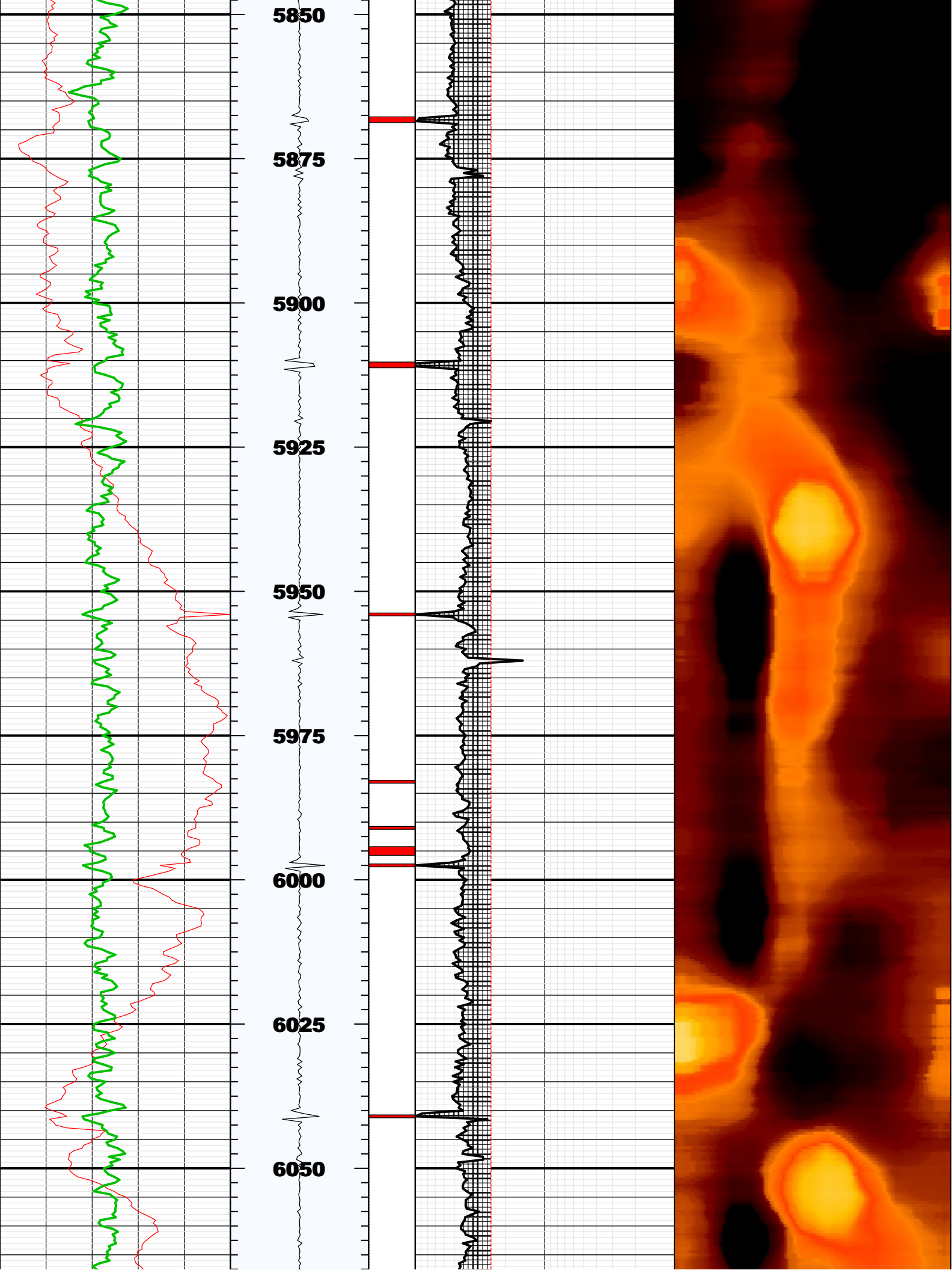


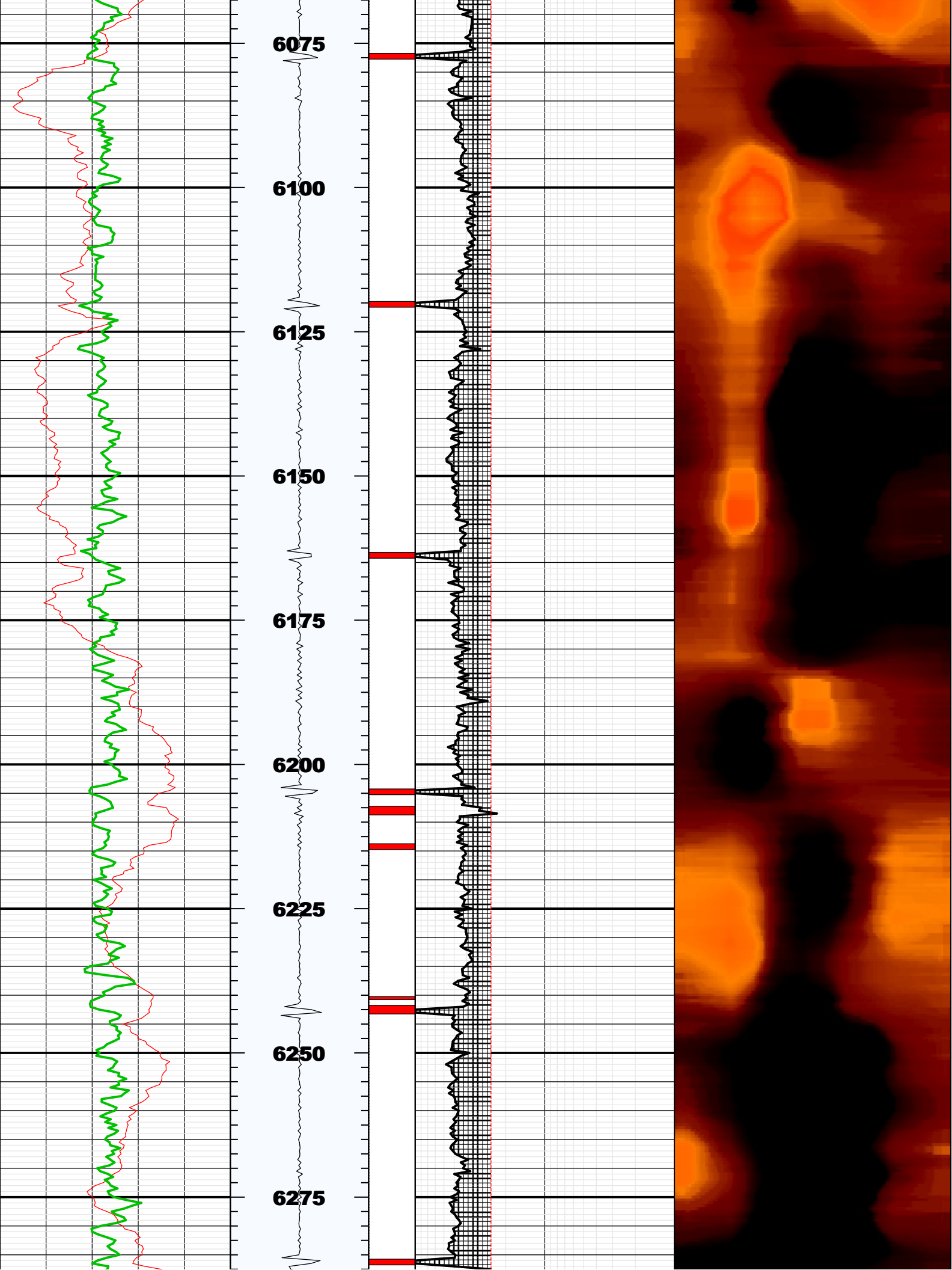


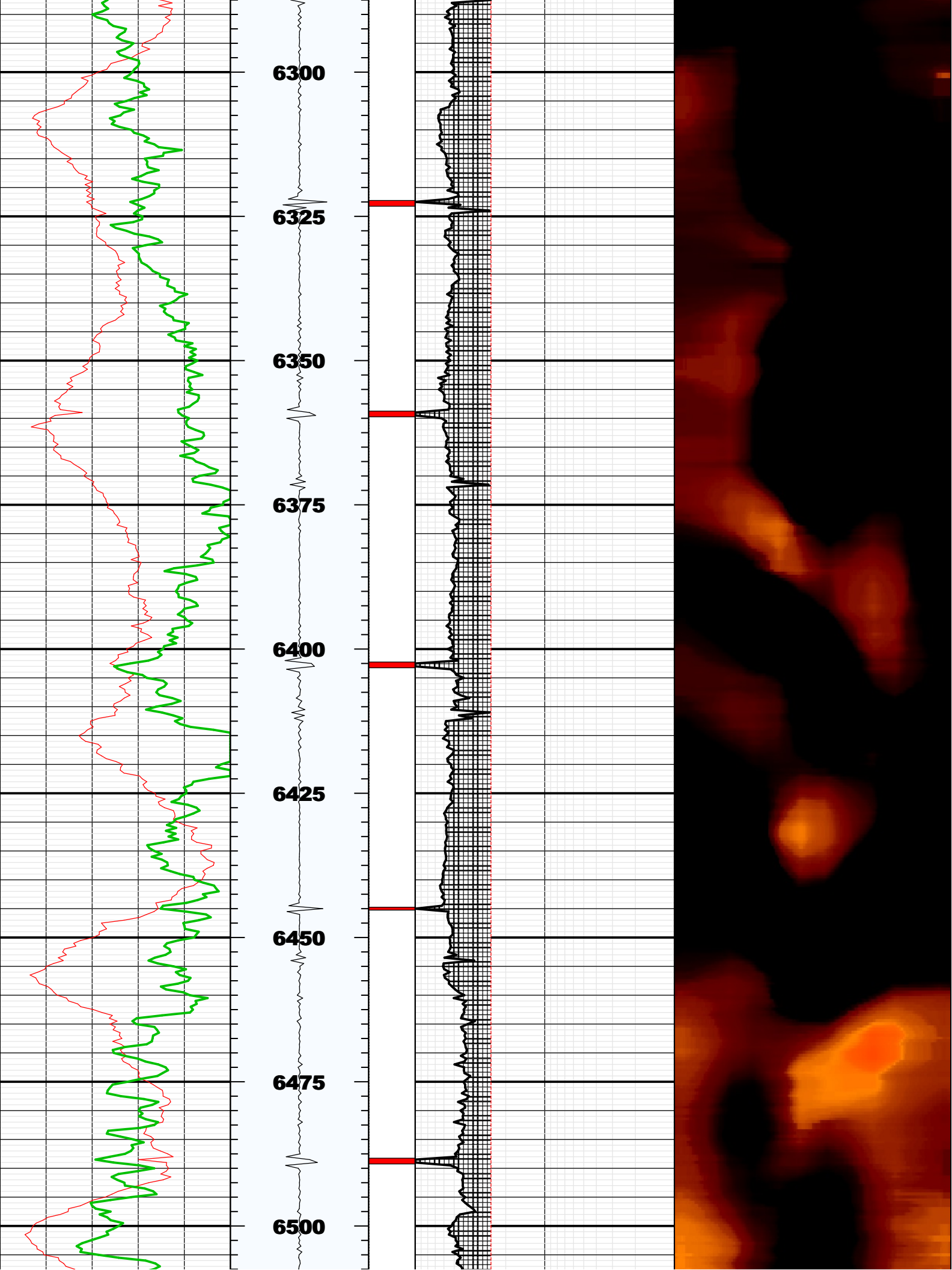




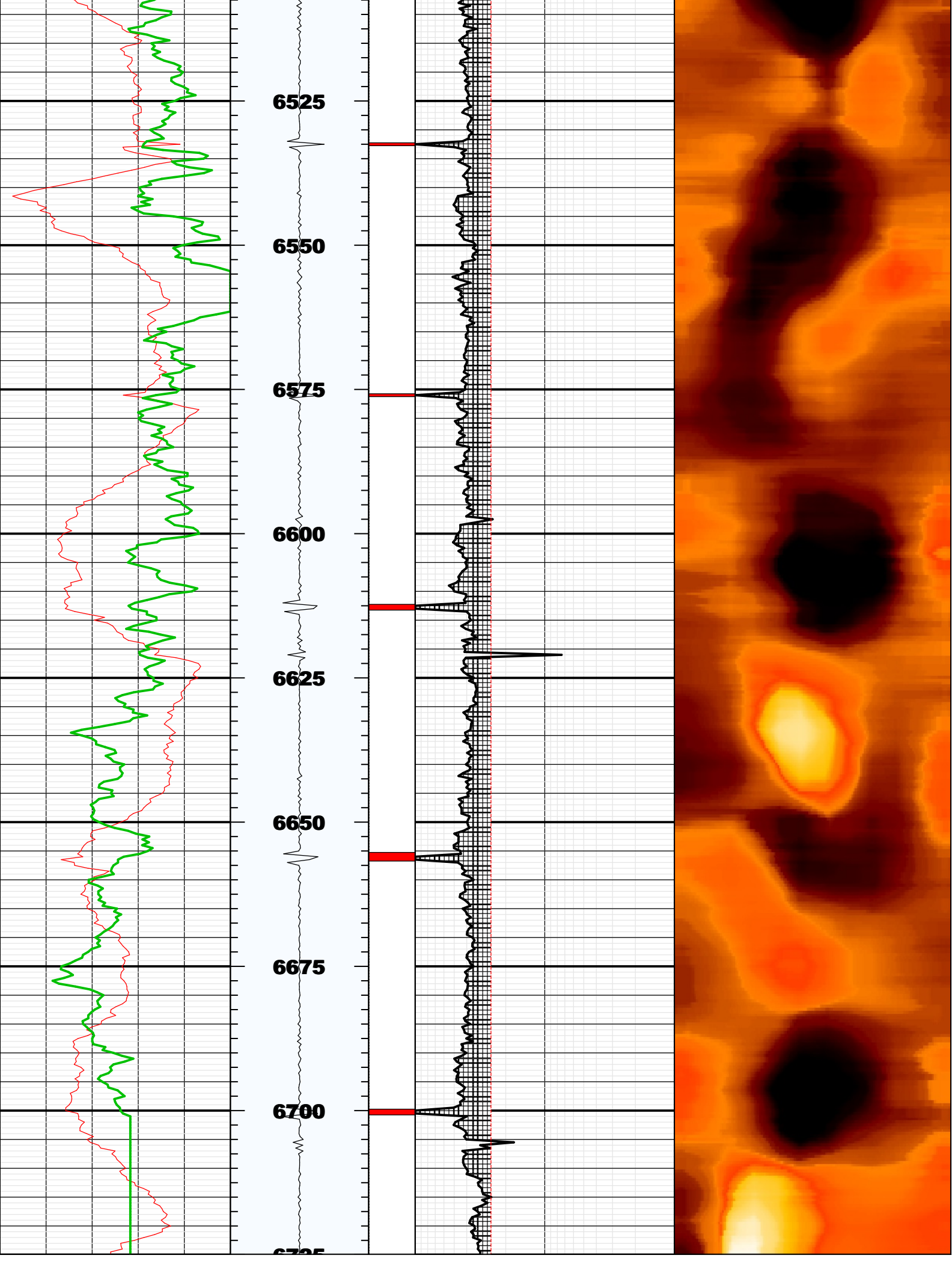








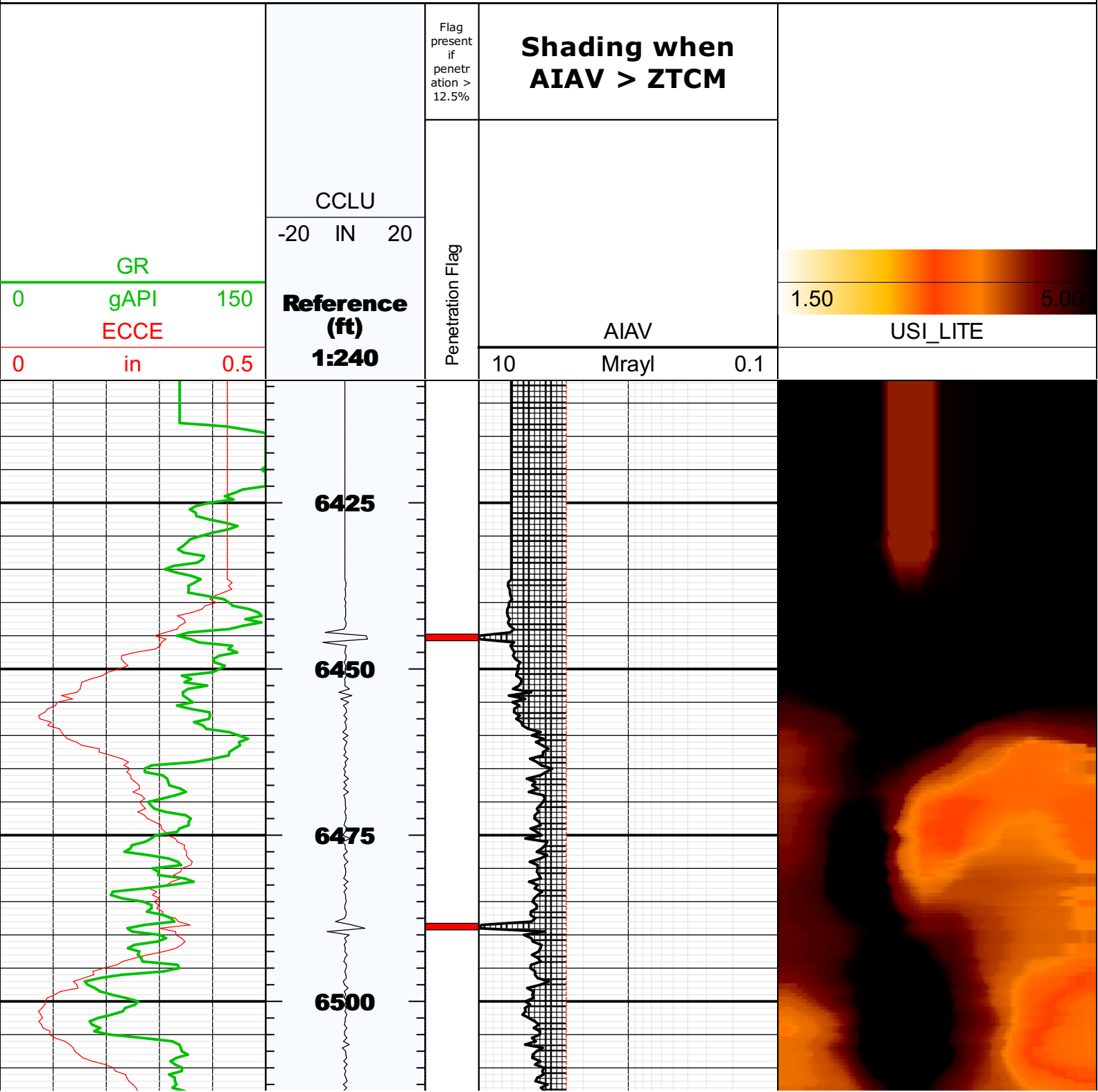


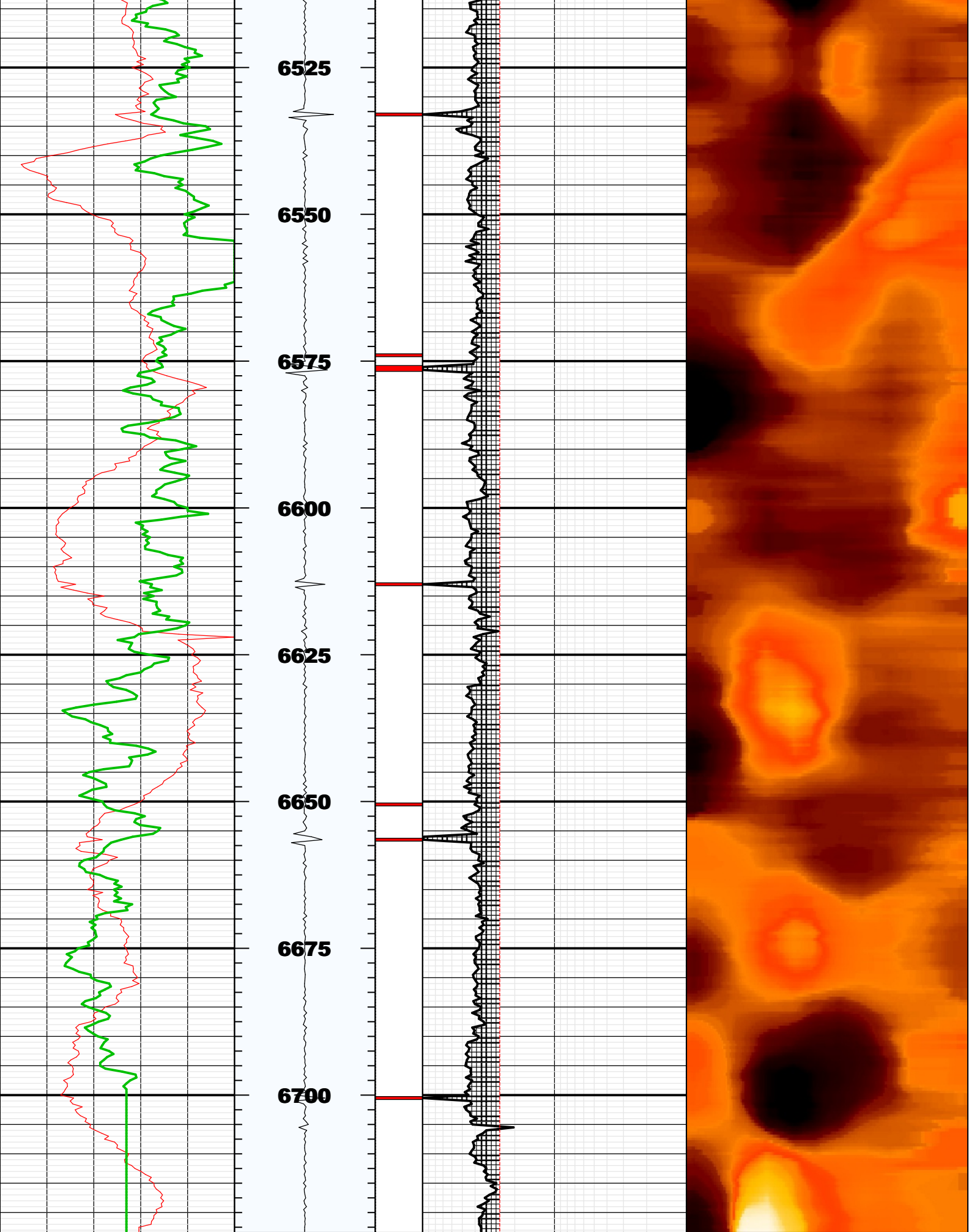


BS	8.75000	IN	Bit Size
CASG	P110		Casing Grade
CDIA	7.00000	IN	Casing Outer Diameter
CSID			
CSIZ	7.00000	IN	Current Casing Size
CWEI	26.00000	LB/F	Casing Weight
DFD	8.40000	LB/G	Drilling Fluid Density
DFVL	190.00000	US/F	Default Fluid Velocity
DO			
DOT	2.87400	IN	Diameter of Transducer Sensor
EMXV	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 <sup>3</sup> Processing Length

Repeat Pass

Company: Noble Energy Inc  
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Field: Wattenberg





## Fluid Properties Used for Main Pass

