

Company: Noble Energy Inc

Well: Romero PC G10-79HN  
Field: Wattenberg  
County: Weld State: Colorado

County: Weld		Field: Wattenberg		Location: SWNW Sec. 3 T4N R65W		Well: Romero PC G10-79HN		Company: Noble Energy Inc	
USI-LITE		LOCATION		Permanent Datum: Log Measured From: Drilling Measured From:		GL KB KB		Elev: K.B. 4700.0 F G.L. 4670.0 F D.F. 4699.0 F	
Logging Date	12-Apr-2014	API Serial No. 05-123-34018-0000	Section 3	Township 4N	Range 65W				
Run Number	One								
Depth Driller	7231.0 F								
Schlumberger Depth	7231.0 F								
Bottom Log Interval	6970.0 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	30.0 F								
To	7231.0 F								
Casing Size	7.00 IN								
Weight	26.00 LB/F								
Grade	P110								
From	0.0 F								
To	7098.0 F								
Max Recorded Temp	-999.2								
Logger on bottom (date)	12-Apr-2014								
Location	Fort Morgan CO								
Recorded By	Keri Ondrus								
Witnessed By	Sheldon Kelley								

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: u711136 Length: 15100.00000

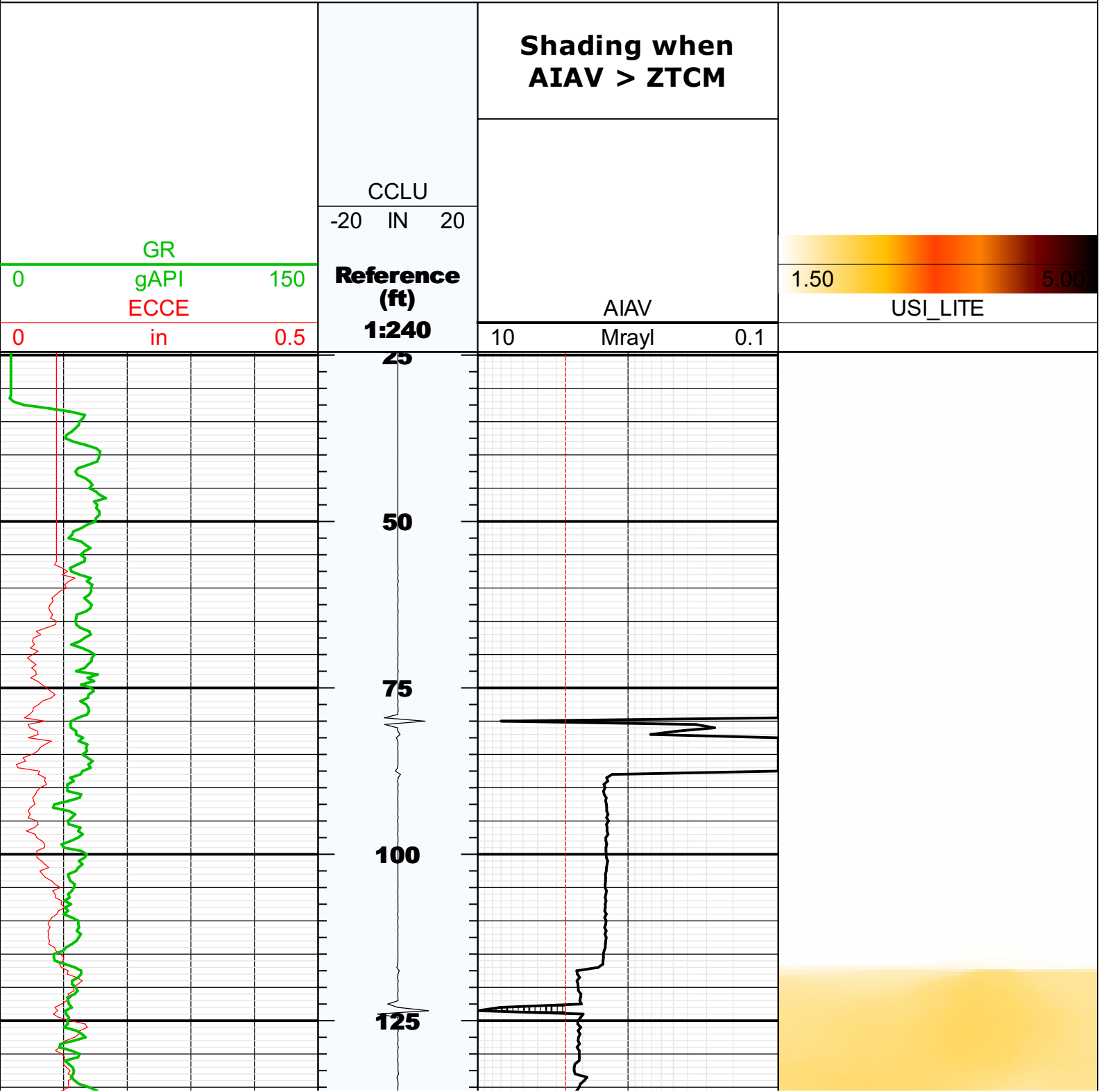
DISCLAIMER

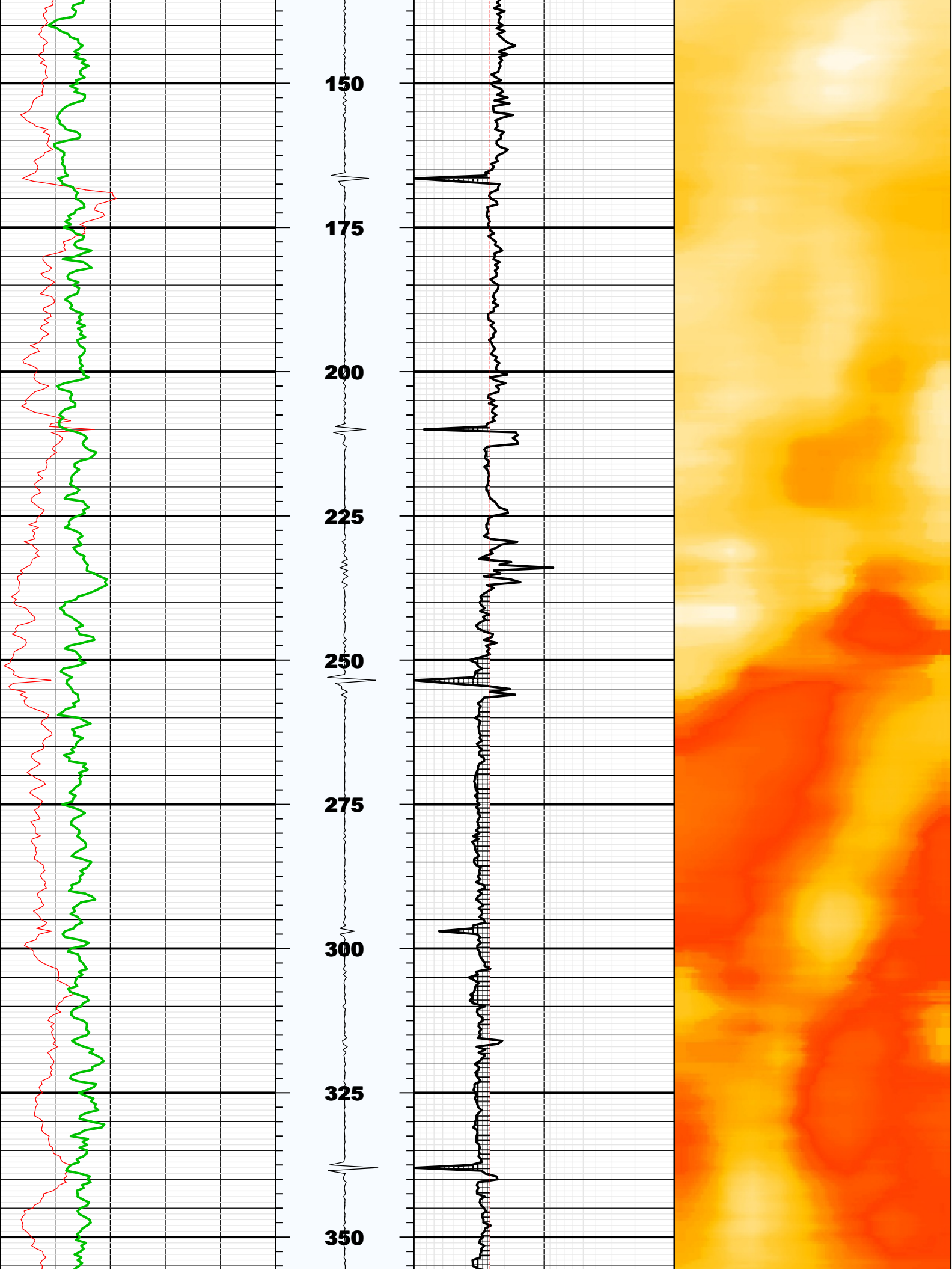
THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIIONS ON USE OF THE RECORDED-DATA (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

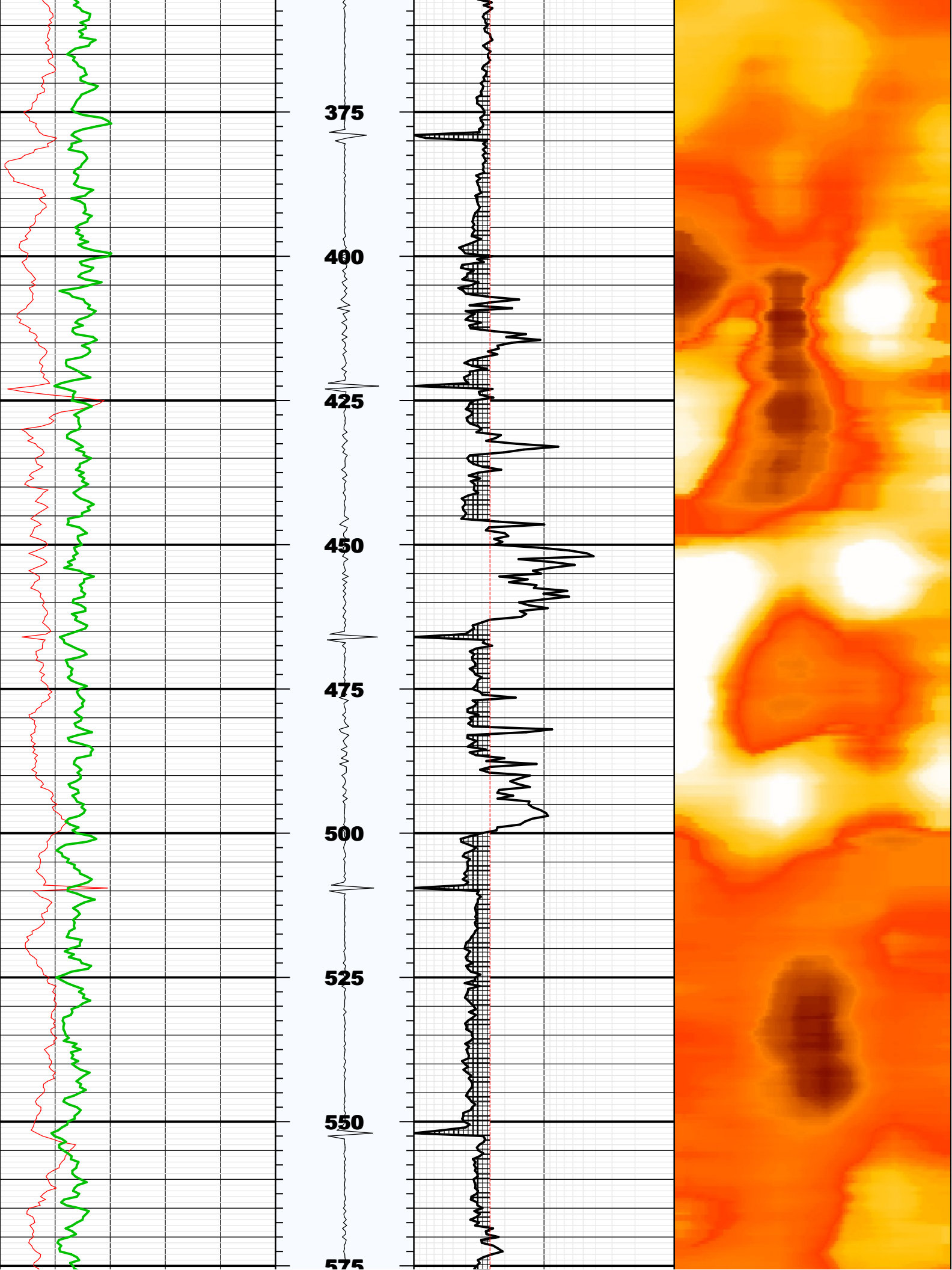
Toolstring run as per toolsketch  
Main Pass run under 2500psi  
Repeat pass run at 0 psi  
Lead cement 12.5 ppg  
Tail cement 13.5 ppg  
Thank you for choosing Schlumberger Wireline  
SLB crew D. Hunter J. Musgrave H. Hoffman E. Wilson K. Ondrus

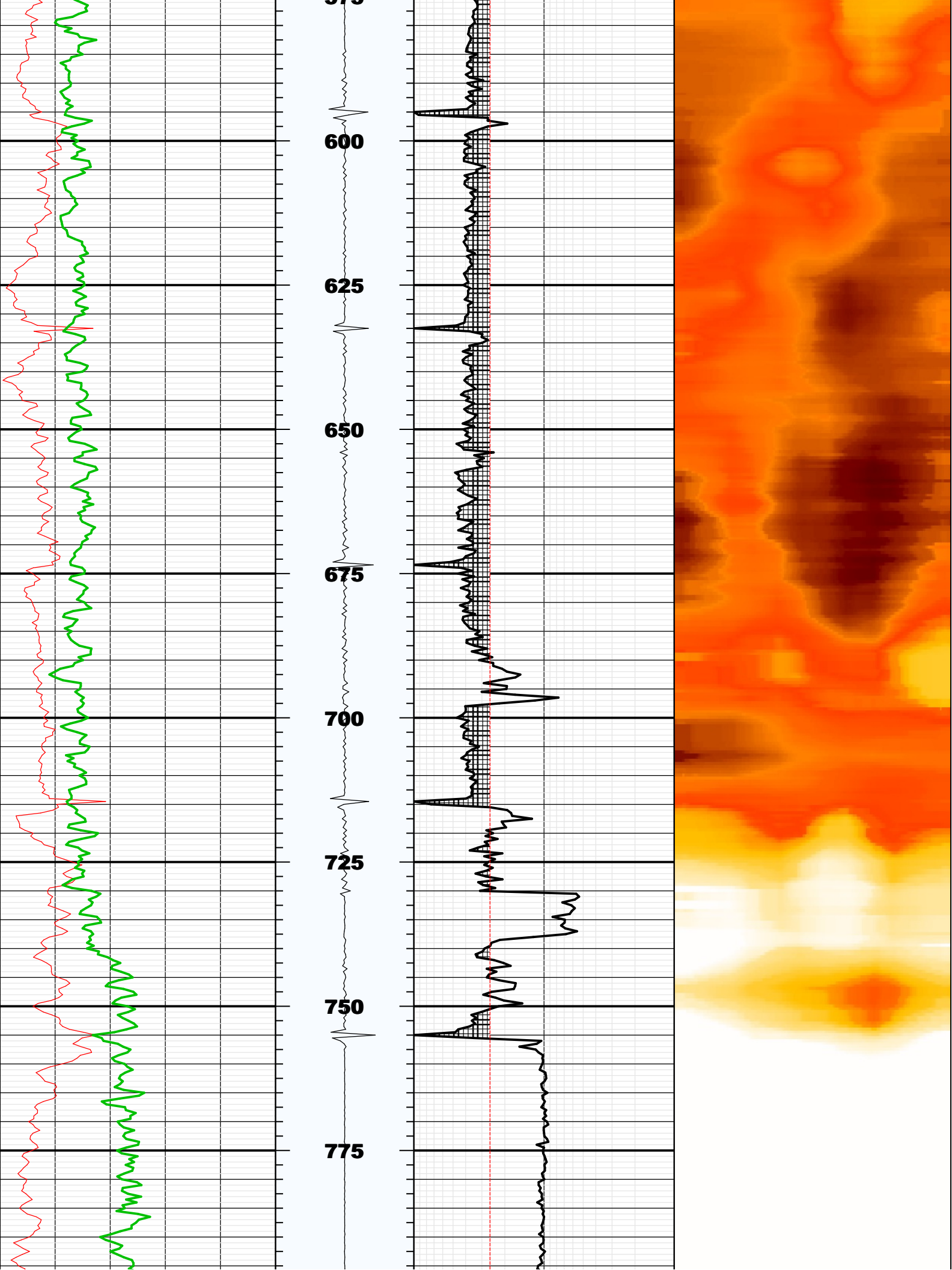
Main Pass

Company: Noble Energy Inc  
Well: Romero PC G10-79HN  
Field: Wattenberg

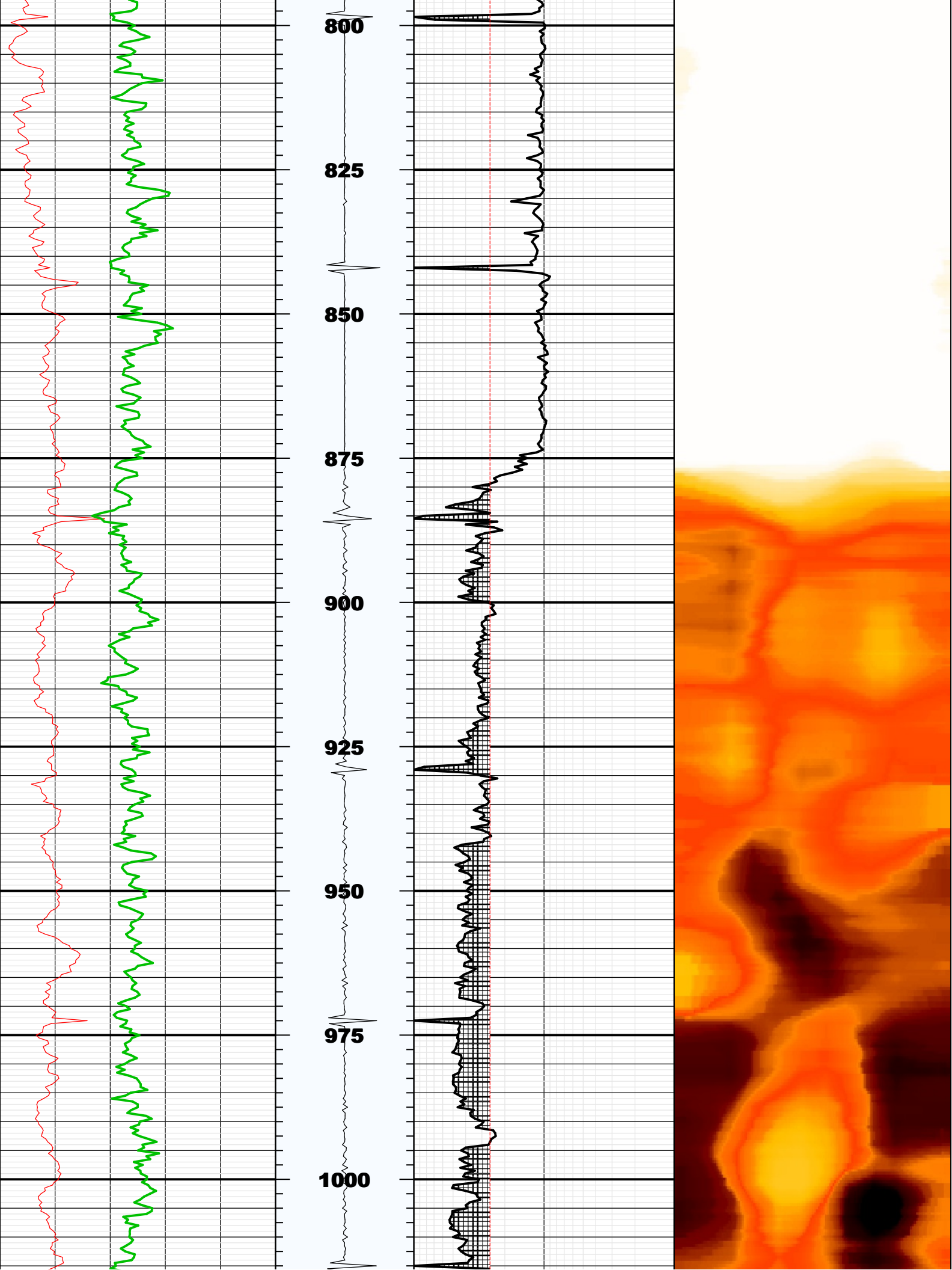


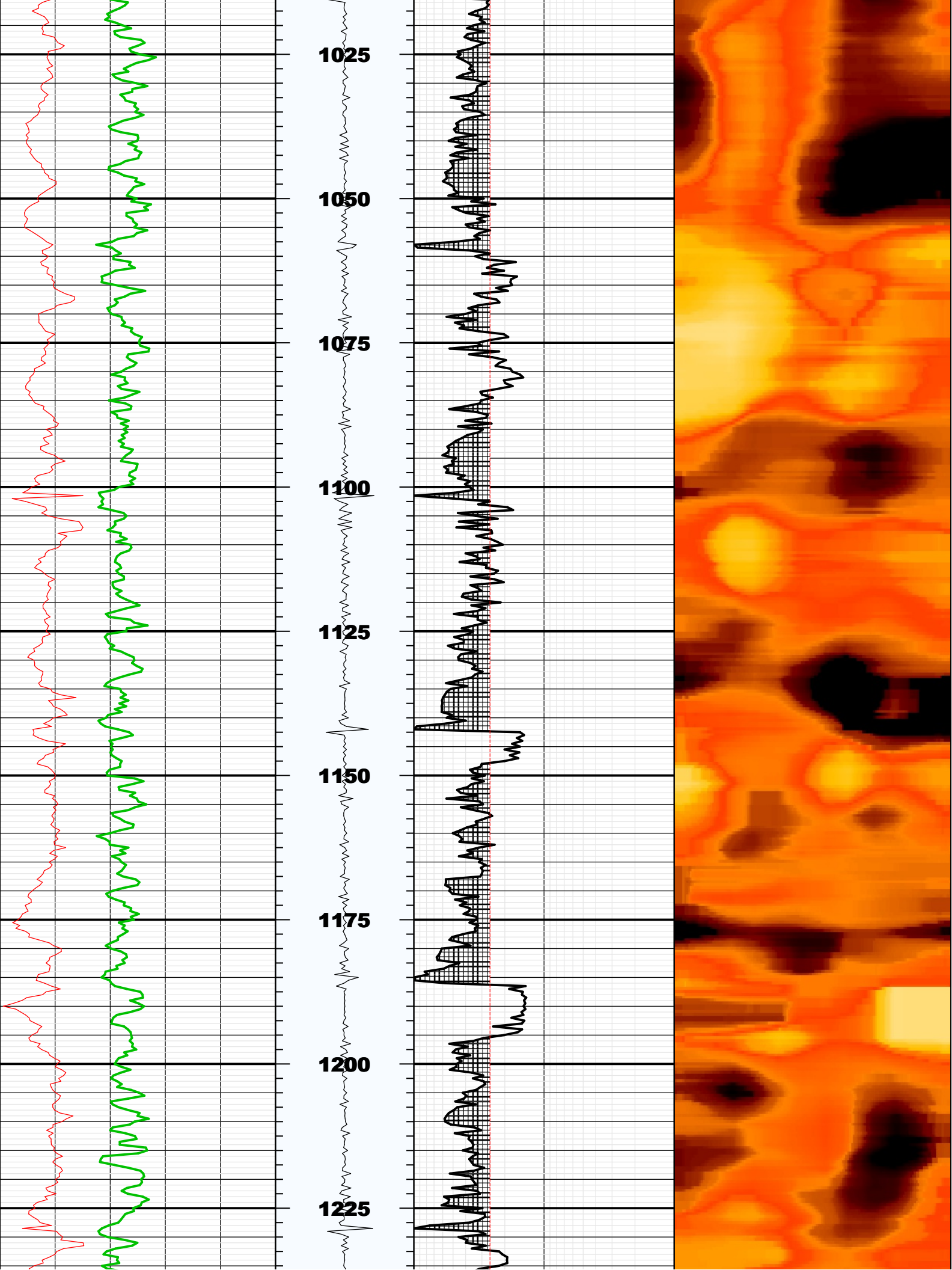




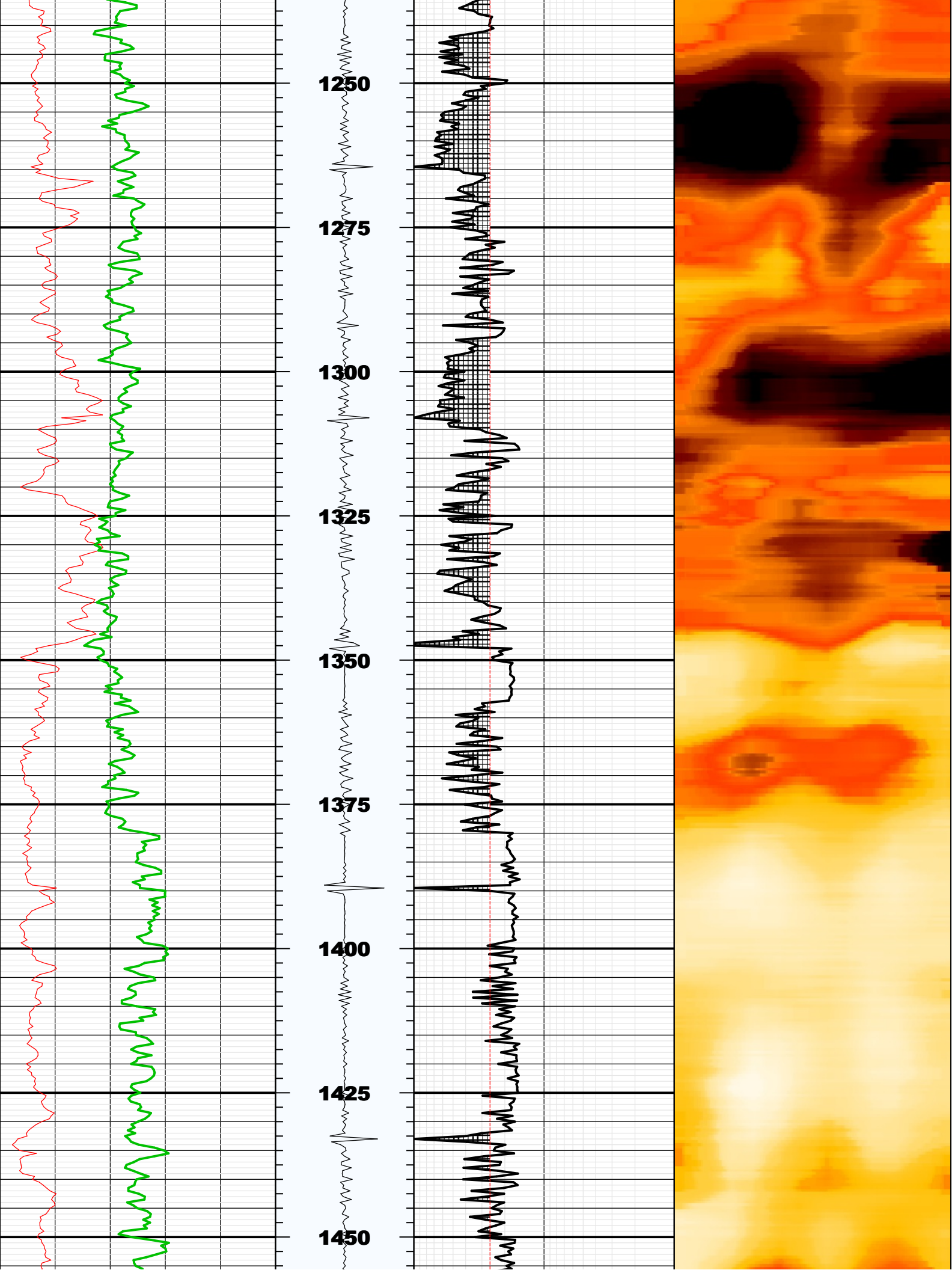


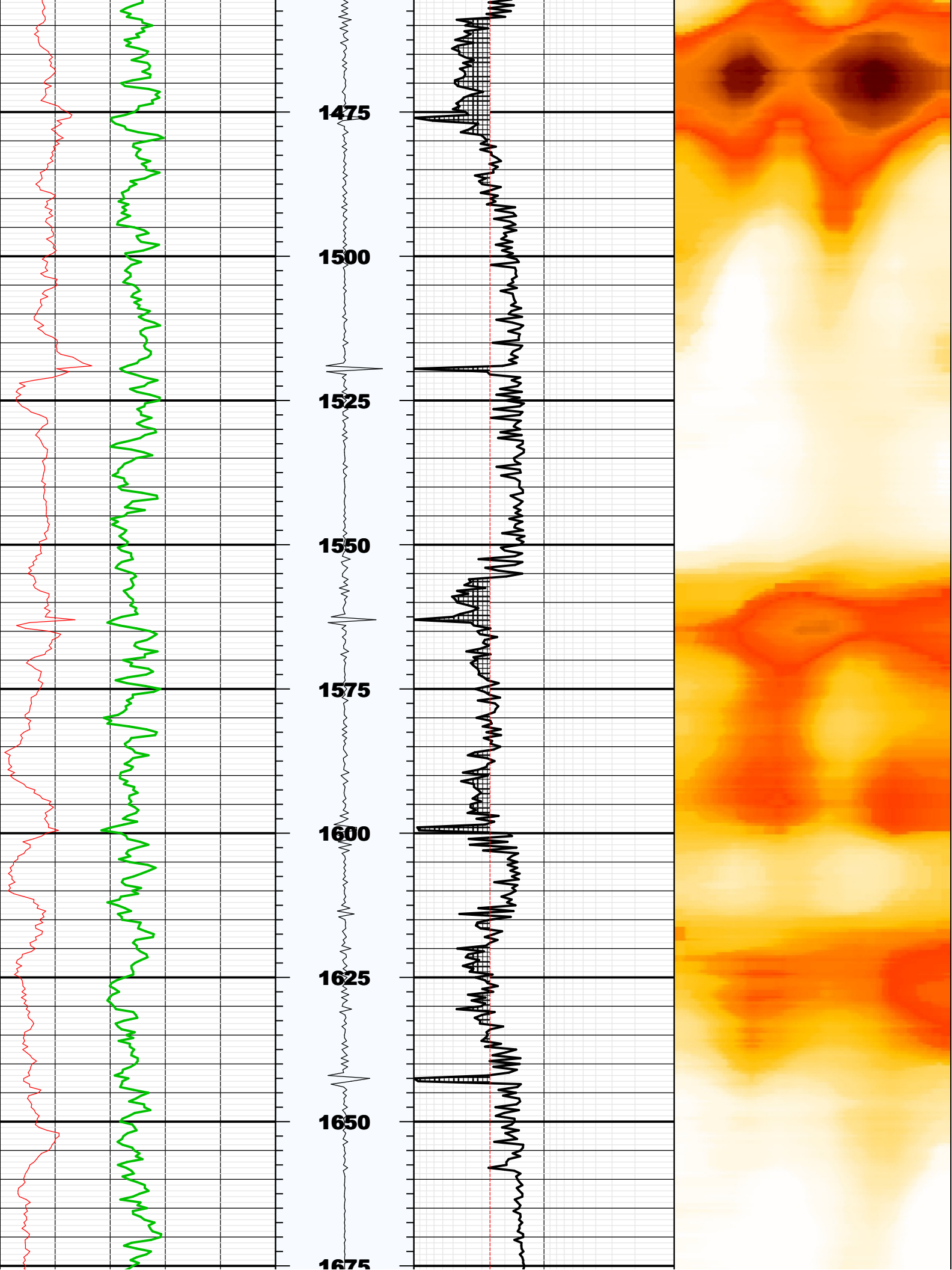


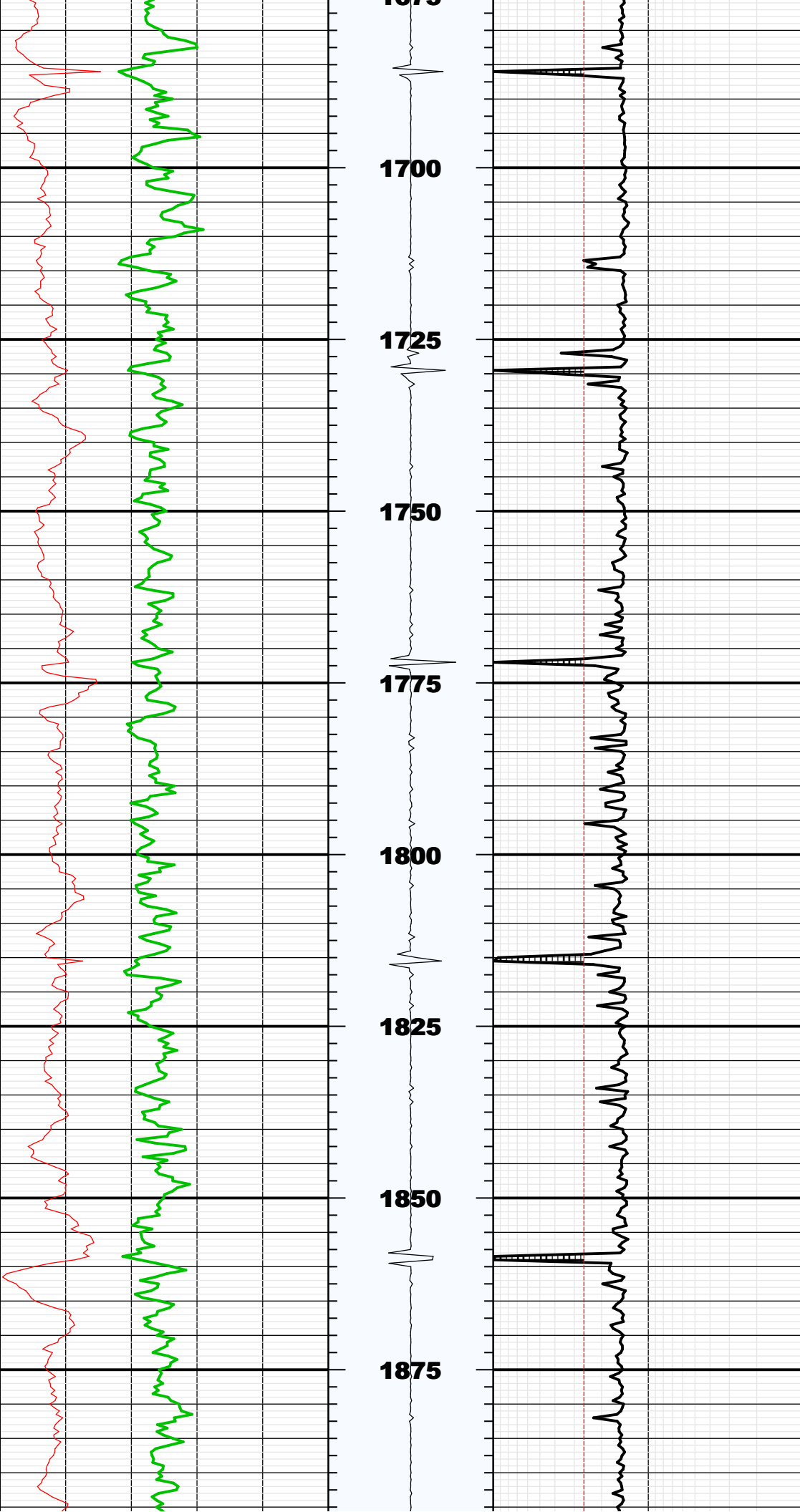


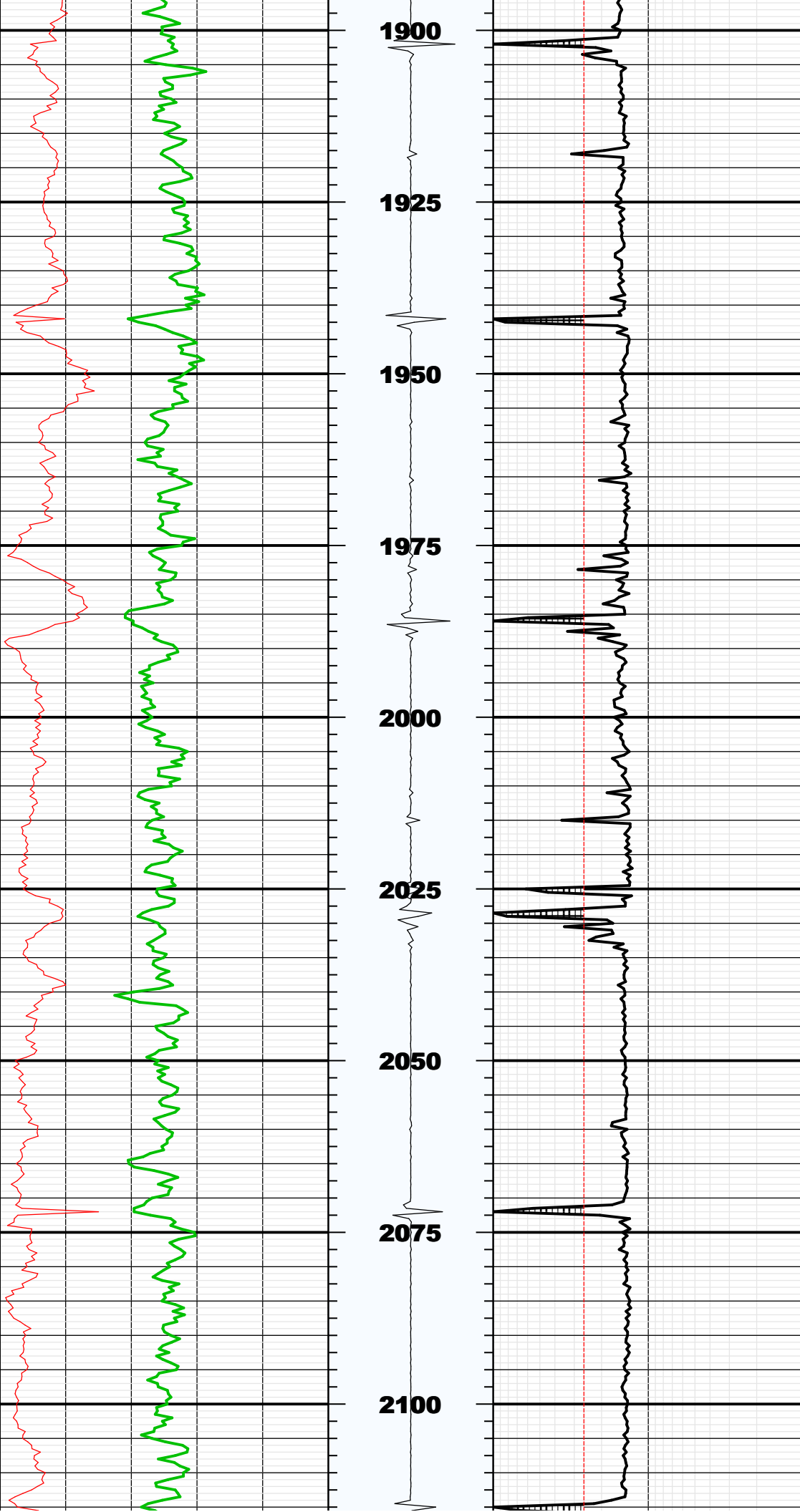


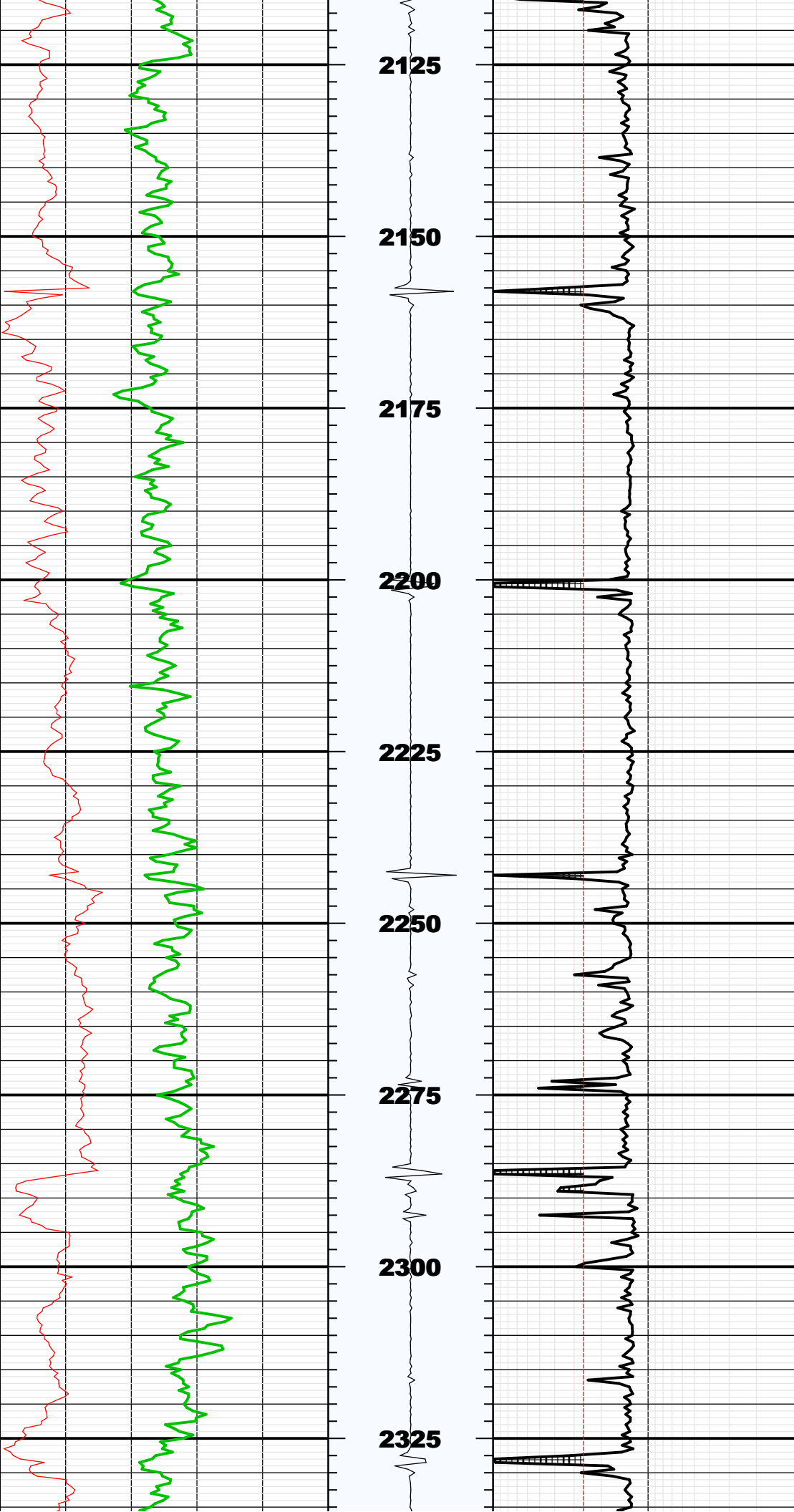




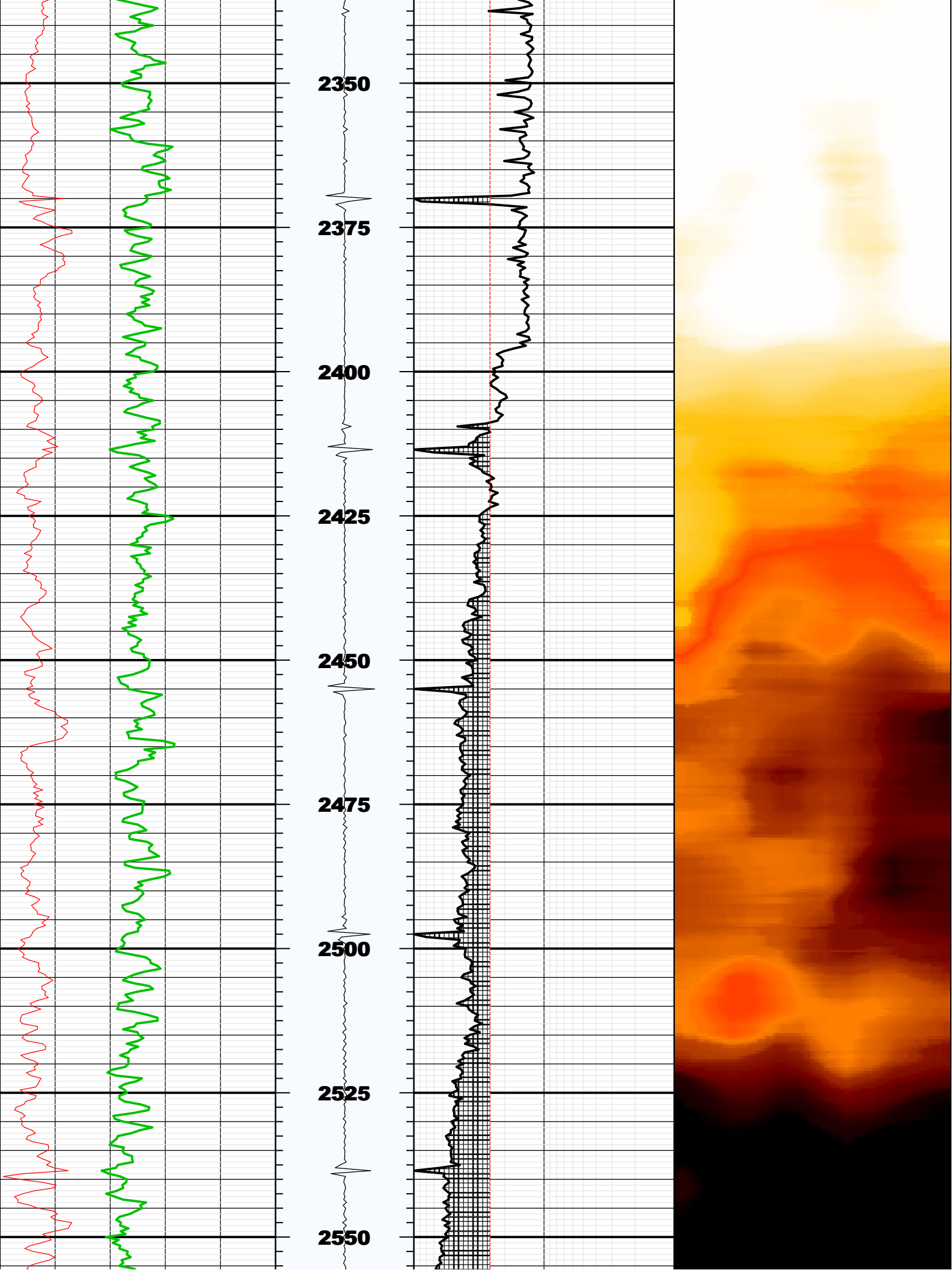




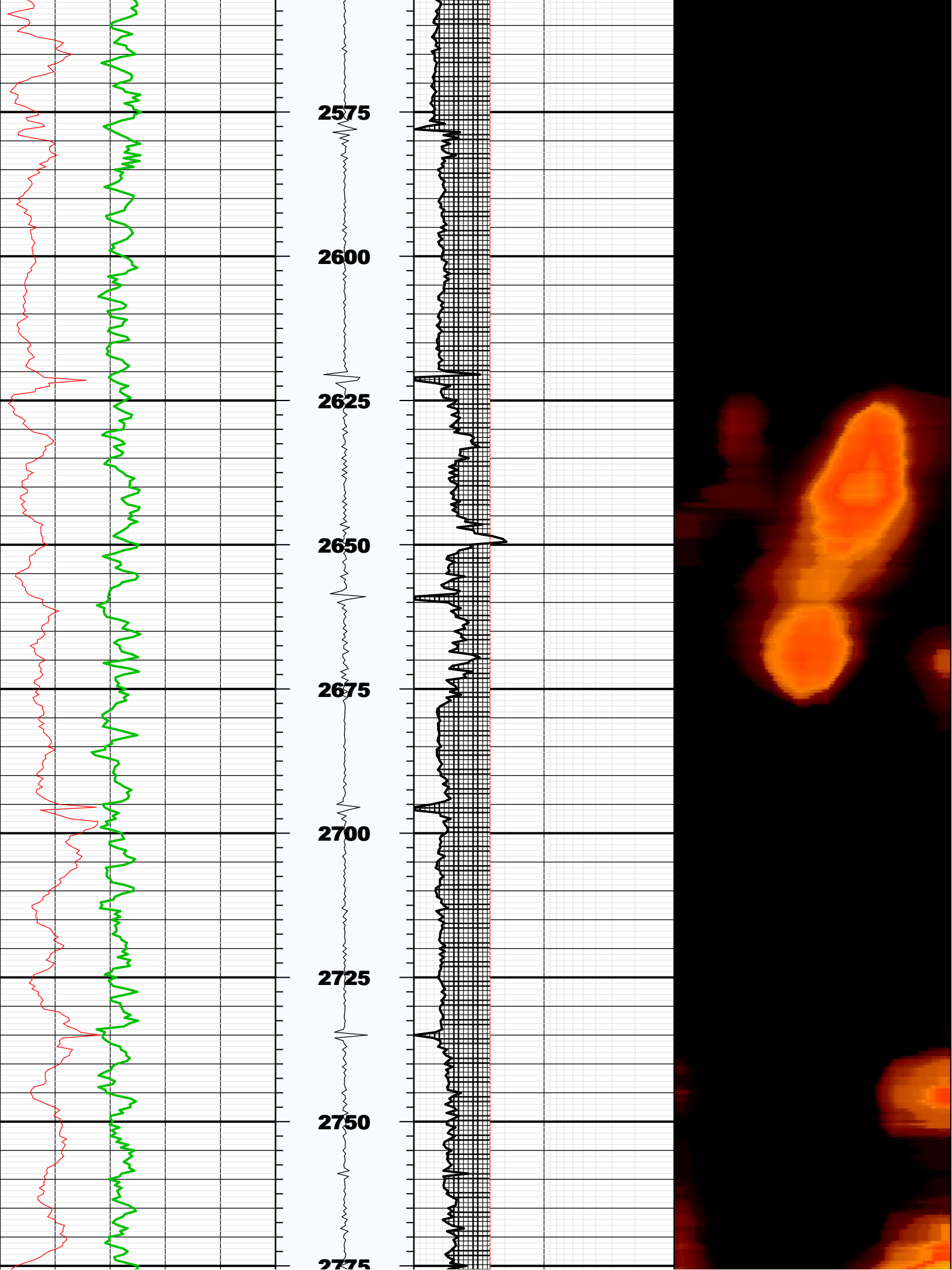


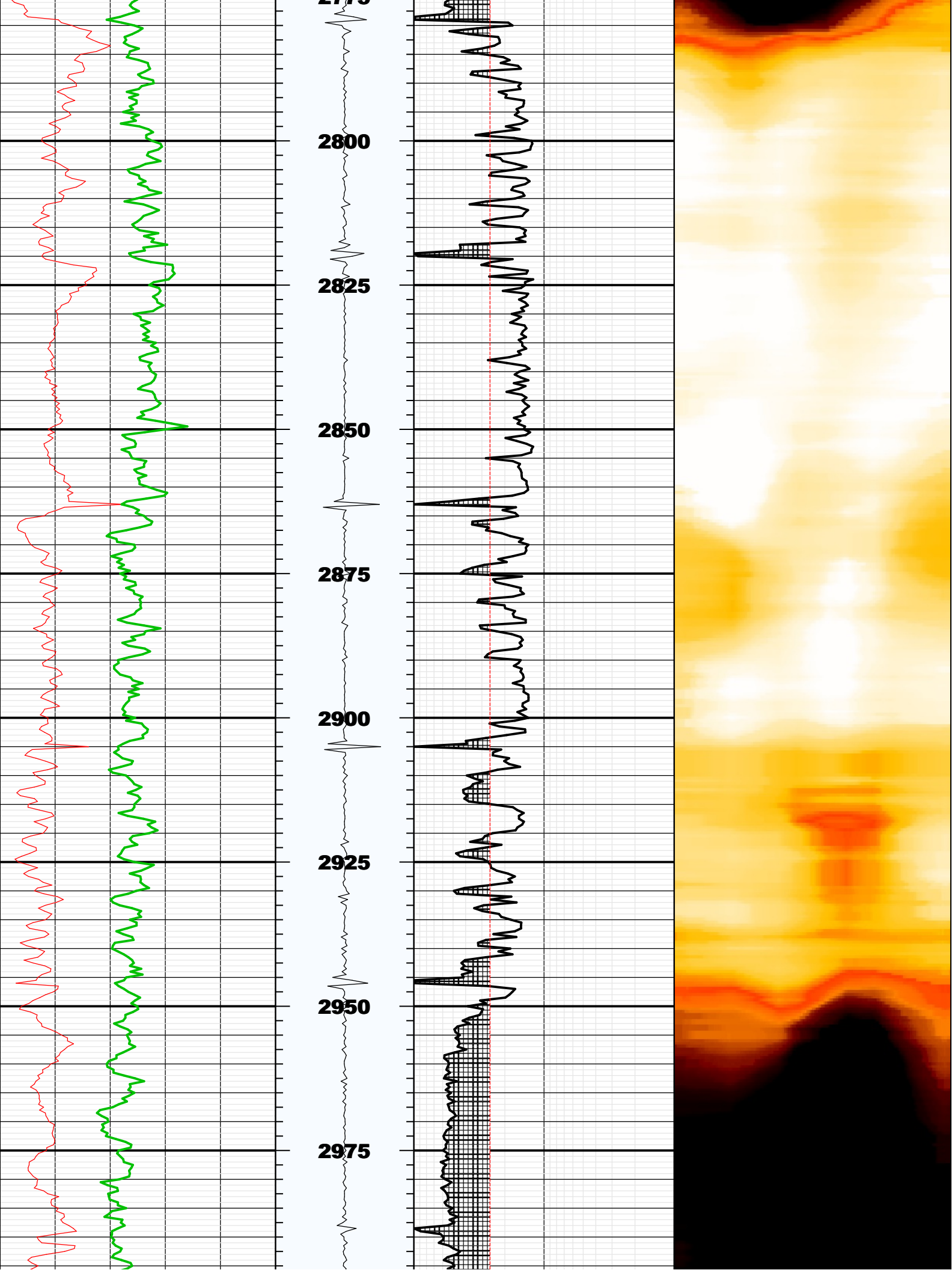


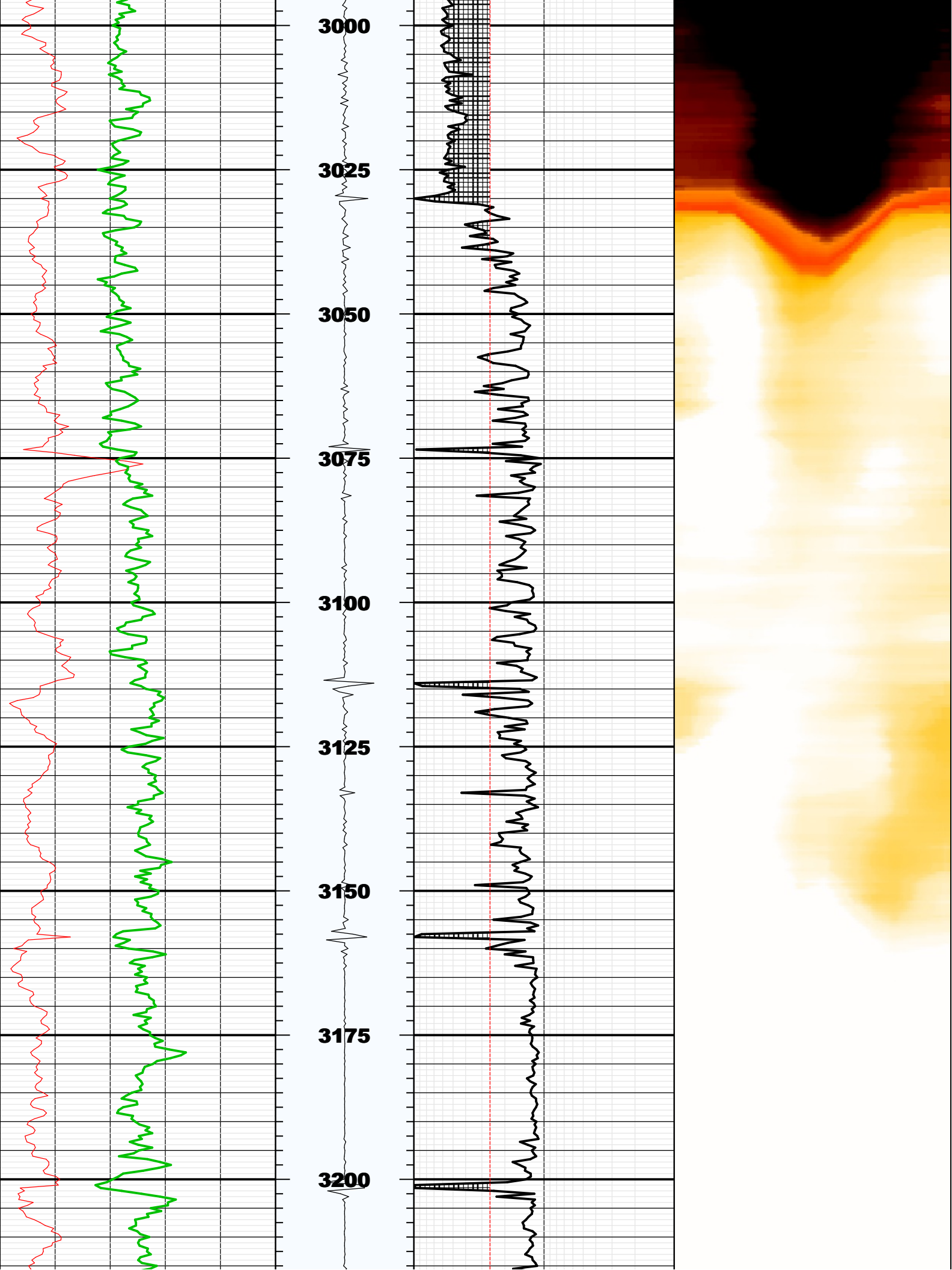


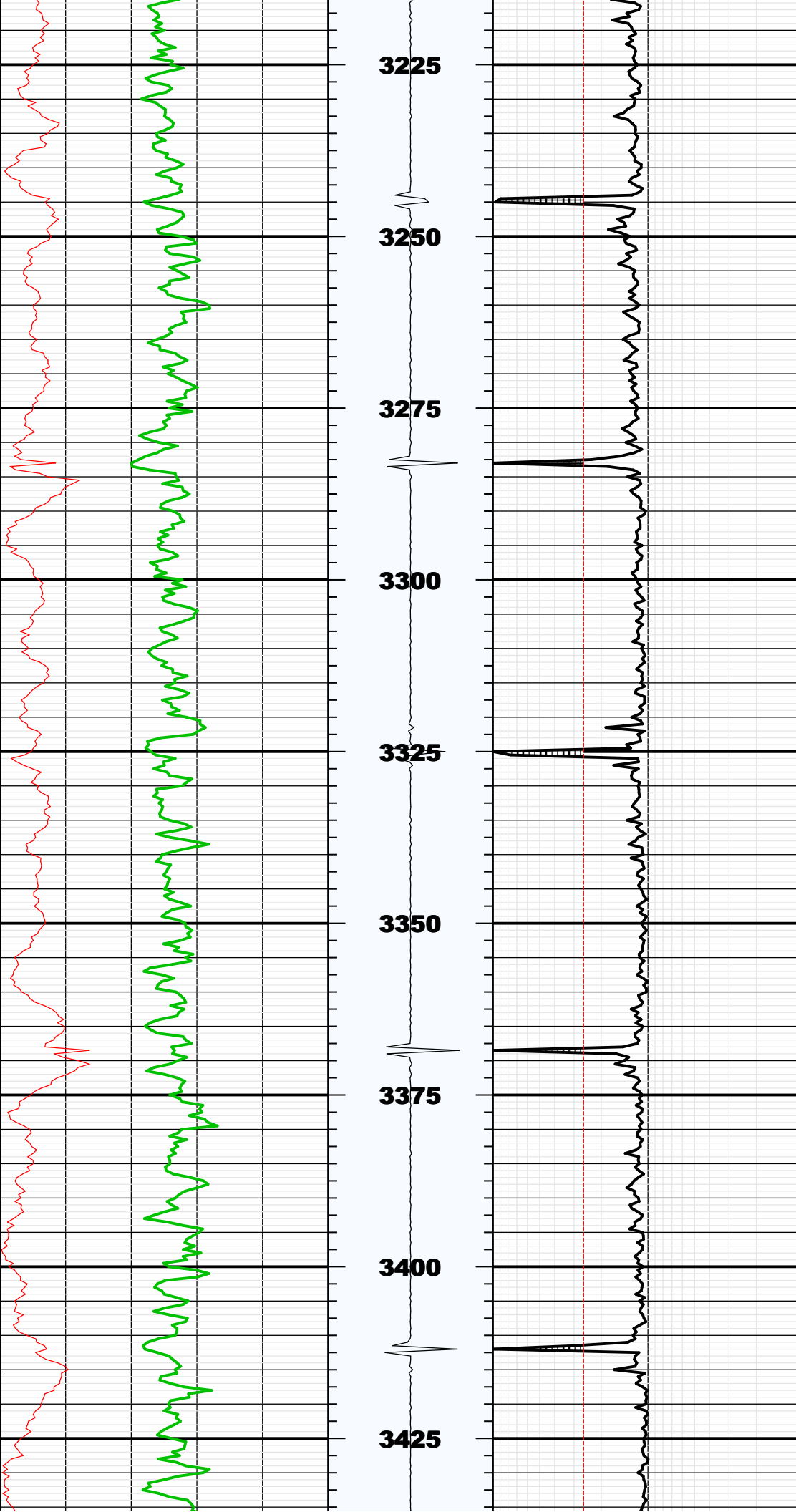


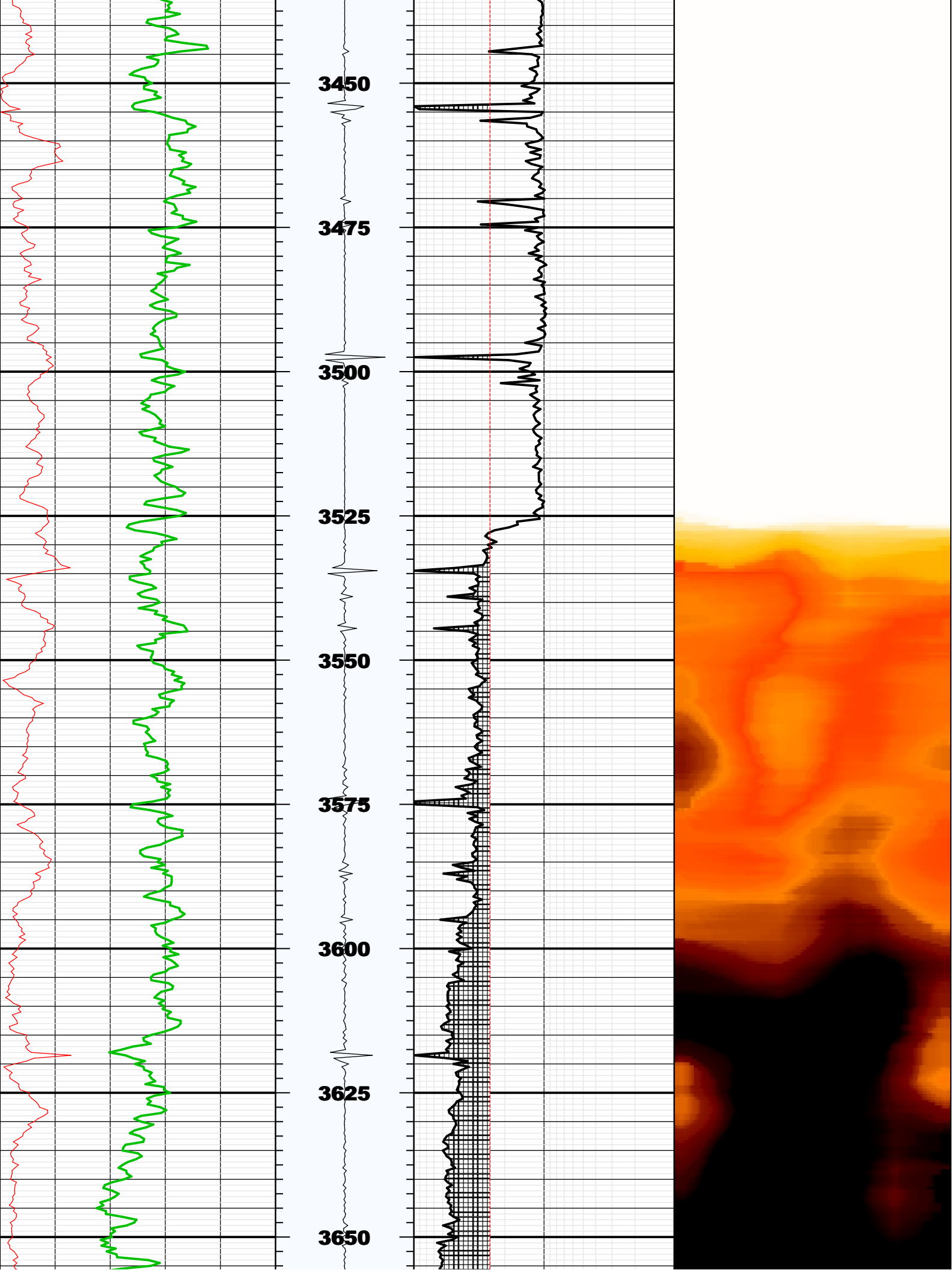




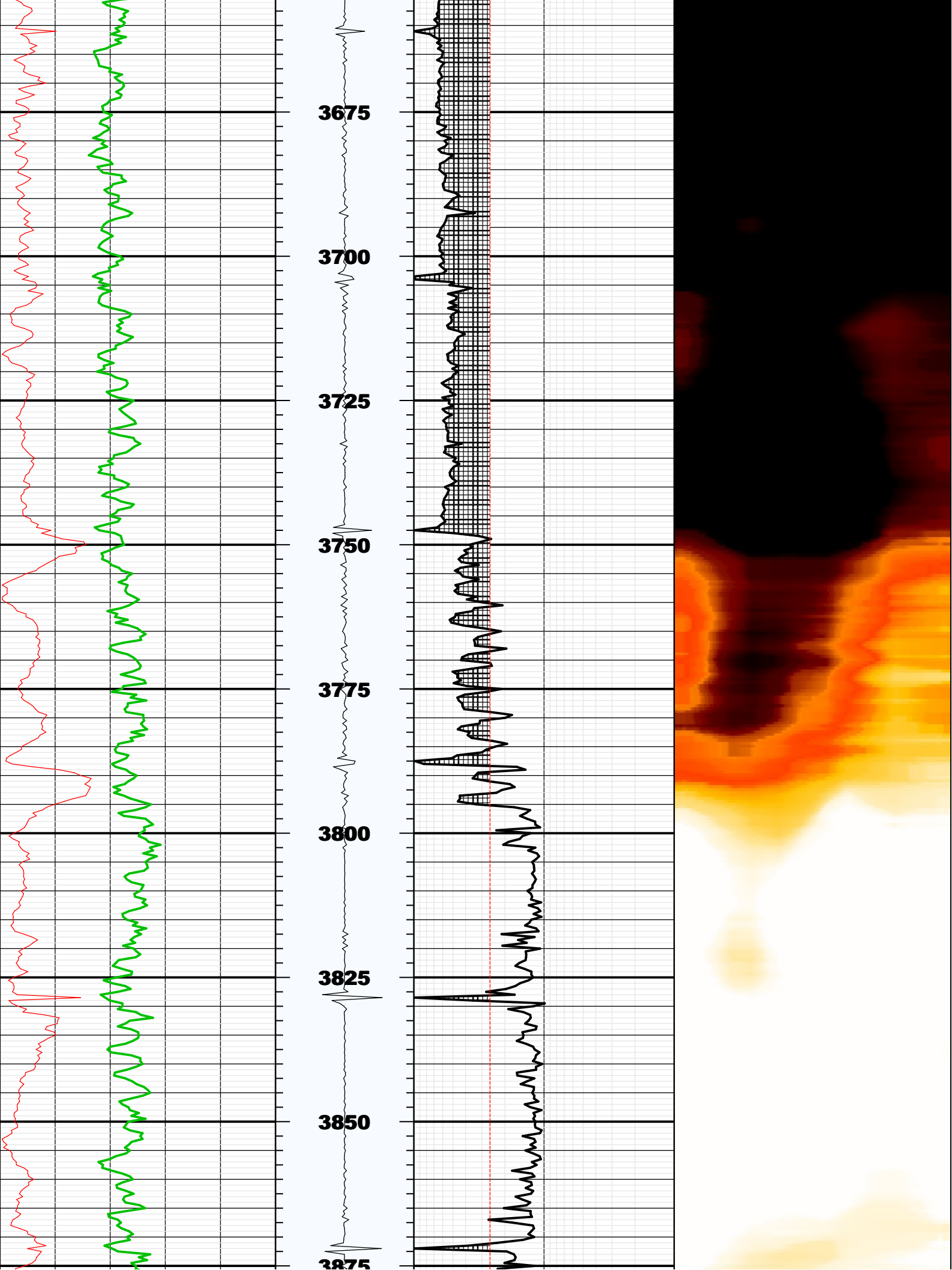




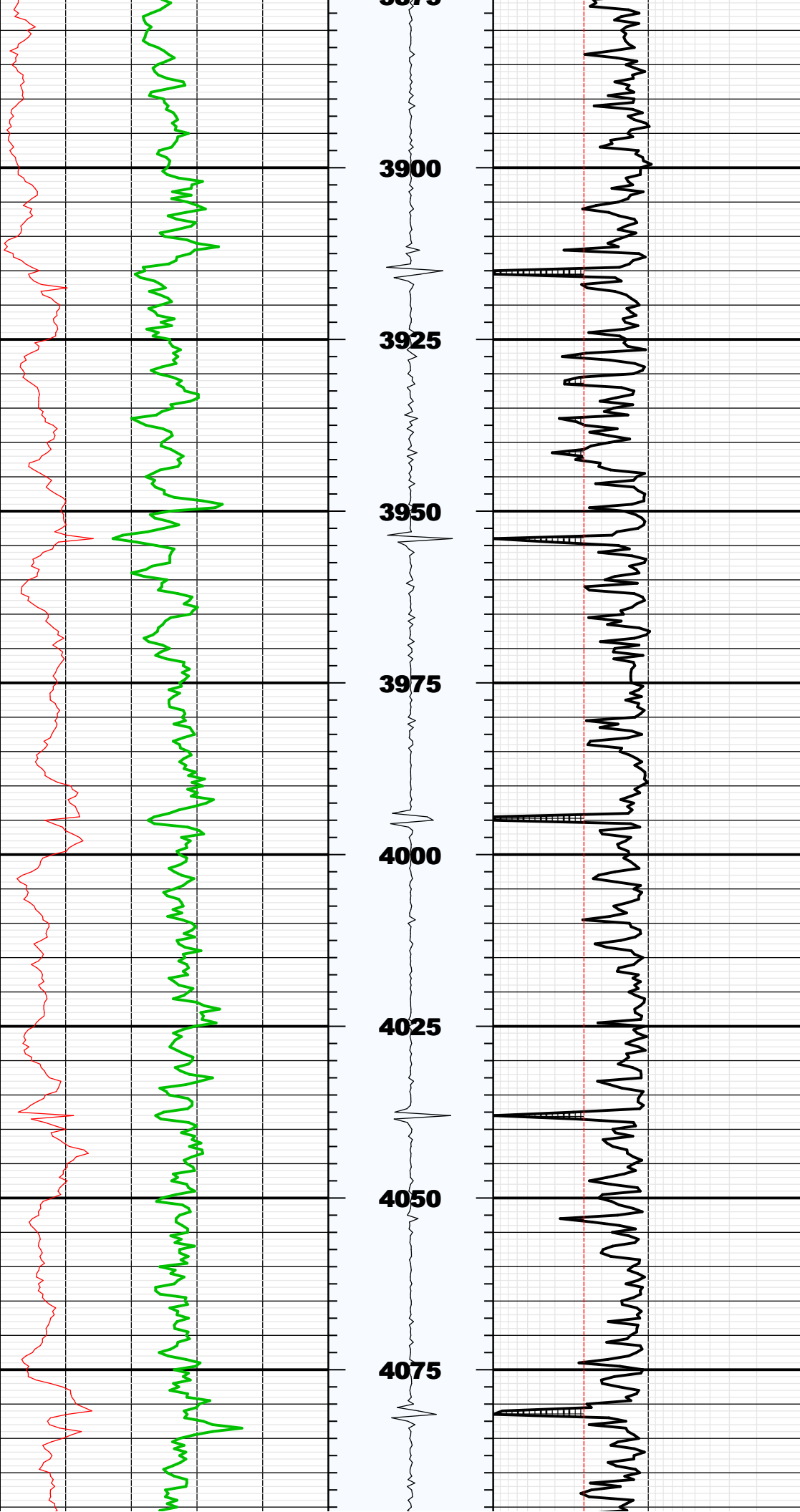


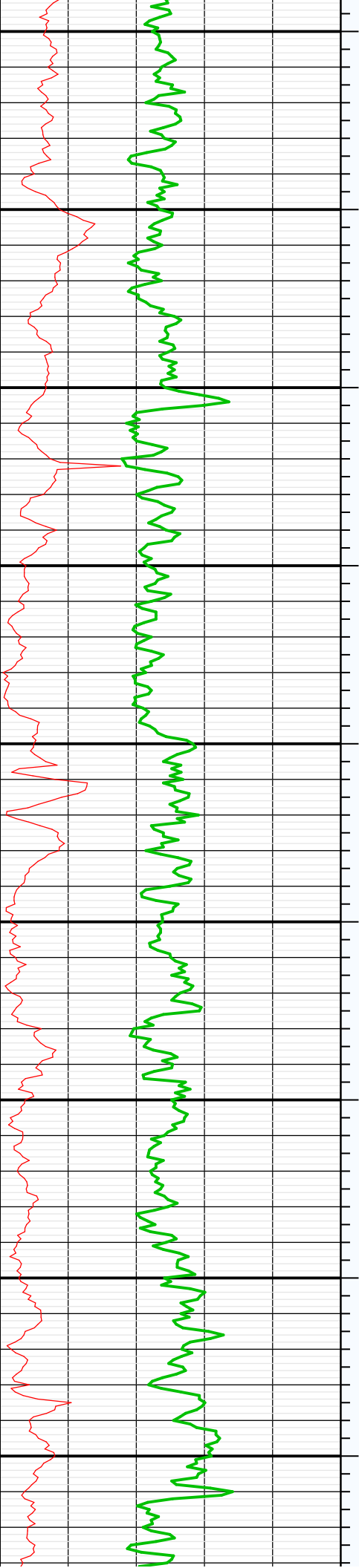












4100

4125

4150

4175

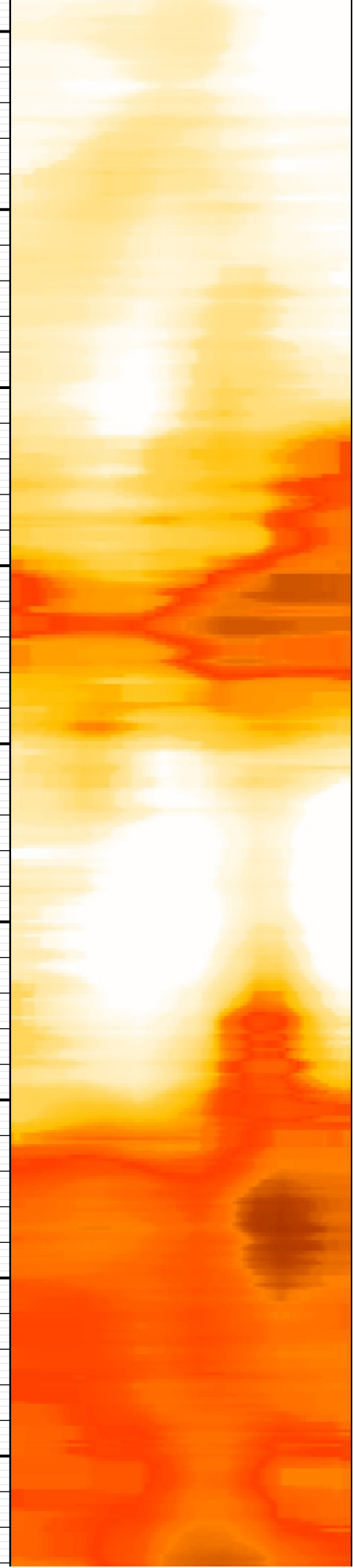
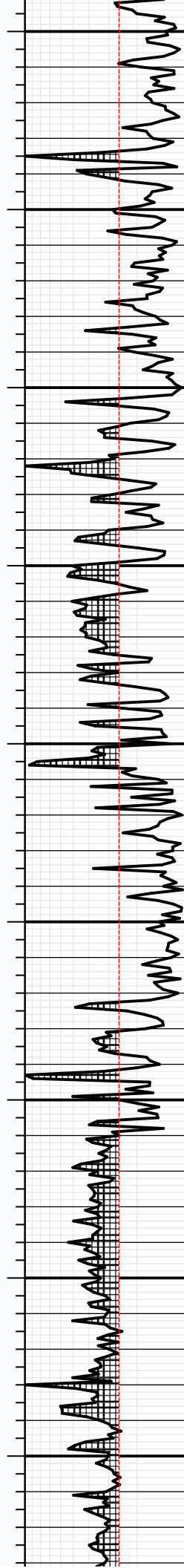
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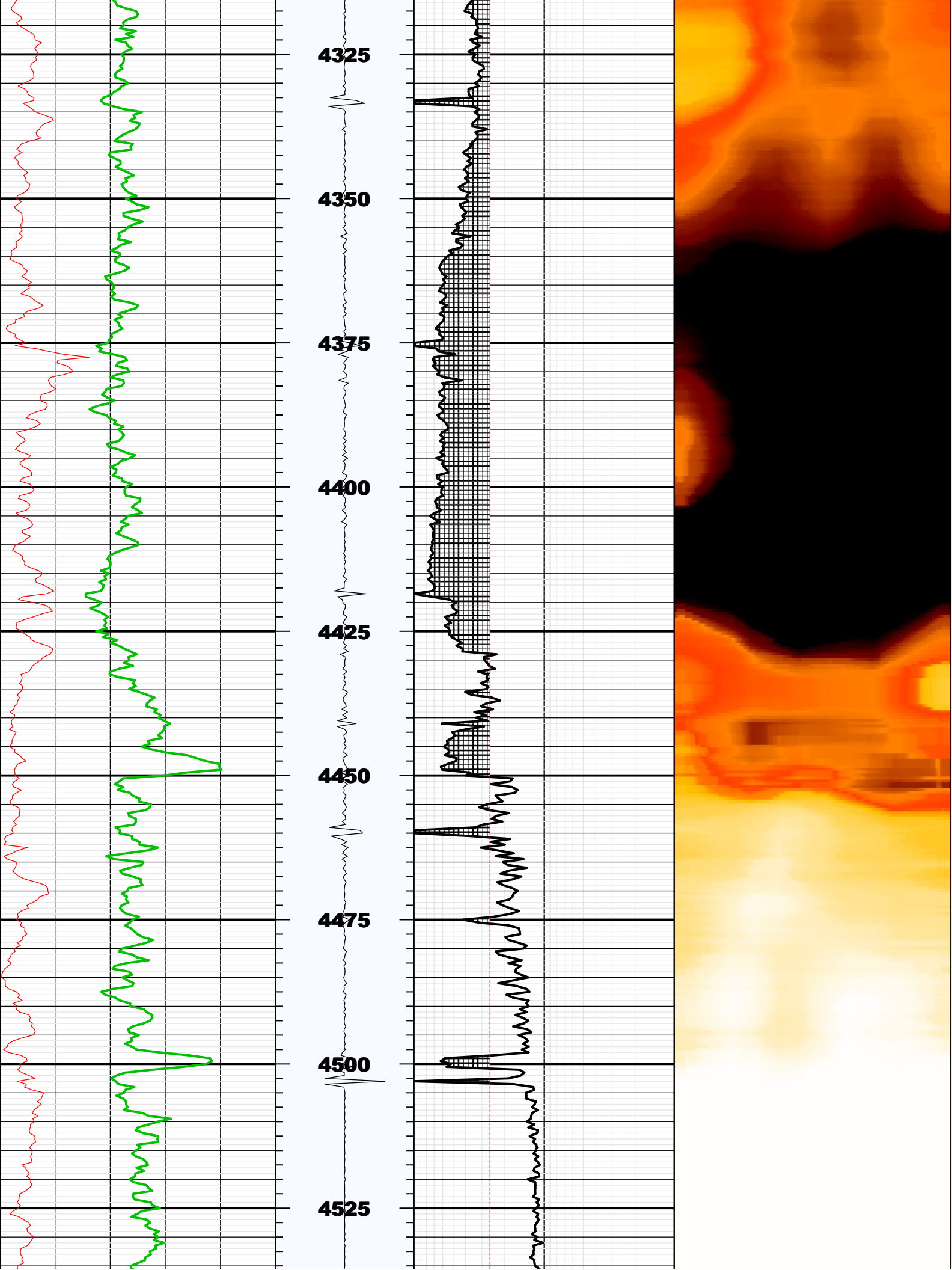
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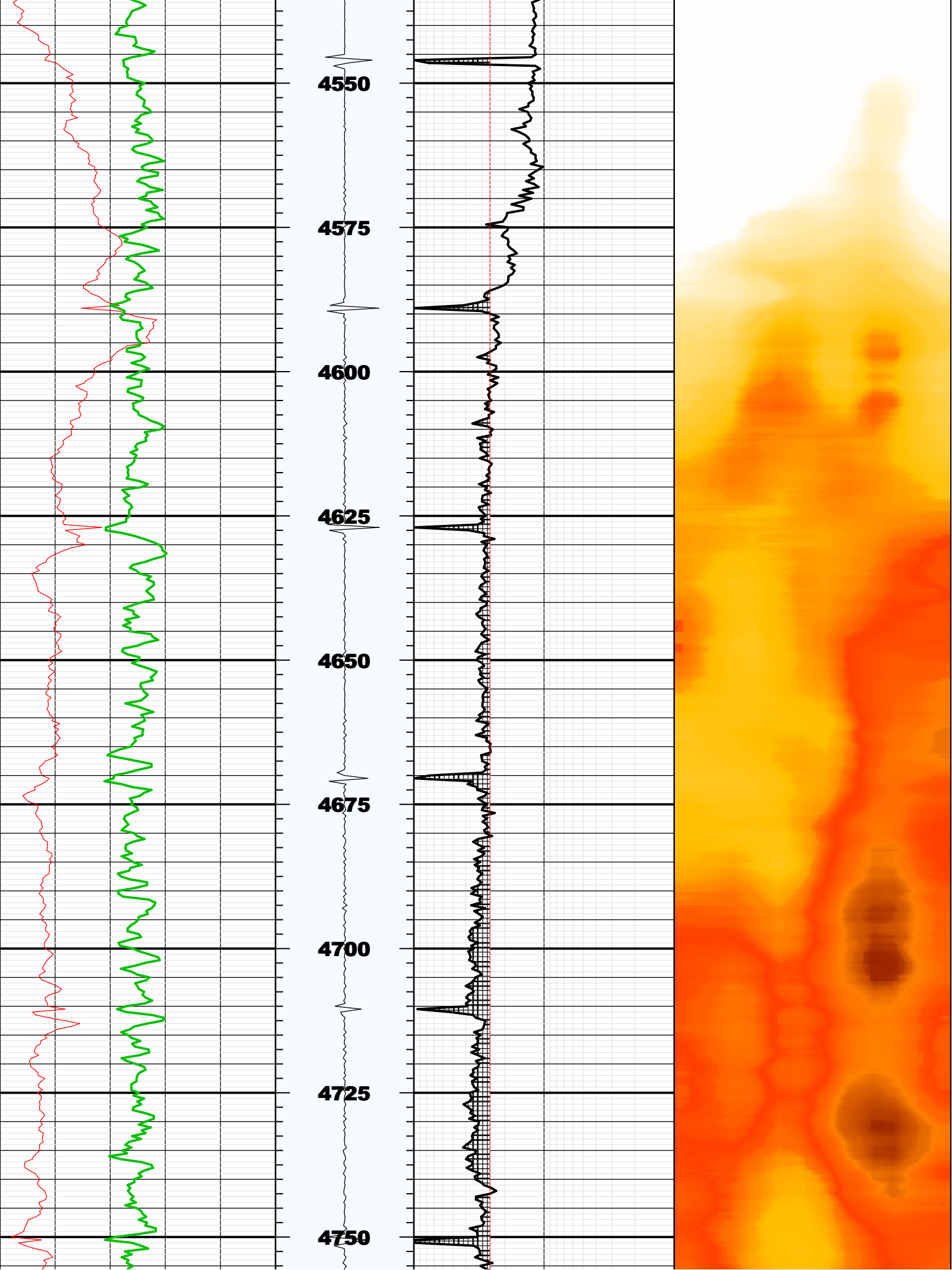
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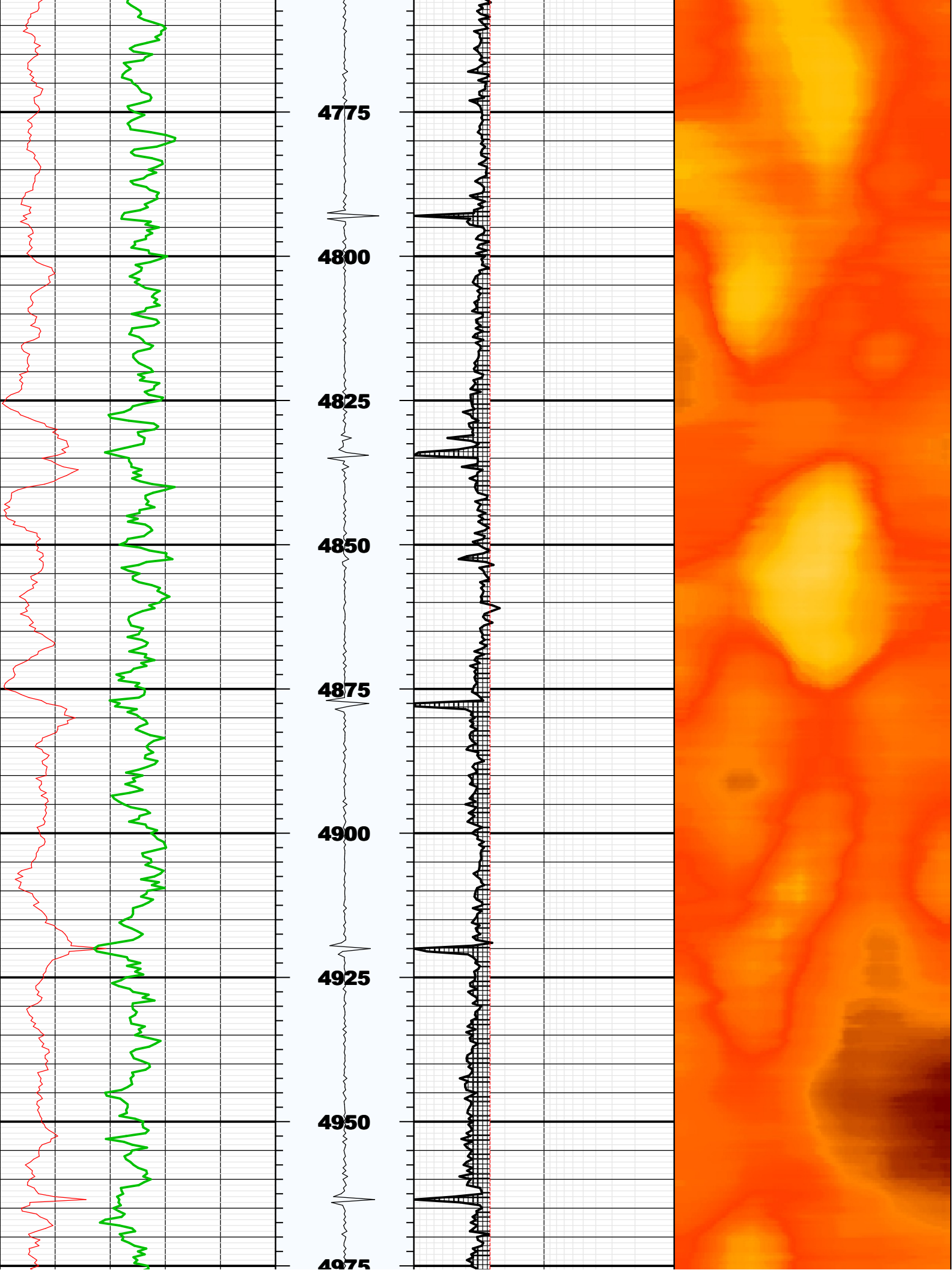
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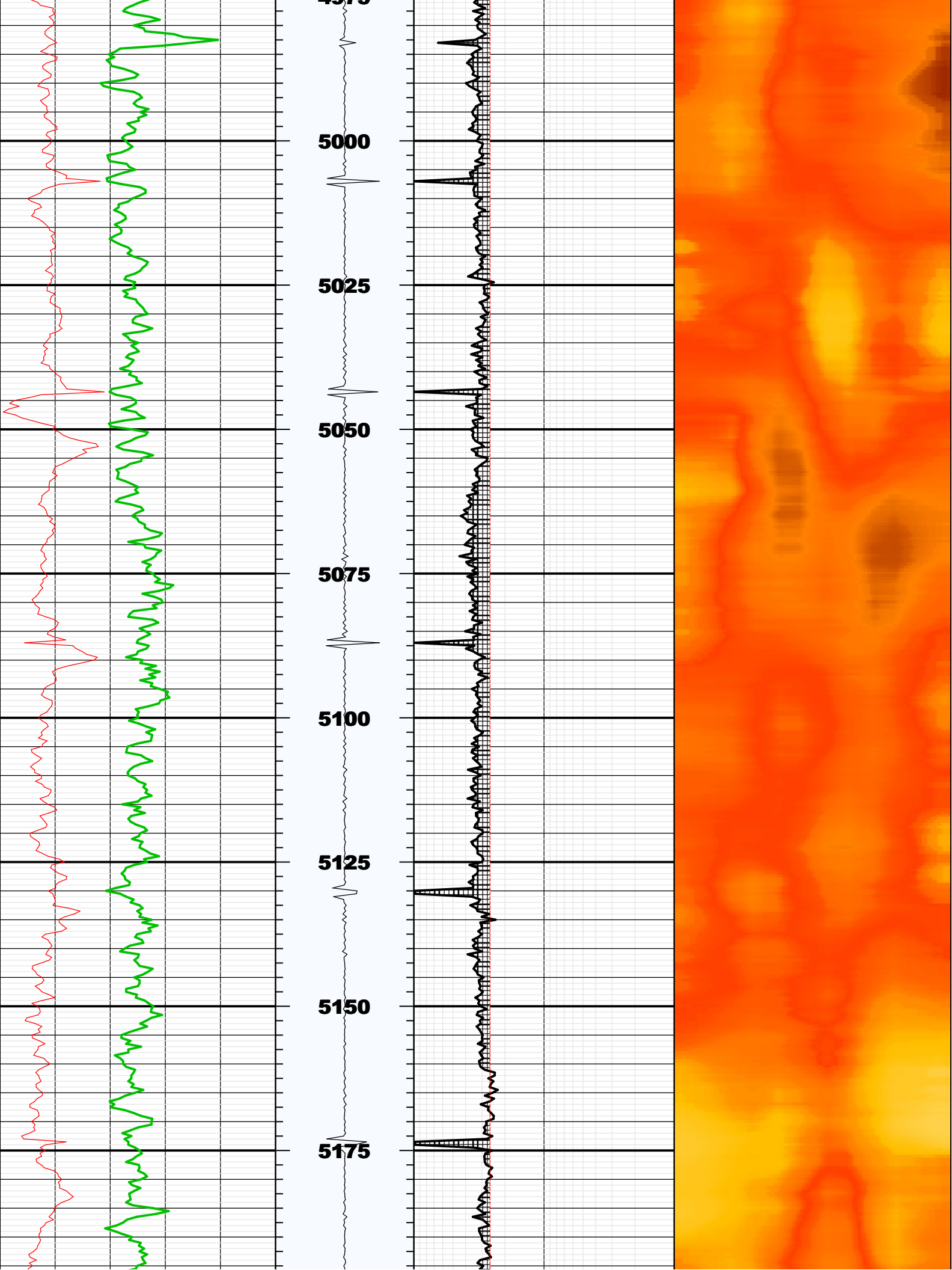




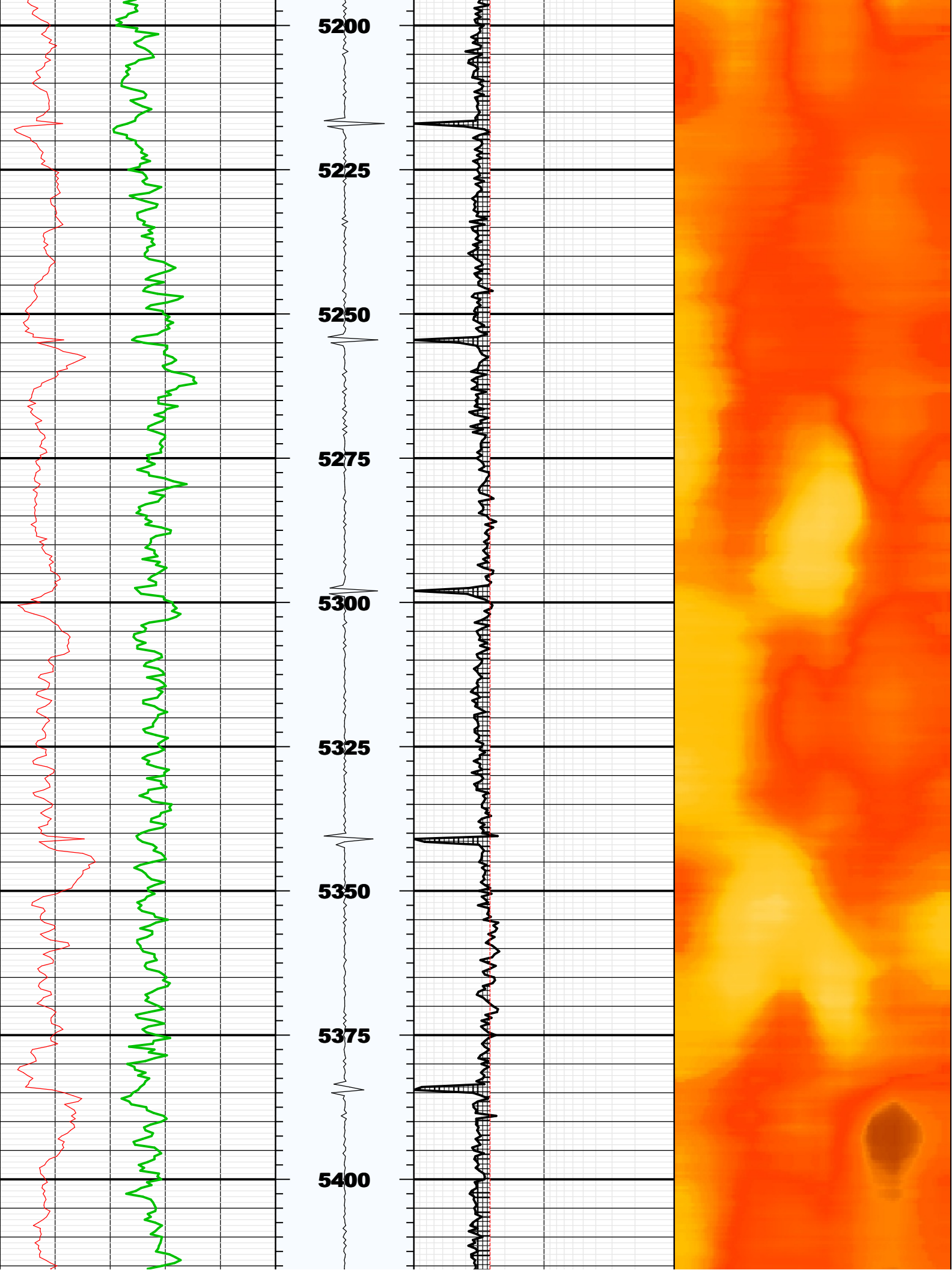


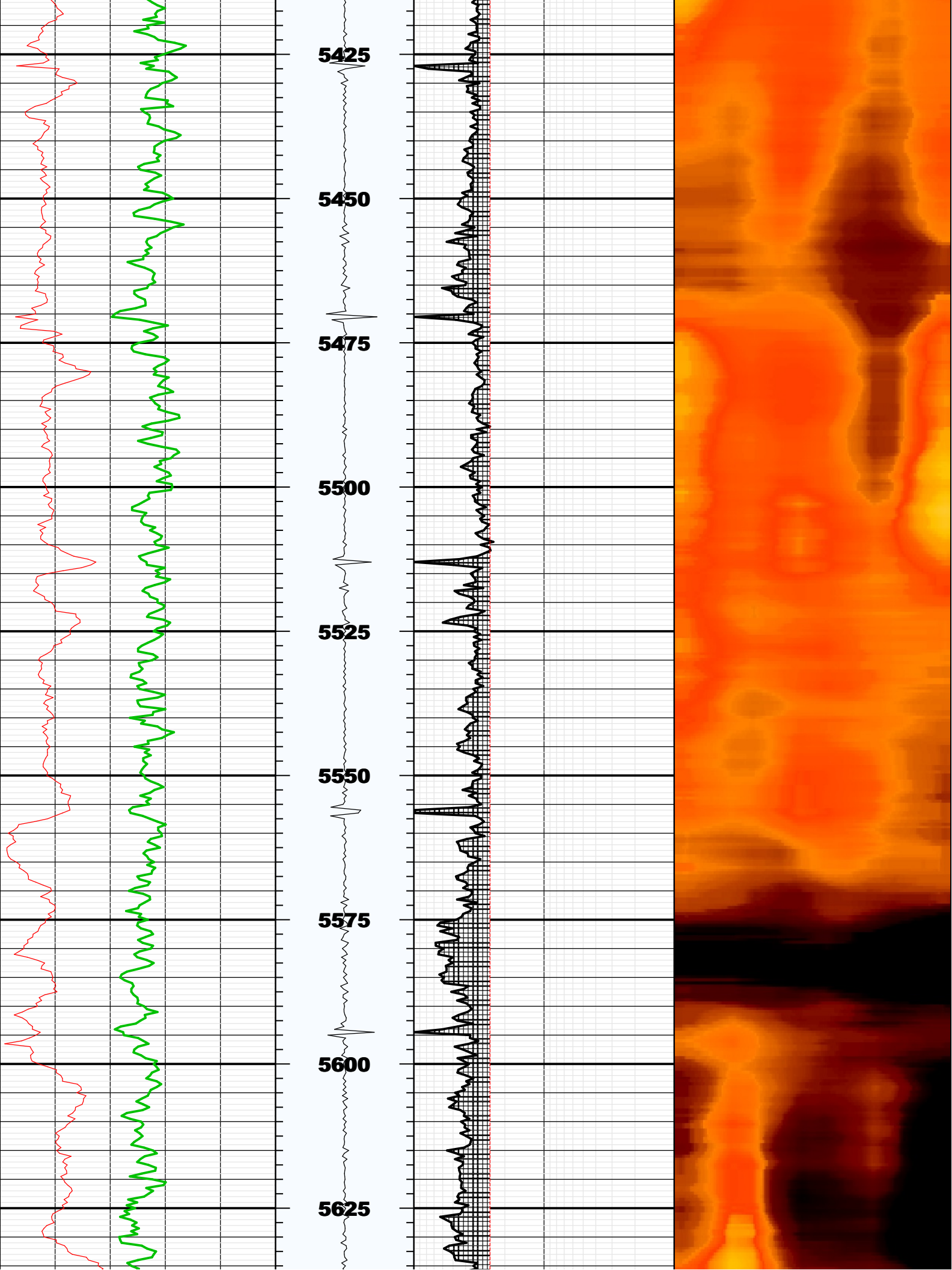


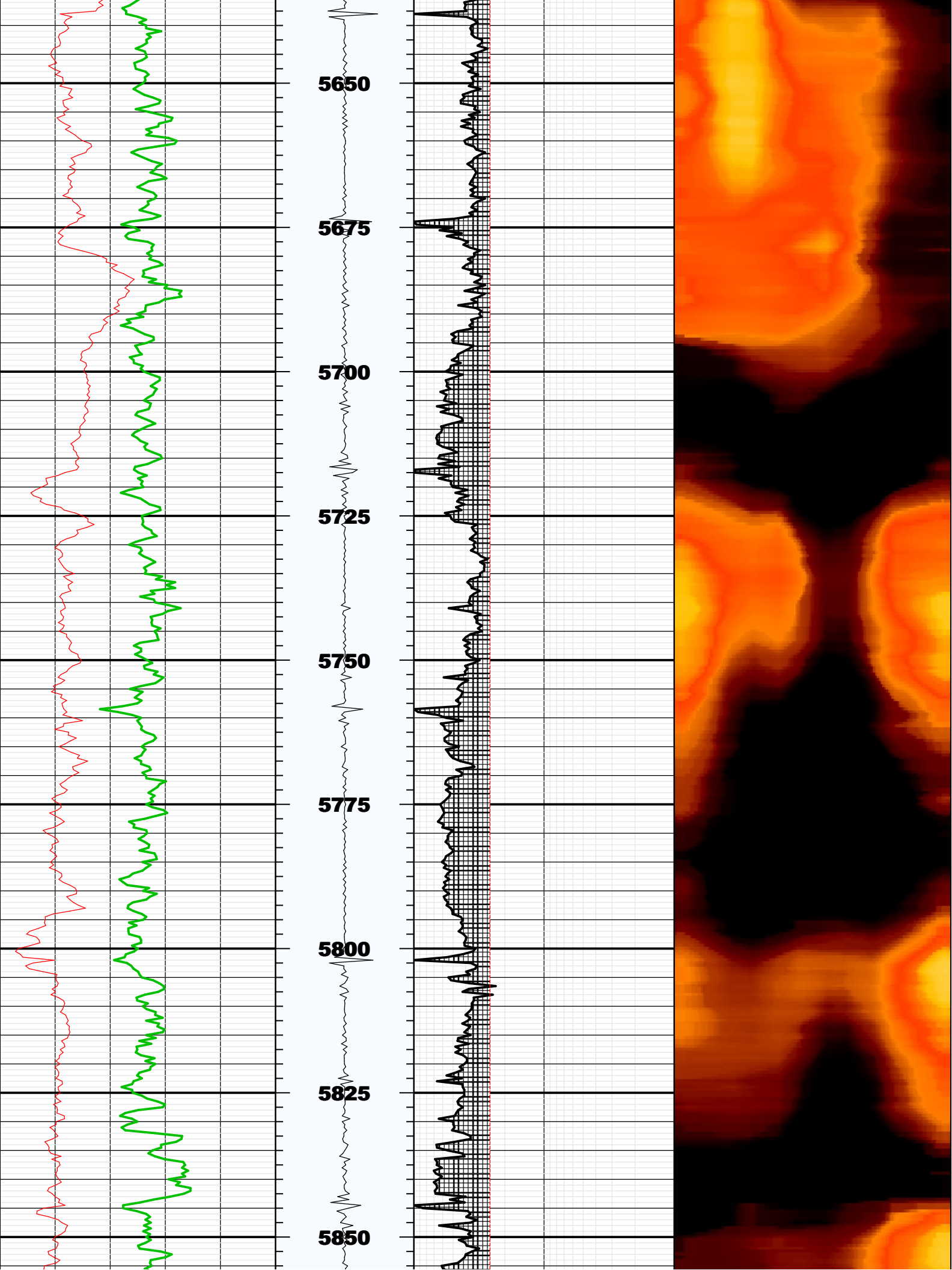


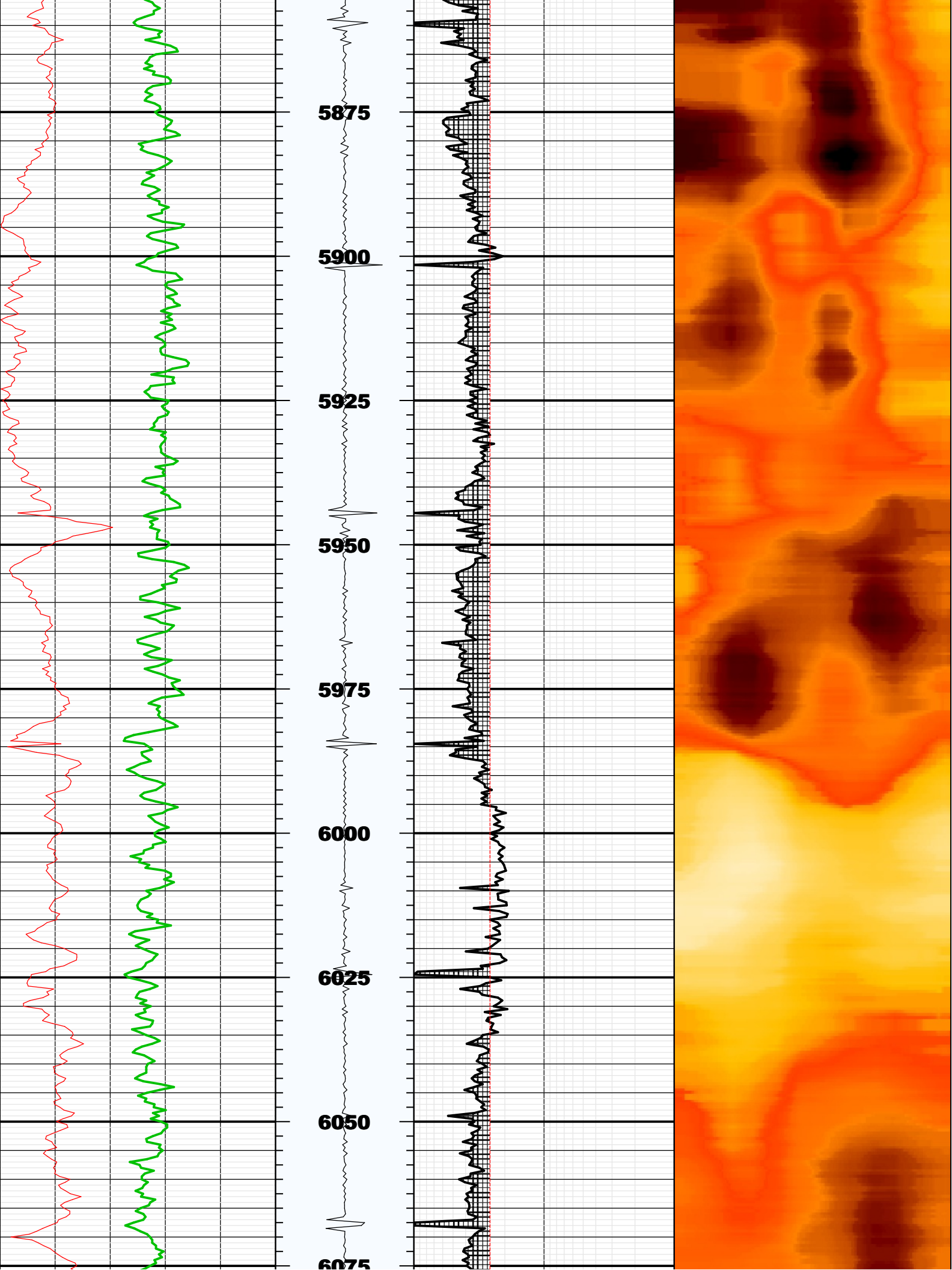




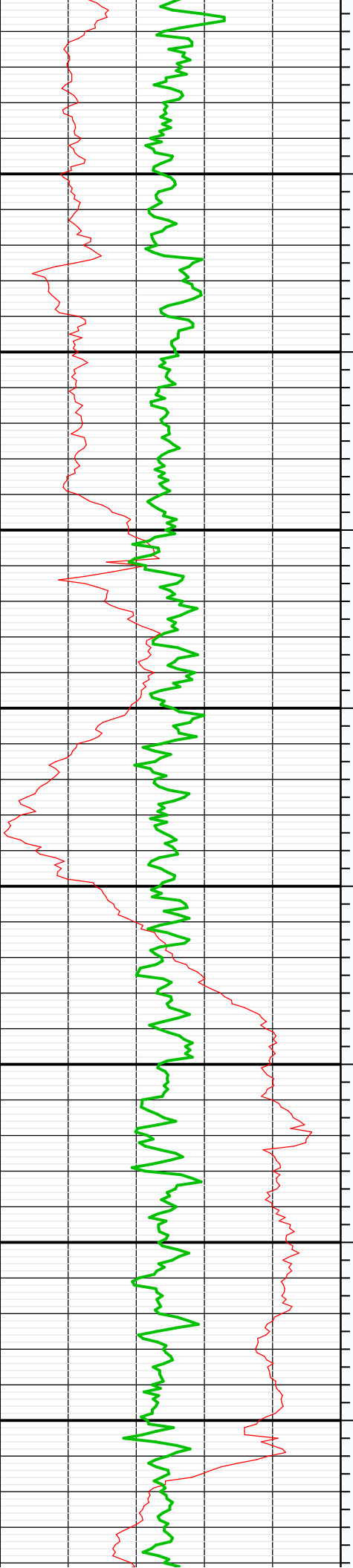




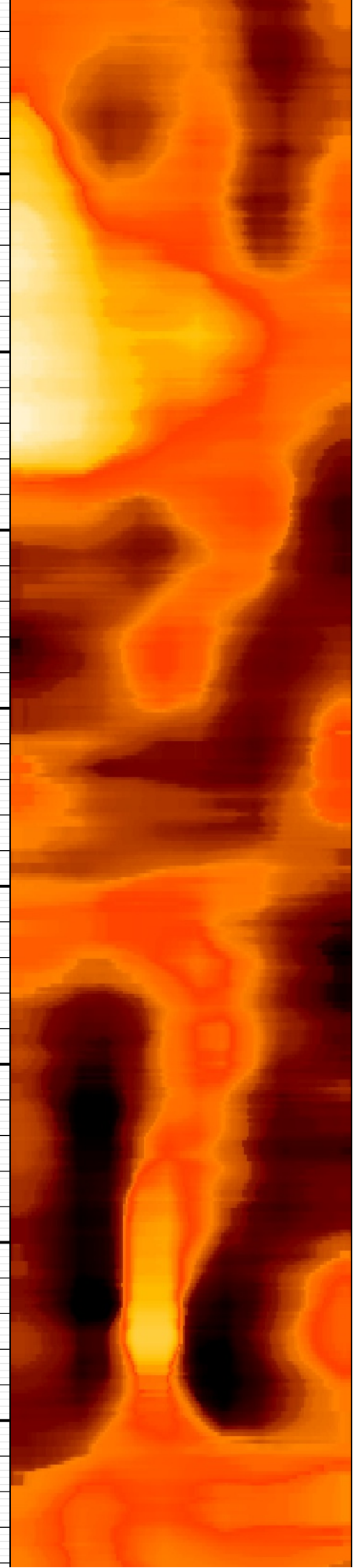
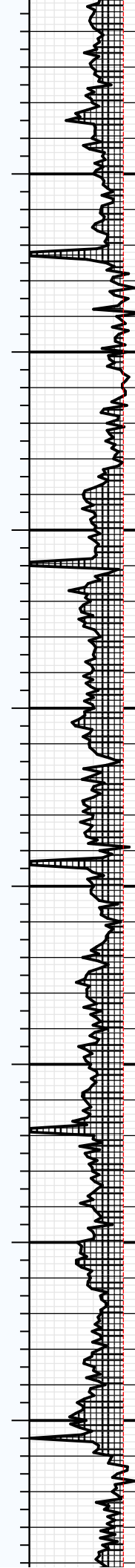


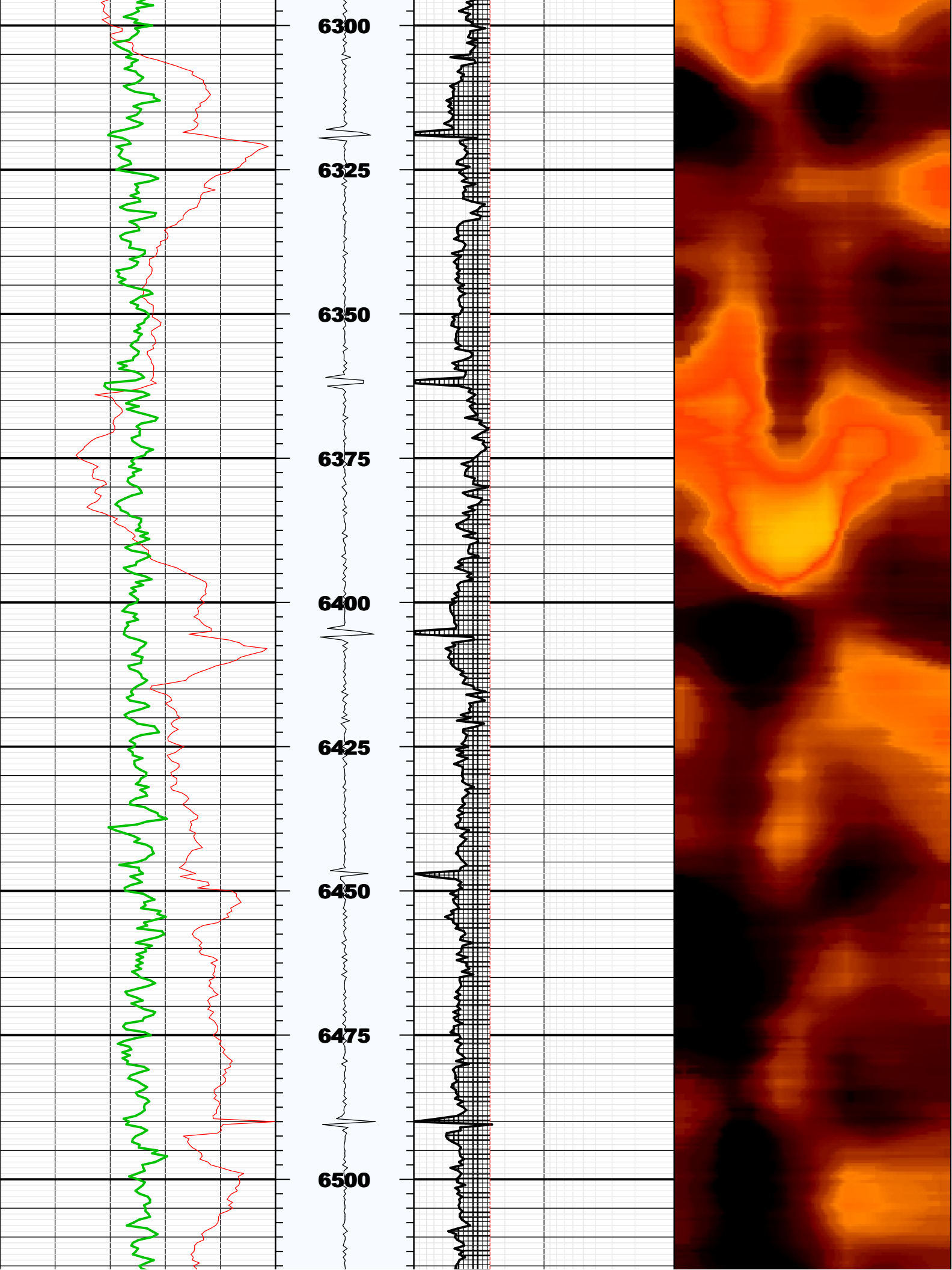




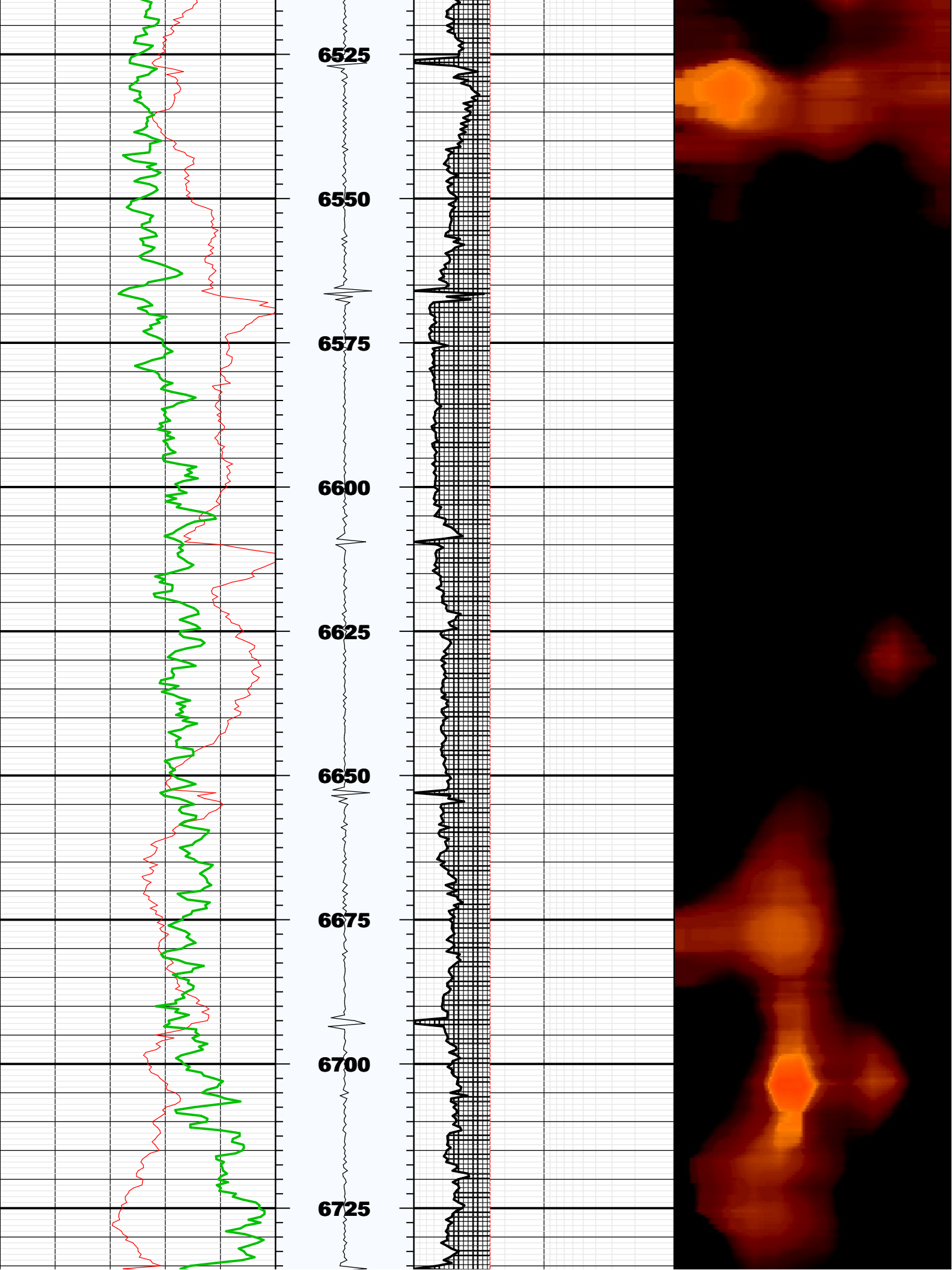


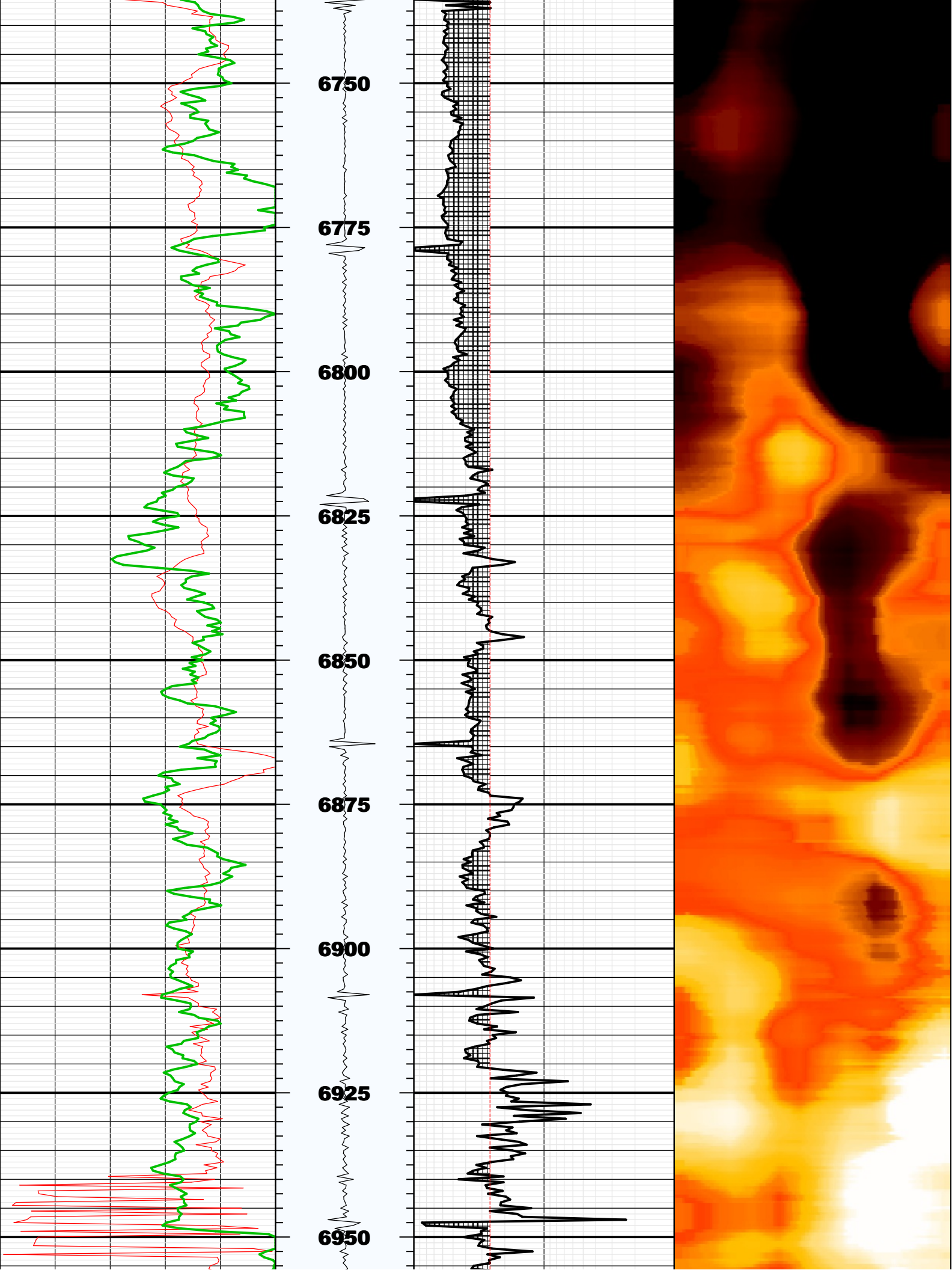
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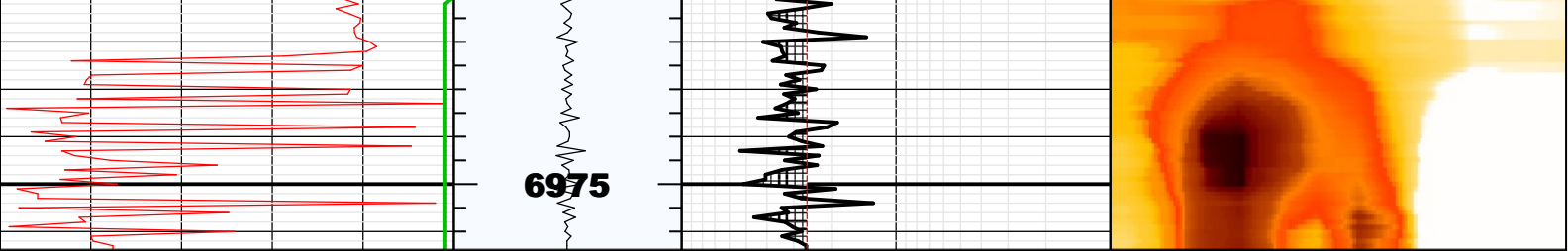








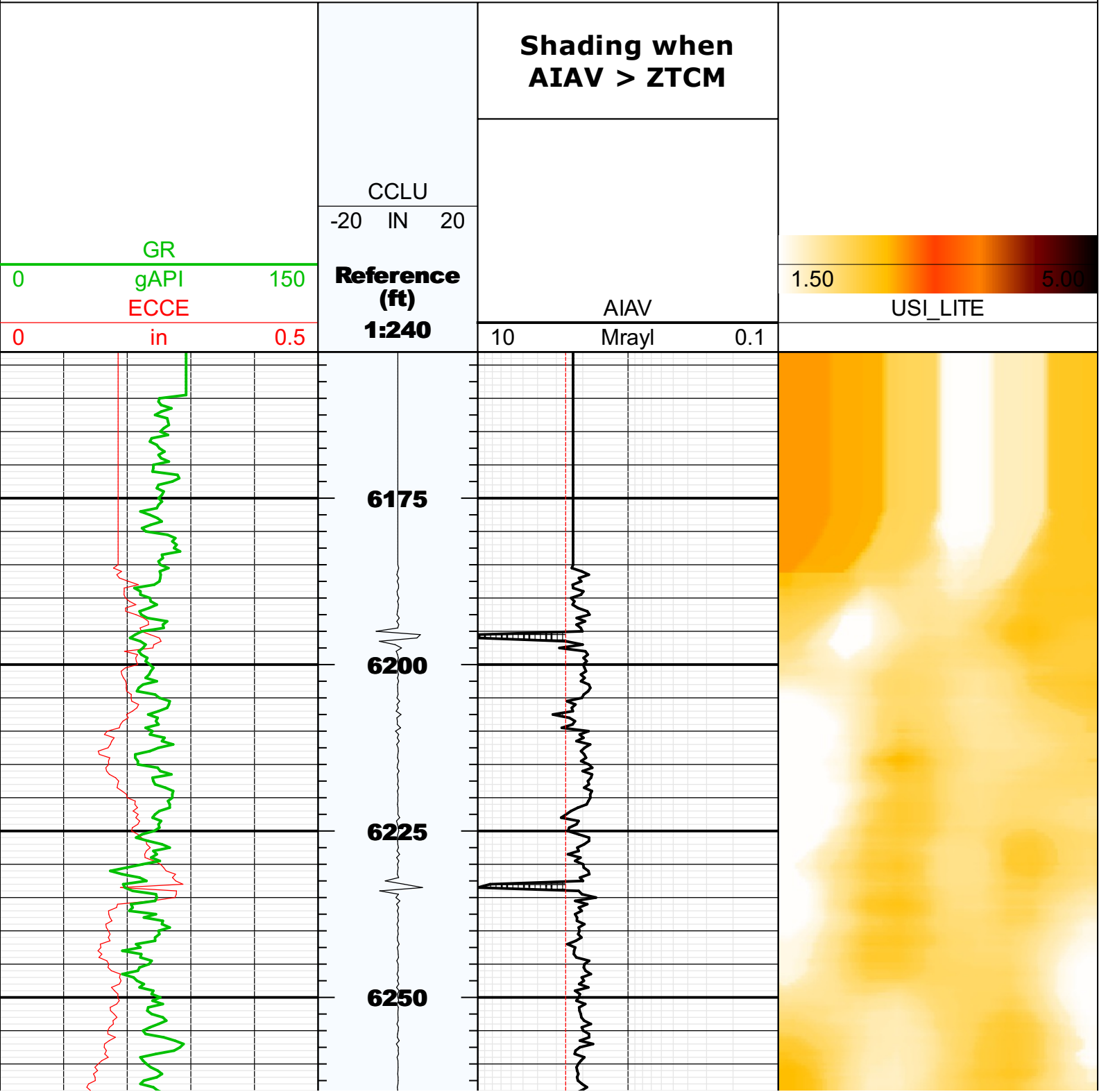




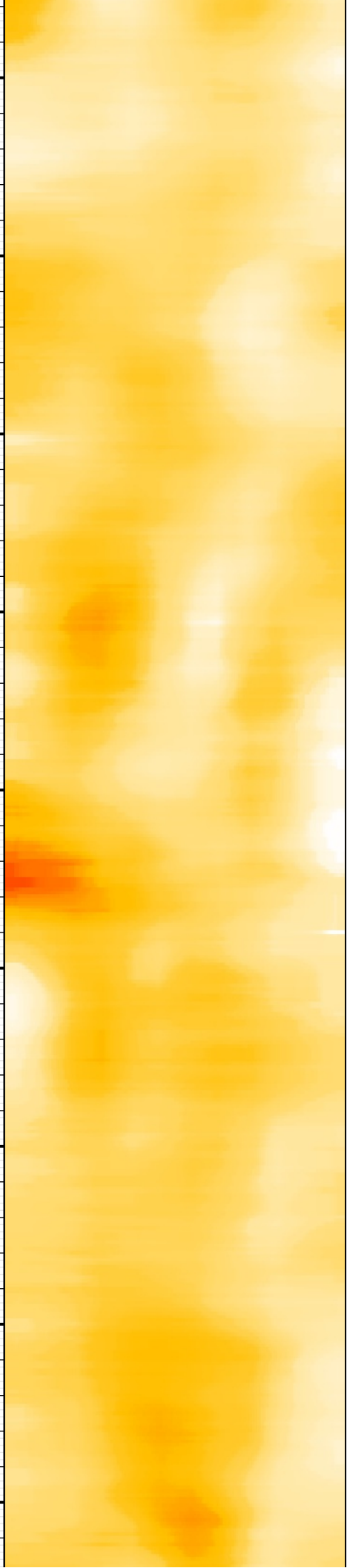
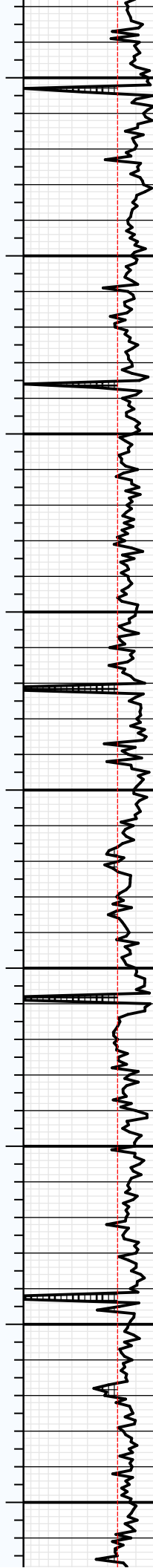
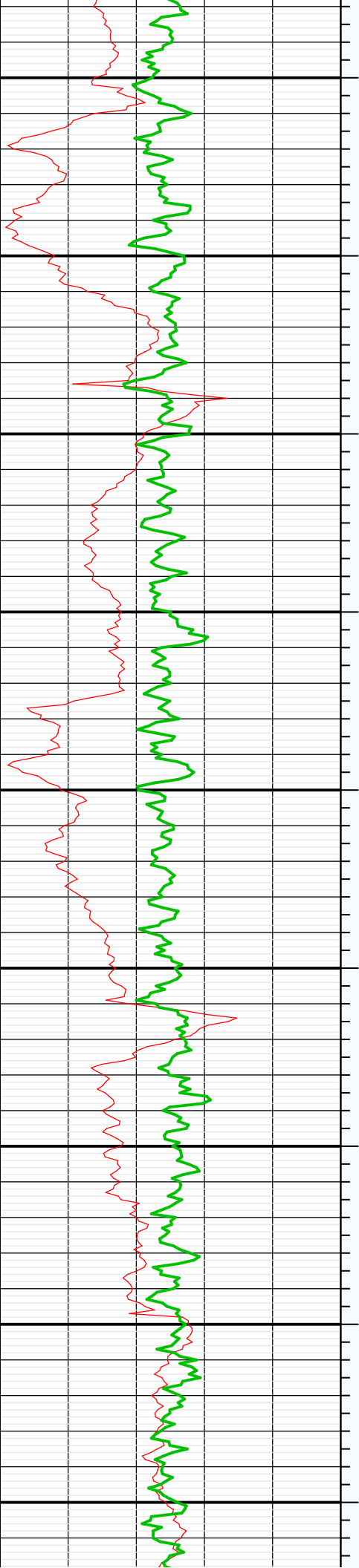
BS	8.75000	IN	Bit Size
CASG	P110		Casing Grade
CDIA	7.00000	IN	Casing Outer Diameter
CSID			
CSIZ	7.00000	IN	Current Casing Size
CWEI	26.00000	LB/F	Casing Weight
DFD	8.40000	LB/G	Drilling Fluid Density
DFVL	206.00000	US/F	Default Fluid Velocity
DO			
DOT	2.87400	IN	Diameter of Transducer Sensor
EMXV	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	35.53614	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	2.09000	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>^</sup> 3 Processing Length

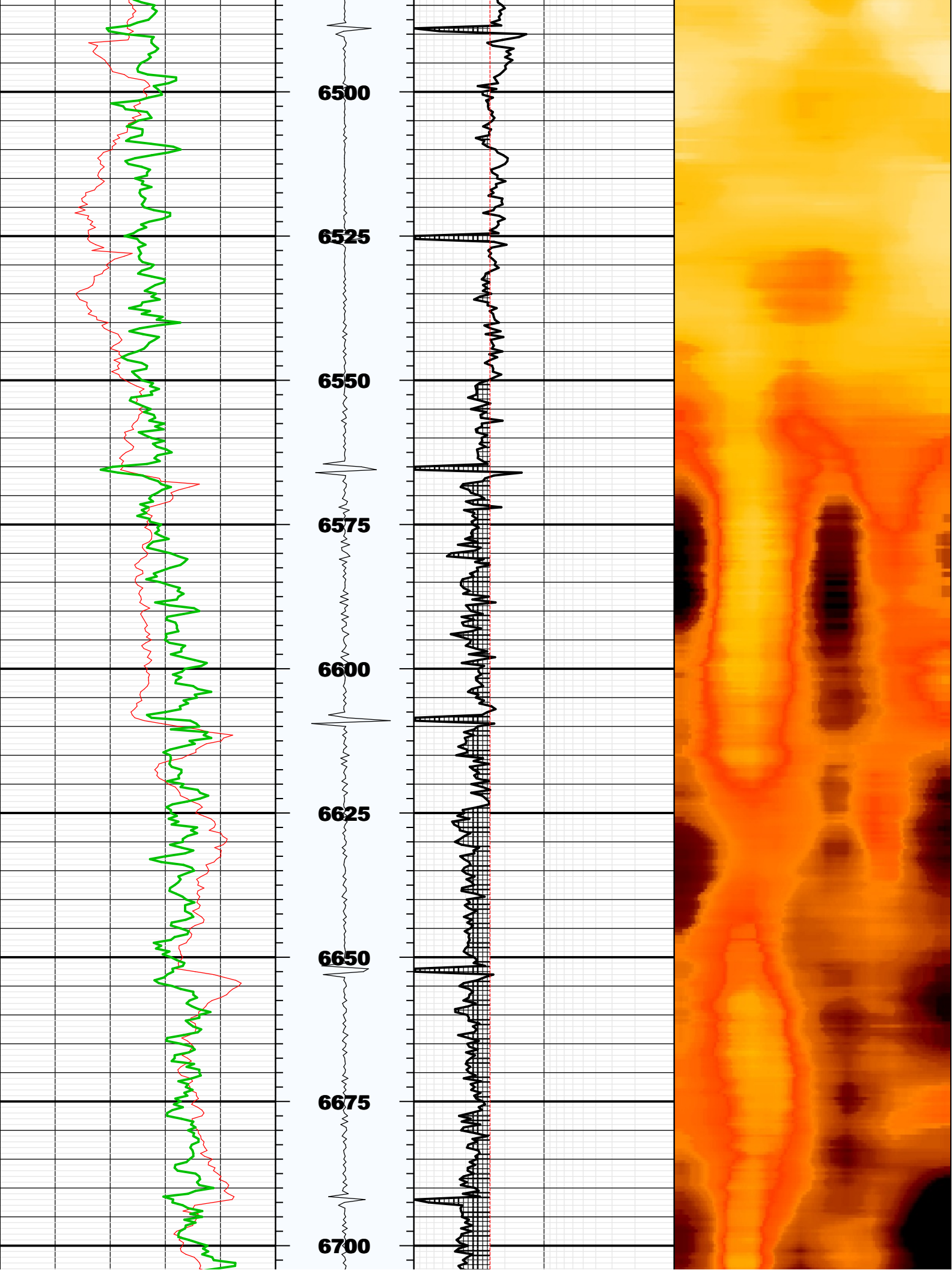
Repeat Pass

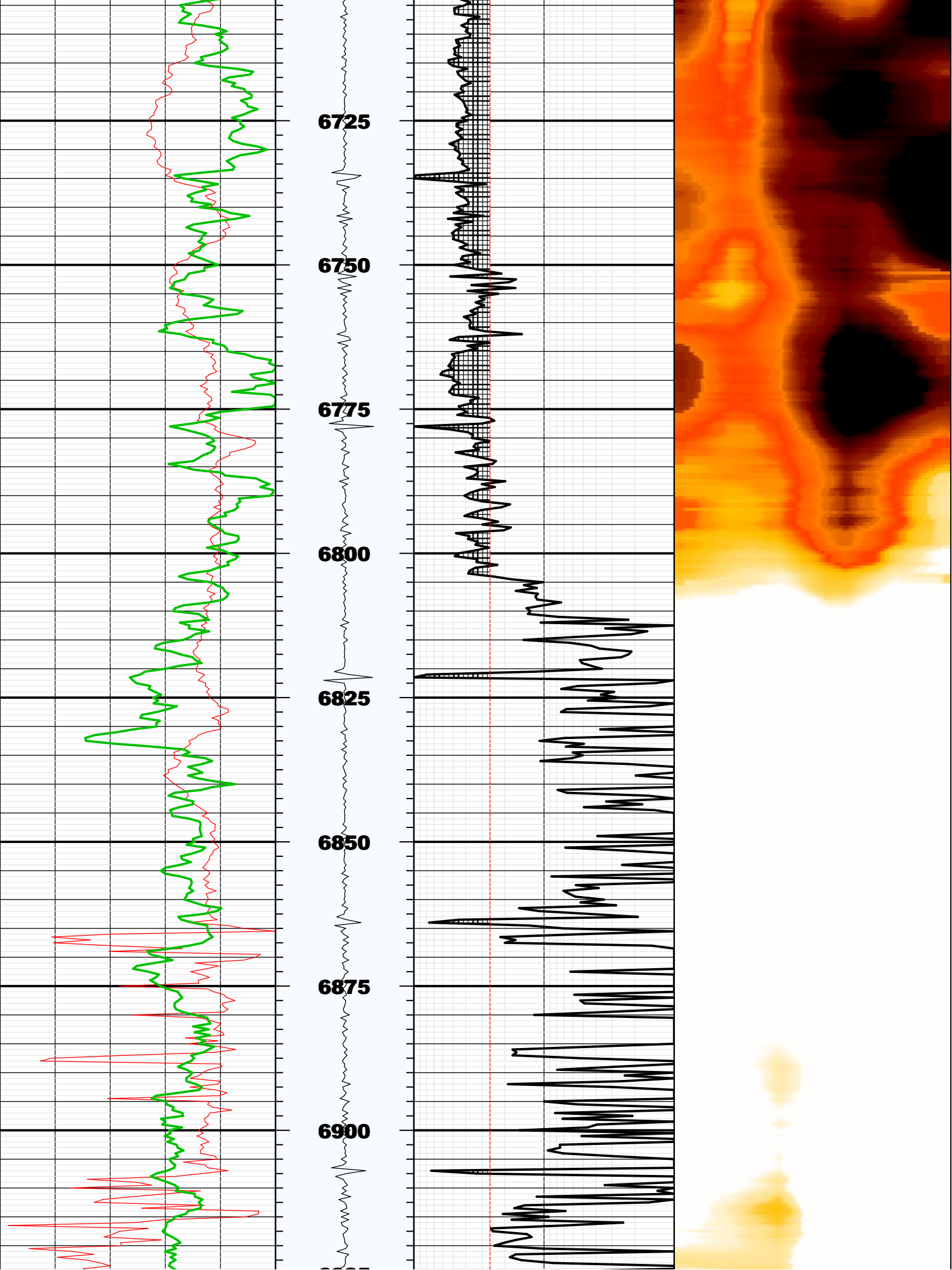
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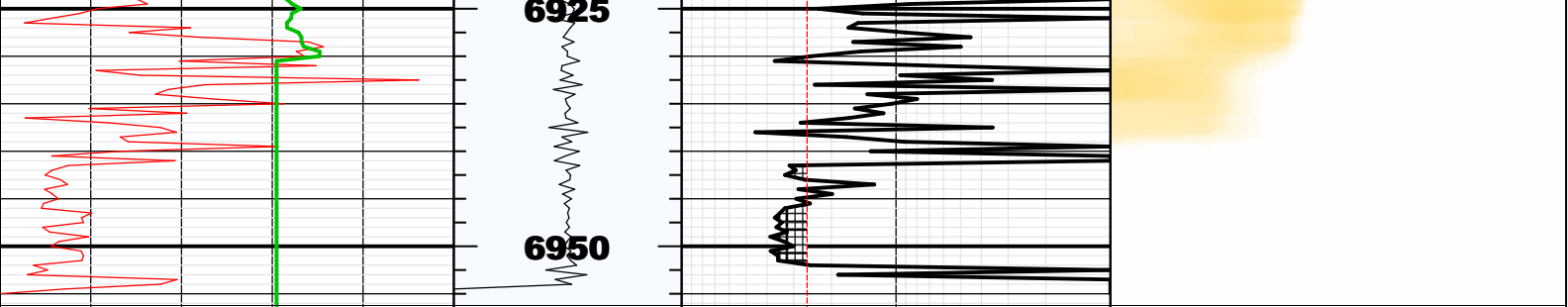






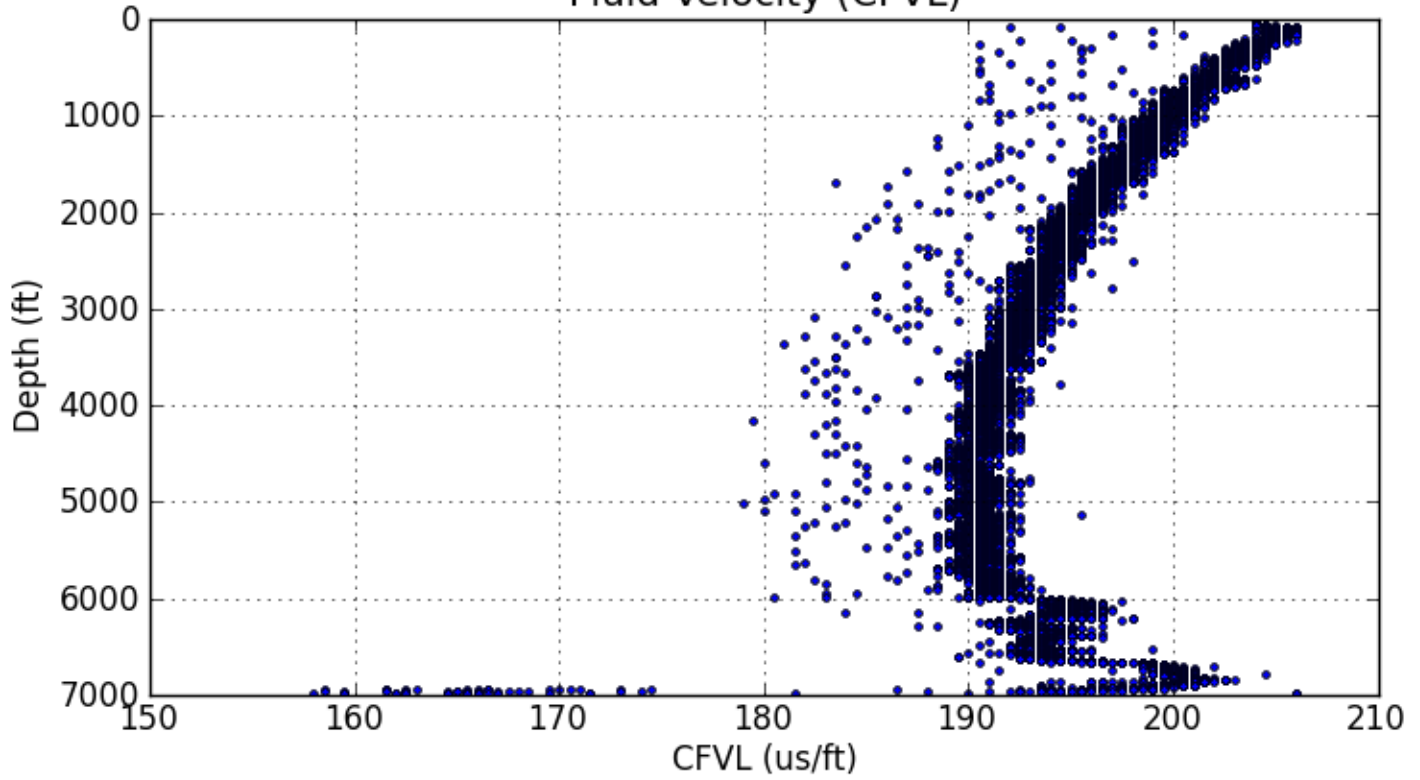






## Fluid Properties Used for Main Pass

### Fluid Velocity (CFVL)



### Acoustic Impedance of Mud (CZMD)

