

Company:

Whiting Oil Gas Corp

Well:

Horsetail 19N 1924M

Field:

Wildcat

County:

Weld

State:

Colorado

Isolation Scanner Field Print

Casing Integrity

Gamma Ray - CCL Log

SHL: 660 FSL 2616 FEL

Elev.: K.B. 4767.50 ft
G.L. 4749.00 ft
D.F.

Location:

Permanent Datum: _____

Ground Level _____

Elev.: _____

4749.00 f

Log Measured From: _____

Kelly Bushing _____

18.50 ft

above Perm.Datum

Drilling Measured From: _____

Kelly Bushing _____

API Serial No. 05-123-40630

Section: 19

Township: 10N

Range: 57W

Logging Date 27-Dec-2014

Run Number Run 1

Depth Driller 8317.00 ft

Schlumberger Depth 8317.00 ft

Bottom Log Interval 8146.00 ft

Top Log Interval 73.00 ft

Casing Fluid Type Water

Salinity

Density 8.5 lbm/gal

Fluid Level 8.00 ft

BIT/CASING/TUBING STRING

Bit Size 8.75 in

From 1550.00 ft

To 8317.00 ft

Casing/Tubing Size 7 in

Weight 29 lbm/ft

Grade N/A

From 0.00 ft

To 8317.00 ft

Max Recorded Temperatures 260 degF

Logger on Bottom 27-Dec-2014 10:30:00

Unit Number 3022 Location: Fort Morgan

Recorded By Tezla Hayduk

Witnessed By Dave Norris

Disclaimer

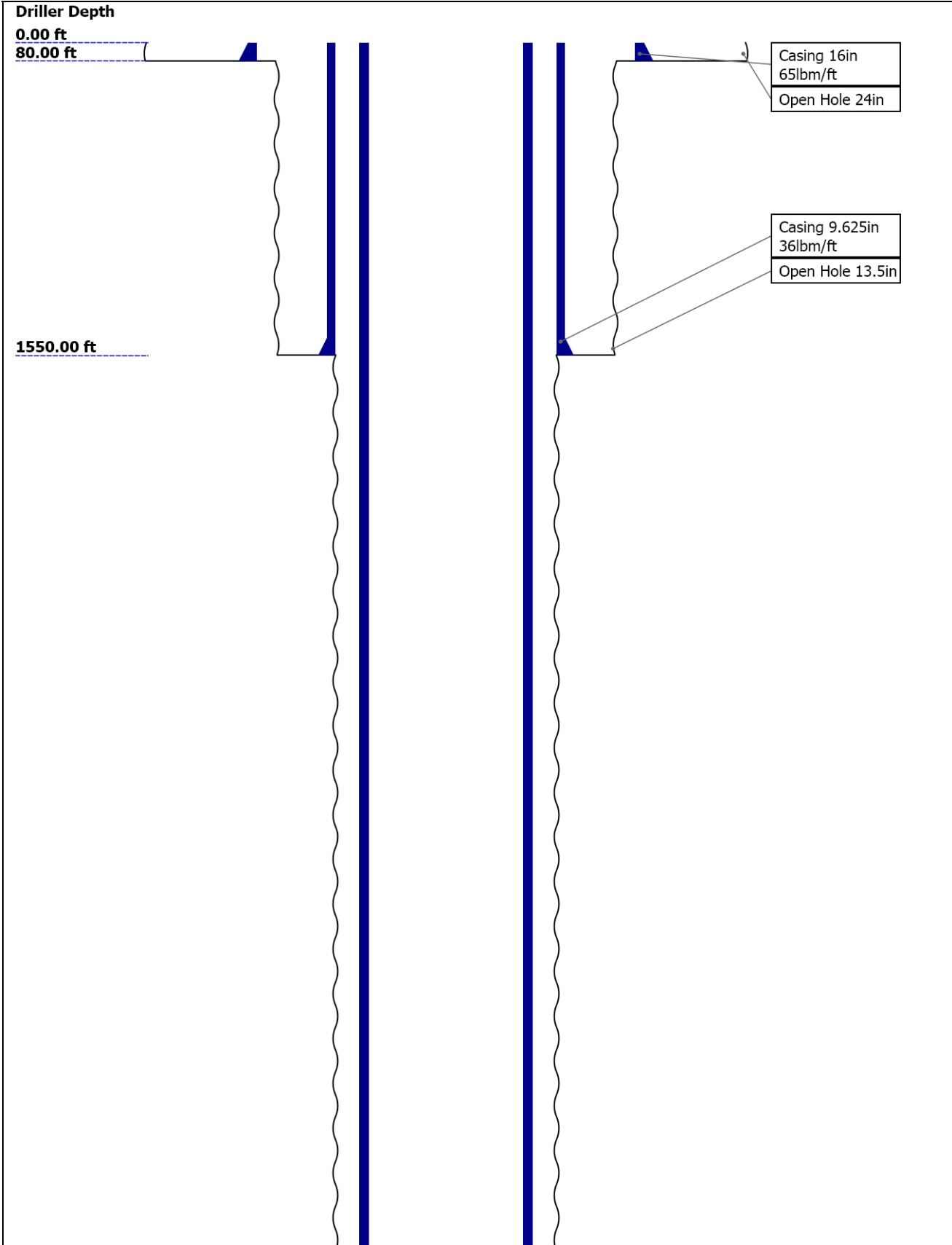
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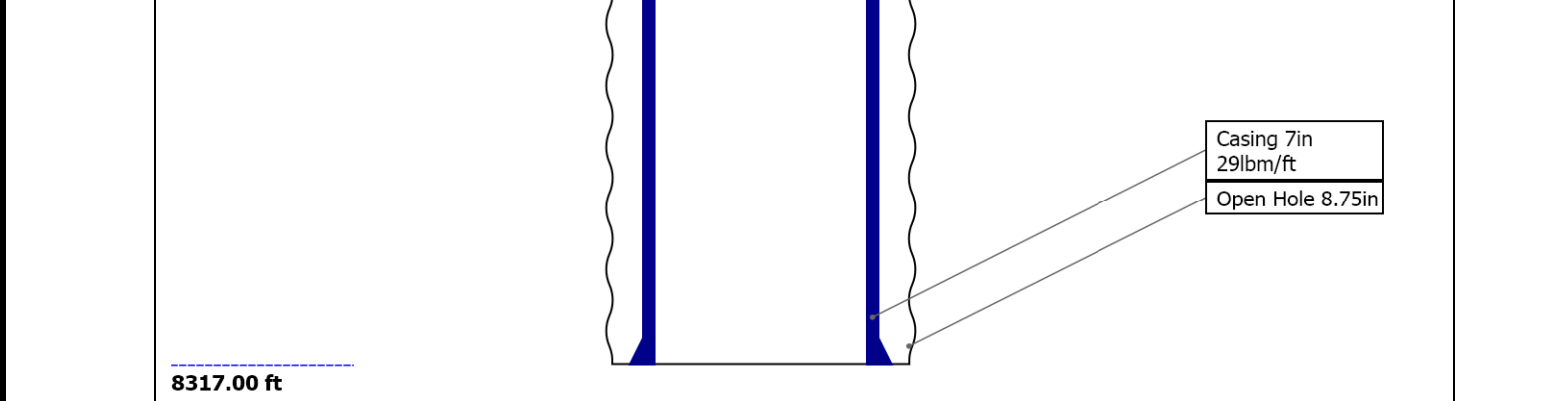
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Well Sketch





Borehole Size/Casing/Tubing Record

Bit						
Bit Size (in)	24	13.5	8.75			
Top Driller (ft)	0	80	1550			
Top Logger (ft)	0	80	1550			
Bottom Driller (ft)	80	1550	8317			
Bottom Logger (ft)	80	1550	8317			
Casing						
Size (in)	16	9.625	7			
Weight (lbm/ft)	65	36	29			
Inner Diameter (in)	15.25	8.921	6.184			
Grade	N/A	N/A	N/A			
Top Driller (ft)	0	0	0			
Top Logger (ft)	0	0	0			
Bottom Driller (ft)	80	1550	8317			
Bottom Logger (ft)	80	1550	8317			

Operational Run Summary

Parameter (unit)	Run 1					
Date Log Started	27-Dec-2014					
Time Log Started	08:43:31					
Date Log Finished	27-Dec-2014					
Time Log Finished	14:37:13					
Top Log Interval (ft)	73.00					
Bottom Log Interval (ft)	8146.00					
Total Depth (ft)	8164.00					
Max Hole Deviation (deg)	0.00					
Azimuth of Max Deviation (deg)	0.00					
Bit Size (in)	8.750					
Logging Unit Number	3022					
Logging Unit Location	Fort Morgan					
Recorded By	Tezla Hayduk					
Witnessed By	Dave Norris					
Service Order Number	CYPH-00042					

Service Order Number		CXT 11-00042					
Borehole Fluids							
Parameter(unit)	Run 1						
Fluid Type	Water						
Max Recorded Temperatures (degF)	260						
Salinity (ppm)	0						
Density (lbm/gal)	8.5						
Date Logger on Bottom	27-Dec-2014						
Time Logger on Bottom	10:30:00						
Total Solid (%)							
High Gravity Solids (%)							
Remarks and Equipment Summary							
Run 1: Toolstring		Run 1: Remarks					
<div><div><div>Equip name</div><div>Length</div><div>MP name</div><div>Offset</div></div><div><div>LEH-QT</div><div>29.92</div><div></div><div></div></div><div><div>LEH-QT</div><div></div><div></div><div></div></div><div><div>EDTC-B:81</div><div>27.00</div><div></div><div></div></div><div><div>88</div><div></div><div></div><div></div></div><div><div>EDTH-B:8187</div><div></div><div></div><div></div></div><div><div>EDTG-B:7709</div><div></div><div></div><div></div></div><div><div>8</div><div></div><div></div><div></div></div><div><div>EDTC-B:8188</div><div></div><div></div><div></div></div><div><div>CME-AF:82</div><div>20.5</div><div></div><div></div></div><div><div>12</div><div></div><div></div><div></div></div><div><div>USIT-E:172</div><div>16.71</div><div></div><div></div></div><div><div>6</div><div></div><div></div><div></div></div><div><div>ECH-MFA:19</div><div></div><div></div><div></div></div><div><div>90</div><div></div><div></div><div></div></div><div><div>USAC-A:1726</div><div></div><div></div><div></div></div><div><div>USIS-A:791</div><div></div><div></div><div></div></div><div><div>USSC-B:758</div><div></div><div></div><div></div></div><div><div>IBCS-B:802</div><div></div><div></div><div></div></div><div><div>FAR-SENSOR</div><div></div><div></div><div></div></div><div><div>:3368</div><div></div><div></div><div></div></div><div><div>NEAR-SENSO</div><div></div><div></div><div></div></div><div><div>R:3770</div><div></div><div></div><div></div></div><div><div>USI-SENSOR</div><div></div><div></div><div></div></div><div><div>:3553</div><div></div><div></div><div></div></div><div><div>EMITTER-SE</div><div></div><div></div><div></div></div><div><div>NSOR:4225</div><div></div><div></div><div></div></div><div><div>CTEM</div><div>23.5</div><div></div><div></div></div><div><div>ACCZ</div><div>0.00</div><div></div><div></div></div><div><div>HV</div><div>0.00</div><div></div><div></div></div><div><div>Gamma R</div><div>21.63</div><div></div><div></div></div><div><div>ay</div><div></div><div></div><div></div></div><div><div>TelStatus</div><div>20.5</div><div></div><div></div></div><div><div>USI Sens</div><div>0.87</div><div></div><div></div></div><div><div>or</div><div></div><div></div><div></div></div><div><div>Head Ten</div><div></div><div></div><div></div></div><div><div>sion</div><div></div><div></div><div></div></div><div><div>TOOL_ZERO</div><div></div><div></div><div></div></div></div> <div>Lengths are in ft</div> <div>Maximum Outer Diameter = 4.472 in</div> <div>Line: Sensor Location, Value: Gating Offset</div> <div>All measurements are relative to TOOL_ZERO</div>		Toolstring ran as per tool sketch					
		Log Objective: Cement evaluation behind 7in casing					
		Top of log affected by lack of pressure					
		Main and repeat passes logged at 0psi, unable to pressure up due to cold weather					
		Bottom hole temperature 260F					
		Top of Cement at660ft					
		Correlated to dev tool at 6256-6258ftKB					

Depth Summary	
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Lengths are in ft

Maximum Outer Diameter = 4.472 in

Line: Sensor Location, Value: Gating Offset

All measurements are relative to TOOL_ZERO

Depth Summary		Run 1							
Depth Measuring Device									
Type	IDW-JA								
Serial Number	5896								
Calibration Date	13-Aug-2014								
Calibrator Serial Number									
Calibration Cable Type	7-39 PLXS								
Wheel Correction 1	-3								
Wheel Correction 2	-2								
Tension Device									
Type	CMTD-B/A								
Serial Number	1109								
Calibration Date	26-Dec-2014								
Calibrator Serial Number	441345A								
Number of Calibration Points	10								
Calibration Root Mean Square Error	5								
Calibration Peak Error	8								
Logging Cable									
Type	7-46NT-XS								
Serial Number									
Length	24000.00 ft								
Conveyance Type	Wireline								
Rig Type	Workover Rig								
Run 1:Depth Control Parameters				Depth Control Remarks					
Log Sequence	First Log In the Well			All Schlumberger depth control procedures followed					
Rig Up Length At Surface				IDW used for primary depth control					
Rig Up Length At Bottom				Z-Chart used for secondary depth control					
Rig Up Length Correction									
Stretch Correction									
Tool Zero Check At Surface									
USIT - Fluid Properties Measurement									
Run Name		Pass Name		Start Depth(ft)		Stop Depth(ft)			
Fluid Velocity									
Start Depth(ft)		Stop Depth(ft)		Start Value(us/ft)		End Value(us/ft)			
Mud Impedance									
Start Depth(ft)		Stop Depth(ft)		Start Value(Mrayl)		End Value(Mrayl)			
Composite 1									
IBC Casing Integrity									
Software Version									
Acquisition System				Version					
MaxWell				4.0.9163.3000					
Application Patch				Patch-SP-10767_26570-4.0.9163.3001					
Computation		Description				Version			
LocalComputation		Local Computation Ensemble provides local computation parameter				4.0.9469.3000			
Tool Elements		Description		Software Version		Firmware Version			
USI-SENSOR		USIT Transducer Element		4.0.9558.3000		DSP: v01.82			
EDTC-B		Enhanced Digital Telemetry Cartridge - B		4.0.9469.3000					
Composite Summary									
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data

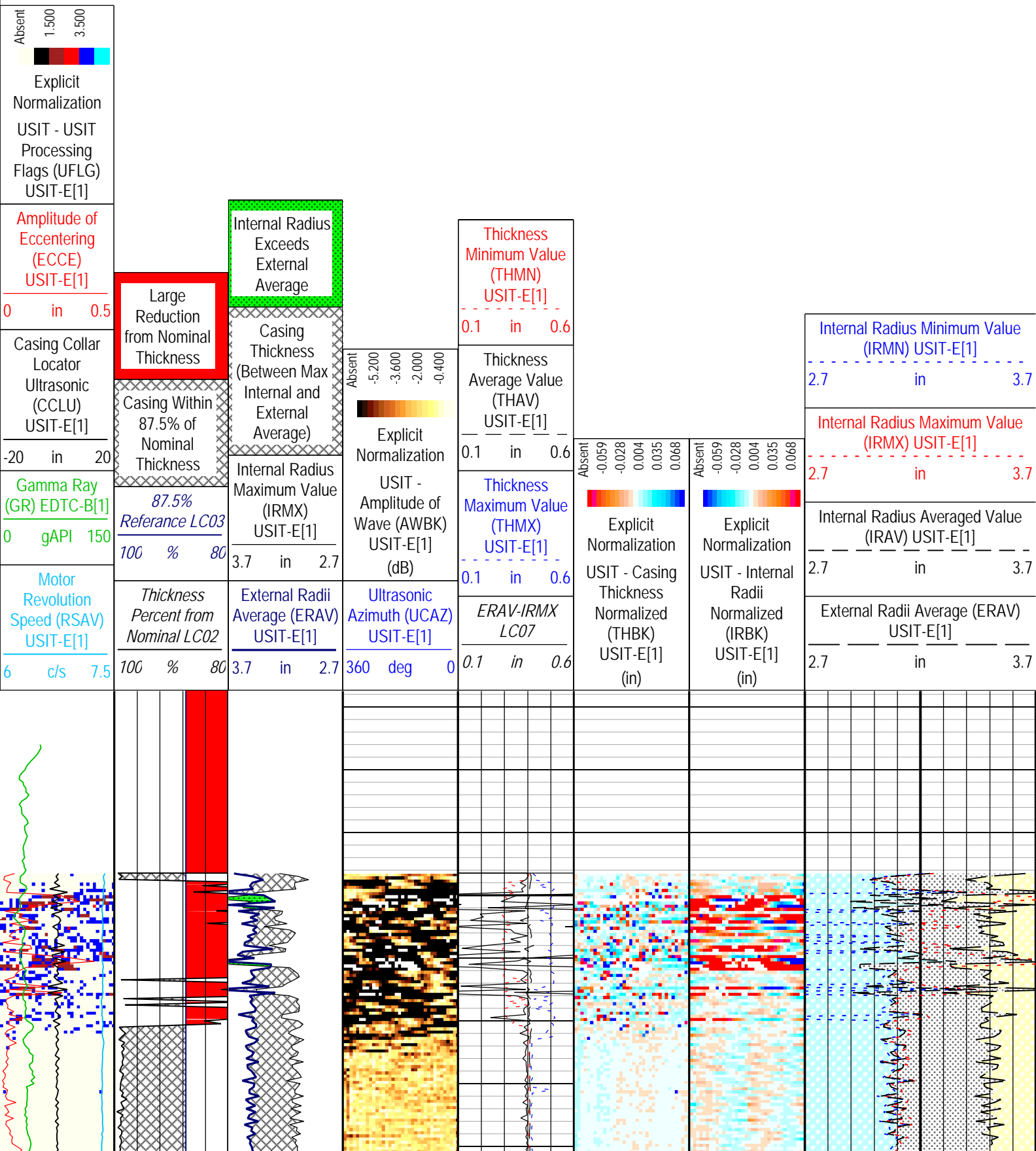
Run 1	Log[8]:Up	Up	7936.42 ft	8148.25 ft	27-Dec-2014 10:37:45 AM	27-Dec-2014 10:56:45 AM	ON	-16.10 ft	Yes
Run 1	Log[9]:Up	Up	47.36 ft	7984.54 ft	27-Dec-2014 11:02:55 AM	27-Dec-2014 2:36:31 PM	ON	-16.10 ft	Yes

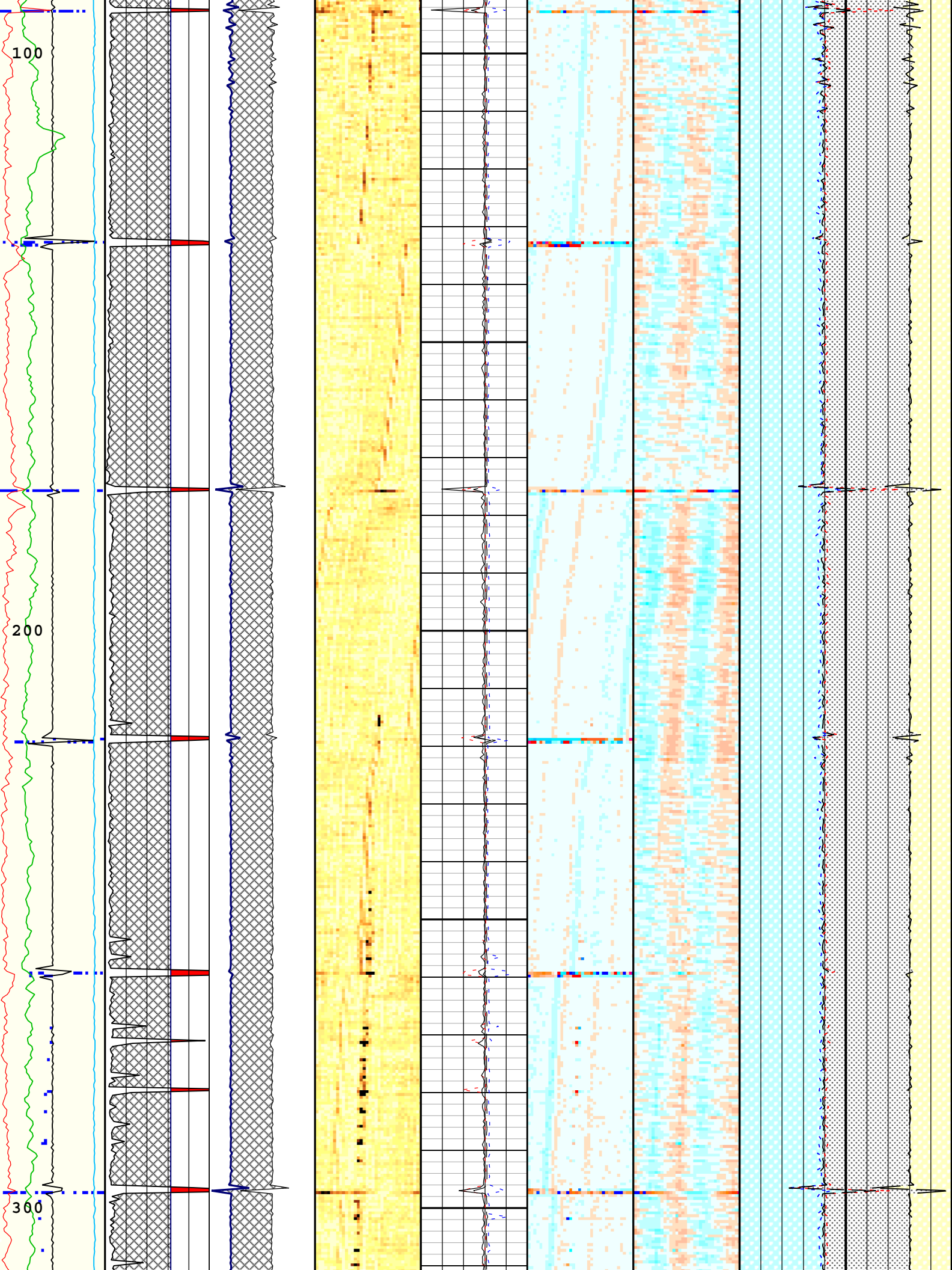
All depths are referenced to toolstring zero

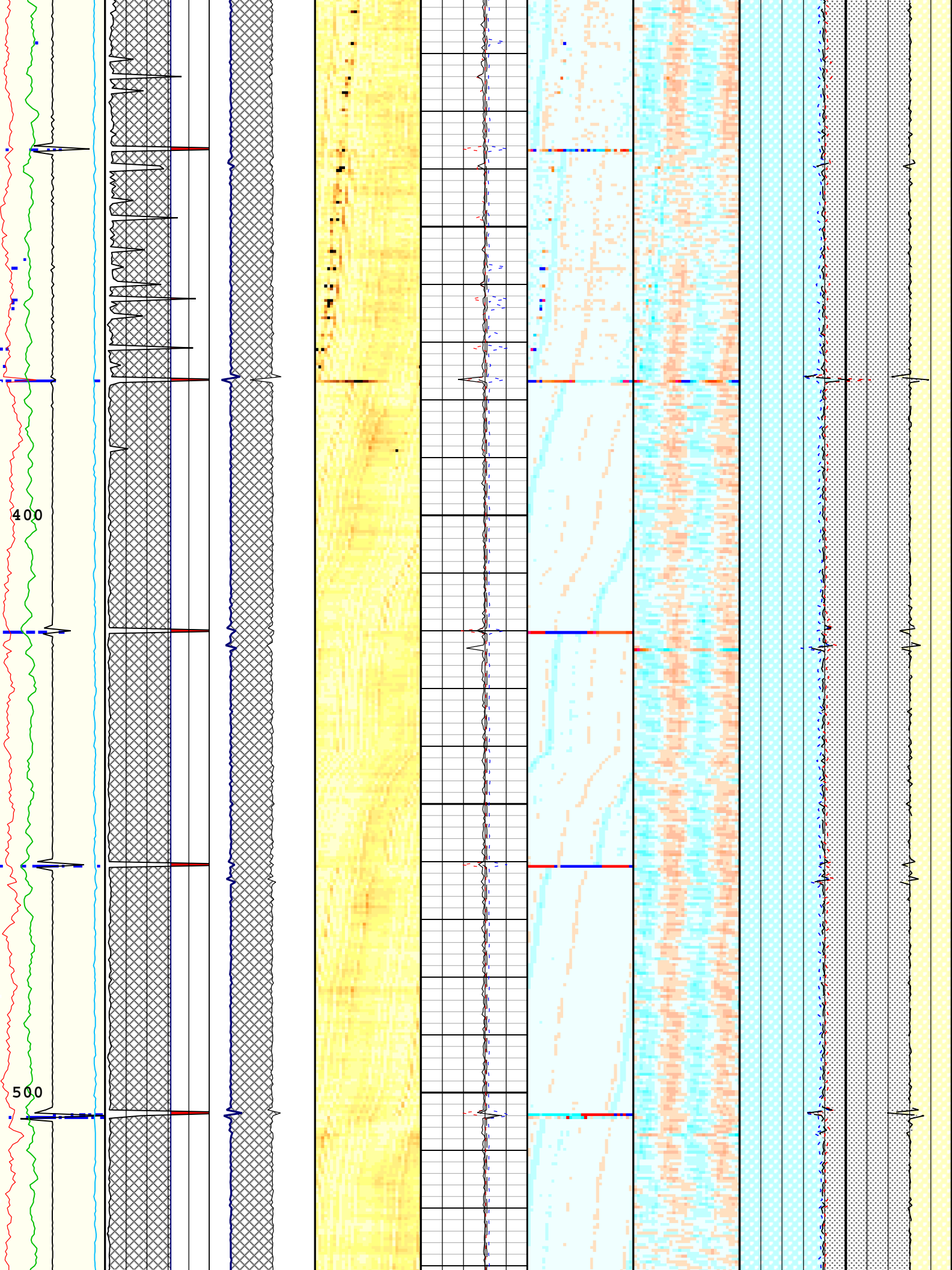
Log	Company:Whiting Oil Gas Corp	Well:Horsetail 19N 1924M
		Composite 1:S005

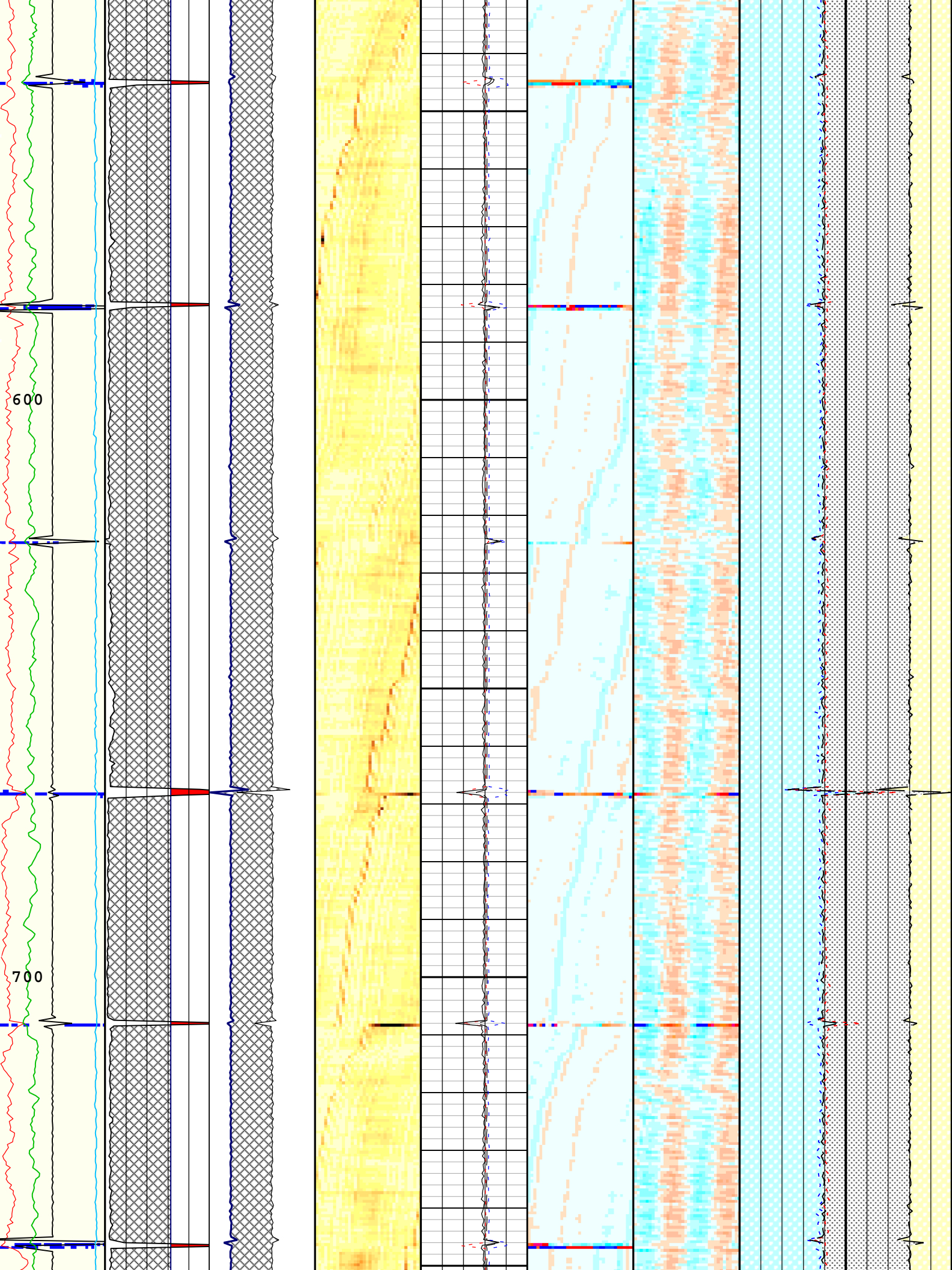
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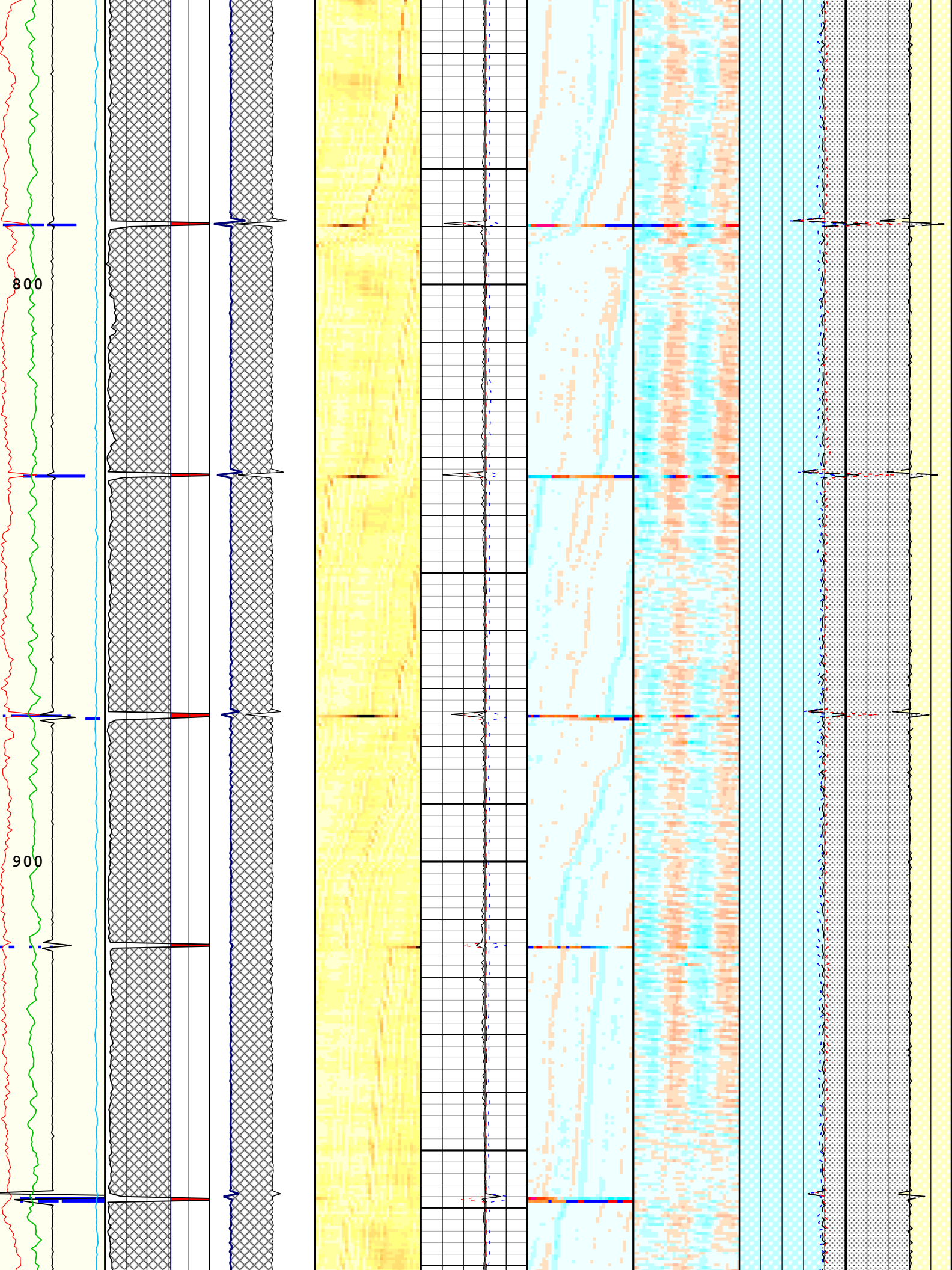
TIME_1900 - Time Marked every 60.00 (s)

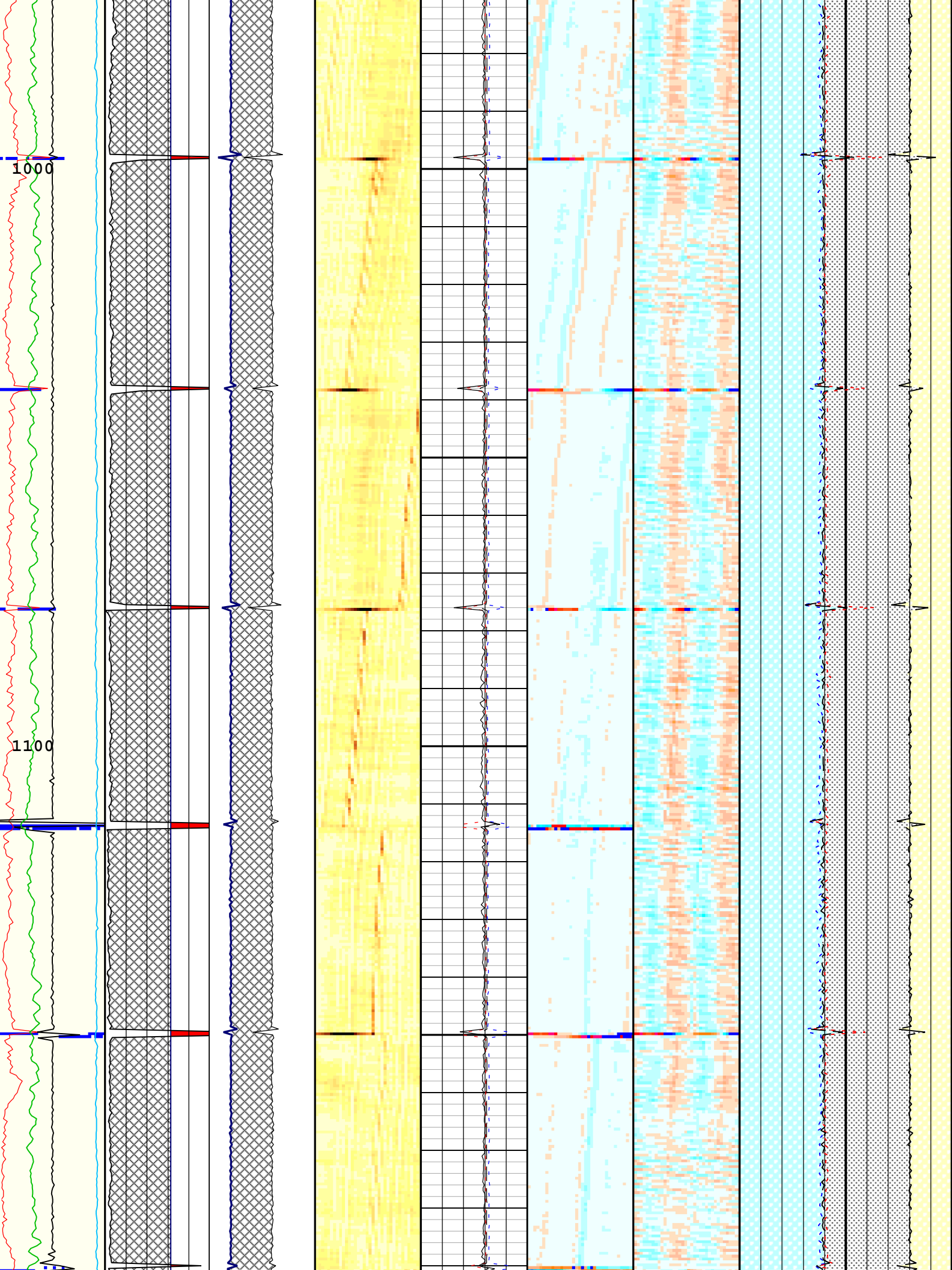


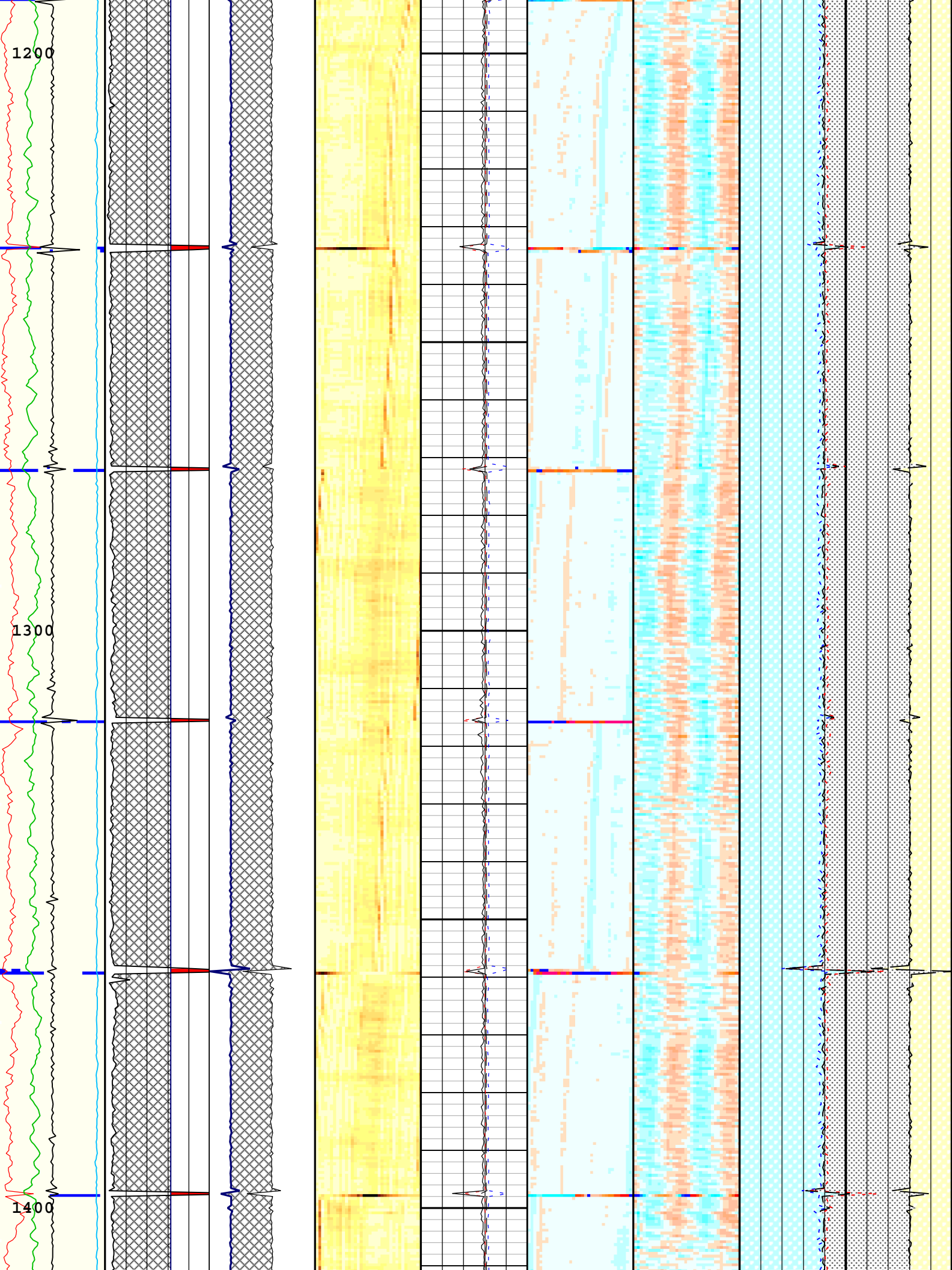


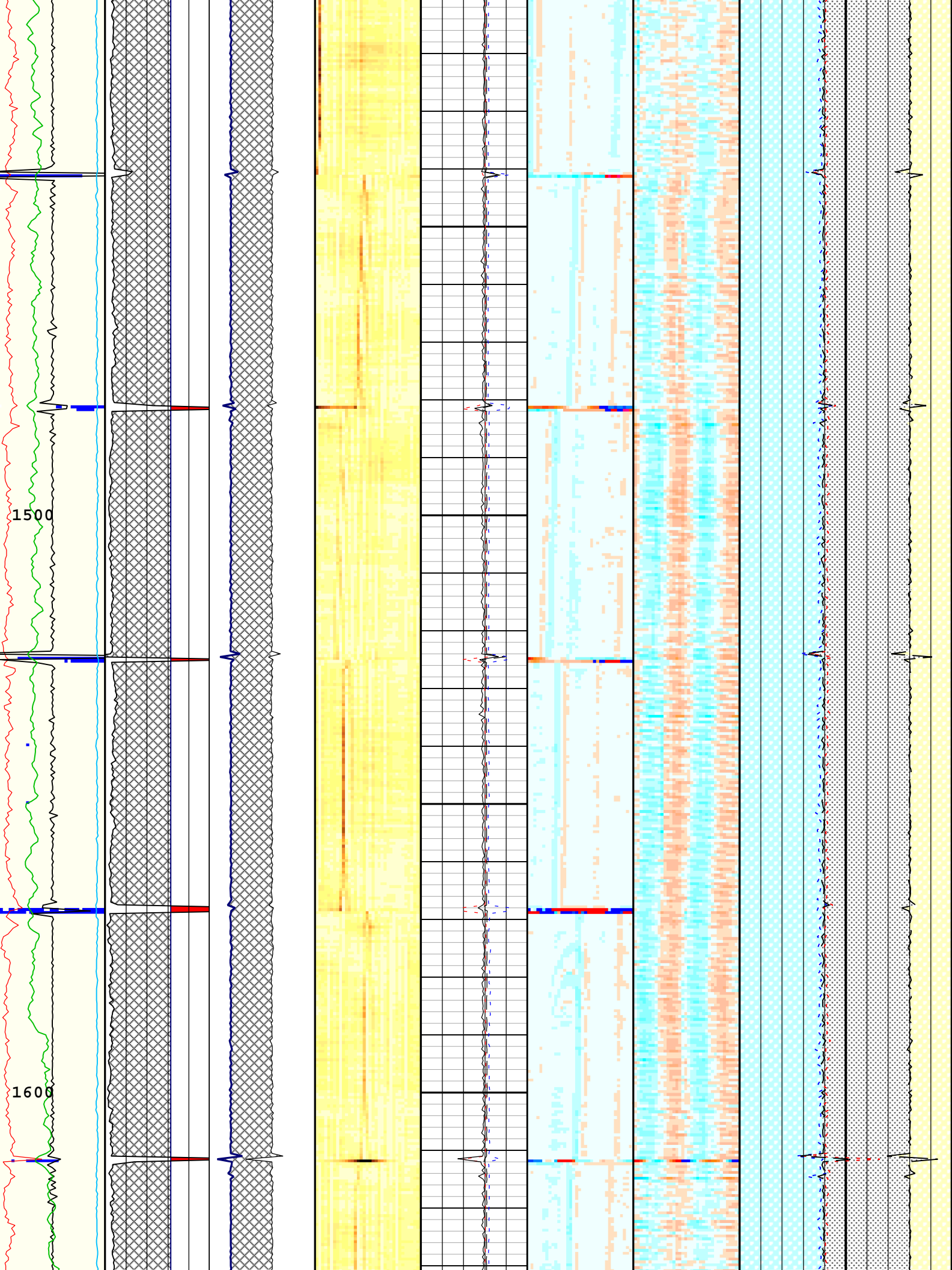


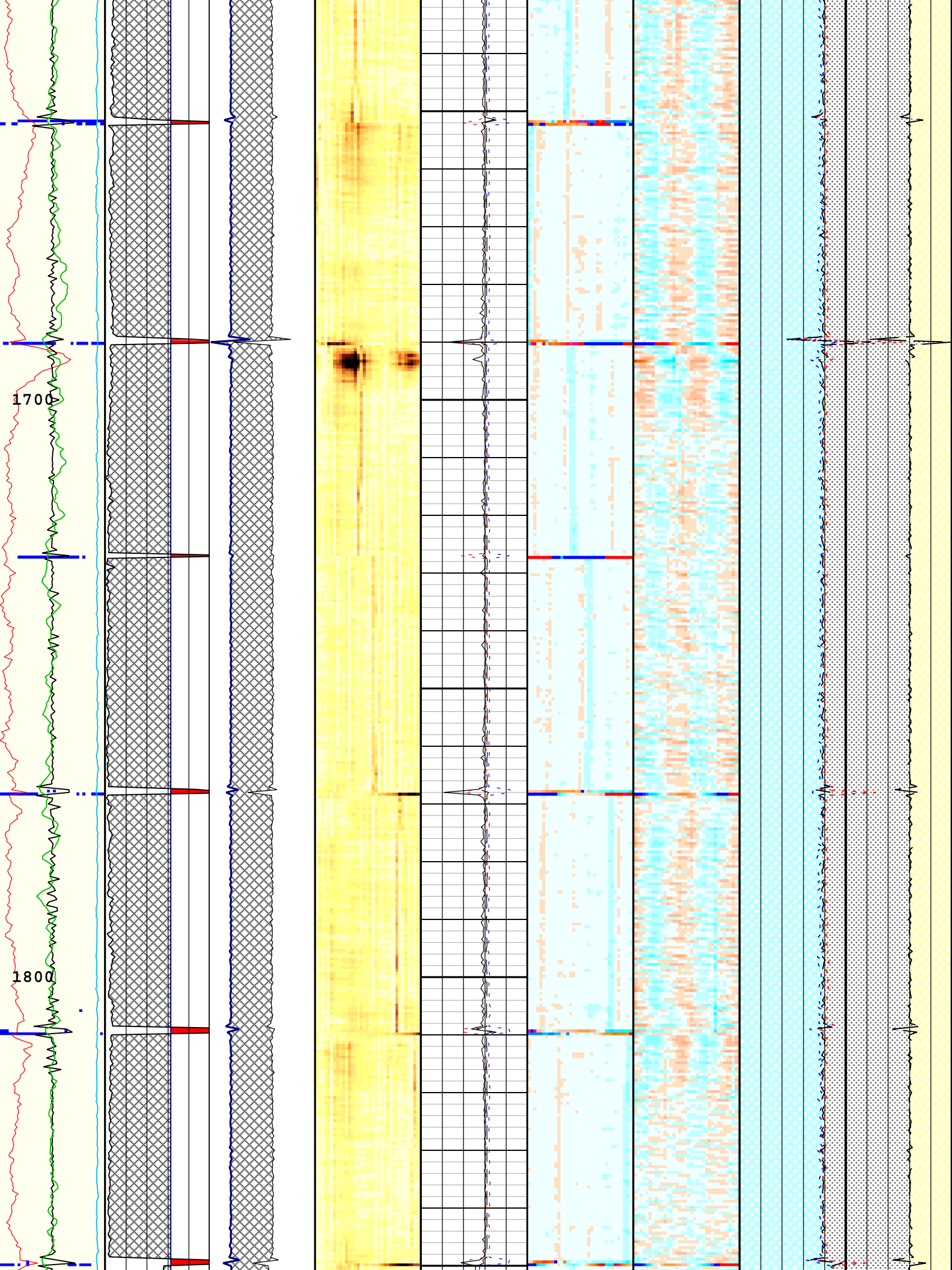


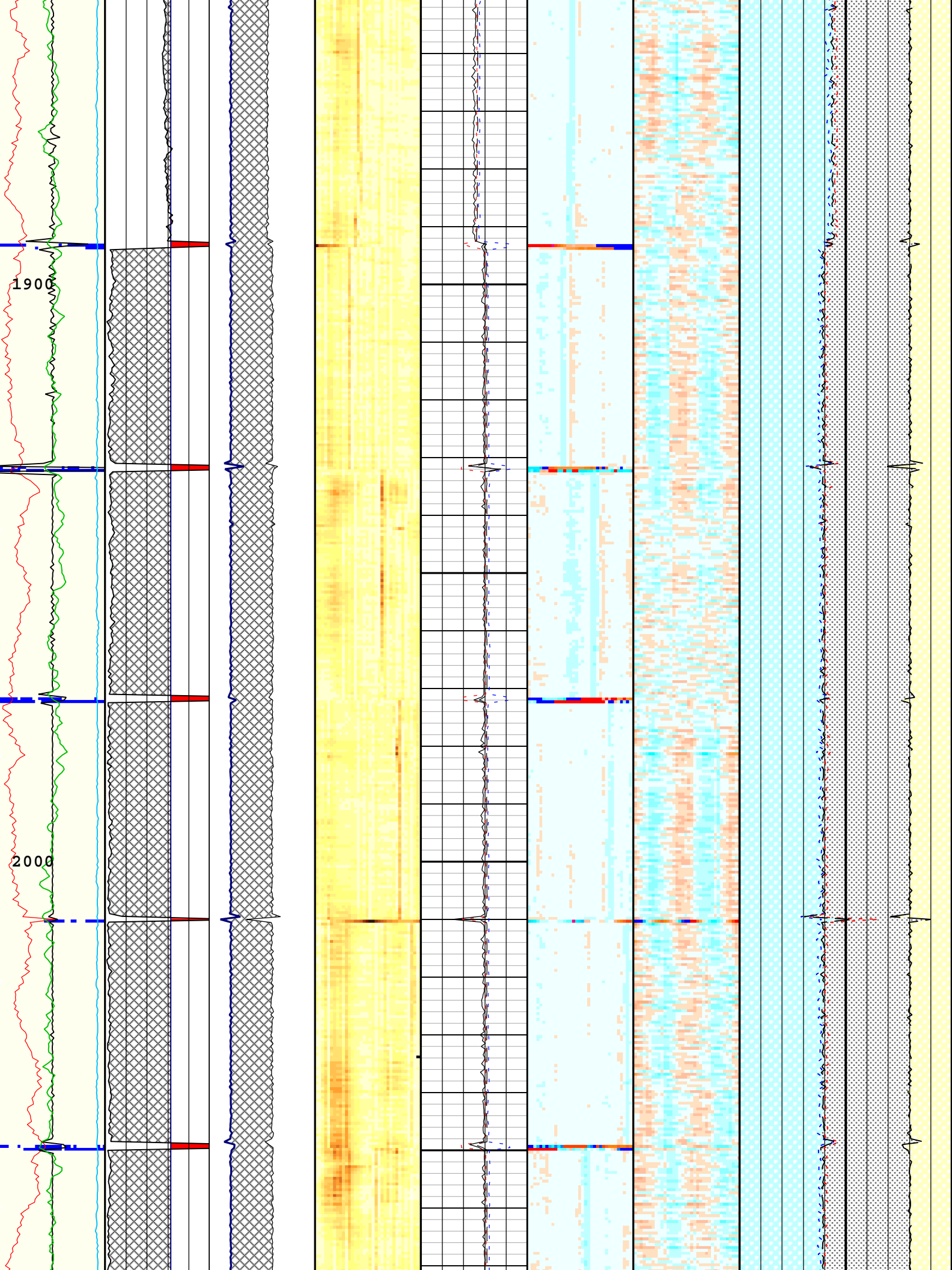


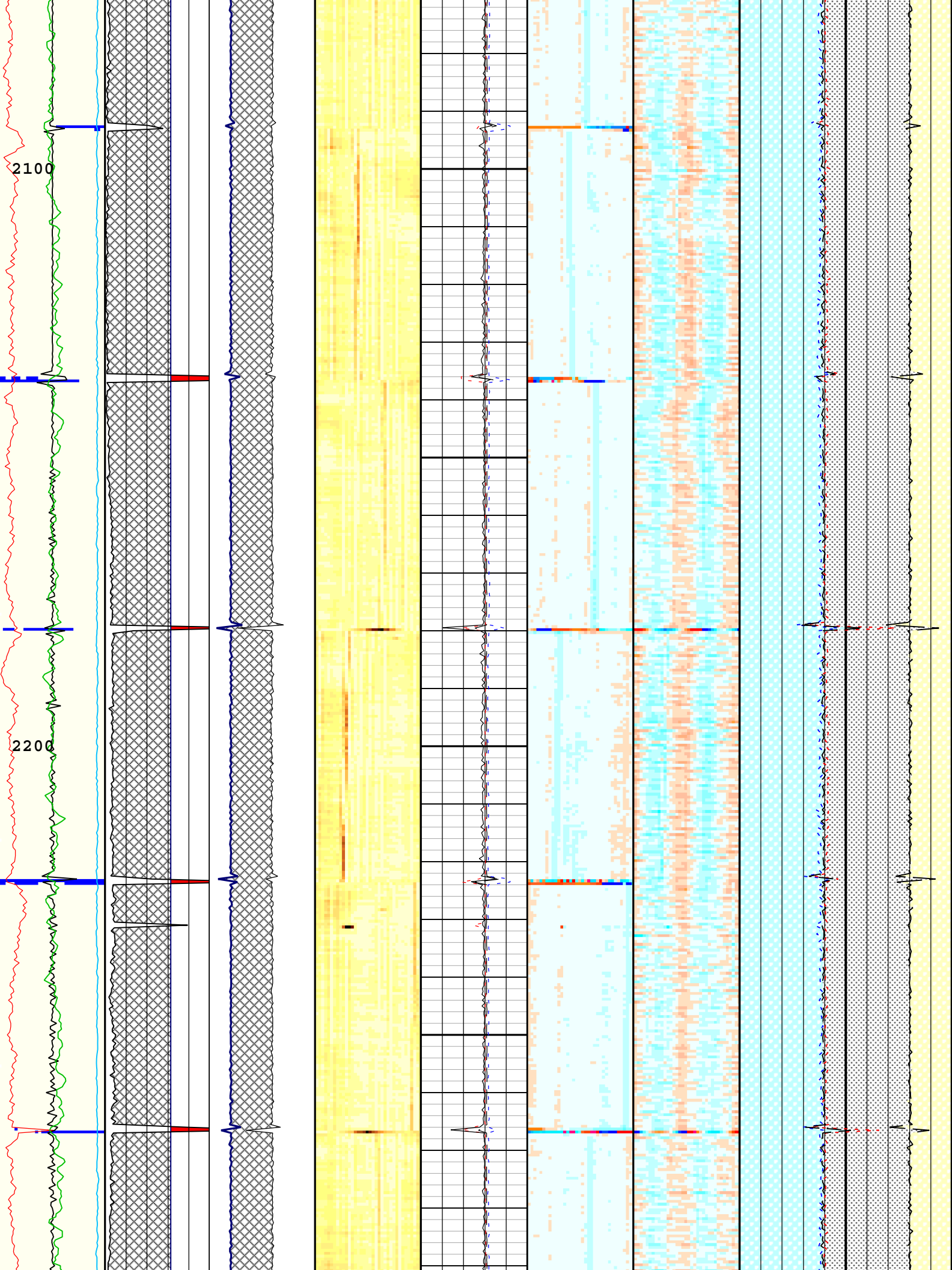


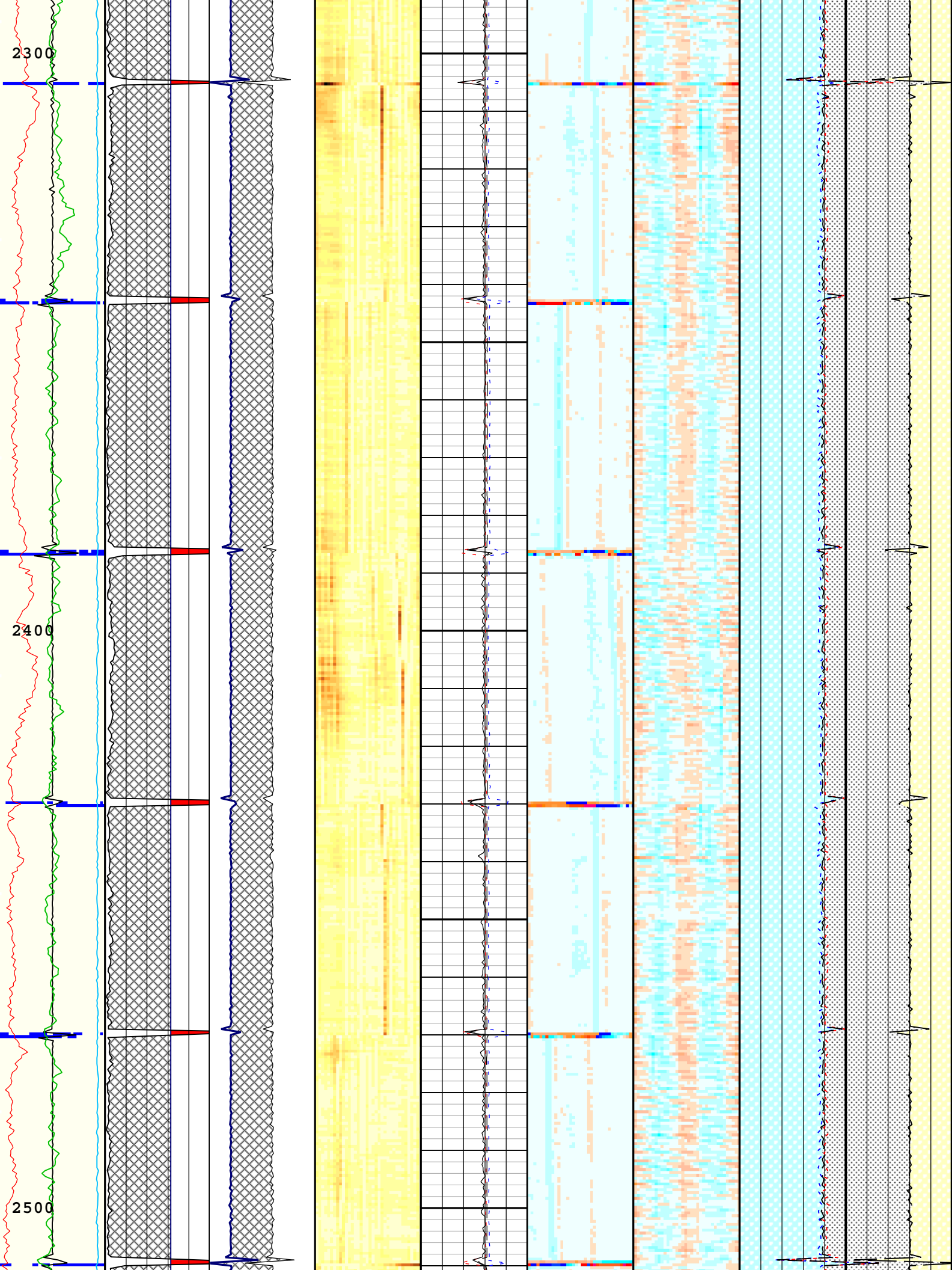


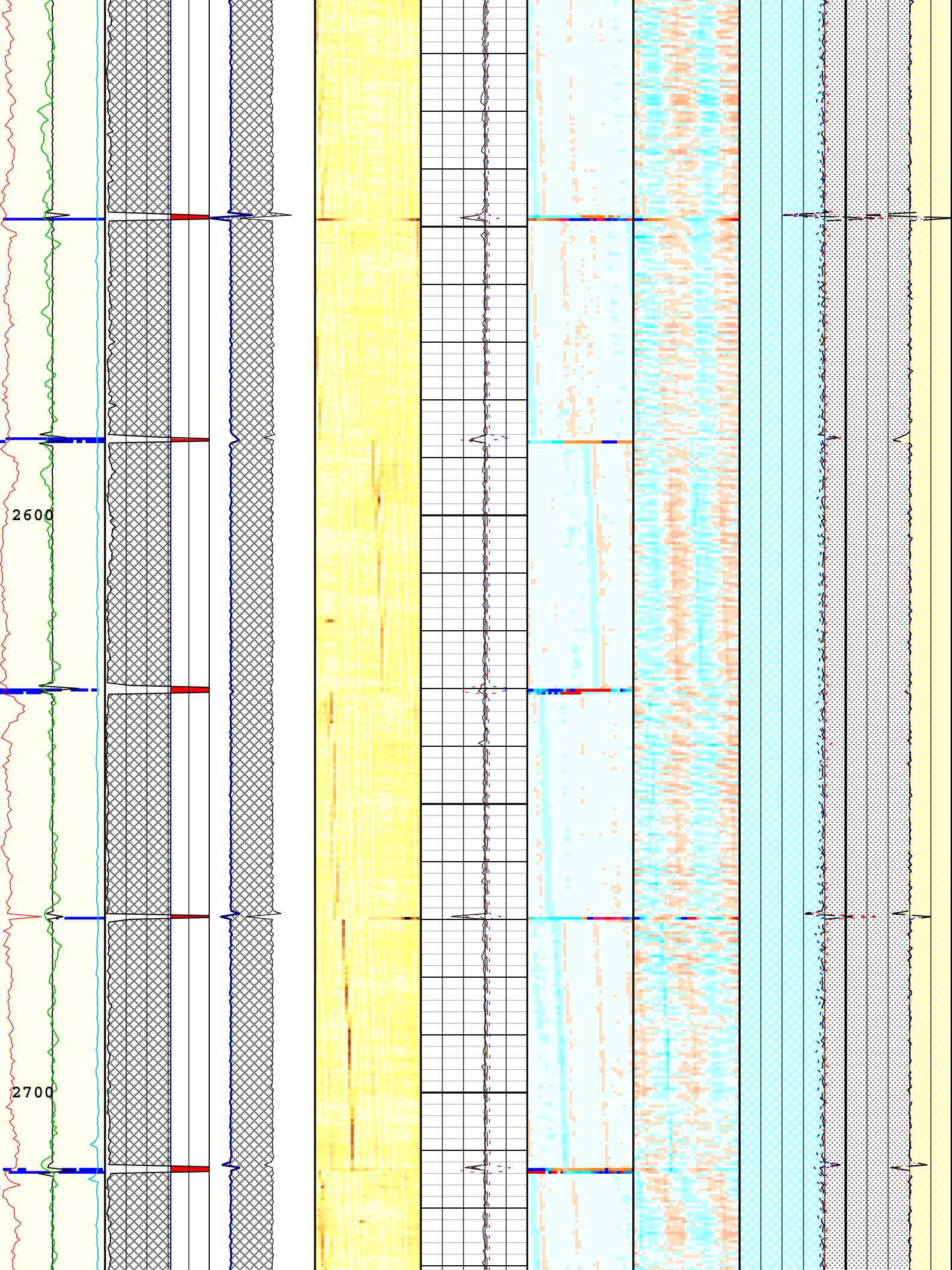


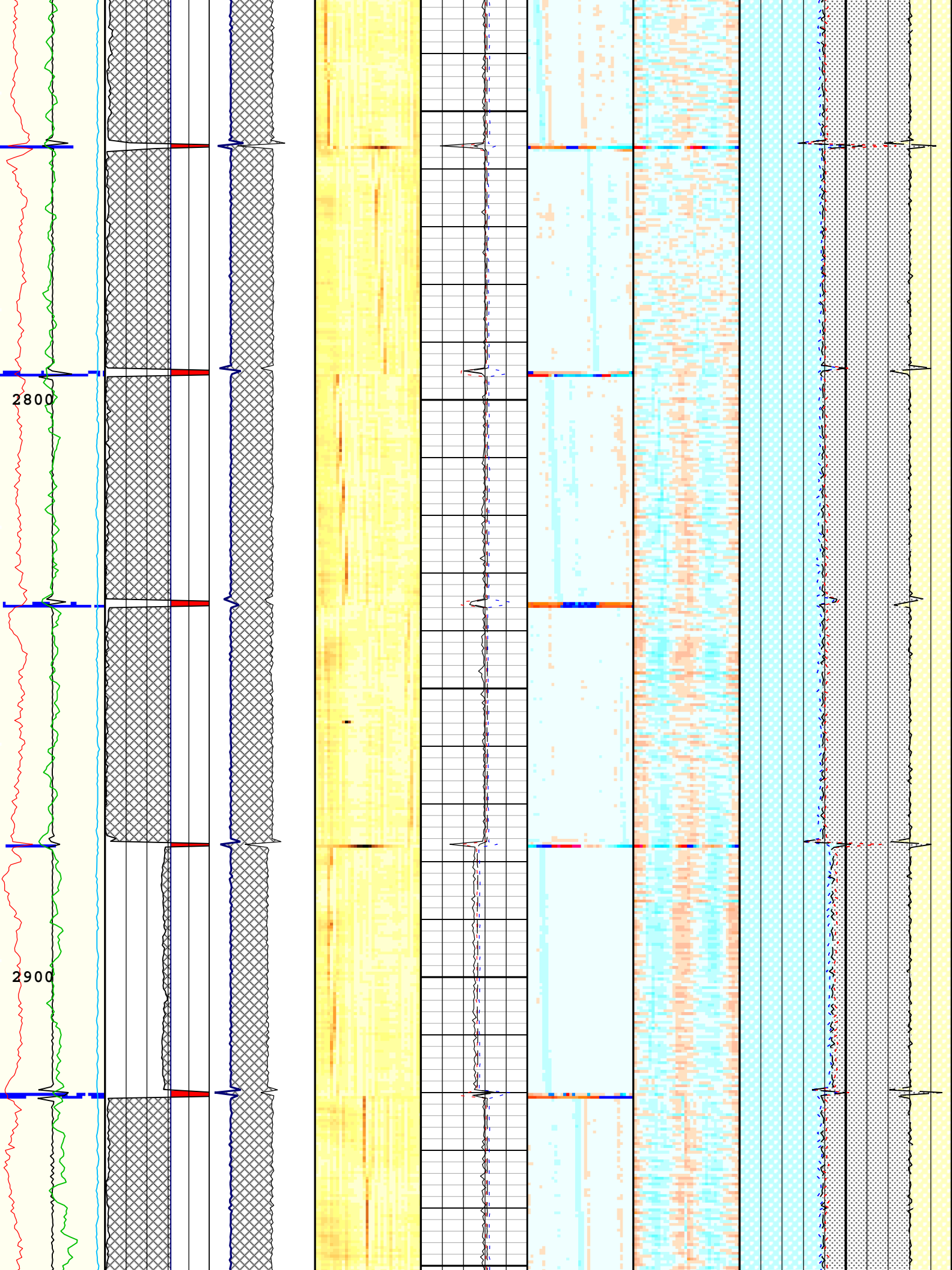


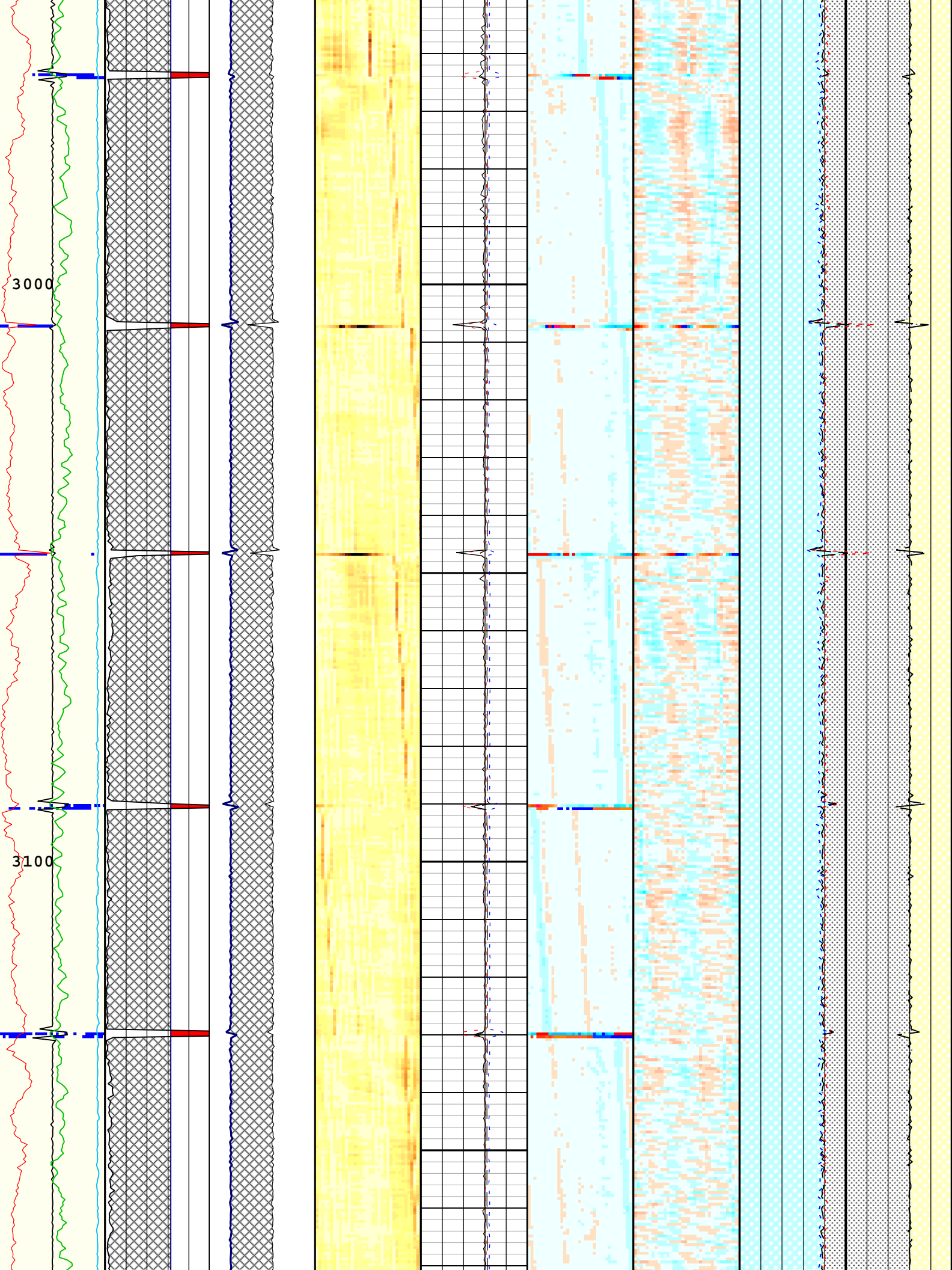


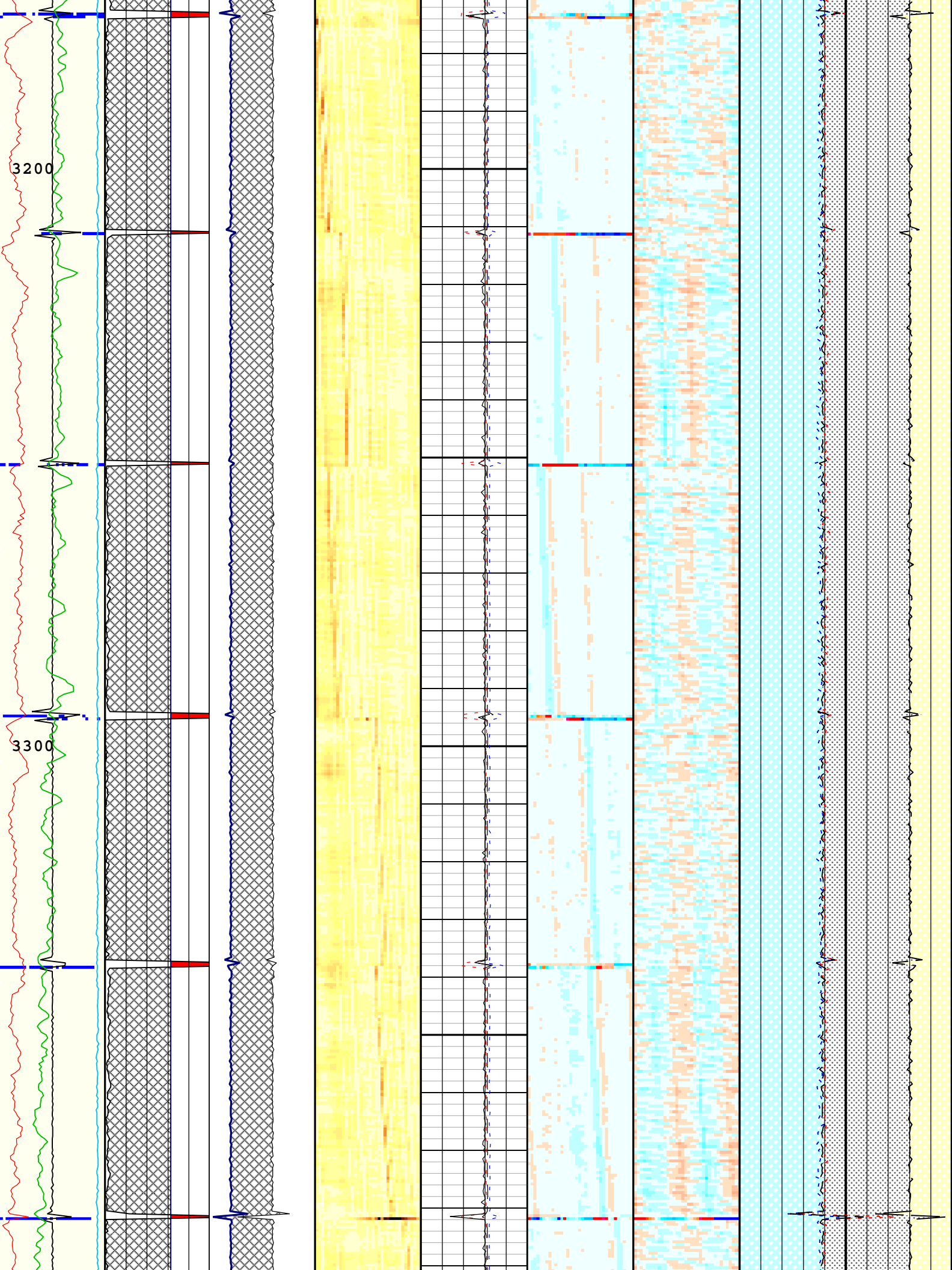


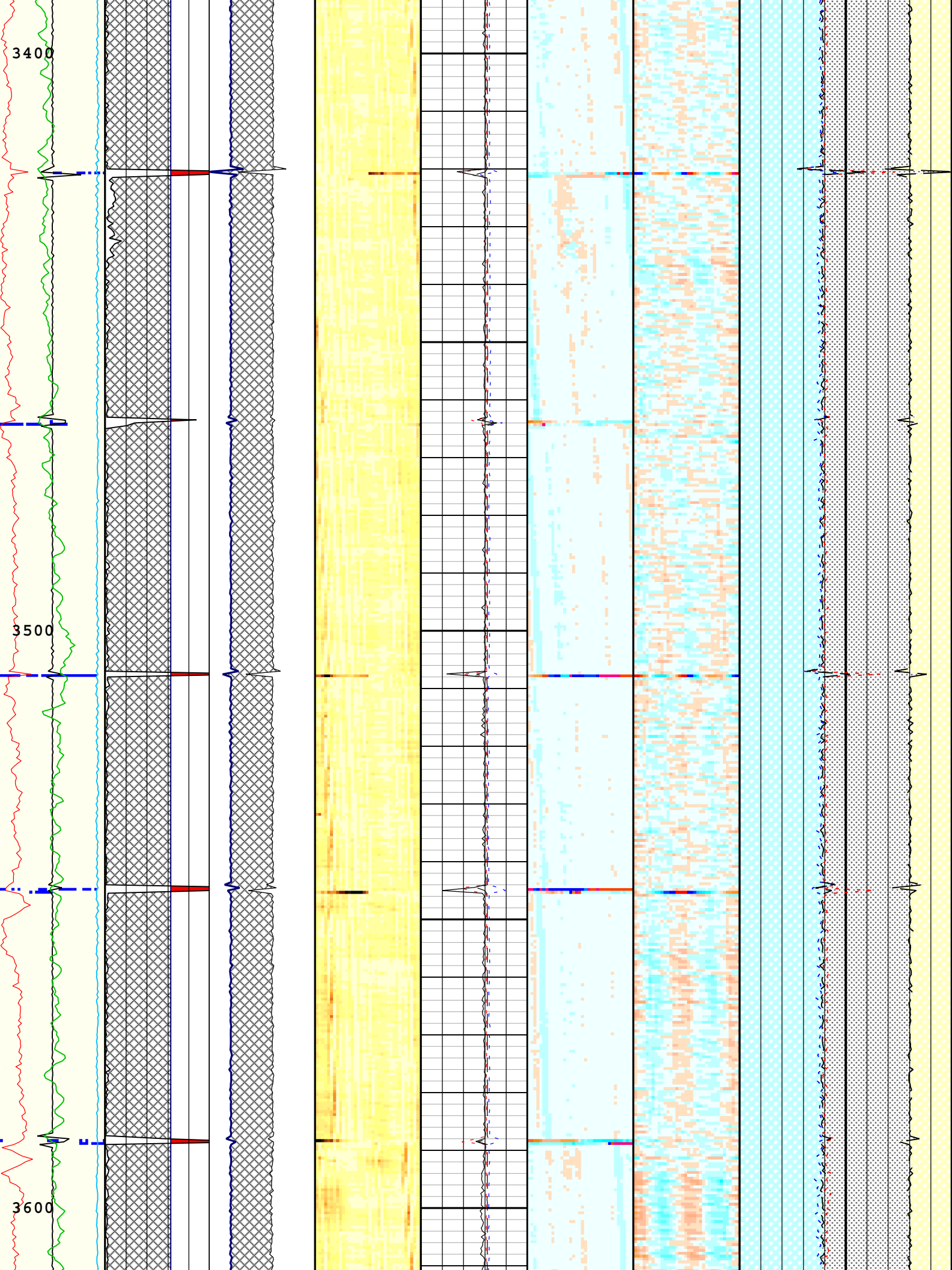


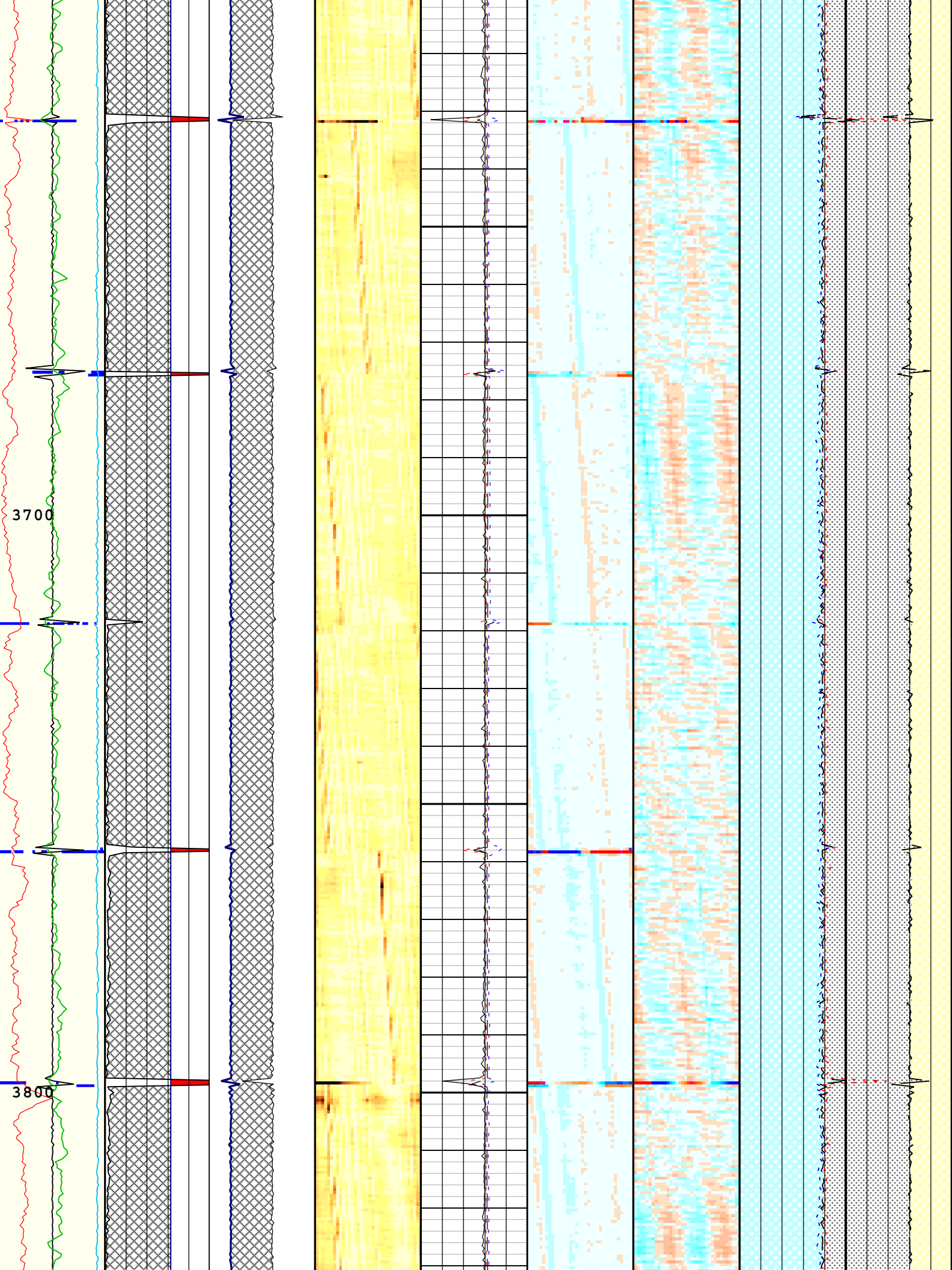


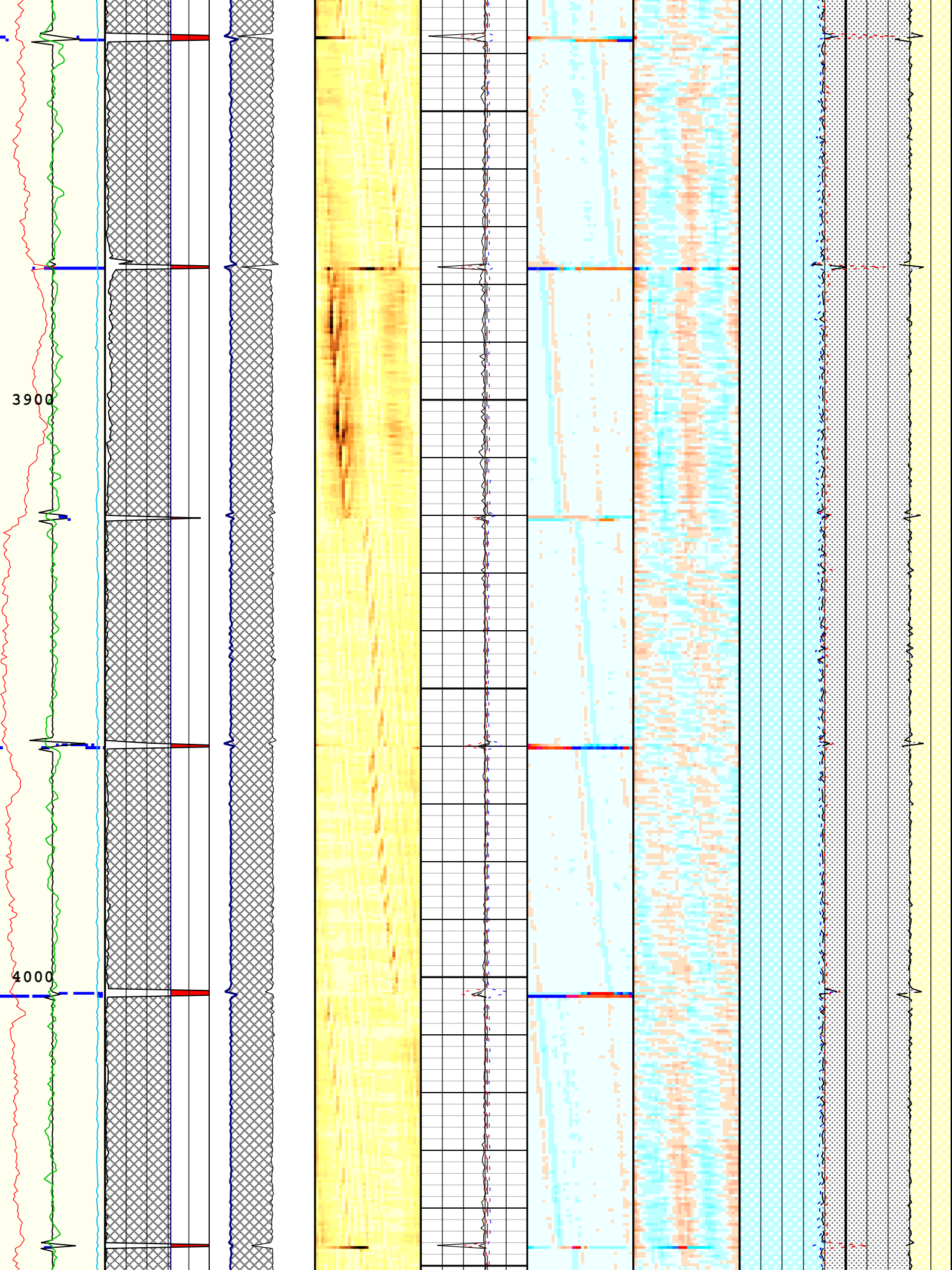


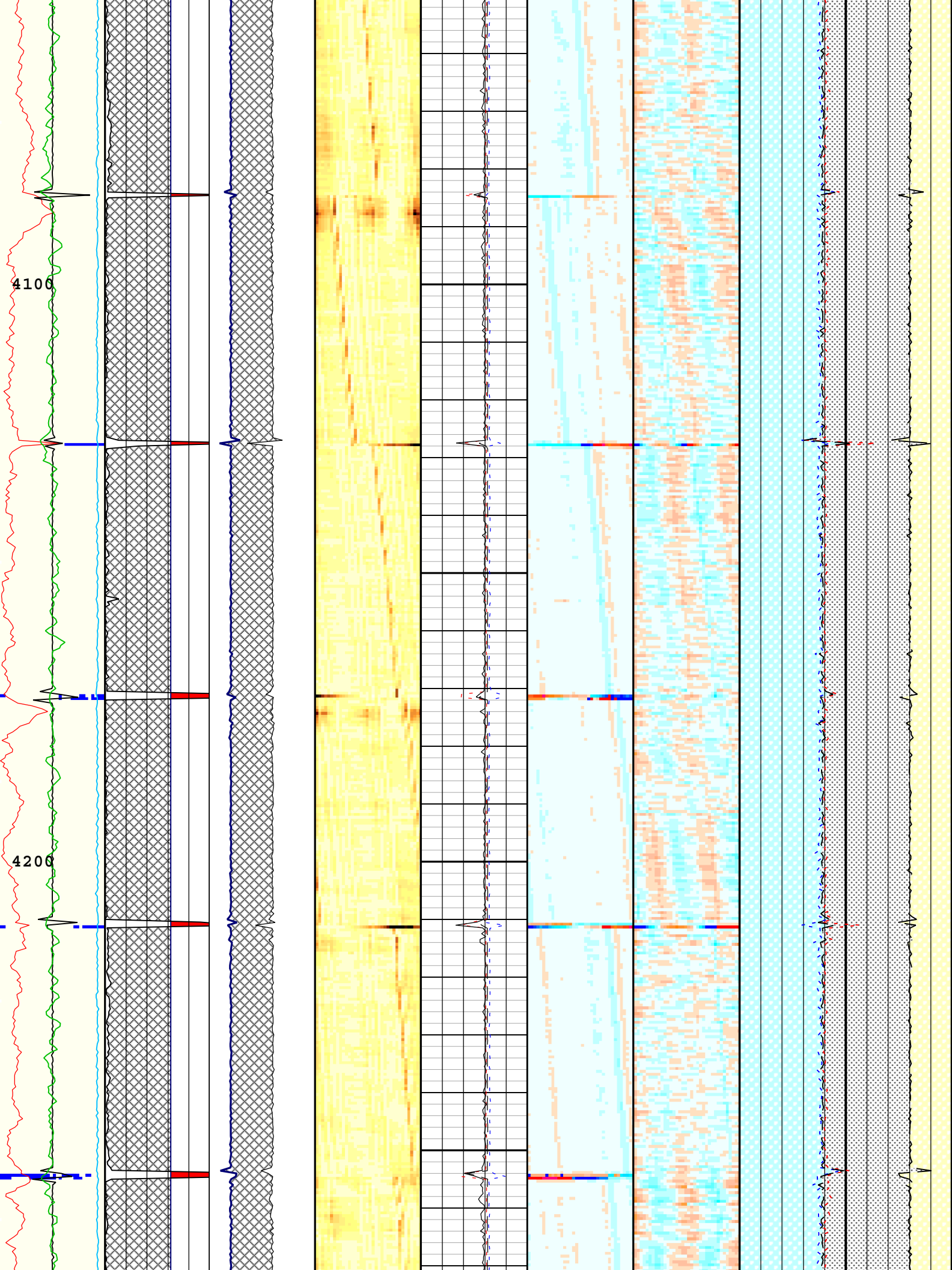


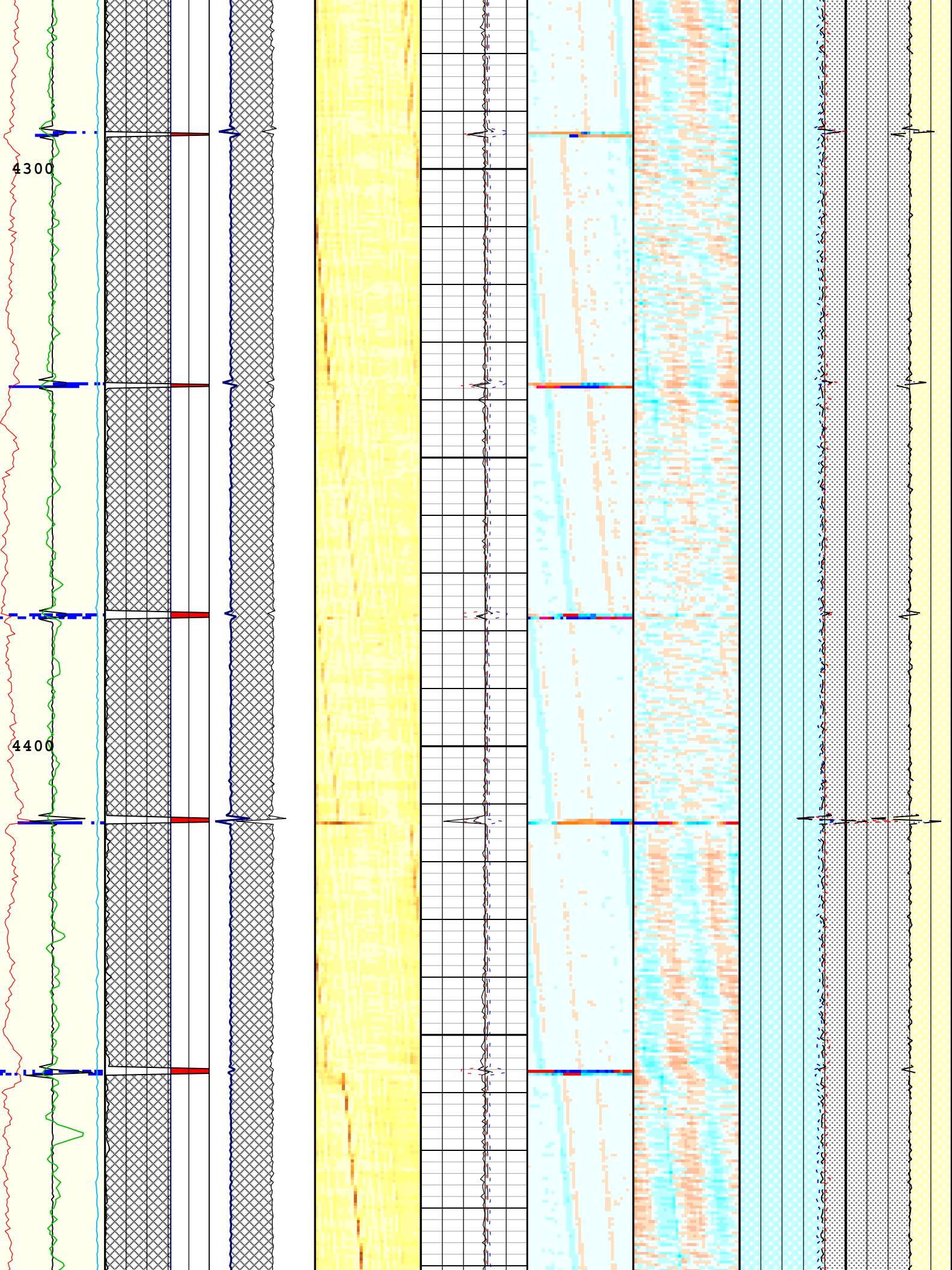


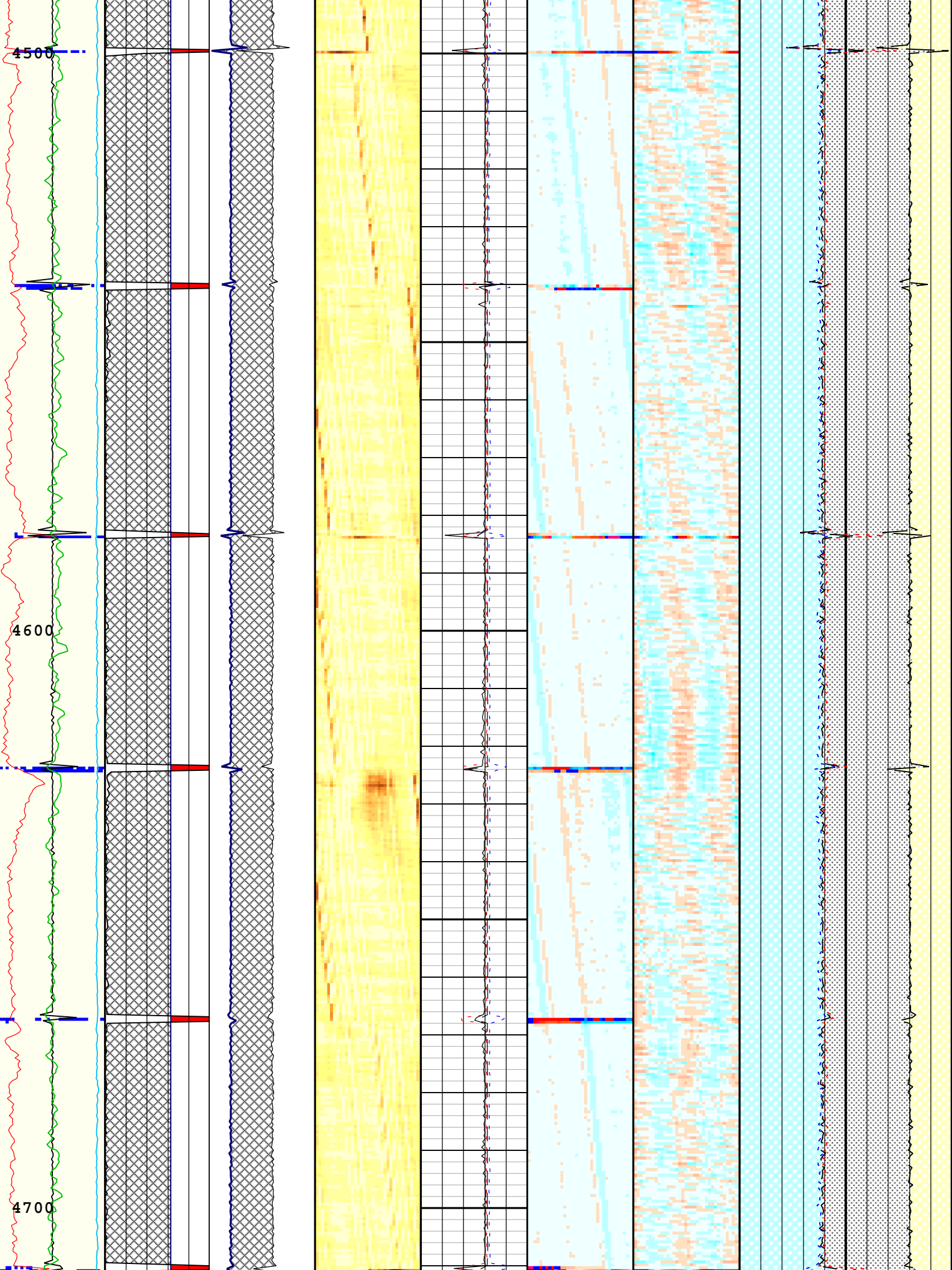


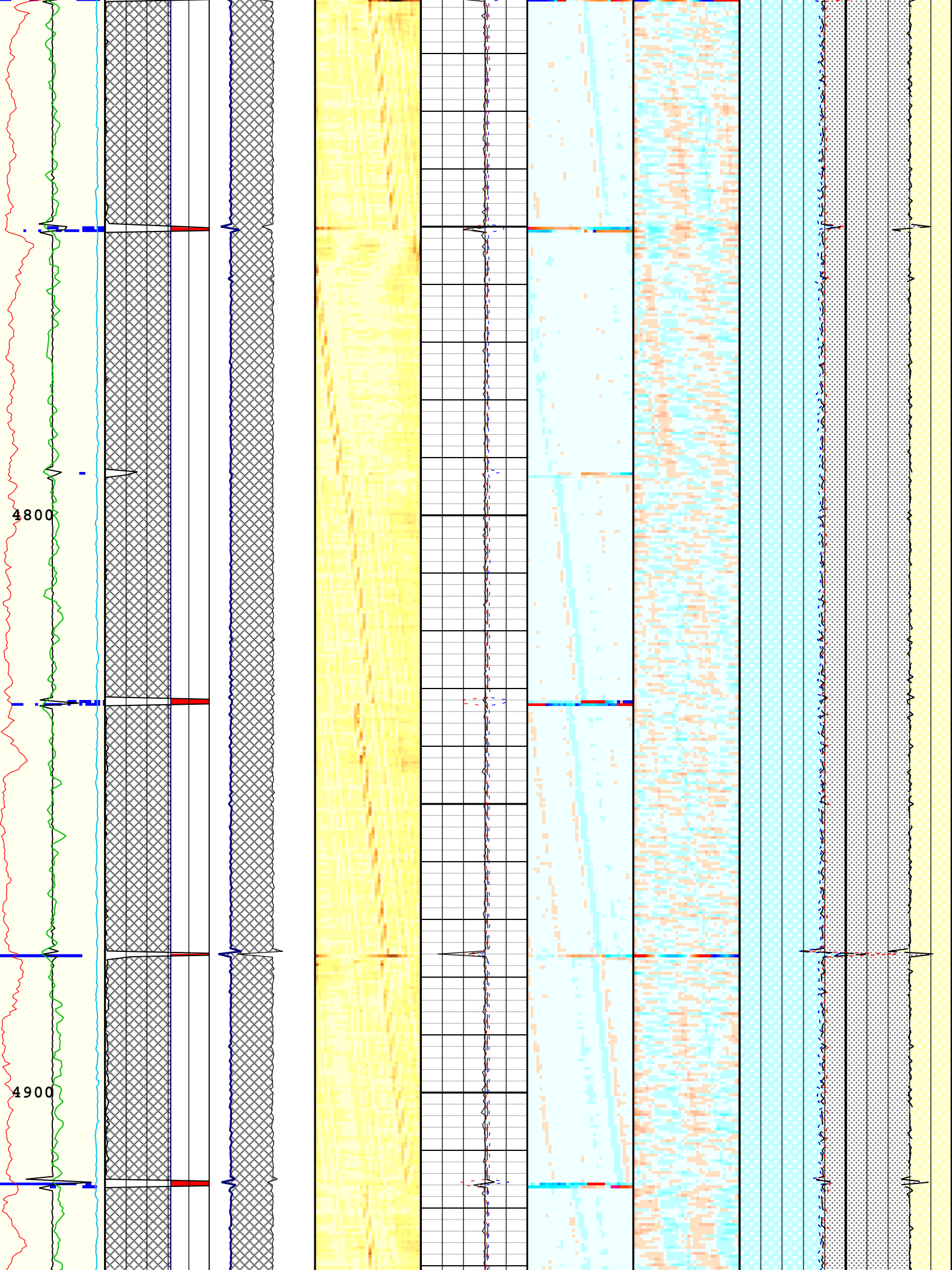


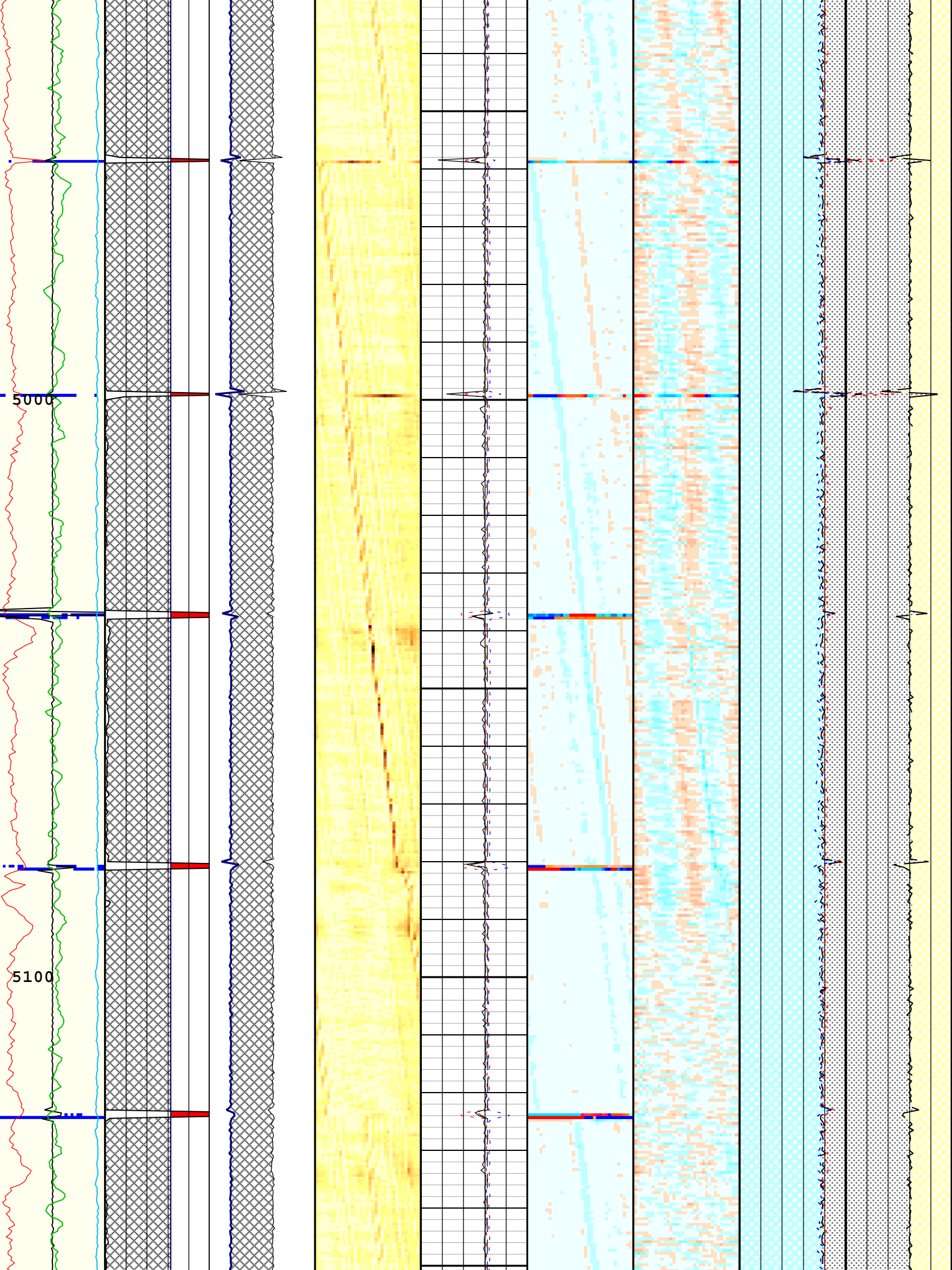


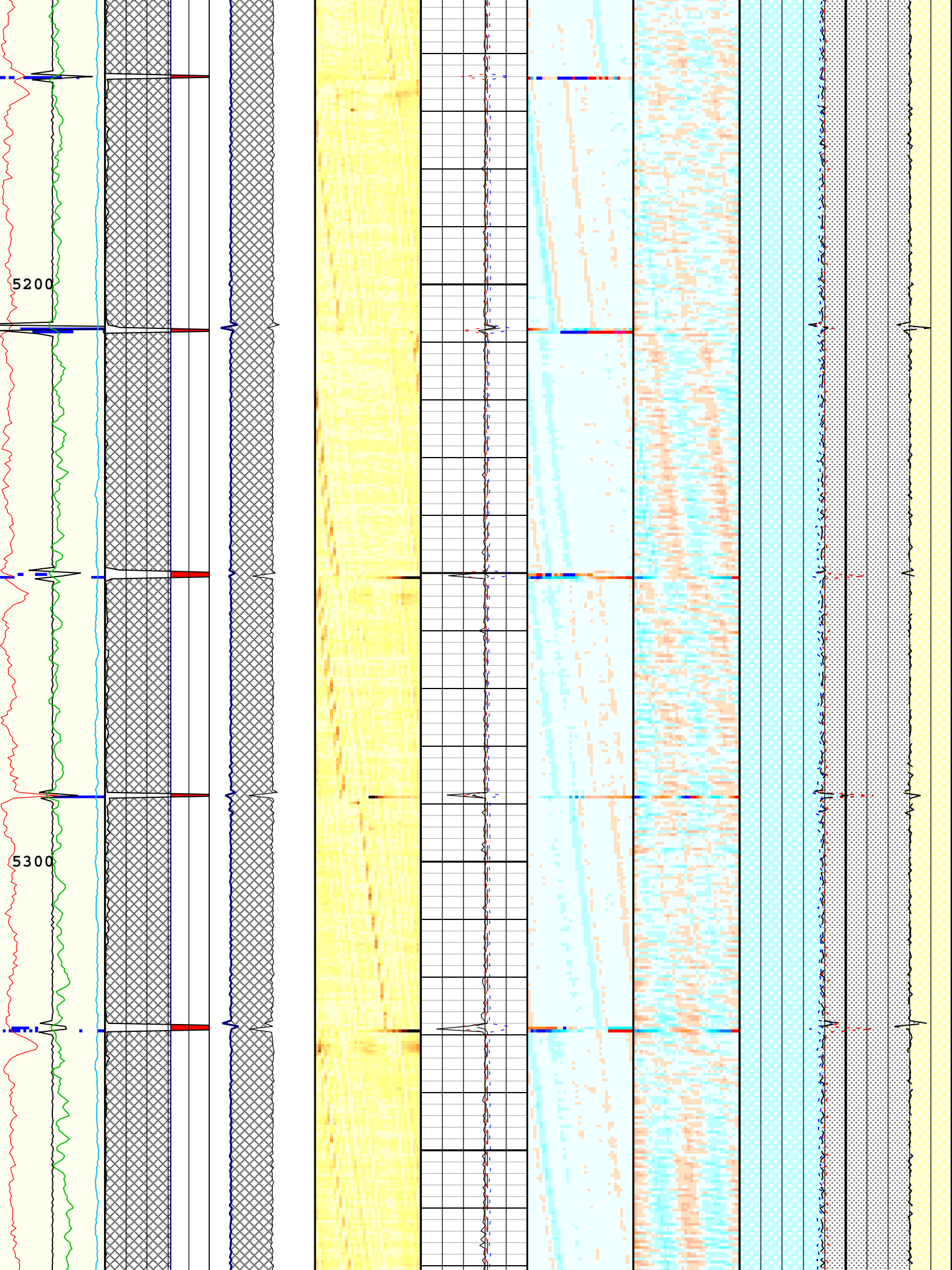


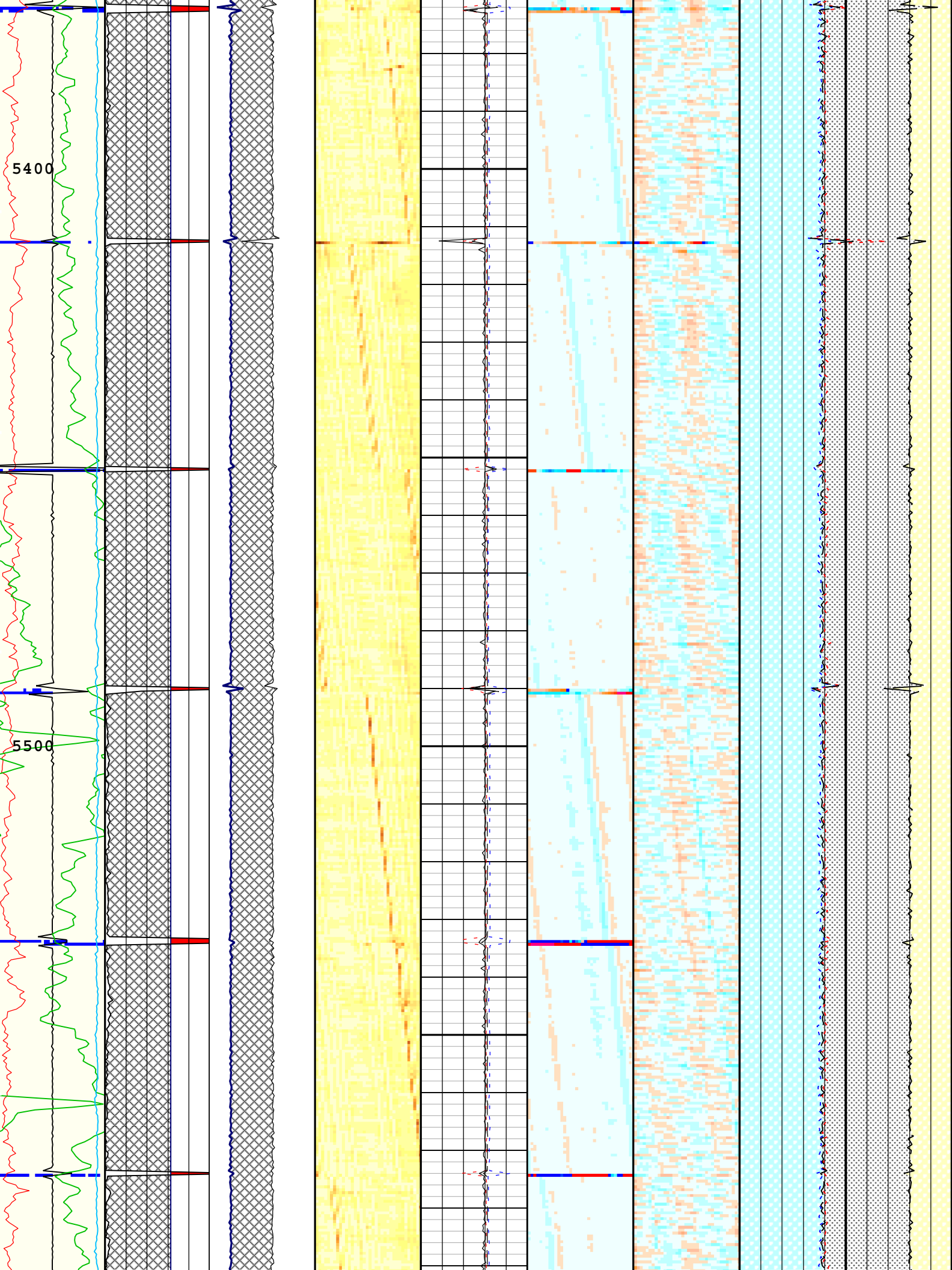


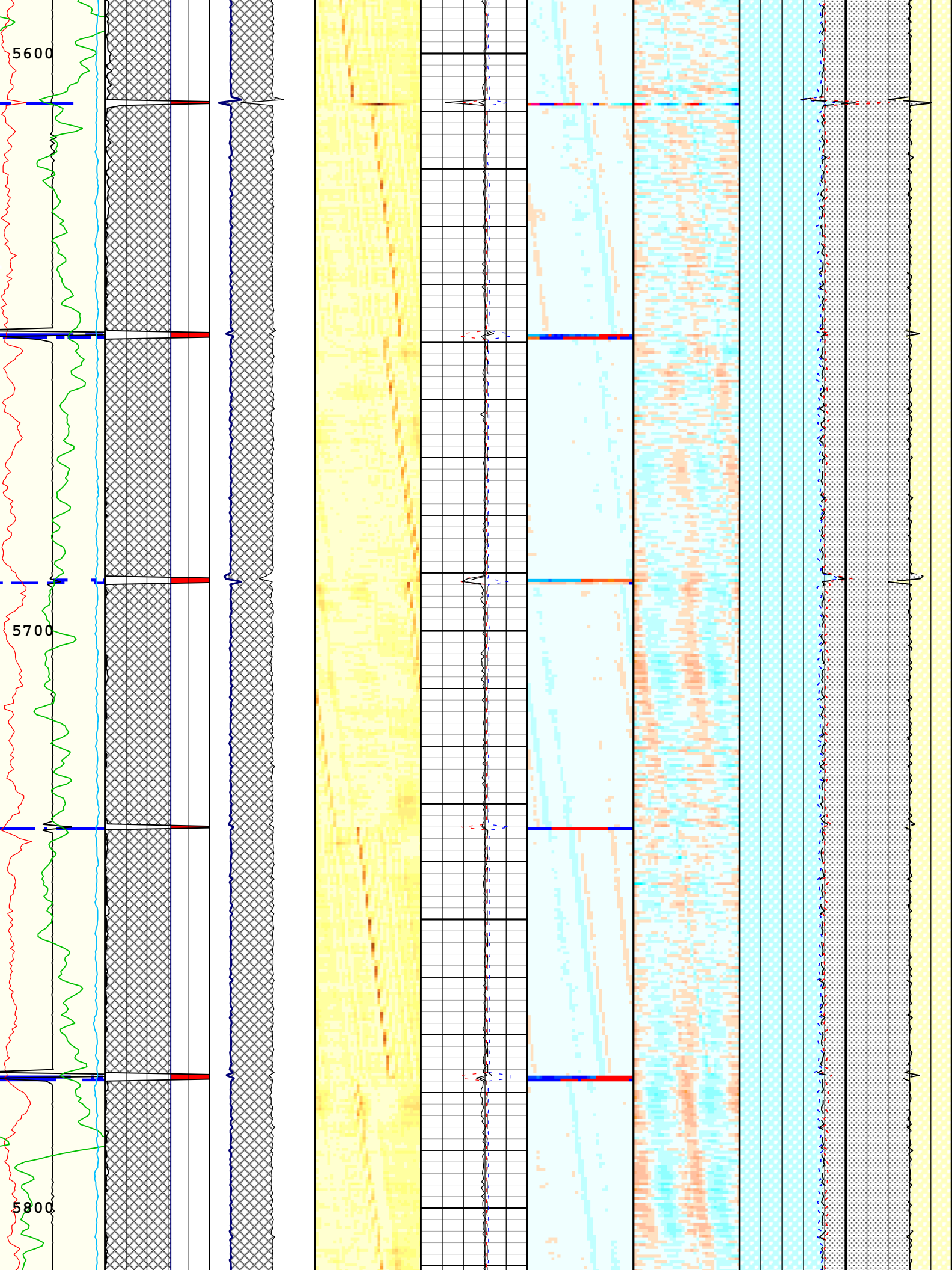


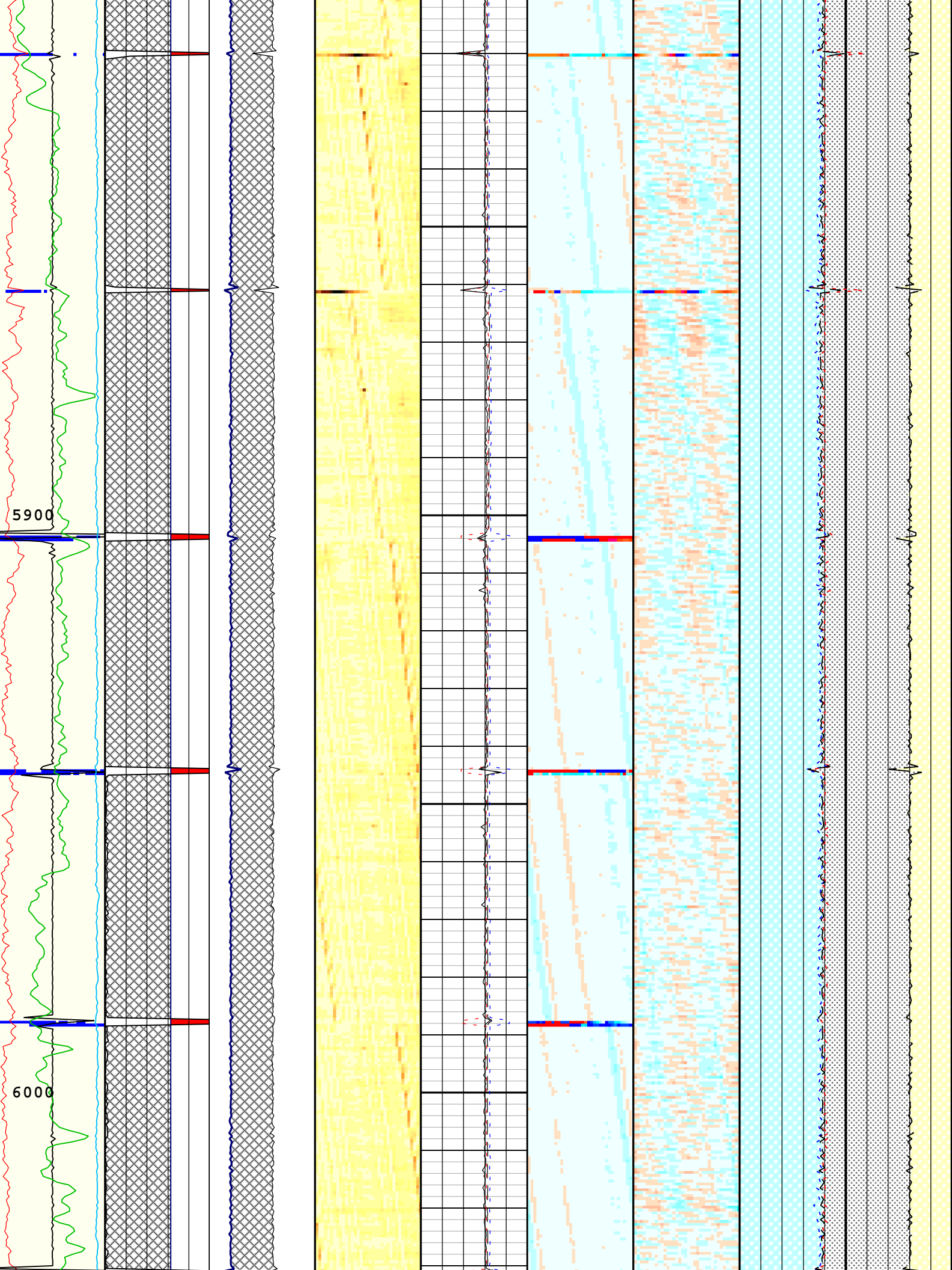


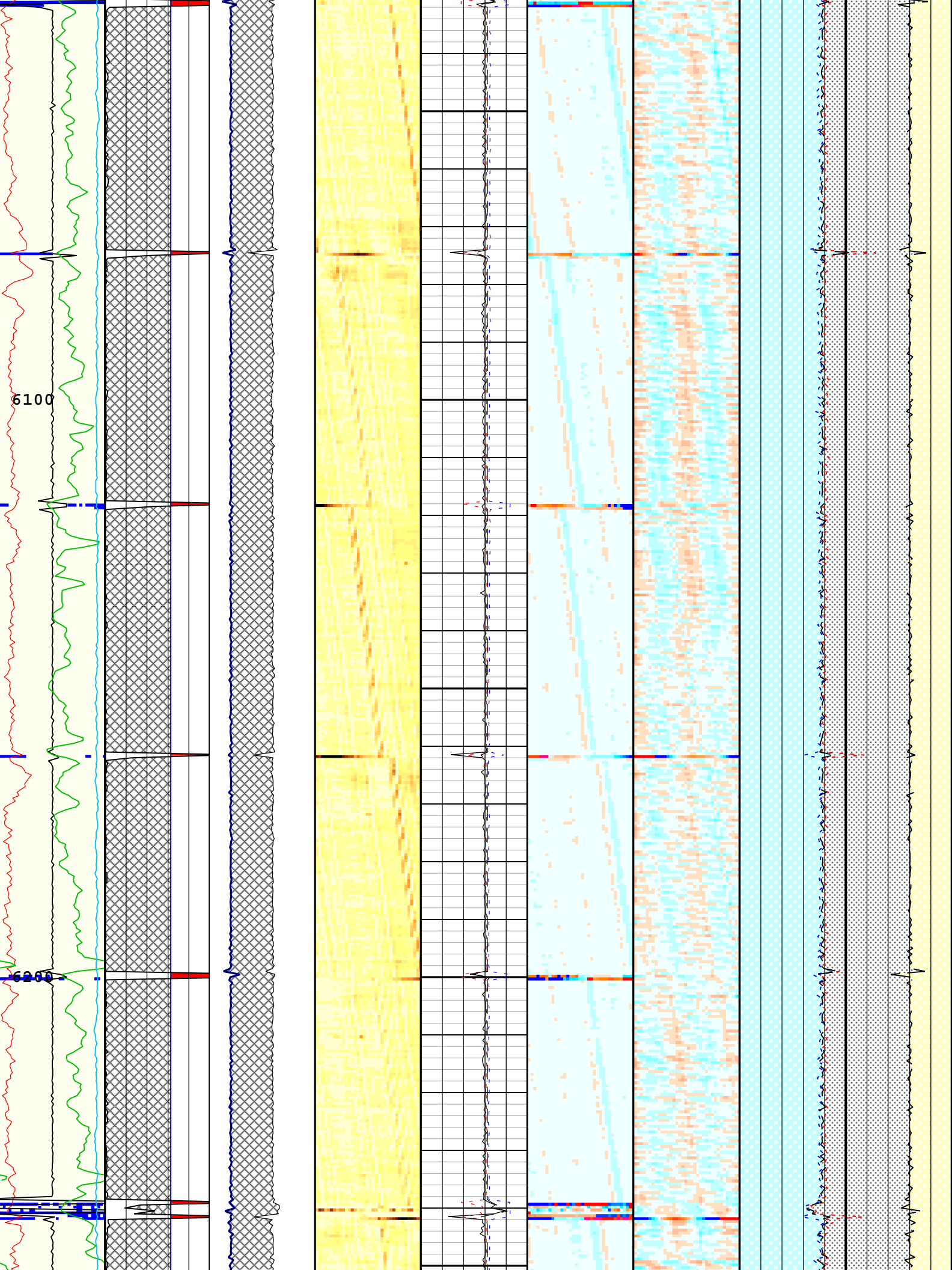


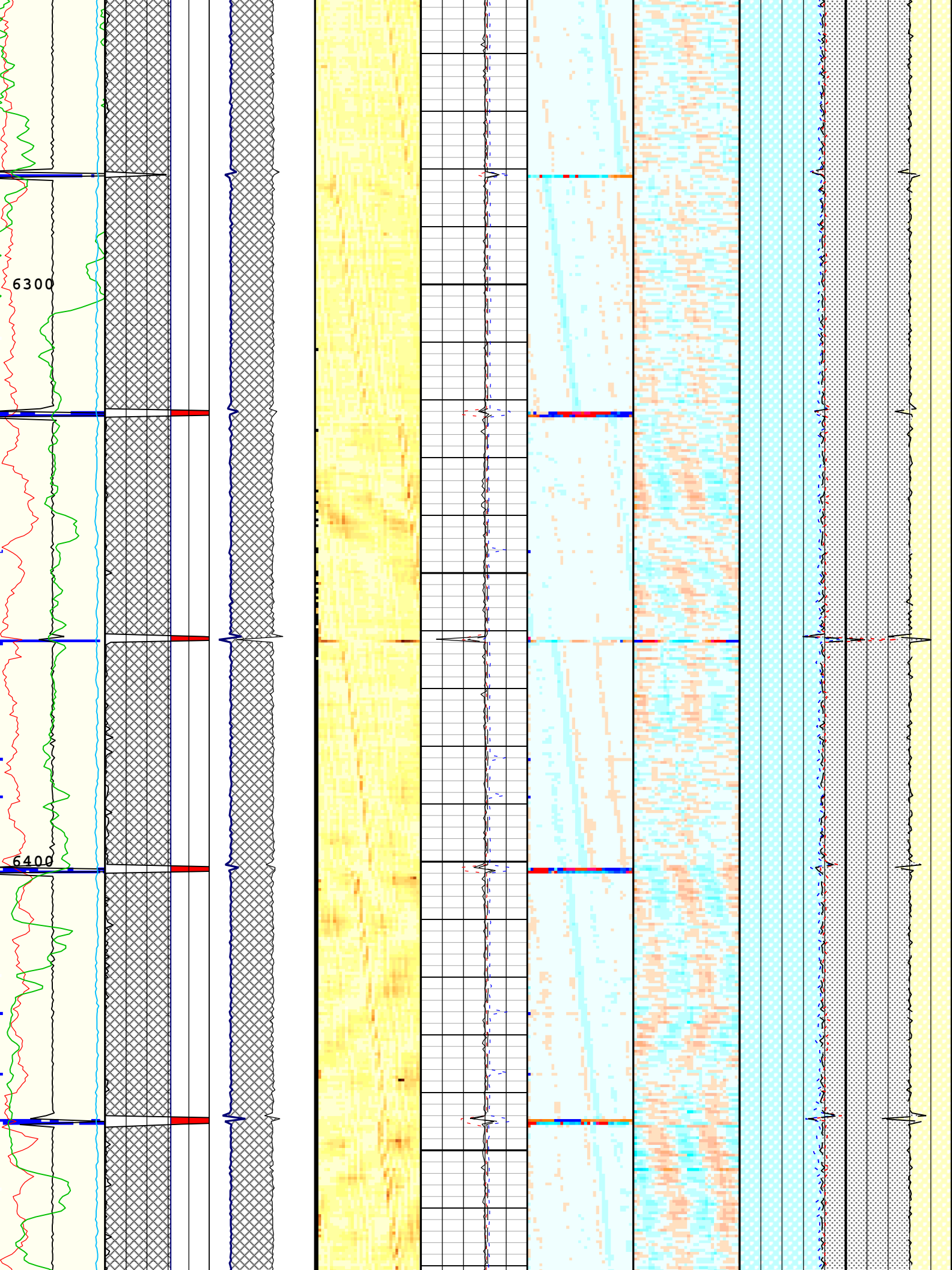


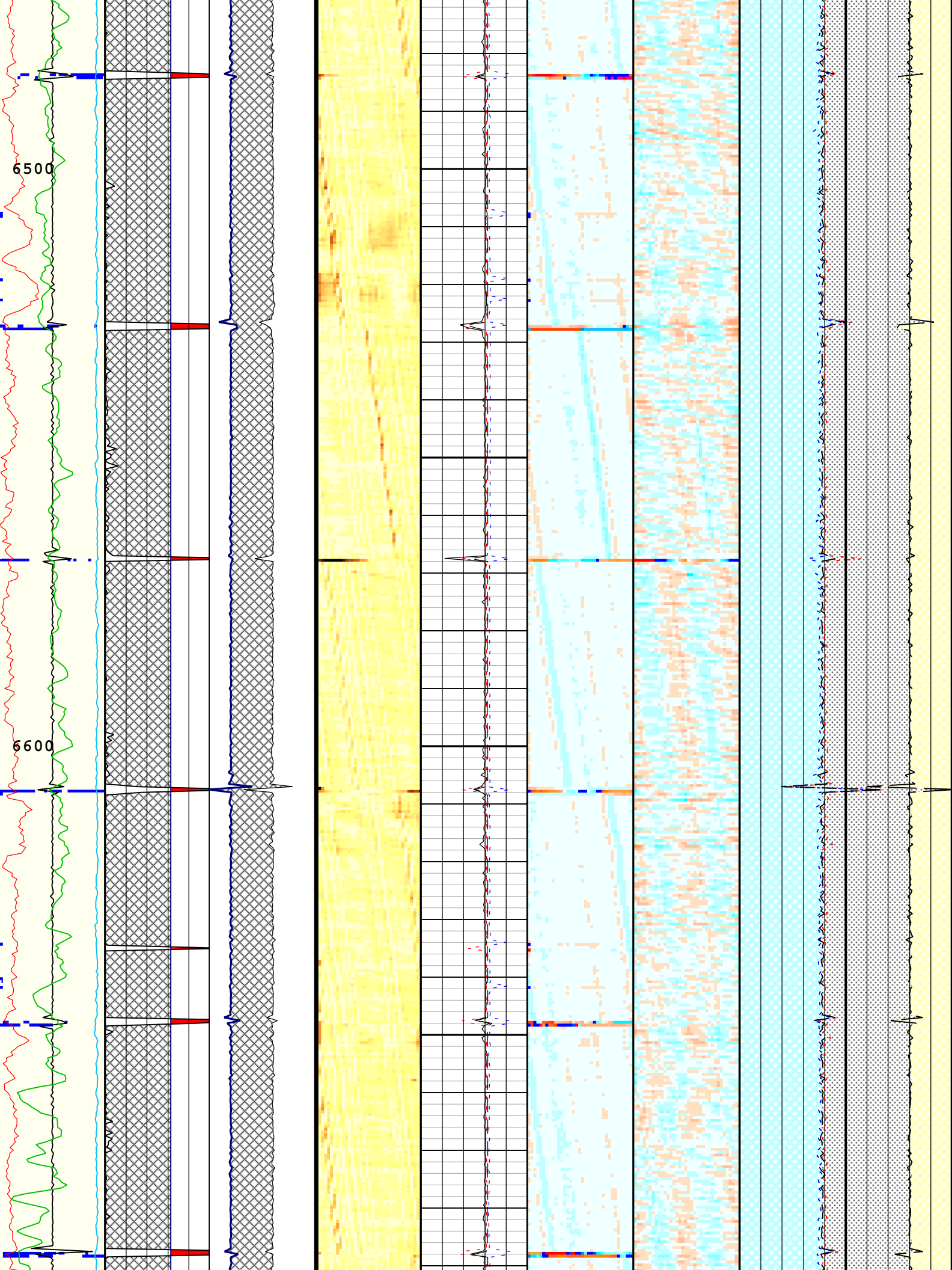


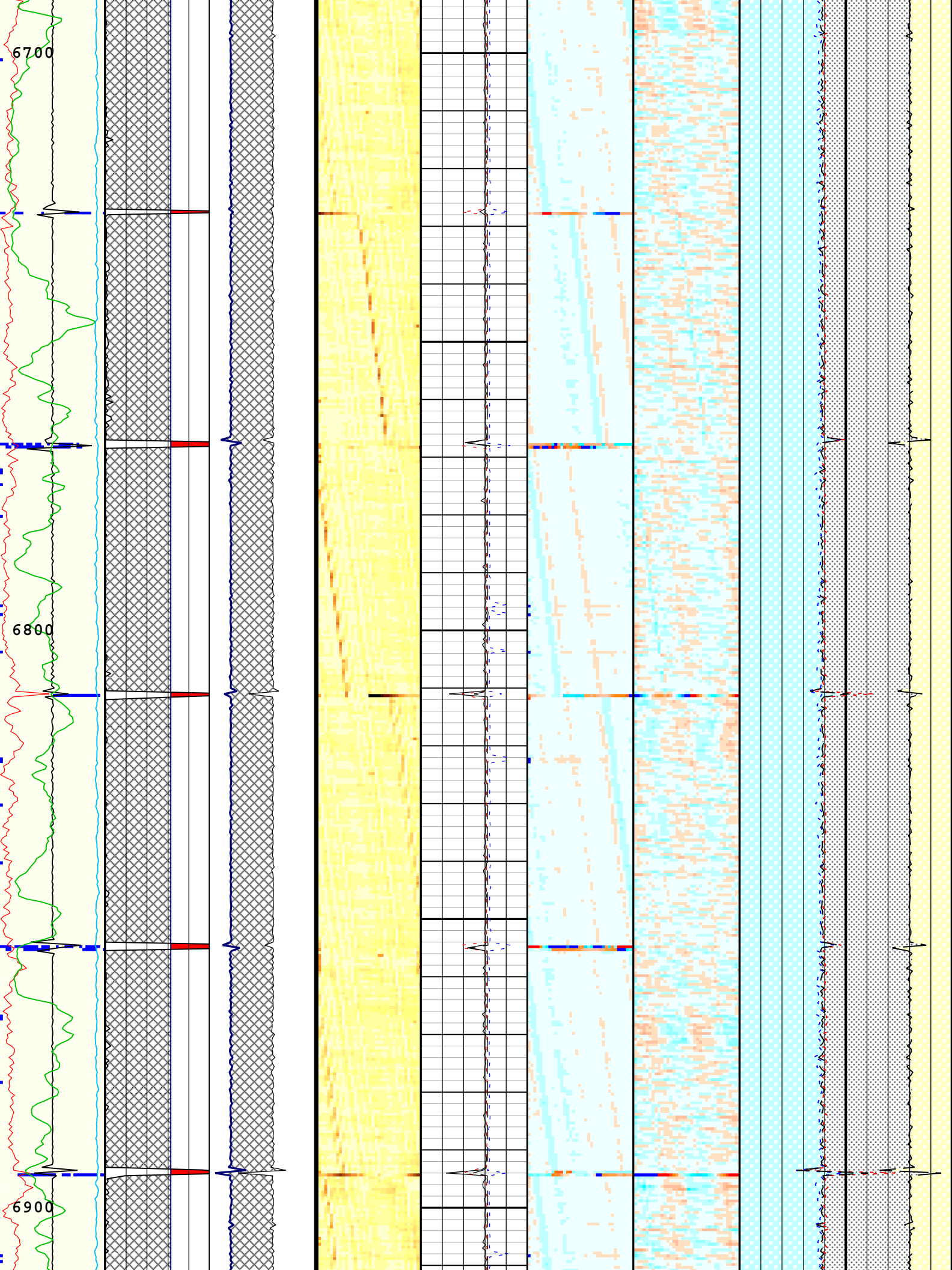


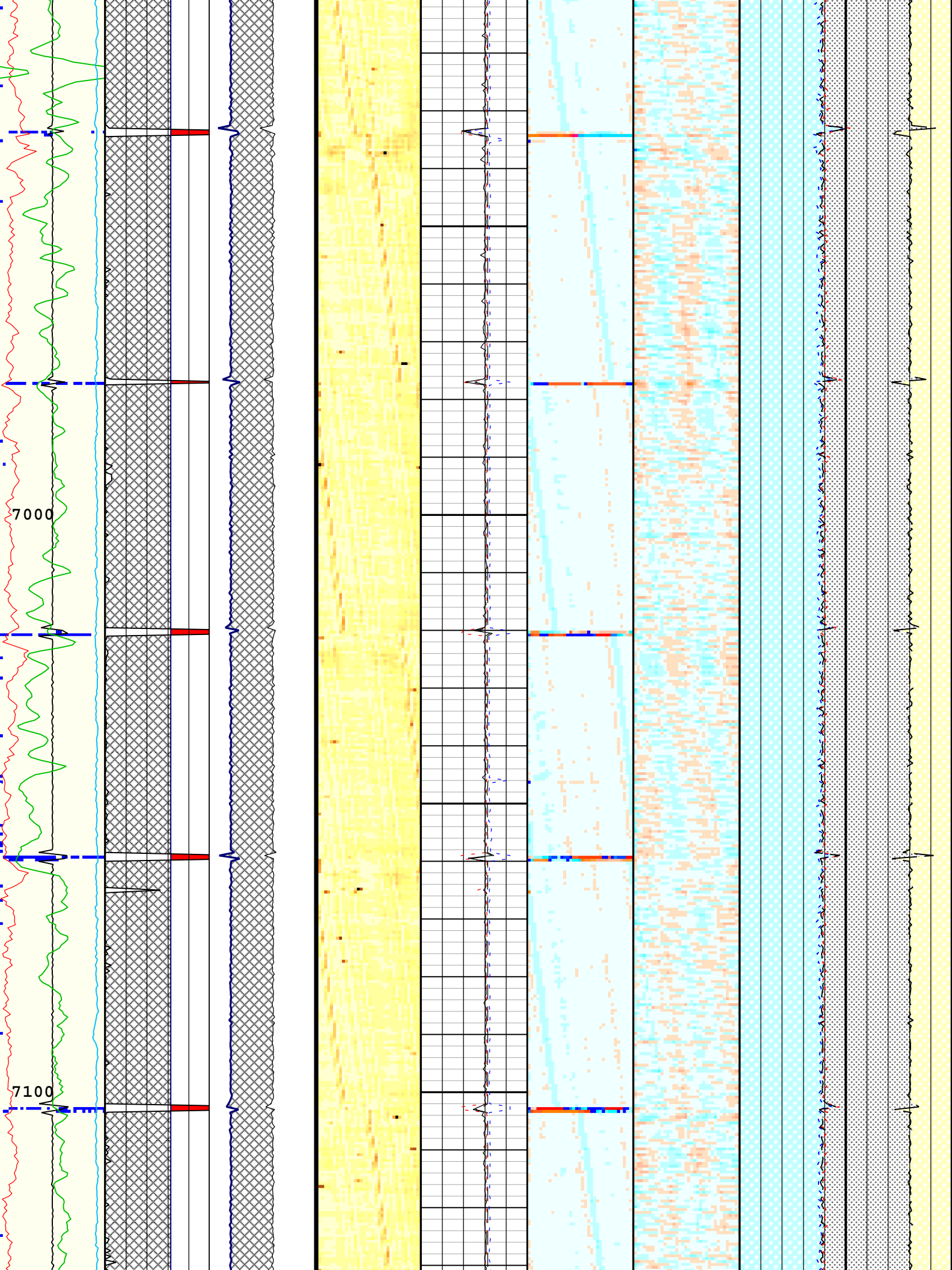


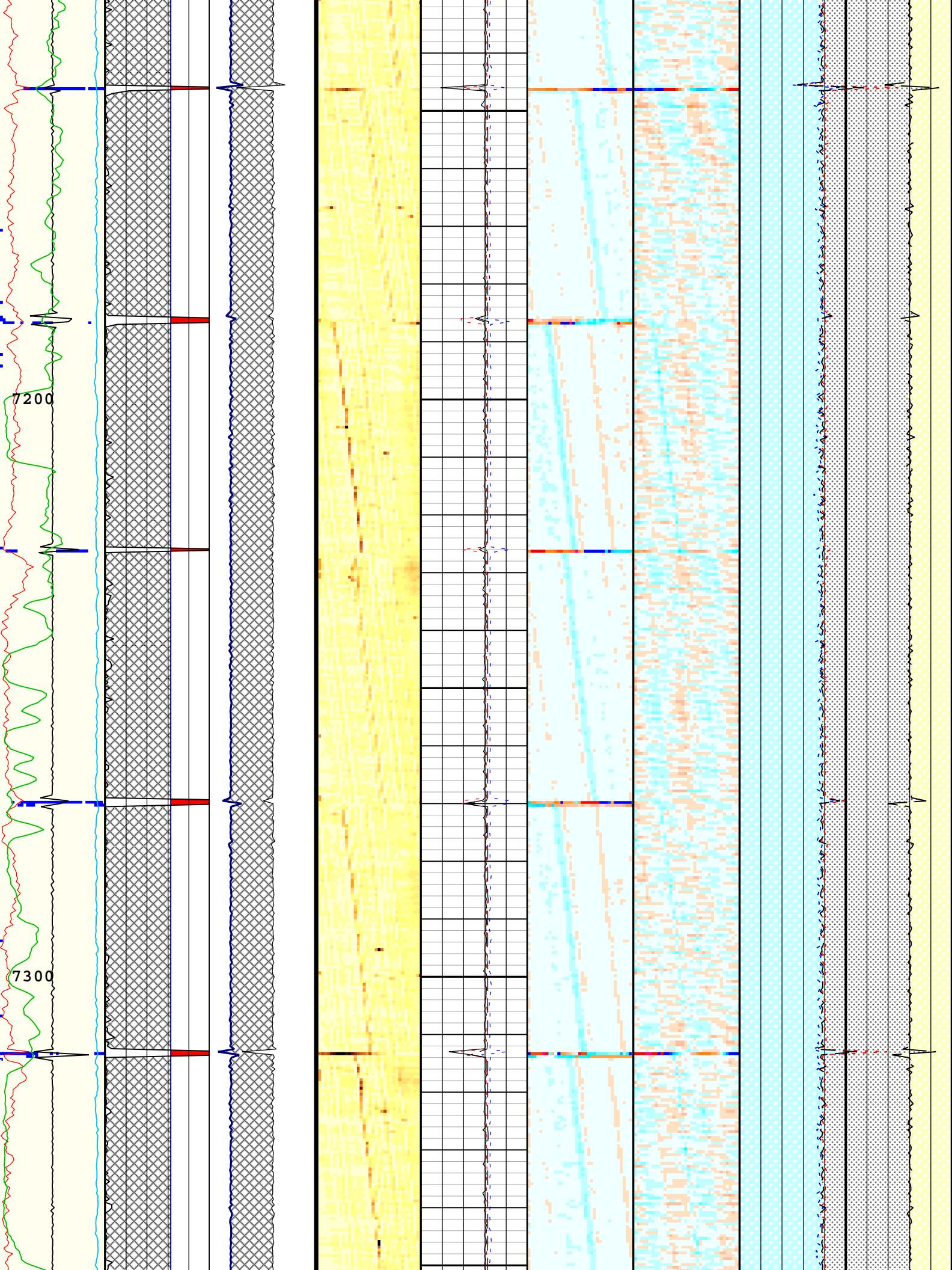


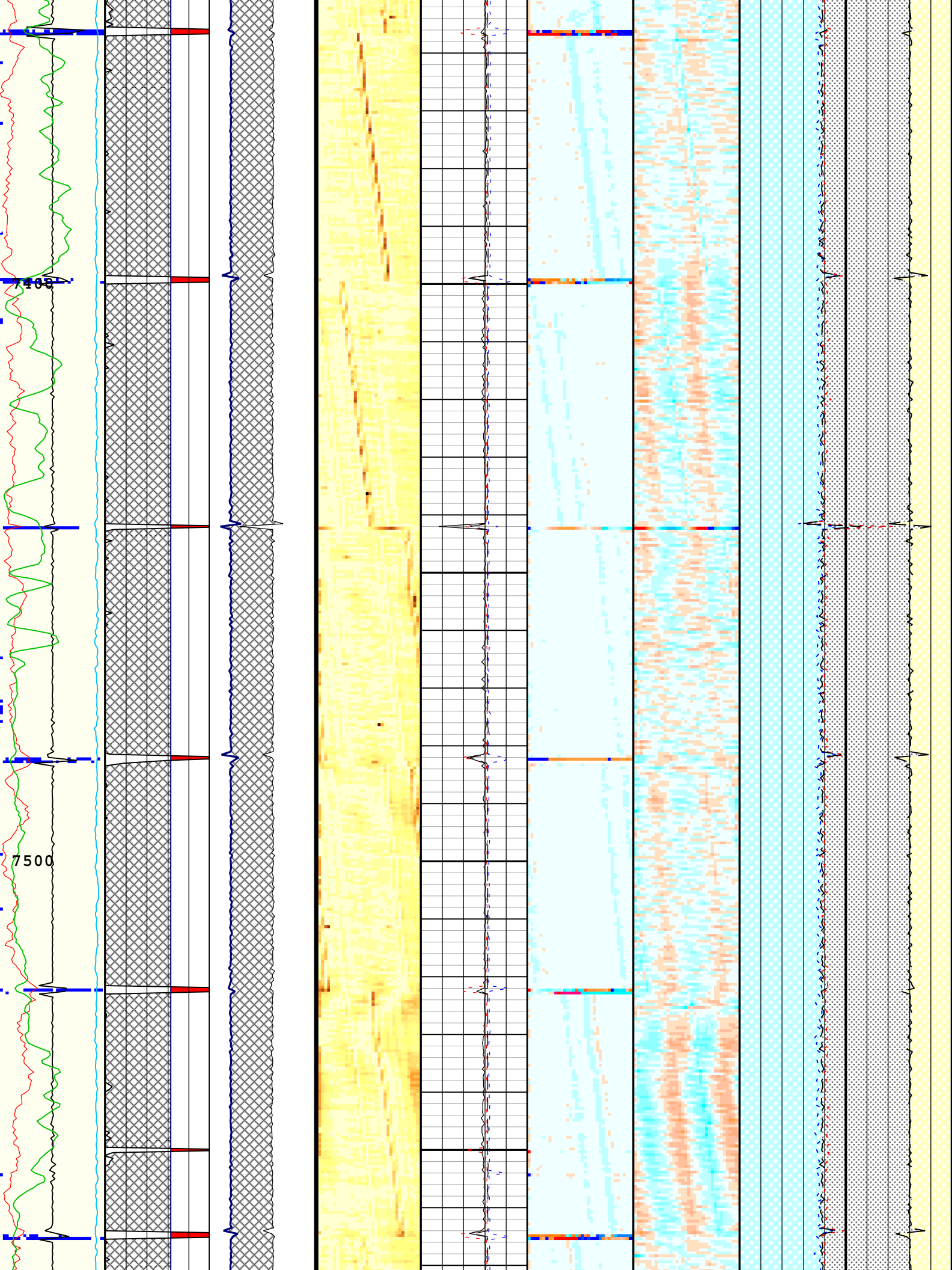


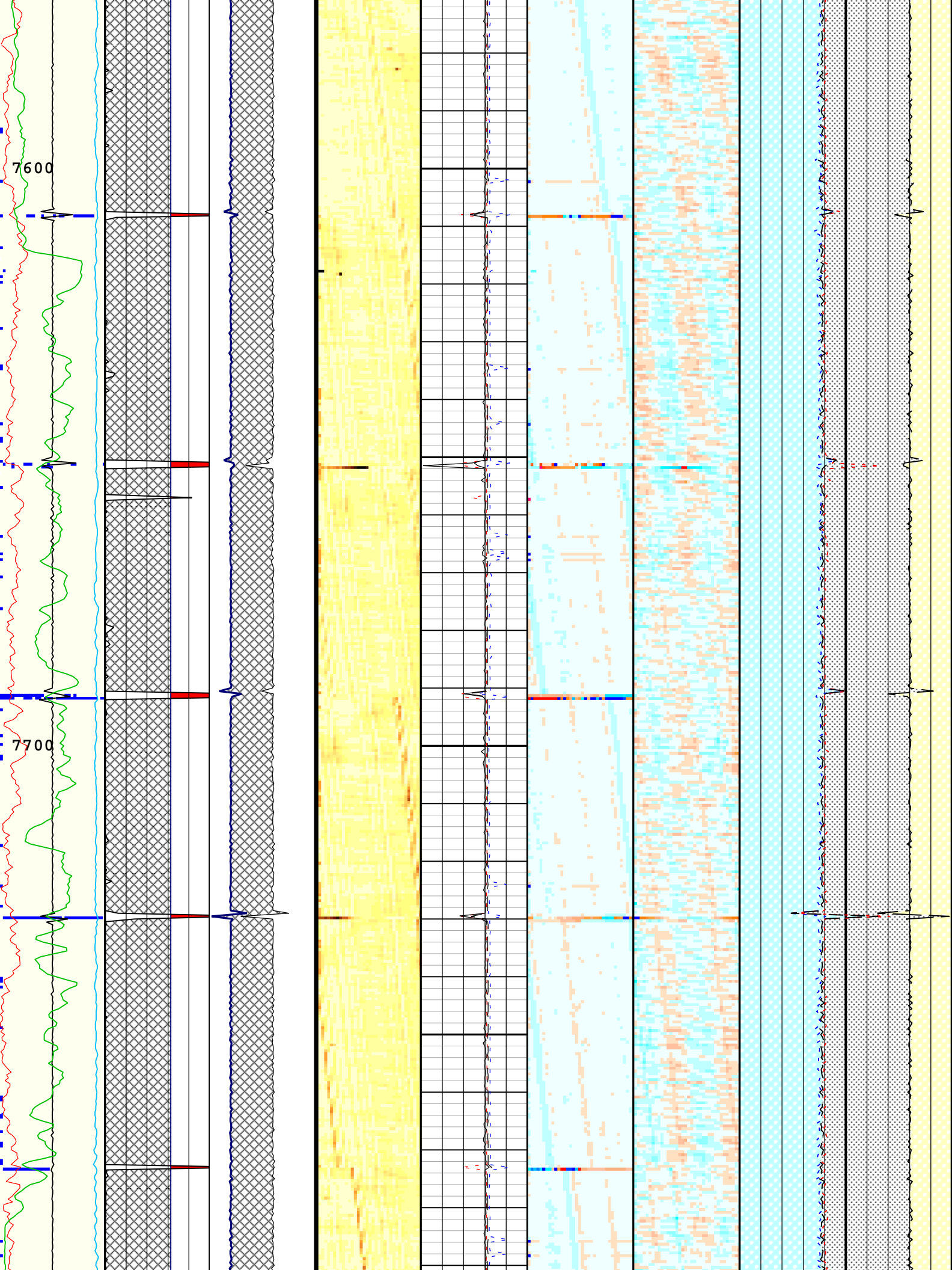


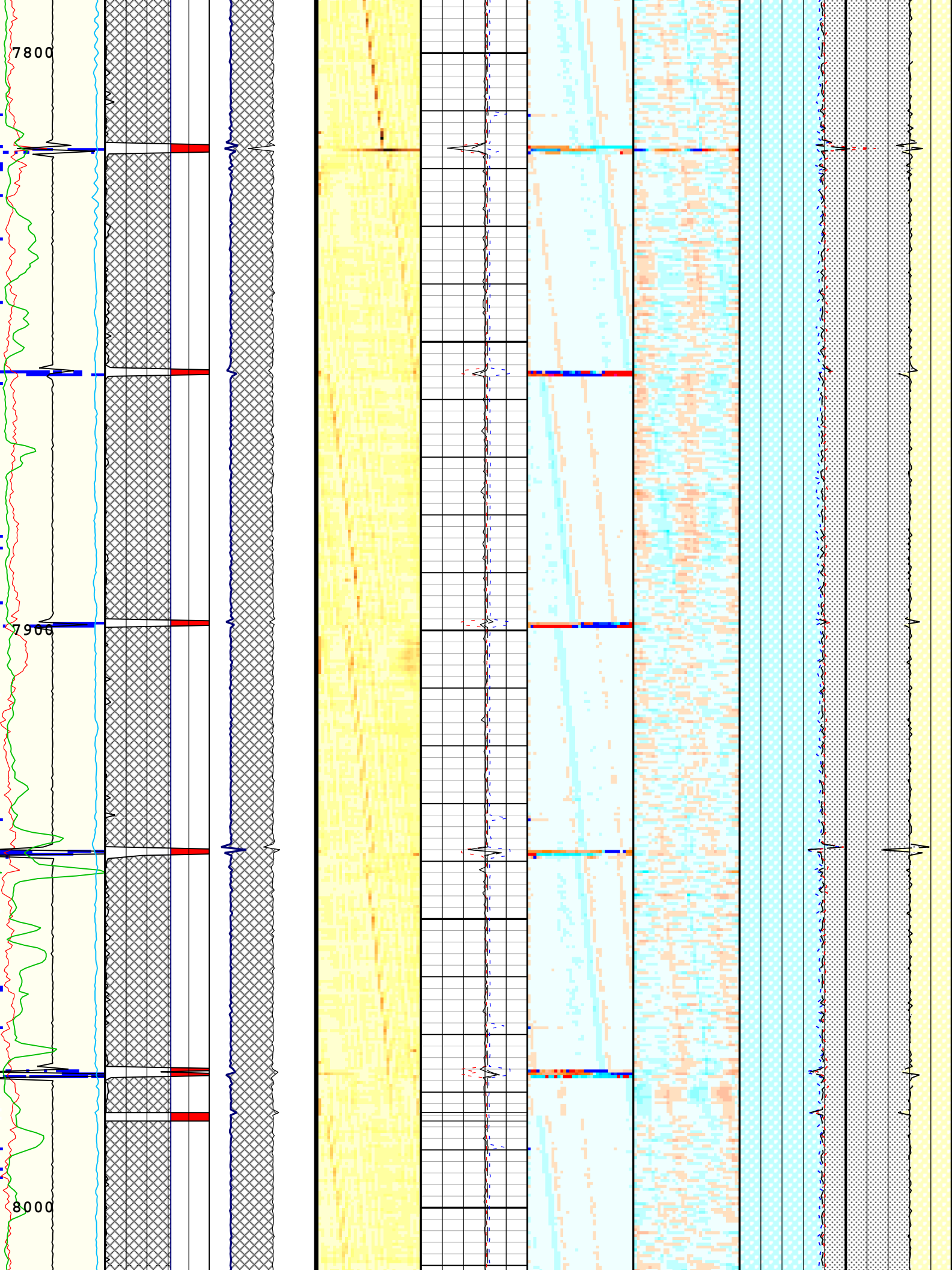


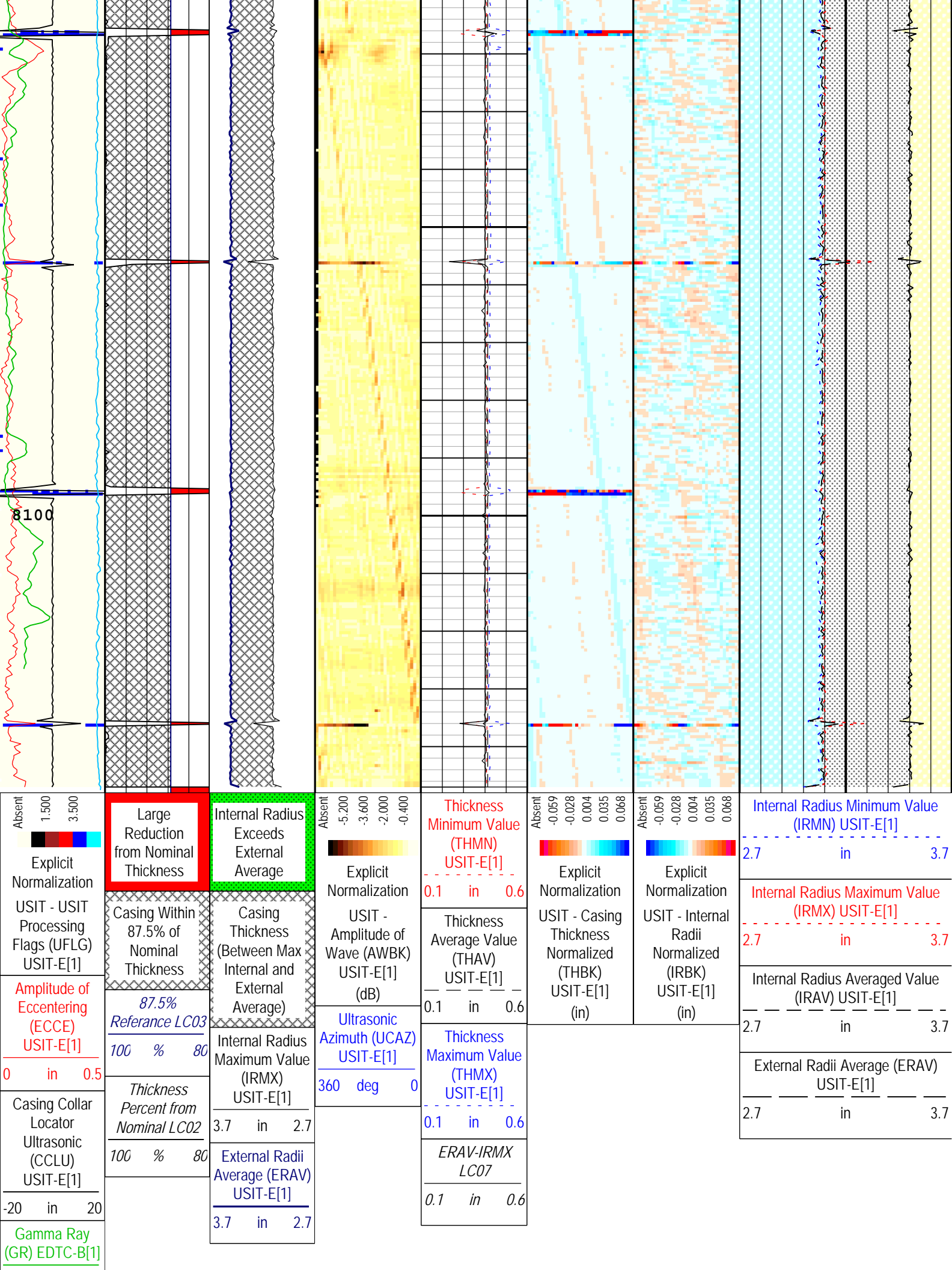












0gAPI150

Motor
Revolution
Speed (RSAV)
USIT-E[1]

6c/s7.5

TIME_1900 - Time Marked every 60.00 (s)

Description: USI Corrosion Format: Log (USI IBC Casing Integrity) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 27-Dec-2014 19:02:43

Channel Processing Parameters				
Run 1: Parameters				
Parameter	Description	Tool	Value	Unit
BARI	Barite Mud Presence Flag	Borehole	No	
BERJ	Bad Echo Rejection	USIT-E	On	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Cased	
BS	Bit Size	WLSESSION	Depth Zoned	in
CASING_PRATIO	Casing Poisson Ratio	USIT-E	Standard Poisson ratio	
CBLO	Casing Bottom (Logger)	WLSESSION	8317	ft
CDEN.1	Cement Density	USIT-E	0	lbm/gal
CDEN.2	Cement Density	EDTC-B	16.69	lbm/gal
CMTY	Cement Type	USIT-E	Light Cement	
CTHILGR	Nominal Casing Thickness - Zoned along logger depths	WLSESSION	0.408	in
CYSTLGR	Casing Yield Strength - Zoned along logger depths	WLSESSION	0	psi
DFD	Drilling Fluid Density	Borehole	8.5	lbm/gal
DFT	Drilling Fluid Type	Borehole	Water	
DTMD	Borehole Fluid Slowness	Borehole	188	us/ft
FD	Fluid Density	USIT-E	9.5	lbm/gal
FDII	FPM Data Interpolation Interval	USIT-E	0	ft
GCSE_DOWN_PASS	Generalized Caliper Selection for WL Log Down Passes	Borehole	BS	
GCSE_UP_PASS	Generalized Caliper Selection for WL Log Up Passes	Borehole	BS	
GR_MULTIPLIER	Gamma Ray Multiplier	EDTC-B	1	
HEMA	Hematite Presence Flag	Borehole	No	
IBC_FRP_OFFSET	IBC Flexural Offset from Free Pipe	USIT-E	14.18	dB/m
IBC_FSOD	USIT IBC Fluid Slowness Fits Casing Outer Diameter	USIT-E	0_OFF	
IBC_FVEL_SEL	IBC Fluid Velocity Selection	USIT-E	Automatic	
IBC_OFFSET_SEL	IBC Flexural Offset Selector	USIT-E	IBC_FRP_OFFSET	
IBC_ZMUD_SEL	IBC Mud Impedance Selection	USIT-E	FreePipe Norm.	
ICE_BINPROC	ICE Bin Processing Depth Interval	USIT-E	0	ft
ICE_PROCESS	ICE Processing	USIT-E	Yes	
IMAR	Image Rotation	USIT-E	Off	
MEAS_WLEN	Tcube Processing Window Length in Measurement Mode	USIT-E	25.48	us
MUD_N_FRP	Free Pipe Mud Normalization Factor	USIT-E	0.99	
MUD_N_INV	IBC Inversion Mud Normalization Factor	USIT-E	1	
MUD_N_THE	Theoretical Mud Normalization Factor	USIT-E	1	
OCDI	Outer Casing Diameter	USIT-E	7	in
OCSH	Outer Casing Shoe	USIT-E	8150	ft
OCWE	Outer Casing Weight	USIT-E	29	lbm/ft
RAPID_OPTION	Rapid Access Computation Option	USIT-E	Off	
RCOD	Reference Calibrator Outer Diameter	USIT-E	7	in
RCSD	Reference Calibrator Standoff	USIT-E	1.181	in

USC3	Reference Calibrator Standoff	USIT-E	1.181	in
RCTH	Reference Calibrator Thickness	USIT-E	0.295	in
SOCN	Standoff Distance	EDTC-B	0.125	in
SOCO	Standoff Correction Option	EDTC-B	No	
TCUB	T^3 Processing Level	USIT-E	Loop	
THDH	Maximum Search Thickness (percentage of nominal)	USIT-E	130	%
THDL	Minimum Search Thickness (percentage of nominal)	USIT-E	70	%
TPOS	Tool Position: Centered or Eccentered	EDTC-B	Eccentered	
UDFSZ	Drilling Fluid Specific Acoustic Impedance	USIT-E	0	Mrayl
UFAO	SIT Flexural Attenuation Offset	USIT-E	14	dB/m
UFGDE	Fiberglass Density	USIT-E	16.27	lbm/gal
UFGPS	Fiberglass Processing Selection	USIT-E	No	
UFGVL	Fiberglass Velocity	USIT-E	9678.48	ft/s
UIAP	IBC Answer Product Enabled	USIT-E	SLG - TIE Picking	
UTHDP	Thickness Detection Policy	USIT-E	Fundamental	
VCAS	Ultrasonic Transversal Velocity in Casing	USIT-E	51.4	us/ft
ZCAS	Acoustic Impedance of Casing	USIT-E	46.25	Mrayl
ZINI	Initial Estimate of Cement Impedance	USIT-E	-1	Mrayl
ZMUD	Acoustic Impedance of Mud	Borehole	1.55	Mrayl
ZTCM	Acoustic Impedance Threshold for Cement	USIT-E	2.6	Mrayl
ZTGS	Acoustic Impedance Threshold for Gas	USIT-E	0.3	Mrayl

Run 1Depth Zoned Parameters

Parameter	Value	Start (ft)	Stop (ft)
BS	24	17.5	80
BS	13.5	80	1550
BS	8.75	1550	8148

All depth are actual.

Tool Control Parameters

Run 1: Parameters

Parameter	Description	Tool	Value	Unit
AGMN	Minimum Gain of Cartridge	USIT-E	-12	dB
AGMX	Maximum Gain of Cartridge	USIT-E	18	dB
DDT5	USIC Downhole Decimation for T5 only	USIT-E	0_NONE	
DOTF	Distance between Opposite Transducer Faces	USIT-E	2.874	in
EMXV	EMEX Voltage	USIT-E	100	V
HRES	Horizontal Resolution	USIT-E	10 deg	
TMUC	Type of Mud	USIT-E	BRI	
UFWB	Far Receiver Window Begin Time	USIT-E	133	us
UFWE	Far Receiver Window End Time	USIT-E	173	us
ULOG	Logging Objective	USIT-E	MEASUREMENT	
UMFR	Modulation Frequency	USIT-E	333333	Hz
UNWB	Near Receiver Window Begin Time	USIT-E	102	us
UNWE	Near Receiver Window End Time	USIT-E	142	us
USFR	Ultrasonic Sampling Frequency	USIT-E	500000	Hz
USI_UPAT	USIT Emission Pattern	USIT-E	Pattern 300 KHz	
USI_UWKM	USIT Working Mode	USIT-E	10 deg at 6.0 in LF	
USIT_DEPTHLOG	Starting Depth Log for Ultrasonics	USIT-E	Time Zoned	ft
USSP	Ultrasonic Service	USIT-E	IBC	
UTAN	Transducer Angles	USIT-E	38_DEG	

Run 1Time Zoned Parameters

All depth are at tool zero.

IBC Casing Integrity

Acquisition System	Version
MaxWell	4.0.9163.3000
Application Patch	Patch-SP-10767_26570-4.0.9163.3001

Pass Summary									
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
Run 1	Log[7]:Up	Up	7842.65 ft	8145.70 ft	27-Dec-2014 10:02:33 AM	27-Dec-2014 10:11:07 AM	ON	-4.73 ft	Yes

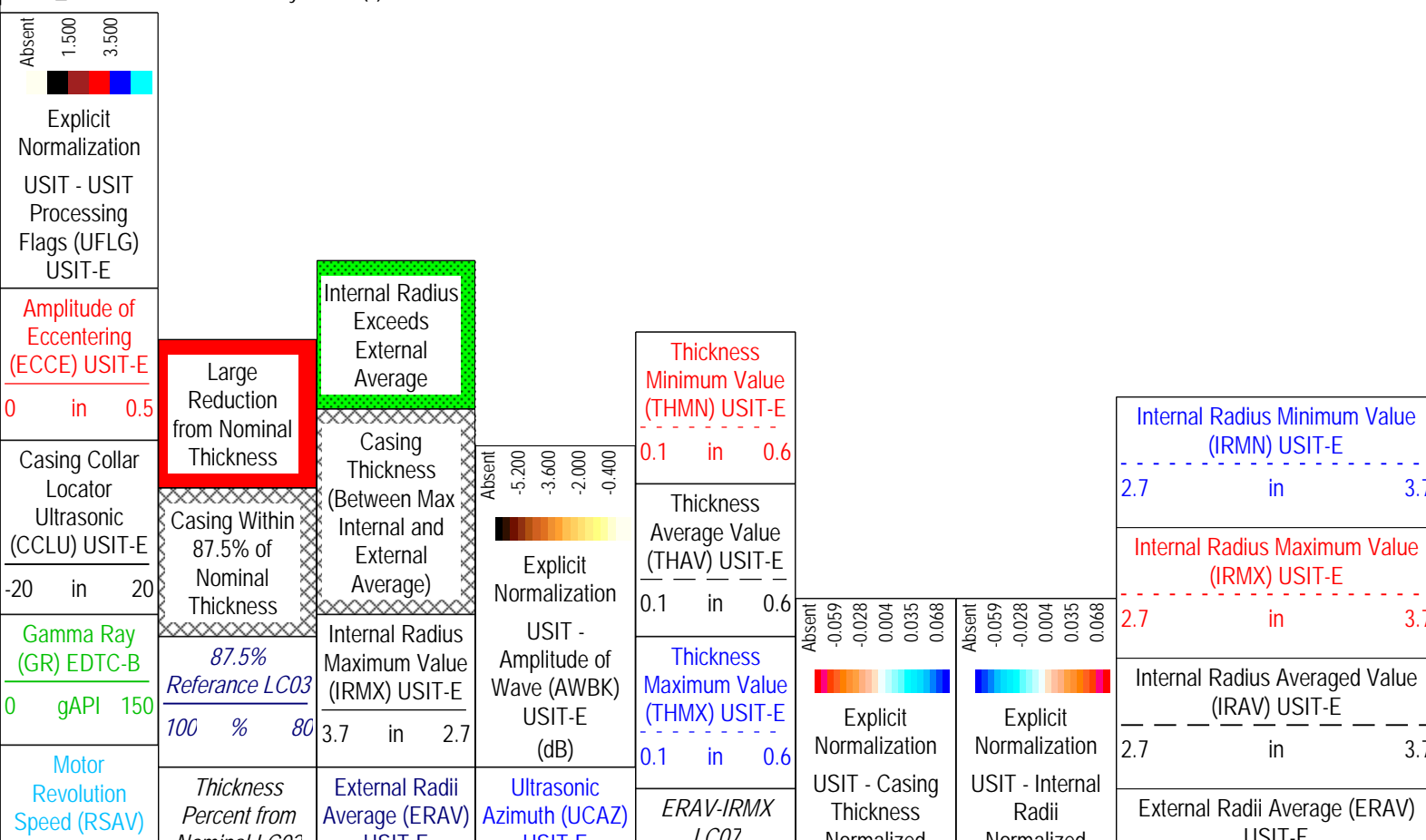
Log

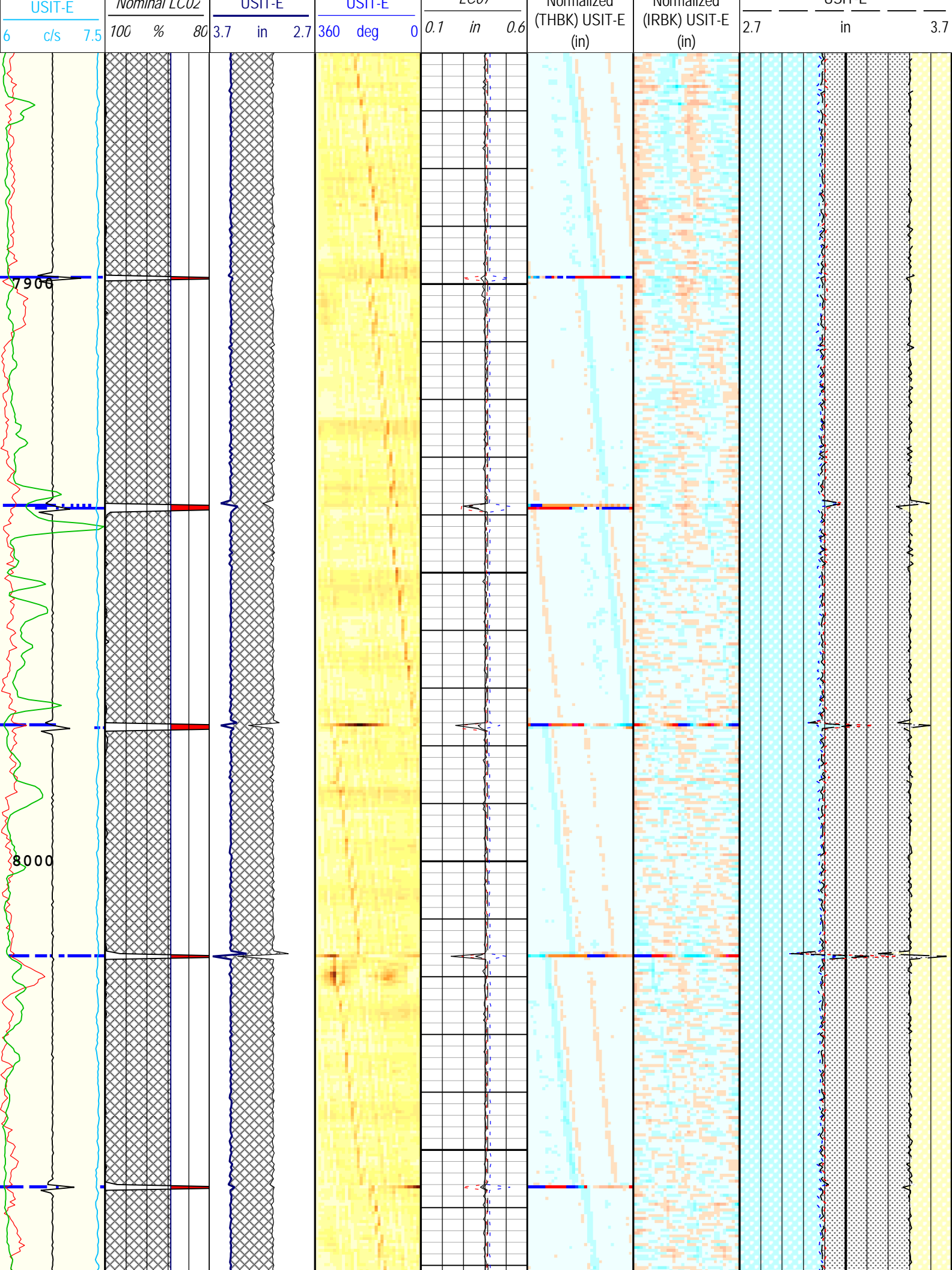
Company:Whiting Oil Gas Corp

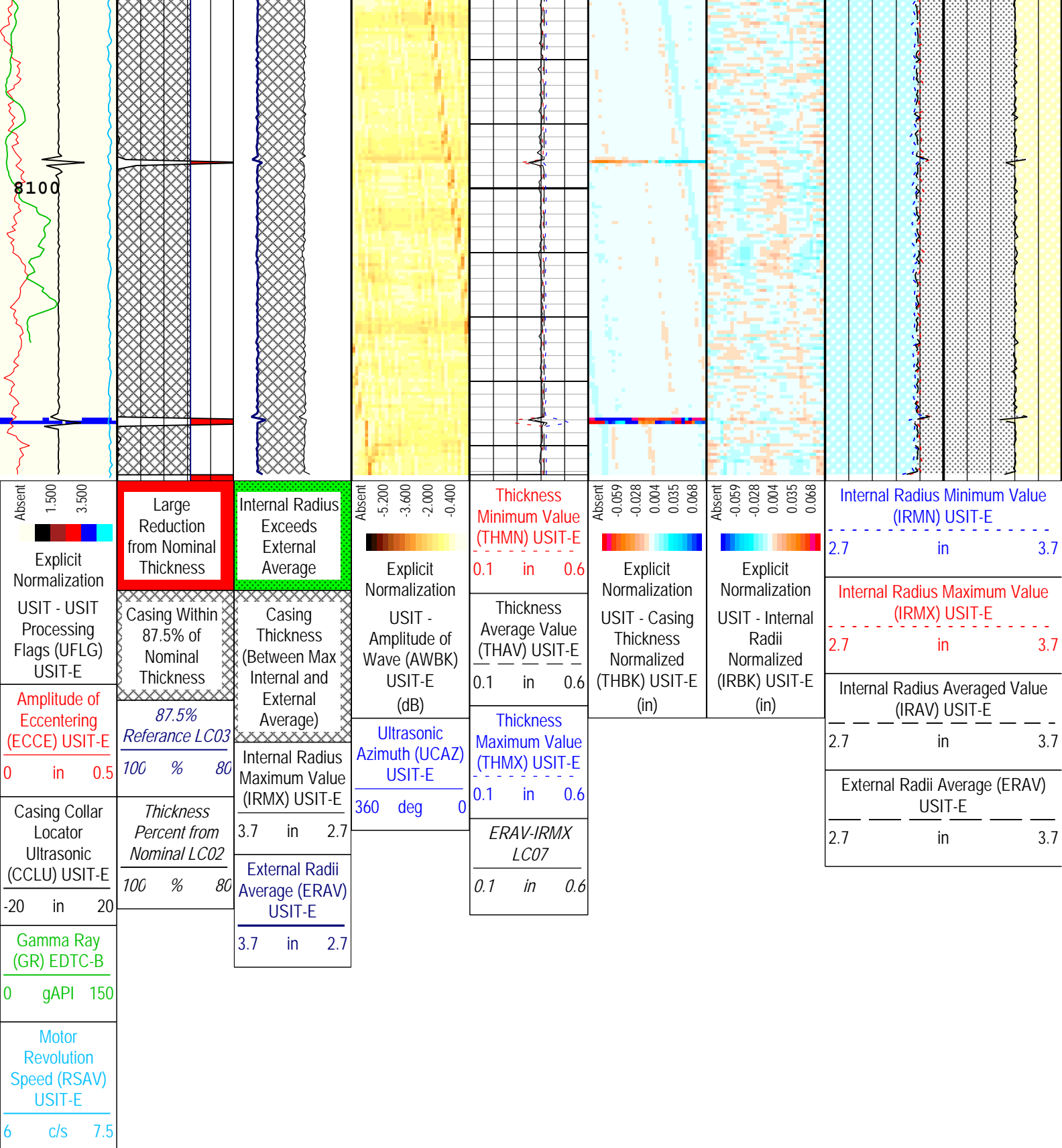
Well:Horsetail 19N 1924M

Run 1: Log[7]:Up:S005

TIME_1900 - Time Marked every 60.00 (s)







TIME_1900 - Time Marked every 60.00 (s)

Description: USI Corrosion Format: Log (USI IBC Casing Integrity) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 27-Dec-2014 19:02:54

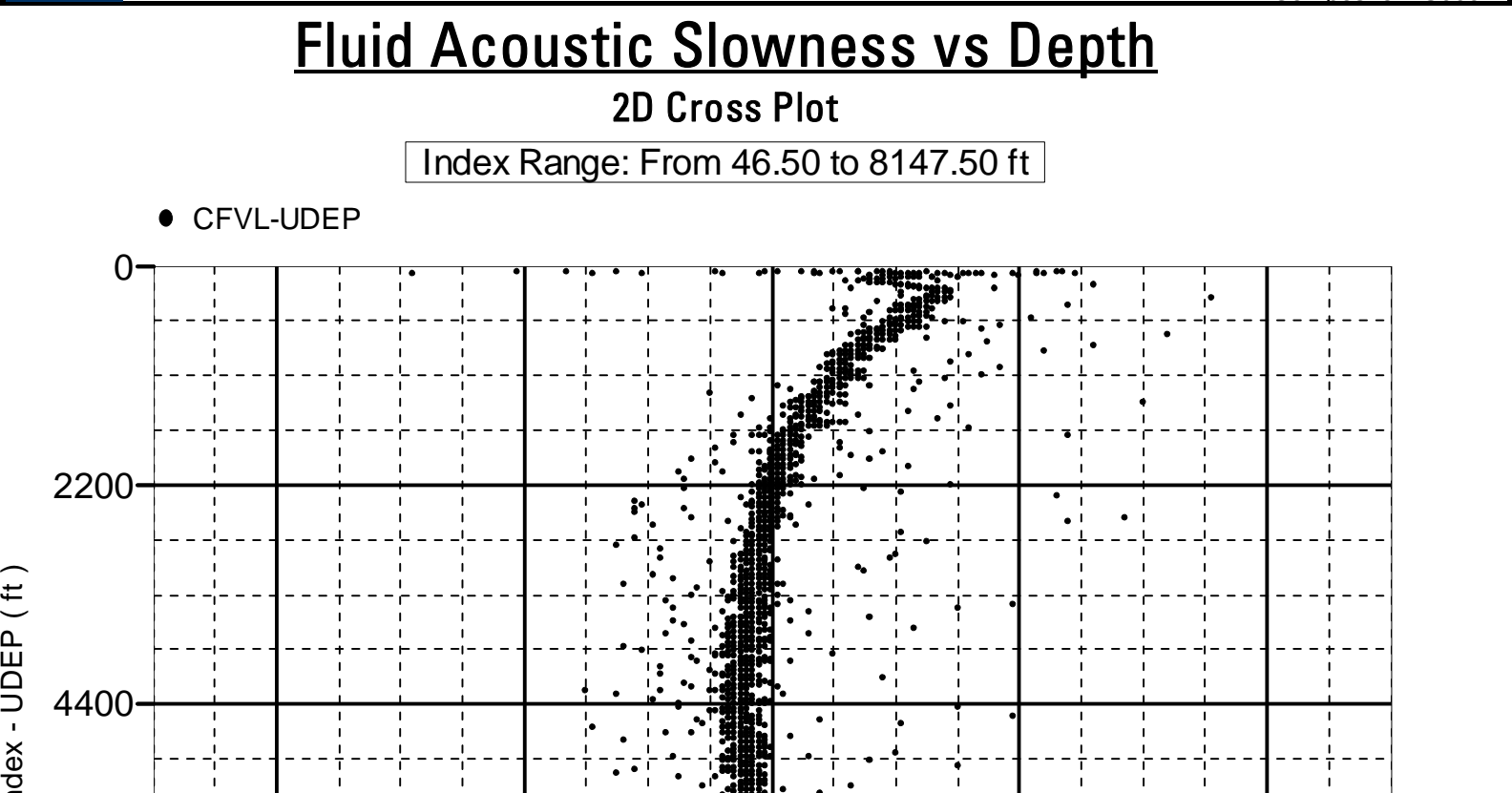
Channel Processing Parameters				
Parameter	Description	Tool	Value	Unit
BARI	Barite Mud Presence Flag	Borehole	No	
BERJ	Bad Echo Rejection	USIT-E	On	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Cased	
BS	Bit Size	WLSESSION	8.75	in

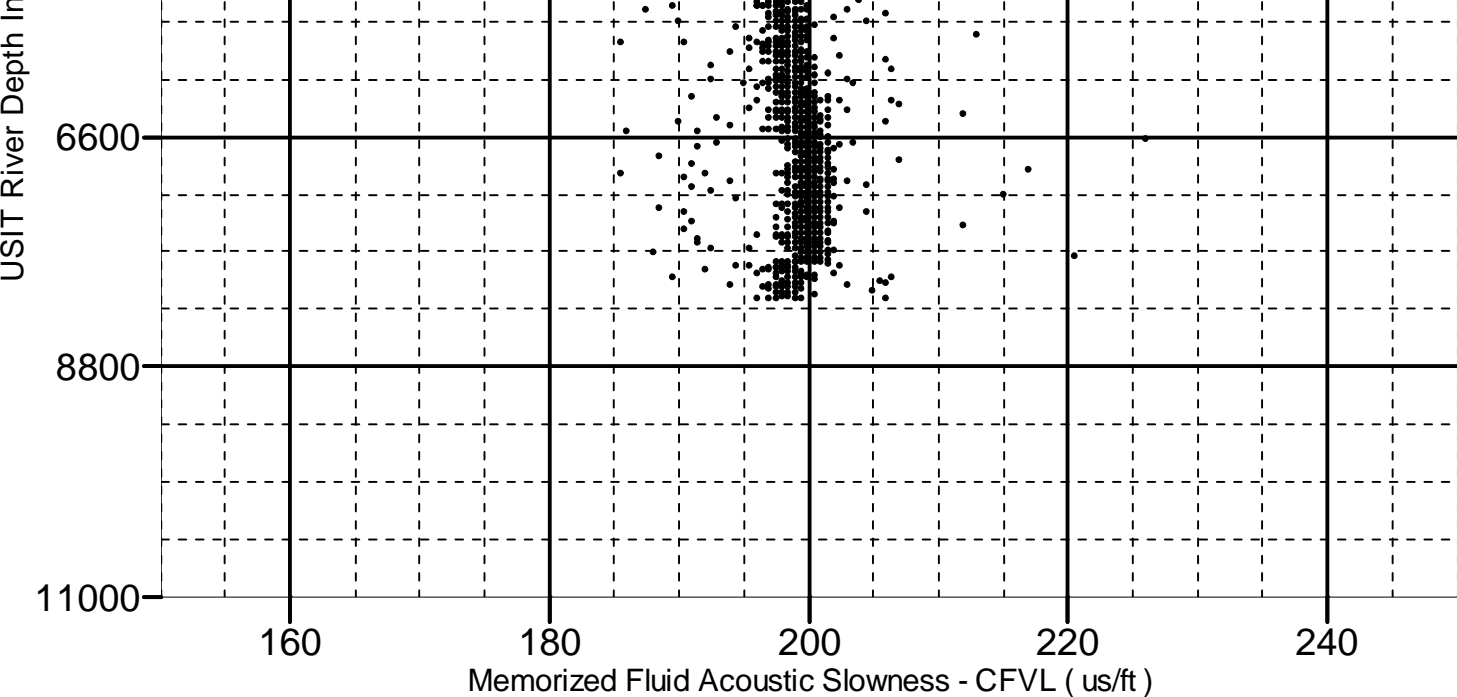
CASING_PRATIO	Casing Poisson Ratio	USIT-E	Standard Poisson ratio	
CBLO	Casing Bottom (Logger)	WLSESSION	8317	ft
CDEN.1	Cement Density	USIT-E	0	lbm/gal
CDEN.2	Cement Density	EDTC-B	16.69	lbm/gal
CMTY	Cement Type	USIT-E	Light Cement	
CTHILGR	Nominal Casing Thickness - Zoned along logger depths	WLSESSION	0.408	in
CYSTLGR	Casing Yield Strength - Zoned along logger depths	WLSESSION	0	psi
DFD	Drilling Fluid Density	Borehole	8.5	lbm/gal
DFT	Drilling Fluid Type	Borehole	Water	
DTMD	Borehole Fluid Slowness	Borehole	188	us/ft
FD	Fluid Density	USIT-E	9.5	lbm/gal
FDII	FPM Data Interpolation Interval	USIT-E	0	ft
GCSE_DOWN_PASS	Generalized Caliper Selection for WL Log Down Passes	Borehole	BS	
GCSE_UP_PASS	Generalized Caliper Selection for WL Log Up Passes	Borehole	BS	
GR_MULTIPLIER	Gamma Ray Multiplier	EDTC-B	1	
HEMA	Hematite Presence Flag	Borehole	No	
IBC_FRP_OFFSET	IBC Flexural Offset from Free Pipe	USIT-E	14.18	dB/m
IBC_FSOD	USIT IBC Fluid Slowness Fits Casing Outer Diameter	USIT-E	0_OFF	
IBC_FVEL_SEL	IBC Fluid Velocity Selection	USIT-E	Automatic	
IBC_OFFSET_SEL	IBC Flexural Offset Selector	USIT-E	IBC_FRP_OFFSET	
IBC_ZMUD_SEL	IBC Mud Impedance Selection	USIT-E	FreePipe Norm.	
ICE_BINPROC	ICE Bin Processing Depth Interval	USIT-E	0	ft
ICE_PROCESS	ICE Processing	USIT-E	Yes	
IMAR	Image Rotation	USIT-E	Off	
MEAS_WLEN	Tcube Processing Window Length in Measurement Mode	USIT-E	25.48	us
MUD_N_FRP	Free Pipe Mud Normalization Factor	USIT-E	0.99	
MUD_N_INV	IBC Inversion Mud Normalization Factor	USIT-E	1	
MUD_N_THE	Theoretical Mud Normalization Factor	USIT-E	1	
OCDI	Outer Casing Diameter	USIT-E	7	in
OCSH	Outer Casing Shoe	USIT-E	8150	ft
OCWE	Outer Casing Weight	USIT-E	29	lbm/ft
RAPID_OPTION	Rapid Access Computation Option	USIT-E	Off	
RCOD	Reference Calibrator Outer Diameter	USIT-E	7	in
RCSO	Reference Calibrator Standoff	USIT-E	1.181	in
RCTH	Reference Calibrator Thickness	USIT-E	0.295	in
SOCN	Standoff Distance	EDTC-B	0.125	in
SOCO	Standoff Correction Option	EDTC-B	No	
TCUB	T^3 Processing Level	USIT-E	Loop	
THDH	Maximum Search Thickness (percentage of nominal)	USIT-E	130	%
THDL	Minimum Search Thickness (percentage of nominal)	USIT-E	70	%
TPOS	Tool Position: Centered or Eccentered	EDTC-B	Eccentered	
UDFSZ	Drilling Fluid Specific Acoustic Impedance	USIT-E	0	Mrayl
UFAO	SIT Flexural Attenuation Offset	USIT-E	14	dB/m
UFGDE	Fiberglass Density	USIT-E	16.27	lbm/gal
UFGPS	Fiberglass Processing Selection	USIT-E	No	
UFGVL	Fiberglass Velocity	USIT-E	9678.48	ft/s
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USSP	Ultrasonic Service	USIT-E	IBC	
UTAN	Transducer Angles	USIT-E	38_DEG	
VRES	Vertical Resolution	USIT-E	6.0 in	
WINB	Window Begin Time	USIT-E	36.05	us
WINE	Window End Time	USIT-E	76.05	us

XYZ	Company:Whiting Oil Gas Corp	Well:Horsetail 19N 1924M
	Composite 1:S005	





XYZ

Company:Whiting Oil Gas Corp

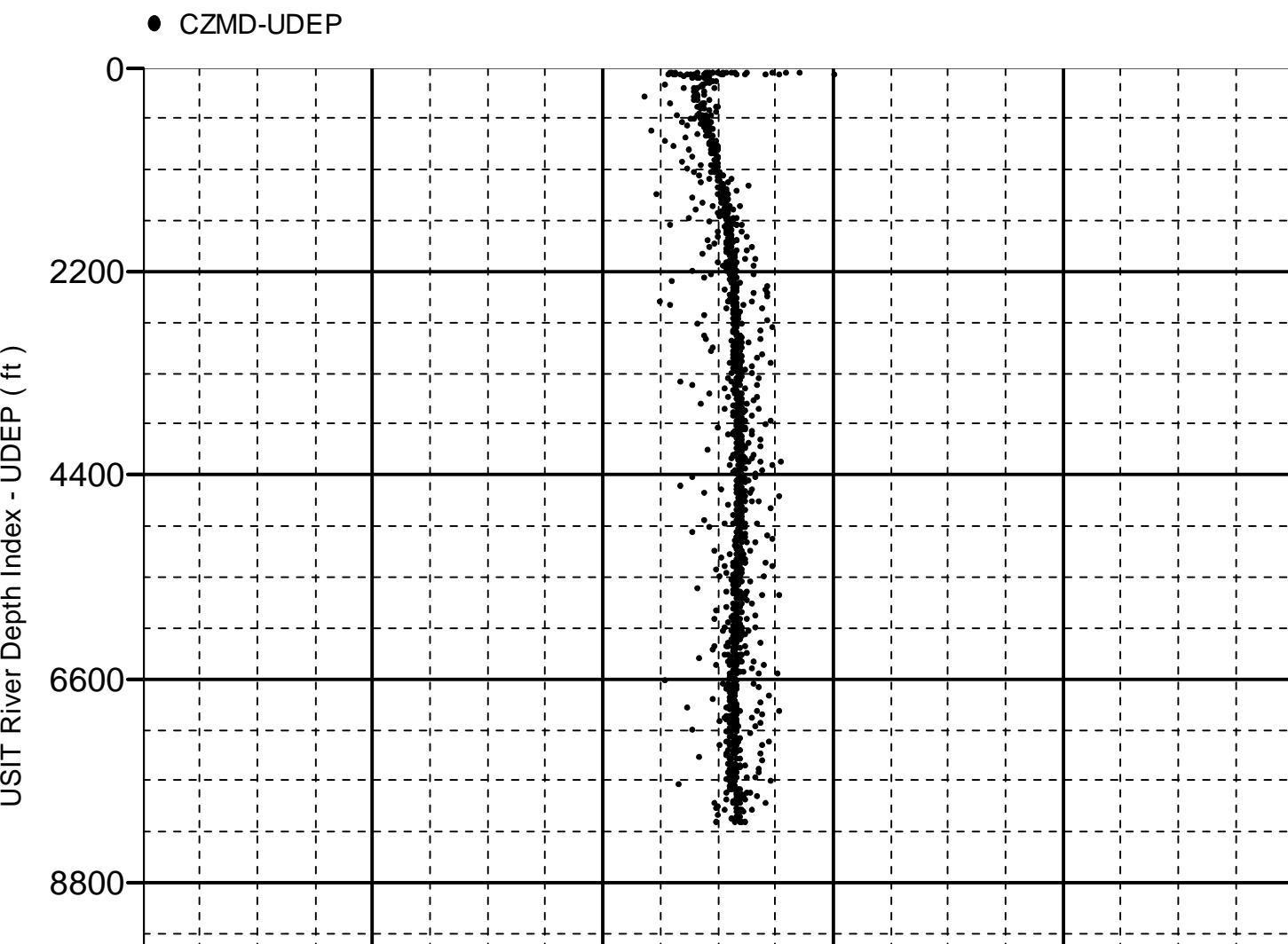
Well:Horsetail 19N 1924M

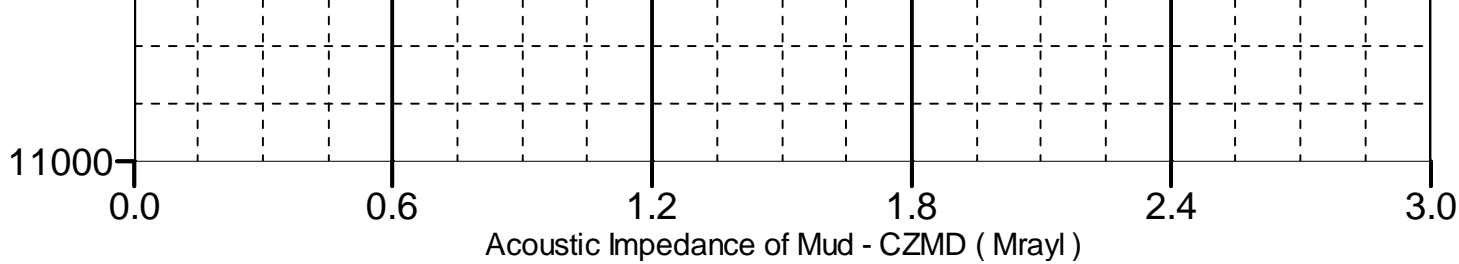
Composite 1:S005

Acoustic Impedance of Mud vs Depth

2D Cross Plot

Index Range: From 46.50 to 8147.50 ft





Calibration Report

EDTC-B (Enhanced Digital Telemetry Cartridge - Version B) Calibration - Run 1

Primary Equipment :

EDTC-B

EDTC-B

8188

Calibration Parameter :

Plus Reference (Jig minus background reference)

165

EDTC-B Accelerometer Calibration - EDTC-B Accelerometer Calibration

Before (Measured): 14:36:59 27-Dec-2014

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
AZ Vertical Measurement	ft/s2	Before	32.19	31.53	32.46	32.84	

EDTC-B Memory Data - EDTC-B Memory Data

Master (EEPROM): 08:44:07 27-Dec-2014

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Initial PMT HV	V	Master			1537.000		
Accelerometer Serial Number		Master			230		
Accelerometer Coefficients - 0		Master	----	----	2.980	----	
Accelerometer Coefficients - 1		Master	----	----	0.000	----	
Accelerometer Coefficients - 2		Master	----	----	0.000	----	
Accelerometer Coefficients - 3		Master	----	----	0.000	----	
Accelerometer Coefficients - 4		Master	----	----	0.000	----	
Accelerometer Coefficients - 5		Master	----	----	0.000	----	
Accelerometer Coefficients - 6		Master	----	----	0.000	----	
Accelerometer Coefficients - 7		Master	----	----	0.006	----	
Accelerometer Coefficients - 8		Master	----	----	0.000	----	
Accelerometer Coefficients - 9		Master	----	----	0.000	----	
Accelerometer Coefficients - 10		Master	----	----	0.000	----	
Accelerometer Coefficients - 11		Master	----	----	0.000	----	
Gamma-Ray Detector Serial Number		Master			65535		

EDTC-B Gamma-Ray Calibration - Gamma Ray Coefficients

Before (Measured): 13:05:20 26-Dec-2014

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Gamma Ray Gain		Before	1.000	0.900	1.081	1.100	

EDTC-B Gamma-Ray Calibration - Gamma Ray Accumulations

Before (Measured): 13:05:20 26-Dec-2014

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
RGR Zero Measurement	gAPI	Before		0	68.156	120.000	
RGR Plus Measurement	gAPI	Before	165.000	150.000	152.678	180.000	

Company: Whiting Oil Gas Corp

Schlumberger

Well:	Horsetail 19N 1924M
Field:	Wildcat
County:	Weld
State:	Colorado

Isolation Scanner Field Print

Casing Integrity

Gamma Ray - CCL Log