

Company: Crestone Peak Resources and Operating LLC

Well: Echeverria 2K-2H-D267

Field: Wattenberg

County: Weld State: Colorado

Isolation Scanner
Cement Evaluation
Gamma Ray - CCL Log

County: Weld

Field: Wattenberg

Location: NWNW Sec. 2, T2N, R67W

Well: Echeverria 2K-2H-D267

Company: Crestone Peak Resources and Operating LLC

Isolation Scanner

Cement Evaluation

Gamma Ray - CCL Log

Location:		Elev.:		K.B.	4904.00 ft
NWNW Sec. 2, T2N, R67W				G.L.	4881.00 ft
SHL: 897' FNL & 659' FWL				D.F.	4904.00 ft
Lat/Long: 40.172030 \ -104.864612					
Permanent Datum:	Ground Level	Elev.:		4881.00 f	
Log Measured From:	Kelly Bushing	23.00 ft		above Perm.Datum	
Drilling Measured From:	Kelly Bushing				
API Serial No.	Section:	Township:	Range:		
05-123-48751	2	2N	67W		

Logging Date	20-May-2019
Run Number	ONE
Depth Driller	12425.00 ft
Schlumberger Depth	7130.00 ft
Bottom Log Interval	7130.00 ft
Top Log Interval	272.00 ft
Casing Fluid Type	Brine
Salinity	
Density	8.4 lbm/gal
Fluid Level	8.00 ft
BIT/CASING/TUBING STRING	
Bit Size	8.50 in
From	2376.00 ft
To	7130.00 ft
Casing/Tubing Size	5.5 in
Weight	20 lbm/ft
Grade	N/A
From	0.00 ft
To	7130.00 ft
Max Recorded Temperatures	201.13 degF
Logger on Bottom	30-Dec-1899
Unit Number	9111
Recorded By	A.Blochowicz/A.Alkindi
Witnessed By	John Anshro

Disclaimer

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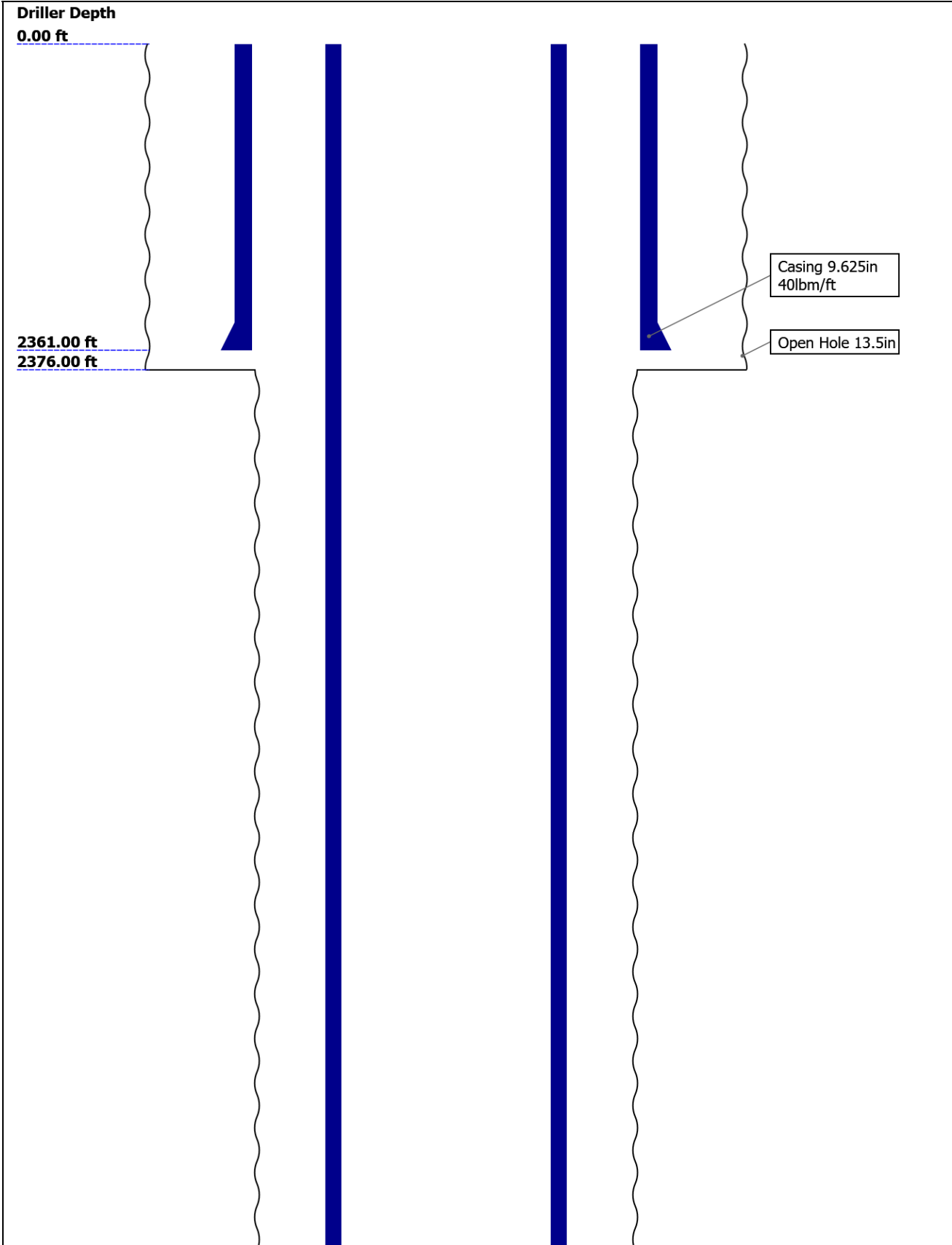
Contents

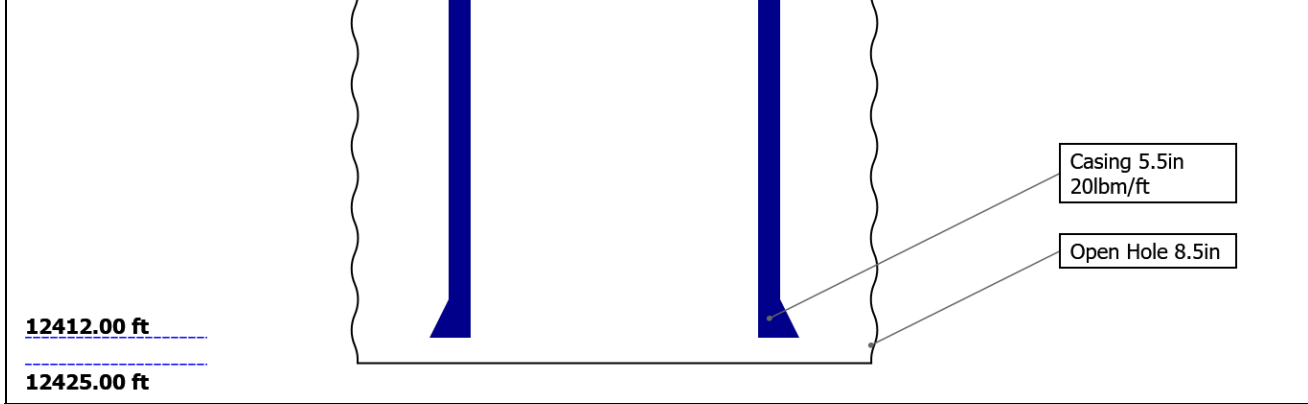
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Well Sketch





12412.00 ft

12425.00 ft

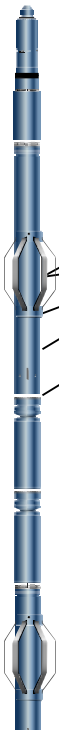
Casing 5.5in
20lbm/ft

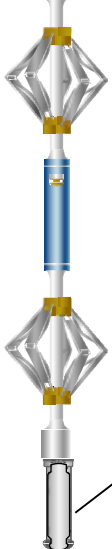
Open Hole 8.5in

Borehole Size/Casing/Tubing Record

Bit						
Bit Size (in)	13.5	8.5				
Top Driller (ft)	0	2376				
Top Logger (ft)	0	2376				
Bottom Driller (ft)	2376	12425				
Bottom Logger (ft)	2376	7130				
Casing						
Size (in)	9.625	5.5				
Weight (lbm/ft)	40	20				
Inner Diameter (in)	8.835	4.778				
Grade	N/A	N/A				
Top Driller (ft)	0	0				
Top Logger (ft)	0	0				
Bottom Driller (ft)	2361	12412				
Bottom Logger (ft)	2361	7130				

Remarks and Equipment Summary

ONE: Toolstring				ONE: Remarks	
<div><div><div>Equip nameLengthMP nameOffset</div><div>LEH-QT30.62LEH-QT</div><div>EDTC-B:827.14324EDTH-B:8101EDTG-A:77301EDTC-B:8324</div><div>AH-184[2]:376320.64</div><div>AH-184[1]:481218.64</div><div>USIT-E:9816.641ECH-MFA:1923USAC-A:981USIT-A:10</div></div><div></div><div><div>CTEM23.64</div><div>ACCZ0.00</div><div>HV0.00</div><div>Gamma21.77</div><div>Ray</div><div>TelStatu20.64</div><div>s</div></div></div>	Thank you for choosing Schlumberger!				
	Toolstring run centralized as per toolsketch				
	5" Gemco and in-line centralizers with small hole kit and booster kit used for centralization				
	Log run under 0 psi				
	Annular Fluid: 10.5 ppg OMB Spacer: 11 ppg Lead Cement: 12.5 ppg Tail Cement: 13.5 ppg				
	Data affected by sub wobble at top of well.				
	Crew: Alex Schaab				

USIS-A:18 67 USSC-B:75 5 IBCS-A:83 5 FAR-SENS OR:4495 IBC-TX NEAR-SEN SOR:4715 IBC-TX USI-SENS OR:3601 IBC-TX EMITTER- SENSOR:4 612 IBC-TX	 <p>USI Sensor Head Tension</p> <p>TOOL_ZERO</p> <p>Lengths are in ft Maximum Outer Diameter = 5.000 in Line: Sensor Location, Value: Gating Offset All measurements are relative to TOOL_ZERO</p>	
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Depth Summary			
	ONE		
Depth Measuring Device			
Type	IDW-JA		
Serial Number	6241		
Calibration Date	30-Apr-2019		
Calibrator Serial Number	IDWC-C-57		
Calibration Cable Type	7-46 PXS		
Wheel Correction 1	-1		
Wheel Correction 2	-2		
Tension Device			
Type	CMTD-B/A		
Serial Number	161		
Calibration Date	13-May-2019		
Calibrator Serial Number	1148		
Number of Calibration Points	10		
Calibration Root Mean Square Error	6		
Calibration Peak Error	10		
Logging Cable			
Type	7-46P-XS		
Serial Number	U712020		
Length	23245.00 ft		
Conveyance Type	Wireline		
Rig Type	Crane		
ONE:Depth Control Parameters		Depth Control Remarks	
Log Sequence	First Log In the Well	All Schlumberger depth control procedures were followed	
Rig Up Length At Surface		IDW used as primary depth control.	
Rig Up Length At Bottom		Z-chart used as secondary depth control	
Rig Up Length Correction		Depth correlated to down pass.	

Stretch Correction
Tool Zero Check At Surface

USIT - Fluid Properties Measurement

Run Name	Pass Name	Start Depth(ft)	Stop Depth(ft)
Run 1	Log[4]:Up	7132.28	272.23

Fluid Velocity = "Automatic".
CFVL equals DFSL channel

Start Depth(ft)	Stop Depth(ft)	Start Value(us/ft)	End Value(us/ft)
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Mud Impedance = "FreePipe Norm."
Free Pipe normalization zone is : 322.14m(1056.89ft) to 325.25m(1067.10ft)
MUD_N_FRP = 1.21
DFD = 1.01g/cm3(8.40lbm/gal)
CZMD median computed in free pipe normalization interval = 1.70 MRayl

Start Depth(ft)	Stop Depth(ft)	Start Value(Mrayl)	End Value(Mrayl)
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ONE

IBC SLG

Software Version

Acquisition System	Version
Maxwell 2019	9.0.106845.3100

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
ONE	Log[4]:Up	Up	272.23 ft	7132.28 ft	20-May-2019 8:34:13 AM	20-May-2019 10:19:07 AM	ON	6.59 ft	Yes

All depths are referenced to toolstring zero

Log	Company:Crestone Peak Resources and Operating LLC Well:Echeverria 2K-2H-D267 ONE: Log[4]:Up:S043
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Description: USI IBC SLG Format: Log (IBC SLG) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 20-May-2019 21:36:46

TIME_1900 - Time Marked every 60.00 (s)

USIT Processing Flags (UFLG[0]) USIT-E

1 - UFLG 1 Value within [0.0 - 1.5] - :

2 - UFLG 2 Value within [1.5 - 2.5] - :

3 - UFLG 3 Value within [2.5 - 3.5] - :

4 - UFLG 4 UFLG 5 UFLG 6 Value within [3.5 - 6.5] - :

5 - UFLG 7 UFLG 8 UFLG 9 Value within [6.5 - 10] - :

UTIM Error

Pulse Origin Not Detected

WINLEN Error

Casing Thickness Error

Loop Processing Error

Casing Collar Locator Ultrasonic (CCLU) USIT-E

-20 in 20

Amplitude of Eccentering (ECCE) USIT-E

0 in 0.5

Motor Revolution

U L B R U

Orientation: Top of Hole

Absent 1.500 3.500

Explicit Normalization

USIT - USIT

Processing Flags (UFLG) USIT-E

USIT Processing Flags (UFLG[0]) USIT-E

1 5

Gamma Ray

U L B R U

Orientation: Top of Hole

Absent -5.200 -3.600 -2.000 -0.400

Explicit Normalization

Acoustic Impedance Minimum (AIMN) USIT-E

-1 Mrayl 9

Acoustic Impedance Average (AIAV) USIT-E

-1 Mrayl 9

Acoustic Impedance

U L B R U

Orientation: Top of Hole

Absent 1.500 3.500 5.500 7.500

Custom Normalization

Minimum Flexural Attenuation (U-USIT_UFAN) USIT-E

0 dB/m 150

Average Flexural Attenuation (U-USIT_UFAV) USIT-E

0 dB/m 150

Maximum Flexural

U L B R U

Orientation: Top of Hole

Absent 42.000 66.000 90.000 114.000

Custom Normalization

U L B R U

Orientation: Top of Hole

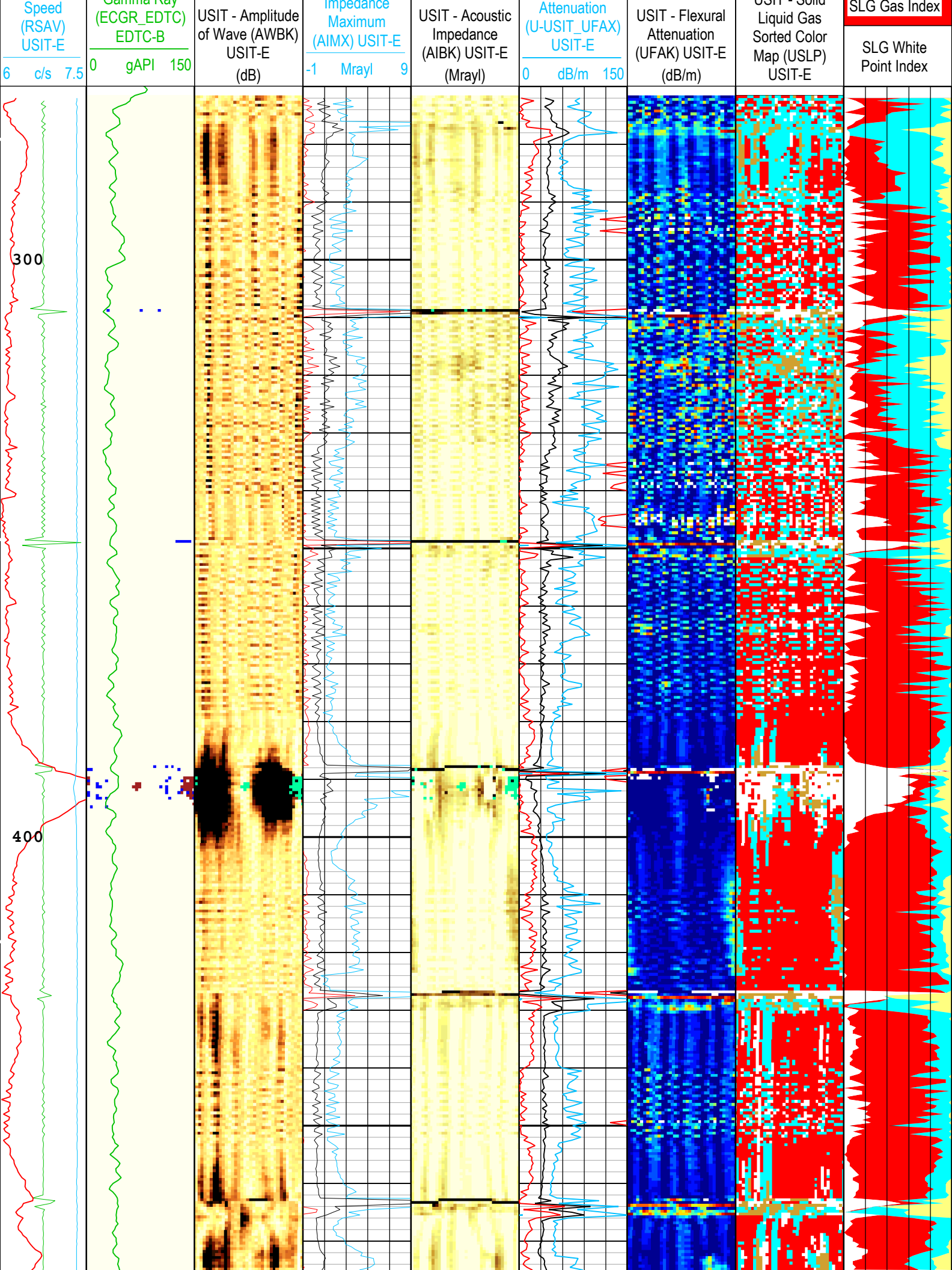
Absent 0.500 1.500 2.500 3.500

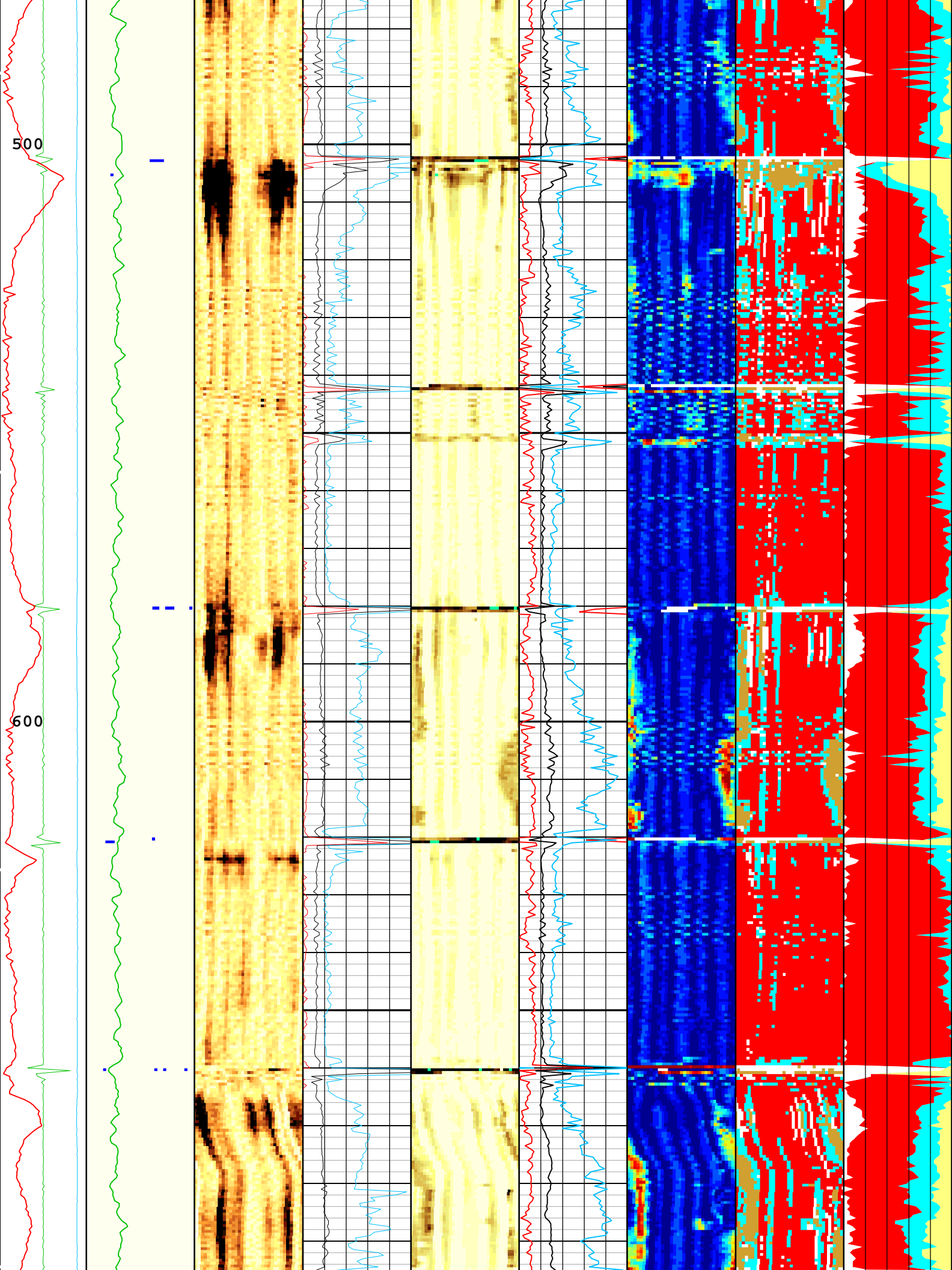
Explicit Normalization

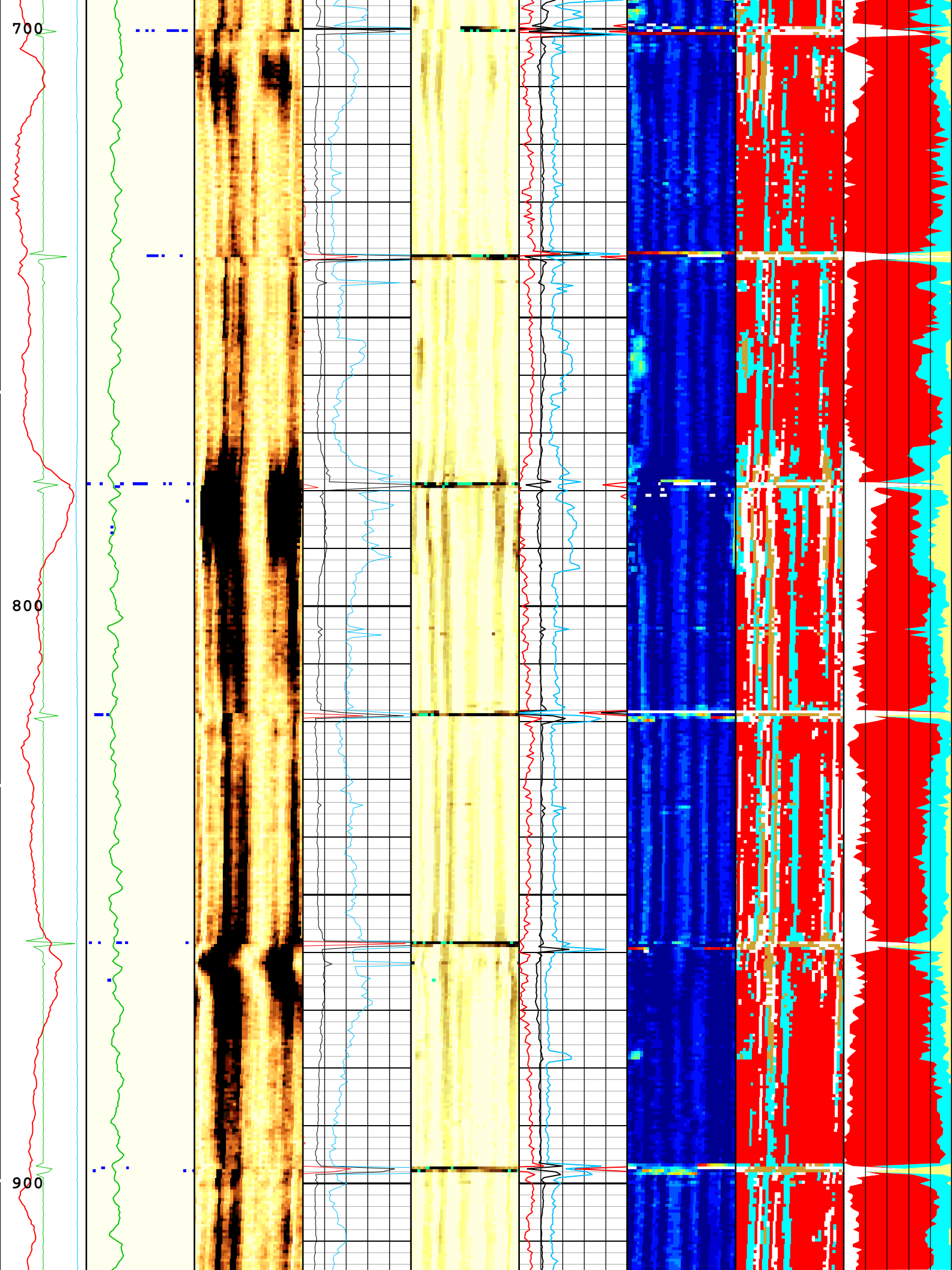
USIT - Solid

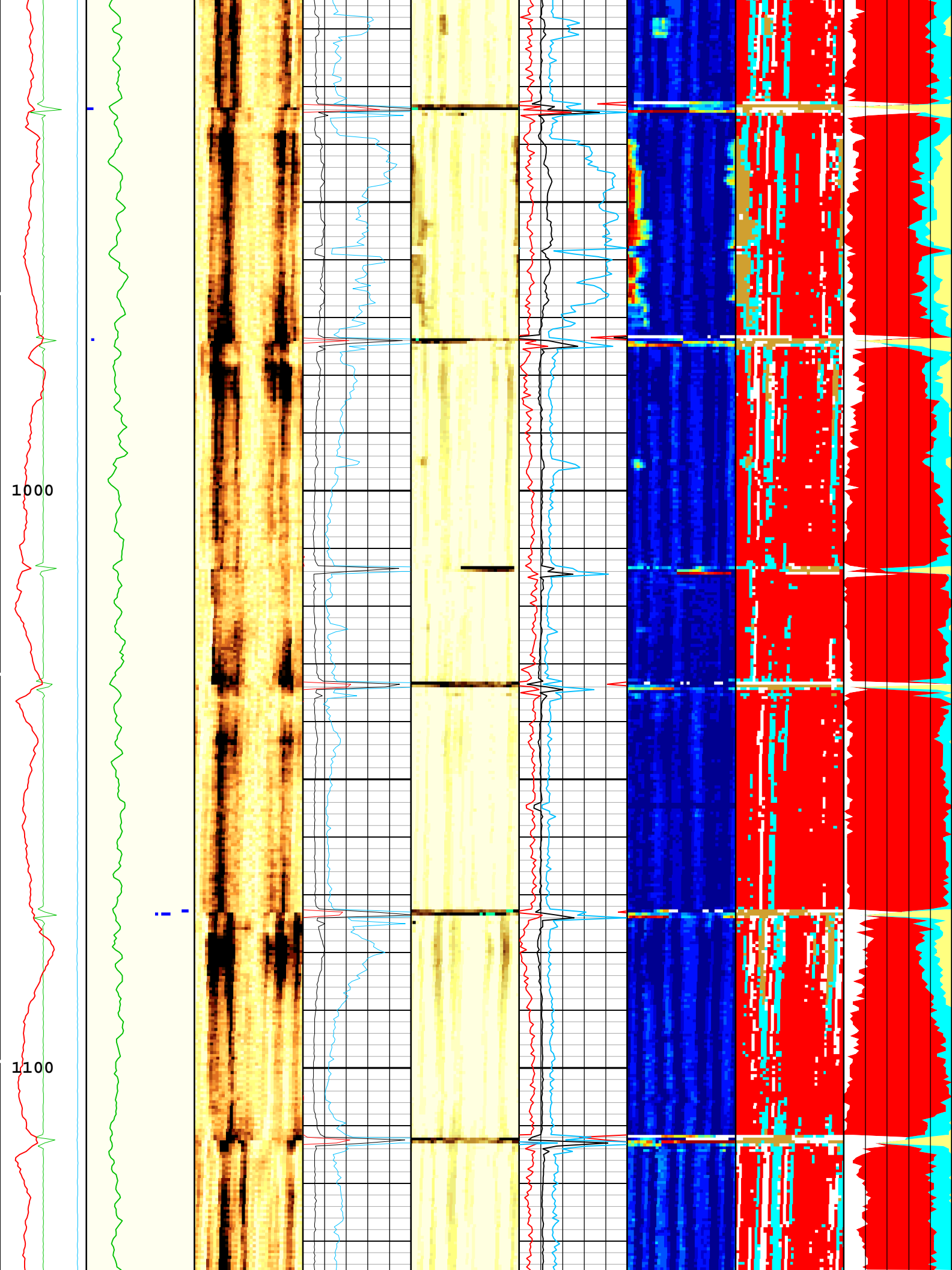
SLG Solid Index

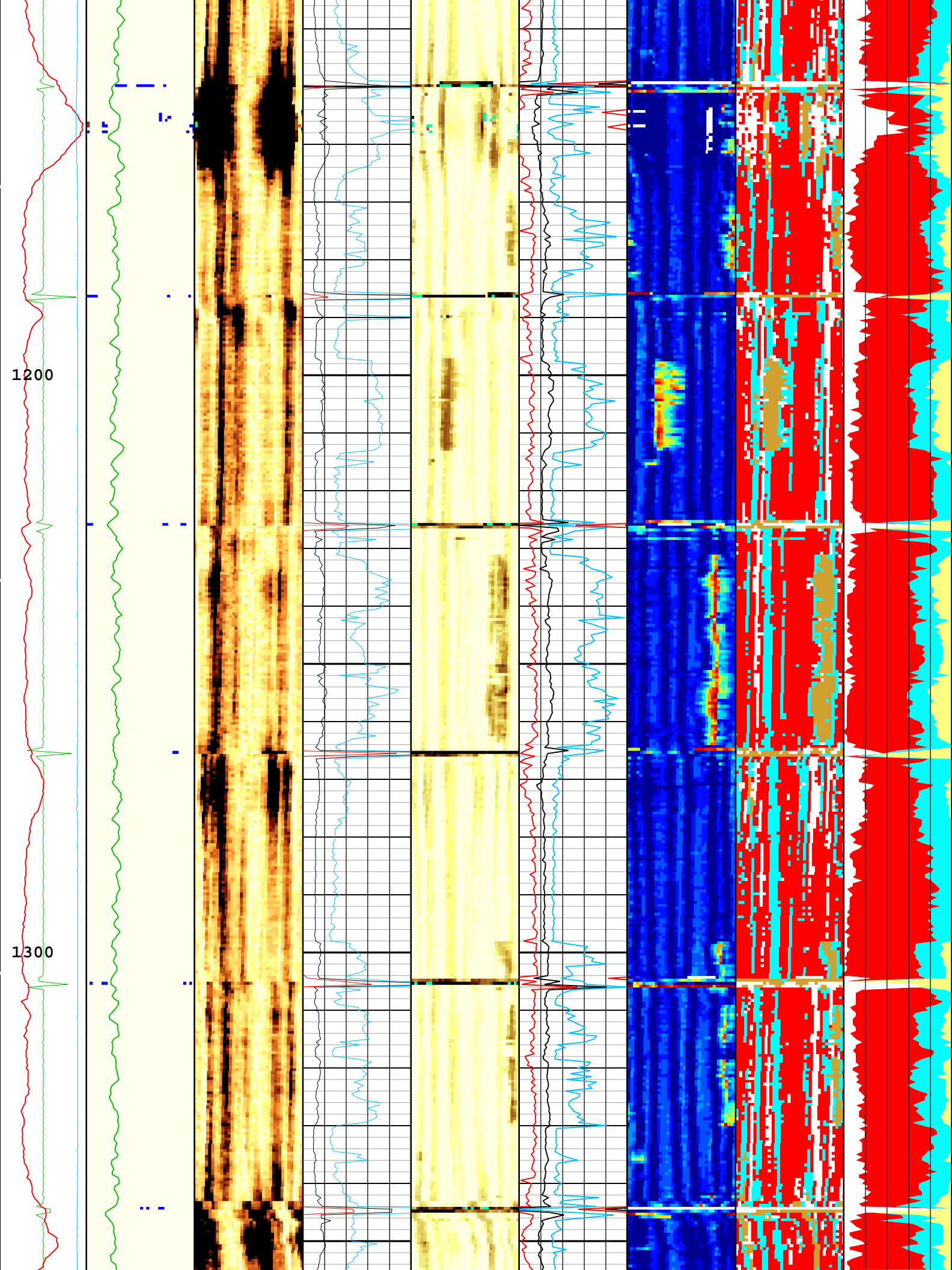
SLG Liquid Index

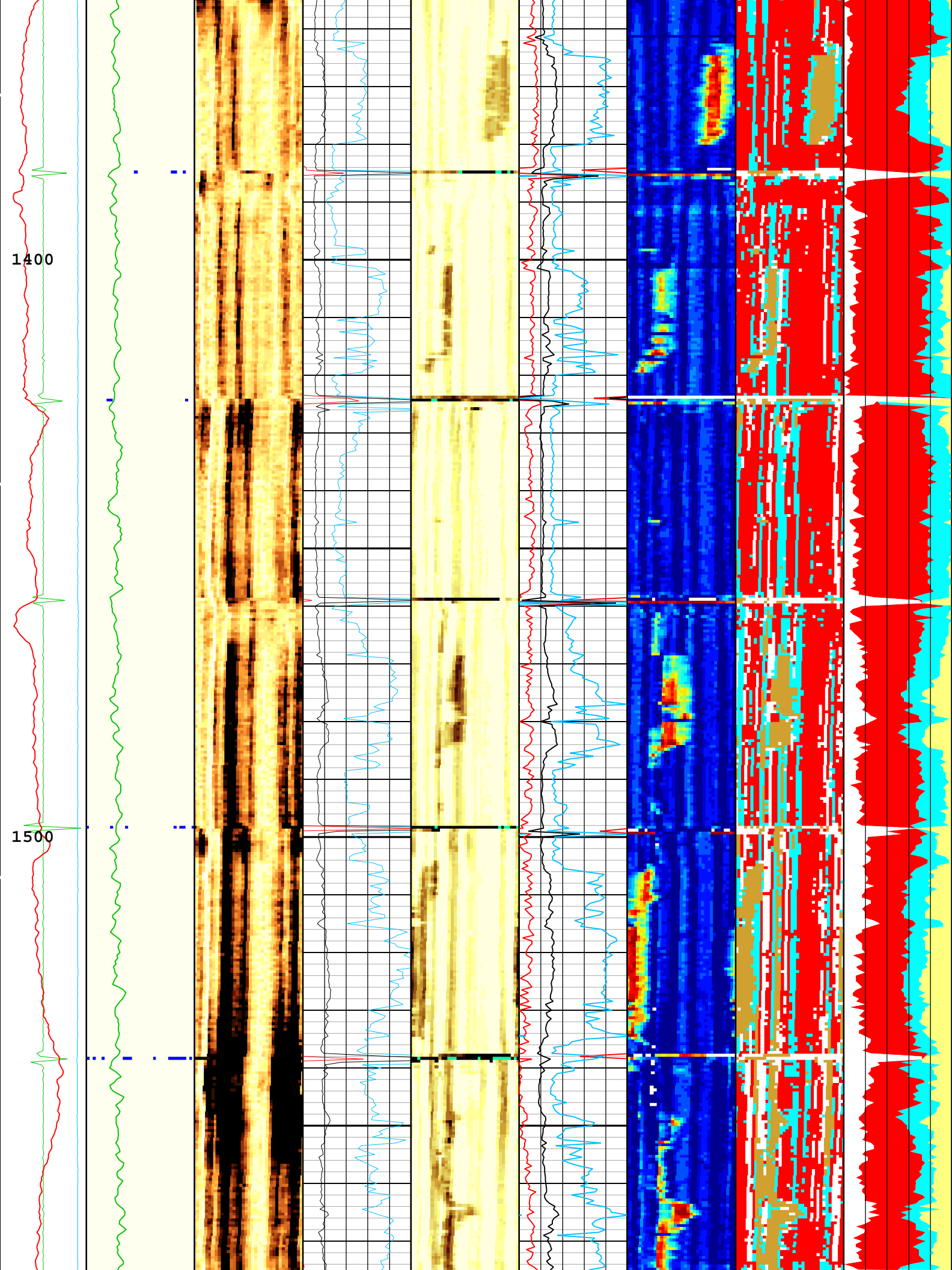


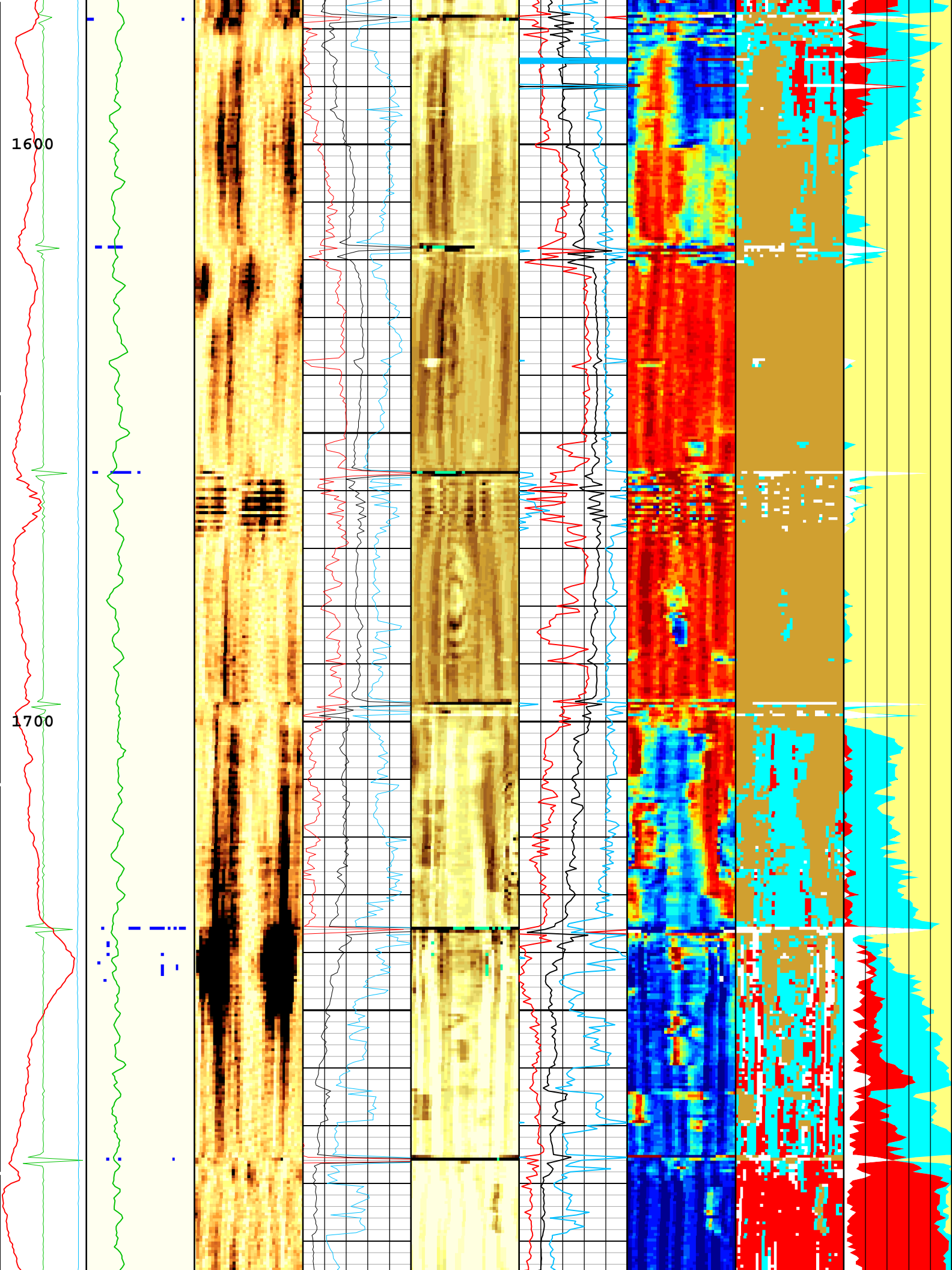


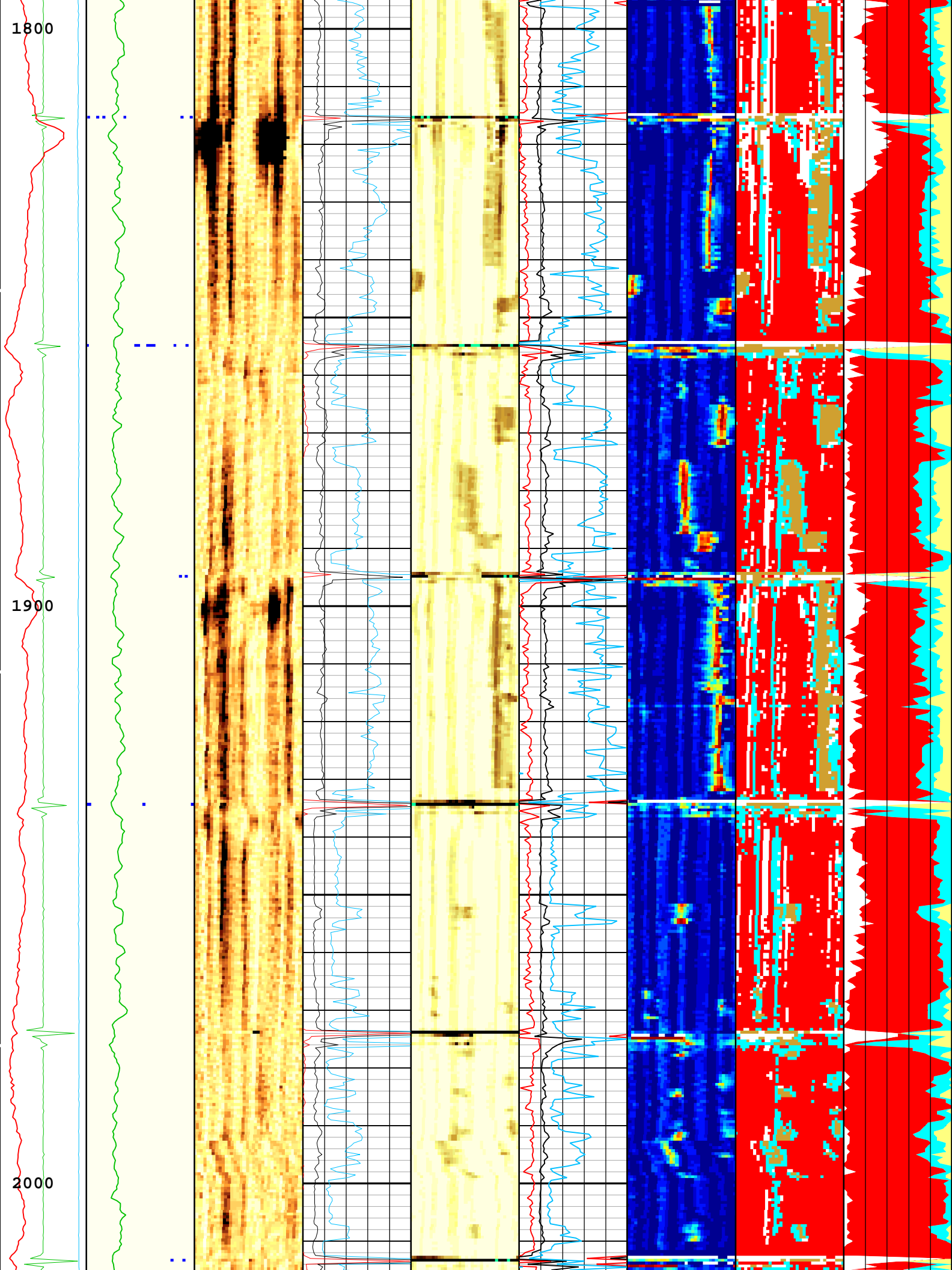


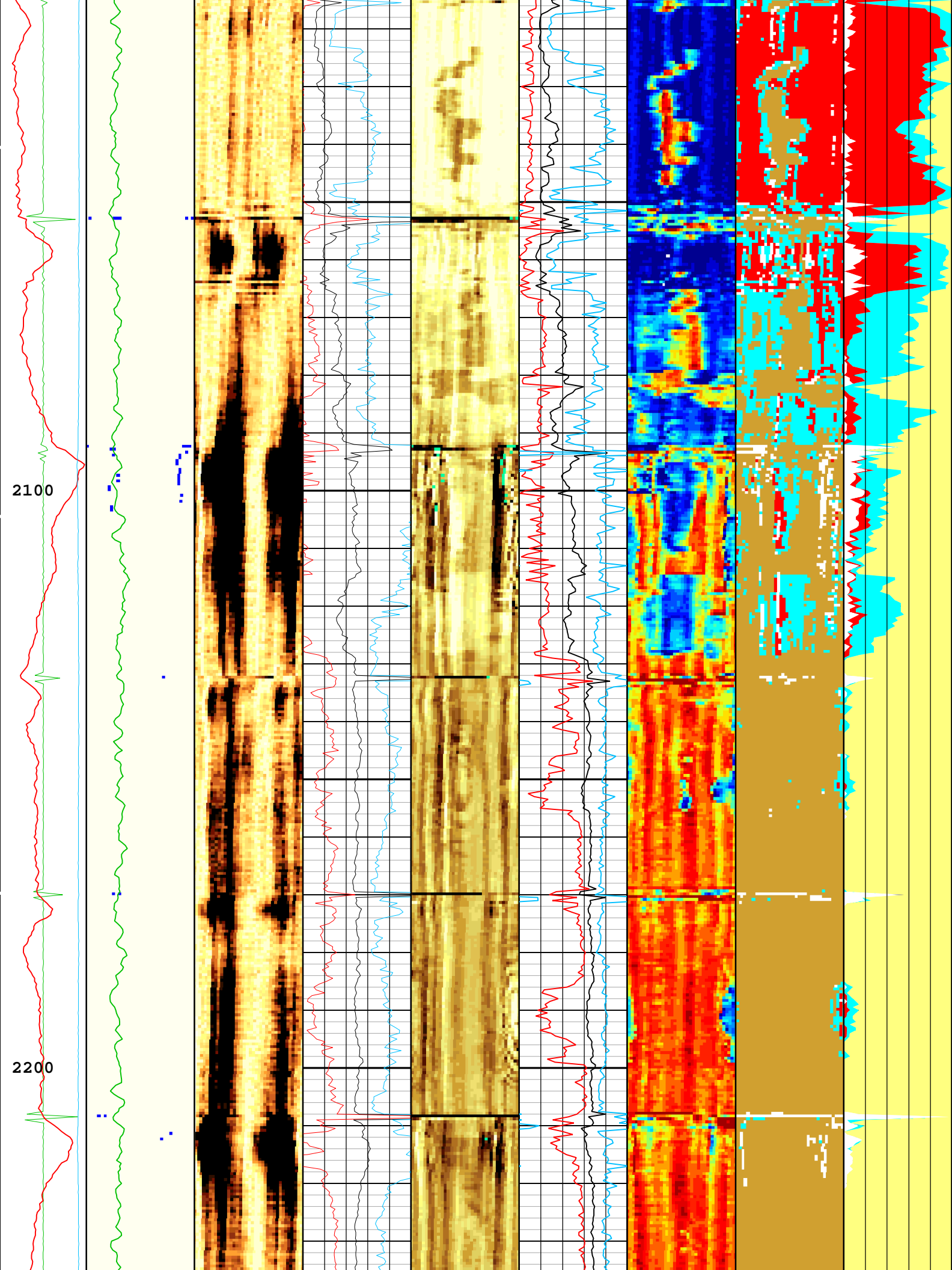


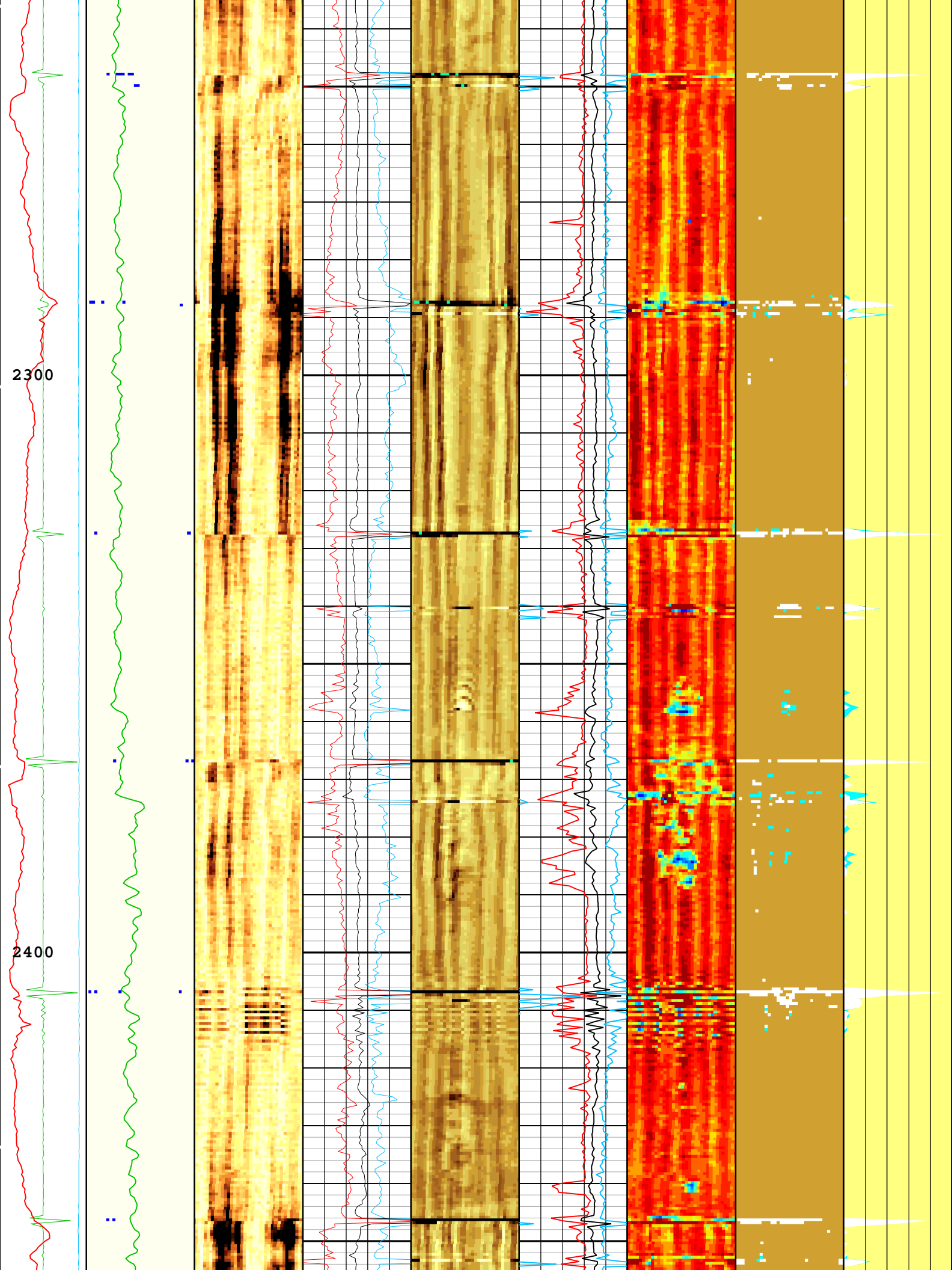


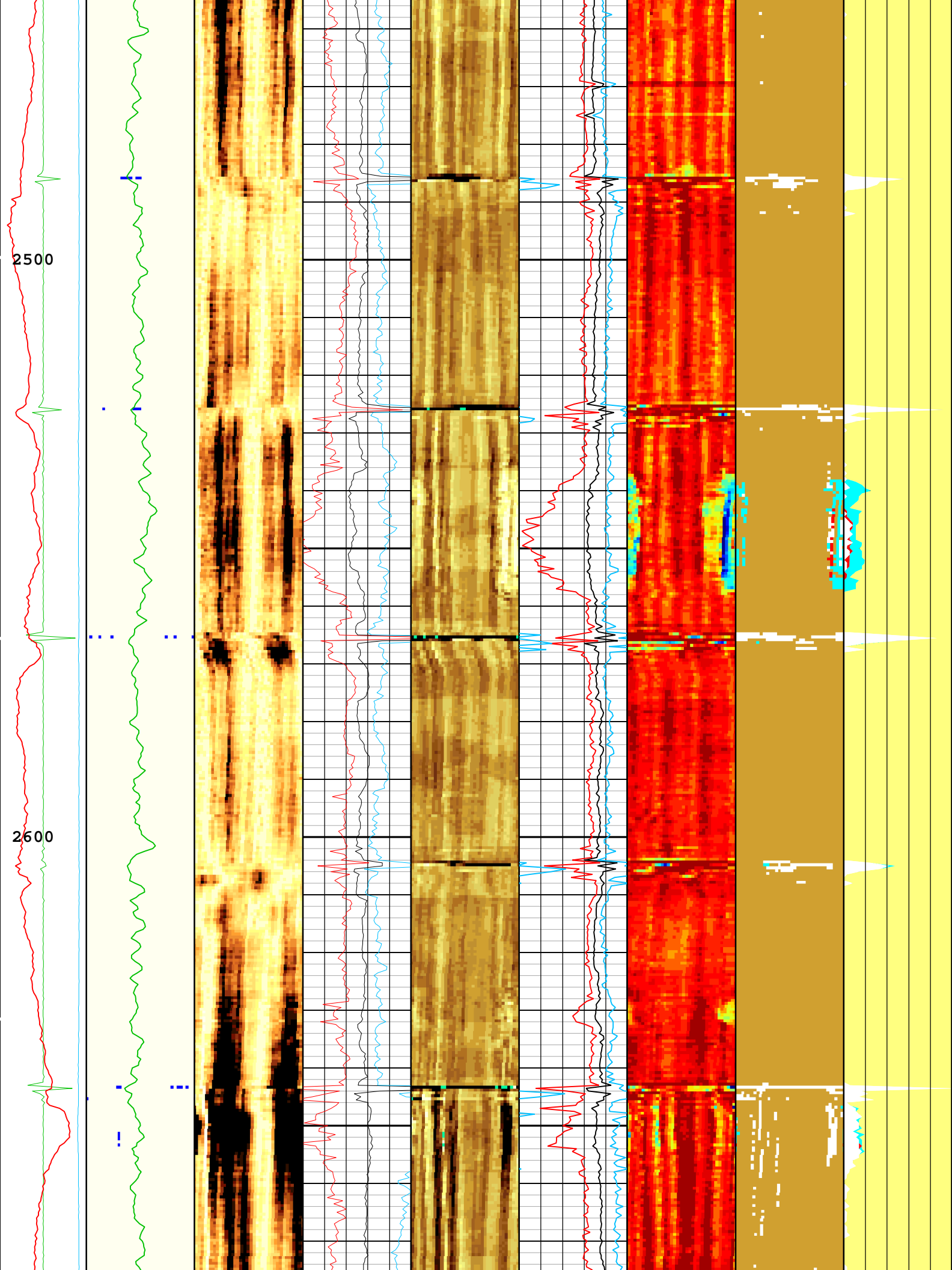


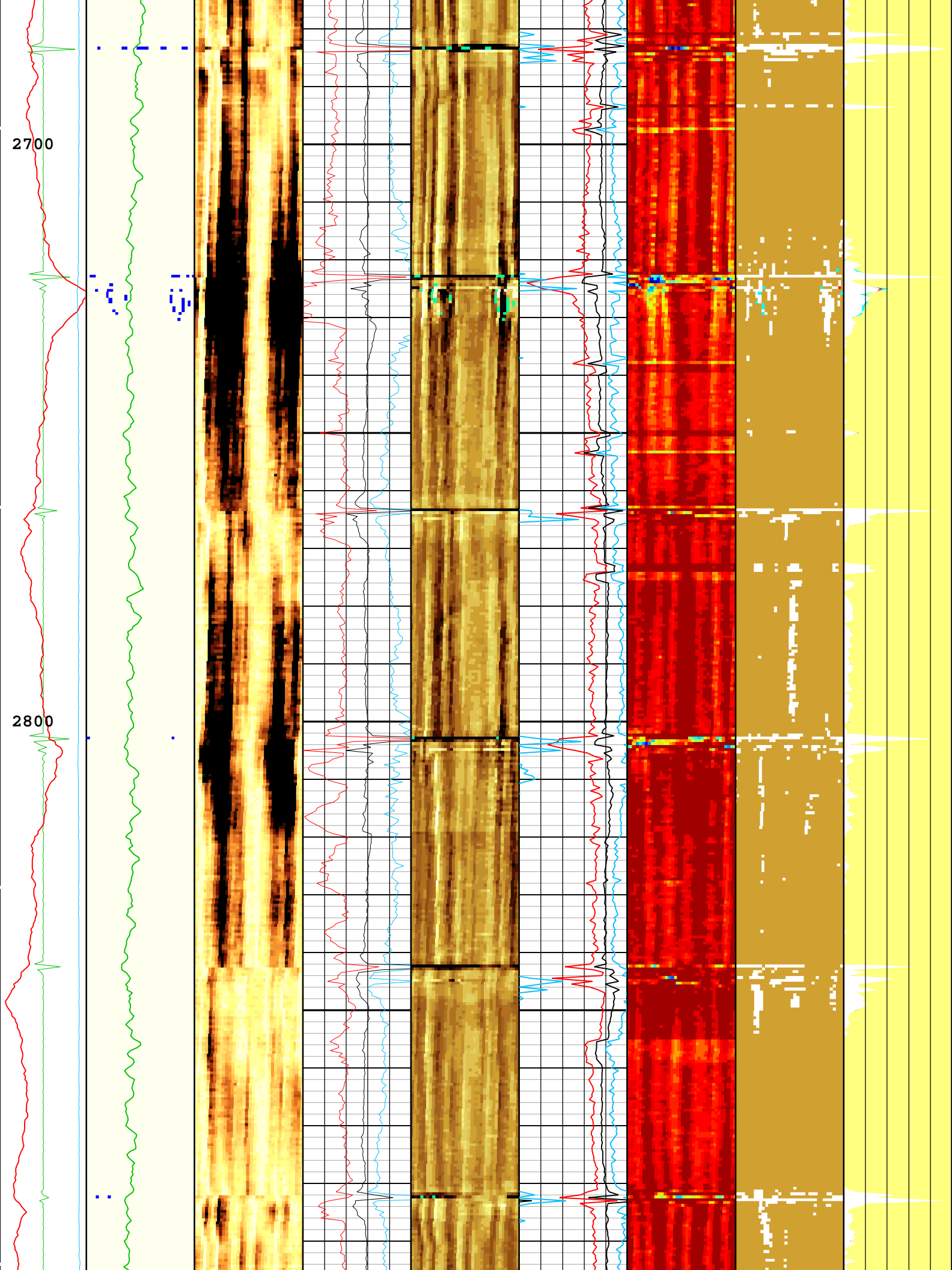


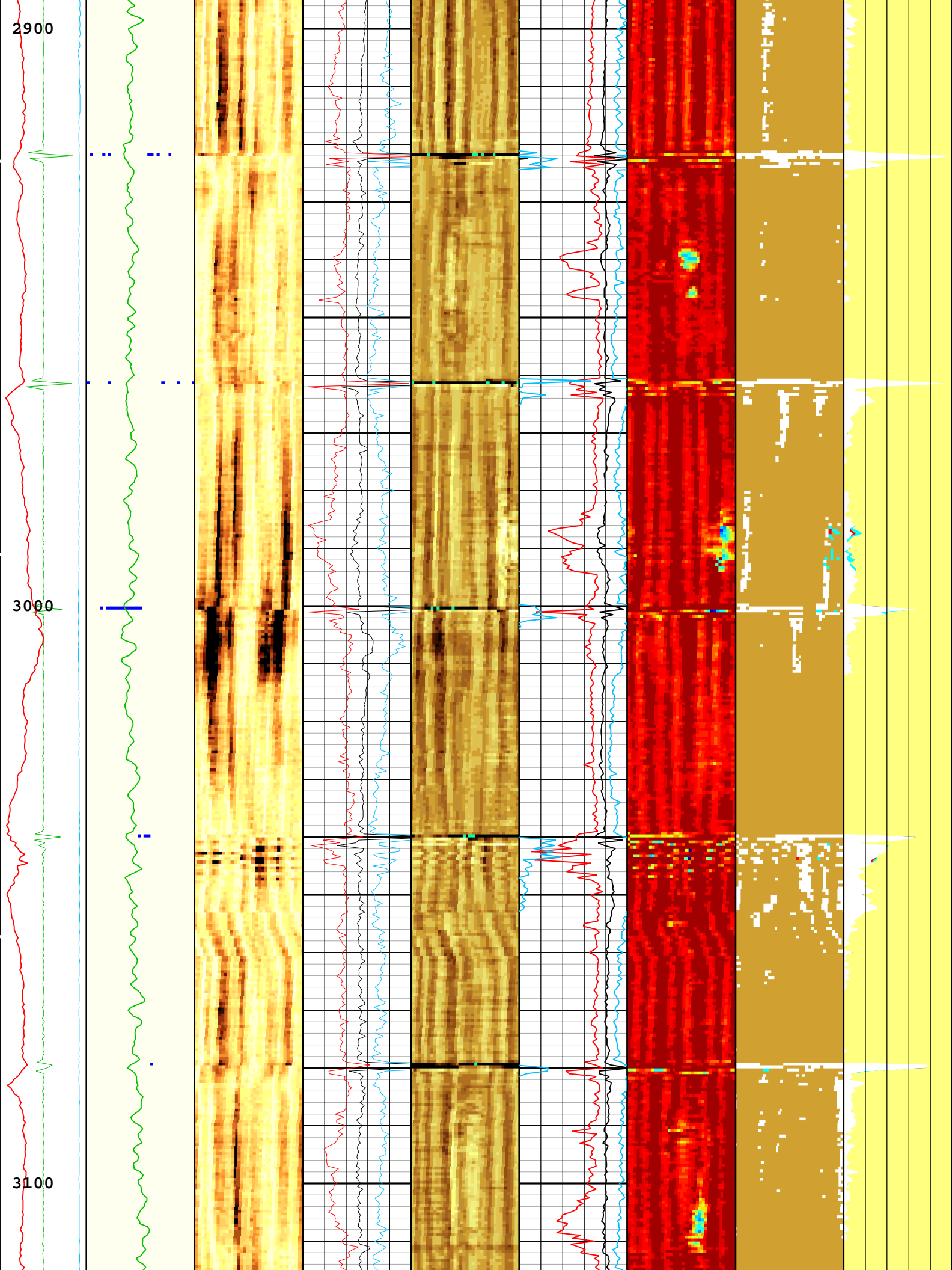


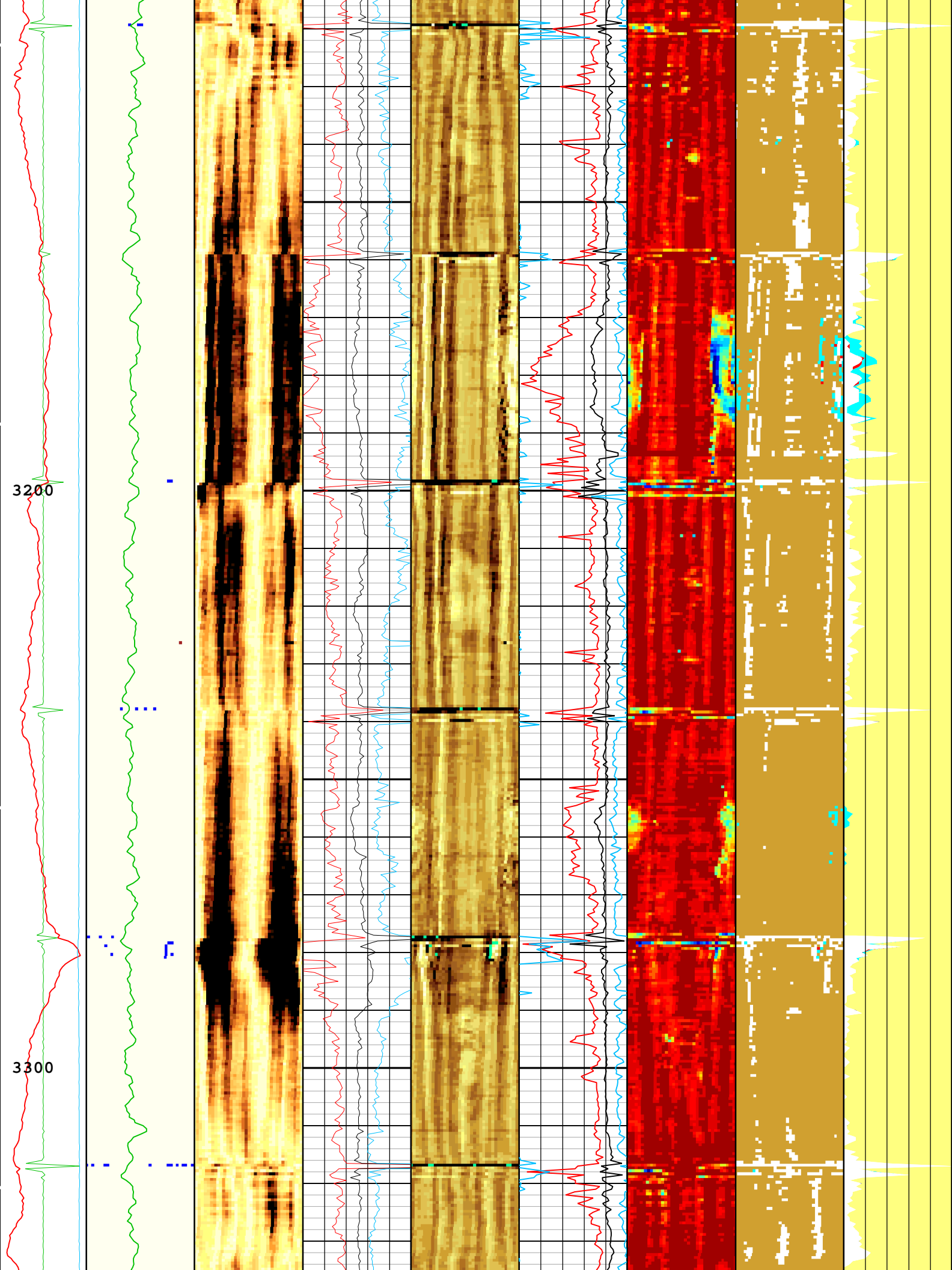


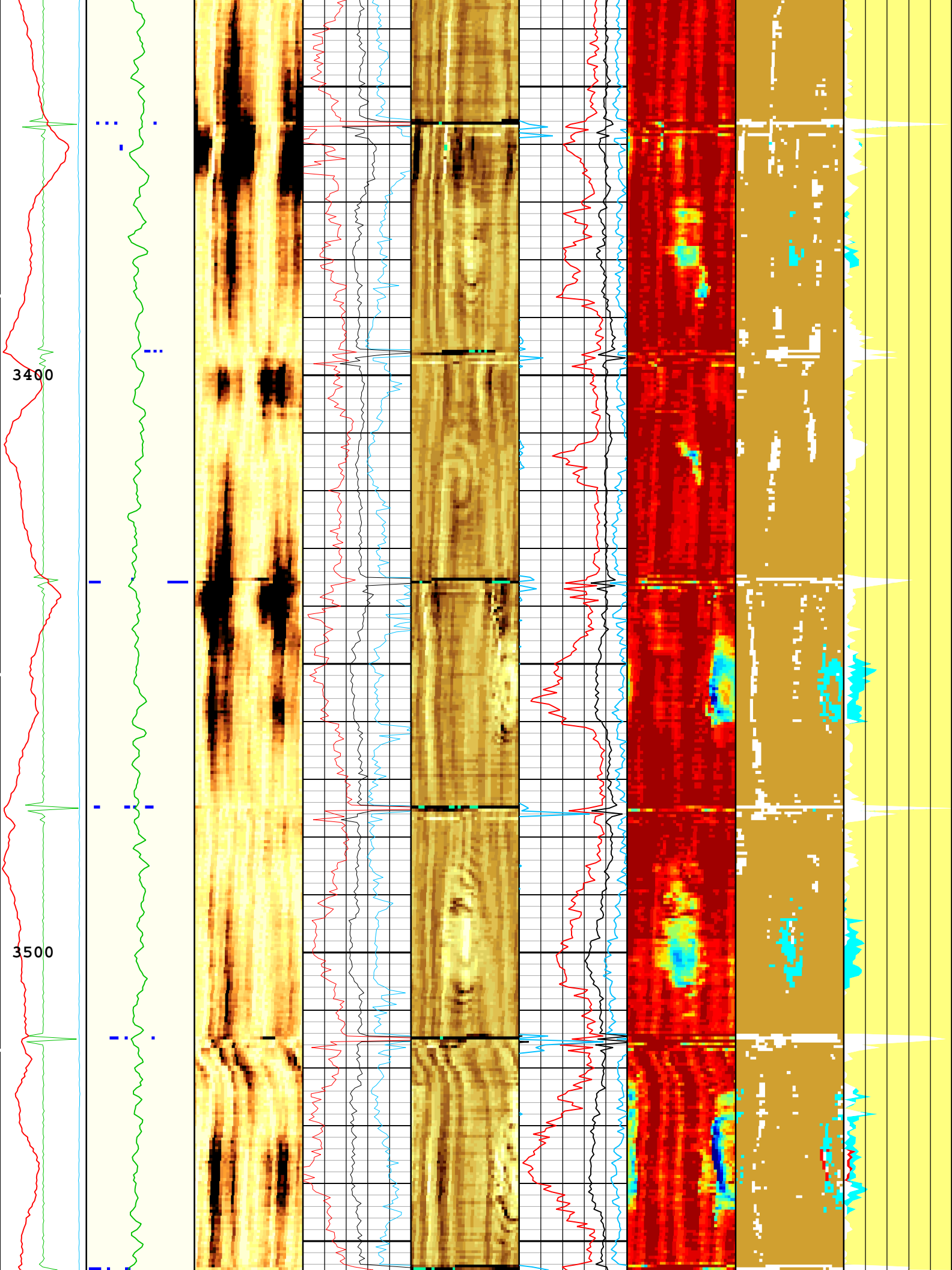


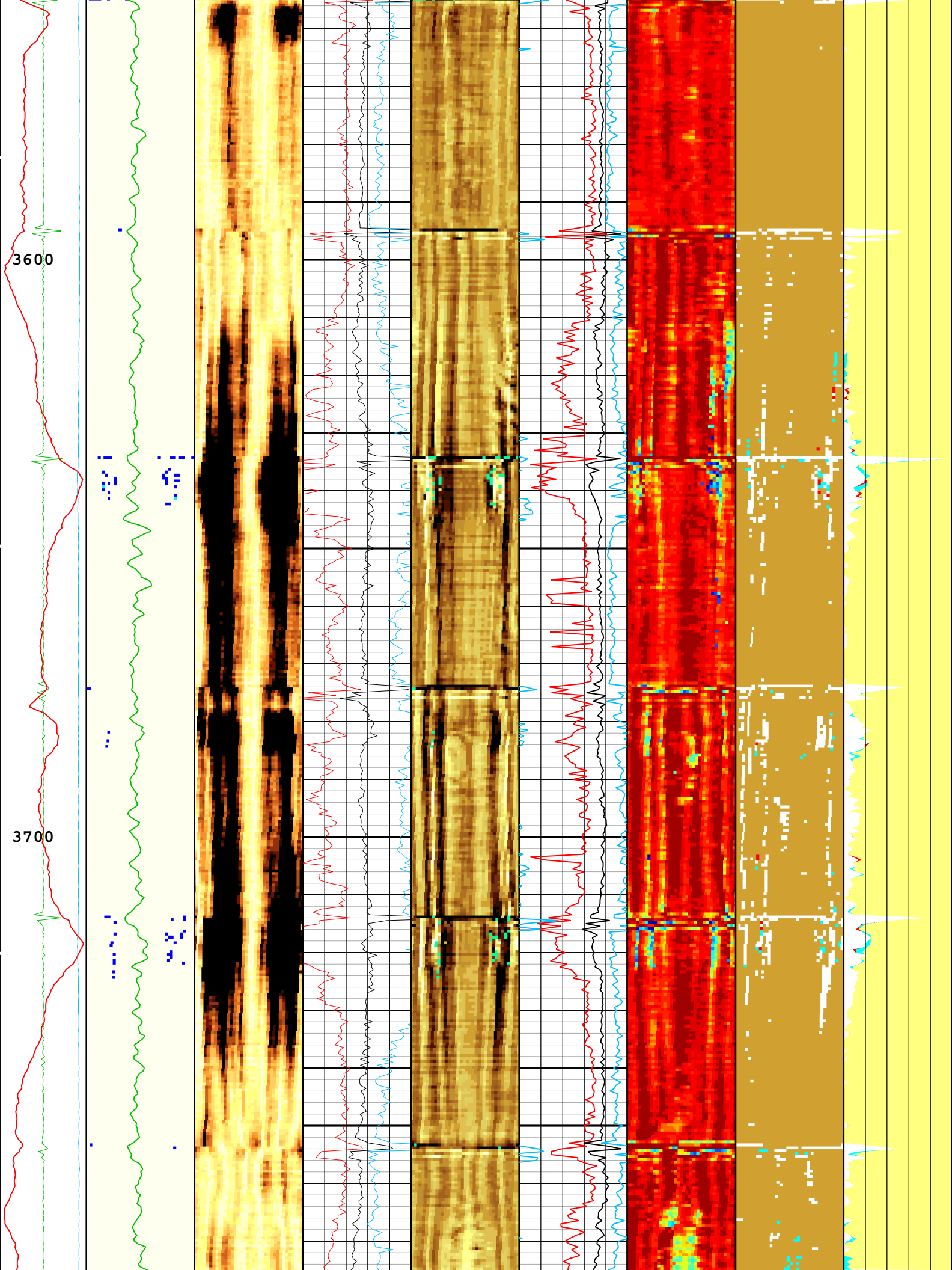


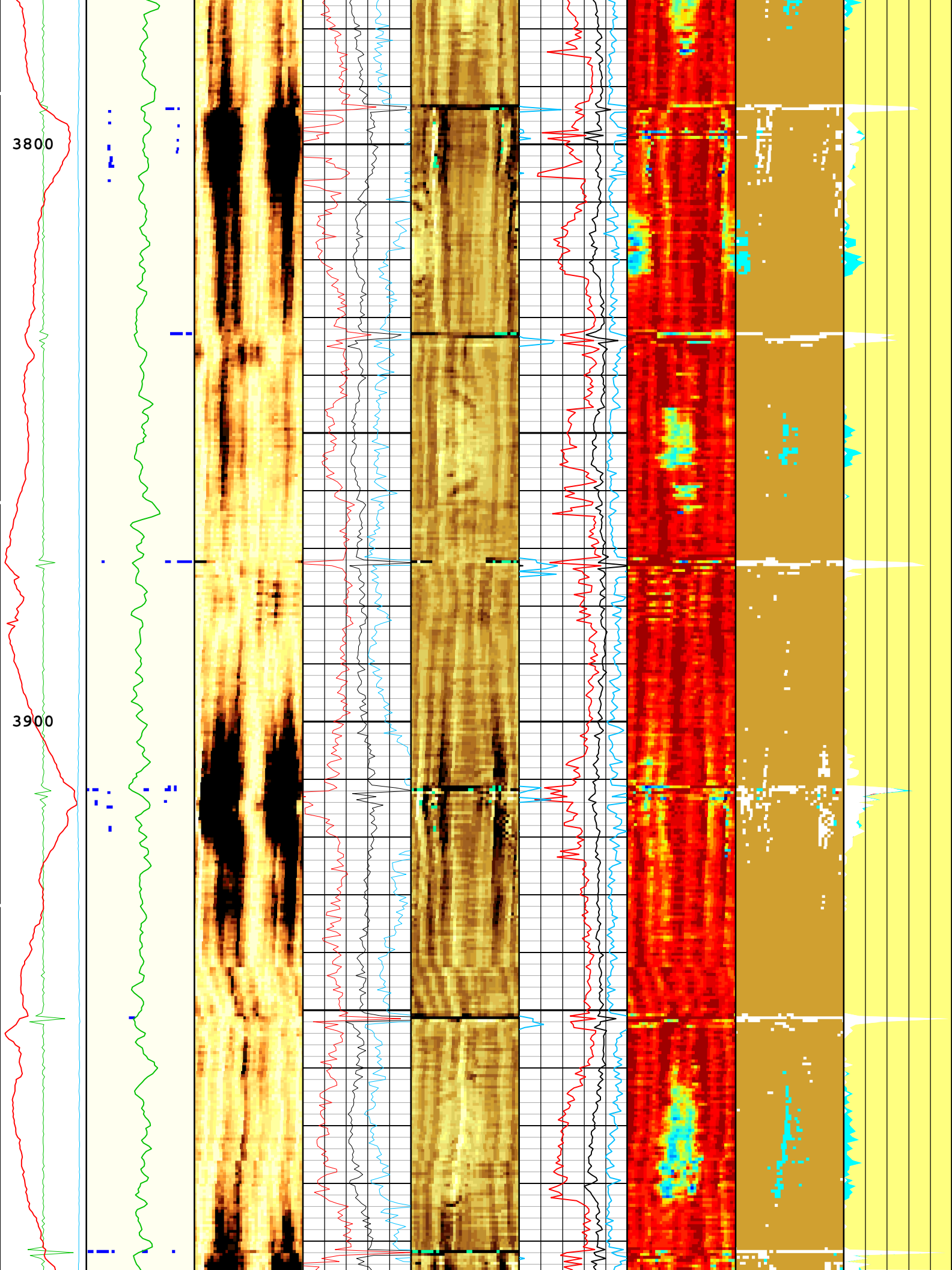


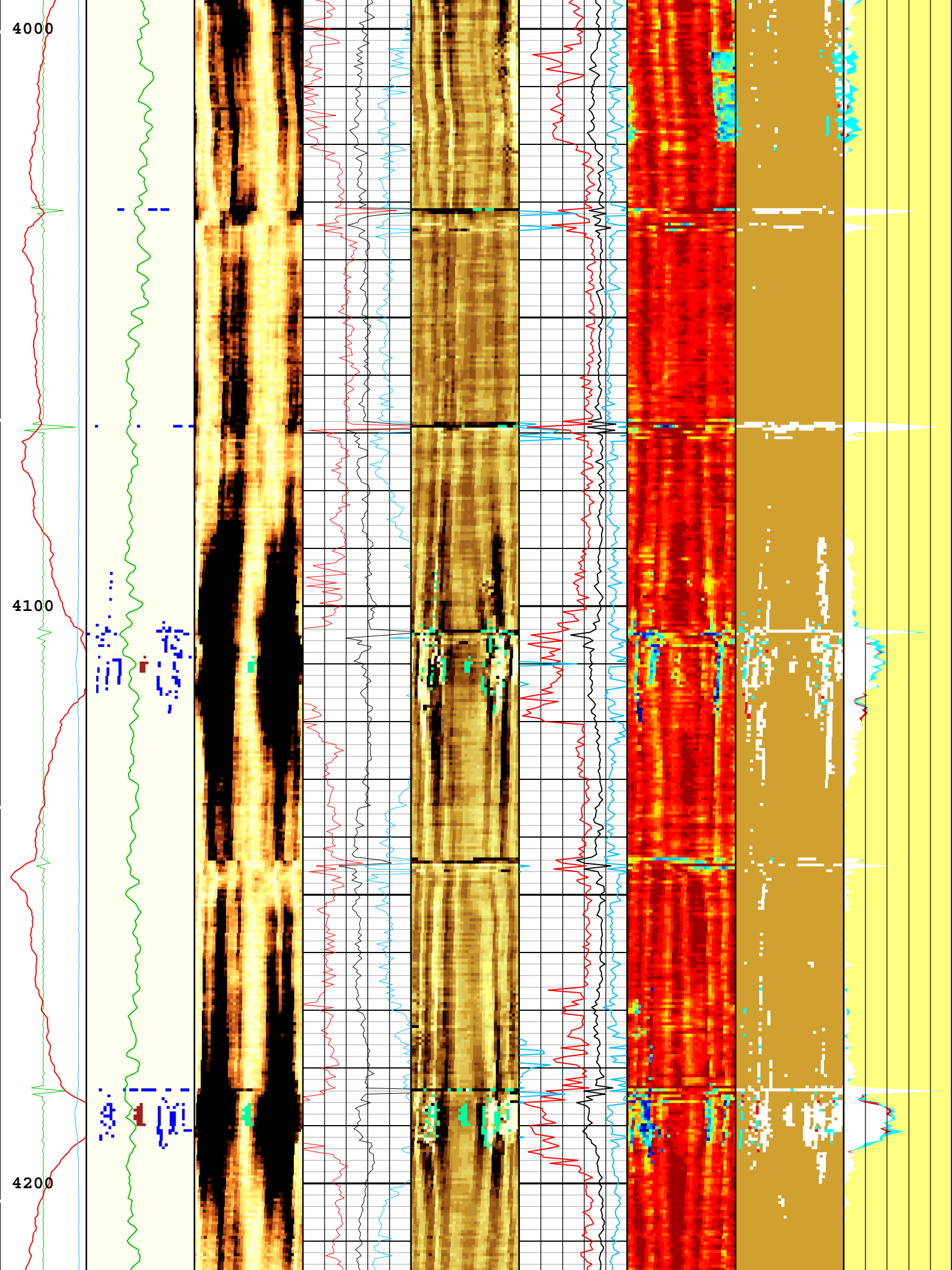


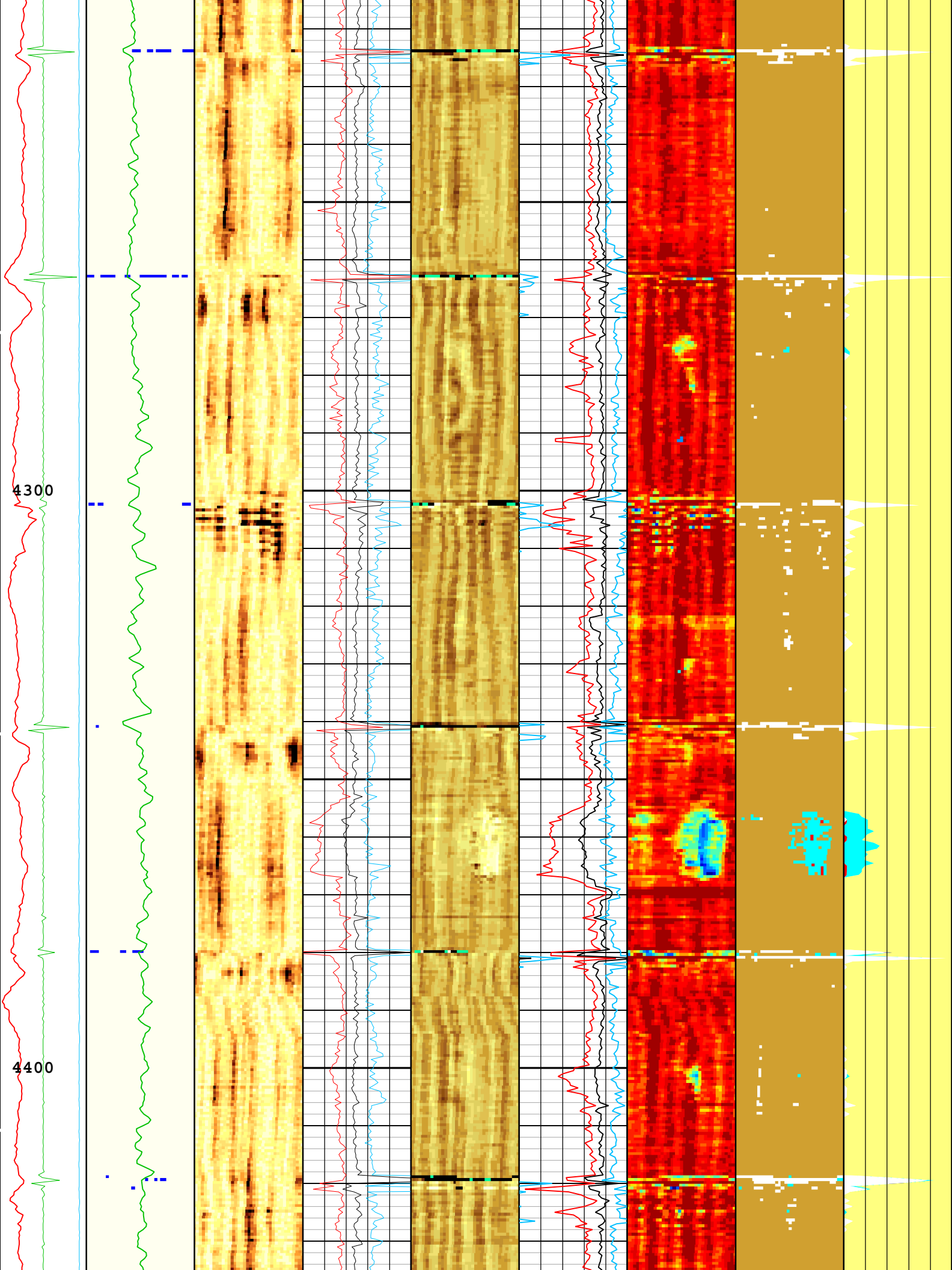


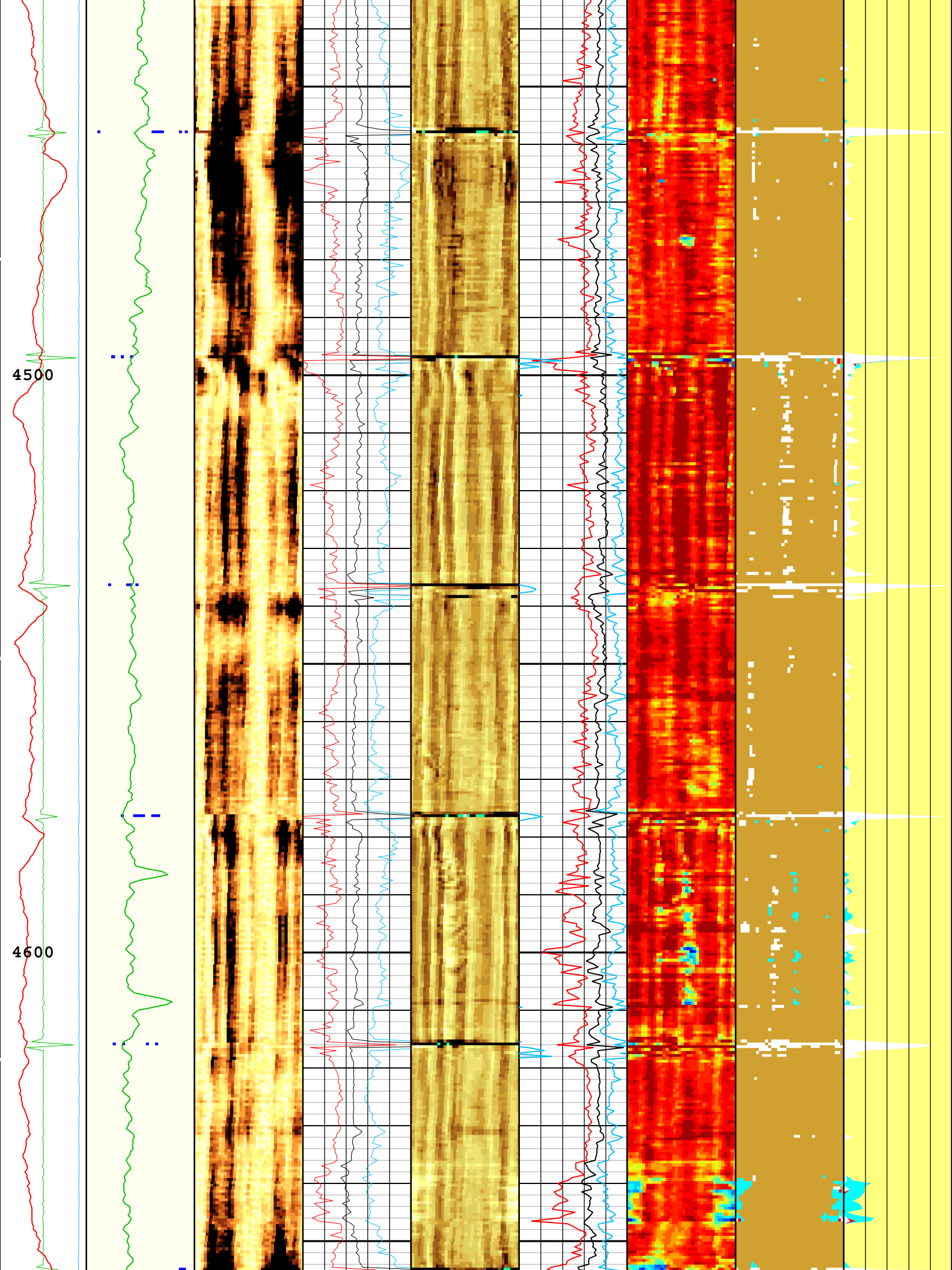


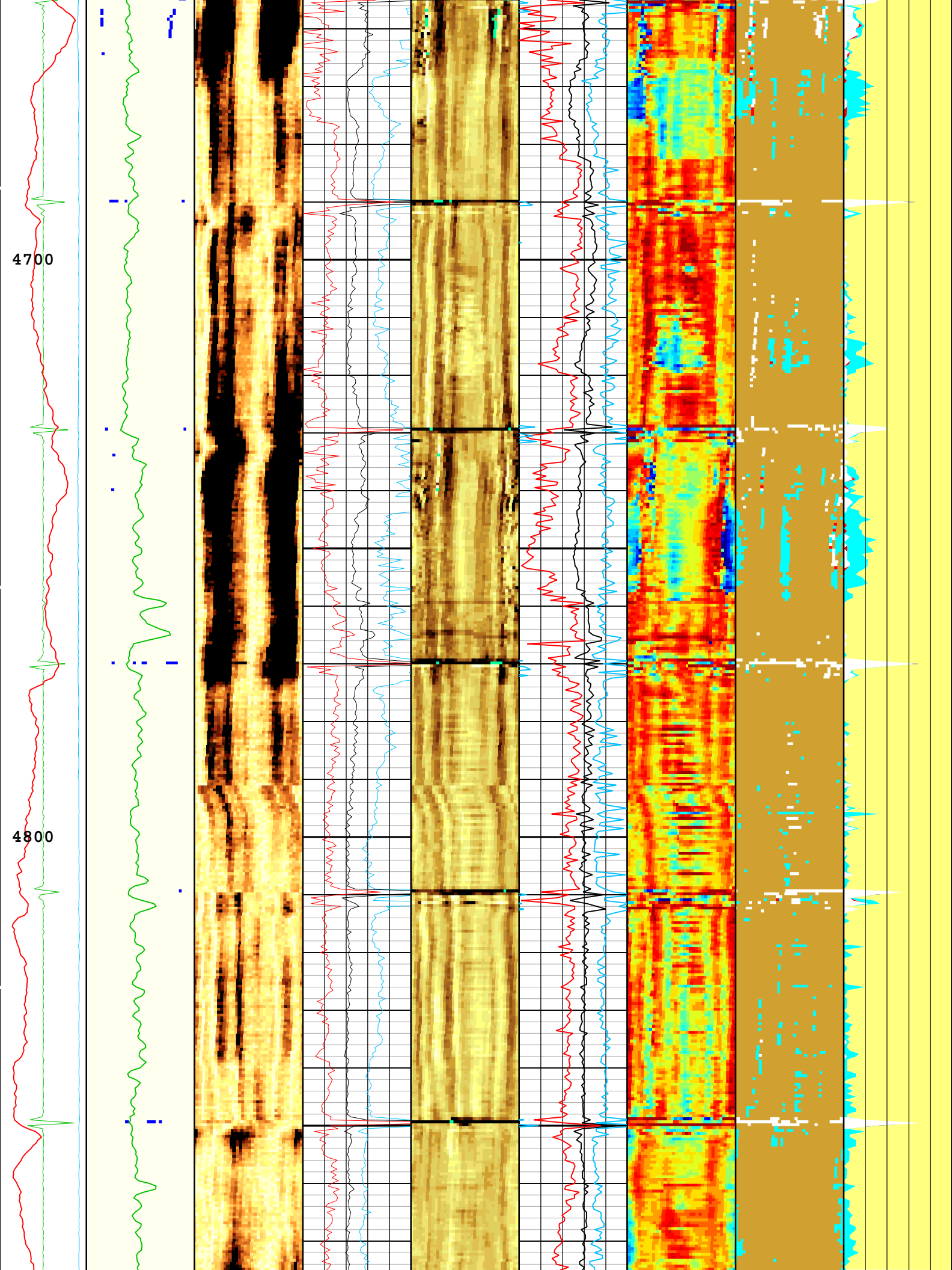


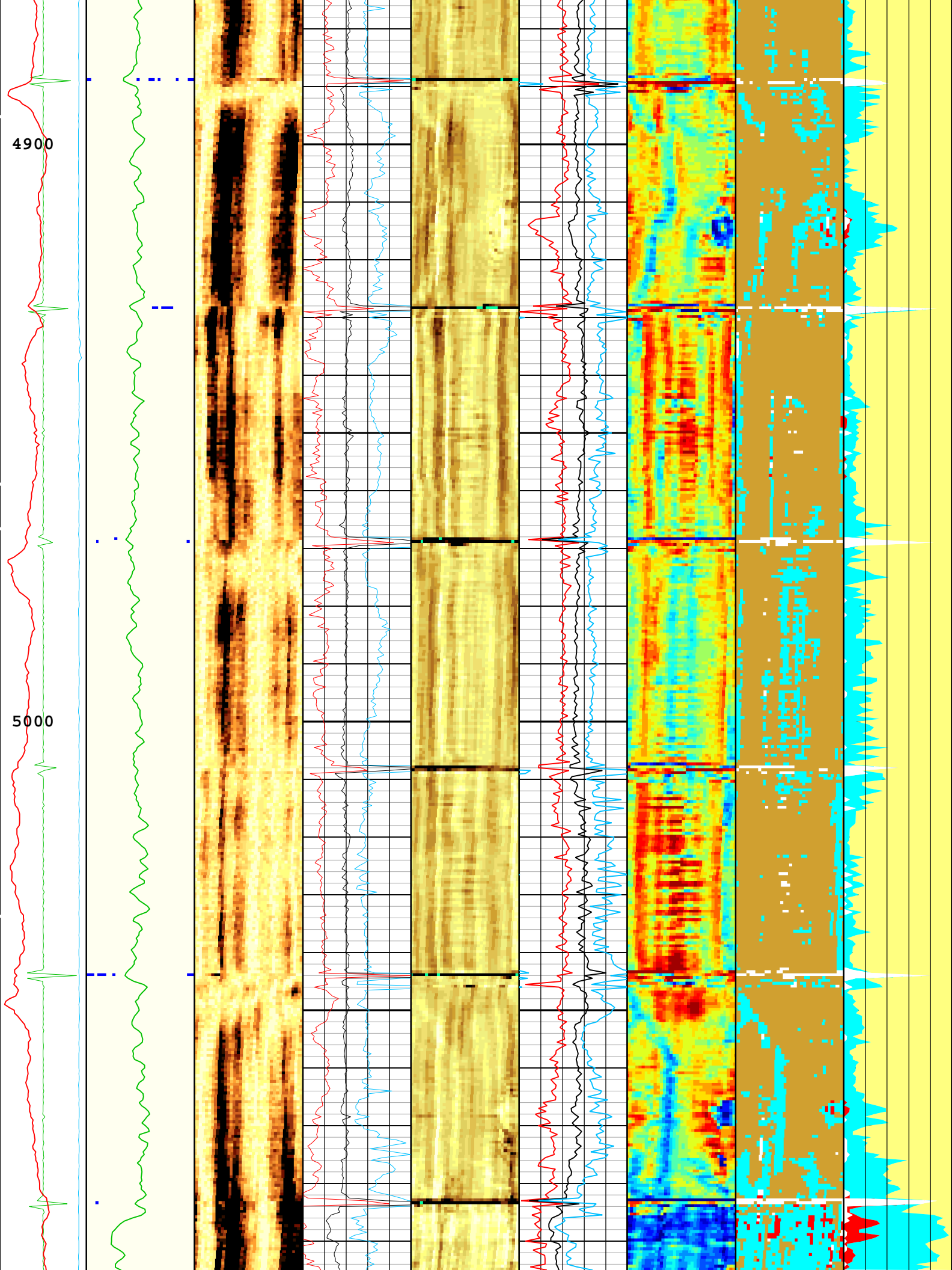


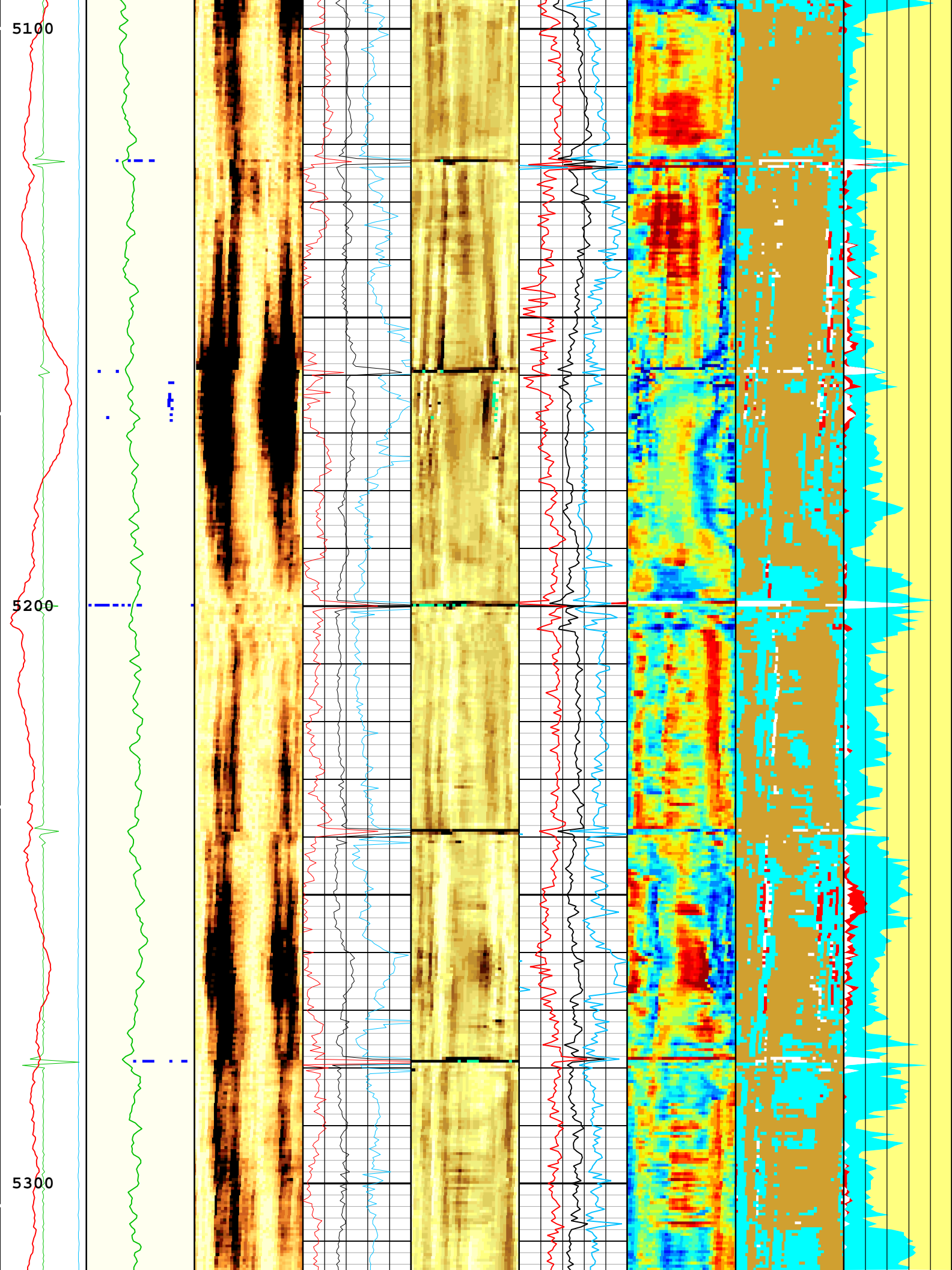


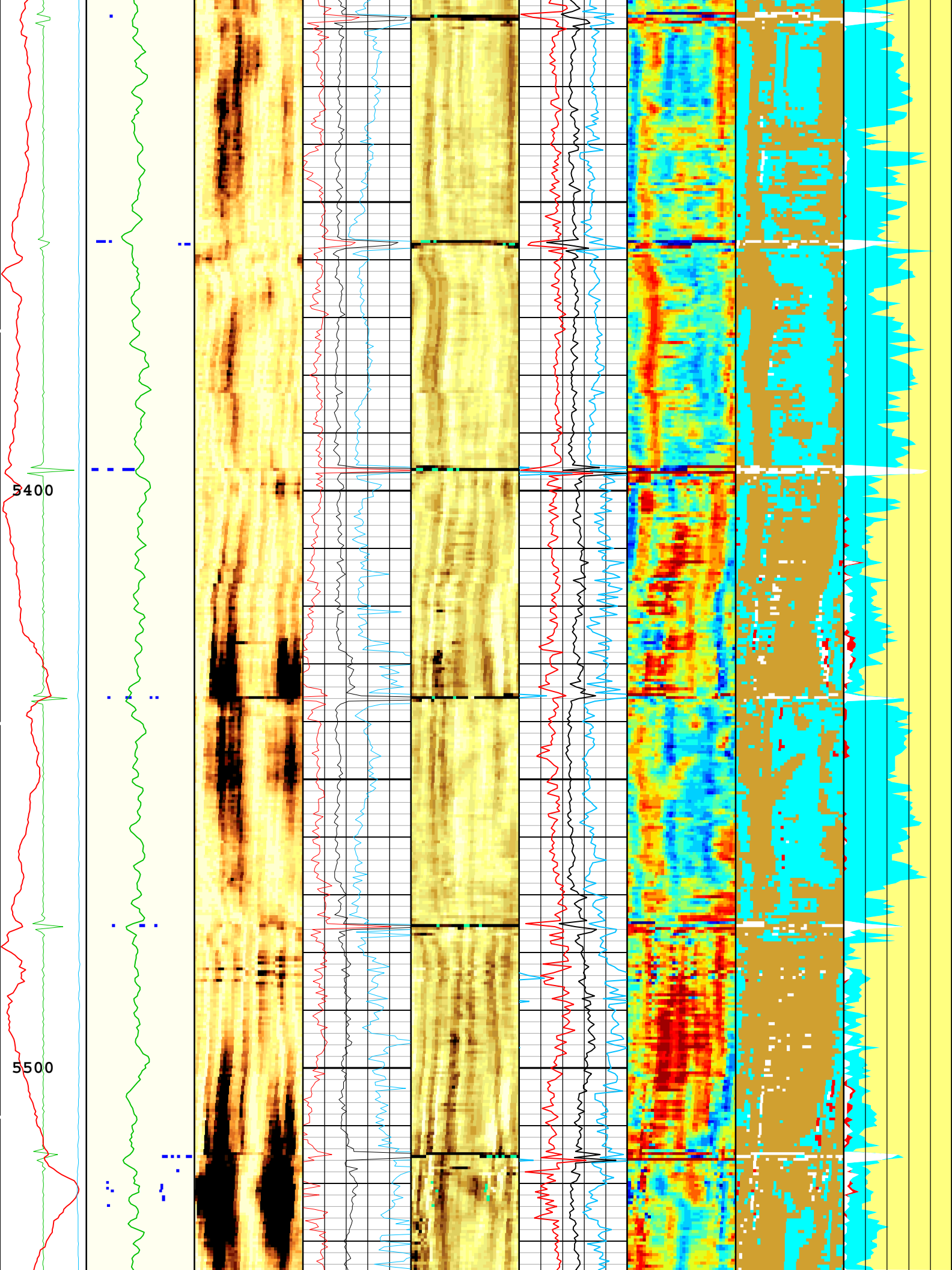


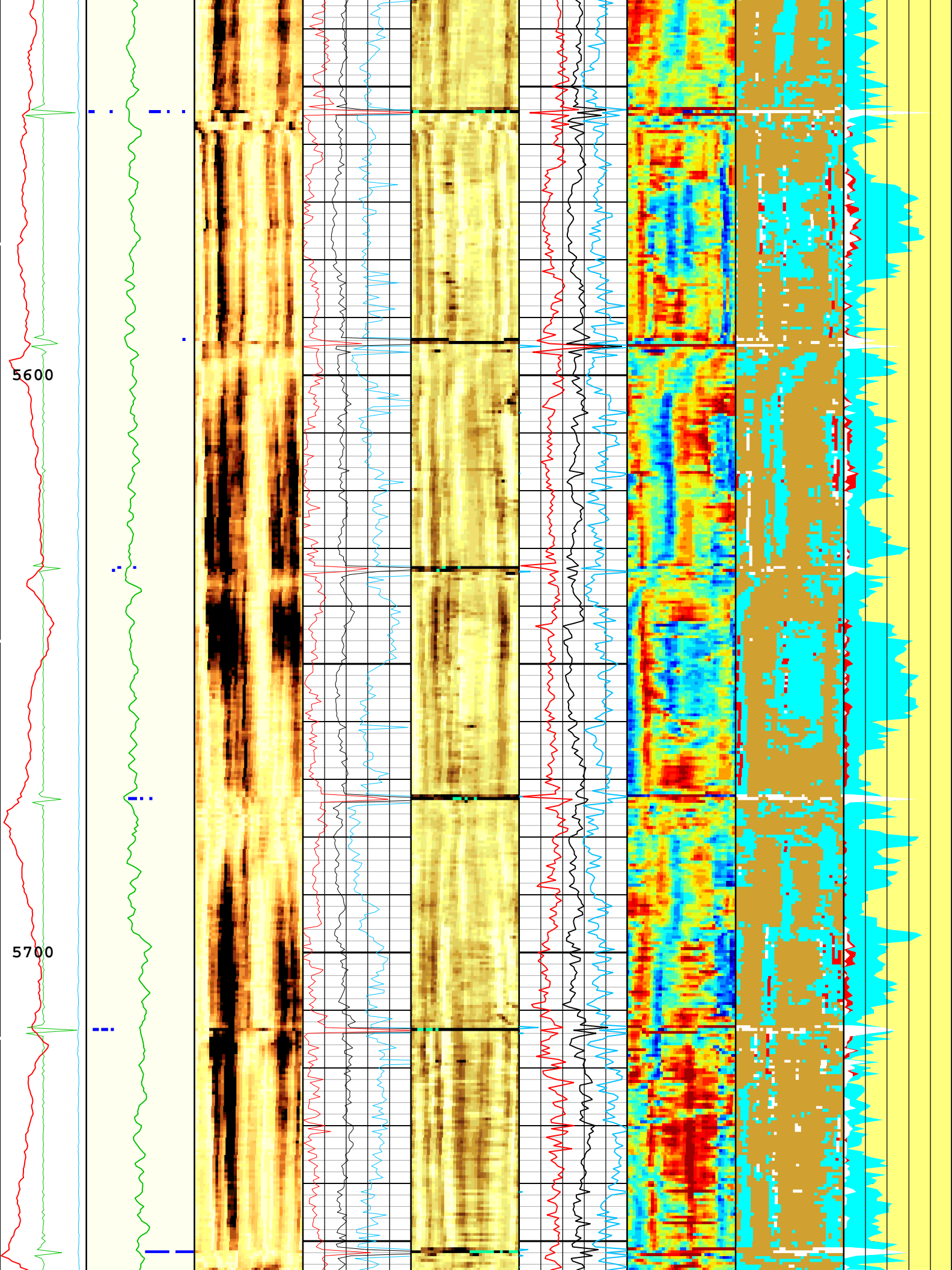


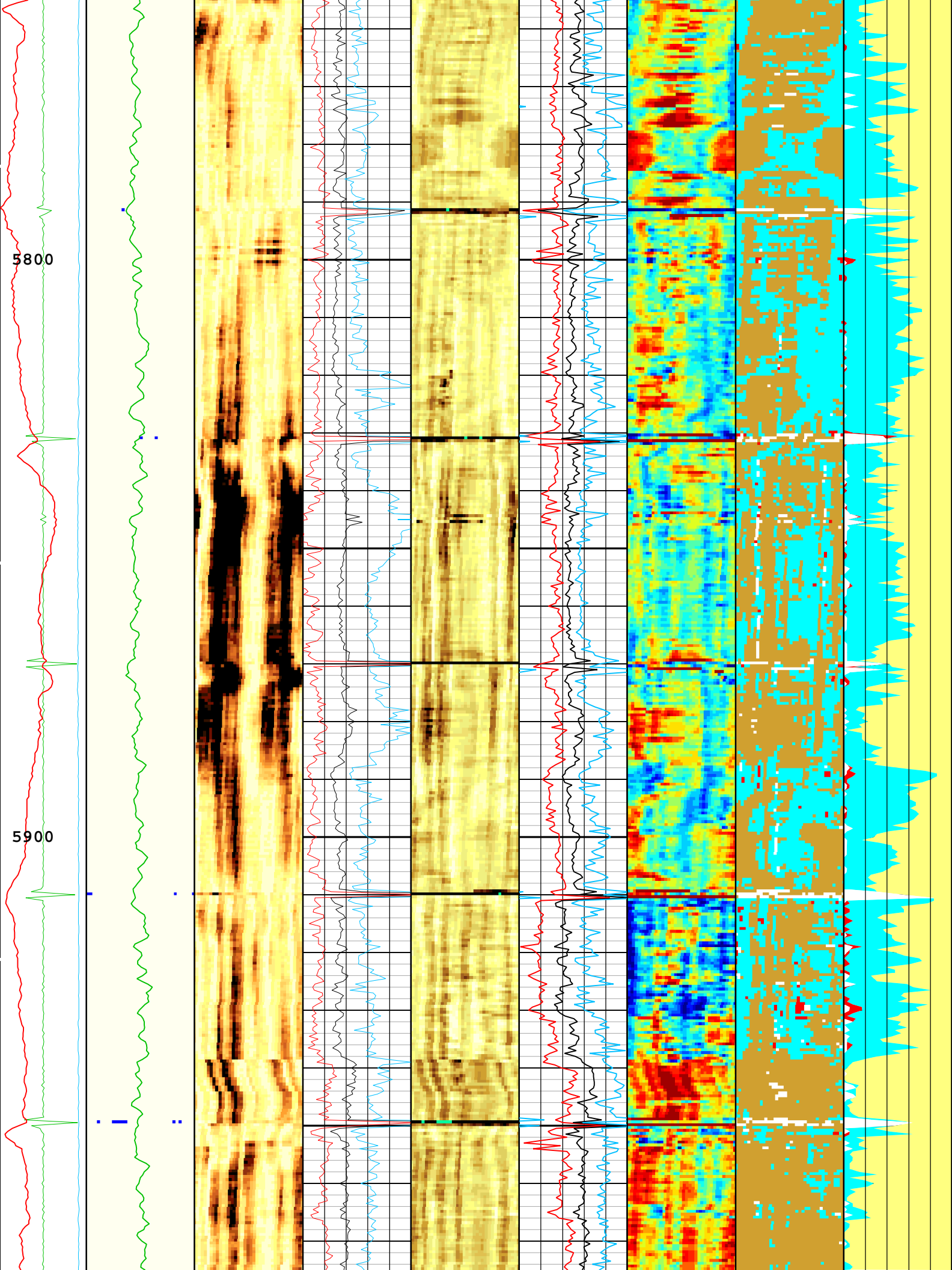


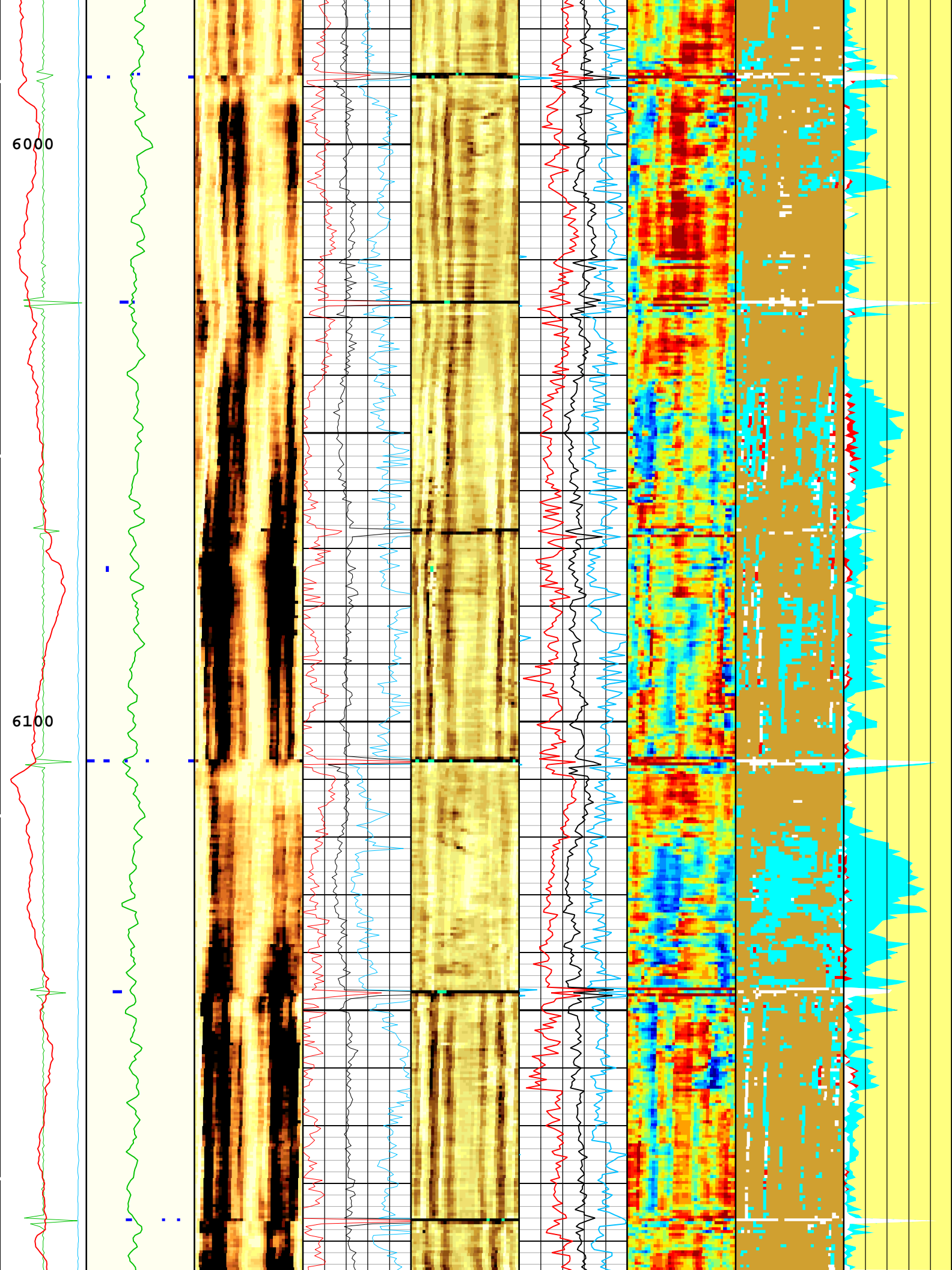


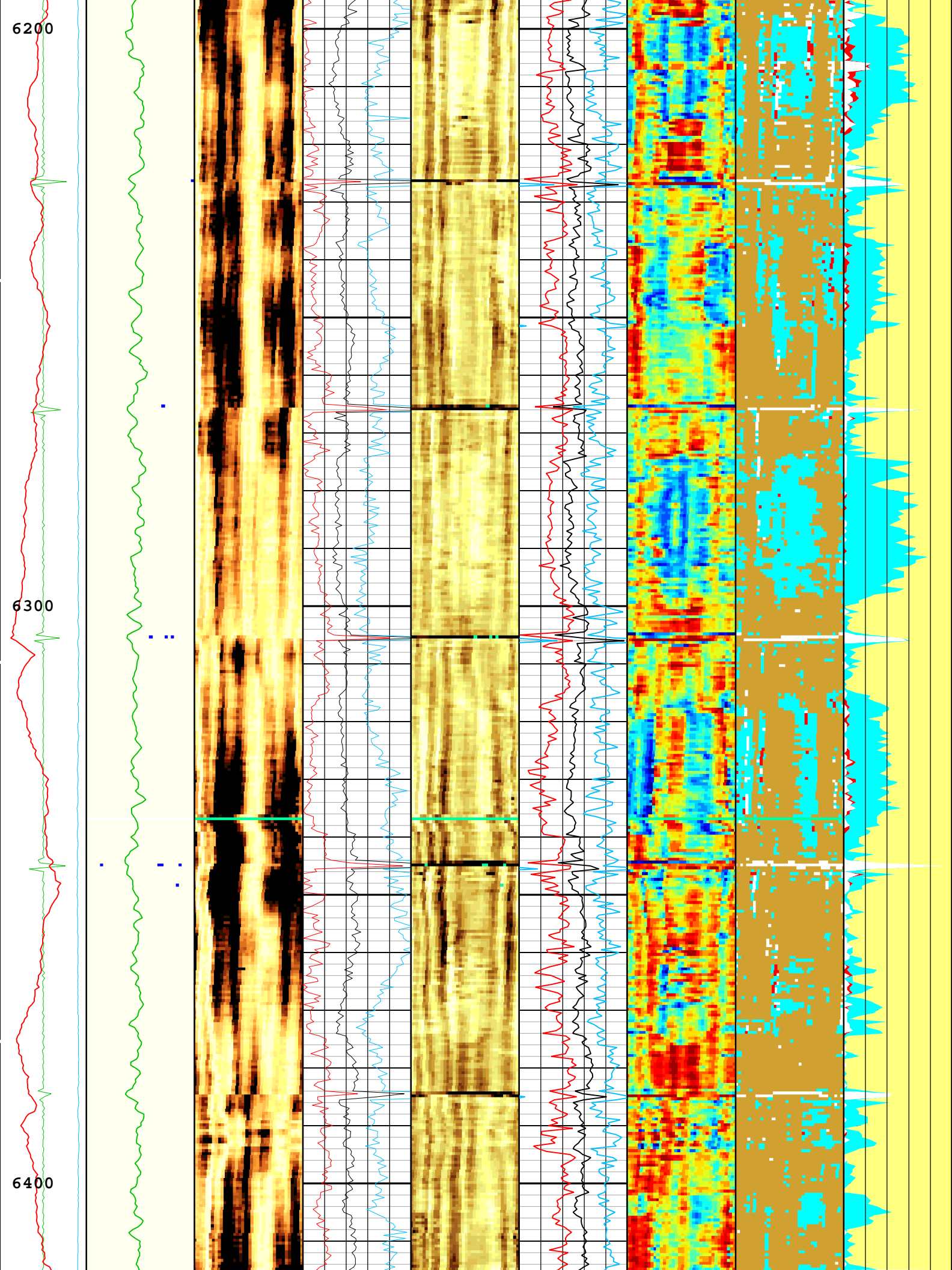


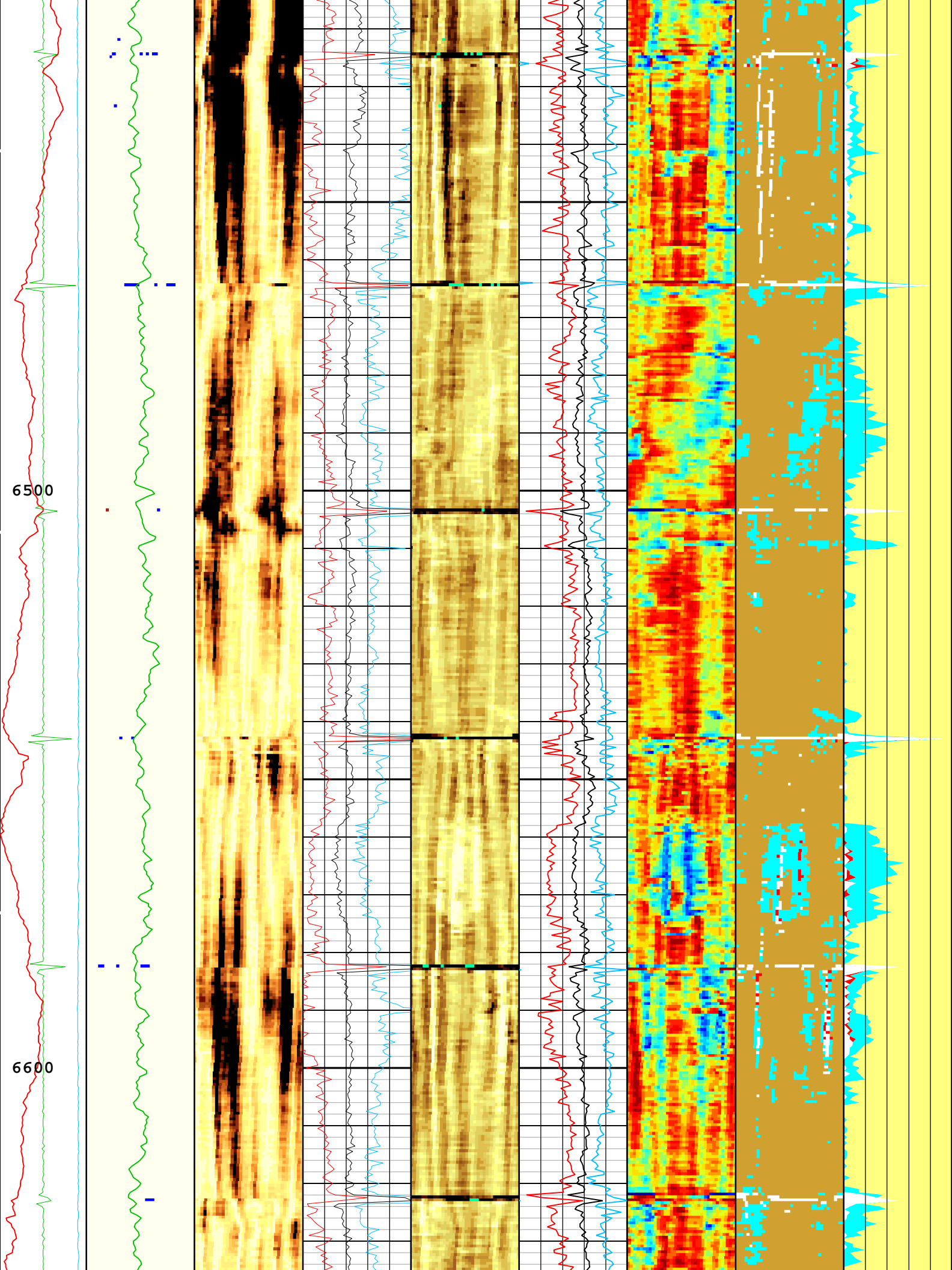


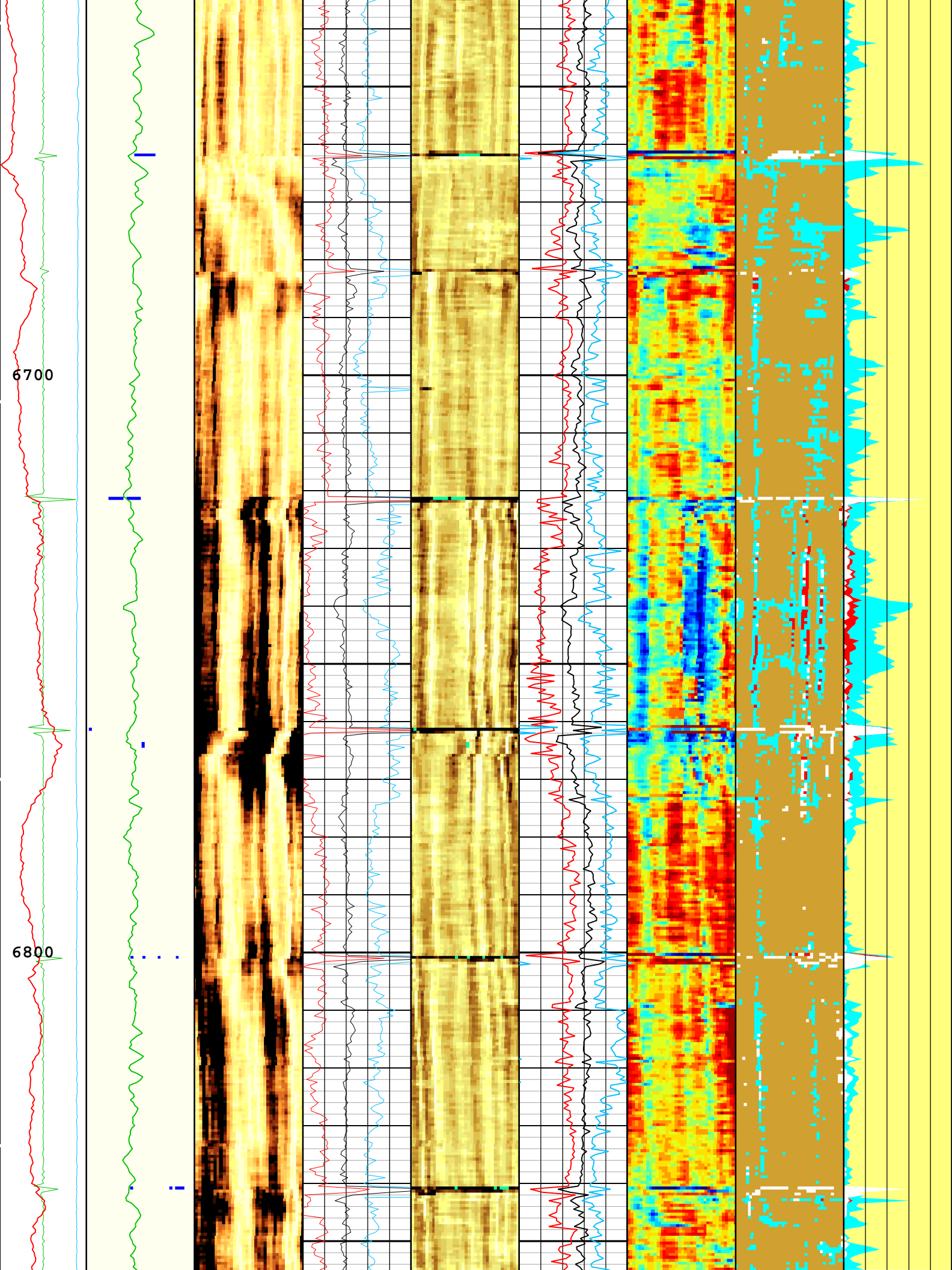


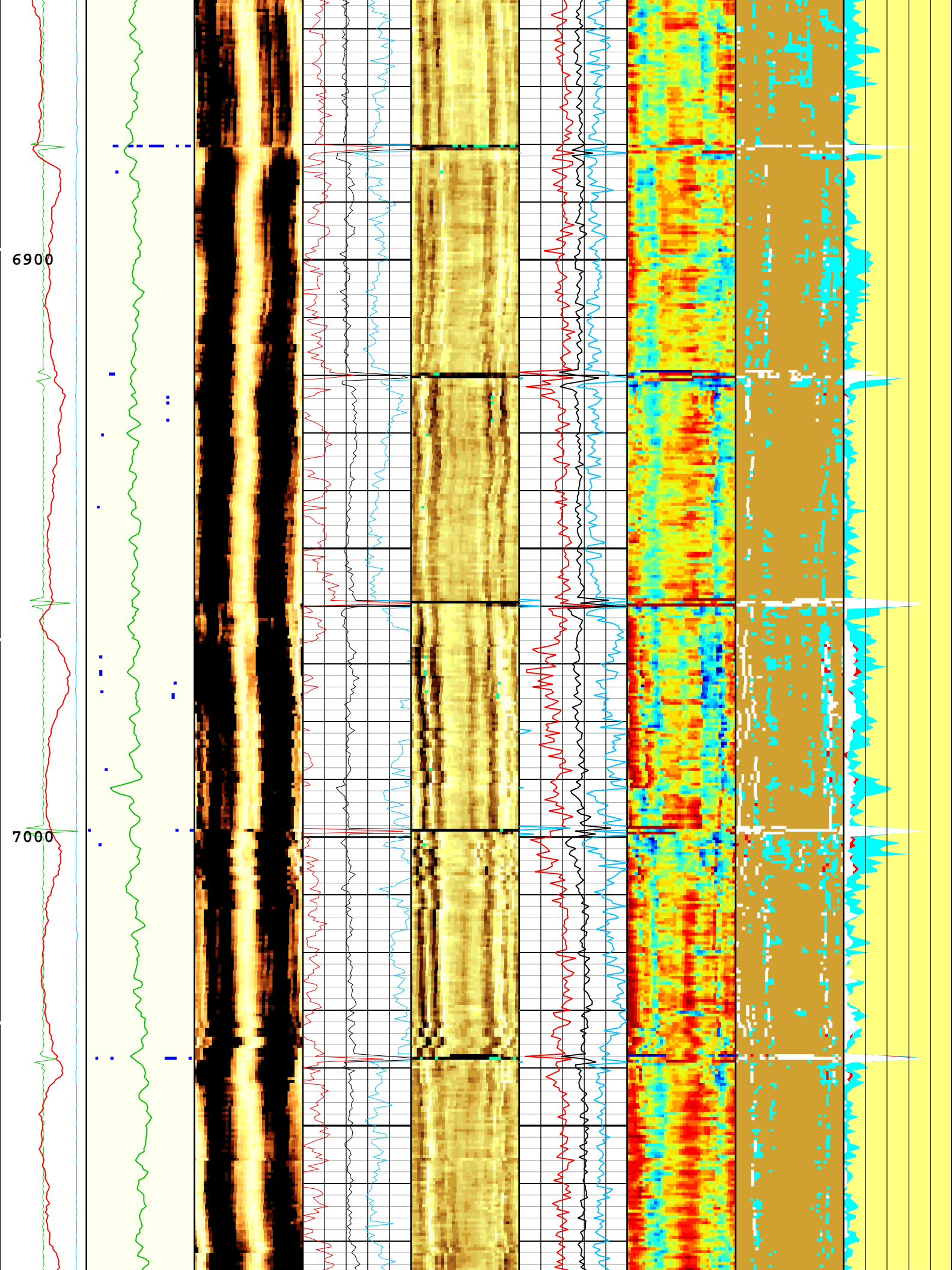


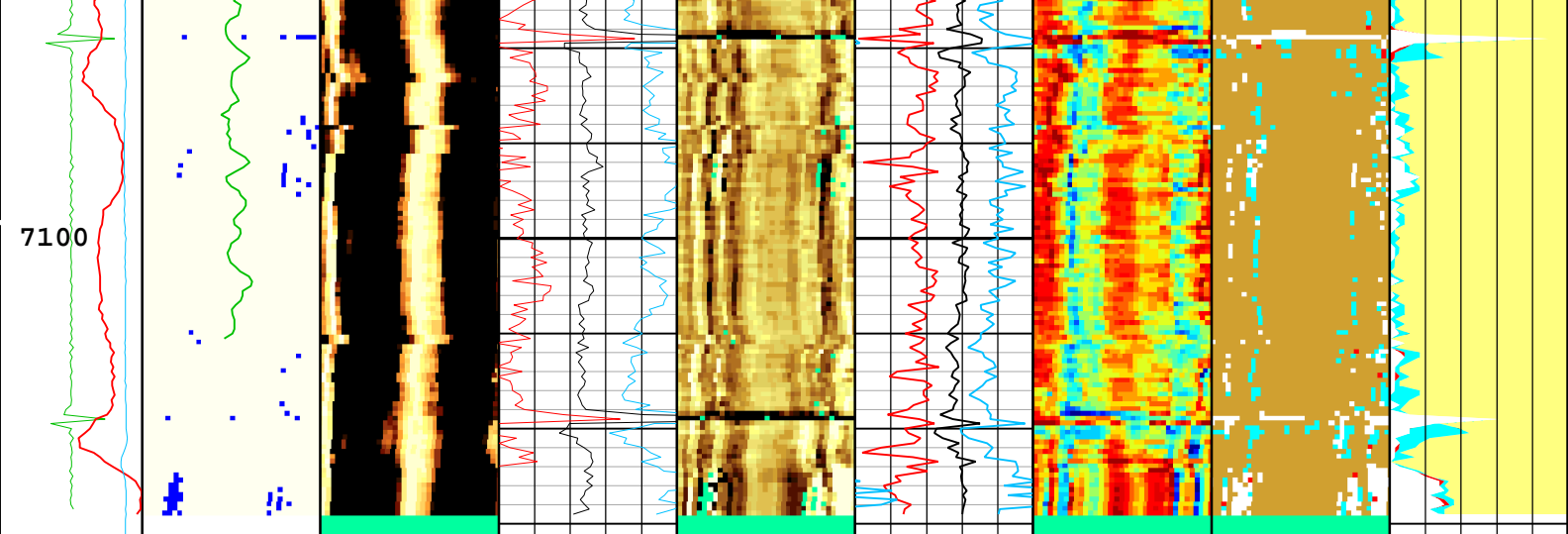












Casing Collar Locator Ultrasonic (CCLU) USIT-E	Absent 1.500 3.500	Absent -5.200 -3.600 -2.000 -0.400	Acoustic Impedance Minimum (AIMN) USIT-E	Absent 1.500 3.500 5.500 7.500	Minimum Flexural Attenuation (U-USIT_UFAN) USIT-E	Absent 42.000 66.000 90.000 114.000	Absent 0.500 1.500 2.500 3.500	SLG Solid Index
-20 in 20	Explicit Normalization	Explicit Normalization	-1 Mrayl 9	Custom Normalization	0 dB/m 150	Custom Normalization	Explicit Normalization	SLG Liquid Index
Amplitude of Eccentering (ECCE) USIT-E	USIT - USIT Processing Flags (UFLG) USIT-E	USIT - Amplitude of Wave (AWBK) USIT-E (dB)	Acoustic Impedance Average (AIAV) USIT-E	USIT - Acoustic Impedance (AIBK) USIT-E (Mrayl)	Average Flexural Attenuation (U-USIT_UFAV) USIT-E	USIT - Flexural Attenuation (UFAK) USIT-E (dB/m)	USIT - Solid Liquid Gas Sorted Color Map (USLP) USIT-E	SLG Gas Index
0 in 0.5	Orientation: Top of Hole	Orientation: Top of Hole	-1 Mrayl 9	Orientation: Top of Hole	0 dB/m 150	Orientation: Top of Hole	Orientation: Top of Hole	SLG White Point Index
Motor Revolution Speed (RSAV) USIT-E	U L B R U	U L B R U	U L B R U	U L B R U	U L B R U	U L B R U	U L B R U	
6 c/s 7.5	USIT Processing Flags (UFLG[0]) USIT-E		Acoustic Impedance Maximum (AIMX) USIT-E		Maximum Flexural Attenuation (U-USIT_UFAX) USIT-E			
	1 5		-1 Mrayl 9		0 dB/m 150			
	Gamma Ray (ECGR_EDTC) EDTC-B							
	0 gAPI 150							

USIT Processing Flags (UFLG[0]) USIT-E

1 - UFLG 1 Value within [0.0 - 1.5] - : UTIM Error

2 - UFLG 2 Value within [1.5 - 2.5] - : Pulse Origin Not Detected

3 - UFLG 3 Value within [2.5 - 3.5] - : WINLEN Error

4 - UFLG 4 UFLG 5 UFLG 6 Value within [3.5 - 6.5] - : Casing Thickness Error

5 - UFLG 7 UFLG 8 UFLG 9 Value within [6.5 - 10] - : Loop Processing Error

TIME_1900 - Time Marked every 60.00 (s)

Description: USI IBC SLG Format: Log (IBC SLG) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 20-May-2019 21:36:46

Channel Processing Parameters

ONE: Parameters

Parameter	Description	Tool	Value	Unit
BARI(ISSBAR)	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	7130	ft
CDEN	Cement Density	USIT-E	12.5	lbm/gal

CDEN	Cement Density	EDTC-B	16.69	lbm/gal
CMTY(U-USIT_CEMT)	Cement Type	USIT-E	Regular Cement	
DFD	Drilling Fluid Density	Borehole	8.4	lbm/gal
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	
DTMD	Borehole Fluid Slowness	Borehole	206	us/ft
FD	Fluid Density	USIT-E	10.5	lbm/gal
FDII	FPM Data Interpolation Interval	USIT-E	0	ft
GCSE_DOWN_PASS	Generalized Caliper Selection for WL Log Down Passes	Borehole	BS(RT)	
GCSE_UP_PASS	Generalized Caliper Selection for WL Log Up Passes	Borehole	BS(RT)	
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	-57.46	dB/m
IBC_FVEL_SEL	IBC Fluid Velocity Selection	USIT-E	Automatic	
IBC_OFFSET_SEL	IBC Flexural Offset Selector	USIT-E	UFAO	
IBC_ZMUD_SEL	IBC Mud Impedance Selection	USIT-E	FreePipe Norm.	
ICE_PROCESS	ICE Processing	USIT-E	Yes	
IMAR	Image Rotation	USIT-E	RB	
MEAS_WLEN	Tcube Processing Window Length in Measurement Mode	USIT-E	Depth Zoned	us
MUD_N_FRP	Free Pipe Mud Normalization Factor	USIT-E	1.21	
MUD_N_THE	Theoretical Mud Normalization Factor	USIT-E	1.12	
RCOD	Reference Calibrator Outer Diameter	USIT-E	4.5	in
RCSO	Reference Calibrator Standoff	USIT-E	0.842	in
RCTH	Reference Calibrator Thickness	USIT-E	0.216	in
RPLUS_PROCESS	Ultrasonic R+ Processing	USIT-E	No	
SOCN	Standoff Distance	EDTC-B	0.125	in
SOCO	Standoff Correction Option	EDTC-B	No	
THDH	Maximum Search Thickness (percentage of nominal)	USIT-E	130	%
THDL	Minimum Search Thickness (percentage of nominal)	USIT-E	70	%
TPOS_EDTC	Tool Position: Centered or Eccentered	EDTC-B	Eccentered	
U-USIT_DFSZ	Drilling Fluid Specific Acoustic Impedance	USIT-E	1.68	Mrayl
U-USIT_UFAO	SIT Flexural Attenuation Offset	USIT-E	Time Zoned	dB/m
U-USIT_UIAP	IBC Answer Product Enabled	USIT-E	SolidLiquidGasMap	
THDP	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	1.78	Mrayl
ZTCM	Acoustic Impedance Threshold for Cement	USIT-E	2.6	Mrayl
ZTGS	Acoustic Impedance Threshold for Gas	USIT-E	0.3	Mrayl

Depth Zone Parameters

Parameter	Value	Start (ft)	Stop (ft)
BS	13.5	270	2376
BS	8.5	2376	7130
MEAS_WLEN	22.44	270	7130
MEAS_WLEN	20	7130	7131.5
All depth are actual.			

Time Zone Parameters

Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
U-USIT_UFAO	-59.56	20-May-2019 08:34:13	20-May-2019 08:39:56	7132.28	6774.22

U-USIT_UFAO	-49.56	20-May-2019 08:39:56	20-May-2019 08:48:34	6774.22	6206.82
U-USIT_UFAO	-69.56	20-May-2019 08:48:34	20-May-2019 09:03:27	6206.82	5203.94
U-USIT_UFAO	-54.56	20-May-2019 09:03:27	20-May-2019 09:12:17	5203.94	4668.01
U-USIT_UFAO	-49.56	20-May-2019 09:12:17	20-May-2019 09:13:13	4668.01	4603.57
U-USIT_UFAO	-34.56	20-May-2019 09:13:13	20-May-2019 09:13:54	4603.57	4556.05
U-USIT_UFAO	-49.56	20-May-2019 09:13:54	20-May-2019 09:14:04	4556.05	4544.44
U-USIT_UFAO	-34.56	20-May-2019 09:14:04	20-May-2019 09:14:12	4544.44	4535.22
U-USIT_UFAO	-49.56	20-May-2019 09:14:12	20-May-2019 09:16:36	4535.22	4369.73
U-USIT_UFAO	-65.56	20-May-2019 09:16:36	20-May-2019 09:33:48	4369.73	3201.75
U-USIT_UFAO	-49.56	20-May-2019 09:33:48	20-May-2019 09:33:55	3201.75	3193.99
U-USIT_UFAO	-65.56	20-May-2019 09:33:55	20-May-2019 09:39:35	3193.99	2856.29
U-USIT_UFAO	-49.56	20-May-2019 09:39:35	20-May-2019 09:40:50	2856.29	2773.78
U-USIT_UFAO	-63.56	20-May-2019 09:40:50	20-May-2019 09:41:08	2773.78	2754.08
U-USIT_UFAO	-44.56	20-May-2019 09:41:08	20-May-2019 09:41:11	2754.08	2750.78
U-USIT_UFAO	-57.56	20-May-2019 09:41:11	20-May-2019 09:41:22	2750.78	2738.72
U-USIT_UFAO	-39.56	20-May-2019 09:41:22	20-May-2019 09:41:24	2738.72	2736.52
U-USIT_UFAO	-57.56	20-May-2019 09:41:24	20-May-2019 09:41:59	2736.52	2698.29
U-USIT_UFAO	-35.56	20-May-2019 09:41:59	20-May-2019 09:44:50	2698.29	2510.57
U-USIT_UFAO	-59.56	20-May-2019 09:44:50	20-May-2019 09:45:22	2510.57	2475.55
U-USIT_UFAO	-49.56	20-May-2019 09:45:22	20-May-2019 09:45:27	2475.55	2470.1
U-USIT_UFAO	-65.56	20-May-2019 09:45:27	20-May-2019 09:53:01	2470.1	1975.02
U-USIT_UFAO	-54.56	20-May-2019 09:53:01	20-May-2019 09:53:54	1975.02	1917.99
U-USIT_UFAO	-70.56	20-May-2019 09:53:54	20-May-2019 09:55:44	1917.99	1796.27
U-USIT_UFAO	-54.56	20-May-2019 09:55:44	20-May-2019 09:55:59	1796.27	1779.43
U-USIT_UFAO	-58.56	20-May-2019 09:55:59	20-May-2019 10:01:33	1779.43	1401.84
U-USIT_UFAO	-50.56	20-May-2019 10:01:33	20-May-2019 10:01:42	1401.84	1391.76
U-USIT_UFAO	-59.56	20-May-2019 10:01:42	20-May-2019 10:06:39	1391.76	1055.04
U-USIT_UFAO	-49.56	20-May-2019 10:06:39	20-May-2019 10:19:07	1055.04	272.23

All depth are at tool zero.

Tool Control Parameters				
ONE: Parameters				
Parameter	Description	Tool	Value	Unit
AGMN	Minimum Gain of Cartridge	USIT-E	-12	dB
AGMX	Maximum Gain of Cartridge	USIT-E	48	dB
U-USIT_DDT5	USIC Downhole Decimation for T5 only	USIT-E	0_NONE	
DOT(DOS)	Distance between Opposite Transducer Faces	USIT-E	1.756	in
EMXV	EMEX Voltage	USIT-E	Time Zoned	V
HRES	Horizontal Resolution	USIT-E	10 deg	
IBC_ACQTYPE	IBC Acquisition type	USIT-E	1 MHz	
IBC_FLEXDBP	IBC Flex Duration Before Peak	USIT-E	30	us
ICE2_ACQ	Ultrasonic ICE2 Acquisition	USIT-E	Yes	
MOTOR_PROTECT	Motor Protection	USIT-E	On	
UACLV_PERM	Ultrasonic ACLV Permanent	USIT-E	Yes	
U-USIT_UFWB	Far Receiver Window Begin Time	USIT-E	137	us
U-USIT_UFWE	Far Receiver Window End Time	USIT-E	177	us

U-USIT_UNWB	Near Receiver Window Begin Time	USIT-E	106	us
U-USIT_UNWE	Near Receiver Window End Time	USIT-E	146	us
USFR	Ultrasonic Sampling Frequency	USIT-E	666667	Hz
UPAT	USIT Emission Pattern	USIT-E	Pattern 375 KHz	
UWKM	USIT Working Mode	USIT-E	10 deg at 6.0 in	
USSP	Ultrasonic Service	USIT-E	IBC	
U-USIT_UTAN	Transducer Angles	USIT-E	33_DEG	
VRES	Vertical Resolution	USIT-E	6.0 in	
WINB	Window Begin Time	USIT-E	Time Zoned	us
WINE	Window End Time	USIT-E	Time Zoned	us

Time Zone Parameters					
Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
EMXV	100	20-May-2019 08:34:13	20-May-2019 08:35:28	7132.28	7066.6
EMXV	110	20-May-2019 08:35:28	20-May-2019 09:23:17	7066.6	3911.08
EMXV	100	20-May-2019 09:23:17	20-May-2019 09:26:33	3911.08	3680.71
EMXV	110	20-May-2019 09:26:33	20-May-2019 10:19:07	3680.71	272.23
WINB	31.88	20-May-2019 08:34:13	20-May-2019 09:58:49	7132.28	1586.98
WINB	33.43	20-May-2019 09:58:49	20-May-2019 10:19:07	1586.98	272.23
WINE	71.88	20-May-2019 08:34:13	20-May-2019 09:58:45	7132.28	1591.57
WINE	72.05	20-May-2019 09:58:45	20-May-2019 10:19:07	1591.57	272.23
All depth are at tool zero.					

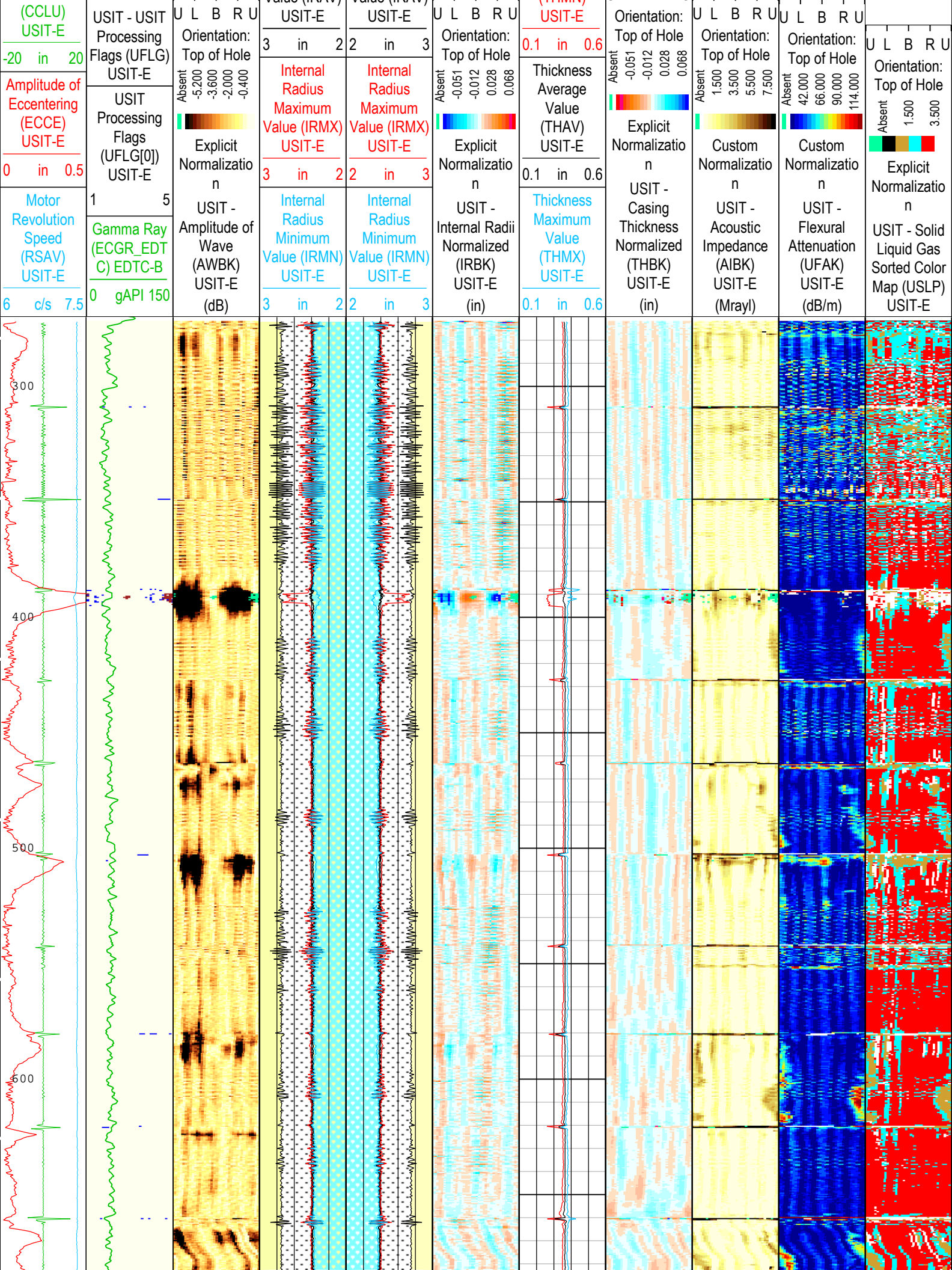
ONE					
IBC SLG Composite					

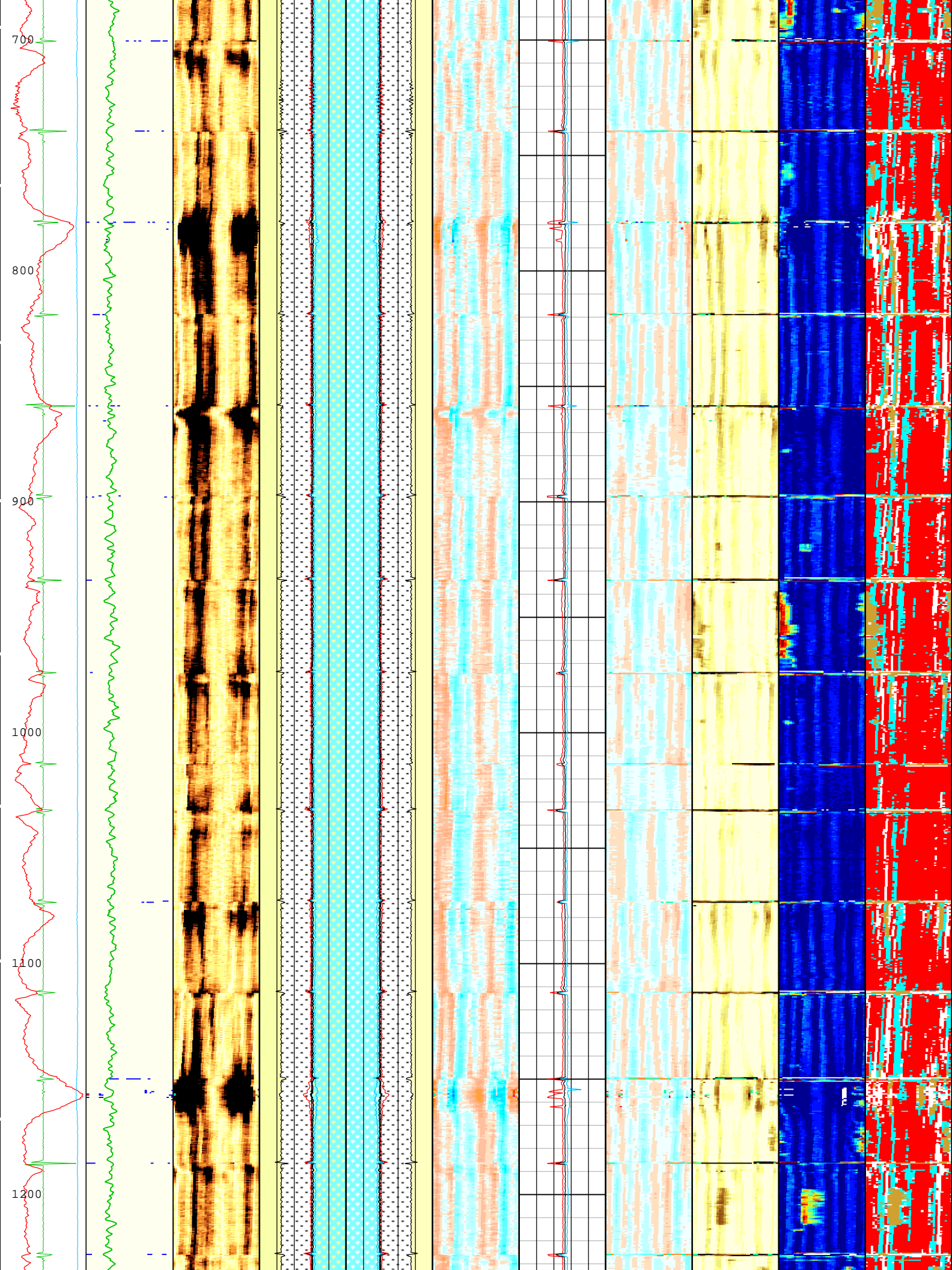
Pass Summary									
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
ONE	Log[4]:Up	Up	272.23 ft	7132.28 ft	20-May-2019 8:34:13 AM	20-May-2019 10:19:07 AM	ON	6.59 ft	Yes
All depths are referenced to toolstring zero									

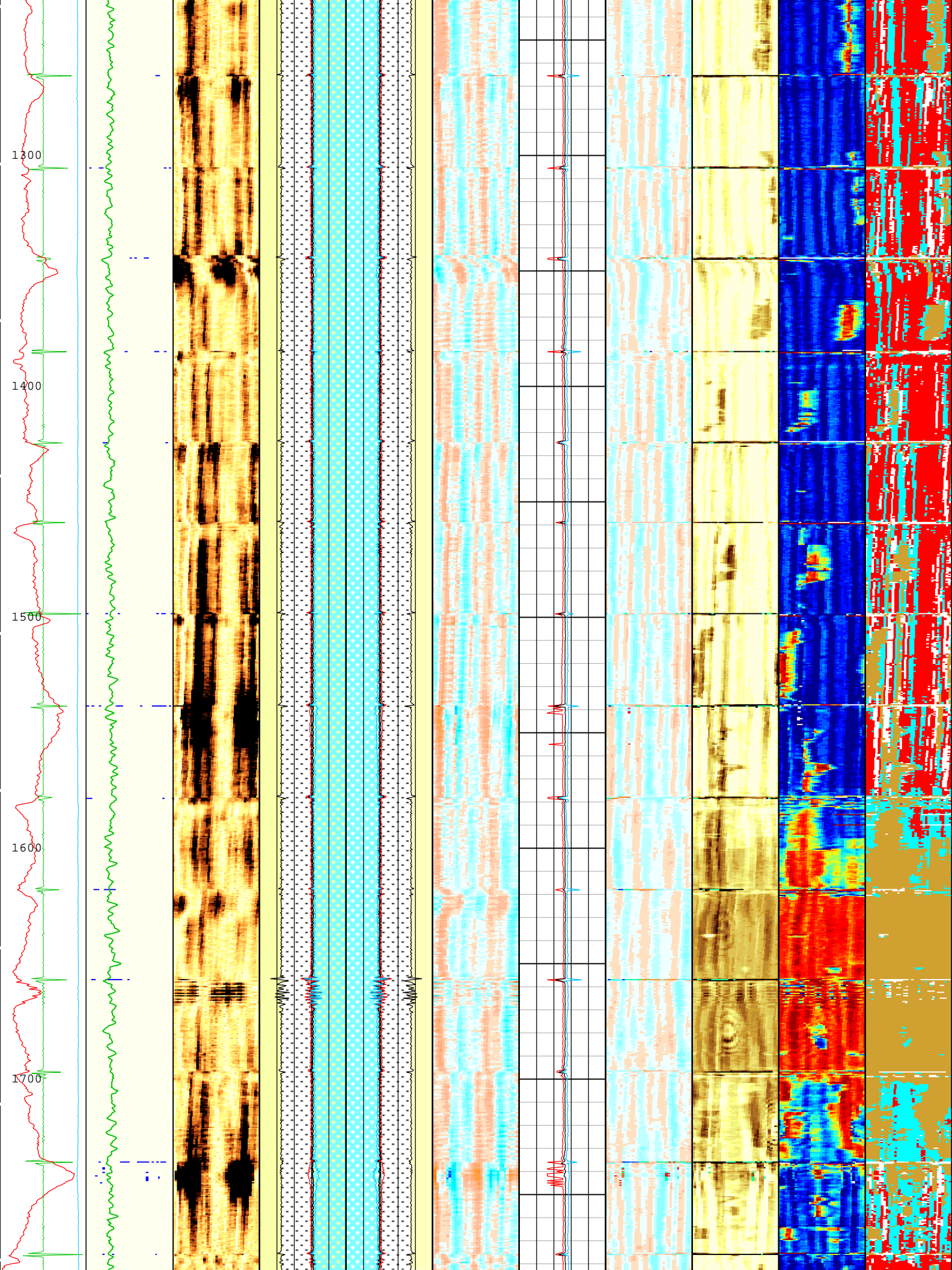
Log	Company:Crestone Peak Resources and Operating LLC		Well:Echeverria 2K-2H-D267	
	ONE: Log[4]:Up:S043			
Description: USI IBC SLG Composite Format: Log (IBC SLG Composite) Index Scale: 2 in per 100 ft Index Unit: ft Index Type: Measured Depth				
Creation Date: 20-May-2019 21:37:00				

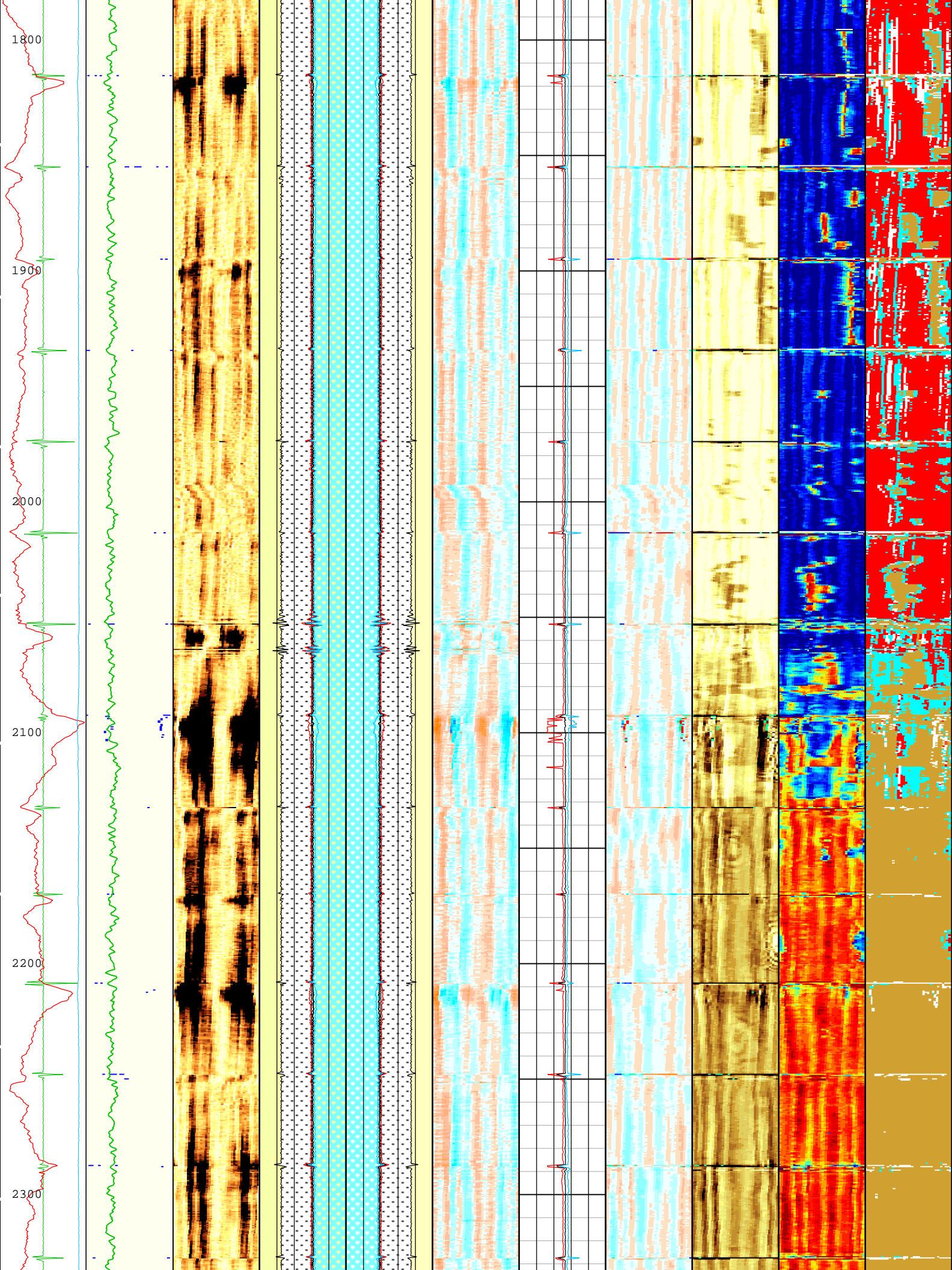
TIME_1900 - Time Marked every 60.00 (s)									
USIT Processing Flags (UFLG[0]) USIT-E									
1 - UFLG 1 Value within [0.0 - 1.5] - :			<div> <div></div> <div>UTIM Error</div> </div>						
2 - UFLG 2 Value within [1.5 - 2.5] - :			<div> <div></div> <div>Pulse Origin Not Detected</div> </div>						
3 - UFLG 3 Value within [2.5 - 3.5] - :			<div> <div></div> <div>WINLEN Error</div> </div>						
4 - UFLG 4 UFLG 5 UFLG 6 Value within [3.5 - 6.5] - :			<div> <div></div> <div>Casing Thickness Error</div> </div>						
5 - UFLG 7 UFLG 8 UFLG 9 Value within [6.5 - 10] - :			<div> <div></div> <div>Loop Processing Error</div> </div>						

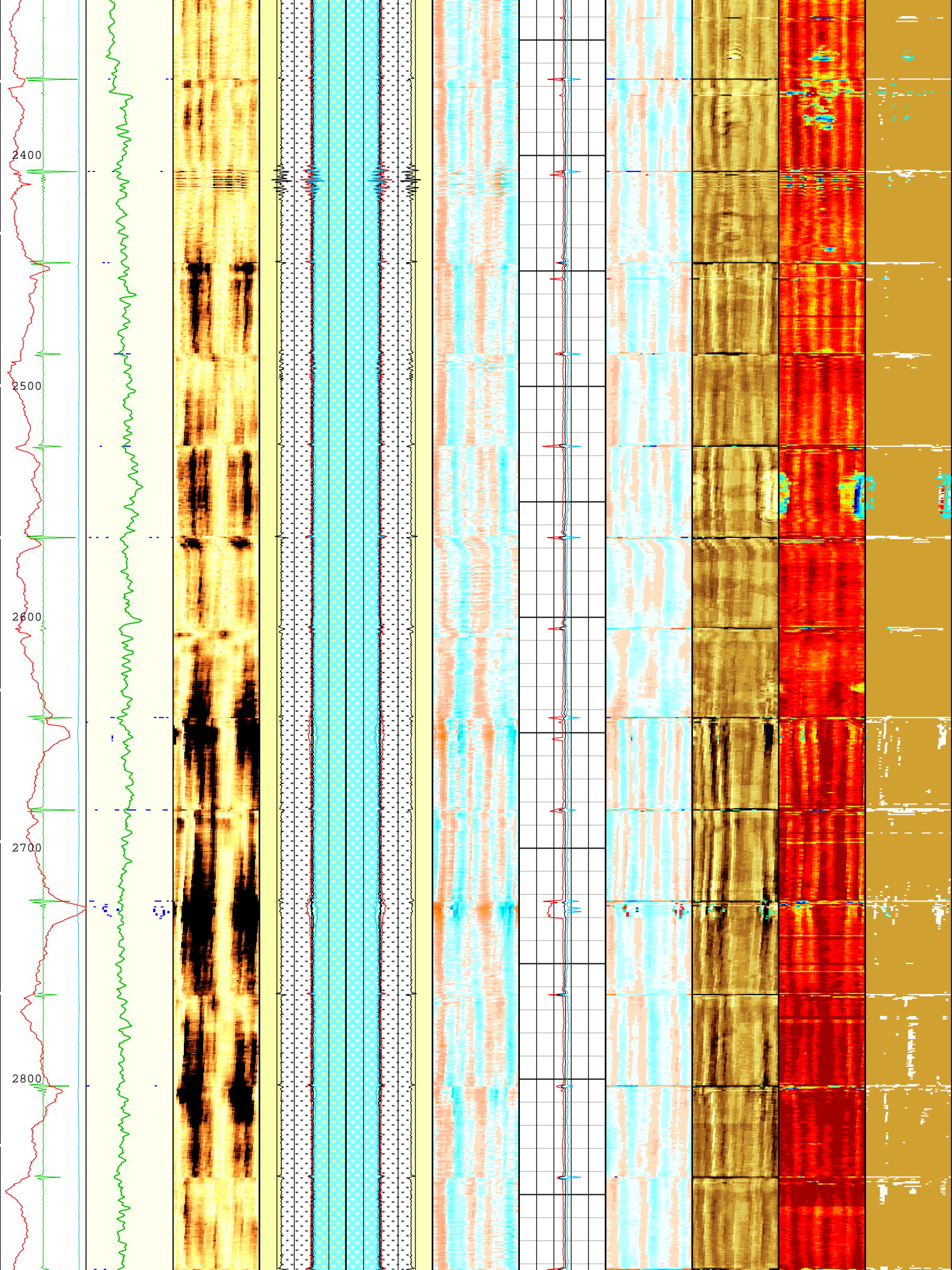
<div> <div>U L B R U</div> <div>Orientation: Top of Hole</div> <div> <div>Absent</div> <div>1.500</div> <div>3.500</div> </div> <div> <div></div> <div>Explicit</div> <div>Normalization</div> <div>n</div> </div> </div> <div> <div>Casing Collar</div> <div>Locator</div> <div>Ultrasonic</div> </div>	<div> <div>External Radii</div> <div>Average (ERAV)</div> <div>USIT-E</div> <div>3 in 2</div> </div>		<div> <div>External Radii</div> <div>Average (ERAV)</div> <div>USIT-E</div> <div>2 in 3</div> </div>		<div> <div>Thickness Minimum Value (THMN)</div> <div>U L B R U</div> </div>	
	<div> <div>Internal Radius</div> <div>Averaged Value (IRAV)</div> </div>		<div> <div>Internal Radius</div> <div>Averaged Value (IRAV)</div> </div>			

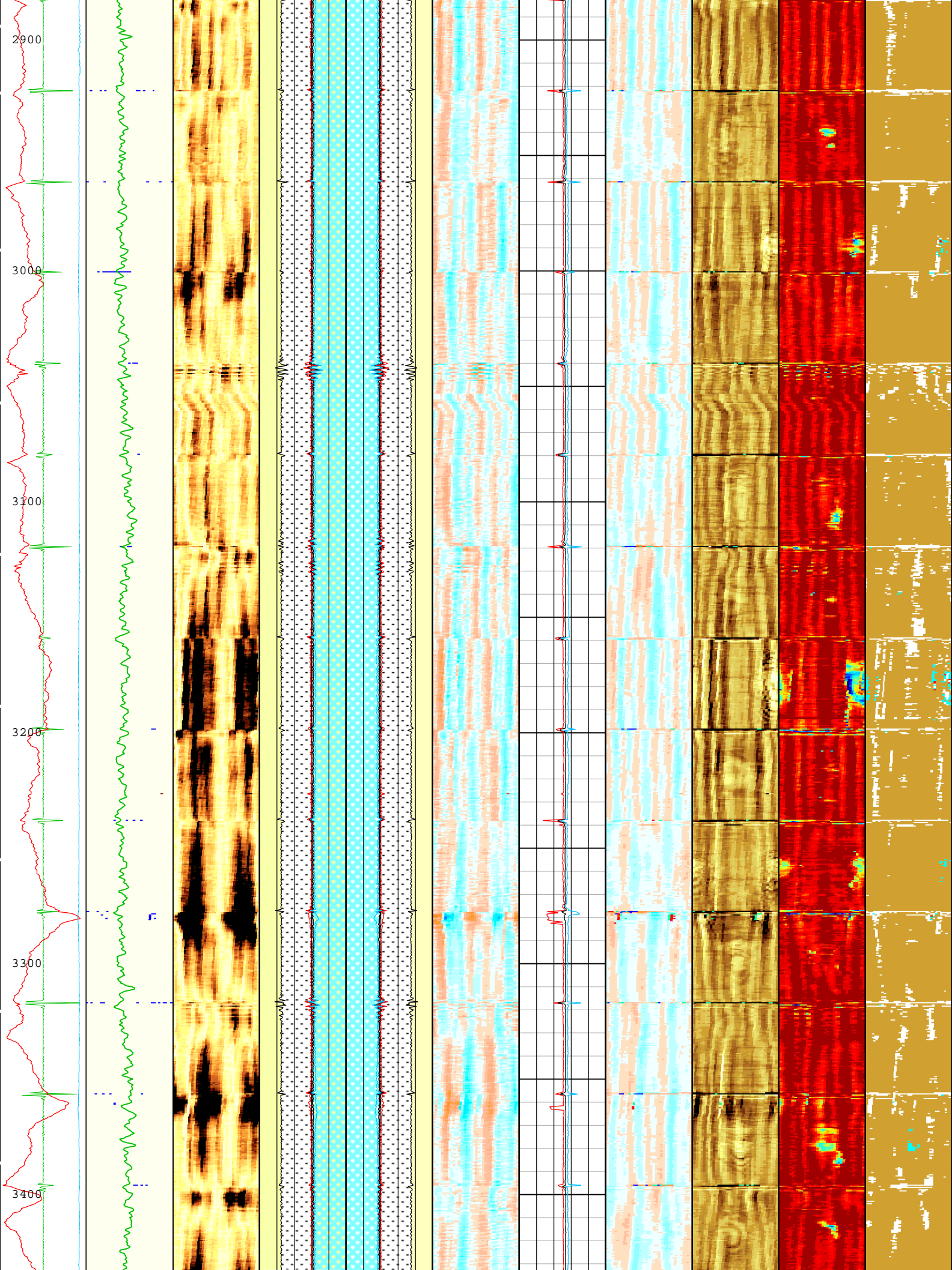


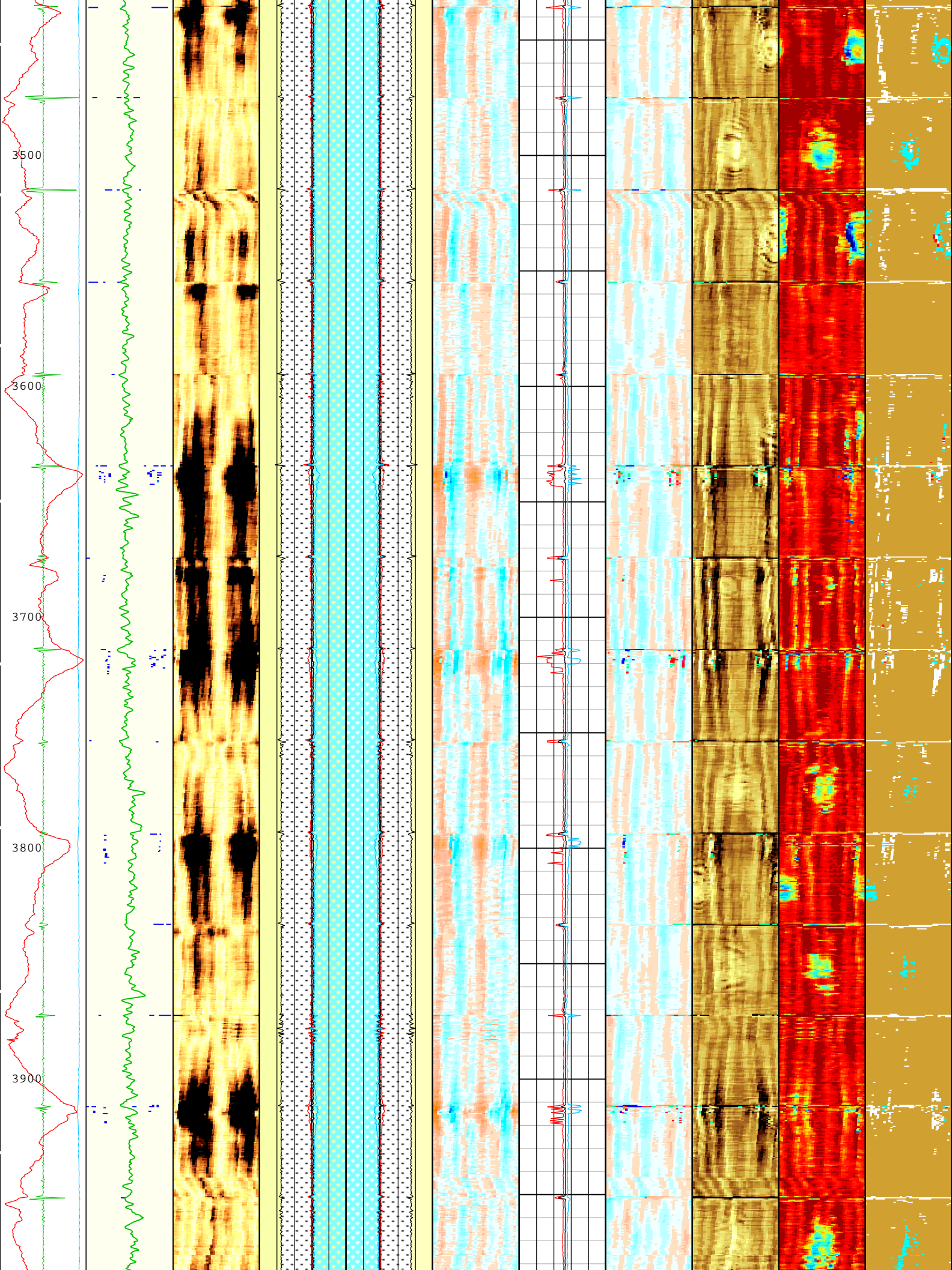


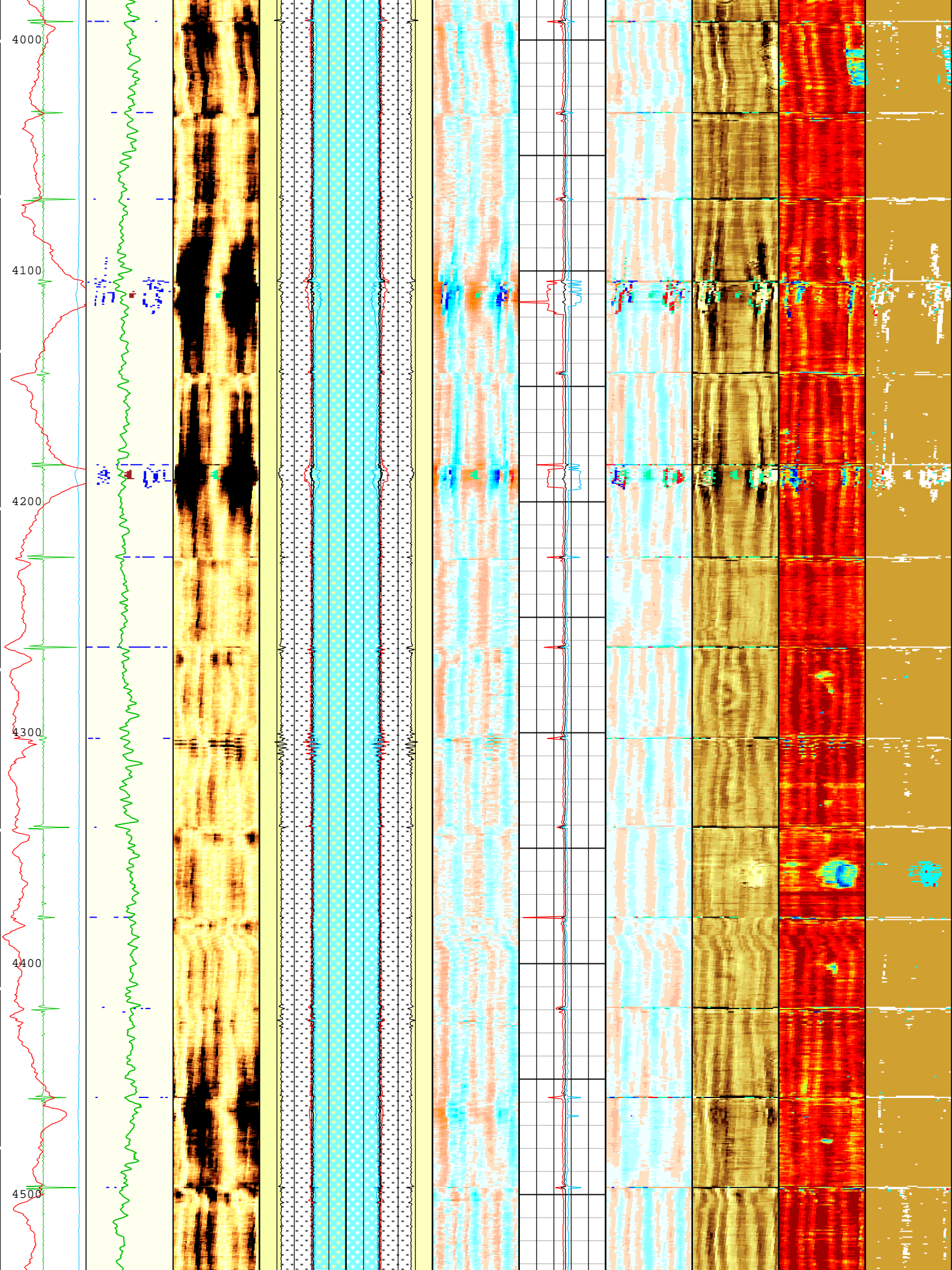


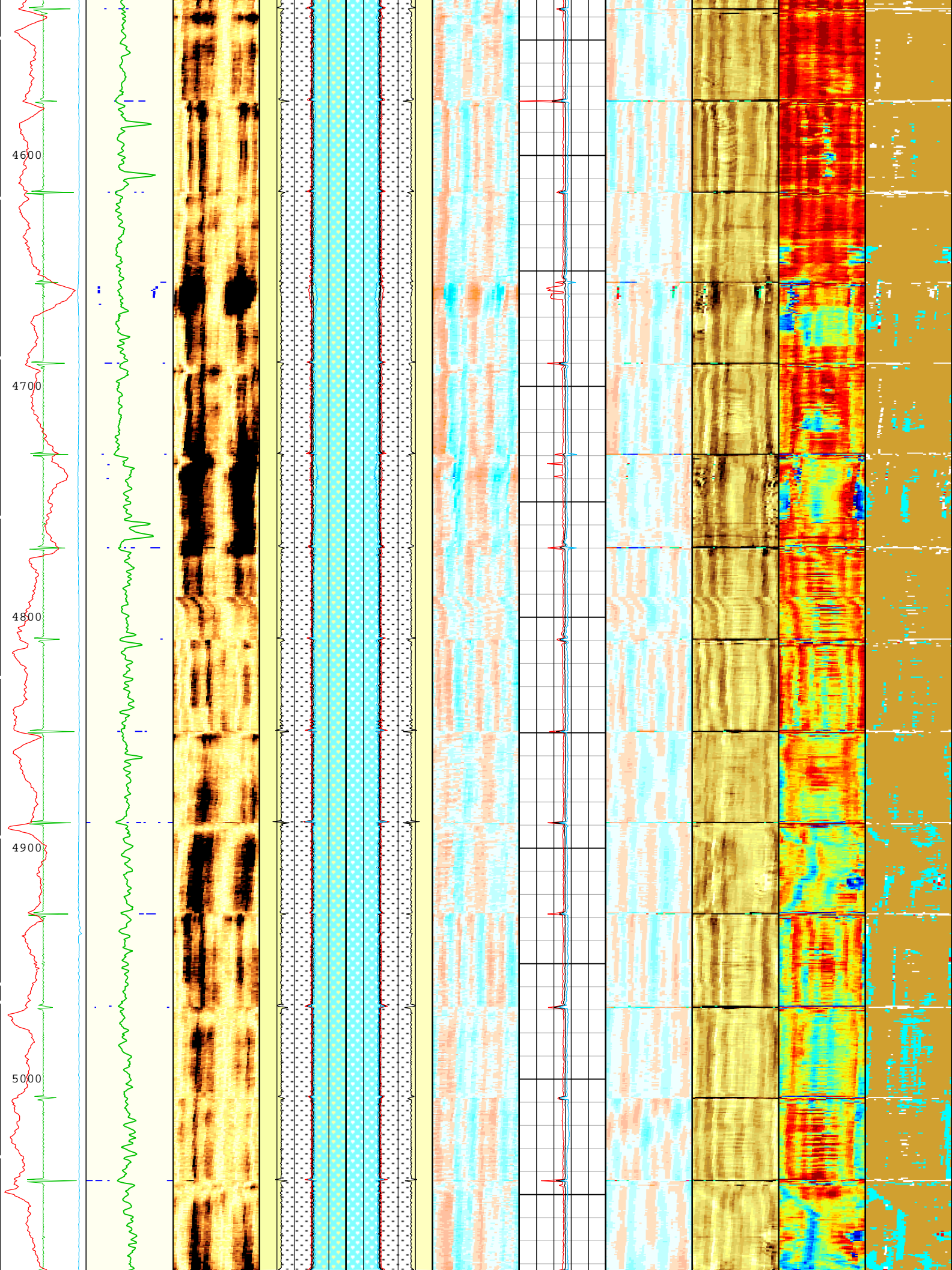


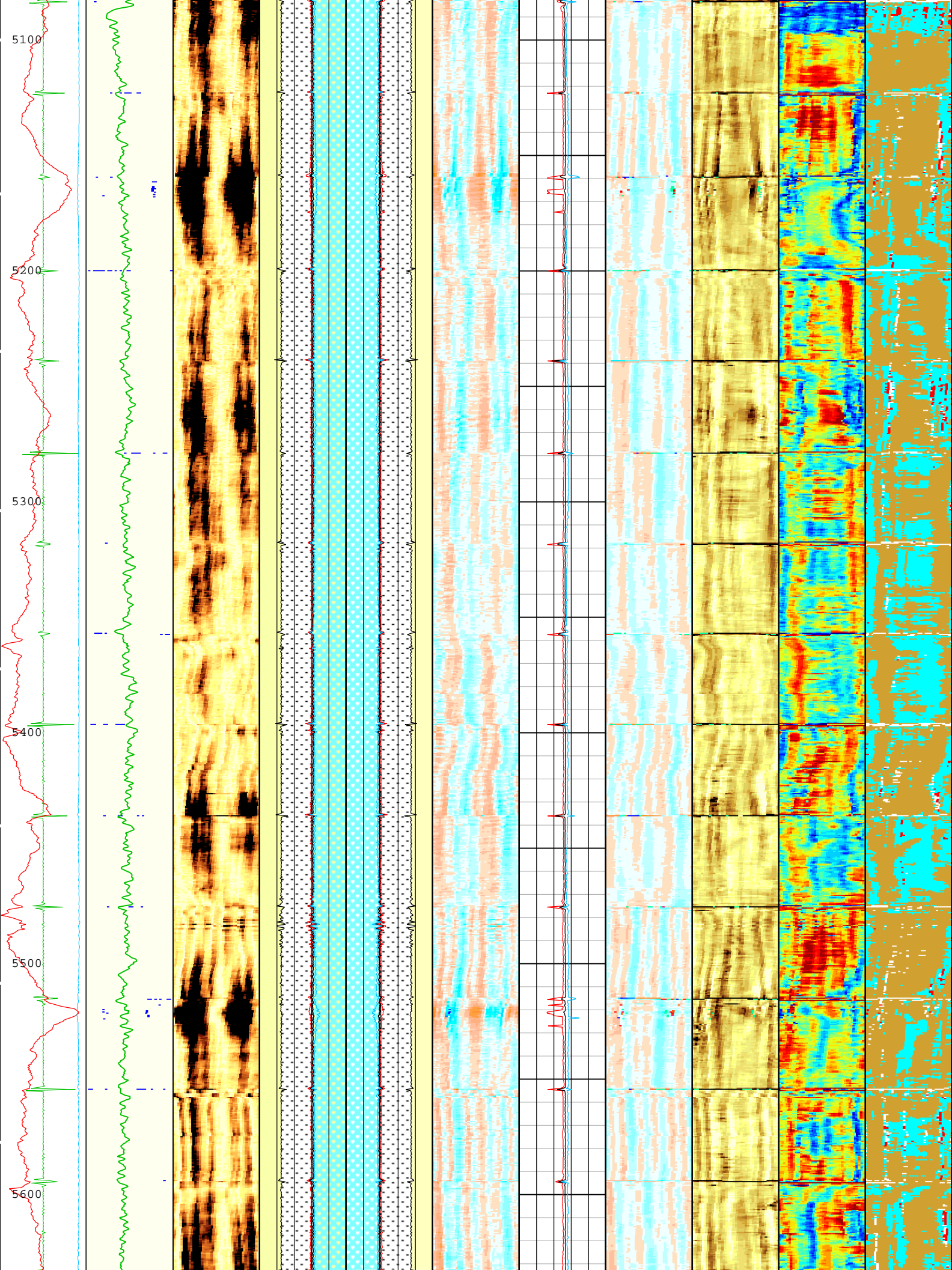


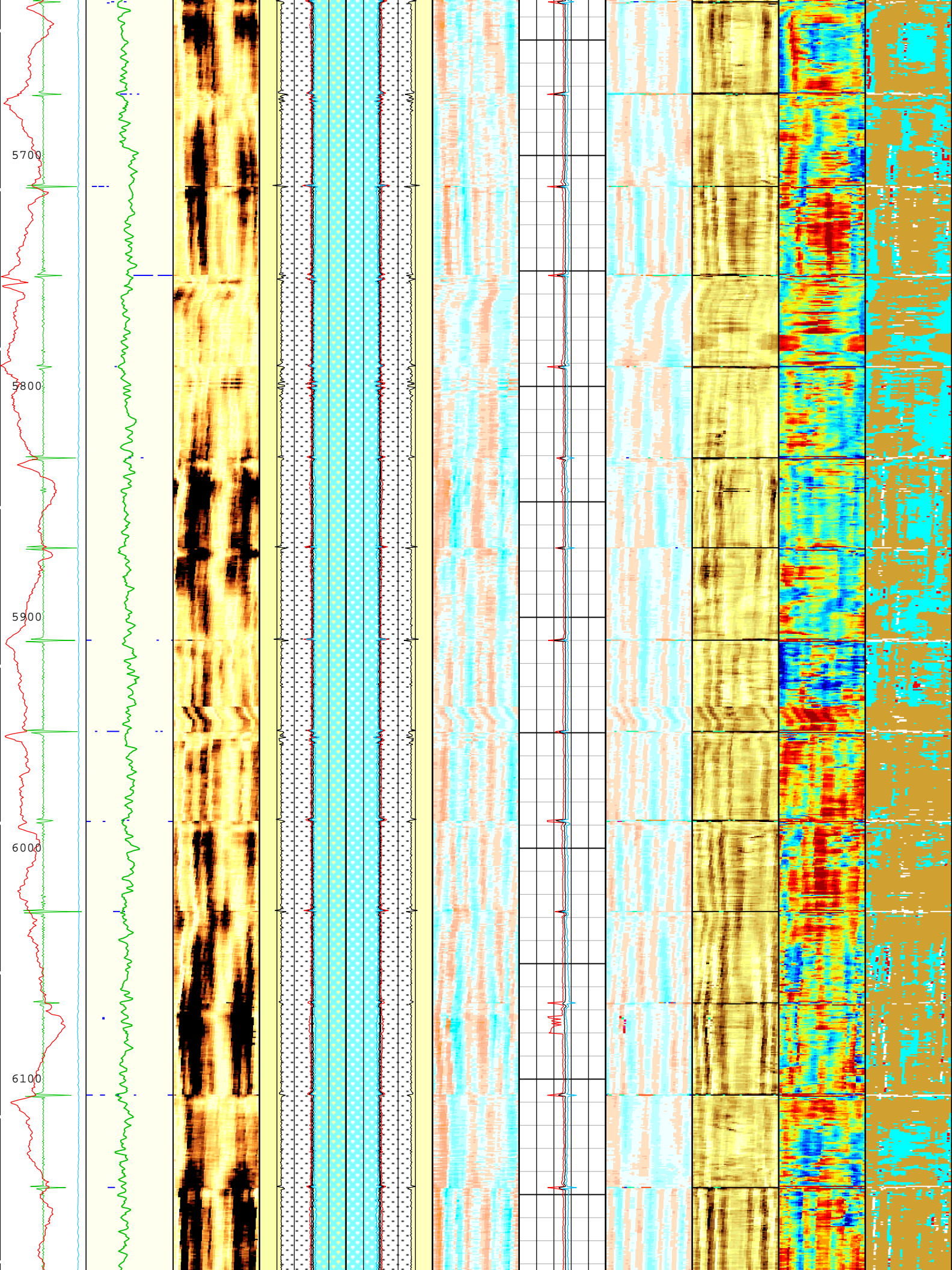


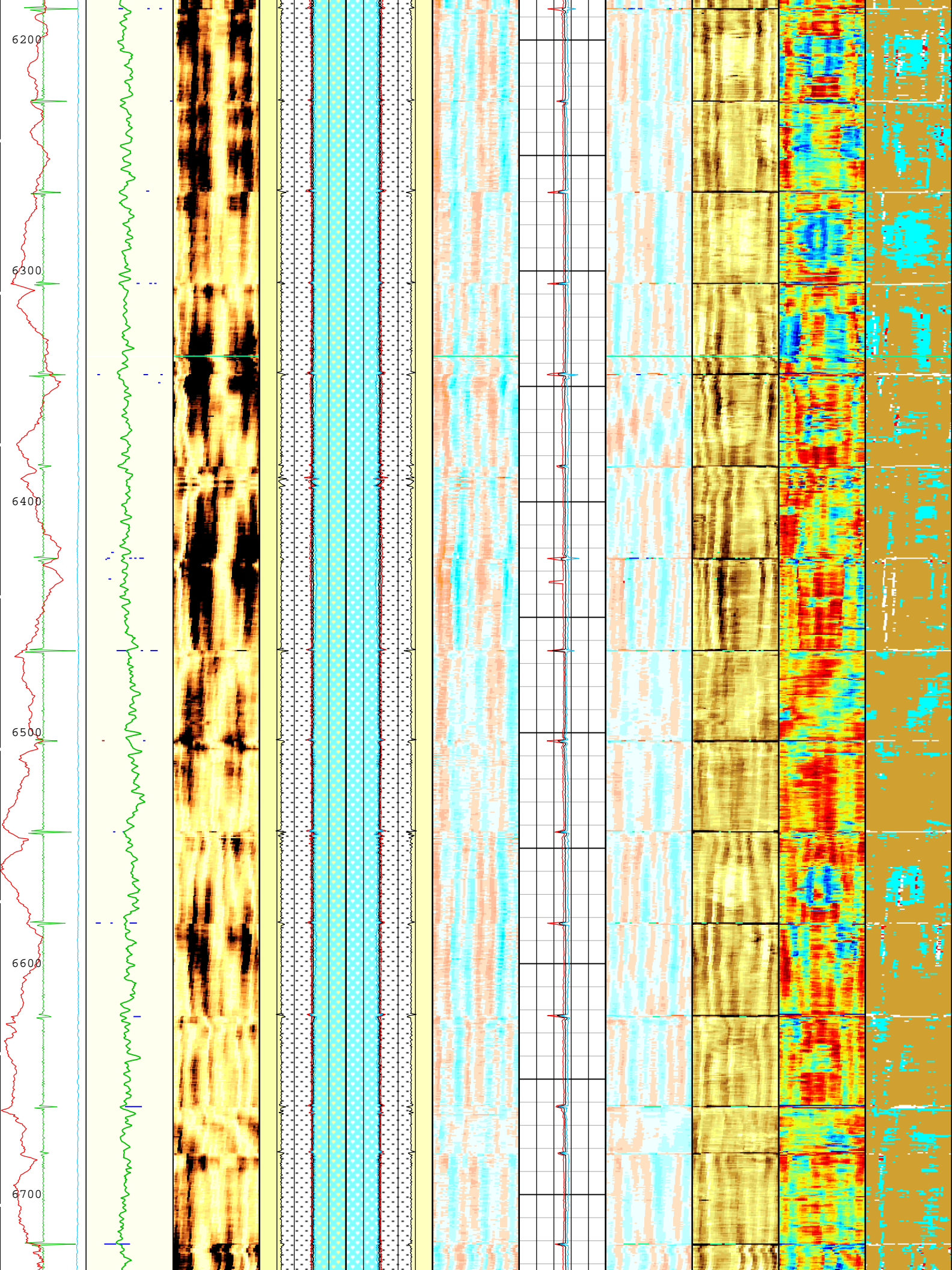


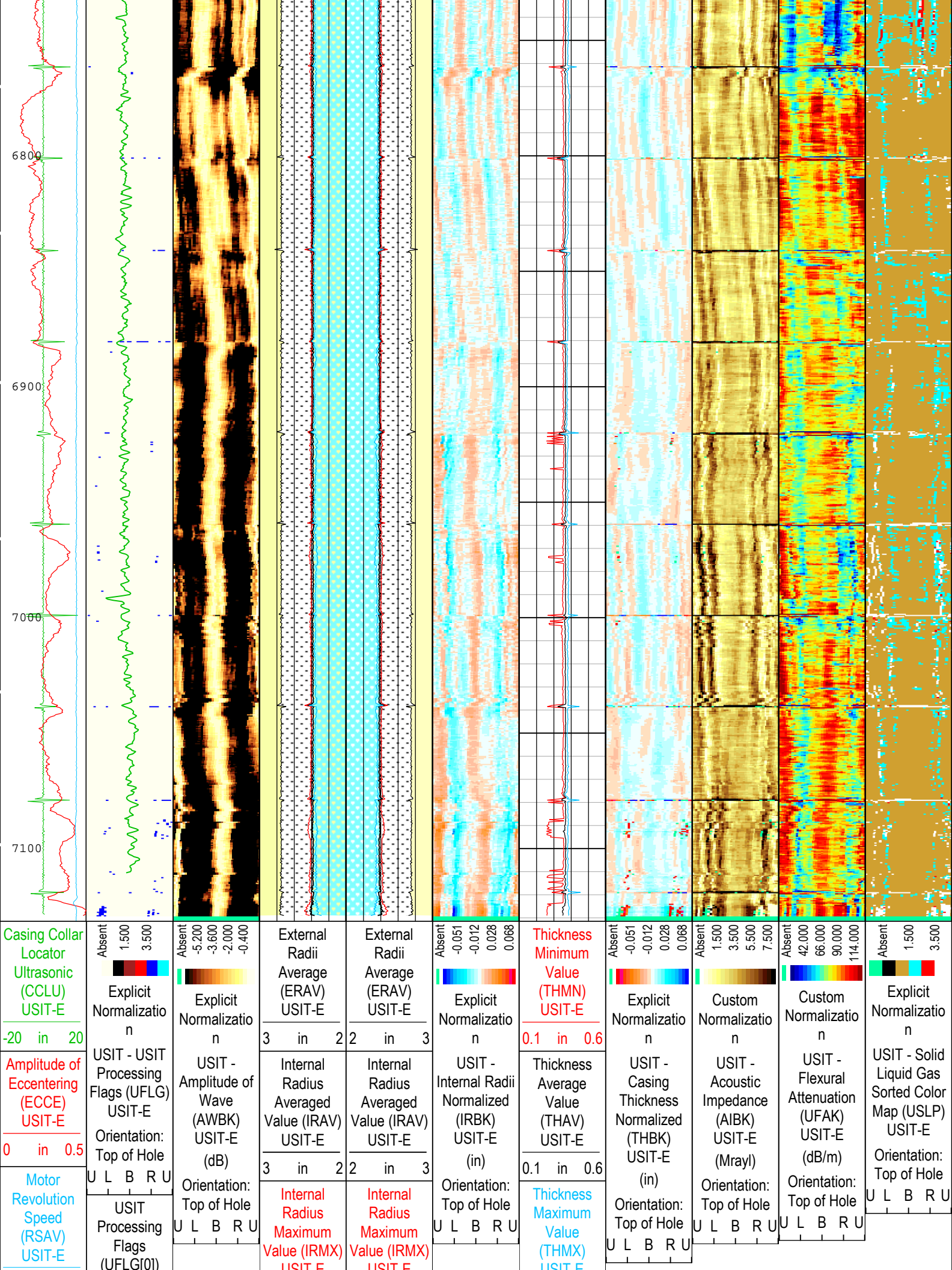












6	c/s	7.5	USIT-E		USIT-E		USIT-E		USIT-E	
			1	5	3	in	2	2	in	3
			Gamma Ray (ECGR_EDT C) EDTC-B		Internal Radius Minimum Value (IRMN) USIT-E		Internal Radius Minimum Value (IRMN) USIT-E		0.1	
			0 gAPI 150						in 0.6	

USIT Processing Flags (UFLG[0]) USIT-E										
1 - UFLG 1 Value within [0.0 - 1.5] - :					UTIM Error					
2 - UFLG 2 Value within [1.5 - 2.5] - :					Pulse Origin Not Detected					
3 - UFLG 3 Value within [2.5 - 3.5] - :					WINLEN Error					
4 - UFLG 4 UFLG 5 UFLG 6 Value within [3.5 - 6.5] - :					Casing Thickness Error					
5 - UFLG 7 UFLG 8 UFLG 9 Value within [6.5 - 10] - :					Loop Processing Error					

TIME_1900 - Time Marked every 60.00 (s)										
Description: USI IBC SLG Composite Format: Log (IBC SLG Composite) Index Scale: 2 in per 100 ft Index Unit: ft Index Type: Measured Depth										
Creation Date: 20-May-2019 21:37:00										

Channel Processing Parameters				
ONE: Parameters				
Parameter	Description	Tool	Value	Unit
BARI(ISSBAR)	Barite Mud Presence Flag	Borehole	No	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Cased	
BS	Bit Size	WLSESSION	Depth Zoned	in
CBLO	Casing Bottom (Logger)	WLSESSION	7130	ft
CDEN	Cement Density	USIT-E	12.5	lbm/gal
CDEN	Cement Density	EDTC-B	16.69	lbm/gal
CMTY(U-USIT_CEMT)	Cement Type	USIT-E	Regular Cement	
DFD	Drilling Fluid Density	Borehole	8.4	lbm/gal
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	
DTMD	Borehole Fluid Slowness	Borehole	206	us/ft
FD	Fluid Density	USIT-E	10.5	lbm/gal
GCSE_DOWN_PASS	Generalized Caliper Selection for WL Log Down Passes	Borehole	BS(RT)	
GCSE_UP_PASS	Generalized Caliper Selection for WL Log Up Passes	Borehole	BS(RT)	
HEMA	Hematite Presence Flag	Borehole	No	
IBC_FRP_OFFSET	IBC Flexural Offset from Free Pipe	USIT-E	-57.46	dB/m
IBC_FVEL_SEL	IBC Fluid Velocity Selection	USIT-E	Automatic	
IBC_OFFSET_SEL	IBC Flexural Offset Selector	USIT-E	UFAO	
IBC_ZMUD_SEL	IBC Mud Impedance Selection	USIT-E	FreePipe Norm.	
ICE_PROCESS	ICE Processing	USIT-E	Yes	
IMAR	Image Rotation	USIT-E	RB	
MEAS_WLEN	Tcube Processing Window Length in Measurement Mode	USIT-E	Depth Zoned	us
MUD_N_FRP	Free Pipe Mud Normalization Factor	USIT-E	1.21	
MUD_N_THE	Theoretical Mud Normalization Factor	USIT-E	1.12	
U-USIT_DFSZ	Drilling Fluid Specific Acoustic Impedance	USIT-E	1.68	Mrayl
U-USIT_UFAO	SIT Flexural Attenuation Offset	USIT-E	Time Zoned	dB/m
U-USIT_UIAP	IBC Answer Product Enabled	USIT-E	SolidLiquidGasMap	
ZMUD	Acoustic Impedance of Mud	Borehole	1.78	Mrayl
ZTCM	Acoustic Impedance Threshold for Cement	USIT-E	2.6	Mrayl
ZTGS	Acoustic Impedance Threshold for Gas	USIT-E	0.3	Mrayl

Depth Zone Parameters

Parameter	Value	Start (ft)		Stop (ft)	
BS	13.5	270		2376	
BS	8.5	2376		7130	
MEAS_WLEN	22.44	270		7130	
MEAS_WLEN	20	7130		7131.5	
All depth are actual.					
Time Zone Parameters					
Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
U-USIT_UFAO	-59.56	20-May-2019 08:34:13	20-May-2019 08:39:56	7132.28	6774.22
U-USIT_UFAO	-49.56	20-May-2019 08:39:56	20-May-2019 08:48:34	6774.22	6206.82
U-USIT_UFAO	-69.56	20-May-2019 08:48:34	20-May-2019 09:03:27	6206.82	5203.94
U-USIT_UFAO	-54.56	20-May-2019 09:03:27	20-May-2019 09:12:17	5203.94	4668.01
U-USIT_UFAO	-49.56	20-May-2019 09:12:17	20-May-2019 09:13:13	4668.01	4603.57
U-USIT_UFAO	-34.56	20-May-2019 09:13:13	20-May-2019 09:13:54	4603.57	4556.05
U-USIT_UFAO	-49.56	20-May-2019 09:13:54	20-May-2019 09:14:04	4556.05	4544.44
U-USIT_UFAO	-34.56	20-May-2019 09:14:04	20-May-2019 09:14:12	4544.44	4535.22
U-USIT_UFAO	-49.56	20-May-2019 09:14:12	20-May-2019 09:16:36	4535.22	4369.73
U-USIT_UFAO	-65.56	20-May-2019 09:16:36	20-May-2019 09:33:48	4369.73	3201.75
U-USIT_UFAO	-49.56	20-May-2019 09:33:48	20-May-2019 09:33:55	3201.75	3193.99
U-USIT_UFAO	-65.56	20-May-2019 09:33:55	20-May-2019 09:39:35	3193.99	2856.29
U-USIT_UFAO	-49.56	20-May-2019 09:39:35	20-May-2019 09:40:50	2856.29	2773.78
U-USIT_UFAO	-63.56	20-May-2019 09:40:50	20-May-2019 09:41:08	2773.78	2754.08
U-USIT_UFAO	-44.56	20-May-2019 09:41:08	20-May-2019 09:41:11	2754.08	2750.78
U-USIT_UFAO	-57.56	20-May-2019 09:41:11	20-May-2019 09:41:22	2750.78	2738.72
U-USIT_UFAO	-39.56	20-May-2019 09:41:22	20-May-2019 09:41:24	2738.72	2736.52
U-USIT_UFAO	-57.56	20-May-2019 09:41:24	20-May-2019 09:41:59	2736.52	2698.29
U-USIT_UFAO	-35.56	20-May-2019 09:41:59	20-May-2019 09:44:50	2698.29	2510.57
U-USIT_UFAO	-59.56	20-May-2019 09:44:50	20-May-2019 09:45:22	2510.57	2475.55
U-USIT_UFAO	-49.56	20-May-2019 09:45:22	20-May-2019 09:45:27	2475.55	2470.1
U-USIT_UFAO	-65.56	20-May-2019 09:45:27	20-May-2019 09:53:01	2470.1	1975.02
U-USIT_UFAO	-54.56	20-May-2019 09:53:01	20-May-2019 09:53:54	1975.02	1917.99
U-USIT_UFAO	-70.56	20-May-2019 09:53:54	20-May-2019 09:55:44	1917.99	1796.27
U-USIT_UFAO	-54.56	20-May-2019 09:55:44	20-May-2019 09:55:59	1796.27	1779.43
U-USIT_UFAO	-58.56	20-May-2019 09:55:59	20-May-2019 10:01:33	1779.43	1401.84
U-USIT_UFAO	-50.56	20-May-2019 10:01:33	20-May-2019 10:01:42	1401.84	1391.76
U-USIT_UFAO	-59.56	20-May-2019 10:01:42	20-May-2019 10:06:39	1391.76	1055.04
U-USIT_UFAO	-49.56	20-May-2019 10:06:39	20-May-2019 10:19:07	1055.04	272.23
All depth are at tool zero.					
Tool Control Parameters					
ONE: Parameters					
Parameter	Description	Tool	Value	Unit	
AGMN	Minimum Gain of Cartridge	USIT-E	-12	dB	
AGMX	Maximum Gain of Cartridge	USIT-E	48	dB	
EMXV	EMEX Voltage	USIT-E	Time Zoned	V	
IBC_ACQTYPE	IBC Acquisition type	USIT-E	1 MHz		

IBC_FLEXDBP	IBC Flex Duration Before Peak	USIT-E	30	us
ICE2_ACQ	Ultrasonic ICE2 Acquisition	USIT-E	Yes	
U-USIT_UFWB	Far Receiver Window Begin Time	USIT-E	137	us
U-USIT_UFWE	Far Receiver Window End Time	USIT-E	177	us
U-USIT_UNWB	Near Receiver Window Begin Time	USIT-E	106	us
U-USIT_UNWE	Near Receiver Window End Time	USIT-E	146	us
UPAT	USIT Emission Pattern	USIT-E	Pattern 375 KHz	
UWKM	USIT Working Mode	USIT-E	10 deg at 6.0 in	
U-USIT_UTAN	Transducer Angles	USIT-E	33_DEG	
VRES	Vertical Resolution	USIT-E	6.0 in	
WINB	Window Begin Time	USIT-E	Time Zoned	us
WINE	Window End Time	USIT-E	Time Zoned	us

Time Zone Parameters

Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
EMXV	100	20-May-2019 08:34:13	20-May-2019 08:35:28	7132.28	7066.6
EMXV	110	20-May-2019 08:35:28	20-May-2019 09:23:17	7066.6	3911.08
EMXV	100	20-May-2019 09:23:17	20-May-2019 09:26:33	3911.08	3680.71
EMXV	110	20-May-2019 09:26:33	20-May-2019 10:19:07	3680.71	272.23
WINB	31.88	20-May-2019 08:34:13	20-May-2019 09:58:49	7132.28	1586.98
WINB	33.43	20-May-2019 09:58:49	20-May-2019 10:19:07	1586.98	272.23
WINE	71.88	20-May-2019 08:34:13	20-May-2019 09:58:45	7132.28	1591.57
WINE	72.05	20-May-2019 09:58:45	20-May-2019 10:19:07	1591.57	272.23

All depth are at tool zero.

ONE

IBC Goodwin Compressed

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
ONE	Log[4]:Up	Up	272.23 ft	7132.28 ft	20-May-2019 8:34:13 AM	20-May-2019 10:19:07 AM	ON	6.59 ft	Yes

All depths are referenced to toolstring zero

Log

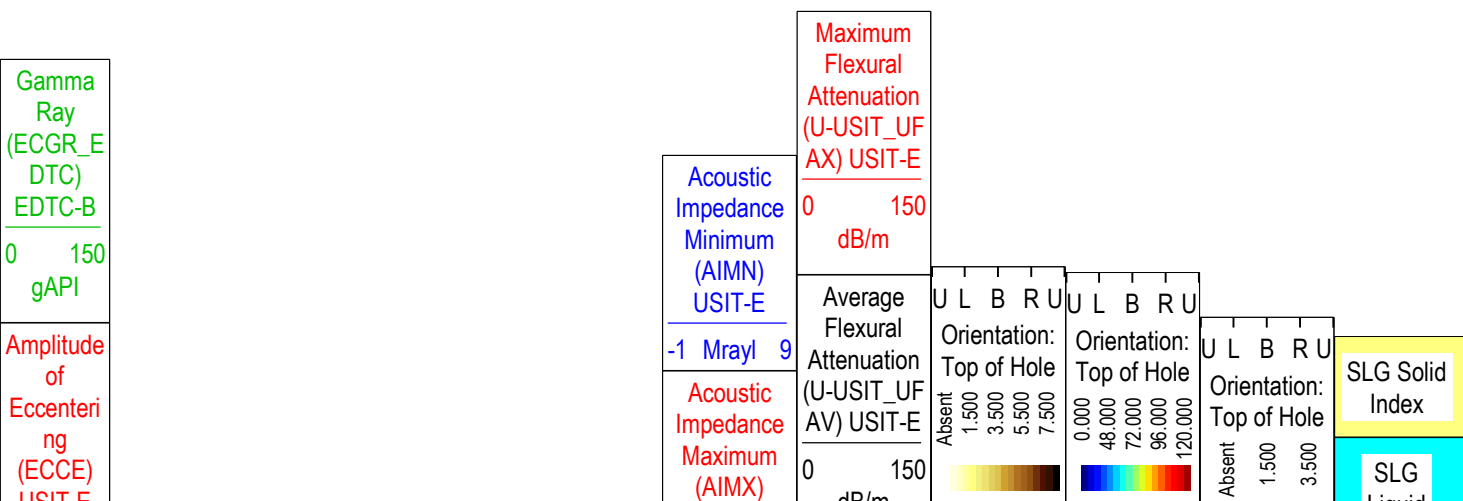
Company:Crestone Peak Resources and Operating LLC

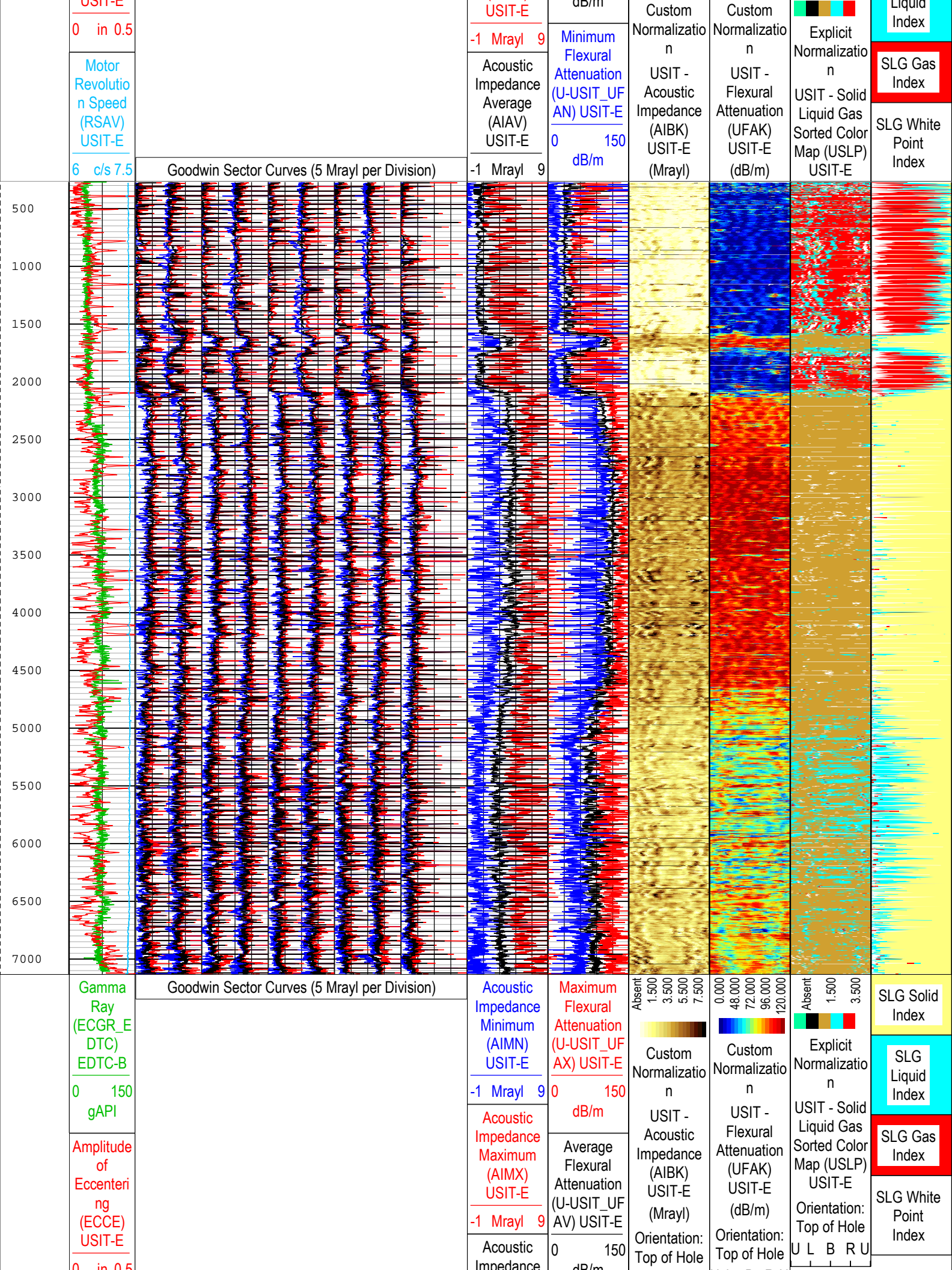
Well:Echeverria 2K-2H-D267

ONE: Log[4]:Up:S043

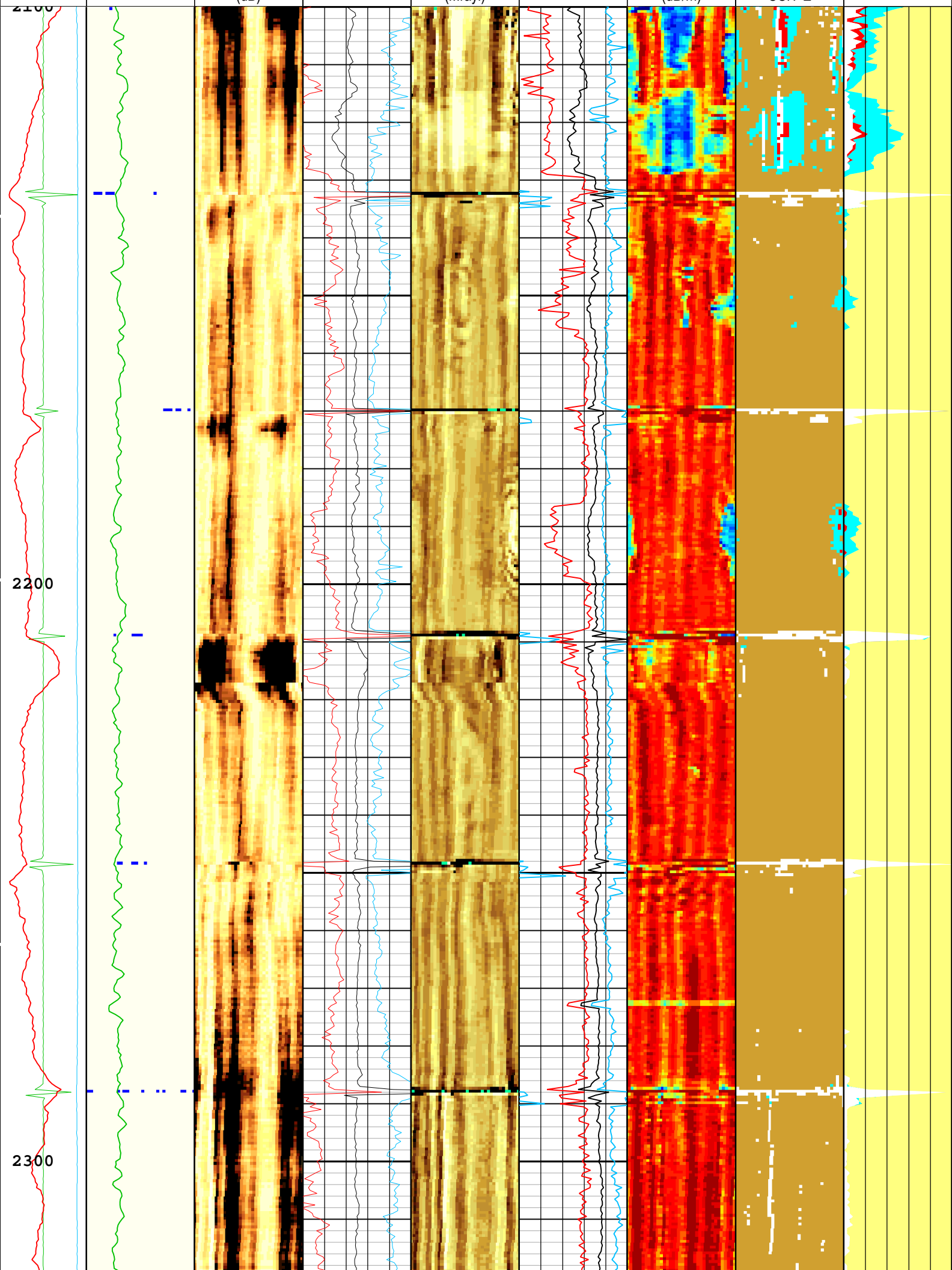
Description: USI Goodwin Format: Log (IBC Goodwin) Index Scale: 0.1 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 20-May-2019 21:37:12

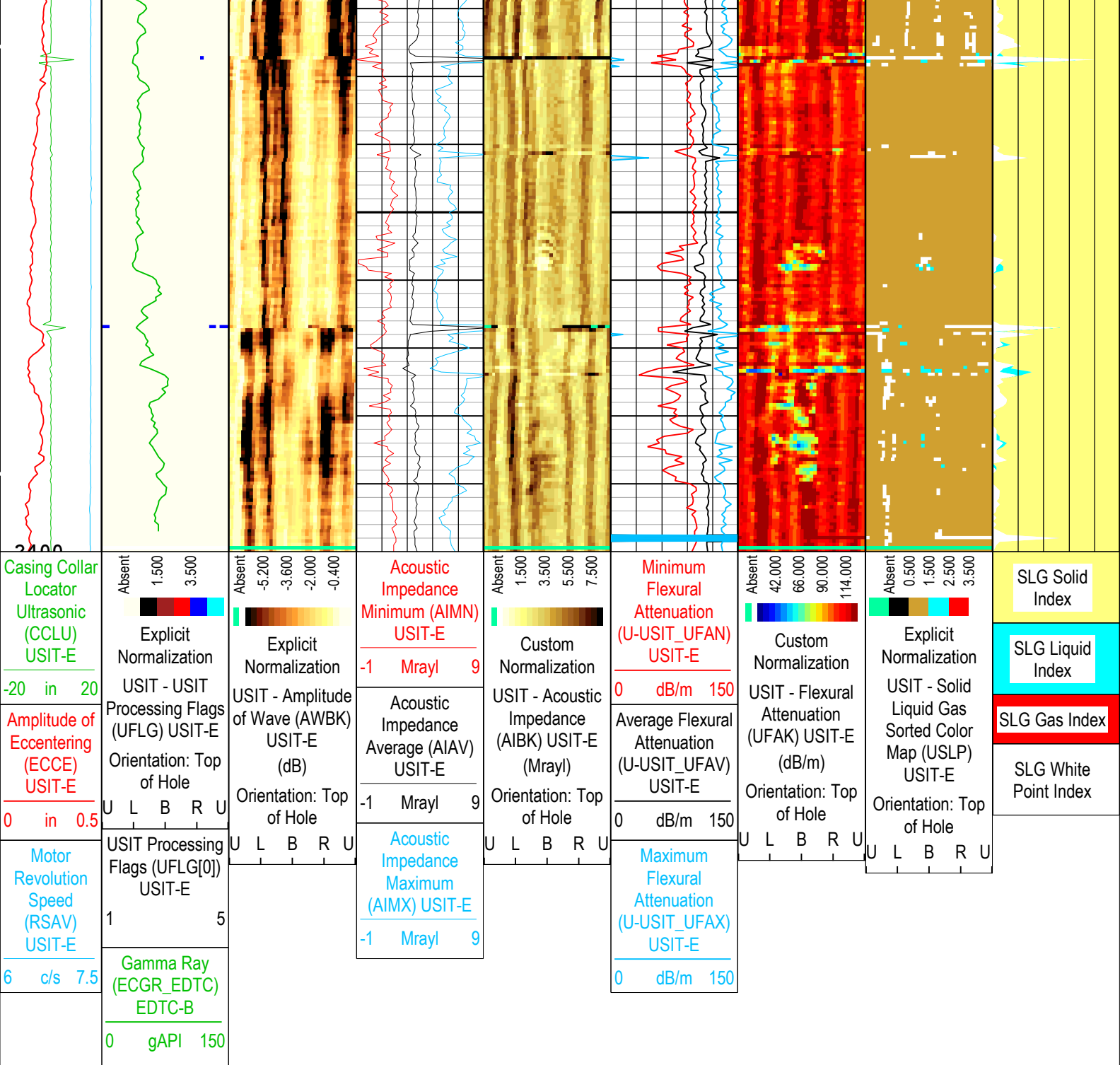
TIME_1900 - Time Marked every 60.00 (s)





[illegible]





USIT Processing Flags (UFLG[0]) USIT-E

- | | |
|---|-----------------------------|
| 1 - UFLG 1 Value within [0.0 - 1.5] - : | ■ UTIM Error |
| 2 - UFLG 2 Value within [1.5 - 2.5] - : | ■ Pulse Origin Not Detected |
| 3 - UFLG 3 Value within [2.5 - 3.5] - : | ■ WINLEN Error |
| 4 - UFLG 4 UFLG 5 UFLG 6 Value within [3.5 - 6.5] - : | ■ Casing Thickness Error |
| 5 - UFLG 7 UFLG 8 UFLG 9 Value within [6.5 - 10] - : | ■ Loop Processing Error |

TIME_1900 - Time Marked every 60.00 (s)

Description: USI IBC SLG Format: Log (IBC SLG) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 20-May-2019 21:37:18

Channel Processing Parameters				
ONE: Parameters				
Parameter	Description	Tool	Value	Unit
BARI(ISSBAR)	Barite Mud Presence Flag	Borehole	No	
REFL	Bad Echo Rejection	USIT-E	On	

BCN	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	7130	ft
CDEN	Cement Density	USIT-E	12.5	lbm/gal
CDEN	Cement Density	EDTC-B	16.69	lbm/gal
CMTY(U-USIT_CEMT)	Cement Type	USIT-E	Regular Cement	
DFD	Drilling Fluid Density	Borehole	8.4	lbm/gal
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	
DTMD	Borehole Fluid Slowness	Borehole	206	us/ft
FD	Fluid Density	USIT-E	10.5	lbm/gal
FDII	FPM Data Interpolation Interval	USIT-E	0	ft
GCSE_DOWN_PASS	Generalized Caliper Selection for WL Log Down Passes	Borehole	BS(RT)	
GCSE_UP_PASS	Generalized Caliper Selection for WL Log Up Passes	Borehole	BS(RT)	
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	-57.46	dB/m
IBC_FVEL_SEL	IBC Fluid Velocity Selection	USIT-E	Automatic	
IBC_OFFSET_SEL	IBC Flexural Offset Selector	USIT-E	UFAO	
IBC_ZMUD_SEL	IBC Mud Impedance Selection	USIT-E	FreePipe Norm.	
ICE_PROCESS	ICE Processing	USIT-E	Yes	
IMAR	Image Rotation	USIT-E	RB	
MEAS_WLEN	Tcube Processing Window Length in Measurement Mode	USIT-E	22.44	us
MUD_N_FRP	Free Pipe Mud Normalization Factor	USIT-E	1.21	
MUD_N_THE	Theoretical Mud Normalization Factor	USIT-E	1.12	
RCOD	Reference Calibrator Outer Diameter	USIT-E	4.5	in
RCSO	Reference Calibrator Standoff	USIT-E	0.842	in
RCTH	Reference Calibrator Thickness	USIT-E	0.216	in
RPLUS_PROCESS	Ultrasonic R+ Processing	USIT-E	No	
SOCN	Standoff Distance	EDTC-B	0.125	in
SOCO	Standoff Correction Option	EDTC-B	No	
THDH	Maximum Search Thickness (percentage of nominal)	USIT-E	130	%
THDL	Minimum Search Thickness (percentage of nominal)	USIT-E	70	%
TPOS_EDTC	Tool Position: Centered or Eccentered	EDTC-B	Eccentered	
U-USIT_DFSZ	Drilling Fluid Specific Acoustic Impedance	USIT-E	1.68	Mrayl
U-USIT_UFAO	SIT Flexural Attenuation Offset	USIT-E	Time Zoned	dB/m
U-USIT_UIAP	IBC Answer Product Enabled	USIT-E	SolidLiquidGasMap	
THDP	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	1.78	Mrayl
ZTCM	Acoustic Impedance Threshold for Cement	USIT-E	2.6	Mrayl
ZTGS	Acoustic Impedance Threshold for Gas	USIT-E	0.3	Mrayl

Depth Zone Parameters			
Parameter	Value	Start (ft)	Stop (ft)
BS	13.5	2100	2376
BS	8.5	2376	2400

All depth are actual.

Time Zone Parameters

Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
U-USIT_UFAO	-42.56	20-May-2019 07:51:29	20-May-2019 07:54:50	2419.26	2272.91
U-USIT_UFAO	-20.56	20-May-2019 07:54:50	20-May-2019 07:58:48	2272.91	2022.86

All depth are at tool zero.

Tool Control Parameters

ONE: Parameters

Parameter	Description	Tool	Value	Unit
AGMN	Minimum Gain of Cartridge	USIT-E	-12	dB
AGMX	Maximum Gain of Cartridge	USIT-E	48	dB
U-USIT_DDT5	USIC Downhole Decimation for T5 only	USIT-E	0_NONE	
DOT(DOS)	Distance between Opposite Transducer Faces	USIT-E	1.756	in
EMXV	EMEX Voltage	USIT-E	Time Zoned	V
HRES	Horizontal Resolution	USIT-E	10 deg	
IBC_ACQTYPE	IBC Acquisition type	USIT-E	1 MHz	
IBC_FLEXDBP	IBC Flex Duration Before Peak	USIT-E	30	us
ICE2_ACQ	Ultrasonic ICE2 Acquisition	USIT-E	Yes	
MOTOR_PROTECT	Motor Protection	USIT-E	On	
UACLV_PERM	Ultrasonic ACLV Permanent	USIT-E	Yes	
U-USIT_UFWB	Far Receiver Window Begin Time	USIT-E	137	us
U-USIT_UFWE	Far Receiver Window End Time	USIT-E	177	us
U-USIT_UNWB	Near Receiver Window Begin Time	USIT-E	106	us
U-USIT_UNWE	Near Receiver Window End Time	USIT-E	146	us
USFR	Ultrasonic Sampling Frequency	USIT-E	666667	Hz
UPAT	USIT Emission Pattern	USIT-E	Pattern 375 KHz	
UWKM	USIT Working Mode	USIT-E	10 deg at 6.0 in	
USSP	Ultrasonic Service	USIT-E	IBC	
U-USIT_UTAN	Transducer Angles	USIT-E	33_DEG	
VRES	Vertical Resolution	USIT-E	6.0 in	
WINB	Window Begin Time	USIT-E	Time Zoned	us
WINE	Window End Time	USIT-E	Time Zoned	us

Time Zone Parameters

Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
EMXV	60	20-May-2019 07:51:29	20-May-2019 07:54:29	2419.26	2294.18
EMXV	75	20-May-2019 07:54:29	20-May-2019 07:54:36	2294.18	2286.94
EMXV	110	20-May-2019 07:54:36	20-May-2019 07:55:00	2286.94	2261.92
EMXV	100	20-May-2019 07:55:00	20-May-2019 07:58:48	2261.92	2022.86
WINB	31.88	20-May-2019 07:51:29	20-May-2019 07:52:49	2419.26	2401.63
WINB	35.05	20-May-2019 07:52:49	20-May-2019 07:58:48	2401.63	2022.86
WINE	71.88	20-May-2019 07:51:29	20-May-2019 07:52:51	2419.26	2399.37
WINE	75.88	20-May-2019 07:52:51	20-May-2019 07:58:48	2399.37	2022.86

All depth are at tool zero.

ONE

IBC SLG Composite

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
ONE	Log[1]:Up	Up	2022.86 ft	2419.26 ft	20-May-2019 7:51:29 AM	20-May-2019 7:58:48 AM	ON	3.64 ft	Yes

All depths are referenced to toolstring zero

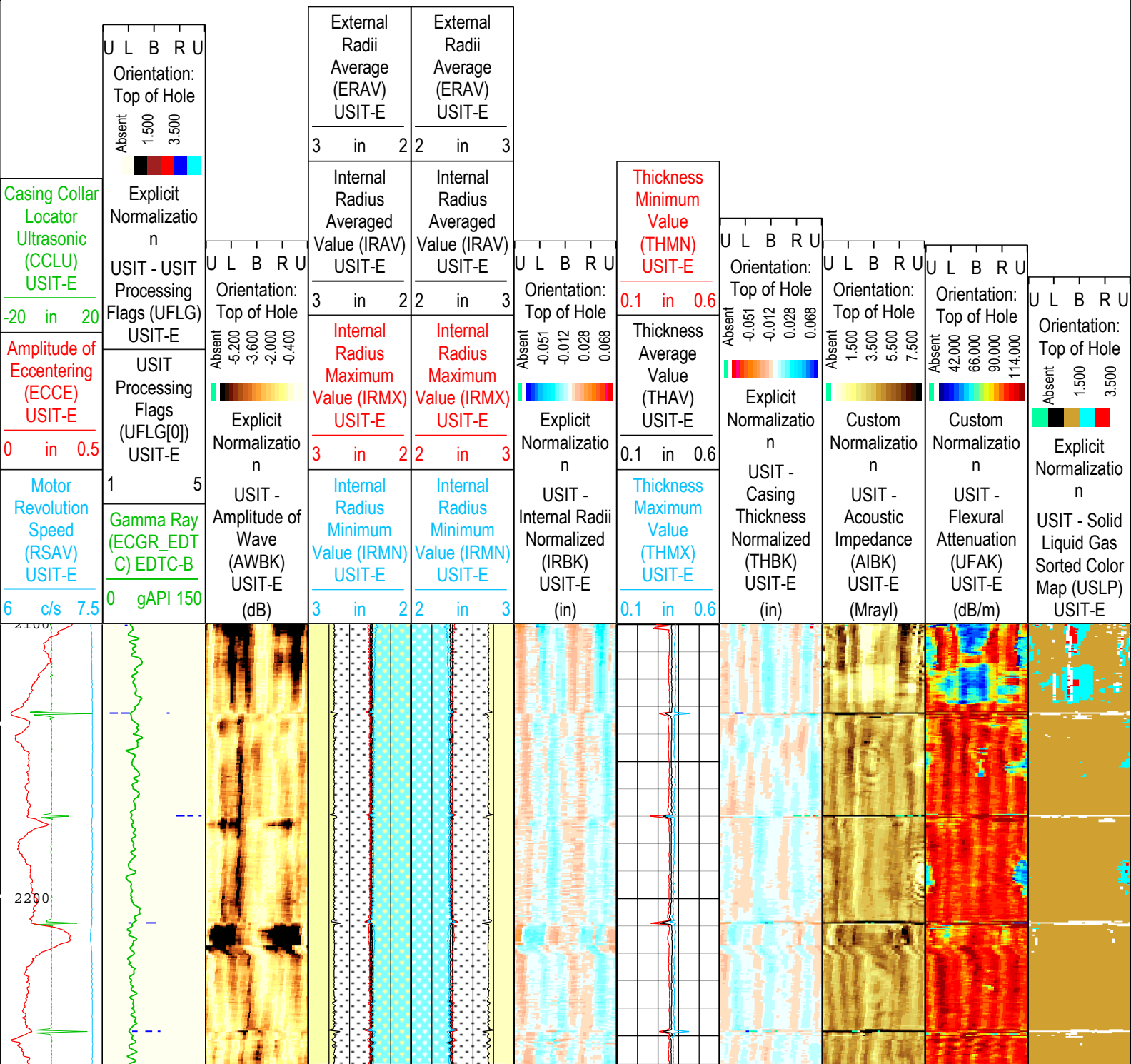
Log	Company:Crestone Peak Resources and Operating LLC	Well:Echeverria 2K-2H-D267
		ONE: Log[1]:Up:S043

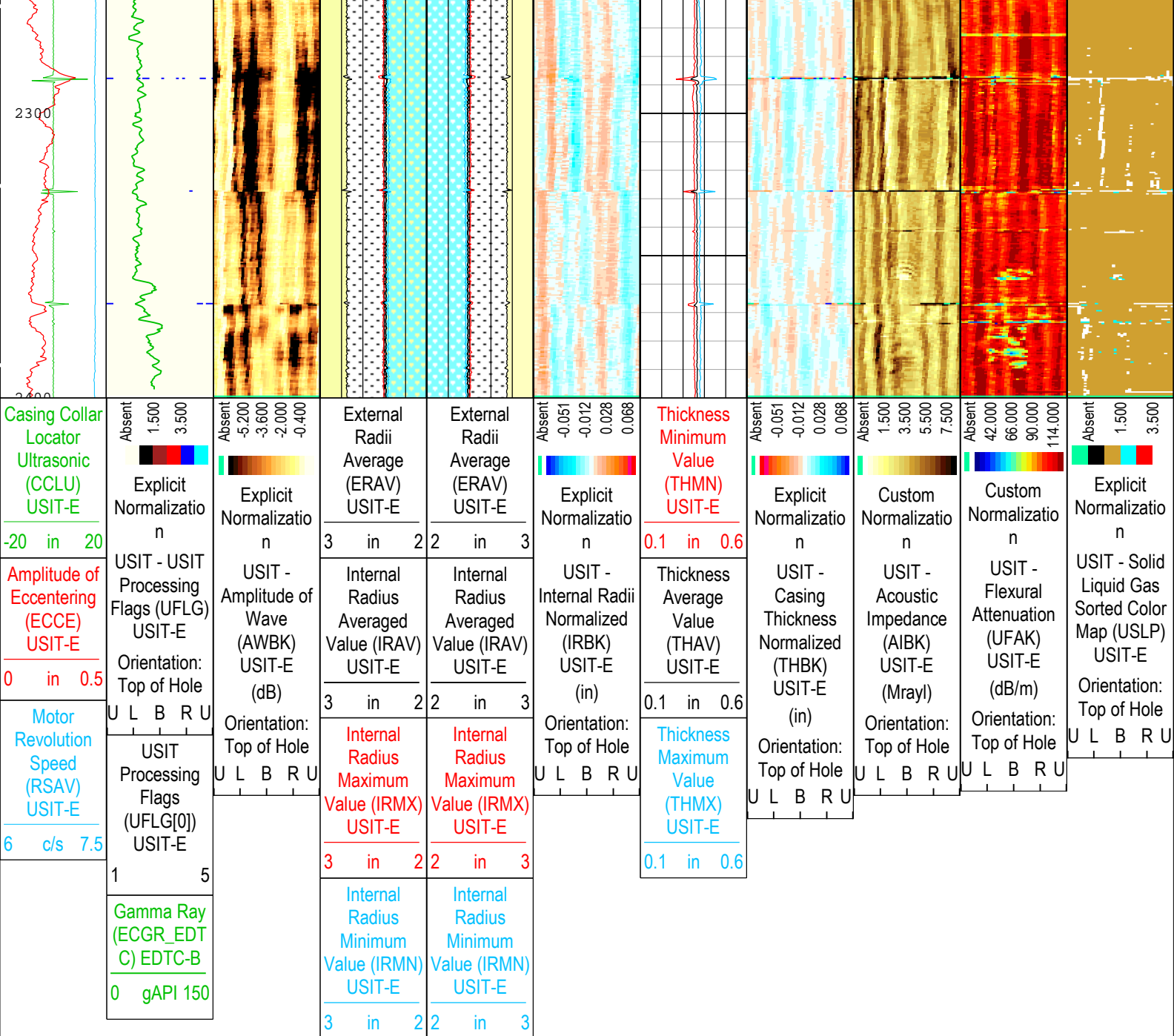
Description: USI IBC SLG Composite Format: Log (IBC SLG Composite) Index Scale: 2 in per 100 ft Index Unit: ft Index Type: Measured Depth
Creation Date: 20-May-2019 21:37:23

USIT Processing Flags (UFLG[0]) USIT-E

1 - UFLG 1 Value within [0.0 - 1.5] - :	UTIM Error
2 - UFLG 2 Value within [1.5 - 2.5] - :	Pulse Origin Not Detected
3 - UFLG 3 Value within [2.5 - 3.5] - :	WINLEN Error
4 - UFLG 4 UFLG 5 UFLG 6 Value within [3.5 - 6.5] - :	Casing Thickness Error
5 - UFLG 7 UFLG 8 UFLG 9 Value within [6.5 - 10] - :	Loop Processing Error

TIME_1900 - Time Marked every 60.00 (s)





TIME_1900 - Time Marked every 60.00 (s)

USIT Processing Flags (UFLG[0]) USIT-E

- | | |
|---|---------------------------|
| 1 - UFLG 1 Value within [0.0 - 1.5] - : | UTIM Error |
| 2 - UFLG 2 Value within [1.5 - 2.5] - : | Pulse Origin Not Detected |
| 3 - UFLG 3 Value within [2.5 - 3.5] - : | WINLEN Error |
| 4 - UFLG 4 UFLG 5 UFLG 6 Value within [3.5 - 6.5] - : | Casing Thickness Error |
| 5 - UFLG 7 UFLG 8 UFLG 9 Value within [6.5 - 10] - : | Loop Processing Error |

Description: USI IBC SLG Composite Format: Log (IBC SLG Composite) Index Scale: 2 in per 100 ft Index Unit: ft Index Type: Measured Depth
Creation Date: 20-May-2019 21:37:23

Channel Processing Parameters				
ONE: Parameters				
Parameter	Description	Tool	Value	Unit
BARI(ISSBAR)	Barite Mud Presence Flag	Borehole	No	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Cased	
BS	Bit Size	WLSESSION	Depth Zoned	in
CBLO	Casing Bottom (Logger)	WLSESSION	7130	ft

CDEN	Cement Density	USIT-E	12.5	lbm/gal
CDEN	Cement Density	EDTC-B	16.69	lbm/gal
CMTY(U-USIT_CEMT)	Cement Type	USIT-E	Regular Cement	
DFD	Drilling Fluid Density	Borehole	8.4	lbm/gal
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	
DTMD	Borehole Fluid Slowness	Borehole	206	us/ft
FD	Fluid Density	USIT-E	10.5	lbm/gal
GCSE_DOWN_PASS	Generalized Caliper Selection for WL Log Down Passes	Borehole	BS(RT)	
GCSE_UP_PASS	Generalized Caliper Selection for WL Log Up Passes	Borehole	BS(RT)	
HEMA	Hematite Presence Flag	Borehole	No	
IBC_FRP_OFFSET	IBC Flexural Offset from Free Pipe	USIT-E	-57.46	dB/m
IBC_FVEL_SEL	IBC Fluid Velocity Selection	USIT-E	Automatic	
IBC_OFFSET_SEL	IBC Flexural Offset Selector	USIT-E	UFAO	
IBC_ZMUD_SEL	IBC Mud Impedance Selection	USIT-E	FreePipe Norm.	
ICE_PROCESS	ICE Processing	USIT-E	Yes	
IMAR	Image Rotation	USIT-E	RB	
MEAS_WLEN	Tcube Processing Window Length in Measurement Mode	USIT-E	22.44	us
MUD_N_FRP	Free Pipe Mud Normalization Factor	USIT-E	1.21	
MUD_N_THE	Theoretical Mud Normalization Factor	USIT-E	1.12	
U-USIT_DFSZ	Drilling Fluid Specific Acoustic Impedance	USIT-E	1.68	Mrayl
U-USIT_UFAO	SIT Flexural Attenuation Offset	USIT-E	Time Zoned	dB/m
U-USIT_UIAP	IBC Answer Product Enabled	USIT-E	SolidLiquidGasMap	
ZMUD	Acoustic Impedance of Mud	Borehole	1.78	Mrayl
ZTCM	Acoustic Impedance Threshold for Cement	USIT-E	2.6	Mrayl
ZTGS	Acoustic Impedance Threshold for Gas	USIT-E	0.3	Mrayl

Depth Zone Parameters			
Parameter	Value	Start (ft)	Stop (ft)
BS	13.5	2100	2376
BS	8.5	2376	2400

Time Zone Parameters					
Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
U-USIT_UFAO	-42.56	20-May-2019 07:51:29	20-May-2019 07:54:50	2419.26	2272.91
U-USIT_UFAO	-20.56	20-May-2019 07:54:50	20-May-2019 07:58:48	2272.91	2022.86
All depth are at tool zero.					

Tool Control Parameters				
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ONE: Parameters				
Parameter	Description	Tool	Value	Unit
AGMN	Minimum Gain of Cartridge	USIT-E	-12	dB
AGMX	Maximum Gain of Cartridge	USIT-E	48	dB
EMXV	EMEX Voltage	USIT-E	Time Zoned	V
IBC_ACQTYPE	IBC Acquisition type	USIT-E	1 MHz	
IBC_FLEXDBP	IBC Flex Duration Before Peak	USIT-E	30	us
ICE2_ACQ	Ultrasonic ICE2 Acquisition	USIT-E	Yes	
U-USIT_UFWB	Far Receiver Window Begin Time	USIT-E	137	us
U-USIT_UFWE	Far Receiver Window End Time	USIT-E	177	us
U-USIT_UNWB	Near Receiver Window Begin Time	USIT-E	106	us
U-USIT_UNWE	Near Receiver Window End Time	USIT-E	146	us

UPAT	USIT Emission Pattern	USIT-E	Pattern 375 KHz	
UWKM	USIT Working Mode	USIT-E	10 deg at 6.0 in	
U-USIT_UTAN	Transducer Angles	USIT-E	33_DEG	
VRES	Vertical Resolution	USIT-E	6.0 in	
WINB	Window Begin Time	USIT-E	Time Zoned	us
WINE	Window End Time	USIT-E	Time Zoned	us

Time Zone Parameters

Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
EMXV	60	20-May-2019 07:51:29	20-May-2019 07:54:29	2419.26	2294.18
EMXV	75	20-May-2019 07:54:29	20-May-2019 07:54:36	2294.18	2286.94
EMXV	110	20-May-2019 07:54:36	20-May-2019 07:55:00	2286.94	2261.92
EMXV	100	20-May-2019 07:55:00	20-May-2019 07:58:48	2261.92	2022.86
WINB	31.88	20-May-2019 07:51:29	20-May-2019 07:52:49	2419.26	2401.63
WINB	35.05	20-May-2019 07:52:49	20-May-2019 07:58:48	2401.63	2022.86
WINE	71.88	20-May-2019 07:51:29	20-May-2019 07:52:51	2419.26	2399.37
WINE	75.88	20-May-2019 07:52:51	20-May-2019 07:58:48	2399.37	2022.86

All depth are at tool zero.

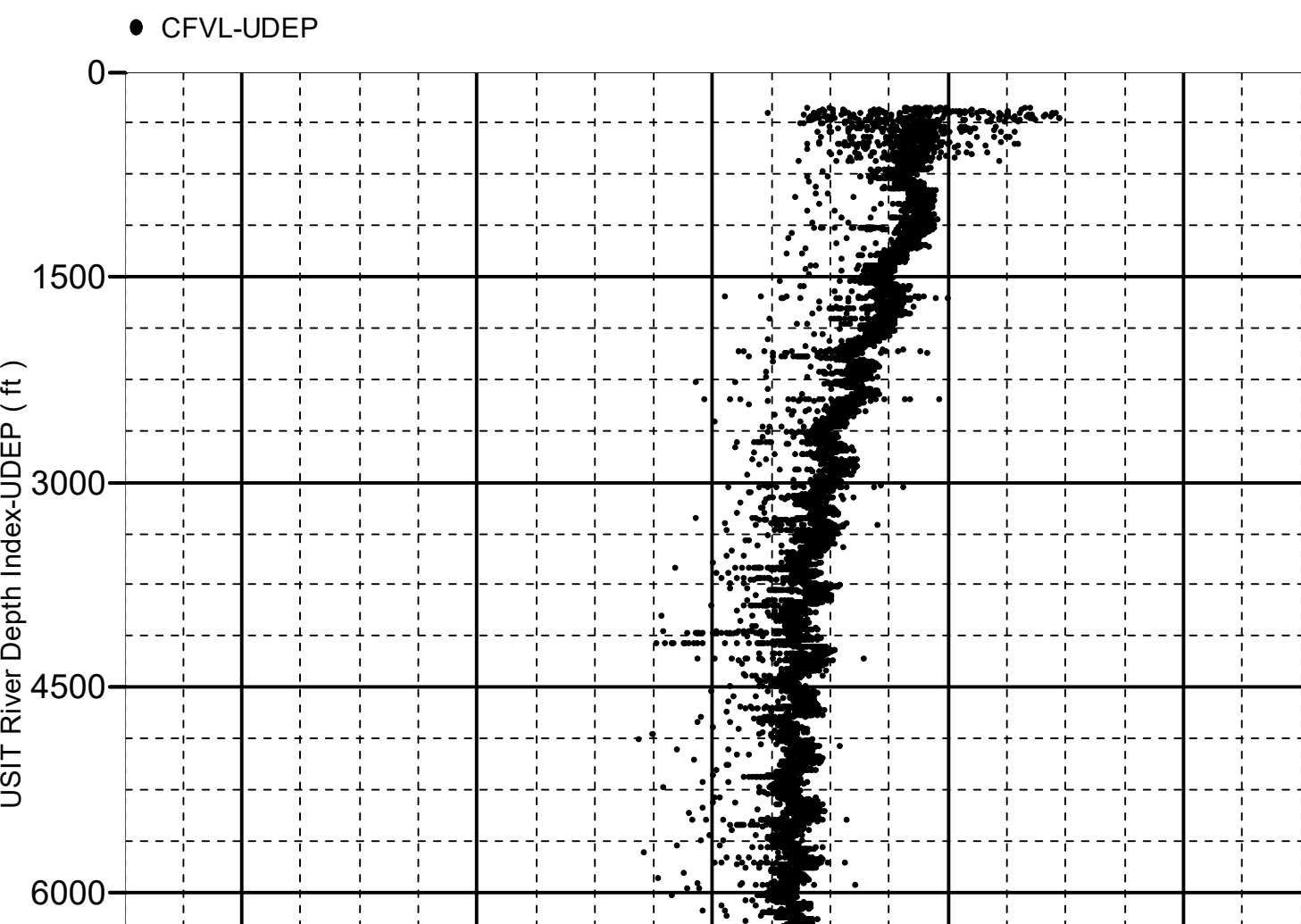
XYZ

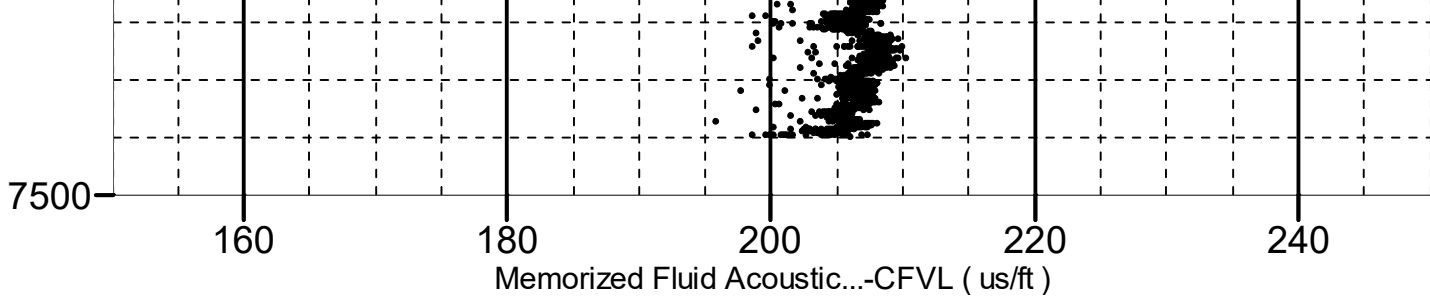
Company:Crestone Peak Resources and Operating LLC Well:Echeverria 2K-2H-D267
ONE: Log[4]:Up:S043

Fluid Acoustic Slowness vs Depth

2D Cross Plot

Index Range: From 7131.50 to 271.50 ft





XYZ

Company:Crestone Peak Resources and Operating LLC Well:Echeverria 2K-2H-D267

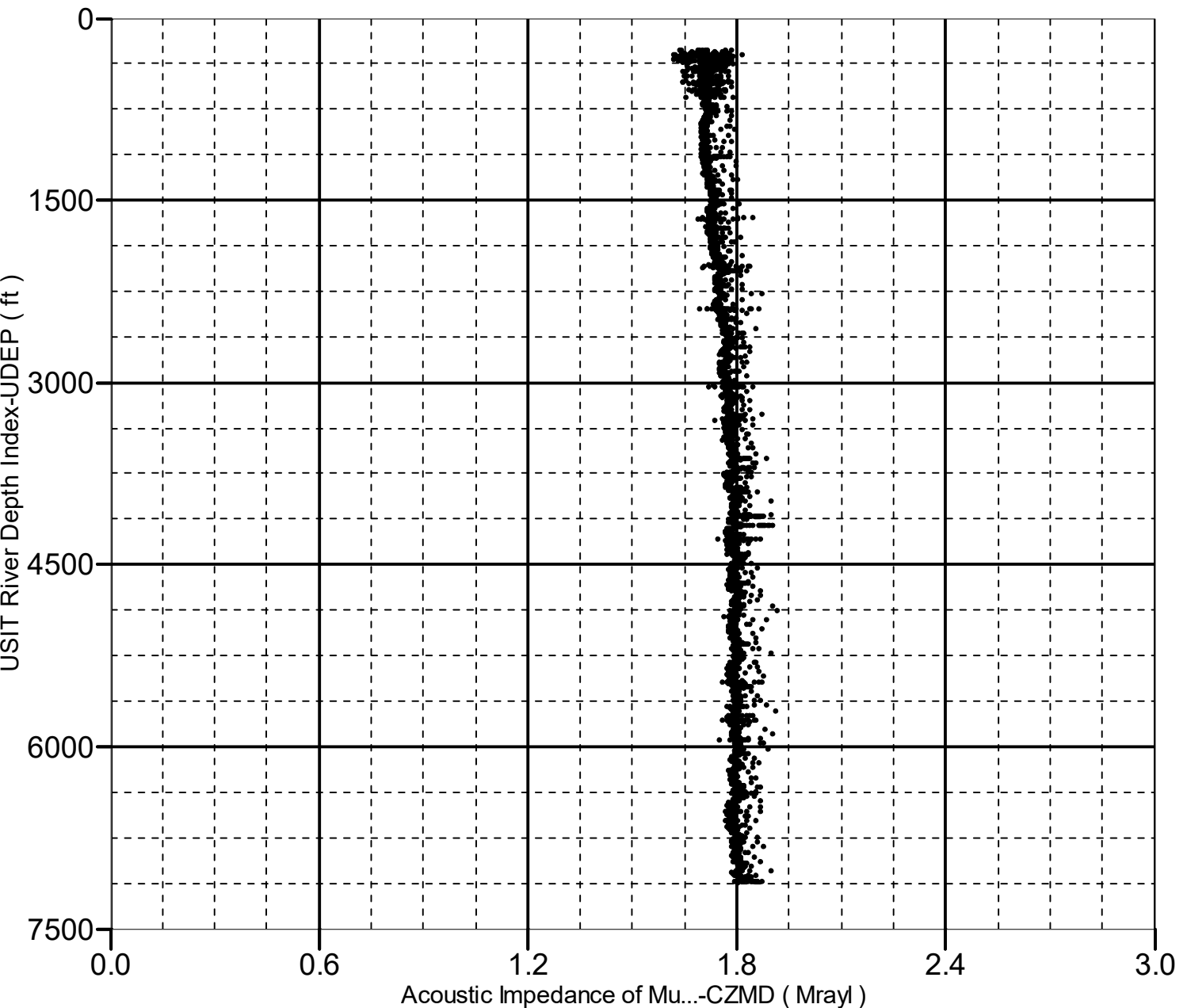
ONE: Log[4]:Up:S043

Acoustic Impedance of Mud vs Depth

2D Cross Plot

Index Range: From 7131.50 to 271.50 ft

● CZMD-UDEP



Company: Crestone Peak Resources and Operating LLC

Schlumberger

Well: Echeverria 2K-2H-D267

Field: Wattenberg

County:	Weld
State:	Colorado
Isolation Scanner	
Cement Evaluation	
Gamma Ray - CCL Log	