

Schlumberger

Company: Encana Oil & Gas Inc

Well: Stelling 3A-4H

Field: Wattenberg

County: Weld

State: Colorado

Isolation Scanner
Cement Evaluation

County: Weld

Field: Wattenberg

Location: Sec. 4, T1N, R65W SESW

Well: Stelling 3A-4H

Company: Encana Oil & Gas Inc

LOCATION

Sec. 4, T1N, R65W SESW
SHL: 684 FSL X 2013 FWL

Elev.: K.B. 4929.00 ft
G.L. 4916.00 ft
D.F. 4928.00 ft

Permanent Datum: _____
Log Measured From: _____
Drilling Measured From: _____

Ground Level _____
Kelly Bushing _____
Kelly Bushing _____

Elev.: 4916.00 ft
13.00 ft above Perm. Datum

API Serial No.
05-123-34764-000C

Section
4

Township
1N

Range
65W

PVT DATA			
Oil Density	Run 1	Run 2	Run 3
Water Salinity			
Gas Gravity			
Bo			
Bw			
1/Bg			
Bubble Point Pressure			
Bubble Point Temperature			
Solution GOR			
Maximum Deviation			
CEMENTING DATA			
Primary/Squeeze	Primary		
Casing String No			
Lead Cement Type			
Volume			
Density			
Water Loss			
Additives			
Tail Cement Type			
Volume			
Density			
Water Loss			
Additives			
Expected Cement Top			

Logging Date21-Jun-2012

Run Number1

Depth Driller9190 ft

Schlumberger Depth7000 ft

Bottom Log Interval7000 ft

Top Log Interval0 ft

Casing Fluid TypeWater Based Mud

Salinity

Density9.5 lbm/gal

Fluid Level0 ft

BIT/CASING/TUBING STRING

Bit Size8.750 in

From

To

Casing/Tubing Size7.000 in

Weight26 lbm/ft

GradeP-110

From

To

Maximum Recorded Temperatures221 degF

Logger On Bottom21-Jun-2012

Unit Number3022

LocationFort Morgan

Recorded ByAllison Johnston

Witnessed ByDennis Elrod

Logging Date			
Run Number			
Depth Driller			
Schlumberger Depth			
Bottom Log Interval			
Top Log Interval			
Casing Fluid Type			
Salinity			
Density			
Fluid Level			
BIT/CASING/TUBING STRING			
Bit Size			
From			
To			
Casing/Tubing Size			
Weight			
Grade			
From			
To			
Maximum Recorded Temperatures			
Logger On Bottom			
Unit Number			
Location			
Recorded By			
Witnessed By			

DEPTH SUMMARY LISTING

Date Created: 21-JUN-2012 9:24:12

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-B	Type:	CMTD-B/A	Type:	7-39P LXS
Serial Number:	6405	Serial Number:	1109	Serial Number:	711075
Calibration Date:	06-Jun-2012	Calibration Date:	14-Jun-2012	Length:	18000 FT
Calibrator Serial Number:		Calibrator Serial Number:	100513	Conveyance Method:	Wireline
Calibration Cable Type:	7-39P LXS	Number of Calibration Points:	10	Rig Type:	LAND
Wheel Correction 1:	-5	Calibration RMS:	5		
Wheel Correction 2:	-6	Calibration Peak Error:	11		

Depth Control Parameters

Log Sequence:	First Log In the Well
Rig Up Length At Surface:	0.00 FT
Rig Up Length At Bottom:	0.00 FT
Rig Up Length Correction:	0.00 FT
Stretch Correction:	5.00 FT
Tool Zero Check At Surface:	

Depth Control Remarks

1. This is the first run in well.
2. All Schlumberger depth procedures followed.
3. IDW used as primary depth control. Z-Chart used as secondary depth control.
4. Up log correlated to the down log using gamma ray data to account for stretch.
- 5.
- 6.

DISCLAIMER

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OTHER SERVICES1	OTHER SERVICES2
OS1: Isolation Scanner	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
1) This is the first run in well.	
2) Toolstring run as per tool sketch. Two gemcos and three inline centralizers used to centralize the tool.	
3) Two knuckles used to allow tool to flex.	

4) Logging objective: Casing evaluation					
5) Pressure pass not done due to openhole beneath intermediate casing.					
6) Repeat pass done from 3100' to 3550' due to significant channeling.					
Cement: Tuned Light 10 ppg cement from 13' to 2918'.					
Varicem Cement 12 ppg from 2918' to 7510'.					
Varicem Cement 13 ppg from 7510' to bottom of intermediate cement					
RUN 1			RUN 2		
SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:			SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:		
C31T-00022 19C0-187 0 ft					
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP
EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		
SURFACE EQUIPMENT					
GSR-U/Y WITM (DTS)-A					
DOWNHOLE EQUIPMENT					

Far Incid
Near Inci
Normal In
Control
DF
USI Relat HV
Tension

0.9
0.0

TOOL ZERO

MAXIMUM STRING DIAMETER 4.48 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET

Schlumberger

SLG Composite
5" = 100'

MAXIS Field Log

Company: Encana Oil & Gas Inc

Well: Stelling 3A-4H

Input DLIS Files

DEFAULT	USI_014LUP	FN:13	PRODUCER	21-Jun-2012 06:58	6999.5 FT	29.0 FT
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Output DLIS Files

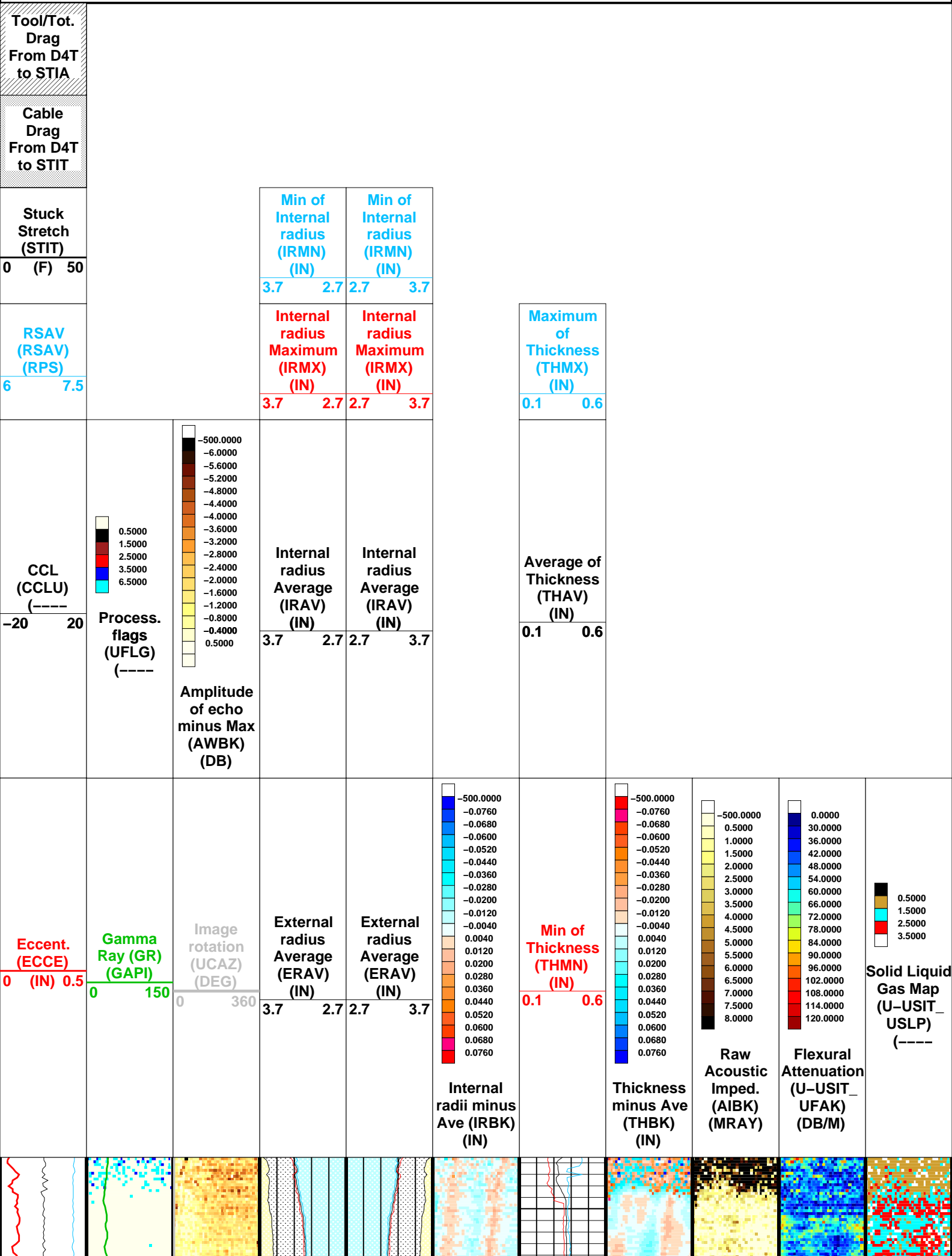
DEFAULT	USI_024PUP	FN:23	PRODUCER	21-Jun-2012 11:10
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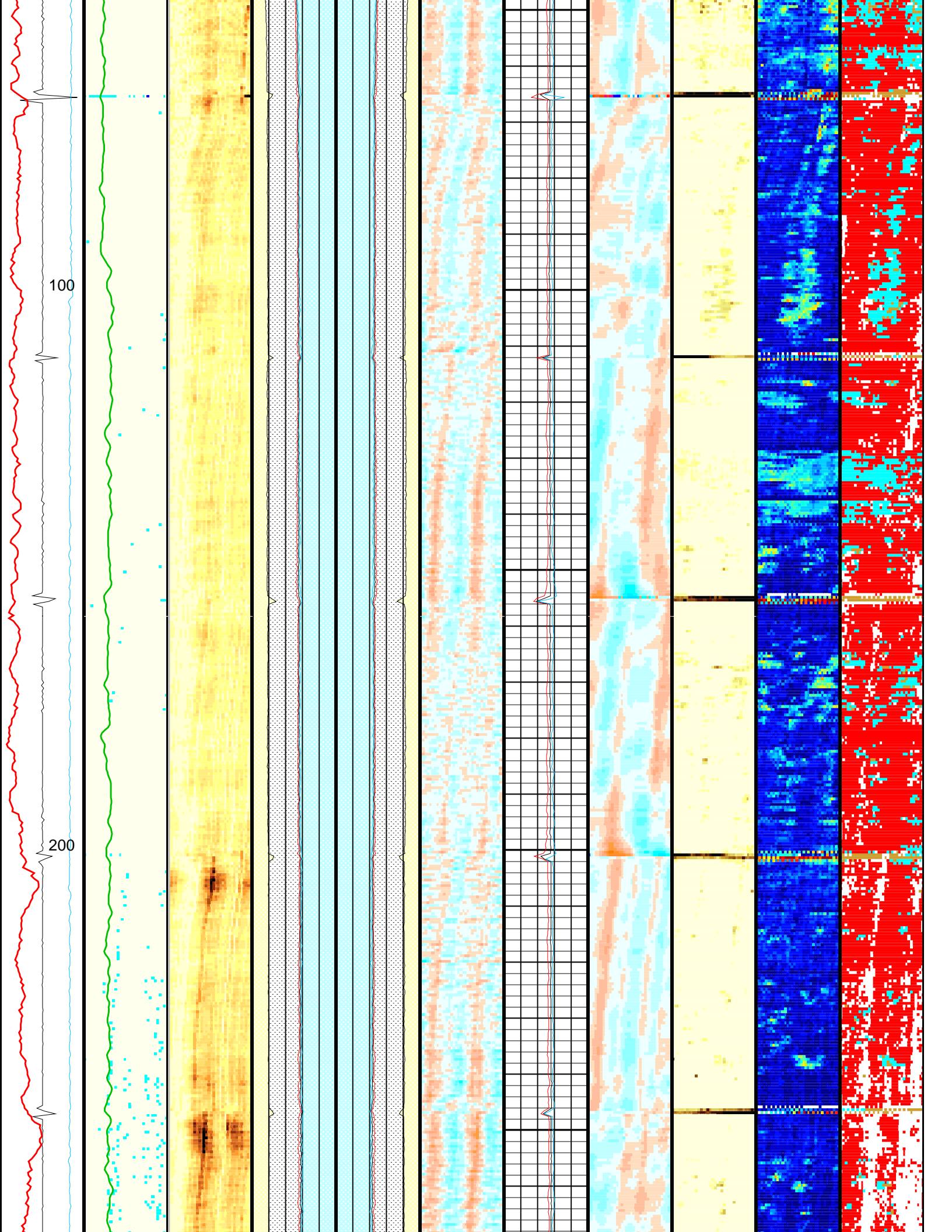
OP System Version: 19C0-187

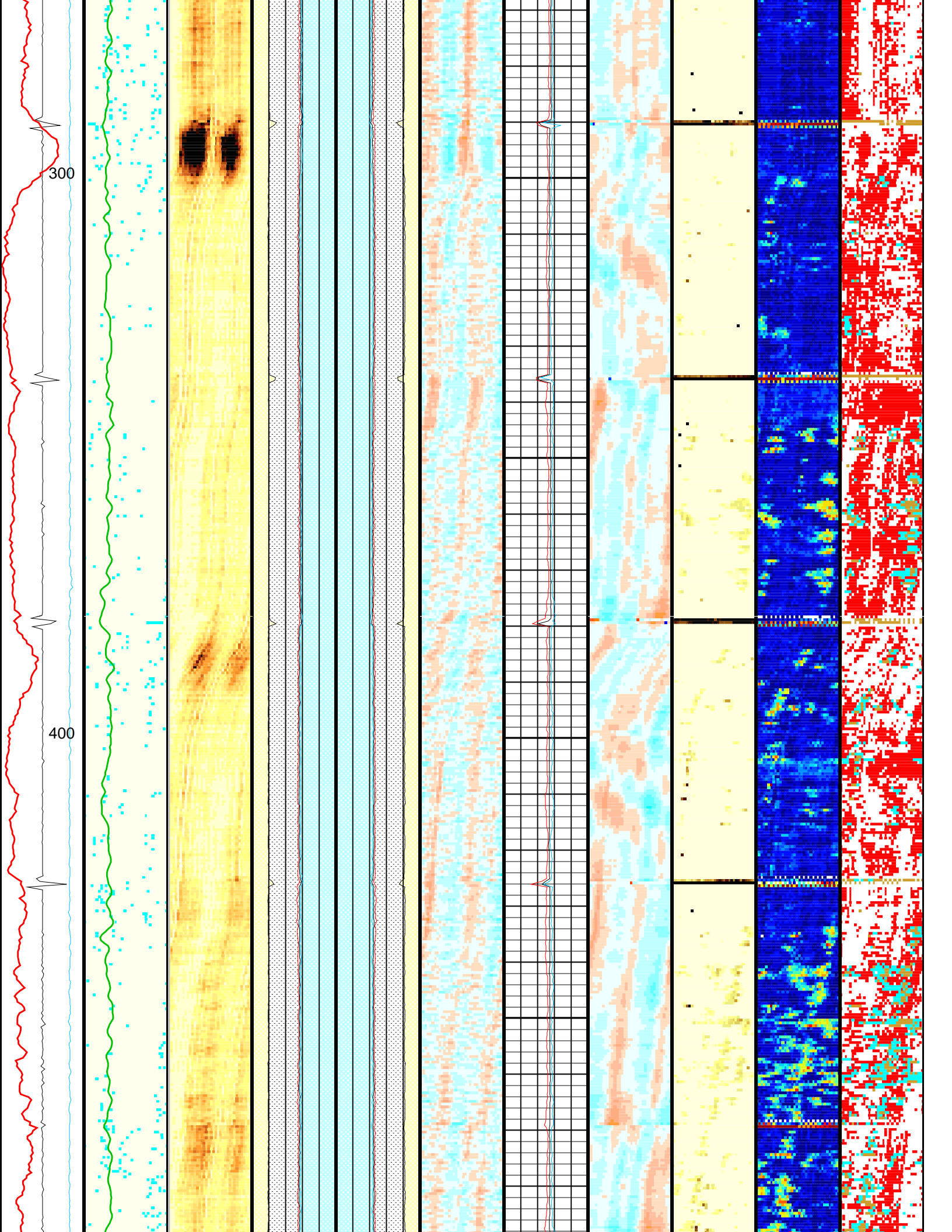
USIT-D	19C0-187	SGT-N	19C0-187
DTC-H	19C0-187		

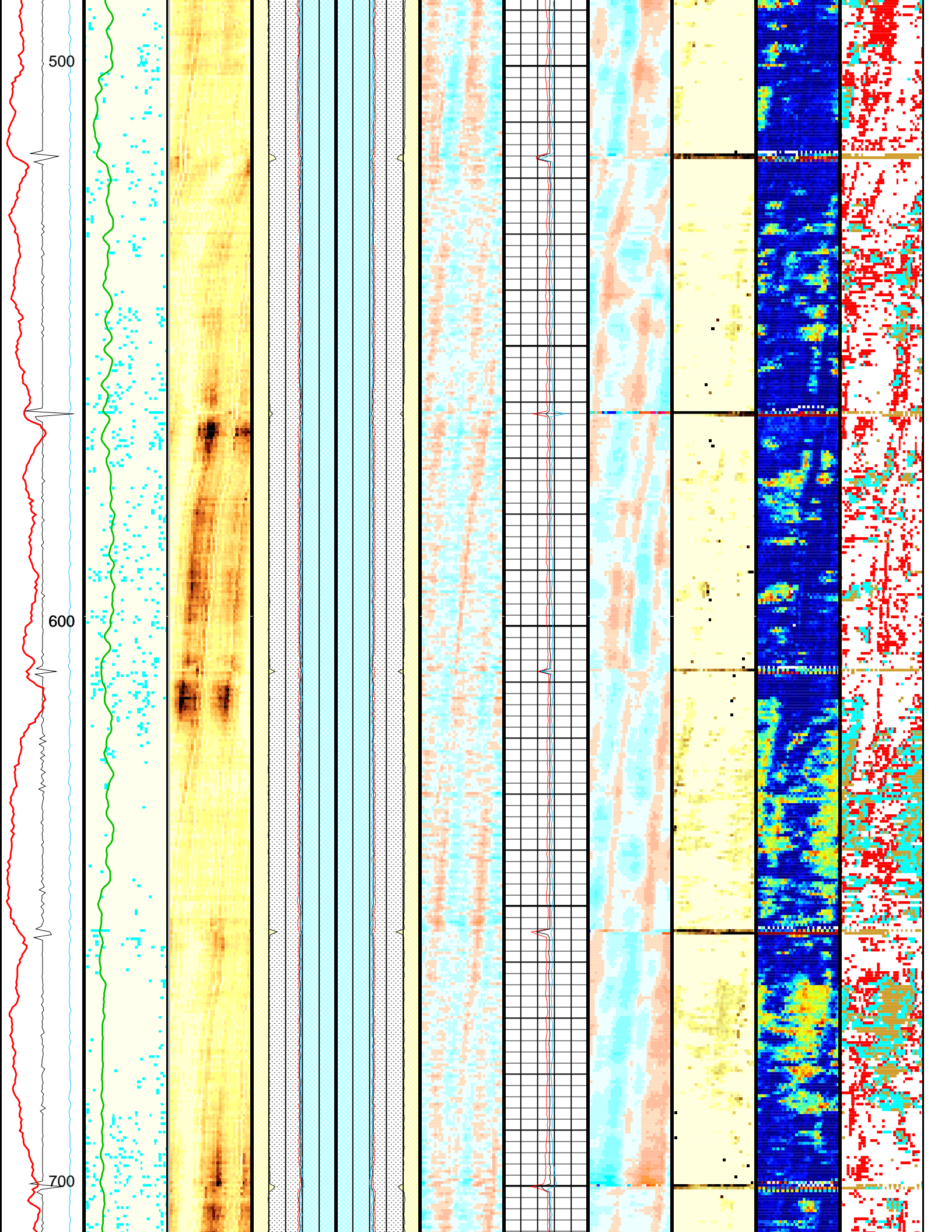
Changed Parameter Summary

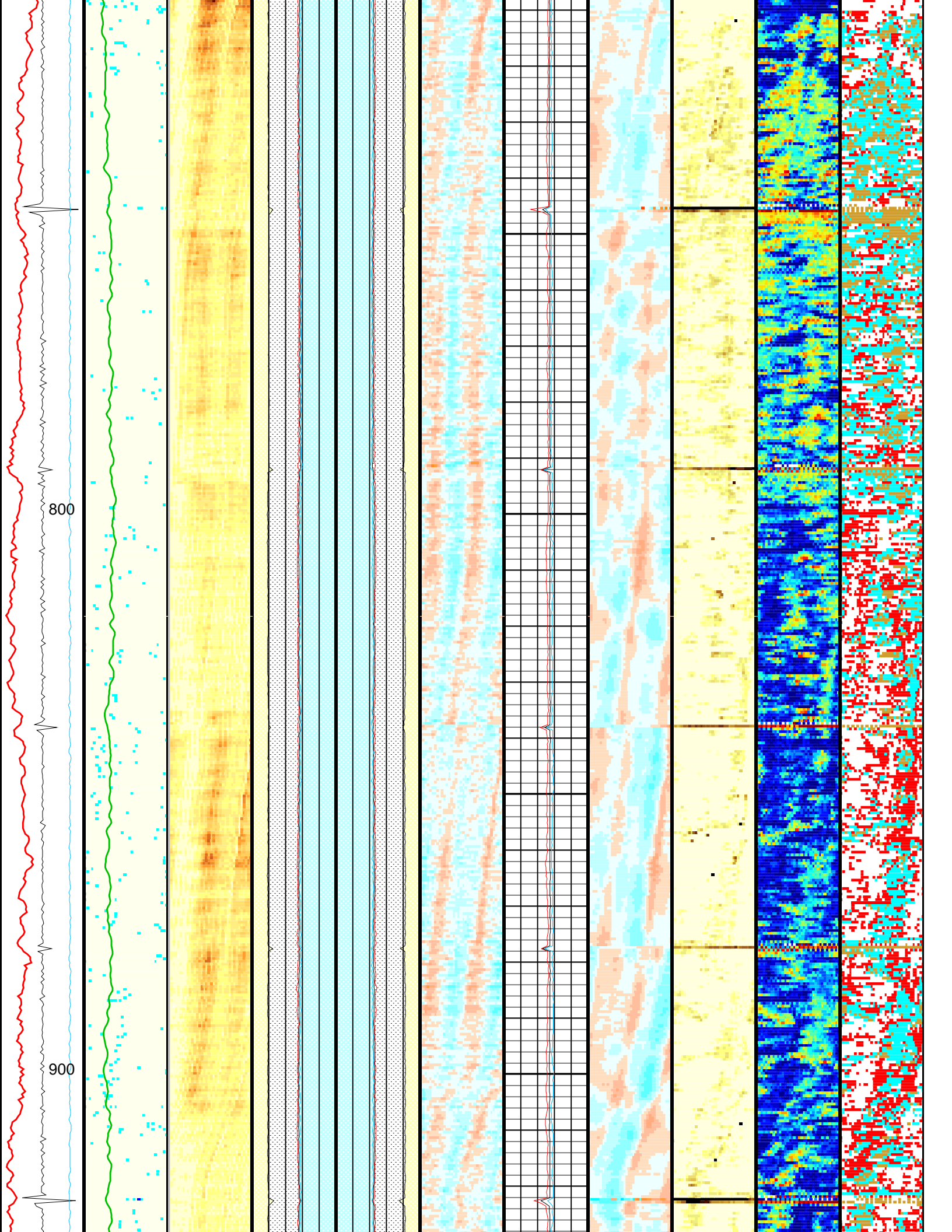
DLIS Name	New Value	Previous Value	Depth & Time
DFVL	201.5 US/F	204 US/F	7001.5 11:10:34
	204 US/F	201.5 US/F	6400.0 11:11:05
	205 US/F	204 US/F	3700.0 11:14:15
	206 US/F	205 US/F	1500.0 11:16:16
	207 US/F	206 US/F	700.0 11:17:04
ZMUD	1.7 MRAY	1.7 MRAY	7001.5 11:10:34
	1.7 MRAY	1.7 MRAY	6400.0 11:11:05
	1.7 MRAY	1.7 MRAY	3700.0 11:14:15
	1.7 MRAY	1.7 MRAY	1500.0 11:16:16

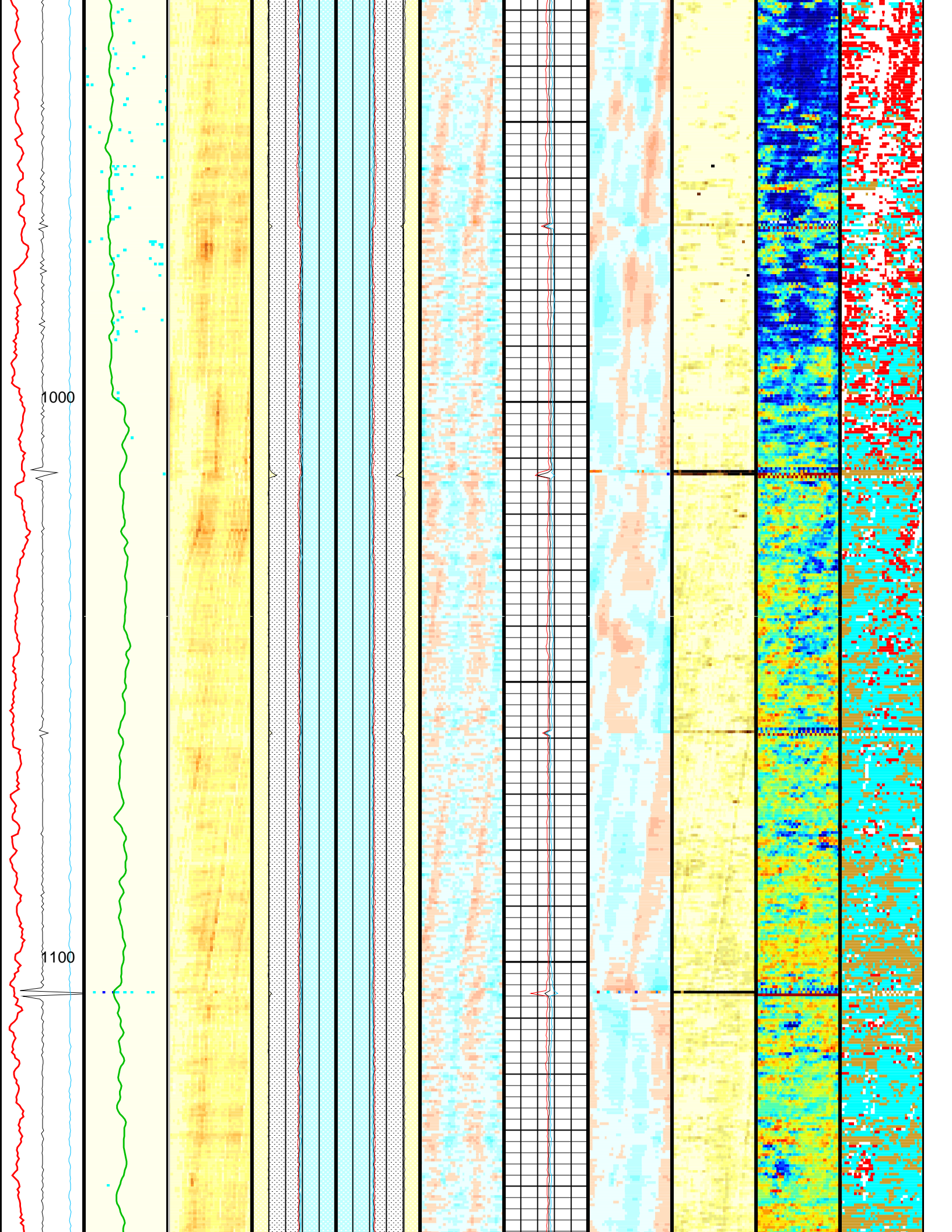


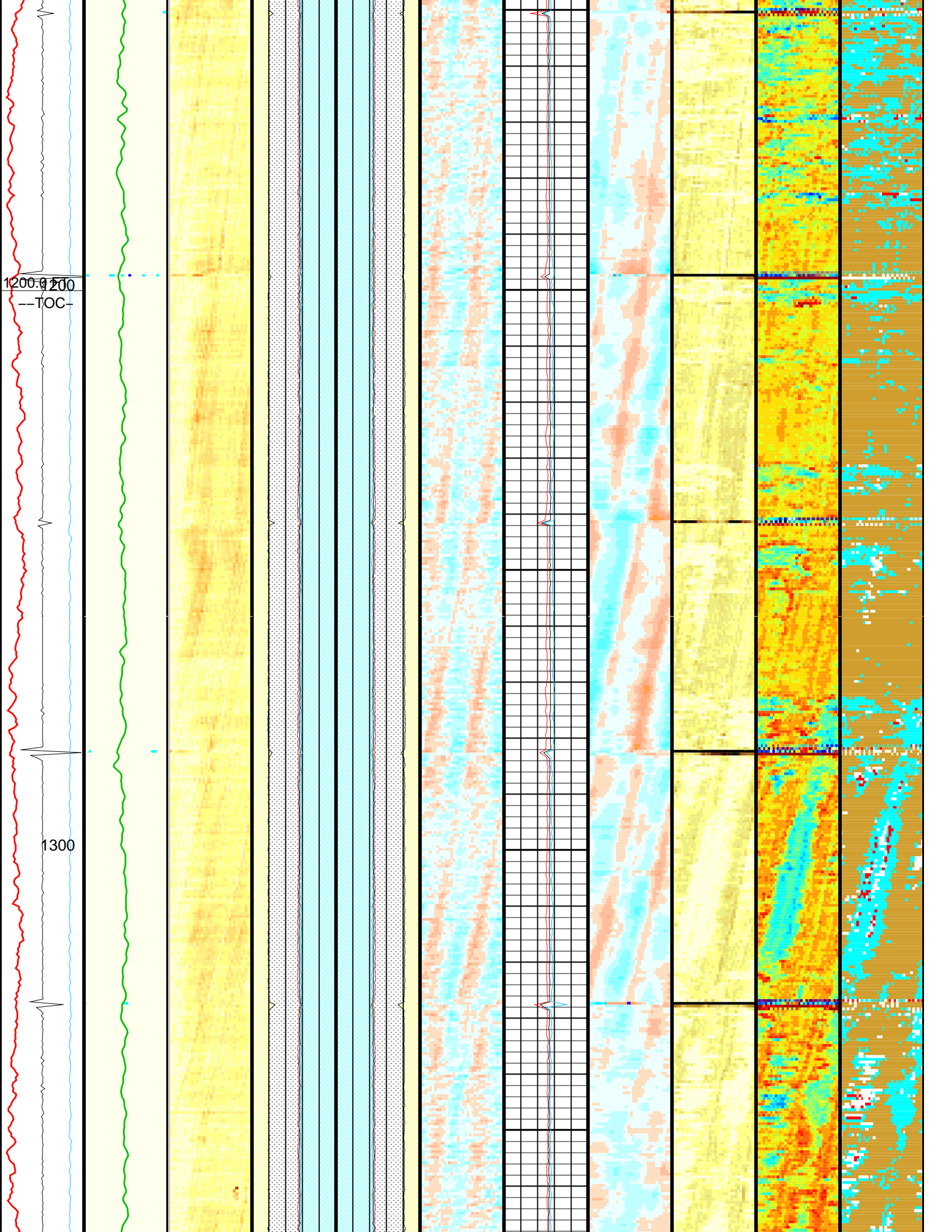


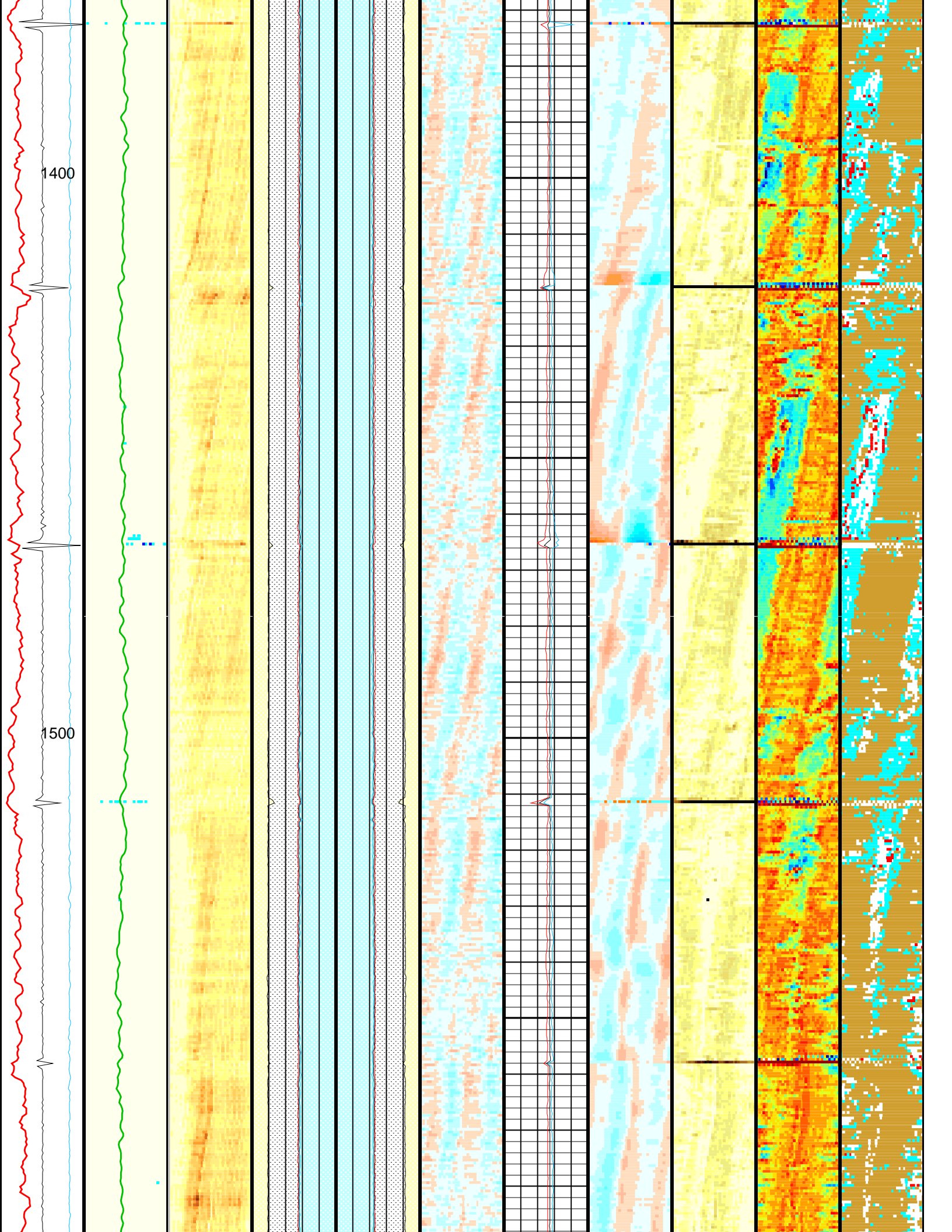


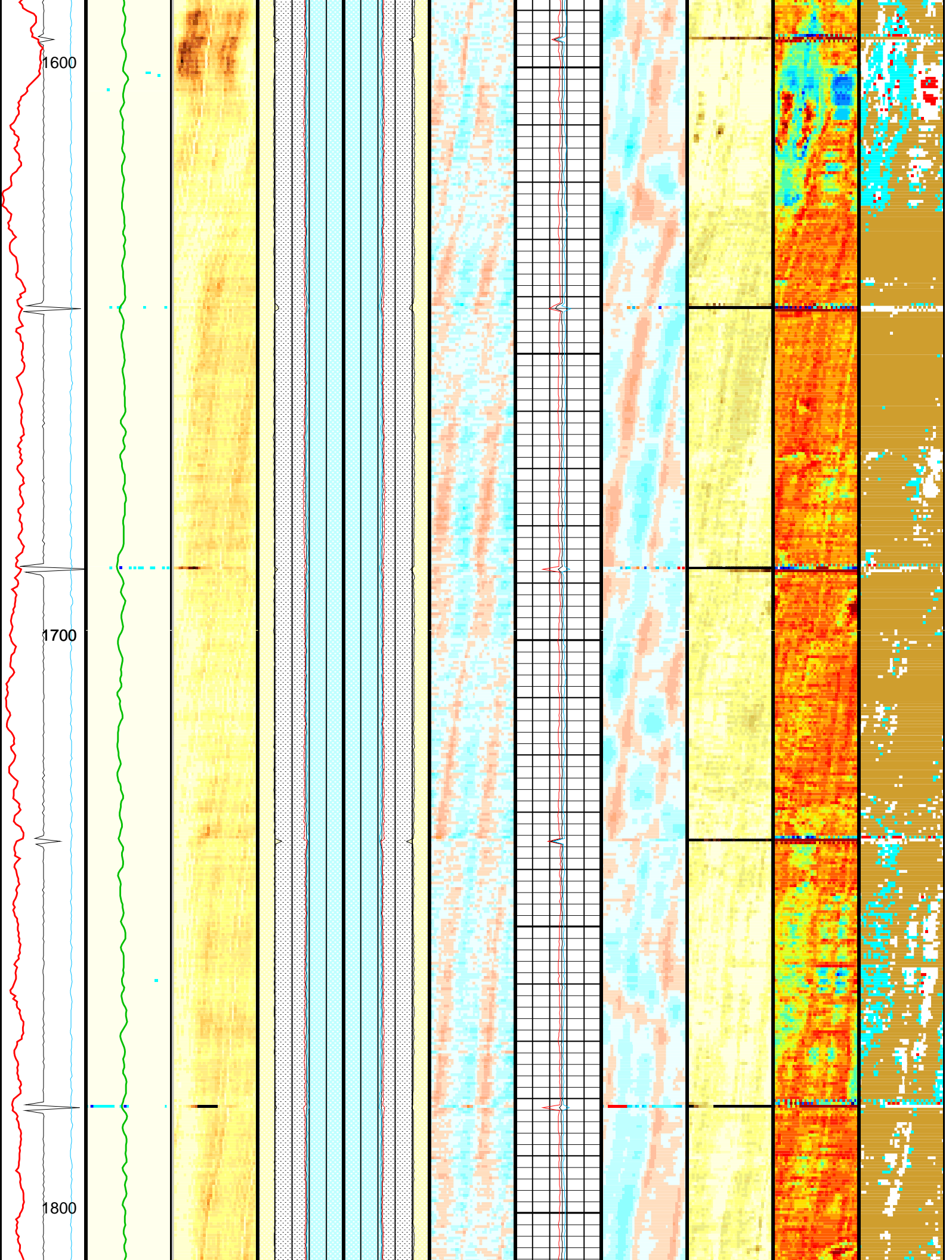


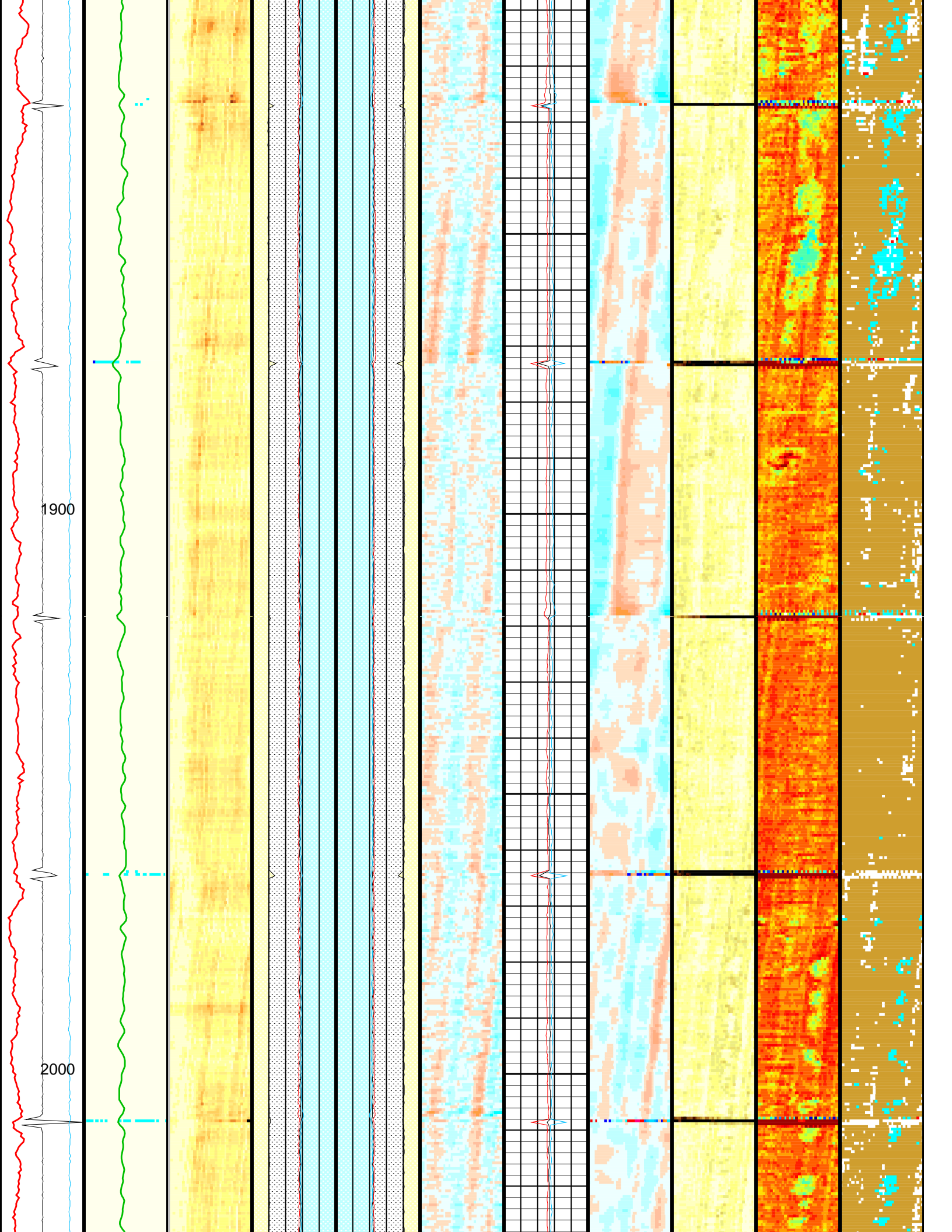


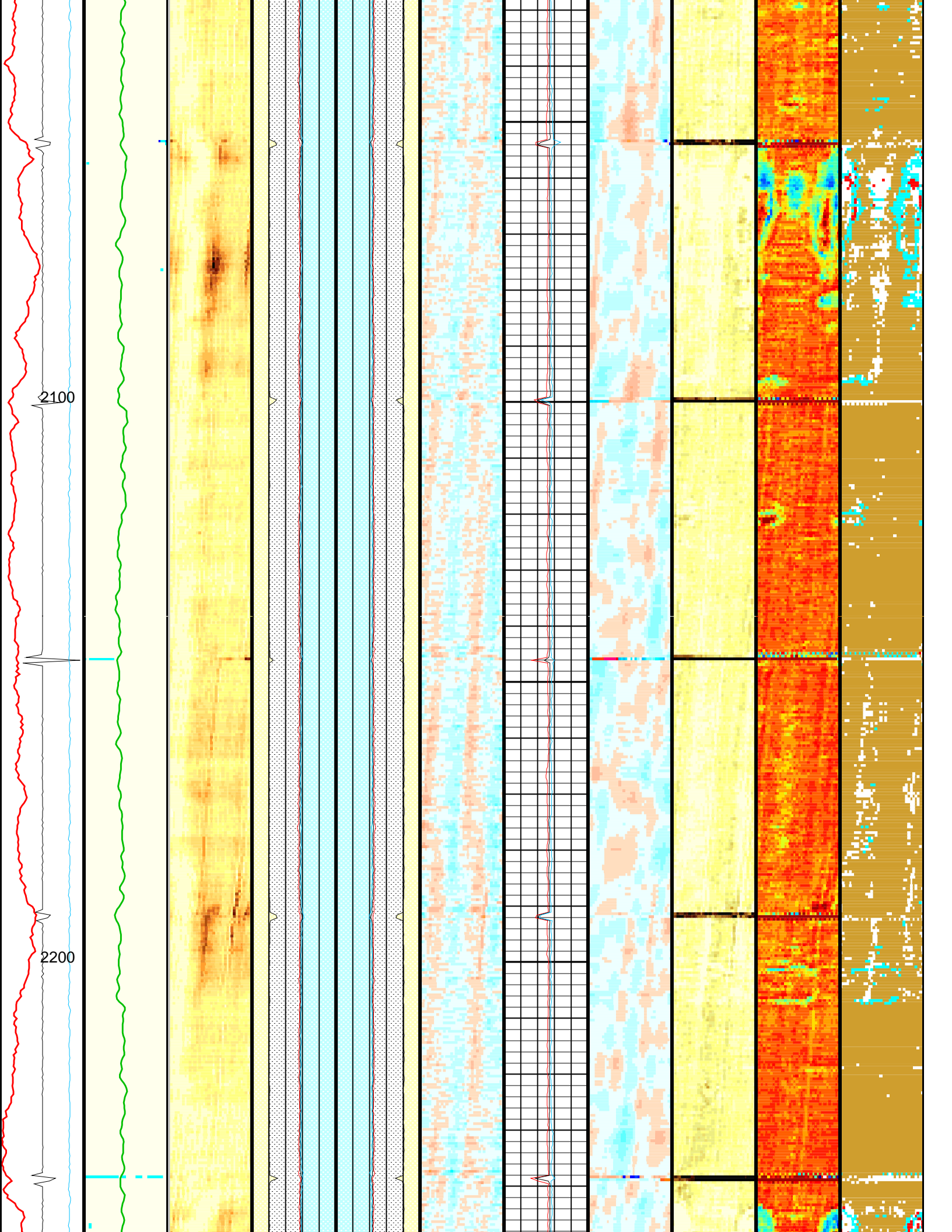


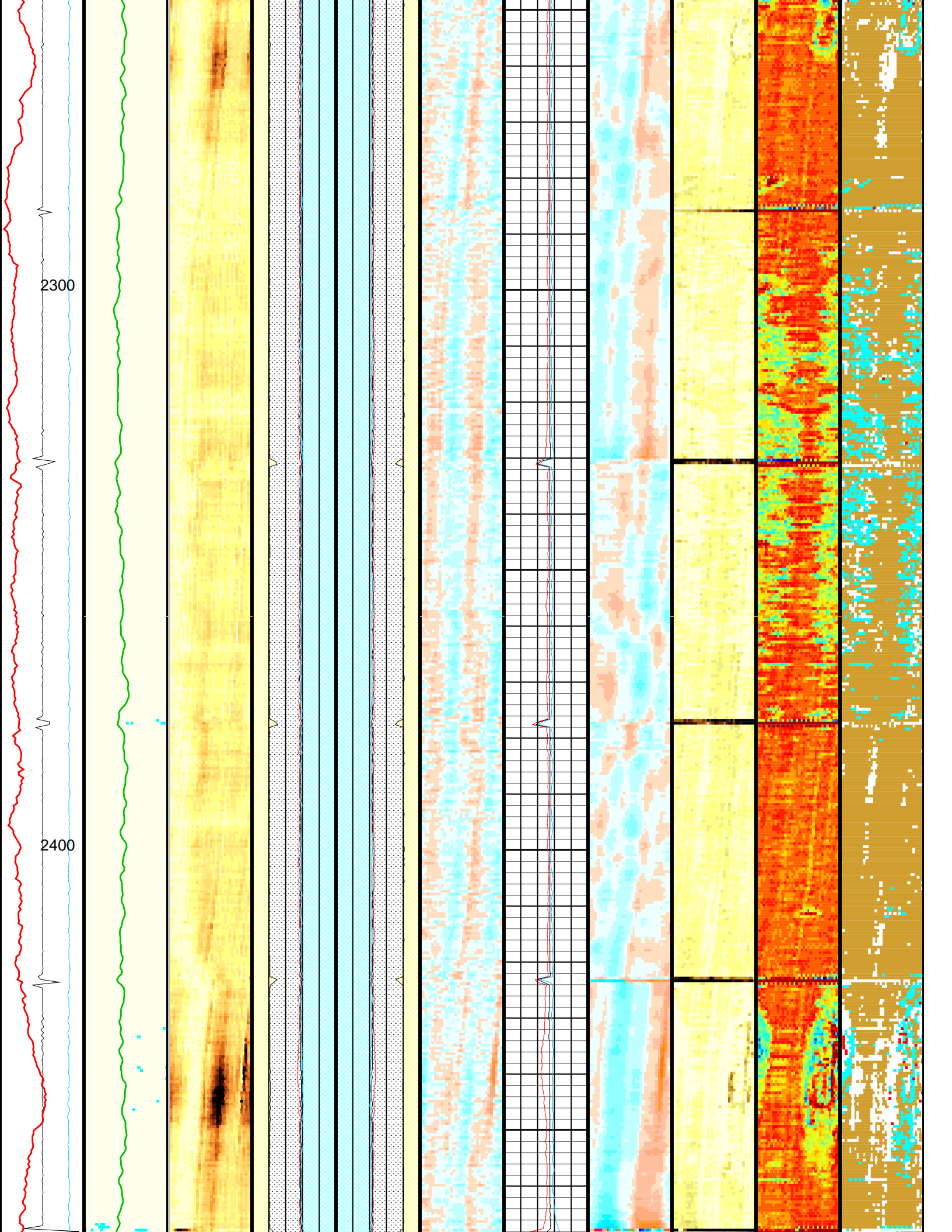


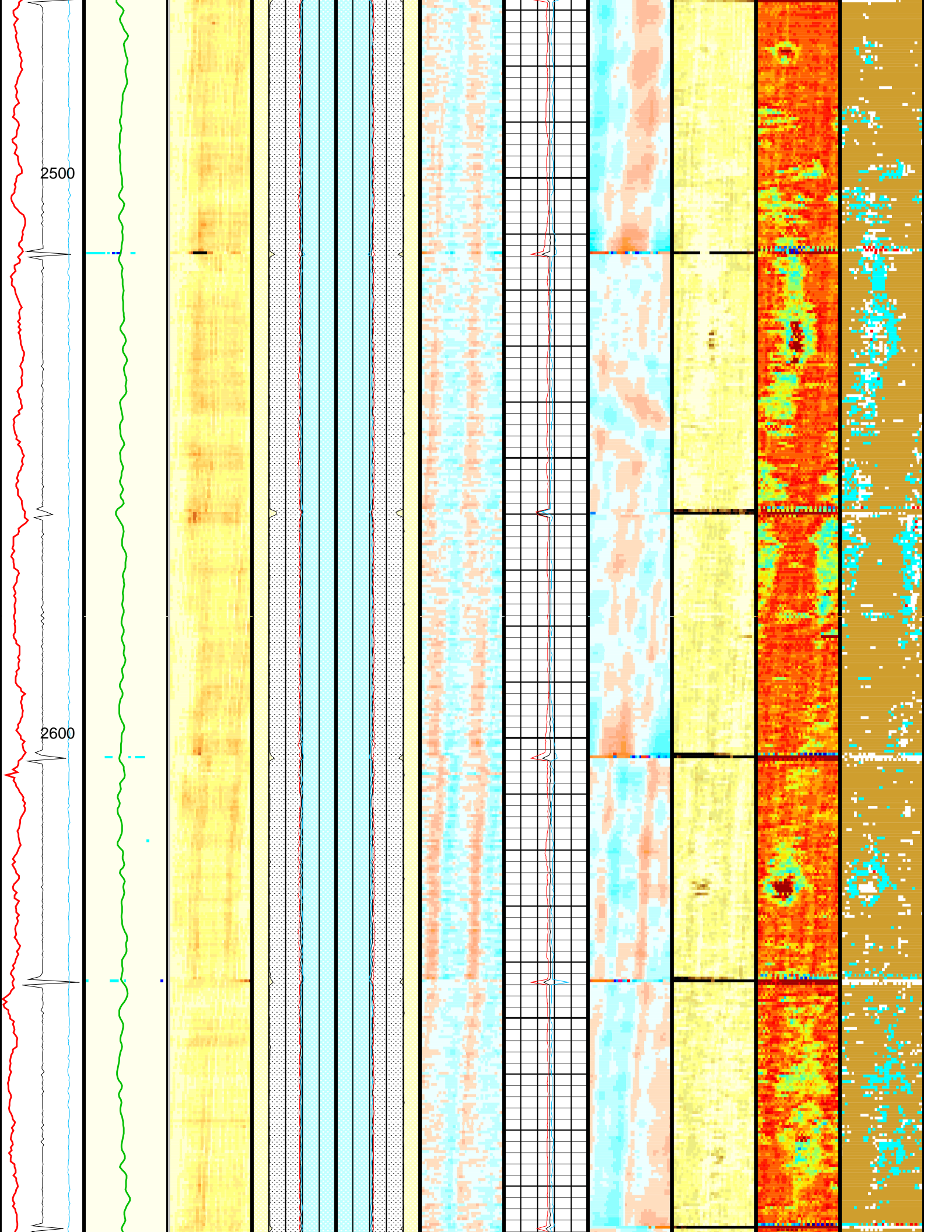


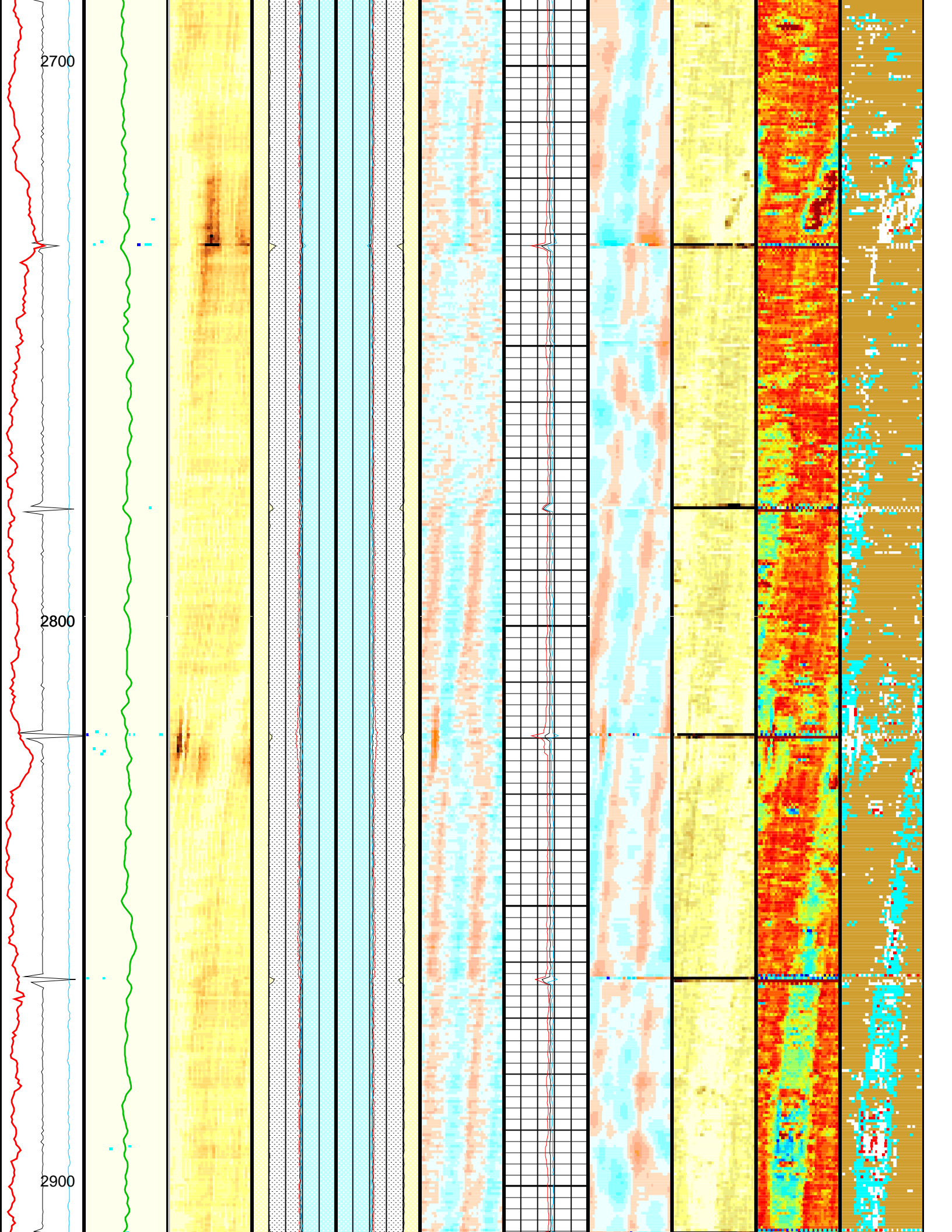


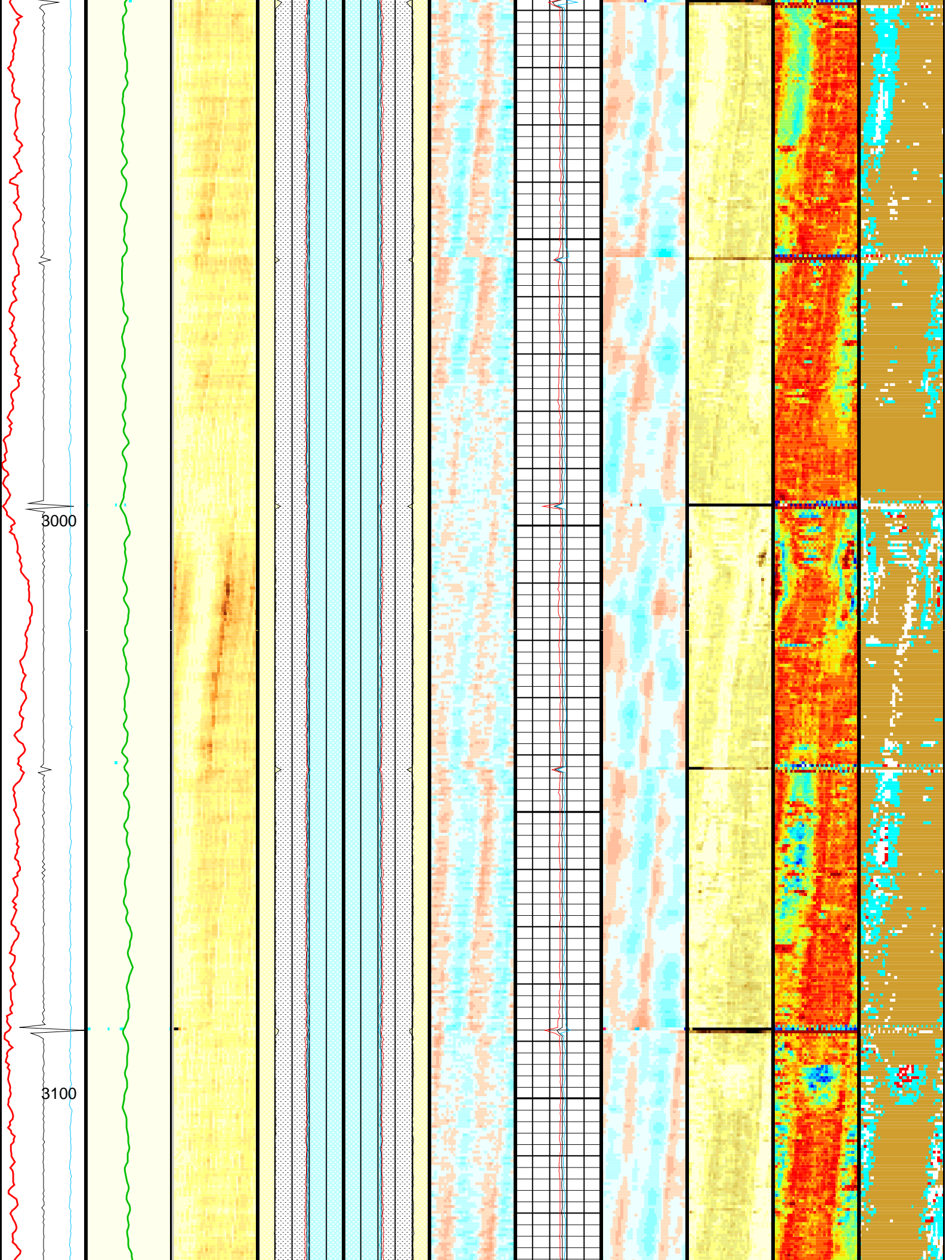


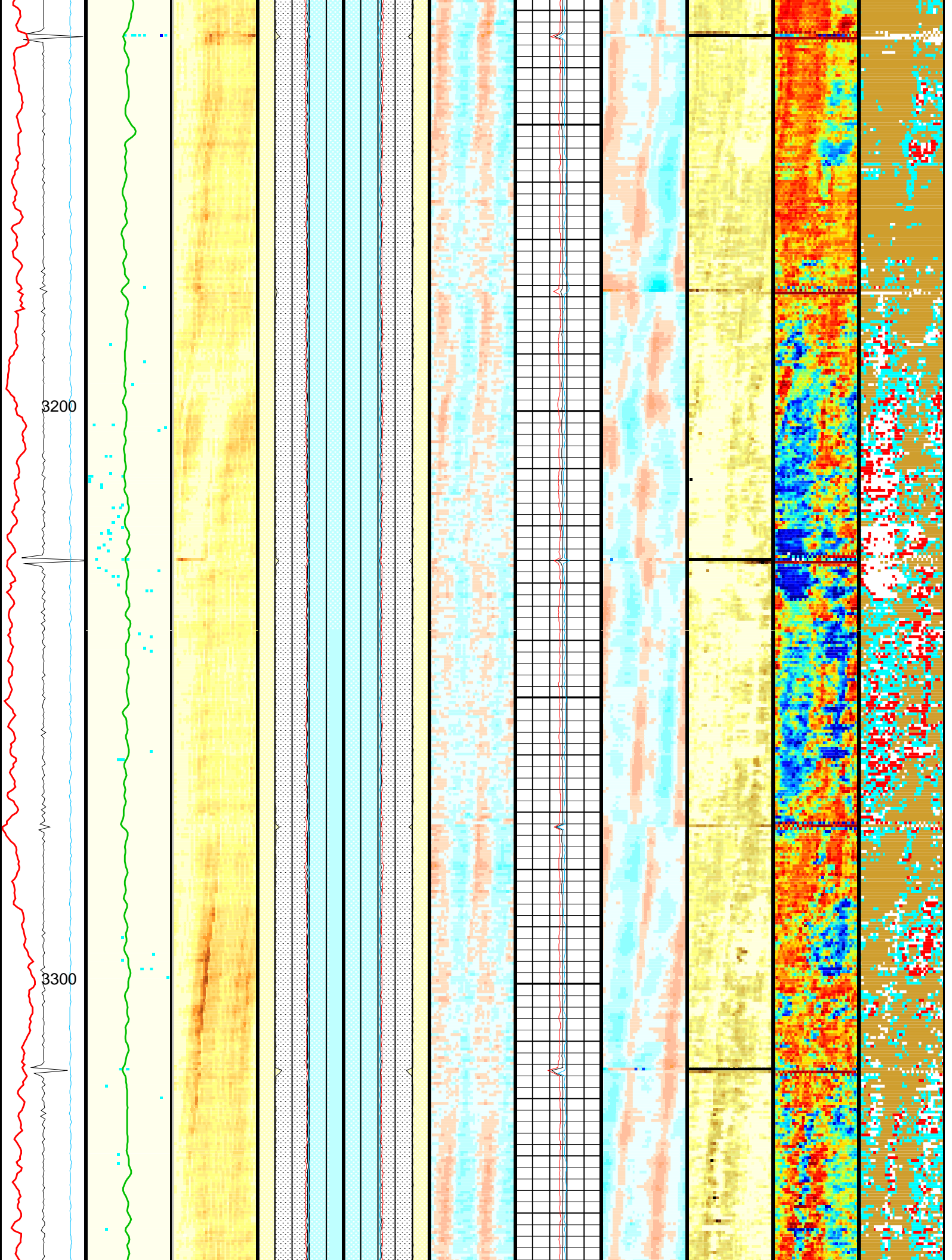


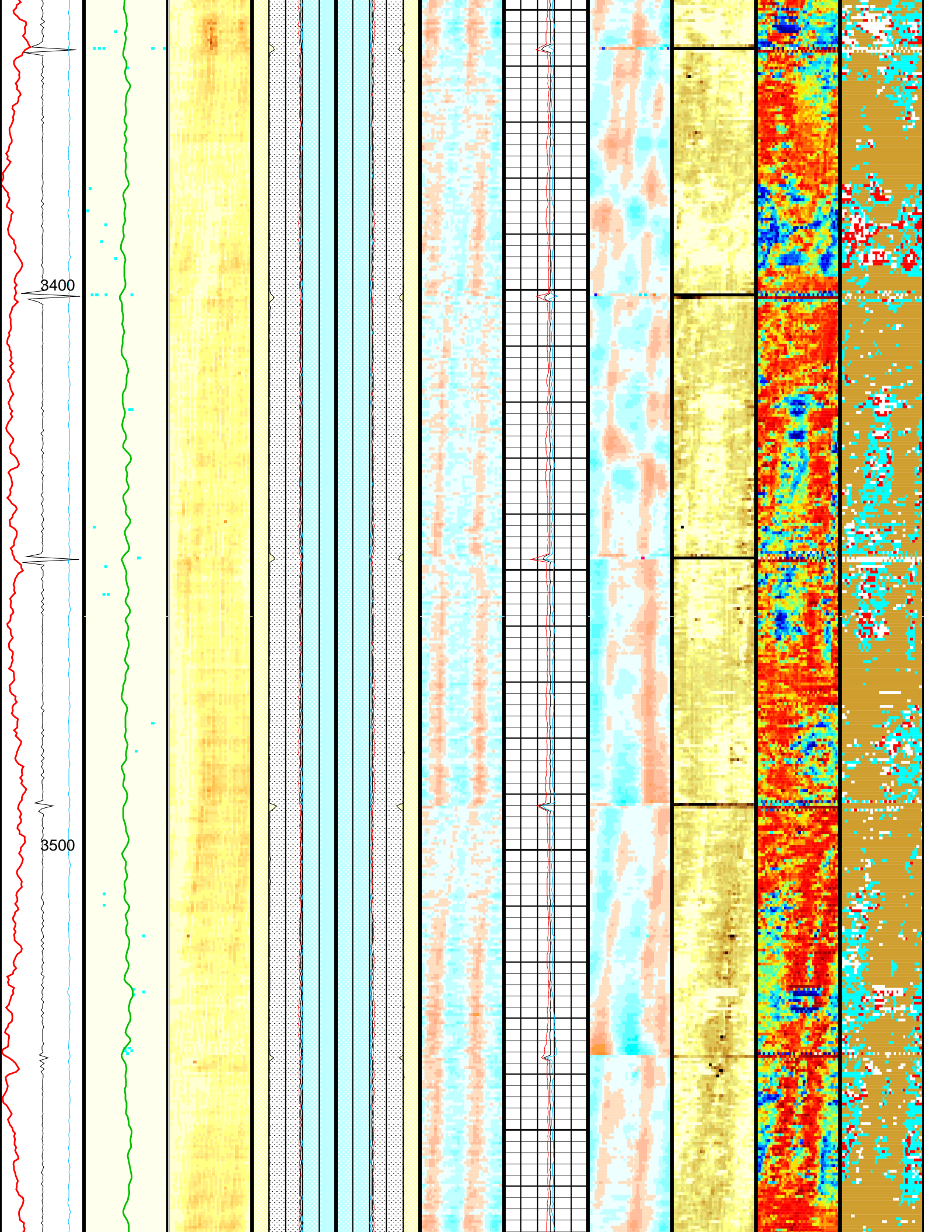


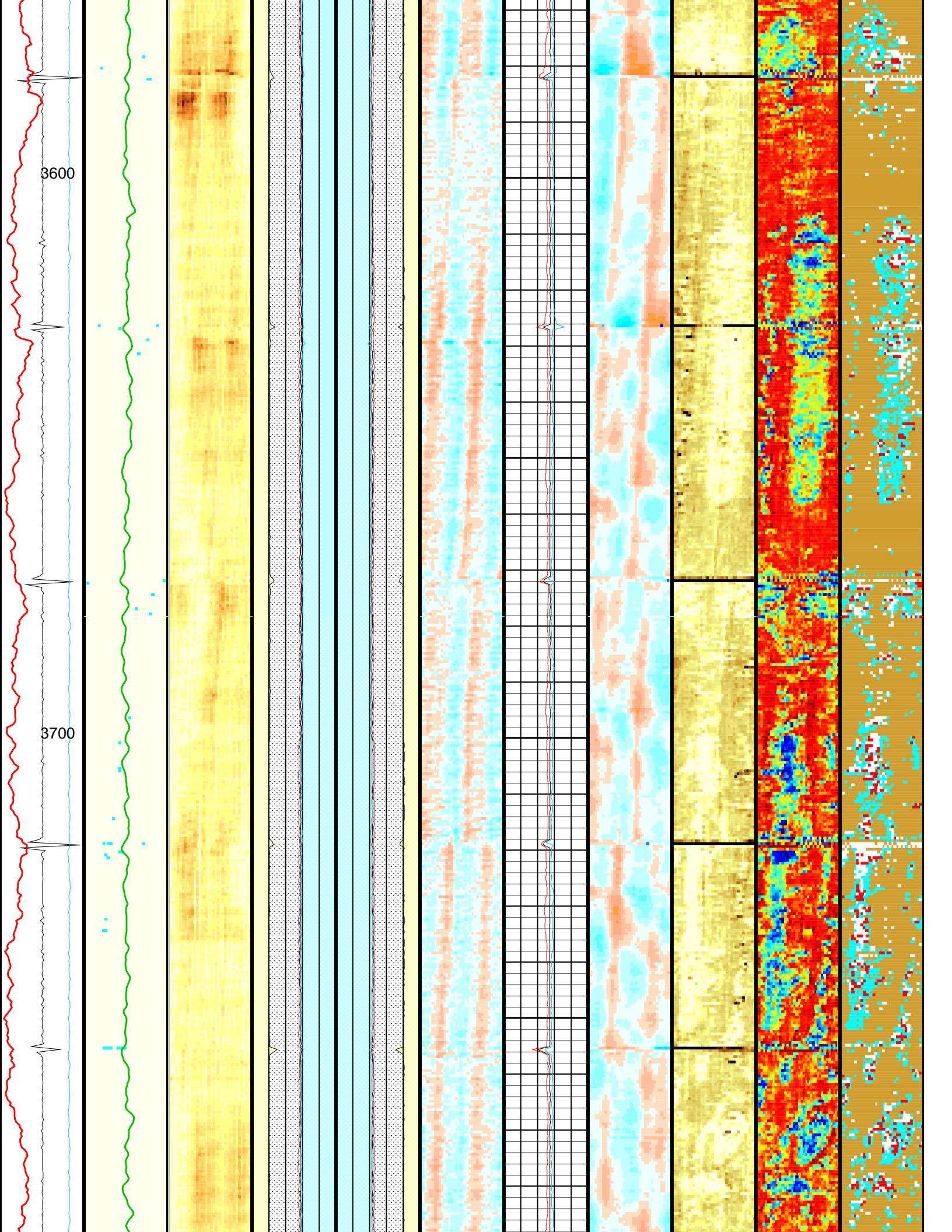


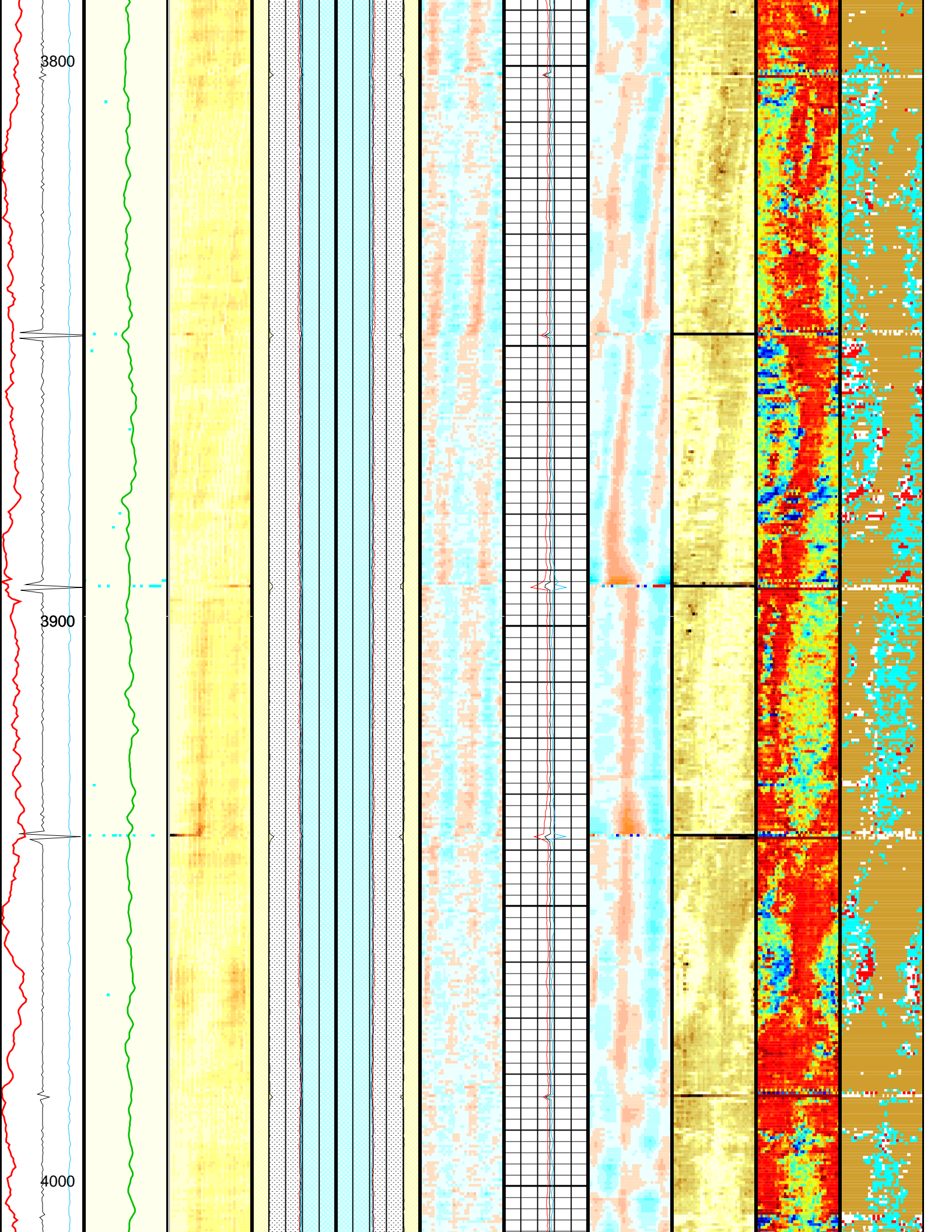


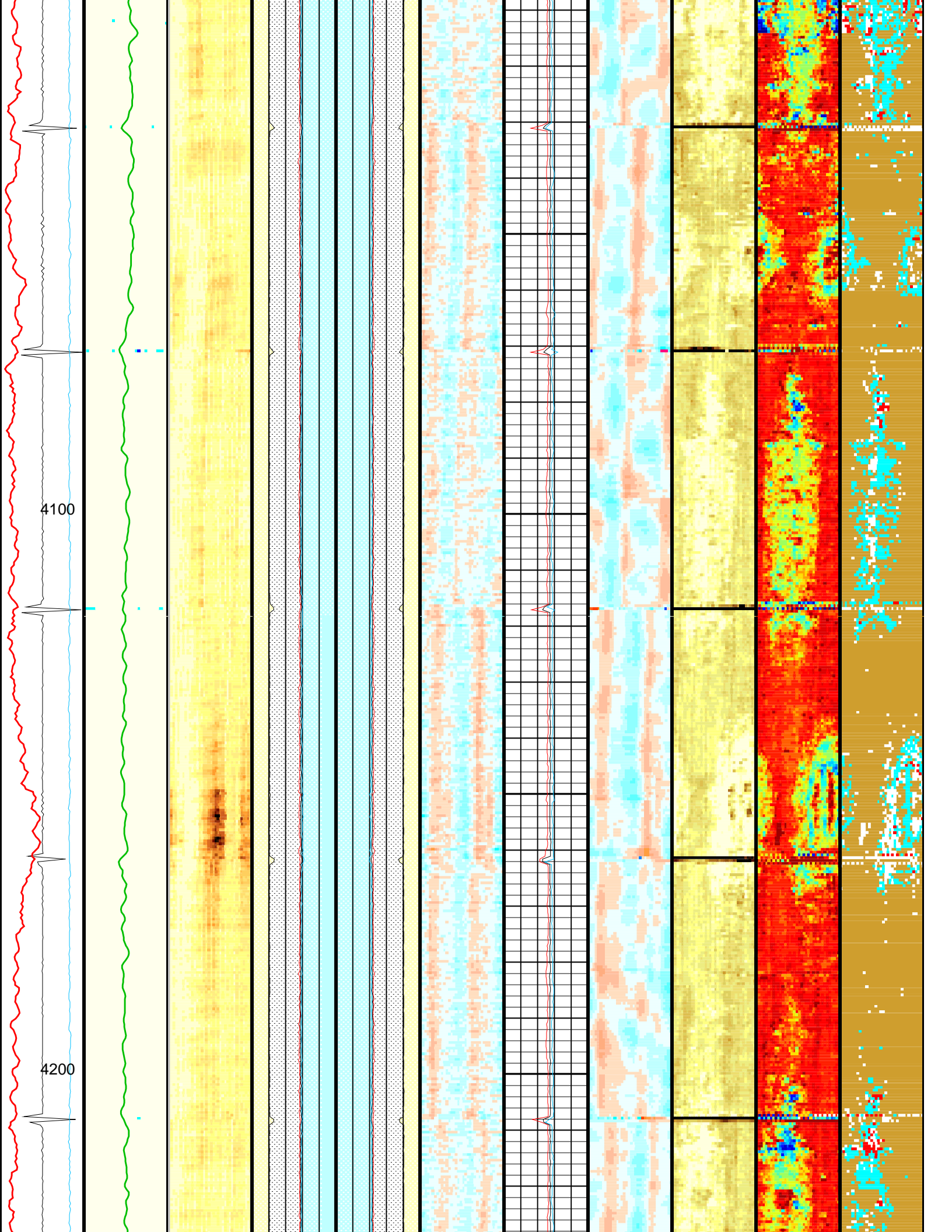


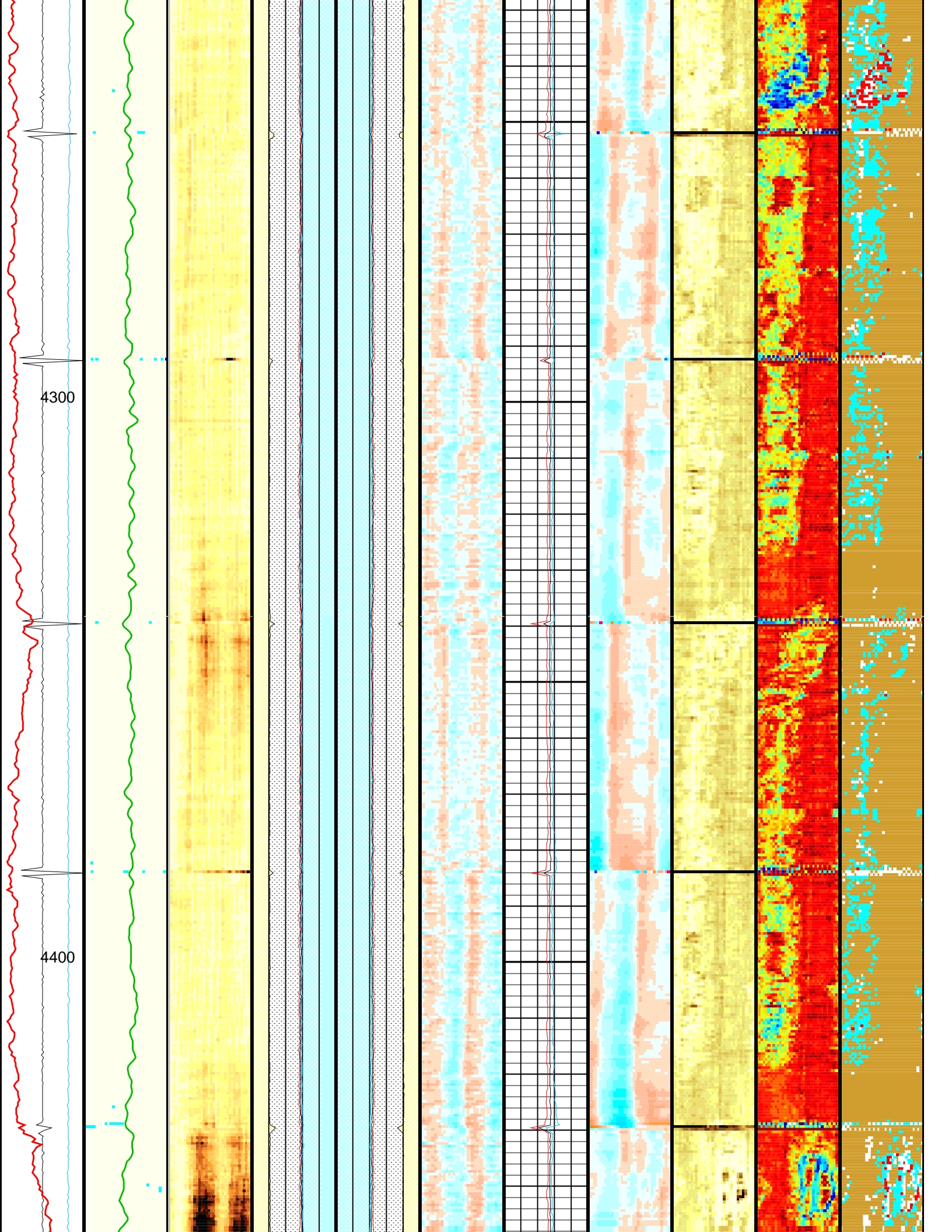


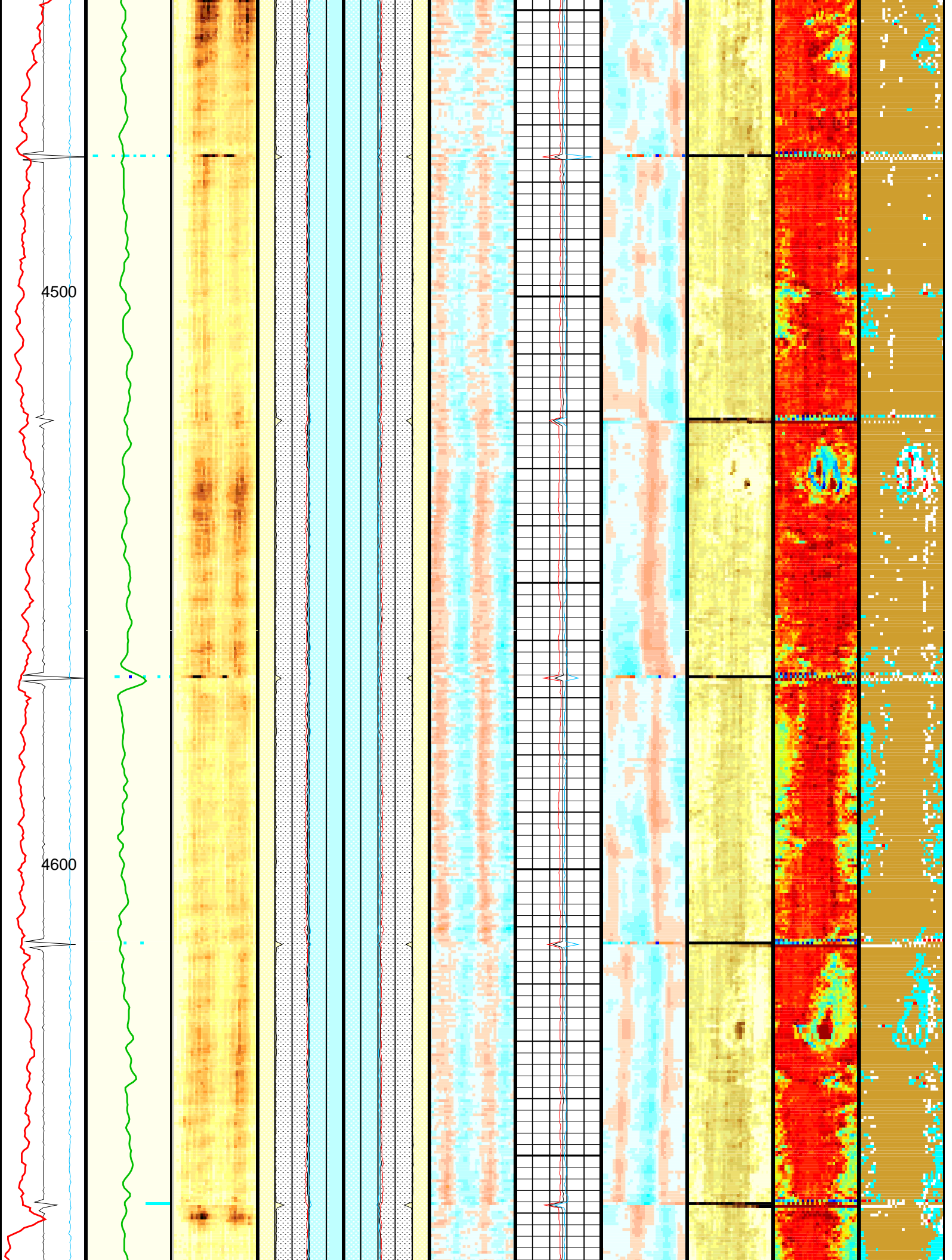


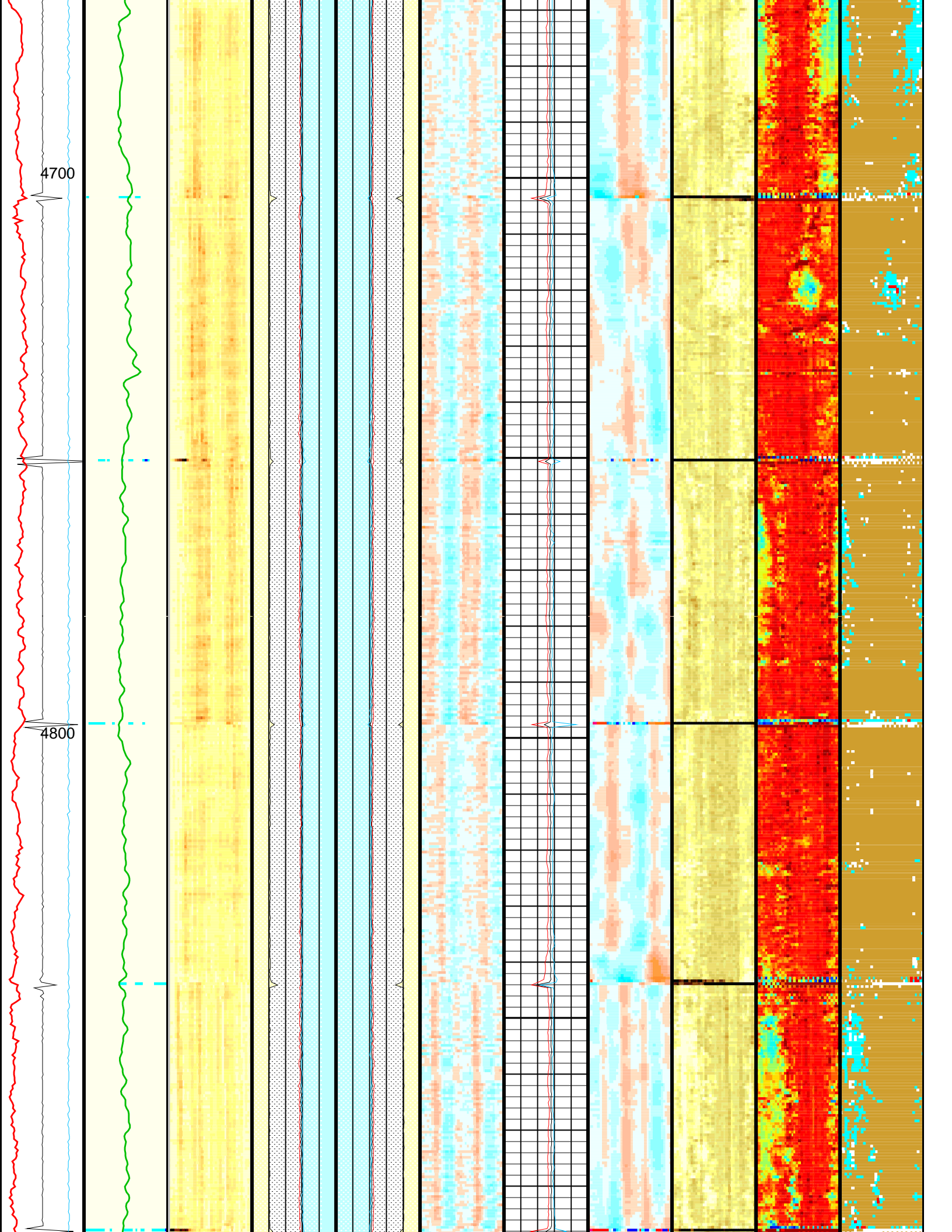


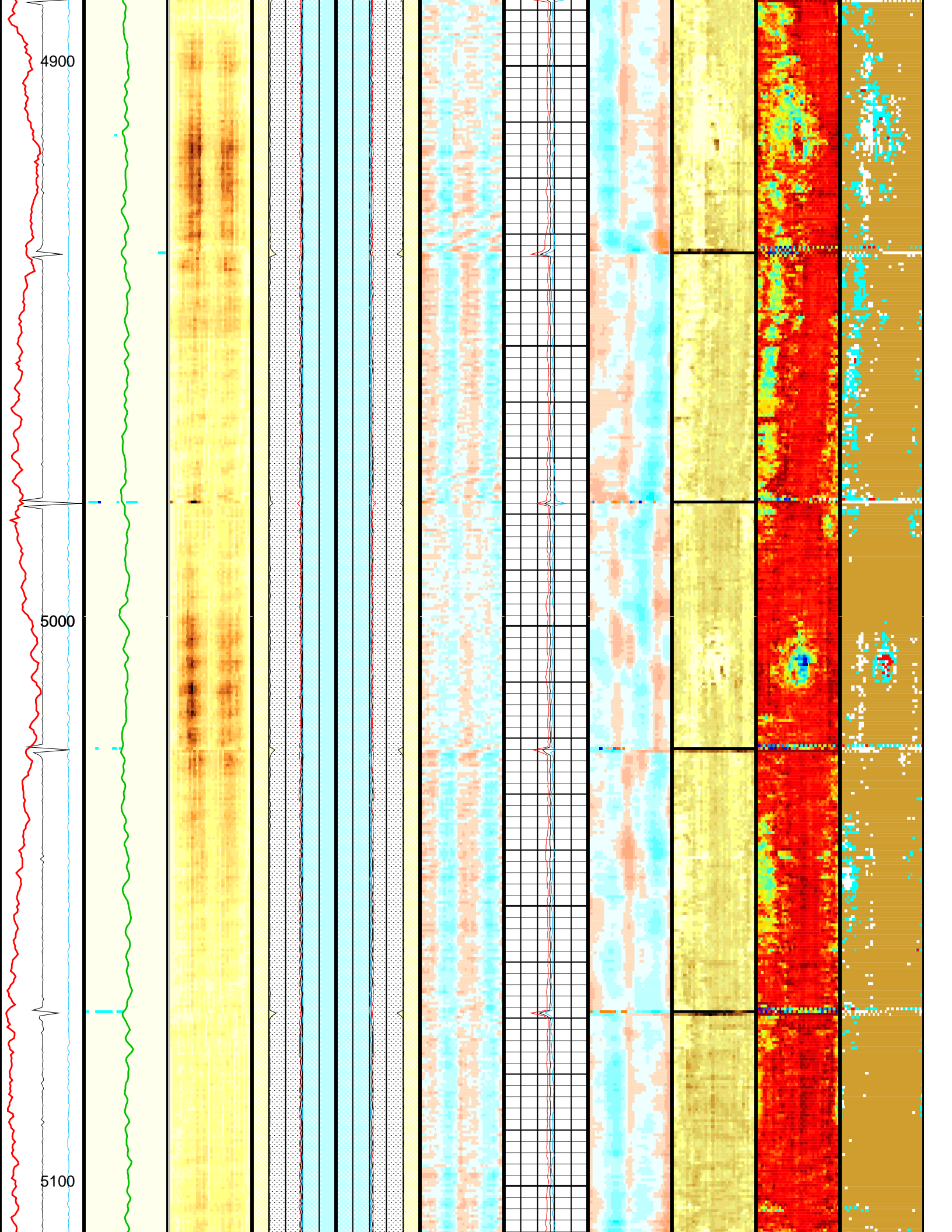


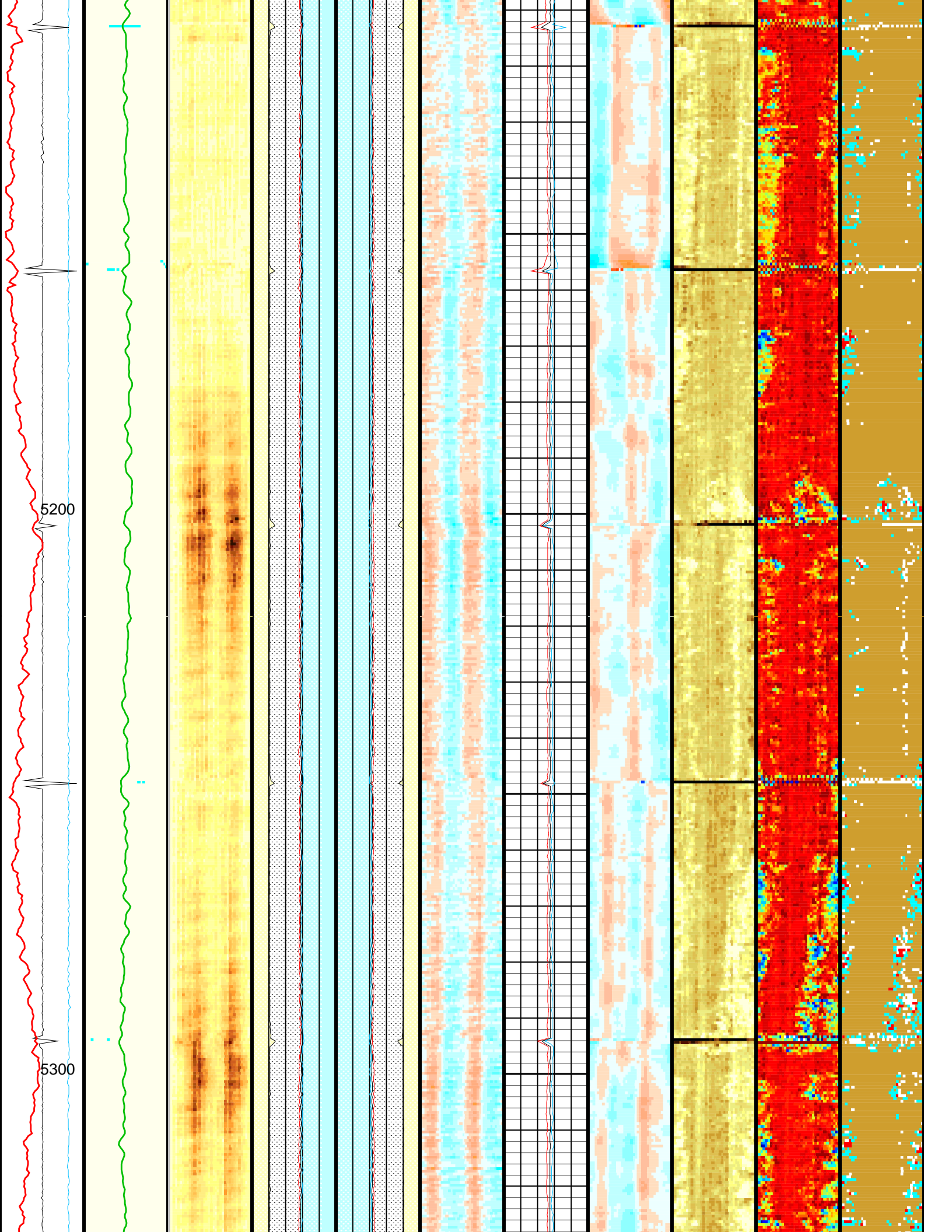


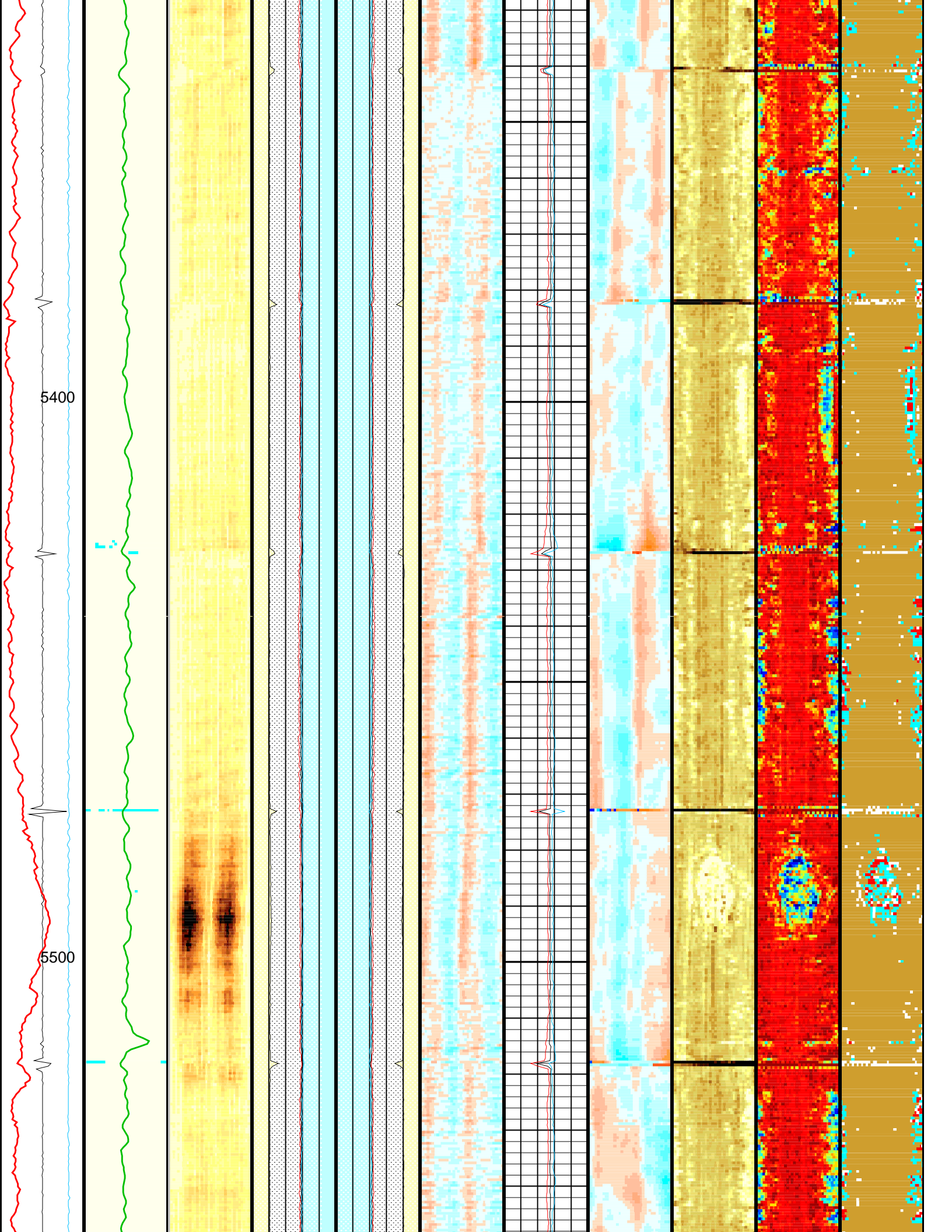


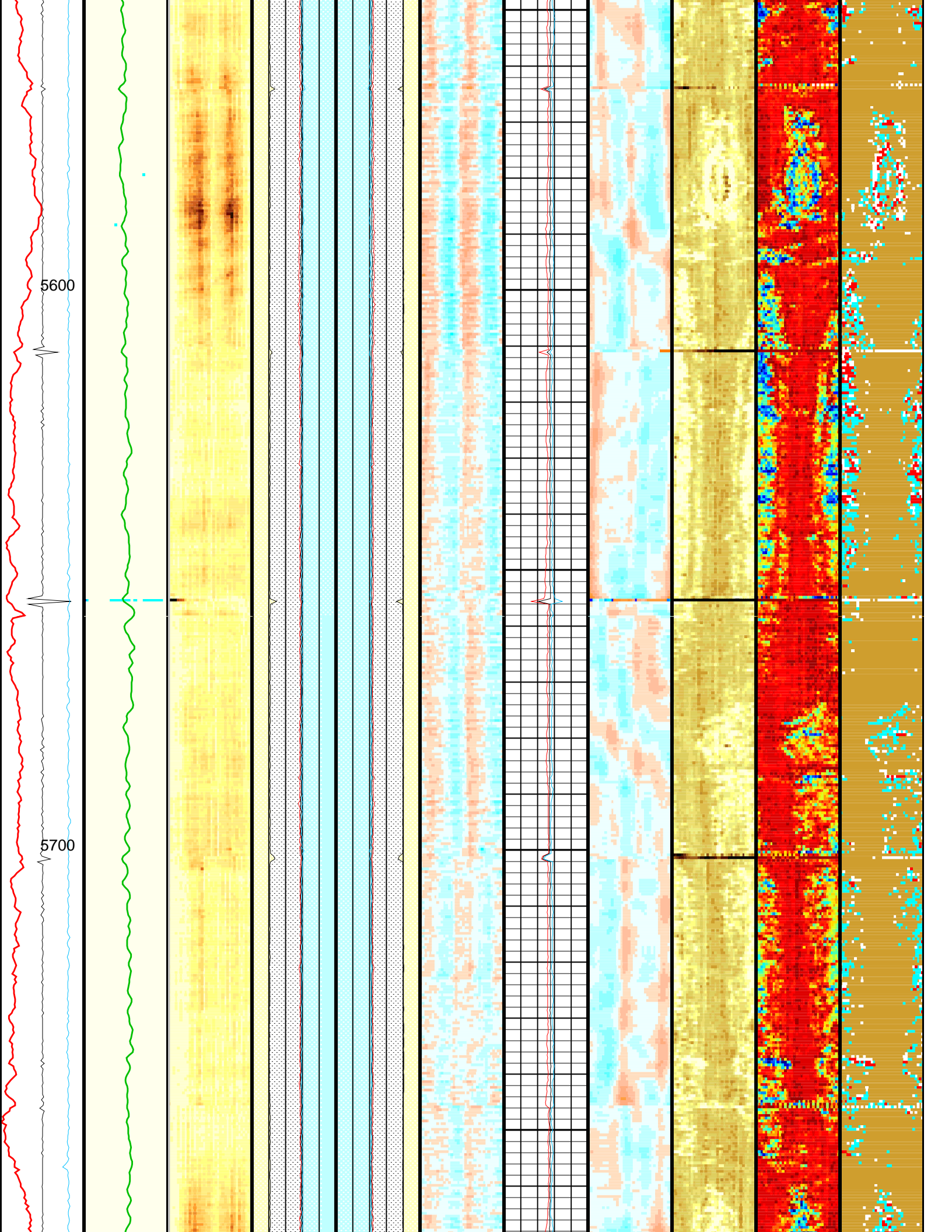


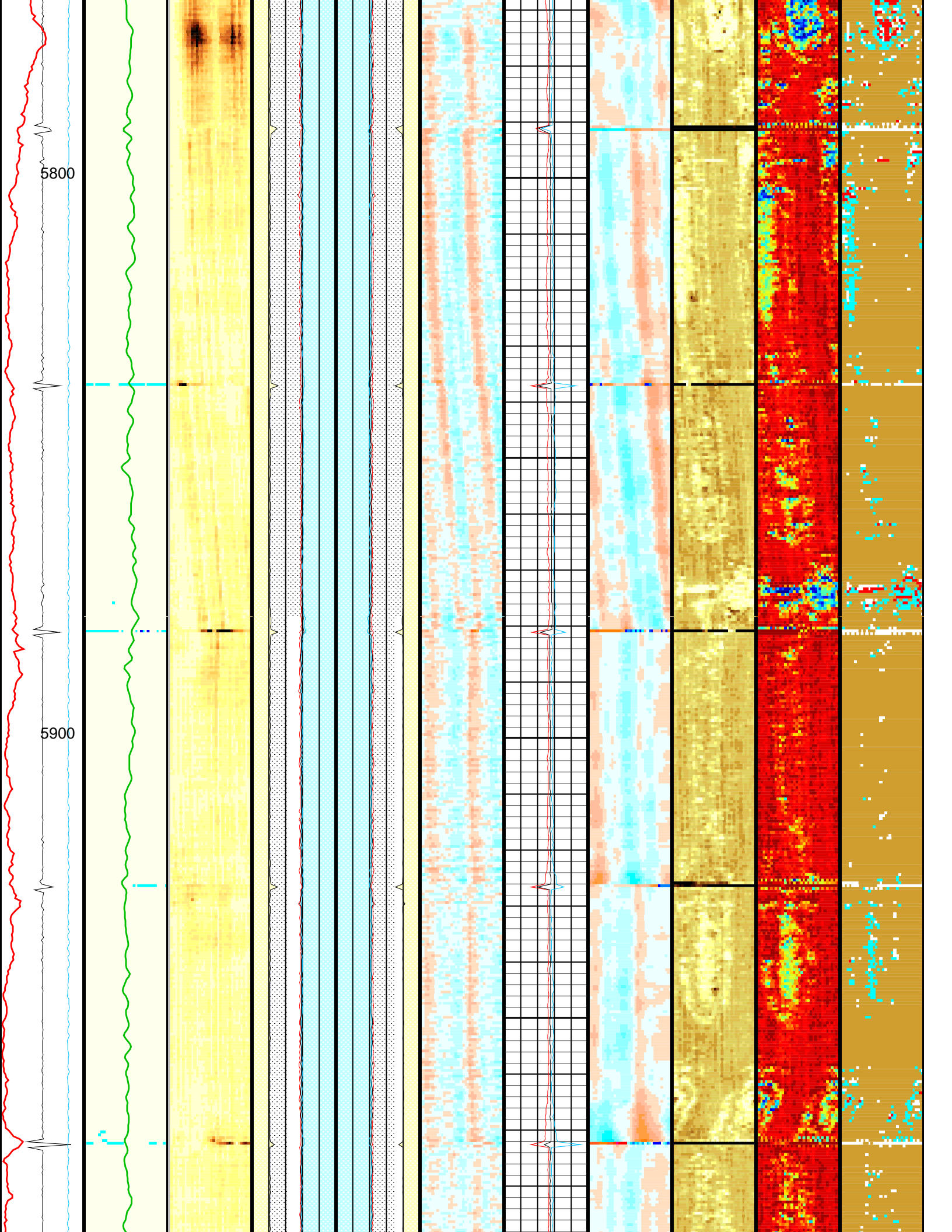


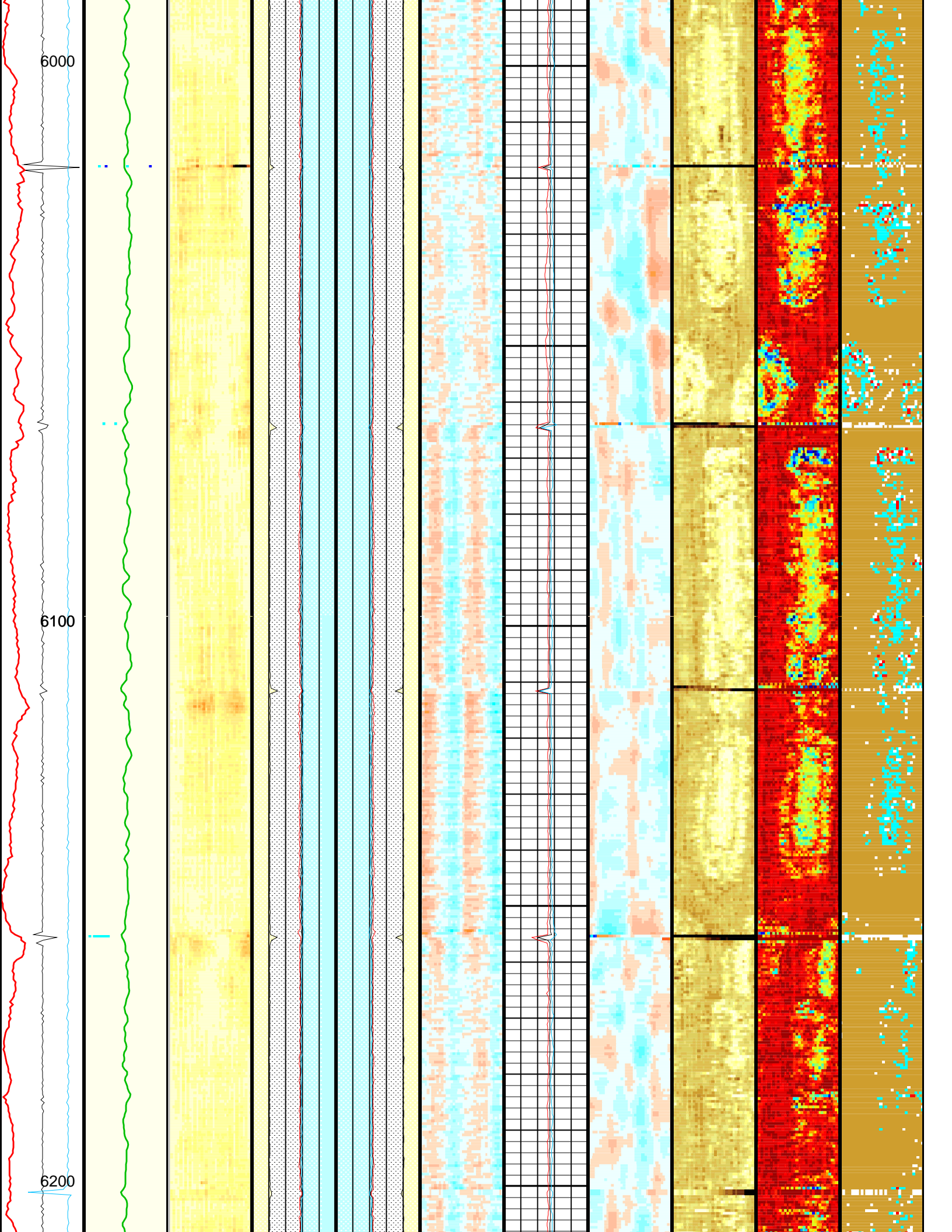


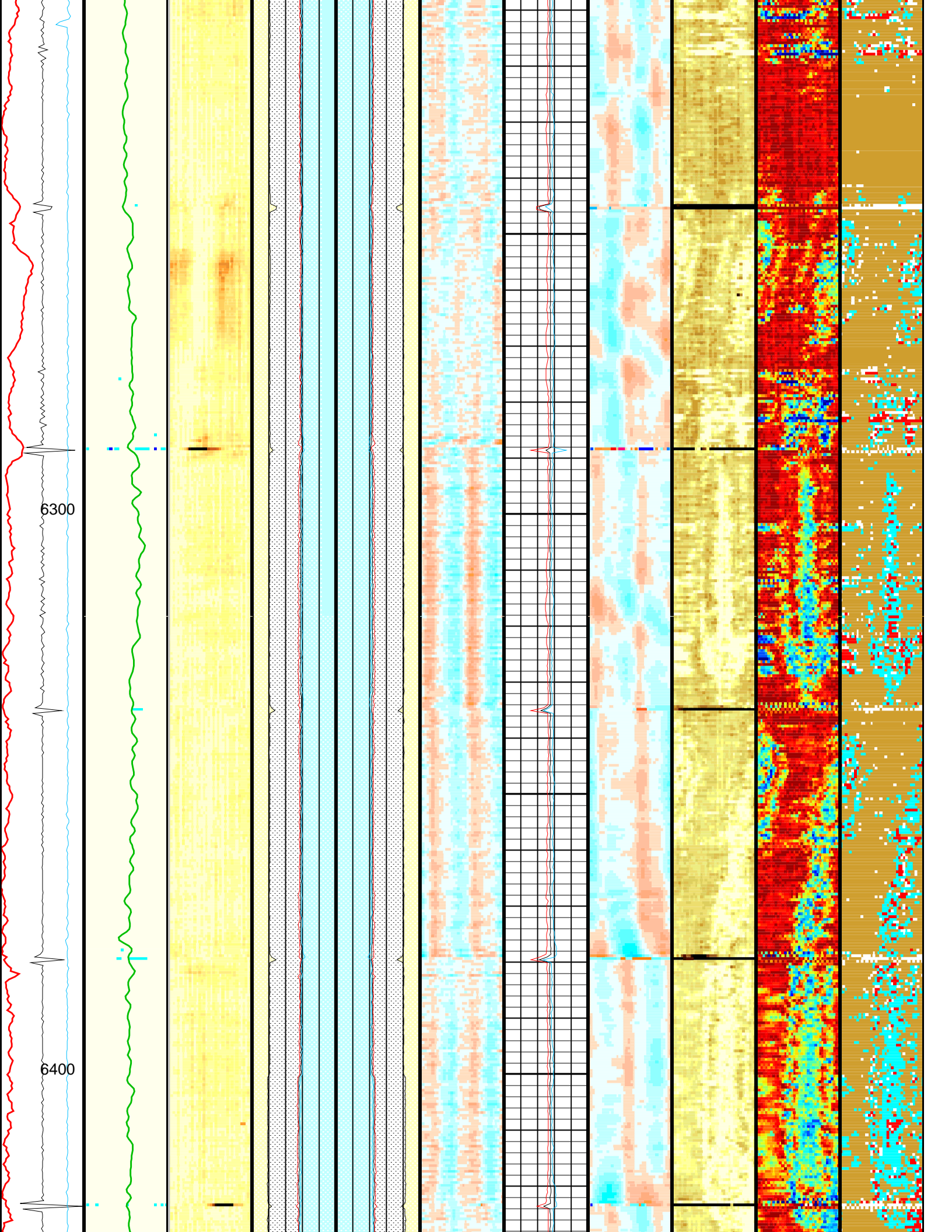


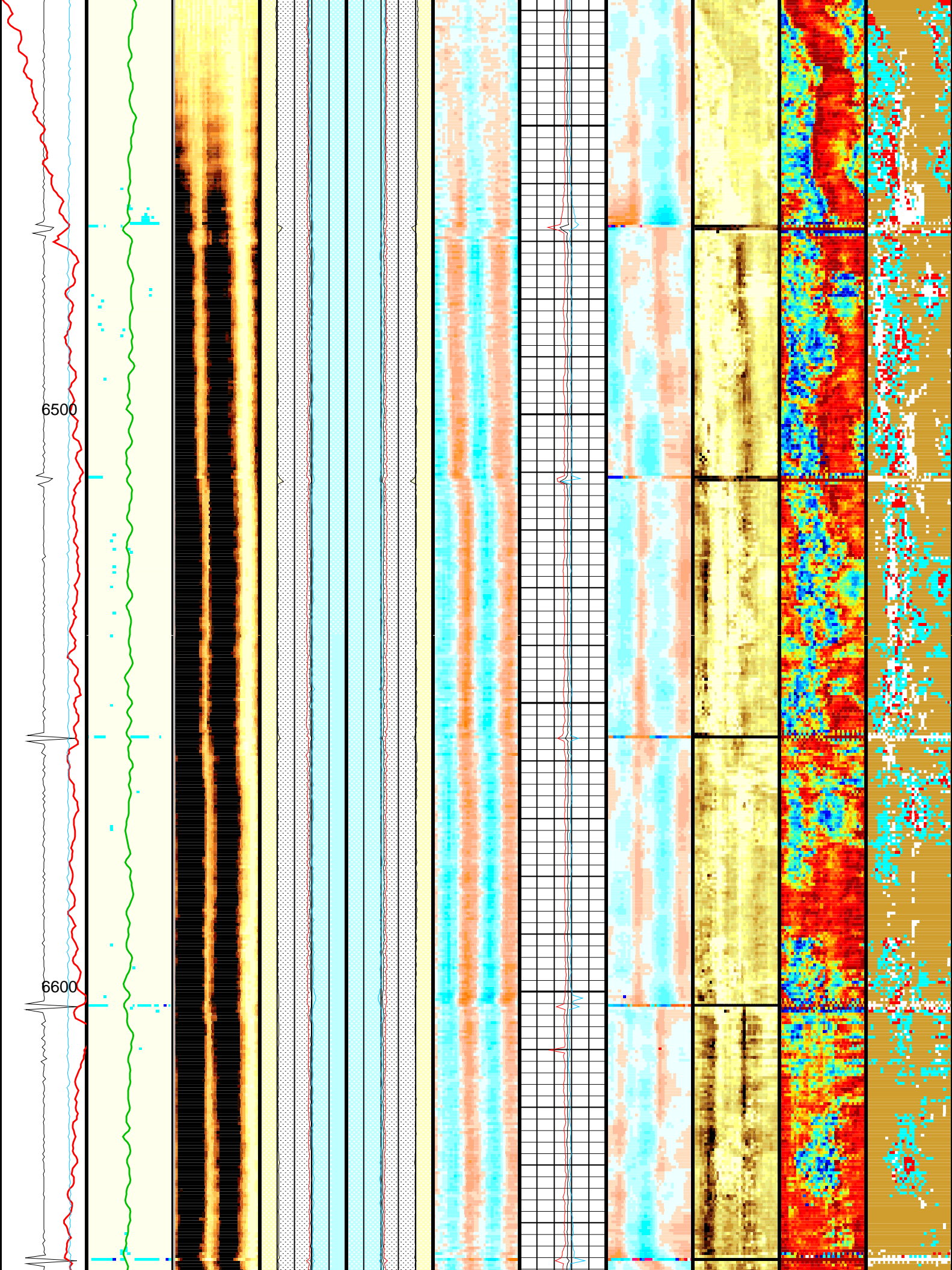


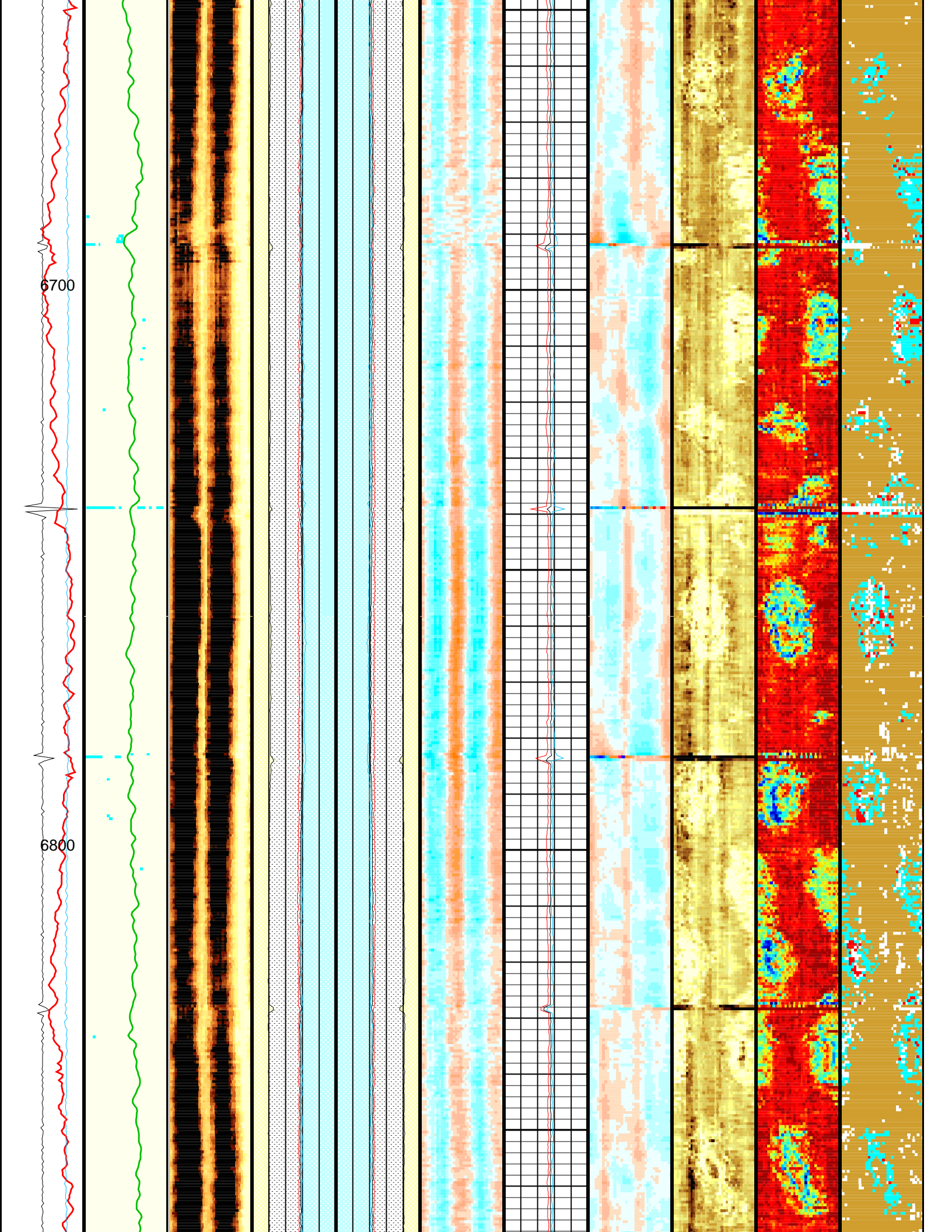


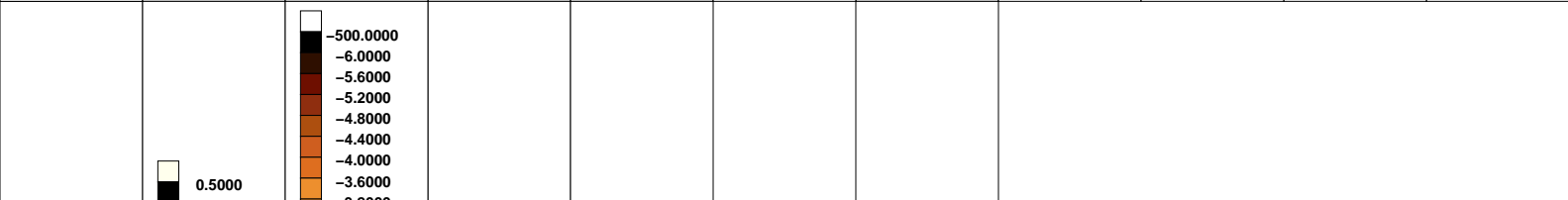
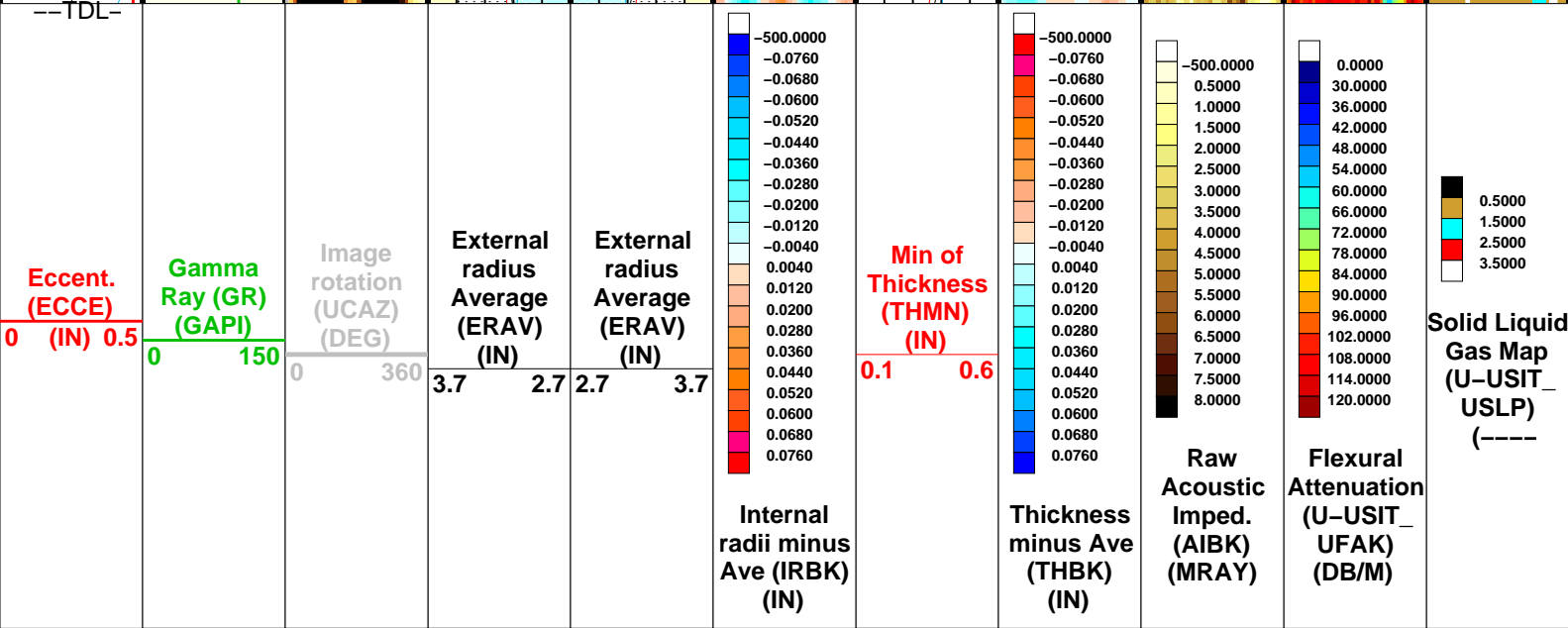
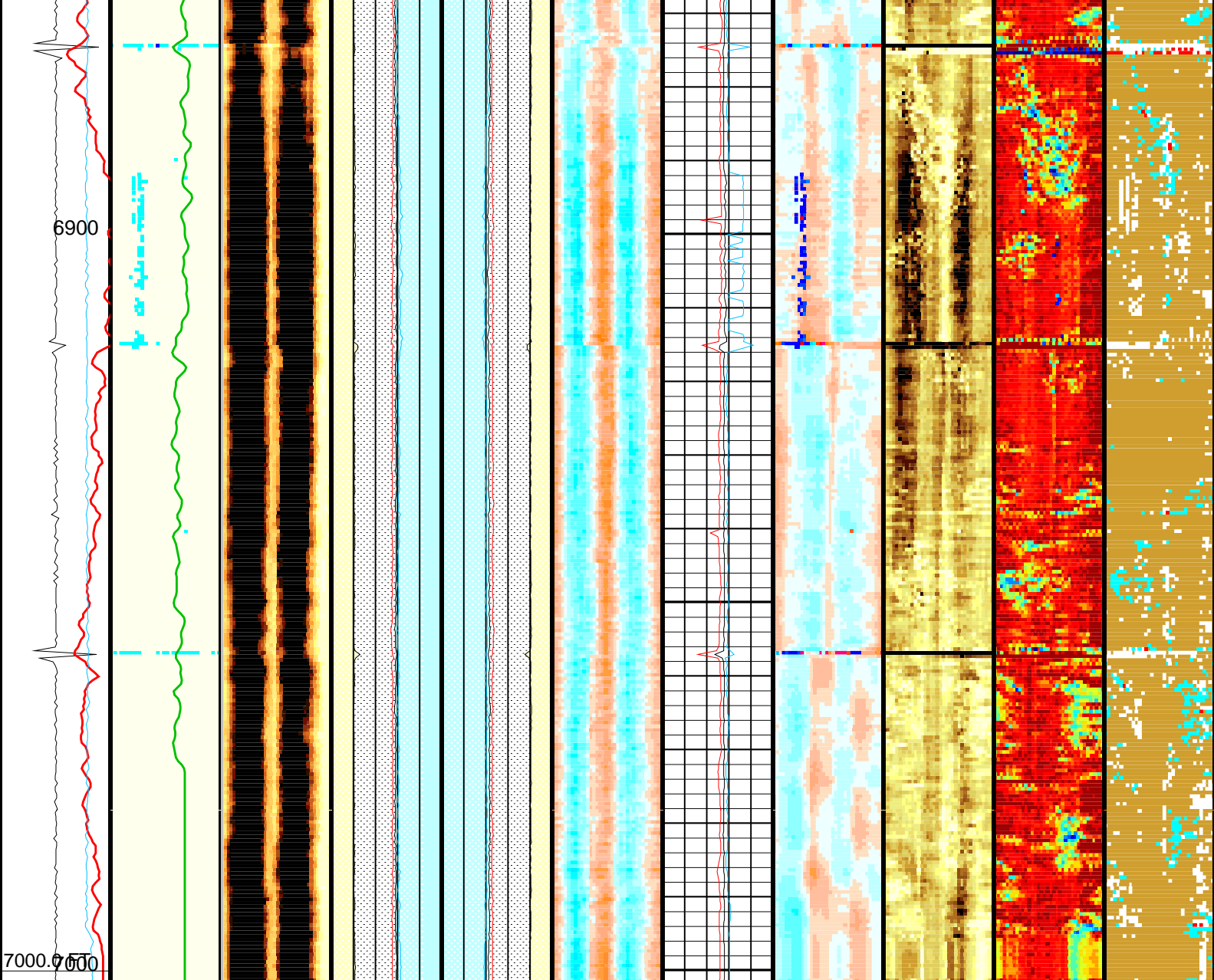












<div>CCL (CCLU) (----- -2020</div>	<div>Process. flags (UFLG) (-----</div>	<div><div><div>1.5000 2.5000 3.5000 6.5000</div><div><div><div>-3.2000 -2.8000 -2.4000 -2.0000 -1.6000 -1.2000 -0.8000 -0.4000 0.5000</div><div>Amplitude of echo minus Max (AWBK) (DB)</div></div></div></div></div>	<div>Internal radius Average (IRAV) (IN) 3.72.7</div>	<div>Internal radius Average (IRAV) (IN) 2.73.7</div>	<div>Average of Thickness (THAV) (IN) 0.10.6</div>
<div>RSAV (RSAV) (RPS) 67.5</div>			<div>Internal radius Maximum (IRMX) (IN) 3.72.7</div>	<div>Internal radius Maximum (IRMX) (IN) 2.73.7</div>	<div>Maximum of Thickness (THMX) (IN) 0.10.6</div>
<div>Stuck Stretch (STIT) 0(F)50</div>			<div>Min of Internal radius (IRMN) (IN) 3.72.7</div>	<div>Min of Internal radius (IRMN) (IN) 2.73.7</div>	
<div>Cable Drag From D4T to STIT</div>					
<div>Tool/Tot. Drag From D4T to STIA</div>					

Format: 5 inch IBC CEMENT COMPOSITE
Vertical Scale: 5" per 100'
Graphics File Created: 21-Jun-2012 11:10

OP System Version: 19C0-187			
USIT-D DTC-H	19C0-187 19C0-187	SGT-N	19C0-187

All USI Images are outside views

USI : LOW Frequency Compression Mode Used For Logging.
Recommended casing thickness range for optimum cement impedance measurement : 0.27 to 0.6 IN.

Parameters			
DLIS Name	Description	Value	
	USIT-D: Ultrasonic Imaging – D		
	Corrosion range maximum	0.076	IN
	T^3 Processing Length for FPM	26.648	US
	Corrosion range minimum	–0.076	IN
AGMN	Minimum Gain of Cartridge	–4	DB
AGMX	Maximum Gain of Cartridge	20	DB
BERJ	Bad Echo Rejection	ON	
CDIA	Casing Outer Diameter	7	IN
CDUN	Curves Unit Declared in Presentation Manager	IN	
CSDE	Casing Density	486.94	LBCF
CSID	Casing Inner Diameter	6.276	IN
CYST	Casing Yield Strength	0	PSI
DEVL	Default Fluid Velocity	204	US/F

DOT	Diameter of Transducer Sensor	2.874	IN
EMXV	EMEX Voltage	80	V
FDII	FPM Data Interpolation Interval	0	FT
FSOD	Fluid Slowness Fits Casing Outer Diameter	0_OFF	
IMAR	Image Rotation	OFF	
MW	Mud Weight	9.5	LB/G
OPLEV	USIT Remove Flagged Data Level	level2	
RCOD	Reference Calibrator Outer Diameter	7	IN
RCSO	Reference Calibrator Standoff	1.1811	IN
RCTH	Reference Calibrator Thickness	0.2952	IN
SDNV	Number of Vertical Samples used for Micro-debonding Computation	5	
SDTHOR	Acoustic Impedance STD Horizontal Threshold for Micro-debonding	0.5	
SDTVER	Acoustic Impedance STD Vertical Threshold for Micro-debonding	0.3	
SUBT	Ultrasonic Subassembly Type	Sub_7_inch_S	
TCUB	T^3 Processing Level	Vax_Loop	
THDH	Maximum Search Thickness (percentage of nominal)	130	
THDL	Minimum Search Thickness (percentage of nominal)	70	
THDP	Thickness Detection Policy	Fundamental	
THNO	Nominal Thickness of Casing	0.362	IN
TMUC	Type of Mud	WBM	
U-USIT_CEMT	USIT Cement Type	LIGHT	
U-USIT_DFSZ	Drilling Fluid Specific Acoustic Impedance	0	MRAY
U-USIT_IISR	USIT IBC Inverted Fluid Slowness Resolution	1.0_US_P_FT	
U-USIT_IIZR	USIT IBC Inverted ZMUD Resolution	0.050_MRAY	
U-USIT_OCDI	USIT Outer Casing Diameter	0	IN
U-USIT_OCSH	USIT Outer Casing Shoe	0	FT
U-USIT_OCWE	USIT Outer Casing Weight	0	LB/F
U-USIT_RFWB	USIT Remove Flagged Data Window Begin	0	US
U-USIT_RFWE	USIT Remove Flagged Data Window End	511	US
U-USIT_TIEB	IBC Third Interface Echo Bin Processing	YES	
U-USIT_TIEC	IBC Third Interface Echo Cleaning	NONE	
U-USIT_TIEM	IBC Third Interface Echo Multi Tracking	NO	
U-USIT_TIEP	IBC Third Interface Echo Policy	BFEP	
U-USIT_TIER	IBC Third Interface Echo Receivers	BOTH	
U-USIT_U3WE	Third Interface Echo Window End	110	US
U-USIT_UBTP	USIT Bottom Transducer Position	UNKNOWN	
U-USIT_UDFC	USIT Deflector for Casing	NONE	
U-USIT_UFAO	USIT Flexural Attenuation Offset	2	DB/M
U-USIT_UFGA	Far Receiver Maximum Gain of Cartridge	48	DB
U-USIT_UFGI	Far Receiver Minimum Gain of Cartridge	-12	DB
U-USIT_UHCI	USIT IBC Hydraulic Communication Interval	06FT_02M	
U-USIT_UIAP	USIT IBC Answer Product Enabled	SolidLiquidGasMap	
U-USIT_UIST	Ultrasonic IBC Sonde Type	Sub_ibcs_B	
U-USIT_UNGA	Near Receiver Maximum Gain of Cartridge	48	DB
U-USIT_UNGI	Near Receiver Minimum Gain of Cartridge	-12	DB
U-USIT_URTP	USIT Radial Transducer Position	UNKNOWN	
U-USIT_UTAN	USIT Transducer Angles	33_DEG	
UMAO	USIT Measurement Angular Offset	-10	DEG
UPAT	Emission Pattern	Pattern_375K	
USIT_USAC_TASK_ALLOW	USIT USAC Allow Task after Power Up	YES	
USIT_USAC_TASK_TIMEOUT	USIT USAC Task Timeout (in seconds) FOR TEST REPORT	600	
USTO	Ultrasonic Time Offset	-2	US
USUB	Ultrasonic Subassembly Identifier	Sub_7_inch	
UWKM	Ultrasonic Working Mode	10DEG_6IN_136UNF_LF	
VCAS	Ultrasonic Transversal Velocity in Casing	51.4	US/F
WLEN	T^3 Processing Length	21.7078	US
ZCAS	Acoustic Impedance of Casing	46.25	MRAY
ZINI	Initial Estimate of Cement Impedance	-1	MRAY
ZMUD	Acoustic Impedance of Mud	1.7	MRAY
ZTCM	Acoustic Impedance Threshold for Cement	2.6	MRAY
ZTGS	Acoustic Impedance Threshold for Gas	0.3	MRAY
SGT-N: Scintillation Gamma Ray Tool - N			
BHS	Borehole Status	CASED	
BHT	Bottom Hole Temperature (used in calculations)	221	DEGF
DPPM	Density Porosity Processing Mode	STAN	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
SOGR	SGT Standoff Distance	0	IN
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	STI	
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth - Driller	9190.00	FT
TDL	Total Depth - Logger	7000.00	FT
System and Miscellaneous			
ALTDPCCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	8.750	IN
BSAL	Borehole Salinity	-50000.00	PPM
CSIZ	Coring Casing Size	7.000	IN
CWEI	Casing Weight	26.00	LB/F

CWEL	Casing Weight	26.00	LB/F
DFD	Drilling Fluid Density	9.50	LB/G
DO	Depth Offset for Playback	2.0	FT
FLEV	Fluid Level	0.00	FT
MST	Mud Sample Temperature	-50000.00	DEGF
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	NORMAL	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	-50000	FT
TWS	Temperature of Connate Water Sample	100.00	DEGF

Input DLIS Files

DEFAULT USI_014LUP FN:13 PRODUCER 21-Jun-2012 06:58 6999.5 FT 29.0 FT

Output DLIS Files

DEFAULT USI_024PUP FN:23 PRODUCER 21-Jun-2012 11:10



Solid-Liquid-Gas
2" = 100'

MAXIS Field Log

Company: Encana Oil & Gas Inc Well: Stelling 3A-4H

Input DLIS Files

DEFAULT USI_014LUP FN:13 PRODUCER 21-Jun-2012 06:58 6999.5 FT 29.0 FT

Output DLIS Files

DEFAULT USI_024PUP FN:23 PRODUCER 21-Jun-2012 11:10

OP System Version: 19C0-187

USIT-D 19C0-187 SGT-N 19C0-187
DTC-H 19C0-187

Changed Parameter Summary

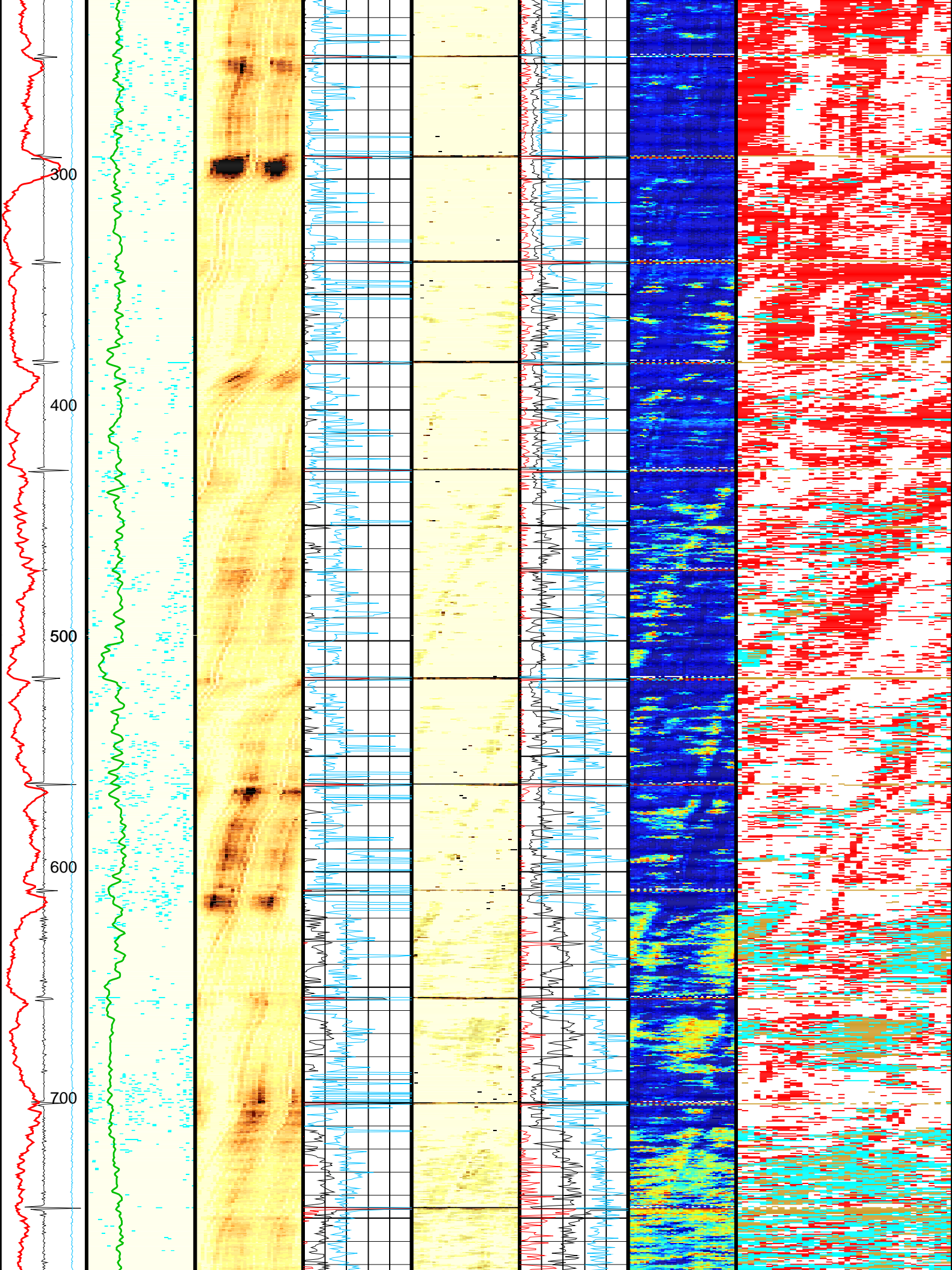
DLIS Name	New Value	Previous Value	Depth & Time
DFVL	201.5 US/F	204 US/F	7001.5 11:10:34
	204 US/F	201.5 US/F	6400.0 11:11:05
	205 US/F	204 US/F	3700.0 11:14:15
	206 US/F	205 US/F	1500.0 11:16:16
	207 US/F	206 US/F	700.0 11:17:04
ZMUD	1.7 MRAY	1.7 MRAY	7001.5 11:10:34
	1.7 MRAY	1.7 MRAY	6400.0 11:11:05
	1.7 MRAY	1.7 MRAY	3700.0 11:14:15
	1.7 MRAY	1.7 MRAY	1500.0 11:16:16
	1.7 MRAY	1.7 MRAY	700.0 11:17:04

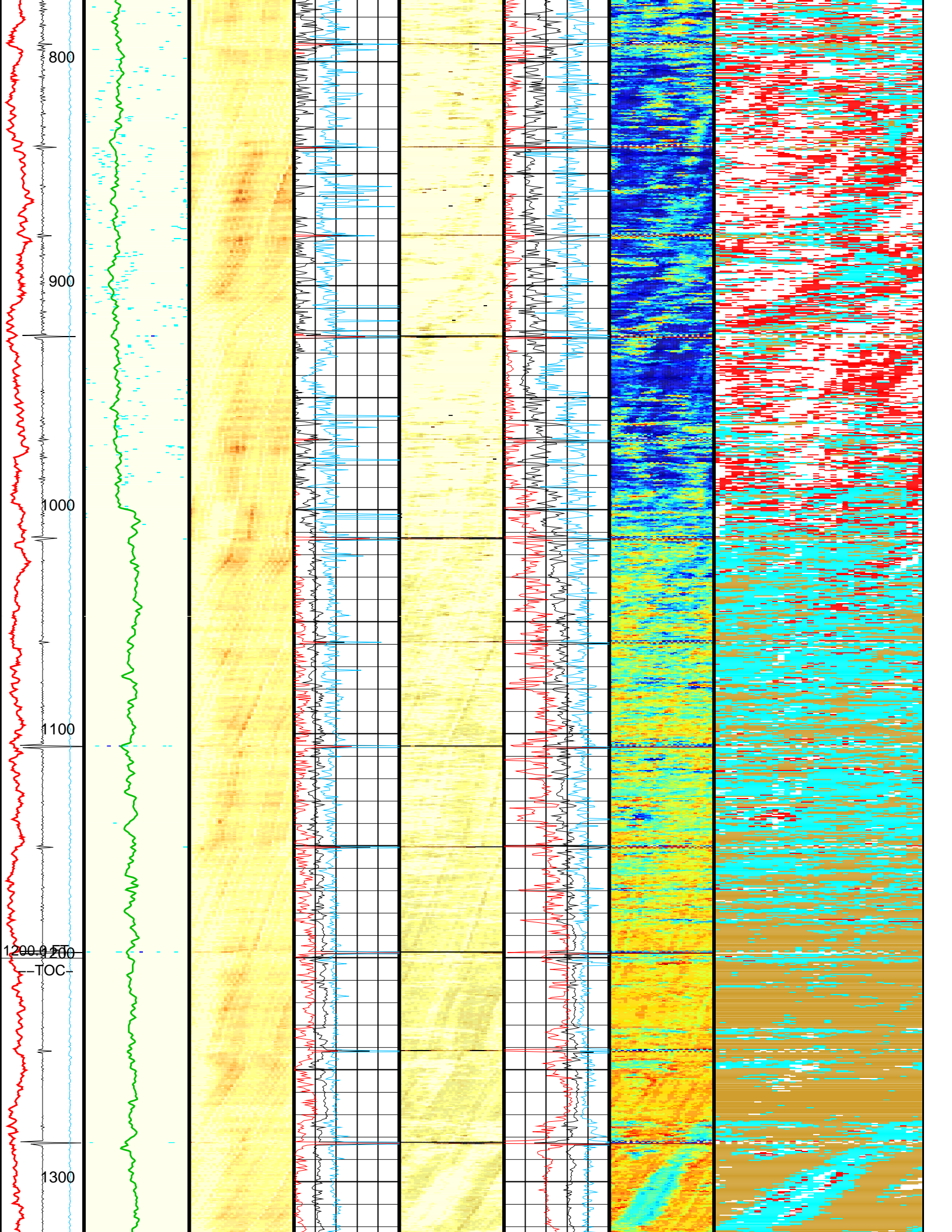
Image rotation
(UCAZ)
(DEG)

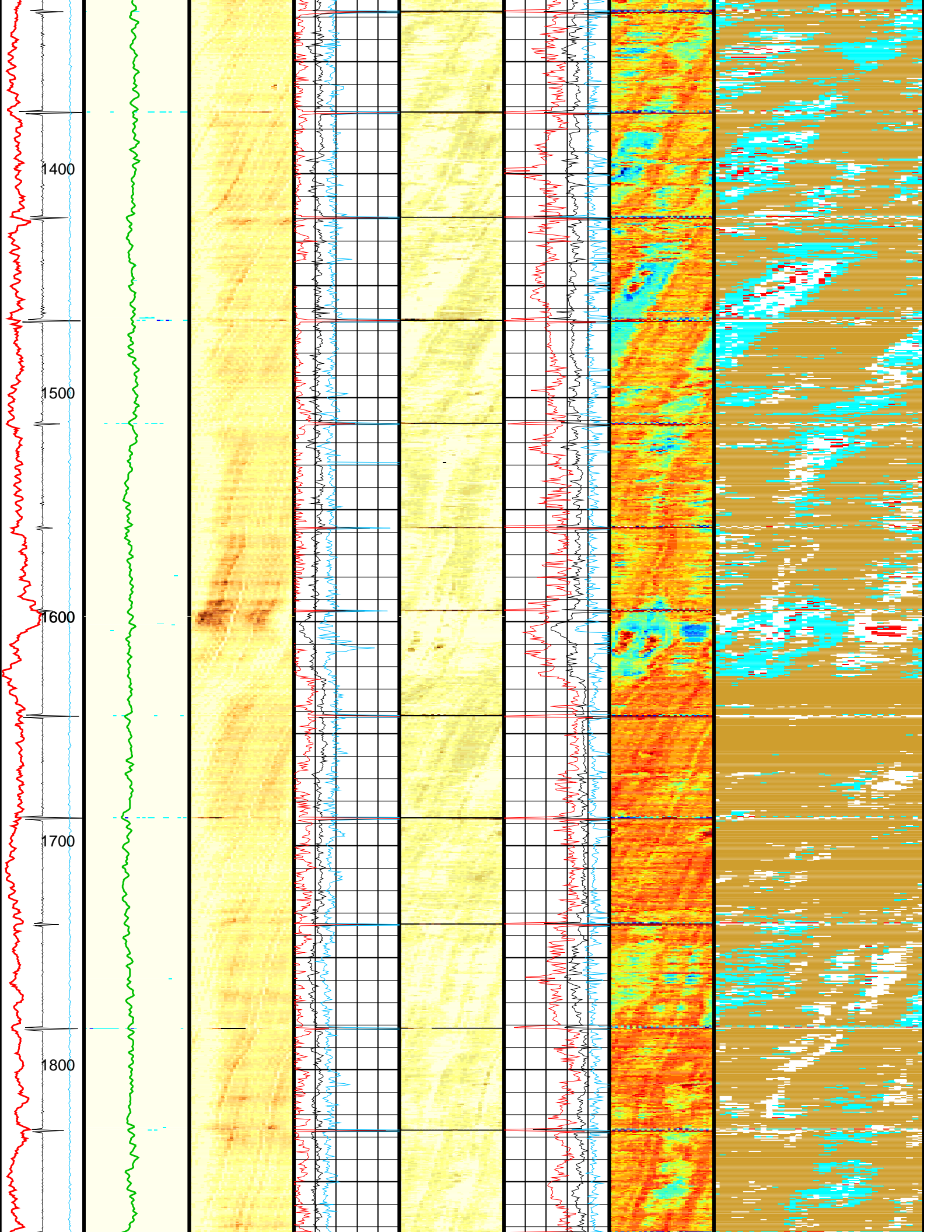
0360

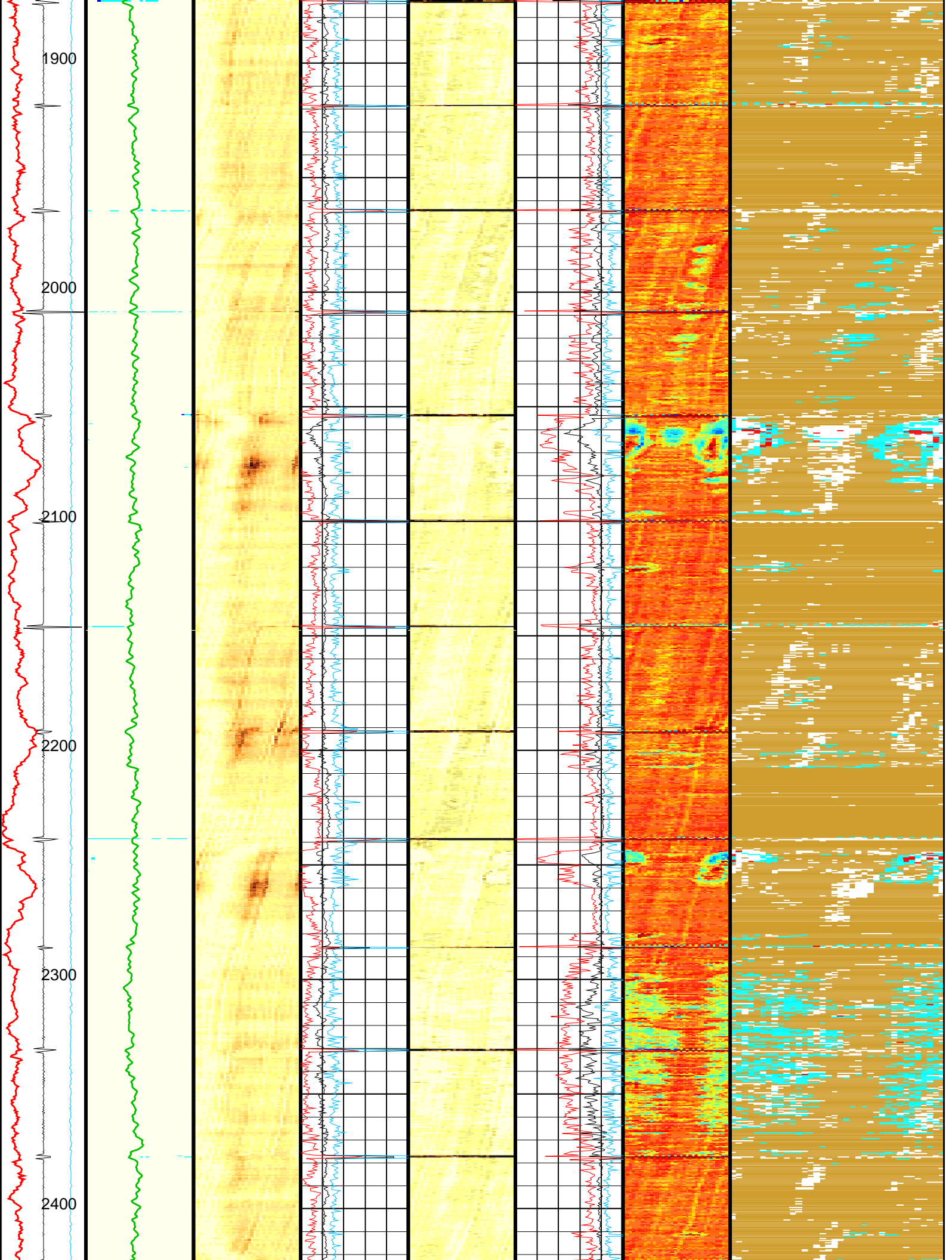
Tool/Tot.
Drag
From D4T
to STIA

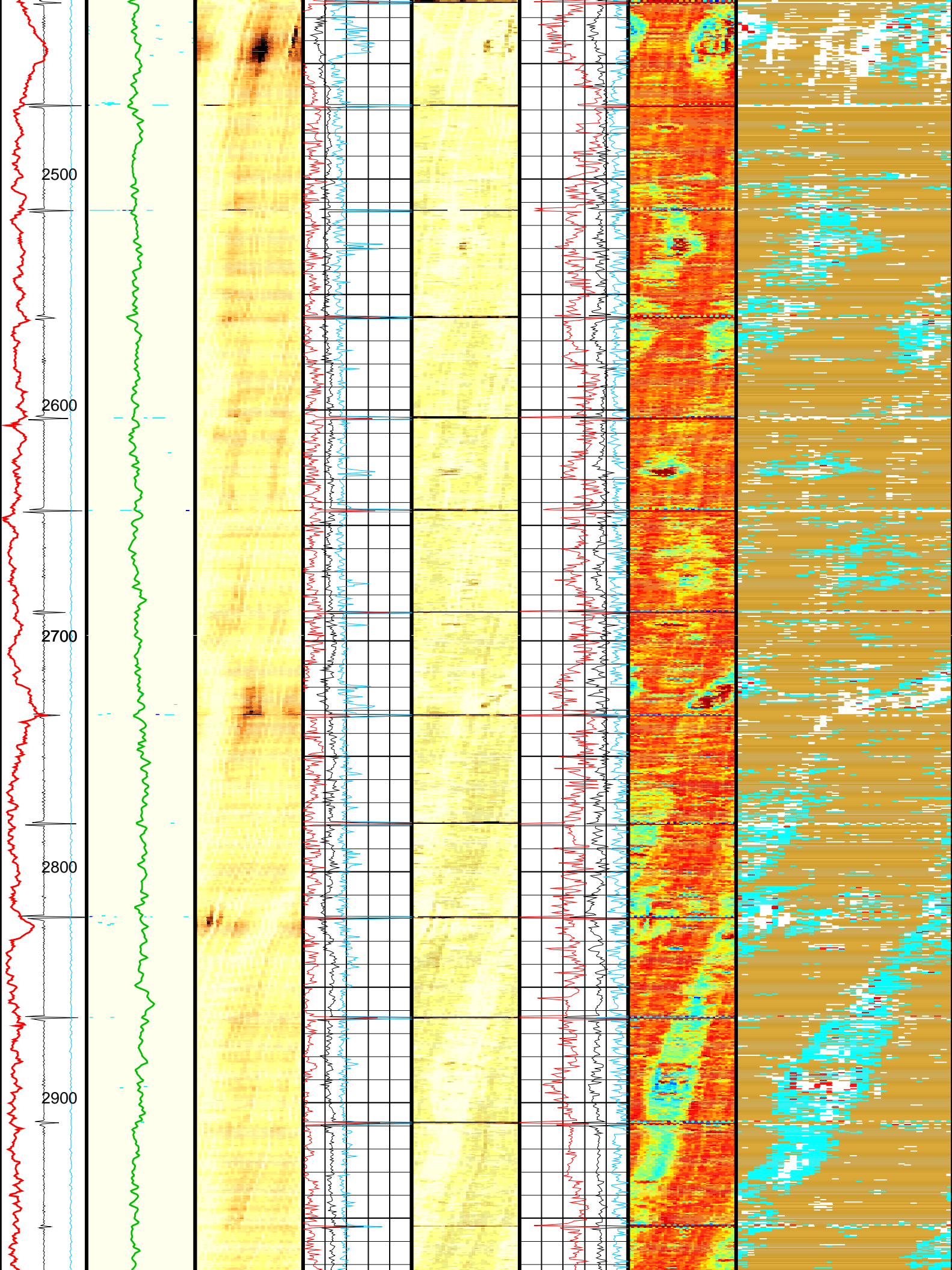
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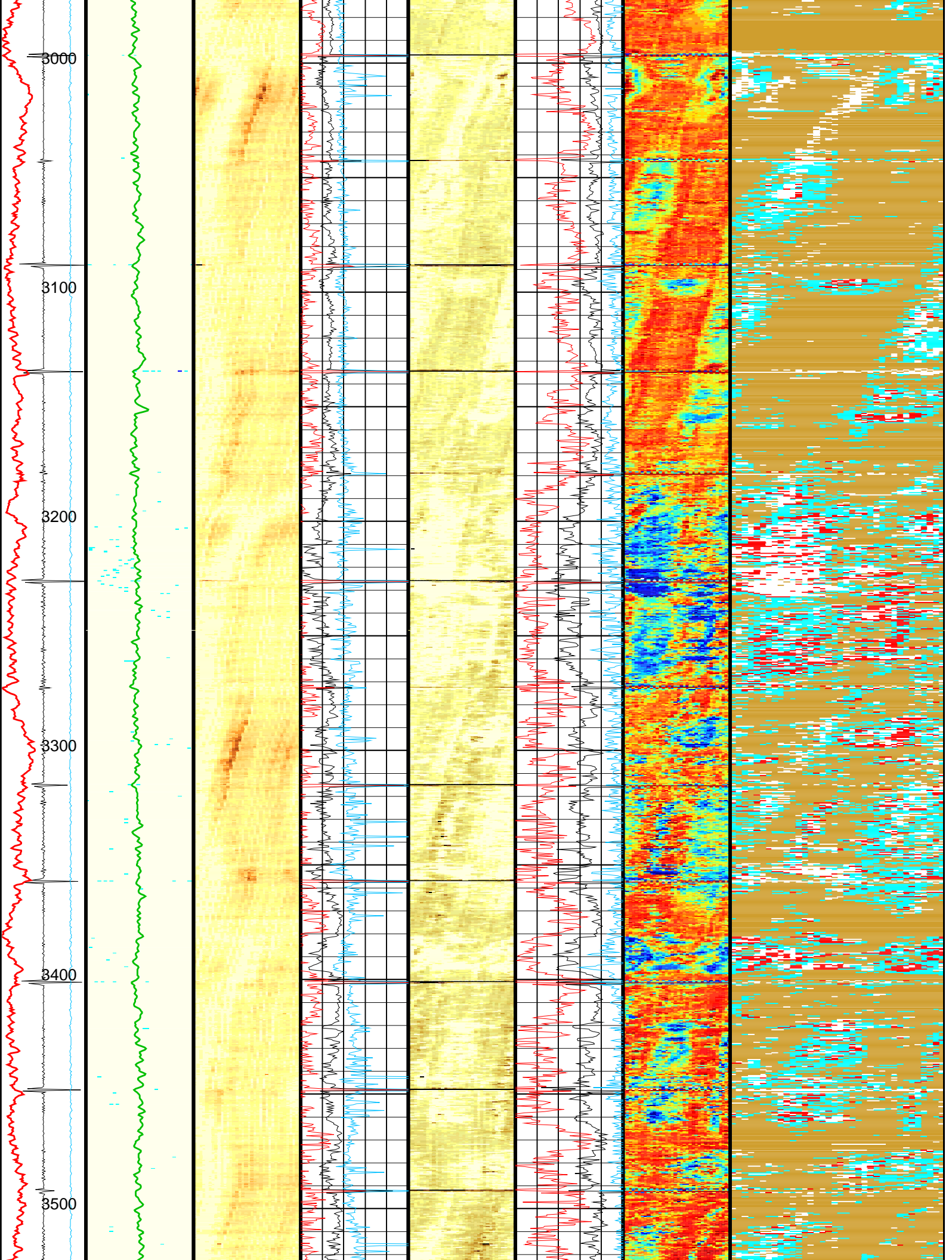


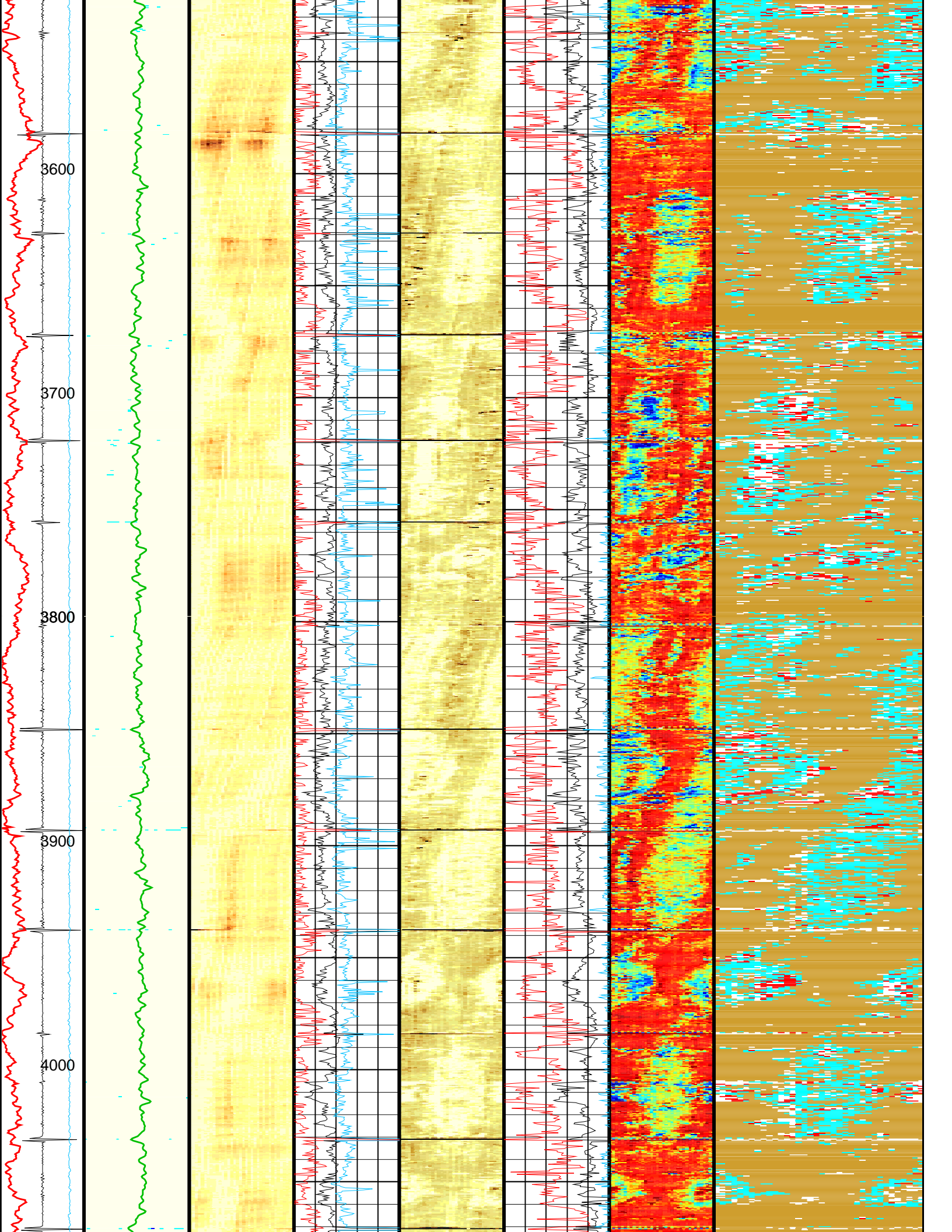


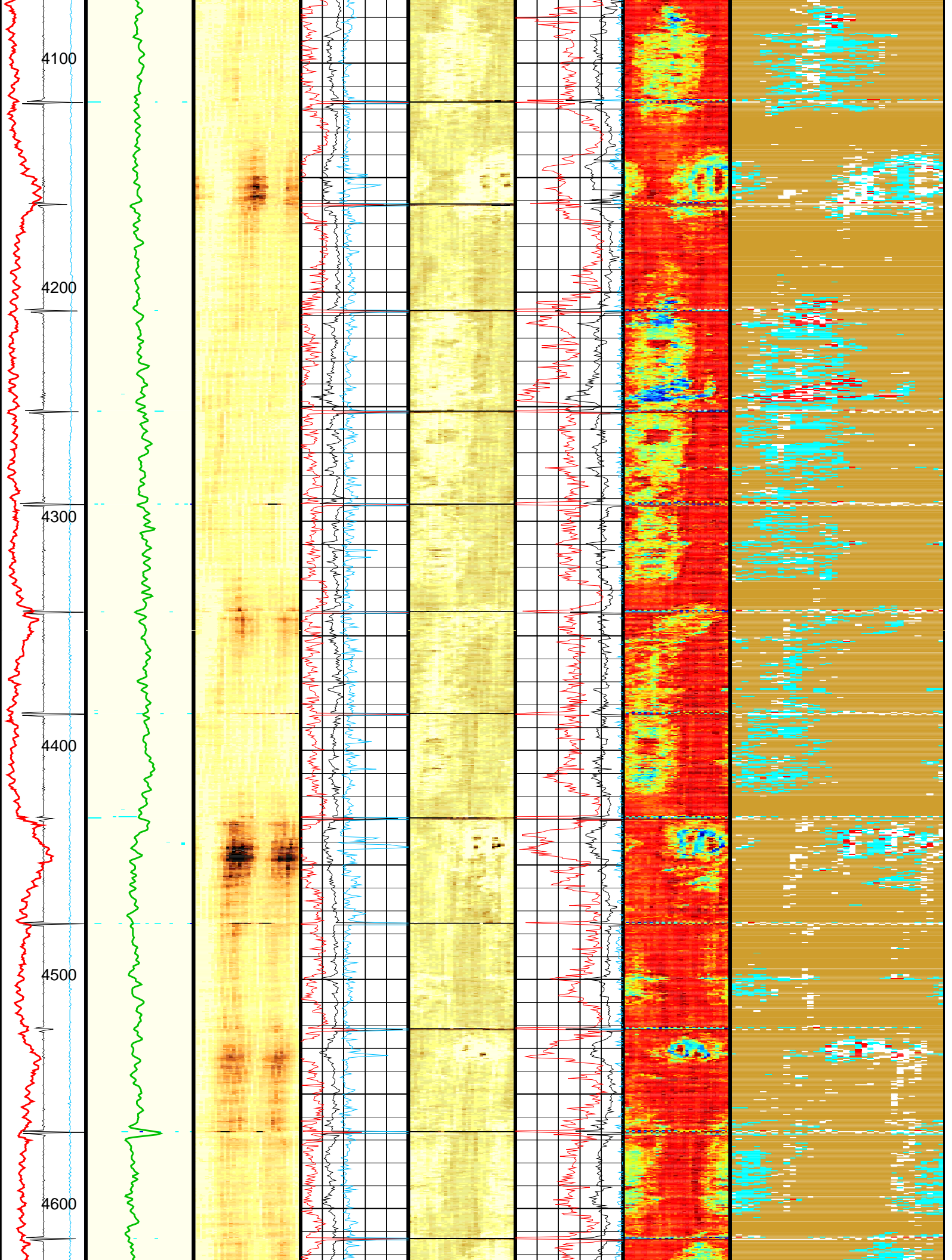


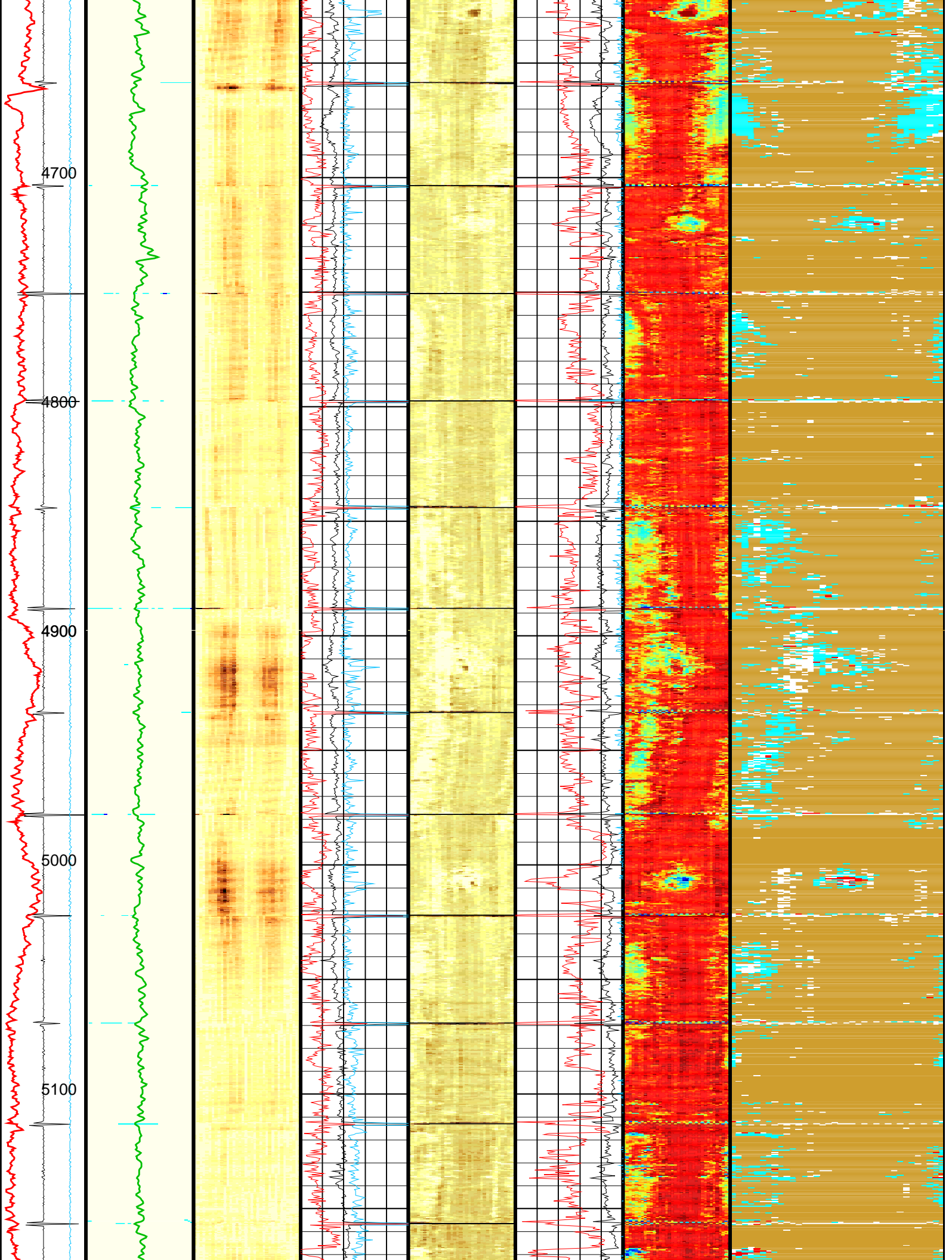


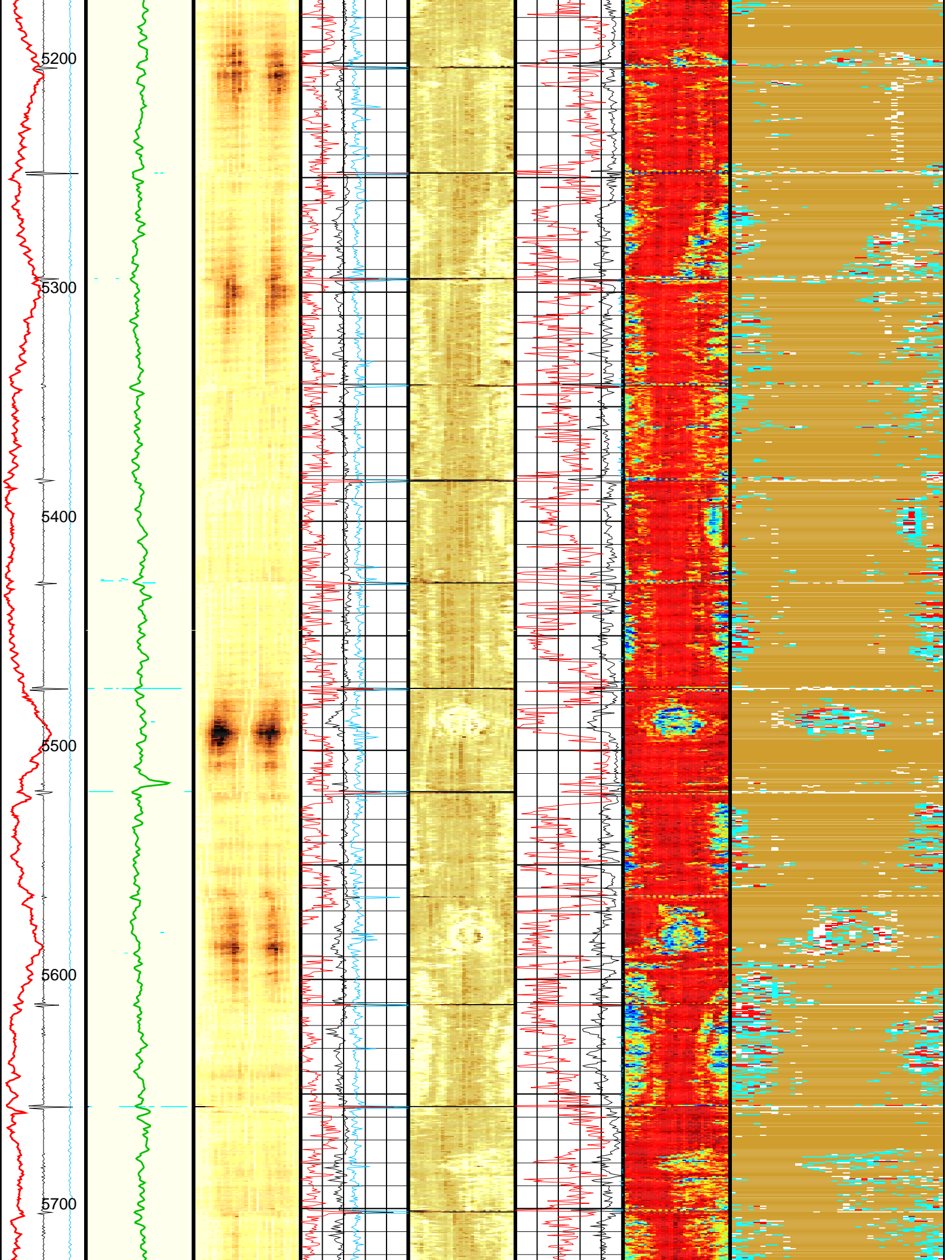


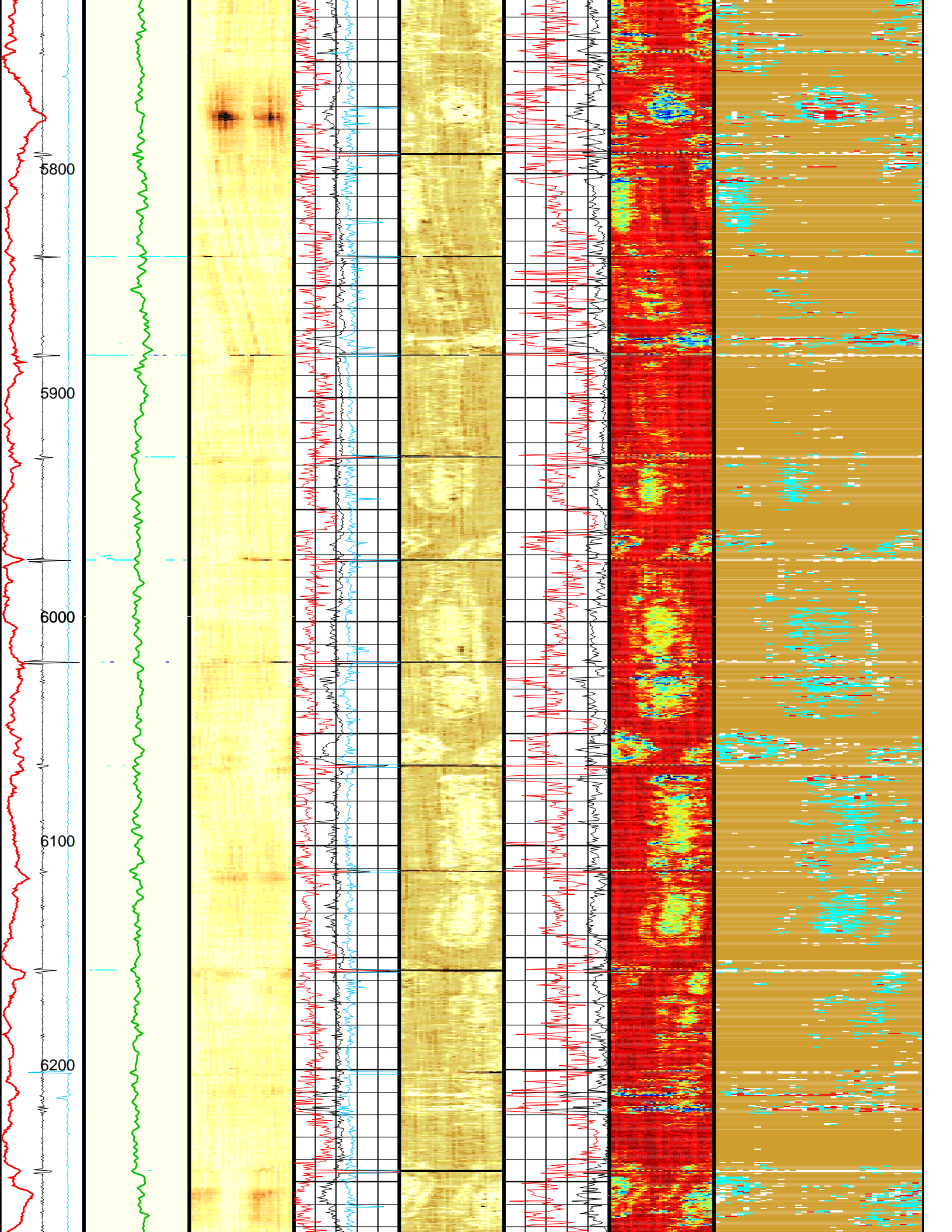


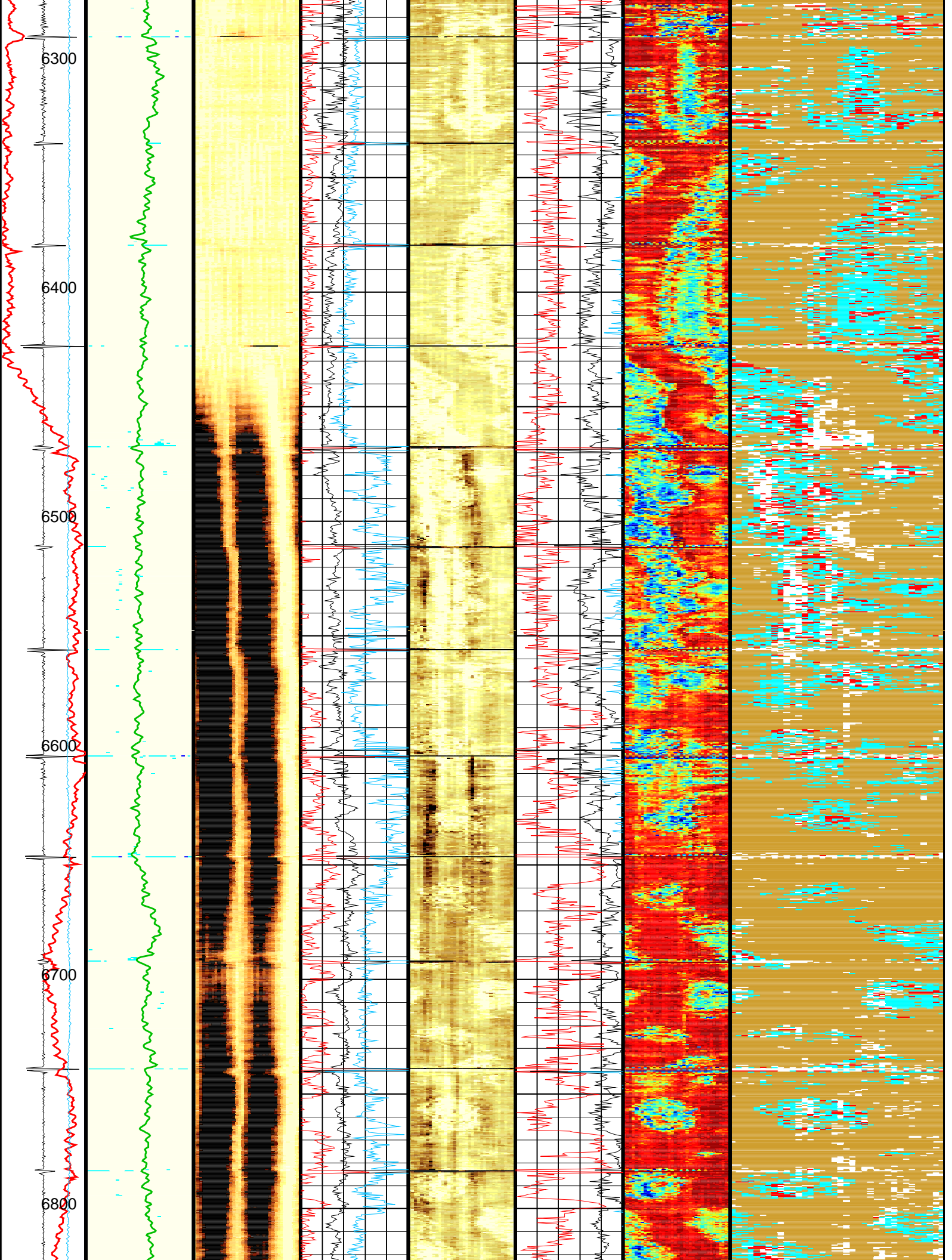


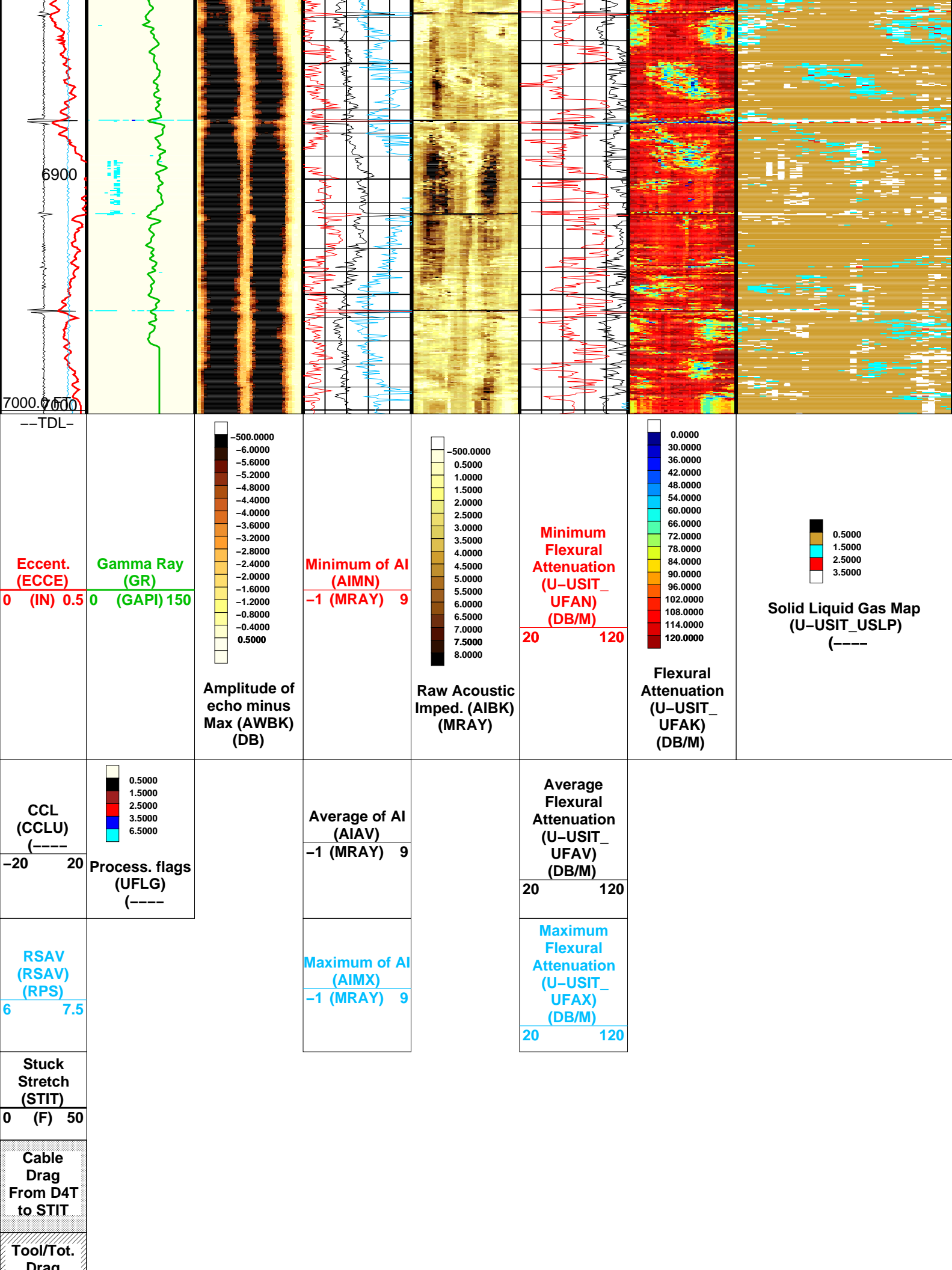












From D4T to STIA
Image rotation (UCAZ) (DEG)
0 360

OP System Version: 19C0-187

USIT-D	19C0-187	SGT-N	19C0-187
DTC-H	19C0-187		

All USI Images are outside views

USI : LOW Frequency Compression Mode Used For Logging.

Recommended casing thickness range for optimum cement impedance measurement : 0.27 to 0.6 IN.

Parameters

DLIS Name	Description	Value	
USIT-D: Ultrasonic Imaging - D			
AGMN	Minimum Gain of Cartridge	-4	DB
AGMX	Maximum Gain of Cartridge	20	DB
BERJ	Bad Echo Rejection	ON	
CDIA	Casing Outer Diameter	7	IN
CSDE	Casing Density	486.94	LBCF
CSID	Casing Inner Diameter	6.276	IN
DFVL	Default Fluid Velocity	204	US/F
DOT	Diameter of Transducer Sensor	2.874	IN
EMXV	EMEX Voltage	80	V
FDII	FPM Data Interpolation Interval	0	FT
IMAR	Image Rotation	OFF	
MW	Mud Weight	9.5	LB/G
RCOD	Reference Calibrator Outer Diameter	7	IN
RCSO	Reference Calibrator Standoff	1.1811	IN
RCTH	Reference Calibrator Thickness	0.2952	IN
TCUB	T^3 Processing Level	Vax_Loop	
THDH	Maximum Search Thickness (percentage of nominal)	130	
THDL	Minimum Search Thickness (percentage of nominal)	70	
THDP	Thickness Detection Policy	Fundamental	
THNO	Nominal Thickness of Casing	0.362	IN
U-USIT_CEMT	USIT Cement Type	LIGHT	
U-USIT_DFSZ	Drilling Fluid Specific Acoustic Impedance	0	MRAY
U-USIT_IISR	USIT IBC Inverted Fluid Slowness Resolution	1.0_US_P_FT	
U-USIT_IIZR	USIT IBC Inverted ZMUD Resolution	0.050_MRAY	
U-USIT_OCDI	USIT Outer Casing Diameter	0	IN
U-USIT_OCSH	USIT Outer Casing Shoe	0	FT
U-USIT_OCWE	USIT Outer Casing Weight	0	LB/F
U-USIT_TIEB	IBC Third Interface Echo Bin Processing	YES	
U-USIT_TIEC	IBC Third Interface Echo Cleaning	NONE	
U-USIT_TIEM	IBC Third Interface Echo Multi Tracking	NO	
U-USIT_TIEP	IBC Third Interface Echo Policy	BFEP	
U-USIT_TIER	IBC Third Interface Echo Receivers	BOTH	
U-USIT_U3WE	Third Interface Echo Window End	110	US
U-USIT_UBTP	USIT Bottom Transducer Position	UNKNOWN	
U-USIT_UFAO	USIT Flexural Attenuation Offset	2	DB/M
U-USIT_UIAP	USIT IBC Answer Product Enabled	SolidLiquidGasMap	
U-USIT_UIST	Ultrasonic IBC Sonde Type	Sub_ibcs_B	
U-USIT_UTAN	USIT Transducer Angles	33_DEG	
UMAO	USIT Measurement Angular Offset	-10	DEG
USTO	Ultrasonic Time Offset	-2	US
USUB	Ultrasonic Subassembly Identifier	Sub_7_inch	
UWKM	Ultrasonic Working Mode	10DEG_6IN_136UNF_LF	
VCAS	Ultrasonic Transversal Velocity in Casing	51.4	US/F
WLEN	T^3 Processing Length	21.7078	US
ZCAS	Acoustic Impedance of Casing	46.25	MRAY

ZINI	Initial Estimate of Cement Impedance	-1	MRAY
ZMUD	Acoustic Impedance of Mud	1.7	MRAY
ZTCM	Acoustic Impedance Threshold for Cement	2.6	MRAY
ZTGS	Acoustic Impedance Threshold for Gas	0.3	MRAY
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	STI	
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth – Driller	9190.00	FT
TDL	Total Depth – Logger	7000.00	FT
System and Miscellaneous			
BS	Bit Size	8.750	IN
CWEI	Casing Weight	26.00	LB/F
DO	Depth Offset for Playback	2.0	FT
PP	Playback Processing	NORMAL	

Input DLIS Files

DEFAULT	USI_014LUP	FN:13	PRODUCER	21-Jun-2012 06:58	6999.5 FT	29.0 FT
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Output DLIS Files

DEFAULT	USI_024PUP	FN:23	PRODUCER	21-Jun-2012 11:10
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Schlumberger

VDL Wide
2" = 100'

MAXIS Field Log

Company: Encana Oil & Gas Inc

Well: Stelling 3A-4H

Input DLIS Files

DEFAULT	USI_014LUP	FN:13	PRODUCER	21-Jun-2012 06:58	6999.5 FT	29.0 FT
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Output DLIS Files

DEFAULT	USI_024PUP	FN:23	PRODUCER	21-Jun-2012 11:10
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OP System Version: 19C0-187

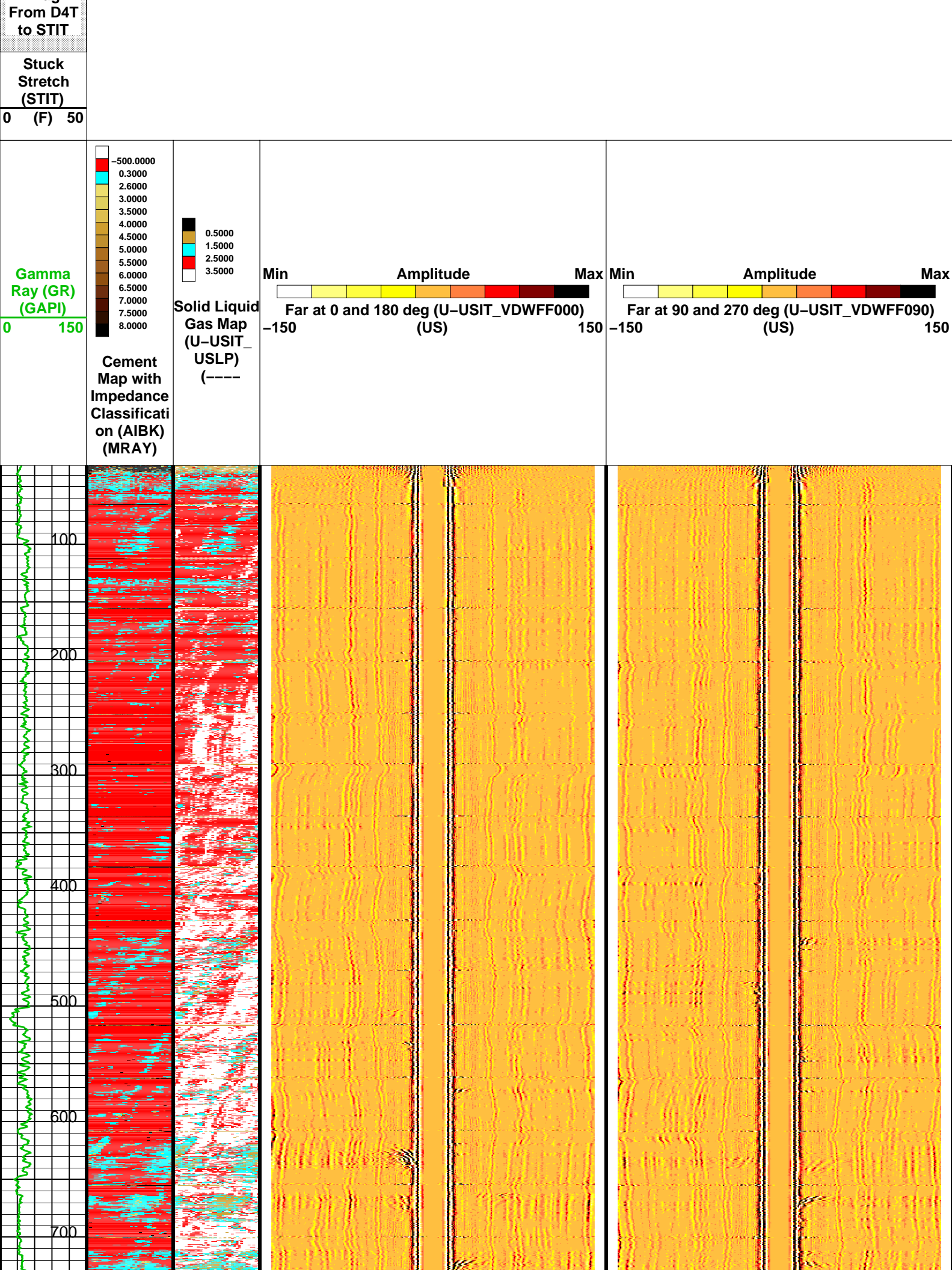
USIT-D	19C0-187	SGT-N	19C0-187
DTC-H	19C0-187		

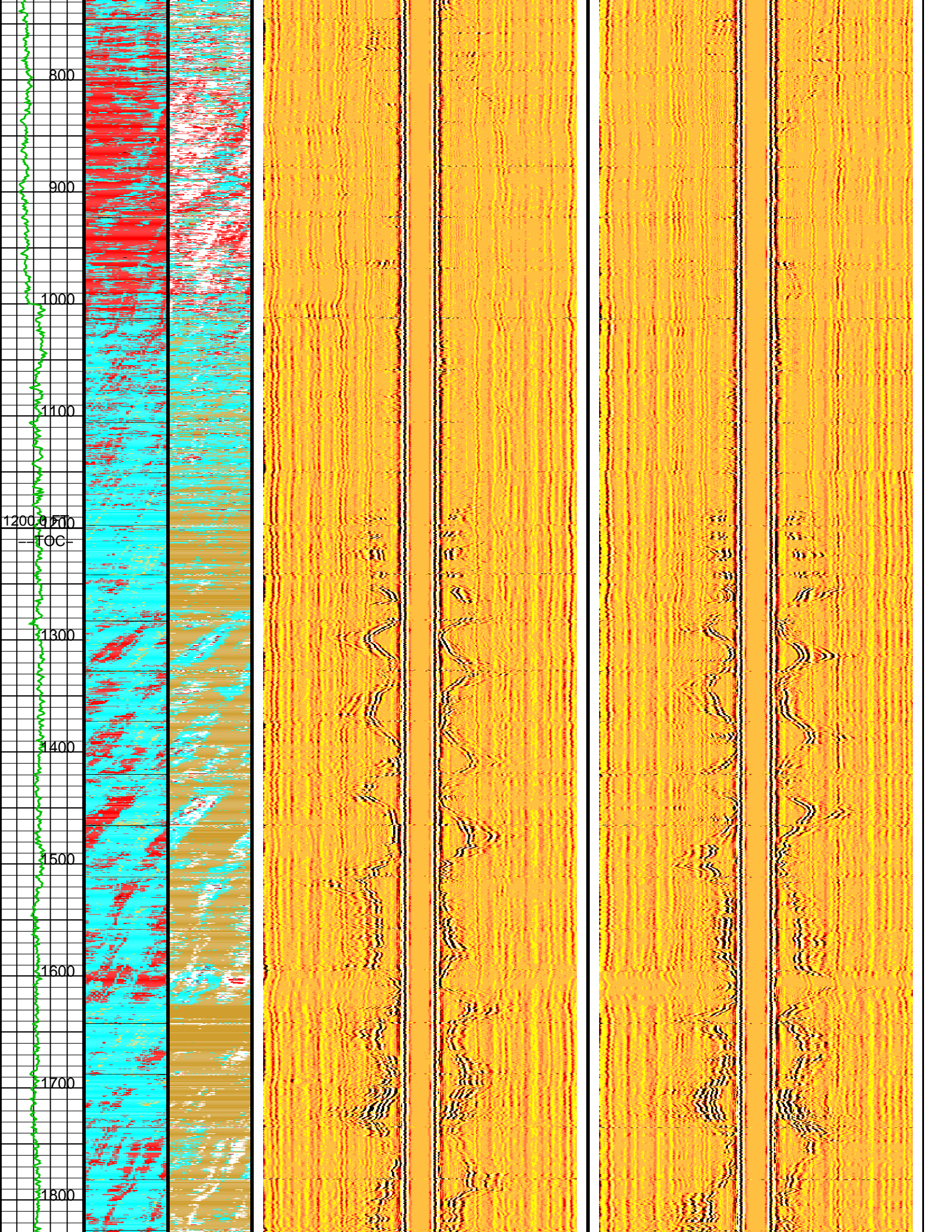
Changed Parameter Summary

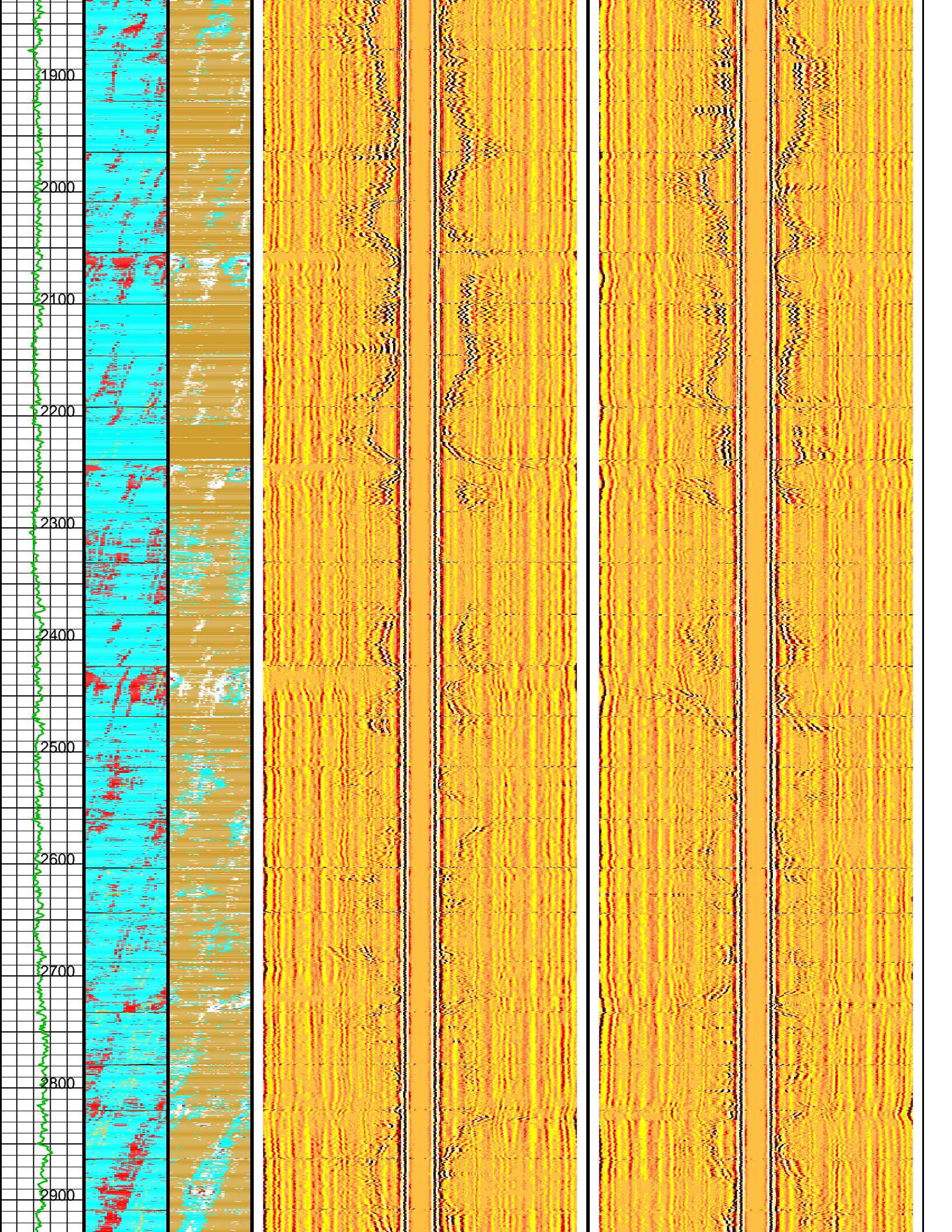
DLIS Name	New Value		Previous Value		Depth & Time
DFVL	201.5	US/F	204	US/F	7001.5 11:10:34
	204	US/F	201.5	US/F	6400.0 11:11:05
	205	US/F	204	US/F	3700.0 11:14:15
	206	US/F	205	US/F	1500.0 11:16:16
	207	US/F	206	US/F	700.0 11:17:04
ZMUD	1.7	MRAY	1.7	MRAY	7001.5 11:10:34
	1.7	MRAY	1.7	MRAY	6400.0 11:11:05
	1.7	MRAY	1.7	MRAY	3700.0 11:14:15
	1.7	MRAY	1.7	MRAY	1500.0 11:16:16
	1.7	MRAY	1.7	MRAY	700.0 11:17:04

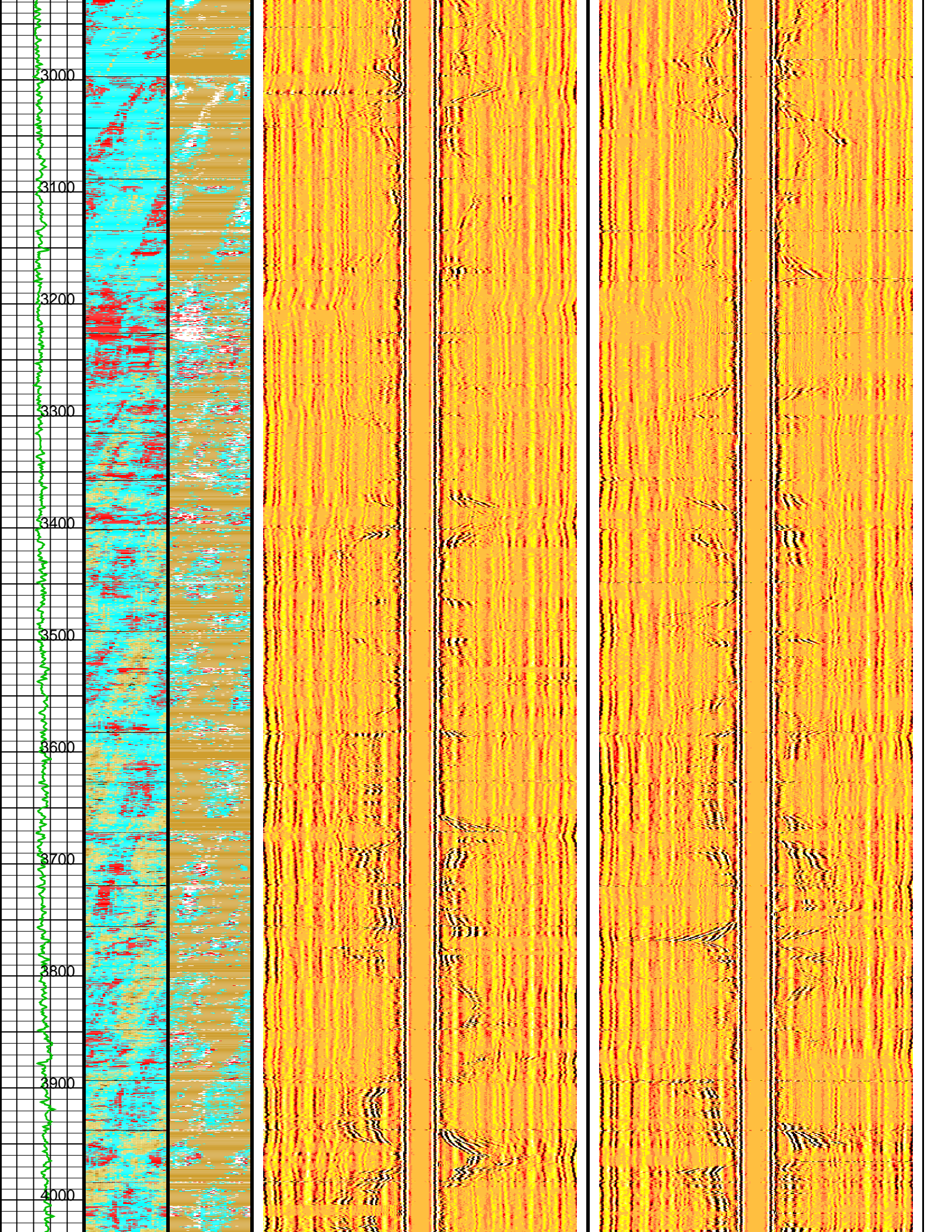
Tool/Tot.
Drag
From D4T
to STIA

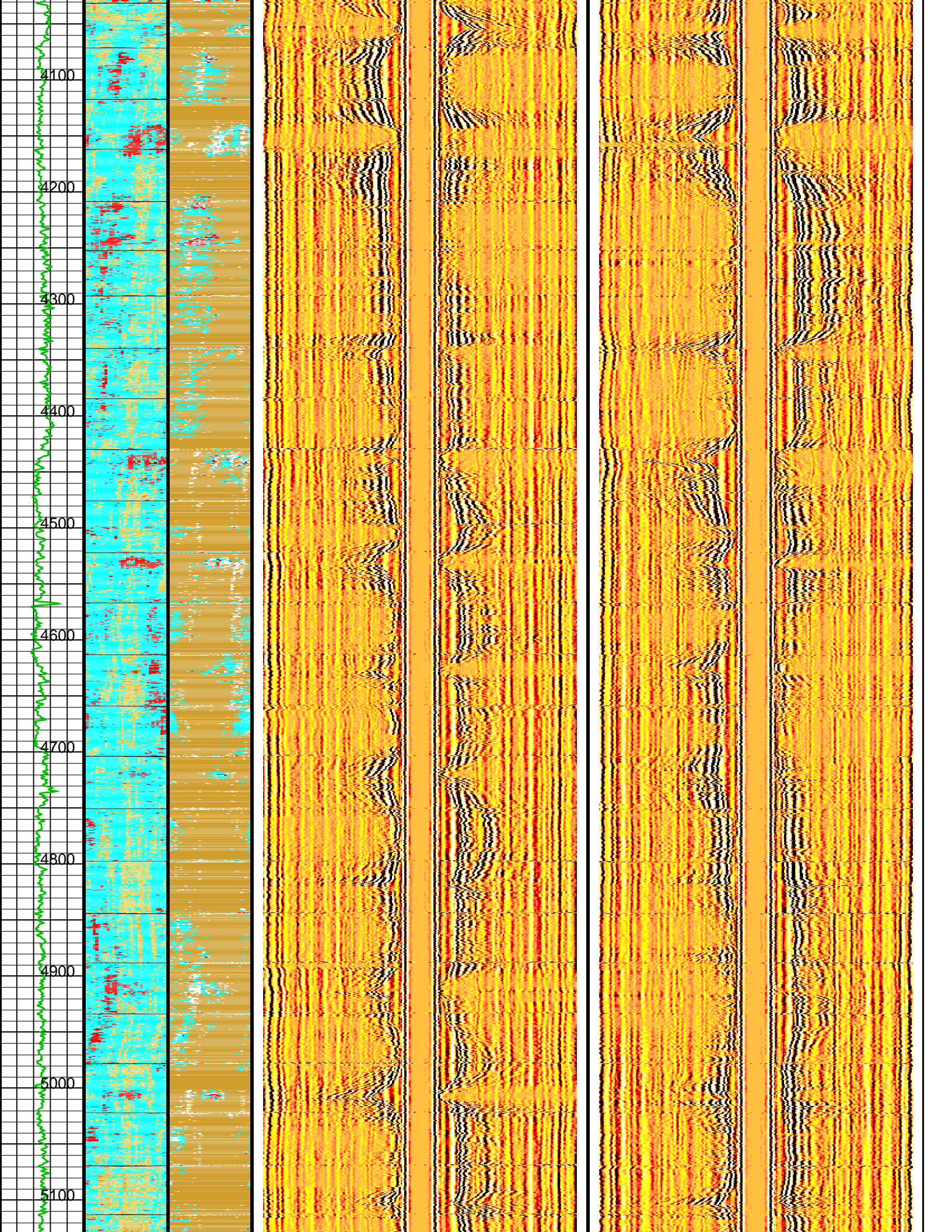
Cable
Drag

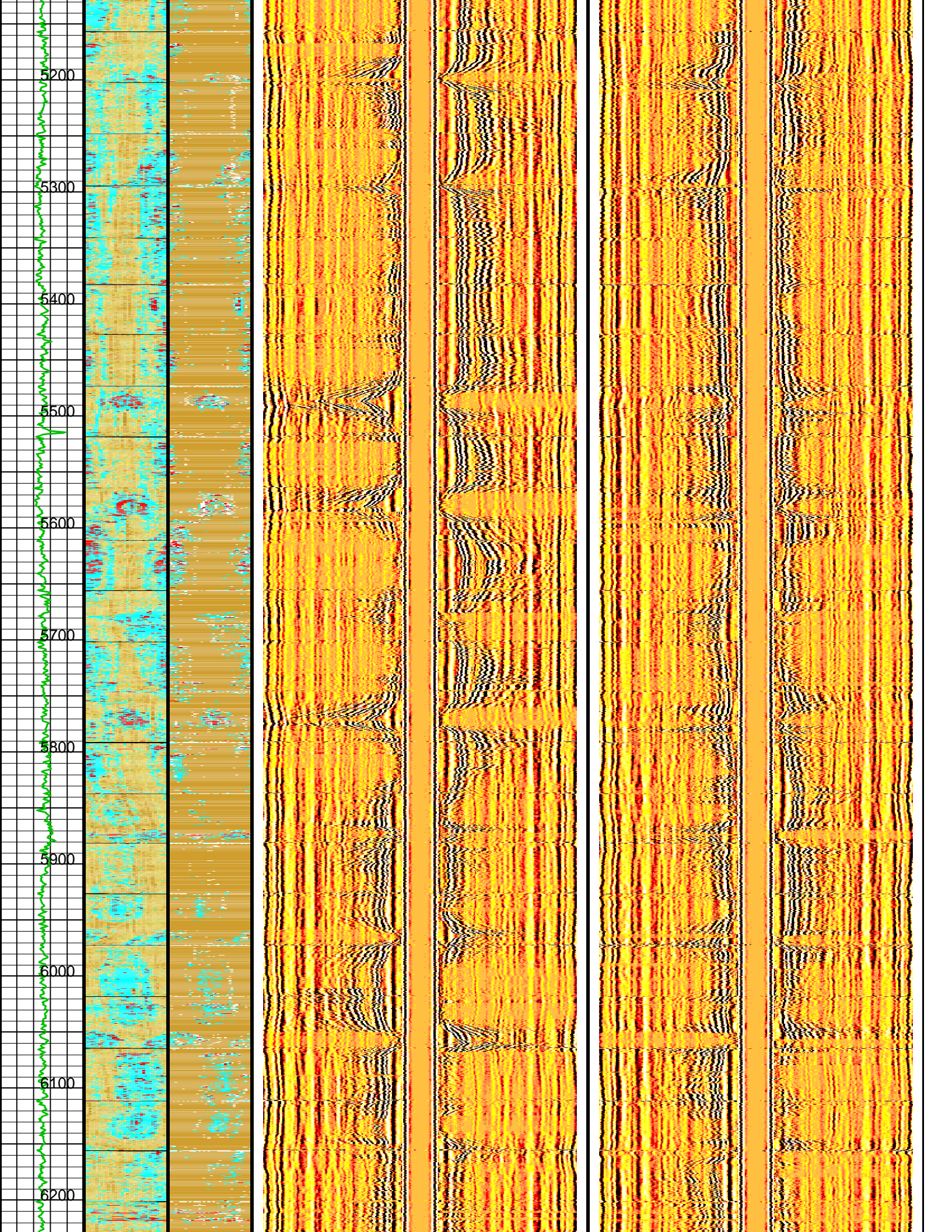


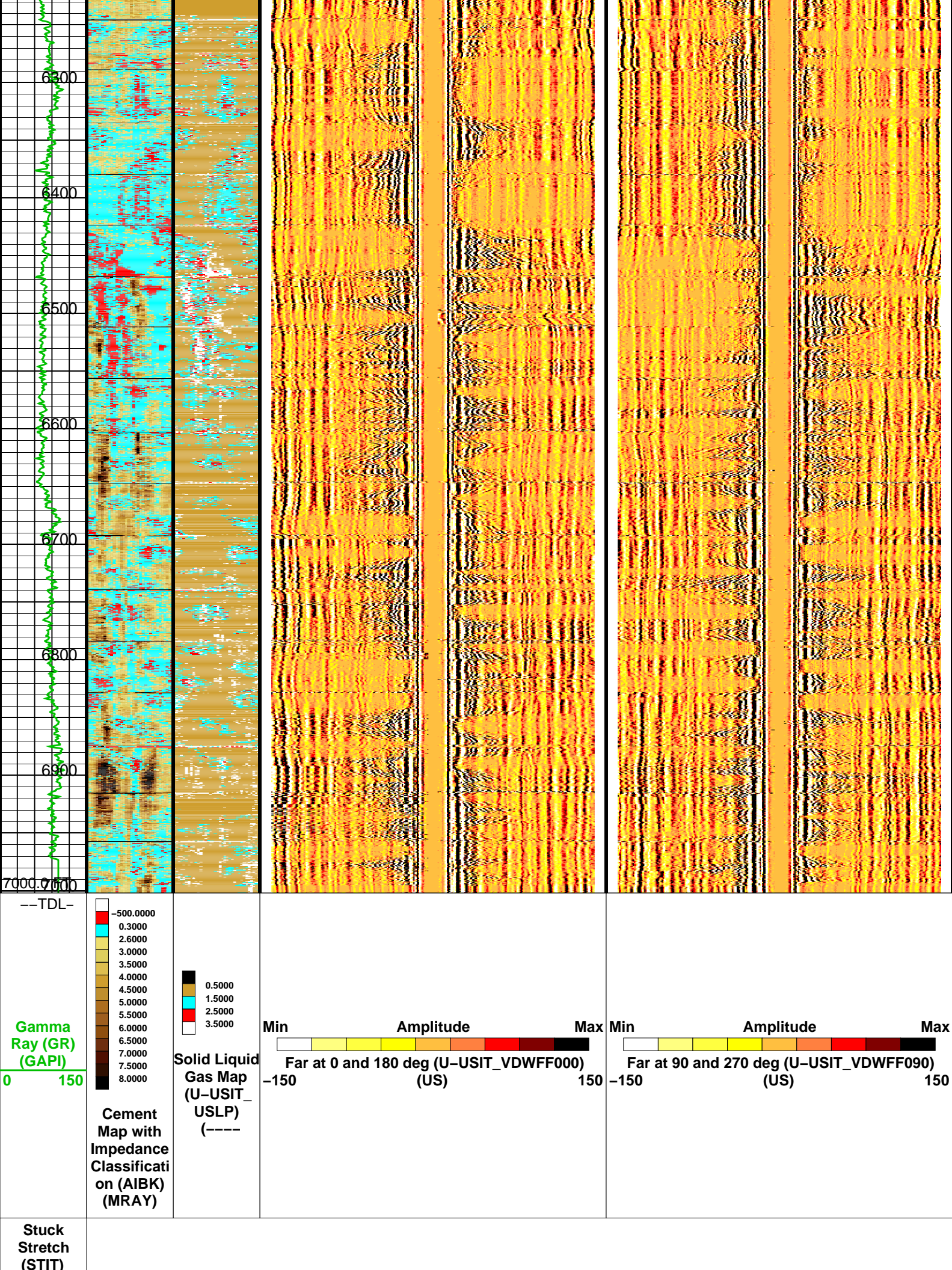












Cable Drag From D4T to STIT
Tool/Tot. Drag From D4T to STIA

Parameters

DLIS Name	Description	Value
USIT-D: Ultrasonic Imaging - D		
AGMN	Minimum Gain of Cartridge	-4 DB
AGMX	Maximum Gain of Cartridge	20 DB
BERJ	Bad Echo Rejection	ON
CDIA	Casing Outer Diameter	7 IN
CSDE	Casing Density	486.94 LBCF
CSID	Casing Inner Diameter	6.276 IN
DFVL	Default Fluid Velocity	204 US/F
DOT	Diameter of Transducer Sensor	2.874 IN
EMXV	EMEX Voltage	80 V
FDII	FPM Data Interpolation Interval	0 FT
IMAR	Image Rotation	OFF
MW	Mud Weight	9.5 LB/G
RCOD	Reference Calibrator Outer Diameter	7 IN
RCSO	Reference Calibrator Standoff	1.1811 IN
RCTH	Reference Calibrator Thickness	0.2952 IN
TCUB	T^3 Processing Level	Vax_Loop
THDH	Maximum Search Thickness (percentage of nominal)	130
THDL	Minimum Search Thickness (percentage of nominal)	70
THDP	Thickness Detection Policy	Fundamental
THNO	Nominal Thickness of Casing	0.362 IN
U-USIT_CEMT	USIT Cement Type	LIGHT
U-USIT_DFSZ	Drilling Fluid Specific Acoustic Impedance	0 MRAY
U-USIT_IISR	USIT IBC Inverted Fluid Slowness Resolution	1.0_US_P_FT
U-USIT_IIZR	USIT IBC Inverted ZMUD Resolution	0.050_MRAY
U-USIT_OCDI	USIT Outer Casing Diameter	0 IN
U-USIT_OCSH	USIT Outer Casing Shoe	0 FT
U-USIT_OCWE	USIT Outer Casing Weight	0 LB/F
U-USIT_TIEB	IBC Third Interface Echo Bin Processing	YES
U-USIT_TIEC	IBC Third Interface Echo Cleaning	NONE
U-USIT_TIEM	IBC Third Interface Echo Multi Tracking	NO
U-USIT_TIEP	IBC Third Interface Echo Policy	BFEP
U-USIT_TIER	IBC Third Interface Echo Receivers	BOTH
U-USIT_U3WE	Third Interface Echo Window End	110 US
U-USIT_UBTP	USIT Bottom Transducer Position	UNKNOWN
U-USIT_UFAO	USIT Flexural Attenuation Offset	2 DB/M
U-USIT_UIAP	USIT IBC Answer Product Enabled	SolidLiquidGasMap
U-USIT_UIST	Ultrasonic IBC Sonde Type	Sub_ibcs_B
U-USIT_UTAN	USIT Transducer Angles	33_DEG
UMAO	USIT Measurement Angular Offset	-10 DEG
USTO	Ultrasonic Time Offset	-2 US
USUB	Ultrasonic Subassembly Identifier	Sub_7_inch
UWKM	Ultrasonic Working Mode	10DEG_6IN_136UNF_LF
VCAS	Ultrasonic Transversal Velocity in Casing	51.4 US/F
WLEN	T^3 Processing Length	21.7078 US
ZCAS	Acoustic Impedance of Casing	46.25 MRAY
ZINI	Initial Estimate of Cement Impedance	-1 MRAY
ZMUD	Acoustic Impedance of Mud	1.7 MRAY
ZTCM	Acoustic Impedance Threshold for Cement	2.6 MRAY
ZTGS	Acoustic Impedance Threshold for Gas	0.3 MRAY
STI: Stuck Tool Indicator		
LBFR	Trigger for MAXIS First Reading Label	STI
STKT	STI Stuck Threshold	2.5 FT
TDD	Total Depth - Driller	9190.00 FT
TDL	Total Depth - Logger	7000.00 FT
System and Miscellaneous		
BS	Bit Size	8.750 IN
CWEI	Casing Weight	26.00 LB/F
DO	Depth Offset for Playback	2.0 FT
PP	Playback Processing	NORMAL

Input DLIS Files

DEFAULT	USI_014LUP	FN:13	PRODUCER	21-Jun-2012 06:58	6999.5 FT	29.0 FT
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Output DLIS Files

DEFAULT	USI_024PUP	FN:23	PRODUCER	21-Jun-2012 11:10
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Schlumberger

Compressed Goodwin
0.1" = 100'

MAXIS Field Log

Company: Encana Oil & Gas Inc	Well: Stelling 3A-4H
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Input DLIS Files

DEFAULT	USI_014LUP	FN:13	PRODUCER	21-Jun-2012 06:58	6999.5 FT	29.0 FT
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Output DLIS Files

DEFAULT	USI_024PUP	FN:23	PRODUCER	21-Jun-2012 11:10
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OP System Version: 19C0-187

Minimum Acoustic Impedance #2 (MIN_ AI2) (MRAY)	Minimum Acoustic Impedance #4 (MIN_ AI4) (MRAY)	Minimum Acoustic Impedance #6 (MIN_ AI6) (MRAY)	Minimum Acoustic Impedance #8 (MIN_ AI8) (MRAY)			
-7.5 7.5	-7.5 7.5	-7.5 7.5	-7.5 7.5			
Minimum Acoustic Impedance #1 (MIN_ AI1) (MRAY)	Minimum Acoustic Impedance #3 (MIN_ AI3) (MRAY)	Minimum Acoustic Impedance #5 (MIN_ AI5) (MRAY)	Minimum Acoustic Impedance #7 (MIN_ AI7) (MRAY)			
0 15	0 15	0 15	0 15			
Maximum Acoustic Impedance #2 (MAX_ AI2) (MRAY)	Maximum Acoustic Impedance #4 (MAX_ AI4) (MRAY)	Maximum Acoustic Impedance #6 (MAX_ AI6) (MRAY)	Maximum Acoustic Impedance #8 (MAX_ AI8) (MRAY)			
-7.5 7.5	-7.5 7.5	-7.5 7.5	-7.5 7.5			
Maximum Acoustic Impedance #1 (MAX_ AI1) (MRAY)	Maximum Acoustic Impedance #3 (MAX_ AI3) (MRAY)	Maximum Acoustic Impedance #5 (MAX_ AI5) (MRAY)	Maximum Acoustic Impedance #7 (MAX_ AI7) (MRAY)	Minimum Acoustic Impedance #9 (MIN_ AI9) (MRAY)	Maximum of AI (AIMX) (MRAY)	Maximum Flexural Attenuation (U-USIT_ UFAX) (DB/M)
				0 7.5		

	0	15	0	15	0	15	0	15		40	140
Gamma Ray (GR) (GAPI)	Average Acoustic Impedance #2 (AV_AI2) (MRAY)	Average Acoustic Impedance #4 (AV_AI4) (MRAY)	Average Acoustic Impedance #6 (AV_AI6) (MRAY)	Average Acoustic Impedance #8 (AV_AI8) (MRAY)	Maximum Acoustic Impedance #9 (MAX_AI9) (MRAY)	Minimum of AI (AIMN) (MRAY)	Average Flexural Attenuation (U-USIT_UFAV) (DB/M)				
0 150	-7.5 7.5	-7.5 7.5	-7.5 7.5	-7.5 7.5	0 15	0 7.5	40 140				

Eccent. (ECCE) (IN) 0.5	Average Acoustic Impedance #1 (AV_AI1) (MRAY)	Average Acoustic Impedance #3 (AV_AI3) (MRAY)	Average Acoustic Impedance #5 (AV_AI5) (MRAY)	Average Acoustic Impedance #7 (AV_AI7) (MRAY)	Average Acoustic Impedance #9 (AV_AI9) (MRAY)	Average of AI (AIAV) (MRAY)	Minimum Flexural Attenuation (U-USIT_UFAN) (DB/M)			
0 15	0 15	0 15	0 15	0 15	0 15	0 7.5	40 140			

-500.0000
0.5000
1.0000
1.5000
2.0000
2.5000
3.0000
3.5000
4.0000
4.5000
5.0000
5.5000
6.0000
6.5000
7.0000
7.5000
8.0000

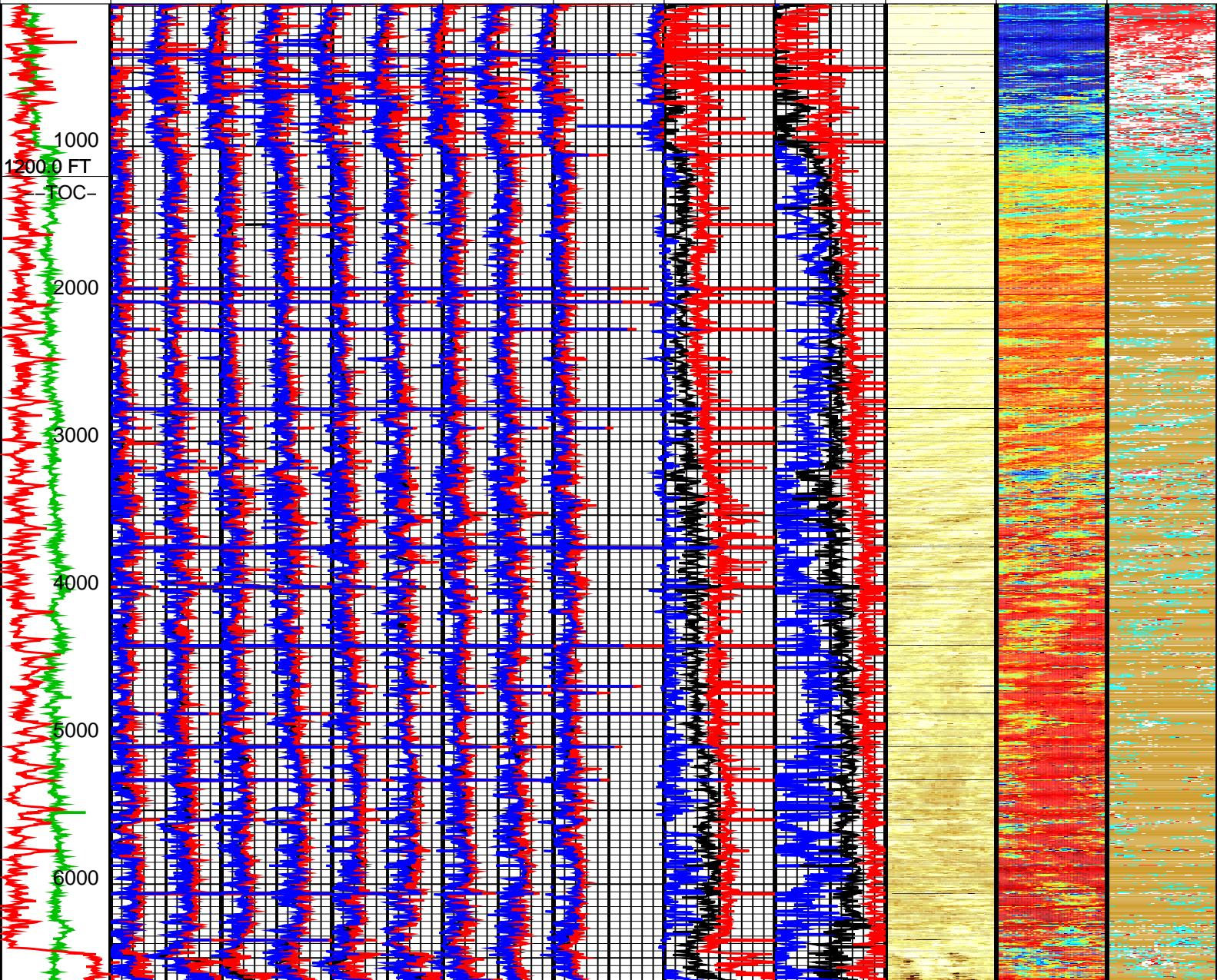
0.0000
30.0000
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48.0000
54.0000
60.0000
66.0000
72.0000
78.0000
84.0000
90.0000
96.0000
102.0000
108.0000
114.0000
120.0000

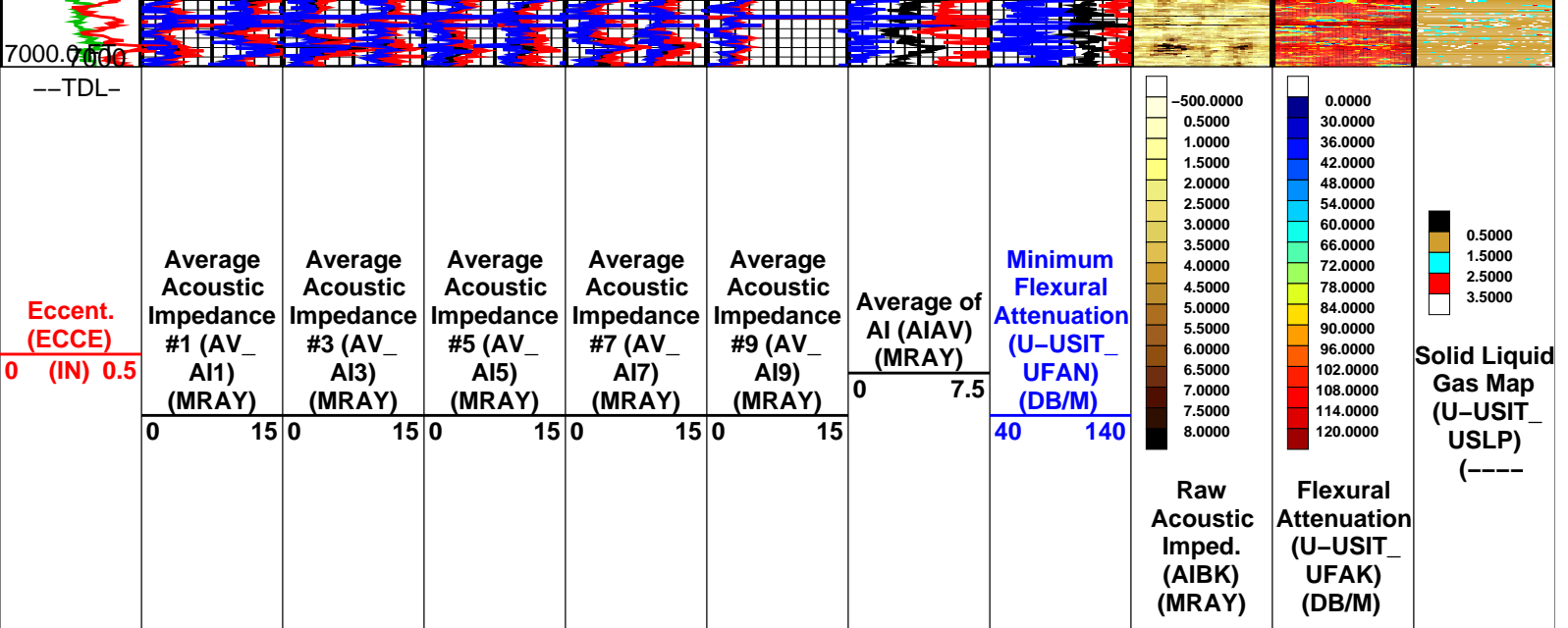
0.5000
1.5000
2.5000
3.5000

Raw Acoustic Imped. (AIBK) (MRAY)

Flexural Attenuation (U-USIT_UFAK) (DB/M)

Solid Liquid Gas Map (U-USIT_USLP) (----)





Format: IBC Goodwin Compressed Vertical Scale: 0.1" per 100' Graphics File Created: 21-Jun-2012 11:10

OP System Version: 19C0-187

USIT-D 19C0-187 SGT-N 19C0-187
DTC-H 19C0-187

All USI Images are outside views

USI : LOW Frequency Compression Mode Used For Logging.
Recommended casing thickness range for optimum cement impedance measurement : 0.27 to 0.6 IN.

Input DLIS Files

DEFAULT USI_014LUP FN:13 PRODUCER 21-Jun-2012 06:58 6999.5 FT 29.0 FT

Output DLIS Files

DEFAULT USI_024PUP FN:23 PRODUCER 21-Jun-2012 11:10

Schlumberger

Repeat Pass

MAXIS Field Log

Schlumberger

SLG Composite
5" = 100'

MAXIS Field Log

Company: Encana Oil & Gas Inc Well: Stelling 3A-4H

Input DLIS Files

DEFAULT USI_020LUP FN:19 PRODUCER 21-Jun-2012 10:29 3646.0 FT 3080.0 FT

Output DLIS Files

DEFAULT USI_025PUP FN:24 PRODUCER 21-Jun-2012 11:28

OP System Version: 19C0-187

USIT-D 19C0-187 SGT-N 19C0-187
DTC-H 19C0-187

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
DFVL	205 US/F	207 US/F	3648.0 11:28:23
ZMUD	1.7 MRAY	1.7 MRAY	3648.0 11:28:23

Tool/Tot.
Drag
From D4T
to STIA

Cable Drag From D4T to STIT

Stuck
Stretch
(STIT)

RSAV (RSAV) (RPS)	6	7.5
-------------------------	---	-----

CCL
(CCLU)
(----

Process.
flags
(UFLG)
(----

Amplitude of echo minus Max (AWBK) (DB)

Min of Internal radius (IRMN) (IN)		Min of Internal radius (IRMN) (IN)	
3.7	2.7	2.7	3.7

Internal radius Maximum (IRMx) (IN)	Internal radius Maximum (IRMx) (IN)
3.7 2.7	2.7 3.7

Maximum of Thickness (THMX) (IN)	0.1	0.6
--	-----	-----

Internal radius Average (IRAV) (IN)		Internal radius Average (IRAV) (IN)	
3.7	2.7	2.7	3.7

Average of Thickness (THAV) (IN)	
0.1	0.6

Eccent.
(ECCE)

Gamma Ray (GR)
(GAPI)

Image rotation (UCAZ) (DEG)
0
360

[illegible]

Internal radii minus Ave (IRBK) (IN)

Min of Thickness (THMN) (IN)
0.1
0.6

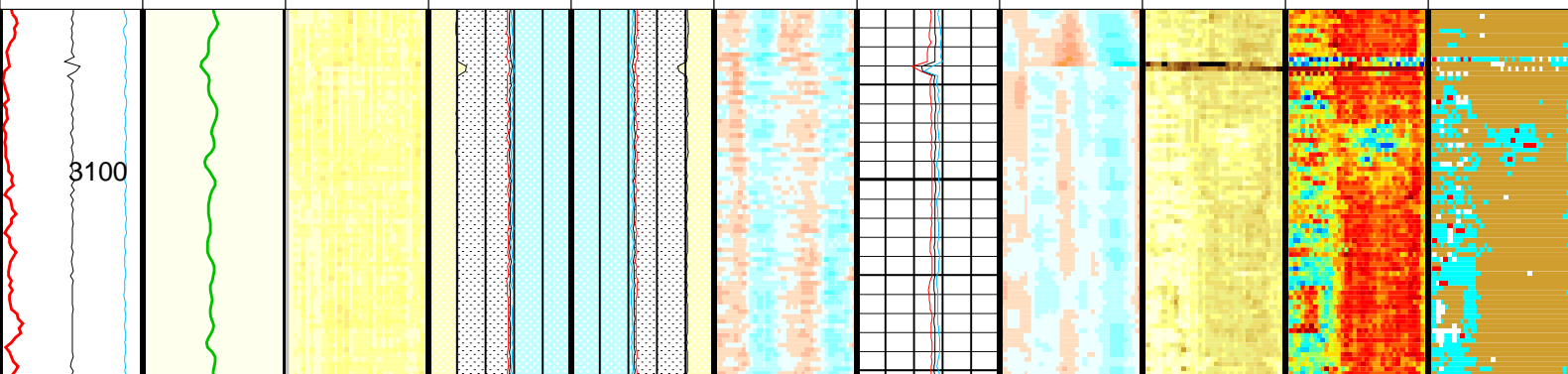
Thickness
minus Ave
(THBK)
(IN)

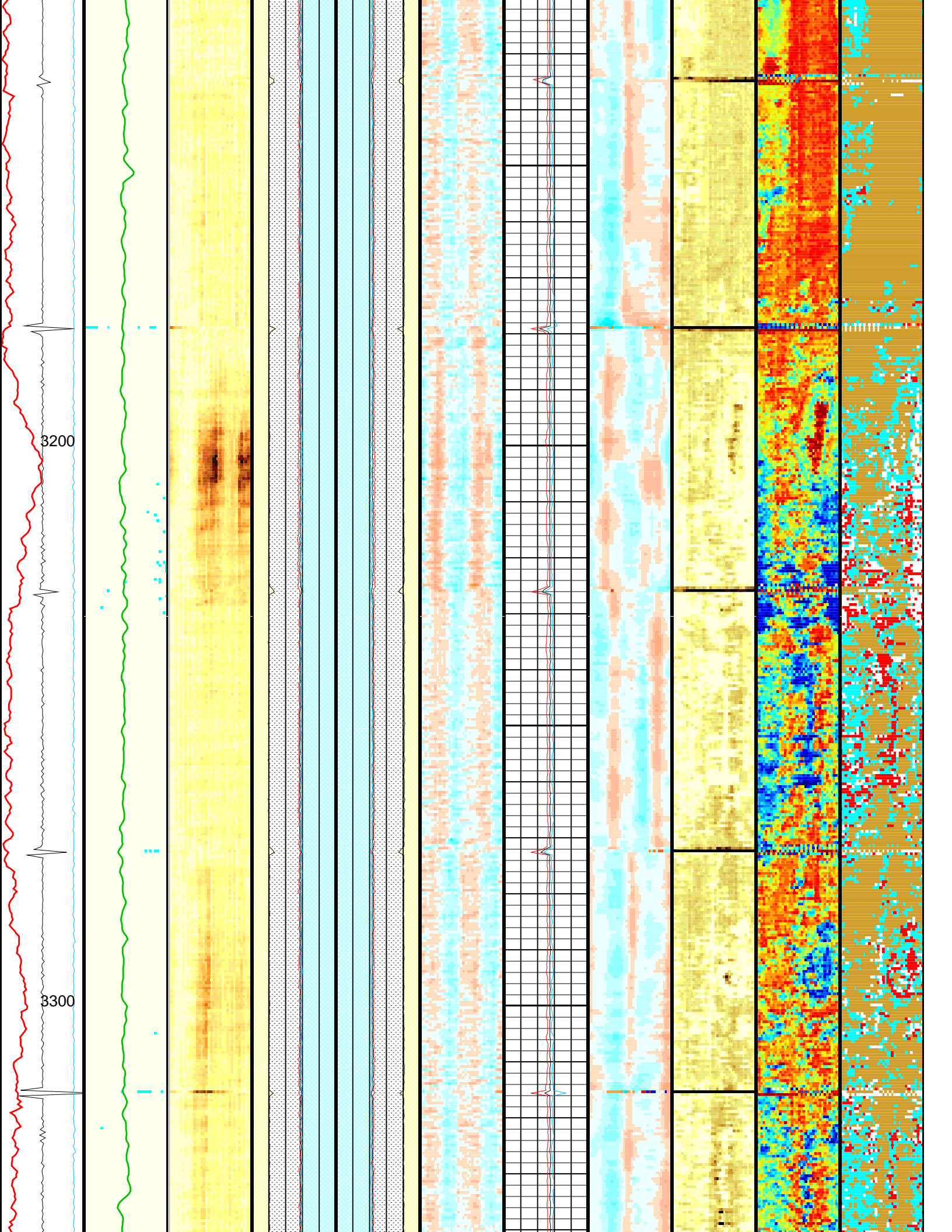
Raw
Acoustic
Imped.
(AIBK)
(MRAY)

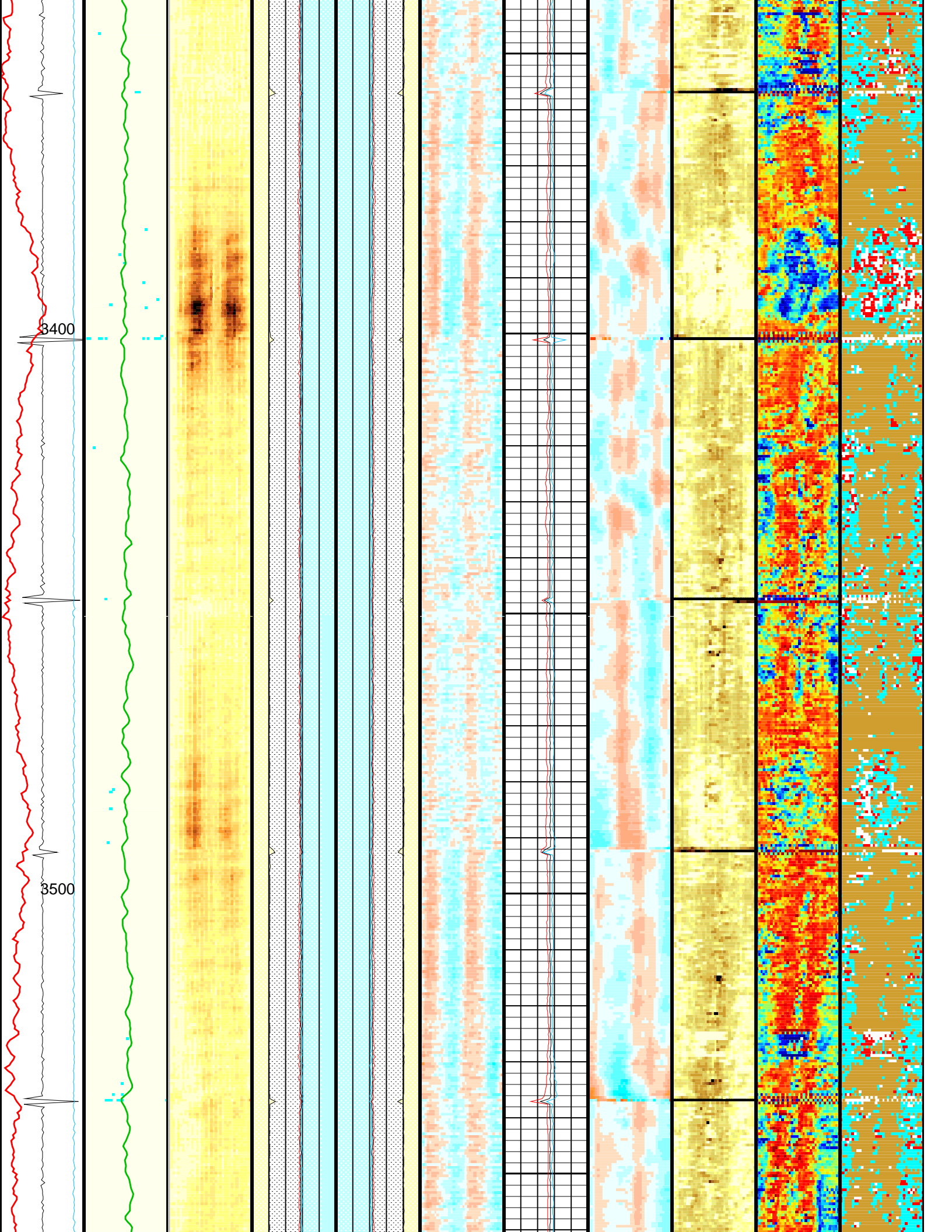
Flexural Attenuation (U-USIT_UFAK) (DB/M)

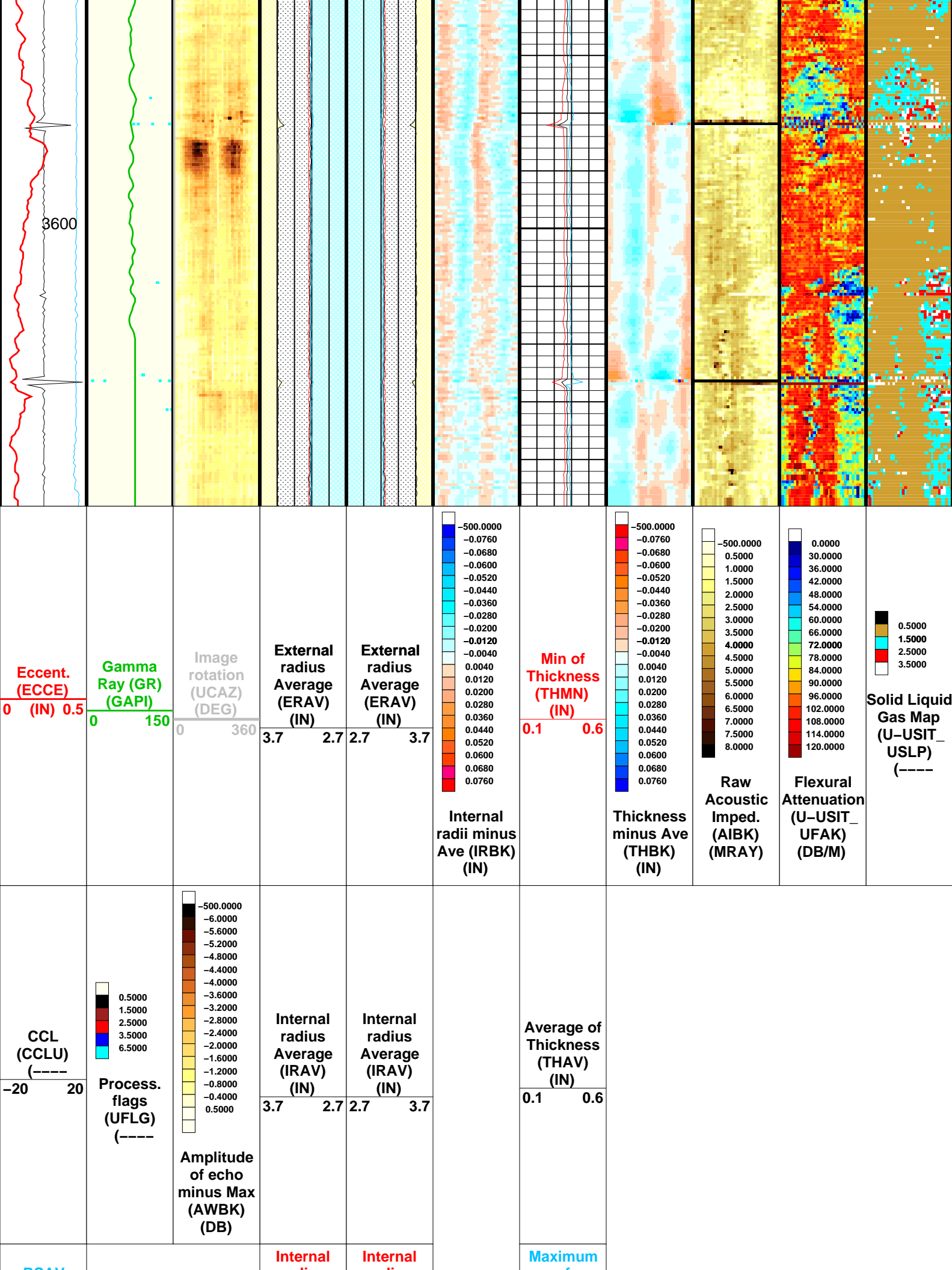
0.5000
1.5000
2.5000
3.5000

**Solid Liquid
Gas Map
(U-USIT_
USLP)
(----**









	6	7.5
Stuck Stretch (STIT)	0	(F) 50
Cable Drag From D4T to STIT		
Tool/Tot. Drag From D4T to STIA		

radius Maximum (IRMX) (IN)		radius Maximum (IRMX) (IN)	
3.7	2.7	2.7	3.7
Min of Internal radius (IRMN) (IN)		Min of Internal radius (IRMN) (IN)	
3.7	2.7	2.7	3.7

Thickness (THMX) (IN)
0.1
0.6

Format: 5 inch IBC CEMENT COMPOSITE Vertical Scale: 5" per 100' Graphics File Created: 21-Jun-2012 11:28

OP System Version: 19C0-187

USIT-D	19C0-187	SGT-N	19C0-187
DTC-H	19C0-187		

All USI Images are outside views

USI : LOW Frequency Compression Mode Used For Logging.

Recommended casing thickness range for optimum cement impedance measurement : 0.27 to 0.6 IN.

Parameters

DLIS Name	Description	Value	
	USIT-D: Ultrasonic Imaging – D		
	Corrosion range maximum	0.076	IN
	T^3 Processing Length for FPM	26.648	US
	Corrosion range minimum	-0.076	IN
AGMN	Minimum Gain of Cartridge	-4	DB
AGMX	Maximum Gain of Cartridge	20	DB
BERJ	Bad Echo Rejection	ON	
CDIA	Casing Outer Diameter	7	IN
CDUN	Curves Unit Declared in Presentation Manager	IN	
CSDE	Casing Density	486.94	LBC/F
CSID	Casing Inner Diameter	6.276	IN
CYST	Casing Yield Strength	0	PSI
DFVL	Default Fluid Velocity	207	US/F
DOT	Diameter of Transducer Sensor	2.874	IN
EMXV	EMEX Voltage	80	V
FDII	FPM Data Interpolation Interval	0	FT
FSOD	Fluid Slowness Fits Casing Outer Diameter	0_OFF	
IMAR	Image Rotation	OFF	
MW	Mud Weight	9.5	LB/G
OPLV	USIT Remove Flagged Data Level	level2	
RCOD	Reference Calibrator Outer Diameter	7	IN
RCSO	Reference Calibrator Standoff	1.1811	IN
RCTH	Reference Calibrator Thickness	0.2952	IN
SDNV	Number of Vertical Samples used for Micro-debonding Computation	5	
SDTHOR	Acoustic Impedance STD Horizontal Threshold for Micro-debonding	0.5	
SDTVER	Acoustic Impedance STD Vertical Threshold for Micro-debonding	0.3	
SUBT	Ultrasonic Subassembly Type	Sub_7_inch_S	
TCUB	T^3 Processing Level	Vax_Loop	
THDH	Maximum Search Thickness (percentage of nominal)	130	
THDL	Minimum Search Thickness (percentage of nominal)	70	
THDR	Thickness Detection Reliance	Fundamental	

THNO	Thickness Detection Policy	Fundamental	0.362	IN
TMUC	Type of Mud	WBM		
U-USIT_CEMT	USIT Cement Type	LIGHT		
U-USIT_DFSZ	Drilling Fluid Specific Acoustic Impedance	0		MRAY
U-USIT_IISR	USIT IBC Inverted Fluid Slowness Resolution	1.0_US_P_FT		
U-USIT_IIZR	USIT IBC Inverted ZMUD Resolution	0.050_MRAY		
U-USIT_OCDI	USIT Outer Casing Diameter	0		IN
U-USIT_OCSH	USIT Outer Casing Shoe	0		FT
U-USIT_OCWE	USIT Outer Casing Weight	0		LB/F
U-USIT_RFWB	USIT Remove Flagged Data Window Begin	0		US
U-USIT_RFWE	USIT Remove Flagged Data Window End	511		US
U-USIT_TIEB	IBC Third Interface Echo Bin Processing	YES		
U-USIT_TIEC	IBC Third Interface Echo Cleaning	NONE		
U-USIT_TIEM	IBC Third Interface Echo Multi Tracking	NO		
U-USIT_TIEP	IBC Third Interface Echo Policy	BFEP		
U-USIT_TIER	IBC Third Interface Echo Receivers	BOTH		
U-USIT_U3WE	Third Interface Echo Window End	110		US
U-USIT_UBTP	USIT Bottom Transducer Position	UNKNOWN		
U-USIT_UDFC	USIT Deflector for Casing	NONE		
U-USIT_UFAO	USIT Flexural Attenuation Offset	2		DB/M
U-USIT_UFGA	Far Receiver Maximum Gain of Cartridge	48		DB
U-USIT_UFGI	Far Receiver Minimum Gain of Cartridge	-12		DB
U-USIT_UHCI	USIT IBC Hydraulic Communication Interval	06FT_02M		
U-USIT_UIAP	USIT IBC Answer Product Enabled	SolidLiquidGasMap		
U-USIT_UIST	Ultrasonic IBC Sonde Type	Sub_ibcs_B		
U-USIT_UNGA	Near Receiver Maximum Gain of Cartridge	48		DB
U-USIT_UNGI	Near Receiver Minimum Gain of Cartridge	-12		DB
U-USIT_URTP	USIT Radial Transducer Position	UNKNOWN		
U-USIT_UTAN	USIT Transducer Angles	33_DEG		
UMAO	USIT Measurement Angular Offset	-10		DEG
UPAT	Emission Pattern	Pattern_375K		
USIT_USAC_TASK_ALLOW	USIT USAC Allow Task after Power Up	YES		
USIT_USAC_TASK_TIMEOUT	USIT USAC Task Timeout (in seconds) FOR TEST REPORT	600		
USTO	Ultrasonic Time Offset	-2		US
USUB	Ultrasonic Subassembly Identifier	Sub_7_inch		
UWKM	Ultrasonic Working Mode	10DEG_6IN_136UNF_LF		
VCAS	Ultrasonic Transversal Velocity in Casing	51.4		US/F
WLEN	T^3 Processing Length	21.7078		US
ZCAS	Acoustic Impedance of Casing	46.25		MRAY
ZINI	Initial Estimate of Cement Impedance	-1		MRAY
ZMUD	Acoustic Impedance of Mud	1.7		MRAY
ZTCM	Acoustic Impedance Threshold for Cement	2.6		MRAY
ZTGS	Acoustic Impedance Threshold for Gas	0.3		MRAY
SGT-N: Scintillation Gamma Ray Tool - N				
BHS	Borehole Status	CASED		
BHT	Bottom Hole Temperature (used in calculations)	221		DEGF
DPPM	Density Porosity Processing Mode	STAN		
GCSE	Generalized Caliper Selection	BS		
GDEV	Average Angular Deviation of Borehole from Normal	0		DEG
GGRD	Geothermal Gradient	0.01		DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9		
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE		
ISSBAR	Barite Mud Switch	NOBARITE		
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE		
SHT	Surface Hole Temperature	68		DEGF
SOGR	SGT Standoff Distance	0		IN
STI: Stuck Tool Indicator				
LBFR	Trigger for MAXIS First Reading Label	STI		
STKT	STI Stuck Threshold	2.5		FT
TDD	Total Depth - Driller	9190.00		FT
TDL	Total Depth - Logger	7000.00		FT
System and Miscellaneous				
ALTDPCCHAN	Name of alternate depth channel	SpeedCorrectedDepth		
BS	Bit Size	8.750		IN
BSAL	Borehole Salinity	-50000.00		PPM
CSIZ	Current Casing Size	7.000		IN
CWEI	Casing Weight	26.00		LB/F
DFD	Drilling Fluid Density	9.50		LB/G
DO	Depth Offset for Playback	2.0		FT
FLEV	Fluid Level	0.00		FT
MST	Mud Sample Temperature	-50000.00		DEGF
PBVSADP	Use alternate depth channel for playback	NO		
PP	Playback Processing	NORMAL		
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000		OHMM
RW	Resistivity of Connate Water	1.0000		OHMM
TD	Total Depth	-50000		FT
TWS	Temperature of Connate Water Sample	100.00		DEGF

Input DLIS Files

DEFAULT USI_020LUP FN:19 PRODUCER 21-Jun-2012 10:29 3646.0 FT 3080.0 FT

Output DLIS Files



Solid-Liquid-Gas
2" = 100'

MAXIS Field Log

Company: Encana Oil & Gas Inc

Well: Stelling 3A-4H

Input DLIS Files						
DEFAULT	USI_020LUP	FN:19	PRODUCER	21-Jun-2012 10:29	3646.0 FT	3080.0 FT
Output DLIS Files						
DEFAULT	USI_025PUP	FN:24	PRODUCER	21-Jun-2012 11:28		

OP System Version: 19C0-187						
USIT-D	19C0-187		SGT-N	19C0-187		
DTC-H	19C0-187					

Changed Parameter Summary						
DLIS Name		New Value		Previous Value		Depth & Time
DFVL		205	US/F	207	US/F	3648.0 11:28:23
ZMUD		1.7	MRAY	1.7	MRAY	3648.0 11:28:23

Image rotation (UCAZ) (DEG)

0360

Tool/Tot. Drag From D4T to STIA

Cable Drag From D4T to STIT

Stuck Stretch (STIT)

0(F)50

RSAV (RSAV) (RPS)

67.5

CCL

0.5000
1.5000
2.5000
3.5000

Maximum of AI (AIMX)

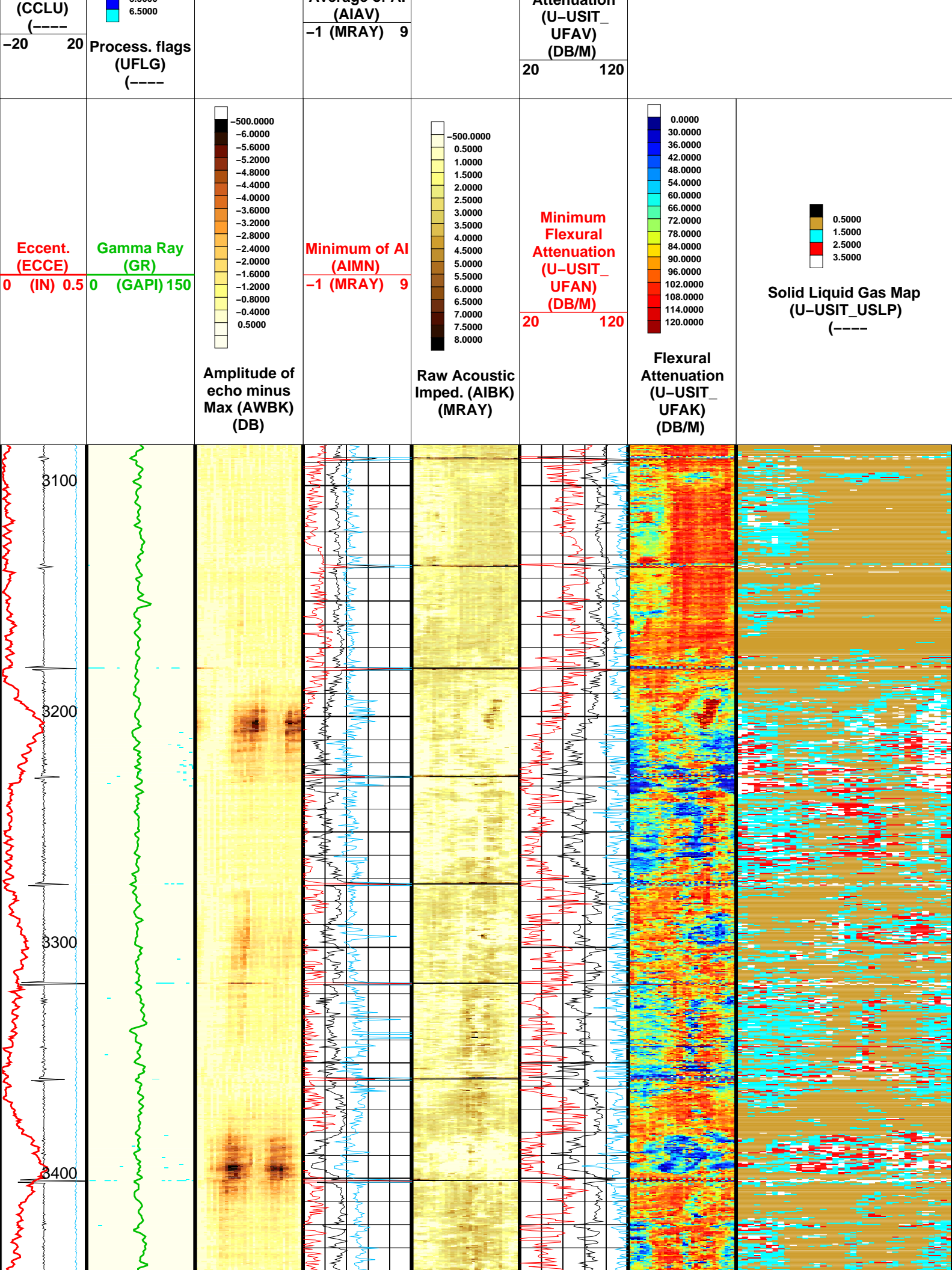
-1(MRAY)9

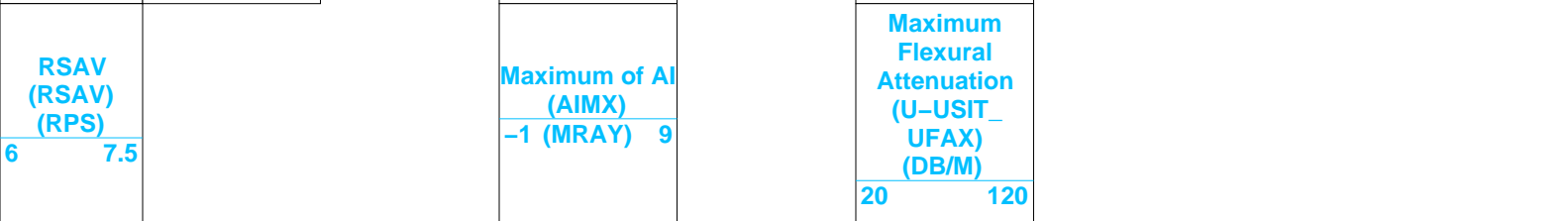
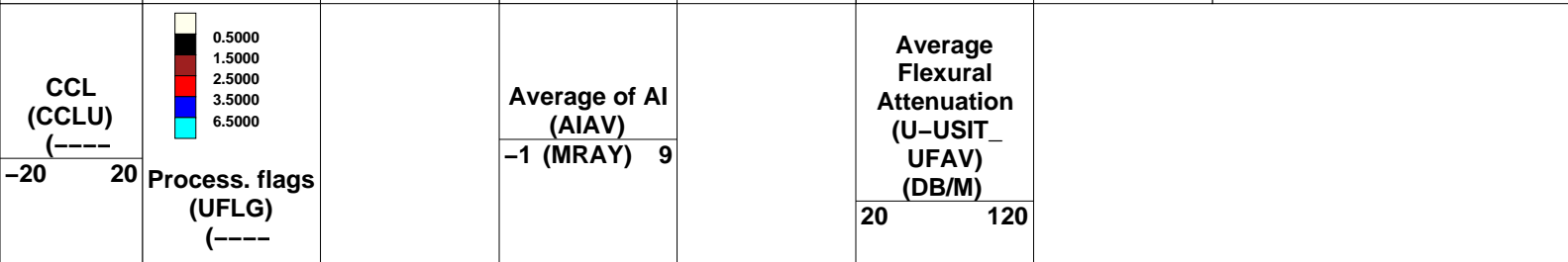
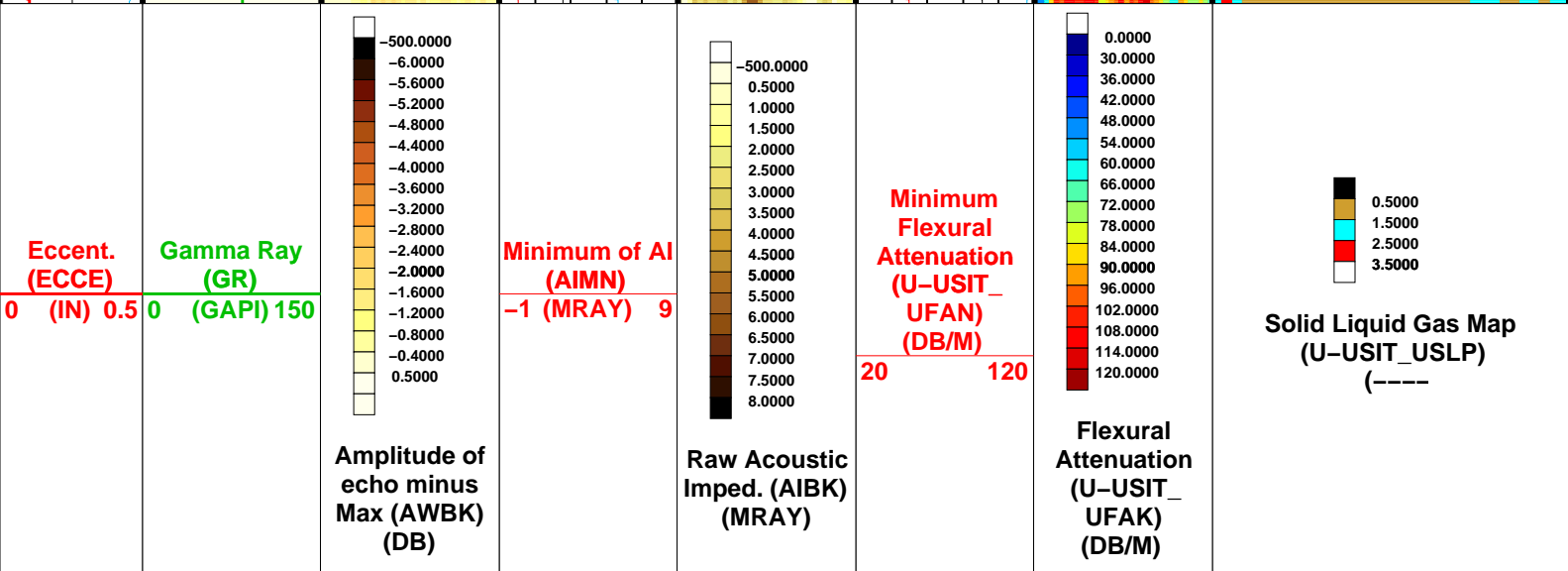
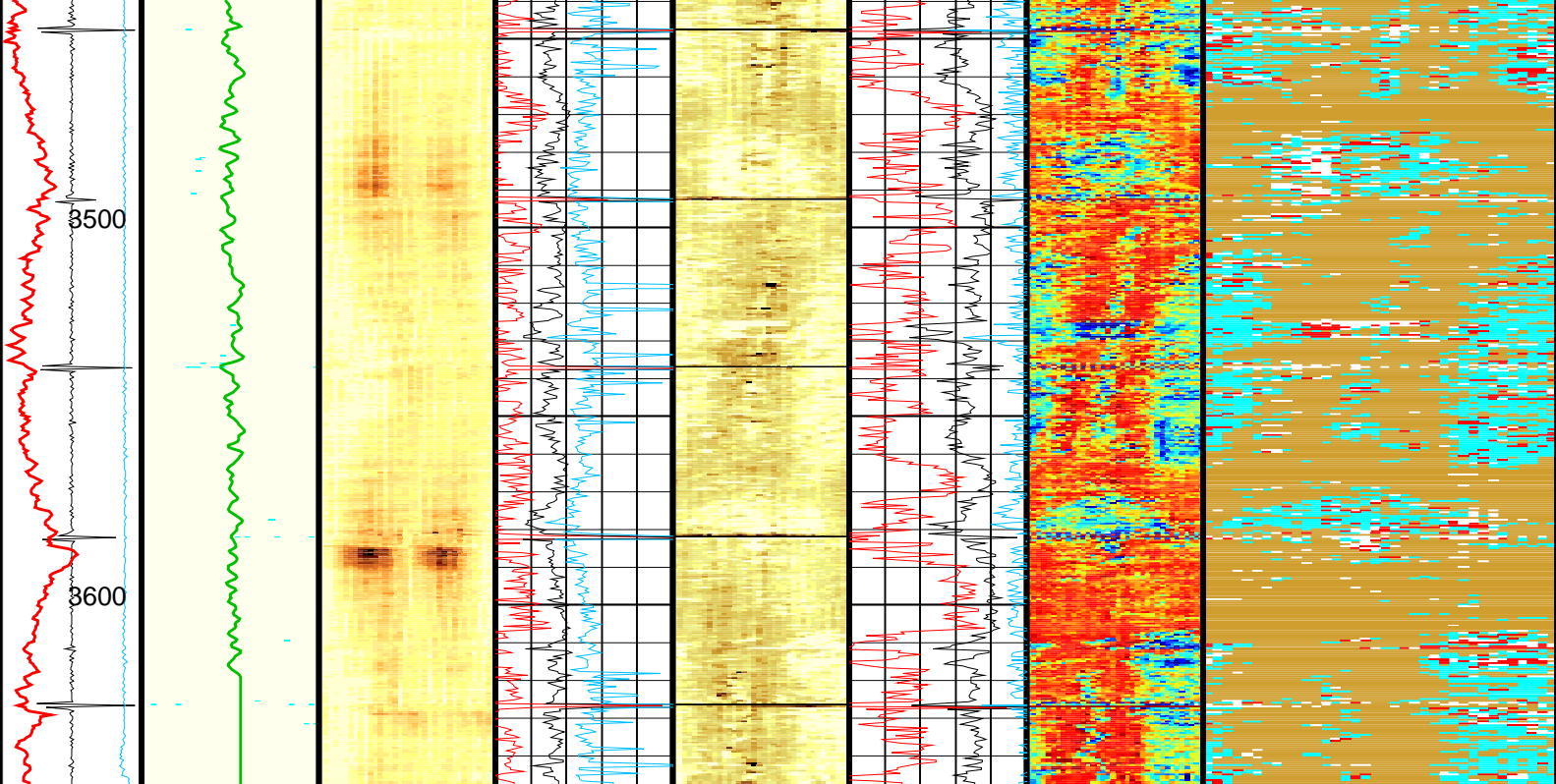
Average of AI

Maximum Flexural Attenuation (U-USIT_UFAX) (DB/M)

20120

Average Flexural Attenuation





to STIT	
Tool/Tot. Drag From D4T to STIA	
Image rotation (UCAZ) (DEG)	
0	360

Format: 2 inch IBC SLG Vertical Scale: 2" per 100' Graphics File Created: 21-Jun-2012 11:28

OP System Version: 19C0-187

USIT-D	19C0-187	SGT-N	19C0-187
DTC-H	19C0-187		

All USI Images are outside views

USI : LOW Frequency Compression Mode Used For Logging.

Recommended casing thickness range for optimum cement impedance measurement : 0.27 to 0.6 IN.

Parameters

DLIS Name	Description	Value
USIT-D: Ultrasonic Imaging - D		
AGMN	Minimum Gain of Cartridge	-4 DB
AGMX	Maximum Gain of Cartridge	20 DB
BERJ	Bad Echo Rejection	ON
CDIA	Casing Outer Diameter	7 IN
CSDE	Casing Density	486.94 LBCF
CSID	Casing Inner Diameter	6.276 IN
DFVL	Default Fluid Velocity	207 US/F
DOT	Diameter of Transducer Sensor	2.874 IN
EMXV	EMEX Voltage	80 V
FDII	FPM Data Interpolation Interval	0 FT
IMAR	Image Rotation	OFF
MW	Mud Weight	9.5 LB/G
RCOD	Reference Calibrator Outer Diameter	7 IN
RCSO	Reference Calibrator Standoff	1.1811 IN
RCTH	Reference Calibrator Thickness	0.2952 IN
TCUB	T^3 Processing Level	Vax_Loop
THDH	Maximum Search Thickness (percentage of nominal)	130
THDL	Minimum Search Thickness (percentage of nominal)	70
THDP	Thickness Detection Policy	Fundamental
THNO	Nominal Thickness of Casing	0.362 IN
U-USIT_CENT	USIT Cement Type	LIGHT
U-USIT_DFSZ	Drilling Fluid Specific Acoustic Impedance	0 MRAY
U-USIT_IISR	USIT IBC Inverted Fluid Slowness Resolution	1.0_US_P_FT
U-USIT_IIZR	USIT IBC Inverted ZMUD Resolution	0.050_MRAY
U-USIT_OCDI	USIT Outer Casing Diameter	0 IN
U-USIT_OCSH	USIT Outer Casing Shoe	0 FT
U-USIT_OCWE	USIT Outer Casing Weight	0 LB/F
U-USIT_TIEB	IBC Third Interface Echo Bin Processing	YES
U-USIT_TIEC	IBC Third Interface Echo Cleaning	NONE
U-USIT_TIEM	IBC Third Interface Echo Multi Tracking	NO
U-USIT_TIEP	IBC Third Interface Echo Policy	BFEP
U-USIT_TIER	IBC Third Interface Echo Receivers	BOTH
U-USIT_U3WE	Third Interface Echo Window End	110 US
U-USIT_UBTP	USIT Bottom Transducer Position	UNKNOWN
U-USIT_UFAO	USIT Flexural Attenuation Offset	2 DB/M
U-USIT_UIAP	USIT IBC Answer Product Enabled	SolidLiquidGasMap
U-USIT_UIST	Ultrasonic IBC Sonde Type	Sub_ibcs_B
U-USIT_UTAN	USIT Transducer Angles	33_DEG
UMAO	USIT Measurement Angular Offset	-10 DEG
USTO	Ultrasonic Time Offset	-2 US
USUB	Ultrasonic Subassembly Identifier	Sub_7_inch

USUB	Ultrasonic Subassembly Identifier	10DEG_6IN_136UNF_LF	
UWKM	Ultrasonic Working Mode	51.4	US/F
VCAS	Ultrasonic Transversal Velocity in Casing	21.7078	US
WLEN	T^3 Processing Length	46.25	MRAY
ZCAS	Acoustic Impedance of Casing	-1	MRAY
ZINI	Initial Estimate of Cement Impedance	1.7	MRAY
ZMUD	Acoustic Impedance of Mud	2.6	MRAY
ZTCM	Acoustic Impedance Threshold for Cement	0.3	MRAY
ZTGS	Acoustic Impedance Threshold for Gas		
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	STI	
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth - Driller	9190.00	FT
TDL	Total Depth - Logger	7000.00	FT
System and Miscellaneous			
BS	Bit Size	8.750	IN
CWEI	Casing Weight	26.00	LB/F
DO	Depth Offset for Playback	2.0	FT
PP	Playback Processing	NORMAL	

Input DLIS Files

DEFAULT	USI_020LUP	FN:19	PRODUCER	21-Jun-2012 10:29	3646.0 FT	3080.0 FT
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Output DLIS Files

DEFAULT	USI_025PUP	FN:24	PRODUCER	21-Jun-2012 11:28
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