

Schlumberger

Company: **Encana Oil & Gas Inc**

Well: **Stelling 3B-4H**

Field: **Wattenberg**

County: **Weld**

State: **Colorado**

Isolation Scanner Cement Evaluation

County:		Weld	
Field:		Wattenberg	
Location:		Lat / Long : 40.0752 / -104.6711	
Well:		Stelling 3B-4H	
Company:		Encana Oil & Gas Inc	
<div>Isolation Scanner Cement Evaluation</div>			
LOCATION			
Lat / Long : 40.0752 / -104.67112		Elev: K.B. 4929.00 ft	
SHL : 684' FSL X 2040' FWL SESW		G.L. 4916.00 ft	
D.F. 4929.00 ft			
Permanent Datum: _____		Elev: 4916.00 ft _____	
Log Measured From: _____		13.00 ft above Perm. Datum	
Drilling Measured From: _____			
API Serial No. 05-123-35413-00	Section 4	Township 1N	Range 65W

Logging Date	8-Jul-2012								
Run Number	One								
Depth Driller	11 761 ft								
Schlumberger Depth	6920 ft								
Bottom Log Interval	6920 ft								
Top Log Interval	484 ft								
Casing Fluid Type	Water Based Mud								
Salinity	1485 ppm								
Density	9.5 lbm/gal								
Fluid Level									
BIT/CAISING/TUBING STRING									
Bit Size	8.750 in								
From									
To									
Casing/Tubing Size	7.000 in								
Weight	26 lbm/ft								
Grade	P-110								
From									
To									
Maximum Recorded Temperatures									
Logger On Bottom	Time			9:30					
Unit Number	Location								
Recorded By	Arvin Shi								
Witnessed By	Billy Laforce / Dennis Zarosky								

PVT DATA			
Oil Density	Run 1	Run 2	Run
Water Salinity	1485 ppm		
Gas Gravity			
Bo			
Bw			
1/Bq			
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 Date			
Run Number			
Depth Driller			
Schlumberger Depth			
Bottom Log Interval			
Top Log Interval			
Casing Fluid Type			
Salinity			
Density			
Fluid Level			
BIT/CAISING/TUBING STRING			
Bit Size			
From			
To			
Casing/Tubing Size			
Weight			
Grade			
From			
To			
Maximum Recorded Temperatures			
Logger On Bottom	Time		
Unit Number	Location		
Recorded By			
Witnessed By			

DEPTH SUMMARY LISTING

Date Created: 8-JUL-2012 15:12:26

Depth System Equipment

Depth Measuring Device	Tension Device	Logging Cable
Type: IDW-B Serial Number: Calibration Date: 17-September-2 Calibrator Serial Number: Calibration Cable Type: 7-46P Wheel Correction 1: -2 Wheel Correction 2: -1	Type: CMTD-B/A Serial Number: 1433 Calibration Date: 27-May-2012 Calibrator Serial Number: 100513 Number of Calibration Points: 10 Calibration RMS: 15 Calibration Peak Error: 32	Type: 7-46P Serial Number: Length: 24000 FT Conveyance Method: Wireline Rig Type: LAND

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:
Tool Zero Check At Surface:

Depth Control Remarks

1. All Schlumberger depth policy applied
2. IDW used as primary depth measurements and Z-Chart as secondary depth measurements
- 3.
- 4.
- 5.
- 6.

DISCLAIMER

THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

OTHER SERVICES1

OS1: None
OS2:
OS3:
OS4:
OS5:

OTHER SERVICES2

OS1:
OS2:
OS3:
OS4:
OS5:

REMARKS: RUN NUMBER 1

1. This is the first run in well

REMARKS: RUN NUMBER 2

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







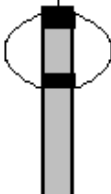
4 Logging objective : Cement Evaluation

5. Pressure pass not done due to openhole beneath intermediate casing	
6. Log was spliced at 6300 ft	
7. Repeat pass was done at 5800-6350 due to check the noisy log from ERAV and IRAY	
8. Fluid Level is detected at 484 ft	
Cement : Tuned Light 10 ppg cement from 13' to 4217'	
Varicem 12 ppg cement from 4217' to 6500'	
Varicem 13 ppg cement from 6500' to 7264'	
Cement job started at 07/03/2012 01:30 and ended at 07/03/2012 02:48	

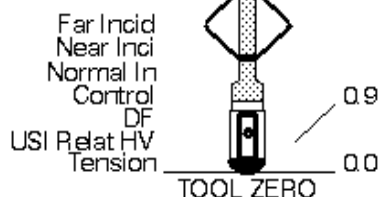
RUN 1			RUN 2		
SERVICE ORDER #:			SERVICE ORDER #:		
PROGRAM VERSION:			PROGRAM VERSION:		
FLUID LEVEL:			FLUID LEVEL:		
LOGGED	INTERVAL	START	STOP	LOGGED	INTERVAL

EQUIPMENT DESCRIPTION			EQUIPMENT DESCRIPTION		
RUN 1			RUN 2		

SURFACE EQUIPMENT		
GSR-U/Y		
WITM (DTS)-A		

DOWNHOLE EQUIPMENT		
LEH-QT LEH-QT		44.4
AH-CEN AH-CEN		41.5
CAL-Y CAL-Y 669	CCL 	36.9 37.7
DTC-H ECH-KC 10316 DTCH0-A 9236 DTCH1-A	CTEM TelStatus ToolStatu 	33.3 34.2 31.2
SGT-N SGH-K 3039 SGC-TB 10249 SGD-TAB	Gamma Ray 	30.3 31.2
AH-107 AH-107 909		25.7
USIT-D ECH-MPA 4949 USIC-D 947 AH-107 2829 USIS-A 791 USSC-B IBCS B-100158202 826 Top Transducer		23.7

Middle Top Transducer
Middle Bottom Transducer
Bottom Transducer



MAXIMUM STRING DIAMETER 7.50 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET

Schlumberger

5" SLG Composite

MAXIS Field Log

Company: Encana Oil & Gas Inc

Well: Stelling 3B-4H

Input DLIS Files

DEFAULT	Splice_USI_012CUP	FN:1	PRODUCER	08-Jul-2012 14:40	7111.0 FT	273.5 FT
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Output DLIS Files

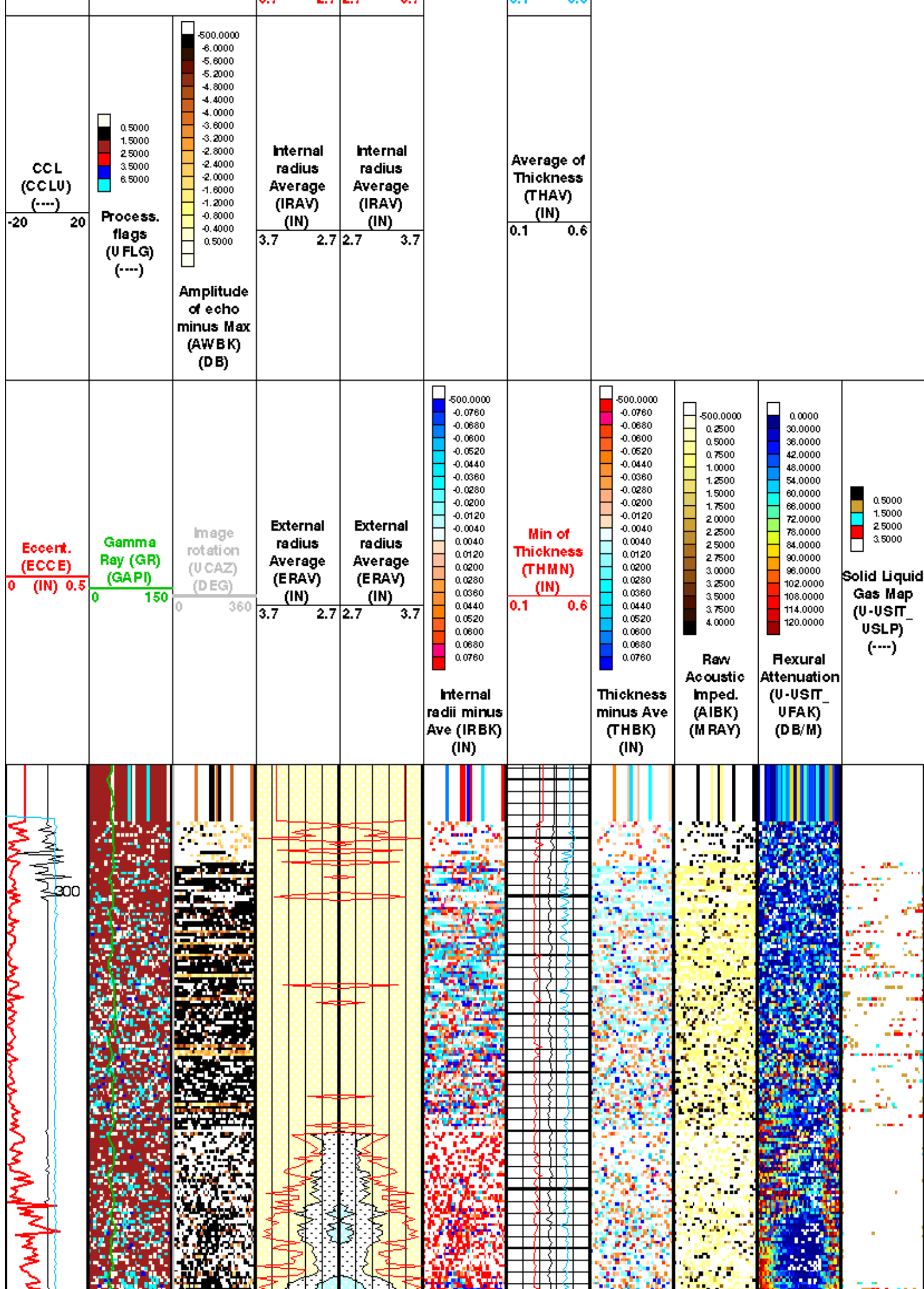
DEFAULT	USI_013PUP	FN:11	PRODUCER	08-Jul-2012 14:51	6920.0 FT	277.5 FT
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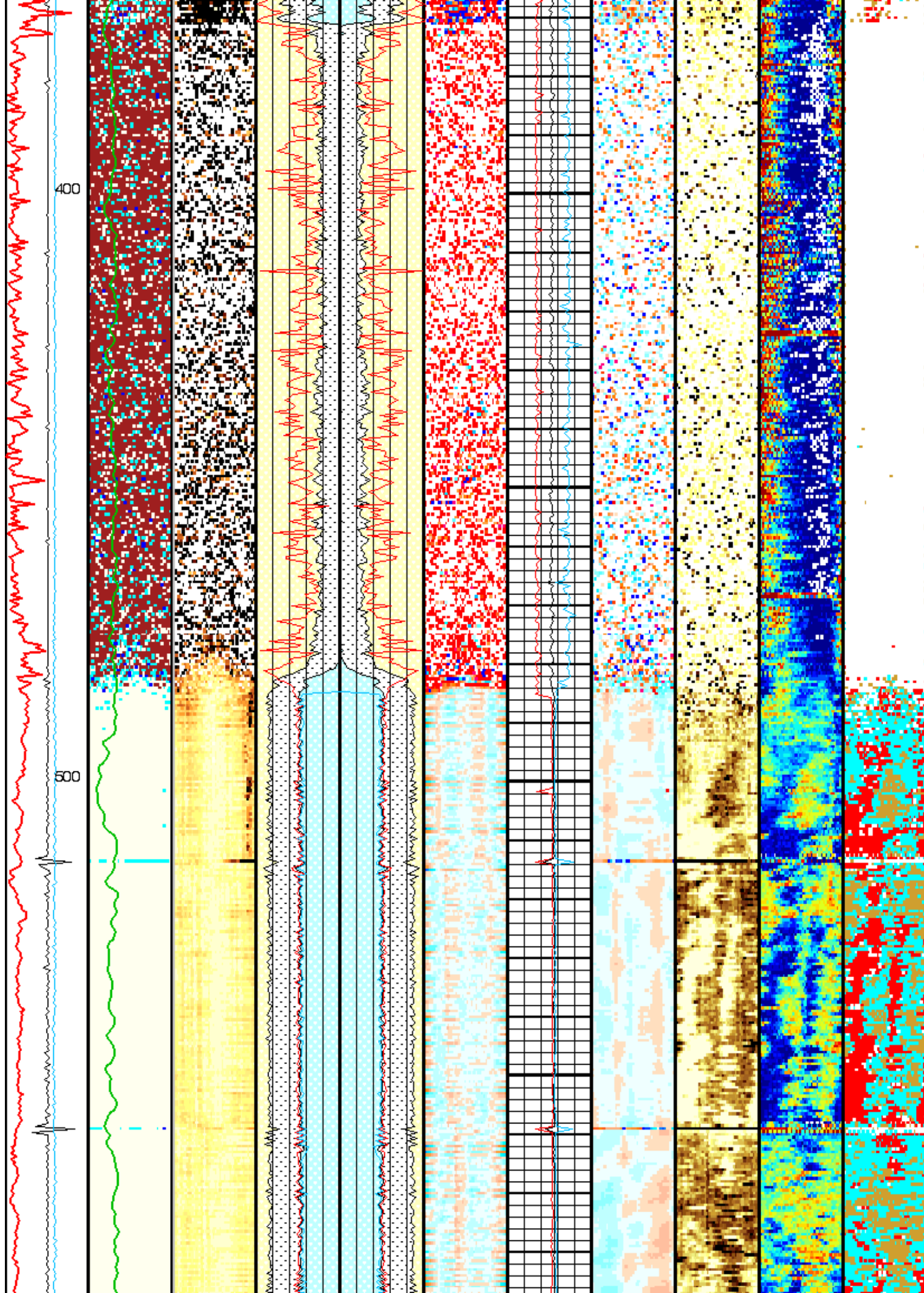
OP System Version: 19C1-222

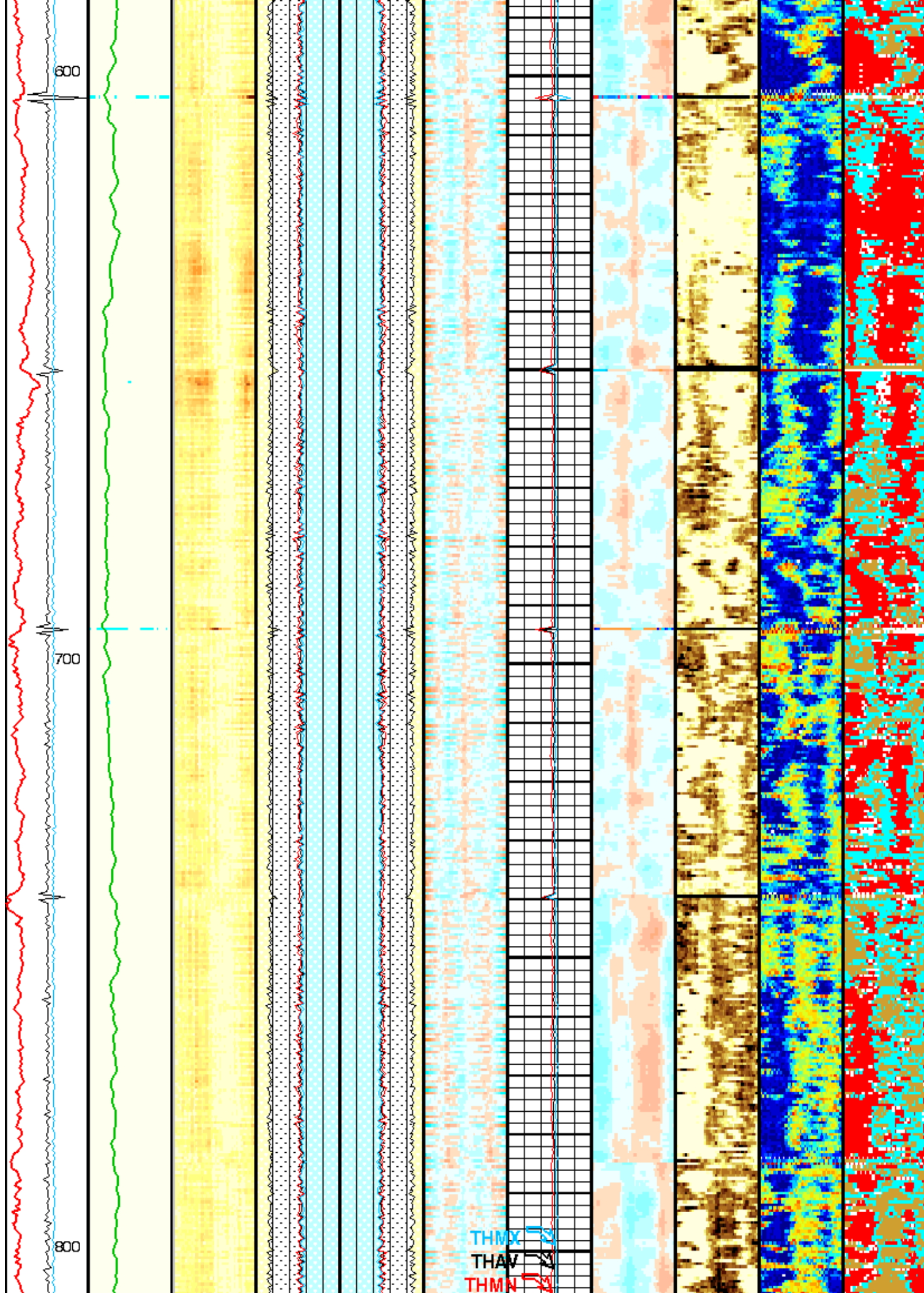
USIT-D	19C1-222	SGT-N	19C1-222
DTC-H	19C1-222	CAL-Y	19C1-222

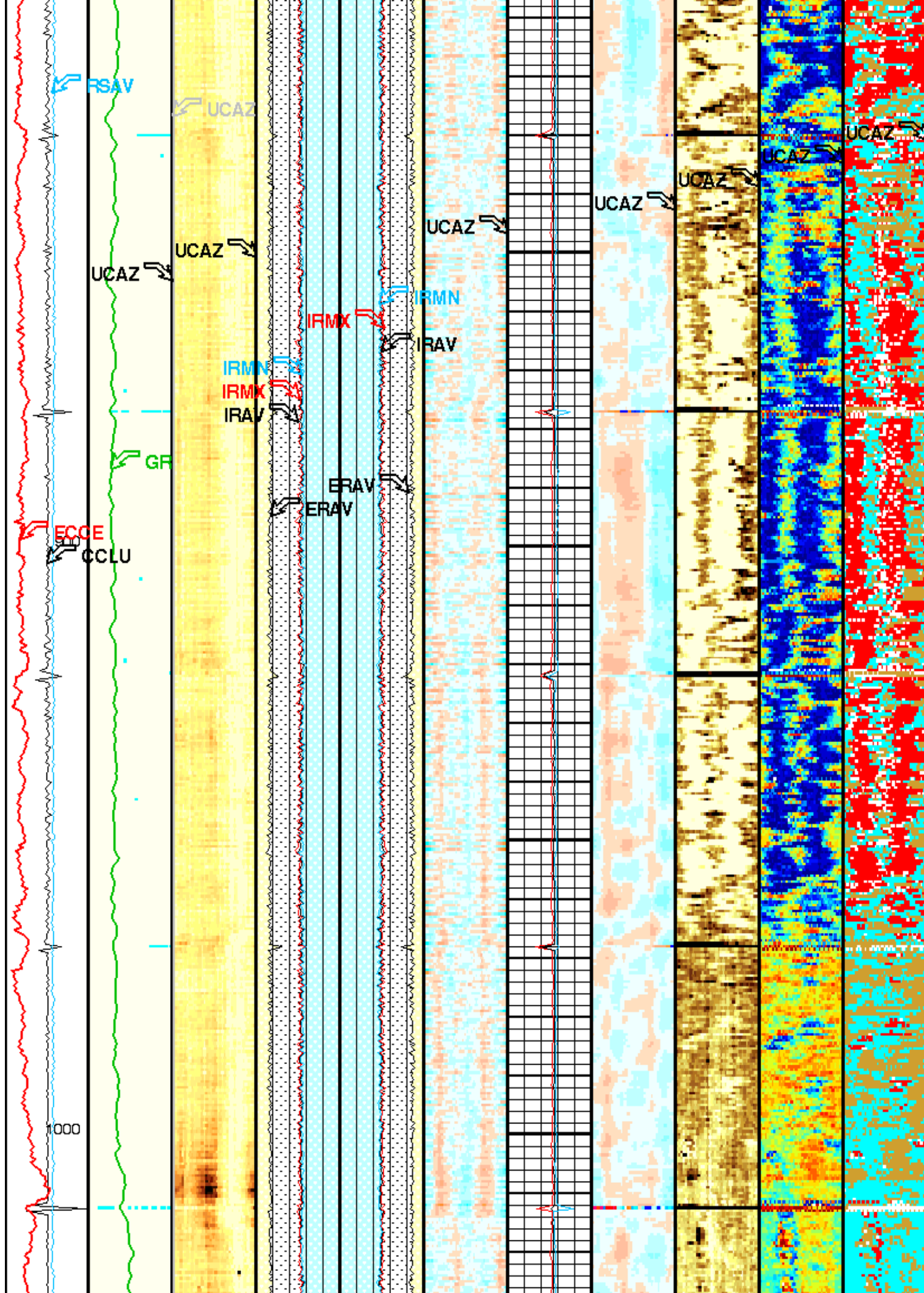
		Min of Internal radius (IRMN) (IN)	Min of Internal radius (IRMN) (IN)		
		3.7	2.7	2.7	3.7
		Internal radius Maximum (IRMX) (IN)	Internal radius Maximum (IRMX) (IN)		
		3.7	2.7	2.7	3.7
				Maximum of Thickness (THMX) (IN)	
				0.1	0.6

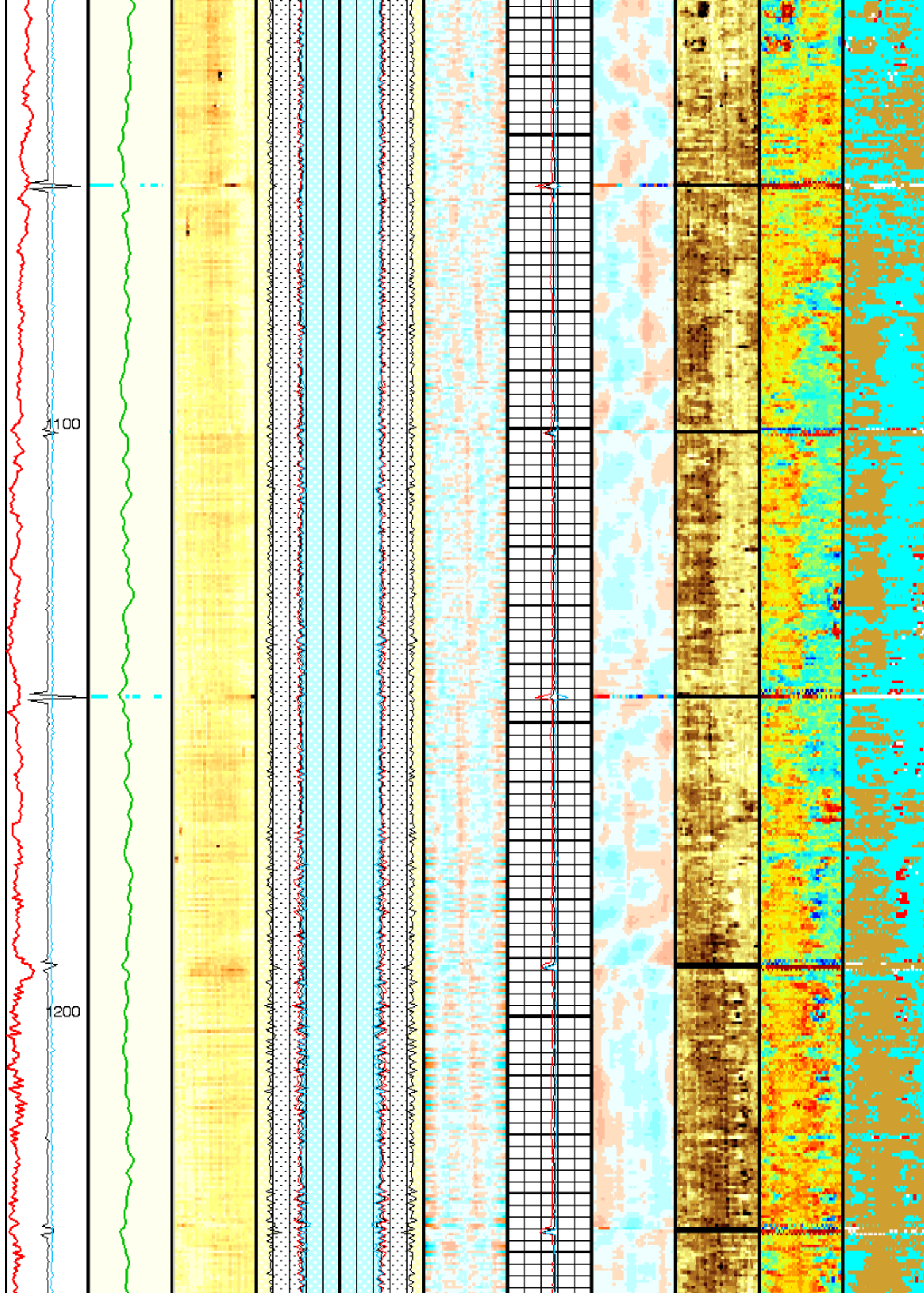
RSBV (RSBV) (RPS)	
6	7.5

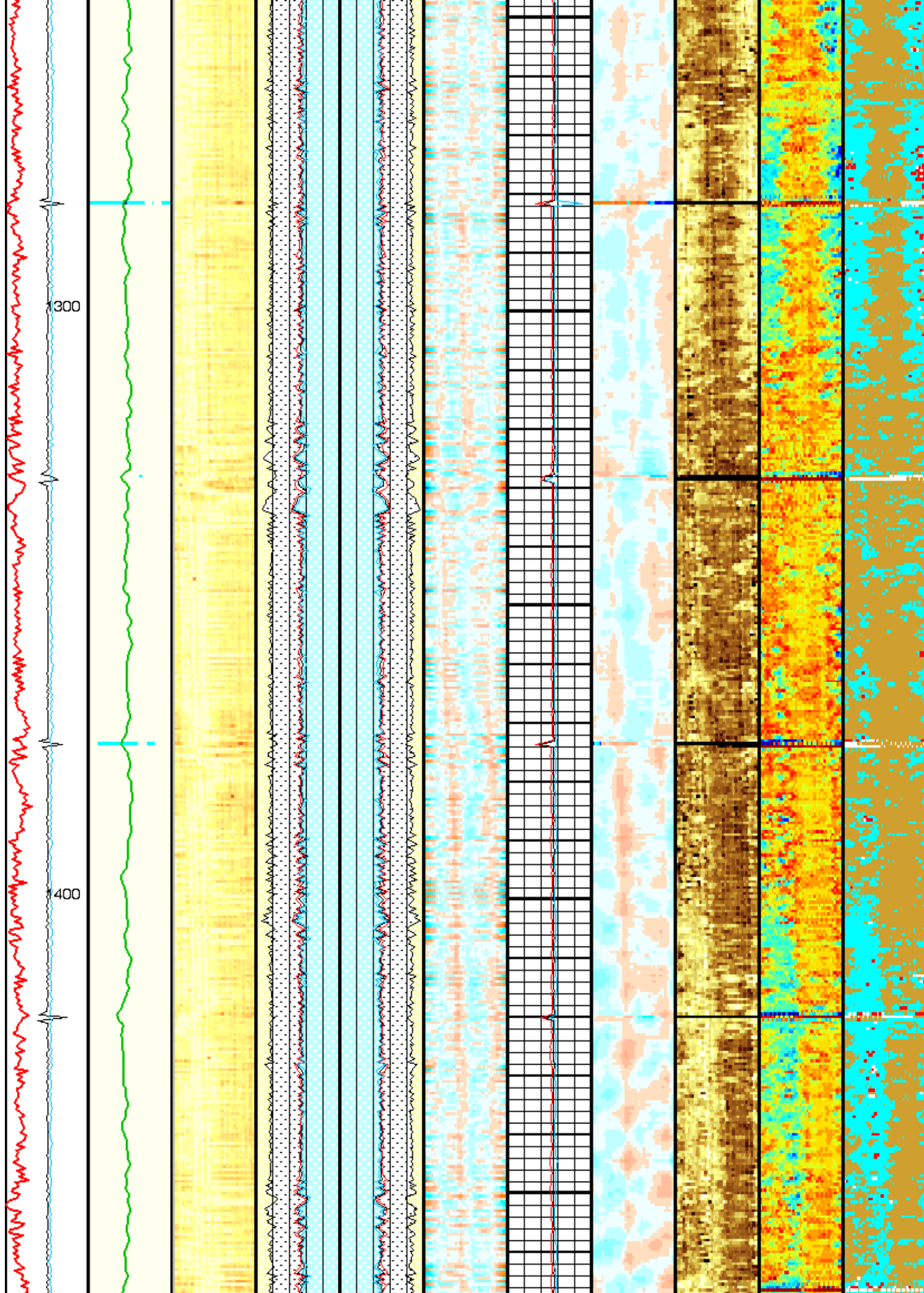


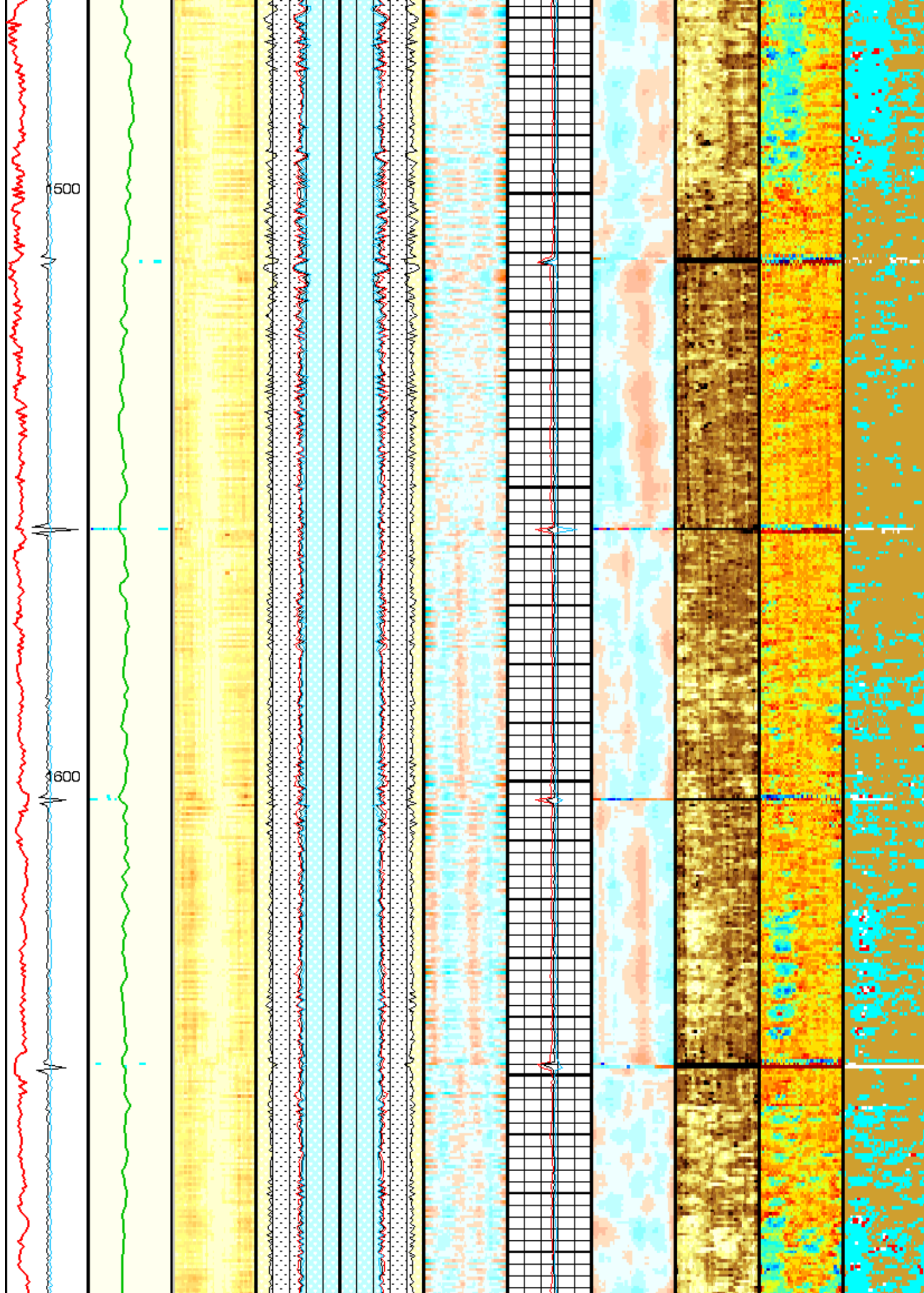


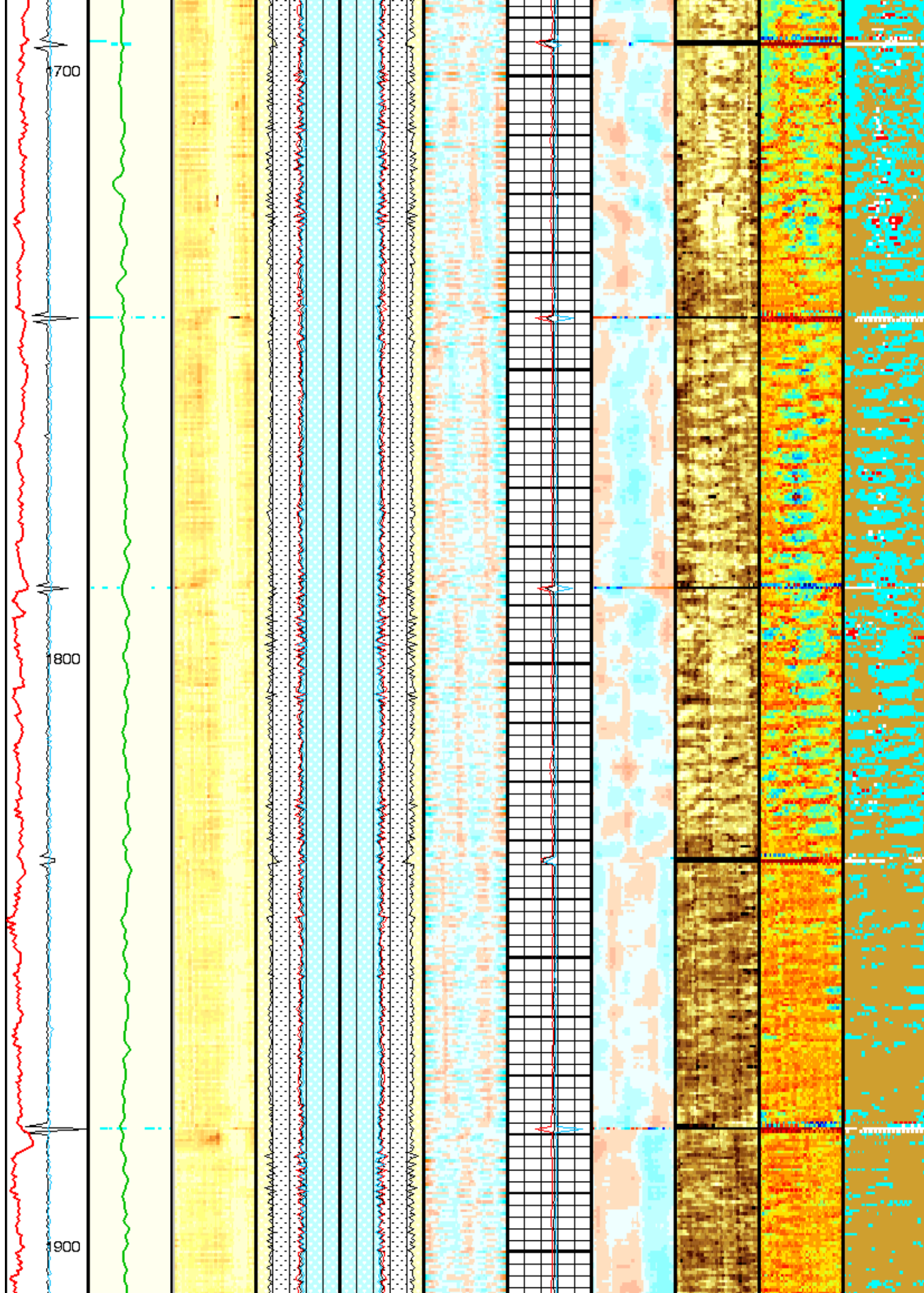


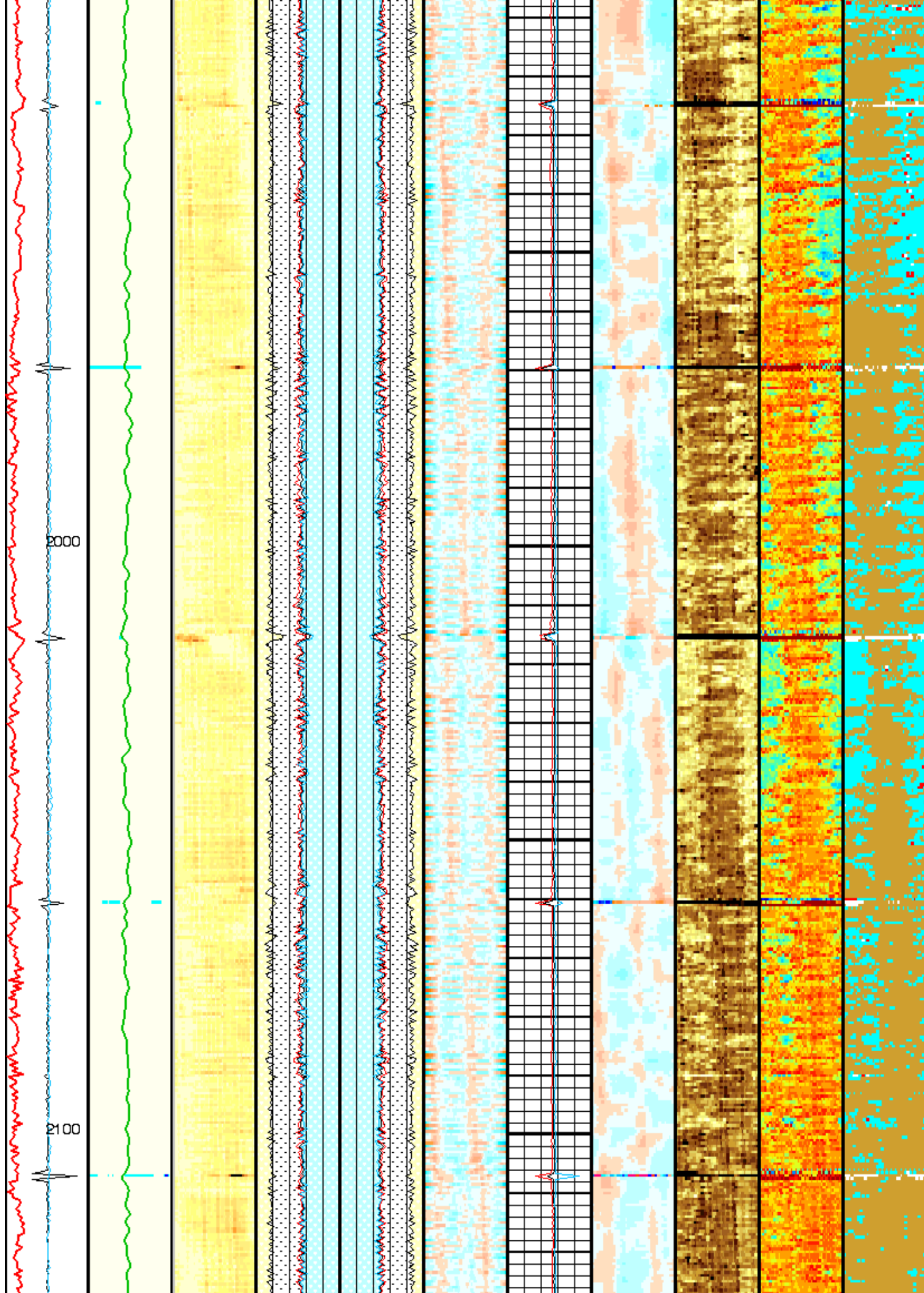


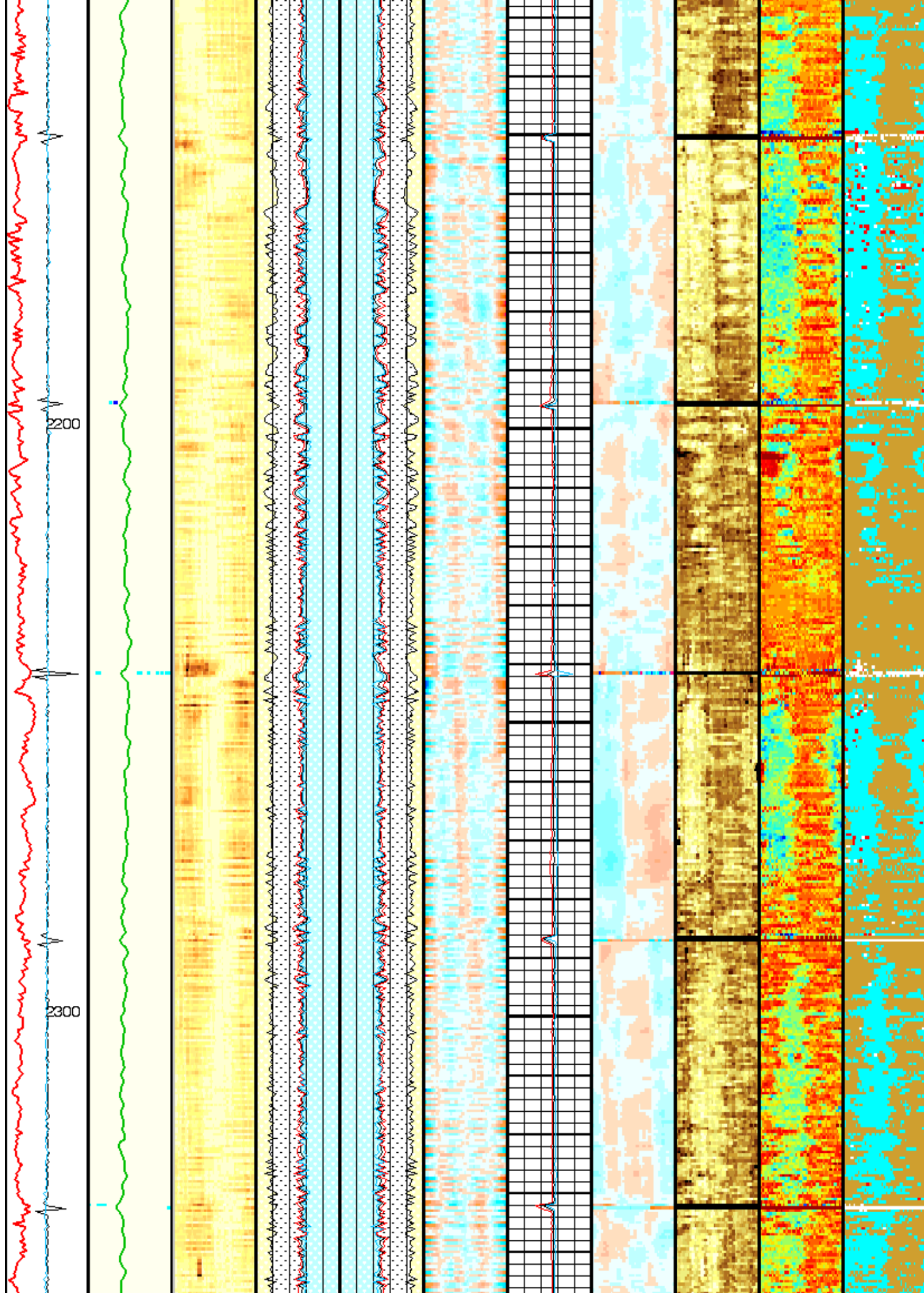


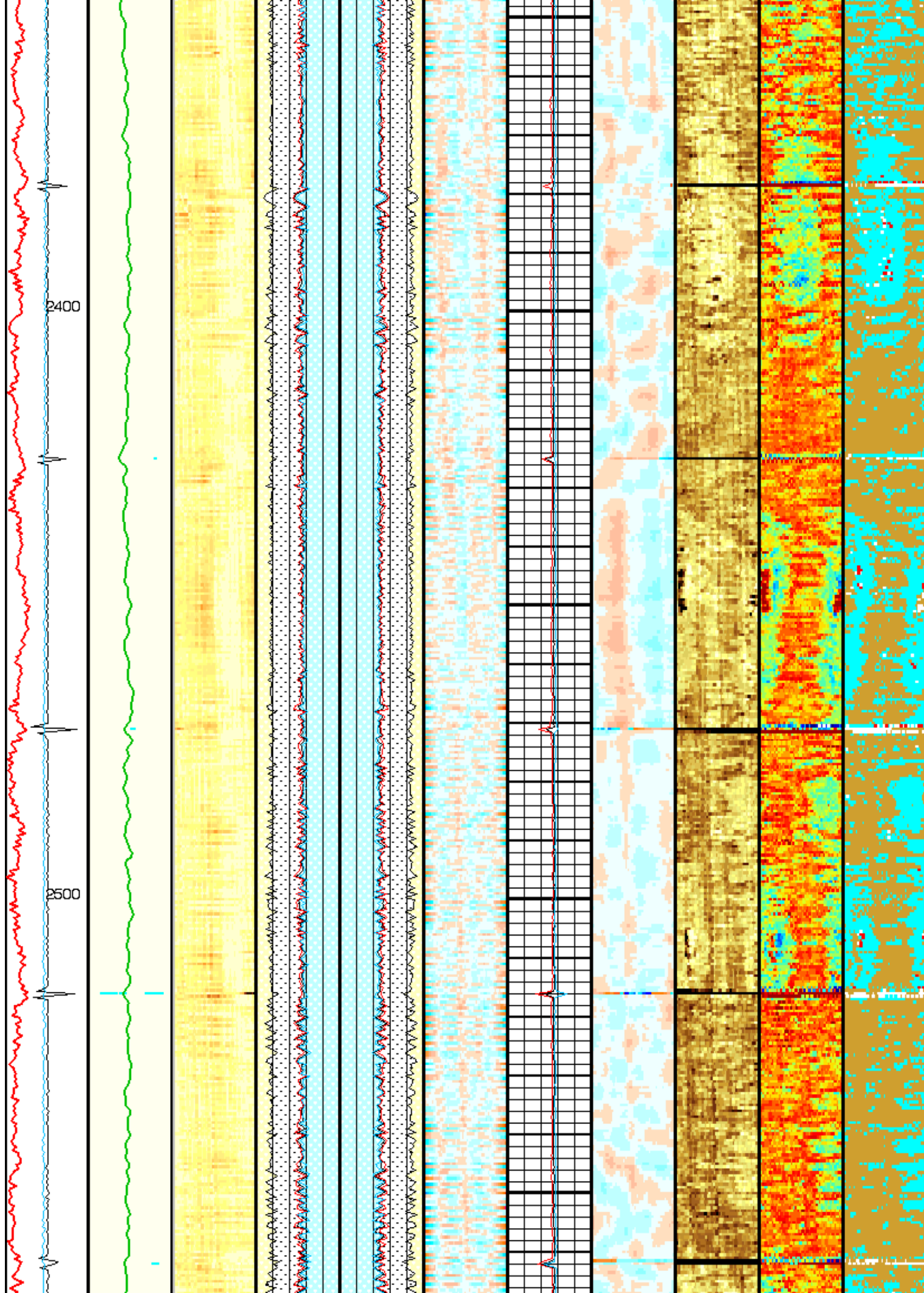


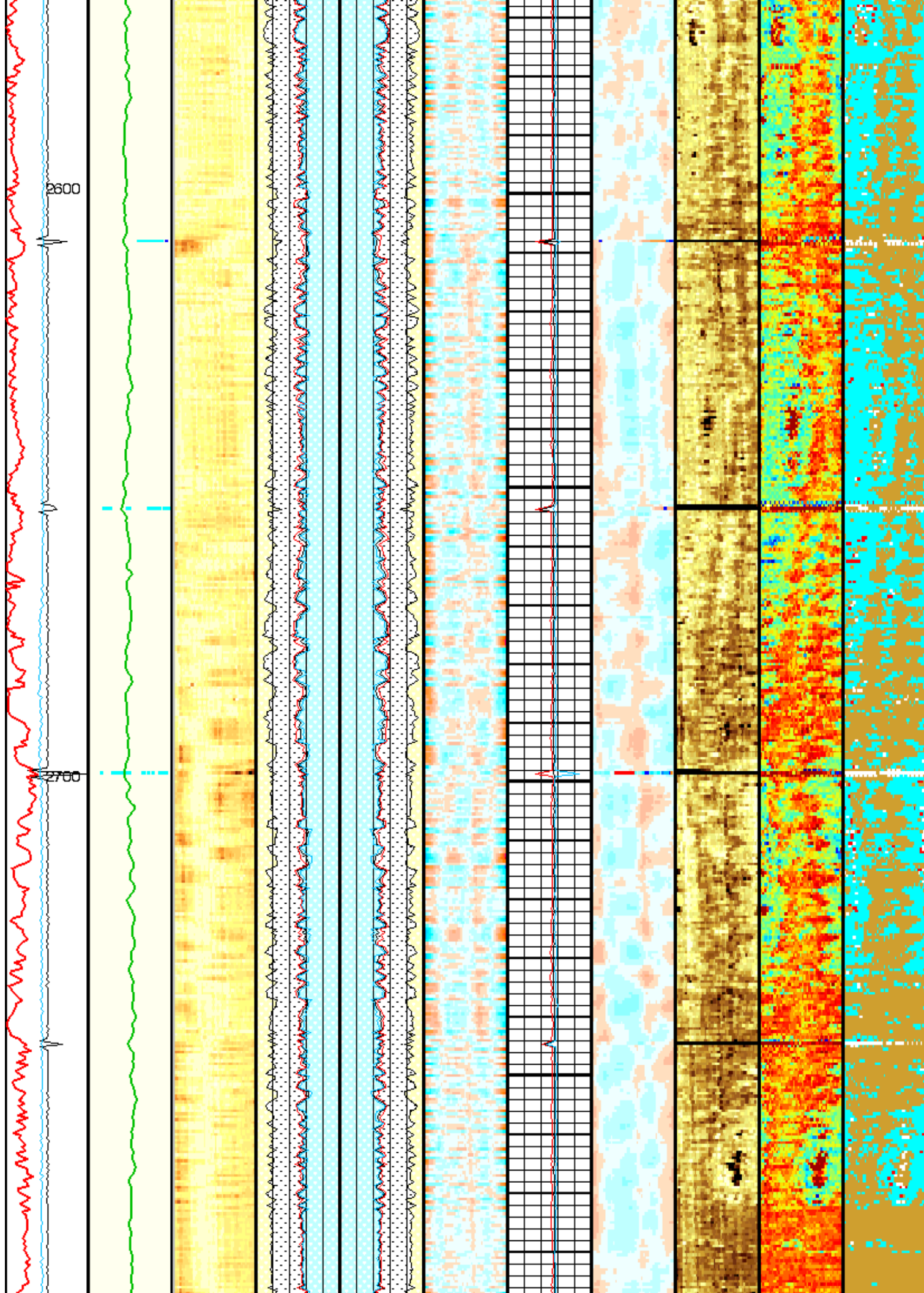


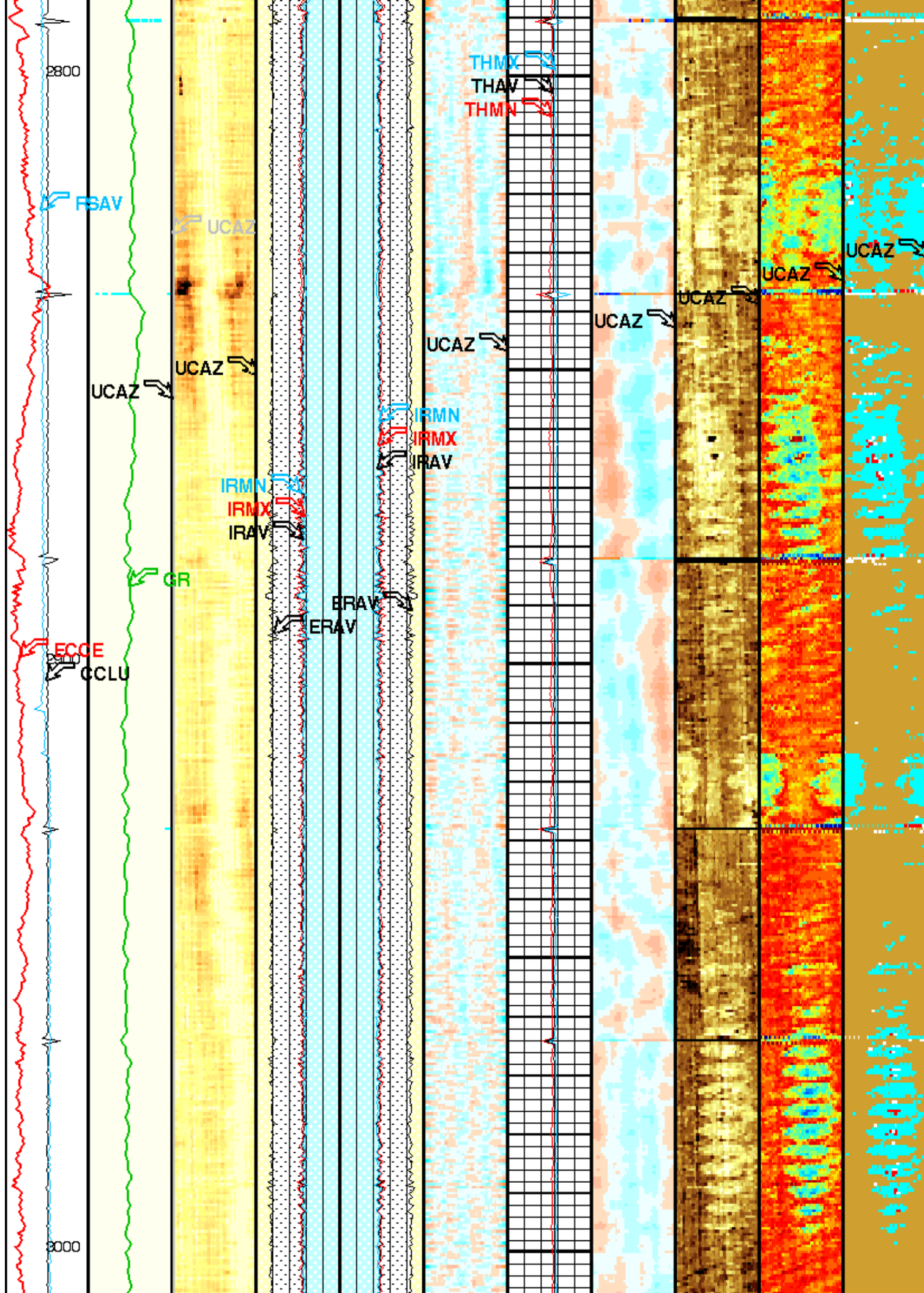


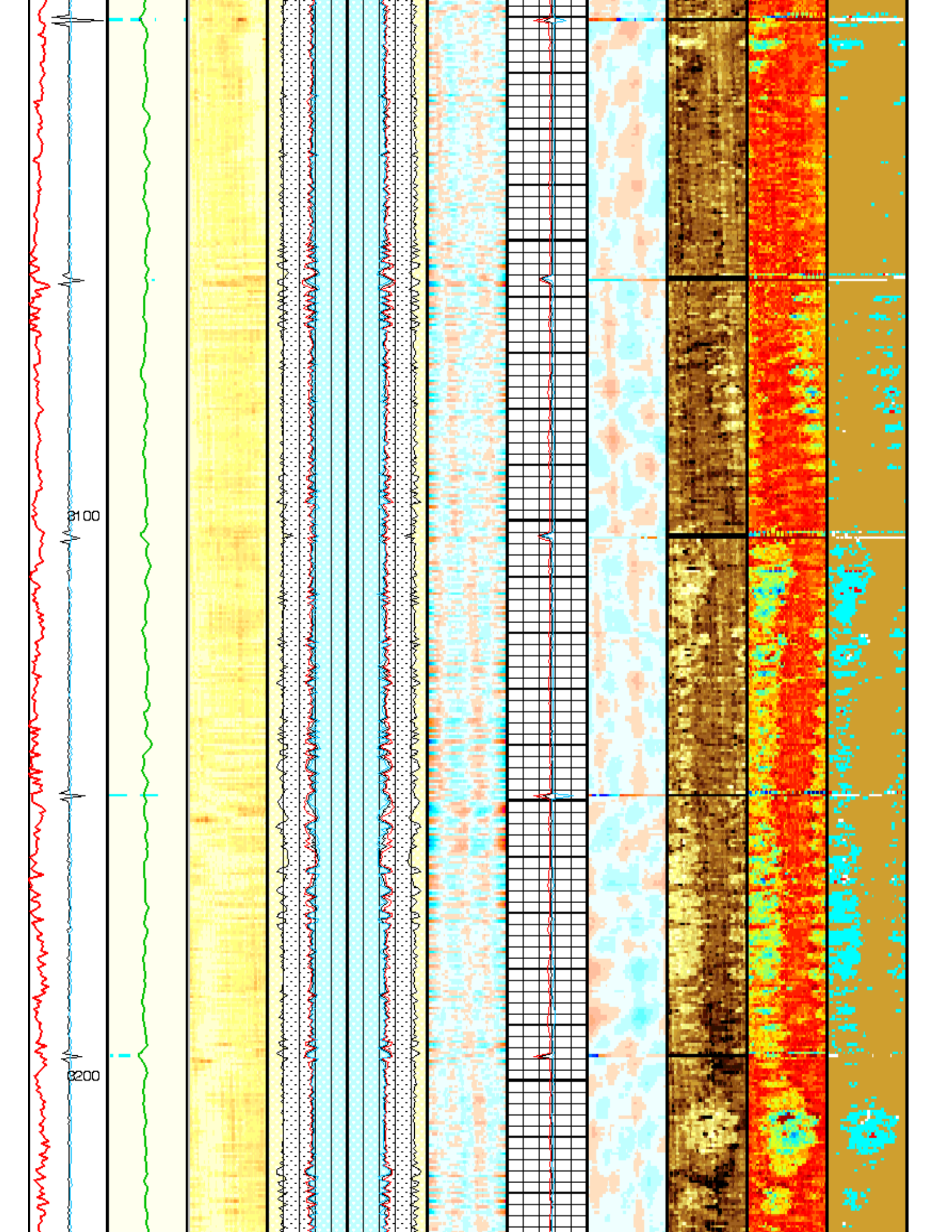


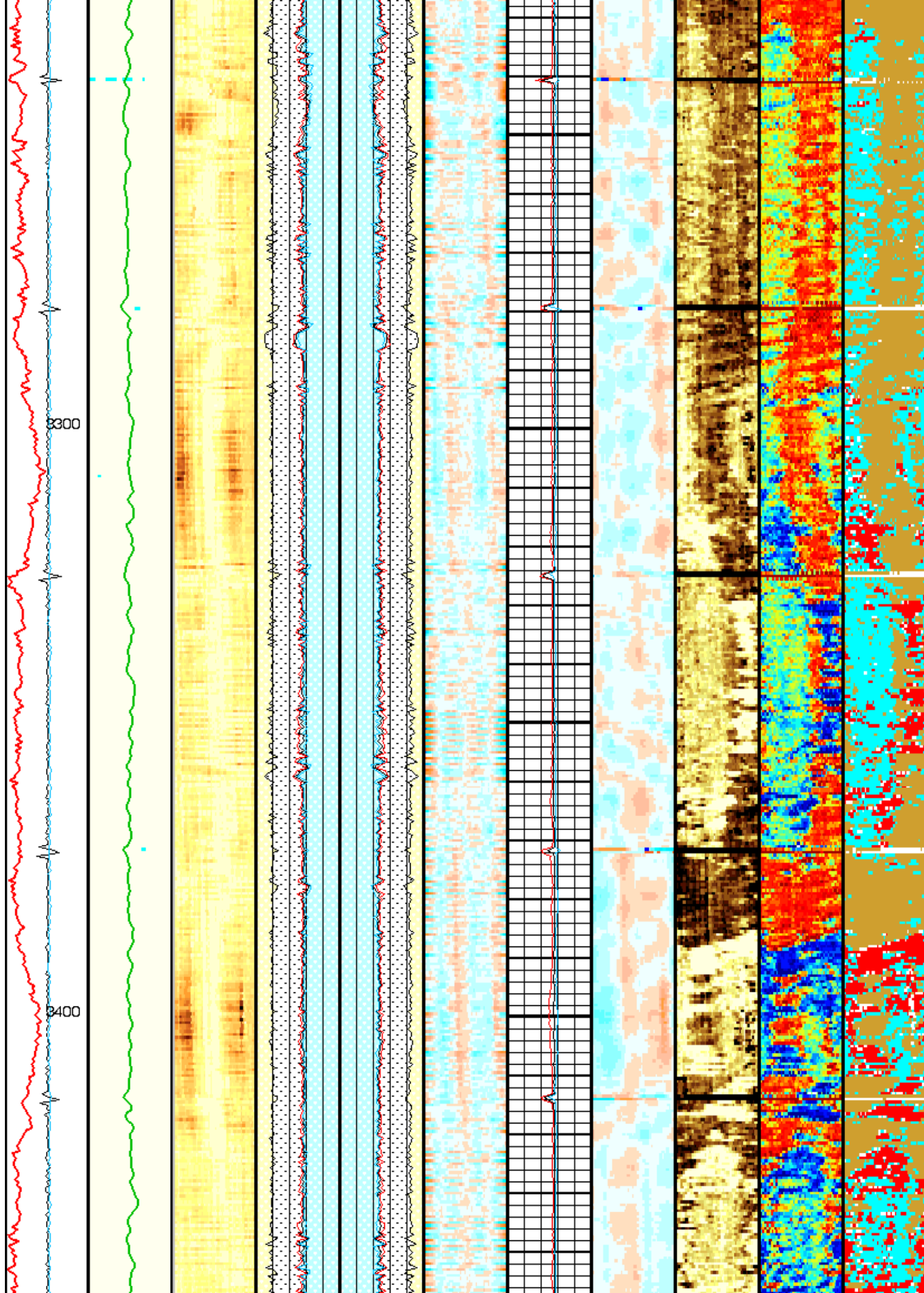


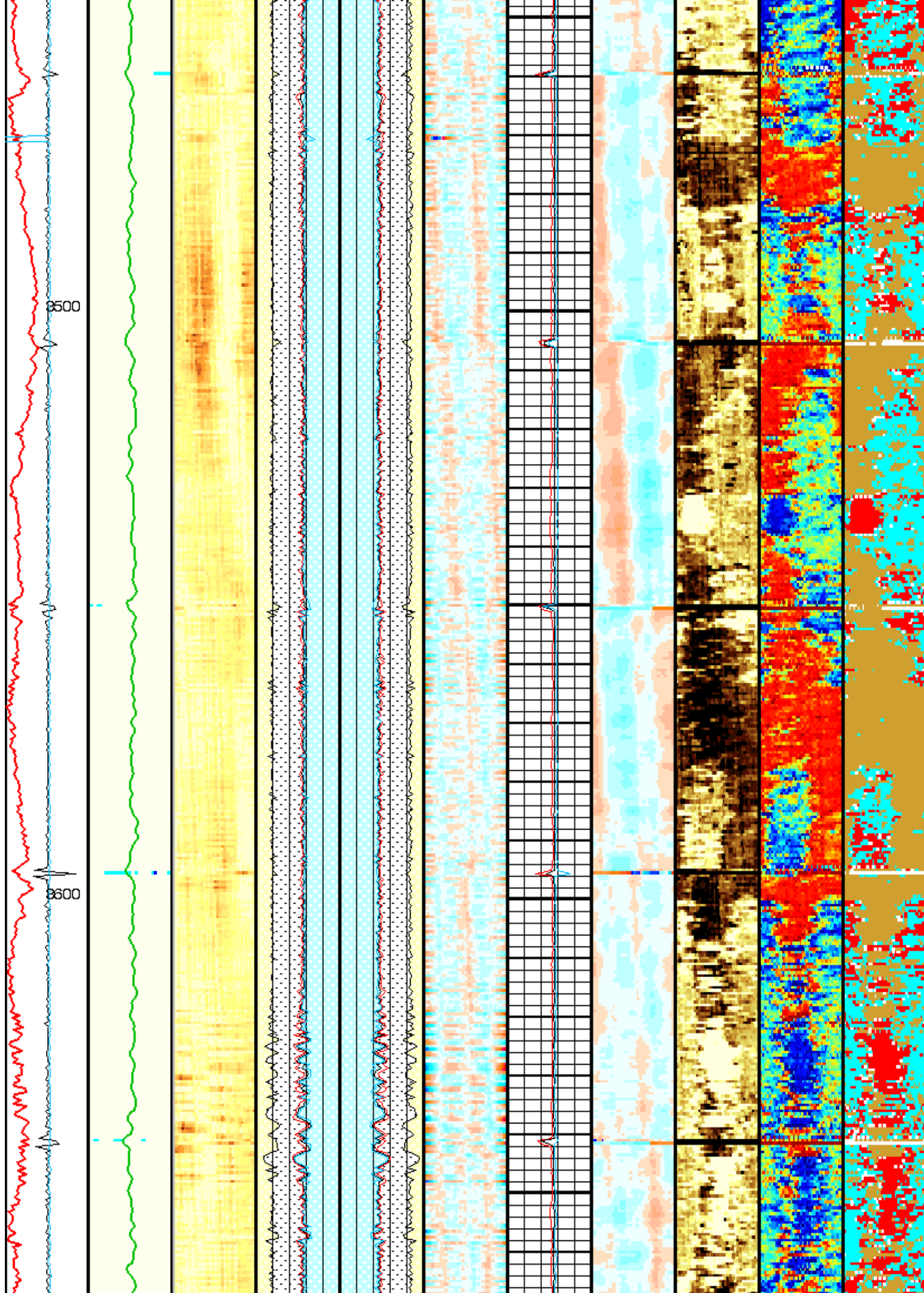


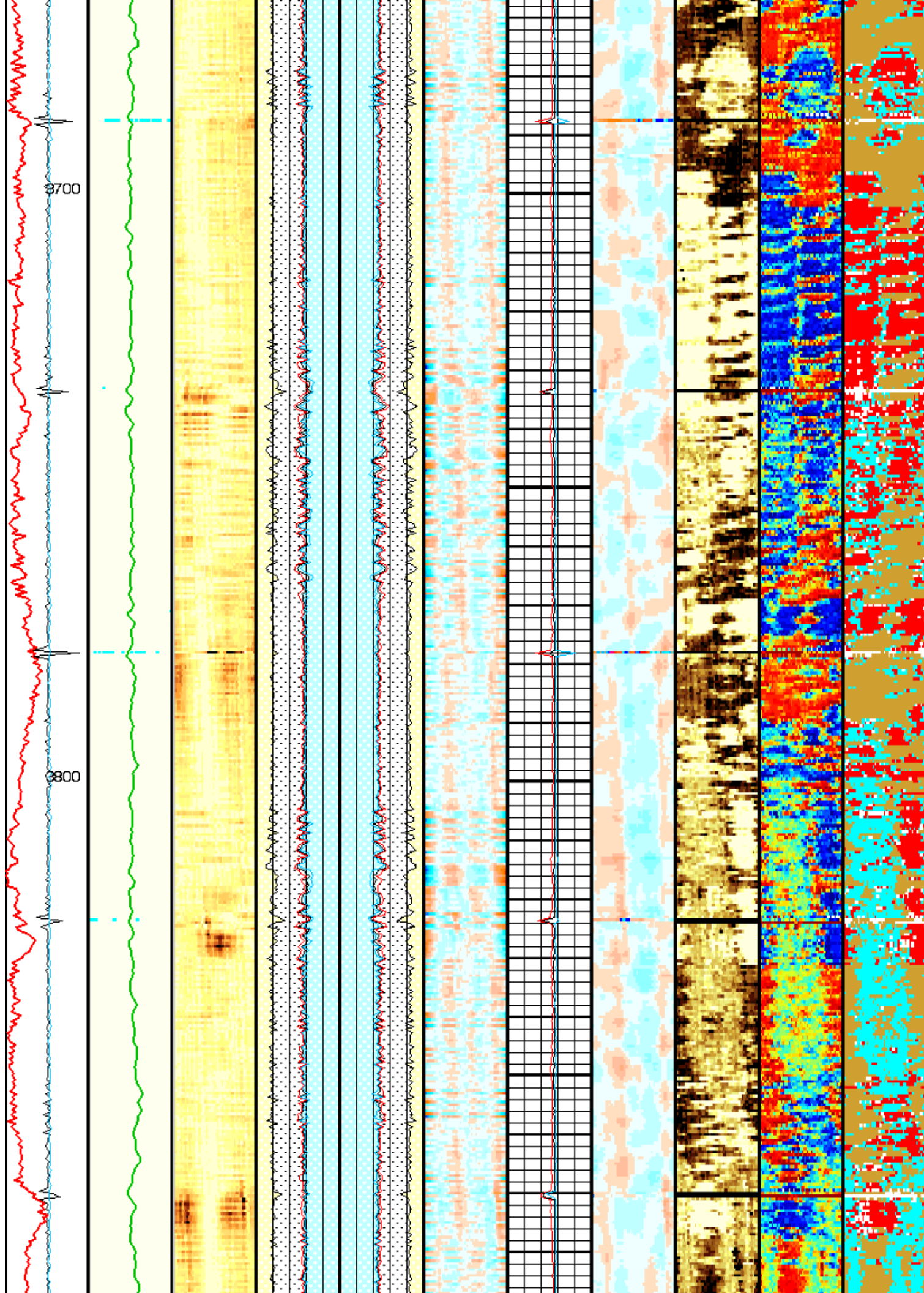


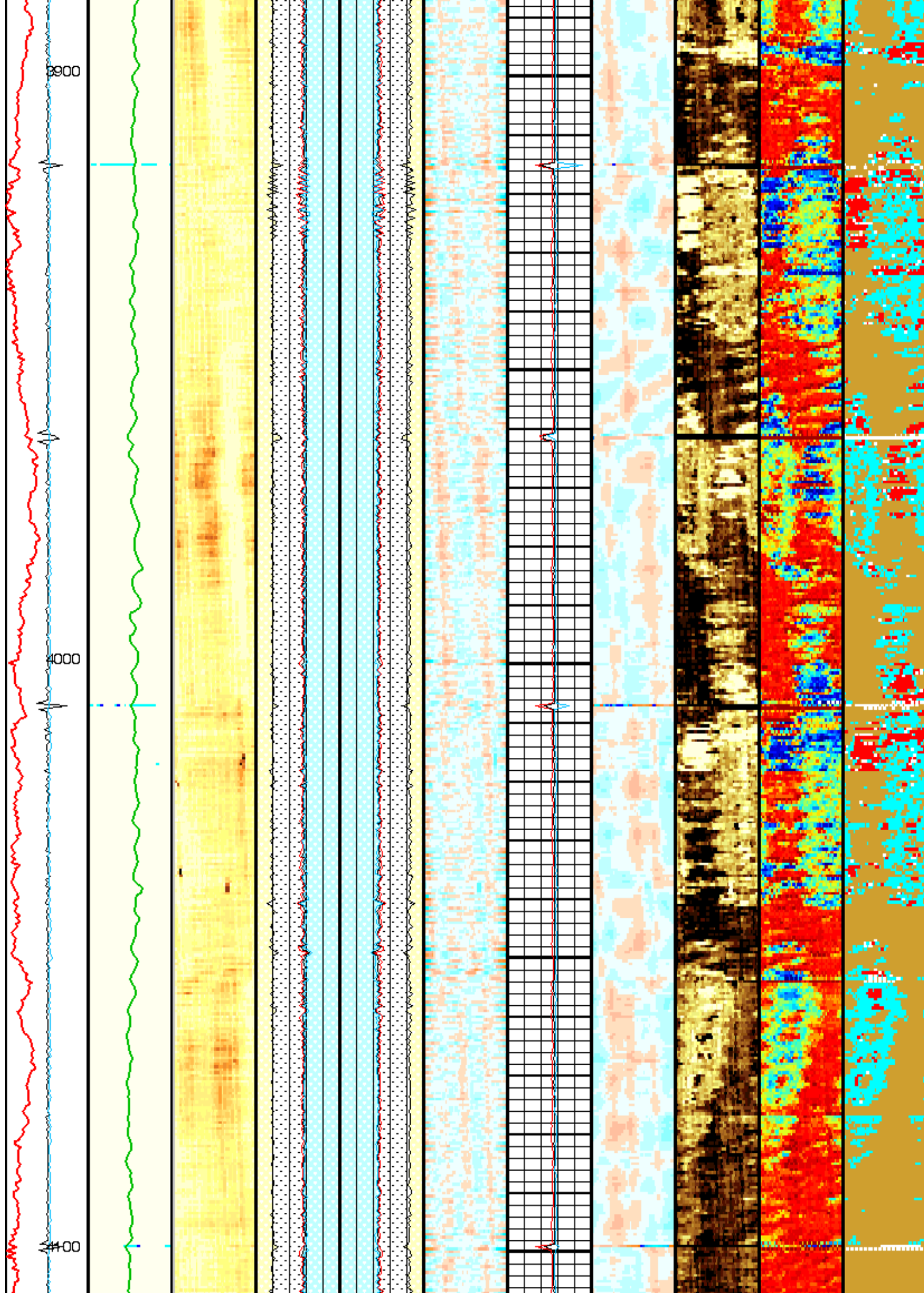


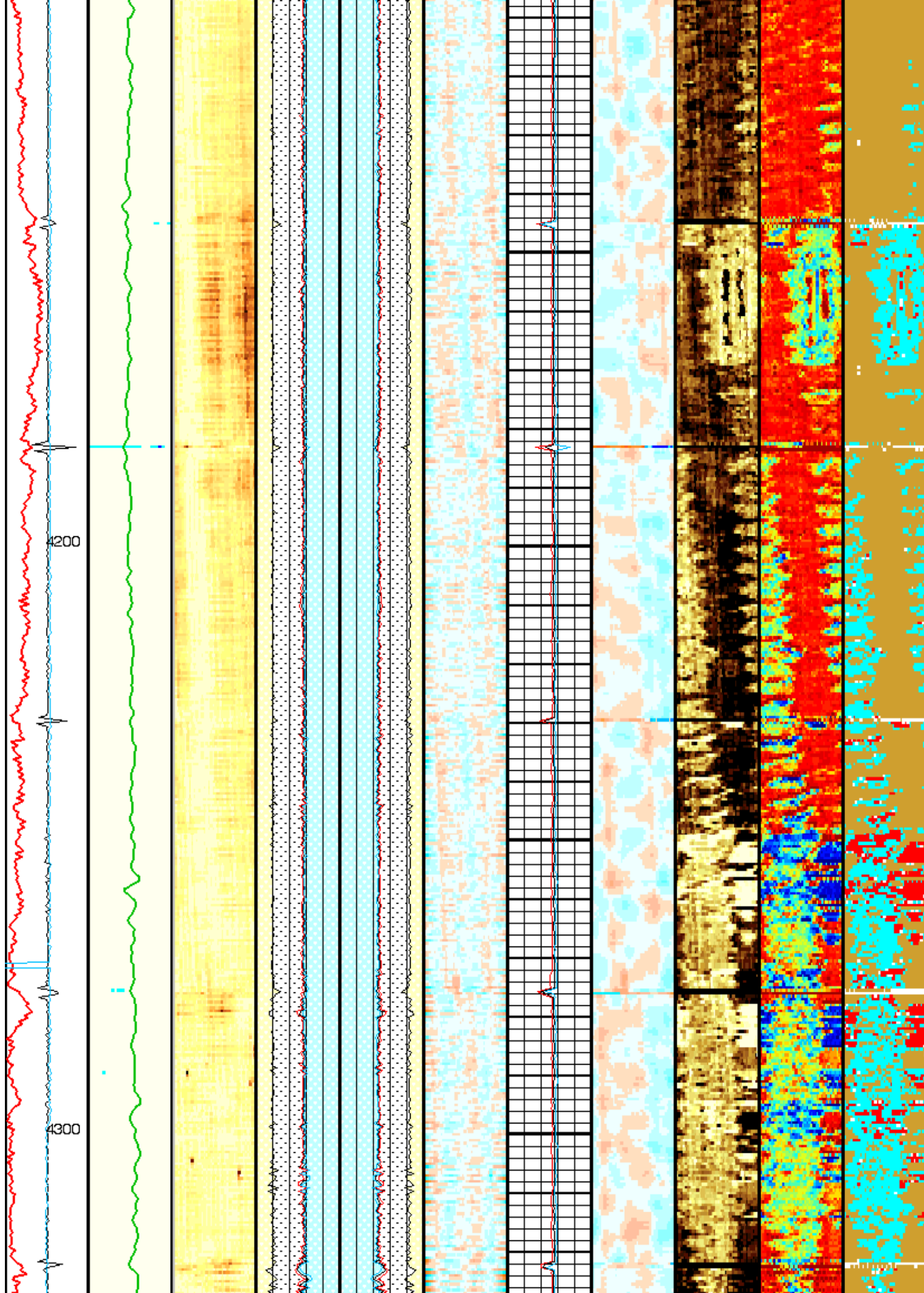


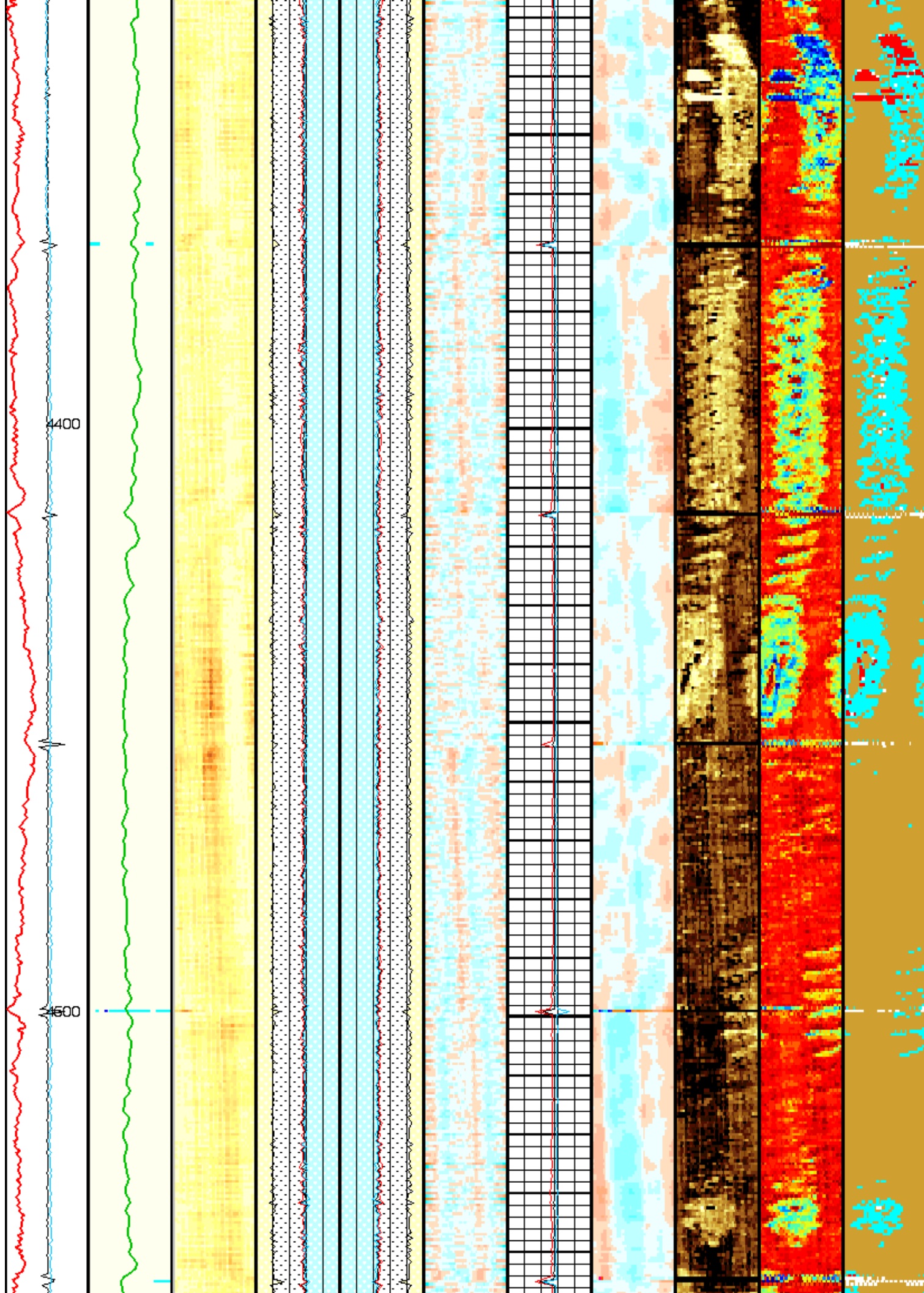


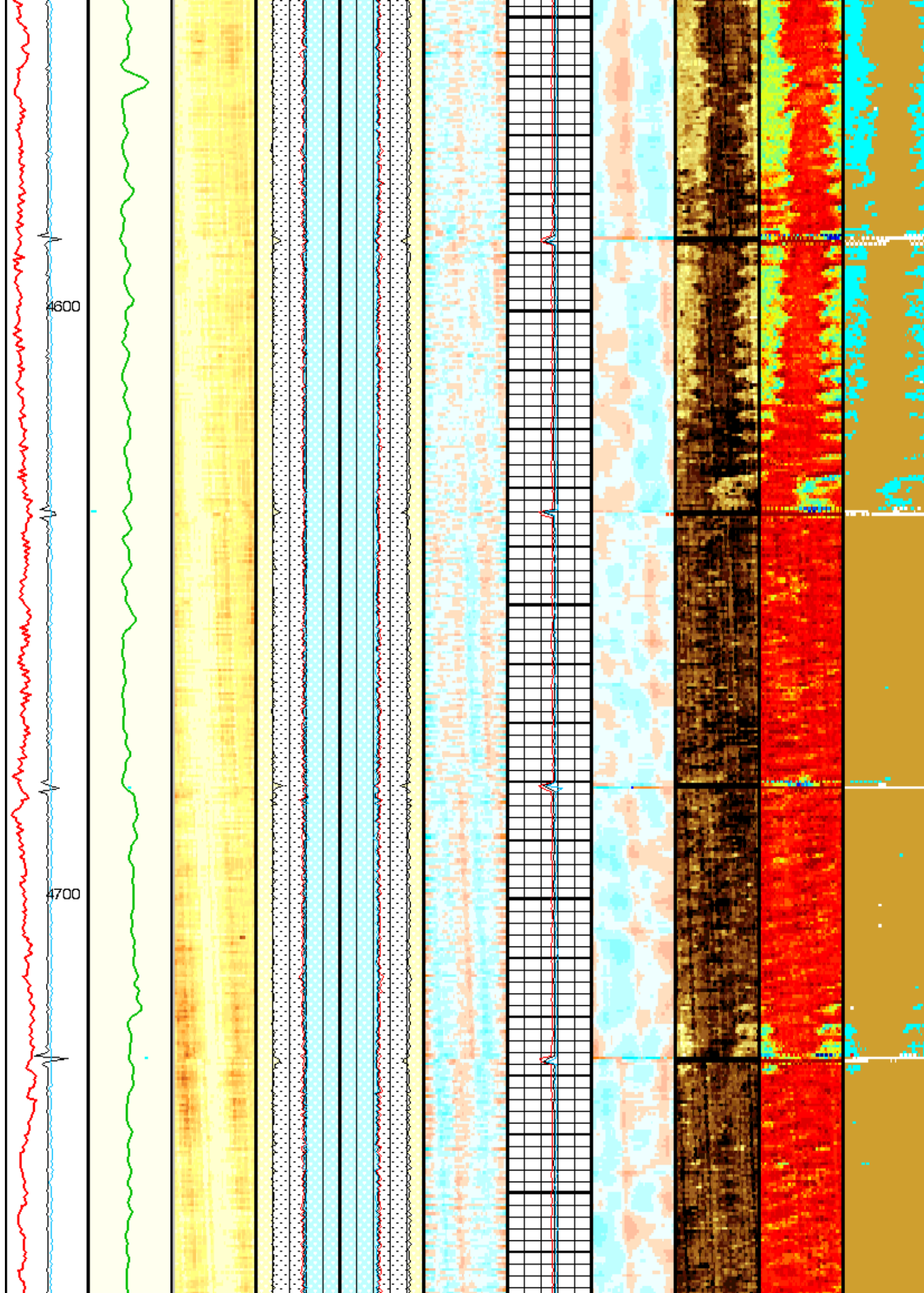


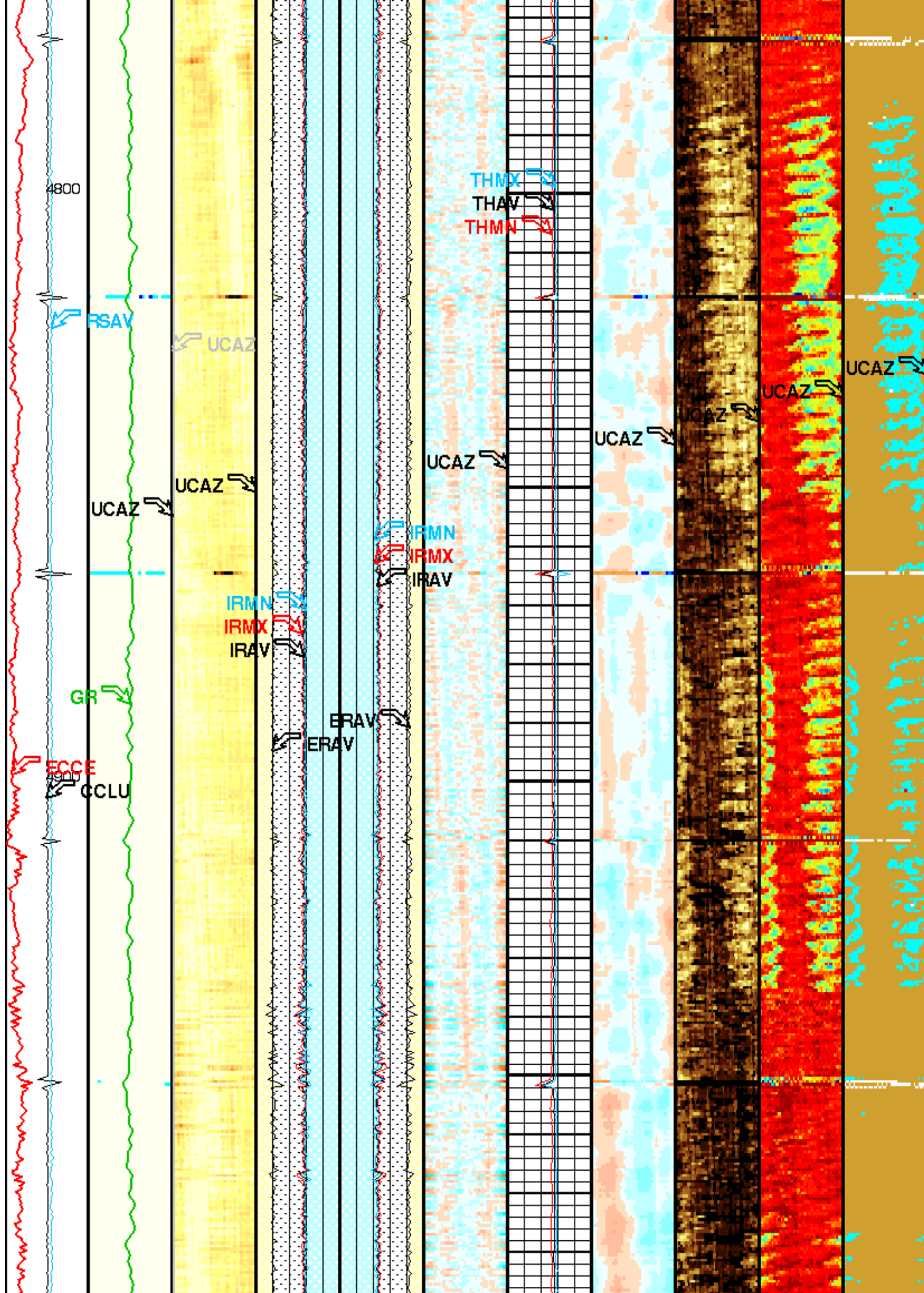


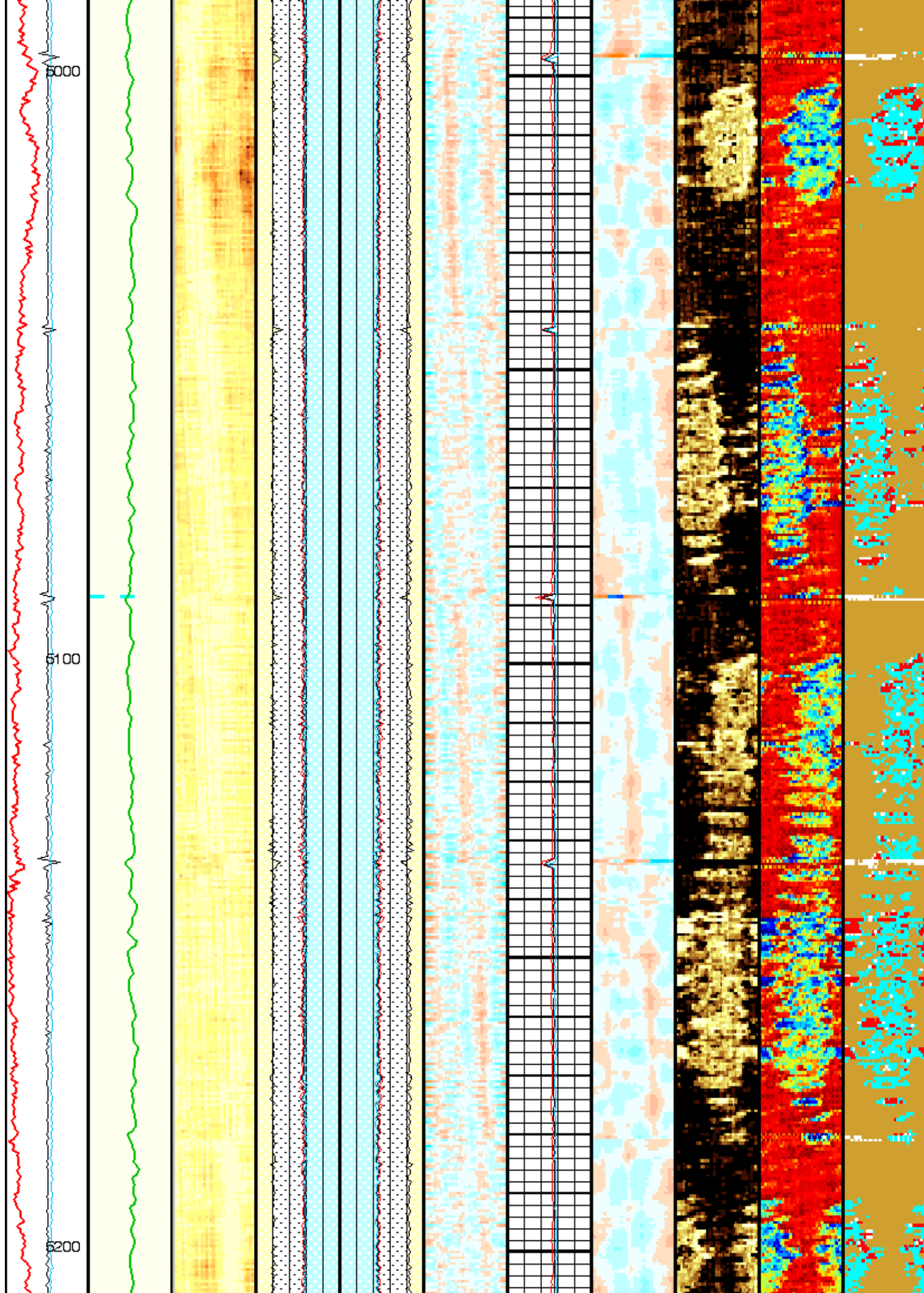


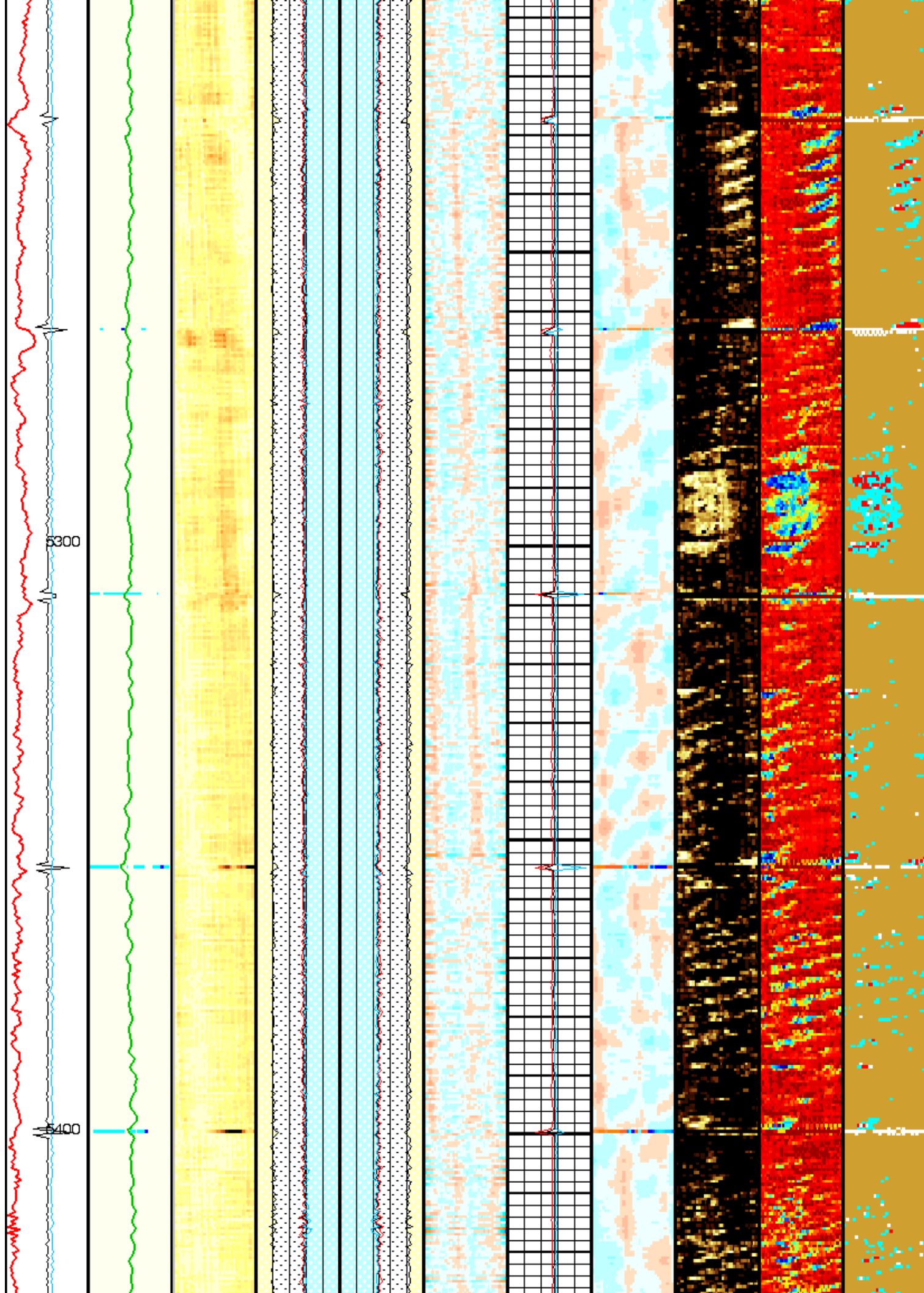


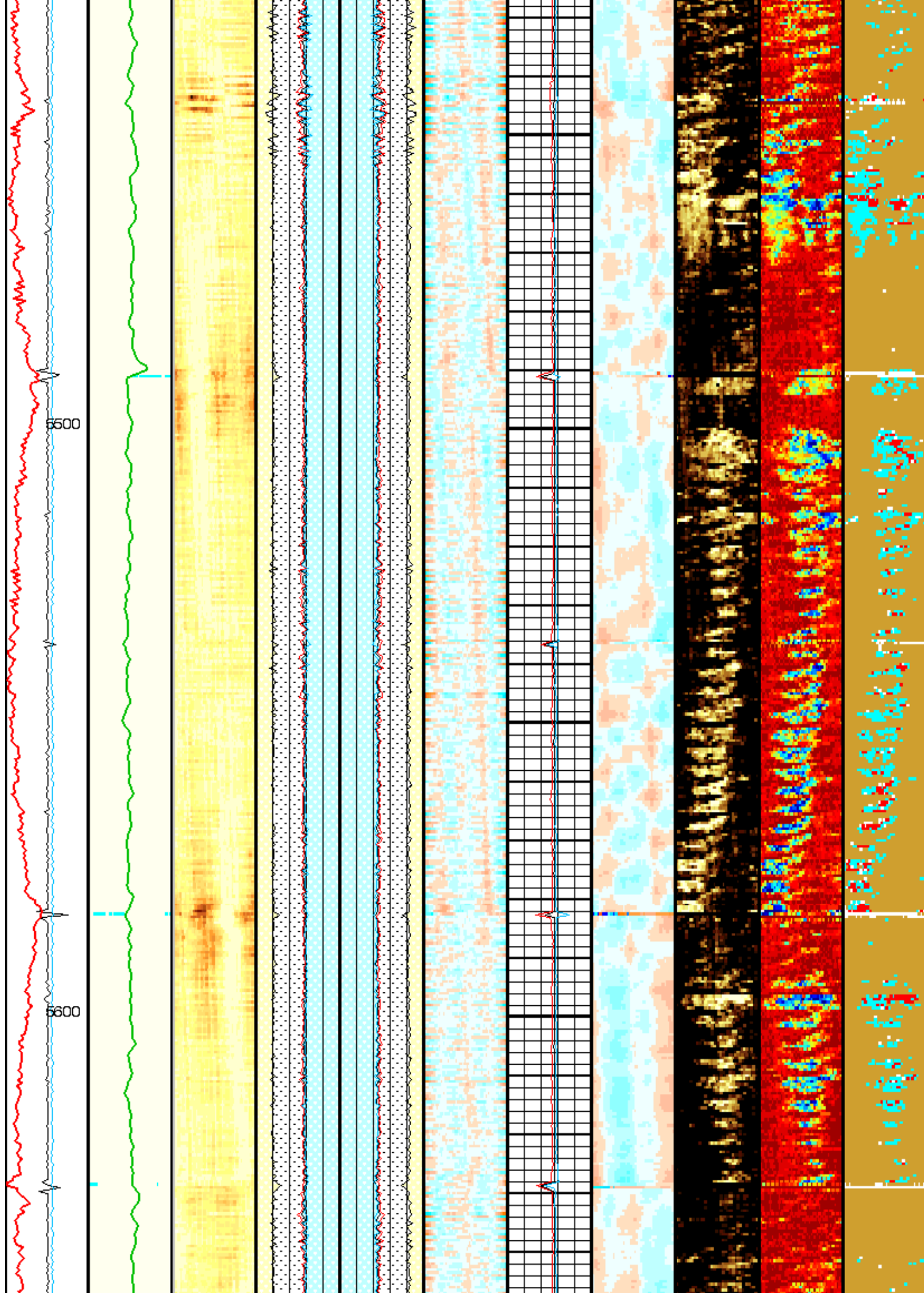


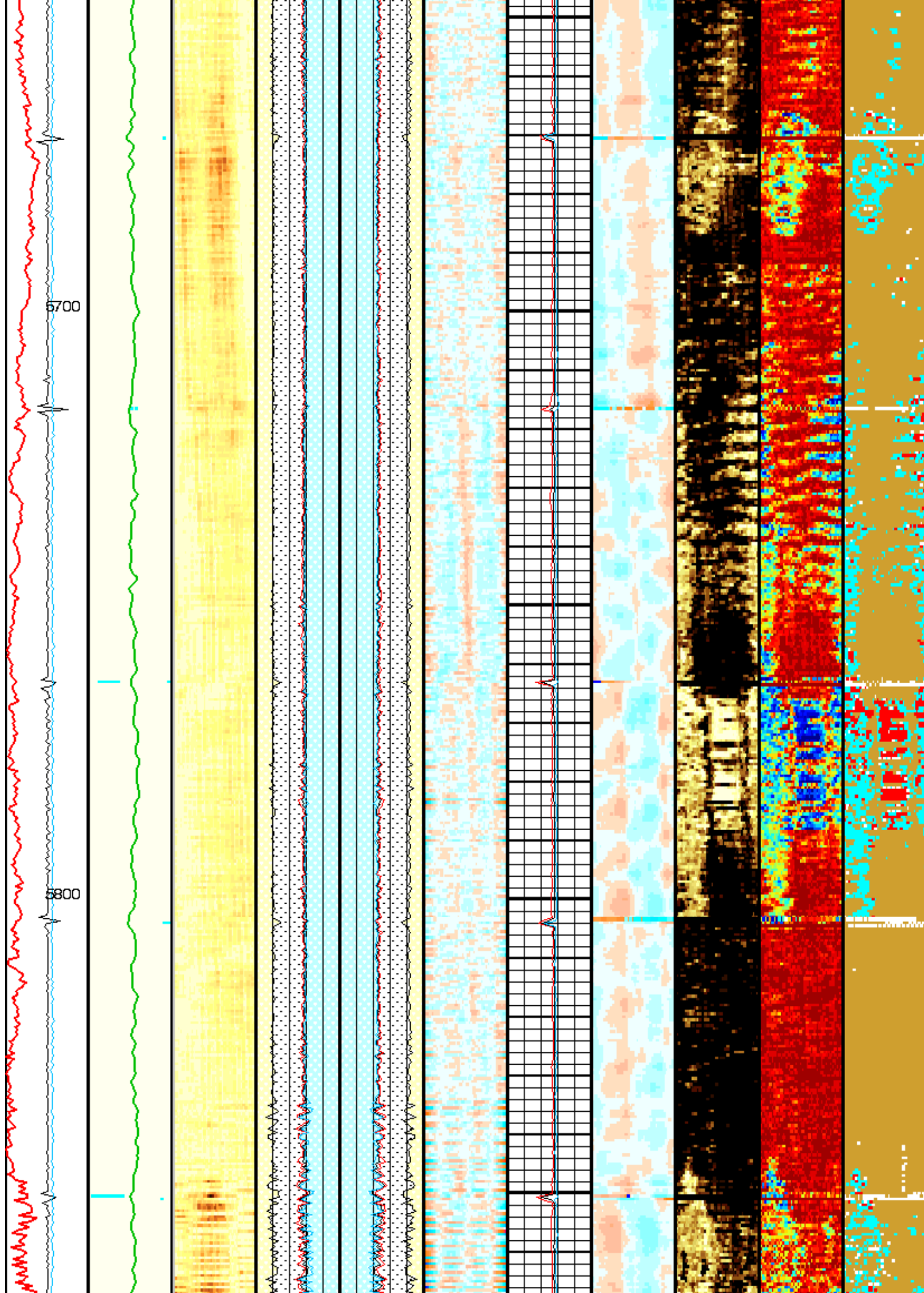


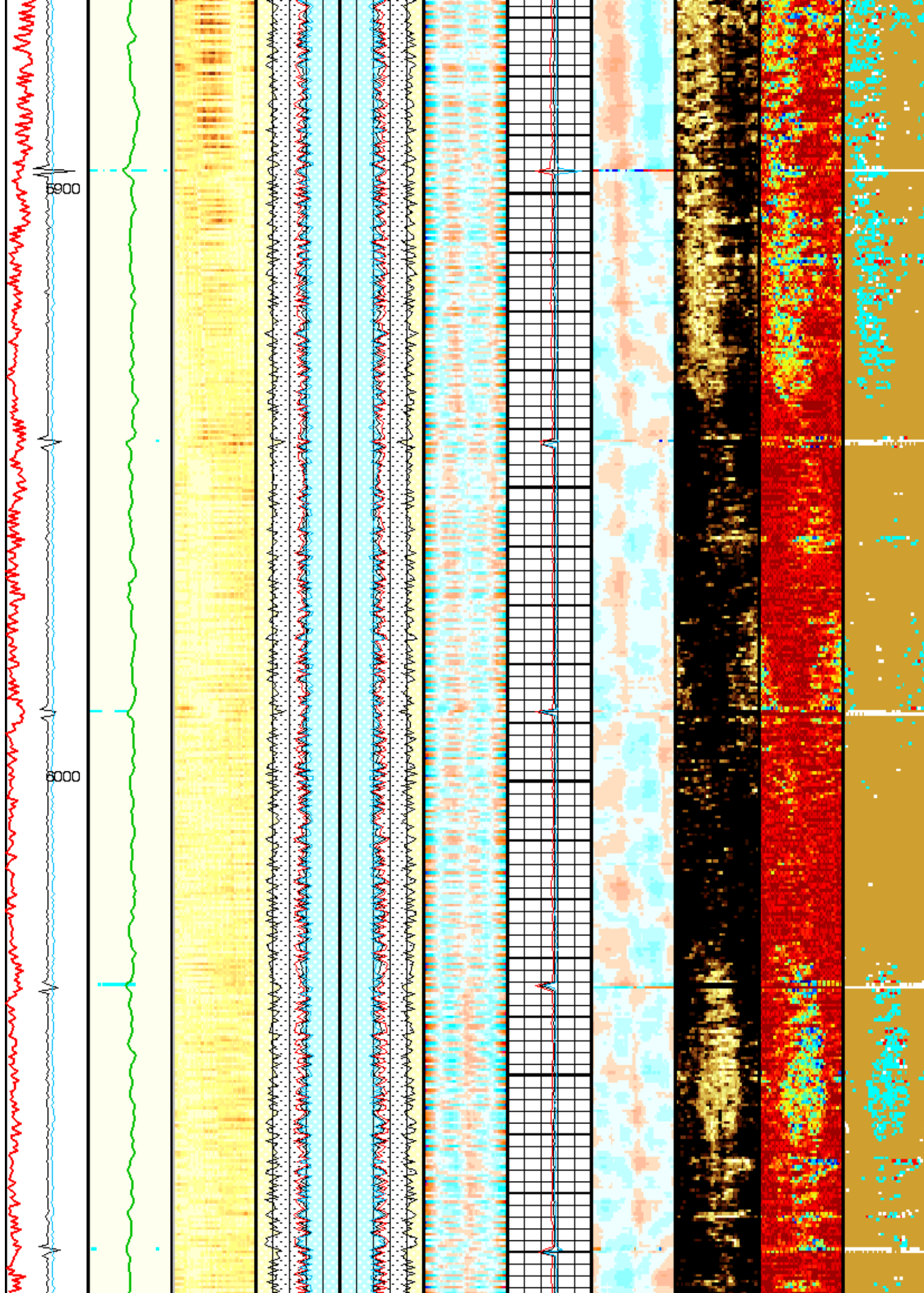


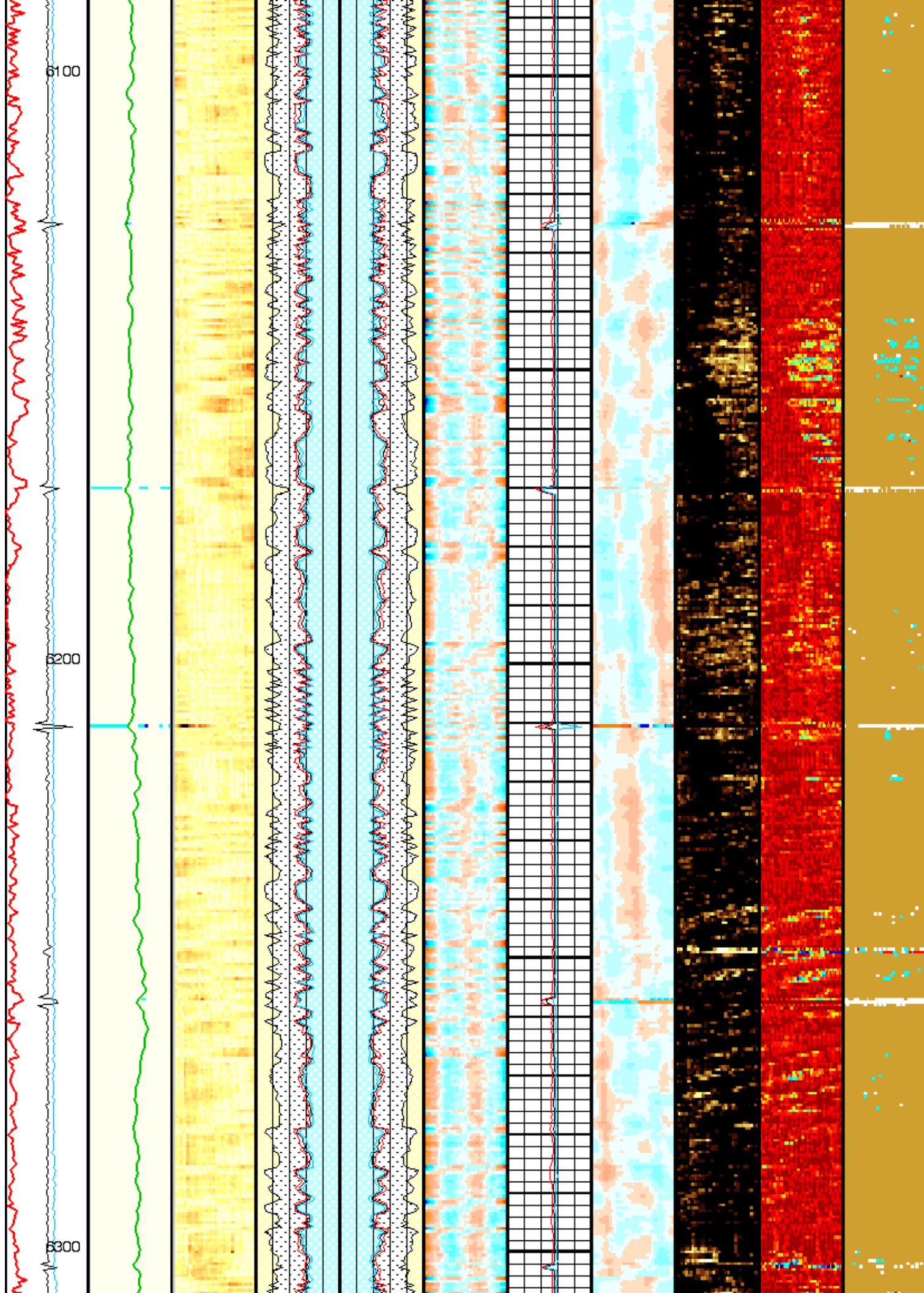


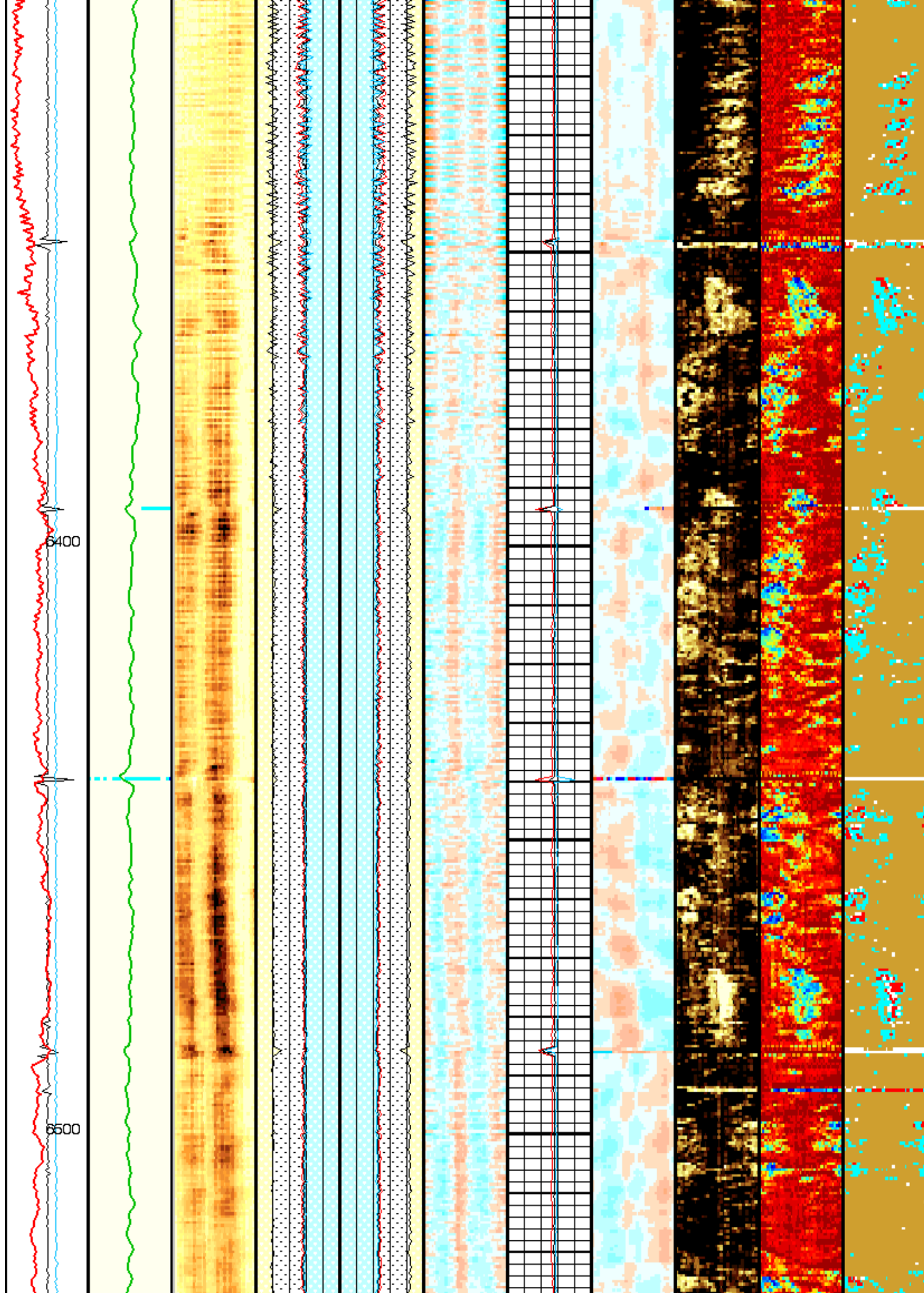


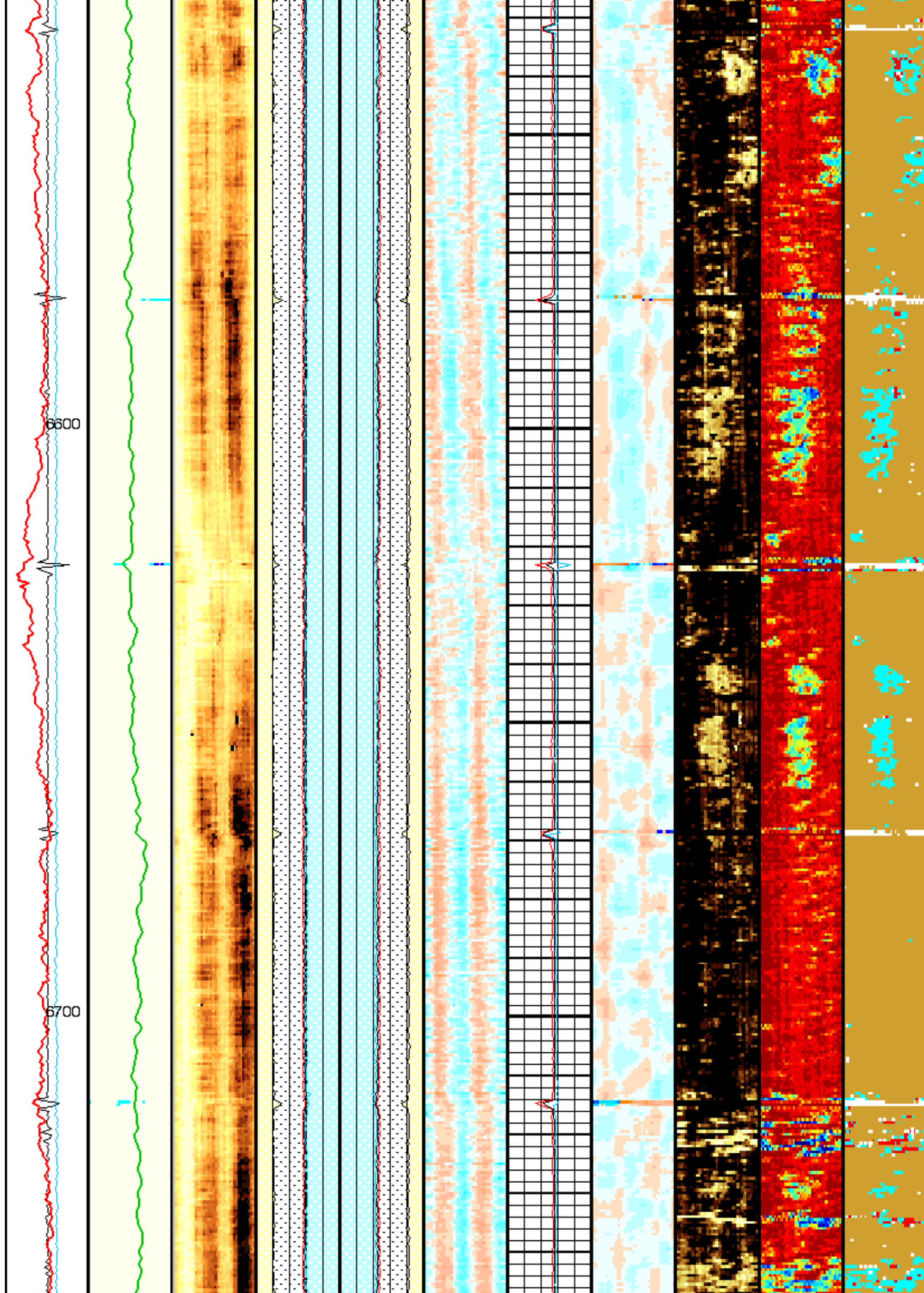


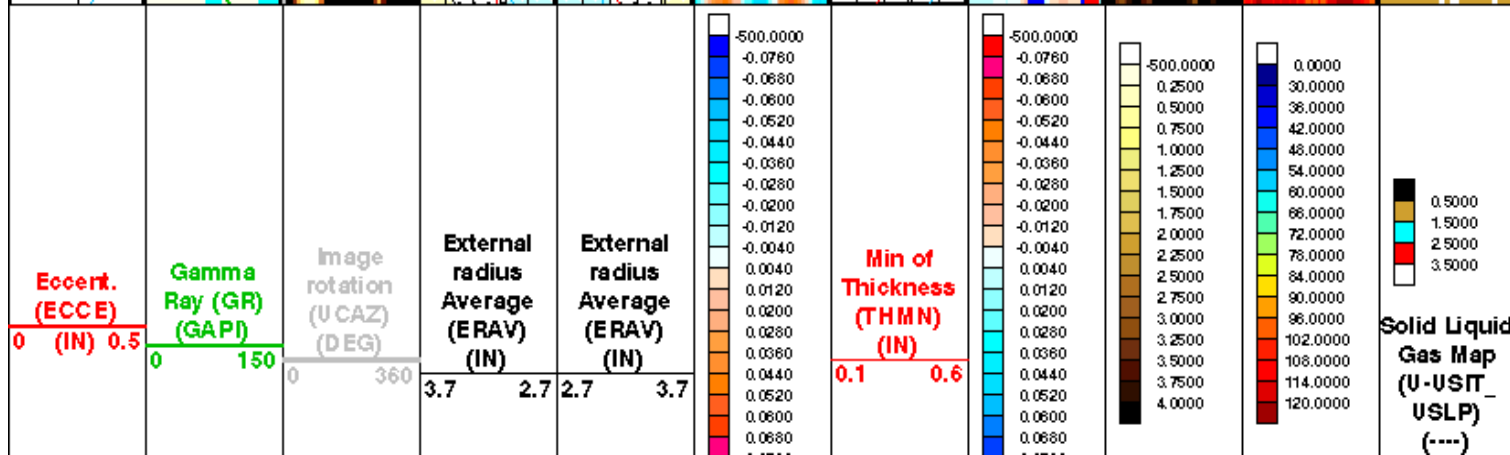
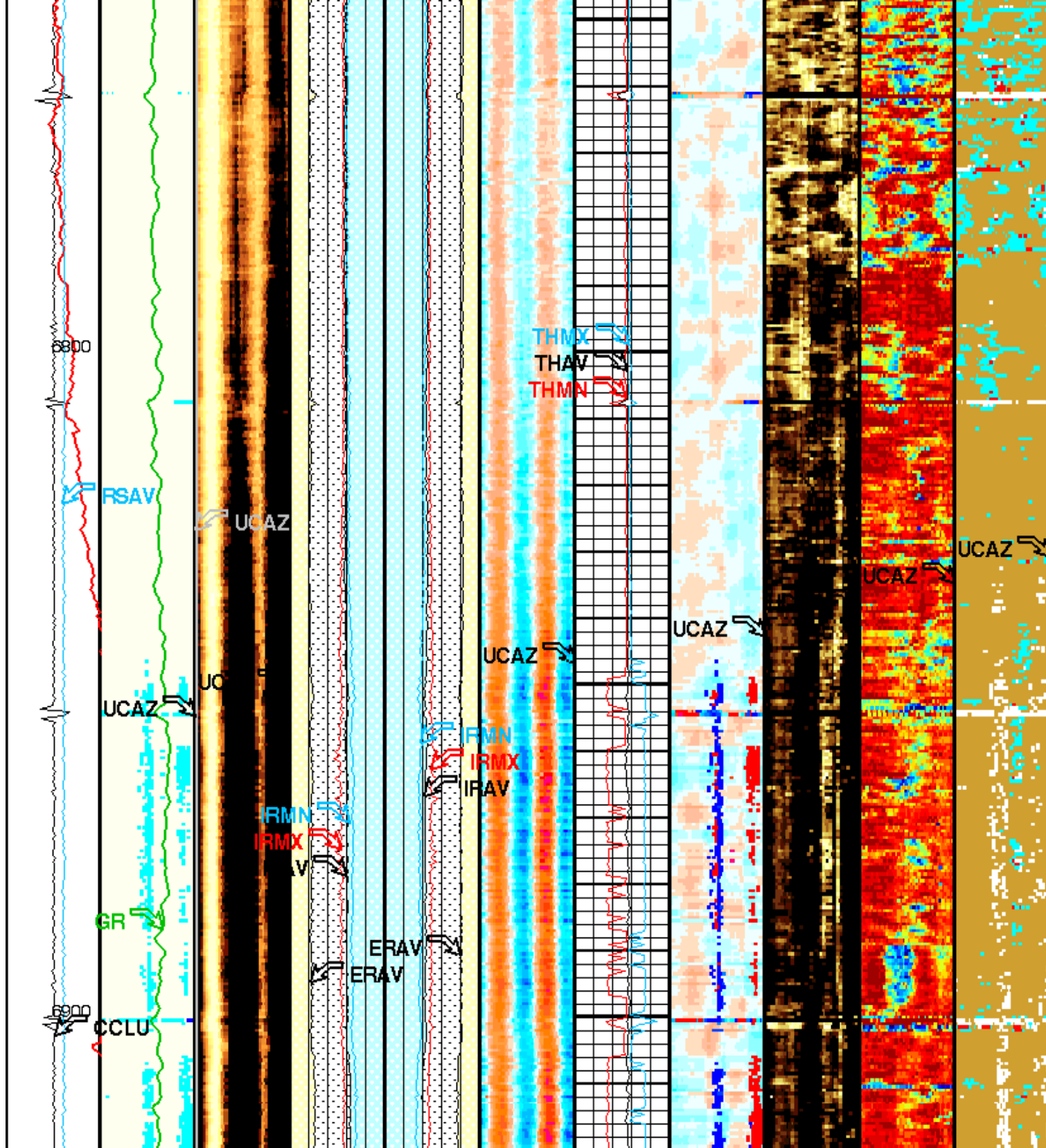












					Internal radii minus Ave (IRBK) (IN)	Thickness minus Ave (THBK) (IN)	Raw Acoustic Imped. (AIBK) (M RAY)	Flexural Attenuation (U-USIT_ UFAK) (DB/M)
CCL (CCLU) (----	-20	20	Process. flags (U FLG) (----	Amplitude of echo minus Max (AWBK) (DB)	Internal radius Average (IRAV) (IN)	Internal radius Average (IRAV) (IN)	Average of Thickness (THAV) (IN)	
					3.7 2.7	2.7 3.7	0.1	0.6
RSBV (RSBV) (RPS)	6	7.5			Internal radius Maximum (IRMX) (IN)	Internal radius Maximum (IRMX) (IN)	Maximum of Thickness (THMX) (IN)	
					3.7 2.7	2.7 3.7	0.1	0.6
					Min of Internal radius (IRMN) (IN)	Min of Internal radius (IRMN) (IN)		
					3.7 2.7	2.7 3.7		

Format: 5 inch IBC CEMENT COMPOSITE

Vertical Scale: 5" per 100'

Graphics File Created: 08-Jul-2012 14:51

OP System Version: 19C1-222

USIT-D 19C1-222
DTC-H 19C1-222

SGT-N 19C1-222
CAL-Y 19C1-222

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
DFVL	Default Fluid Velocity	203	US/F
DOT	Diameter of Transducer Sensor	2.874	IN
EMXV	EMEX Voltage	120	V
FDII	FPM Data Interpolation Interval	0	FT
FSOD	Fluid Slowness Fits Casing Outer Diameter	5_UFSL_N_ZMUD	
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_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_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	BFEF	
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	1.9	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)	212	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
CAL-Y: Casing Anomaly Locator - Y			
CCLD	CCL reset delay	12	IN
CCLT	CCL Detection Level	0.3	V
FEQL: Formation Evaluation Quick Look			
CSXO	Coefficient of Sxo	1	
DLLM	DPOR Lower Limit for Mineral Detection	0.35	CFCF
EDSE	EPT Data Selector	STANDARD	

FEPT	EPT Option Flag	NONE	
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
FPHI	Form Factor Porosity Source	DPHI	
GDCL	Grain Density Clean Reading	0	G/C3
GDSH	Grain Density Shale Reading	2.9	G/C3
GRCL	Gamma Ray Clean Reading	0	GAPI
GRSH	Gamma Ray Shale Reading	200	GAPI
GULM	Gamma Ray Upper Limit for Mineral Detection	999	GAPI
KGR	Kill GR Shale Index (USE, KILL)	USE	
KPN	Kill NPES Shale Index (USE, KILL)	USE	
KRH	Kill RHGA Shale Index (USE, KILL)	USE	
KSP	Kill SP Shale Index (USE, KILL)	USE	
LSWB	SWB Limit Selector (NO LIMIT, LIMIT)	NO LIMIT	
MDET	Mineral Flag (NONE, COAL, SALT)	NONE	
NLIM	Neutron Limit for Mineral Detection	0.01	CFCF
NPCL	NPES Clean Reading	0	CFCF
NPSH	NPES Shale Reading	0.5	CFCF
RWB	Bound Water Resistivity	0.1	OHM M
RXOF	RXO Presence Flag	ABSENT	
SDGC	Clean Grain Density Selector	GDCL	
SEXP	N in Water Saturation Equation	2	
SIS	Three Mineral Shale Index Selector	NOT_USED	
SPCL	SP Clean Reading	-200	MV
SPSB	SP Shale Baseline	0	MV
SPSH	SP Shale Reading	0	MV
SWMN	Sw Minimum	0.05	CFCF
TPCN	Time Propagation of non-shale	7.2	NS/M
TPM1	Time Propagation, Matrix-1 <Limestone>	9.8	NS/M
TPM2	Time Propagation, Matrix-2 <Sandstone>	7.2	NS/M
TPM3	Time Propagation, Matrix-3 <Dolomite>	8.7	NS/M
TPSH	Time Propagation of Shale	8.9	NS/M
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	CASED	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
FCD	Future Casing (Outer) Diameter	0	IN
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	
HVCS	Integrated Hole Volume Caliper Selection	AUTOMATIC	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	TDL	
STKT	STI Stuck Threshold	5	FT
TDD	Total Depth - Driller	11761.00	FT
TDL	Total Depth - Logger	6920.00	FT
System and Miscellaneous			
ALTDPCN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	8.750	IN
BSAL	Borehole Salinity	1485.00	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	4.0	FT
FLEV	Fluid Level	-50000.00	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	OHM M
RW	Resistivity of Connate Water	1.0000	OHM M
TD	Total Depth	11761	FT
TWS	Temperature of Connate Water Sample	100.00	DEGF

Input DLIS Files

DEFAULT	Splice_USI_012CUP	FN:1	PRODUCER	08-Jul-2012 14:40	7111.0 FT	273.5 FT
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Output DLIS Files

DEFAULT	USI_013PUP	FN:11	PRODUCER	08-Jul-2012 14:51
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Input DLIS Files

DEFAULT	Splice_USI_012CUP	FN:1	PRODUCER	08-Jul-2012 14:40	7111.0 FT	273.5 FT
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Output DLIS Files

DEFAULT	USI_013PUP	FN:11	PRODUCER	08-Jul-2012 14:51	6920.0 FT	277.5 FT
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OP System Version: 19C1-222

USIT-D	19C1-222	SGT-N	19C1-222
DTC-H	19C1-222	CAL-Y	19C1-222

Image
rotation
(U CAZ)
(D EG)

0	360
---	-----

RSAV
(RSAV)
(RPS)

6	7.5
---	-----

Maximum of AI (AIMX)	
-1 (M RAY)	9

Maximum
Flexural
Attenuation
(U-USIT_
UFAX)
(DB/M)

20	120
----	-----

Average
Flexural
Attenuation
(U-USIT_
UFAV)
(DB/M)

20	120
----	-----

CCL
(CCLU)
(----

-20 20

Process. flags	00000000
(U FLG)	00000000
(----	00000000

Average of AI (AIAV)	
-1 (M RAY)	9

**Eccent.
(ECCE)**

0 (IN) 0.5

Gamma Ray
(GR)
0 (GAPI) 150

Minimum of A	
(AIM N)	
-1 (M RAY)	9

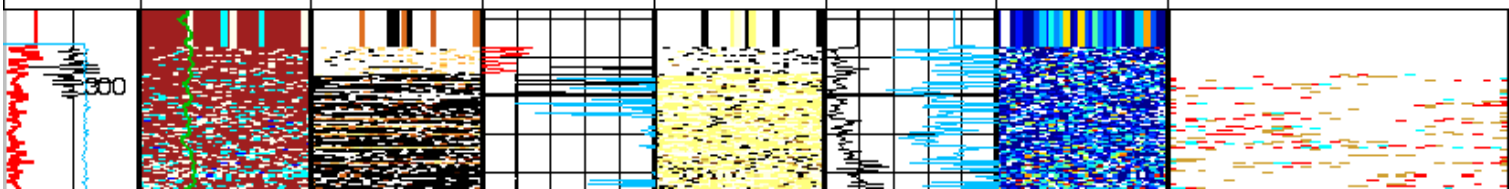
Minimum
Flexural
Attenuation
(U-USIT_
UFAN)
(DB/M)

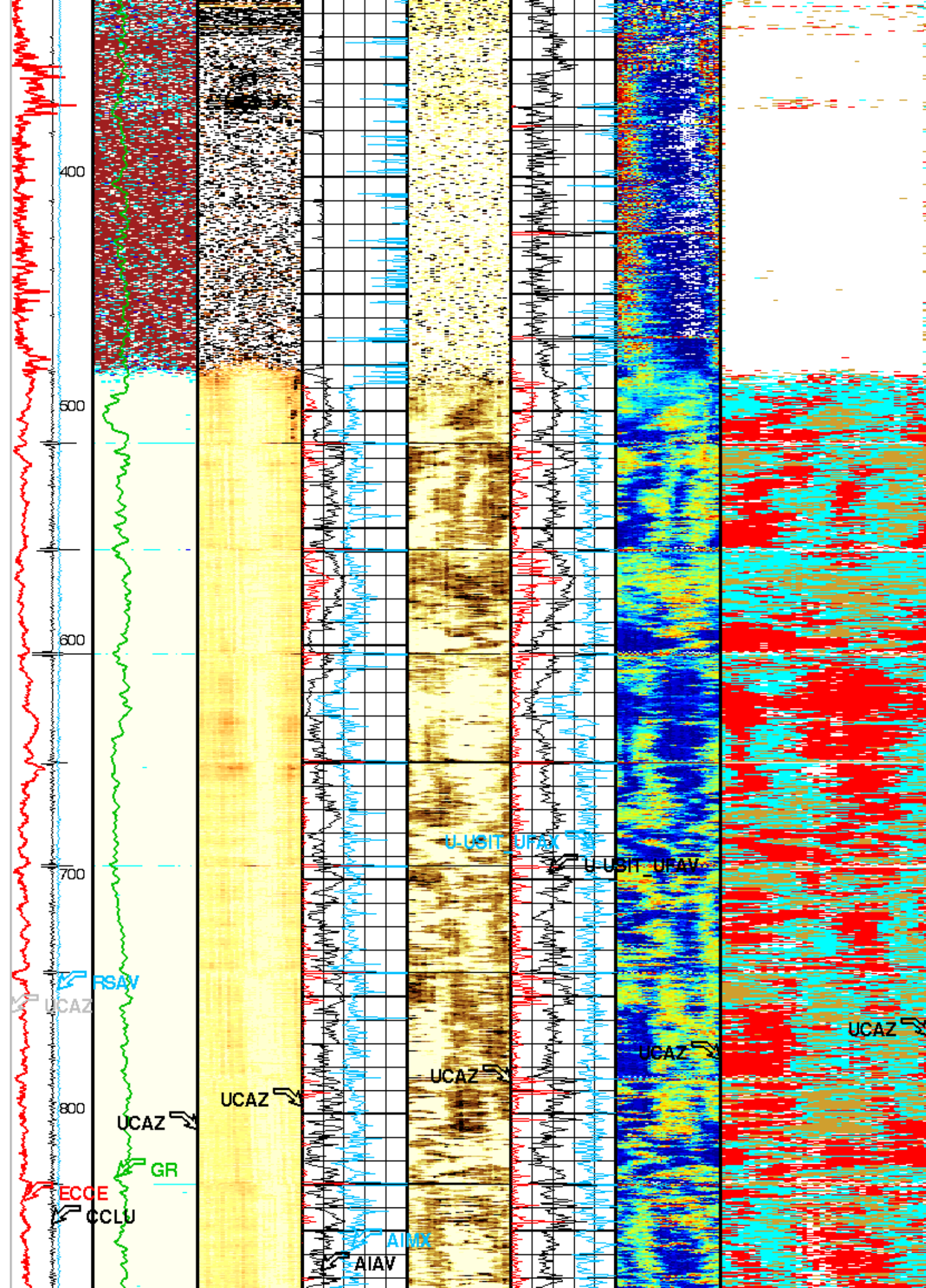
20	120
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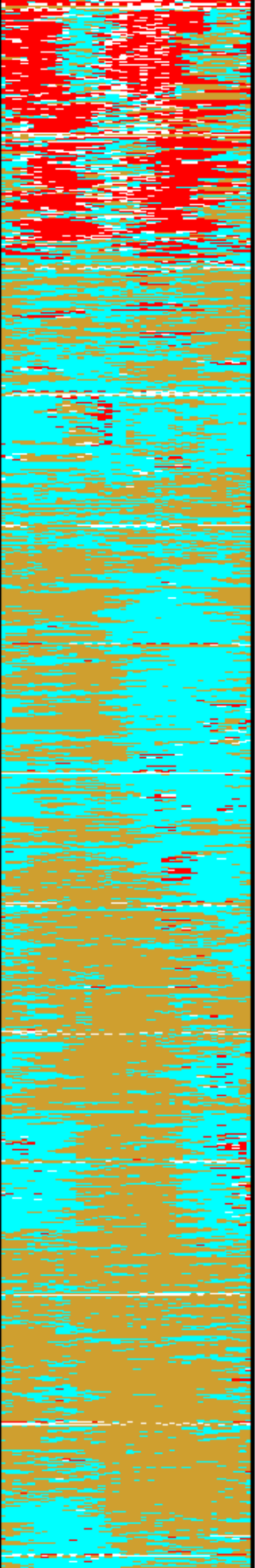
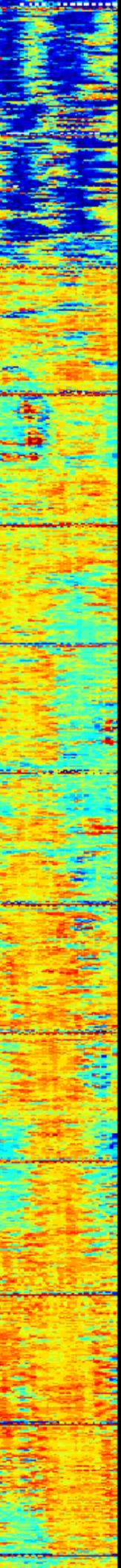
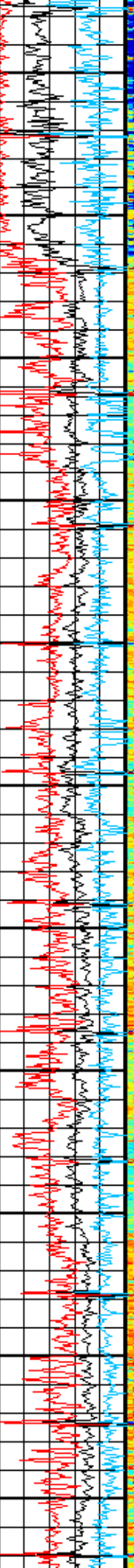
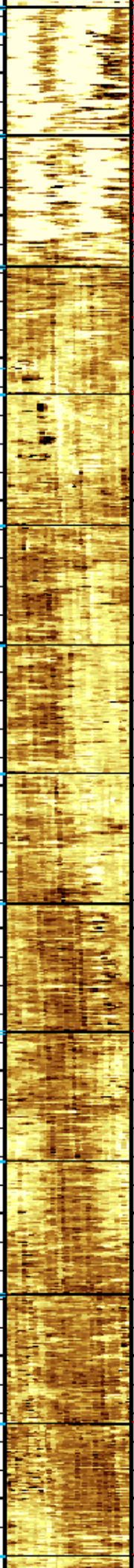
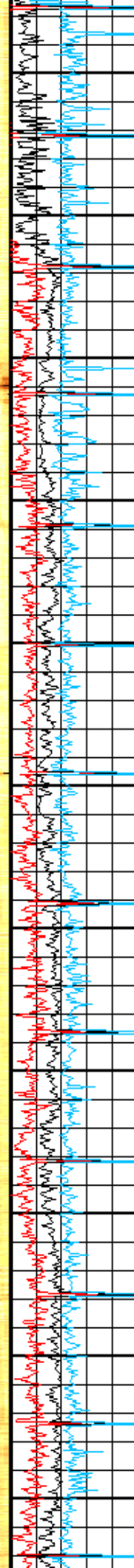
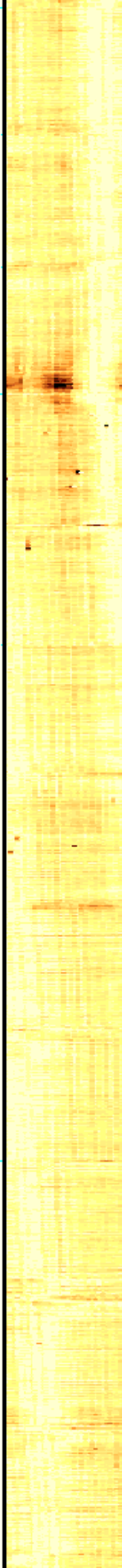
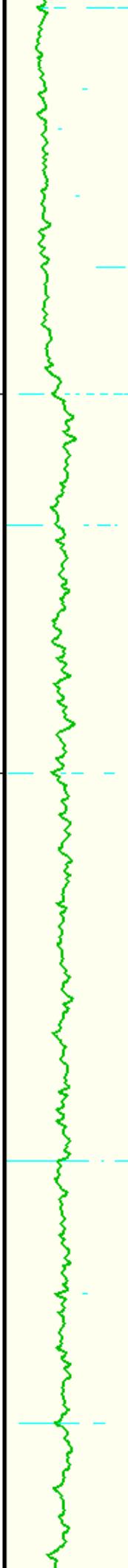
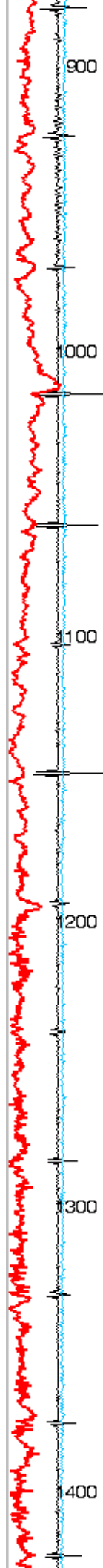
Solid Liquid Gas Map
(U-USIT-USLP)
(----

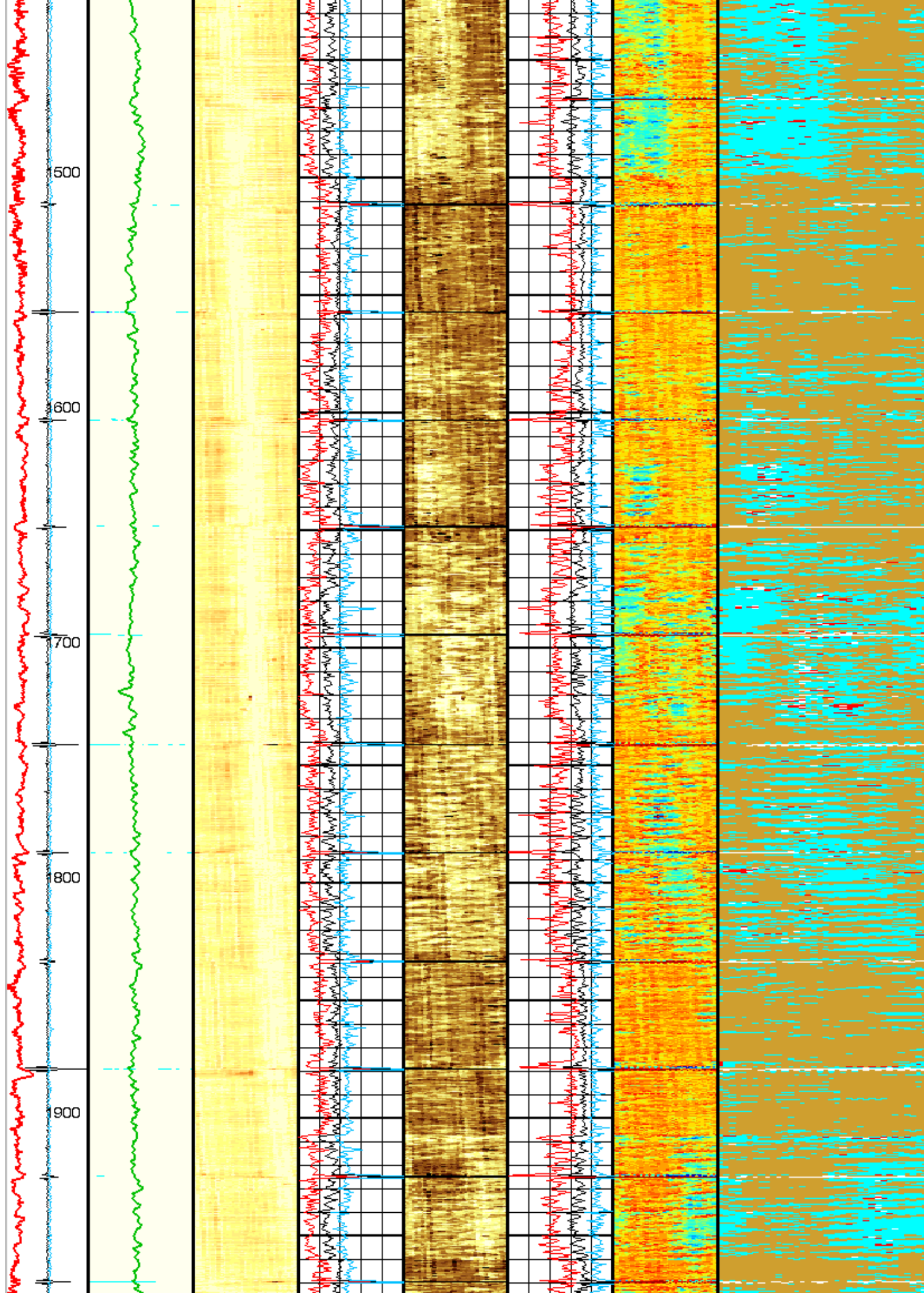
Amplitude of
echo minus
Max (AWBK)
(DB)

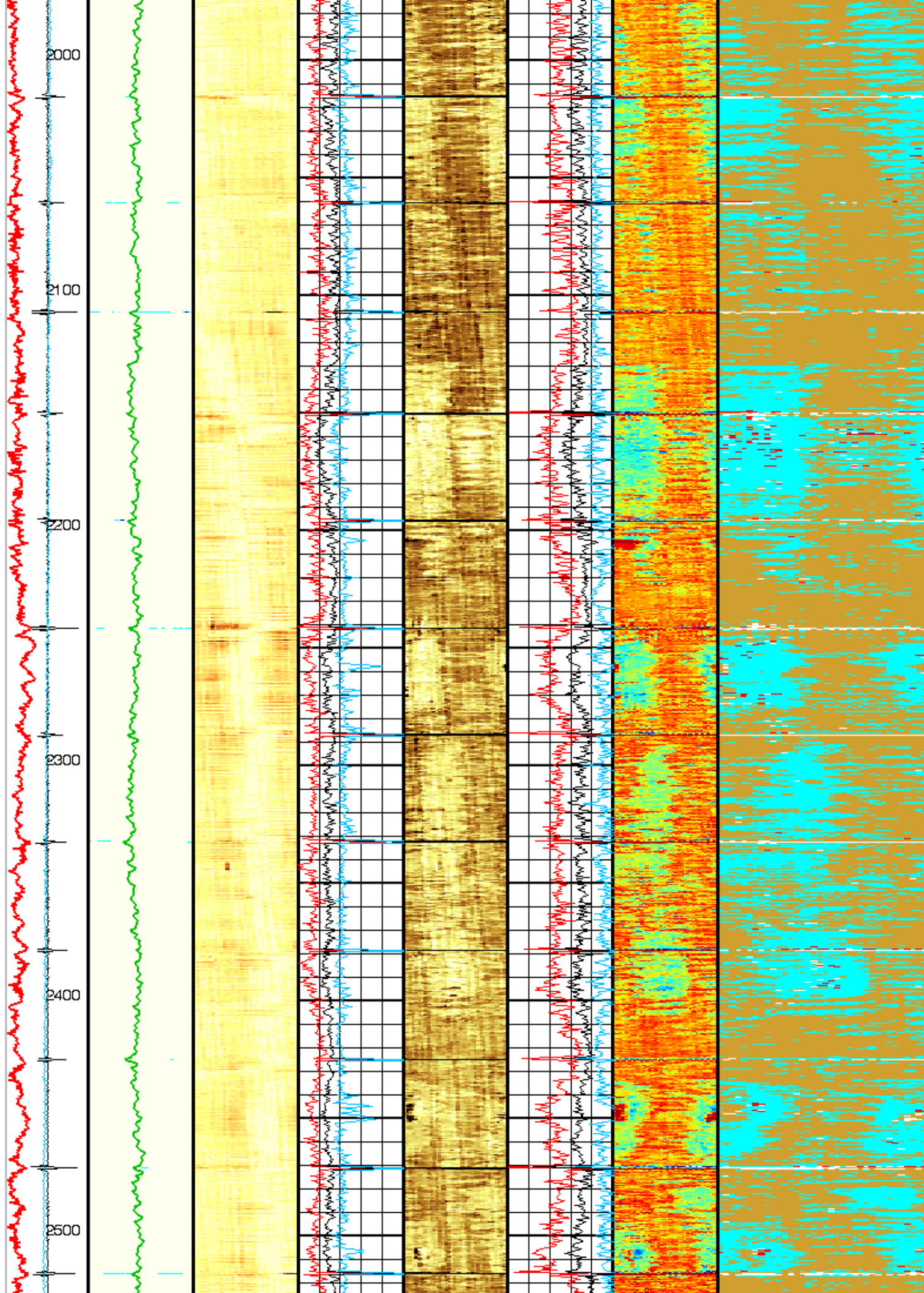
Raw Acoustic
Imped. (AIBK)
(M RAY)

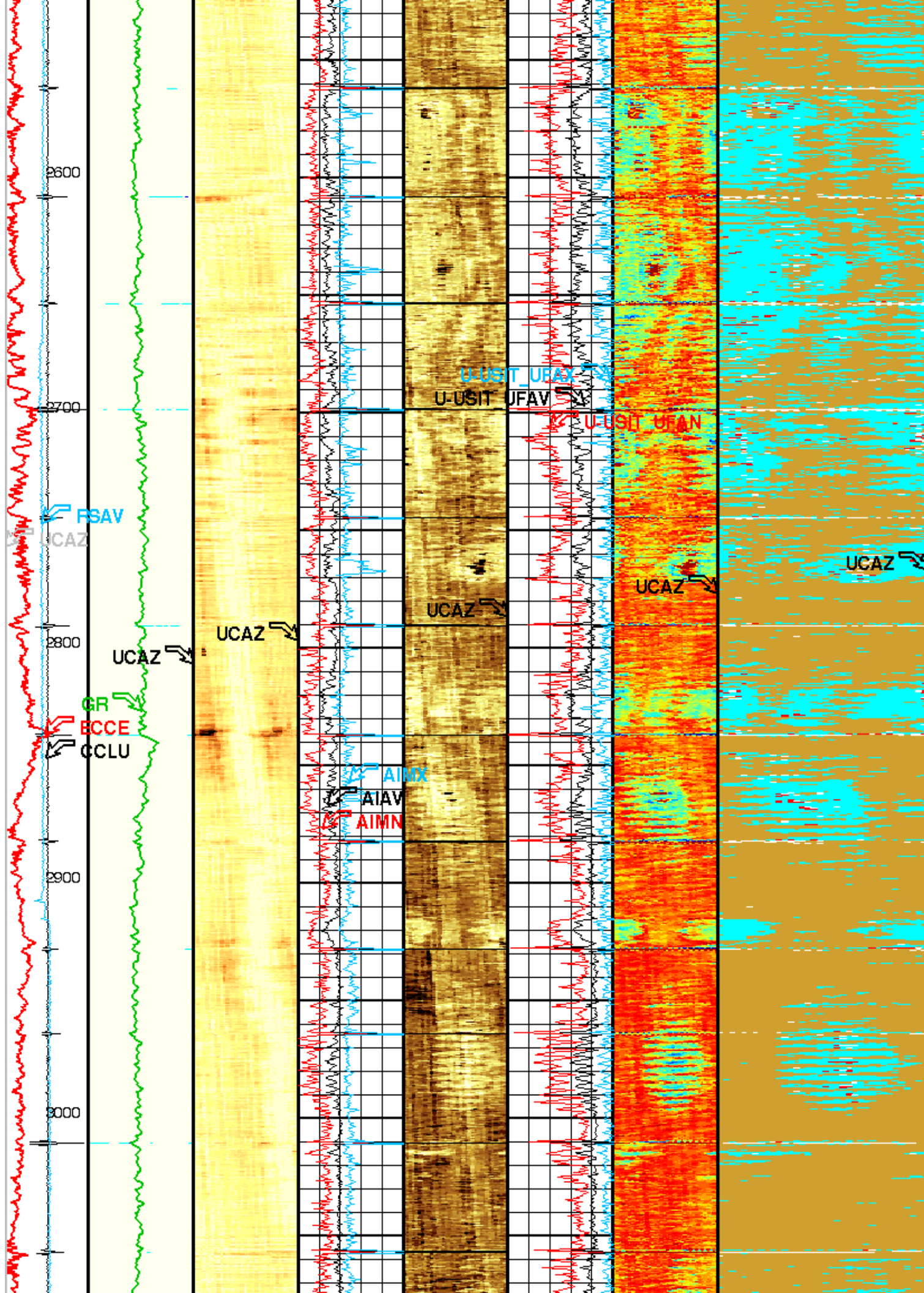
Flexural
Attenuation
(U-USIT_
UFAK)
(DB/M)

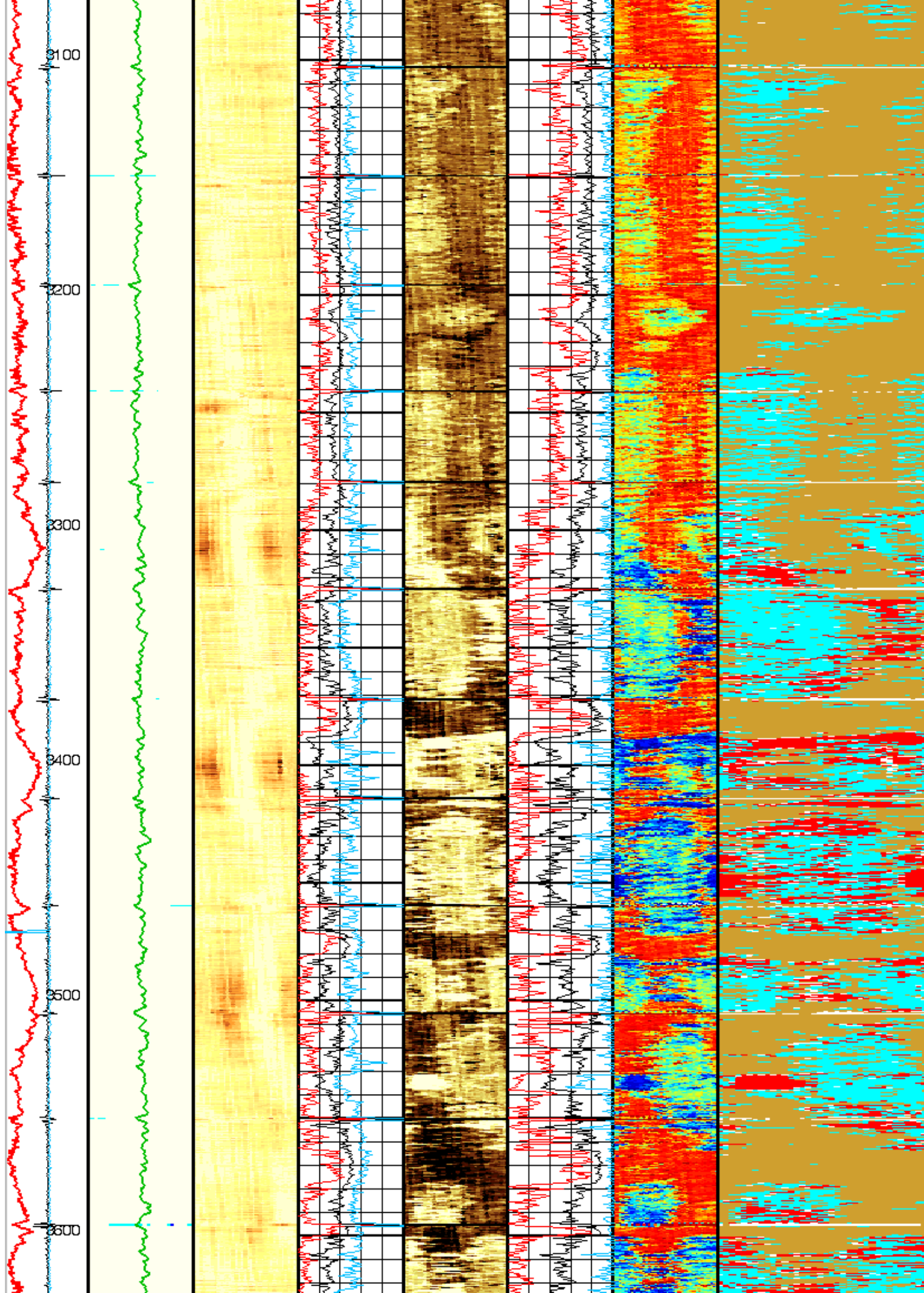


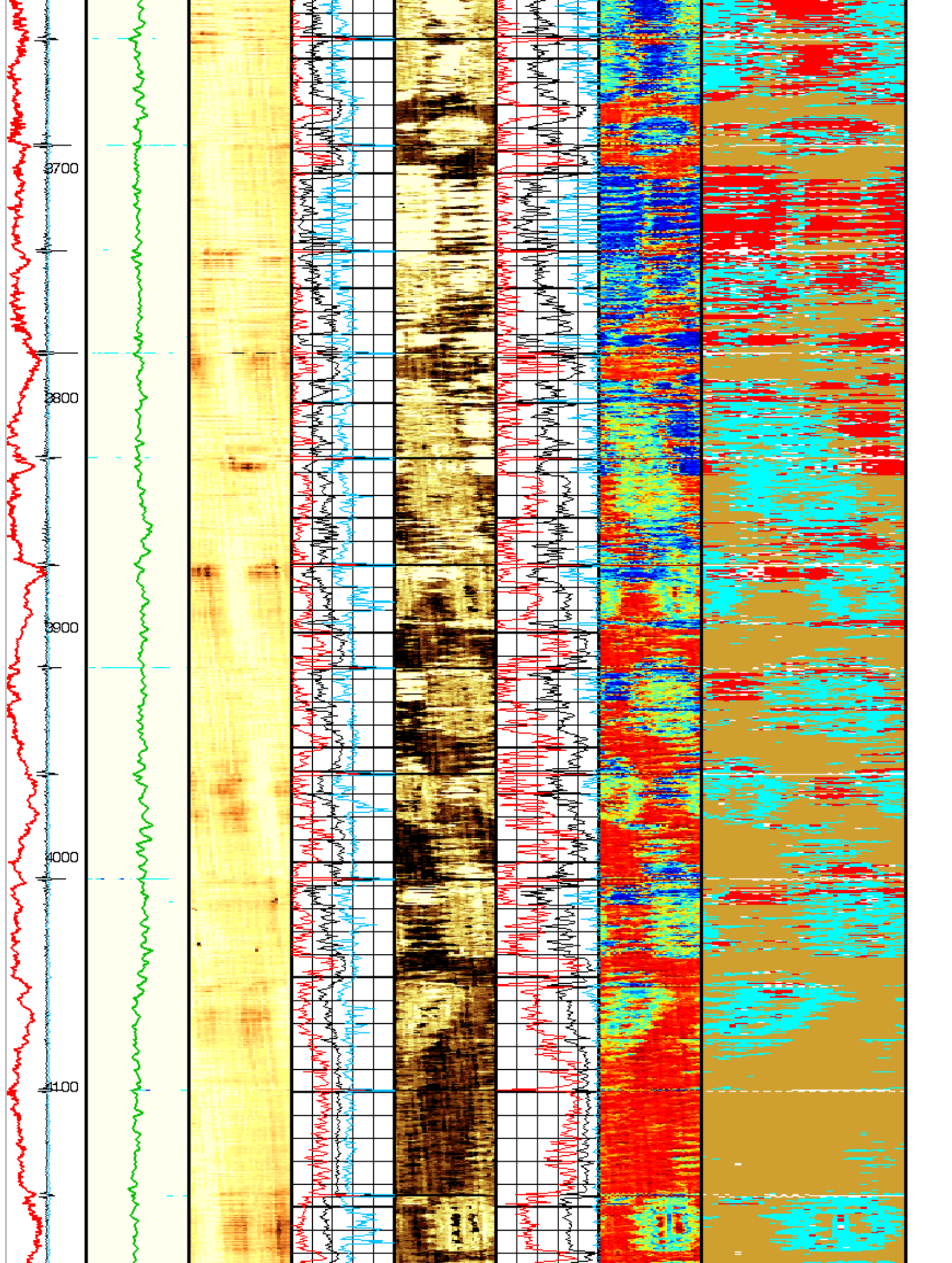


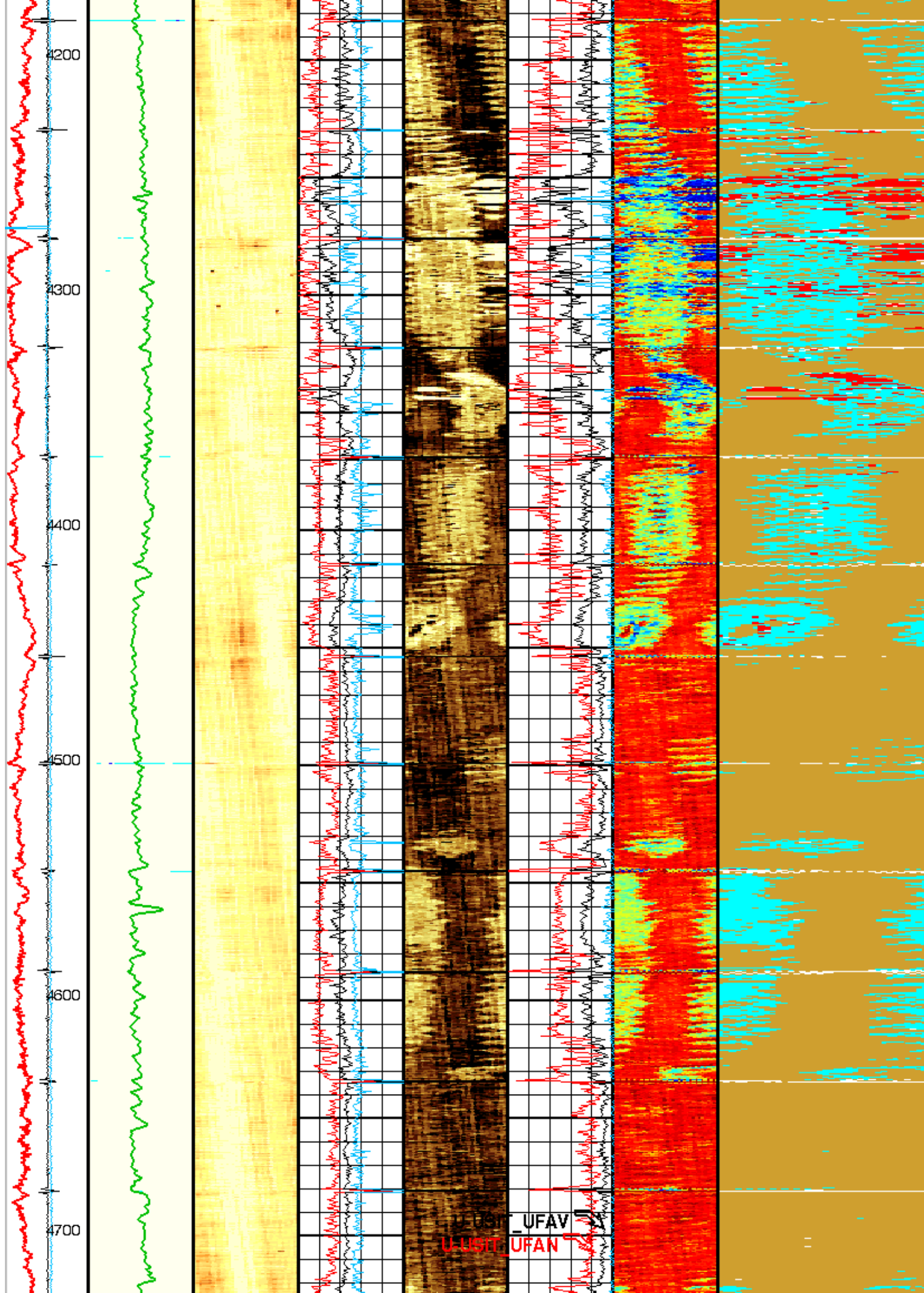


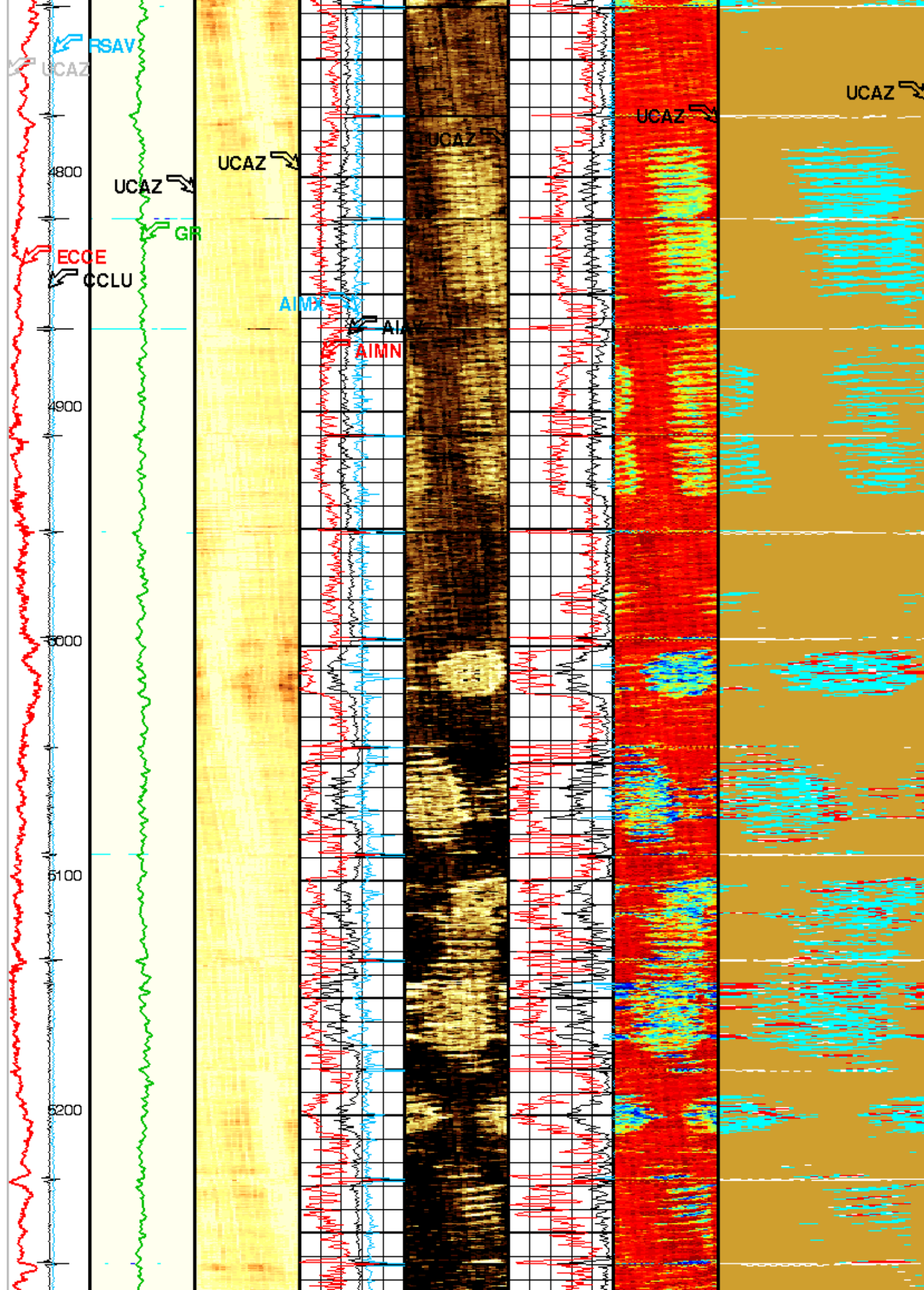


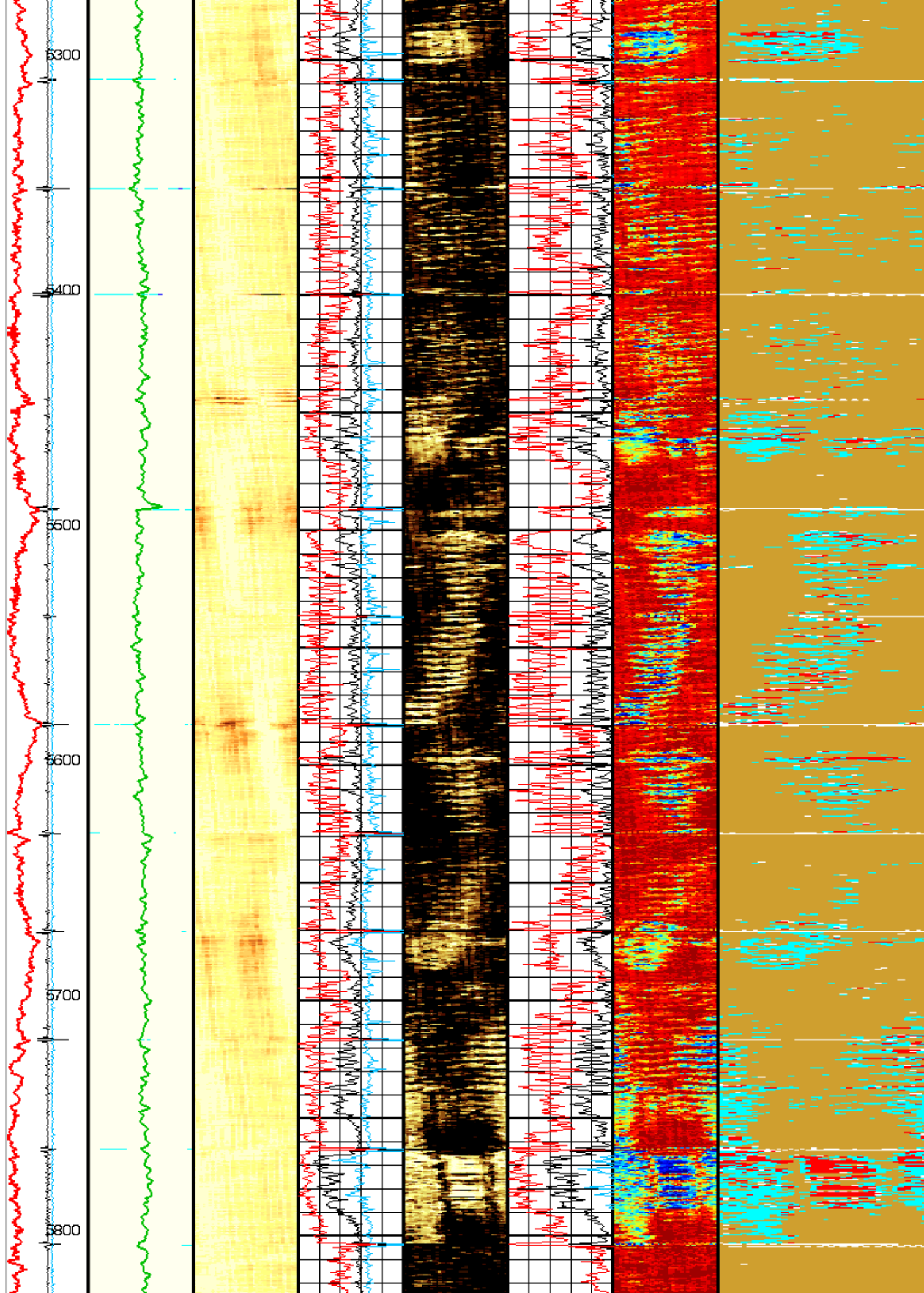


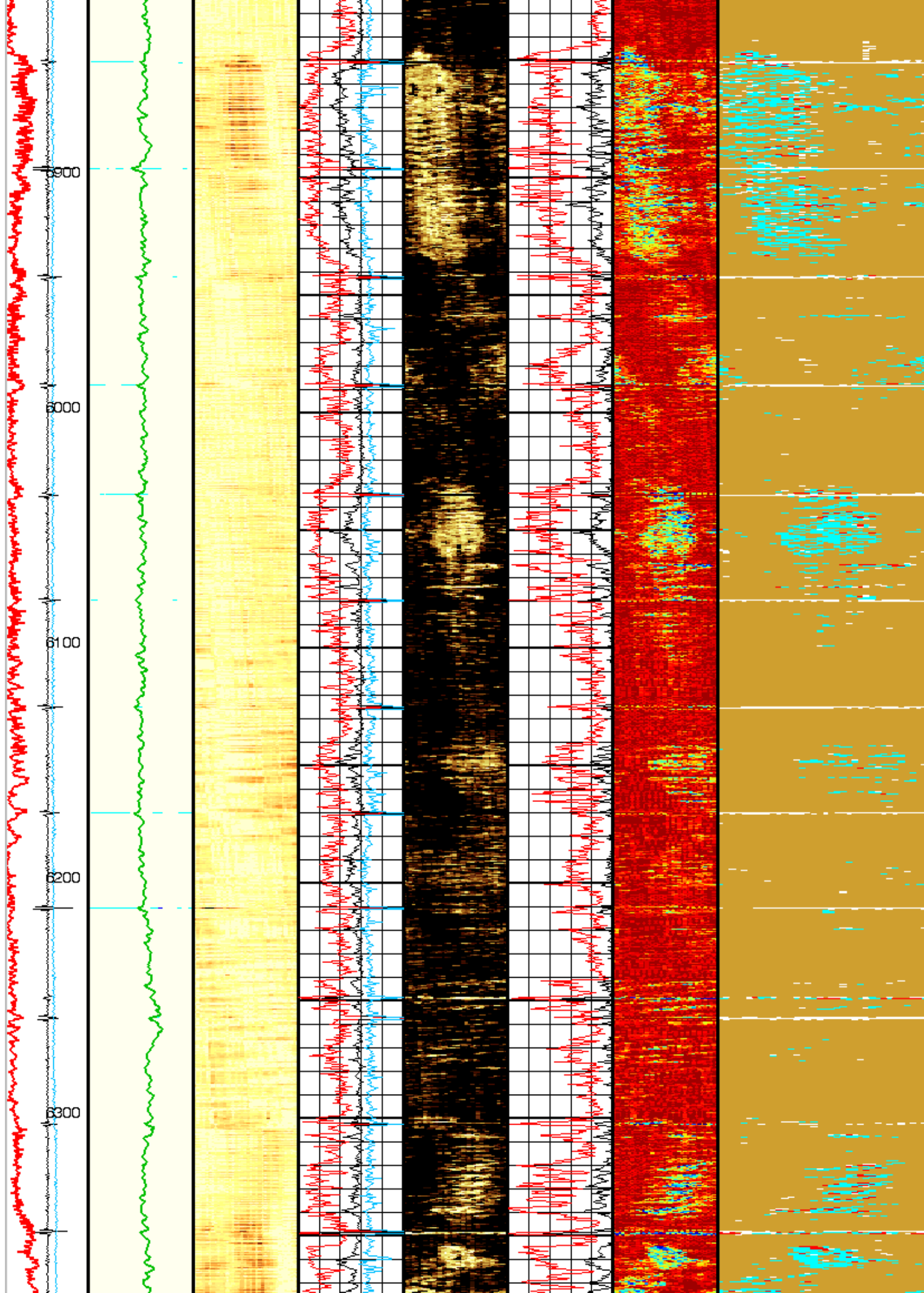


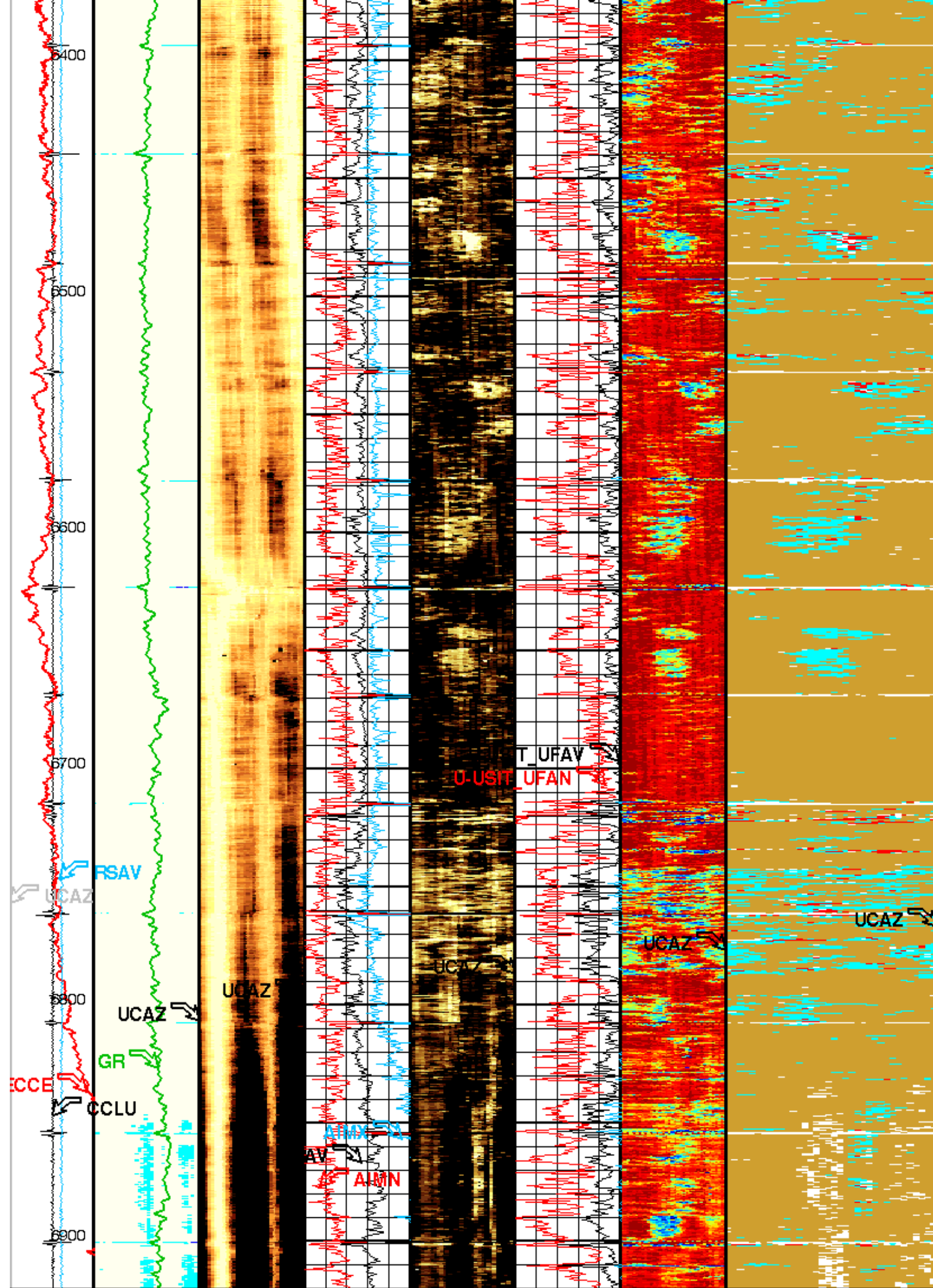


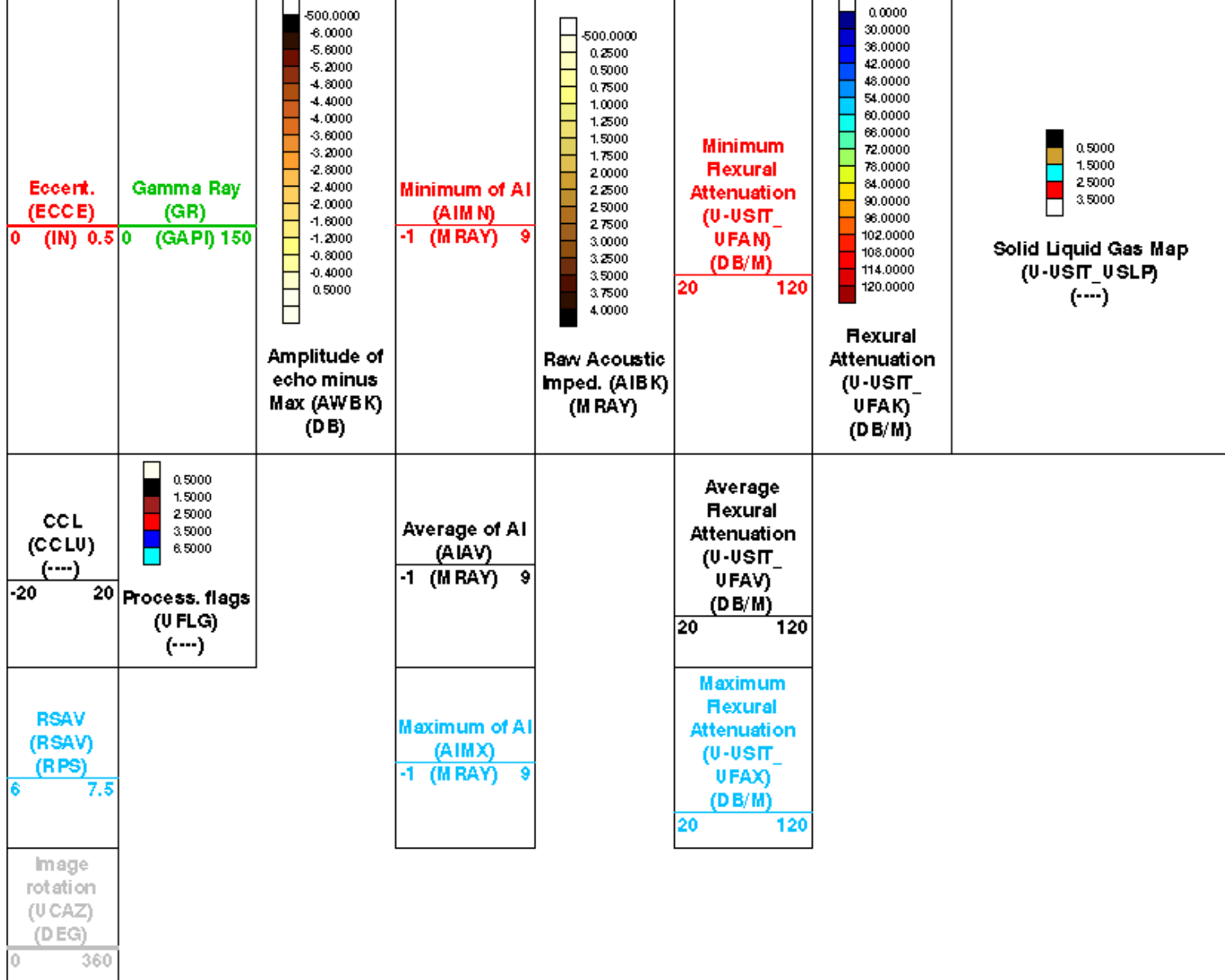












Format: 2 inch IBC SLG Vertical Scale: 2" per 100' Graphics File Created: 08-Jul-2012 14:51

OP System Version: 19C1-222

USIT-D 19C1-222 SGT-N 19C1-222
DTC-H 19C1-222 CAL-Y 19C1-222

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	203	US/F
DOT	Diameter of Transducer Sensor	2.874	IN
EMXV	EMEX Voltage	120	V
FSOD	Fluid Slowness Fits Casing Outer Diameter	5_UFSL_N_ZMUD	
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	
U-MAO	USIT Measurement Angular Offset	-10	DEG
U-USTO	Ultrasonic Time Offset	-2	US
U-SUB	Ultrasonic Subassembly Identifier	Sub 7 inch	
U-WKM	Ultrasonic Working Mode	10DEG_6IN_136UNF_LF	
V-CAS	Ultrasonic Transversal Velocity in Casing	51.4	US/F
W-LEN	T 3 Processing Length	21.7078	US
Z-CAS	Acoustic Impedance of Casing	46.25	MRAY
Z-INI	Initial Estimate of Cement Impedance	-1	MRAY
Z-MUD	Acoustic Impedance of Mud	1.9	MRAY
Z-TCM	Acoustic Impedance Threshold for Cement	2.6	MRAY
Z-TGS	Acoustic Impedance Threshold for Gas	0.3	MRAY
System and Miscellaneous			
BS	Bit Size	8.750	IN
CWEI	Casing Weight	26.00	LB/F
DO	Depth Offset for Playback	4.0	FT
PP	Playback Processing	NORMAL	

Input DLIS Files

DEFAULT	Splice_USI_012CUP	FN:1	PRODUCER	08-Jul-2012 14:40	7111.0 FT	273.5 FT
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Output DLIS Files

DEFAULT	USI_013PUP	FN:11	PRODUCER	08-Jul-2012 14:51
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Schlumberger

2" VDL Wide

MAXIS Field Log

Company: Encana Oil & Gas Inc

Well: Stelling 3B-4H

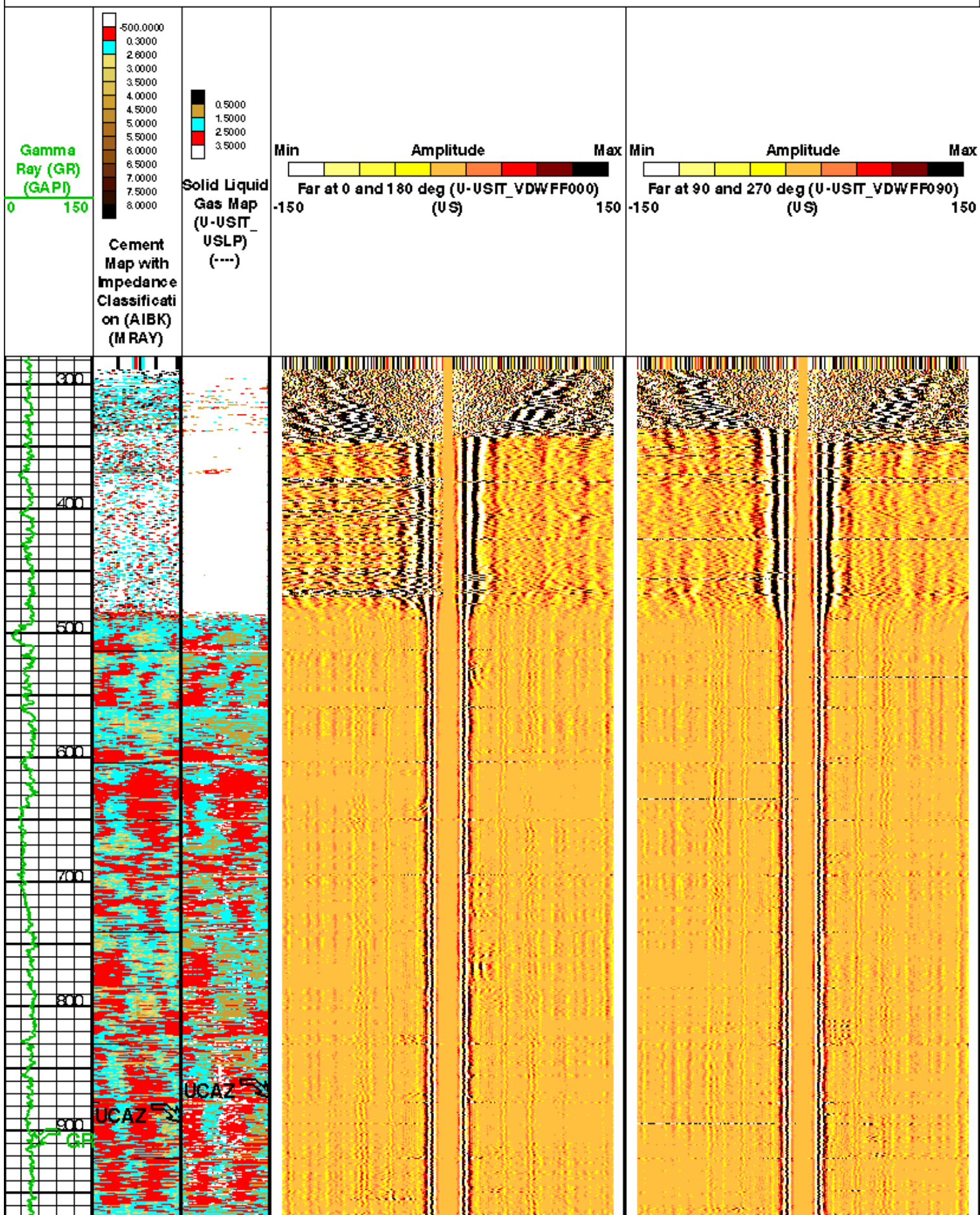
Input DLIS Files

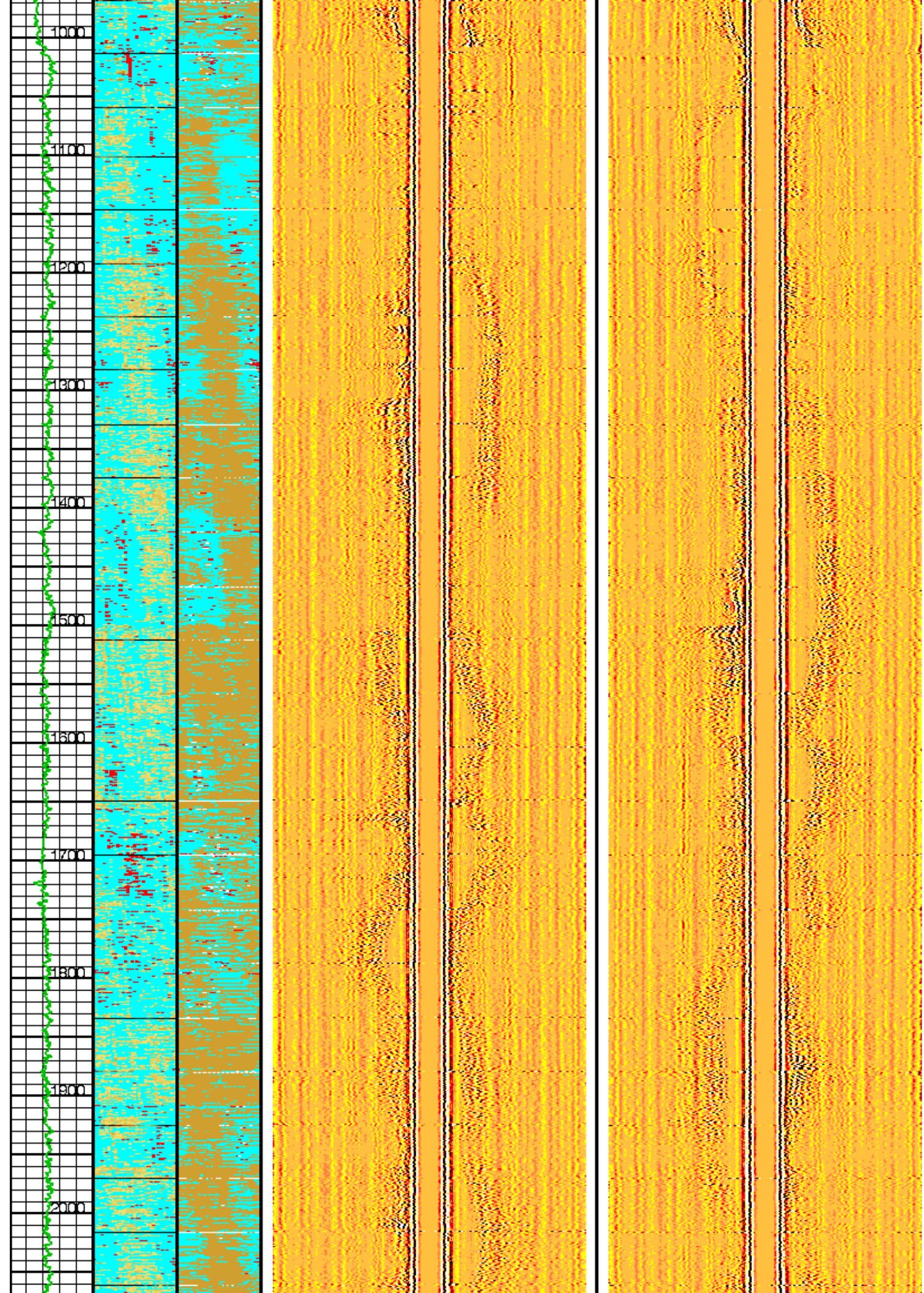
DEFAULT	Splice_USI_012CUP	FN:1	PRODUCER	08-Jul-2012 14:40	7111.0 FT	273.5 FT
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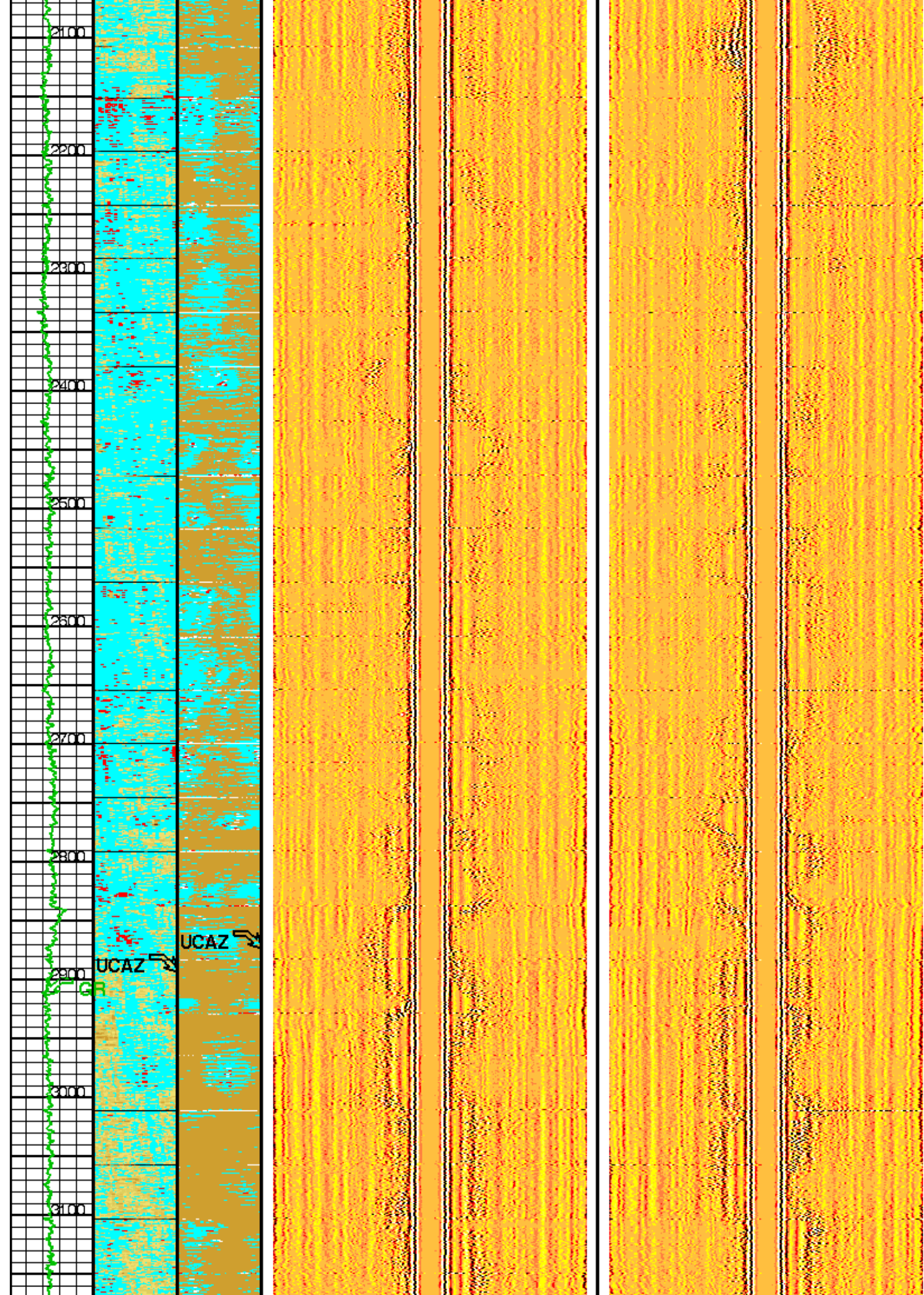
Output DLIS Files

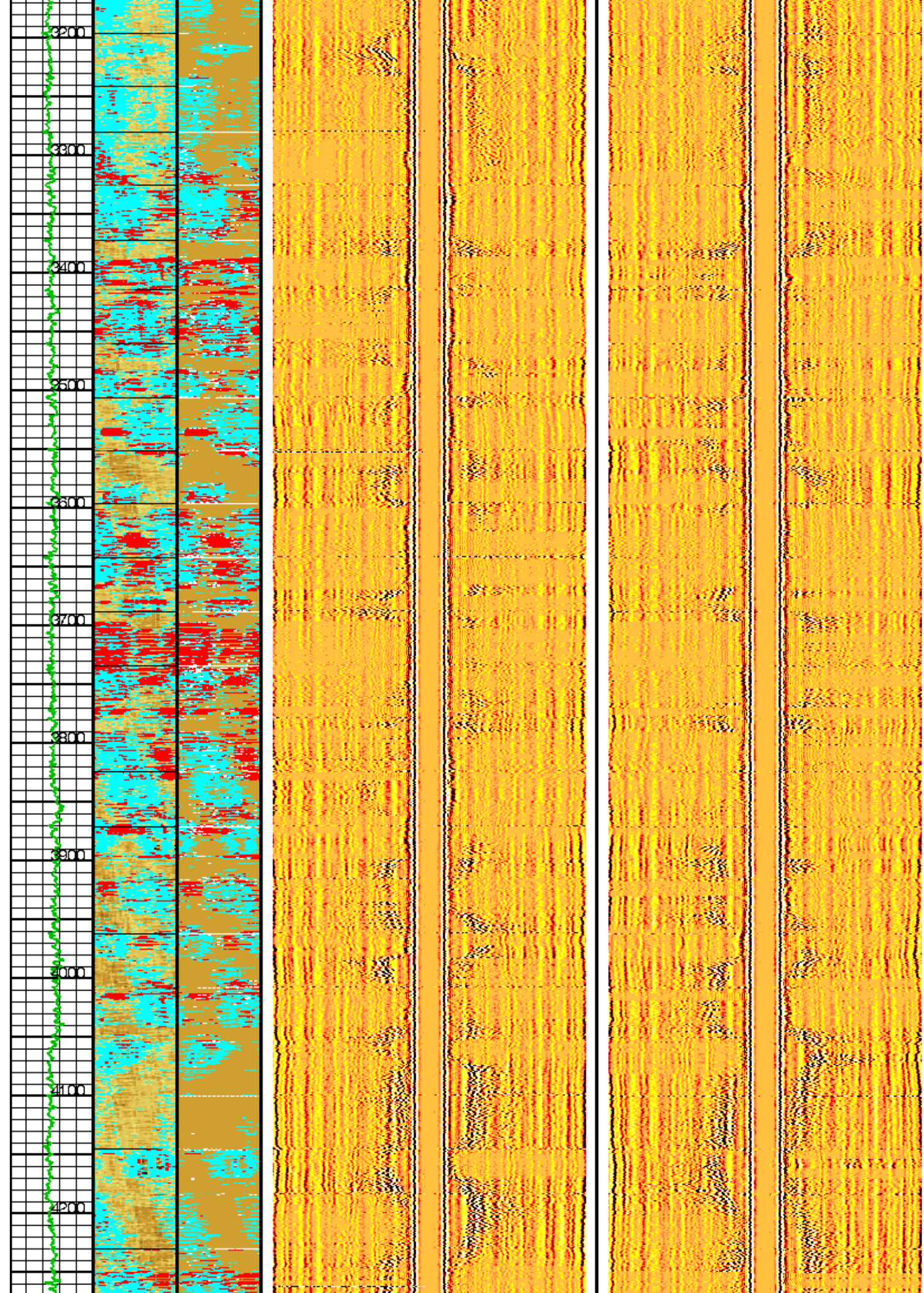
OP System Version: 19C1-222

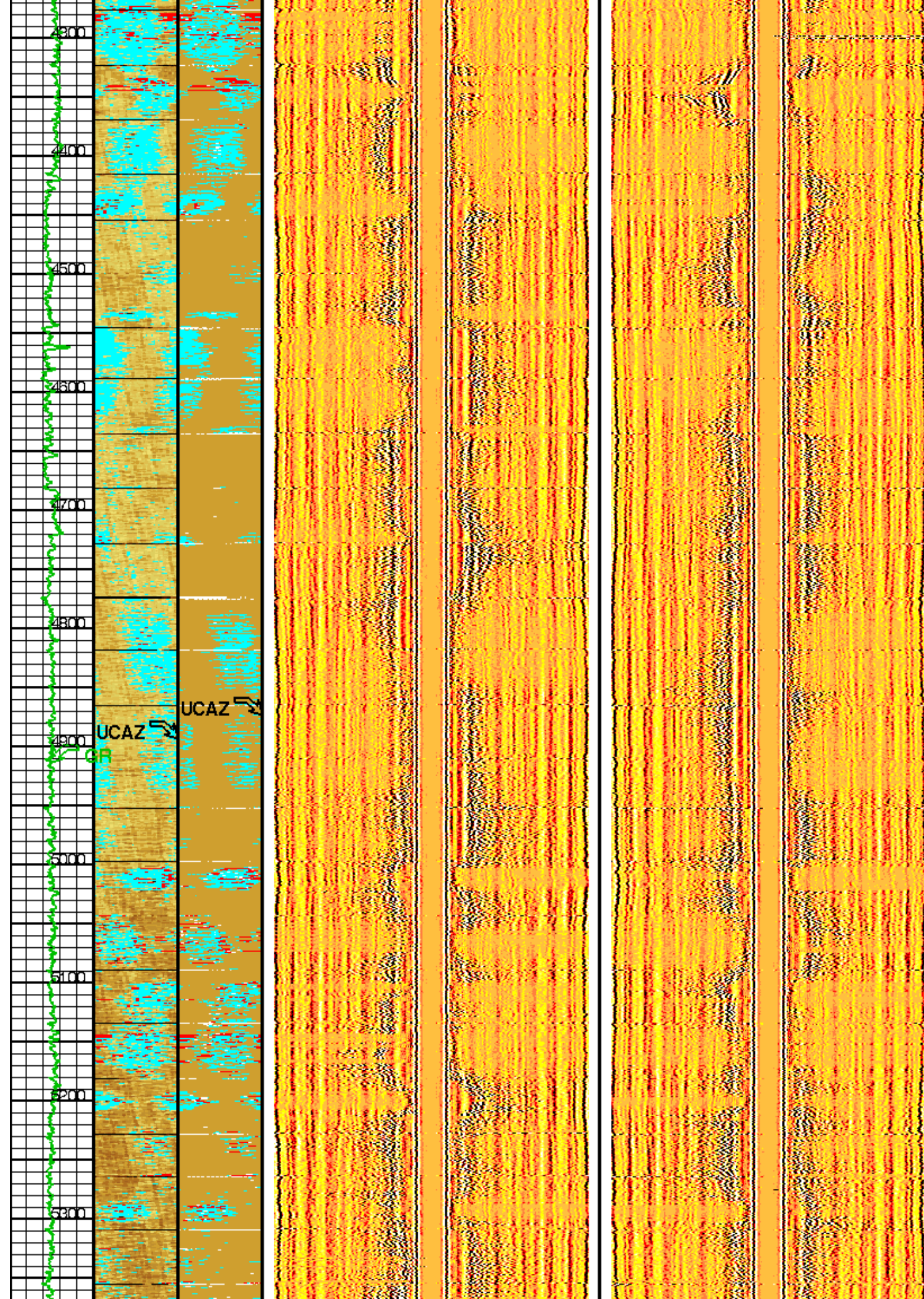
SGT-N	19C1-222
CAL-Y	19C1-222

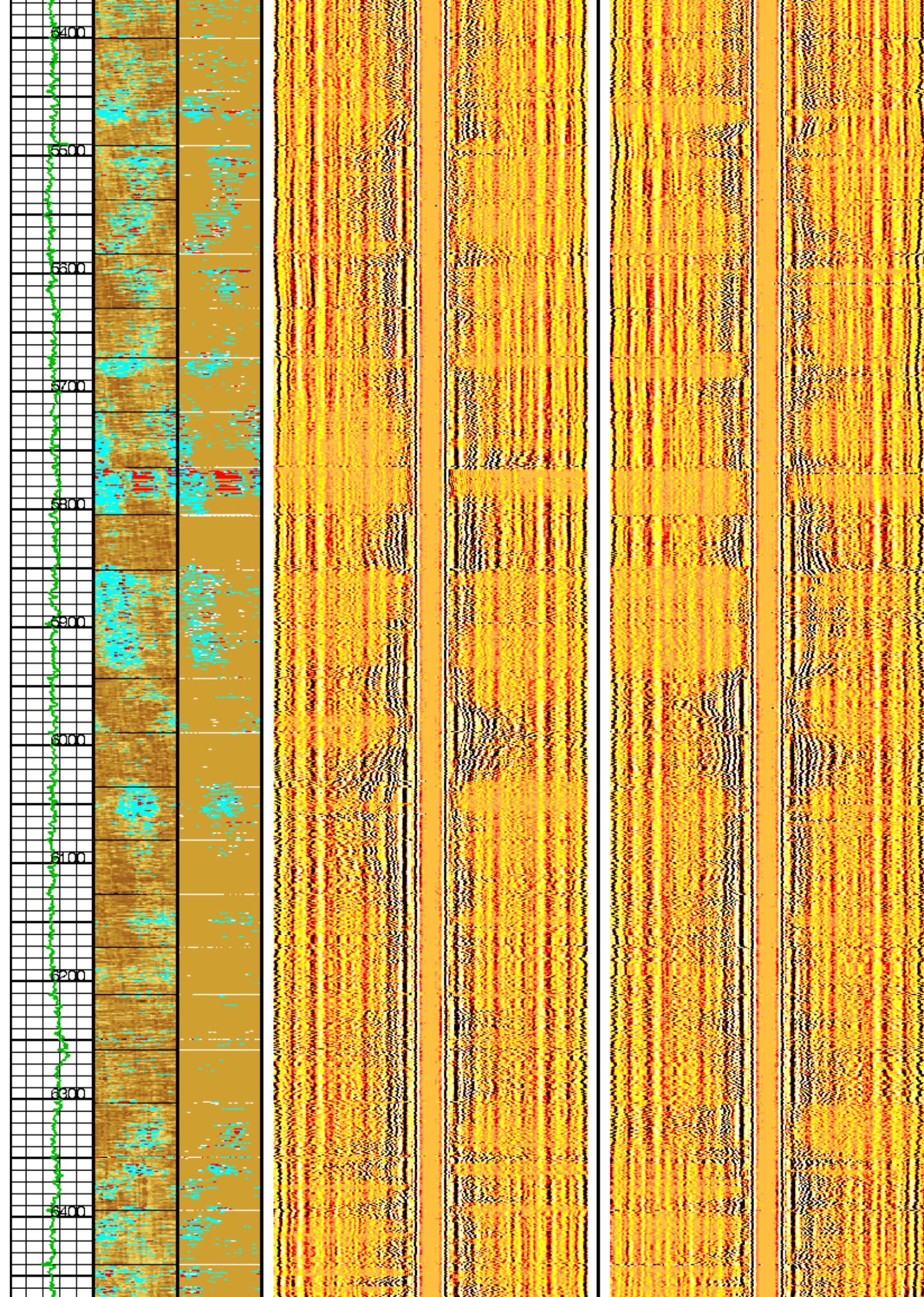


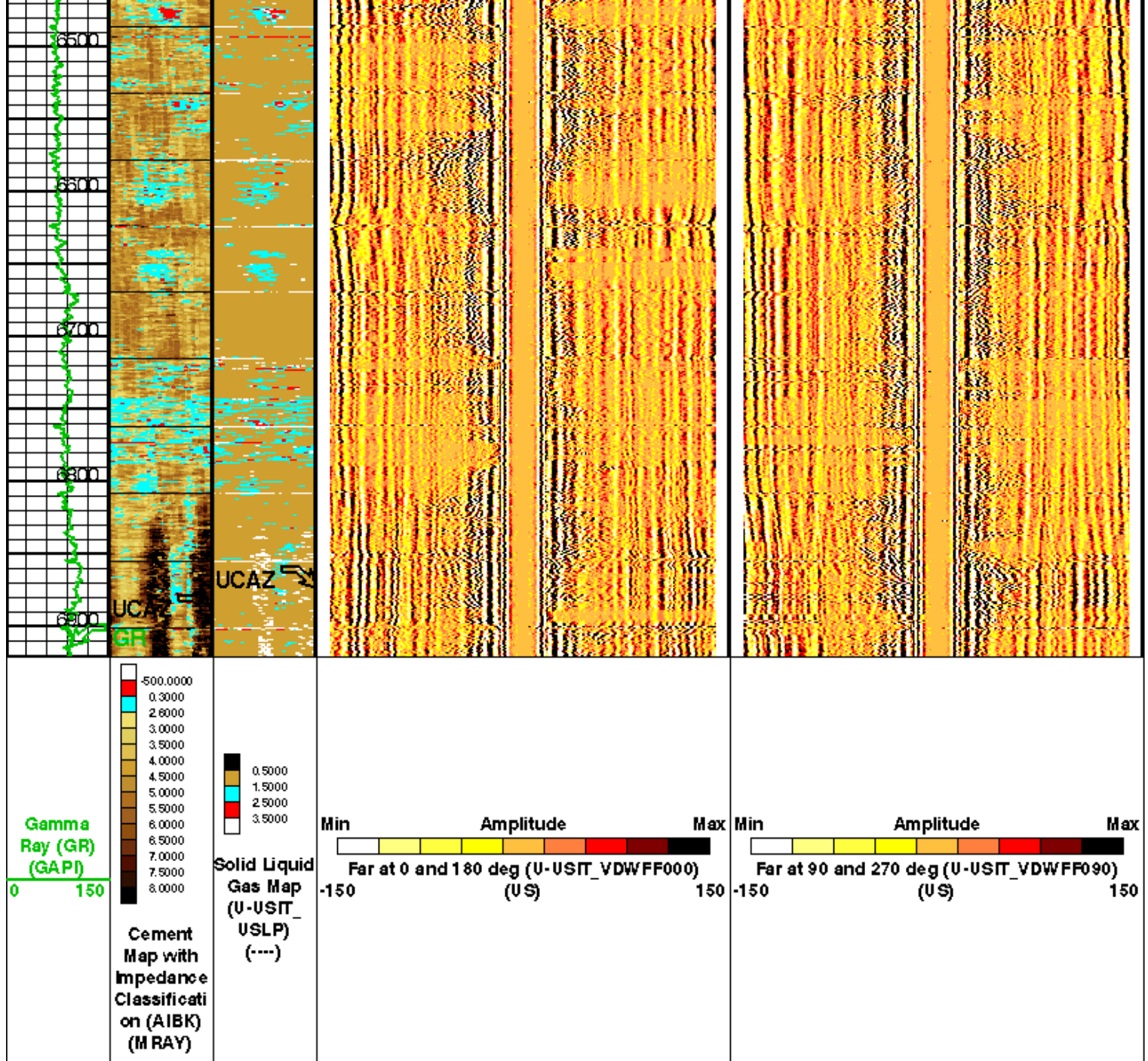












Parameters

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	203 US/F
DOT	Diameter of Transducer Sensor	2.874 IN
EMXV	EMEX Voltage	120 V
FSOD	Fluid Slowness Fits Casing Outer Diameter	5_USFL_N_ZMUD
IMAR	Image Rotation	OFF
MW	Mud Weight	9.5 LB/G
RCD	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_DEPTH	Drilling Fluid Density (Acoustic Impedance)	0.0000

U-USIT_DPSZ	Drilling Fluid Specific Acoustic Impedance	1.0 US P FT	0	MRAY
U-USIT_IISR	USIT IBC Inverted Fluid Slowness Resolution	0.050 MRAY		
U-USIT_IIZR	USIT IBC Inverted ZMUD Resolution			
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		BFEF	
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		
U-MAO	USIT Measurement Angular Offset		-10	DEG
U-USTO	Ultrasonic Time Offset		-2	US
U-USUB	Ultrasonic Subassembly Identifier	Sub 7_inch		
U-UWKM	Ultrasonic Working Mode	10DEG_6IN_136UNF_LF		
U-VCAS	Ultrasonic Transversal Velocity in Casing		51.4	US/F
U-WLEN	T 3 Processing Length		21.7078	US
U-ZCAS	Acoustic Impedance of Casing		46.25	MRAY
U-ZINI	Initial Estimate of Cement Impedance		-1	MRAY
U-ZMUD	Acoustic Impedance of Mud		1.9	MRAY
U-ZTCM	Acoustic Impedance Threshold for Cement		2.6	MRAY
U-ZTGS	Acoustic Impedance Threshold for Gas		0.3	MRAY
System and Miscellaneous				
BS	Bit Size		8.750	IN
CWEI	Casing Weight		26.00	LB/F
DO	Depth Offset for Playback		4.0	FT
PP	Playback Processing		NORMAL	

Format: 1 inch IBC VDL WIDE Vertical Scale: 1" per 100' Graphics File Created: 08-Jul-2012 14:51

OP System Version: 19C1-222

USIT-D	19C1-222	SGT-N	19C1-222
DTC-H	19C1-222	CAL-Y	19C1-222

Input DLIS Files

DEFAULT	Splice_USI_012CUP	FN:1	PRODUCER	08-Jul-2012 14:40	7111.0 FT	273.5 FT
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Output DLIS Files

DEFAULT	USI_013PUP	FN:11	PRODUCER	08-Jul-2012 14:51
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Schlumberger

0.1" IBC Compressed Goodwin

MAXIS Field Log

Company: Encana Oil & Gas Inc

Well: Stelling 3B-4H

Input DLIS Files

DEFAULT	Splice_USI_012CUP	FN:1	PRODUCER	08-Jul-2012 14:40	7111.0 FT	273.5 FT
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Output DLIS Files

DEFAULT	USI_013PUP	FN:11	PRODUCER	08-Jul-2012 14:51	6920.0 FT	277.5 FT
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OP System Version: 19C1-222

	Minimum Acoustic Impedance #2 (MIN_ AI2) (M RAY)	Minimum Acoustic Impedance #4 (MIN_ AI4) (M RAY)	Minimum Acoustic Impedance #6 (MIN_ AI6) (M RAY)	Minimum Acoustic Impedance #8 (MIN_ AI8) (M RAY)			
	-7.5 7.5	-7.5 7.5	-7.5 7.5	-7.5 7.5			
	Minimum Acoustic Impedance #1 (MIN_ AI1) (M RAY)	Minimum Acoustic Impedance #3 (MIN_ AI3) (M RAY)	Minimum Acoustic Impedance #5 (MIN_ AI5) (M RAY)	Minimum Acoustic Impedance #7 (MIN_ AI7) (M RAY)			
	0 15	0 15	0 15	0 15			
	Maximum Acoustic Impedance #2 (MAX_ AI2) (M RAY)	Maximum Acoustic Impedance #4 (MAX_ AI4) (M RAY)	Maximum Acoustic Impedance #6 (MAX_ AI6) (M RAY)	Maximum Acoustic Impedance #8 (MAX_ AI8) (M RAY)			
	-7.5 7.5	-7.5 7.5	-7.5 7.5	-7.5 7.5			
	Maximum Acoustic Impedance #1 (MAX_ AI1) (M RAY)	Maximum Acoustic Impedance #3 (MAX_ AI3) (M RAY)	Maximum Acoustic Impedance #5 (MAX_ AI5) (M RAY)	Maximum Acoustic Impedance #7 (MAX_ AI7) (M RAY)	Minimum Acoustic Impedance #9 (MIN_ AI9) (M RAY)	Maximum of AI (AIMX) (M RAY)	Maximum Flexural Attenuation (U-USIT_ UFAX) (DB/M)
	0 15	0 15	0 15	0 15	0 15	0 7.5	40 140
Gamma Ray (GR) (GAPI)	Average Acoustic Impedance #2 (AV_ AI2) (M RAY)	Average Acoustic Impedance #4 (AV_ AI4) (M RAY)	Average Acoustic Impedance #6 (AV_ AI6) (M RAY)	Average Acoustic Impedance #8 (AV_ AI8) (M RAY)	Maximum Acoustic Impedance #9 (MAX_ AI9) (M RAY)	Minimum of AI (AIMN) (M RAY)	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

Eccentr. (ECCE)	Average Acoustic Impedance #1 (AV_ AI1) (M RAY)	Average Acoustic Impedance #3 (AV_ AI3) (M RAY)	Average Acoustic Impedance #5 (AV_ AI5) (M RAY)	Average Acoustic Impedance #7 (AV_ AI7) (M RAY)	Average Acoustic Impedance #9 (AV_ AI9) (M RAY)	Average of AI (AIAV) (M RAY)	Minimum Flexural Attenuation (U-USIT_ UFAN) (DB/M)	
0 (IN) 0.5	0 15	0 15	0 15	0 15	0 15	0 7.5	40 140	

500.0000

0.2500

0.5000

0.7500

1.0000

1.2500

1.5000

1.7500

2.0000

2.2500

2.5000

2.7500

3.0000

3.2500

3.5000

3.7500

4.0000

0.0000

30.0000

36.0000

42.0000

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

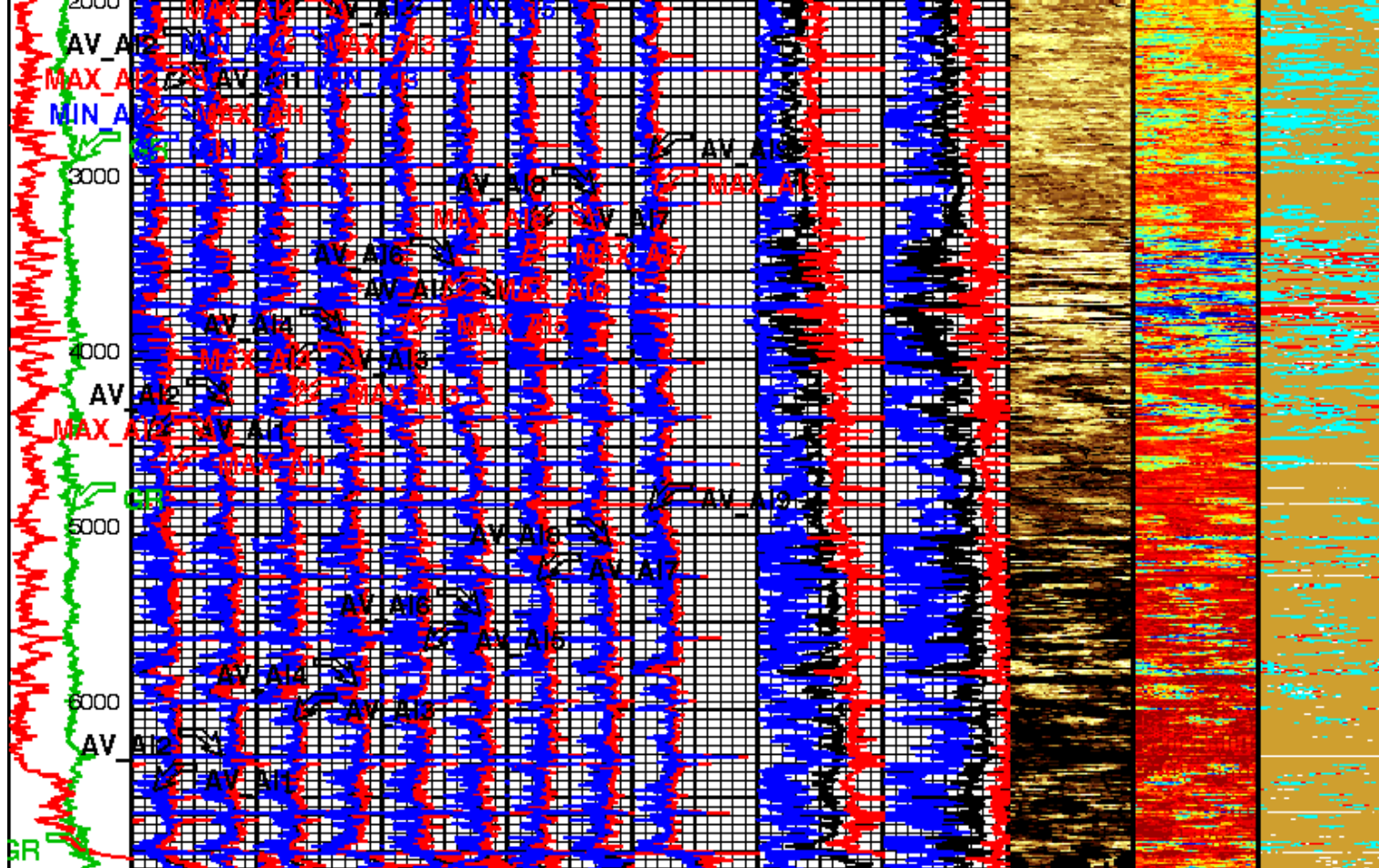
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3.5000

Raw
Acoustic
Imped.
(AIBK)
(M RAY)

Flexural
Attenuation
(U-USIT_
UFAK)
(DB/M)

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



Eccentr. (ECCE) 0 (IN) 0.5	Average Acoustic Impedance #1 (AV_A11) (M RAY)	Average Acoustic Impedance #3 (AV_A13) (M RAY)	Average Acoustic Impedance #5 (AV_A15) (M RAY)	Average Acoustic Impedance #7 (AV_A17) (M RAY)	Average Acoustic Impedance #9 (AV_A19) (M RAY)	Average of AI (AIAV) (M RAY)	Minimum Flexural Attenuation (U-USIT_UFAN) (DB/M)	<div> <div> 500.0000 0.2500 0.5000 0.7500 1.0000 1.2500 1.5000 1.7500 2.0000 2.2500 2.5000 2.7500 3.0000 3.2500 3.5000 3.7500 4.0000 </div> <div> 0.0000 30.0000 36.0000 42.0000 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 </div> </div> <div> Raw Acoustic Imped. (AIBK) (M RAY) </div> <div> Flexural Attenuation (U-USIT_UFAK) (DB/M) </div> <div> Solid Liquid Gas Map (U-USIT_USLP) (----) </div>
	0 15	0 15	0 15	0 15	0 15	0 7.5	40 140	
Gamma Ray (GR) (GAPI) 0 150	Average Acoustic Impedance #2 (AV_A12) (M RAY)	Average Acoustic Impedance #4 (AV_A14) (M RAY)	Average Acoustic Impedance #6 (AV_A16) (M RAY)	Average Acoustic Impedance #8 (AV_A18) (M RAY)	Maximum Acoustic Impedance #9 (MAX_A19) (M RAY)	Minimum of AI (AIMN) (M RAY)	Average Flexural Attenuation (U-USIT_UFAV) (DB/M)	
	-7.5 7.5	-7.5 7.5	-7.5 7.5	-7.5 7.5	0 15	0 7.5	40 140	
	Maximum Acoustic Impedance #1 (MAX_A11) (M RAY)	Maximum Acoustic Impedance #3 (MAX_A13) (M RAY)	Maximum Acoustic Impedance #5 (MAX_A15) (M RAY)	Maximum Acoustic Impedance #7 (MAX_A17) (M RAY)	Minimum Acoustic Impedance #9 (MIN_A19) (M RAY)	Maximum of AI (AIMX) (M RAY)	Maximum Flexural Attenuation (U-USIT_UFAX) (DB/M)	
	0 15	0 15	0 15	0 15	0 15	0 7.5	40 140	
	Maximum Acoustic Impedance #2 (MAX_A12) (M RAY)	Maximum Acoustic Impedance #4 (MAX_A14) (M RAY)	Maximum Acoustic Impedance #6 (MAX_A16) (M RAY)	Maximum Acoustic Impedance #8 (MAX_A18) (M RAY)				

AI2) (M RAY)	AI4) (M RAY)	AI6) (M RAY)	AI8) (M RAY)
-7.5 7.5	-7.5 7.5	-7.5 7.5	-7.5 7.5
Minimum Acoustic Impedance #1 (MIN_ AI1) (M RAY)	Minimum Acoustic Impedance #3 (MIN_ AI3) (M RAY)	Minimum Acoustic Impedance #5 (MIN_ AI5) (M RAY)	Minimum Acoustic Impedance #7 (MIN_ AI7) (M RAY)
0 15	0 15	0 15	0 15
Minimum Acoustic Impedance #2 (MIN_ AI2) (M RAY)	Minimum Acoustic Impedance #4 (MIN_ AI4) (M RAY)	Minimum Acoustic Impedance #6 (MIN_ AI6) (M RAY)	Minimum Acoustic Impedance #8 (MIN_ AI8) (M RAY)
-7.5 7.5	-7.5 7.5	-7.5 7.5	-7.5 7.5

Format: IBC Goodwin Compressed

Vertical Scale: 0.1" per 100'

Graphics File Created: 08-Jul-2012 14:51

OP System Version: 19C1-222

USIT-D 19C1-222
DTC-H 19C1-222

SGT-N 19C1-222
CAL-Y 19C1-222

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 Splice_USI_012CUP FN:1 PRODUCER 08-Jul-2012 14:40 7111.0 FT 273.5 FT

Output DLIS Files

DEFAULT USI_013PUP FN:11 PRODUCER 08-Jul-2012 14:51

Schlumberger

Repeat pass

MAXIS Field Log

Company: Encana Oil & Gas Inc

Well: Stelling 3B-4H

Input DLIS Files

DEFAULT USI_009LUP FN:8 PRODUCER 08-Jul-2012 09:23 7111.0 FT 6029.5 FT

Output DLIS Files

DEFAULT USI_016PUP FN:14 PRODUCER 08-Jul-2012 15:20 6920.0 FT 6033.5 FT

USIT-D
DTC-H

19C1-222
19C1-222

SGT-N
CAL-Y

19C1-222
19C1-222

Tool/Tot.
Drag
From D4T
to STIA

Cable
Drag
From D4T
to STIT

Stuck
Stretch
(STIT)

0 (F) 50

RSAV
(RSAV)
(RPS)

6 7.5

CCL
(CCLU)
(---)

-20 20

Process.
flags
(U FLG)
(---)

Amplitude
of echo
minus Max
(AWBK)
(DB)

Min of
Internal
radius
(IRMN)
(IN)

3.7 2.7 2.7 3.7

Internal
radius
Maximum
(IRMX)
(IN)

3.7 2.7 2.7 3.7

Internal
radius
Average
(IRAV)
(IN)

3.7 2.7 2.7 3.7

Maximum
of
Thickness
(THMX)
(IN)

0.1 0.6

Average of
Thickness
(THAV)
(IN)

0.1 0.6

Eccentr.
(ECCE)

0 (IN) 0.5

Gamma
Ray (GR)
(GAPI)

0 150

Image
rotation
(U CAZ)
(DEG)

0 360

External
radius
Average
(ERAV)
(IN)

3.7 2.7 2.7 3.7

Internal
radii minus
Ave (IRBK)
(IN)

500.0000
-0.0760
-0.0680
-0.0600
-0.0520
-0.0440
-0.0360
-0.0280
-0.0200
-0.0120
-0.0040
0.0040
0.0120
0.0200
0.0280
0.0360
0.0440
0.0520
0.0600
0.0680
0.0760

Min of
Thickness
(THMN)
(IN)

0.1 0.6

Thickness
minus Ave
(THBK)
(IN)

500.0000
-0.0760
-0.0680
-0.0600
-0.0520
-0.0440
-0.0360
-0.0280
-0.0200
-0.0120
-0.0040
0.0040
0.0120
0.0200
0.0280
0.0360
0.0440
0.0520
0.0600
0.0680
0.0760

Raw
Acoustic
Imped.
(AIBK)
(M RAY)

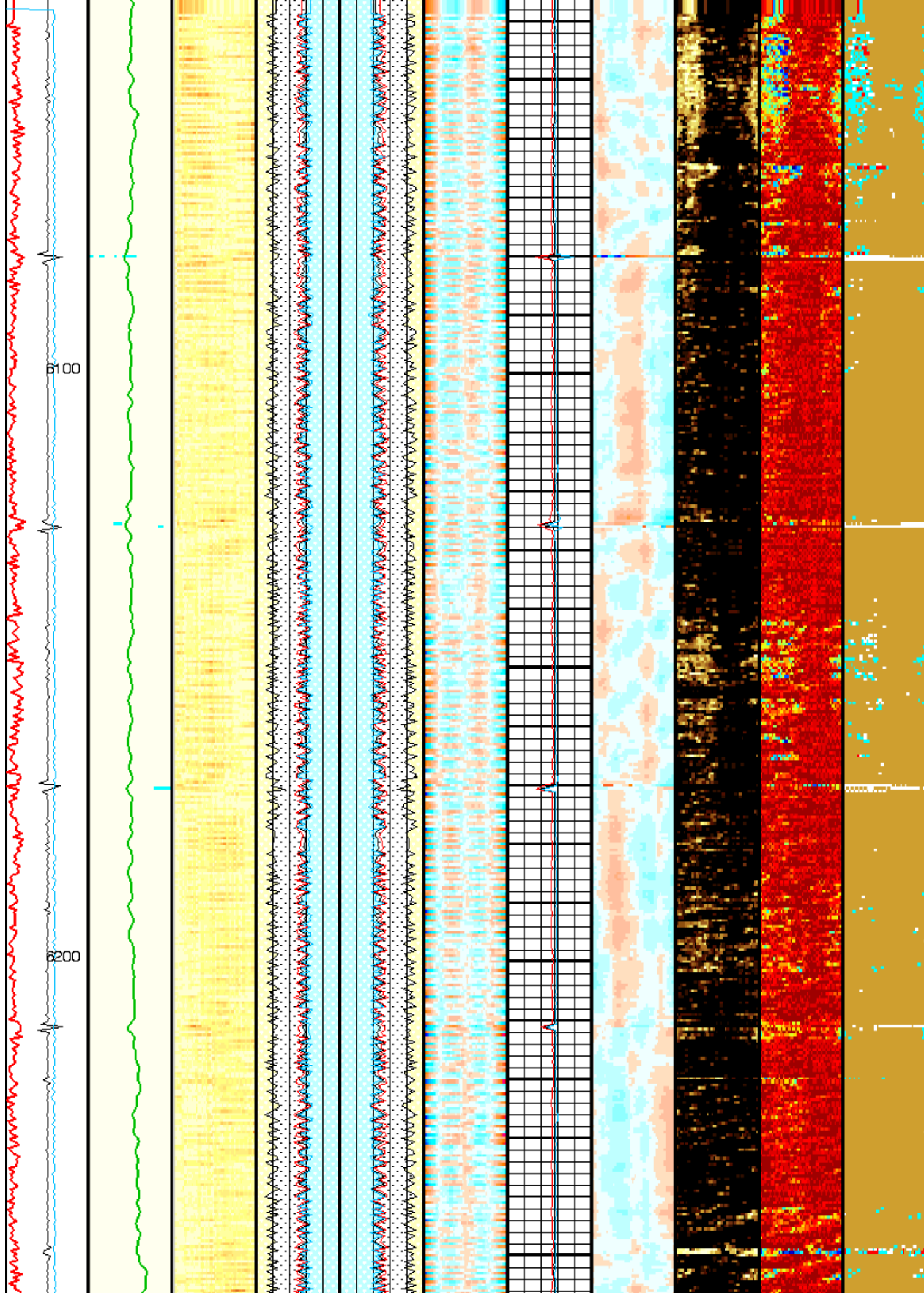
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4.0000

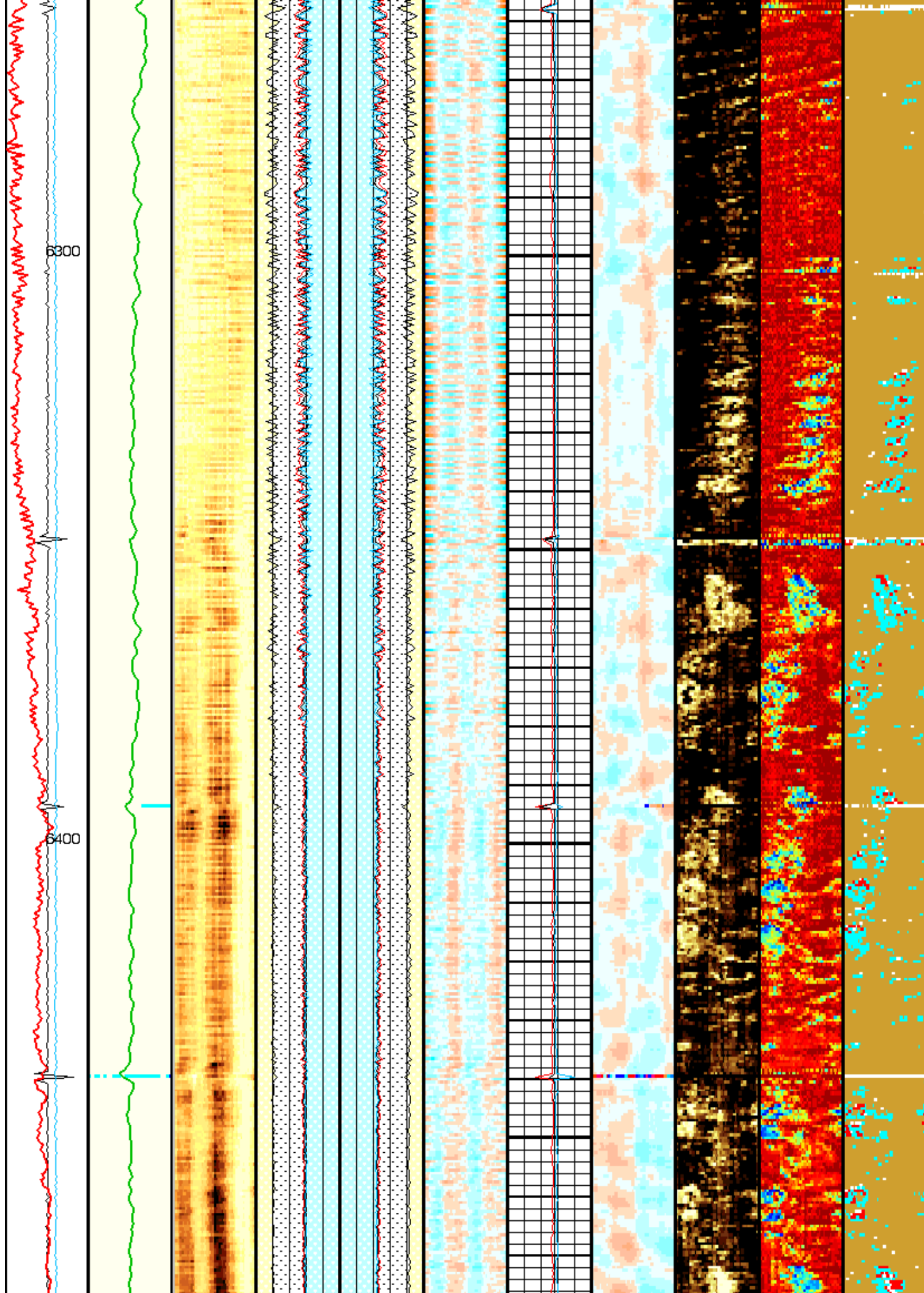
Flexural
Attenuation
(U-USIT_
UFAK)
(DB/M)

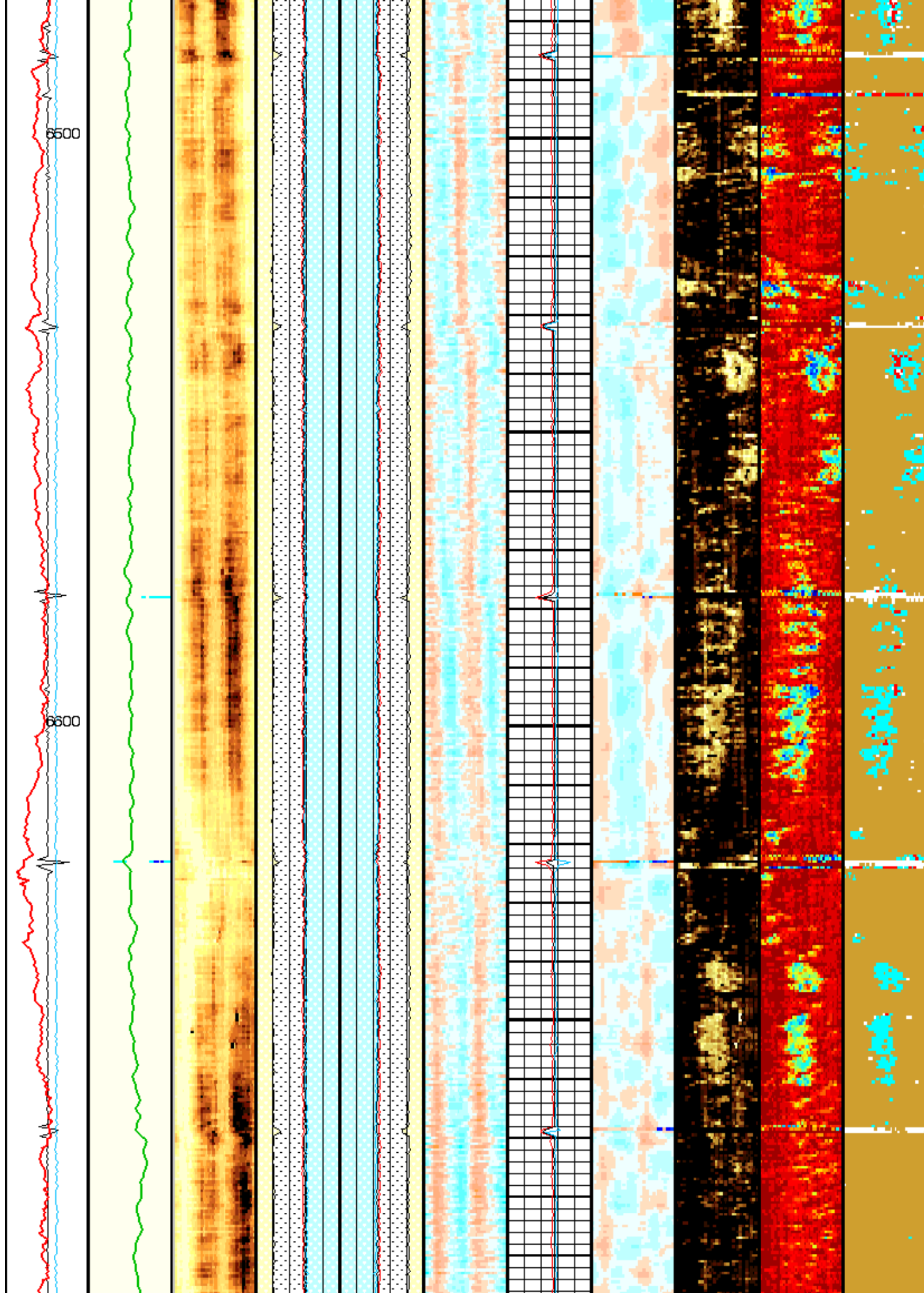
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78.0000
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96.0000
102.0000
108.0000
114.0000
120.0000

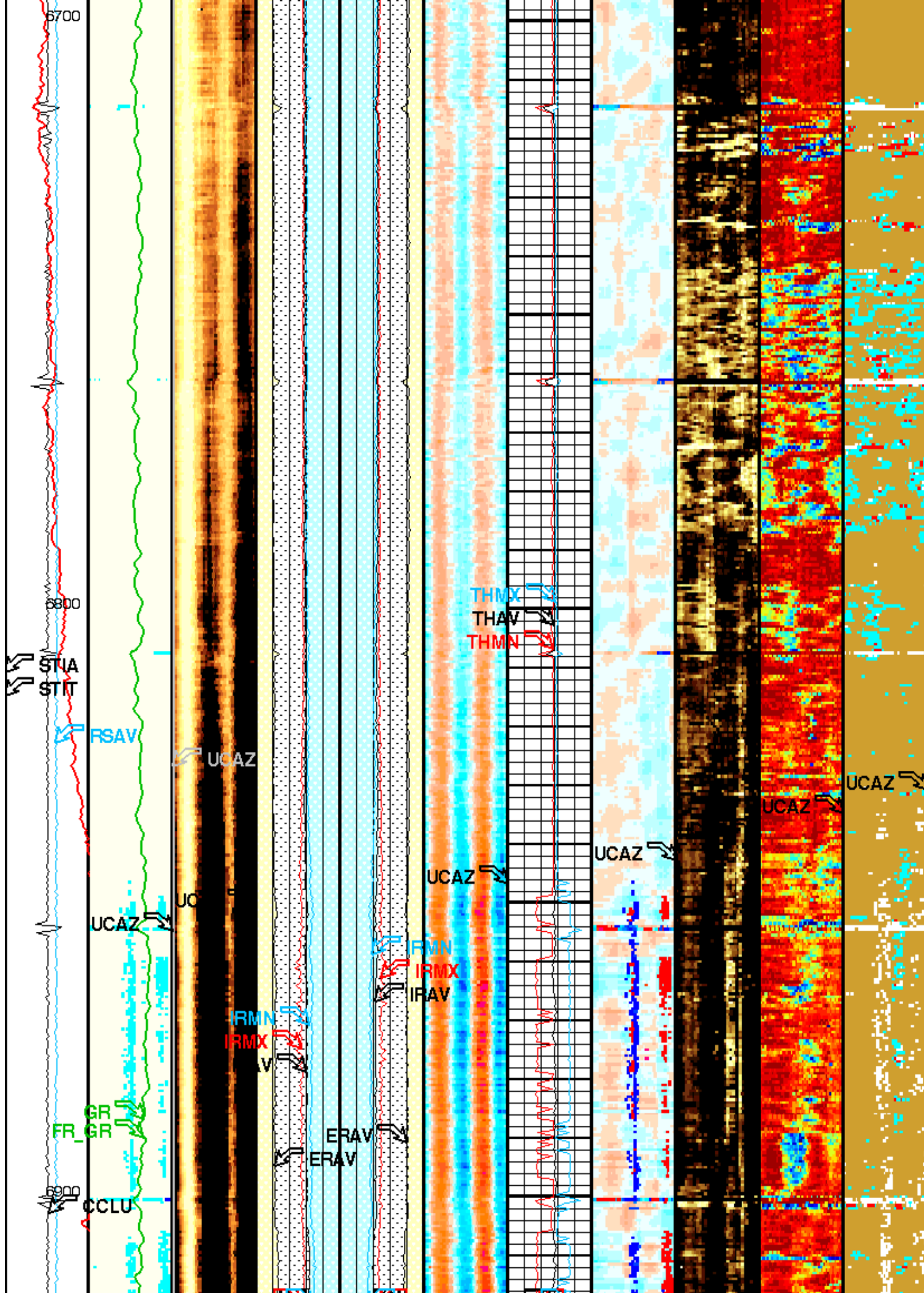
Solid Liquid
Gas Map
(U-USIT_
USLP)
(---)

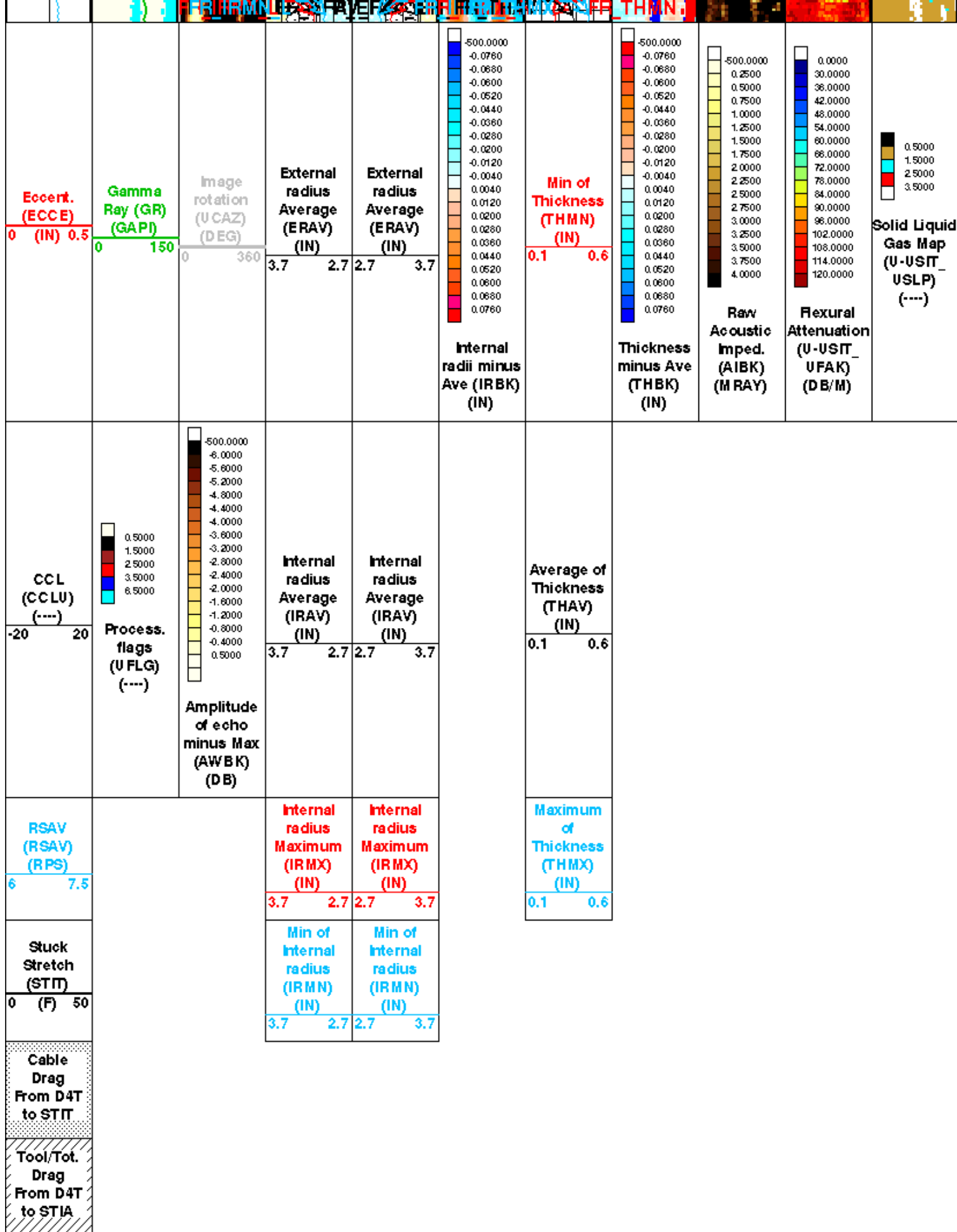
0.5000
1.5000
2.5000
3.5000











Format: 5 inch IBC CEMENT COMPOSITE

Vertical Scale: 5" per 100'

Graphics File Created: 08-Jul-2012 15:20

OP System Version: 19C1-222

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	203	US/F
DOT	Diameter of Transducer Sensor	2.874	IN
EMXV	EMEX Voltage	120	V
FDII	FPM Data Interpolation Interval	0	FT
FSOD	Fluid Slowness Fits Casing Outer Diameter	5_USL_N_ZMUD	
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	
SDTVR	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_CENT	USIT Cement Type	LIGHT	
U-USIT_DFSZ	Drilling Fluid Specific Acoustic Impedance	0	M/RAY
U-USIT_IISR	USIT IBC Inverted Fluid Slowness Resolution	1.0_US_P_FT	
U-USIT_IIZR	USIT IBC Inverted ZMUD Resolution	0.050_M_RAY	
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_RFVB	USIT Remove Flagged Data Window Begin	0	US
U-USIT_RWE	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	1.9	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)	212	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
CAL-Y: Casing Anomaly Locator - Y				
CCLD		CCL reset delay	12	IN
CCLT		CCL Detection Level	0.3	V
FEQL: Formation Evaluation Quick Look				
CSXO		Coefficient of Sxo	1	
DLLM		DPOR Lower Limit for Mineral Detection	0.35	CFCF
EDSE		EPT Data Selector	STANDARD	
FEPT		EPT Option Flag	NONE	
FEXP		Form Factor Exponent	2	
FNUM		Form Factor Numerator	1	
FPHI		Form Factor Porosity Source	DPHI	
GDCL		Grain Density Clean Reading	0	G/C3
GDSH		Grain Density Shale Reading	2.9	G/C3
GRCL		Gamma Ray Clean Reading	0	GAPI
GRSH		Gamma Ray Shale Reading	200	GAPI
GULM		Gamma Ray Upper Limit for Mineral Detection	999	GAPI
KGR		Kill GR Shale Index (USE, KILL)	USE	
KPN		Kill NPES Shale Index (USE, KILL)	USE	
KRH		Kill RHGA Shale Index (USE, KILL)	USE	
KSP		Kill SP Shale Index (USE, KILL)	USE	
LSWB		SWB Limit Selector (NO_LIMIT, LIMIT)	NO_LIMIT	
MDET		Mineral Flag (NONE, COAL, SALT)	NONE	
NLIM		Neutron Limit for Mineral Detection	0.01	CFCF
NPCL		NPES Clean Reading	0	CFCF
NPSH		NPES Shale Reading	0.5	CFCF
RWB		Bound Water Resistivity	0.1	OHM M
RXOF		RXO Presence Flag	ABSENT	
SDGC		Clean Grain Density Selector	GDCL	
SEXP		N in Water Saturation Equation	2	
SIS		Three Mineral Shale Index Selector	NOT_USED	
SPCL		SP Clean Reading	-200	MV
SPSB		SP Shale Baseline	0	MV
SPSH		SP Shale Reading	0	MV
SWMN		Sw Minimum	0.05	CFCF
TPCN		Time Propagation of non-shale	7.2	NS/M
TPM1		Time Propagation, Matrix-1 <Limestone>	9.8	NS/M
TPM2		Time Propagation, Matrix-2 <Sandstone>	7.2	NS/M
TPM3		Time Propagation, Matrix-3 <Dolomite>	8.7	NS/M
TPSH		Time Propagation of Shale	8.9	NS/M
HOLEV: Integrated Hole/Cement Volume				
BHS		Borehole Status	CASED	
BHT		Bottom Hole Temperature (used in calculations)	212	DEGF
FCD		Future Casing (Outer) Diameter	0	IN
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	
HVCS		Integrated Hole Volume Caliper Selection	AUTOMATIC	
ISSBAR		Barite Mud Switch	NOBARITE	
MATR		Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT		Surface Hole Temperature	68	DEGF
STI: Stuck Tool Indicator				
LBFR		Trigger for MAXIS First Reading Label	TDL	
STKT		STI Stuck Threshold	5	FT
TDD		Total Depth - Driller	11761.00	FT
TDL		Total Depth - Logger	6920.00	FT
System and Miscellaneous				
ALTDPCN		Name of alternate depth channel	SpeedCorrectedDepth	
BS		Bit Size	8.750	IN

BSAL	Borehole Salinity	1485.00	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	4.0	FT
FLEV	Fluid Level	-50000.00	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	11761	FT
TWS	Temperature of Connate Water Sample	100.00	DEGF

Input DLIS Files

DEFAULT USI_009LUP FN:8 PRODUCER 08-Jul-2012 09:23 7111.0 FT 6029.5 FT

Output DLIS Files

DEFAULT USI_016PUP FN:14 PRODUCER 08-Jul-2012 15:20

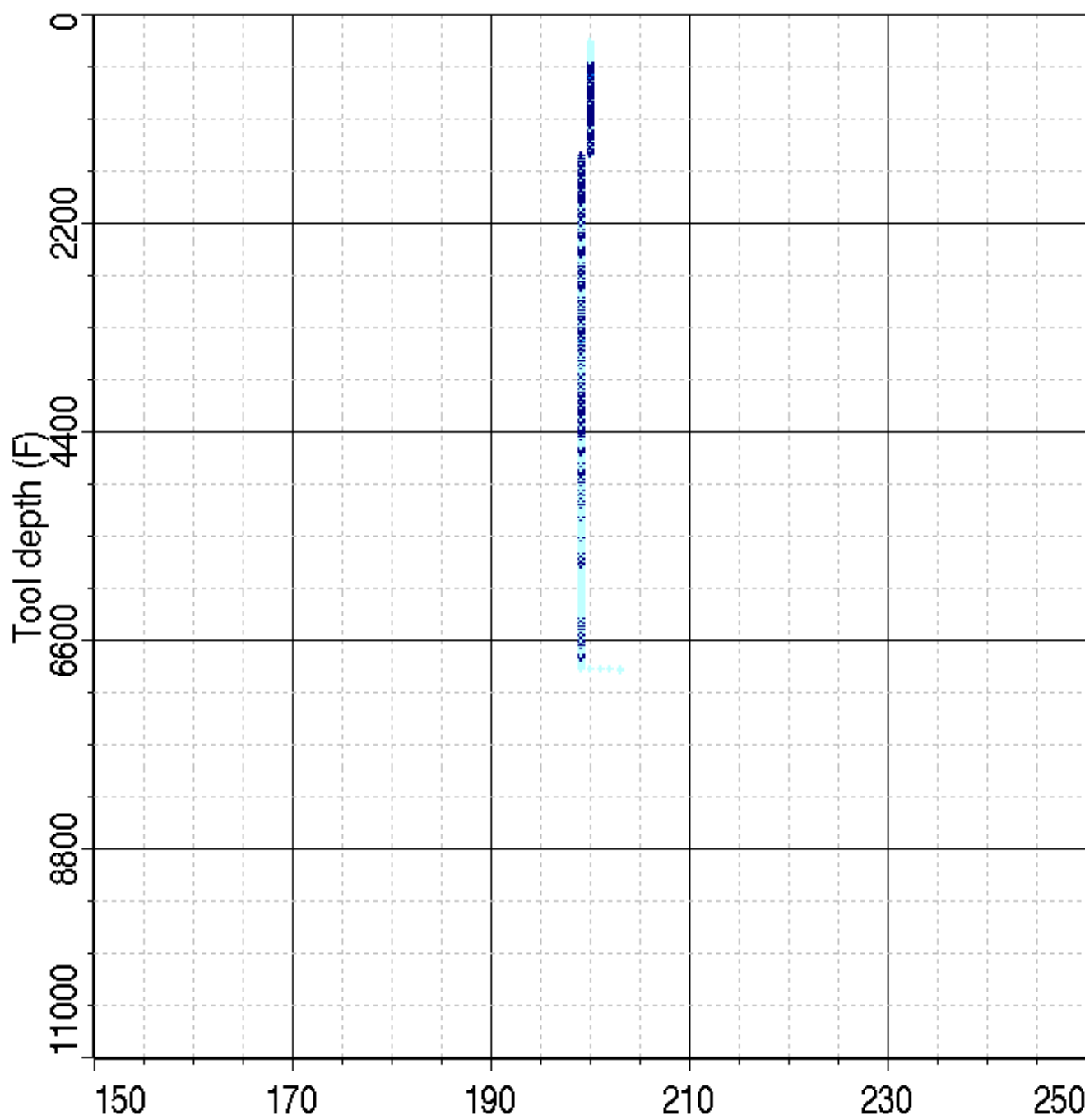
IBC Inv. Fluid Z QC (----

Index: 6920.0 - 277.5 FT

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0.5



13286 Points Plotted

Fluid velocity (US/F)

8-JUL-2012 15:00

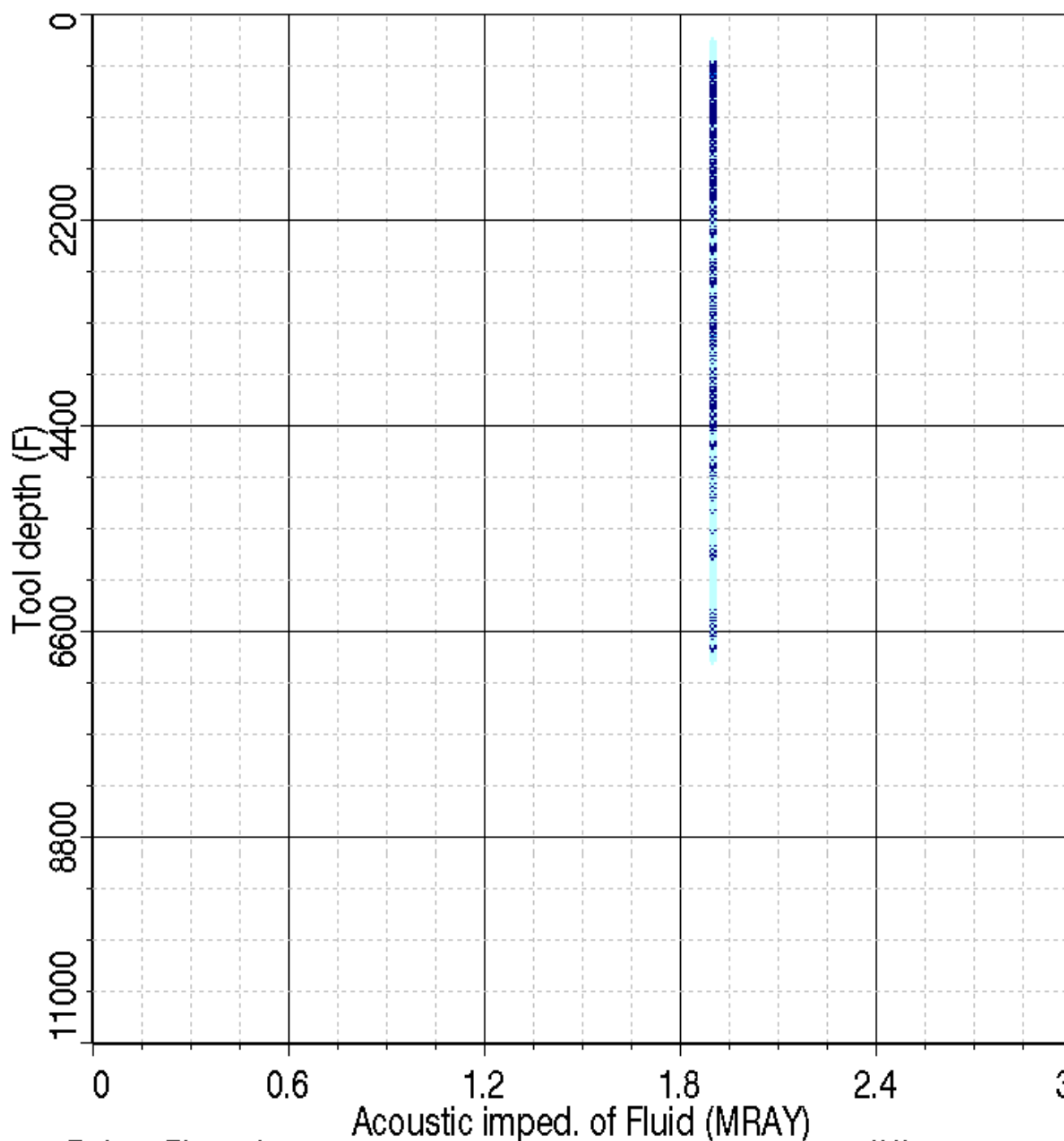
IBC Inv. Fluid Z QC (----)

Index: 6920.0 - 277.5 FT

0.



0.5



13286 Points Plotted

8-JUL-2012 15:00

Company: **Encana Oil & Gas Inc**

Schlumberger

Well: **Stelling 3B-4H**

Field: **Wattenberg**

County: **Weld**

State: **Colorado**

Isolation Scanner
Cement Evaluation

