

DISCLAIMER
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OTHER SERVICES1

OS1: FMS/DSI
 OS2: HNGS
 OS3: HLDS
 OS4: HRLA
 OS5: UBI

OTHER SERVICES2

OS1:
 OS2:
 OS3:
 OS4:
 OS5:

REMARKS: RUN NUMBER 1

Hole was drilled with a 9 7/8" RCB bit to TDD of mbsf.
 10 bbls of 10.5lb/gal heavy weight mud pumped at TD prior to bit release.

REMARKS: RUN NUMBER 2



All logs recorded via wireline thru 5-5.5" drillpipe and RCB coring BHA consisting of a bit release sub, Kinley sub, drill collars. The bit was released at TD prior to logging.

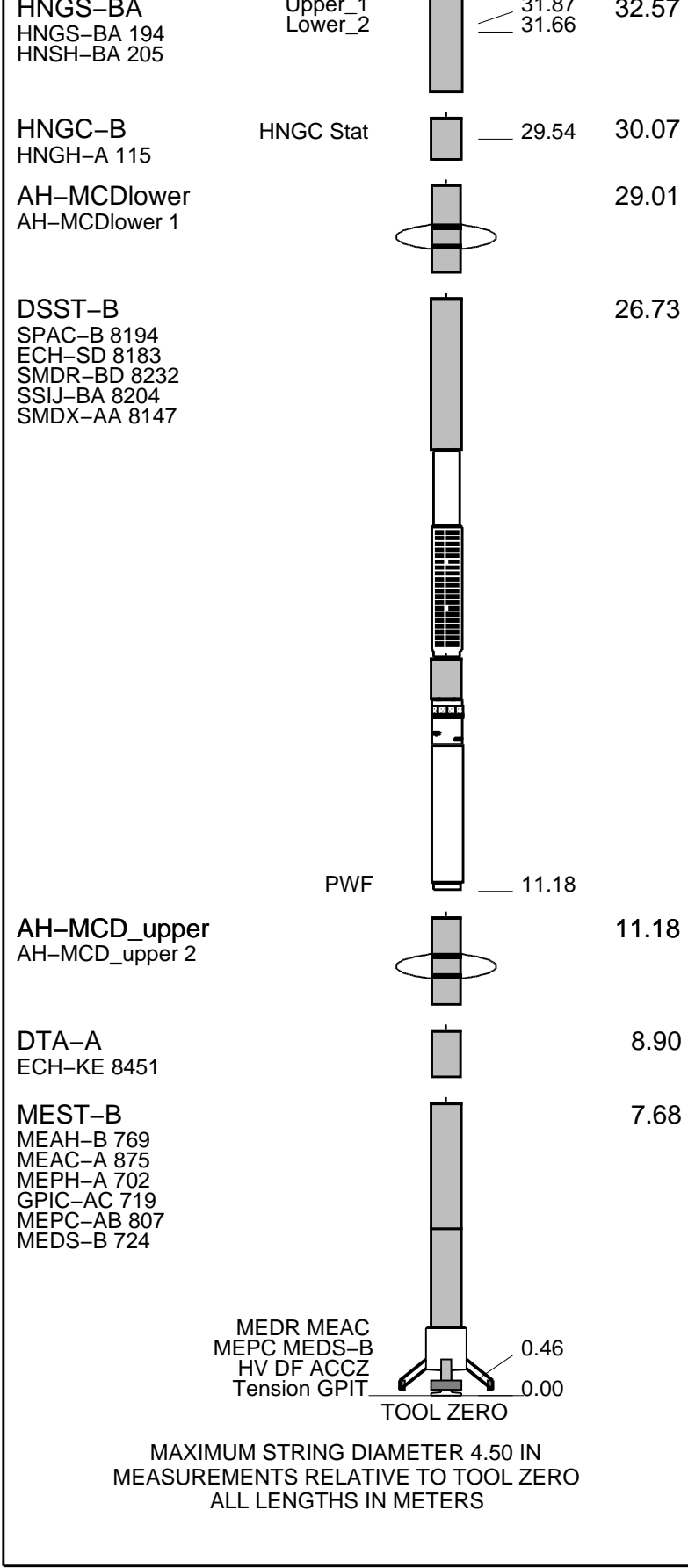
RUN 1			RUN 2		
SERVICE ORDER #:			SERVICE ORDER #:		
PROGRAM VERSION:			PROGRAM VERSION:		
FLUID LEVEL:			FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

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

EQUIPMENT DESCRIPTION

RUN 1	RUN 2
SURFACE EQUIPMENT	
GSR-U 616008 WITM (EDTS)-A 1	

RUN 1		RUN 2	
DOWNHOLE EQUIPMENT			
LEH-MT	MDSB_EDTC		35.51
LEH-MT 101	Mud Tempe		34.55
	CTEM		33.49
EDTC-B	Gamma Ray		34.55
EDTH-B 8528	EFTB DIAG		32.92
EDTC-B 8529	TelStatus		32.57
EDTG-A/B 77693	EDTCB Ele		31.97

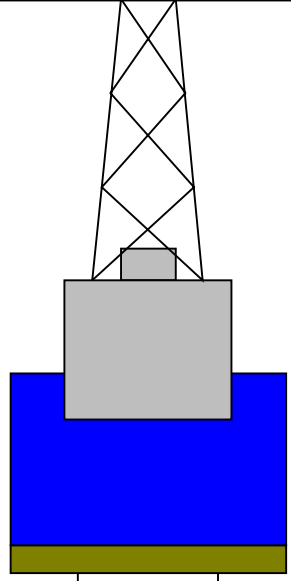


Production String	(in)	(M)	Well Schematic	(M)	(in)	Casing String
	OD	ID		MD	MD	

Kelly Bushing Elevation
Derrick Floor Elevation

Mean Sea Level

-2469
-2469
-2458



0 7.75 4.1

Sea Floor



0 8.25 3.80
95.8 9.875

Sea Floor
Open Hole

471.6

Total Depth

Input DLIS Files

DEFAULT	FMS_DSI_NGS_035LUP	FN:48	PRODUCER	10-Dec-2012 15:01	2884.9 M	2770.6 M
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Output DLIS Files

DEFAULT	FMS_DSI_NGS_042PUP	FN:62	PRODUCER	10-Dec-2012 20:24	416.1 M	301.6 M
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OP System Version: 19C0-187

MEST-B	19C0-187	DTA-A	19C0-187
DSST-B	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	EDTC-B	SKK-5169-EDTCB

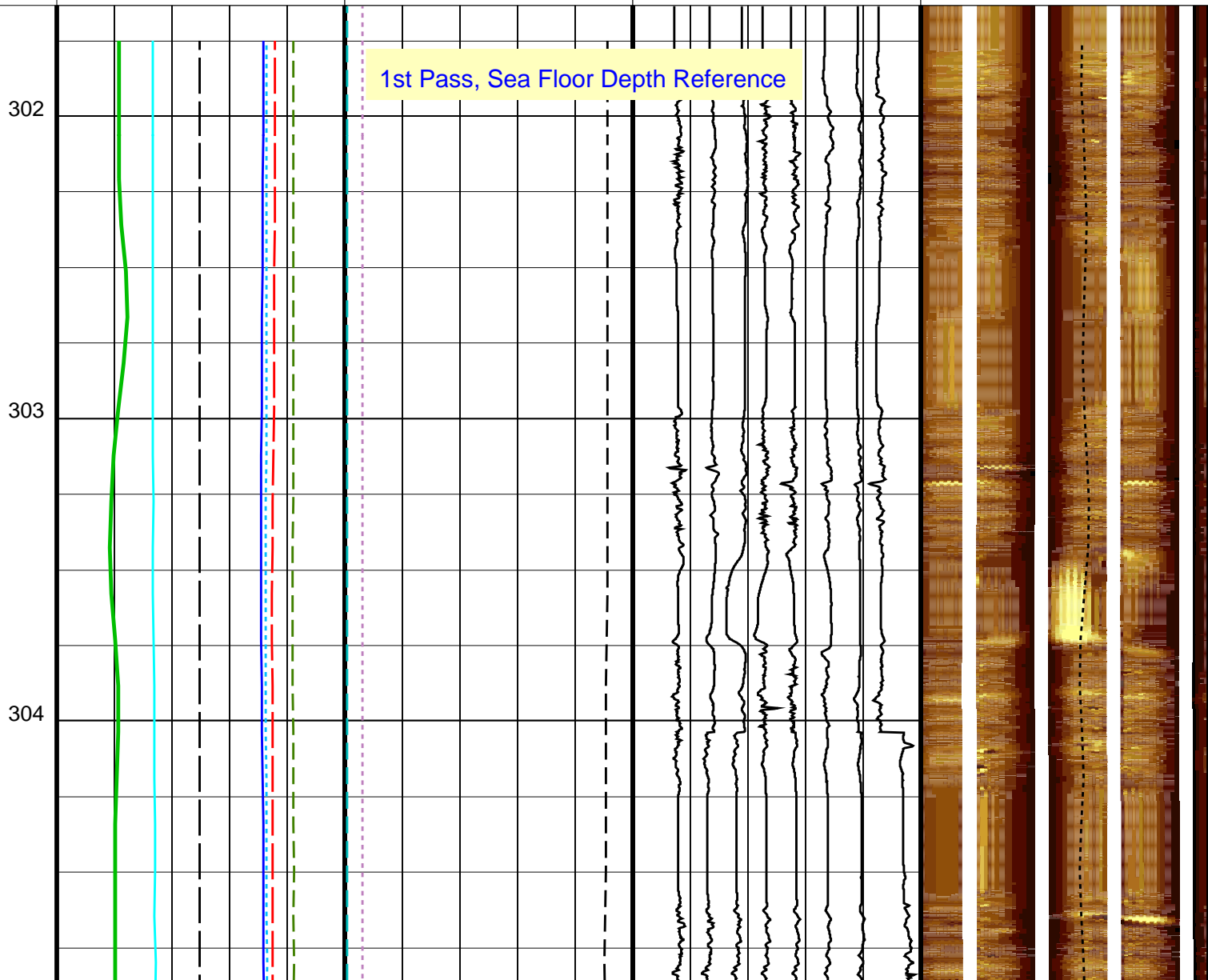
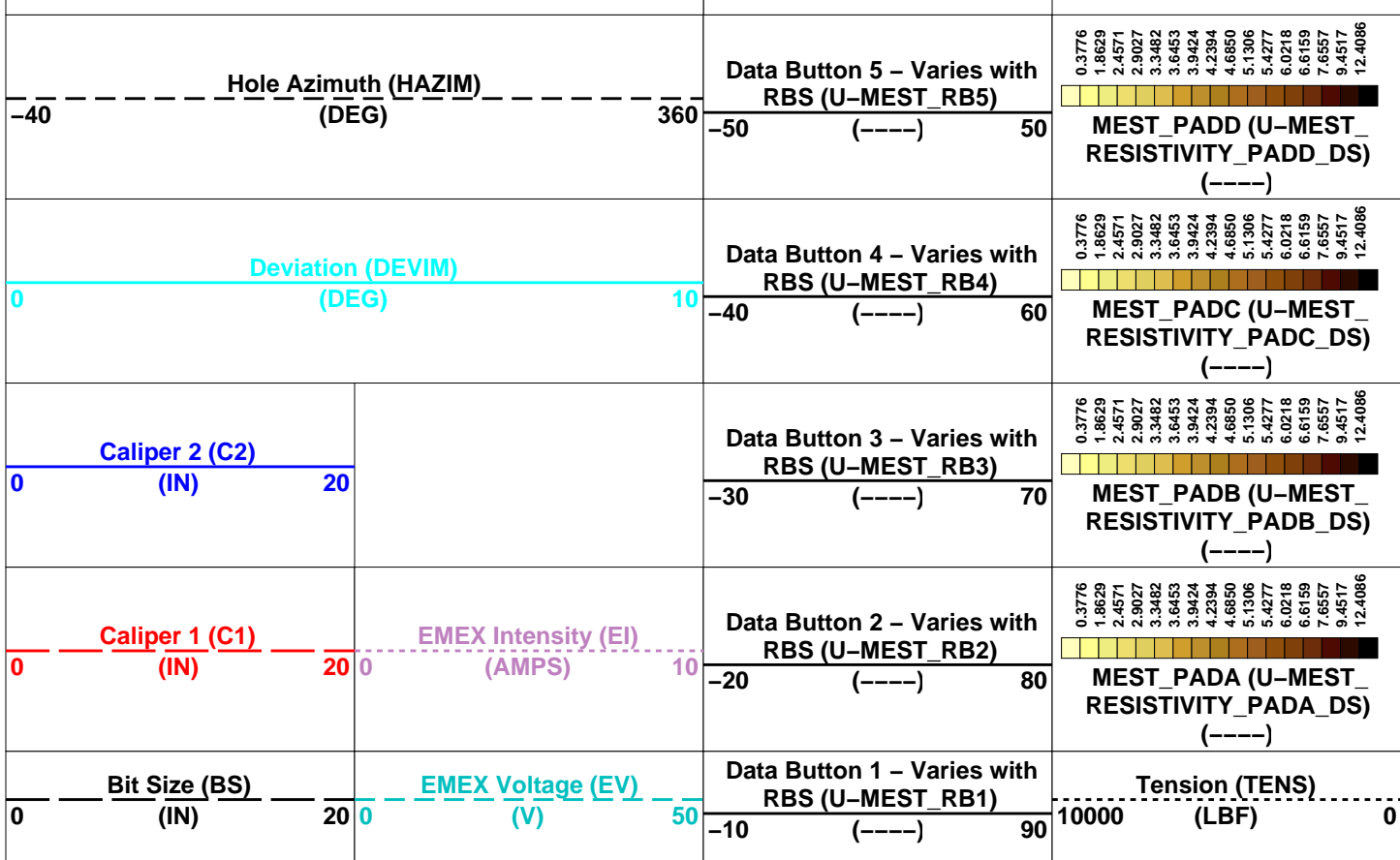
PIP SUMMARY

Time Mark Every 60 S

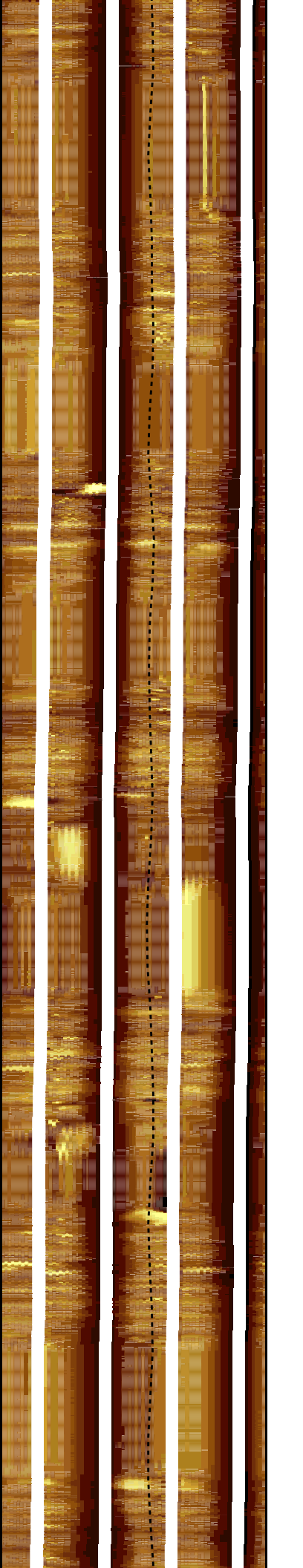
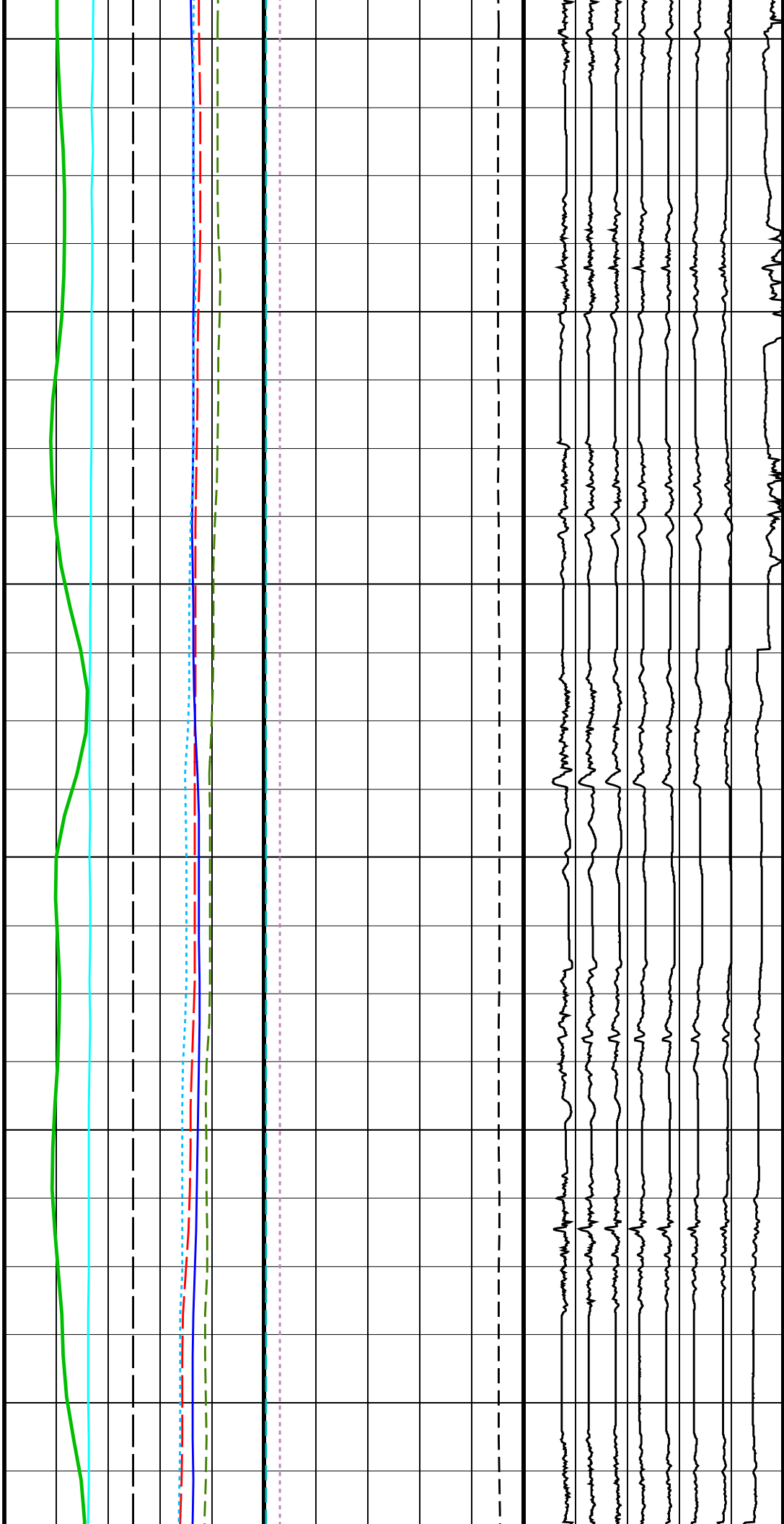
HNGS Spectroscopy Gamma Ray (HSGR)		Data Button 8 - Varies with RBS (U-MEST_RB8)
0 (GAPI) 75		-80 (----) 20

-40 ----- Relative Bearing (RB_MEST) ----- 360 (DEG)		Data Button 7 - Varies with RBS (U-MEST_RB7)
		-70 (----) 30

-40 ----- Pad One Azimuth (P1AZ_MEST) ----- 360 (DEG)		Data Button 6 - Varies with RBS (U-MEST_RB6)
		-60 (----) 40



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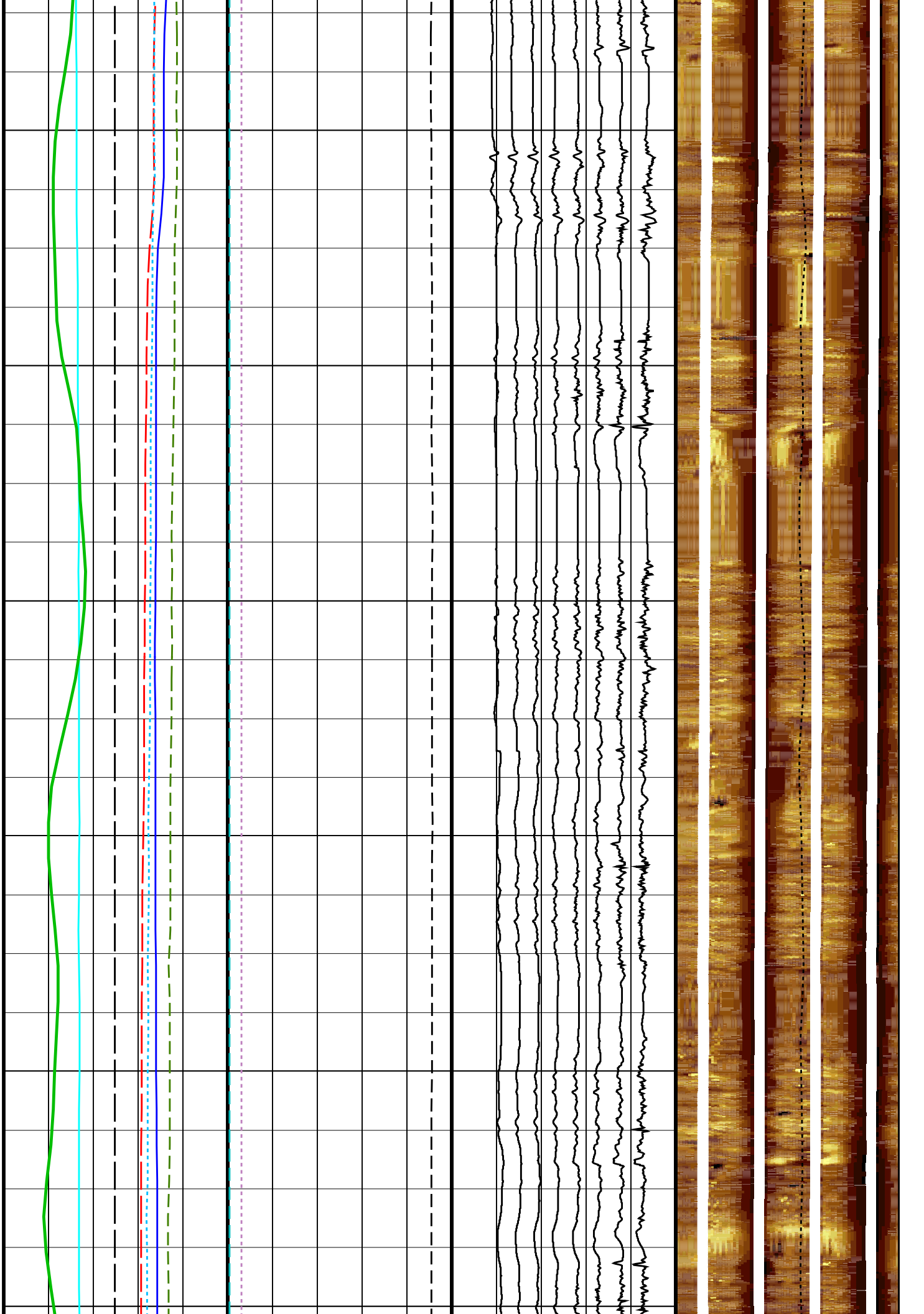
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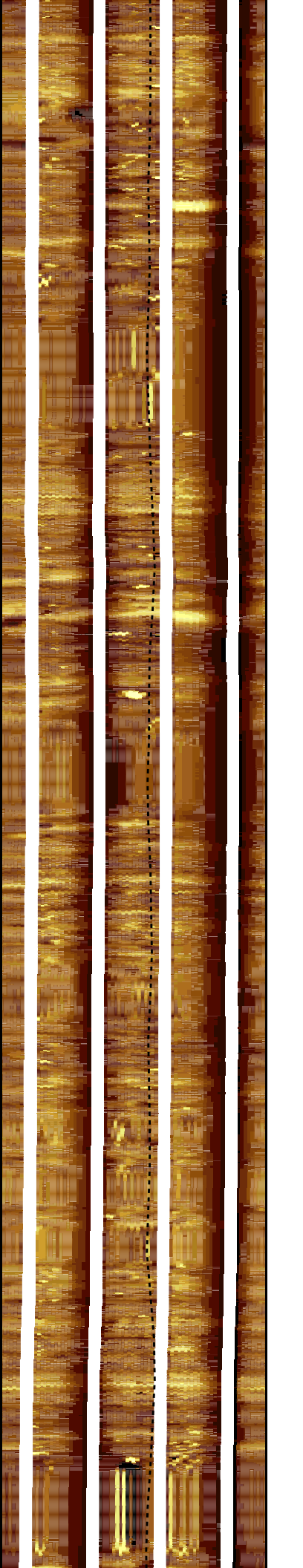
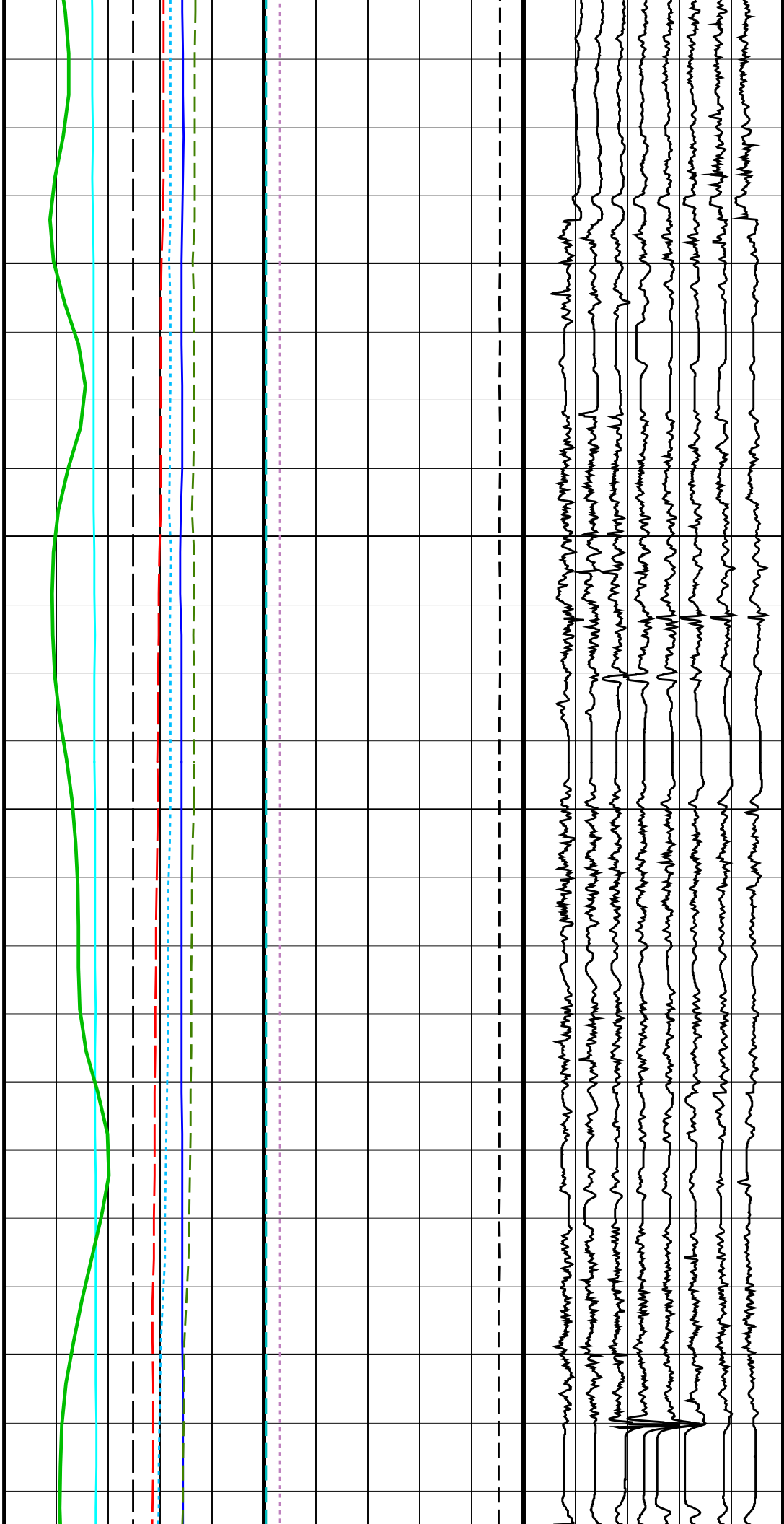
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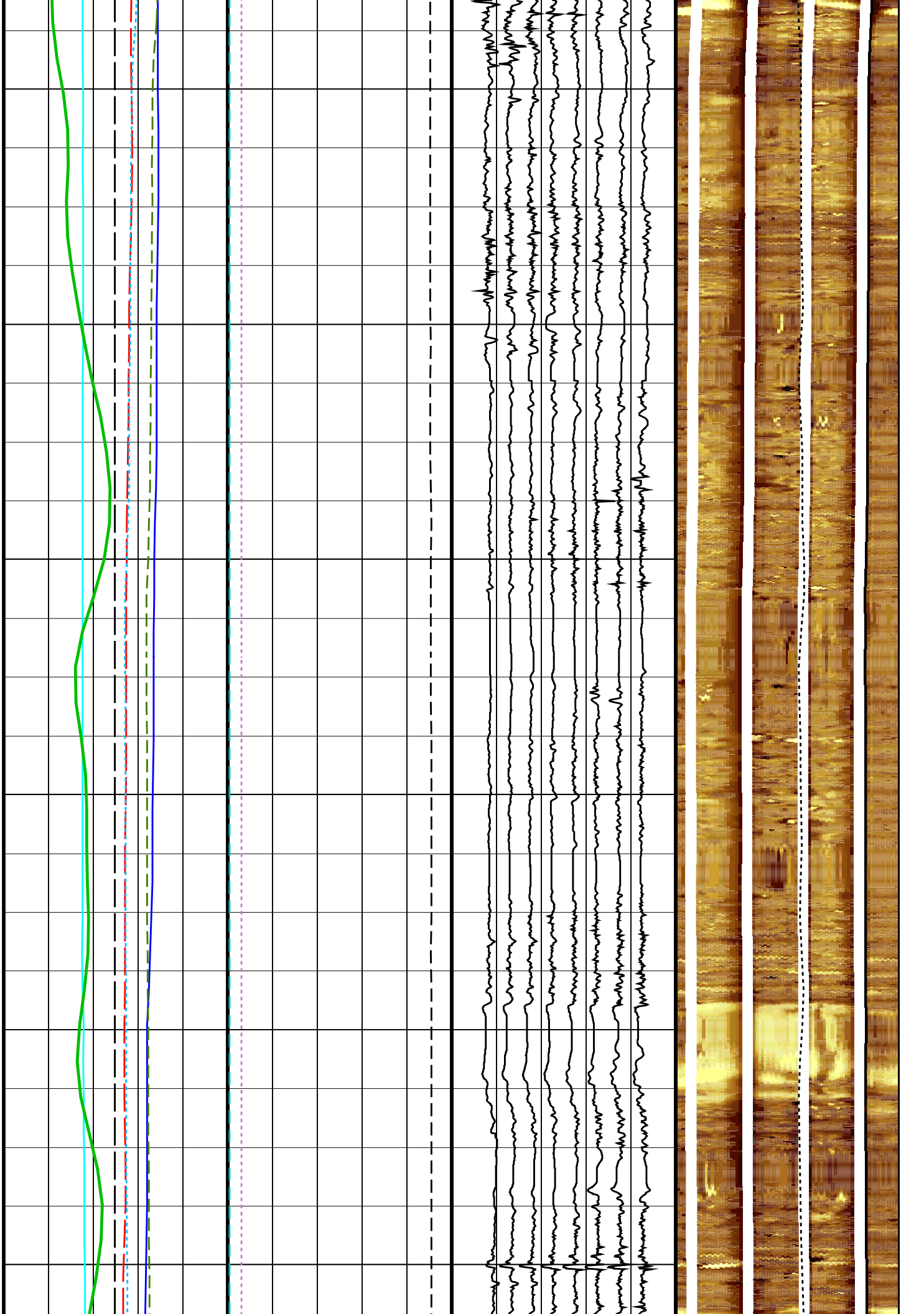
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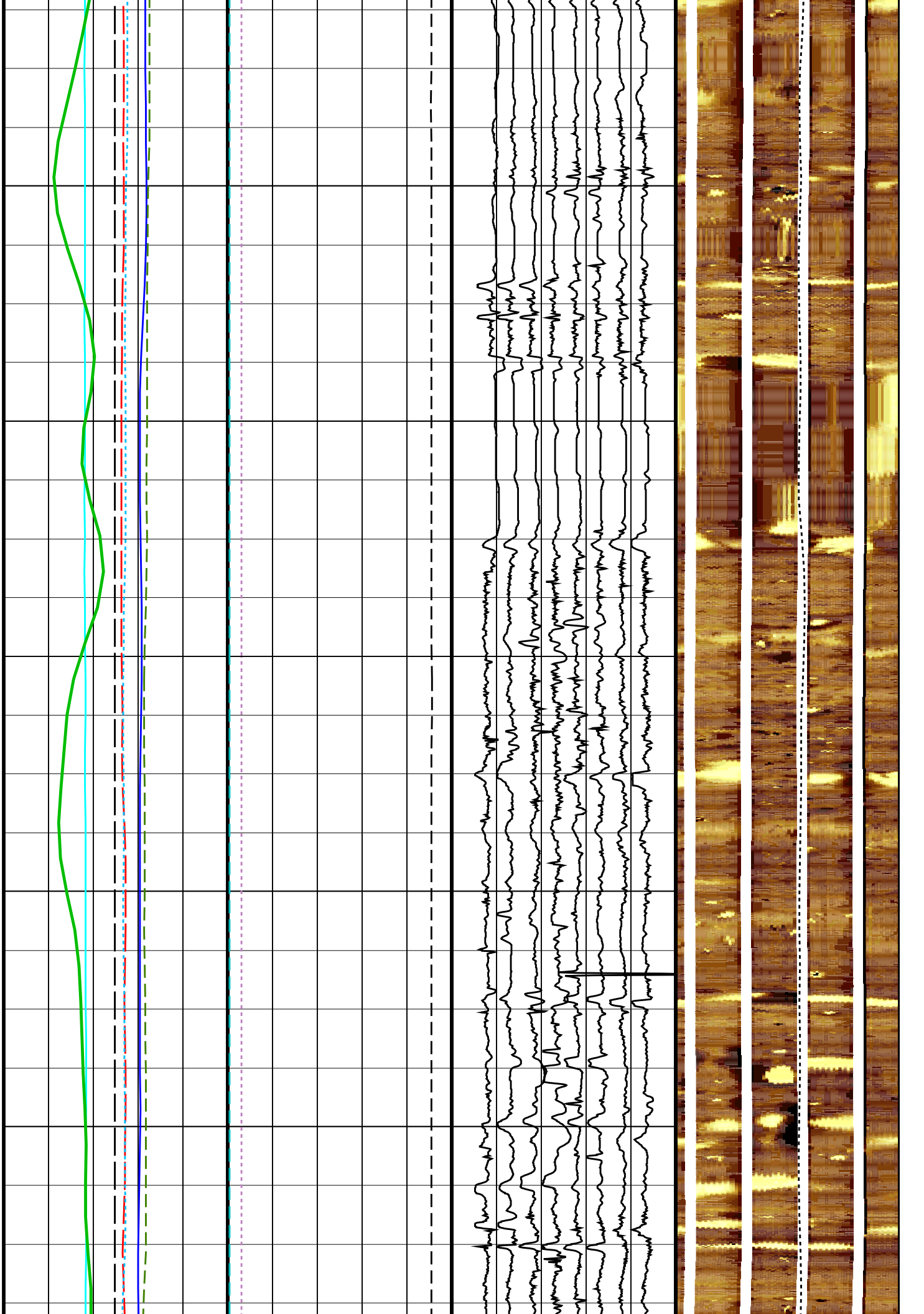
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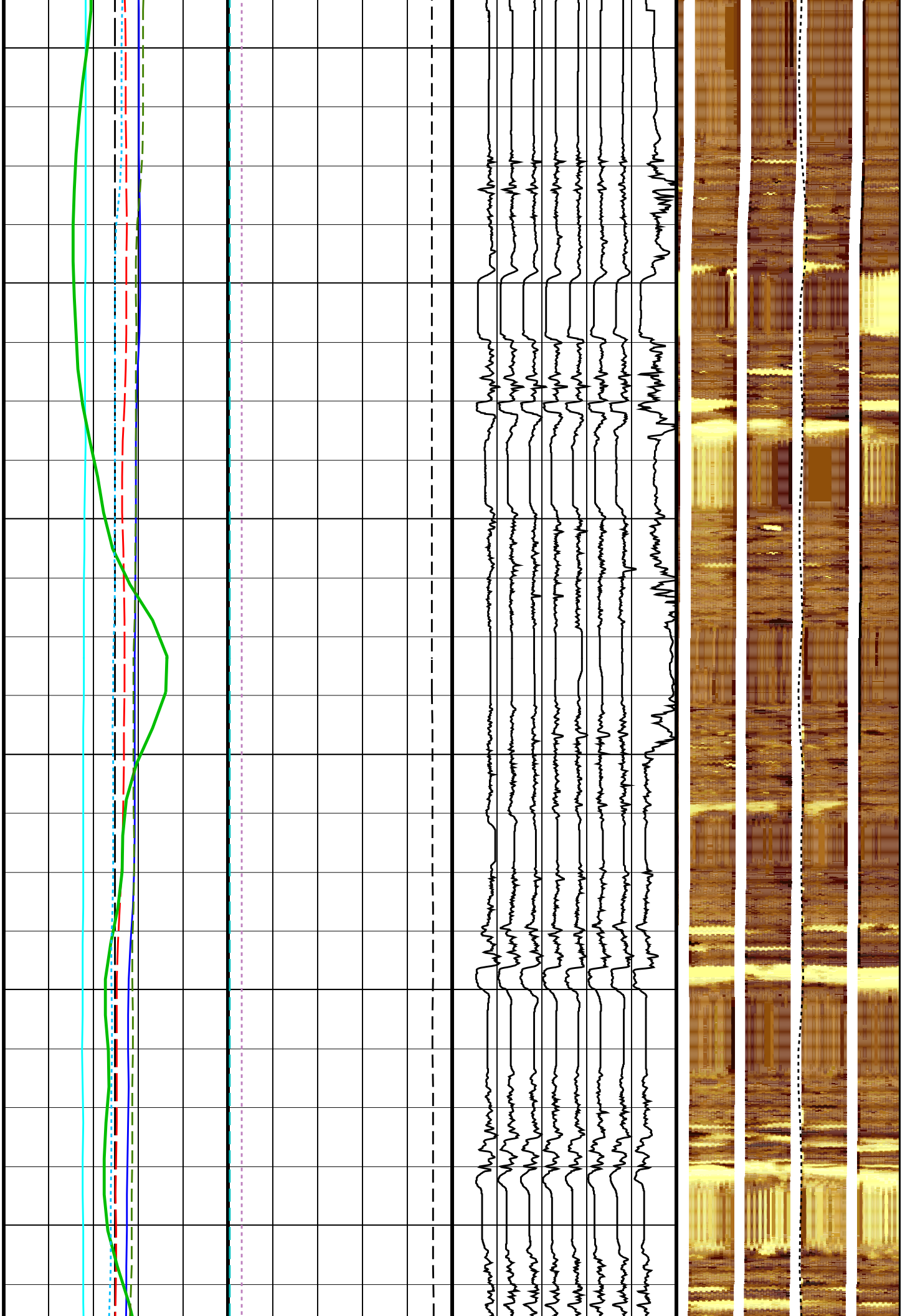
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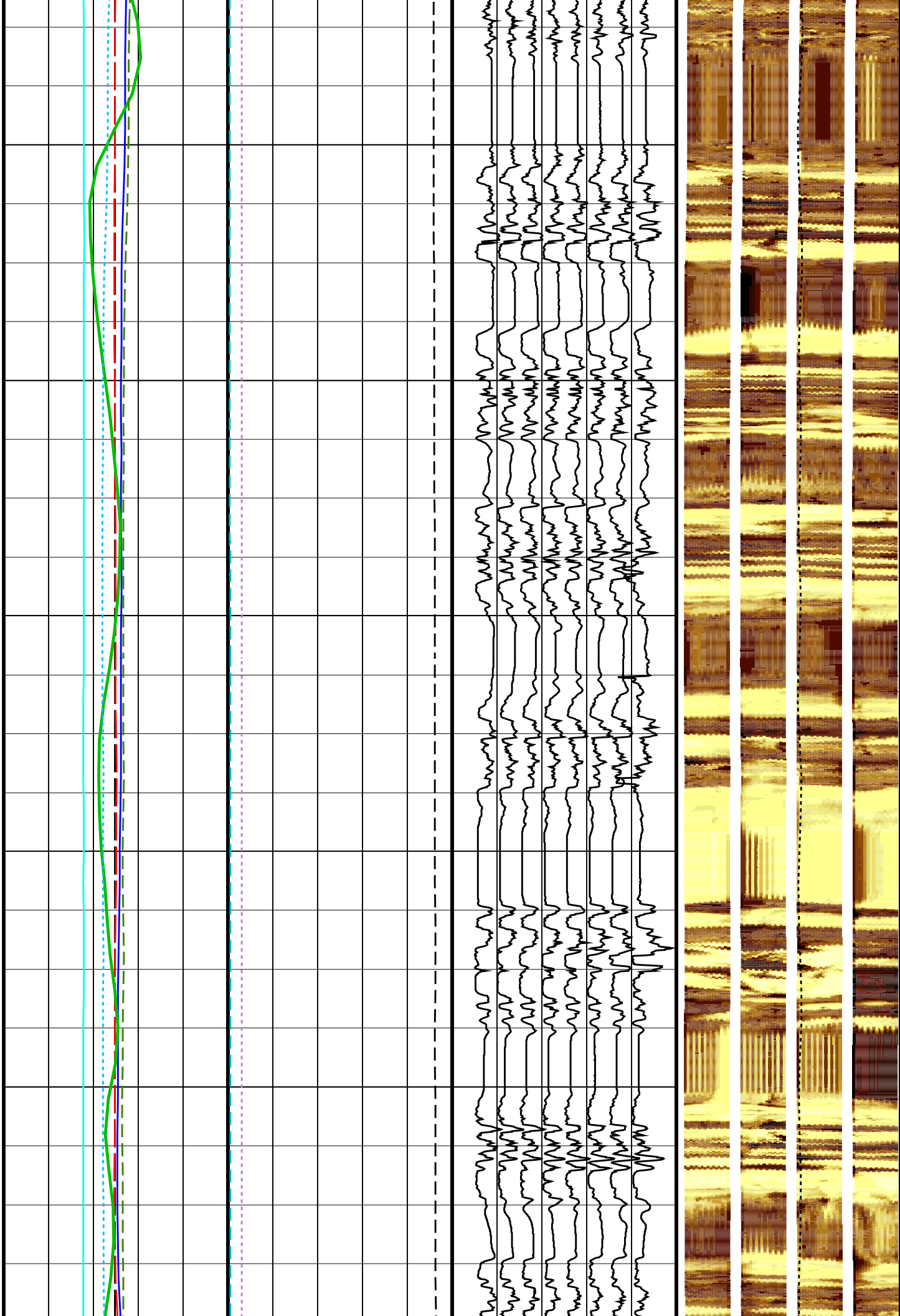
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RB_MEST
P1AZ_MEST

HSGR

DEVIM

C2
C1
BS

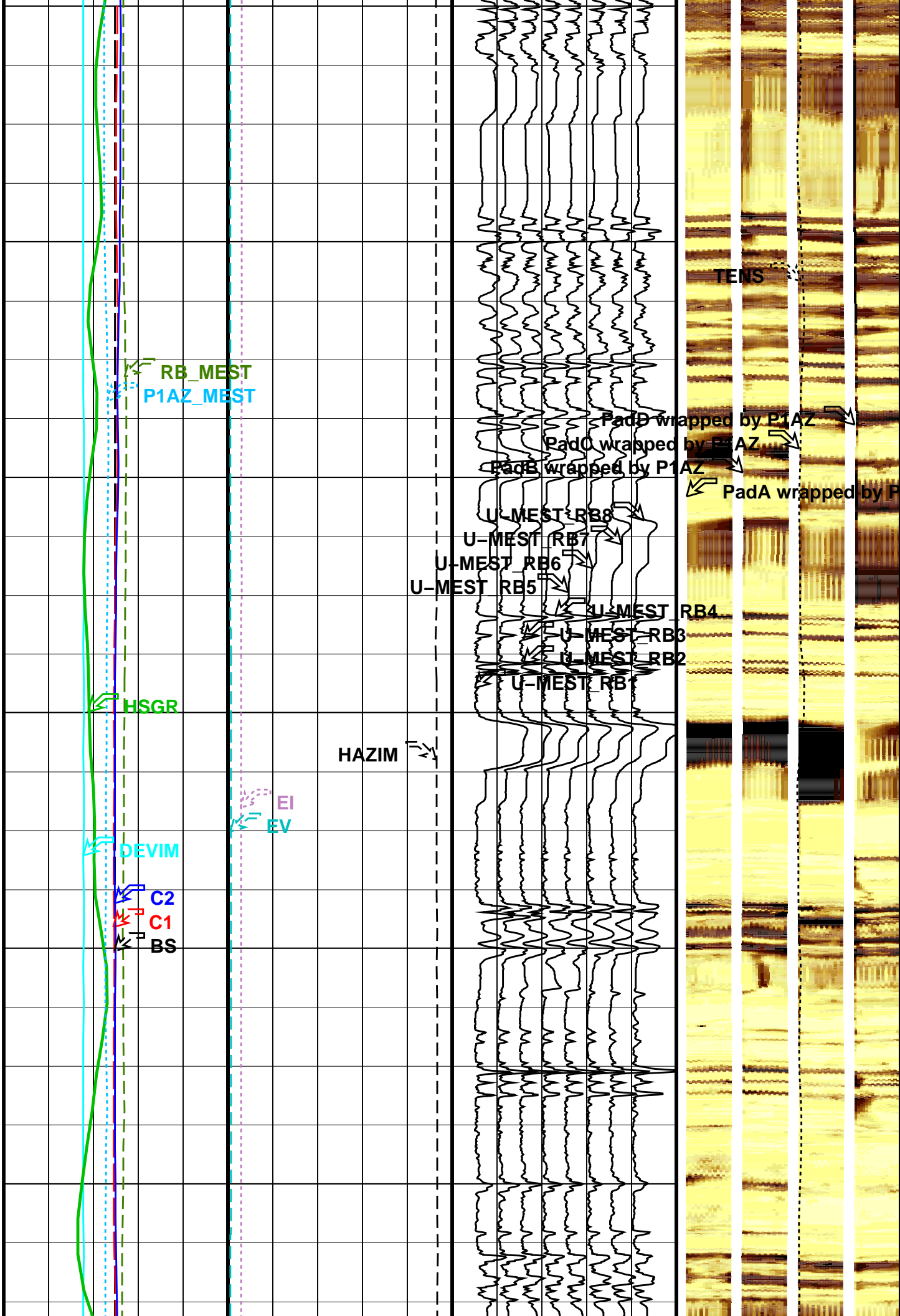
EI
EV

HAZIM

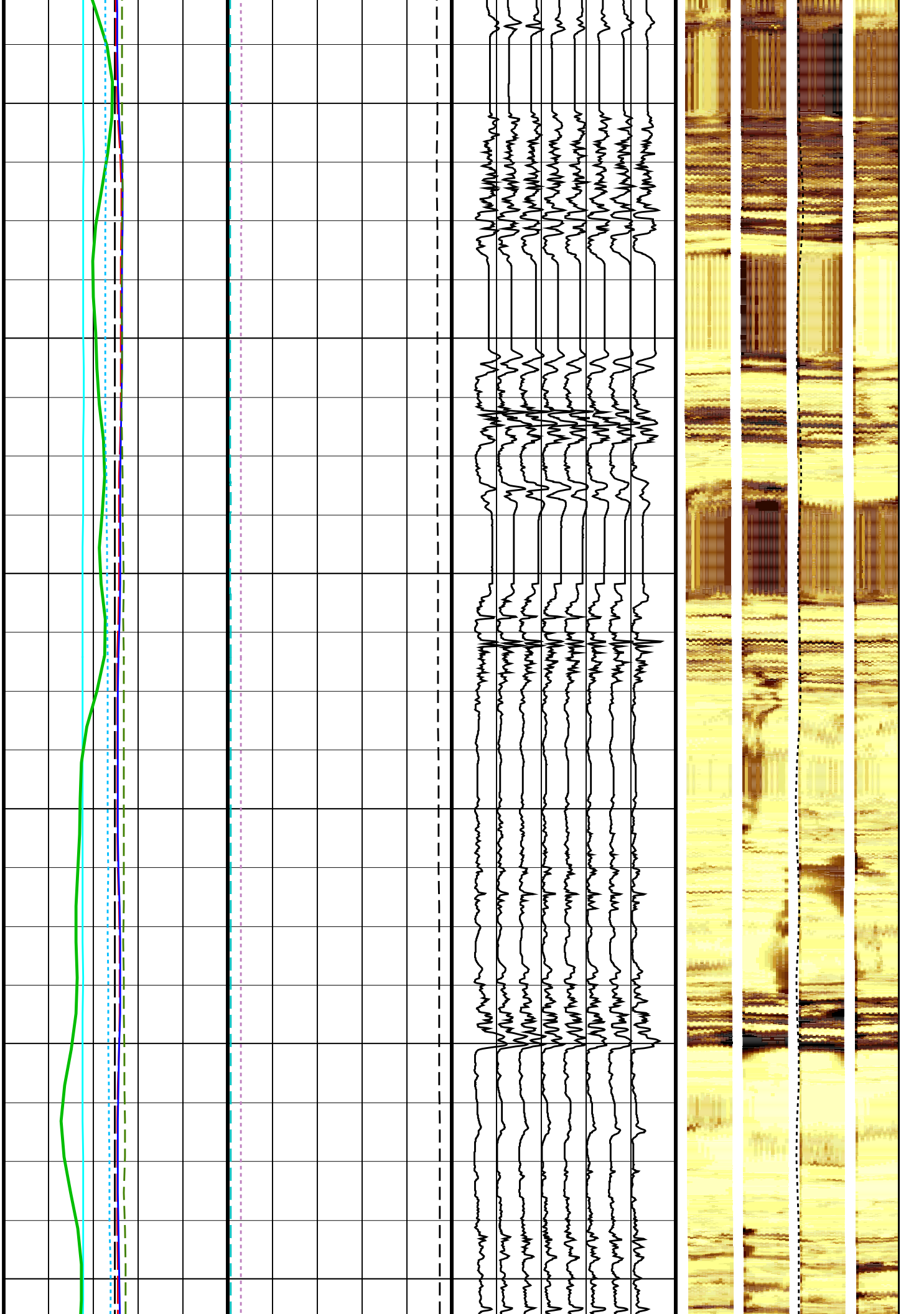
U-MEST_RB8
U-MEST_RB7
U-MEST_RB6
U-MEST_RB5
U-MEST_RB4
U-MEST_RB3
U-MEST_RB2

TENS

PadD wrapped by P1AZ
PadC wrapped by P1AZ
PadB wrapped by P1AZ
PadA wrapped by P1AZ



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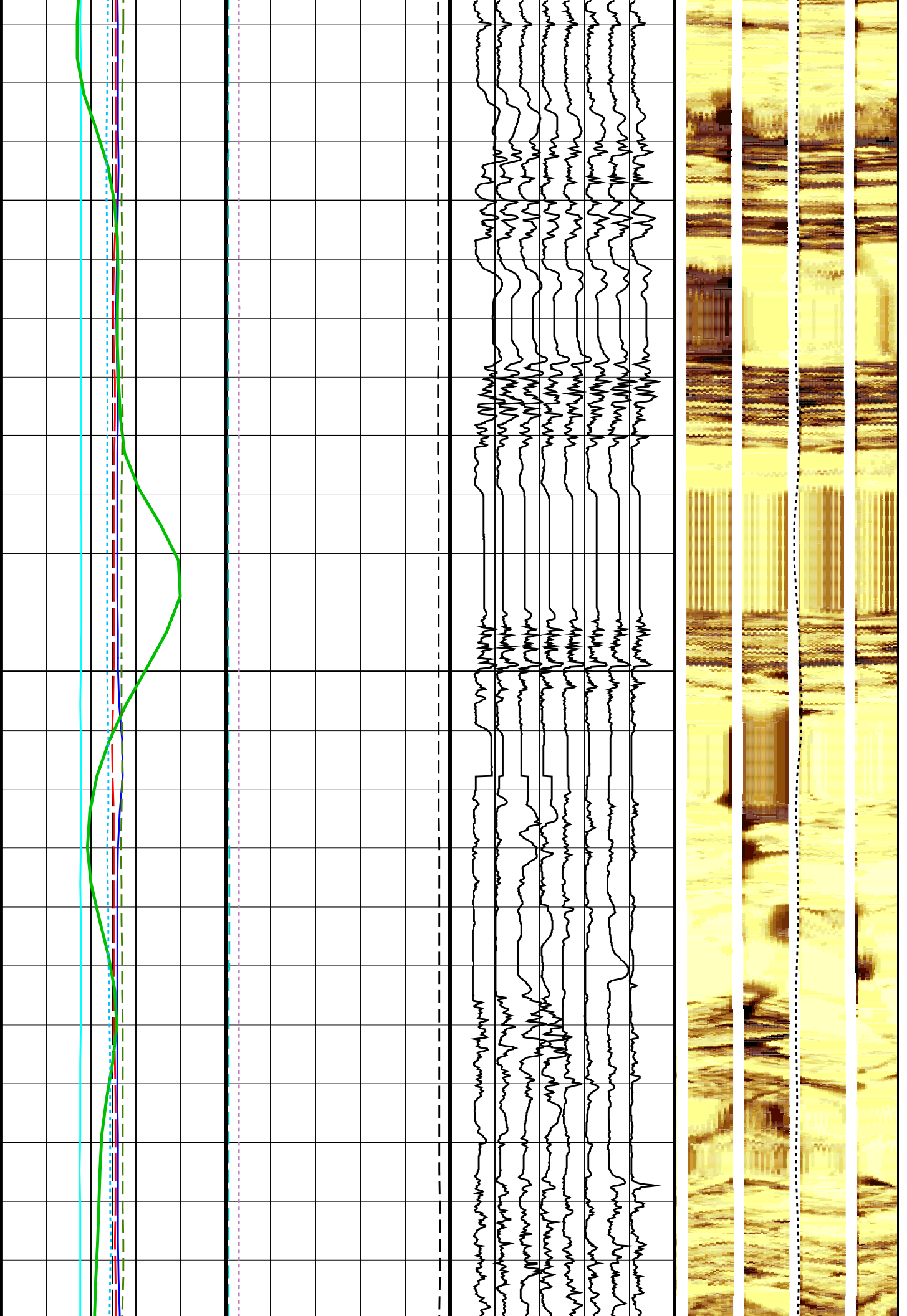
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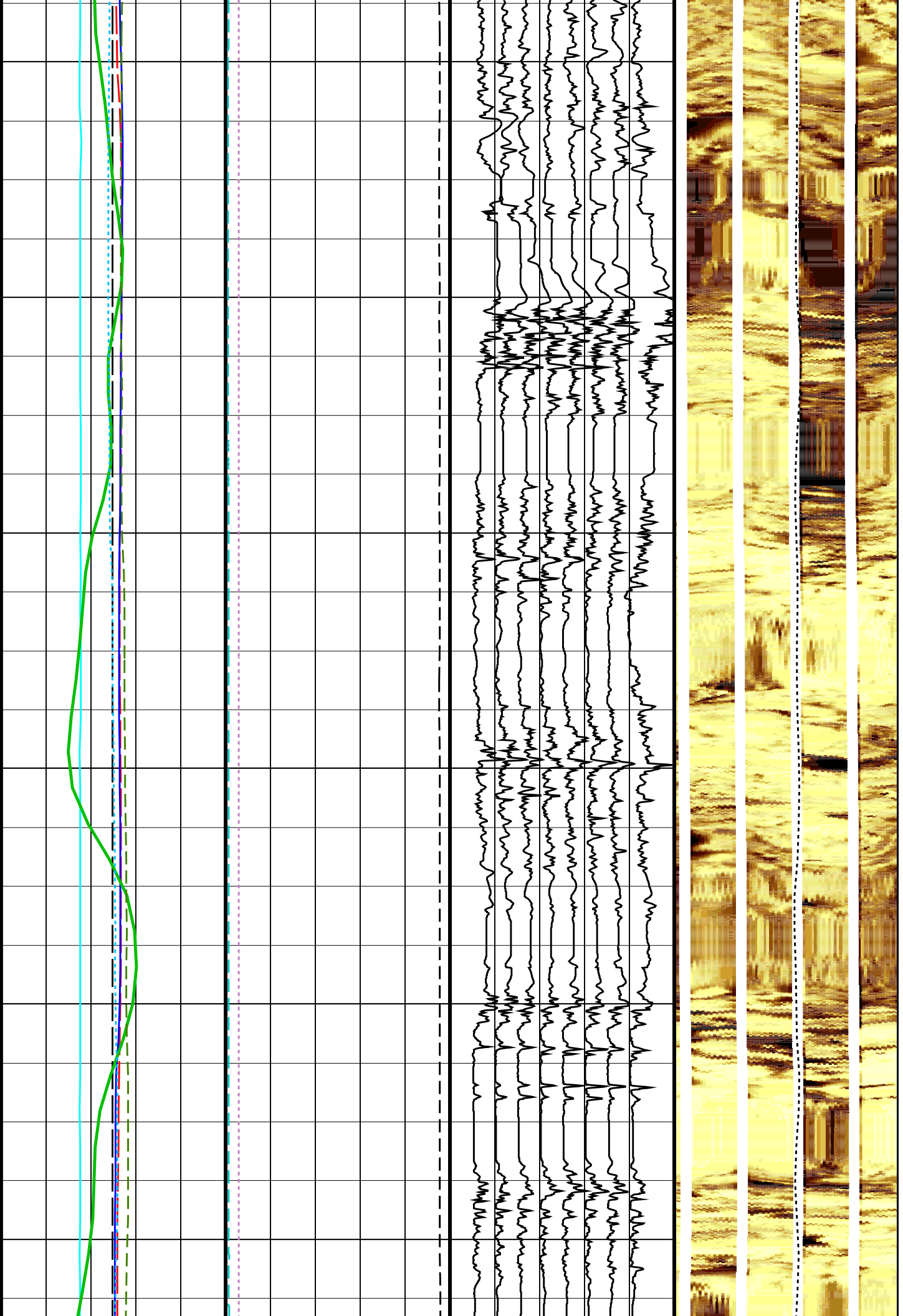
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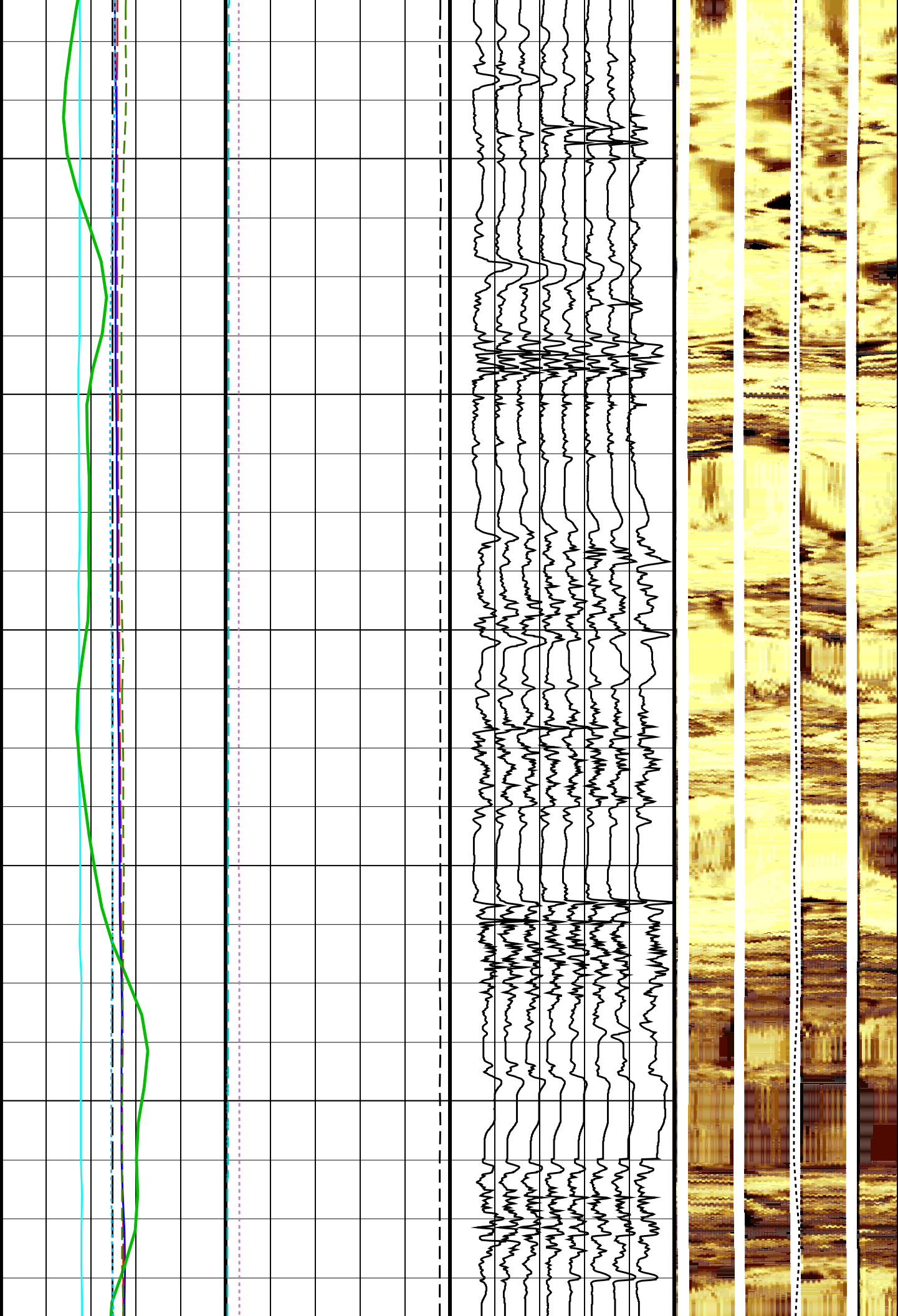
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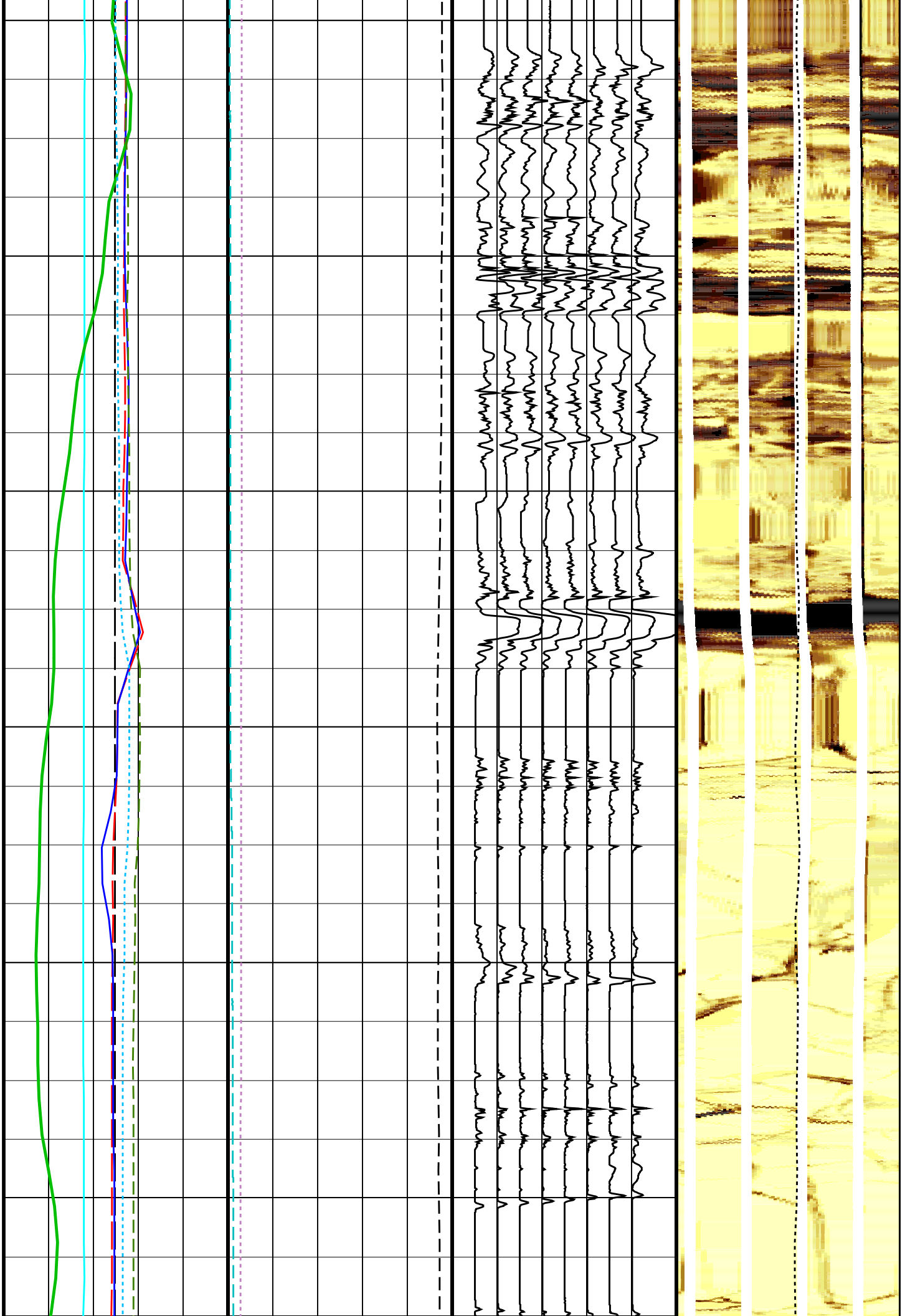
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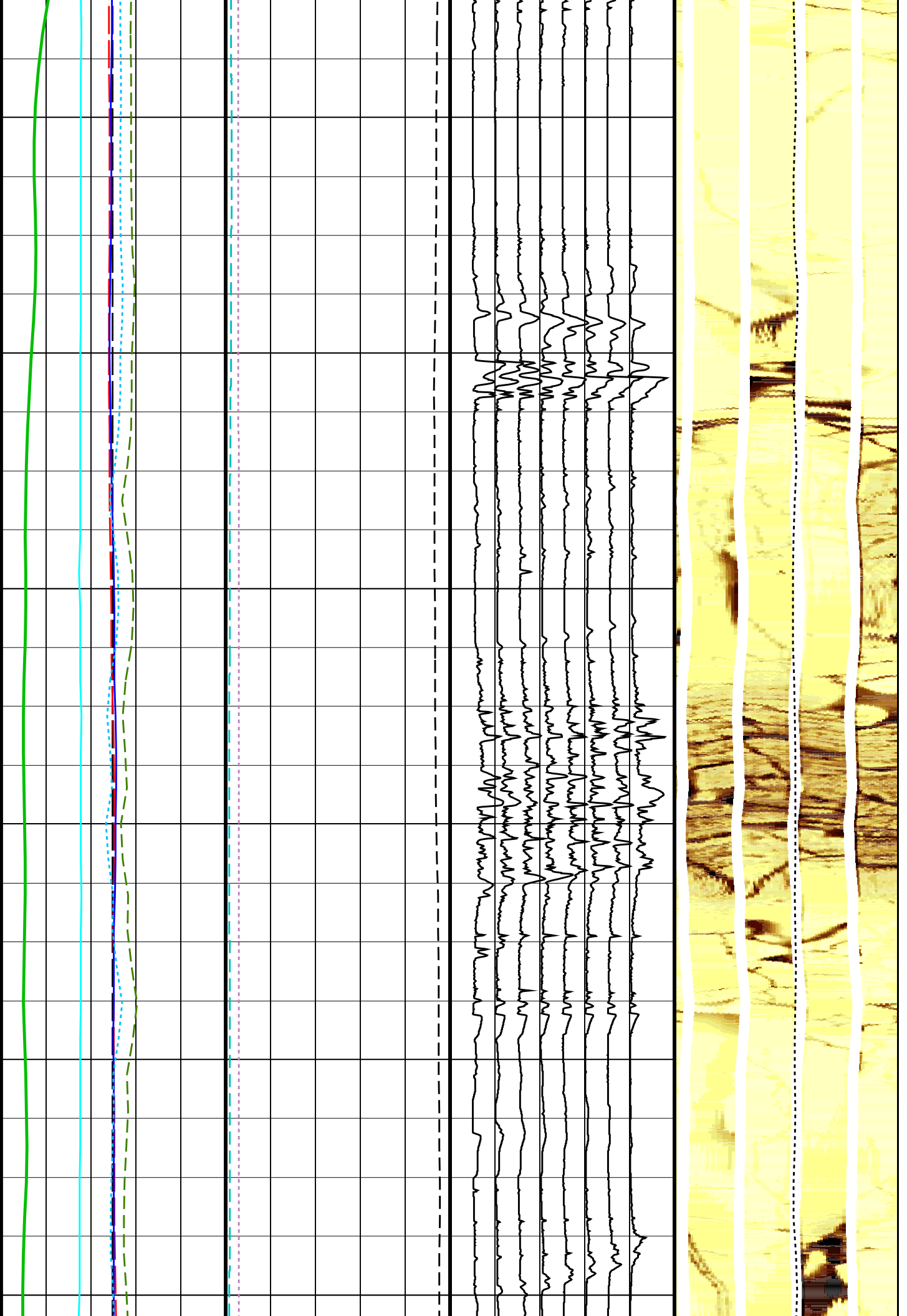
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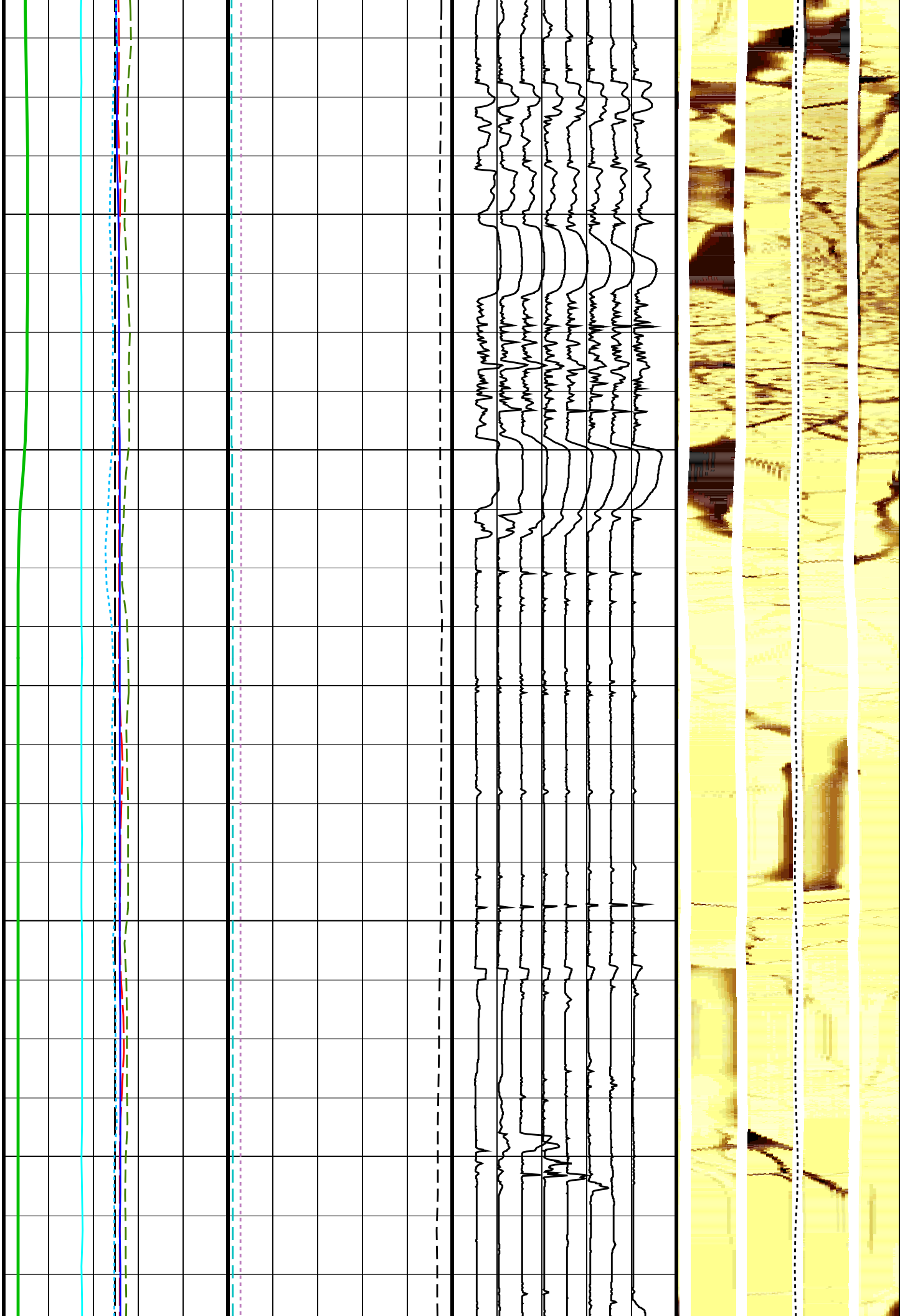
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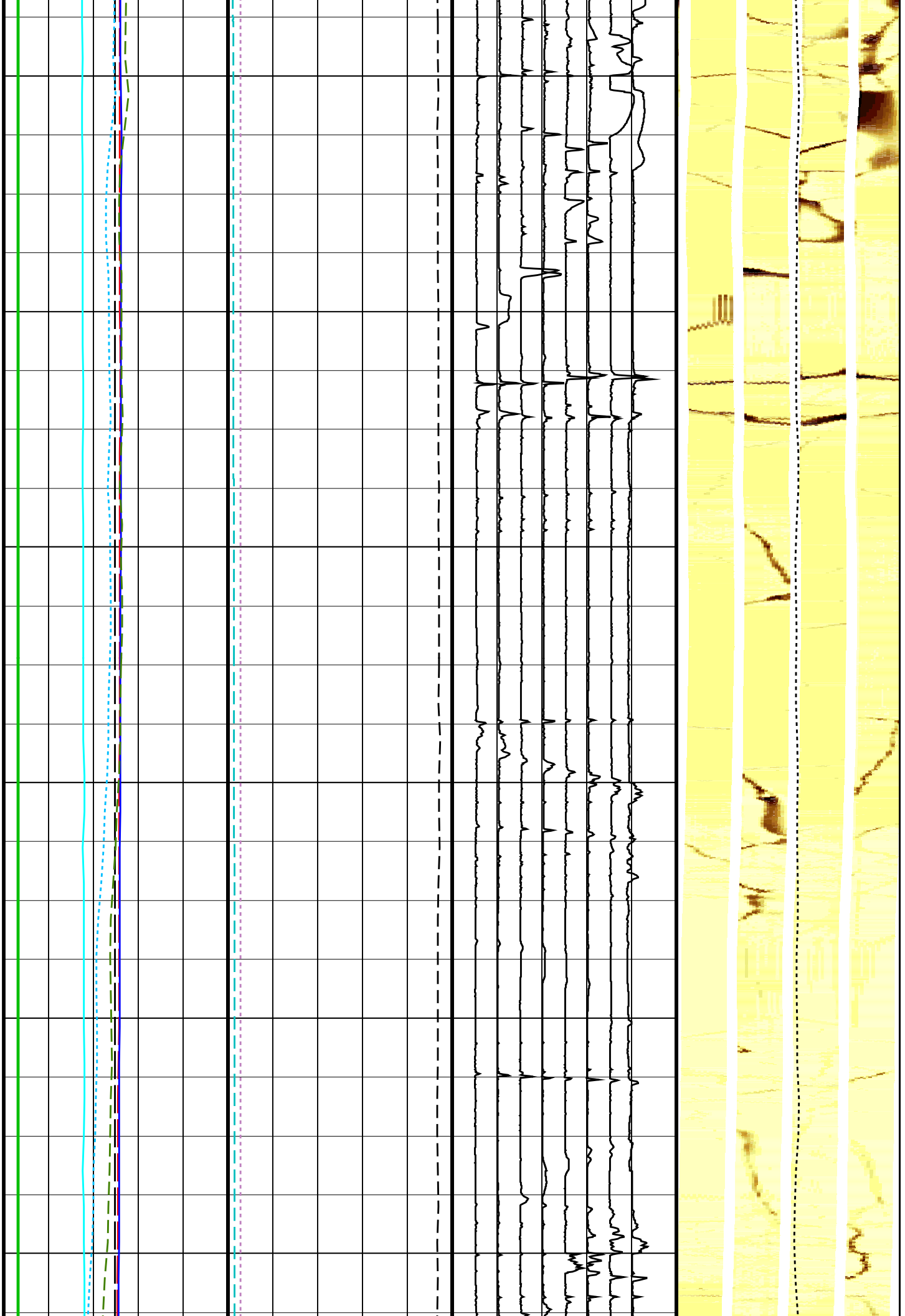
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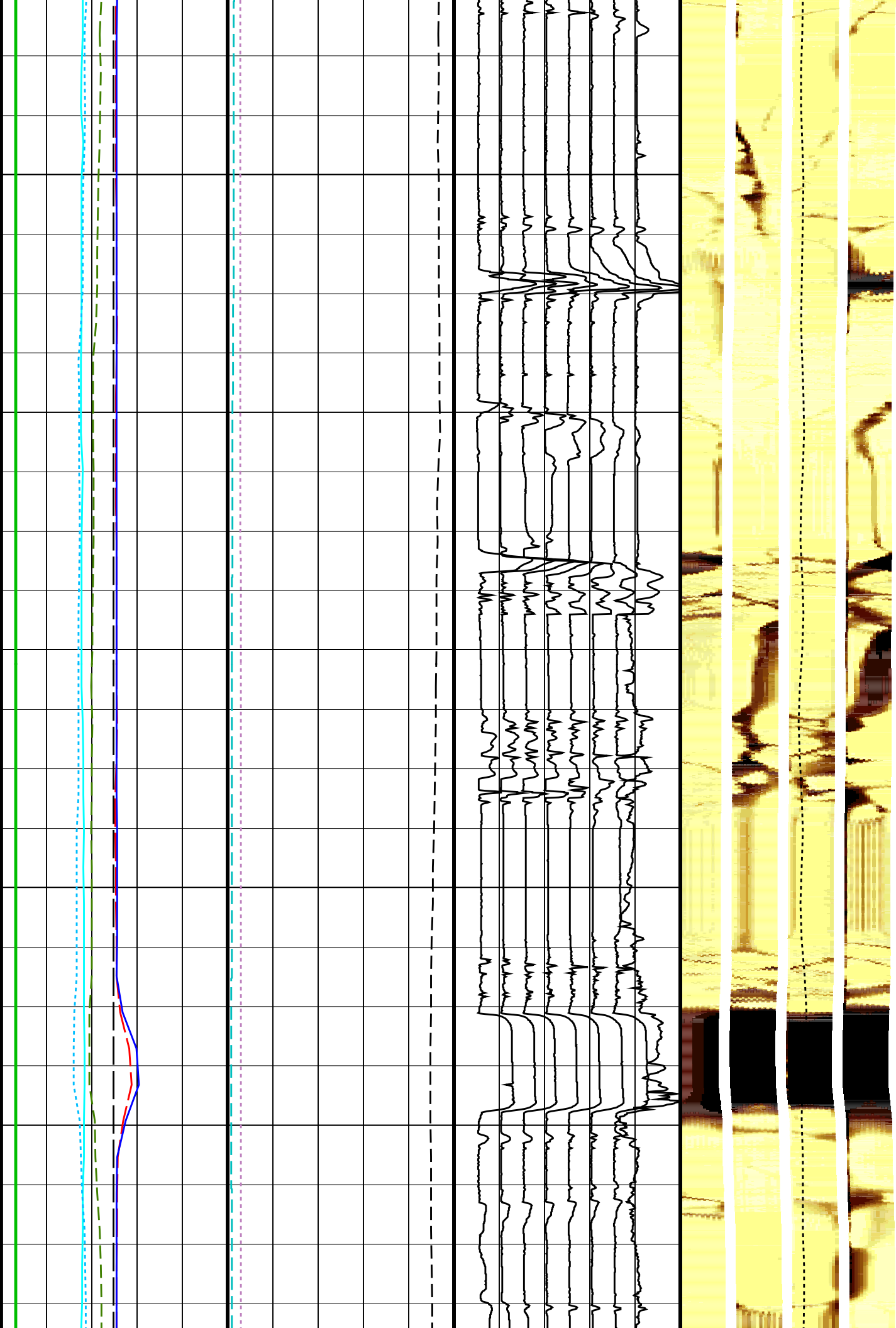
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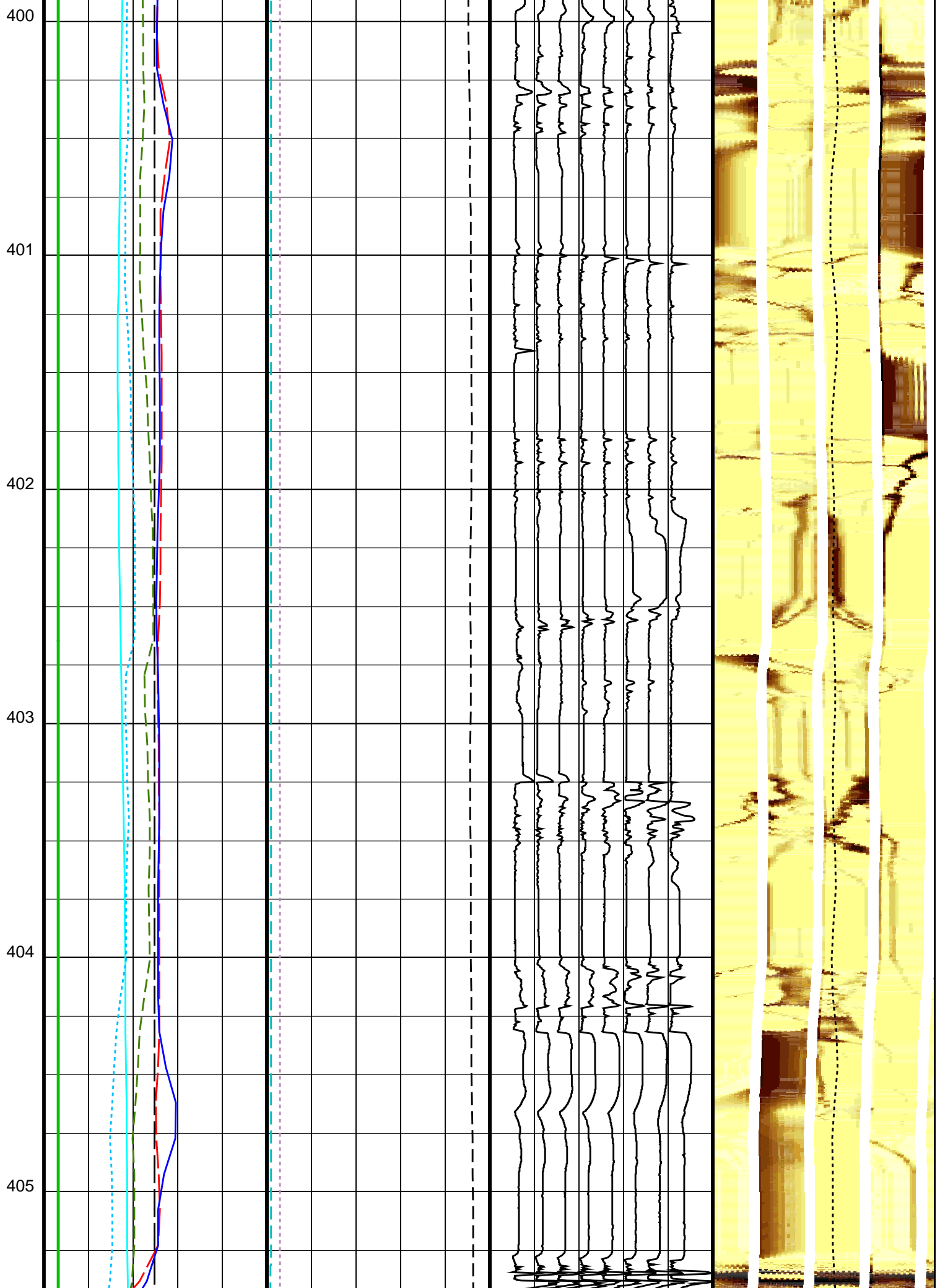
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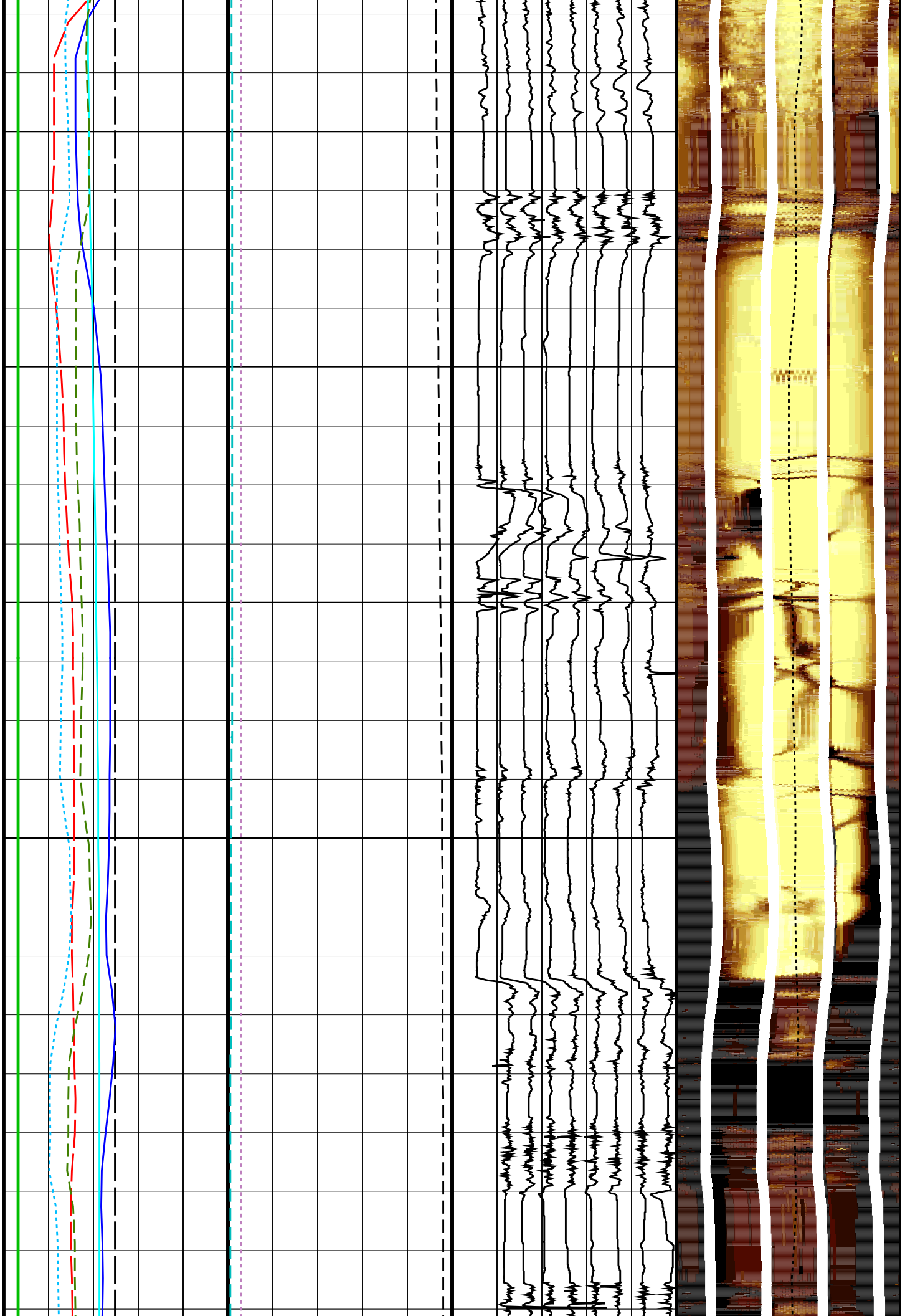
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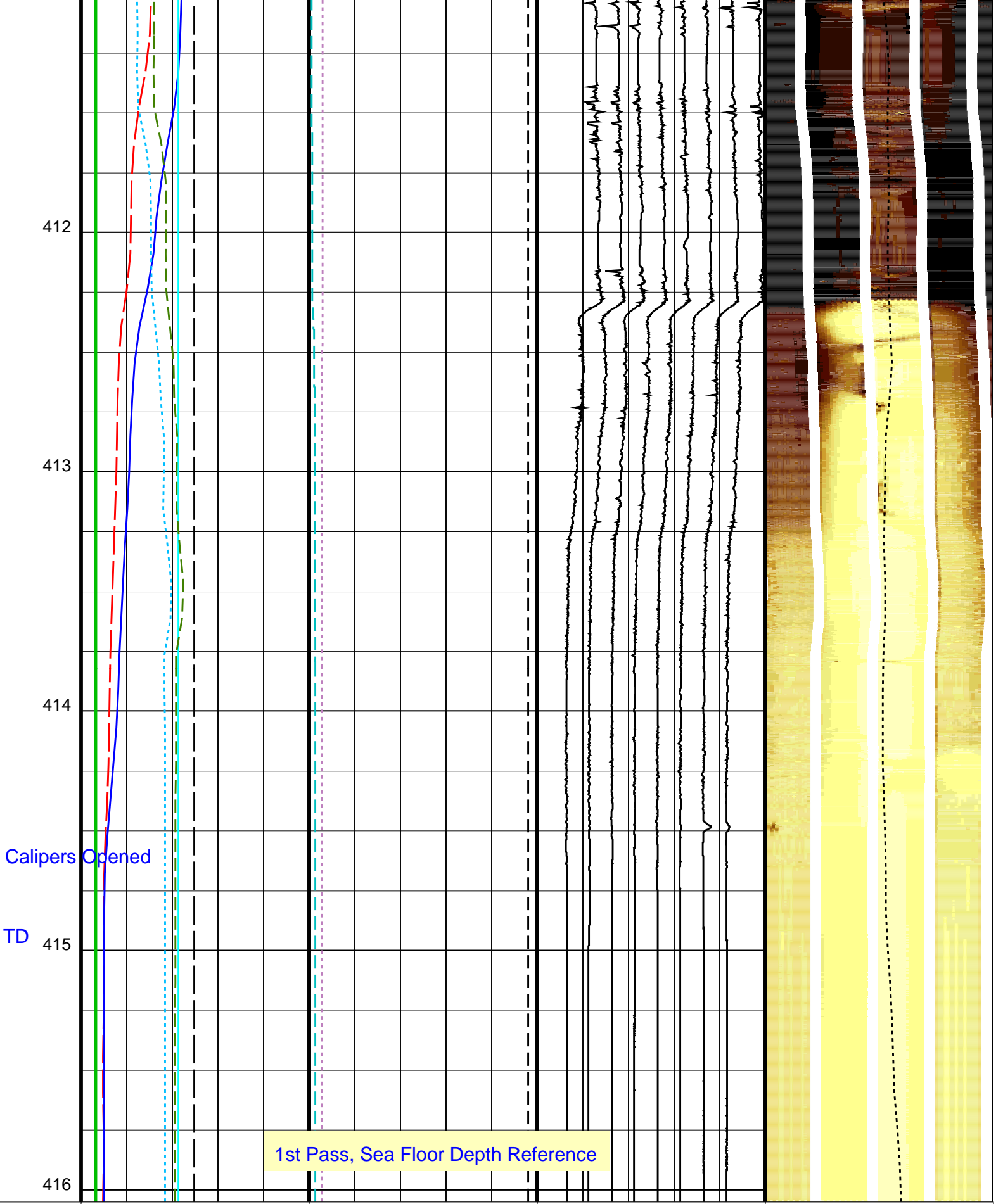
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Calipers Opened

TD

1st Pass, Sea Floor Depth Reference

0 Bit Size (BS) (IN) 20 0 EMEX Voltage (EV) (V) 50 Data Button 1 - Varies with RBS (U-MEST_RB1) (-10 (----) 90 Tension (TENS) (LBF) 10000 0

Caliper 1 (C1) EMEX Intensity (EI) Data Button 2 - Varies with RBS (U-MEST_RB2) 0.3776 1.8629 2.4571 2.9027 3.3482 3.6453 3.9424 4.2394 4.6850 5.1306 5.4277 6.0218 6.6159 7.6557 9.4517 12.4086

0	(IN)	20	0	(AMPS)	-20	(-----)	80	MEST_PADA (U-MEST_RESISTIVITY_PADA_DS) (-----)
0	Caliper 2 (C2) (IN)	20				Data Button 3 – Varies with RBS (U-MEST_RB3)		0.3776 1.8629 1.8629 2.4571 2.4571 2.9027 2.9027 3.3482 3.3482 3.6453 3.6453 3.9424 3.9424 4.2394 4.2394 4.6850 4.6850 5.1306 5.1306 5.4277 5.4277 6.0218 6.0218 6.6159 6.6159 7.6557 7.6557 9.4517 9.4517 12.4086 12.4086
					-30	(-----)	70	MEST_PADB (U-MEST_RESISTIVITY_PADB_DS) (-----)
0	Deviation (DEVIM) (DEG)		10			Data Button 4 – Varies with RBS (U-MEST_RB4)		0.3776 1.8629 1.8629 2.4571 2.4571 2.9027 2.9027 3.3482 3.3482 3.6453 3.6453 3.9424 3.9424 4.2394 4.2394 4.6850 4.6850 5.1306 5.1306 5.4277 5.4277 6.0218 6.0218 6.6159 6.6159 7.6557 7.6557 9.4517 9.4517 12.4086 12.4086
					-40	(-----)	60	MEST_PADC (U-MEST_RESISTIVITY_PADC_DS) (-----)
-40	Hole Azimuth (HAZIM) (DEG)			360		Data Button 5 – Varies with RBS (U-MEST_RB5)		0.3776 1.8629 1.8629 2.4571 2.4571 2.9027 2.9027 3.3482 3.3482 3.6453 3.6453 3.9424 3.9424 4.2394 4.2394 4.6850 4.6850 5.1306 5.1306 5.4277 5.4277 6.0218 6.0218 6.6159 6.6159 7.6557 7.6557 9.4517 9.4517 12.4086 12.4086
					-50	(-----)	50	MEST_PADD (U-MEST_RESISTIVITY_PADD_DS) (-----)
-40	Pad One Azimuth (P1AZ_MEST) (DEG)			360		Data Button 6 – Varies with RBS (U-MEST_RB6)		
					-60	(-----)	40	
-40	Relative Bearing (RB_MEST) (DEG)			360		Data Button 7 – Varies with RBS (U-MEST_RB7)		
					-70	(-----)	30	
0	HNGS Spectroscopy Gamma Ray (HSGR) (GAPI)			75		Data Button 8 – Varies with RBS (U-MEST_RB8)		
					-80	(-----)	20	

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
MEST-B: Micro Electrical Scanner – B (Slim)		
AFMO	Accelerometer Filtering Mode	MOVING_AVERAGE
ICMO	Inclinometry Computation Mode	AUTOMATIC_SELECTION
MDEC	Magnetic Field Declination	-0.785252 DEG
MLM	MEST Logging Mode	SCAN1800
RBS	Resistivity Button Selection	AUTO
XGAI	Gain	GAIN_2
XOFF	Offset	OFFSET_0
DSST-B: Dipole Shear Imager – B		
BHS	Borehole Status	OPEN
GCSE	Generalized Caliper Selection	BS
HNGS-BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1
BAR2	HNGS Detector 2 Barite Constant	1
BHK	HNGS Borehole Potassium Correction Concentration	0
BHS	Borehole Status	OPEN
CSD1	Inner Casing Outer Diameter	0 IN
CSD2	Outer Casing Outer Diameter	0 IN
CSW1	Inner Casing Weight	0 LB/F
CSW2	Outer Casing Weight	0 LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE
GCSE	Generalized Caliper Selection	BS
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW
HABK	HNGS Borehole Potassium Running Average	-0.00624076
HALF	HNGS Alpha Filter Length	60 IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE
HMWM	Mud Weighting Material	NATU
HNPE	HNGS Processing Enable	YES
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3 CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3 CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES
TPOS	Tool Position	CENT
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.35495
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.05547

BHS	EDTC-B: Enhanced DTS Cartridge	Borehole Status	OPEN
GCSE	System and Miscellaneous	Generalized Caliper Selection	BS
BS		Bit Size	9.875 IN
DFD		Drilling Fluid Density	1.02 G/C3
DO		Depth Offset for Playback	-2469.0 M
PP		Playback Processing	NORMAL

Format: MEST_C_WRAP_BY_P1AZ Vertical Scale: 1:20 Graphics File Created: 10-Dec-2012 20:24

OP System Version: 19C0-187

MEST-B	19C0-187	DTA-A	19C0-187
DSST-B	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	EDTC-B	SKK-5169-EDTCB

Input DLIS Files

DEFAULT	FMS_DSI_NGS_035LUP	FN:48	PRODUCER	10-Dec-2012 15:01	2884.9 M	2770.6 M
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Output DLIS Files

DEFAULT	FMS_DSI_NGS_042PUP	FN:62	PRODUCER	10-Dec-2012 20:24		
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Company: Lamont Doherty Well: Expedition 344, Site U1414A

Input DLIS Files

DEFAULT	FMS_DSI_NGS_036LUP	FN:50	PRODUCER	10-Dec-2012 15:20	2882.6 M	2462.5 M
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Output DLIS Files

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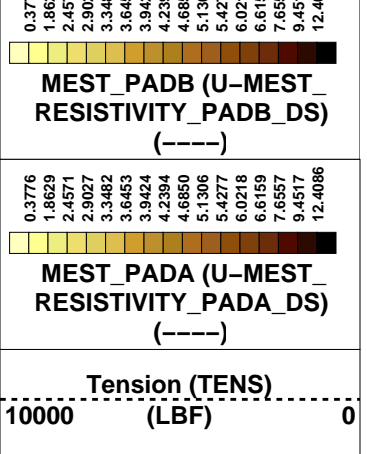
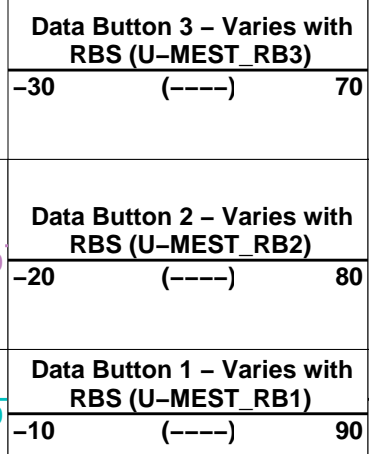
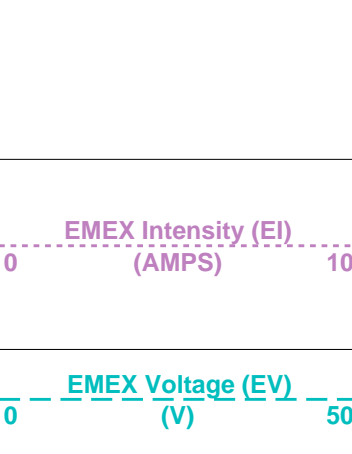
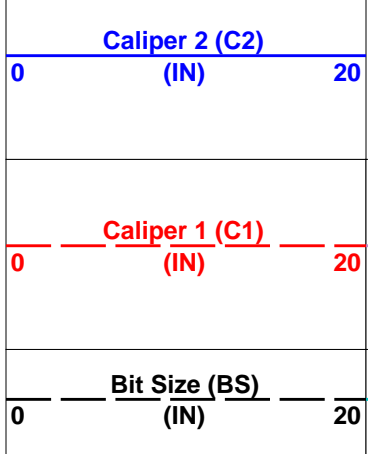
OP System Version: 19C0-187

MEST-B	19C0-187	DTA-A	19C0-187
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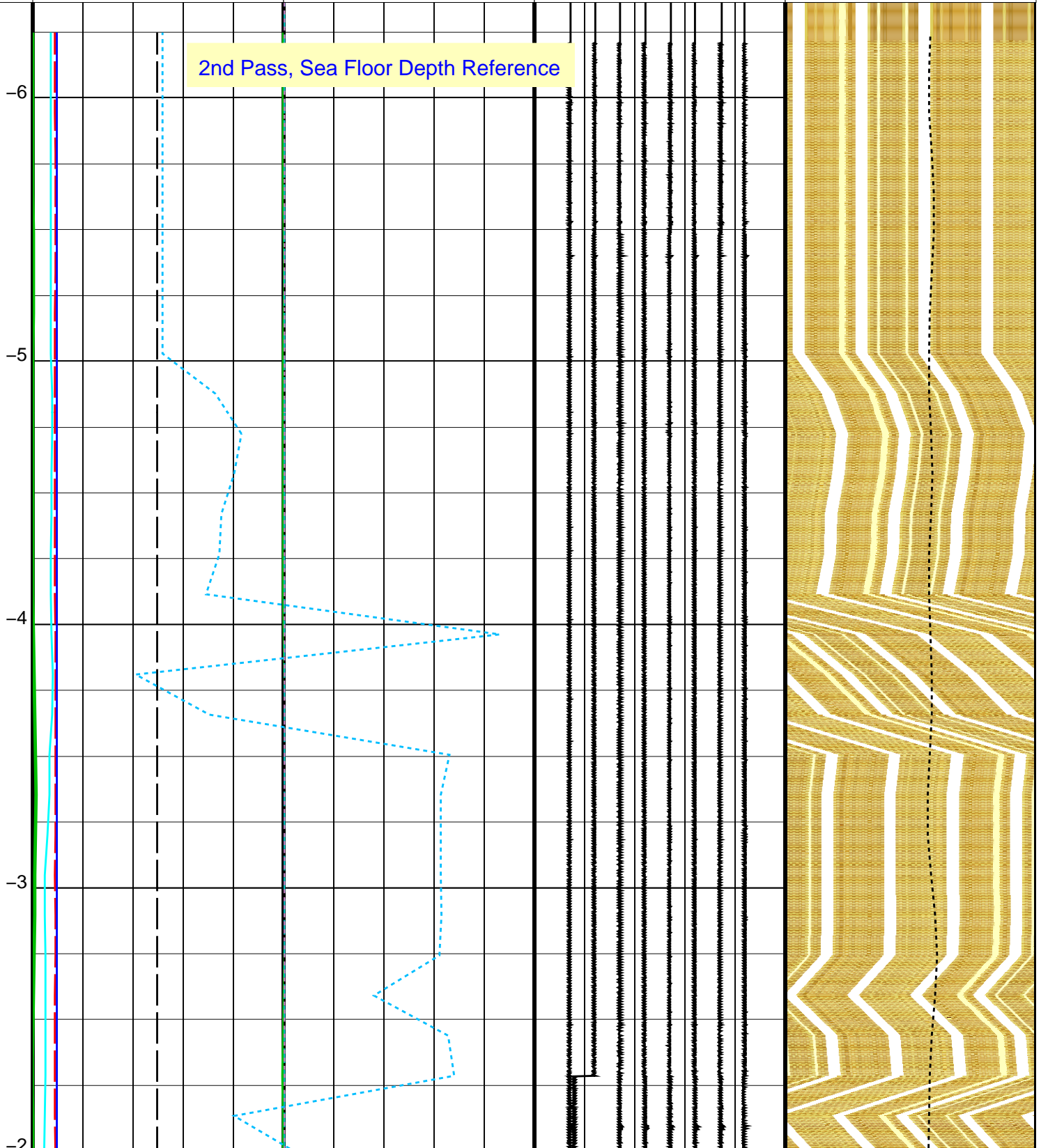
PIP SUMMARY

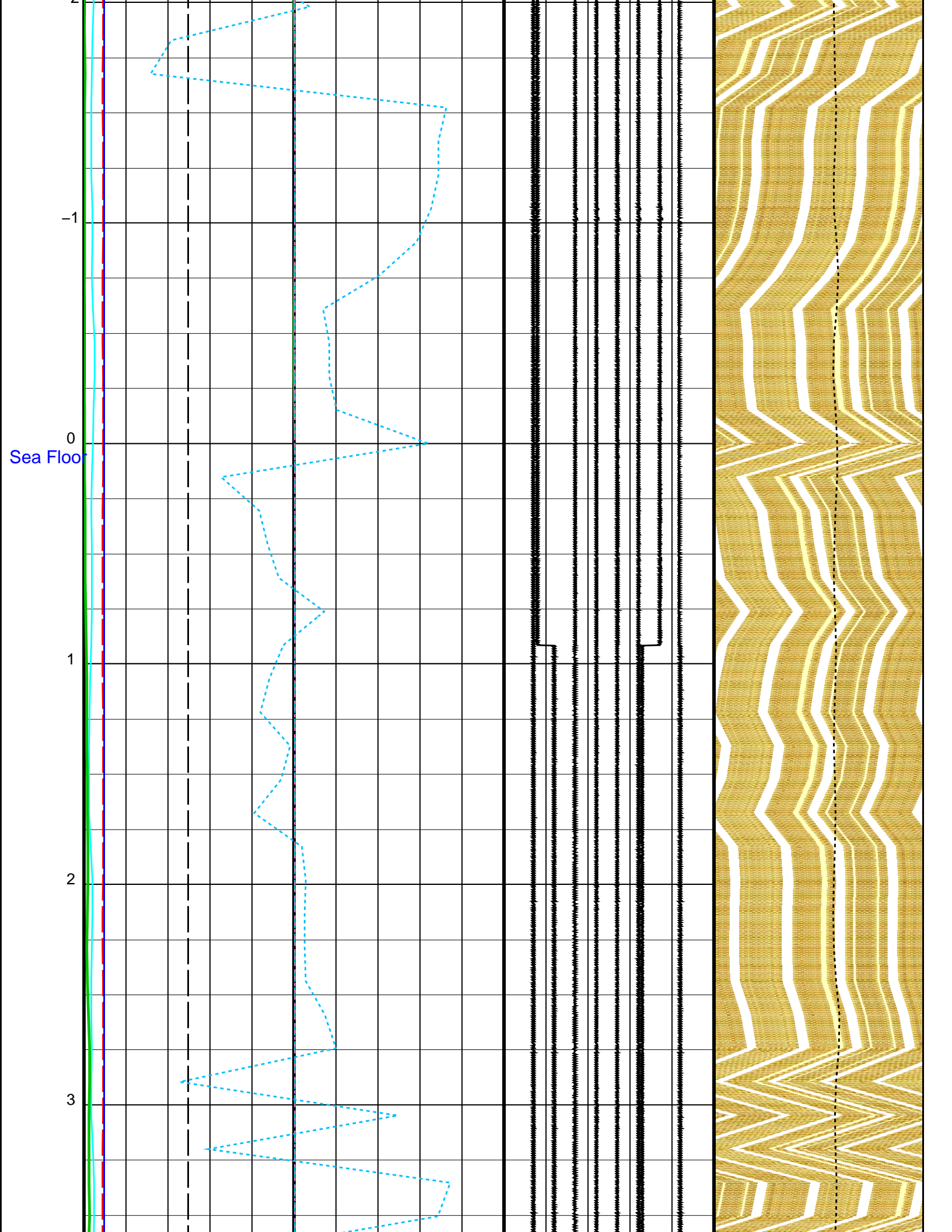
Time Mark Every 60 S

HNGS Spectroscopy Gamma Ray (HSGR) 0 (GAPI) 75	Data Button 8 - Varies with RBS (U-MEST_RB8) -80 (----) 20	
-40 ----- Relative Bearing (RB_MEST) (DEG) ----- 360	Data Button 7 - Varies with RBS (U-MEST_RB7) -70 (----) 30	
-40 ----- Pad One Azimuth (P1AZ_MEST) (DEG) ----- 360	Data Button 6 - Varies with RBS (U-MEST_RB6) -60 (----) 40	
-40 ----- Hole Azimuth (HAZIM) (DEG) ----- 360	Data Button 5 - Varies with RBS (U-MEST_RB5) -50 (----) 50	0.3776 1.8629 2.4571 2.9027 3.3482 3.6453 3.9424 4.2394 4.6850 5.1306 5.4277 6.0218 6.6159 7.6557 9.4517 12.4086
0 ----- Deviation (DEVIM) (DEG) ----- 10	Data Button 4 - Varies with RBS (U-MEST_RB4) -40 (----) 60	MEST_PADD (U-MEST_RESISTIVITY_PADD_DS) (----)
		MEST_PADC (U-MEST_RESISTIVITY_PADC_DS) (----)
		76 29 71 27 82 24 94 50 06 77 18 59 57 17 086



2nd Pass, Sea Floor Depth Reference





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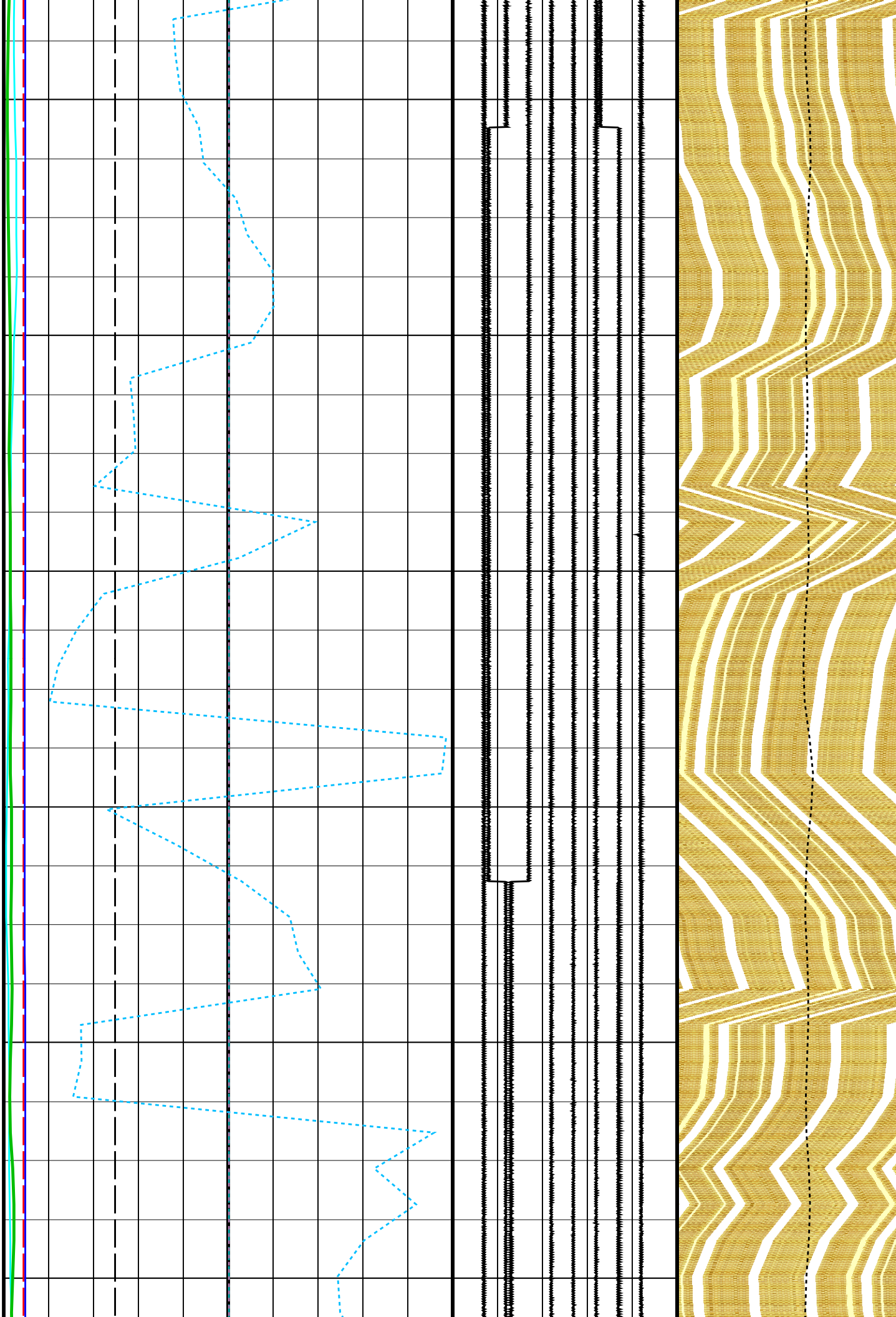
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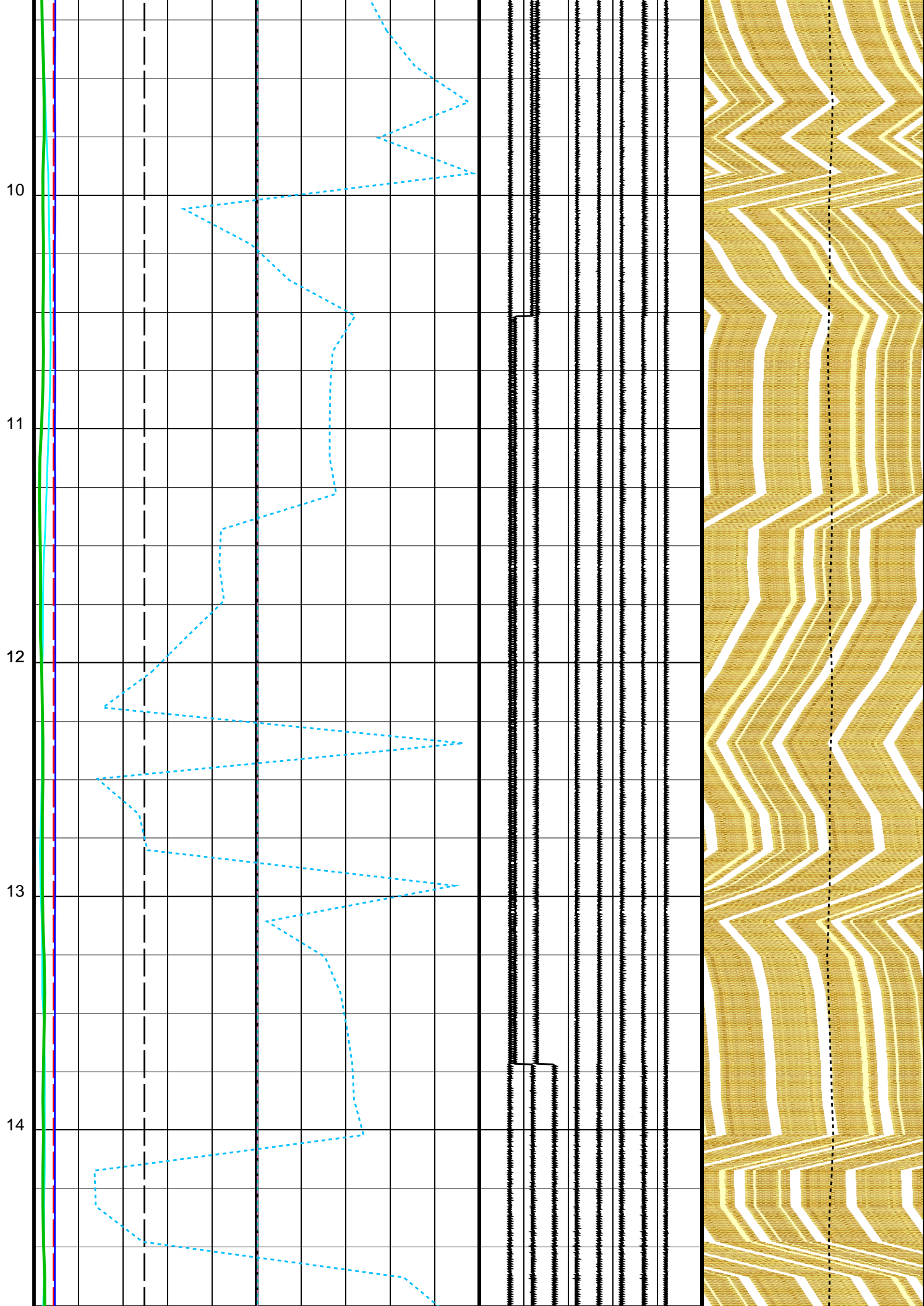
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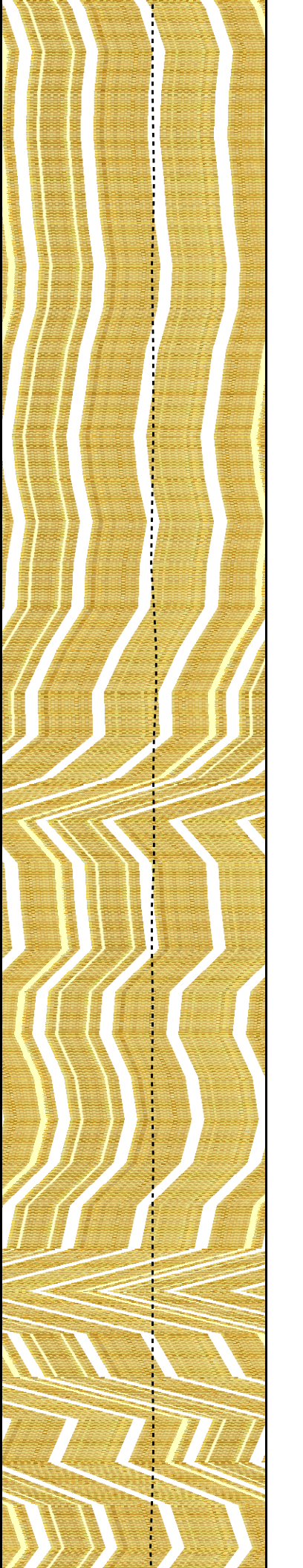
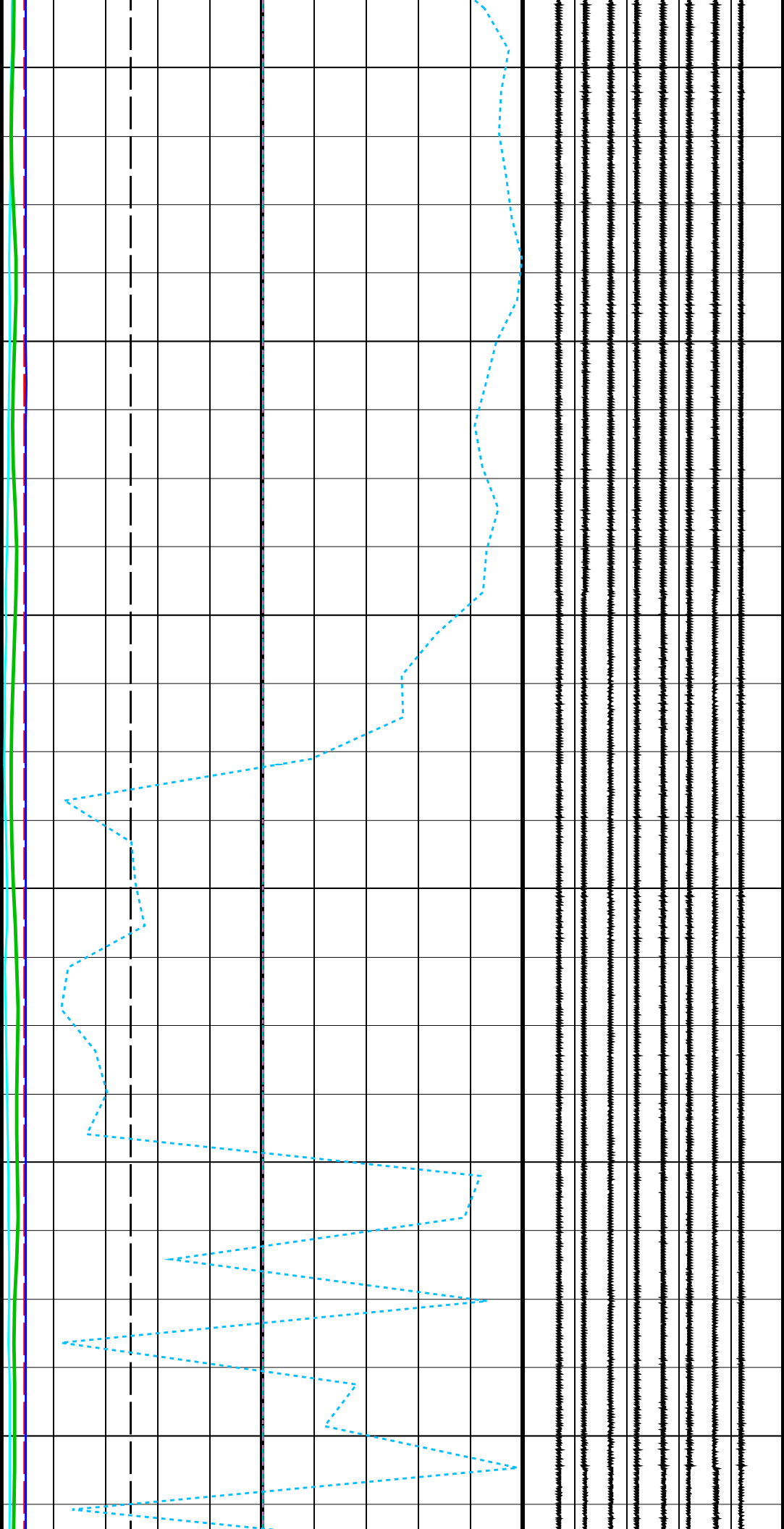
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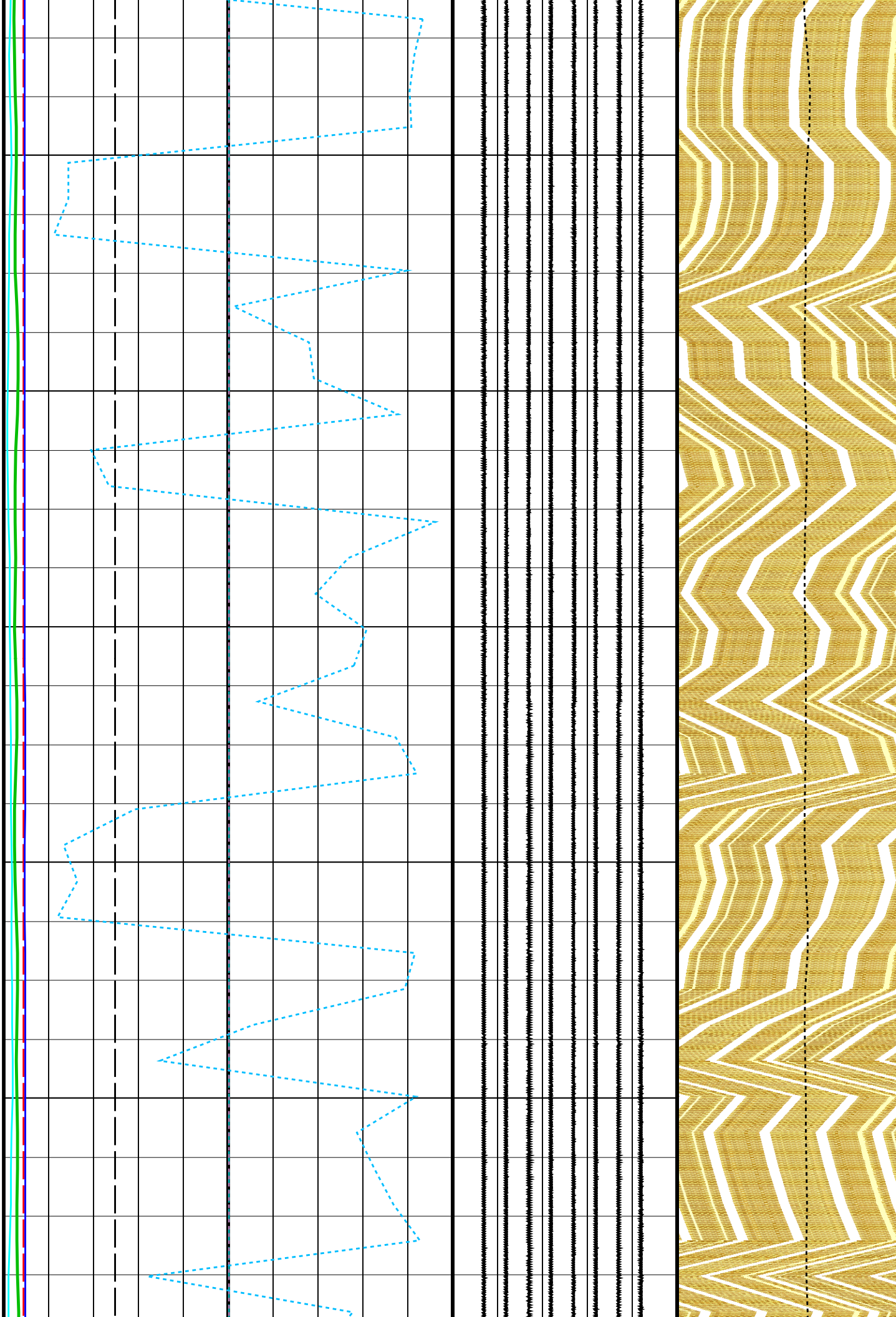
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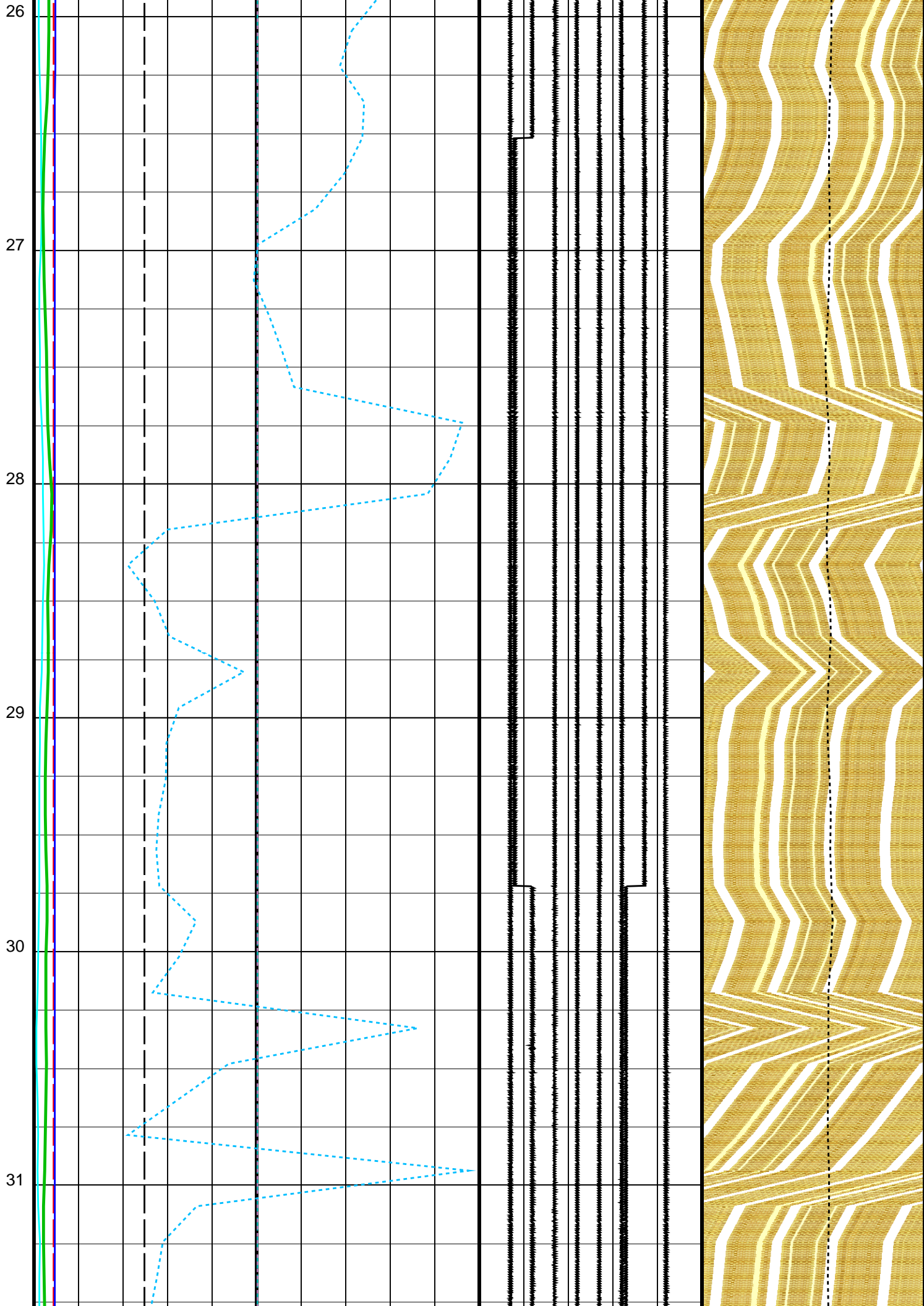
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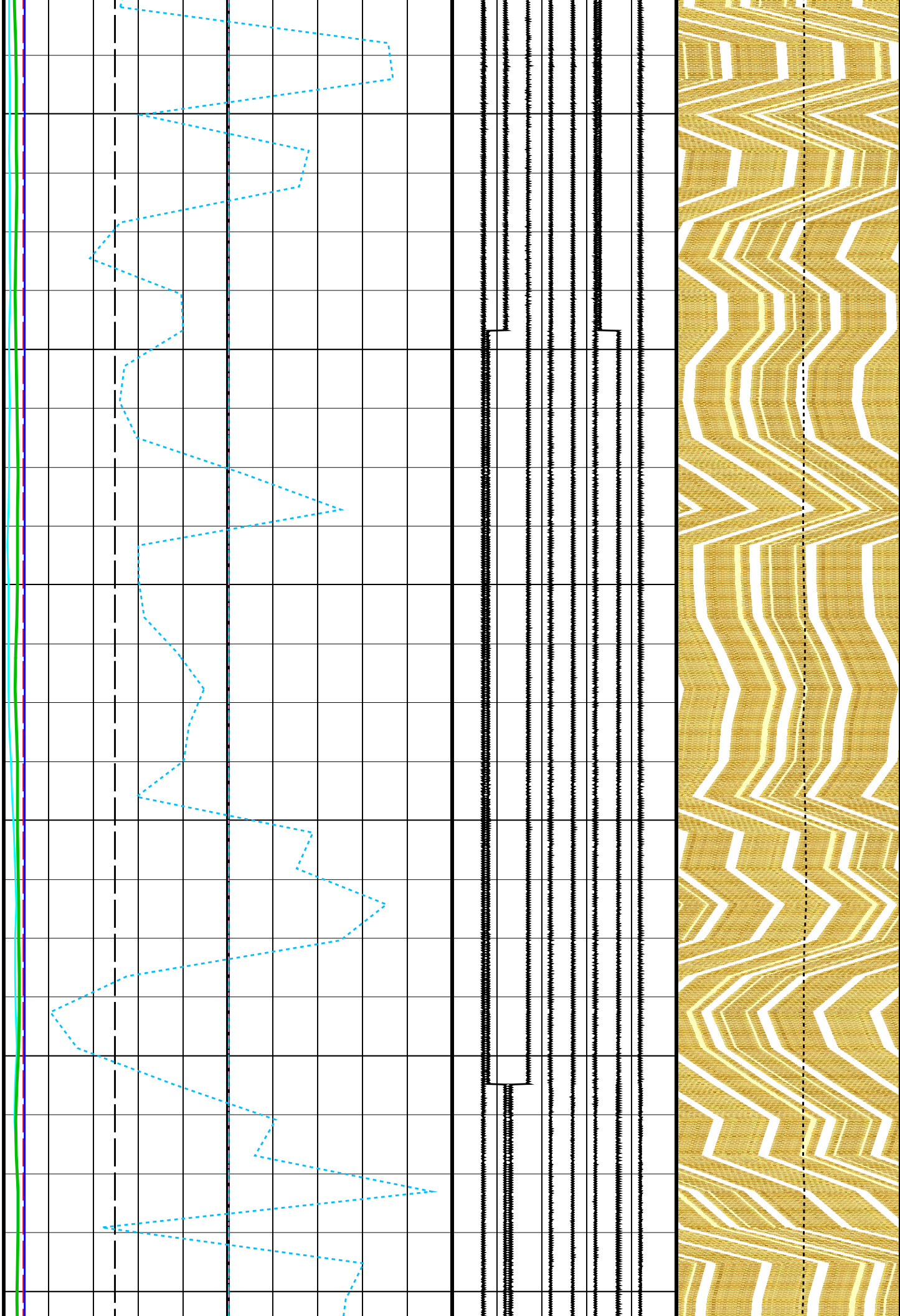
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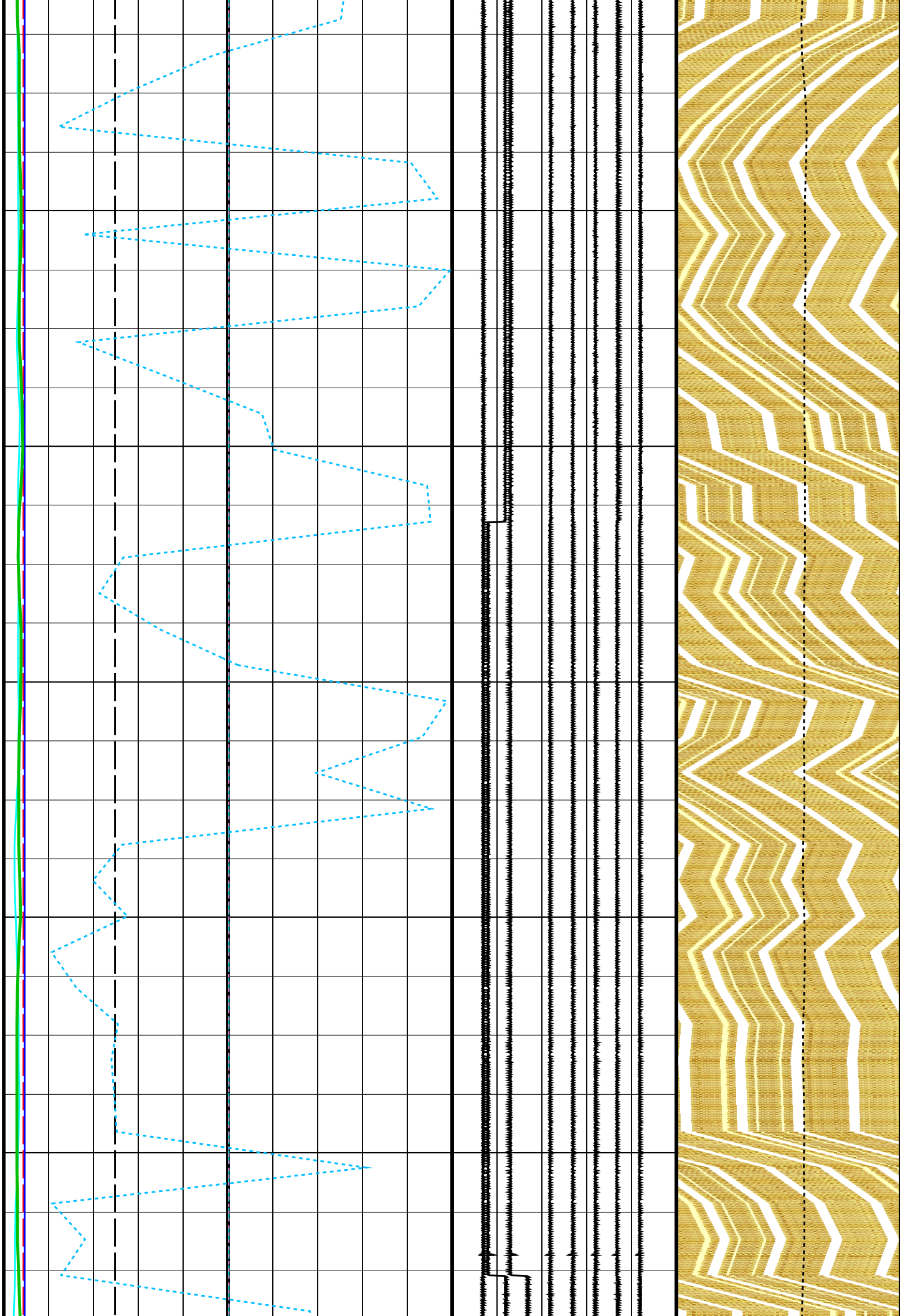
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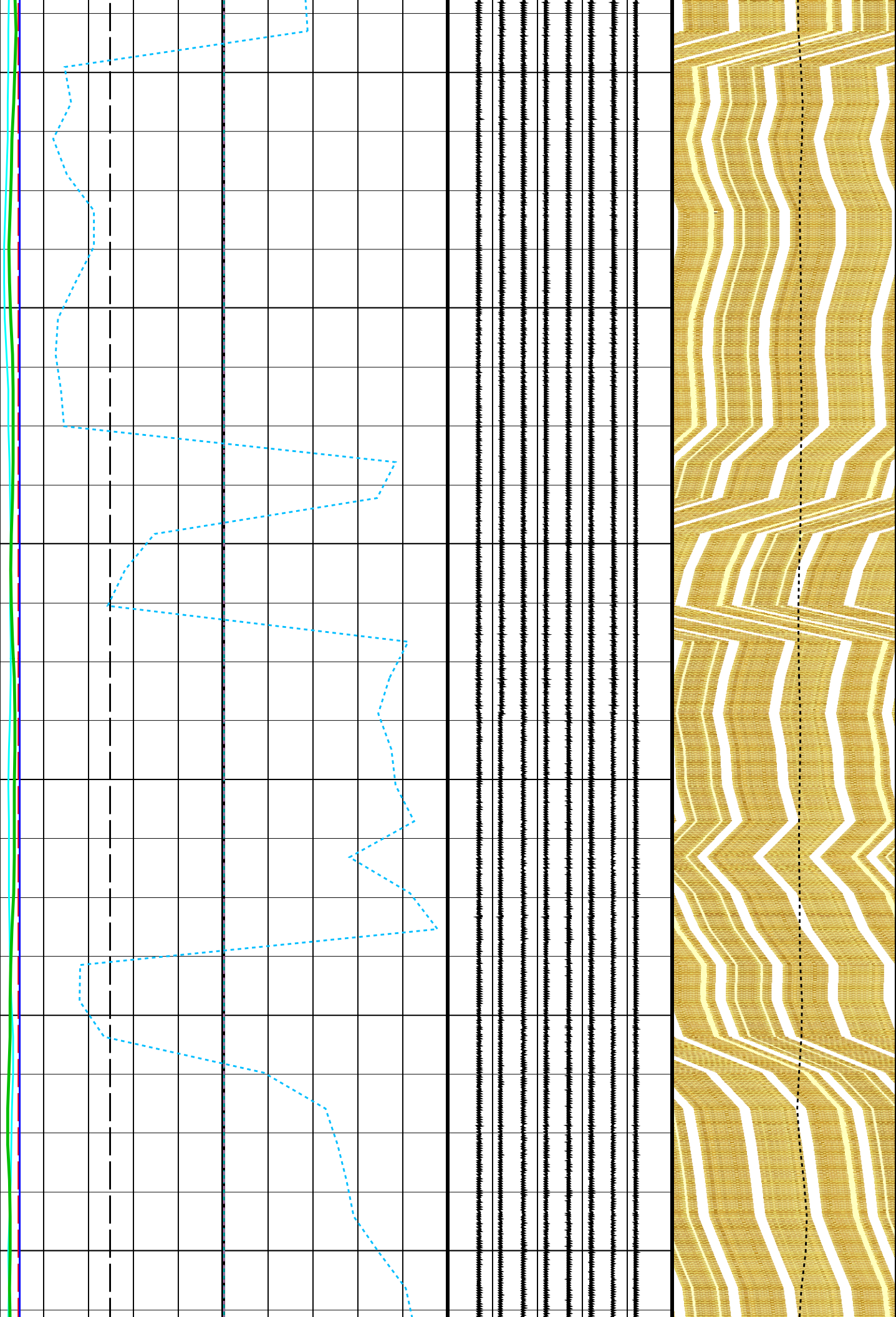
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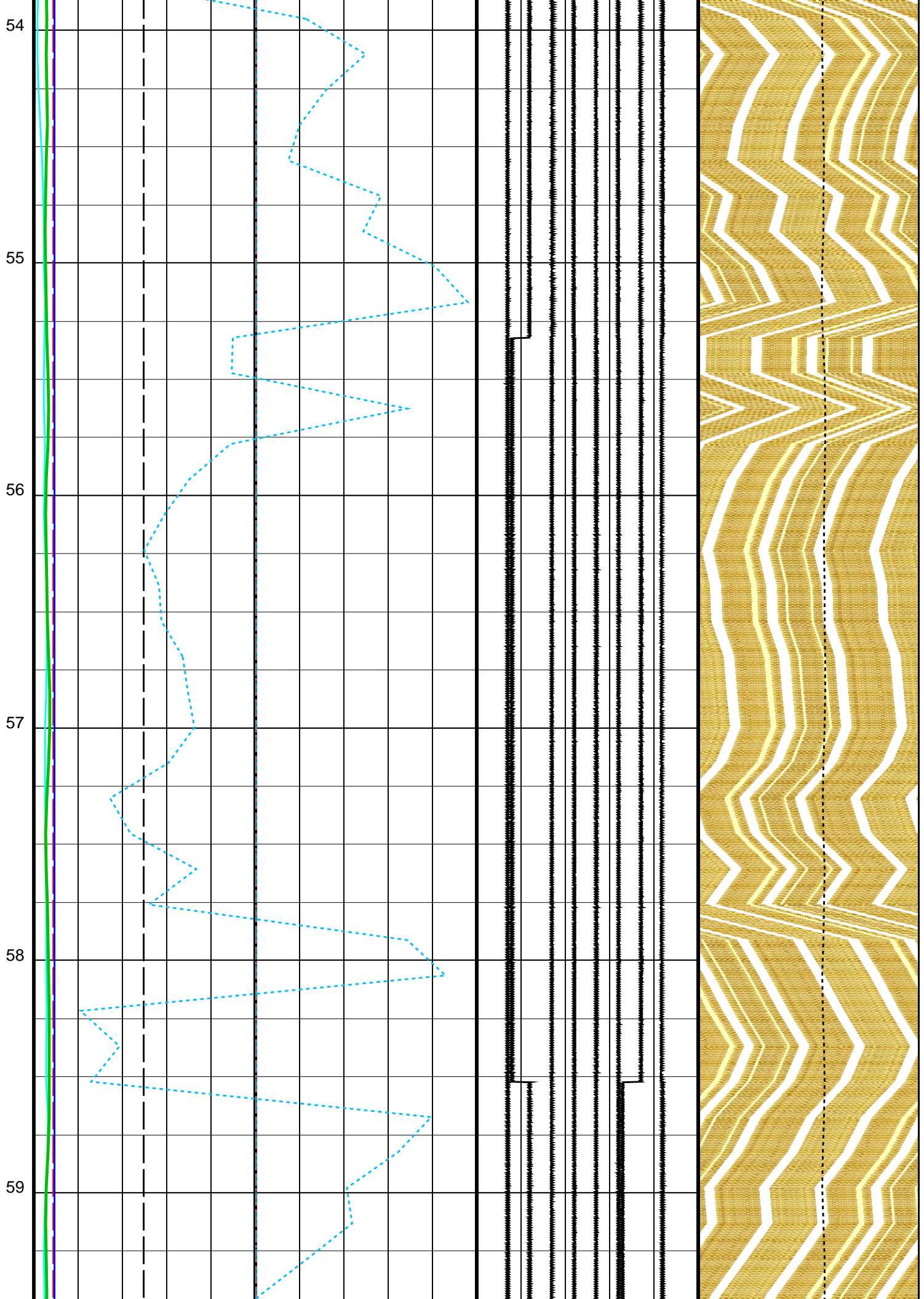
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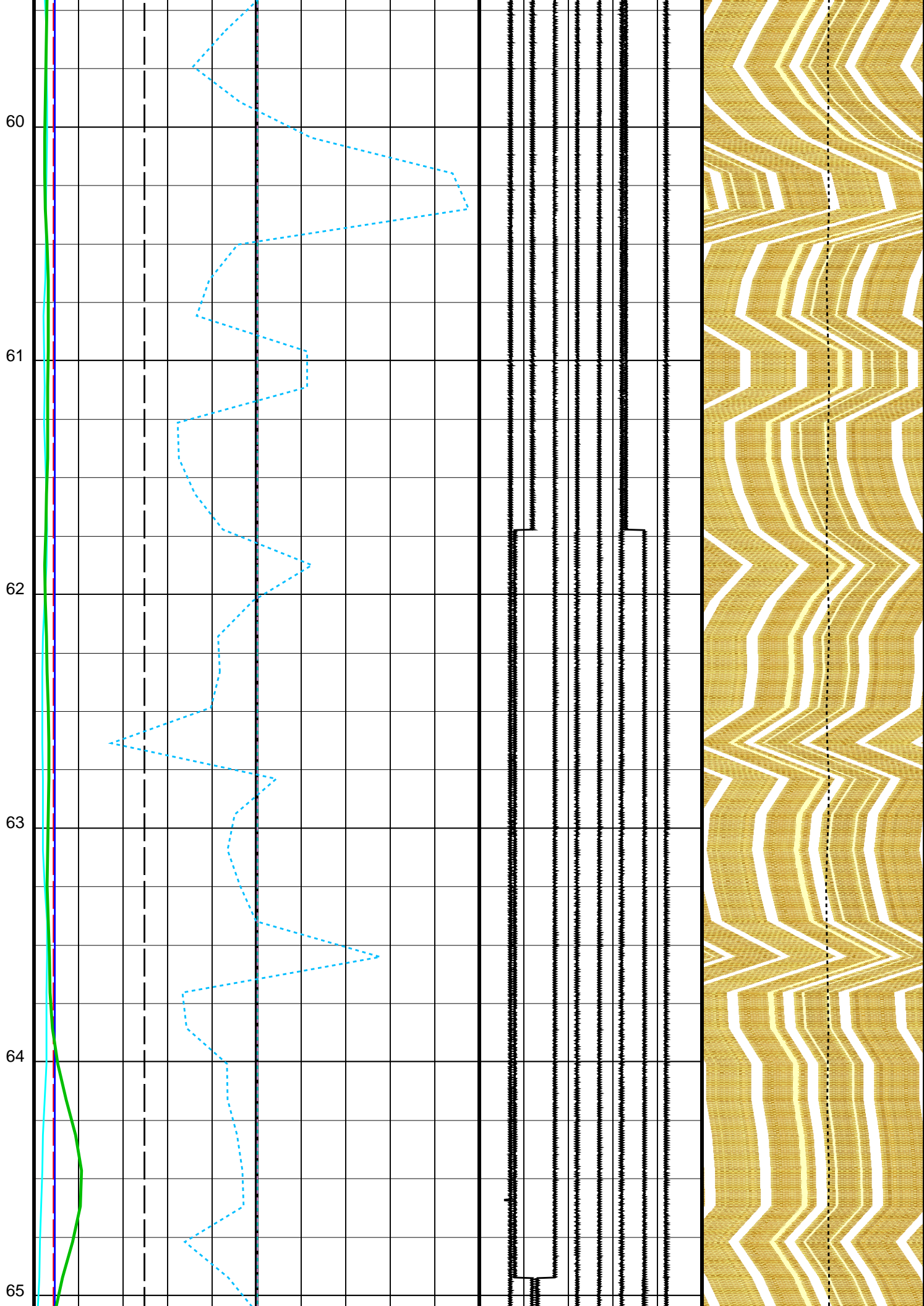
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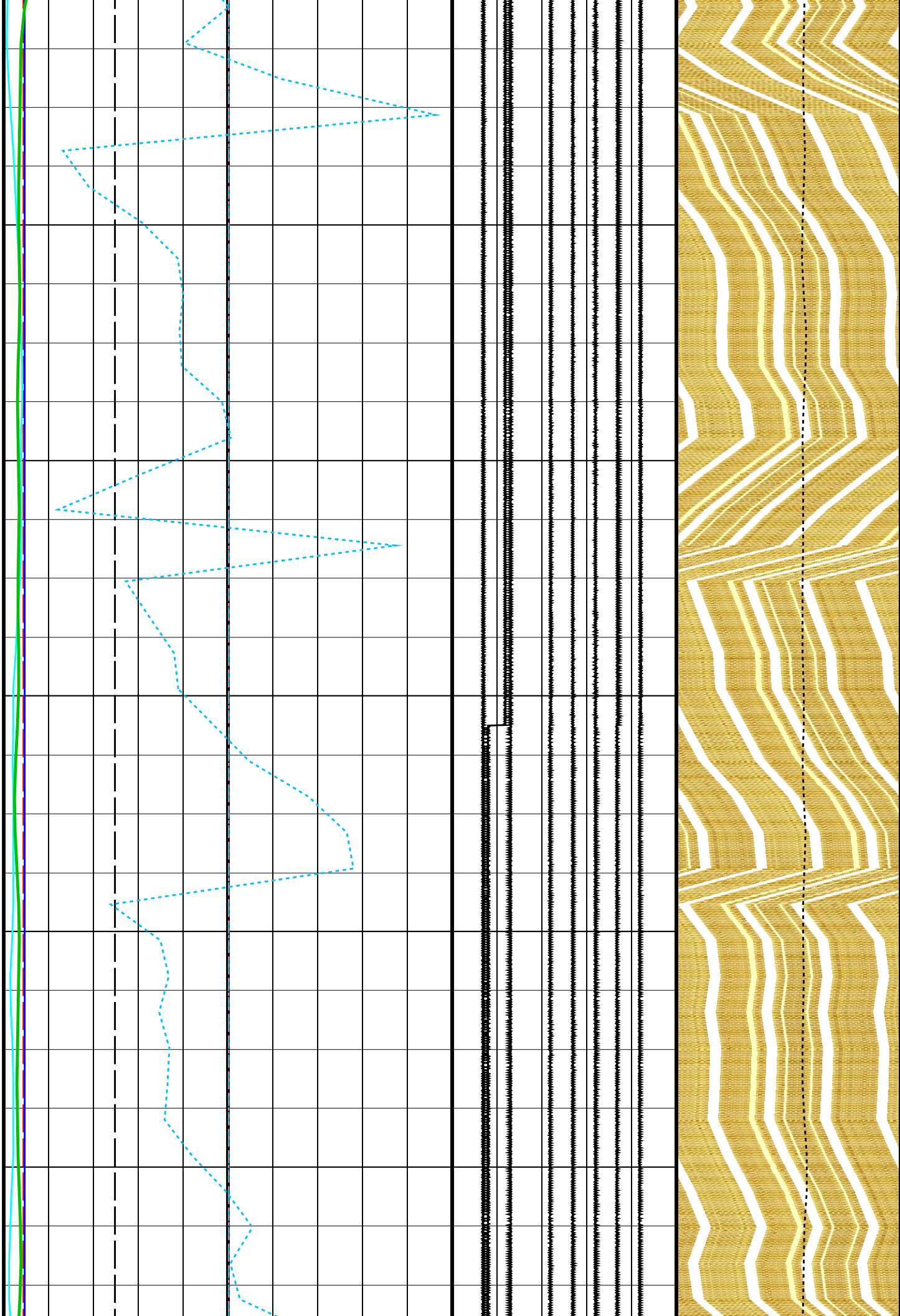
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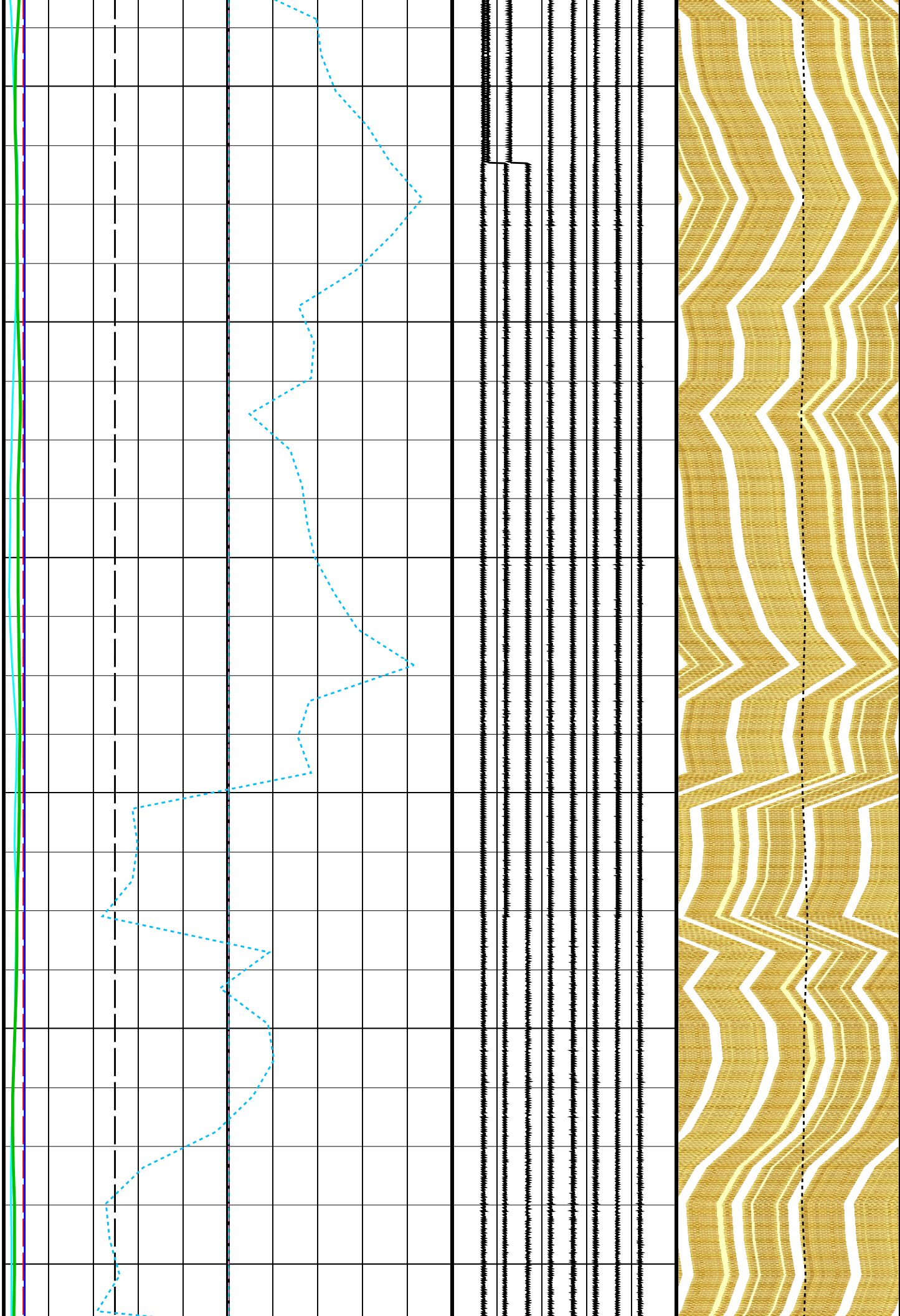
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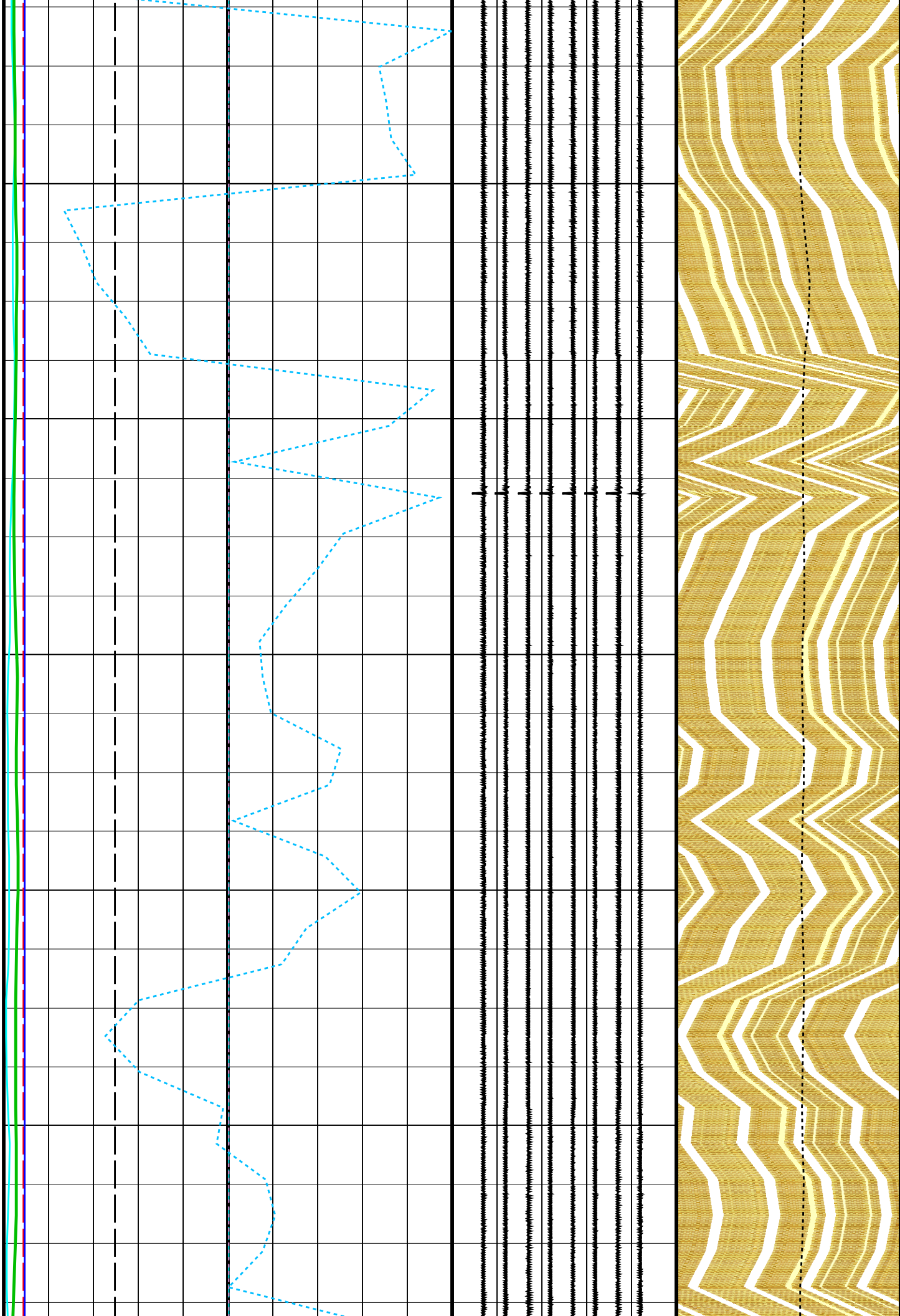
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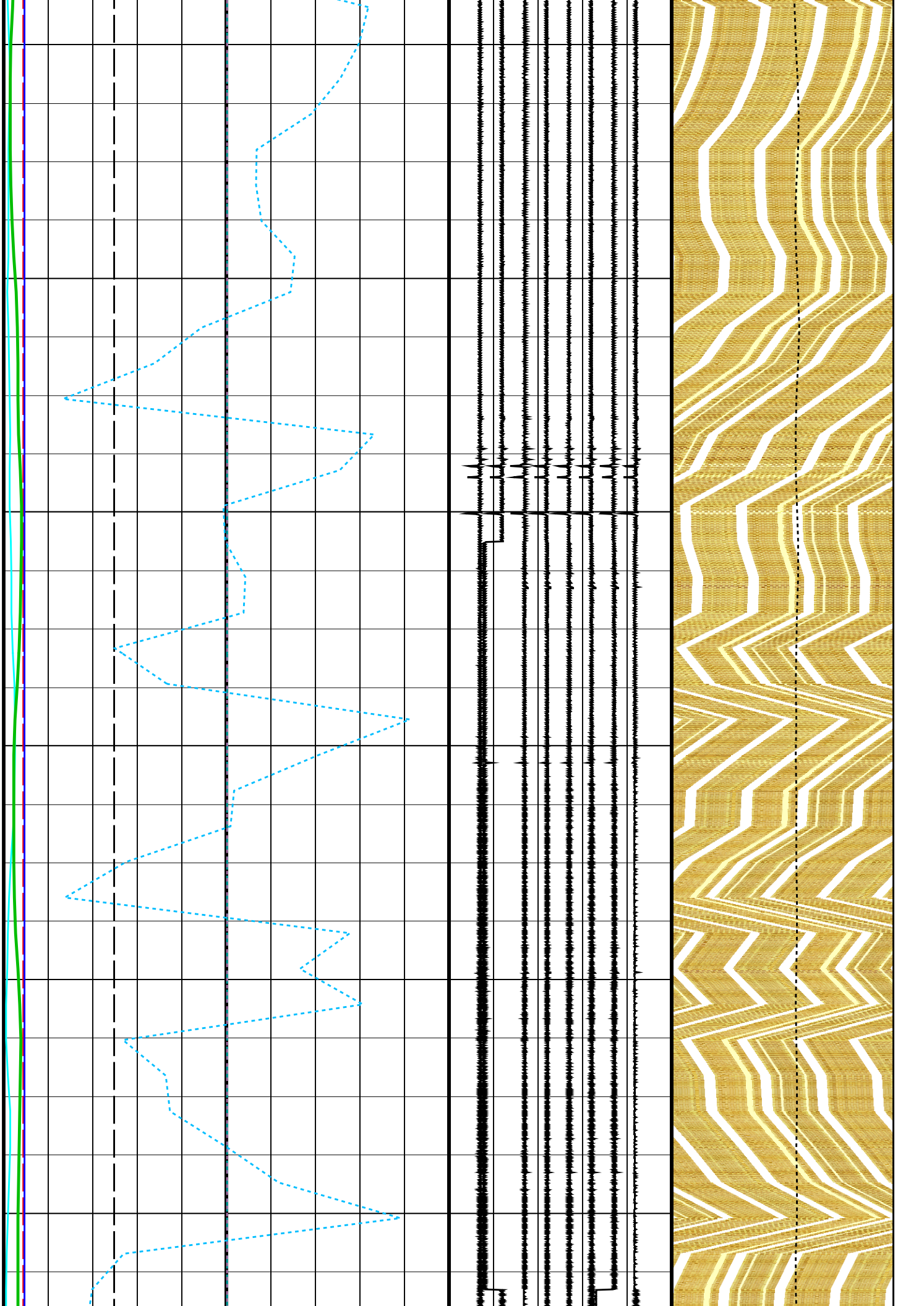
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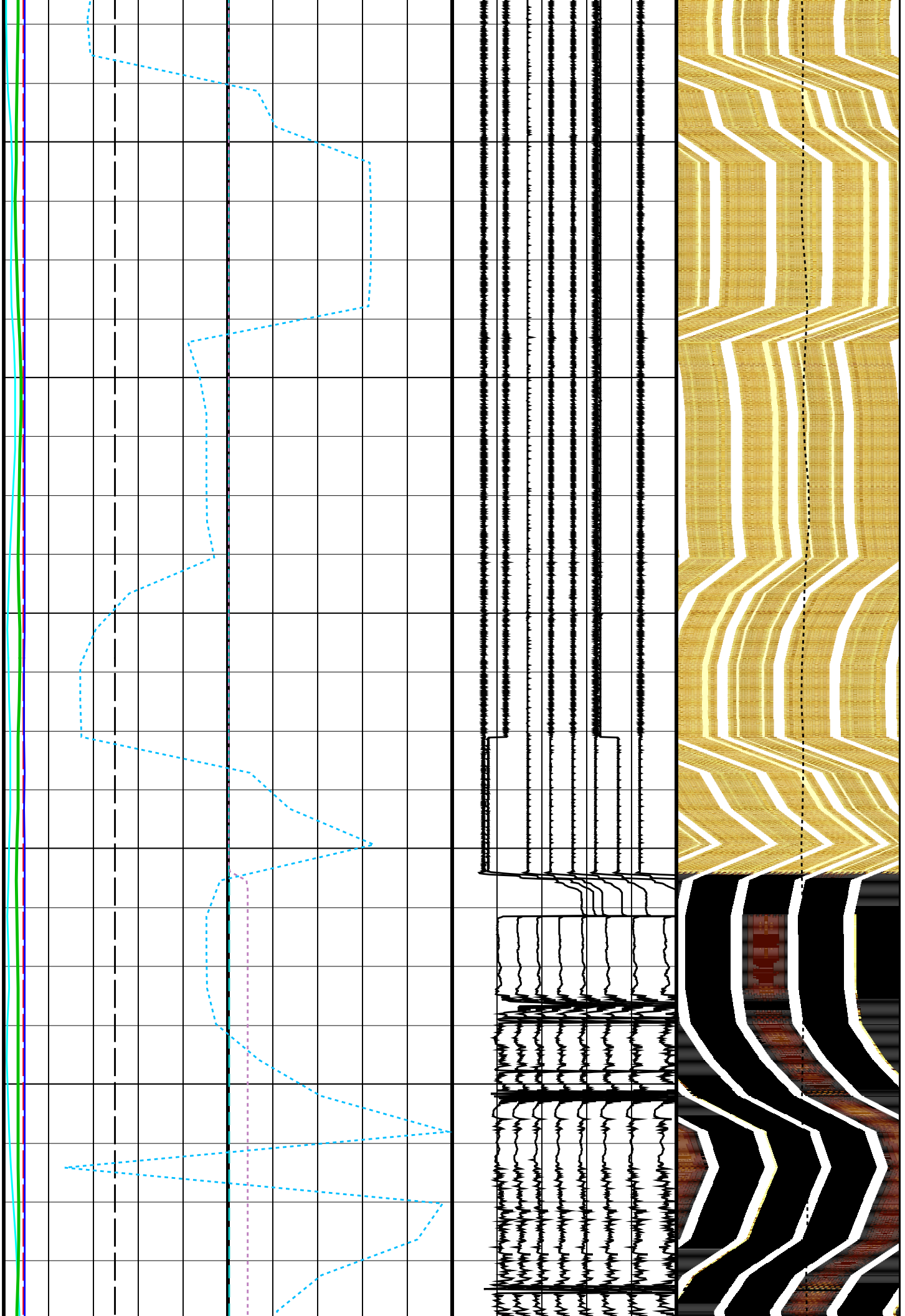
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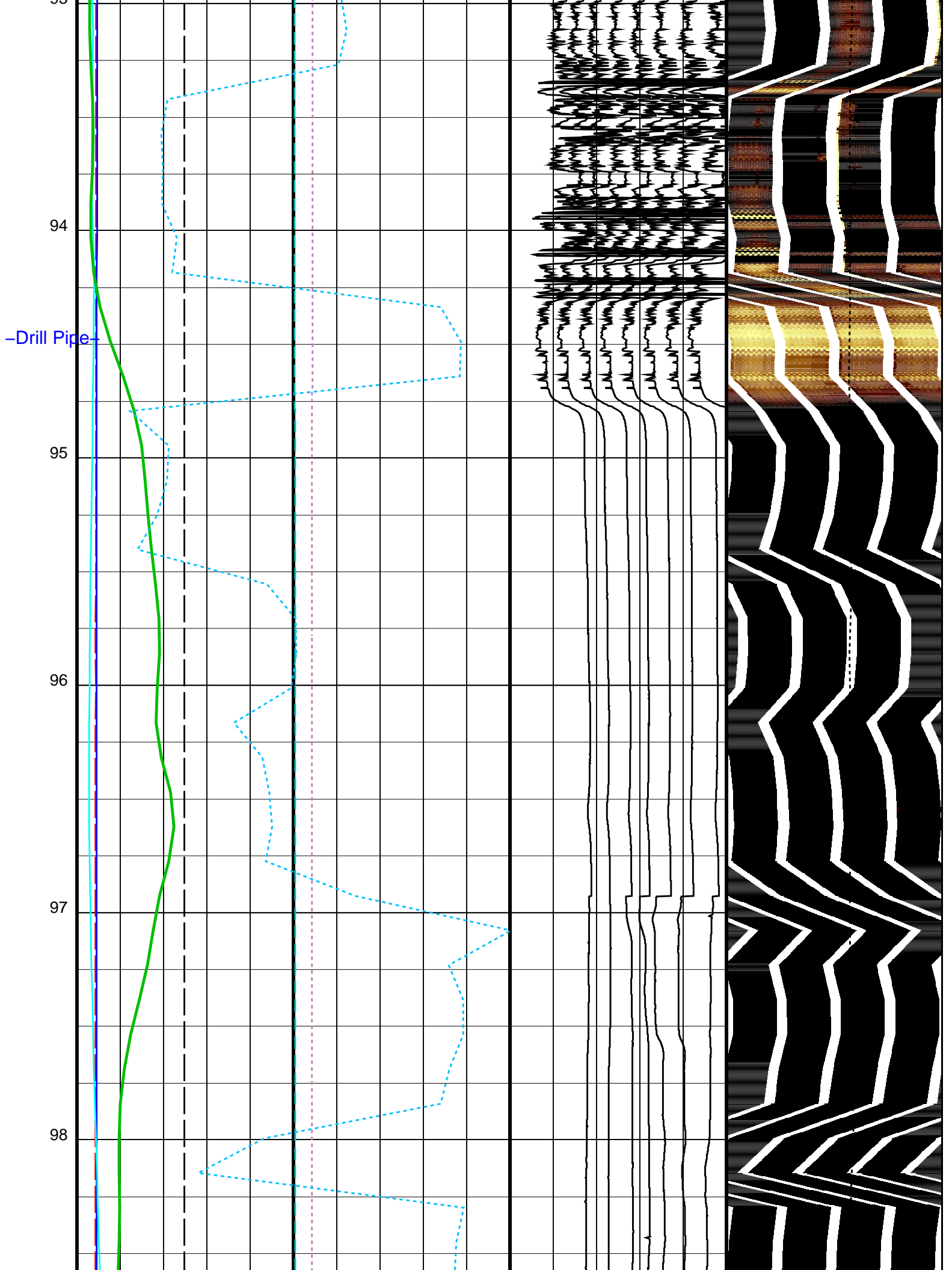
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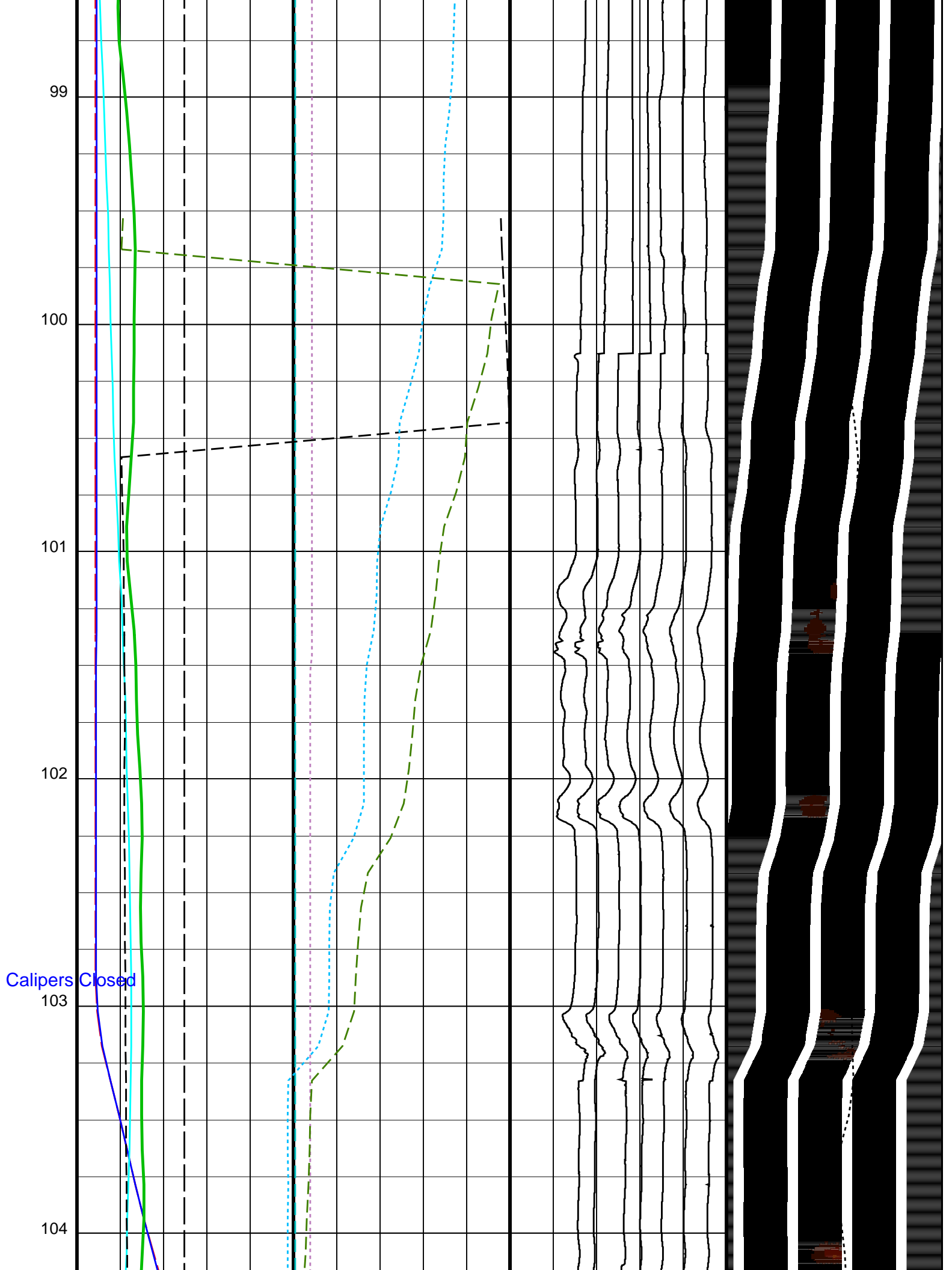
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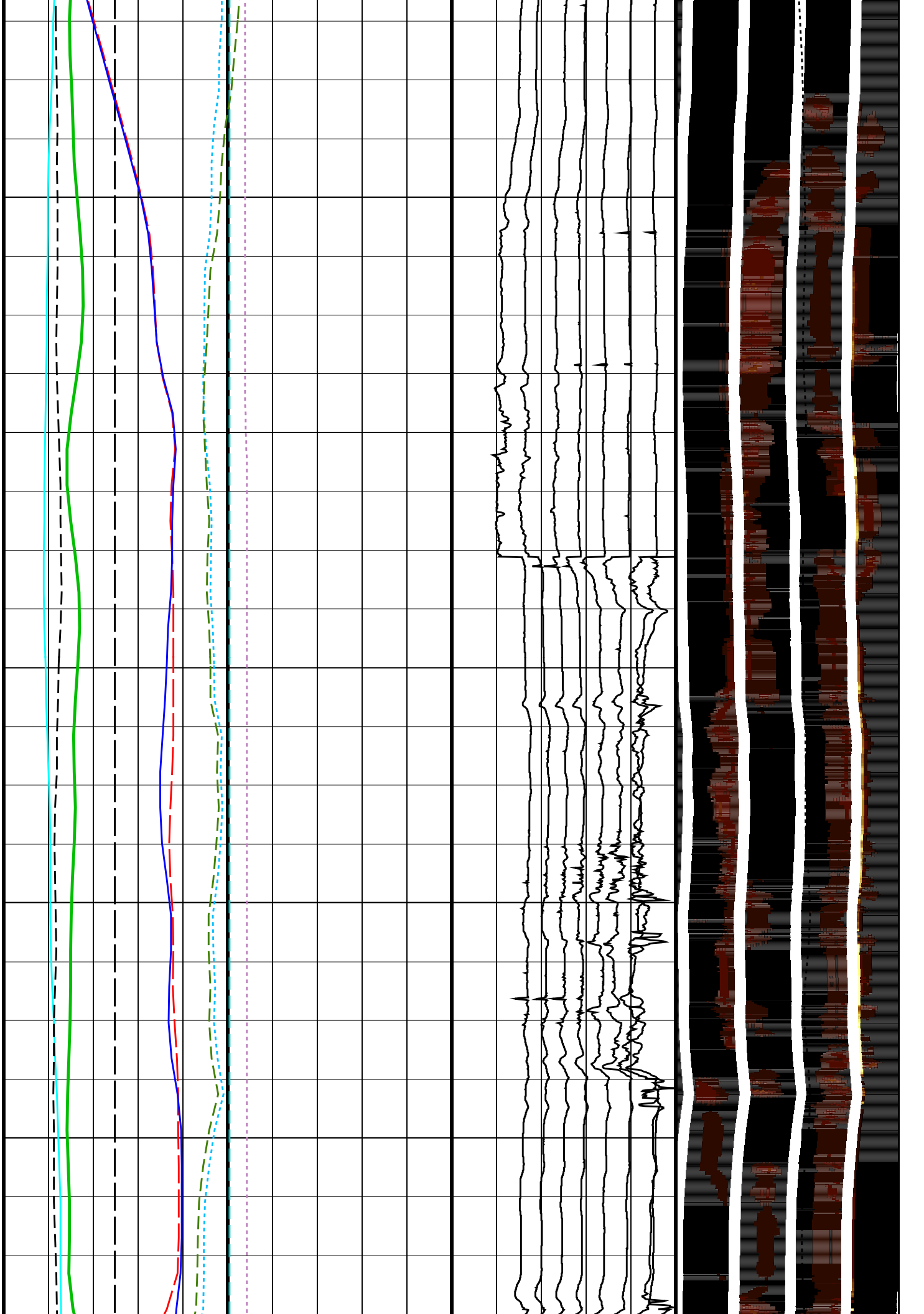
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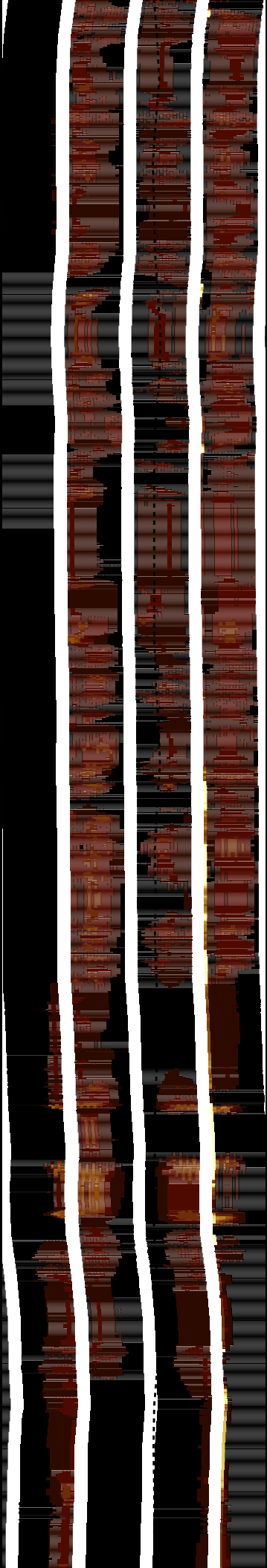
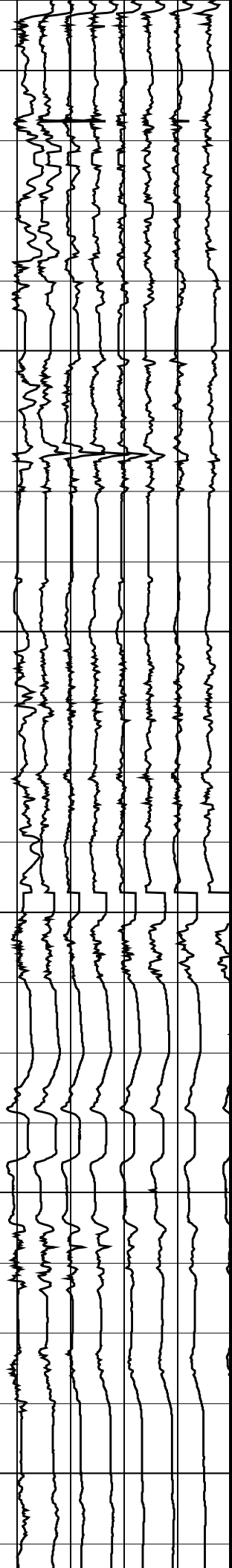
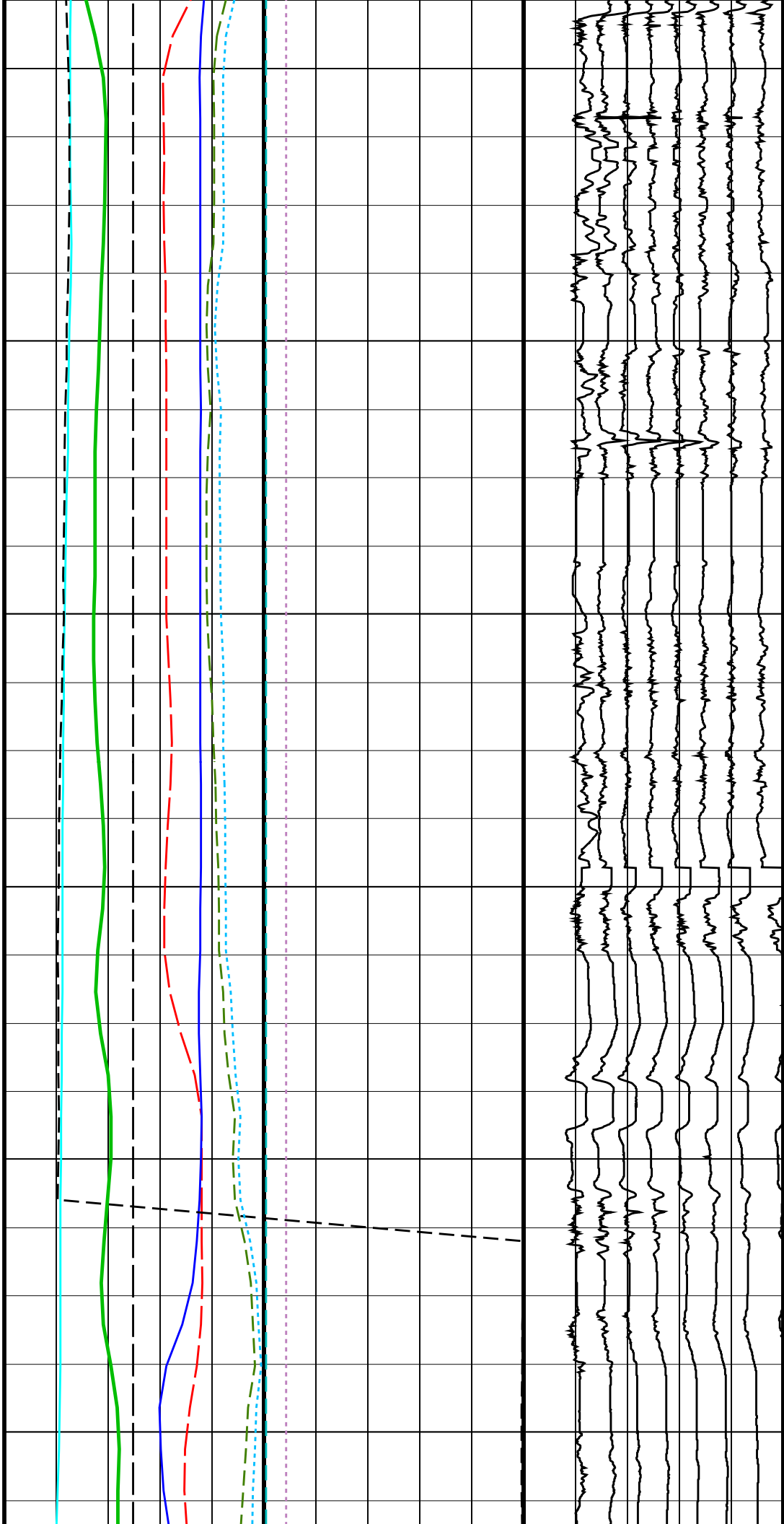
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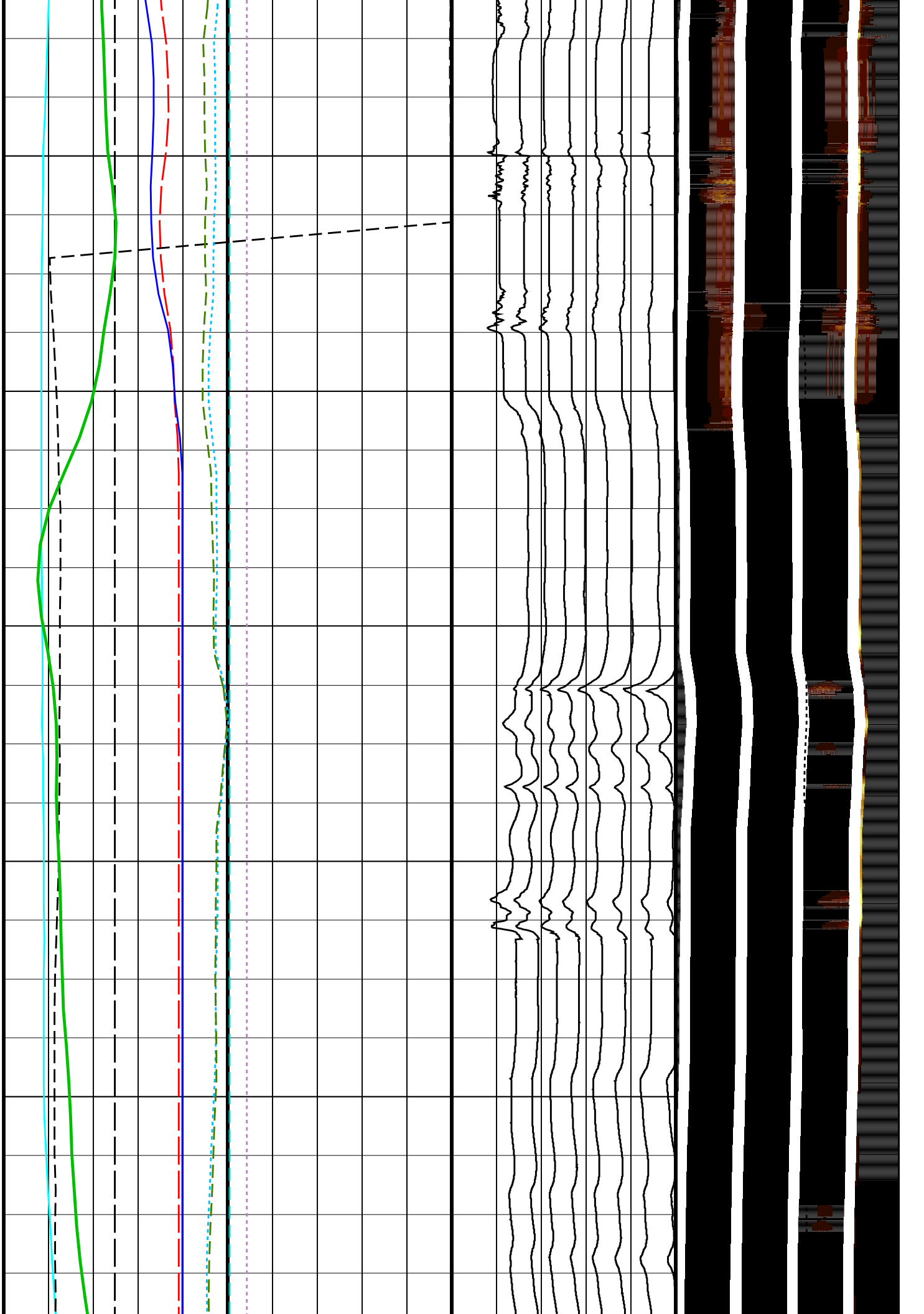
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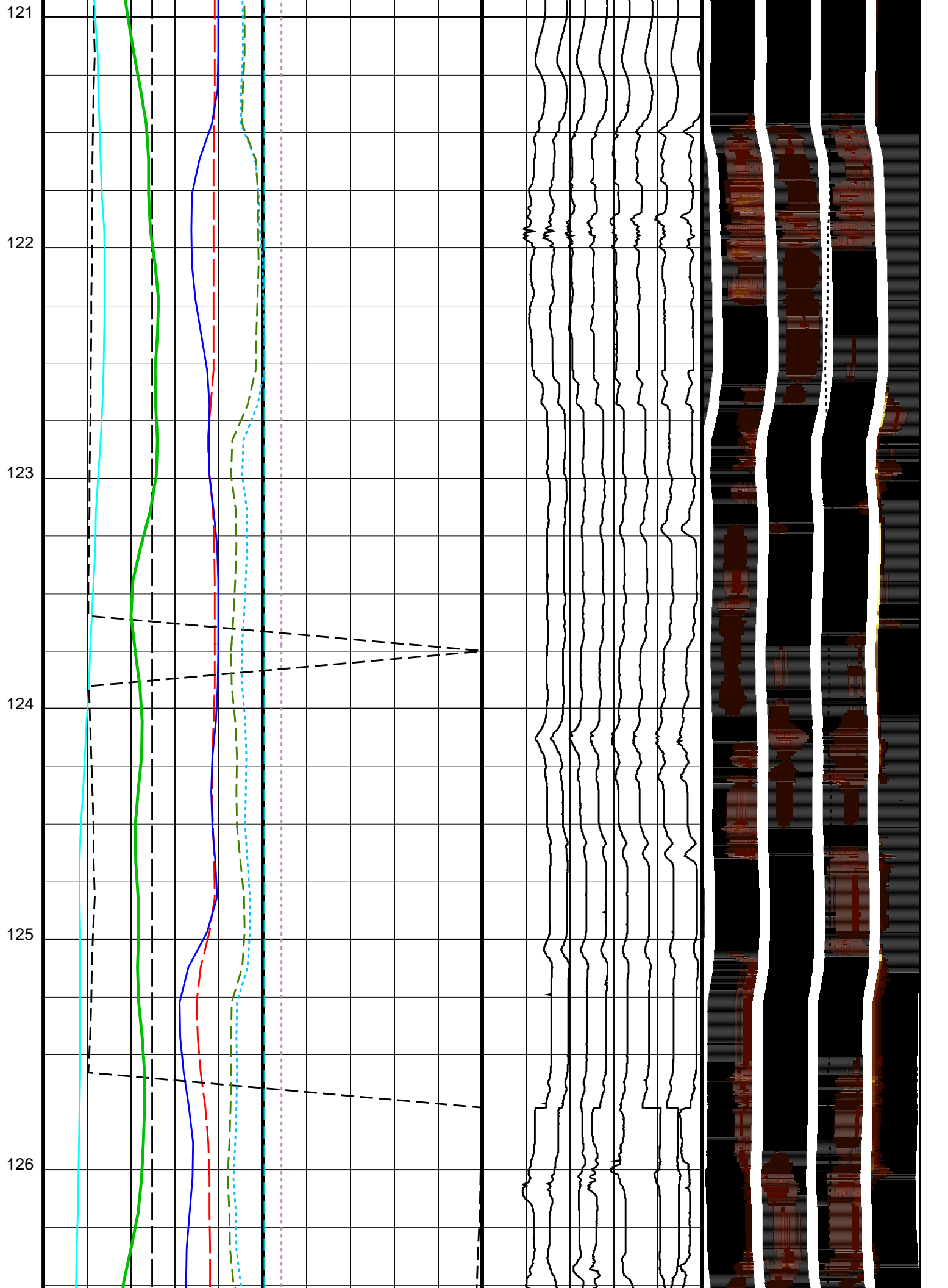
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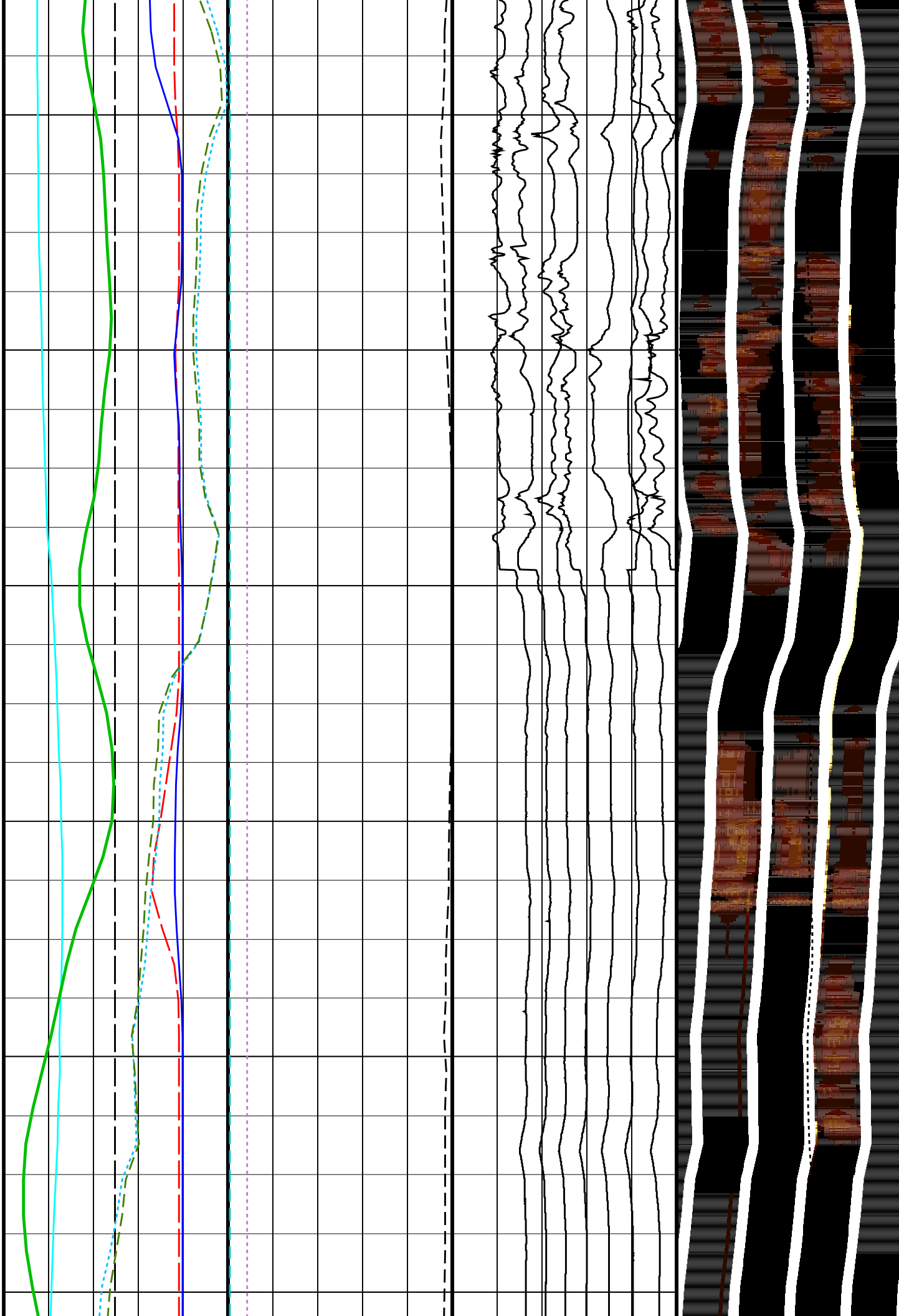
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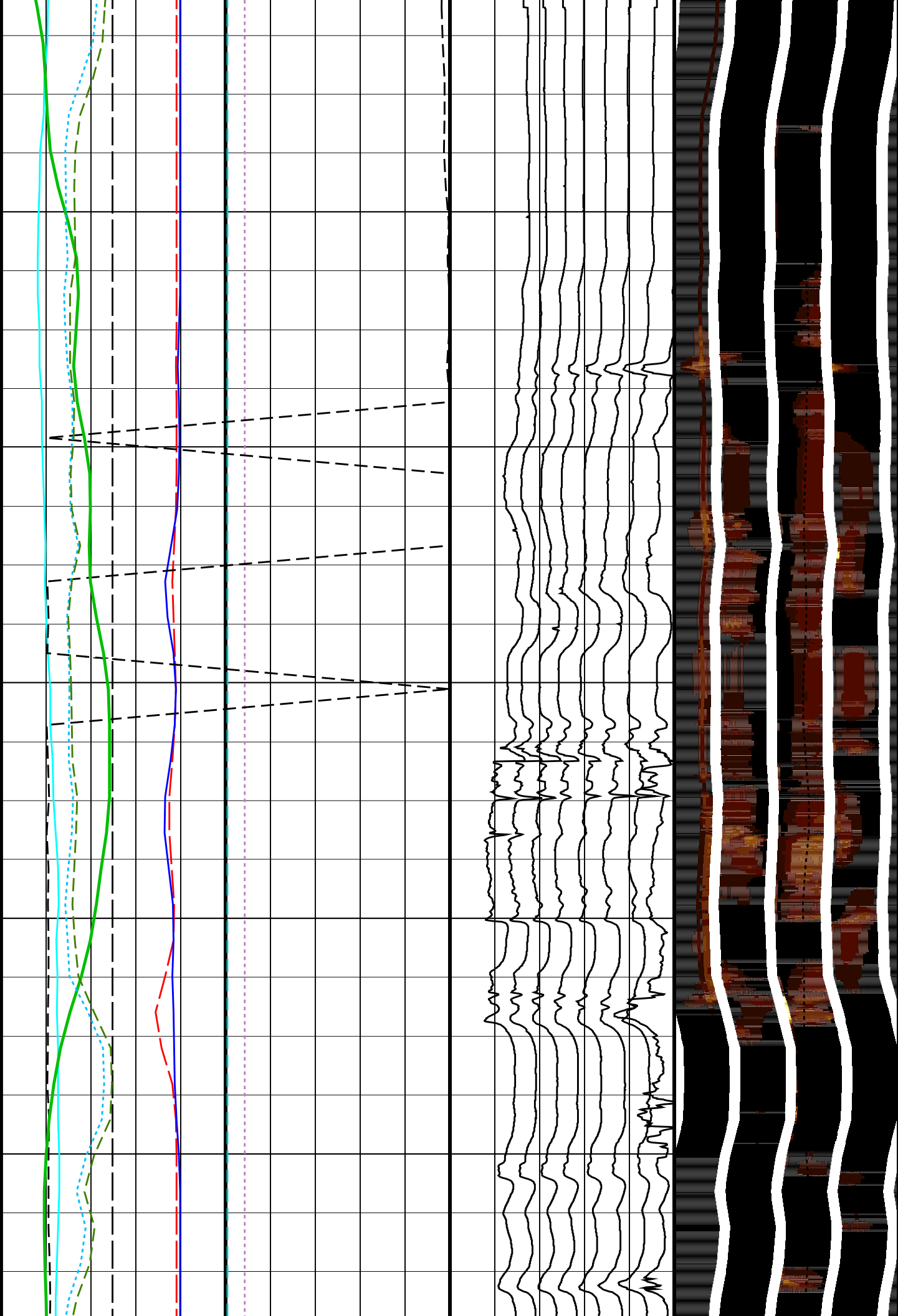
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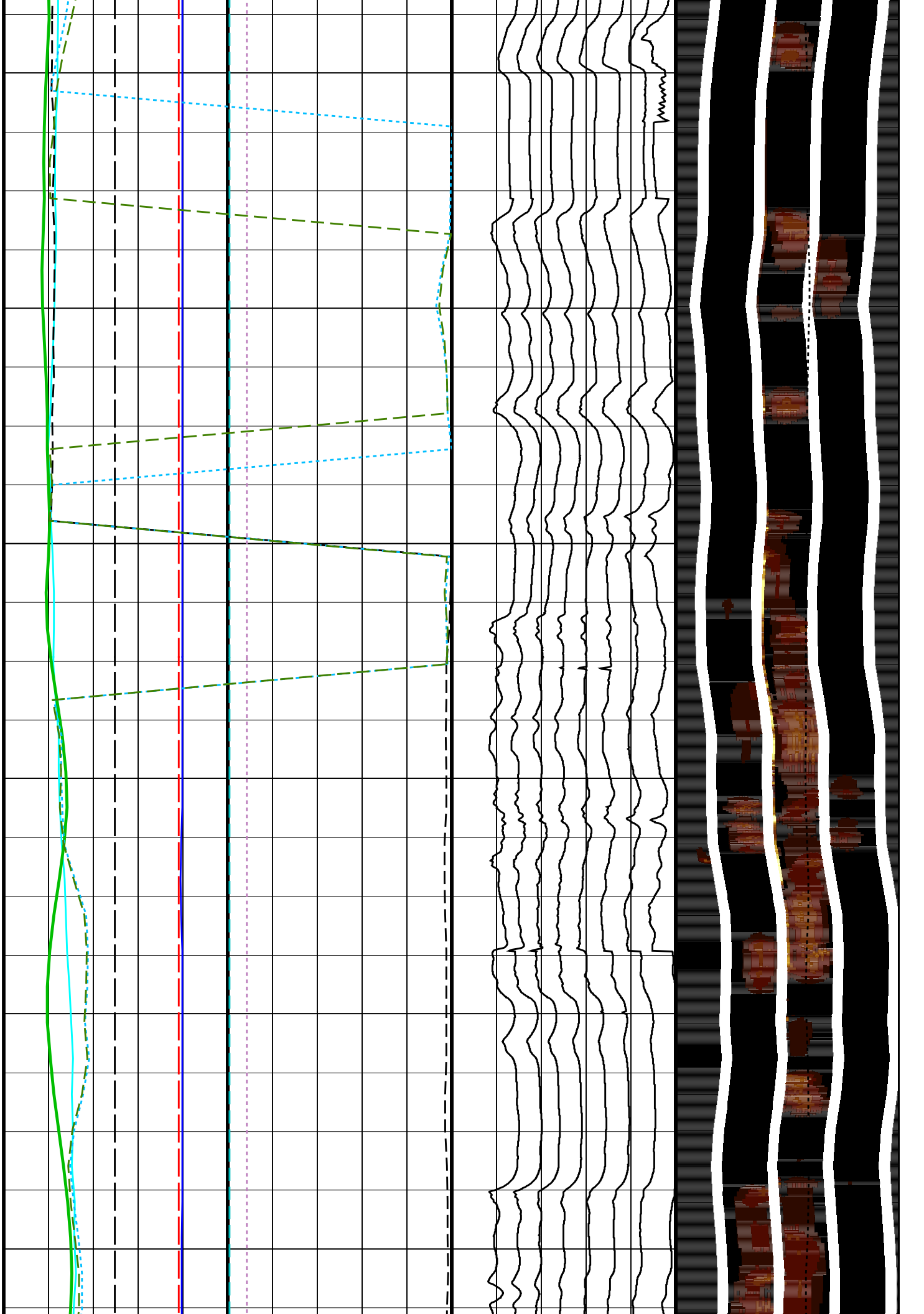
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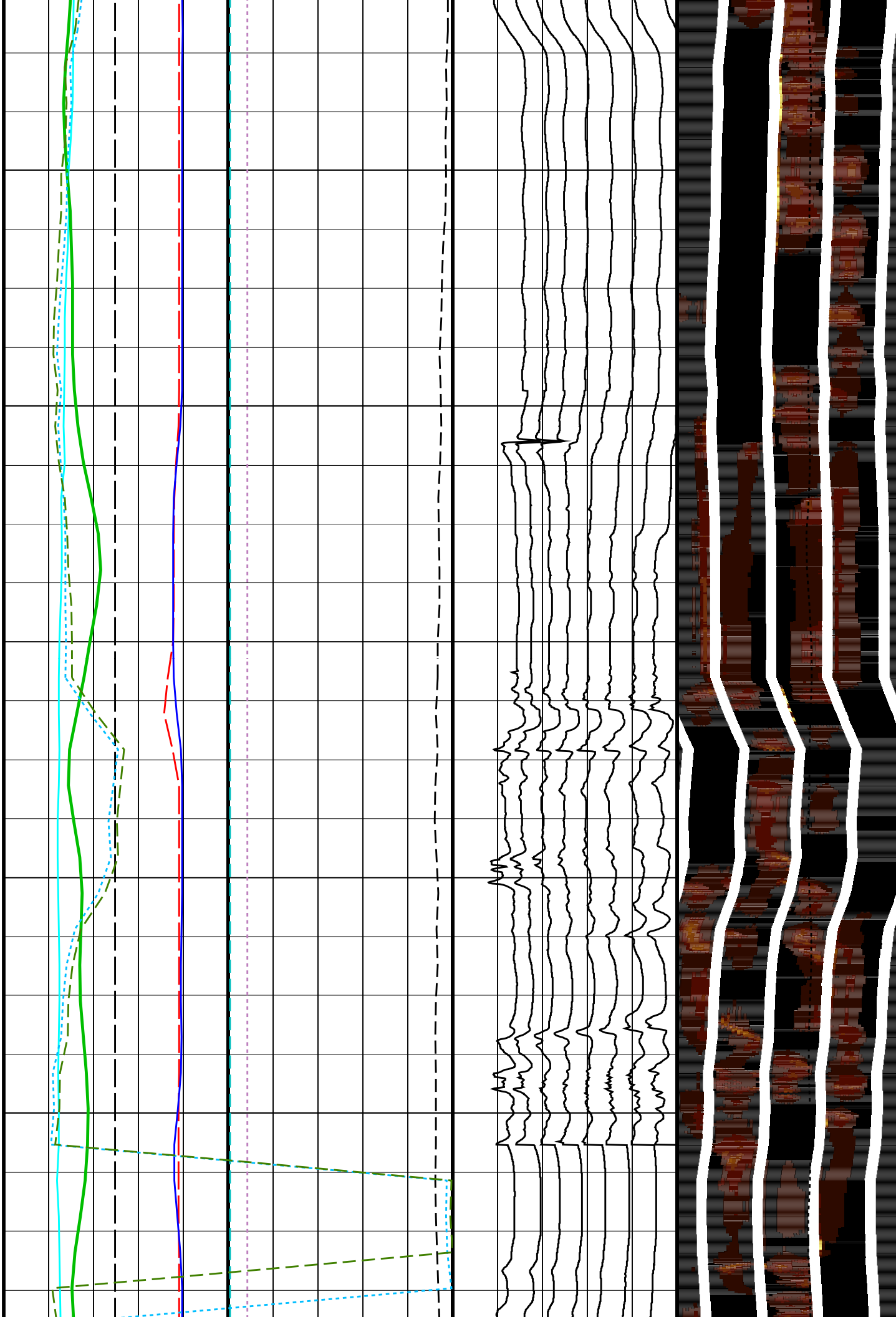
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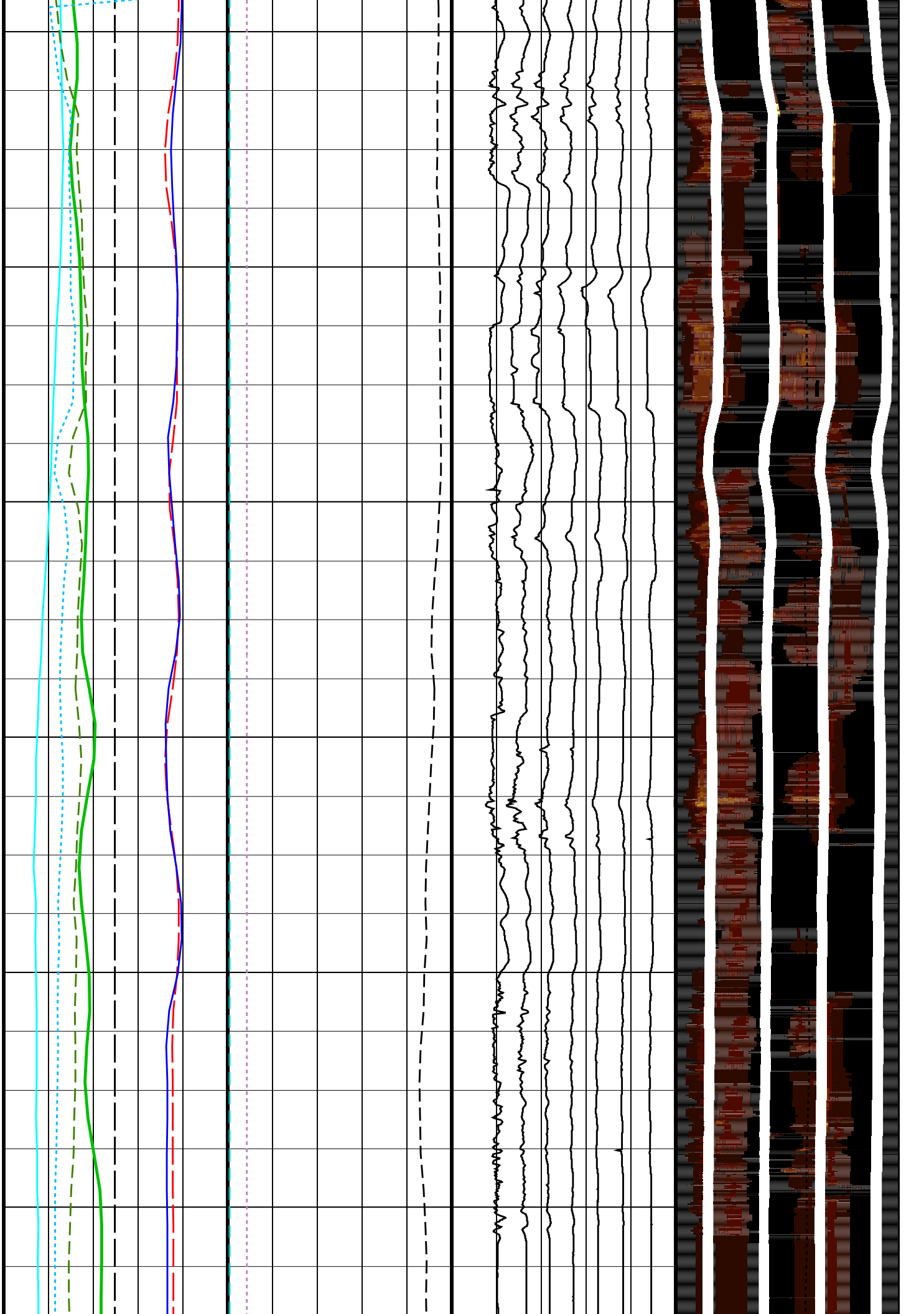
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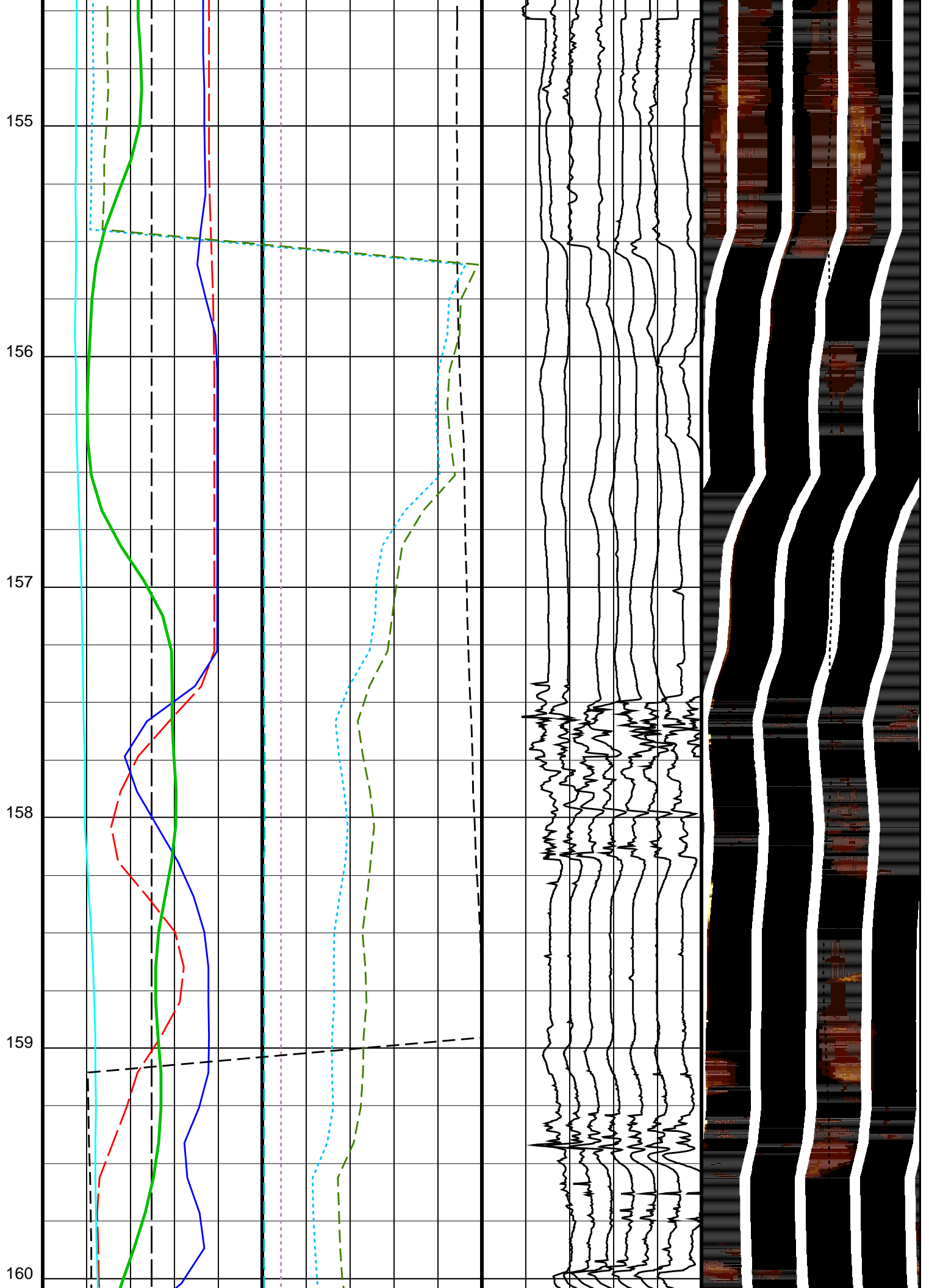
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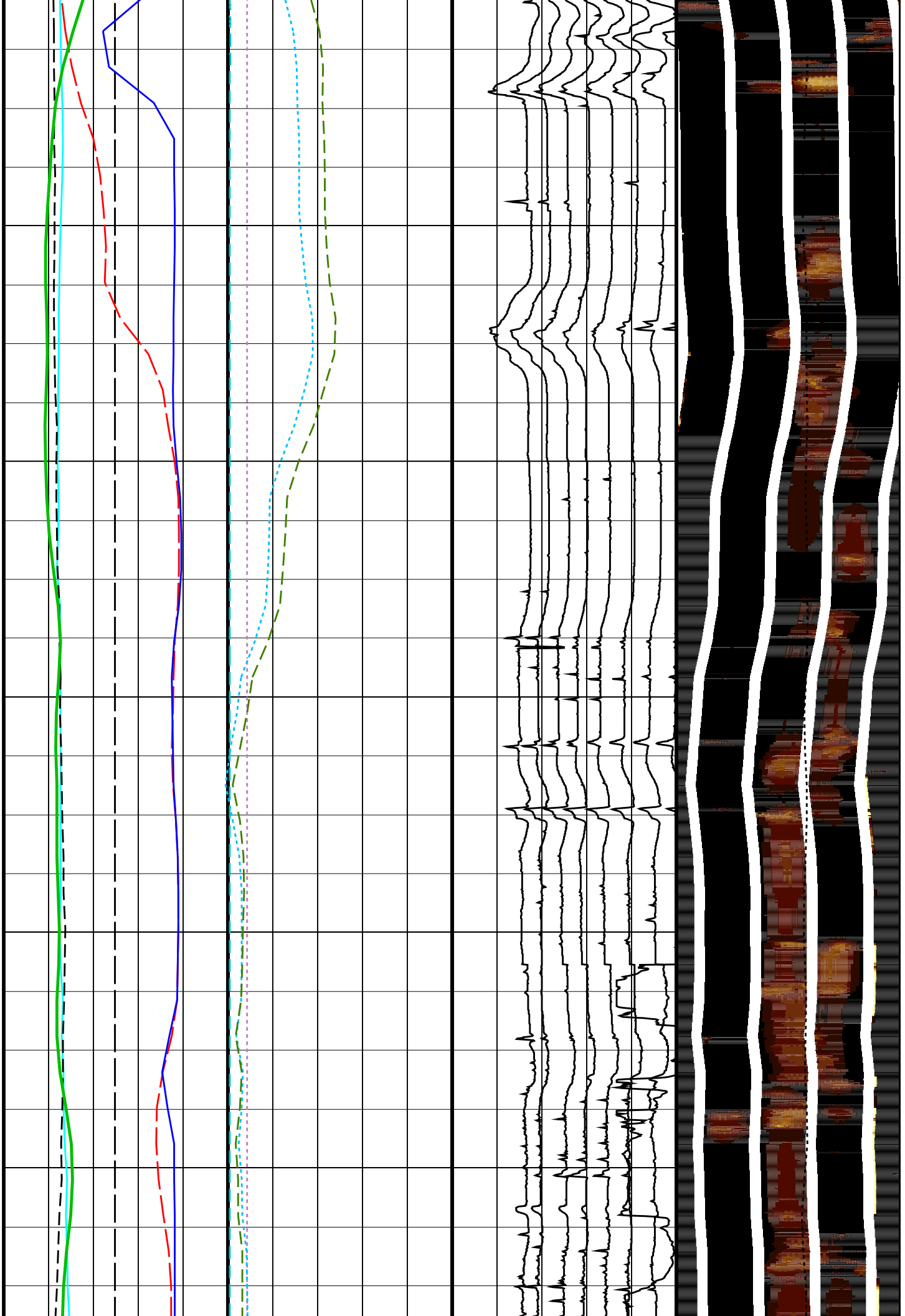
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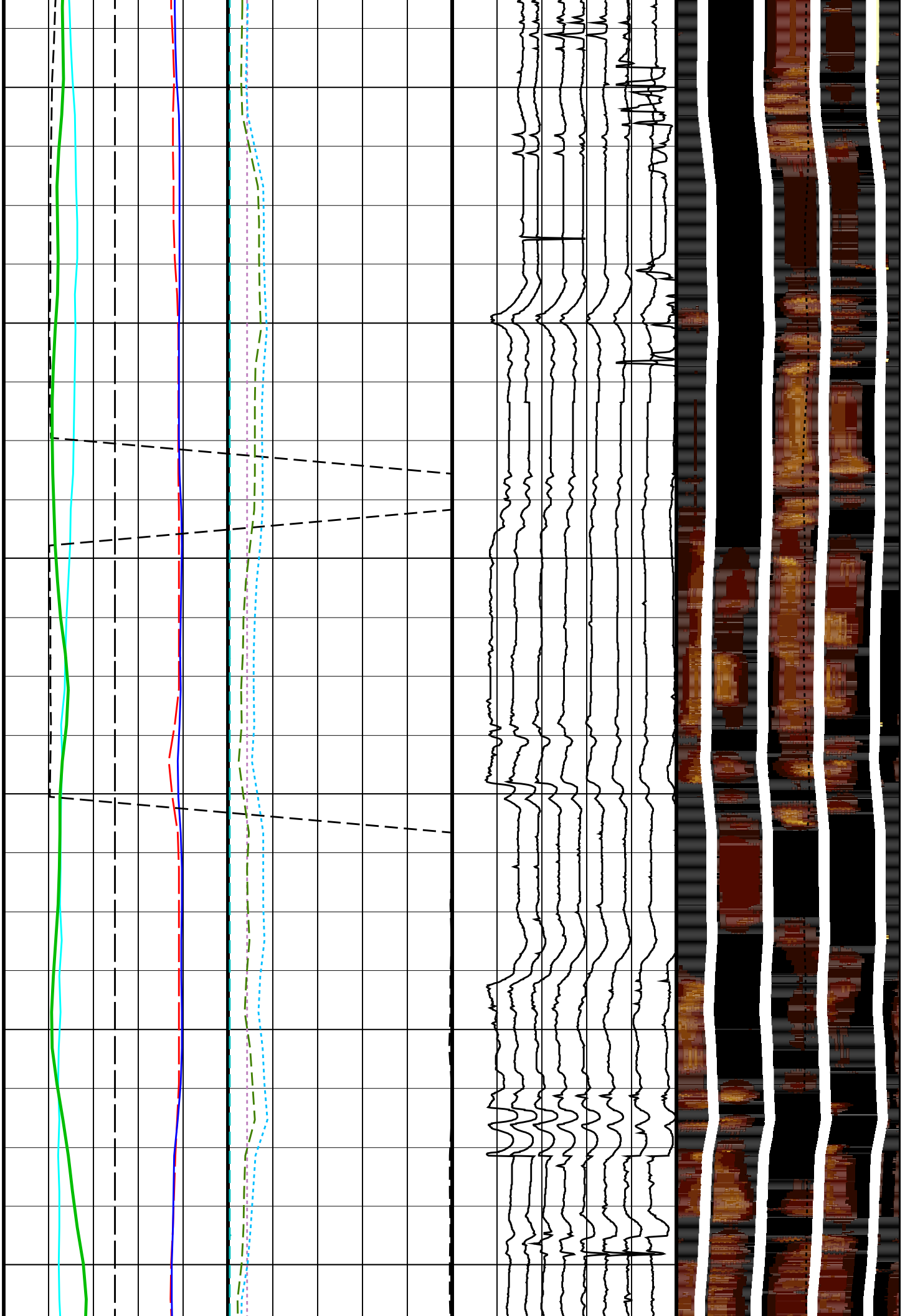
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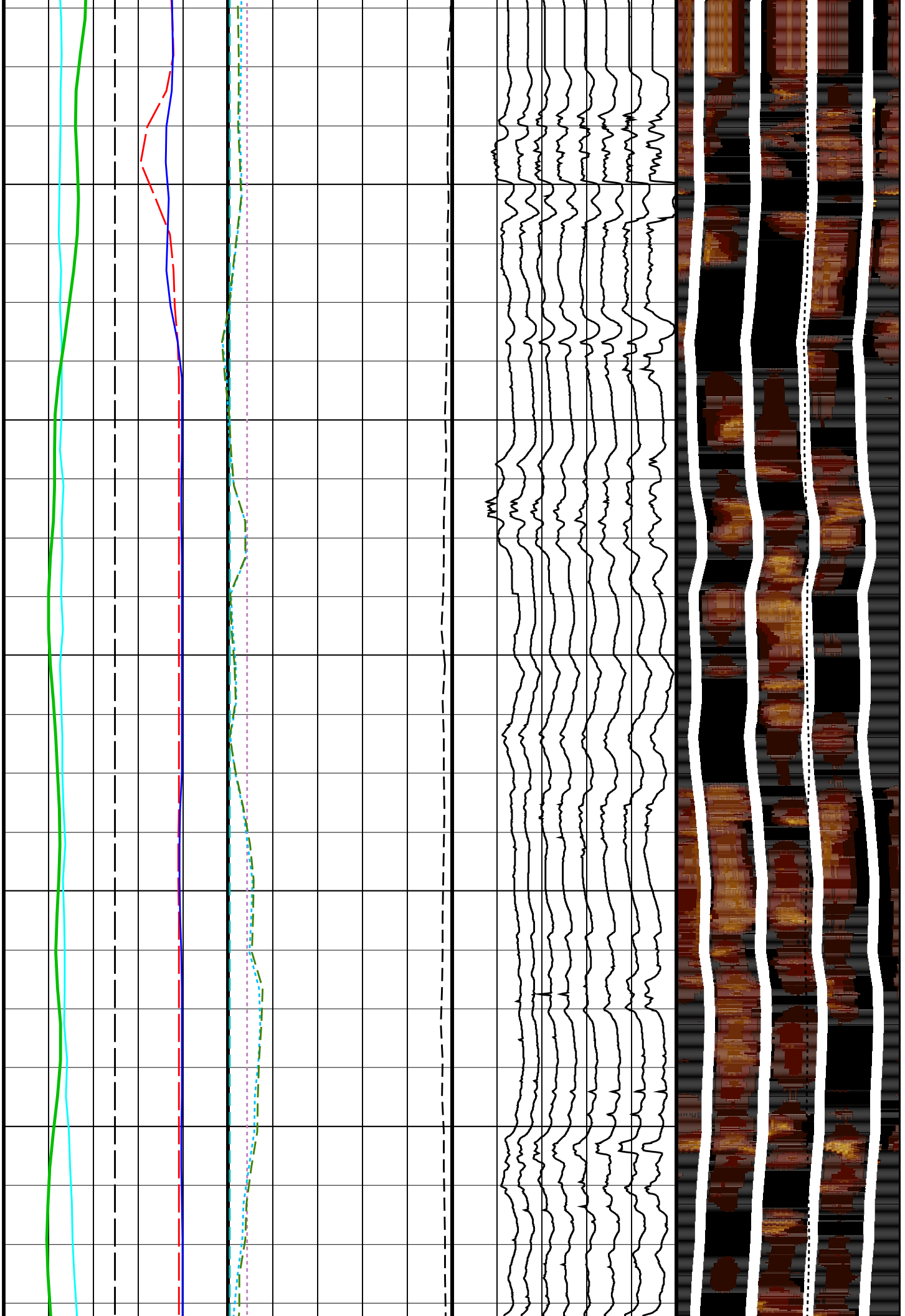
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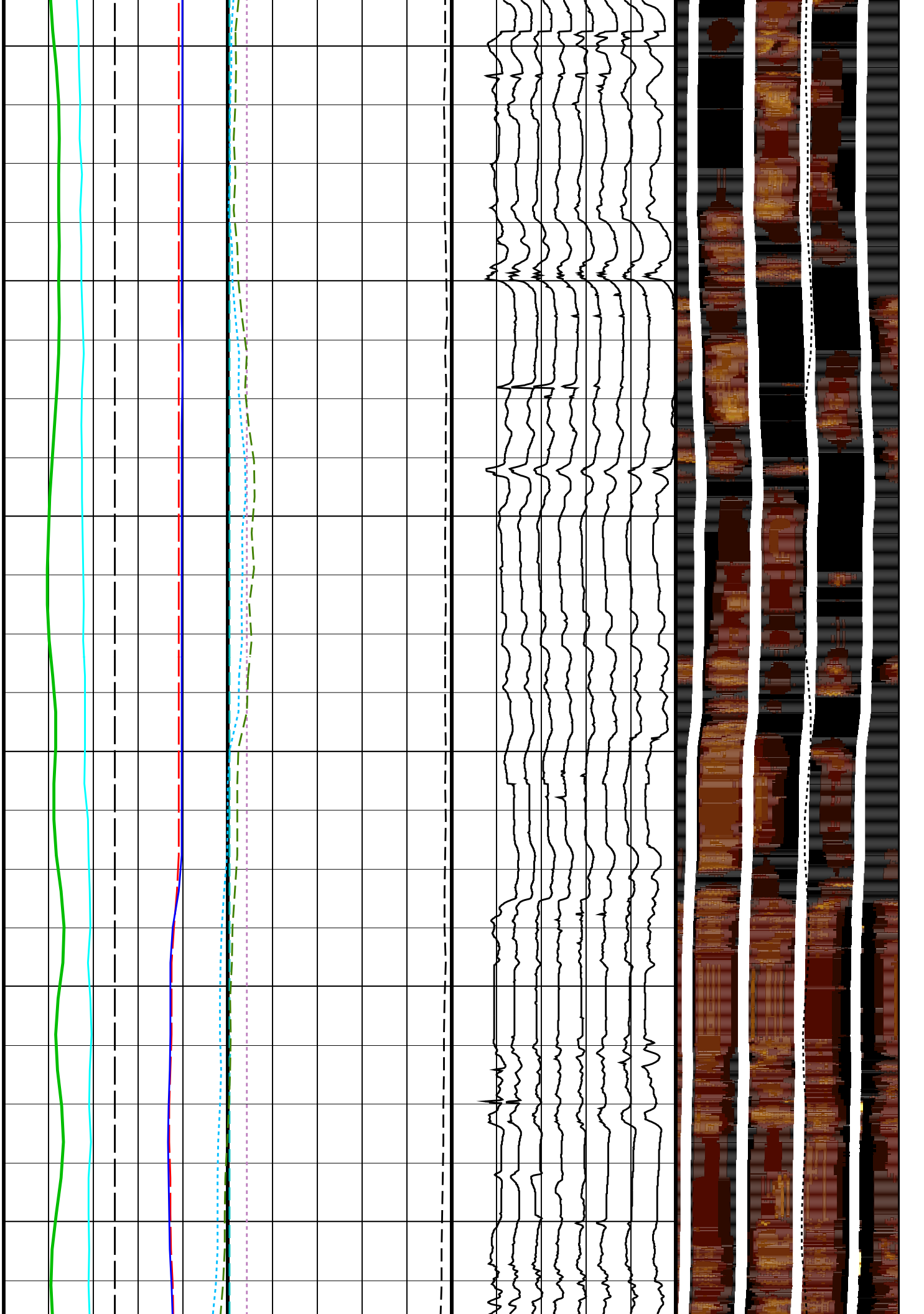
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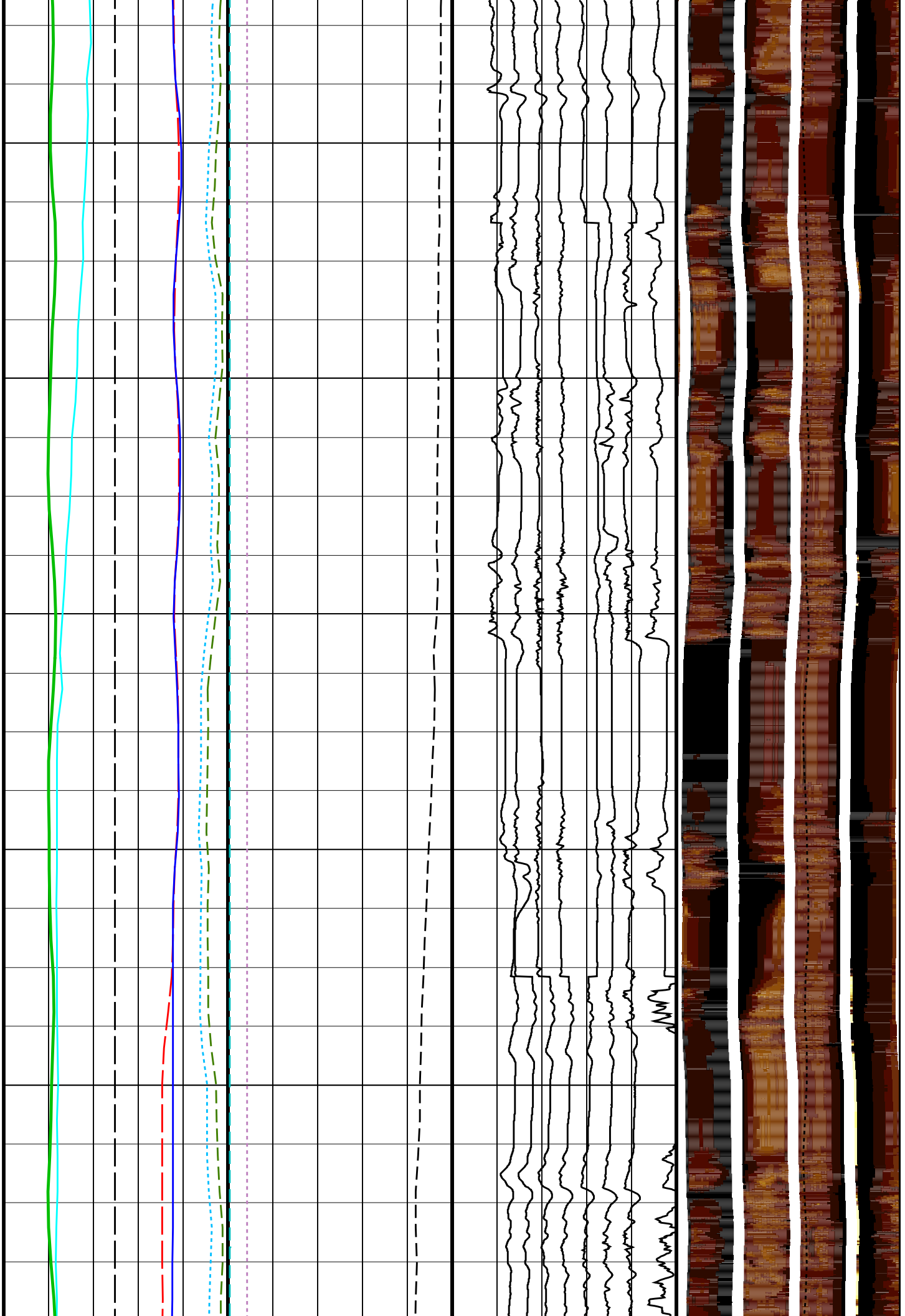
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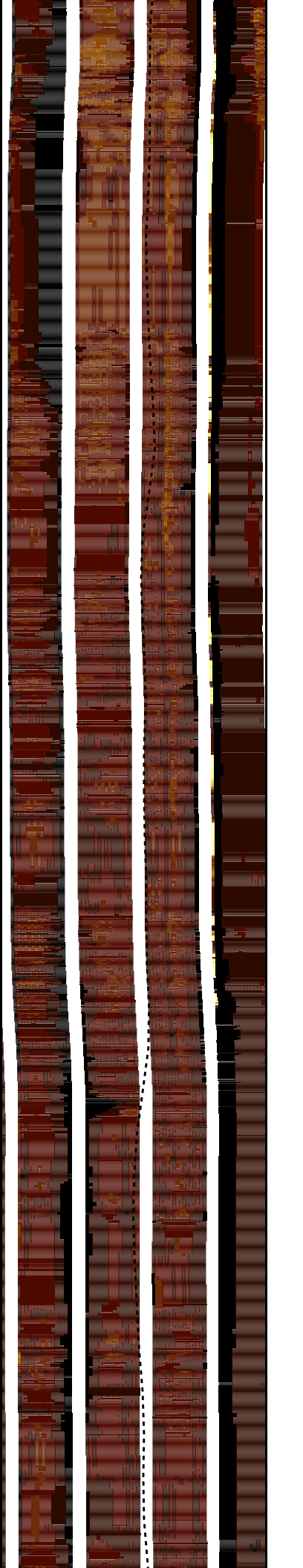
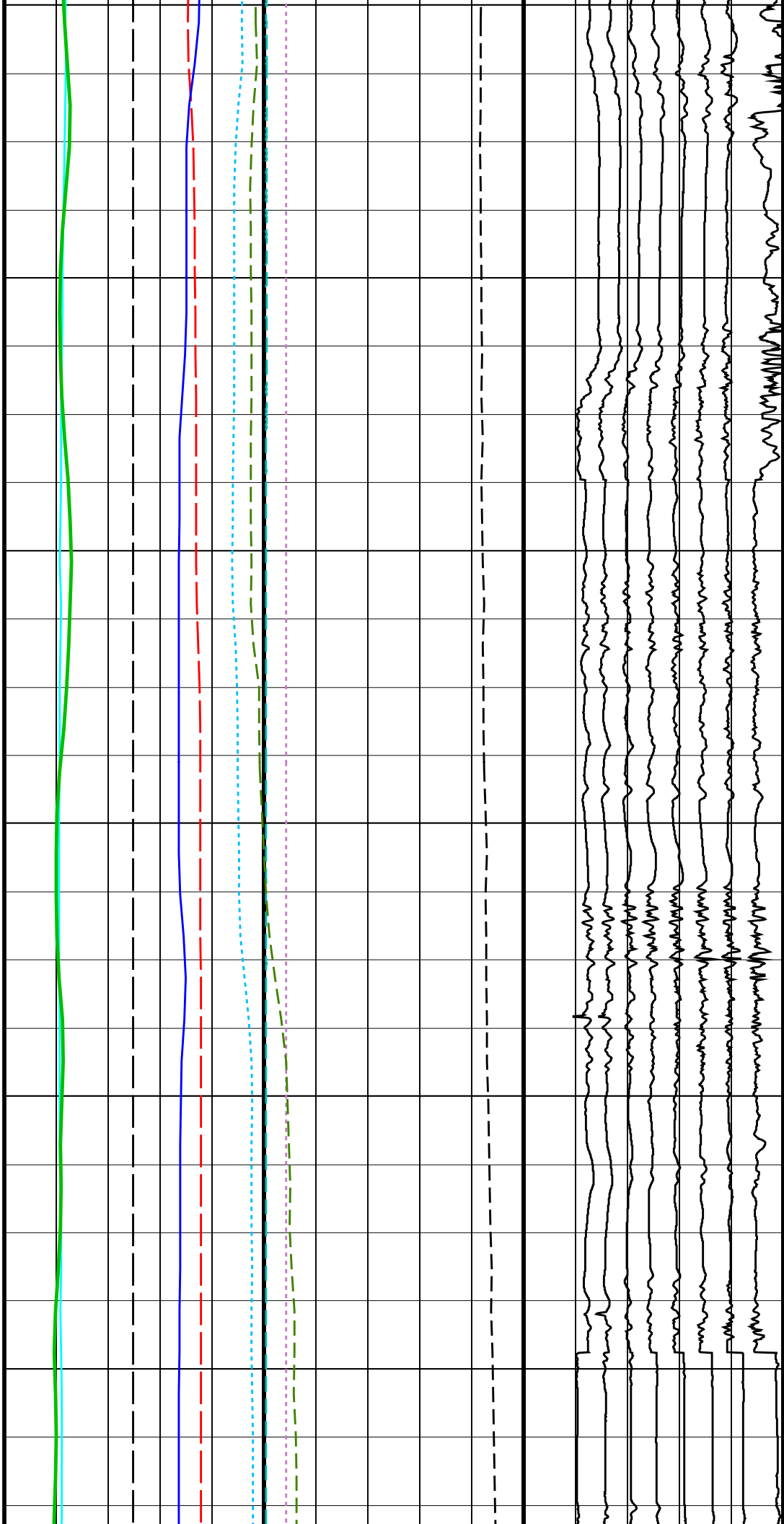
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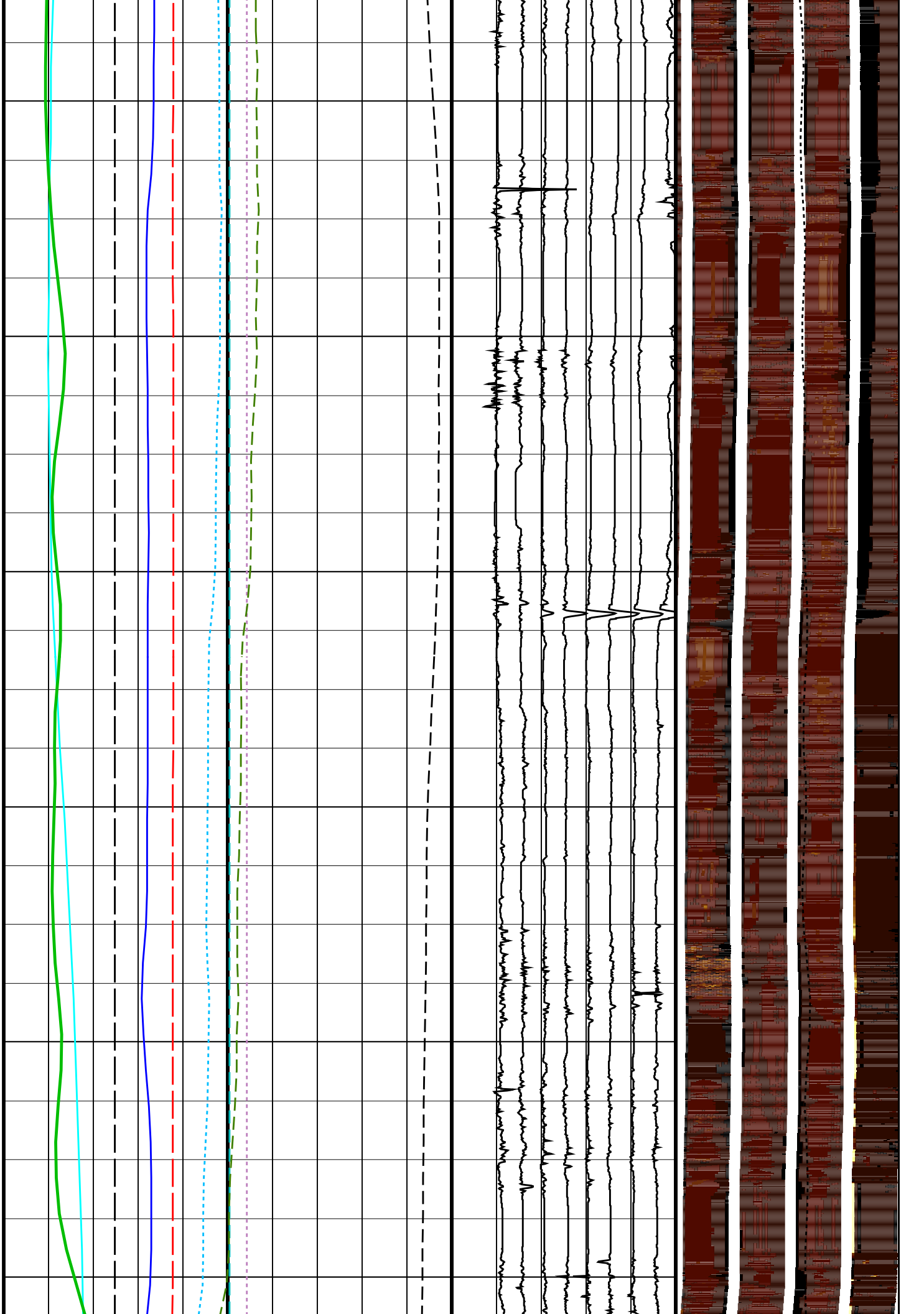
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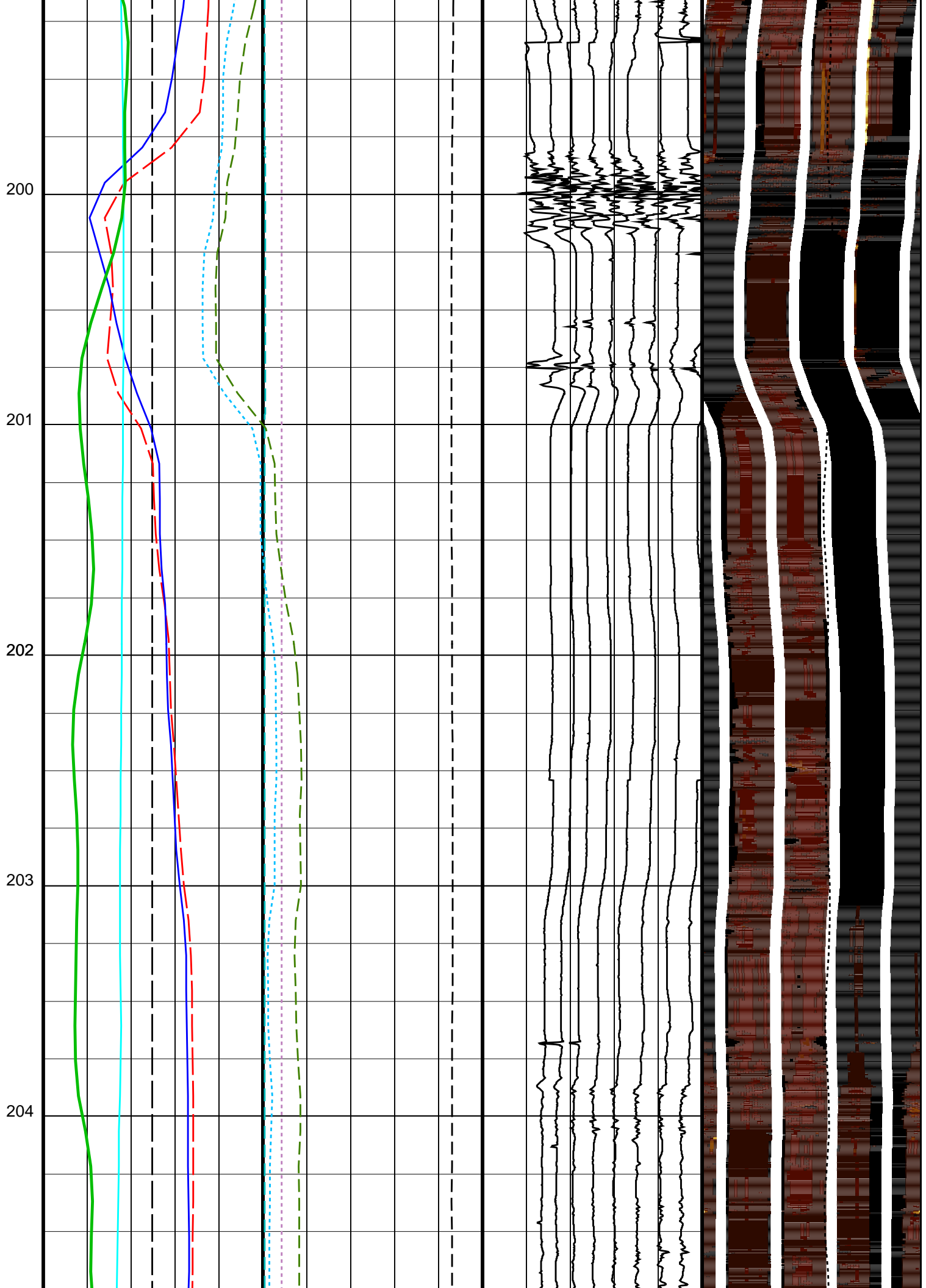
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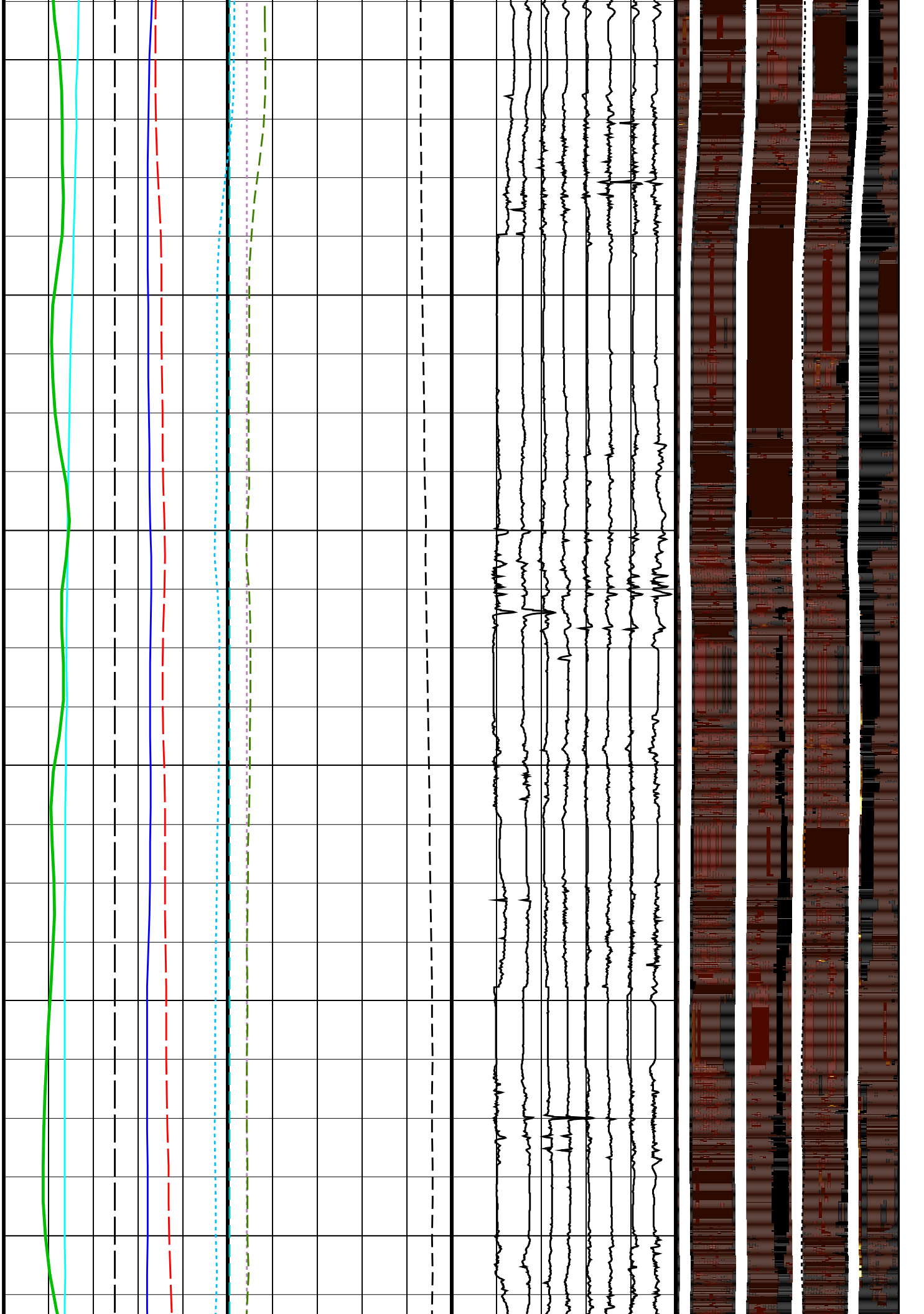
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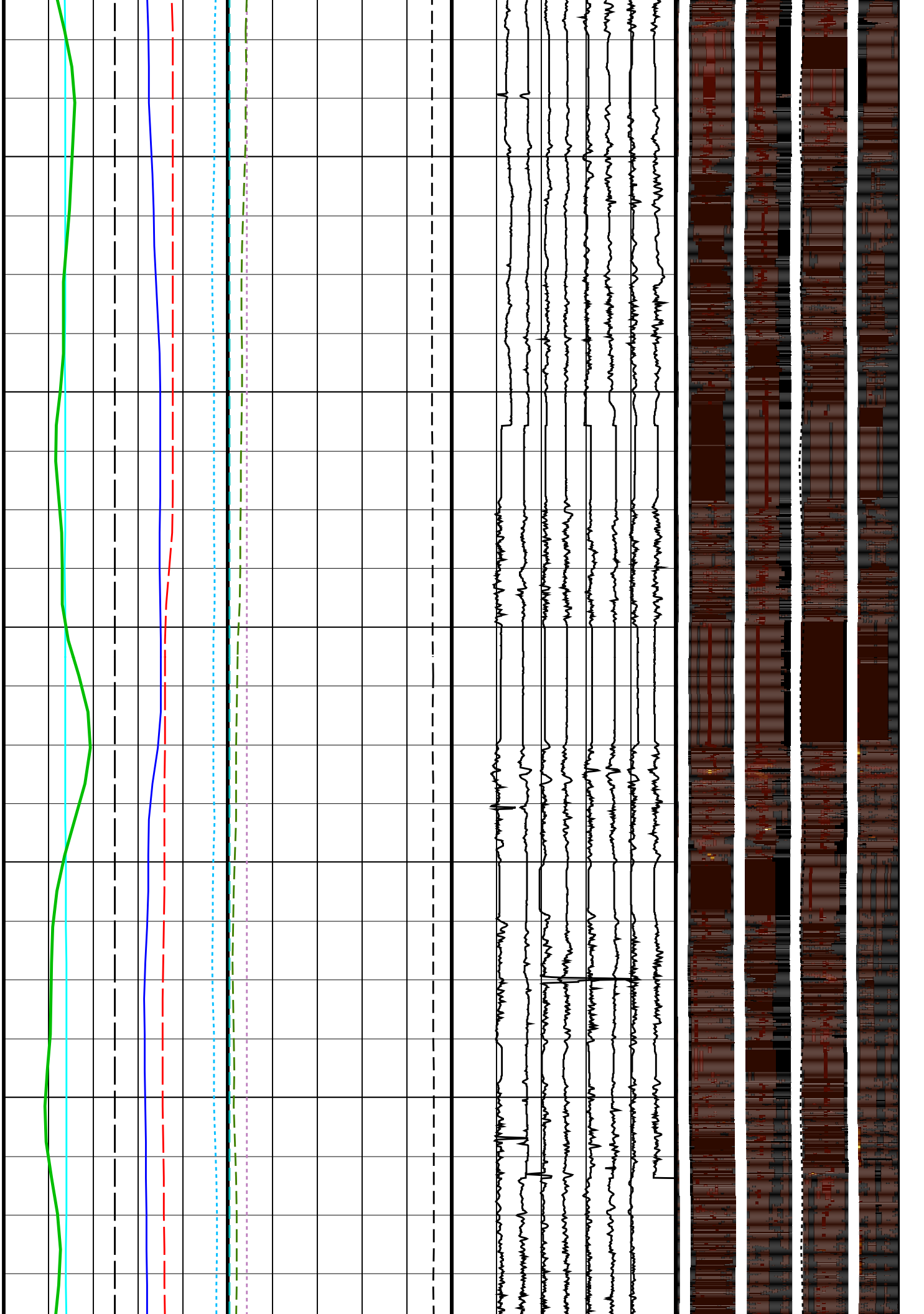
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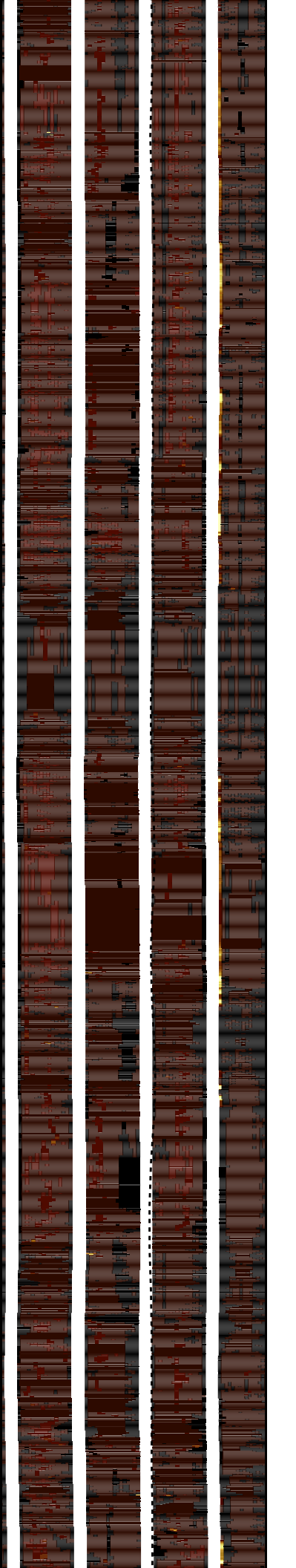
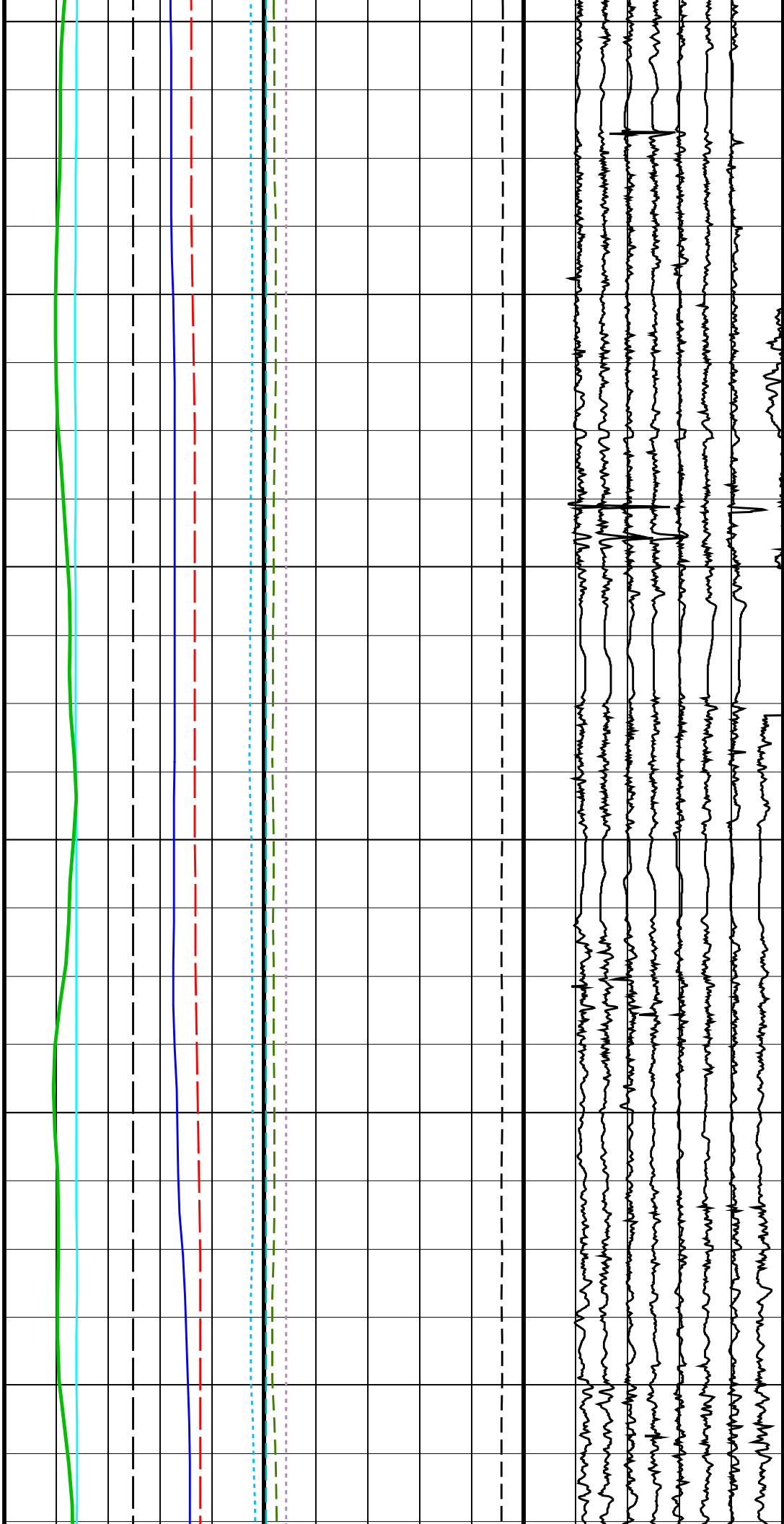
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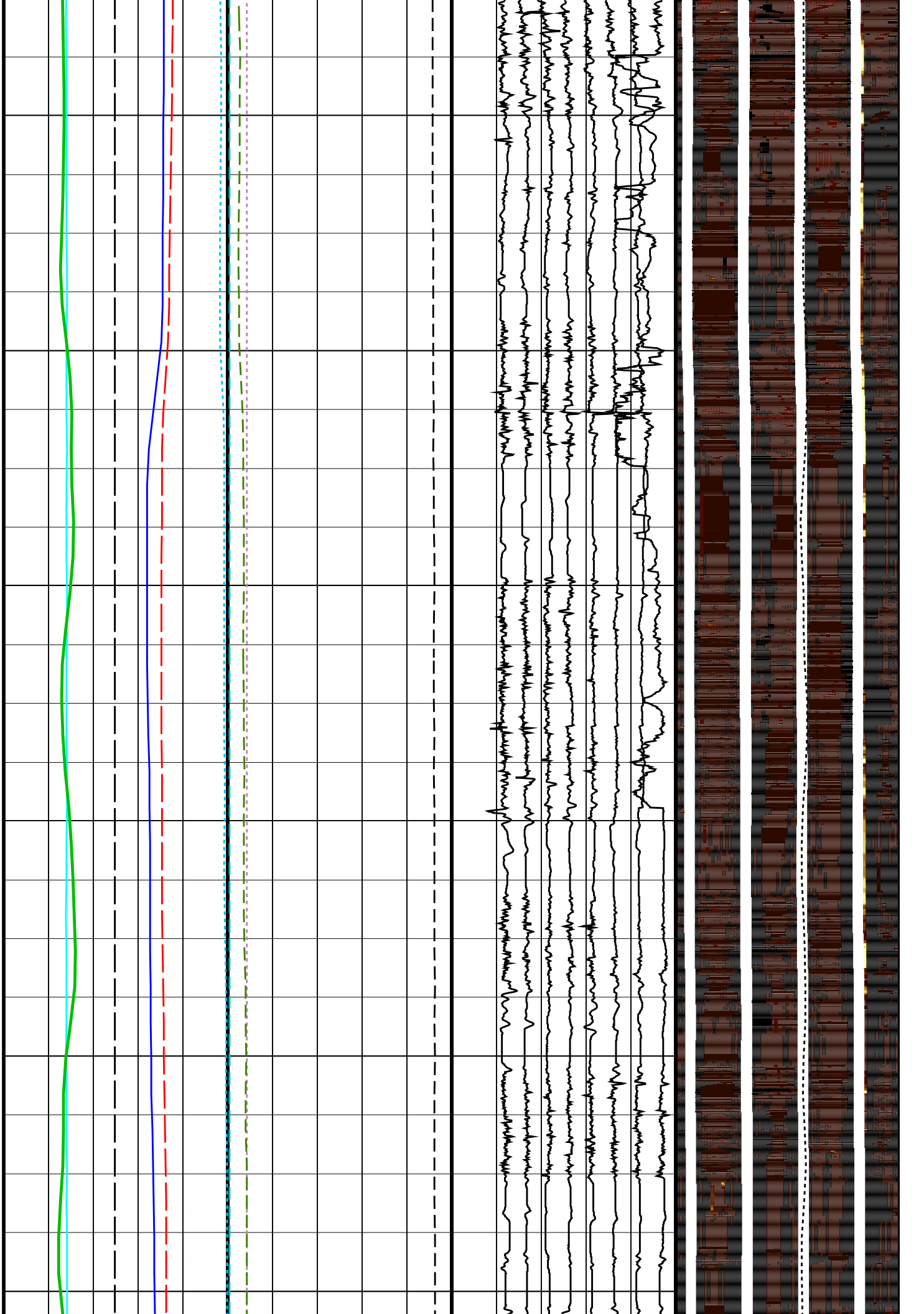
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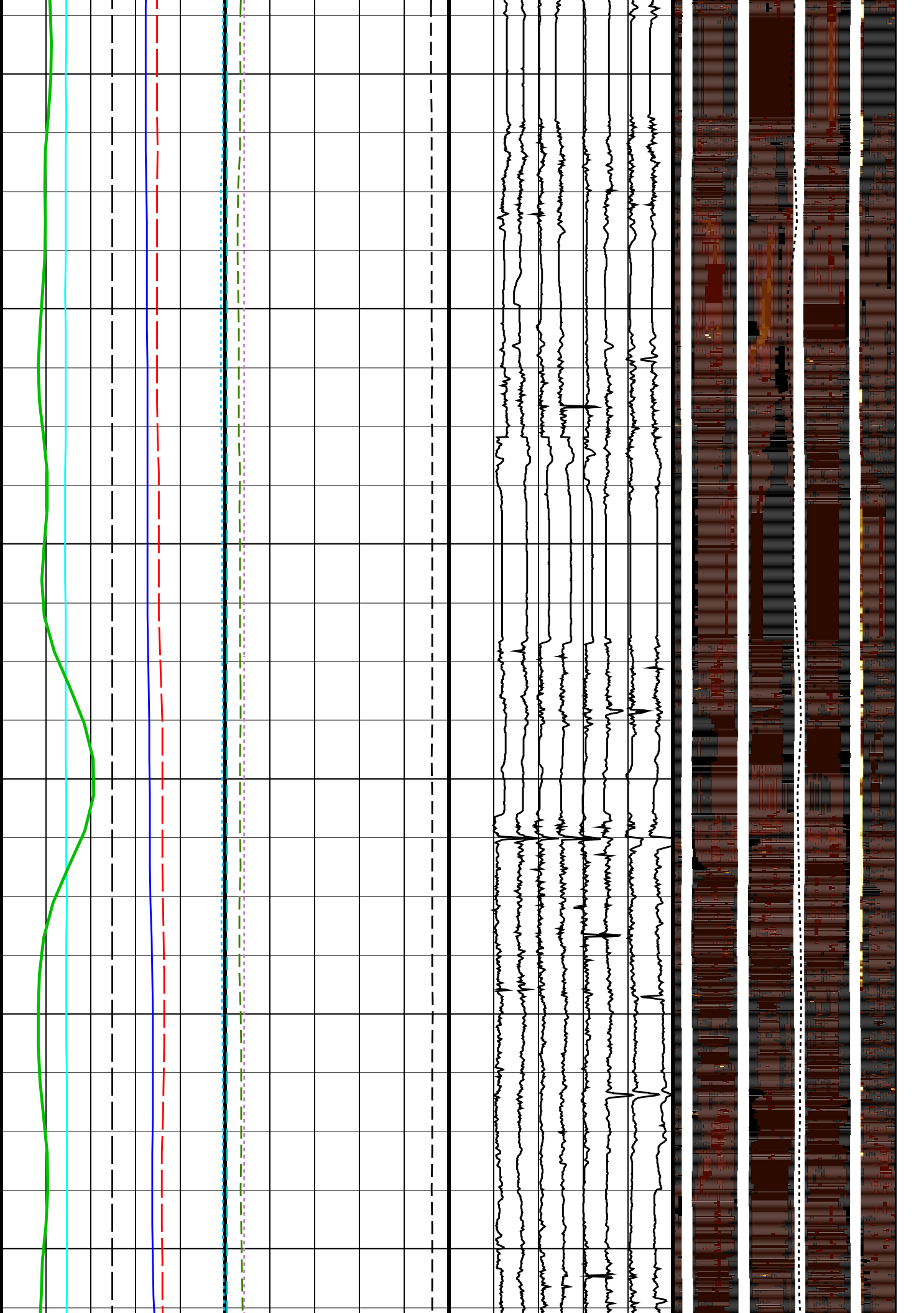
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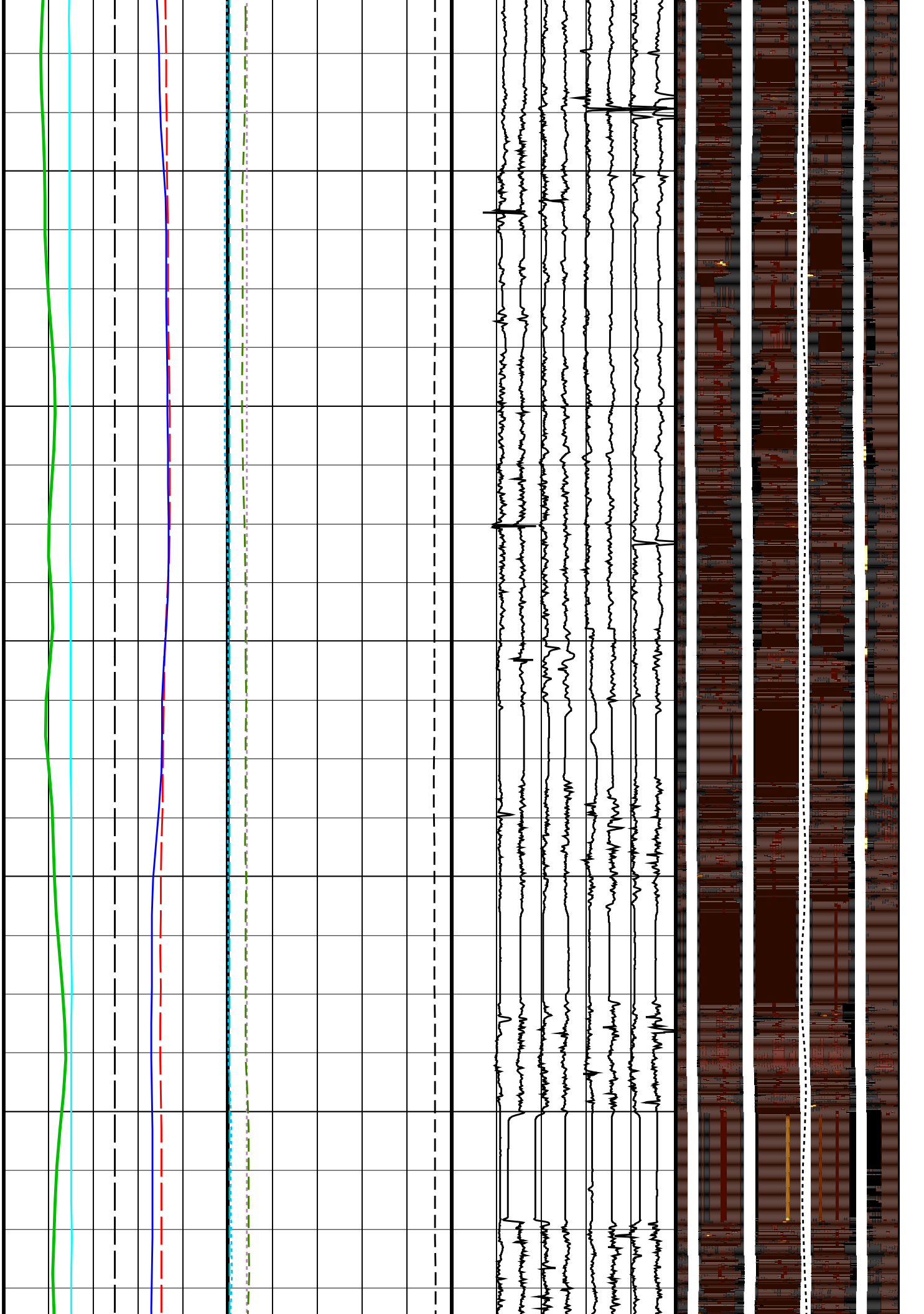
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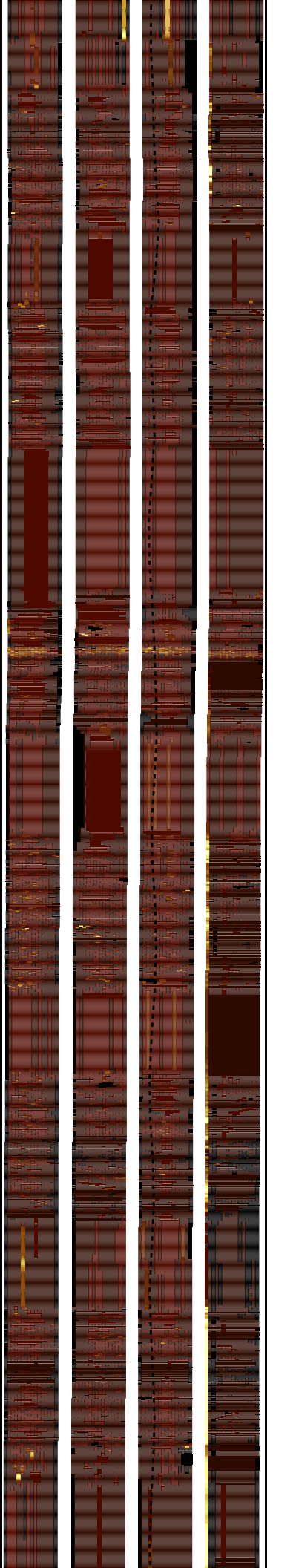
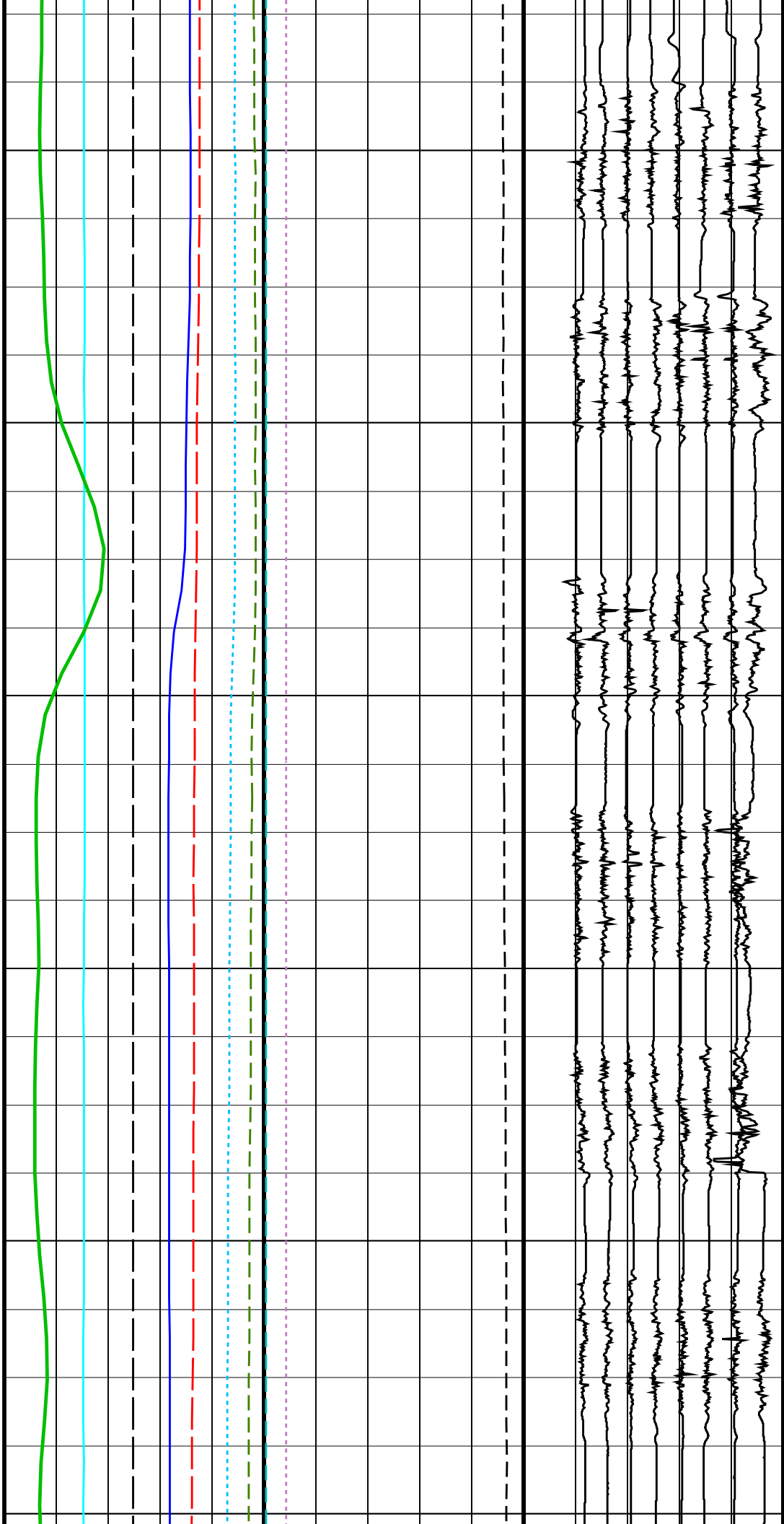
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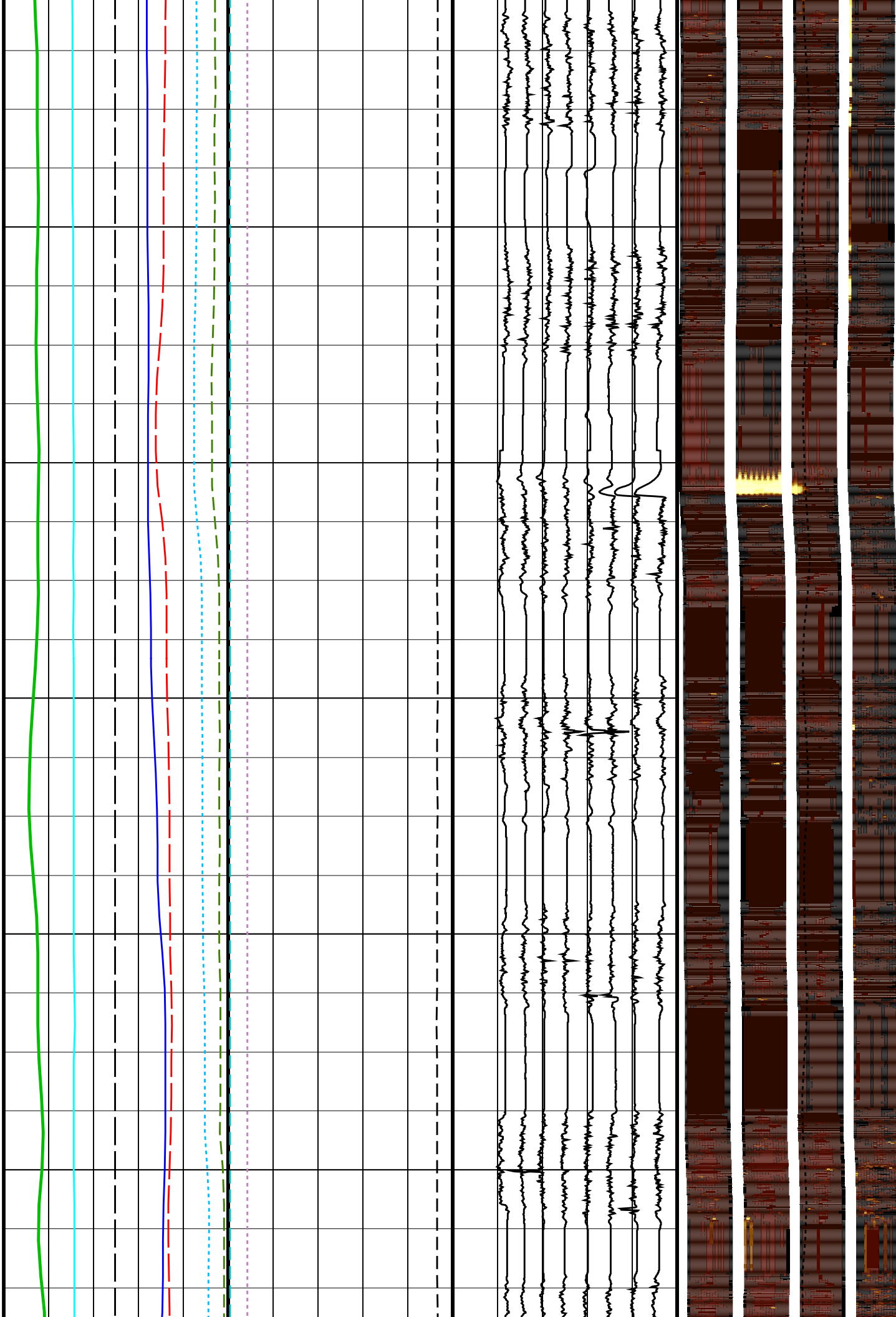
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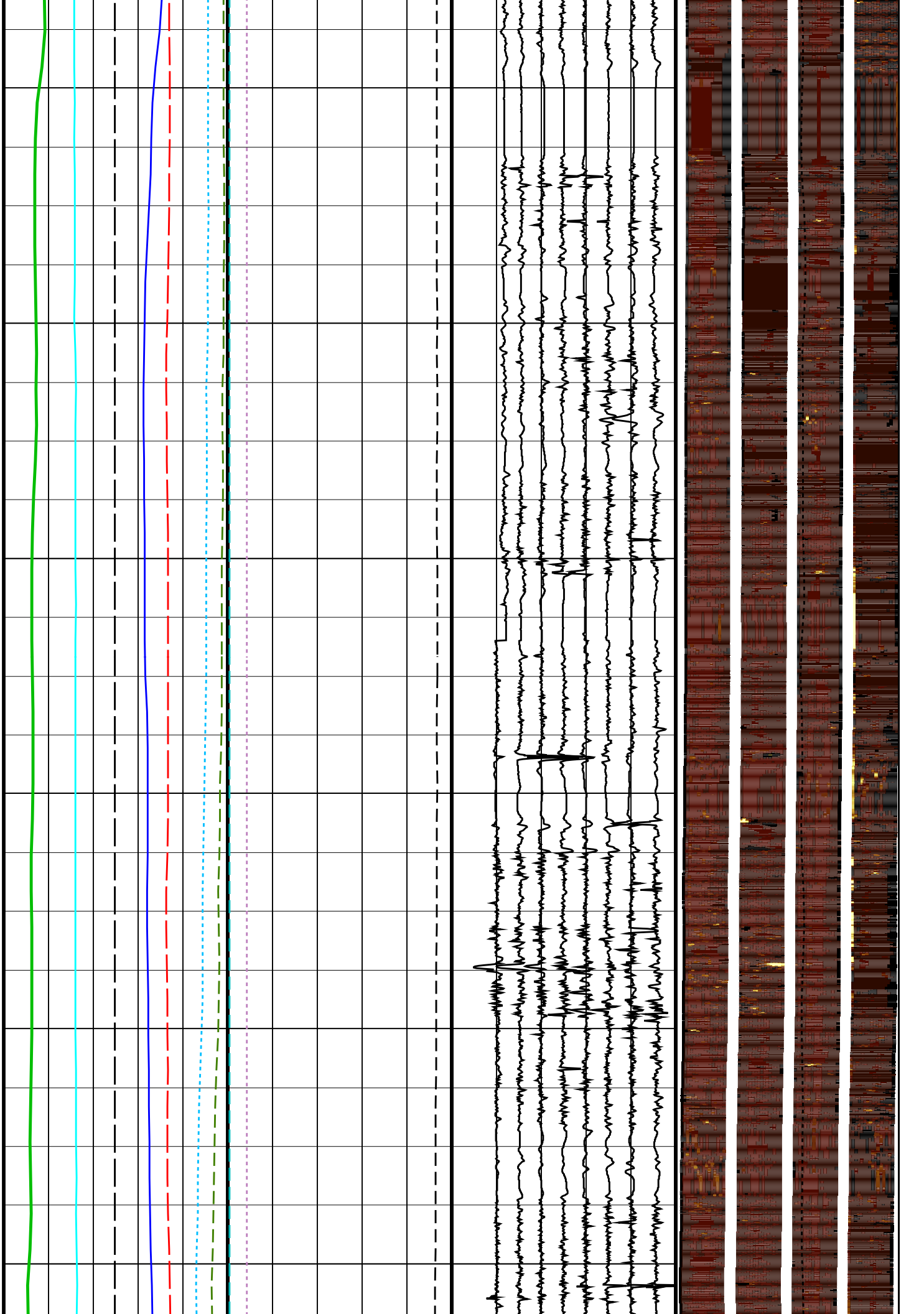
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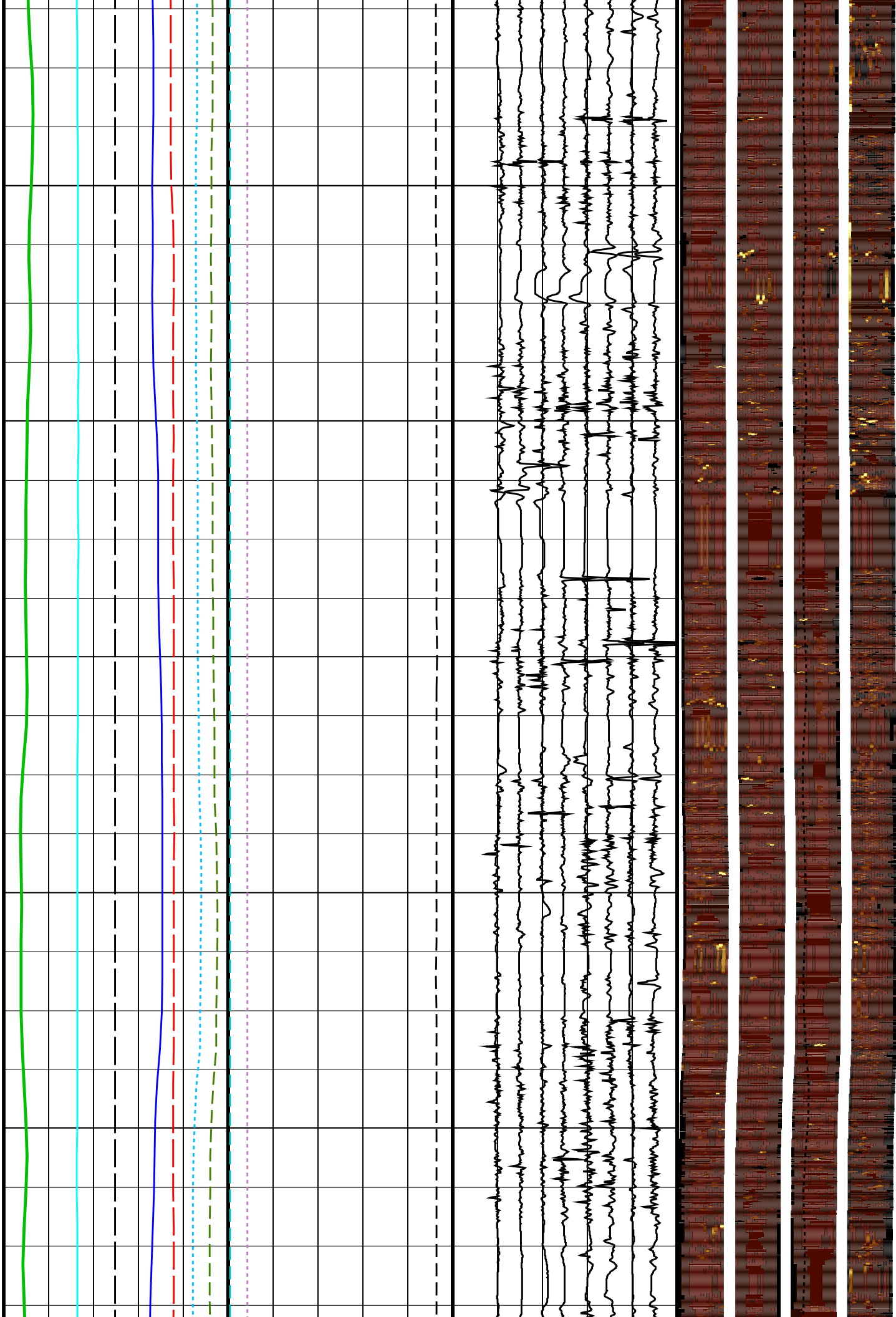
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HSGR

DEVIM

C2

C1

RB_MEST
P1AZ_MEST

EI
EV

HAZIM

U-MEST_RB7

U-MEST_RB6

U-MEST_RB5

U-MEST_RB4

U-MEST_RB3

U-MEST_RB2

U-MEST_RB1

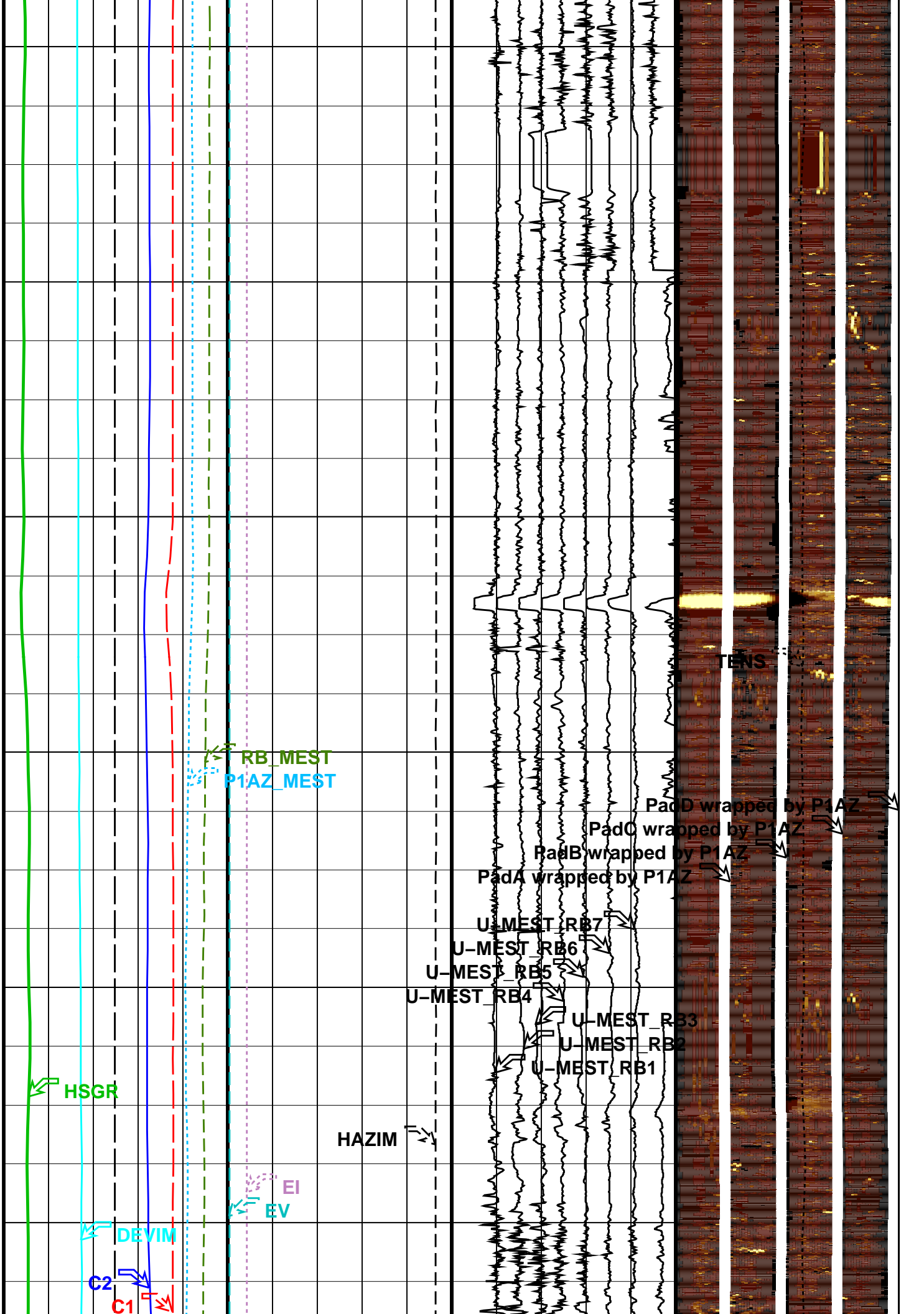
PadA wrapped by P1AZ

PadB wrapped by P1AZ

PadC wrapped by P1AZ

PadD wrapped by P1AZ

TENS



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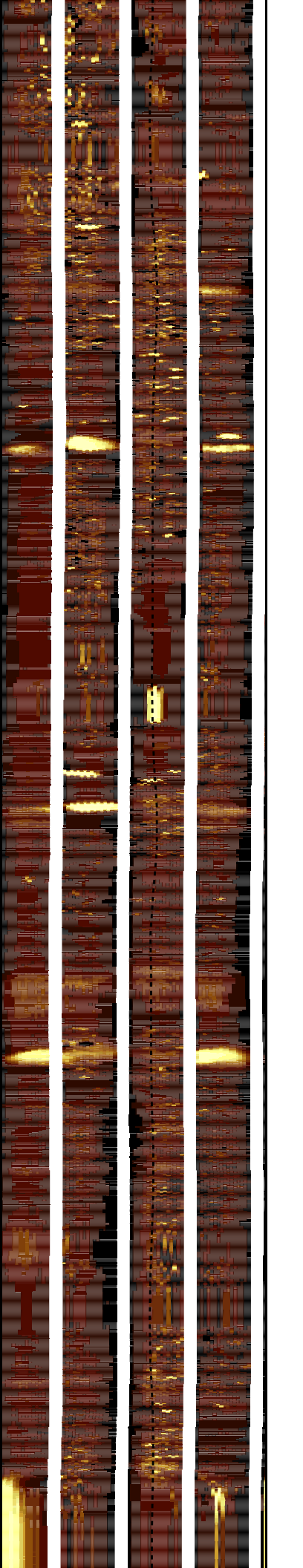
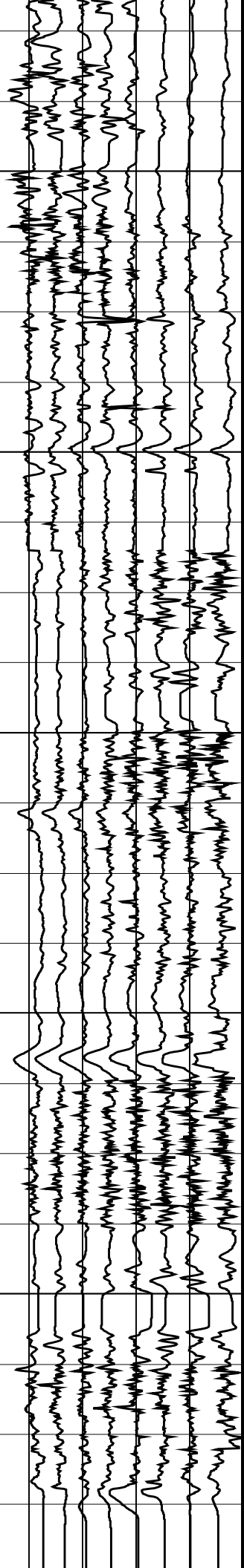
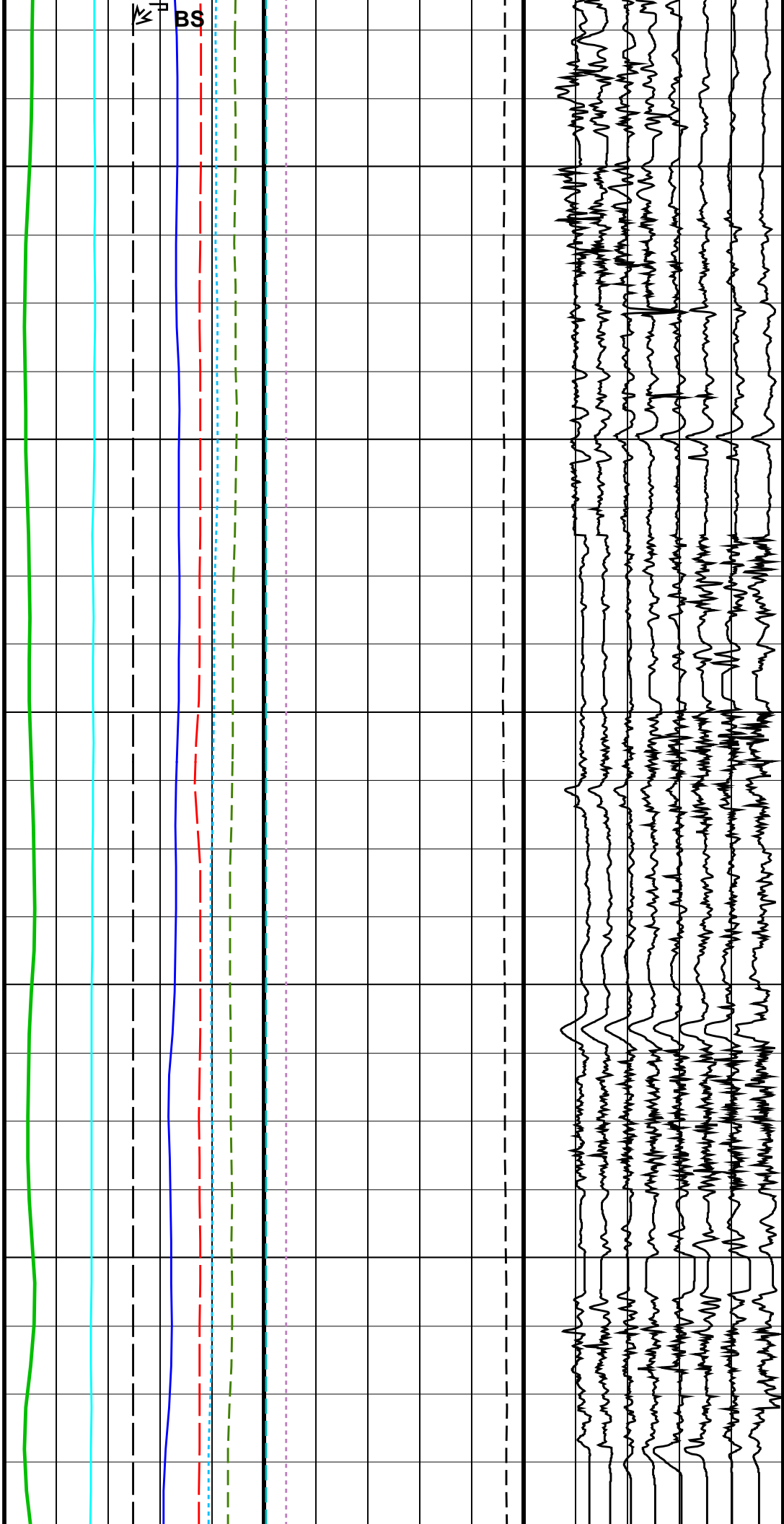
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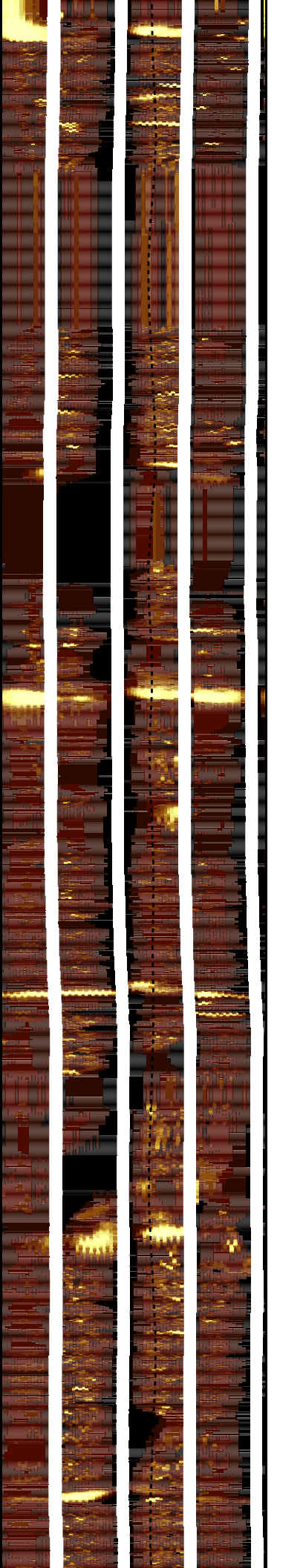
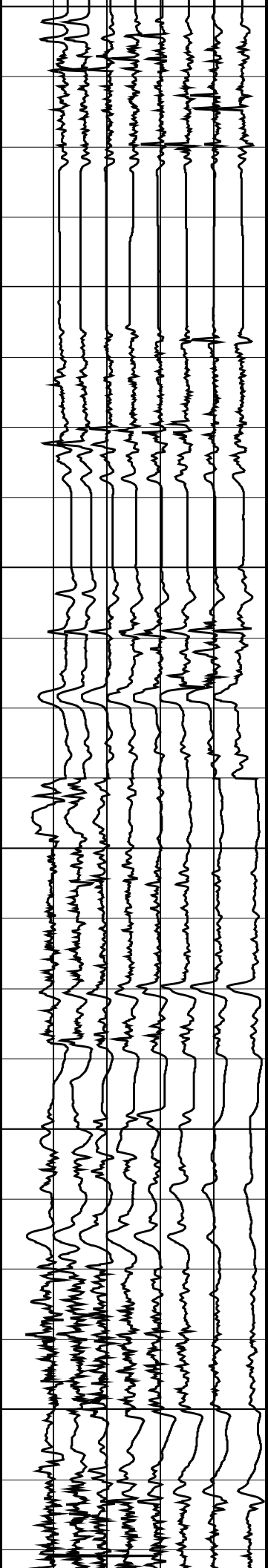
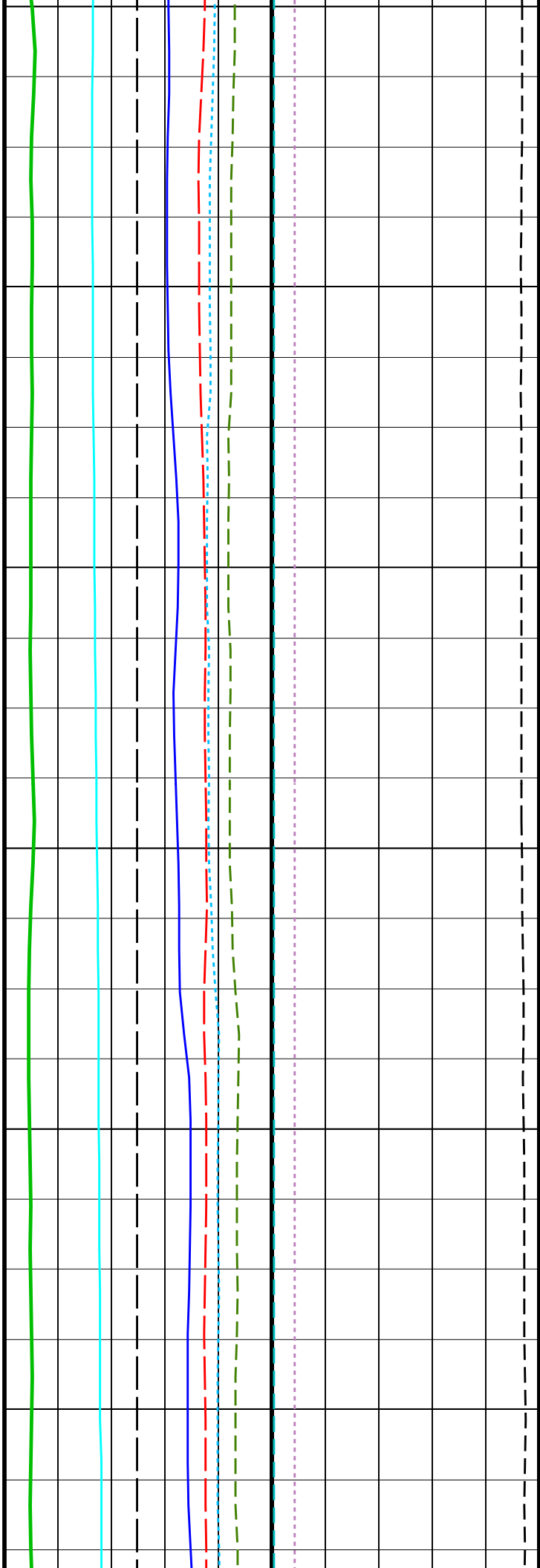
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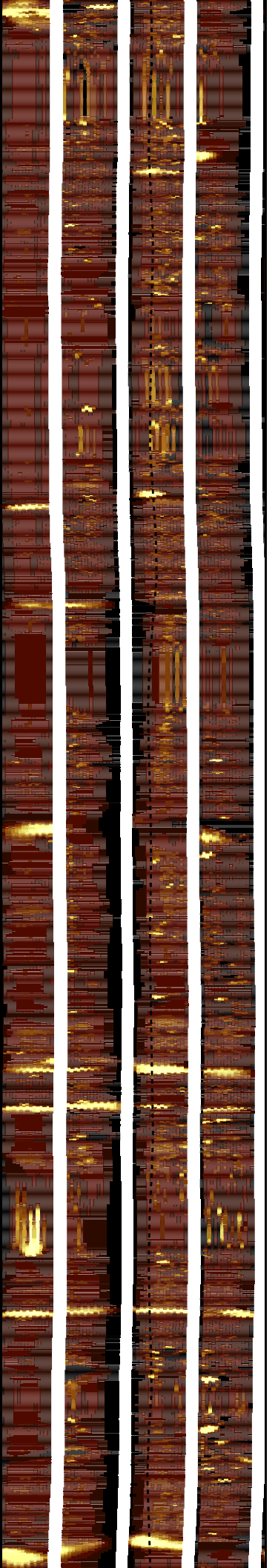
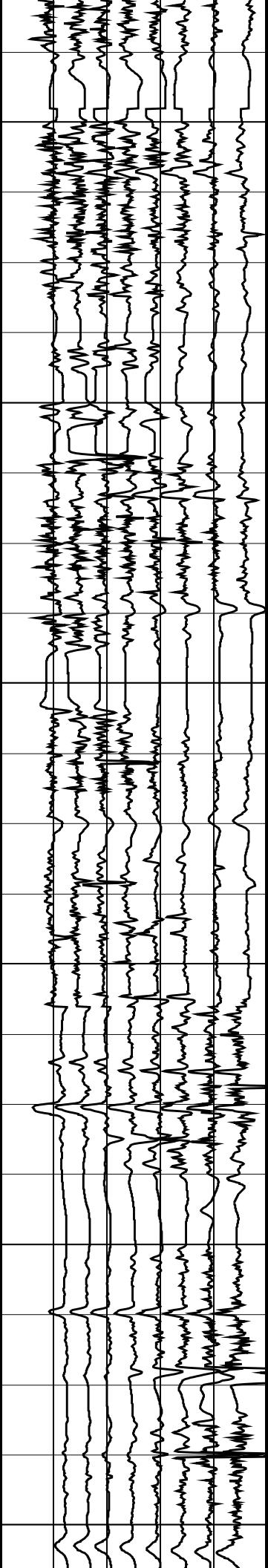
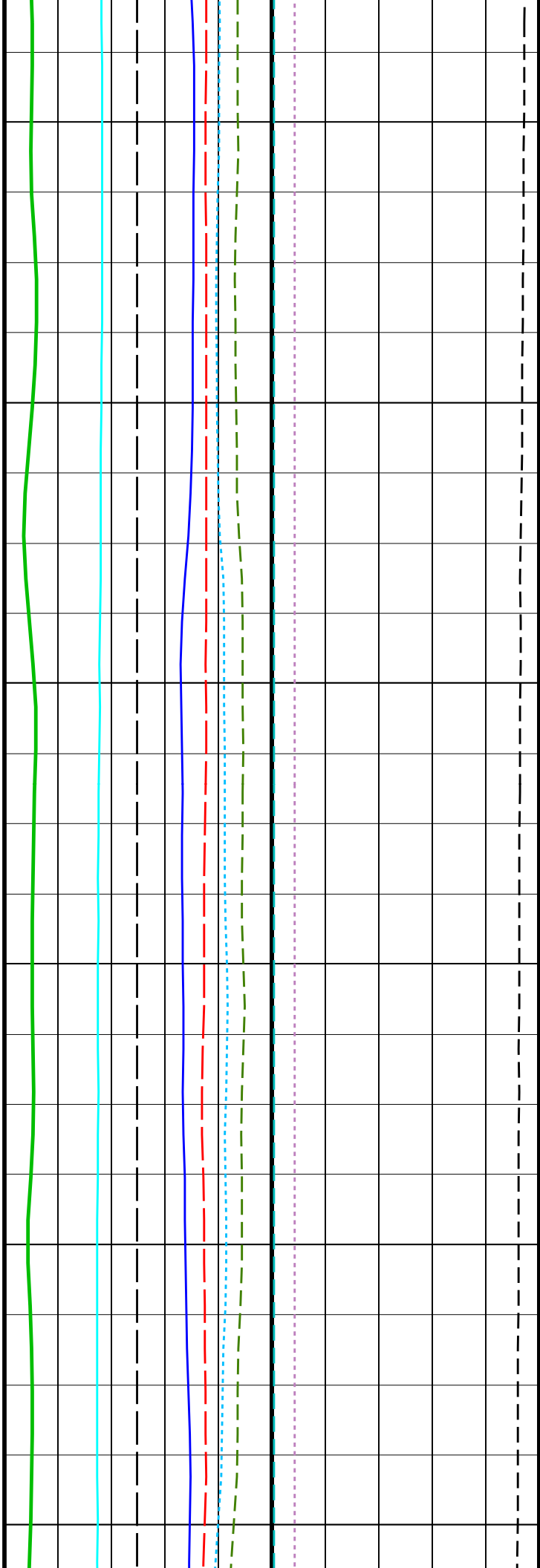
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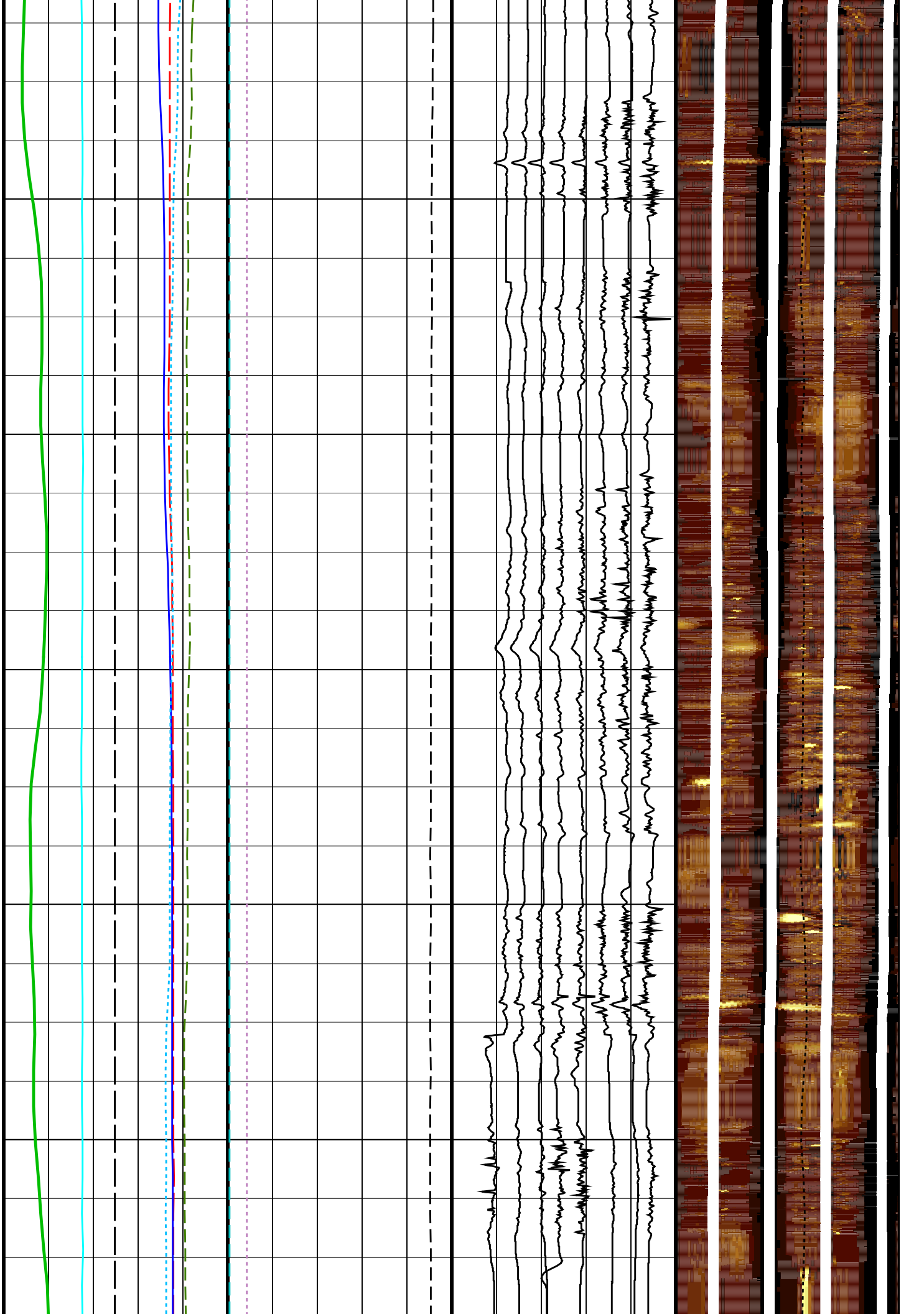
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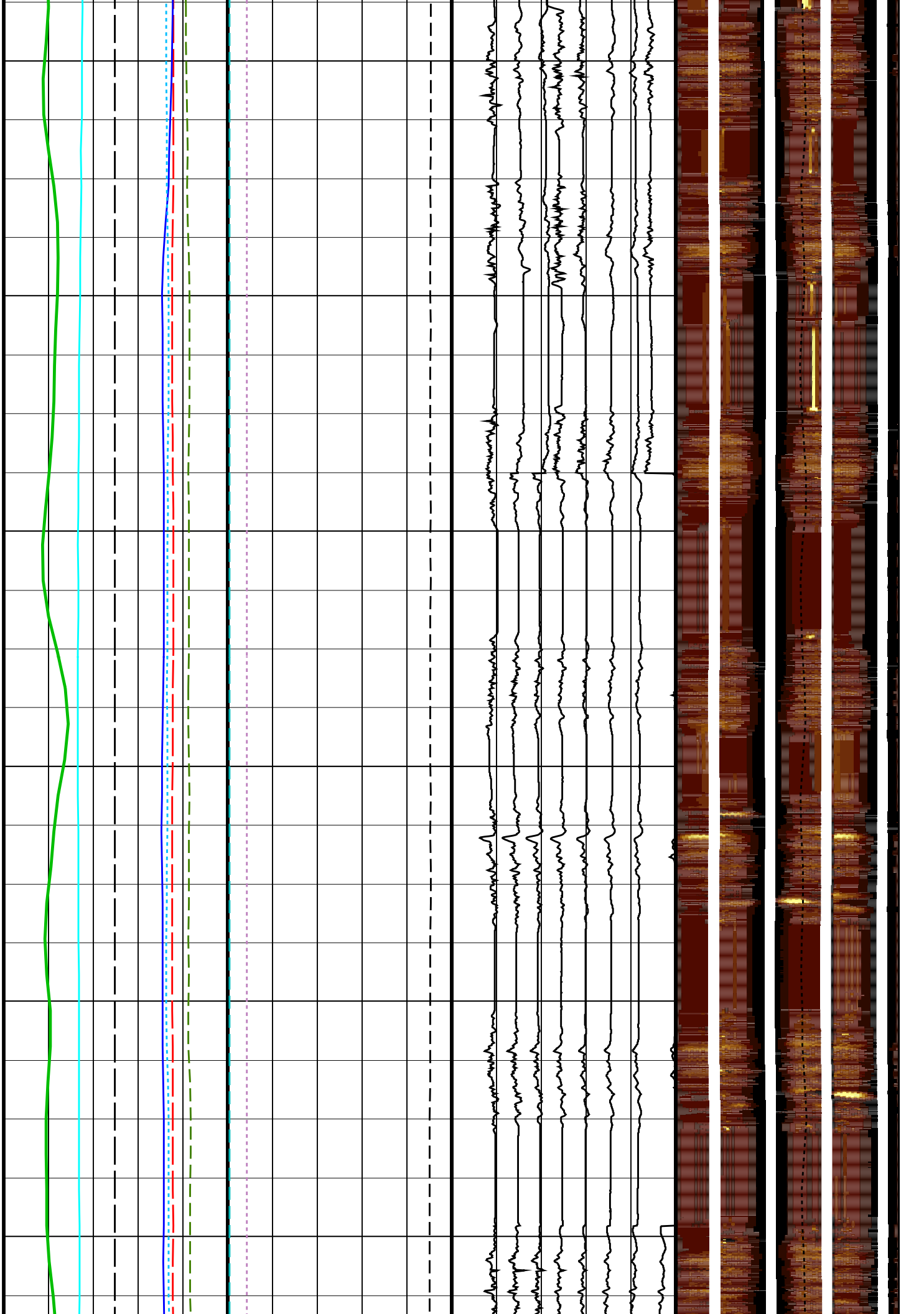
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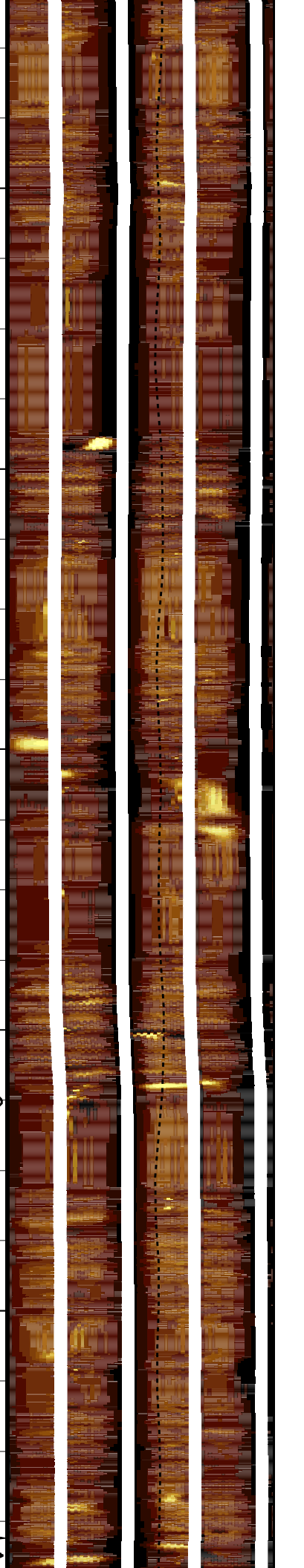
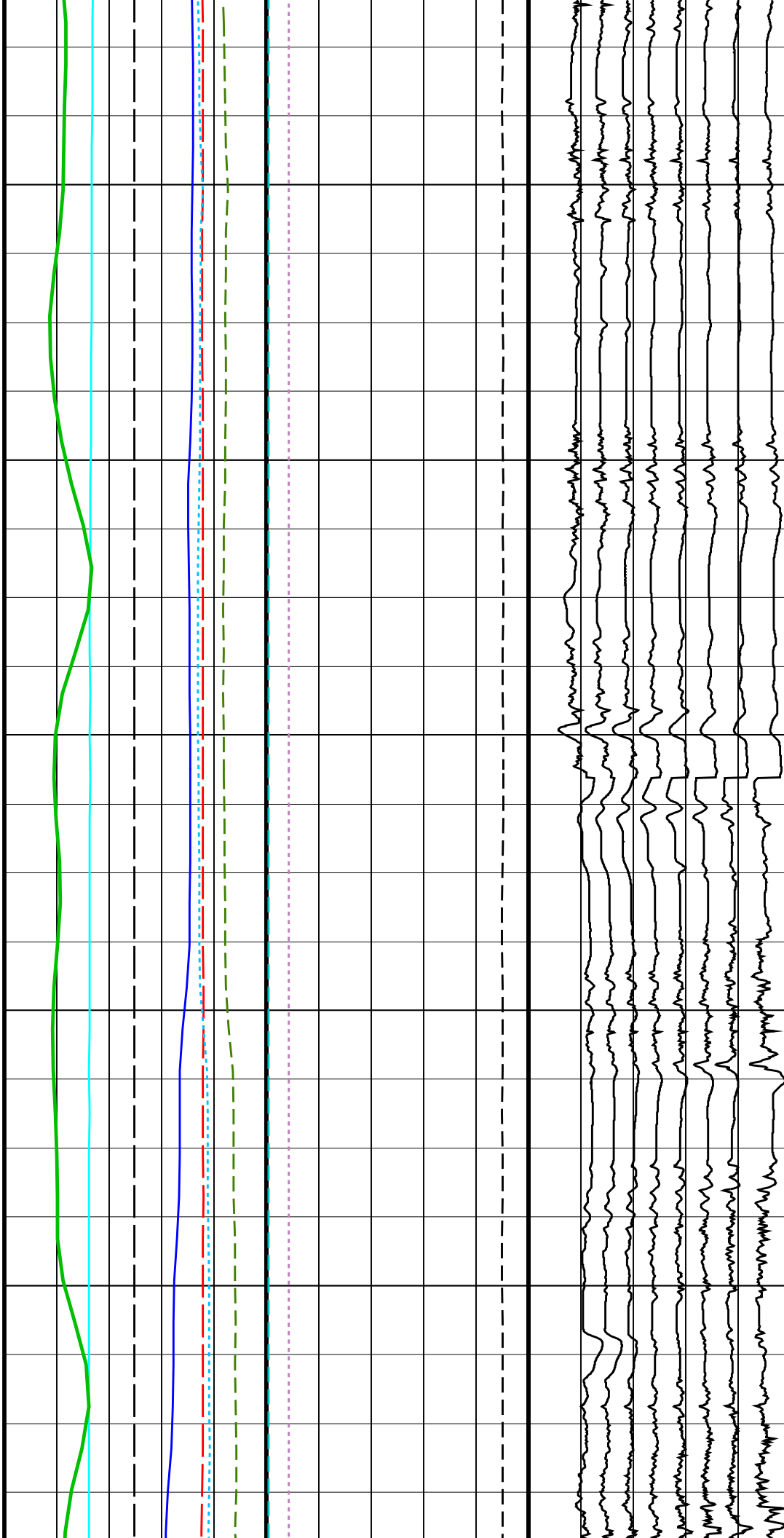
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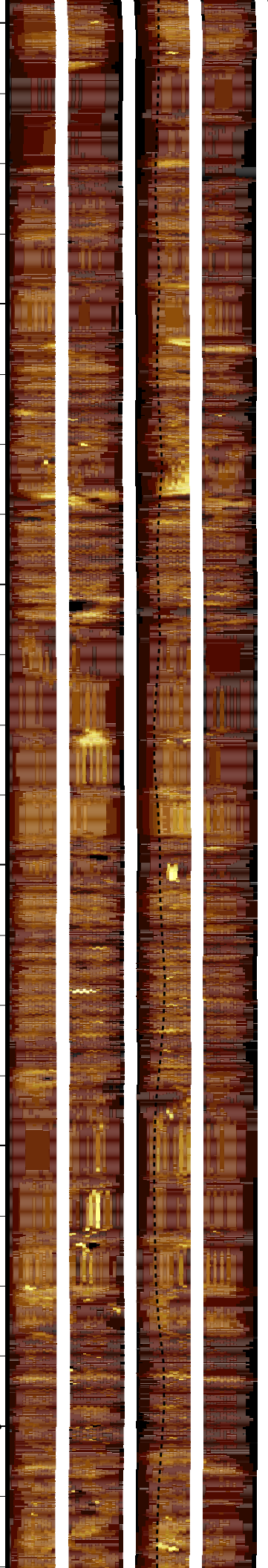
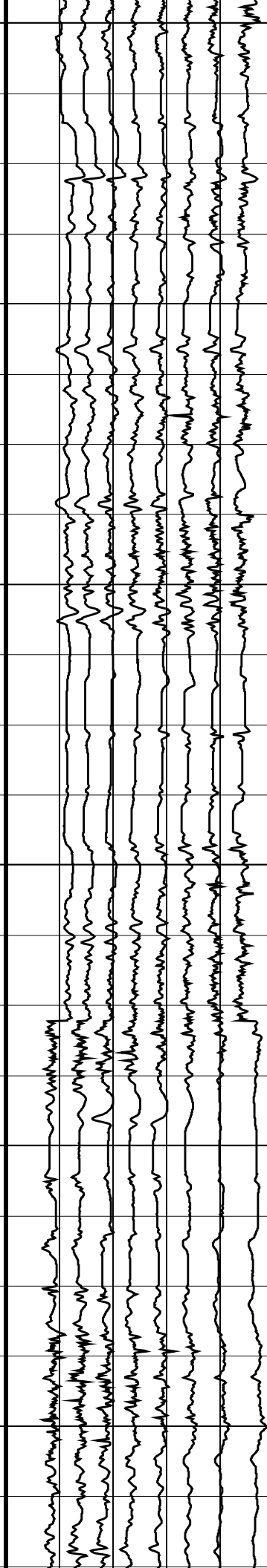
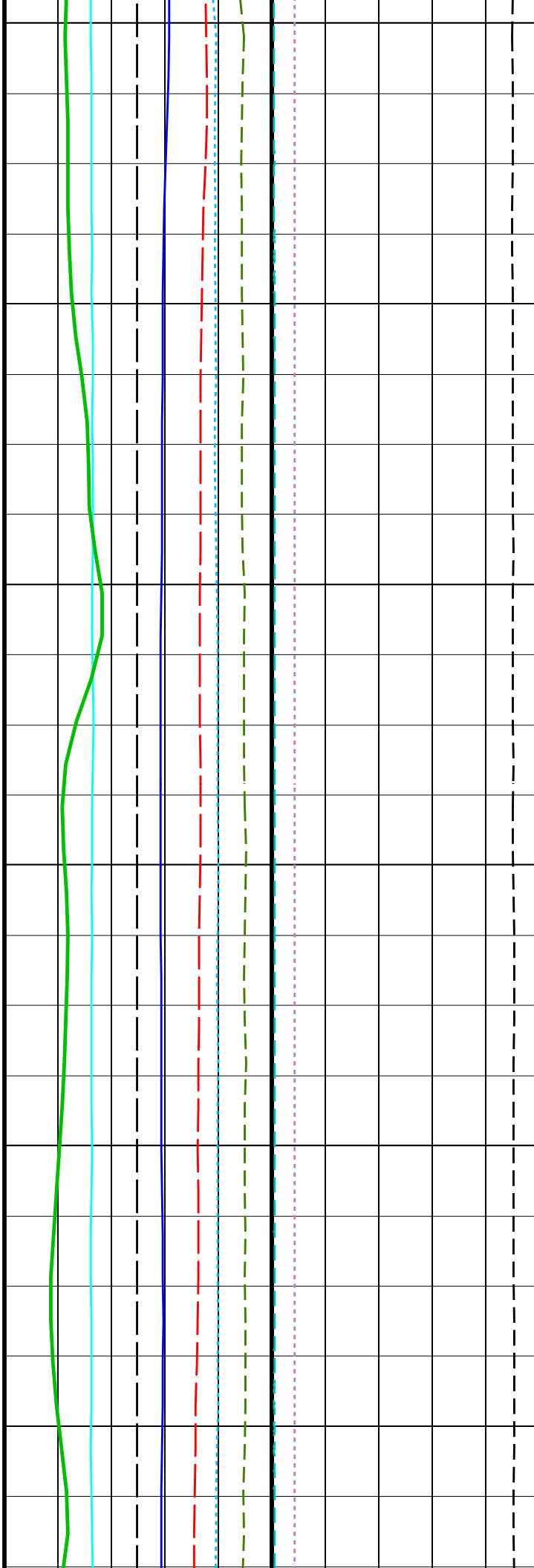
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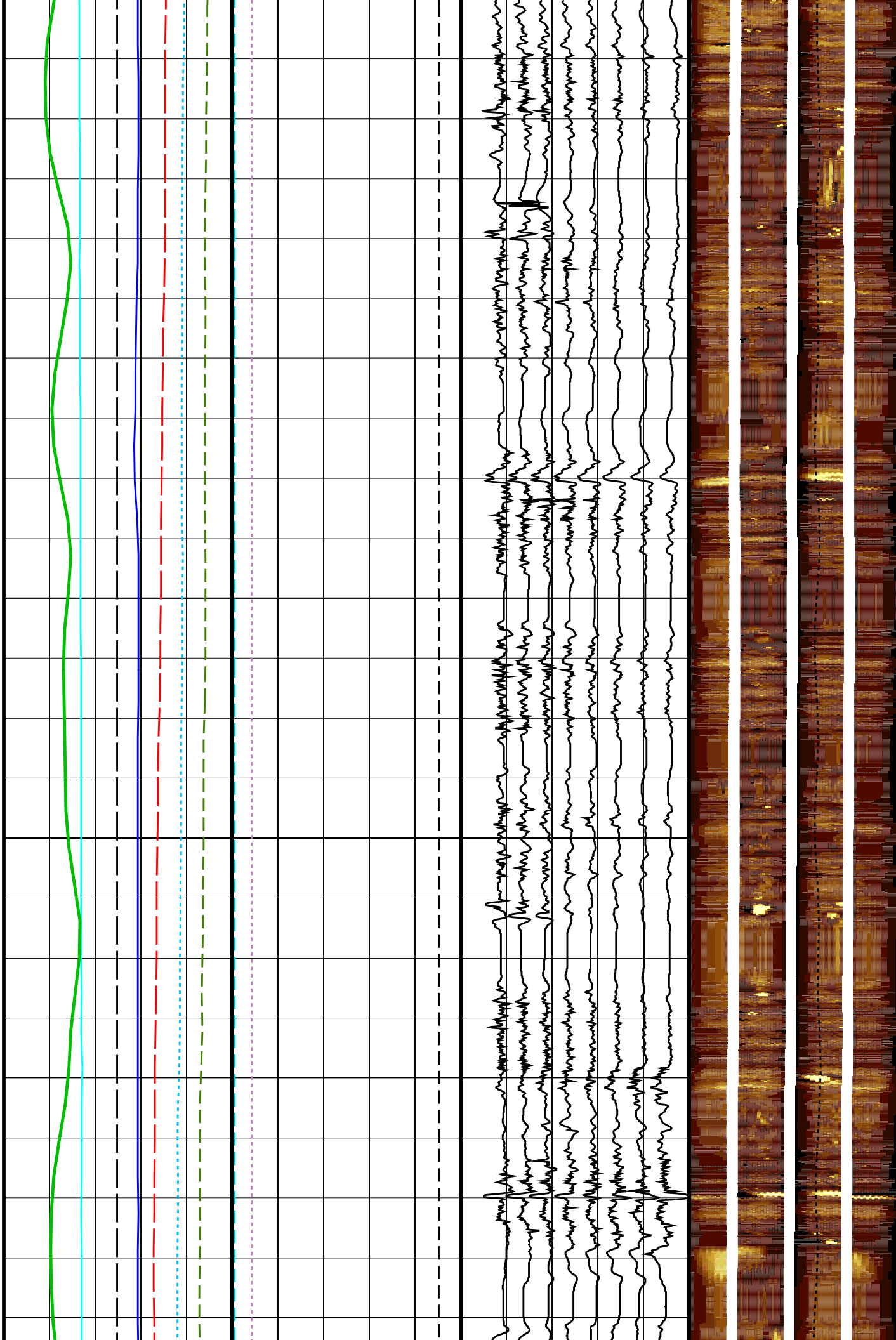
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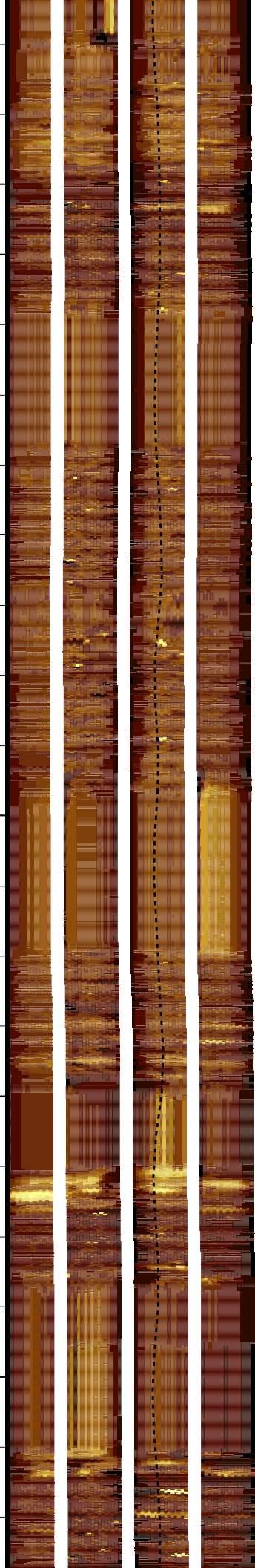
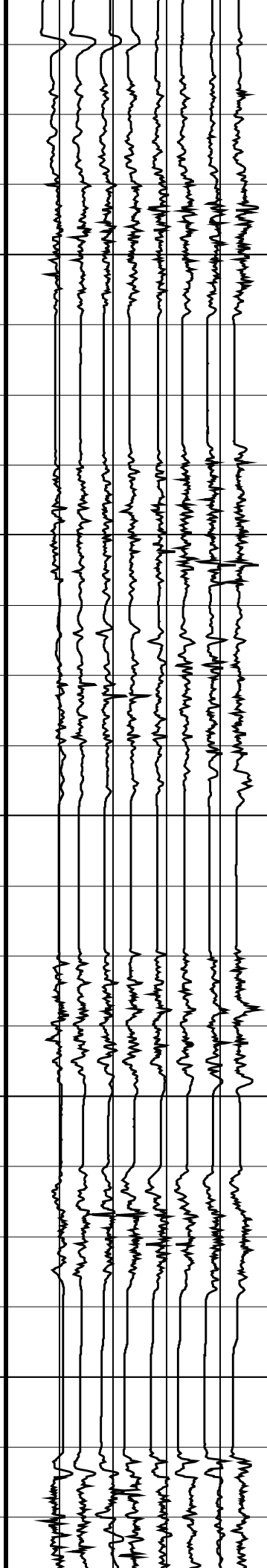
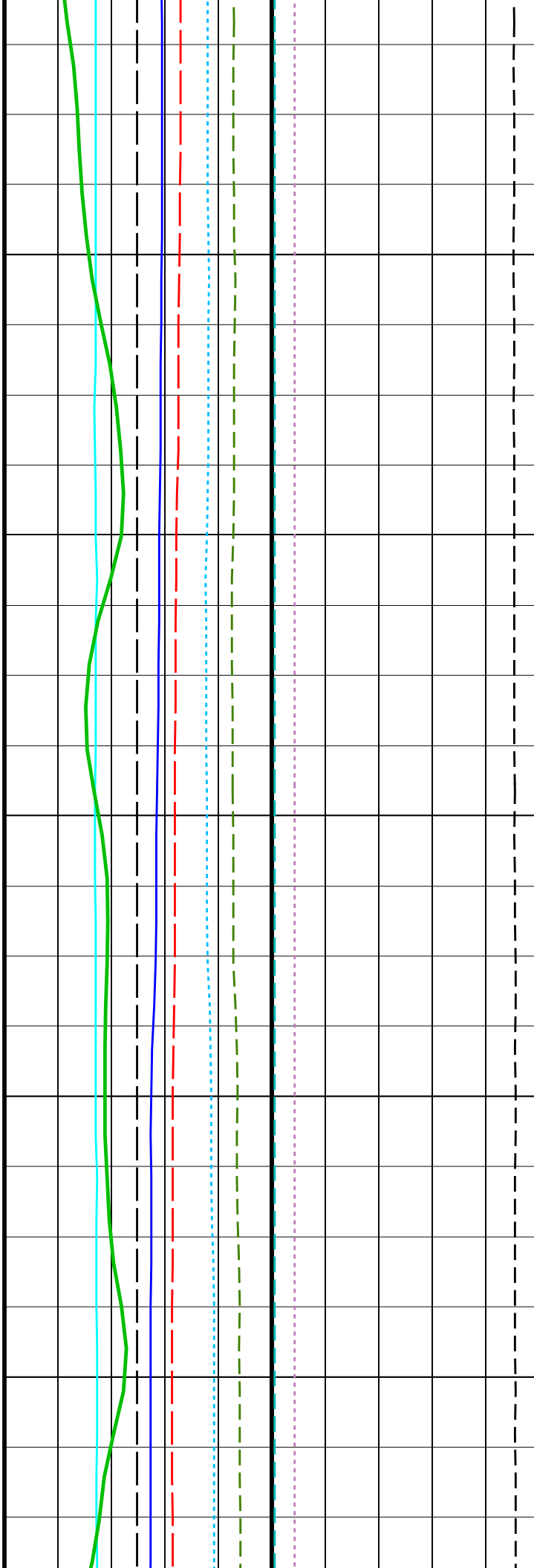
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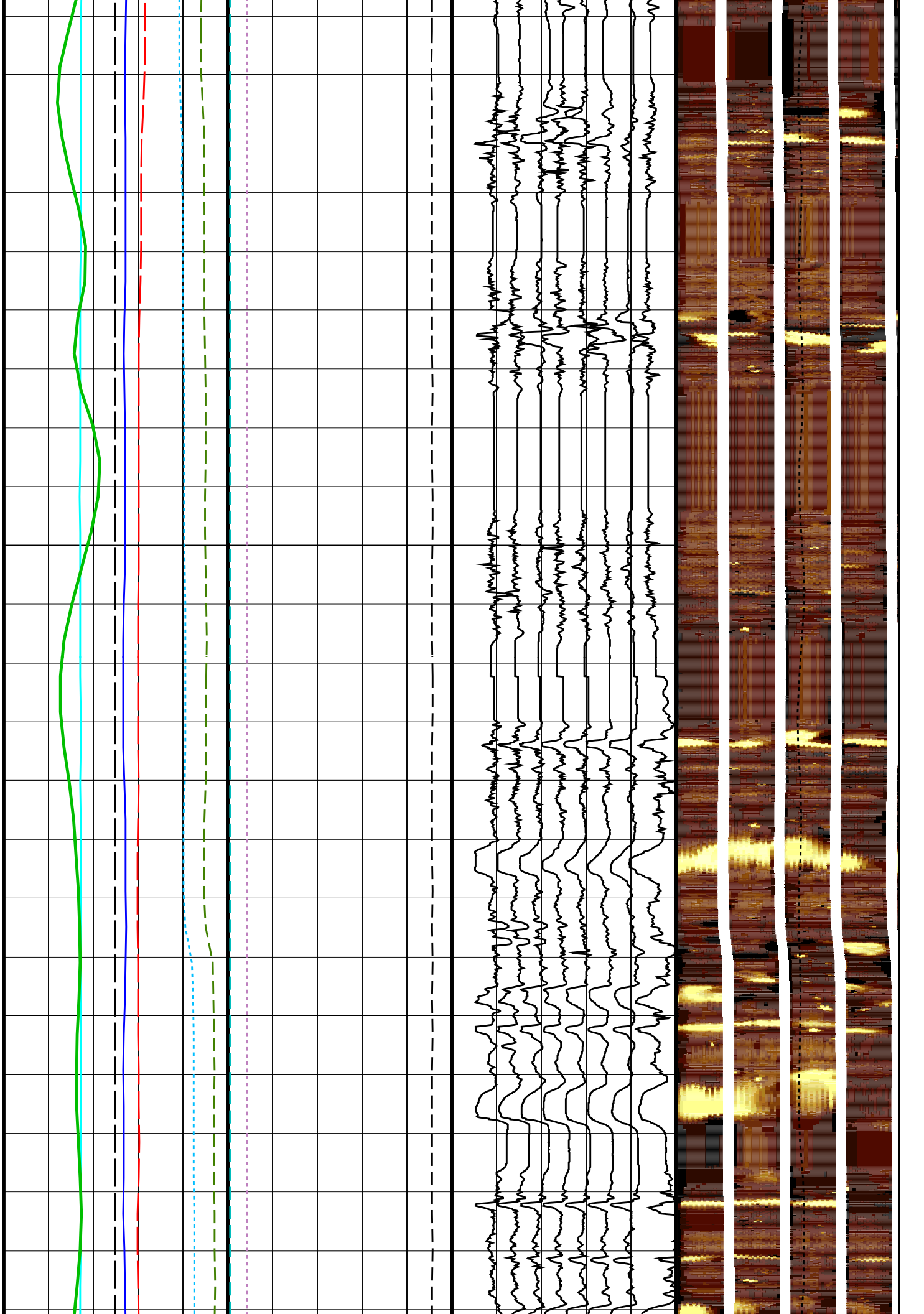
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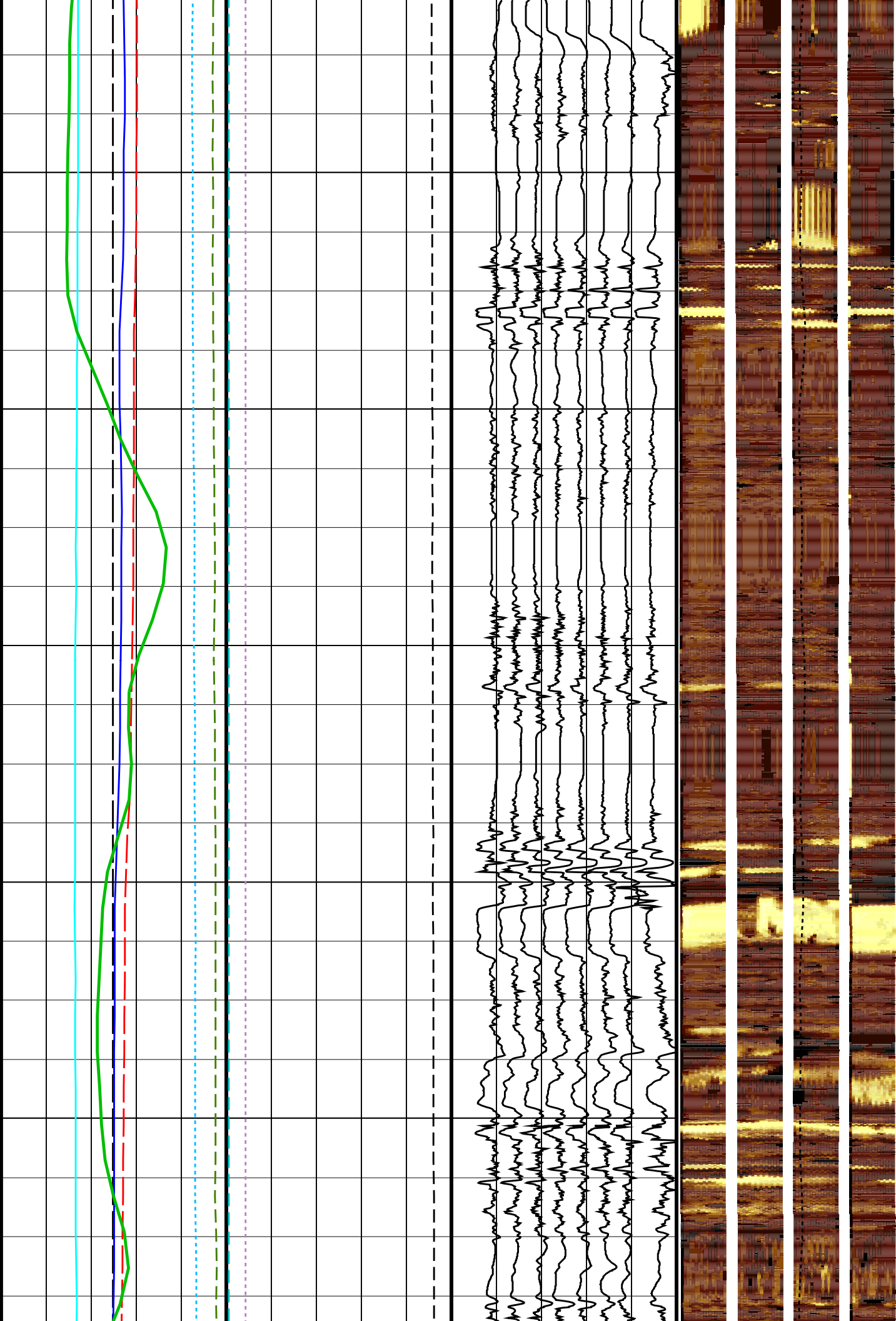
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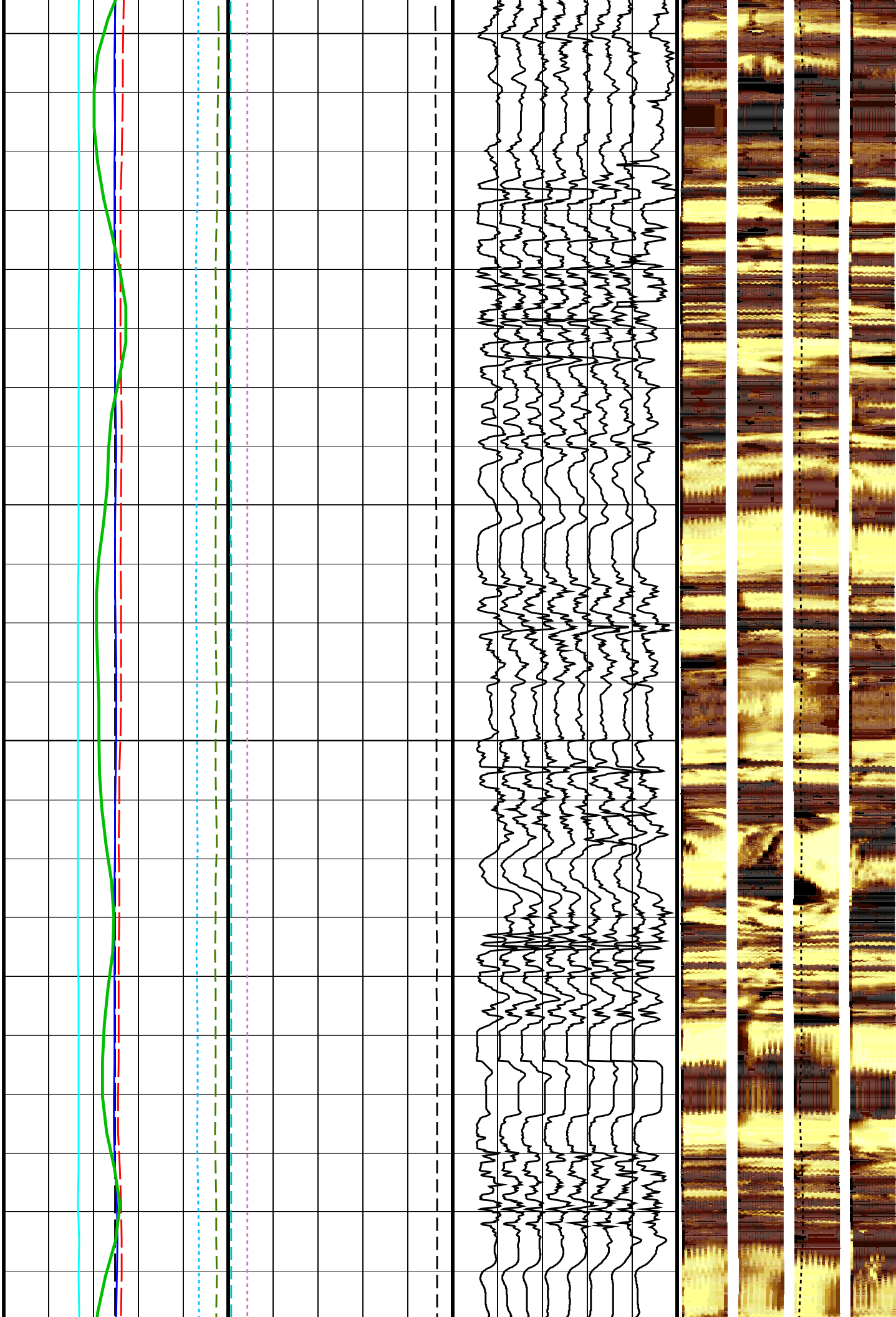
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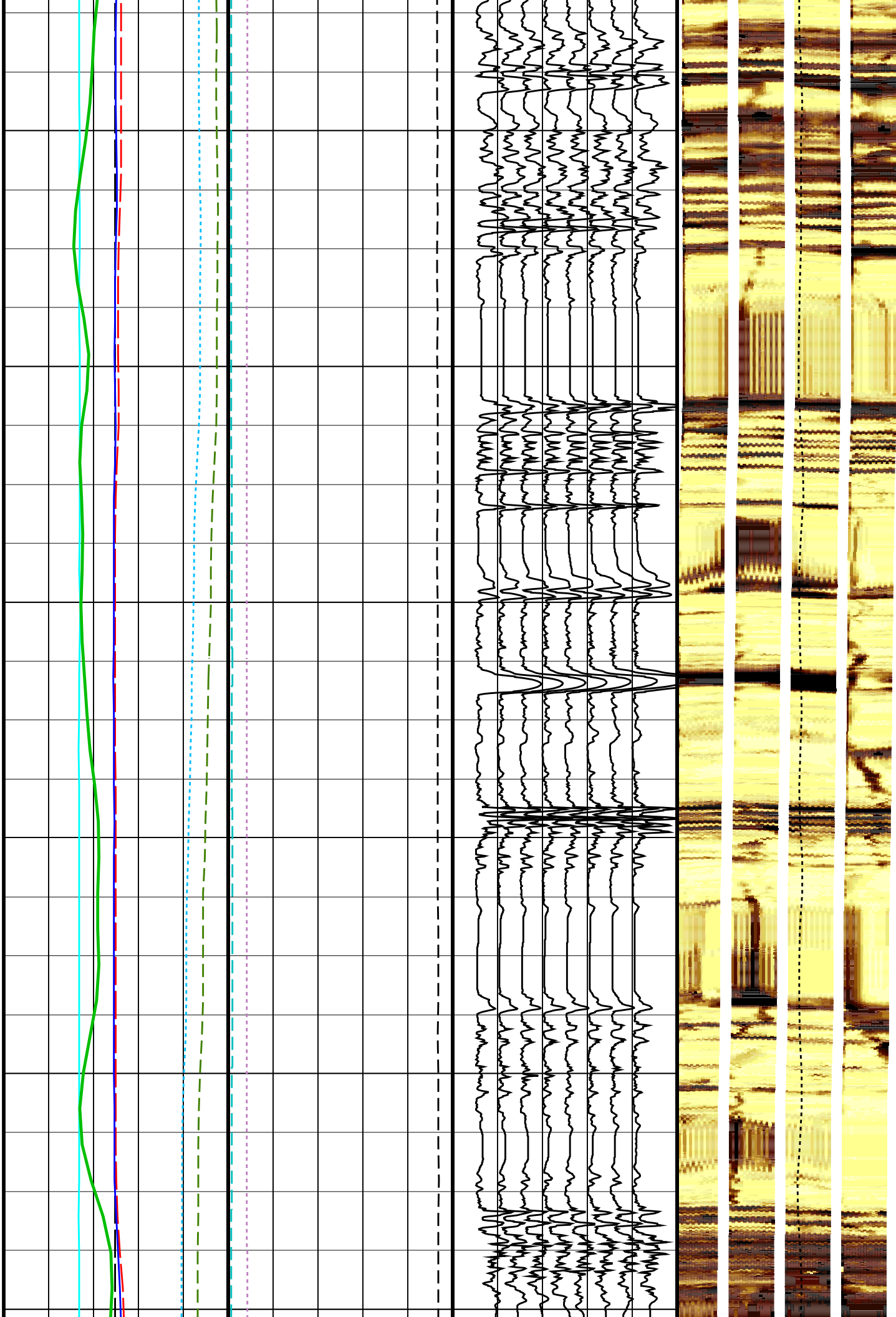
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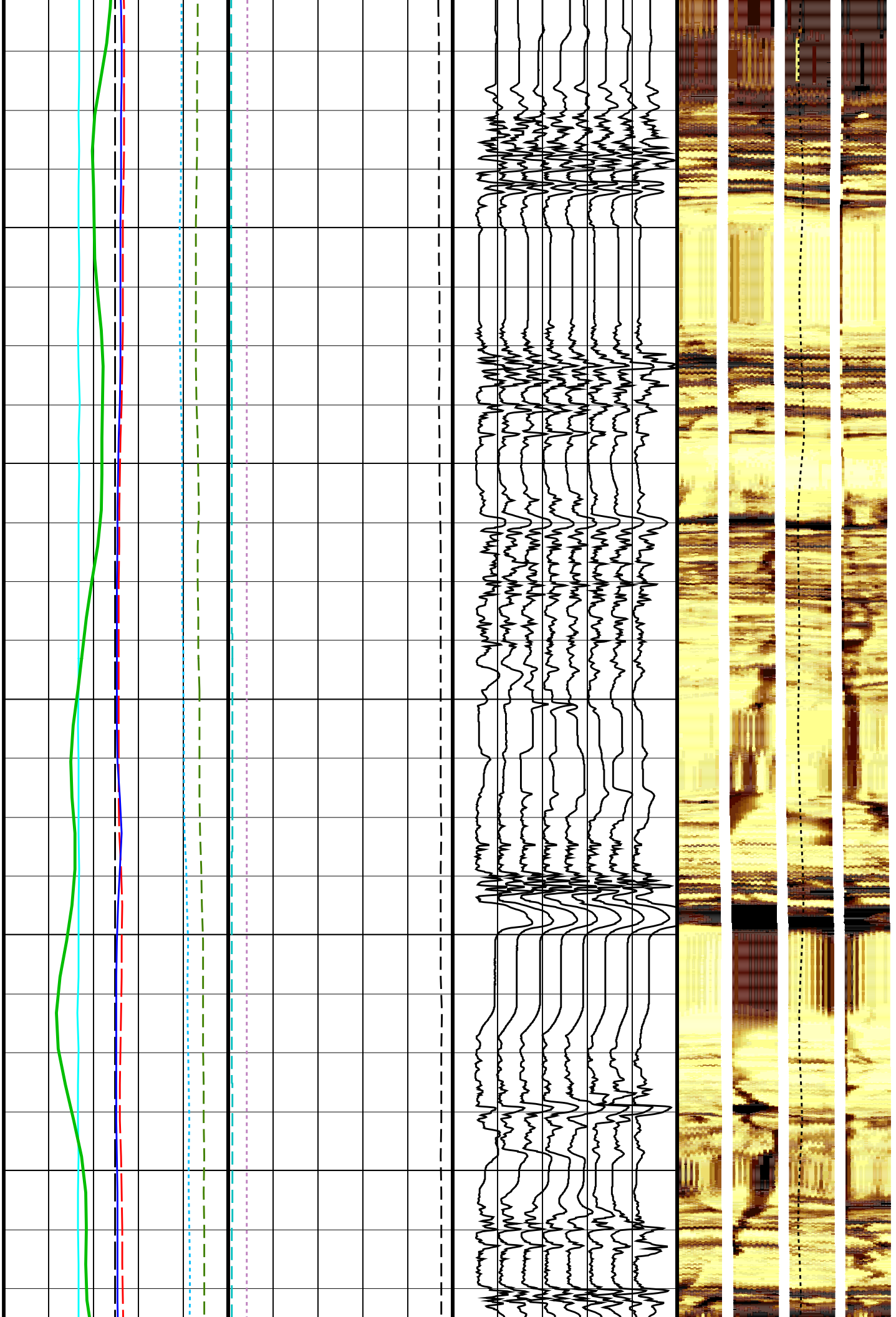
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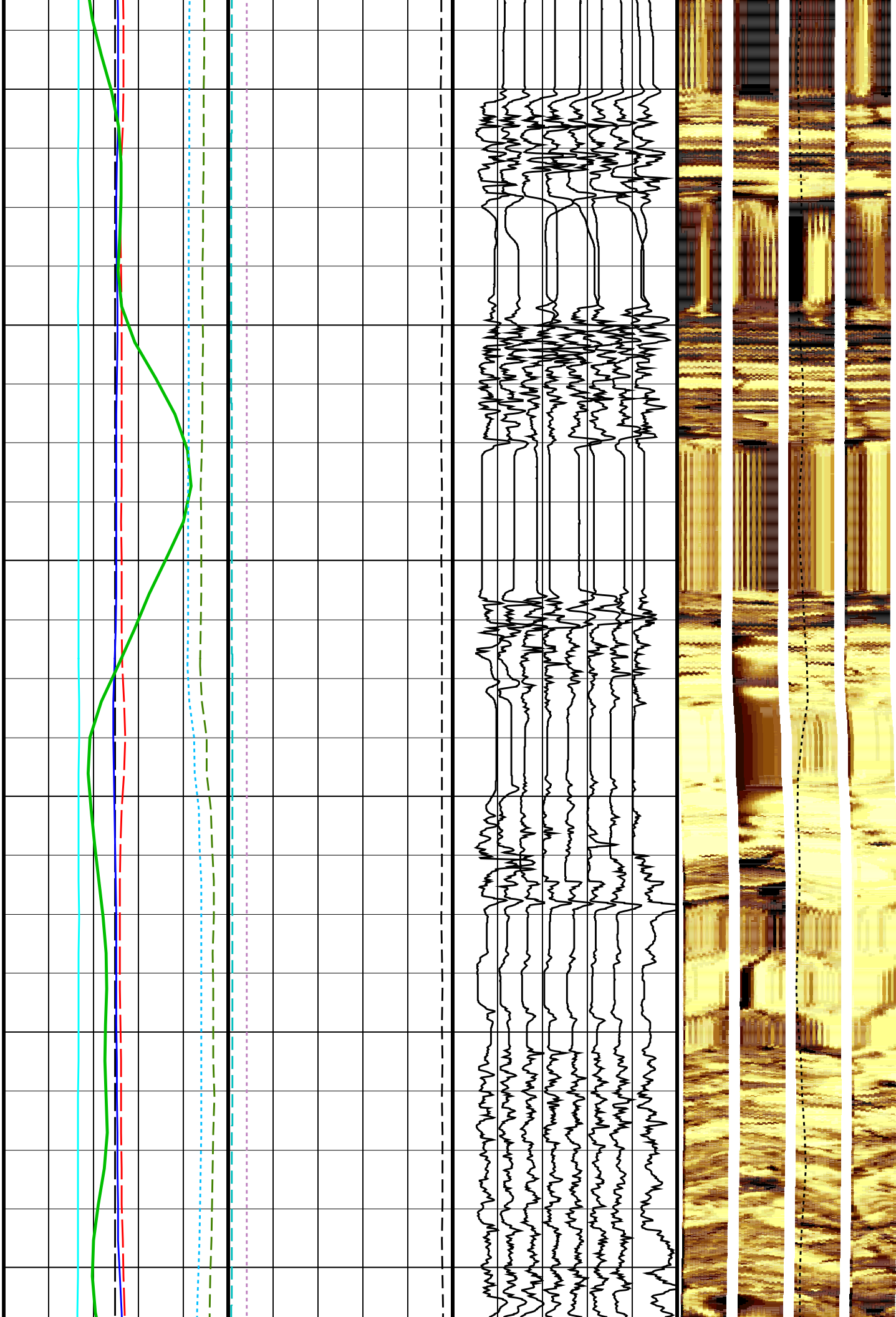
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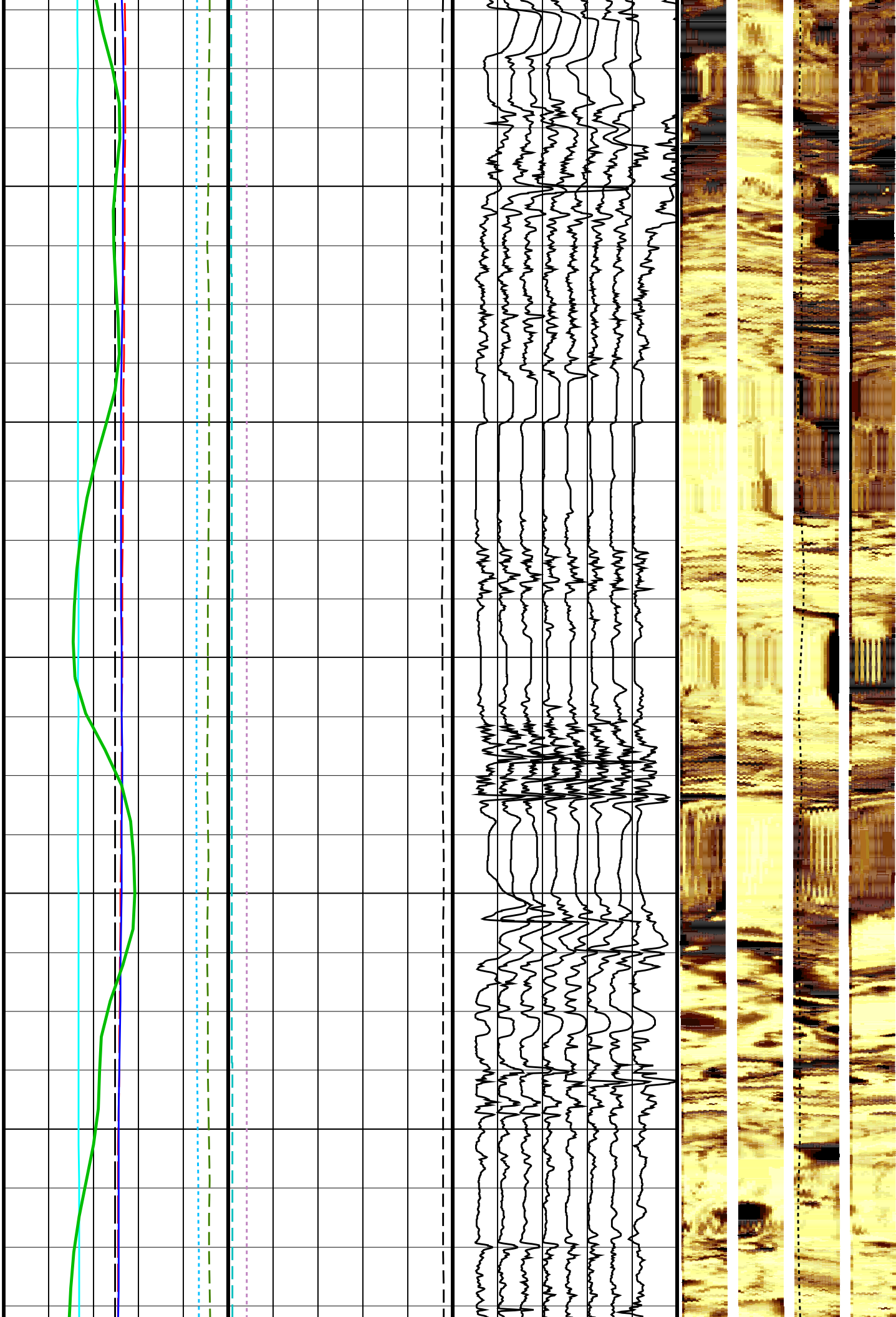
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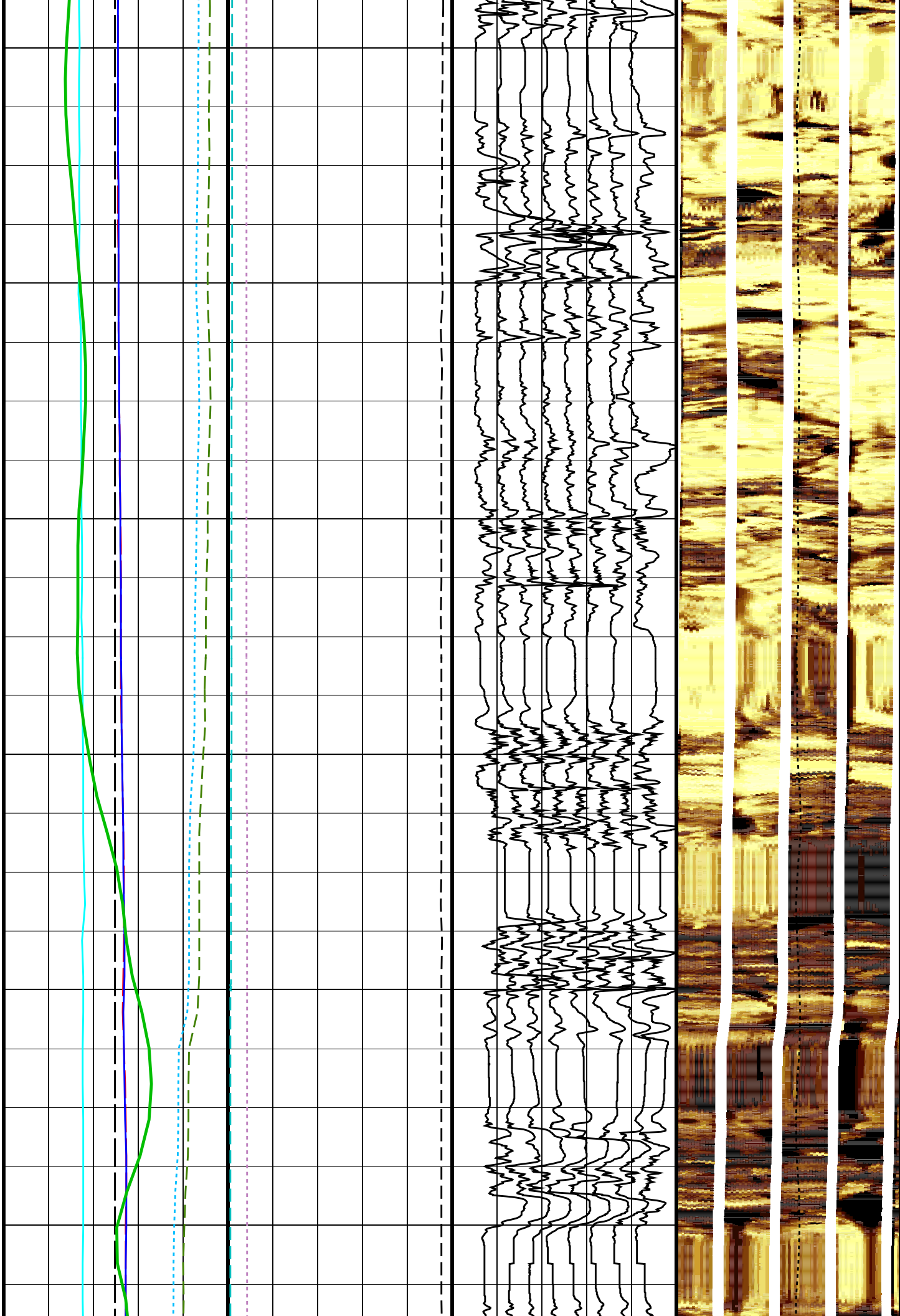
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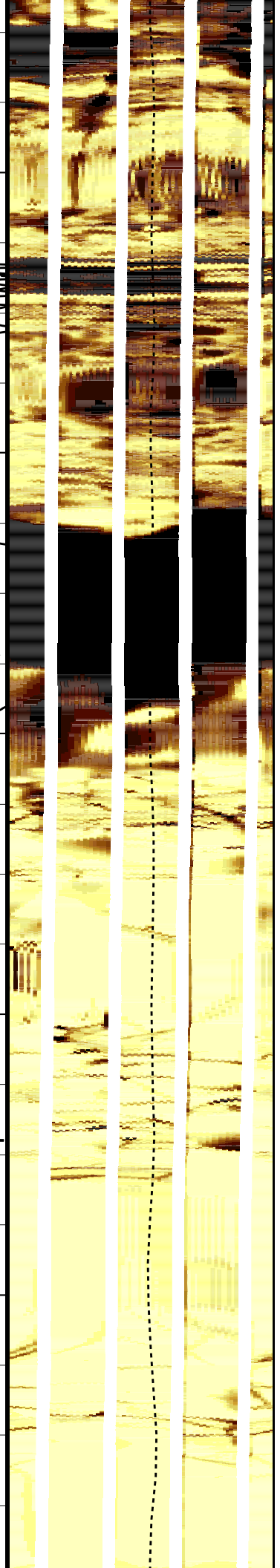
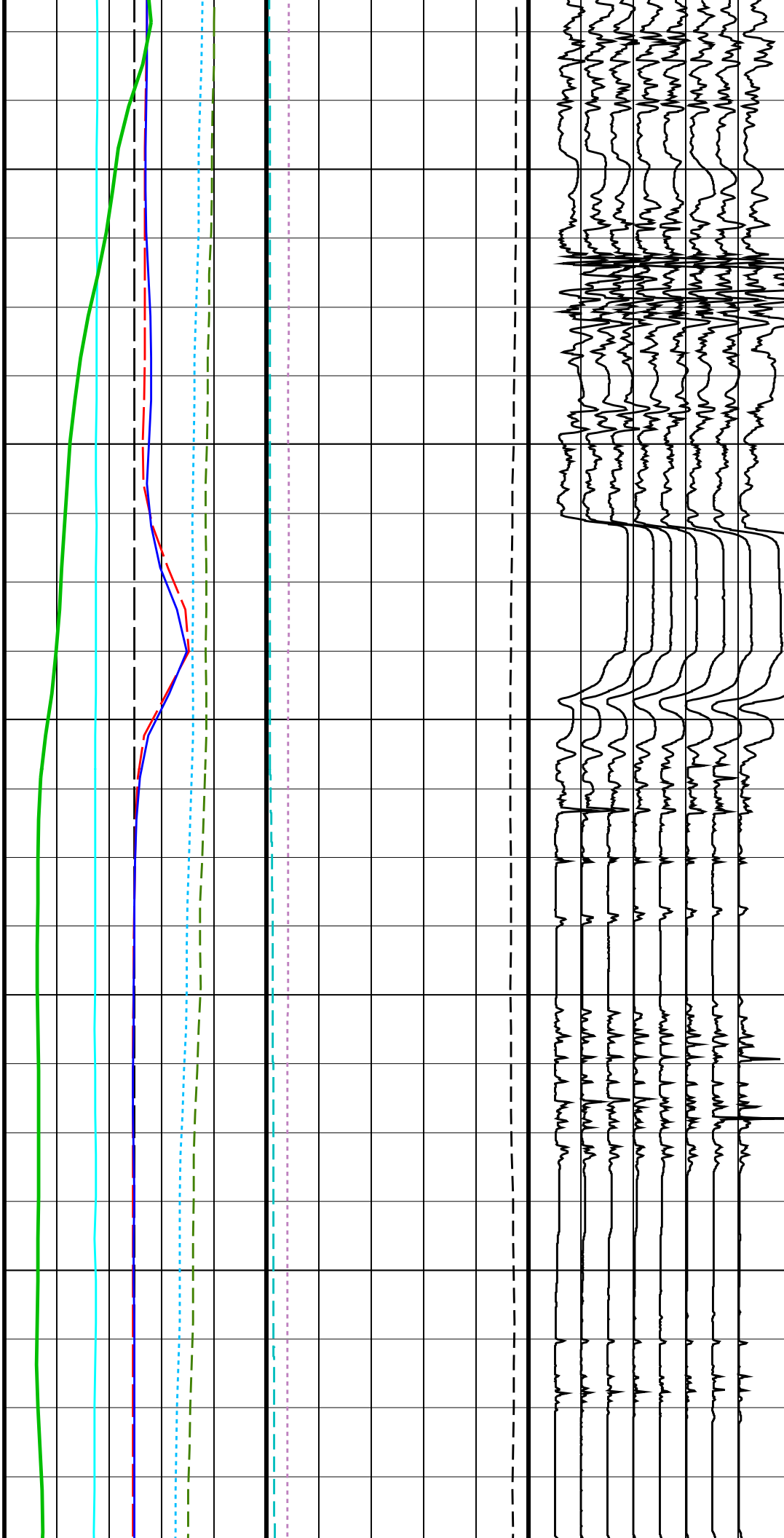
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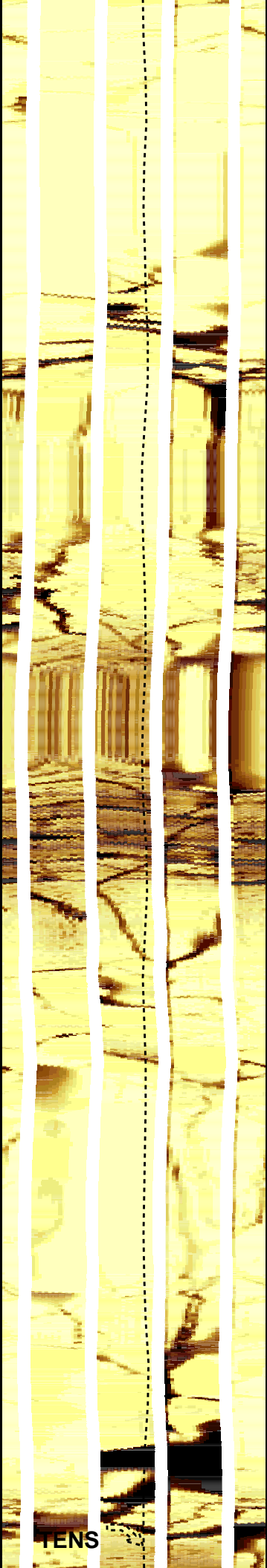
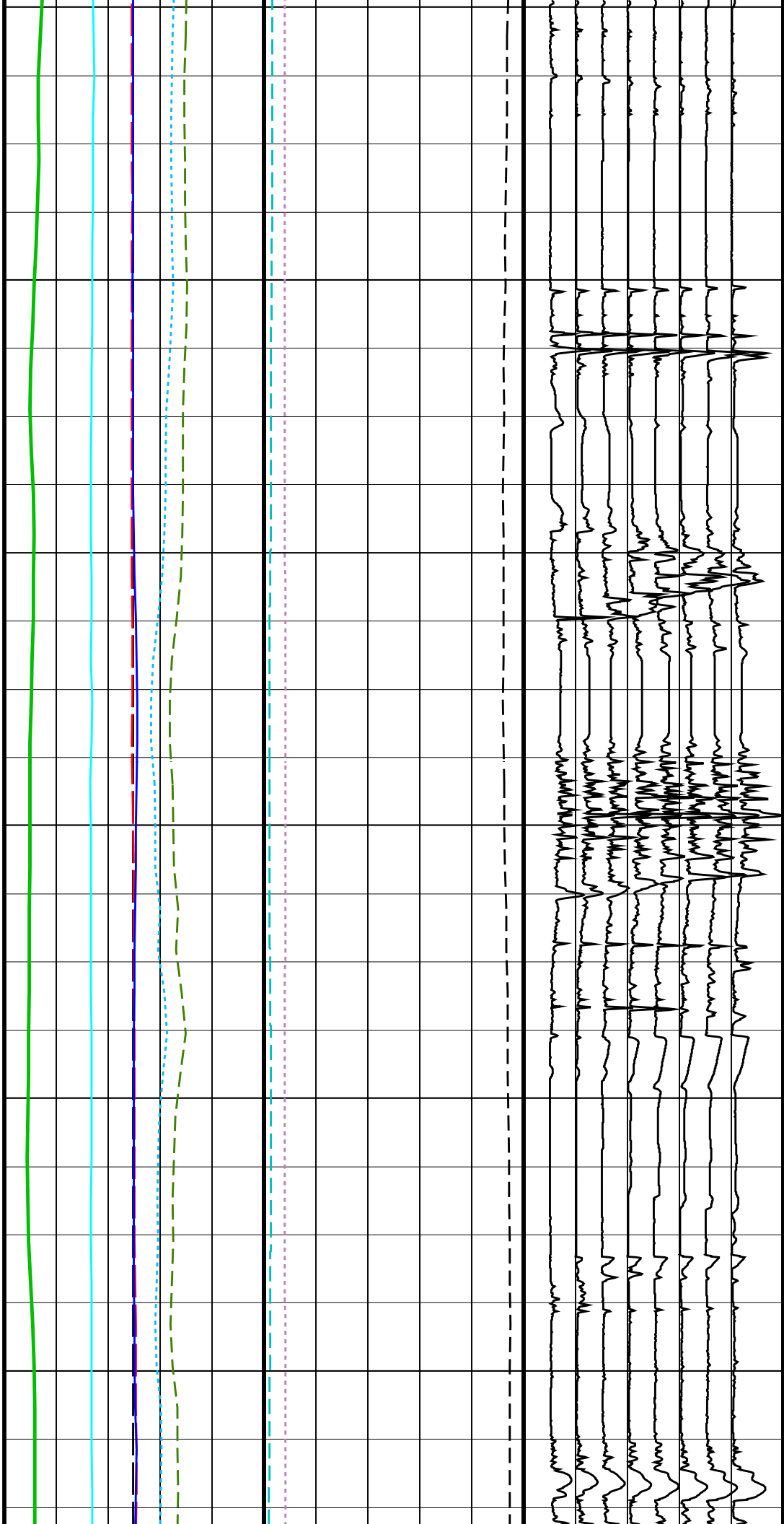
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TENS

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RB_MEST
P1AZ_MEST

HSGR

DEVIM

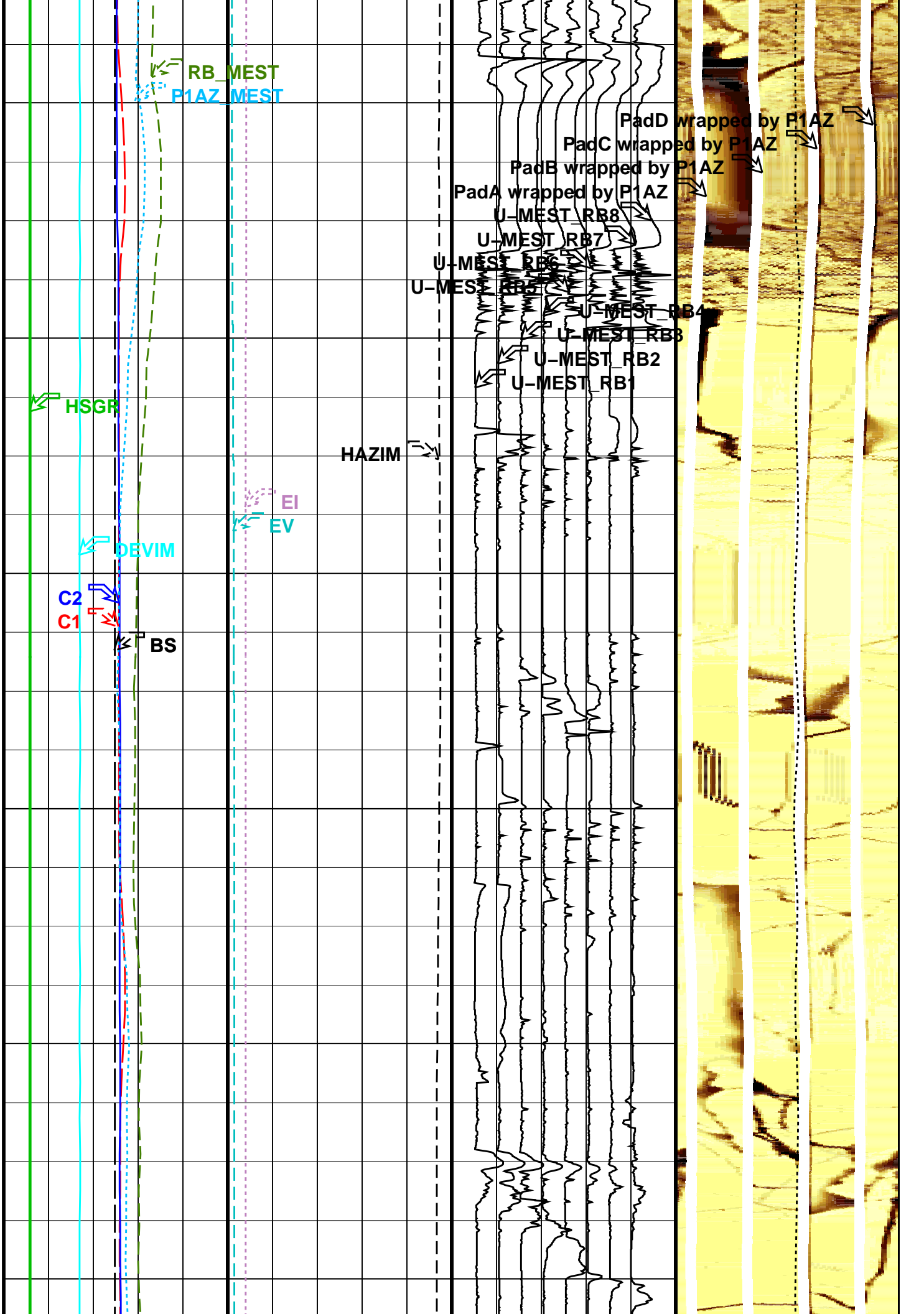
C2
C1

BS

EI
EV

HAZIM

PadD wrapped by P1AZ
PadC wrapped by P1AZ
PadB wrapped by P1AZ
PadA wrapped by P1AZ
U-MEST_RB8
U-MEST_RB7
U-MEST_RB6
U-MEST_RB5
U-MEST_RB4
U-MEST_RB3
U-MEST_RB2
U-MEST_RB1



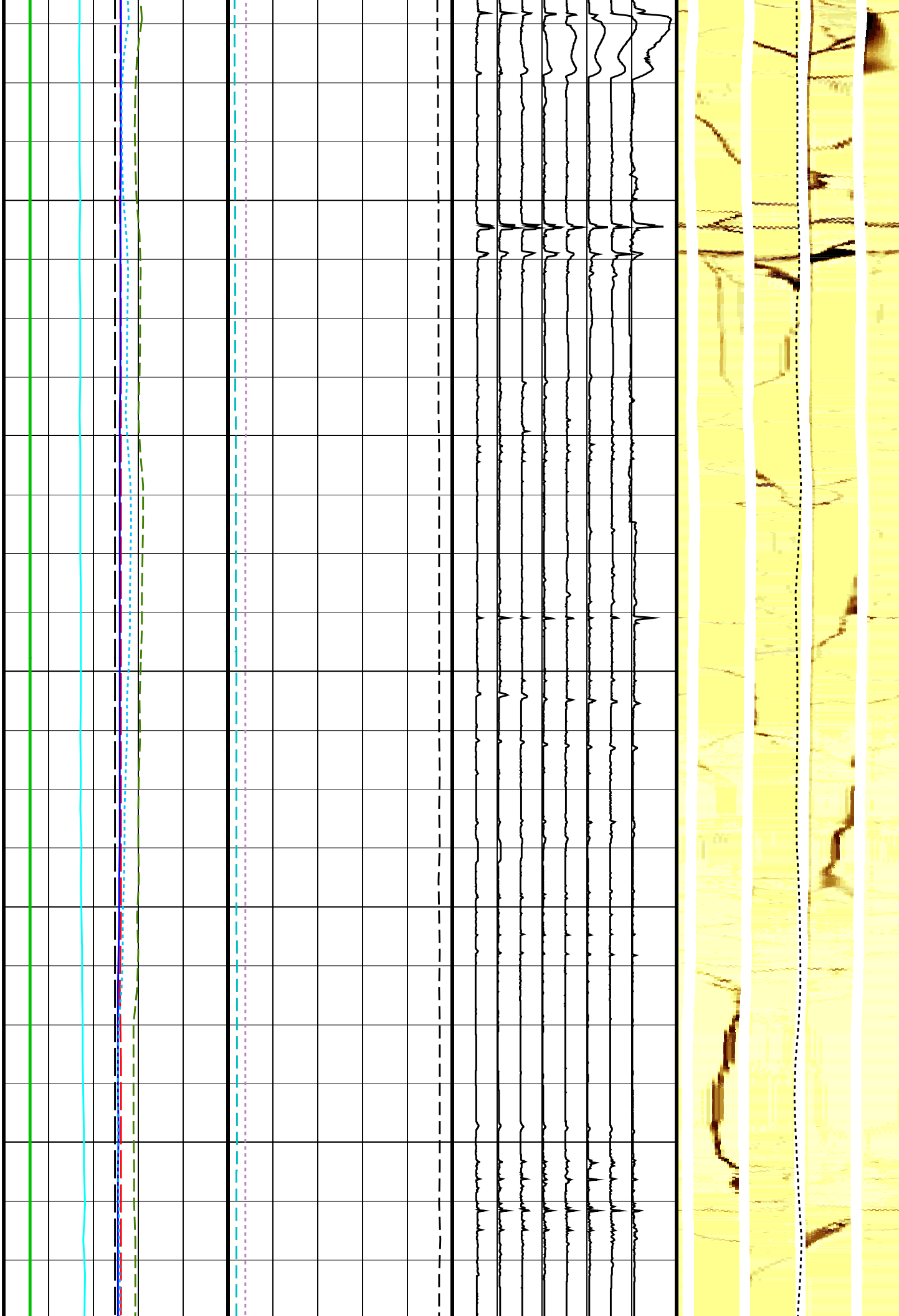
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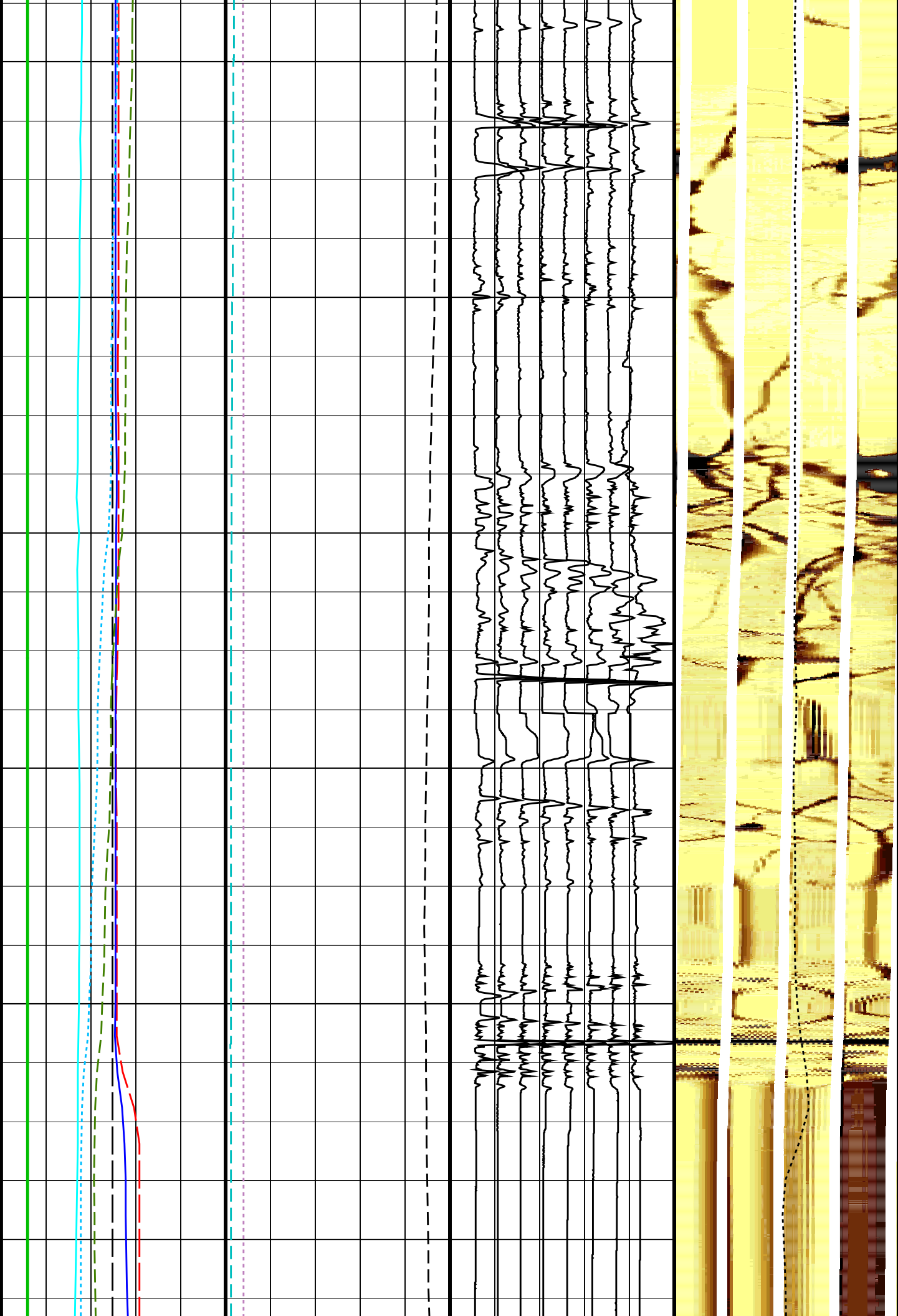
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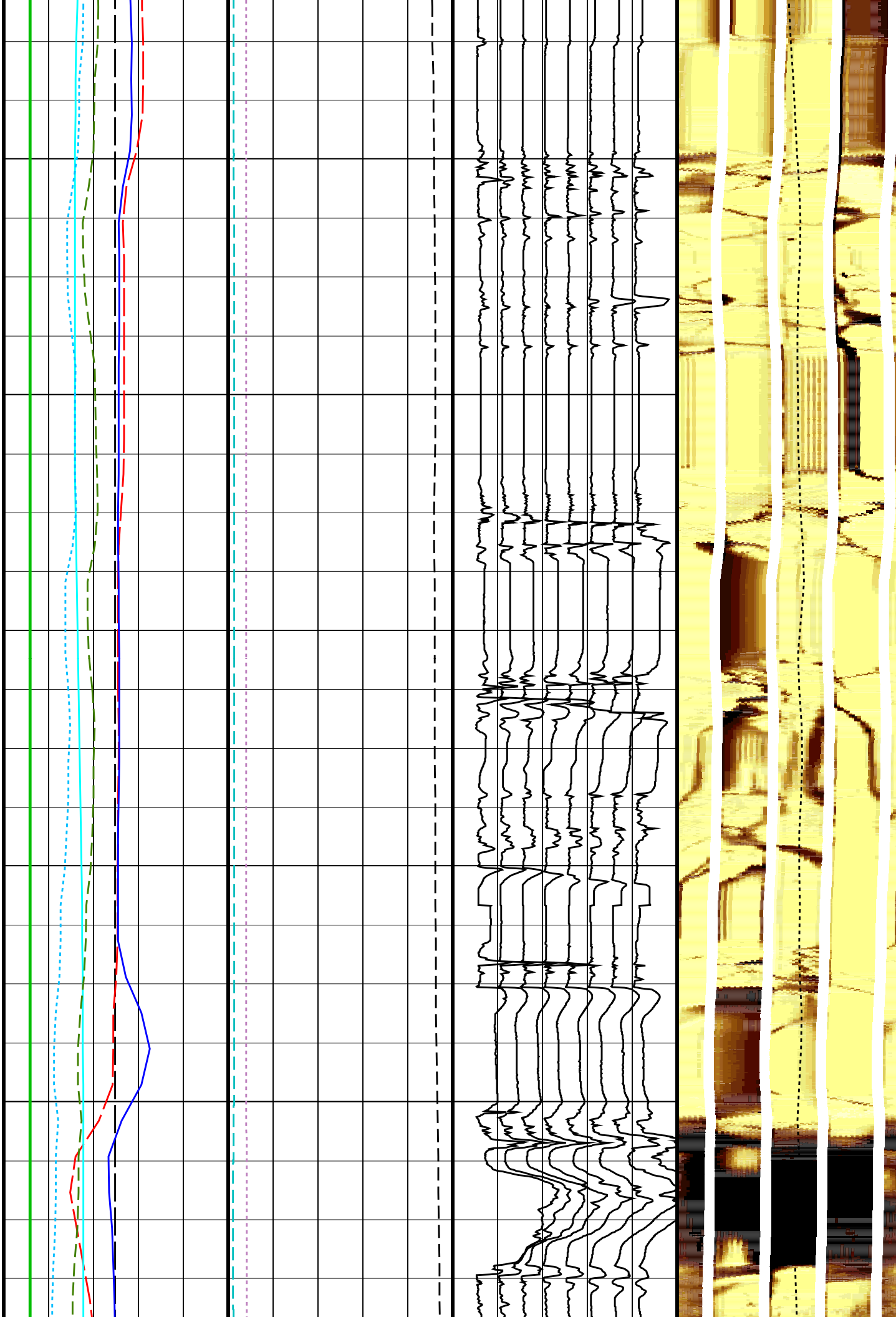
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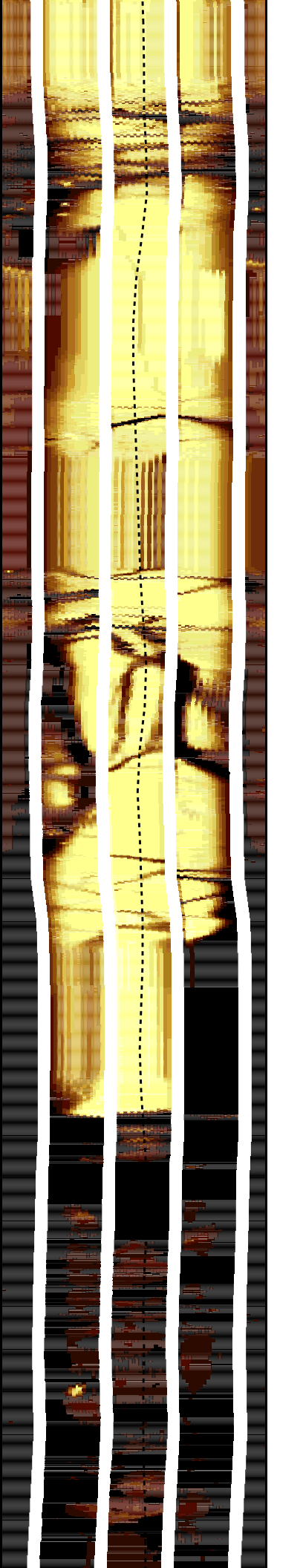
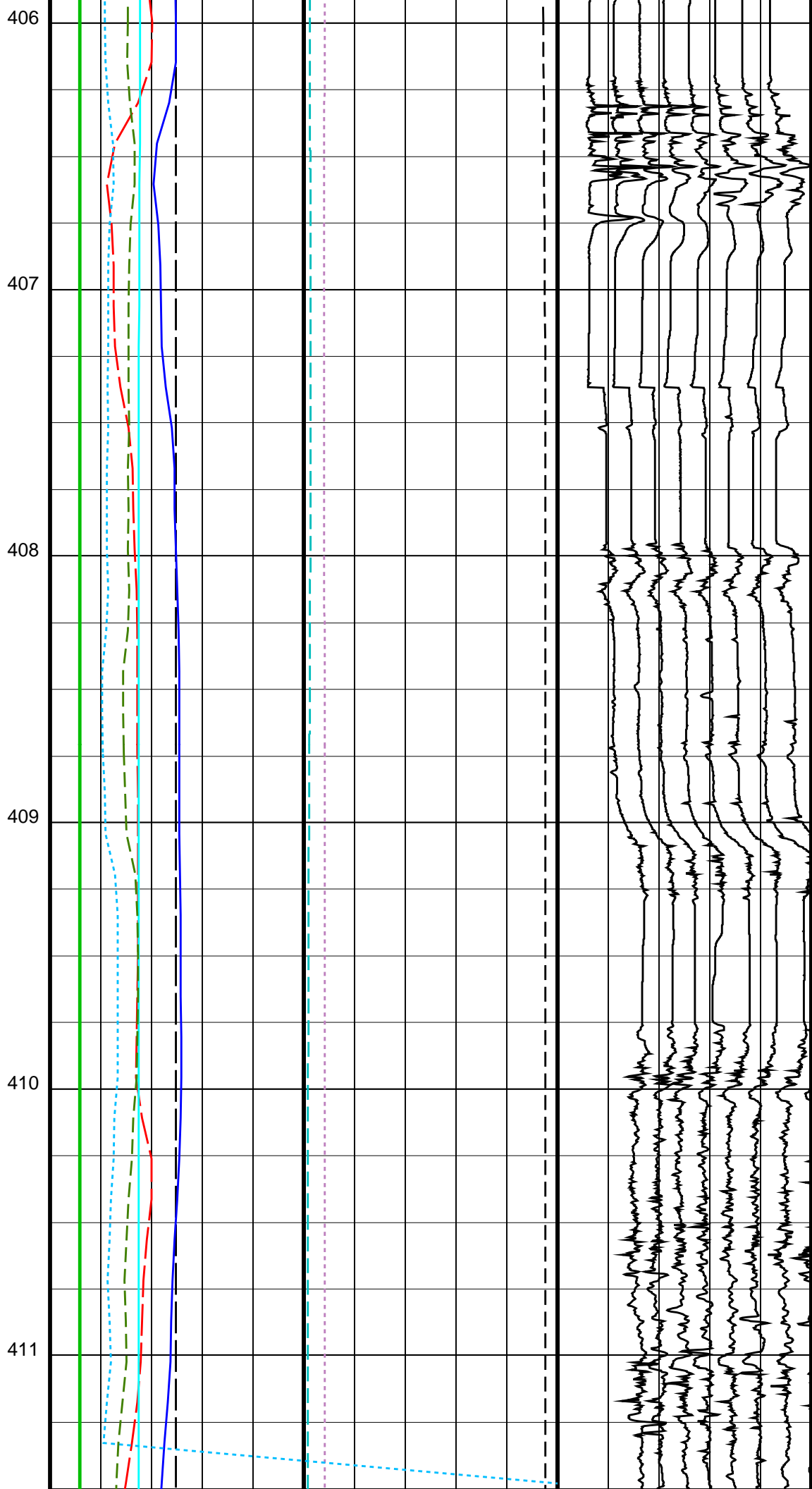
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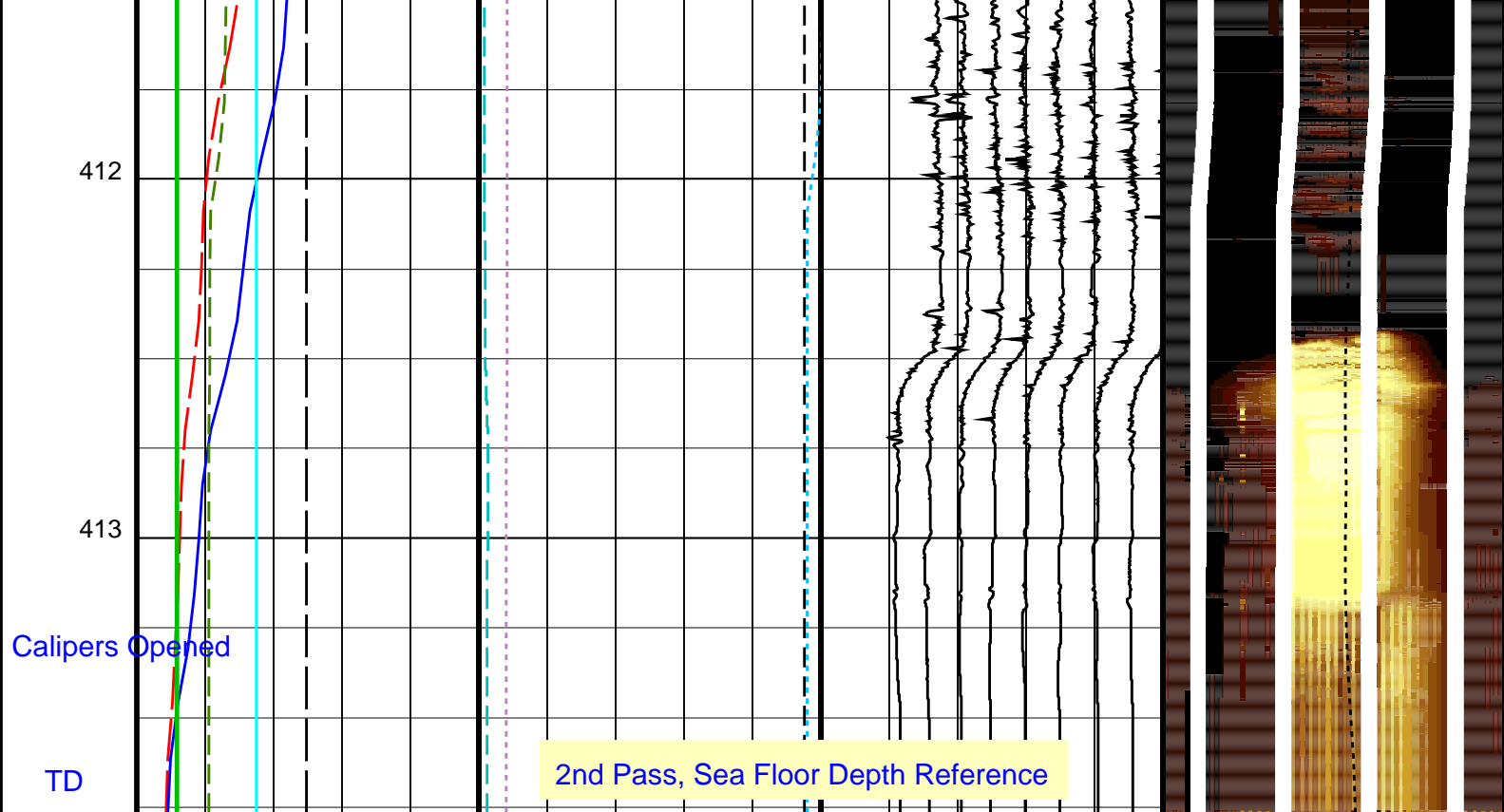
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Calipers Opened

TD

2nd Pass, Sea Floor Depth Reference

0	Bit Size (BS) (IN)	20	0	EMEX Voltage (EV) (V)	50	Data Button 1 - Varies with RBS (U-MEST_RB1) -10 (----) 90	Tension (TENS) (LBF)	10000	0
0	Caliper 1 (C1) (IN)	20	0	EMEX Intensity (EI) (AMPS)	10	Data Button 2 - Varies with RBS (U-MEST_RB2) -20 (----) 80	0.3776 1.8629 2.4571 2.9027 3.3482 3.6453 3.9424 4.2394 4.6850 5.1306 5.4277 6.0218 6.6159 7.6557 9.4517 12.4086	MEST_PADA (U-MEST_RESISTIVITY_PADA_DS) (----)	
0	Caliper 2 (C2) (IN)	20				Data Button 3 - Varies with RBS (U-MEST_RB3) -30 (----) 70	0.3776 1.8629 2.4571 2.9027 3.3482 3.6453 3.9424 4.2394 4.6850 5.1306 5.4277 6.0218 6.6159 7.6557 9.4517 12.4086	MEST_PADB (U-MEST_RESISTIVITY_PADB_DS) (----)	
0	Deviation (DEVIM) (DEG)	10				Data Button 4 - Varies with RBS (U-MEST_RB4) -40 (----) 60	0.3776 1.8629 2.4571 2.9027 3.3482 3.6453 3.9424 4.2394 4.6850 5.1306 5.4277 6.0218 6.6159 7.6557 9.4517 12.4086	MEST_PADC (U-MEST_RESISTIVITY_PADC_DS) (----)	
-40	Hole Azimuth (HAZIM) (DEG)	360				Data Button 5 - Varies with RBS (U-MEST_RB5) -50 (----) 50	0.3776 1.8629 2.4571 2.9027 3.3482 3.6453 3.9424 4.2394 4.6850 5.1306 5.4277 6.0218 6.6159 7.6557 9.4517 12.4086	MEST_PADD (U-MEST_RESISTIVITY_PADD_DS) (----)	
-40	Pad One Azimuth (P1AZ_MEST) (DEG)	360				Data Button 6 - Varies with RBS (U-MEST_RB6) -60 (----) 40			
-40	Relative Bearing (RB_MEST) (DEG)	360				Data Button 7 - Varies with RBS (U-MEST_RB7) -70 (----) 30			
0	HNGS Spectroscopy Gamma Ray (HSGR) (GAPI)	75				Data Button 8 - Varies with RBS (U-MEST_RB8) -80 (----) 20			

Parameters

DLIS Name	Description	Value	
MEST-B: Micro Electrical Scanner – B (Slim)			
AFMO	Accelerometer Filtering Mode	MOVING_AVERAGE	
ICMO	Inclinometry Computation Mode	AUTOMATIC_SELECTION	
MDEC	Magnetic Field Declination	-0.785252	DEG
MLM	MEST Logging Mode	SCAN1800	
RBS	Resistivity Button Selection	AUTO	
XGAI	Gain	GAIN_2	
XOFF	Offset	OFFSET_0	
DSST-B: Dipole Shear Imager – B			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	BS	
HNGS-BA: Hostile Natural Gamma Ray Sonde			
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	BS	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	-0.00624076	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
TPOS	Tool Position	CENT	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.35495	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.05547	
EDTC-B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	BS	
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.02	G/C3
DO	Depth Offset for Playback	-2469.0	M
PP	Playback Processing	NORMAL	

Format: MEST_C_WRAP_BY_P1AZ Vertical Scale: 1:20 Graphics File Created: 10-Dec-2012 20:54

OP System Version: 19C0-187

MEST-B	19C0-187	DTA-A	19C0-187
DSST-B	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	EDTC-B	SKK-5169-EDTCB

Input DLIS Files

DEFAULT	FMS_DSI_NGS_036LUP	FN:50	PRODUCER	10-Dec-2012 15:20	2882.6 M	2462.5 M
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Output DLIS Files

DEFAULT	FMS_DSI_NGS_043PUP	FN:63	PRODUCER	10-Dec-2012 20:54
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Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
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Micro Electrical Scanner – B (Slim) Wellsite Calibration – Caliper Calibration

Before: 6-Dec-2012 2:43

Caliper 1 Zero Measurement	12.00	N/A	12.82	N/A	N/A	N/A	IN
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Caliper 2 Zero Measurement	12.00	N/A	12.62	N/A	N/A	N/A	IN
Caliper 1 Plus Measurement	15.19	N/A	15.87	N/A	N/A	N/A	IN
Caliper 2 Plus Measurement	15.19	N/A	15.71	N/A	N/A	N/A	IN

Micro Electrical Scanner – B (Slim) Wellsite Calibration – CROUZET ACCELEROMETER PROM HAS BEEN READ CORRECTLY

Before: 10-Dec-2012 12:24

TEMPERATURE REFERENCE :	N/A	N/A	20	N/A	N/A	N/A	DEGC
YEAR OF CALIBRATION :	N/A	N/A	99	N/A	N/A	N/A	
MONTH OF CALIBRATION :	N/A	N/A	3	N/A	N/A	N/A	
SERIAL NUMBER :	N/A	N/A	743	N/A	N/A	N/A	

Micro Electrical Scanner – B (Slim) Wellsite Calibration – CROUZET MAGNETOMETER PROM HAS BEEN READ CORRECTLY

Before: 10-Dec-2012 12:24

TEMPERATURE REFERENCE :	N/A	N/A	23	N/A	N/A	N/A	DEGC
YEAR OF CALIBRATION :	N/A	N/A	3	N/A	N/A	N/A	
MONTH OF CALIBRATION :	N/A	N/A	9	N/A	N/A	N/A	
SERIAL NUMBER :	N/A	N/A	507	N/A	N/A	N/A	

Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 1 Check

Master: 9-Dec-2012 2:05 Before: 9-Dec-2012 2:13

Na 511 Peak Loc	40.00	39.52	39.56	N/A	N/A	1.000	
Na 511 Peak Res	15.50	16.12	15.91	N/A	N/A	2.000	%
High Voltage	1150	1182	1182	N/A	N/A	N/A	V
Na 1785 Peak Loc	142.6	142.4	141.8	N/A	N/A	7.000	
Na 1785 Peak Res	8.500	9.181	9.123	N/A	N/A	2.000	%
Temperature	15.50	31.95	31.97	N/A	N/A	N/A	DEGC
Na Count Rate	45.00	16.45	16.74	N/A	N/A	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 2 Check

Master: 9-Dec-2012 2:05 Before: 9-Dec-2012 2:13

Na 511 Peak Loc	40.00	39.48	39.56	N/A	N/A	1.000	
Na 511 Peak Res	15.50	15.87	16.16	N/A	N/A	2.000	%
High Voltage	1150	1114	1115	N/A	N/A	N/A	V
Na 1785 Peak Loc	142.6	142.4	141.9	N/A	N/A	7.000	
Na 1785 Peak Res	8.500	9.230	9.385	N/A	N/A	2.000	%
Temperature	15.50	32.68	32.75	N/A	N/A	N/A	DEGC
Na Count Rate	45.00	16.90	17.23	N/A	N/A	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration – Ratio Of Detector 1 To Detector 2

Master: 9-Dec-2012 2:05 Before: 9-Dec-2012 2:13

Coincidence Count Rate Ratio	1.000	0.9742	0.9644	N/A	N/A	0.05000	
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Hostile Natural Gamma Ray Sonde Master Calibration – Detector 1 Calibration

Master: 9-Dec-2012 1:59

Na 511 Peak Set Point	40.00	41.00	---	---	---	---	
Th Peak Loc	209.6	210.5	---	---	---	---	
Th Peak Res	7.000	7.000	---	---	---	---	%
Background Count Rate	142.5	17.93	---	---	---	---	CPS
Gain Ratio	1.000	1.013	---	---	---	---	

Hostile Natural Gamma Ray Sonde Master Calibration – Detector 2 Calibration

Master: 9-Dec-2012 1:59

Na 511 Peak Set Point	40.00	41.00	---	---	---	---	
Th Peak Loc	209.6	209.2	---	---	---	---	
Th Peak Res	7.000	7.038	---	---	---	---	%
Background Count Rate	142.5	18.43	---	---	---	---	CPS
Gain Ratio	1.000	1.008	---	---	---	---	

Enhanced DTS Cartridge Wellsite Calibration – EDTC Accelerometer Calibration

Before: 10-Dec-2012 0:38

EDTC Z-Axis Acceleration	9.810	N/A	9.816	N/A	N/A	N/A	M/S2
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Enhanced DTS Cartridge Wellsite Calibration – Detector Calibration

Before: 9-Dec-2012 2:15

Gamma Ray (Jig – Bkg)	162.4	N/A	162.4	N/A	N/A	14.77	GAPI
Gamma Ray (Calibrated)	164.0	N/A	164.0	N/A	N/A	15.00	GAPI

Micro Electrical Scanner – B (Slim) / Equipment Identification

Primary Equipment:

MEST Sonde – B	MEDS – B	724
MEST Preamplifier Cartridge – AB	MEPC – AB	807
GPIT Cartridge – AC	GPIC – AC	719
MEST Acquisition Cartridge – A	MEAC – A	875

Auxiliary Equipment:

MEST-B Preamplifier Cartridge Housing	MEPH – A	702
MEST Acquisition Cartridge Housing (Slim)	MEAH – B	769

Hostile Natural Gamma Ray Cartridge – B / Equipment Identification

Primary Equipment: HNGC Cartridge	HNGC – B	300
Auxiliary Equipment: HNGC Housing	HNGH – A	115

Hostile Natural Gamma Ray Sonde / Equipment Identification

Primary Equipment: HNGS Sonde	HNGS – BA	194
Auxiliary Equipment: HNGS Sonde Housing Gamma Source Radioactive	HNSH – BA GSR – U	205 616008

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Detector 1 Check

Phase	Na 511 Peak Loc	Value	Phase	Na 511 Peak Res %	Value	Phase	High Voltage V	Value
Master		39.52	Master		16.12	Master		1182
Before		39.56	Before		15.91	Before		1182
	37.50 (Minimum) 40.00 (Nominal) 43.50 (Maximum)			12.00 (Minimum) 15.50 (Nominal) 19.00 (Maximum)			900.0 (Minimum) 1150 (Nominal) 1600 (Maximum)	
Phase	Na 1785 Peak Loc	Value	Phase	Na 1785 Peak Res %	Value	Phase	Temperature DEGC	Value
Master		142.4	Master		9.181	Master		31.95
Before		141.8	Before		9.123	Before		31.97
	135.0 (Minimum) 142.6 (Nominal) 150.3 (Maximum)			7.000 (Minimum) 8.500 (Nominal) 11.00 (Maximum)			-28.89 (Minimum) 15.50 (Nominal) 60.00 (Maximum)	
Phase	Na Count Rate CPS	Value						
Master		16.45						
Before		16.74						
	10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)							

Master: 9-Dec-2012 2:05

Before: 9-Dec-2012 2:13

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Detector 2 Check

Phase	Na 511 Peak Loc	Value	Phase	Na 511 Peak Res %	Value	Phase	High Voltage V	Value
Master		39.48	Master		15.87	Master		1114
Before		39.56	Before		16.16	Before		1115
	37.50 (Minimum) 40.00 (Nominal) 43.50 (Maximum)			12.00 (Minimum) 15.50 (Nominal) 19.00 (Maximum)			900.0 (Minimum) 1150 (Nominal) 1600 (Maximum)	
Phase	Na 1785 Peak Loc	Value	Phase	Na 1785 Peak Res %	Value	Phase	Temperature DEGC	Value
Master		142.4	Master		9.230	Master		32.68
Before		141.9	Before		9.385	Before		32.75
	135.0 (Minimum) 142.6 (Nominal) 150.3 (Maximum)			7.000 (Minimum) 8.500 (Nominal) 11.00 (Maximum)			-28.89 (Minimum) 15.50 (Nominal) 60.00 (Maximum)	
Phase	Na Count Rate CPS	Value						
Master		16.90						
Before		17.23						
	10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)							



Master: 9-Dec-2012 2:05






Before: 9-Dec-2012 2:13






Hostile Natural Gamma Ray Sonde Wellsite Calibration

Ratio Of Detector 1 To Detector 2


Phase	Coincidence Count Rate Ratio	Value
Master		0.9710
Before		0.9710


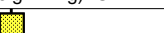
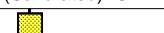
Master		0.9742
Before		0.9644
	0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)	
Master: 9-Dec-2012 2:05		
Before: 9-Dec-2012 2:13		

Hostile Natural Gamma Ray Sonde Master Calibration								
Detector 1 Calibration								
Phase	Na 511 Peak Set Point	Value	Phase	Th Peak Loc	Value	Phase	Th Peak Res %	Value
Master		41.00	Master		210.5	Master		7.000
	38.00 (Minimum) 40.00 (Nominal) 43.00 (Maximum)			201.0 (Minimum) 209.6 (Nominal) 218.3 (Maximum)			5.000 (Minimum) 7.000 (Nominal) 9.000 (Maximum)	
Phase	Background Count Rate CPS	Value	Phase	Gain Ratio	Value			
Master		17.93	Master		1.013			
	10.00 (Minimum) 142.5 (Nominal) 265.0 (Maximum)			0.9400 (Minimum) 1.000 (Nominal) 1.060 (Maximum)				
Master: 9-Dec-2012 1:59								

Hostile Natural Gamma Ray Sonde Master Calibration								
Detector 2 Calibration								
Phase	Na 511 Peak Set Point	Value	Phase	Th Peak Loc	Value	Phase	Th Peak Res %	Value
Master		41.00	Master		209.2	Master		7.038
	38.00 (Minimum) 40.00 (Nominal) 43.00 (Maximum)			201.0 (Minimum) 209.6 (Nominal) 218.3 (Maximum)			5.000 (Minimum) 7.000 (Nominal) 9.000 (Maximum)	
Phase	Background Count Rate CPS	Value	Phase	Gain Ratio	Value			
Master		18.43	Master		1.008			
	10.00 (Minimum) 142.5 (Nominal) 265.0 (Maximum)			0.9400 (Minimum) 1.000 (Nominal) 1.060 (Maximum)				
Master: 9-Dec-2012 1:59								

Enhanced DTS Cartridge / Equipment Identification			
Primary Equipment:			
EDTC Gamma Ray Detector	EDTG - A/B	77693	
Enhanced DTS Cartridge	EDTC - B	8529	
Auxiliary Equipment:			
EDTC Housing	EDTH - B	8528	

Enhanced DTS Cartridge Wellsite Calibration		
EDTC Accelerometer Calibration		
Phase	EDTC Z-Axis Acceleration M/S2	Value
Before		9.816
	9.610 (Minimum) 9.810 (Nominal) 10.01 (Maximum)	
Before: 10-Dec-2012 0:38		

Enhanced DTS Cartridge Wellsite Calibration								
Detector Calibration								
Phase	Gamma Ray Background GAPI	Value	Phase	Gamma Ray (Jig - Bkg) GAPI	Value	Phase	Gamma Ray (Calibrated) GAPI	Value
Before		6.074	Before		162.4	Before		164.0
	0 (Minimum) 30.00 (Nominal) 120.0 (Maximum)			147.7 (Minimum) 162.4 (Nominal) 177.2 (Maximum)			149.0 (Minimum) 164.0 (Nominal) 179.0 (Maximum)	
Before: 9-Dec-2012 2:15								

Company: **Lamont Doherty**

Schlumberger

Well: **Expedition 344, Site U1414A**

Field: **Costa Rica Seismogenesis (CRISP-A2)**

Rig: **JOIDES Resolution**

Ocean: **Pacific**

Formation Micro Scanner

RAW Images

Gamma Ray