Schlumberger

Company: **Lamont Doherty Earth Observatory**

Well: **Expedition 350, Site U1437D**
Field: **IBM−1 (Rear Arc)**
Rig: **JOIDES Resolution** Country:

Rig: JOIDES Resolution
Field: IBM−1 (Rear Arc)
Location: Latitude: N 31.7897*
Well: Expedition 350, Site U1437D
Company: Lamont Doherty Earth Observatory

DSI Sonic
P&S Monopole

LOCATION

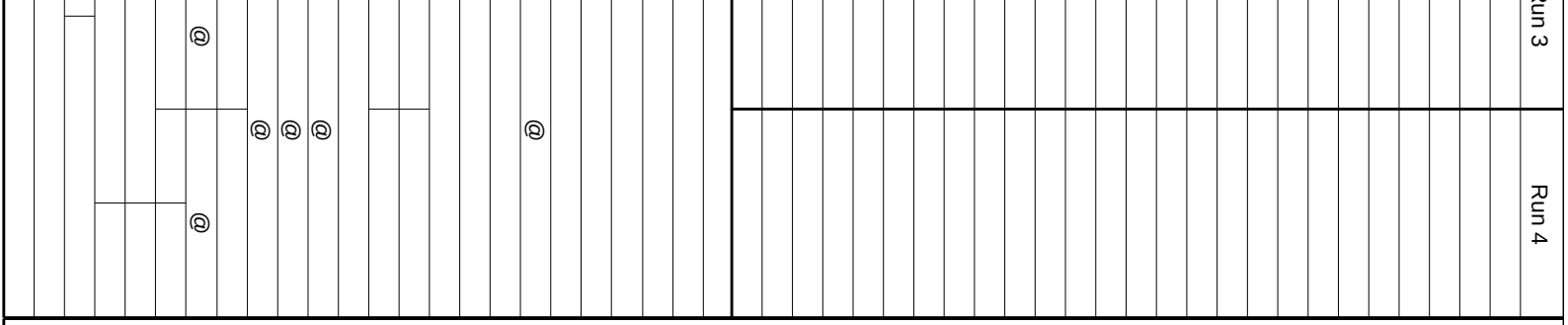
Latitude: N 31.7897*
Longitude: E 139.02631*

Elev.: K.B. −2127.30 m
G.L. 0.00 m
D.F. −2127.30 m

Permanent Datum: Mean Sea Level — Elev.: 0.00 m
Log Measured From: Drill Floor — 0.00 m above Perm. Datum
Drilling Measured From: Drill Floor

Ocean: Pacific	Max. Well Deviation 0 deg	Longitude E 139.02631	Latitude N 31.7897

	Run 1	Run 2	Run 1	Run 2
Logging Date	22−Apr−2014		Logging Date	
Run Number	1		Run Number	
Depth Driller	980.4 m		Depth Driller	
Schlumberger Depth	946.5 m		Schlumberger Depth	
Bottom Log Interval	930 m		Bottom Log Interval	
Top Log Interval	137.5 m		Top Log Interval	
Casing Driller Size @ Depth	5.500 in @ 92.3 m	@	Casing Driller Size @ Depth	@
Casing Schlumberger	92.3 m		Casing Schlumberger	
Bit Size	9.875 in		Bit Size	
Type Fluid In Hole	Seawater		Type Fluid In Hole	
MUD Density / Viscosity	1.03 g/cm3		MUD Density / Viscosity	
MUD Fluid Loss / PH			MUD Fluid Loss / PH	
MUD Source Of Sample	N/A		MUD Source Of Sample	
RM @ Measured Temperature	@	@	RM @ Measured Temperature	@
RMF @ Measured Temperature	@	@	RMF @ Measured Temperature	@
RMC @ Measured Temperature	@	@	RMC @ Measured Temperature	@
Source RMF / RMC	N/A / N/A		Source RMF / RMC	
RM @ MRT / RMF @ MRT	@ 60 / @ 60	@ / @	RM @ MRT / RMF @ MRT	@ / @
Maximum Recorded Temperatures	60 degC		Maximum Recorded Temperatures	
Circulation Stopped / Time	22−Apr−2014 / 14:00		Circulation Stopped / Time	
Logger On Bottom / Time	23−Apr−2014 / 5:10		Logger On Bottom / Time	
Unit Number / Location	627314 / Houston		Unit Number / Location	
Recorded By	C. Furman		Recorded By	
Witnessed By	G. Guerin		Witnessed By	



DISCLAIMER

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OTHER SERVICES1

OS1: HRLA
OS2: HLDS / APS
OS3: MSS
OS4: HNGS
OS5: FMS

REMARKS: RUN NUMBER 1

Hole drilled with RCB coring bit and bottom hole assembly (BHA). 9 7/8 " BS
Coring concluded approximately 24 hours prior to logging.
Drill pipe set at a depth of 92.3mbsf with a logging bit installed to facilitate wireline logging.
Downlog run with corrections computed using bit size; uplogs corrected for actual hole size using caliper.
FMS Calipers closed for downlog; calipers open for uplog with EMEX set to Auto mode.
DSI run with P&S=Std, Stoneley=Std, Upper Dipole = Std, and Lower Dipole = Low Freq. modes for all passes.
Tool string run centered using modified MCD inline centralizers, as per toolsketch.
Fluid type was sea water, as used to drill, so no barite corrections were required.
Depth originally recorded from drill floor; played back with sea floor as reference zero.
All logs presented in measured depth below sea floor (MDBSF).
Logs played back to correct Slowness labelling, apply GPIT corrections, and apply computed FMS contrast map.

RUN 1

SERVICE ORDER #:
PROGRAM VERSION: 19C0−187
FLUID LEVEL:

LOGGED INTERVAL	START	STOP

RUN 2

SERVICE ORDER #:
PROGRAM VERSION:
FLUID LEVEL:

LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1

SURFACE EQUIPMENT

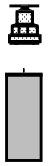
GSR−U 616008
WITM (EDTS)−A

DOWNHOLE EQUIPMENT

LEH−QT
LEH−QT 1701

EDTC−B
EDTH−B 8303
EDTC−B 8317
EDTG−A/B 8305

MDSB_EDTC
Mud Tempe
CTEM
Gamma Ray
EFTB DIAG
TelStatus
EDTCB Ele



34.55
33.49
32.92
32.57

35.44
34.55

RUN 2

HNGS−BA
HNGS−BA 194
HNSH−BA 205

Upper_1
Lower_2

31.87
31.66

32.57

HNGC−B
HNGH−A 115

HNGC Stat

29.54

30.07

AH−MCD
AH−MCD 82

29.01

DSST−B
SPAC−B 8194
ECH−SD 8183
SMDR−BD 8232
SSIJ−BA 8204
SMDX−AA 8147

26.73

PWF

11.18

AH−MCD1
AH−MCD1 1

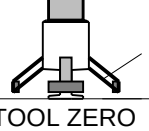
11.18

DTA−A 8453
ECH−KE 8456

8.90

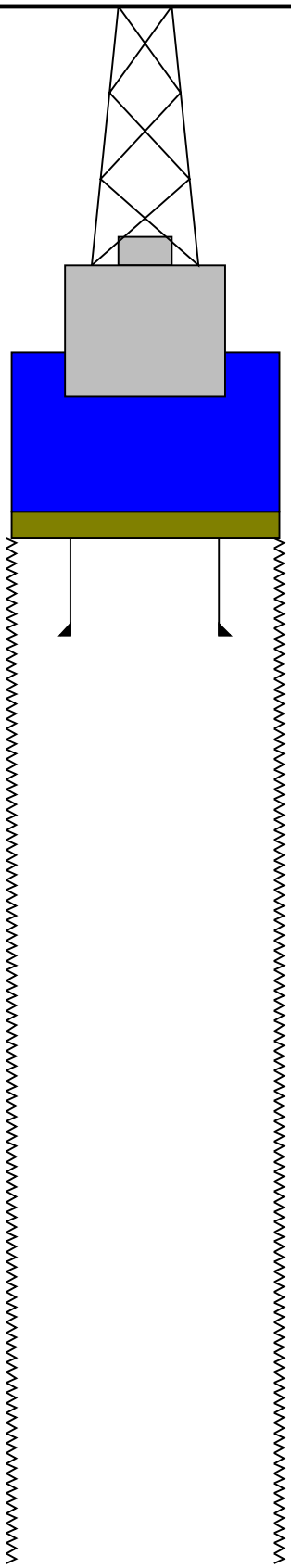
MEST−B
MEAH−B 769
MEAC−A 875
MEPH−A 702
GPIC−AC 840
MEPC−AB 807
MEDS−B 724

7.68



MAXIMUM STRING DIAMETER 4.50 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

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

	OD	ID	MD		MD	OD	ID	
Kelly Bushing Elevation			−2127.3					
Derrick Floor Elevation			−2127.3					
Mean Sea Level			−2117.3					
					0.0			Sea Floor
					92.3	5.500		Bit Depth
					980.4	9.875		Total Depth − Driller

Schlumberger

Downlog
1:200 Scale

MAXIS Field Log

Company: Lamont Doherty Earth Observatory **Well: Expedition 350, Site U1437D**

Input DLIS Files

DEFAULT	Flip_FMS_DSI_NGS_044LUP		PRODUCER	25−Apr−2014 03:46	3075.9 M	2098.5 M

Output DLIS Files

DEFAULT	FMS_DSI_NGS_047PUP	FN:57	PRODUCER	25−Apr−2014 04:25	952.3 M	−25.0 M
CLIENT	FMS_DSI_NGS_047PUC	FN:58	CUSTOMER	25−Apr−2014 04:25	952.3 M	−25.0 M

OP System Version: 19C0−187

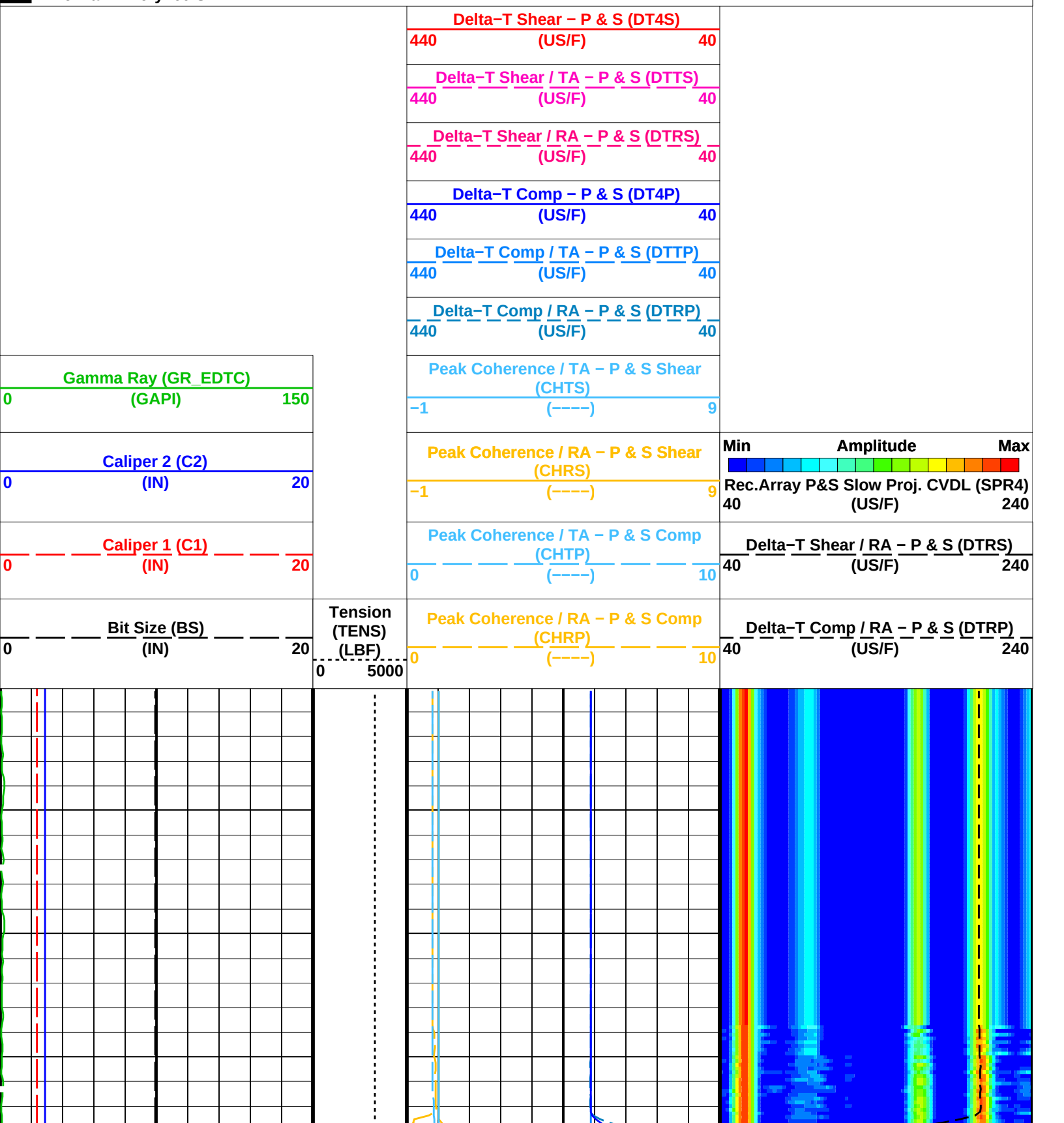
MEST−B	19C0−187	DTA−A	8453
DSST−B	19C0−187	HNGC−B	19C0−187
HNGS−BA	19C0−187	EDTC−B	SKK−5169−EDTCB

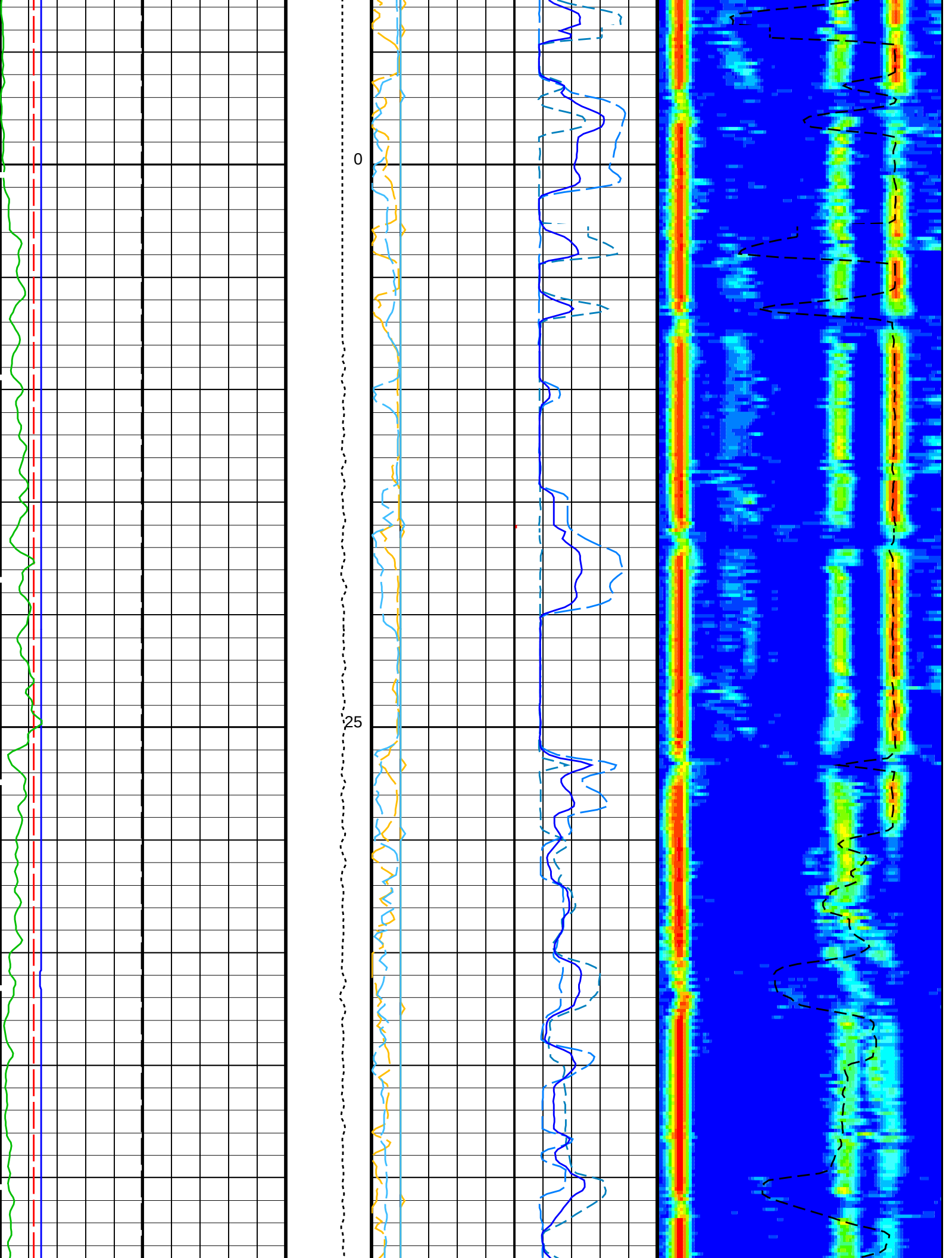
Changed Parameter Summary

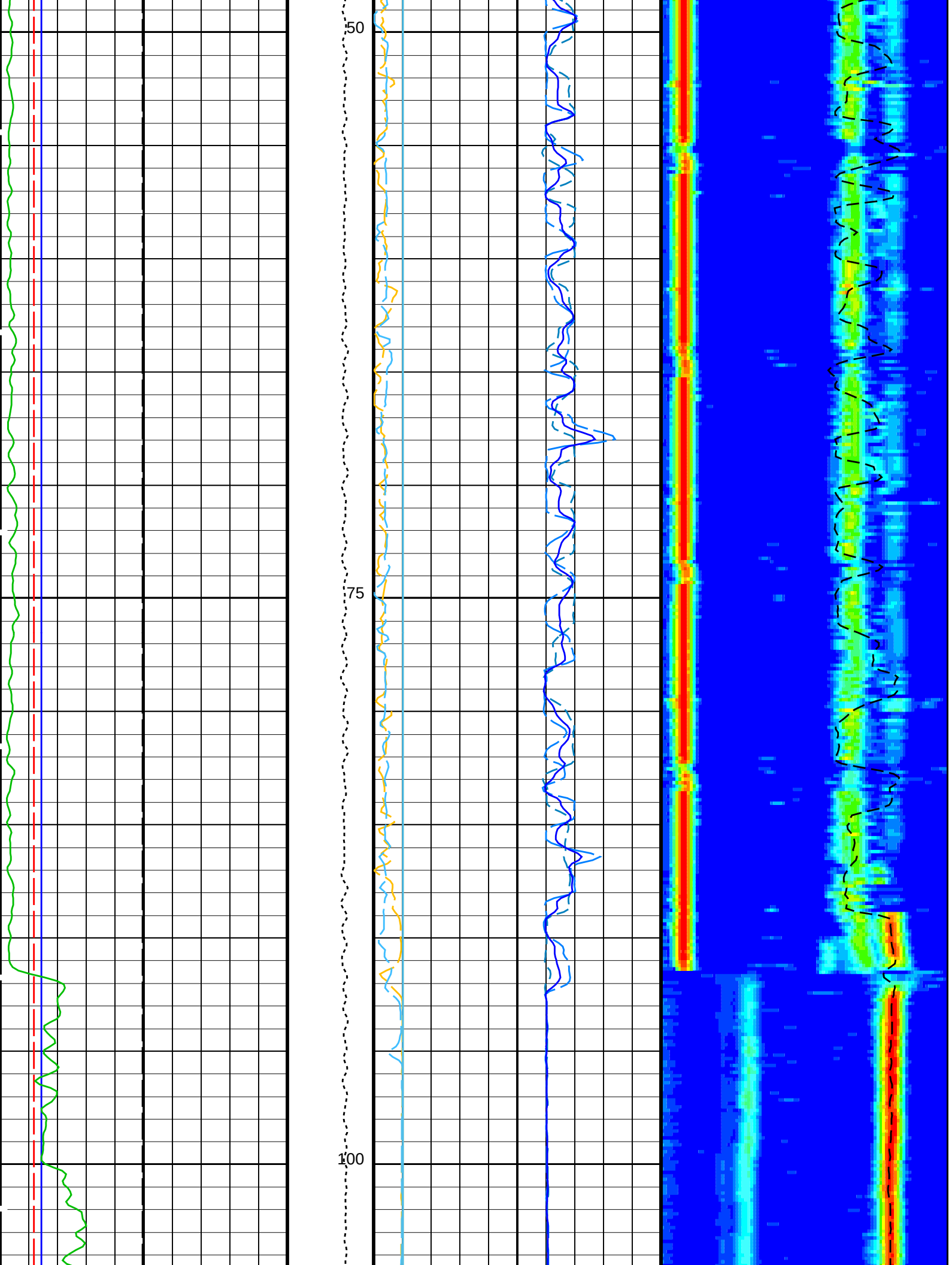
DLIS Name	New Value	Previous Value	Depth & Time
COLL	60 US/F	60 US/F	952.3 04:25:42
	100 US/F	60 US/F	219.9 04:27:29
	60 US/F	100 US/F	91.4 04:27:48
STLL	180 US/F	180 US/F	952.3 04:25:42
	300 US/F	180 US/F	219.9 04:27:29
	180 US/F	300 US/F	91.4 04:27:48

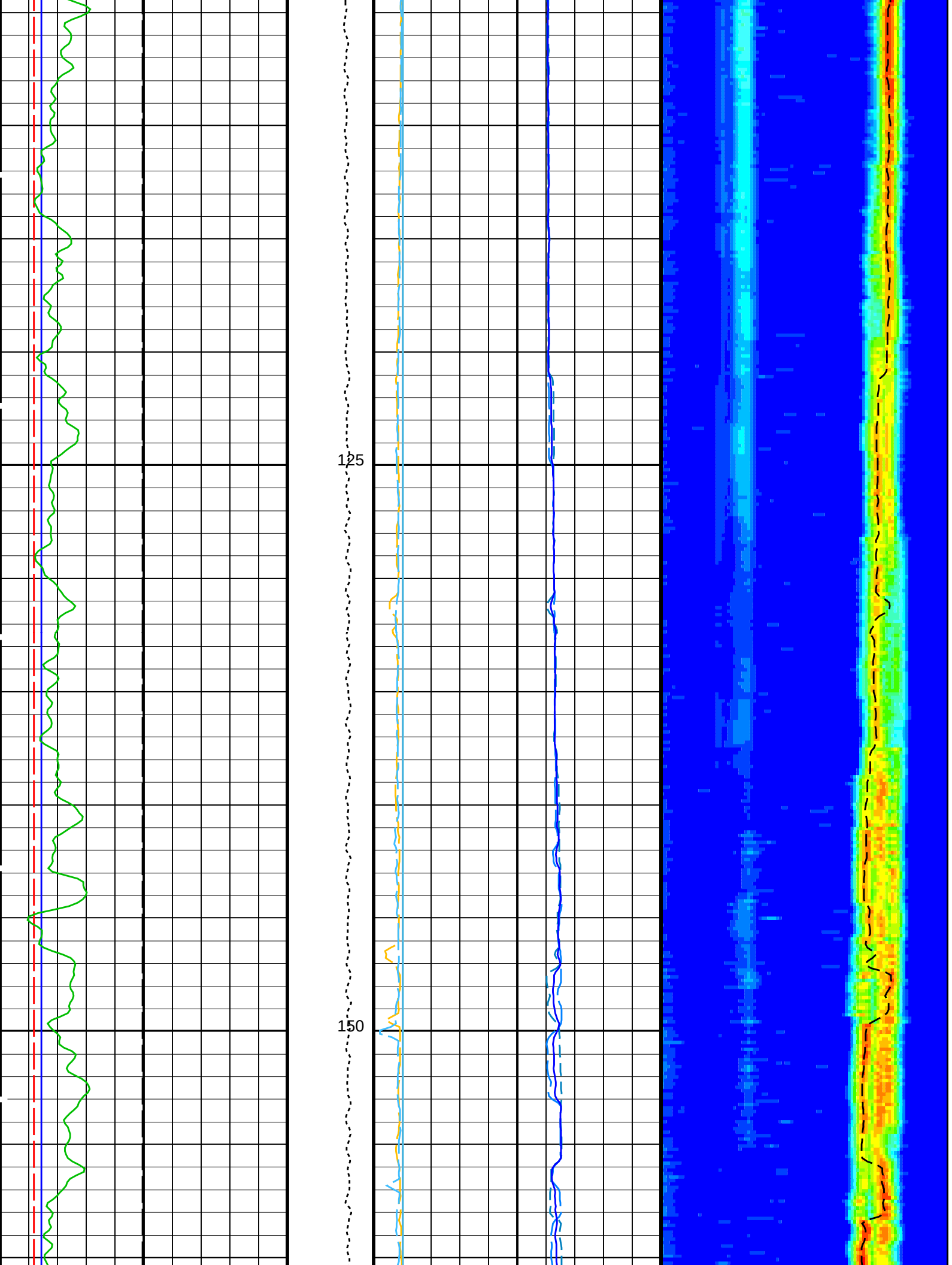
PIP SUMMARY

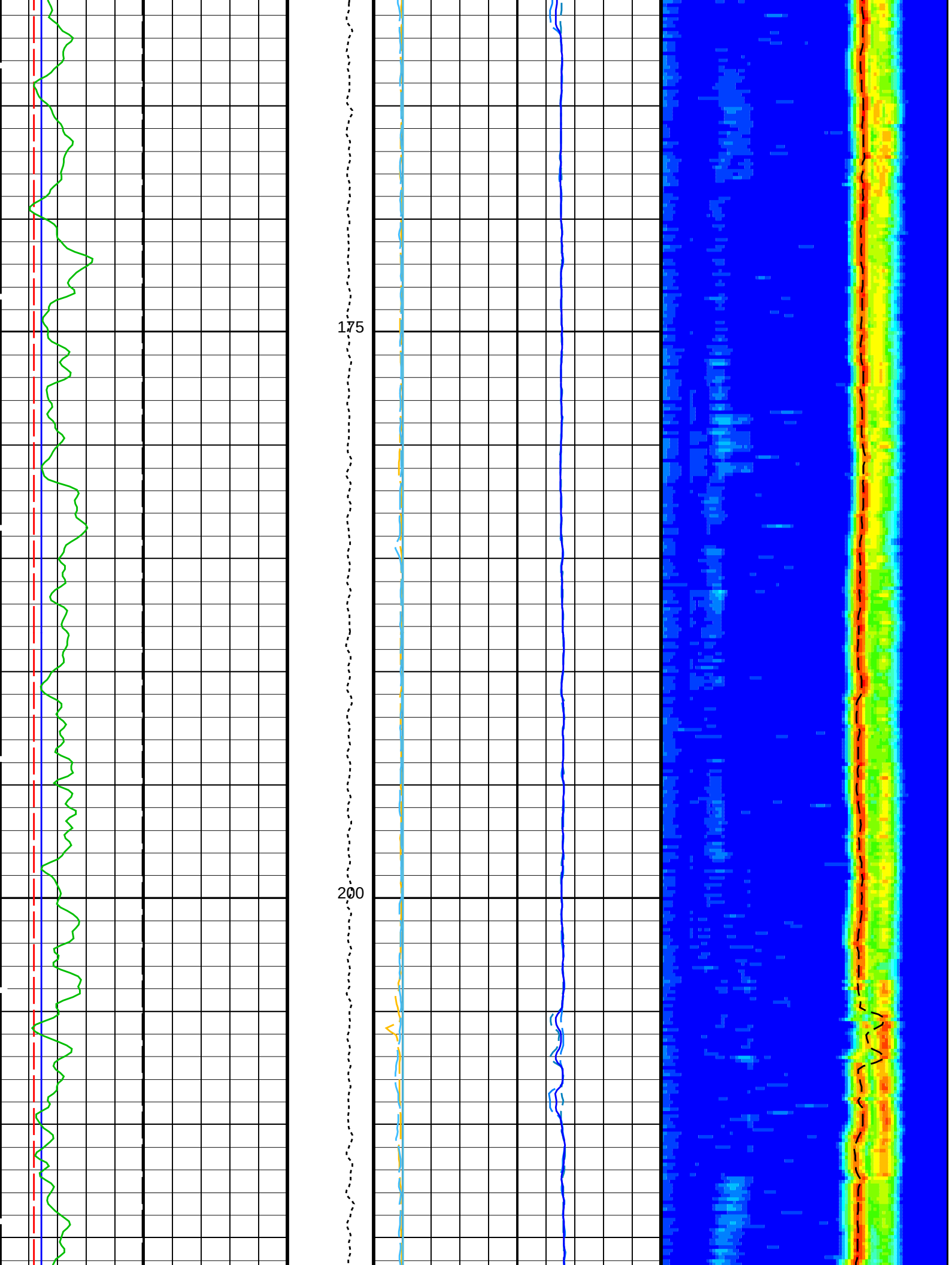
Time Mark Every 60 S

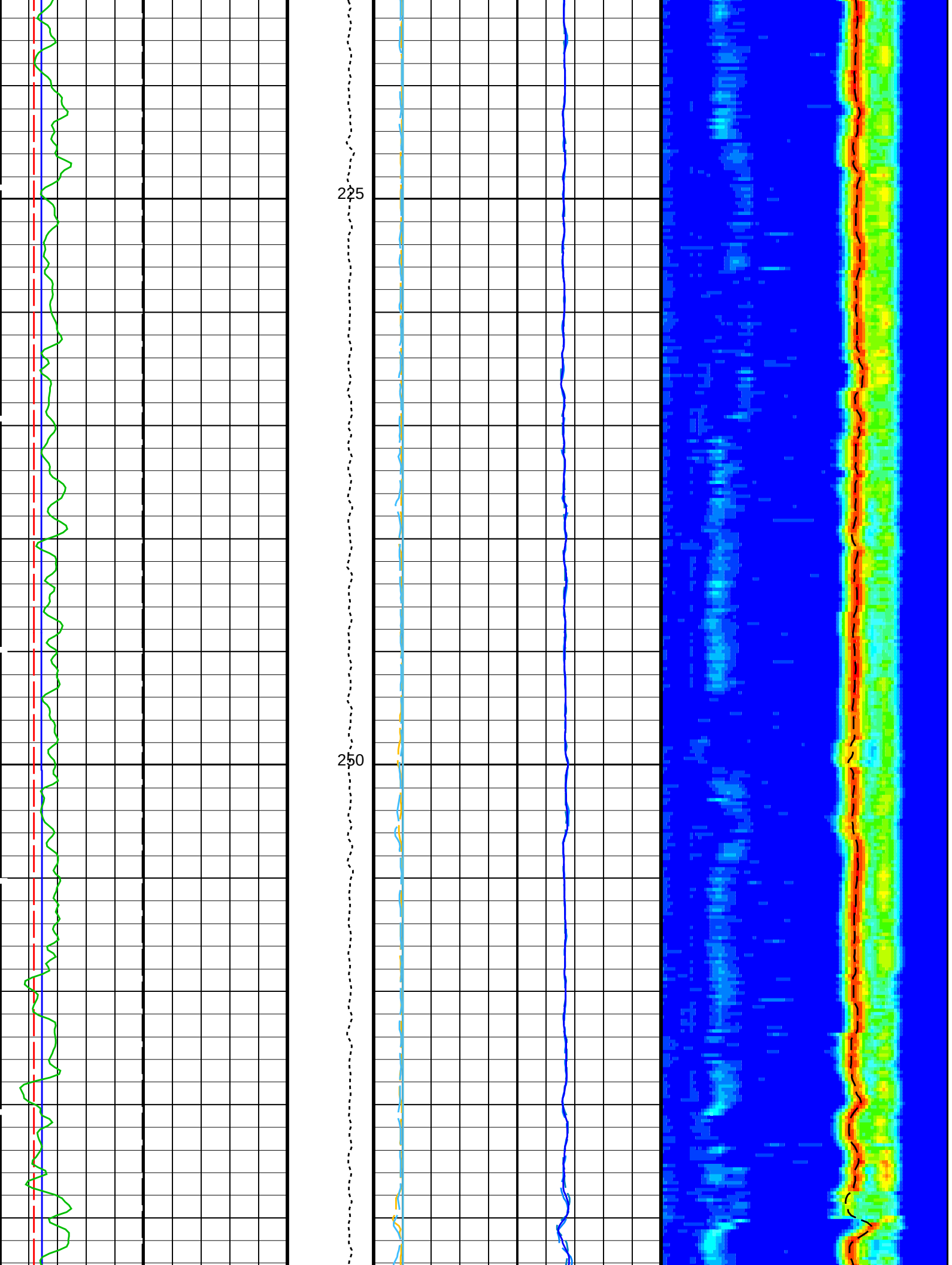


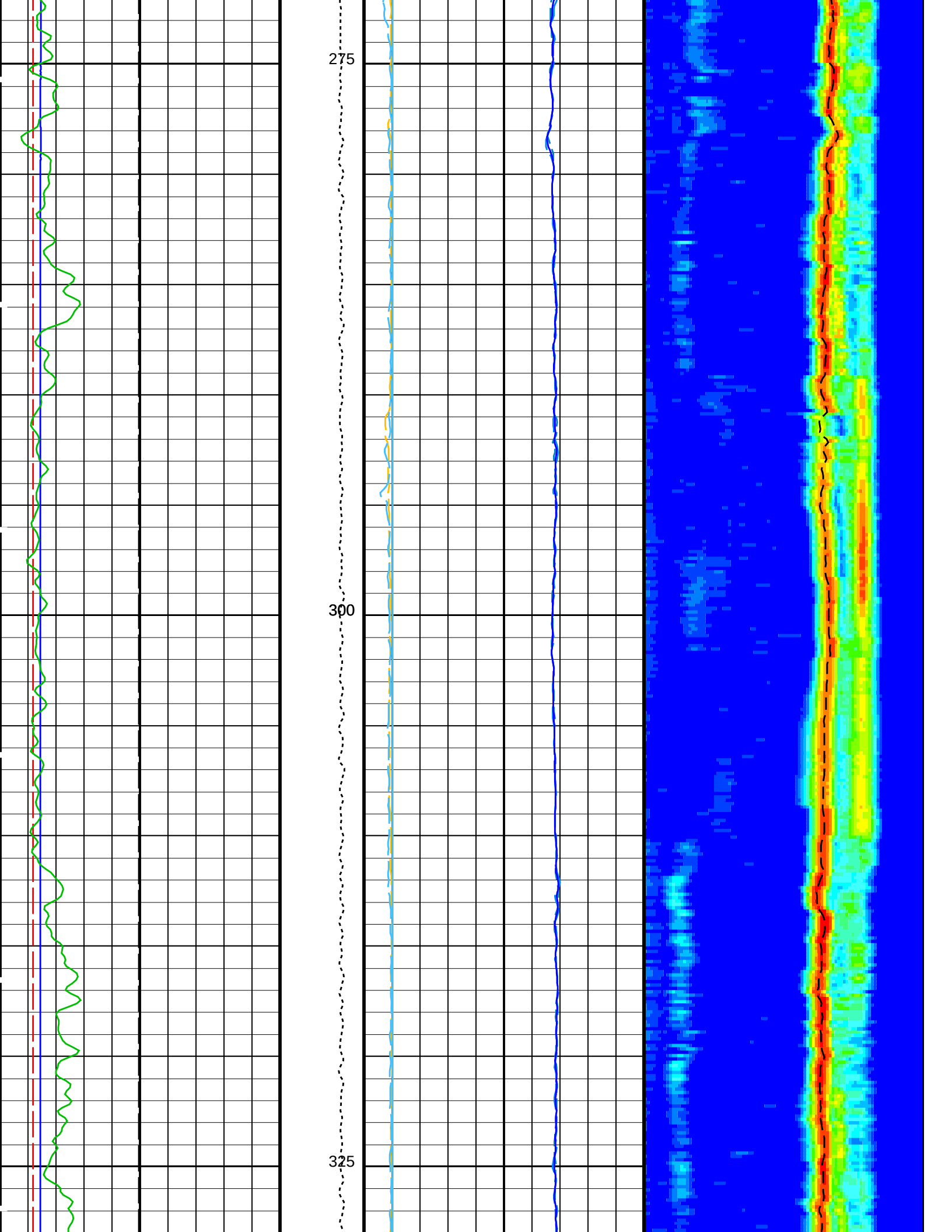

0
25

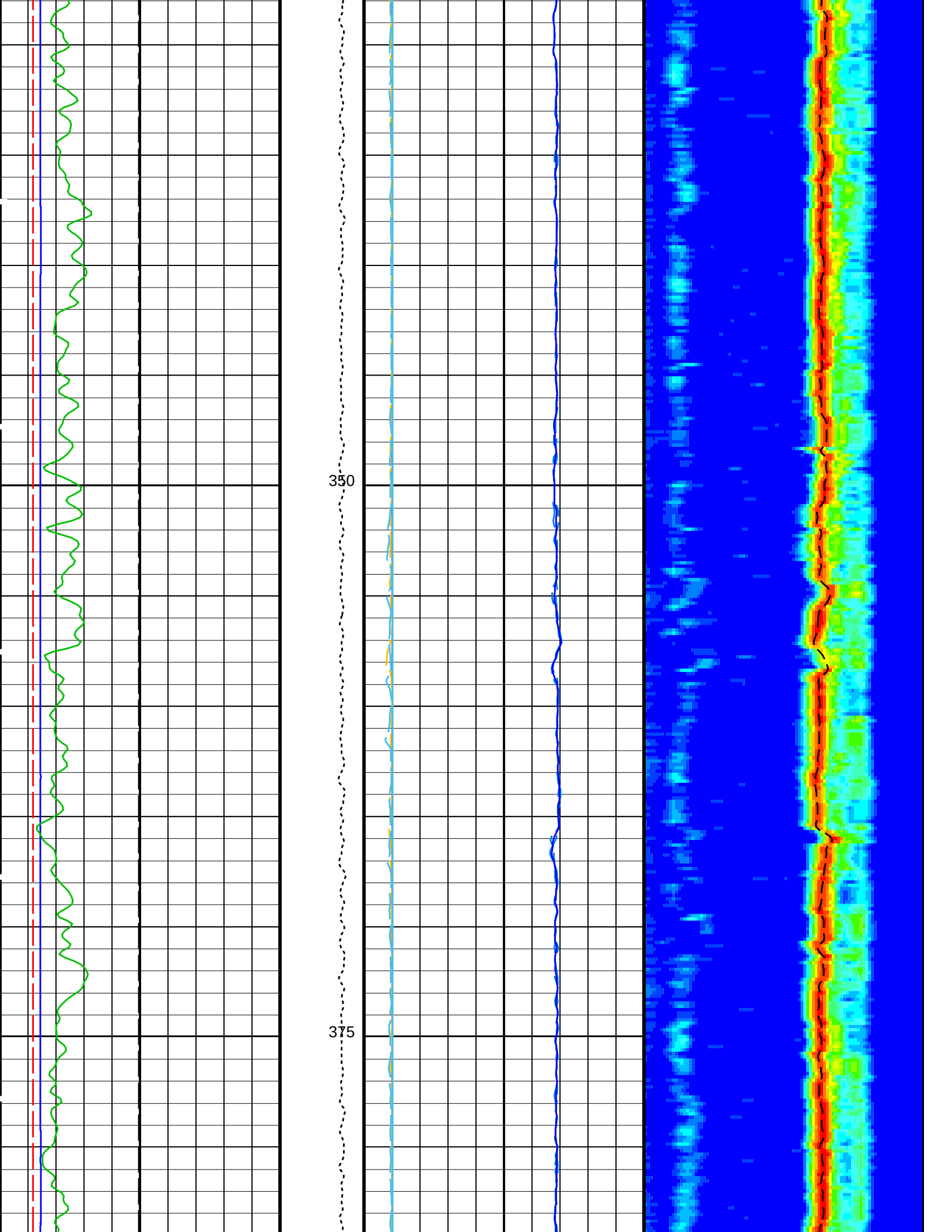

50
75
100

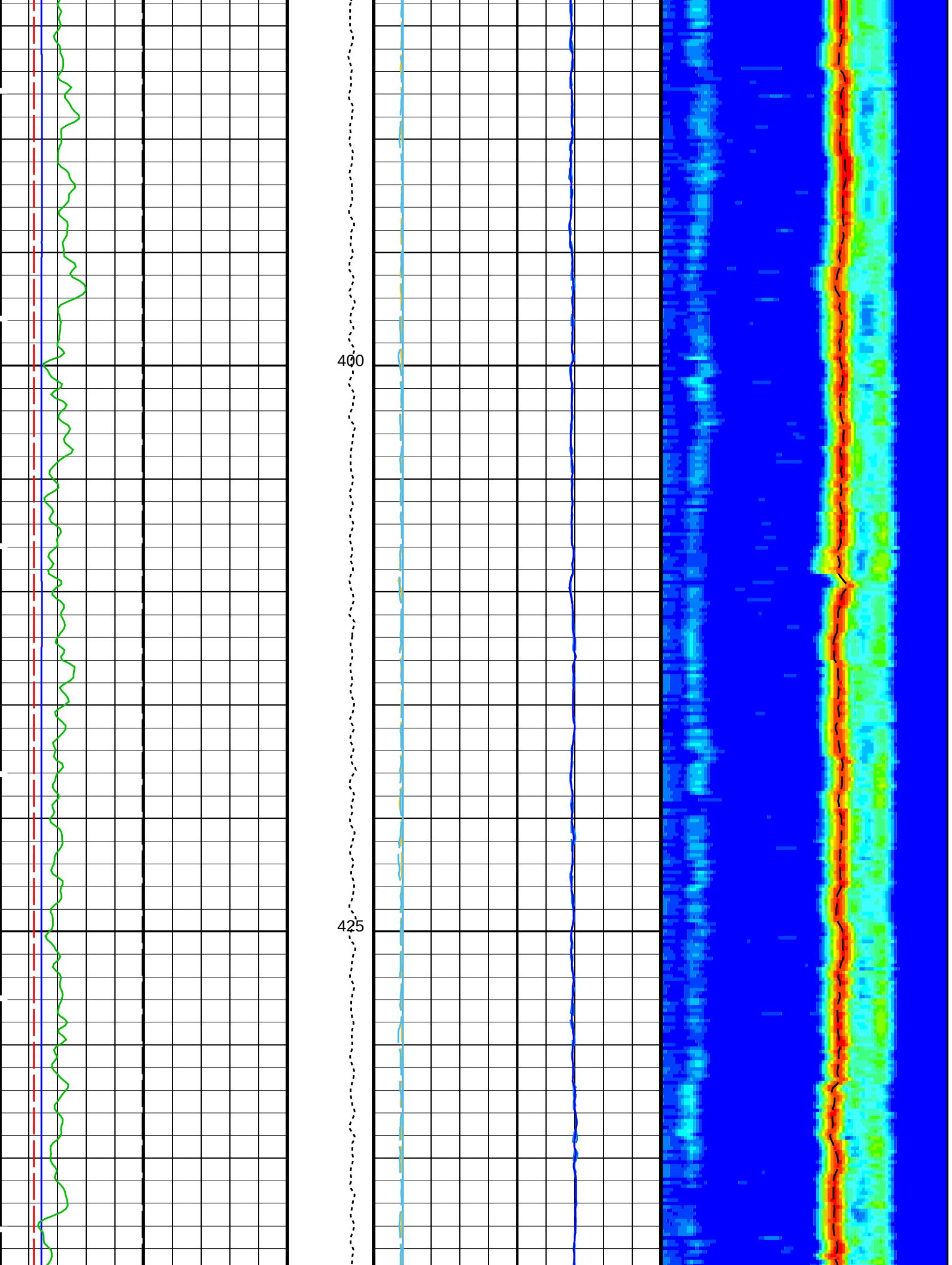

125
150

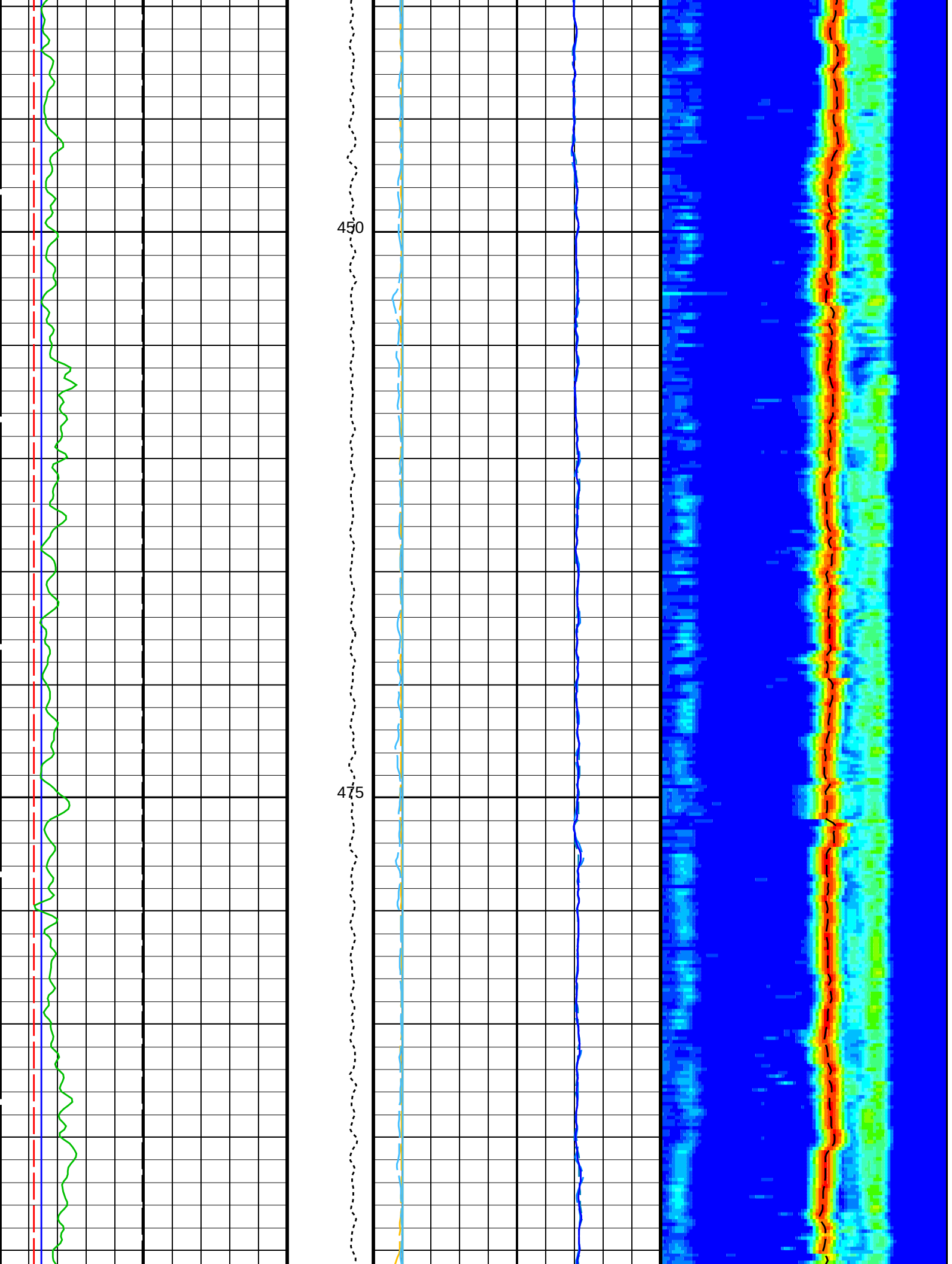

175
200

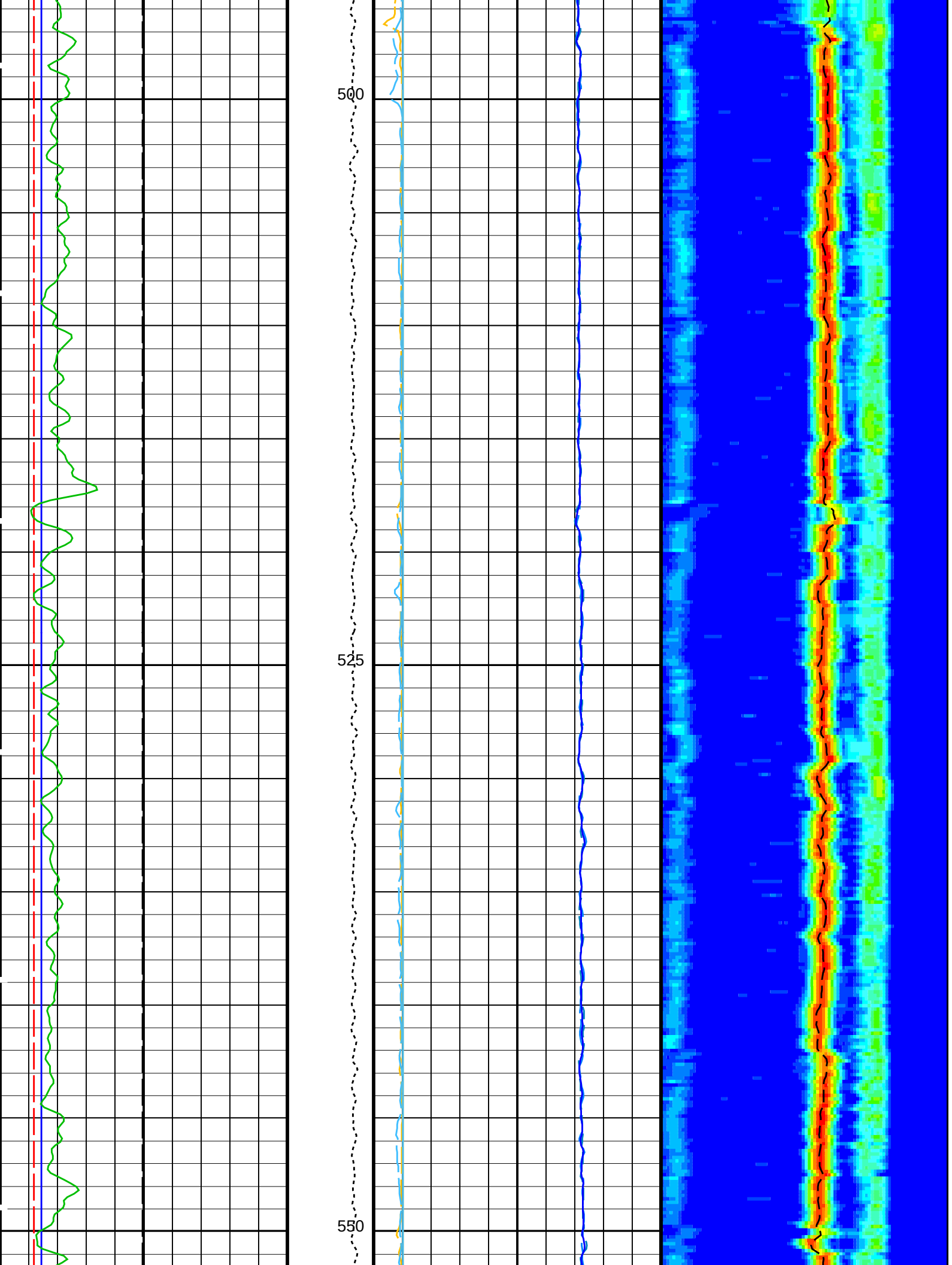

225
250

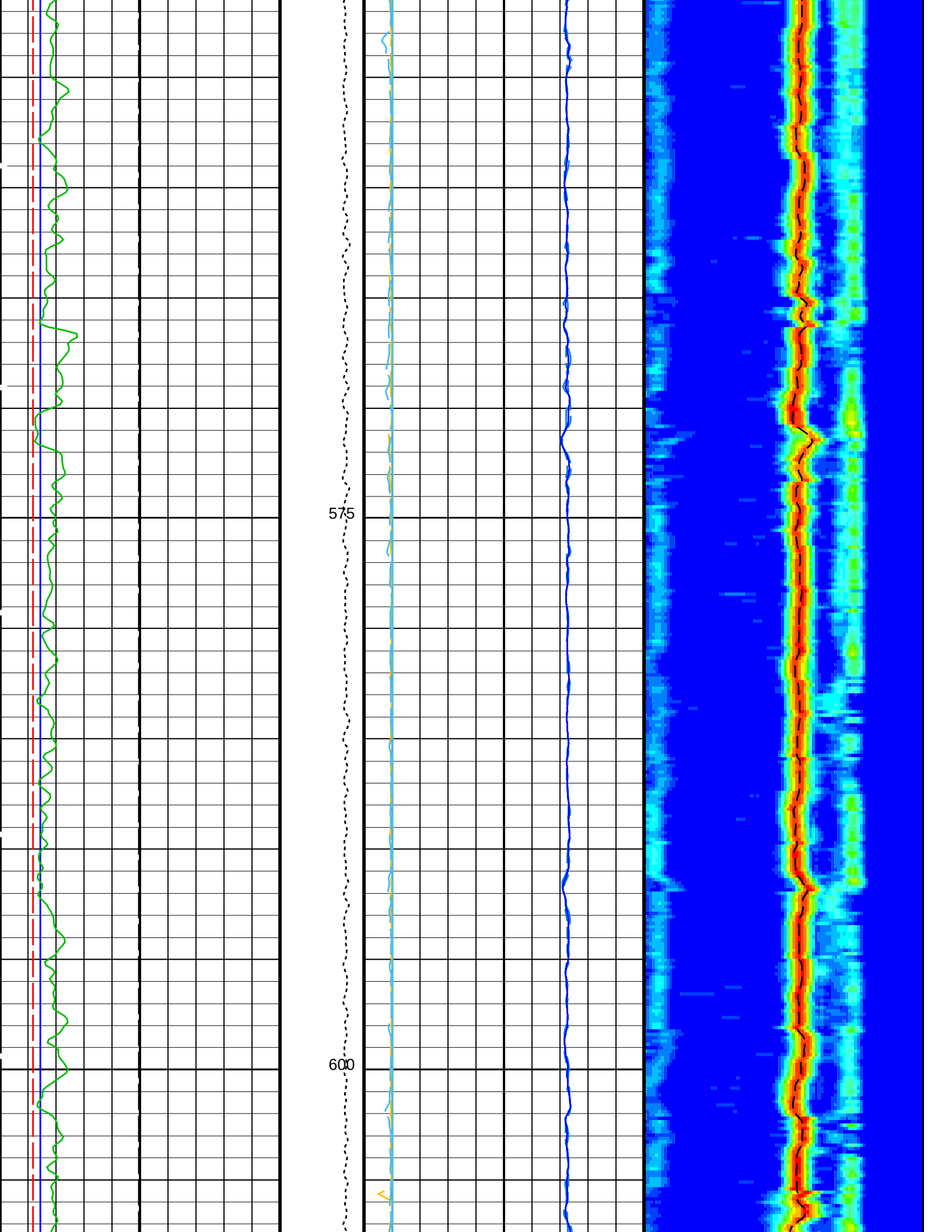

275
300
325

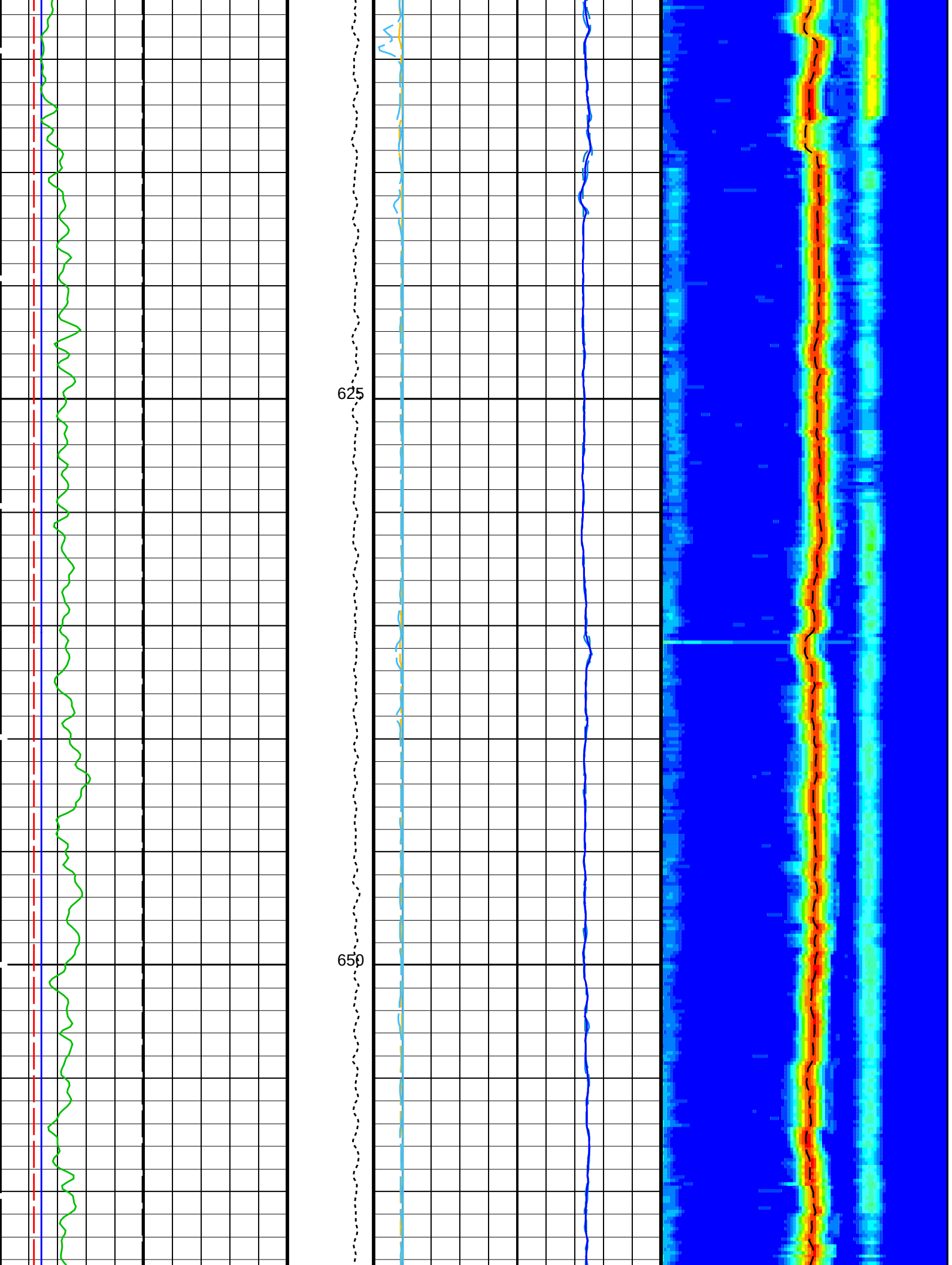

350
375

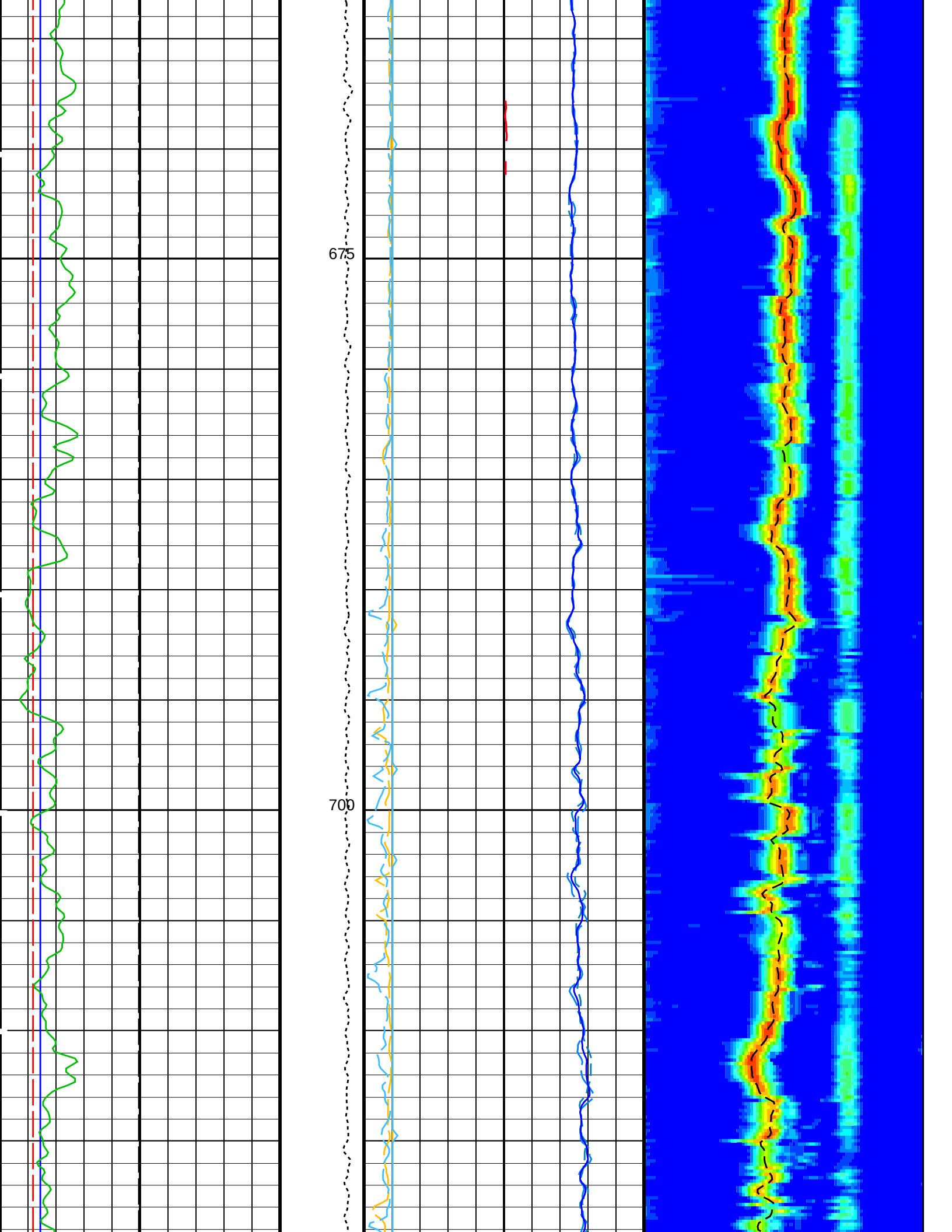

400
425

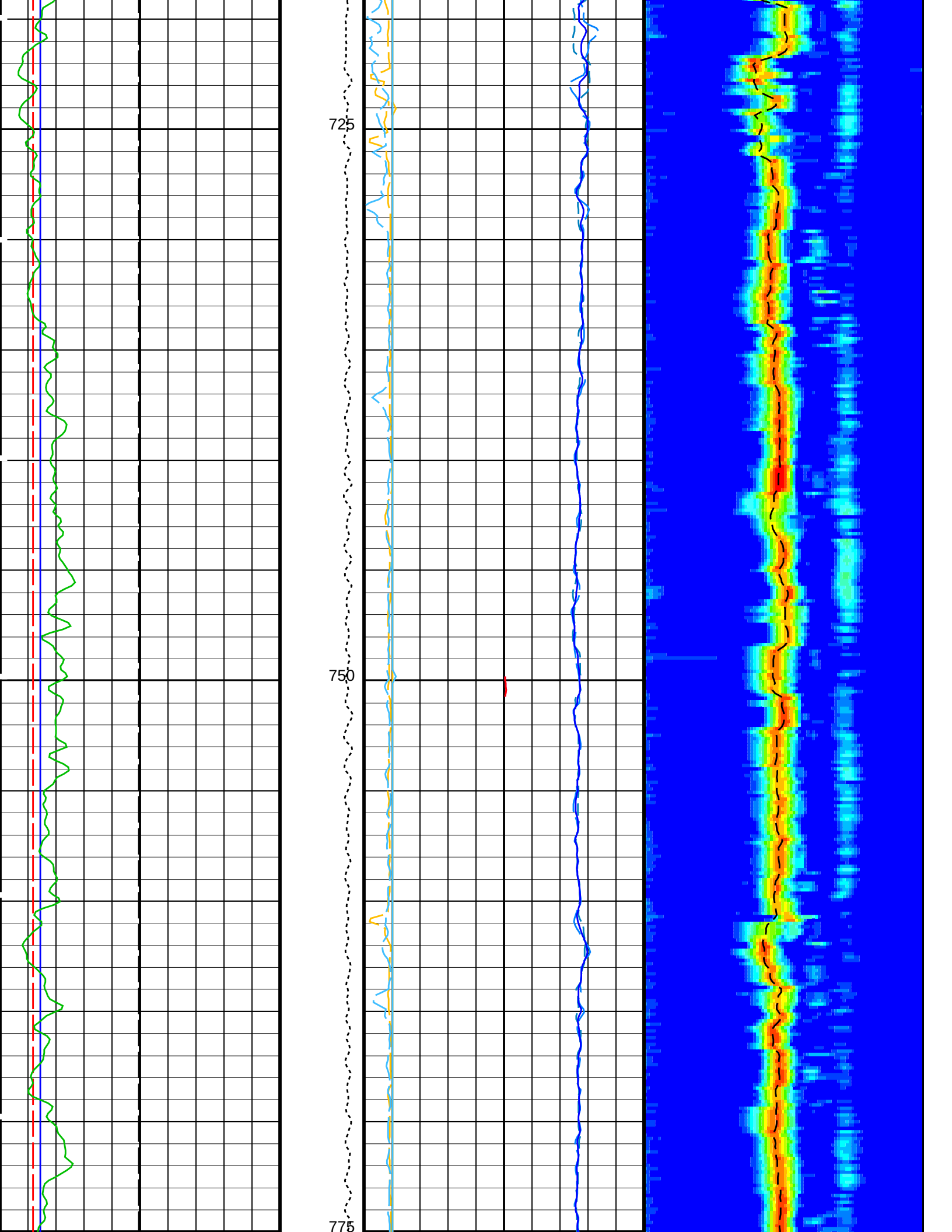

450
475

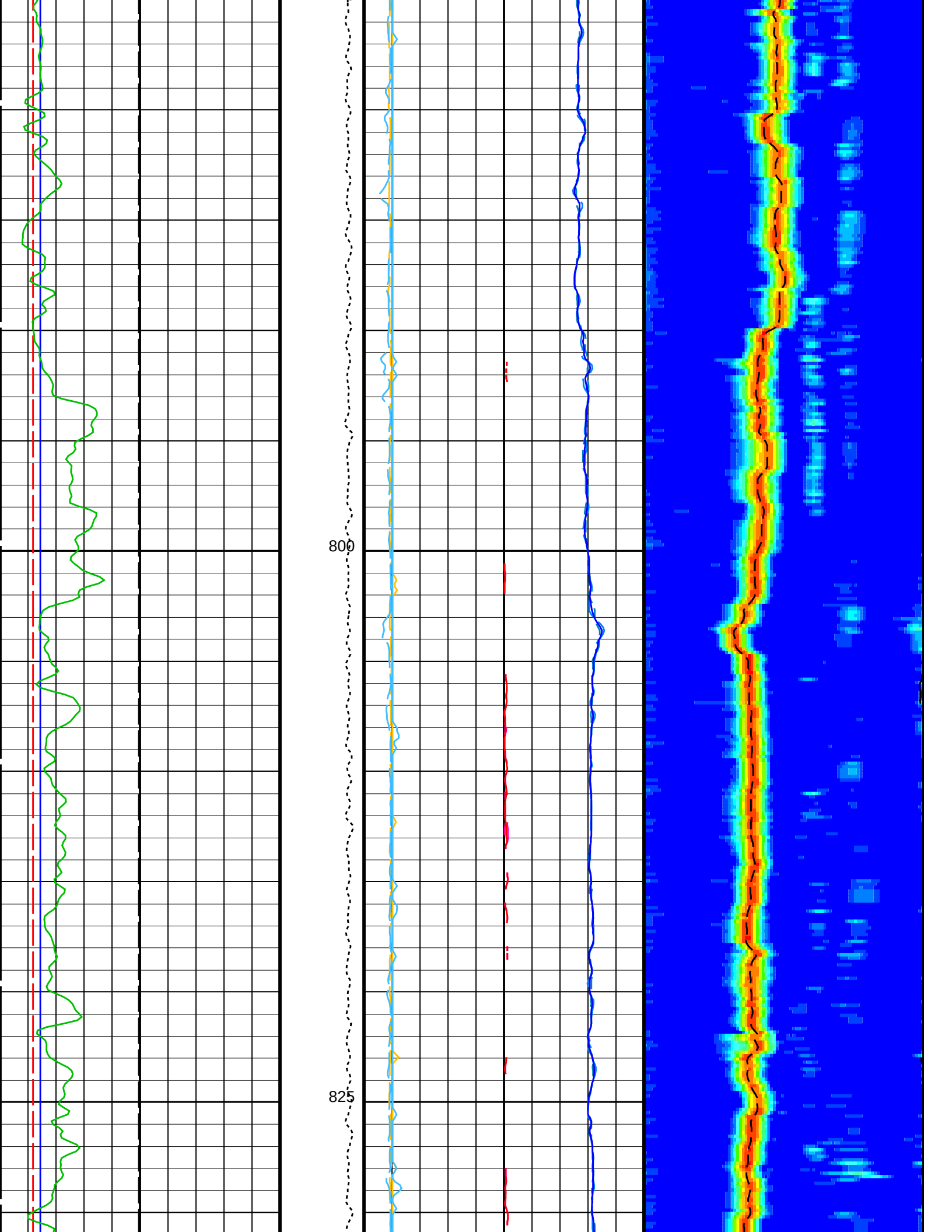

500
525
550

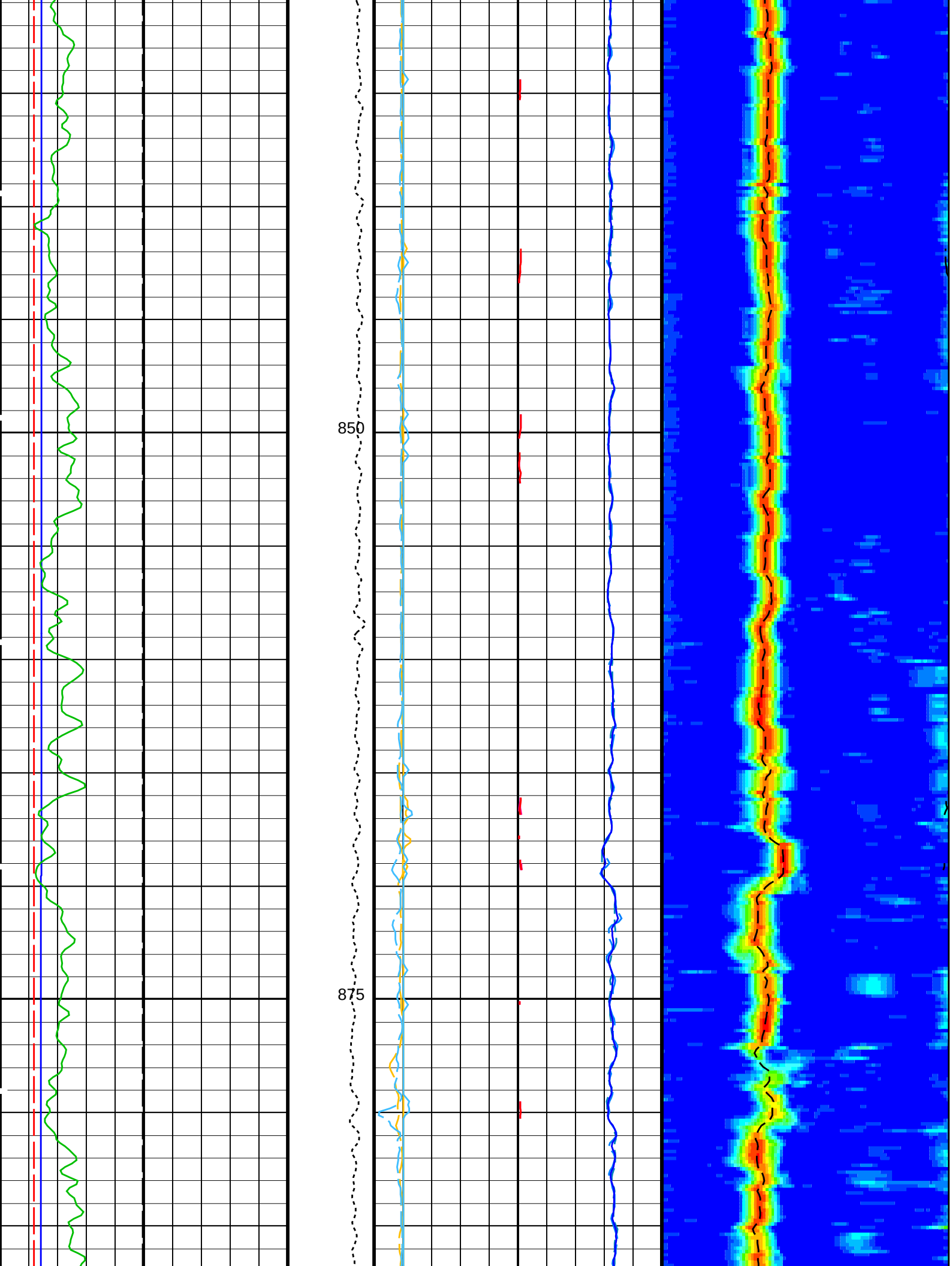

575
600

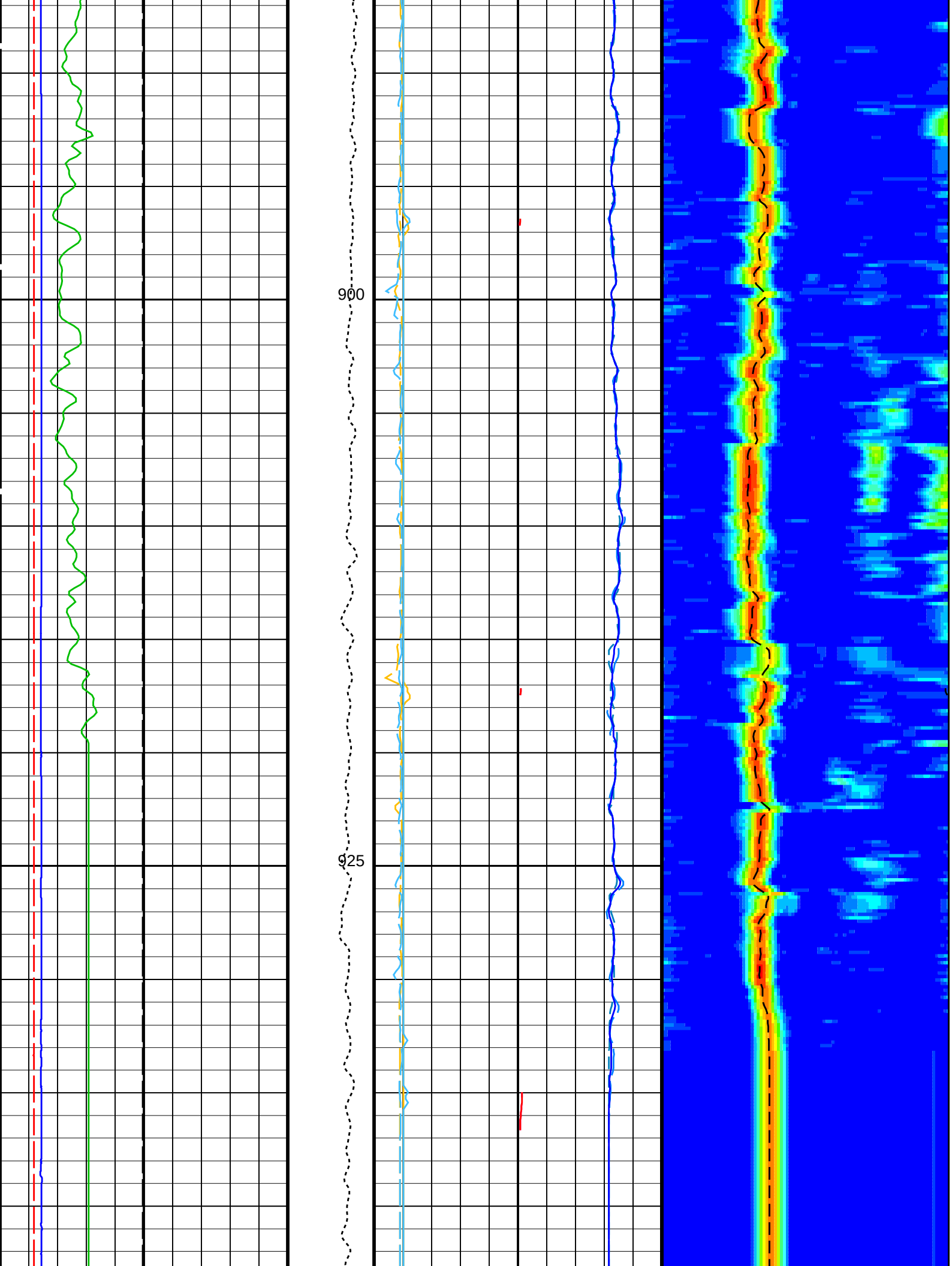

625
650

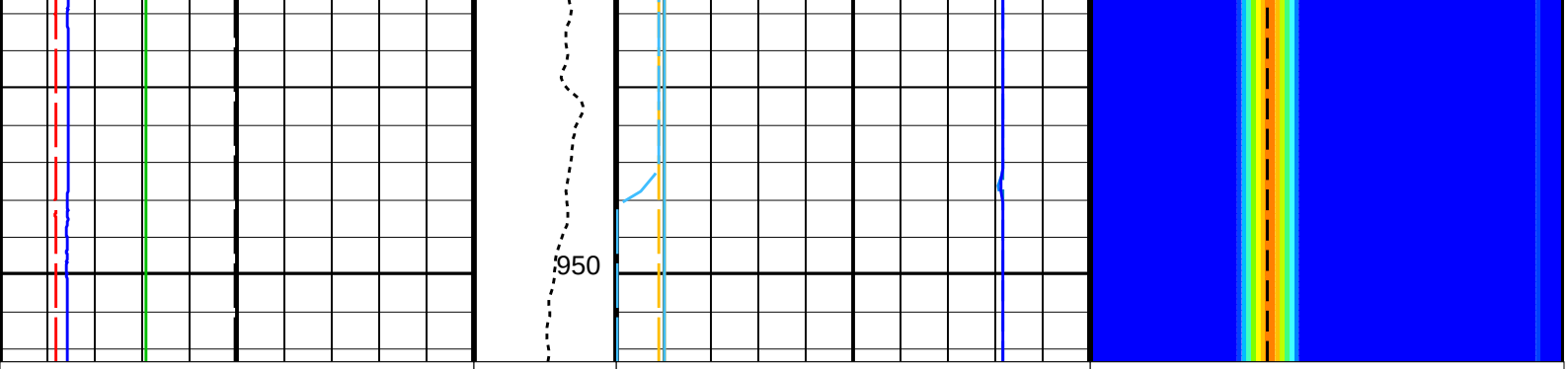

675
700


725
750
775


800
825


850
875


900
925



Bit Size (BS)
0 (IN) 20

Tension (TENS) (LBF)
0 5000

Peak Coherence / RA − P & S Comp (CHRP)
0 (----) 10

Delta−T Comp / RA − P & S (DTRP)
40 (US/F) 240

Caliper 1 (C1)
0 (IN) 20

Peak Coherence / TA − P & S Comp (CHTP)
0 (----) 10

Delta−T Shear / RA − P & S (DTRS)
40 (US/F) 240

Caliper 2 (C2)
0 (IN) 20

Peak Coherence / RA − P & S Shear (CHRS)
−1 (----) 9

Min Amplitude Max

Rec.Array P&S Slow Proj. CVDL (SPR4)
40 (US/F) 240

Gamma Ray (GR_EDTC)
0 (GAPI) 150

Peak Coherence / TA − P & S Shear (CHTS)
−1 (----) 9

Delta−T Comp / RA − P & S (DTRP)
440 (US/F) 40

Delta−T Comp / TA − P & S (DTTP)
440 (US/F) 40

Delta−T Comp − P & S (DT4P)
440 (US/F) 40

Delta−T Shear / RA − P & S (DTRS)
440 (US/F) 40

Delta−T Shear / TA − P & S (DTTS)
440 (US/F) 40

Delta−T Shear − P & S (DT4S)
440 (US/F) 40

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
BHS	Borehole Status	OPEN	
CASF	Label Casing Function − Monopole P&S	50	
COLL	Label Slowness Lower Limit − Monopole P&S Compressional	60	US/F
COUL	Label Slowness Upper Limit − Monopole P&S Compressional	209	US/F
DDE4	Digitizing Delay 4	0	US
DDEX	Digitizing Delay X	0	US
DSI4	Digitizer Sample Interval 4	10	US
DSIX	Digitizer Sample Interval X	40	US
DTF	Delta−T Fluid	210	US/F
DWC4	Digitizer Word Count 4	512	
DWCX	Digitizer Word Count X	512	
FILG	Label Fill Gap Control − Monopole P&S	COMP	
LFC	Label Formation Character − Monopole P&S	COMP_FIRST	
MCS	Mean Casing Slowness	57	US/F
MTXG	Monopole Transmitter Geometry	186	IN
NWI4	Number Waveform Items 4	8	
NWIX	Number Waveform Items X	0	
RSMN	Label Shear/Compressional Minimum Ratio − Monopole P&S	1.4	

RSMX	Label Shear/Compressional Maximum Ratio − Monopole P&S	2.12	
RX1G	Receiver 1 Geometry	294	IN
RX2G	Receiver 2 Geometry	300	IN
RX3G	Receiver 3 Geometry	306	IN
RX4G	Receiver 4 Geometry	312	IN
RX5G	Receiver 5 Geometry	318	IN
RX6G	Receiver 6 Geometry	324	IN
RX7G	Receiver 7 Geometry	330	IN
RX8G	Receiver 8 Geometry	336	IN
SAM4	DSST Sonic Acquisition Mode 4 − Monopole Mode for P&S	EVEN	
SAMX	DSST Sonic Acquisition Mode X − Both Dipoles or Monopole Mode for Expert	OFF	
SAS4	STC Sonic Array Status − Monopole P&S	255	
SBO4	STC Search Band Offset − Monopole P&S	500	US
SBR4	STC Baseline Removal − Monopole P&S	ON	
SBW4	STC Search Bandwidth − Monopole P&S	2000	US
SFC4	STC Formation Character − Monopole P&S	SELECTABLE	
SFM4	STC Filter − Monopole P&S	B3−20K	
SHLL	Label Slowness Lower Limit − Monopole P&S Shear	235	US/F
SHUL	Label Slowness Upper Limit − Monopole P&S Shear	240	US/F
SLL4	STC Slowness Lower Limit − Monopole P&S	40	US/F
SST4	STC Slowness Step − Monopole P&S	2	US/F
SSW4	STC Source Waveform − Monopole P&S	WF_SAM4	
STLL	Label Slowness Lower Limit − Monopole Stoneley	180	US/F
STUL	Label Slowness Upper Limit − Monopole Stoneley	1200	US/F
SUL4	STC Slowness Upper Limit − Monopole P&S	240	US/F
SWD4	STC Slowness Width − Monopole P&S	10	US/F
TBF4	STC Time for Baseline Fill − Monopole P&S	300	US
TLL4	STC Time Lower Limit − Monopole P&S	150	US
TST4	STC Time Step − Monopole P&S	50	US
TUL4	STC Time Upper Limit − Monopole P&S	3660	US
TWD4	STC Time Width − Monopole P&S	1000	US
TWI4	STC Integration Time Window − Monopole P&S	500	US
TWSX	Transmitter Waveform Select X	0	
	HNGS−BA: Hostile Natural Gamma Ray Sonde		
BHS	Borehole Status	OPEN	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DO	Depth Offset for Playback	−2123.5	M
PP	Playback Processing	RECOMPUTE	

Format: DSST_P_S_VDL_COLOR **Vertical Scale: 1:200** **Graphics File Created: 25−Apr−2014 04:25**

OP System Version: 19C0−187

MEST−B	19C0−187	DTA−A	8453
DSST−B	19C0−187	HNGC−B	19C0−187
HNGS−BA	19C0−187	EDTC−B	SKK−5169−EDTCB

Input DLIS Files

DEFAULT	Flip_FMS_DSI_NGS_044LUP	PRODUCER	25−Apr−2014 03:46	3075.9 M	2098.5 M

Output DLIS Files

DEFAULT	FMS_DSI_NGS_047PUP	FN:57	PRODUCER	25−Apr−2014 04:25
CLIENT	FMS_DSI_NGS_047PUC	FN:58	CUSTOMER	25−Apr−2014 04:25

Schlumberger

Repeat Pass
1:200 Scale

MAXIS Field Log

Company: Lamont Doherty Earth Observatory **Well: Expedition 350, Site U1437D**

Input DLIS Files

Input DLIS Files

DEFAULT	FMS_DSI_NGS_025LUP	FN:28	PRODUCER	22−Apr−2014 20:12	3074.7 M	2750.5 M

Output DLIS Files

DEFAULT	FMS_DSI_NGS_052PUP	FN:67	PRODUCER	25−Apr−2014 04:57	951.0 M	627.6 M
CLIENT	FMS_DSI_NGS_052PUC	FN:68	CUSTOMER	25−Apr−2014 04:57	951.0 M	627.6 M

OP System Version: 19C0−187

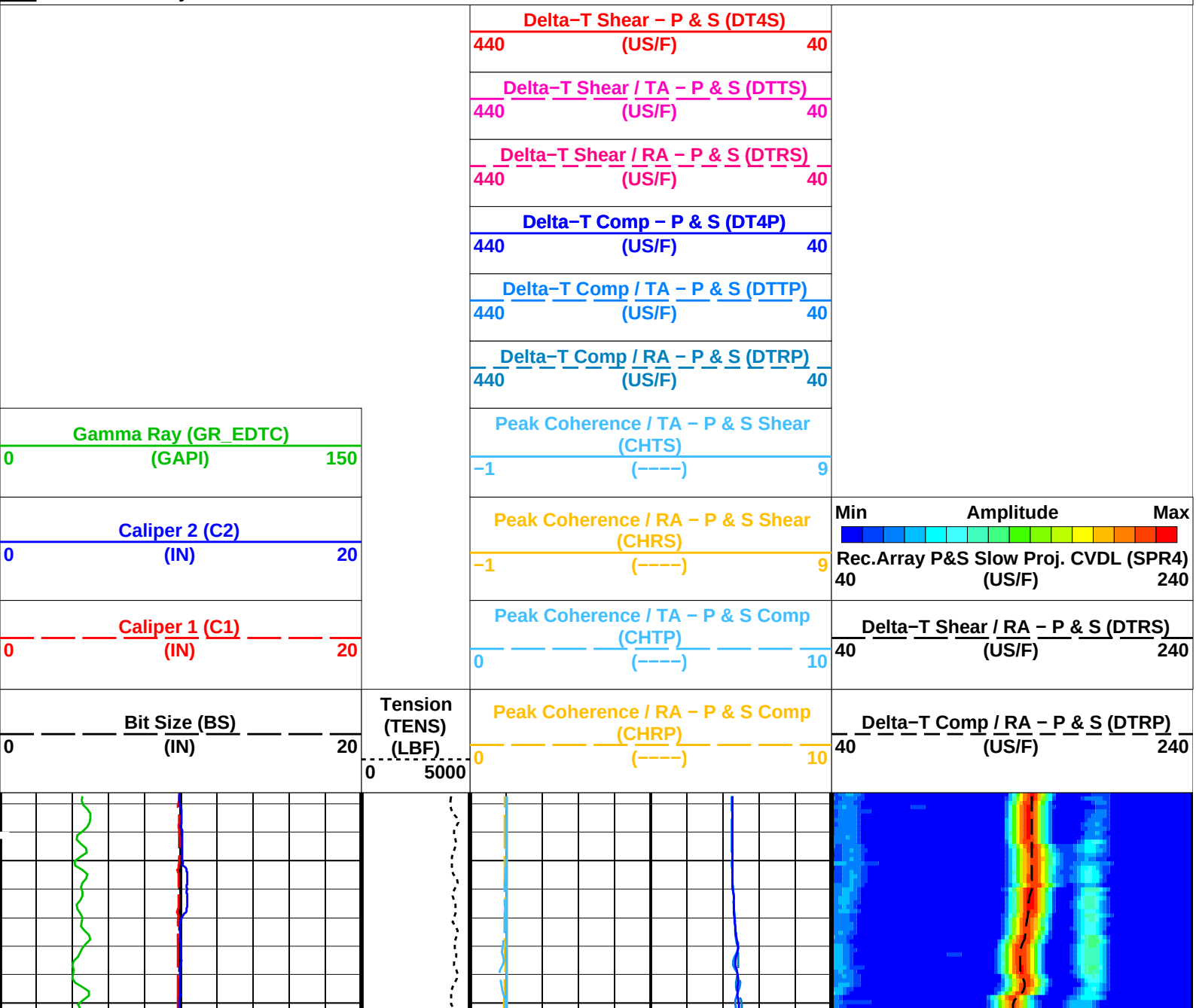
MEST−B	19C0−187	DTA−A	8453
DSST−B	19C0−187	HNGC−B	19C0−187
HNGS−BA	19C0−187	EDTC−B	SKK−5169−EDTCB

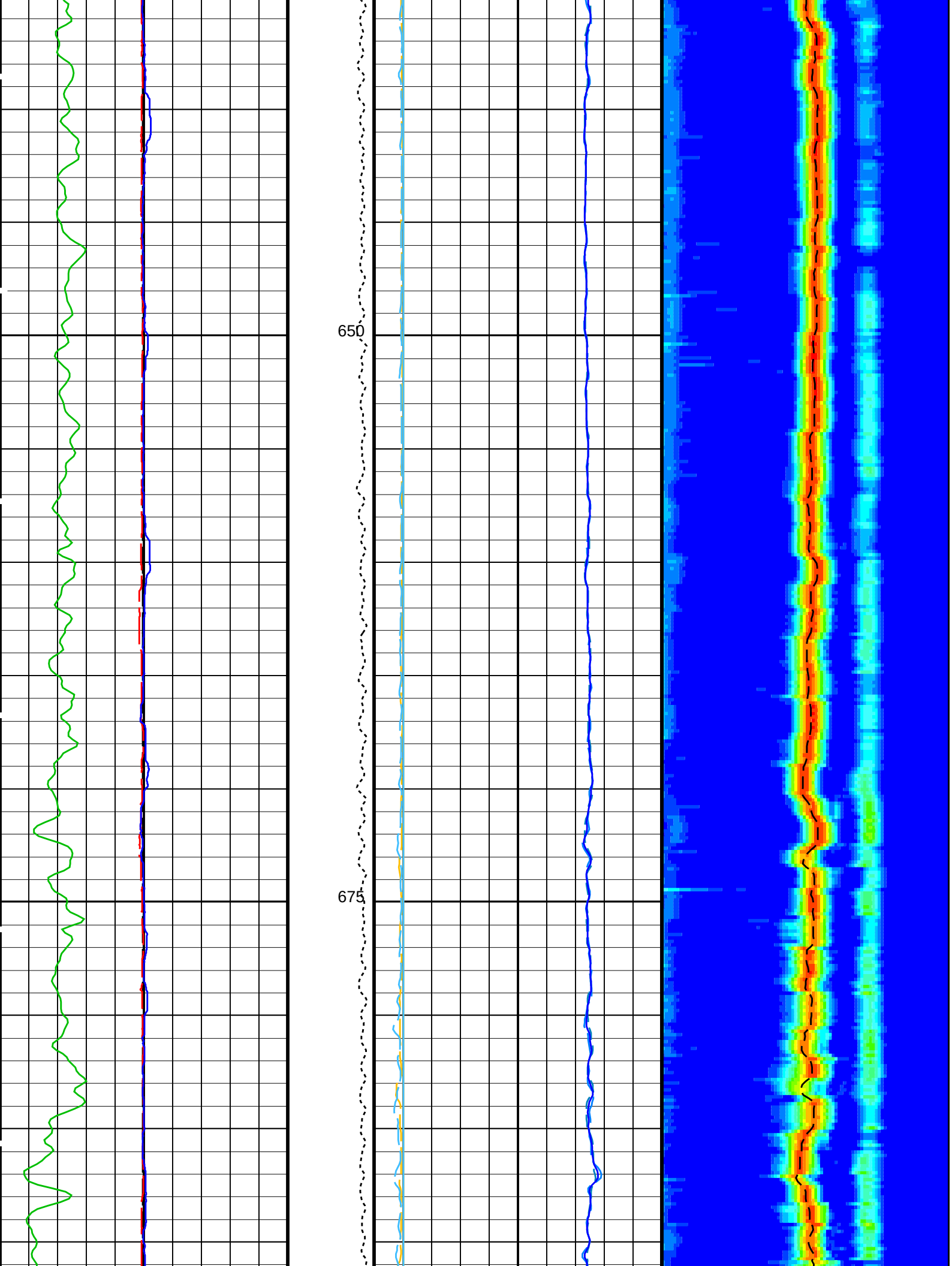
Changed Parameter Summary

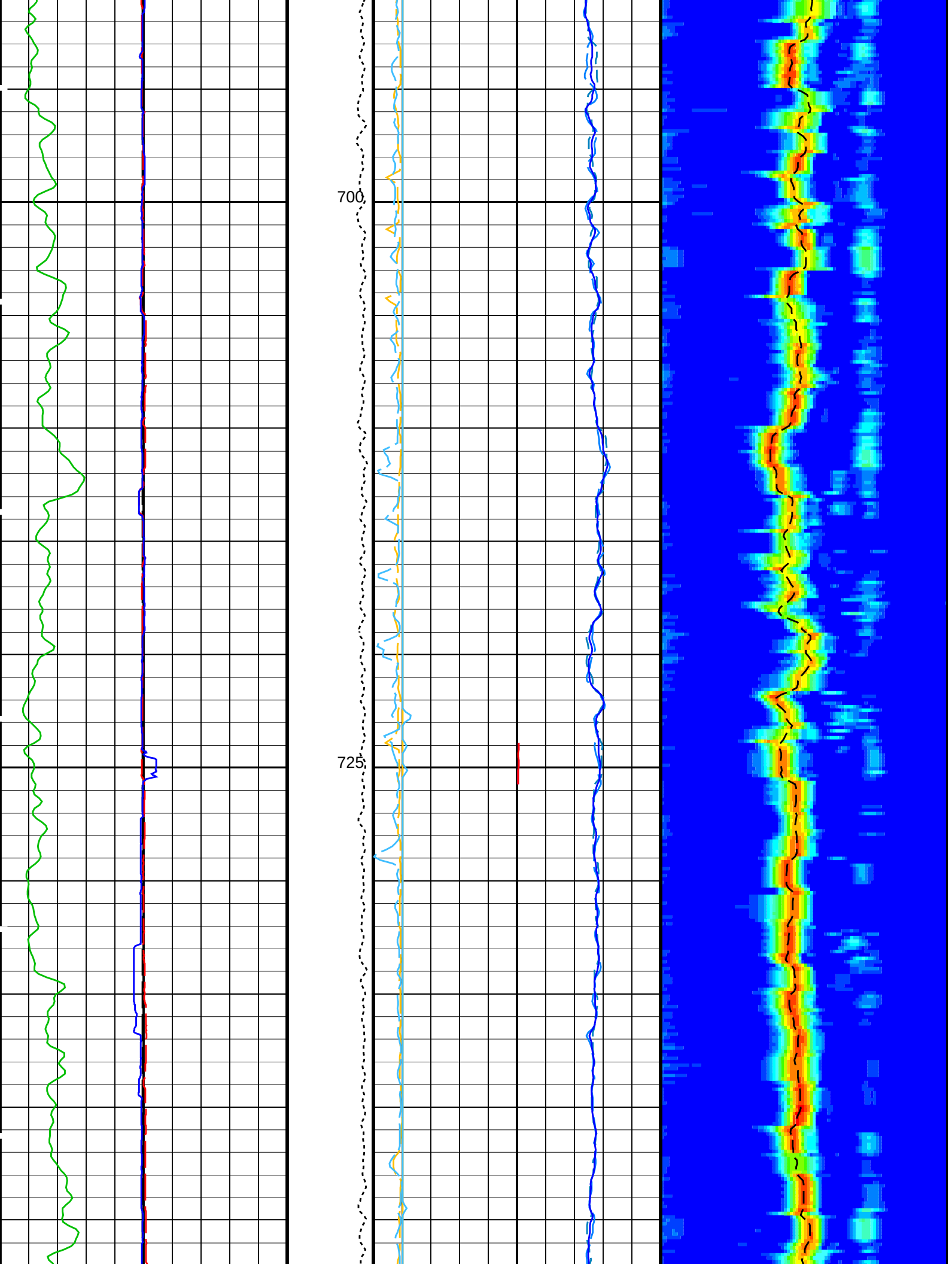
DLIS Name	New Value	Previous Value	Depth & Time
COLL	60 US/F	60 US/F	951.0 04:57:05
	60 US/F	60 US/F	799.9 04:57:25
STLL	180 US/F	180 US/F	951.0 04:57:05
	180 US/F	180 US/F	799.9 04:57:25

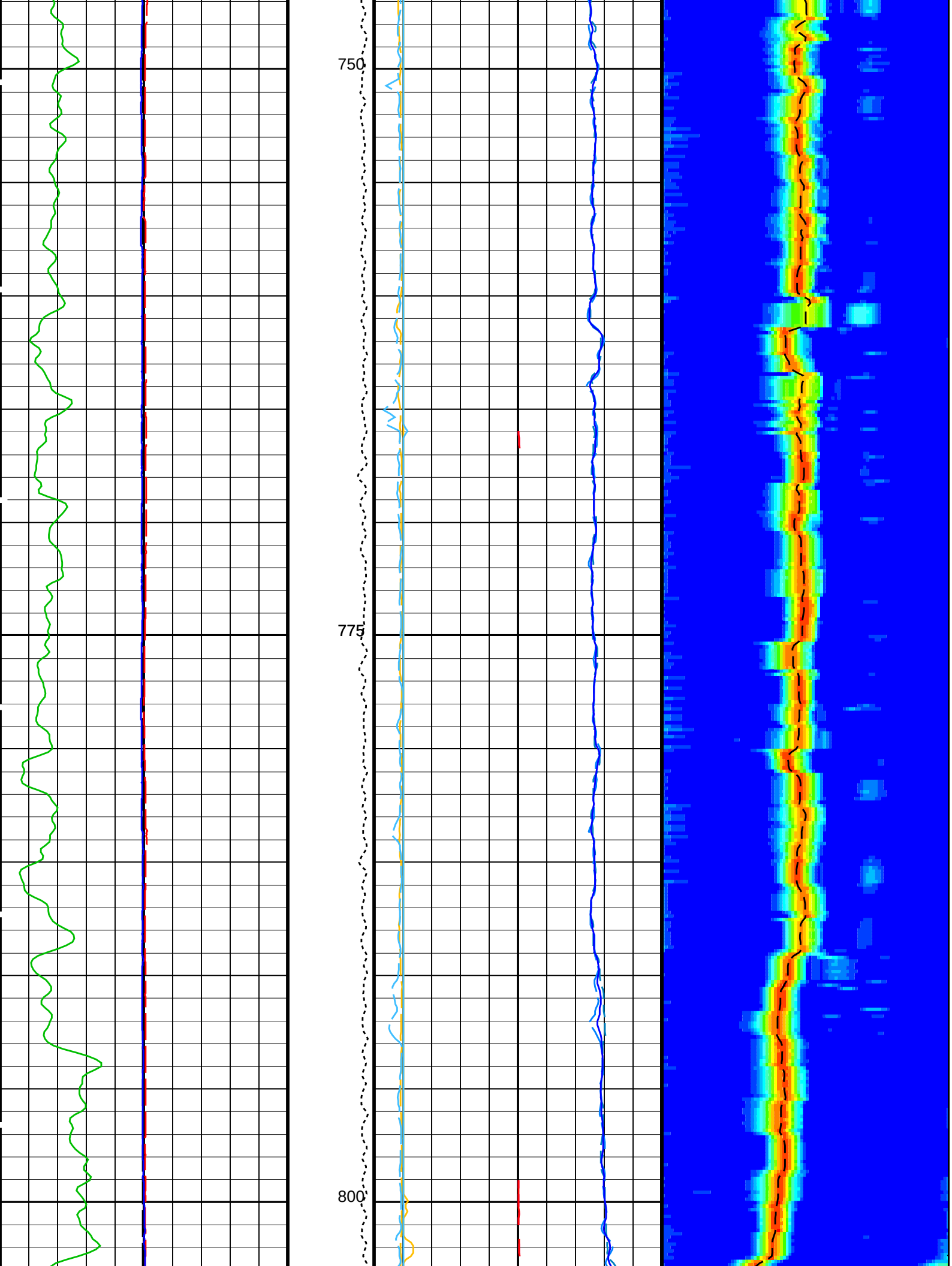
PIP SUMMARY

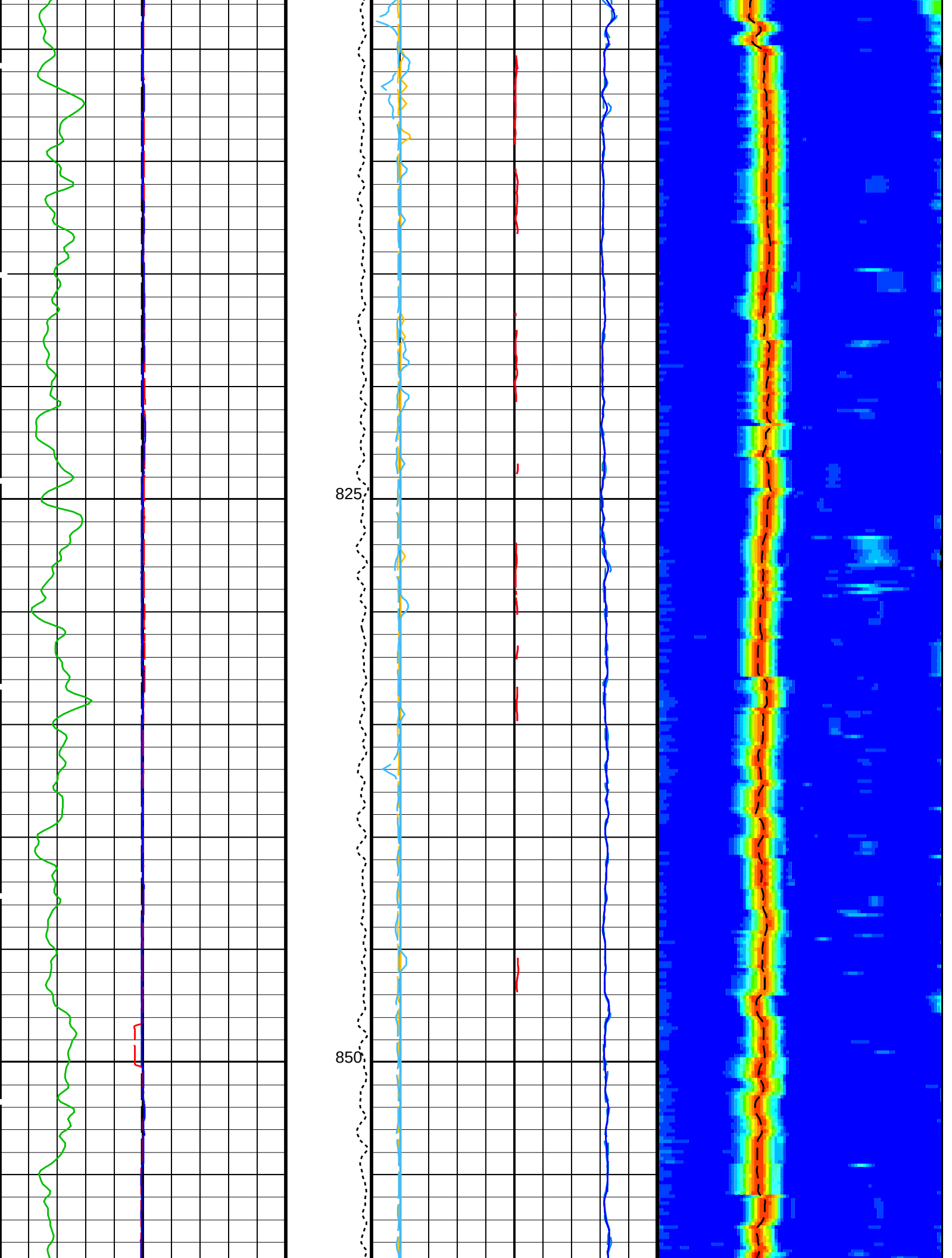
Time Mark Every 60 S

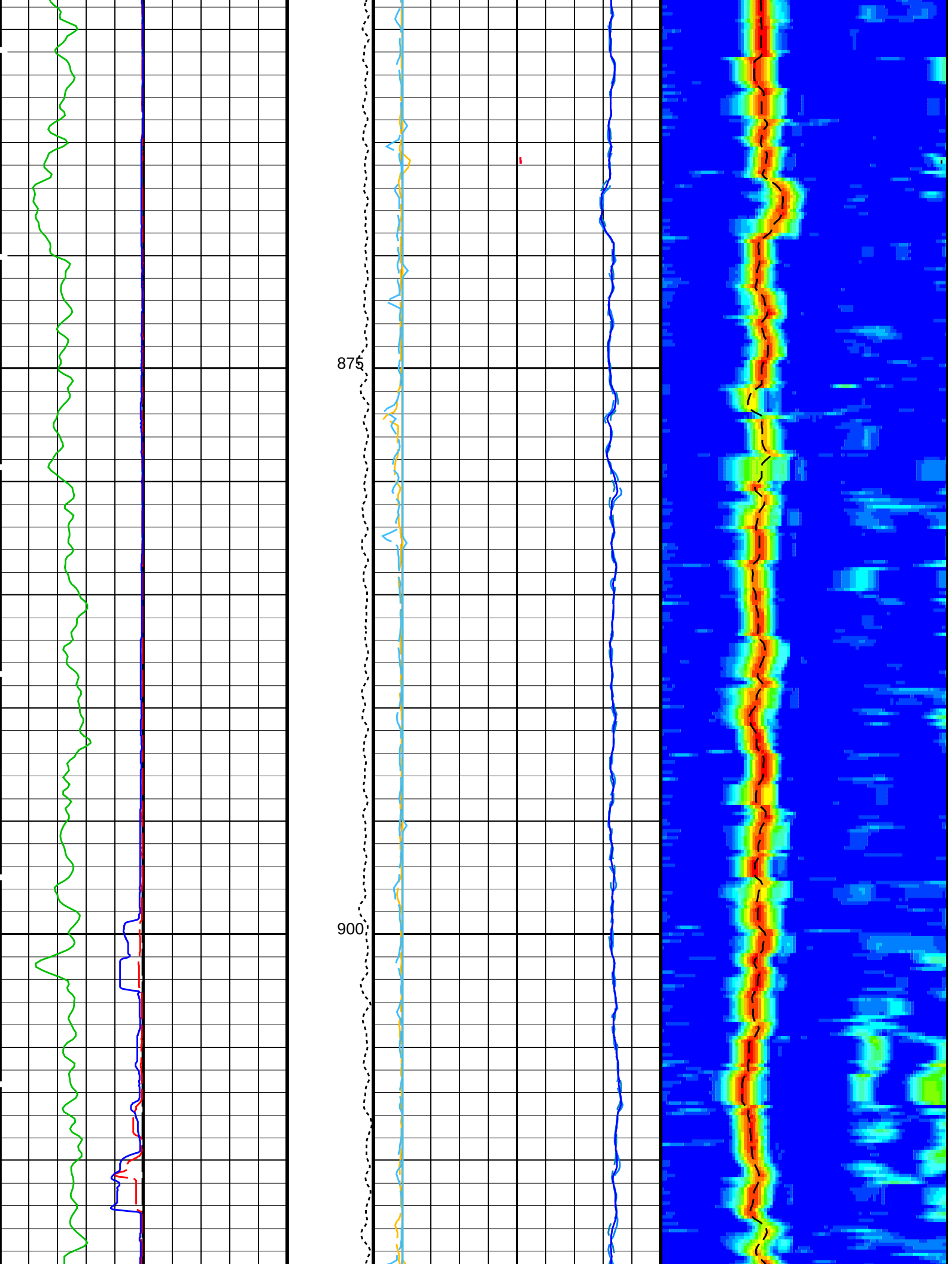


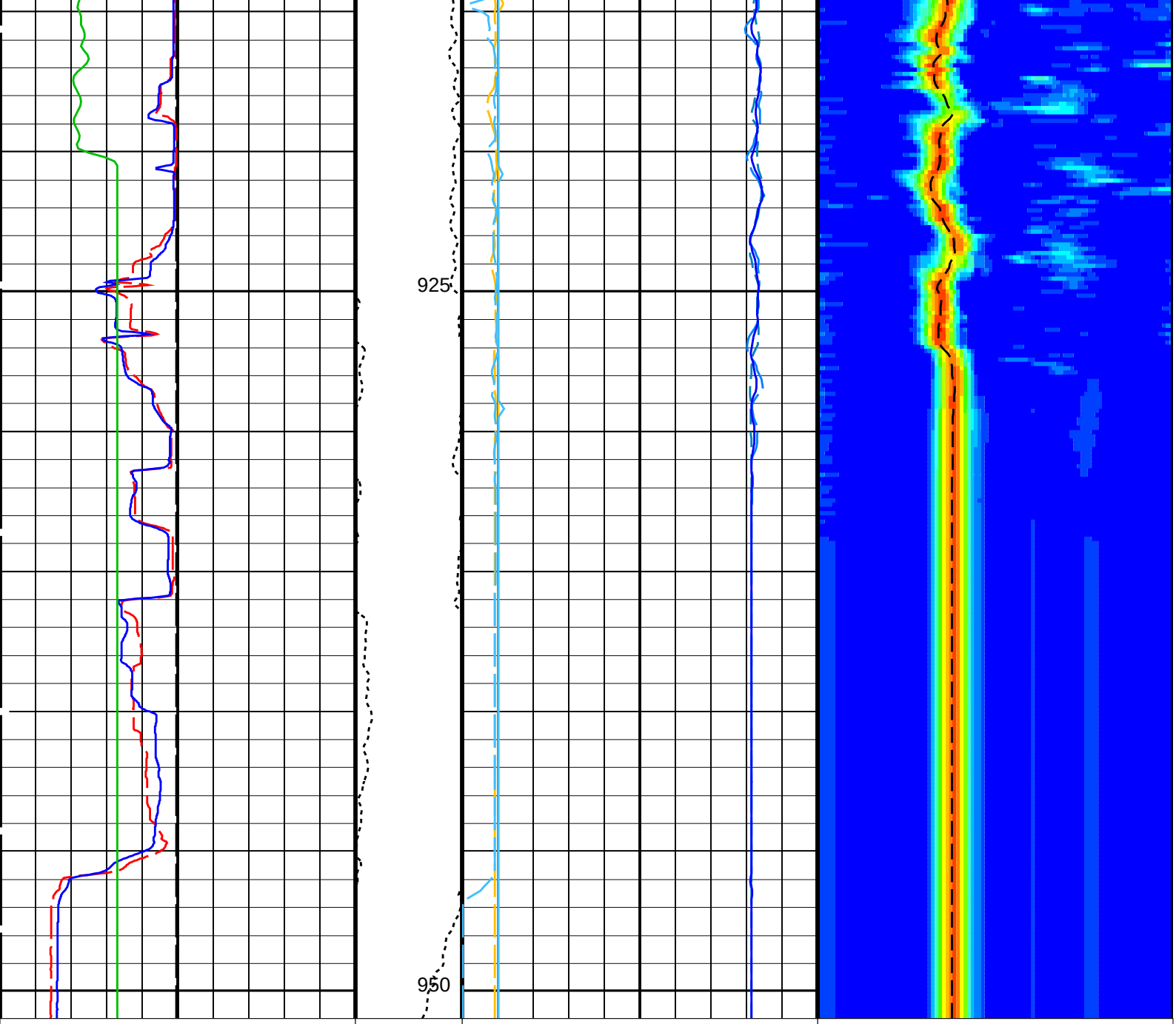

650
675


700
725


750
775
800


825
850


875
900



Bit Size (BS)
0 (IN) 20

Caliper 1 (C1)
0 (IN) 20

Caliper 2 (C2)
0 (IN) 20

Gamma Ray (GR_EDTC)
0 (GAPI) 150

Tension (TENS) (LBF)
0 5000

Peak Coherence / RA − P & S Comp (CHRP)
0 (----) 10

Peak Coherence / TA − P & S Comp (CHTP)
0 (----) 10

Peak Coherence / RA − P & S Shear (CHRS)
−1 (----) 9

Peak Coherence / TA − P & S Shear (CHTS)
−1 (----) 9

Delta−T Comp / RA − P & S (DTRP)
440 (US/F) 40

Delta−T Comp / TA − P & S (DTTP)
440 (US/F) 40

Delta−T Comp − P & S (DT4P)

Delta−T Comp / RA − P & S (DTRP)
40 (US/F) 240

Delta−T Shear / RA − P & S (DTRS)
40 (US/F) 240

Min Amplitude Max
Rec.Array P&S Slow Proj. CVDL (SPR4)
40 (US/F) 240

440	(US/F)	40

Delta−T Shear / RA − P & S (DTRS)		
440	(US/F)	40

Delta−T Shear / TA − P & S (DTTS)		
440	(US/F)	40

Delta−T Shear − P & S (DT4S)		
440	(US/F)	40

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
BHS	Borehole Status	OPEN	
CASF	Label Casing Function − Monopole P&S	50	
COLL	Label Slowness Lower Limit − Monopole P&S Compressional	60	US/F
COUL	Label Slowness Upper Limit − Monopole P&S Compressional	209	US/F
DDE4	Digitizing Delay 4	0	US
DDEX	Digitizing Delay X	0	US
DSI4	Digitizer Sample Interval 4	10	US
DSIX	Digitizer Sample Interval X	40	US
DTF	Delta−T Fluid	210	US/F
DWC4	Digitizer Word Count 4	512	
DWCX	Digitizer Word Count X	512	
FILG	Label Fill Gap Control − Monopole P&S	COMP	
LFC	Label Formation Character − Monopole P&S	COMP_FIRST	
MCS	Mean Casing Slowness	57	US/F
MTXG	Monopole Transmitter Geometry	186	IN
NWI4	Number Waveform Items 4	8	
NWIX	Number Waveform Items X	0	
RSMN	Label Shear/Compressional Minimum Ratio − Monopole P&S	1.4	
RSMX	Label Shear/Compressional Maximum Ratio − Monopole P&S	2.12	
RX1G	Receiver 1 Geometry	294	IN
RX2G	Receiver 2 Geometry	300	IN
RX3G	Receiver 3 Geometry	306	IN
RX4G	Receiver 4 Geometry	312	IN
RX5G	Receiver 5 Geometry	318	IN
RX6G	Receiver 6 Geometry	324	IN
RX7G	Receiver 7 Geometry	330	IN
RX8G	Receiver 8 Geometry	336	IN
SAM4	DSST Sonic Acquisition Mode 4 − Monopole Mode for P&S	EVEN	
SAMX	DSST Sonic Acquisition Mode X − Both Dipoles or Monopole Mode for Expert	OFF	
SAS4	STC Sonic Array Status − Monopole P&S	255	
SBO4	STC Search Band Offset − Monopole P&S	500	US
SBR4	STC Baseline Removal − Monopole P&S	ON	
SBW4	STC Search Bandwidth − Monopole P&S	2000	US
SFC4	STC Formation Character − Monopole P&S	SELECTABLE	
SFM4	STC Filter − Monopole P&S	B3−20K	
SHLL	Label Slowness Lower Limit − Monopole P&S Shear	235	US/F
SHUL	Label Slowness Upper Limit − Monopole P&S Shear	240	US/F
SLL4	STC Slowness Lower Limit − Monopole P&S	40	US/F
SST4	STC Slowness Step − Monopole P&S	2	US/F
SSW4	STC Source Waveform − Monopole P&S	WF_SAM4	
STLL	Label Slowness Lower Limit − Monopole Stoneley	180	US/F
STUL	Label Slowness Upper Limit − Monopole Stoneley	1200	US/F
SUL4	STC Slowness Upper Limit − Monopole P&S	240	US/F
SWD4	STC Slowness Width − Monopole P&S	10	US/F
TBF4	STC Time for Baseline Fill − Monopole P&S	300	US
TLL4	STC Time Lower Limit − Monopole P&S	150	US
TST4	STC Time Step − Monopole P&S	50	US
TUL4	STC Time Upper Limit − Monopole P&S	3660	US
TWD4	STC Time Width − Monopole P&S	1000	US
TWI4	STC Integration Time Window − Monopole P&S	500	US
TWSX	Transmitter Waveform Select X	0	
	HNGS−BA: Hostile Natural Gamma Ray Sonde		
BHS	Borehole Status	OPEN	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DO	Depth Offset for Playback	−2122.9	M
PP	Playback Processing	RECOMPUTE	

Format: DSST_P_S_VDL_COLOR Vertical Scale: 1:200 Graphics File Created: 25−Apr−2014 04:57

OP System Version: 19C0−187

MEST−B	19C0−187	DTA−A	8453
DSST−B	19C0−187	HNGC−B	19C0−187
HNGS−BA	19C0−187	EDTC−B	SKK−5169−EDTCB

Input DLIS Files

DEFAULT	FMS_DSI_NGS_025LUP	FN:28	PRODUCER	22−Apr−2014 20:12	3074.7 M	2750.5 M

Output DLIS Files

DEFAULT	FMS_DSI_NGS_052PUP	FN:67	PRODUCER	25−Apr−2014 04:57		
CLIENT	FMS_DSI_NGS_052PUC	FN:68	CUSTOMER	25−Apr−2014 04:57		

Schlumberger

Main Pass
1:200 Scale

MAXIS Field Log

Company: Lamont Doherty Earth Observatory — Well: Expedition 350, Site U1437D

Input DLIS Files

DEFAULT	FMS_DSI_NGS_026LUP	FN:30	PRODUCER	22−Apr−2014 21:11	3070.1 M	2260.1 M

Output DLIS Files

DEFAULT	FMS_DSI_NGS_050PUP	FN:63	PRODUCER	25−Apr−2014 04:51	946.4 M	137.5 M
CLIENT	FMS_DSI_NGS_050PUC	FN:64	CUSTOMER	25−Apr−2014 04:51	946.4 M	137.5 M

OP System Version: 19C0−187

MEST−B	19C0−187	DTA−A	8453
DSST−B	19C0−187	HNGC−B	19C0−187
HNGS−BA	19C0−187	EDTC−B	SKK−5169−EDTCB

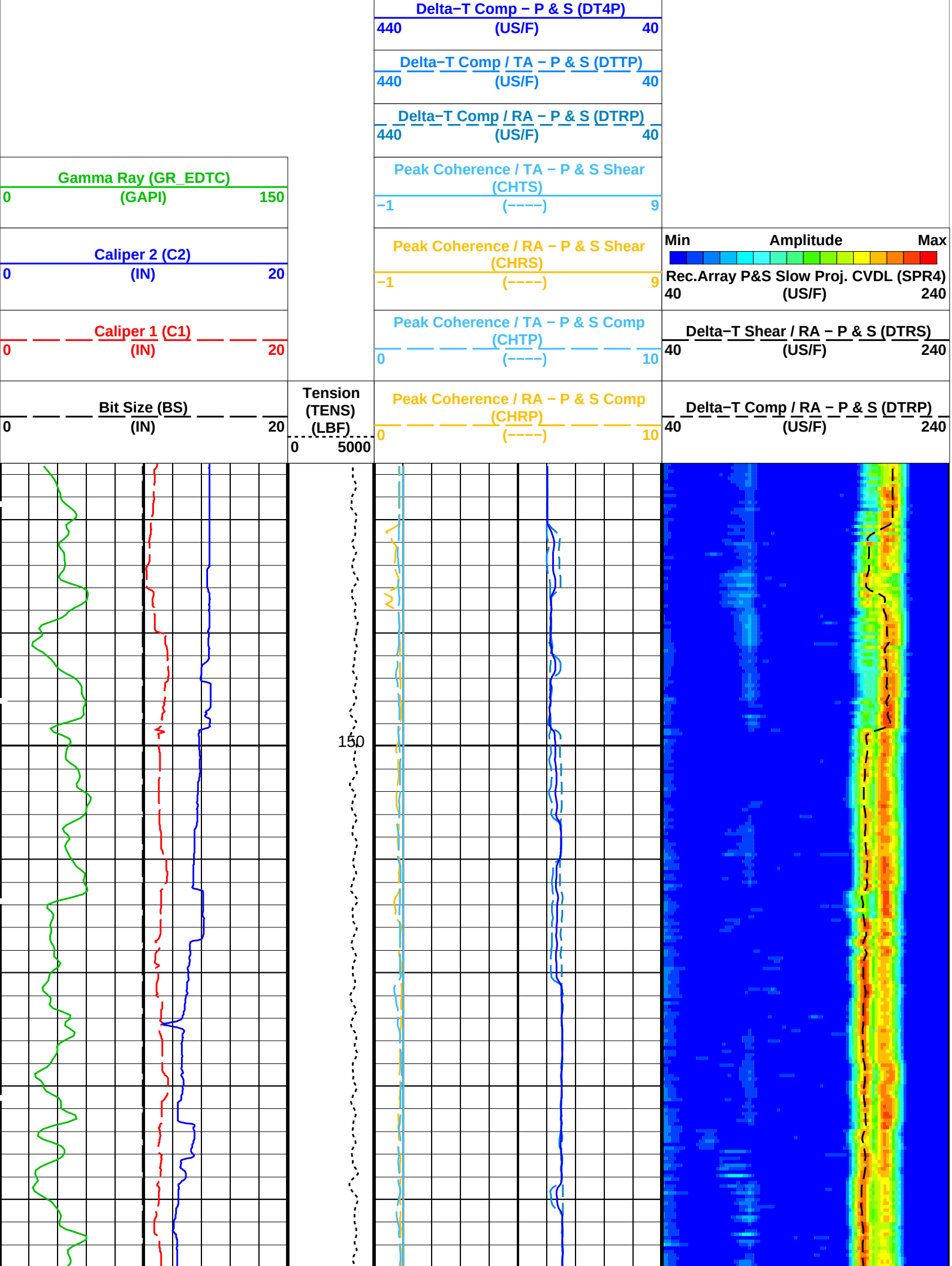
Changed Parameter Summary

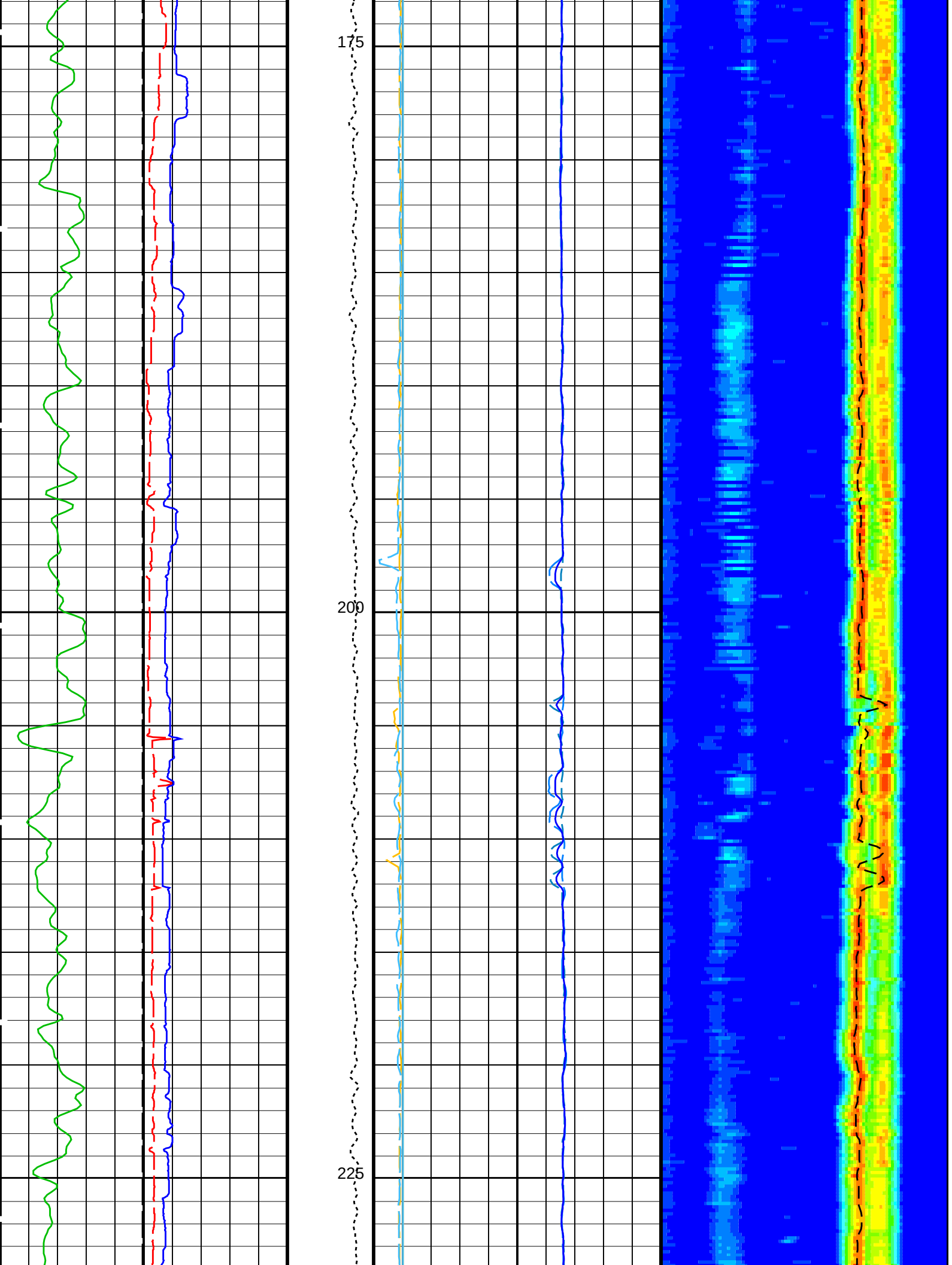
DLIS Name	New Value	Previous Value	Depth & Time
COLL	60 US/F	100 US/F	946.4 04:51:04
	60 US/F	60 US/F	799.9 04:51:22
	100 US/F	60 US/F	219.9 04:52:37
STLL	180 US/F	300 US/F	946.4 04:51:04
	180 US/F	180 US/F	799.9 04:51:22
	300 US/F	180 US/F	219.9 04:52:37

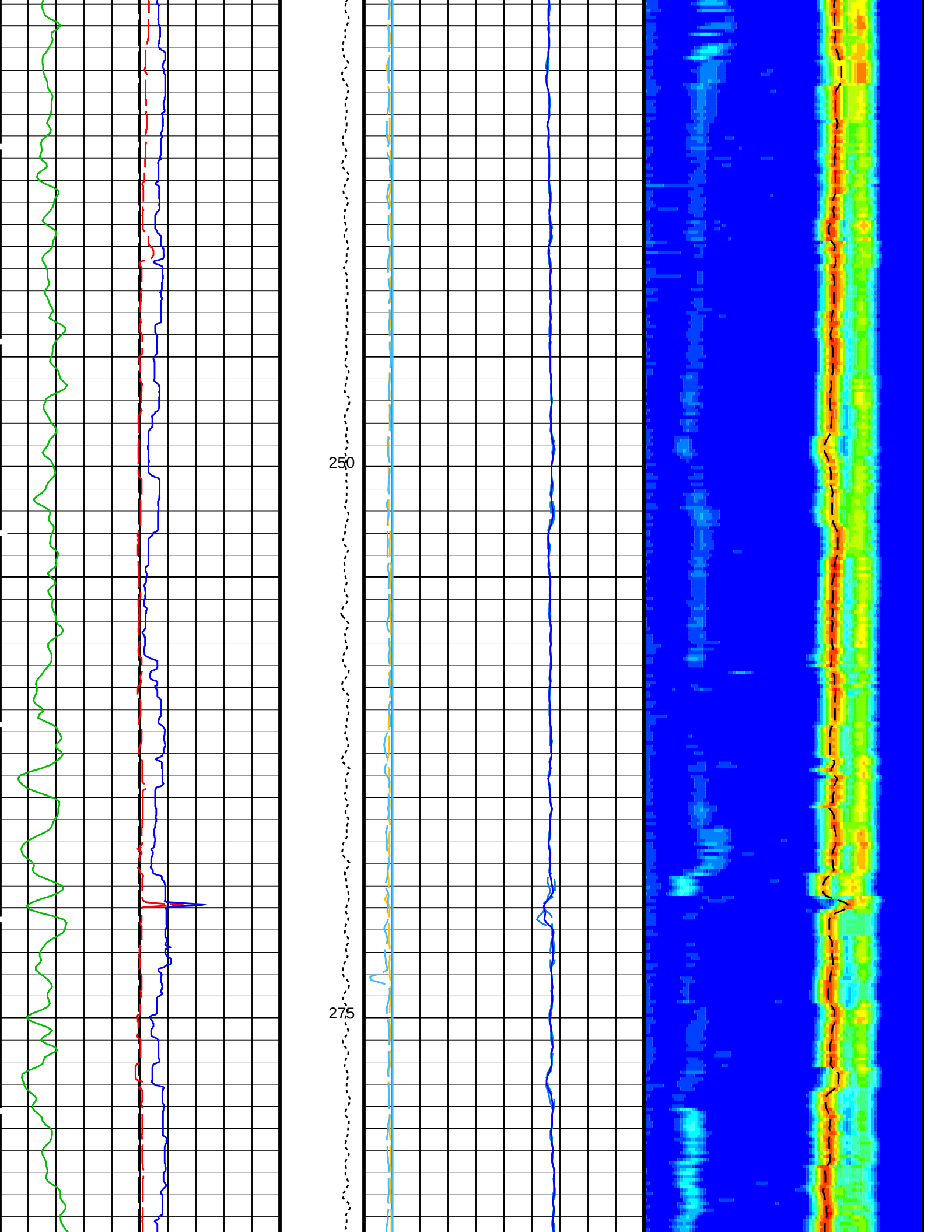
PIP SUMMARY

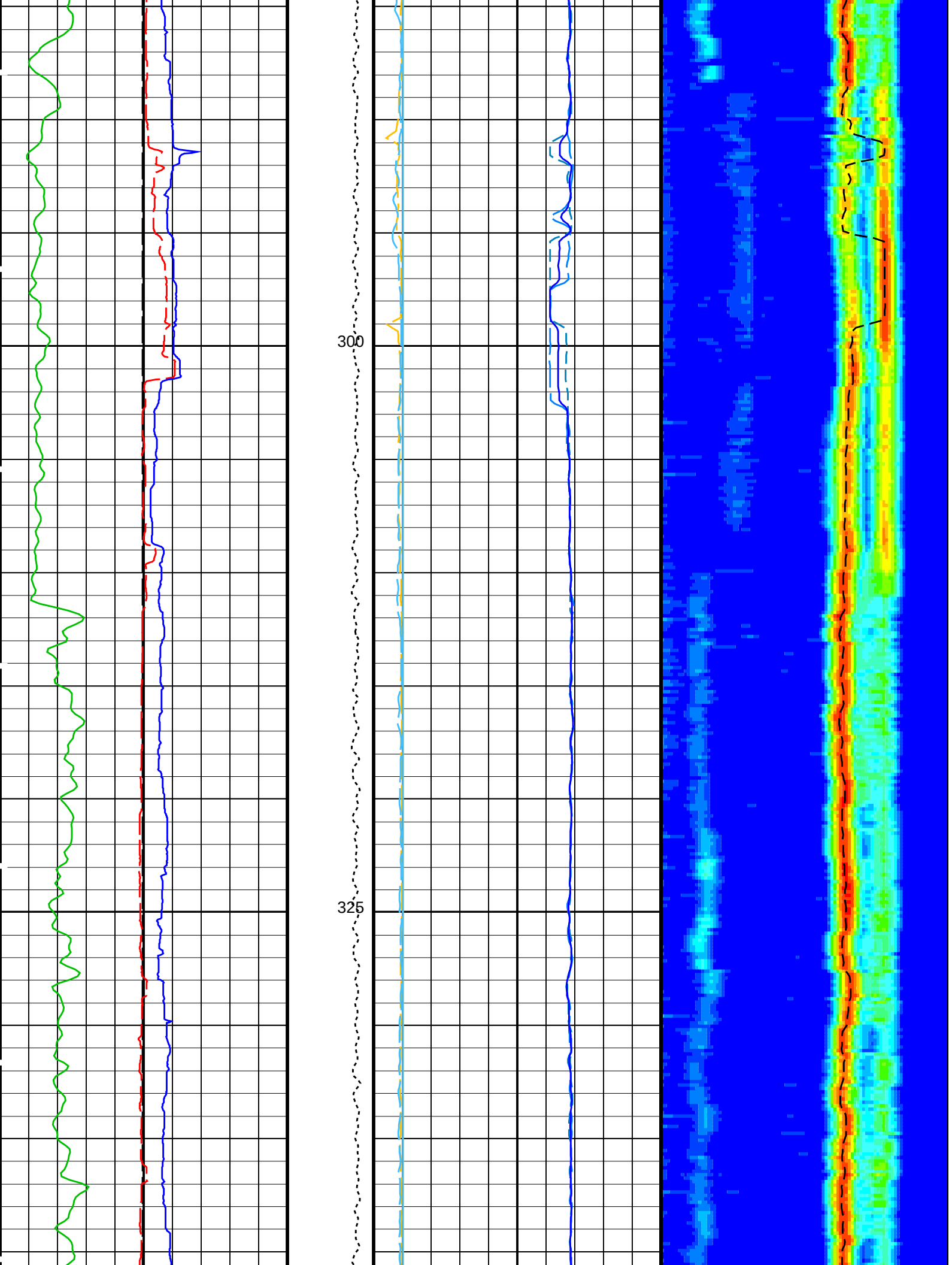
Time Mark Every 60 S

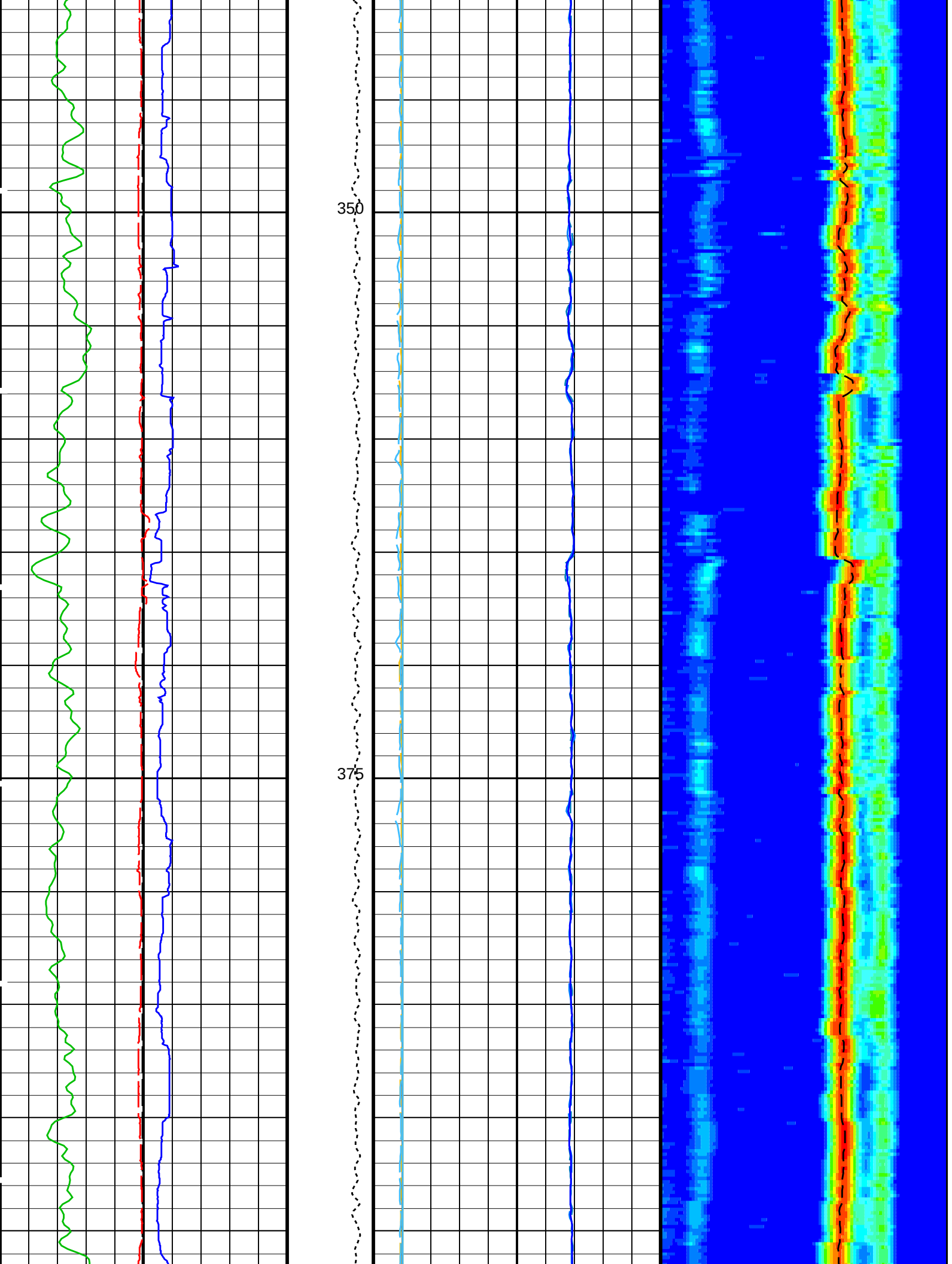
Delta−T Shear − P & S (DT4S)		
440	(US/F)	40
Delta−T Shear / TA − P & S (DTTS)		
440	(US/F)	40
Delta−T Shear / RA − P & S (DTRS)		
440	(US/F)	40

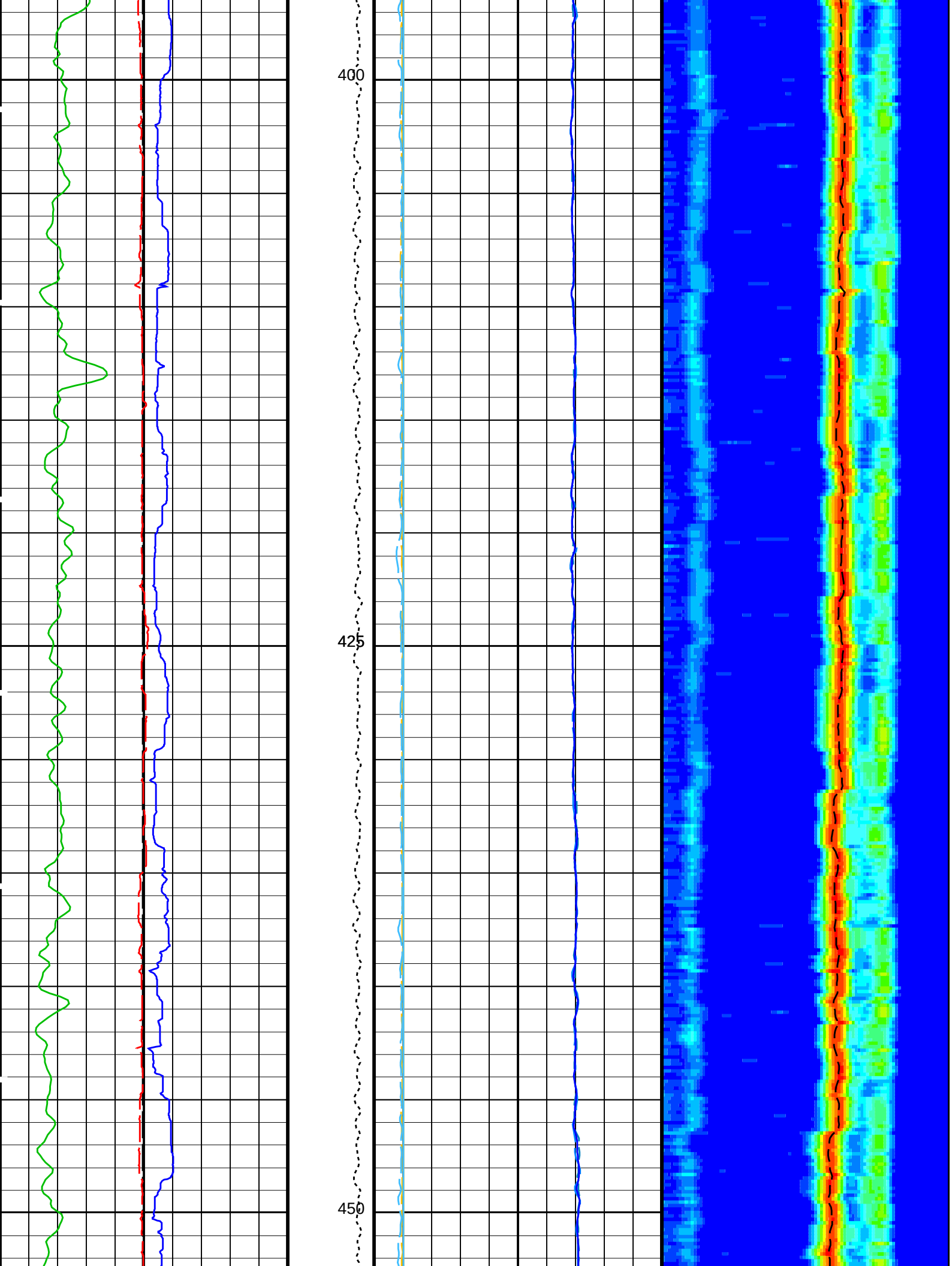

Delta−T Comp − P & S (DT4P)
440 (US/F) 40
Delta−T Comp / TA − P & S (DTTP)
440 (US/F) 40
Delta−T Comp / RA − P & S (DTRP)
440 (US/F) 40
Gamma Ray (GR_EDTC)
0 (GAPI) 150
Peak Coherence / TA − P & S Shear (CHTS)
−1 (−−−−) 9
Min Amplitude Max
Rec.Array P&S Slow Proj. CVDL (SPR4)
40 (US/F) 240
Caliper 2 (C2)
0 (IN) 20
Peak Coherence / RA − P & S Shear (CHRS)
−1 (−−−−) 9
Caliper 1 (C1)
0 (IN) 20
Peak Coherence / TA − P & S Comp (CHTP)
0 (−−−−) 10
Delta−T Shear / RA − P & S (DTRS)
40 (US/F) 240
Bit Size (BS)
0 (IN) 20
Tension (TENS) (LBF)
0 5000
Peak Coherence / RA − P & S Comp (CHRP)
0 (−−−−) 10
Delta−T Comp / RA − P & S (DTRP)
40 (US/F) 240
150

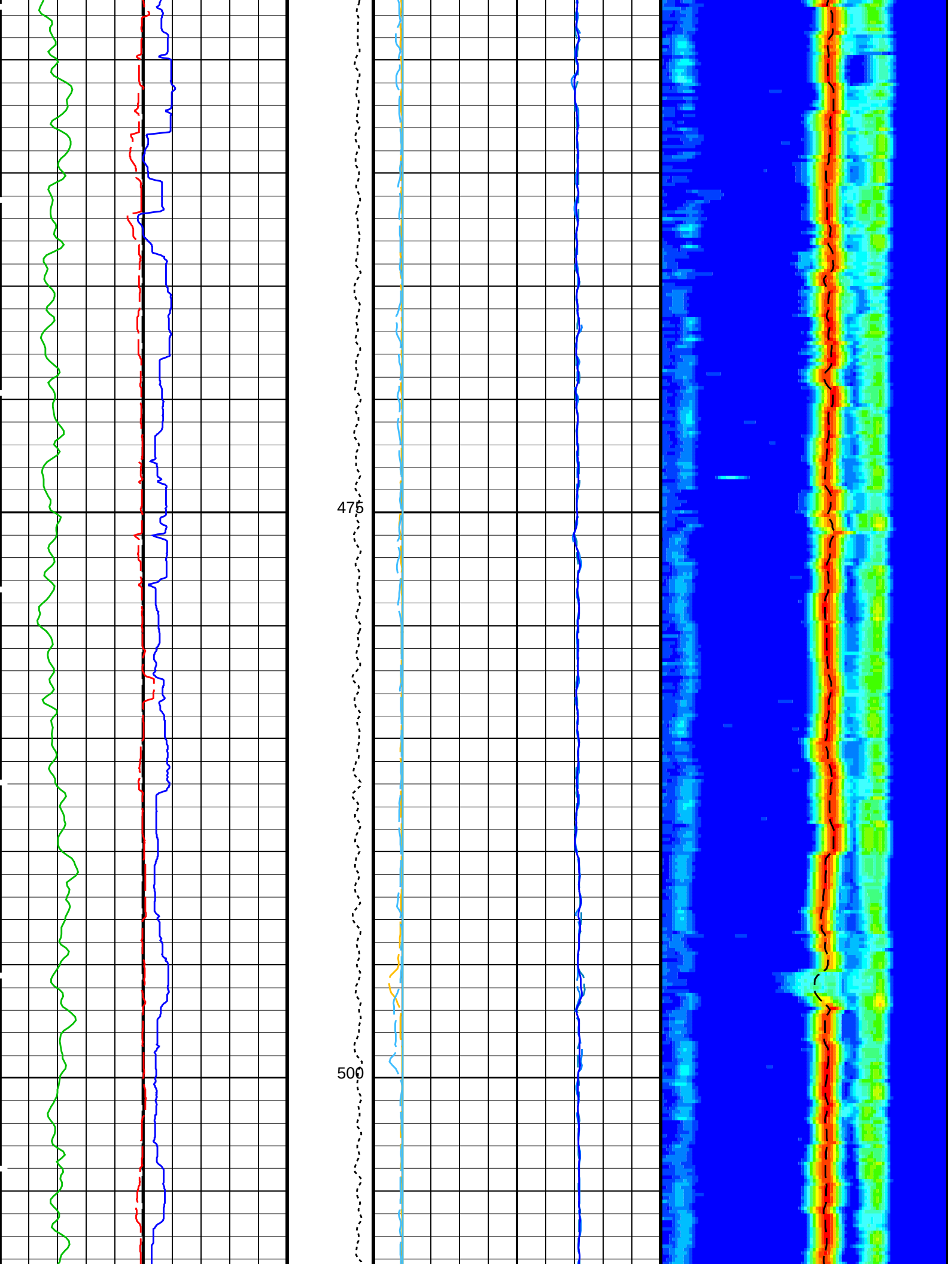

175
200
225

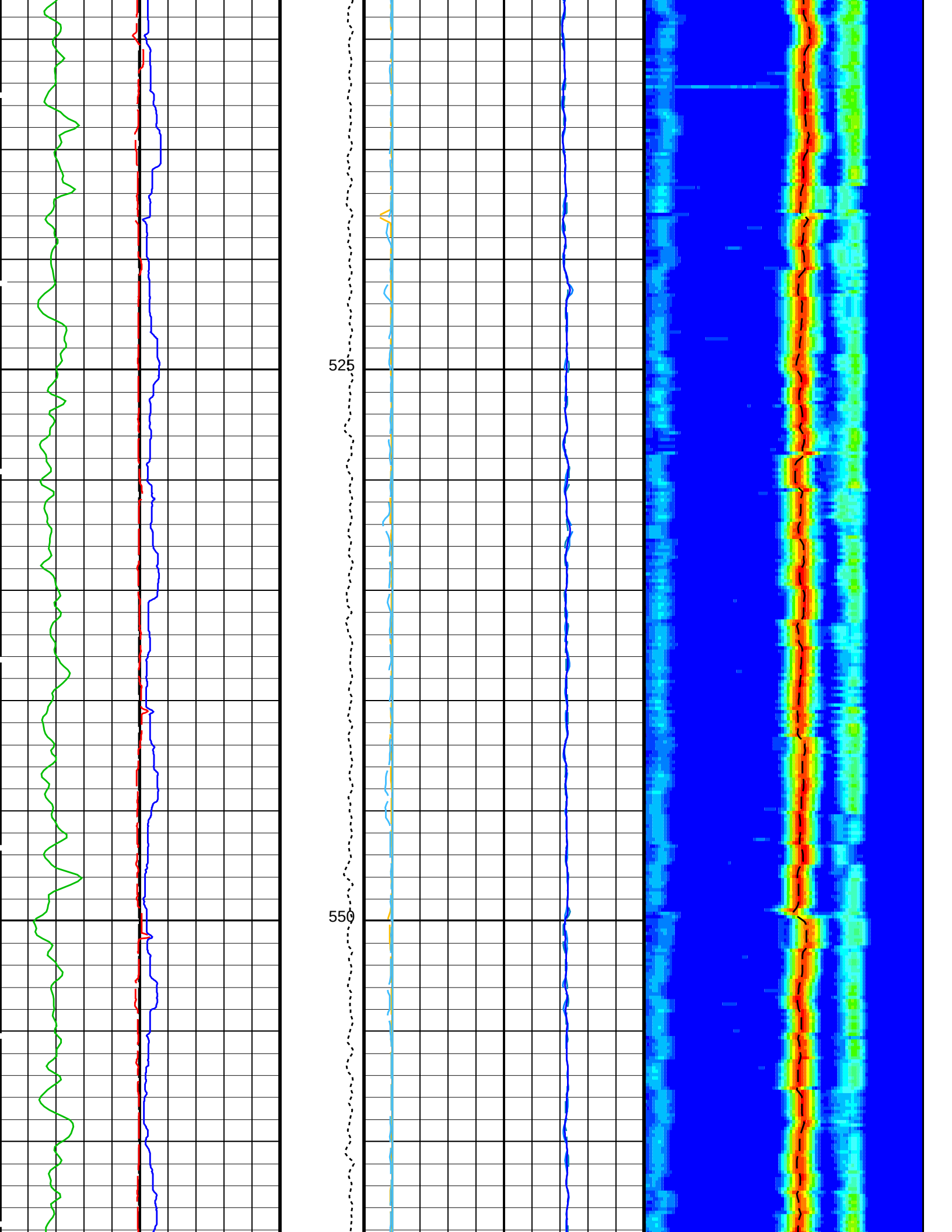

250
275

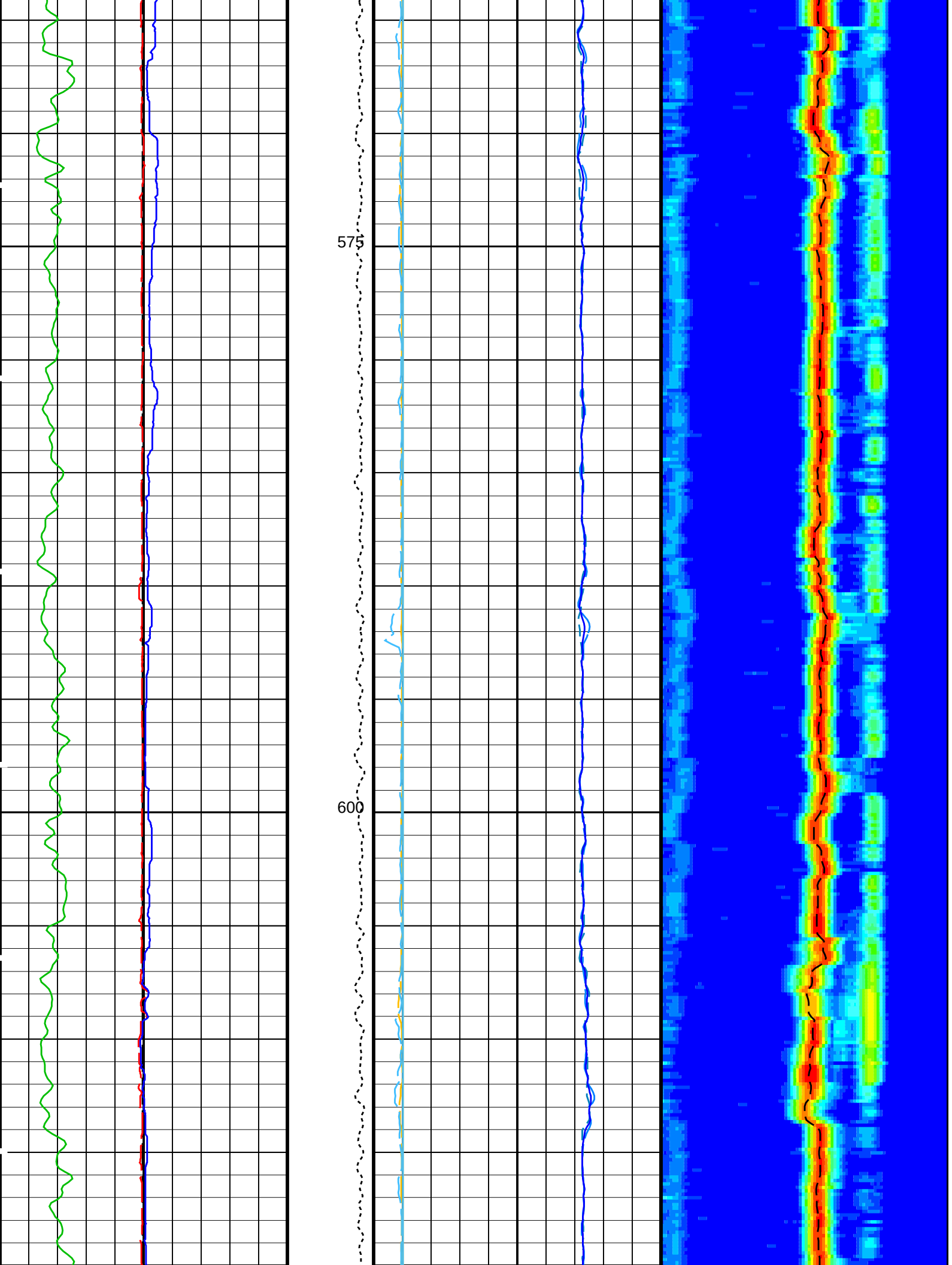

300
325

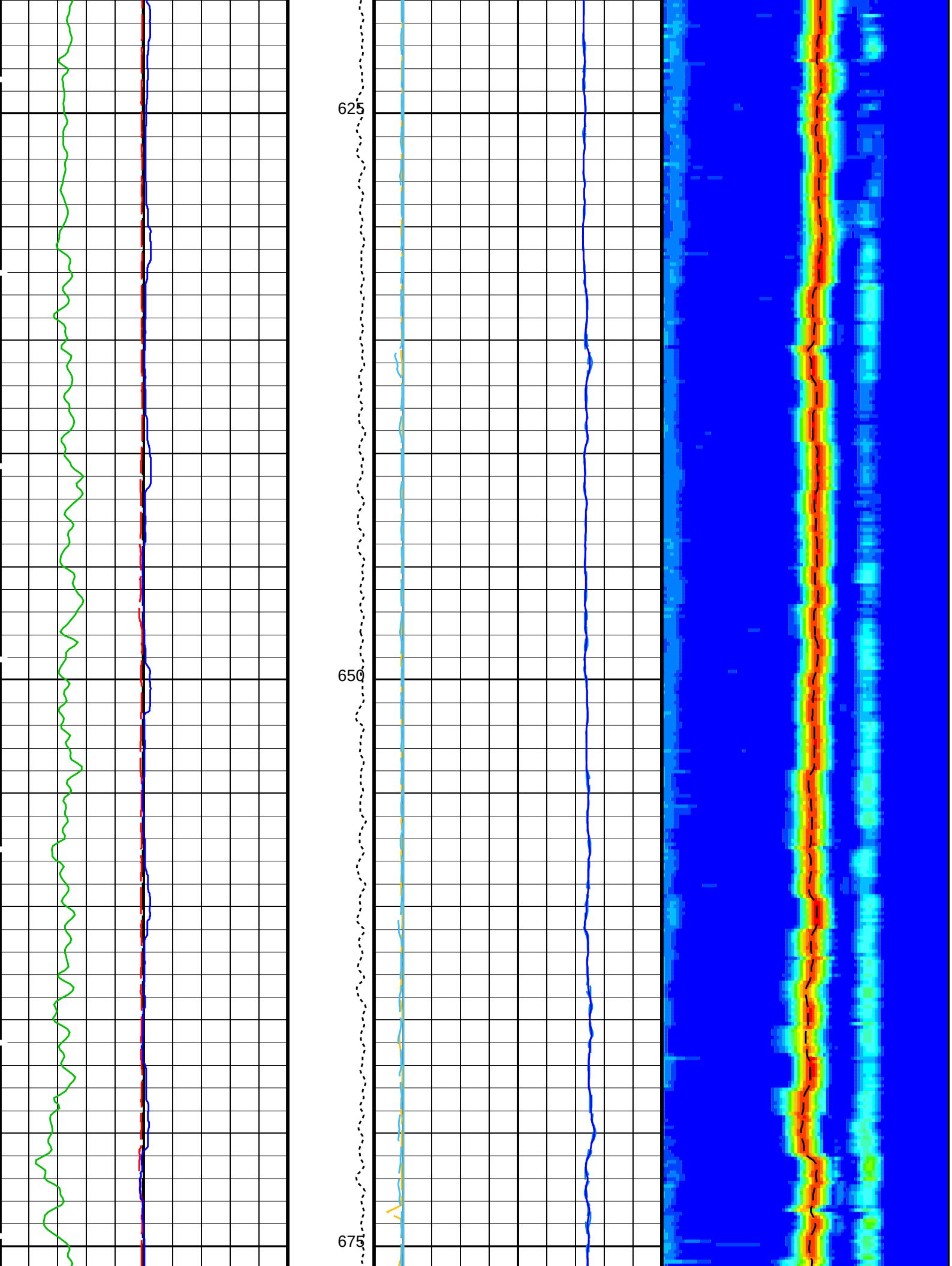

350
375

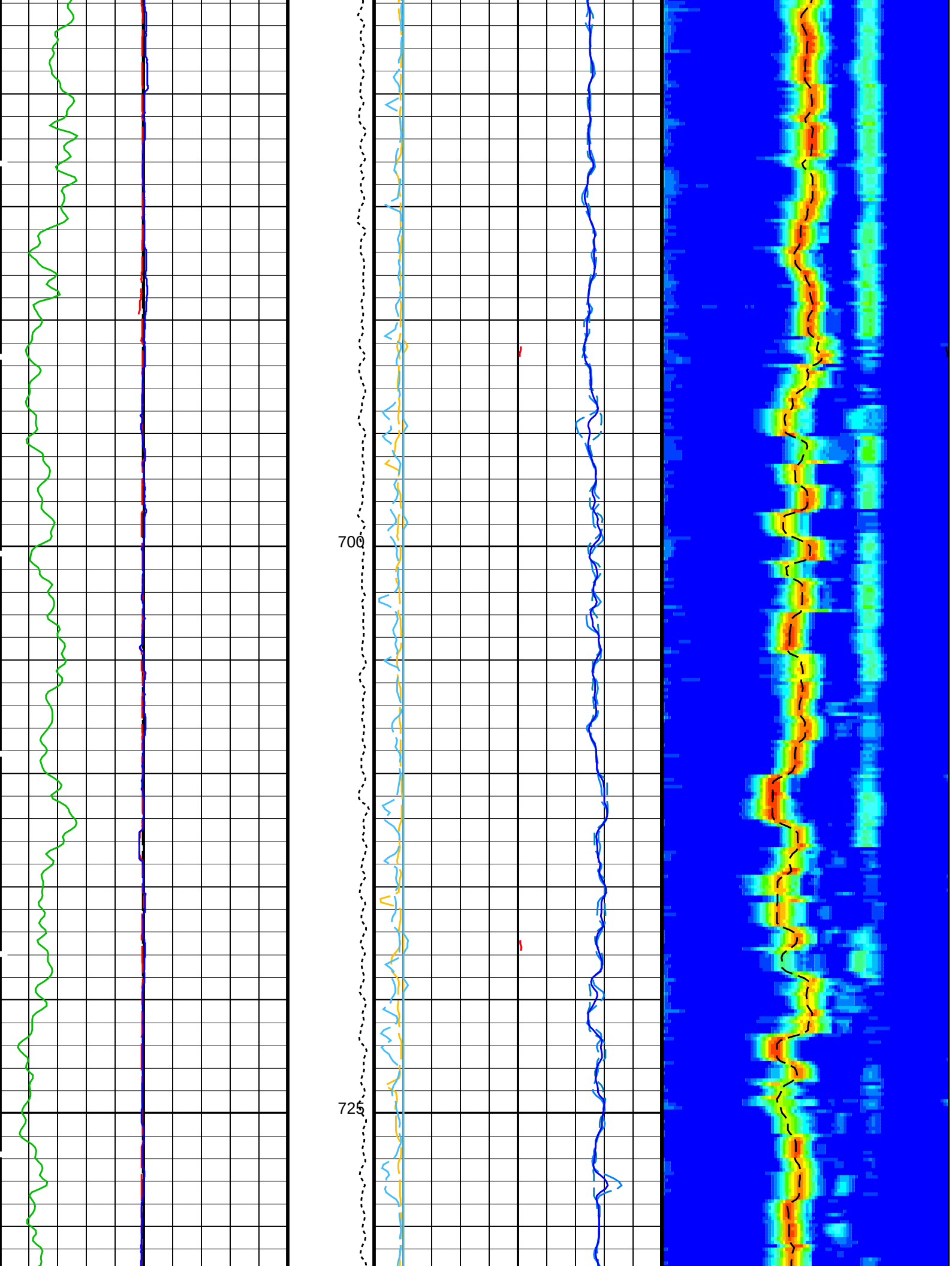

400
425
450

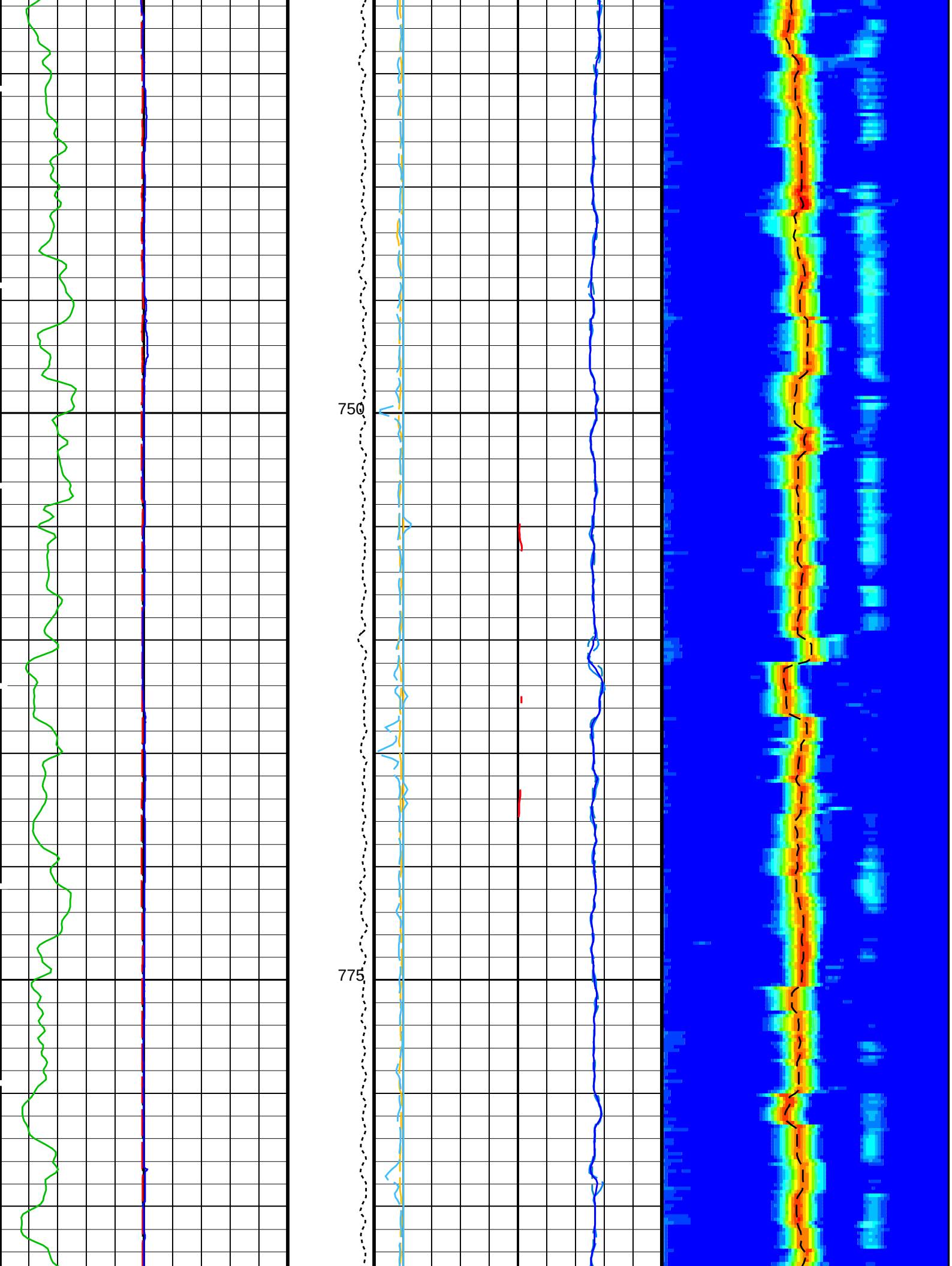

475
500

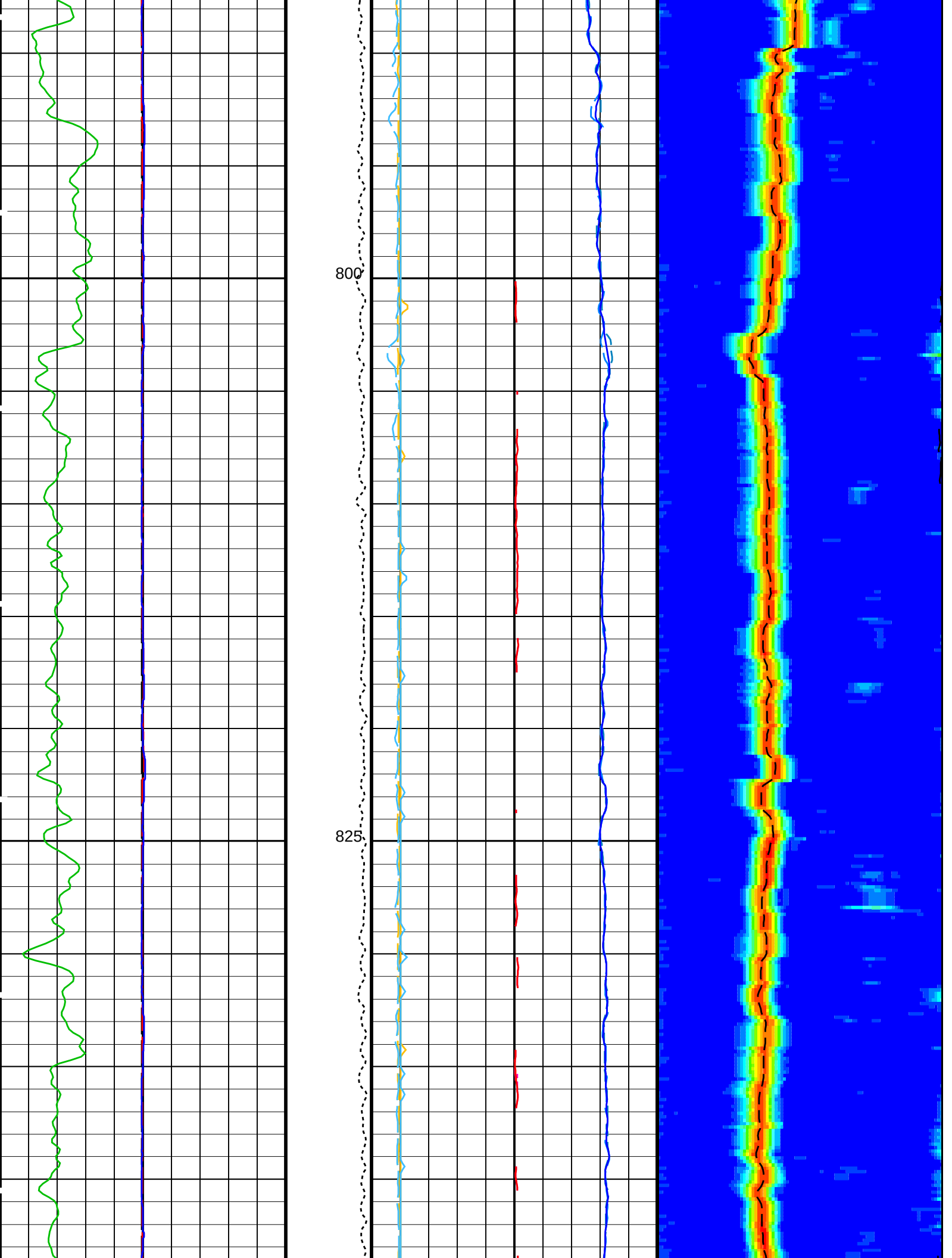

525
550

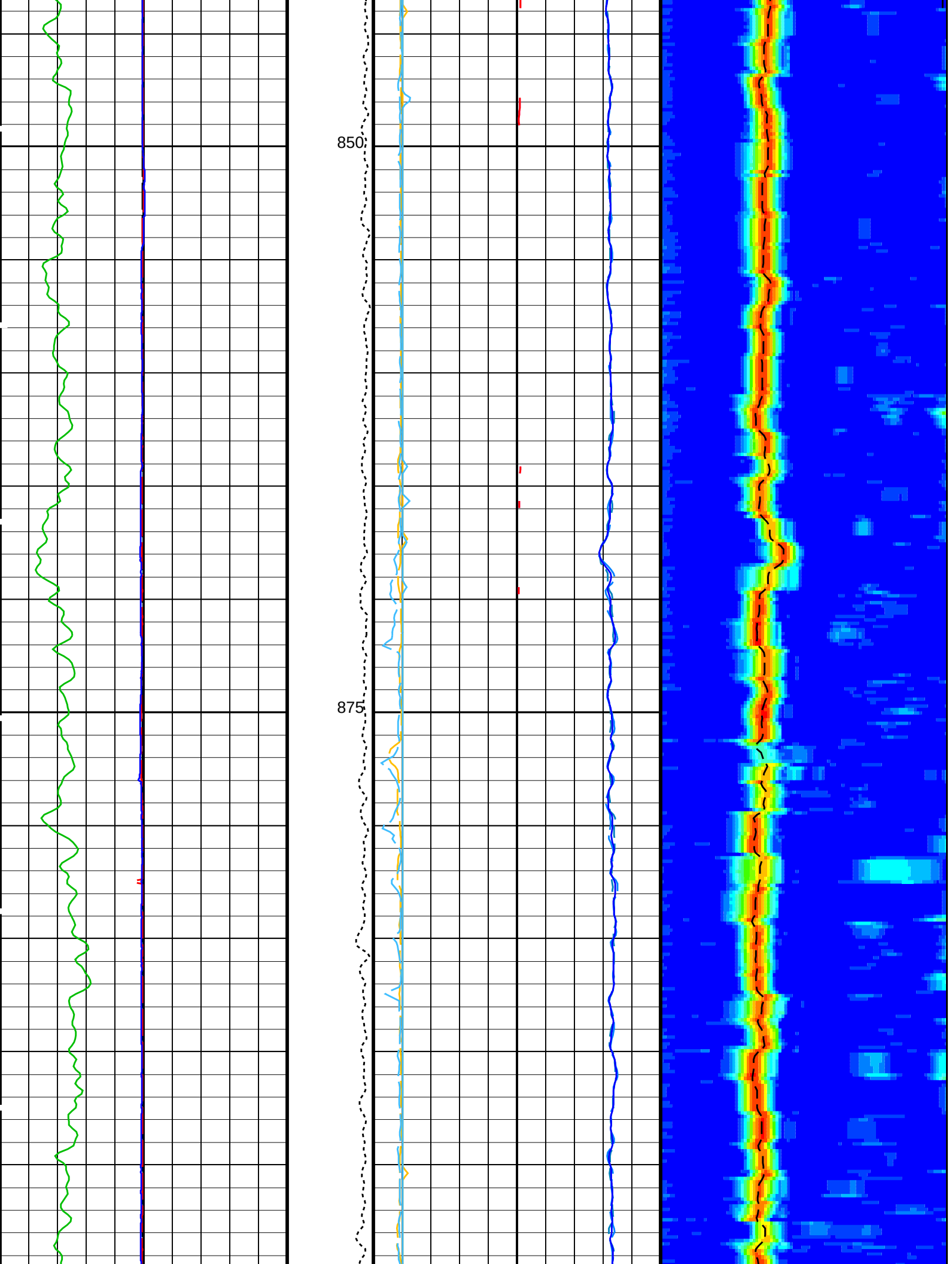

575
600

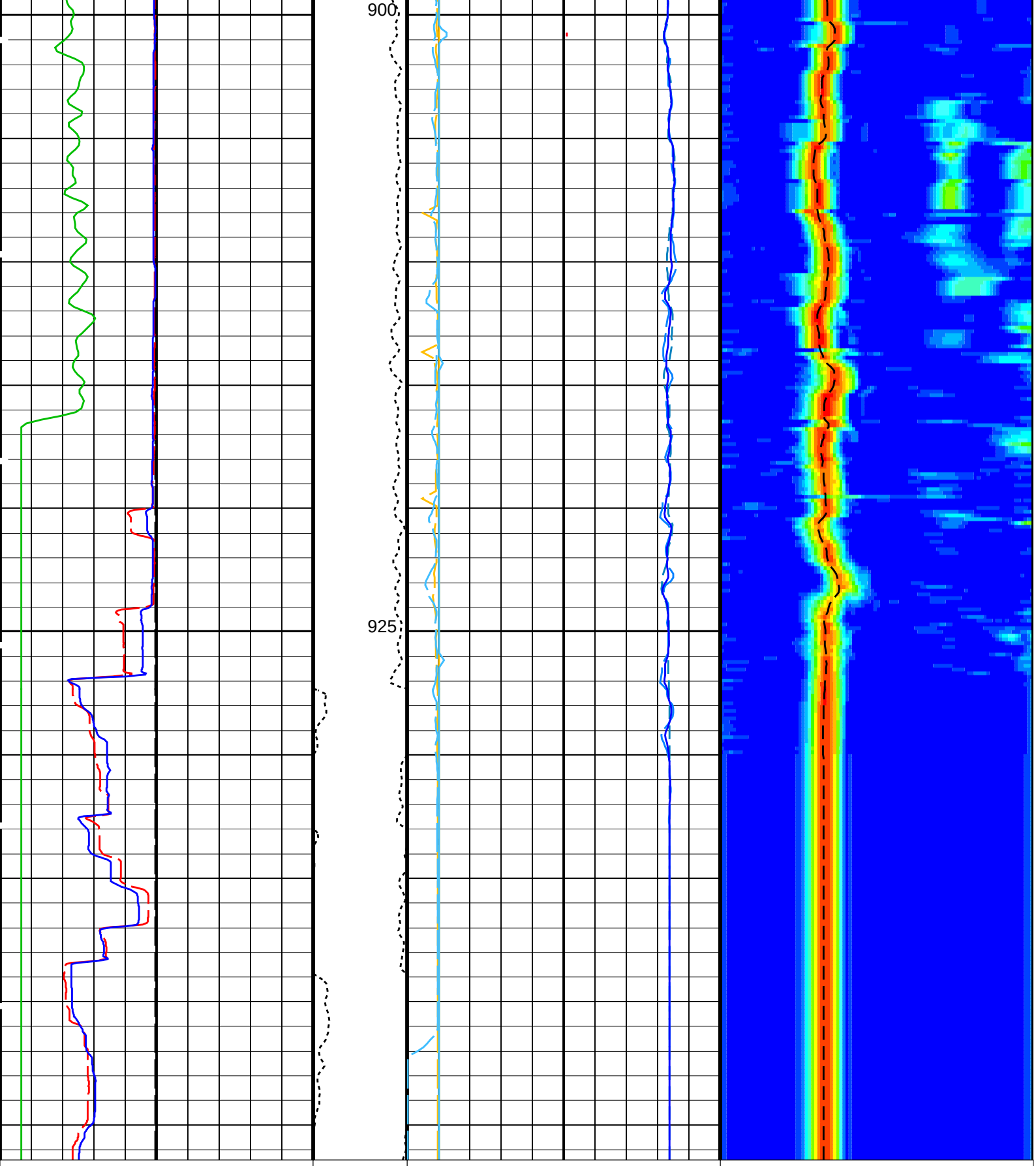

625
650
675


700
725


750
775


800
825


850
875



Bit Size (BS)	Tension (TENS)	Peak Coherence / RA − P & S Comp (CHRP)	Delta−T Comp / RA − P & S (DTRP)
0 (IN) 20	(LBF) 0 5000	0 (----) 10	40 (US/F) 240
Caliper 1 (C1)		**Peak Coherence / TA − P & S Comp (CHTP)**	**Delta−T Shear / RA − P & S (DTRS)**
0 (IN) 20		0 (----) 10	40 (US/F) 240
Caliper 2 (C2)		**Peak Coherence / RA − P & S Shear (CHRS)**	Min Amplitude Max
0 (IN) 20			Rec Array P&S Slow Proj CVDL (SRP4)

0	(IN)	20

Gamma Ray (GR_EDTC)		
0	(GAPI)	150

−1	(−−−−)	9

Peak Coherence / TA − P & S Shear (CHTS)		
−1	(−−−−)	9

Delta−T Comp / RA − P & S (DTRP)		
440	(US/F)	40

Delta−T Comp / TA − P & S (DTTP)		
440	(US/F)	40

Delta−T Comp − P & S (DT4P)		
440	(US/F)	40

Delta−T Shear / RA − P & S (DTRS)		
440	(US/F)	40

Delta−T Shear / TA − P & S (DTTS)		
440	(US/F)	40

Delta−T Shear − P & S (DT4S)		
440	(US/F)	40

Rec.Array P&S Slow Proj. CVDL (SPR4)		
40	(US/F)	240

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
BHS	Borehole Status	OPEN	
CASF	Label Casing Function − Monopole P&S	50	
COLL	Label Slowness Lower Limit − Monopole P&S Compressional	100	US/F
COUL	Label Slowness Upper Limit − Monopole P&S Compressional	209	US/F
DDE4	Digitizing Delay 4	0	US
DDEX	Digitizing Delay X	0	US
DSI4	Digitizer Sample Interval 4	10	US
DSIX	Digitizer Sample Interval X	40	US
DTF	Delta−T Fluid	210	US/F
DWC4	Digitizer Word Count 4	512	
DWCX	Digitizer Word Count X	512	
FILG	Label Fill Gap Control − Monopole P&S	COMP	
LFC	Label Formation Character − Monopole P&S	COMP_FIRST	
MCS	Mean Casing Slowness	57	US/F
MTXG	Monopole Transmitter Geometry	186	IN
NWI4	Number Waveform Items 4	8	
NWIX	Number Waveform Items X	0	
RSMN	Label Shear/Compressional Minimum Ratio − Monopole P&S	1.4	
RSMX	Label Shear/Compressional Maximum Ratio − Monopole P&S	2.12	
RX1G	Receiver 1 Geometry	294	IN
RX2G	Receiver 2 Geometry	300	IN
RX3G	Receiver 3 Geometry	306	IN
RX4G	Receiver 4 Geometry	312	IN
RX5G	Receiver 5 Geometry	318	IN
RX6G	Receiver 6 Geometry	324	IN
RX7G	Receiver 7 Geometry	330	IN
RX8G	Receiver 8 Geometry	336	IN
SAM4	DSST Sonic Acquisition Mode 4 − Monopole Mode for P&S	EVEN	
SAMX	DSST Sonic Acquisition Mode X − Both Dipoles or Monopole Mode for Expert	OFF	
SAS4	STC Sonic Array Status − Monopole P&S	255	
SBO4	STC Search Band Offset − Monopole P&S	500	US
SBR4	STC Baseline Removal − Monopole P&S	ON	
SBW4	STC Search Bandwidth − Monopole P&S	2000	US
SFC4	STC Formation Character − Monopole P&S	SELECTABLE	
SFM4	STC Filter − Monopole P&S	B3−20K	
SHLL	Label Slowness Lower Limit − Monopole P&S Shear	235	US/F
SHUL	Label Slowness Upper Limit − Monopole P&S Shear	240	US/F
SLL4	STC Slowness Lower Limit − Monopole P&S	40	US/F
SST4	STC Slowness Step − Monopole P&S	2	US/F
SSW4	STC Source Waveform − Monopole P&S	WF_SAM4	
STLL	Label Slowness Lower Limit − Monopole Stoneley	300	US/F
STUL	Label Slowness Upper Limit − Monopole Stoneley	1200	US/F
SUL4	STC Slowness Upper Limit − Monopole P&S	240	US/F
SWD4	STC Slowness Width − Monopole P&S	10	US/F
TBF4	STC Time for Baseline Fill − Monopole P&S	300	US

TLL4	STC Time Lower Limit − Monopole P&S	150	US
TST4	STC Time Step − Monopole P&S	50	US
TUL4	STC Time Upper Limit − Monopole P&S	3660	US
TWD4	STC Time Width − Monopole P&S	1000	US
TWI4	STC Integration Time Window − Monopole P&S	500	US
TWSX	Transmitter Waveform Select X	0	
	HNGS−BA: Hostile Natural Gamma Ray Sonde		
BHS	Borehole Status	OPEN	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DO	Depth Offset for Playback	−2122.7	M
PP	Playback Processing	RECOMPUTE	

Format: DSST_P_S_VDL_COLOR **Vertical Scale: 1:200** **Graphics File Created: 25−Apr−2014 04:51**

OP System Version: 19C0−187

MEST−B	19C0−187	DTA−A	8453
DSST−B	19C0−187	HNGC−B	19C0−187
HNGS−BA	19C0−187	EDTC−B	SKK−5169−EDTCB

Input DLIS Files

DEFAULT	FMS_DSI_NGS_026LUP	FN:30	PRODUCER	22−Apr−2014 21:11	3070.1 M	2260.1 M

Output DLIS Files

DEFAULT	FMS_DSI_NGS_050PUP	FN:63	PRODUCER	25−Apr−2014 04:51
CLIENT	FMS_DSI_NGS_050PUC	FN:64	CUSTOMER	25−Apr−2014 04:51

Schlumberger

Calibrations

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Micro Electrical Scanner − B (Slim) Wellsite Calibration − Caliper Calibration							
Before: Calibration out of date 4−Feb−2014 3:22							
Caliper 1 Zero Measurement	12.00	N/A	11.98	N/A	N/A	N/A	IN
Caliper 2 Zero Measurement	12.00	N/A	12.05	N/A	N/A	N/A	IN
Caliper 1 Plus Measurement	15.19	N/A	15.18	N/A	N/A	N/A	IN
Caliper 2 Plus Measurement	15.19	N/A	15.38	N/A	N/A	N/A	IN
Micro Electrical Scanner − B (Slim) Wellsite Calibration − CROUZET ACCELEROMETER PROM HAS BEEN READ CORRECTLY							
Before: 22−Apr−2014 17:16							
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: 22−Apr−2014 17:16							
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: 4−Feb−2014 21:51 Before: 4−Feb−2014 22:02 After: 4−Feb−2014 22:07							

Master: 4−Feb−2014 21:51 Before: 4−Feb−2014 22:02 After: 4−Feb−2014 22:07							
Na 511 Peak Loc	40.00	39.52	39.48	39.57	0.09216	1.000	
Na 511 Peak Res	15.50	15.96	16.77	17.05	0.2800	2.000	%
High Voltage	1150	1194	1193	1193	0.08801	N/A	V
Na 1785 Peak Loc	142.6	142.1	141.8	142.0	0.2398	7.000	
Na 1785 Peak Res	8.500	9.703	8.709	9.174	0.4646	2.000	%
Temperature	15.50	35.74	35.71	35.75	0.03577	N/A	DEGC
Na Count Rate	45.00	11.77	12.16	12.19	0.02500	8.000	CPS
Hostile Natural Gamma Ray Sonde Wellsite Calibration − Detector 2 Check							
Master: 4−Feb−2014 21:51 Before: 4−Feb−2014 22:02 After: 4−Feb−2014 22:07							
Na 511 Peak Loc	40.00	39.56	39.51	40.01	0.4946	1.000	
Na 511 Peak Res	15.50	16.07	16.56	16.11	−0.4463	2.000	%
High Voltage	1150	1126	1128	1128	0.1504	N/A	V
Na 1785 Peak Loc	142.6	142.3	143.1	142.2	−0.8427	7.000	
Na 1785 Peak Res	8.500	8.959	9.953	8.887	−1.065	2.000	%
Temperature	15.50	36.60	36.88	36.96	0.08454	N/A	DEGC
Na Count Rate	45.00	12.28	12.68	12.52	−0.1613	8.000	CPS
Hostile Natural Gamma Ray Sonde Wellsite Calibration − Ratio Of Detector 1 To Detector 2							
Master: 4−Feb−2014 21:51 Before: 4−Feb−2014 22:02 After: 4−Feb−2014 22:07							
Coincidence Count Rate Ratio	1.000	0.9624	0.9606	0.9690	0.008355	0.05000	
Enhanced DTS Cartridge Wellsite Calibration − EDTC Accelerometer Calibration							
Before: 22−Apr−2014 8:07							
EDTC Z−Axis Acceleration	9.810	N/A	9.752	N/A	N/A	N/A	M/S2
Enhanced DTS Cartridge Wellsite Calibration − Detector Calibration							
Before: 22−Apr−2014 8:17 After: 22−Apr−2014 15:50							
Gamma Ray (Jig − Bkg)	156.4	N/A	156.4	158.2	1.813	14.22	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	166.9	1.913	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	840
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	HNSH − BA	205
Gamma Source Radioactive	GSR − U	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		15.96	Master		1194
Before		39.48	Before		16.77	Before		1193
After		39.57	After		17.05	After		1193
	37.50 40.00 43.50			12.00 15.50 19.00			900.0 1150 1600	

	(Minimum)	(Nominal)	(Maximum)
	(Minimum)	(Nominal)	(Maximum)
	(Minimum)	(Nominal)	(Maximum)

Phase	Na 1785 Peak Loc	Value
Master		142.1
Before		141.8
After		142.0
	135.0 (Minimum)	142.6 (Nominal) 150.3 (Maximum)

Phase	Na 1785 Peak Res %	Value
Master		9.703
Before		8.709
After		9.174
	7.000 (Minimum)	8.500 (Nominal) 11.00 (Maximum)

Phase	Temperature DEGC	Value
Master		35.74
Before		35.71
After		35.75
	−28.89 (Minimum)	15.50 (Nominal) 60.00 (Maximum)

Phase	Na Count Rate CPS	Value
Master		11.77
Before		12.16
After		12.19
	10.00 (Minimum)	45.00 (Nominal) 100.0 (Maximum)

Master: 4−Feb−2014 21:51 Before: 4−Feb−2014 22:02 After: 4−Feb−2014 22:07

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Detector 2 Check

Phase	Na 511 Peak Loc	Value
Master		39.56
Before		39.51
After		40.01
	37.50 (Minimum)	40.00 (Nominal) 43.50 (Maximum)

Phase	Na 511 Peak Res %	Value
Master		16.07
Before		16.56
After		16.11
	12.00 (Minimum)	15.50 (Nominal) 19.00 (Maximum)

Phase	High Voltage V	Value
Master		1126
Before		1128
After		1128
	900.0 (Minimum)	1150 (Nominal) 1600 (Maximum)

Phase	Na 1785 Peak Loc	Value
Master		142.3
Before		143.1
After		142.2
	135.0 (Minimum)	142.6 (Nominal) 150.3 (Maximum)

Phase	Na 1785 Peak Res %	Value
Master		8.959
Before		9.953
After		8.887
	7.000 (Minimum)	8.500 (Nominal) 11.00 (Maximum)

Phase	Temperature DEGC	Value
Master		36.60
Before		36.88
After		36.96
	−28.89 (Minimum)	15.50 (Nominal) 60.00 (Maximum)

Phase	Na Count Rate CPS	Value
Master		12.28
Before		12.68
After		12.52
	10.00 (Minimum)	45.00 (Nominal) 100.0 (Maximum)

Master: 4−Feb−2014 21:51 Before: 4−Feb−2014 22:02 After: 4−Feb−2014 22:07

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Ratio Of Detector 1 To Detector 2

Phase	Coincidence Count Rate Ratio	Value
Master		0.9624
Before		0.9606
After		0.9690
	0.9500 (Minimum)	1.000 (Nominal) 1.050 (Maximum)

Master: 4−Feb−2014 21:51
Before: 4−Feb−2014 22:02
After: 4−Feb−2014 22:07

Enhanced DTS Cartridge / Equipment Identification

Primary Equipment:

EDTC Gamma Ray Detector	EDTG − A/B	8305
Enhanced DTS Cartridge	EDTC − B	8317

Auxiliary Equipment:

EDTC Housing	EDTH − B	8303

Enhanced DTS Cartridge Wellsite Calibration

EDTC Accelerometer Calibration

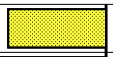
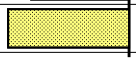
Phase	EDTC Z−Axis Acceleration M/S2	Value
Before		9.752

9.610 (Minimum) 9.810 (Nominal) 10.01 (Maximum)

Before: 22−Apr−2014 8:07

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		11.20	Before		156.4	Before		165.0
After		6.774	After		158.2	After		166.9

0 (Minimum) 30.00 (Nominal) 120.0 (Maximum)

142.2 (Minimum) 156.4 (Nominal) 170.7 (Maximum)

150.0 (Minimum) 165.0 (Nominal) 180.0 (Maximum)

Before: 22−Apr−2014 8:17 After: 22−Apr−2014 15:50

Company: **Lamont Doherty Earth Observatory**

Schlumberger

Well: **Expedition 350, Site U1437D**
Field: **IBM−1 (Rear Arc)**
Rig: **JOIDES Resolution**
Country:

DSI Sonic
P&S Monopole