Schlumberger

Company: **International Ocean Discovery Program**

Well: **Expedition 367, Site U1500B**
Field: **South China Sea Rifted Margin A**
Rig: **JOIDES Resolution** Ocean: **South China Sea**

High Resolution Laterolog Array
Hostile Litho Density / DSI
Natural Gamma Ray

Company: International Ocean Discovery Pr
Well: Expedition 367, Site U1500B
Location: Latitude: N 18* 18.2707'
Field: South China Sea Rifted Margin A
Rig: JOIDES Resolution

LOCATION

Latitude: N 18* 18.2707'
Longitude: E 116* 13.1951'

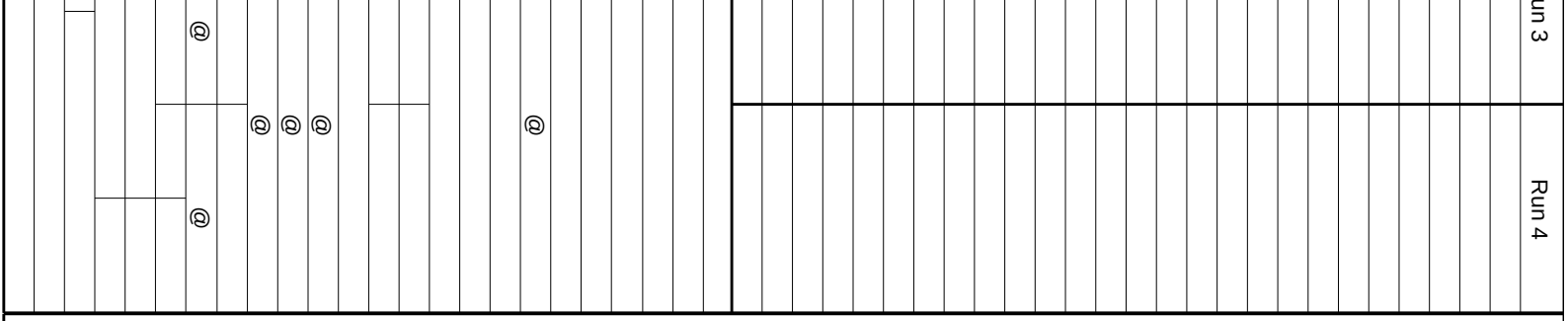
Elev.: K.B. 0.00 m
G.L. −3812.00 m
D.F. 0.00 m

Permanent Datum: Sea Floor — Elev.: −3812.00 m
Log Measured From: Rig Floor — 3812.00 m above Perm. Datum
Drilling Measured From: Rig Floor

API Serial No.	Max. Hole Devi. 0 deg	Longitude E 116.2199	Latitude S 18.3045

	Run 1	Run 2	R
Logging Date	6−Apr−2017		
Run Number	1		
Depth Driller	5341.8 m		
Schlumberger Depth	4939 m		
Bottom Log Interval	4939 m		
Top Log Interval	3812 m		
Casing Driller Size @ Depth	10.750 in @ 4654.8 m	@	
Casing Schlumberger	4654 m		
Bit Size	9.875 in		
Type Fluid In Hole	Seawater		
MUD Density / Viscosity	1.32 g/cm3		
MUD Fluid Loss / PH			
MUD Source Of Sample	Mudpit		
RM @ Measured Temperature	@ 23 degC	@	
RMF @ Measured Temperature	@	@	
RMC @ Measured Temperature	@	@	
Source RMF / RMC	N/A / N/A		
RM @ MRT / RMF @ MRT	@ 26 / @ 26	@ / @	
Maximum Recorded Temperatures	26 degC		
Circulation Stopped / Time	6−Apr−2017 / 1:00		
Logger On Bottom / Time	6−Apr−2017 / 18:03		
Unit Number / Location	627314 / Larose, LA		
Recorded By	K. Swain		
Witnessed By	Z. Mateo		

	Run 1	Run 2	R
Logging Date			
Run Number			
Depth Driller			
Schlumberger Depth			
Bottom Log Interval			
Top Log Interval			
Casing Driller Size @ Depth	@		
Casing Schlumberger			
Bit Size			
Type Fluid In Hole			
MUD Density / Viscosity			
MUD Fluid Loss / PH			
MUD Source Of Sample			
RM @ Measured Temperature	@		
RMF @ Measured Temperature	@		
RMC @ Measured Temperature	@		
Source RMF / RMC			
RM @ MRT / RMF @ MRT	@ / @		
Maximum Recorded Temperatures			
Circulation Stopped / Time			
Logger On Bottom / Time			
Unit Number / Location			
Recorded By			
Witnessed By			



DISCLAIMER

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

OTHER SERVICES1	OTHER SERVICES2
OS1: FMS/HNGS	OS1:
OS2: VSI	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:

REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
Open hole drilled with RCB bottom hole assembly (BHA) at 9 7/8" BitSize.	
Pipe positioned 85m below sea floor and logging tools lowered inside of pipe.	
Sea Floor: 3812 mbrf No sources run per client request.	
Lower part of string centralized with 2 centralizers per tool sketch.	
Upper part of string eccentered with HLDS caliper. 2 knuckle joints and	
thru−wired housing allow for degrees of freedom between both.	
Bit dropped on bottom of hole prior to logging with mechanical bit release.	
10 3/4" 45 lb/ft casing set to 4654.8mbrf up to sea floor at 3812mbrf.	
Downlogs run with BS for calipier and uplogs run with LCAL caliper.	
Could not get past 4945 mbrf downlog.	
Main pass could not get past 4930 mbrf.	

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

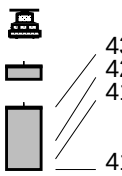
EQUIPMENT DESCRIPTION

RUN 1 RUN 2

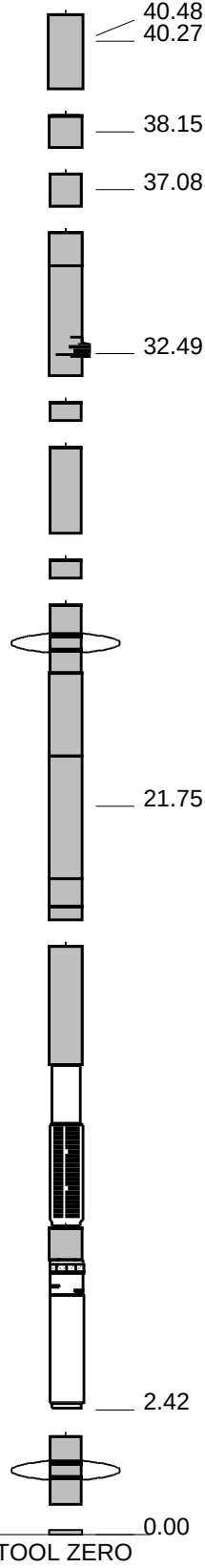
SURFACE EQUIPMENT

GSR−U 616008
WITM (EDTS)−A 1

DOWNHOLE EQUIPMENT



LEH−QT	MDSB_EDTC	44.48
	Mud Tempe	
AH−369	CTEM	43.60
	Gamma Ray	
EDTC−B	EFTB DIAG	43.16
	TelStatus	
EDTH−B 8303	EDTCB Ele	
EDTC−B 8317		



HNGS−BA 41.18
HNGS−BA 194
HNSH−BA 205

HNGC−B 38.68

LDSC−B 37.61

HLDS 36.55
HLDV−D 45
HLDS−D 45
GSR−ZA 2945
HLDP−C 45
HEH−H 47

AH−184 31.73

AH−ECH−MRA 31.12
AH−ECH−MRA 5714

AH−184 28.23

AH−MCD 27.62
AH−MCD 82

HRLT−B 25.34
HRUH−B 975
HRUC−B 764
HRLS−B 768
HRLH−B 968
HRLC−B 974
AH−270 1708

DSST−B 17.96
SPAC−B 8194
ECH−SD 8183
SMDR−BD 8232
SSIJ−BA 8192
SMDX−AA 8131

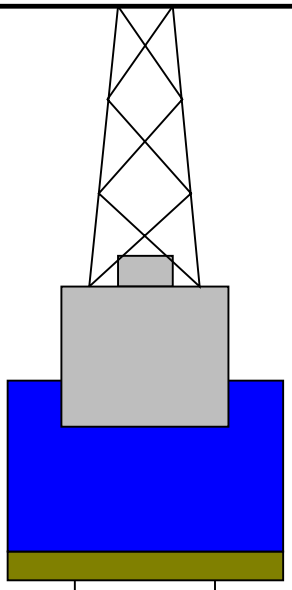
AH−MCD1 2.42
AH−MCD1 1

BNS−CCS 0.14

TOOL ZERO

MAXIMUM STRING DIAMETER 3.75 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

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

Kelly Bushing Elevation		0				
Derrick Floor Elevation		0				
Mean Sea Level		11			4.1	
				3812	4.1	Sea Floor
				3844	9.875	Open Hole
				4655	10.75	45 lb/ft Casing
				5342		Total Depth

Company: International Ocean Discovery Program | Well: Expedition 367, Site U1500B

Input DLIS Files

DEFAULT	Flip_DSI_HRLA_LDL_029LUP		PRODUCER	06−Apr−2017 18:02	4944.5 M	3717.0 M

Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_036PUP	FN:47	PRODUCER	06−Apr−2017 20:17	4944.5 M	3717.0 M
BACKUP	DSI_HRLA_LDL_NGS_036PUP	FN:48	PRODUCER	06−Apr−2017 20:17	4944.5 M	3717.0 M

OP System Version: 19C0−187

DSST−B	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−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)		
0	(GAPI)	100

Peak Coherence / TA − Lower Dipole (CHT1)		
−2	(−−−−)	8

Peak Coherence / RA − Lower Dipole

(CHR1)

0 (----) 10

Waveform Data Copy Indicator 1 − Lower Dipole (WCI1)

0 (----) 10

SAM1 Waveform Gain (WFG1)

0 (----) 1000

Calibrated Downhole Force (CDF) (LBF)

5000 0

Min Amplitude Max

Tr.Array L.Dipole Slow Proj. CVDL (SPT1)

40 (US/F) 1040

Min Amplitude Max

Rec.Array L.Dipole Slow Proj. CVDL (SPR1)

40 (US/F) 1040

Bit Size (BS)

0 (IN) 20

Tension (TENS) (LBF)

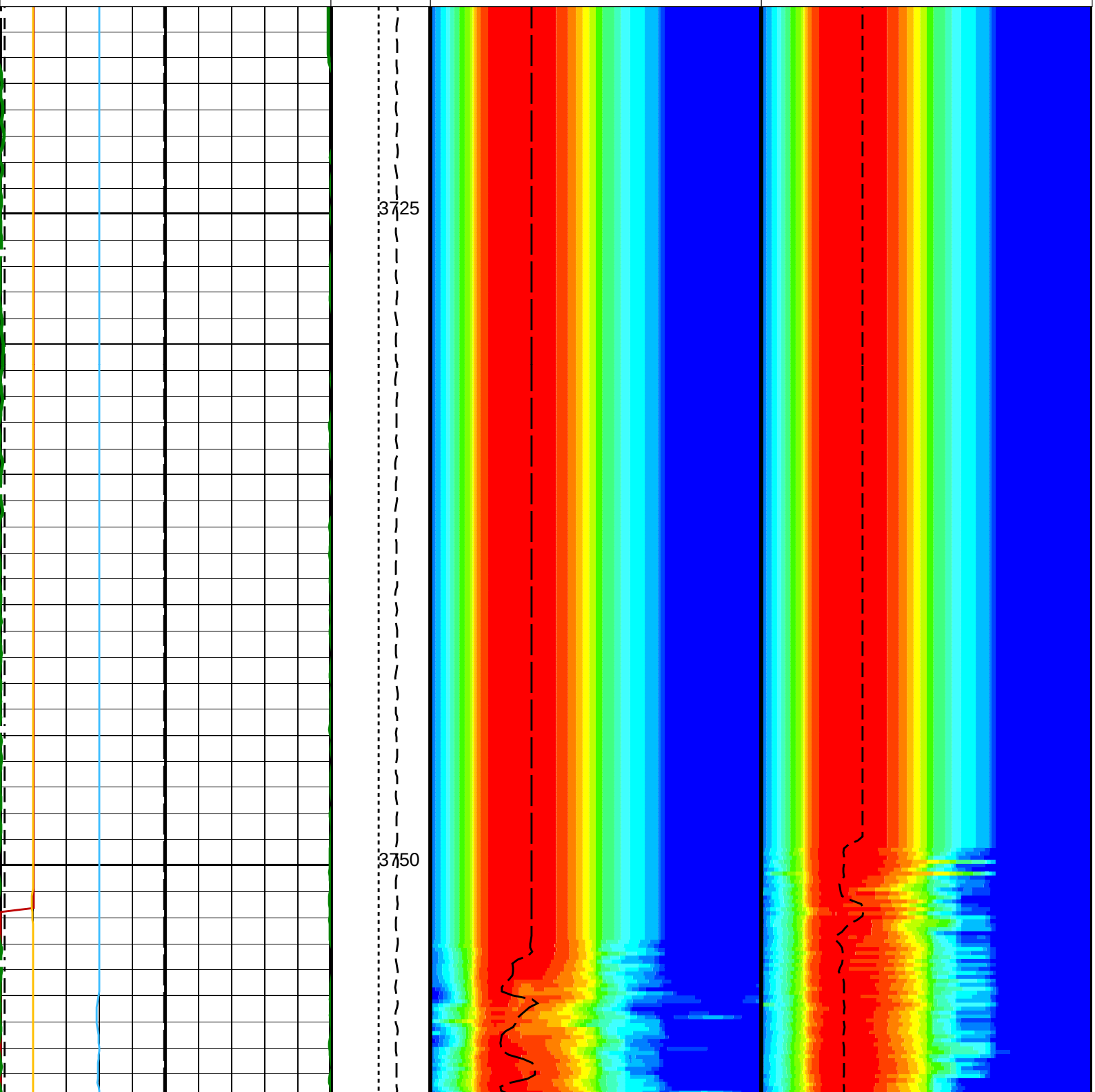
10000 0

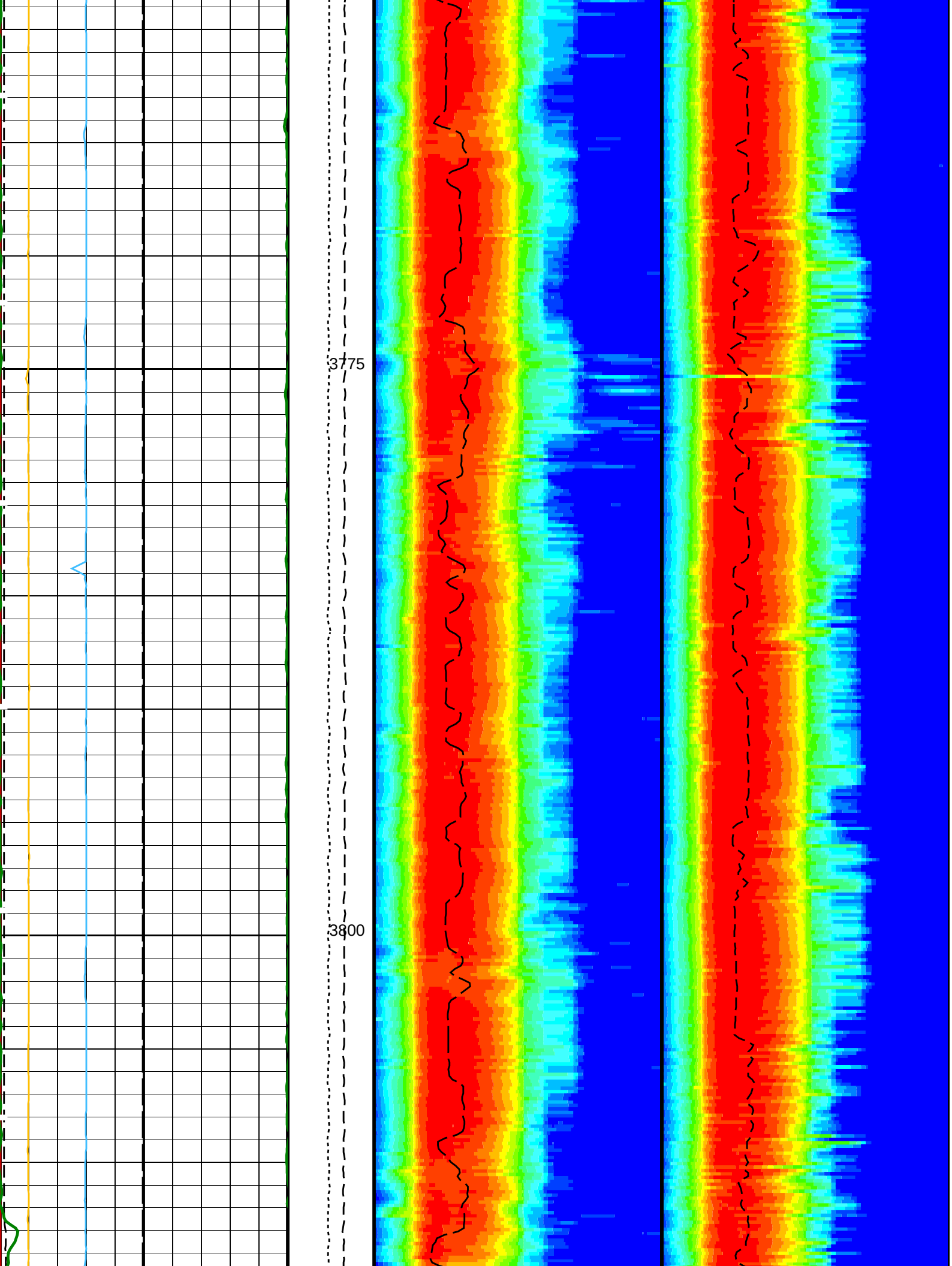
Delta−T Shear / TA − Lower Dipole (DT1T)

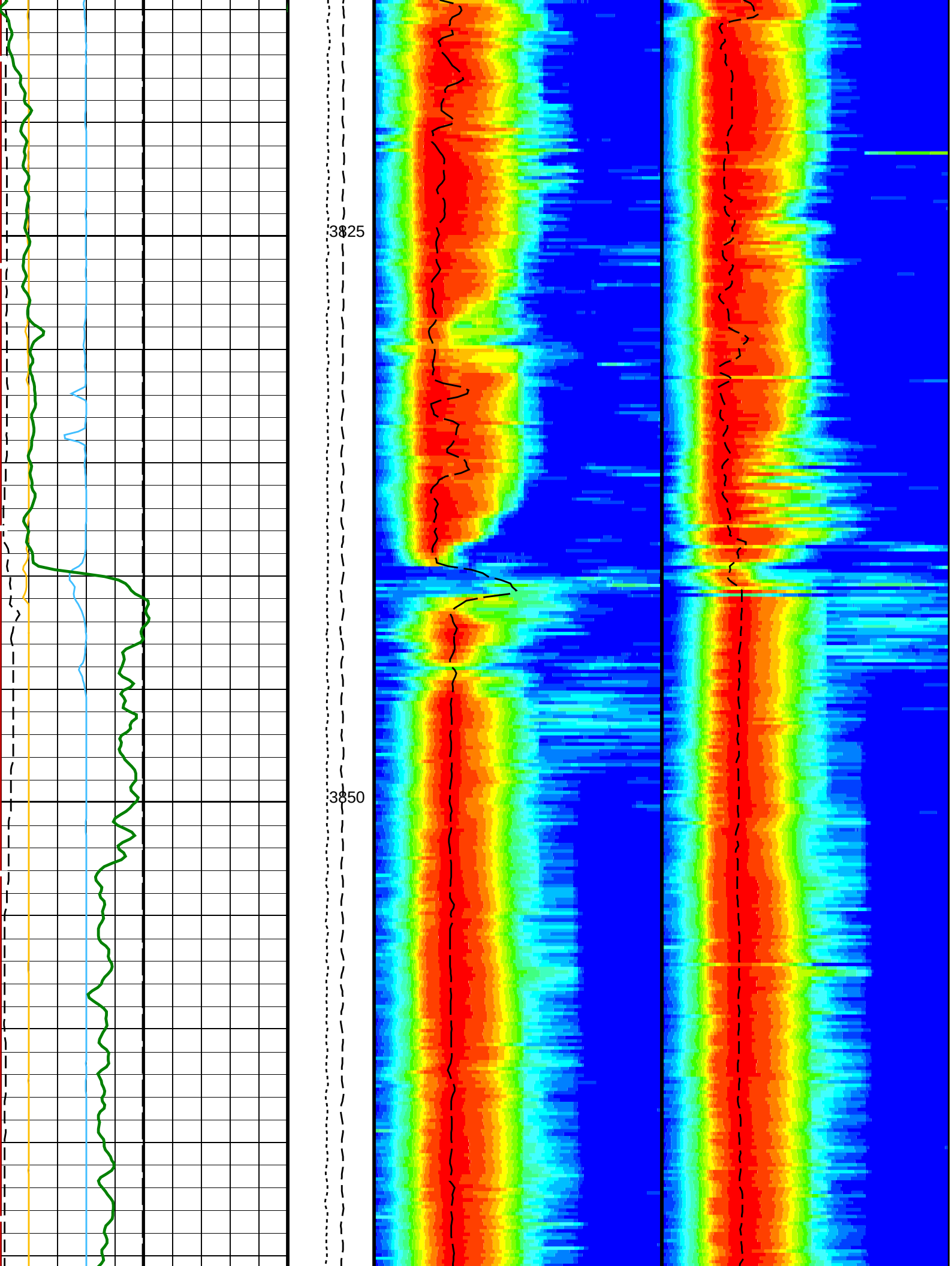
40 (US/F) 1040

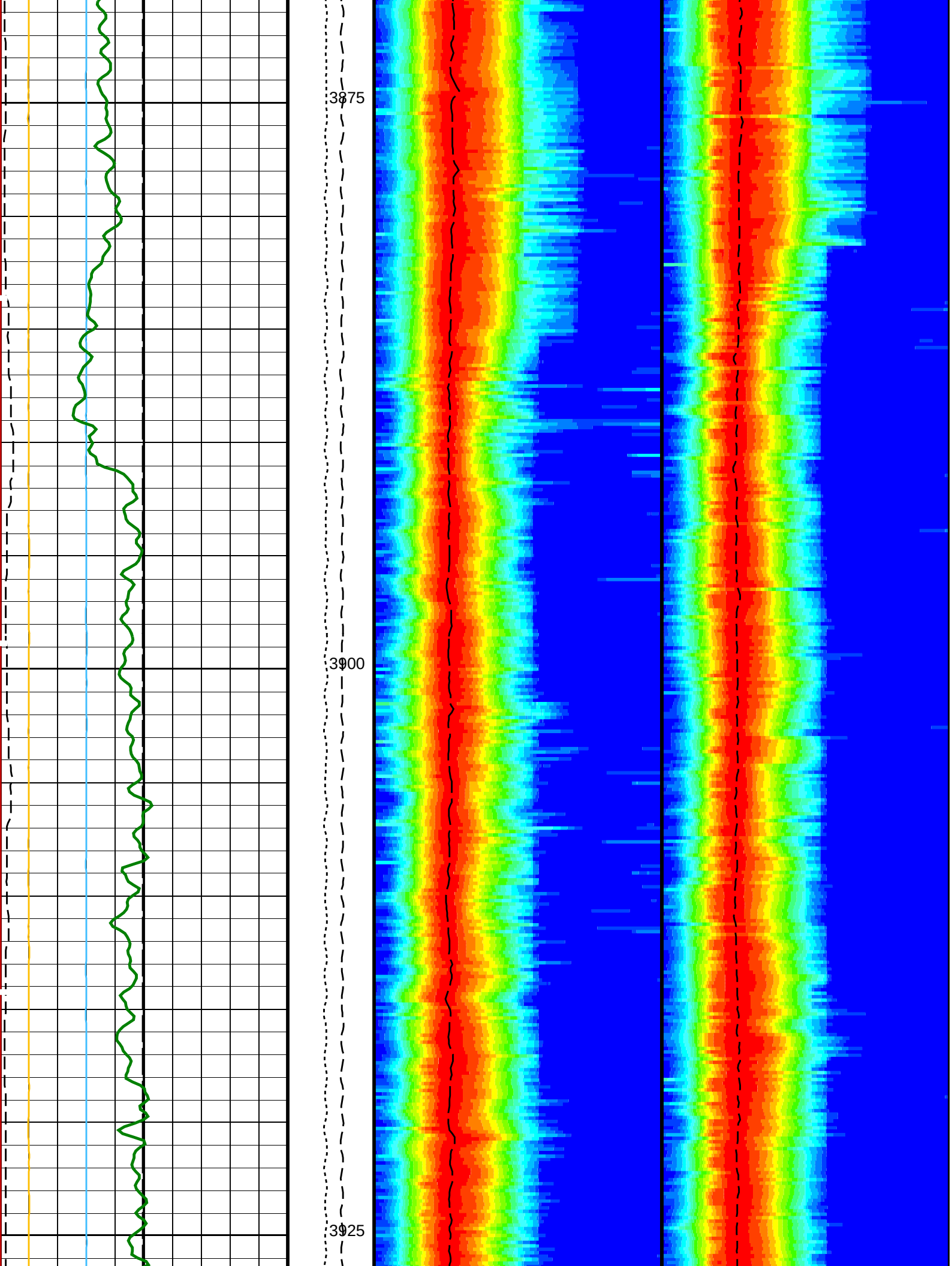
Delta−T Shear / RA − Lower Dipole (DT1R)

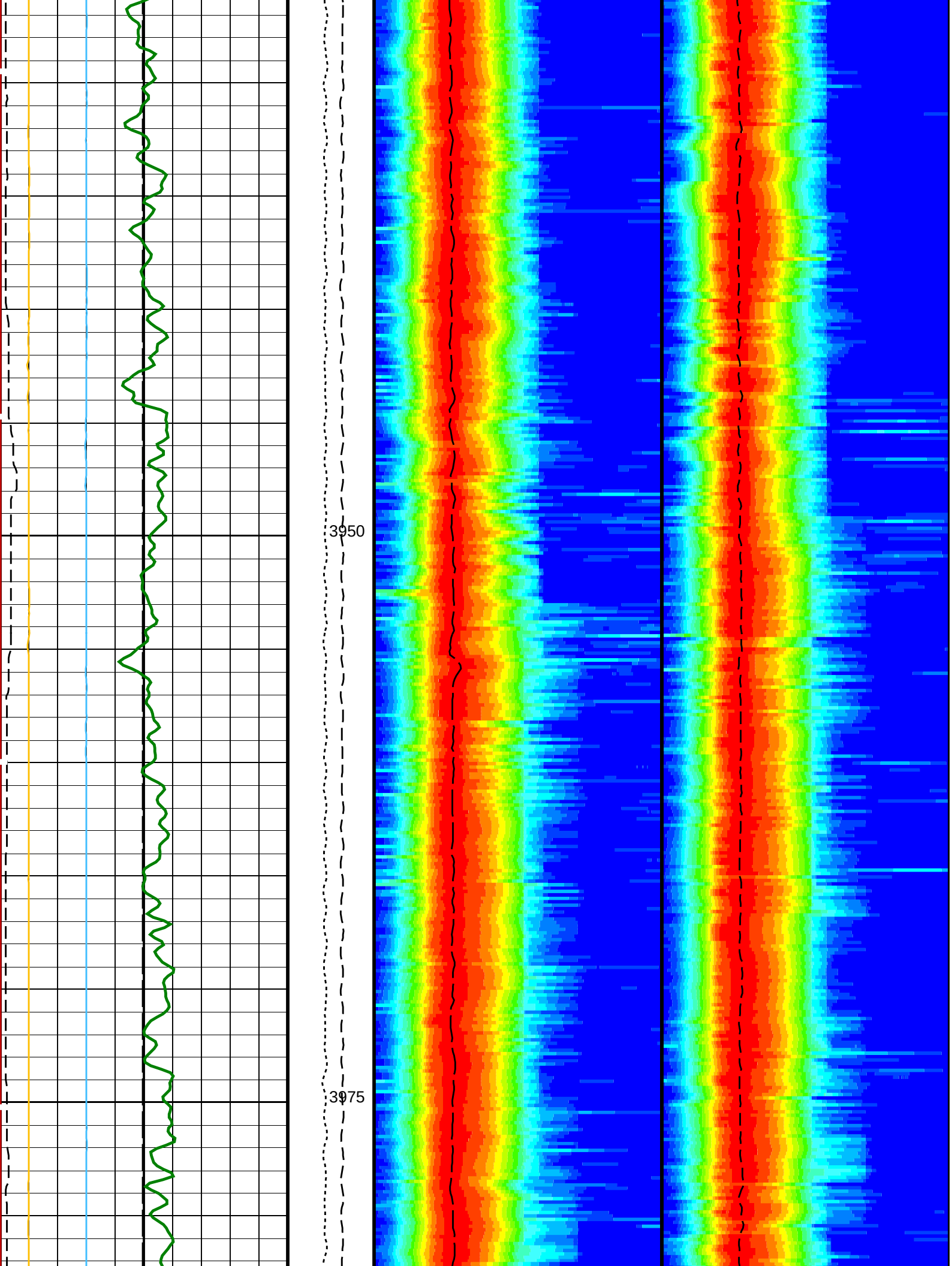
40 (US/F) 1040

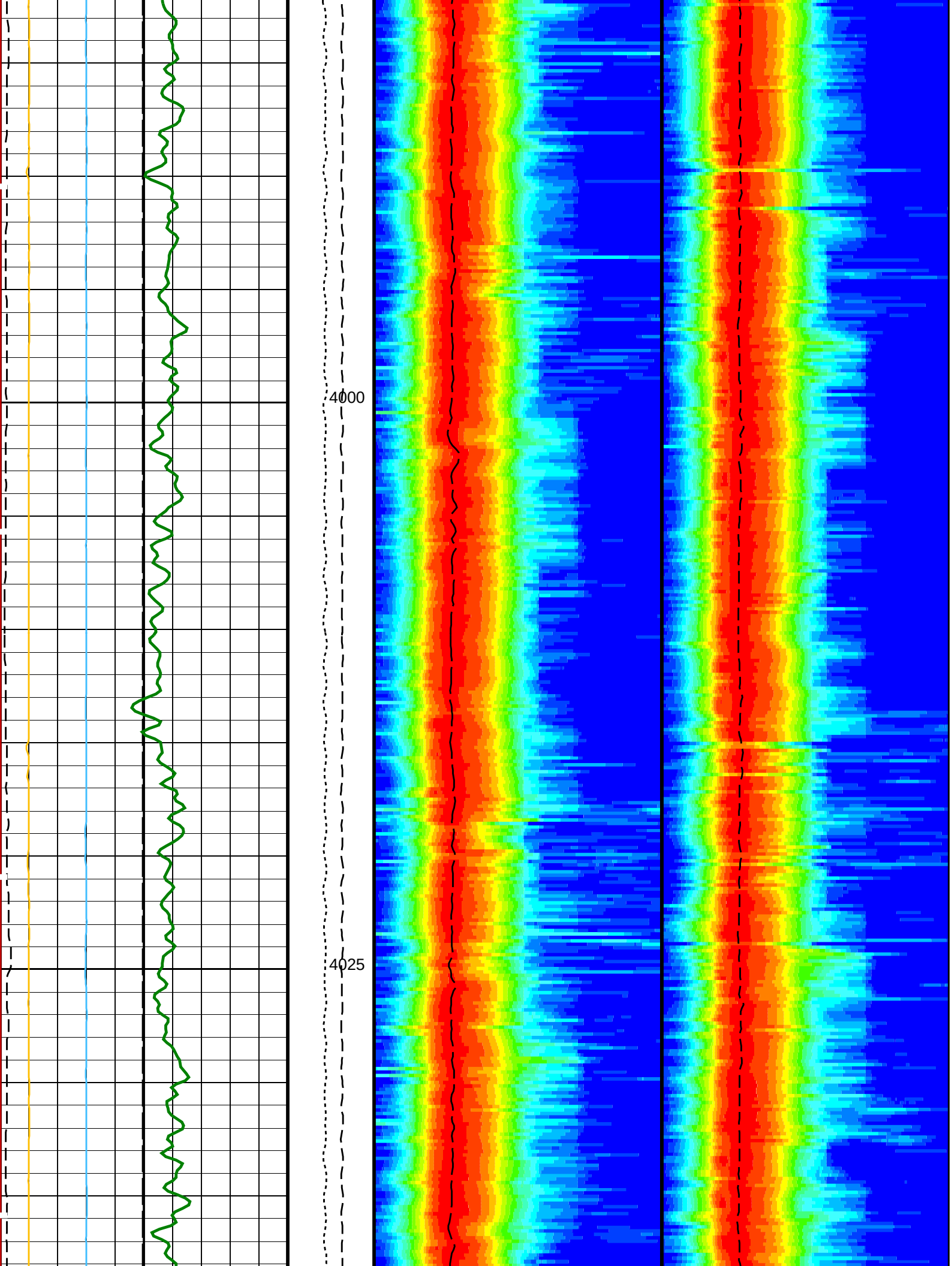


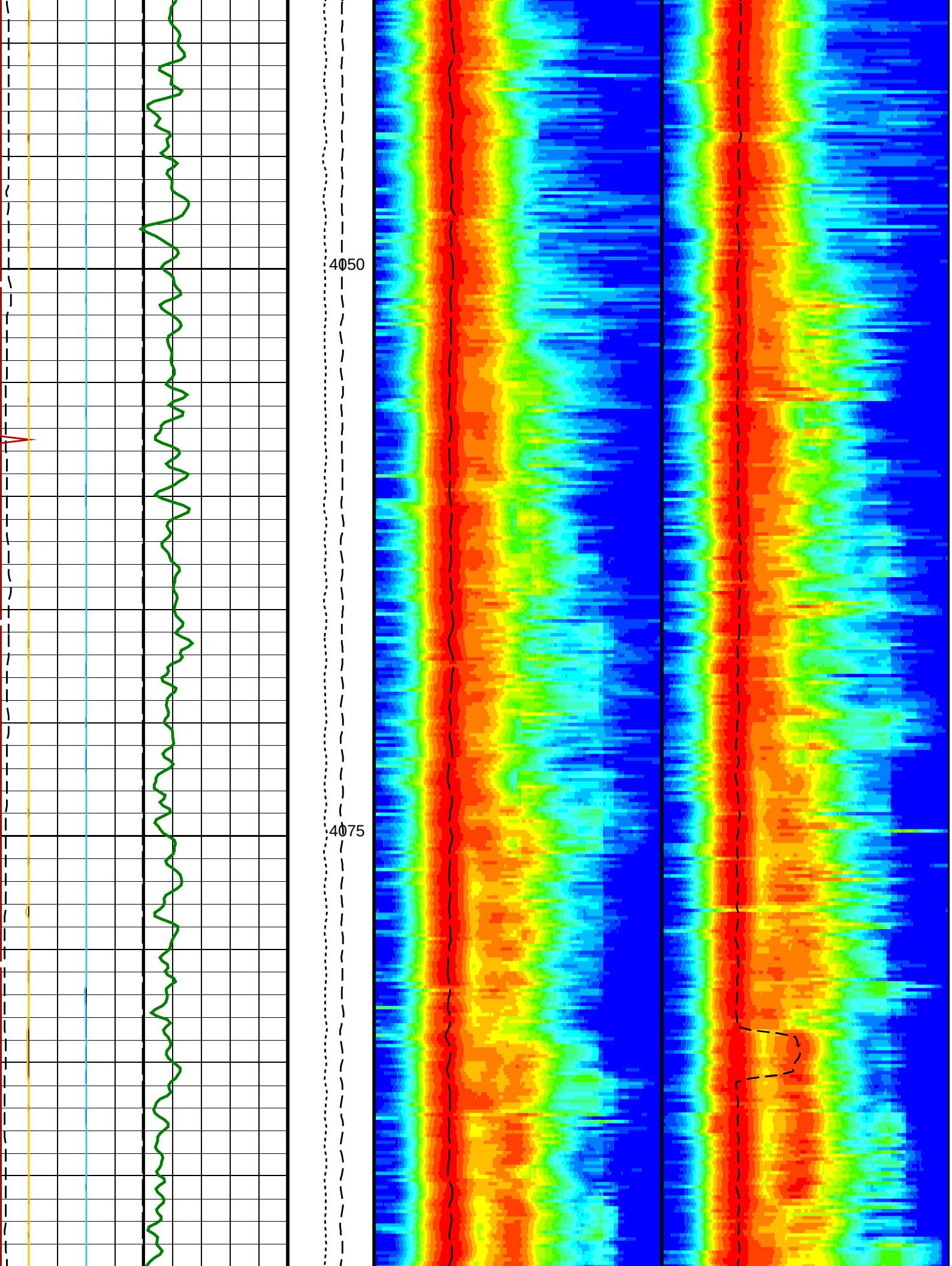

3775
3800

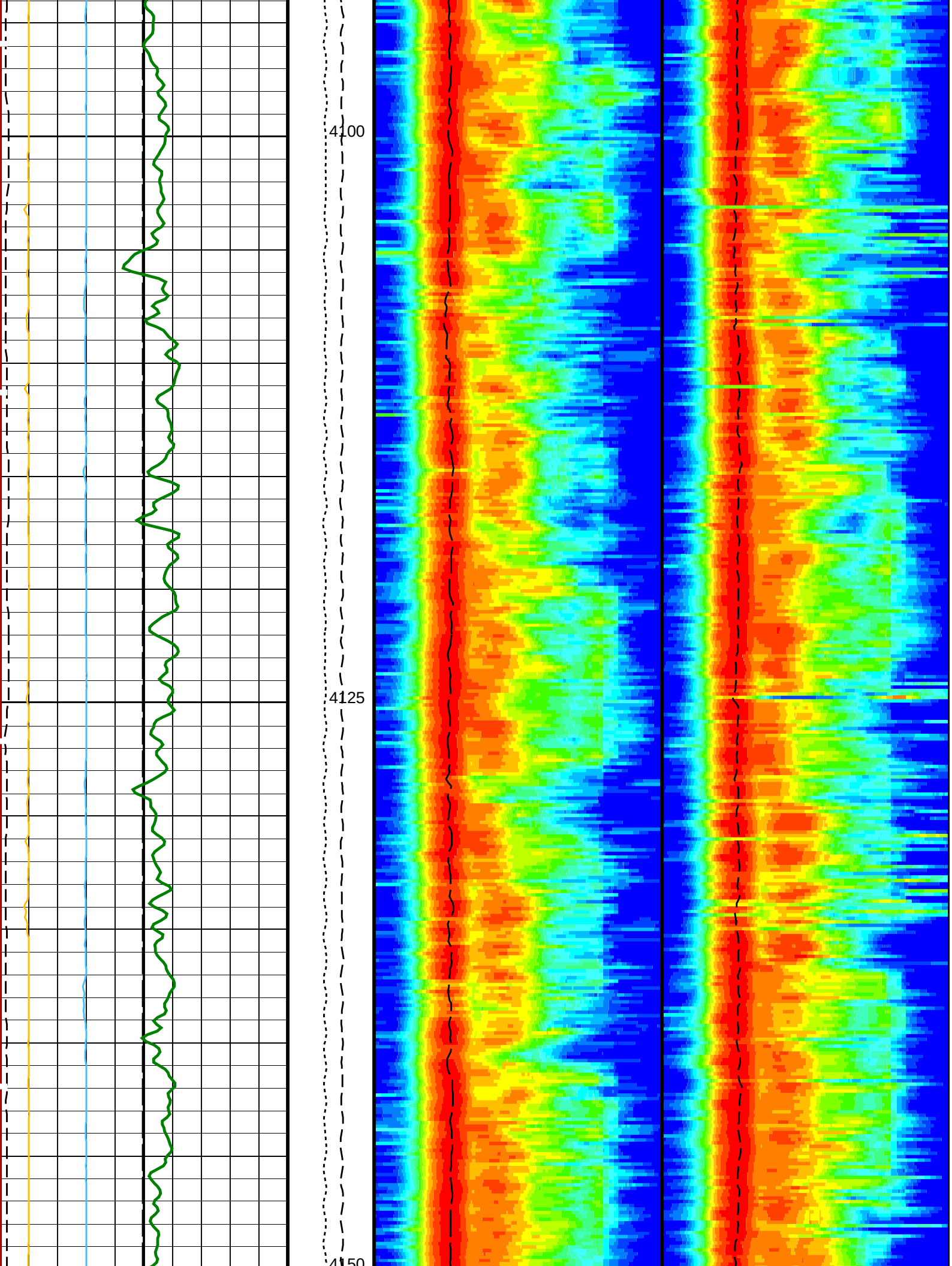

3825
3850

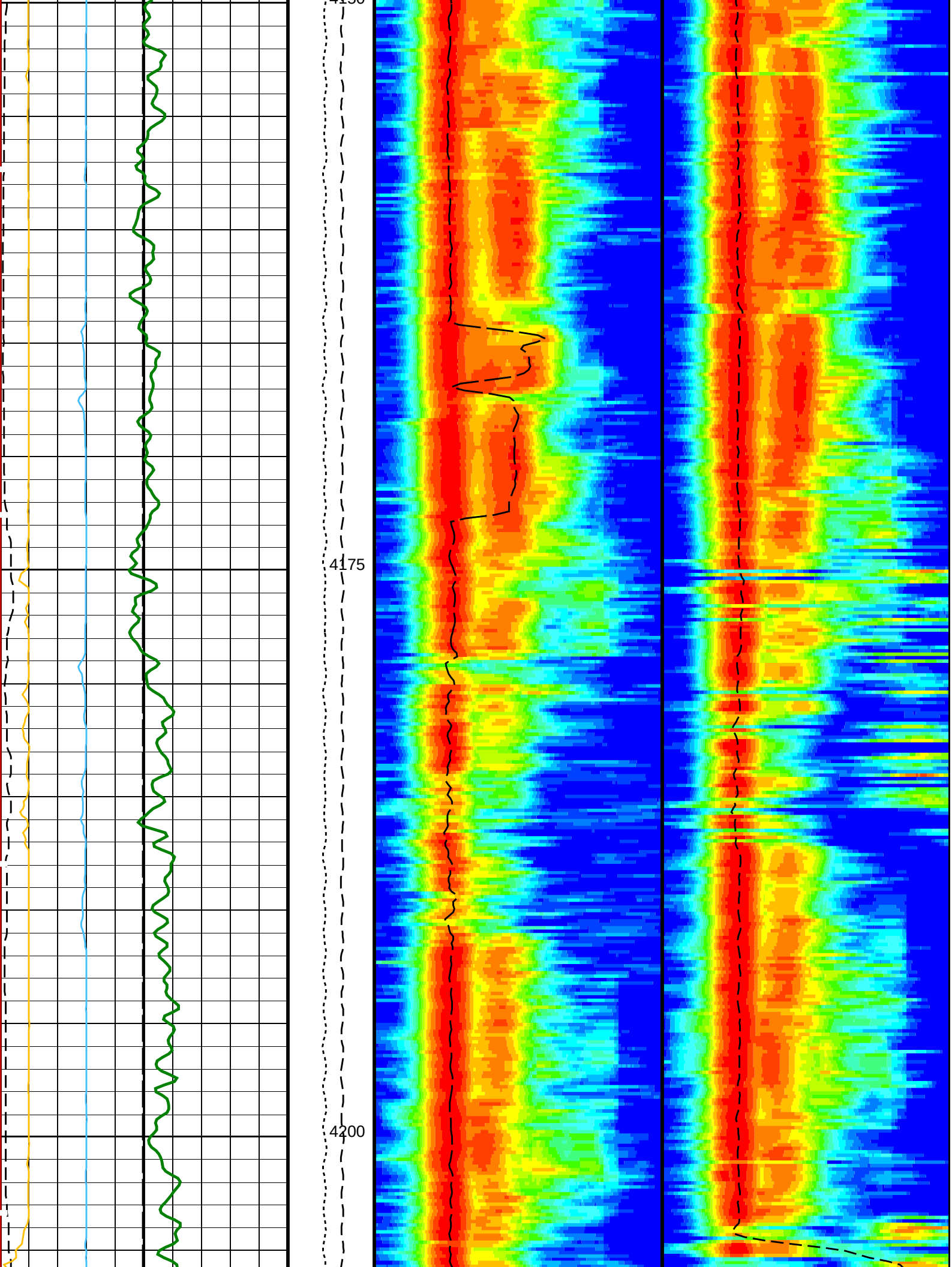

3875
3900
3925

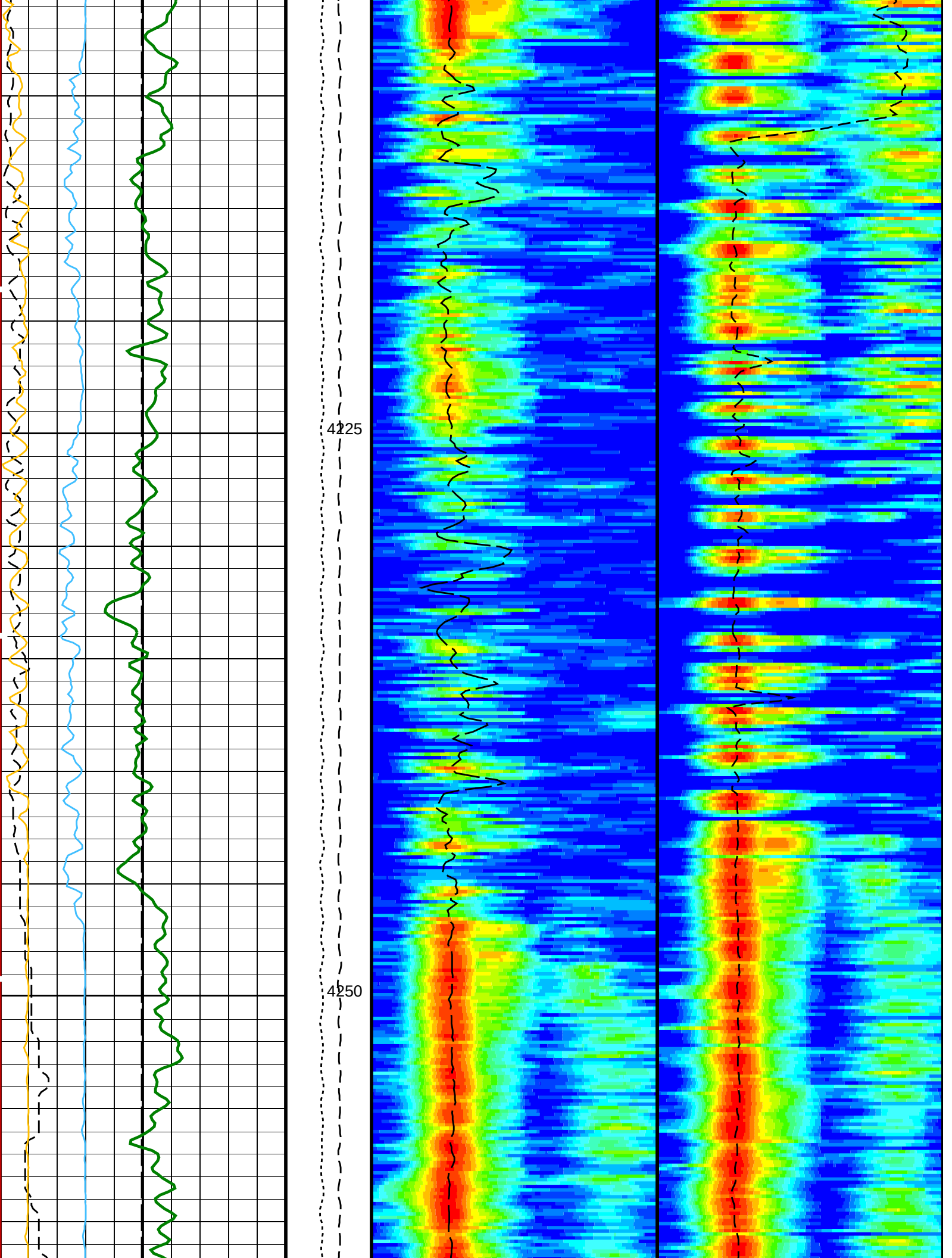

3950
3975

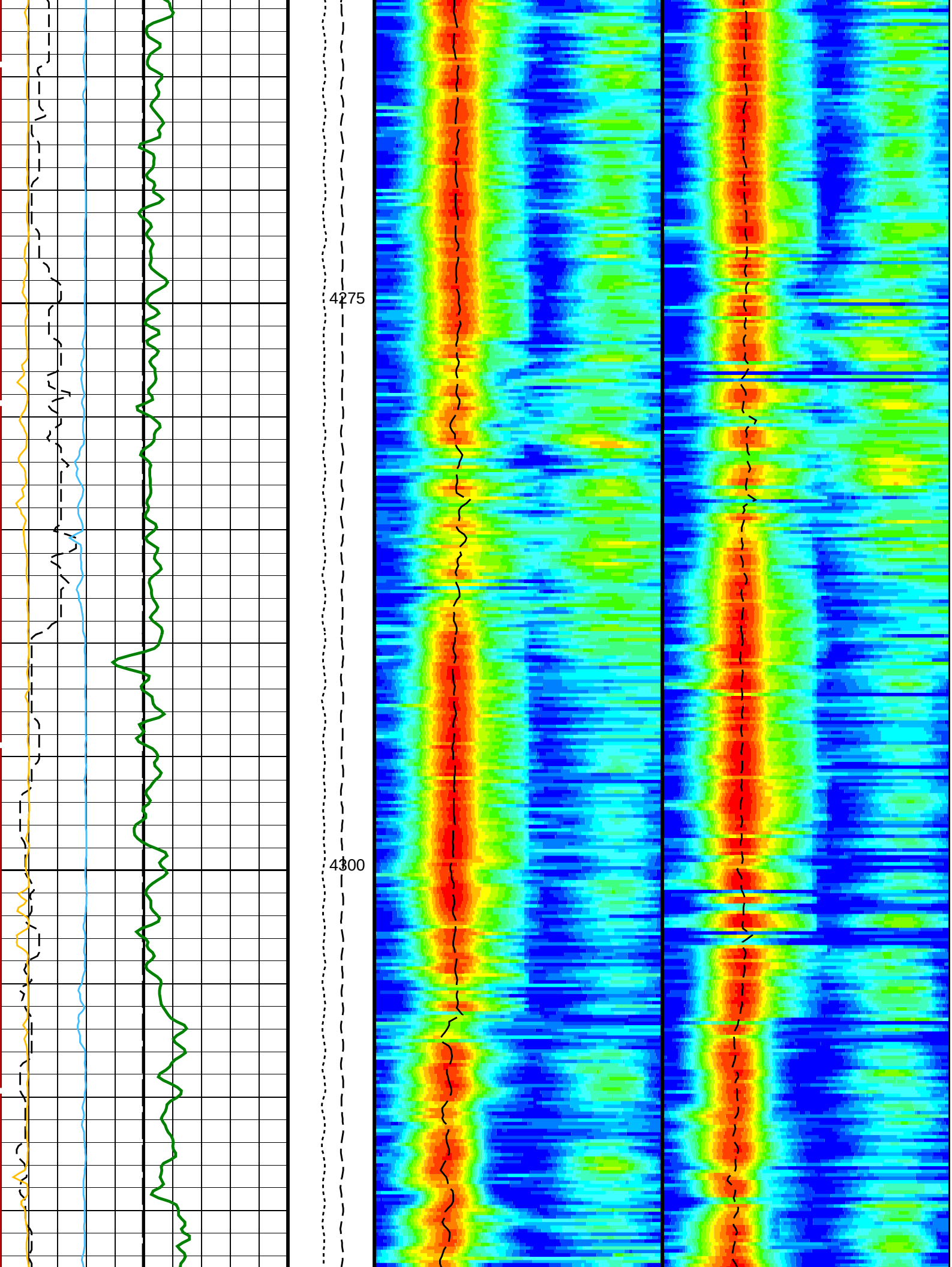

4000
4025

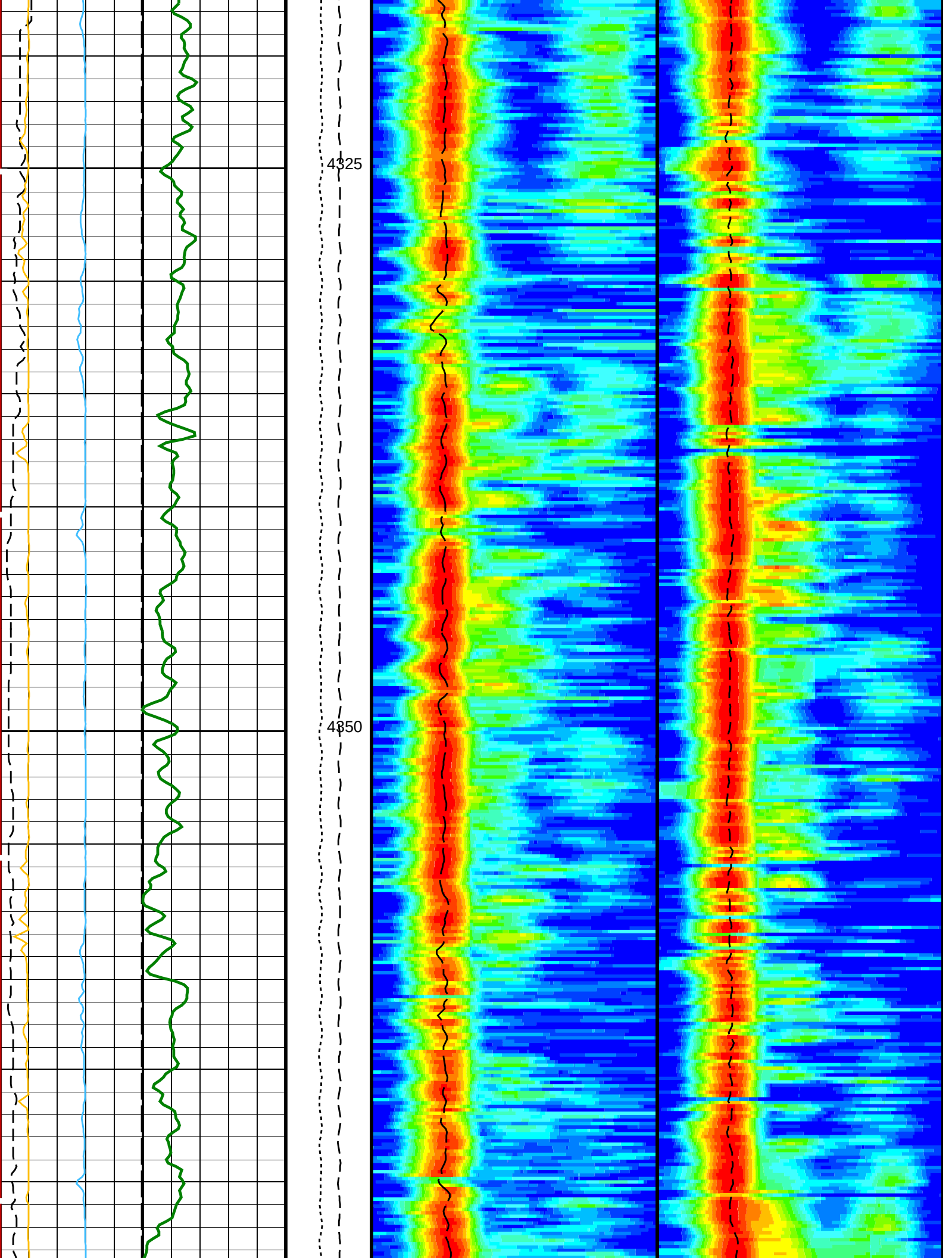

4050
4075

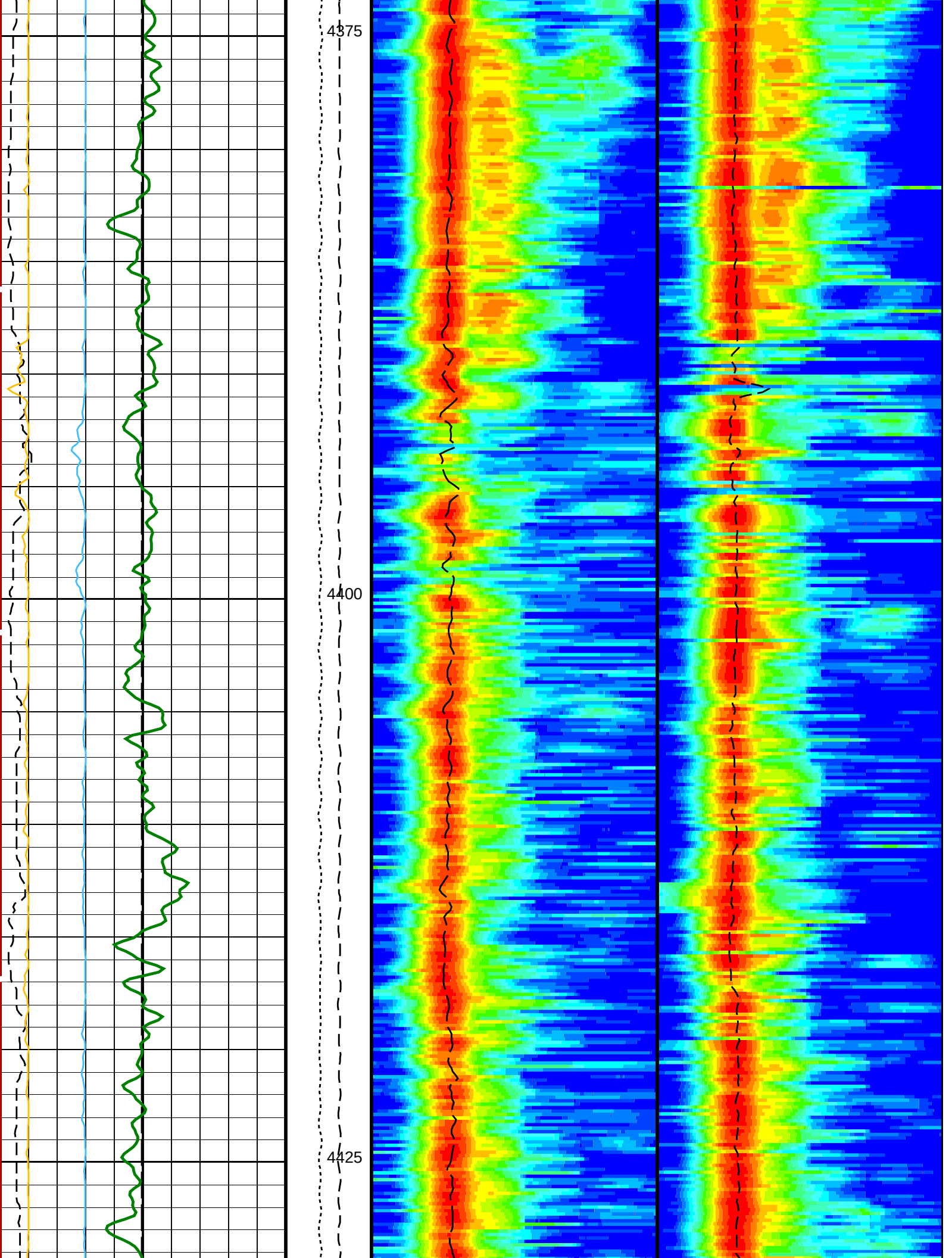

4100
4125
4150

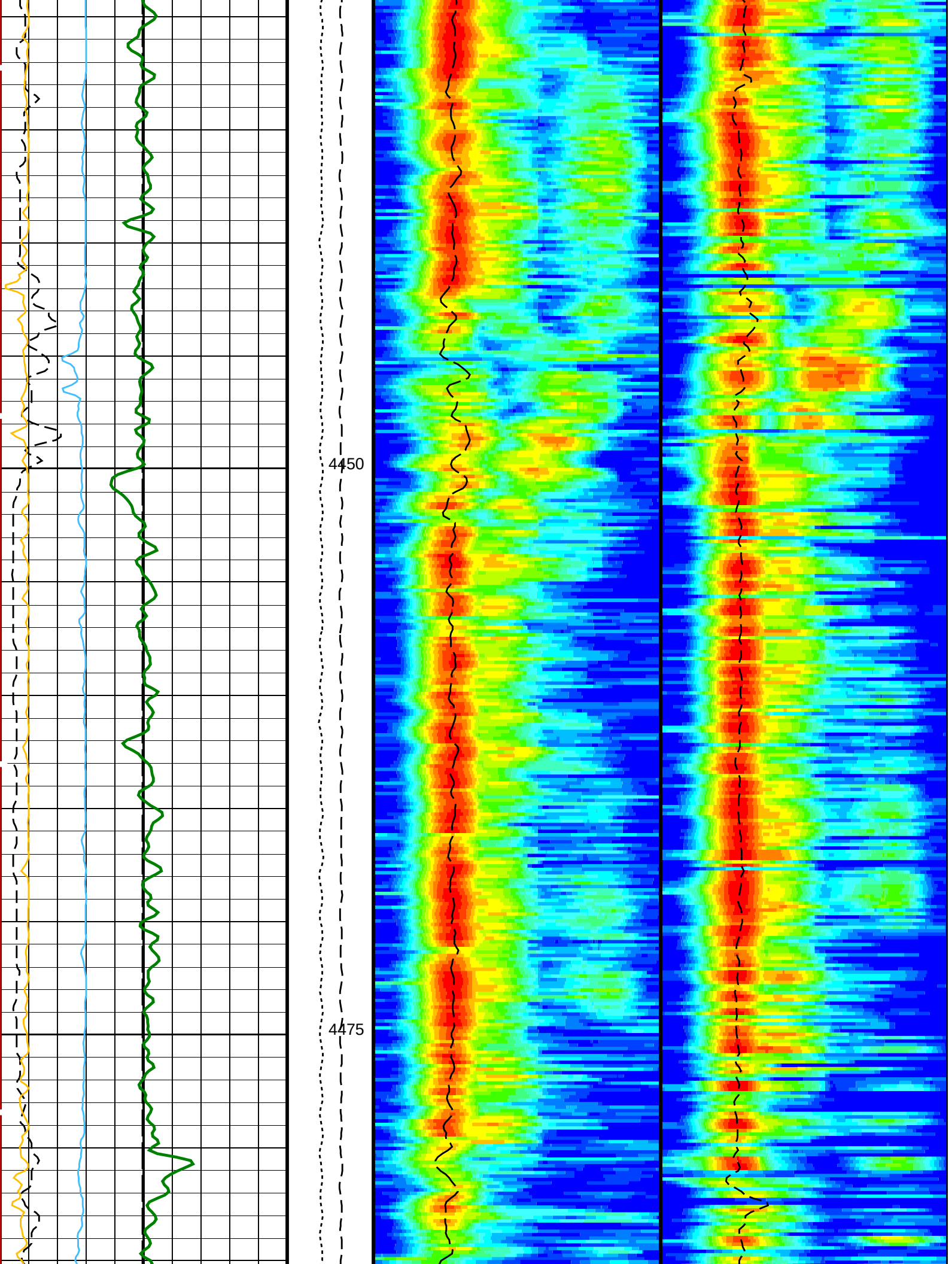

4150
4175
4200

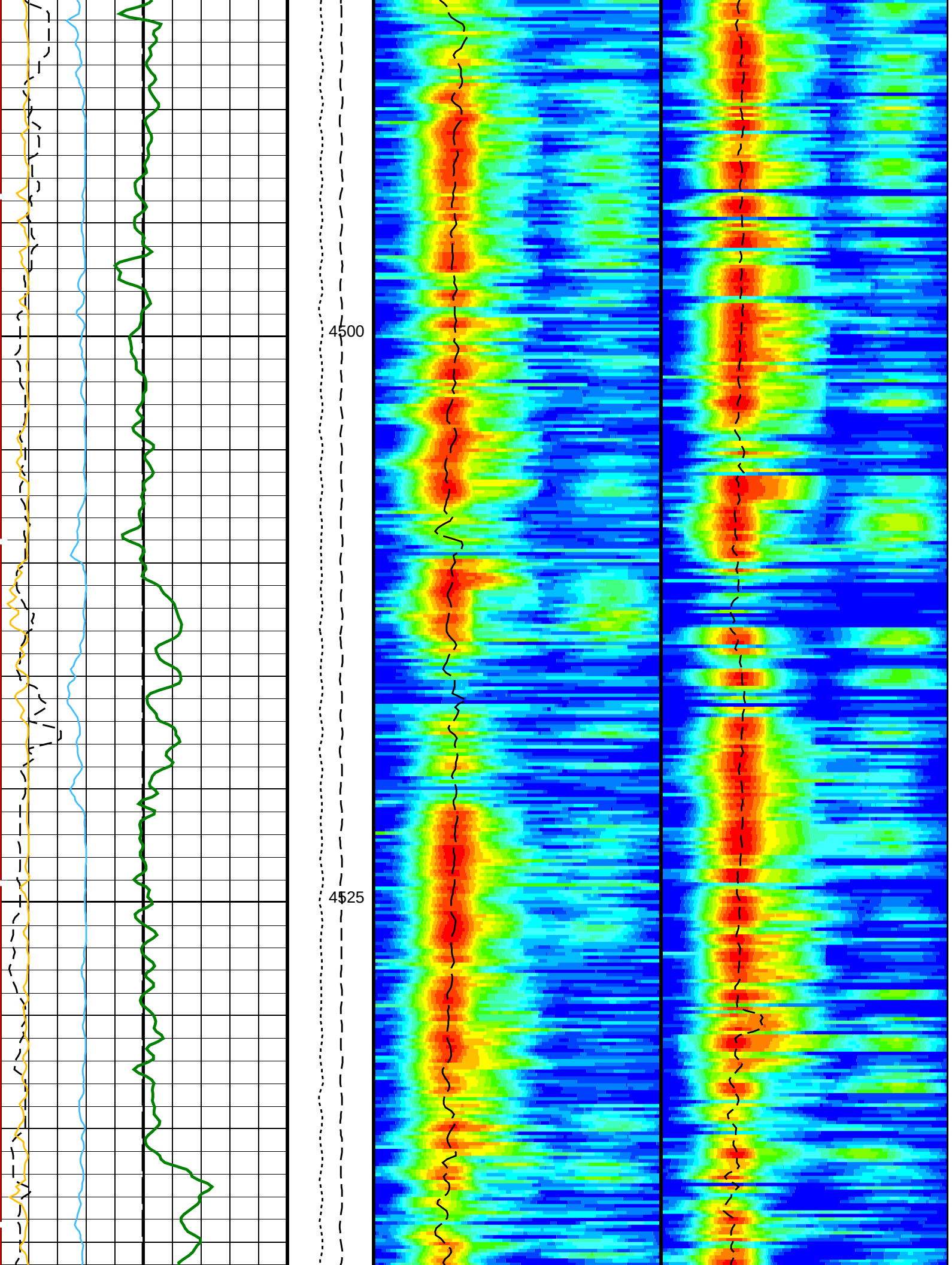

4225
4250

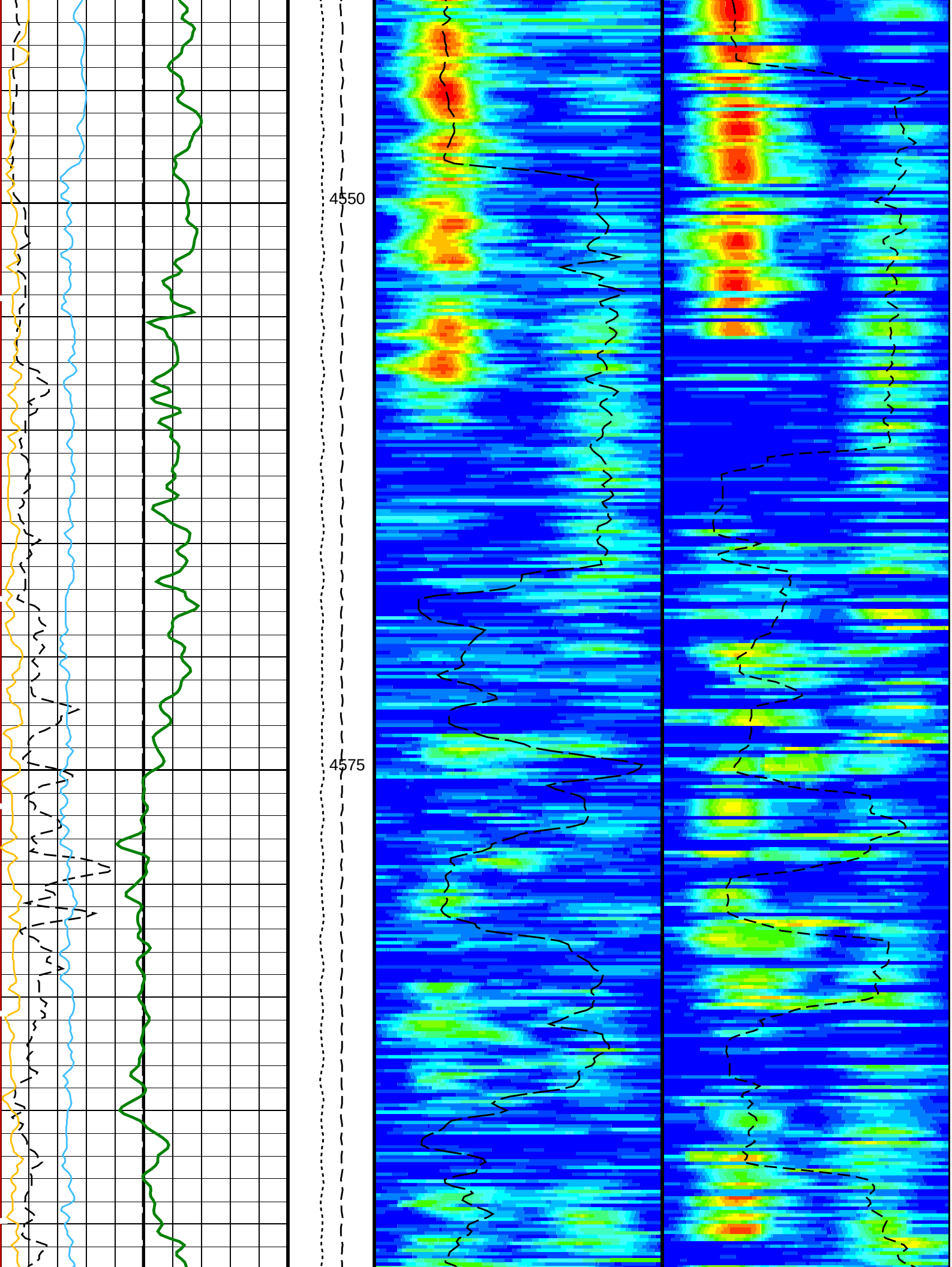

4275
4300

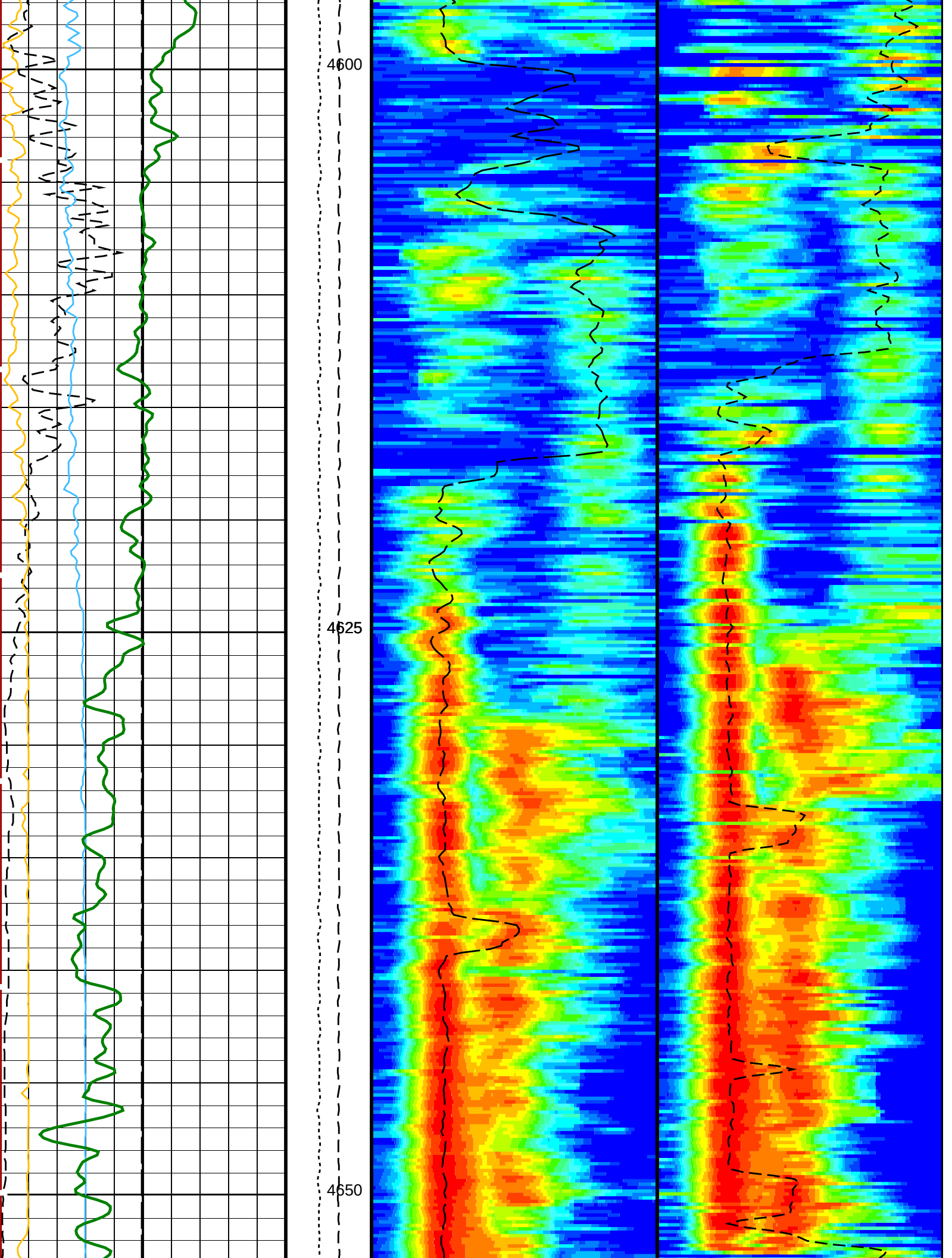

4325
4350

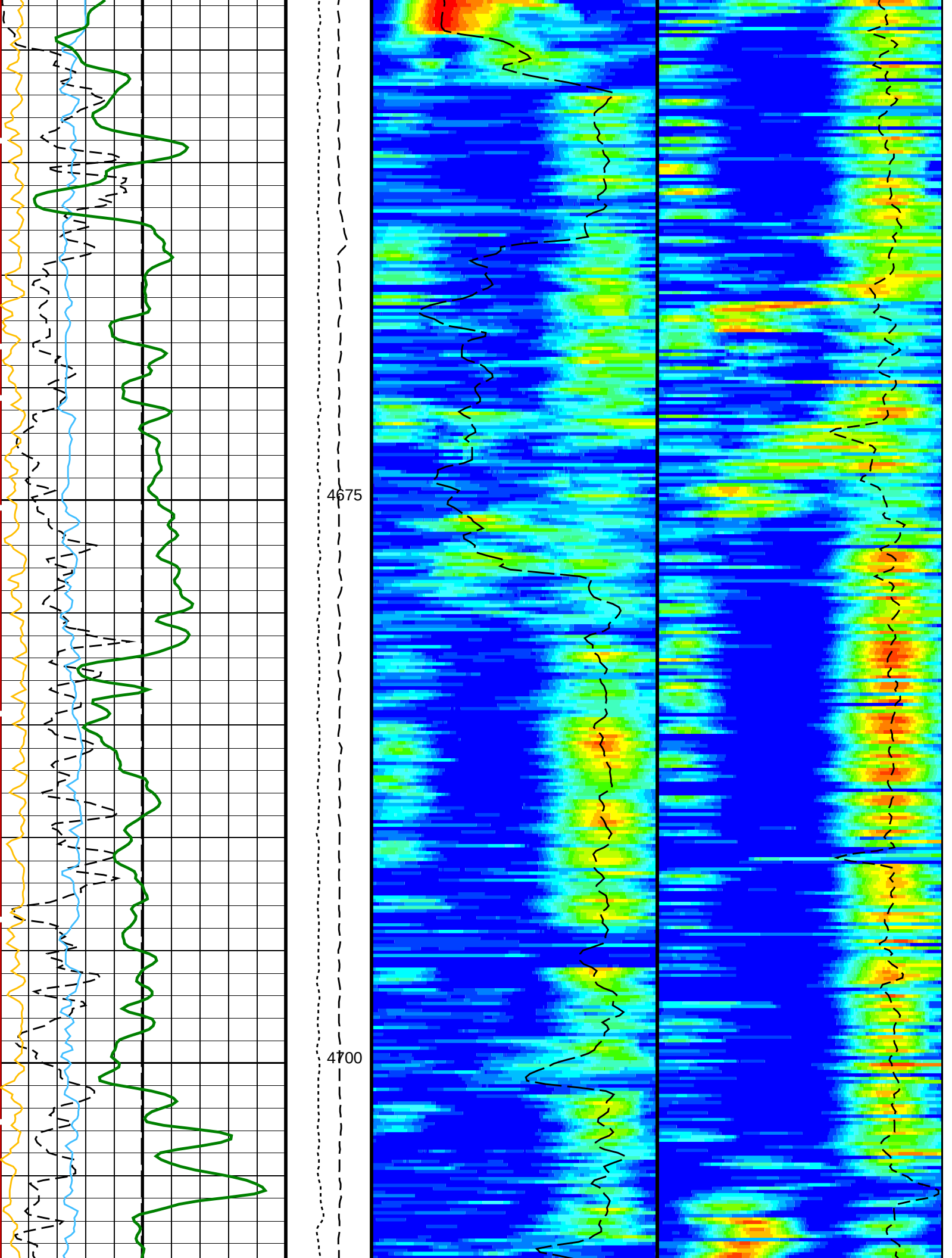

4375
4400
4425

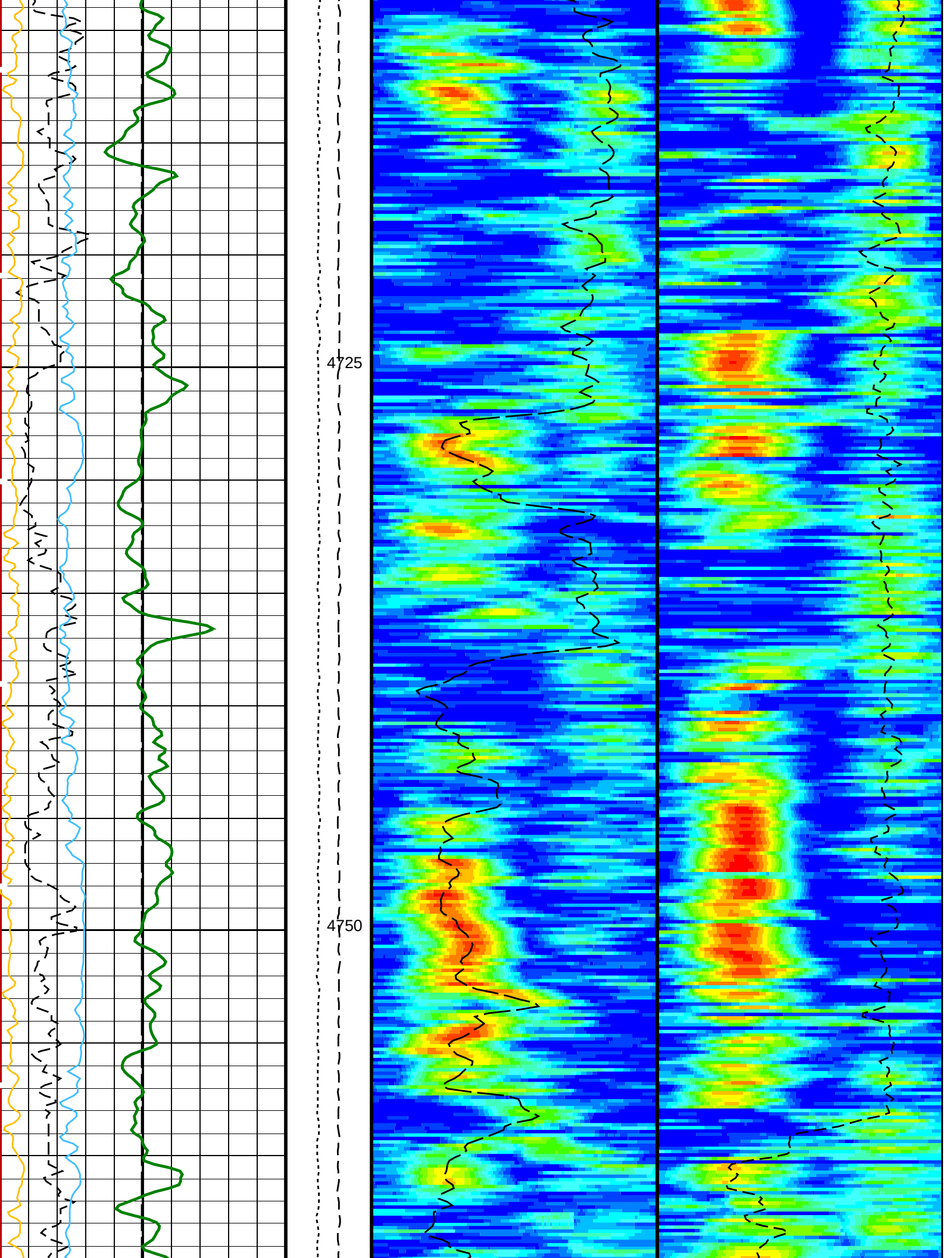

4450
4475

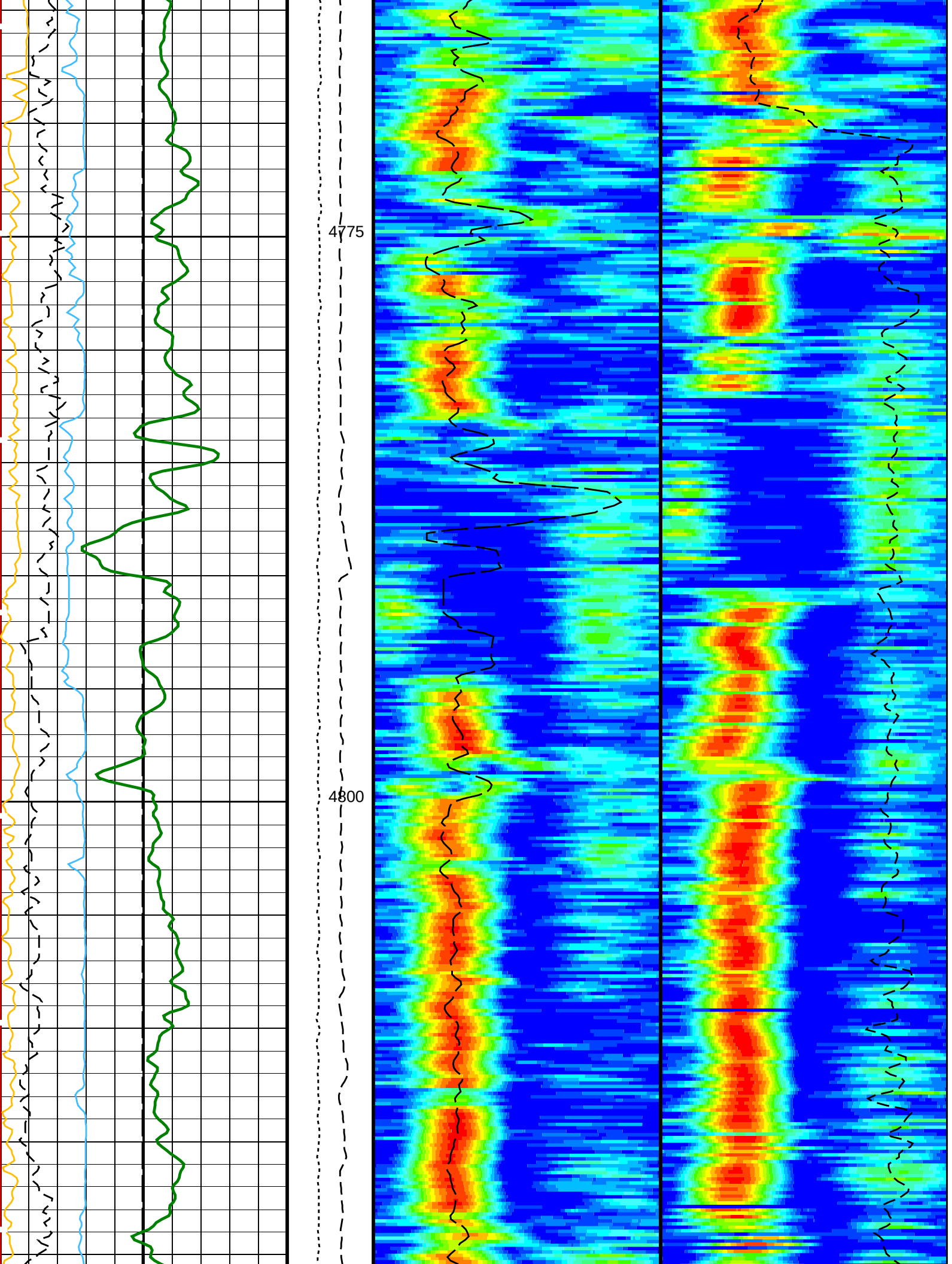

4500
4525

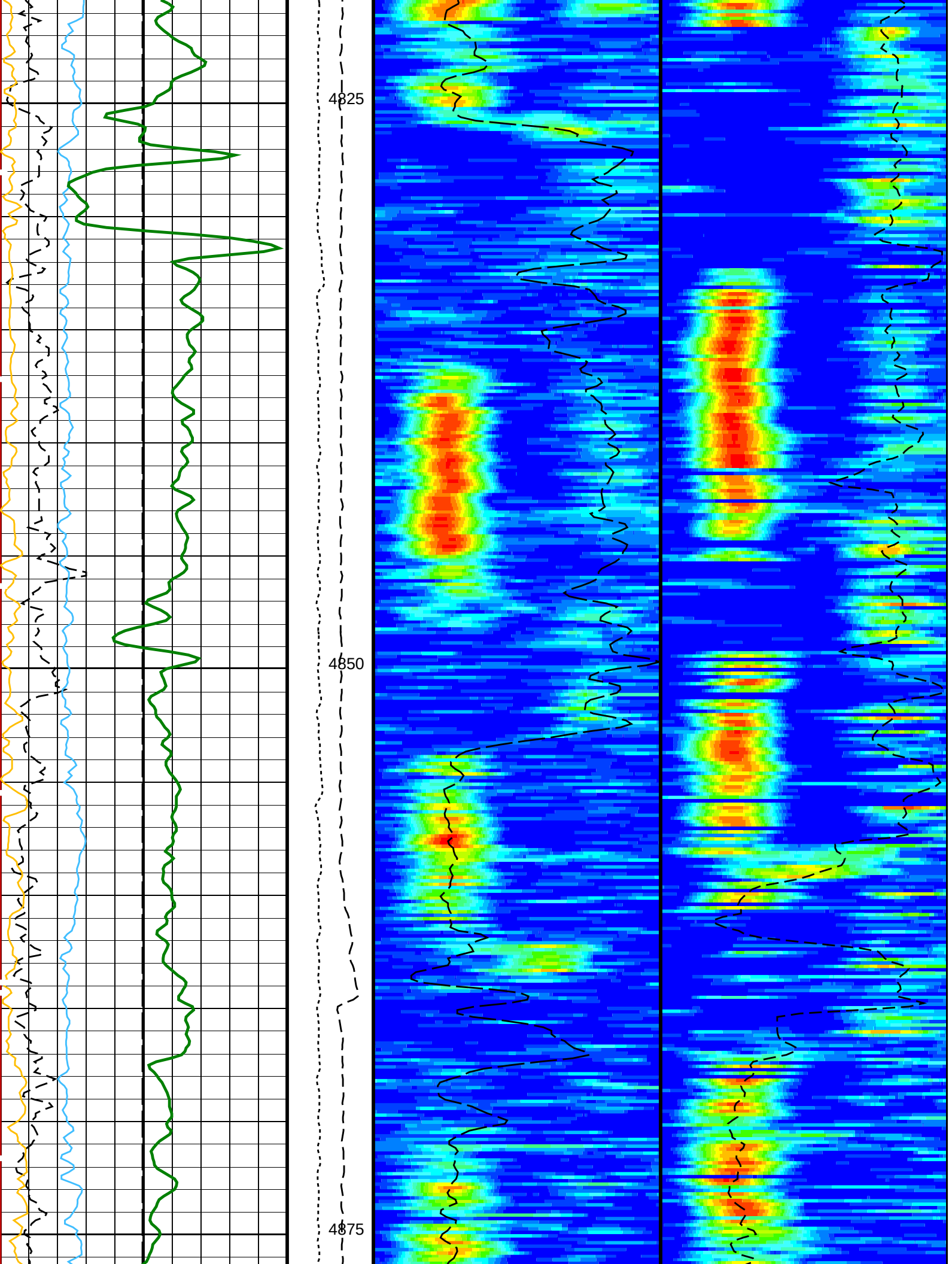

4550
4575

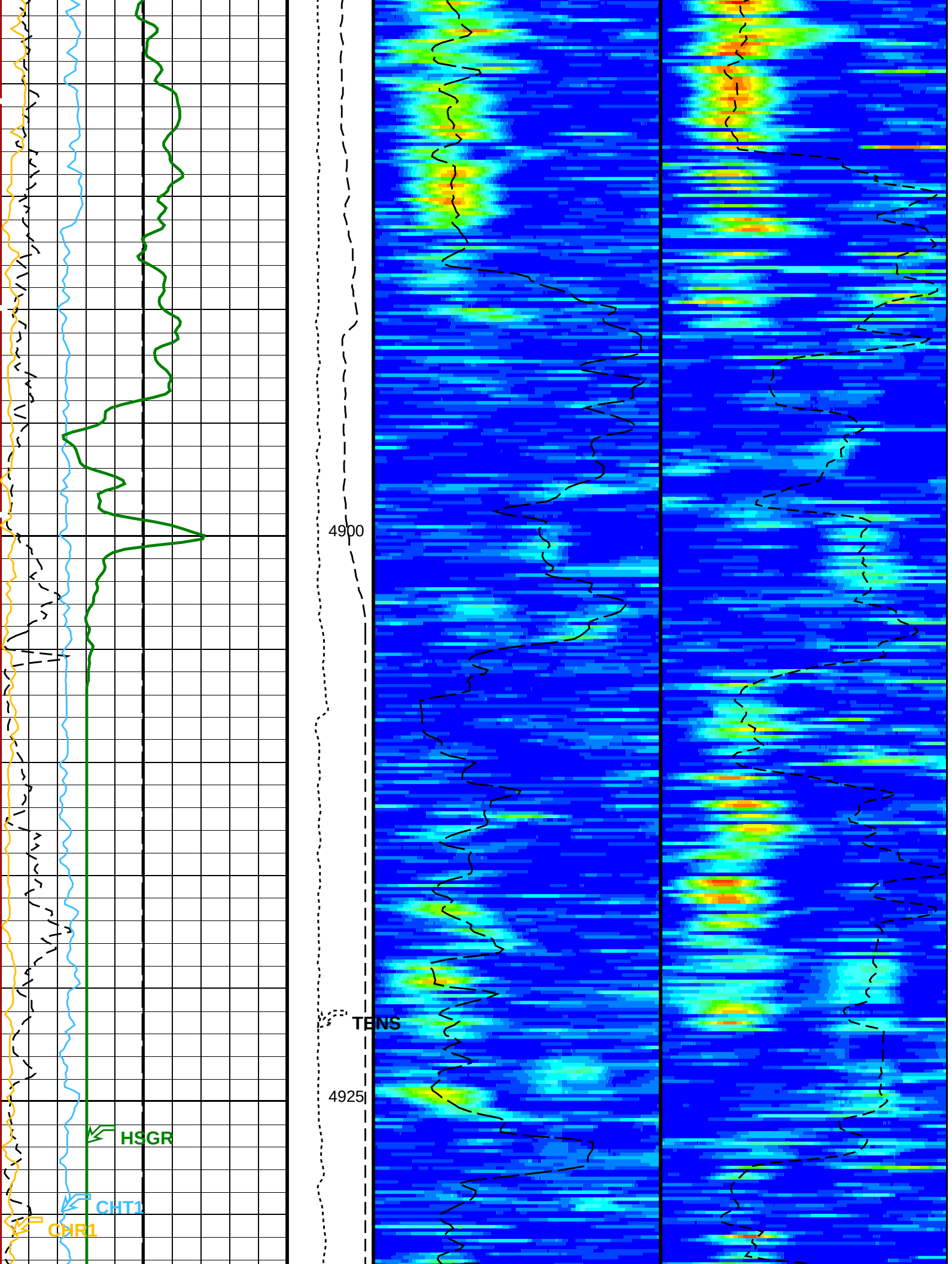

4600
4625
4650

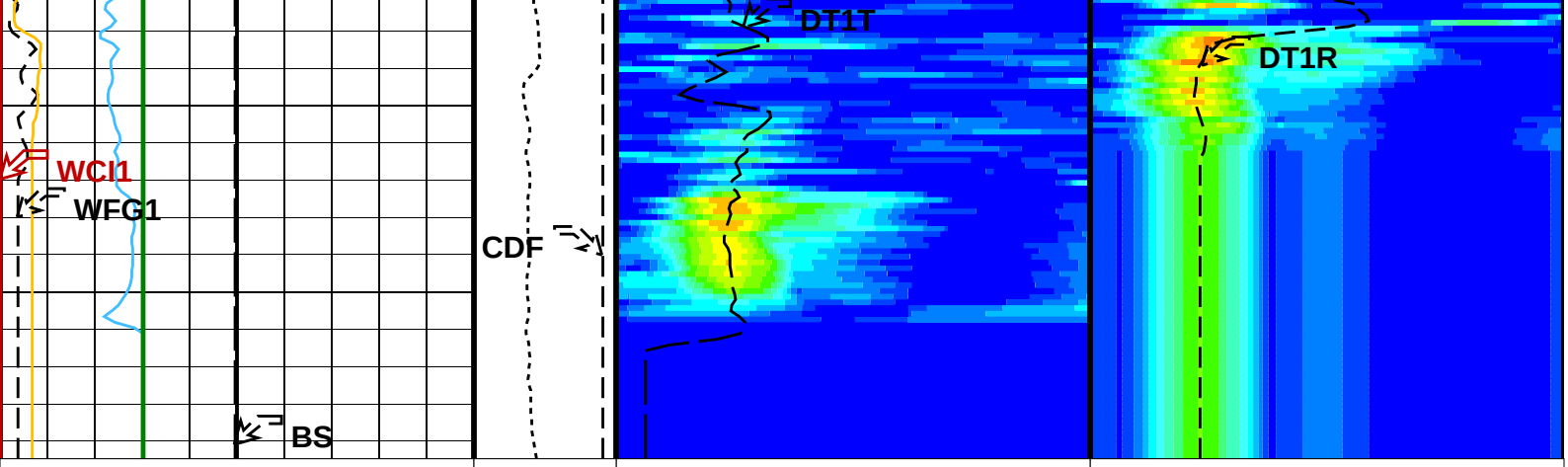

4675
4700


4725
4750


4775
4800


4825
4850
4875


4900
TENS
4925
HSGR
CHT1
CHR1



Bit Size (BS)	Tension (TENS)	Delta−T Shear / TA − Lower Dipole (DT1T)	Delta−T Shear / RA − Lower Dipole (DT1R)
0 (IN) 20	10000 (LBF) 0	40 (US/F) 1040	40 (US/F) 1040
SAM1 Waveform Gain (WFG1)	**Calibrated Downhole Force (CDF)**	**Tr.Array L.Dipole Slow Proj. CVDL (SPT1)**	**Rec.Array L.Dipole Slow Proj. CVDL (SPR1)**
0 (−−−−) 1000	5000 (LBF) 0	Min Amplitude Max; 40 (US/F) 1040	Min Amplitude Max; 40 (US/F) 1040

Waveform Data Copy Indicator 1 − Lower Dipole (WCI1)
0 (−−−−) 10

Peak Coherence / RA − Lower Dipole (CHR1)
0 (−−−−) 10

Peak Coherence / TA − Lower Dipole (CHT1)
−2 (−−−−) 8

HNGS Spectroscopy Gamma Ray (HSGR)
0 (GAPI) 100

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
BHS	Borehole Status	OPEN	
DDE1	Digitizing Delay 1	0	US
DDEX	Digitizing Delay X	0	US
DLCS	Label Compressional Source − Dipole Shear	USE	
DSHL	Label Slowness Lower Limit − Dipole Shear	40	US/F
DSHU	Label Slowness Upper Limit − Dipole Shear	1040	US/F
DSI1	Digitizer Sample Interval 1	40	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta−T Source for DTCO Channel	PS_COMP	
DWC1	Digitizer Word Count 1	512	
DWCX	Digitizer Word Count X	512	
GCSE	Generalized Caliper Selection	BS	
LTXG	Lower Dipole Transmitter Geometry	156	IN
NWI1	Number Waveform Items 1	8	
NWIX	Number Waveform Items X	0	
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
SAM1	DSST Sonic Acquisition Mode 1 − Lower Dipole Mode	LFD_EVEN	

SAMX	DSST Sonic Acquisition Mode X − Both Dipoles or Monopole Mode for Expert	OFF	
SAS1	STC Sonic Array Status − Lower Dipole	255	
SBO1	STC Search Band Offset − Lower Dipole	3000	US
SBW1	STC Search Bandwidth − Lower Dipole	8000	US
SFC1	STC Formation Character − Lower Dipole	SELECTABLE	
SFM1	STC Filter − Lower Dipole	B.3−1.5K	
SLL1	STC Slowness Lower Limit − Lower Dipole	40	US/F
SST1	STC Slowness Step − Lower Dipole	4	US/F
SSW1	STC Source Waveform − Lower Dipole	WF_SAM1	
SUL1	STC Slowness Upper Limit − Lower Dipole	1040	US/F
SWD1	STC Slowness Width − Lower Dipole	40	US/F
TBF1	STC Time for Baseline Fill − Lower Dipole	0	US
TLL1	STC Time Lower Limit − Lower Dipole	600	US
TST1	STC Time Step − Lower Dipole	200	US
TUL1	STC Time Upper Limit − Lower Dipole	18960	US
TWD1	STC Time Width − Lower Dipole	2000	US
TWI1	STC Integration Time Window − Lower Dipole	1600	US
TWSX	Transmitter Waveform Select X	0	
WFM1	Waveform Mode 1	W1	
	HRLT−B: High Resolution Laterolog Array − 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	10.75	IN
CSD2	Outer Casing Outer Diameter	10.75	IN
CSW1	Inner Casing Weight	45	LB/F
CSW2	Outer Casing Weight	45	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	−0.00184813	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
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	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.990521	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.00375	
	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	1.32	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: DSST_LOWER_DIPOLE_RC_TR_VDL_COLOR **Vertical Scale: 1:200** **Graphics File Created: 06−Apr−2017 20:17**

OP System Version: 19C0−187

DSST−B	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
EDTC−B	SKK−5169−EDTCB		

Input DLIS Files

DEFAULT	Flip_DSI_HRLA_LDL_029LUP	PRODUCER	06−Apr−2017 18:02	4944.5 M	3717.0 M

Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_036PUP	FN:47	PRODUCER	06−Apr−2017 20:17
BACKUP	DSI_HRLA_LDL_NGS_036PUP	FN:48	PRODUCER	06−Apr−2017 20:17

Input DLIS Files

DEFAULT	Flip_DSI_HRLA_LDL_029LUP		PRODUCER	06-Apr-2017 18:02	4944.5 M	3717.0 M

Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_036PUP	FN:47	PRODUCER	06-Apr-2017 20:17	4944.5 M	3717.0 M
BACKUP	DSI_HRLA_LDL_NGS_036PUP	FN:48	PRODUCER	06-Apr-2017 20:17	4944.5 M	3717.0 M

OP System Version: 19C0-187

DSST-B	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-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)
0 (GAPI) 100

Peak Coherence / TA - Upper Dipole (CHT2)
-2 (----) 8

Peak Coherence / RA - Upper Dipole (CHR2)
0 (----) 10

Waveform Data Copy Indicator 2 - Upper Dipole (WCI2)
0 (----) 10

SAM2 Waveform Gain (WFG2)
0 (----) 1000

Calibrated Downhole Force (CDF) (LBF)
5000 0

Min Amplitude Max
Tr.Array U.Dipole Slow Proj. CVDL (SPT2)
40 (US/F) 1040

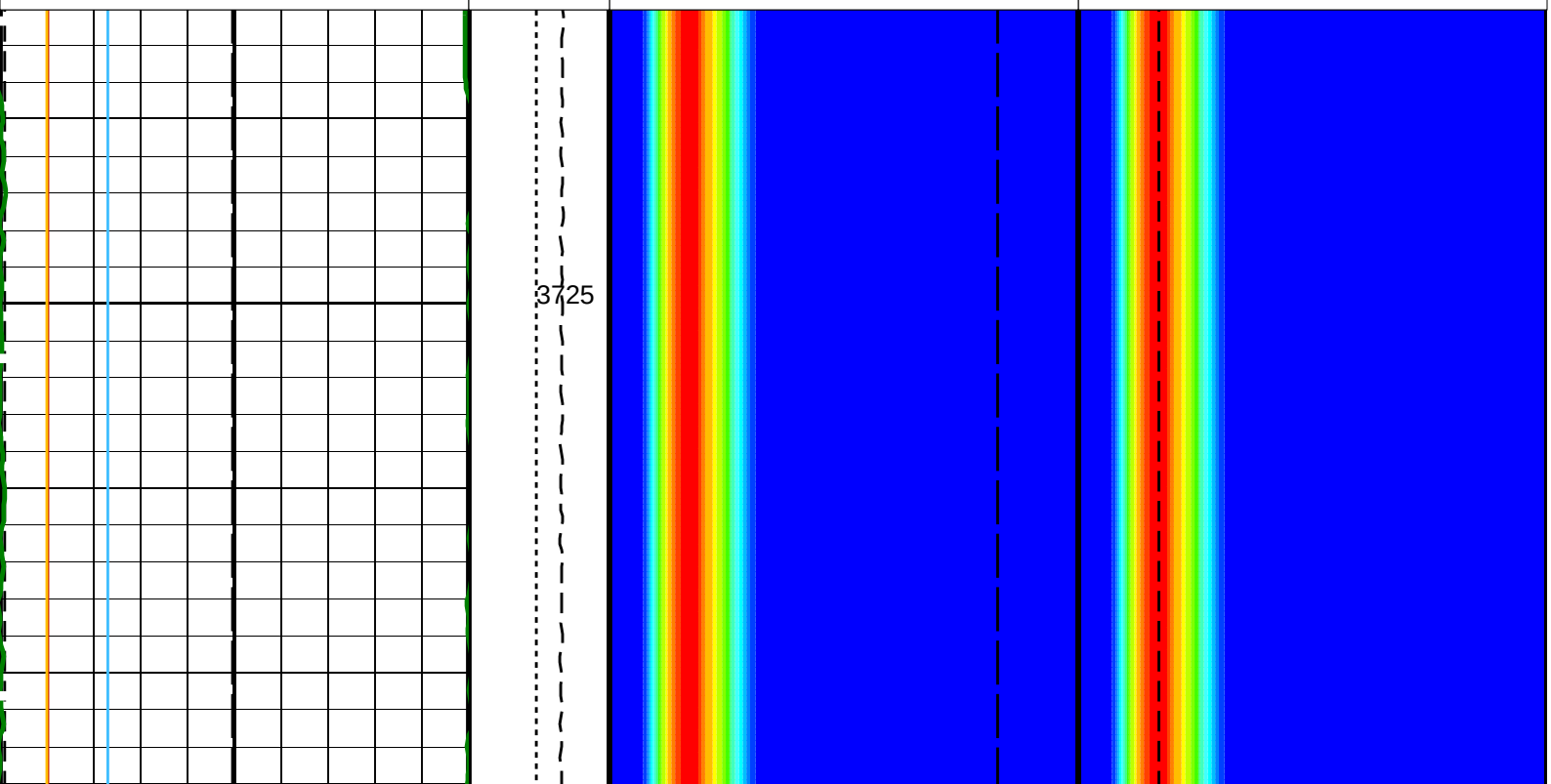
Min Amplitude Max
Rec.Array U.Dipole Slow Proj. CVDL (SPR2)
40 (US/F) 1040

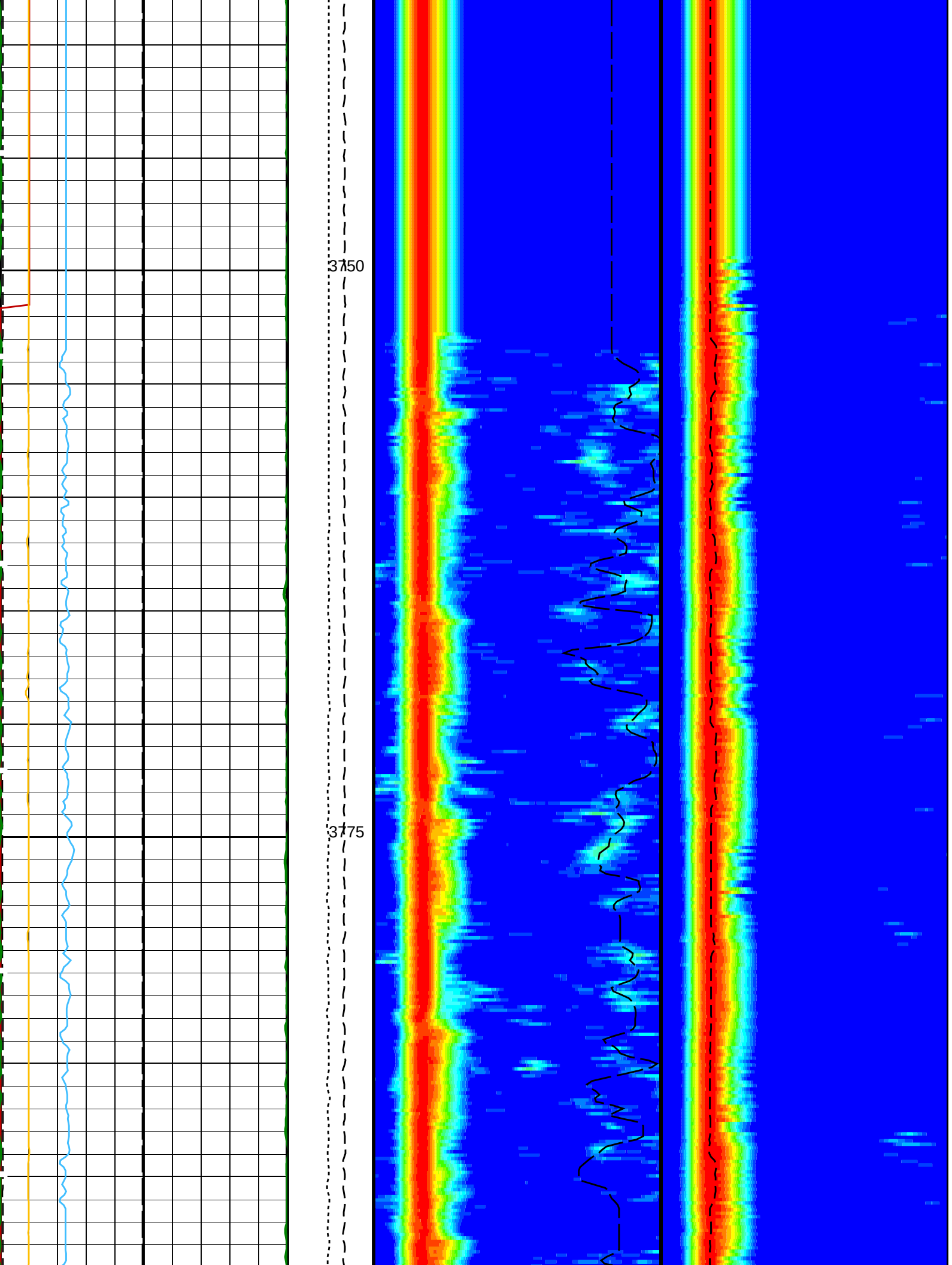
Bit Size (BS)
0 (IN) 20

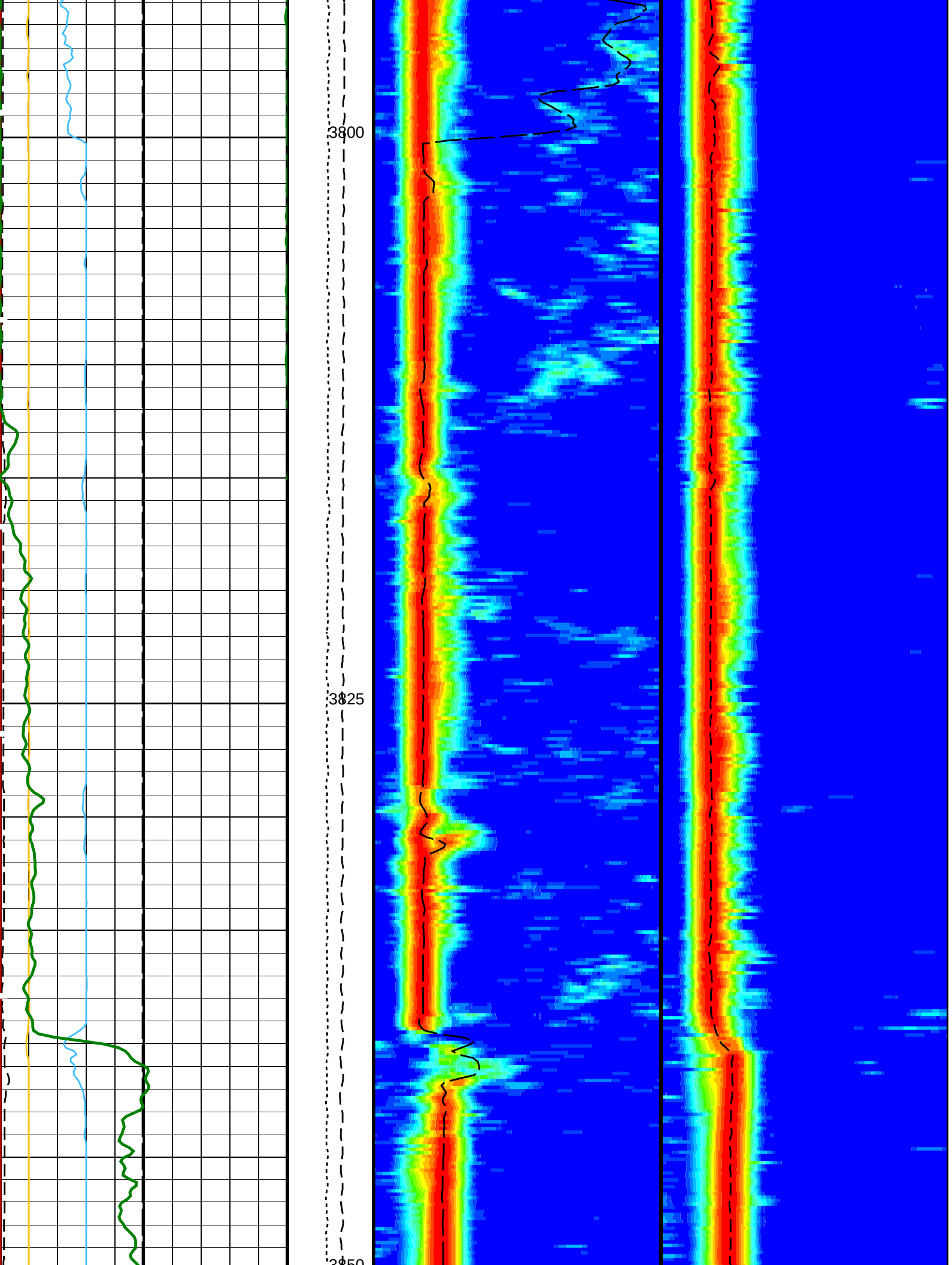
Tension (TENS) (LBF)
10000 0

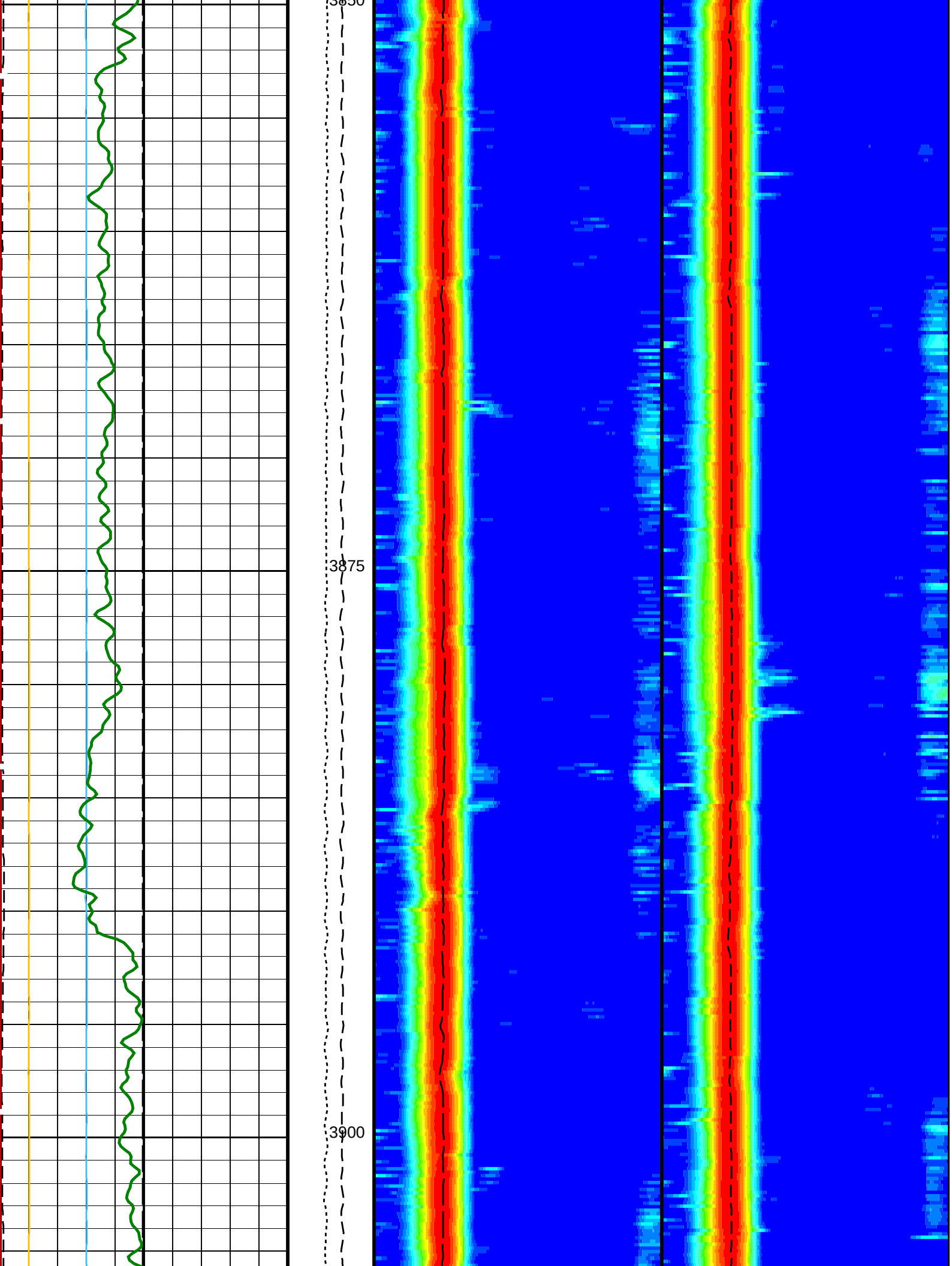
Delta-T Shear / TA - Upper Dipole (DT2T)
40 (US/F) 1040

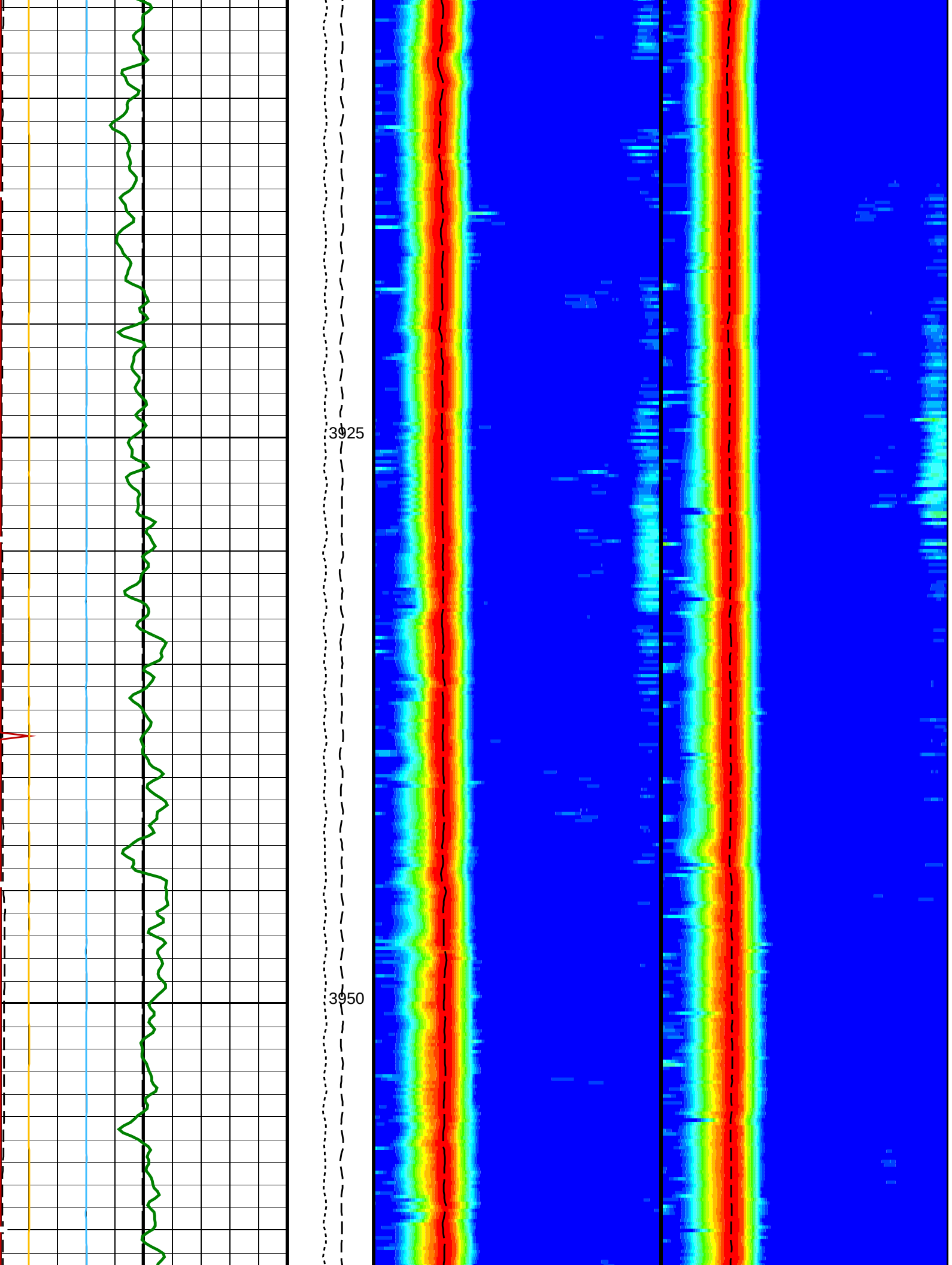
Delta-T Shear / RA - Upper Dipole (DT2R)
40 (US/F) 1040

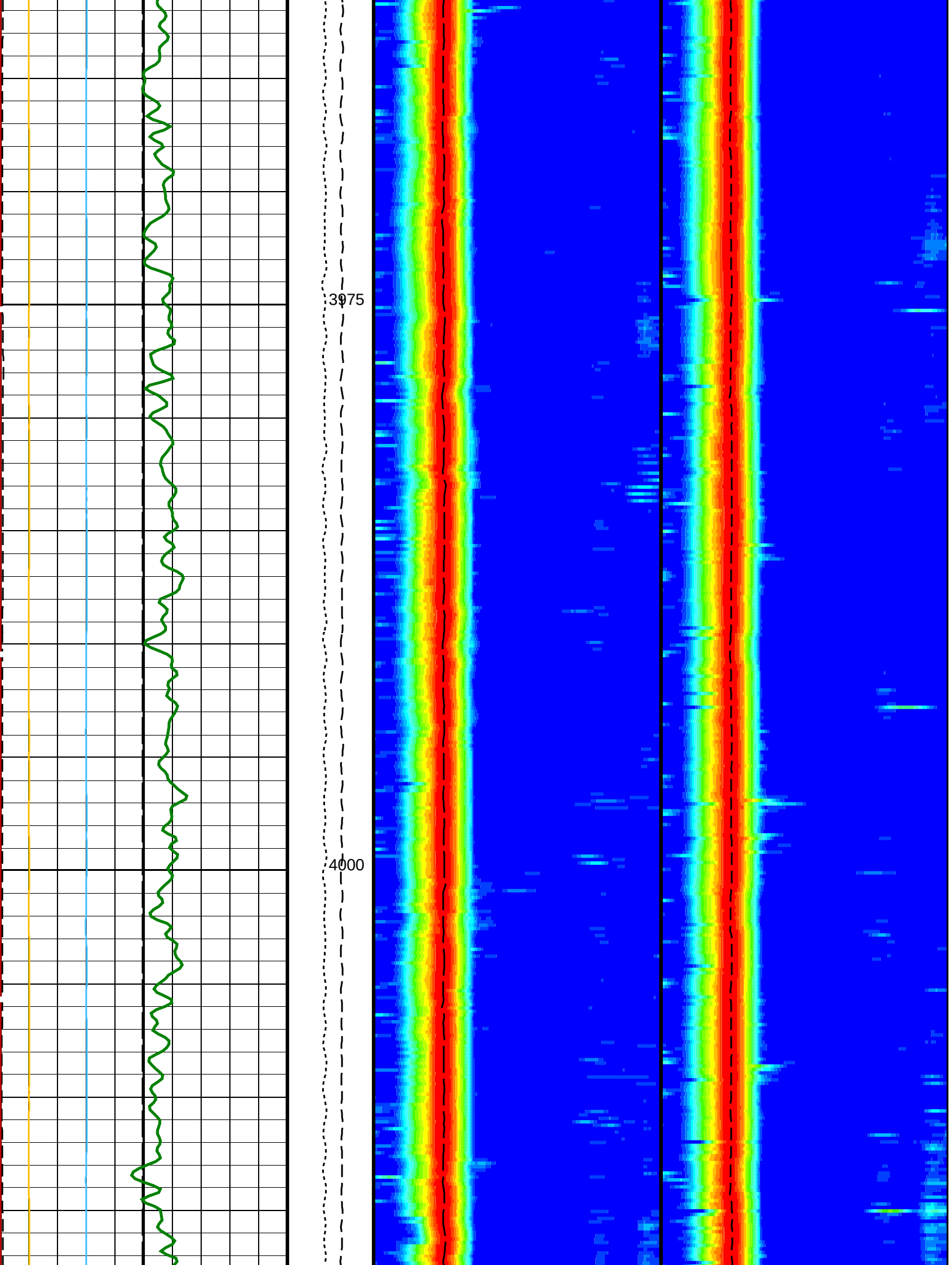


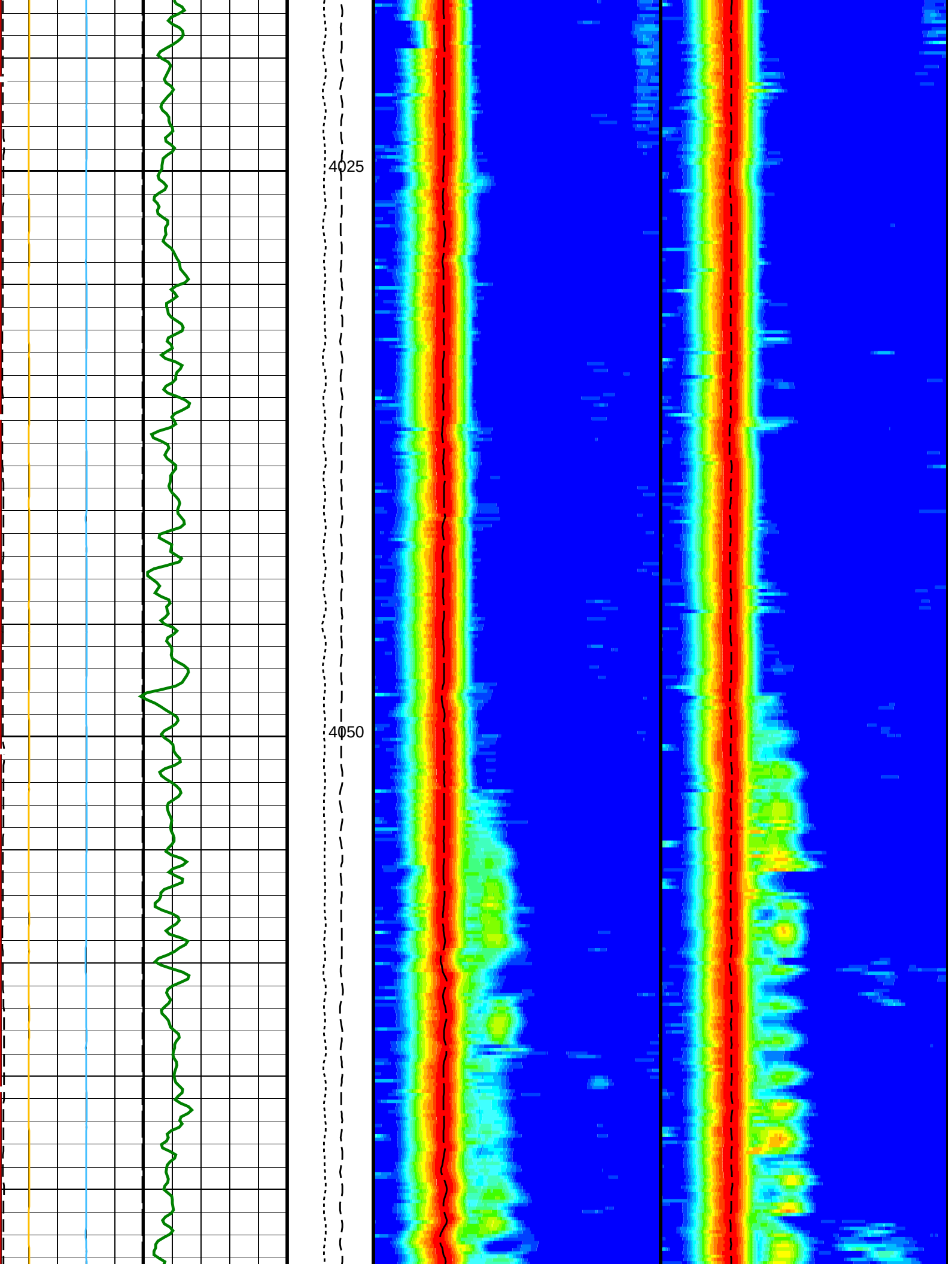

3750
3775

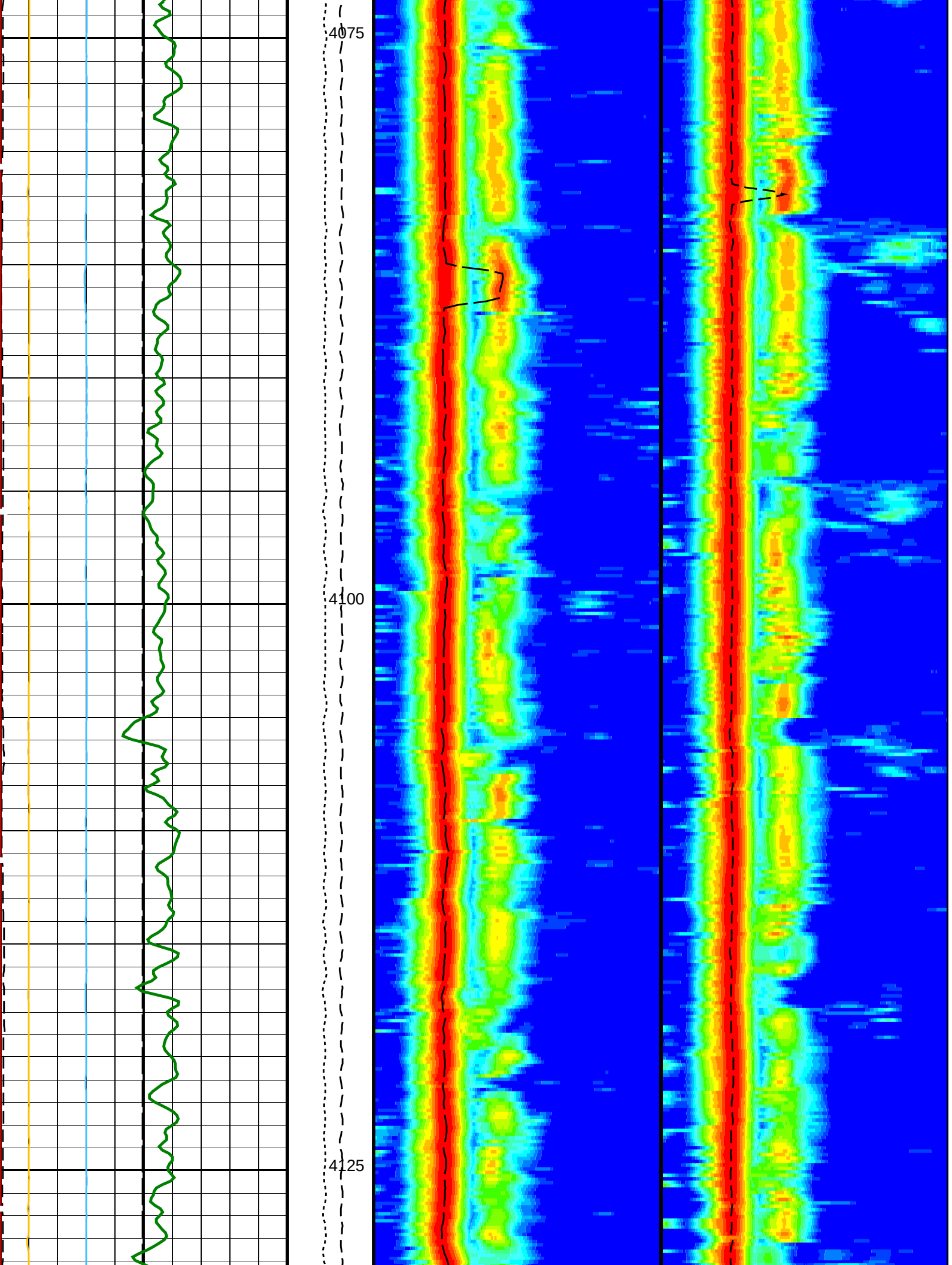

3800
3825
3850

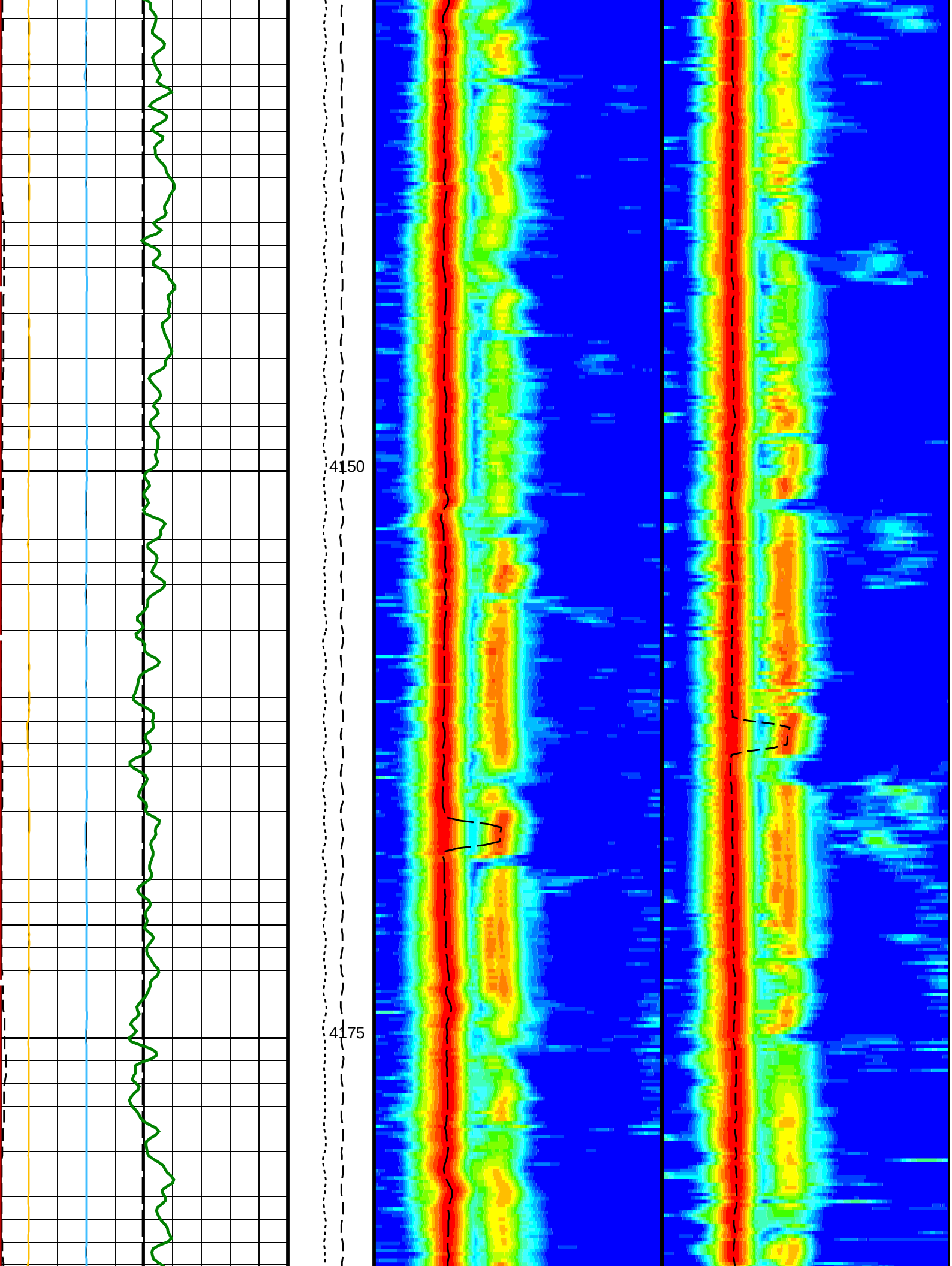

3850
3875
3900

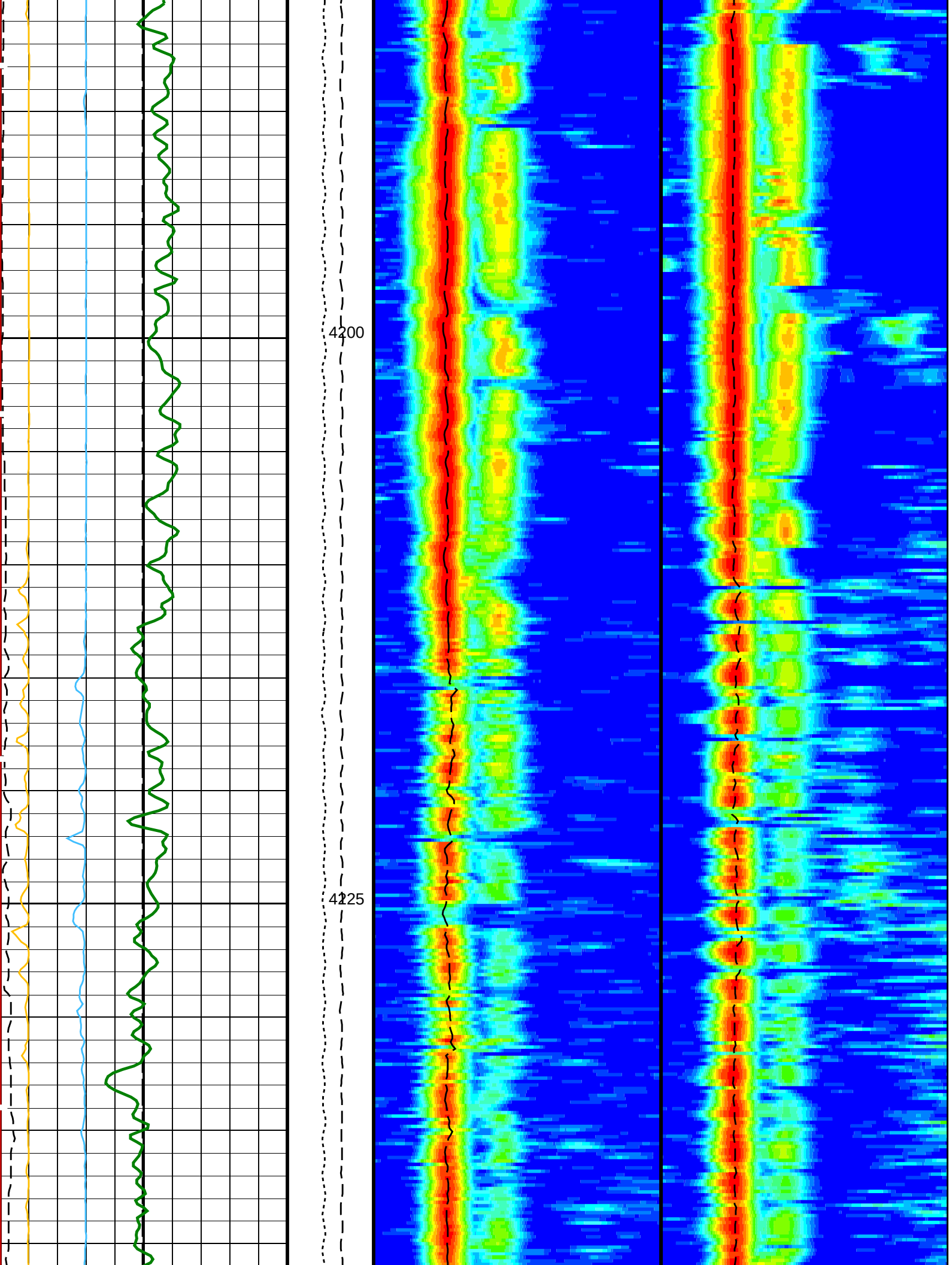

3925
3950

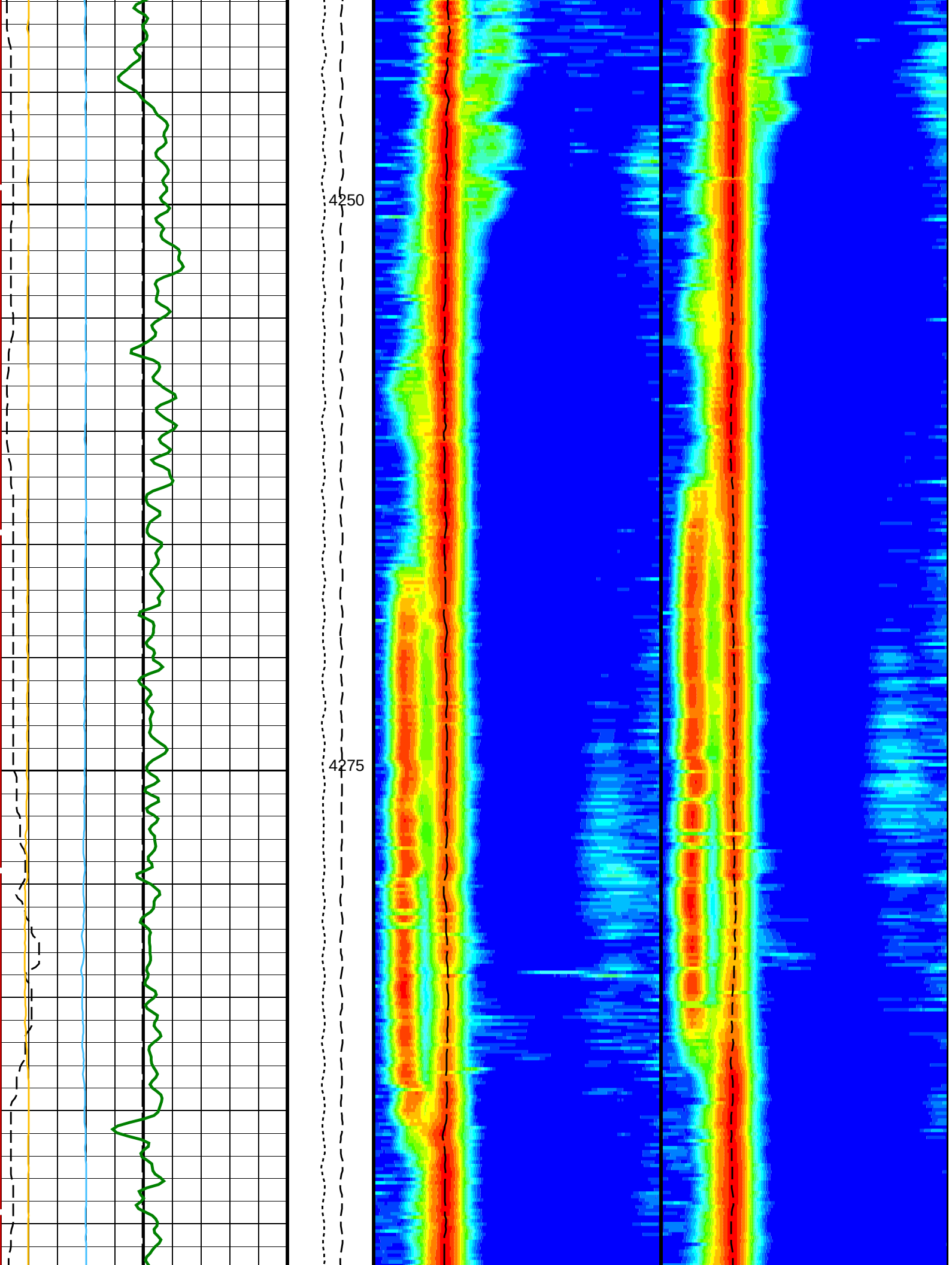

3975
4000

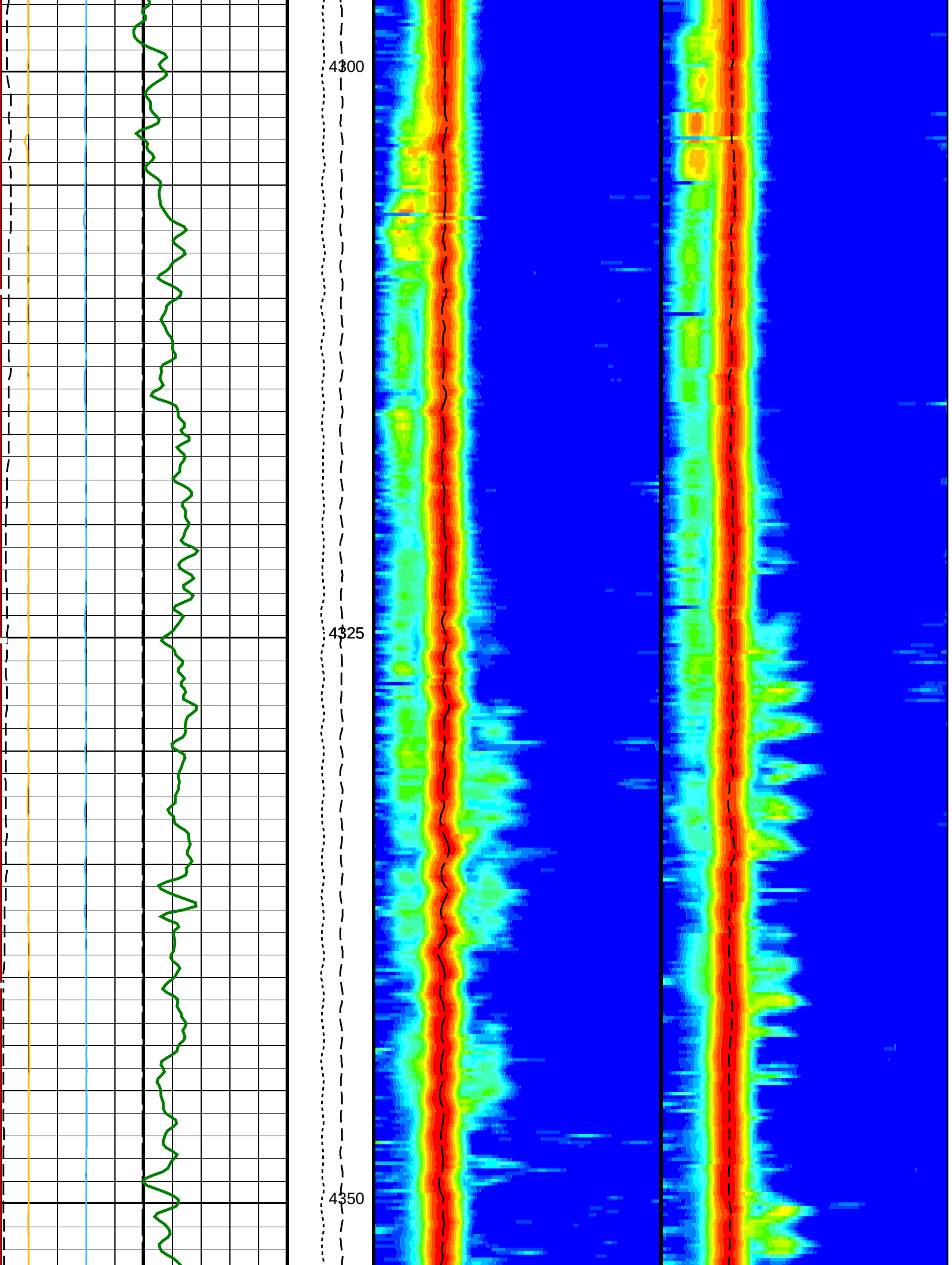

4025
4050

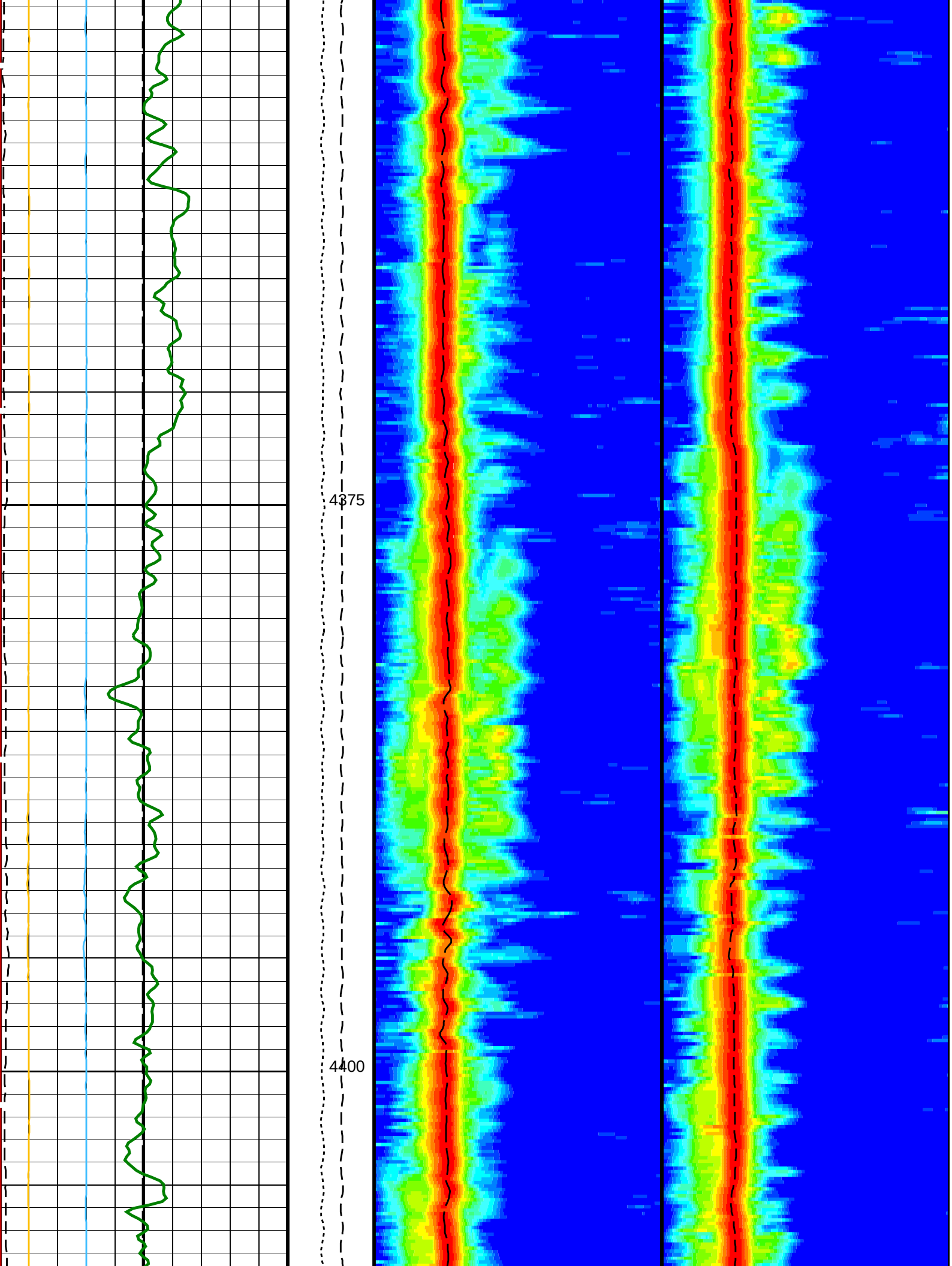

4075
4100
4125

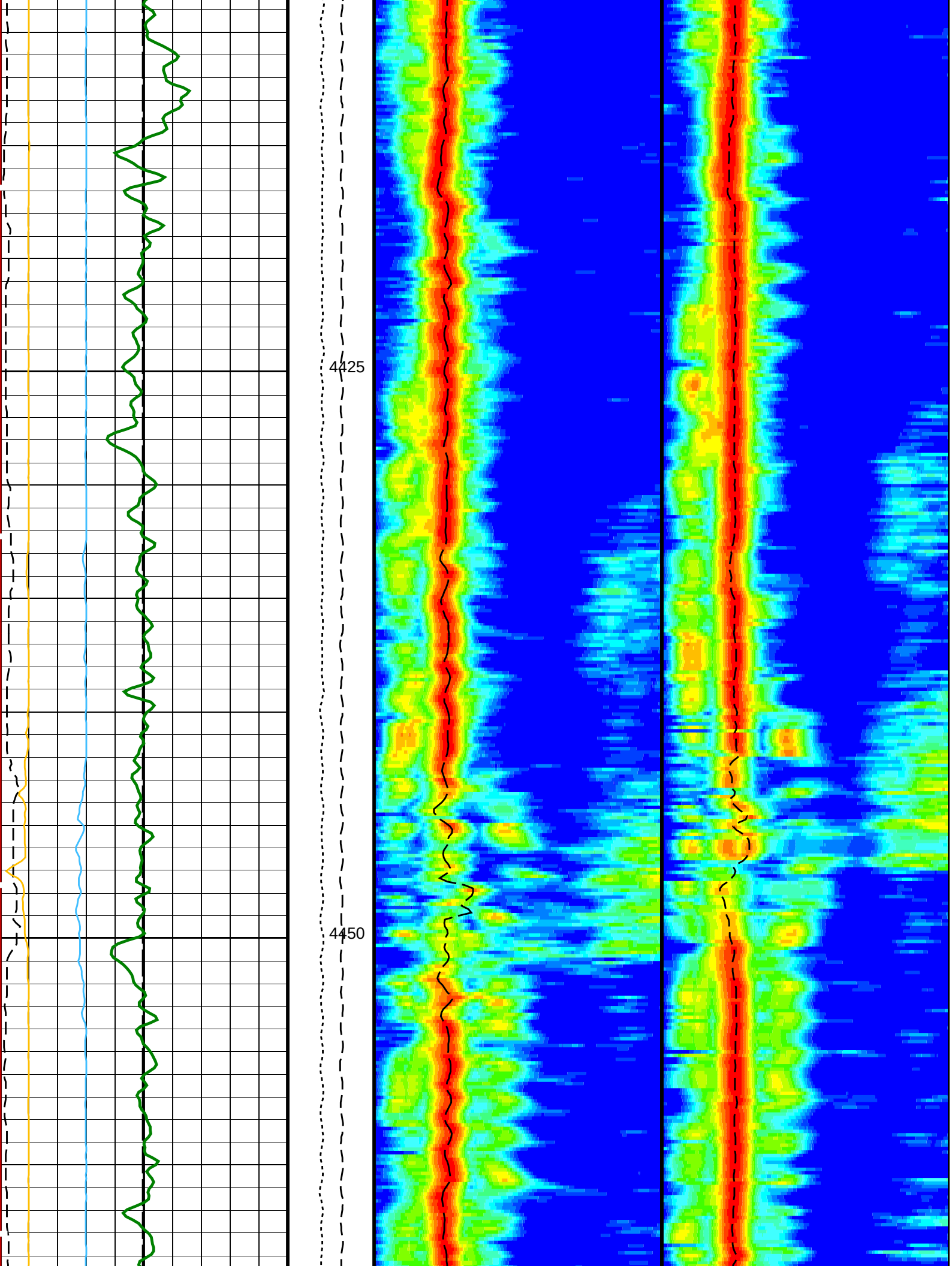

4150
4175

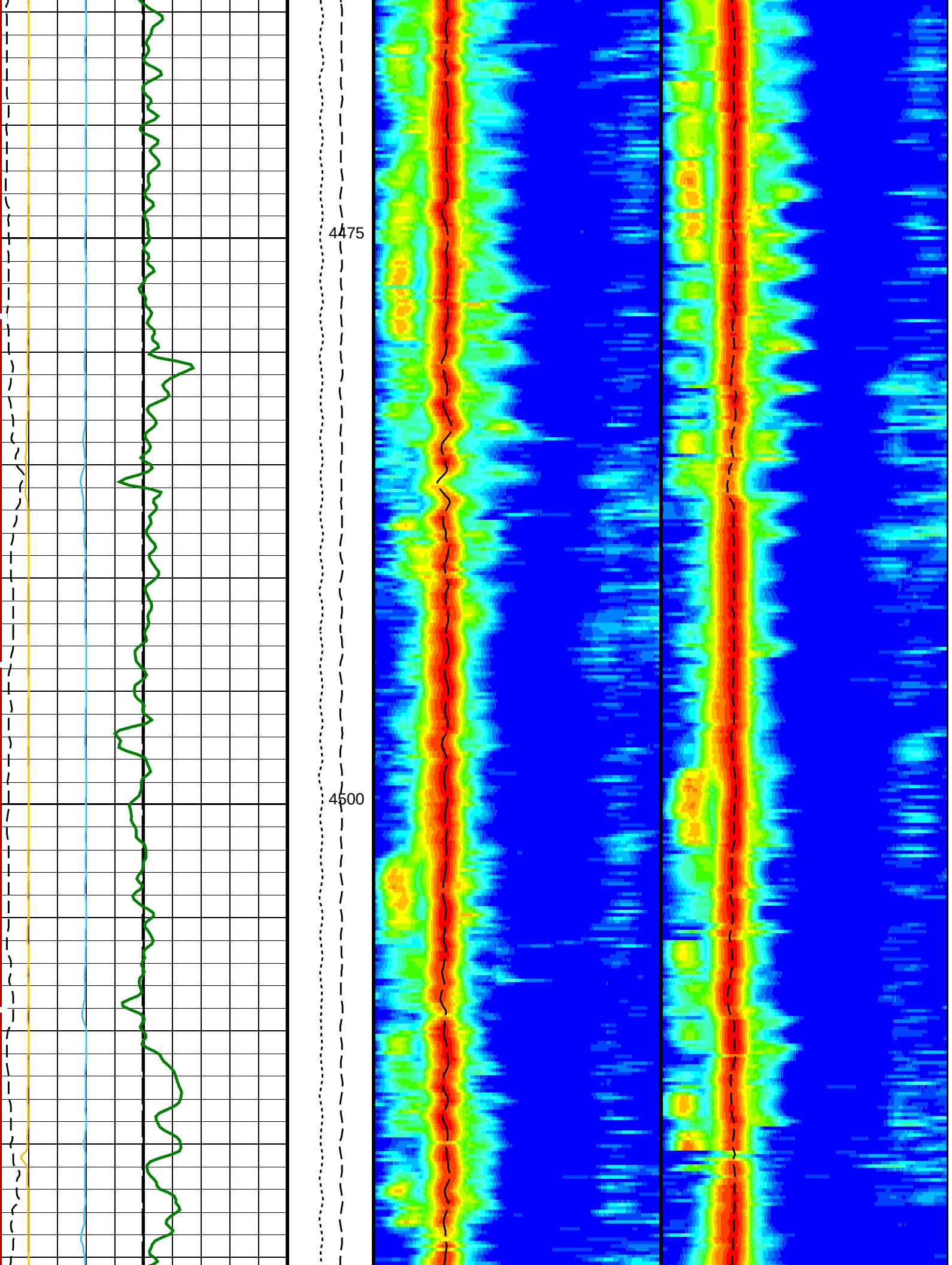

4200
4225

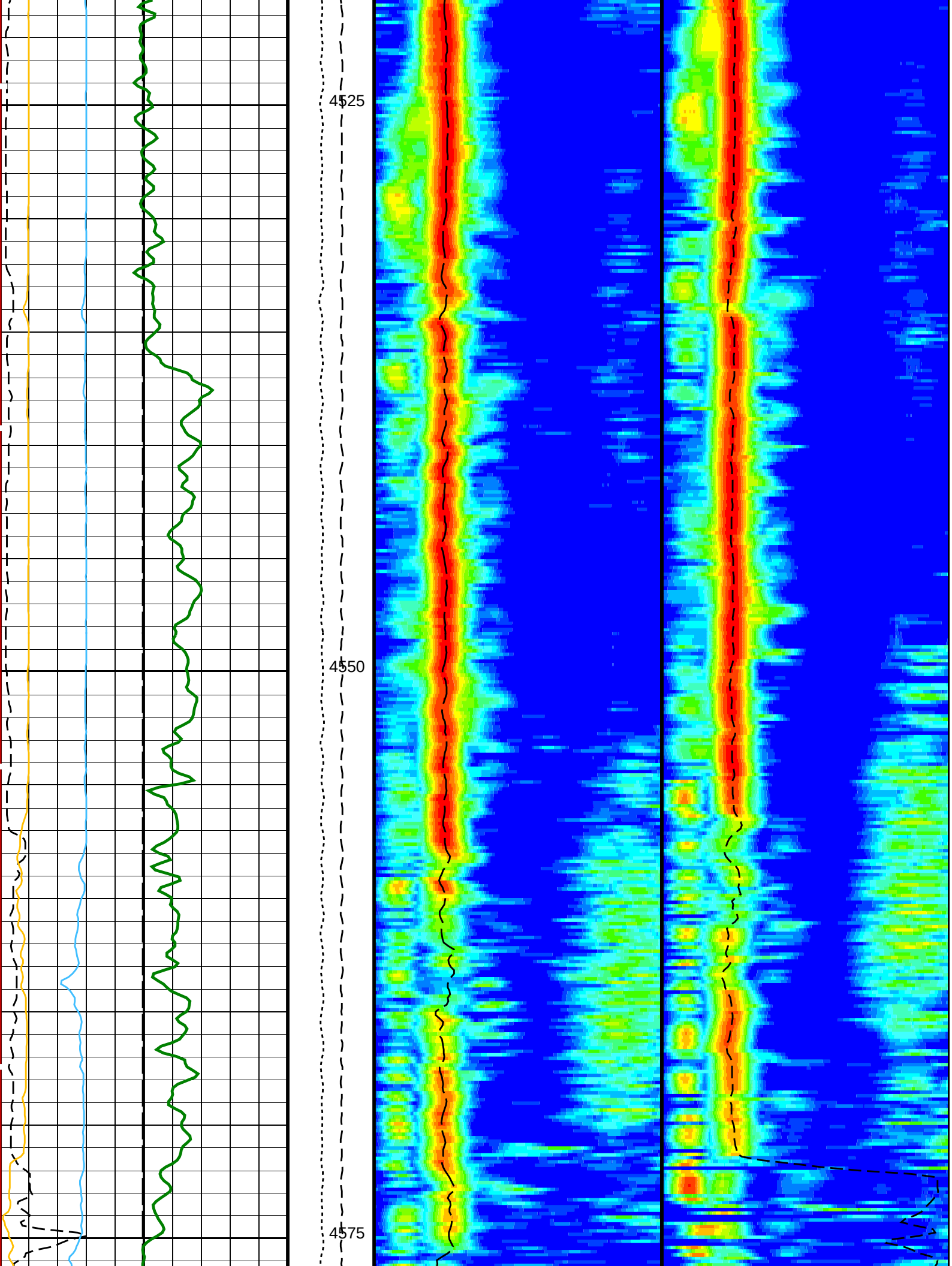

4250
4275

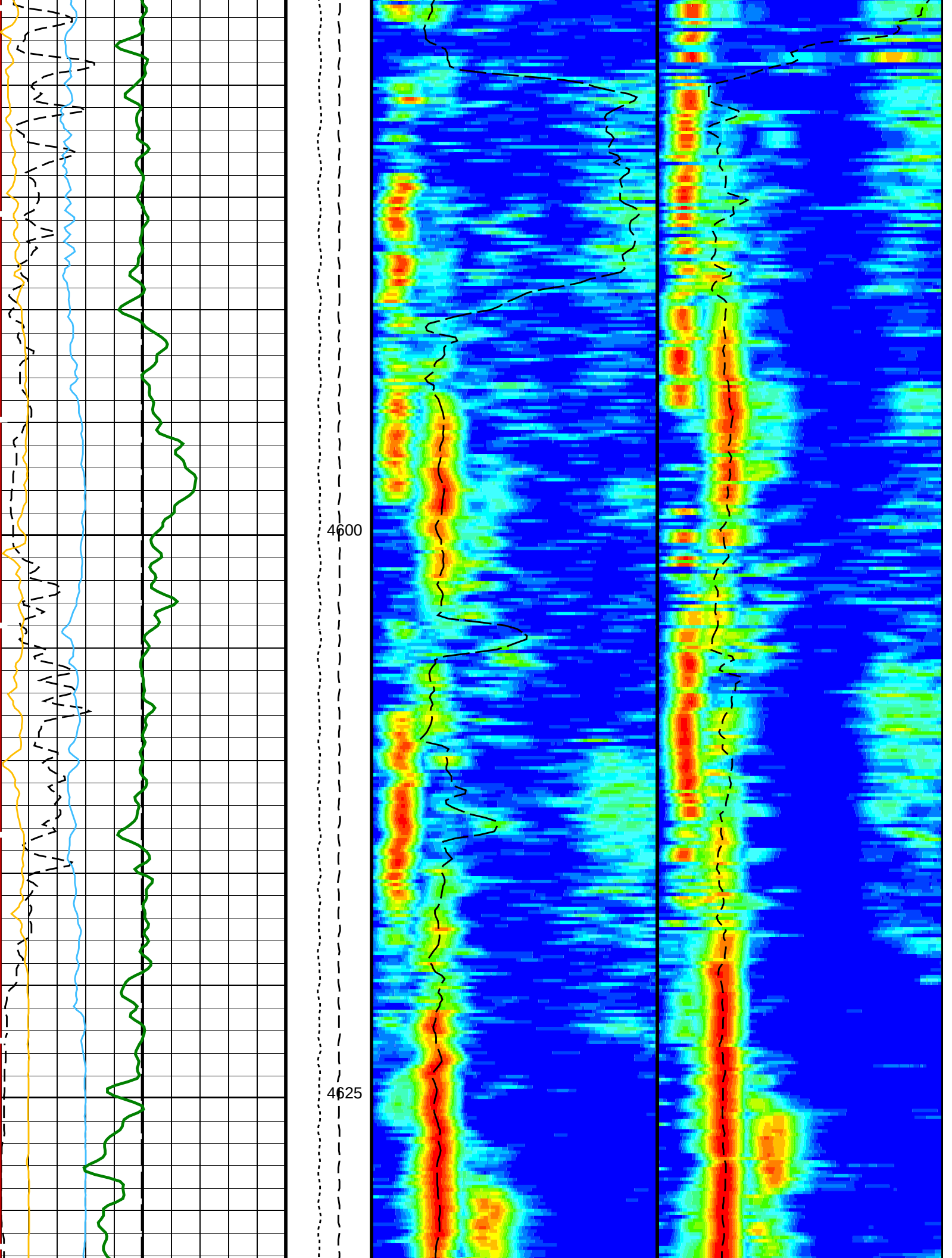

4300
4325
4350

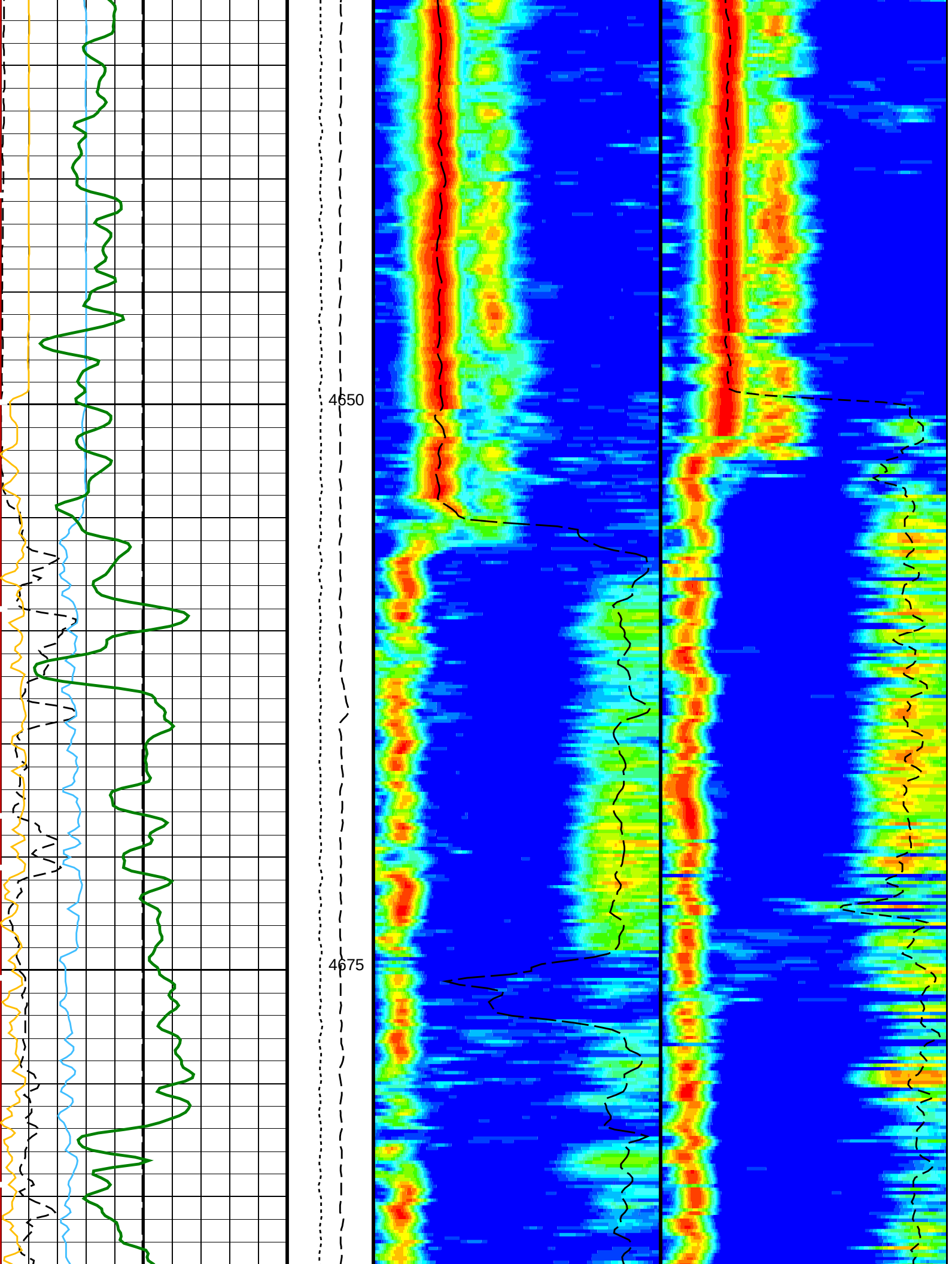

4375
4400

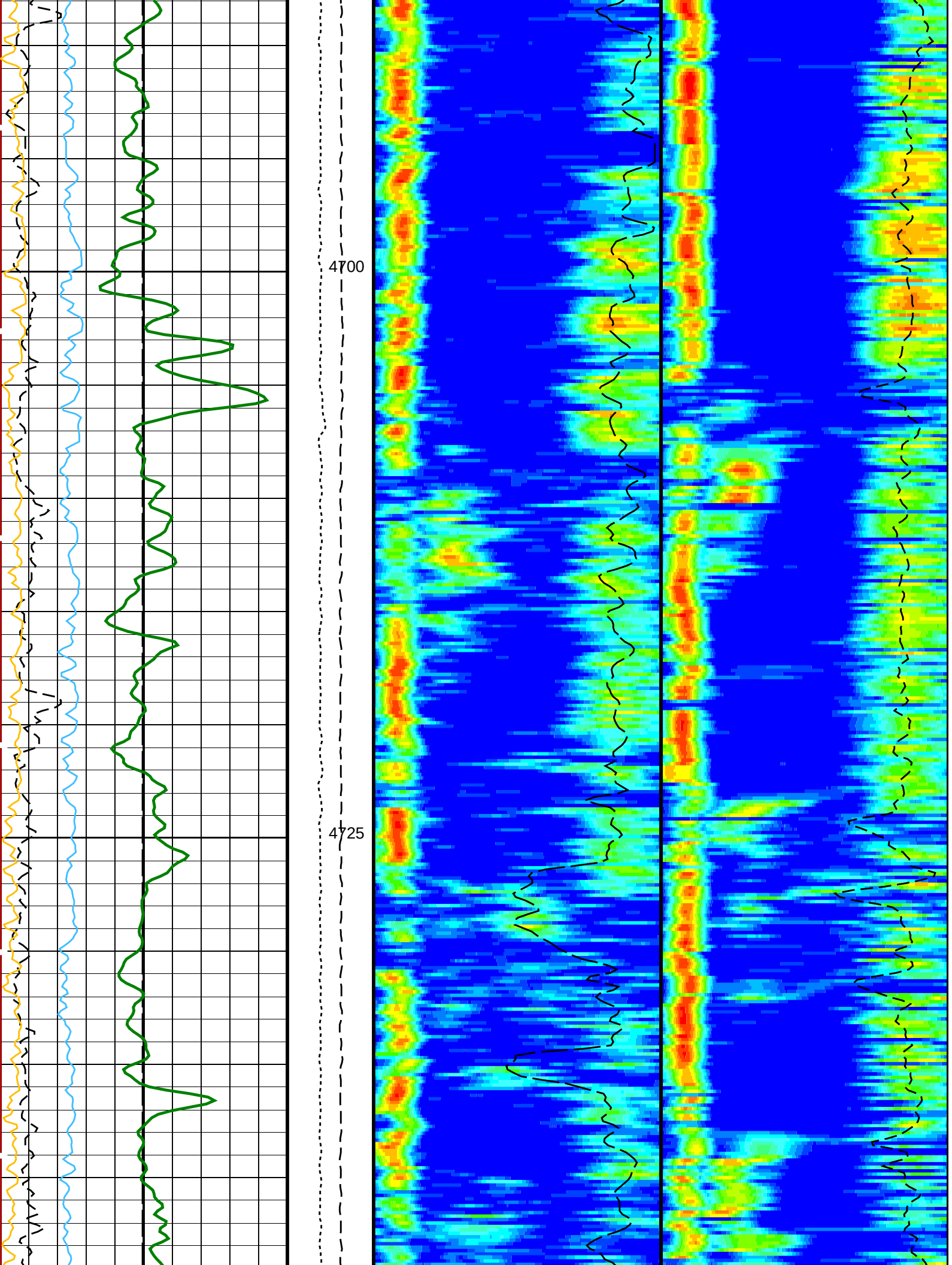

4425
4450

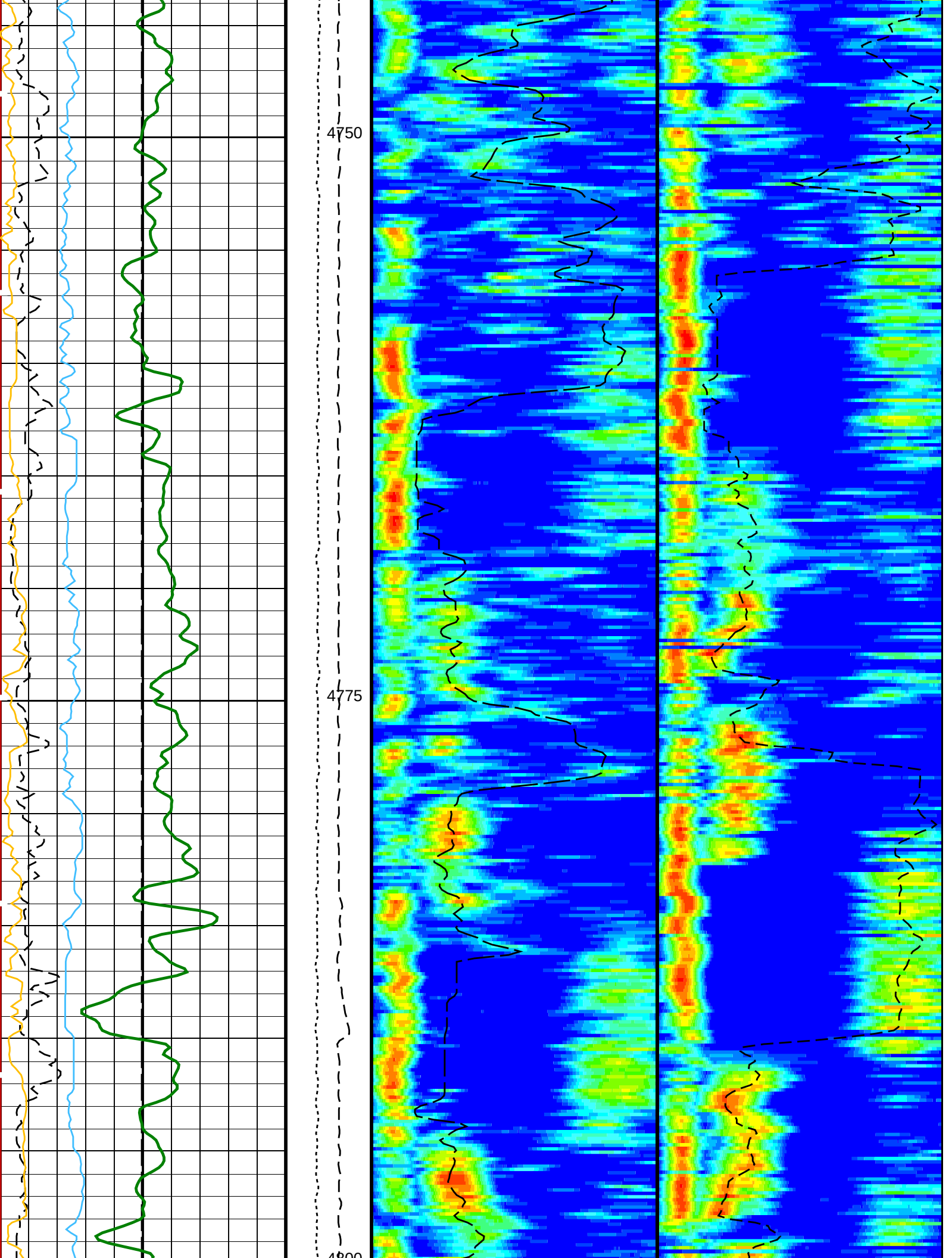

4475
4500

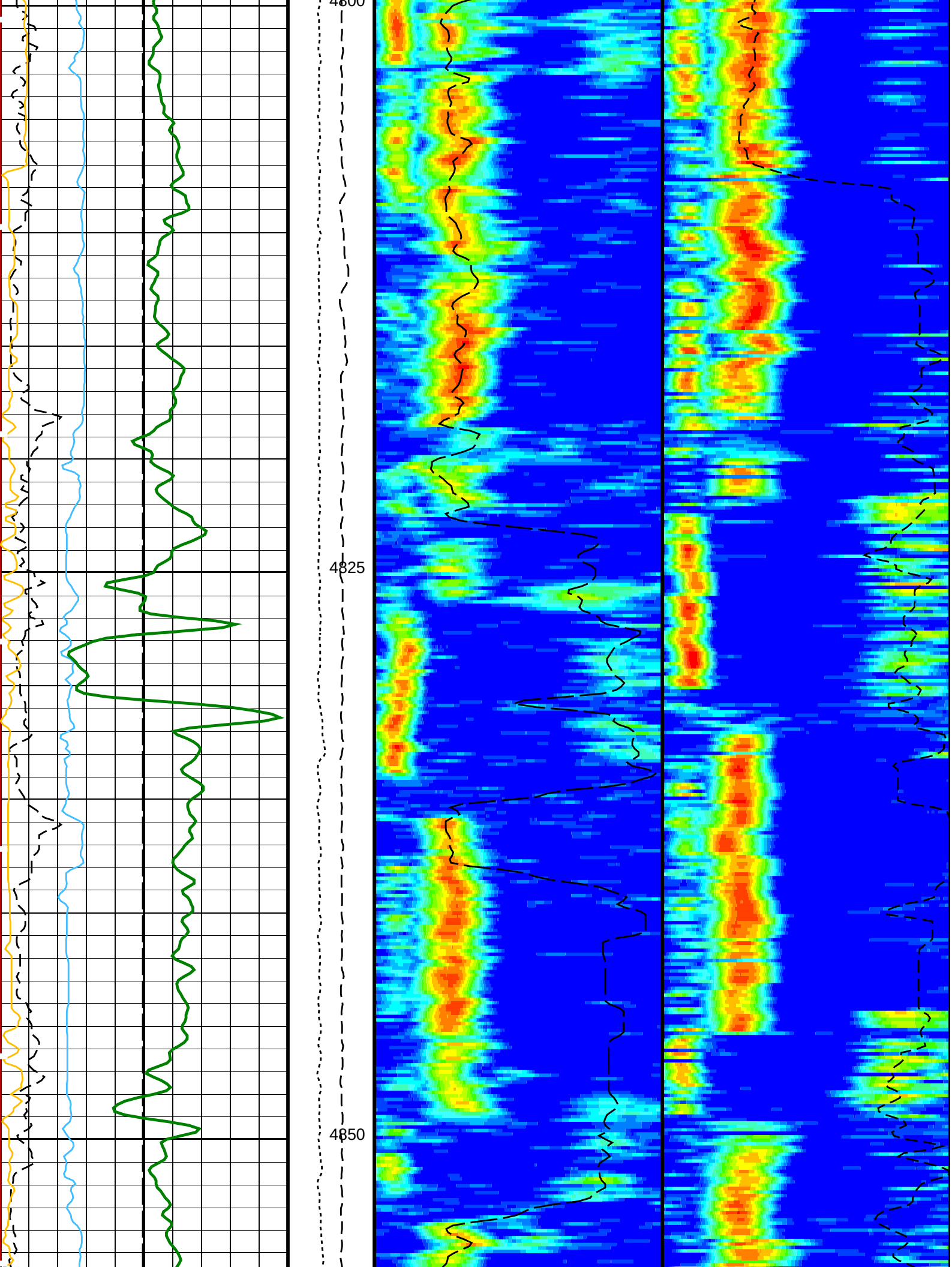

4525
4550
4575

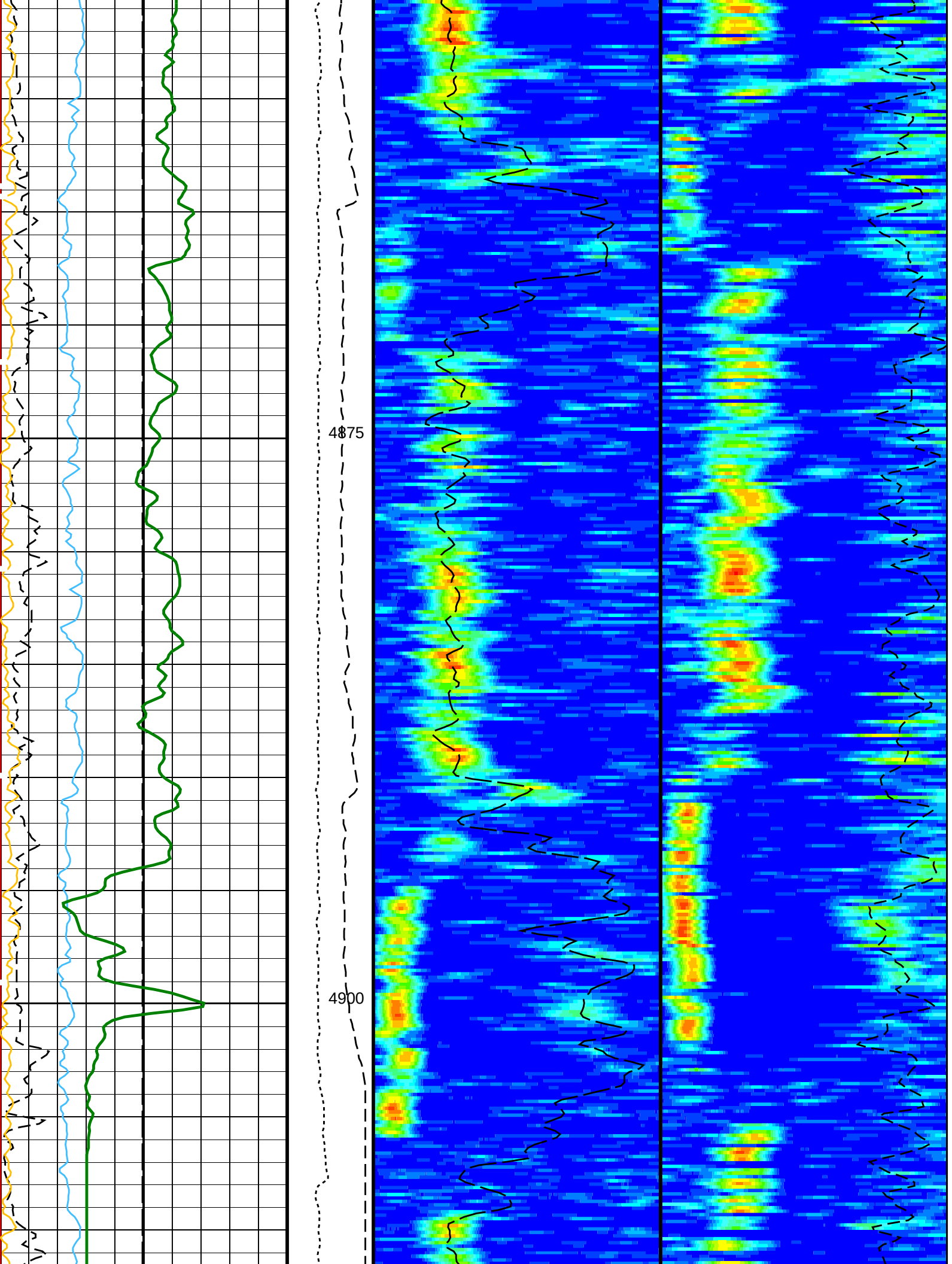

4600
4625

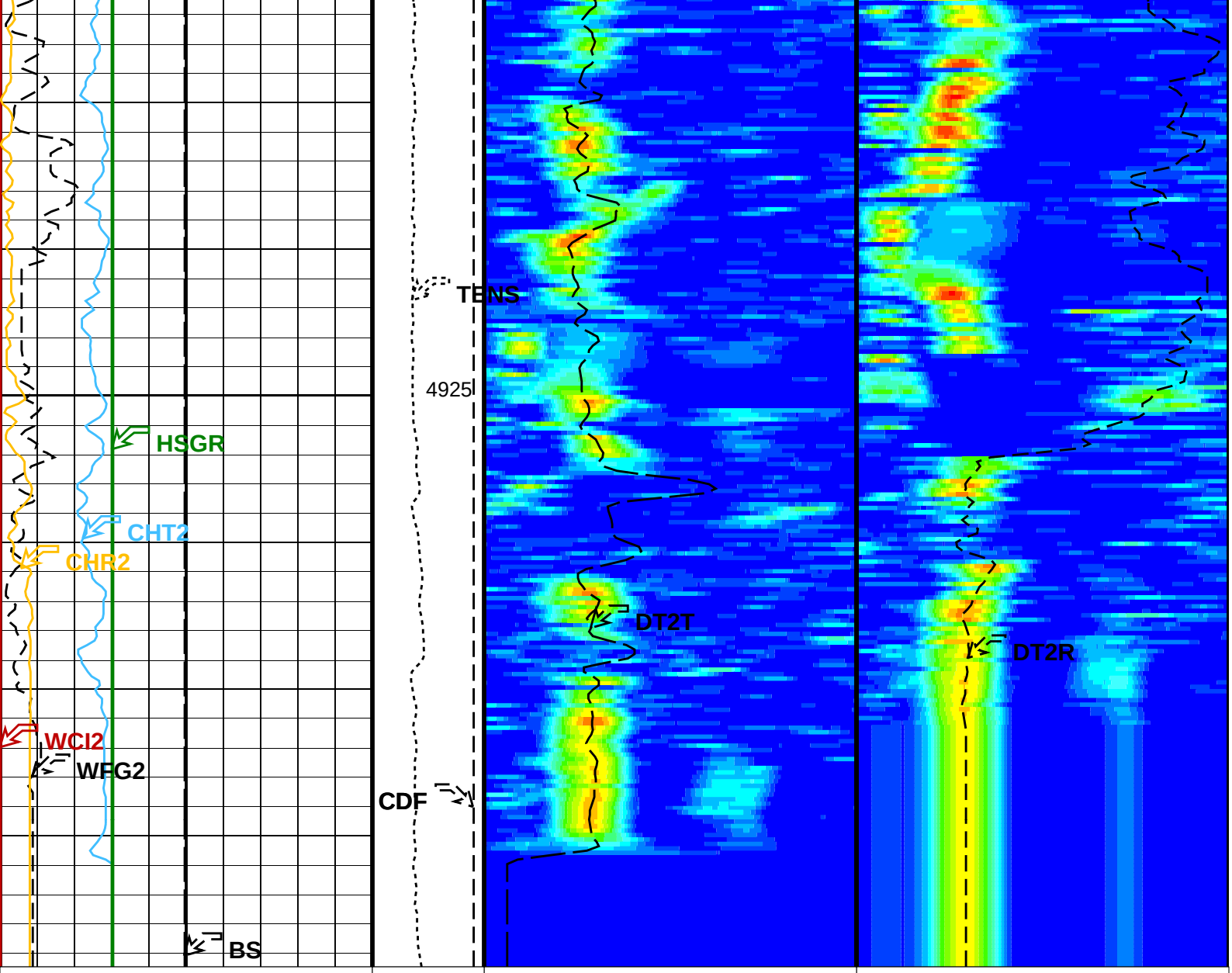

4650
4675


4700
4725


4750
4775


4800
4825
4850


4875
4900



Bit Size (BS) 0 (IN) 20	Tension (TENS) (LBF) 10000 0	Delta−T Shear / TA − Upper Dipole (DT2T) 40 (US/F) 1040
		Delta−T Shear / RA − Upper Dipole (DT2R) 40 (US/F) 1040
SAM2 Waveform Gain (WFG2) 0 (−−−−) 1000	Calibrated Downhole Force (CDF) (LBF) 5000 0	Min Amplitude Max Tr.Array U.Dipole Slow Proj. CVDL (SPT2) 40 (US/F) 1040
		Min Amplitude Max Rec.Array U.Dipole Slow Proj. CVDL (SPR2) 40 (US/F) 1040
Waveform Data Copy Indicator 2 − Upper Dipole (WCI2) 0 (−−−−) 10		
Peak Coherence / RA − Upper Dipole (CHR2) 0 (−−−−) 10		
Peak Coherence / TA − Upper Dipole (CHT2) −2 (−−−−) 8		
HNGS Spectroscopy Gamma Ray (HSGR) 0 (GAPI) 100		

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
BHS	Borehole Status	OPEN	
DDE2	Digitizing Delay 2	0	US
DDEX	Digitizing Delay X	0	US
DLCS	Label Compressional Source − Dipole Shear	USE	
DSHL	Label Slowness Lower Limit − Dipole Shear	40	US/F
DSHU	Label Slowness Upper Limit − Dipole Shear	1040	US/F
DSI2	Digitizer Sample Interval 2	40	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta−T Source for DTCO Channel	PS_COMP	
DWC2	Digitizer Word Count 2	512	
DWCX	Digitizer Word Count X	512	
GCSE	Generalized Caliper Selection	BS	
NWI2	Number Waveform Items 2	8	
NWIX	Number Waveform Items X	0	
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
SAM2	DSST Sonic Acquisition Mode 2 − Upper Dipole Mode	ODD	
SAMX	DSST Sonic Acquisition Mode X − Both Dipoles or Monopole Mode for Expert	OFF	
SAS2	STC Sonic Array Status − Upper Dipole	255	
SBO2	STC Search Band Offset − Upper Dipole	3000	US
SBW2	STC Search Bandwidth − Upper Dipole	8000	US
SFC2	STC Formation Character − Upper Dipole	SELECTABLE	
SFM2	STC Filter − Upper Dipole	B1−2K	
SLL2	STC Slowness Lower Limit − Upper Dipole	40	US/F
SST2	STC Slowness Step − Upper Dipole	4	US/F
SSW2	STC Source Waveform − Upper Dipole	WF_SAM2	
SUL2	STC Slowness Upper Limit − Upper Dipole	1040	US/F
SWD2	STC Slowness Width − Upper Dipole	40	US/F
TBF2	STC Time for Baseline Fill − Upper Dipole	0	US
TLL2	STC Time Lower Limit − Upper Dipole	600	US
TST2	STC Time Step − Upper Dipole	200	US
TUL2	STC Time Upper Limit − Upper Dipole	18440	US
TWD2	STC Time Width − Upper Dipole	2000	US
TWI2	STC Integration Time Window − Upper Dipole	1600	US
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFM2	Waveform Mode 2	W1	
	HRLT−B: High Resolution Laterolog Array − 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	10.75	IN
CSD2	Outer Casing Outer Diameter	10.75	IN
CSW1	Inner Casing Weight	45	LB/F
CSW2	Outer Casing Weight	45	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	−0.00184813	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
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	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.990521	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.00375	
	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	1.32	G/C3

DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: DSST_UPPER_DIPOLE_RC_TR_VDL_COLOR Vertical Scale: 1:200 Graphics File Created: 06-Apr-2017 20:17

OP System Version: 19C0-187

DSST-B	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	SKK-5169-EDTCB		

Input DLIS Files

DEFAULT	Flip_DSI_HRLA_LDL_029LUP	PRODUCER	06-Apr-2017 18:02	4944.5 M	3717.0 M

Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_036PUP	FN:47	PRODUCER	06-Apr-2017 20:17	
BACKUP	DSI_HRLA_LDL_NGS_036PUP	FN:48	PRODUCER	06-Apr-2017 20:17	

Company: International Ocean Discovery Program Well: Expedition 367, Site U1500B

Input DLIS Files

DEFAULT	Flip_DSI_HRLA_LDL_029LUP	PRODUCER	06-Apr-2017 18:02	4944.5 M	3717.0 M

Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_036PUP	FN:47	PRODUCER	06-Apr-2017 20:17	4944.5 M	3717.0 M
BACKUP	DSI_HRLA_LDL_NGS_036PUP	FN:48	PRODUCER	06-Apr-2017 20:17	4944.5 M	3717.0 M

OP System Version: 19C0-187

DSST-B	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-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)
0 (GAPI) 100

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

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

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

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

Waveform Data Copy Indicator 4 - Monopole P&S (WCI4)
0 (----) 10

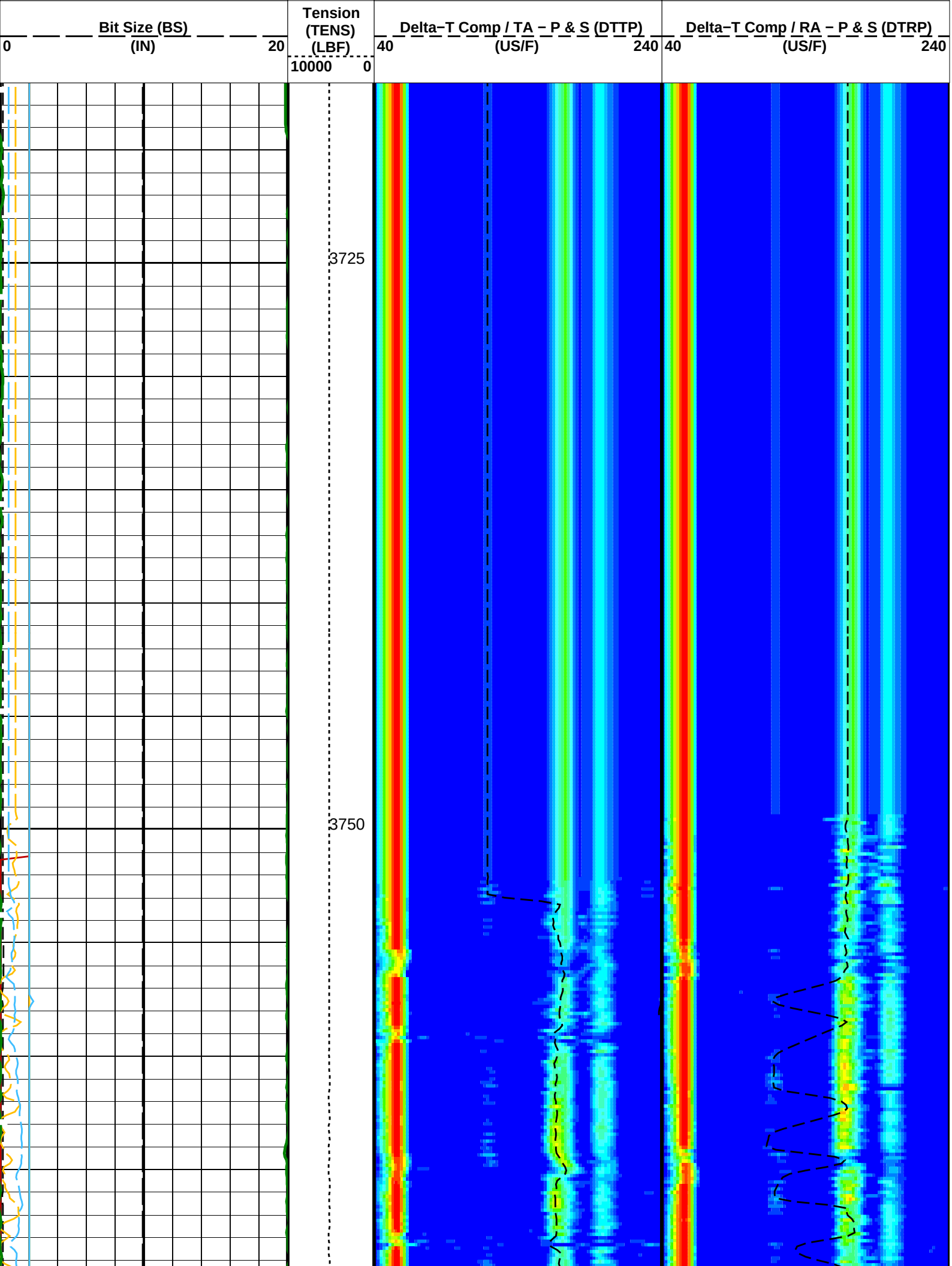
SAM4 Waveform Gain (WFG4)
0 (----) 1000

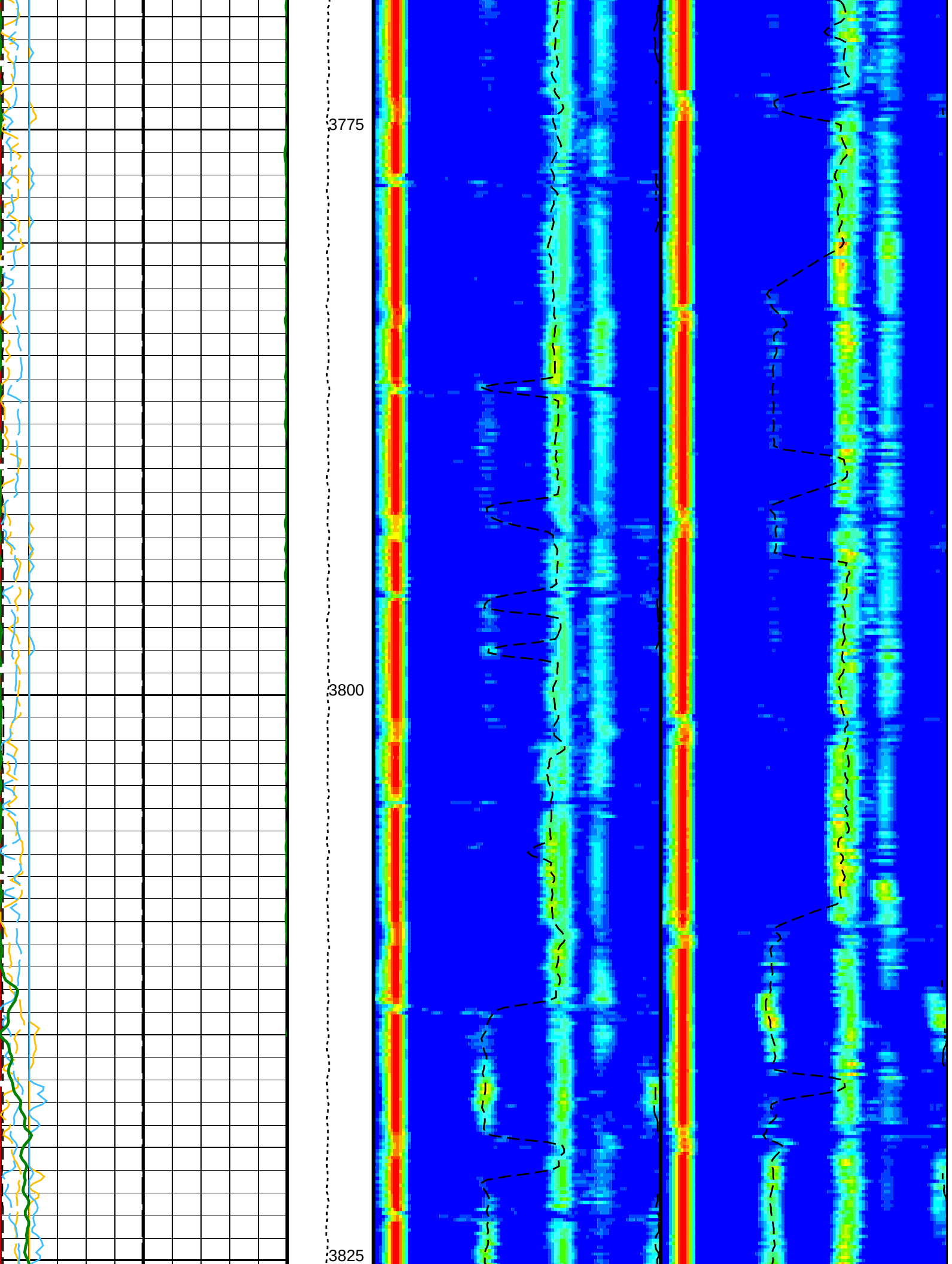
Min Amplitude Max
Tr.Array P&S Slow Proj. CVDL (SPT4)
40 (US/F) 240

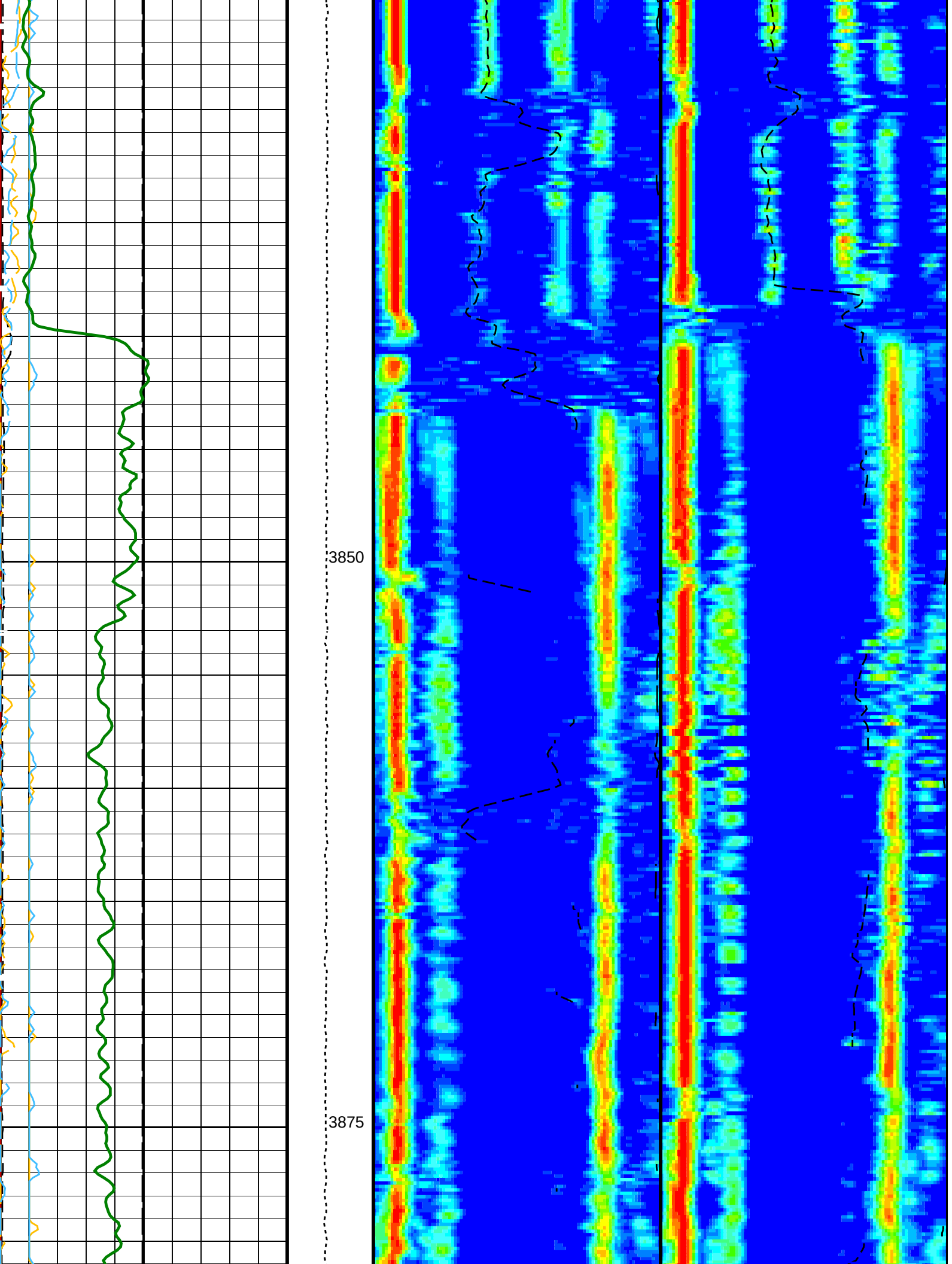
Min Amplitude Max
Rec.Array P&S Slow Proj. CVDL (SPR4)
40 (US/F) 240

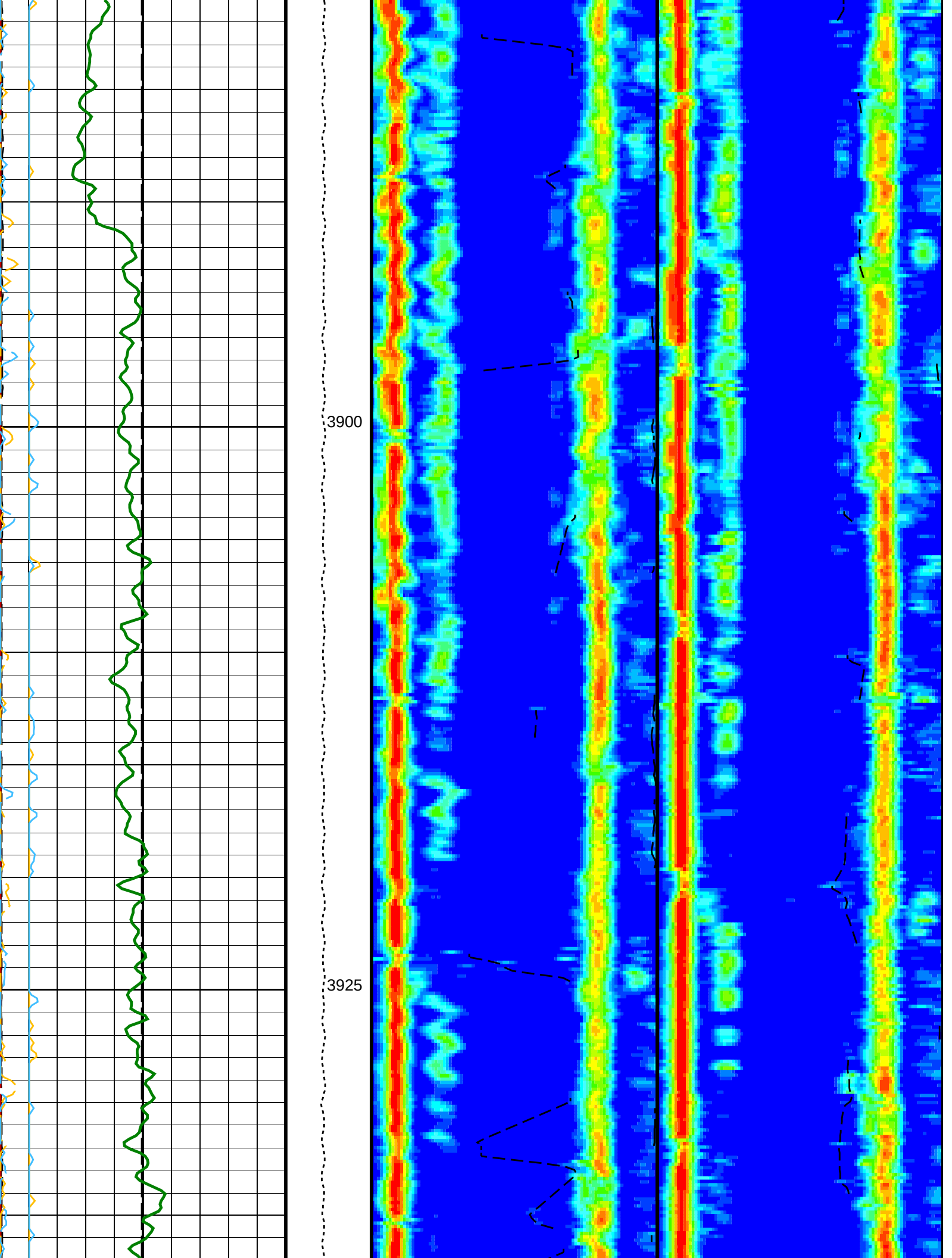
Delta-T Shear / TA - P & S (DTTS)
40 (US/F) 240

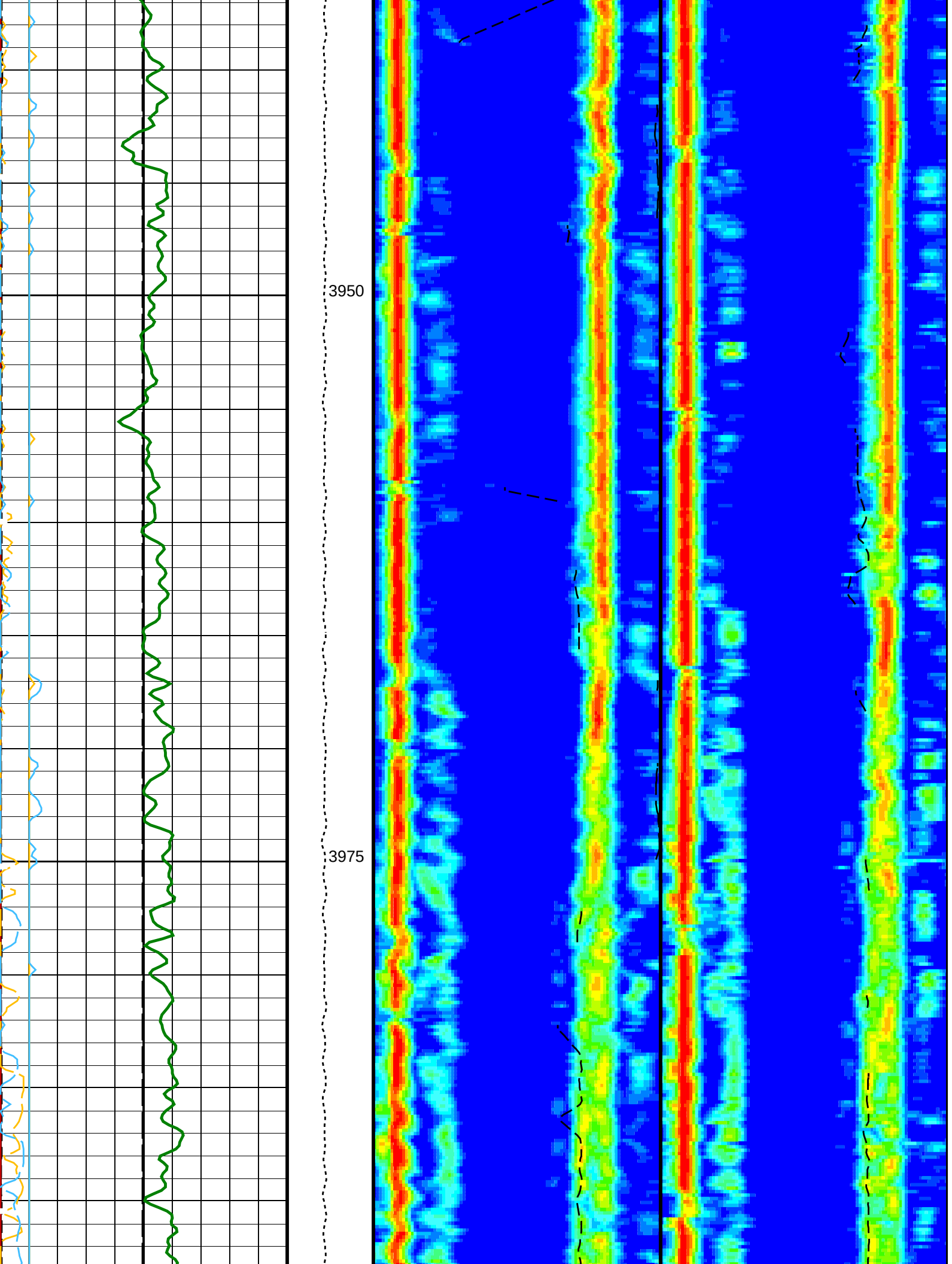
Delta-T Shear / RA - P & S (DTRS)
40 (US/F) 240

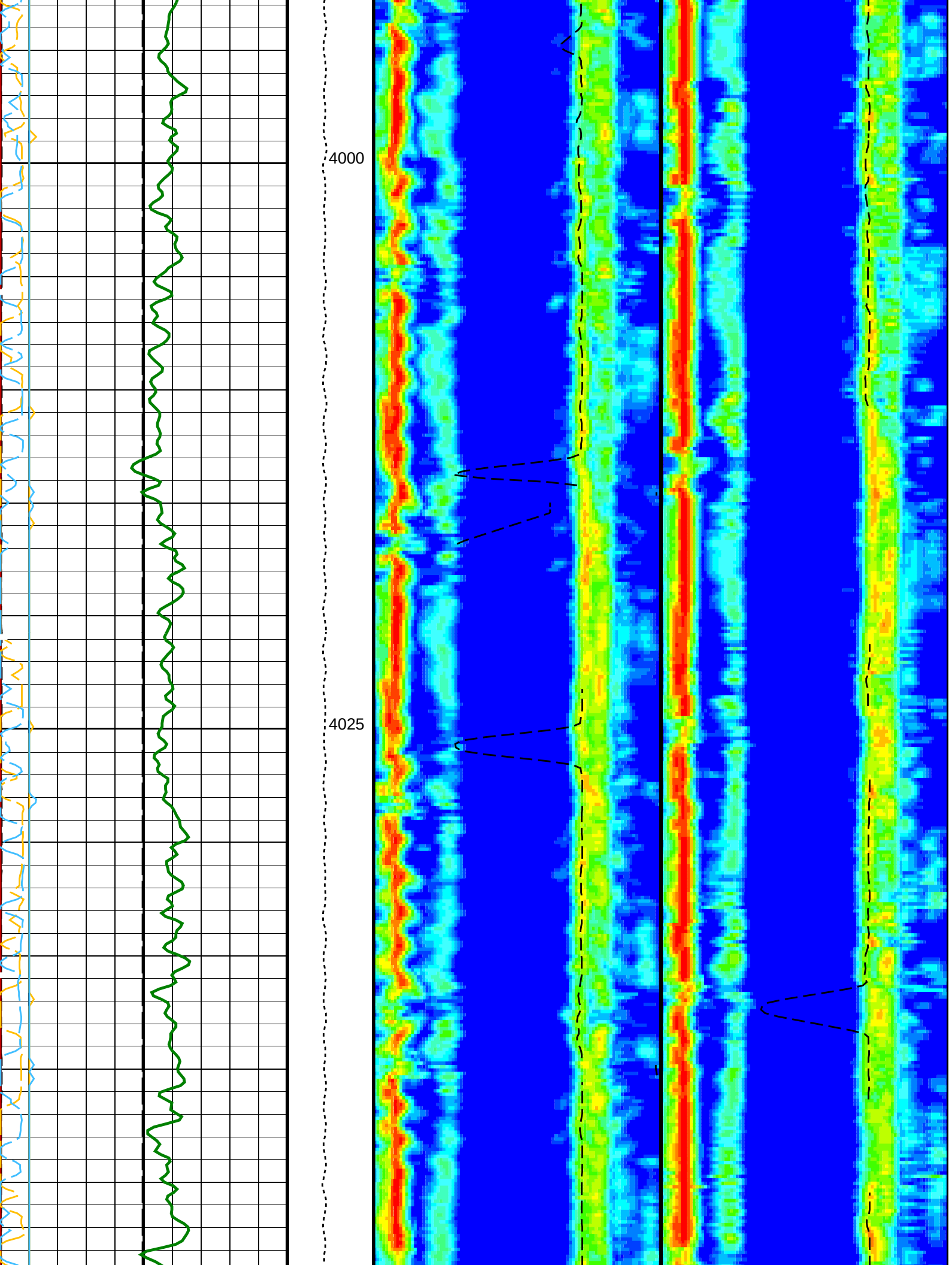

Bit Size (BS)
0
(IN)
20
Tension
(TENS)
(LBF)
10000
0
Delta−T Comp / TA − P & S (DTTP)
40
(US/F)
240
Delta−T Comp / RA − P & S (DTRP)
40
(US/F)
240
3725
3750

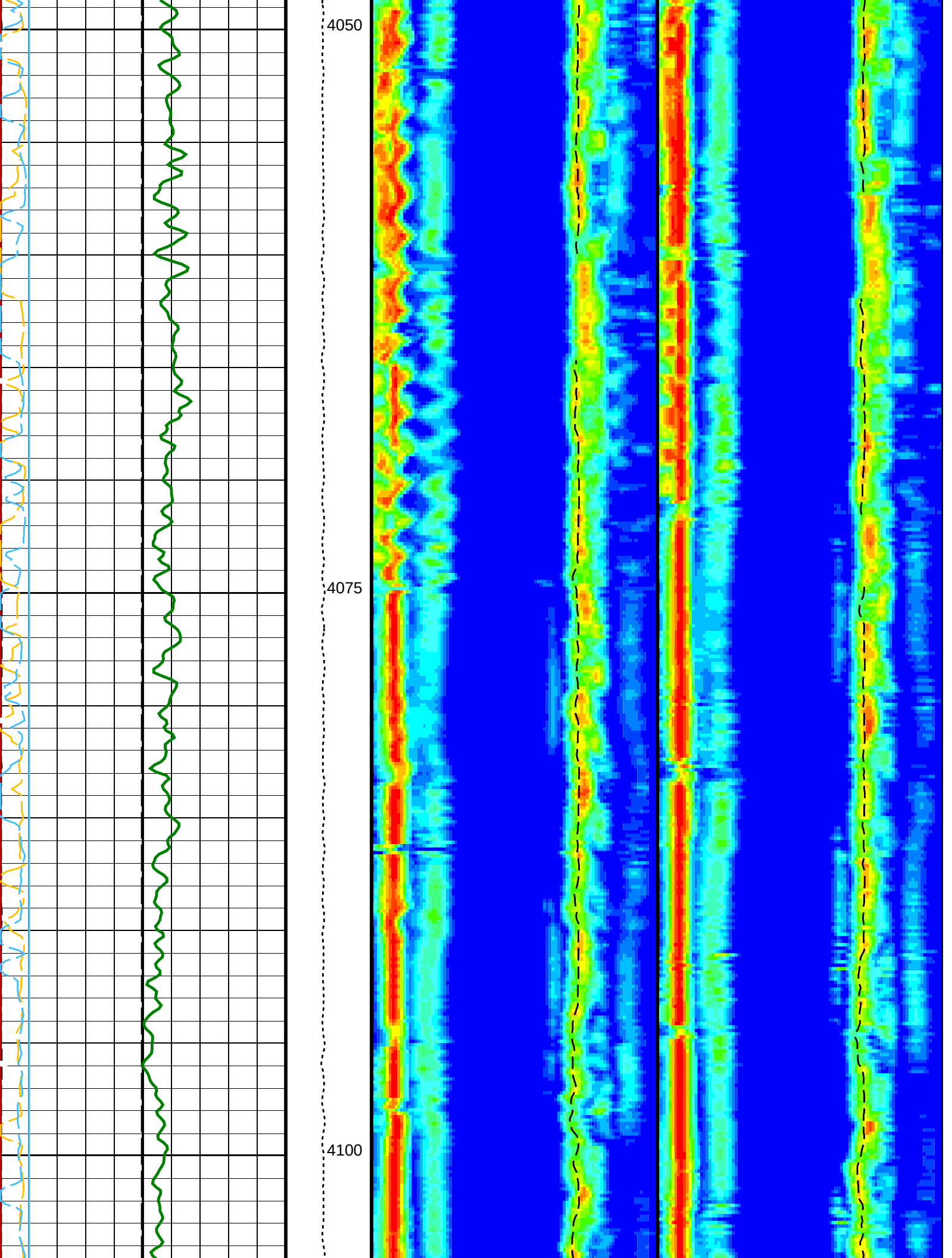

3775
3800
3825

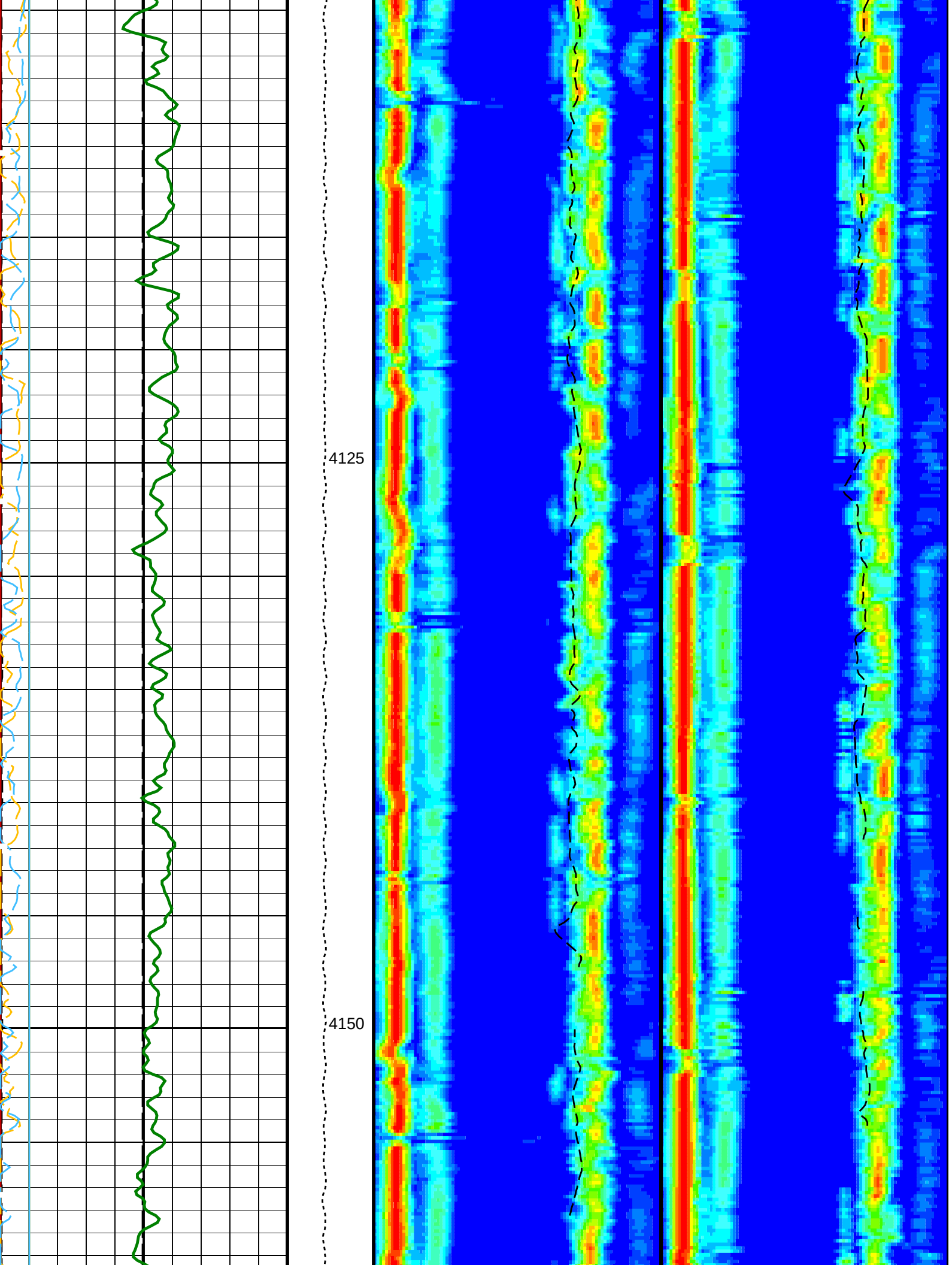

3850
3875

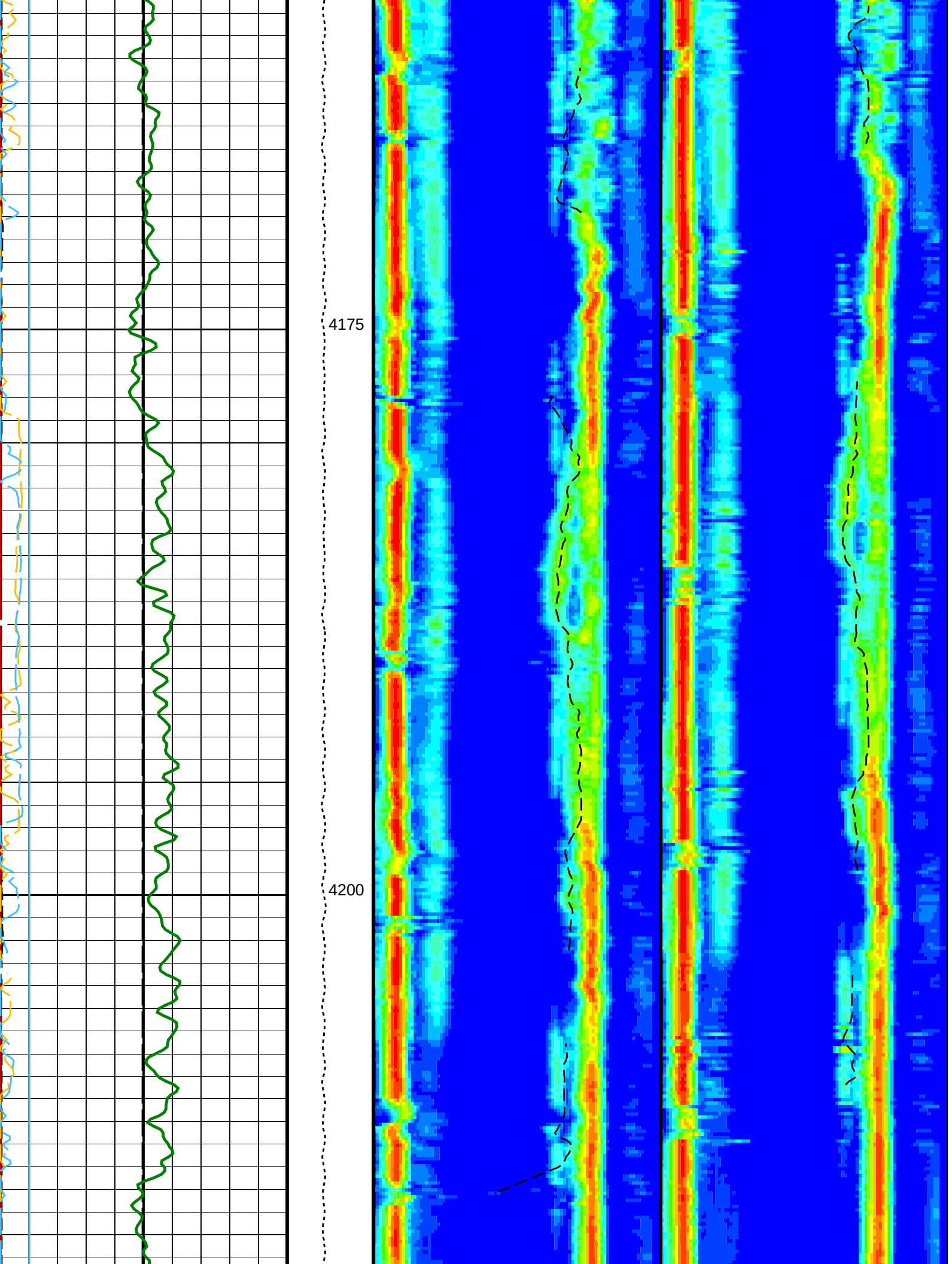

3900
3925

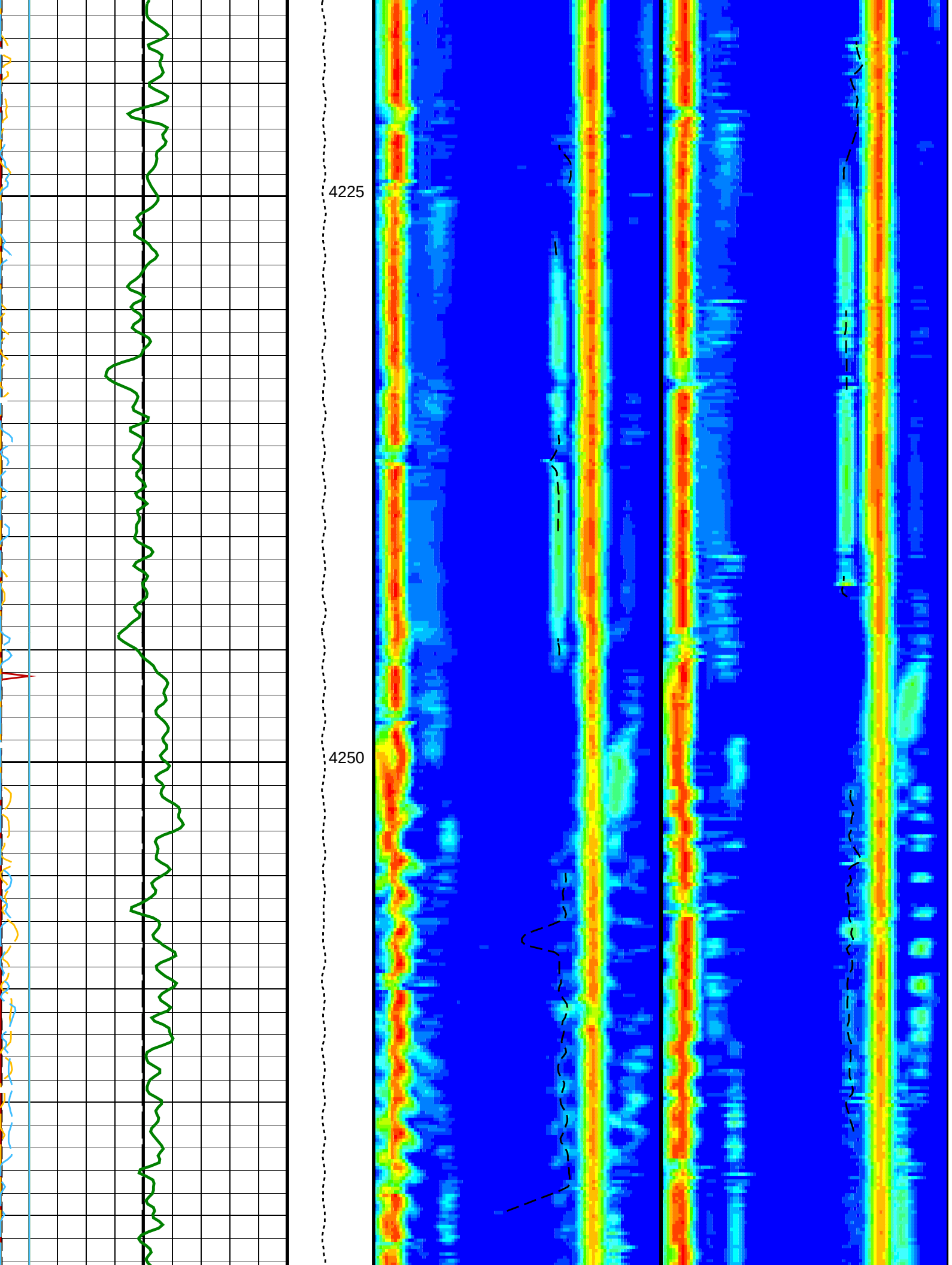

3950
3975

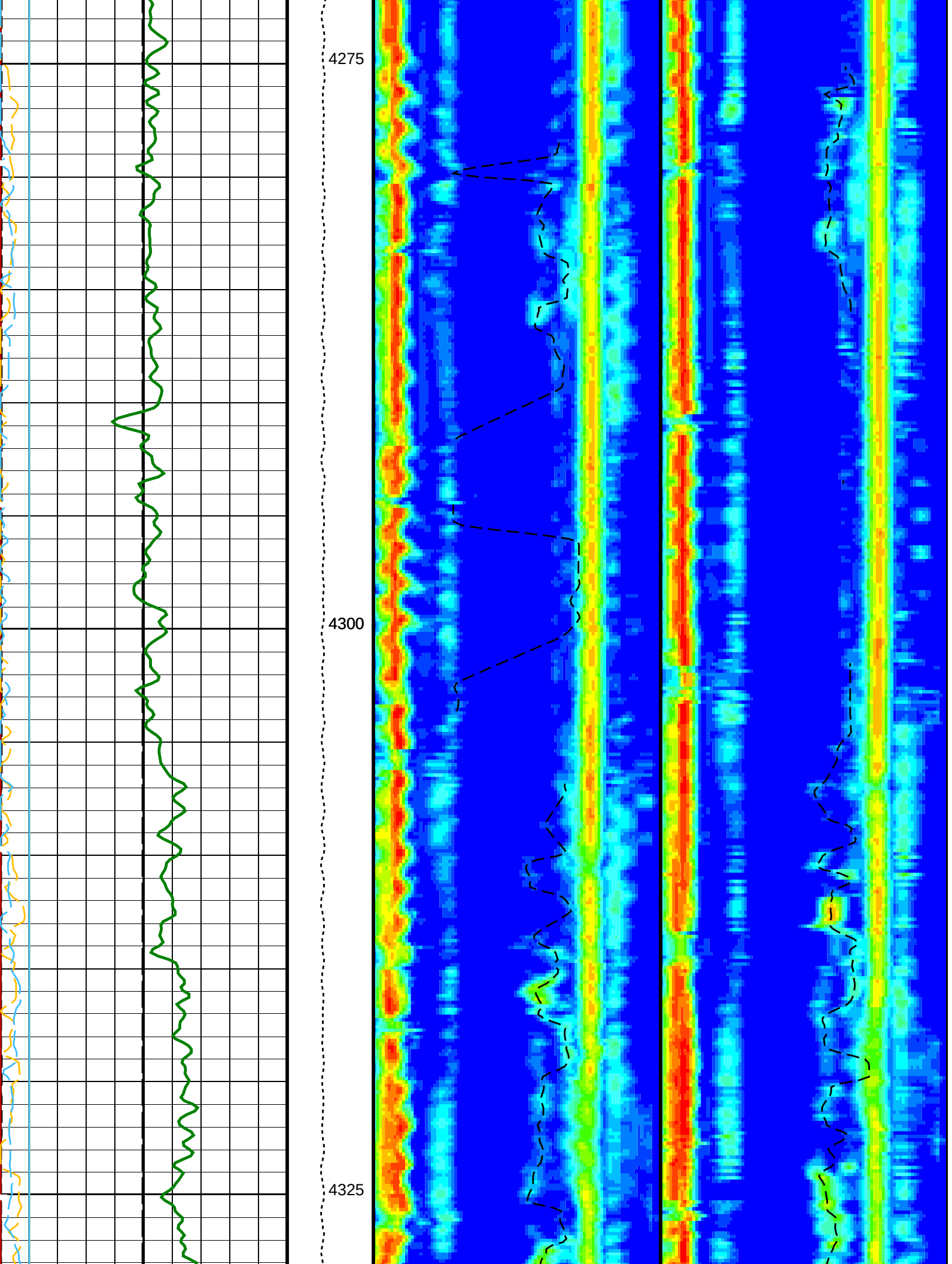

4000
4025

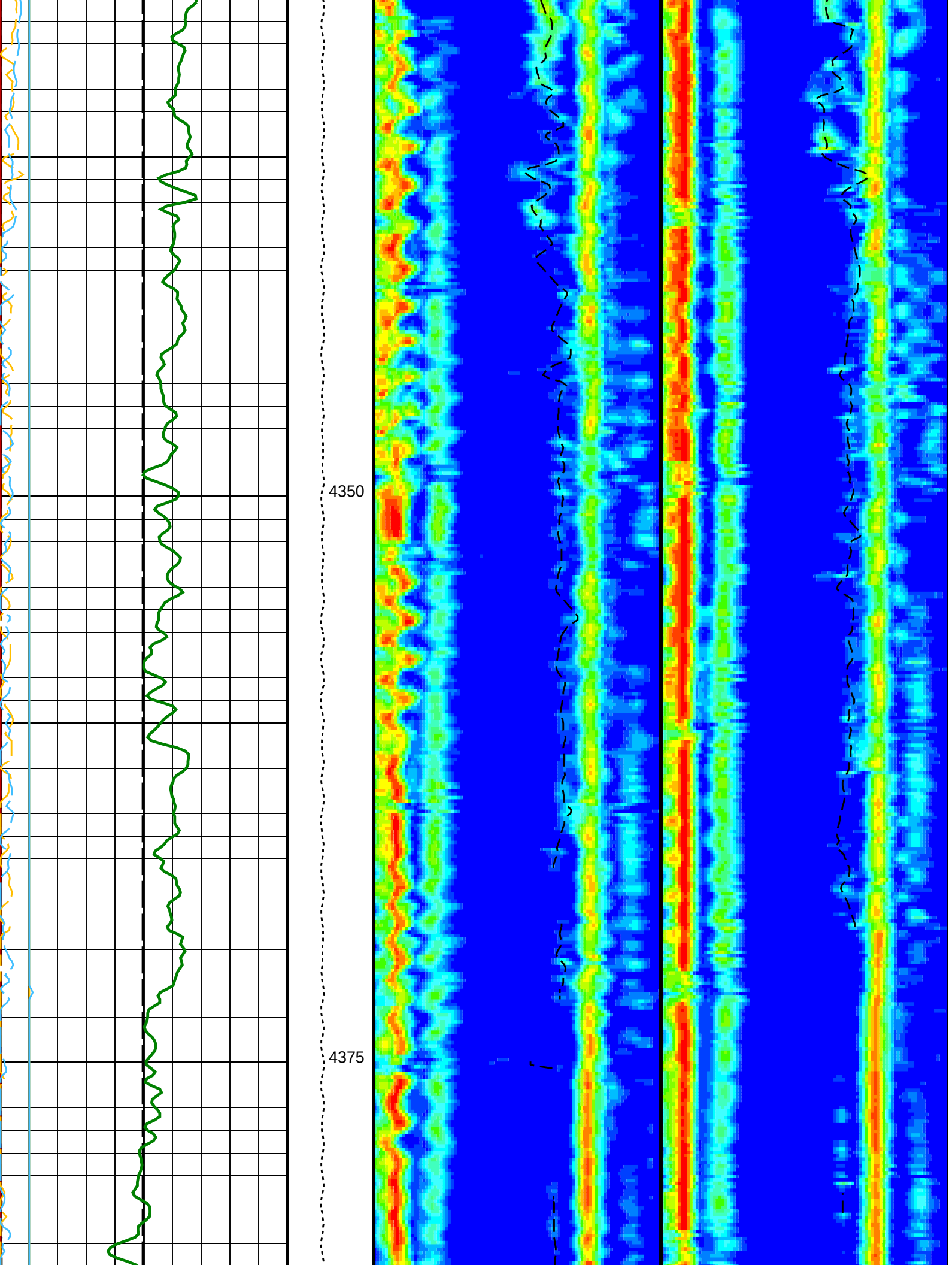

4050
4075
4100

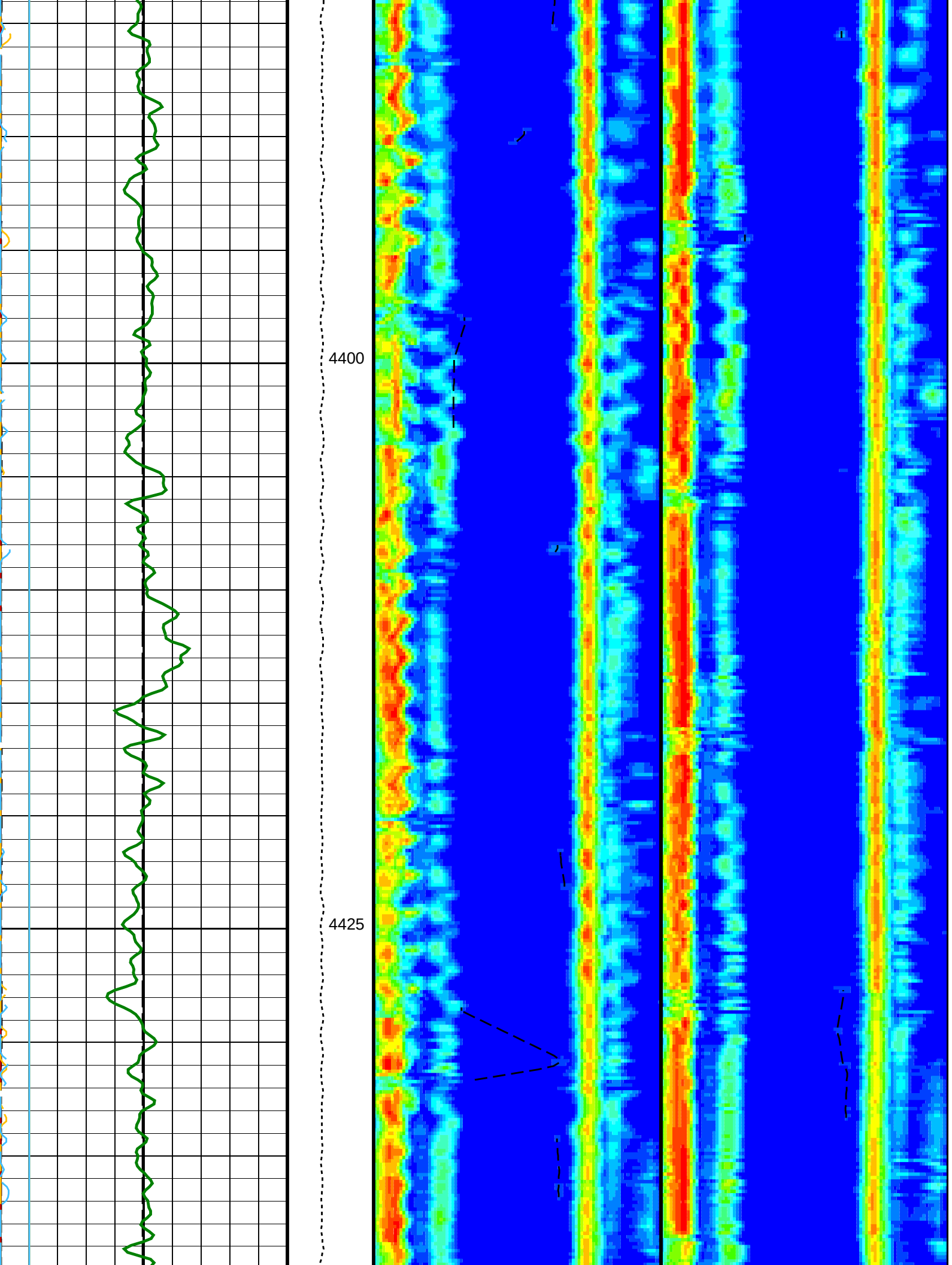

4125
4150

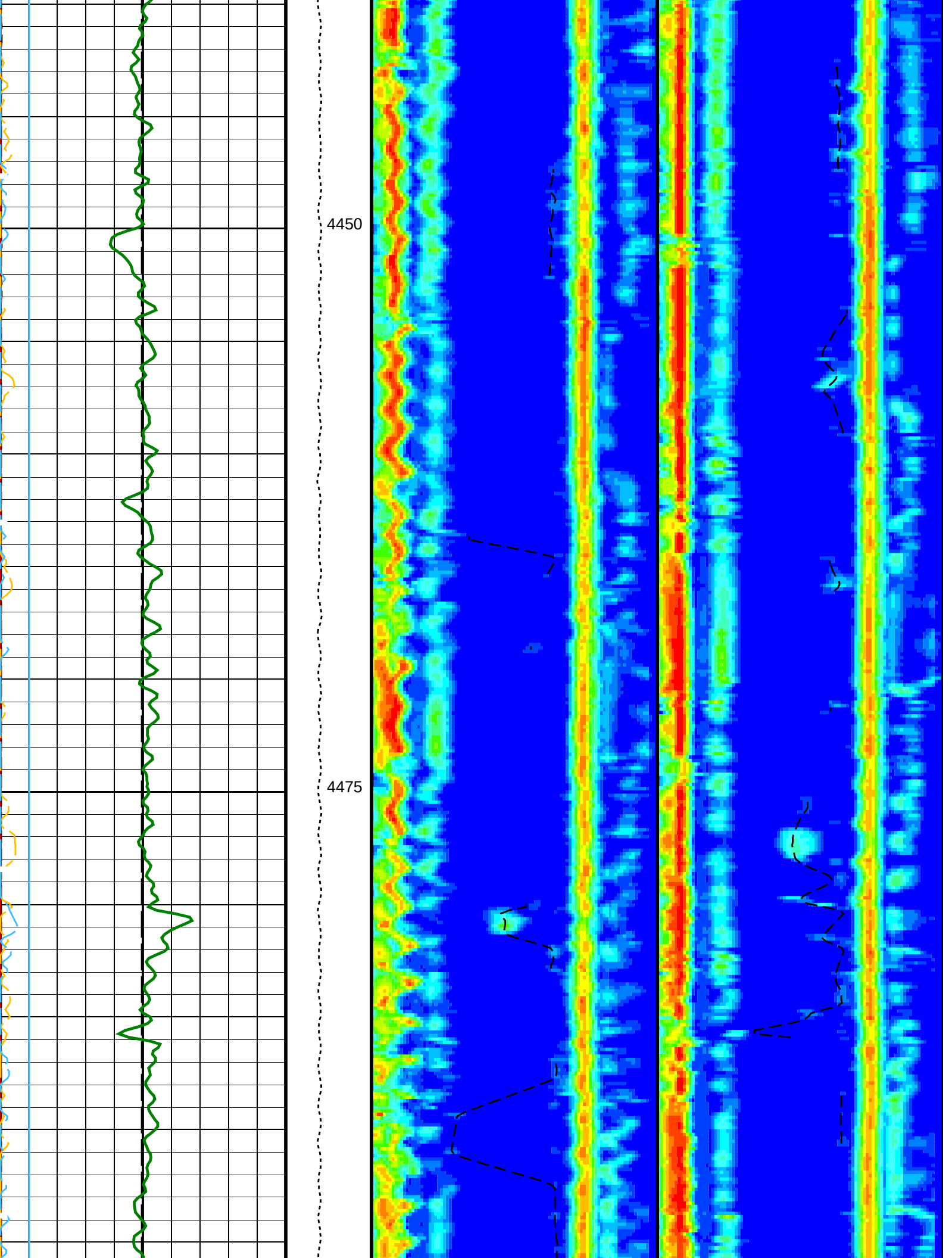

4175
4200

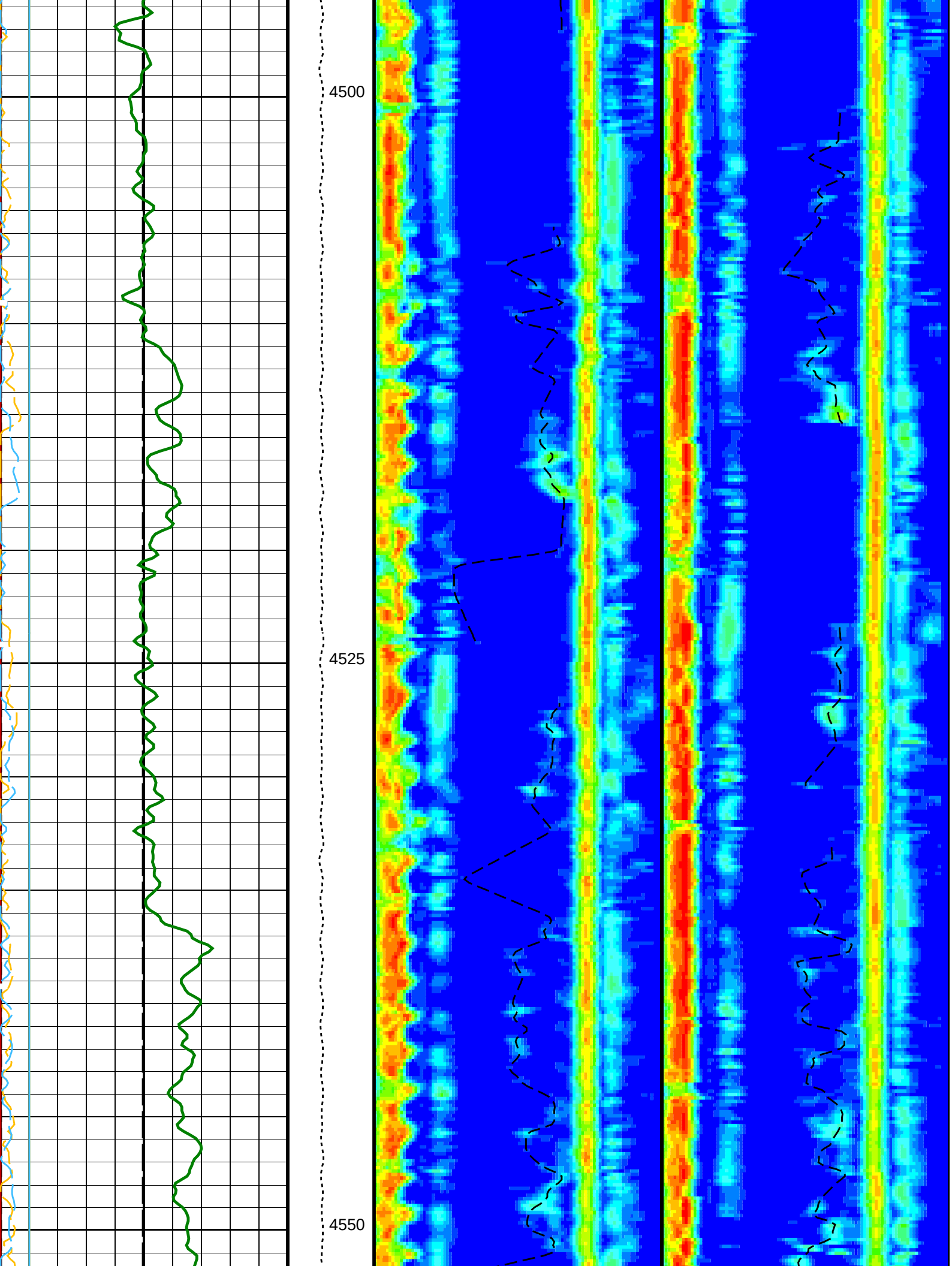

4225
4250

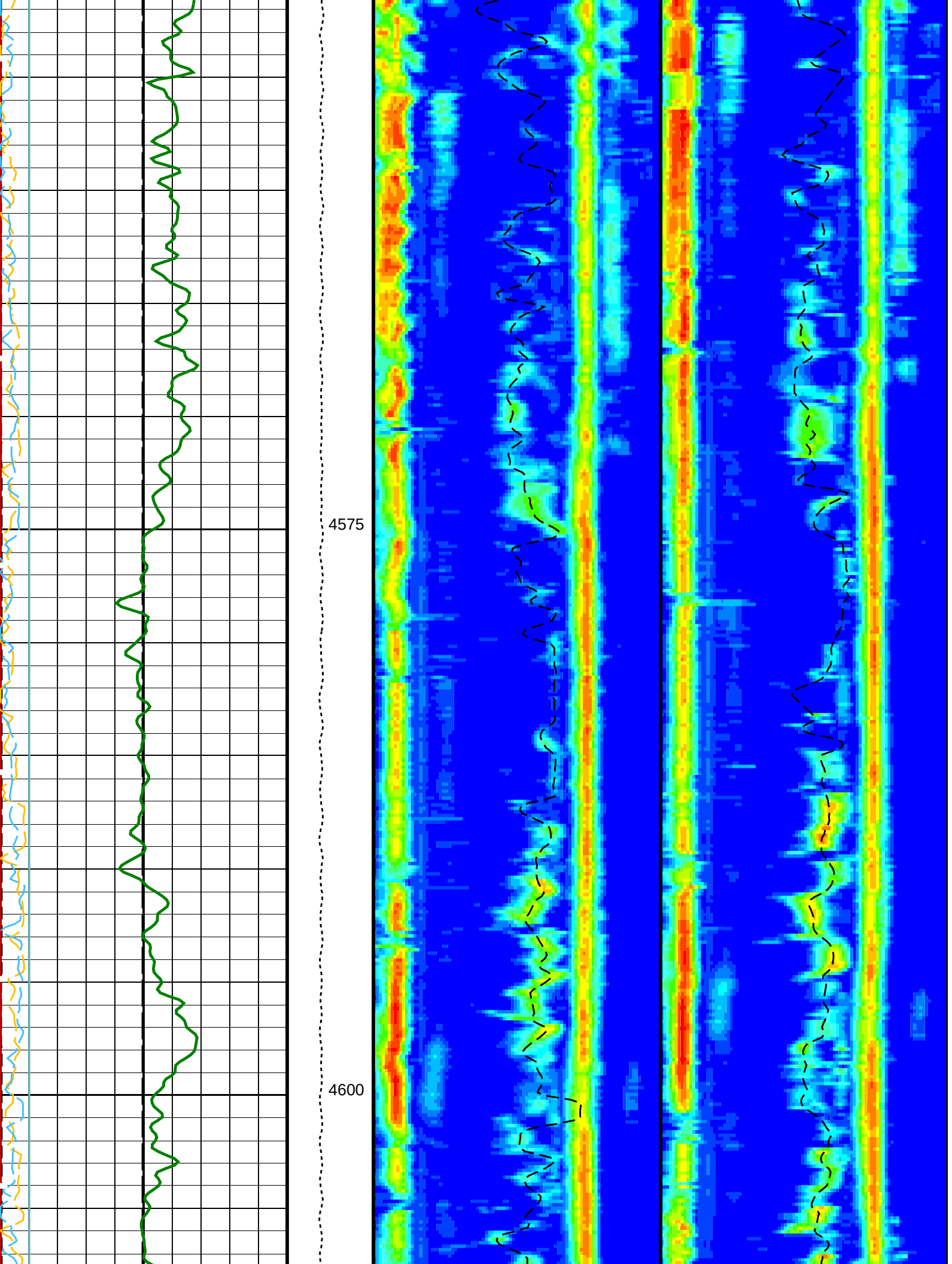

4275
4300
4325

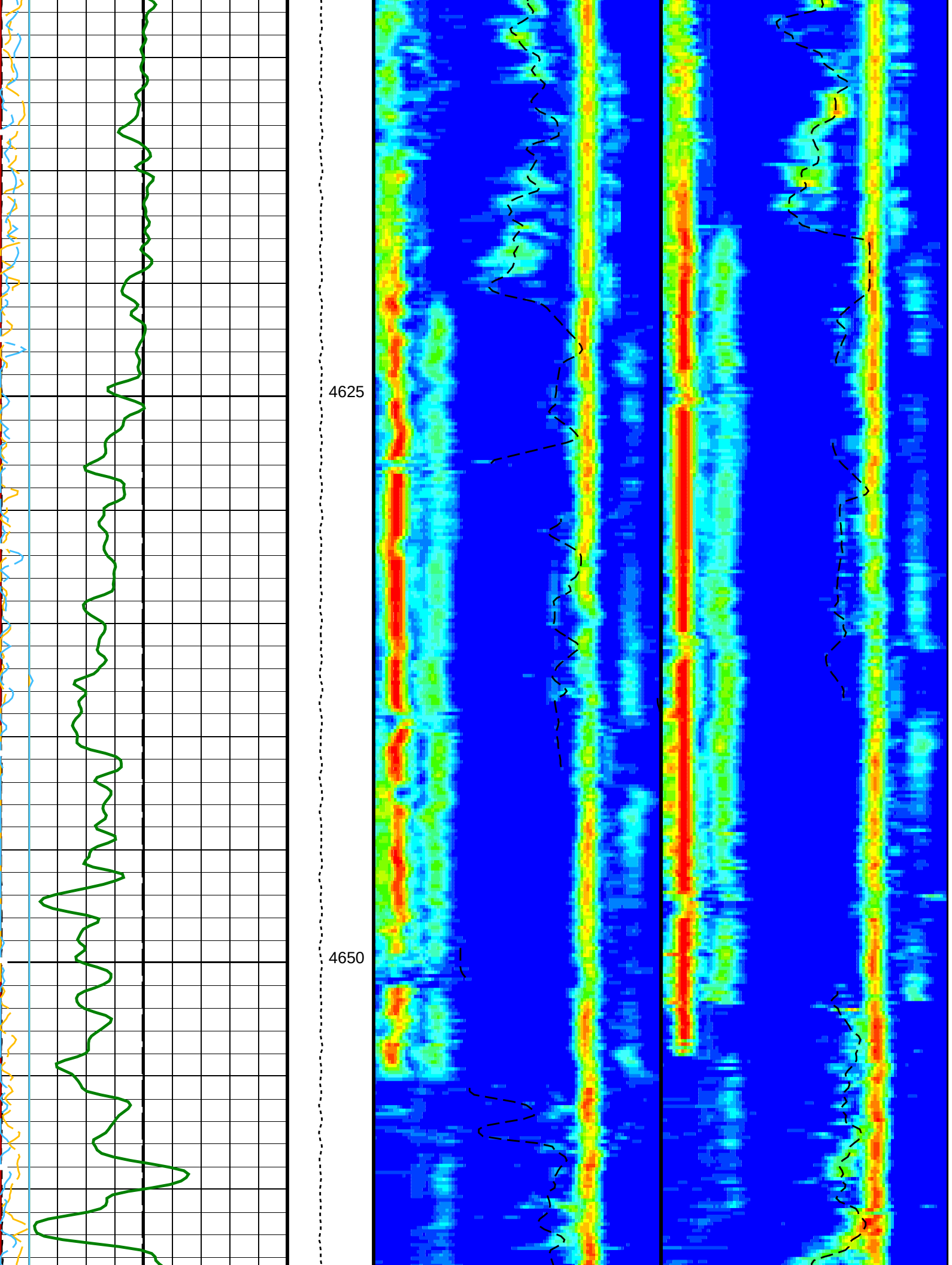

4350
4375

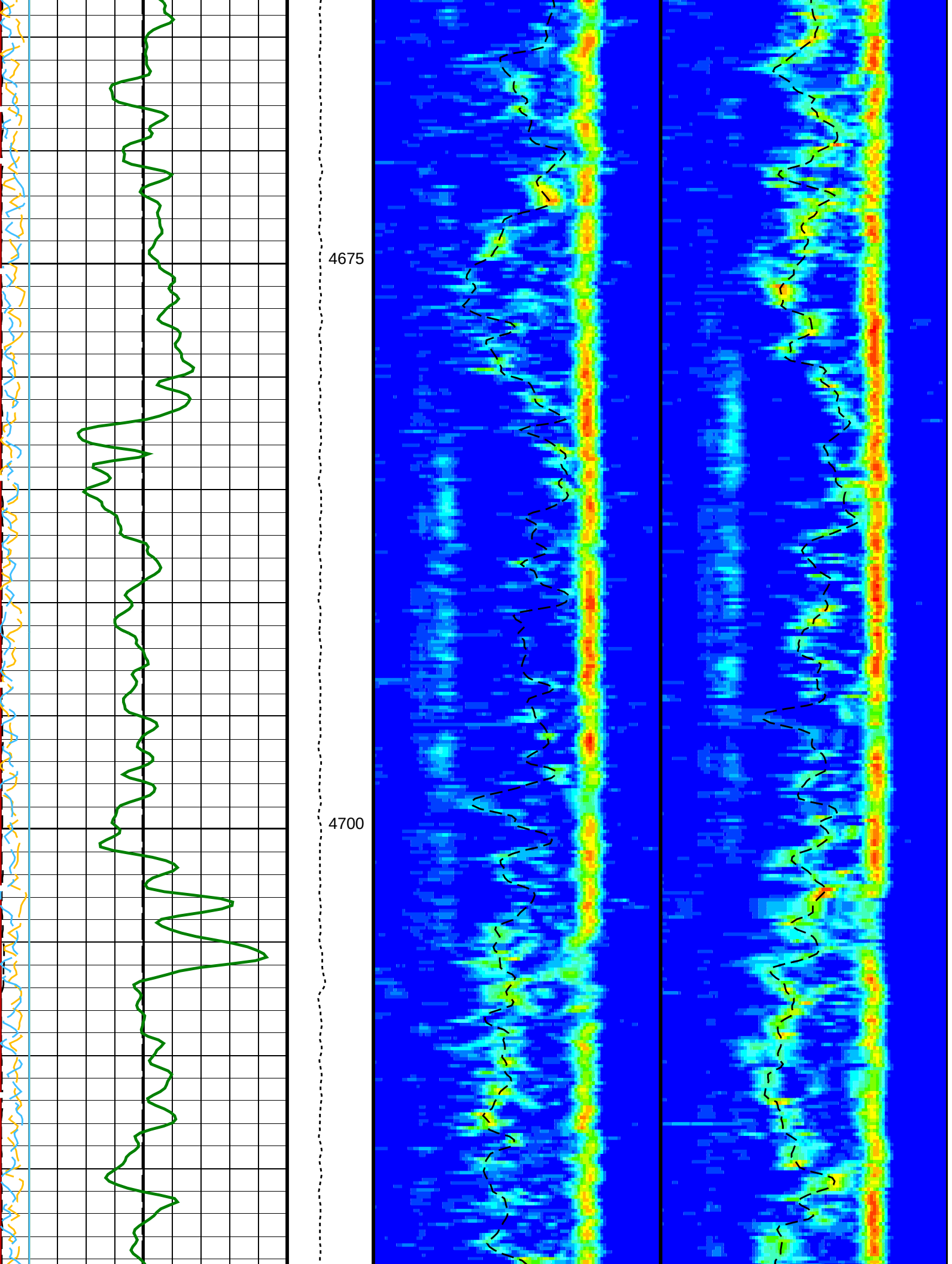

4400
4425

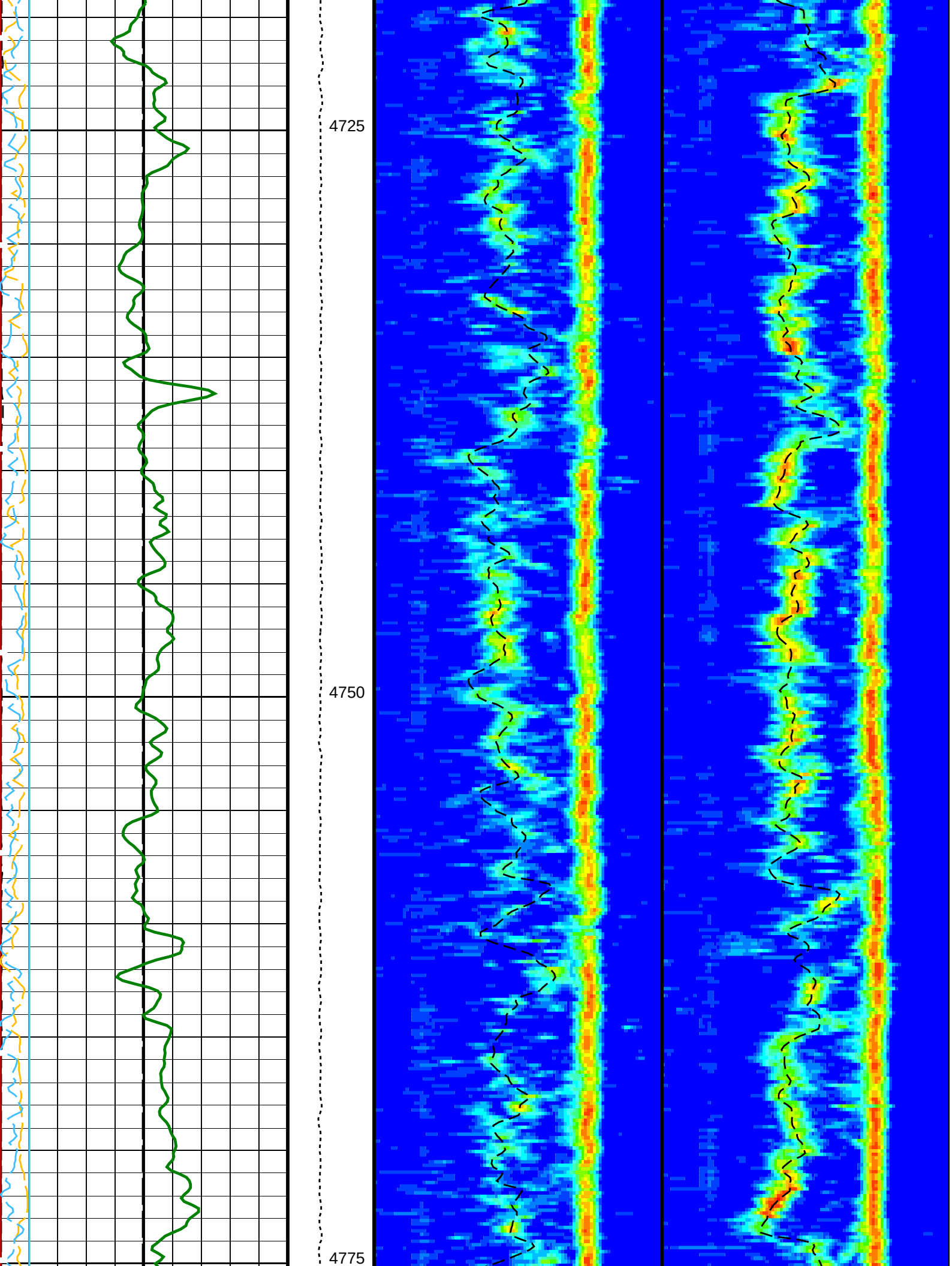

4450
4475

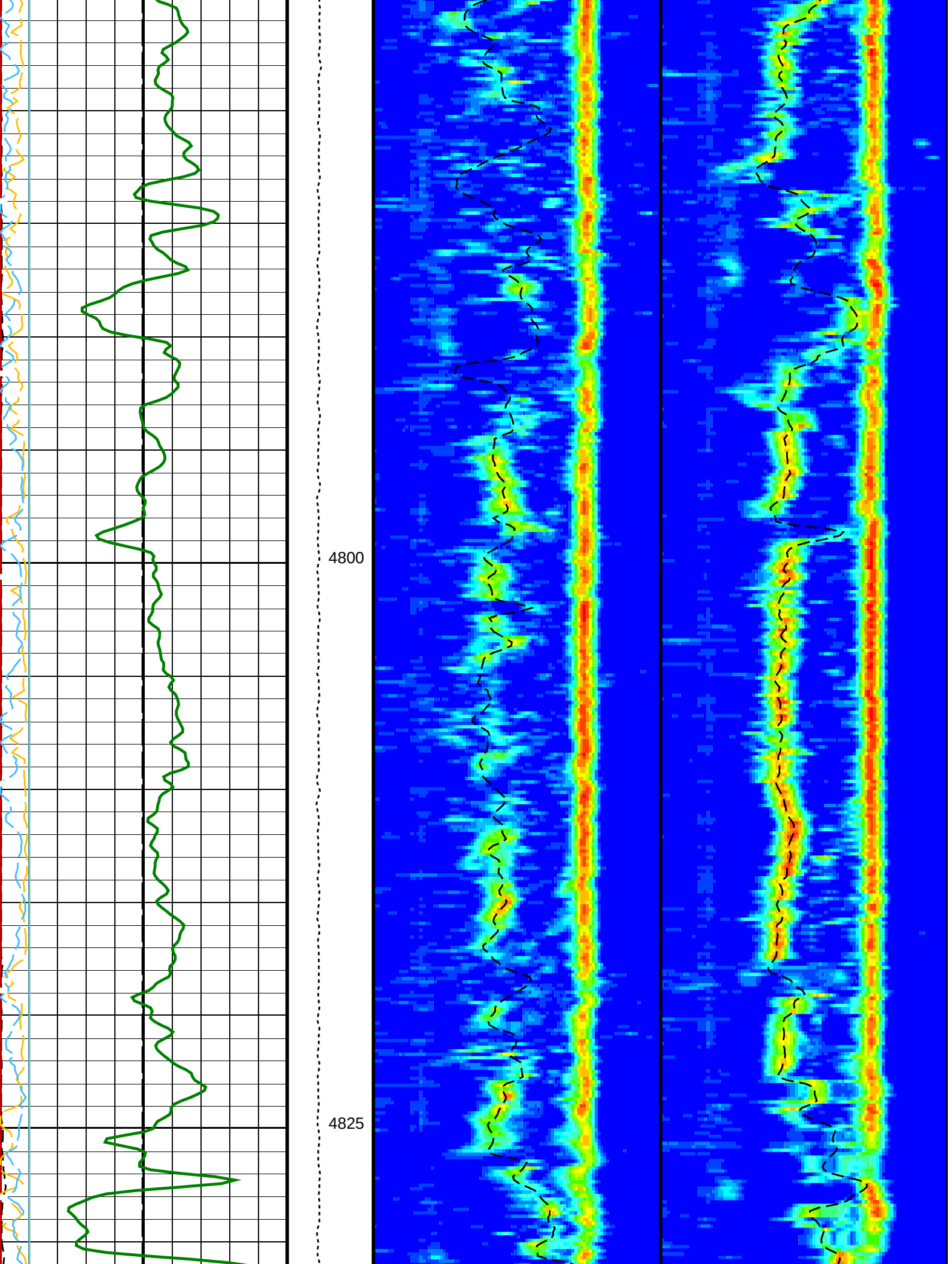

4500
4525
4550

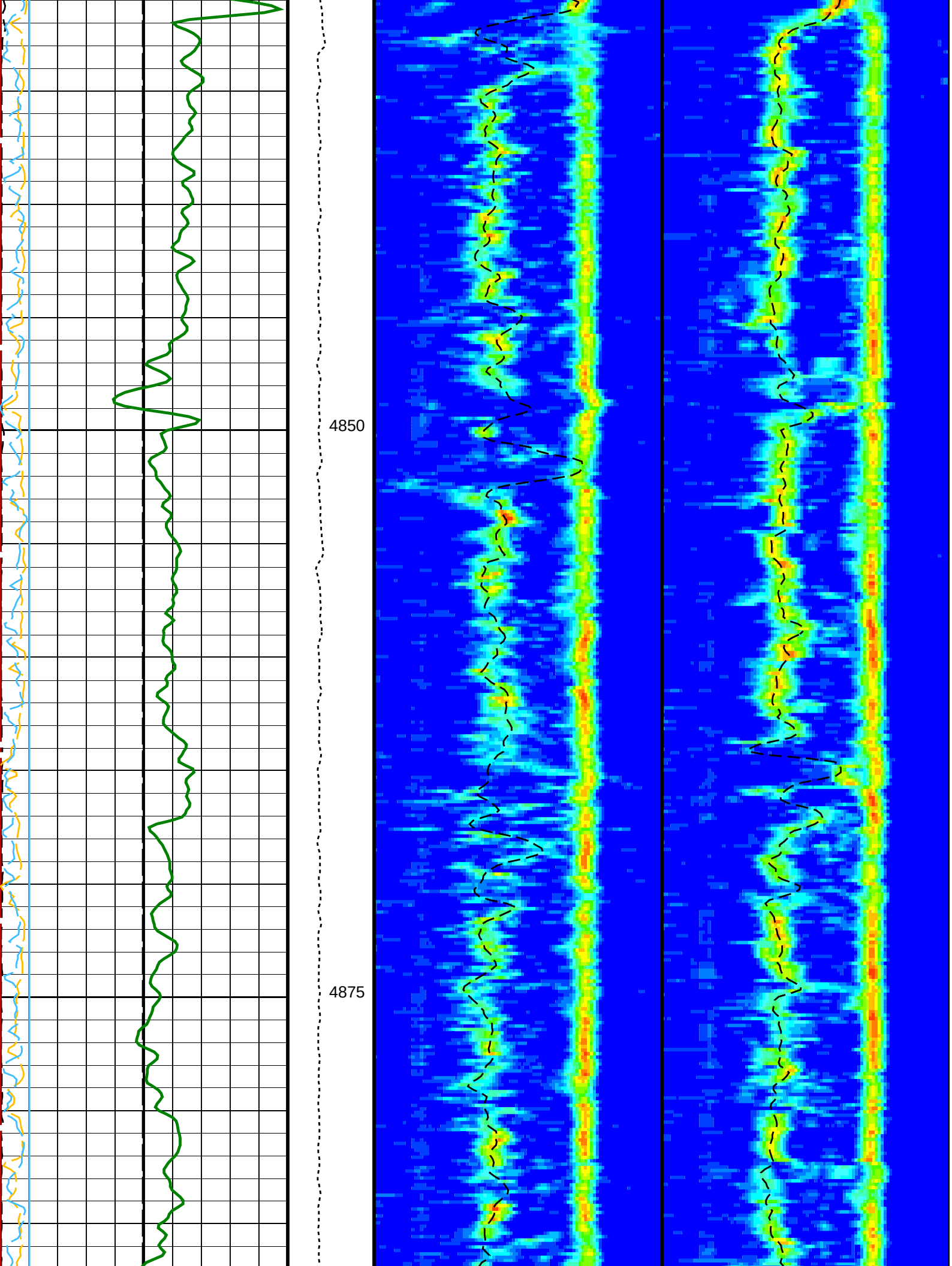

4575
4600

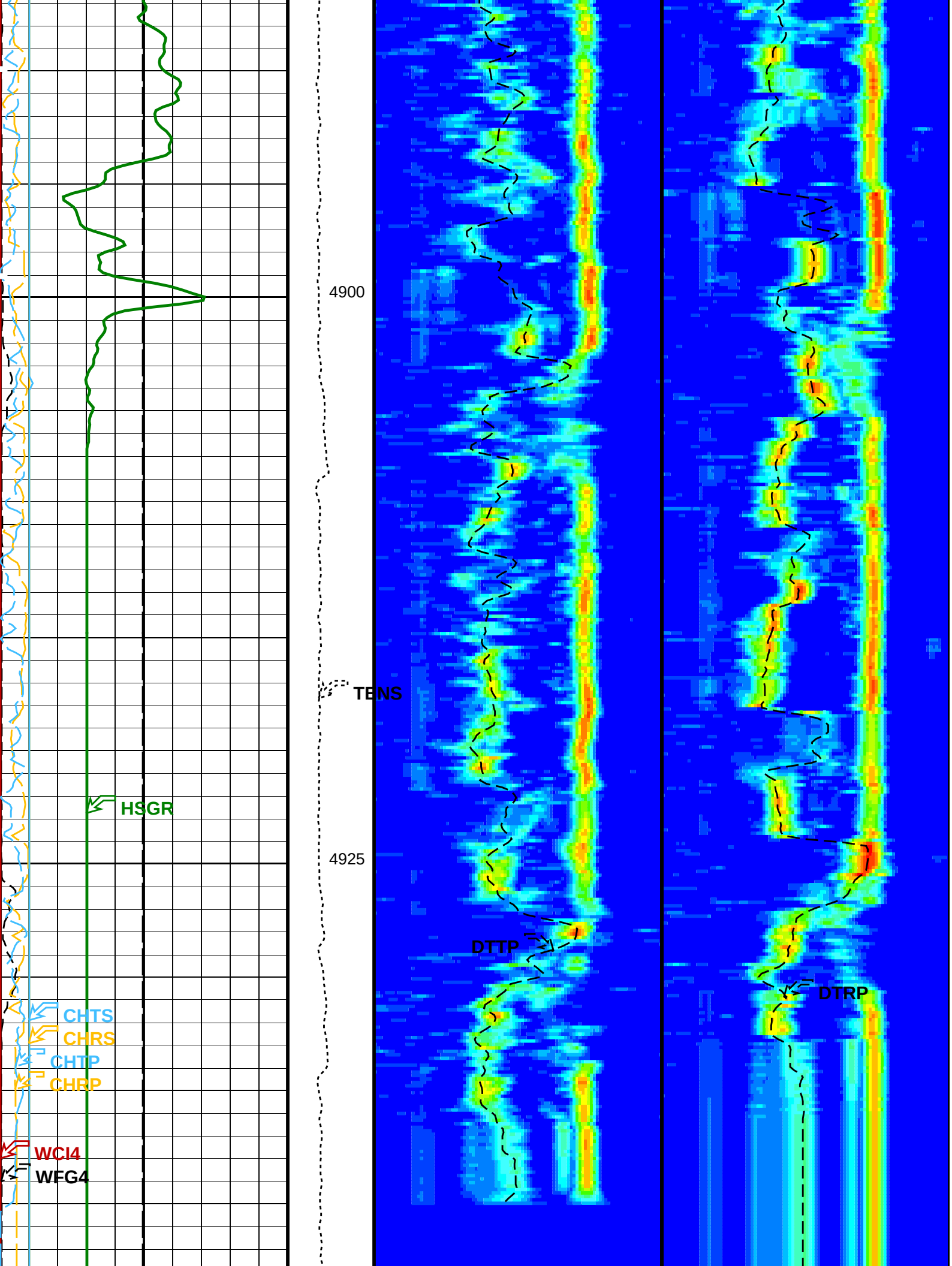

4625
4650


4675
4700


4725
4750
4775


4800
4825


4850
4875


4900
4925
TENS
HSGR
DTTP
DTRP
CHTS
CHRS
CHTP
CHRP
WCI4
WFG4

Bit Size (BS)	Tension (TENS)	Delta−T Comp / TA − P & S (DTTP)	Delta−T Comp / RA − P & S (DTRP)
0 (IN) 20	10000 (LBF) 0	40 (US/F) 240	40 (US/F) 240
SAM4 Waveform Gain (WFG4)		**Delta−T Shear / TA − P & S (DTTS)**	**Delta−T Shear / RA − P & S (DTRS)**
0 (−−−−) 1000		40 (US/F) 240	40 (US/F) 240
Waveform Data Copy Indicator 4 − Monopole P&S (WCI4)		Min Amplitude Max **Tr.Array P&S Slow Proj. CVDL (SPT4)**	Min Amplitude Max **Rec.Array P&S Slow Proj. CVDL (SPR4)**
0 (−−−−) 10		40 (US/F) 240	40 (US/F) 240
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			
HNGS Spectroscopy Gamma Ray (HSGR)			
0 (GAPI) 100			

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	95	US/F
COUL	Label Slowness Upper Limit − Monopole P&S Compressional	185	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	193	US/F
DWC4	Digitizer Word Count 4	512	
DWCX	Digitizer Word Count X	512	
FILG	Label Fill Gap Control − Monopole P&S	COMP_SHEAR	
GCSE	Generalized Caliper Selection	BS	
LFC	Label Formation Character − Monopole P&S	DYNAMIC	
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	780	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	
WFM4	Waveform Mode 4	W1	
	HRLT−B: High Resolution Laterolog Array − 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	10.75	IN
CSD2	Outer Casing Outer Diameter	10.75	IN
CSW1	Inner Casing Weight	45	LB/F
CSW2	Outer Casing Weight	45	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	−0.00184813	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
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	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.990521	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.00375	
	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	1.32	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: DSST_P_S_RC_TR_VDL_COLOR **Vertical Scale: 1:200** **Graphics File Created: 06−Apr−2017 20:17**

OP System Version: 19C0−187

DSST−B	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
EDTC−B	SKK−5169−EDTCB		

Input DLIS Files

DEFAULT	Flip_DSI_HRLA_LDL_029LUP	PRODUCER	06−Apr−2017 18:02	4944.5 M	3717.0 M

Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_036PUP	FN:47	PRODUCER	06−Apr−2017 20:17
BACKUP	DSI_HRLA_LDL_NGS_036PUP	FN:48	PRODUCER	06−Apr−2017 20:17

Input DLIS Files

DEFAULT	Flip_DSI_HRLA_LDL_029LUP	PRODUCER	06−Apr−2017 18:02	4944.5 M	3717.0 M

Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_036PUP	FN:47	PRODUCER	06−Apr−2017 20:17	4944.5 M	3717.0 M
BACKUP	DSI_HRLA_LDL_NGS_036PUP	FN:48	PRODUCER	06−Apr−2017 20:17	4944.5 M	3717.0 M

OP System Version: 19C0−187

DSST−B	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−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)
0 (GAPI) 100

Area1
From HCGR to HSGR

Downlog

HNGS Borehole Potassium (HBHK)
−0.05 (−−−−) 0.05

HNGS Computed Gamma Ray (HCGR)
0 (GAPI) 100

Calibrated Downhole Force (CDF) (LBF)
3000 0

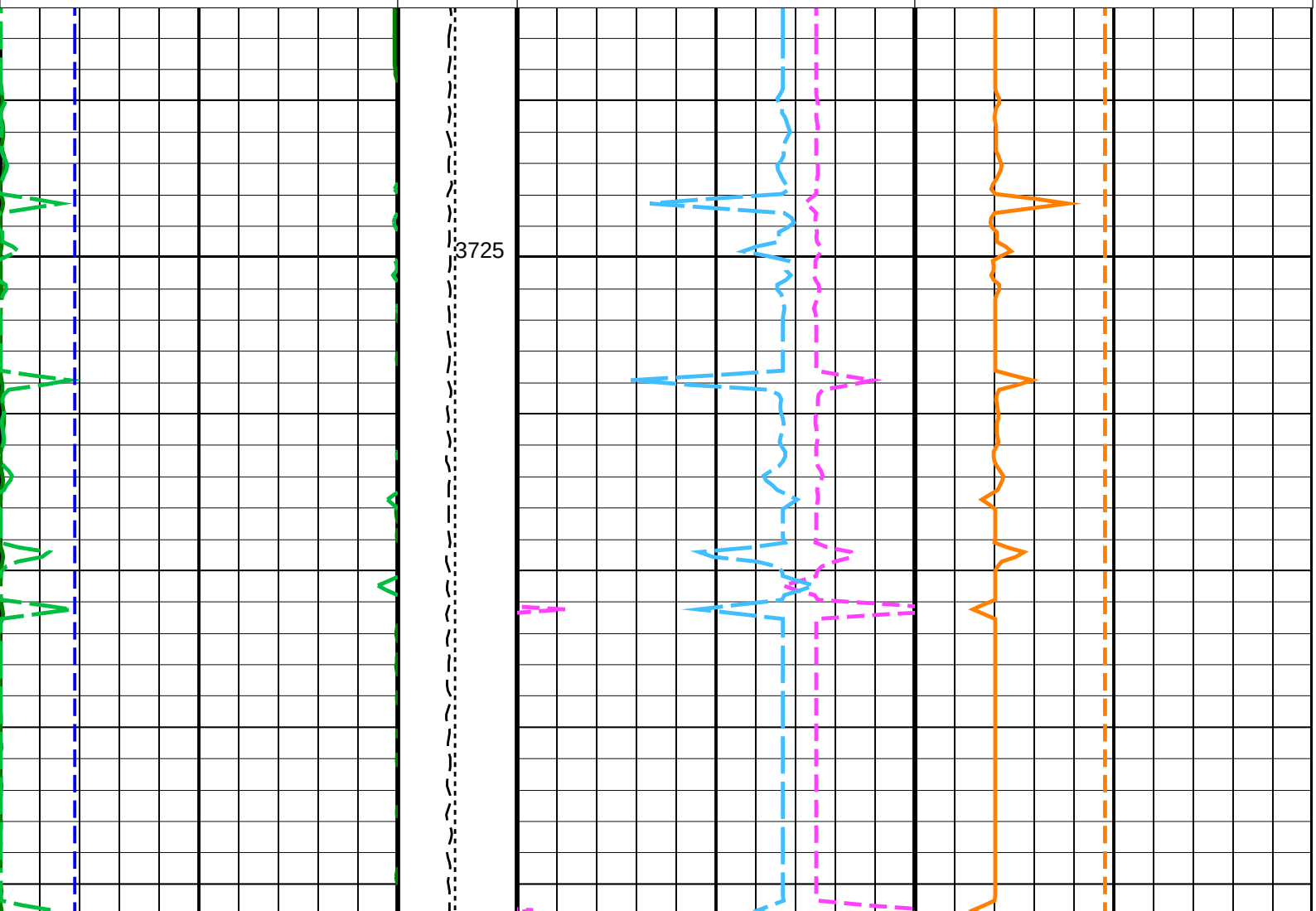
HNGS Uranium (HURA)
−5 (PPM) 10

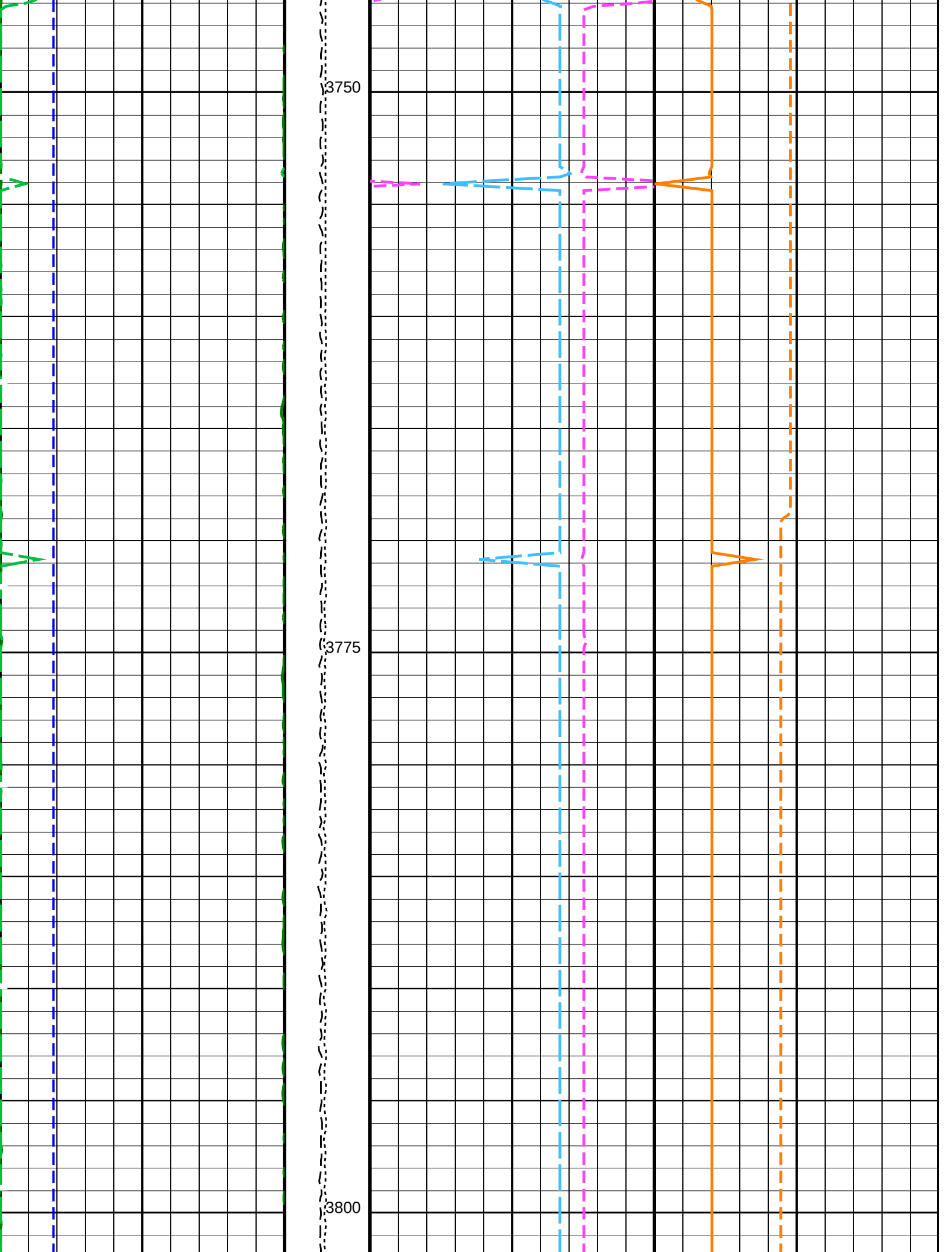
HLDS Caliper (LCAL)
0 (IN) 20

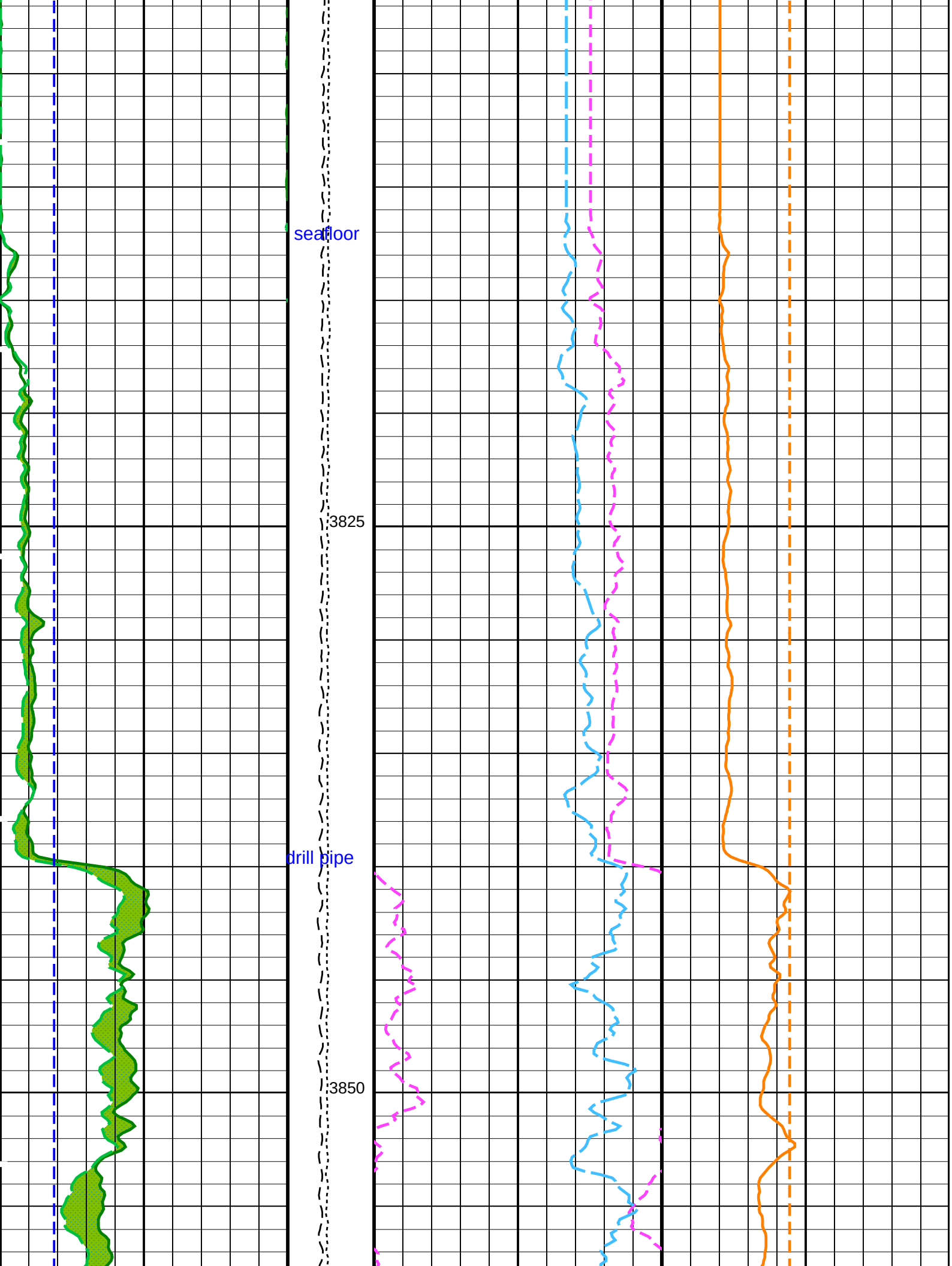
Tension (TENS) (LBF)
10000 0

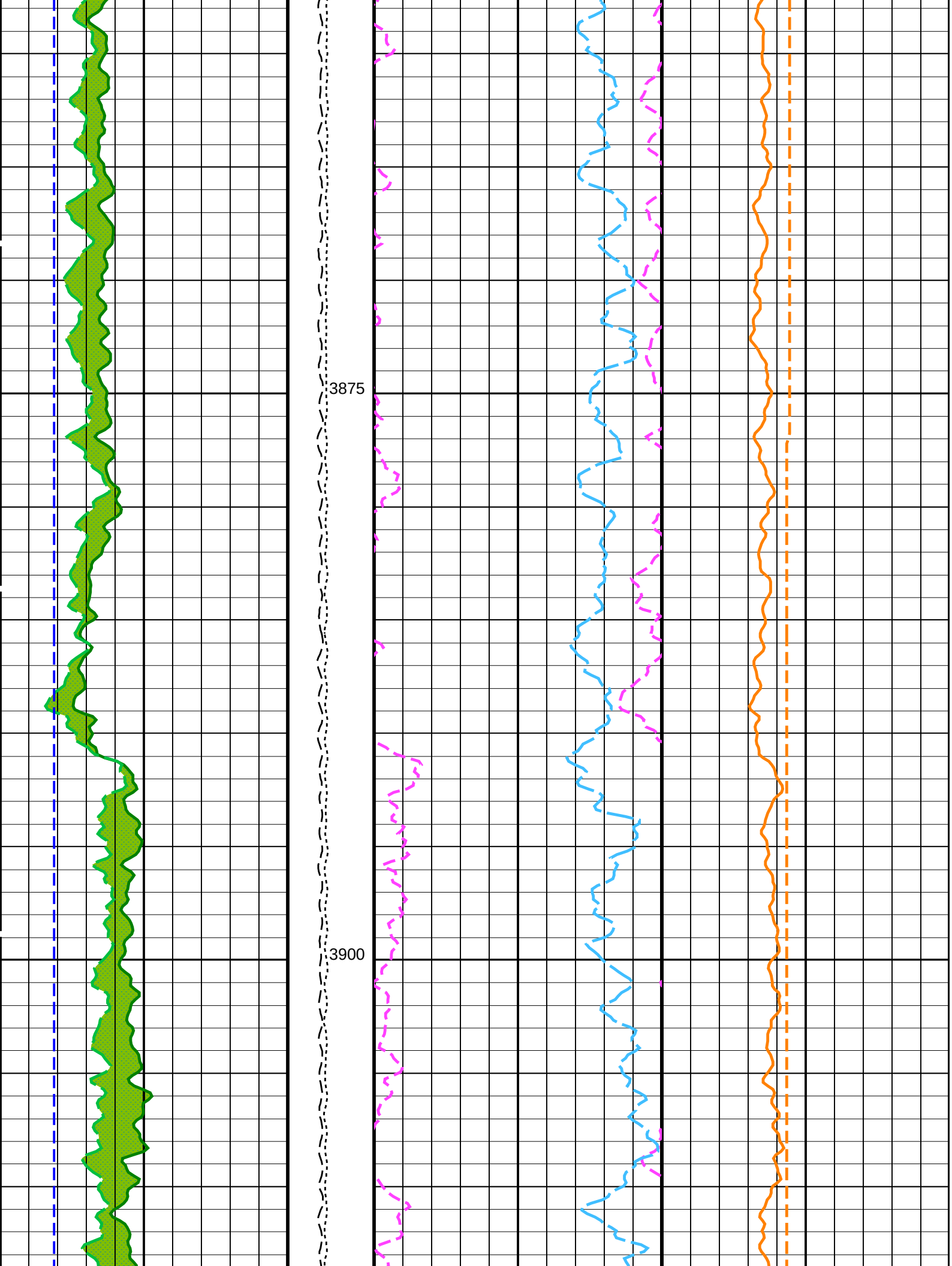
HNGS Thorium (HTHO)
5 (PPM) 25

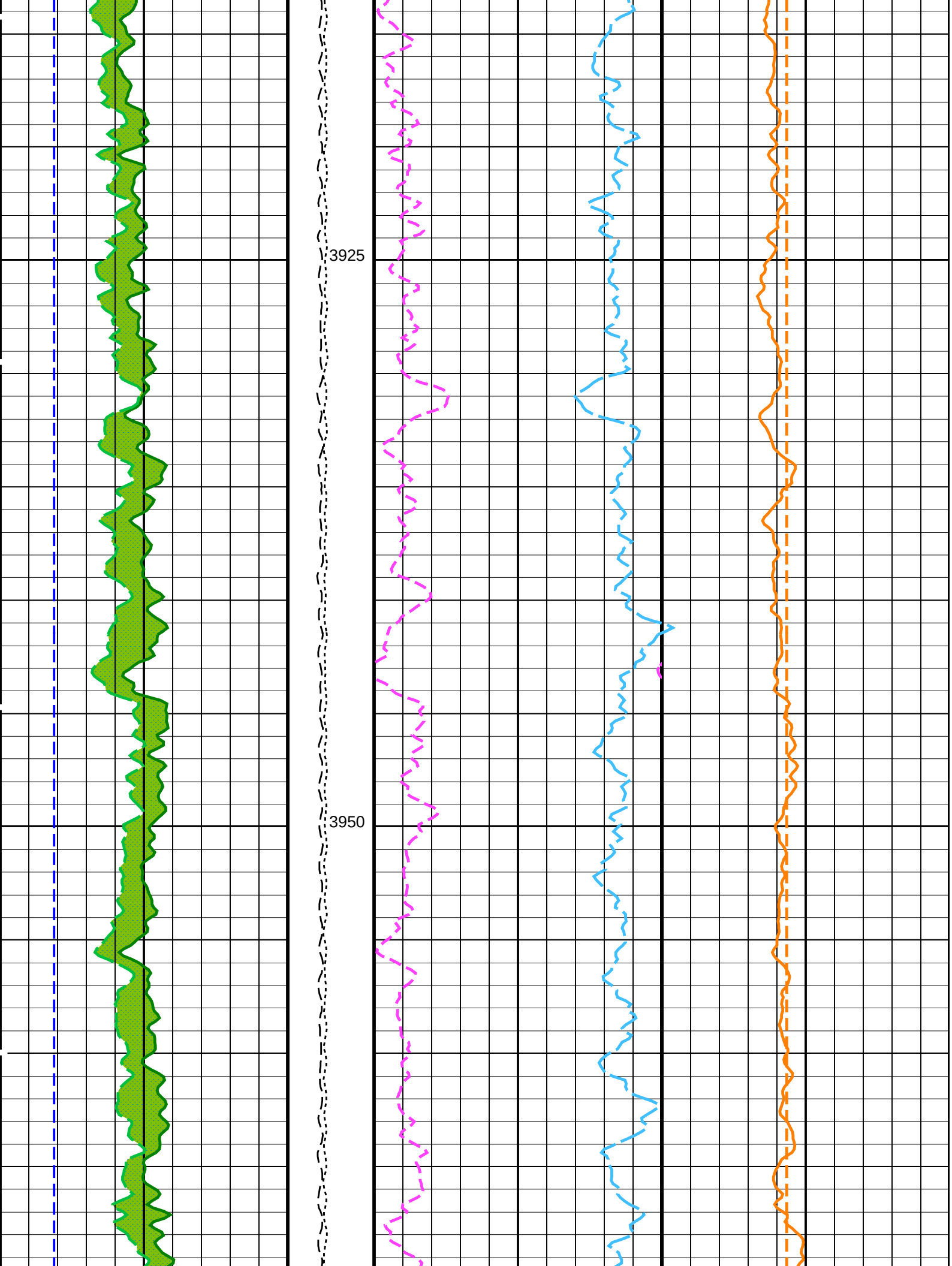
HNGS Potassium (HFK)
−0.01 (−−−−) 0.04

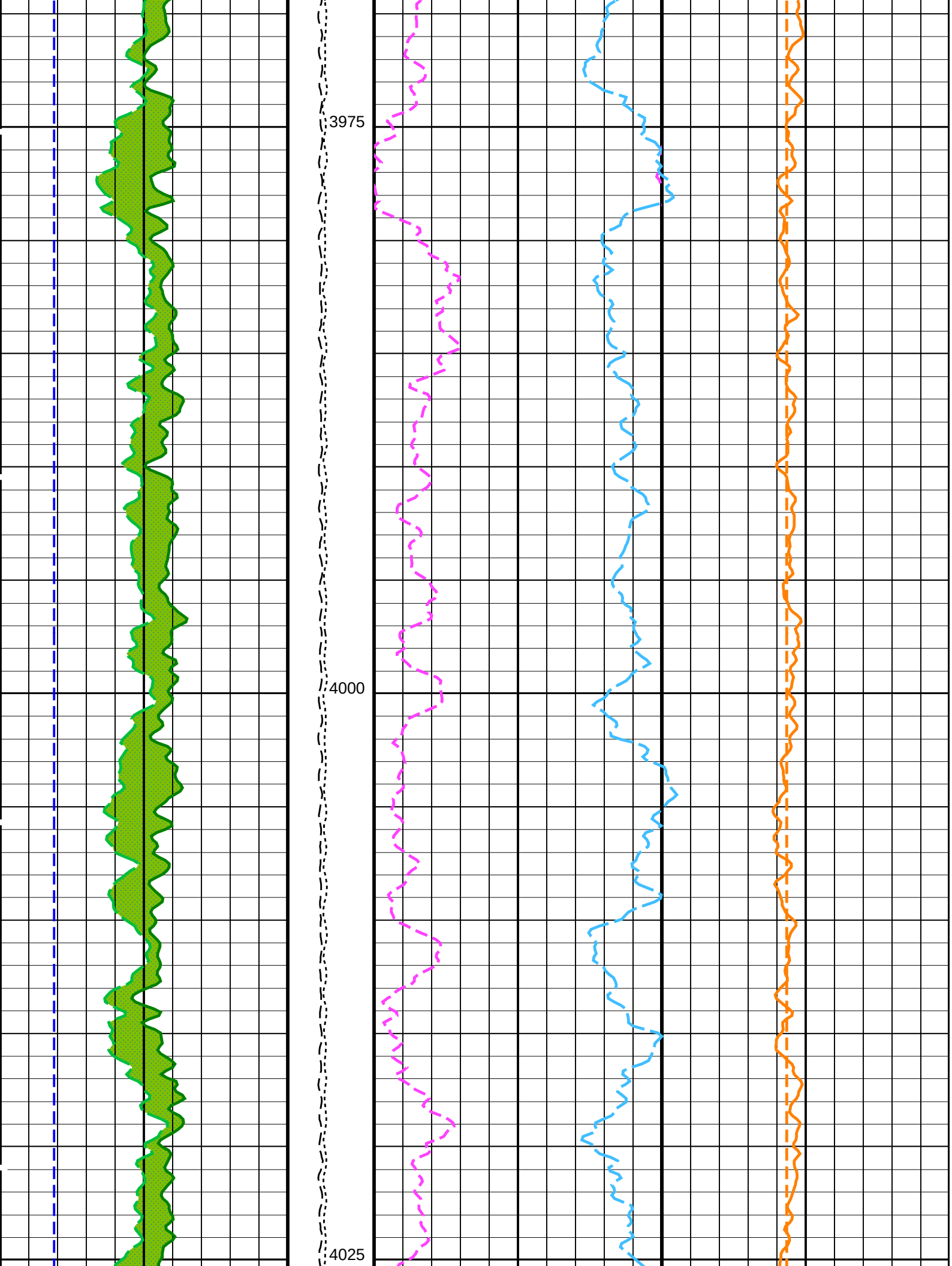


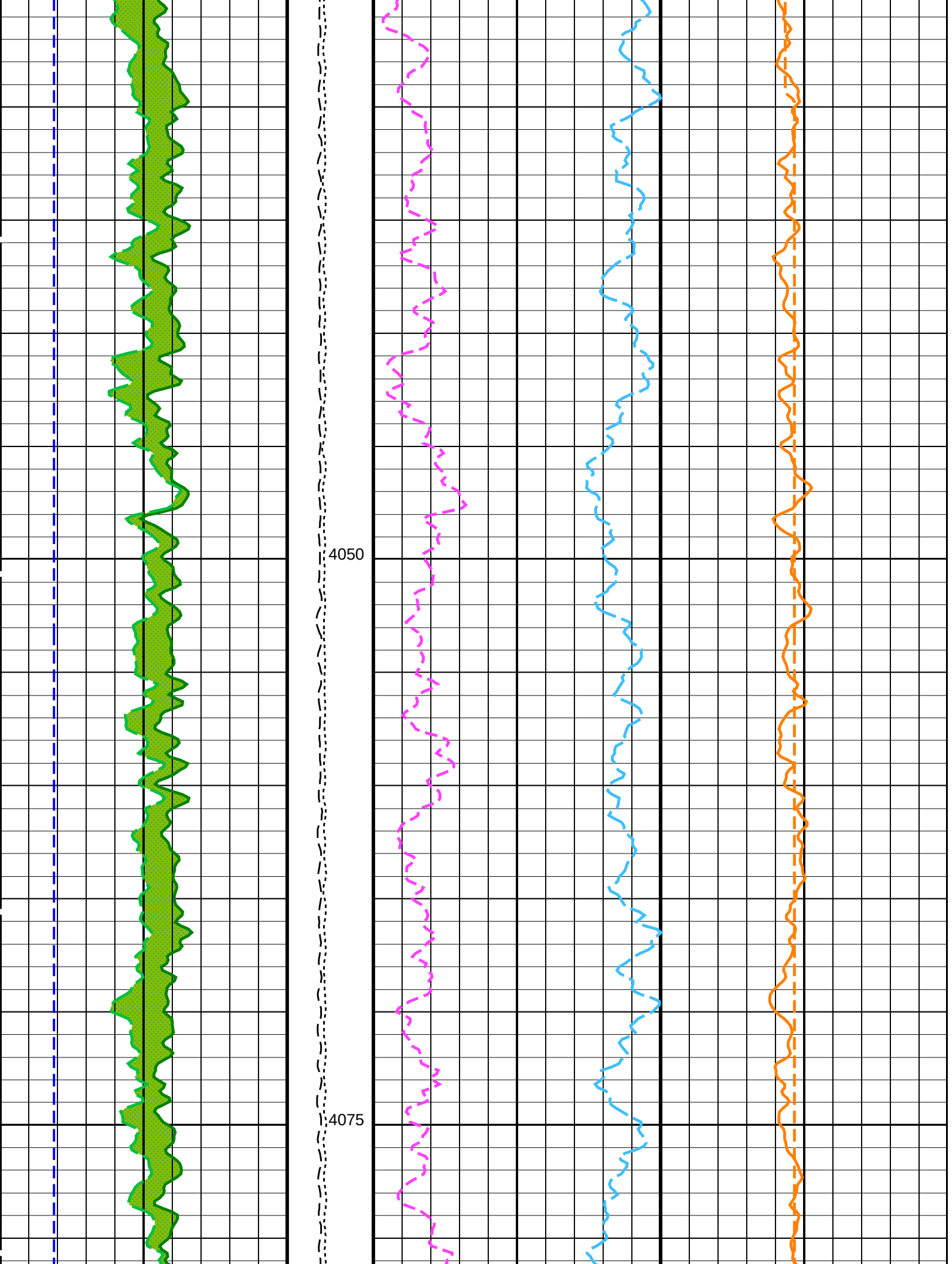

3750
3775
3800

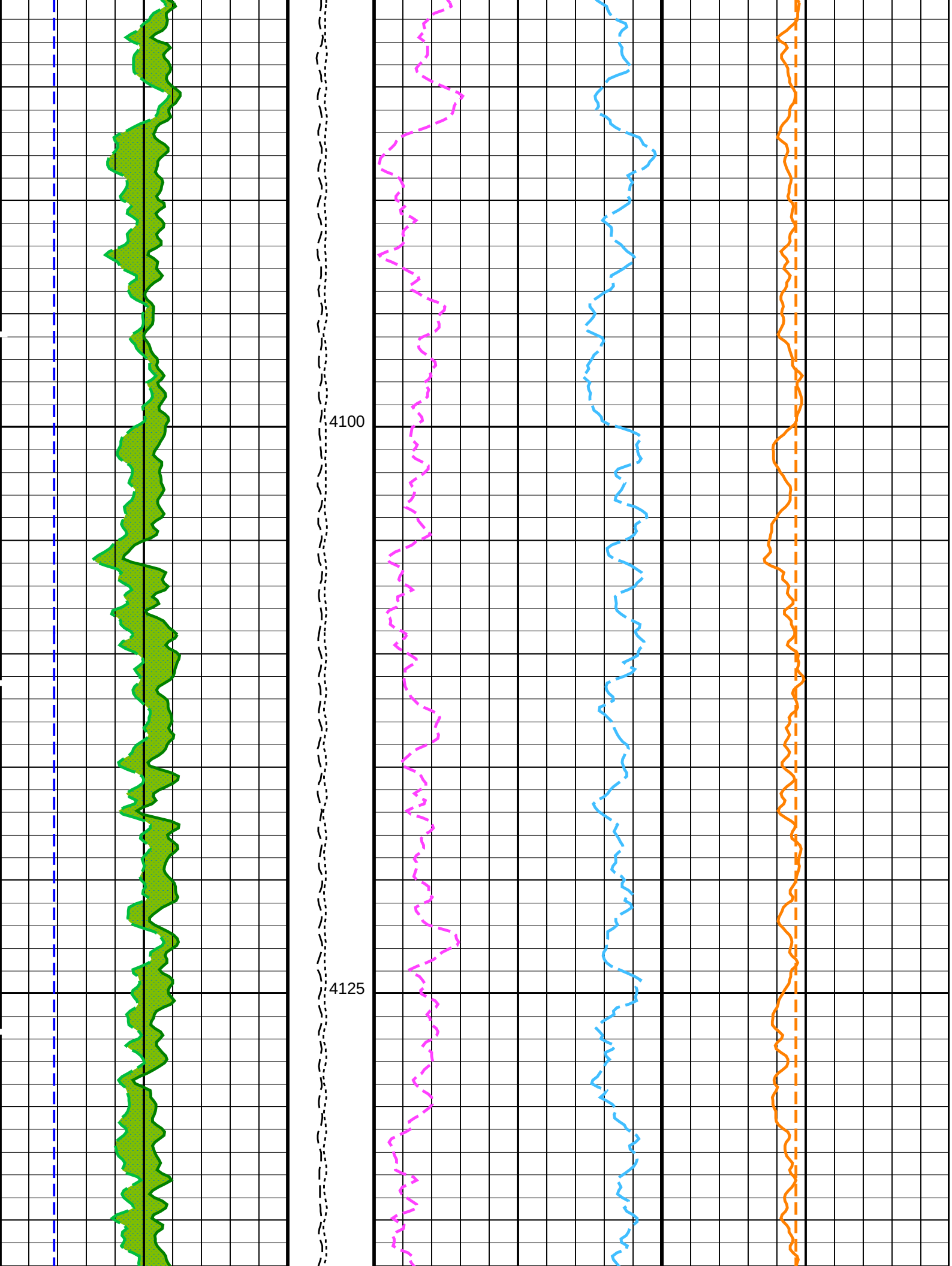

seafloor
3825
drill pipe
3850

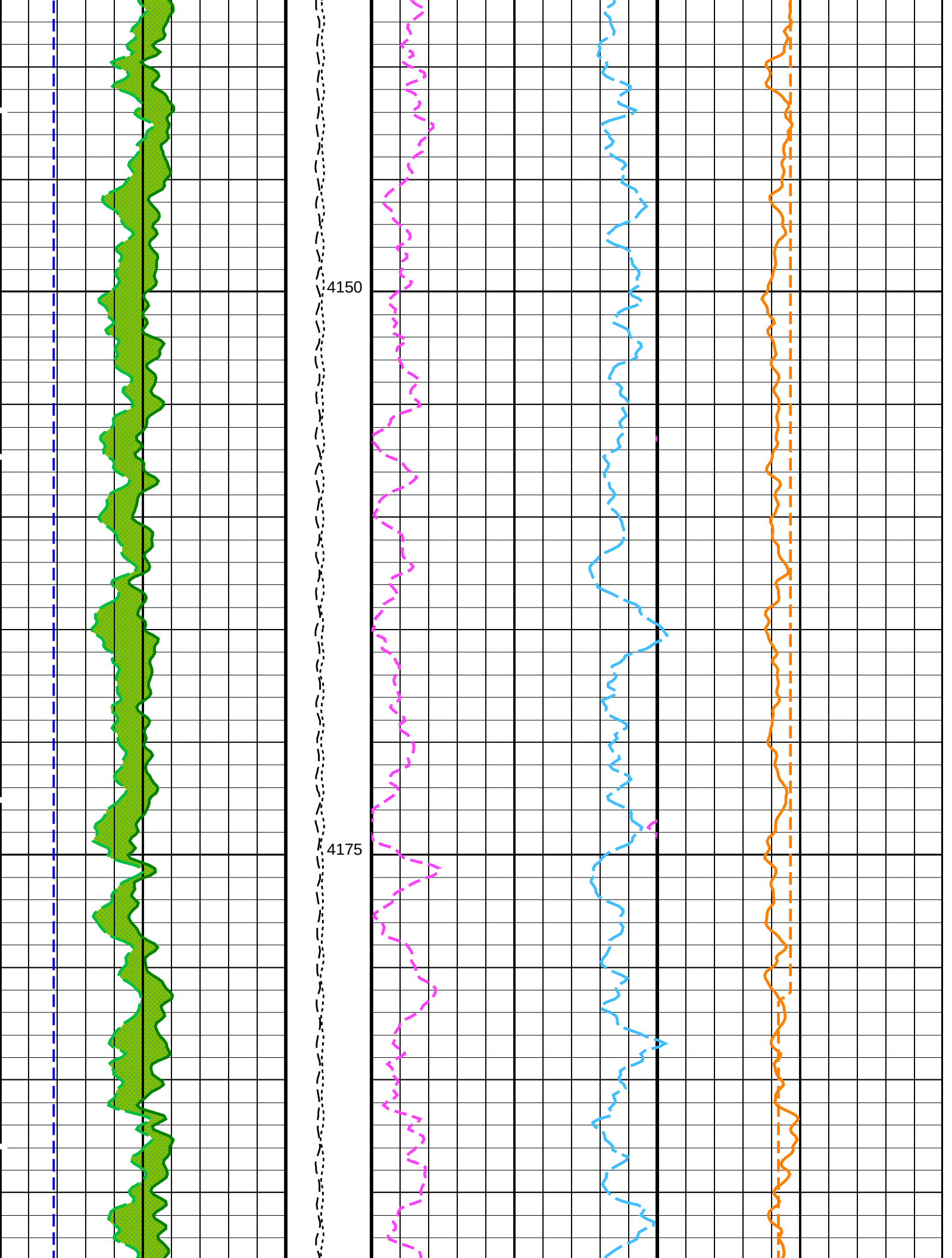

3875
3900

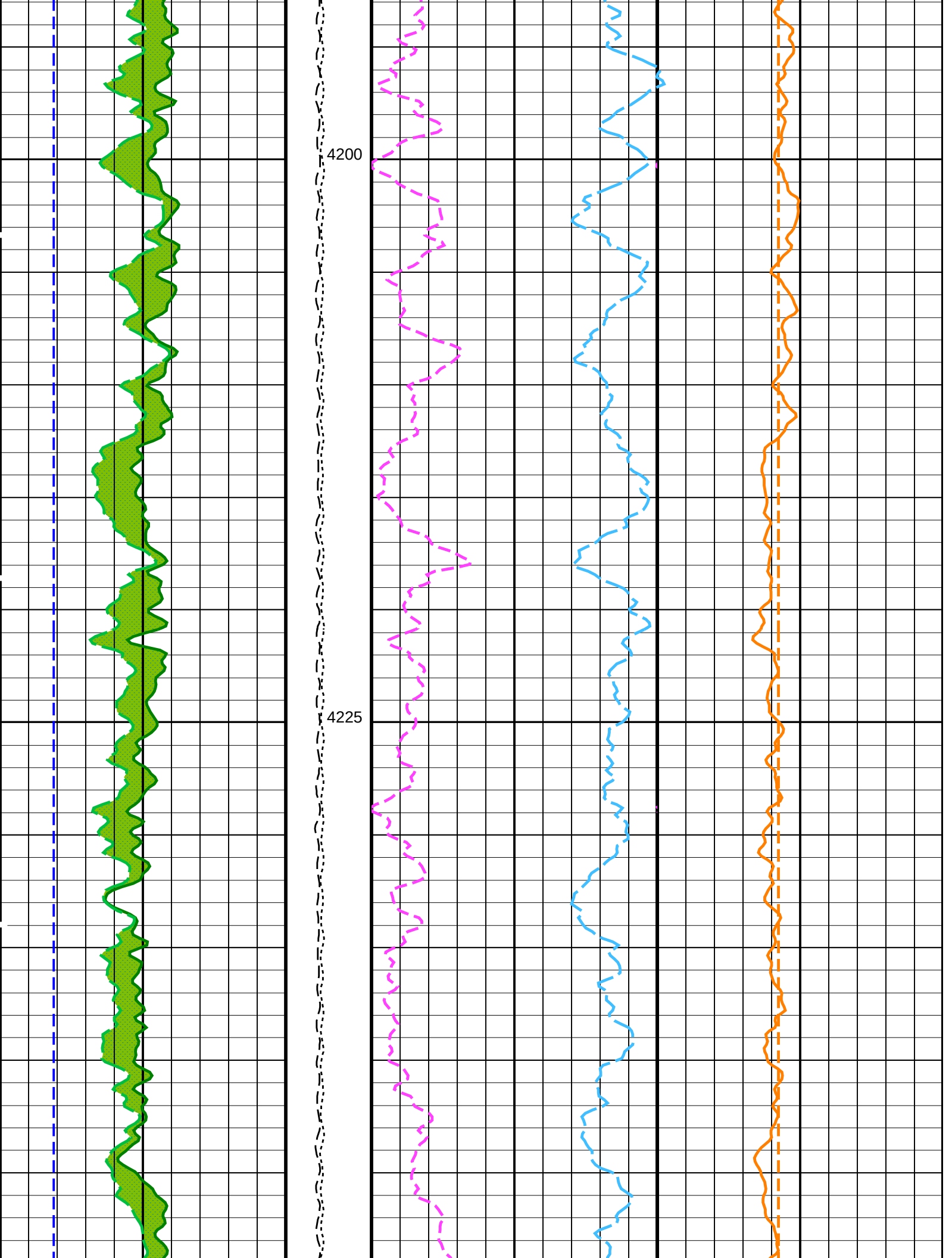

3925
3950

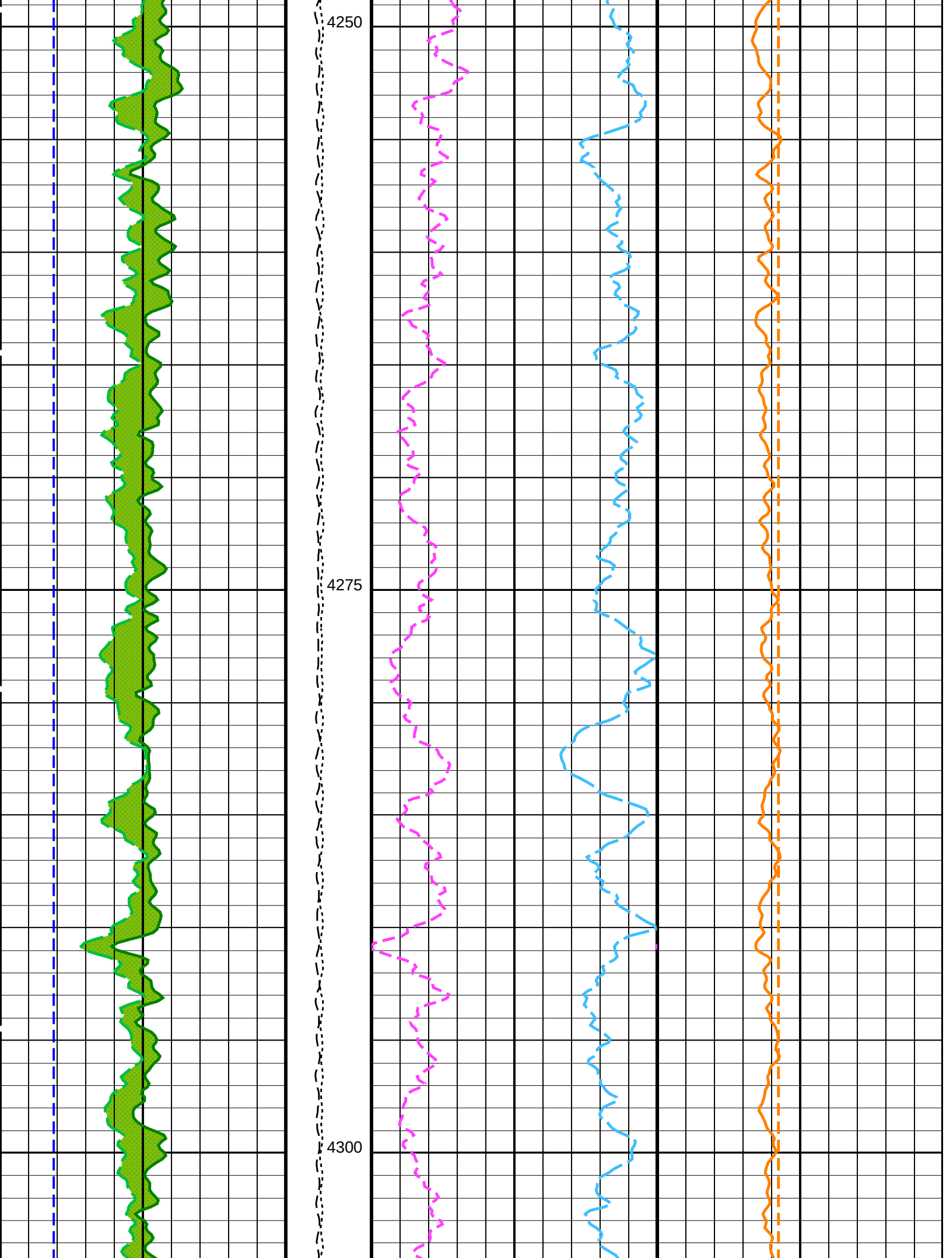

3975
4000
4025

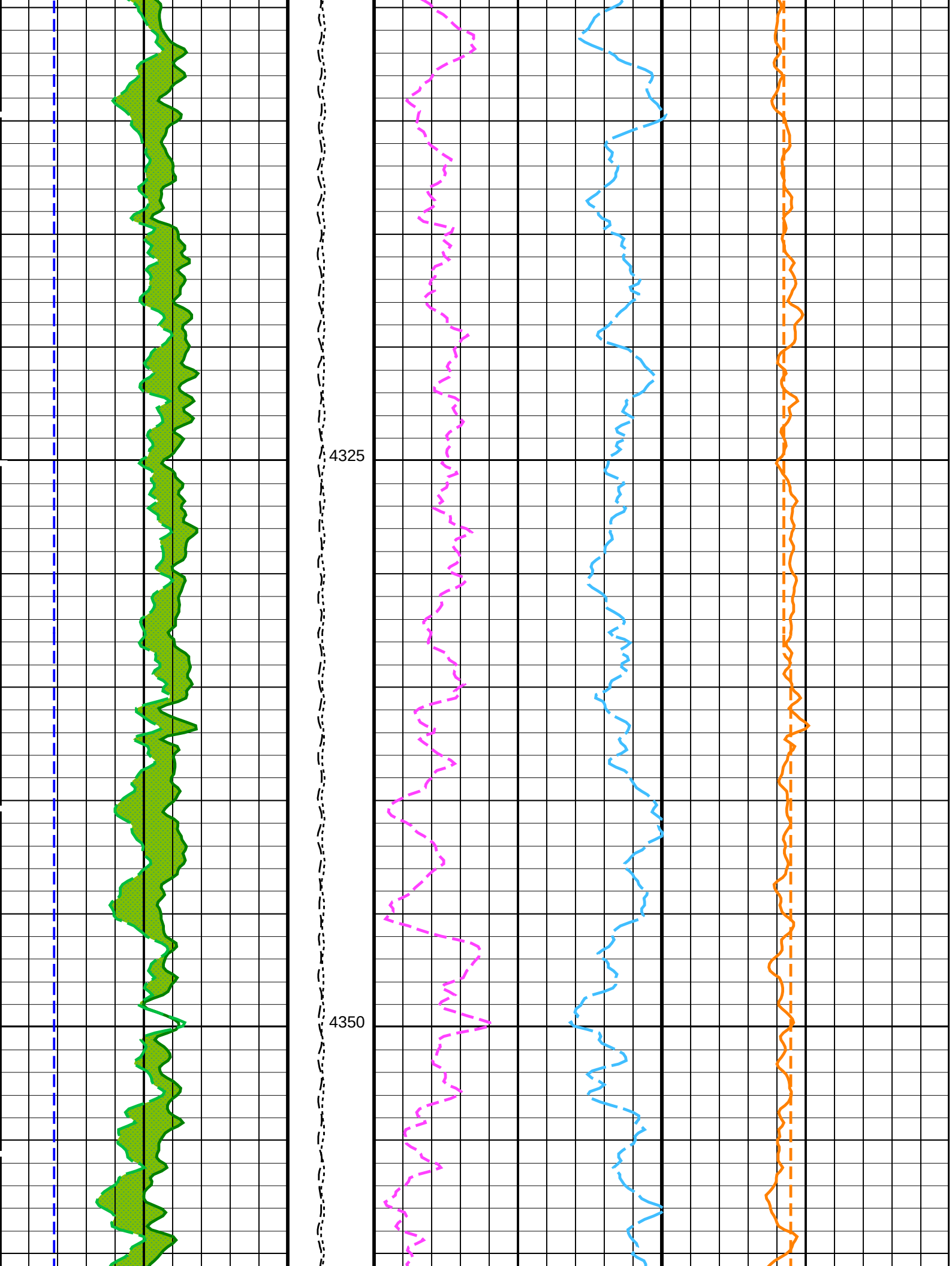

4050
4075

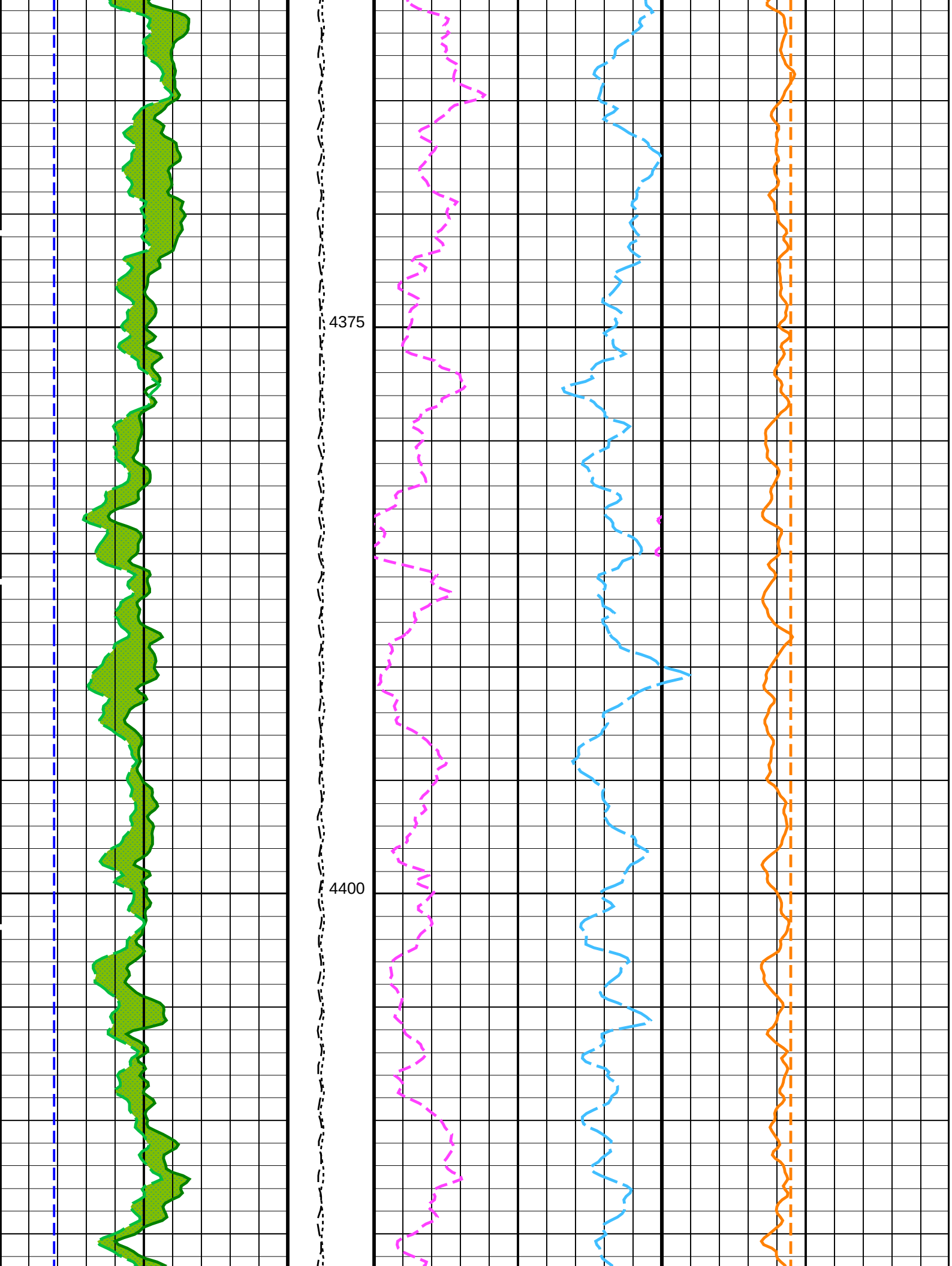

4100
4125

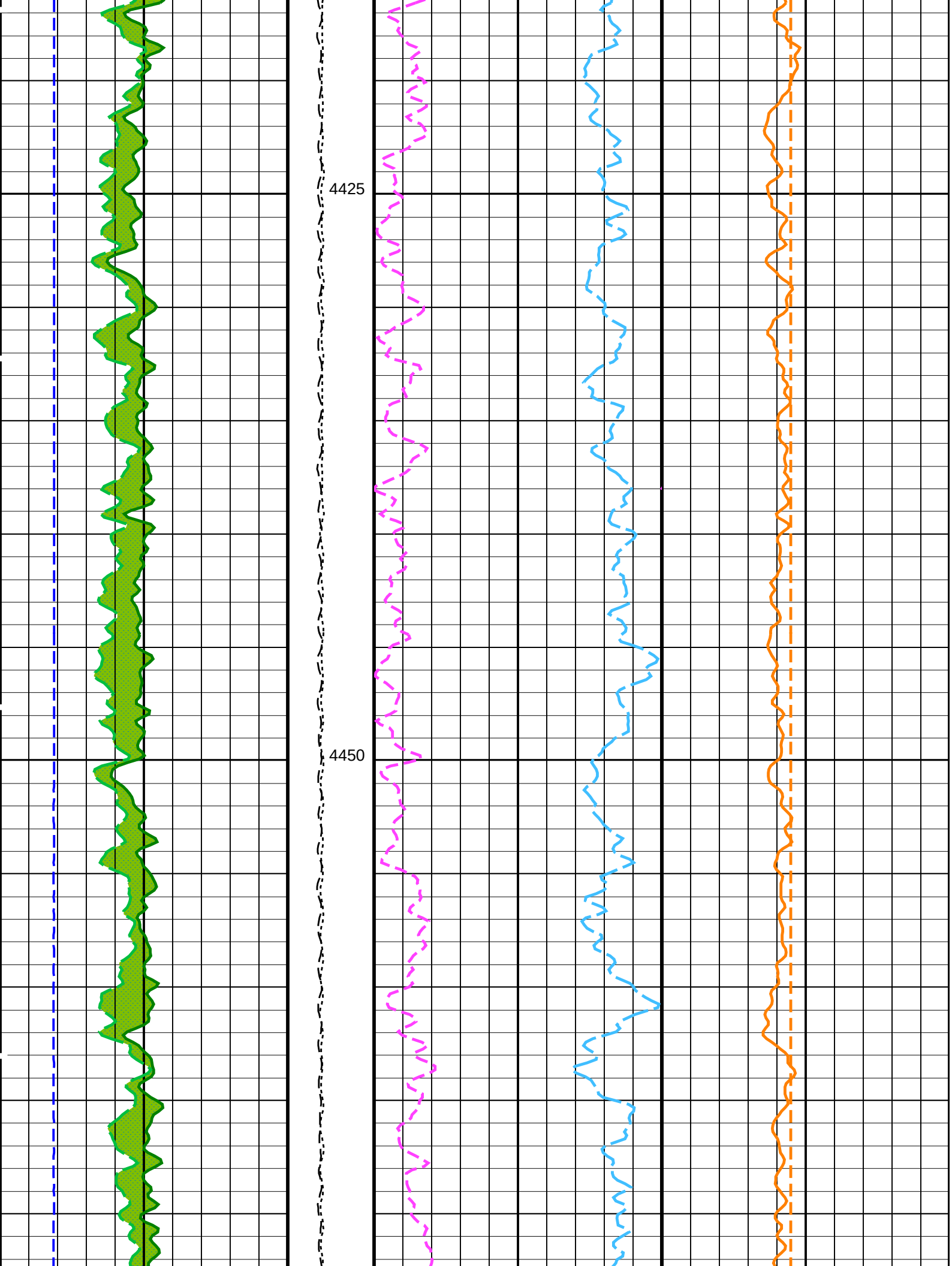

4150
4175

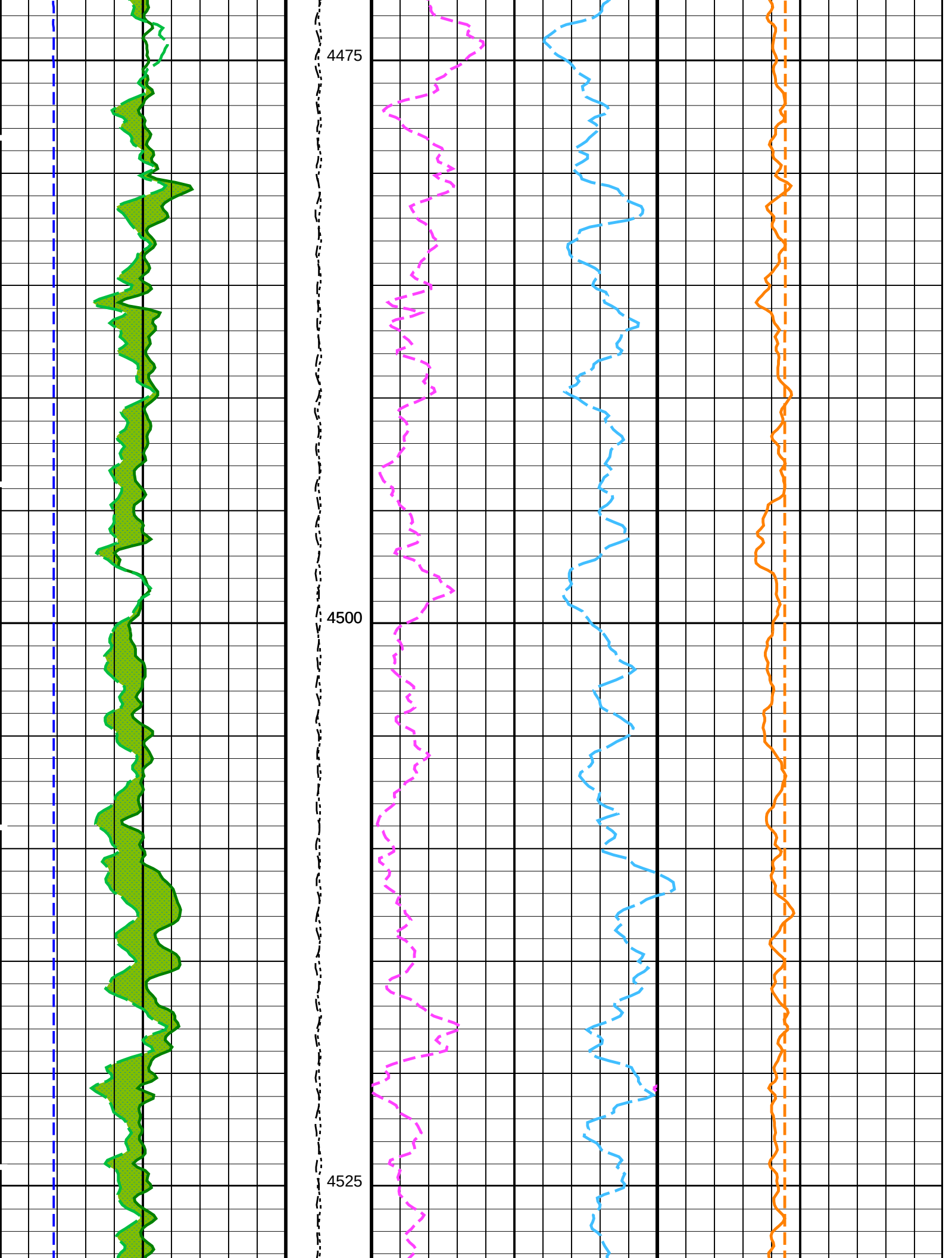

4200
4225

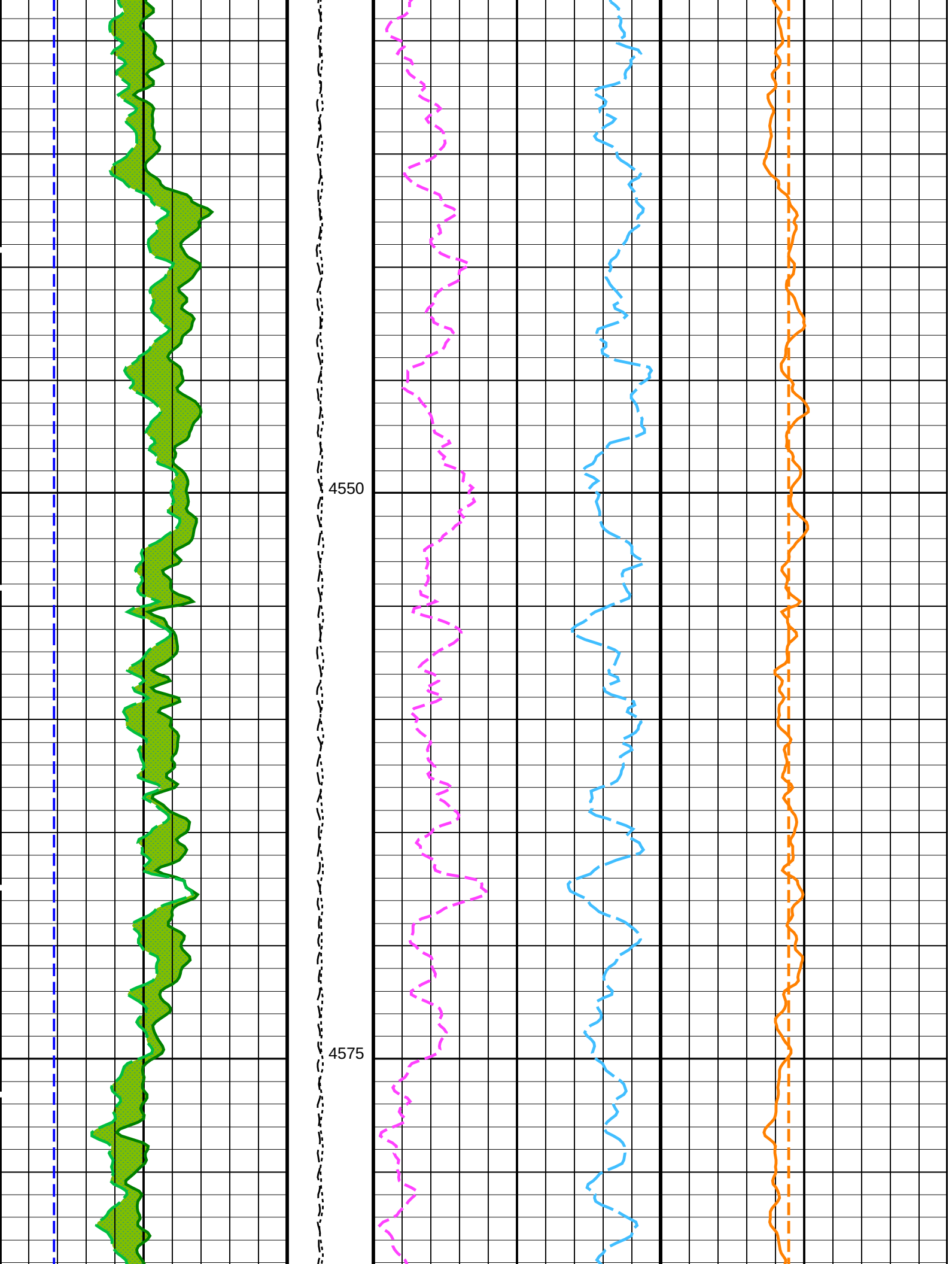

4250
4275
4300

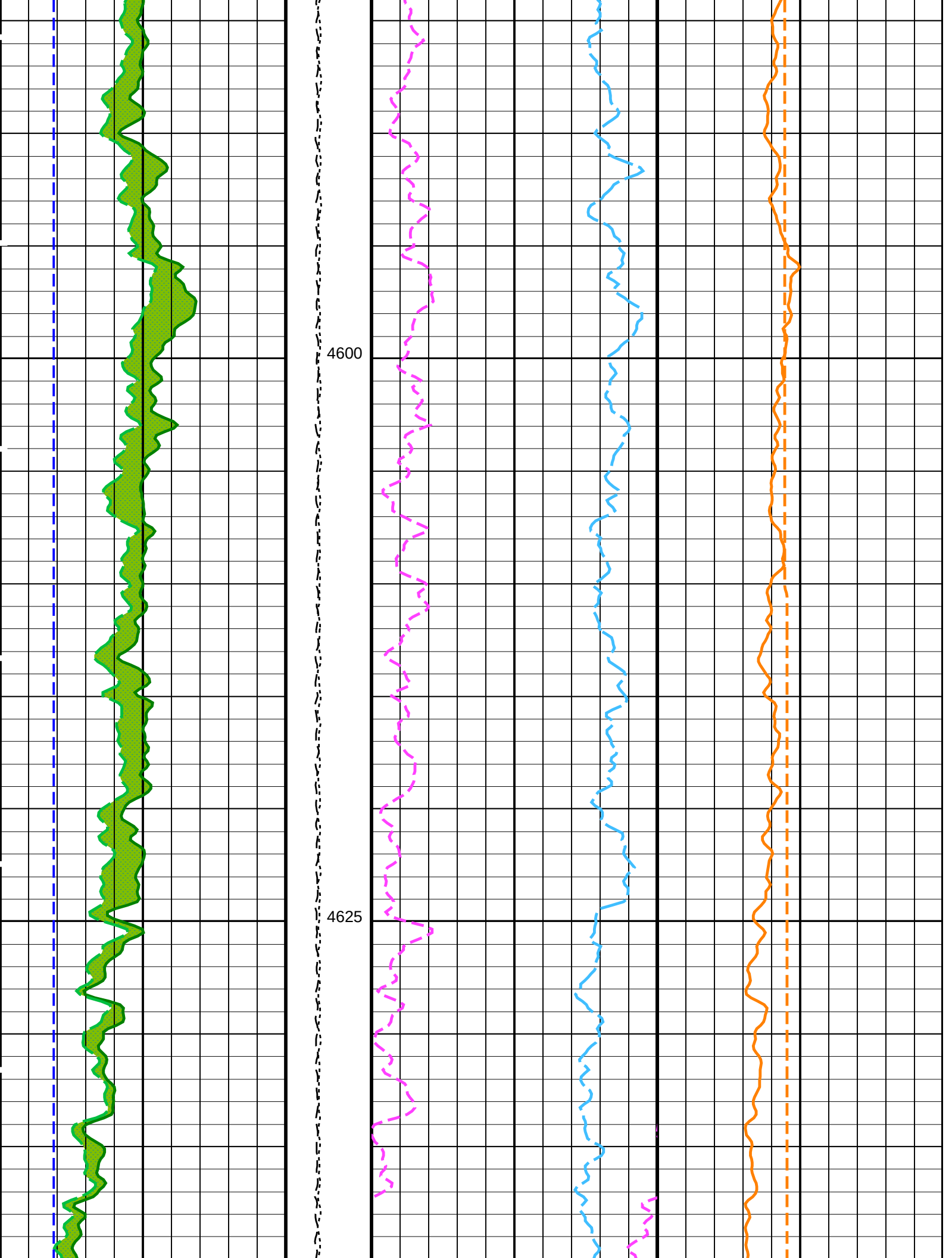

4325
4350

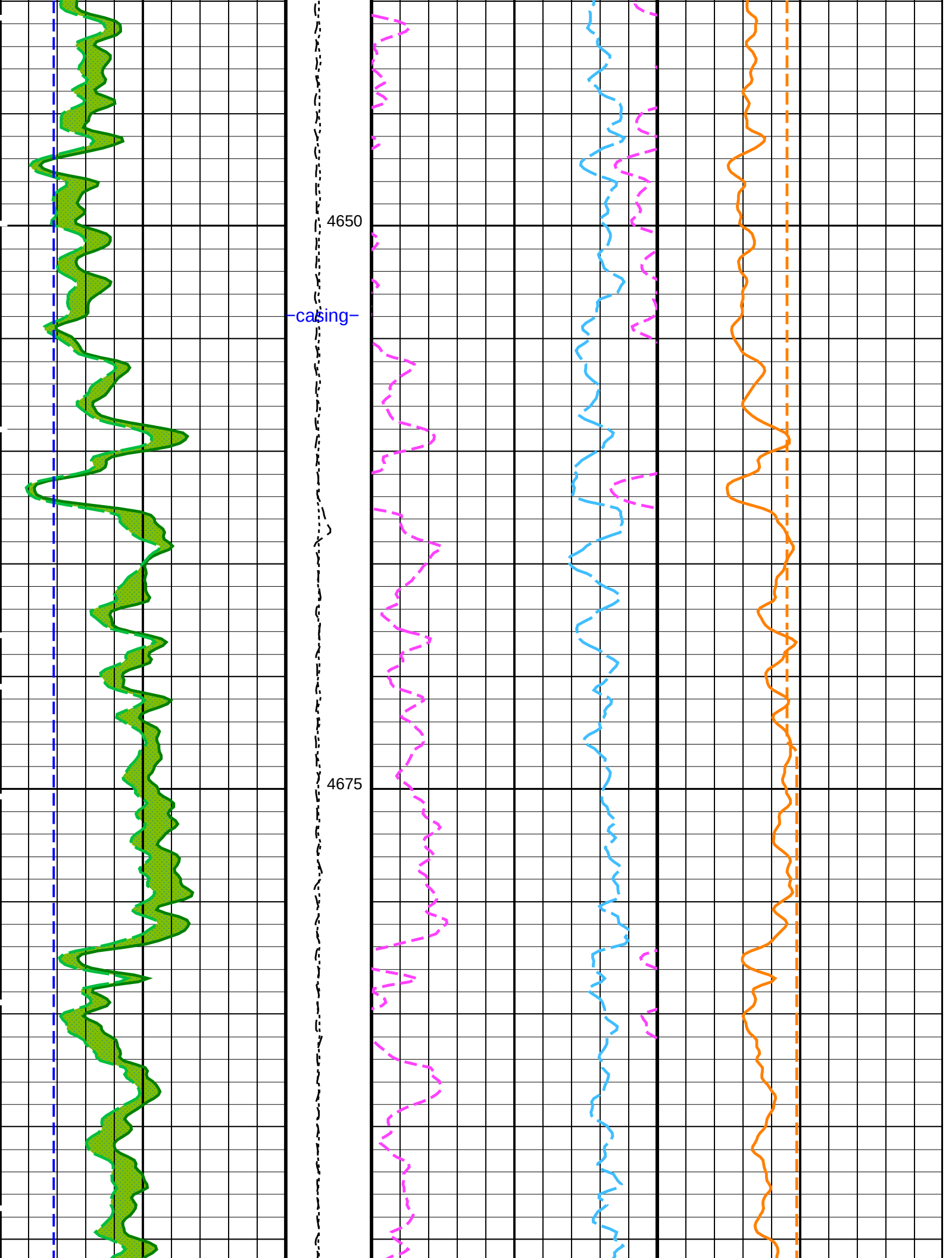

4375
4400

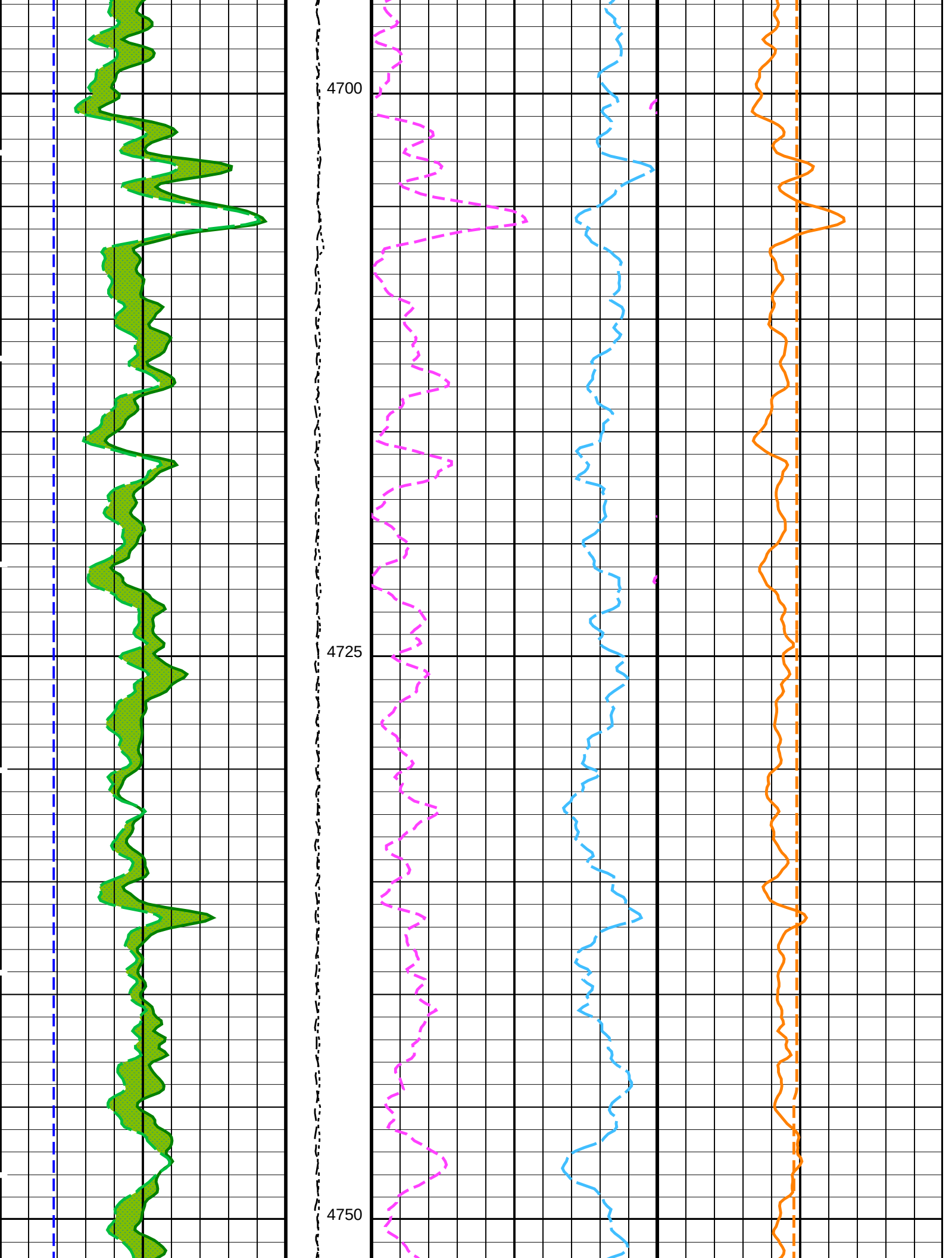

4425
4450

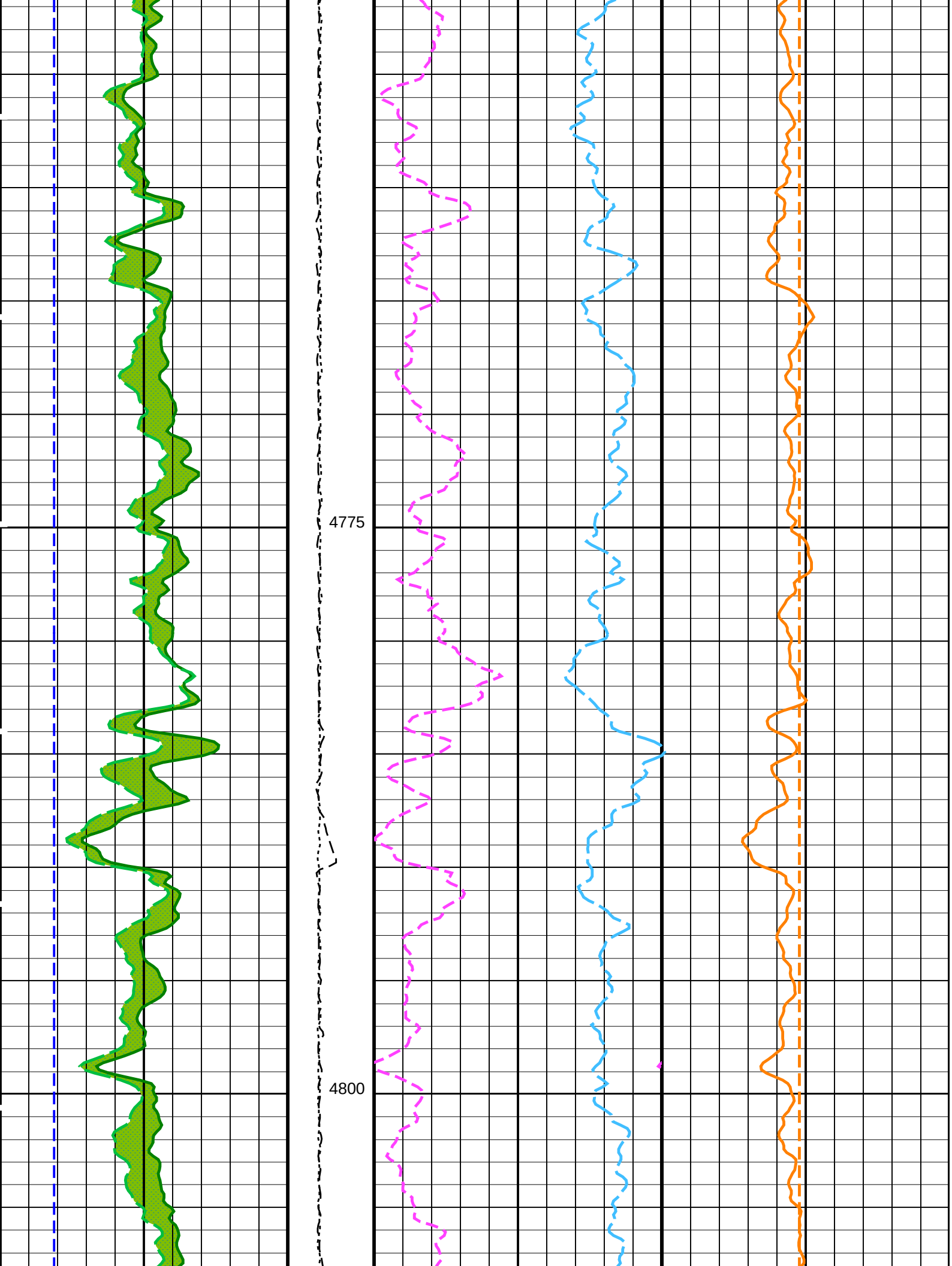

4475
4500
4525

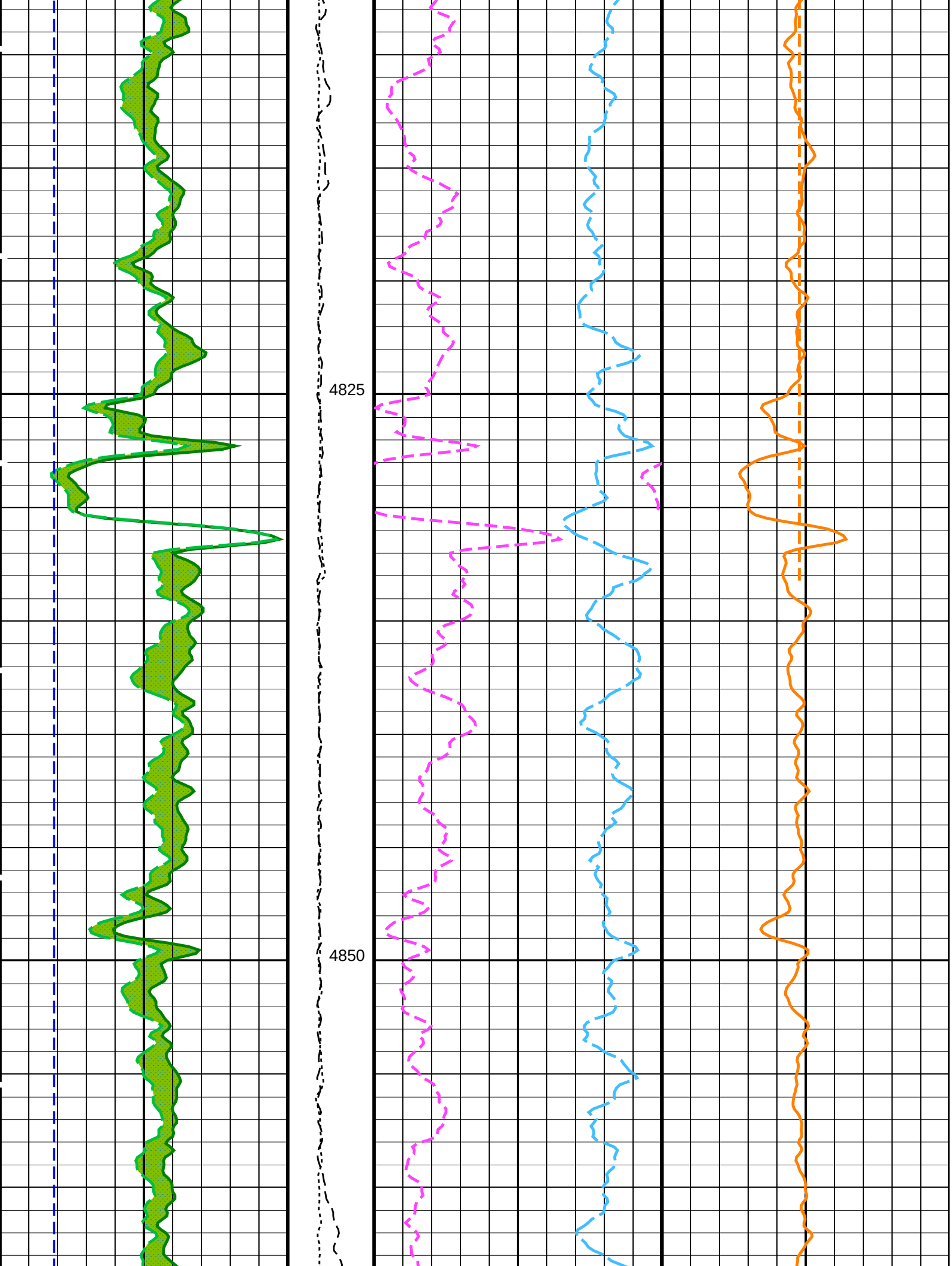

4550
4575

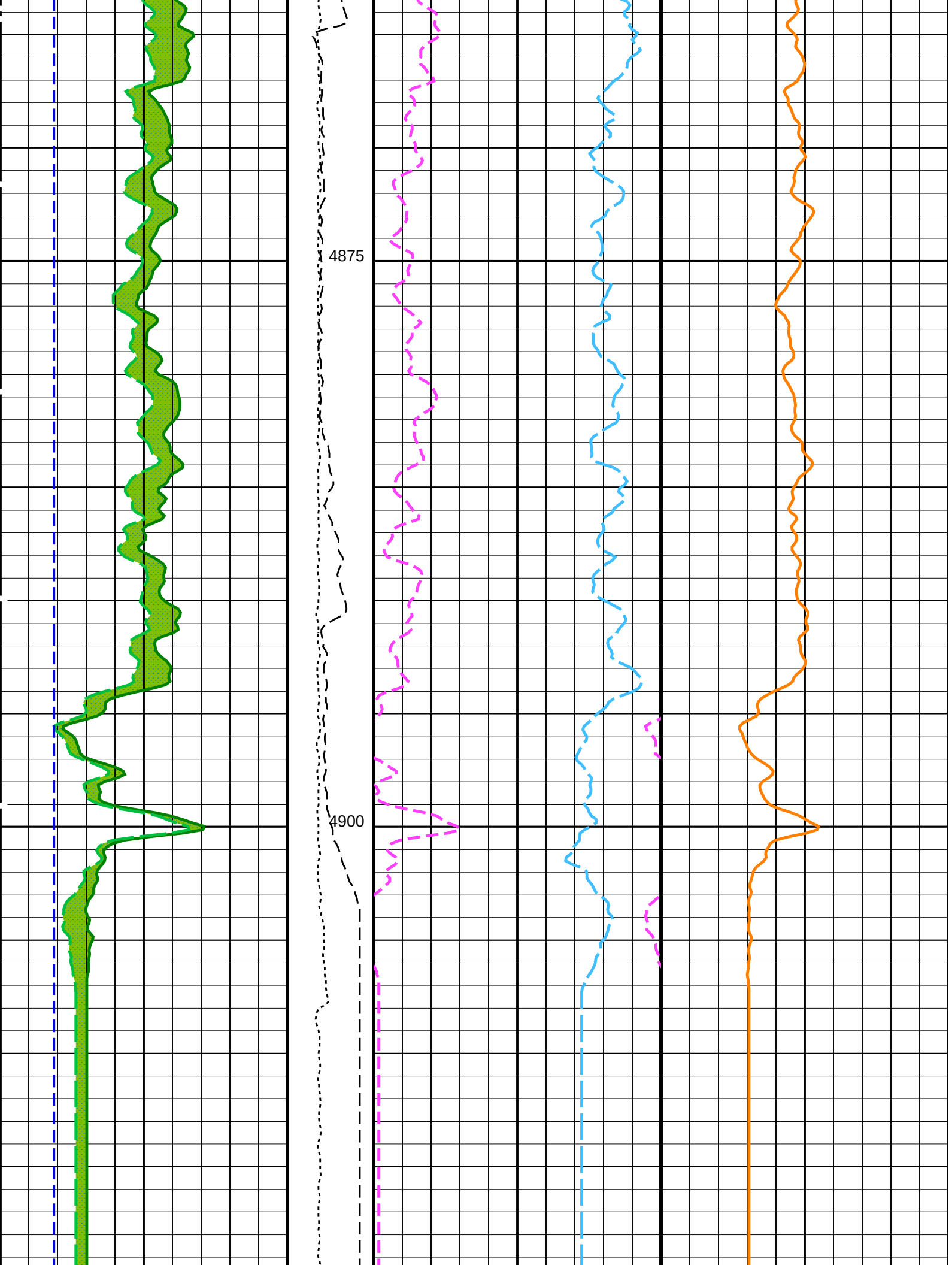

4600
4625

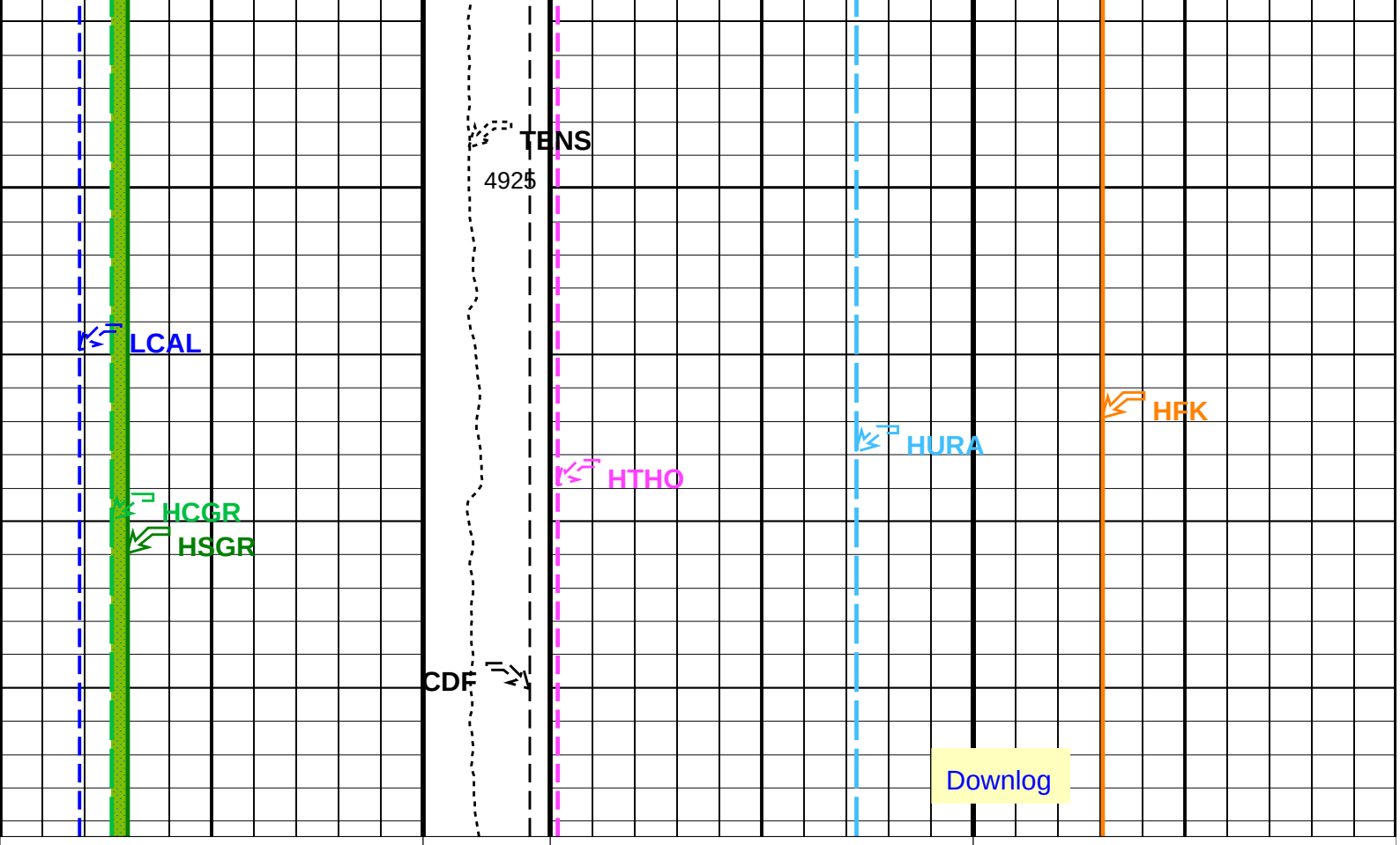

4650
–casing–
4675


4700
4725
4750


4775
4800


4825
4850


4875
4900



HLDS Caliper (LCAL)	Tension (TENS)	HNGS Thorium (HTHO)	HNGS Potassium (HFK)
0 (IN) 20	10000 (LBF) 0	5 (PPM) 25	−0.01 (----) 0.04

HNGS Computed Gamma Ray (HCGR)	Calibrated Downhole Force (CDF)	HNGS Uranium (HURA)
0 (GAPI) 100	3000 (LBF) 0	−5 (PPM) 10

Area1 From HCGR to HSGR	HNGS Borehole Potassium (HBHK)
	−0.05 (----) 0.05

HNGS Spectroscopy Gamma Ray (HSGR)

0 (GAPI) 100

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	BS	
	HRLT−B: High Resolution Laterolog Array − 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	10.75	IN
CSD2	Outer Casing Outer Diameter	10.75	IN
CSW1	Inner Casing Weight	45	LB/F
CSW2	Outer Casing Weight	45	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	−0.00184813	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
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	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.990521	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.00375	
	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	1.32	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: HNGSYields Vertical Scale: 1:200 Graphics File Created: 06−Apr−2017 20:17

OP System Version: 19C0−187

DSST−B	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
EDTC−B	SKK−5169−EDTCB		

Input DLIS Files

DEFAULT	Flip_DSI_HRLA_LDL_029LUP	PRODUCER	06−Apr−2017 18:02	4944.5 M	3717.0 M

Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_036PUP	FN:47	PRODUCER	06−Apr−2017 20:17		
BACKUP	DSI_HRLA_LDL_NGS_036PUP	FN:48	PRODUCER	06−Apr−2017 20:17		

Company: International Ocean Discovery Program Well: Expedition 367, Site U1500B

Input DLIS Files

DEFAULT	Flip_DSI_HRLA_LDL_029LUP	PRODUCER	06−Apr−2017 18:02	4944.5 M	3717.0 M

Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_036PUP	FN:47	PRODUCER	06−Apr−2017 20:17	4944.5 M	3717.0 M
BACKUP	DSI_HRLA_LDL_NGS_036PUP	FN:48	PRODUCER	06−Apr−2017 20:17	4944.5 M	3717.0 M

OP System Version: 19C0−187

DSST−B	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
EDTC−B	SKK−5169−EDTCB		

PIP SUMMARY

Time Mark Every 60 S

	HRLT True Resistivity (RT_HRLT)	
0.2	(OHMM)	2000
	Invaded Zone Resistivity (RXO_HRLT)	
0.2	(OHMM)	2000
	HRLT Mud Resistivity (RM_HRLT)	
0.02	(OHMM)	200
	HRLT Resistivity 5 (RLA5)	

Downlog

HNGS Spectroscopy Gamma Ray (HSGR)
0 (GAPI) 100

Invasion Diameter (DI_HRLT)
0 (IN) 50

Caliper (LCAL)
0 (IN) 20

Bit Size (BS)
0 (IN) 20

Tension (TENS) (LBF)
10000 0

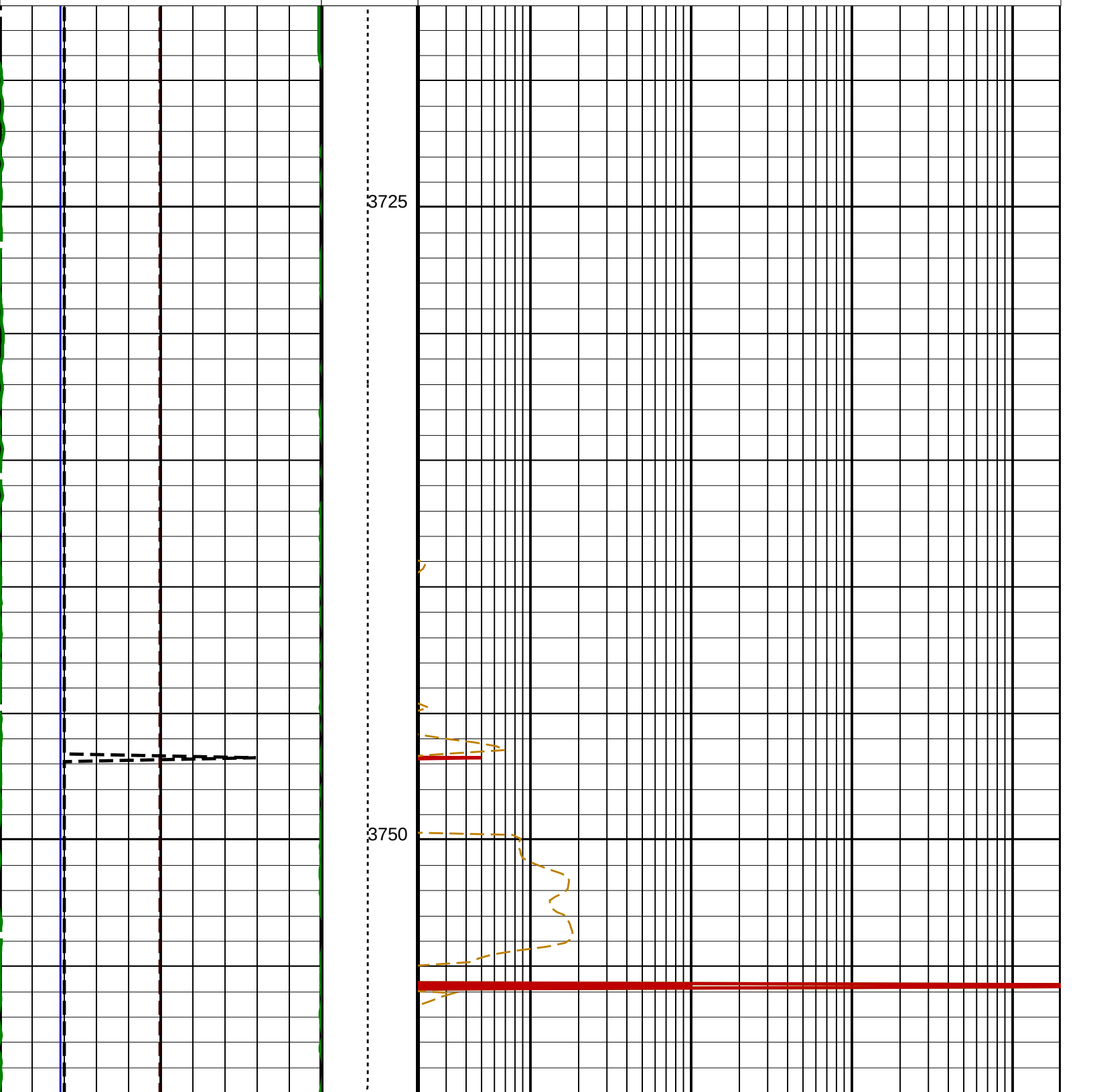
0.2 (OHMM) 2000

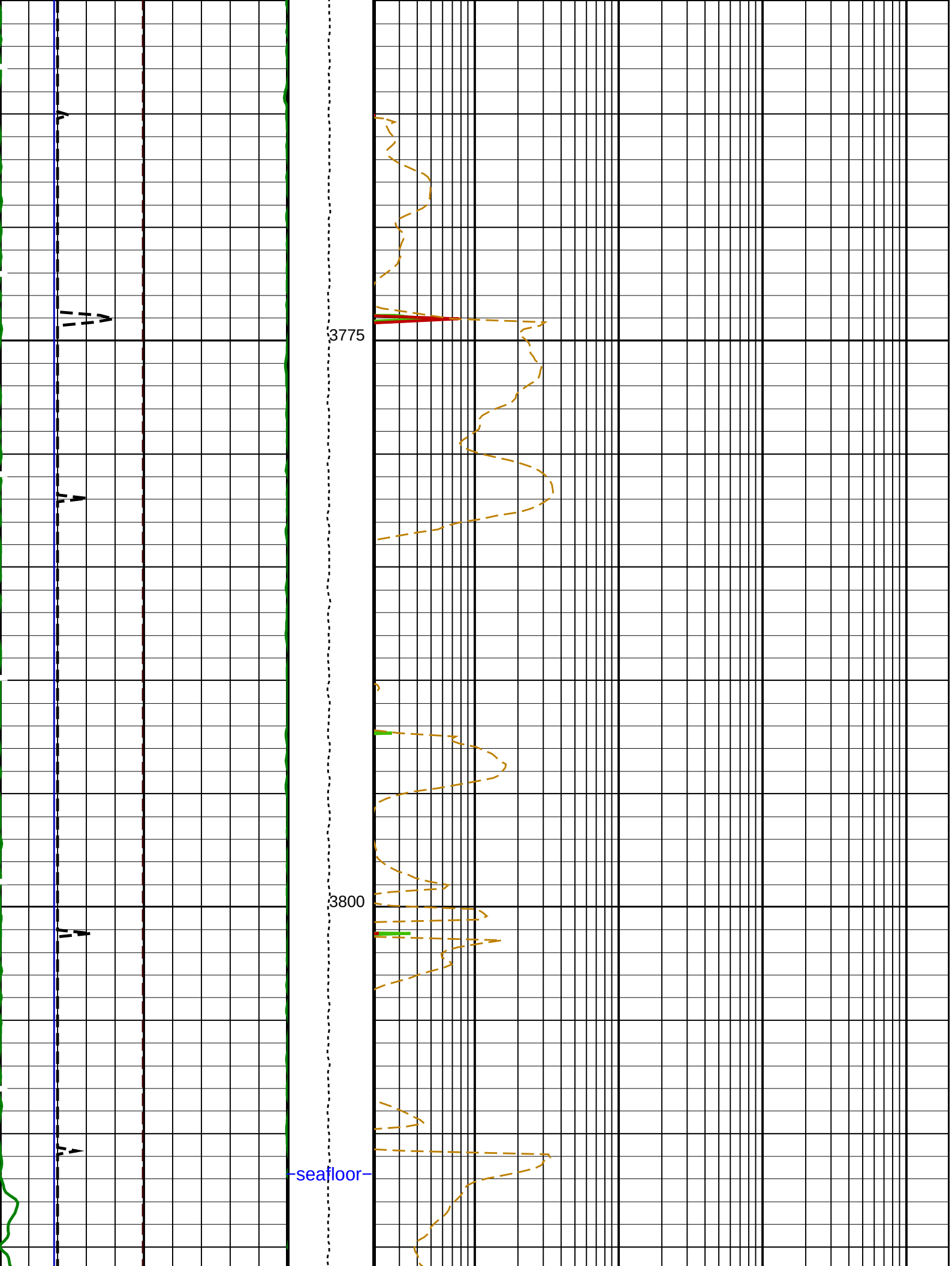
HRLT Resistivity 4 (RLA4)
0.2 (OHMM) 2000

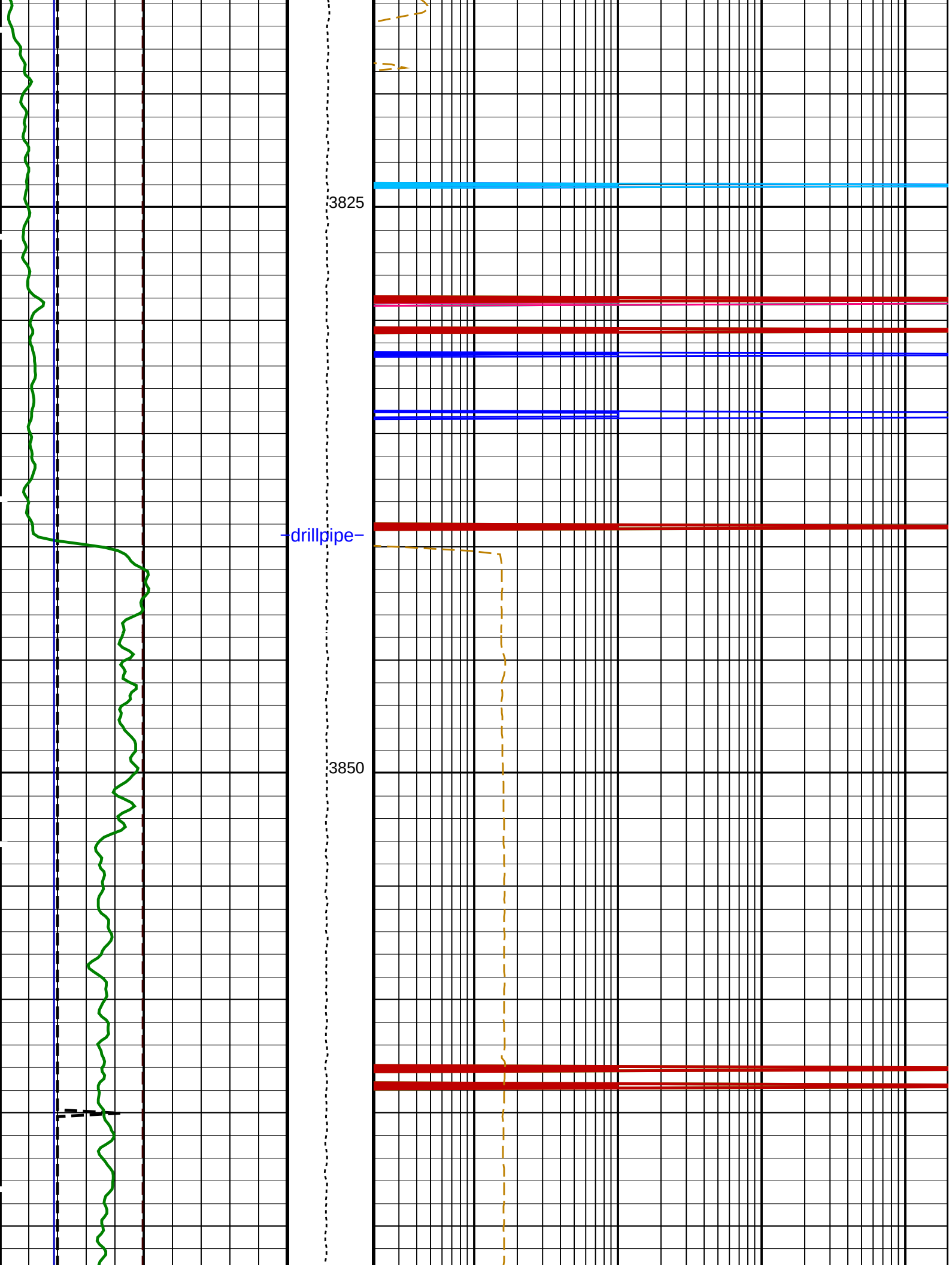
HRLT Resistivity 3 (RLA3)
0.2 (OHMM) 2000

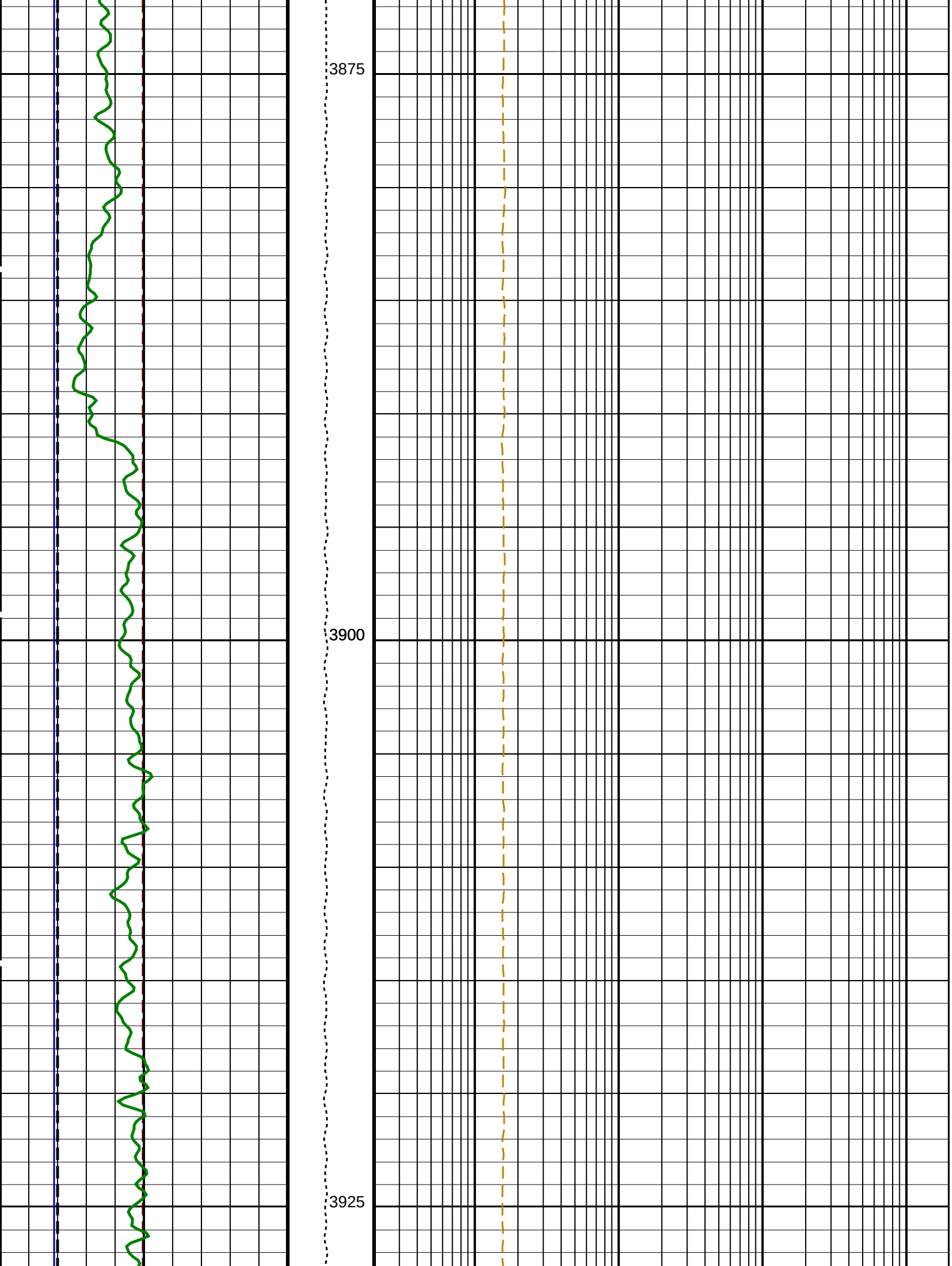
HRLT Resistivity 2 (RLA2)
0.2 (OHMM) 2000

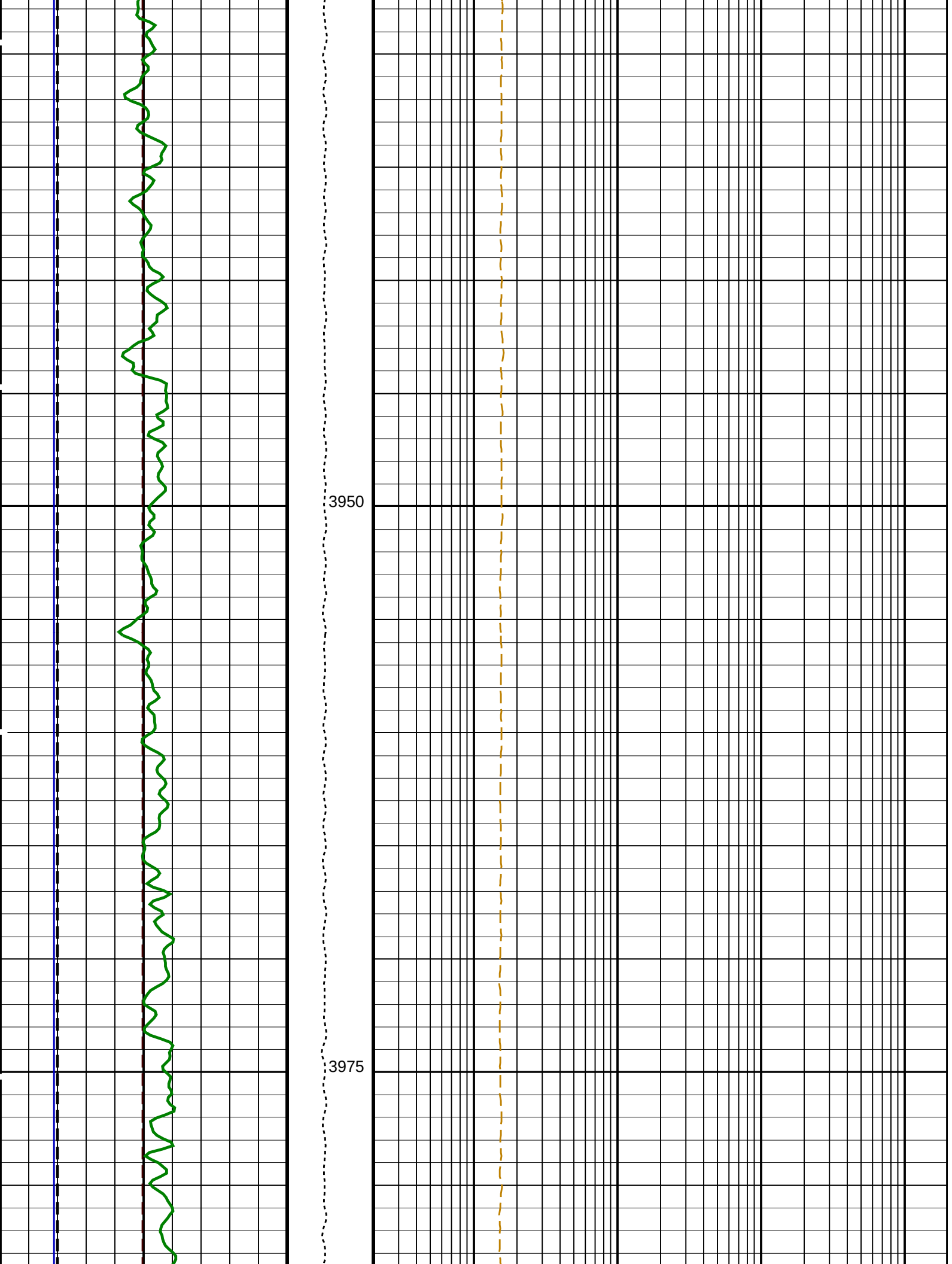
HRLT Resistivity 1 (RLA1)
0.2 (OHMM) 2000

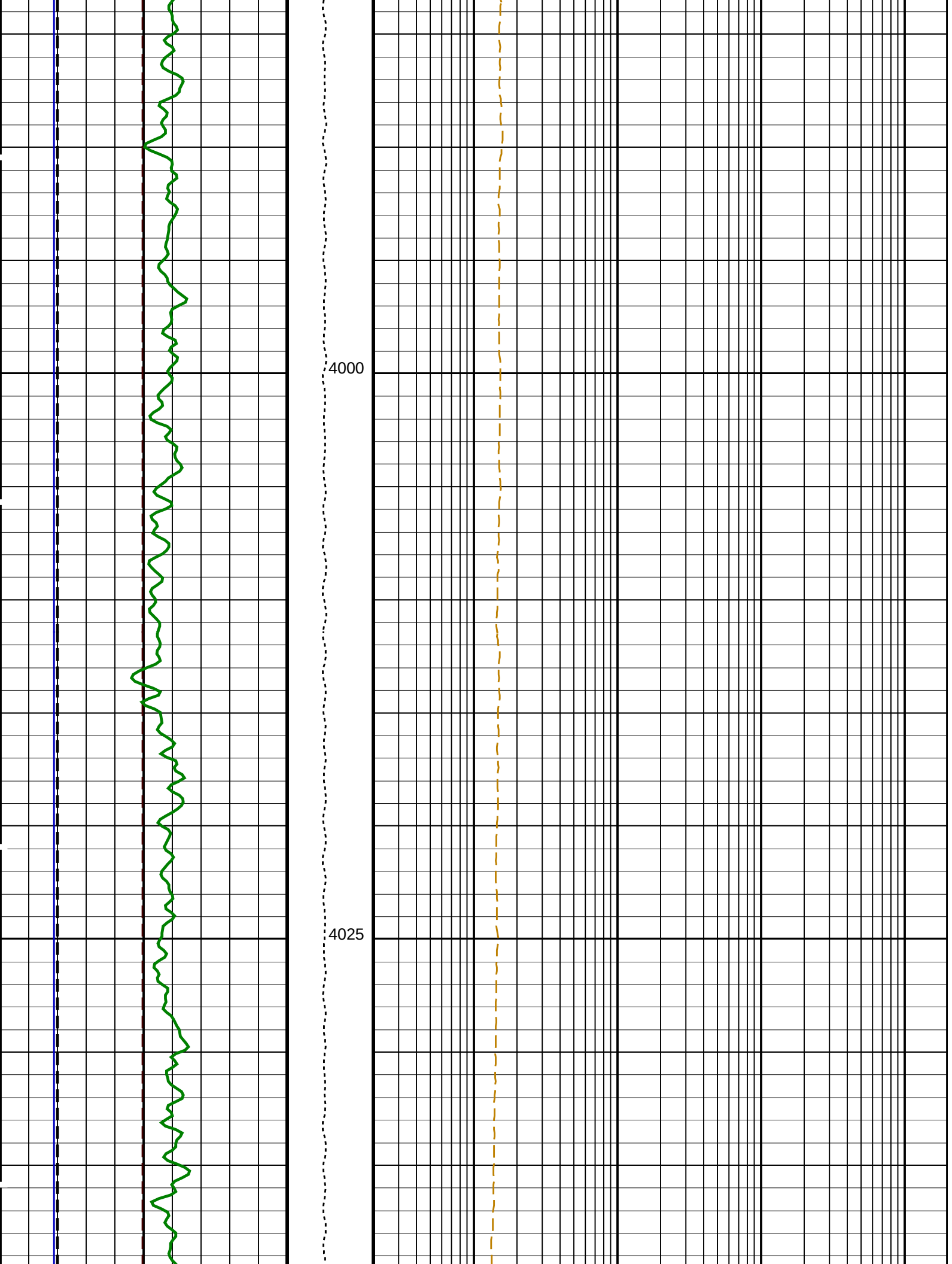


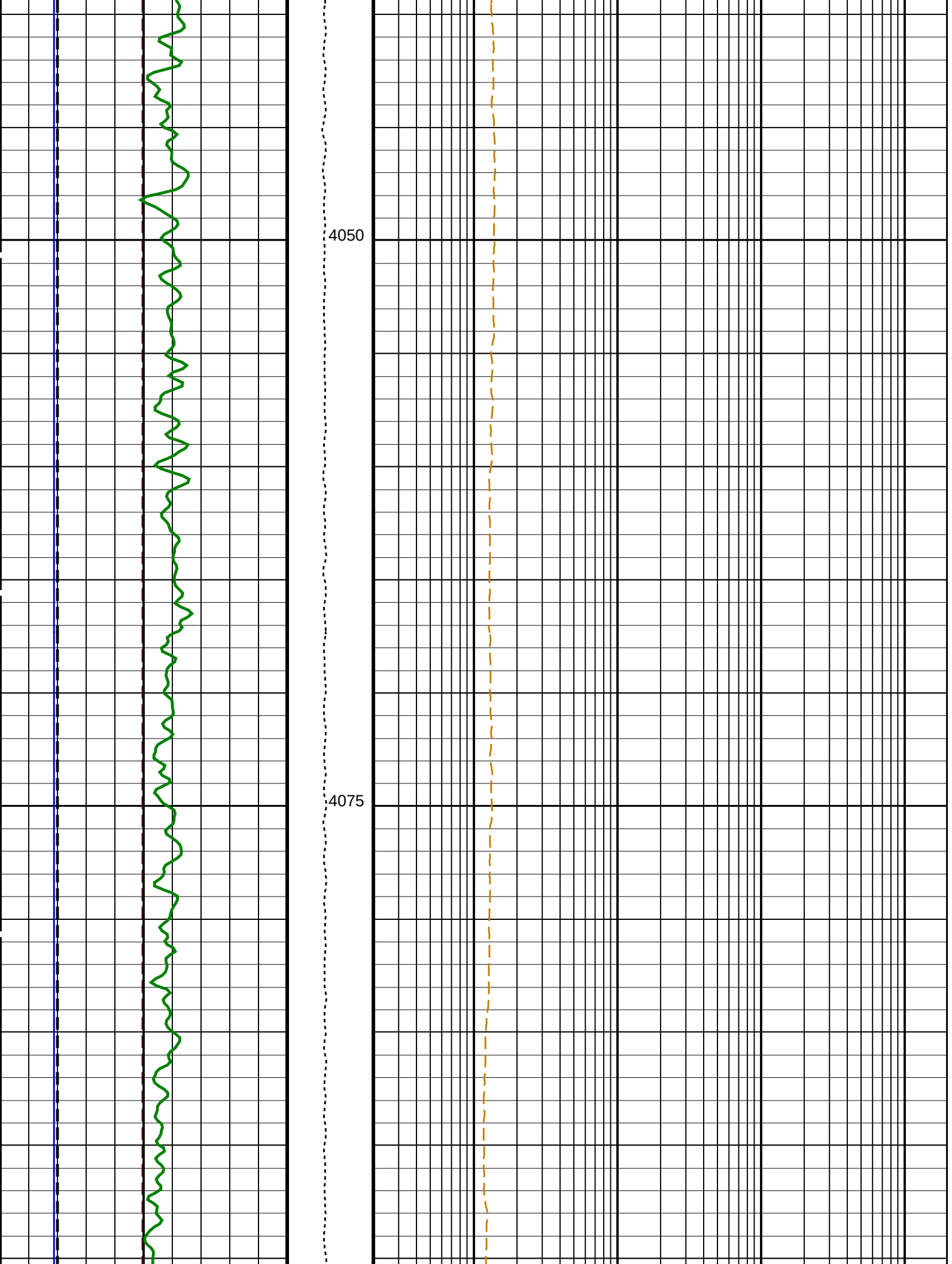

3775
3800
seafloor

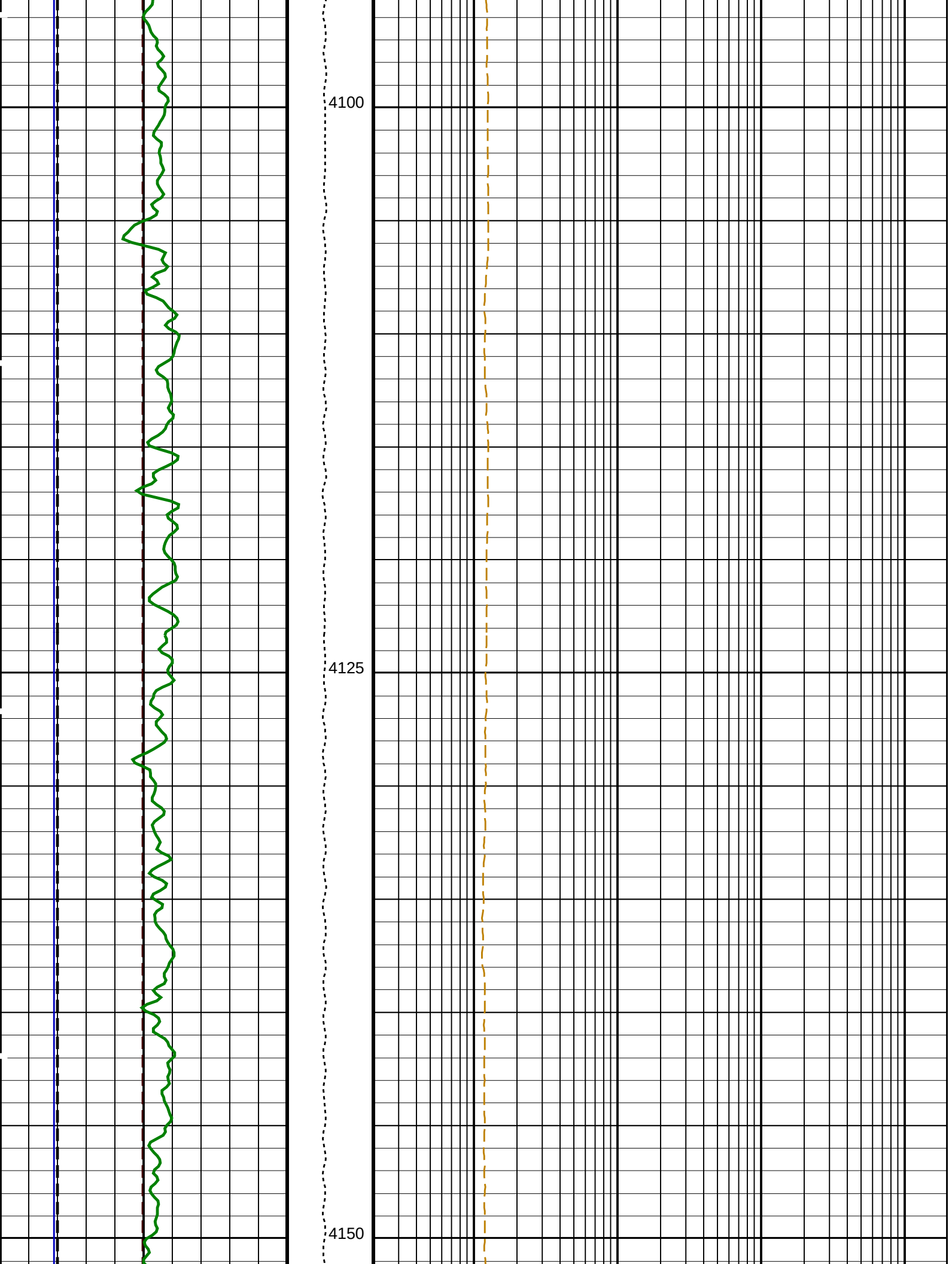

3825
-drillpipe-
3850

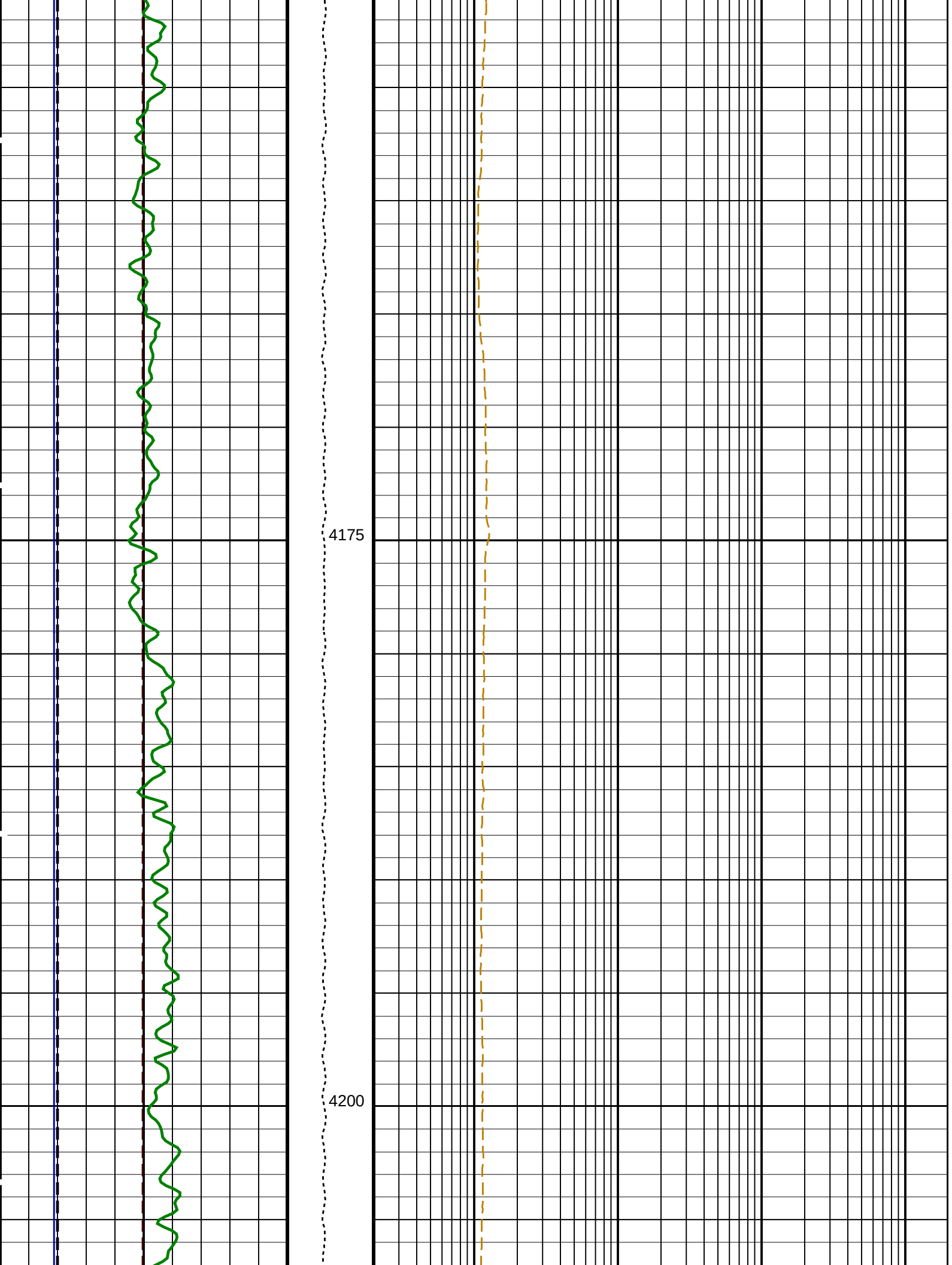

3875
3900
3925

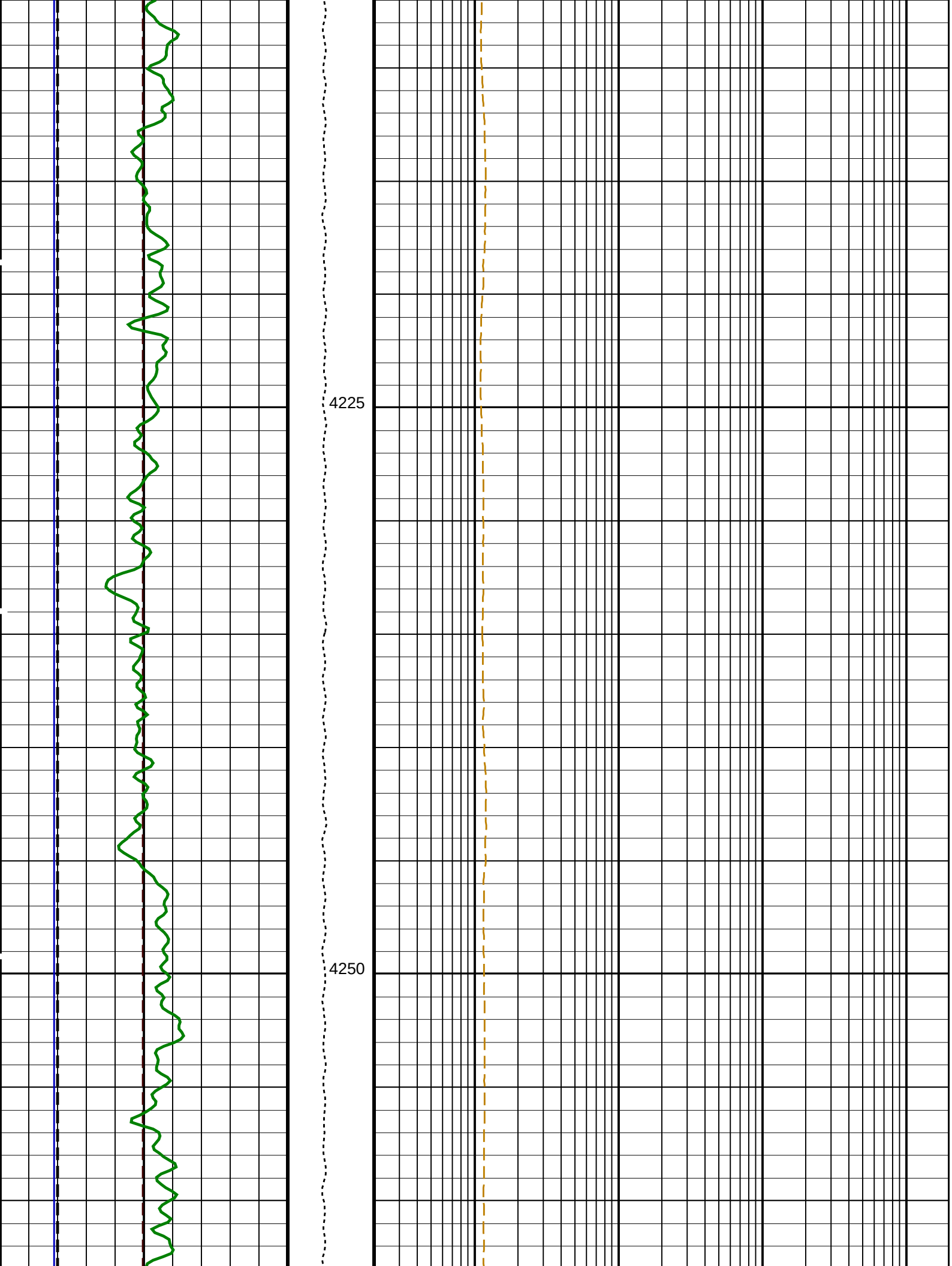

3950
3975

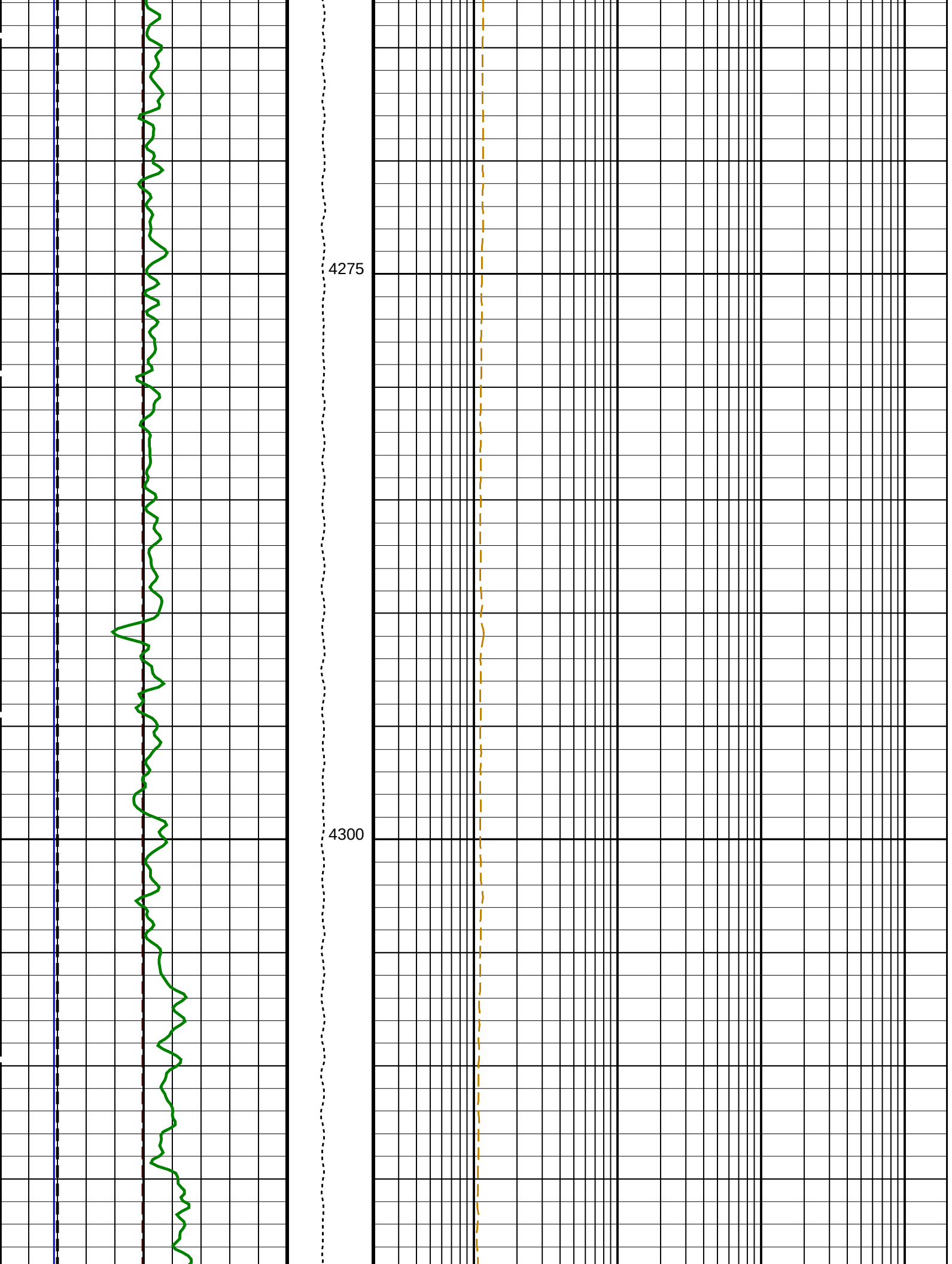

4000
4025

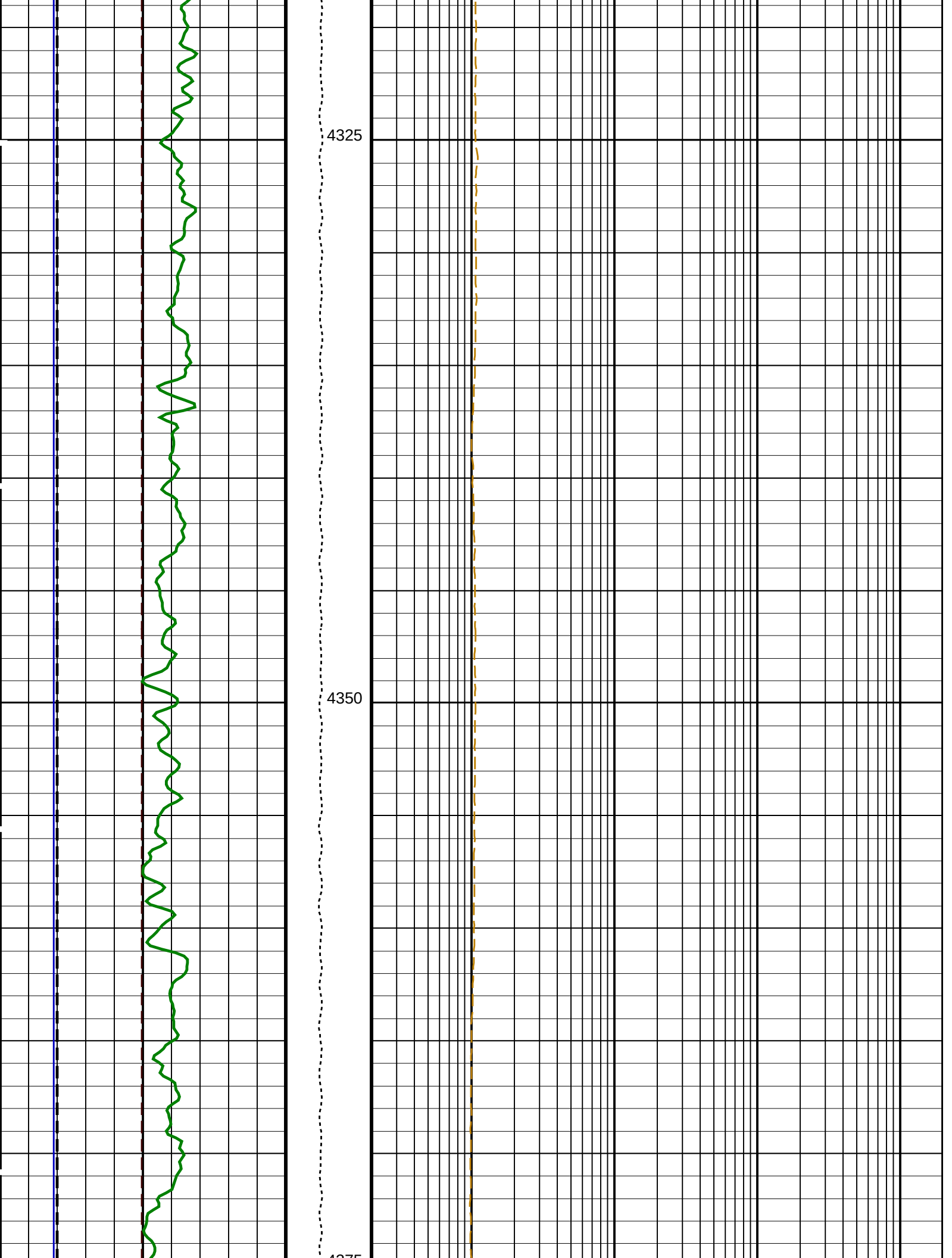

4050
4075

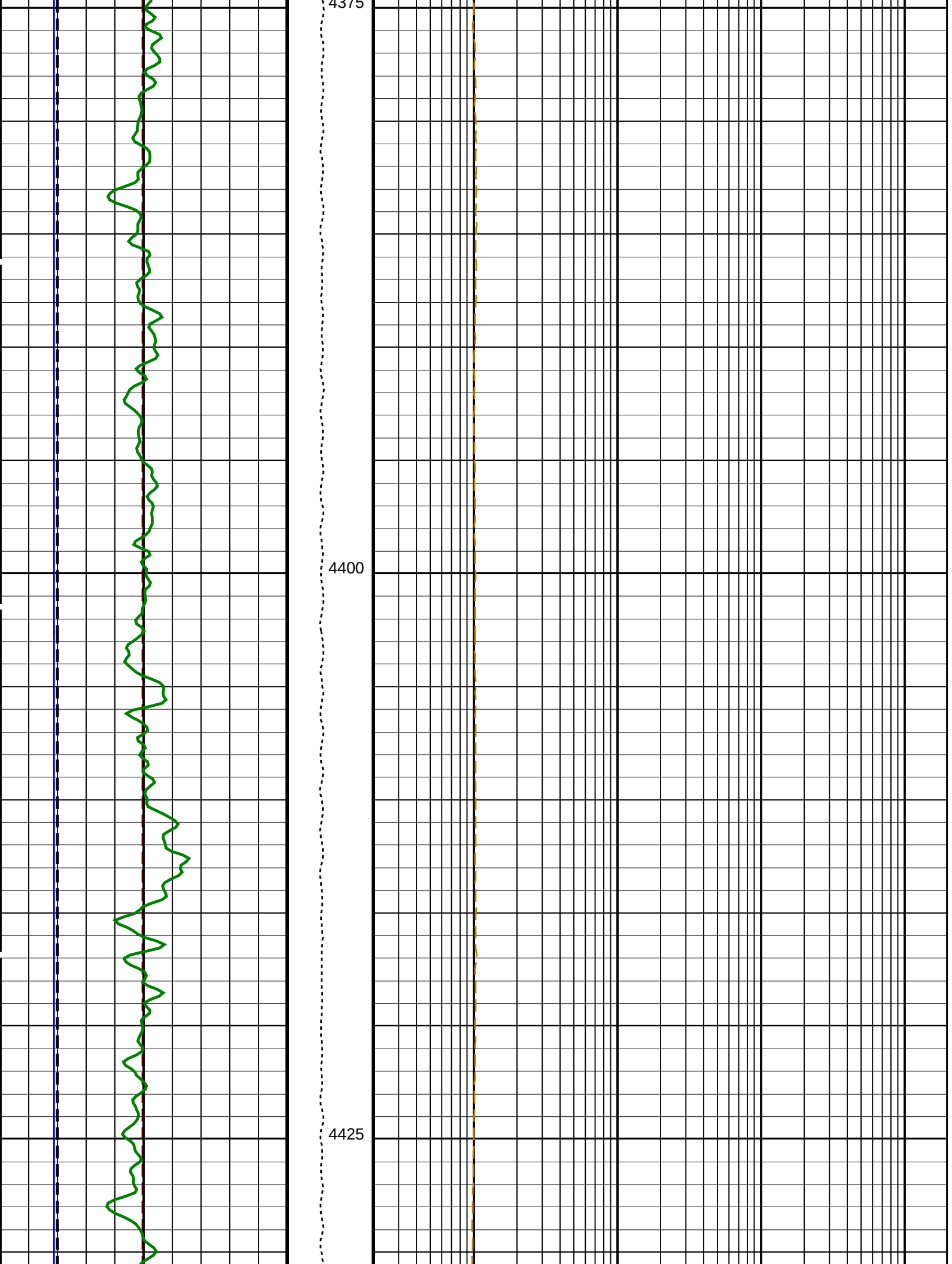

4100
4125
4150

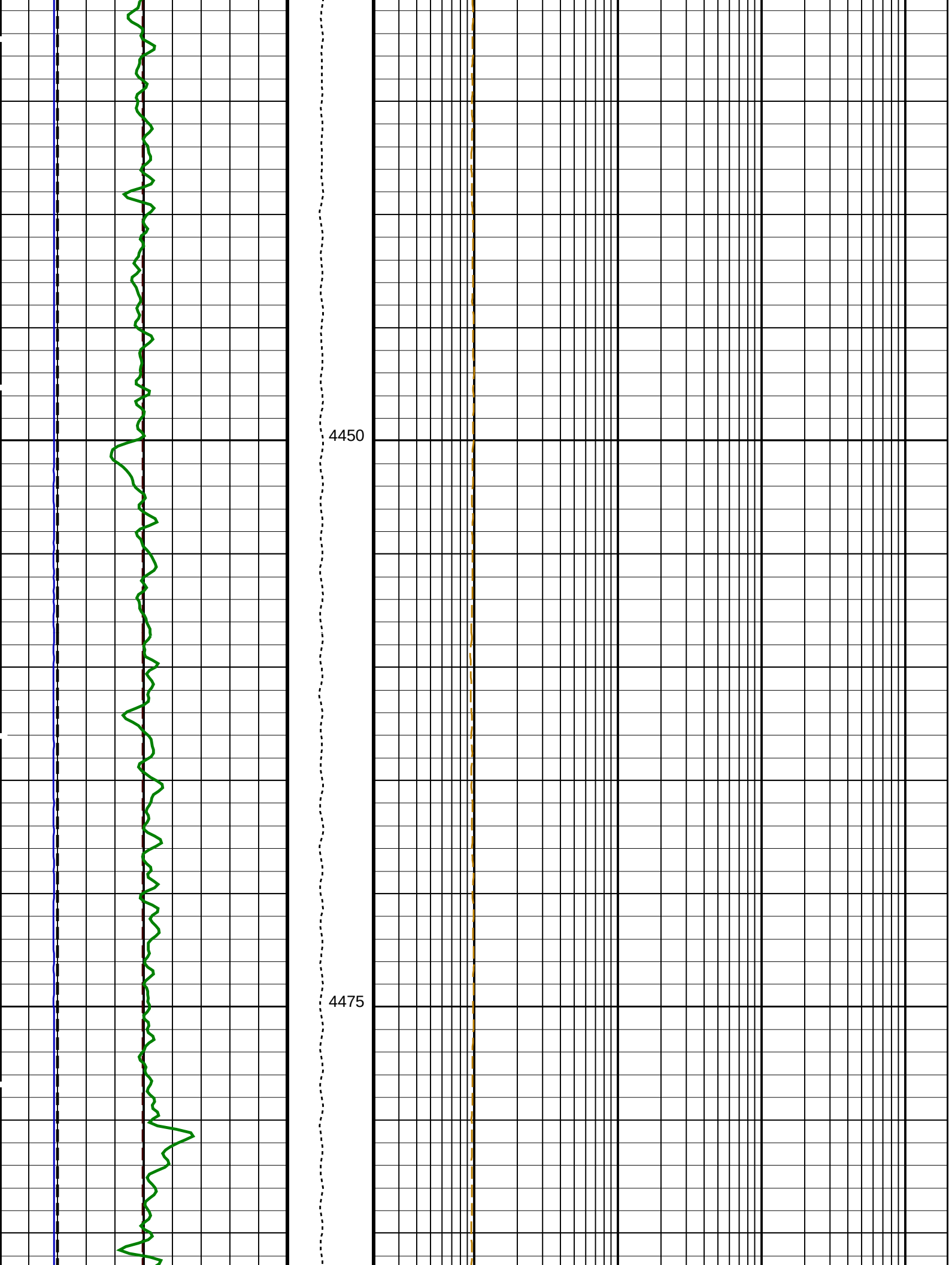

4175
4200

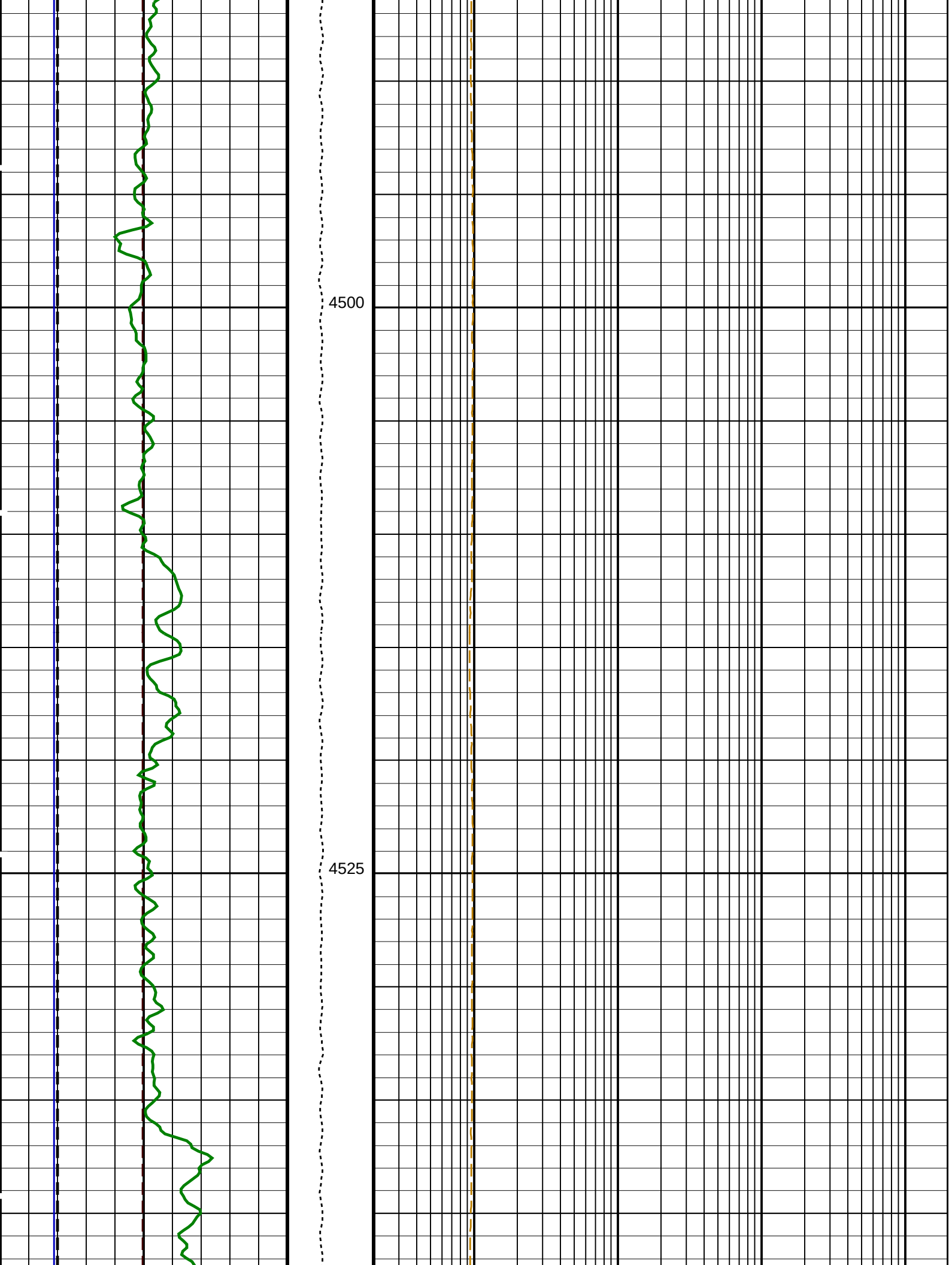

4225
4250

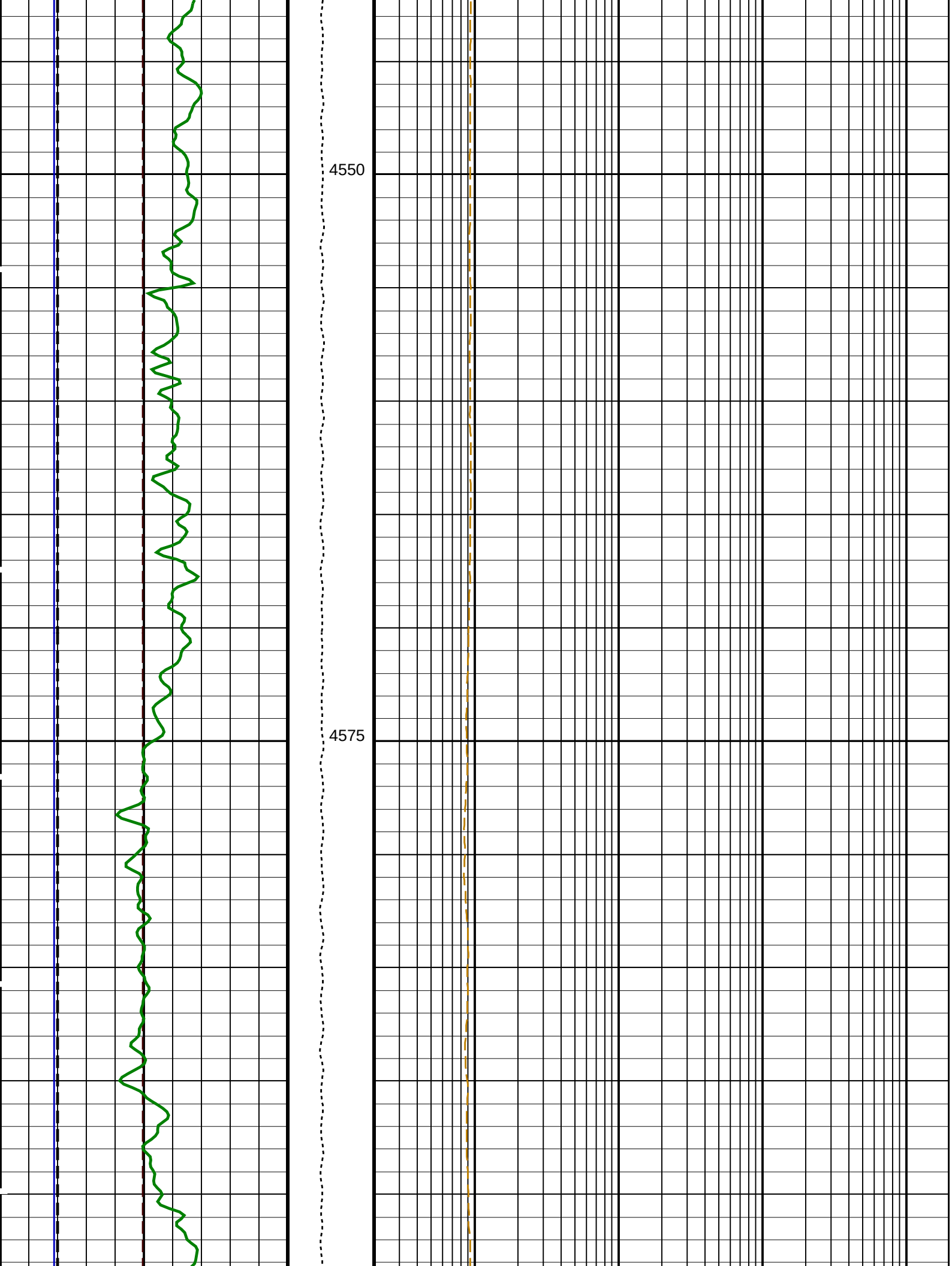

4275
4300

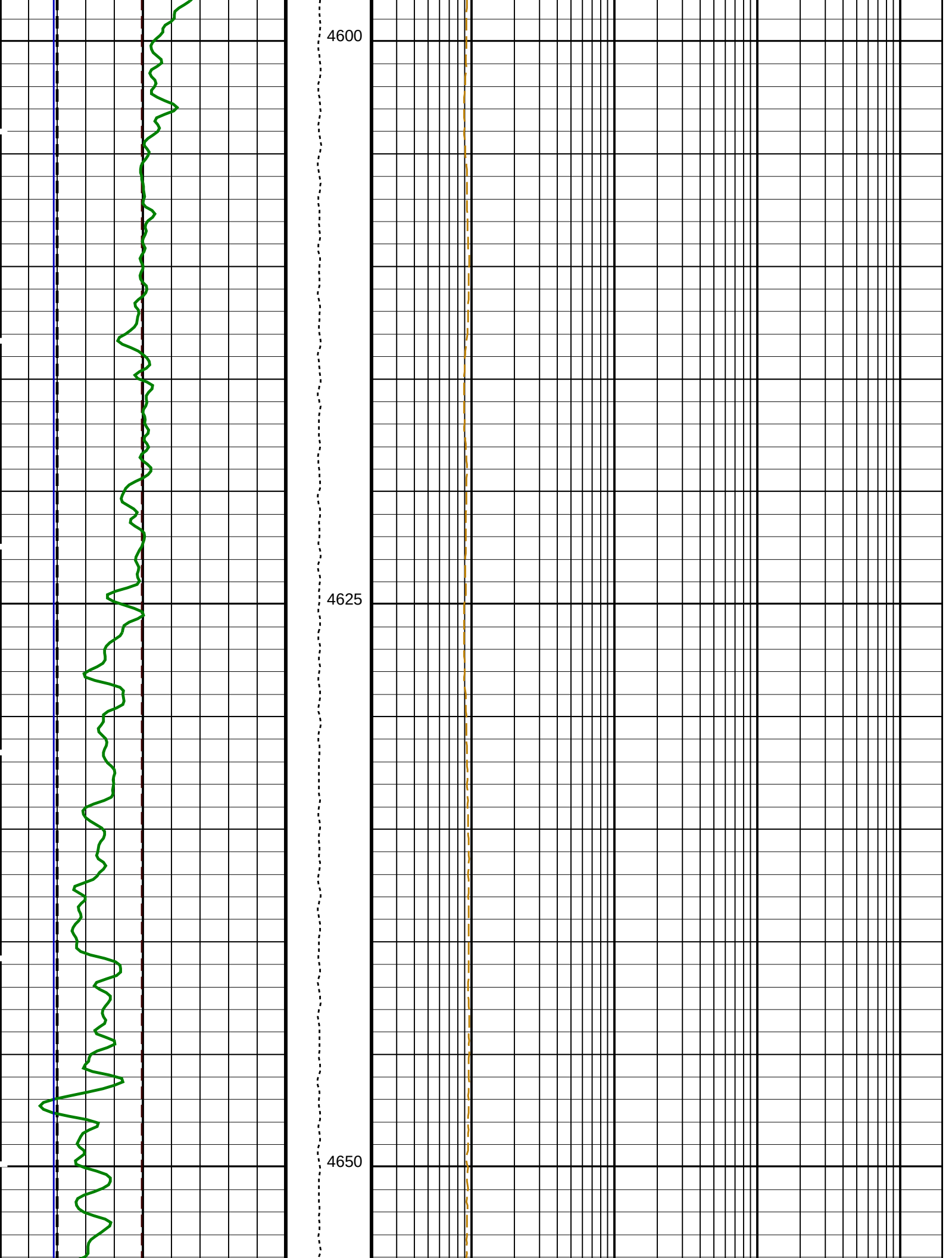

4325
4350

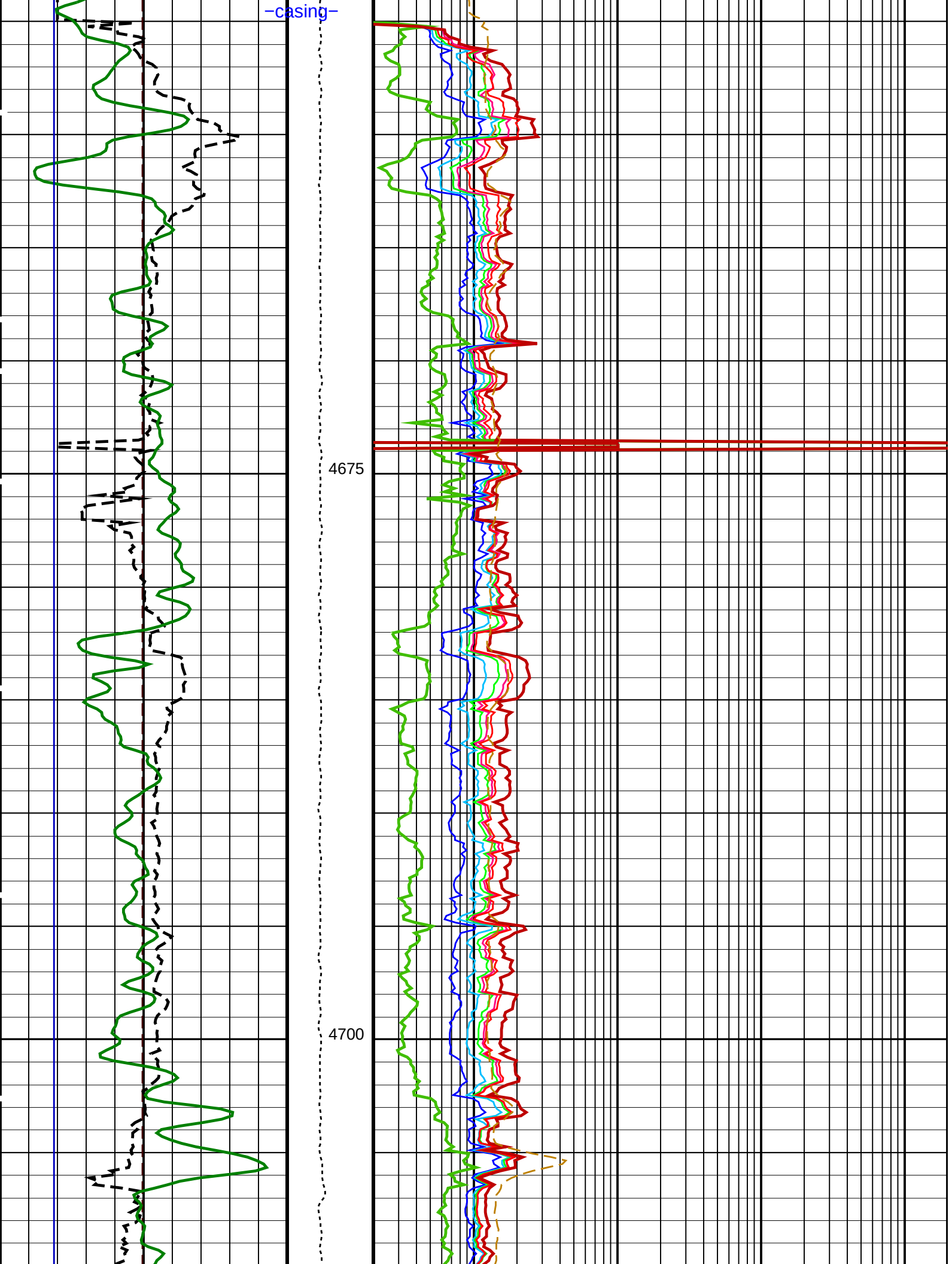

4375
4400
4425

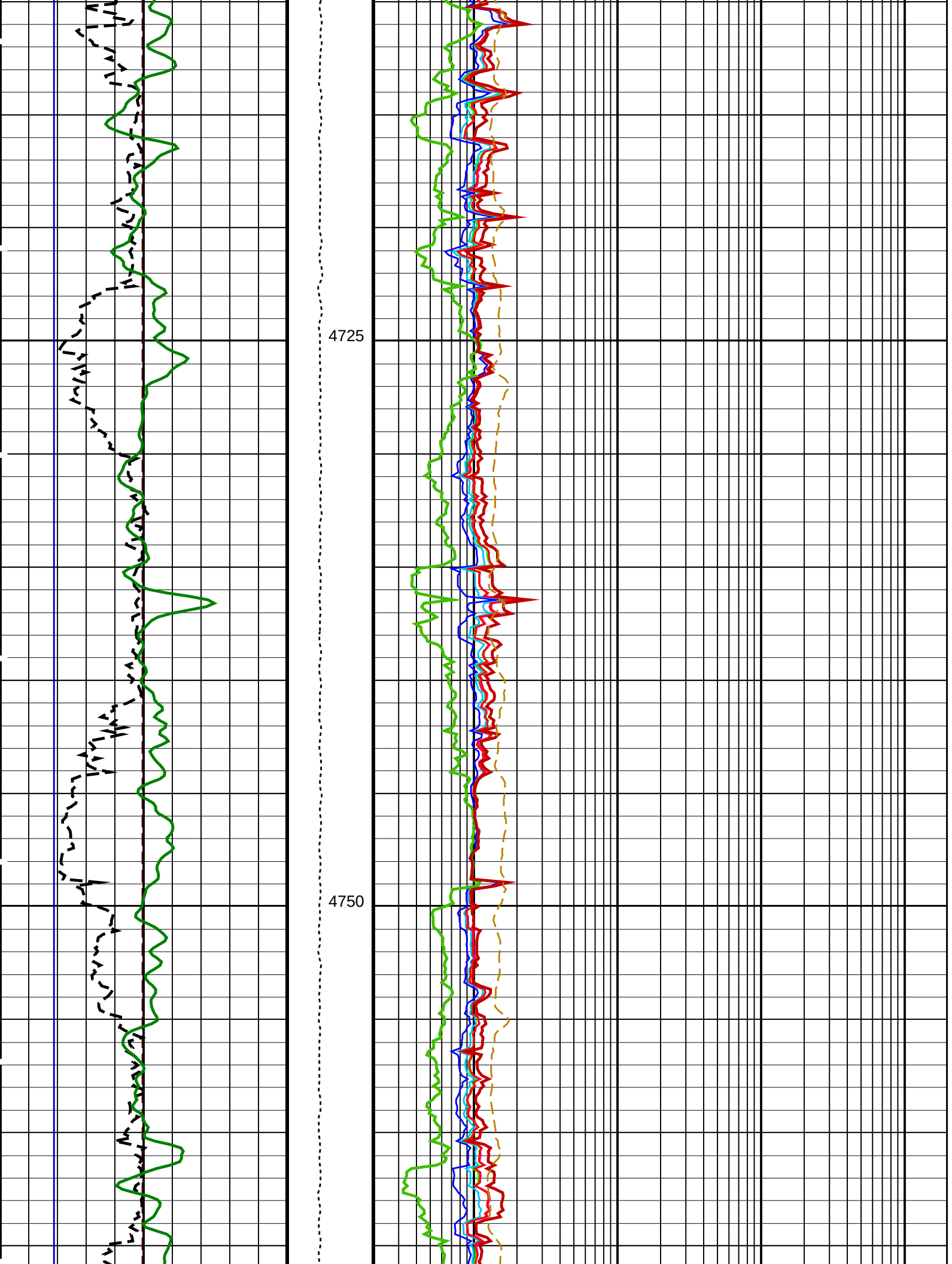

4450
4475

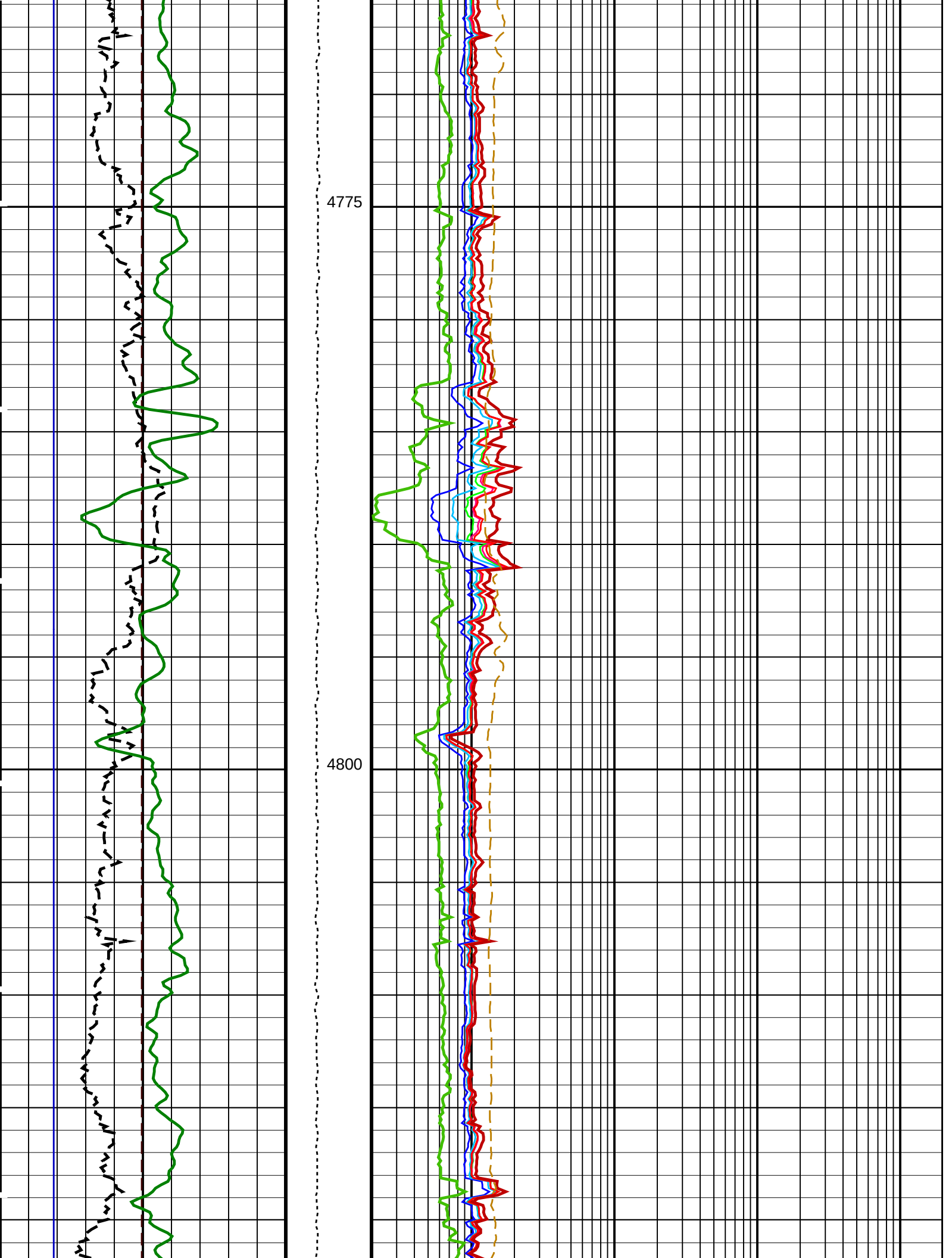

4500
4525

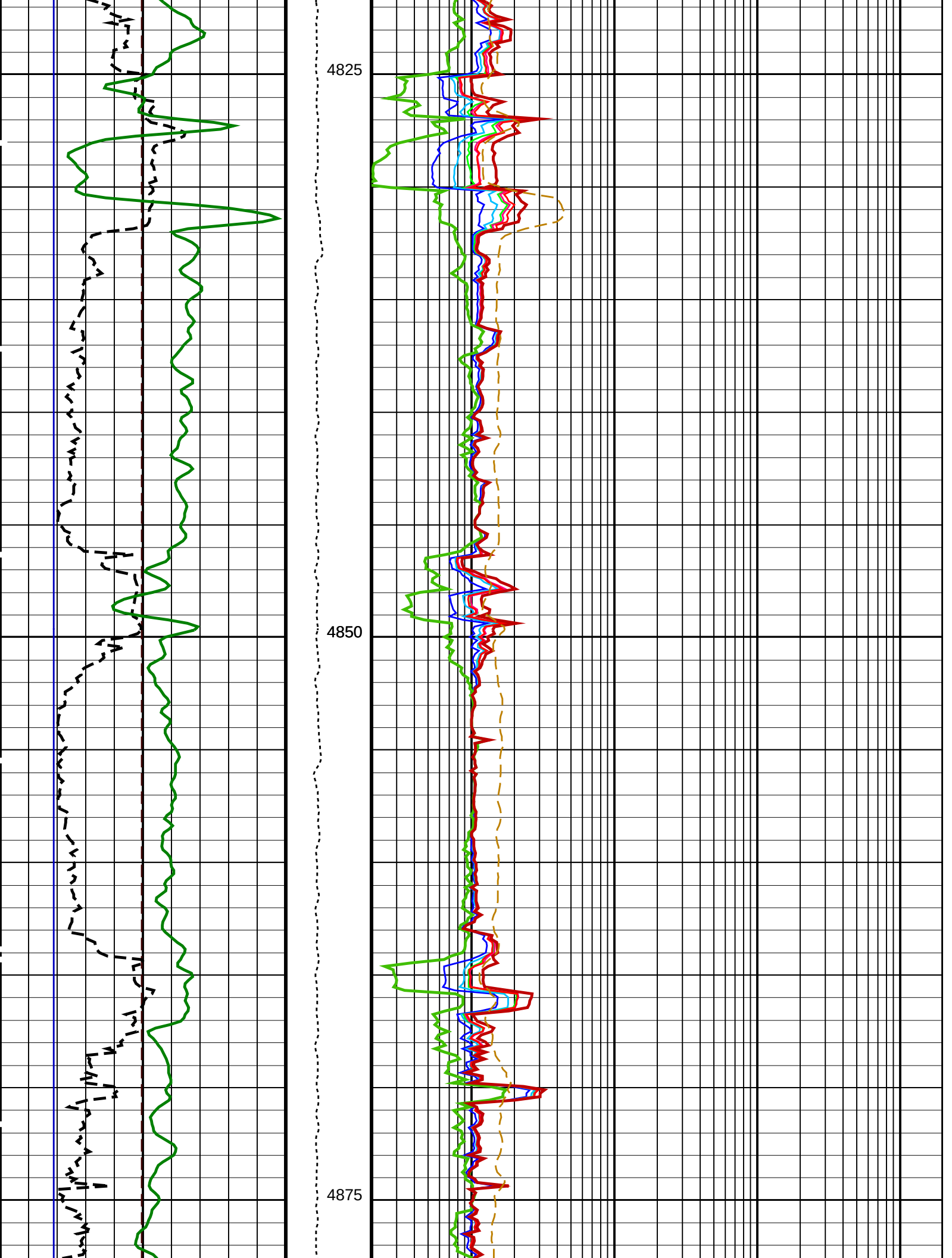

4550
4575

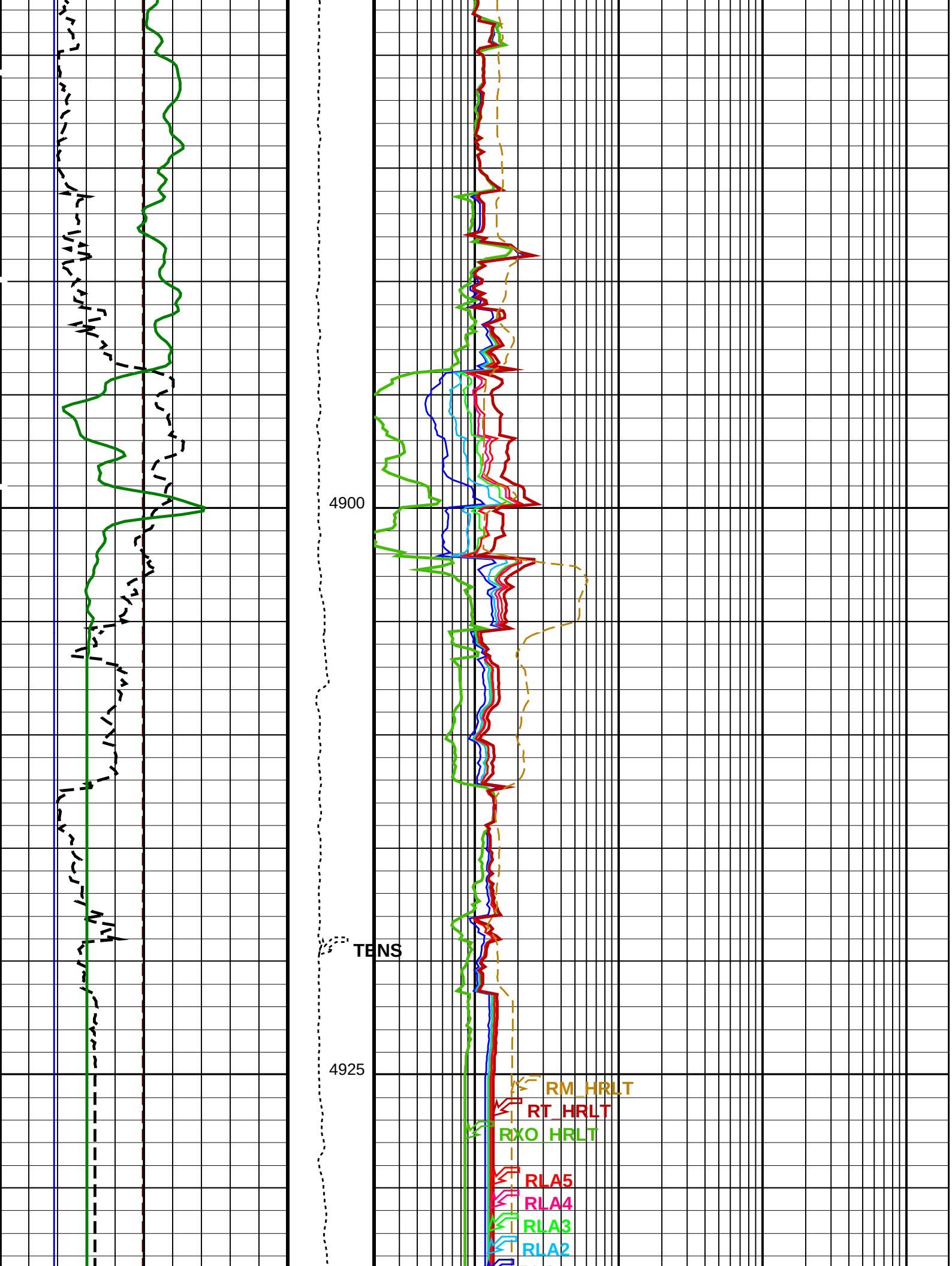

4600
4625
4650

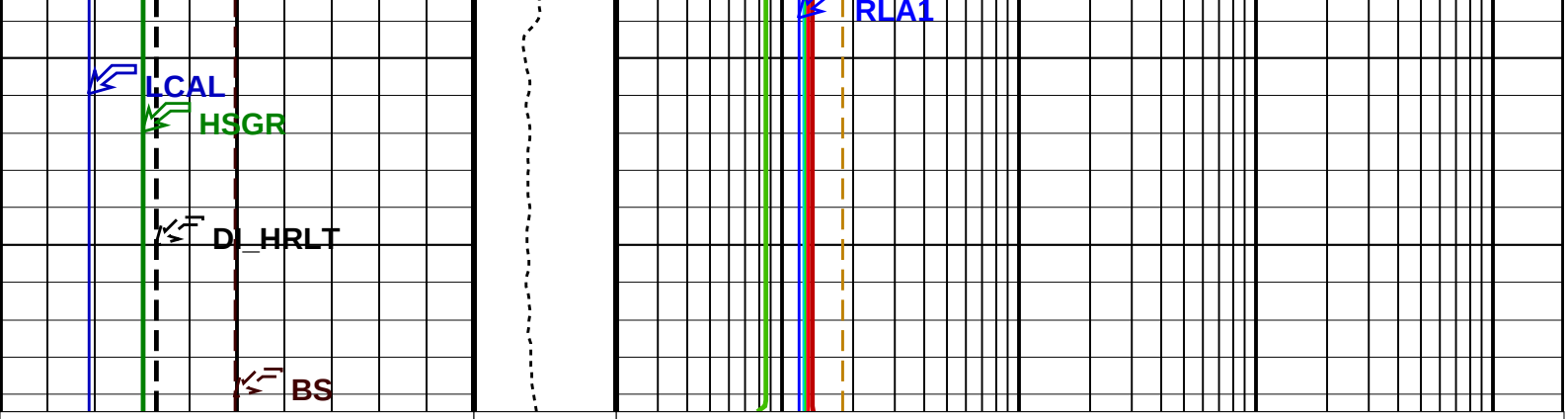

−casing−
4675
4700


4725
4750


4775
4800


4825
4850
4875


4900
TENS
4925
RM_HRLT
RT_HRLT
RXO_HRLT
RLA5
RLA4
RLA3
RLA2



Bit Size (BS)	Tension (TENS)	HRLT Resistivity 1 (RLA1)
0 (IN) 20	10000 (LBF) 0	0.2 (OHMM) 2000
Caliper (LCAL)		**HRLT Resistivity 2 (RLA2)**
0 (IN) 20		0.2 (OHMM) 2000
Invasion Diameter (DI_HRLT)		**HRLT Resistivity 3 (RLA3)**
0 (IN) 50		0.2 (OHMM) 2000
HNGS Spectroscopy Gamma Ray (HSGR)		**HRLT Resistivity 4 (RLA4)**
0 (GAPI) 100		0.2 (OHMM) 2000
		HRLT Resistivity 5 (RLA5)
		0.2 (OHMM) 2000
		HRLT Mud Resistivity (RM_HRLT)
		0.02 (OHMM) 200
		Invaded Zone Resistivity (RXO_HRLT)
		0.2 (OHMM) 2000
		HRLT True Resistivity (RT_HRLT)
		0.2 (OHMM) 2000

Downlog

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
GCSE	Generalized Caliper Selection	BS	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	20	DEGC
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
GCSE	Generalized Caliper Selection	BS	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
PROCINV	Inversion Selection	ON	
PROCMFL	Inversion Micro−Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	0	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSPO	Sonde Position	Centered	
SHT	Surface Hole Temperature	20	DEGC
	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	

BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
CSD1	Inner Casing Outer Diameter	10.75	IN
CSD2	Outer Casing Outer Diameter	10.75	IN
CSW1	Inner Casing Weight	45	LB/F
CSW2	Outer Casing Weight	45	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	BS	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00184813	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
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	
SHT	Surface Hole Temperature	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.990521	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.00375	
EDTC−B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
GCSE	Generalized Caliper Selection	BS	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	20	DEGC
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.32	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	5345	M

Format: HRLT Vertical Scale: 1:200 Graphics File Created: 06−Apr−2017 20:17

OP System Version: 19C0−187

DSST−B	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
EDTC−B	SKK−5169−EDTCB		

Input DLIS Files

DEFAULT	Flip_DSI_HRLA_LDL_029LUP	PRODUCER	06−Apr−2017 18:02	4944.5 M	3717.0 M

Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_036PUP	FN:47	PRODUCER	06−Apr−2017 20:17		
BACKUP	DSI_HRLA_LDL_NGS_036PUP	FN:48	PRODUCER	06−Apr−2017 20:17		

Company: International Ocean Discovery Program Well: Expedition 367, Site U1500B

Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_030LUP	FN:35	PRODUCER	06−Apr−2017 18:03	4930.9 M	3798.9 M

Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_038PUP	FN:51	PRODUCER	06−Apr−2017 20:24	4930.9 M	3798.9 M
BACKUP	DSI_HRLA_LDL_NGS_038PUP	FN:52	PRODUCER	06−Apr−2017 20:24	4930.9 M	3798.9 M

OP System Version: 19C0−187

DSST−B	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−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)
0 (GAPI) 100

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

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

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

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

Waveform Data Copy Indicator 4 − Monopole P&S (WCI4)
0 (−−−−) 10

SAM4 Waveform Gain (WFG4)
0 (−−−−) 1000

Bit Size (BS)
0 (IN) 20

Tension (TENS) (LBF)
10000 0

Tr.Array P&S Slow Proj. CVDL (SPT4)
Min Amplitude Max
40 (US/F) 240

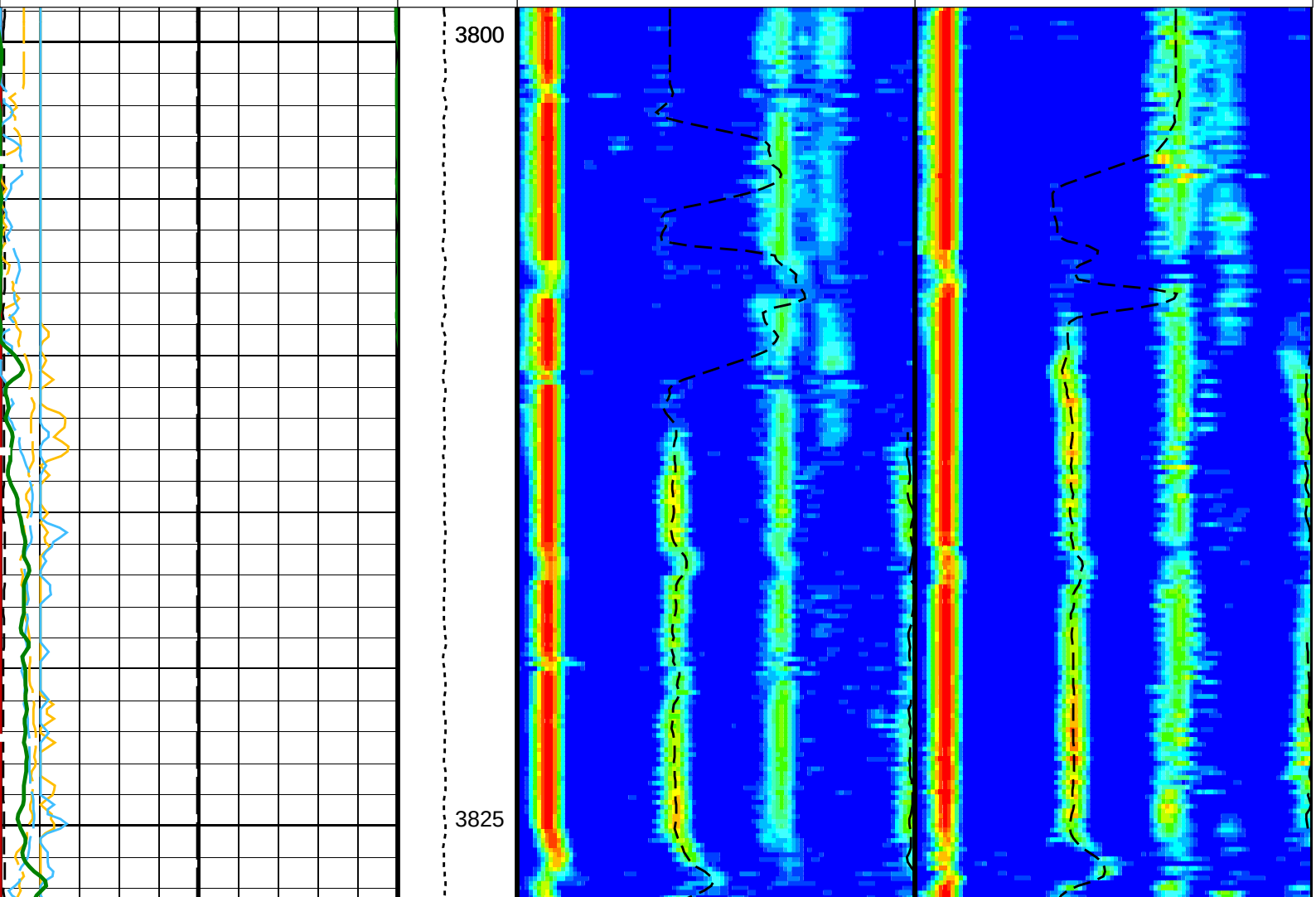
Delta−T Shear / TA − P & S (DTTS)
40 (US/F) 240

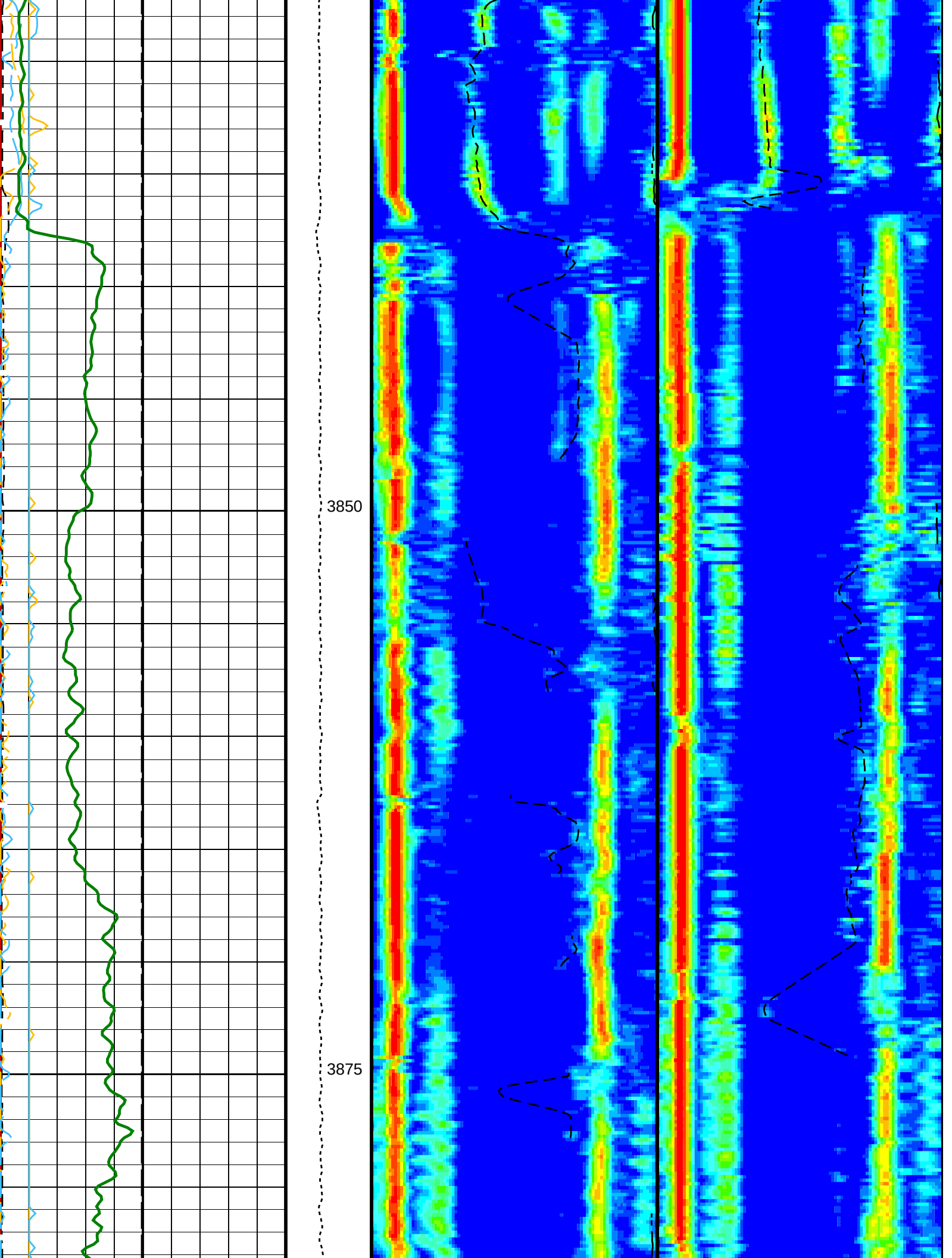
Delta−T Comp / TA − P & S (DTTP)
40 (US/F) 240

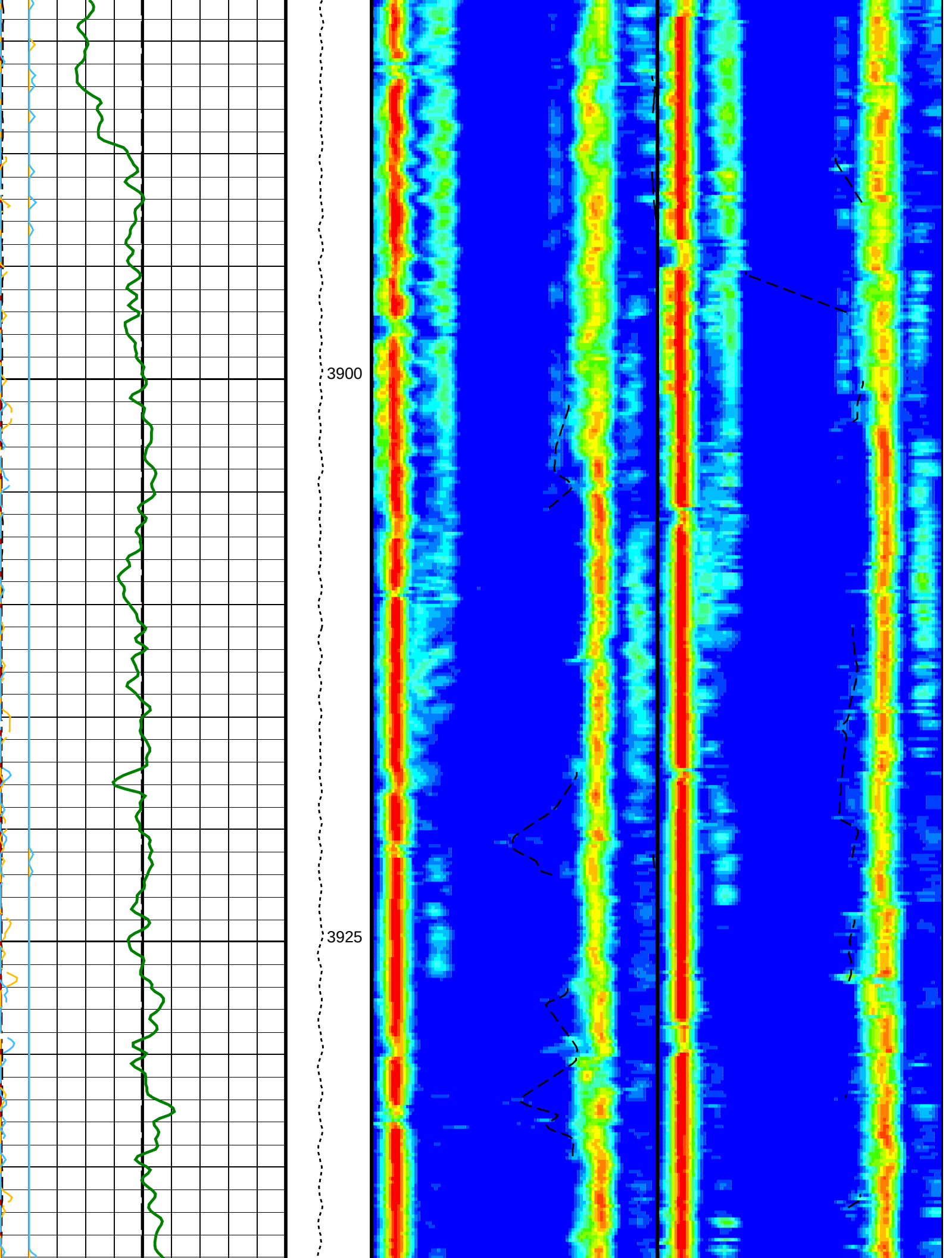
Rec.Array P&S Slow Proj. CVDL (SPR4)
Min Amplitude Max
40 (US/F) 240

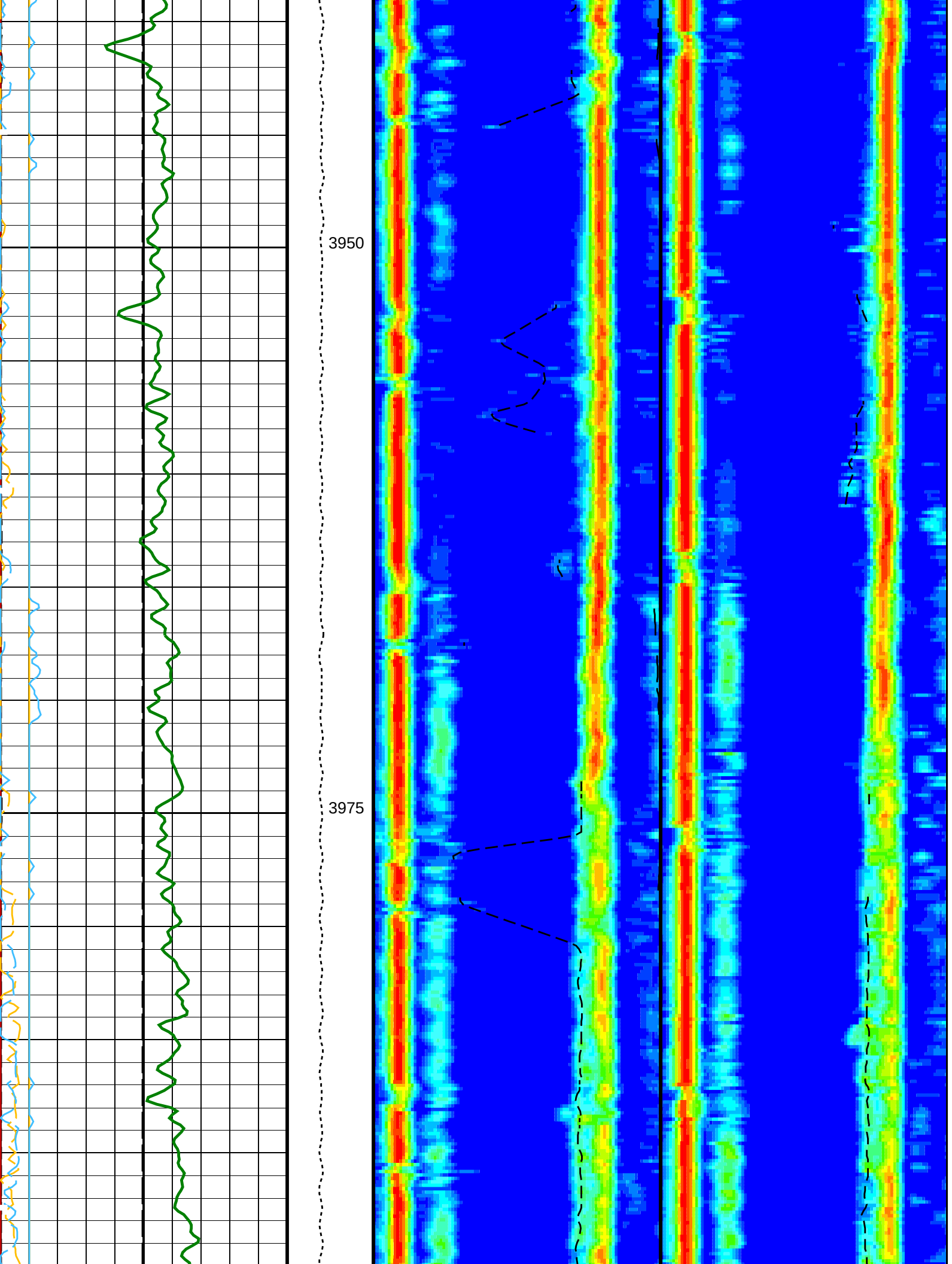
Delta−T Shear / RA − P & S (DTRS)
40 (US/F) 240

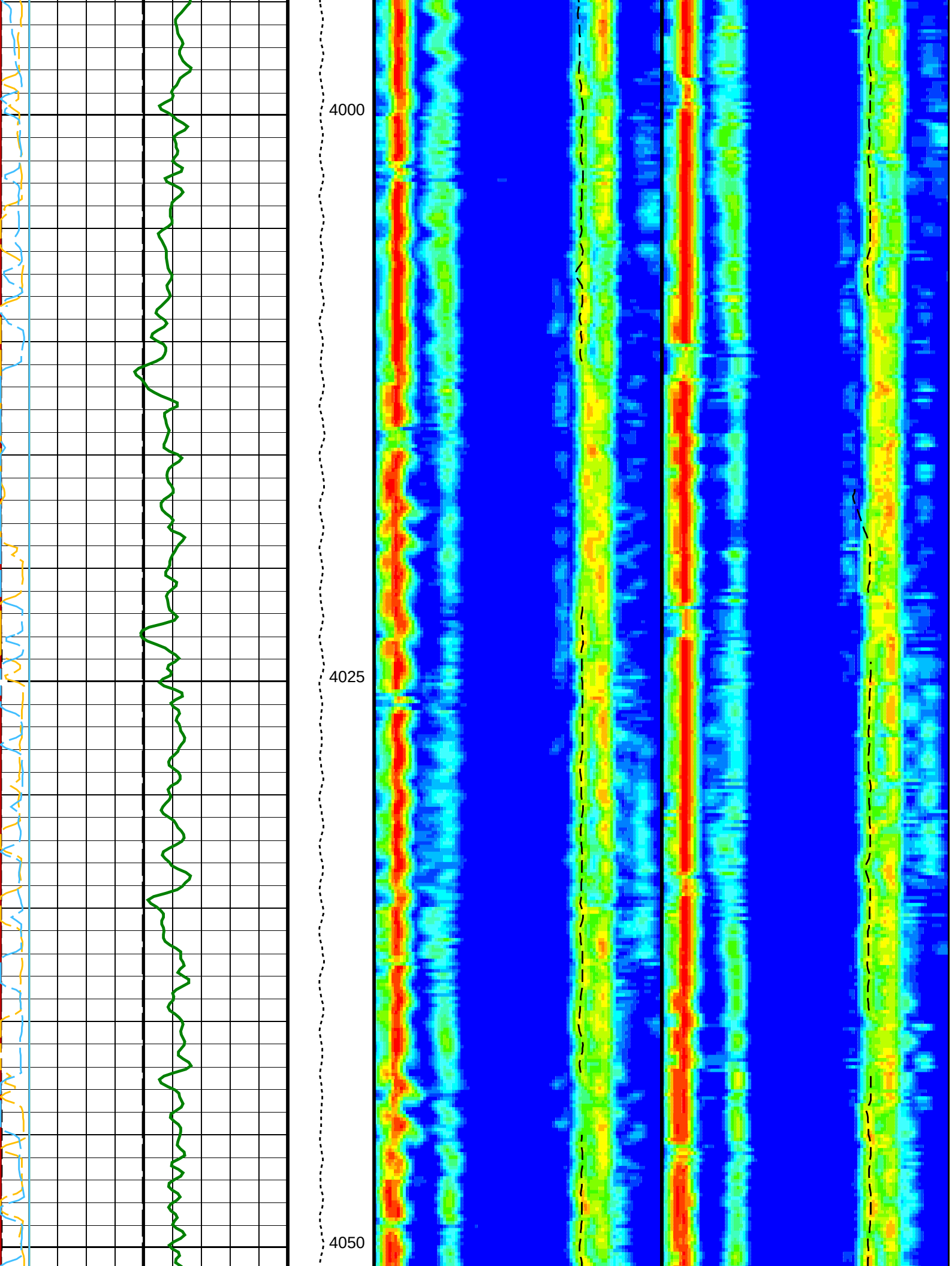
Delta−T Comp / RA − P & S (DTRP)
40 (US/F) 240

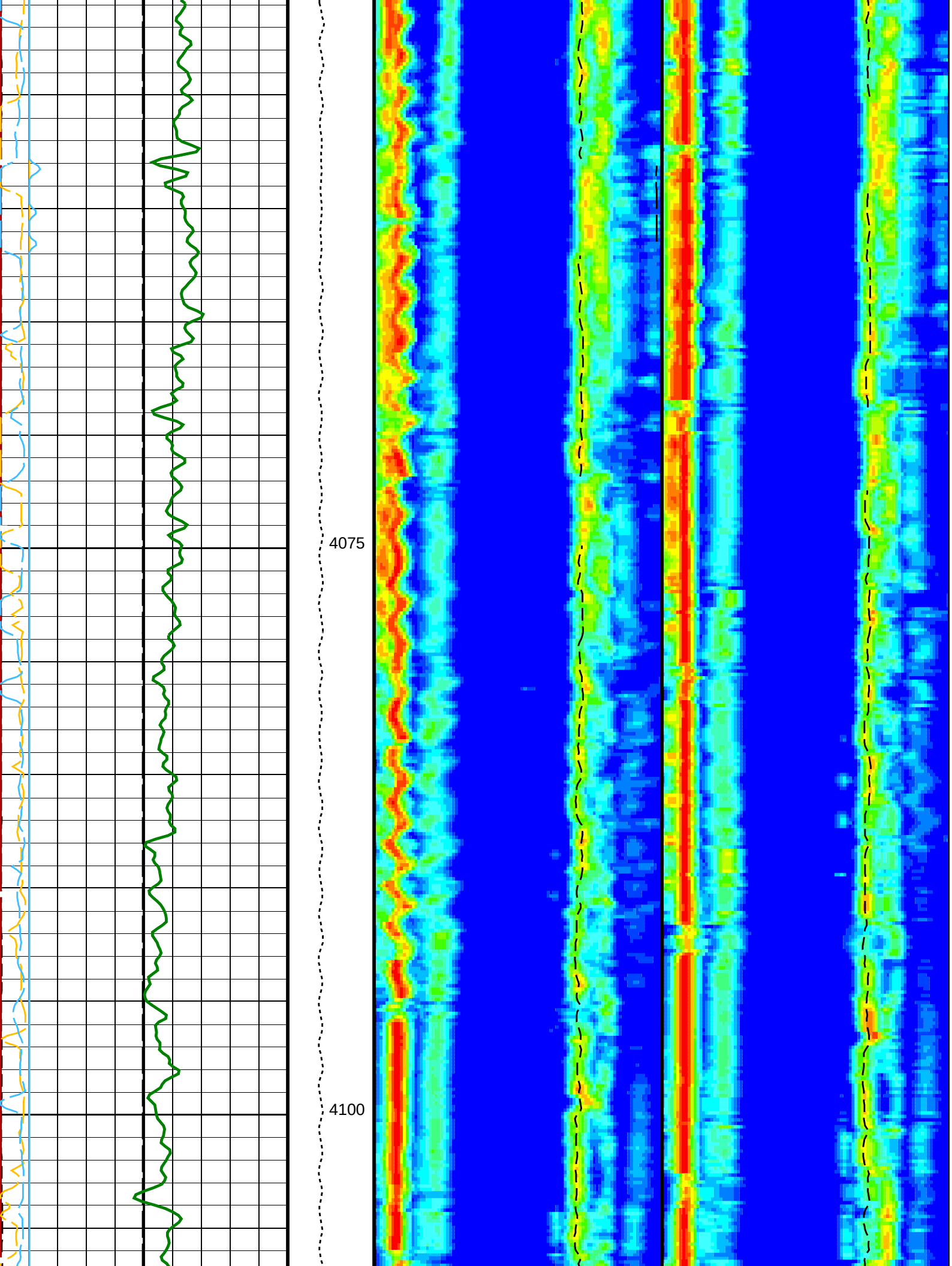


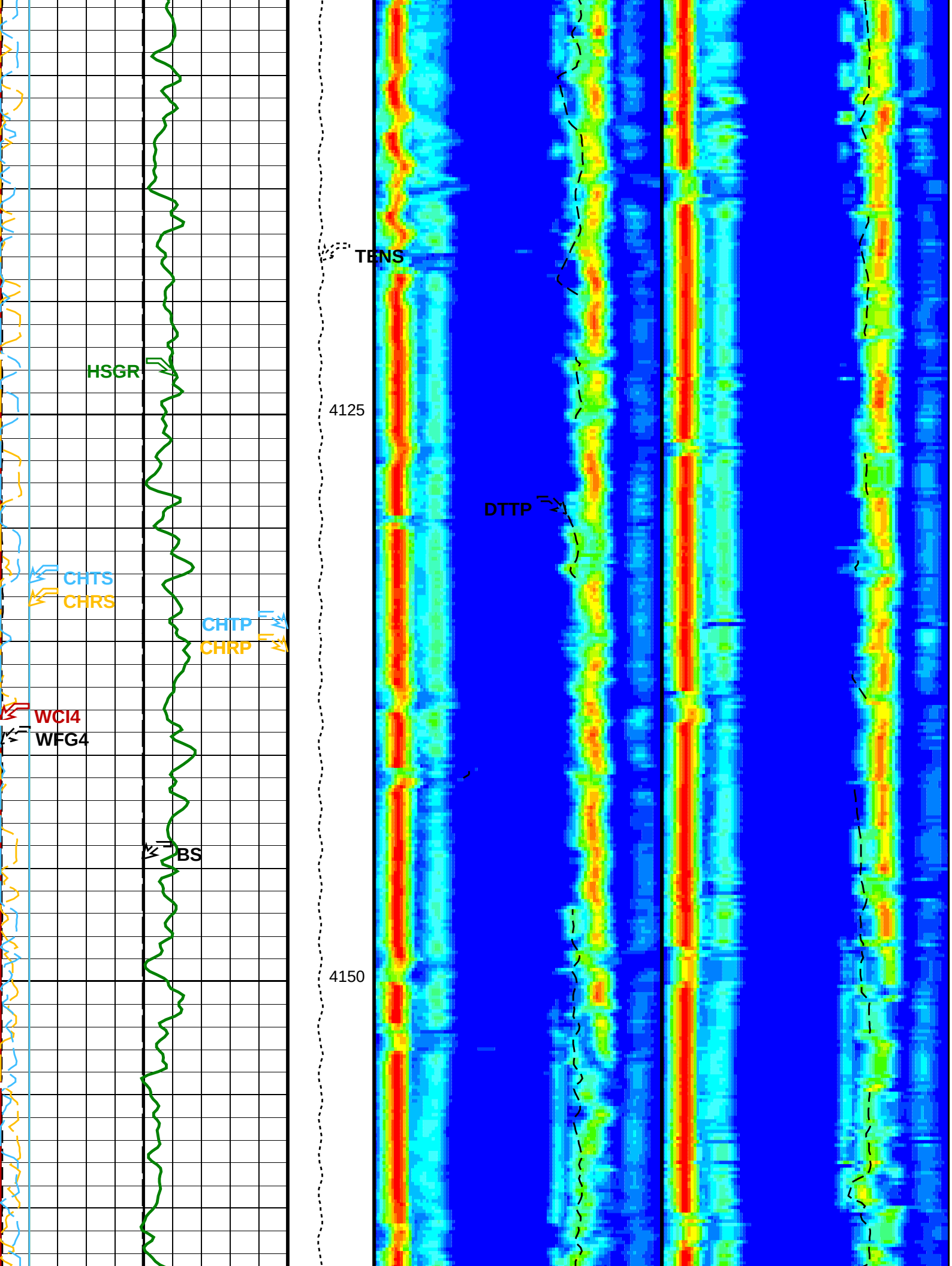

3850
3875

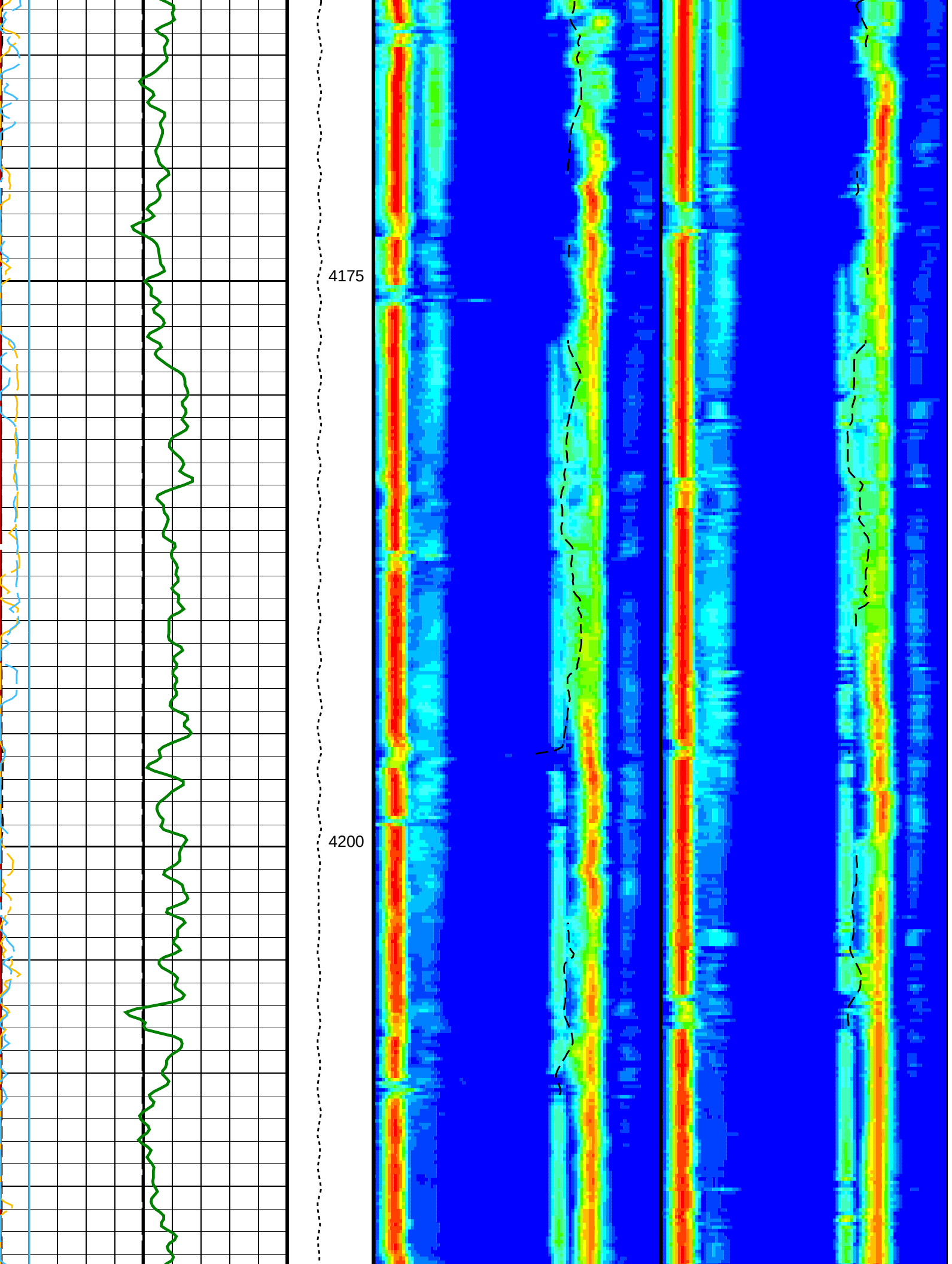

3900
3925

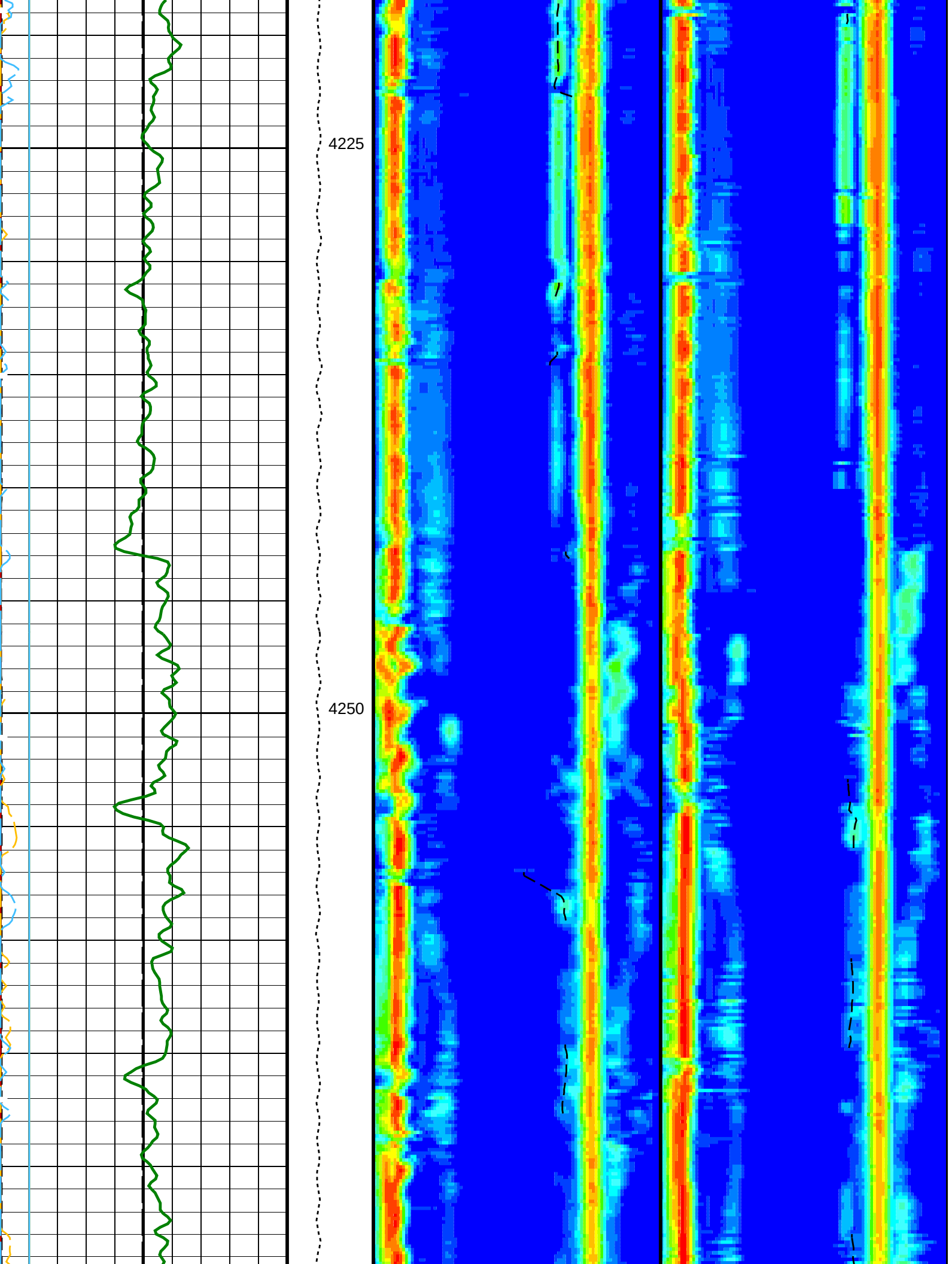

3950
3975

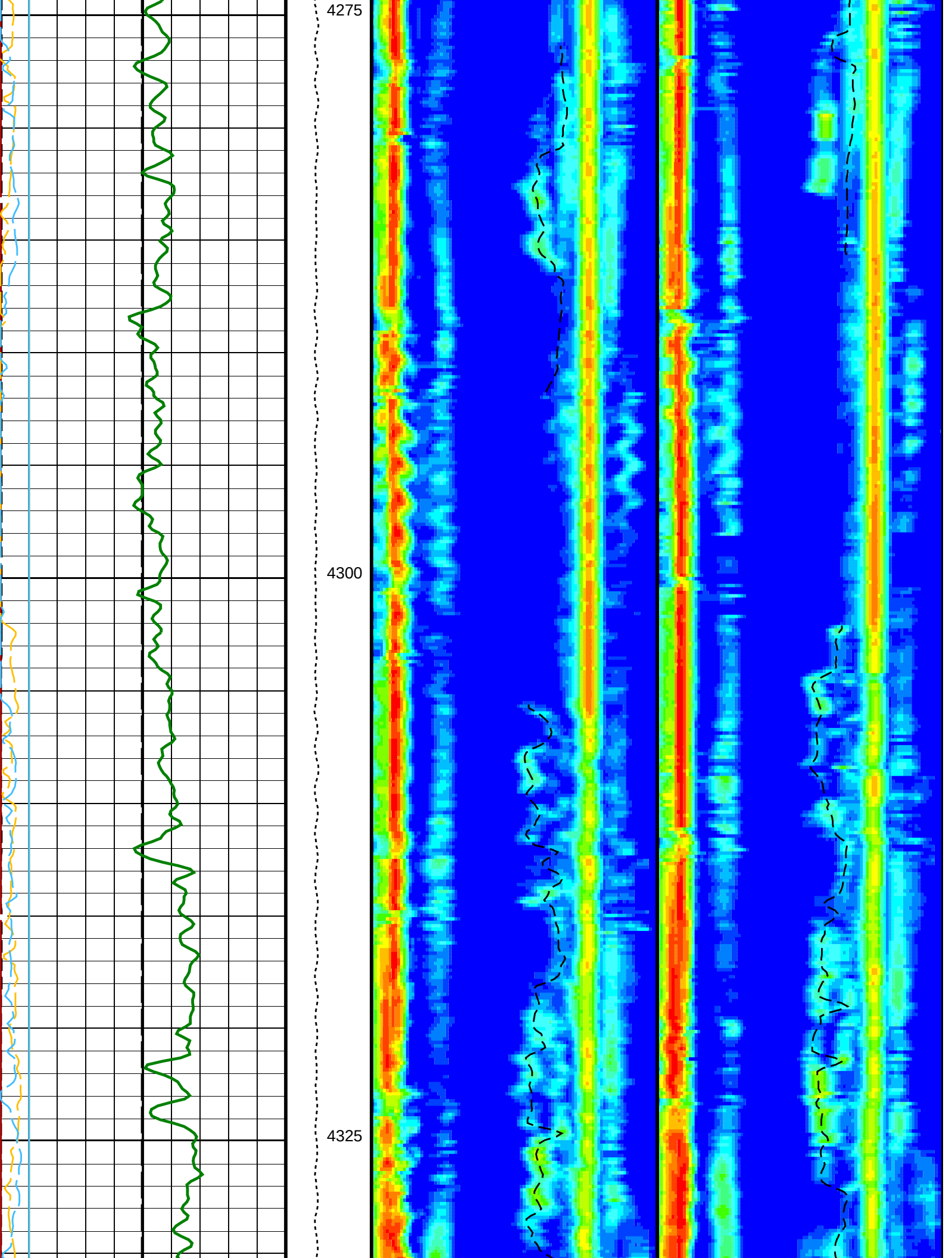

4000
4025
4050

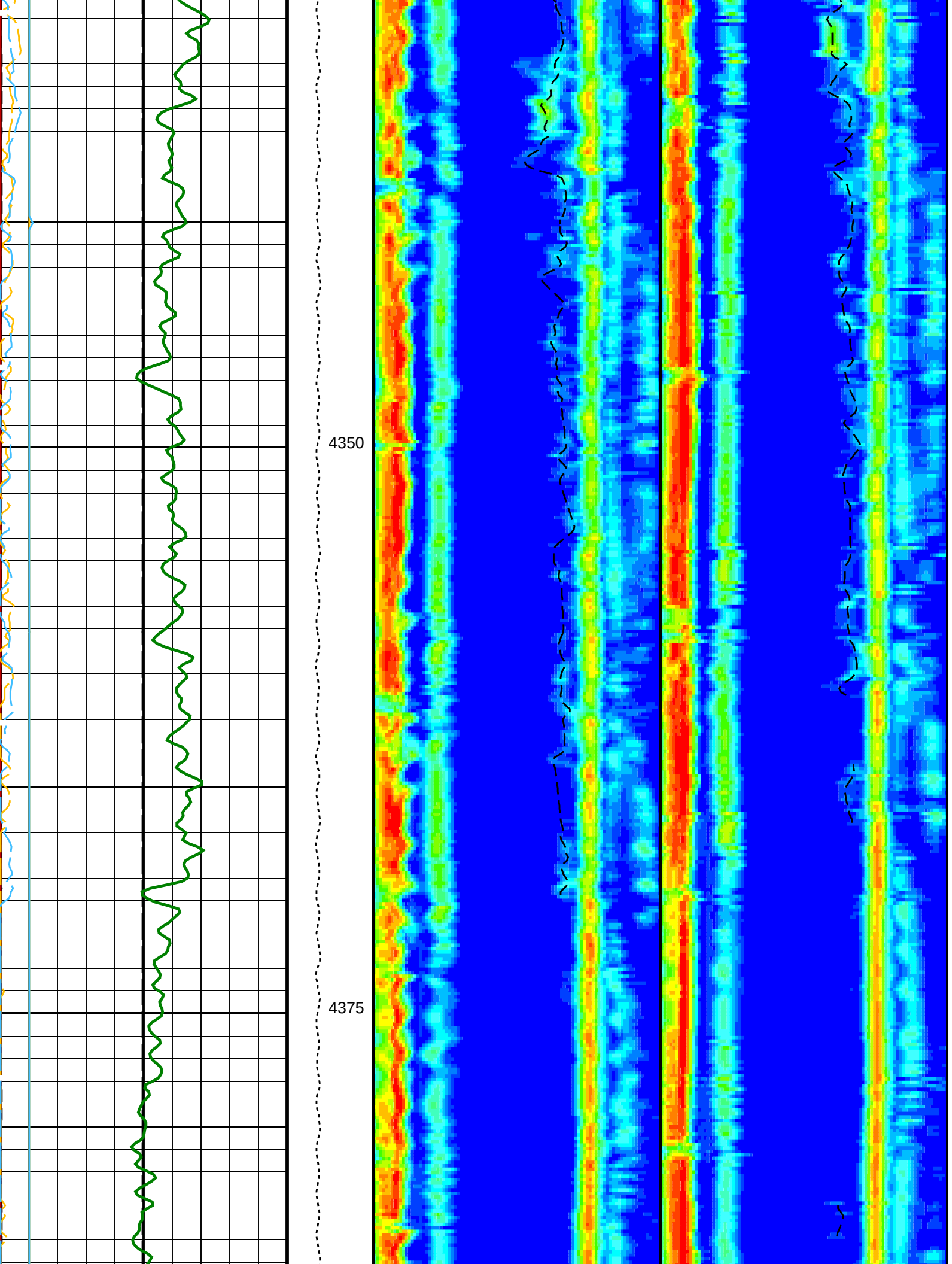

4075
4100

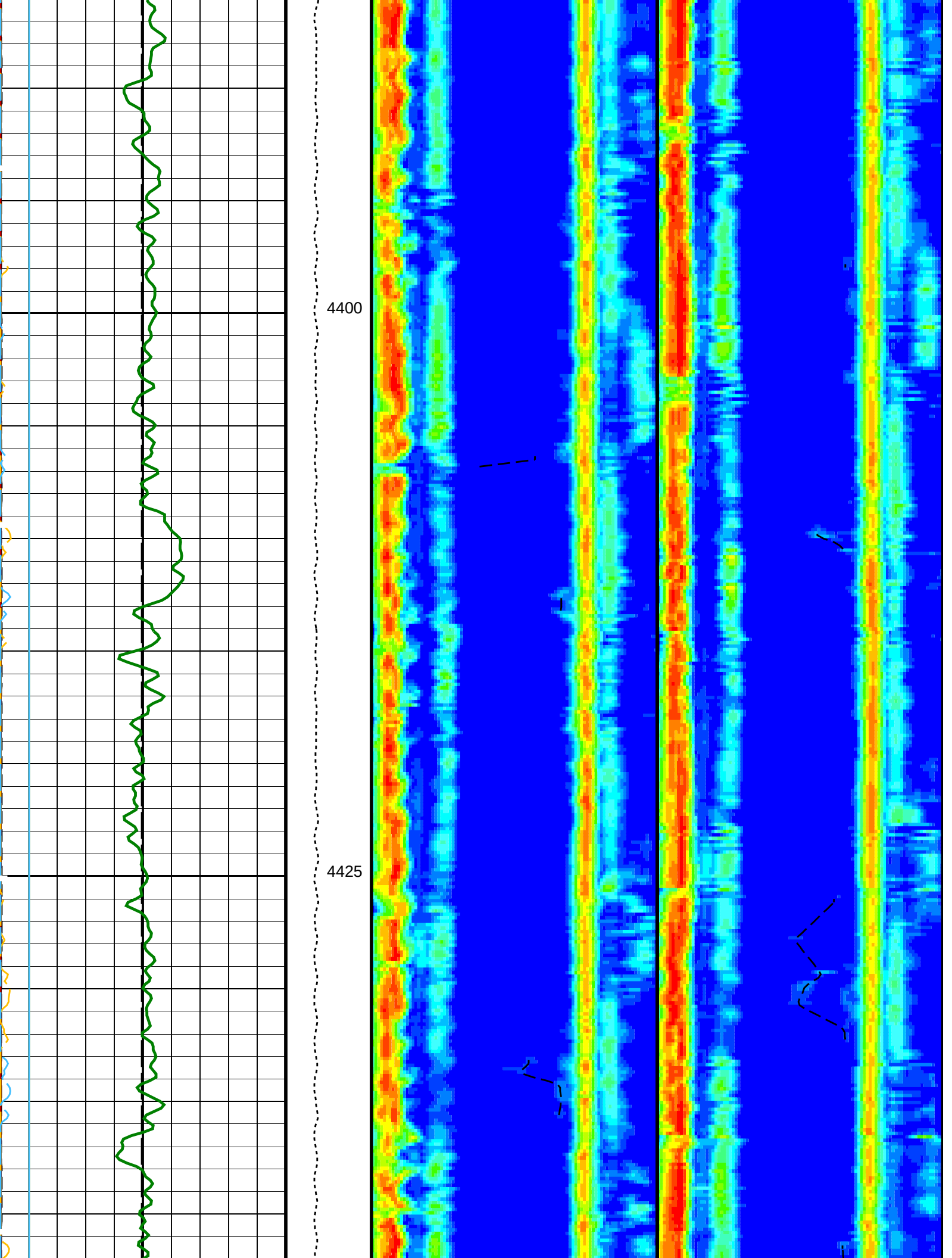

TENS
HSGR
4125
DTTP
CHTS
CHRS
CHTP
CHRP
WCI4
WFG4
BS
4150

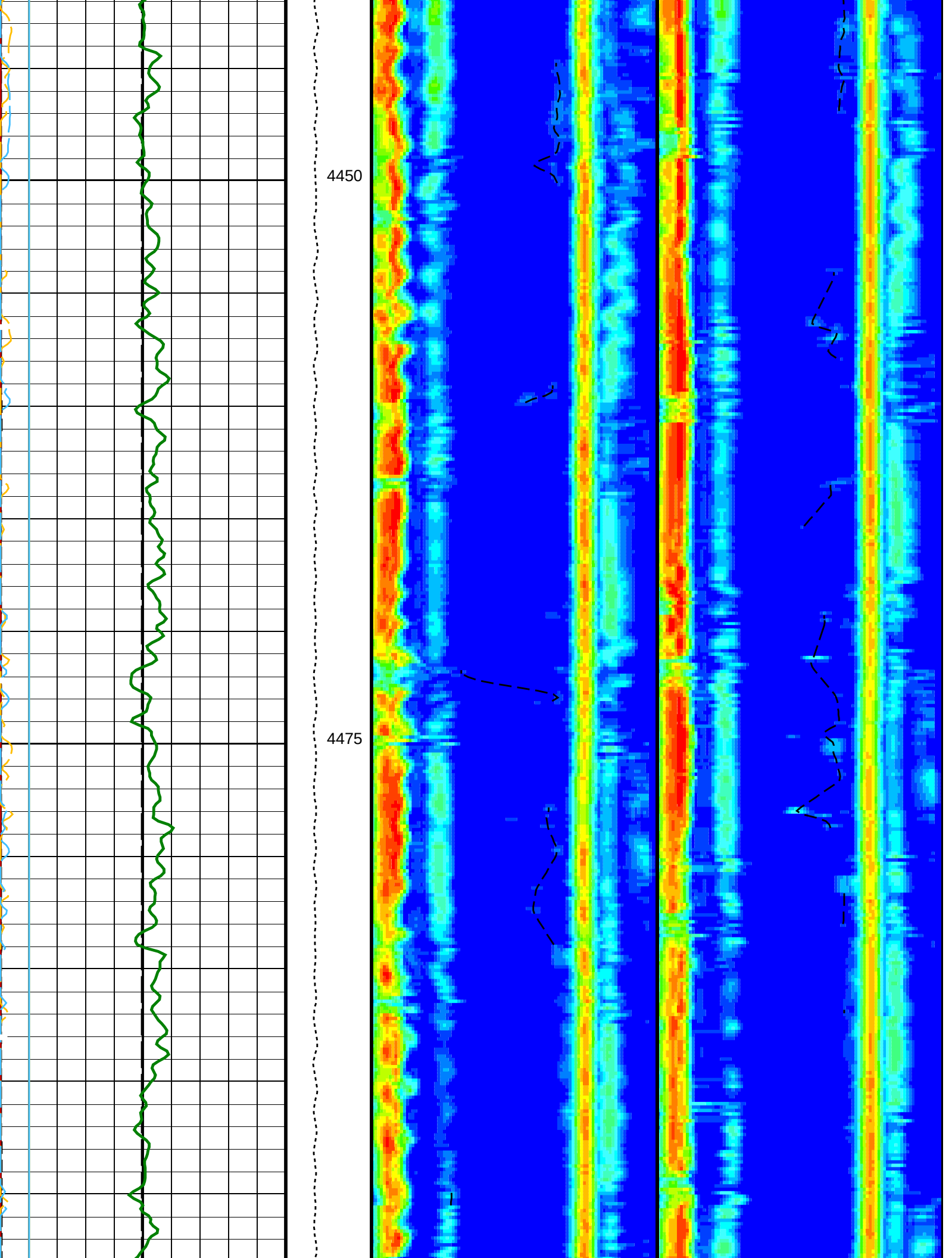

4175
4200

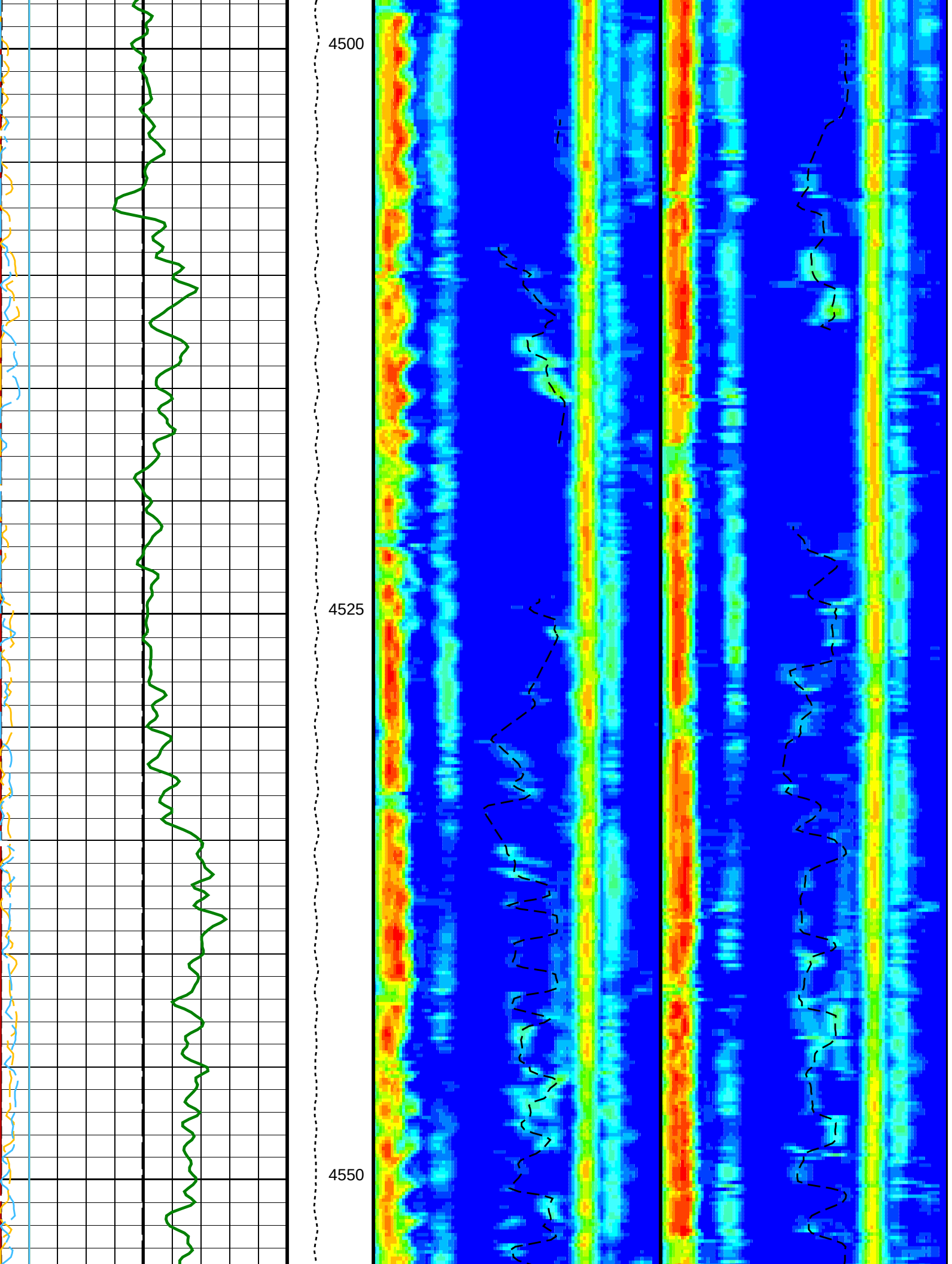

4225
4250

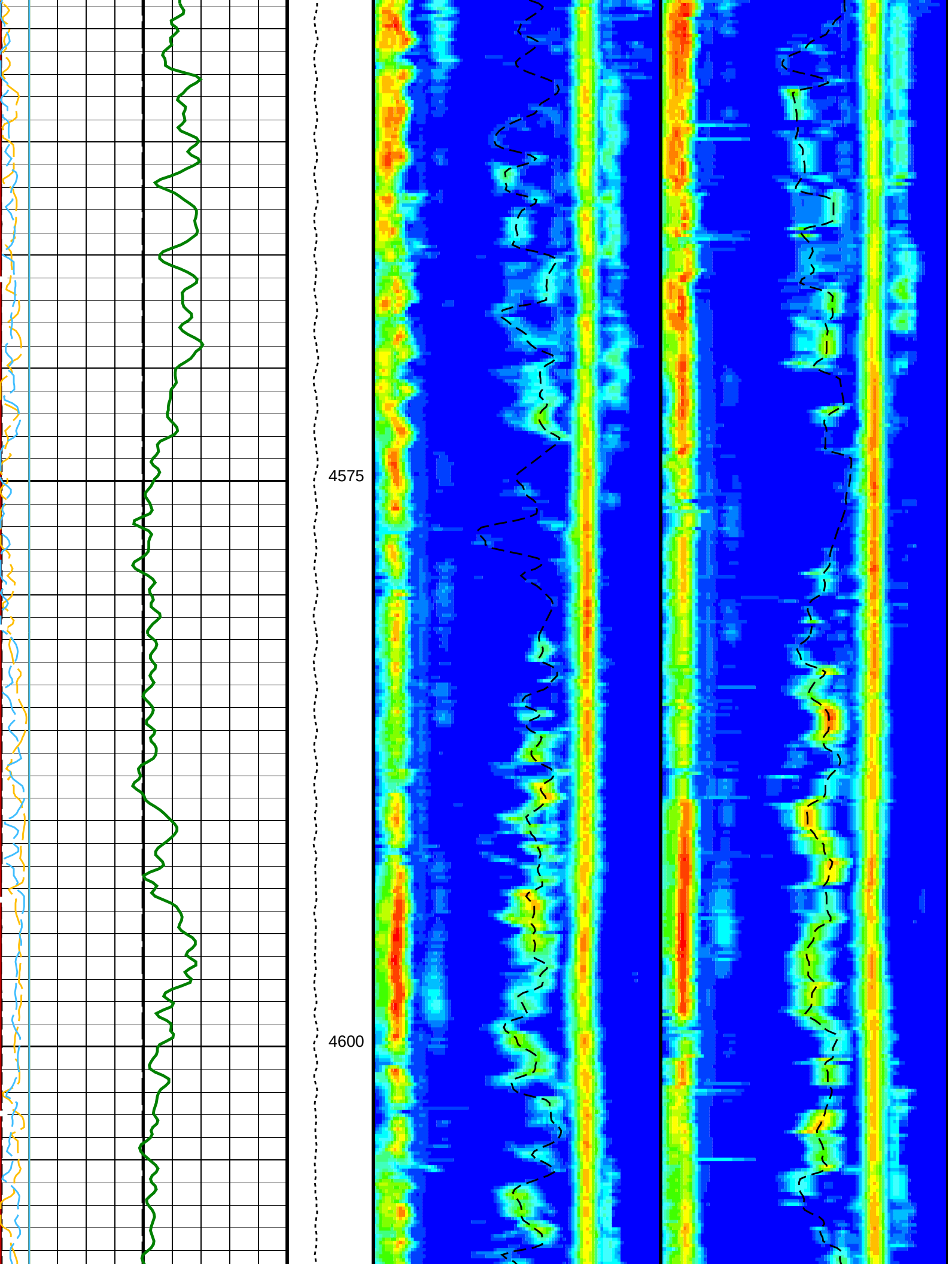

4275
4300
4325

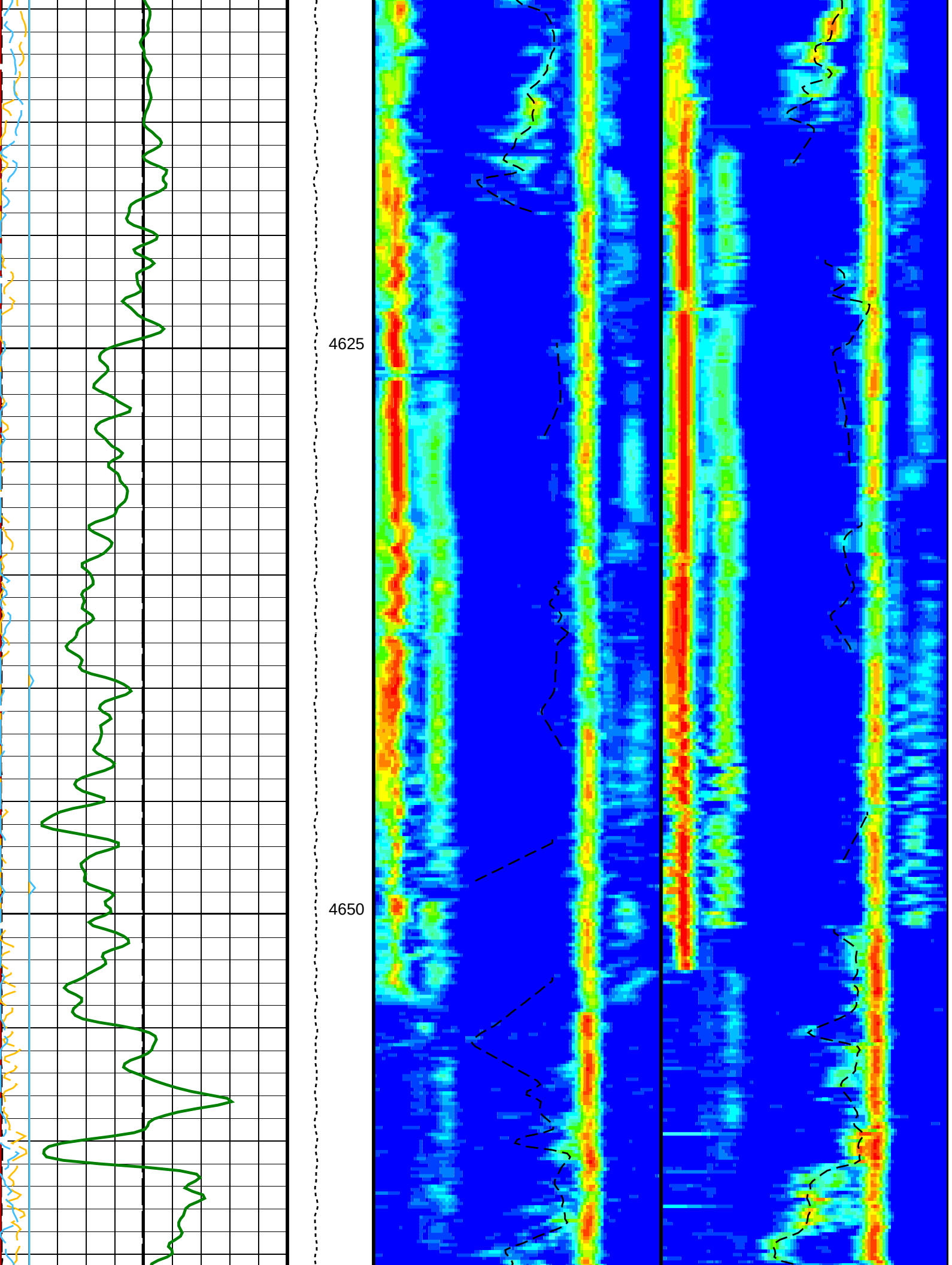

4350
4375

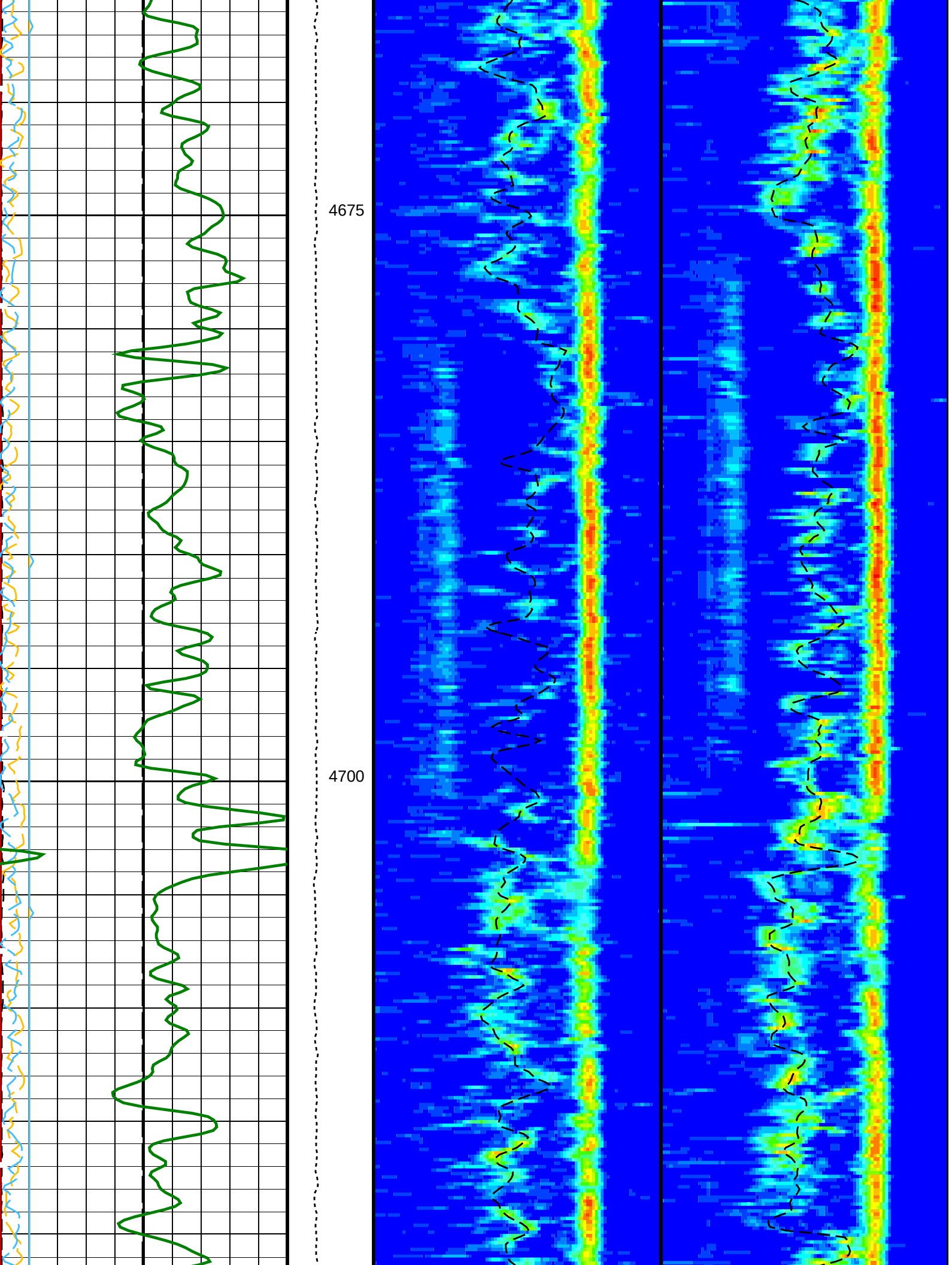

4400
4425

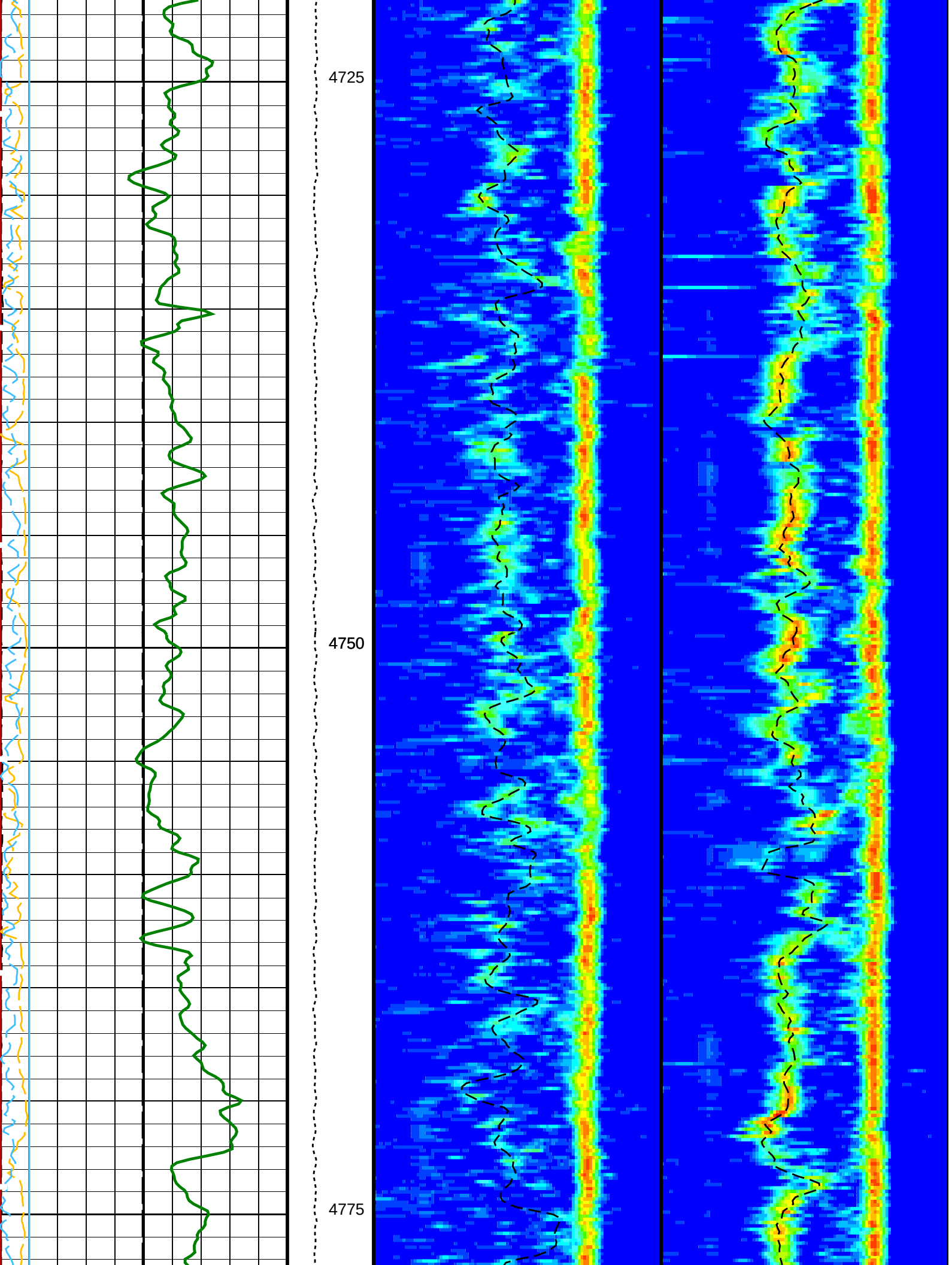

4450
4475

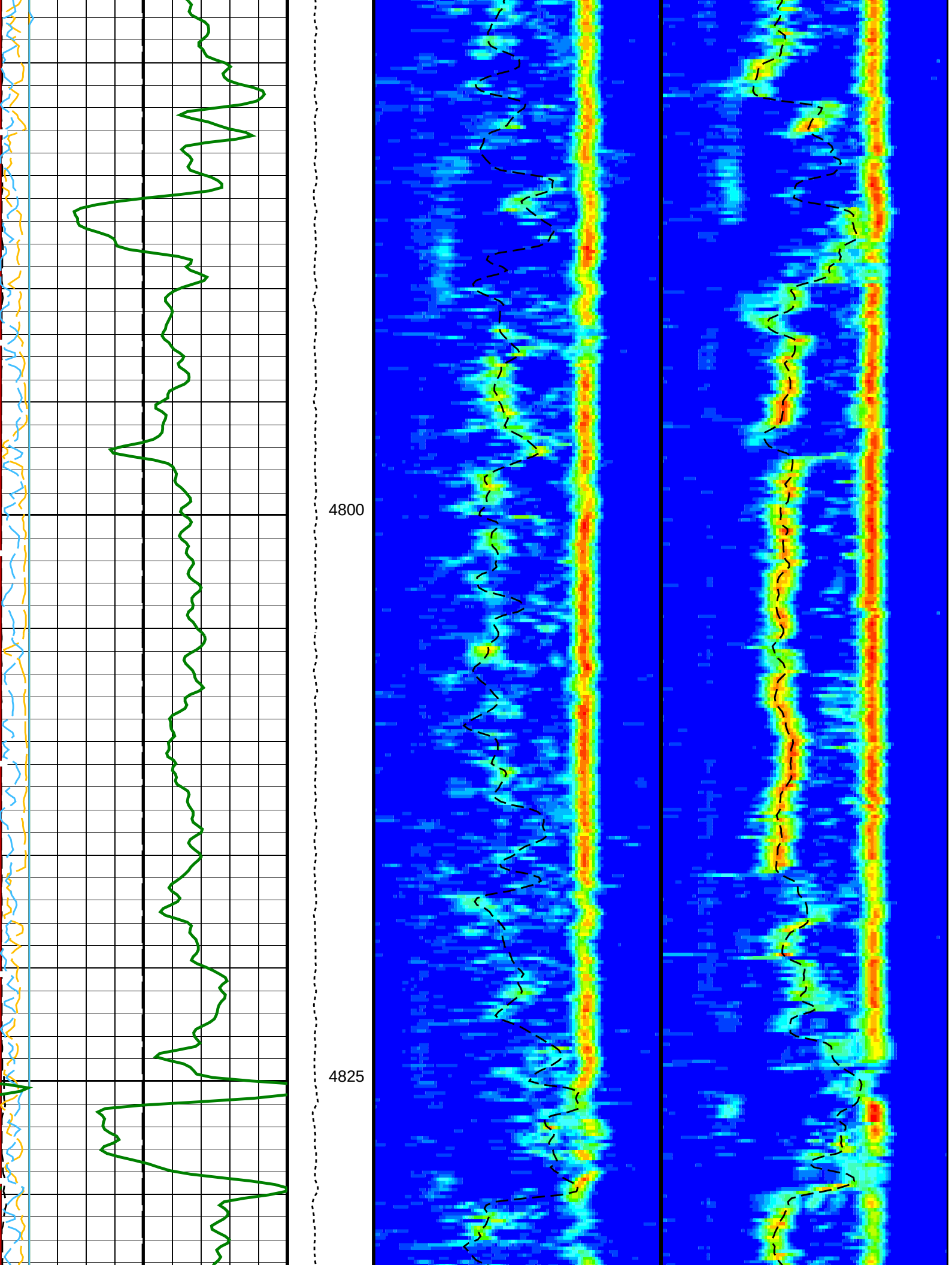

4500
4525
4550

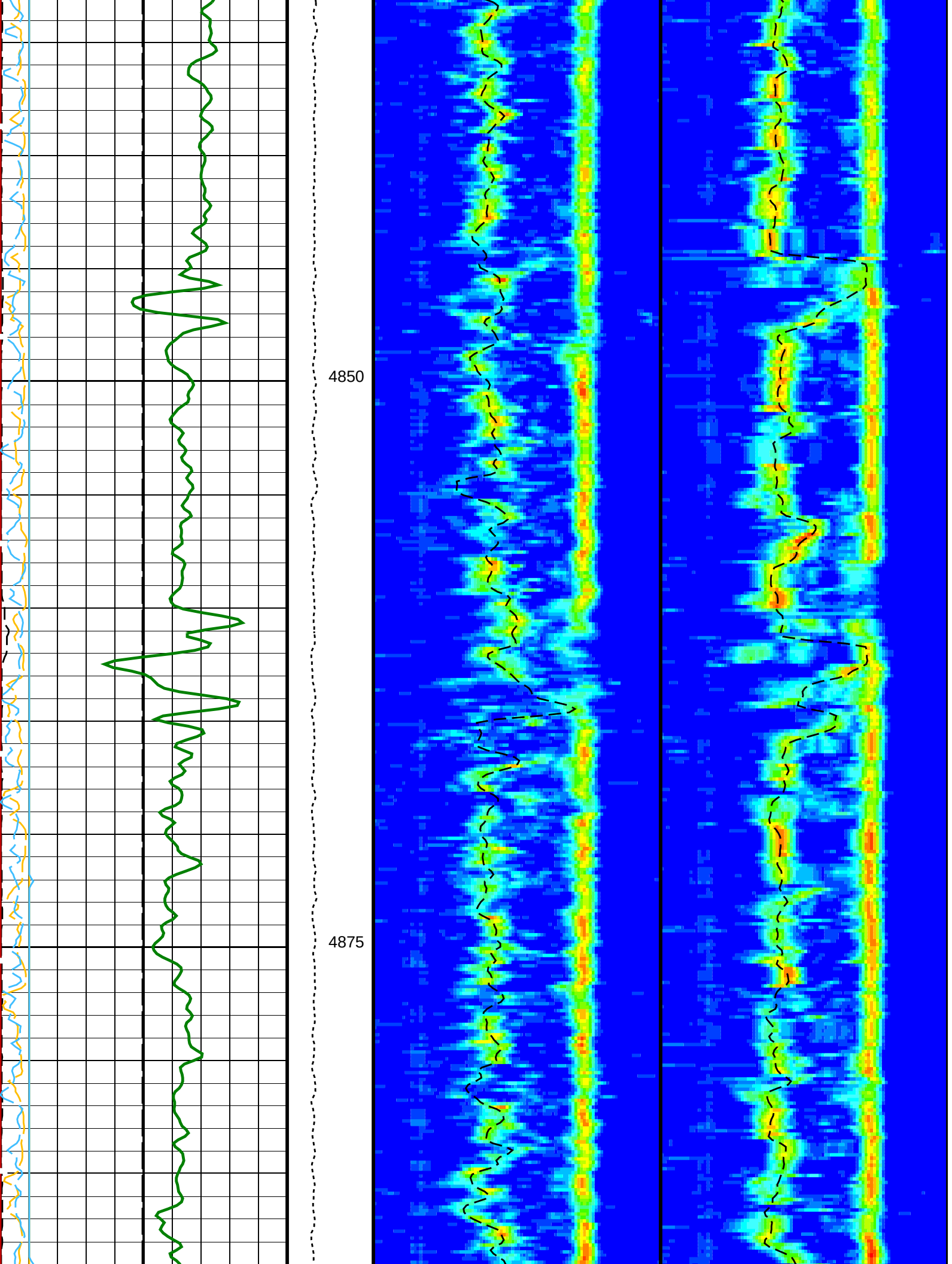

4575
4600

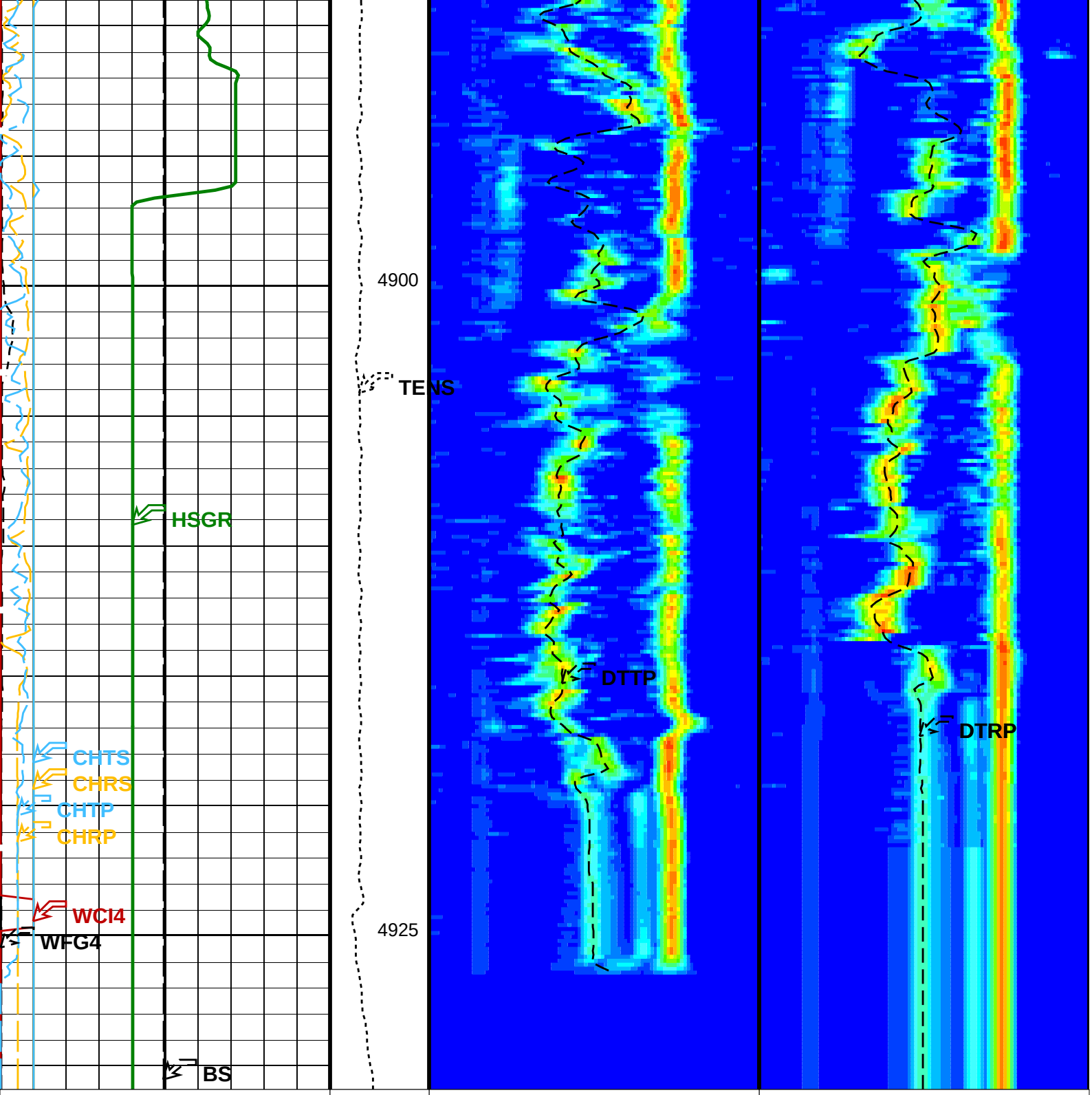

4625
4650


4675
4700


4725
4750
4775


4800
4825


4850
4875



Bit Size (BS)	Tension (TENS)	Delta−T Comp / TA − P & S (DTTP)	Delta−T Comp / RA − P & S (DTRP)
0 (IN) 20	10000 (LBF) 0	40 (US/F) 240	40 (US/F) 240
SAM4 Waveform Gain (WFG4)		Delta−T Shear / TA − P & S (DTTS)	Delta−T Shear / RA − P & S (DTRS)
0 (−−−−) 1000		40 (US/F) 240	40 (US/F) 240
Waveform Data Copy Indicator 4 − Monopole P&S (WCI4)		Min Amplitude Max Tr.Array P&S Slow Proj. CVDL (SPT4)	Min Amplitude Max Rec.Array P&S Slow Proj. CVDL (SPR4)
0 (−−−−) 10		40 (US/F) 240	40 (US/F) 240
Peak Coherence / RA − P & S Comp (CHRP)			
0 (−−−−) 10			
Peak Coherence / TA − P & S Comp (CHTP)			

(CHTP)

0 (----) 10

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

−1 (----) 9

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

−1 (----) 9

HNGS Spectroscopy Gamma Ray (HSGR)

0 (GAPI) 100

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	95	US/F
COUL	Label Slowness Upper Limit − Monopole P&S Compressional	185	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	193	US/F
DWC4	Digitizer Word Count 4	512	
DWCX	Digitizer Word Count X	512	
FILG	Label Fill Gap Control − Monopole P&S	COMP_SHEAR	
GCSE	Generalized Caliper Selection	LCAL	
LFC	Label Formation Character − Monopole P&S	DYNAMIC	
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	780	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	
WFM4	Waveform Mode 4	W1	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	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	10.75	IN
CSD2	Outer Casing Outer Diameter	10.75	IN
CSW1	Inner Casing Weight	45	LB/F
CSW2	Outer Casing Weight	45	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	LCAL	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00192069	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
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	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.992004	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.990962	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.32	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: DSST_P_S_RC_TR_VDL_COLOR Vertical Scale: 1:200 Graphics File Created: 06−Apr−2017 20:24

OP System Version: 19C0−187

DSST−B	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
EDTC−B	SKK−5169−EDTCB		

Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_030LUP	FN:35	PRODUCER	06−Apr−2017 18:03	4930.9 M	3798.9 M

Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_038PUP	FN:51	PRODUCER	06−Apr−2017 20:24		
BACKUP	DSI_HRLA_LDL_NGS_038PUP	FN:52	PRODUCER	06−Apr−2017 20:24		

Company: International Ocean Discovery Program Well: Expedition 367, Site U1500B

Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_030LUP	FN:35	PRODUCER	06−Apr−2017 18:03	4930.9 M	3798.9 M

Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_038PUP	FN:51	PRODUCER	06−Apr−2017 20:24	4930.9 M	3798.9 M
BACKUP	DSI_HRLA_LDL_NGS_038PUP	FN:52	PRODUCER	06−Apr−2017 20:24	4930.9 M	3798.9 M

OP System Version: 19C0−187

DSST−B	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−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)	
0 (GAPI)	100

0 (GAPI) 100

Peak Coherence / TA − Upper Dipole (CHT2)

−2 (−−−−) 8

Peak Coherence / RA − Upper Dipole (CHR2)

0 (−−−−) 10

Waveform Data Copy Indicator 2 − Upper Dipole (WCI2)

0 (−−−−) 10

SAM2 Waveform Gain (WFG2)

0 (−−−−) 1000

Calibrated Downhole Force (CDF) (LBF)

5000 0

Min Amplitude Max

Tr.Array U.Dipole Slow Proj. CVDL (SPT2)

40 (US/F) 1040

Min Amplitude Max

Rec.Array U.Dipole Slow Proj. CVDL (SPR2)

40 (US/F) 1040

Bit Size (BS)

0 (IN) 20

Tension (TENS) (LBF)

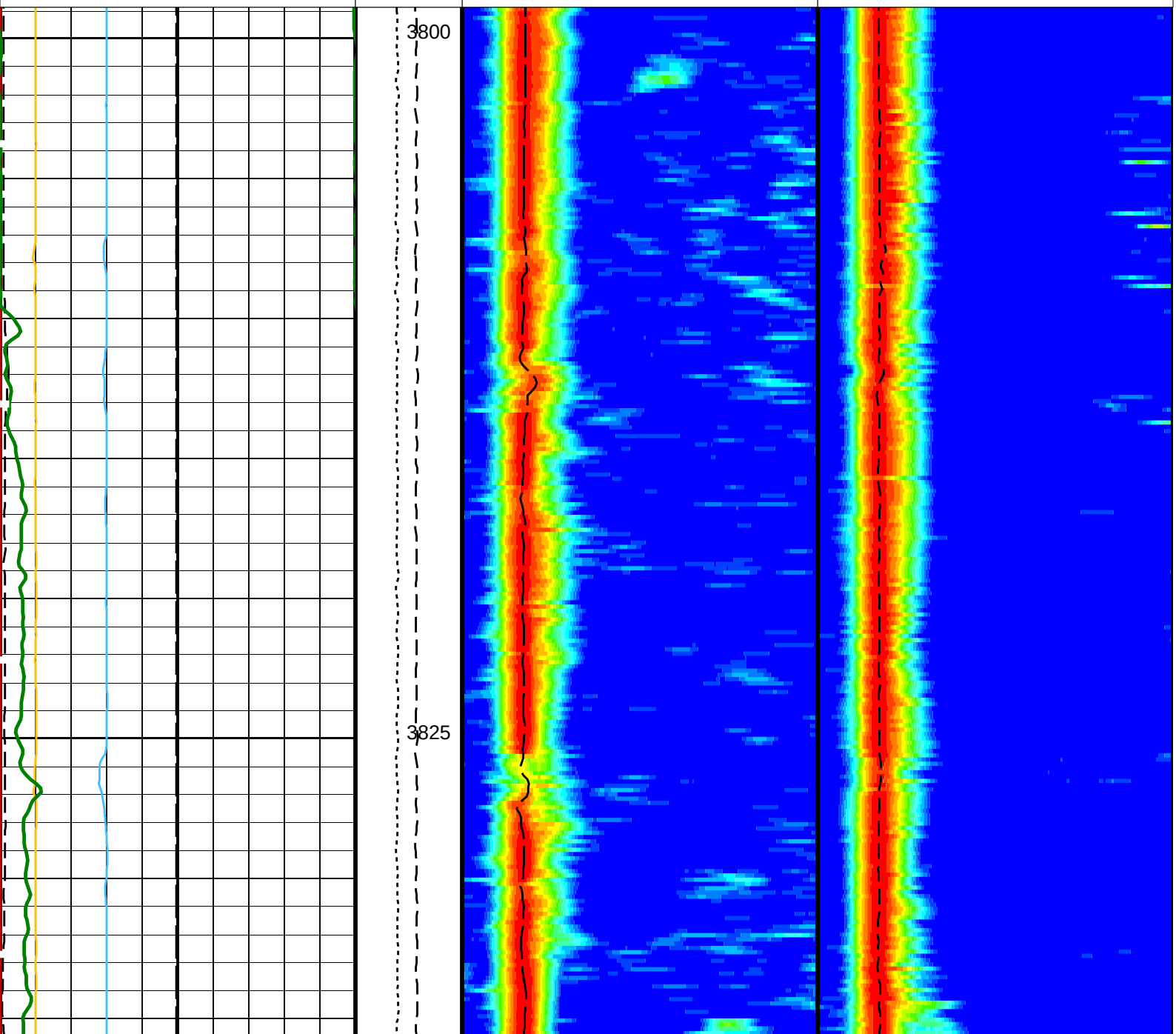
10000 0

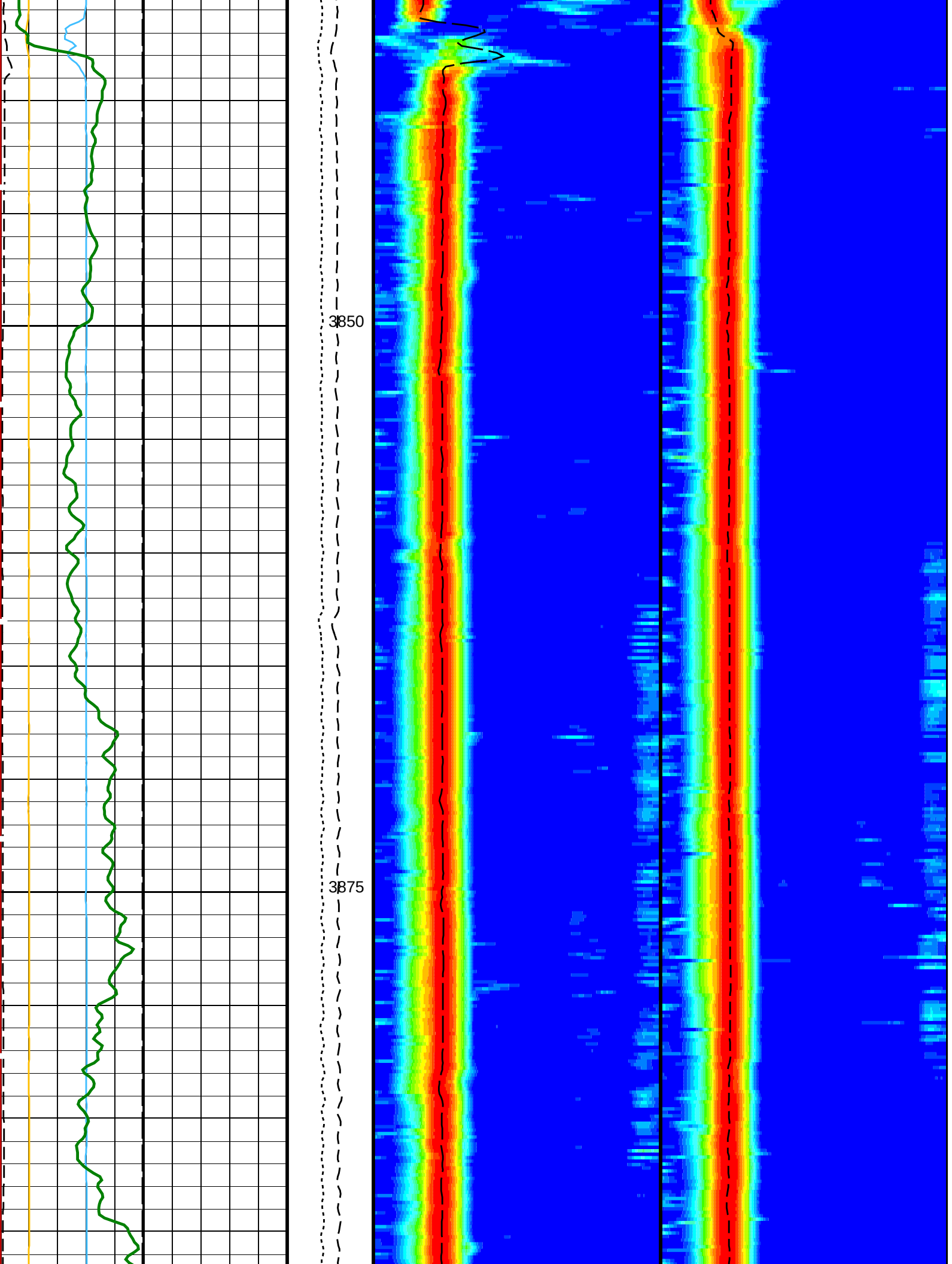
Delta−T Shear / TA − Upper Dipole (DT2T)

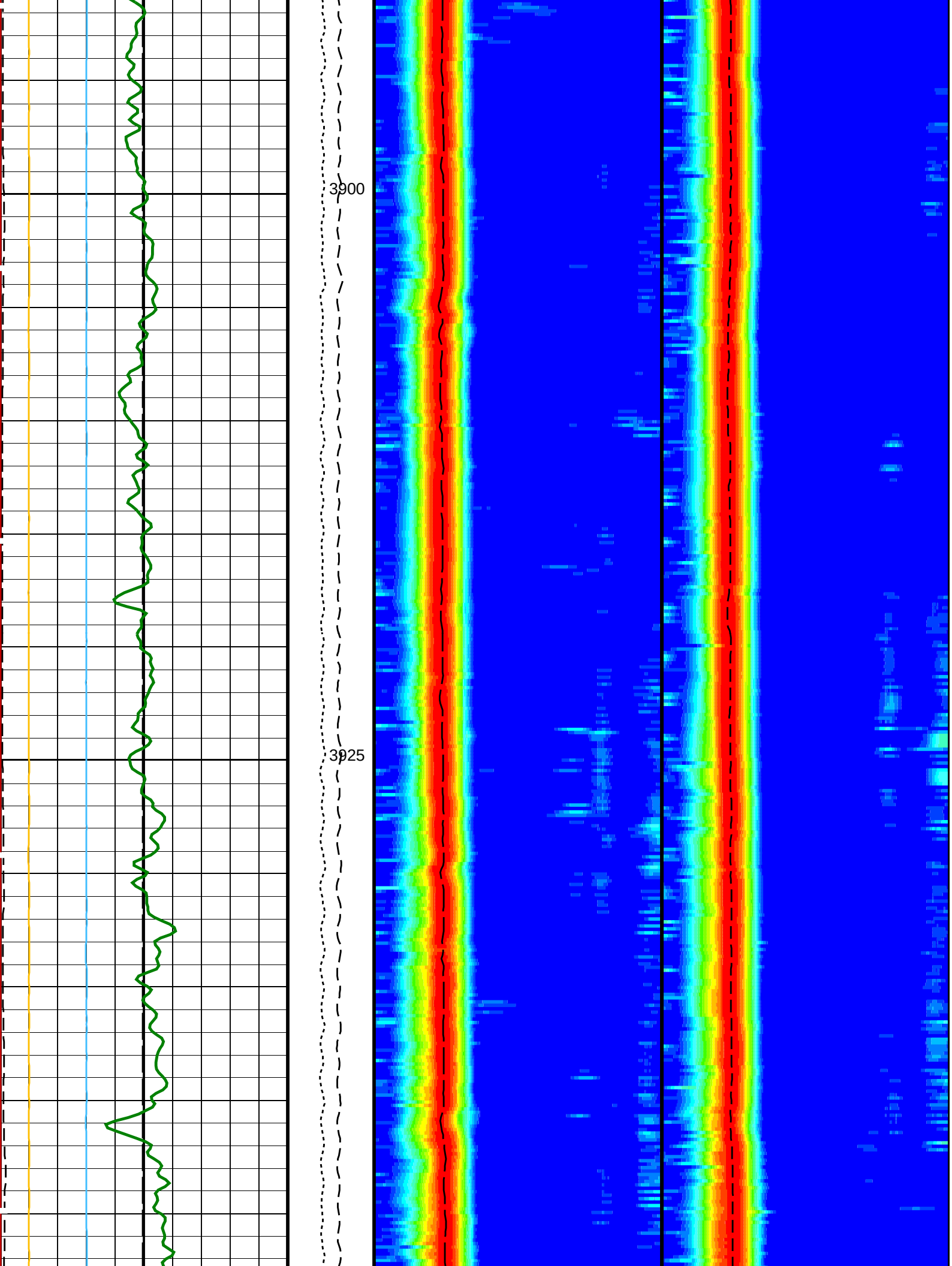
40 (US/F) 1040

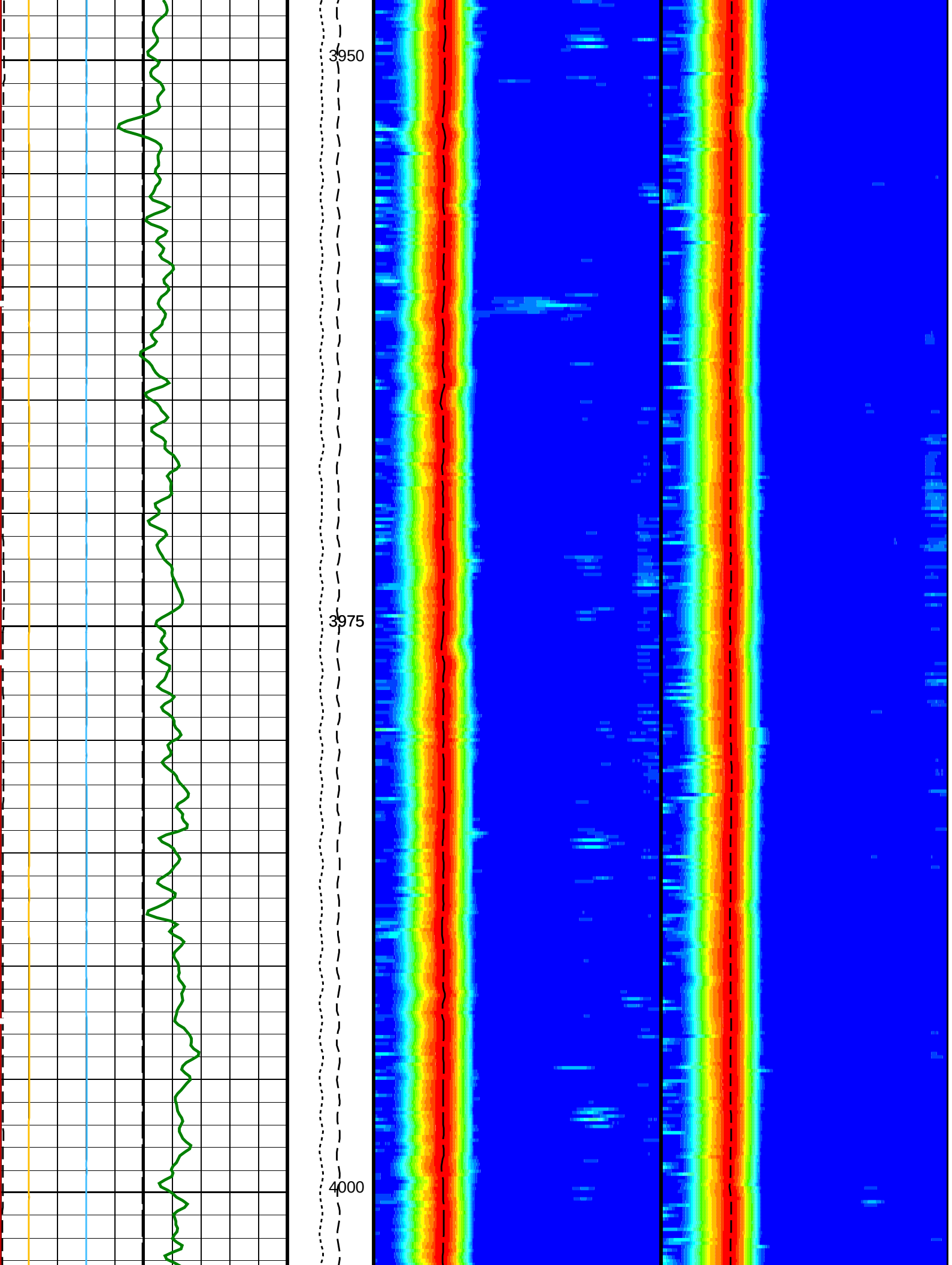
Delta−T Shear / RA − Upper Dipole (DT2R)

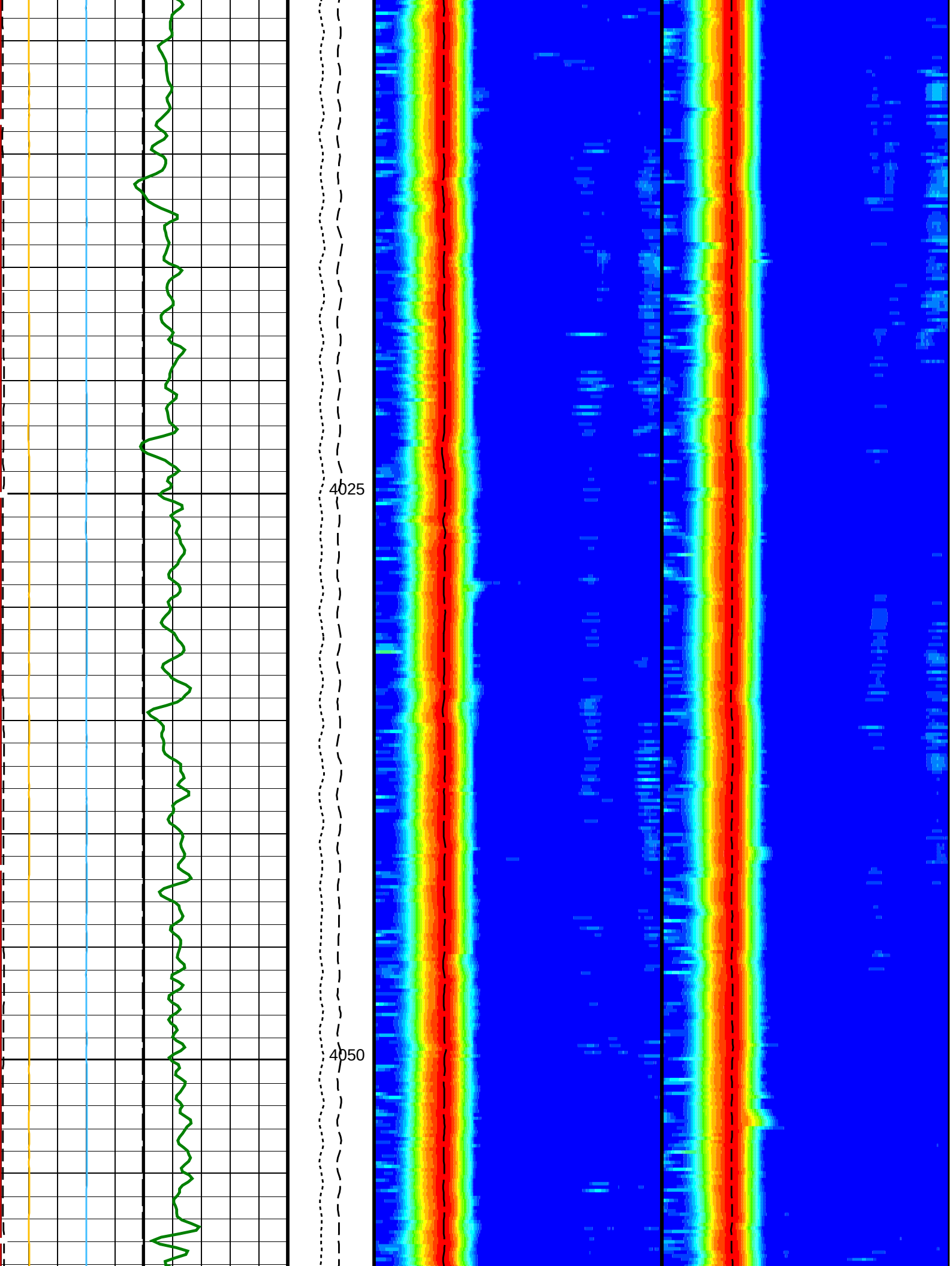
40 (US/F) 1040

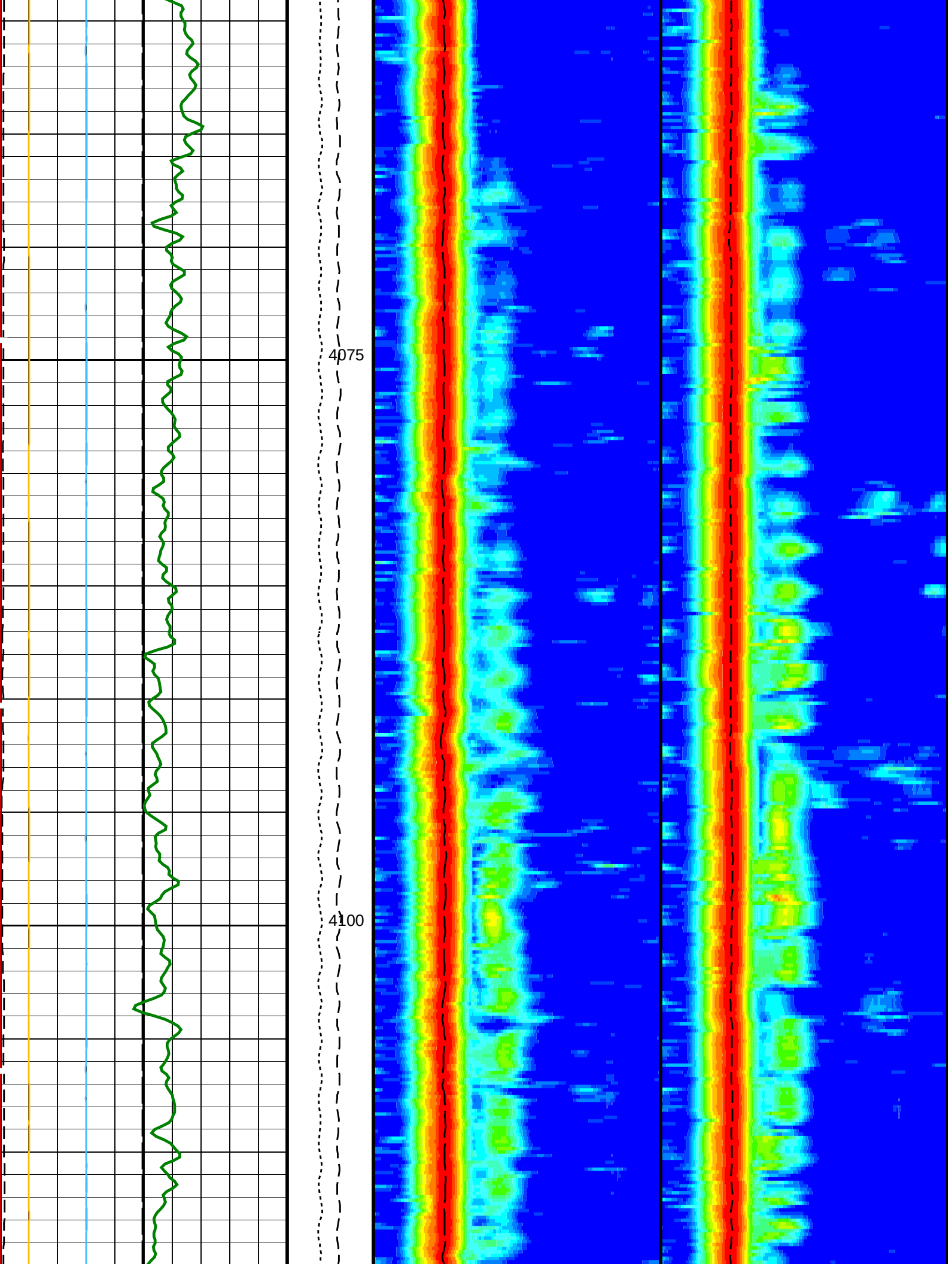


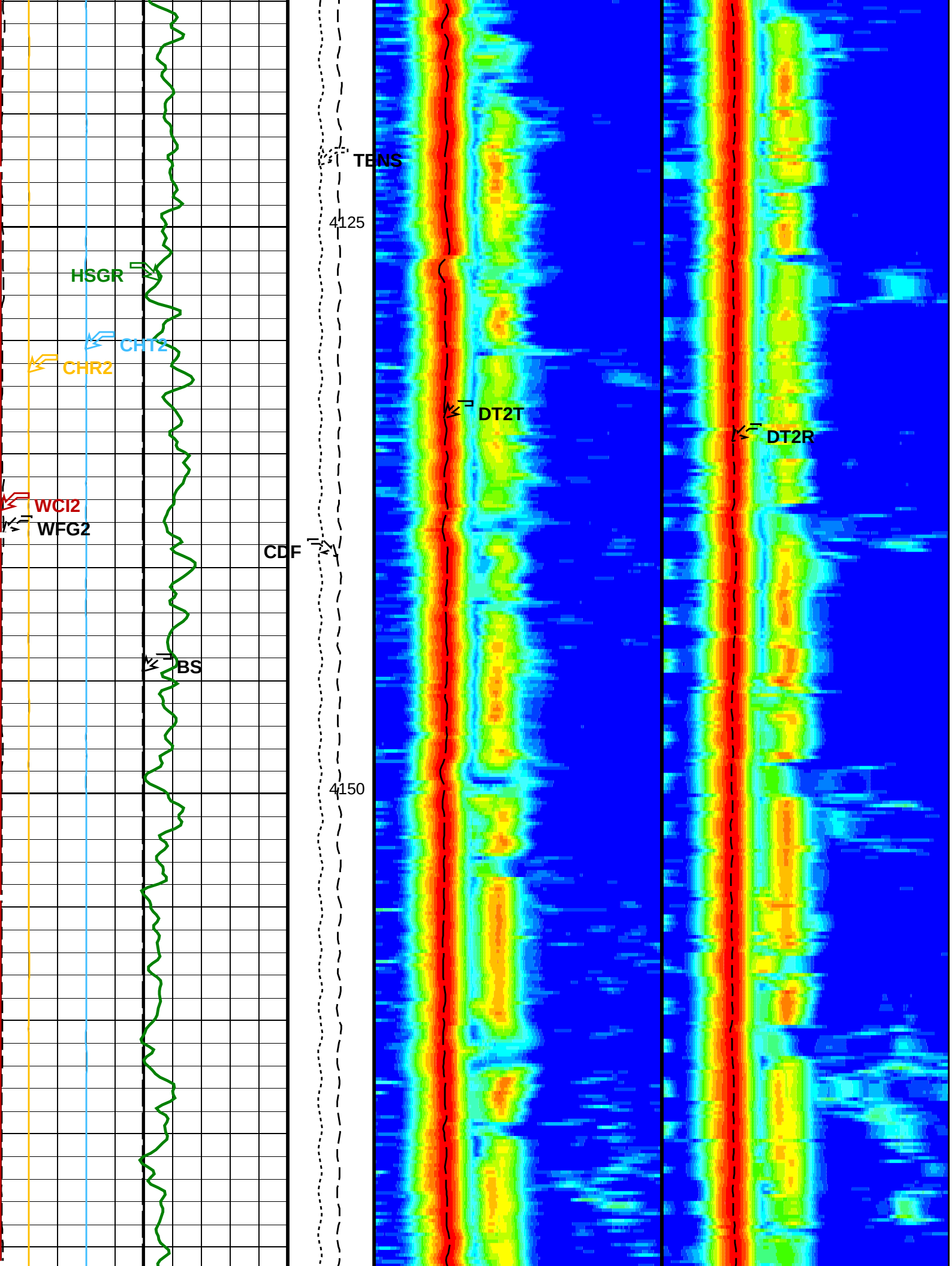

3850
3875

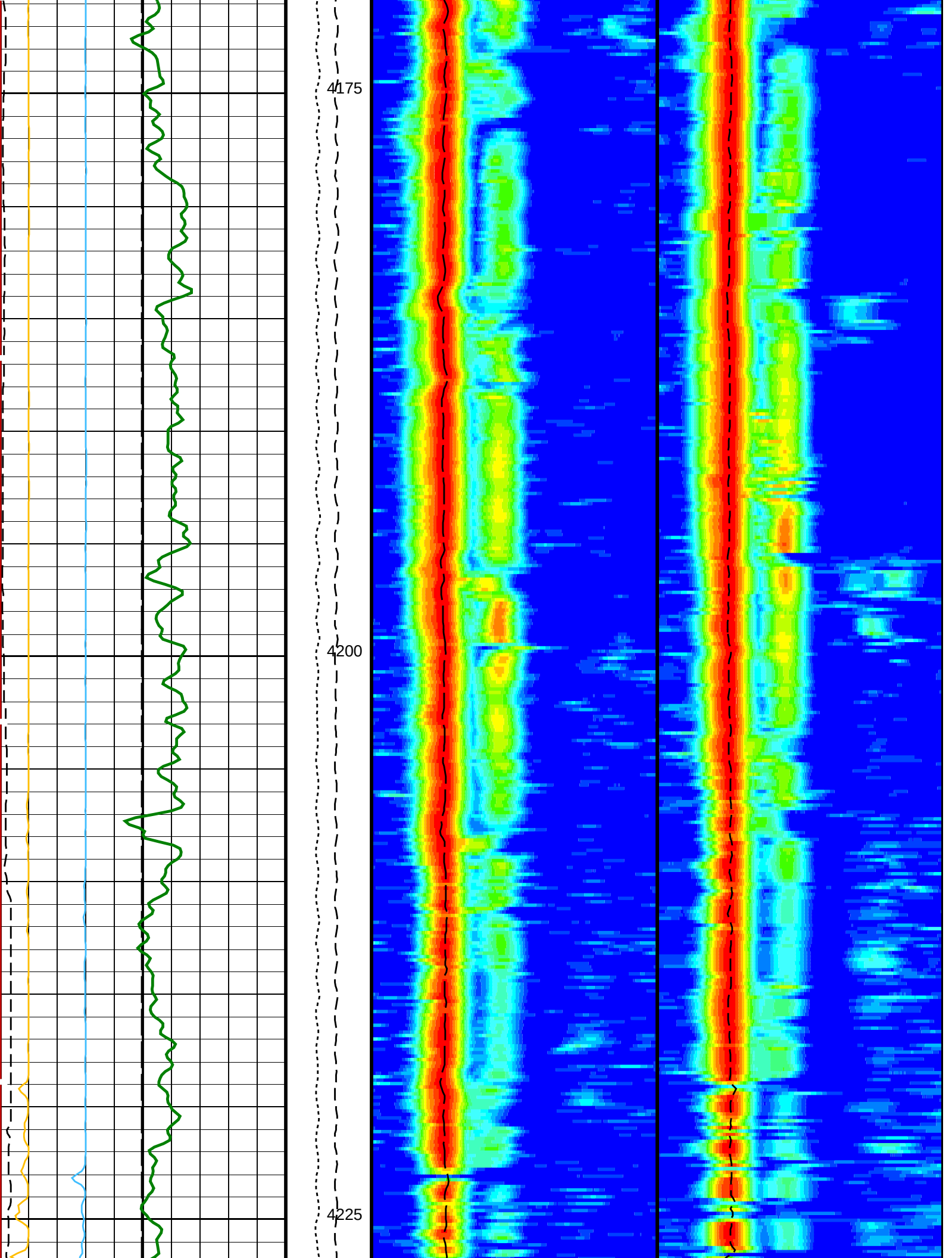

3900
3925

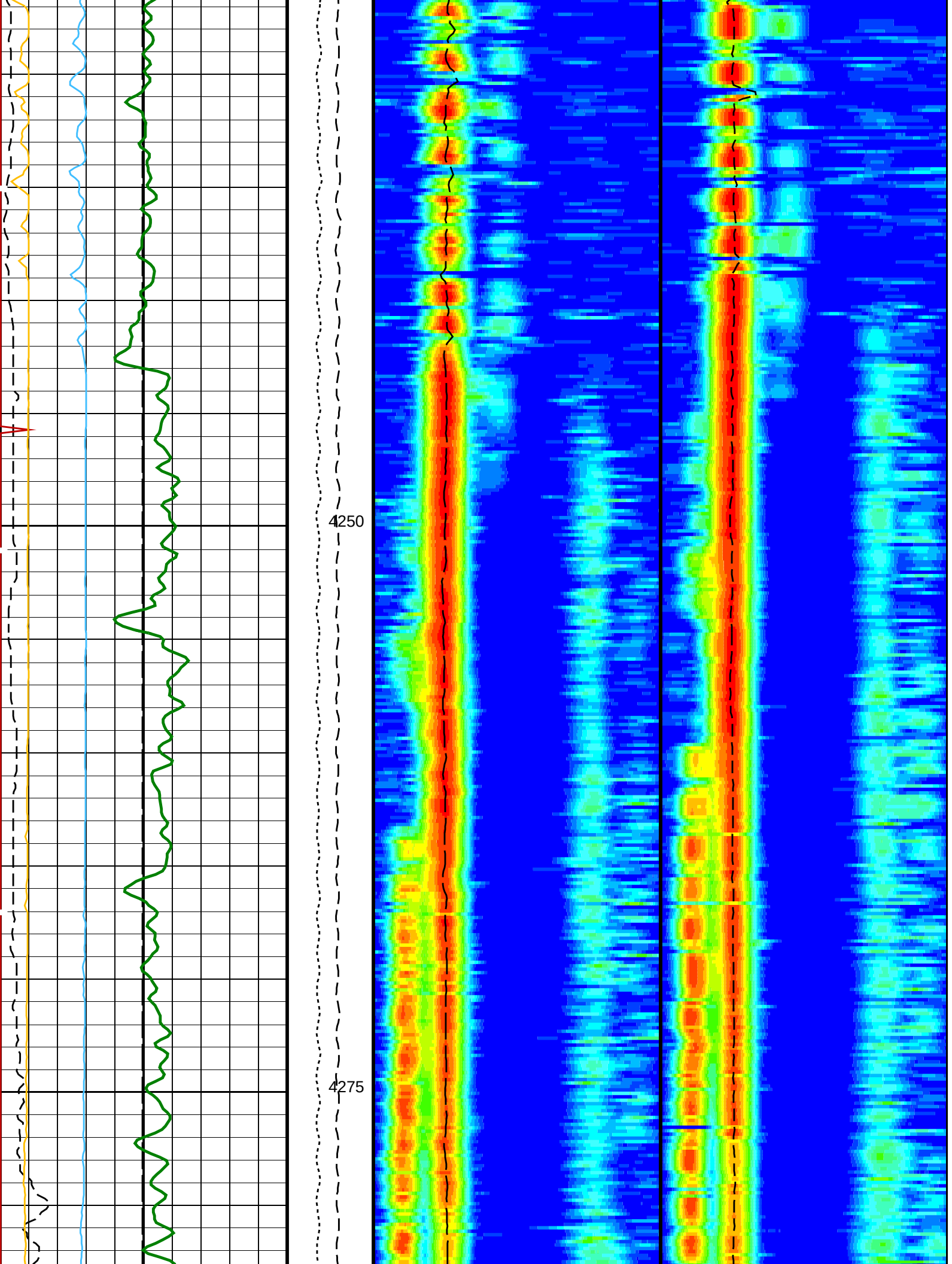

3950
3975
4000

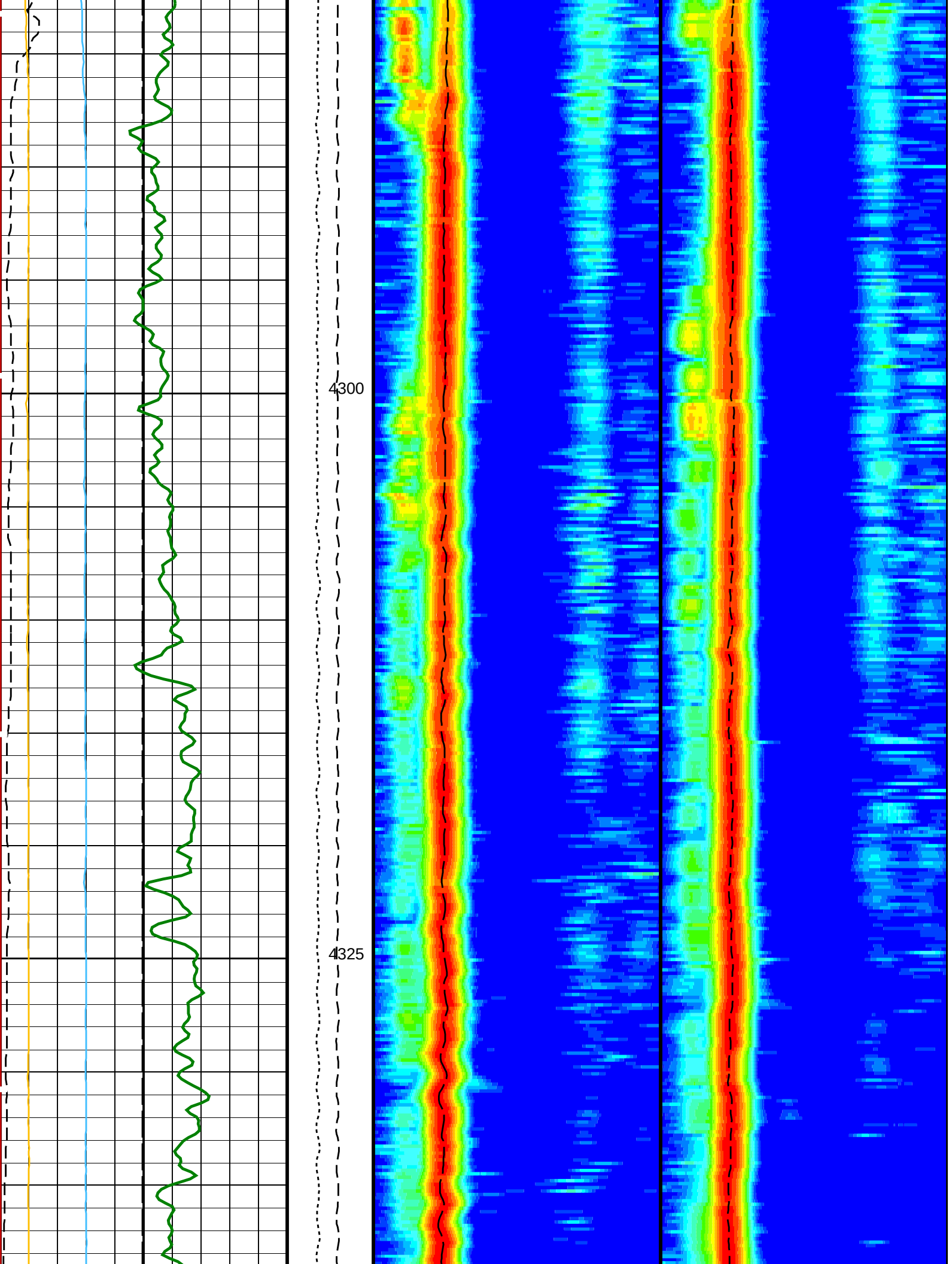

4025
4050

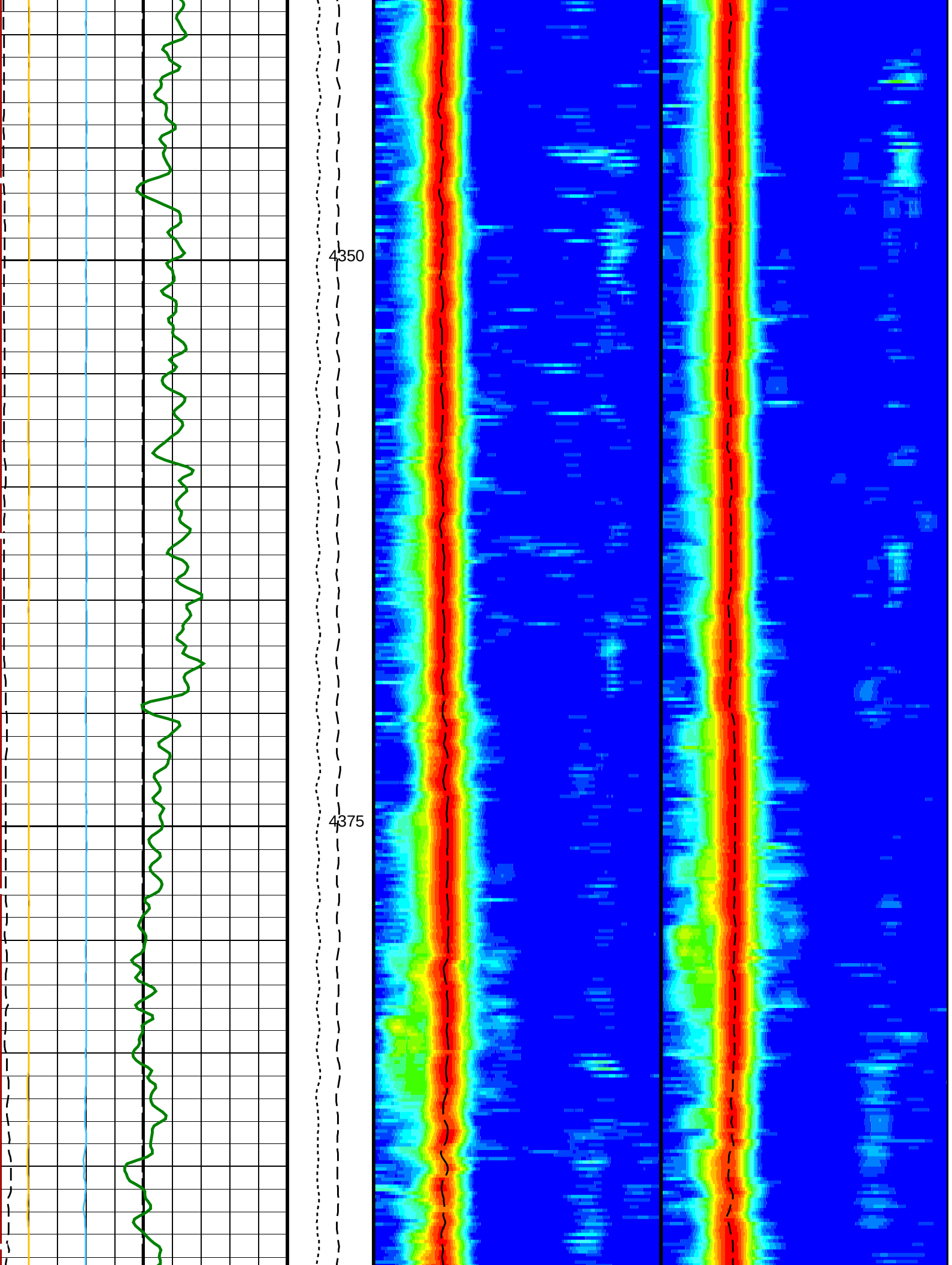

4075
4100

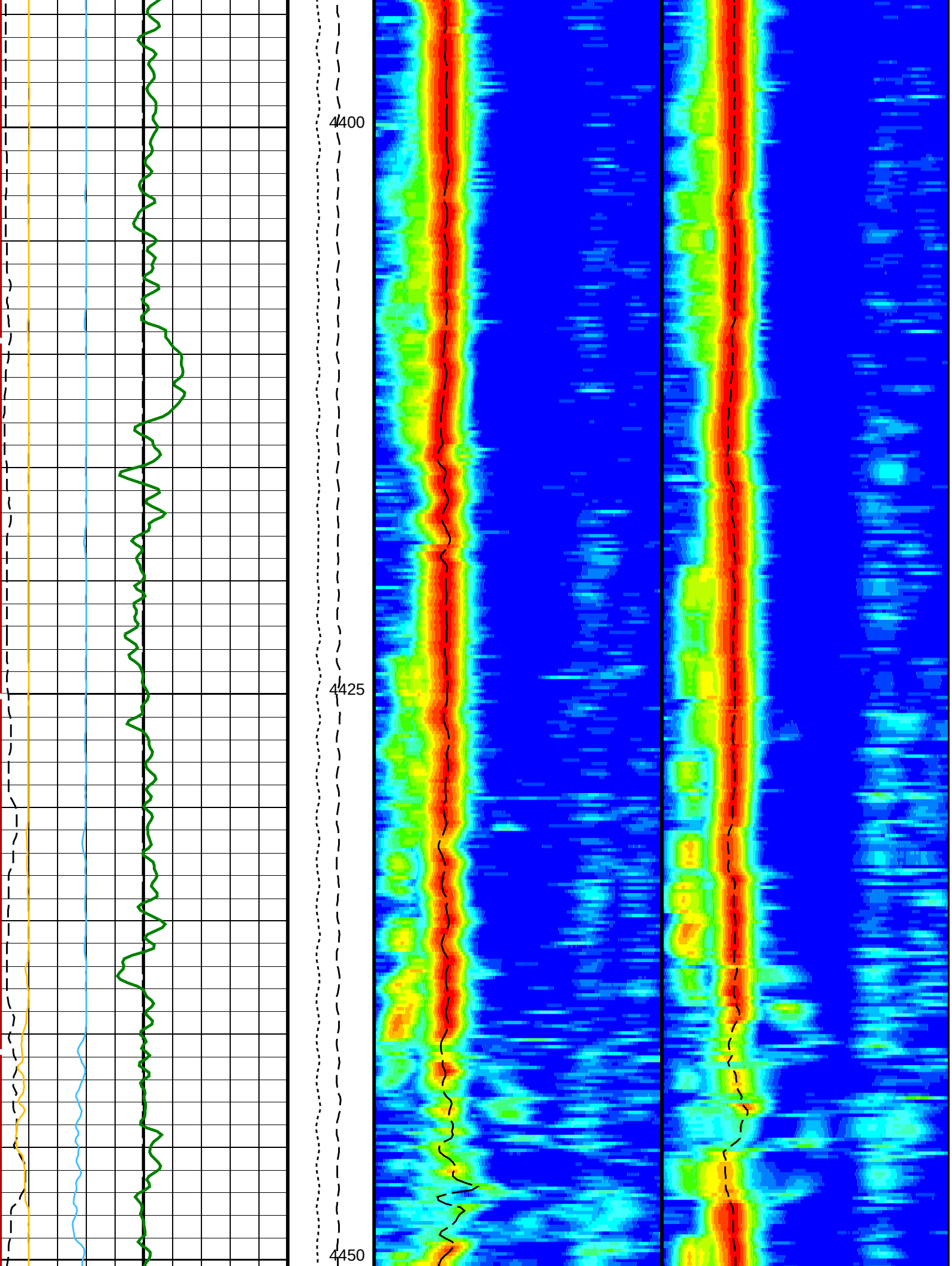

TENS
4125
HSGR
CHT2
CHR2
DT2T
DT2R
WCI2
WFG2
CDF
BS
4150

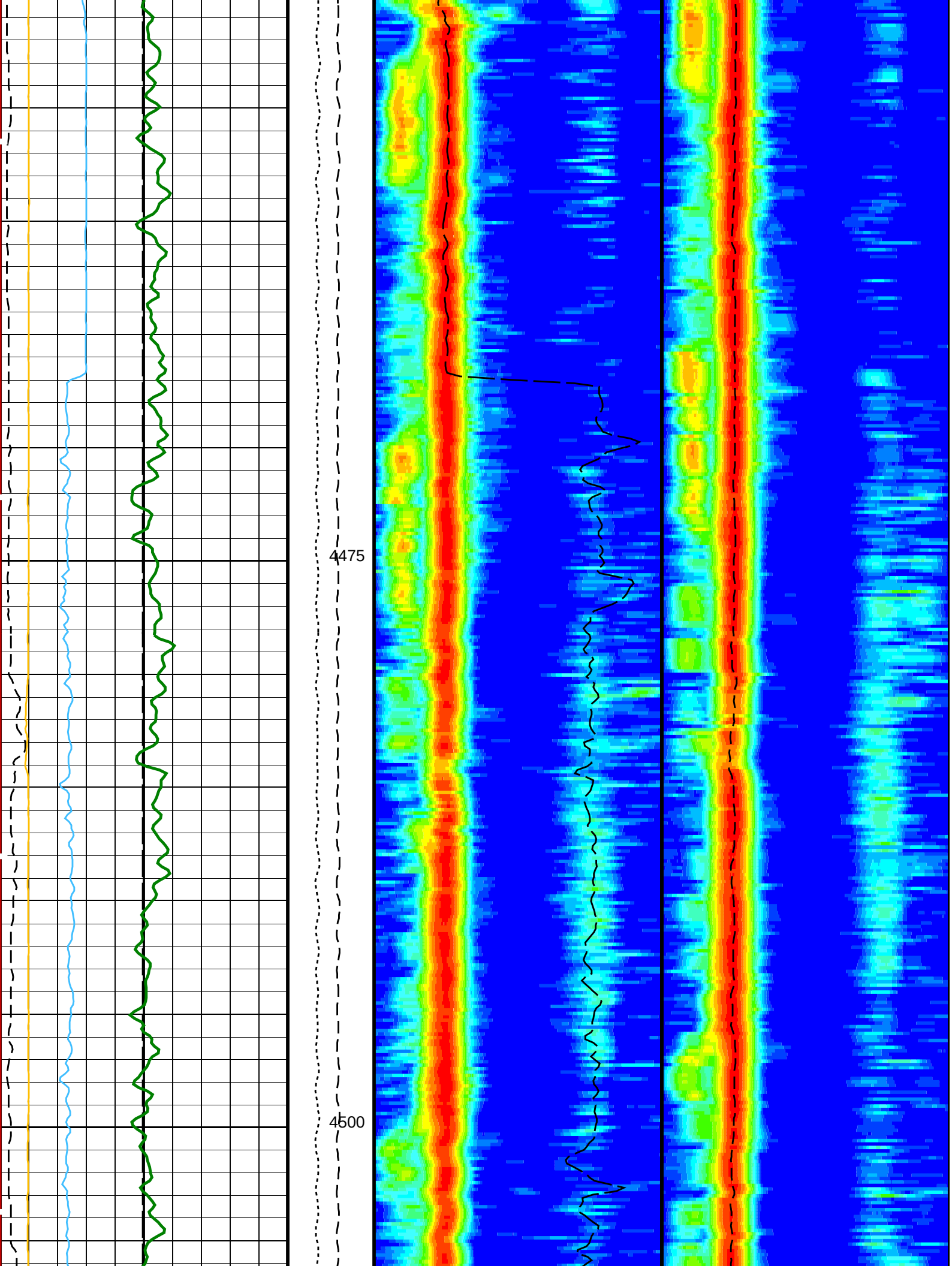

4175
4200
4225

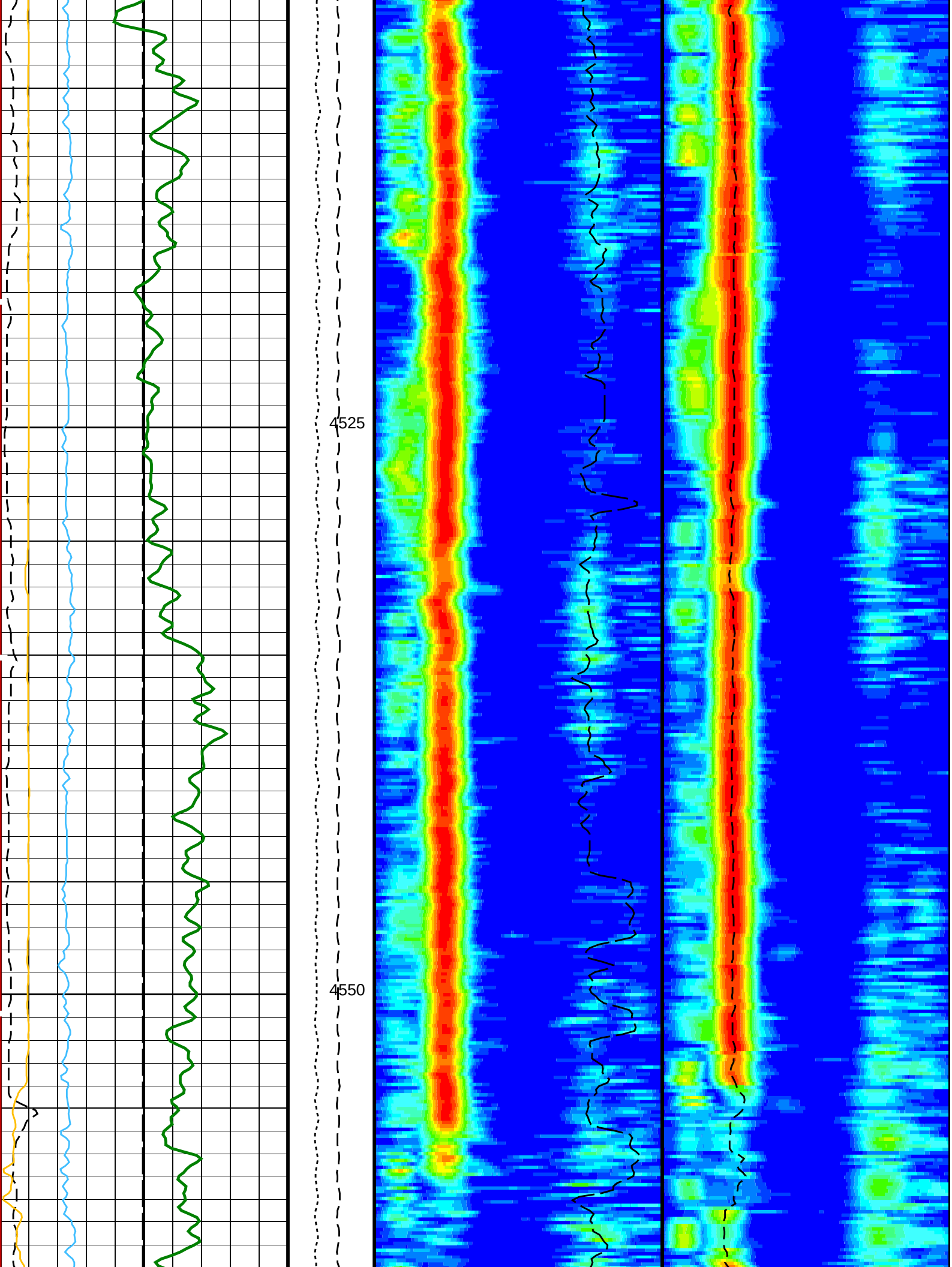

4250
4275

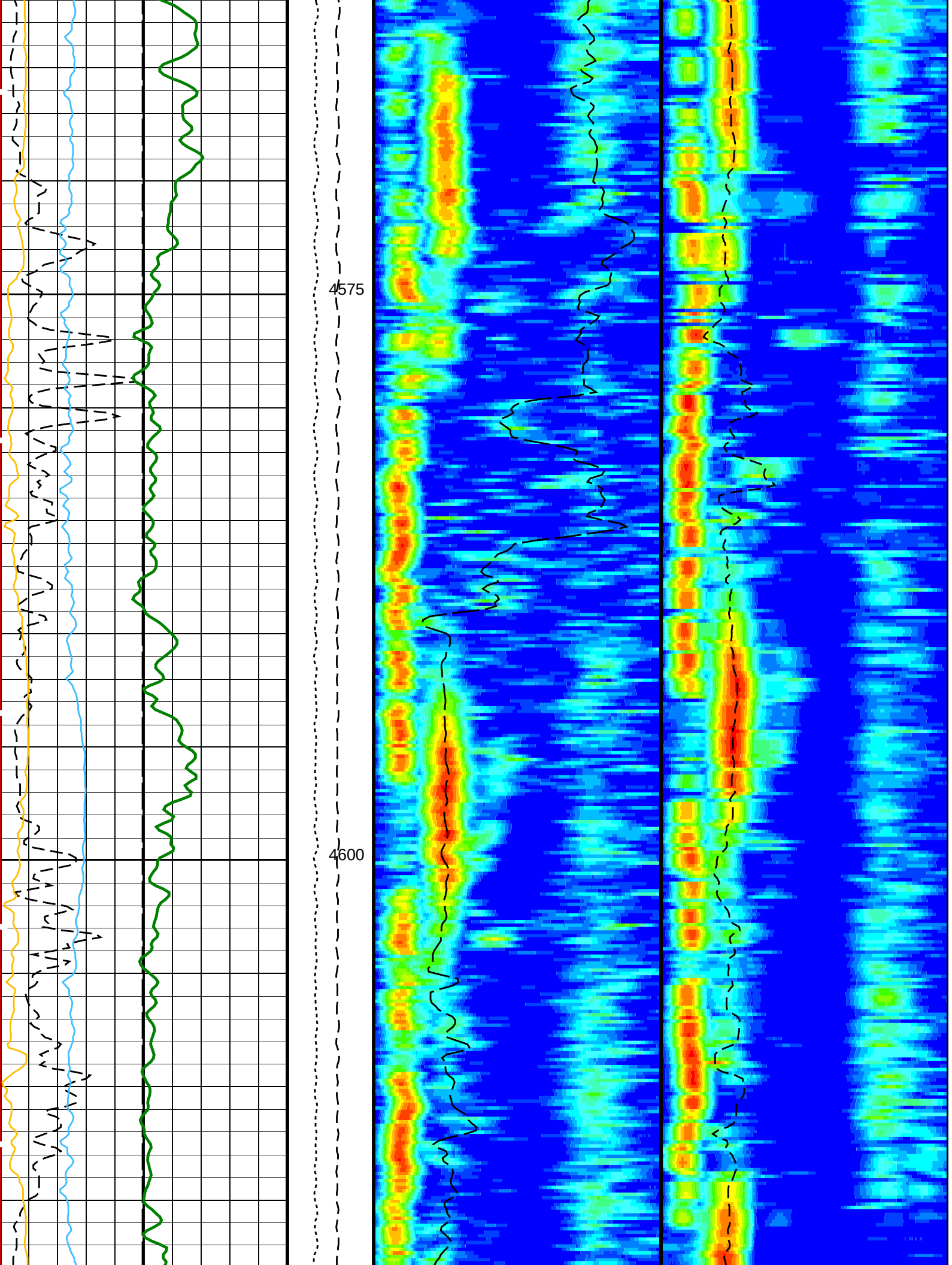

4300
4325

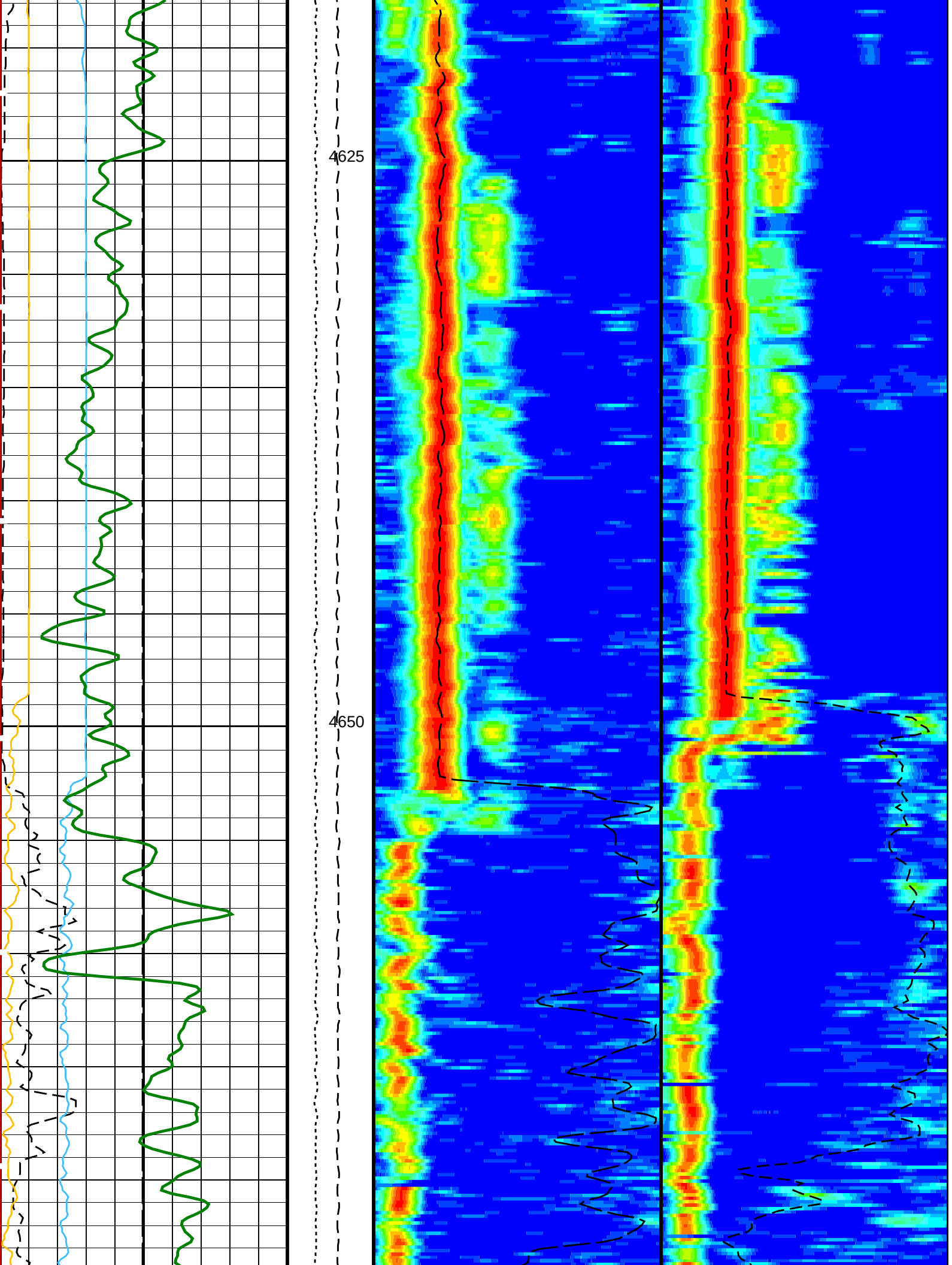

4350
4375

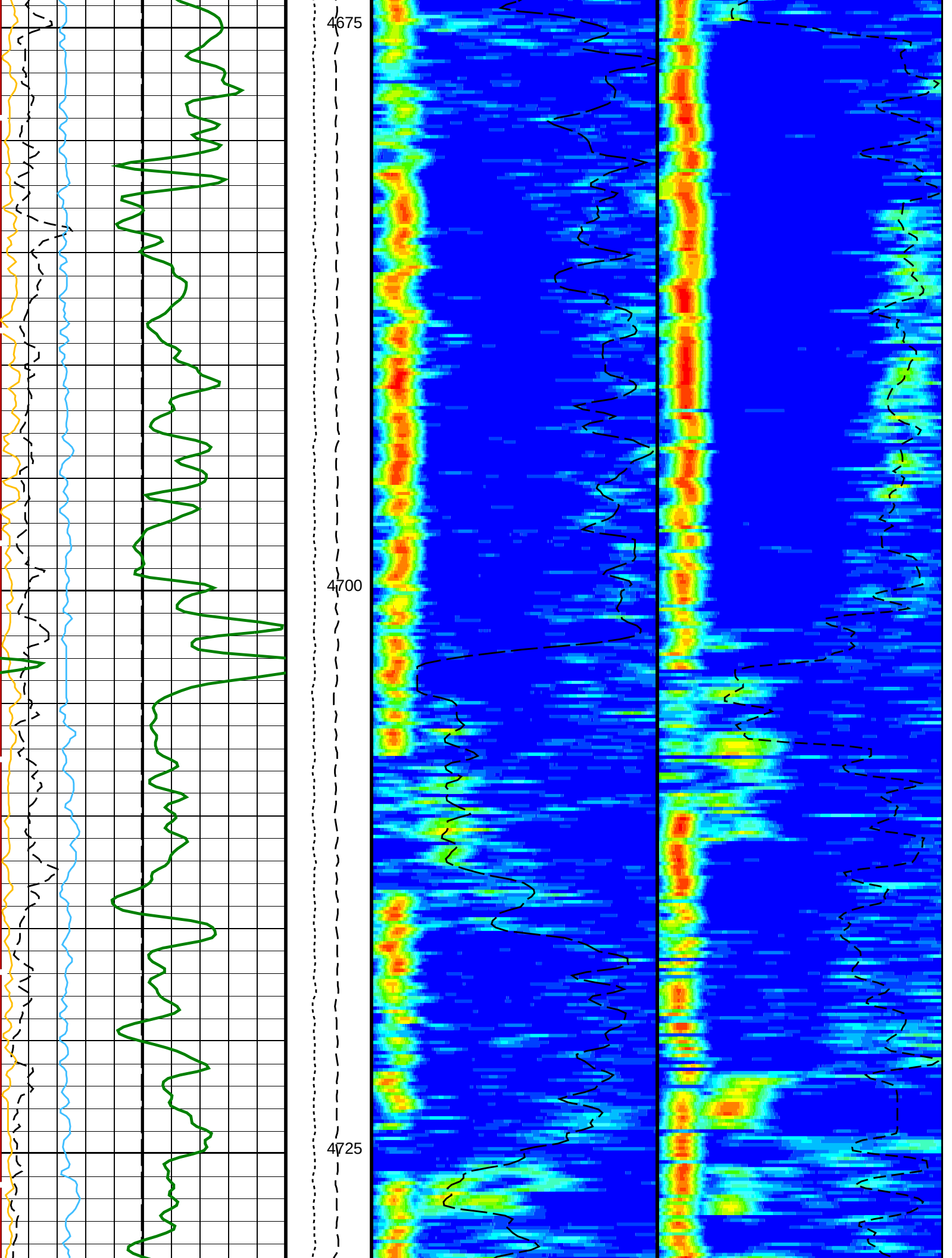

4400
4425
4450

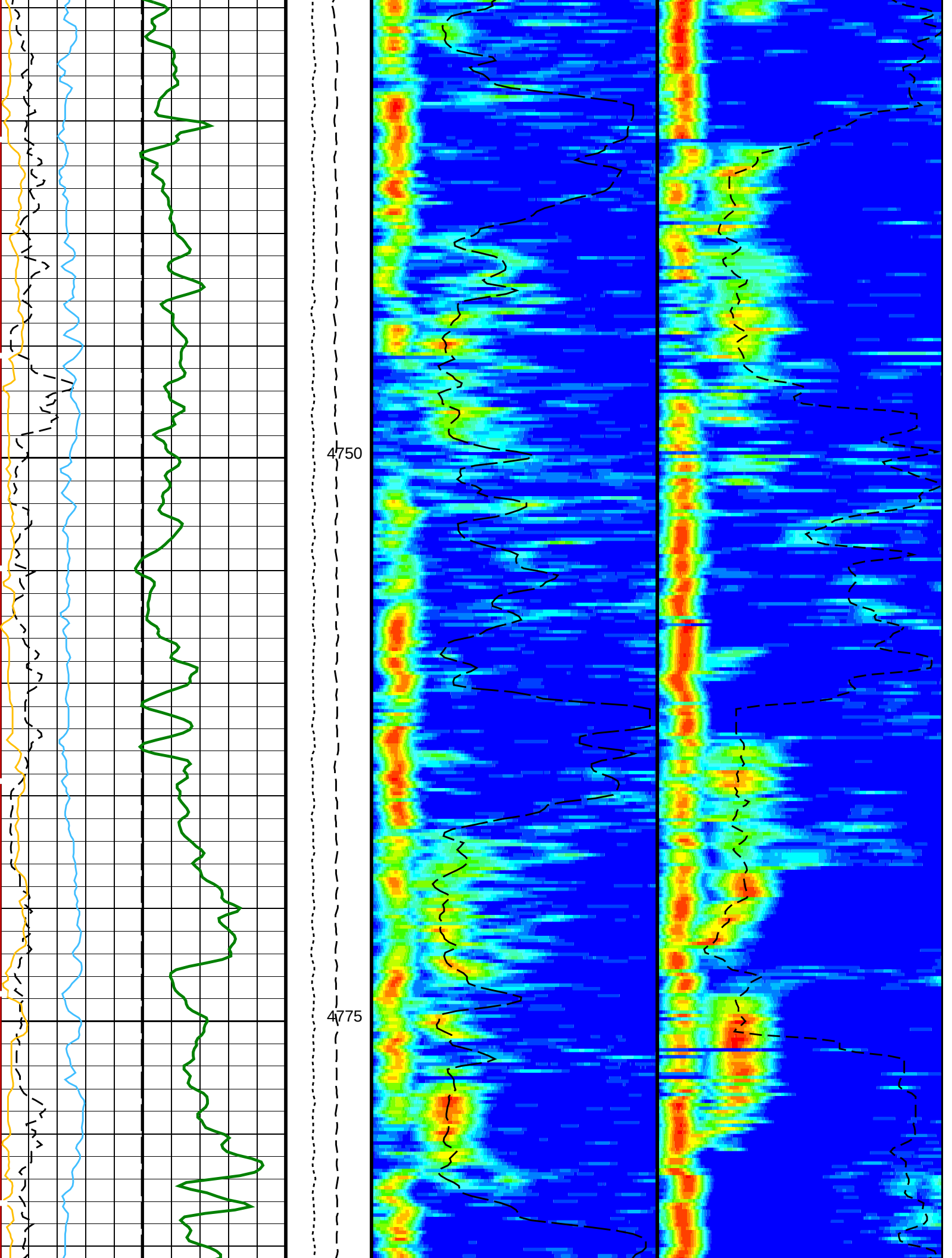

4475
4500

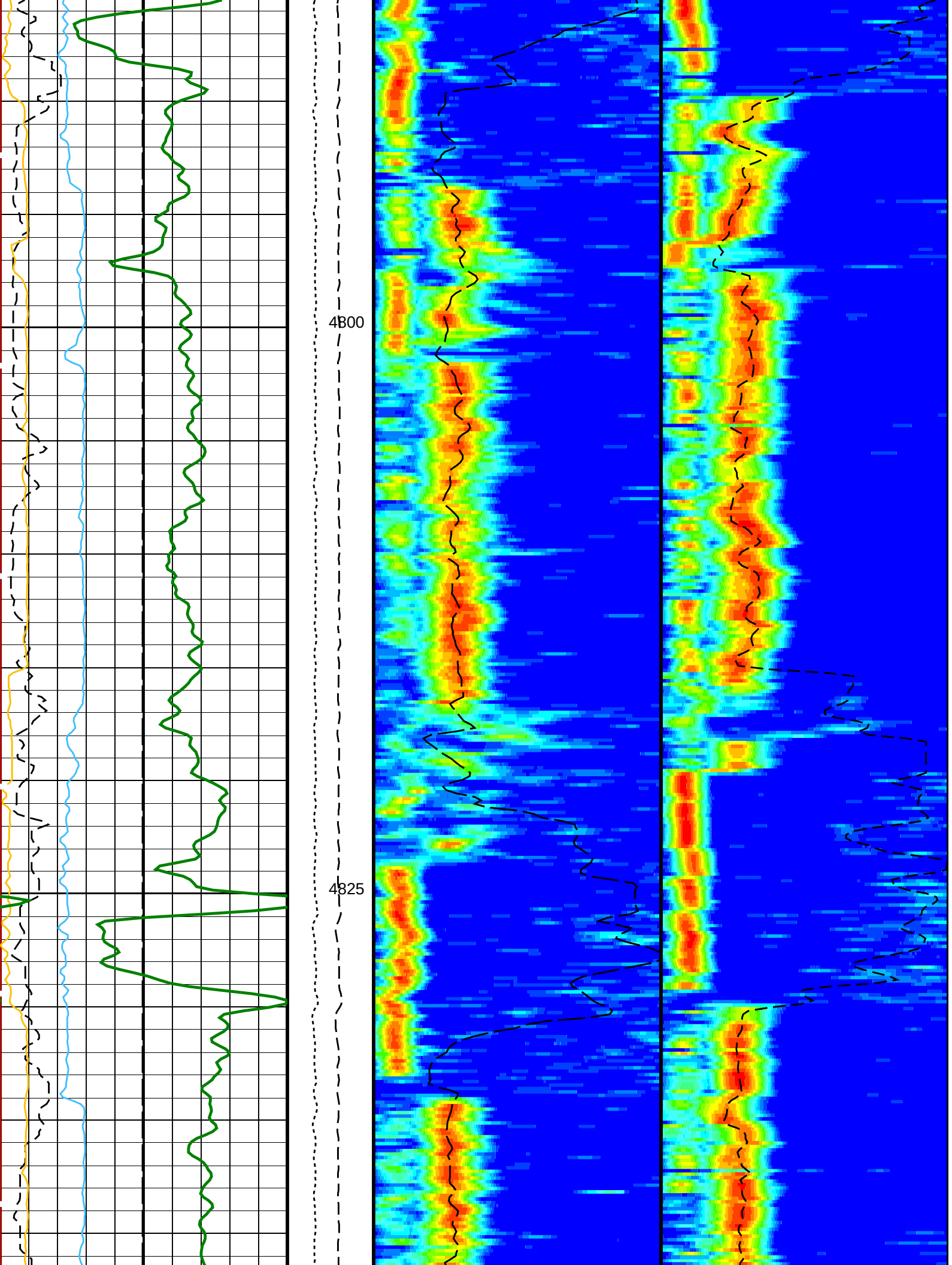

4525
4550

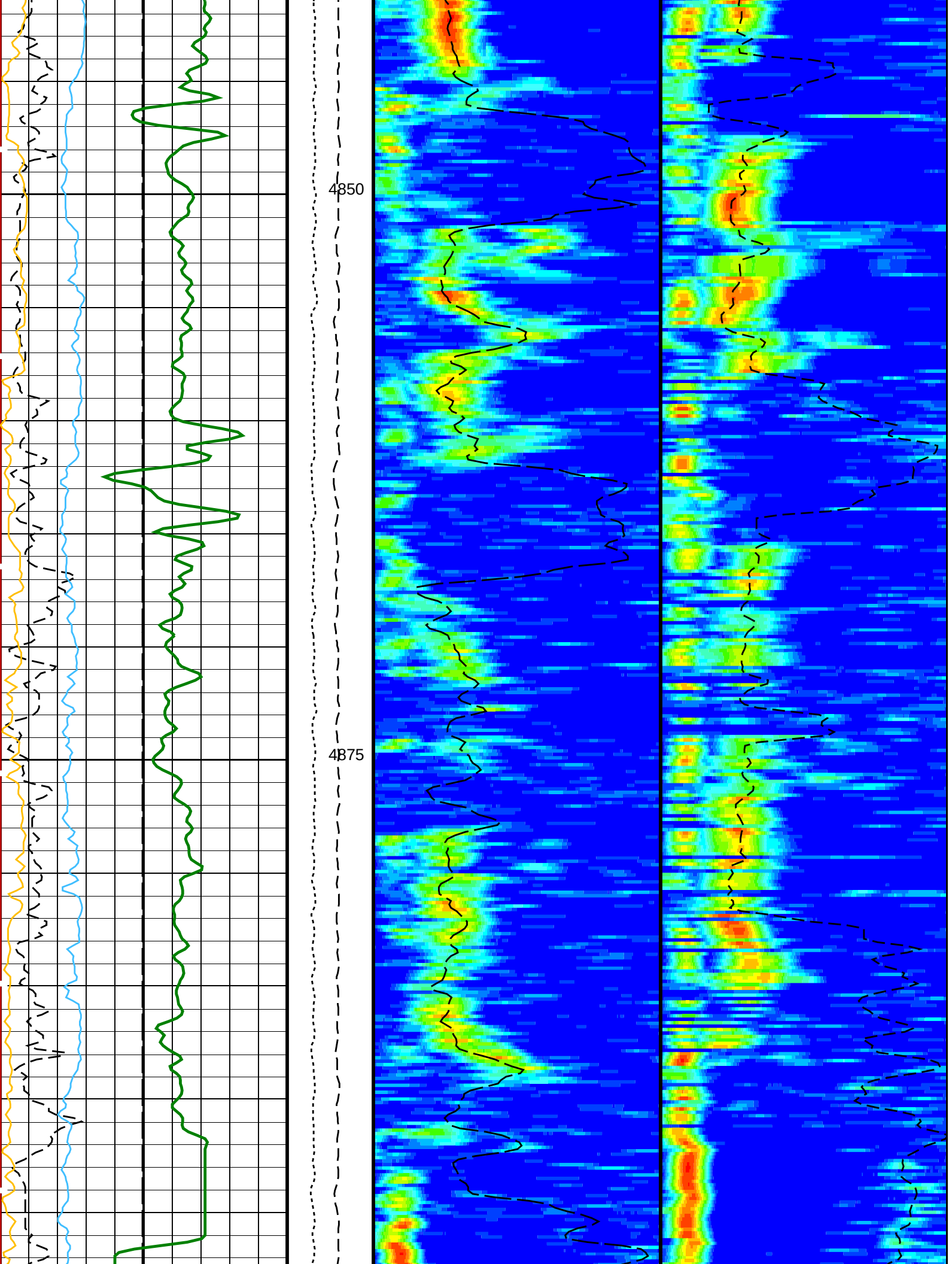

4575
4600

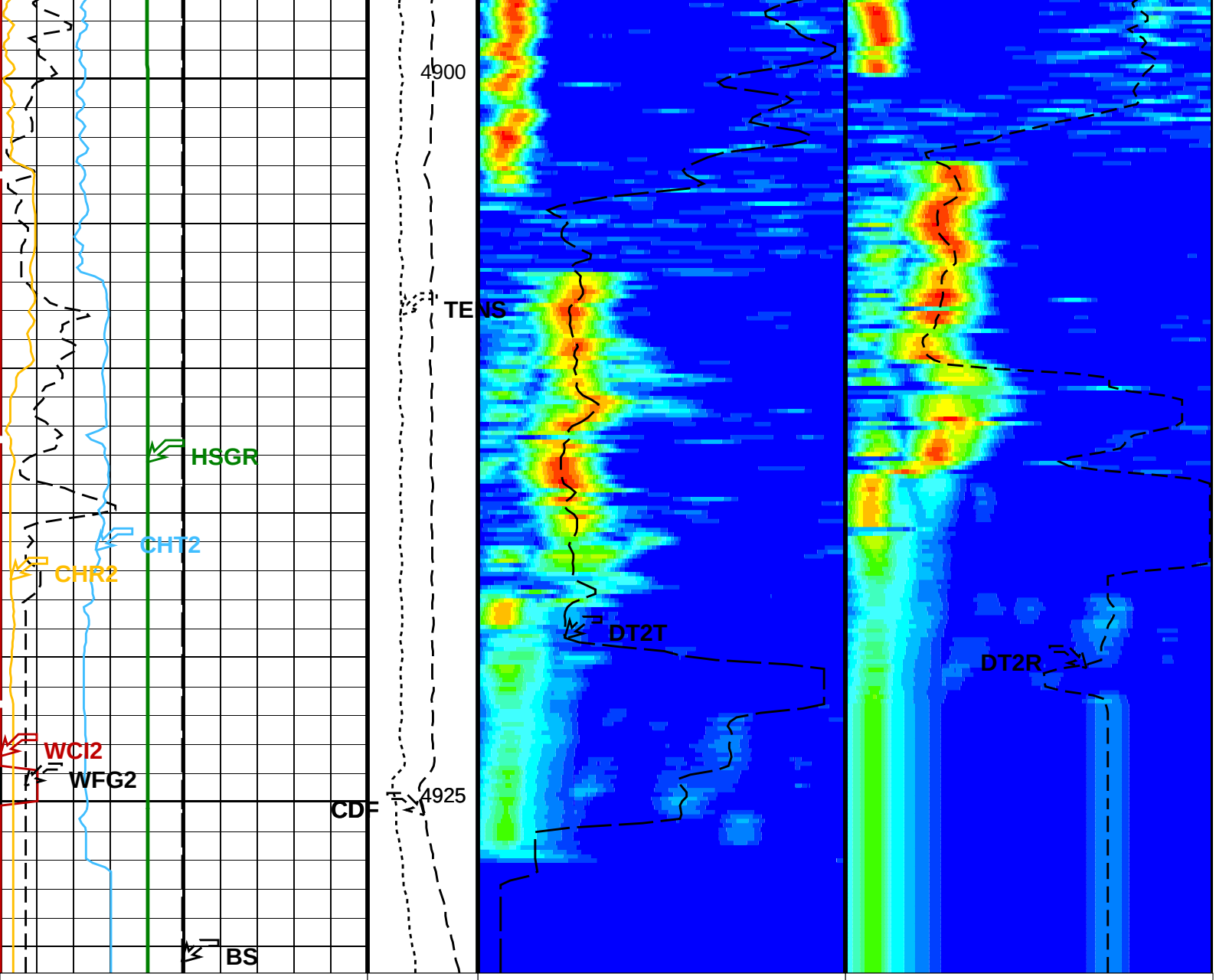

4625
4650


4675
4700
4725


4750
4775


4800
4825


4850
4875



Bit Size (BS) 0 (IN) 20	Tension (TENS) (LBF) 10000 0	Delta−T Shear / TA − Upper Dipole (DT2T) 40 (US/F) 1040
SAM2 Waveform Gain (WFG2) 0 (−−−−) 1000	Calibrated Downhole Force (CDF) (LBF) 5000 0	Min Amplitude Max Tr.Array U.Dipole Slow Proj. CVDL (SPT2) 40 (US/F) 1040
Waveform Data Copy Indicator 2 − Upper Dipole (WCI2) 0 (−−−−) 10		
Peak Coherence / RA − Upper Dipole (CHR2) 0 (−−−−) 10		
Peak Coherence / TA − Upper Dipole (CHT2) −2 (−−−−) 8		
HNGS Spectroscopy Gamma Ray (HSGR) 0 (GAPI) 100		

Delta−T Shear / RA − Upper Dipole (DT2R) 40 (US/F) 1040	
Min Amplitude Max Rec.Array U.Dipole Slow Proj. CVDL (SPR2) 40 (US/F) 1040	

PIP SUMMARY

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
BHS	Borehole Status	OPEN	
DDE2	Digitizing Delay 2	0	US
DDEX	Digitizing Delay X	0	US
DLCS	Label Compressional Source − Dipole Shear	USE	
DSHL	Label Slowness Lower Limit − Dipole Shear	40	US/F
DSHU	Label Slowness Upper Limit − Dipole Shear	1040	US/F
DSI2	Digitizer Sample Interval 2	40	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta−T Source for DTCO Channel	PS_COMP	
DWC2	Digitizer Word Count 2	512	
DWCX	Digitizer Word Count X	512	
GCSE	Generalized Caliper Selection	LCAL	
NWI2	Number Waveform Items 2	8	
NWIX	Number Waveform Items X	0	
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
SAM2	DSST Sonic Acquisition Mode 2 − Upper Dipole Mode	ODD	
SAMX	DSST Sonic Acquisition Mode X − Both Dipoles or Monopole Mode for Expert	OFF	
SAS2	STC Sonic Array Status − Upper Dipole	255	
SBO2	STC Search Band Offset − Upper Dipole	3000	US
SBW2	STC Search Bandwidth − Upper Dipole	8000	US
SFC2	STC Formation Character − Upper Dipole	SELECTABLE	
SFM2	STC Filter − Upper Dipole	B1−2K	
SLL2	STC Slowness Lower Limit − Upper Dipole	40	US/F
SST2	STC Slowness Step − Upper Dipole	4	US/F
SSW2	STC Source Waveform − Upper Dipole	WF_SAM2	
SUL2	STC Slowness Upper Limit − Upper Dipole	1040	US/F
SWD2	STC Slowness Width − Upper Dipole	40	US/F
TBF2	STC Time for Baseline Fill − Upper Dipole	0	US
TLL2	STC Time Lower Limit − Upper Dipole	600	US
TST2	STC Time Step − Upper Dipole	200	US
TUL2	STC Time Upper Limit − Upper Dipole	18440	US
TWD2	STC Time Width − Upper Dipole	2000	US
TWI2	STC Integration Time Window − Upper Dipole	1600	US
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFM2	Waveform Mode 2	W1	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	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	10.75	IN
CSD2	Outer Casing Outer Diameter	10.75	IN
CSW1	Inner Casing Weight	45	LB/F
CSW2	Outer Casing Weight	45	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	LCAL	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00192069	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
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	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.992004	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.990962	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	System and Miscellaneous		
BS	Bit Size	9.875	IN

DFD	Drilling Fluid Density	1.32	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: DSST_UPPER_DIPOLE_RC_TR_VDL_COLOR Vertical Scale: 1:200 Graphics File Created: 06-Apr-2017 20:24

OP System Version: 19C0-187

DSST-B	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	SKK-5169-EDTCB		

Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_030LUP	FN:35	PRODUCER	06-Apr-2017 18:03	4930.9 M	3798.9 M

Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_038PUP	FN:51	PRODUCER	06-Apr-2017 20:24		
BACKUP	DSI_HRLA_LDL_NGS_038PUP	FN:52	PRODUCER	06-Apr-2017 20:24		

Company: International Ocean Discovery Program Well: Expedition 367, Site U1500B

Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_030LUP	FN:35	PRODUCER	06-Apr-2017 18:03	4930.9 M	3798.9 M

Output DLIS Files

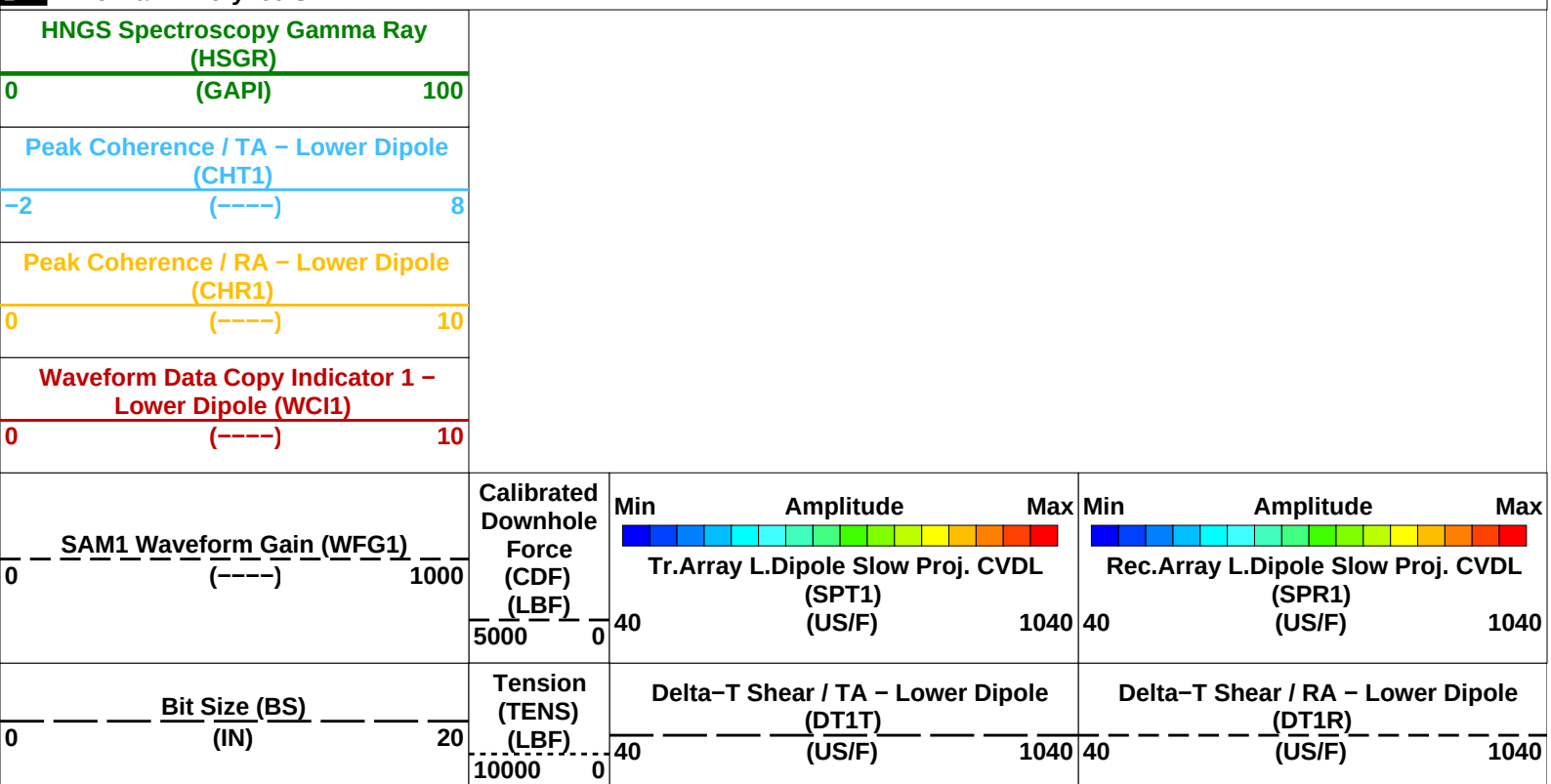
DEFAULT	DSI_HRLA_LDL_NGS_038PUP	FN:51	PRODUCER	06-Apr-2017 20:24	4930.9 M	3798.9 M
BACKUP	DSI_HRLA_LDL_NGS_038PUP	FN:52	PRODUCER	06-Apr-2017 20:24	4930.9 M	3798.9 M

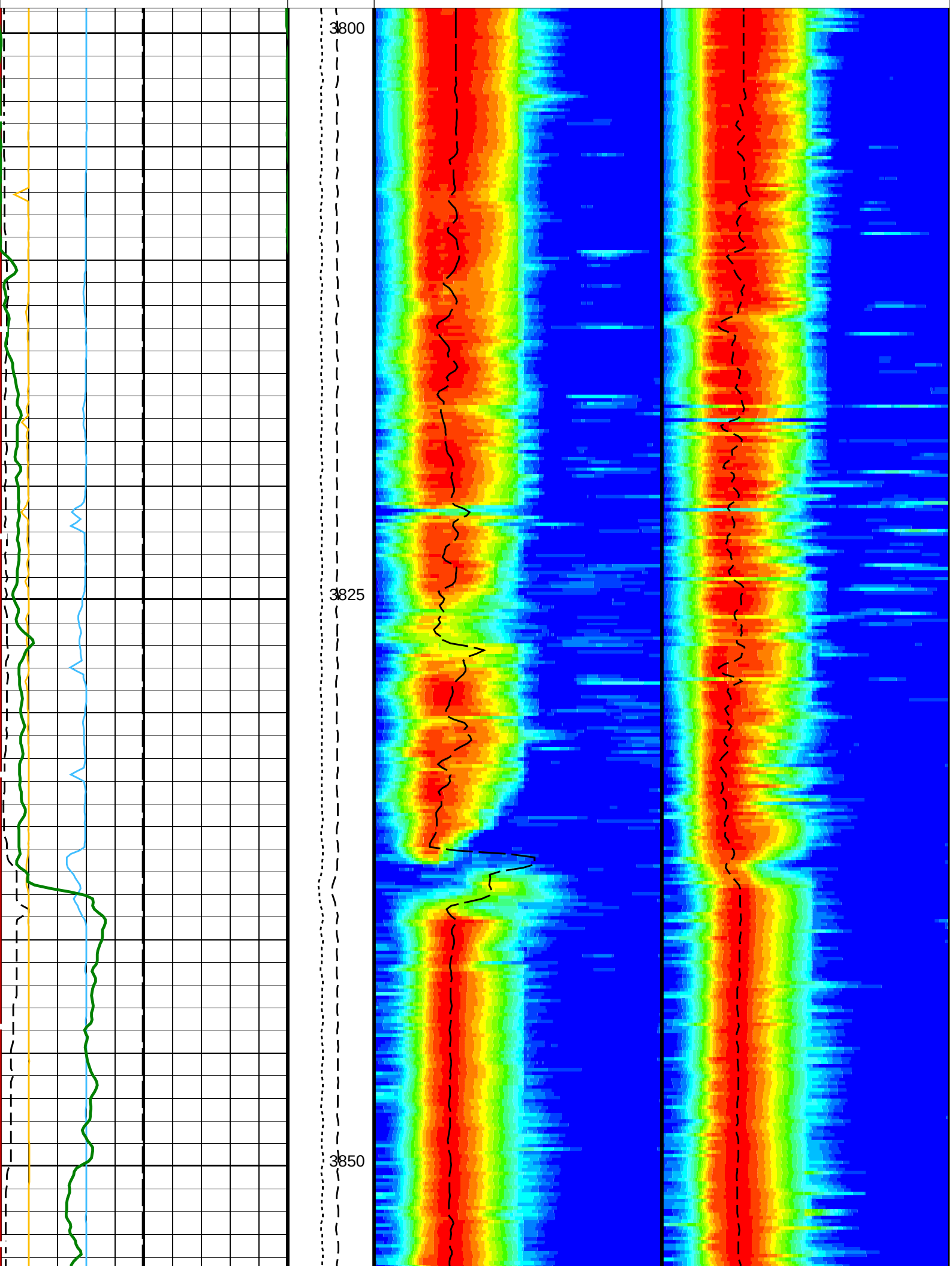
OP System Version: 19C0-187

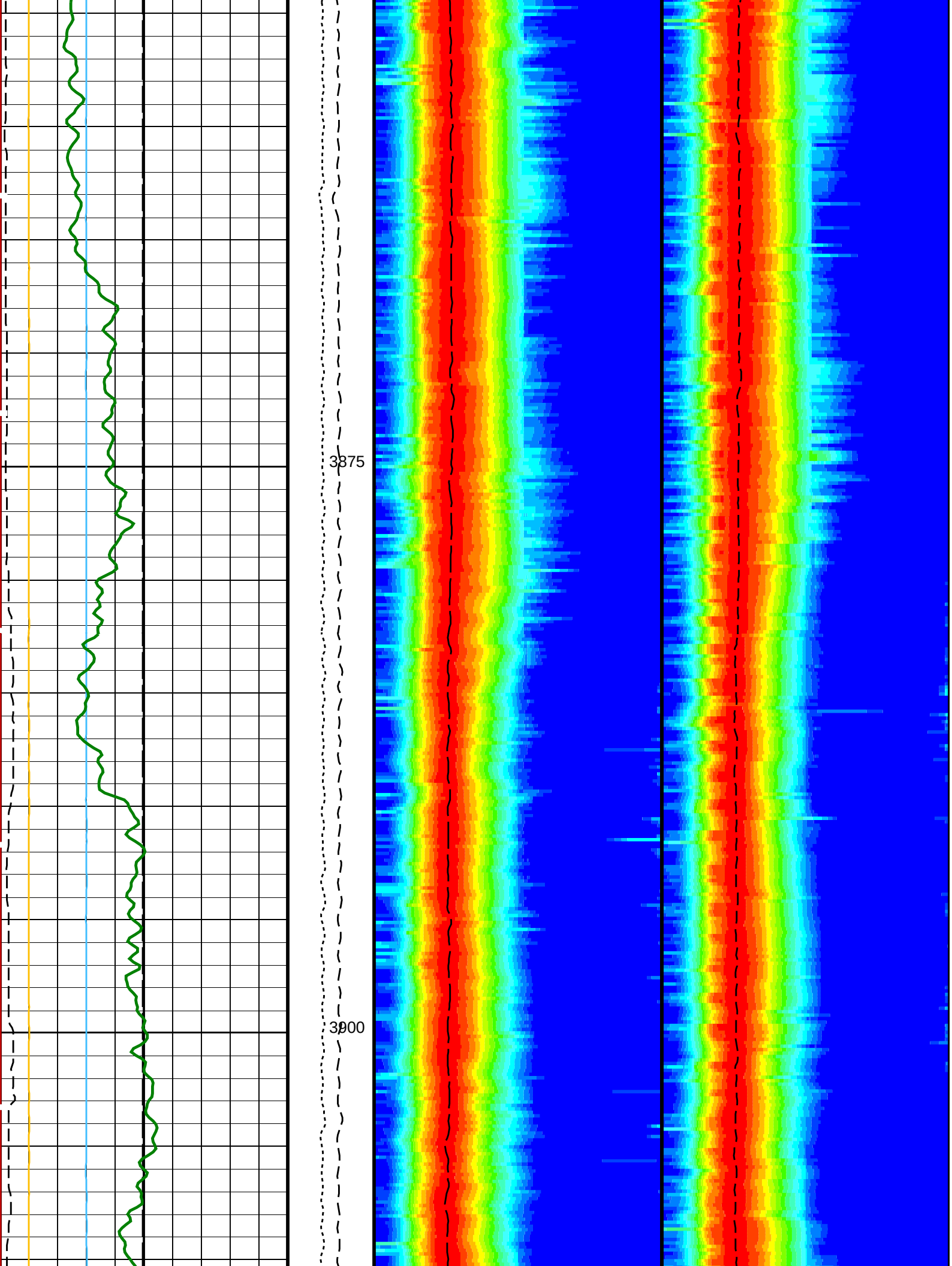
DSST-B	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	SKK-5169-EDTCB		

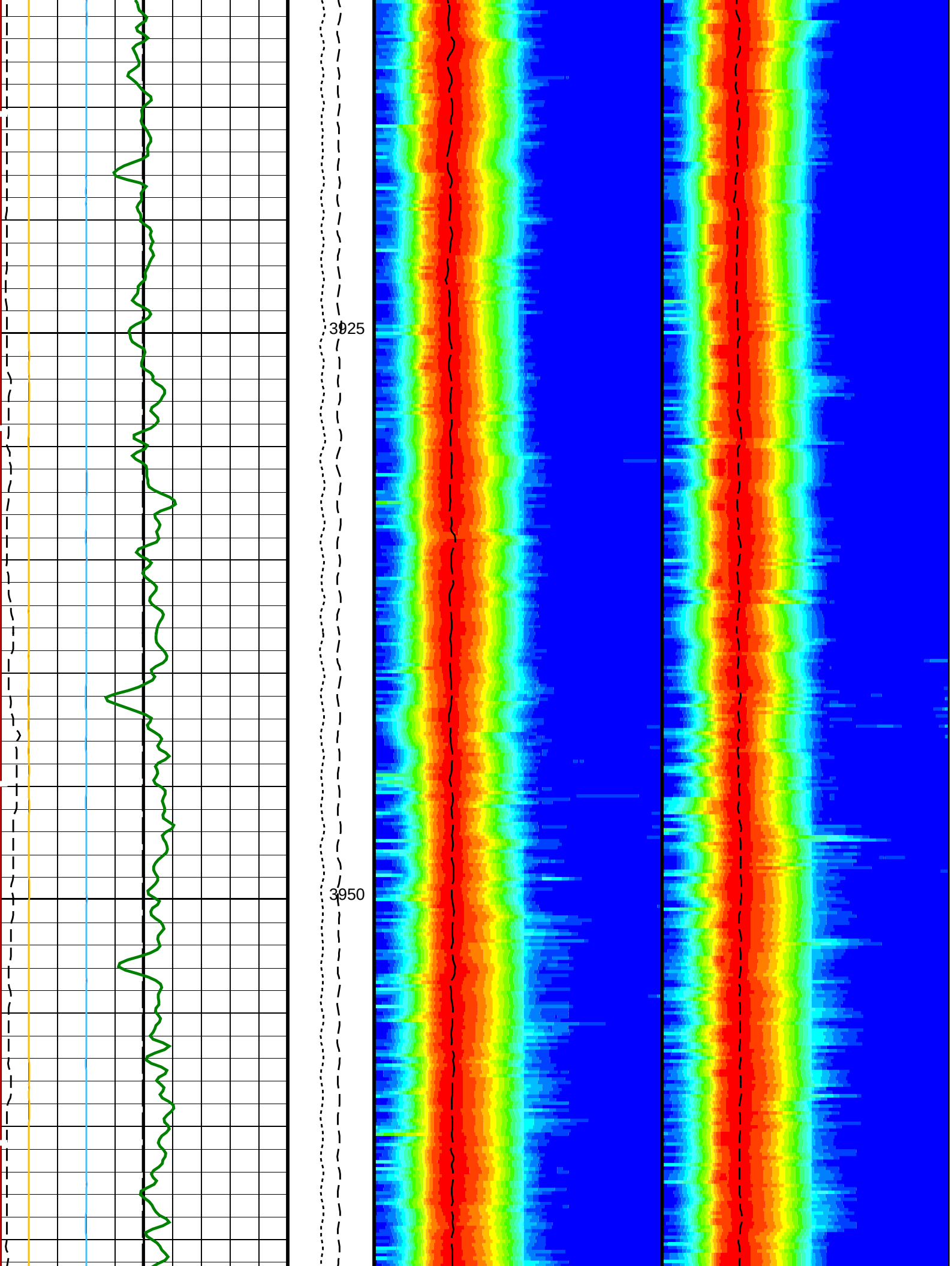
PIP SUMMARY

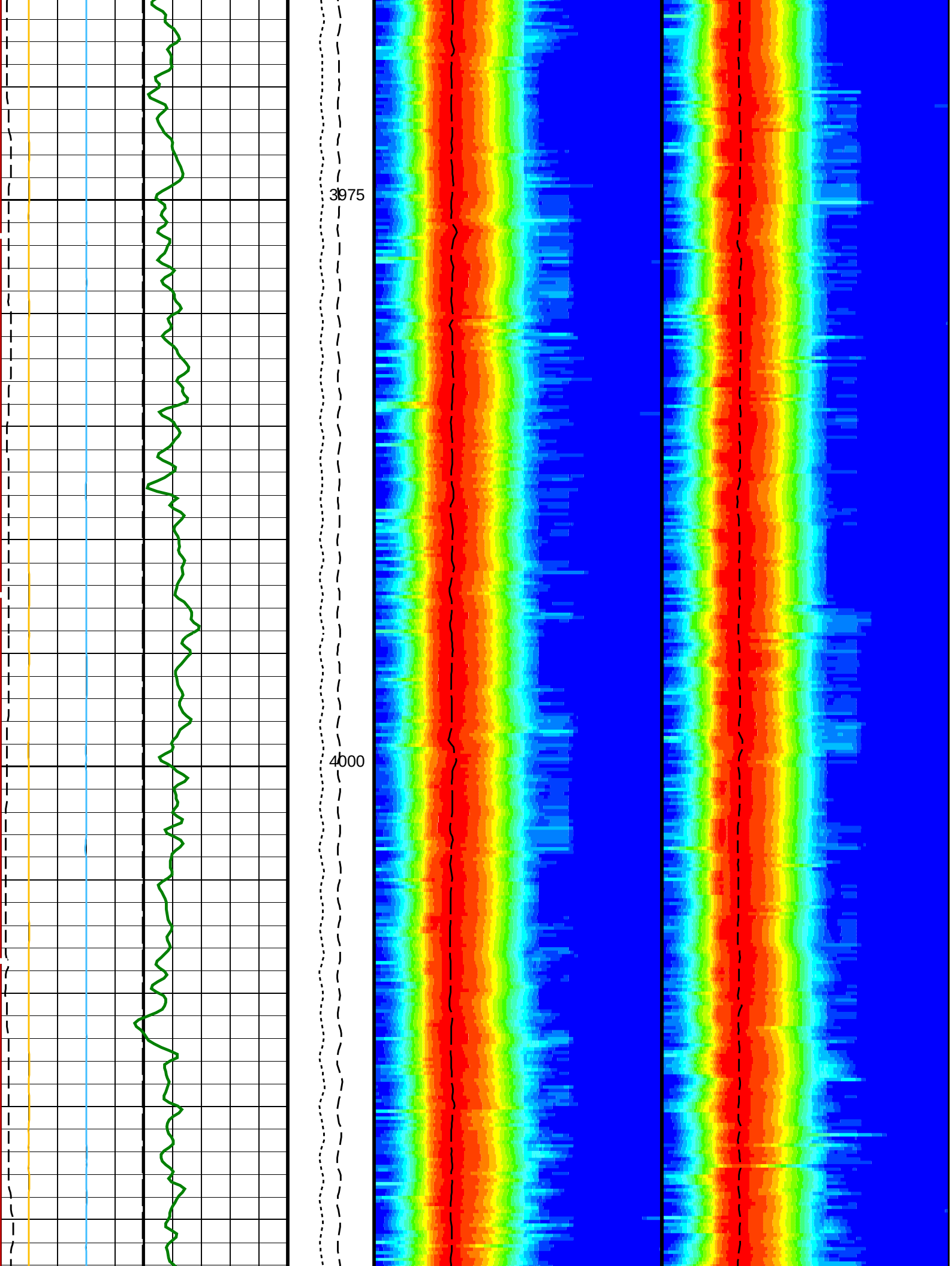
Time Mark Every 60 S

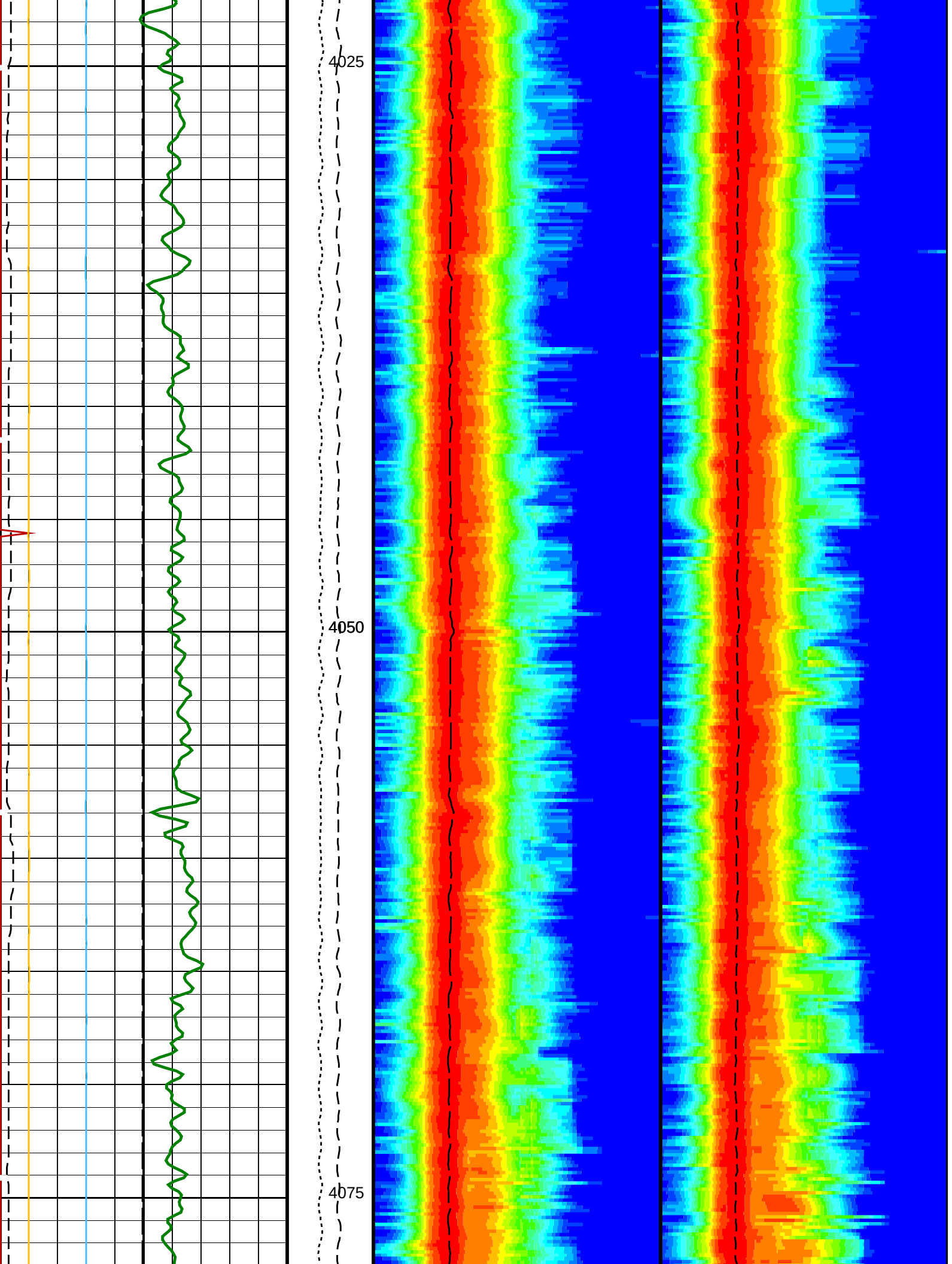


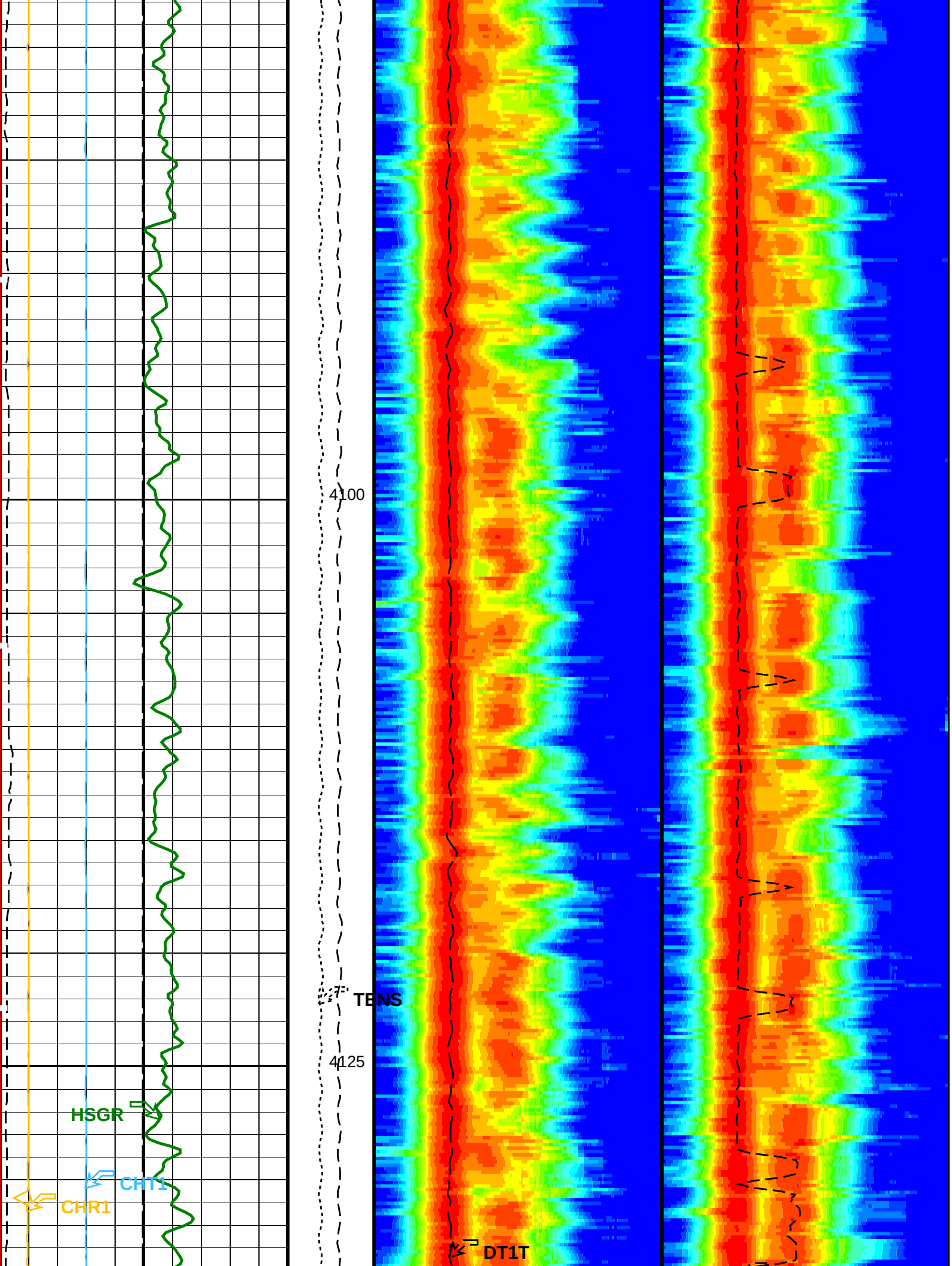

3800
3825
3850

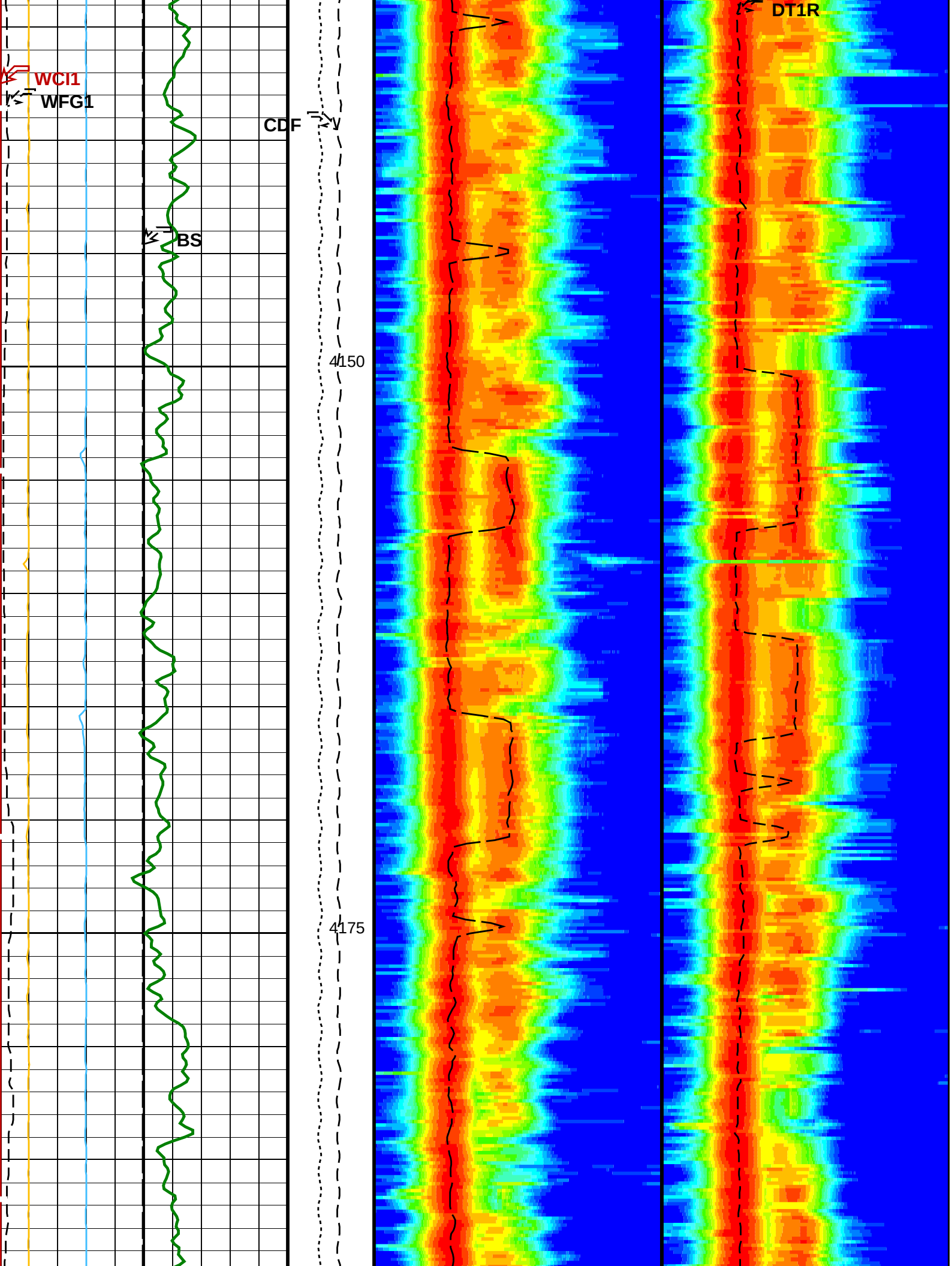

3875
3900

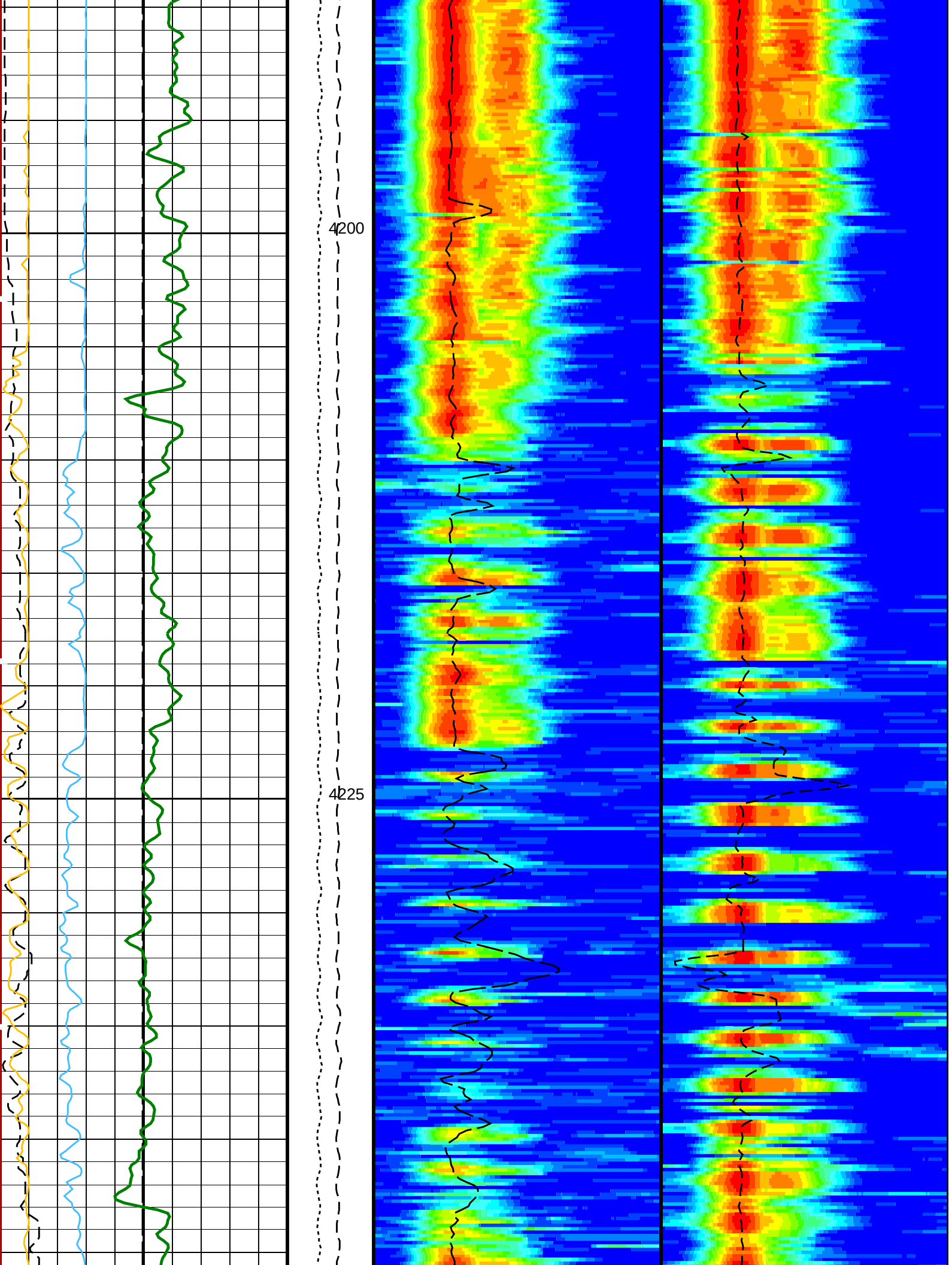

3925
3950

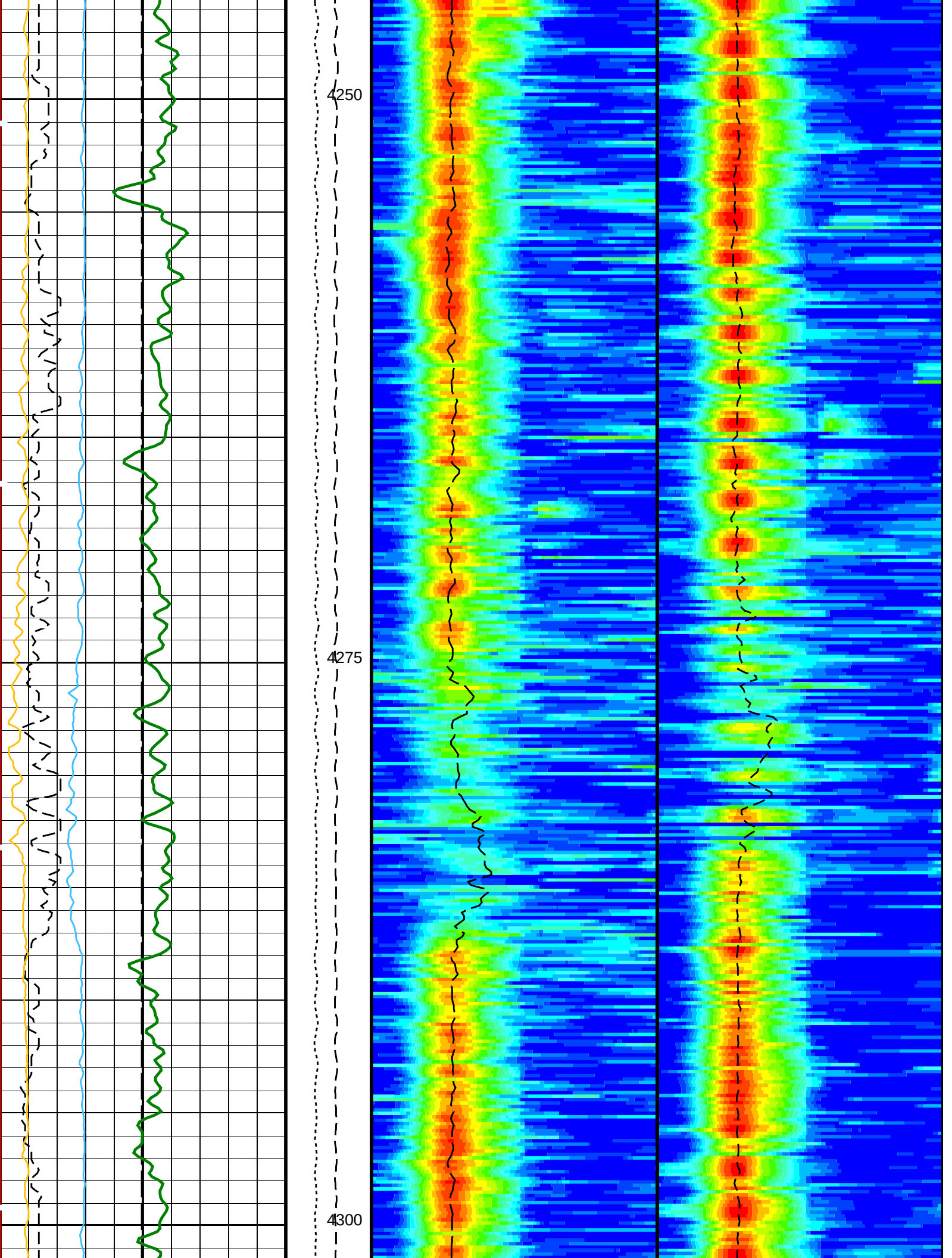

3975
4000

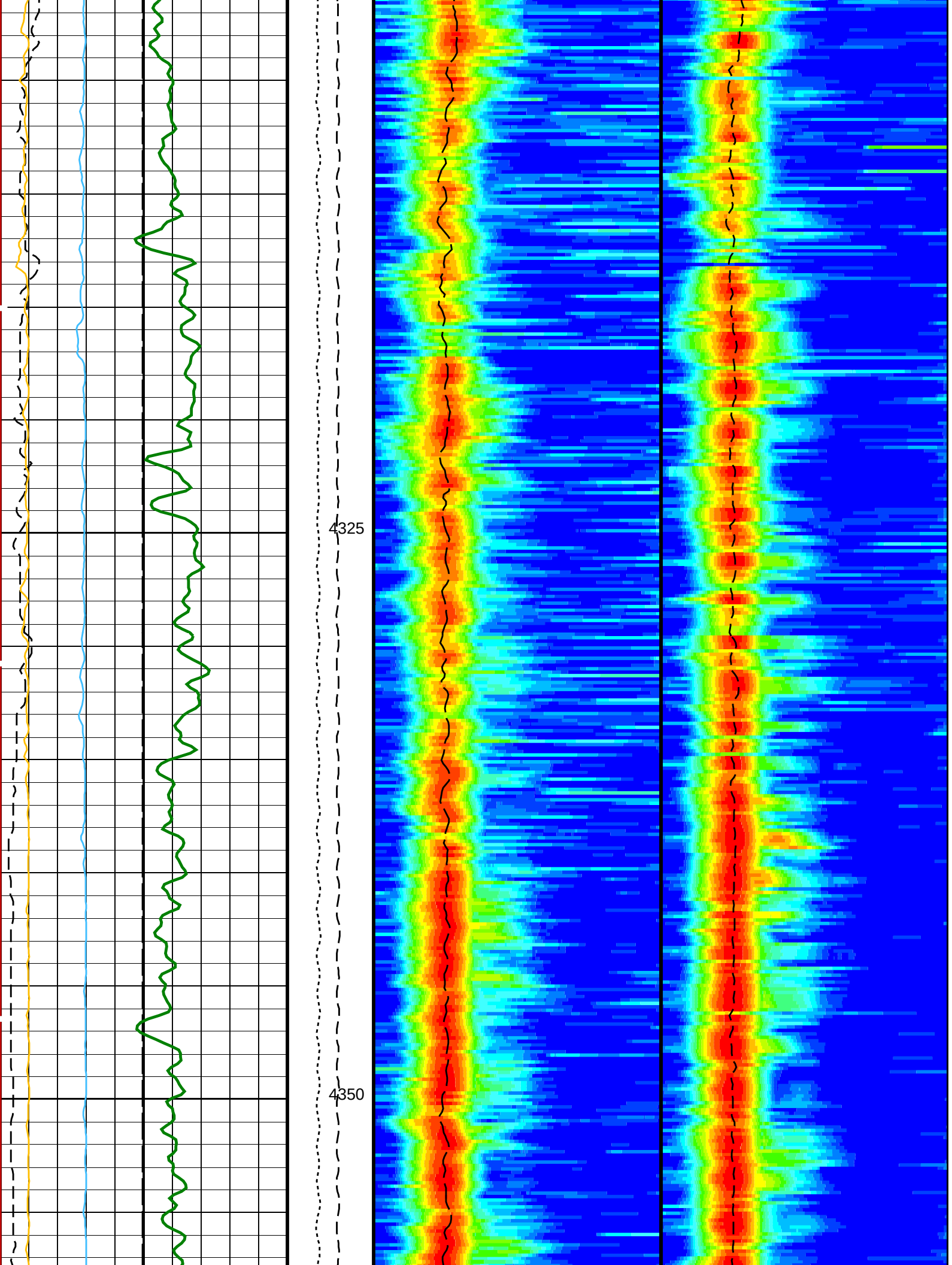

4025
4050
4075

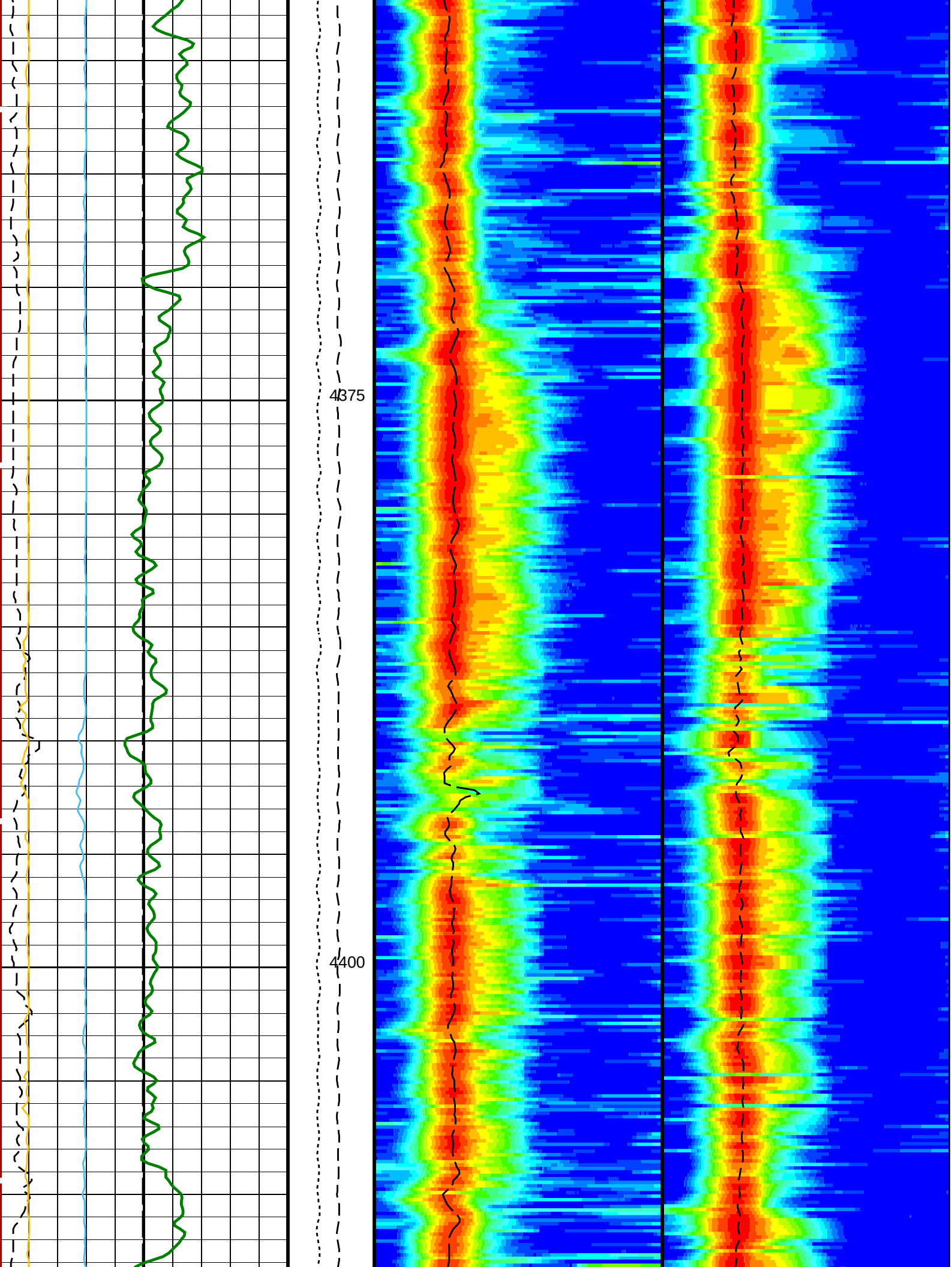

4100
TENS
4125
HSGR
CHT1
CHR1
DT1T

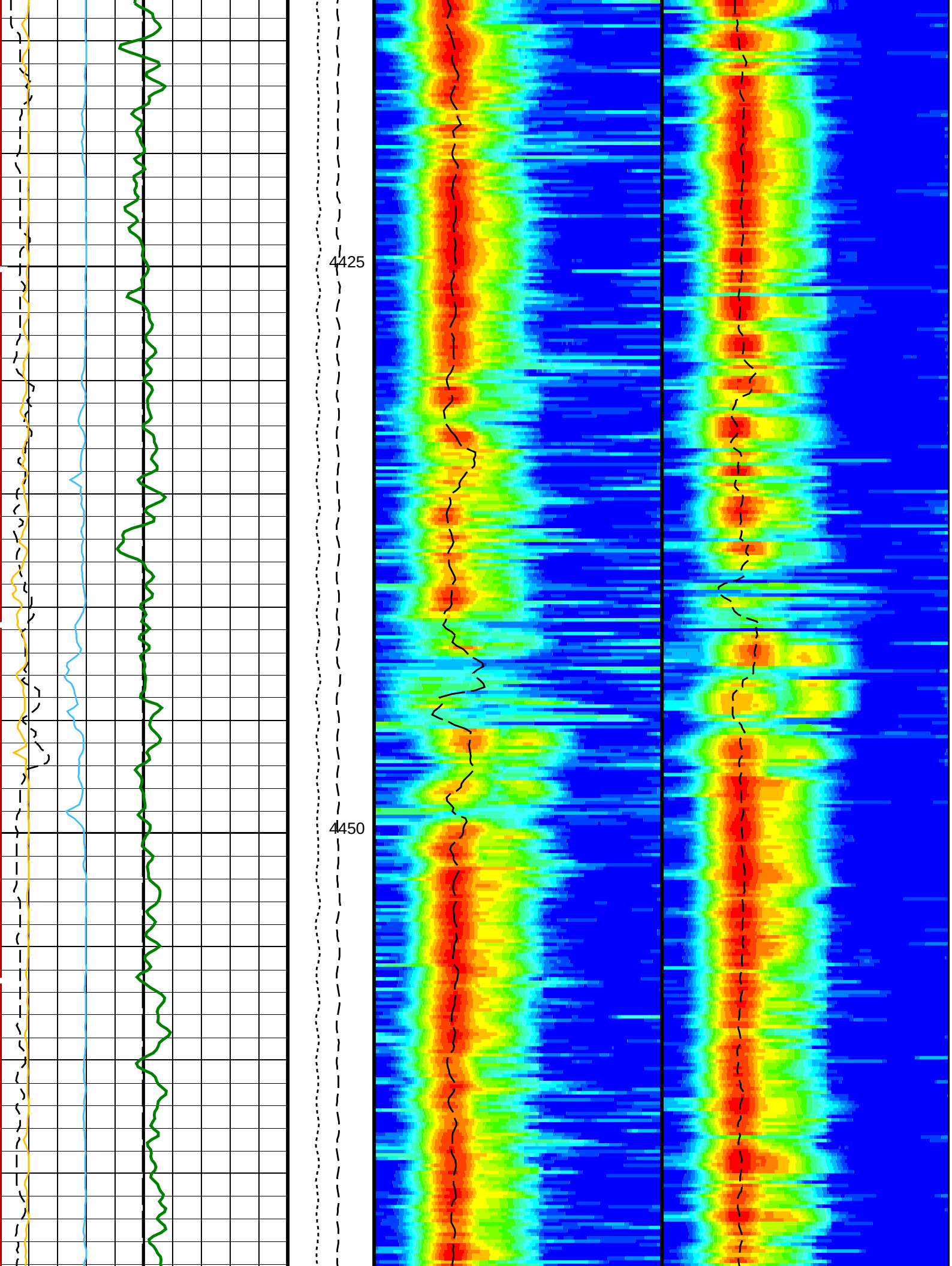

WCI1
WFG1
CDF
BS
DT1R
4150
4175

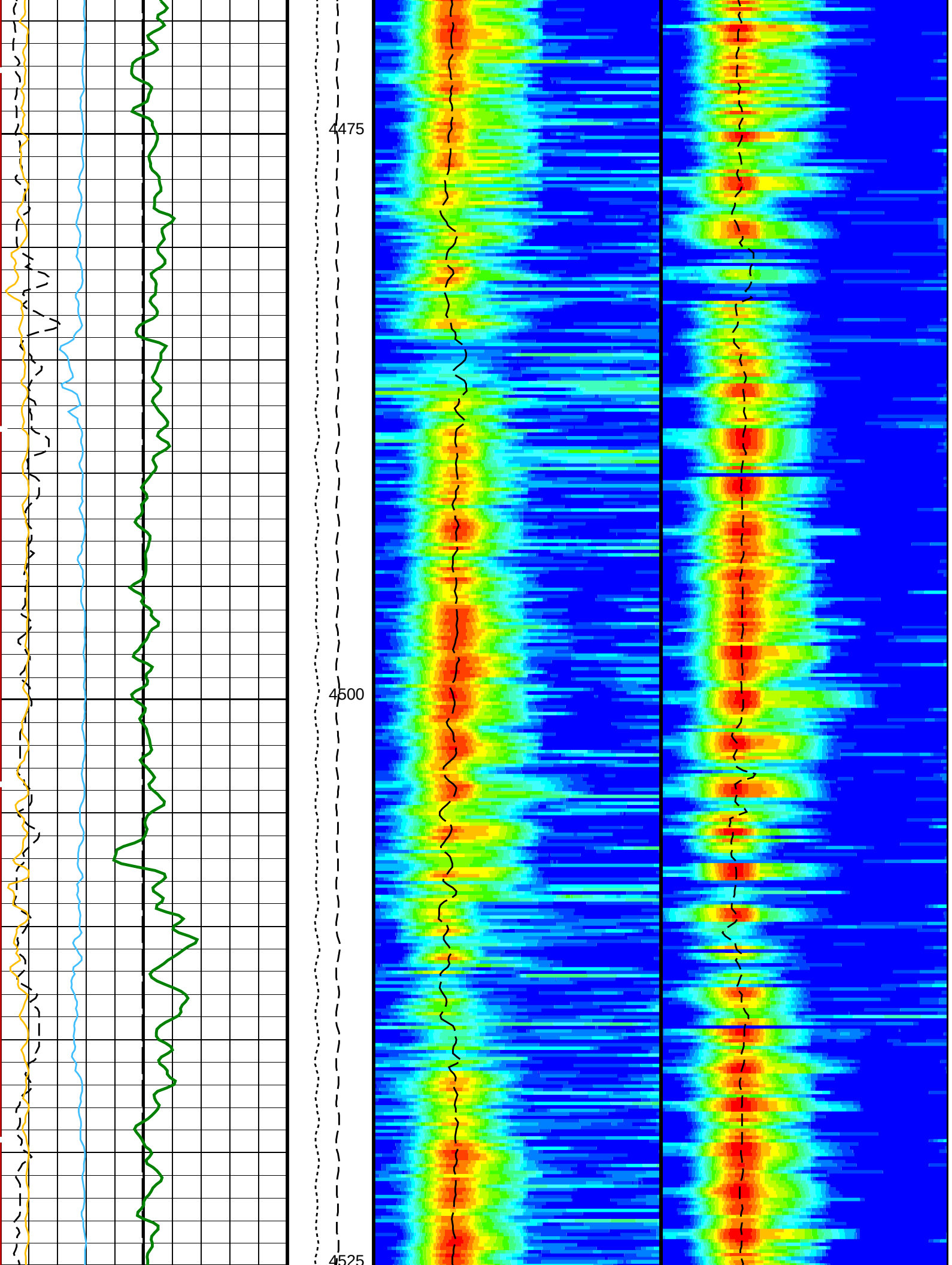

4200
4225

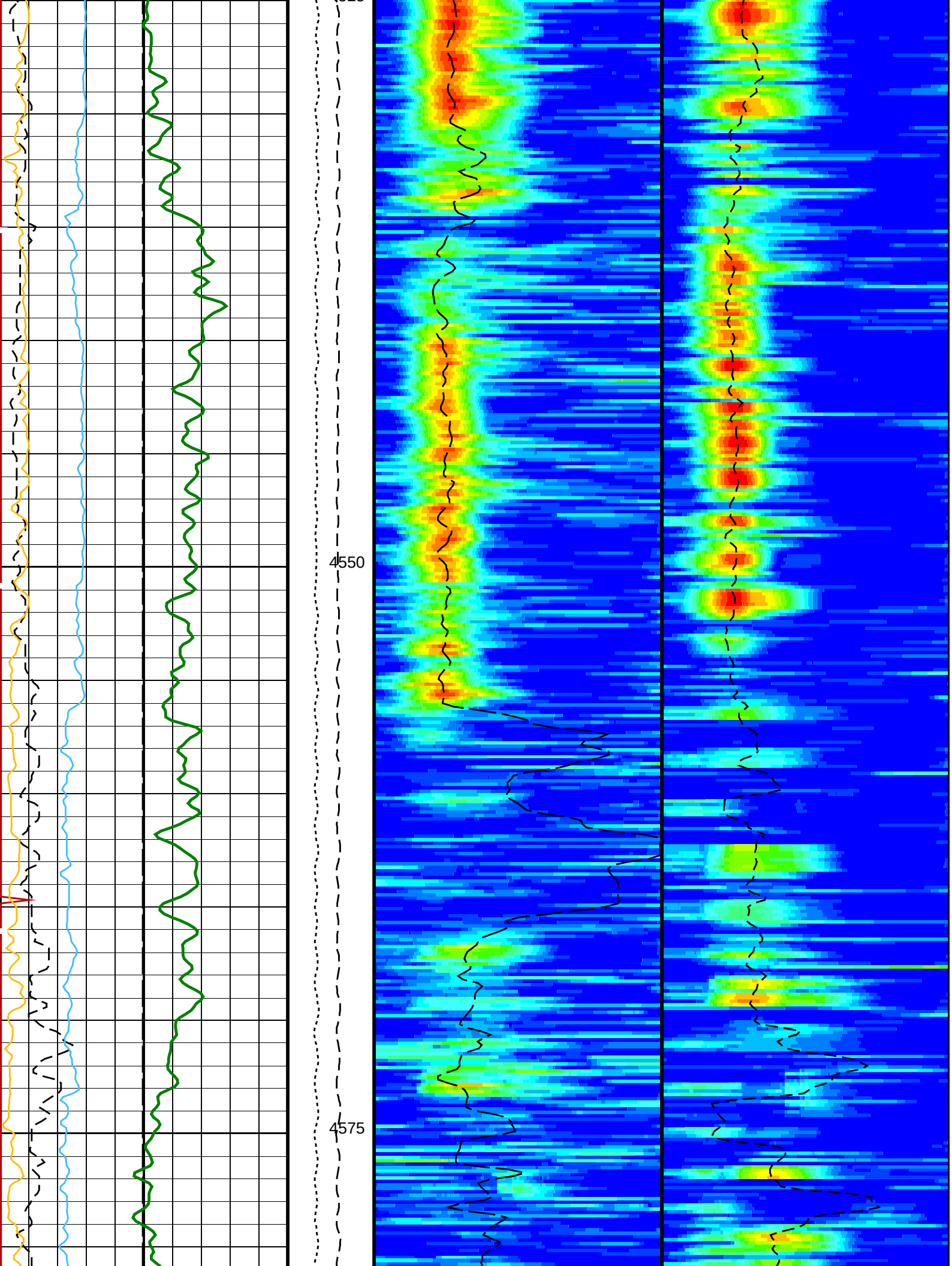

4250
4275
4300

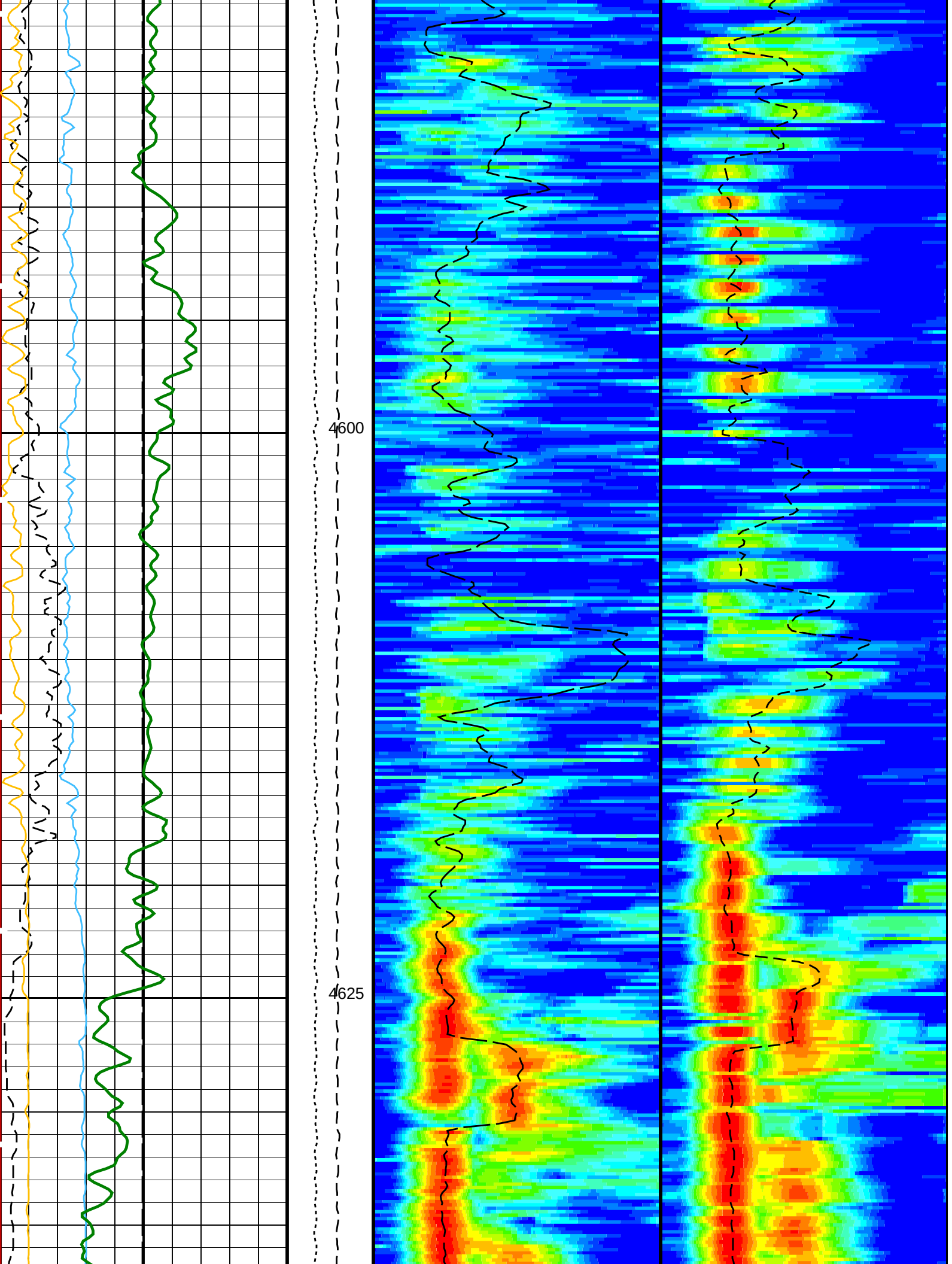

4325
4350

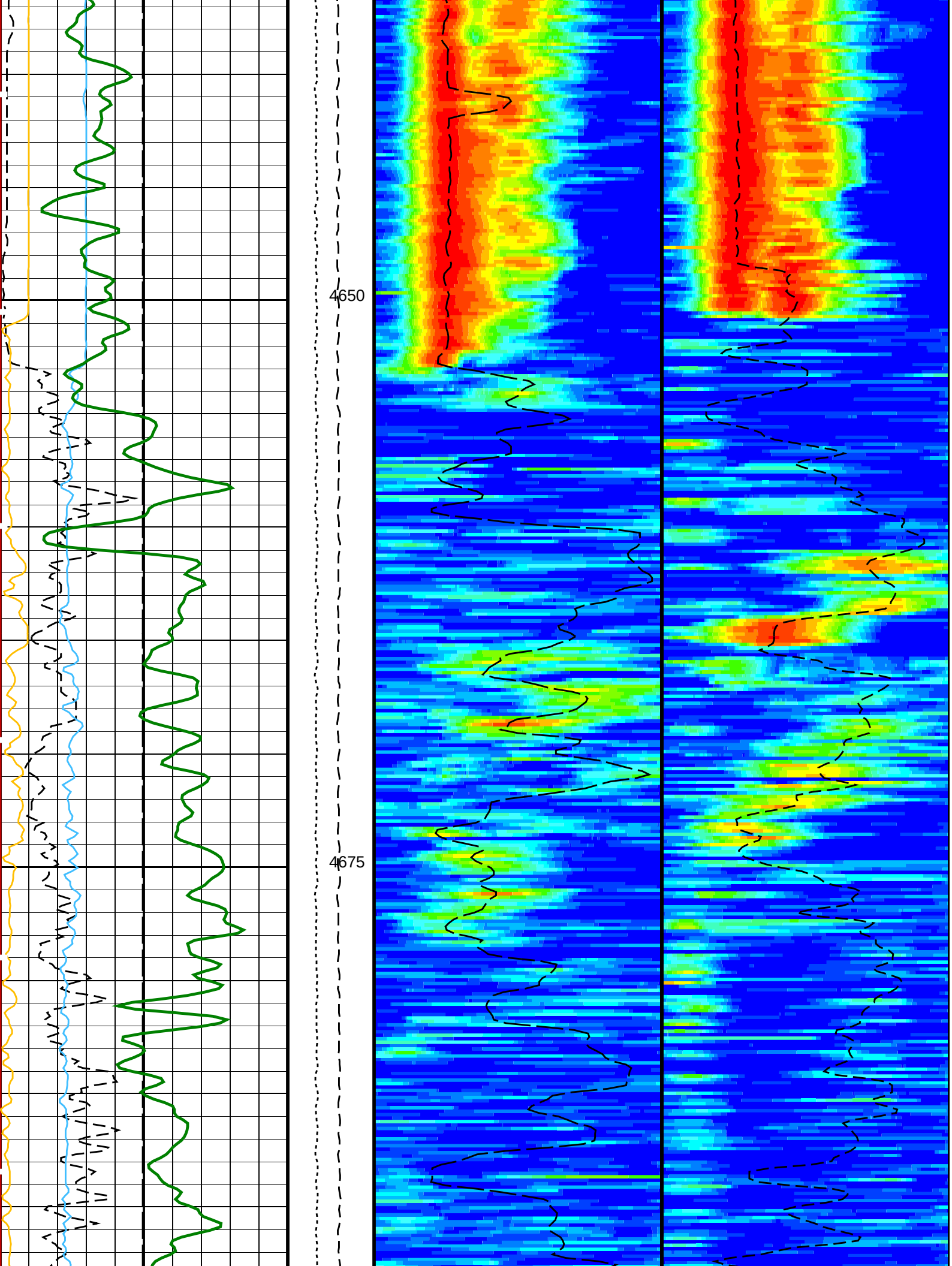

4375
4400

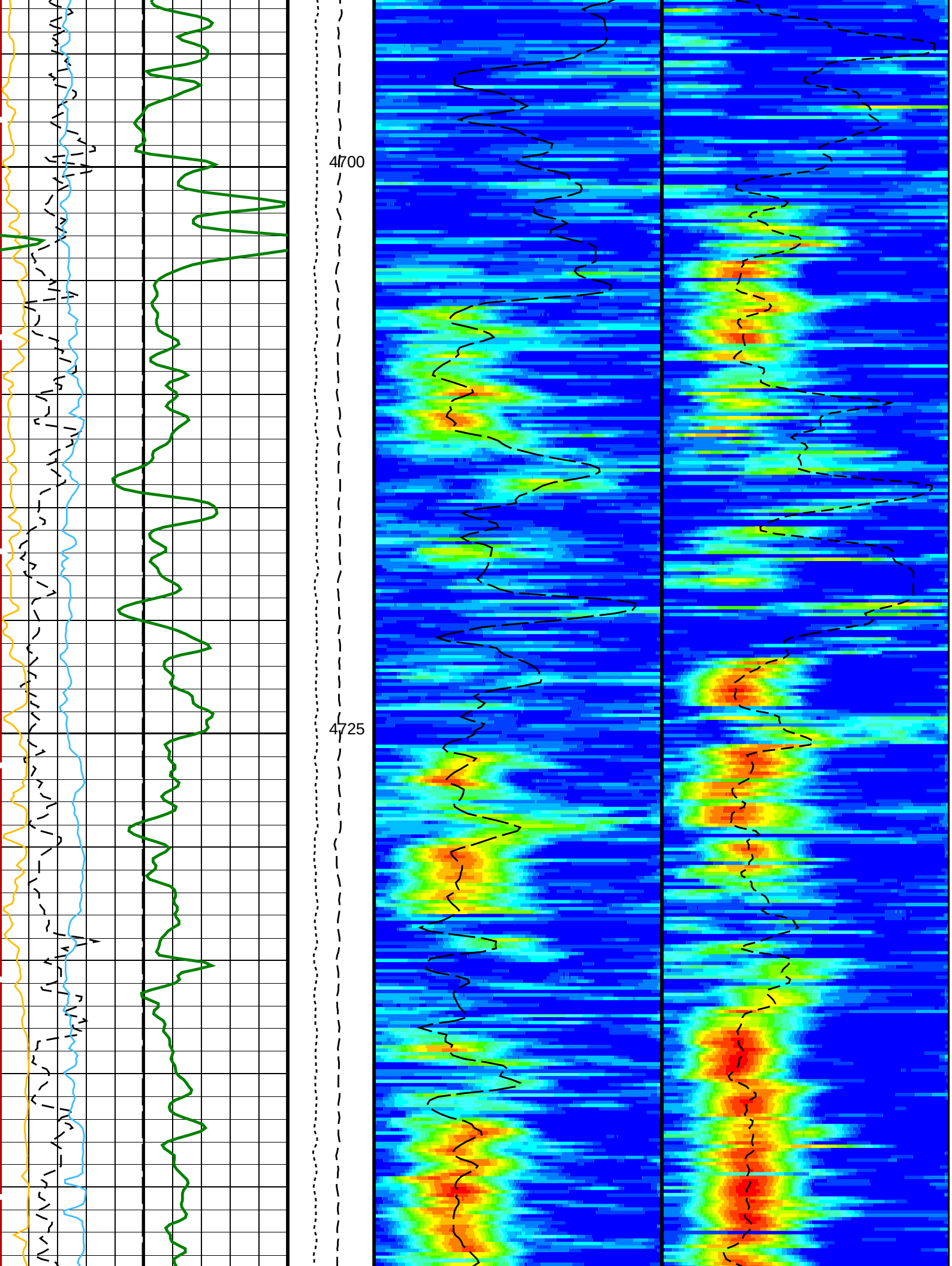

4425
4450

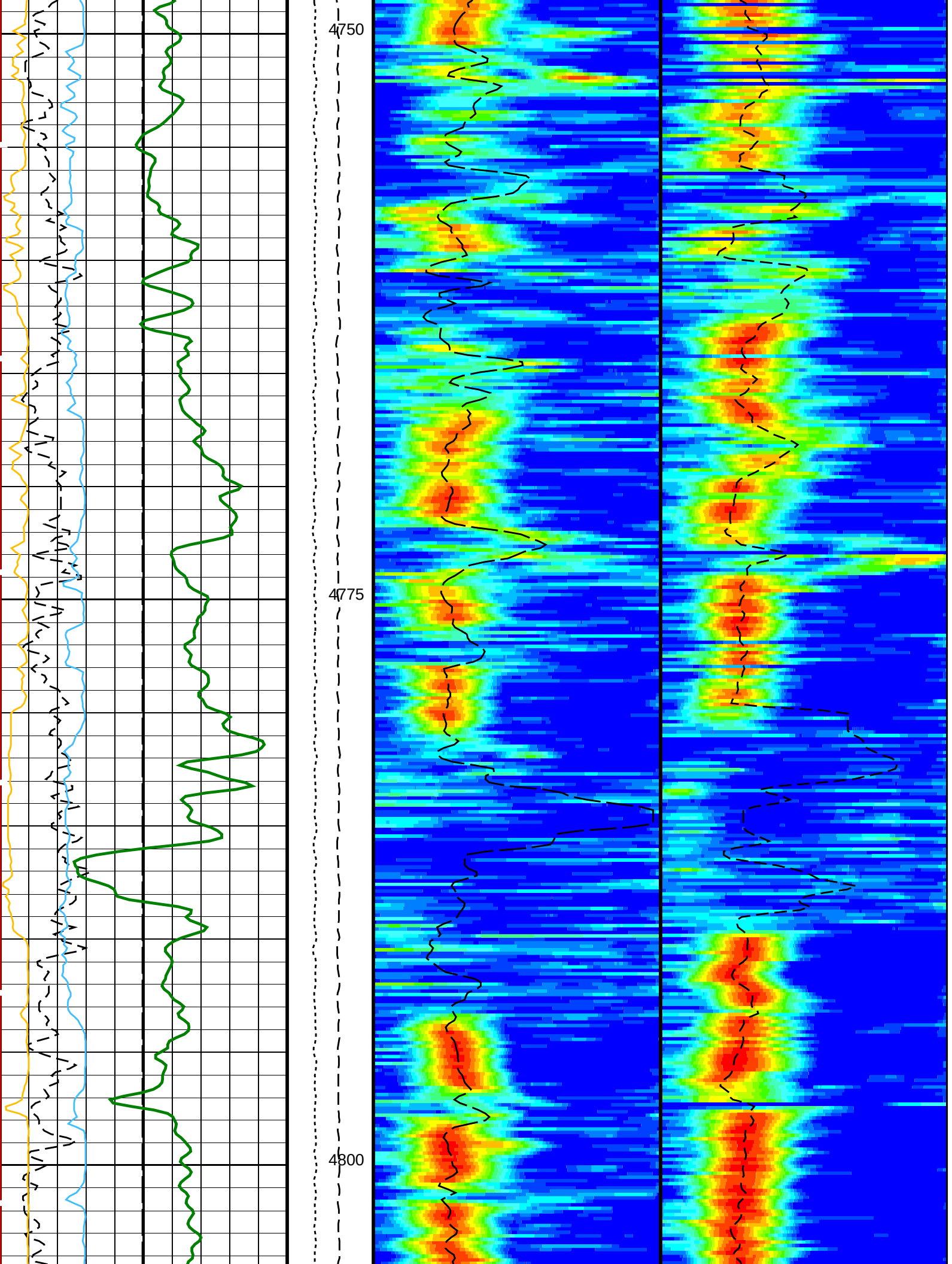

4475
4500
4525

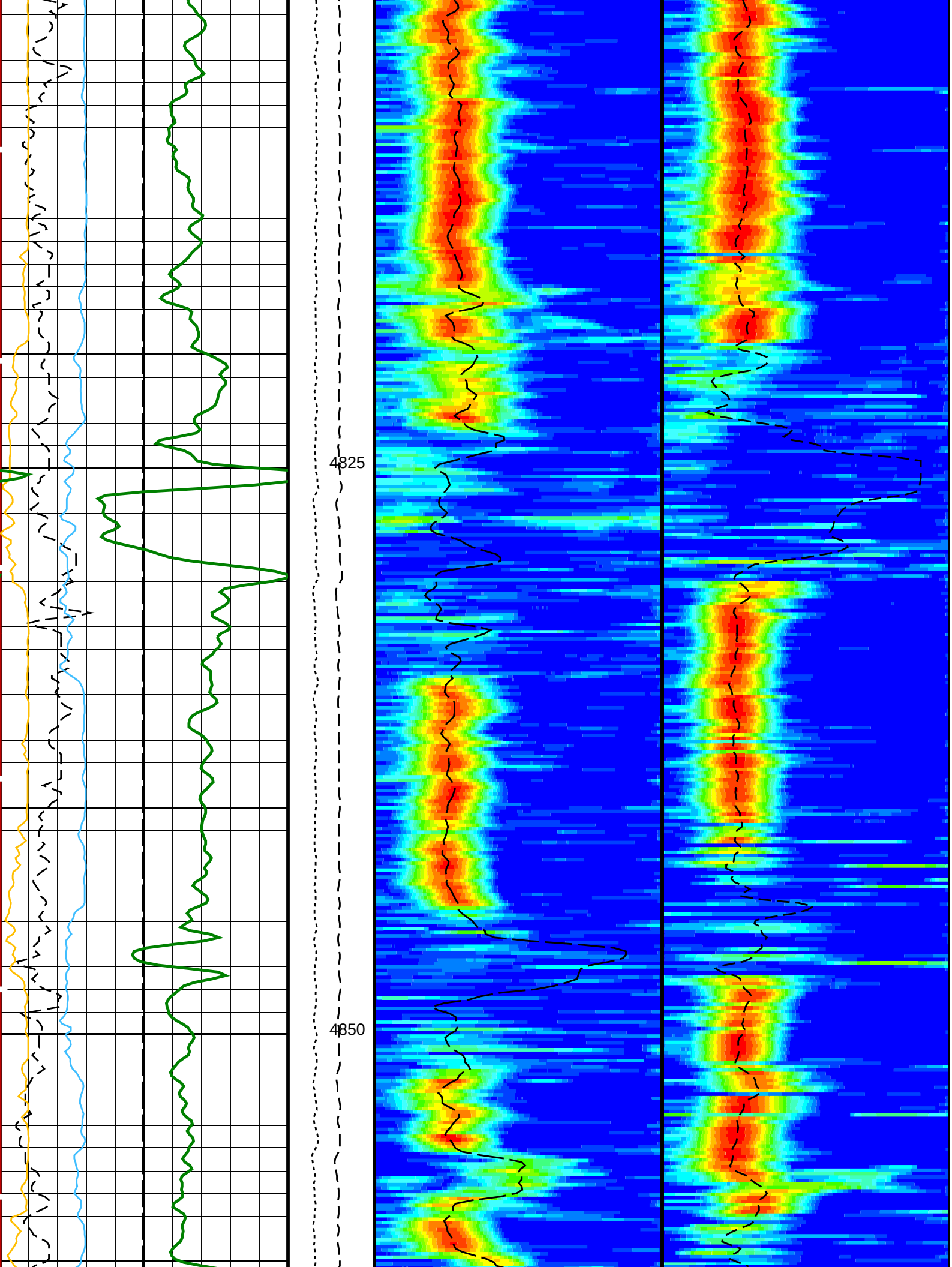

4550
4575

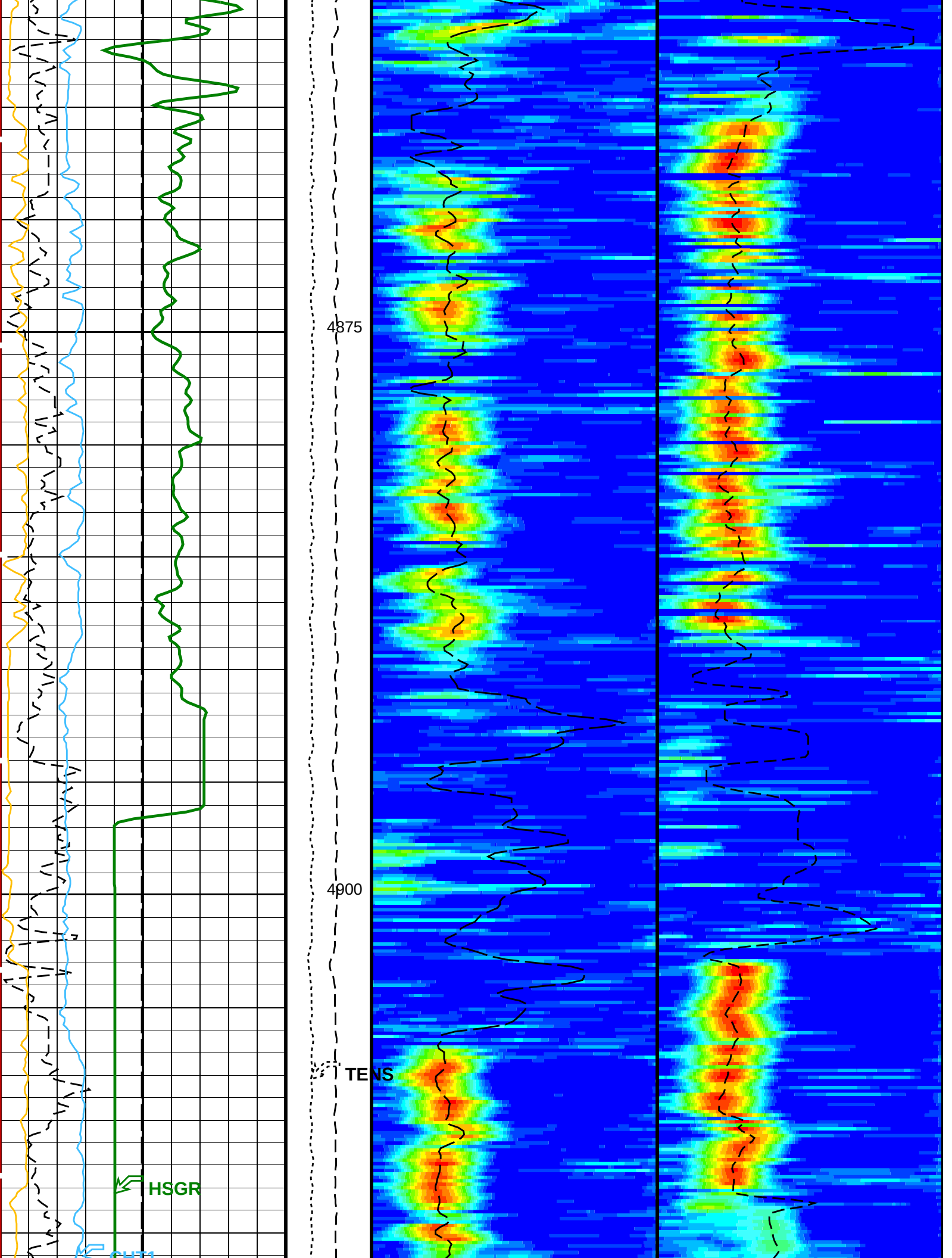

4600
4625

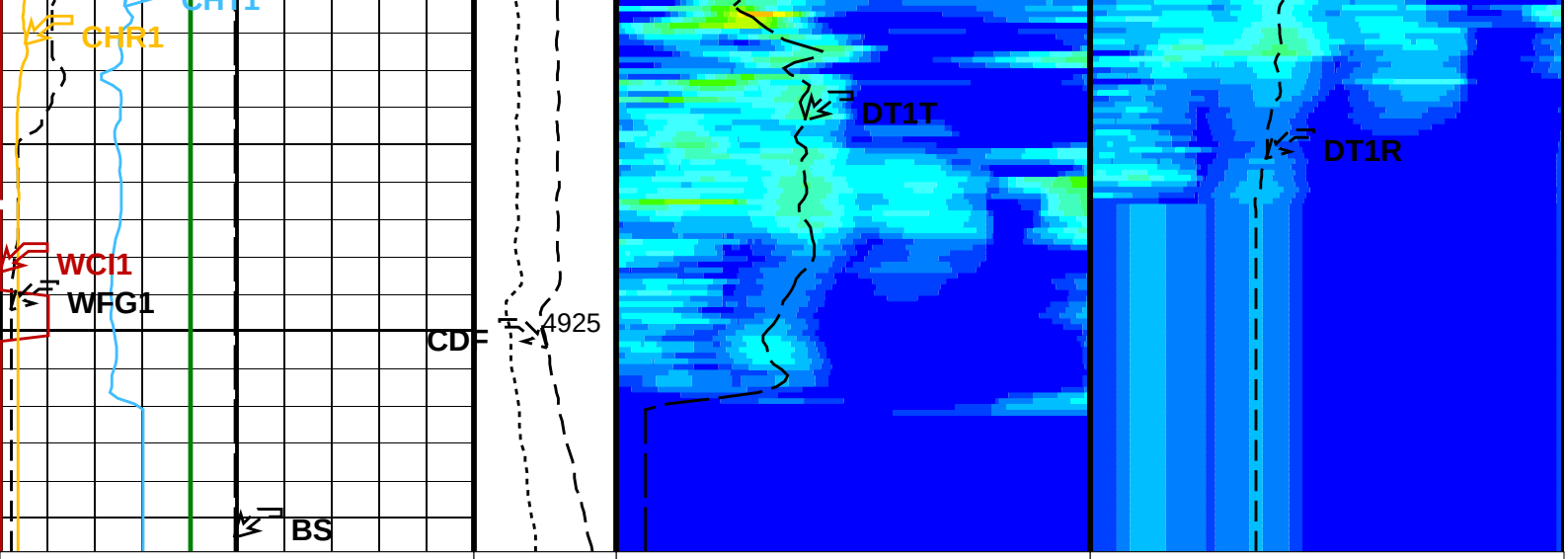

4650
4675


4700
4725


4750
4775
4800


4825
4850


4875
4900
TENS
HSGR



Bit Size (BS)	Tension (TENS)	Delta−T Shear / TA − Lower Dipole (DT1T)	Delta−T Shear / RA − Lower Dipole (DT1R)
0 (IN) 20	10000 (LBF) 0	40 (US/F) 1040	40 (US/F) 1040
SAM1 Waveform Gain (WFG1)	**Calibrated Downhole Force (CDF)**	**Tr.Array L.Dipole Slow Proj. CVDL (SPT1)**	**Rec.Array L.Dipole Slow Proj. CVDL (SPR1)**
0 (−−−−) 1000	5000 (LBF) 0	Min Amplitude Max; 40 (US/F) 1040	Min Amplitude Max; 40 (US/F) 1040

Waveform Data Copy Indicator 1 − Lower Dipole (WCI1)
0 (−−−−) 10

Peak Coherence / RA − Lower Dipole (CHR1)
0 (−−−−) 10

Peak Coherence / TA − Lower Dipole (CHT1)
−2 (−−−−) 8

HNGS Spectroscopy Gamma Ray (HSGR)
0 (GAPI) 100

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
BHS	Borehole Status	OPEN	
DDE1	Digitizing Delay 1	0	US
DDEX	Digitizing Delay X	0	US
DLCS	Label Compressional Source − Dipole Shear	USE	
DSHL	Label Slowness Lower Limit − Dipole Shear	40	US/F
DSHU	Label Slowness Upper Limit − Dipole Shear	1040	US/F
DSI1	Digitizer Sample Interval 1	40	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta−T Source for DTCO Channel	PS_COMP	
DWC1	Digitizer Word Count 1	512	
DWCX	Digitizer Word Count X	512	
GCSE	Generalized Caliper Selection	LCAL	
LTXG	Lower Dipole Transmitter Geometry	156	IN
NWI1	Number Waveform Items 1	8	
NWIX	Number Waveform Items X	0	
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
SAM1	DSST Sonic Acquisition Mode 1 − Lower Dipole Mode	LFD_EVEN	
SAMX	DSST Sonic Acquisition Mode X − Both Dipoles or Monopole Mode for Expert	OFF	
SAS1	STC Sonic Array Status − Lower Dipole	255	
SBO1	STC Search Band Offset − Lower Dipole	3000	US
SBW1	STC Search Bandwidth − Lower Dipole	8000	US
SFC1	STC Formation Character − Lower Dipole	SELECTABLE	
SFM1	STC Filter − Lower Dipole	B.3−1.5K	
SLL1	STC Slowness Lower Limit − Lower Dipole	40	US/F
SST1	STC Slowness Step − Lower Dipole	4	US/F
SSW1	STC Source Waveform − Lower Dipole	WF_SAM1	
SUL1	STC Slowness Upper Limit − Lower Dipole	1040	US/F
SWD1	STC Slowness Width − Lower Dipole	40	US/F
TBF1	STC Time for Baseline Fill − Lower Dipole	0	US
TLL1	STC Time Lower Limit − Lower Dipole	600	US
TST1	STC Time Step − Lower Dipole	200	US
TUL1	STC Time Upper Limit − Lower Dipole	18960	US
TWD1	STC Time Width − Lower Dipole	2000	US
TWI1	STC Integration Time Window − Lower Dipole	1600	US
TWSX	Transmitter Waveform Select X	0	
WFM1	Waveform Mode 1	W1	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	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	10.75	IN
CSD2	Outer Casing Outer Diameter	10.75	IN
CSW1	Inner Casing Weight	45	LB/F
CSW2	Outer Casing Weight	45	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	LCAL	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00192069	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
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	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.992004	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.990962	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.32	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: DSST_LOWER_DIPOLE_RC_TR_VDL_COLOR Vertical Scale: 1:200 Graphics File Created: 06−Apr−2017 20:24

OP System Version: 19C0−187

DSST−B	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
EDTC−B	SKK−5169−EDTCB		

Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_030LUP	FN:35	PRODUCER	06−Apr−2017 18:03	4930.9 M	3798.9 M

Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_038PUP	FN:51	PRODUCER	06−Apr−2017 20:24
BACKUP	DSI_HRLA_LDL_NGS_038PUP	FN:52	PRODUCER	06−Apr−2017 20:24

Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_030LUP	FN:35	PRODUCER	06−Apr−2017 18:03	4930.9 M	3798.9 M

Output DLIS Files

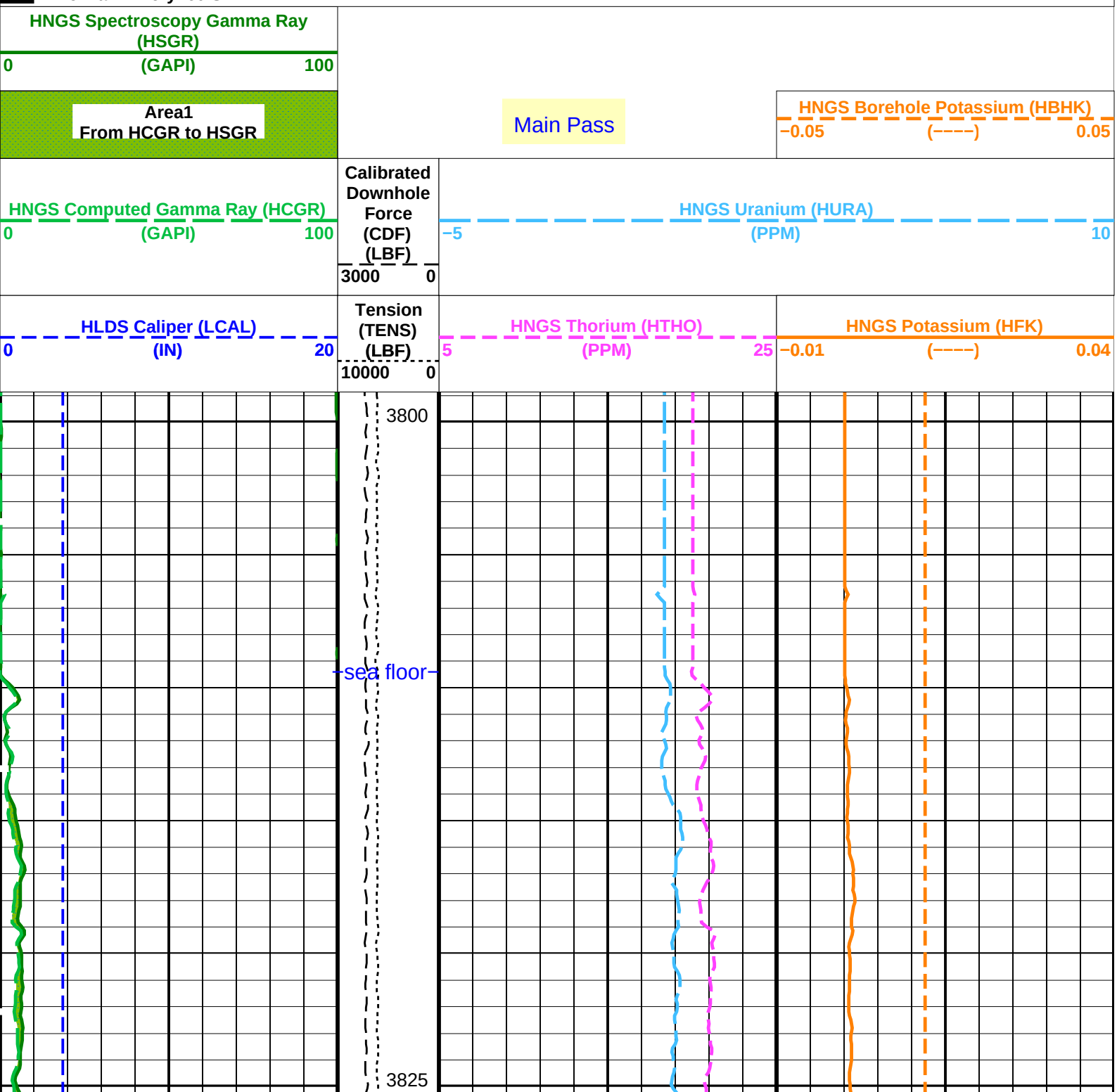
DEFAULT	DSI_HRLA_LDL_NGS_038PUP	FN:51	PRODUCER	06−Apr−2017 20:24	4930.9 M	3798.9 M
BACKUP	DSI_HRLA_LDL_NGS_038PUP	FN:52	PRODUCER	06−Apr−2017 20:24	4930.9 M	3798.9 M

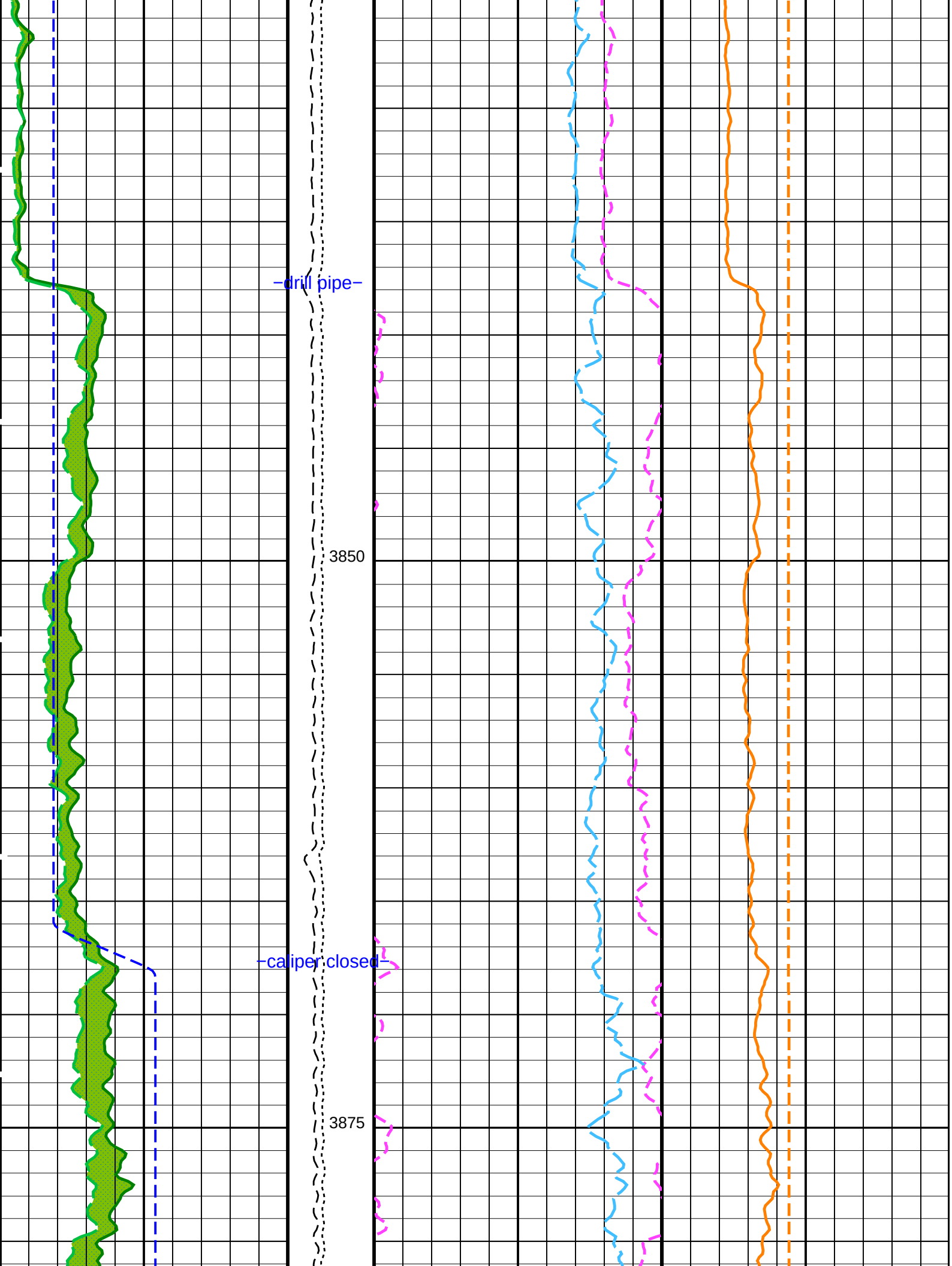
OP System Version: 19C0−187

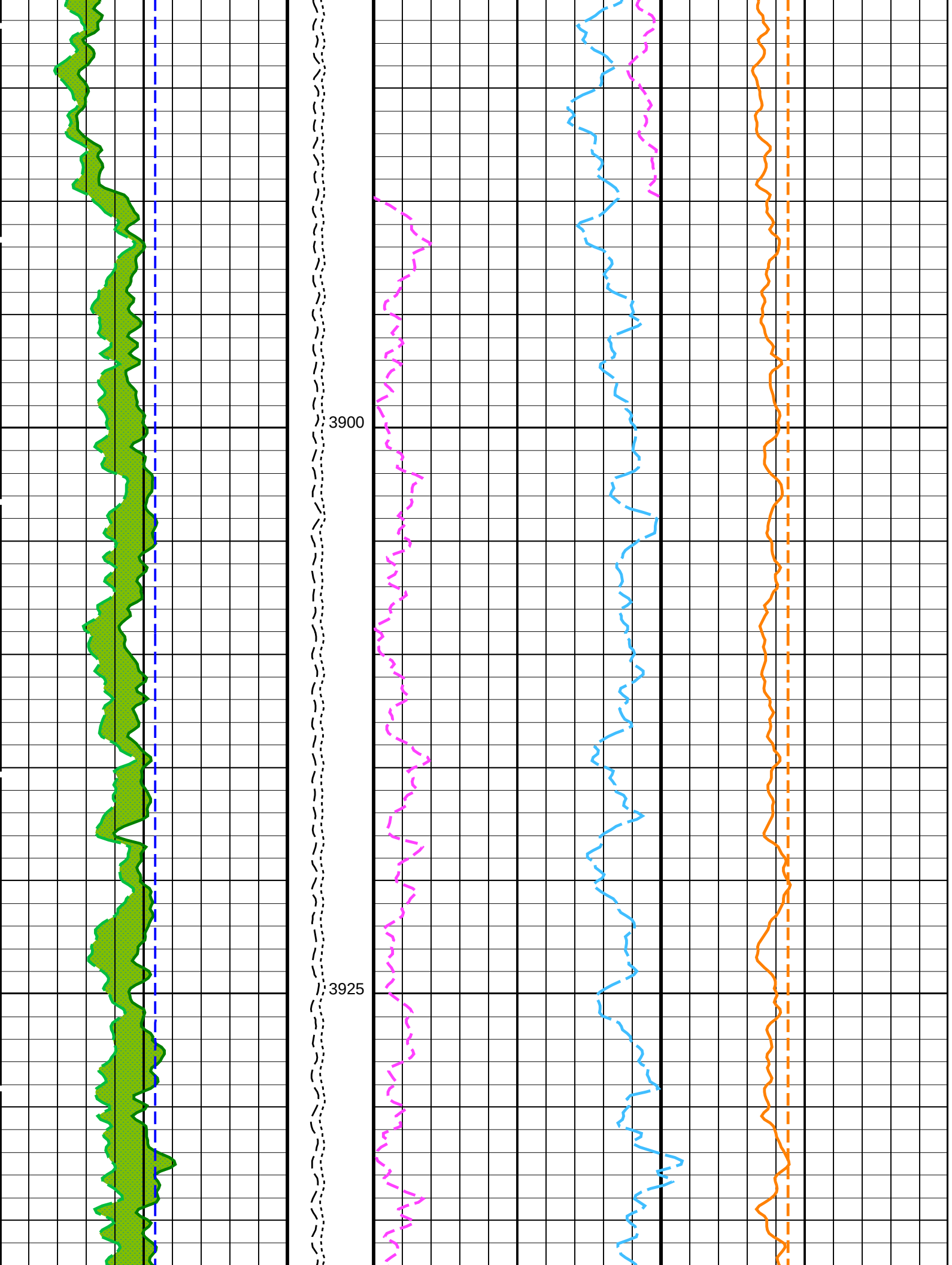
DSST−B	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
EDTC−B	SKK−5169−EDTCB		

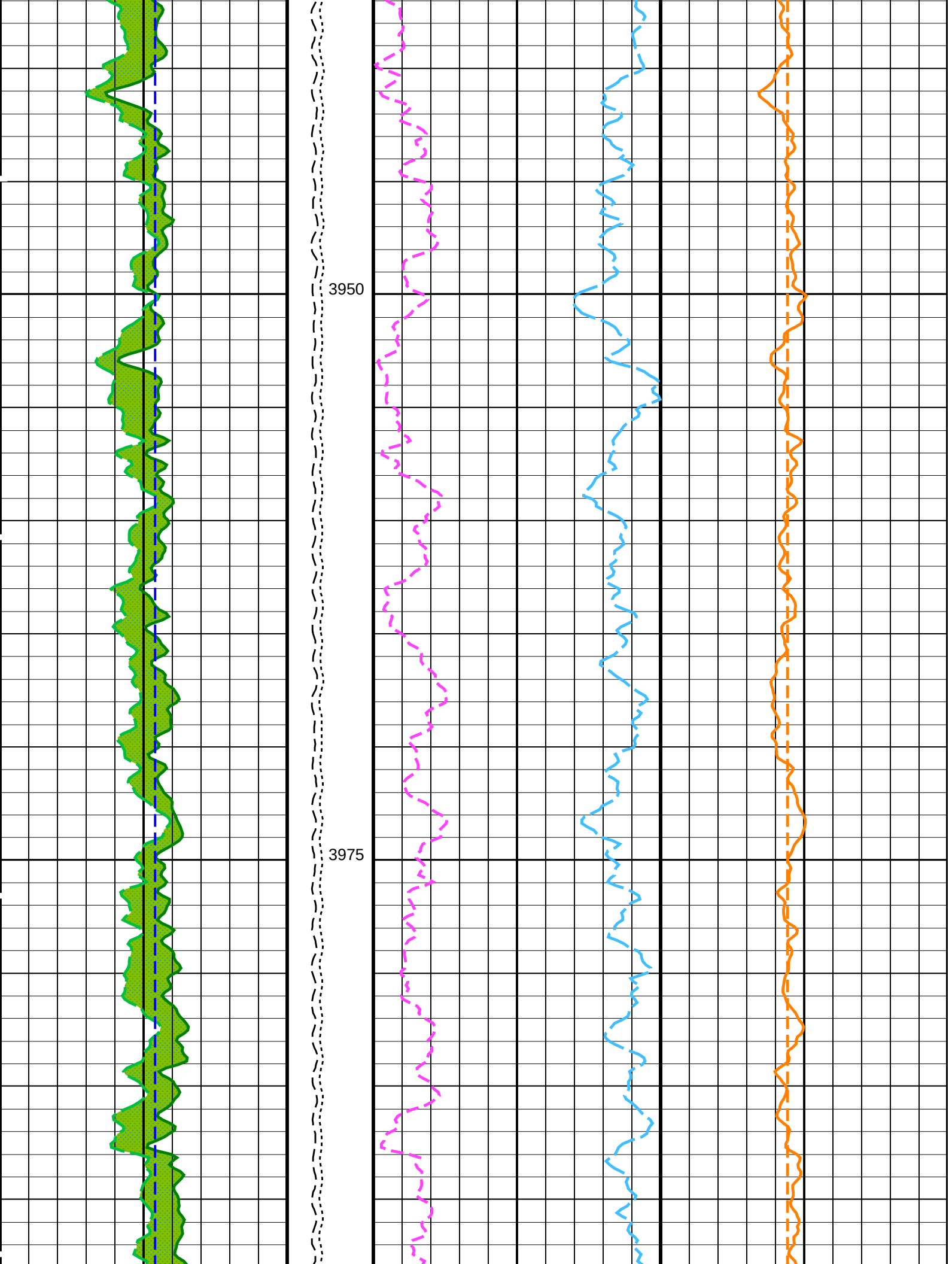
PIP SUMMARY

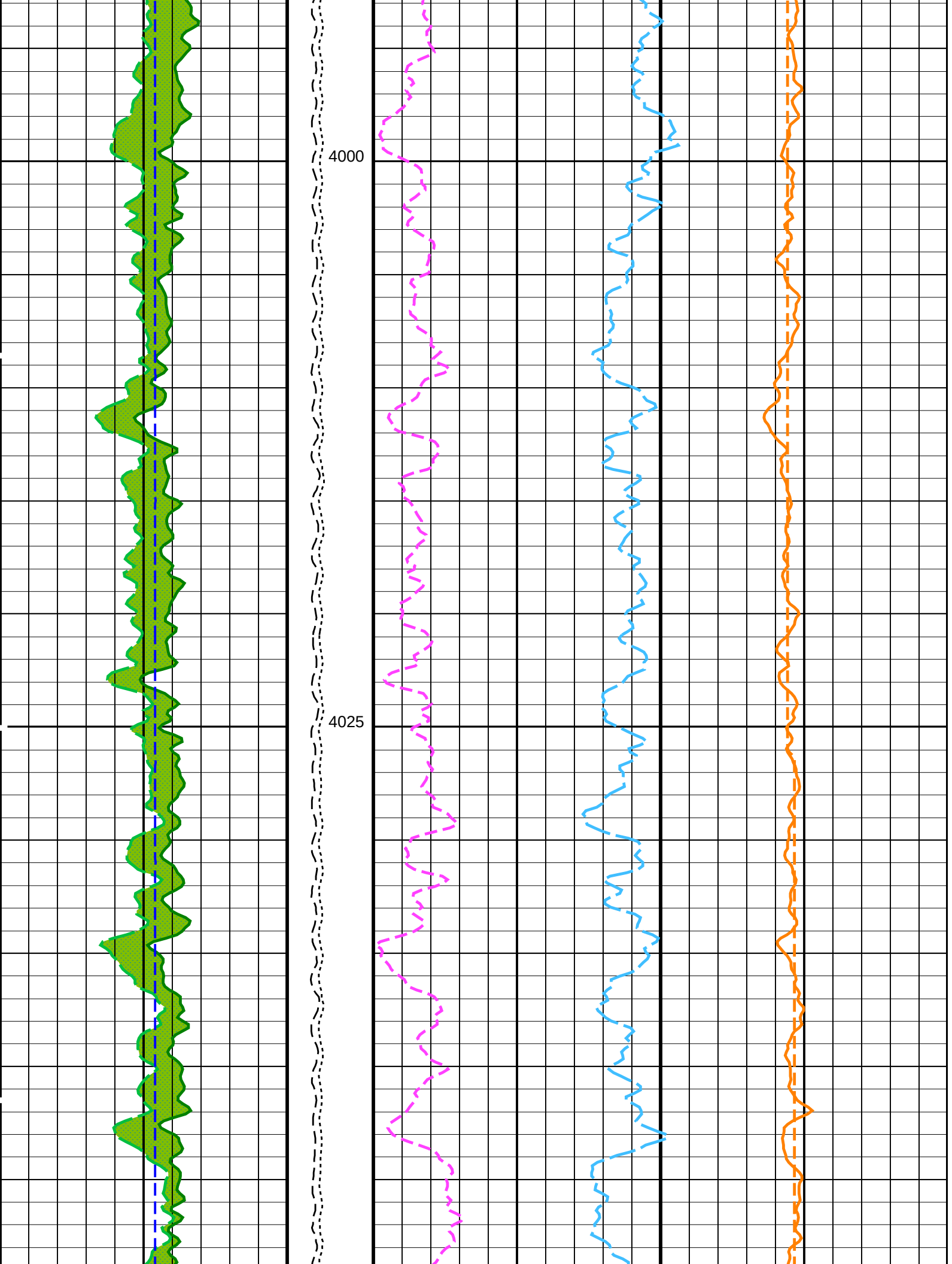
Time Mark Every 60 S

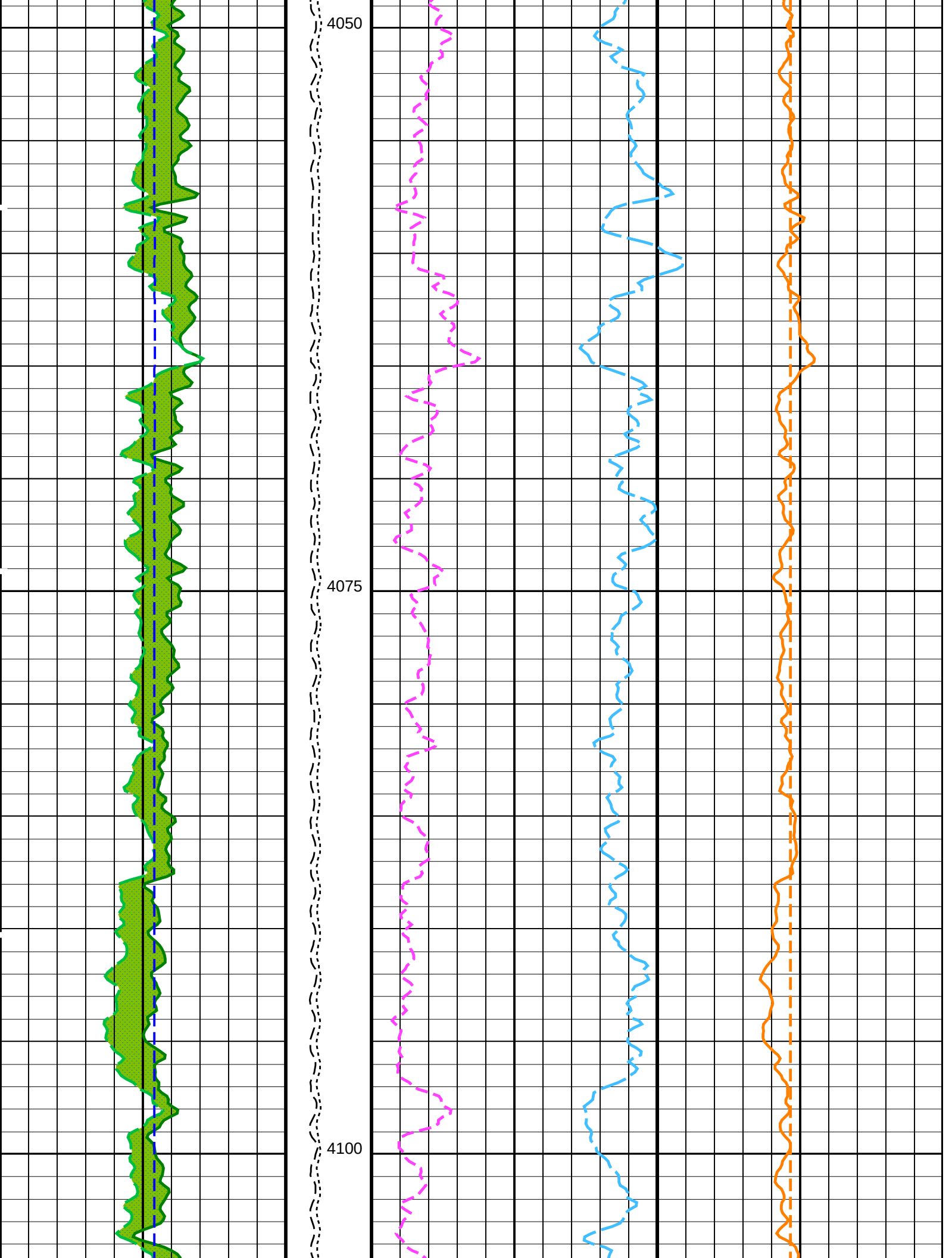


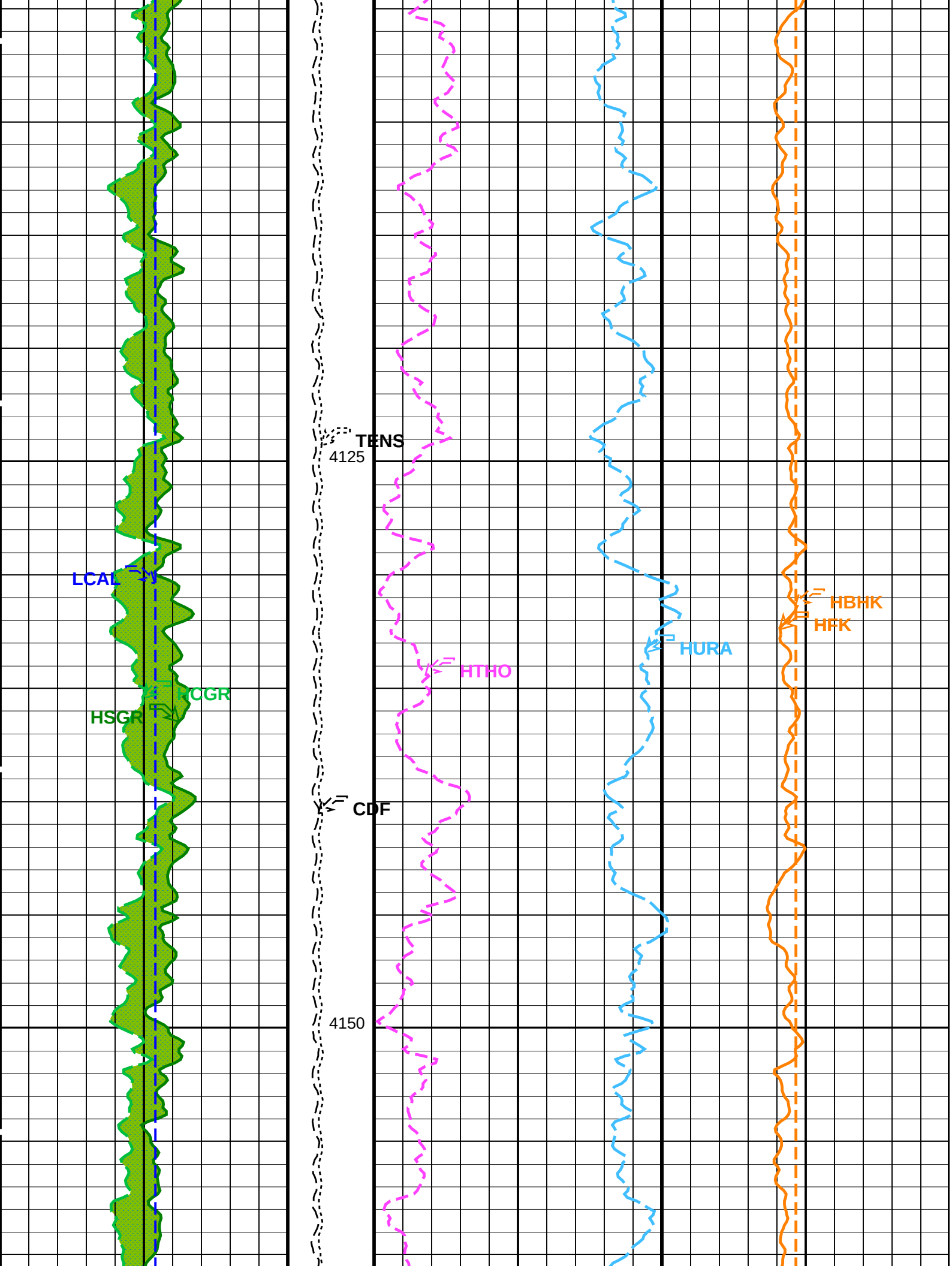

−drill pipe−
3850
−caliper closed−
3875

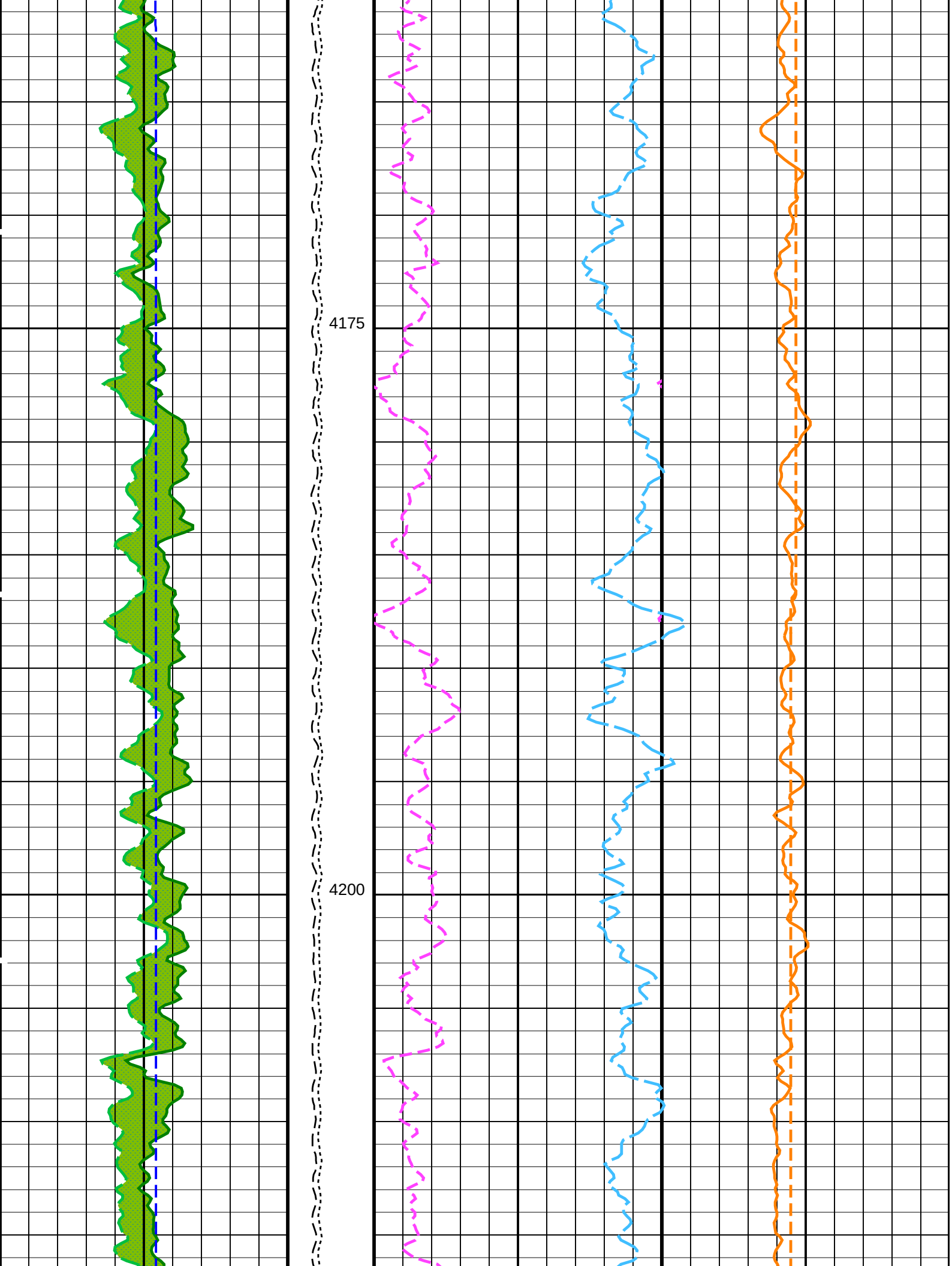

3900
3925

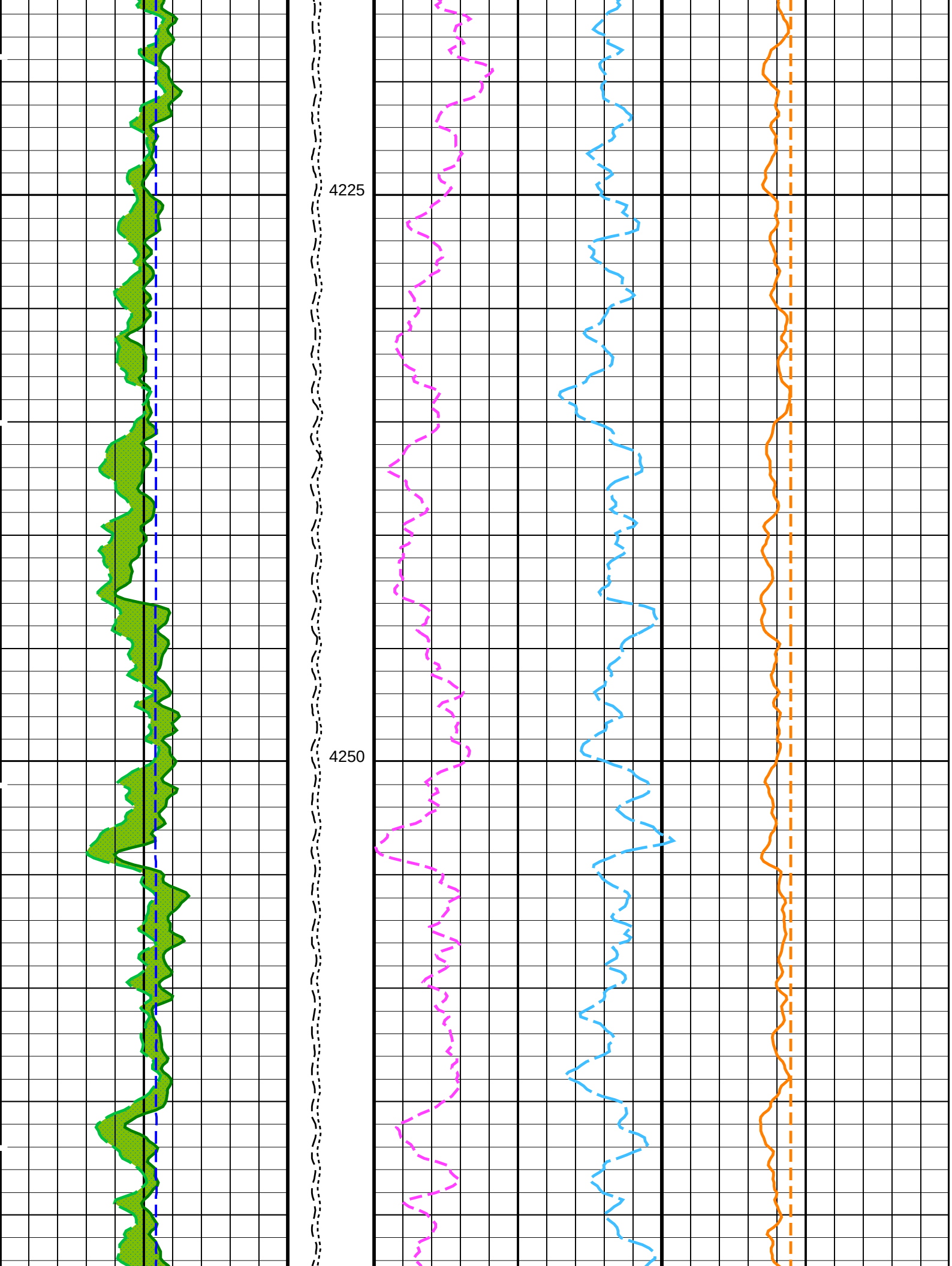

3950
3975

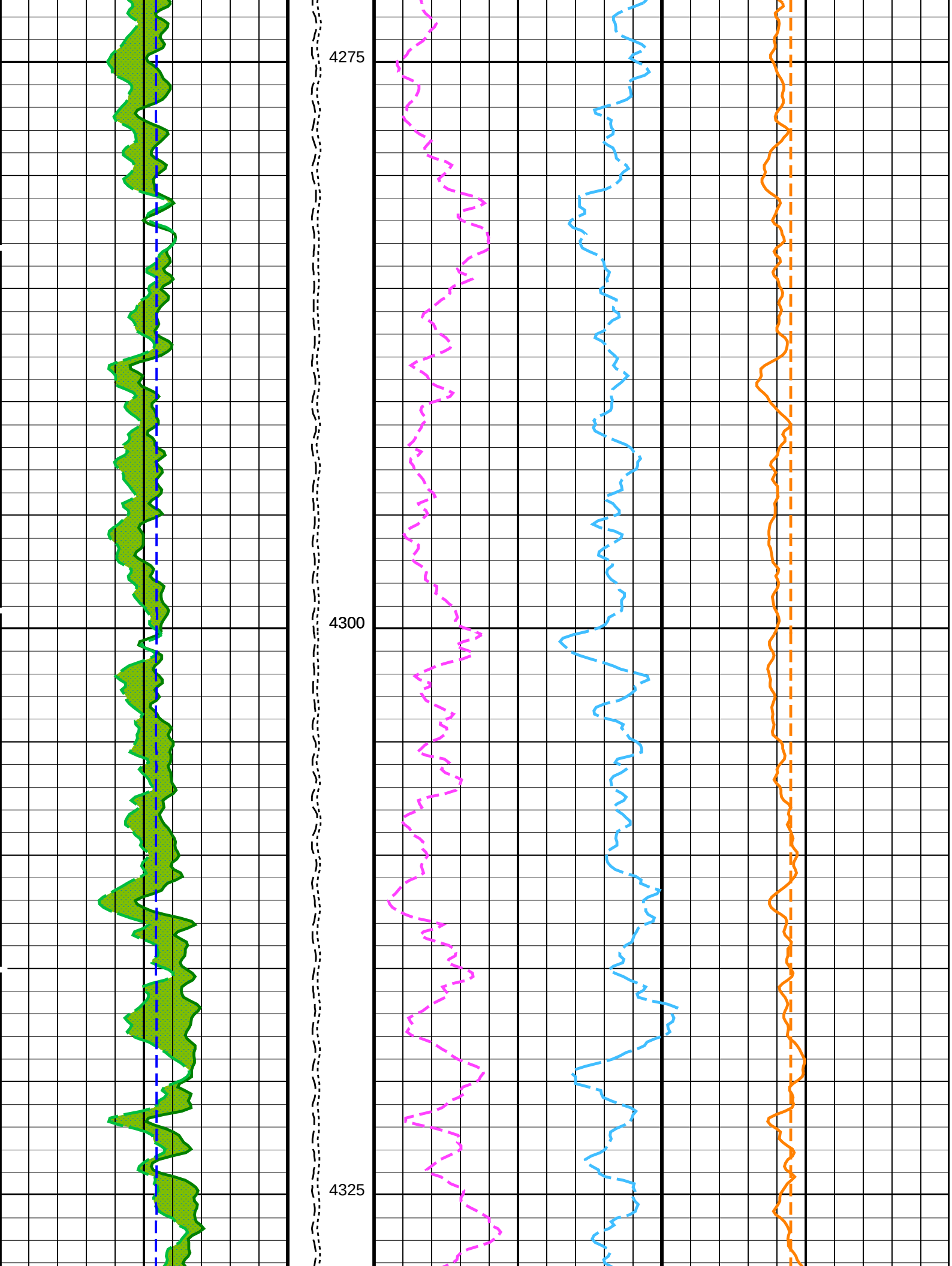

4000
4025

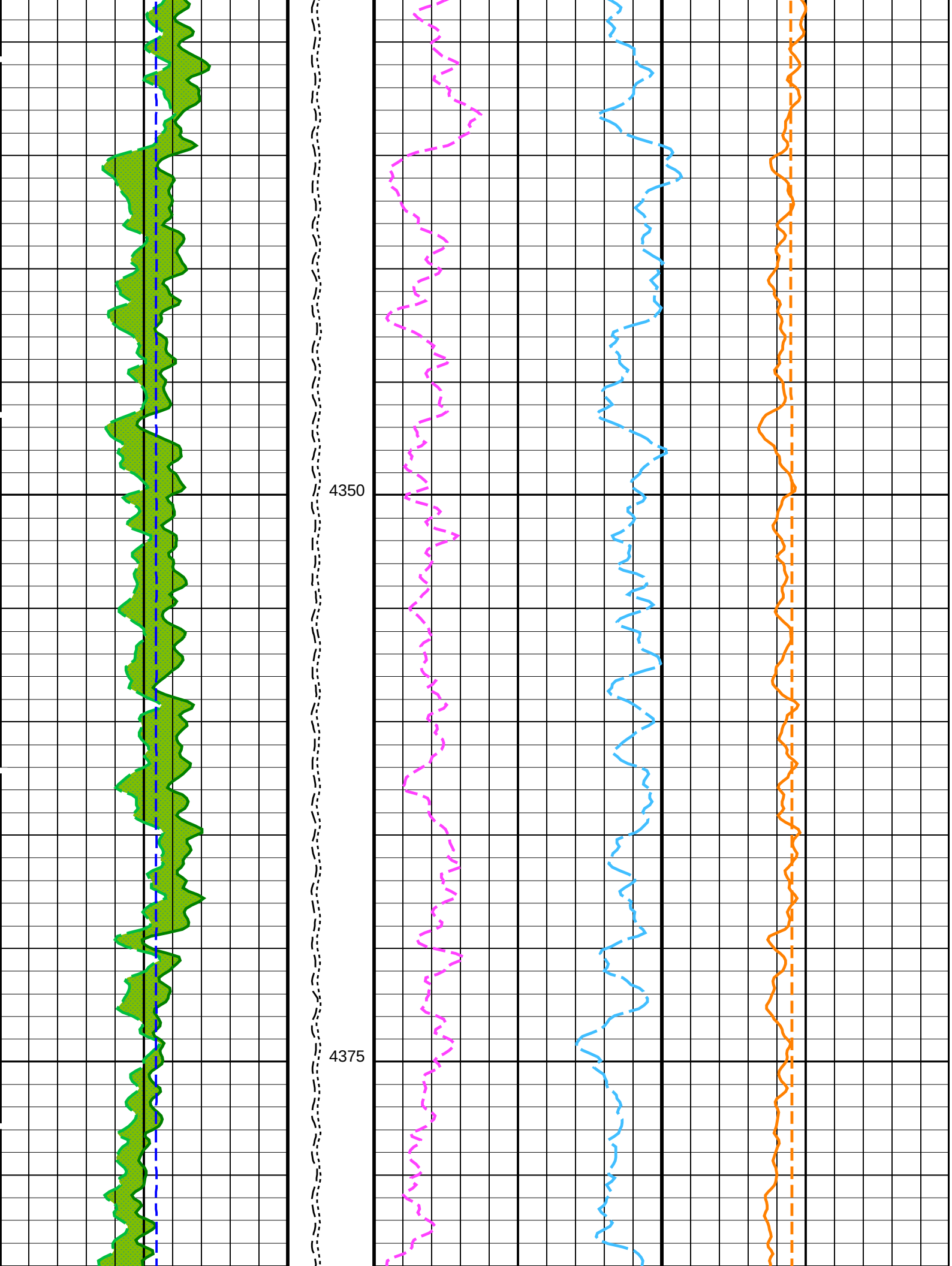

4050
4075
4100

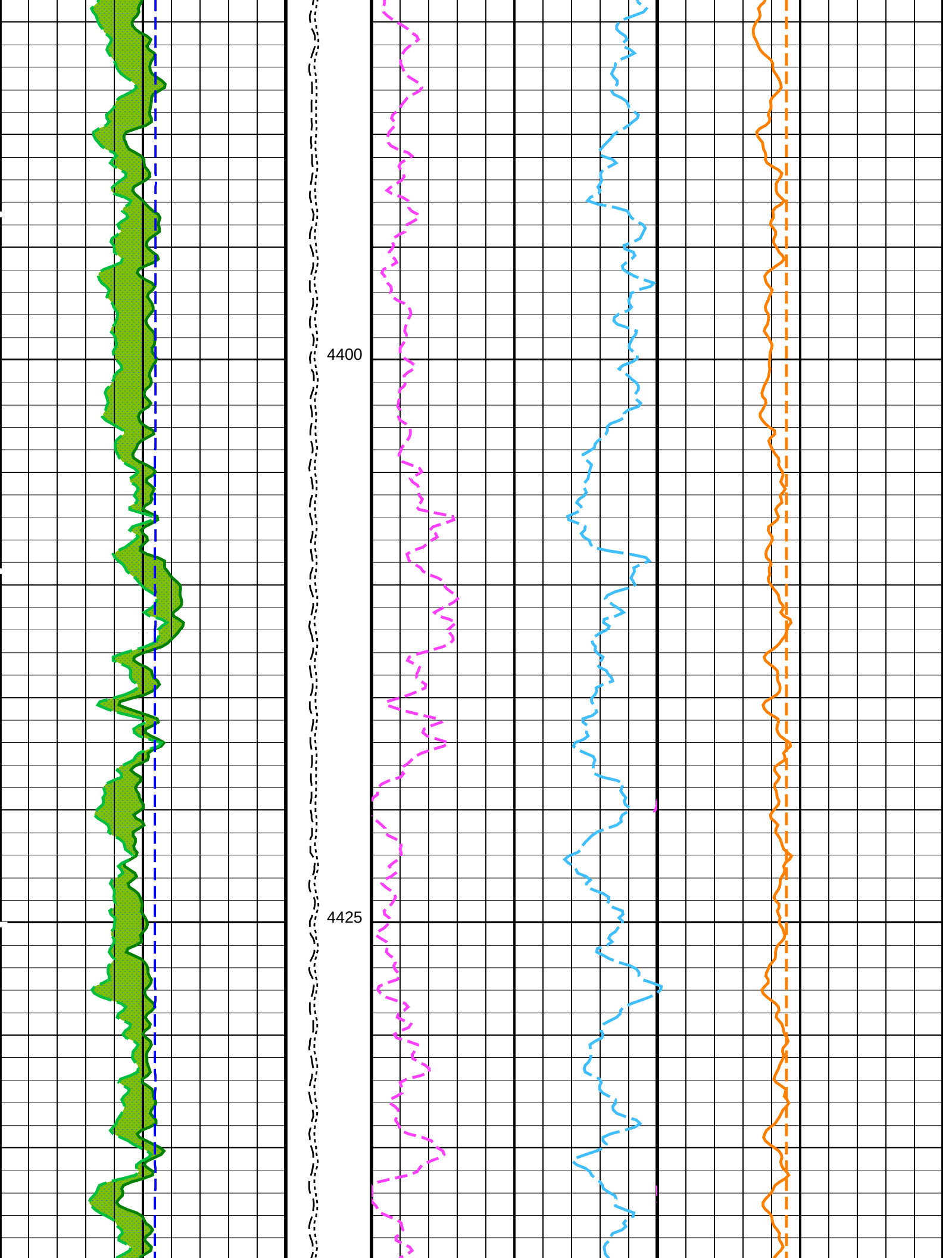

TENS
4125
LCAL
HSGR
HCGR
HTHO
CDF
HURA
HBHK
HFK
4150

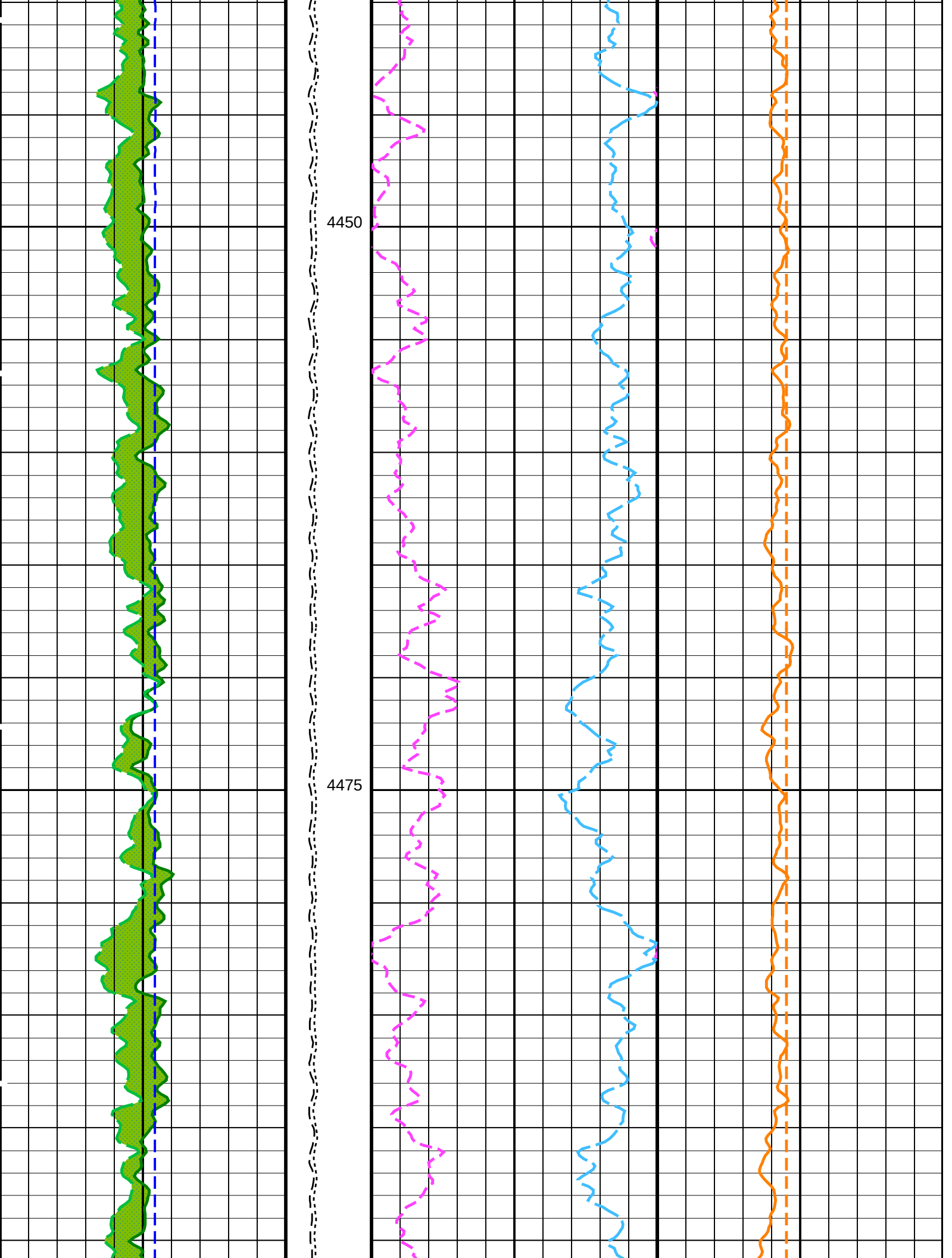

4175
4200

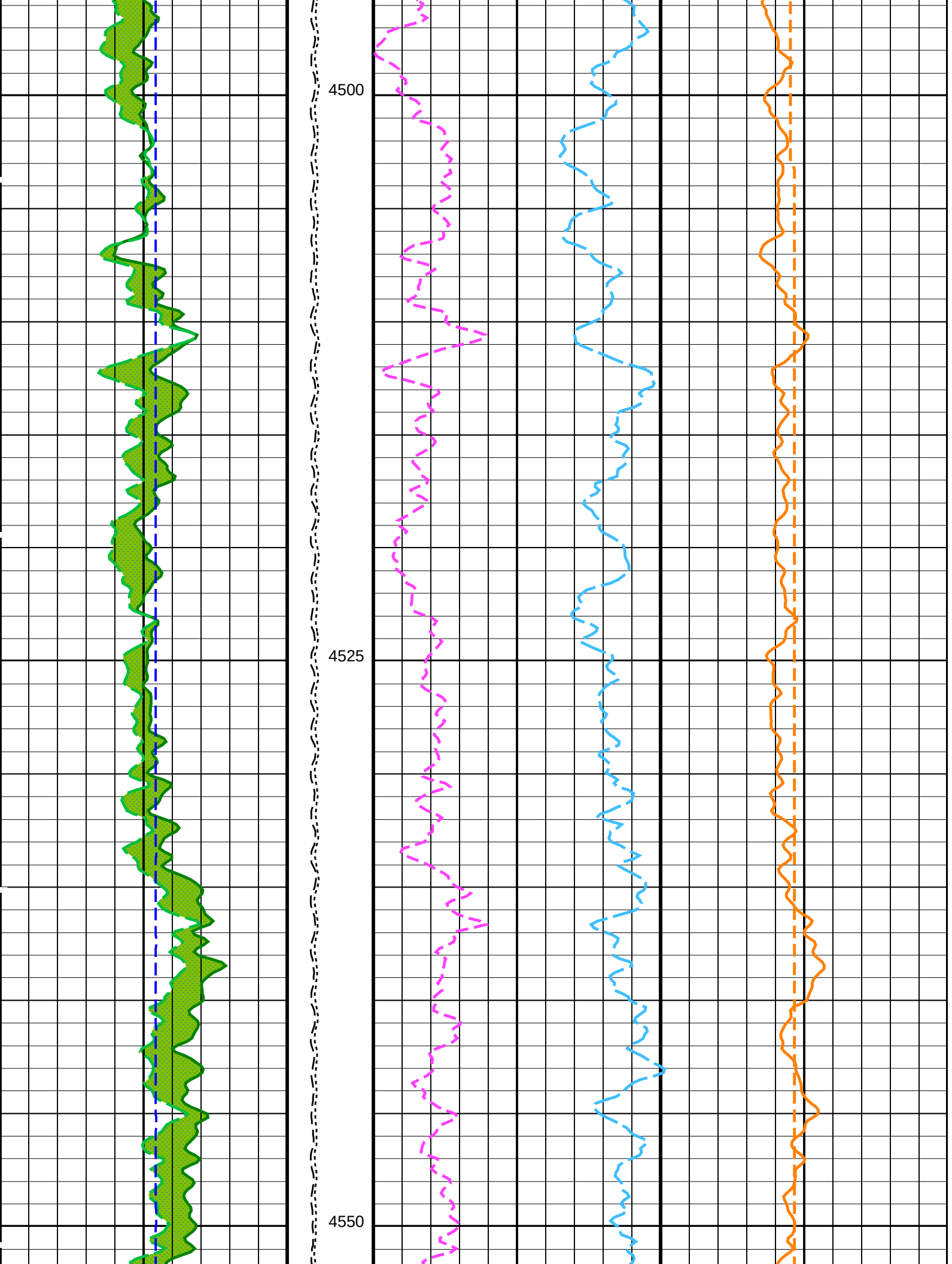

4225
4250

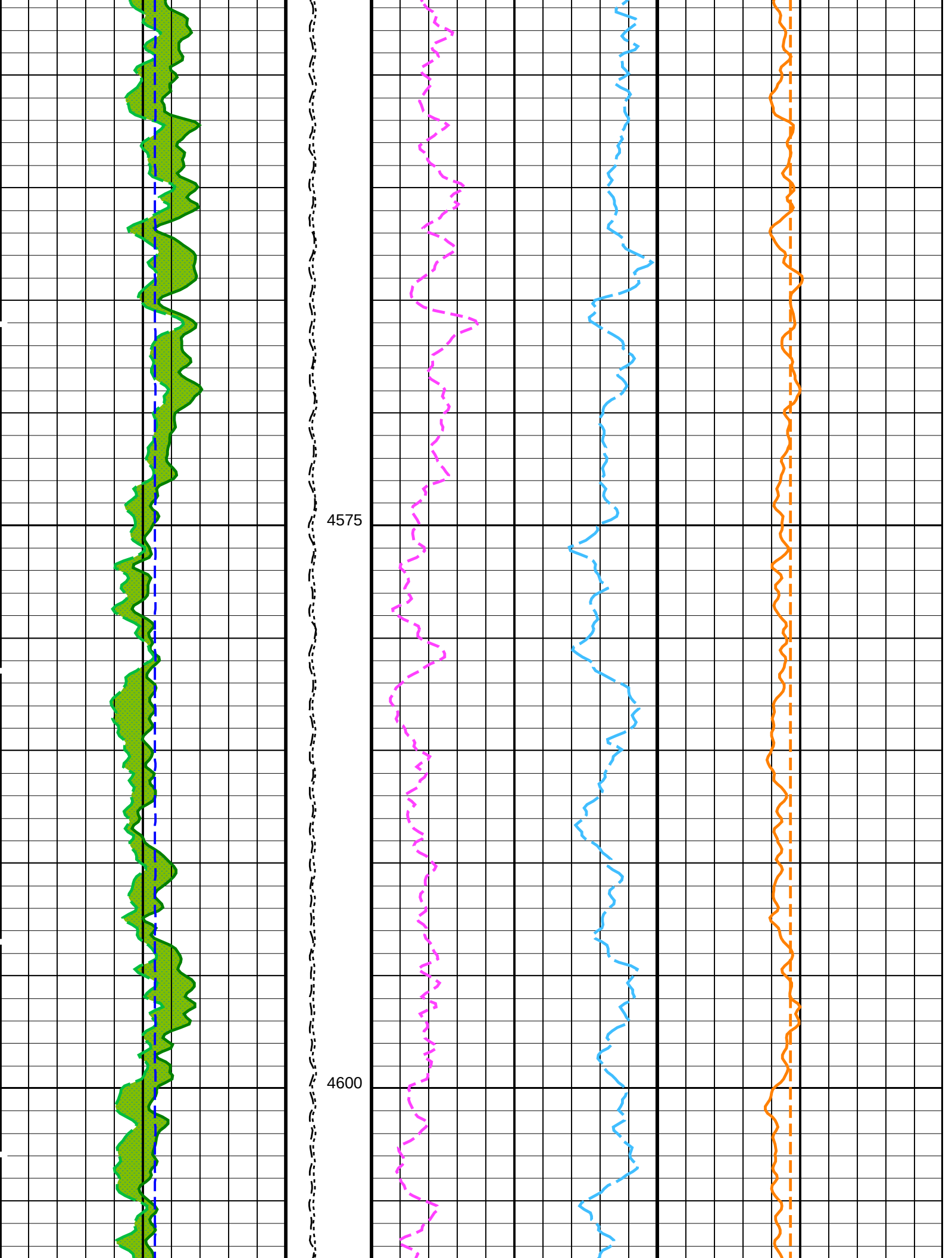

4275
4300
4325

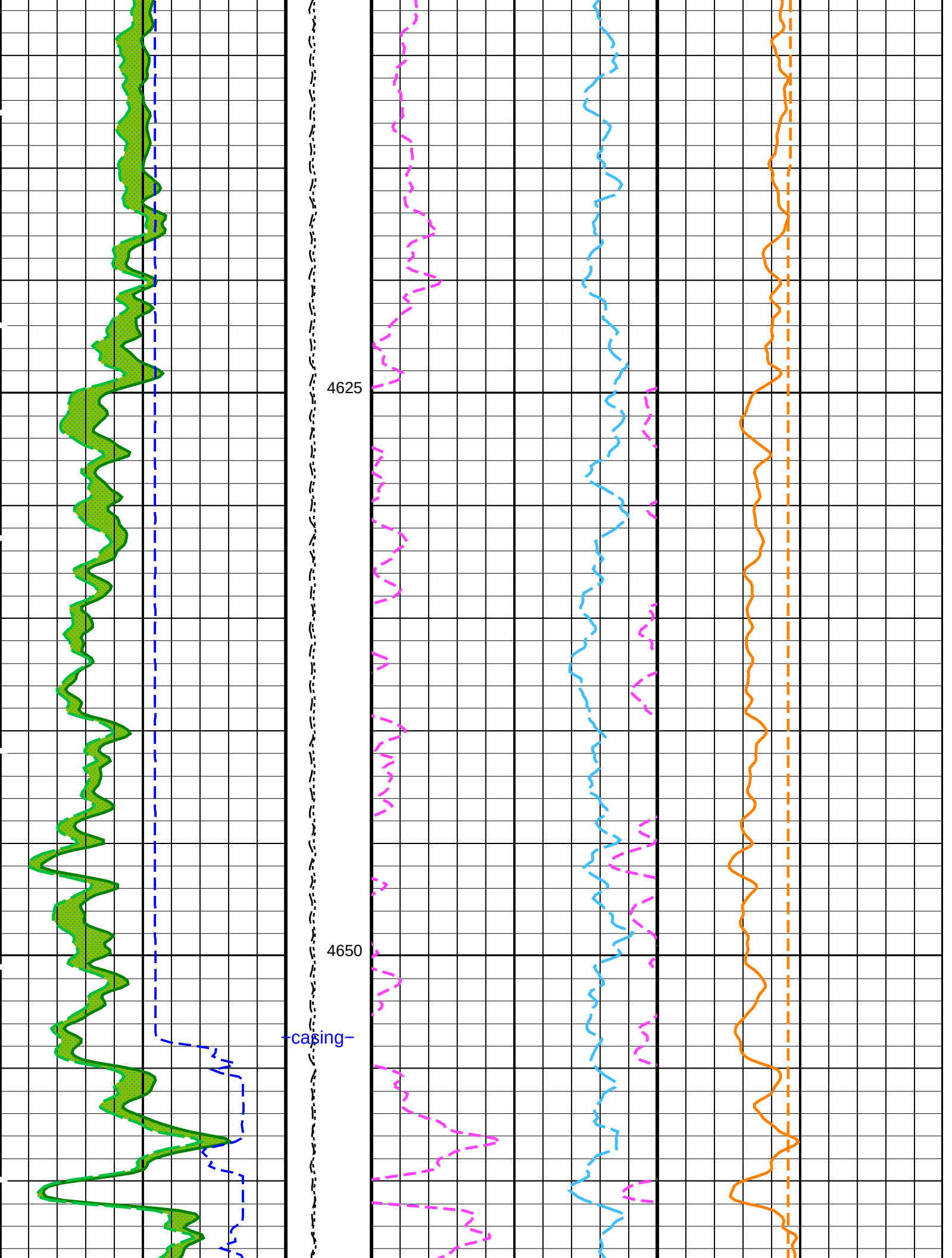

4350
4375

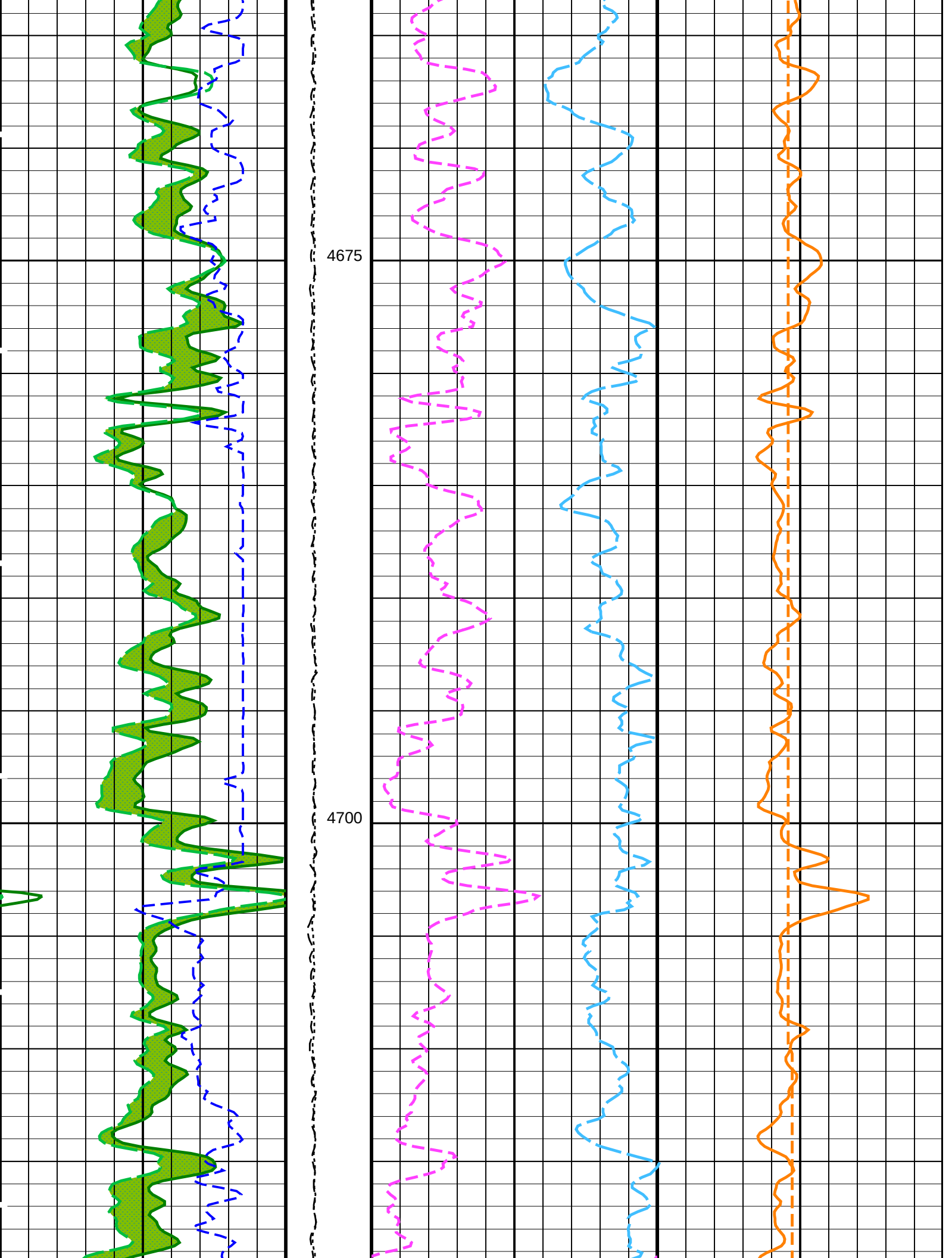

4400
4425

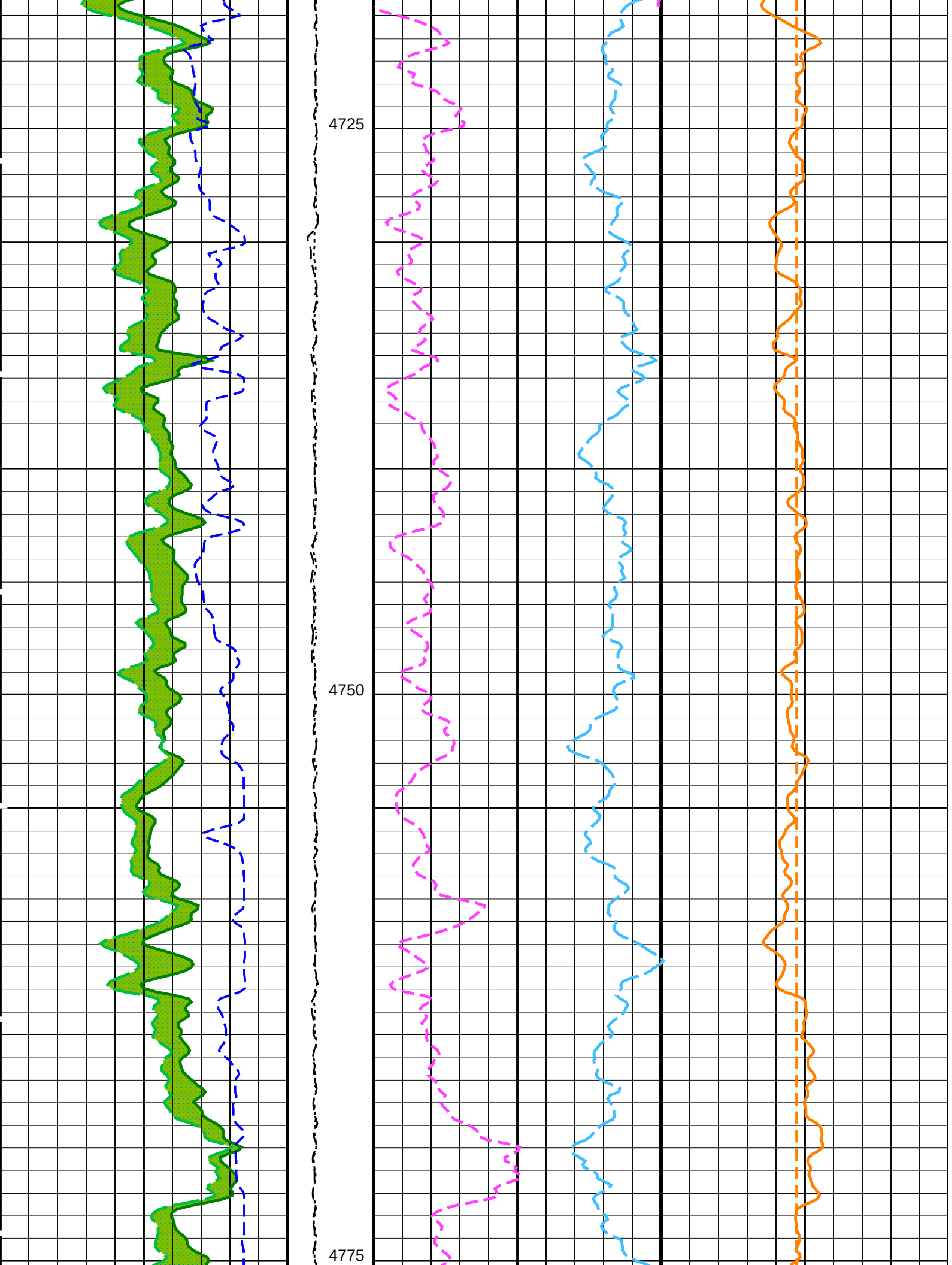

4450
4475

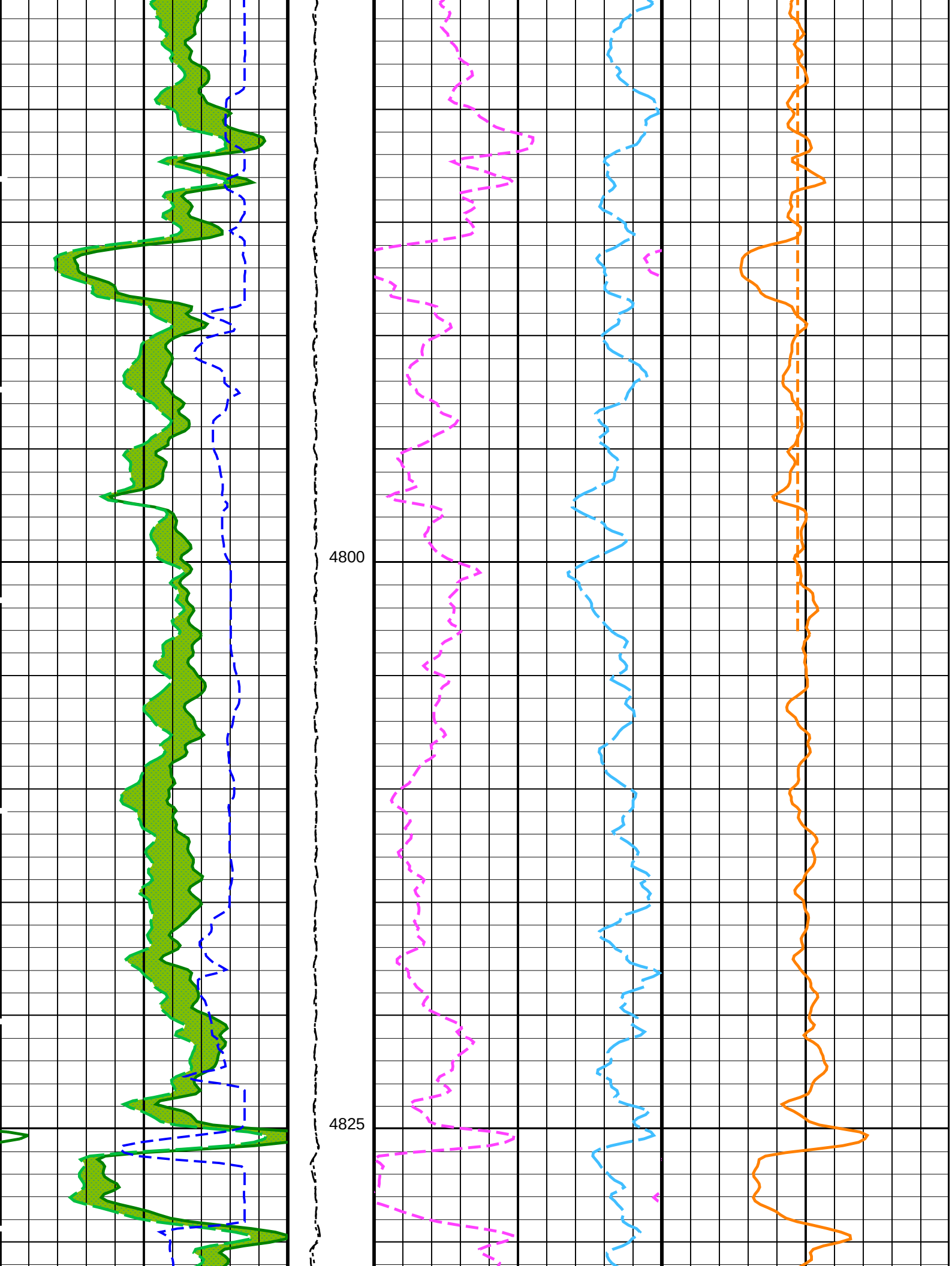

4500
4525
4550

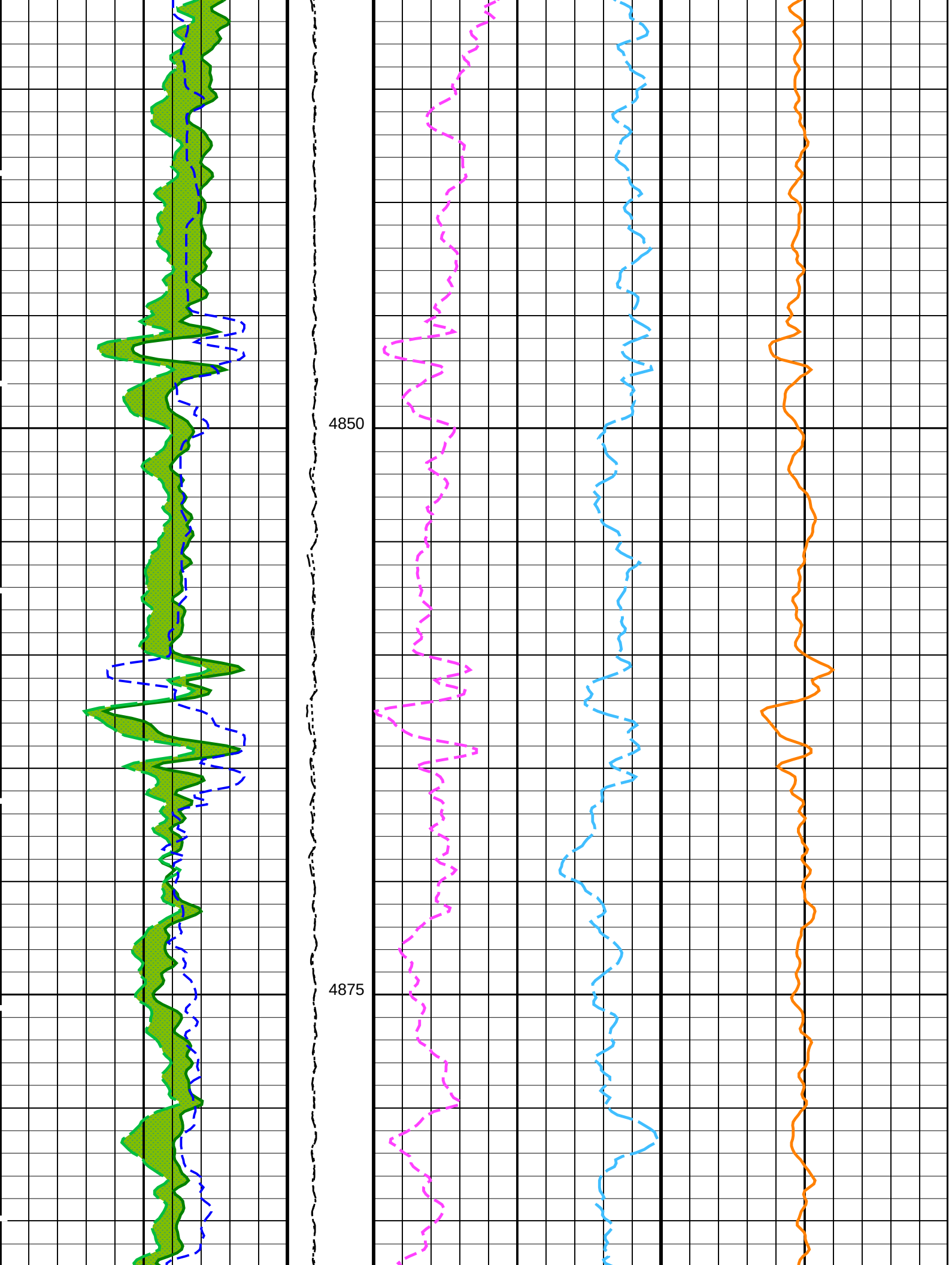

4575
4600

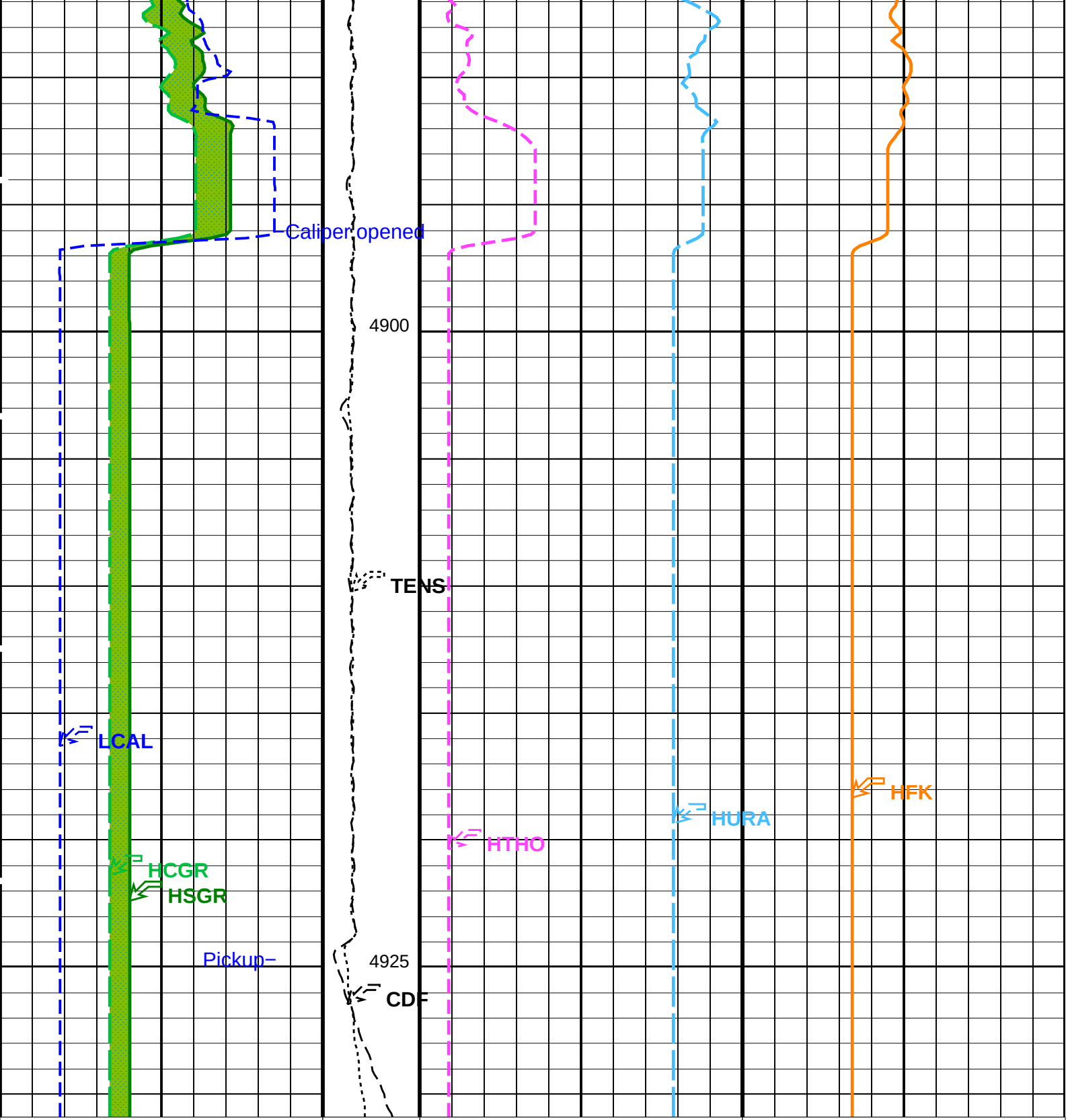

4625
4650
–casing–


4675
4700


4725
4750
4775


4800
4825


4850
4875



HLDS Caliper (LCAL)
0 (IN) 20

Tension (TENS) (LBF)
10000 0

HNGS Thorium (HTHO)
5 (PPM) 25

HNGS Potassium (HFK)
–0.01 (–––) 0.04

HNGS Computed Gamma Ray (HCGR)
0 (GAPI) 100

Calibrated Downhole Force (CDF) (LBF)
3000 0

HNGS Uranium (HURA)
–5 (PPM) 10

Area1
From HCGR to HSGR

Main Pass

HNGS Borehole Potassium (HBHK)
–0.05 (–––) 0.05

HNGS Spectroscopy Gamma Ray

HNGS Spectroscopy Gamma Ray (HSGR)		
0	(GAPI)	100

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	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	10.75	IN
CSD2	Outer Casing Outer Diameter	10.75	IN
CSW1	Inner Casing Weight	45	LB/F
CSW2	Outer Casing Weight	45	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	LCAL	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00192069	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
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	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.992004	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.990962	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.32	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: HNGSYields Vertical Scale: 1:200 Graphics File Created: 06−Apr−2017 20:24

OP System Version: 19C0−187

DSST−B	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
EDTC−B	SKK−5169−EDTCB		

Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_030LUP	FN:35	PRODUCER	06−Apr−2017 18:03	4930.9 M	3798.9 M

Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_038PUP	FN:51	PRODUCER	06−Apr−2017 20:24		
BACKUP	DSI_HRLA_LDL_NGS_038PUP	FN:52	PRODUCER	06−Apr−2017 20:24		

Company: International Ocean Discovery Program Well: Expedition 367, Site U1500B

Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_030LUP	FN:35	PRODUCER	06−Apr−2017 18:03	4930.9 M	3798.9 M

Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_038PUP	FN:51	PRODUCER	06-Apr-2017 20:24	4930.9 M	3798.9 M
BACKUP	DSI_HRLA_LDL_NGS_038PUP	FN:52	PRODUCER	06-Apr-2017 20:24	4930.9 M	3798.9 M

OP System Version: 19C0-187

DSST-B	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	SKK-5169-EDTCB		

PIP SUMMARY

Time Mark Every 60 S

HRLT True Resistivity (RT_HRLT)
0.2 (OHMM) 2000

Invaded Zone Resistivity (RXO_HRLT)
0.2 (OHMM) 2000

HRLT Mud Resistivity (RM_HRLT)
0.02 (OHMM) 200

HRLT Resistivity 5 (RLA5)
0.2 (OHMM) 2000

HNGS Spectroscopy Gamma Ray (HSGR)
0 (GAPI) 100

HRLT Resistivity 4 (RLA4)
0.2 (OHMM) 2000

Invasion Diameter (DI_HRLT)
0 (IN) 50

HRLT Resistivity 3 (RLA3)
0.2 (OHMM) 2000

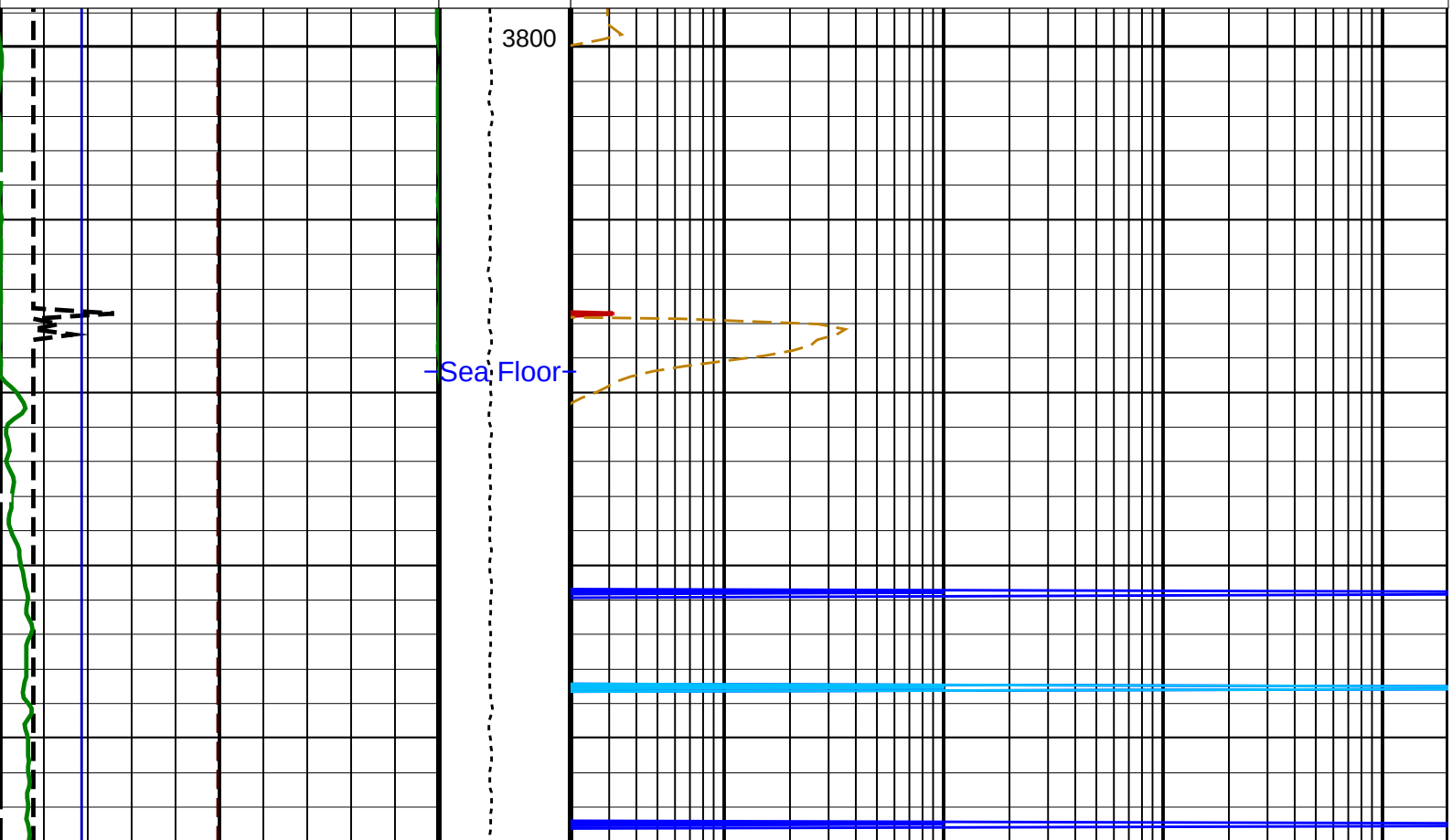
Caliper (LCAL)
0 (IN) 20

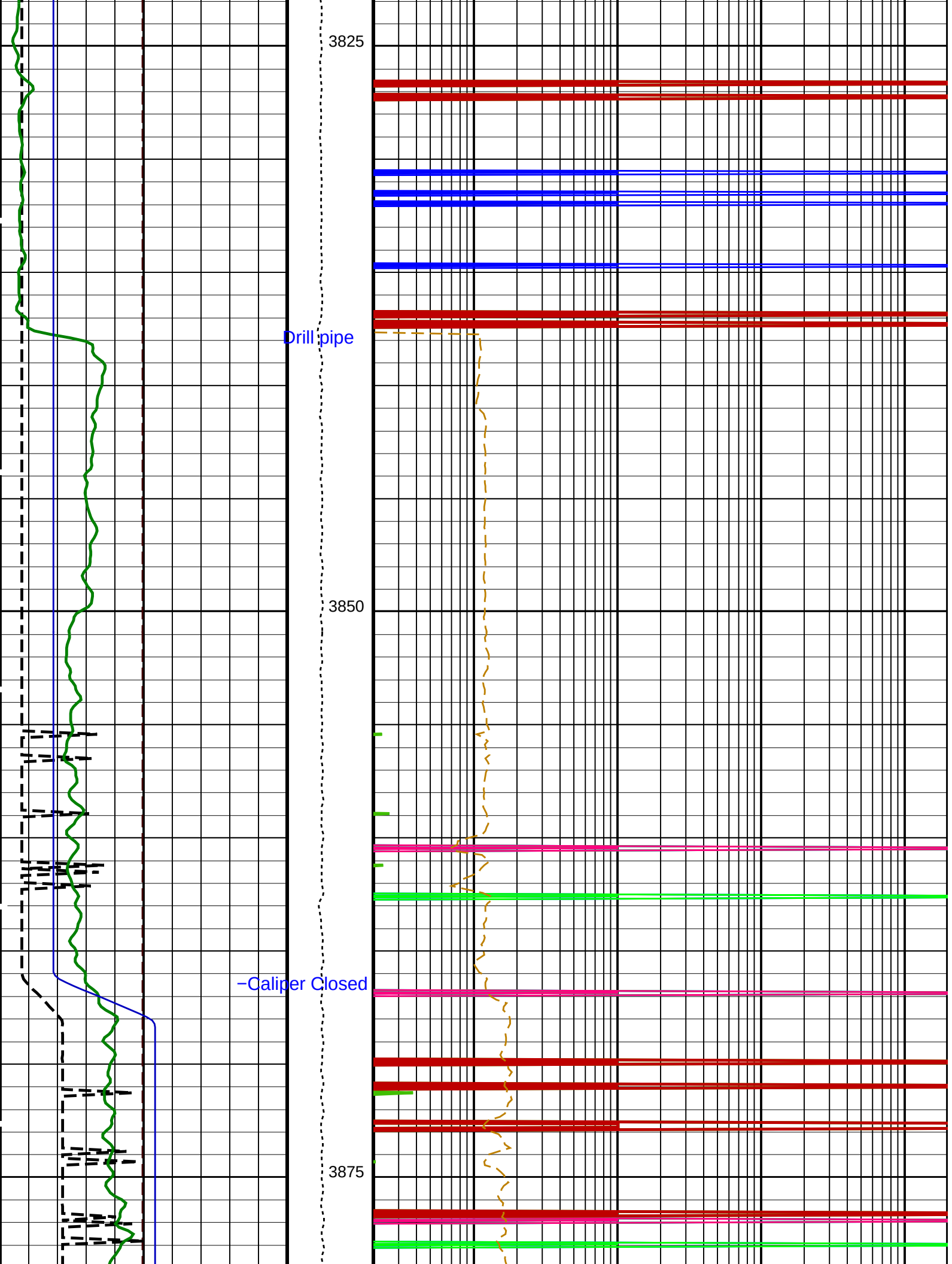
HRLT Resistivity 2 (RLA2)
0.2 (OHMM) 2000

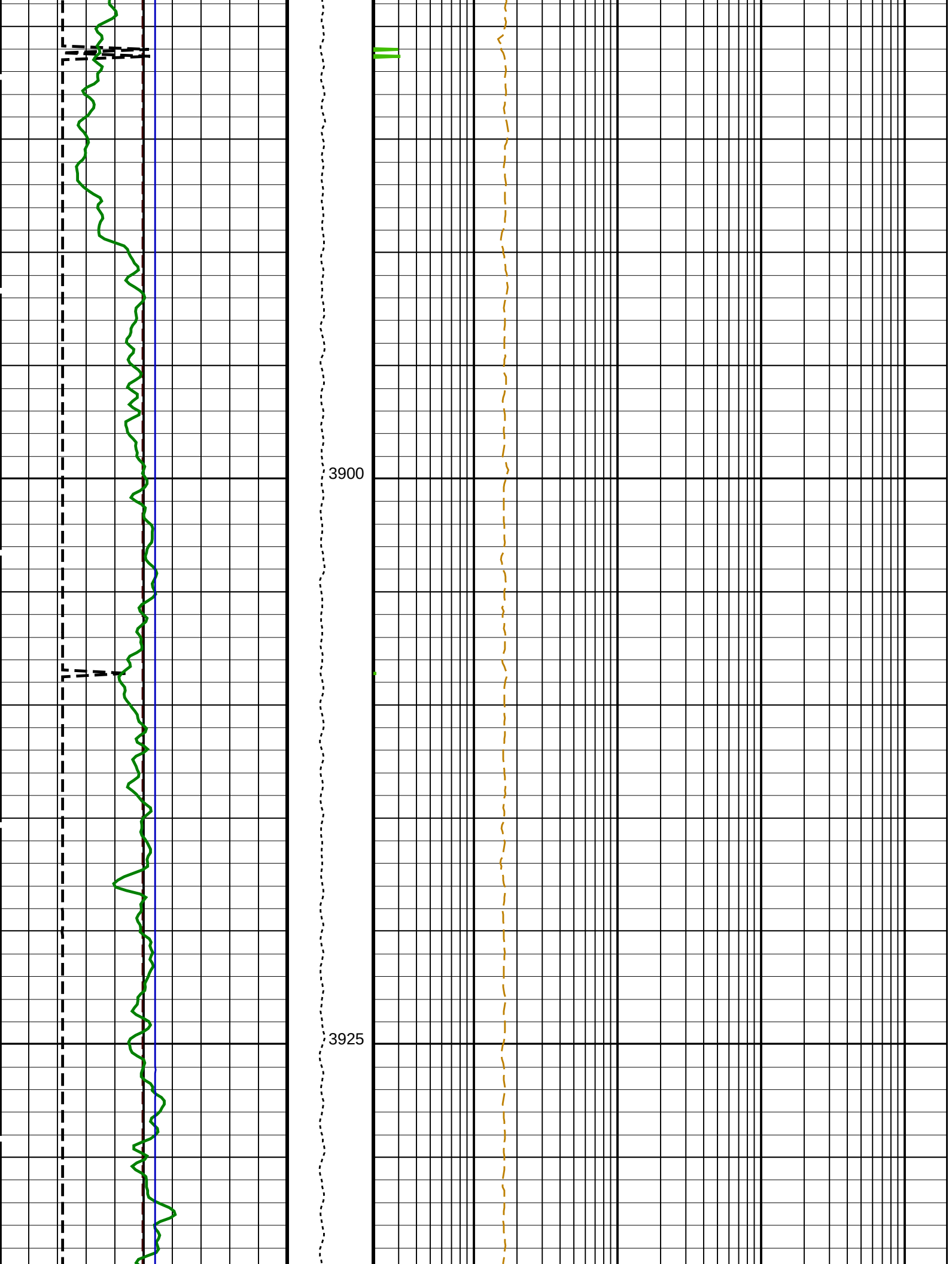
Bit Size (BS)
0 (IN) 20

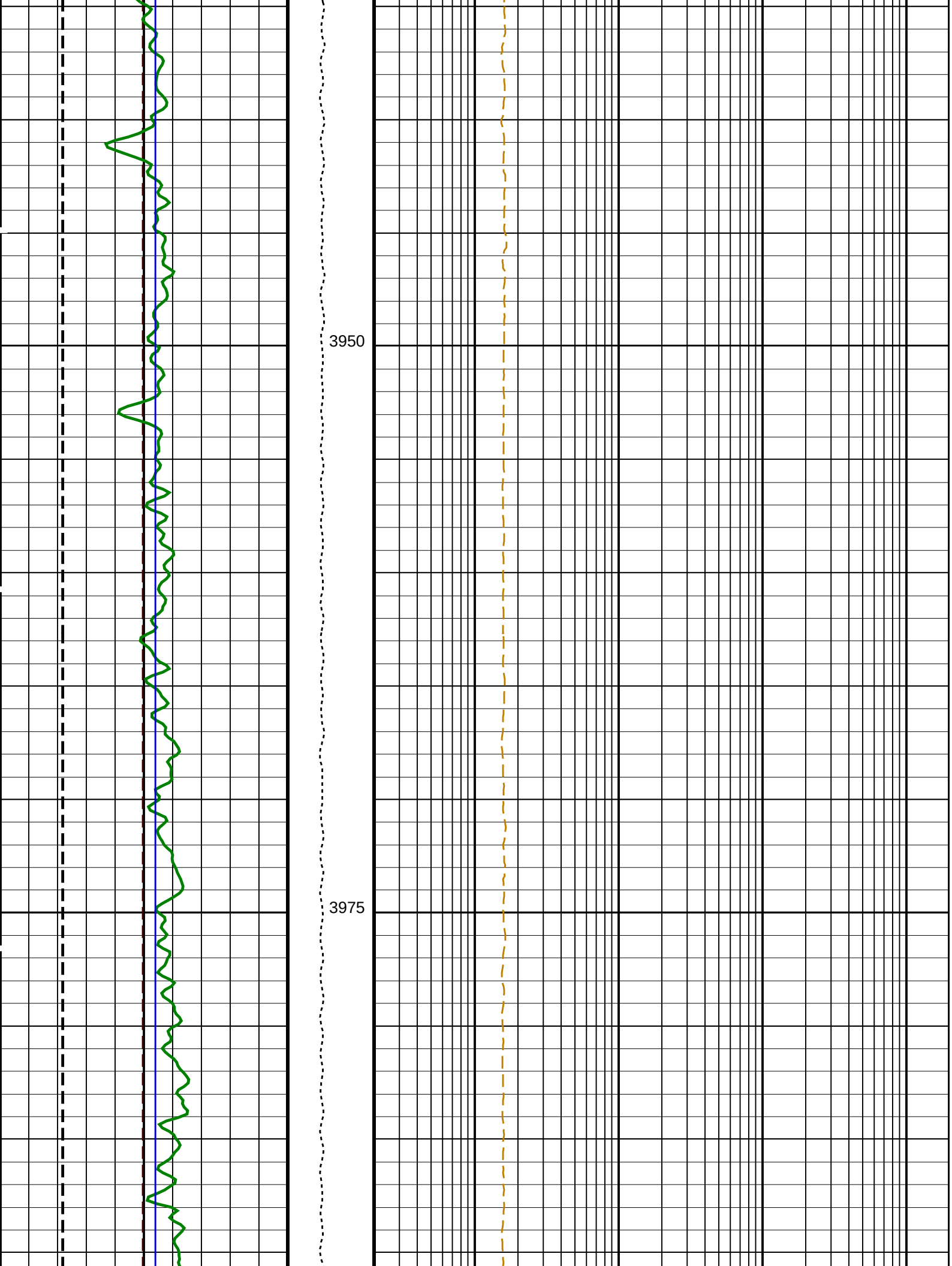
Tension (TENS) (LBF)
10000 0

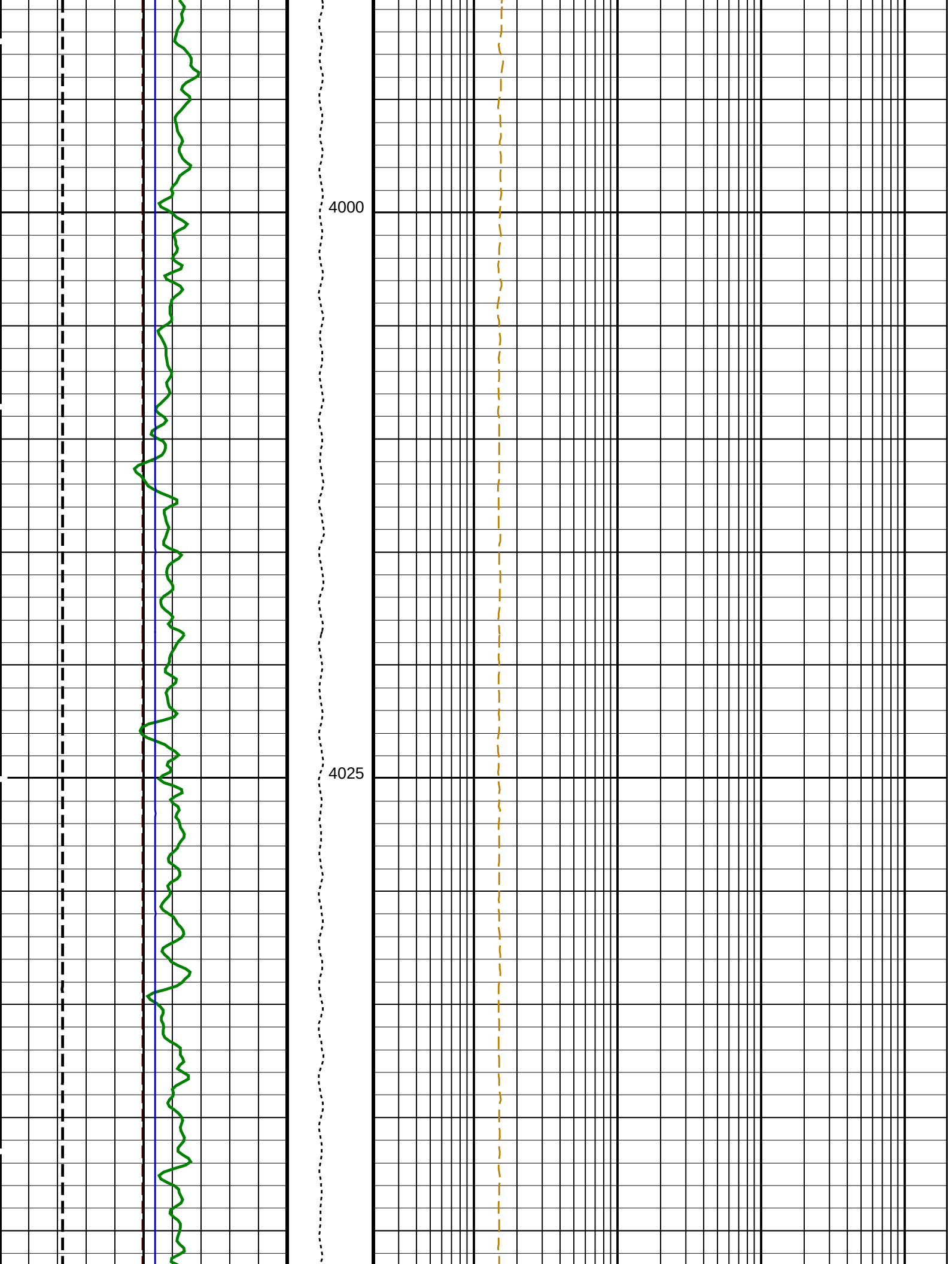
HRLT Resistivity 1 (RLA1)
0.2 (OHMM) 2000

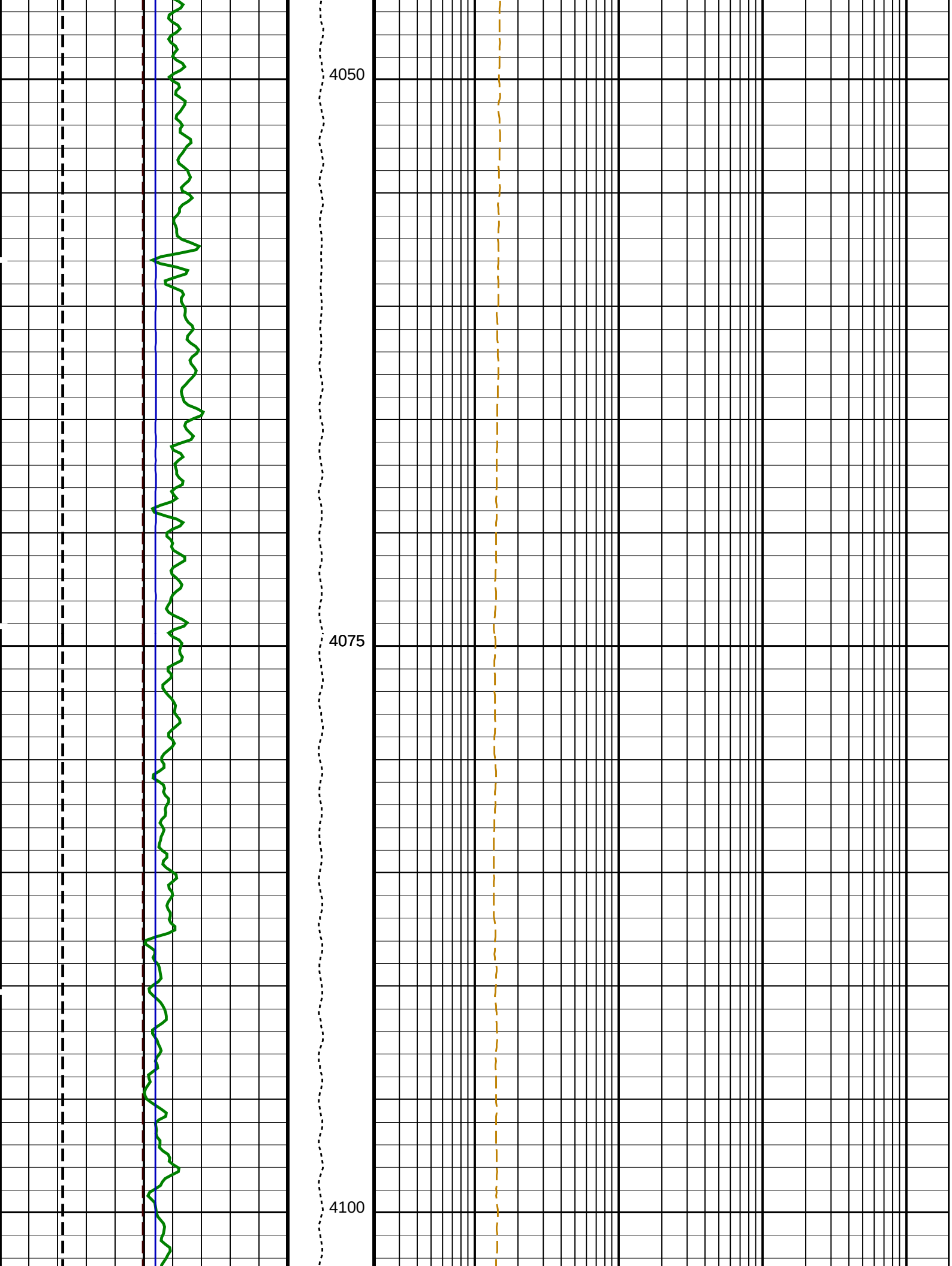


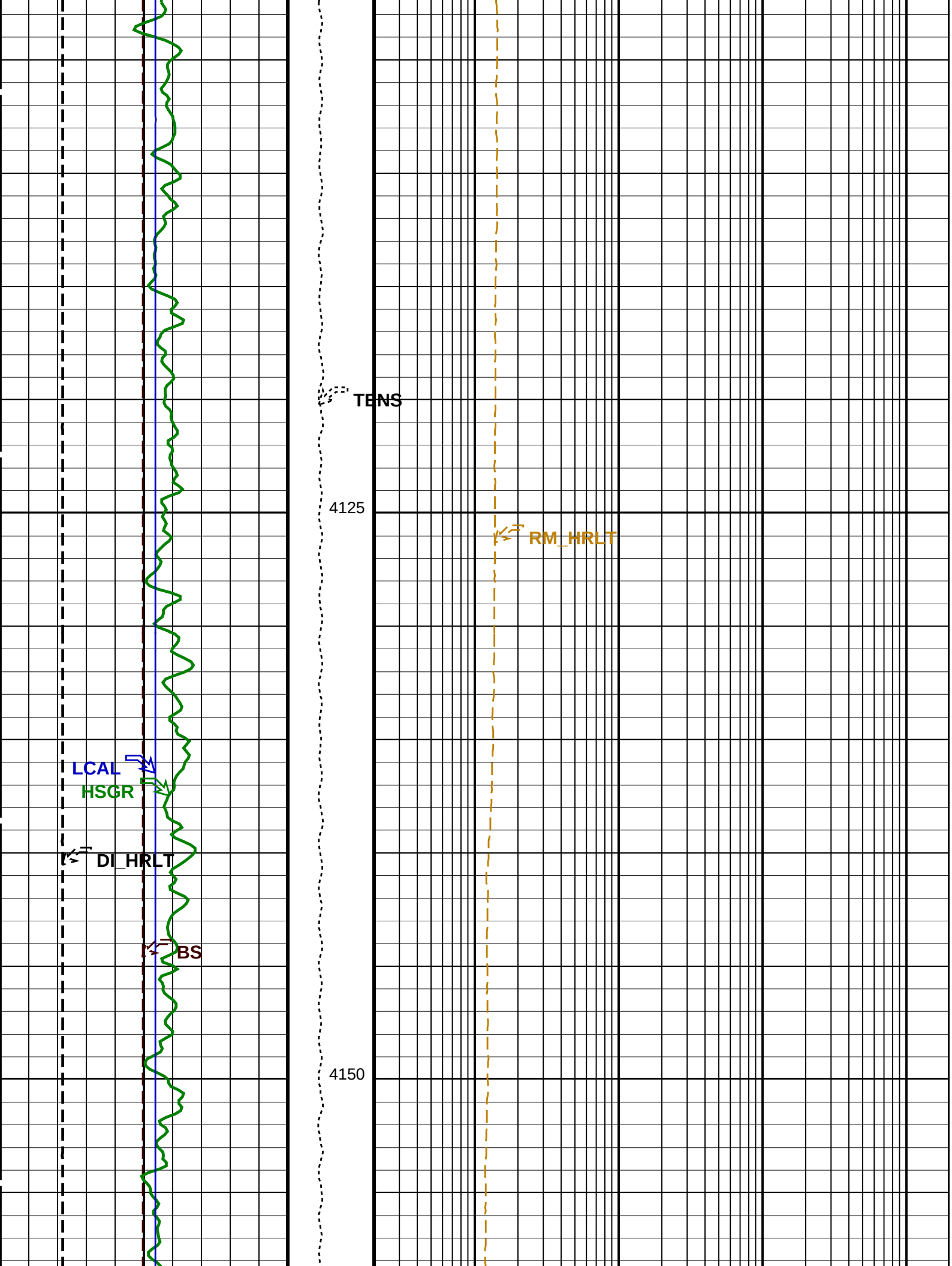

3825
Drill pipe
3850
−Caliper Closed
3875

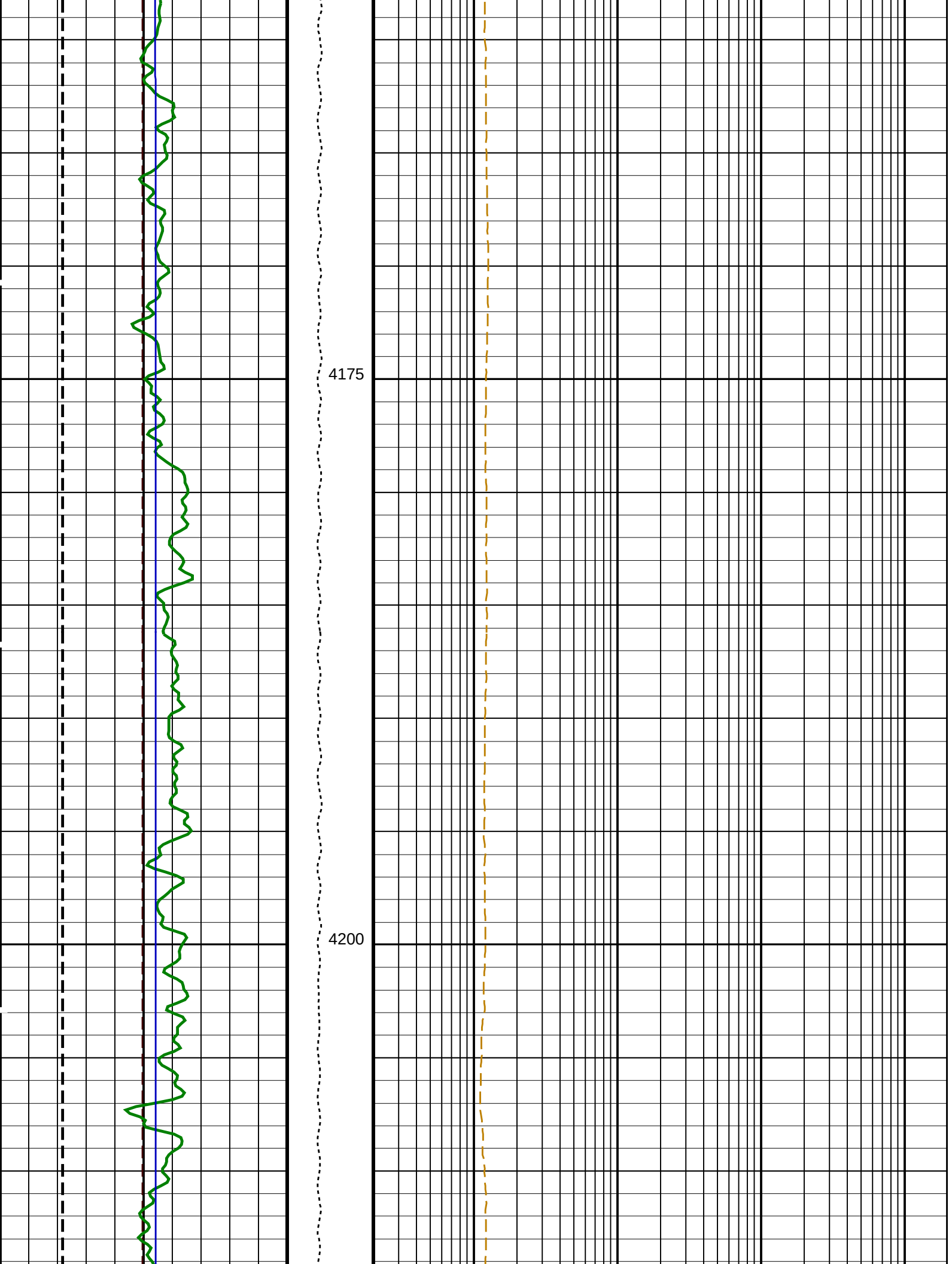

3900
3925

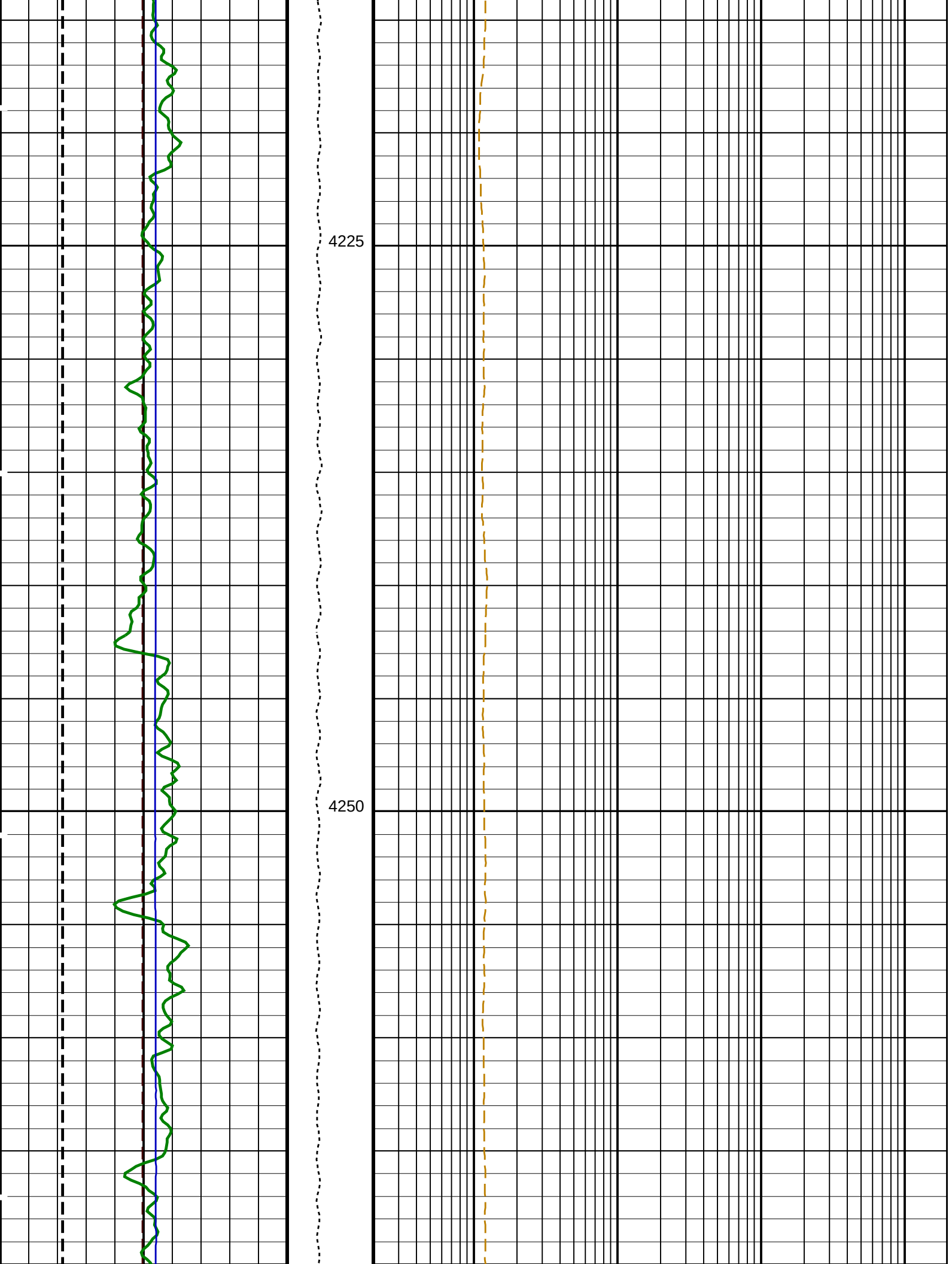

3950
3975

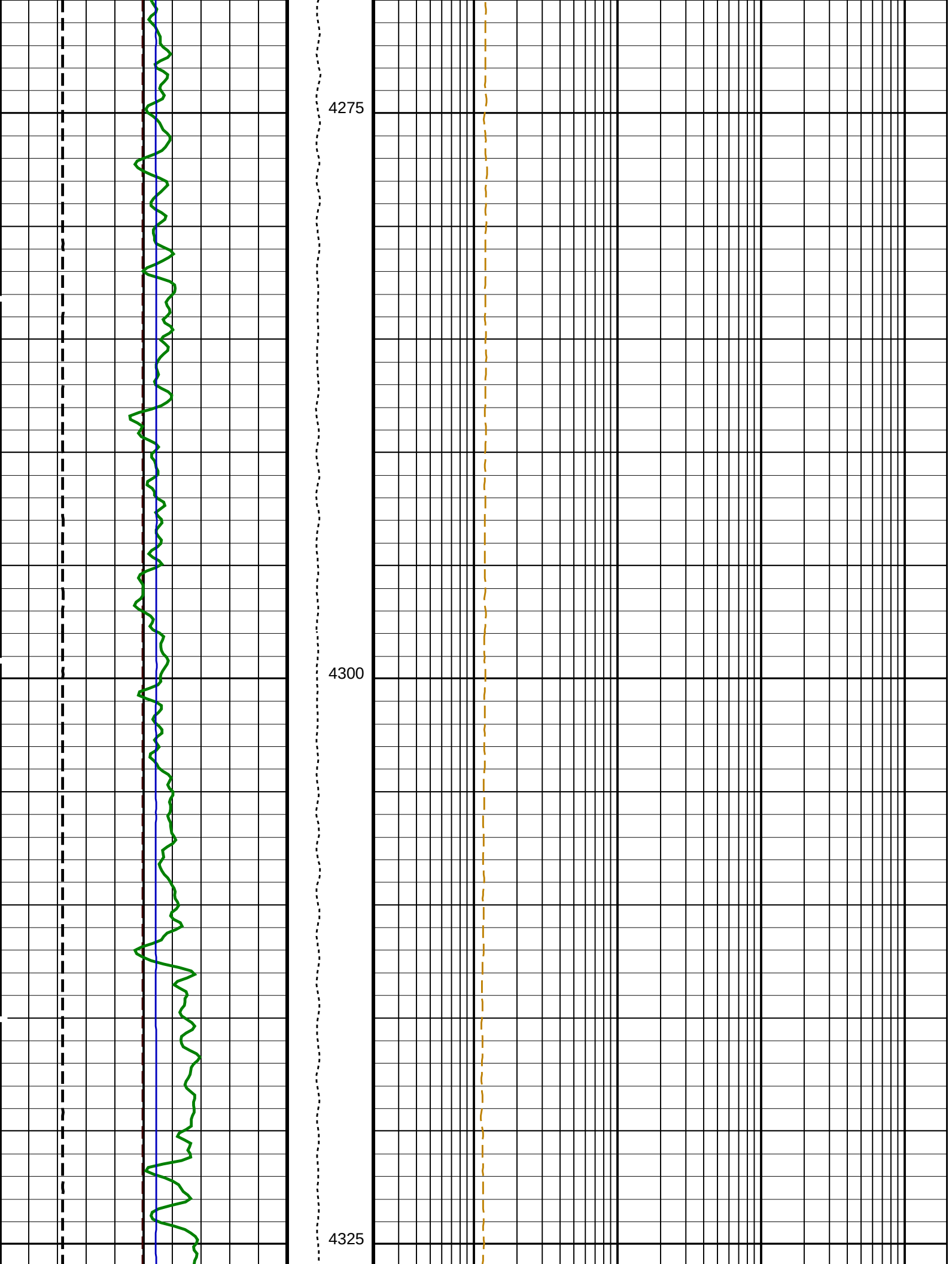

4000
4025

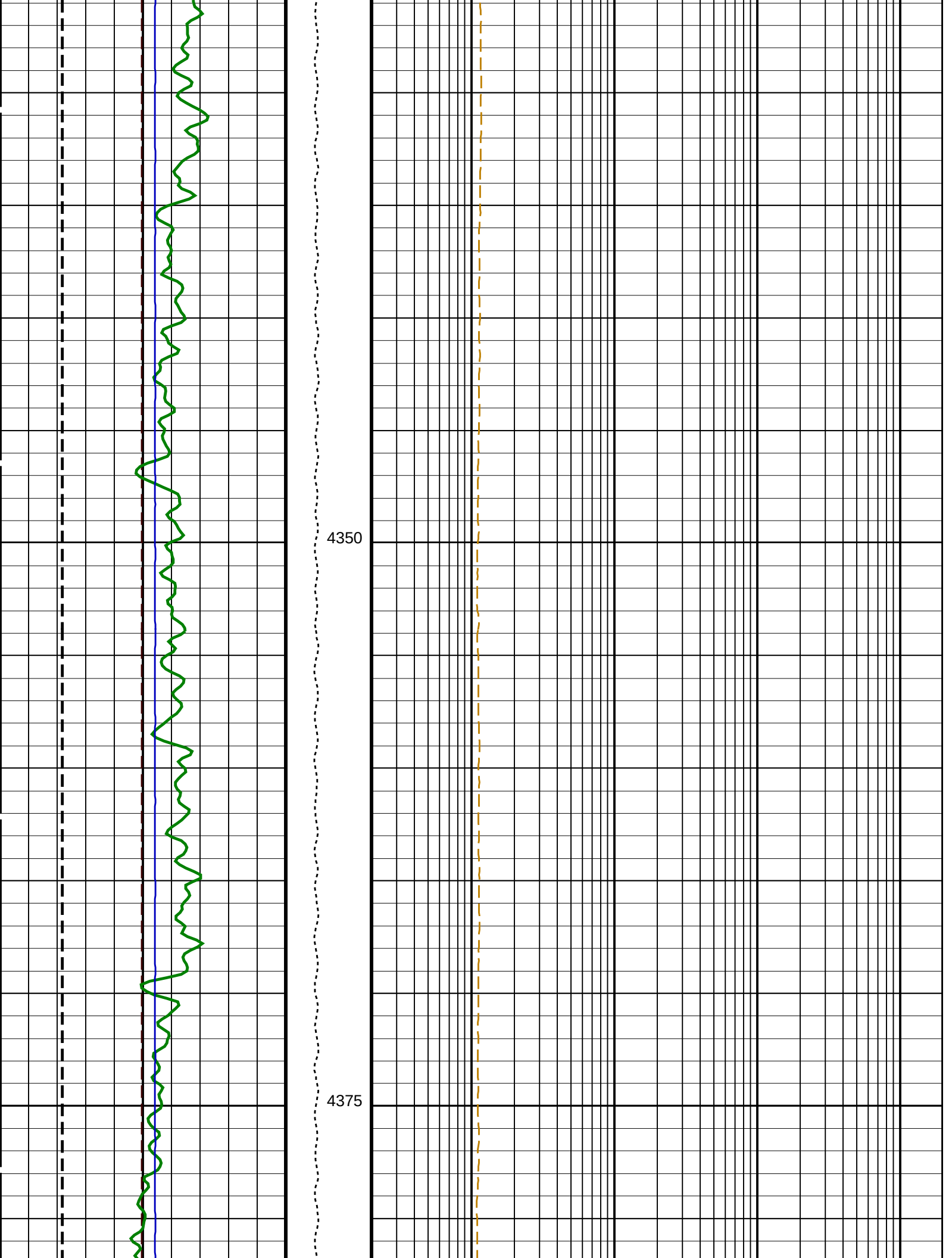

4050
4075
4100

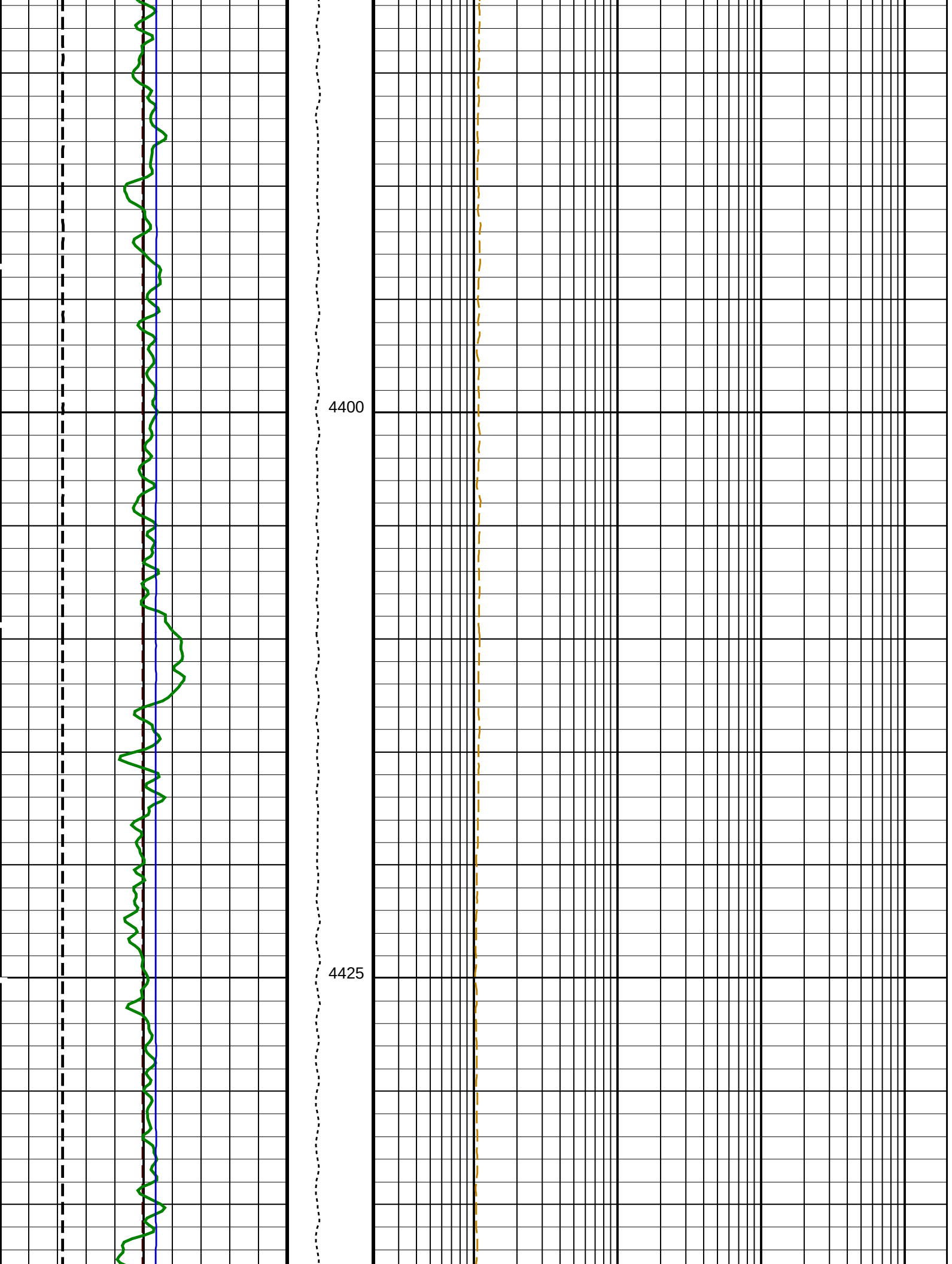

TENS
4125
RM_HRLT
LCAL
HSGR
DI_HRLT
BS
4150

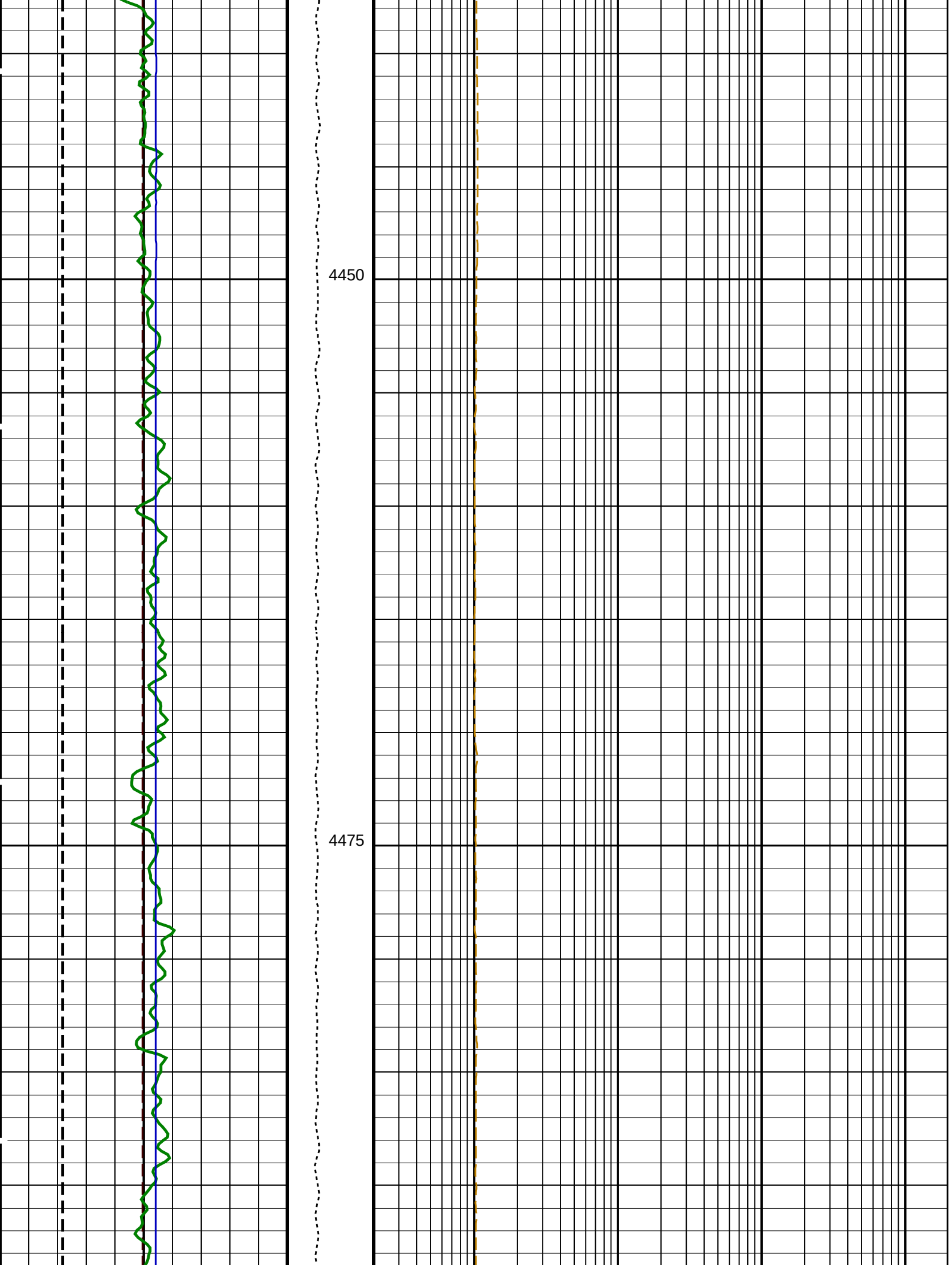

4175
4200

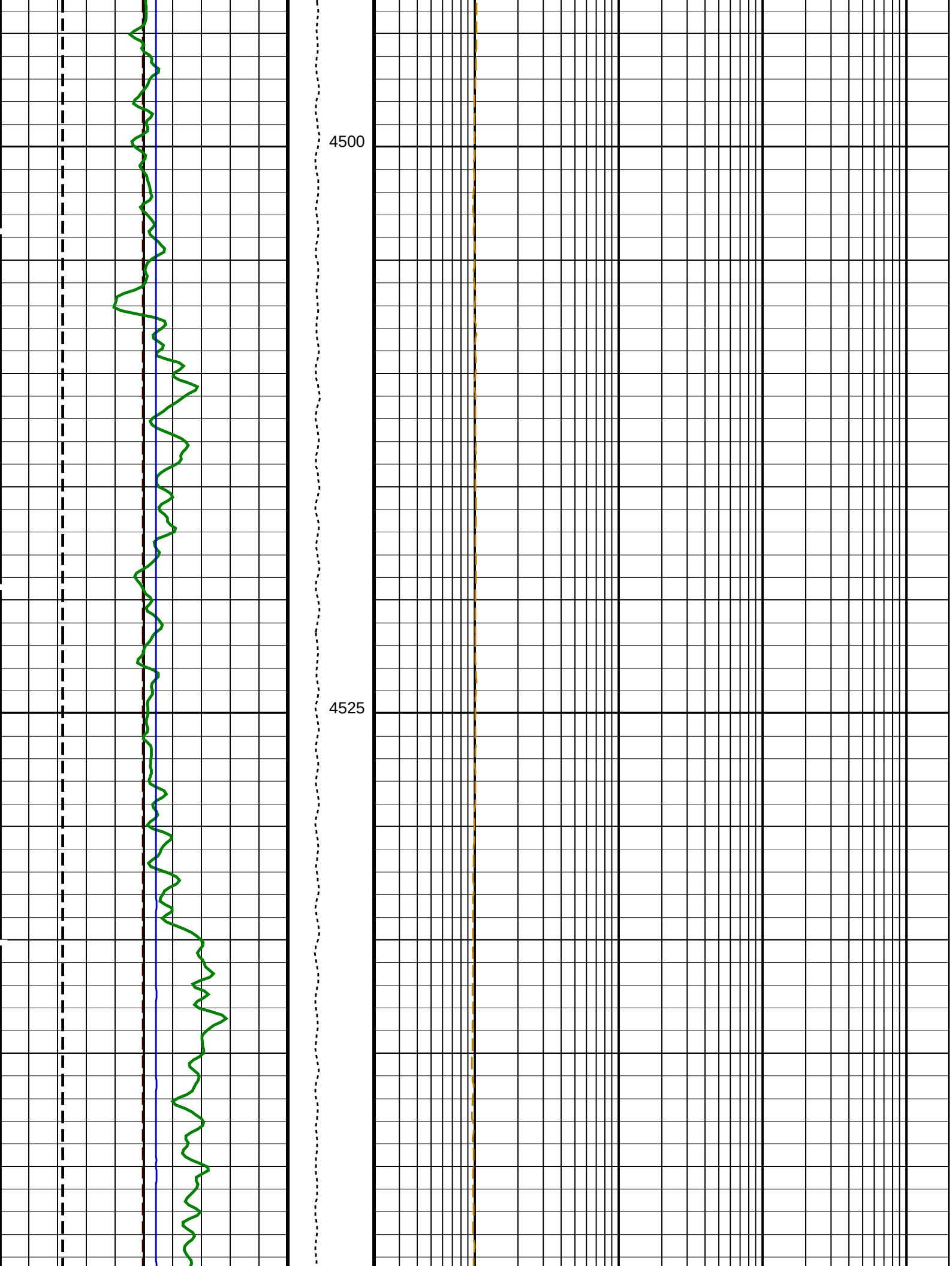

4225
4250

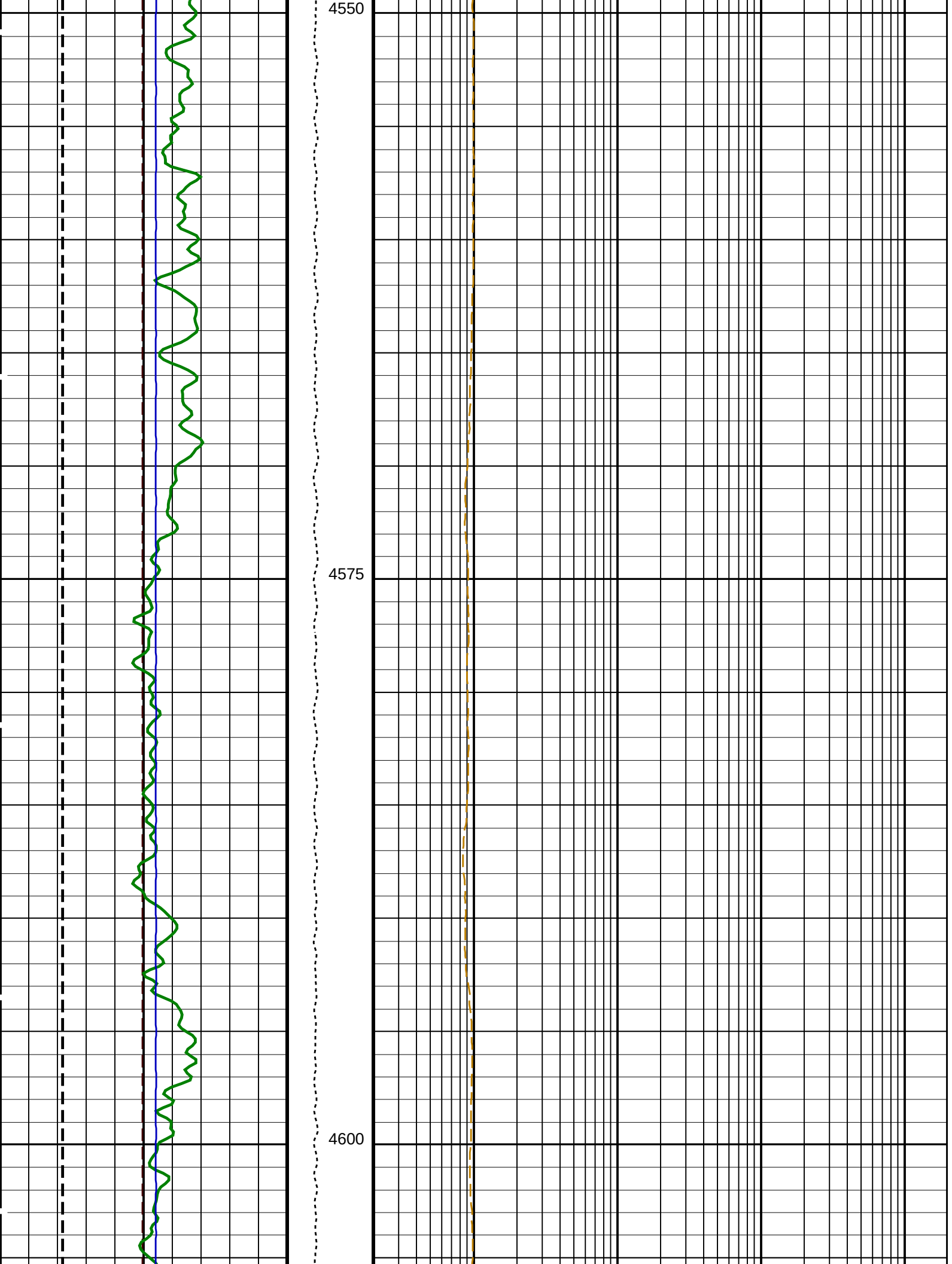

4275
4300
4325

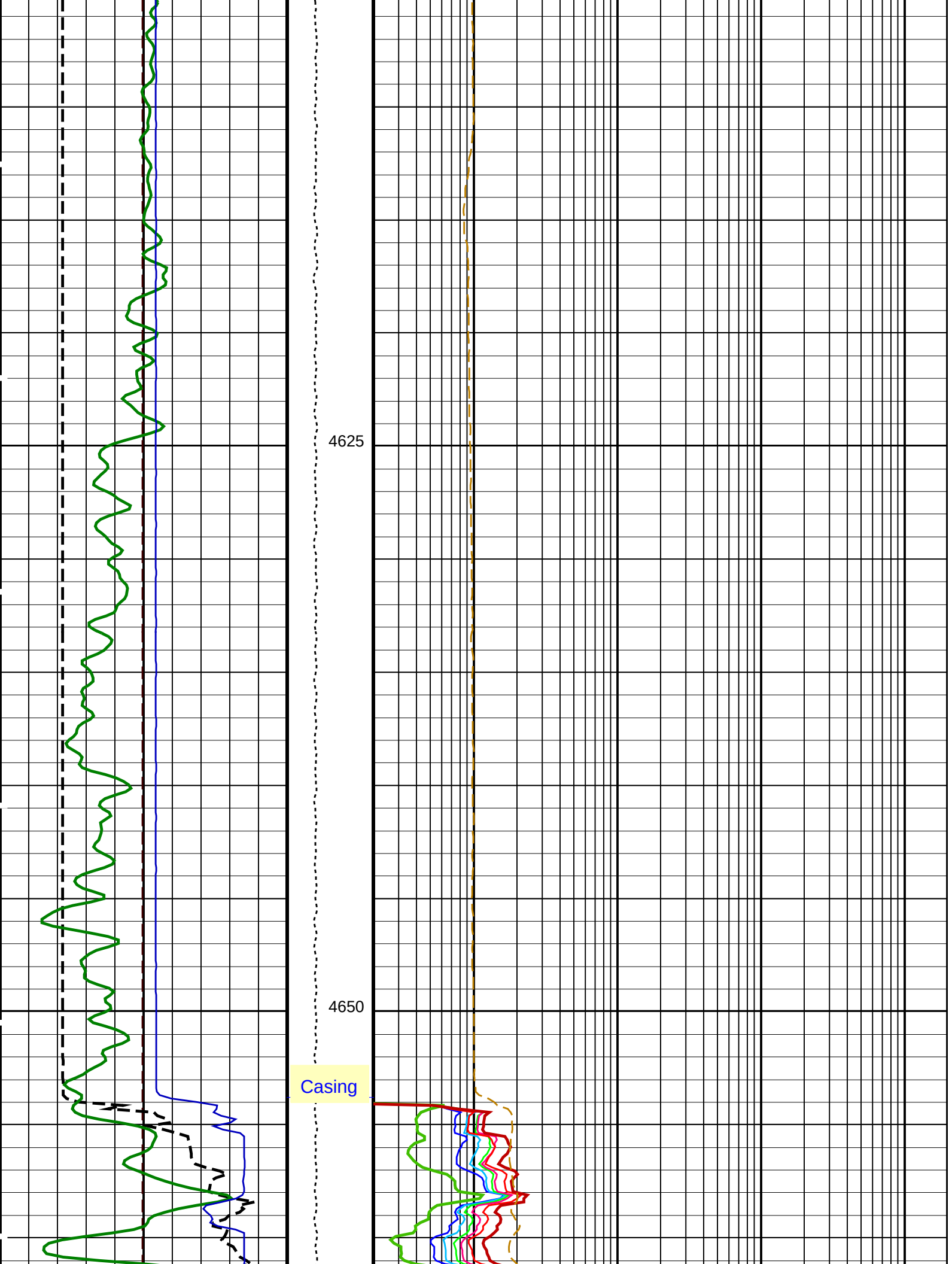

4350
4375

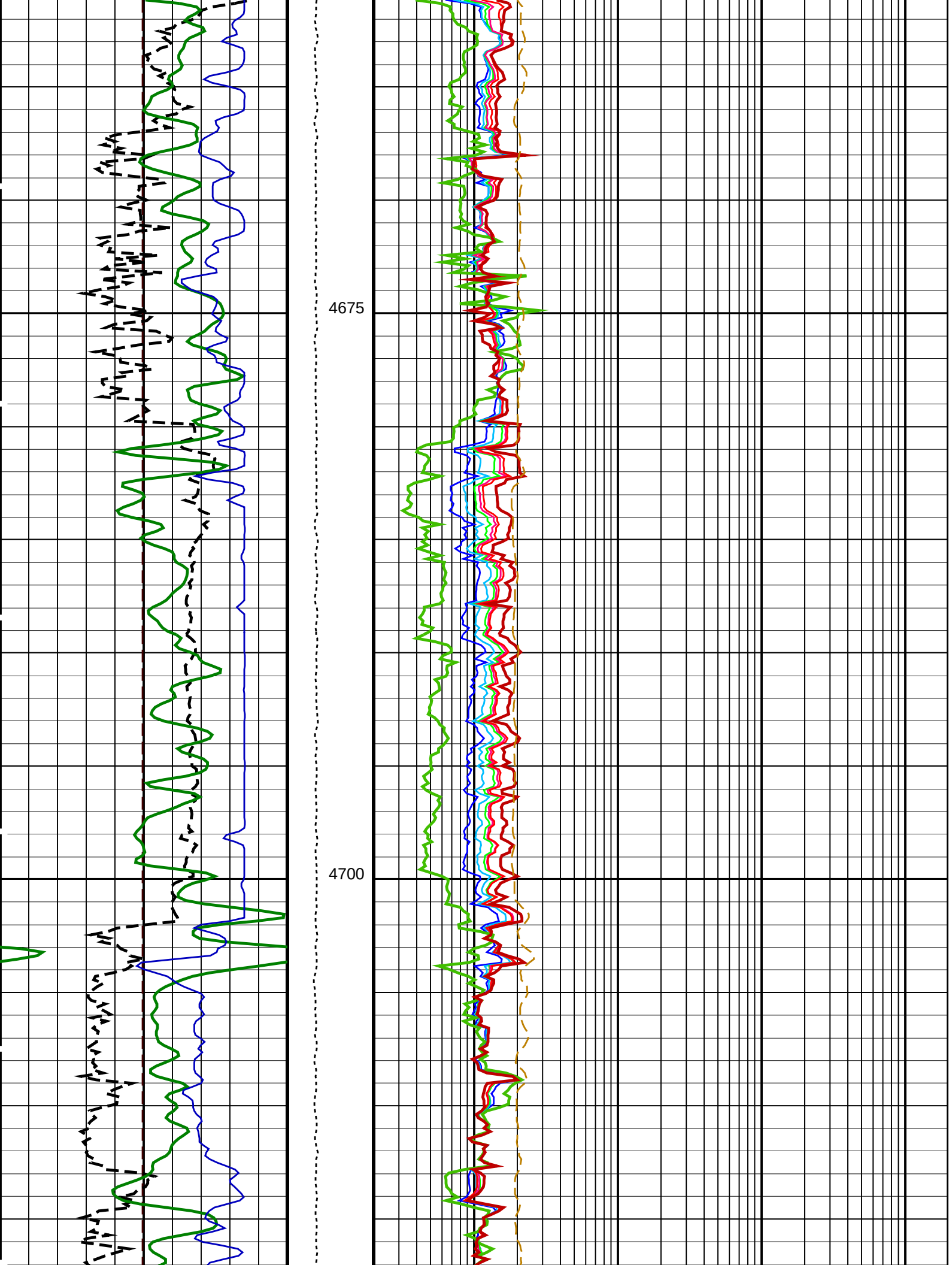

4400
4425

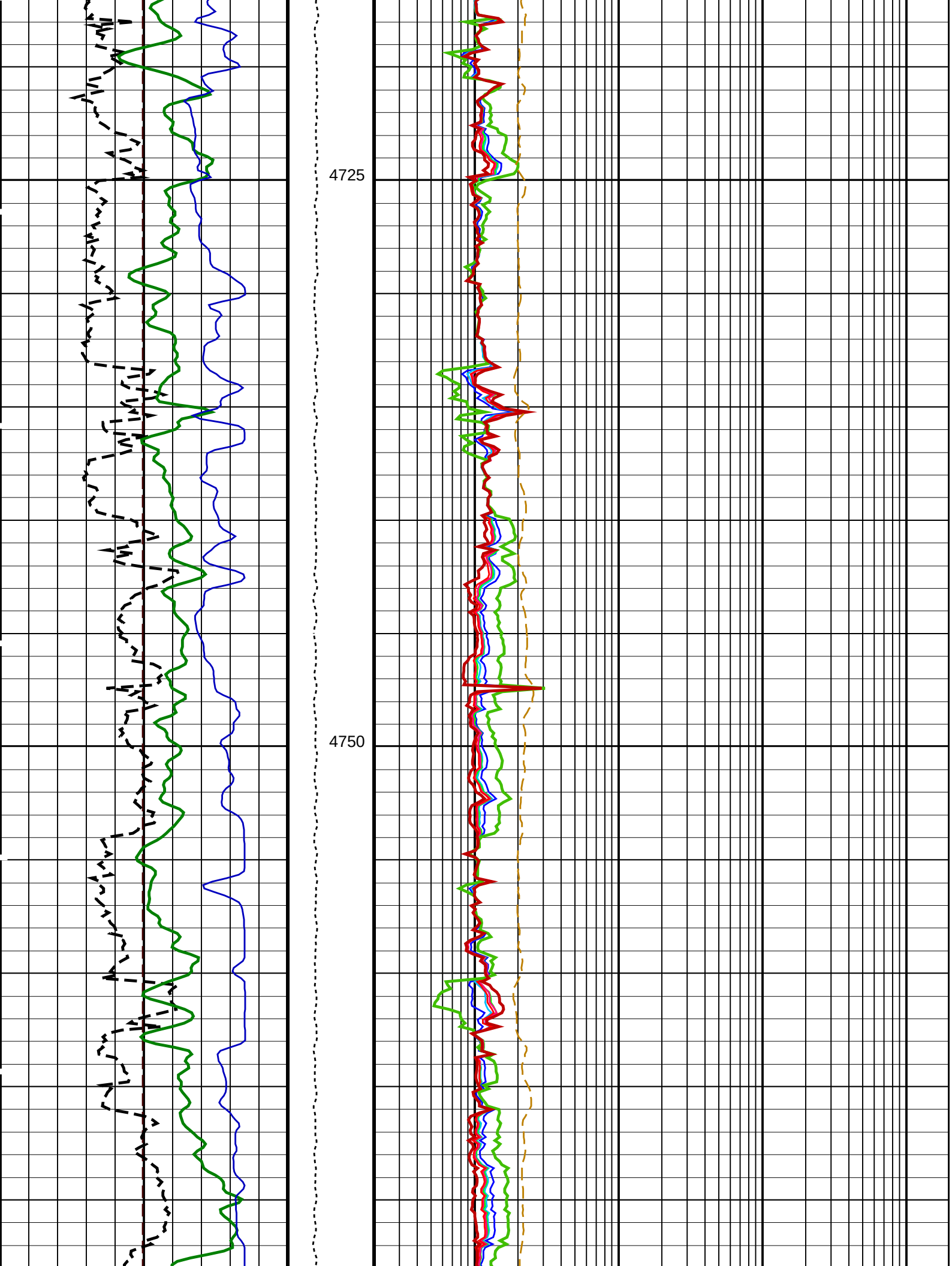

4450
4475

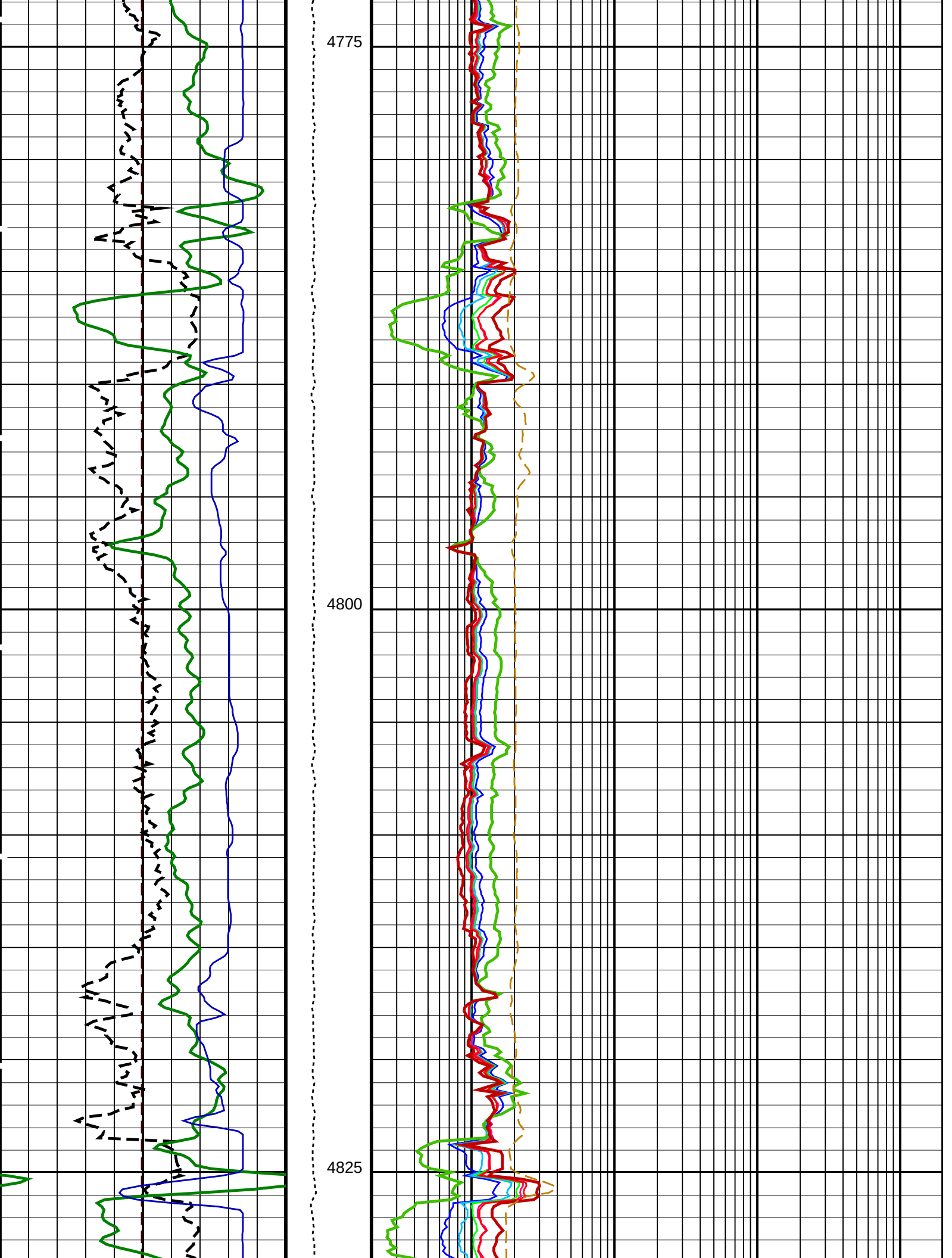

4500
4525

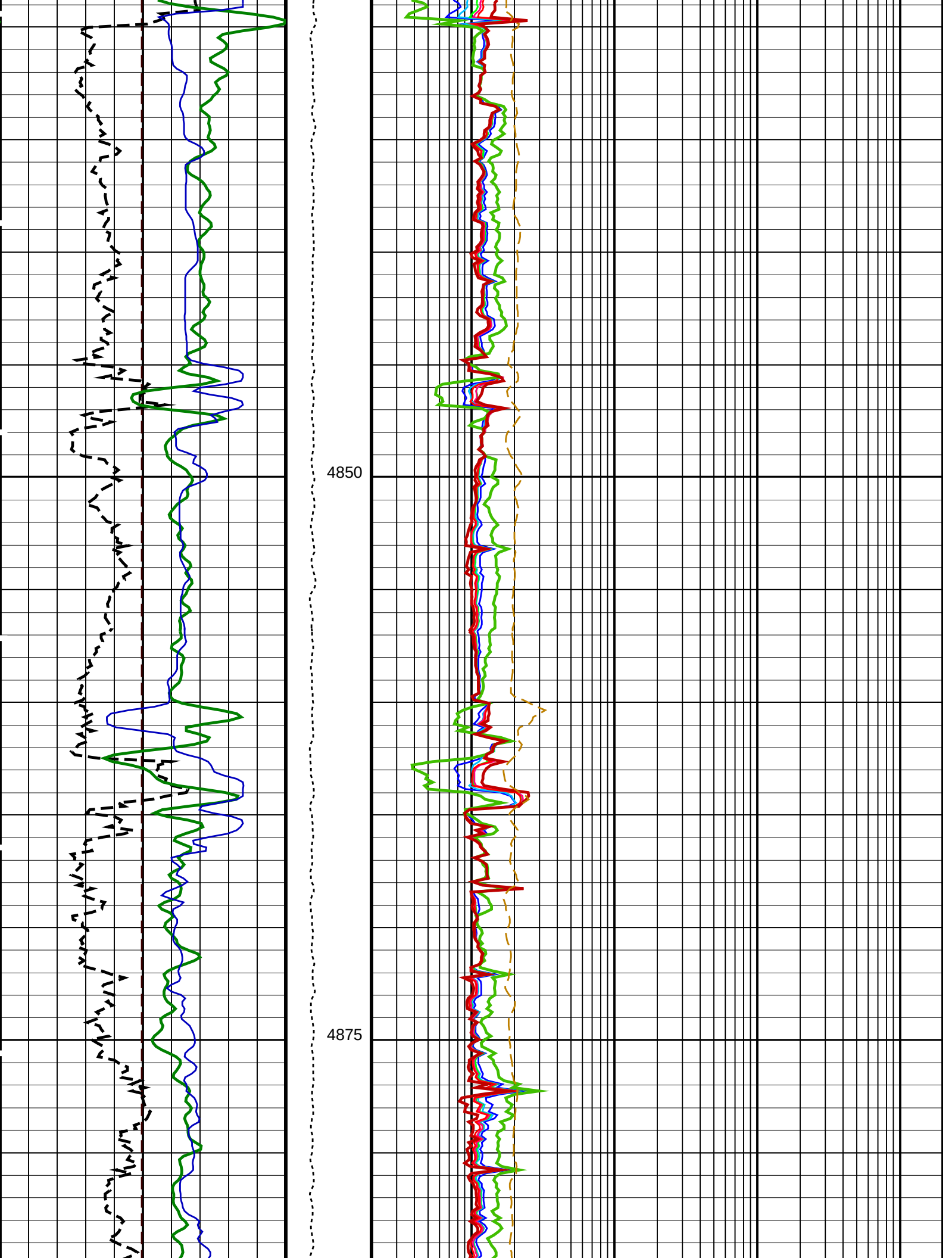

4550
4575
4600

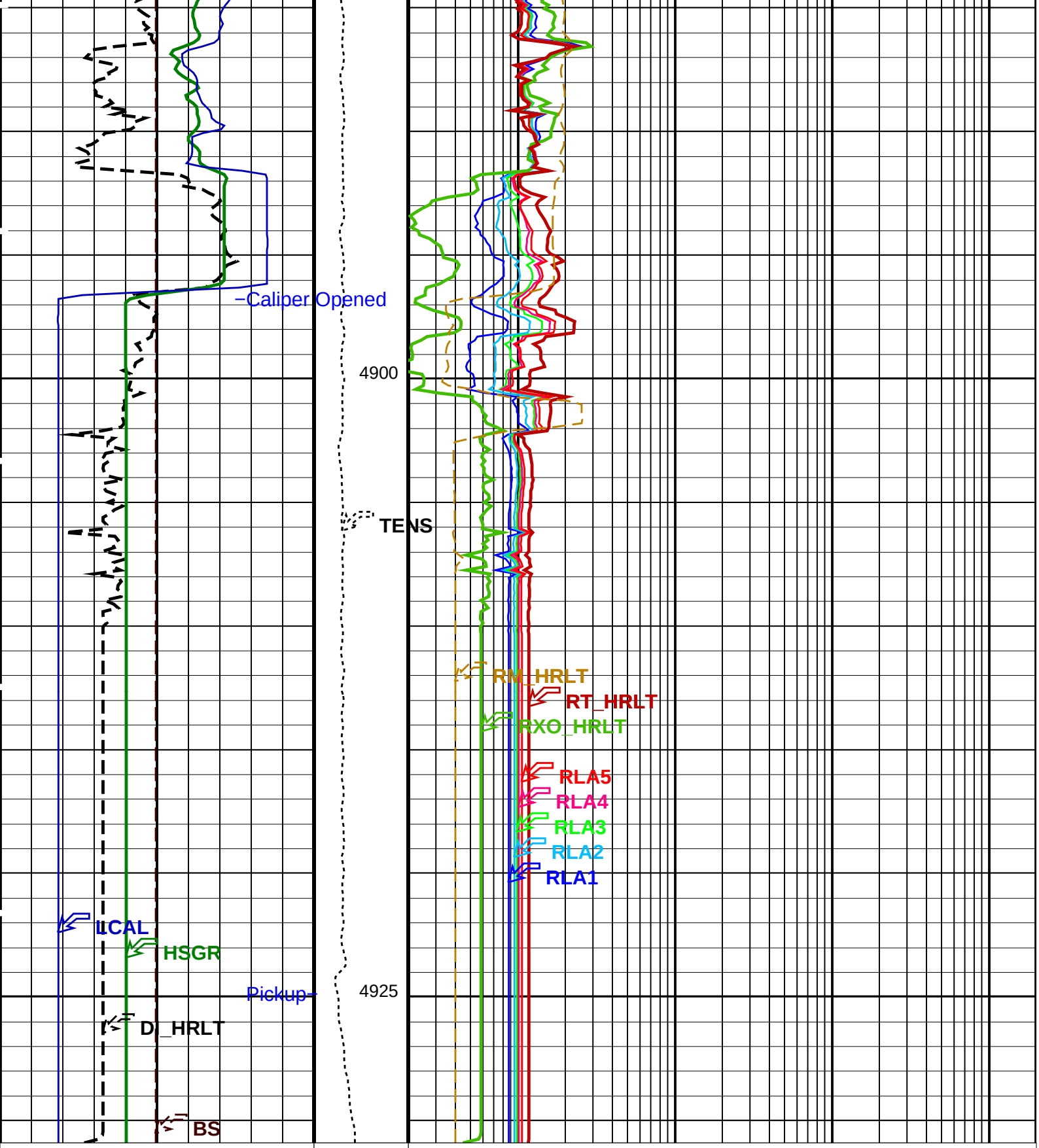

4625
4650
Casing


4675
4700


4725
4750


4775
4800
4825


4850
4875



Bit Size (BS) 0 (IN) 20	Tension (TENS) (LBF) 10000 0	HRLT Resistivity 1 (RLA1) 0.2 (OHMM) 2000
Caliper (LCAL) 0 (IN) 20		HRLT Resistivity 2 (RLA2) 0.2 (OHMM) 2000
Invasion Diameter (DI_HRLT) 0 (IN) 50		HRLT Resistivity 3 (RLA3) 0.2 (OHMM) 2000
HNGS Spectroscopy Gamma Ray (HSGR)		HRLT Resistivity 4 (RLA4)

(HSGR)

0 (GAPI) 100

Main Uplog

0.2 (OHMM) 2000

HRLT Resistivity 5 (RLA5)

0.2 (OHMM) 2000

HRLT Mud Resistivity (RM_HRLT)

0.02 (OHMM) 200

Invaded Zone Resistivity (RXO_HRLT)

0.2 (OHMM) 2000

HRLT True Resistivity (RT_HRLT)

0.2 (OHMM) 2000

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
GCSE	Generalized Caliper Selection	LCAL	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	20	DEGC
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
GCSE	Generalized Caliper Selection	LCAL	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
PROCINV	Inversion Selection	ON	
PROCMFL	Inversion Micro−Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	0	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSPO	Sonde Position	Centered	
SHT	Surface Hole Temperature	20	DEGC
	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	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
CSD1	Inner Casing Outer Diameter	10.75	IN
CSD2	Outer Casing Outer Diameter	10.75	IN
CSW1	Inner Casing Weight	45	LB/F
CSW2	Outer Casing Weight	45	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	LCAL	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00192069	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
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	
SHT	Surface Hole Temperature	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.992004	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.990962	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
GCSE	Generalized Caliper Selection	LCAL	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	20	DEGC

SHT	Surface Hole Temperature	20	DEGC
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.32	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	5345	M

Format: HRLT **Vertical Scale: 1:200** **Graphics File Created: 06−Apr−2017 20:24**

OP System Version: 19C0−187

DSST−B	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
EDTC−B	SKK−5169−EDTCB		

Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_030LUP	FN:35	PRODUCER	06−Apr−2017 18:03	4930.9 M	3798.9 M

Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_038PUP	FN:51	PRODUCER	06−Apr−2017 20:24		
BACKUP	DSI_HRLA_LDL_NGS_038PUP	FN:52	PRODUCER	06−Apr−2017 20:24		

Company: International Ocean Discovery Program **Well: Expedition 367, Site U1500B**

Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_028LUP	FN:33	PRODUCER	06−Apr−2017 17:40	4944.6 M	4787.6 M

Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_037PUP	FN:49	PRODUCER	06−Apr−2017 20:22	4944.6 M	4787.6 M
BACKUP	DSI_HRLA_LDL_NGS_037PUP	FN:50	PRODUCER	06−Apr−2017 20:22	4944.6 M	4787.6 M

OP System Version: 19C0−187

DSST−B	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−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)
0 (GAPI) 100

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

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

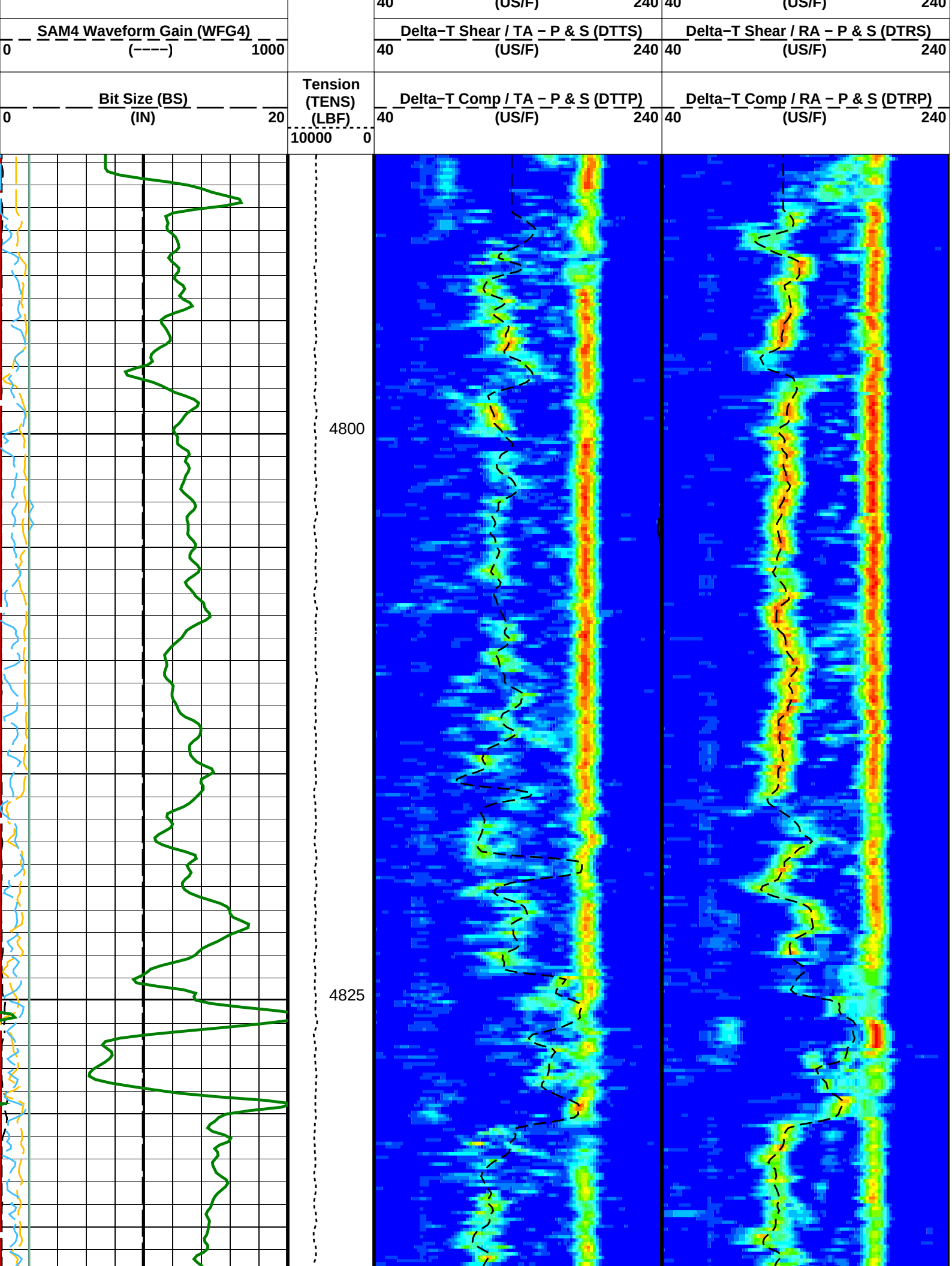
Peak Coherence / TA − P & S Comp (CHTP)
0 (−−−−) 10

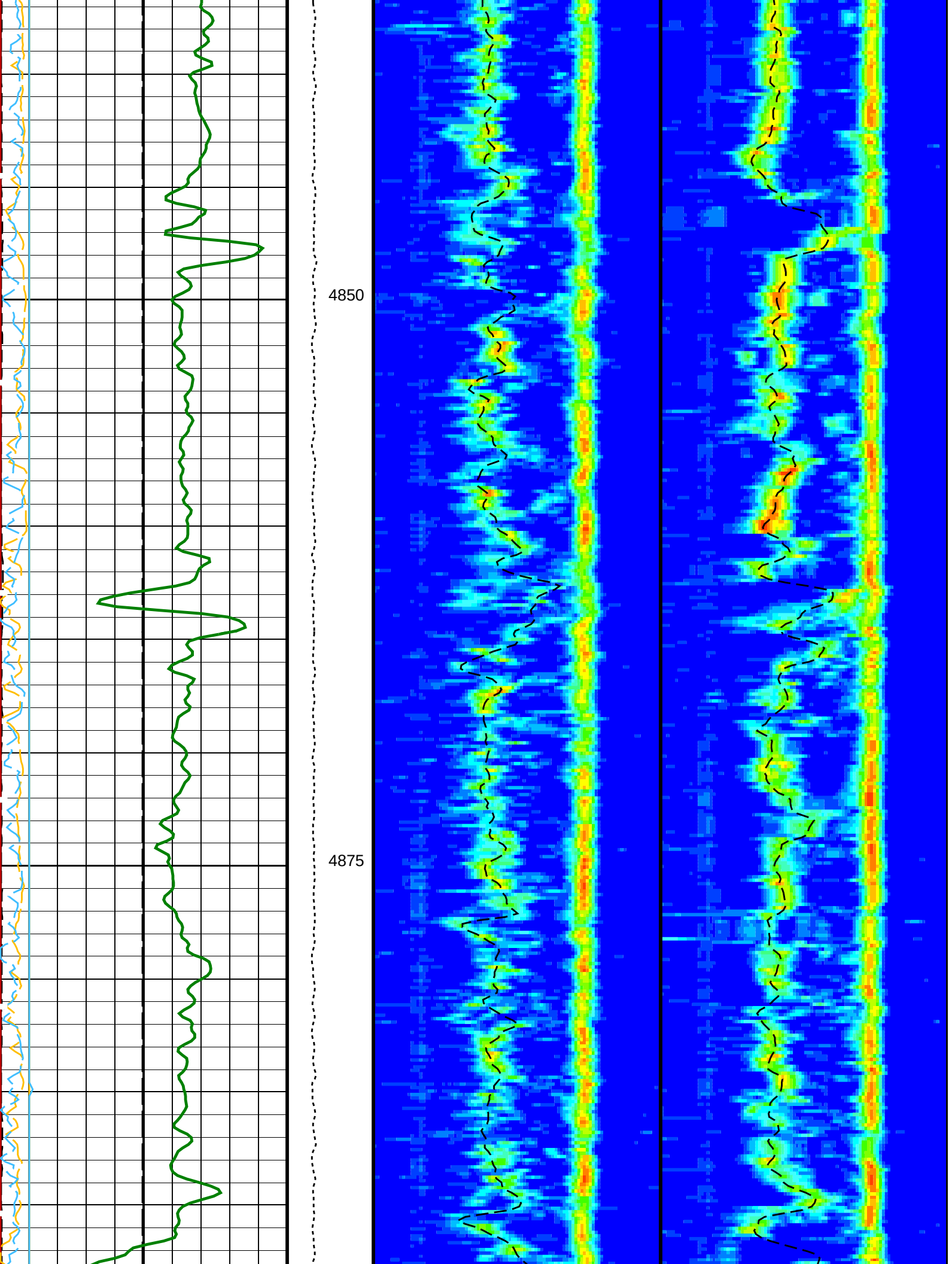
Peak Coherence / RA − P & S Comp (CHRP)
0 (−−−−) 10

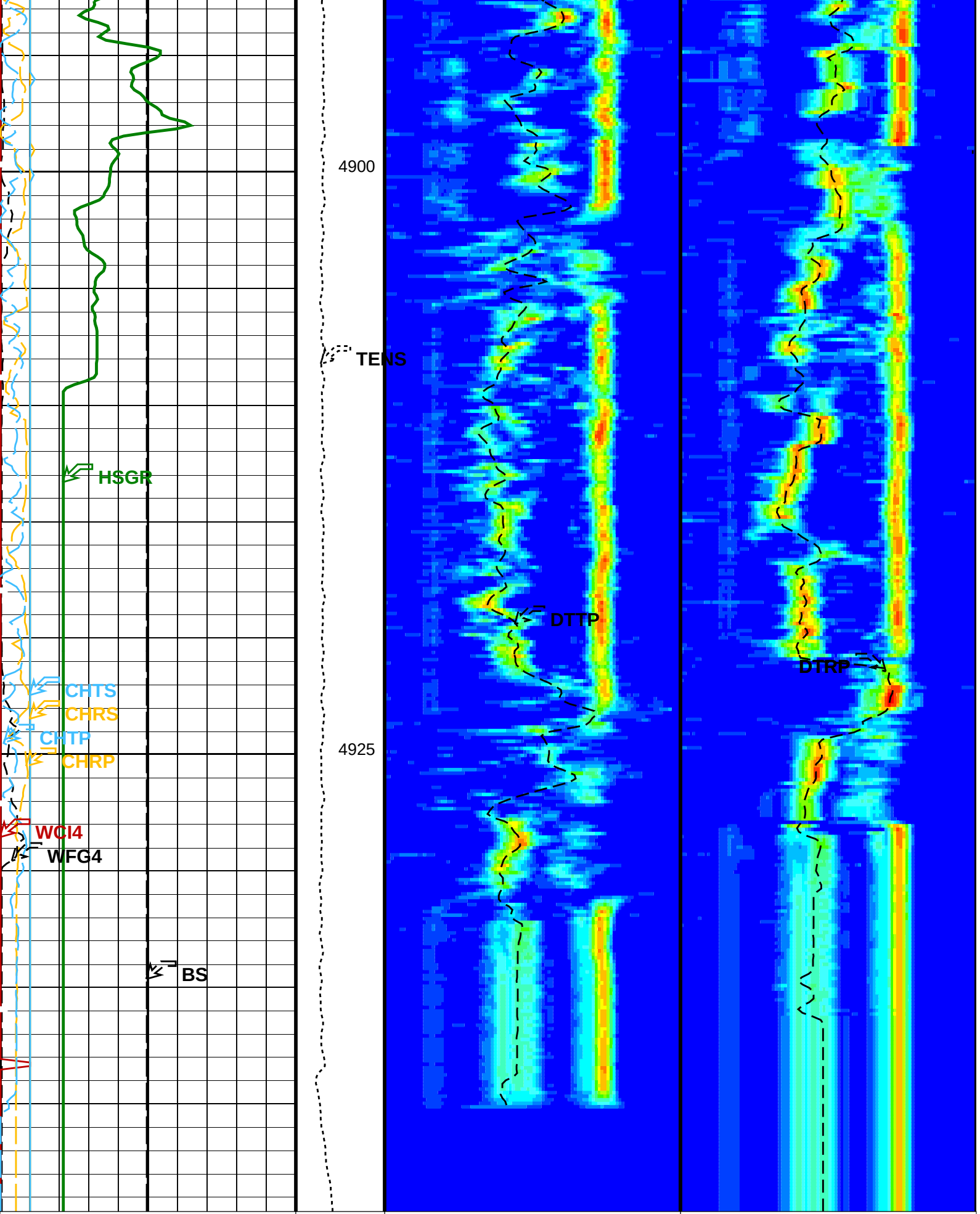
Waveform Data Copy Indicator 4 − Monopole P&S (WCI4)
0 (−−−−) 10

Min Amplitude Max
Tr.Array P&S Slow Proj. CVDL (SPT4)

Min Amplitude Max
Rec.Array P&S Slow Proj. CVDL (SPR4)


40 (US/F) 240
40 (US/F) 240
SAM4 Waveform Gain (WFG4)
0 (----) 1000
Delta-T Shear / TA - P & S (DTTS)
40 (US/F) 240
Delta-T Shear / RA - P & S (DTRS)
40 (US/F) 240
Bit Size (BS)
0 (IN) 20
Tension (TENS) (LBF)
10000 0
Delta-T Comp / TA - P & S (DTTP)
40 (US/F) 240
Delta-T Comp / RA - P & S (DTRP)
40 (US/F) 240
4800
4825


4850
4875



Bit Size (BS)	Tension (TENS)	Delta−T Comp / TA − P & S (DTTP)	Delta−T Comp / RA − P & S (DTRP)
0 (IN) 20	10000 (LBF) 0	40 (US/F) 240	40 (US/F) 240

SAM4 Waveform Gain (WFG4)
0 (----) 1000

Waveform Data Copy Indicator 4 − Monopole P&S (WCI4)
0 (----) 10

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

HNGS Spectroscopy Gamma Ray (HSGR)
0 (GAPI) 100

Delta−T Shear / TA − P & S (DTTS)
40 (US/F) 240

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

Min Amplitude Max

Tr.Array P&S Slow Proj. CVDL (SPT4)
40 (US/F) 240

Min Amplitude Max

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	95	US/F
COUL	Label Slowness Upper Limit − Monopole P&S Compressional	185	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	193	US/F
DWC4	Digitizer Word Count 4	512	
DWCX	Digitizer Word Count X	512	
FILG	Label Fill Gap Control − Monopole P&S	COMP_SHEAR	
GCSE	Generalized Caliper Selection	LCAL	
LFC	Label Formation Character − Monopole P&S	DYNAMIC	
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	780	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	
WFM4	Waveform Mode 4	W1	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	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	10.75	IN
CSD2	Outer Casing Outer Diameter	10.75	IN
CSW1	Inner Casing Weight	45	LB/F
CSW2	Outer Casing Weight	45	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	LCAL	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00457966	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
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	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.974397	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.991452	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.32	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: DSST_P_S_RC_TR_VDL_COLOR **Vertical Scale: 1:200** **Graphics File Created: 06−Apr−2017 20:22**

OP System Version: 19C0−187

DSST−B	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
EDTC−B	SKK−5169−EDTCB		

Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_028LUP	FN:33	PRODUCER	06−Apr−2017 17:40	4944.6 M	4787.6 M

Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_037PUP	FN:49	PRODUCER	06−Apr−2017 20:22		
BACKUP	DSI_HRLA_LDL_NGS_037PUP	FN:50	PRODUCER	06−Apr−2017 20:22		

Company: International Ocean Discovery Program **Well: Expedition 367, Site U1500B**

Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_028LUP	FN:33	PRODUCER	06−Apr−2017 17:40	4944.6 M	4787.6 M

Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_037PUP	FN:49	PRODUCER	06−Apr−2017 20:22	4944.6 M	4787.6 M
BACKUP	DSI_HRLA_LDL_NGS_037PUP	FN:50	PRODUCER	06−Apr−2017 20:22	4944.6 M	4787.6 M

OP System Version: 19C0−187

DSST−B	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−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)
0 (GAPI) 100

Peak Coherence / TA − Upper Dipole (CHT2)
−2 (−−−−) 8

Peak Coherence / RA − Upper Dipole (CHR2)
0 (−−−−) 10

Waveform Data Copy Indicator 2 − Upper Dipole (WCI2)
0 (−−−−) 10

SAM2 Waveform Gain (WFG2)
0 (−−−−) 1000

Calibrated Downhole Force (CDF) (LBF)
5000 0

Min Amplitude Max
Tr.Array U.Dipole Slow Proj. CVDL (SPT2)
40 (US/F) 1040

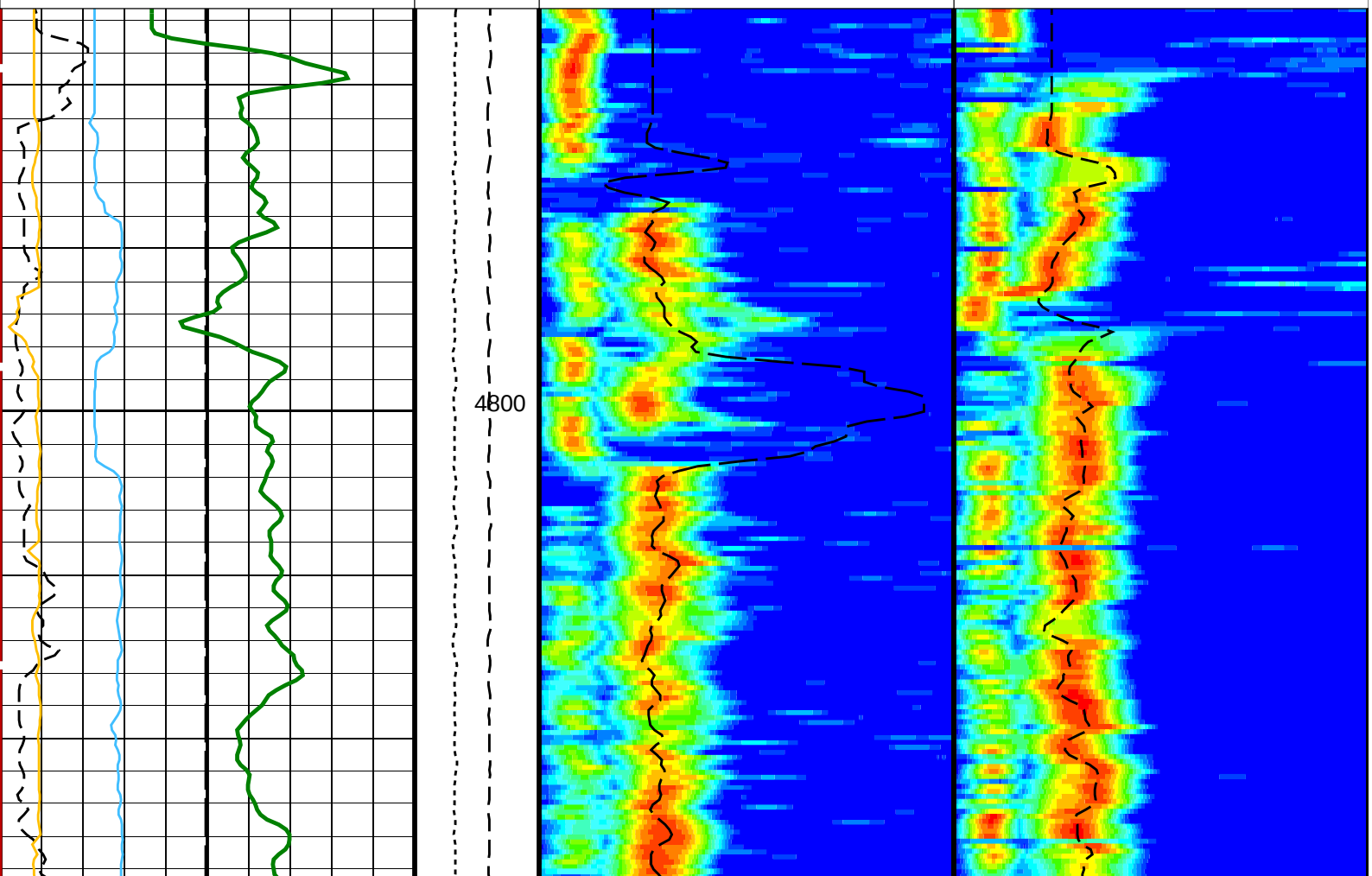
Min Amplitude Max
Rec.Array U.Dipole Slow Proj. CVDL (SPR2)
40 (US/F) 1040

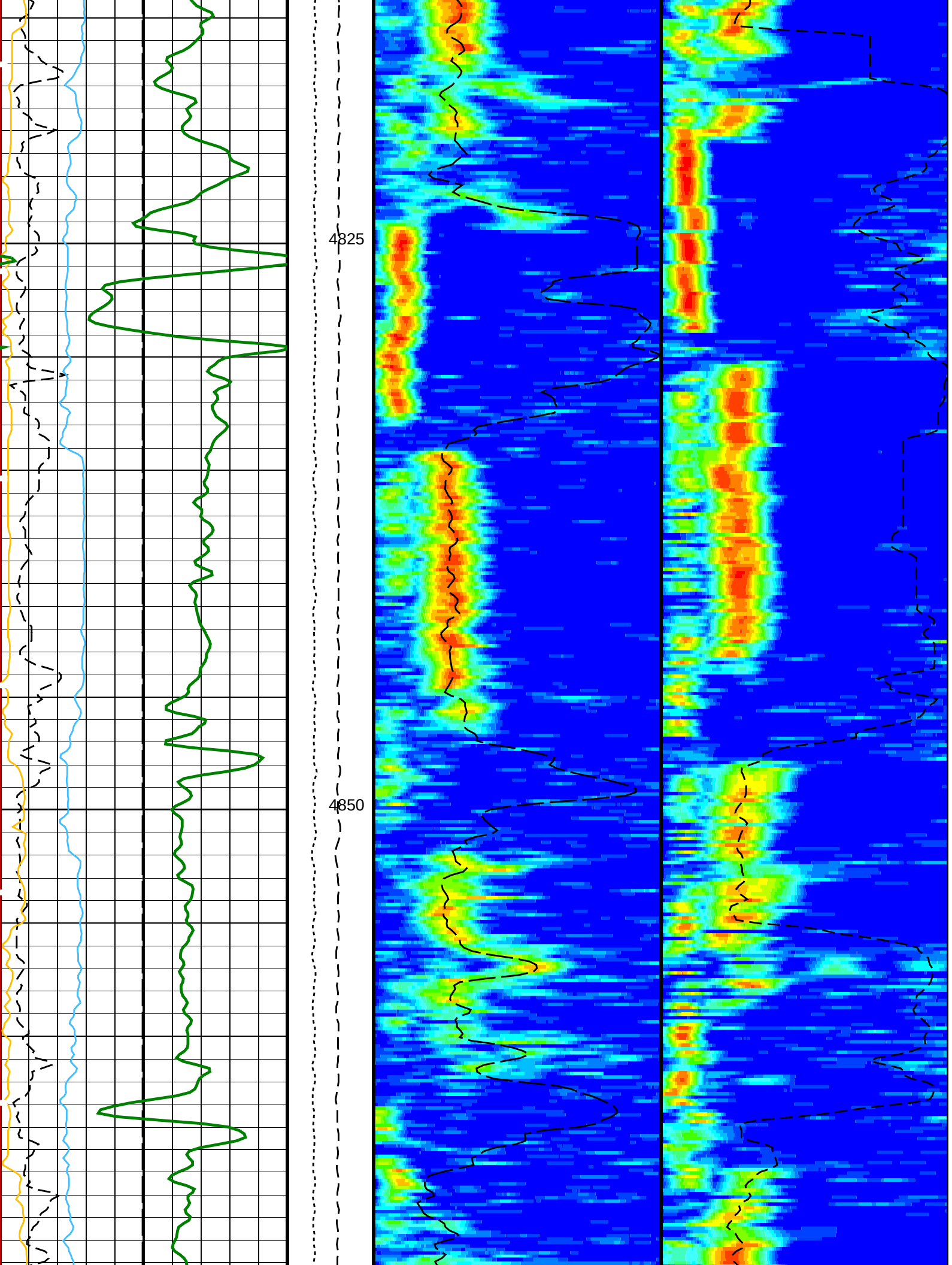
Bit Size (BS)
0 (IN) 20

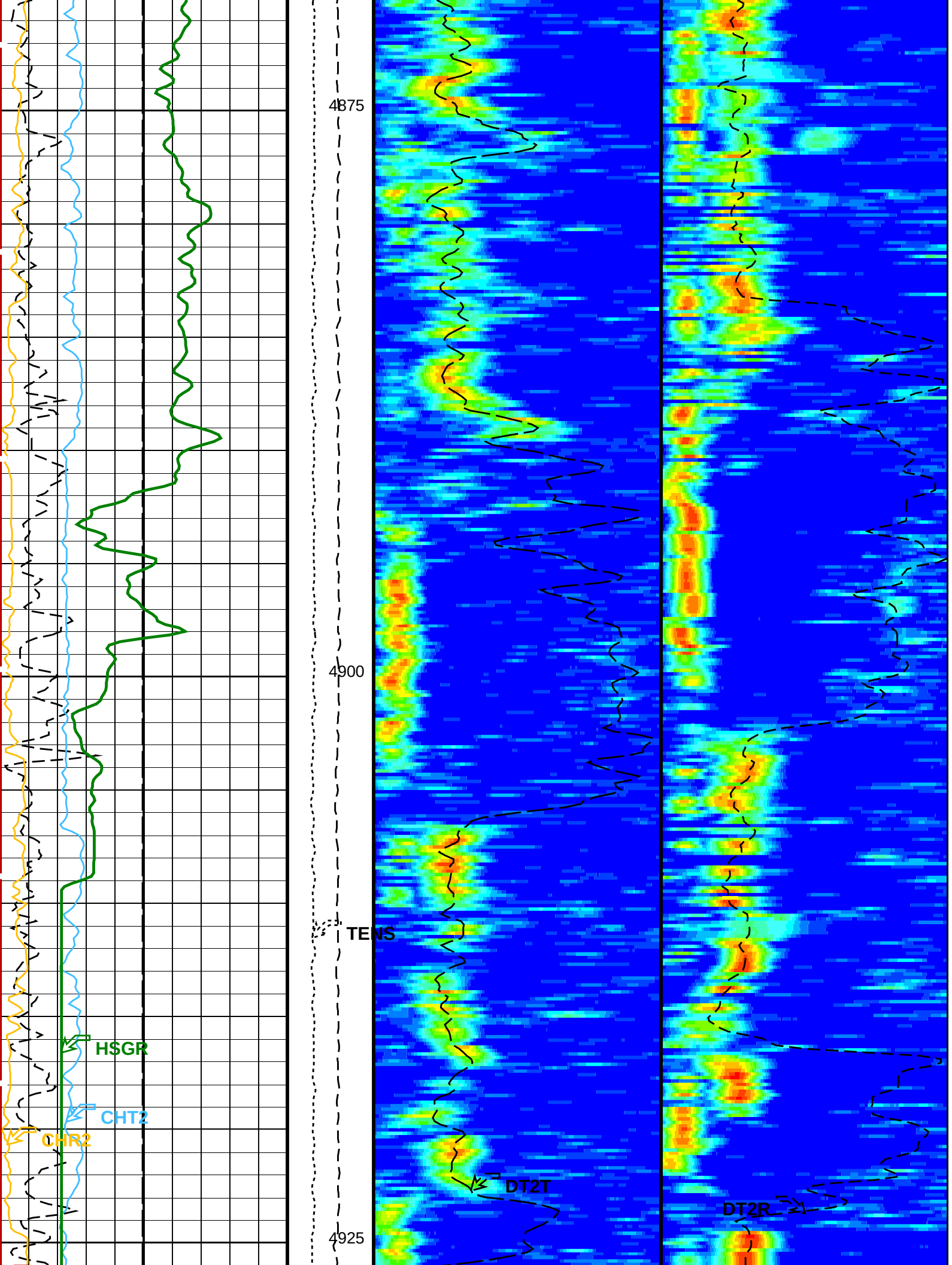
Tension (TENS) (LBF)
10000 0

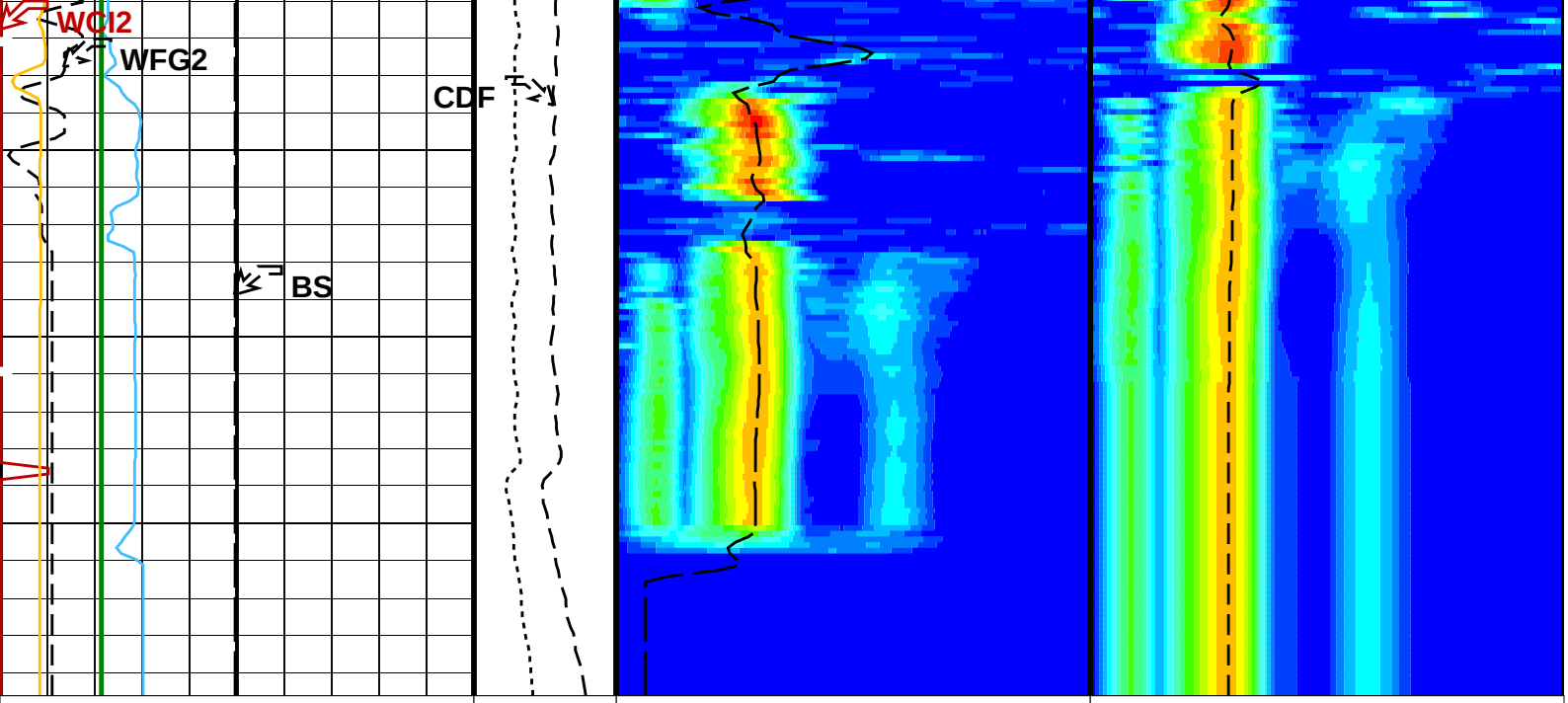
Delta−T Shear / TA − Upper Dipole (DT2T)
40 (US/F) 1040

Delta−T Shear / RA − Upper Dipole (DT2R)
40 (US/F) 1040




4825
4850


4875
4900
TENS
4925
HSGR
CHT2
CHR2
DT2T
DT2R



Bit Size (BS)	Tension (TENS)	Delta−T Shear / TA − Upper Dipole (DT2T)	Delta−T Shear / RA − Upper Dipole (DT2R)
0 (IN) 20	10000 0 (LBF)	40 (US/F) 1040	40 (US/F) 1040
SAM2 Waveform Gain (WFG2)	Calibrated Downhole Force (CDF)	Min Amplitude Max	Min Amplitude Max
0 (−−−−) 1000	5000 0 (LBF)	Tr.Array U.Dipole Slow Proj. CVDL (SPT2) 40 (US/F) 1040	Rec.Array U.Dipole Slow Proj. CVDL (SPR2) 40 (US/F) 1040
Waveform Data Copy Indicator 2 − Upper Dipole (WCI2)			
0 (−−−−) 10			
Peak Coherence / RA − Upper Dipole (CHR2)			
0 (−−−−) 10			
Peak Coherence / TA − Upper Dipole (CHT2)			
−2 (−−−−) 8			
HNGS Spectroscopy Gamma Ray (HSGR)			
0 (GAPI) 100			

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
BHS	Borehole Status	OPEN	
DDE2	Digitizing Delay 2	0	US
DDEX	Digitizing Delay X	0	US
DLCS	Label Compressional Source − Dipole Shear	USE	
DSHL	Label Slowness Lower Limit − Dipole Shear	40	US/F
DSHU	Label Slowness Upper Limit − Dipole Shear	1040	US/F
DSI2	Digitizer Sample Interval 2	40	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta−T Source for DTCO Channel	PS_COMP	
DWC2	Digitizer Word Count 2	512	
DWCX	Digitizer Word Count X	512	
GCSE	Generalized Caliper Selection	LCAL	
NWI2	Number Waveform Items 2	8	
NWIX	Number Waveform Items X	0	
RX1C	Receiver 1 Geometry	204	IN

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
SAM2	DSST Sonic Acquisition Mode 2 − Upper Dipole Mode	ODD	
SAMX	DSST Sonic Acquisition Mode X − Both Dipoles or Monopole Mode for Expert	OFF	
SAS2	STC Sonic Array Status − Upper Dipole	255	
SBO2	STC Search Band Offset − Upper Dipole	3000	US
SBW2	STC Search Bandwidth − Upper Dipole	8000	US
SFC2	STC Formation Character − Upper Dipole	SELECTABLE	
SFM2	STC Filter − Upper Dipole	B1−2K	
SLL2	STC Slowness Lower Limit − Upper Dipole	40	US/F
SST2	STC Slowness Step − Upper Dipole	4	US/F
SSW2	STC Source Waveform − Upper Dipole	WF_SAM2	
SUL2	STC Slowness Upper Limit − Upper Dipole	1040	US/F
SWD2	STC Slowness Width − Upper Dipole	40	US/F
TBF2	STC Time for Baseline Fill − Upper Dipole	0	US
TLL2	STC Time Lower Limit − Upper Dipole	600	US
TST2	STC Time Step − Upper Dipole	200	US
TUL2	STC Time Upper Limit − Upper Dipole	18440	US
TWD2	STC Time Width − Upper Dipole	2000	US
TWI2	STC Integration Time Window − Upper Dipole	1600	US
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFM2	Waveform Mode 2	W1	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	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	10.75	IN
CSD2	Outer Casing Outer Diameter	10.75	IN
CSW1	Inner Casing Weight	45	LB/F
CSW2	Outer Casing Weight	45	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	LCAL	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00457966	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
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	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.974397	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.991452	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.32	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: DSST_UPPER_DIPOLE_RC_TR_VDL_COLOR Vertical Scale: 1:200 Graphics File Created: 06−Apr−2017 20:22

OP System Version: 19C0−187

DSST−B	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
EDTC−B	SKK−5169−EDTCB		

Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_028LUP	FN:33	PRODUCER	06−Apr−2017 17:40	4944.6 M	4787.6 M

Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_037PUP	FN:49	PRODUCER	06−Apr−2017 20:22		

DEFAULT	DSI_HRLA_LDL_NGS_037PUP	FN:49	PRODUCER	06−Apr−2017 20:22		
BACKUP	DSI_HRLA_LDL_NGS_037PUP	FN:50	PRODUCER	06−Apr−2017 20:22		

Company: International Ocean Discovery Program — Well: Expedition 367, Site U1500B

Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_028LUP	FN:33	PRODUCER	06−Apr−2017 17:40	4944.6 M	4787.6 M

Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_037PUP	FN:49	PRODUCER	06−Apr−2017 20:22	4944.6 M	4787.6 M
BACKUP	DSI_HRLA_LDL_NGS_037PUP	FN:50	PRODUCER	06−Apr−2017 20:22	4944.6 M	4787.6 M

OP System Version: 19C0−187

DSST−B	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−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)
0 (GAPI) 100

Peak Coherence / TA − Lower Dipole (CHT1)
−2 (−−−−) 8

Peak Coherence / RA − Lower Dipole (CHR1)
0 (−−−−) 10

Waveform Data Copy Indicator 1 − Lower Dipole (WCI1)
0 (−−−−) 10

SAM1 Waveform Gain (WFG1)
0 (−−−−) 1000

Calibrated Downhole Force (CDF) (LBF)
5000 0

Min Amplitude Max
Tr.Array L.Dipole Slow Proj. CVDL (SPT1)
40 (US/F) 1040

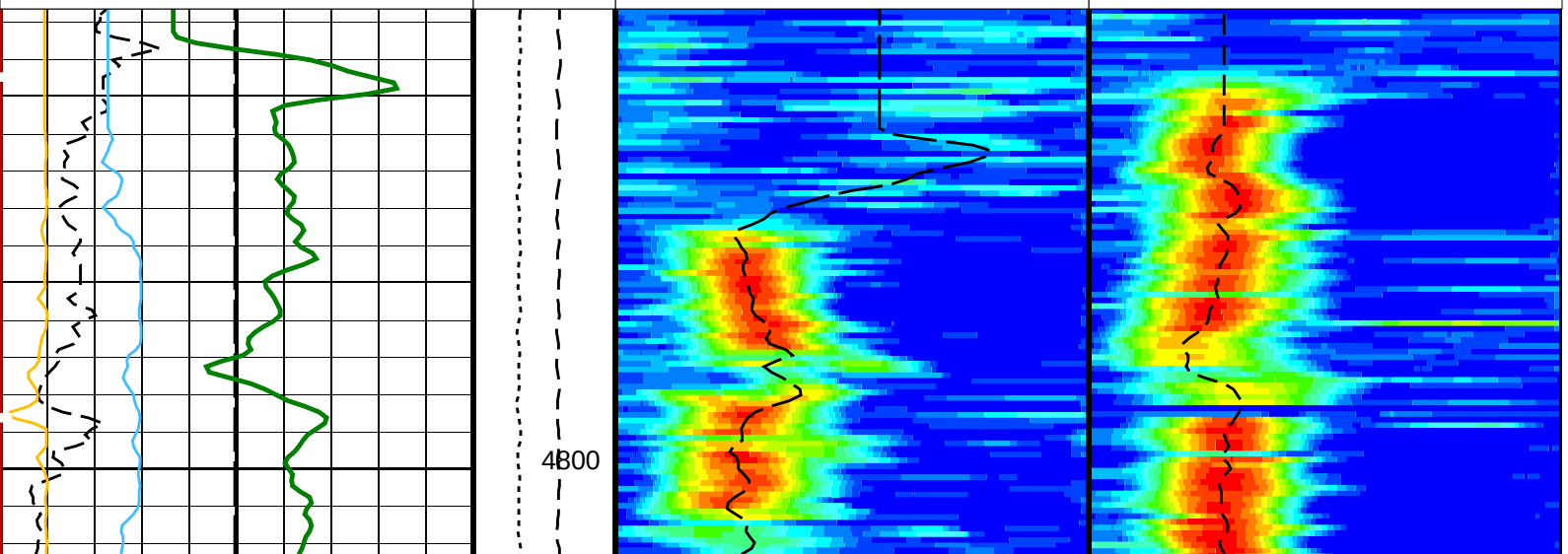
Min Amplitude Max
Rec.Array L.Dipole Slow Proj. CVDL (SPR1)
40 (US/F) 1040

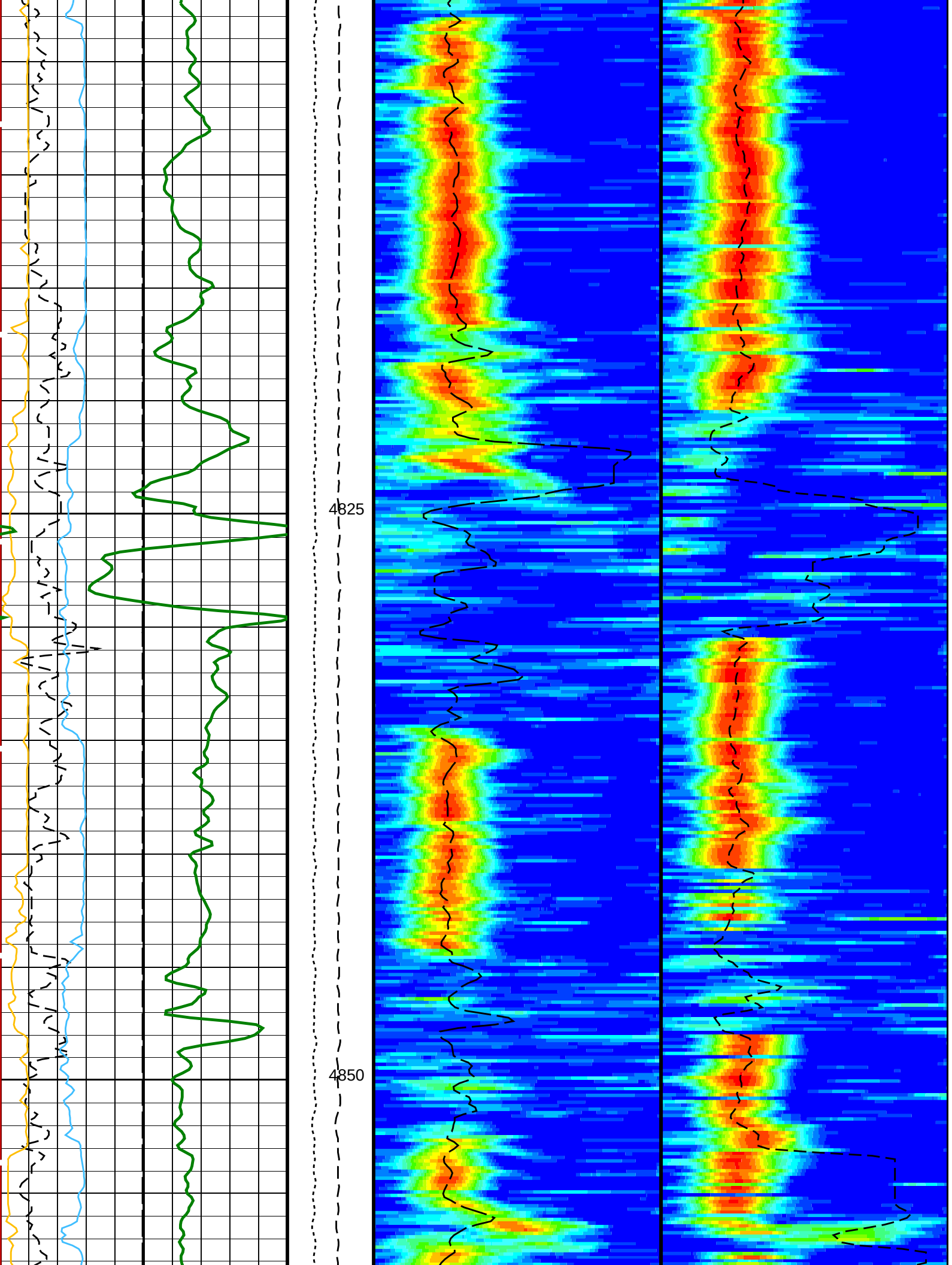
Bit Size (BS)
0 (IN) 20

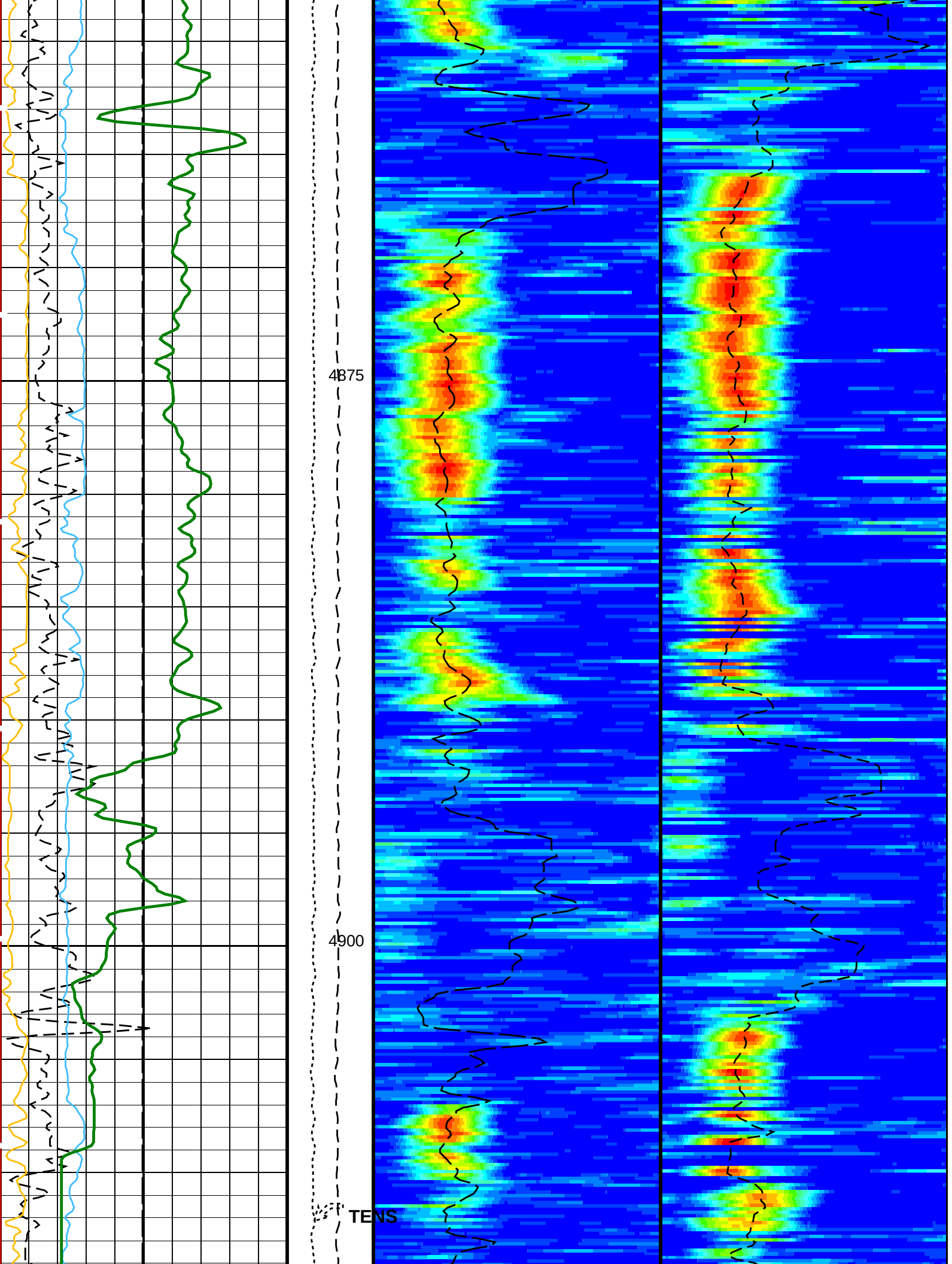
Tension (TENS) (LBF)
10000 0

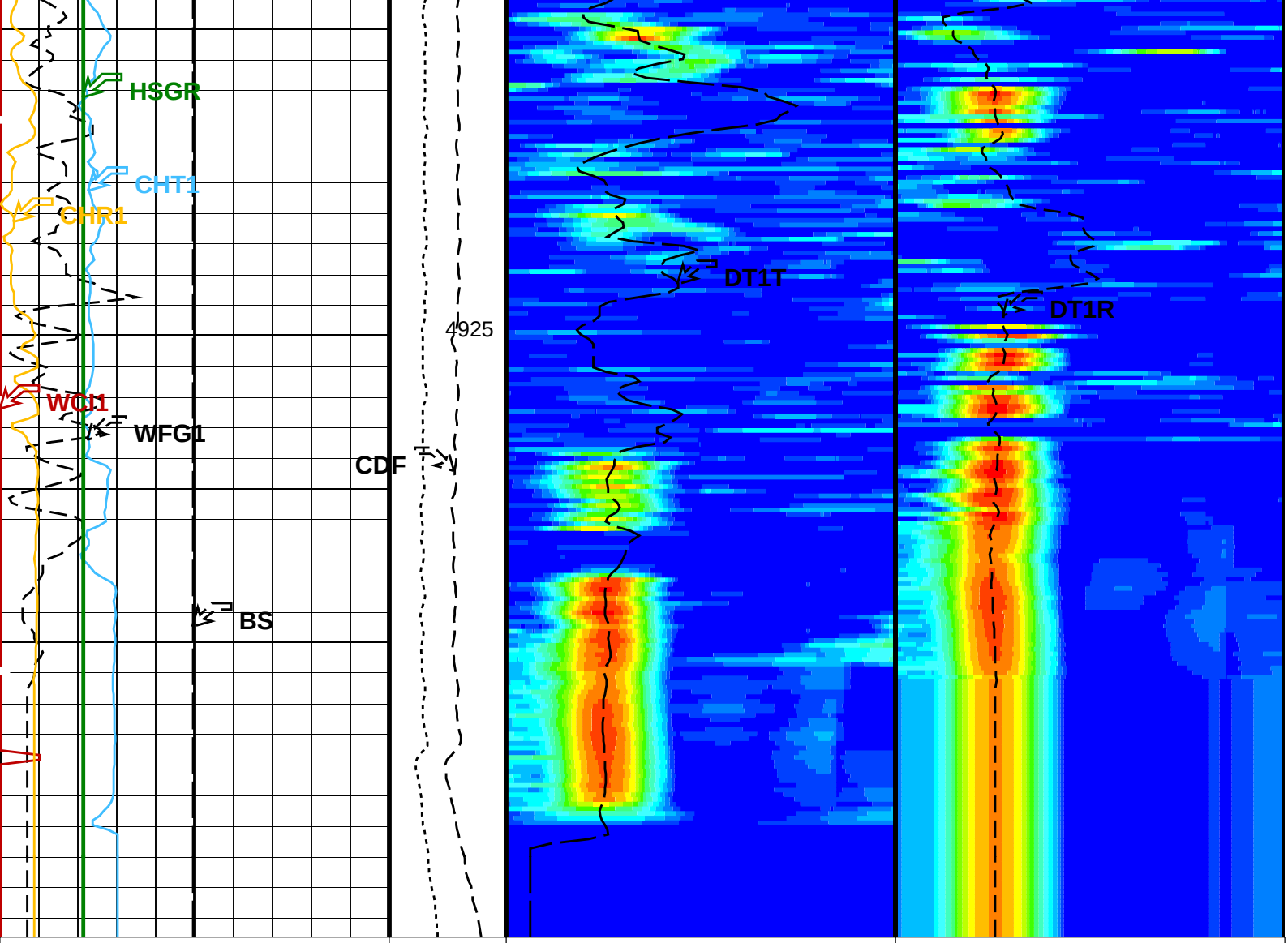
Delta−T Shear / TA − Lower Dipole (DT1T)
40 (US/F) 1040

Delta−T Shear / RA − Lower Dipole (DT1R)
40 (US/F) 1040




4825
4850


4875
4900
TENS



Bit Size (BS) (IN) 0 — 20	Tension (TENS) (LBF) 10000 — 0	Delta−T Shear / TA − Lower Dipole (DT1T) (US/F) 40 — 1040	Delta−T Shear / RA − Lower Dipole (DT1R) (US/F) 40 — 1040
SAM1 Waveform Gain (WFG1) (−−−−) 0 — 1000	Calibrated Downhole Force (CDF) (LBF) 5000 — 0	Min Amplitude Max; Tr.Array L.Dipole Slow Proj. CVDL (SPT1) (US/F) 40 — 1040	Min Amplitude Max; Rec.Array L.Dipole Slow Proj. CVDL (SPR1) (US/F) 40 — 1040
Waveform Data Copy Indicator 1 − Lower Dipole (WCI1) (−−−−) 0 — 10			
Peak Coherence / RA − Lower Dipole (CHR1) (−−−−) 0 — 10			
Peak Coherence / TA − Lower Dipole (CHT1) (−−−−) −2 — 8			
HNGS Spectroscopy Gamma Ray (HSGR) (GAPI) 0 — 100			

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
BHS	Borehole Status	OPEN	
DDE1	Digitizing Delay 1	0	US
DDEX	Digitizing Delay X	0	US
DLCS	Label Compressional Source − Dipole Shear	USE	
DSHL	Label Slowness Lower Limit − Dipole Shear	40	US/F
DSHU	Label Slowness Upper Limit − Dipole Shear	1040	US/F
DSI1	Digitizer Sample Interval 1	40	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta−T Source for DTCO Channel	PS_COMP	
DWC1	Digitizer Word Count 1	512	
DWCX	Digitizer Word Count X	512	
GCSE	Generalized Caliper Selection	LCAL	
LTXG	Lower Dipole Transmitter Geometry	156	IN
NWI1	Number Waveform Items 1	8	
NWIX	Number Waveform Items X	0	
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
SAM1	DSST Sonic Acquisition Mode 1 − Lower Dipole Mode	LFD_EVEN	
SAMX	DSST Sonic Acquisition Mode X − Both Dipoles or Monopole Mode for Expert	OFF	
SAS1	STC Sonic Array Status − Lower Dipole	255	
SBO1	STC Search Band Offset − Lower Dipole	3000	US
SBW1	STC Search Bandwidth − Lower Dipole	8000	US
SFC1	STC Formation Character − Lower Dipole	SELECTABLE	
SFM1	STC Filter − Lower Dipole	B.3−1.5K	
SLL1	STC Slowness Lower Limit − Lower Dipole	40	US/F
SST1	STC Slowness Step − Lower Dipole	4	US/F
SSW1	STC Source Waveform − Lower Dipole	WF_SAM1	
SUL1	STC Slowness Upper Limit − Lower Dipole	1040	US/F
SWD1	STC Slowness Width − Lower Dipole	40	US/F
TBF1	STC Time for Baseline Fill − Lower Dipole	0	US
TLL1	STC Time Lower Limit − Lower Dipole	600	US
TST1	STC Time Step − Lower Dipole	200	US
TUL1	STC Time Upper Limit − Lower Dipole	18960	US
TWD1	STC Time Width − Lower Dipole	2000	US
TWI1	STC Integration Time Window − Lower Dipole	1600	US
TWSX	Transmitter Waveform Select X	0	
WFM1	Waveform Mode 1	W1	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	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	10.75	IN
CSD2	Outer Casing Outer Diameter	10.75	IN
CSW1	Inner Casing Weight	45	LB/F
CSW2	Outer Casing Weight	45	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	LCAL	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00457966	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
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	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.974397	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.991452	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.32	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

OP System Version: 19C0−187

DSST−B	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
EDTC−B	SKK−5169−EDTCB		

Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_028LUP	FN:33	PRODUCER	06−Apr−2017 17:40	4944.6 M	4787.6 M

Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_037PUP	FN:49	PRODUCER	06−Apr−2017 20:22		
BACKUP	DSI_HRLA_LDL_NGS_037PUP	FN:50	PRODUCER	06−Apr−2017 20:22		

Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_028LUP	FN:33	PRODUCER	06−Apr−2017 17:40	4944.6 M	4787.6 M

Output DLIS Files

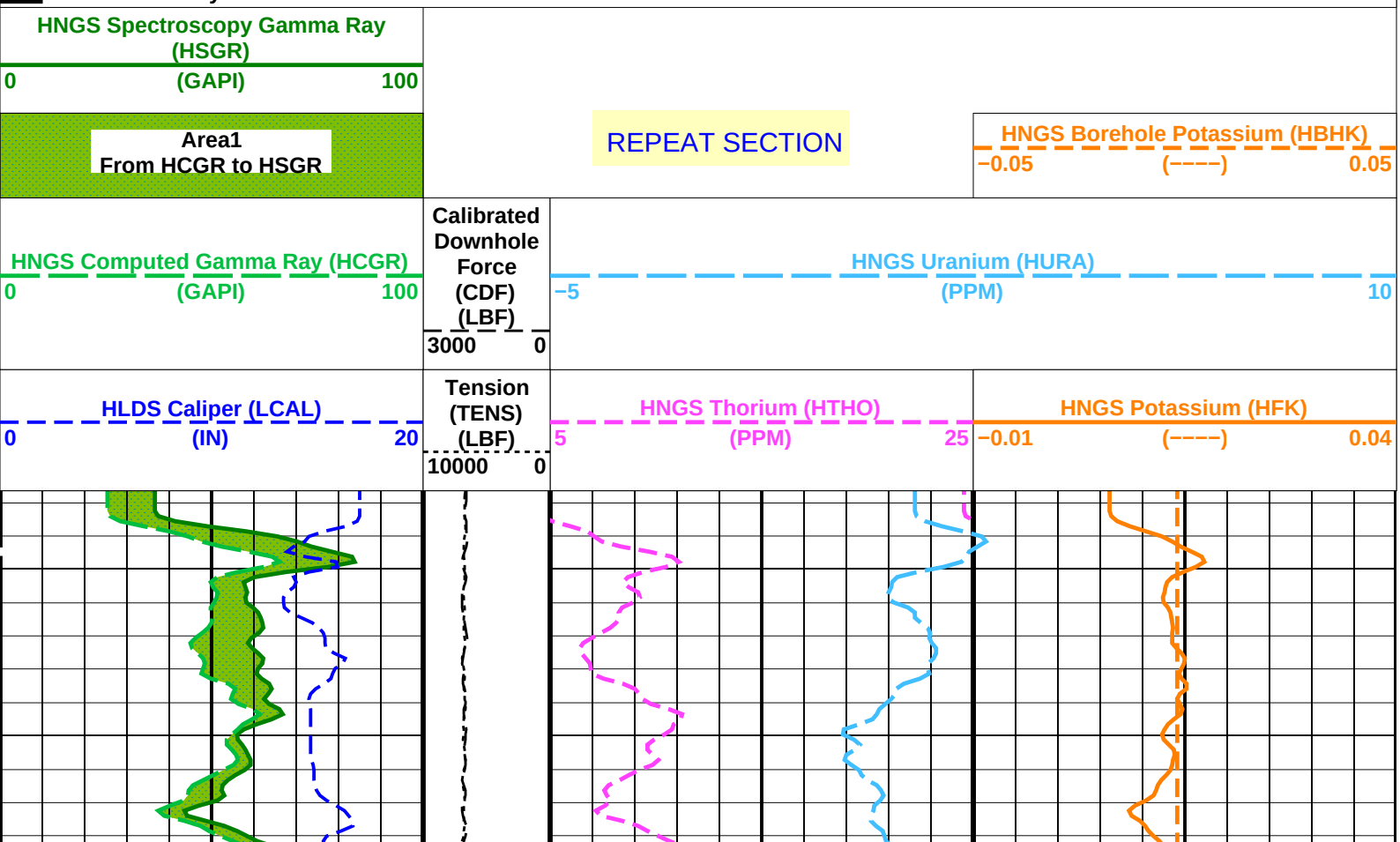
DEFAULT	DSI_HRLA_LDL_NGS_037PUP	FN:49	PRODUCER	06−Apr−2017 20:22	4944.6 M	4787.6 M
BACKUP	DSI_HRLA_LDL_NGS_037PUP	FN:50	PRODUCER	06−Apr−2017 20:22	4944.6 M	4787.6 M

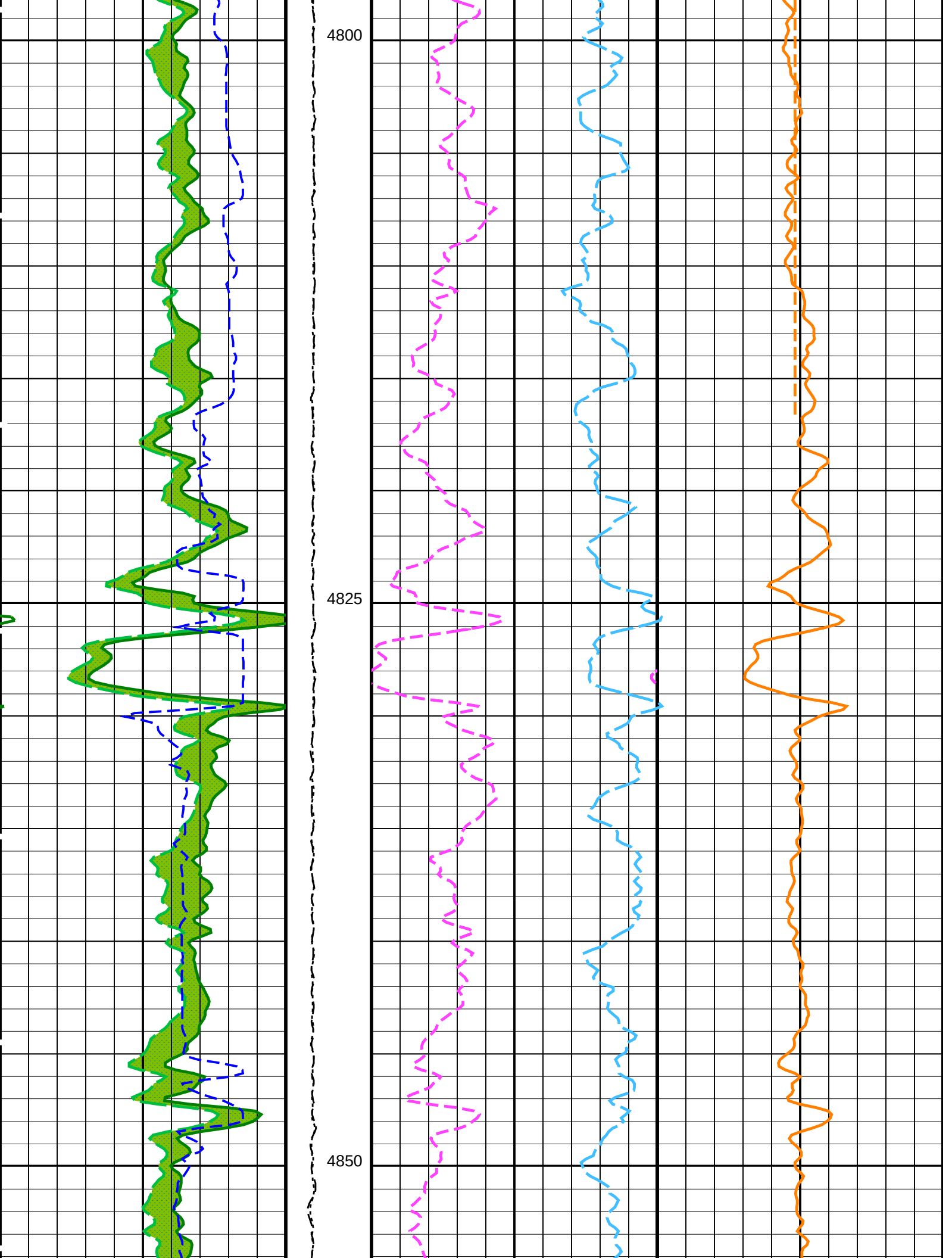
OP System Version: 19C0−187

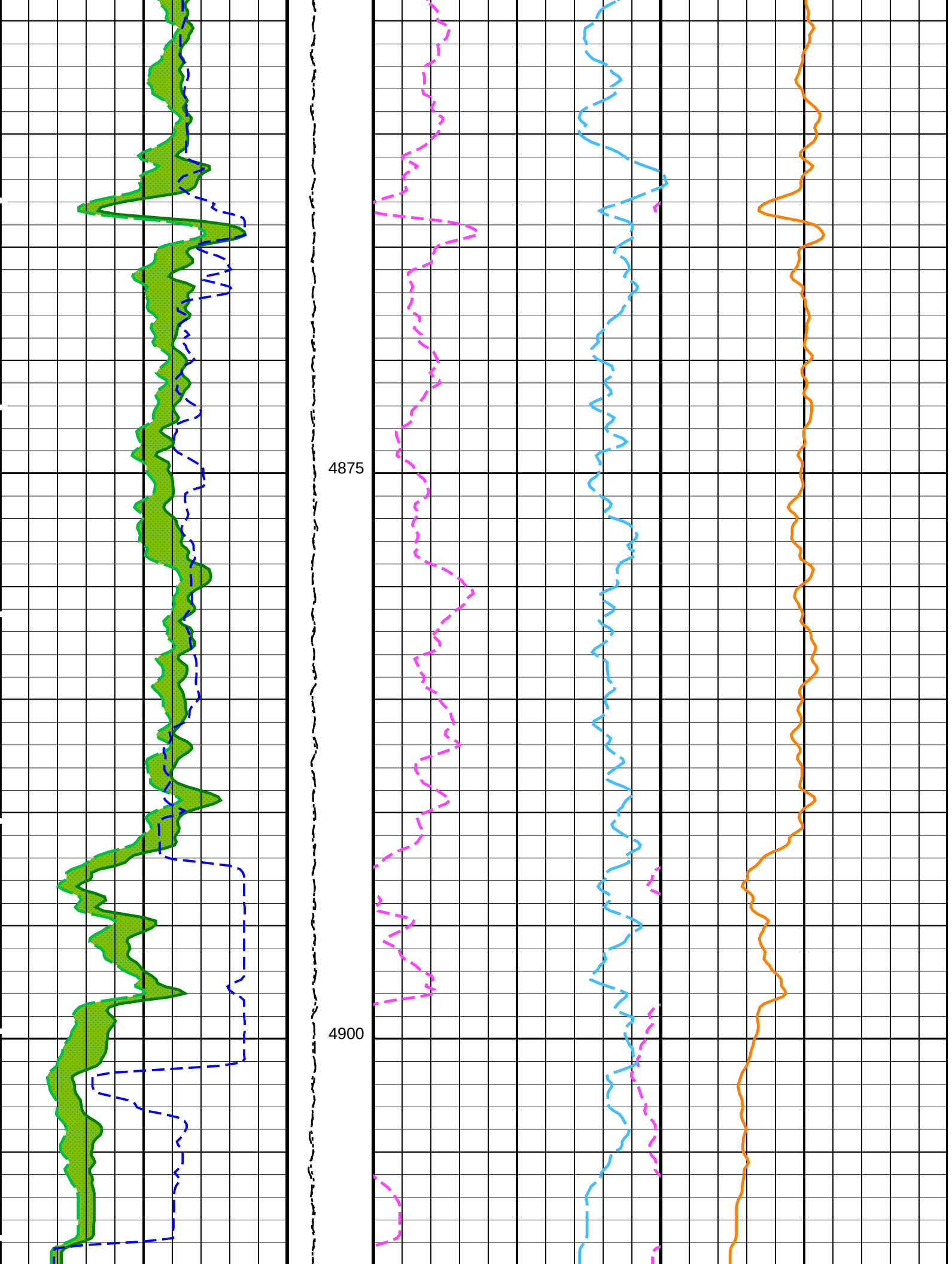
DSST−B	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
EDTC−B	SKK−5169−EDTCB		

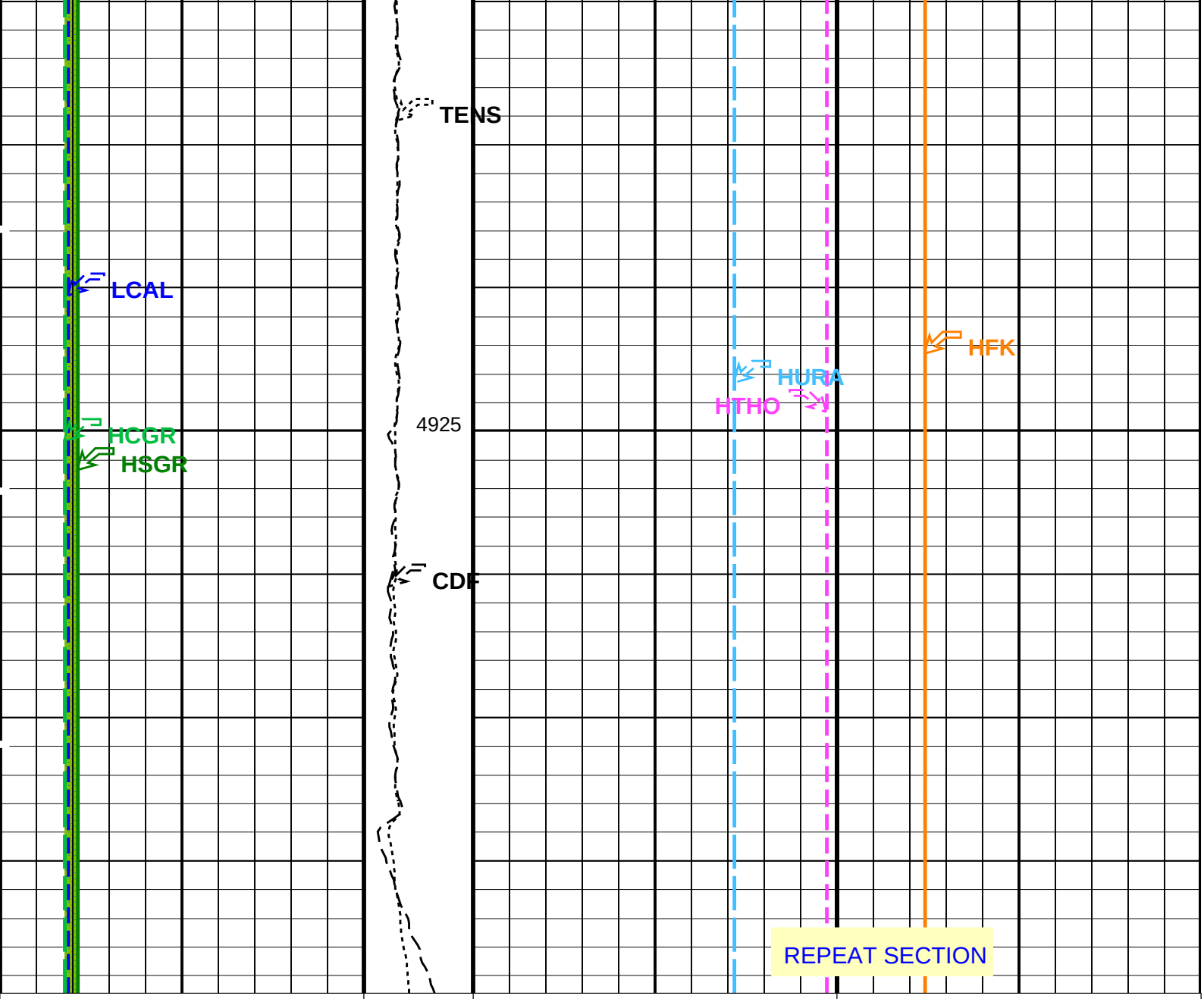
PIP SUMMARY

Time Mark Every 60 S




4800
4825
4850


4875
4900



HLDS Caliper (LCAL) 0 (IN) 20	Tension (TENS) (LBF) 10000 0	HNGS Thorium (HTHO) 5 (PPM) 25
HNGS Potassium (HFK) −0.01 (−−−−) 0.04		
HNGS Computed Gamma Ray (HCGR) 0 (GAPI) 100	Calibrated Downhole Force (CDF) (LBF) 3000 0	HNGS Uranium (HURA) −5 (PPM) 10
Area1 From HCGR to HSGR		HNGS Borehole Potassium (HBHK) −0.05 (−−−−) 0.05
HNGS Spectroscopy Gamma Ray (HSGR) 0 (GAPI) 100		

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
	DSST−B: Dipole Shear Imager − B	

BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
HRLT−B: High Resolution Laterolog Array − B			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
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	10.75	IN
CSD2	Outer Casing Outer Diameter	10.75	IN
CSW1	Inner Casing Weight	45	LB/F
CSW2	Outer Casing Weight	45	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	LCAL	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00457966	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
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	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.974397	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.991452	
EDTC−B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.32	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: HNGSYields Vertical Scale: 1:200 Graphics File Created: 06−Apr−2017 20:22

OP System Version: 19C0−187

DSST−B	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
EDTC−B	SKK−5169−EDTCB		

Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_028LUP	FN:33	PRODUCER	06−Apr−2017 17:40	4944.6 M	4787.6 M

Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_037PUP	FN:49	PRODUCER	06−Apr−2017 20:22		
BACKUP	DSI_HRLA_LDL_NGS_037PUP	FN:50	PRODUCER	06−Apr−2017 20:22		

Company: International Ocean Discovery Program Well: Expedition 367, Site U1500B

Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_028LUP	FN:33	PRODUCER	06−Apr−2017 17:40	4944.6 M	4787.6 M

Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_037PUP	FN:49	PRODUCER	06−Apr−2017 20:22	4944.6 M	4787.6 M
BACKUP	DSI_HRLA_LDL_NGS_037PUP	FN:50	PRODUCER	06−Apr−2017 20:22	4944.6 M	4787.6 M

OP System Version: 19C0−187

DSST−B	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
EDTC−B	SKK−5169−EDTCB		

PIP SUMMARY

Time Mark Every 60 S

REPEAT SECTION

HNGS Spectroscopy Gamma Ray (HSGR)
0 (GAPI) 100

Invasion Diameter (DI_HRLT)
0 (IN) 50

Caliper (LCAL)
0 (IN) 20

Bit Size (BS)
0 (IN) 20

Tension (TENS) (LBF)
10000 0

HRLT True Resistivity (RT_HRLT)
0.2 (OHMM) 2000

Invaded Zone Resistivity (RXO_HRLT)
0.2 (OHMM) 2000

HRLT Mud Resistivity (RM_HRLT)
0.02 (OHMM) 200

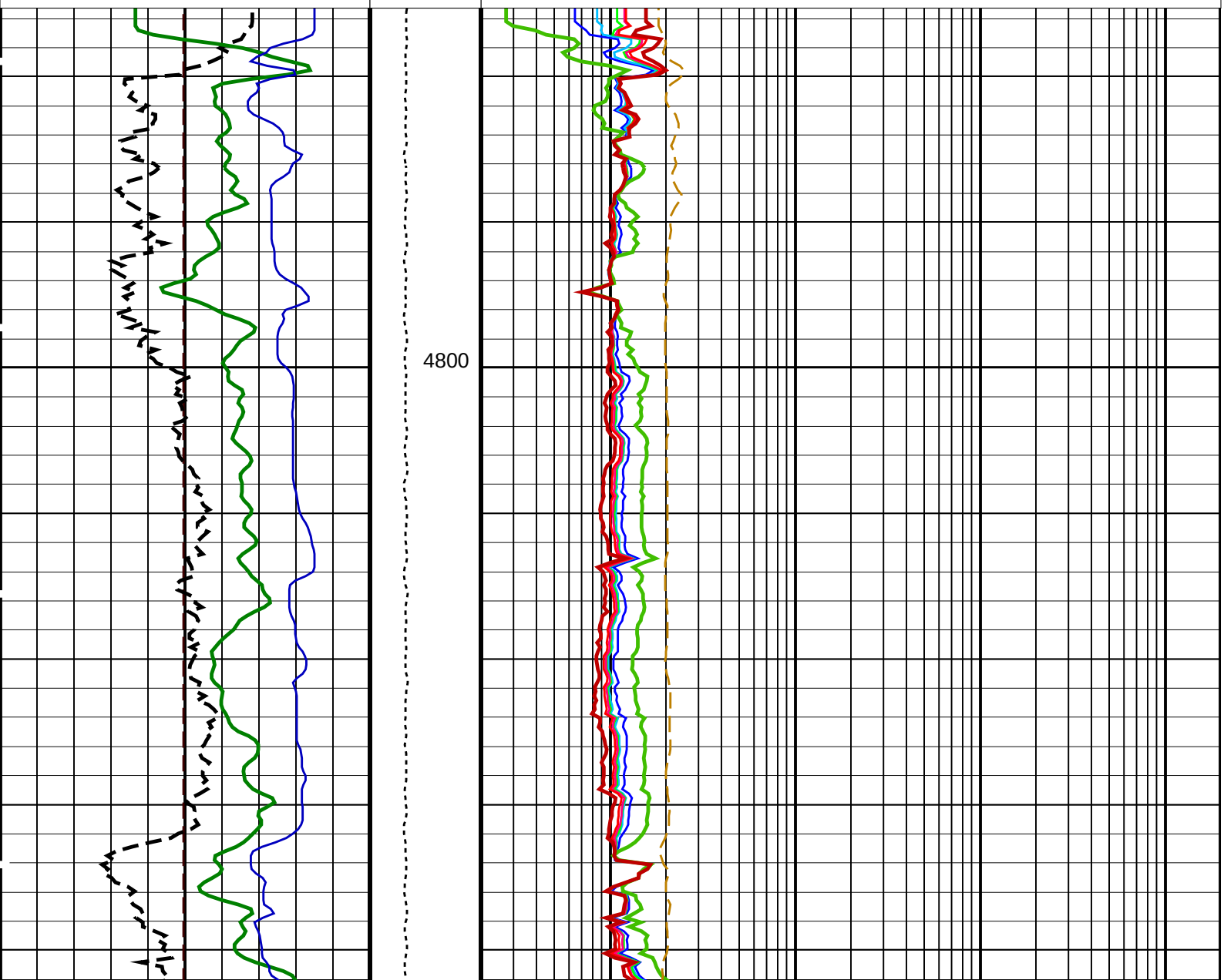
HRLT Resistivity 5 (RLA5)
0.2 (OHMM) 2000

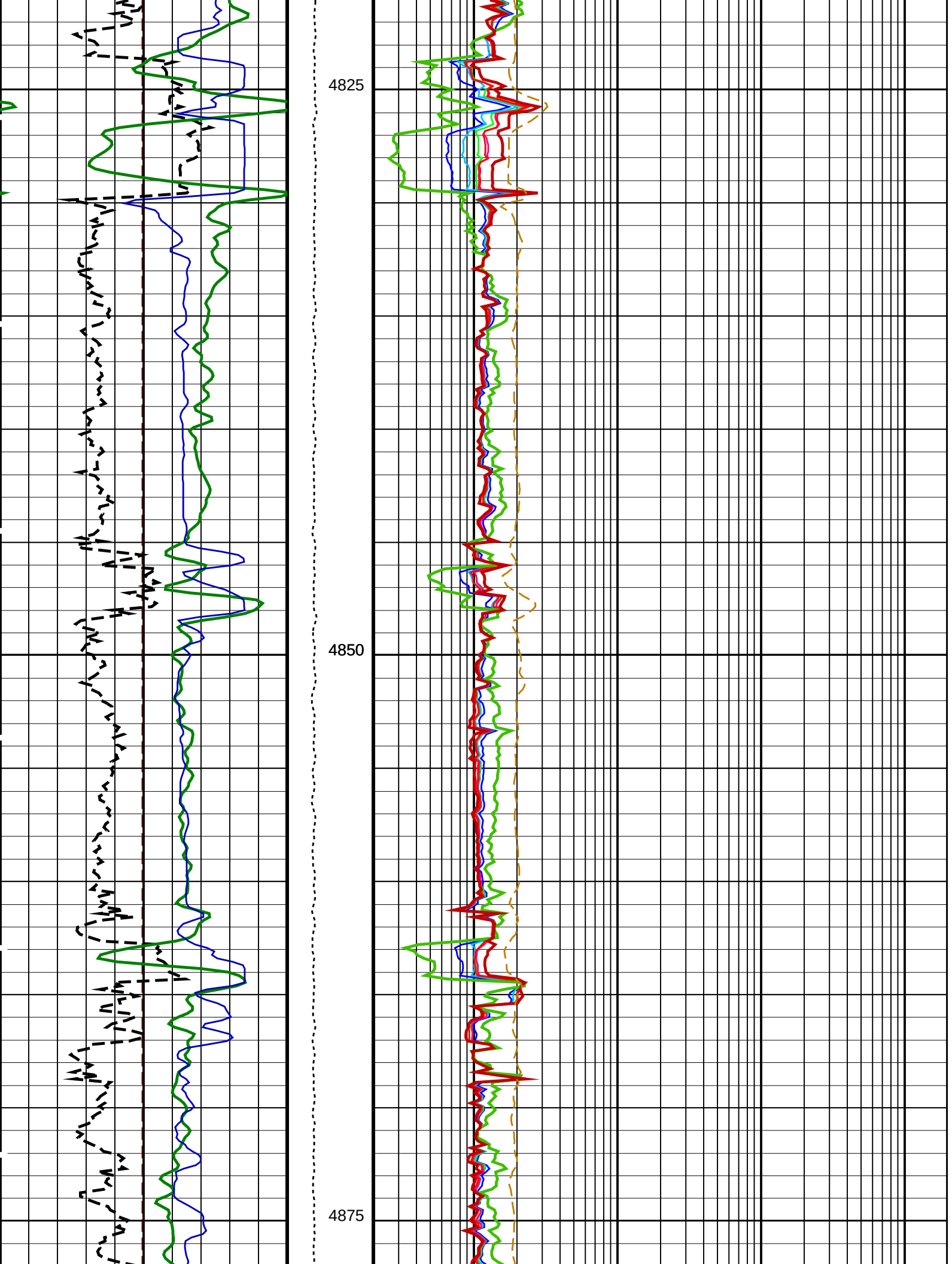
HRLT Resistivity 4 (RLA4)
0.2 (OHMM) 2000

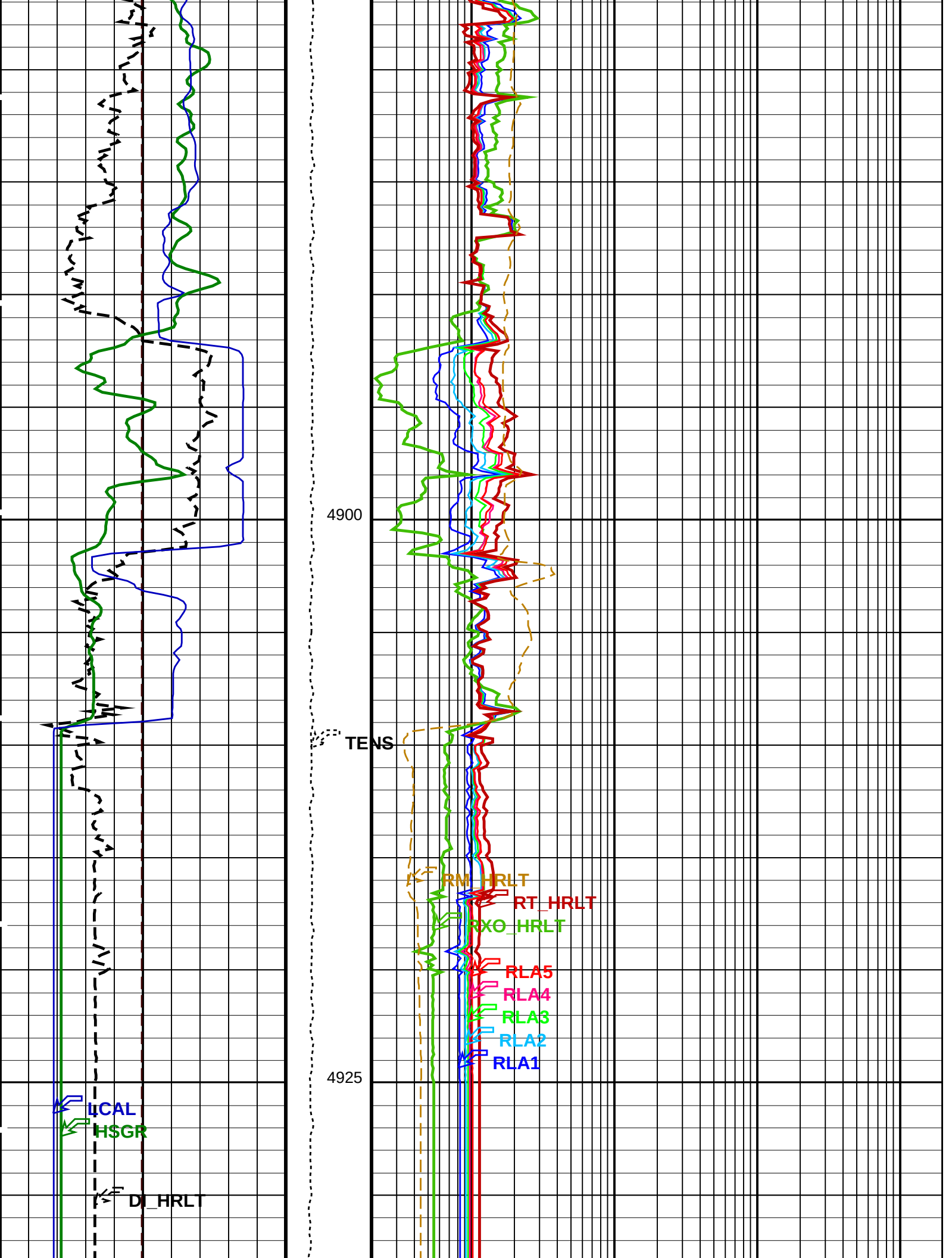
HRLT Resistivity 3 (RLA3)
0.2 (OHMM) 2000

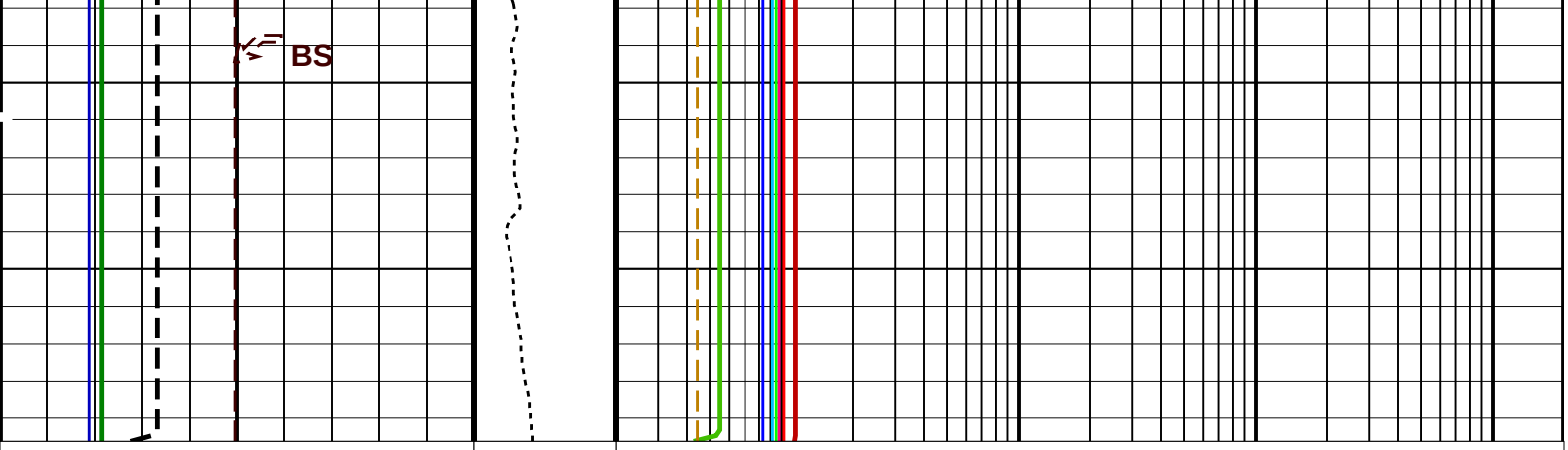
HRLT Resistivity 2 (RLA2)
0.2 (OHMM) 2000

HRLT Resistivity 1 (RLA1)
0.2 (OHMM) 2000




4825
4850
4875


4900
TENS
RM_HRLT
RT_HRLT
RXO_HRLT
RLA5
RLA4
RLA3
RLA2
RLA1
4925
LCAL
HSGR
DI_HRLT



Bit Size (BS)	Tension (TENS)	HRLT Resistivity 1 (RLA1)
0 (IN) 20	10000 (LBF) 0	0.2 (OHMM) 2000
Caliper (LCAL)		**HRLT Resistivity 2 (RLA2)**
0 (IN) 20		0.2 (OHMM) 2000
Invasion Diameter (DI_HRLT)		**HRLT Resistivity 3 (RLA3)**
0 (IN) 50		0.2 (OHMM) 2000
HNGS Spectroscopy Gamma Ray (HSGR)		**HRLT Resistivity 4 (RLA4)**
0 (GAPI) 100		0.2 (OHMM) 2000
		HRLT Resistivity 5 (RLA5)
		0.2 (OHMM) 2000
		HRLT Mud Resistivity (RM_HRLT)
		0.02 (OHMM) 200
		Invaded Zone Resistivity (RXO_HRLT)
		0.2 (OHMM) 2000
		HRLT True Resistivity (RT_HRLT)
		0.2 (OHMM) 2000

REPEAT SECTION

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
GCSE	Generalized Caliper Selection	LCAL	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	20	DEGC
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
GCSE	Generalized Caliper Selection	LCAL	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
PROCINV	Inversion Selection	ON	
PROCMFL	Inversion Micro−Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	0	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSPO	Sonde Position	Centered	
SHT	Surface Hole Temperature	20	DEGC
	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	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
CSD1	Inner Casing Outer Diameter	10.75	IN
CSD2	Outer Casing Outer Diameter	10.75	IN
CSW1	Inner Casing Weight	45	LB/F
CSW2	Outer Casing Weight	45	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	LCAL	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00457966	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
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	
SHT	Surface Hole Temperature	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.974397	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.991452	
EDTC−B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
GCSE	Generalized Caliper Selection	LCAL	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	20	DEGC
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.32	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	5345	M

Format: HRLT **Vertical Scale: 1:200** **Graphics File Created: 06−Apr−2017 20:22**

OP System Version: 19C0−187

DSST−B	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
EDTC−B	SKK−5169−EDTCB		

Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_028LUP	FN:33	PRODUCER	06−Apr−2017 17:40	4944.6 M	4787.6 M

Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_037PUP	FN:49	PRODUCER	06−Apr−2017 20:22
BACKUP	DSI_HRLA_LDL_NGS_037PUP	FN:50	PRODUCER	06−Apr−2017 20:22

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
High Resolution Laterolog Array − B Wellsite Calibration − HRLT M01							
Before: 6−Apr−2017 13:08 After: 6−Apr−2017 20:57							
HRLT M0−M1 Voltage Plus − 0	0	N/A	−318.9	−318.1	0.7889	9.681	UV
HRLT M0−M1 Voltage Plus − 1	0	N/A	−333.4	−327.9	5.482	9.681	UV
HRLT M0−M1 Voltage Plus − 2	0	N/A	−340.3	−335.9	4.414	9.681	UV
HRLT M0−M1 Voltage Plus − 3	0	N/A	−330.9	−326.9	3.913	9.681	UV
HRLT M0−M1 Voltage Plus − 4	0	N/A	−320.5	−319.1	1.347	9.681	UV
HRLT M0−M1 Voltage Plus − 5	0	N/A	−322.3	−321.0	1.253	9.681	UV
HRLT M0−M1 Voltage Plus − 6	0	N/A	323.6	317.7	−5.894	9.681	UV
HRLT M0−M1 Voltage Plus − 7	0	N/A	−322.7	−322.7	0	9.681	UV
High Resolution Laterolog Array − B Wellsite Calibration − HRLT M12							
Before: 6−Apr−2017 13:08 After: 6−Apr−2017 20:57							

Before: 6−Apr−2017 13:08 After: 6−Apr−2017 20:57

HRLT M1−M2 Voltage Plus −	0	0	N/A	1745	1735	−9.595	53.42	UV
HRLT M1−M2 Voltage Plus −	1	0	N/A	1830	1795	−35.21	53.42	UV
HRLT M1−M2 Voltage Plus −	2	0	N/A	1861	1832	−29.32	53.42	UV
HRLT M1−M2 Voltage Plus −	3	0	N/A	1808	1781	−26.77	53.42	UV
HRLT M1−M2 Voltage Plus −	4	0	N/A	1750	1738	−12.49	53.42	UV
HRLT M1−M2 Voltage Plus −	5	0	N/A	1761	1749	−12.41	53.42	UV
HRLT M1−M2 Voltage Plus −	6	0	N/A	−1784	−1747	37.44	53.42	UV
HRLT M1−M2 Voltage Plus −	7	0	N/A	1781	1781	0	53.42	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT M23

Before: 6−Apr−2017 13:08 After: 6−Apr−2017 20:57

HRLT M2−M3 Voltage Plus −	0	0	N/A	1735	1728	−6.987	53.42	UV
HRLT M2−M3 Voltage Plus −	1	0	N/A	1831	1797	−34.35	53.42	UV
HRLT M2−M3 Voltage Plus −	2	0	N/A	1864	1836	−27.94	53.42	UV
HRLT M2−M3 Voltage Plus −	3	0	N/A	1815	1789	−25.13	53.42	UV
HRLT M2−M3 Voltage Plus −	4	0	N/A	1750	1740	−10.20	53.42	UV
HRLT M2−M3 Voltage Plus −	5	0	N/A	1762	1752	−9.461	53.42	UV
HRLT M2−M3 Voltage Plus −	6	0	N/A	−1774	−1738	36.38	53.42	UV
HRLT M2−M3 Voltage Plus −	7	0	N/A	1781	1781	0	53.42	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT V34

Before: 6−Apr−2017 13:08 After: 6−Apr−2017 20:57

HRLT A3−A4 Voltage Plus −	0	0	N/A	68760	68480	−277.3	2100	UV
HRLT A3−A4 Voltage Plus −	1	0	N/A	72400	71100	−1292	2100	UV
HRLT A3−A4 Voltage Plus −	2	0	N/A	74000	72930	−1068	2100	UV
HRLT A3−A4 Voltage Plus −	3	0	N/A	72280	71310	−974.6	2100	UV
HRLT A3−A4 Voltage Plus −	4	0	N/A	69690	69300	−391.8	2100	UV
HRLT A3−A4 Voltage Plus −	5	0	N/A	70170	69800	−368.9	2100	UV
HRLT A3−A4 Voltage Plus −	6	0	N/A	−69160	−67780	1382	2100	UV
HRLT A3−A4 Voltage Plus −	7	0	N/A	70000	70000	0	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT V45

Before: 6−Apr−2017 13:08 After: 6−Apr−2017 20:57

HRLT A4−A5 Voltage Plus −	0	0	N/A	68850	68560	−291.7	2100	UV
HRLT A4−A5 Voltage Plus −	1	0	N/A	72610	71310	−1295	2100	UV
HRLT A4−A5 Voltage Plus −	2	0	N/A	74180	73120	−1059	2100	UV
HRLT A4−A5 Voltage Plus −	3	0	N/A	72420	71460	−967.0	2100	UV
HRLT A4−A5 Voltage Plus −	4	0	N/A	69790	69410	−385.7	2100	UV
HRLT A4−A5 Voltage Plus −	5	0	N/A	70270	69890	−374.7	2100	UV
HRLT A4−A5 Voltage Plus −	6	0	N/A	−69360	−67980	1372	2100	UV
HRLT A4−A5 Voltage Plus −	**7**	**0**	**N/A**	**70000**	**70000**	**0**	**2100**	**UV**

High Resolution Laterolog Array − B Wellsite Calibration − HRLT V56

Before: 6−Apr−2017 13:08 After: 6−Apr−2017 20:57

HRLT A5−A6 Voltage Plus −	0	0	N/A	68710	68410	−305.5	2100	UV
HRLT A5−A6 Voltage Plus −	1	0	N/A	72440	71130	−1312	2100	UV
HRLT A5−A6 Voltage Plus −	2	0	N/A	74010	72960	−1060	2100	UV
HRLT A5−A6 Voltage Plus −	3	0	N/A	72290	71320	−967.7	2100	UV
HRLT A5−A6 Voltage Plus −	4	0	N/A	69680	69270	−402.4	2100	UV
HRLT A5−A6 Voltage Plus −	5	0	N/A	70140	69750	−388.3	2100	UV
HRLT A5−A6 Voltage Plus −	6	0	N/A	−69200	−67830	1375	2100	UV
HRLT A5−A6 Voltage Plus −	7	0	N/A	70000	70000	0	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT VTP

Before: 6−Apr−2017 13:08 After: 6−Apr−2017 20:57

HRLT Torpedo−M0 Voltage −	0	0	N/A	−68200	−67960	245.6	2100	UV
HRLT Torpedo−M0 Voltage −	1	0	N/A	−72230	−70950	1285	2100	UV
HRLT Torpedo−M0 Voltage −	2	0	N/A	−73860	−72810	1044	2100	UV
HRLT Torpedo−M0 Voltage −	3	0	N/A	−72190	−71240	957.7	2100	UV
HRLT Torpedo−M0 Voltage −	4	0	N/A	−69600	−69240	364.5	2100	UV
HRLT Torpedo−M0 Voltage −	5	0	N/A	−70070	−69730	343.7	2100	UV
HRLT Torpedo−M0 Voltage −	6	0	N/A	68960	67600	−1366	2100	UV
HRLT Torpedo−M0 Voltage −	7	0	N/A	−70000	−70000	0	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT VBD

Before: 6−Apr−2017 13:08 After: 6−Apr−2017 20:57

HRLT Bridle#9−M0 Voltage −	0	0	N/A	−68230	−67990	240.2	2100	UV
HRLT Bridle#9−M0 Voltage −	1	0	N/A	−72330	−71050	1280	2100	UV
HRLT Bridle#9−M0 Voltage −	2	0	N/A	−73930	−72910	1025	2100	UV
HRLT Bridle#9−M0 Voltage −	3	0	N/A	−72250	−71300	951.2	2100	UV
HRLT Bridle#9−M0 Voltage −	4	0	N/A	−69650	−69290	365.1	2100	UV
HRLT Bridle#9−M0 Voltage −	5	0	N/A	−70100	−69760	337.5	2100	UV
HRLT Bridle#9−M0 Voltage −	6	0	N/A	69040	67690	−1351	2100	UV
HRLT Bridle#9−M0 Voltage −	7	0	N/A	−70000	−70000	0	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT ISO

Before: 6−Apr−2017 13:08 After: 6−Apr−2017 20:57

HRLT Source Current Plus −	0	0	N/A	284.6	283.8	−0.8216	8.520	UA
HRLT Source Current Plus −	1	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus −	2	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus −	3	0	N/A	281.1	281.1	0	8.520	UA

HRLT Source Current Plus − 4	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus − 5	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus − 6	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus − 7	0	N/A	281.1	281.1	0	8.520	UA

High Resolution Laterolog Array − B Wellsite Calibration − HRLT MV
Before: 6−Apr−2017 13:08 After: 6−Apr−2017 20:57

HRLT Vertical Voltage Pl − 0	0	N/A	−320.9	−319.8	1.108	9.681	UV
HRLT Vertical Voltage Pl − 1	0	N/A	−328.2	−322.5	5.737	9.681	UV
HRLT Vertical Voltage Pl − 2	0	N/A	−333.8	−329.1	4.699	9.681	UV
HRLT Vertical Voltage Pl − 3	0	N/A	−322.7	−318.6	4.160	9.681	UV
HRLT Vertical Voltage Pl − 4	0	N/A	−309.6	−308.1	1.578	9.681	UV
HRLT Vertical Voltage Pl − 5	0	N/A	−326.4	−324.8	1.567	9.681	UV
HRLT Vertical Voltage Pl − 6	0	N/A	331.2	324.9	−6.311	9.681	UV
HRLT Vertical Voltage Pl − 7	0	N/A	−322.7	−322.7	0	9.681	UV

Hostile Litho−Density Sonde Wellsite Calibration − Background Measurement
Before: 25−Mar−2017 2:36

SS Cs Resolution Bkg	9.000	N/A	7.925	N/A	N/A	1.800	%
LS Cs Resolution Bkg	9.000	N/A	8.140	N/A	N/A	1.800	%
LSW1 Background	100.0	N/A	65.37	N/A	N/A	3.000	CPS
LSW2 Background	100.0	N/A	60.47	N/A	N/A	3.000	CPS
LSW3 Background	200.0	N/A	133.5	N/A	N/A	6.000	CPS
LSW4 Background	250.0	N/A	162.1	N/A	N/A	7.500	CPS
LSW5 Background	600.0	N/A	371.0	N/A	N/A	18.00	CPS
SSW1 Background	100.0	N/A	73.88	N/A	N/A	3.000	CPS
SSW2 Background	200.0	N/A	130.7	N/A	N/A	6.000	CPS
SSW3 Background	500.0	N/A	350.8	N/A	N/A	15.00	CPS
SSW4 Background	270.0	N/A	182.7	N/A	N/A	8.100	CPS
SSW5 Background	200.0	N/A	131.9	N/A	N/A	6.000	CPS

Hostile Litho−Density Sonde Wellsite Calibration − Caliper Calibration
Before: 25−Mar−2017 4:35

HLDS Caliper Small Ring	12.00	N/A	15.97	N/A	N/A	N/A	IN
HLDS Caliper Large Ring	15.19	N/A	20.15	N/A	N/A	N/A	IN

Hostile Natural Gamma Ray Sonde Wellsite Calibration − Detector 1 Check
Master: 27−Mar−2017 2:51 Before: 27−Mar−2017 2:56 After: 27−Mar−2017 3:16

Na 511 Peak Loc	40.00	39.78	39.61	39.64	0.03034	1.000	
Na 511 Peak Res	15.50	15.89	16.70	15.34	−1.360	2.000	%
High Voltage	1150	1194	1195	1195	−0.2960	N/A	V
Na 1785 Peak Loc	142.6	141.8	142.0	142.1	0.08920	7.000	
Na 1785 Peak Res	8.500	8.607	9.584	9.415	−0.1690	2.000	%
Temperature	15.50	34.40	34.45	34.42	−0.03244	N/A	DEGC
Na Count Rate	45.00	29.68	29.26	29.37	0.1080	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration − Detector 2 Check
Master: 27−Mar−2017 2:51 Before: 27−Mar−2017 2:56 After: 27−Mar−2017 3:16

Na 511 Peak Loc	40.00	39.58	39.77	39.63	−0.1337	1.000	
Na 511 Peak Res	15.50	16.44	15.89	16.75	0.8678	2.000	%
High Voltage	1150	1124	1124	1125	0.2489	N/A	V
Na 1785 Peak Loc	142.6	142.3	142.1	141.9	−0.1906	7.000	
Na 1785 Peak Res	8.500	8.332	9.765	9.462	−0.3035	2.000	%
Temperature	15.50	35.13	35.03	35.05	0.01946	N/A	DEGC
Na Count Rate	45.00	29.69	29.45	29.35	−0.1062	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration − Ratio Of Detector 1 To Detector 2
Master: 27−Mar−2017 2:51 Before: 27−Mar−2017 2:56 After: 27−Mar−2017 3:16

Coincidence Count Rate Ratio	1.000	0.9983	0.9951	0.9986	0.003520	0.05000	

Hostile Natural Gamma Ray Sonde Master Calibration − Detector 1 Calibration
Master: 27−Mar−2017 2:46

Na 511 Peak Set Point	40.00	41.00	−−	−−	−−	−−	
Th Peak Loc	209.6	210.6	−−	−−	−−	−−	
Th Peak Res	7.000	7.235	−−	−−	−−	−−	%
Background Count Rate	142.5	27.39	−−	−−	−−	−−	CPS
Gain Ratio	1.000	1.008	−−	−−	−−	−−	

Hostile Natural Gamma Ray Sonde Master Calibration − Detector 2 Calibration
Master: 27−Mar−2017 2:46

Na 511 Peak Set Point	40.00	41.00	−−	−−	−−	−−	
Th Peak Loc	209.6	209.3	−−	−−	−−	−−	
Th Peak Res	7.000	7.377	−−	−−	−−	−−	%
Background Count Rate	142.5	26.24	−−	−−	−−	−−	CPS
Gain Ratio	1.000	1.006	−−	−−	−−	−−	

Enhanced DTS Cartridge Wellsite Calibration − EDTC Accelerometer Calibration
Before: 6−Apr−2017 13:07

EDTC Z−Axis Acceleration	9.810	N/A	9.728	N/A	N/A	N/A	M/S2

Enhanced DTS Cartridge Wellsite Calibration − Detector Calibration

Before: 27−Mar−2017 3:02 After: 27−Mar−2017 3:13							
Gamma Ray (Jig − Bkg)	145.5	N/A	145.5	146.6	1.126	13.22	GAPI
Gamma Ray (Calibrated)	164.0	N/A	164.0	165.3	1.269	15.00	GAPI

High Resolution Laterolog Array − B / Equipment Identification

Primary Equipment:		
HRLT Sonde	HRLS − B	768
Auxiliary Equipment:		
HRLT lower Housing	HRLH − B	968
HRLT Lower Cartridge	HRLC − B	974
HRLT upper Housing	HRUH − B	975
HRLT Upper Cartridge	HRUC − B	764

High Resolution Laterolog Array − B Wellsite Calibration

HRLT M01

Idx	Phase	HRLT M0−M1 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−318.9	−322.7	−280.7	−379.7
	After		−318.1			
1	Before		−333.4	−322.7	−280.7	−379.7
	After		−327.9			
2	Before		−340.3	−322.7	−280.7	−379.7
	After		−335.9			
3	Before		−330.9	−322.7	−280.7	−379.7
	After		−326.9			
4	Before		−320.5	−322.7	−280.7	−379.7
	After		**−319.1**			
5	Before		−322.3	−322.7	−280.7	−379.7
	After		−321.0			
6	Before		323.6	322.7	379.7	280.7
	After		317.7			
7	Before		−322.7	−322.7	−280.7	−379.7
	After		−322.7			
		(Minimum) (Nominal) (Maximum)				

Before: 6−Apr−2017 13:08

After: 6−Apr−2017 20:57

High Resolution Laterolog Array − B Wellsite Calibration

HRLT M12

Idx	Phase	HRLT M1−M2 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1745	1781	2095	1549
	After		1735			
1	Before		1830	1781	2095	1549
	After		1795			
2	Before		1861	1781	2095	1549
	After		1832			
3	Before		1808	1781	2095	1549
	After		1781			
4	Before		1750	1781	2095	1549
	After		1738			

5	Before	1761	1781	2095	1549
	After	1749			
6	Before	−1784	−1781	−1549	−2095
	After	−1747			
7	Before	1781	1781	2095	1549
	After	1781			
	(Minimum) (Nominal) (Maximum)				

Before: 6−Apr−2017 13:08
After: 6−Apr−2017 20:57

High Resolution Laterolog Array − B Wellsite Calibration

HRLT M23

Idx	Phase	HRLT M2−M3 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1735	1781	2095	1549
	After		1728			
1	Before		1831	1781	2095	1549
	After		1797			
2	Before		1864	1781	2095	1549
	After		1836			
3	Before		1815	1781	2095	1549
	After		1789			
4	Before		1750	1781	2095	1549
	After		1740			
5	Before		1762	1781	2095	1549
	After		1752			
6	Before		−1774	−1781	−1549	−2095
	After		−1738			
7	Before		1781	1781	2095	1549
	After		1781			
	(Minimum) (Nominal) (Maximum)					

Before: 6−Apr−2017 13:08
After: 6−Apr−2017 20:57

High Resolution Laterolog Array − B Wellsite Calibration

HRLT V34

Idx	Phase	HRLT A3−A4 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68760	70000	82360	60900
	After		68480			
1	Before		72400	70000	82360	60900
	After		71100			
2	Before		74000	70000	82360	60900
	After		72930			
3	Before		72280	70000	82360	60900
	After		71310			
4	Before		69690	70000	82360	60900
	After		69300			
5	Before		70170	70000	82360	60900
	After		69800			

	Before		−69160	−70000	−60900	−82360
6	After		−67780			
	Before		70000	70000	82360	60900
7	After		70000			
	(Minimum)	(Nominal) (Maximum)				

Before: 6−Apr−2017 13:08
After: 6−Apr−2017 20:57

High Resolution Laterolog Array − B Wellsite Calibration

HRLT V45

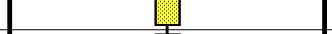
Idx	Phase	HRLT A4−A5 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68850	70000	82360	60900
	After		68560			
1	Before		72610	70000	82360	60900
	After		71310			
2	Before		74180	70000	82360	60900
	After		73120			
3	Before		72420	70000	82360	60900
	After		71460			
4	Before		69790	70000	82360	60900
	After		69410			
5	Before		70270	70000	82360	60900
	After		69890			
6	Before		−69360	−70000	−60900	−82360
	After		−67980			
7	Before		70000	70000	82360	60900
	After		70000			
	(Minimum)	(Nominal) (Maximum)				

Before: 6−Apr−2017 13:08
After: 6−Apr−2017 20:57

High Resolution Laterolog Array − B Wellsite Calibration

HRLT V56

Idx	Phase	HRLT A5−A6 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68710	70000	82360	60900
	After		68410			
1	Before		72440	70000	82360	60900
	After		71130			
2	Before		74010	70000	82360	60900
	After		72960			
3	Before		72290	70000	82360	60900
	After		71320			
4	Before		69680	70000	82360	60900
	After		69270			
5	Before		70140	70000	82360	60900
	After		69750			
6	Before		−69200	−70000	−60900	−82360
	After		−67830			

7	Before		70000	70000	82360	60900
	After		70000			
	(Minimum) (Nominal) (Maximum)					

Before: 6−Apr−2017 13:08
After: 6−Apr−2017 20:57

High Resolution Laterolog Array − B Wellsite Calibration

HRLT VTP

Idx	Phase	HRLT Torpedo−M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−68200	−70000	−60900	−82360
	After		−67960			
1	Before		−72230	−70000	−60900	−82360
	After		−70950			
2	Before		−73860	−70000	−60900	−82360
	After		−72810			
3	Before		−72190	−70000	−60900	−82360
	After		−71240			
4	Before		−69600	−70000	−60900	−82360
	After		−69240			
5	Before		−70070	−70000	−60900	−82360
	After		−69730			
6	Before		68960	70000	82360	60900
	After		67600			
7	Before		−70000	−70000	−60900	−82360
	After		**−70000**			
	(Minimum) (Nominal) (Maximum)					

Before: 6−Apr−2017 13:08
After: 6−Apr−2017 20:57

High Resolution Laterolog Array − B Wellsite Calibration

HRLT VBD

Idx	Phase	HRLT Bridle#9−M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−68230	−70000	−60900	−82360
	After		−67990			
1	Before		−72330	−70000	−60900	−82360
	After		−71050			
2	Before		−73930	−70000	−60900	−82360
	After		−72910			
3	Before		−72250	−70000	−60900	−82360
	After		−71300			
4	Before		−69650	−70000	−60900	−82360
	After		−69290			
5	Before		−70100	−70000	−60900	−82360
	After		−69760			
6	Before		69040	70000	82360	60900
	After		67690			
7	Before		−70000	−70000	−60900	−82360
	After		−70000			

		(Minimum)	(Nominal)	(Maximum)			

Before: 6−Apr−2017 13:08
After: 6−Apr−2017 20:57

High Resolution Laterolog Array − B Wellsite Calibration

HRLT ISO

Idx	Phase	HRLT Source Current Plus UA	Value	Nominal	Maximum	Minimum
0	Before		284.6	284.0	334.1	247.0
	After		283.8			
1	Before		281.1	281.1	330.7	244.4
	After		281.1			
2	Before		281.1	281.1	330.7	244.4
	After		281.1			
3	Before		281.1	281.1	330.7	244.4
	After		281.1			
4	Before		281.1	281.1	330.7	244.4
	After		281.1			
5	Before		281.1	281.1	330.7	244.4
	After		281.1			
6	Before		281.1	281.1	330.7	244.4
	After		281.1			
7	Before		281.1	281.1	330.7	244.4
	After		281.1			
		(Minimum) (Nominal) (Maximum)				

Before: 6−Apr−2017 13:08
After: 6−Apr−2017 20:57

High Resolution Laterolog Array − B Wellsite Calibration

HRLT MV

Idx	Phase	HRLT Vertical Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−320.9	−322.7	−280.7	−379.7
	After		−319.8			
1	Before		−328.2	−322.7	−280.7	−379.7
	After		−322.5			
2	Before		−333.8	−322.7	−280.7	−379.7
	After		−329.1			
3	Before		−322.7	−322.7	−280.7	−379.7
	After		−318.6			
4	Before		−309.6	−322.7	−280.7	−379.7
	After		−308.1			
5	Before		−326.4	−322.7	−280.7	−379.7
	After		−324.8			
6	Before		331.2	322.7	379.7	280.7
	After		324.9			
7	Before		−322.7	−322.7	−280.7	−379.7
	After		−322.7			
		(Minimum) (Nominal) (Maximum)				

Before: 6−Apr−2017 13:08
After: 6−Apr−2017 20:57

Hostile Litho−Density Sonde / Equipment Identification

Primary Equipment:		
Gamma Source Radioactive	GSR − ZA	2945
Hostile Litho Density Sonde	HLDS − D	45
Hostile Litho Density High Voltage	HLDV − D	45
Auxiliary Equipment:		
Hostile Litho Density High Voltage Housi	HEH − H	47
Hostile Litho Density Pad	HLDP − C	45

Hostile Litho−Density Sonde Wellsite Calibration

Background Measurement

Phase	SS Cs Resolution Bkg %	Value
Before		7.925
	7.000 (Minimum) 9.000 (Nominal) 11.00 (Maximum)	

Phase	LS Cs Resolution Bkg %	Value
Before		8.140
	7.000 (Minimum) 9.000 (Nominal) 11.00 (Maximum)	

Phase	LSW1 Background CPS	Value
Before		65.37
	55.00 (Minimum) 100.0 (Nominal) 150.0 (Maximum)	

Phase	LSW2 Background CPS	Value
Before		60.47
	50.00 (Minimum) 100.0 (Nominal) 140.0 (Maximum)	

Phase	LSW3 Background CPS	Value
Before		133.5
	110.0 (Minimum) 200.0 (Nominal) 290.0 (Maximum)	

Phase	LSW4 Background CPS	Value
Before		162.1
	140.0 (Minimum) 250.0 (Nominal) 360.0 (Maximum)	

Phase	LSW5 Background CPS	Value
Before		371.0
	330.0 (Minimum) 600.0 (Nominal) 830.0 (Maximum)	

Phase	SSW1 Background CPS	Value
Before		73.88
	55.00 (Minimum) 100.0 (Nominal) 150.0 (Maximum)	

Phase	SSW2 Background CPS	Value
Before		130.7
	100.0 (Minimum) 200.0 (Nominal) 260.0 (Maximum)	

Phase	SSW3 Background CPS	Value
Before		350.8
	280.0 (Minimum) 500.0 (Nominal) 700.0 (Maximum)	

Phase	SSW4 Background CPS	Value
Before		182.7
	150.0 (Minimum) 270.0 (Nominal) 380.0 (Maximum)	

Phase	SSW5 Background CPS	Value
Before		131.9
	110.0 (Minimum) 200.0 (Nominal) 270.0 (Maximum)	

Before: 25−Mar−2017 2:36

Litho−Density Spectroscopy Cartridge − B / Equipment Identification

Primary Equipment:		
LDSC Cartridge	LDSC − B	521
Auxiliary Equipment:		
LDSC Housing	LDSH − A	319

Hostile Natural Gamma Ray Cartridge − B / Equipment Identification

Primary Equipment:		
HNGC Cartridge	HNGC − B	304
Auxiliary Equipment:		
HNGC Housing	HNGH − A	3

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
Master		39.78
Before		39.61

Phase	Na 511 Peak Res %	Value
Master		15.89
Before		16.70

Phase	High Voltage V	Value
Master		1194
Before		1195

Phase	Value
After	39.64

37.50 (Minimum) 40.00 (Nominal) 43.50 (Maximum)

Phase	Value
After	15.34

12.00 (Minimum) 15.50 (Nominal) 19.00 (Maximum)

Phase	Value
After	1195

900.0 (Minimum) 1150 (Nominal) 1600 (Maximum)

Phase	Na 1785 Peak Loc	Value
Master		141.8
Before		142.0
After		142.1

135.0 (Minimum) 142.6 (Nominal) 150.3 (Maximum)

Phase	Na 1785 Peak Res %	Value
Master		8.607
Before		9.584
After		9.415

7.000 (Minimum) 8.500 (Nominal) 11.00 (Maximum)

Phase	Temperature DEGC	Value
Master		34.40
Before		34.45
After		34.42

−28.89 (Minimum) 15.50 (Nominal) 60.00 (Maximum)

Phase	Na Count Rate CPS	Value
Master		29.68
Before		29.26
After		29.37

10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)

Master: 27−Mar−2017 2:51 Before: 27−Mar−2017 2:56 After: 27−Mar−2017 3:16

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Detector 2 Check

Phase	Na 511 Peak Loc	Value
Master		39.58
Before		39.77
After		39.63

37.50 (Minimum) 40.00 (Nominal) 43.50 (Maximum)

Phase	Na 511 Peak Res %	Value
Master		16.44
Before		15.89
After		16.75

12.00 (Minimum) 15.50 (Nominal) 19.00 (Maximum)

Phase	High Voltage V	Value
Master		1124
Before		1124
After		1125

900.0 (Minimum) 1150 (Nominal) 1600 (Maximum)

Phase	Na 1785 Peak Loc	Value
Master		142.3
Before		142.1
After		141.9

135.0 (Minimum) 142.6 (Nominal) 150.3 (Maximum)

Phase	Na 1785 Peak Res %	Value
Master		8.332
Before		9.765
After		9.462

7.000 (Minimum) 8.500 (Nominal) 11.00 (Maximum)

Phase	Temperature DEGC	Value
Master		35.13
Before		35.03
After		35.05

−28.89 (Minimum) 15.50 (Nominal) 60.00 (Maximum)

Phase	Na Count Rate CPS	Value
Master		29.69
Before		29.45
After		29.35

10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)

Master: 27−Mar−2017 2:51 Before: 27−Mar−2017 2:56 After: 27−Mar−2017 3:16

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Ratio Of Detector 1 To Detector 2

Phase	Coincidence Count Rate Ratio	Value
Master		0.9983
Before		0.9951
After		0.9986

0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)

Master: 27−Mar−2017 2:51
Before: 27−Mar−2017 2:56
After: 27−Mar−2017 3:16

Hostile Natural Gamma Ray Sonde Master Calibration

Detector 1 Calibration

Phase	Na 511 Peak Set Point	Value
Master		41.00

38.00 (Minimum) 40.00 (Nominal) 43.00 (Maximum)

Phase	Th Peak Loc	Value
Master		210.6

201.0 (Minimum) 209.6 (Nominal) 218.3 (Maximum)

Phase	Th Peak Res %	Value
Master		7.235

5.000 (Minimum) 7.000 (Nominal) 9.000 (Maximum)

Phase	Background Count Rate CPS	Value

Phase	Gain Ratio	Value

Master		27.39	Master		1.008			
10.00 (Minimum)	142.5 (Nominal)	265.0 (Maximum)	0.9400 (Minimum)	1.000 (Nominal)	1.060 (Maximum)			

Master: 27−Mar−2017 2:46

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		209.3	Master		7.377
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		26.24	Master		1.006
10.00 (Minimum)	142.5 (Nominal)	265.0 (Maximum)	0.9400 (Minimum)	1.000 (Nominal)	1.060 (Maximum)

Master: 27−Mar−2017 2:46

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		9.728
9.610 (Minimum)	9.810 (Nominal)	10.01 (Maximum)

Before: 6−Apr−2017 13:07

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		7.913	Before		145.5	Before		164.0
After		7.272	After		146.6	After		165.3
0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)	132.2 (Minimum)	145.5 (Nominal)	158.7 (Maximum)	149.0 (Minimum)	164.0 (Nominal)	179.0 (Maximum)

Before: 27−Mar−2017 3:02 After: 27−Mar−2017 3:13

Company: **International Ocean Discovery Program**

Schlumberger

Well: **Expedition 367, Site U1500B**
Field: **South China Sea Rifted Margin A**
Rig: **JOIDES Resolution**
Ocean: **South China Sea**

High Resolution Laterolog Array
Hostile Litho Density / DSI
Natural Gamma Ray