Schlumberger

Company: **International Ocean Discovery Program**

Well: **Expedition 376, Site U1530A**
Field: **Bothers Arc Flux**
Rig: **JOIDES Resolution** Ocean: **Pacific**

Rig: JOIDES Resolution
Field: Bothers Arc Flux
Location: 34.86098 Deg South
Well: Expedition 376, Site U1530A
Company: International Ocean Discovery Pr

Hostile Natural Gamma Spectroscopy −HNGS
Formation Micro Scanner − FMS
Dipole Sonic −DSI, Mud Temperature

LOCATION

34.86098 Deg South
179.05762 Deg East

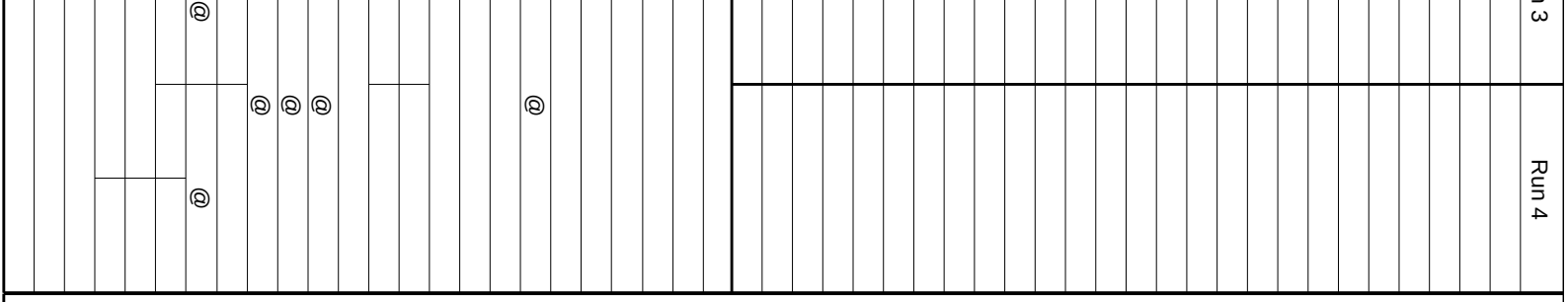
Elev.: K.B. 0.00 m
G.L. −1606.00 m
D.F. 0.00 m

Permanent Datum: Sea Floor — Elev.: −1606.00 m
Log Measured From: Rig Floor — 1606.00 m above Perm. Datum
Drilling Measured From: Rig Floor

API Serial No.	Max. Hole Devi. 4 deg	Longitude 179.05762 Deg E	Latitude 34.86098 Deg S

	Run 1	Run 2	Run
Logging Date	19−Jun−2018		
Run Number	1		
Depth Driller	2059.1 m		
Schlumberger Depth	2046 m		
Bottom Log Interval	2046 m		
Top Log Interval	1601 m		
Casing Driller Size @ Depth	8.500 in @ 1673 m	@	@
Casing Schlumberger	1670 m		
Bit Size	9.875 in		
Type Fluid In Hole	sea water		
MUD Density / Viscosity	1.024 g/cm3 /		
MUD Fluid Loss / PH	/ 7		
MUD Source Of Sample			
RM @ Measured Temperature	@	@	@
RMF @ Measured Temperature	@	@	@
RMC @ Measured Temperature	@	@	@
Source RMF / RMC	/		
RM @ MRT / RMF @ MRT	@ 41 / @ 41	@ / @	
Maximum Recorded Temperatures	41 degC / 41		
Circulation Stopped Time	19−Jun−2018 13:30		
Logger On Bottom Time	19−Jun−2018 17:30		
Unit Number / Location	627314 Larose, LA		
Recorded By	K. Swain		
Witnessed By	C. Massiot, A. Reyes		

	Run 1	Run 2	Run
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			



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OTHER SERVICES1	OTHER SERVICES2
OS1: HRLA/HLDS/APS/HNGS	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:

REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
Exp 376, U1530A: EDTC and HNGC/LDSC are flasked in case of high temperature.	
Tools conveyed on wireline through drill pipe without sub sea riser.	
Chemraz and Kalrez seals/o−rings utilized on this toolstring.	
Wireline run: 7−46M18XS	
Active Heave Compensator utlized until re−entering drillpipe.	
HLDS tool listed in toolsketch only for software utilization for HNCC.	
Logging bit used for logging only.	
Drilled TD was:2059.1mbrf	
Drill pipe set at 1673mbrf	
MT head MTEM maximum 40.5 deg C.	
Maximum reading thermometers not available.	
Caliper opened on both uplog passes.	
Caliper closed for downlog.	
Fixed cable wraps at 1835m and 1779m, these depths caliper was closed briefly.	
Closed caliper at 1697 to re−enter pipe due to pull.	
Pull inside of drill pipe related to upper centralizer at drill pipe interface.	

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

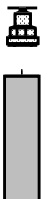
GSR−U 616008
WITM (EDTS)−A 1

DOWNHOLE EQUIPMENT

LEH−MT−101
LEH−MT−101 101

EDTC−B
EDTH−UDFHKL 1091 Paulette 1054
EDTC−B 8317
EDTG−A/B 8305

MDSB_EDTC
Mud Tempe
Gamma Ray
CTEM
EFTB DIAG
TelStatus
EDTCB Ele

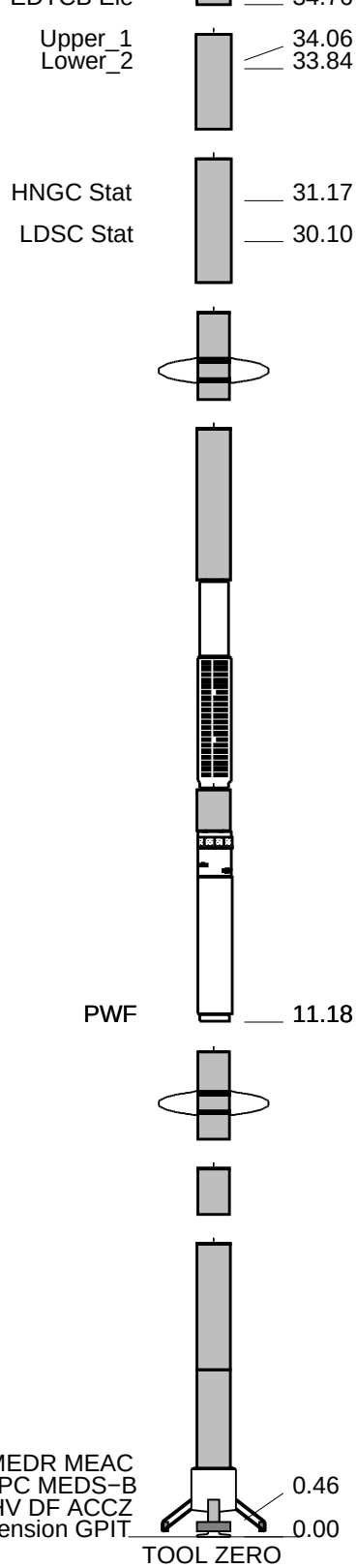


38.96

36.74
35.86
35.67

38.00

34.76



HNGS−BA — 34.76
HNGS−BA 194
HNSH−BA 204

HNCC−B — 32.26
UDFH−KLX 1055
HNGC−B 304
LDSC−B 521

AH−MCD−82 — 29.01
AH−MCD−82 82

DSST−B — 26.73
SPAC−B 8194
ECH−SD 8183
SMDR−BD 8232
SSIJ−BA 8204
SMDX−AA 8194

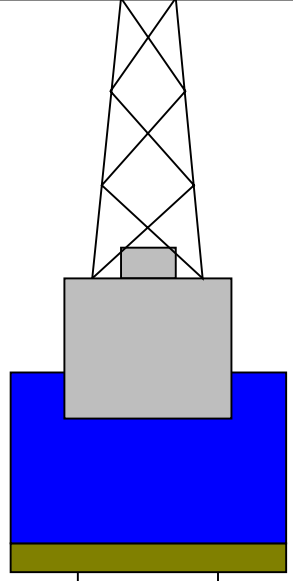
AH−MCD−1663 — 11.18
AH−MCD−1663 1663

DTA−A−8453 — 8.90
ECH−KE 8456

MEST−B — 7.68
MEAH−B 769
MEAC−A 804
MEPH−A 701
GPIC−AC 840
MEPC−AB 806
MEDS−B 724

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		
		1606	4.1	Sea Floor
		1673	9.875	Drill Pipe
		2059.1		Total Depth Driller

Input DLIS Files

	Flip_LDL_FMS_DSI_046LUP	FN:1		20−Jun−2018 08:49	2048.4 M	1456.2 M

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_065PUP	FN:82	PRODUCER	21−Jun−2018 21:20	2048.4 M	1456.2 M

OP System Version: 19C0−187

HLDS	19C0−187	MEST−B	19C0−187
DTA−A−8453	19C0−187	DSST−B	19C0−187
HNCC−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

HNGS Computed Gamma Ray (HCGR)

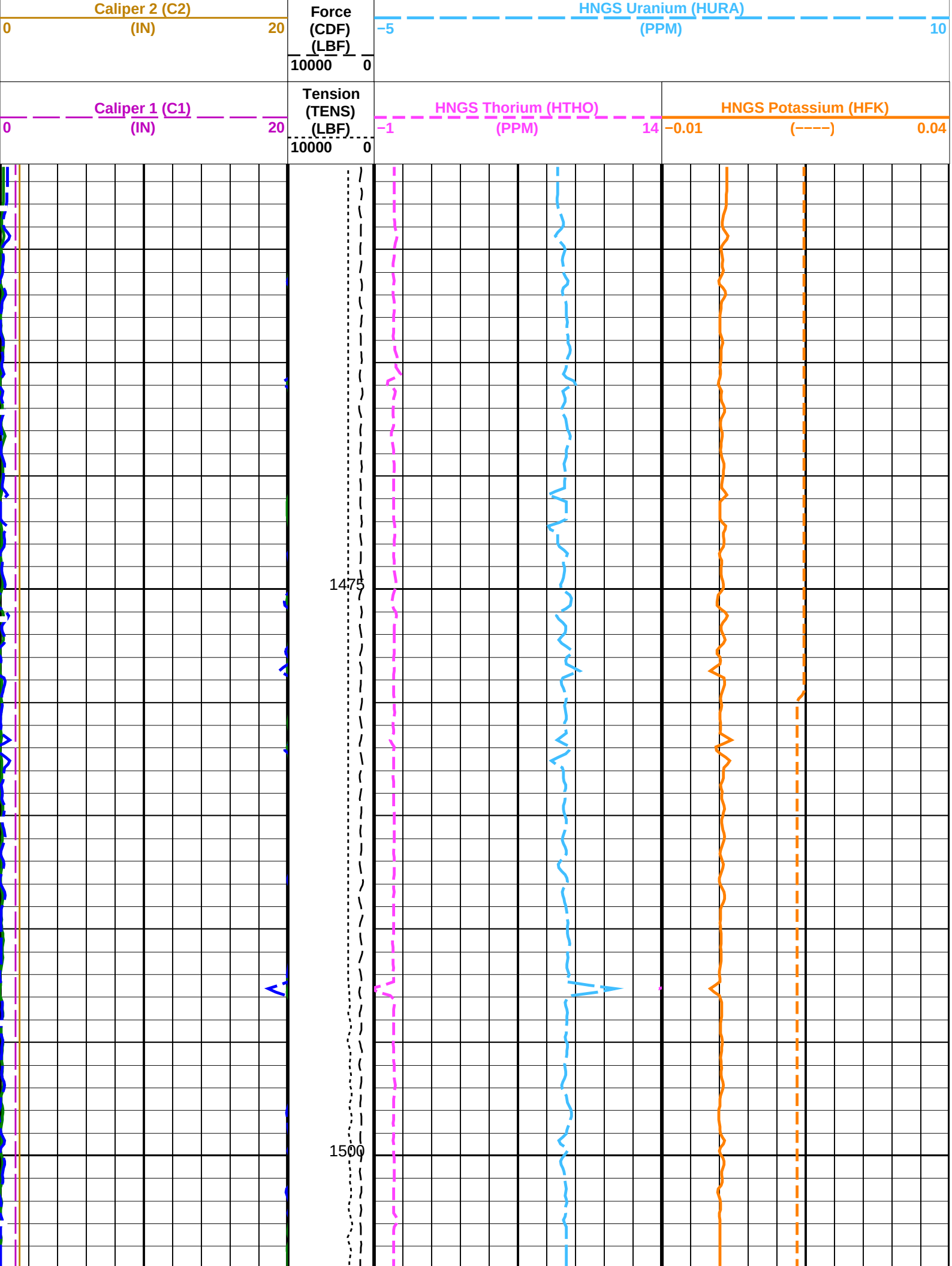
0 (GAPI) 100

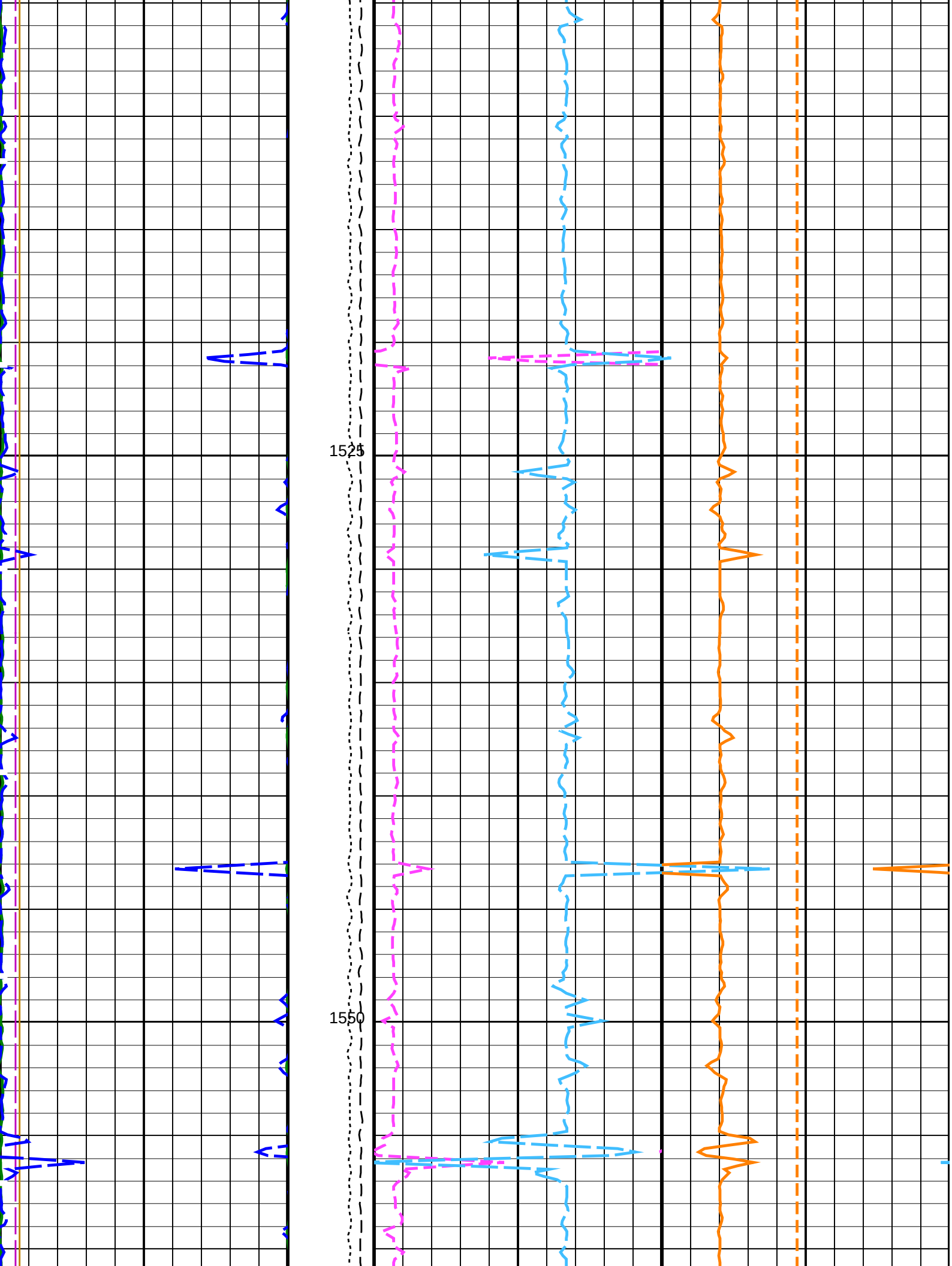
Downlog

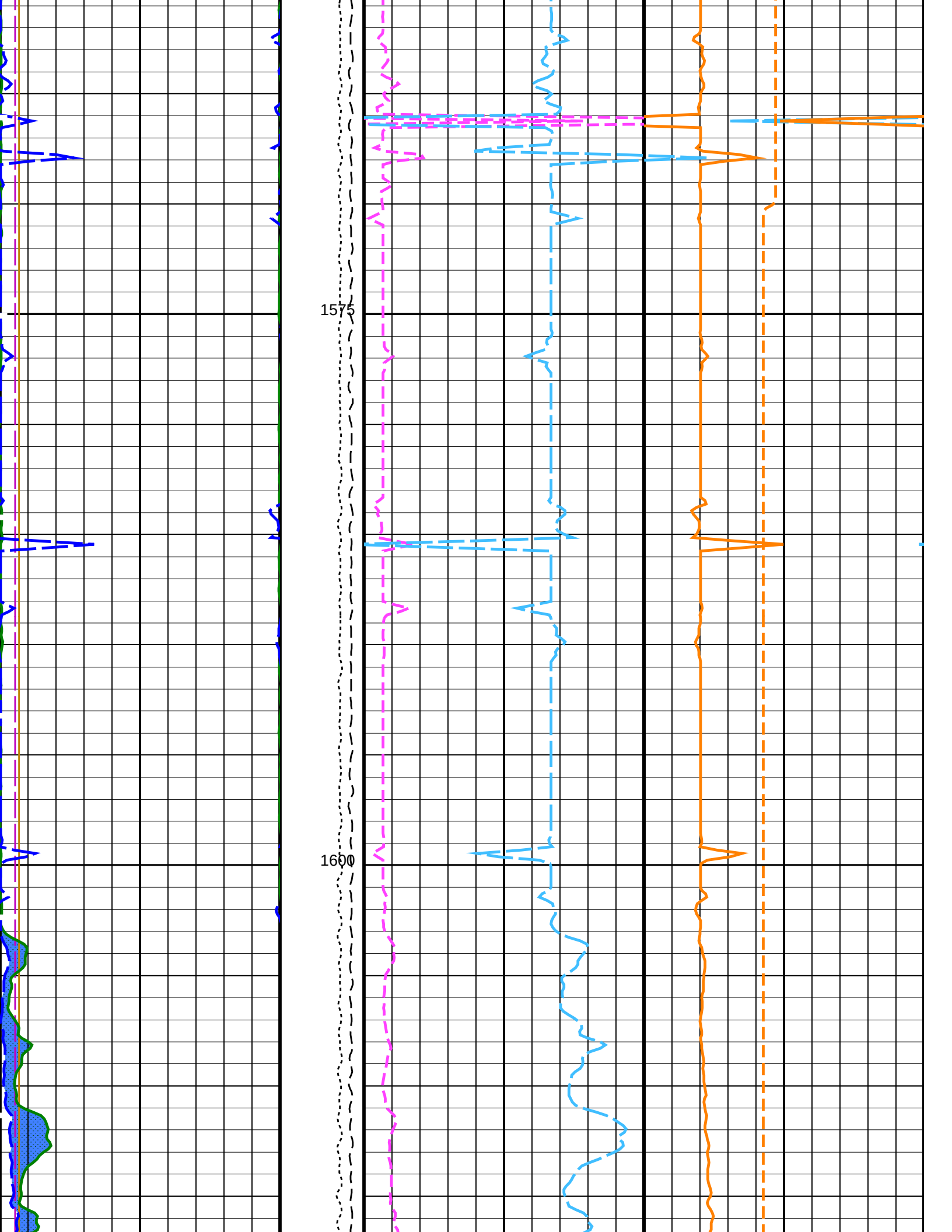
HNGS Borehole Potassium (HBHK)

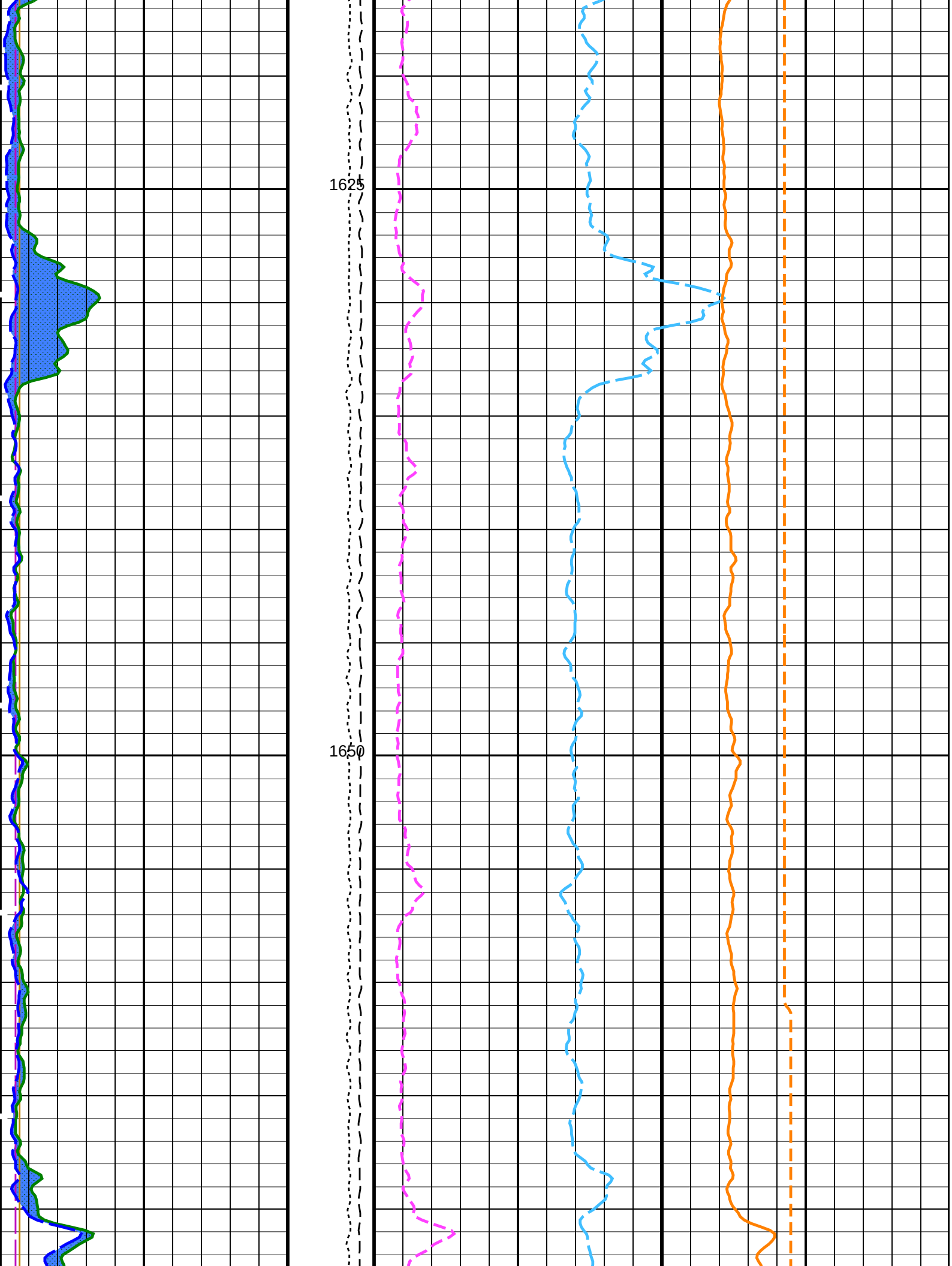
−0.05 (−−−−) 0.05

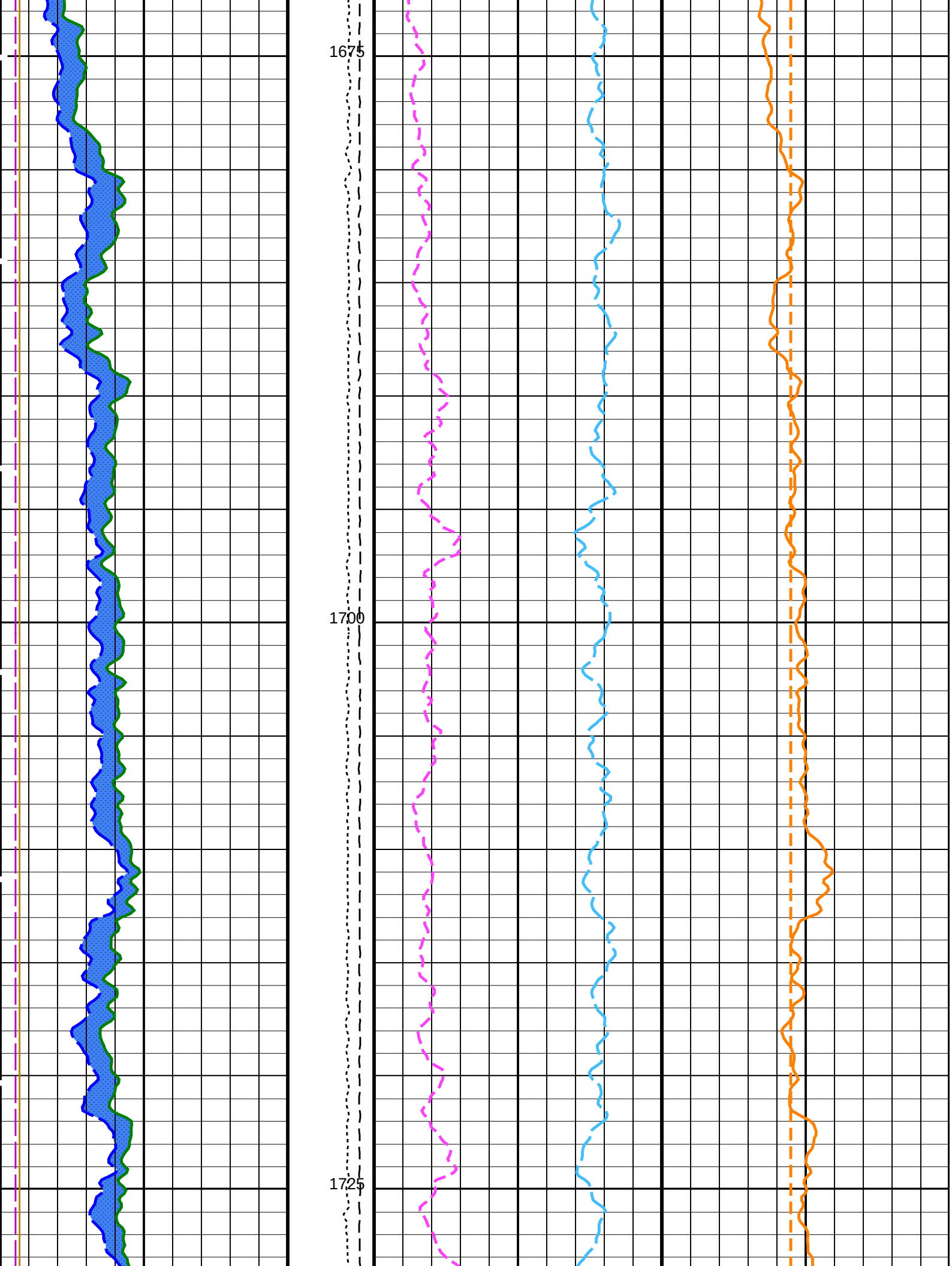
Calibrated Downhole

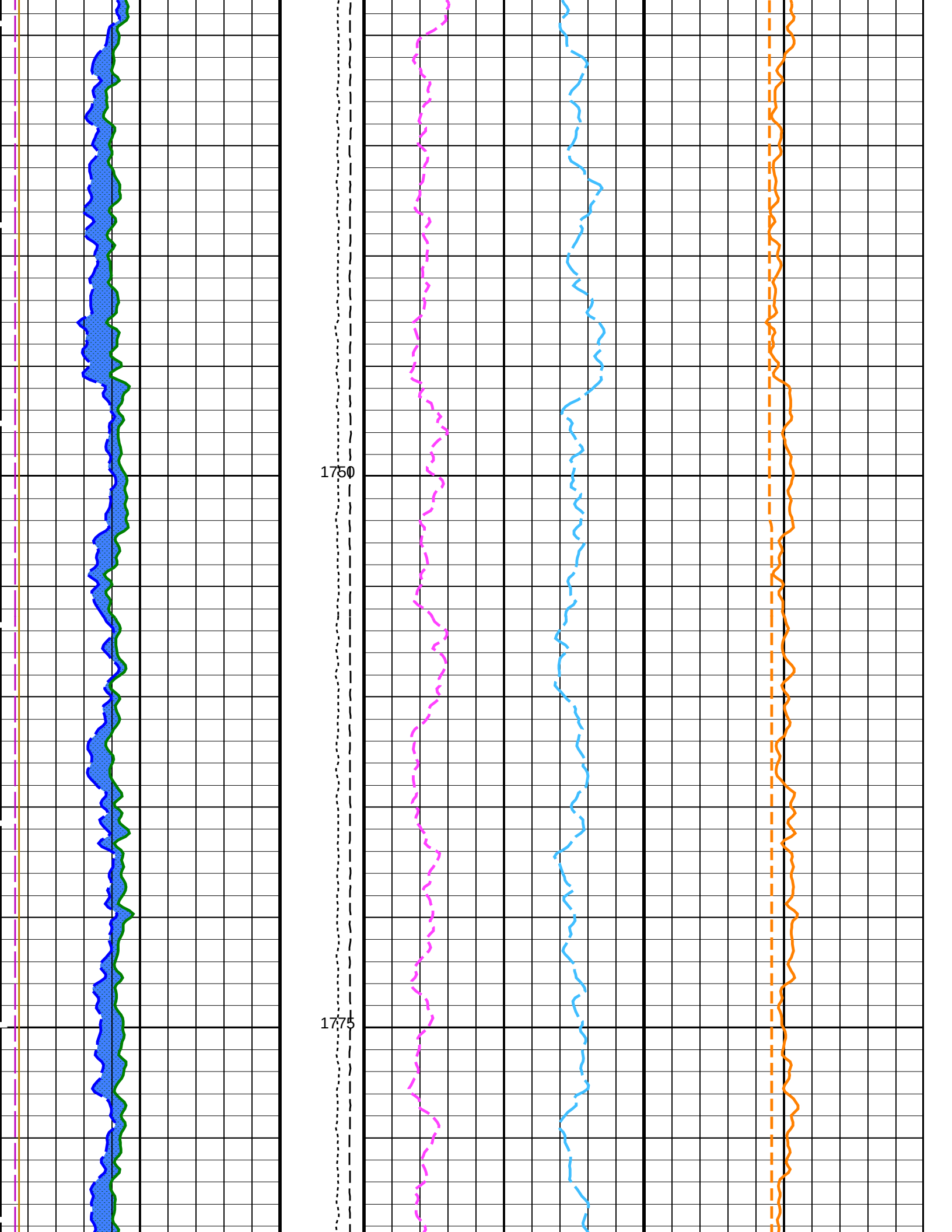

Caliper 2 (C2)
0
(IN)
20
Force
(CDF)
(LBF)
10000
0
HNGS Uranium (HURA)
−5
(PPM)
10
Caliper 1 (C1)
0
(IN)
20
Tension
(TENS)
(LBF)
10000
0
HNGS Thorium (HTHO)
−1
(PPM)
14
HNGS Potassium (HFK)
−0.01
(−−−−)
0.04
1475
1500

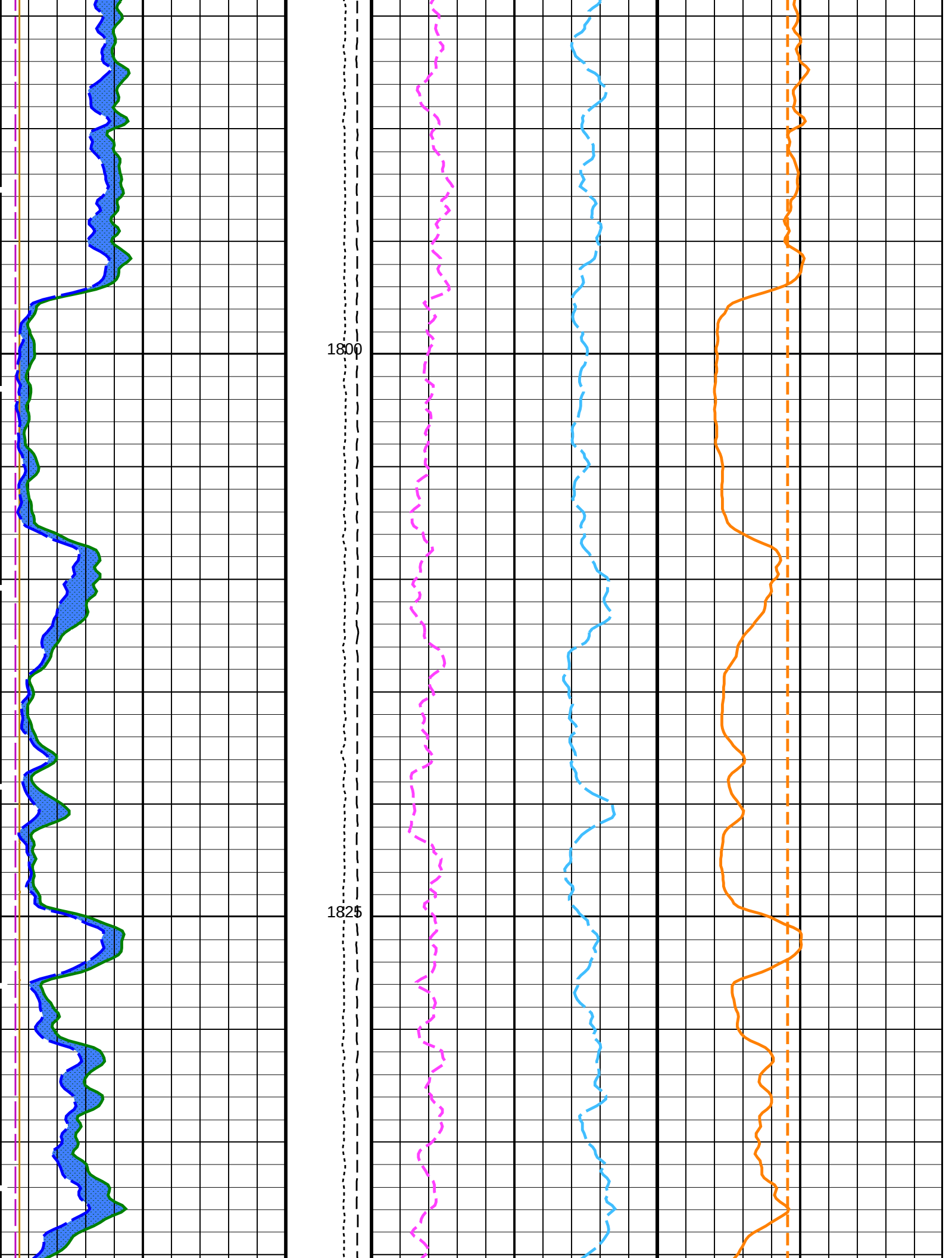

1525
1550

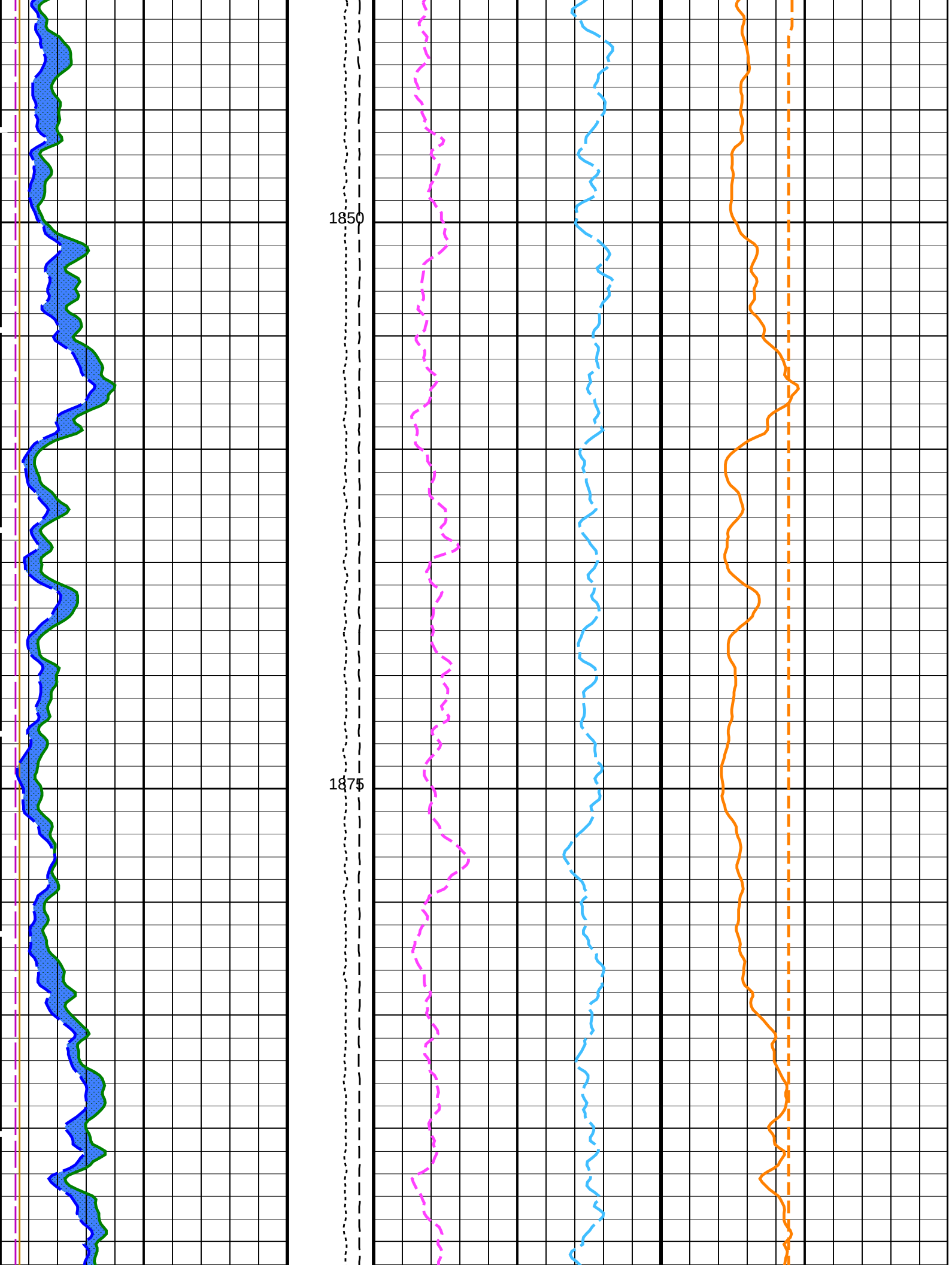

1575
1600

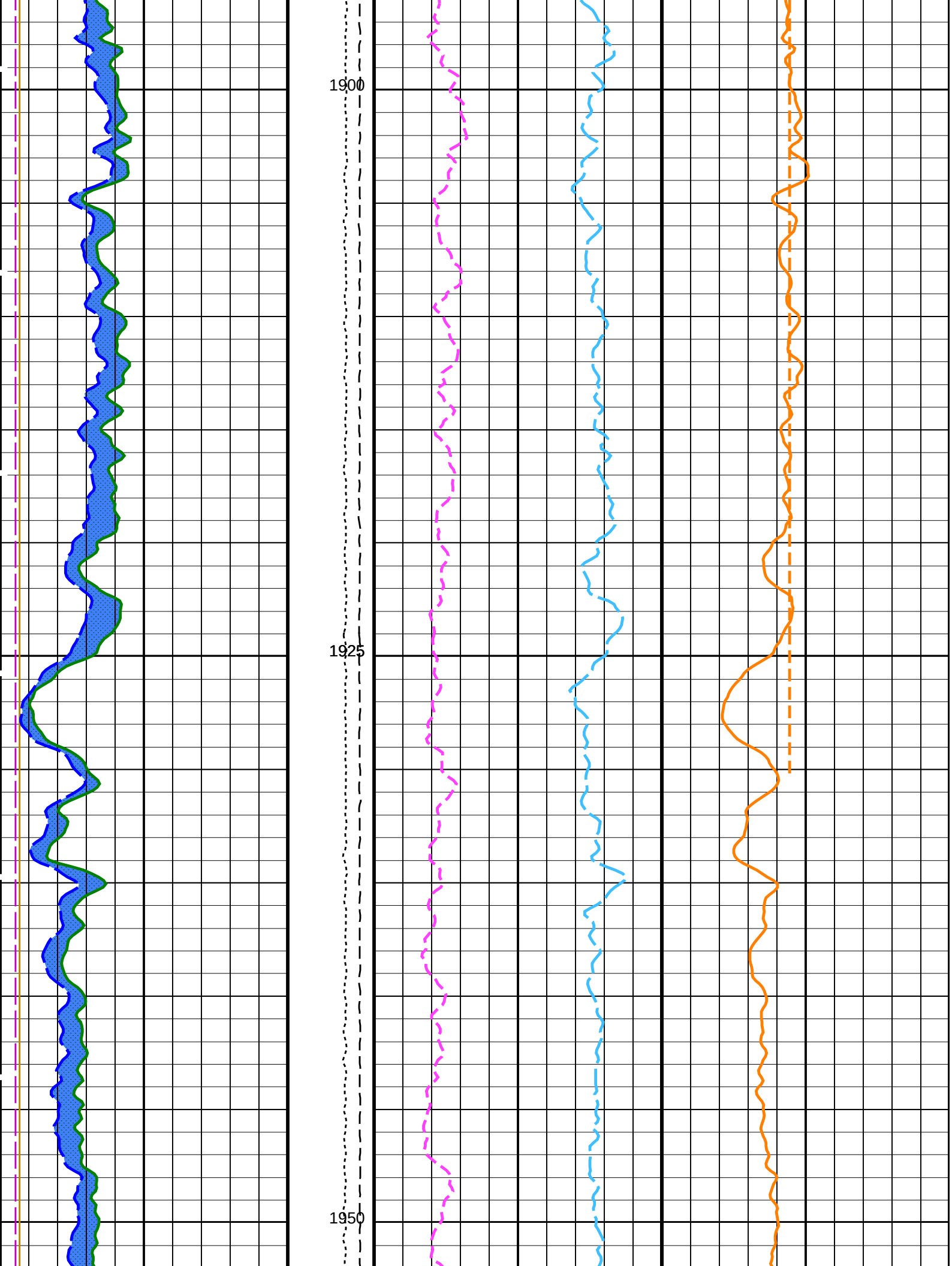

1625
1650

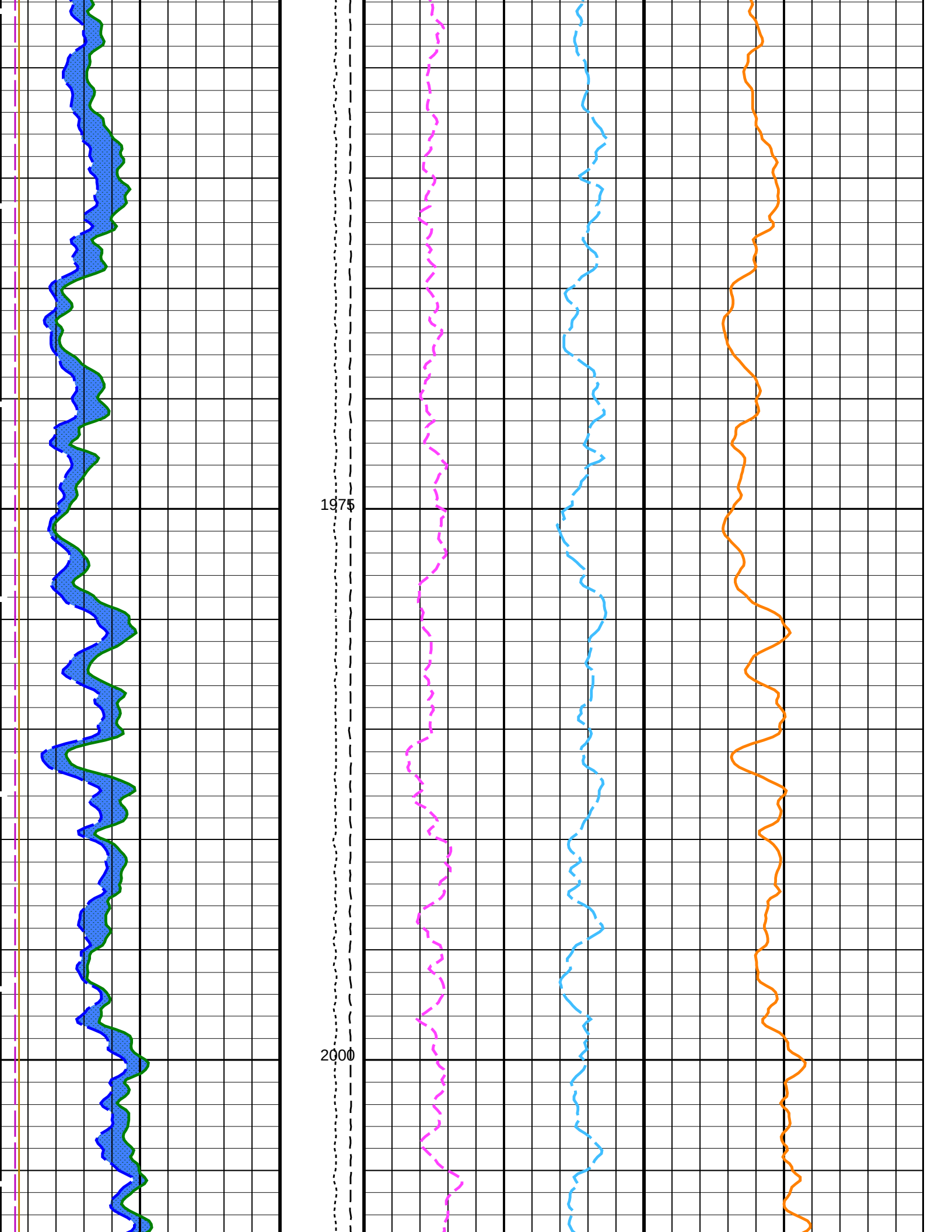

1675
1700
1725

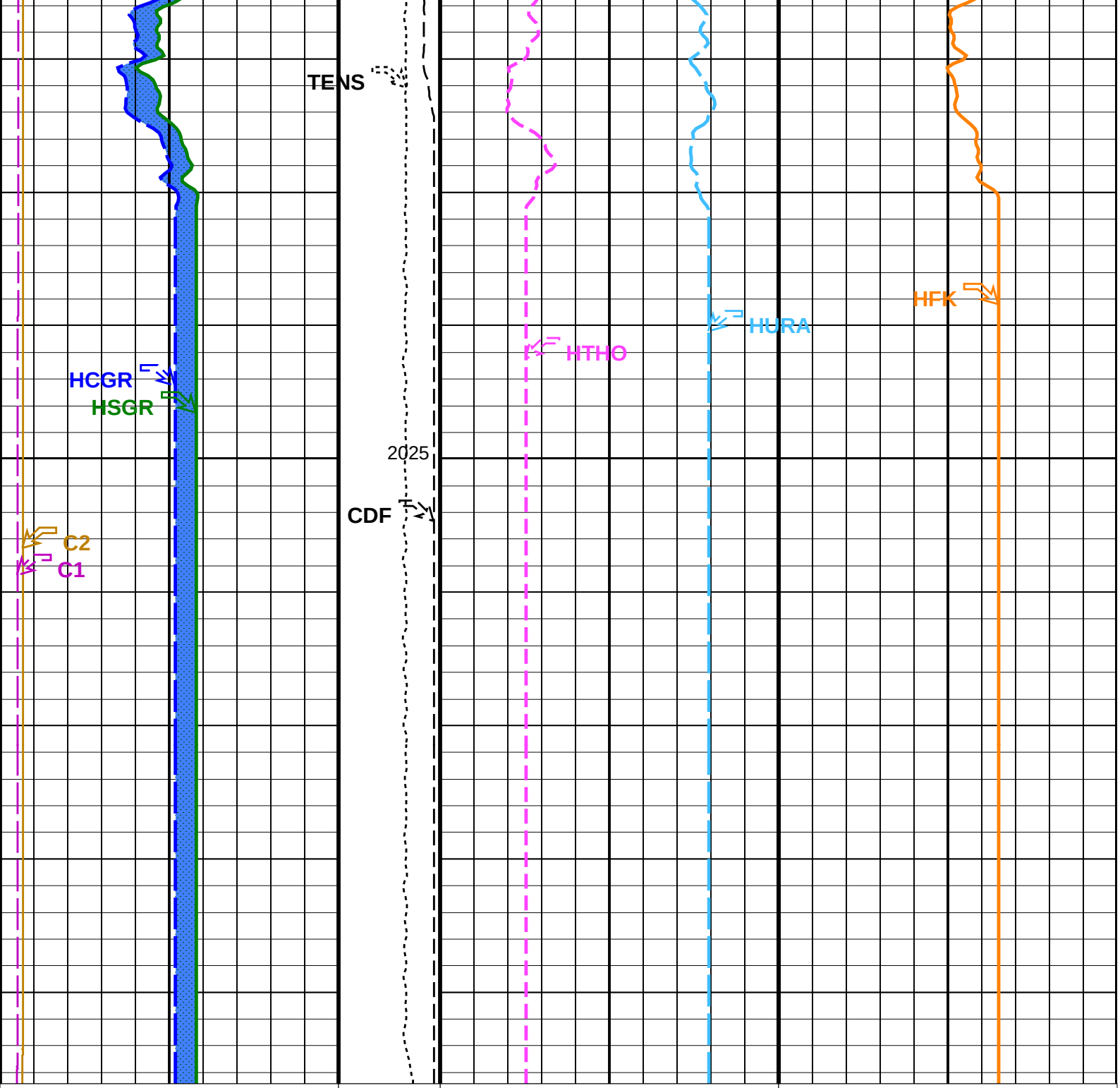

1750
1775


1800
1825


1850
1875


1900
1925
1950


1975
2000



Caliper 1 (C1)
0 (IN) 20

Tension (TENS) (LBF)
10000 0

HNGS Thorium (HTHO)
−1 (PPM) 14

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

Caliper 2 (C2)
0 (IN) 20

Calibrated Downhole Force (CDF) (LBF)
10000 0

HNGS Uranium (HURA)
−5 (PPM) 10

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

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

Area1
From HCGR to HSGR

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	
	HNGS−BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	BS	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00461246	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
TPOS	Tool Position	CENT	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.32869	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.600308	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	BS	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.02	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: HNGSYields **Vertical Scale: 1:200** **Graphics File Created: 21−Jun−2018 21:20**

OP System Version: 19C0−187

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

Input DLIS Files

	Flip_LDL_FMS_DSI_046LUP	FN:1	20−Jun−2018 08:49	2048.4 M	1456.2 M

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_065PUP	FN:82	PRODUCER	21−Jun−2018 21:20		

Input DLIS Files

	Flip_LDL_FMS_DSI_046LUP	FN:1	20−Jun−2018 08:49	2048.4 M	1456.2 M

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_065PUP	FN:82	PRODUCER	21−Jun−2018 21:20	2048.4 M	1456.2 M

OP System Version: 19C0−187

HLDS	19C0−187	MEST−B	19C0−187

DTA−A−8453	19C0−187	DSST−B	19C0−187
HNCC−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

Tension (TENS)
10000 (LBF) 0

Sonic Velocity (SVEL)
1000 (M/S) 6000

Caliper 2 (C2)
0 (IN) 20

Caliper 1 (C1)
0 (IN) 20

Bit Size (BS)
0 (IN) 20

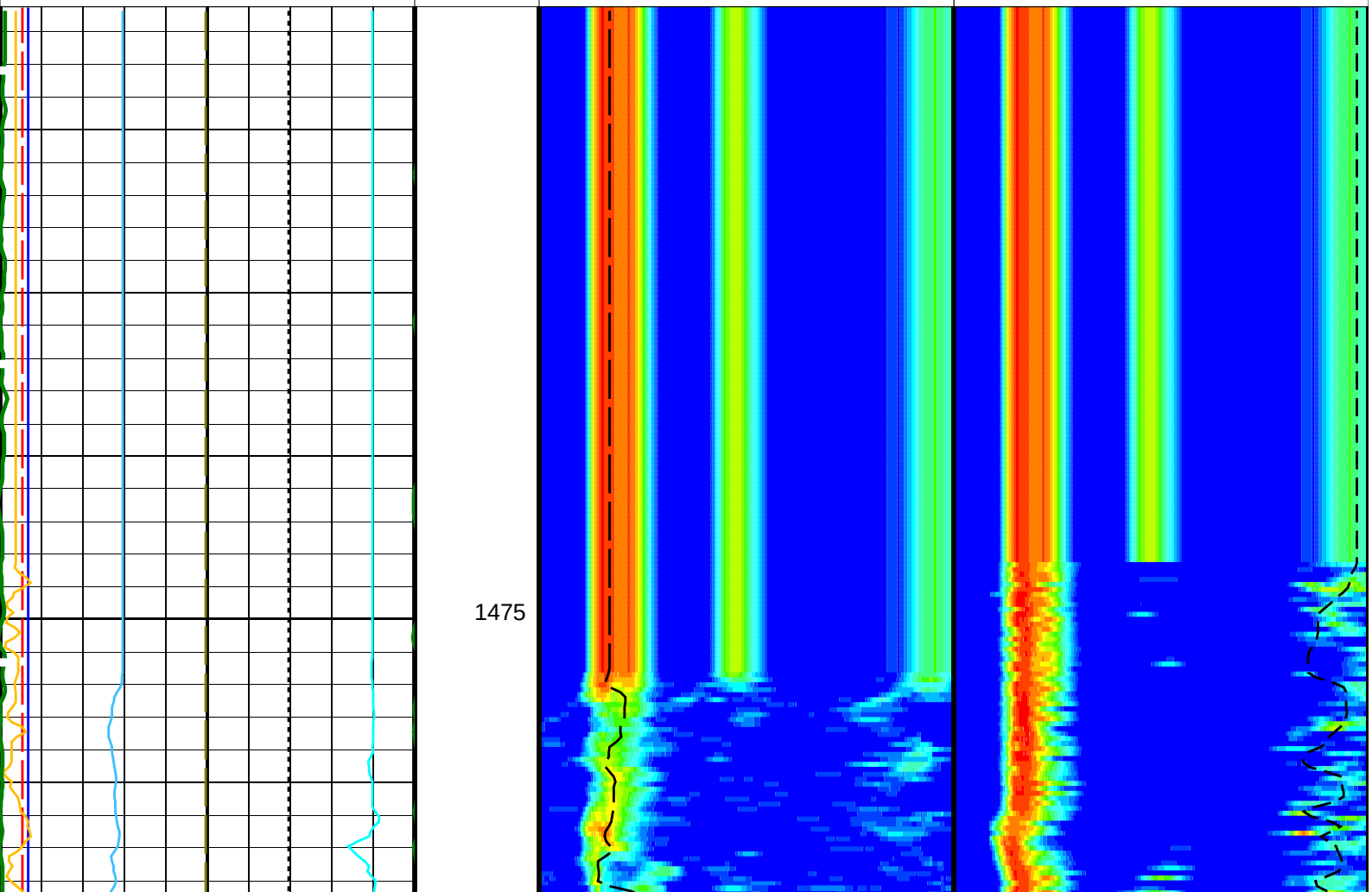
Downlog

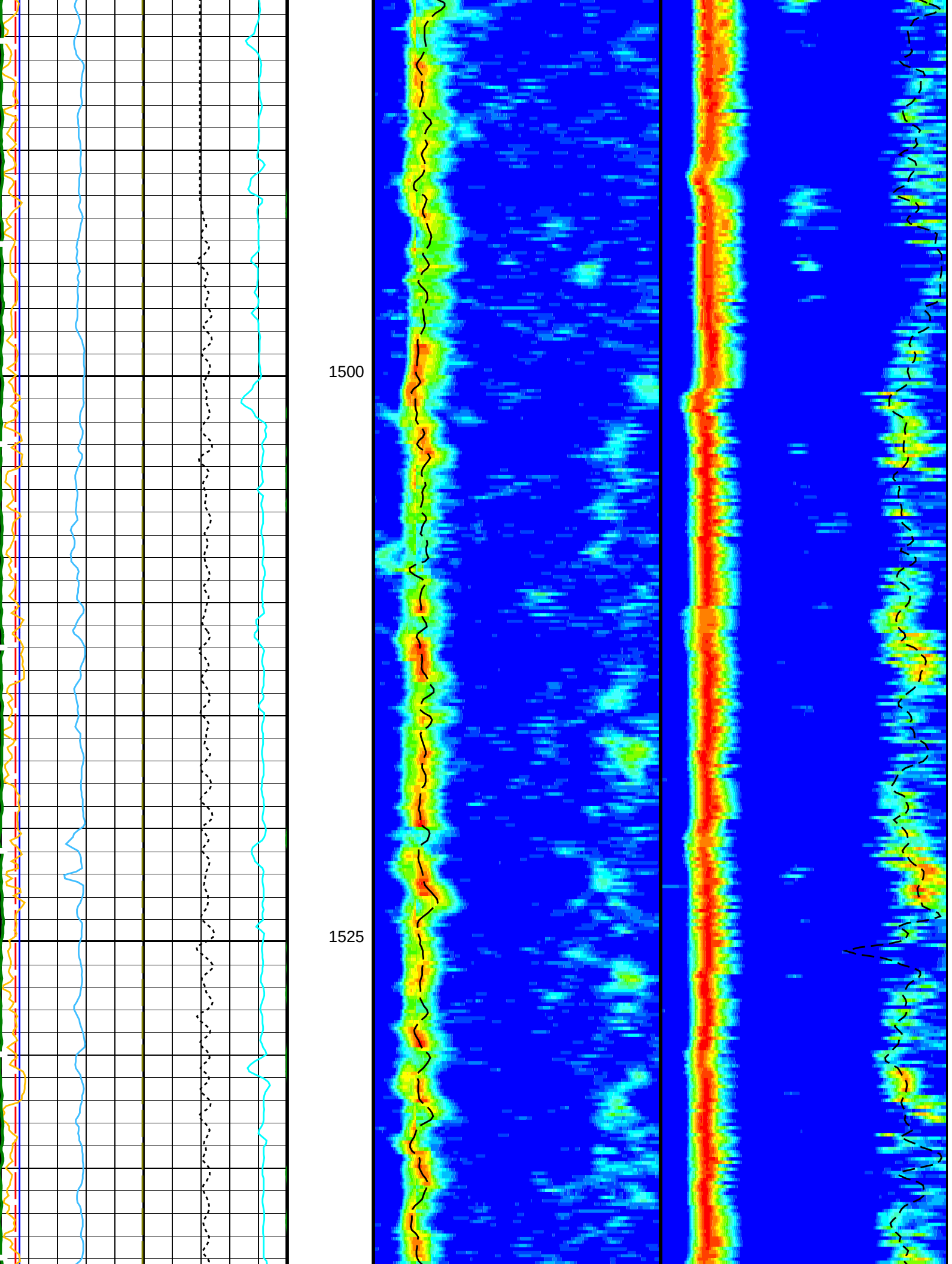
Min Amplitude Max
Tr.Array U.Dipole Slow Proj. CVDL (SPT2)
40 (US/F) 1400

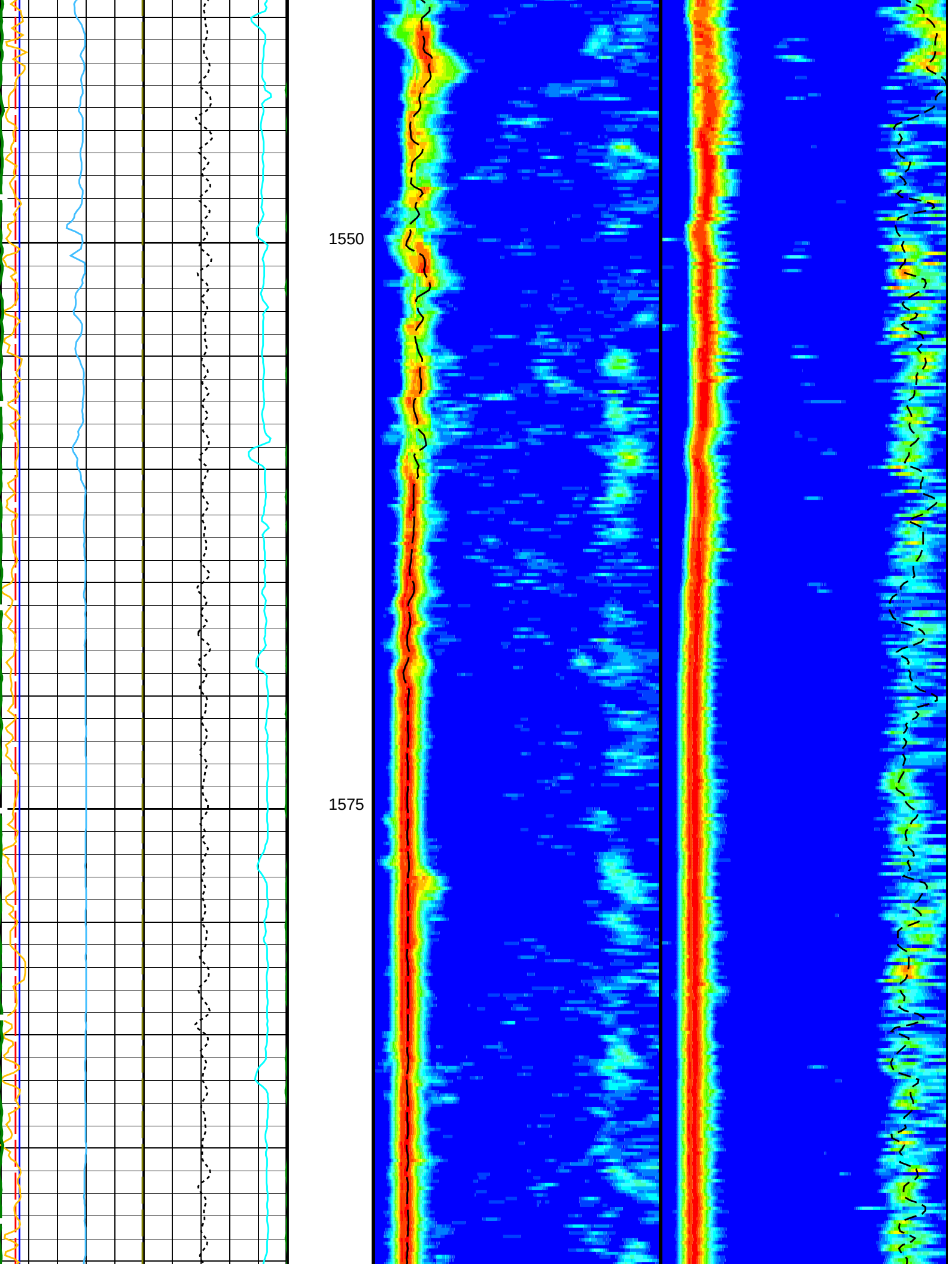
Min Amplitude Max
Rec.Array U.Dipole Slow Proj. CVDL (SPR2)
40 (US/F) 1400

Delta−T Shear / TA − Upper Dipole (DT2T)
40 (US/F) 1400

Delta−T Shear / RA − Upper Dipole (DT2R)
40 (US/F) 1400




1500
1525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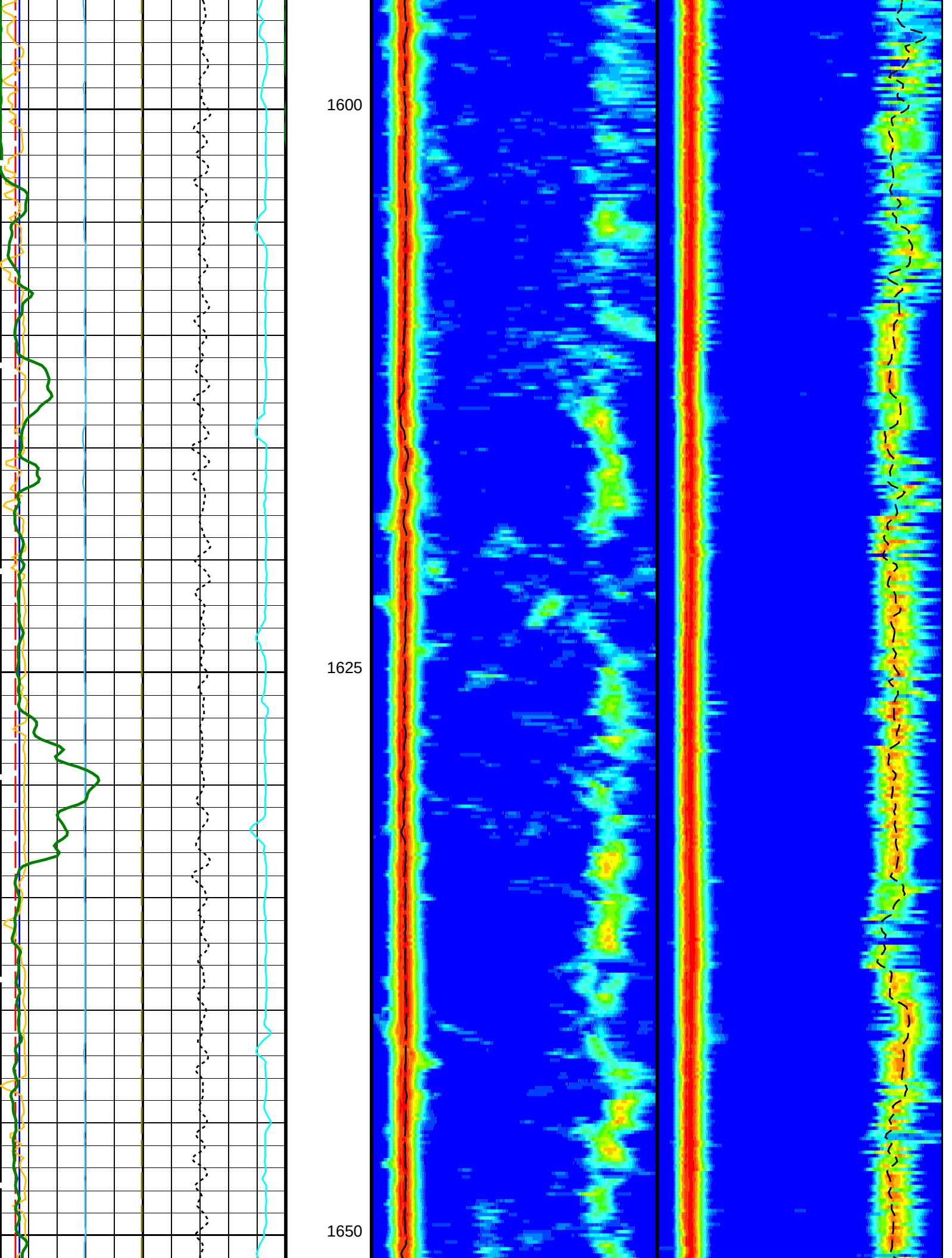
1600
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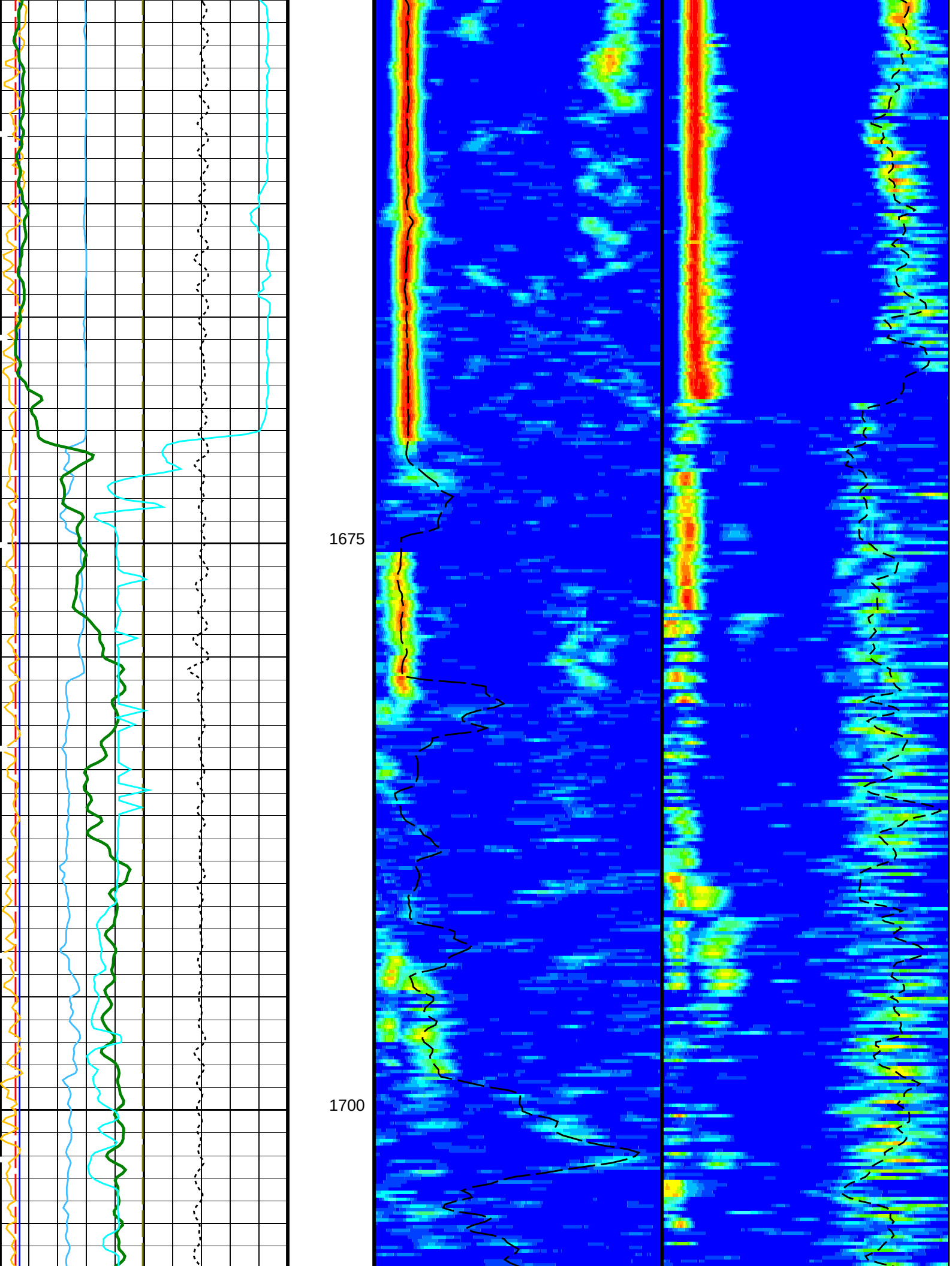
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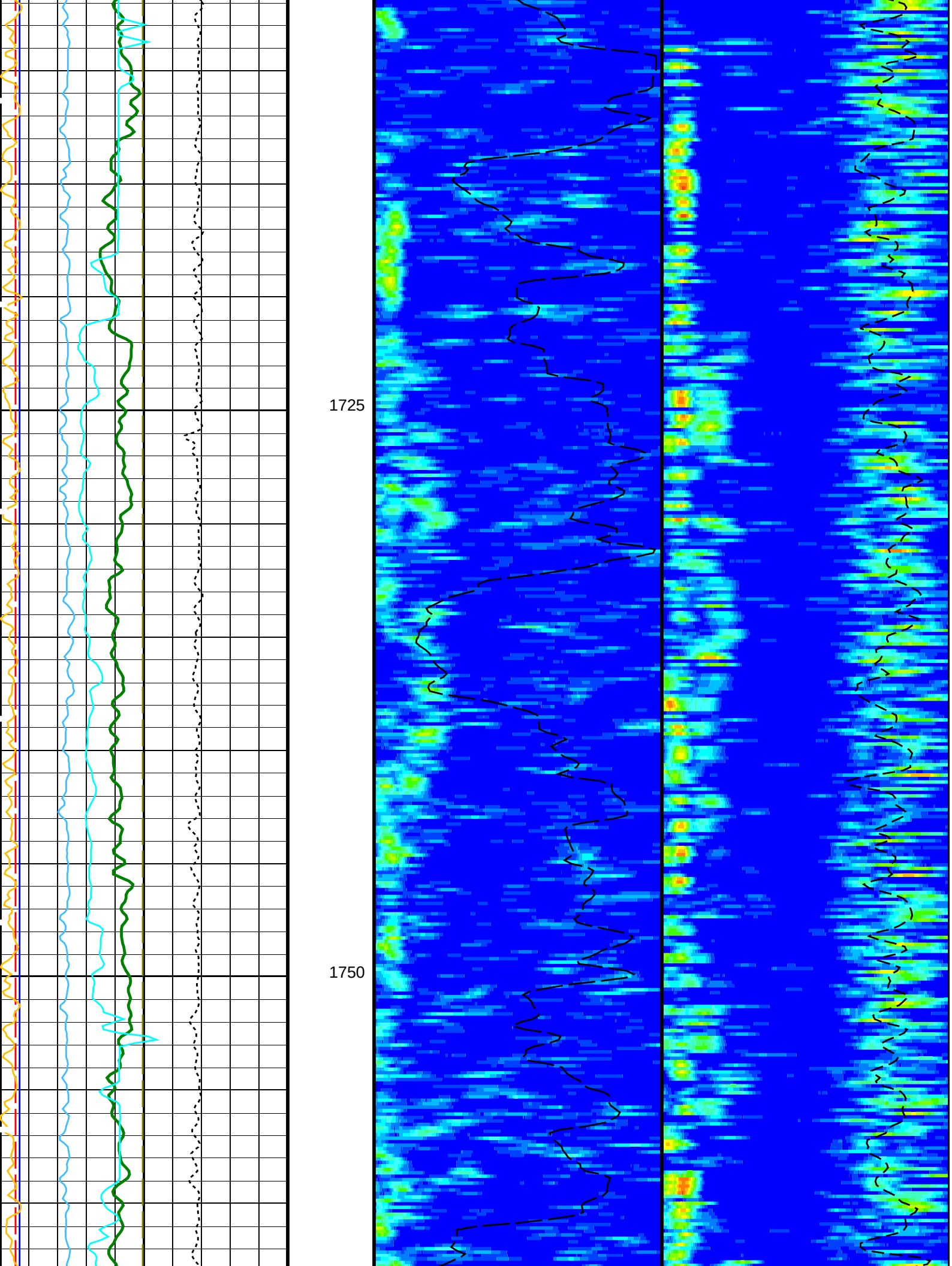
1700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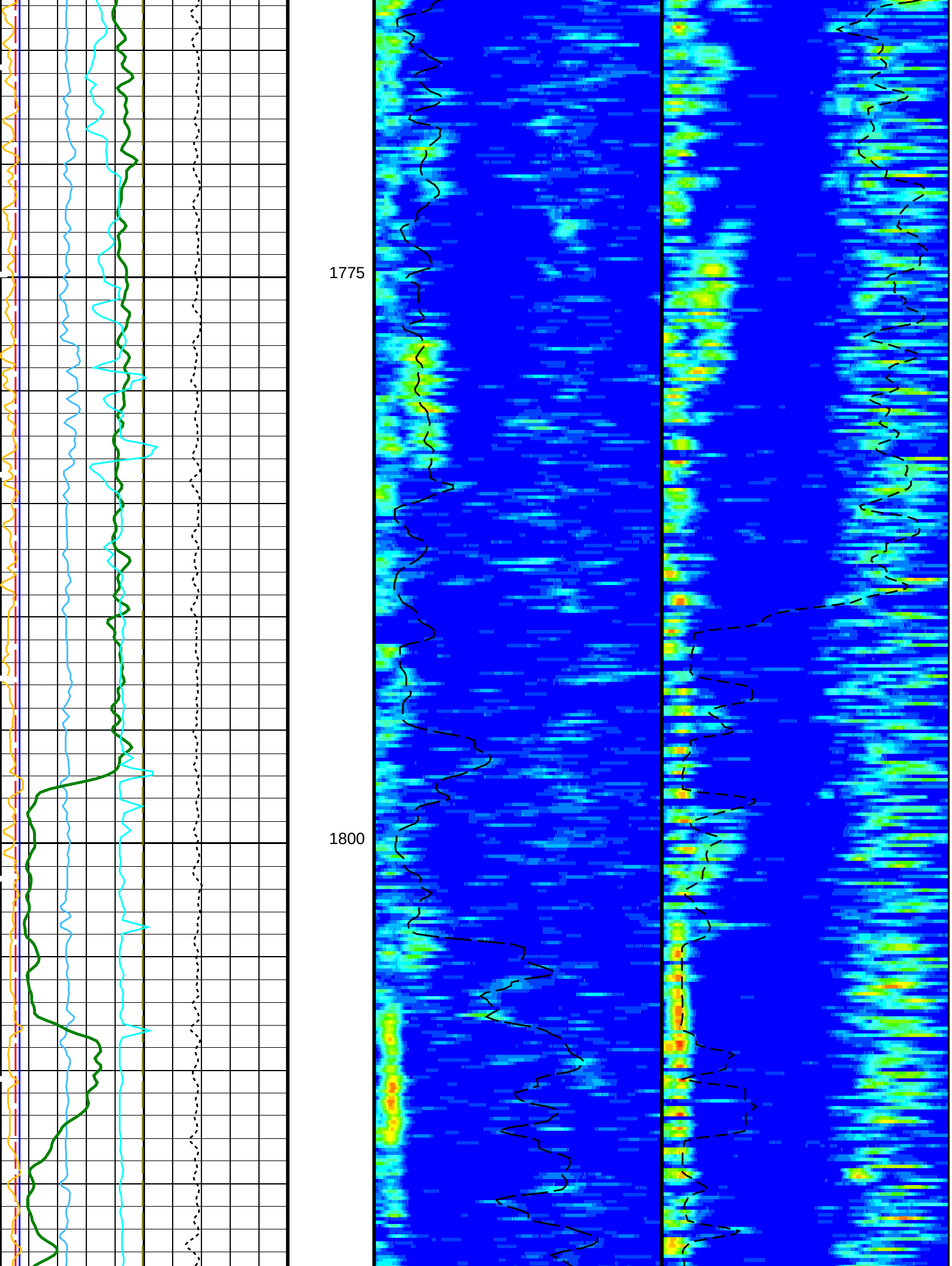
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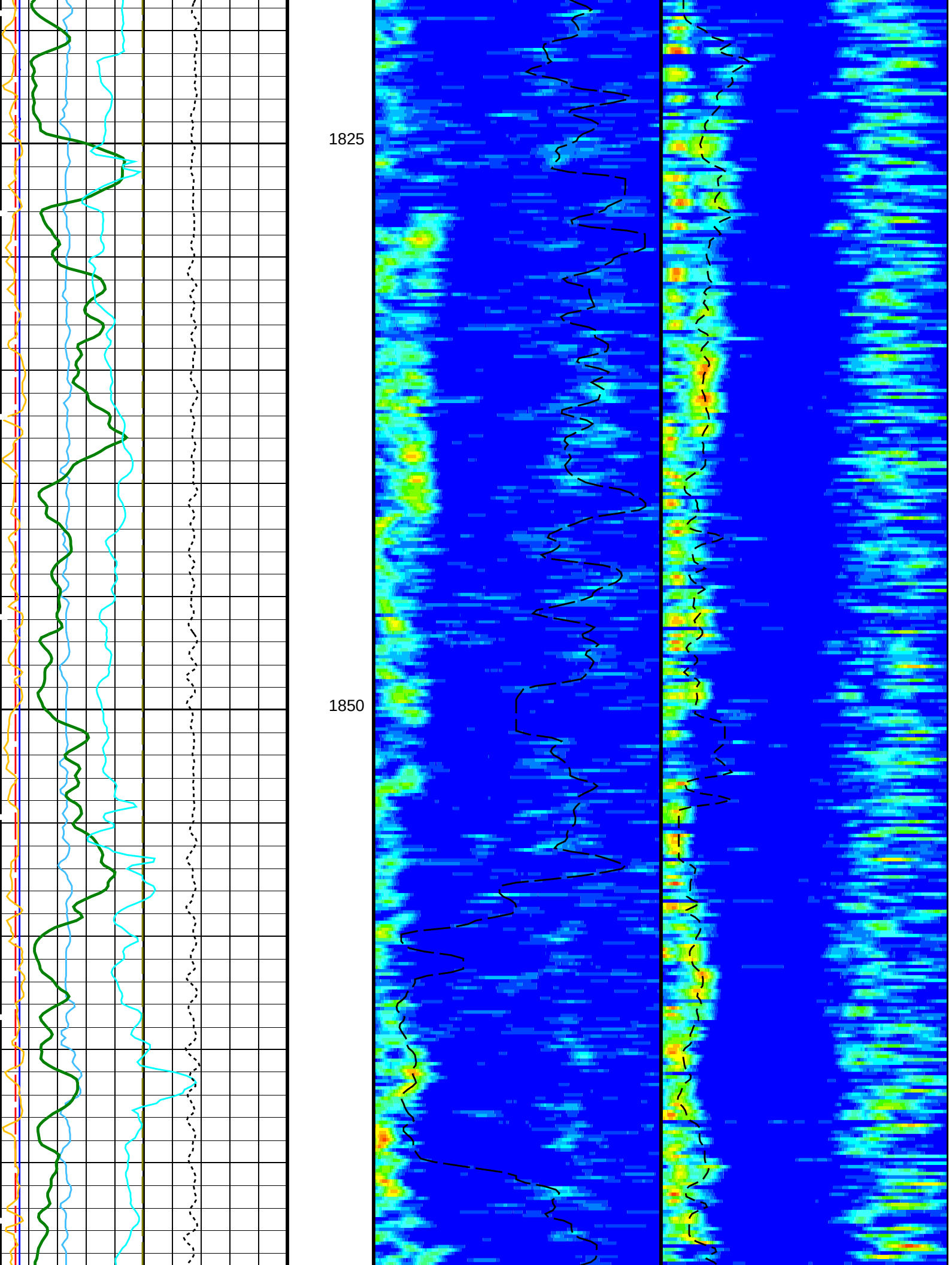
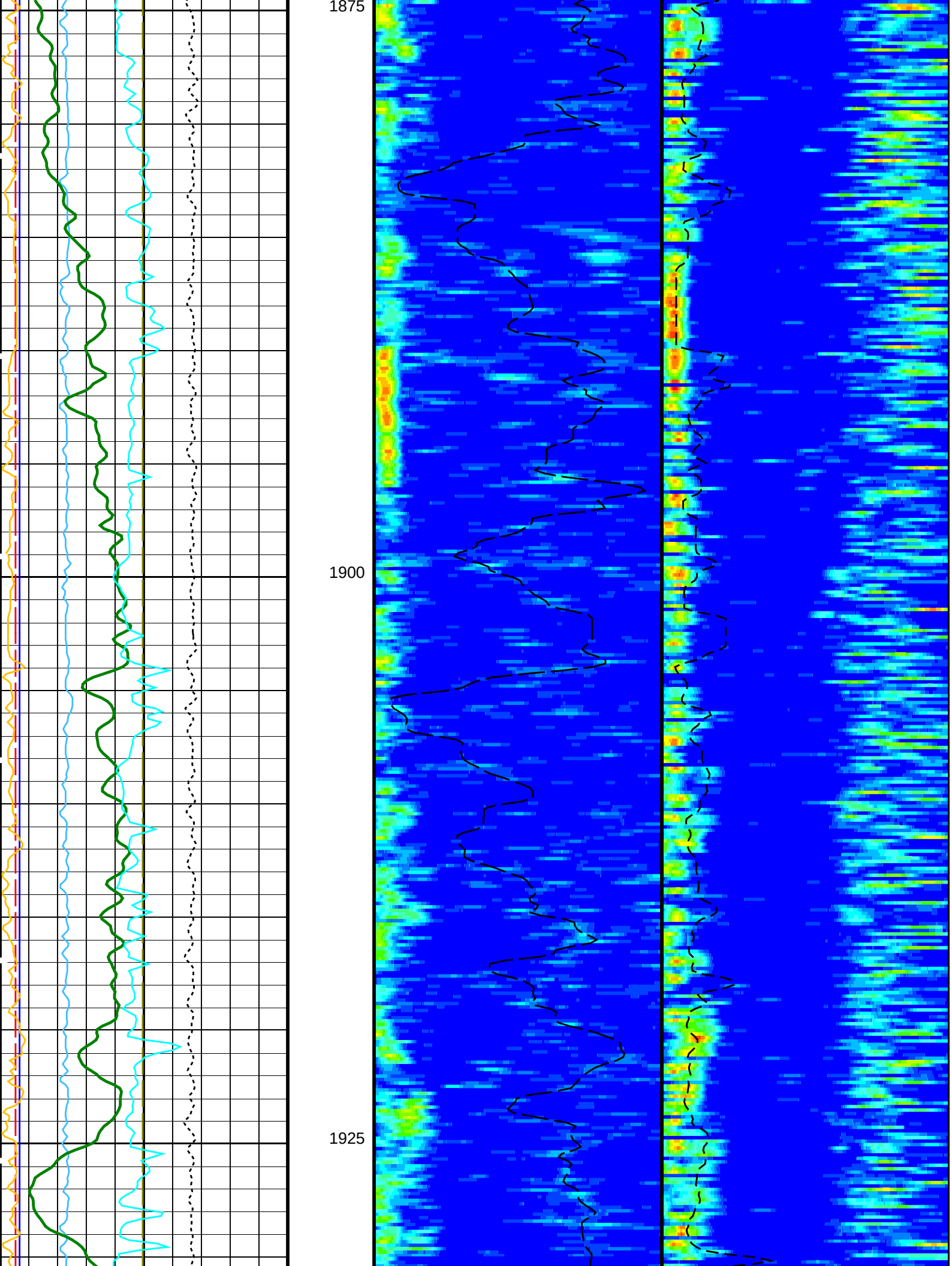
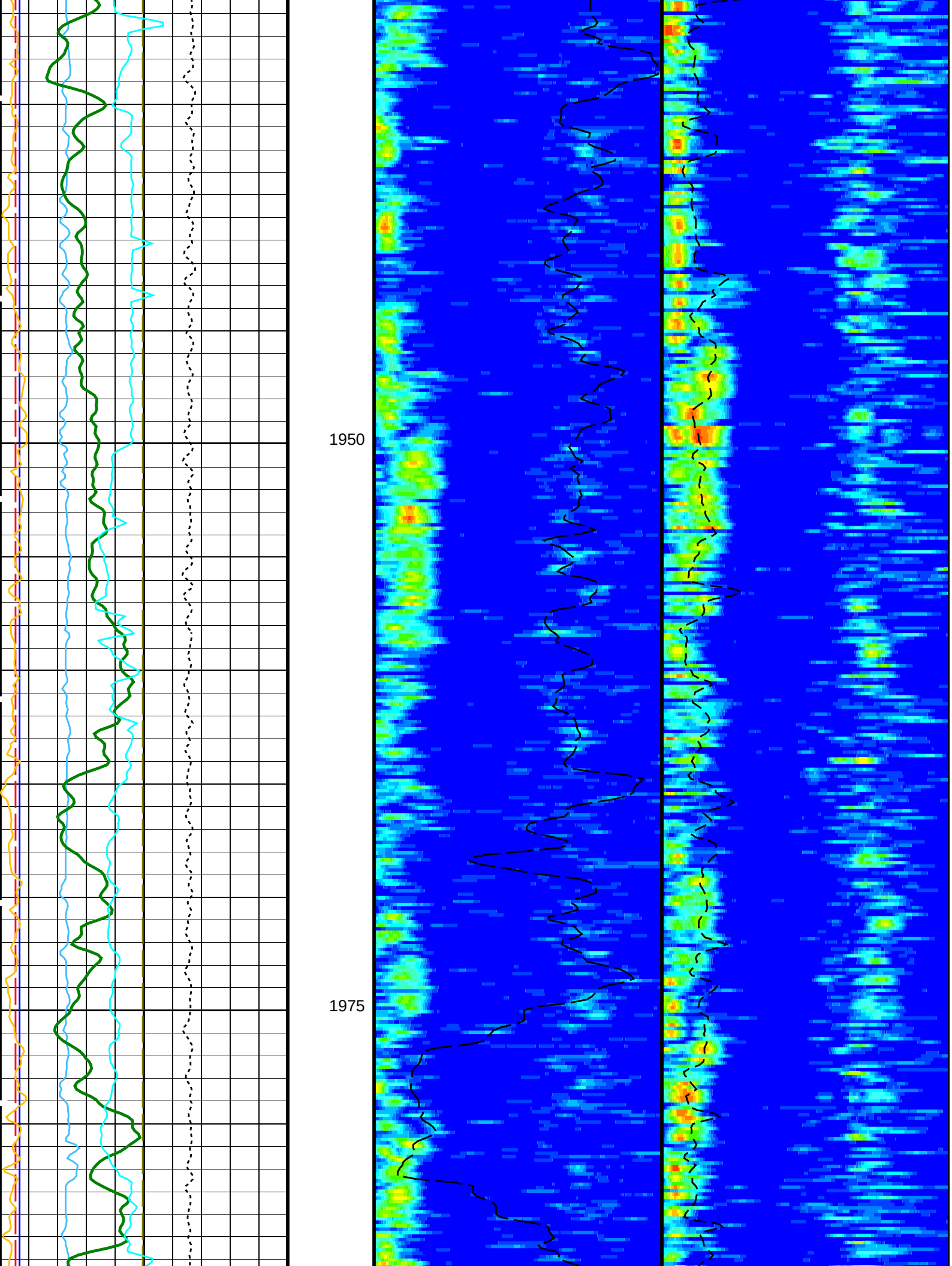
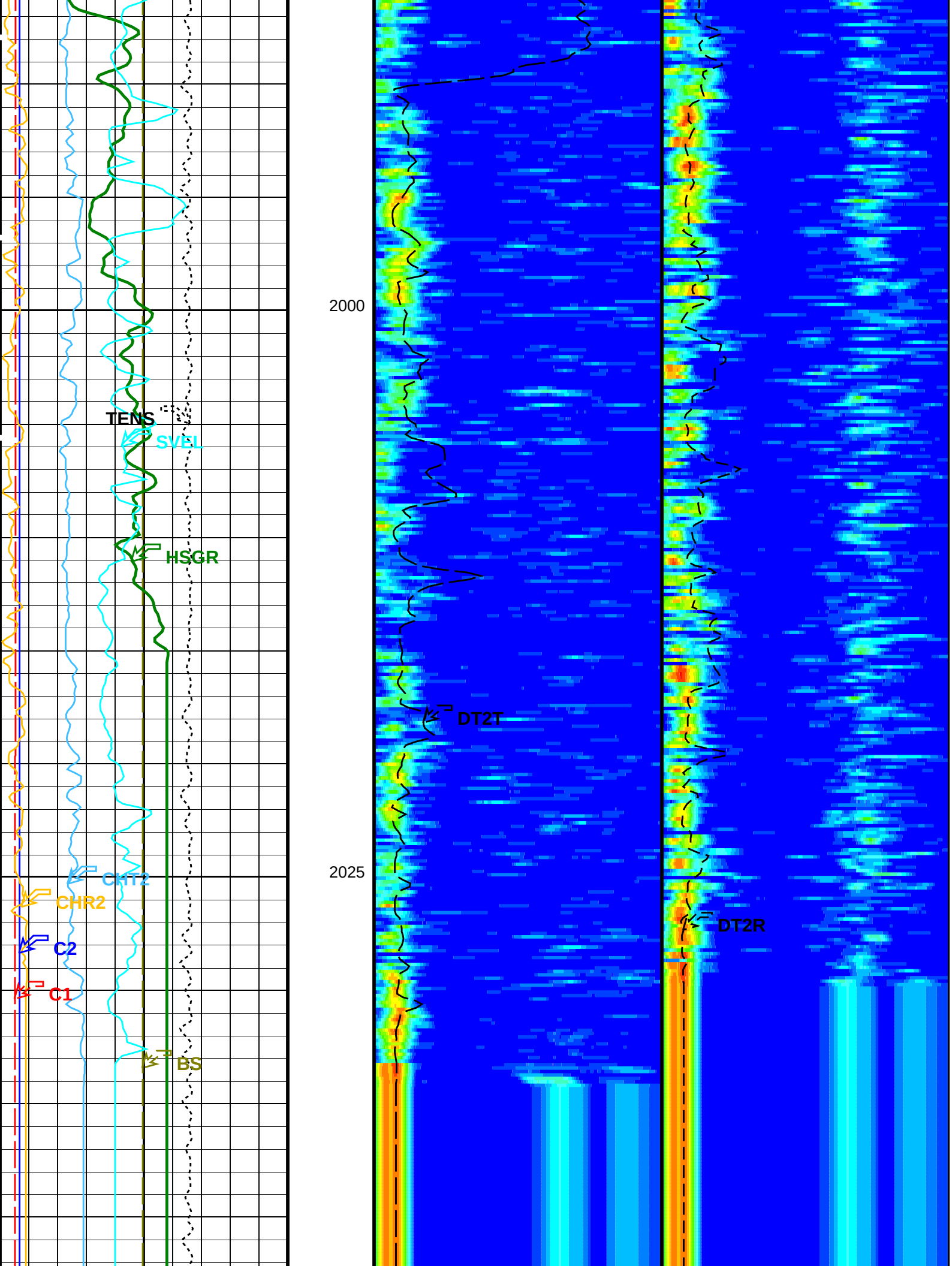
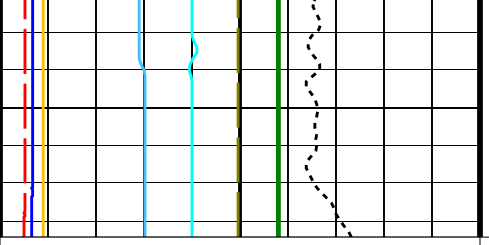
1800

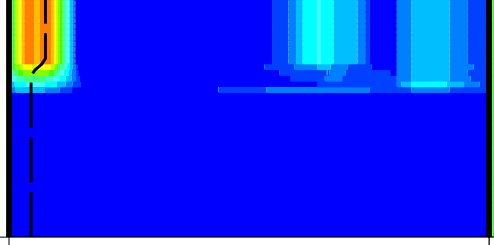

1825
1850

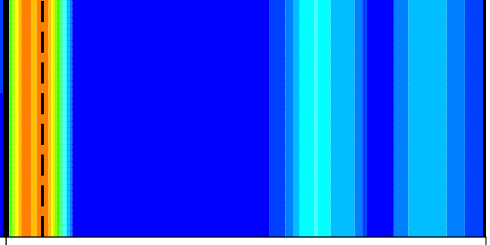

1875
1900
1925


1950
1975


2000
2025
TENS
SVEL
HSGR
DT2T
DT2R
CHT2
CHR2
C2
C1
BS







Bit Size (BS)
0 (IN) 20

Caliper 1 (C1)
0 (IN) 20

Caliper 2 (C2)
0 (IN) 20

Sonic Velocity (SVEL)
1000 (M/S) 6000

Tension (TENS)
10000 (LBF) 0

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 / TA − Upper Dipole (DT2T)
40 (US/F) 1400

Delta−T Shear / RA − Upper Dipole (DT2R)
40 (US/F) 1400

Min Amplitude Max

Tr.Array U.Dipole Slow Proj. CVDL (SPT2)
40 (US/F) 1400

Min Amplitude Max

Rec.Array U.Dipole Slow Proj. CVDL (SPR2)
40 (US/F) 1400

Downlog

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	1400	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	B1−3K	
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	1400	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	20440	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
HNGS−BA: Hostile Natural Gamma Ray Sonde			
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	BS	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00461246	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
TPOS	Tool Position	CENT	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.32869	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.600308	
EDTC−B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	BS	
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.02	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: SAM2_BHC Vertical Scale: 1:200 Graphics File Created: 21−Jun−2018 21:20

OP System Version: 19C0−187

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

Input DLIS Files

	Flip_LDL_FMS_DSI_046LUP	FN:1	20−Jun−2018 08:49	2048.4 M	1456.2 M

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_065PUP	FN:82	PRODUCER	21−Jun−2018 21:20		

Input DLIS Files

	Flip_LDL_FMS_DSI_046LUP	FN:1	20−Jun−2018 08:49	2048.4 M	1456.2 M

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_065PUP	FN:82	PRODUCER	21−Jun−2018 21:20	2048.4 M	1456.2 M

OP System Version: 19C0−187

HLDS	19C0−187	MEST−B	19C0−187

DTA−A−8453	19C0−187	DSST−B	19C0−187
HNCC−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

Tension (TENS)
10000 (LBF) 0

Sonic Velocity (SVEL)
1000 (M/S) 6000

Caliper 2 (C2)
0 (IN) 20

Caliper 1 (C1)
0 (IN) 20

Bit Size (BS)
0 (IN) 20

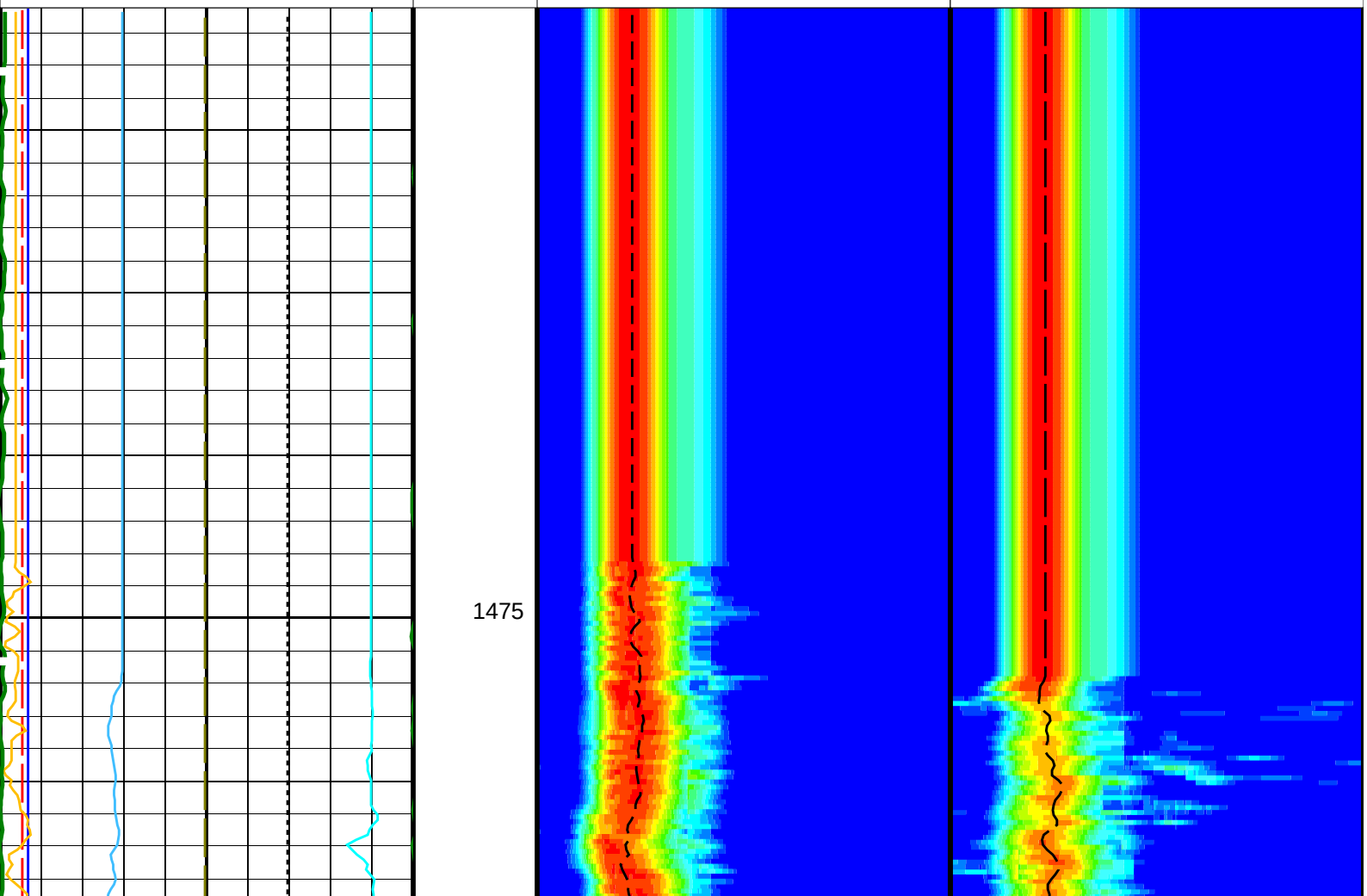
Downlog

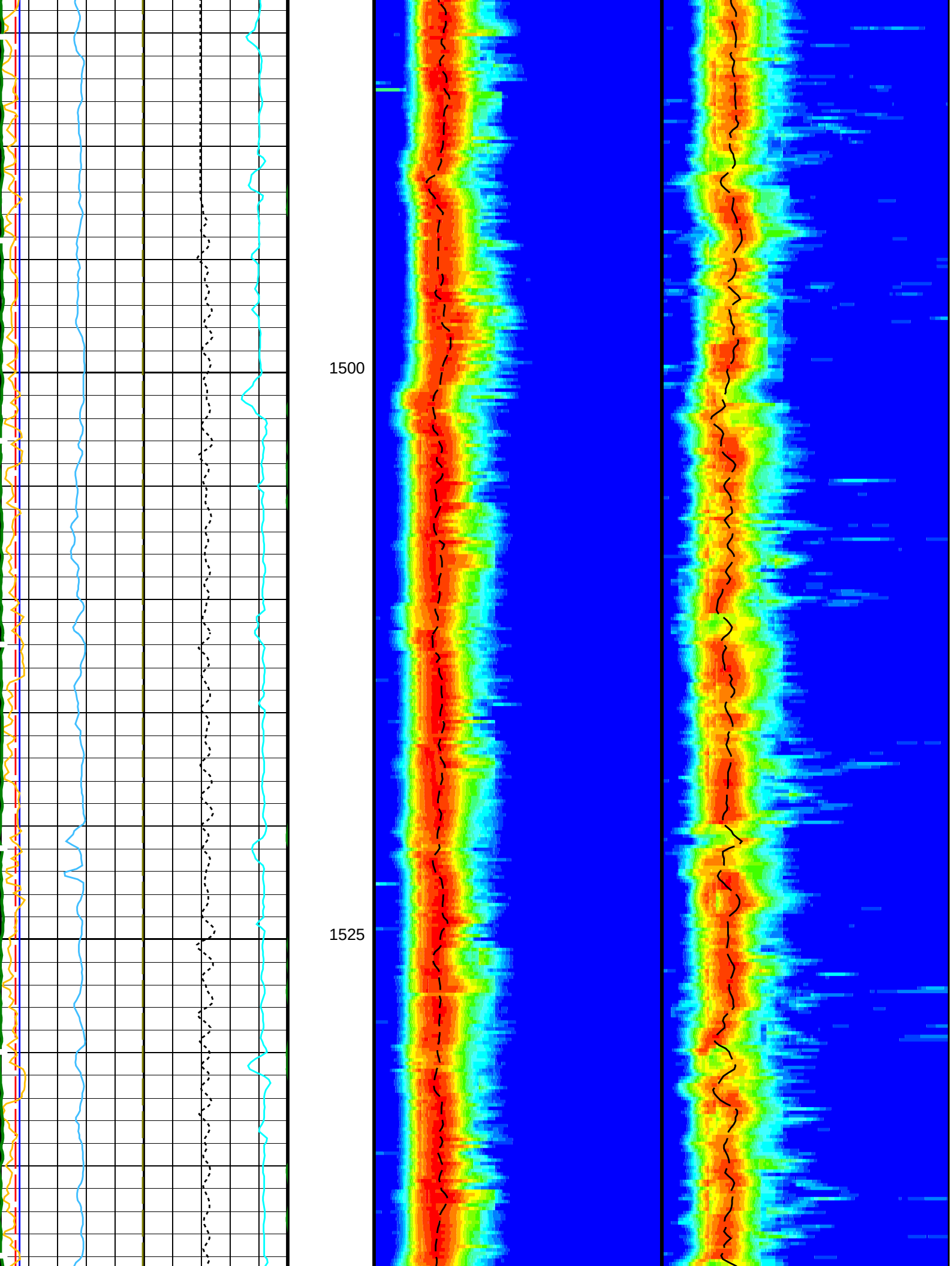
Rec.Array L.Dipole Slow Proj. CVDL (SPR1)
Min Amplitude Max
40 (US/F) 1400

Tr.Array L.Dipole Slow Proj. CVDL (SPT1)
Min Amplitude Max
40 (US/F) 1400

Delta−T Shear / RA − Lower Dipole (DT1R)
40 (US/F) 1400

Delta−T Shear / TA − Lower Dipole (DT1T)
40 (US/F) 1400

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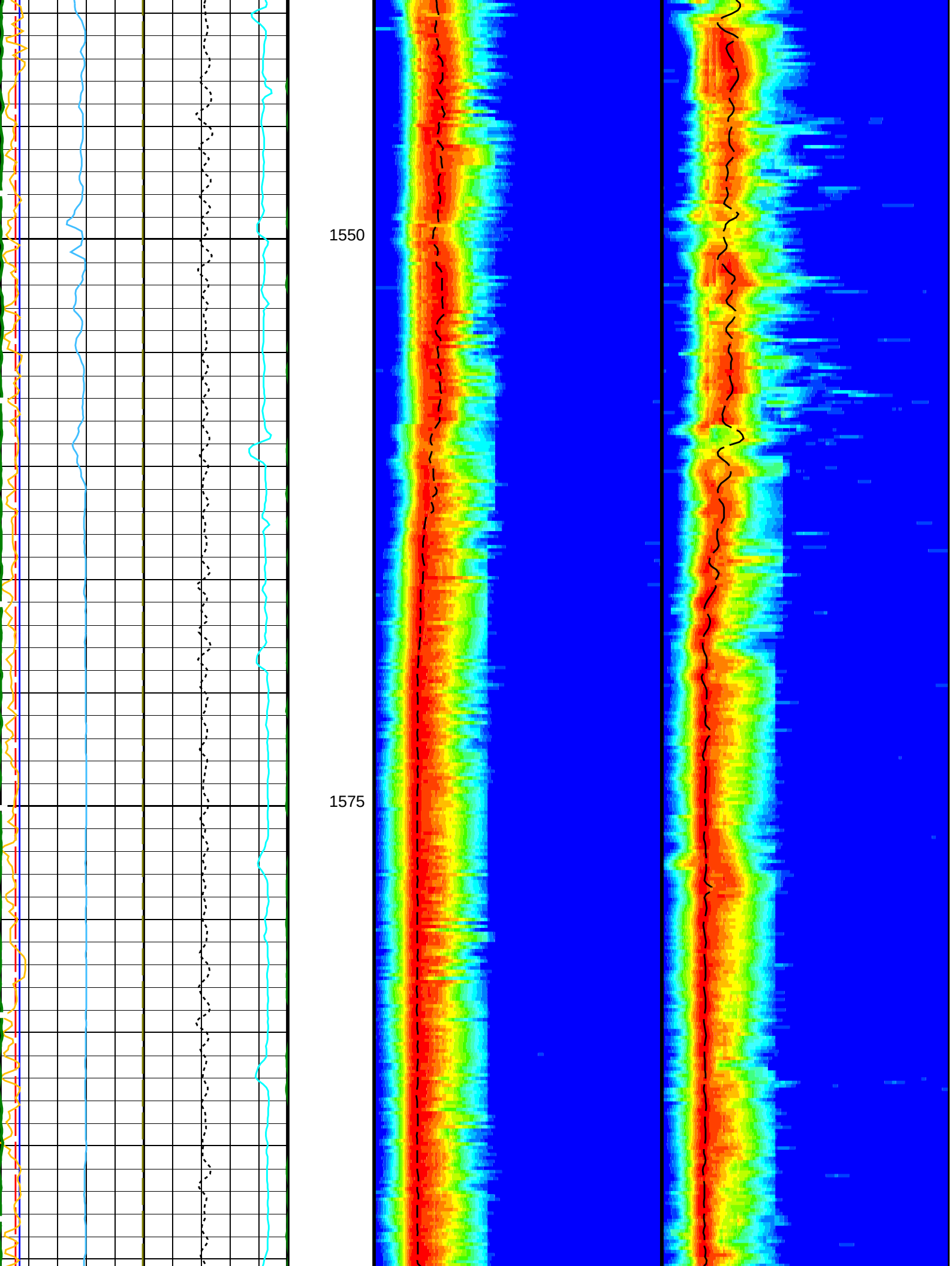
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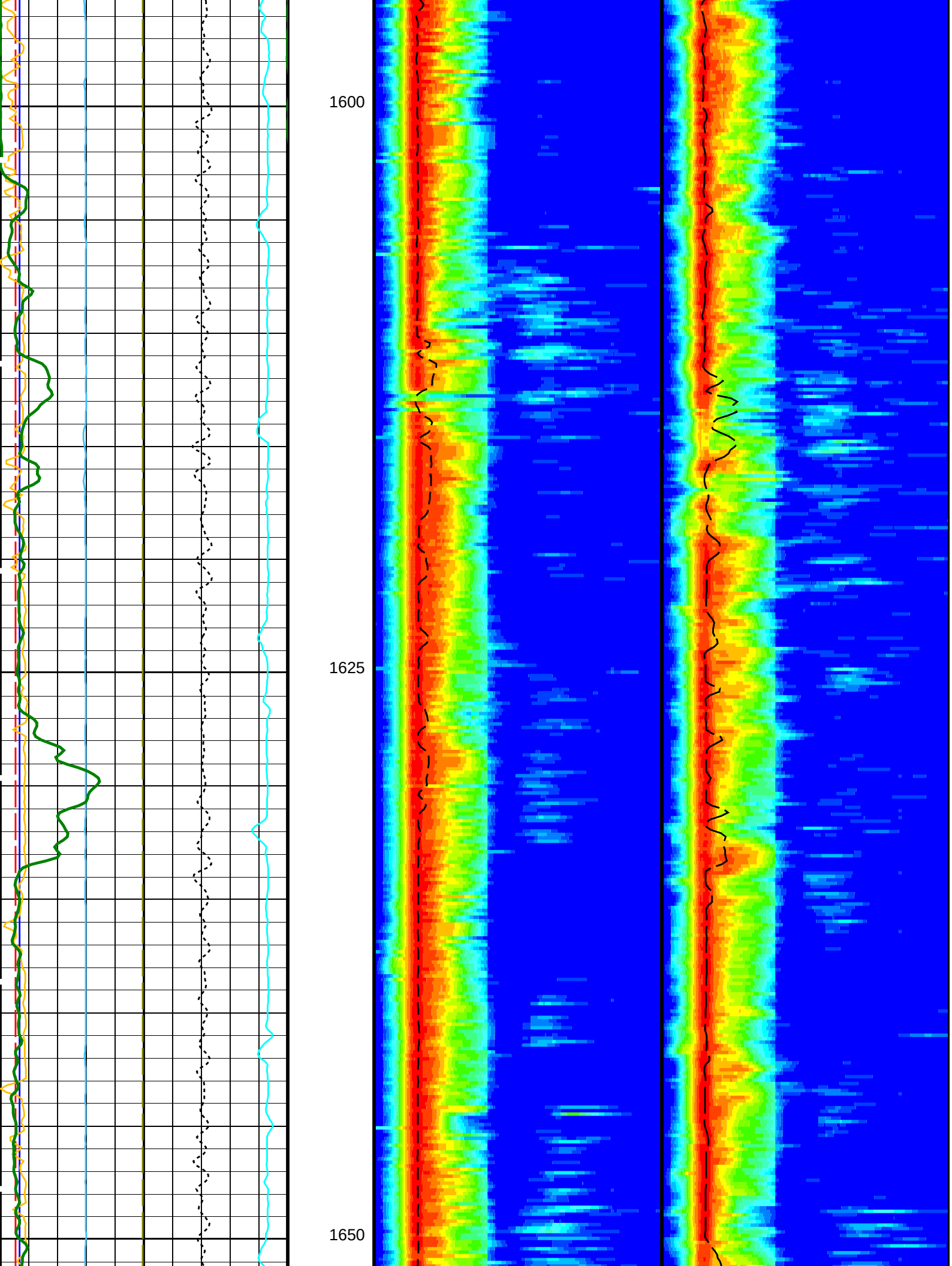
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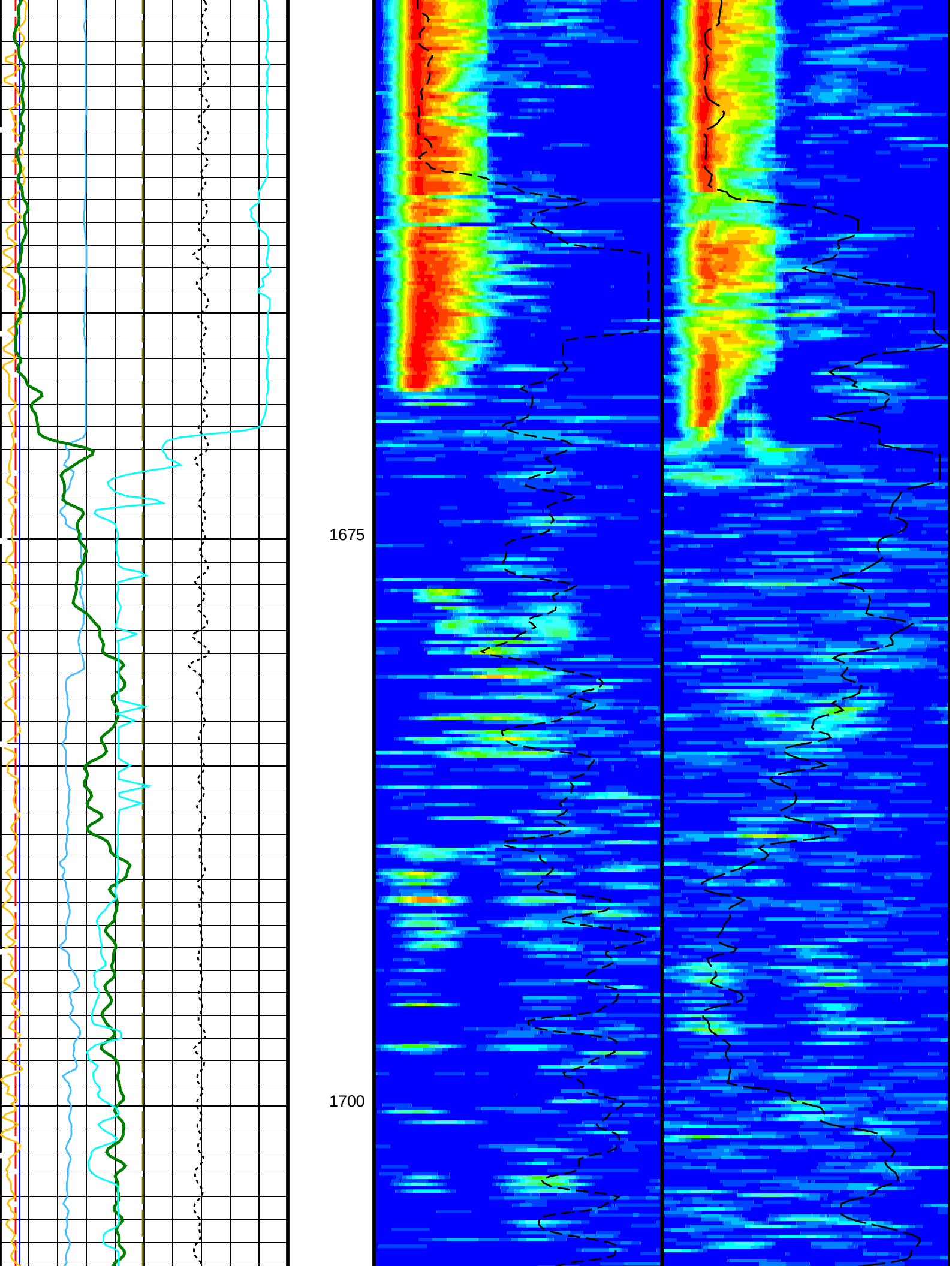
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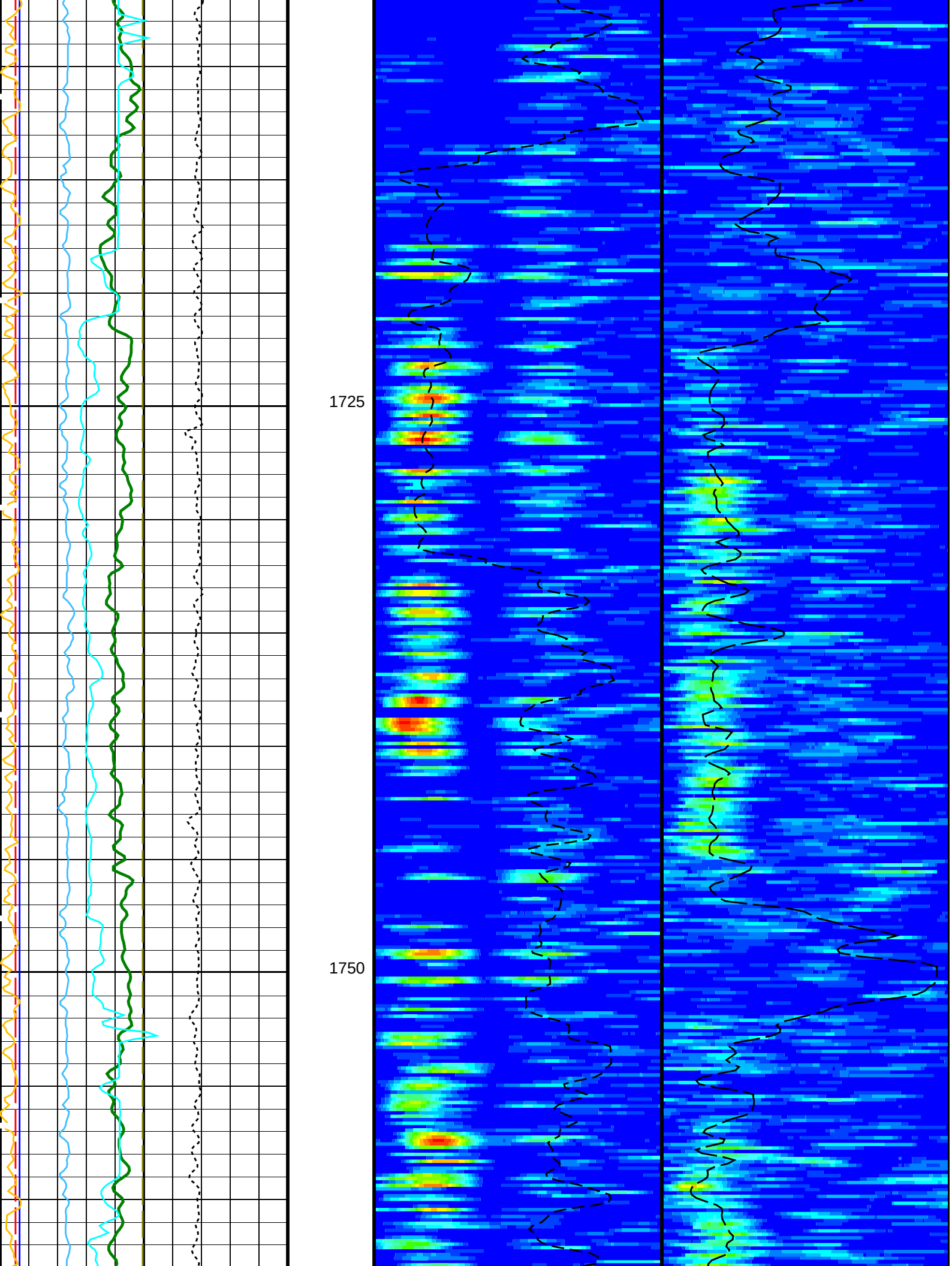
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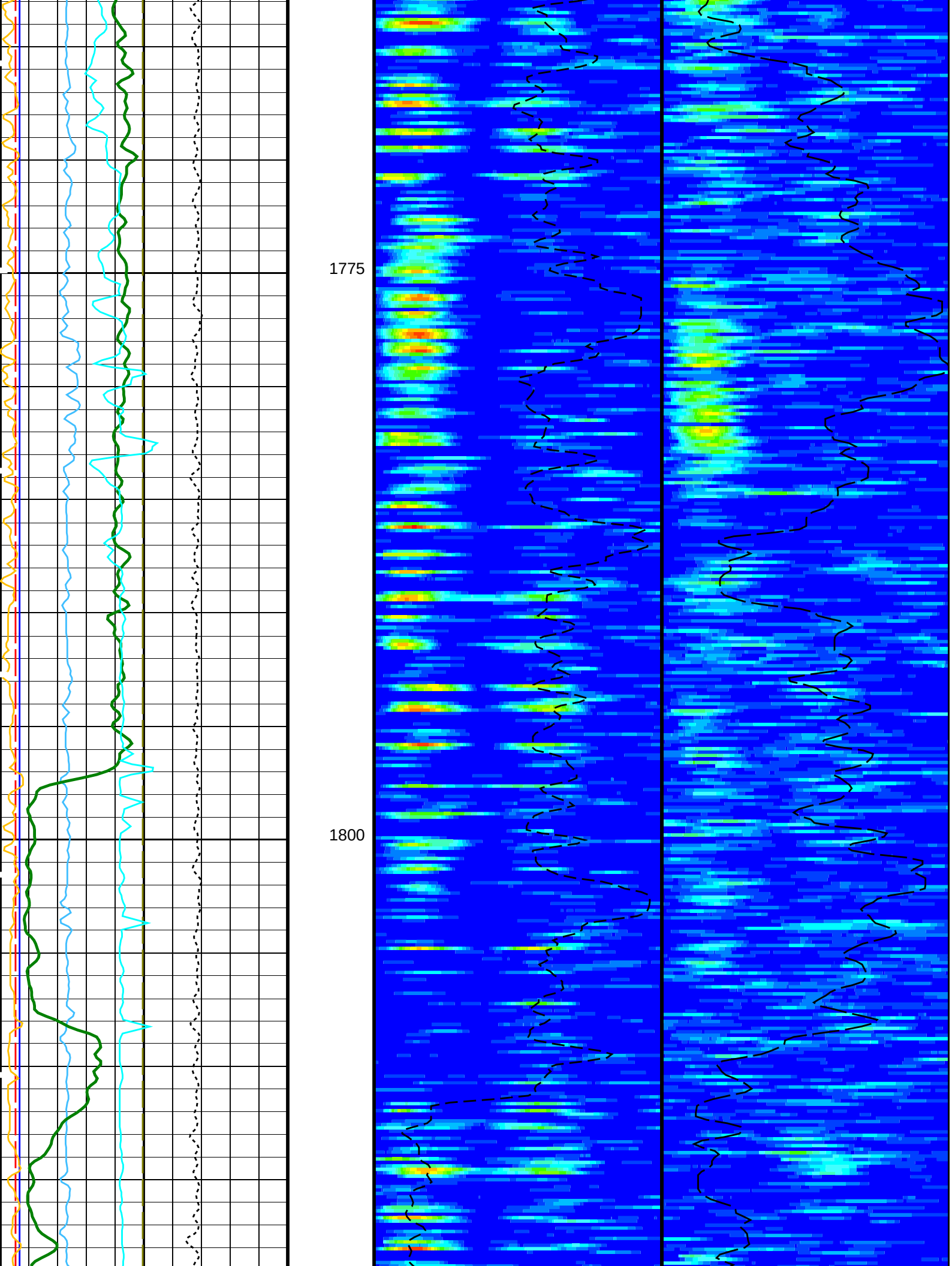
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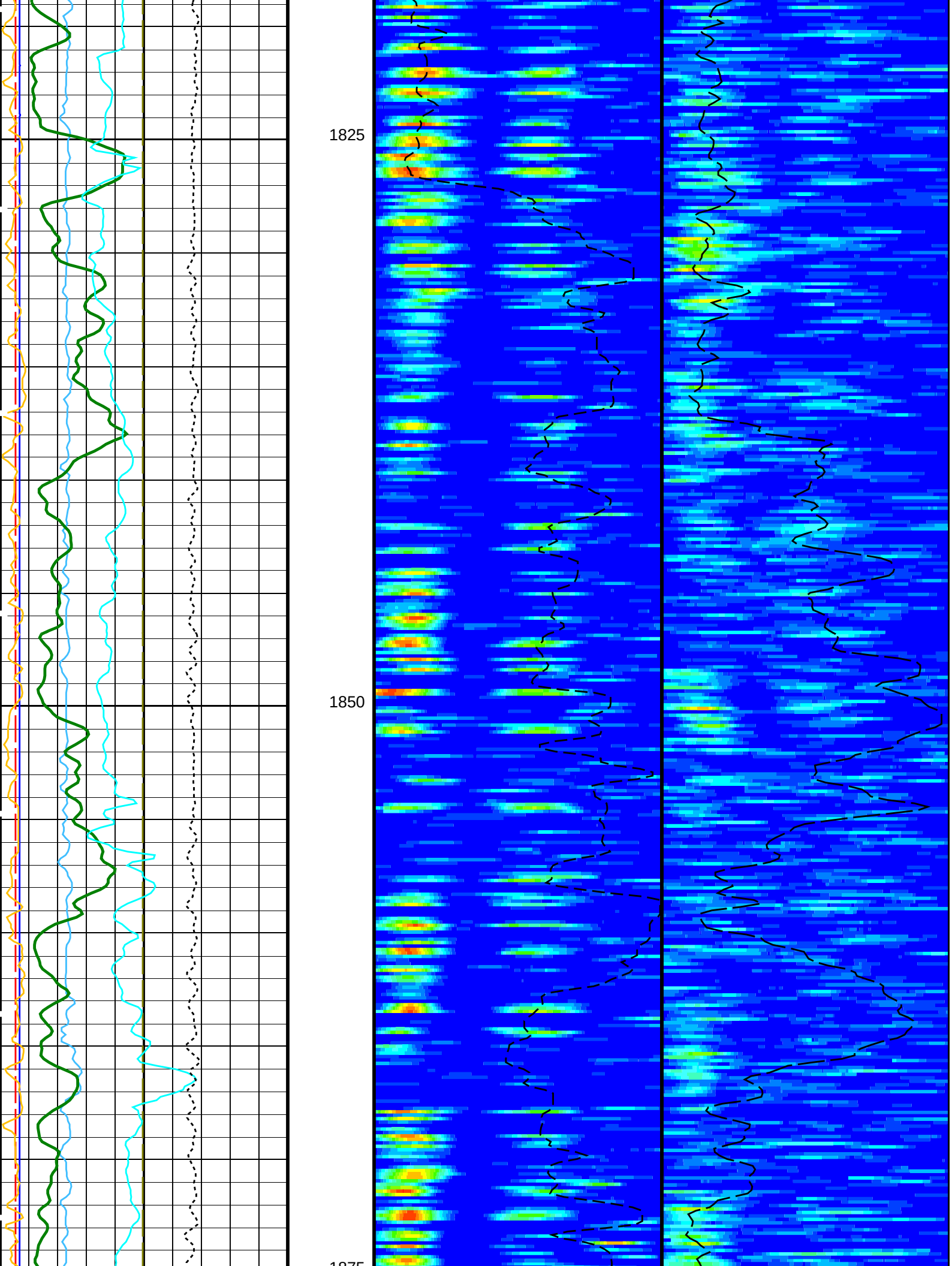
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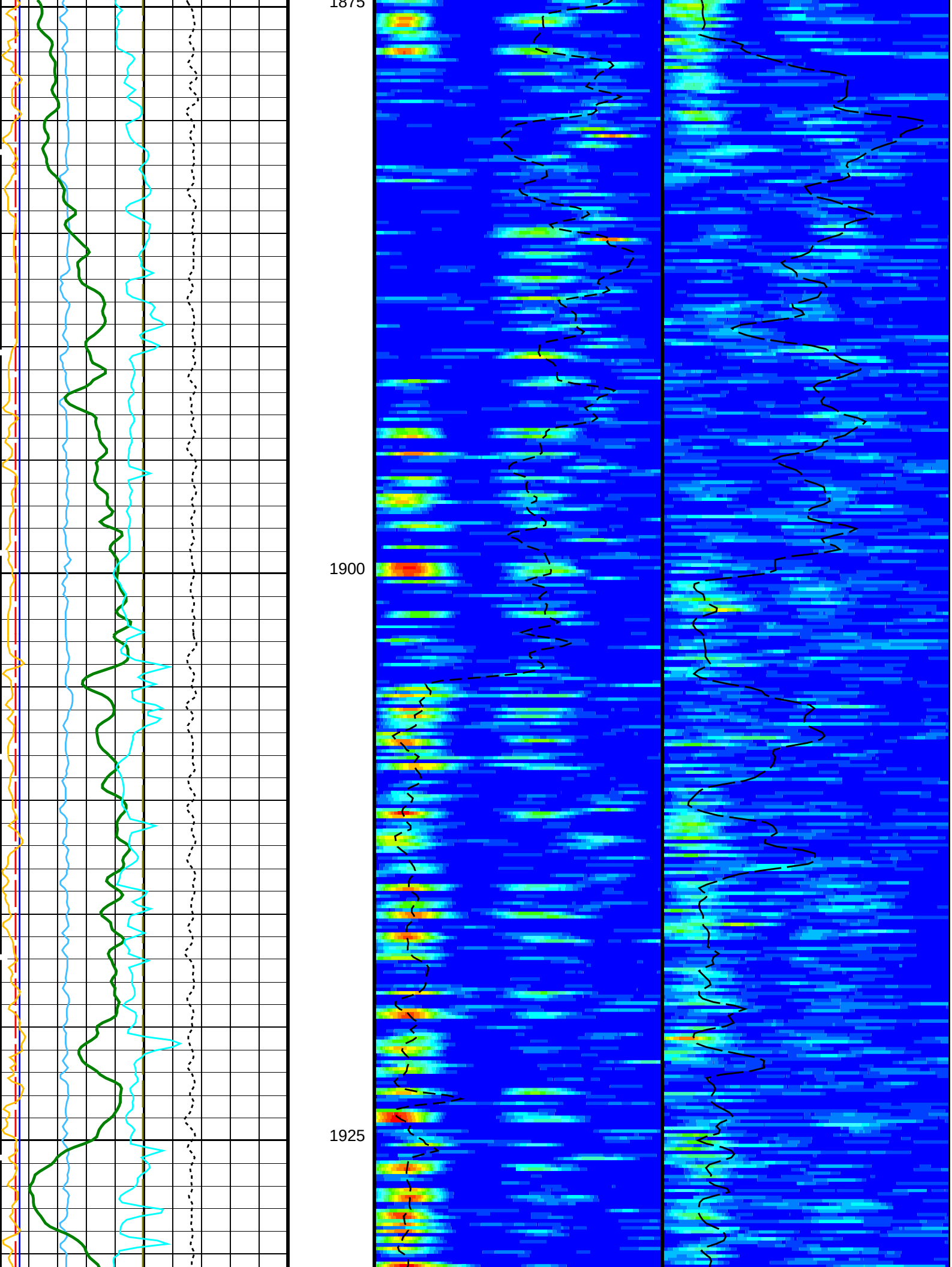
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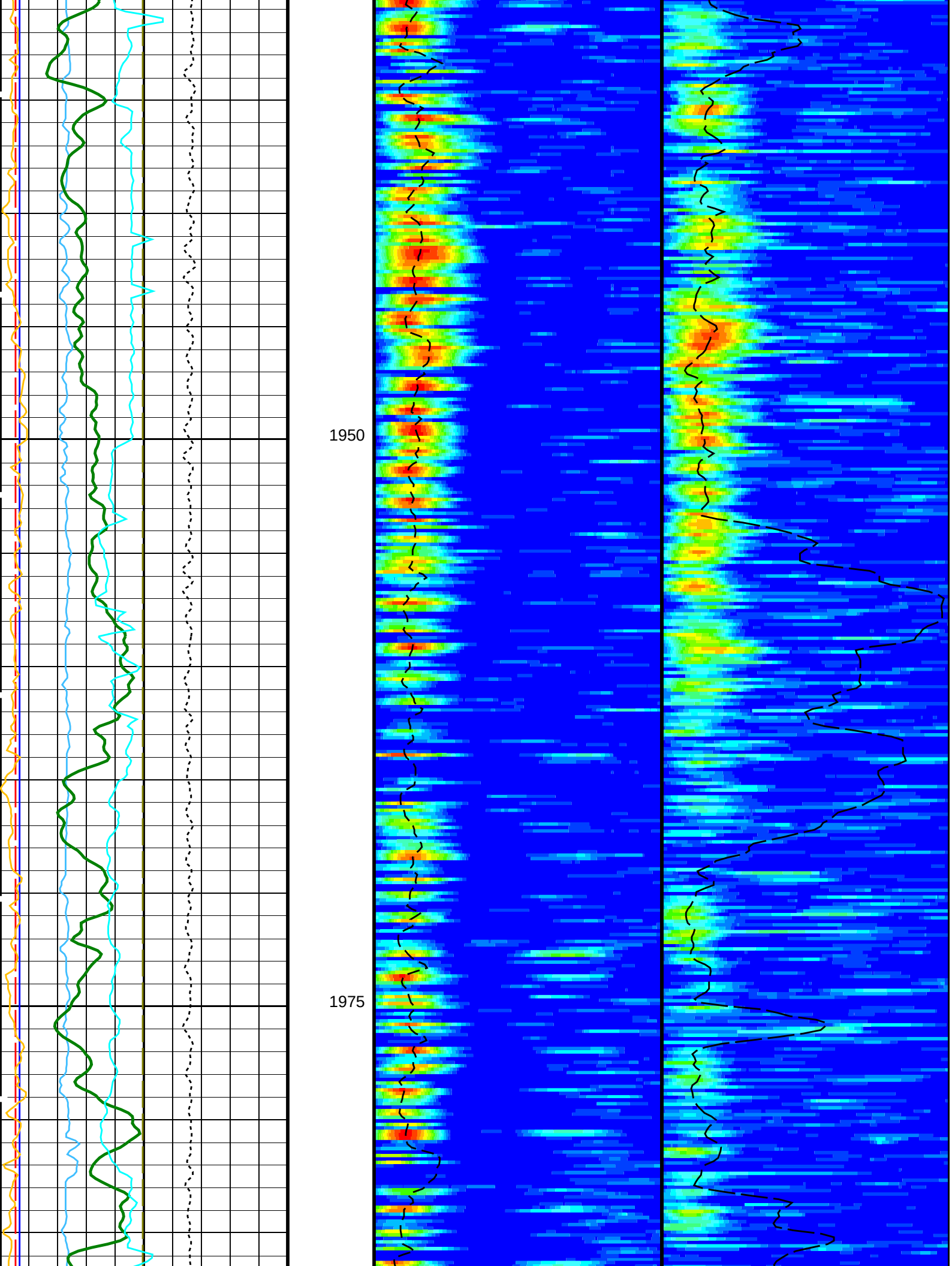
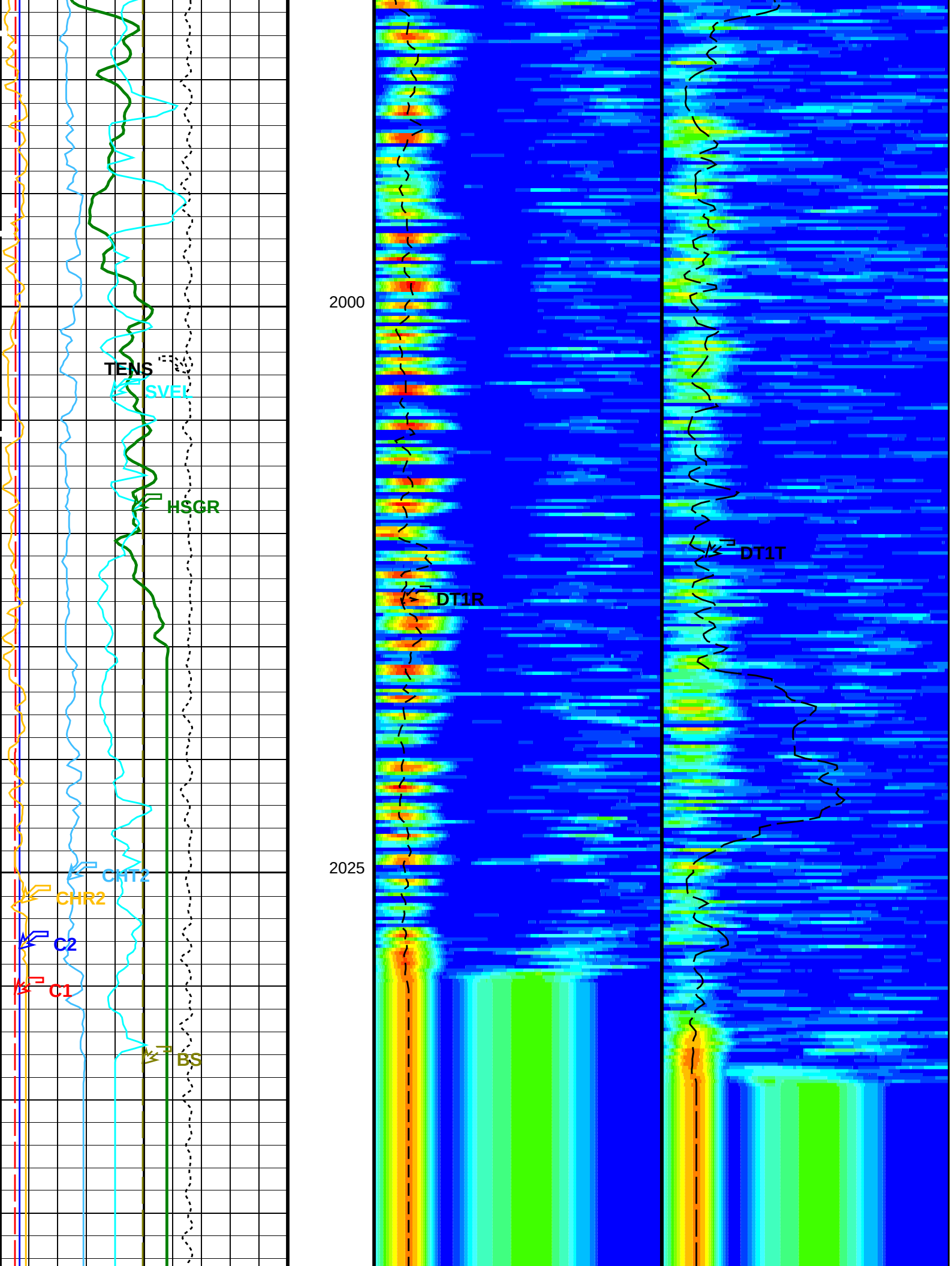
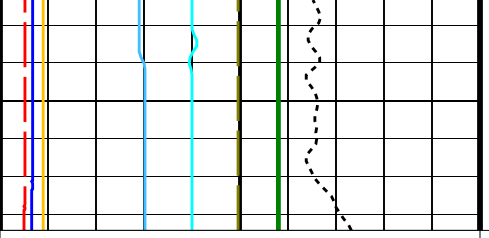
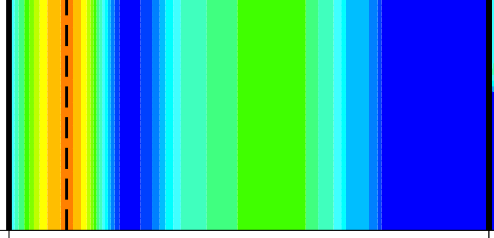
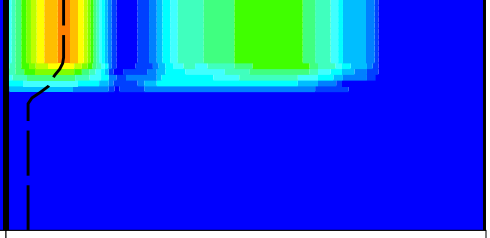

1950
1975


TENS
SVEL
HSGR
CHT2
CHR2
C2
C1
BS
2000
2025
DT1R
DT1T







Bit Size (BS)
0 (IN) 20

Caliper 1 (C1)
0 (IN) 20

Caliper 2 (C2)
0 (IN) 20

Sonic Velocity (SVEL)
1000 (M/S) 6000

Tension (TENS)
10000 (LBF) 0

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 − Lower Dipole (DT1R)
40 (US/F) 1400

Delta−T Shear / TA − Lower Dipole (DT1T)
40 (US/F) 1400

Min Amplitude Max

Rec.Array L.Dipole Slow Proj. CVDL (SPR1)
40 (US/F) 1400

Min Amplitude Max

Tr.Array L.Dipole Slow Proj. CVDL (SPT1)
40 (US/F) 1400

Downlog

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	1400	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	
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
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	
SAS2	STC Sonic Array Status − Upper 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	
SSW2	STC Source Waveform − Upper Dipole	WF_SAM2	
SUL1	STC Slowness Upper Limit − Lower Dipole	1400	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	20440	US
TWD1	STC Time Width − Lower Dipole	2000	US
TWI1	STC Integration Time Window − Lower Dipole	1600	US
TWI2	STC Integration Time Window − Upper Dipole	1600	US
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
HNGS−BA: Hostile Natural Gamma Ray Sonde			
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	BS	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00461246	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
TPOS	Tool Position	CENT	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.32869	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.600308	
EDTC−B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	BS	
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.02	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: SAM1_BHC **Vertical Scale: 1:200** **Graphics File Created: 21−Jun−2018 21:20**

OP System Version: 19C0−187

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

Input DLIS Files

	Flip_LDL_FMS_DSI_046LUP	FN:1	20−Jun−2018 08:49	2048.4 M	1456.2 M

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_065PUP	FN:82	PRODUCER	21−Jun−2018 21:20	

Company: International Ocean Discovery Program **Well: Expedition 376, Site U1530A**

Input DLIS Files

	Flip_LDL_FMS_DSI_046LUP	FN:1	20−Jun−2018 08:49	2048.4 M	1456.2 M

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_065PUP	FN:82	PRODUCER	21−Jun−2018 21:20	2048.4 M	1456.2 M

OP System Version: 19C0−187

HLDS	19C0−187	MEST−B	19C0−187
DTA−A−8453	19C0−187	DSST−B	19C0−187
HNCC−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

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

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

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

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

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

Gamma Ray (GR_EDTC)
0 (GAPI) 100

Poisson's Ratio (PR)
0 (−−−−) 0.5

Sonic Velocity (SVEL)
1000 (M/S) 6000

Sonde Deviation (SDEVM)
0 (DEG) 10

Poisson's Ratio (PR)
0 (−−−−) 0.5

Caliper 1 (C1)
0 (IN) 20

Downlog

Caliper 2 (C2)
0 (IN) 20

Calibrated Downhole Force (CDF) (LBF)
3000 0

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

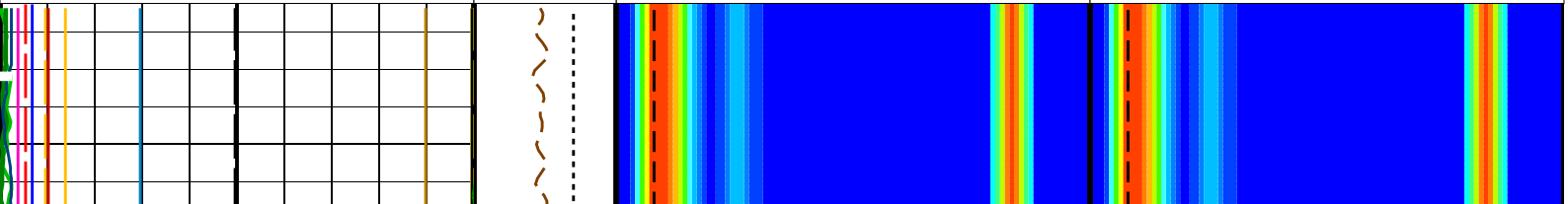
Min Amplitude Max
Tr.Array P&S Slow Proj. CVDL (SPT4)
40 (US/F) 240

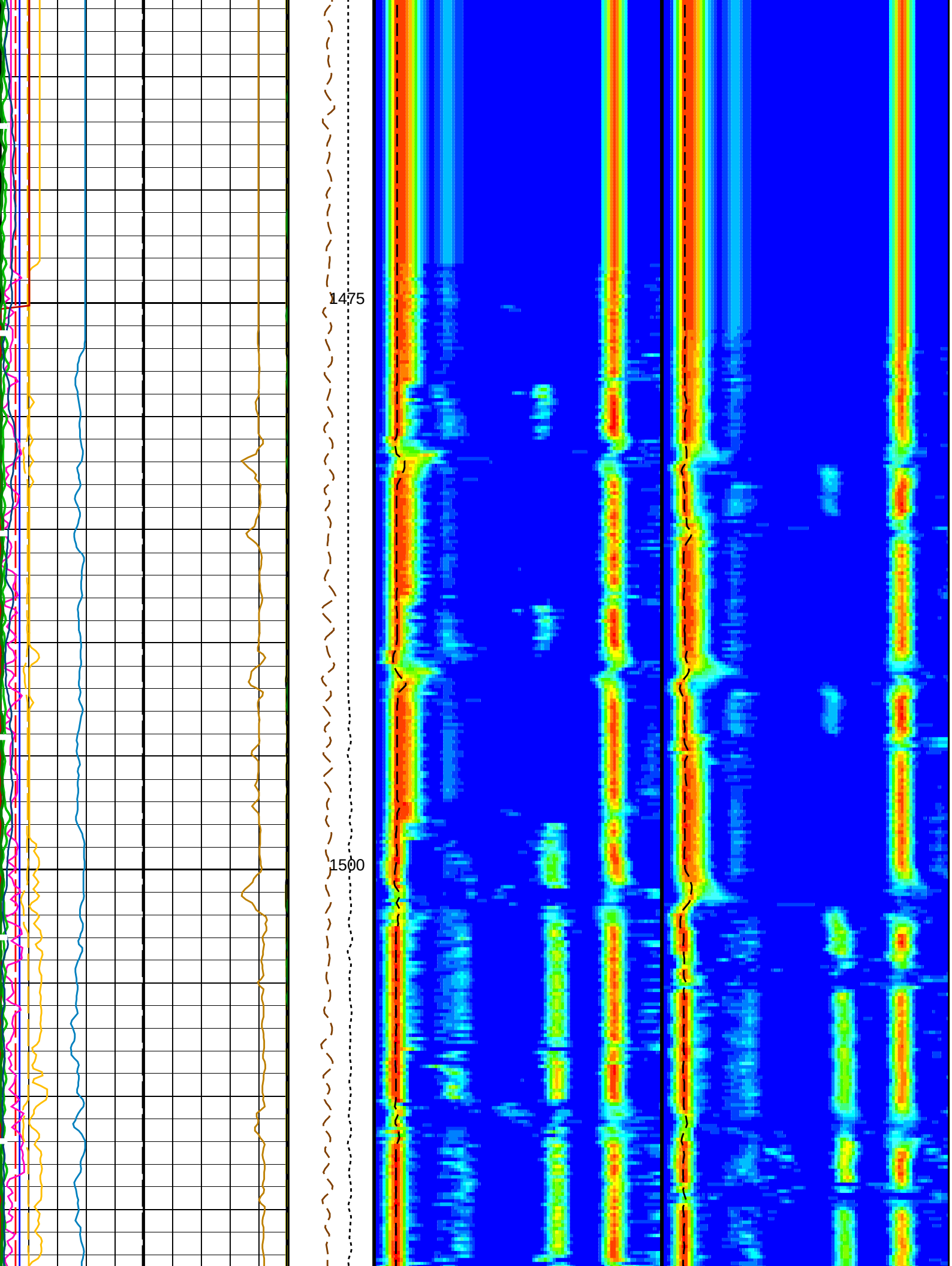
Bit Size (BS)
0 (IN) 20

Tension (TENS) (LBF)
10000 0

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

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

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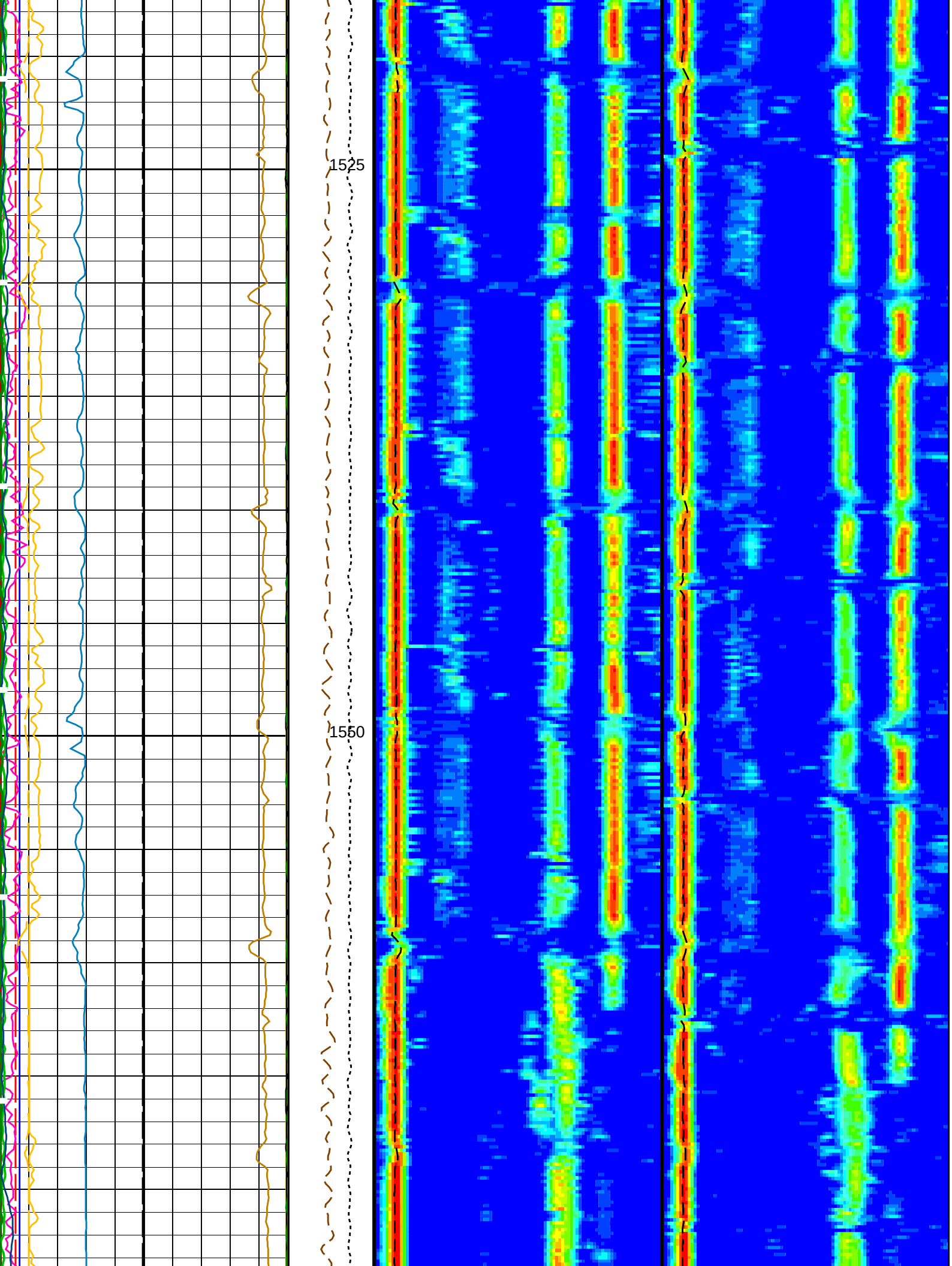
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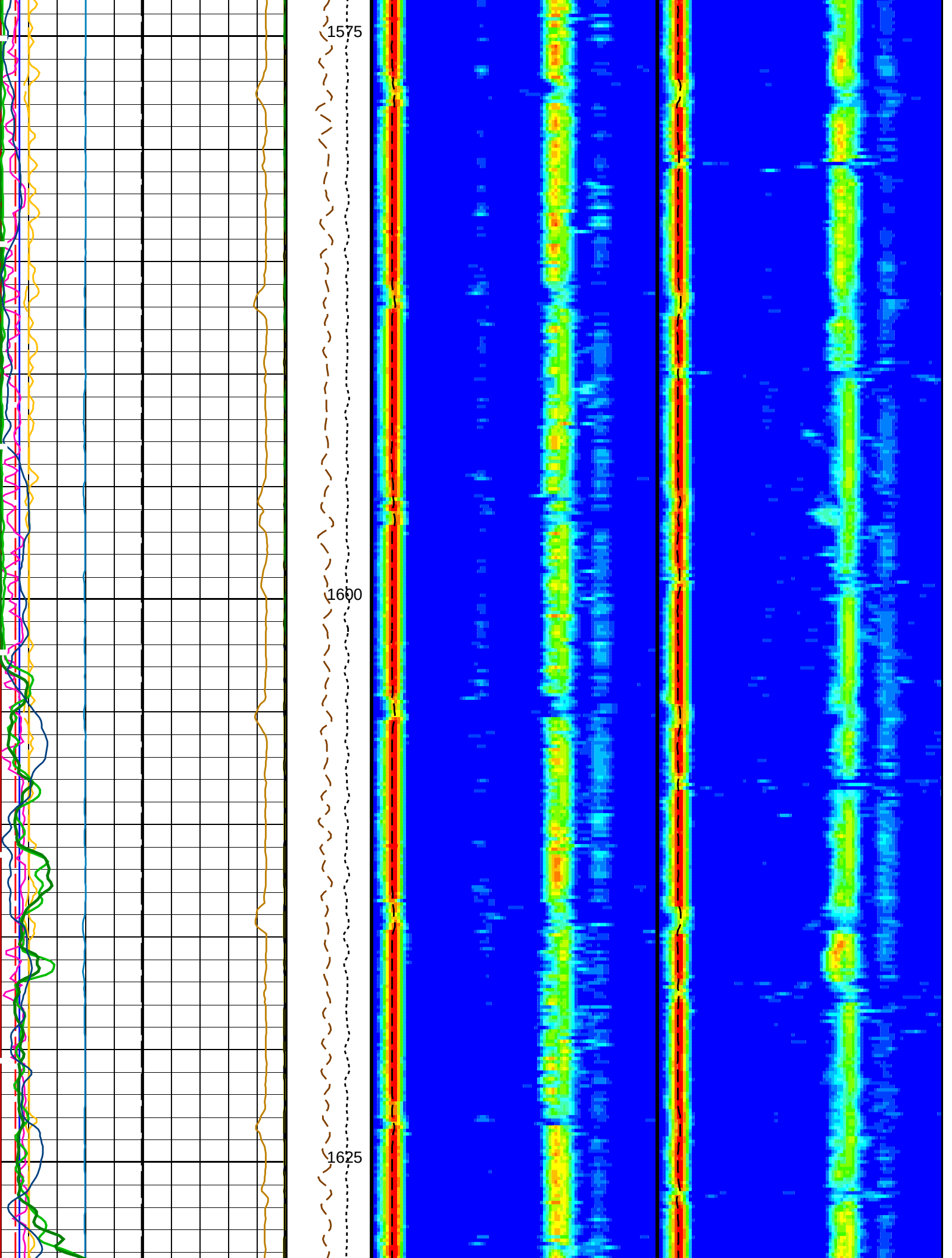
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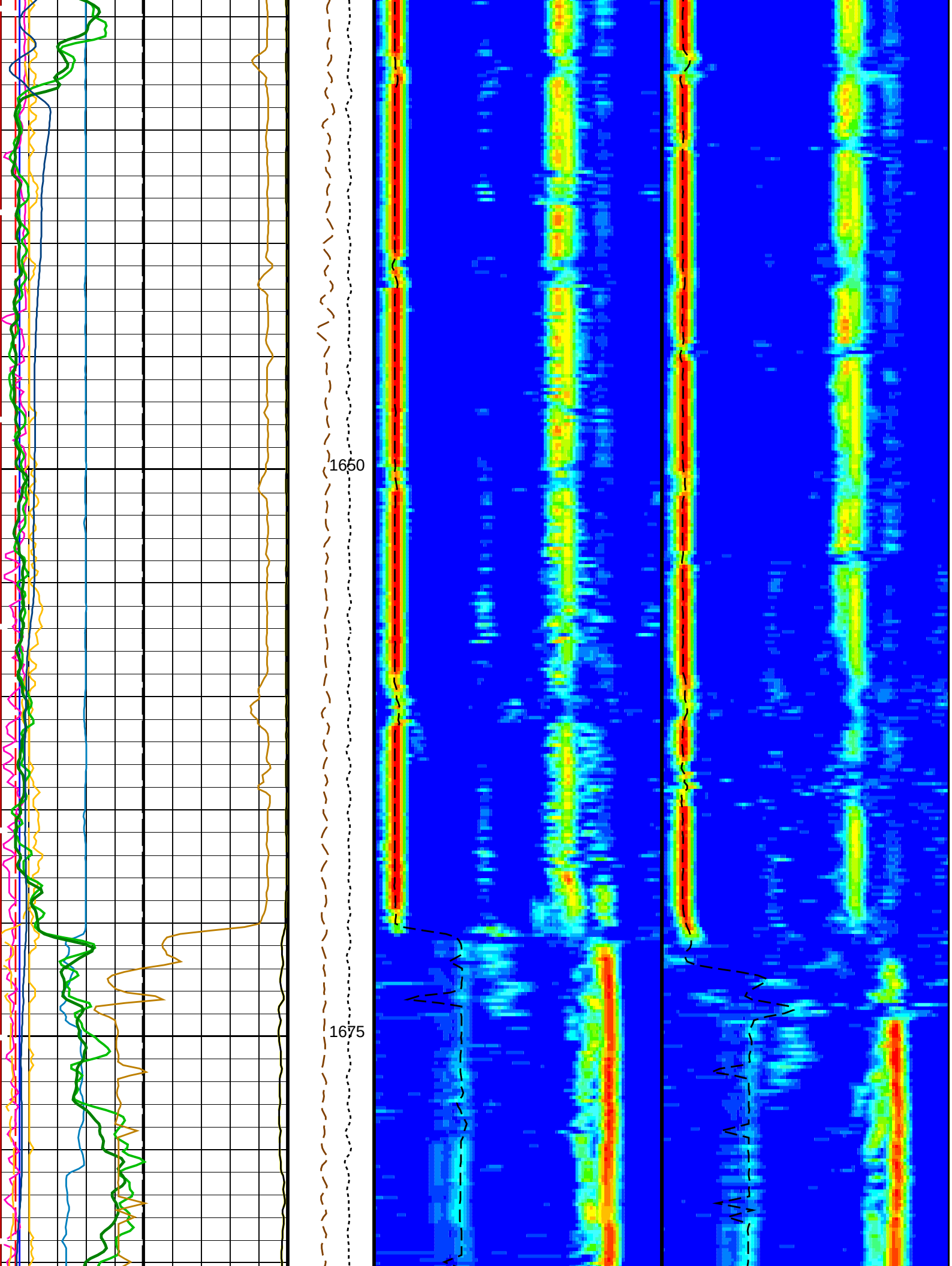
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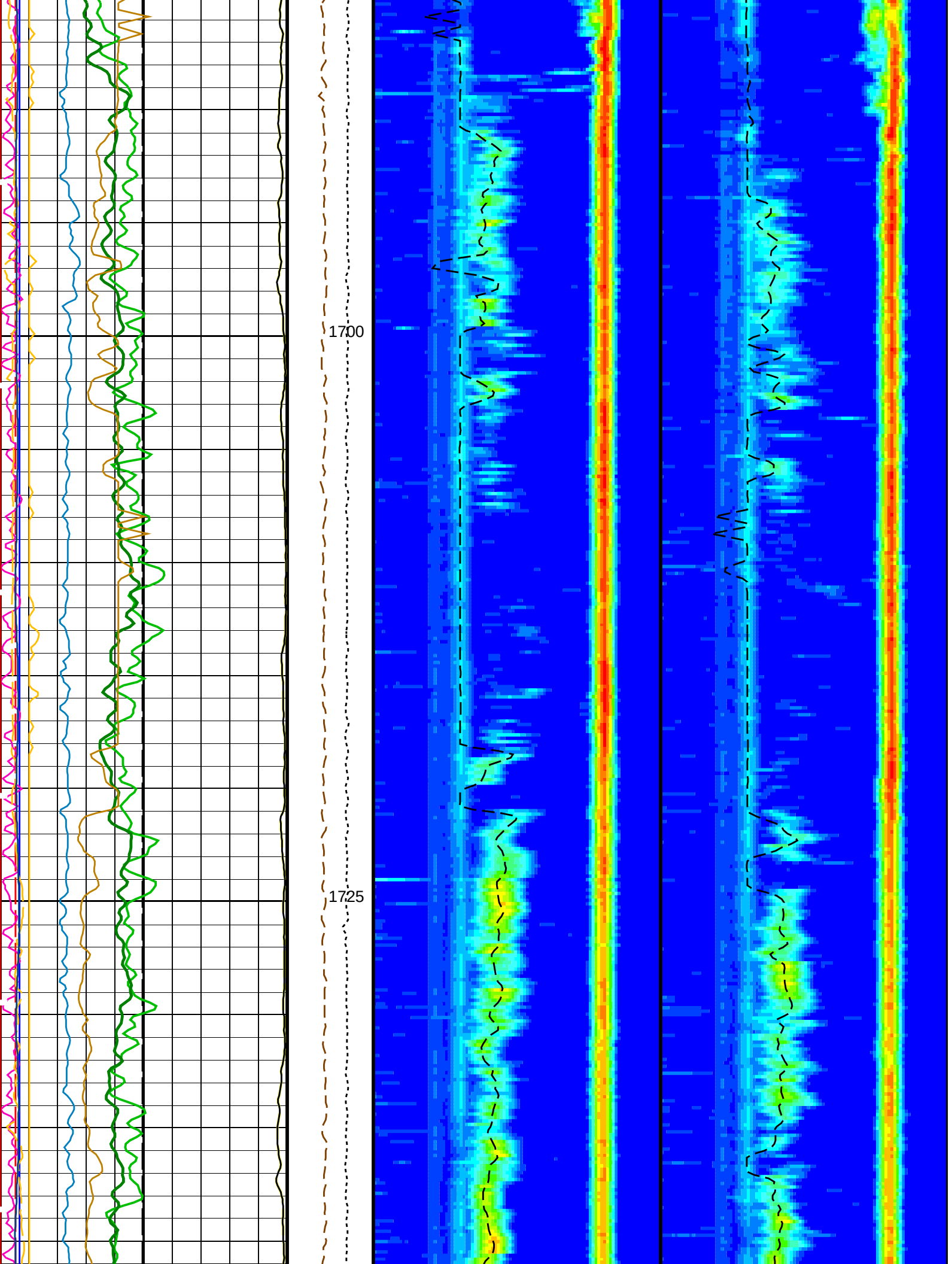
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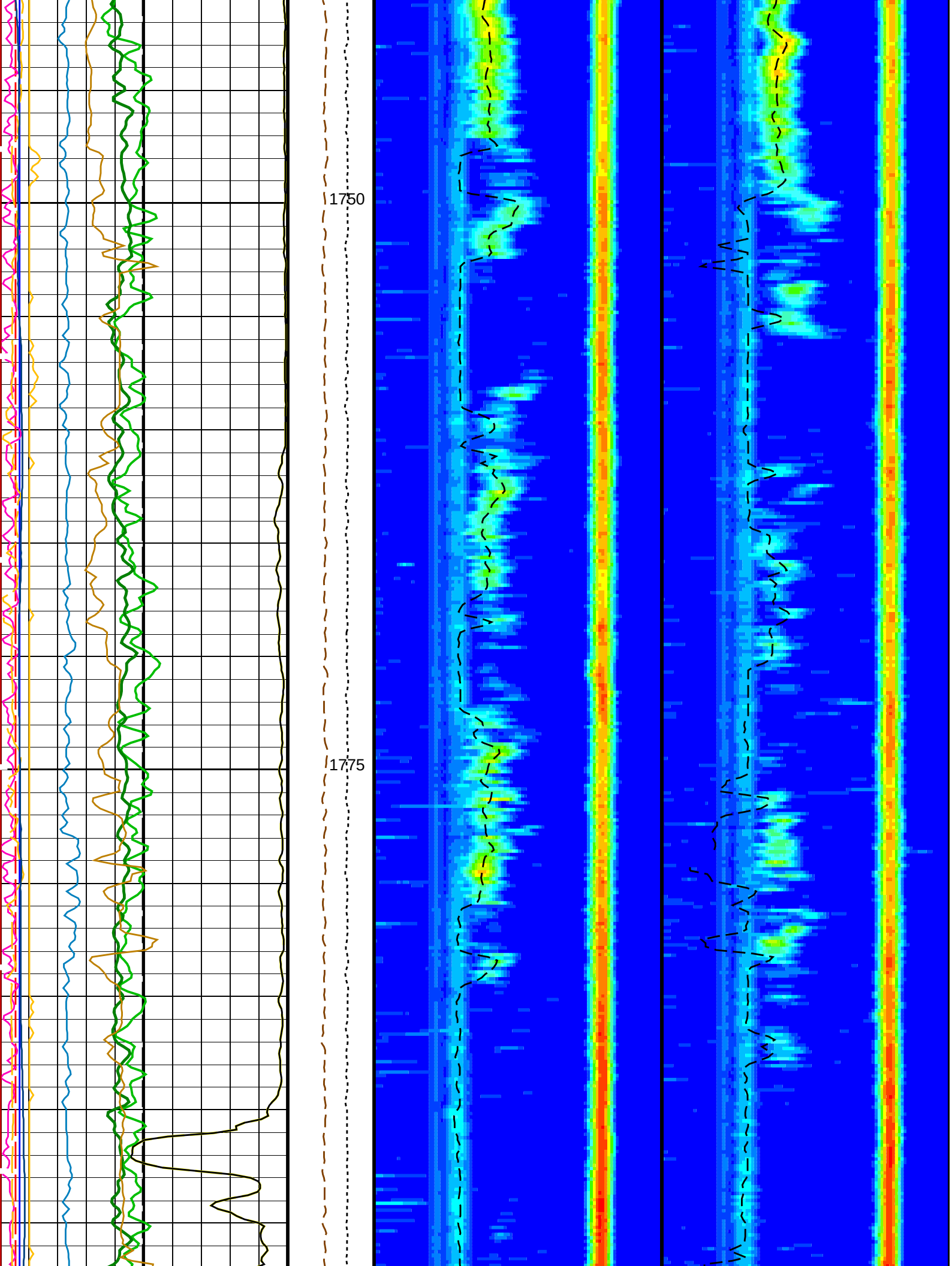
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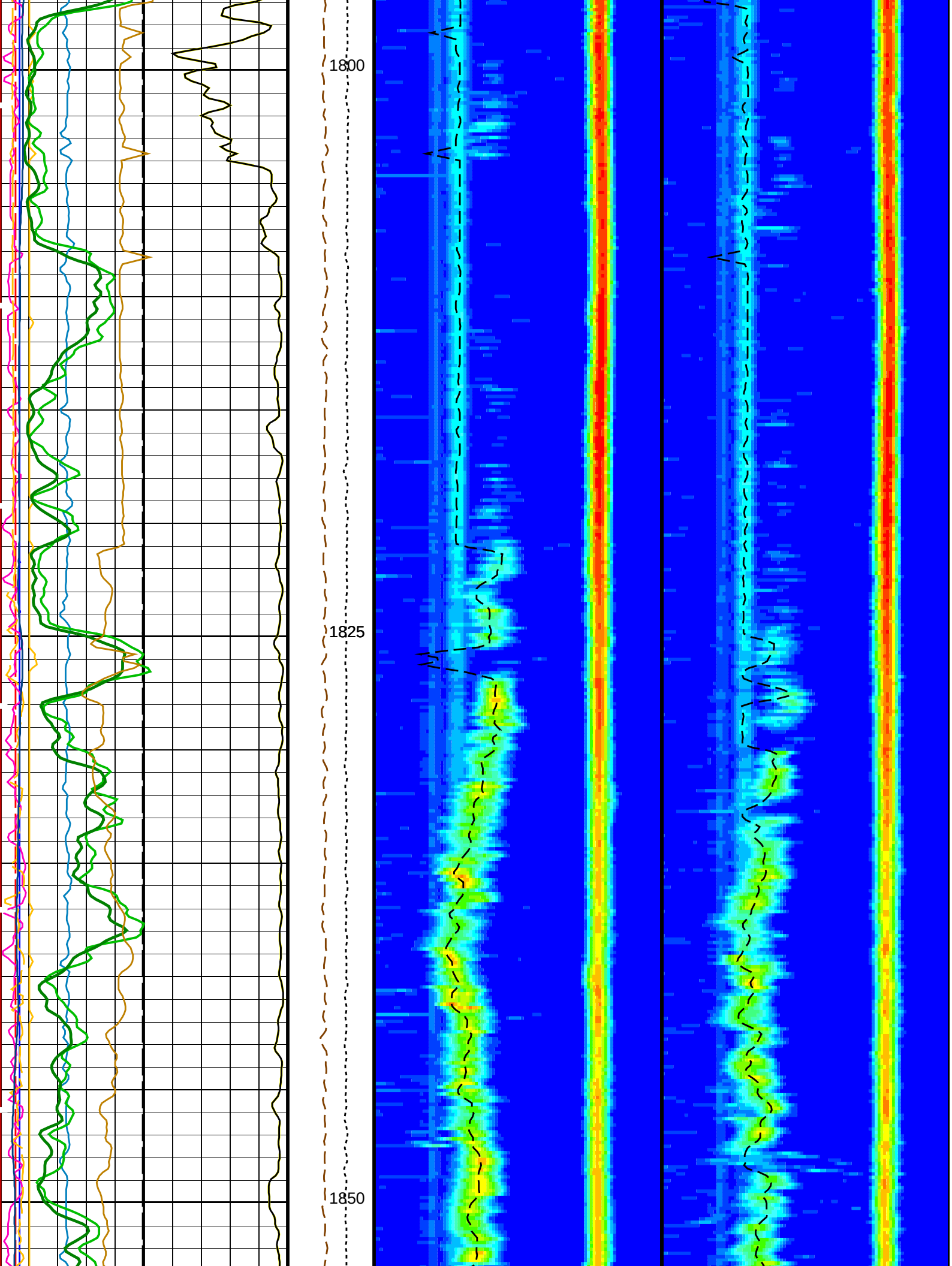
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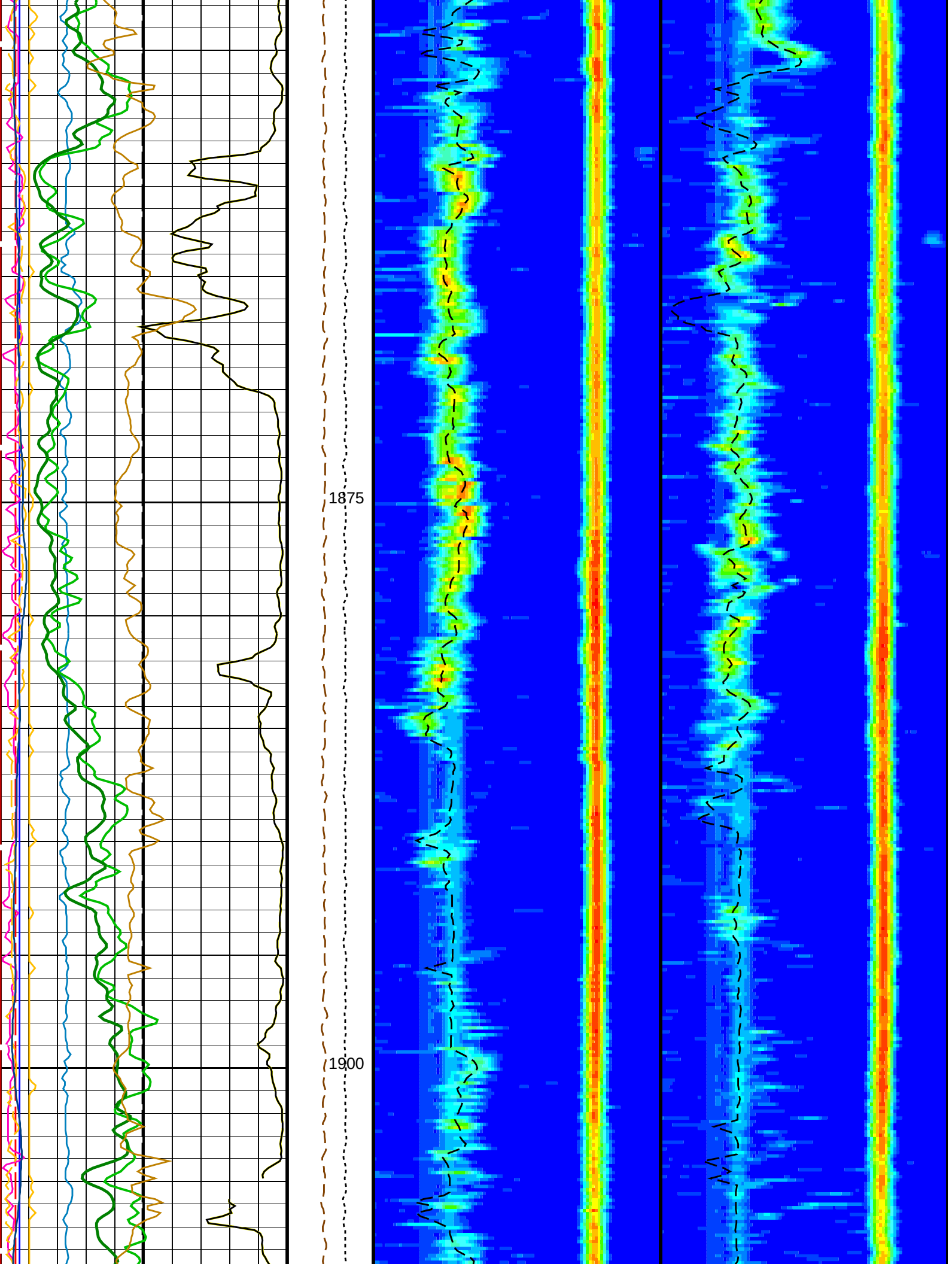
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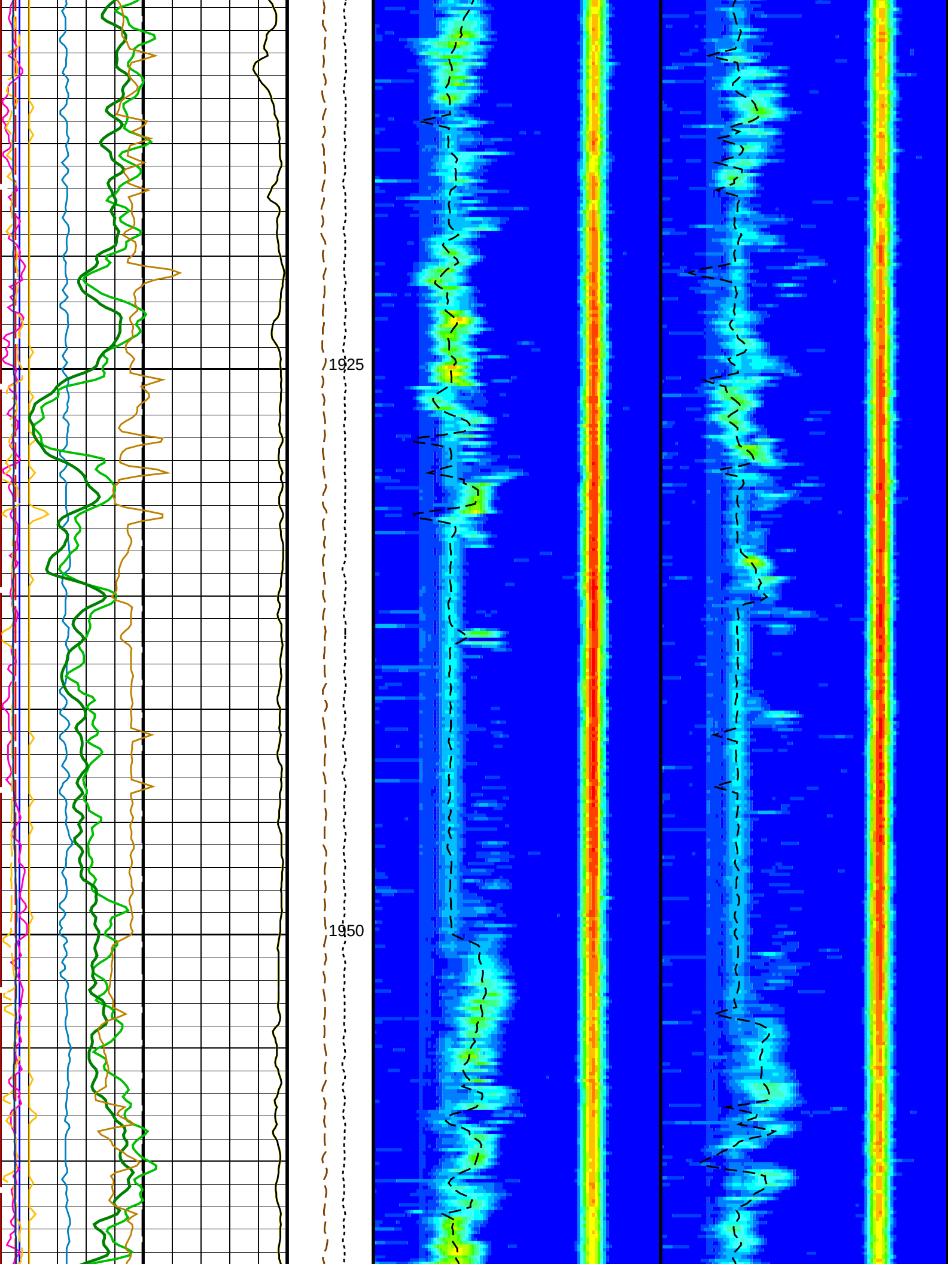
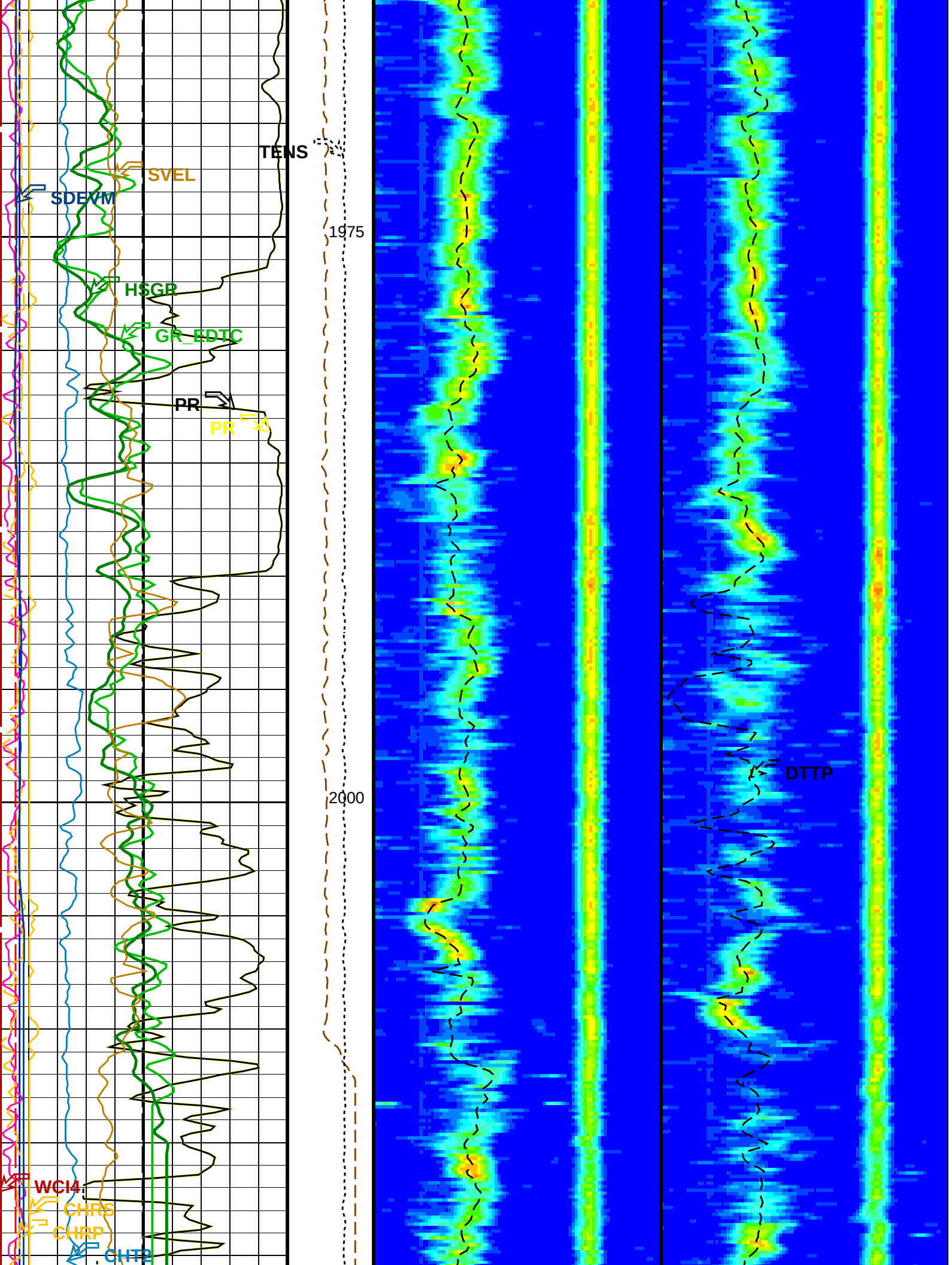
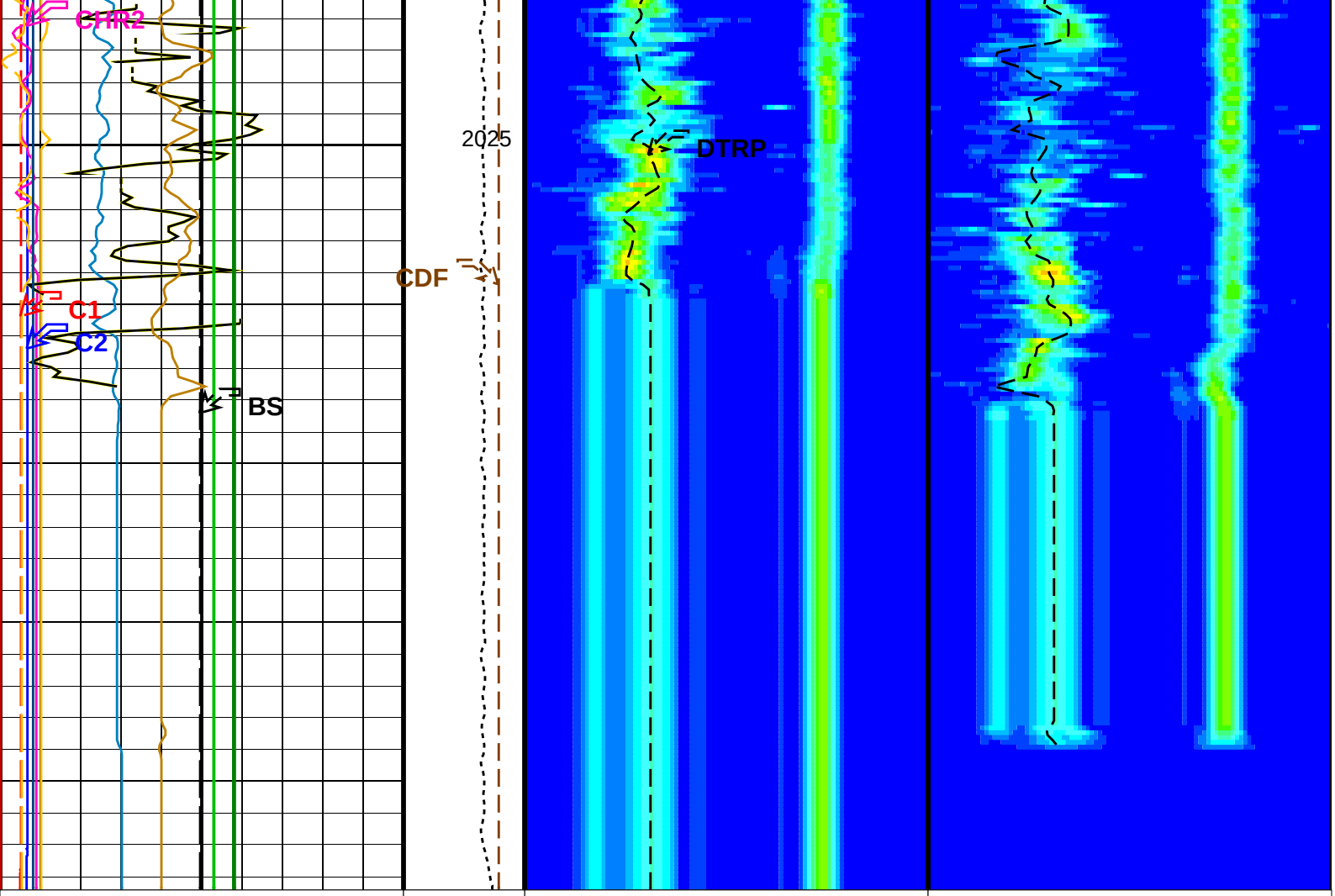

1925
1950


TENS
SVEL
SDEVM
1975
HSGR
GR_EDTC
PR
PR
2000
DTTP
WCI4
CHRS
CHRP
CHT2



Bit Size (BS) 0 (IN) 20	Tension (TENS) (LBF) 10000 0	Delta−T Comp / RA − P & S (DTRP) 40 (US/F) 240
Caliper 2 (C2) 0 (IN) 20	Calibrated Downhole Force (CDF) (LBF) 3000 0	Min Amplitude Max Rec.Array P&S Slow Proj. CVDL (SPR4) 40 (US/F) 240
Caliper 1 (C1) 0 (IN) 20		
Poisson's Ratio (PR) 0 (−−−−) 0.5		
Sonde Deviation (SDEVM) 0 (DEG) 10		
Sonic Velocity (SVEL) 1000 (M/S) 6000		
Poisson's Ratio (PR) 0 (−−−−) 0.5		
Gamma Ray (GR_EDTC) 0 (GAPI) 100		
Peak Coherence / RA − Upper Dipole (CHR2) 0 (−−−−) 10		
Peak Coherence / TA − Upper Dipole (CHT2)		

Delta−T Comp / TA − P & S (DTTP) 40 (US/F) 240
Min Amplitude Max Tr.Array P&S Slow Proj. CVDL (SPT4) 40 (US/F) 240

−2	(−−−−)	8
Peak Coherence / RA − P & S Comp (CHRP)		
0	(−−−−)	10
Peak Coherence / RA − P & S Shear (CHRS)		
−1	(−−−−)	9
Waveform Data Copy Indicator 4 − Monopole P&S (WCI4)		
0	(−−−−)	10
HNGS Spectroscopy Gamma Ray (HSGR)		
0	(GAPI)	100

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	MEST−B: Micro Electrical Scanner − B (Slim)		
AFMO	Accelerometer Filtering Mode	MOVING_AVERAGE	
ICMO	Inclinometry Computation Mode	AUTOMATIC_SELECTION	
MDEC	Magnetic Field Declination	18.8286	DEG
	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	40	US/F
COUL	Label Slowness Upper Limit − Monopole P&S Compressional	180	US/F
DDE4	Digitizing Delay 4	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	1400	US/F
DSI4	Digitizer Sample Interval 4	10	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta−T Source for DTCO Channel	PS_COMP	
DTF	Delta−T Fluid	189	US/F
DTSS	Shear Delta−T Source for DTSM Channel	UPPER_DIPOLE	
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
NWI2	Number Waveform Items 2	8	
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	
SAS2	STC Sonic Array Status − Upper Dipole	255	
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	75	US/F
SHUL	Label Slowness Upper Limit − Monopole P&S Shear	180	US/F
SLL4	STC Slowness Lower Limit − Monopole P&S	40	US/F
SST4	STC Slowness Step − Monopole P&S	2	US/F
SSW2	STC Source Waveform − Upper Dipole	WF_SAM2	
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
TWI2	STC Integration Time Window − Upper Dipole	1600	US
TWI4	STC Integration Time Window − Monopole P&S	500	US
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFM4	Waveform Mode 4	W1	
HNGS−BA: Hostile Natural Gamma Ray Sonde			
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	BS	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00461246	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
TPOS	Tool Position	CENT	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.32869	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.600308	
EDTC−B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	BS	
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.02	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: Sam4_RA_TA_P&S Vertical Scale: 1:200 Graphics File Created: 21−Jun−2018 21:20

OP System Version: 19C0−187

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

Input DLIS Files

	Flip_LDL_FMS_DSI_046LUP	FN:1	20−Jun−2018 08:49	2048.4 M	1456.2 M

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_065PUP	FN:82	PRODUCER	21−Jun−2018 21:20		

Company: International Ocean Discovery Program Well: Expedition 376, Site U1530A

Input DLIS Files

21−Jun−2018 16:47

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_055PUP	FN:72	PRODUCER	21−Jun−2018 17:26	2048.3 M	1721.1 M

OP System Version: 19C0−187

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

PIP SUMMARY

Time Mark Every 60 S

Deviation at DSST Waveform Depth (DVWD)
0 (DEG) 100

Relative Bearing at DSST Waveform Depth (RBWD)
0 (DEG) 400

Azimuth at DSST Waveform Depth (AZWD)
0 (DEG) 400

Waveform Data Copy Indicator X − Expert (WCIX)
0 (−−−−) 10

SAMX Waveform Gain (WFGX)
0 (−−−−) 1000

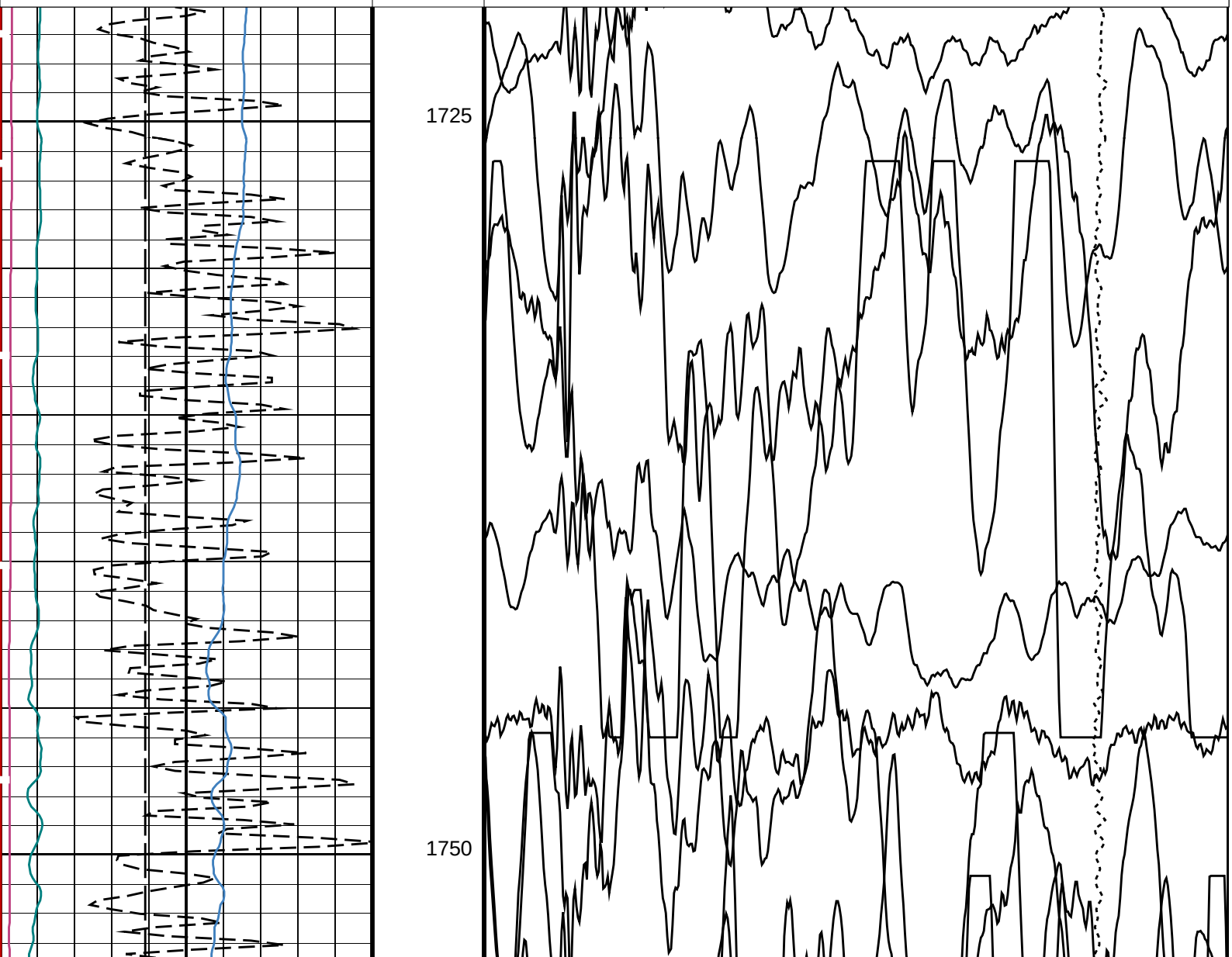
Bit Size (BS)
6 (IN) 16

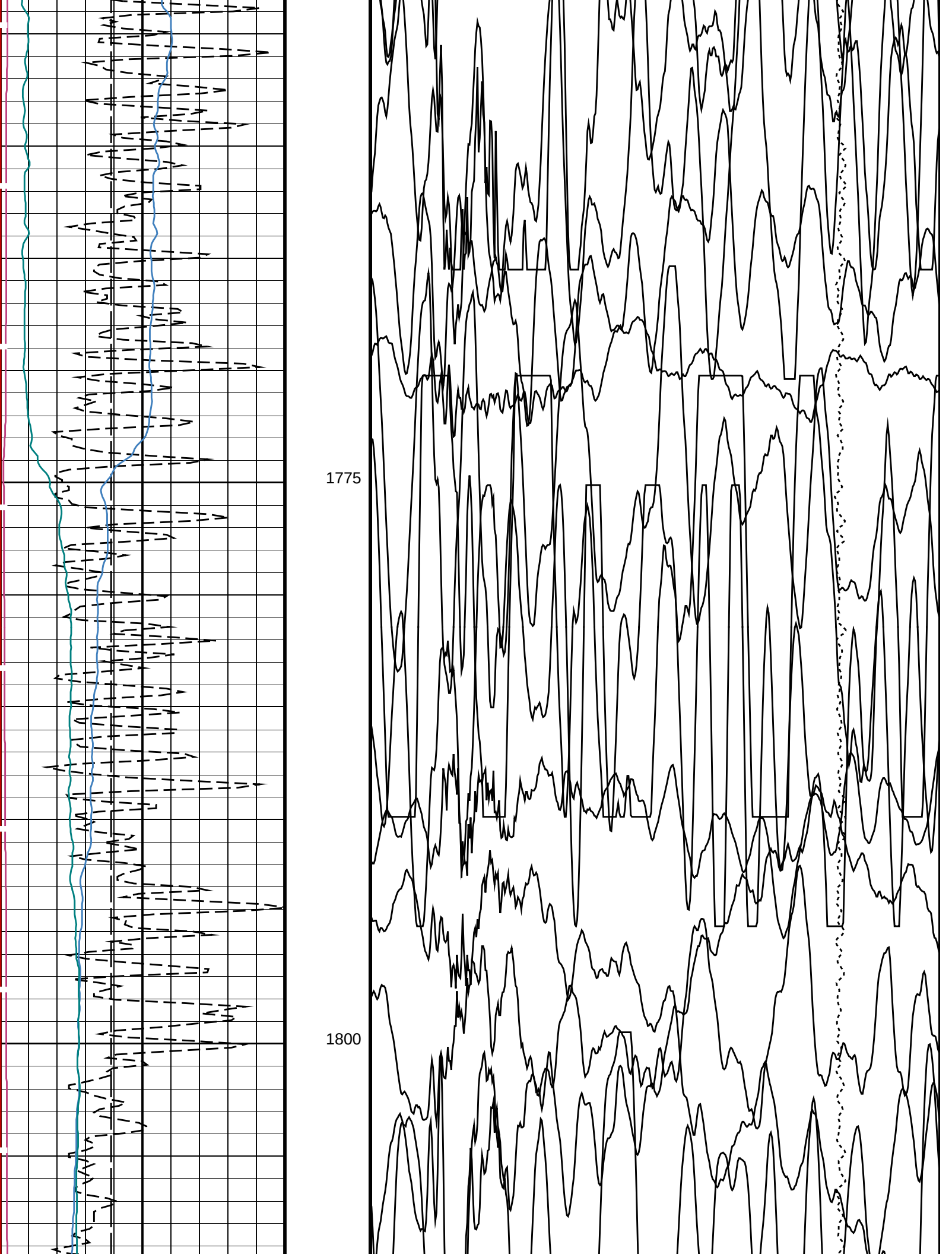
SAMX BCR

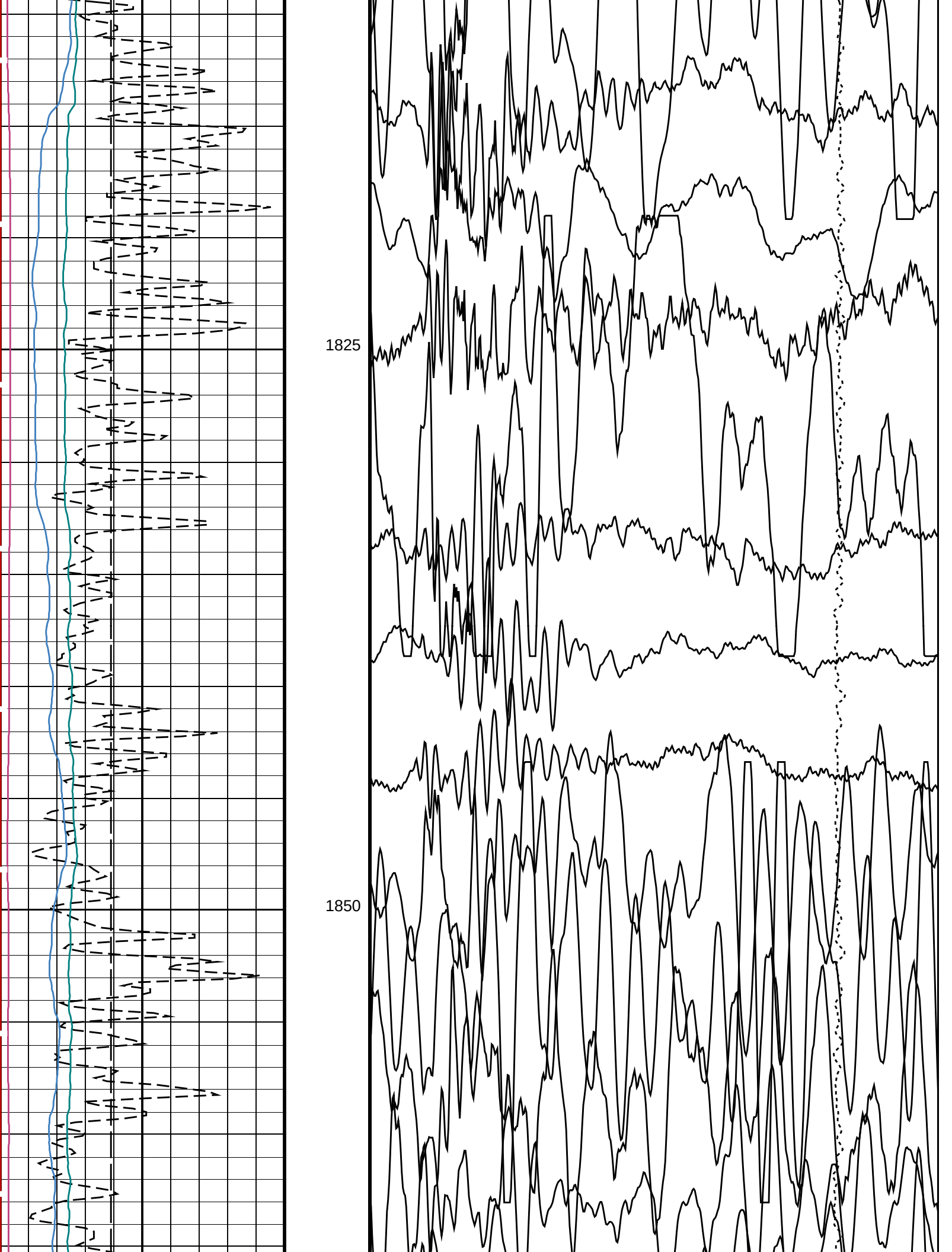
Uplog 1

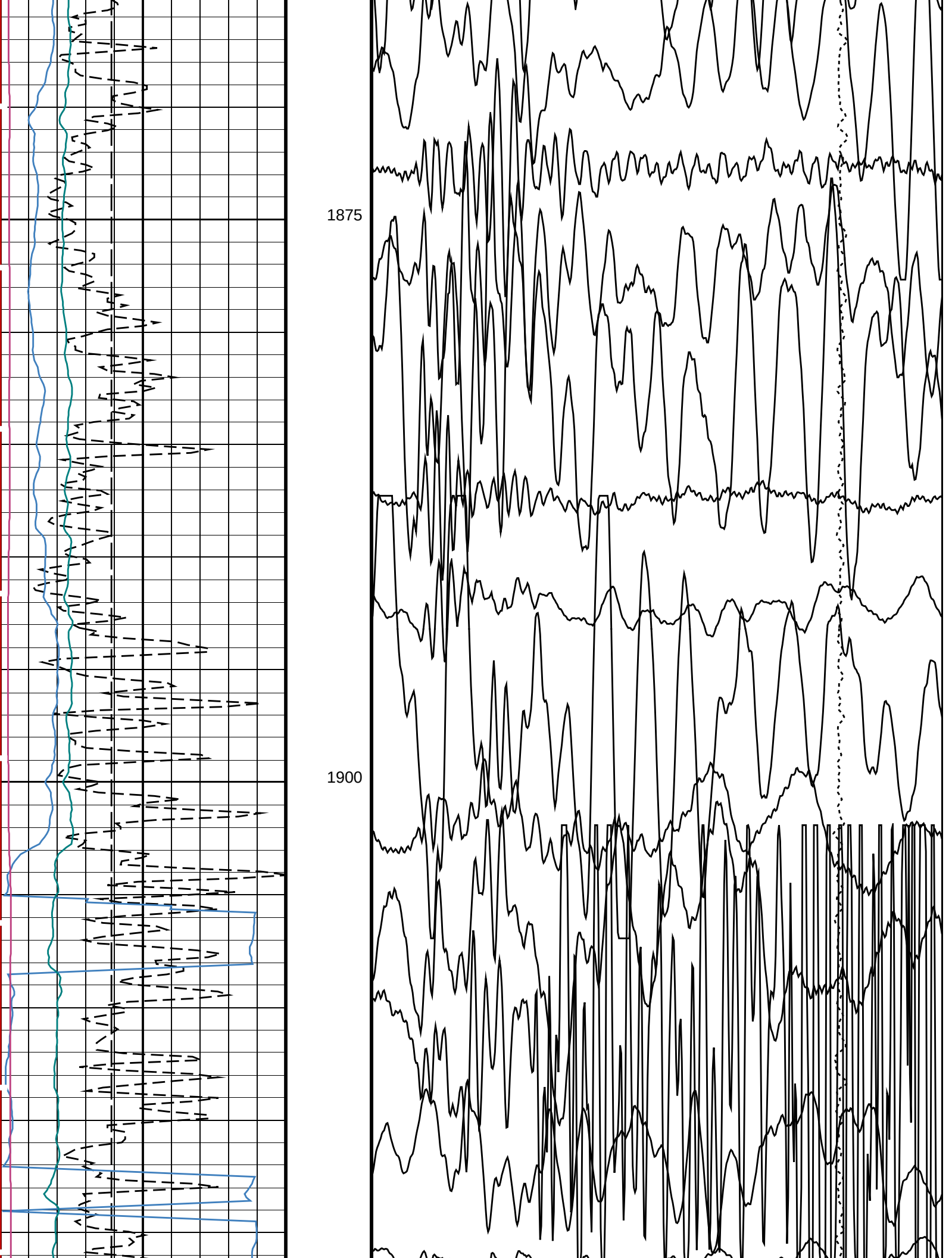
Tension (TENS)
10000 (LBF) 0

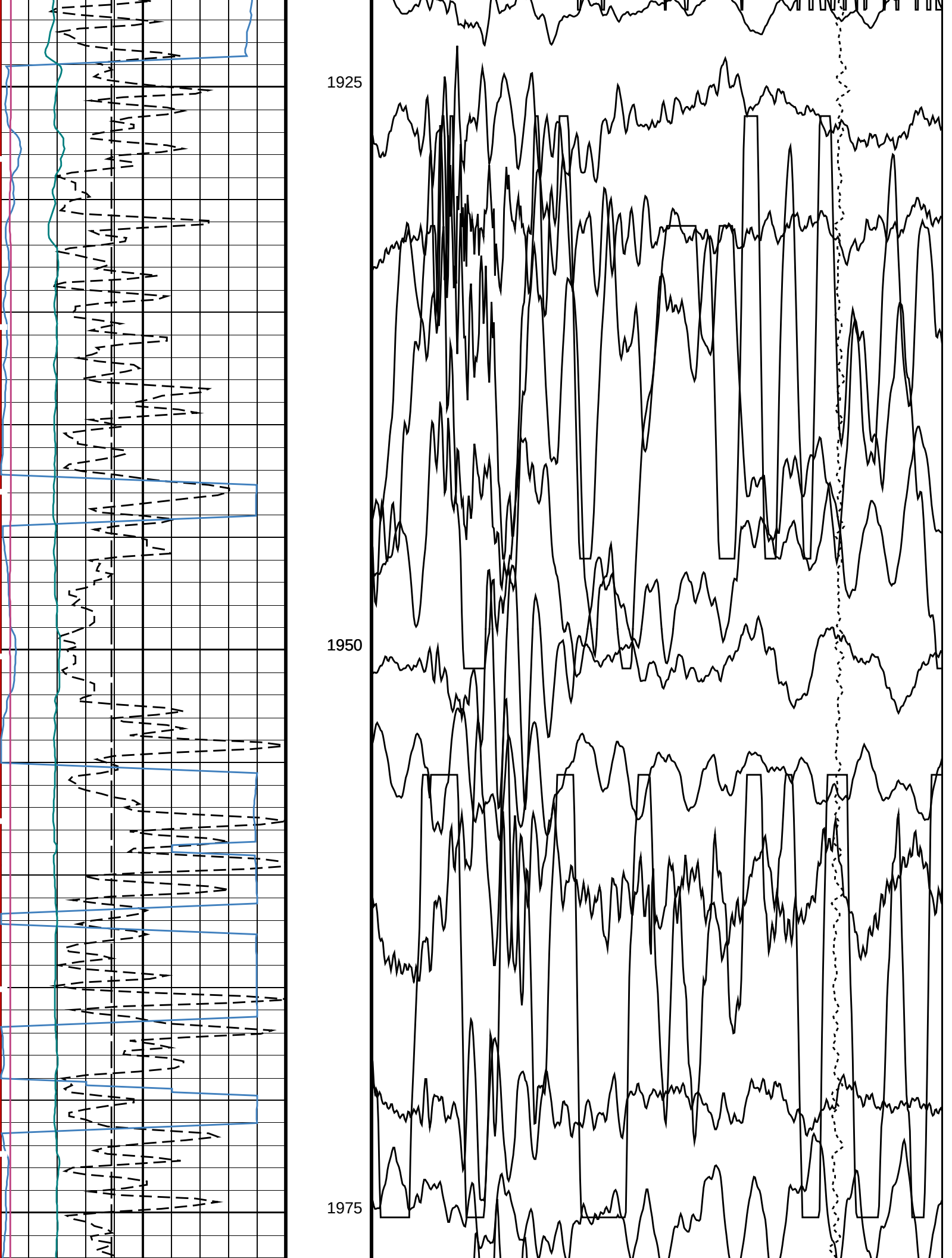
SAMX Waveforms (WFX)
0 (US) 20000

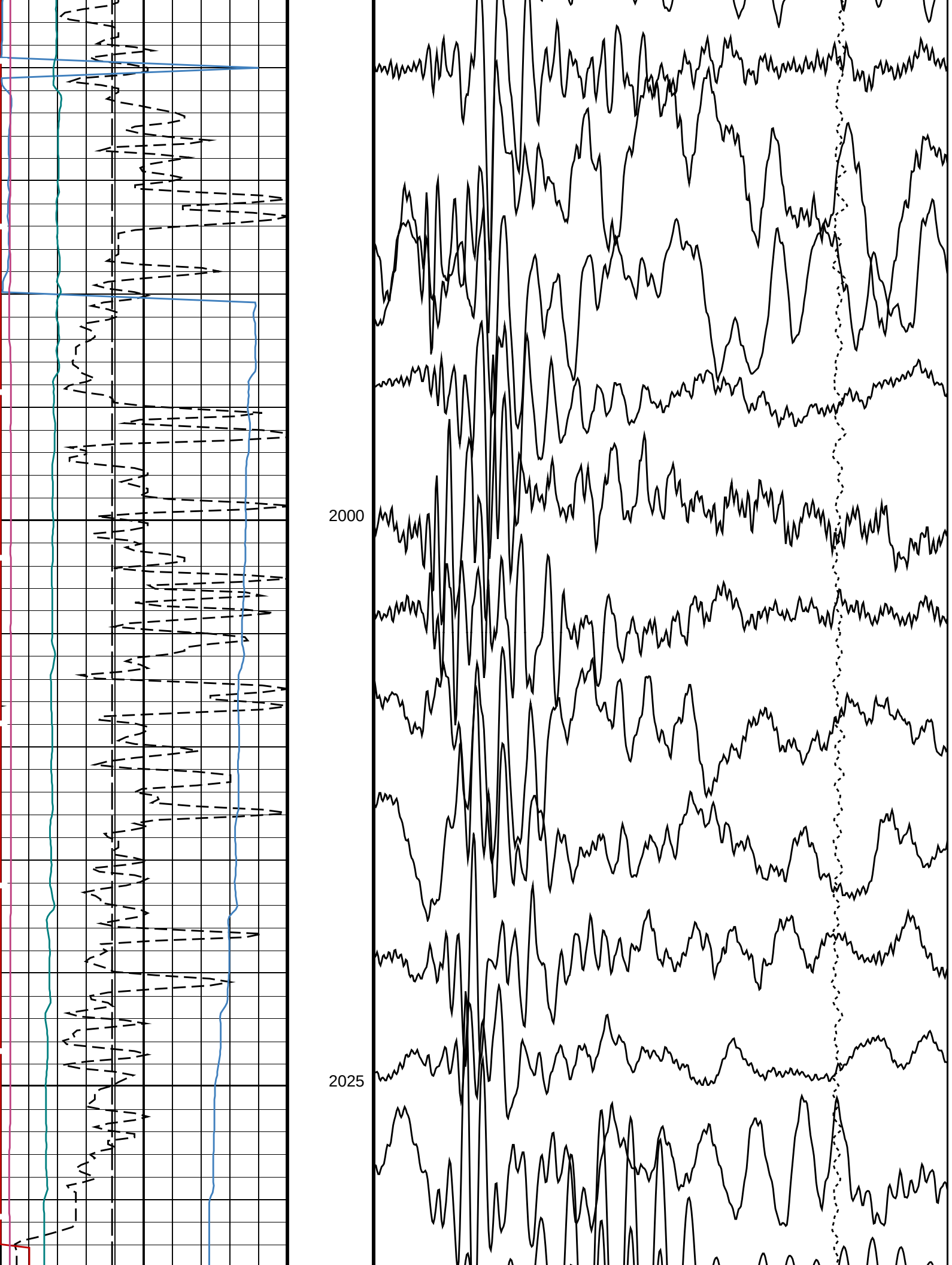


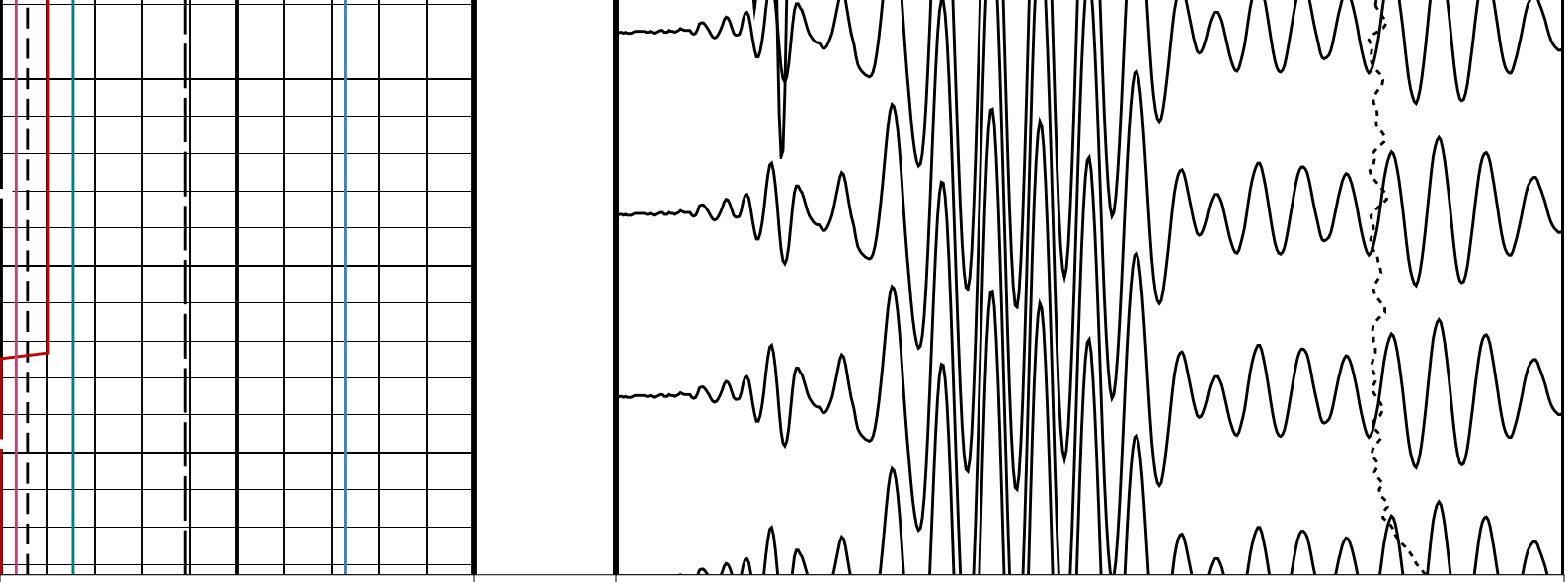

1775
1800


1825
1850


1875
1900


1925
1950
1975


2000
2025



Bit Size (BS)		
6	(IN)	16

SAMX Waveforms (WFX)		
0	(US)	20000

SAMX Waveform Gain (WFGX)		
0	(----)	1000

Tension (TENS)		
10000	(LBF)	0

Uplog 1

SAMX BCR

Waveform Data Copy Indicator X − Expert (WCIX)		
0	(----)	10

Azimuth at DSST Waveform Depth (AZWD)		
0	(DEG)	400

Relative Bearing at DSST Waveform Depth (RBWD)		
0	(DEG)	400

Deviation at DSST Waveform Depth (DVWD)		
0	(DEG)	100

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
DWCX	Digitizer Word Count X	512	
LTXG	Lower Dipole Transmitter Geometry	156	IN
MTXG	Monopole Transmitter Geometry	186	IN
NWIX	Number Waveform Items X	32	
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
SAMX	DSST Sonic Acquisition Mode X − Both Dipoles or Monopole Mode for Expert BCR		
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFMX	Waveform Mode X	W1	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: DSST_WFX_WAVES Vertical Scale: 1:200 Graphics File Created: 21−Jun−2018 17:26

OP System Version: 19C0−187

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

Input DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_052PUP	FN:69	PRODUCER	21−Jun−2018 16:47	2048.3 M	1721.1 M

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_055PUP	FN:72	PRODUCER	21−Jun−2018 17:26		

Input DLIS Files

21−Jun−2018 16:47

Output DLIS Files

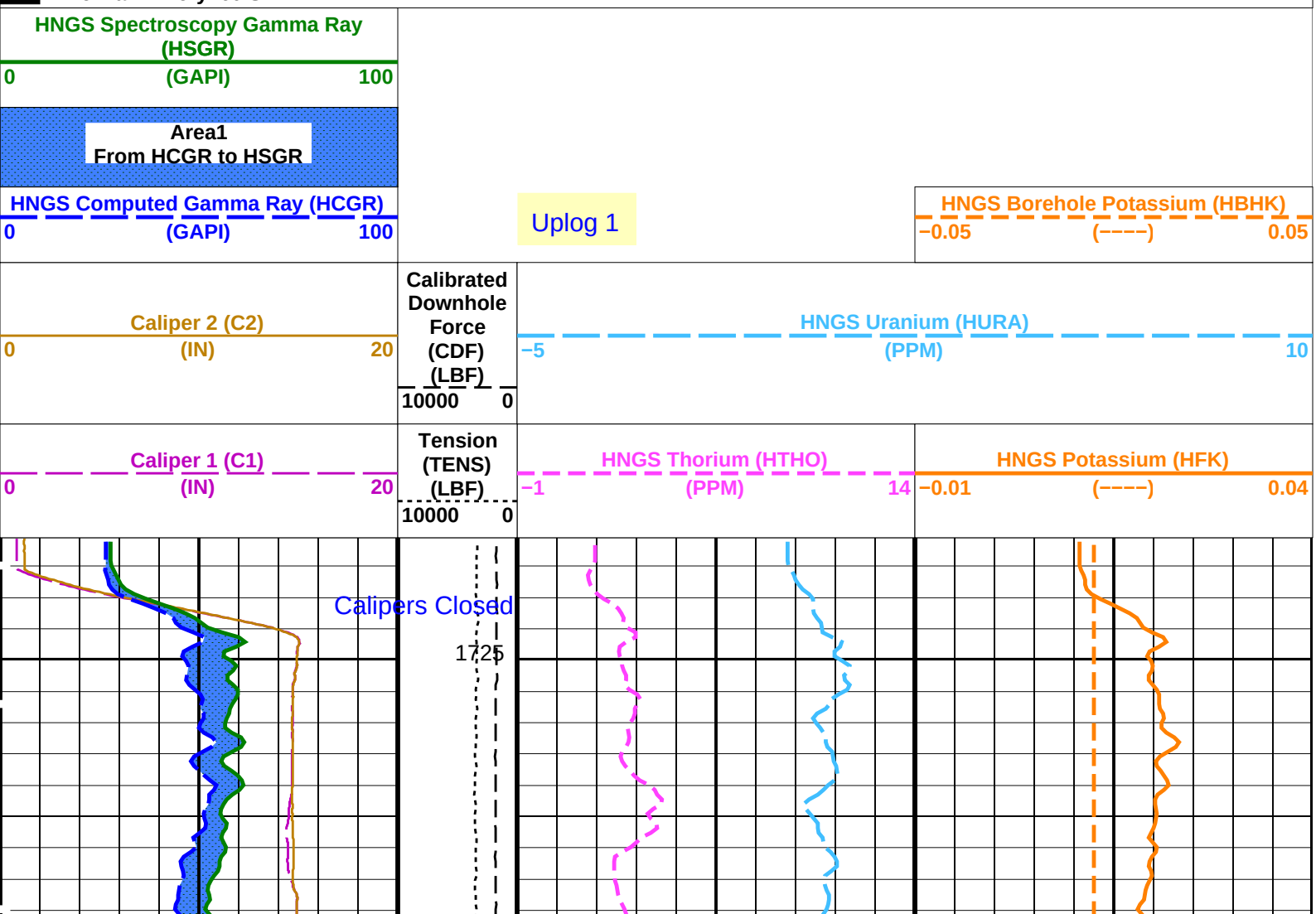
DEFAULT	LDL_FMS_DSI_NGS_055PUP	FN:72	PRODUCER	21−Jun−2018 17:26	2048.3 M	1721.1 M

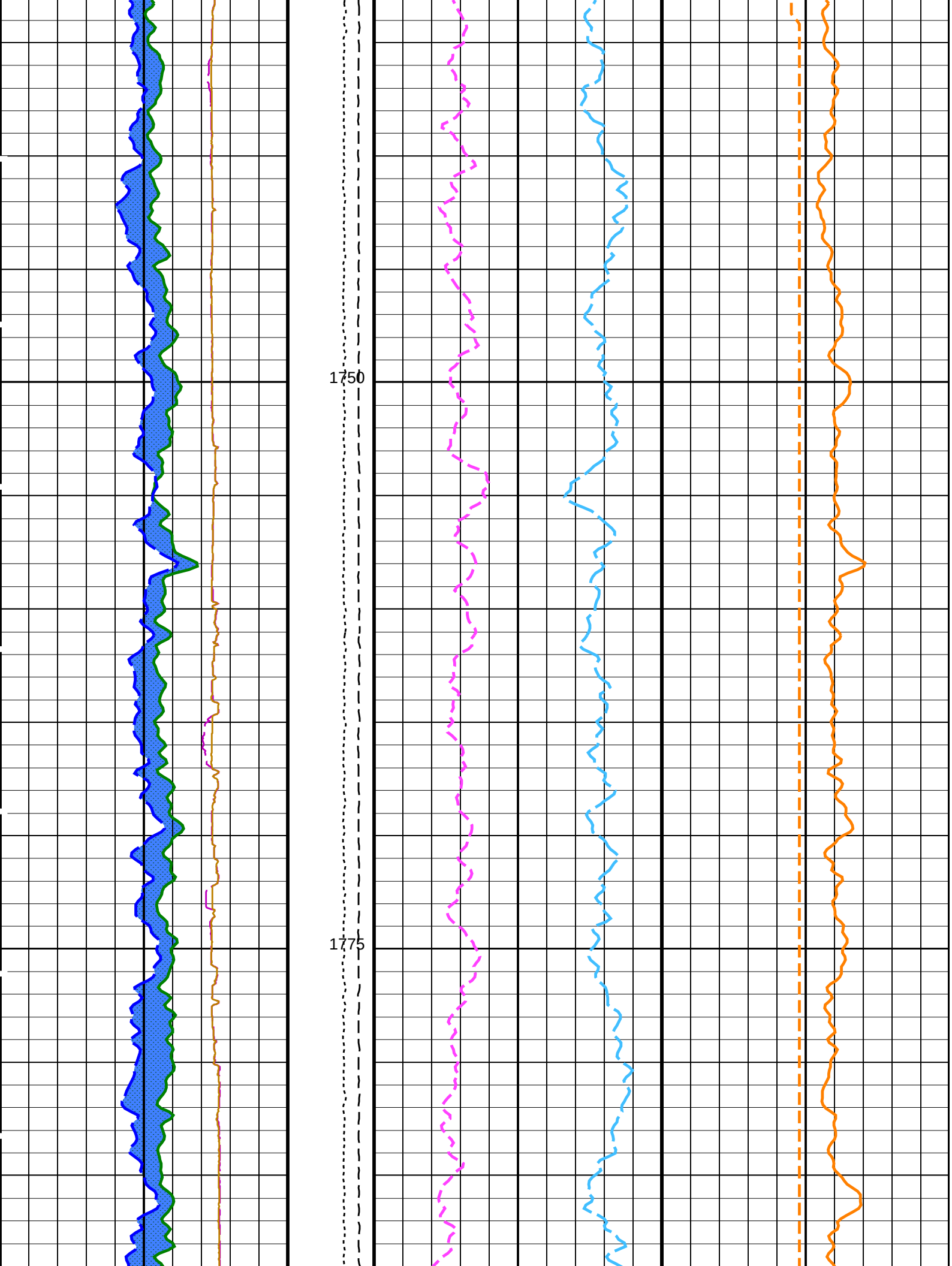
OP System Version: 19C0−187

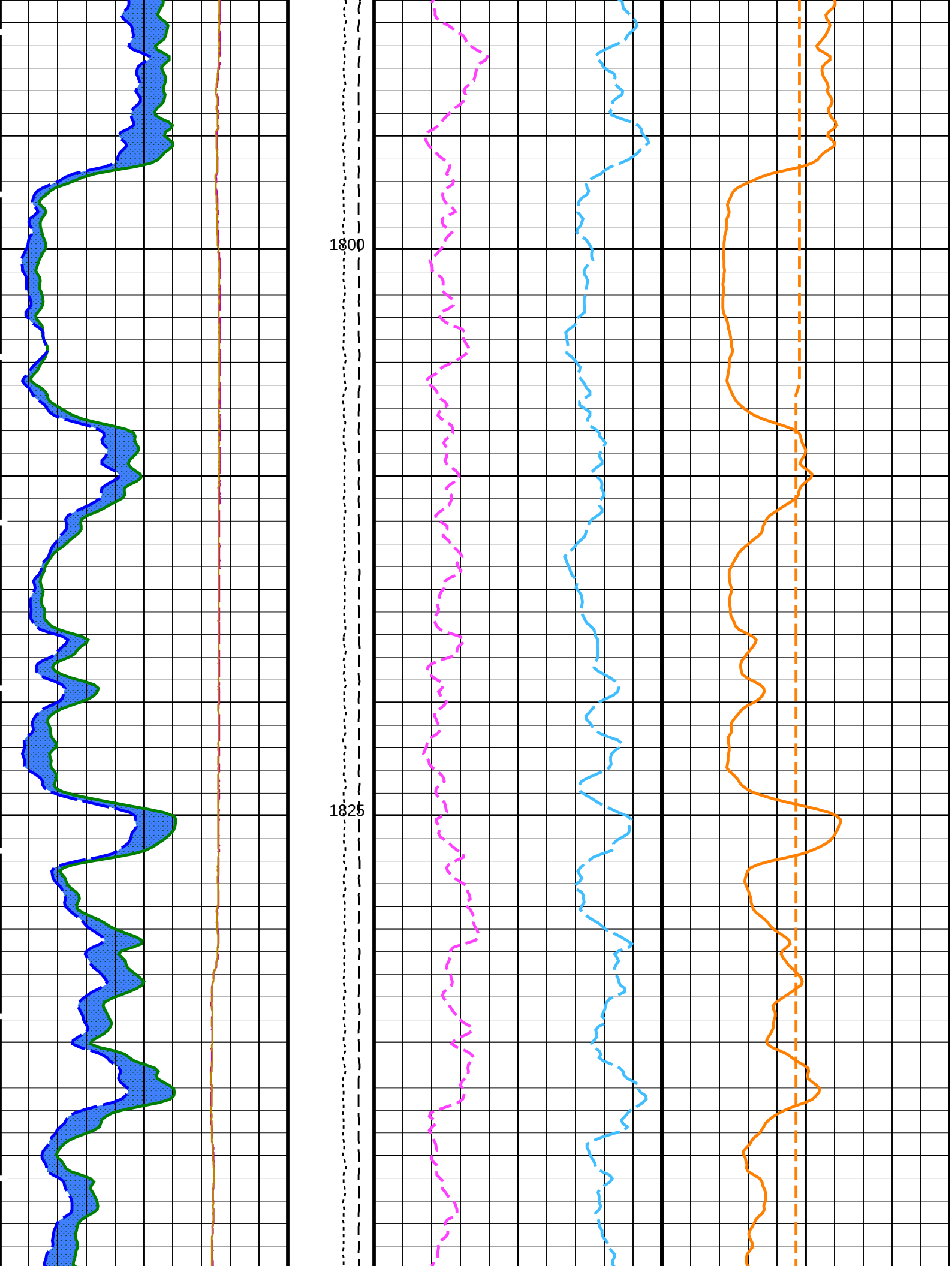
HLDS	19C0−187	MEST−B	19C0−187
DTA−A−8453	19C0−187	DSST−B	19C0−187
HNCC−B	19C0−187	HNGS−BA	19C0−187
EDTC−B	SKK−5169−EDTCB		

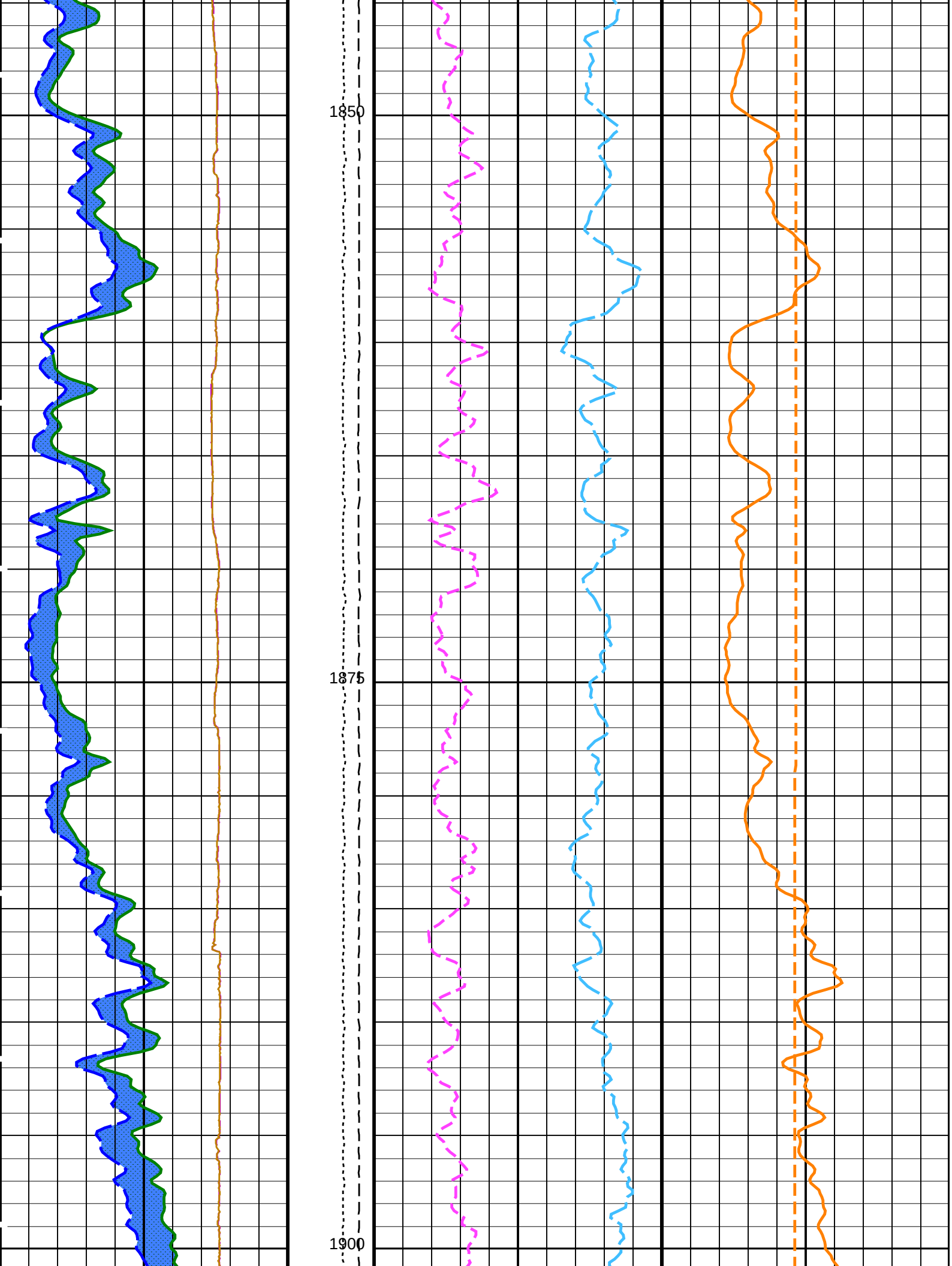
PIP SUMMARY

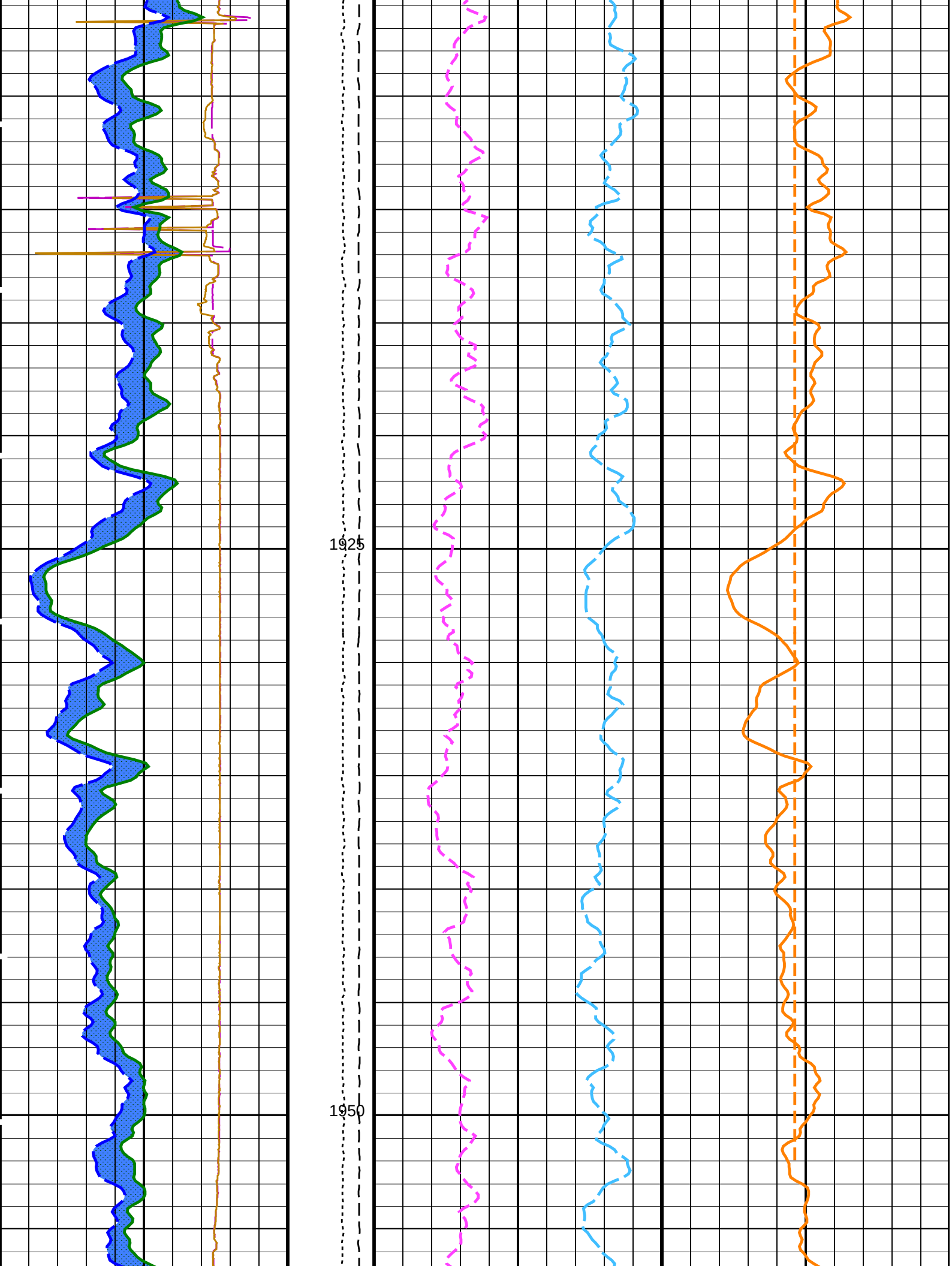
Time Mark Every 60 S

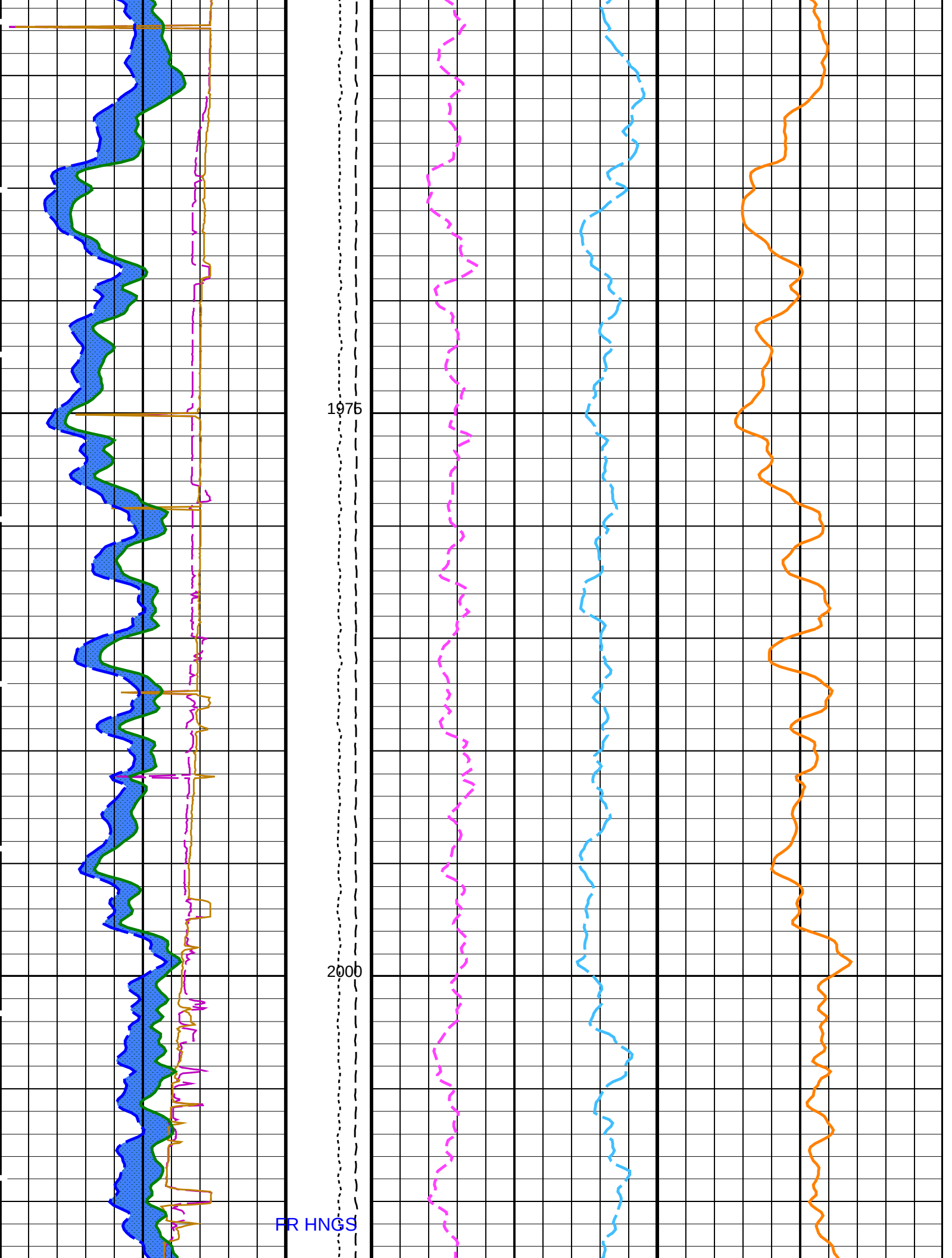


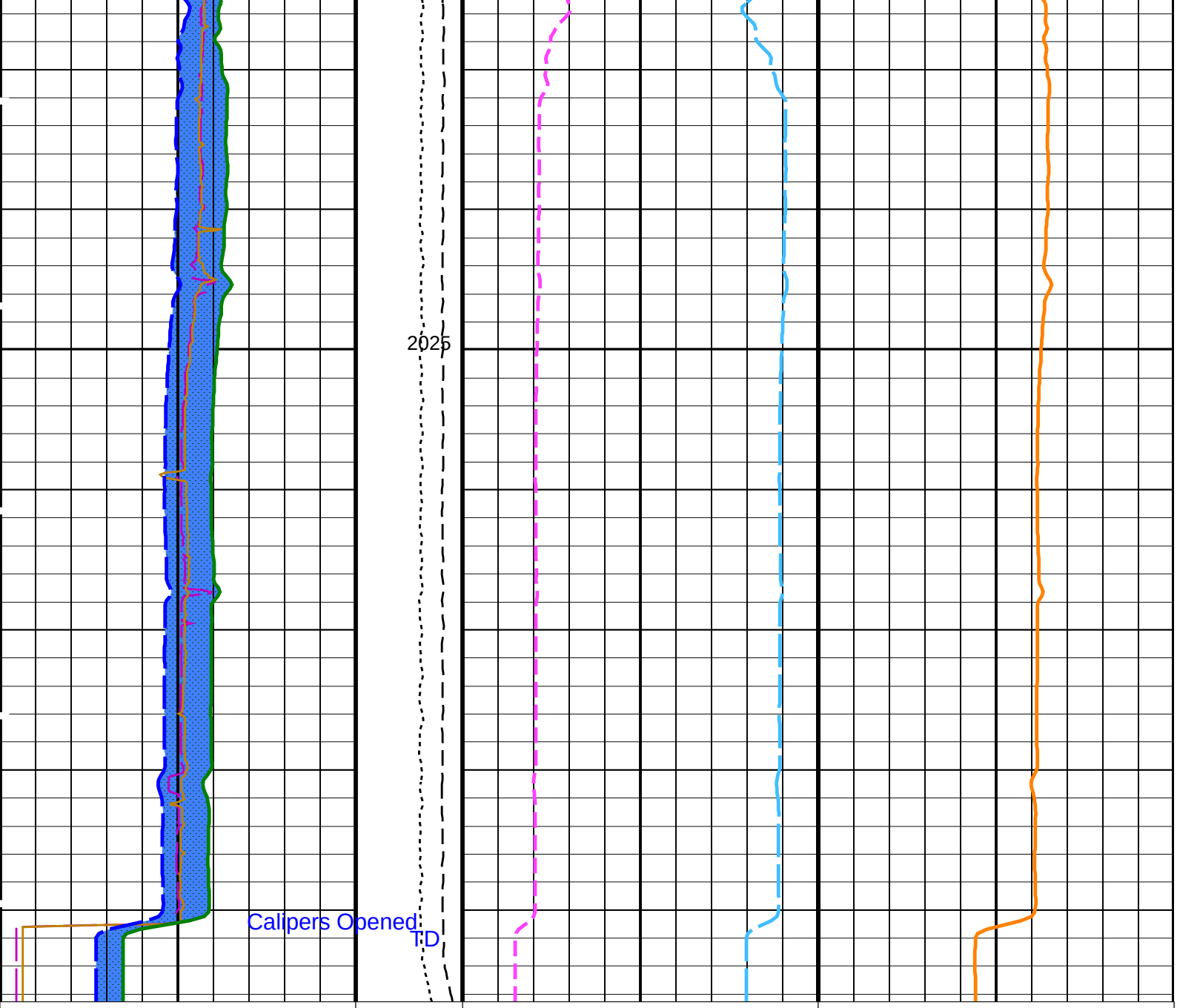

1750
1775


1800
1825


1850
1875
1900


1925
1950


1975
2000
FR HNGS



Caliper 1 (C1)
0 (IN) 20

Caliper 2 (C2)
0 (IN) 20

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

Area1
From HCGR to HSGR

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

Tension (TENS) (LBF)
10000 0

Calibrated Downhole Force (CDF) (LBF)
10000 0

HNGS Thorium (HTHO)
−1 (PPM) 14

HNGS Uranium (HURA)
−5 (PPM) 10

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

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

Uplog 1

PIP SUMMARY

Time Mark Every 60 S

Parameters

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	C1	
	HNGS−BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	C1	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00376997	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
TPOS	Tool Position	CENT	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.02259	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.03819	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	C1	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.02	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: HNGSYields **Vertical Scale: 1:200** **Graphics File Created: 21−Jun−2018 17:26**

OP System Version: 19C0−187

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

Input DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_052PUP	FN:69	PRODUCER	21−Jun−2018 16:47	2048.3 M	1721.1 M

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_055PUP	FN:72	PRODUCER	21−Jun−2018 17:26		

Company: International Ocean Discovery Program **Well: Expedition 376, Site U1530A**

Input DLIS Files

21−Jun−2018 16:47

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_055PUP	FN:72	PRODUCER	21−Jun−2018 17:26	2048.3 M	1721.1 M

OP System Version: 19C0−187

HLDS	19C0−187	MEST−B	19C0−187
DTA−A−8453	19C0−187	DSST−B	19C0−187
HNCC−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

Waveform Data Copy Indicator 3 − Monopole Stoneley (WCI3)
0 (−−−−) 10

Tension (TENS)
10000 (LBF) 0

SAM3 Waveform Gain (WFG3)
0 (−−−−) 1000

Caliper 2 (C2)
0 (IN) 20

Caliper 1 (C1)
0 (IN) 20

Bit Size (BS)
0 (IN) 20

Uplog 1

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

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

Min Amplitude Max
Rec.Array Stoneley Slow Proj. CVDL (SPR3)
180 (US/F) 780

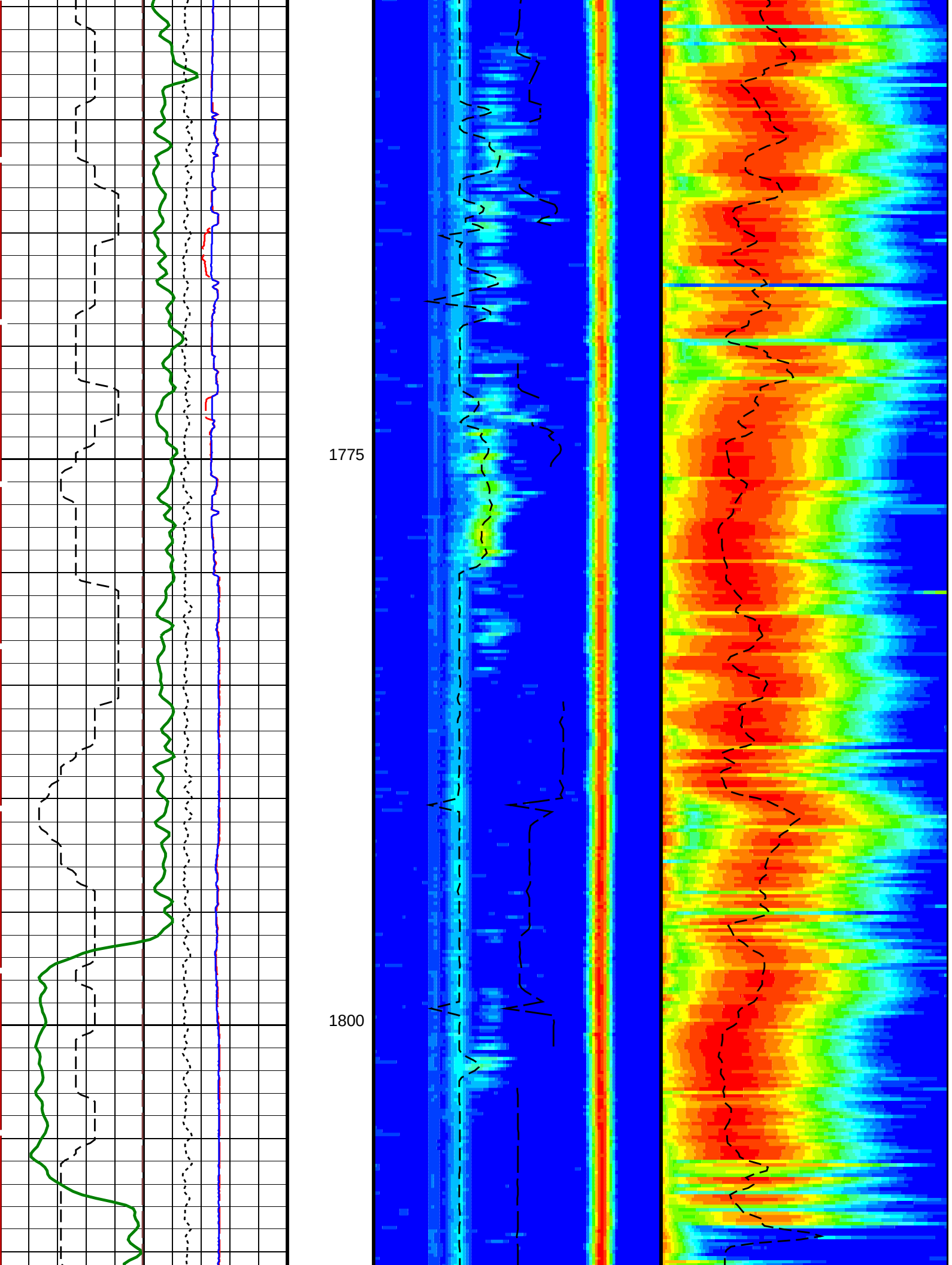
Delta−T Comp / RA − P & S (DTRP)
40 (US/F) 240

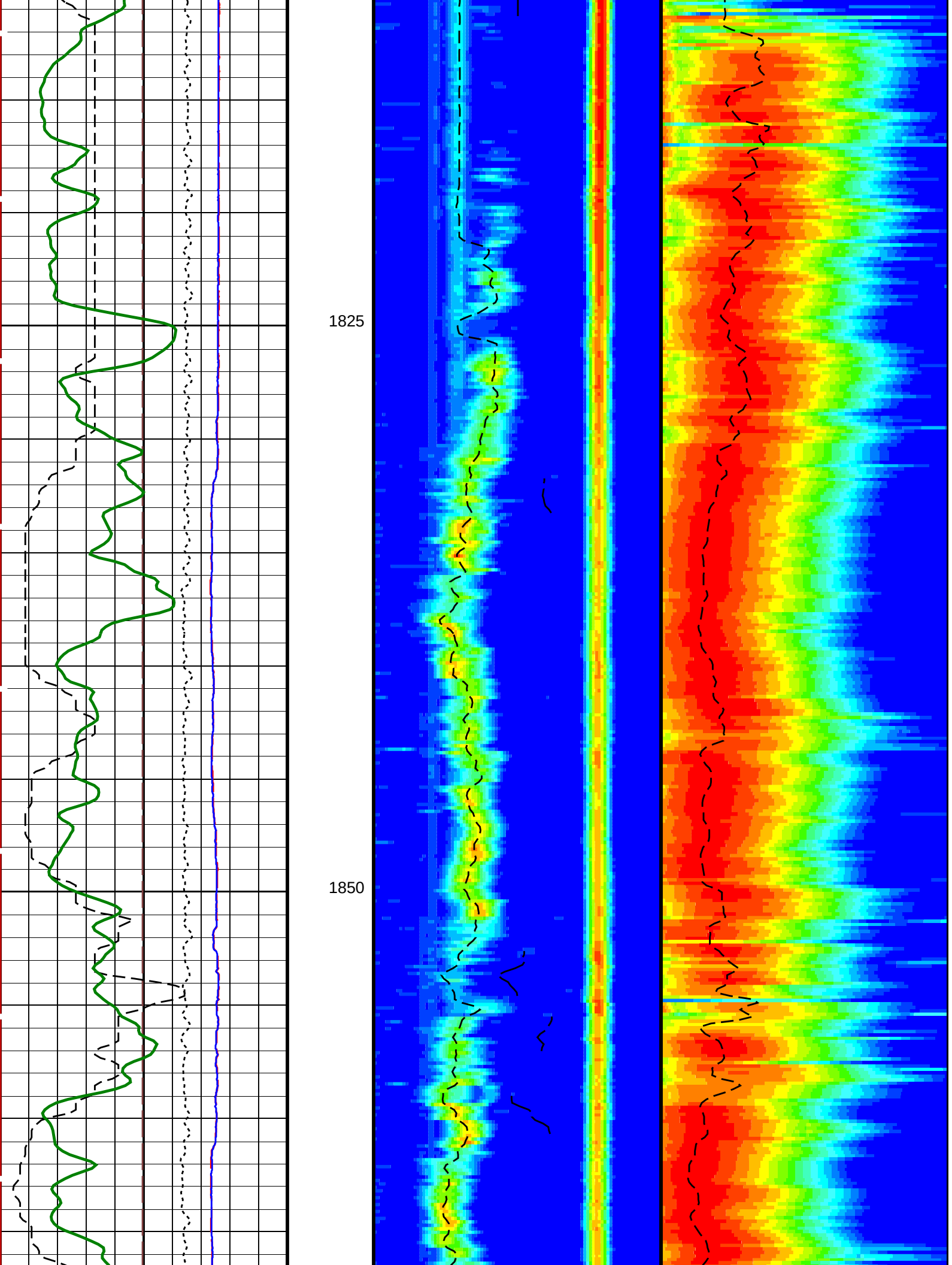
Delta−T Stoneley / RA (DT3R)
180 (US/F) 780

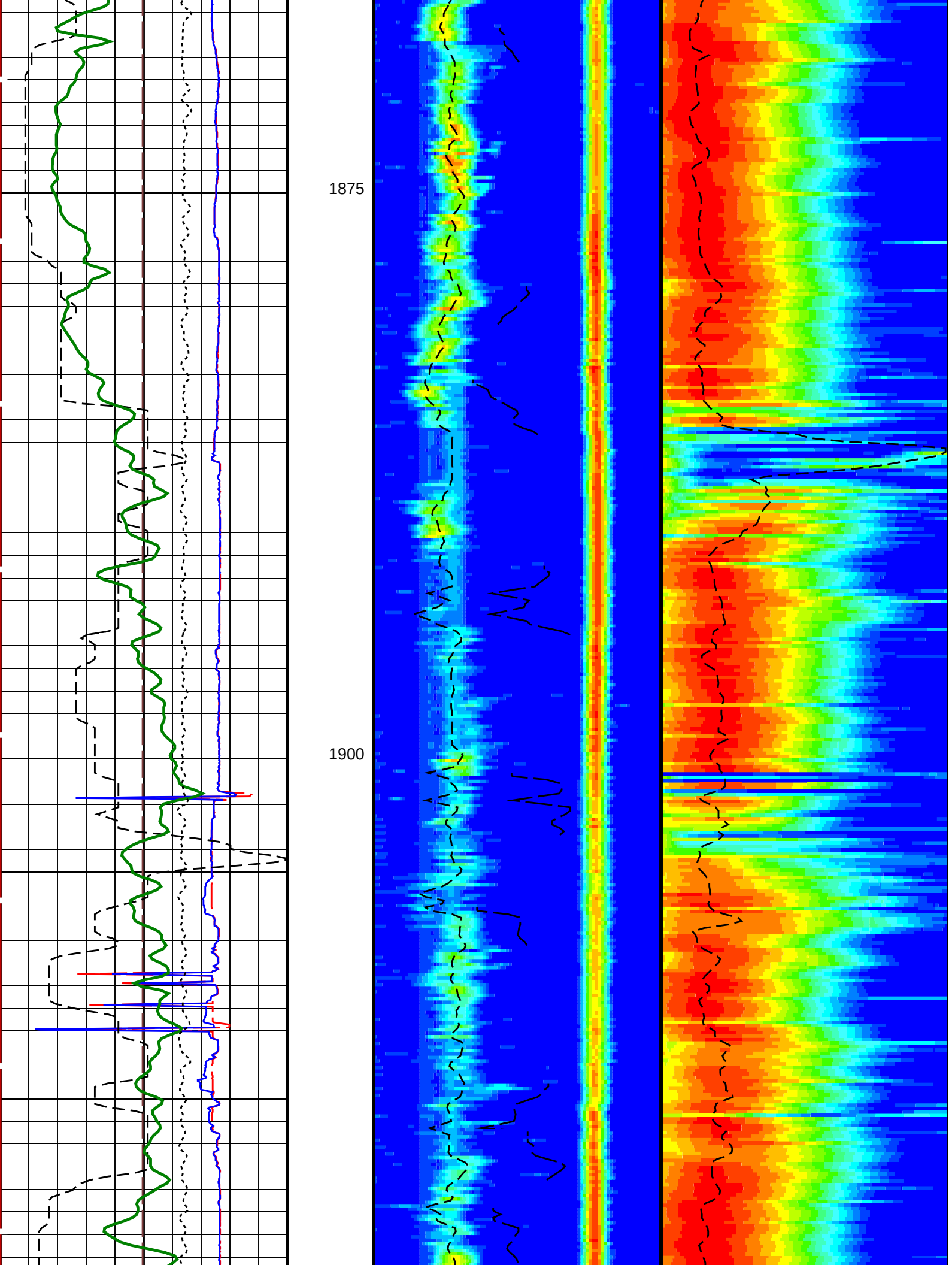
Calipers Closed

1725

1750


1775
1800


1825
1850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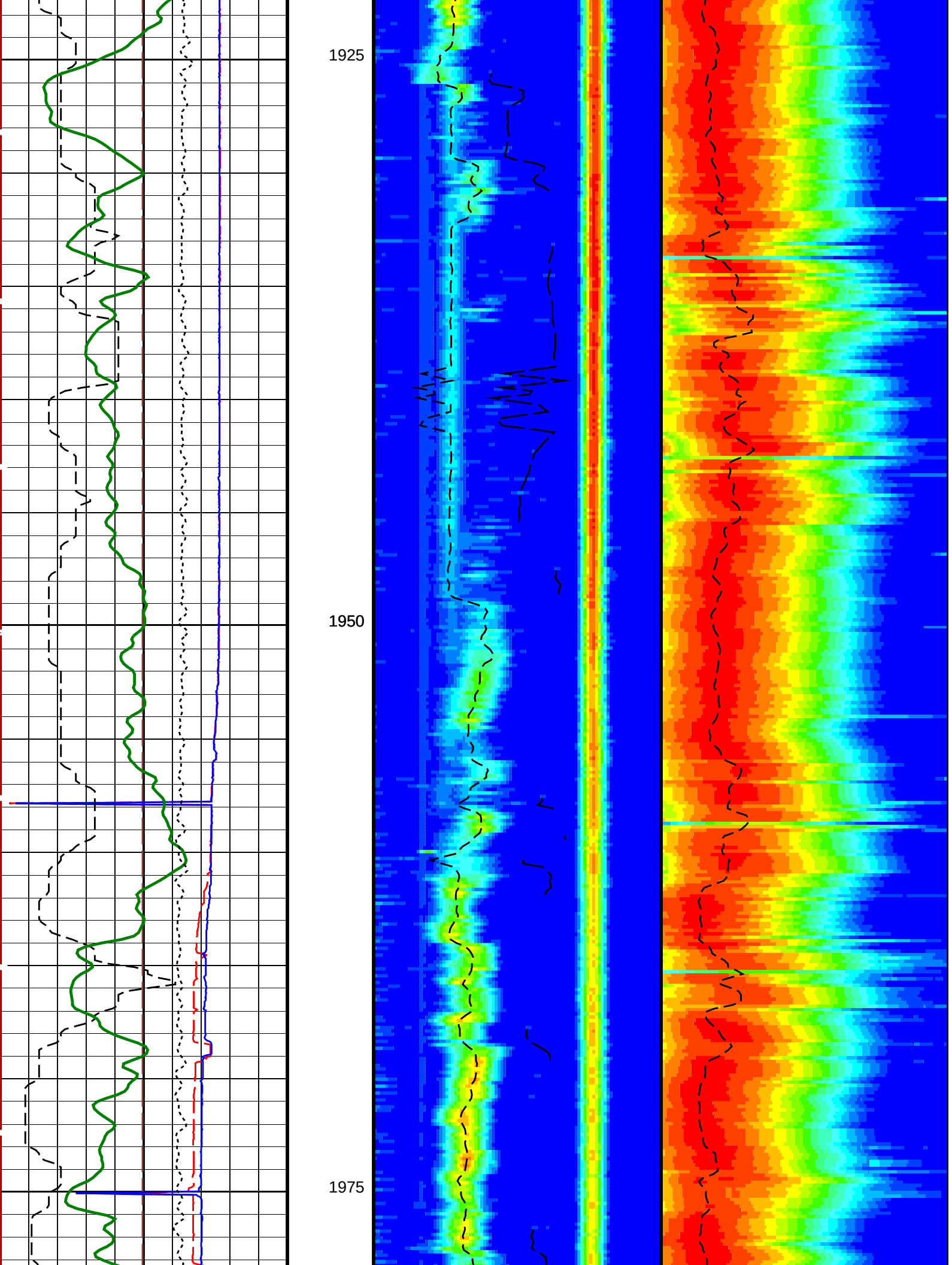
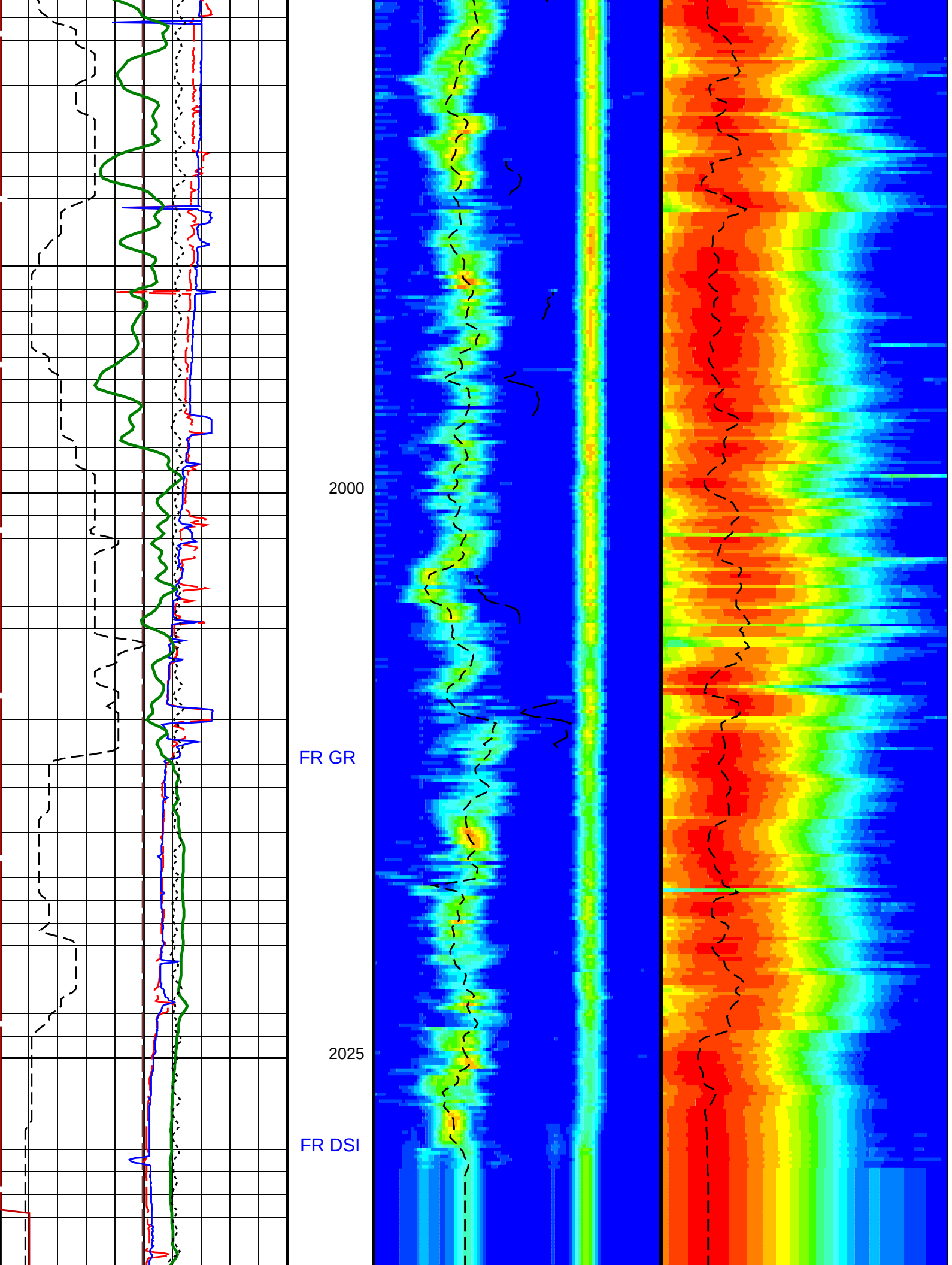
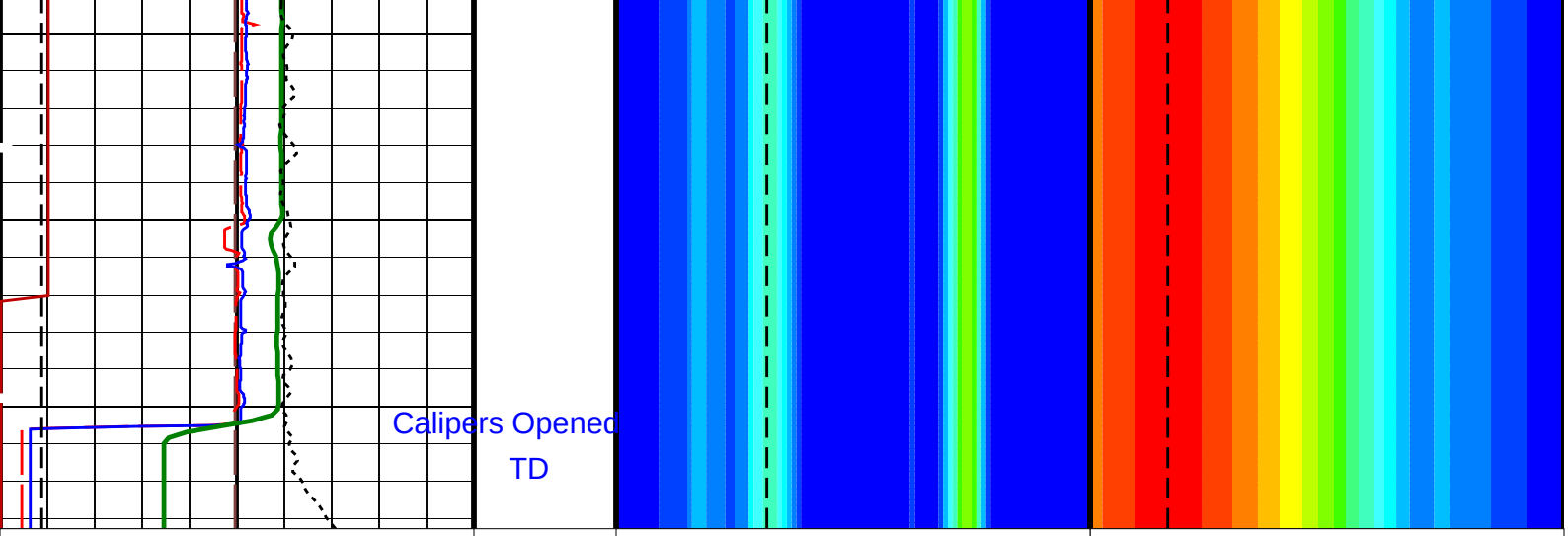
1900


1925
1950
1975


2000
FR GR
2025
FR DSI



Bit Size (BS)
0 (IN) 20

Caliper 1 (C1)
0 (IN) 20

Caliper 2 (C2)
0 (IN) 20

SAM3 Waveform Gain (WFG3)
0 (----) 1000

Tension (TENS)
10000 (LBF) 0

Waveform Data Copy Indicator 3 − Monopole Stoneley (WCI3)
0 (----) 10

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

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

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

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

Delta−T Stoneley / RA (DT3R)
180 (US/F) 780

Min Amplitude Max
Rec.Array Stoneley Slow Proj. CVDL (SPR3)
180 (US/F) 780

Uplog 1

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	40	US/F
COUL	Label Slowness Upper Limit − Monopole P&S Compressional	180	US/F
DDE3	Digitizing Delay 3	0	US
DDE4	Digitizing Delay 4	0	US
DDEX	Digitizing Delay X	0	US
DSI3	Digitizer Sample Interval 3	40	US
DSI4	Digitizer Sample Interval 4	10	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta−T Source for DTCO Channel	PS_COMP	
DTF	Delta−T Fluid	189	US/F
DWC3	Digitizer Word Count 3	512	
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	C1	
LFC	Label Formation Character − Monopole P&S	DYNAMIC	
MCS	Mean Casing Slowness	57	US/F
MTXG	Monopole Transmitter Geometry	186	IN
NWI3	Number Waveform Items 3	8	

NWI4	Number Waveform Items 4	8	
NWIX	Number Waveform Items X	32	
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
SAM3	DSST Sonic Acquisition Mode 3 − Monopole Mode for Stoneley	ODD	
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	BCR	
SAS3	STC Sonic Array Status − Monopole Stoneley	255	
SAS4	STC Sonic Array Status − Monopole P&S	255	
SBO3	STC Search Band Offset − Monopole Stoneley	2000	US
SBO4	STC Search Band Offset − Monopole P&S	500	US
SBR4	STC Baseline Removal − Monopole P&S	ON	
SBW3	STC Search Bandwidth − Monopole Stoneley	6000	US
SBW4	STC Search Bandwidth − Monopole P&S	2000	US
SFC3	STC Formation Character − Monopole Stoneley	SELECTABLE	
SFC4	STC Formation Character − Monopole P&S	SELECTABLE	
SFM3	STC Filter − Monopole Stoneley	B.5−1.5K	
SFM4	STC Filter − Monopole P&S	B3−20K	
SHLL	Label Slowness Lower Limit − Monopole P&S Shear	75	US/F
SHUL	Label Slowness Upper Limit − Monopole P&S Shear	180	US/F
SLL3	STC Slowness Lower Limit − Monopole Stoneley	180	US/F
SLL4	STC Slowness Lower Limit − Monopole P&S	40	US/F
SST3	STC Slowness Step − Monopole Stoneley	4	US/F
SST4	STC Slowness Step − Monopole P&S	2	US/F
SSW3	STC Source Waveform − Monopole Stoneley	WF_SAM3	
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
SUL3	STC Slowness Upper Limit − Monopole Stoneley	780	US/F
SUL4	STC Slowness Upper Limit − Monopole P&S	240	US/F
SWD3	STC Slowness Width − Monopole Stoneley	40	US/F
SWD4	STC Slowness Width − Monopole P&S	10	US/F
TBF3	STC Time for Baseline Fill − Monopole Stoneley	0	US
TBF4	STC Time for Baseline Fill − Monopole P&S	300	US
TLL3	STC Time Lower Limit − Monopole Stoneley	620	US
TLL4	STC Time Lower Limit − Monopole P&S	150	US
TST3	STC Time Step − Monopole Stoneley	200	US
TST4	STC Time Step − Monopole P&S	50	US
TUL3	STC Time Upper Limit − Monopole Stoneley	12020	US
TUL4	STC Time Upper Limit − Monopole P&S	3660	US
TWD3	STC Time Width − Monopole Stoneley	2000	US
TWD4	STC Time Width − Monopole P&S	1000	US
TWI3	STC Integration Time Window − Monopole Stoneley	1600	US
TWI4	STC Integration Time Window − Monopole P&S	500	US
TWSX	Transmitter Waveform Select X	0	
WFM3	Waveform Mode 3	W1	
HNGS−BA: Hostile Natural Gamma Ray Sonde			
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	C1	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00376997	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
TPOS	Tool Position	CENT	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.02259	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.03819	
EDTC−B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	C1	
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.02	G/C3

DFD	Drilling Fluid Density	1.02	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: Stonely180_780_P&S40_240 Vertical Scale: 1:200 Graphics File Created: 21−Jun−2018 17:26

OP System Version: 19C0−187

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

Input DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_052PUP	FN:69	PRODUCER	21−Jun−2018 16:47	2048.3 M	1721.1 M

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_055PUP	FN:72	PRODUCER	21−Jun−2018 17:26		

Input DLIS Files

21−Jun−2018 16:47

Output DLIS Files

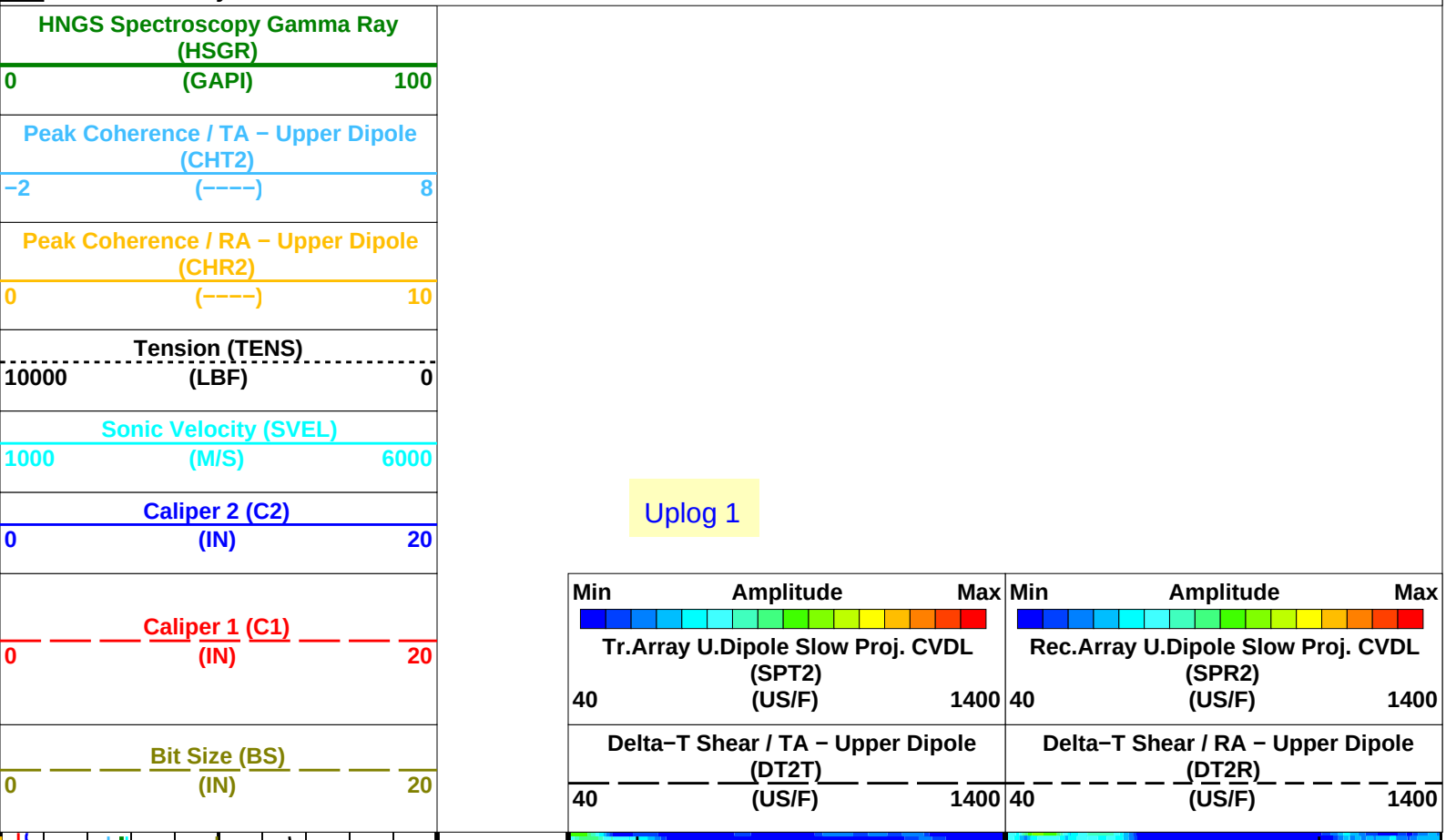
DEFAULT	LDL_FMS_DSI_NGS_055PUP	FN:72	PRODUCER	21−Jun−2018 17:26	2048.3 M	1721.1 M

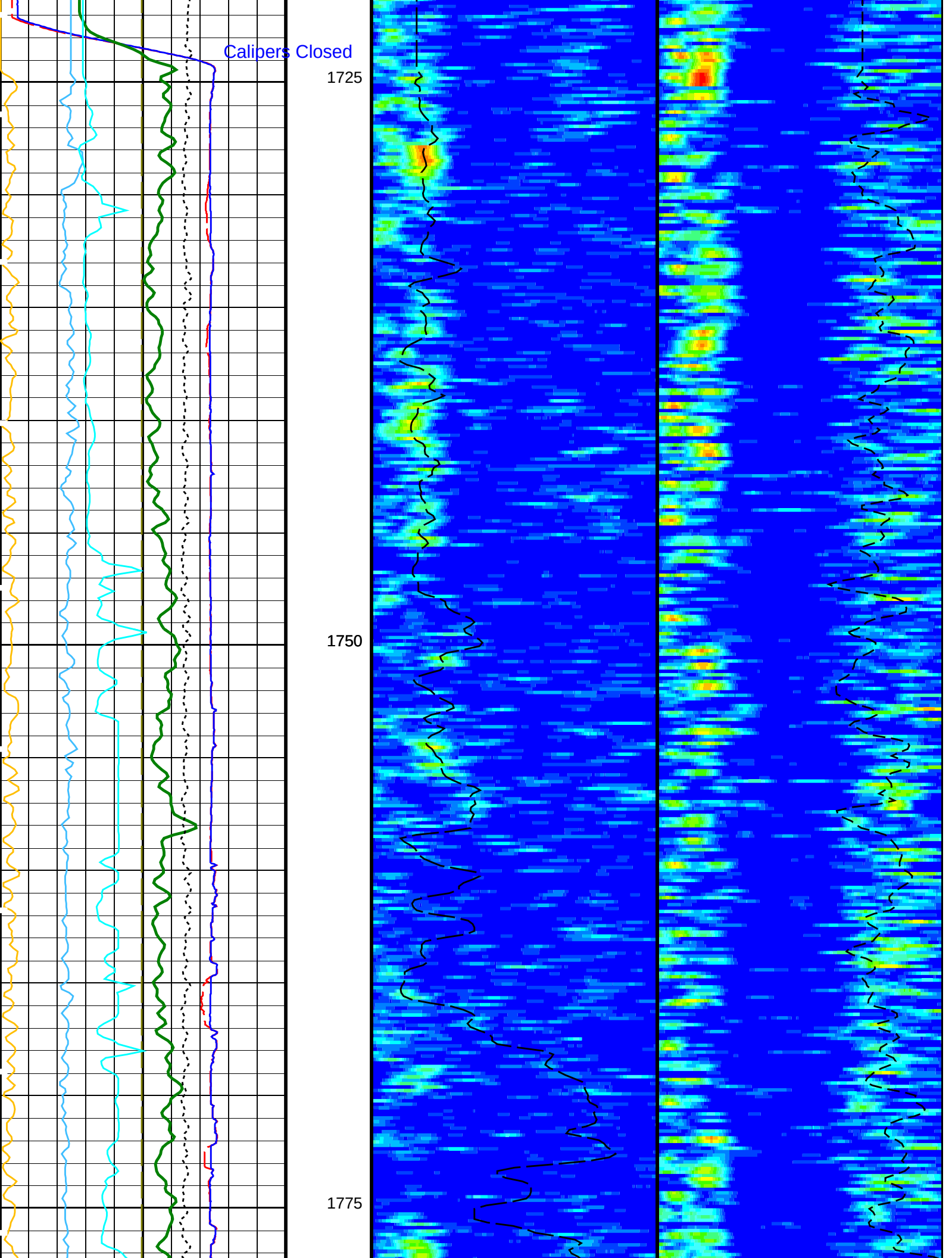
OP System Version: 19C0−187

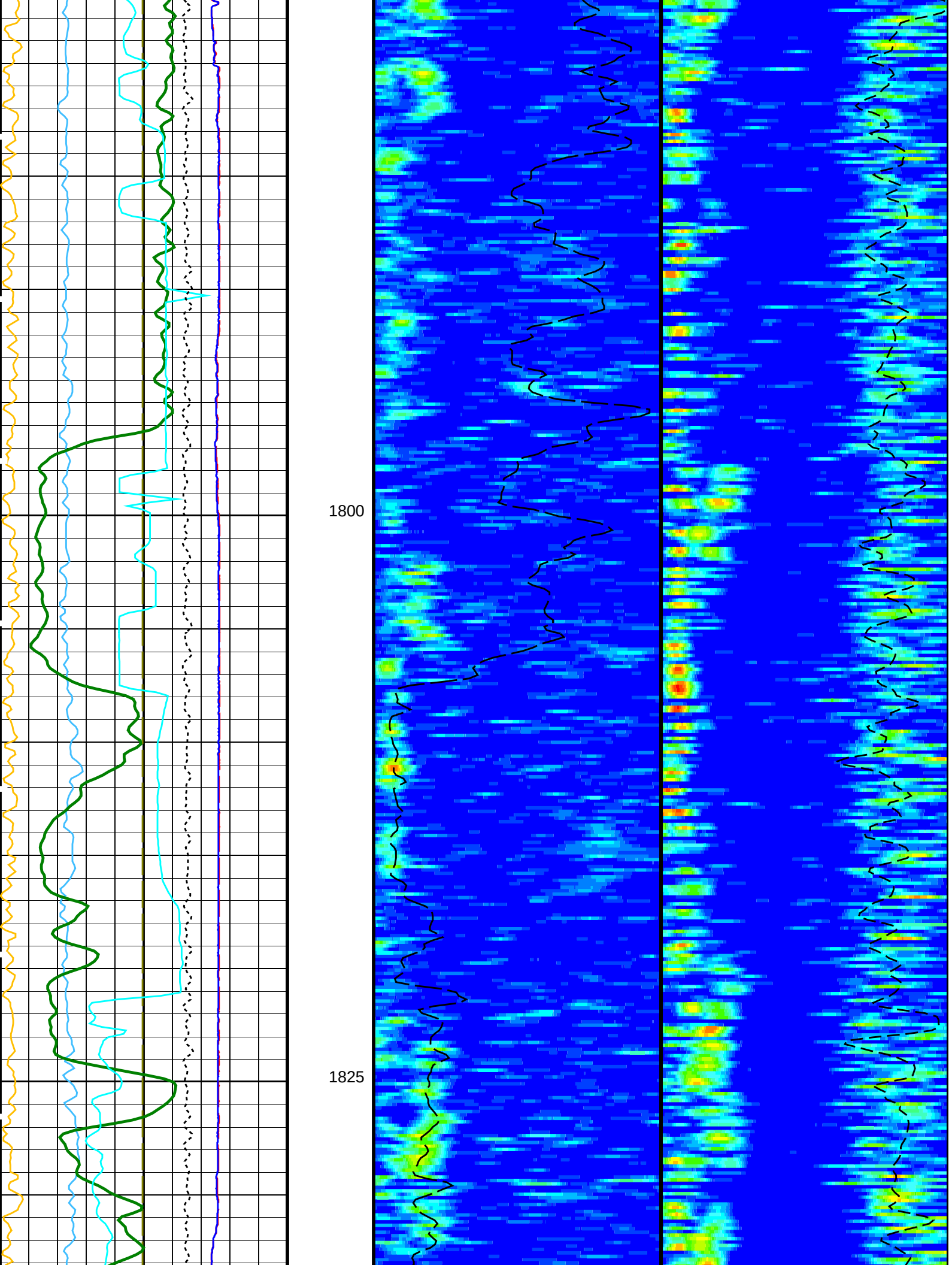
HLDS	19C0−187	MEST−B	19C0−187
DTA−A−8453	19C0−187	DSST−B	19C0−187
HNCC−B	19C0−187	HNGS−BA	19C0−187
EDTC−B	SKK−5169−EDTCB		

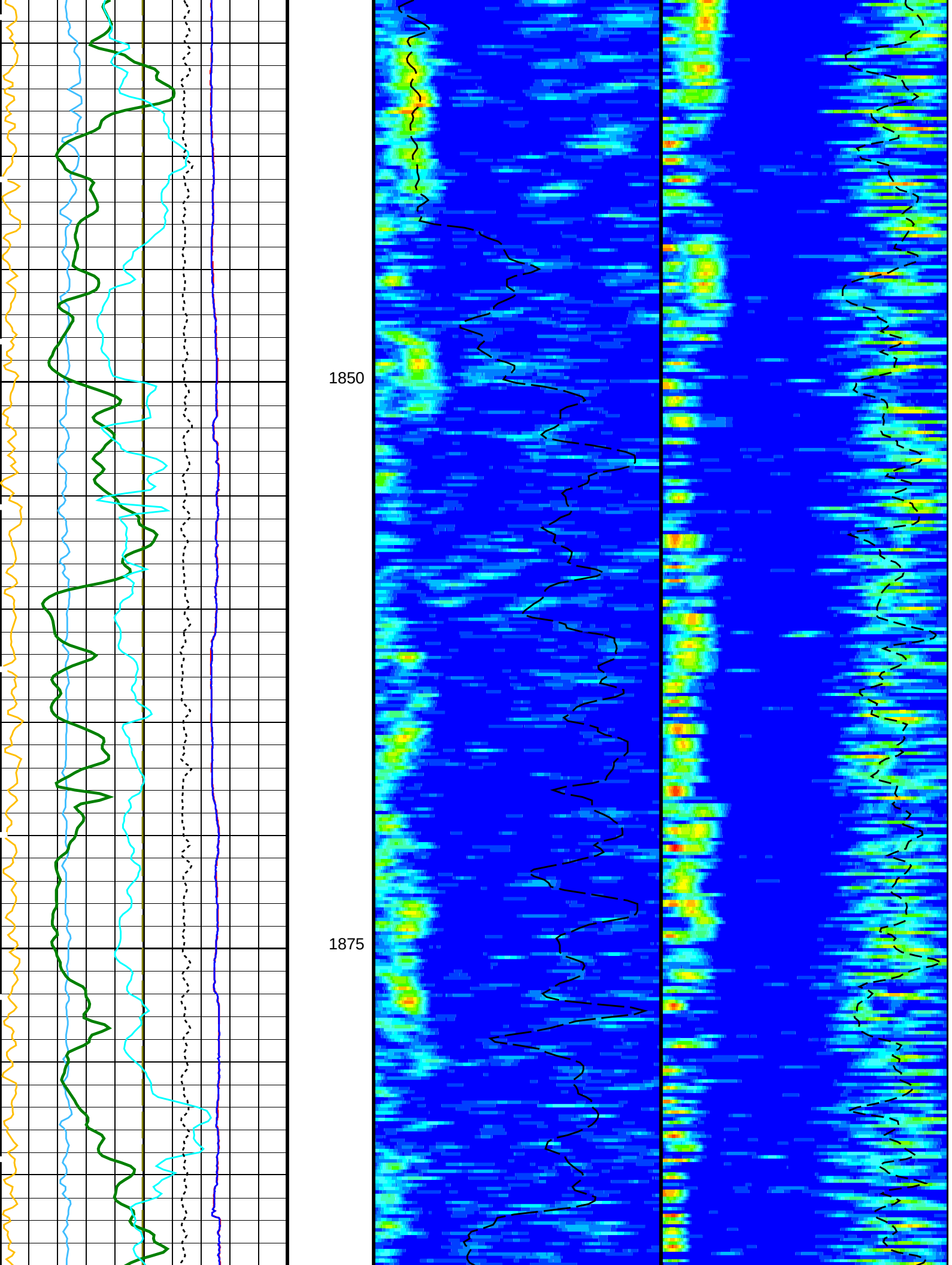
PIP SUMMARY

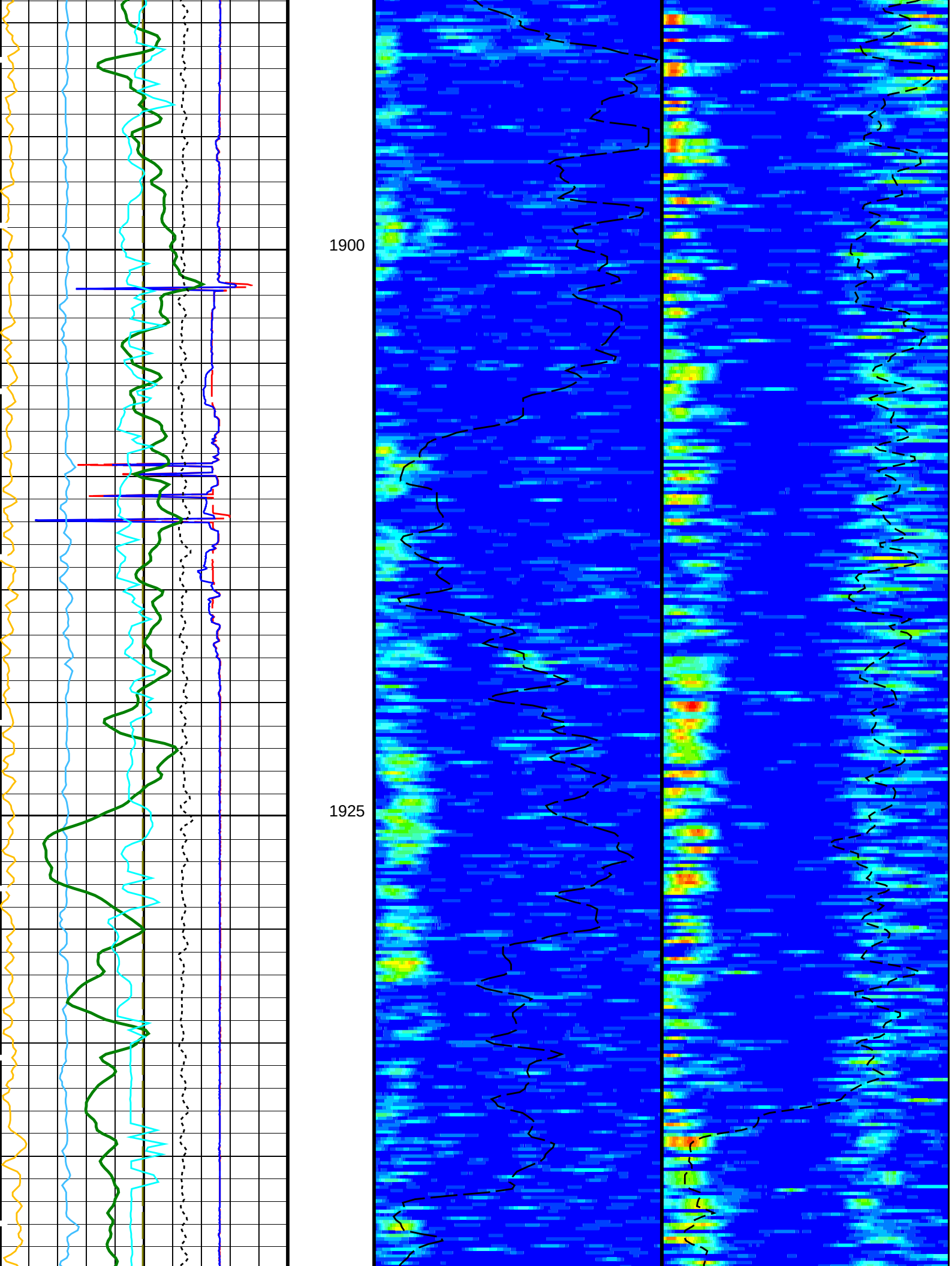
Time Mark Every 60 S




Calipers Closed
1725
1750
1775


1800
1825


1850
1875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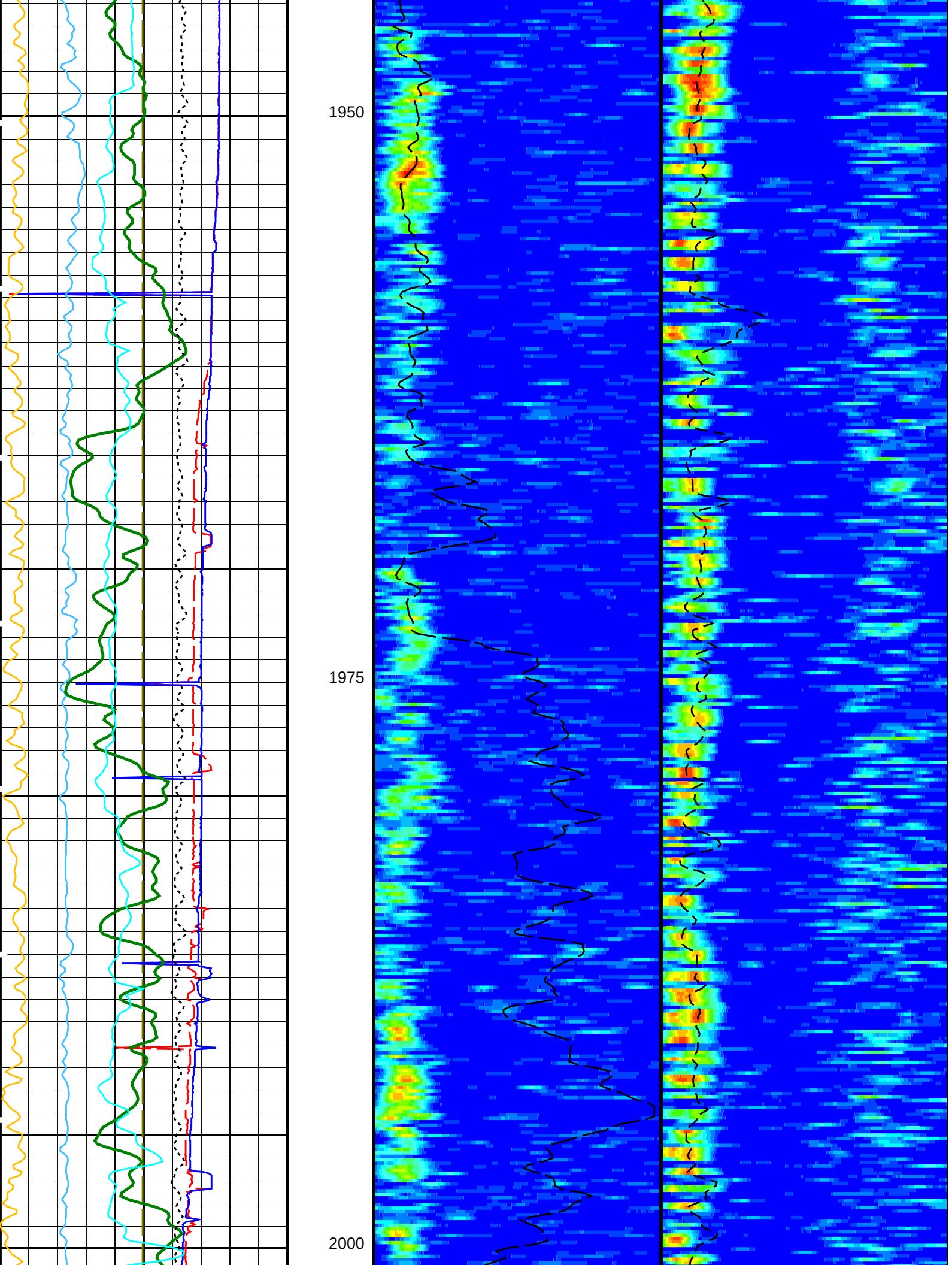
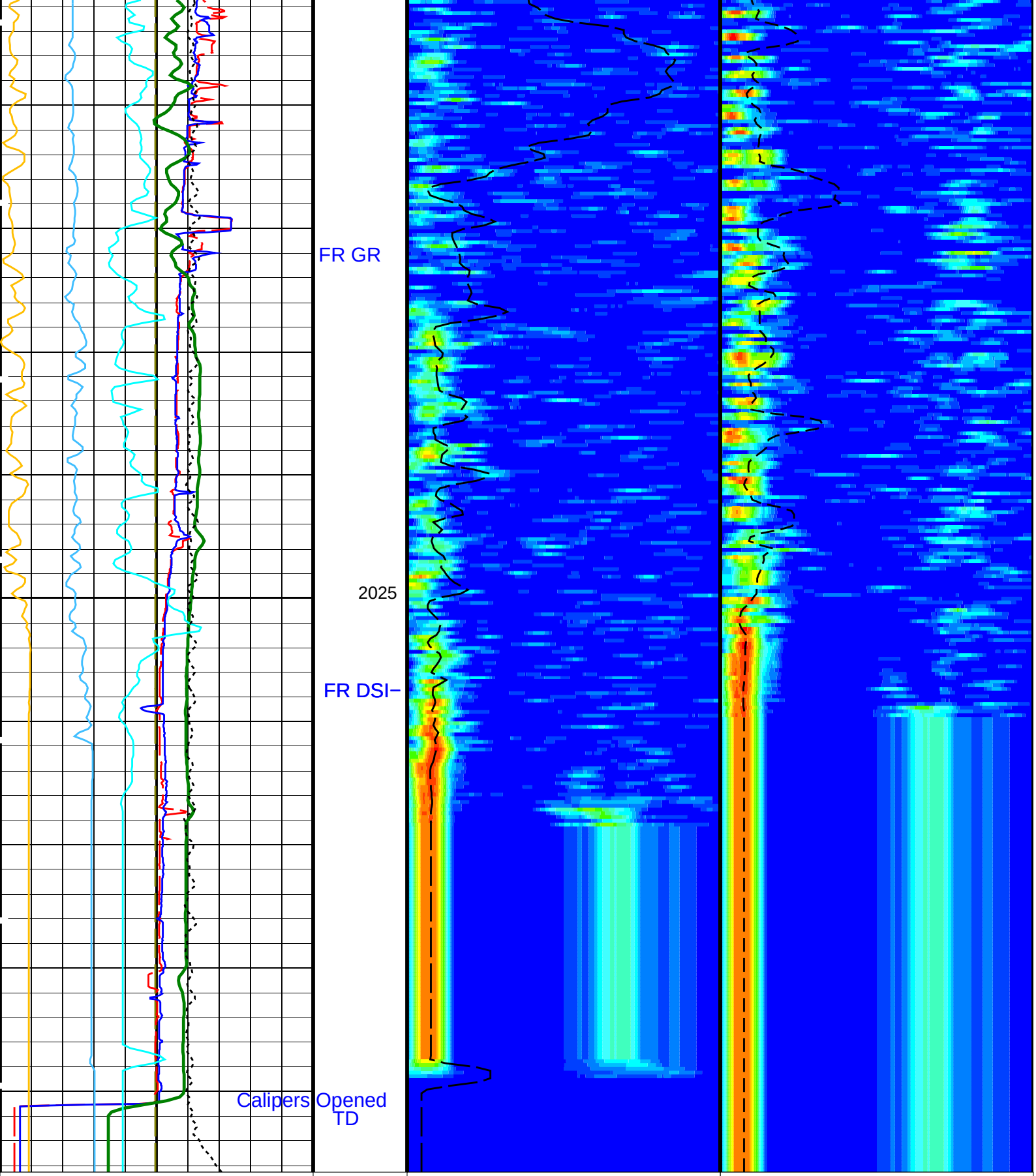
1925


1950
1975
2000



Bit Size (BS)
0 (IN) 20

Caliper 1 (C1)
0 (IN) 20

Caliper 2 (C2)

Delta−T Shear / TA − Upper Dipole
(DT2T)
40 (US/F) 1400

Min Amplitude Max

Tr.Array U.Dipole Slow Proj. CVDL
(SPT2)
40 (US/F) 1400

Delta−T Shear / RA − Upper Dipole
(DT2R)
40 (US/F) 1400

Min Amplitude Max

Rec.Array U.Dipole Slow Proj. CVDL
(SPR2)
40 (US/F) 1400

0	(IN)	20
Sonic Velocity (SVEL)		
1000	(M/S)	6000
Tension (TENS)		
10000	(LBF)	0
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	1400	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	C1	
NWI2	Number Waveform Items 2	8	
NWIX	Number Waveform Items X	32	
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	BCR	
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	1400	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	20440	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
	HNGS−BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F

CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	C1	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00376997	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
TPOS	Tool Position	CENT	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.02259	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.03819	
EDTC−B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	C1	
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.02	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: SAM2_BHC Vertical Scale: 1:200 Graphics File Created: 21−Jun−2018 17:26

OP System Version: 19C0−187

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

Input DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_052PUP	FN:69	PRODUCER	21−Jun−2018 16:47	2048.3 M	1721.1 M

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_055PUP	FN:72	PRODUCER	21−Jun−2018 17:26		

Company: International Ocean Discovery Program Well: Expedition 376, Site U1530A

Input DLIS Files

21−Jun−2018 16:47

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_055PUP	FN:72	PRODUCER	21−Jun−2018 17:26	2048.3 M	1721.1 M

OP System Version: 19C0−187

HLDS	19C0−187	MEST−B	19C0−187
DTA−A−8453	19C0−187	DSST−B	19C0−187
HNCC−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

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

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

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

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

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

Gamma Ray (GR_EDTC)
0 (GAPI) 100

Poisson's Ratio (PR)
0 (−−−−) 0.5

Sonic Velocity (SVEL)
1000 (M/S) 6000

Sonde Deviation (SDEVM)
0 (DEG) 10

Poisson's Ratio (PR)
0 (−−−−) 0.5

Caliper 1 (C1)
0 (IN) 20

Uplog 1

Caliper 2 (C2)
0 (IN) 20

Calibrated Downhole Force (CDF) (LBF)
3000 0

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

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

Bit Size (BS)
0 (IN) 20

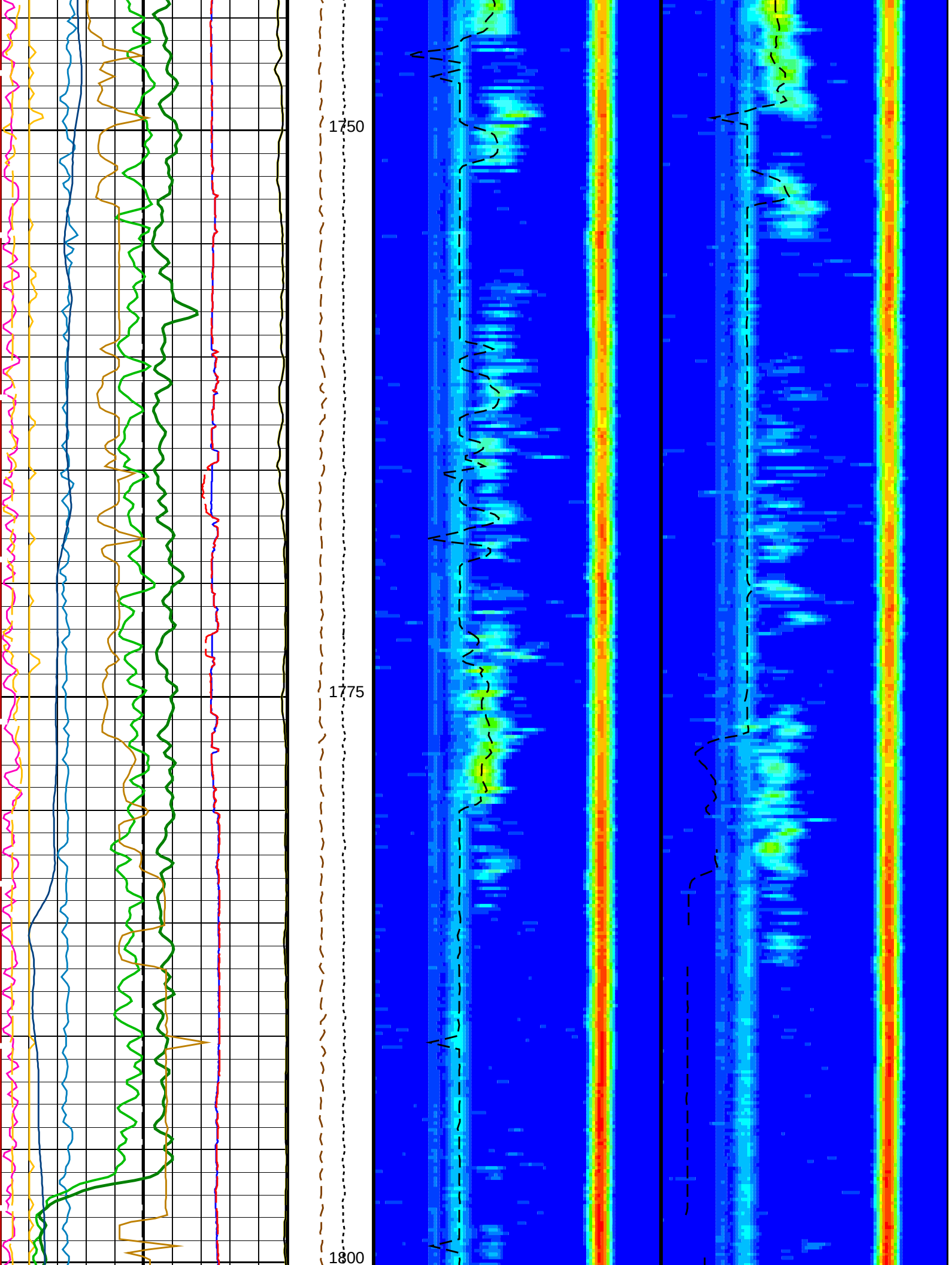
Tension (TENS) (LBF)
10000 0

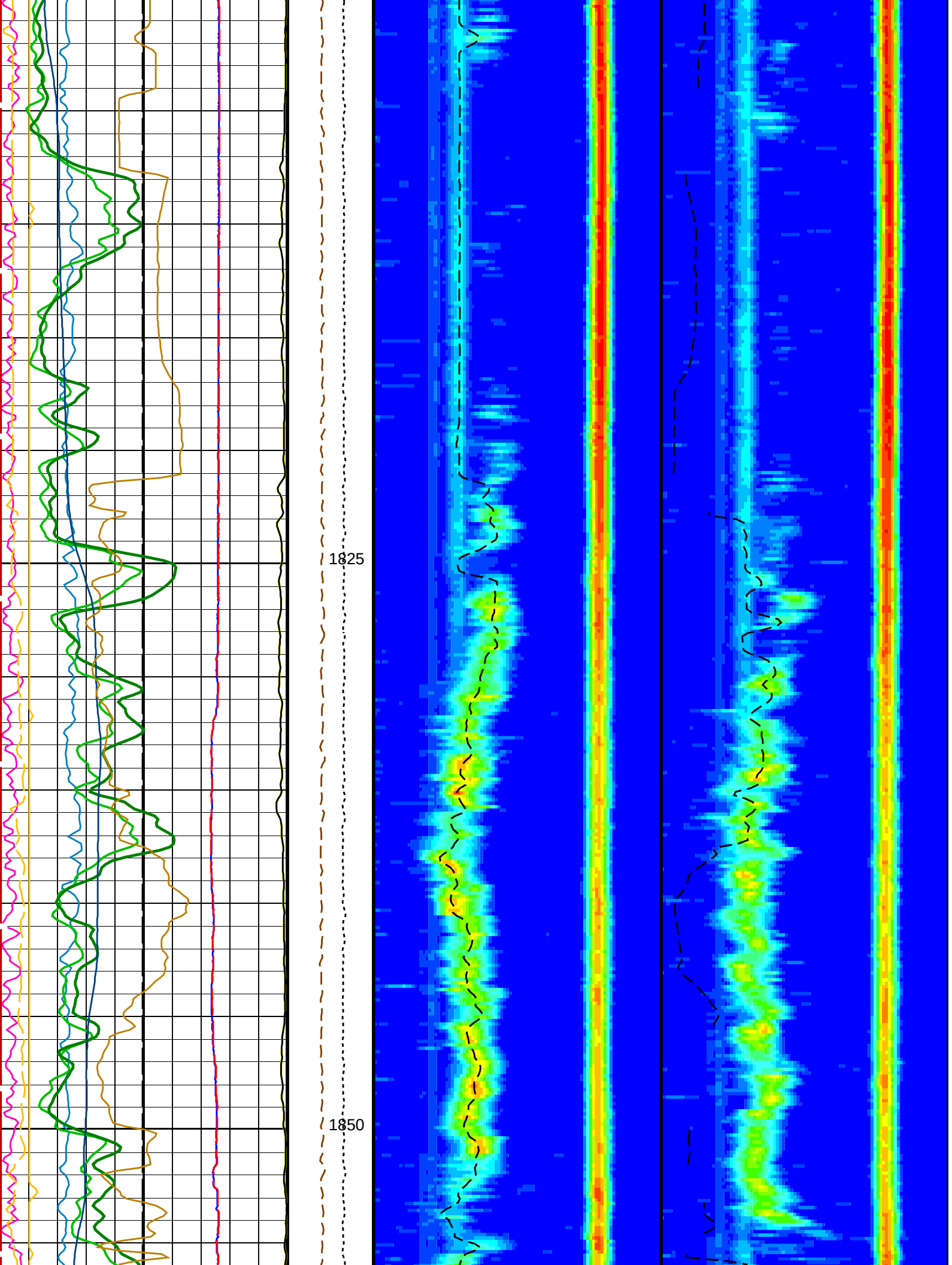
Delta−T Comp / RA − P & S (DTRP)
40 (US/F) 240

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

Calipers Closed

1725


1750
1775
1800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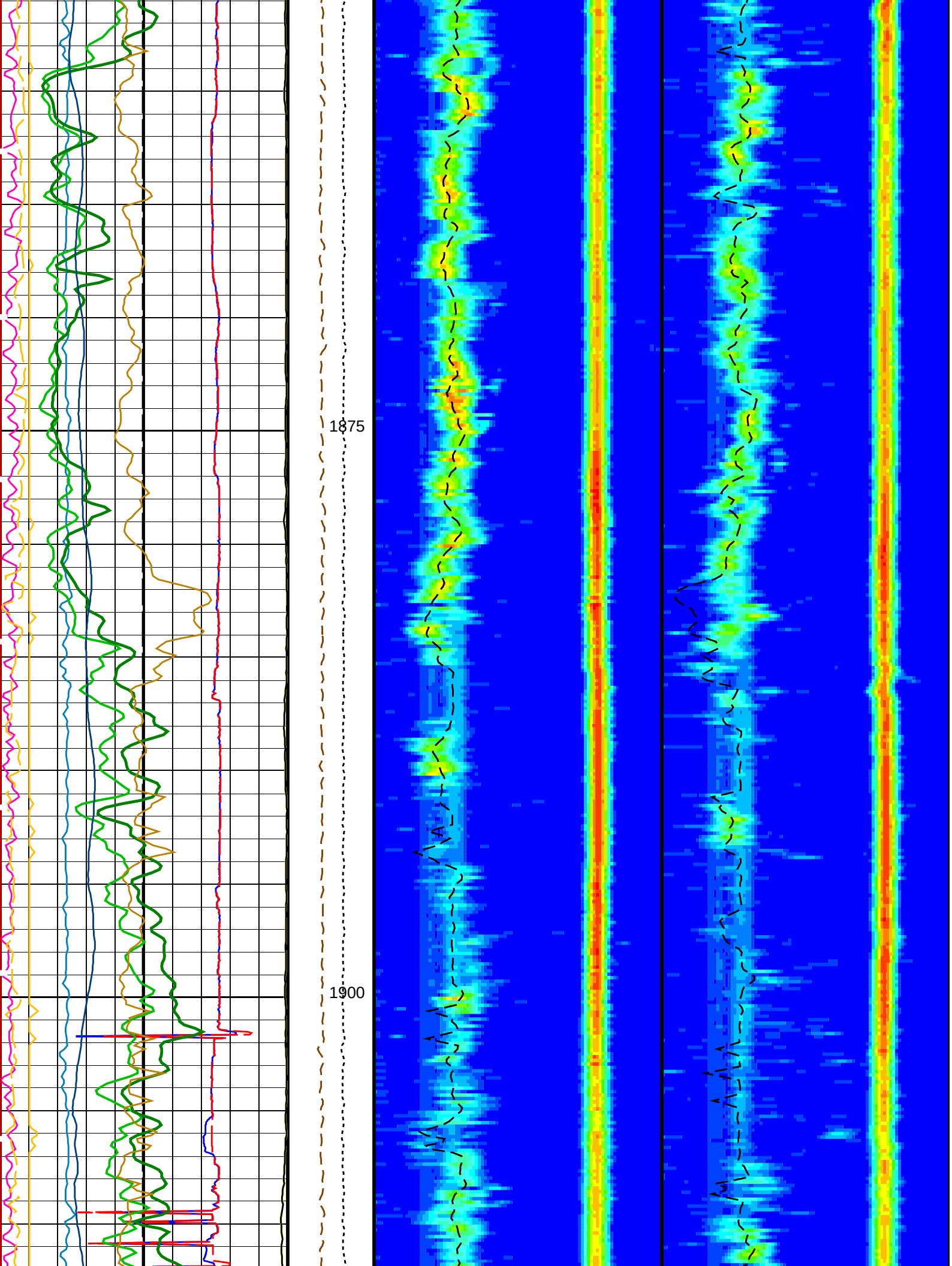
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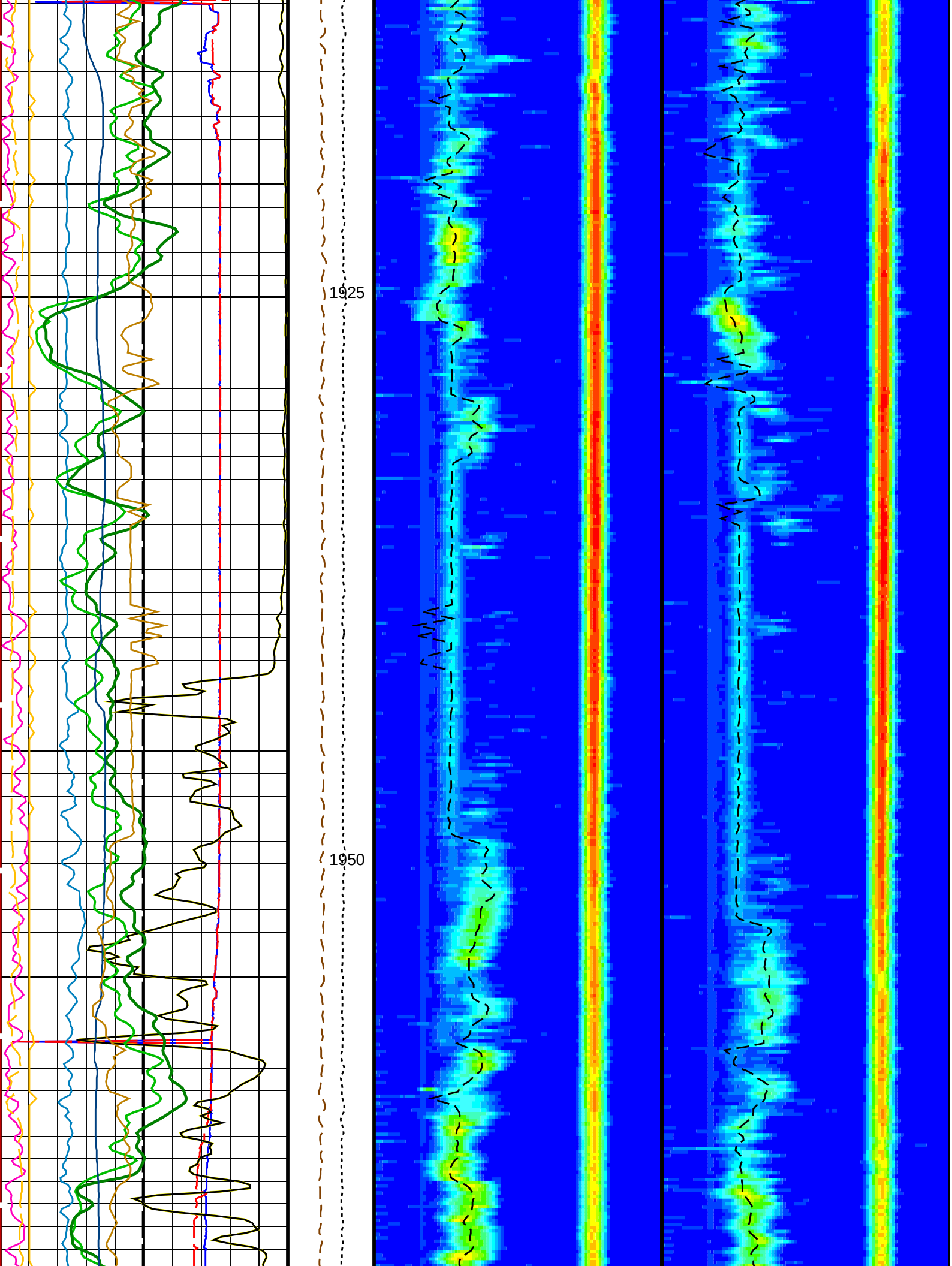
1900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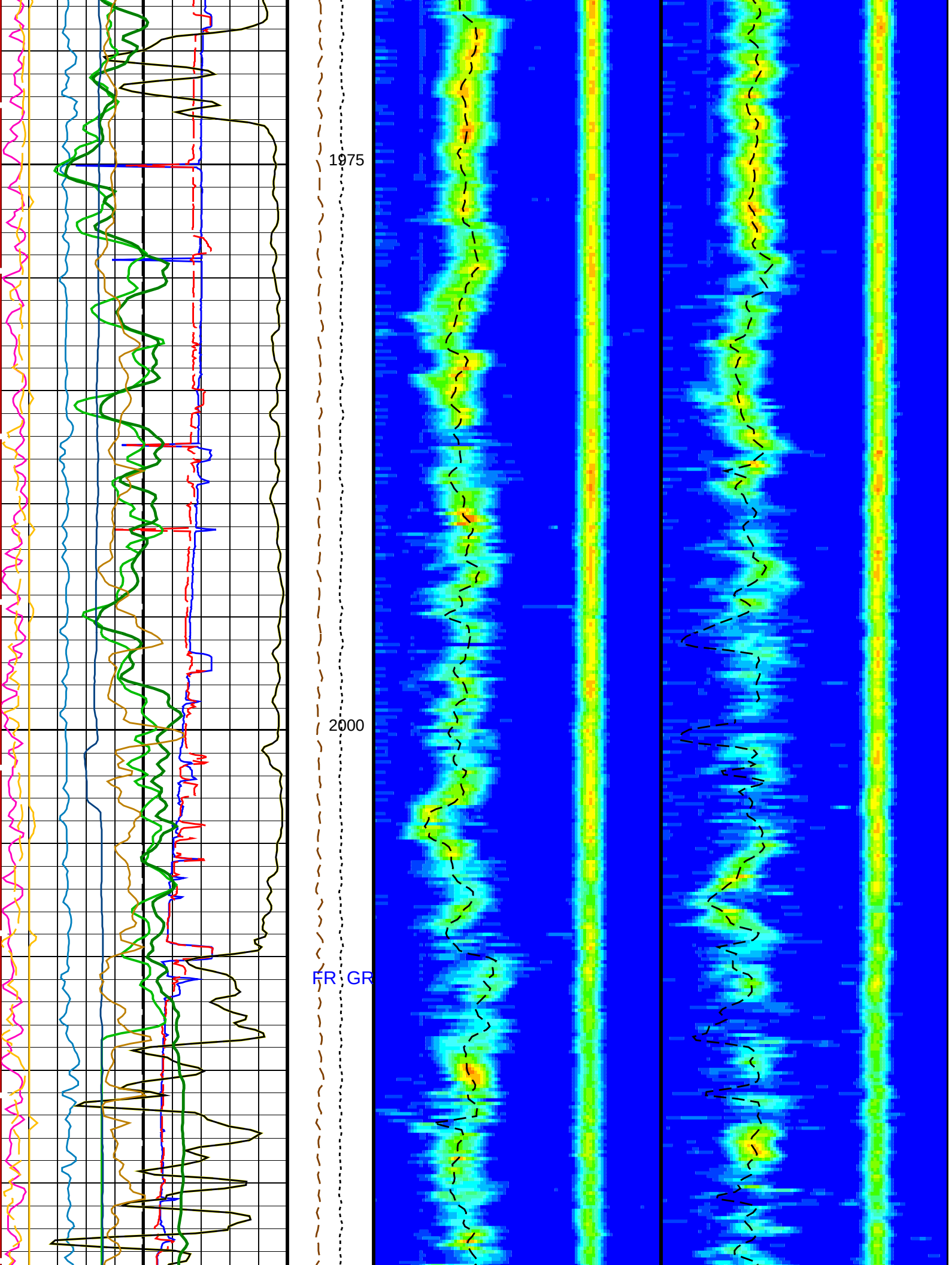
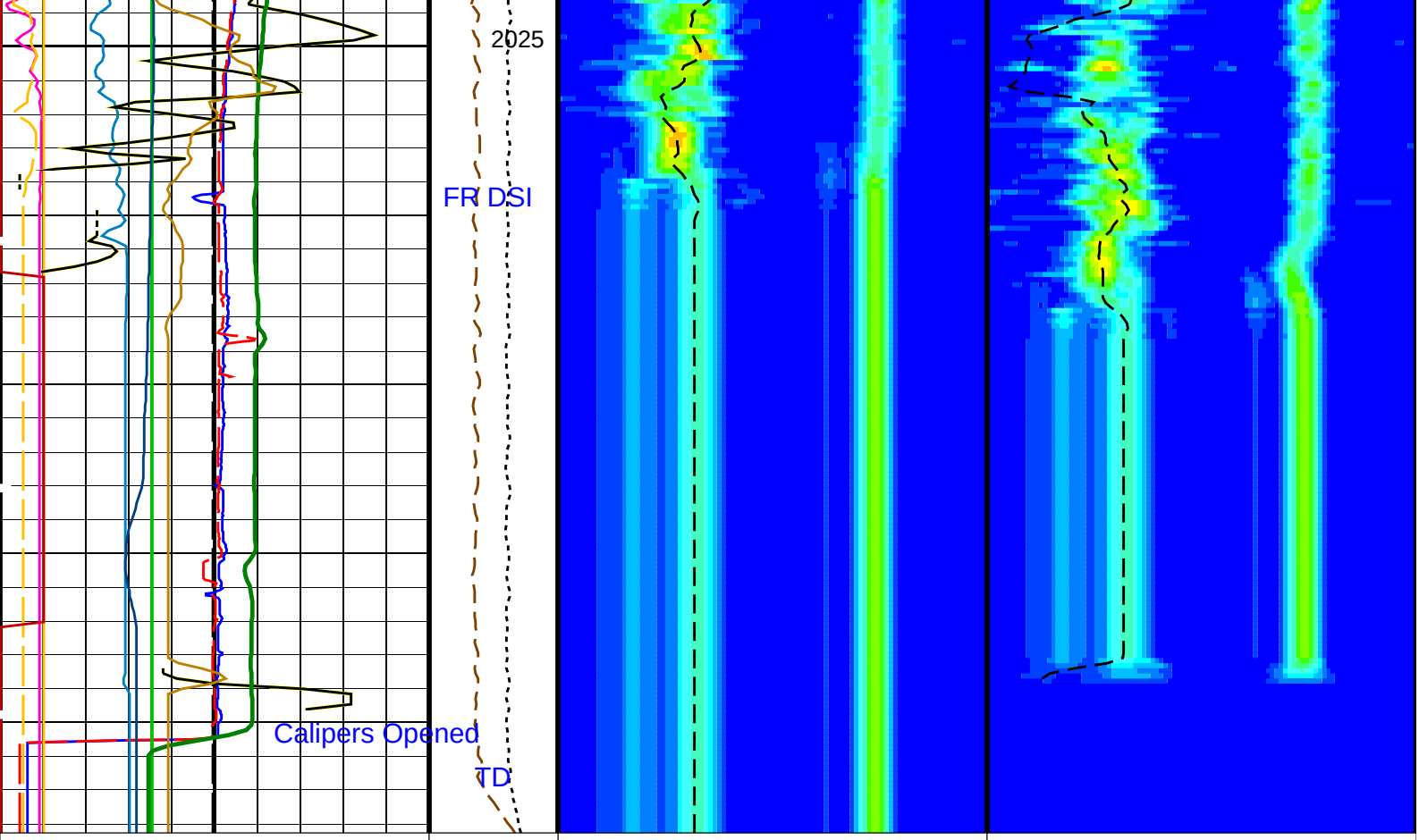
1950


1975
2000
FR . GR



Bit Size (BS) 0 (IN) 20	Tension (TENS) (LBF) 10000 0	Delta−T Comp / RA − P & S (DTRP) 40 (US/F) 240
Caliper 2 (C2) 0 (IN) 20	Calibrated Downhole Force (CDF) (LBF) 3000 0	Min Amplitude Max Rec.Array P&S Slow Proj. CVDL (SPR4) 40 (US/F) 240
Caliper 1 (C1) 0 (IN) 20		
Poisson's Ratio (PR) 0 (−−−−) 0.5		
Sonde Deviation (SDEVM) 0 (DEG) 10		
Sonic Velocity (SVEL) 1000 (M/S) 6000		
Poisson's Ratio (PR) 0 (−−−−) 0.5		
Gamma Ray (GR_EDTC) 0 (GAPI) 100		
Peak Coherence / RA − Upper Dipole (CHR2) 0 (−−−−) 10		
Peak Coherence / TA − Upper Dipole (CHT2) −2 (−−−−) 8		
Peak Coherence / RA − P & S Comp (CHRP)		

Delta−T Comp / TA − P & S (DTTP) 40 (US/F) 240
Min Amplitude Max Tr.Array P&S Slow Proj. CVDL (SPT4) 40 (US/F) 240

Uplog 1

0	(----)	10
Peak Coherence / RA − P & S Shear (CHRS)		
−1	(----)	9
Waveform Data Copy Indicator 4 − Monopole P&S (WCI4)		
0	(----)	10
HNGS Spectroscopy Gamma Ray (HSGR)		
0	(GAPI)	100

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	MEST−B: Micro Electrical Scanner − B (Slim)		
AFMO	Accelerometer Filtering Mode	MOVING_AVERAGE	
ICMO	Inclinometry Computation Mode	AUTOMATIC_SELECTION	
MDEC	Magnetic Field Declination	18.8286	DEG
	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	40	US/F
COUL	Label Slowness Upper Limit − Monopole P&S Compressional	180	US/F
DDE4	Digitizing Delay 4	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	1400	US/F
DSI4	Digitizer Sample Interval 4	10	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta−T Source for DTCO Channel	PS_COMP	
DTF	Delta−T Fluid	189	US/F
DTSS	Shear Delta−T Source for DTSM Channel	UPPER_DIPOLE	
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	C1	
LFC	Label Formation Character − Monopole P&S	DYNAMIC	
MCS	Mean Casing Slowness	57	US/F
MTXG	Monopole Transmitter Geometry	186	IN
NWI2	Number Waveform Items 2	8	
NWI4	Number Waveform Items 4	8	
NWIX	Number Waveform Items X	32	
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 BCR		
SAS2	STC Sonic Array Status − Upper Dipole	255	
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	75	US/F
SHUL	Label Slowness Upper Limit − Monopole P&S Shear	180	US/F
SLL4	STC Slowness Lower Limit − Monopole P&S	40	US/F
SST4	STC Slowness Step − Monopole P&S	2	US/F
SSW2	STC Source Waveform − Upper Dipole	WF_SAM2	
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
TWI2	STC Integration Time Window − Upper Dipole	1600	US
TWI4	STC Integration Time Window − Monopole P&S	500	US
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFM4	Waveform Mode 4	W1	
	HNGS−BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	C1	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00376997	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
TPOS	Tool Position	CENT	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.02259	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.03819	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	C1	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.02	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: Sam4_RA_TA_P&S **Vertical Scale: 1:200** **Graphics File Created: 21−Jun−2018 17:26**

OP System Version: 19C0−187

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

Input DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_052PUP	FN:69	PRODUCER	21−Jun−2018 16:47	2048.3 M	1721.1 M

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_055PUP	FN:72	PRODUCER	21−Jun−2018 17:26		

Company: International Ocean Discovery Program **Well: Expedition 376, Site U1530A**

Input DLIS Files

21−Jun−2018 16:47

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_055PUP	FN:72	PRODUCER	21−Jun−2018 17:26	2048.3 M	1721.1 M

OP System Version: 19C0−187

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

PIP SUMMARY

Time Mark Every 60 S

Gamma Ray (GR_EDTC)
0 (GAPI) 100

Bit Size (BS)
0 (IN) 20

Uplog 1

Relative Bearing (RB_MEST)
−40 (DEG) 360

Pad One Azimuth (P1AZ_MEST)
−40 (DEG) 360

Hole Azimuth (HAZIM)
−40 (DEG) 360

Deviation (DEVIM)
0 (DEG) 10

Caliper 2 (C2)
0 (IN) 20

EMEX Intensity (EI)
0 (AMPS) 10

Caliper 1 (C1)
0 (IN) 20

EMEX Voltage (EV)
0 (V) 50

Data Button 8 − Varies with RBS (U−MEST_RB8)
−80 (−−−−) 20

Data Button 7 − Varies with RBS (U−MEST_RB7)
−70 (−−−−) 30

Data Button 6 − Varies with RBS (U−MEST_RB6)
−60 (−−−−) 40

Data Button 5 − Varies with RBS (U−MEST_RB5)
−50 (−−−−) 50

−1.9587 0.0453 0.9359 1.3813 1.8266 2.2719 2.7173 3.3853 3.8306 4.7213 5.6119 6.5026 7.6159 8.7292 10.0652 12.2919

MEST_PADD (U−MEST_RESISTIVITY_PADD_EQU) (−−−−)

Data Button 4 − Varies with RBS (U−MEST_RB4)
−40 (−−−−) 60

−1.9587 0.0453 0.9359 1.3813 1.8266 2.2719 2.7173 3.3853 3.8306 4.7213 5.6119 6.5026 7.6159 8.7292 10.0652 12.2919

MEST_PADC (U−MEST_RESISTIVITY_PADC_EQU) (−−−−)

Data Button 3 − Varies with RBS (U−MEST_RB3)
−30 (−−−−) 70

−1.9587 0.0453 0.9359 1.3813 1.8266 2.2719 2.7173 3.3853 3.8306 4.7213 5.6119 6.5026 7.6159 8.7292 10.0652 12.2919

MEST_PADB (U−MEST_RESISTIVITY_PADB_EQU) (−−−−)

Data Button 2 − Varies with RBS (U−MEST_RB2)
−20 (−−−−) 80

−1.9587 0.0453 0.9359 1.3813 1.8266 2.2719 2.7173 3.3853 3.8306 4.7213 5.6119 6.5026 7.6159 8.7292 10.0652 12.2919

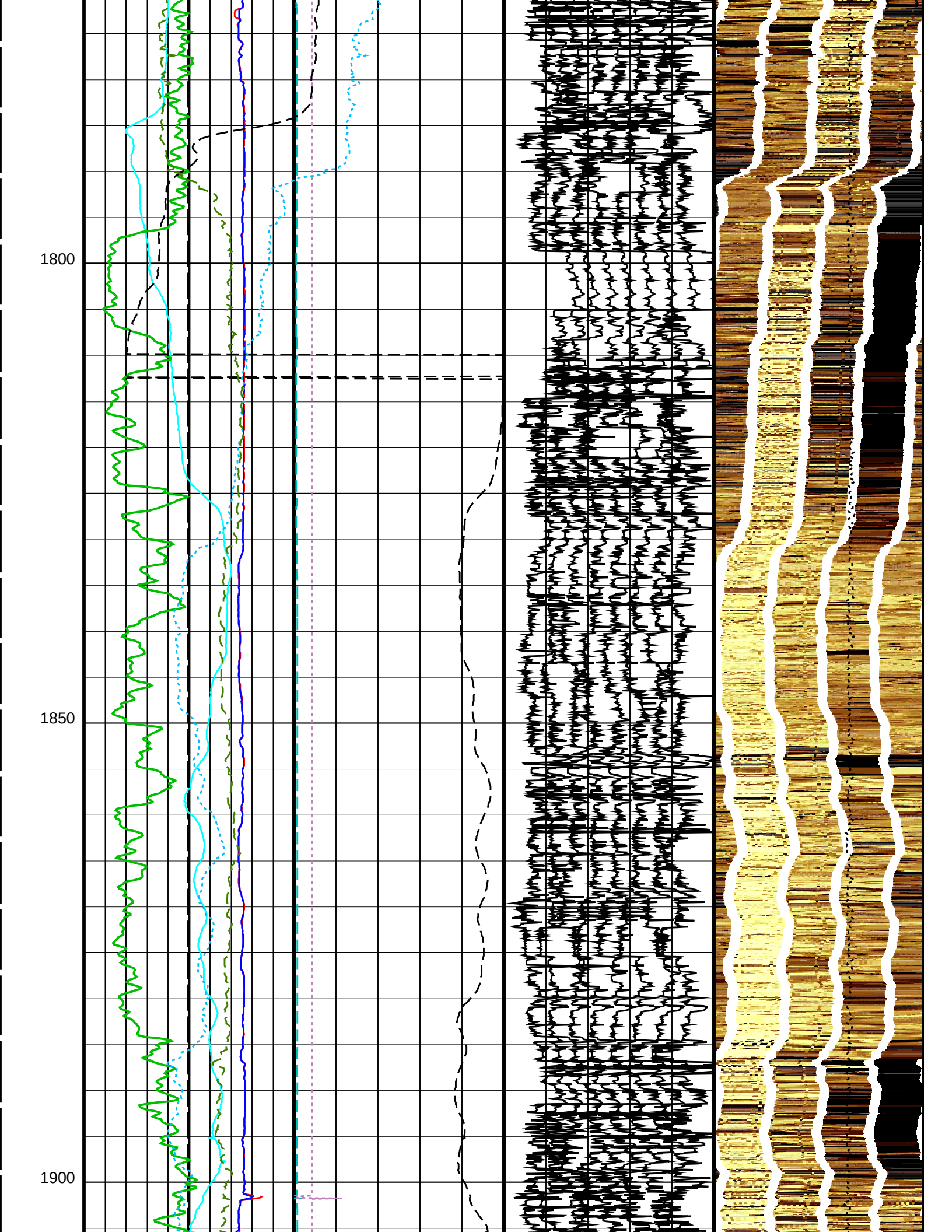
MEST_PADA (U−MEST_RESISTIVITY_PADA_EQU) (−−−−)

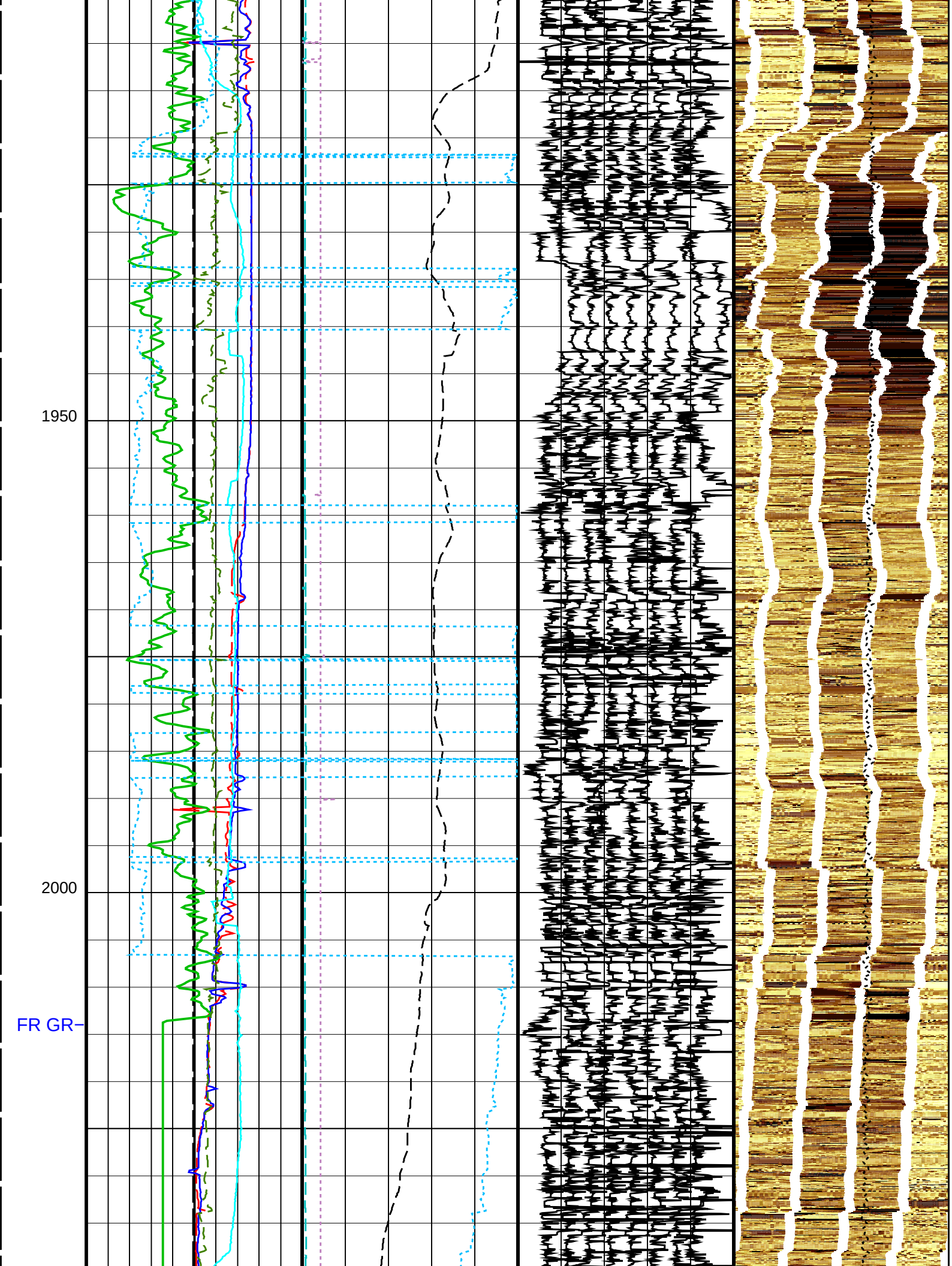
Data Button 1 − Varies with RBS (U−MEST_RB1)
−10 (−−−−) 90

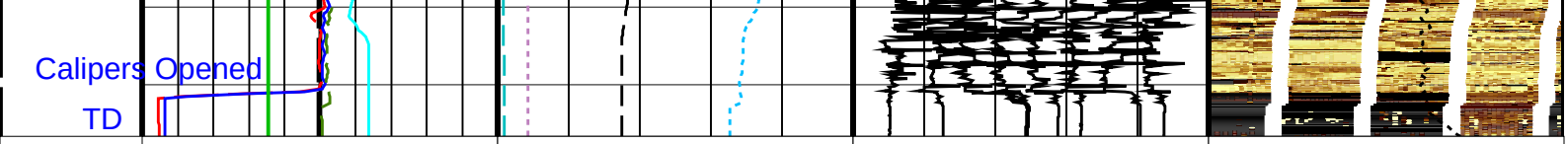
Tension (TENS)
10000 (LBF) 0

Calipers Closed

1750


1800
1850
1900


1950
2000
FR GR−



Caliper 1 (C1) 0 (IN) 20	EMEX Voltage (EV) 0 (V) 50	Data Button 1 – Varies with RBS (U–MEST_RB1) –10 (----) 90	Tension (TENS) 10000 (LBF) 0
Caliper 2 (C2) 0 (IN) 20	EMEX Intensity (EI) 0 (AMPS) 10	Data Button 2 – Varies with RBS (U–MEST_RB2) –20 (----) 80	–1.9587 0.0453 0.9359 1.3813 1.8266 2.2719 2.7173 3.3853 3.8306 4.7213 5.6119 6.5026 7.6159 8.7292 10.0652 12.2919 MEST_PADA (U–MEST_RESISTIVITY_PADA_EQU) (----)
Deviation (DEVIM) 0 (DEG) 10		Data Button 3 – Varies with RBS (U–MEST_RB3) –30 (----) 70	–1.9587 0.0453 0.9359 1.3813 1.8266 2.2719 2.7173 3.3853 3.8306 4.7213 5.6119 6.5026 7.6159 8.7292 10.0652 12.2919 MEST_PADB (U–MEST_RESISTIVITY_PADB_EQU) (----)
Hole Azimuth (HAZIM) –40 (DEG) 360		Data Button 4 – Varies with RBS (U–MEST_RB4) –40 (----) 60	–1.9587 0.0453 0.9359 1.3813 1.8266 2.2719 2.7173 3.3853 3.8306 4.7213 5.6119 6.5026 7.6159 8.7292 10.0652 12.2919 MEST_PADC (U–MEST_RESISTIVITY_PADC_EQU) (----)
Pad One Azimuth (P1AZ_MEST) –40 (DEG) 360		Data Button 5 – Varies with RBS (U–MEST_RB5) –50 (----) 50	–1.9587 0.0453 0.9359 1.3813 1.8266 2.2719 2.7173 3.3853 3.8306 4.7213 5.6119 6.5026 7.6159 8.7292 10.0652 12.2919 MEST_PADD (U–MEST_RESISTIVITY_PADD_EQU) (----)
Relative Bearing (RB_MEST) –40 (DEG) 360		Data Button 6 – Varies with RBS (U–MEST_RB6) –60 (----) 40	
Bit Size (BS) 0 (IN) 20	Uplog 1	Data Button 7 – Varies with RBS (U–MEST_RB7) –70 (----) 30	
Gamma Ray (GR_EDTC) 0 (GAPI) 100		Data Button 8 – Varies with RBS (U–MEST_RB8) –80 (----) 20	

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	MEST–B: Micro Electrical Scanner – B (Slim)		
AFMO	Accelerometer Filtering Mode	MOVING_AVERAGE	
ICMO	Inclinometry Computation Mode	AUTOMATIC_SELECTION	
MDEC	Magnetic Field Declination	18.8286	DEG
MLM	MEST Logging Mode	SCAN1800	
RBS	Resistivity Button Selection	AUTO	
XGAI	Gain	GAIN_2	
XOFF	Offset	OFFSET_0	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: MEST_C_WRAP_BY_P1AZ_1 **Vertical Scale: 1:480** **Graphics File Created: 21–Jun–2018 17:26**

OP System Version: 19C0–187

HLDS	19C0–187	MEST–B	19C0–187
DTA–A–8453	19C0–187	DSST–B	19C0–187

HNCC−B	19C0−187	HNGS−BA	19C0−187
EDTC−B	SKK−5169−EDTCB		

Input DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_052PUP	FN:69	PRODUCER	21−Jun−2018 16:47	2048.3 M	1721.1 M

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_055PUP	FN:72	PRODUCER	21−Jun−2018 17:26		

Company: International Ocean Discovery Program — Well: Expedition 376, Site U1530A

Input DLIS Files

	LDL_FMS_DSI_NGS_051PUP	FN:68		21−Jun−2018 13:28	2046.0 M	1495.2 M

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_056PUP	FN:73	PRODUCER	21−Jun−2018 17:29	2046.0 M	1495.2 M

OP System Version: 19C0−187

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

PIP SUMMARY

Time Mark Every 60 S

Deviation at DSST Waveform Depth (DVWD)
0 (DEG) 100

Relative Bearing at DSST Waveform Depth (RBWD)
0 (DEG) 400

Azimuth at DSST Waveform Depth (AZWD)
0 (DEG) 400

Waveform Data Copy Indicator X − Expert (WCIX)
0 (−−−−) 10

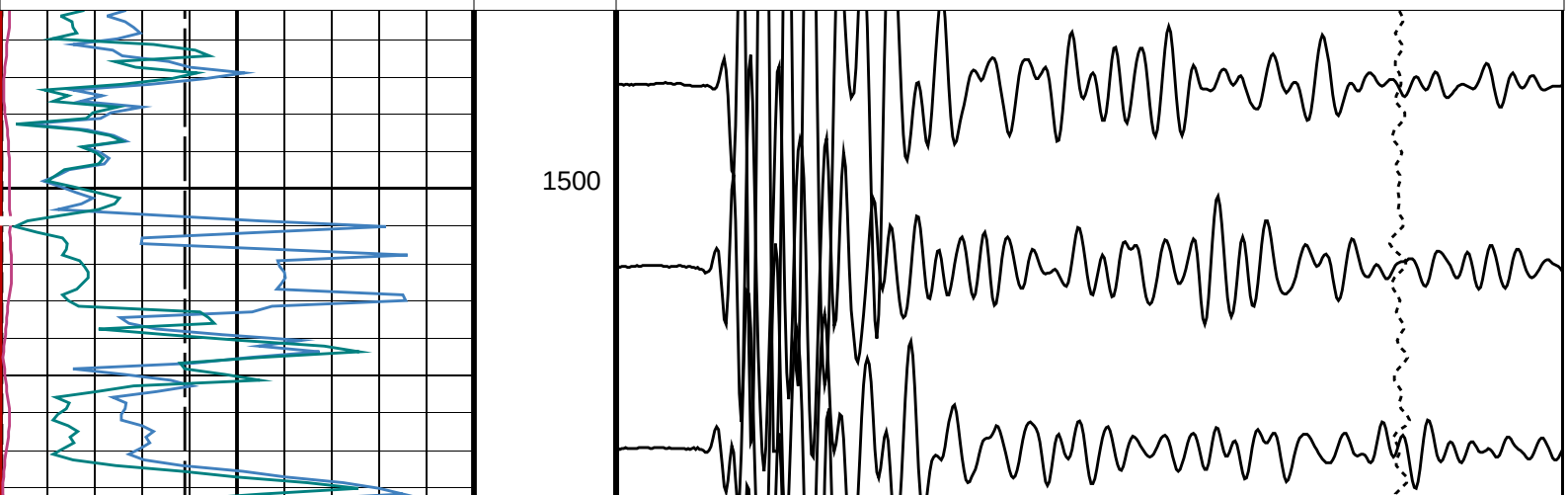
SAMX Waveform Gain (WFGX)
0 (−−−−) 1000

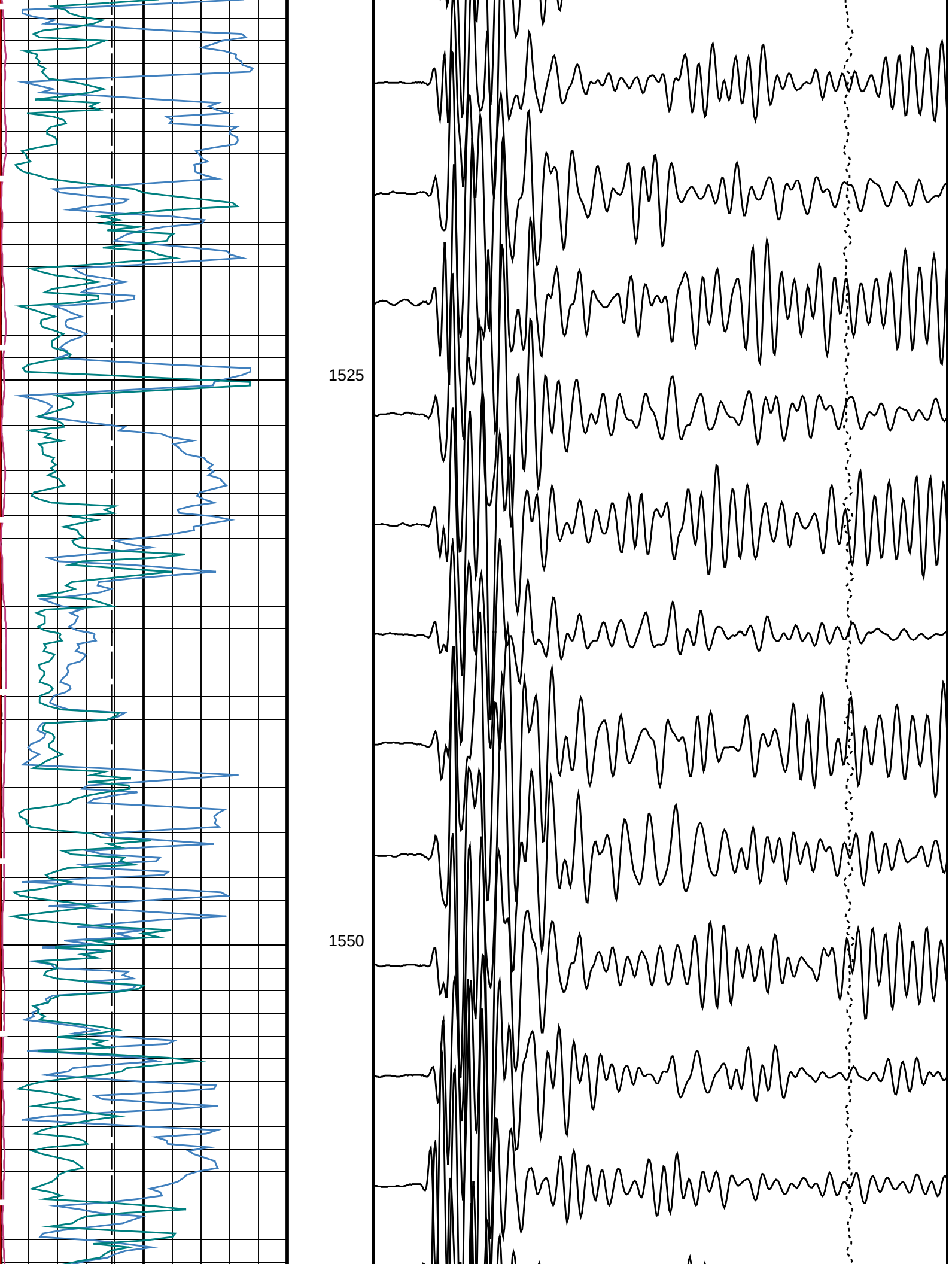
Bit Size (BS)
6 (IN) 16

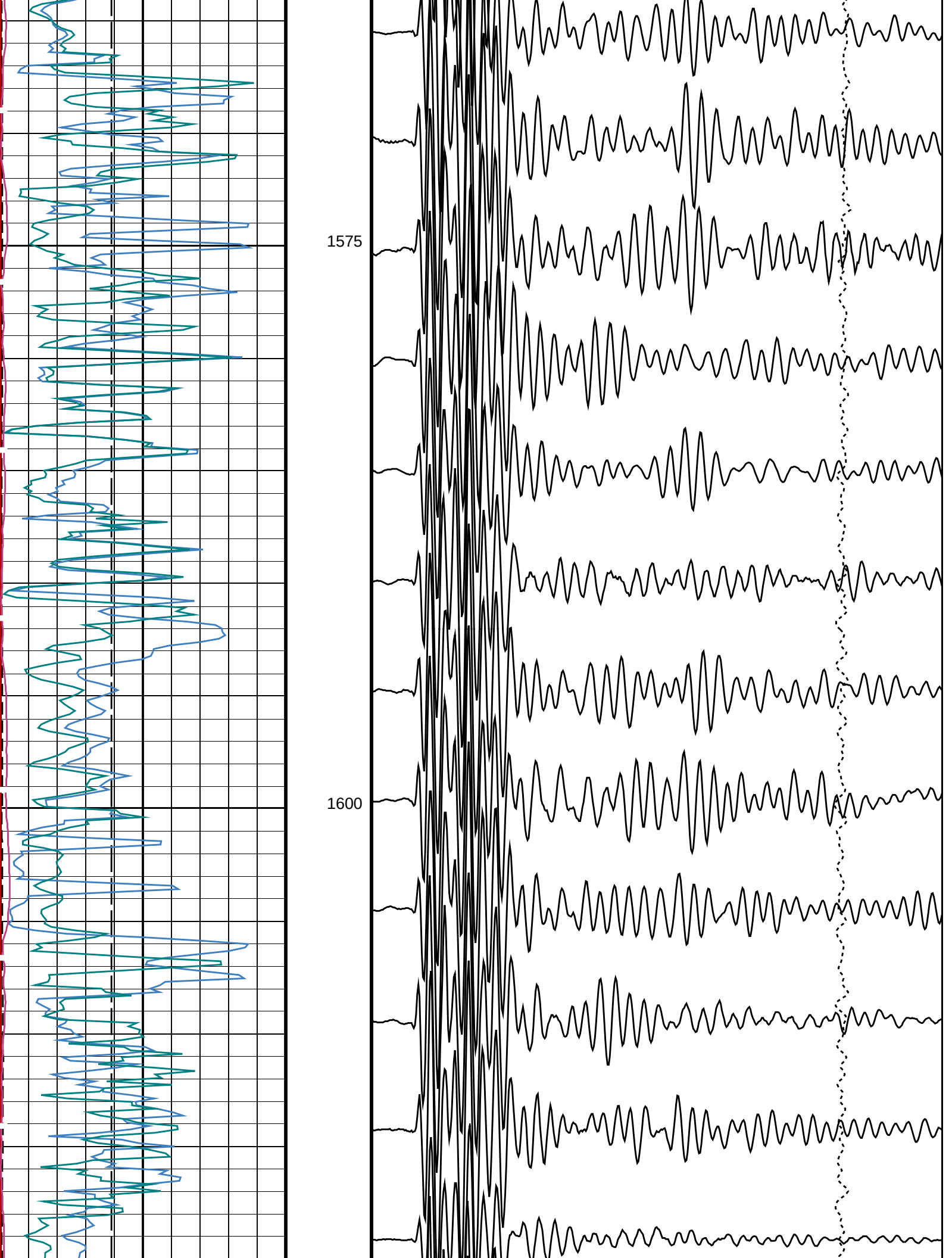
SAMX BCR Uplog #2

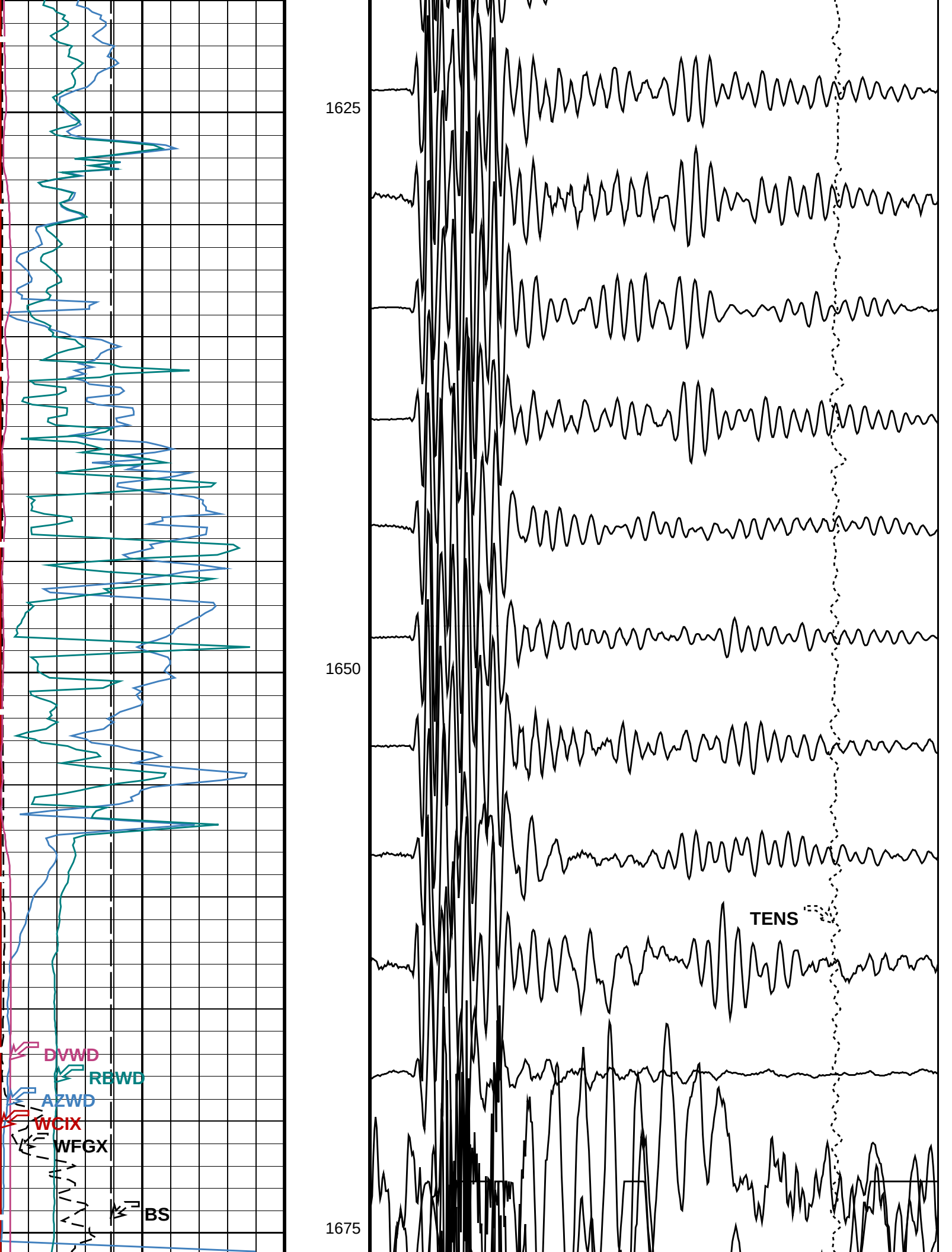
Tension (TENS)
10000 (LBF) 0

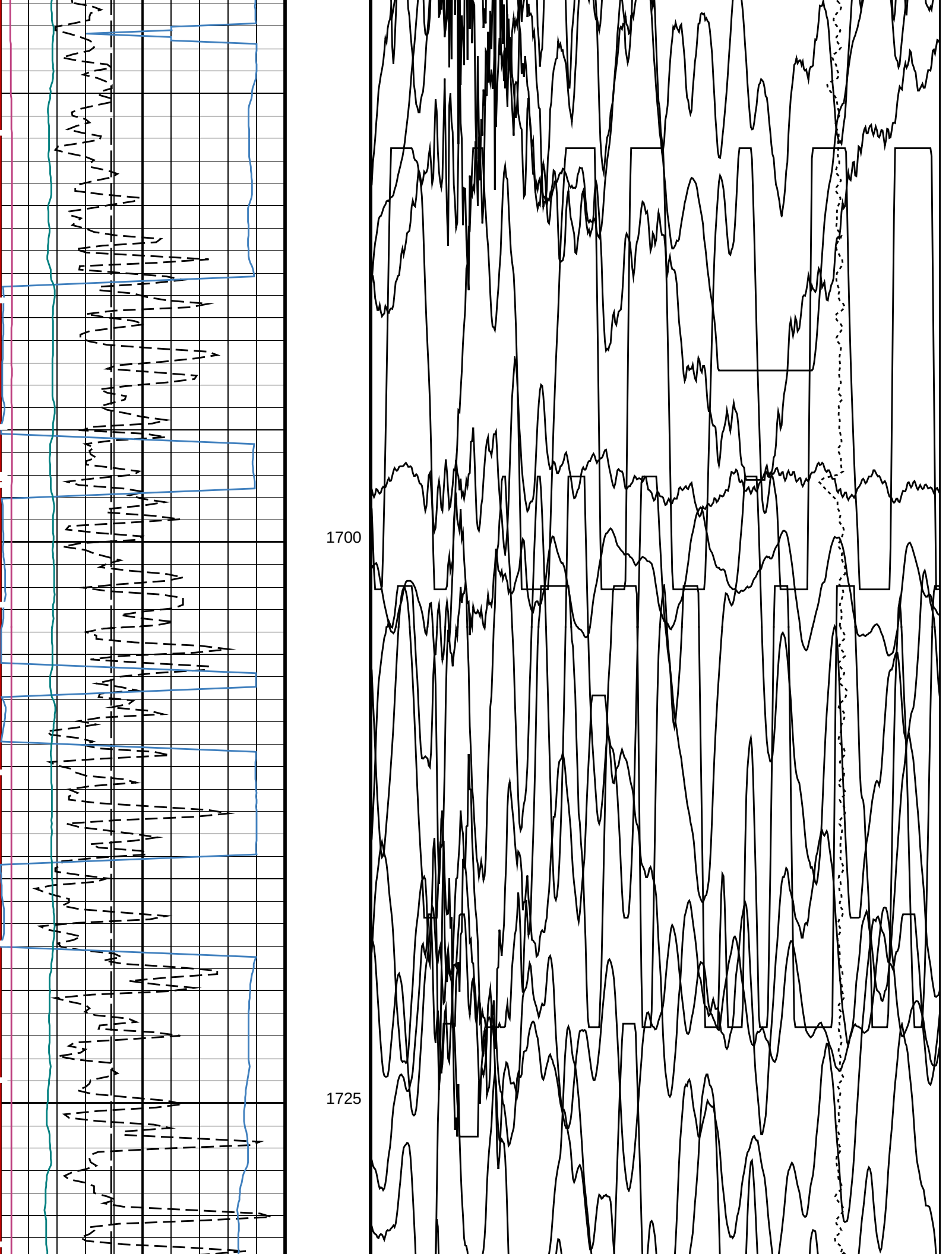
SAMX Waveforms (WFX)
0 (US) 20000

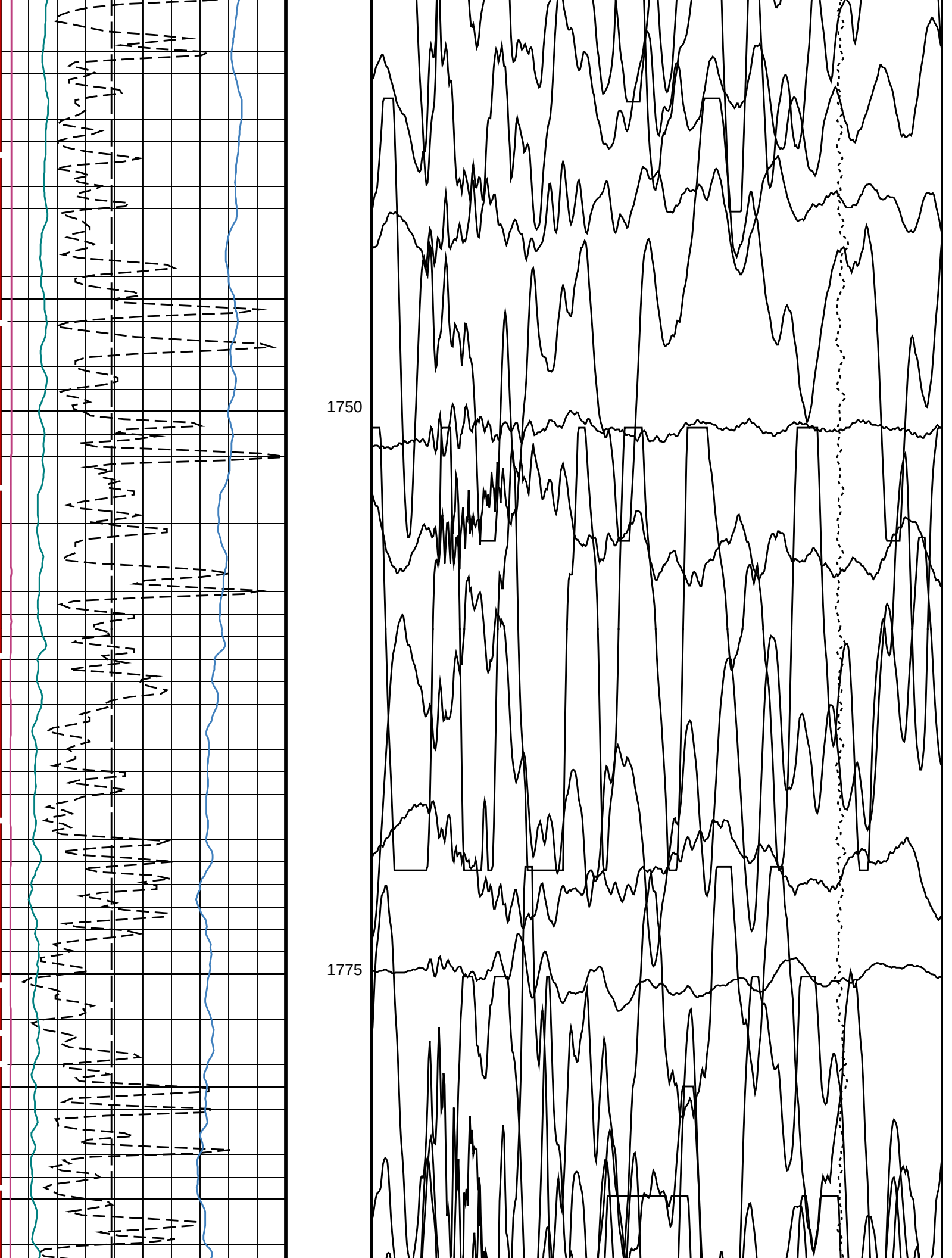


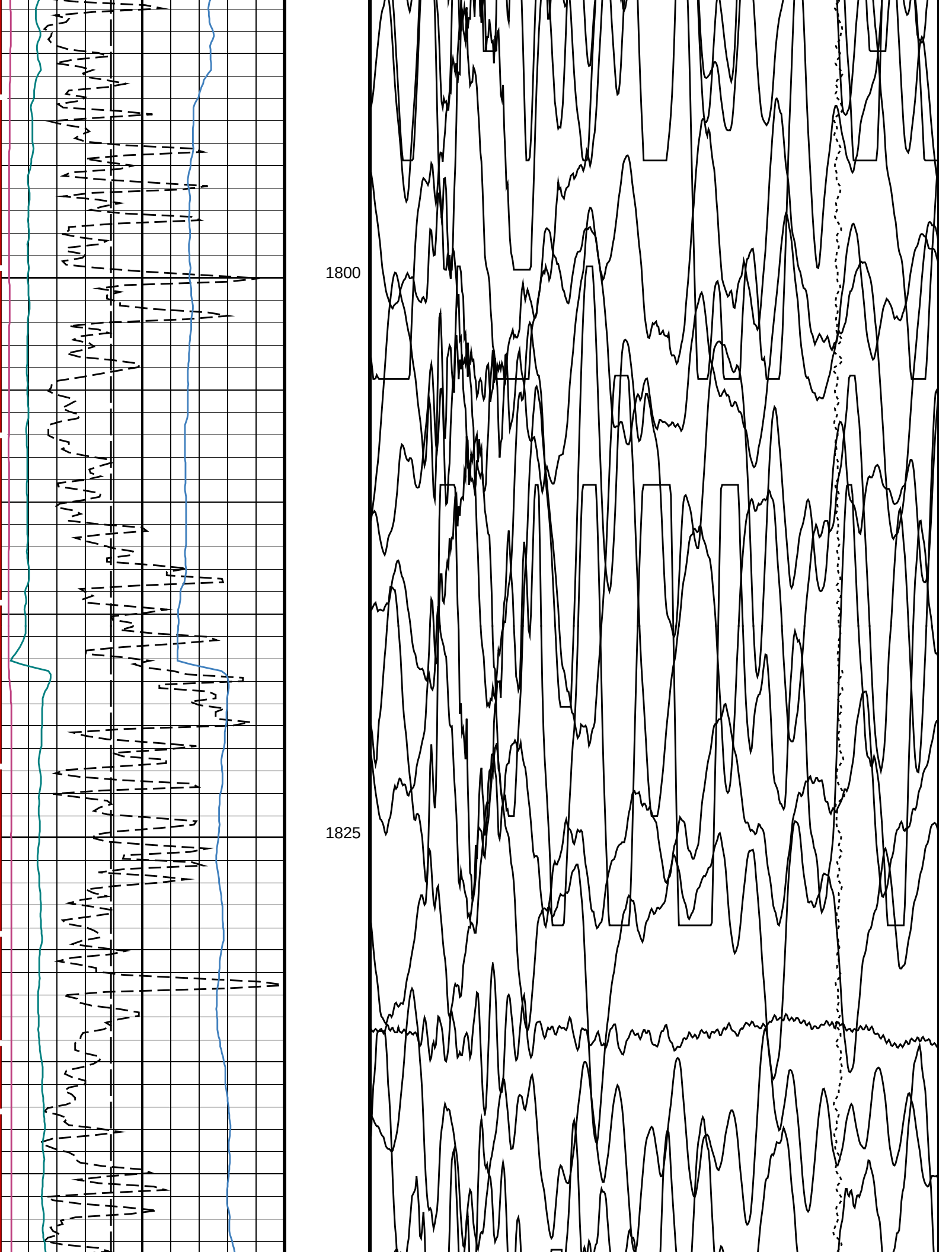

1525
1550

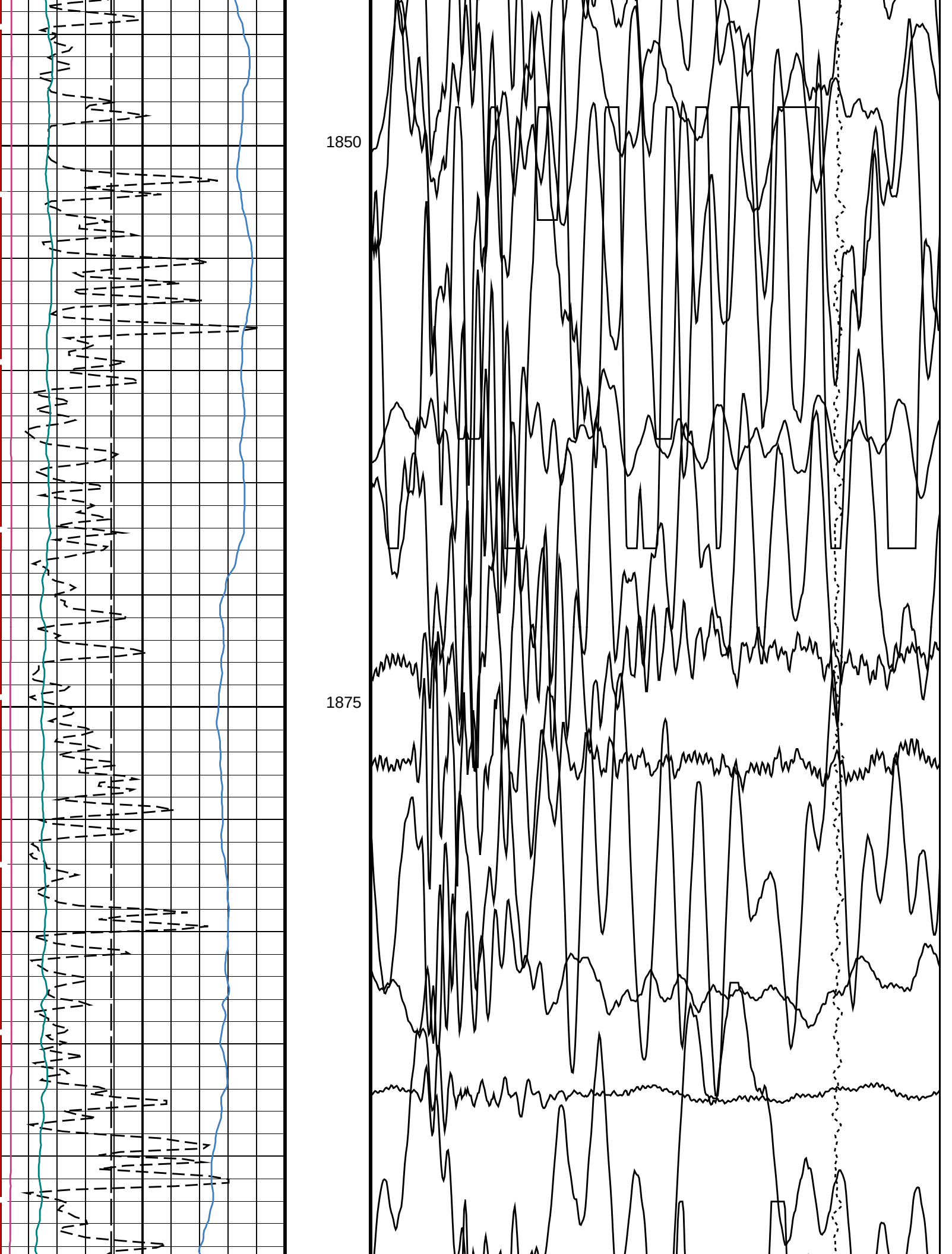

1575
1600

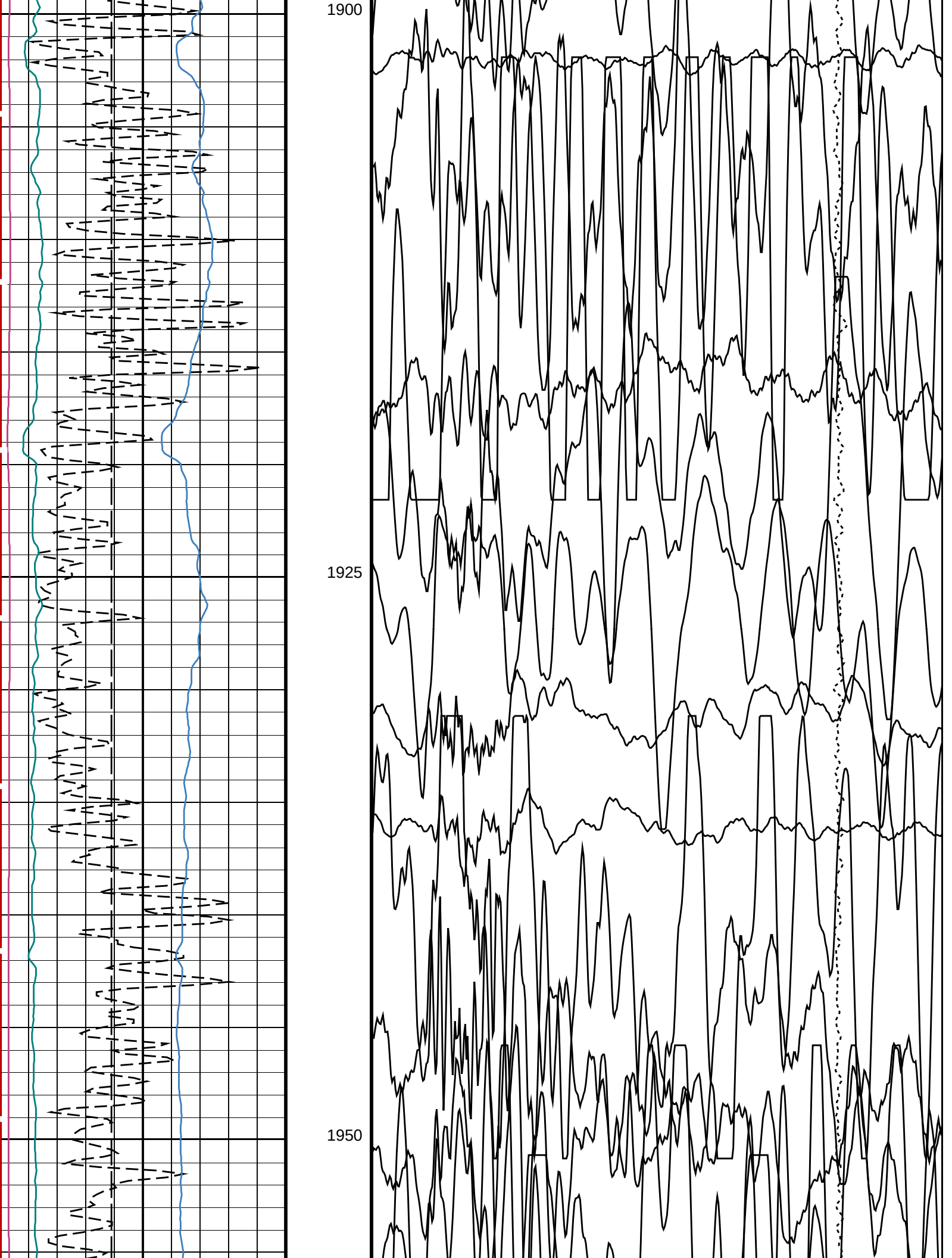

1625
1650
1675
TENS
DVWD
RBWD
AZWD
WCIX
WFGX
BS

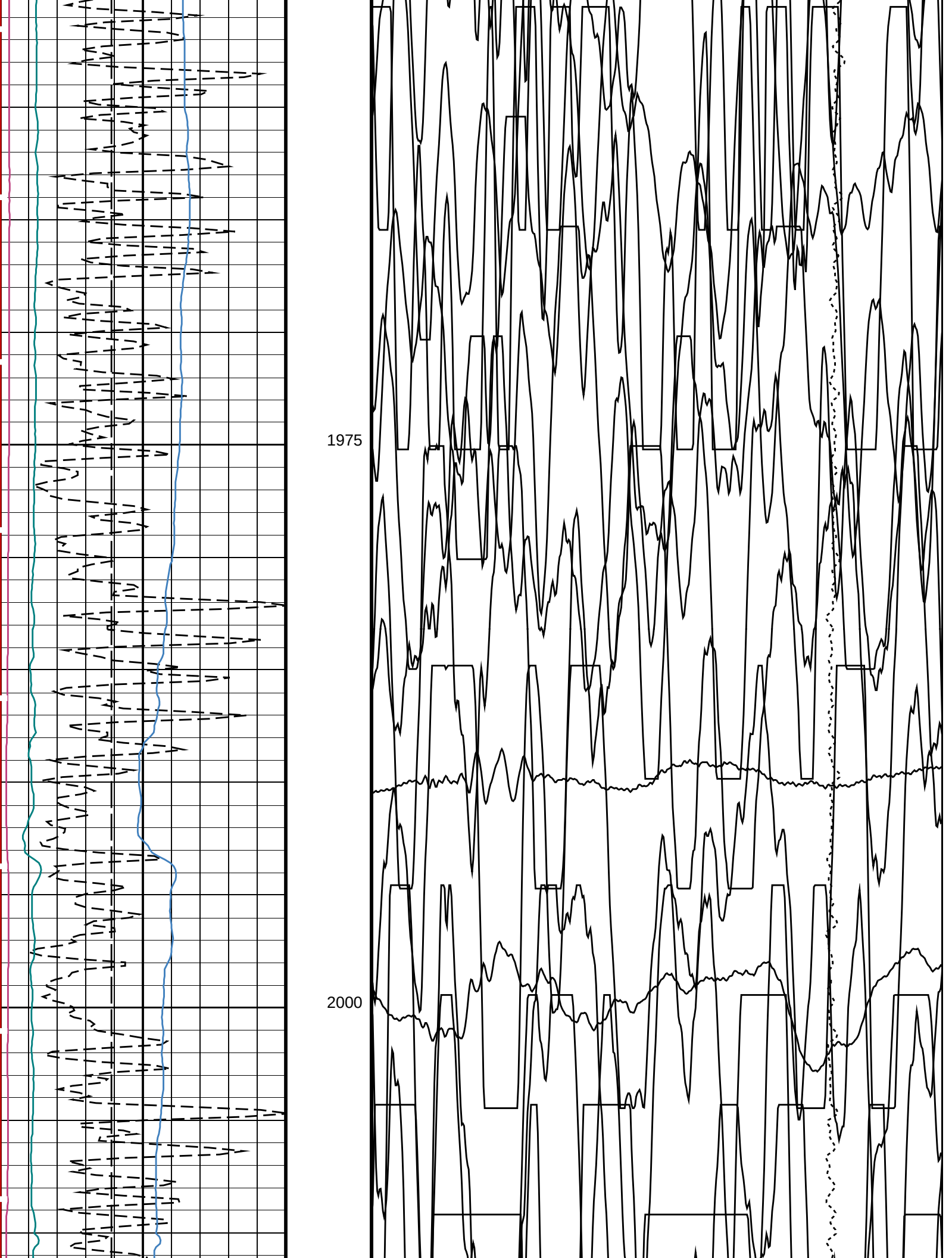

1700
1725

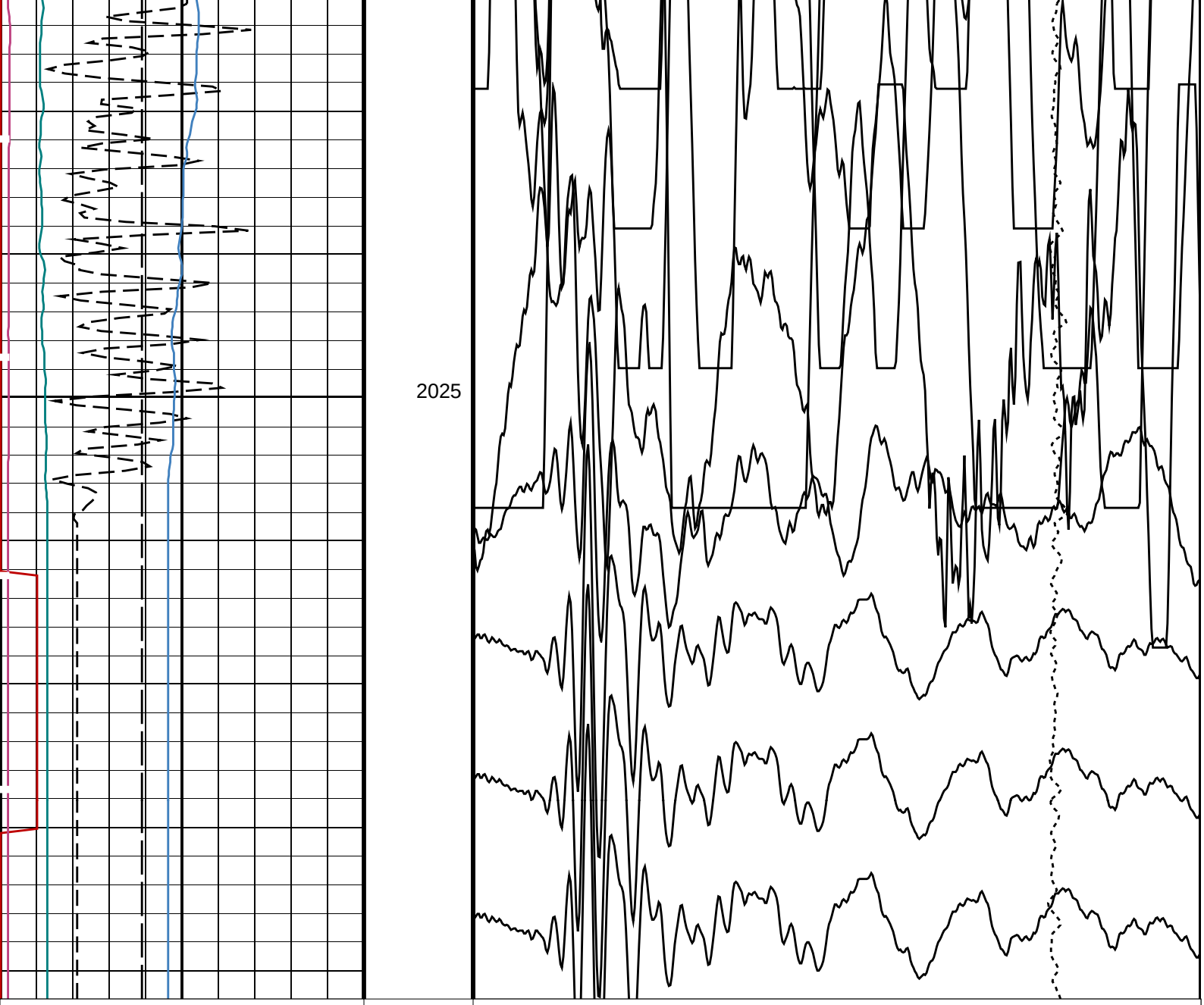

1750
1775


1800
1825


1850
1875


1900
1925
1950


1975
2000



Bit Size (BS)
6 (IN) 16

SAMX Waveforms (WFX)
0 (US) 20000

SAMX Waveform Gain (WFGX)
0 (----) 1000

Tension (TENS)
10000 (LBF) 0

Waveform Data Copy Indicator X – Expert (WCIX)
0 (----) 10

SAMX BCR Uplog #2

Azimuth at DSST Waveform Depth (AZWD)
0 (DEG) 400

Relative Bearing at DSST Waveform Depth (RBWD)
0 (DEG) 400

Deviation at DSST Waveform Depth (DVWD)
0 (DEG) 100

PIP SUMMARY

Time Mark Every 60 S

Parameters

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
DWCX	Digitizer Word Count X	512	
LTXG	Lower Dipole Transmitter Geometry	156	IN
MTXG	Monopole Transmitter Geometry	186	IN
NWIX	Number Waveform Items X	32	
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
SAMX	DSST Sonic Acquisition Mode X − Both Dipoles or Monopole Mode for Expert BCR		
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFMX	Waveform Mode X	W1	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: DSST_WFX_WAVES Vertical Scale: 1:200 Graphics File Created: 21−Jun−2018 17:29

OP System Version: 19C0−187

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

Input DLIS Files

	LDL_FMS_DSI_NGS_051PUP	FN:68	21−Jun−2018 13:28	2046.0 M	1495.2 M

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_056PUP	FN:73	PRODUCER	21−Jun−2018 17:29		

Input DLIS Files

	LDL_FMS_DSI_NGS_051PUP	FN:68	21−Jun−2018 13:28	2046.0 M	1495.2 M

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_056PUP	FN:73	PRODUCER	21−Jun−2018 17:29	2046.0 M	1495.2 M

OP System Version: 19C0−187

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

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
GCSE	BS	C1	1674.7 17:31:00

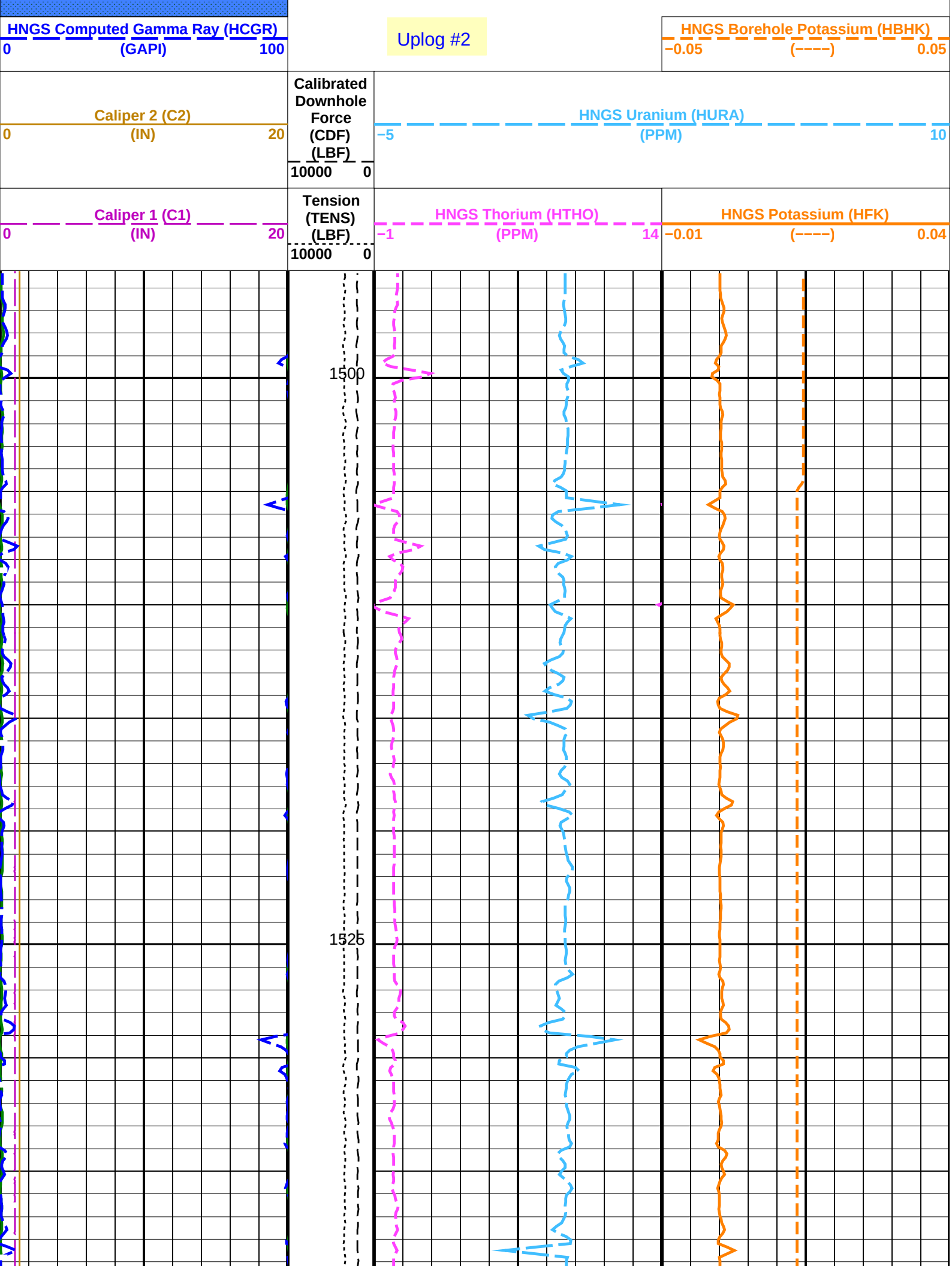
PIP SUMMARY

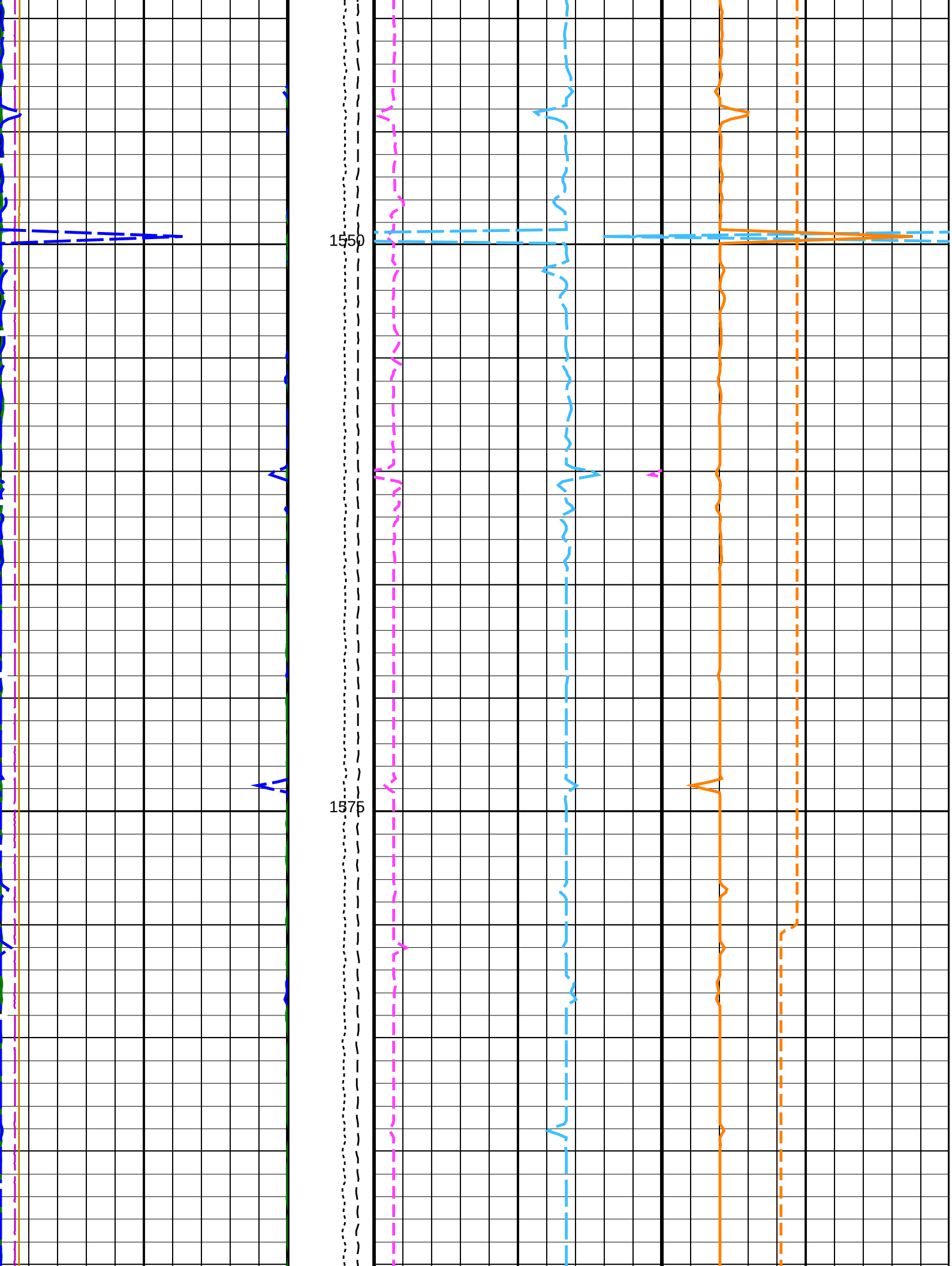
Time Mark Every 60 S

HNGS Spectroscopy Gamma Ray (HSGR)

0 (GAPI) 100

Area1
From HCGR to HSGR


HNGS Computed Gamma Ray (HCGR)
0
(GAPI)
100
Uplog #2
HNGS Borehole Potassium (HBHK)
−0.05
(−−−−)
0.05
Caliper 2 (C2)
0
(IN)
20
Calibrated Downhole Force (CDF) (LBF)
10000
0
HNGS Uranium (HURA)
−5
(PPM)
10
Caliper 1 (C1)
0
(IN)
20
Tension (TENS) (LBF)
10000
0
HNGS Thorium (HTHO)
−1
(PPM)
14
HNGS Potassium (HFK)
−0.01
(−−−−)
0.04
1500
1525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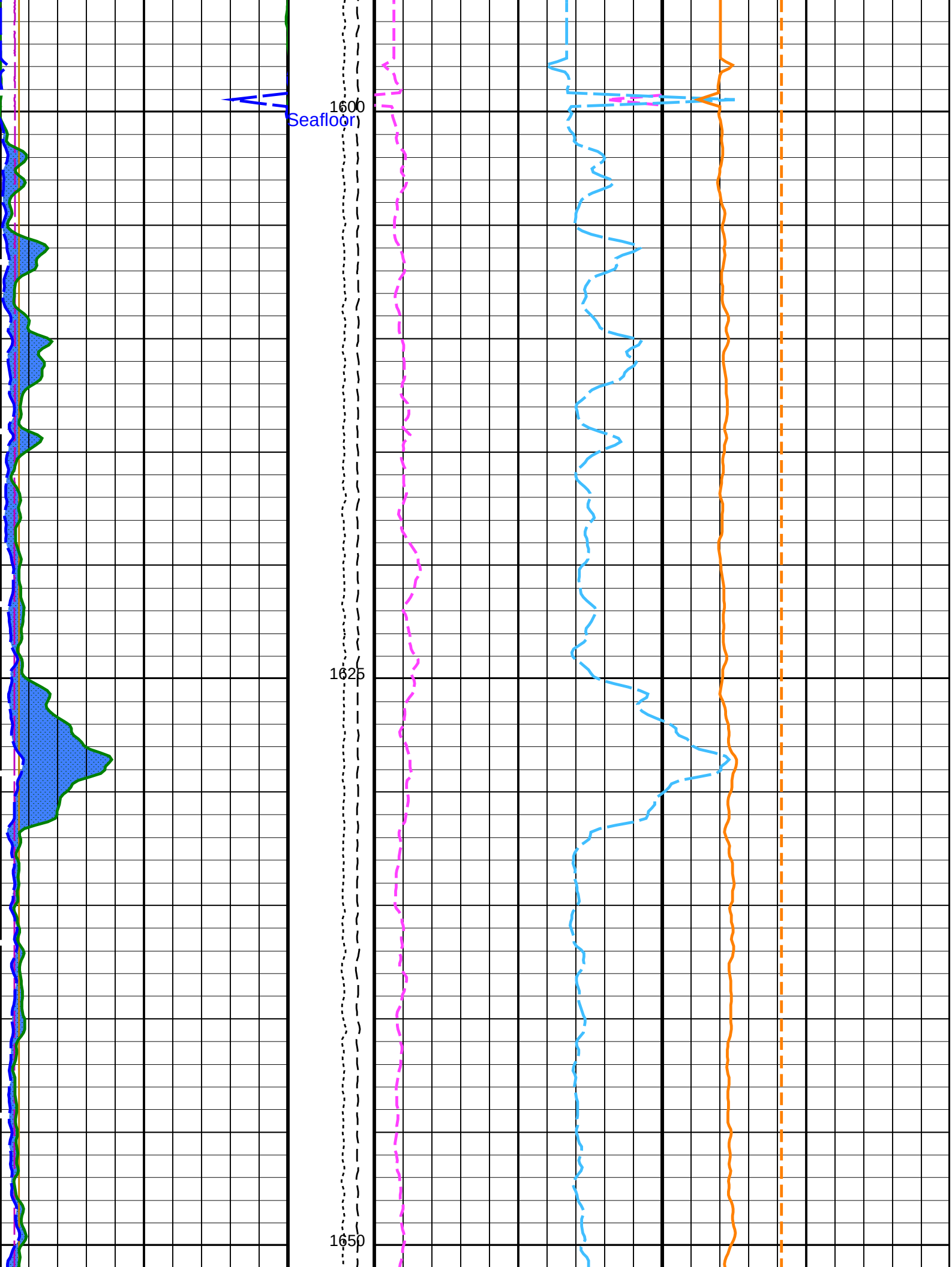
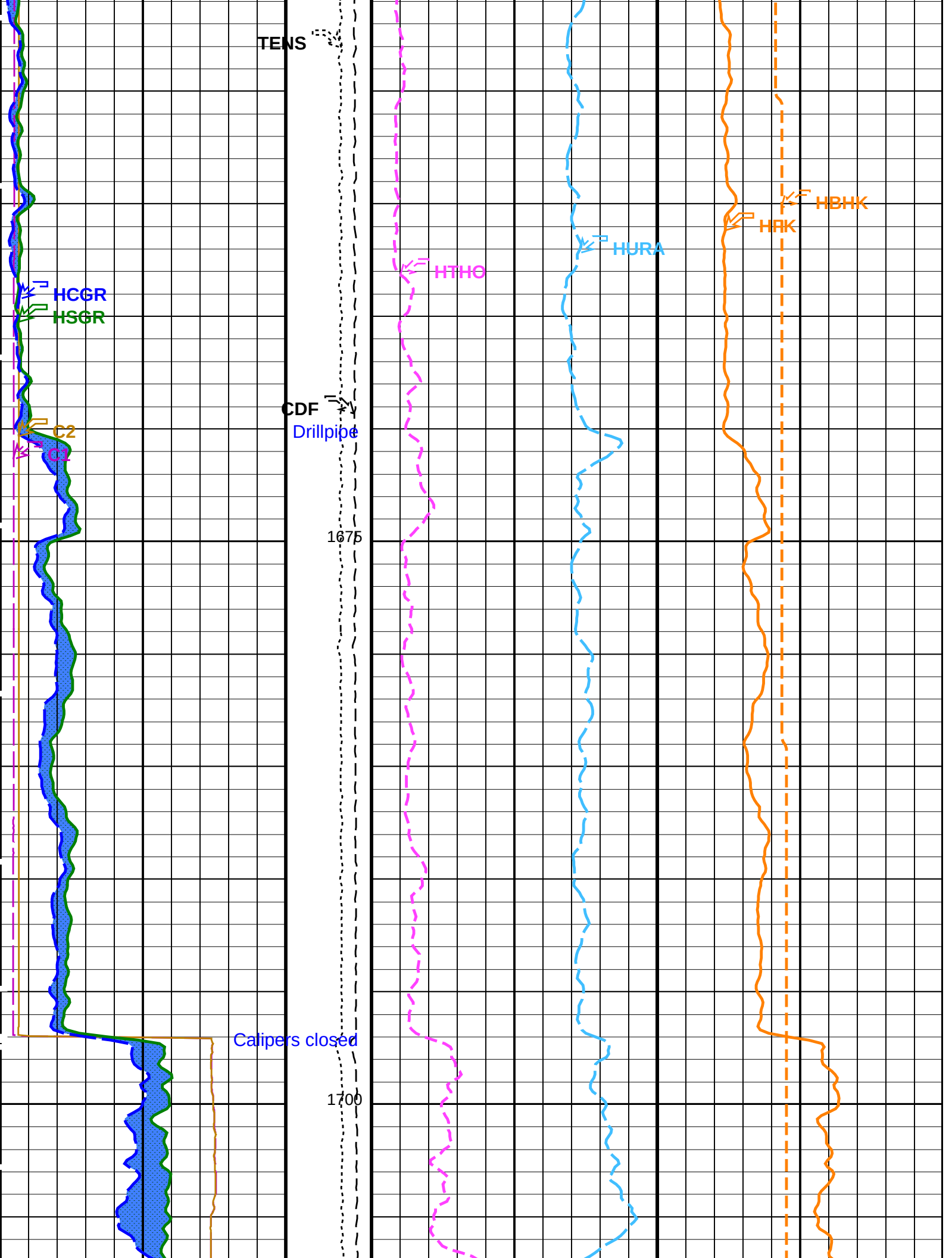
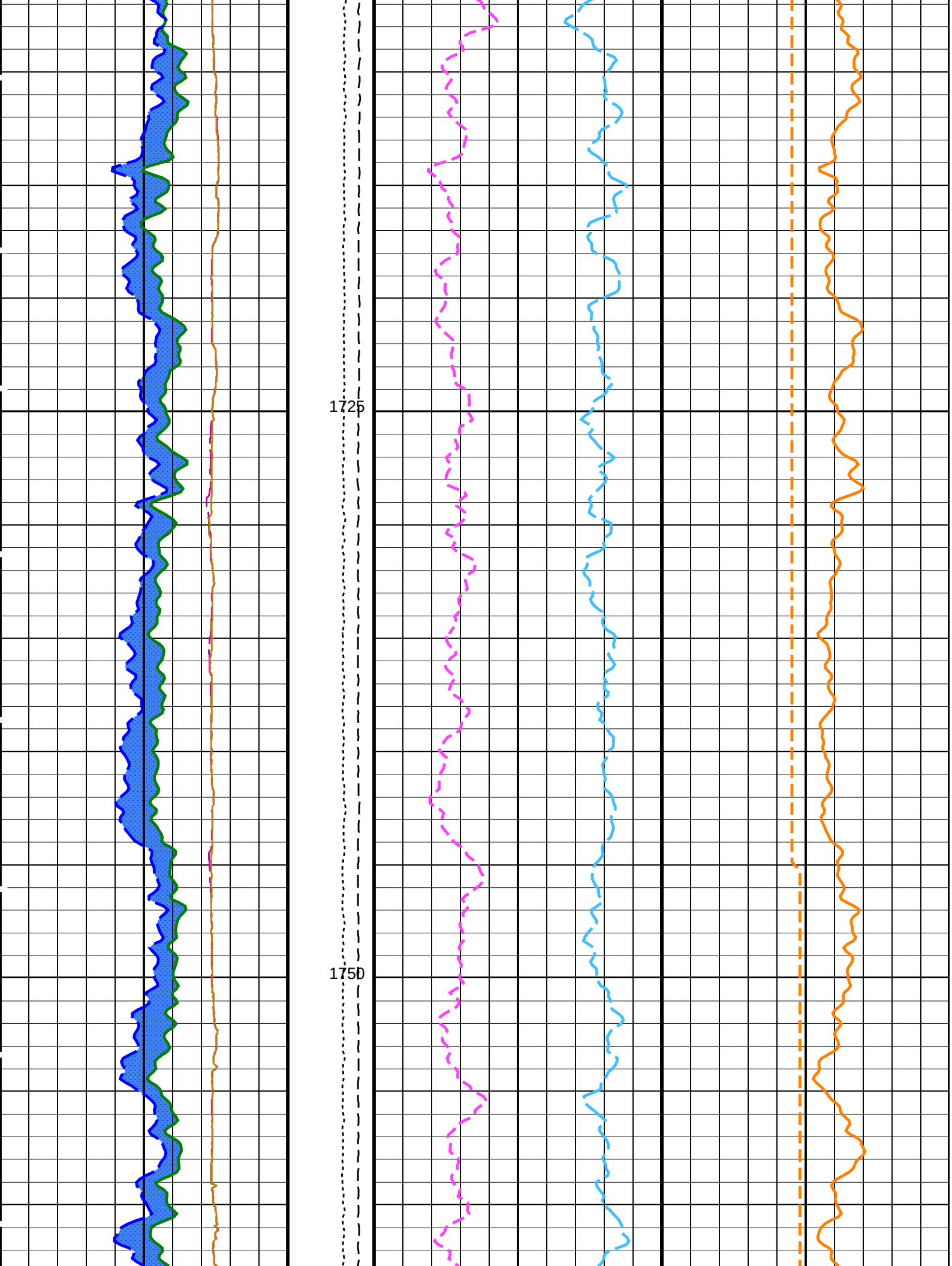
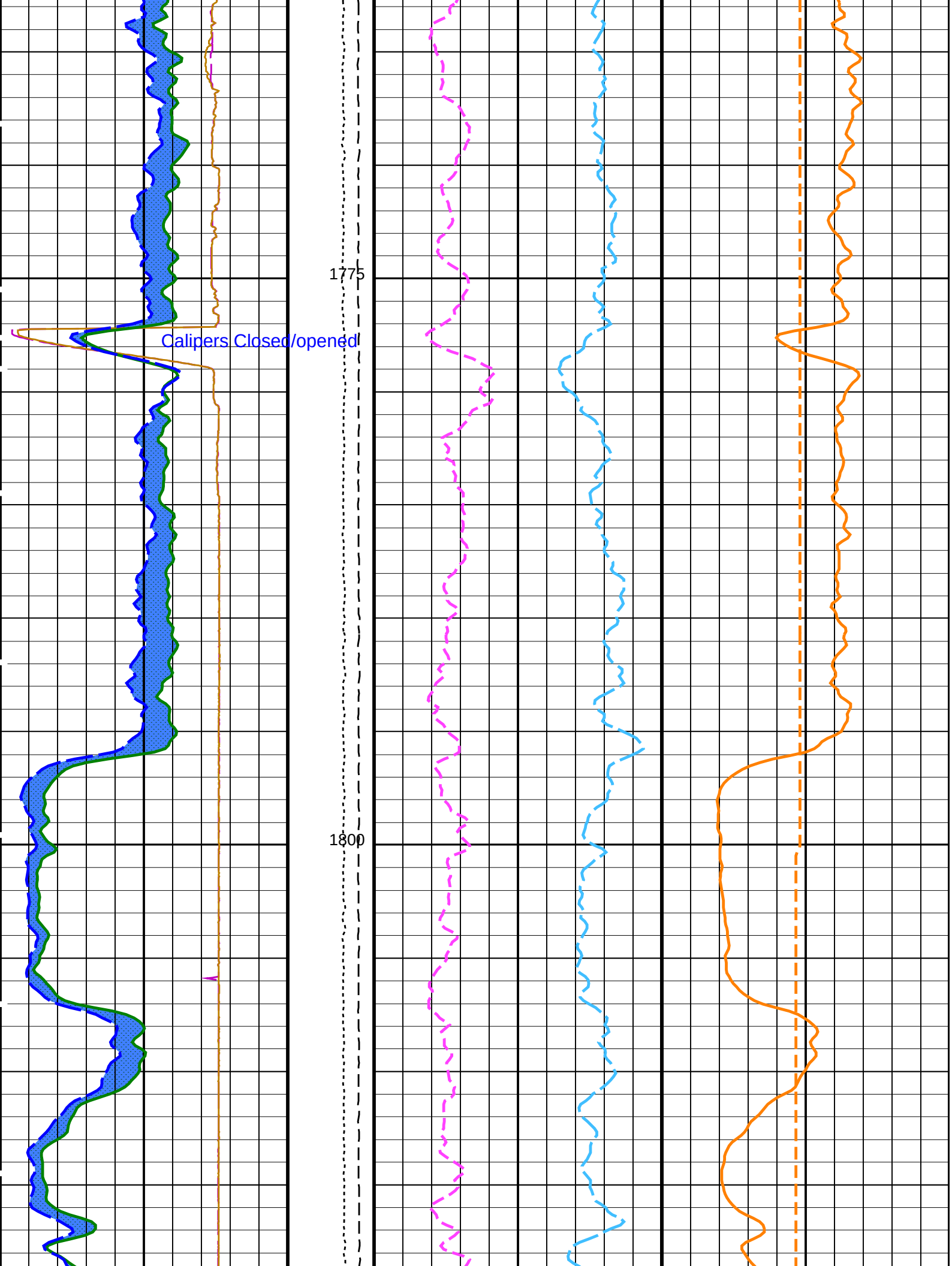
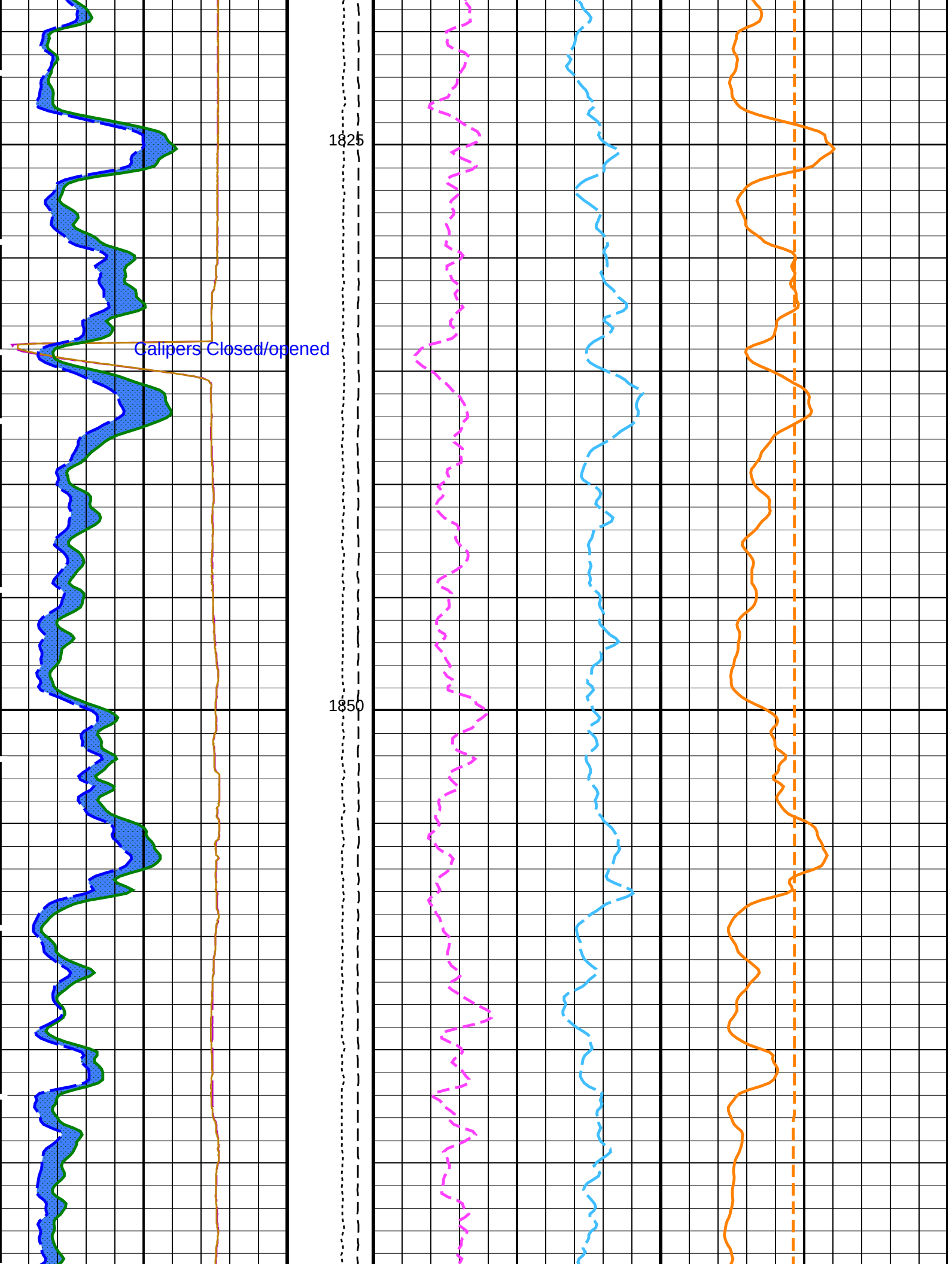
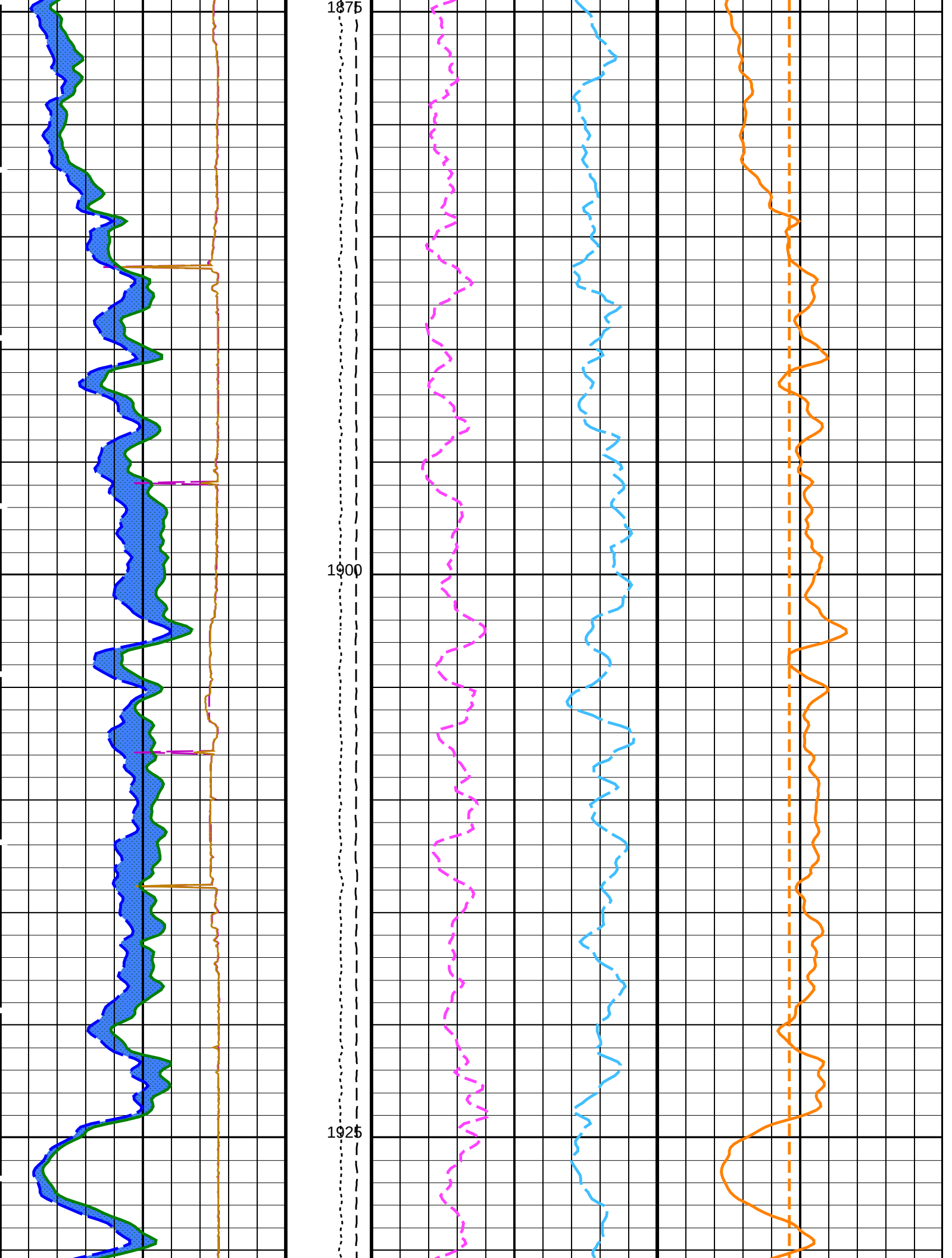

1600
Seafloor
1625
1650


TENS
HBHK
HRK
HURA
HTHO
HCGR
HSGR
CDF
Drillpipe
C2
C1
1675
Calipers closed
1700


1725
1750


1775
Calipers Closed/opened
1800


1825
Calipers Closed/opened
1850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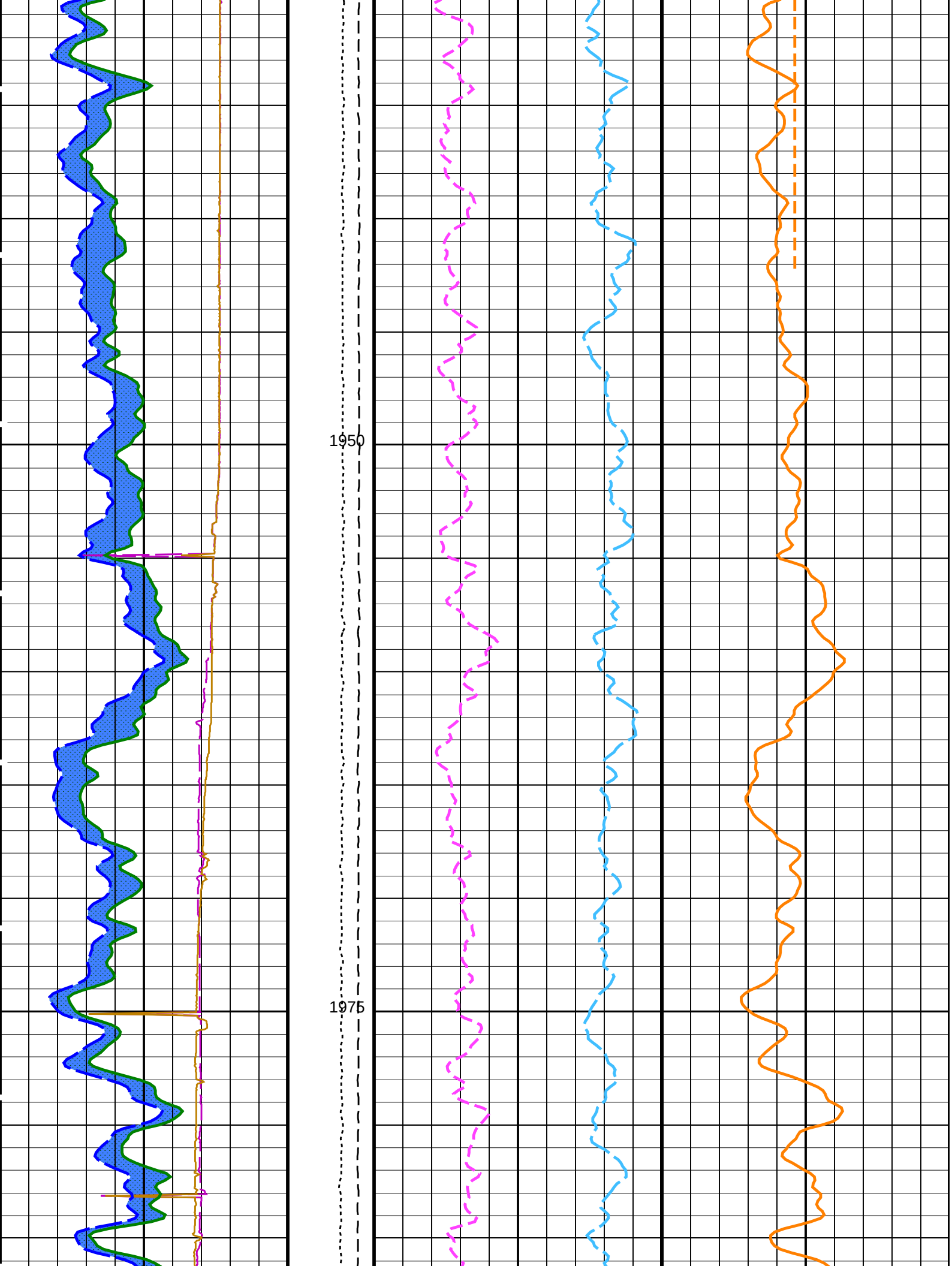
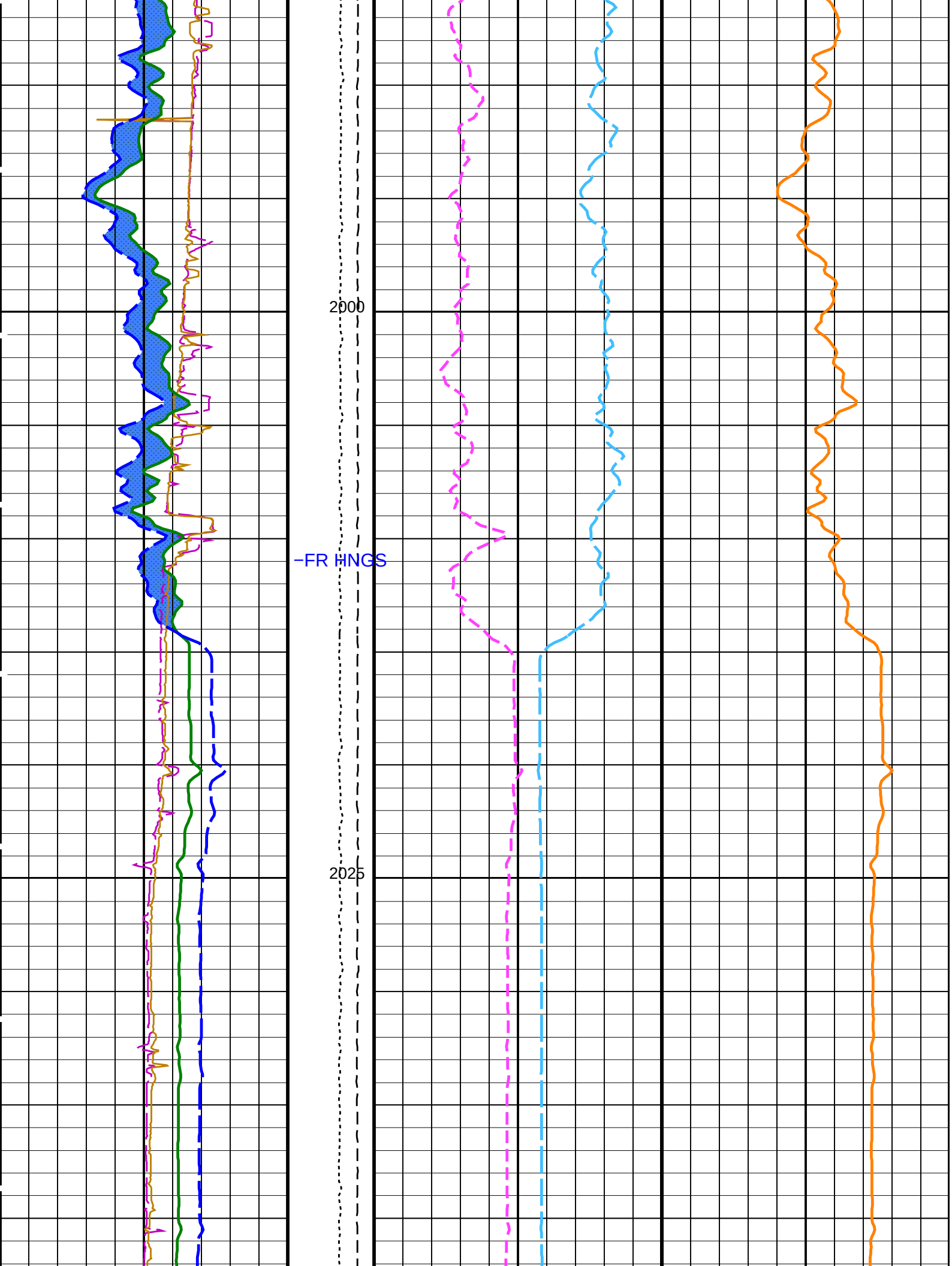
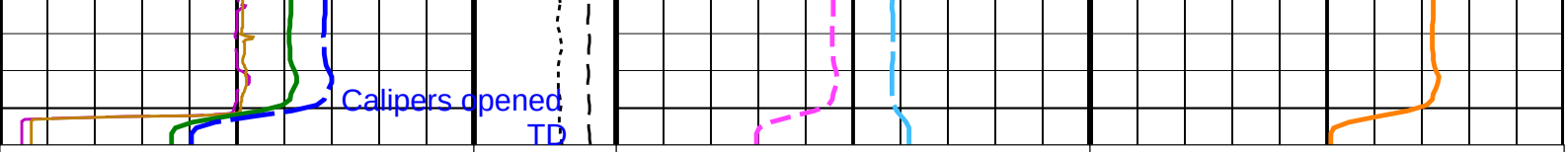
1900
1925


1950
1975


2000
FR HNGS
2025



Caliper 1 (C1)
0 (IN) 20

Tension (TENS) (LBF)
10000 0

HNGS Thorium (HTHO)
−1 (PPM) 14

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

Caliper 2 (C2)
0 (IN) 20

Calibrated Downhole Force (CDF) (LBF)
10000 0

HNGS Uranium (HURA)
−5 (PPM) 10

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

Uplog 2

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

Area1
From HCGR to HSGR

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	C1	
	HNGS−BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	C1	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00376997	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
TPOS	Tool Position	CENT	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.02259	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.03819	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	C1	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.02	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: HNGSYields Vertical Scale: 1:200 Graphics File Created: 21−Jun−2018 17:29

OP System Version: 19C0−187

HLDS	19C0−187	MEST−B	19C0−187
DTA−A−8453	19C0−187	DSST−B	19C0−187
HNCC−B	19C0−187	HNGS−BA	19C0−187

EDTC−B	SKK−5169−EDTCB

Input DLIS Files

	LDL_FMS_DSI_NGS_051PUP	FN:68		21−Jun−2018 13:28	2046.0 M	1495.2 M

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_056PUP	FN:73	PRODUCER	21−Jun−2018 17:29		

Company: International Ocean Discovery Program — Well: Expedition 376, Site U1530A

Input DLIS Files

	LDL_FMS_DSI_NGS_051PUP	FN:68		21−Jun−2018 13:28	2046.0 M	1495.2 M

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_056PUP	FN:73	PRODUCER	21−Jun−2018 17:29	2046.0 M	1495.2 M

OP System Version: 19C0−187

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

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
GCSE	BS	C1	1674.7 17:31:00

PIP SUMMARY

Time Mark Every 60 S

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

Waveform Data Copy Indicator 3 − Monopole Stoneley (WCI3)
0 (−−−−) 10

Tension (TENS)
10000 (LBF) 0

SAM3 Waveform Gain (WFG3)
0 (−−−−) 1000

Caliper 2 (C2)
0 (IN) 20

Caliper 1 (C1)
0 (IN) 20

Bit Size (BS)
0 (IN) 20

Uplog #2

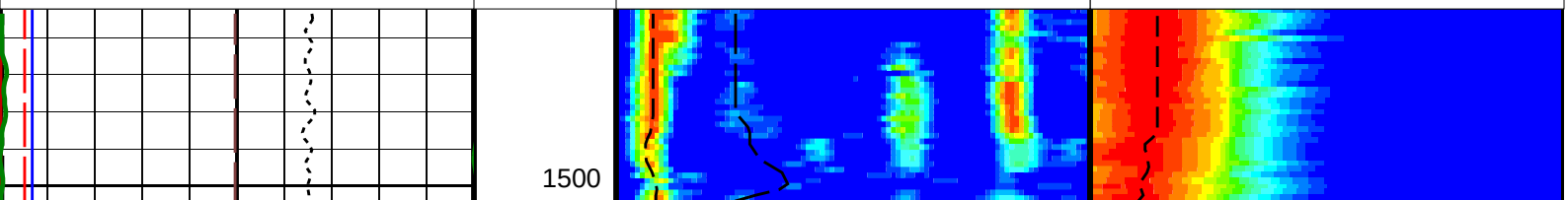
Min Amplitude Max
Rec.Array P&S Slow Proj. CVDL (SPR4)
40 (US/F) 240

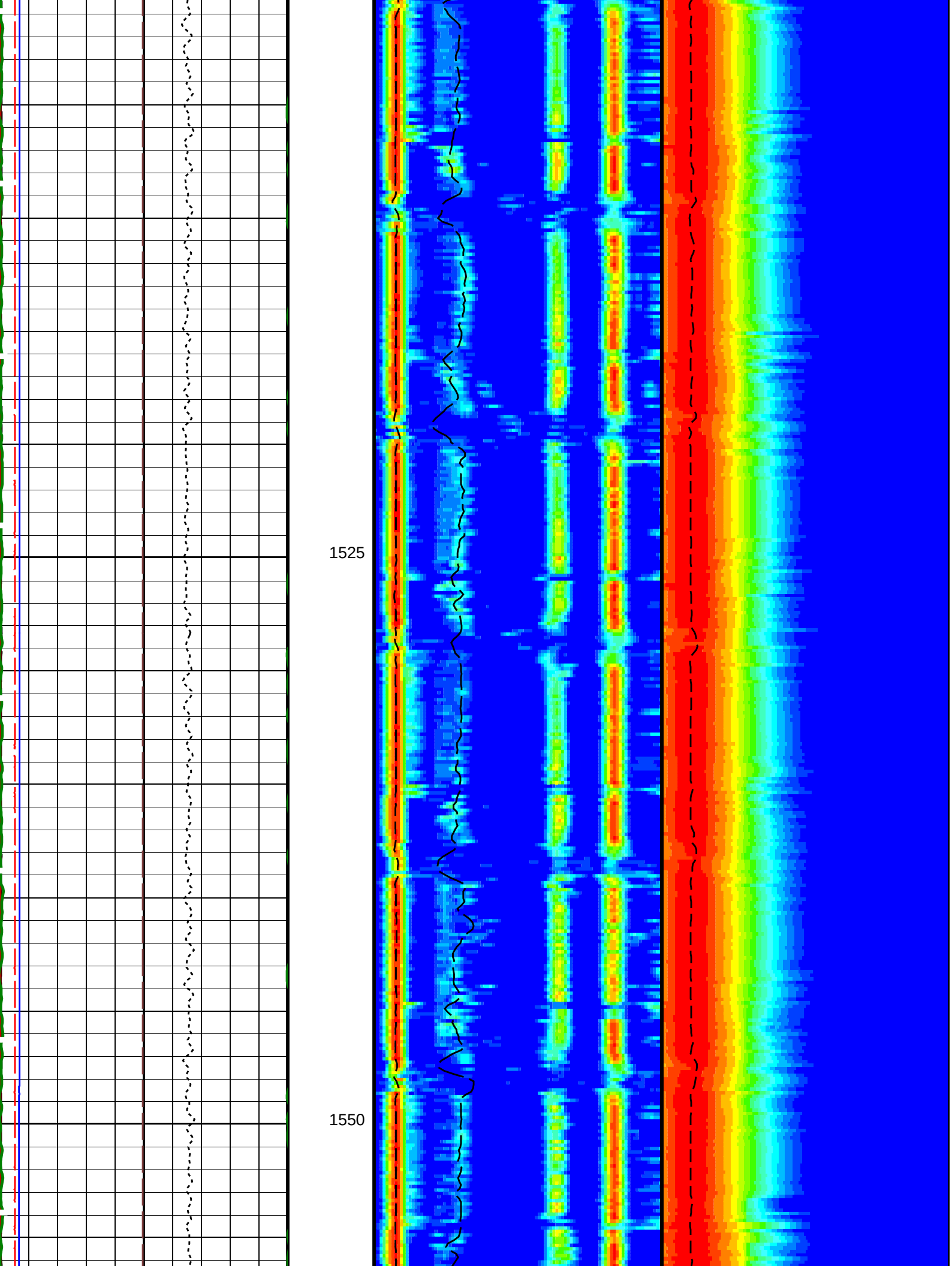
Delta−T Shear / RA − P & S (DTRS)
40 (US/F) 240

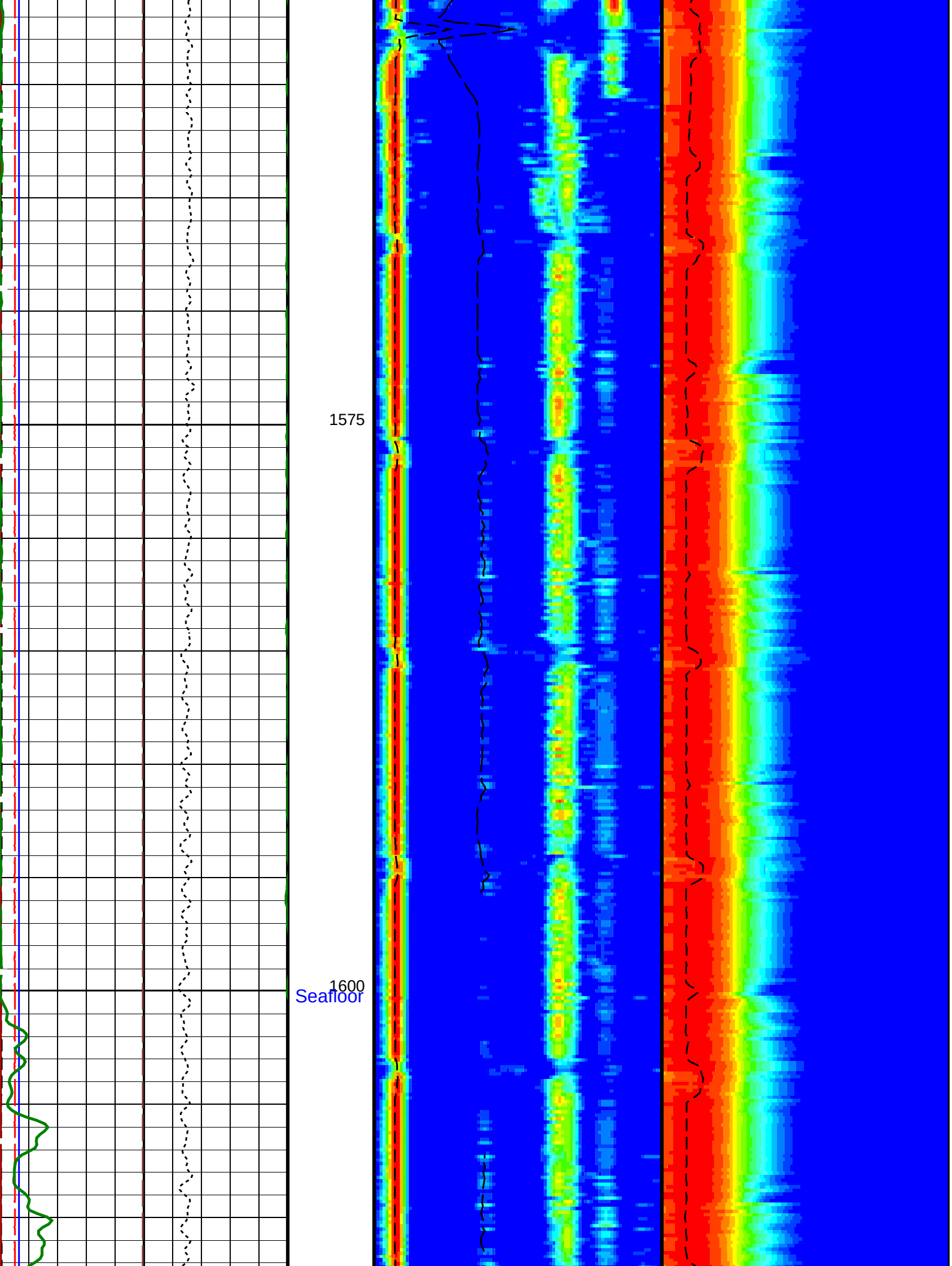
Min Amplitude Max
Rec.Array Stoneley Slow Proj. CVDL (SPR3)
180 (US/F) 780

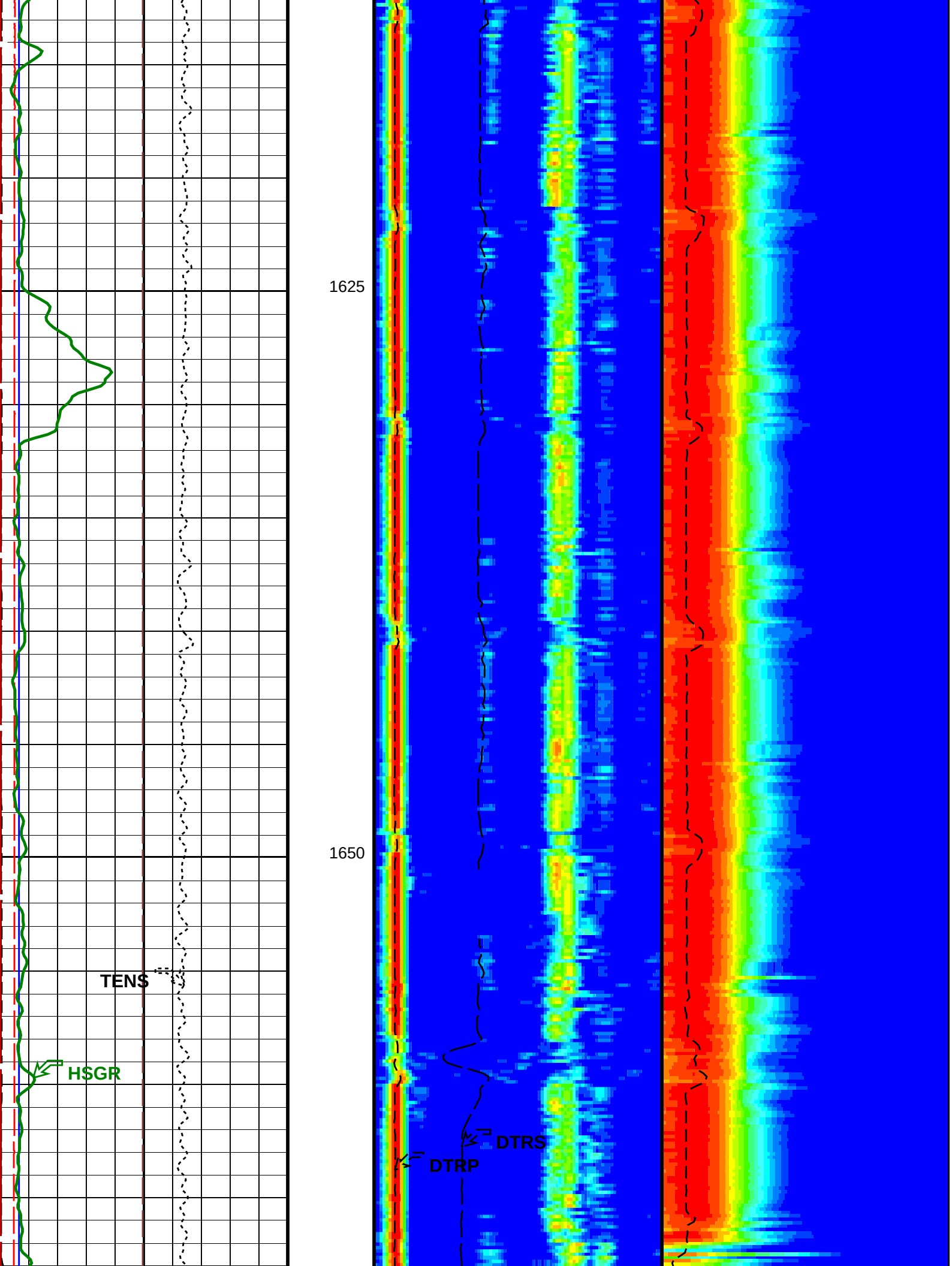
Delta−T Comp / RA − P & S (DTRP)
40 (US/F) 240

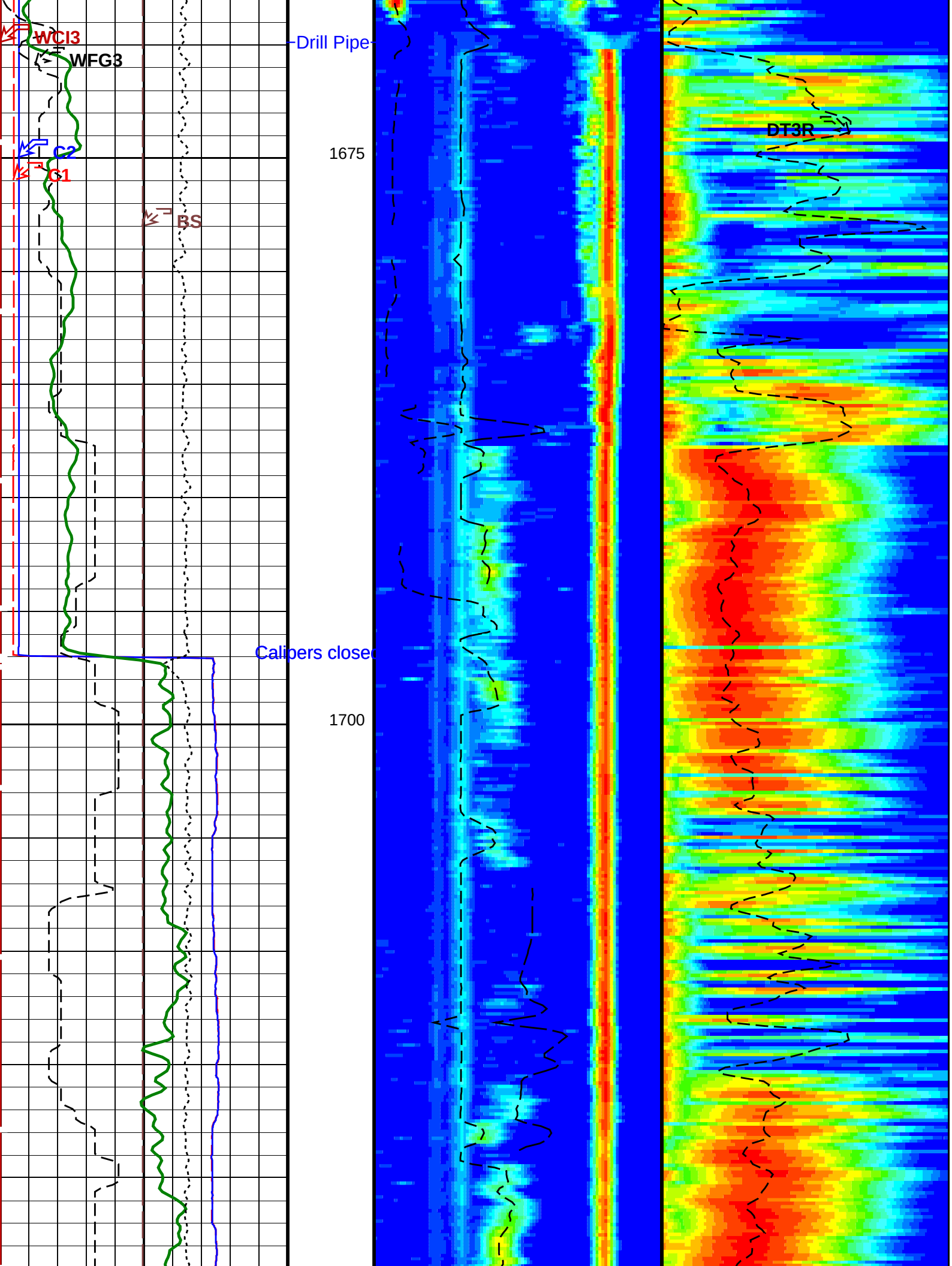
Delta−T Stoneley / RA (DT3R)
180 (US/F) 780

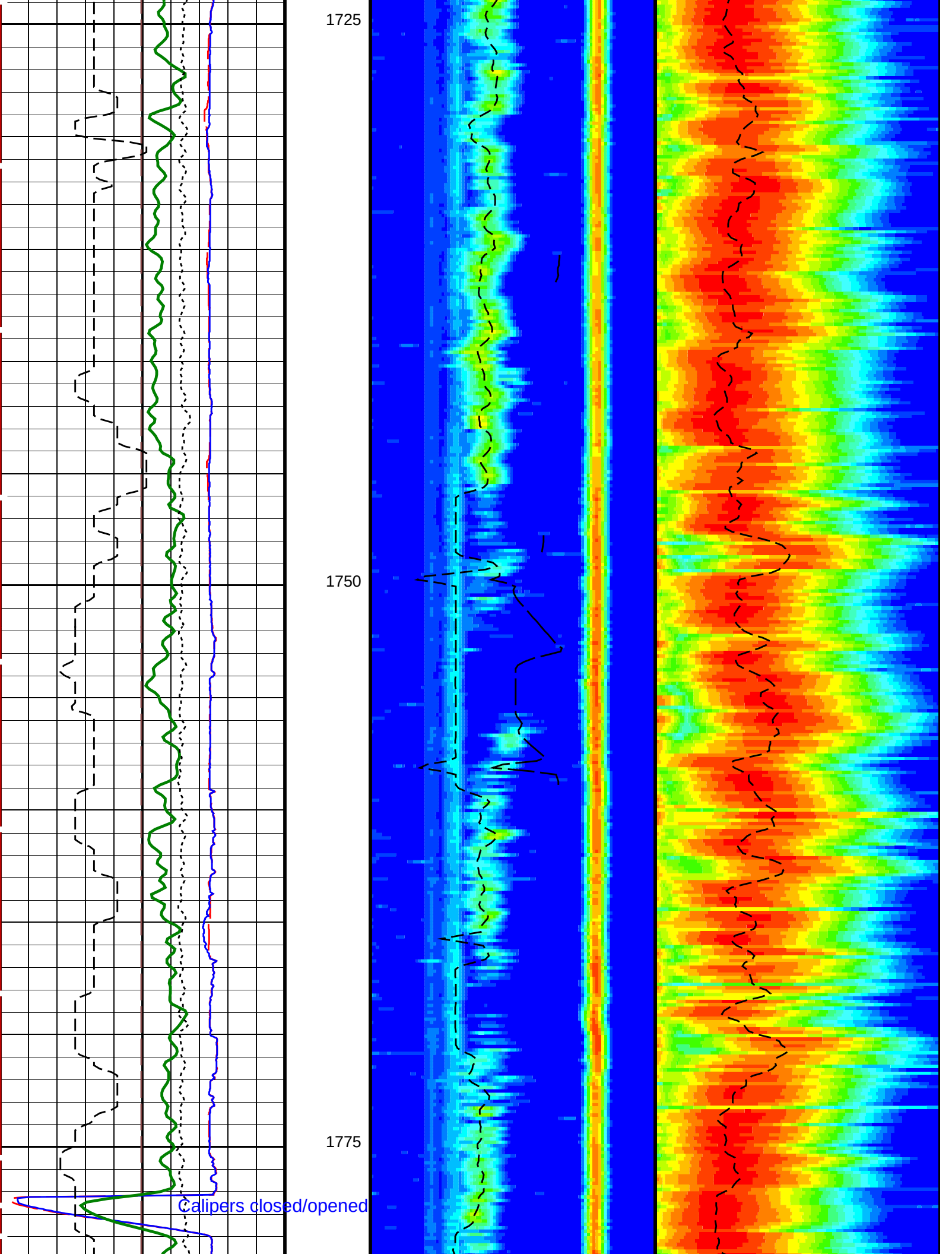


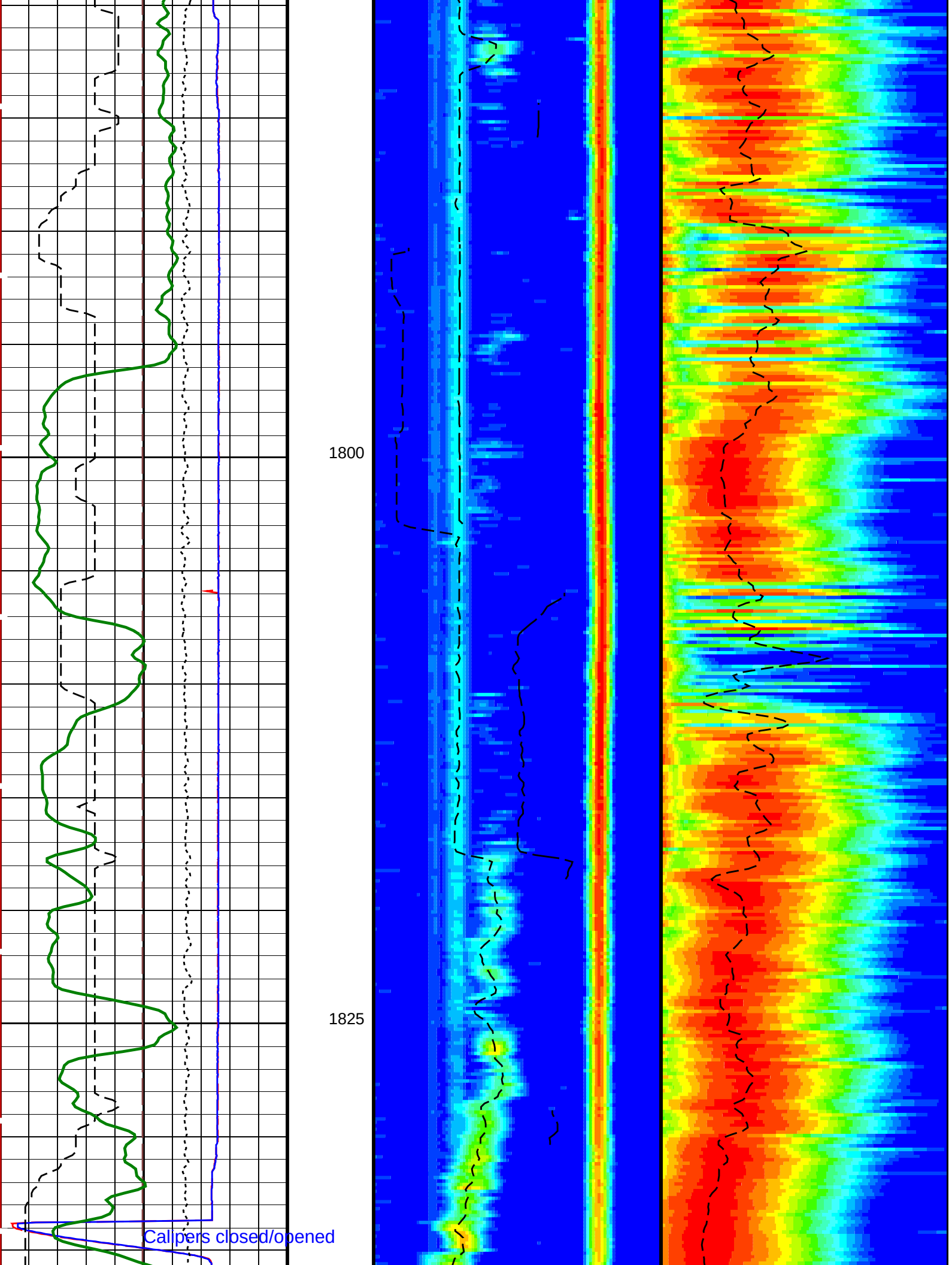

1525
1550

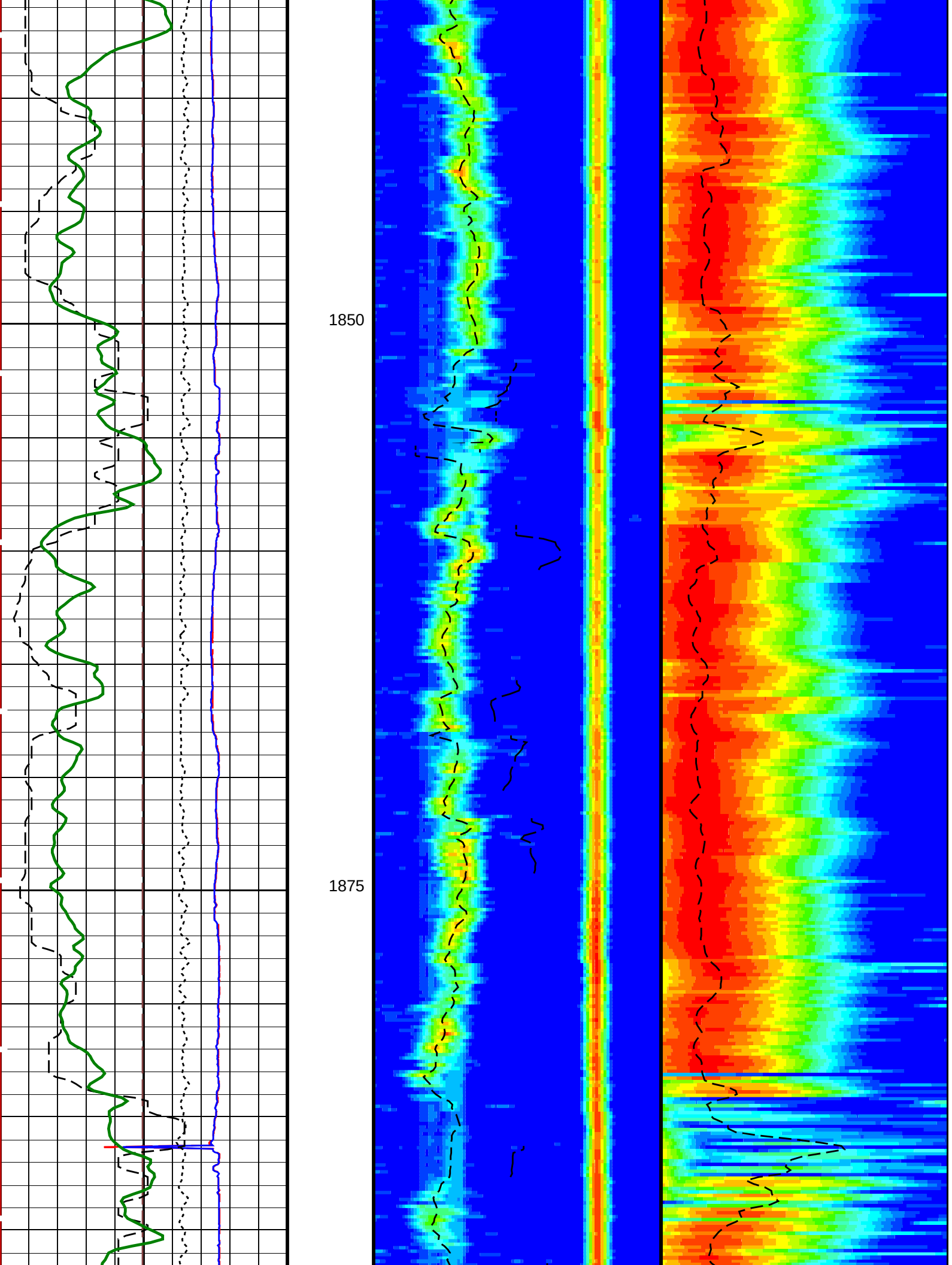

1575
1600
Seafloor

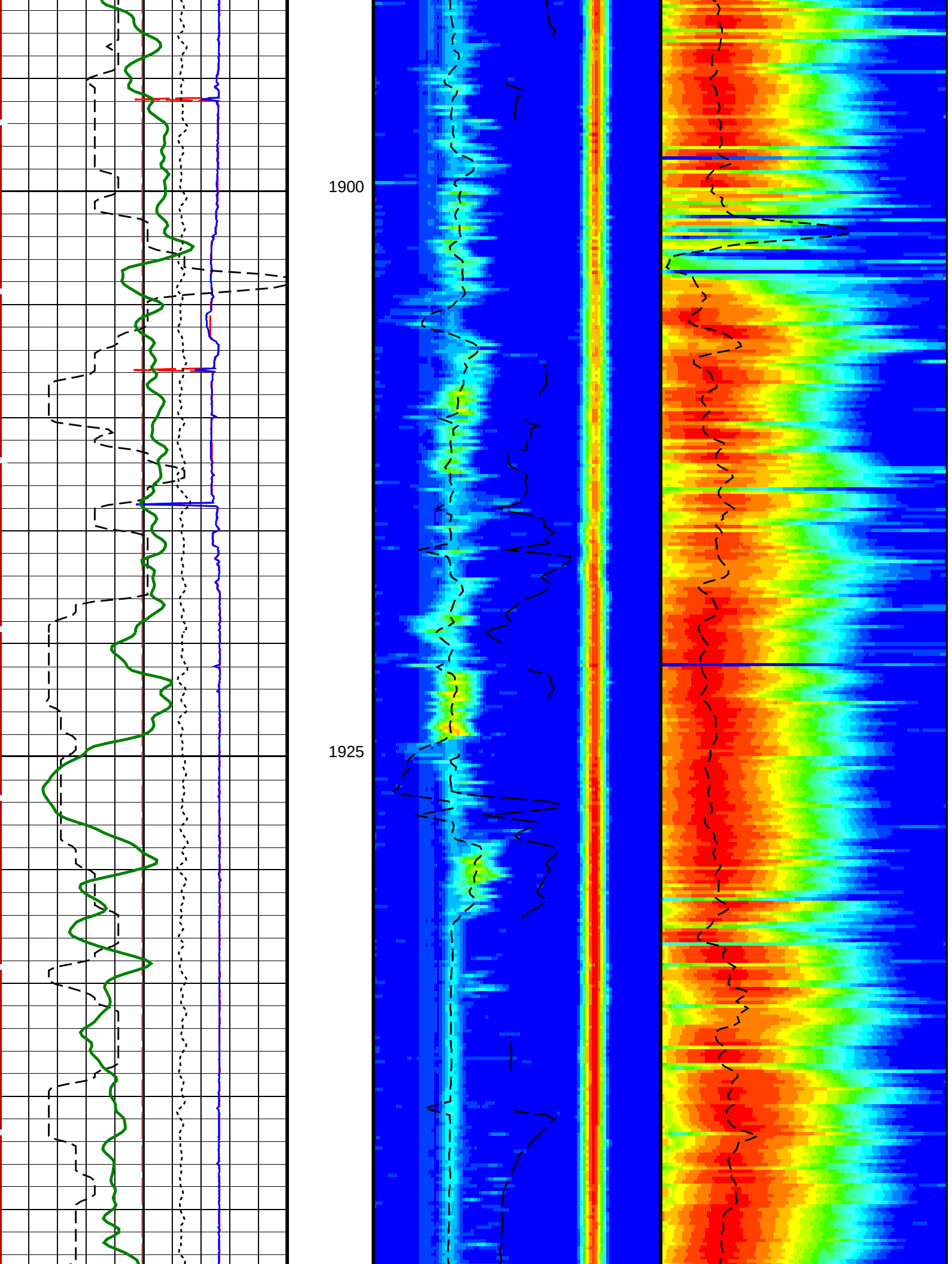

1625
1650
TENS
HSGR
DTRS
DTRP

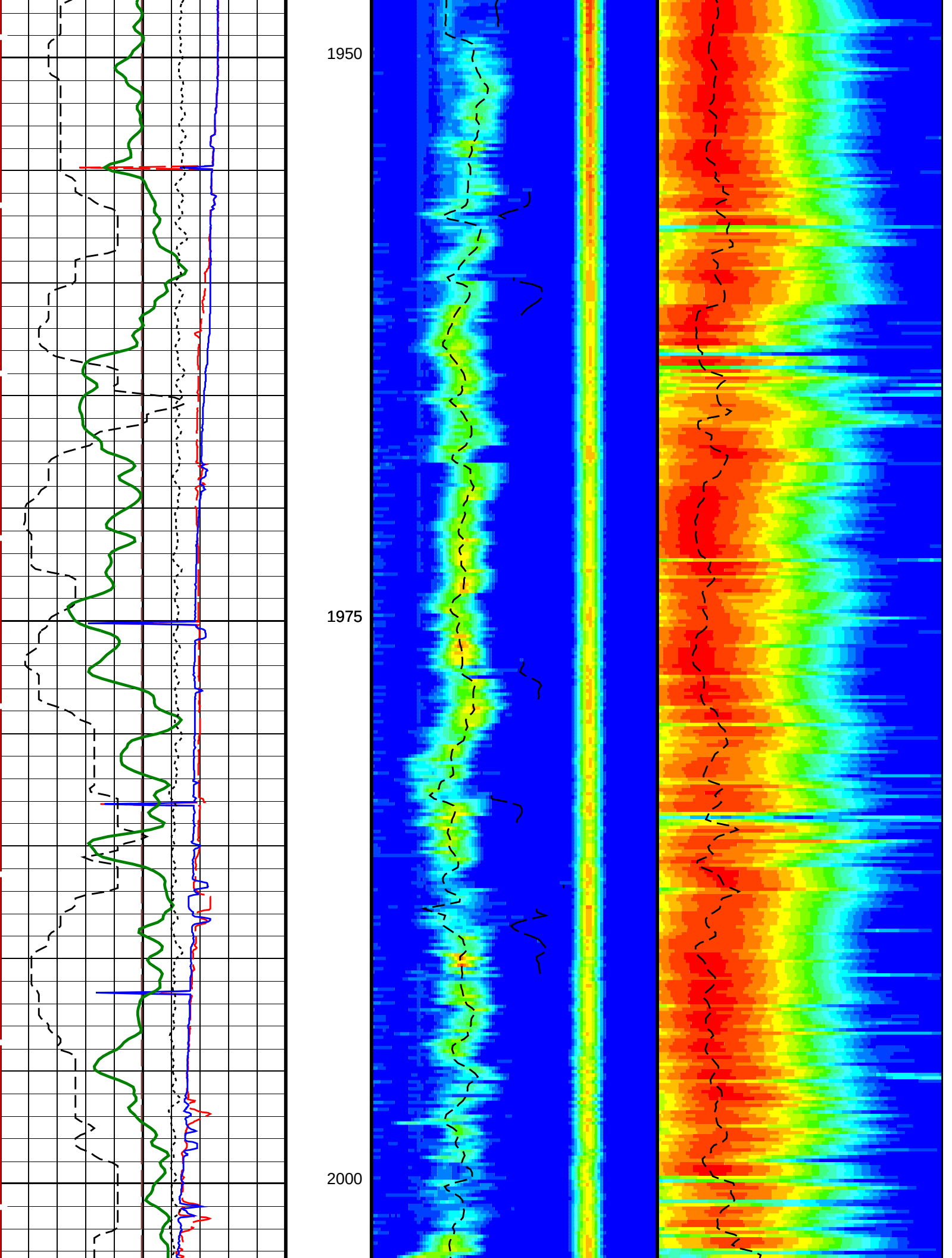

WCI3
WFG3
C2
C1
BS
Drill Pipe
1675
Calipers closed
1700
DT3R

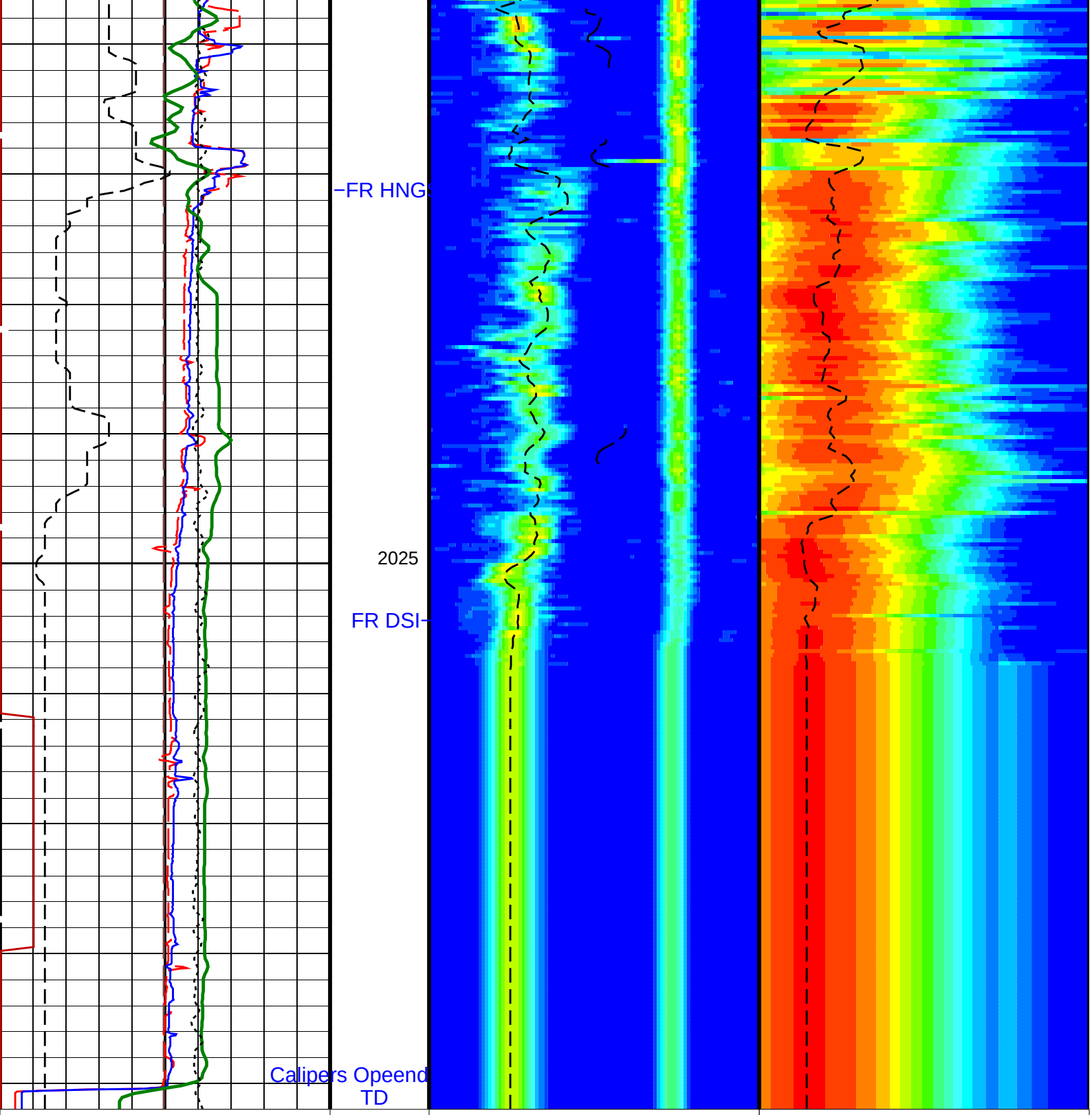

1725
1750
1775
Calipers closed/opened


1800
1825
Calipers closed/opened


1850
1875


1900
1925


1950
1975
2000



Bit Size (BS) 0 (IN) 20	Delta−T Comp / RA − P & S (DTRP) 40 (US/F) 240	Delta−T Stoneley / RA (DT3R) 180 (US/F) 780
Caliper 1 (C1) 0 (IN) 20	Delta−T Shear / RA − P & S (DTRS) 40 (US/F) 240	Min Amplitude Max Rec.Array Stoneley Slow Proj. CVDL (SPR3) 180 (US/F) 780
Caliper 2 (C2) 0 (IN) 20	Min Amplitude Max Rec.Array P&S Slow Proj. CVDL (SPR4) 40 (US/F) 240	
SAM3 Waveform Gain (WFG3) 0 (−−−−) 1000		
Torsion (TENS)		

Uplog #2

Tension (TENS)

10000	(LBF)	0

Waveform Data Copy Indicator 3 − Monopole Stoneley (WCI3)

0	(−−−−)	10

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	40	US/F
COUL	Label Slowness Upper Limit − Monopole P&S Compressional	180	US/F
DDE3	Digitizing Delay 3	0	US
DDE4	Digitizing Delay 4	0	US
DDEX	Digitizing Delay X	0	US
DSI3	Digitizer Sample Interval 3	40	US
DSI4	Digitizer Sample Interval 4	10	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta−T Source for DTCO Channel	PS_COMP	
DTF	Delta−T Fluid	189	US/F
DWC3	Digitizer Word Count 3	512	
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	C1	
LFC	Label Formation Character − Monopole P&S	DYNAMIC	
MCS	Mean Casing Slowness	57	US/F
MTXG	Monopole Transmitter Geometry	186	IN
NWI3	Number Waveform Items 3	8	
NWI4	Number Waveform Items 4	8	
NWIX	Number Waveform Items X	32	
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
SAM3	DSST Sonic Acquisition Mode 3 − Monopole Mode for Stoneley	ODD	
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	BCR	
SAS3	STC Sonic Array Status − Monopole Stoneley	255	
SAS4	STC Sonic Array Status − Monopole P&S	255	
SBO3	STC Search Band Offset − Monopole Stoneley	2000	US
SBO4	STC Search Band Offset − Monopole P&S	500	US
SBR4	STC Baseline Removal − Monopole P&S	ON	
SBW3	STC Search Bandwidth − Monopole Stoneley	6000	US
SBW4	STC Search Bandwidth − Monopole P&S	2000	US
SFC3	STC Formation Character − Monopole Stoneley	SELECTABLE	
SFC4	STC Formation Character − Monopole P&S	SELECTABLE	
SFM3	STC Filter − Monopole Stoneley	B.5−1.5K	
SFM4	STC Filter − Monopole P&S	B3−20K	
SHLL	Label Slowness Lower Limit − Monopole P&S Shear	75	US/F
SHUL	Label Slowness Upper Limit − Monopole P&S Shear	180	US/F
SLL3	STC Slowness Lower Limit − Monopole Stoneley	180	US/F
SLL4	STC Slowness Lower Limit − Monopole P&S	40	US/F
SST3	STC Slowness Step − Monopole Stoneley	4	US/F
SST4	STC Slowness Step − Monopole P&S	2	US/F
SSW3	STC Source Waveform − Monopole Stoneley	WF_SAM3	
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
SUL3	STC Slowness Upper Limit − Monopole Stoneley	780	US/F
SUL4	STC Slowness Upper Limit − Monopole P&S	240	US/F
SWD3	STC Slowness Width − Monopole Stoneley	40	US/F
SWD4	STC Slowness Width − Monopole P&S	10	US/F

TBF3	STC Time for Baseline Fill − Monopole Stoneley	0	US
TBF4	STC Time for Baseline Fill − Monopole P&S	300	US
TLL3	STC Time Lower Limit − Monopole Stoneley	620	US
TLL4	STC Time Lower Limit − Monopole P&S	150	US
TST3	STC Time Step − Monopole Stoneley	200	US
TST4	STC Time Step − Monopole P&S	50	US
TUL3	STC Time Upper Limit − Monopole Stoneley	12020	US
TUL4	STC Time Upper Limit − Monopole P&S	3660	US
TWD3	STC Time Width − Monopole Stoneley	2000	US
TWD4	STC Time Width − Monopole P&S	1000	US
TWI3	STC Integration Time Window − Monopole Stoneley	1600	US
TWI4	STC Integration Time Window − Monopole P&S	500	US
TWSX	Transmitter Waveform Select X	0	
WFM3	Waveform Mode 3	W1	
	HNGS−BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	C1	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00376997	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
TPOS	Tool Position	CENT	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.02259	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.03819	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	C1	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.02	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: Stonely180_780_P&S40_240 **Vertical Scale: 1:200** **Graphics File Created: 21−Jun−2018 17:29**

OP System Version: 19C0−187

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

Input DLIS Files

	LDL_FMS_DSI_NGS_051PUP	FN:68	21−Jun−2018 13:28	2046.0 M	1495.2 M

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_056PUP	FN:73	PRODUCER	21−Jun−2018 17:29		

Input DLIS Files

	LDL_FMS_DSI_NGS_051PUP	FN:68	21−Jun−2018 13:28	2046.0 M	1495.2 M

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_056PUP	FN:73	PRODUCER	21−Jun−2018 17:29	2046.0 M	1495.2 M

OP System Version: 19C0−187

HLDS	19C0−187	MEST−B	19C0−187

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

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
GCSE	BS	C1	1674.7 17:31:00

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

Tension (TENS)
10000 (LBF) 0

Sonic Velocity (SVEL)
1000 (M/S) 6000

Caliper 2 (C2)
0 (IN) 20

Caliper 1 (C1)
0 (IN) 20

Bit Size (BS)
0 (IN) 20

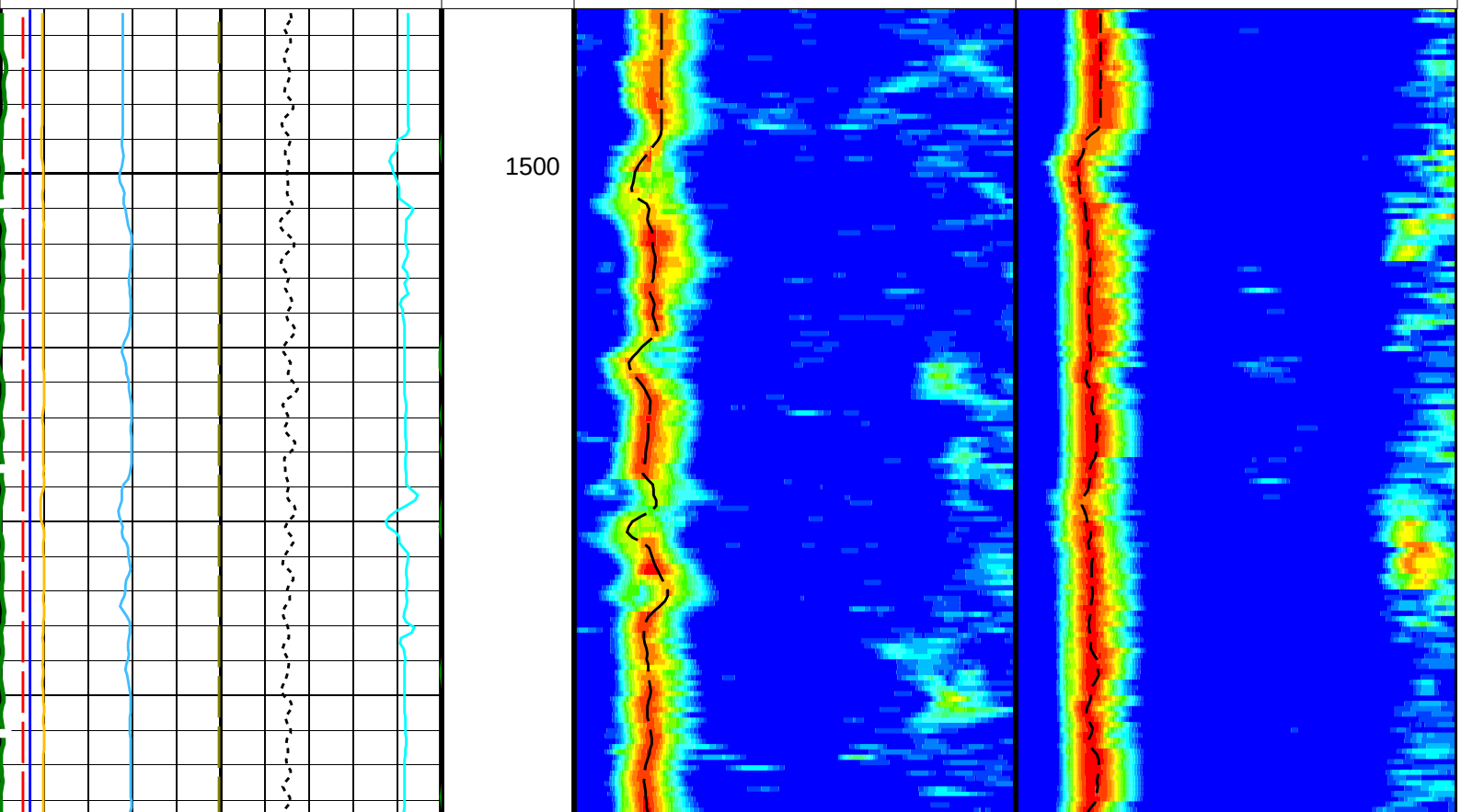
Uplog #2

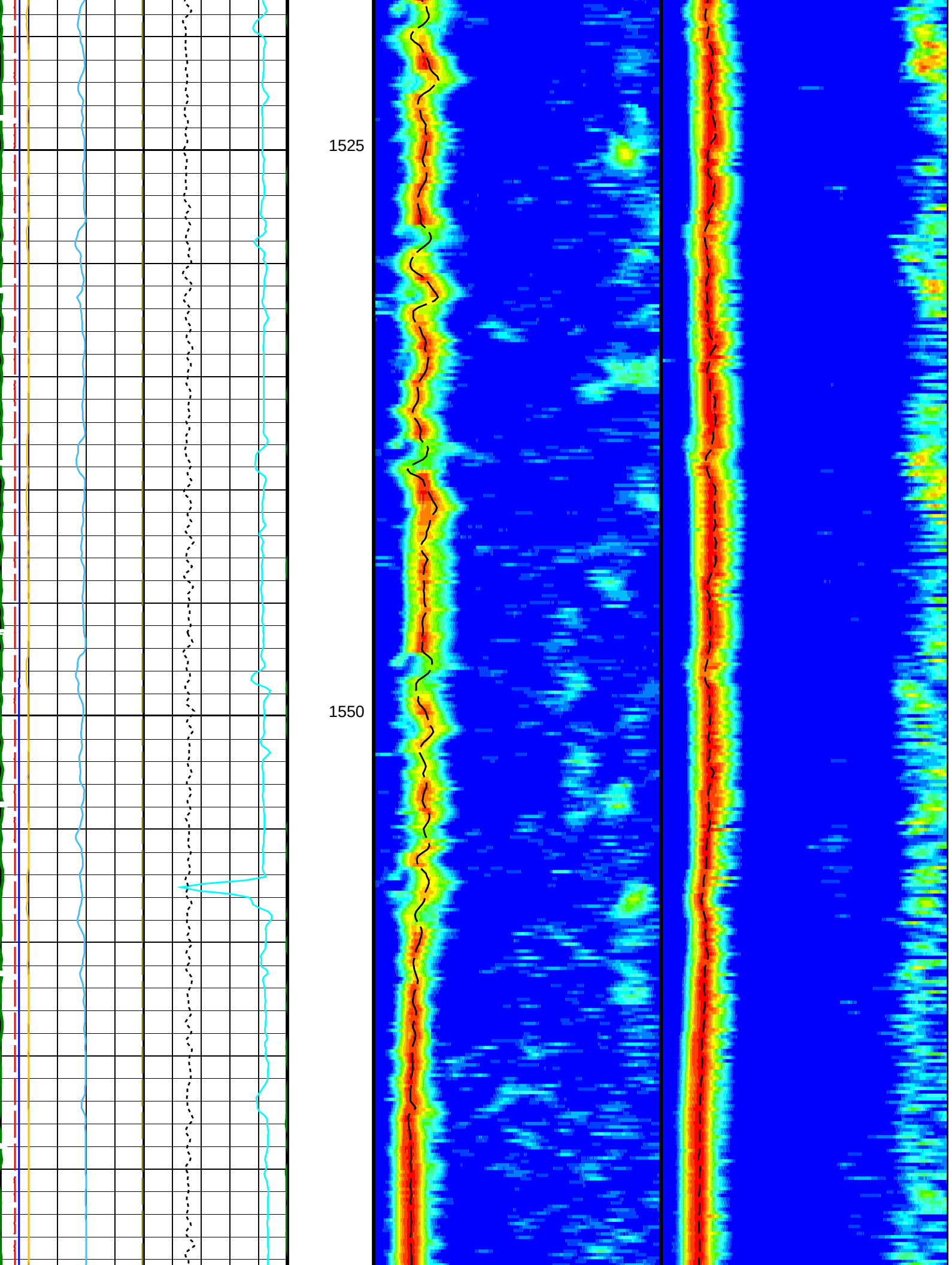
Min Amplitude Max
Tr.Array U.Dipole Slow Proj. CVDL (SPT2)
40 (US/F) 1400

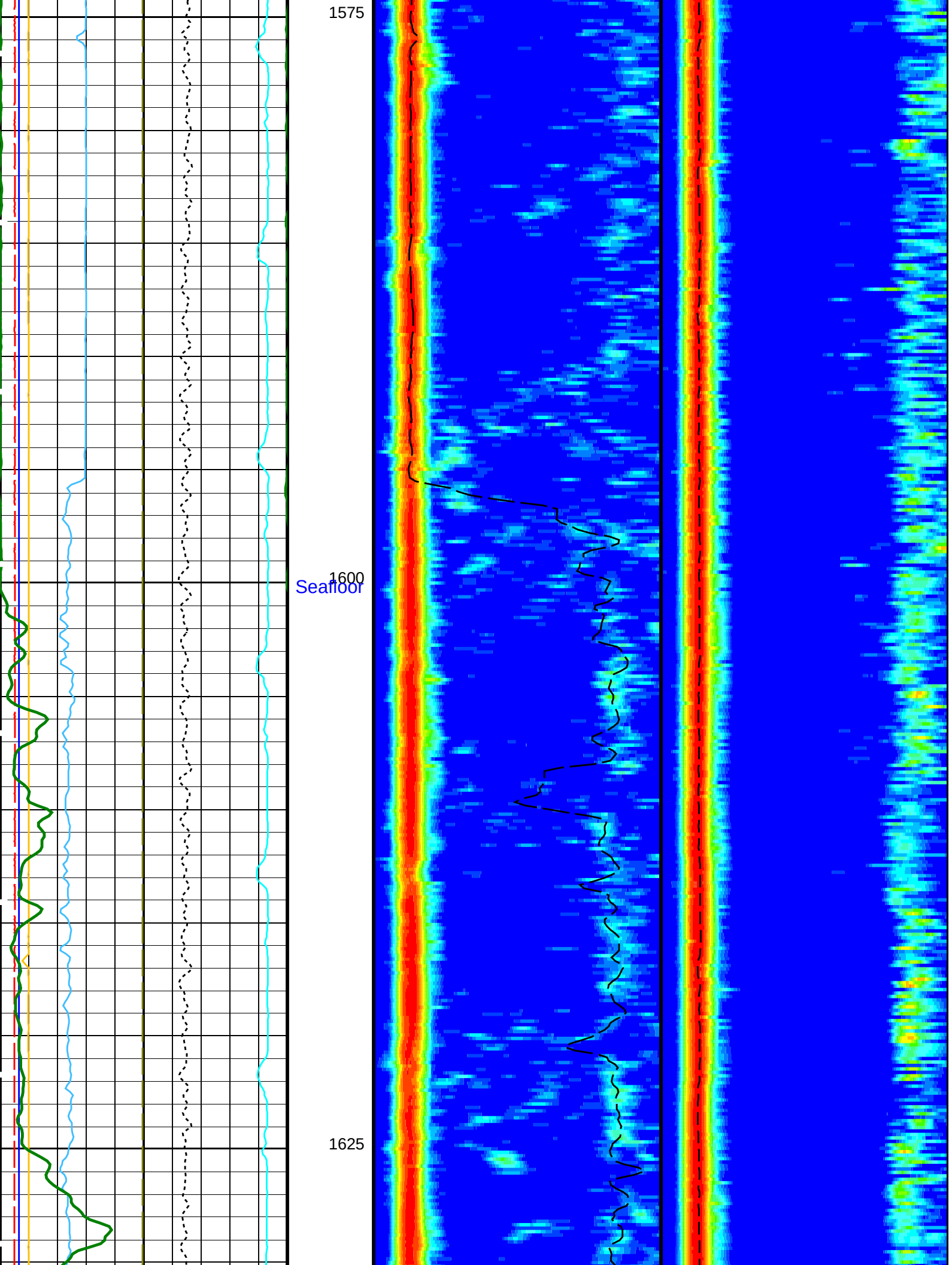
Min Amplitude Max
Rec.Array U.Dipole Slow Proj. CVDL (SPR2)
40 (US/F) 1400

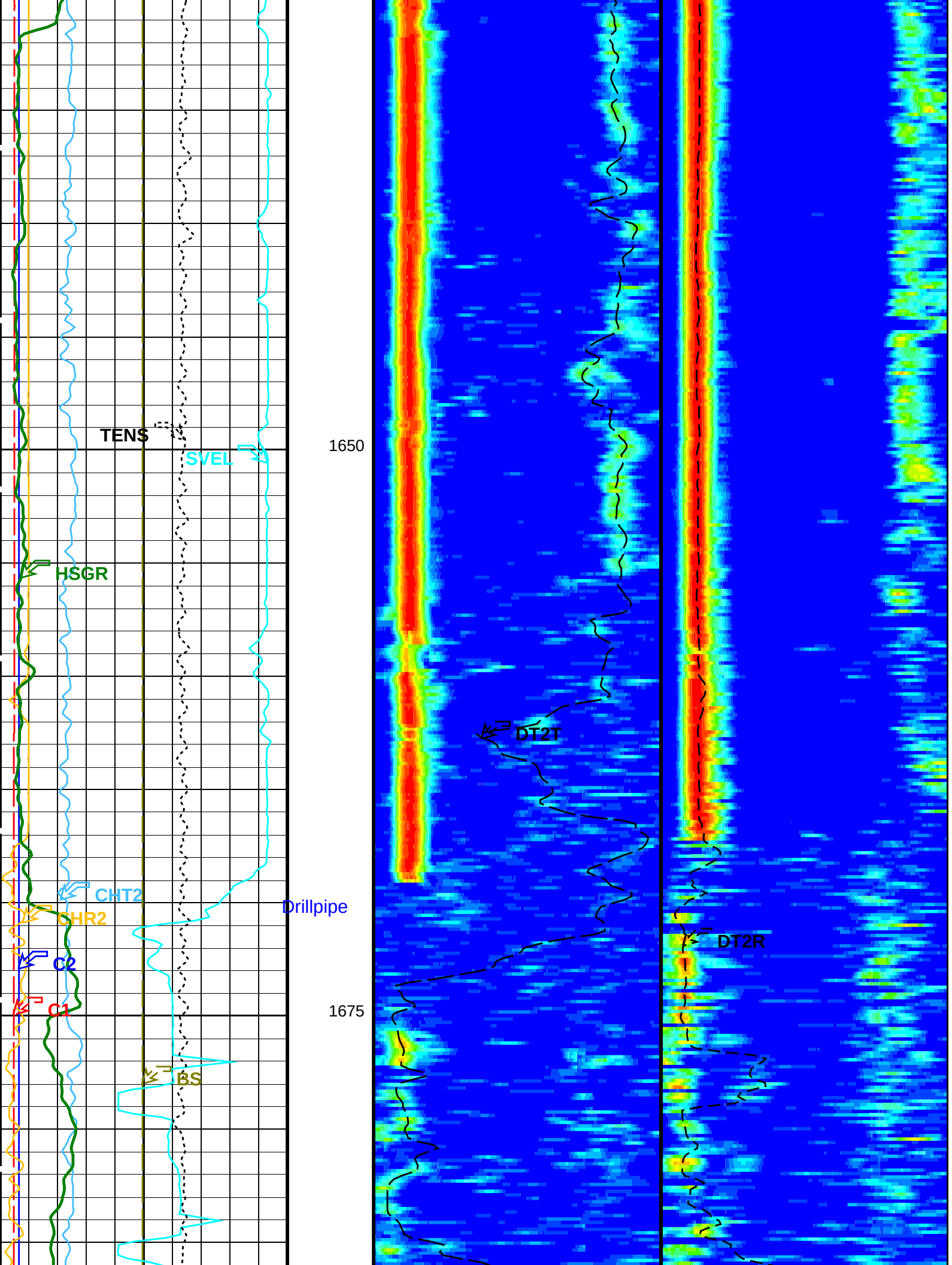
Delta−T Shear / TA − Upper Dipole (DT2T)
40 (US/F) 1400

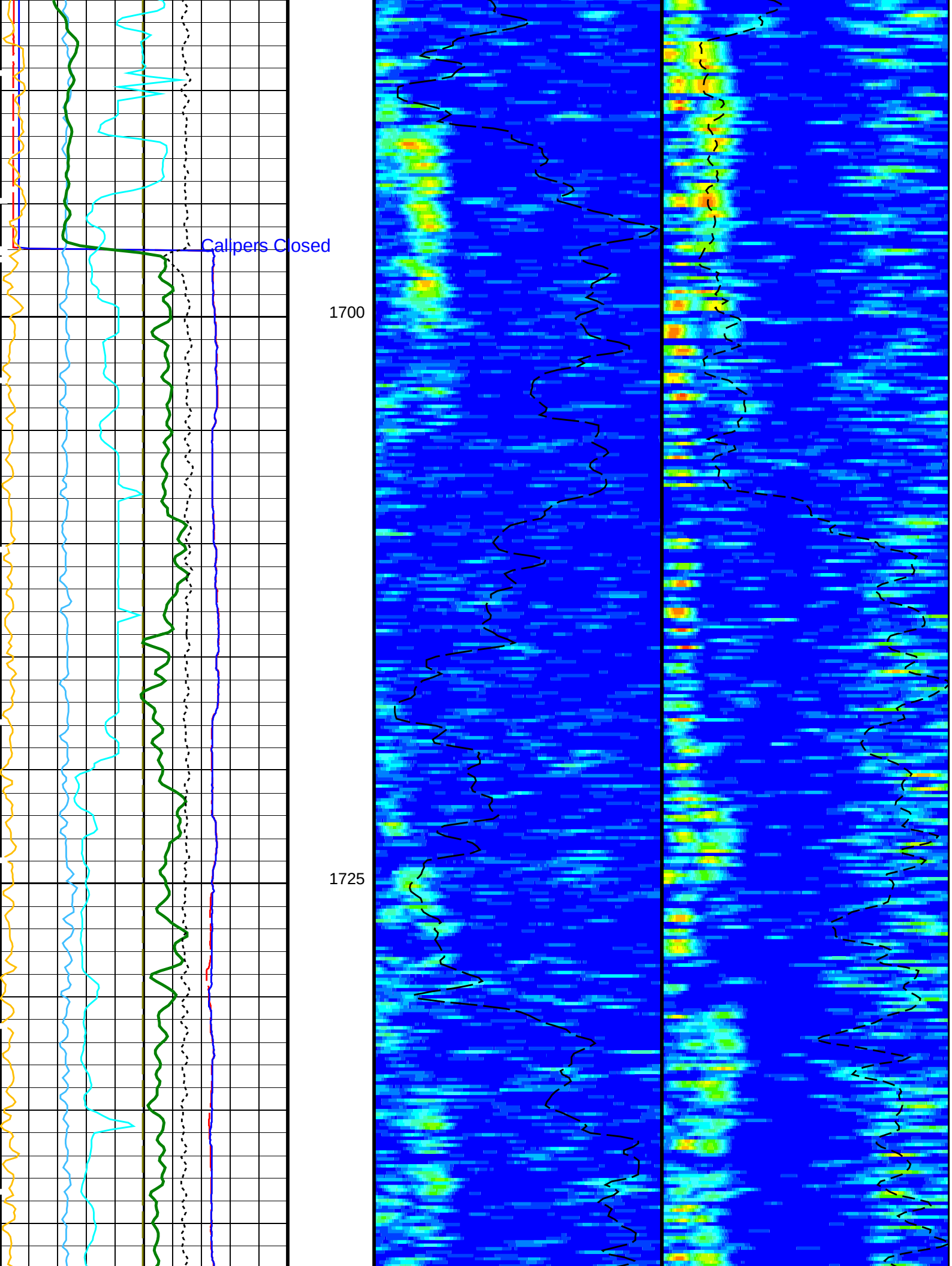
Delta−T Shear / RA − Upper Dipole (DT2R)
40 (US/F) 1400

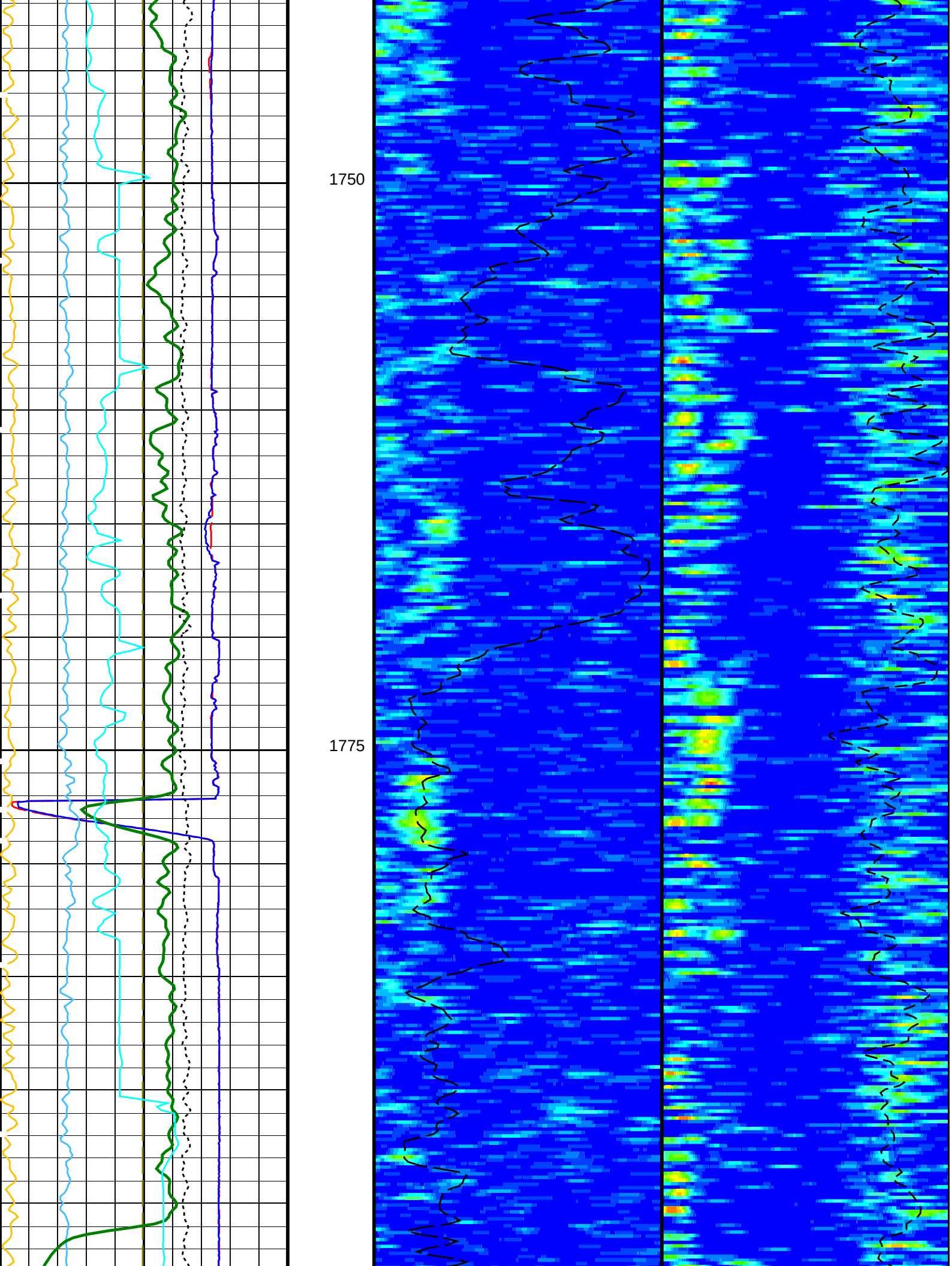


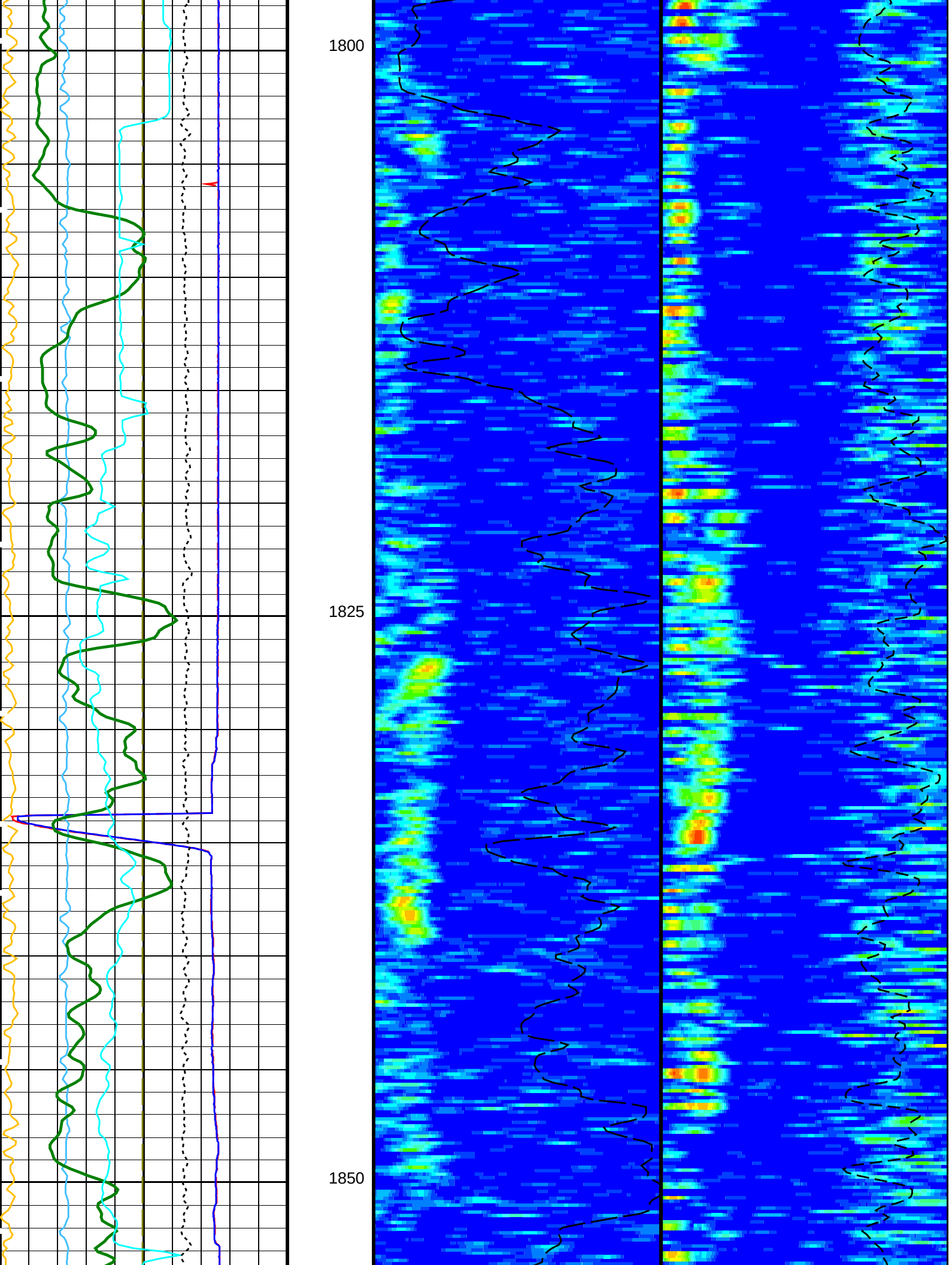

1525
1550

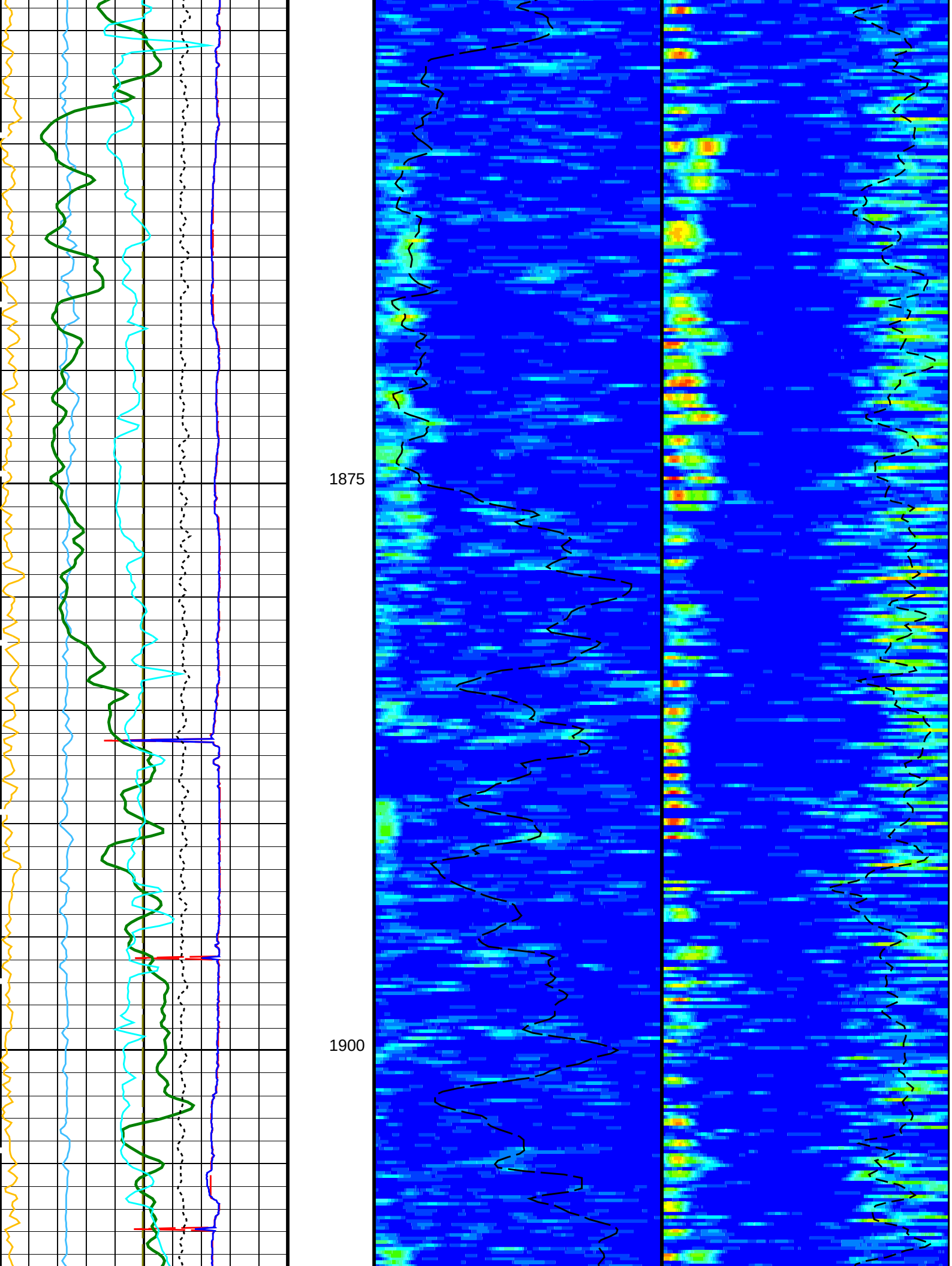

1575
1600
Seafloor
1625

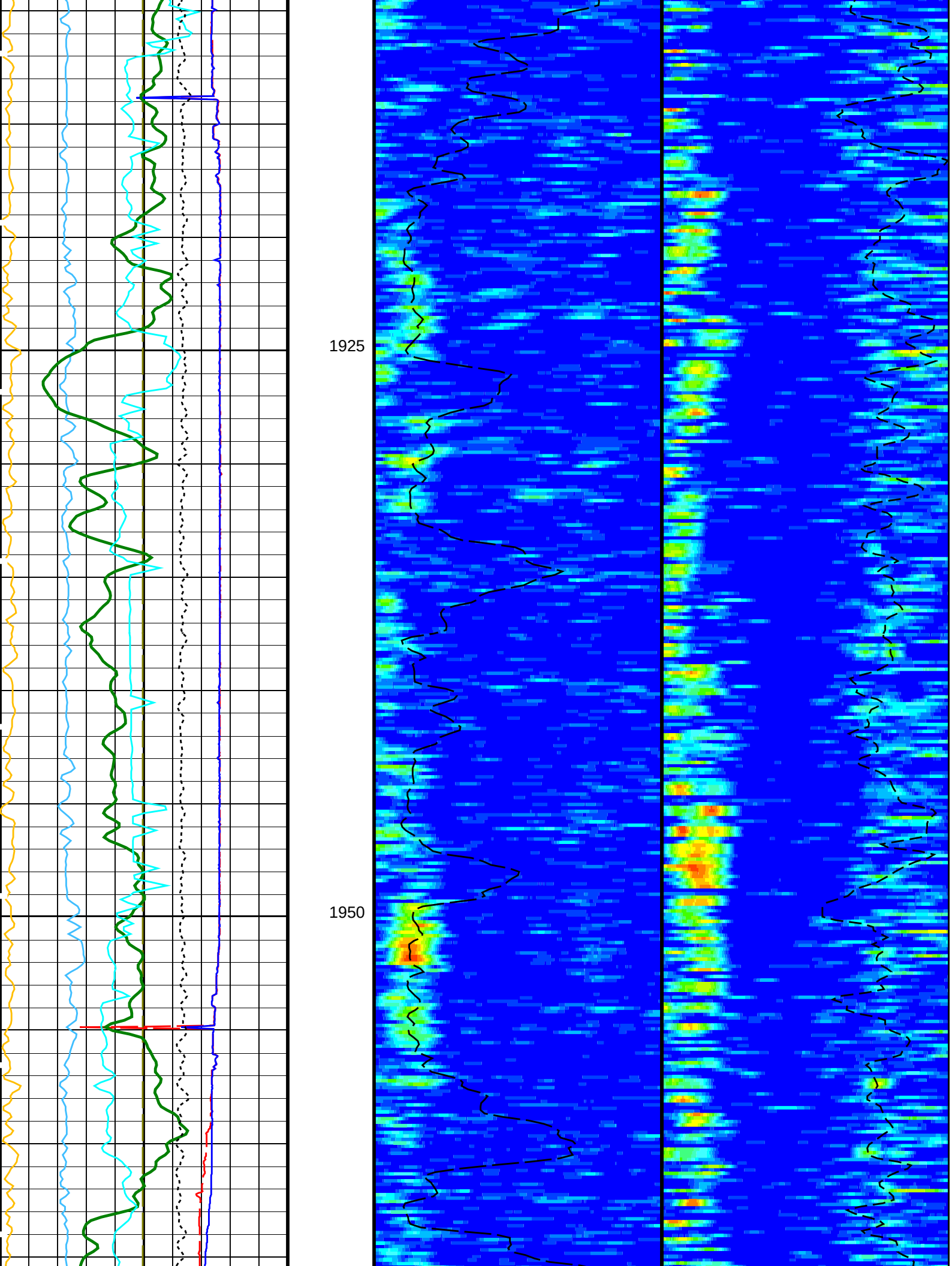

TENS
SVEL
1650
HSGR
DT2T
CHT2
CHR2
Drillpipe
DT2R
C2
C1
1675
BS

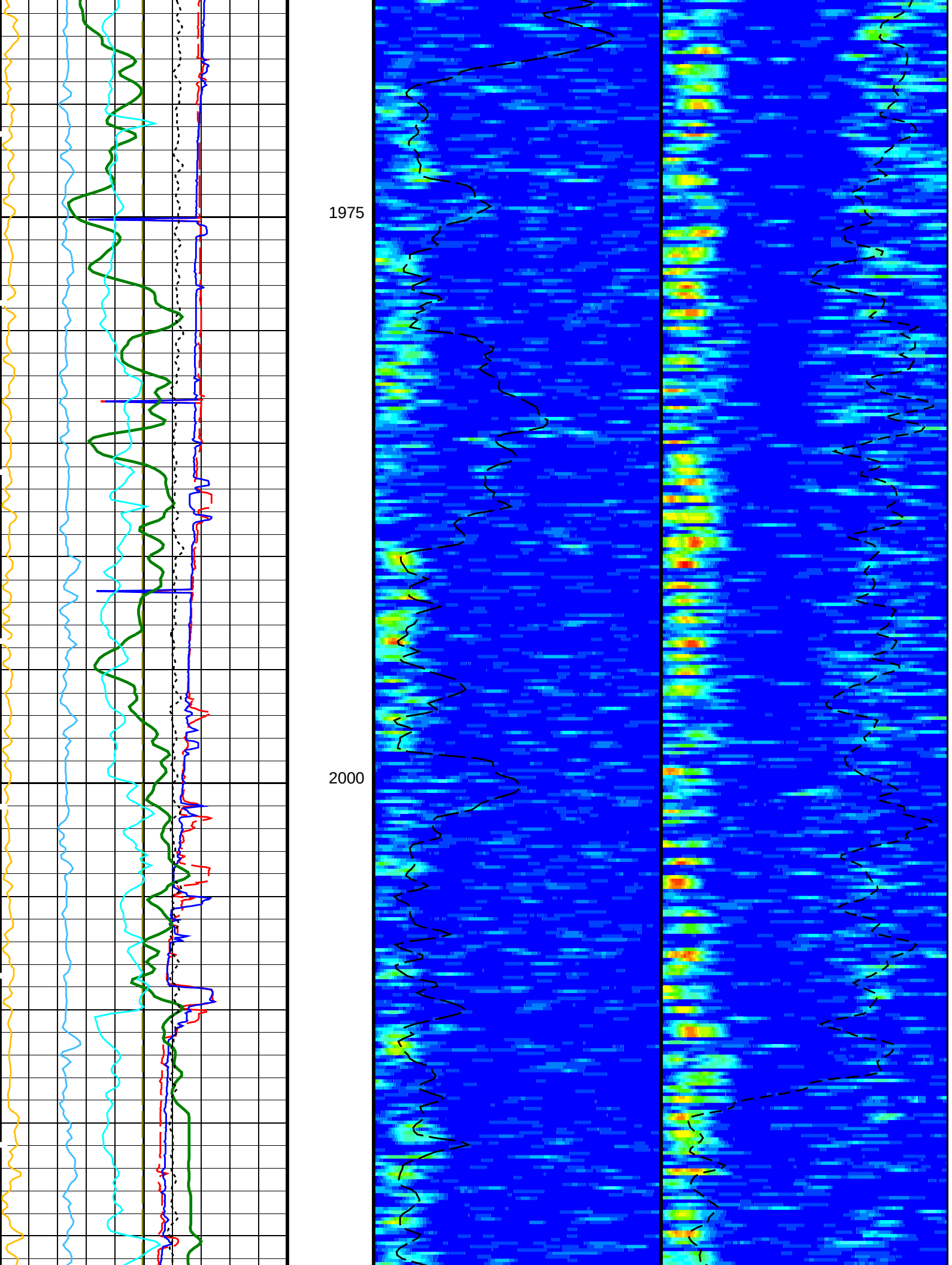

Calipers Closed
1700
1725

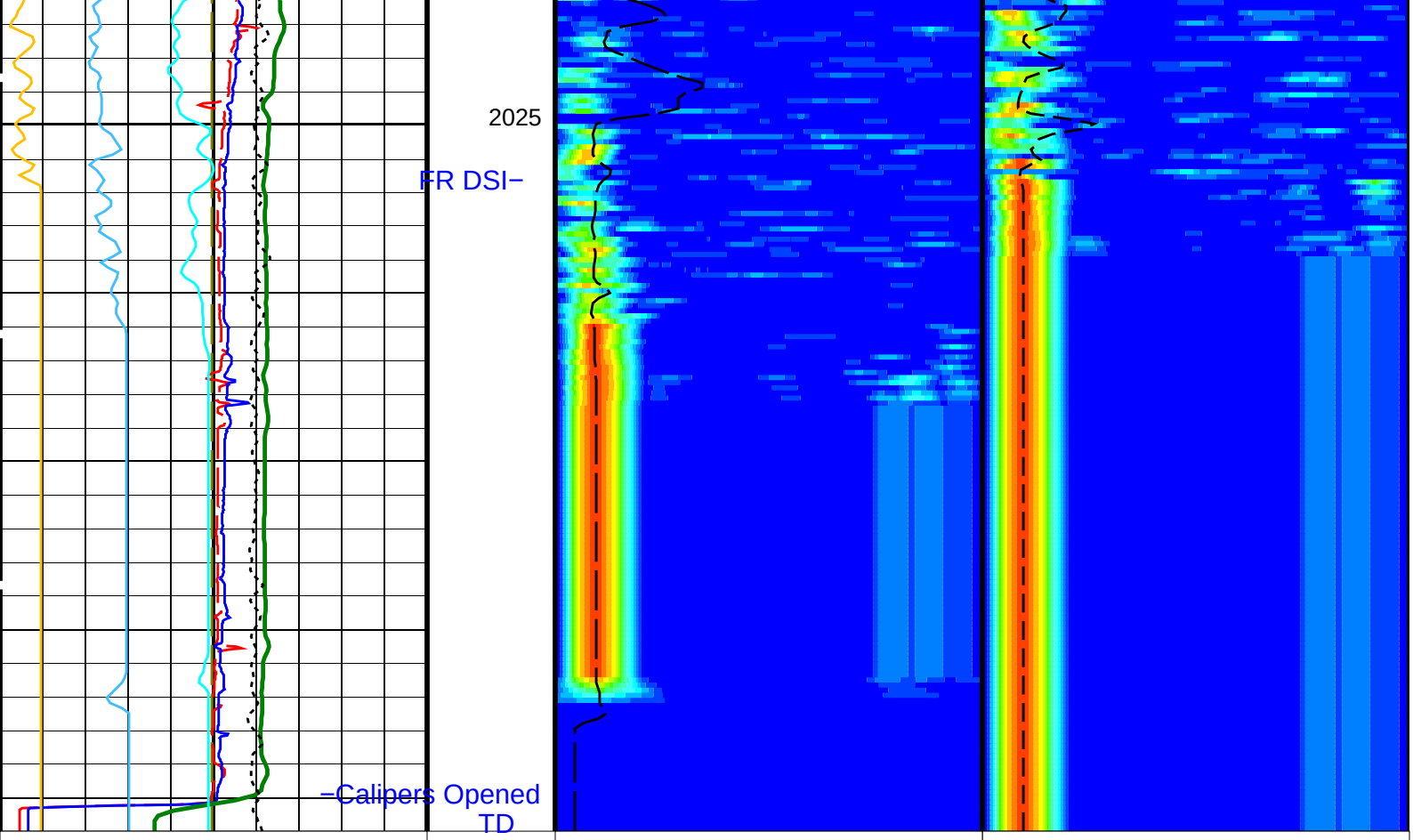

1750
1775


1800
1825
1850


1875
1900


1925
1950


1975
2000



Bit Size (BS)
0 (IN) 20

Caliper 1 (C1)
0 (IN) 20

Caliper 2 (C2)
0 (IN) 20

Sonic Velocity (SVEL)
1000 (M/S) 6000

Tension (TENS)
10000 (LBF) 0

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 / TA − Upper Dipole (DT2T)
40 (US/F) 1400

Min Amplitude Max
Tr.Array U.Dipole Slow Proj. CVDL (SPT2)
40 (US/F) 1400

Delta−T Shear / RA − Upper Dipole (DT2R)
40 (US/F) 1400

Min Amplitude Max
Rec.Array U.Dipole Slow Proj. CVDL (SPR2)
40 (US/F) 1400

Uplog #2

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	1400	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	C1	
NWI2	Number Waveform Items 2	8	
NWIX	Number Waveform Items X	32	
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 BCR		
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	1400	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	20440	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
	HNGS−BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	C1	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00376997	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
TPOS	Tool Position	CENT	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.02259	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.03819	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	C1	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.02	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: SAM2_BHC **Vertical Scale: 1:200** **Graphics File Created: 21−Jun−2018 17:29**

OP System Version: 19C0−187

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

Input DLIS Files

	LDL_FMS_DSI_NGS_051PUP	FN:68		21−Jun−2018 13:28	2046.0 M	1495.2 M

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_056PUP	FN:73	PRODUCER	21−Jun−2018 17:29		

Company: International Ocean Discovery Program | Well: Expedition 376, Site U1530A

Input DLIS Files

	LDL_FMS_DSI_NGS_051PUP	FN:68		21−Jun−2018 13:28	2046.0 M	1495.2 M

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_056PUP	FN:73	PRODUCER	21−Jun−2018 17:29	2046.0 M	1495.2 M

OP System Version: 19C0−187

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

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
GCSE	BS	C1	1674.7 17:31:00

PIP SUMMARY

Time Mark Every 60 S

(DEG) 10

Poisson's Ratio (PR)
0 (----) 0.5

Caliper 1 (C1)
0 (IN) 20

Uplog #2

Caliper 2 (C2)
0 (IN) 20

Calibrated Downhole Force (CDF) (LBF)
3000 0

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

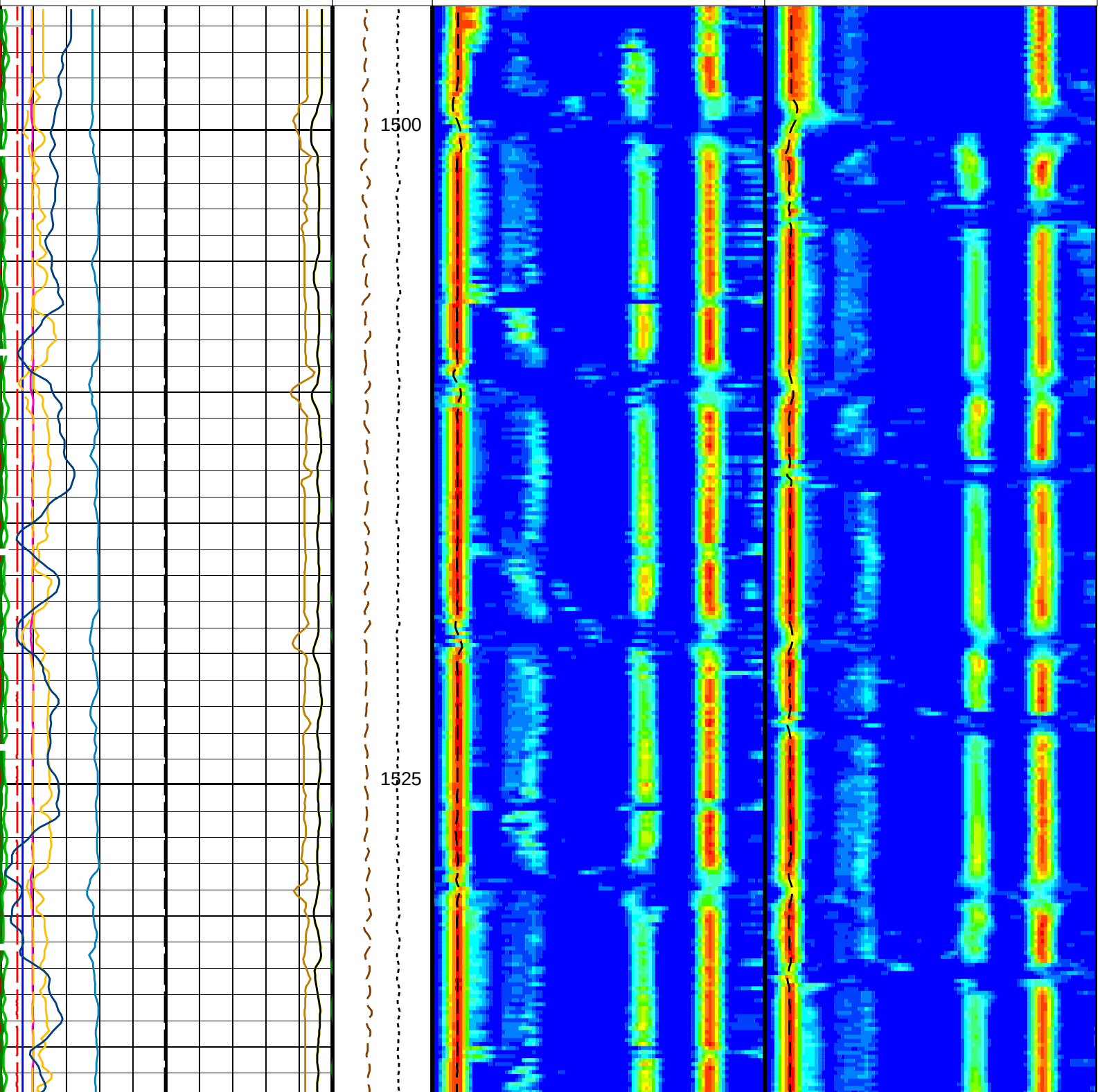
Min Amplitude Max
Tr.Array P&S Slow Proj. CVDL (SPT4)
40 (US/F) 240

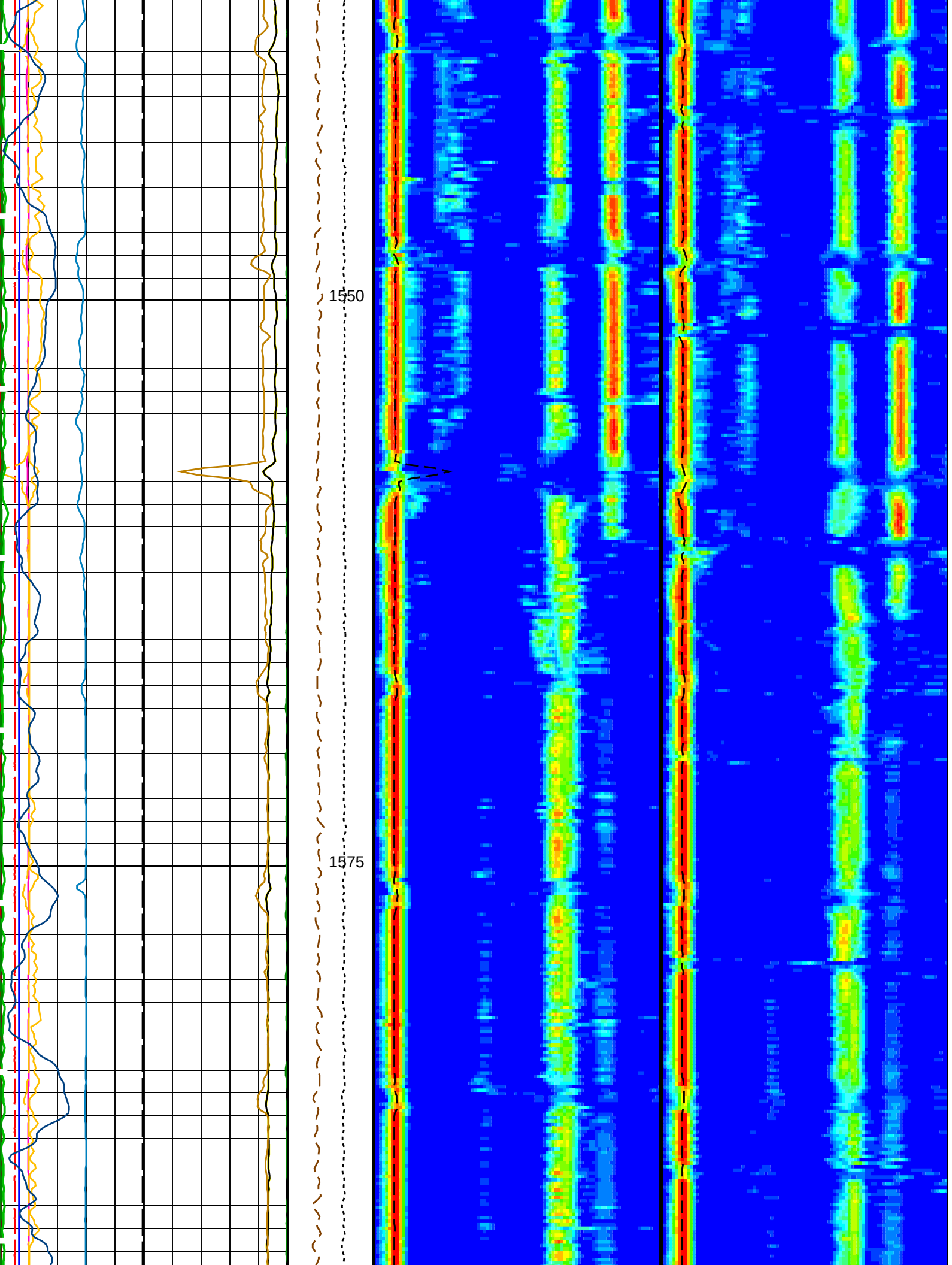
Bit Size (BS)
0 (IN) 20

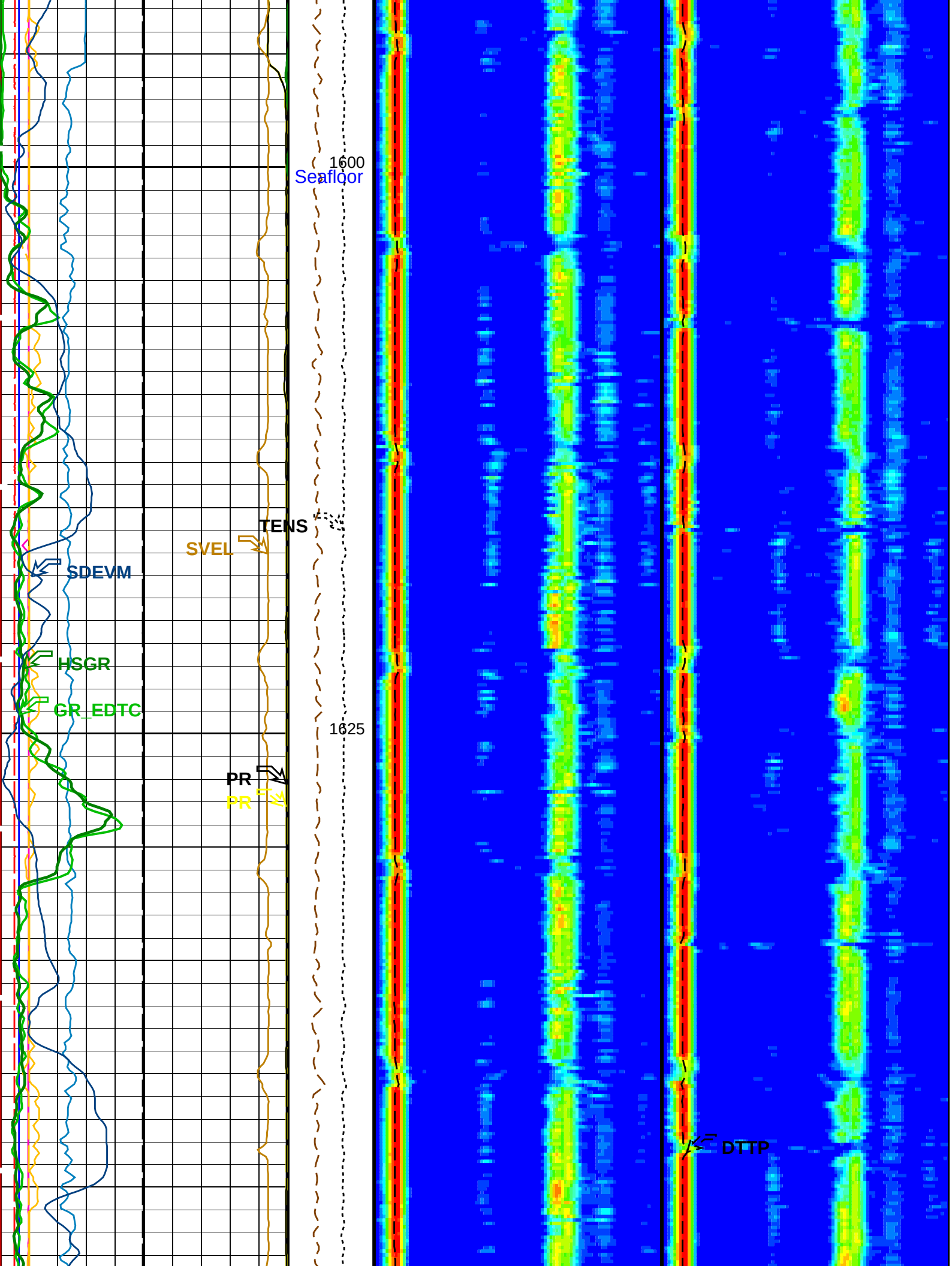
Tension (TENS) (LBF)
10000 0

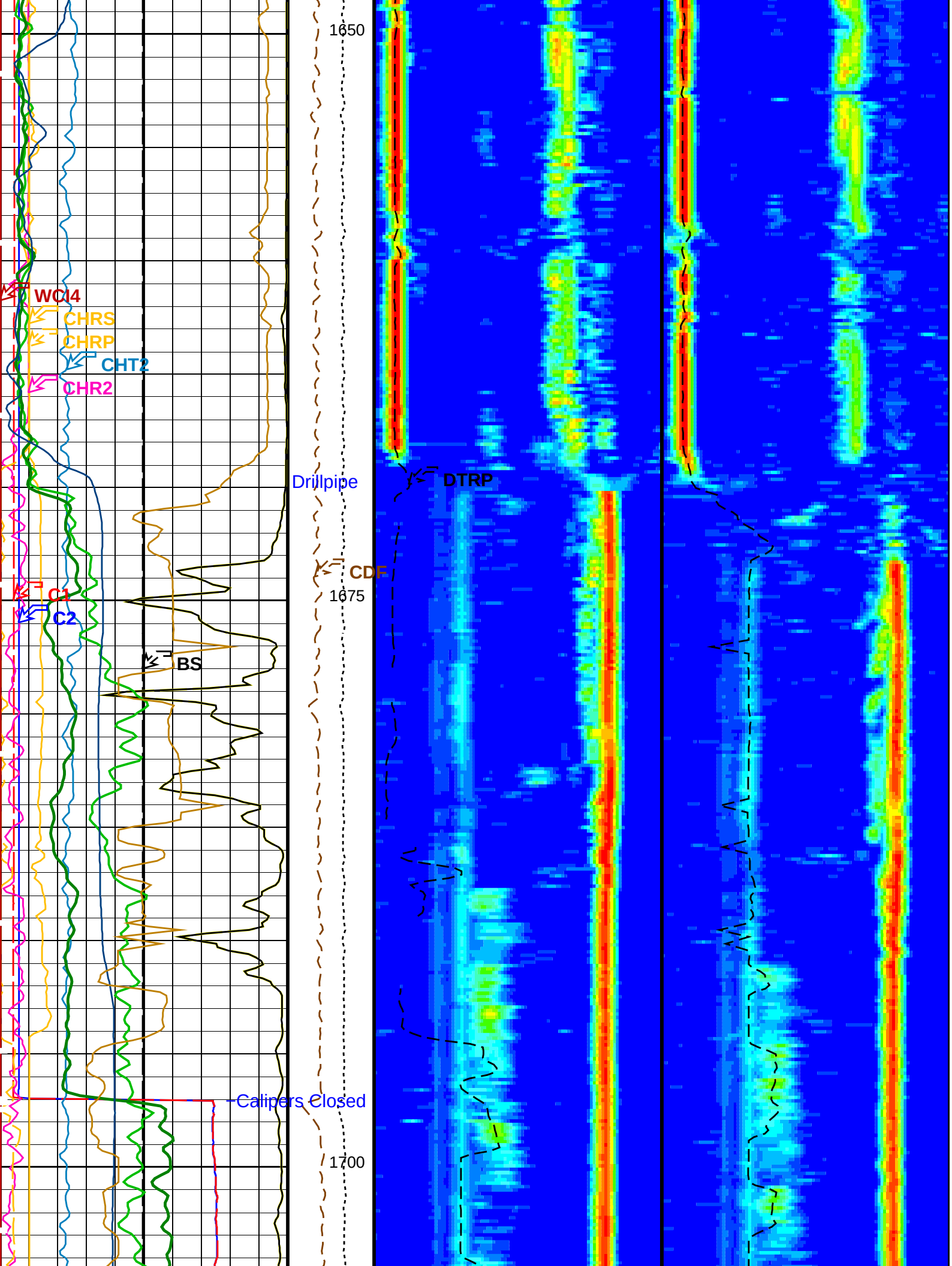
Delta-T Comp / RA - P & S (DTRP)
40 (US/F) 240

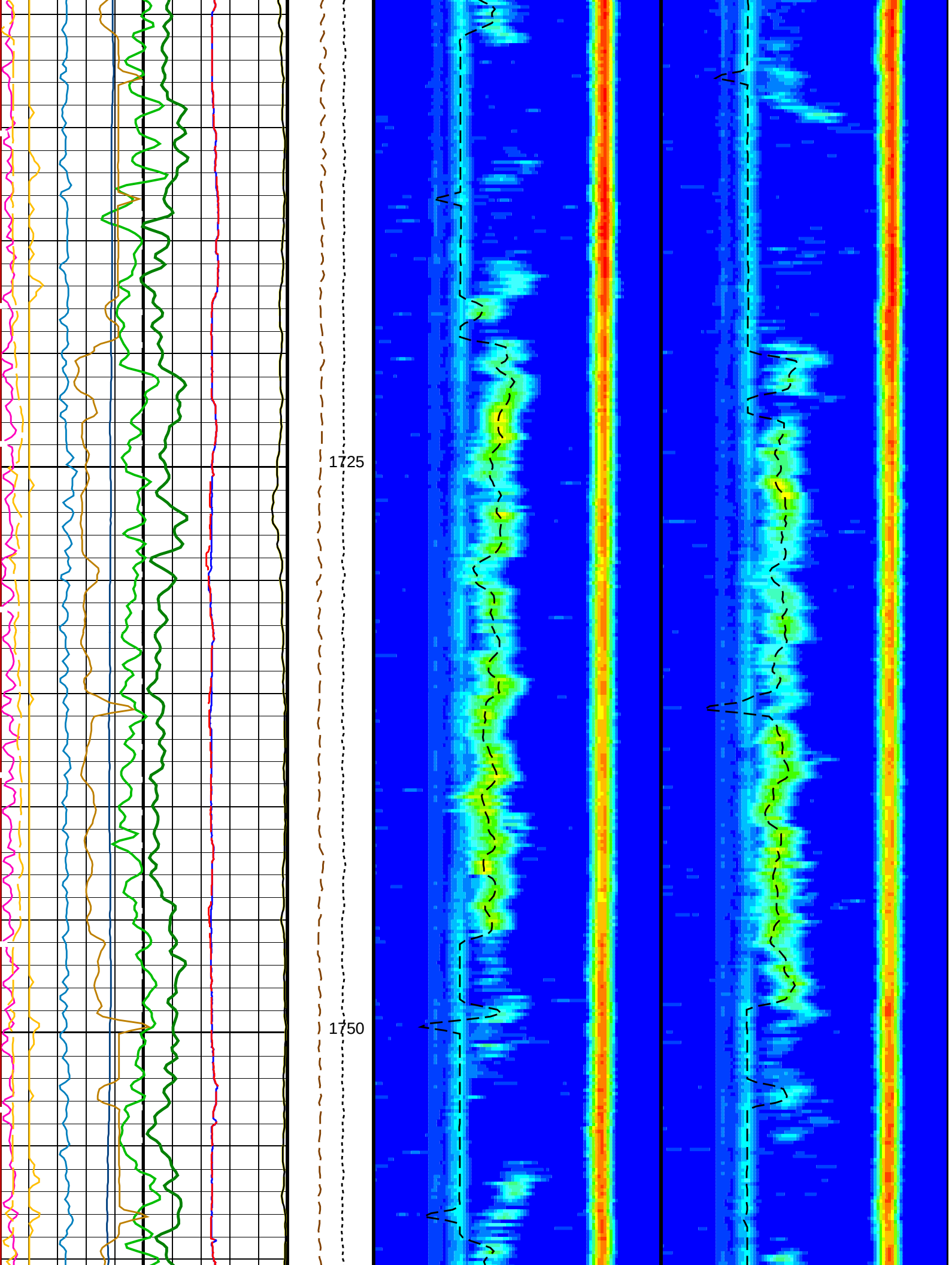
Delta-T Comp / TA - P & S (DTTP)
40 (US/F) 240

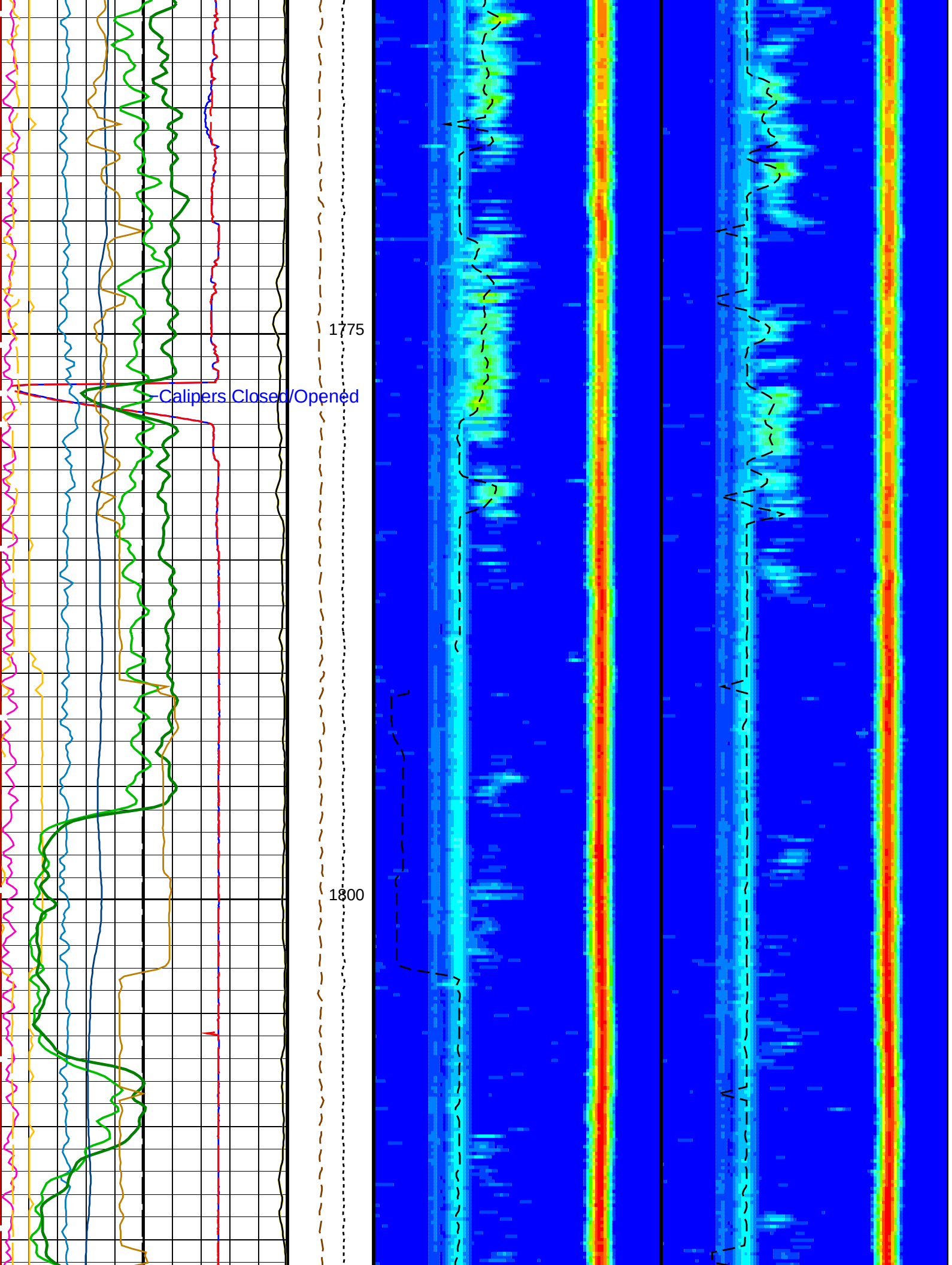


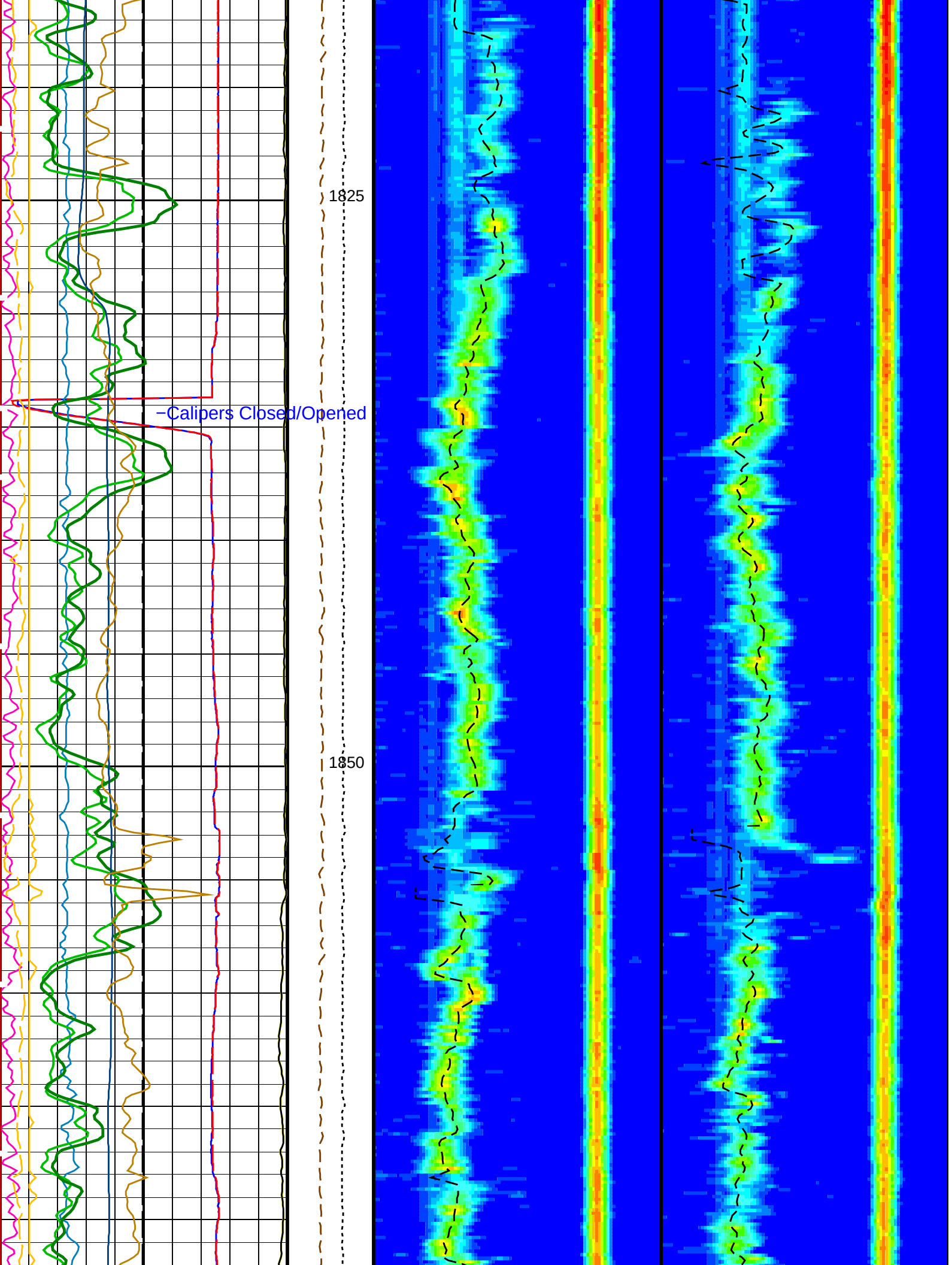

1550
1575

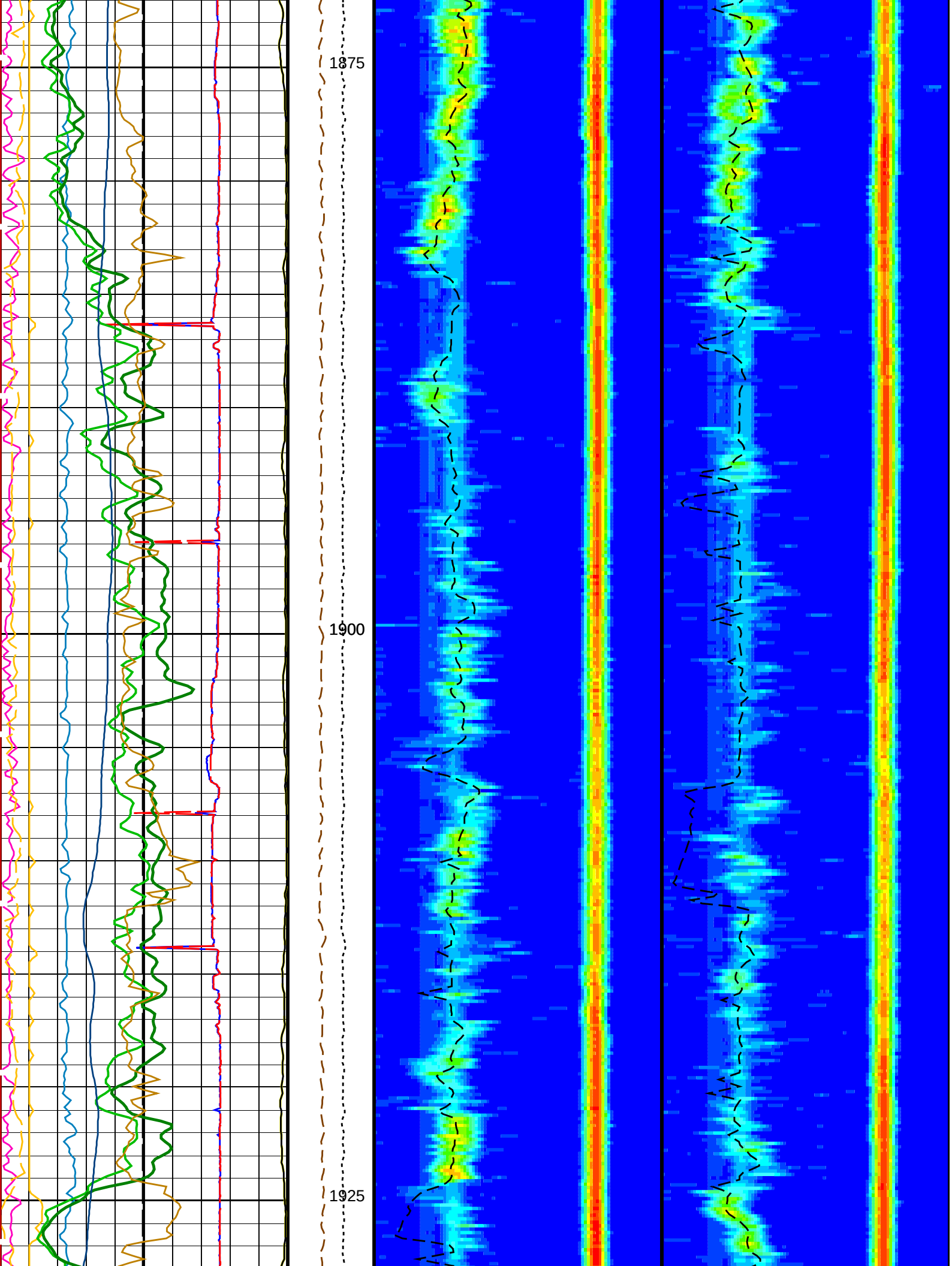

1600
Seafloor
TENS
SVEL
SDEVM
HSGR
GR_EDTC
1625
PR
PR
DTTP

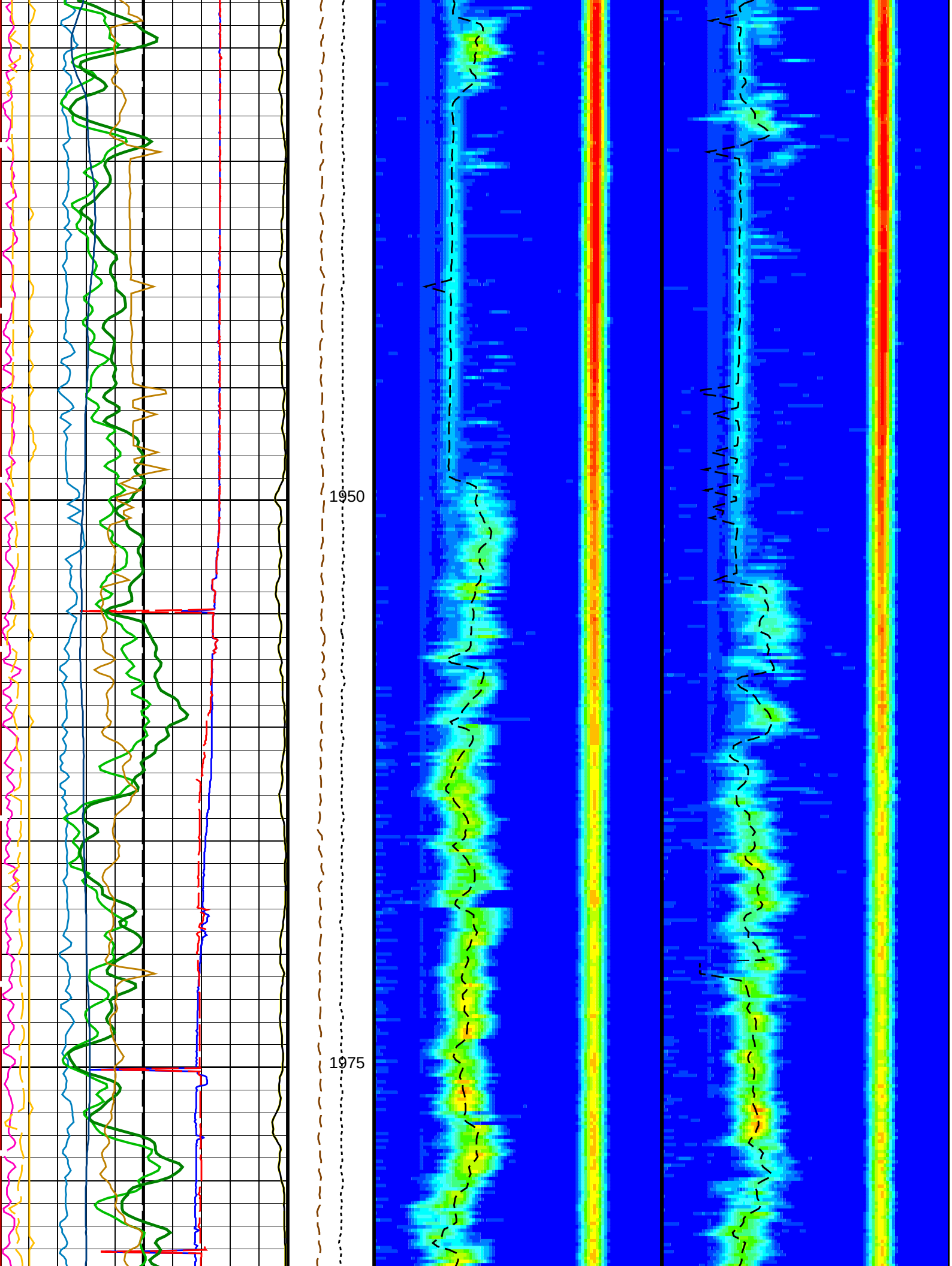

1650
WCl4
CHRS
CHRP
CHT2
CHR2
Drillpipe
DTRP
CDF
1675
C1
C2
BS
Calipers Closed
1700

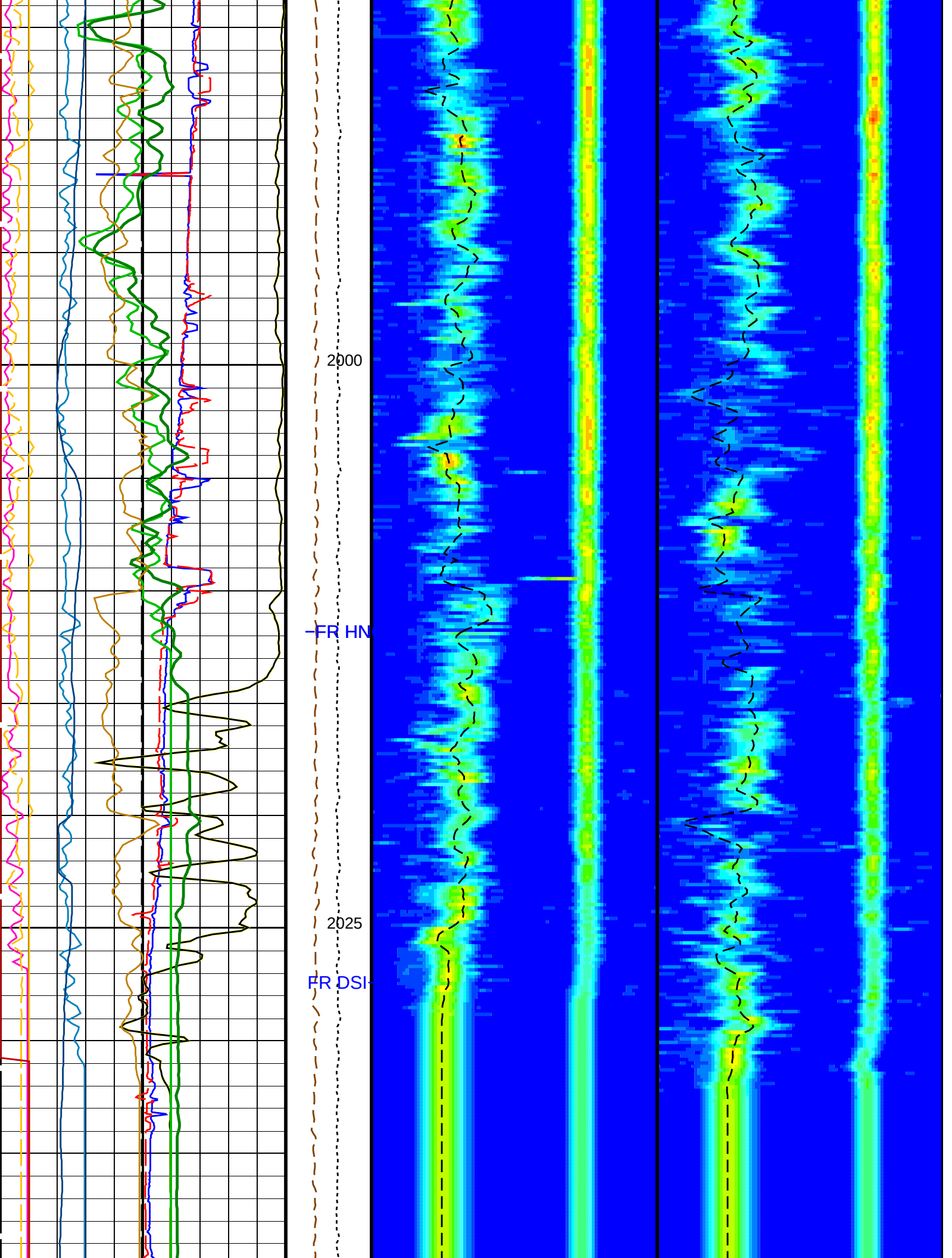

1725
1750

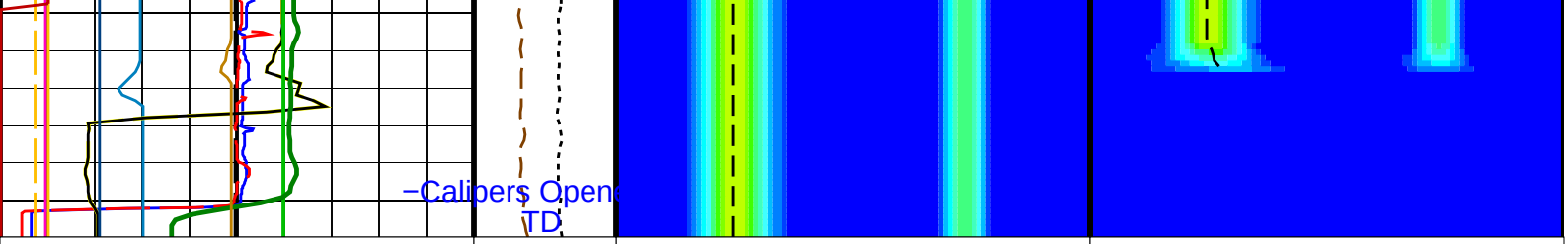

1775
Calipers Closed/Opened
1800


1825
Calipers Closed/Opened
1850


1875
1900
1925


1950
1975


2000
FR HN
2025
FR DSI



Bit Size (BS) 0 (IN) 20	Tension (TENS) (LBF) 10000 0	Delta−T Comp / RA − P & S (DTRP) 40 (US/F) 240
Caliper 2 (C2) 0 (IN) 20	Calibrated Downhole Force (CDF) (LBF) 3000 0	Min Amplitude Max Rec.Array P&S Slow Proj. CVDL (SPR4) 40 (US/F) 240
Caliper 1 (C1) 0 (IN) 20		
Poisson's Ratio (PR) 0 (−−−−) 0.5		
Sonde Deviation (SDEVM) 0 (DEG) 10		
Sonic Velocity (SVEL) 1000 (M/S) 6000		
Poisson's Ratio (PR) 0 (−−−−) 0.5		
Gamma Ray (GR_EDTC) 0 (GAPI) 100		
Peak Coherence / RA − Upper Dipole (CHR2) 0 (−−−−) 10		
Peak Coherence / TA − Upper Dipole (CHT2) −2 (−−−−) 8		
Peak Coherence / RA − P & S Comp (CHRP) 0 (−−−−) 10		
Peak Coherence / RA − P & S Shear (CHRS) −1 (−−−−) 9		
Waveform Data Copy Indicator 4 − Monopole P&S (WCI4) 0 (−−−−) 10		
HNGS Spectroscopy Gamma Ray (HSGR) 0 (GAPI) 100		

Delta−T Comp / TA − P & S (DTTP) 40 (US/F) 240	
Min Amplitude Max Tr.Array P&S Slow Proj. CVDL (SPT4) 40 (US/F) 240	

Uplog #2

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
	MEST−B: Micro Electrical Scanner − B (Slim)	
AFMO	Accelerometer Filtering Mode	MOVING_AVERAGE
ICMO	Inclinometry Computation Mode	AUTOMATIC_SELECTION

MDEC	Magnetic Field Declination	18.8286	DEG
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	40	US/F
COUL	Label Slowness Upper Limit − Monopole P&S Compressional	180	US/F
DDE4	Digitizing Delay 4	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	1400	US/F
DSI4	Digitizer Sample Interval 4	10	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta−T Source for DTCO Channel	PS_COMP	
DTF	Delta−T Fluid	189	US/F
DTSS	Shear Delta−T Source for DTSM Channel	UPPER_DIPOLE	
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	C1	
LFC	Label Formation Character − Monopole P&S	DYNAMIC	
MCS	Mean Casing Slowness	57	US/F
MTXG	Monopole Transmitter Geometry	186	IN
NWI2	Number Waveform Items 2	8	
NWI4	Number Waveform Items 4	8	
NWIX	Number Waveform Items X	32	
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	BCR	
SAS2	STC Sonic Array Status − Upper Dipole	255	
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	75	US/F
SHUL	Label Slowness Upper Limit − Monopole P&S Shear	180	US/F
SLL4	STC Slowness Lower Limit − Monopole P&S	40	US/F
SST4	STC Slowness Step − Monopole P&S	2	US/F
SSW2	STC Source Waveform − Upper Dipole	WF_SAM2	
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
TWI2	STC Integration Time Window − Upper Dipole	1600	US
TWI4	STC Integration Time Window − Monopole P&S	500	US
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFM4	Waveform Mode 4	W1	
HNGS−BA: Hostile Natural Gamma Ray Sonde			
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	C1	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00376997	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS

S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
TPOS	Tool Position	CENT	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.02259	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.03819	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	C1	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.02	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: Sam4_RA_TA_P&S Vertical Scale: 1:200 Graphics File Created: 21−Jun−2018 17:29

OP System Version: 19C0−187

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

Input DLIS Files

	LDL_FMS_DSI_NGS_051PUP	FN:68	21−Jun−2018 13:28	2046.0 M	1495.2 M

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_056PUP	FN:73	PRODUCER	21−Jun−2018 17:29		

Company: International Ocean Discovery Program Well: Expedition 376, Site U1530A

Input DLIS Files

	LDL_FMS_DSI_NGS_051PUP	FN:68	21−Jun−2018 13:28	2046.0 M	1495.2 M

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_056PUP	FN:73	PRODUCER	21−Jun−2018 17:29	2046.0 M	1495.2 M

OP System Version: 19C0−187

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

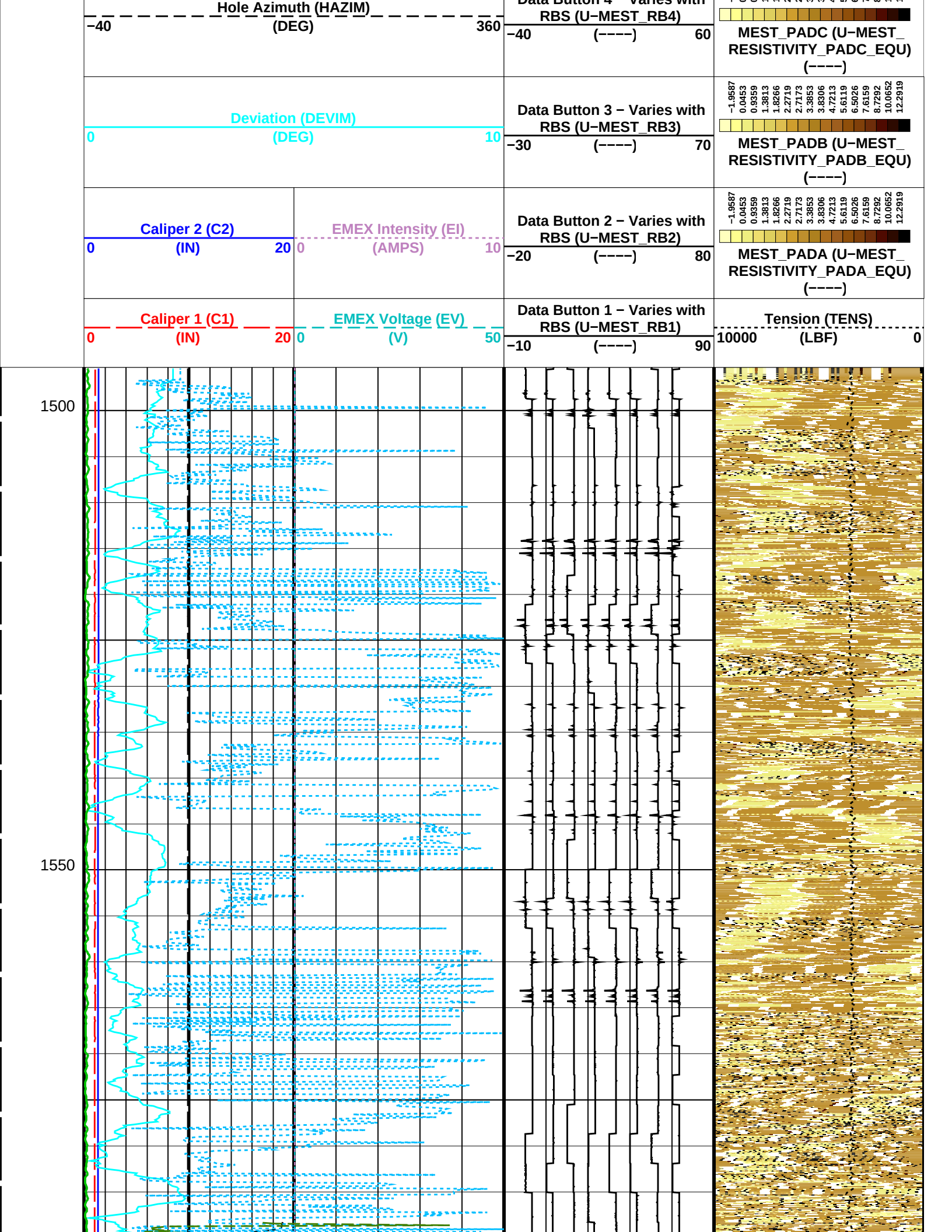
PIP SUMMARY

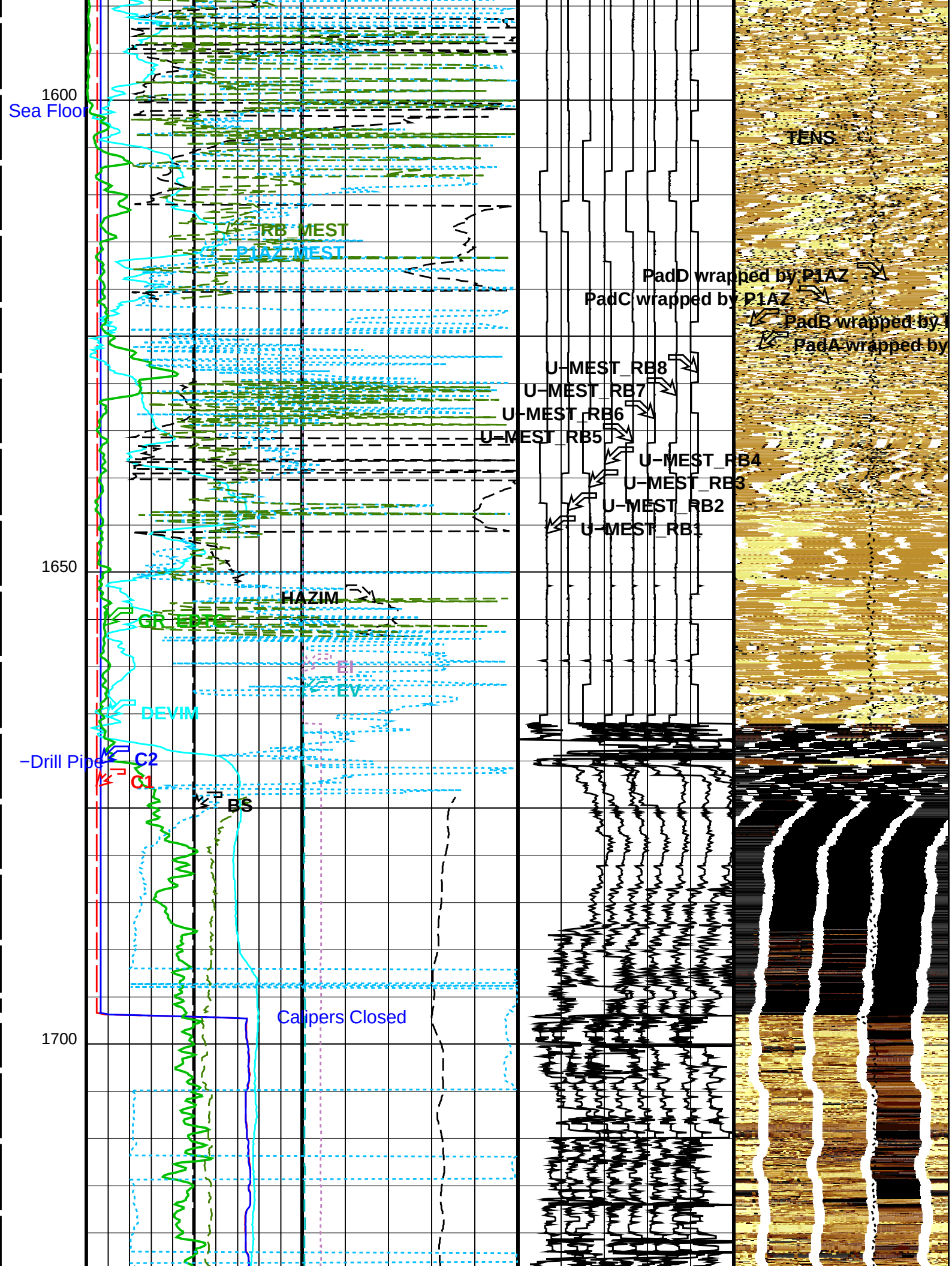
Time Mark Every 60 S

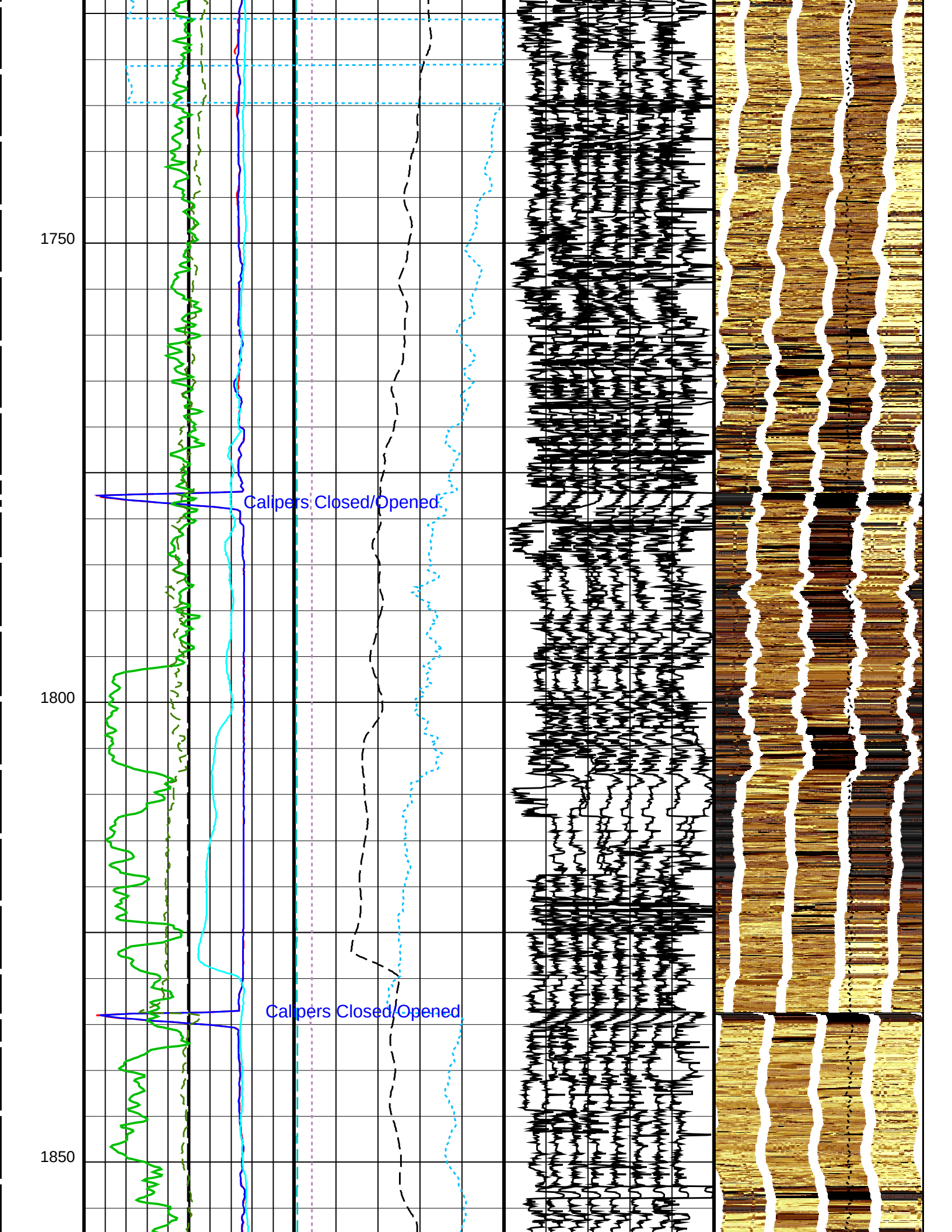
Gamma Ray (GR_EDTC) 0 (GAPI) 100		Data Button 8 − Varies with RBS (U−MEST_RB8) −80 (−−−−) 20
Bit Size (BS) 0 (IN) 20	Uplog #2	Data Button 7 − Varies with RBS (U−MEST_RB7) −70 (−−−−) 30
Relative Bearing (RB_MEST) −40 (DEG) 360		Data Button 6 − Varies with RBS (U−MEST_RB6) −60 (−−−−) 40
Pad One Azimuth (P1AZ_MEST) −40 (DEG) 360		Data Button 5 − Varies with RBS (U−MEST_RB5) −50 (−−−−) 50
		Data Button 4 − Varies with

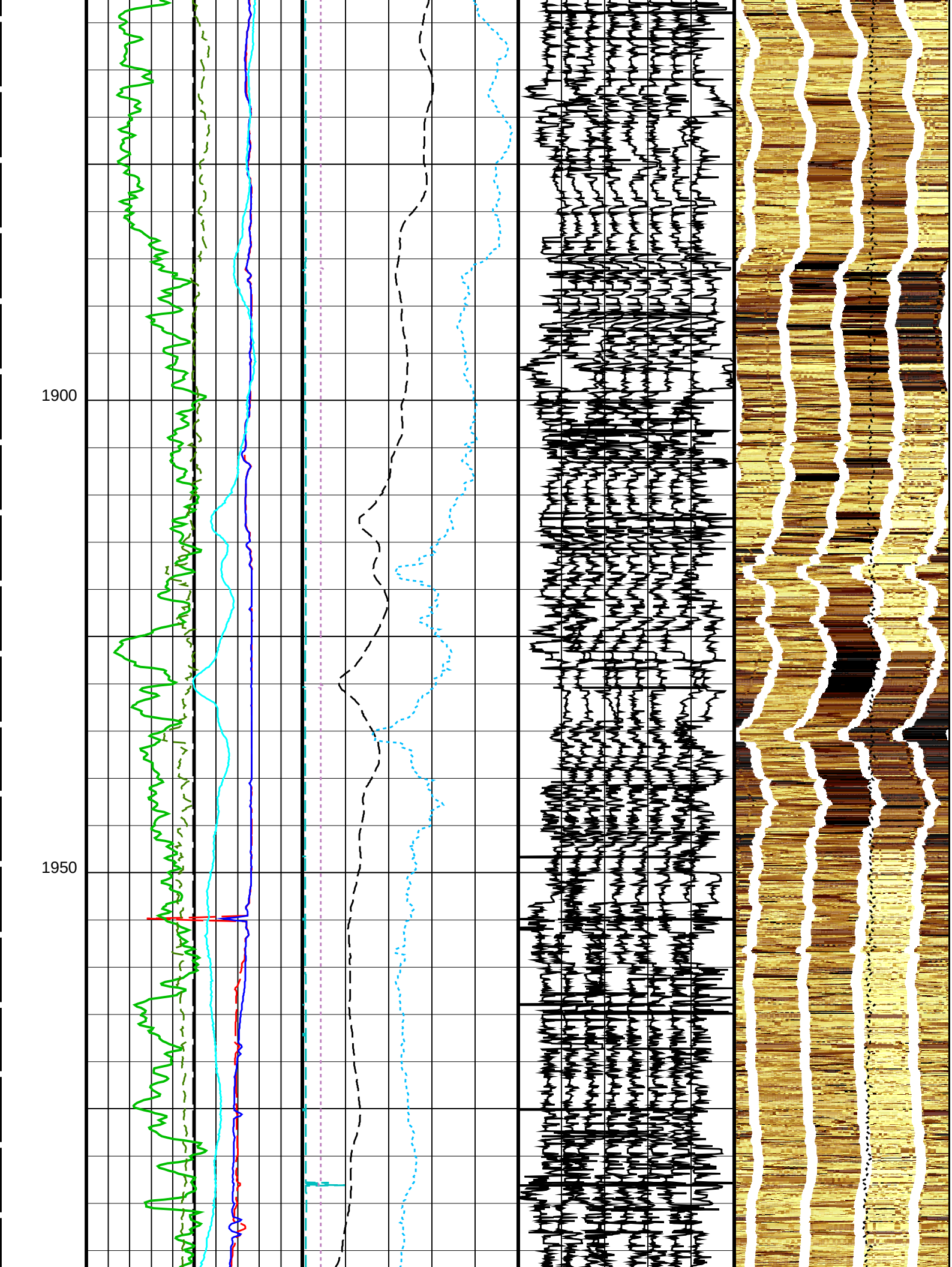
−1.9587 0.0453 0.9359 1.3813 1.8266 2.2719 2.7173 3.3853 3.8306 4.7213 5.6119 6.5026 7.6159 8.7292 10.0652 12.2919

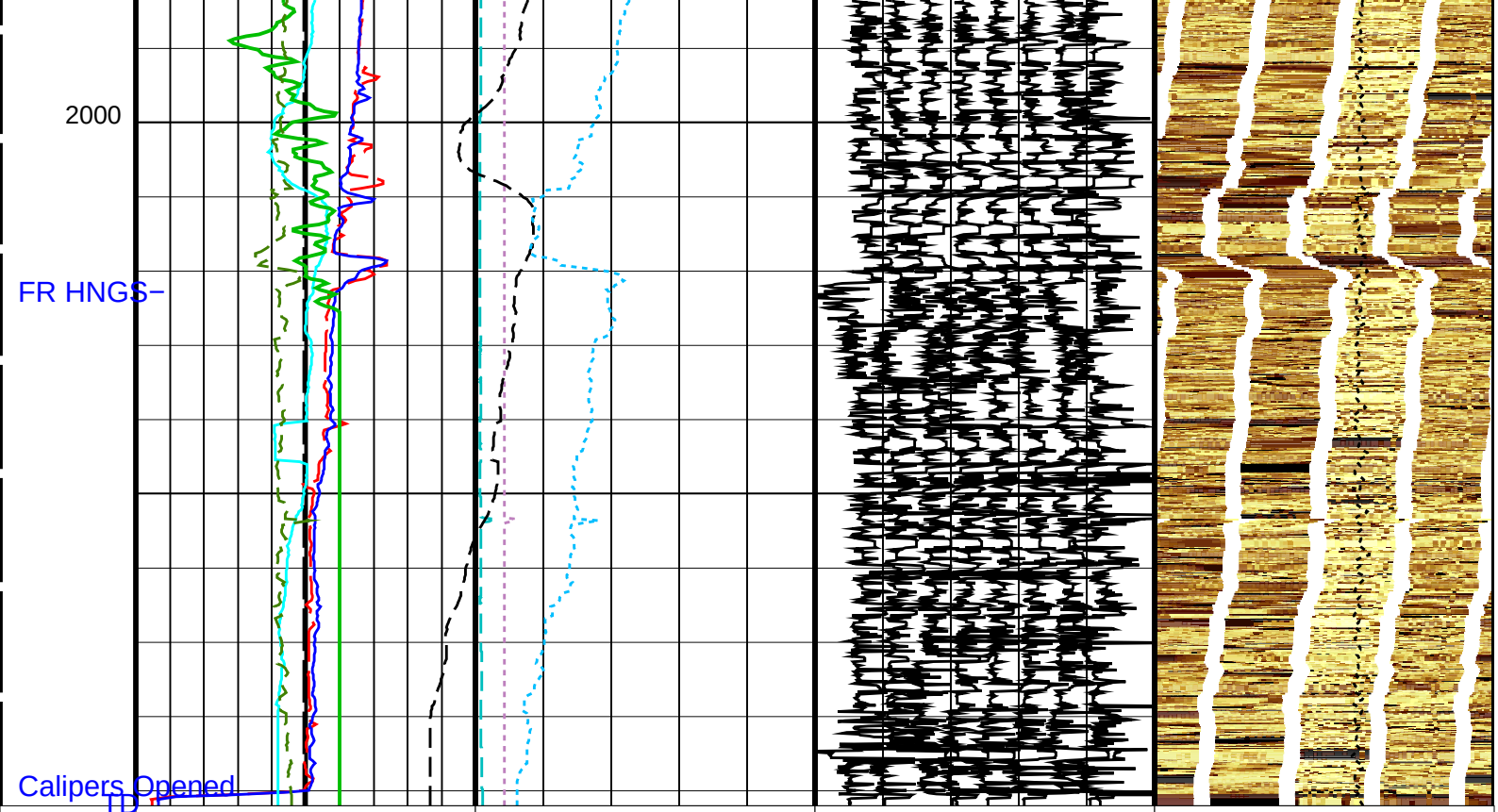
MEST_PADD (U−MEST_RESISTIVITY_PADD_EQU)
(−−−−)


Hole Azimuth (HAZIM)
−40 (DEG) 360
Deviation (DEVIM)
0 (DEG) 10
Caliper 2 (C2)
0 (IN) 20
EMEX Intensity (EI)
0 (AMPS) 10
Caliper 1 (C1)
0 (IN) 20
EMEX Voltage (EV)
0 (V) 50
Data Button 4 − Varies with RBS (U−MEST_RB4)
−40 (−−−−) 60
Data Button 3 − Varies with RBS (U−MEST_RB3)
−30 (−−−−) 70
Data Button 2 − Varies with RBS (U−MEST_RB2)
−20 (−−−−) 80
Data Button 1 − Varies with RBS (U−MEST_RB1)
−10 (−−−−) 90
MEST_PADC (U−MEST_RESISTIVITY_PADC_EQU) (−−−−)
MEST_PADB (U−MEST_RESISTIVITY_PADB_EQU) (−−−−)
MEST_PADA (U−MEST_RESISTIVITY_PADA_EQU) (−−−−)
−1.9587 0.0453 0.9359 1.3813 1.8266 2.2719 2.7173 3.3853 3.8306 4.7213 5.6119 6.5026 7.6159 8.7292 10.0652 12.2919
Tension (TENS)
10000 (LBF) 0
1500
1550


1600
Sea Floor
RB_MEST
P1AZ_MEST
TENS
PadD wrapped by P1AZ
PadC wrapped by P1AZ
PadB wrapped by
PadA wrapped by
U-MEST_RB8
U-MEST_RB7
U-MEST_RB6
U-MEST_RB5
U-MEST_RB4
U-MEST_RB3
U-MEST_RB2
U-MEST_RB1
1650
HAZIM
GR_EDTC
EI
EV
DEVIM
-Drill Pipe-
C2
C1
BS
Calipers Closed
1700


1750
1800
1850
Calipers Closed/Opened
Calipers Closed/Opened


1900
1950



Caliper 1 (C1) 0 (IN) 20	EMEX Voltage (EV) 0 (V) 50	Data Button 1 − Varies with RBS (U−MEST_RB1) −10 (−−−−) 90	Tension (TENS) 10000 (LBF) 0
Caliper 2 (C2) 0 (IN) 20	EMEX Intensity (EI) 0 (AMPS) 10	Data Button 2 − Varies with RBS (U−MEST_RB2) −20 (−−−−) 80	−1.9587 0.0453 0.9359 1.3813 1.8266 2.2719 2.7173 3.3853 3.8306 4.7213 5.6119 6.5026 7.6159 8.7292 10.0652 12.2919 MEST_PADA (U−MEST_RESISTIVITY_PADA_EQU) (−−−−)
Deviation (DEVIM) 0 (DEG) 10		Data Button 3 − Varies with RBS (U−MEST_RB3) −30 (−−−−) 70	−1.9587 0.0453 0.9359 1.3813 1.8266 2.2719 2.7173 3.3853 3.8306 4.7213 5.6119 6.5026 7.6159 8.7292 10.0652 12.2919 MEST_PADB (U−MEST_RESISTIVITY_PADB_EQU) (−−−−)
Hole Azimuth (HAZIM) −40 (DEG) 360		Data Button 4 − Varies with RBS (U−MEST_RB4) −40 (−−−−) 60	−1.9587 0.0453 0.9359 1.3813 1.8266 2.2719 2.7173 3.3853 3.8306 4.7213 5.6119 6.5026 7.6159 8.7292 10.0652 12.2919 MEST_PADC (U−MEST_RESISTIVITY_PADC_EQU) (−−−−)
Pad One Azimuth (P1AZ_MEST) −40 (DEG) 360		Data Button 5 − Varies with RBS (U−MEST_RB5) −50 (−−−−) 50	−1.9587 0.0453 0.9359 1.3813 1.8266 2.2719 2.7173 3.3853 3.8306 4.7213 5.6119 6.5026 7.6159 8.7292 10.0652 12.2919 MEST_PADD (U−MEST_RESISTIVITY_PADD_EQU) (−−−−)
Relative Bearing (RB_MEST) −40 (DEG) 360		Data Button 6 − Varies with RBS (U−MEST_RB6) −60 (−−−−) 40	
Bit Size (BS) 0 (IN) 20	Uplog #2	Data Button 7 − Varies with RBS (U−MEST_RB7) −70 (−−−−) 30	
Gamma Ray (GR_EDTC) 0 (GAPI) 100		Data Button 8 − Varies with RBS (U−MEST_RB8) −80 (−−−−) 20	

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	MEST−B: Micro Electrical Scanner − B (Slim)		
AFMO	Accelerometer Filtering Mode	MOVING_AVERAGE	
ICMO	Inclinometry Computation Mode	AUTOMATIC_SELECTION	
MDEC	Magnetic Field Declination	18.8286	DEG
MLM	MEST Logging Mode	SCAN1800	
RBS	Resistivity Button Selection	AUTO	
XGAI	Gain	GAIN_2	
XOFF	Offset	OFFSET_0	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: MEST_C_WRAP_BY_P1AZ_1 Vertical Scale: 1:480 Graphics File Created: 21−Jun−2018 17:29

OP System Version: 19C0−187

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

Input DLIS Files

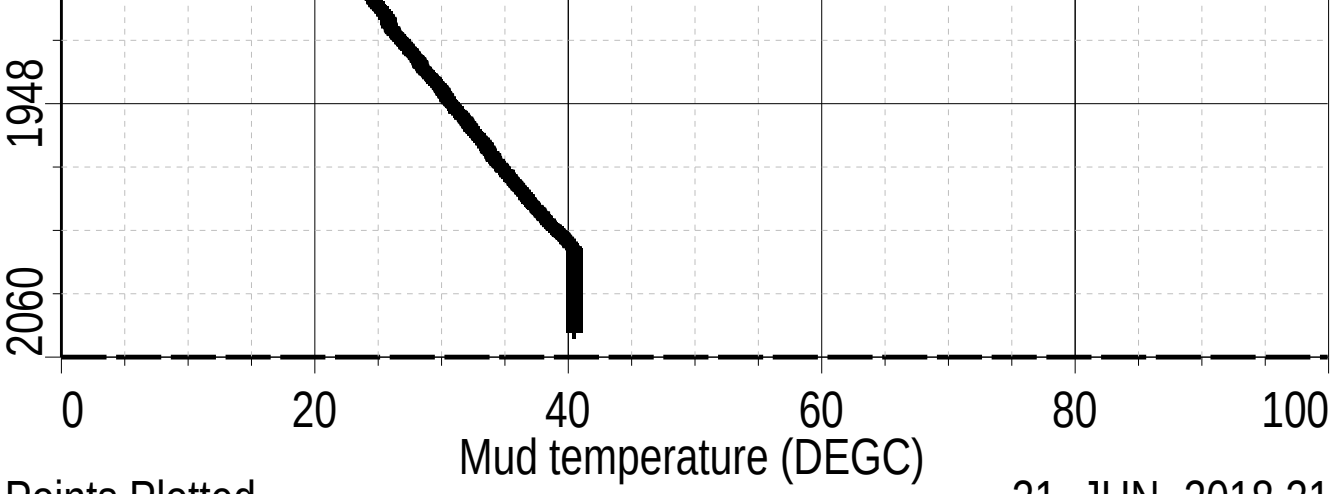
	LDL_FMS_DSI_NGS_051PUP	FN:68	21−Jun−2018 13:28	2046.0 M	1495.2 M

Output DLIS Files

DEFAULT	LDL_FMS_DSI_NGS_056PUP	FN:73	PRODUCER	21−Jun−2018 17:29

Index: 2048.4 − 1456.2 M

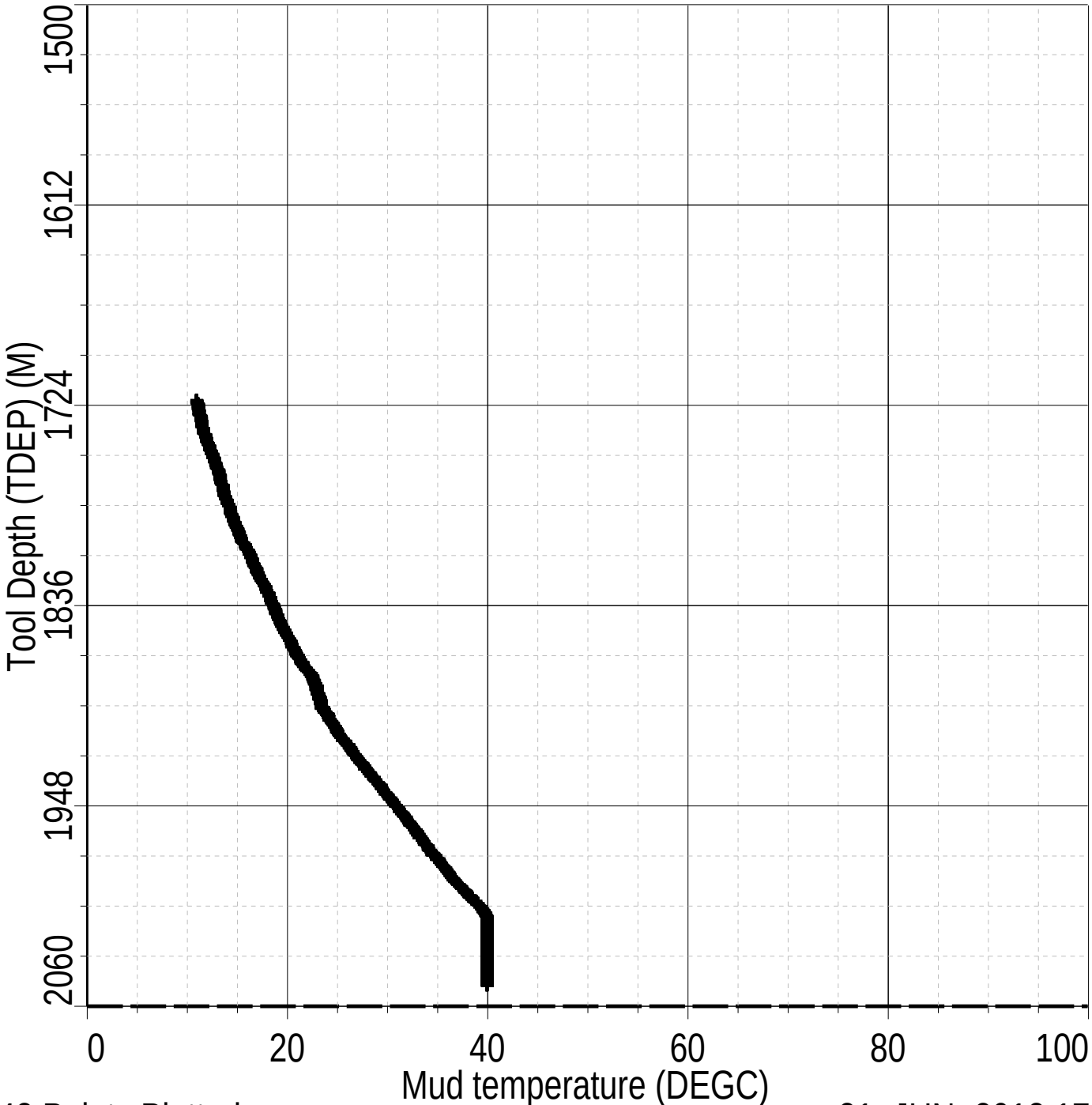
Downlog



3887 Points Plotted 21−JUN−2018 21:22

Index: 2048.3 − 1721.1 M

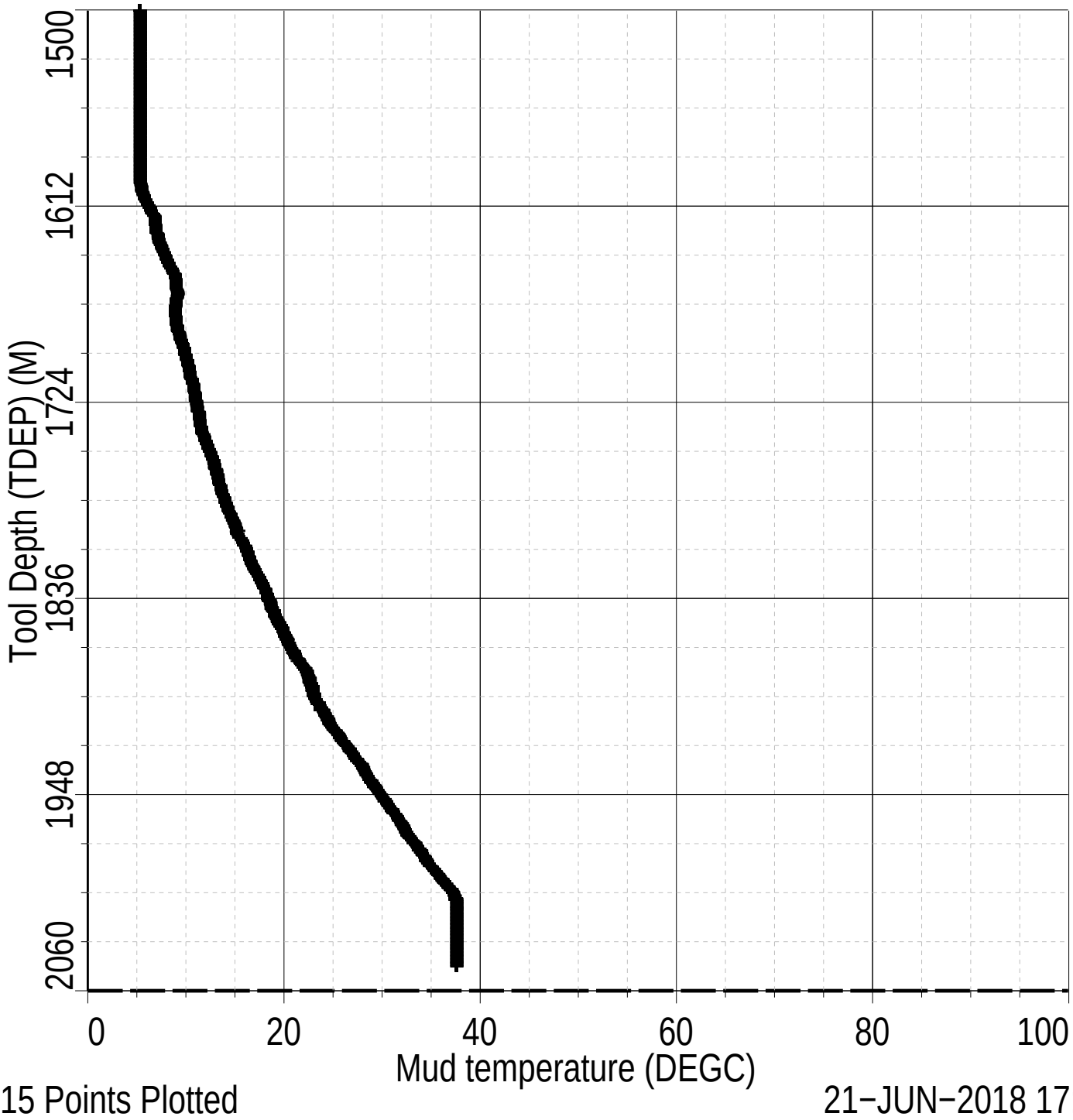
Uplog #1



2148 Points Plotted 21−JUN−2018 17:27

Index: 2046.0 − 1495.2 M

Uplog #2



3615 Points Plotted

21−JUN−2018 17:31

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Micro Electrical Scanner − B (Slim) Wellsite Calibration − Caliper Calibration							
Before: 2−Jun−2018 13:23							
Caliper 1 Zero Measurement	12.00	N/A	12.80	N/A	N/A	N/A	IN
Caliper 2 Zero Measurement	12.00	N/A	12.56	N/A	N/A	N/A	IN
Caliper 1 Plus Measurement	15.20	N/A	15.71	N/A	N/A	N/A	IN
Caliper 2 Plus Measurement	15.20	N/A	15.57	N/A	N/A	N/A	IN
Micro Electrical Scanner − B (Slim) Wellsite Calibration − CROUZET ACCELEROMETER PROM HAS BEEN READ CORRECTLY							
Before: 20−Jun−2018 1:23							
TEMPERATURE REFERENCE :	N/A	N/A	20	N/A	N/A	N/A	DEGC
YEAR OF CALIBRATION :	N/A	N/A	92	N/A	N/A	N/A	
MONTH OF CALIBRATION :	N/A	N/A	10	N/A	N/A	N/A	

SERIAL NUMBER :	N/A	N/A	448	N/A	N/A	N/A	

Micro Electrical Scanner − B (Slim) Wellsite Calibration − CROUZET MAGNETOMETER PROM HAS BEEN READ CORRECTLY
Before: 20−Jun−2018 1:23

TEMPERATURE REFERENCE :	N/A	N/A	19	N/A	N/A	N/A	DEGC
YEAR OF CALIBRATION :	N/A	N/A	99	N/A	N/A	N/A	
MONTH OF CALIBRATION :	N/A	N/A	12	N/A	N/A	N/A	
SERIAL NUMBER :	N/A	N/A	428	N/A	N/A	N/A	

Hostile Natural Gamma Ray Sonde Wellsite Calibration − Detector 1 Check
Master: 16−Jun−2018 3:35 Before: 16−Jun−2018 3:44

Na 511 Peak Loc	40.00	39.71	39.58	N/A	N/A	1.000	
Na 511 Peak Res	15.50	14.71	16.29	N/A	N/A	2.000	%
High Voltage	1150	1177	1176	N/A	N/A	N/A	V
Na 1785 Peak Loc	142.6	142.5	142.1	N/A	N/A	7.000	
Na 1785 Peak Res	8.500	7.989	8.568	N/A	N/A	2.000	%
Temperature	15.50	21.47	21.42	N/A	N/A	N/A	DEGC
Na Count Rate	45.00	22.99	22.87	N/A	N/A	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration − Detector 2 Check
Master: 16−Jun−2018 3:35 Before: 16−Jun−2018 3:44

Na 511 Peak Loc	40.00	39.62	39.50	N/A	N/A	1.000	
Na 511 Peak Res	15.50	16.34	15.67	N/A	N/A	2.000	%
High Voltage	1150	1096	1096	N/A	N/A	N/A	V
Na 1785 Peak Loc	142.6	142.2	141.1	N/A	N/A	7.000	
Na 1785 Peak Res	8.500	8.174	8.852	N/A	N/A	2.000	%
Temperature	15.50	22.01	22.09	N/A	N/A	N/A	DEGC
Na Count Rate	45.00	22.76	22.74	N/A	N/A	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration − Ratio Of Detector 1 To Detector 2
Master: 16−Jun−2018 3:35 Before: 16−Jun−2018 3:44

Coincidence Count Rate Ratio	1.000	1.012	1.007	N/A	N/A	0.05000	

Hostile Natural Gamma Ray Sonde Master Calibration − Detector 1 Calibration
Master: 16−Jun−2018 3:30

Na 511 Peak Set Point	40.00	41.00	−−	−−	−−	−−	
Th Peak Loc	209.6	210.6	−−	−−	−−	−−	
Th Peak Res	7.000	6.860	−−	−−	−−	−−	%
Background Count Rate	142.5	25.30	−−	−−	−−	−−	CPS
Gain Ratio	1.000	1.009	−−	−−	−−	−−	

Hostile Natural Gamma Ray Sonde Master Calibration − Detector 2 Calibration
Master: 16−Jun−2018 3:30

Na 511 Peak Set Point	40.00	41.00	−−	−−	−−	−−	
Th Peak Loc	209.6	208.0	−−	−−	−−	−−	
Th Peak Res	7.000	7.211	−−	−−	−−	−−	%
Background Count Rate	142.5	23.21	−−	−−	−−	−−	CPS
Gain Ratio	1.000	0.9988	−−	−−	−−	−−	

Enhanced DTS Cartridge Wellsite Calibration − EDTC Accelerometer Calibration
Before: 20−Jun−2018 1:23

EDTC Z−Axis Acceleration	9.810	N/A	9.768	N/A	N/A	N/A	M/S2

Enhanced DTS Cartridge Wellsite Calibration − Detector Calibration
Before: 16−Jun−2018 3:59

Gamma Ray (Jig − Bkg)	128.5	N/A	128.5	N/A	N/A	11.68	GAPI
Gamma Ray (Calibrated)	164.0	N/A	164.0	N/A	N/A	15.00	GAPI

Micro Electrical Scanner − B (Slim) / Equipment Identification

Primary Equipment:

MEST Sonde − B	MEDS − B	724
MEST Preamplifier Cartridge − AB	MEPC − AB	806
GPIT Cartridge − AC	GPIC − AC	840
MEST Acquisition Cartridge − A	MEAC − A	804

Auxiliary Equipment:

MEST−B Preamplifier Cartridge Housing	MEPH − A	701
MEST Acquisition Cartridge Housing (Slim	MEAH − B	769

Hostile Nuclear Combined Cartridge − B / Equipment Identification

Primary Equipment:

LDSC Cartridge	LDSC − B	521
HNGC Cartridge	HNGC − B	304

Auxiliary Equipment:		
UDFH Housing	UDFH − KLX	1055

Hostile Natural Gamma Ray Sonde / Equipment Identification

Primary Equipment:		
HNGS Sonde	HNGS − BA	194
Auxiliary Equipment:		
HNGS Sonde Housing	HNSH − BA	204
Gamma Source Radioactive	GSR − U	616008

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Detector 1 Check

Phase	Na 511 Peak Loc	Value
Master		39.71
Before		39.58
	37.50 (Minimum) 40.00 (Nominal) 43.50 (Maximum)	

Phase	Na 511 Peak Res %	Value
Master		14.71
Before		16.29
	12.00 (Minimum) 15.50 (Nominal) 19.00 (Maximum)	

Phase	High Voltage V	Value
Master		1177
Before		1176
	900.0 (Minimum) 1150 (Nominal) 1600 (Maximum)	

Phase	Na 1785 Peak Loc	Value
Master		142.5
Before		142.1
	135.0 (Minimum) 142.6 (Nominal) 150.3 (Maximum)	

Phase	Na 1785 Peak Res %	Value
Master		7.989
Before		8.568
	7.000 (Minimum) 8.500 (Nominal) 11.00 (Maximum)	

Phase	Temperature DEGC	Value
Master		21.47
Before		21.42
	−28.89 (Minimum) 15.50 (Nominal) 60.00 (Maximum)	

Phase	Na Count Rate CPS	Value
Master		22.99
Before		22.87
	10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)	

Master: 16−Jun−2018 3:35 Before: 16−Jun−2018 3:44

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Detector 2 Check

Phase	Na 511 Peak Loc	Value
Master		39.62
Before		39.50
	37.50 (Minimum) 40.00 (Nominal) 43.50 (Maximum)	

Phase	Na 511 Peak Res %	Value
Master		16.34
Before		15.67
	12.00 (Minimum) 15.50 (Nominal) 19.00 (Maximum)	

Phase	High Voltage V	Value
Master		1096
Before		1096
	900.0 (Minimum) 1150 (Nominal) 1600 (Maximum)	

Phase	Na 1785 Peak Loc	Value
Master		142.2
Before		141.1
	135.0 (Minimum) 142.6 (Nominal) 150.3 (Maximum)	

Phase	Na 1785 Peak Res %	Value
Master		8.174
Before		8.852
	7.000 (Minimum) 8.500 (Nominal) 11.00 (Maximum)	

Phase	Temperature DEGC	Value
Master		22.01
Before		22.09
	−28.89 (Minimum) 15.50 (Nominal) 60.00 (Maximum)	

Phase	Na Count Rate CPS	Value
Master		22.76
Before		22.74
	10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)	

Master: 16−Jun−2018 3:35 Before: 16−Jun−2018 3:44

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Ratio Of Detector 1 To Detector 2

Phase	Coincidence Count Rate Ratio	Value
Master		1.012
Before		1.007
	0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)	

Master: 16−Jun−2018 3:35

Before: 16−Jun−2018 3:44

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		6.860
	5.000 (Minimum) 7.000 (Nominal) 9.000 (Maximum)	

Phase	Background Count Rate CPS	Value
Master		25.30
	10.00 (Minimum) 142.5 (Nominal) 265.0 (Maximum)	

Phase	Gain Ratio	Value
Master		1.009
	0.9400 (Minimum) 1.000 (Nominal) 1.060 (Maximum)	

Master: 16−Jun−2018 3:30

Hostile Natural Gamma Ray Sonde Master Calibration

Detector 2 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		208.0
	201.0 (Minimum) 209.6 (Nominal) 218.3 (Maximum)	

Phase	Th Peak Res %	Value
Master		7.211
	5.000 (Minimum) 7.000 (Nominal) 9.000 (Maximum)	

Phase	Background Count Rate CPS	Value
Master		23.21
	10.00 (Minimum) 142.5 (Nominal) 265.0 (Maximum)	

Phase	Gain Ratio	Value
Master		0.9988
	0.9400 (Minimum) 1.000 (Nominal) 1.060 (Maximum)	

Master: 16−Jun−2018 3:30

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 − UDF	1091

Enhanced DTS Cartridge Wellsite Calibration

EDTC Accelerometer Calibration

Phase	EDTC Z−Axis Acceleration M/S2	Value
Before		9.768
	9.610 (Minimum) 9.810 (Nominal) 10.01 (Maximum)	

Before: 20−Jun−2018 1:23

Enhanced DTS Cartridge Wellsite Calibration

Detector Calibration

Phase	Gamma Ray Background GAPI	Value
Before		7.790
	0 (Minimum) 30.00 (Nominal) 120.0 (Maximum)	

Phase	Gamma Ray (Jig − Bkg) GAPI	Value
Before		128.5
	116.8 (Minimum) 128.5 (Nominal) 140.2 (Maximum)	

Phase	Gamma Ray (Calibrated) GAPI	Value
Before		164.0
	149.0 (Minimum) 164.0 (Nominal) 179.0 (Maximum)	

Before: 16−Jun−2018 3:59

Company: **International Ocean Discovery Program**

Schlumberger

Well: **Expedition 376, Site U1530A**

Field: **Bothers Arc Flux**

Rig: **JOIDES Resolution**

Ocean:	**Pacific**
	Hostile Natural Gamma Spectroscopy −HNGS Formation Micro Scanner − FMS Dipole Sonic −DSI, Mud Temperature