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**OTHER SERVICES1**

- OS1: HNGS
- OS2: HRLA
- OS3: MSS
- OS4: HLDS
- OS5: FMS

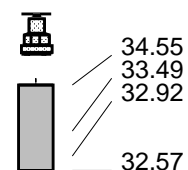
**REMARKS: RUN NUMBER 1**

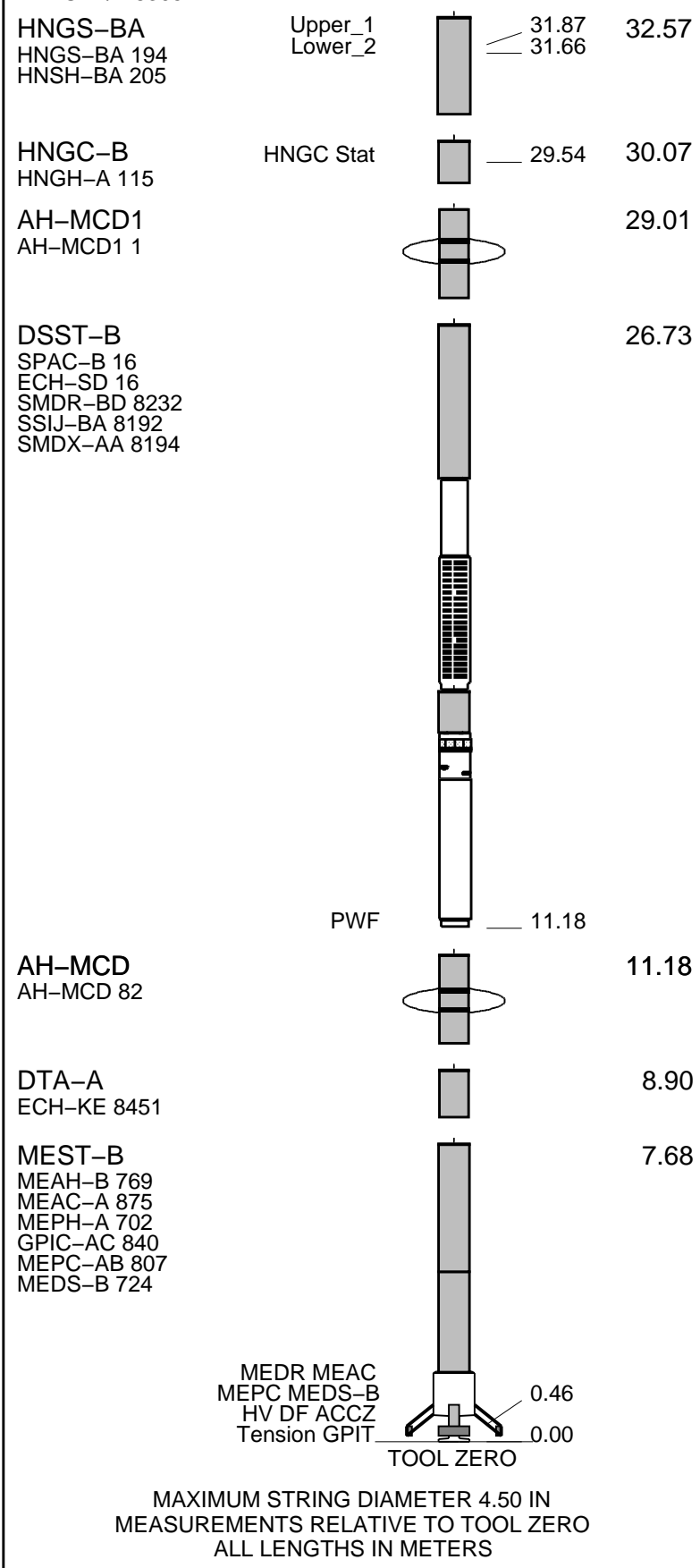
Hole drilled and cored using APC/XCB coring system.  
 Modified MCD devices run above and below HRLA for centralization.  
 HLDS and MSS eccentralized by caliper and bowspring with knuckled to decouple from HRLA.  
 LFV Actuator (Go-Devil) run attached to bottom of MSS for LFV locking open / closed.  
 Logs recorded from drill floor (1919.1m above permanent datum) then shifted to zero at sea floor.  
 Active Heave Compensator (AHC) switched off at 120mbsf to facilitate pipe entry.  
 Caliper closed at 99mbsf to facilitate pipe entry.  
 Run 1 Main pass used as depth reference for logging job; all other runs/passes correlated to that main pass.  
 AHC not used for downlog, but engaged prior to opening calipers for repeat section and used for both up passes.  
 Unable to descend below 398.6mbsf on this run; logs recorded from that depth.  
 DSI P&S in standard frequency, Upper Dipole in standard frequency, and Stoneley in standard frequency for all passes.  
 DSI Lower Dipole in Low-Frequency Dipole (LFD) mode for downlog, but standard frequency for both up passes.

RUN 1			RUN 2		
SERVICE ORDER #:			SERVICE ORDER #:		
PROGRAM VERSION: 19C0-187			PROGRAM VERSION:		
FLUID LEVEL:			FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

**EQUIPMENT DESCRIPTION**

RUN 1	RUN 2
<b>SURFACE EQUIPMENT</b>	
GSR-U 616008 WITM (EDTS)-A	

RUN 1	RUN 2
<b>DOWNHOLE EQUIPMENT</b>	
LEH-MT 101 LEH-MT 101 101 EDTC-B EDTH-B 8303 EDTC-B 8317 EDTG-A/B 8305	MDSB_EDTC Mud Tempe CTEM Gamma Ray EFTB DIAG TelStatus EDTCB Ele
	
	35.51 34.55



Production String	(in) (m)	Well Schematic	(m) (in)	Casing String
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Kelly Bushing Elevation

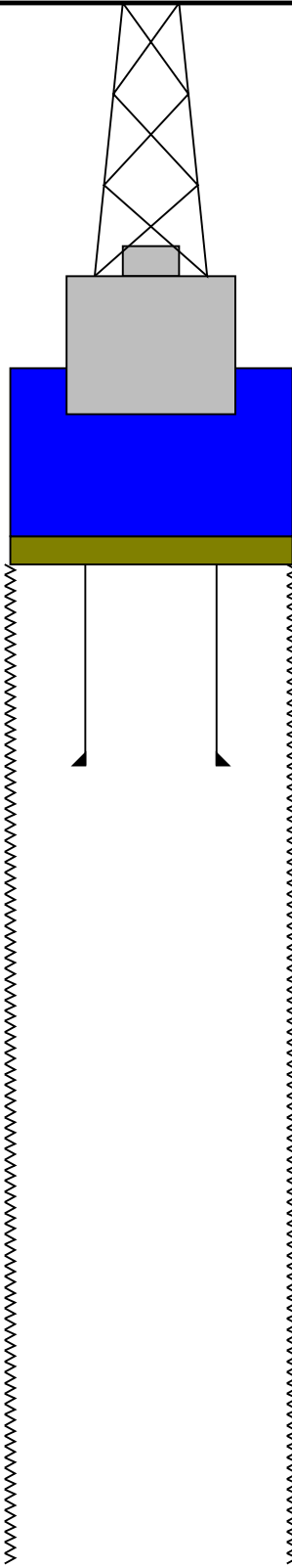
Derrick Floor Elevation

Mean Sea Level

-1919.1

-1919.1

-1908.1



0.0

Sea Bed

81.9

5.500

4.000

Bit

407.3

11.750

Total Depth - Driller



## Downlog 1:200 Scale

MAXIS Field Log

### Input DLIS Files

FMS_DSI_NGS_034PUP	FN:34	31-Aug-2013 13:33	399.0 M	-37.3 M
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### Output DLIS Files

DEFAULT	FMS_DSI_NGS_046PUP	FN:51	PRODUCER	20-Sep-2013 13:53	399.3 M	-37.3 M
CLIENT	FMS_DSI_NGS_046PUC	FN:52	CUSTOMER	20-Sep-2013 13:53	399.3 M	-37.3 M

### OP System Version: 19C0-187

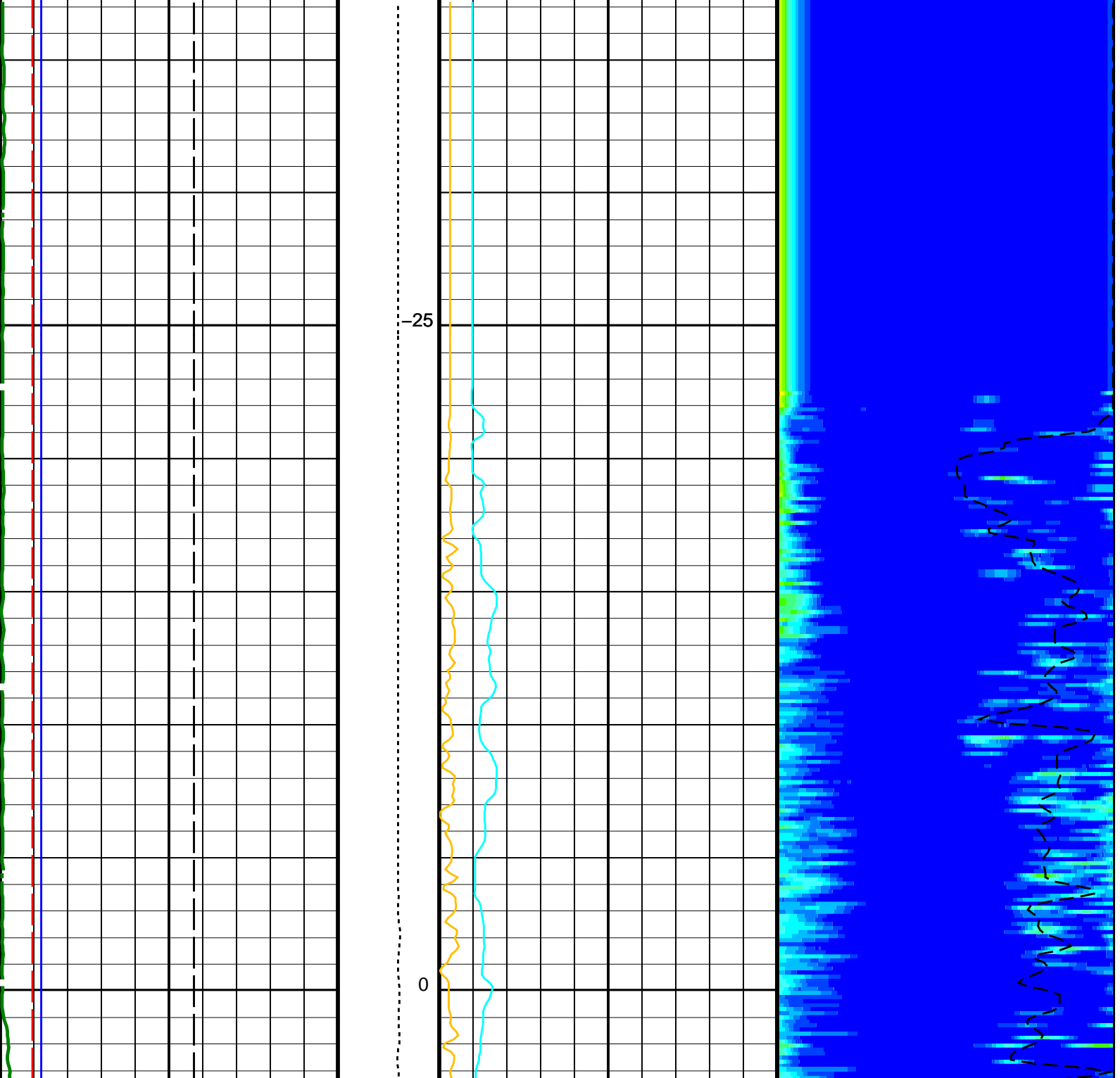
MEST-B	19C0-187	DTA-A	19C0-187
DSST-B	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	EDTC-B	SKK-5169-EDTCB

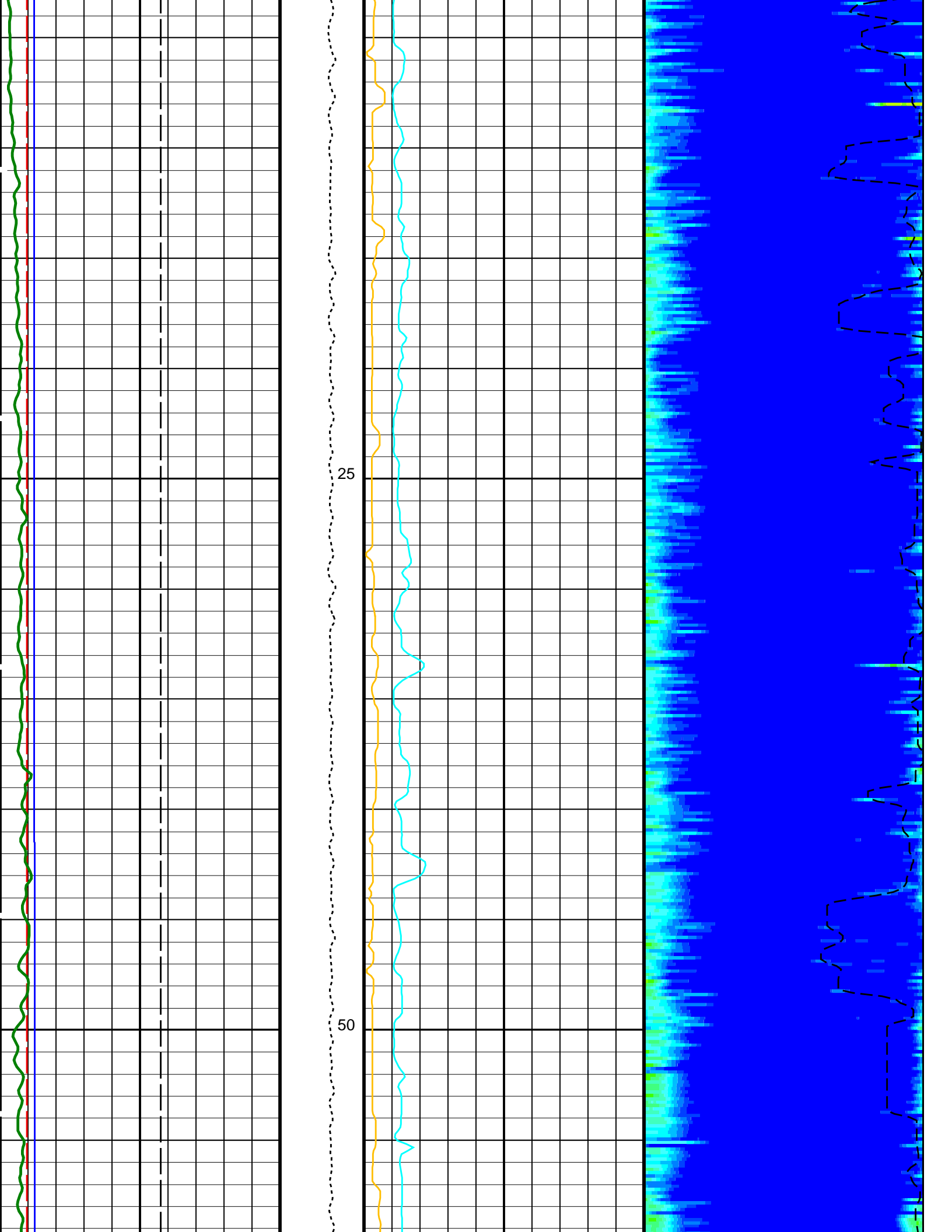
Time Mark Every 60 S

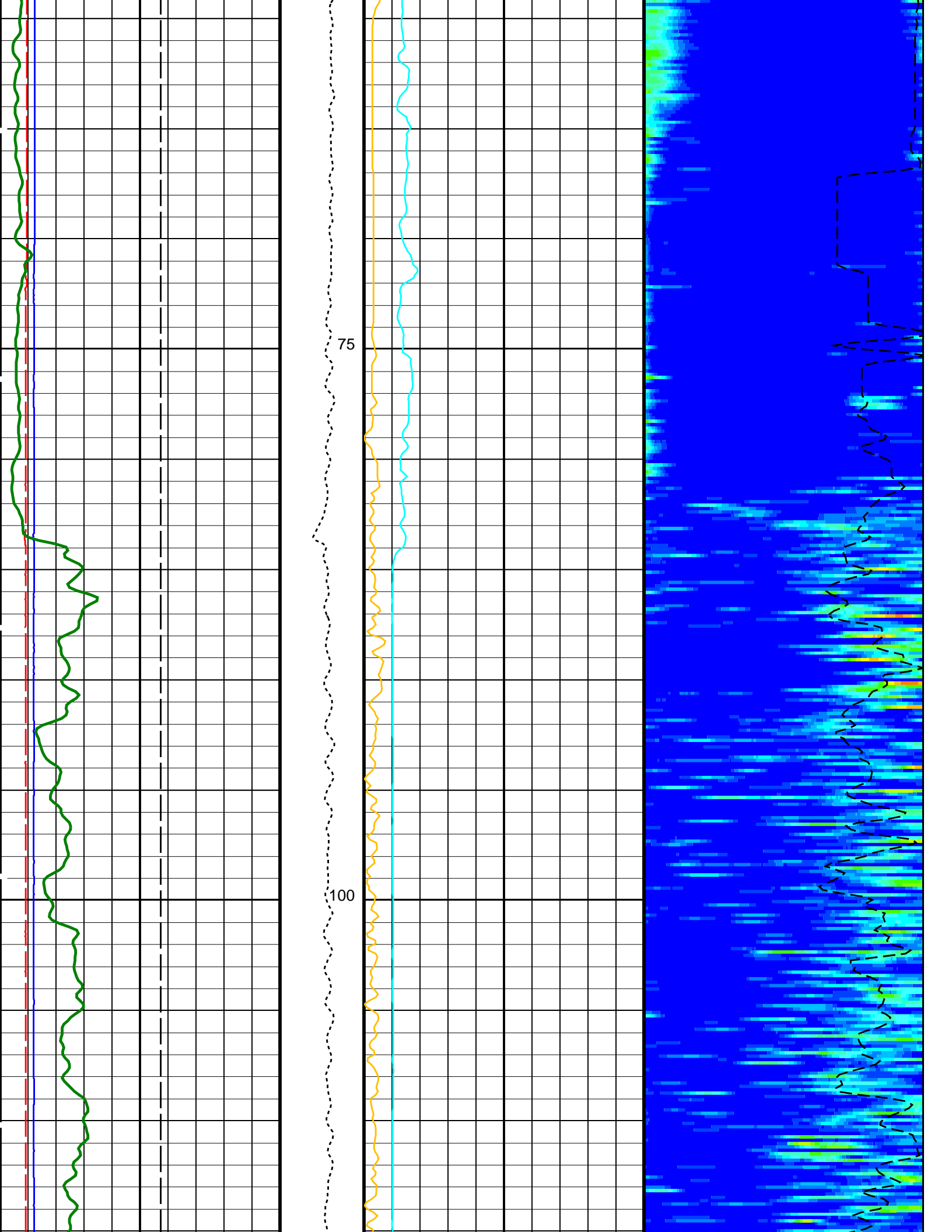
<b>HNGS Spectroscopy Gamma Ray (HSGR)</b>		
0	(GAPI)	100
<b>Caliper 2 (C2)</b>		
0	(IN)	20
<b>Caliper 1 (C1)</b>		
0	(IN)	20
<b>Bit Size (BS)</b>		
0	(IN)	20
<b>Tension (TENS) (LBF)</b>		
0		5000

<b>Sonic Velocity (SVEL)</b>		
1000	(M/S)	6000
<b>Peak Coherence / RA - Upper Dipole (CHR2)</b>		
0	(-----)	10

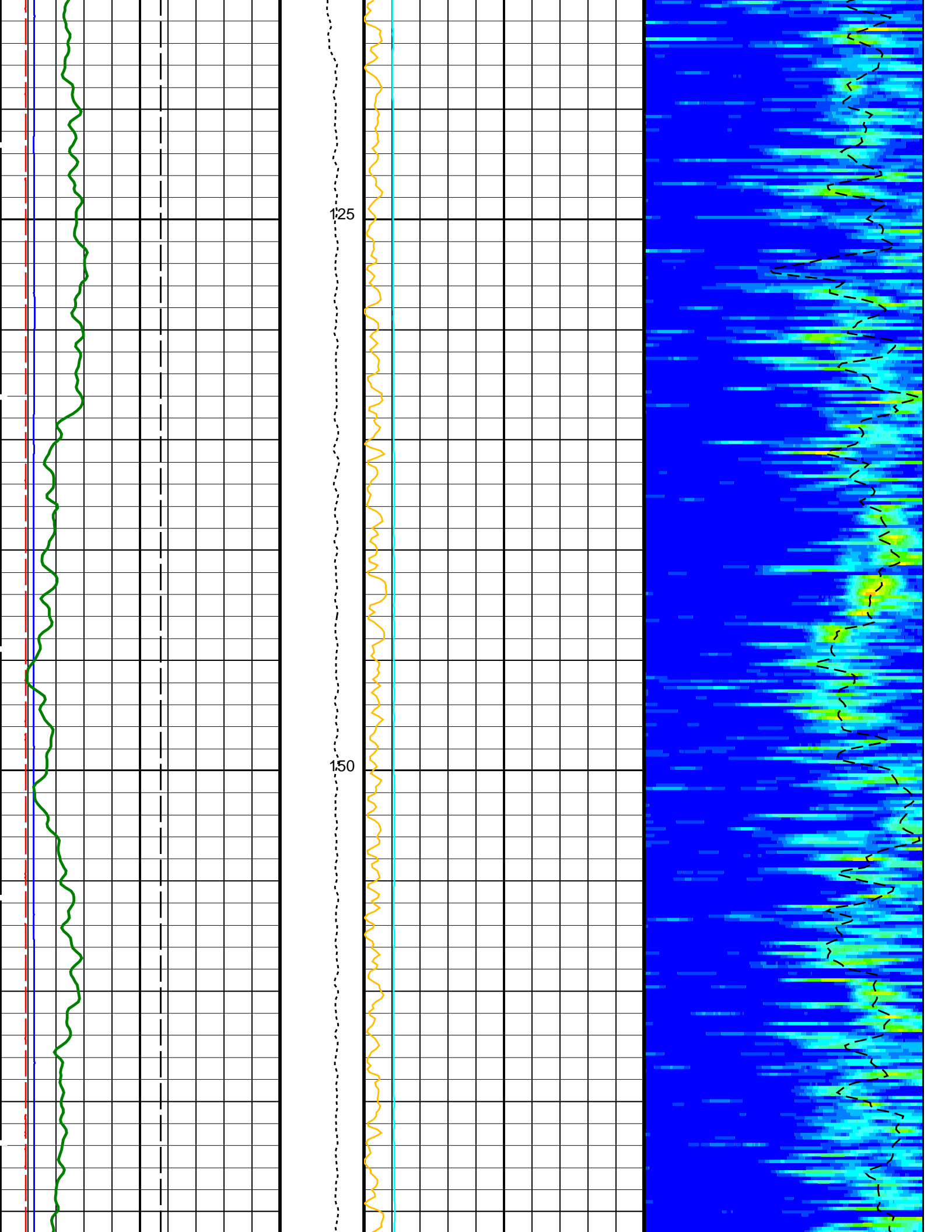
Min	Amplitude	Max
300	Rec.Array U.Dipole Slow Proj. CVDL (SPR2) (US/F)	1200
300	Delta-T Shear / RA - Upper Dipole (DT2R) (US/F)	1200

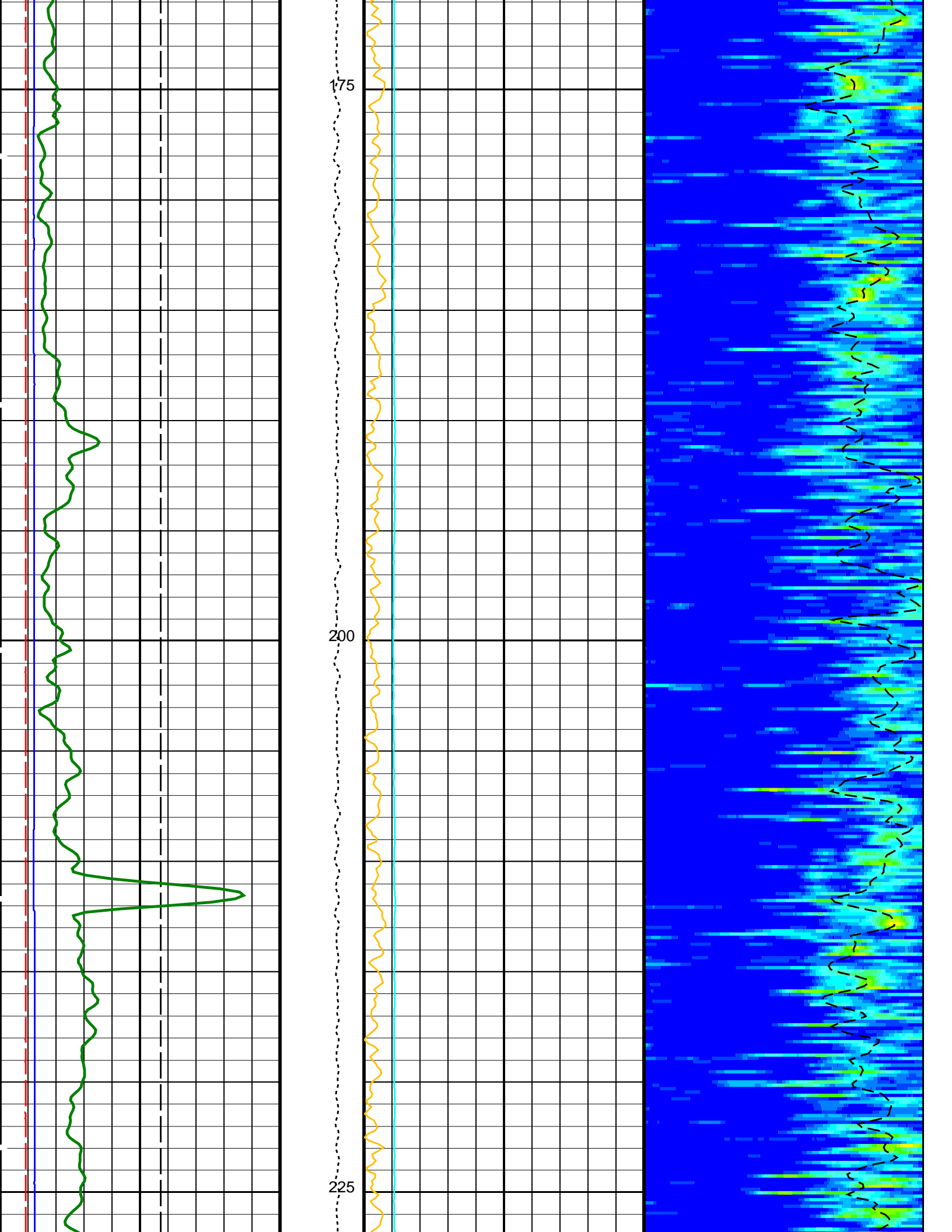


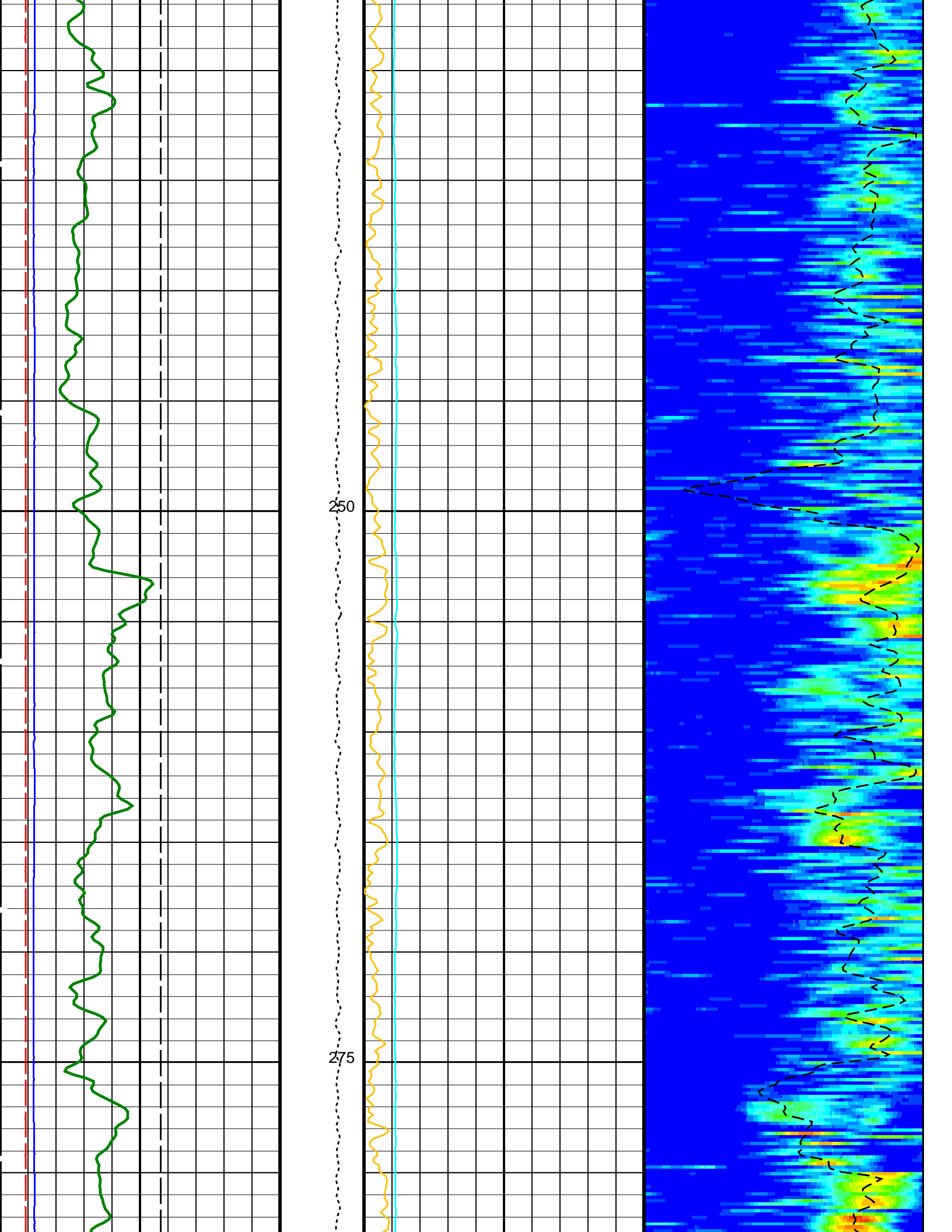


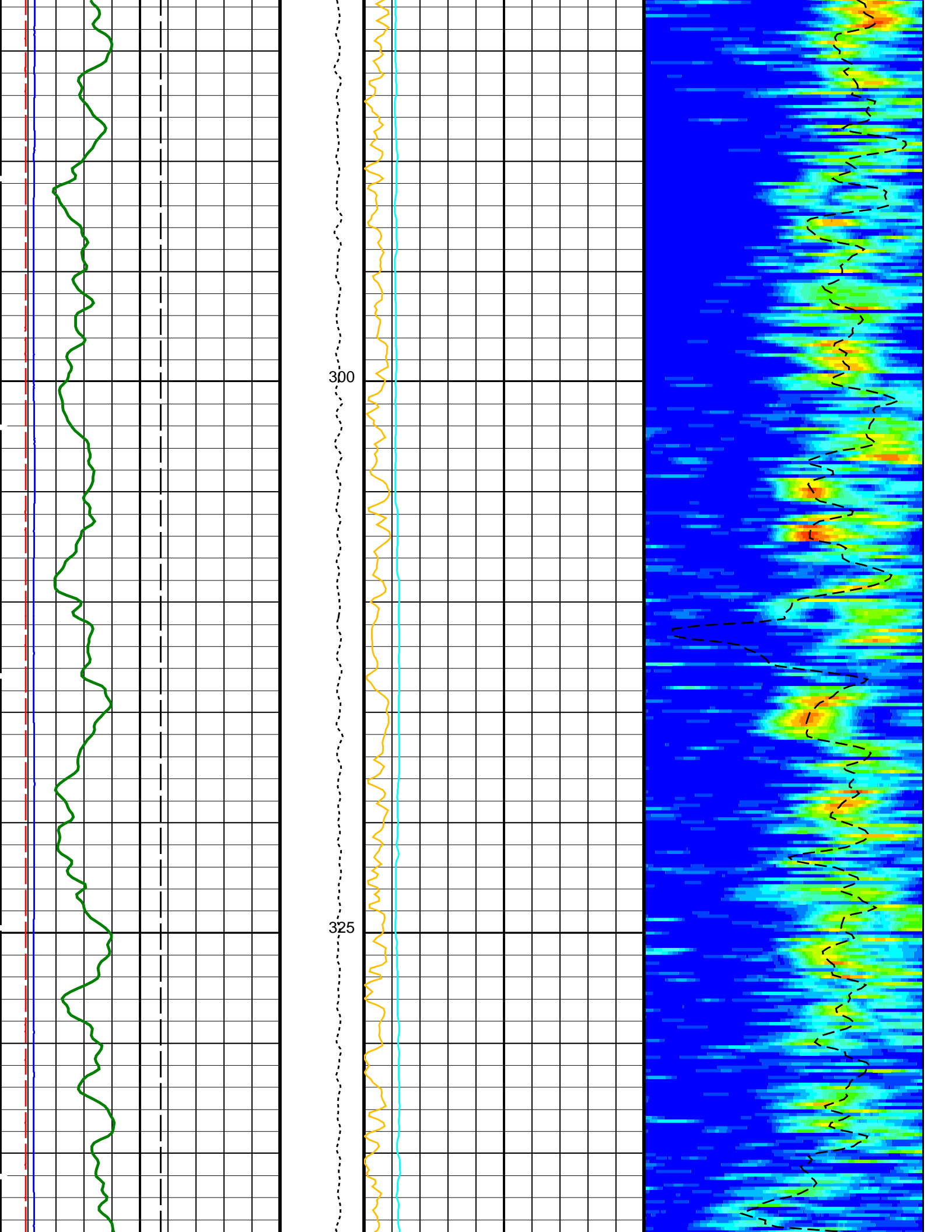


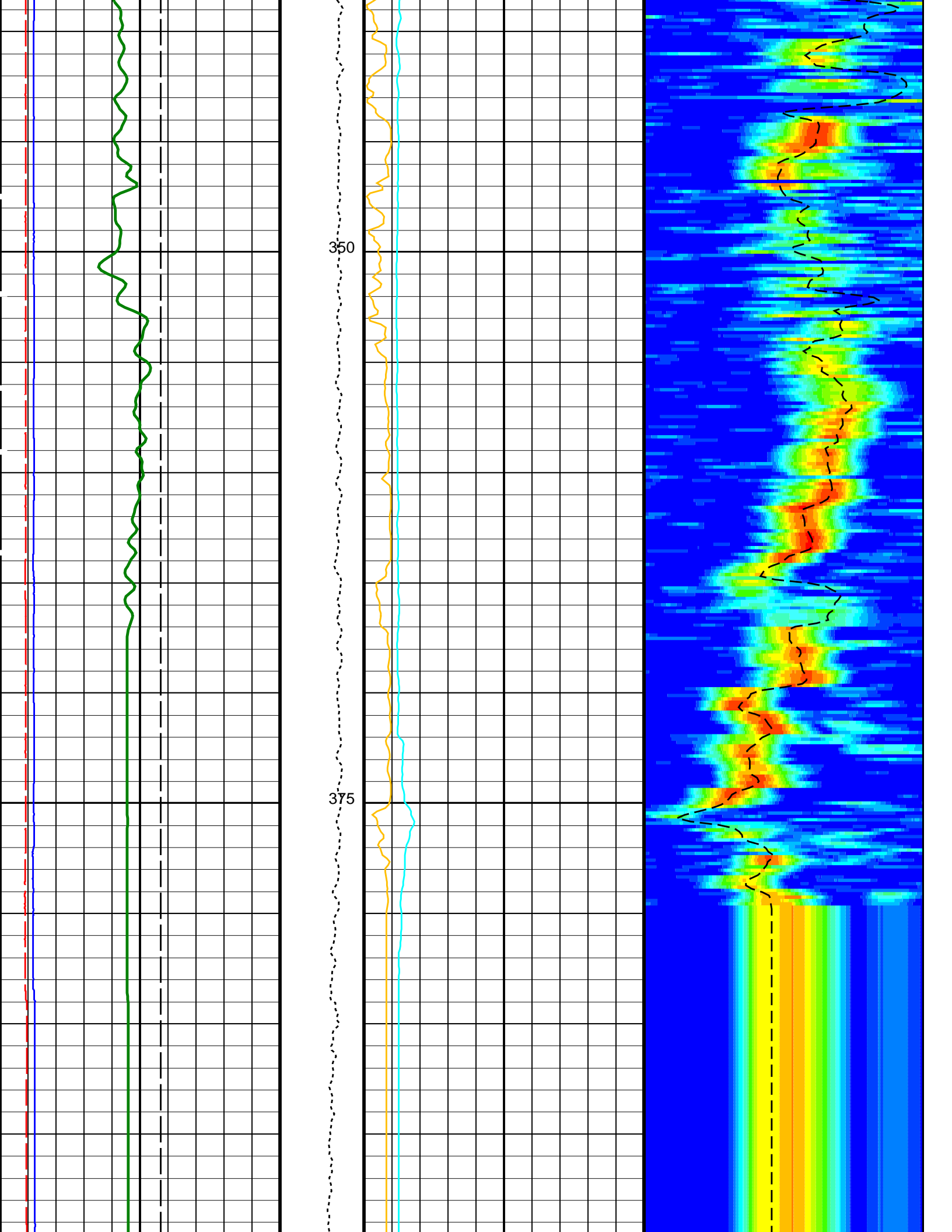


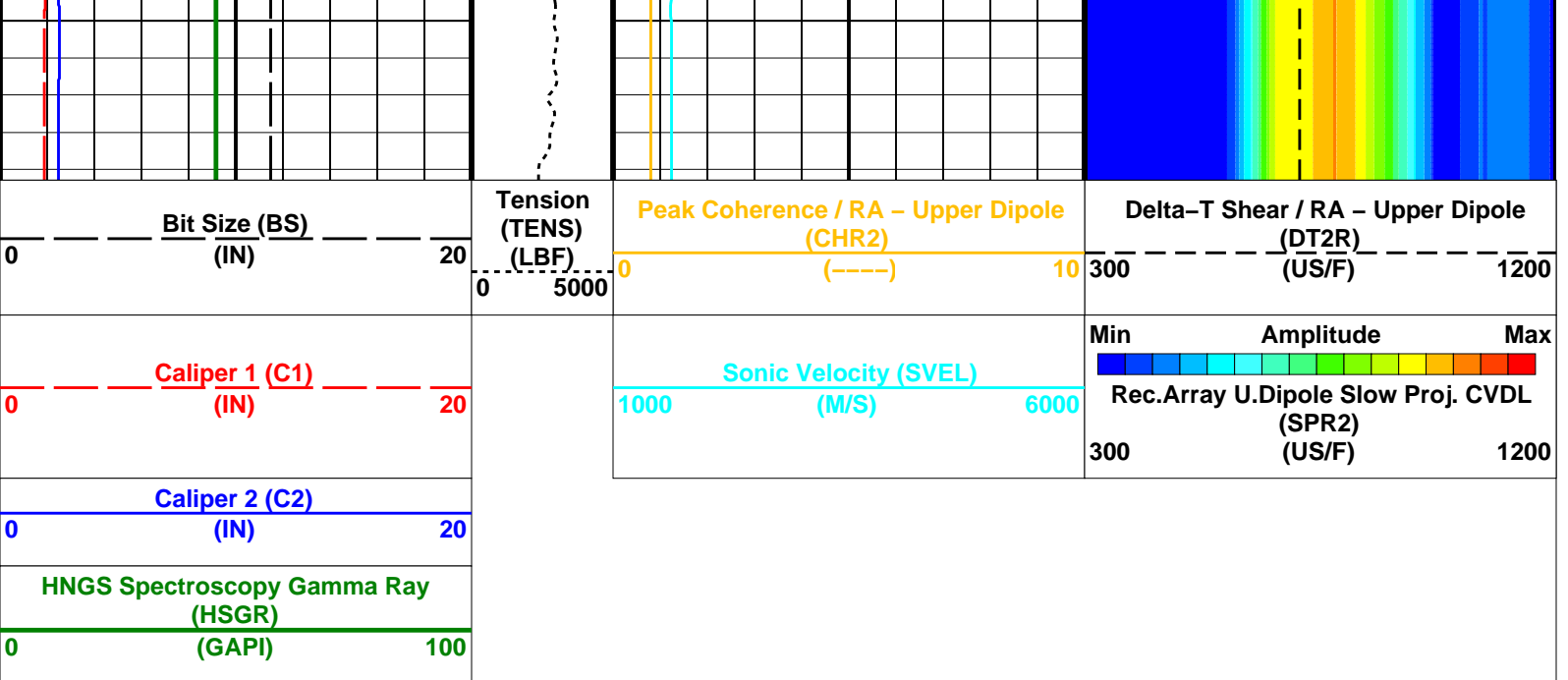












PIP SUMMARY

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	300 US/F
DSHU	Label Slowness Upper Limit - Dipole Shear	1200 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	0
RX1G	Receiver 1 Geometry	294 IN
RX2G	Receiver 2 Geometry	300 IN
RX3G	Receiver 3 Geometry	306 IN
RX4G	Receiver 4 Geometry	312 IN
RX5G	Receiver 5 Geometry	318 IN
RX6G	Receiver 6 Geometry	324 IN
RX7G	Receiver 7 Geometry	330 IN
RX8G	Receiver 8 Geometry	336 IN
SAM2	DSST Sonic Acquisition Mode 2 - Upper Dipole Mode	ODD
SAMX	DSST Sonic Acquisition Mode X - Both Dipoles or Monopole Mode for Expert	OFF
SAS2	STC Sonic Array Status - Upper Dipole	255
SBO2	STC Search Band Offset - Upper Dipole	3000 US
SBW2	STC Search Bandwidth - Upper Dipole	8000 US
SFC2	STC Formation Character - Upper Dipole	SELECTABLE
SFM2	STC Filter - Upper Dipole	B1-2K
SLL2	STC Slowness Lower Limit - Upper Dipole	300 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	1200 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	2300 US
TST2	STC Time Step - Upper Dipole	200 US
TUL2	STC Time Upper Limit - Upper Dipole	20200 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	-0.0214685	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	-999.25	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	-999.25	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.973109	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.963734	
	EDTC-B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	C1	
	System and Miscellaneous		
BS	Bit Size	11.438	IN
DFD	Drilling Fluid Density	1.26	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: DSST\_UPPER\_DIPOLE\_VDL\_COLOR    Vertical Scale: 1:200    Graphics File Created: 20-Sep-2013 13:53

### OP System Version: 19C0-187

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

### Input DLIS Files

FMS_DSI_NGS_034PUP	FN:34	31-Aug-2013 13:33	399.0 M	-37.3 M
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### Output DLIS Files

DEFAULT	FMS_DSI_NGS_046PUP	FN:51	PRODUCER	20-Sep-2013 13:53
CLIENT	FMS_DSI_NGS_046PUC	FN:52	CUSTOMER	20-Sep-2013 13:53



**First Pass**  
**1:200 Scale**

MAXIS Field Log

### Input DLIS Files

DEFAULT	FMS_DSI_NGS_035PUP	FN:36	PRODUCER	31-Aug-2013 13:39	397.8 M	90.1 M
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### Output DLIS Files

DEFAULT	FMS_DSI_NGS_047PUP	FN:53	PRODUCER	20-Sep-2013 13:54	397.8 M	90.1 M
CLIENT	FMS_DSI_NGS_047PUC	FN:54	CUSTOMER	20-Sep-2013 13:54	397.8 M	90.1 M

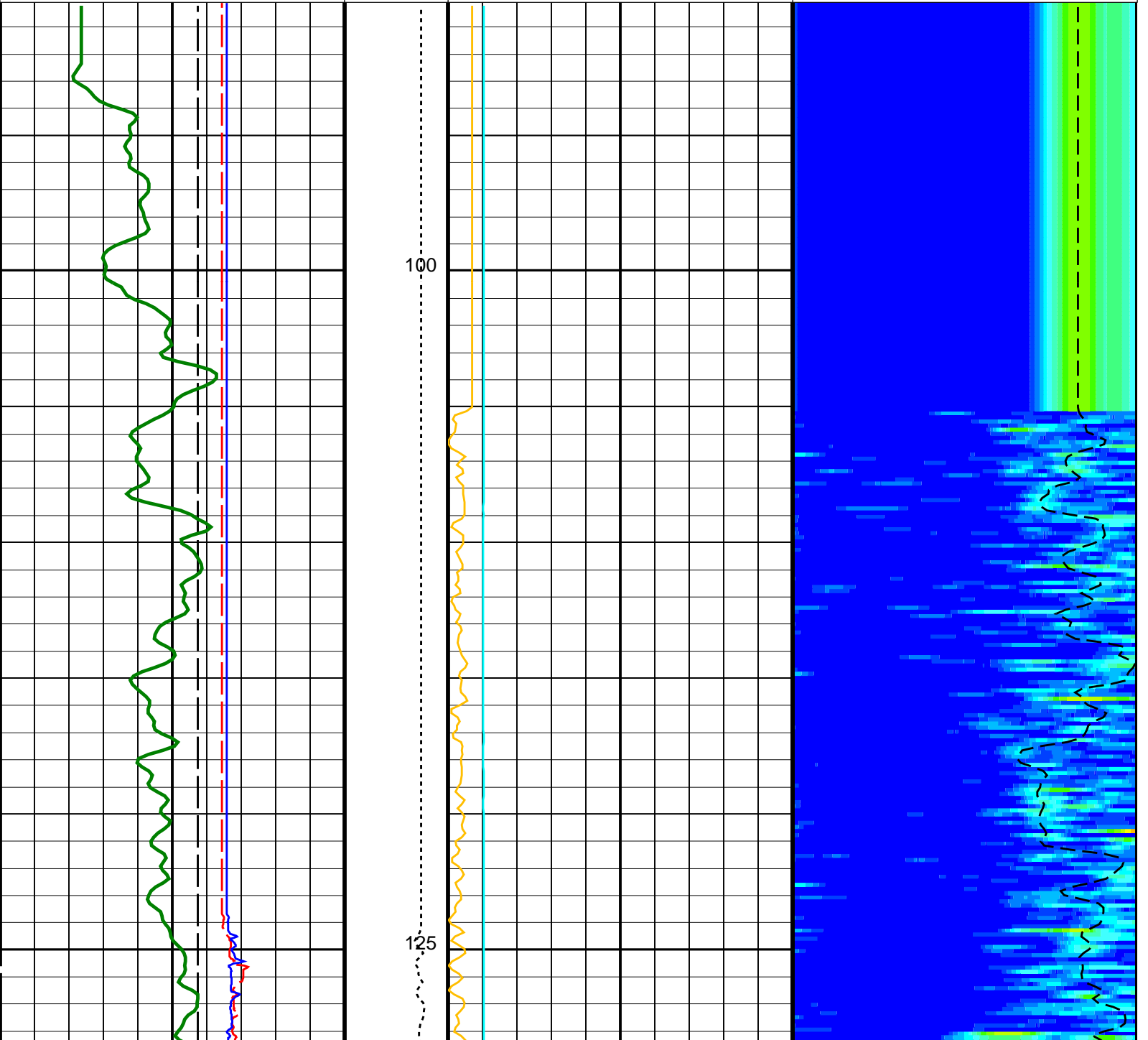
### OP System Version: 19C0-187

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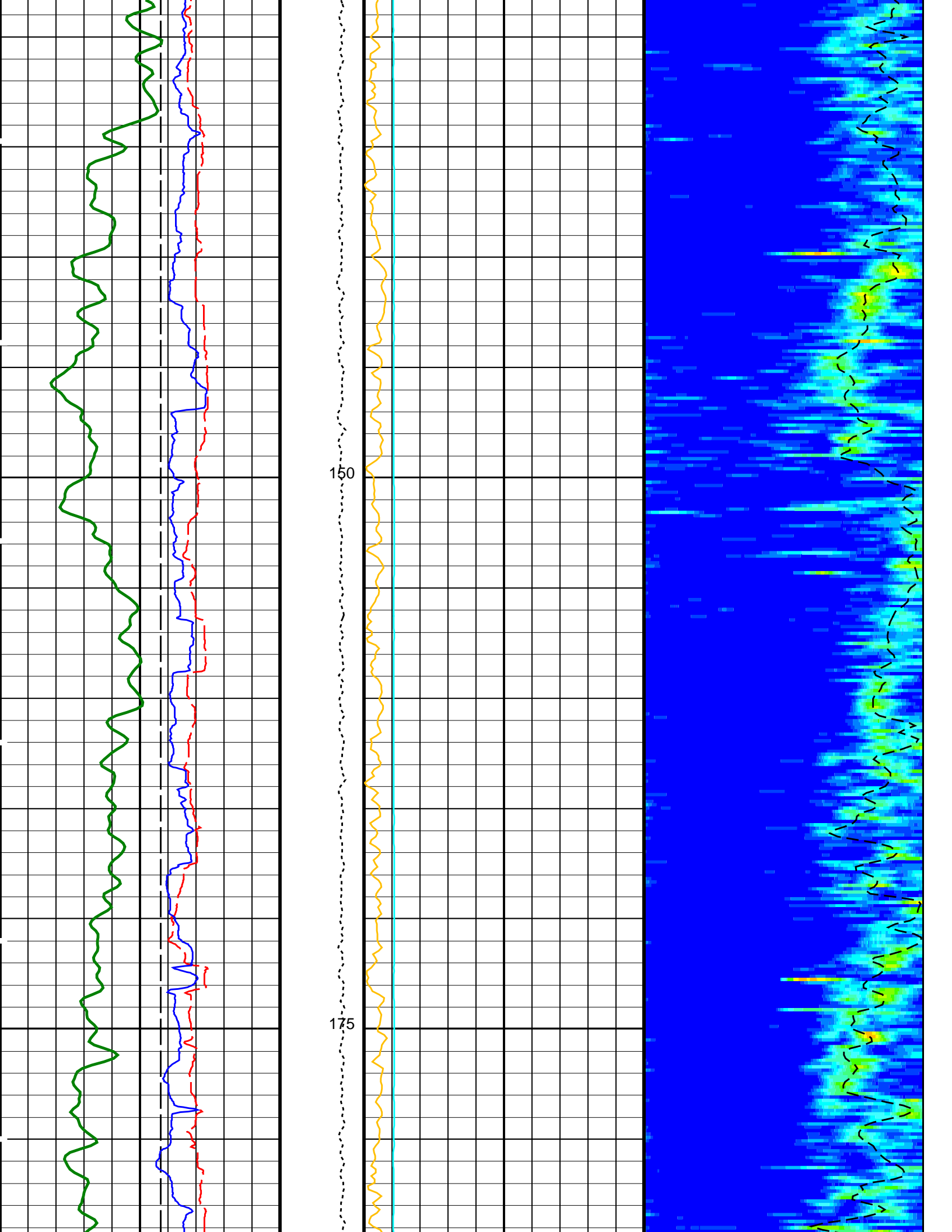
PIP SUMMARY

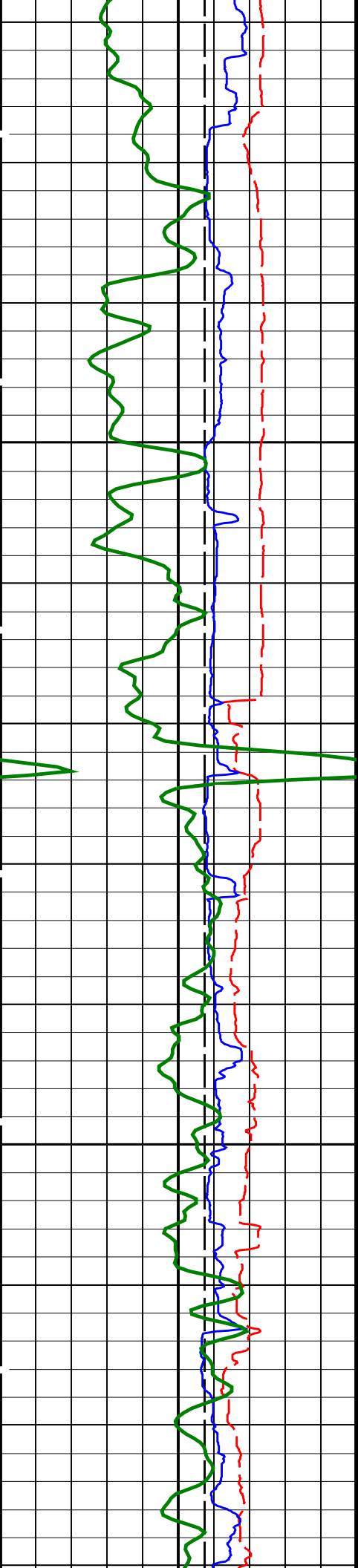
Time Mark Every 60 S

<b>HNGS Spectroscopy Gamma Ray (HSGR)</b> (GAPI) 0 100					
<b>Caliper 2 (C2)</b> (IN) 0 20					
<b>Caliper 1 (C1)</b> (IN) 0 20		<b>Sonic Velocity (SVEL)</b> (M/S) 1000 6000		Min Amplitude Max Rec.Array U.Dipole Slow Proj. CVDL (SPR2) (US/F) 300 1200	
<b>Bit Size (BS)</b> (IN) 0 20		<b>Tension (TENS) (LBF)</b> 0 5000		<b>Peak Coherence / RA - Upper Dipole (CHR2)</b> (----) 0 10	
				<b>Delta-T Shear / RA - Upper Dipole (DT2R)</b> (US/F) 300 1200	



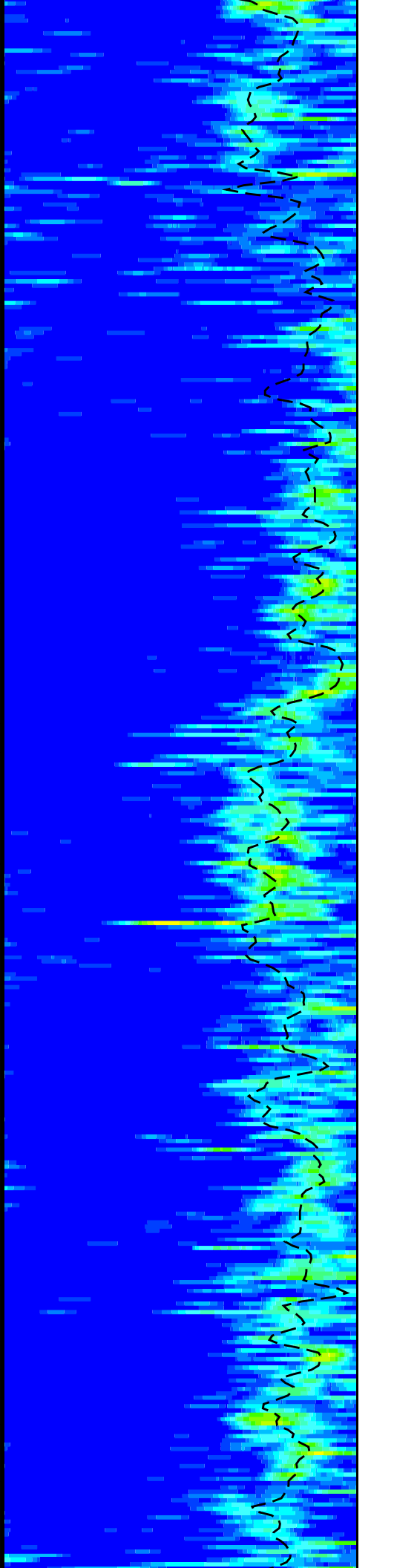
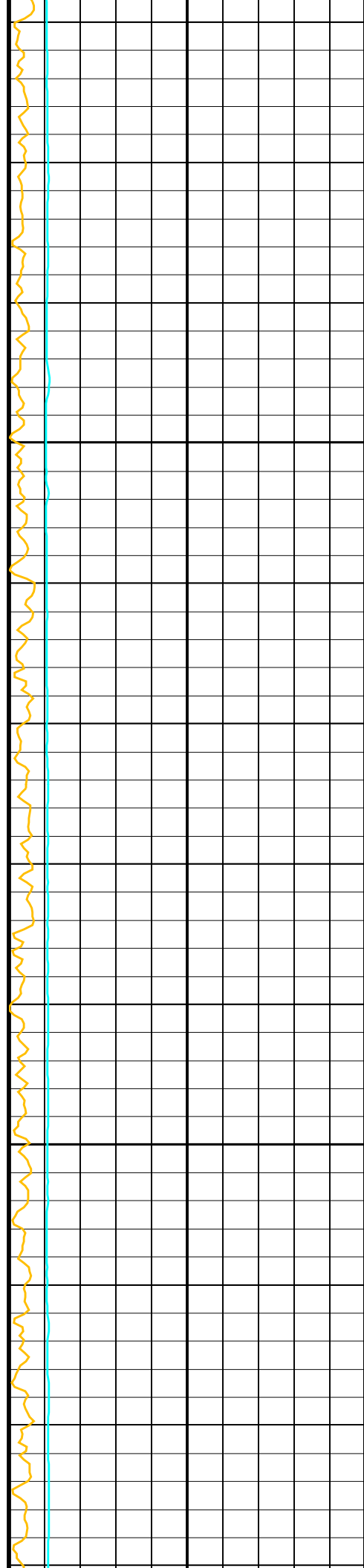


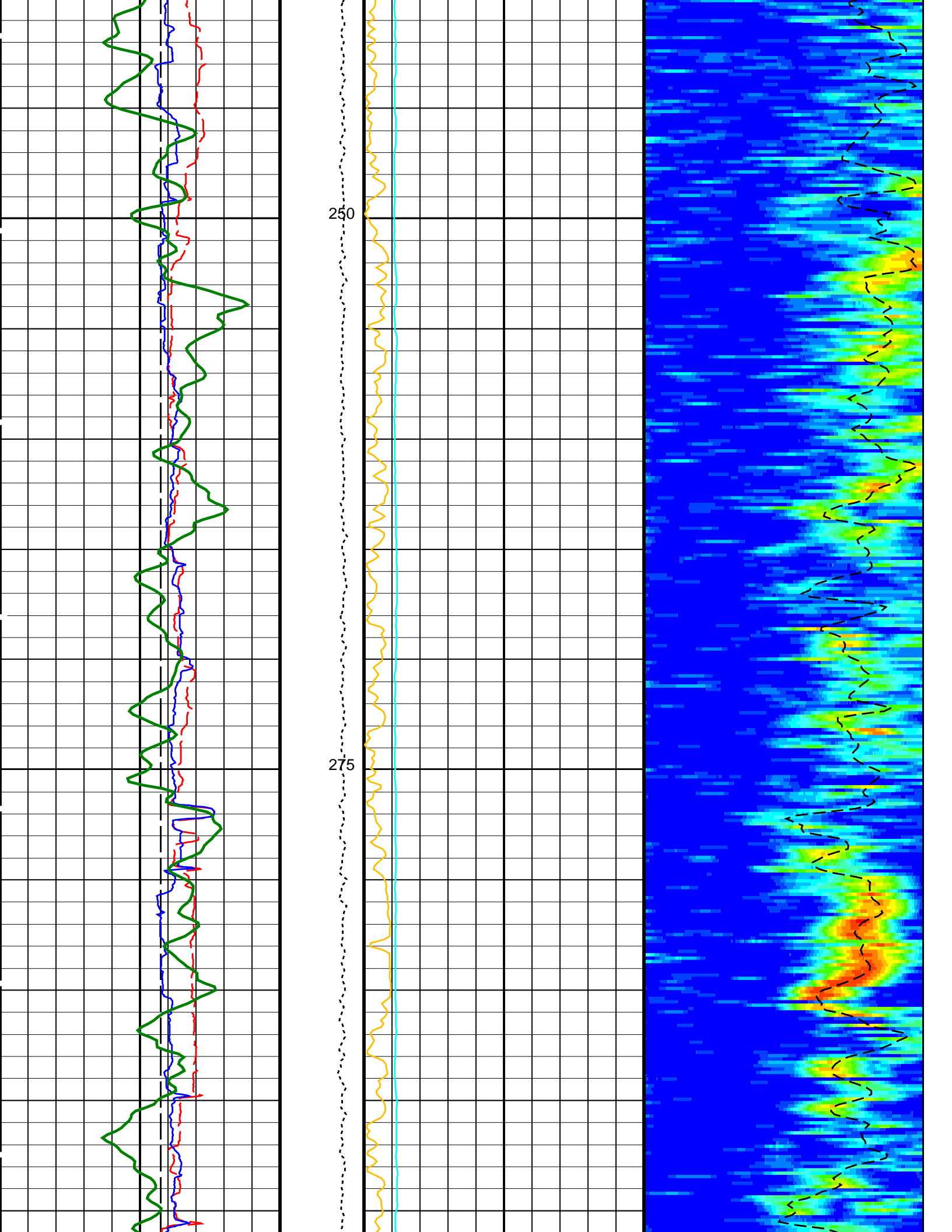


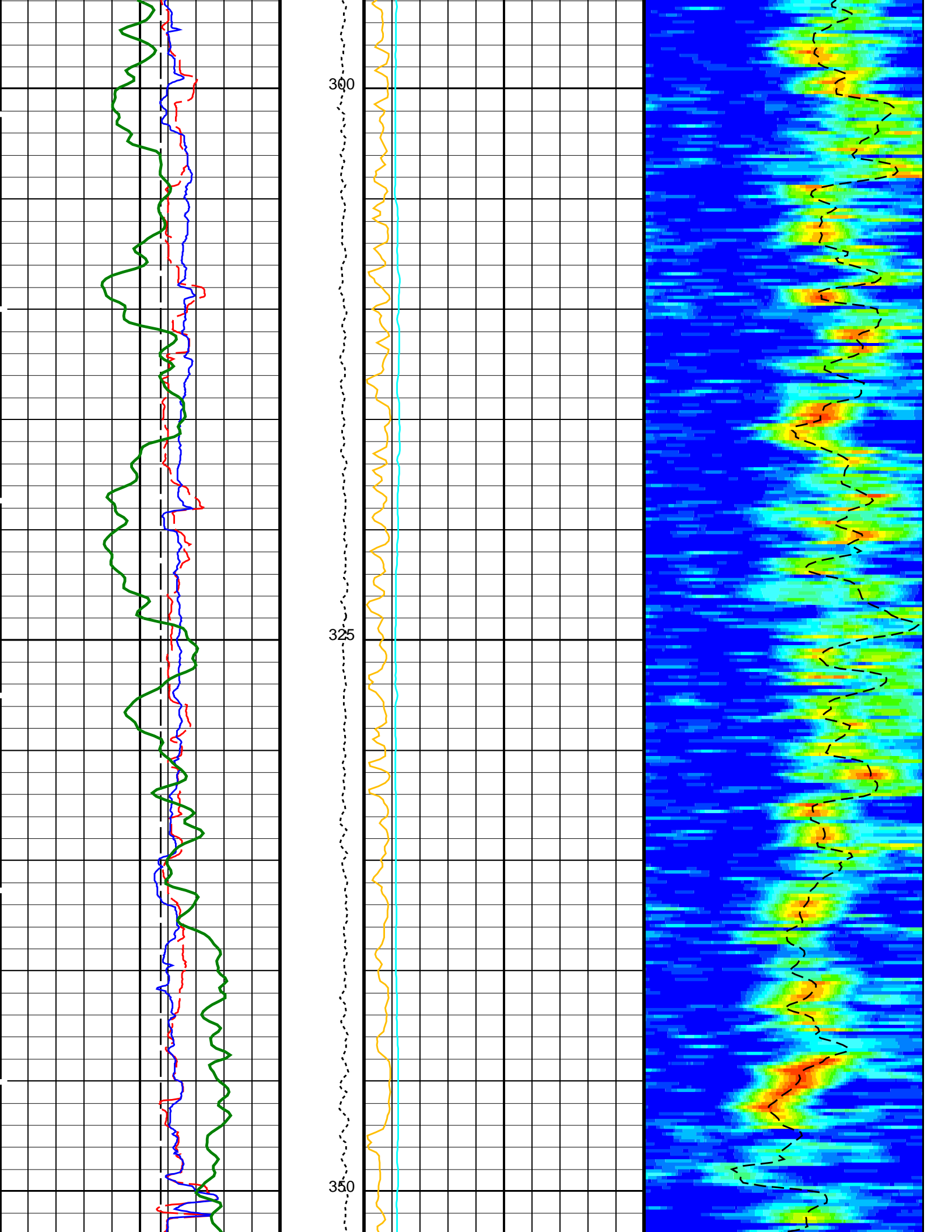


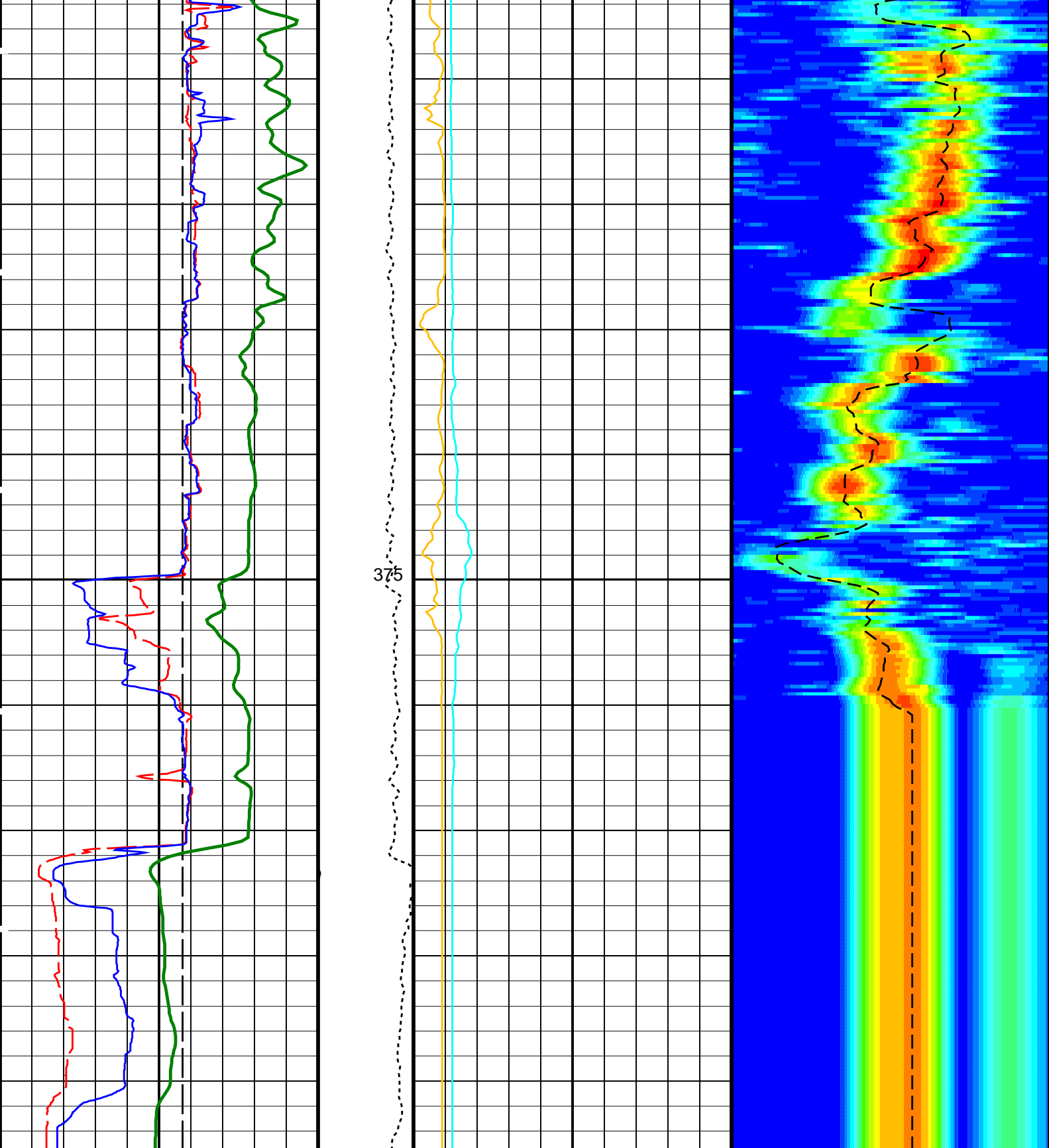
200

225









Bit Size (BS)  
(IN) 0 20

Caliper 1 (C1)  
(IN) 0 20

Caliper 2 (C2)  
(IN) 0 20

Tension  
(TENS)  
(LBF) 0 5000

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

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

Delta-T Shear / RA - Upper Dipole  
(DT2R)  
(US/F) 300 1200

Min Amplitude Max  
Rec.Array U.Dipole Slow Proj. CVDL  
(SPR2)  
(US/F) 300 1200

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
<b>DSST-B: Dipole Shear Imager - B</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	300	US/F
DSHU	Label Slowness Upper Limit - Dipole Shear	1200	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	0	
RX1G	Receiver 1 Geometry	294	IN
RX2G	Receiver 2 Geometry	300	IN
RX3G	Receiver 3 Geometry	306	IN
RX4G	Receiver 4 Geometry	312	IN
RX5G	Receiver 5 Geometry	318	IN
RX6G	Receiver 6 Geometry	324	IN
RX7G	Receiver 7 Geometry	330	IN
RX8G	Receiver 8 Geometry	336	IN
SAM2	DSST Sonic Acquisition Mode 2 - Upper Dipole Mode	ODD	
SAMX	DSST Sonic Acquisition Mode X - Both Dipoles or Monopole Mode for Expert	OFF	
SAS2	STC Sonic Array Status - Upper Dipole	255	
SBO2	STC Search Band Offset - Upper Dipole	3000	US
SBW2	STC Search Bandwidth - Upper Dipole	8000	US
SFC2	STC Formation Character - Upper Dipole	SELECTABLE	
SFM2	STC Filter - Upper Dipole	B1-2K	
SLL2	STC Slowness Lower Limit - Upper Dipole	300	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	1200	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	2300	US
TST2	STC Time Step - Upper Dipole	200	US
TUL2	STC Time Upper Limit - Upper Dipole	20200	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
<b>HNGS-BA: Hostile Natural Gamma Ray Sonde</b>			
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	-0.0277771	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	-999.25	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	-999.25	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.00642	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.994636	
<b>EDTC-B: Enhanced DTS Cartridge</b>			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	C1	

GCSE	System and Miscellaneous	Generalized Caliper Selection	C1
BS		Bit Size	11.438 IN
DFD		Drilling Fluid Density	1.26 G/C3
DO		Depth Offset for Playback	0.0 M
PP		Playback Processing	RECOMPUTE

Format: DSST\_UPPER\_DIPOLE\_VDL\_COLOR Vertical Scale: 1:200 Graphics File Created: 20-Sep-2013 13:54

### OP System Version: 19C0-187

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

#### Input DLIS Files

DEFAULT	FMS_DSI_NGS_035PUP	FN:36	PRODUCER	31-Aug-2013 13:39	397.8 M	90.1 M
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#### Output DLIS Files

DEFAULT	FMS_DSI_NGS_047PUP	FN:53	PRODUCER	20-Sep-2013 13:54		
CLIENT	FMS_DSI_NGS_047PUC	FN:54	CUSTOMER	20-Sep-2013 13:54		



**Main Pass**  
**1:200 Scale**

MAXIS Field Log

#### Input DLIS Files

DEFAULT	FMS_DSI_NGS_037PUP	FN:40	PRODUCER	31-Aug-2013 13:47	397.8 M	-10.1 M
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#### Output DLIS Files

DEFAULT	FMS_DSI_NGS_048PUP	FN:55	PRODUCER	20-Sep-2013 13:55	397.8 M	-10.1 M
CLIENT	FMS_DSI_NGS_048PUC	FN:56	CUSTOMER	20-Sep-2013 13:55	397.8 M	-10.1 M

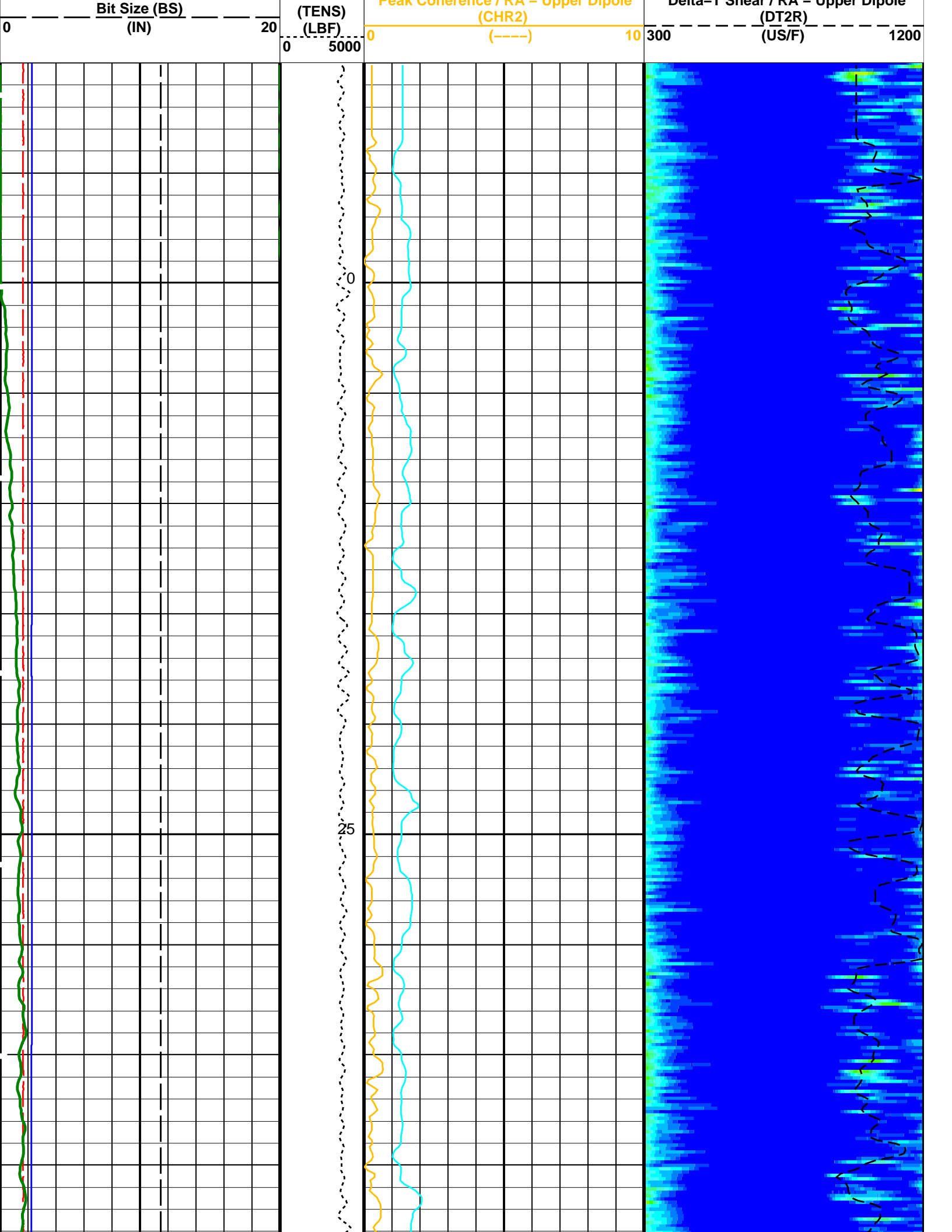
### OP System Version: 19C0-187

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

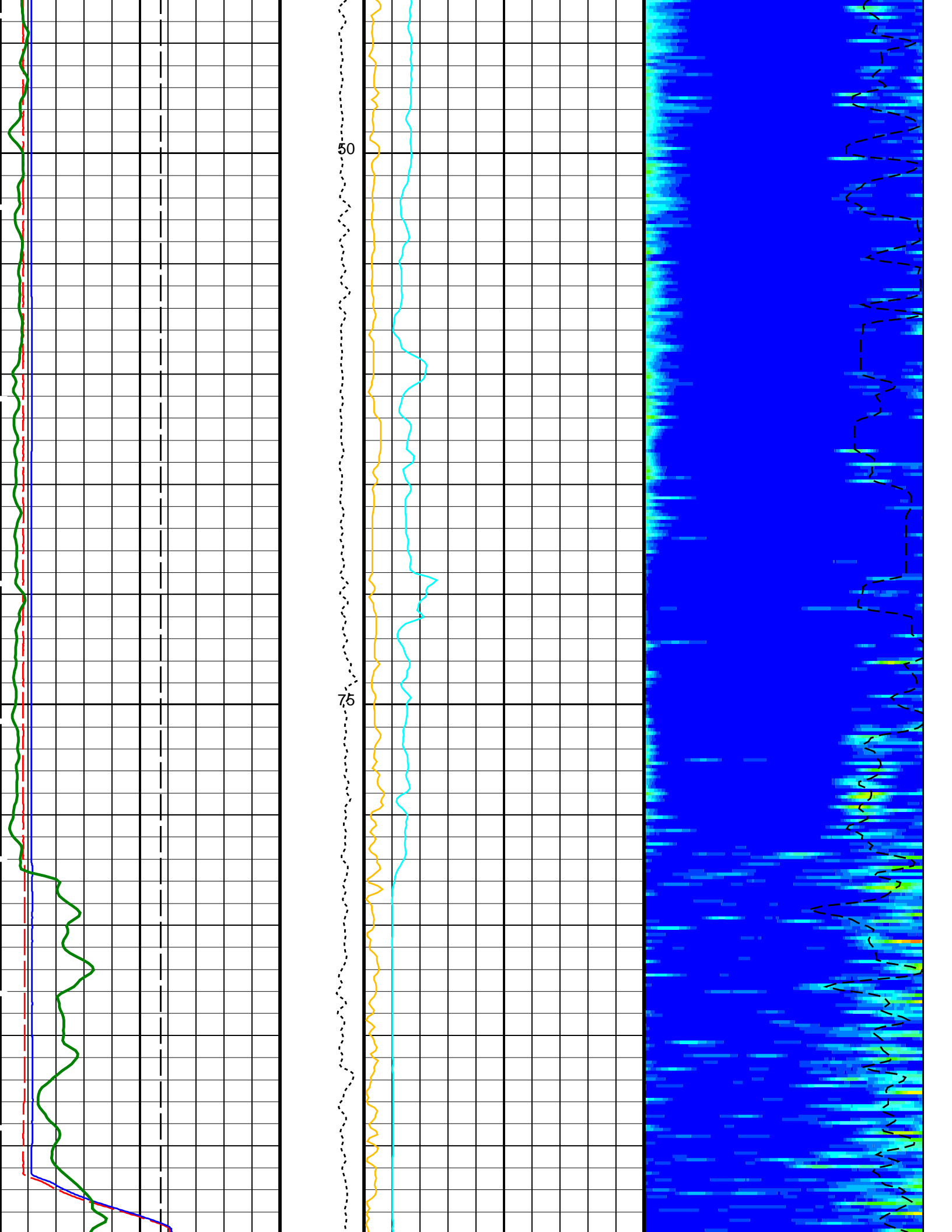
#### PIP SUMMARY

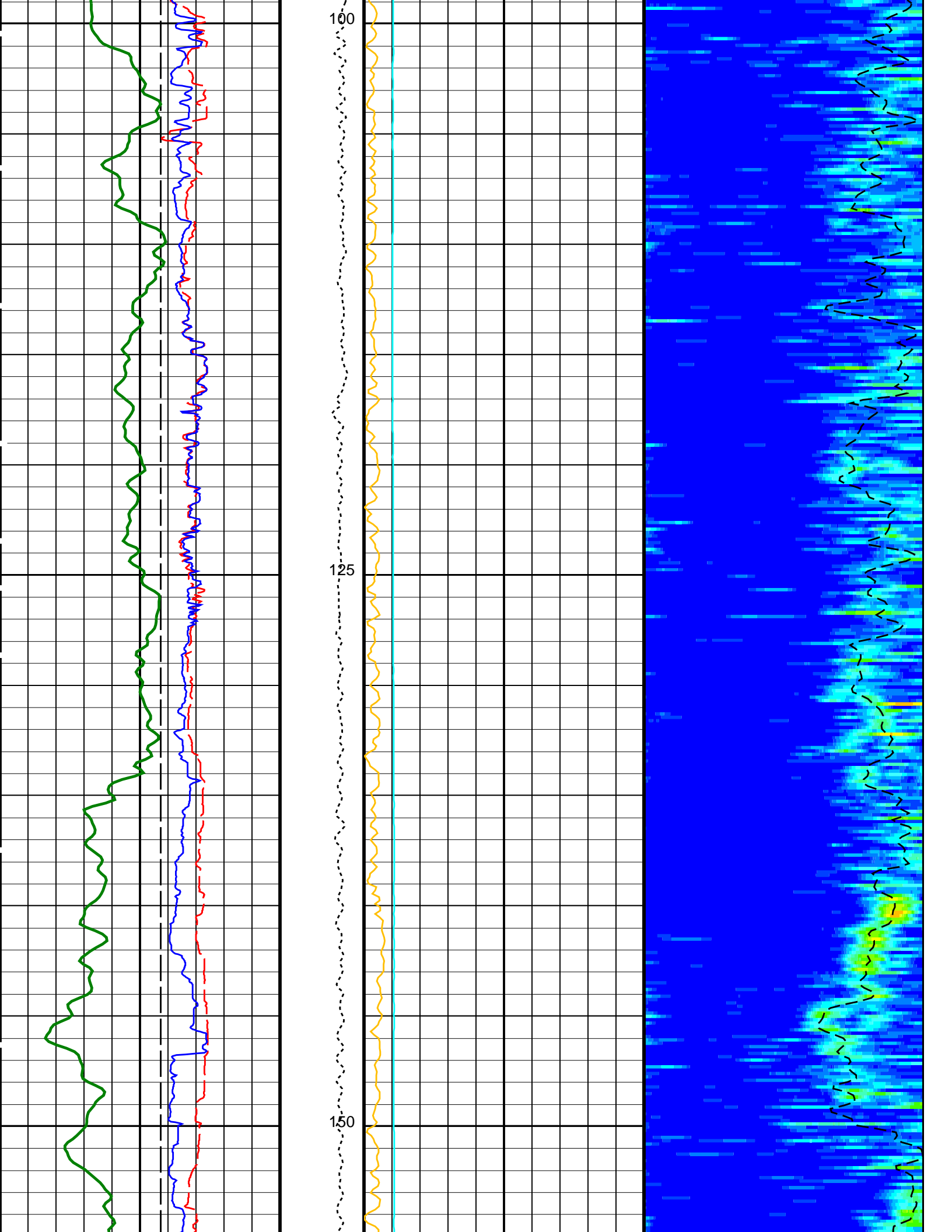
Time Mark Every 60 S

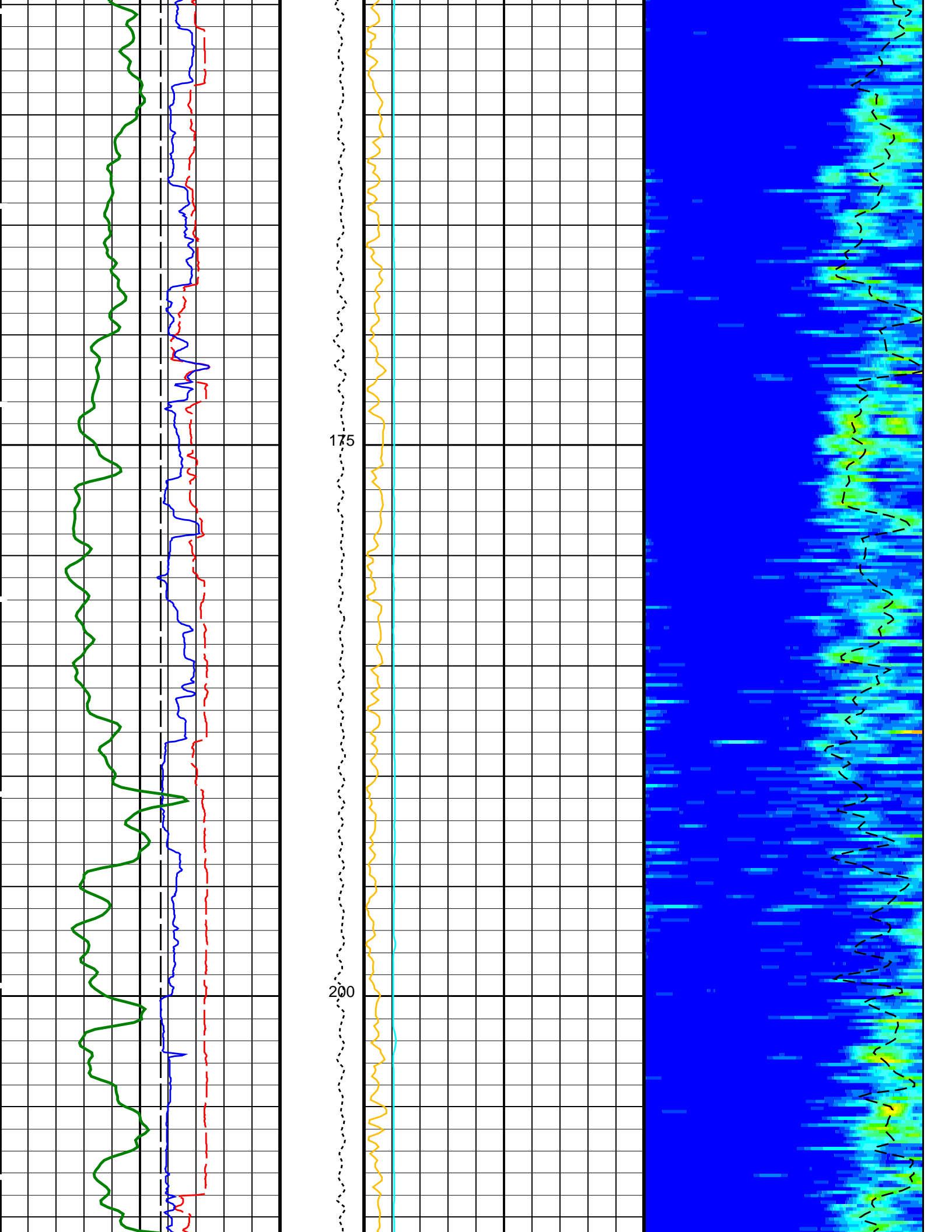
<p><b>HNGS Spectroscopy Gamma Ray (HSGR)</b></p> <p>0 (GAPI) 100</p> <hr/> <p><b>Caliper 2 (C2)</b></p> <p>0 (IN) 20</p> <hr/> <p><b>Caliper 1 (C1)</b></p> <p>0 (IN) 20</p>	<p><b>Sonic Velocity (SVEL)</b></p> <p>1000 (M/S) 6000</p>	<p>Min <b>Amplitude</b> Max</p> <p>Rec.Array U.Dipole Slow Proj. CVDL (SPR2) (US/F)</p> <p>300 1200</p>
<p><b>Tension</b></p>	<p><b>Peak Coherence / BA</b></p>	<p><b>Delta T Shear / BA</b></p>

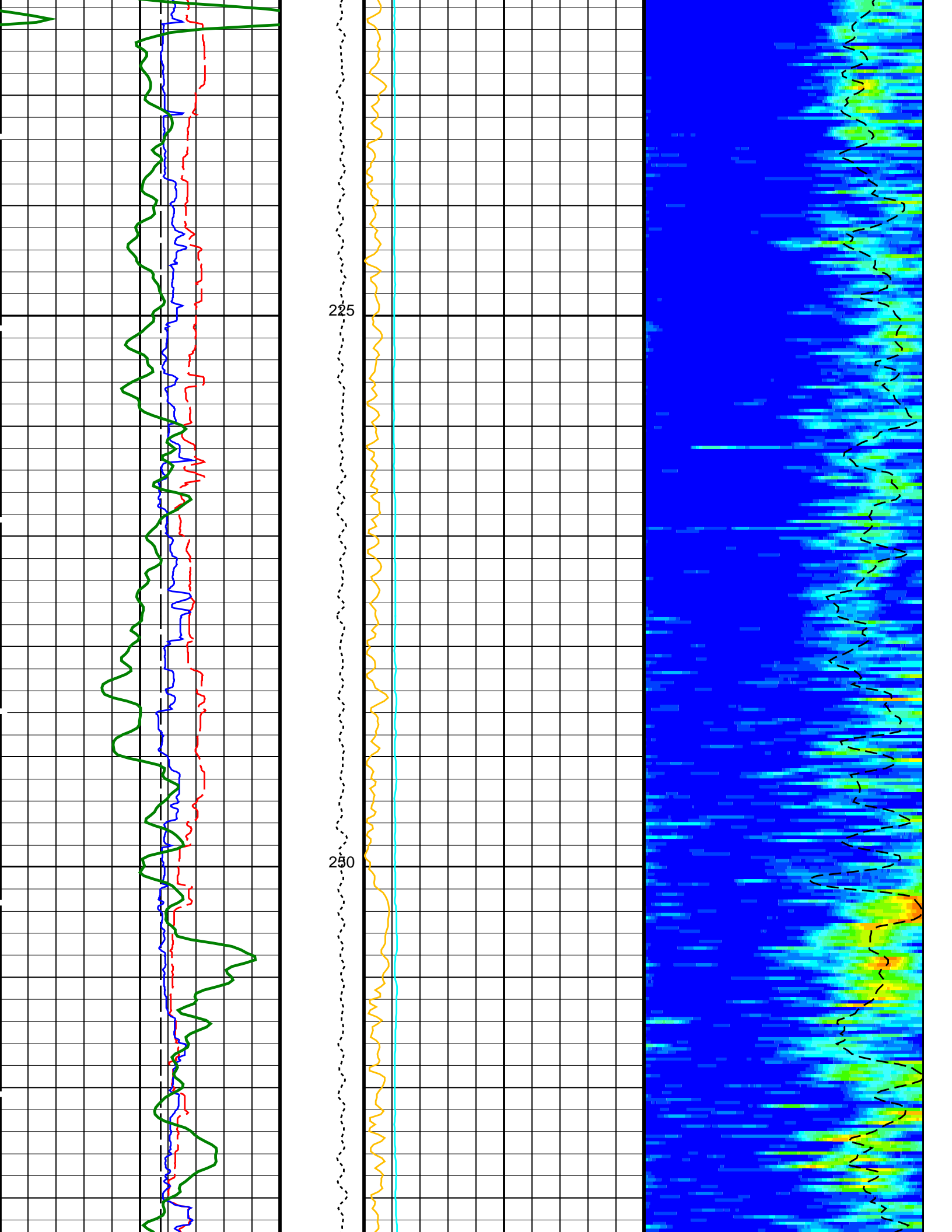


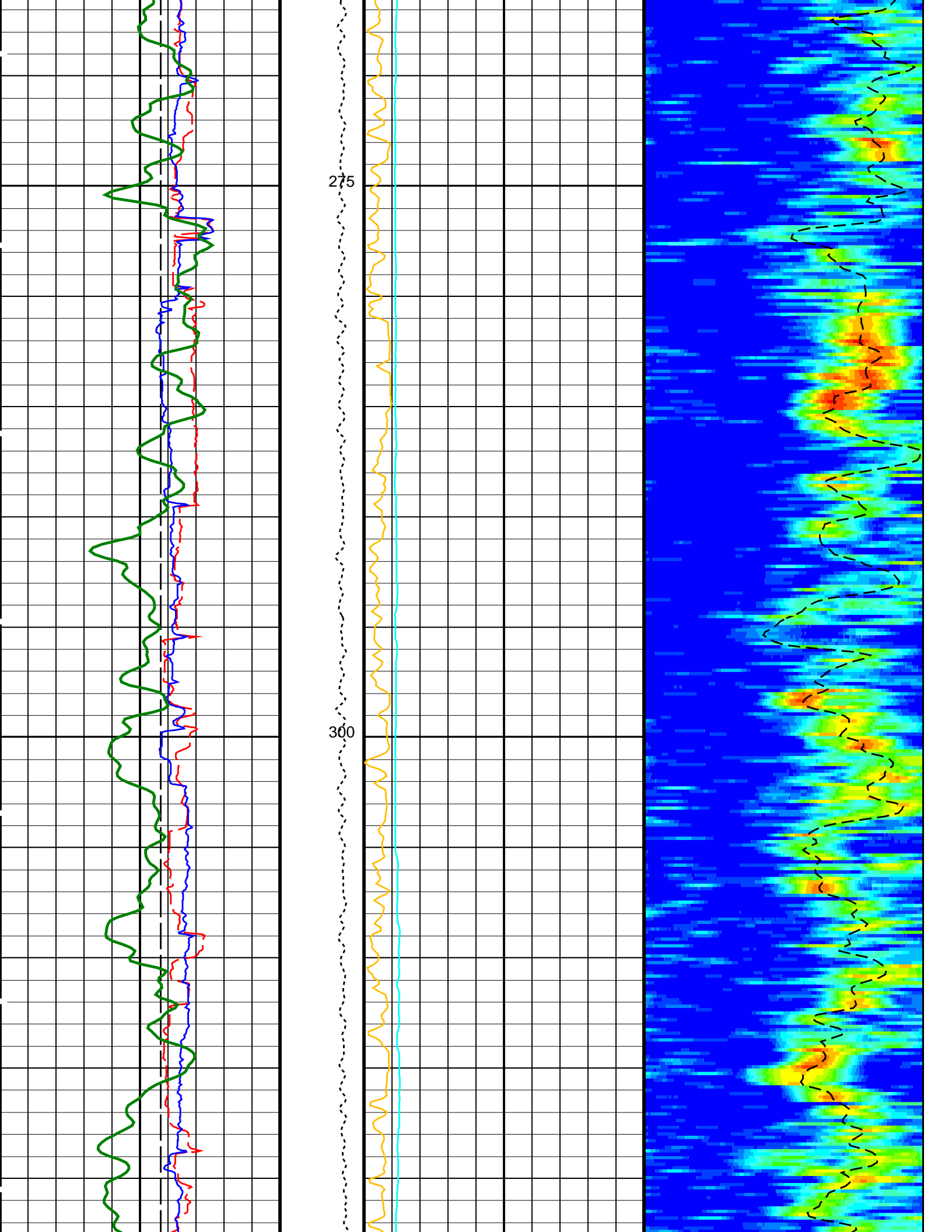


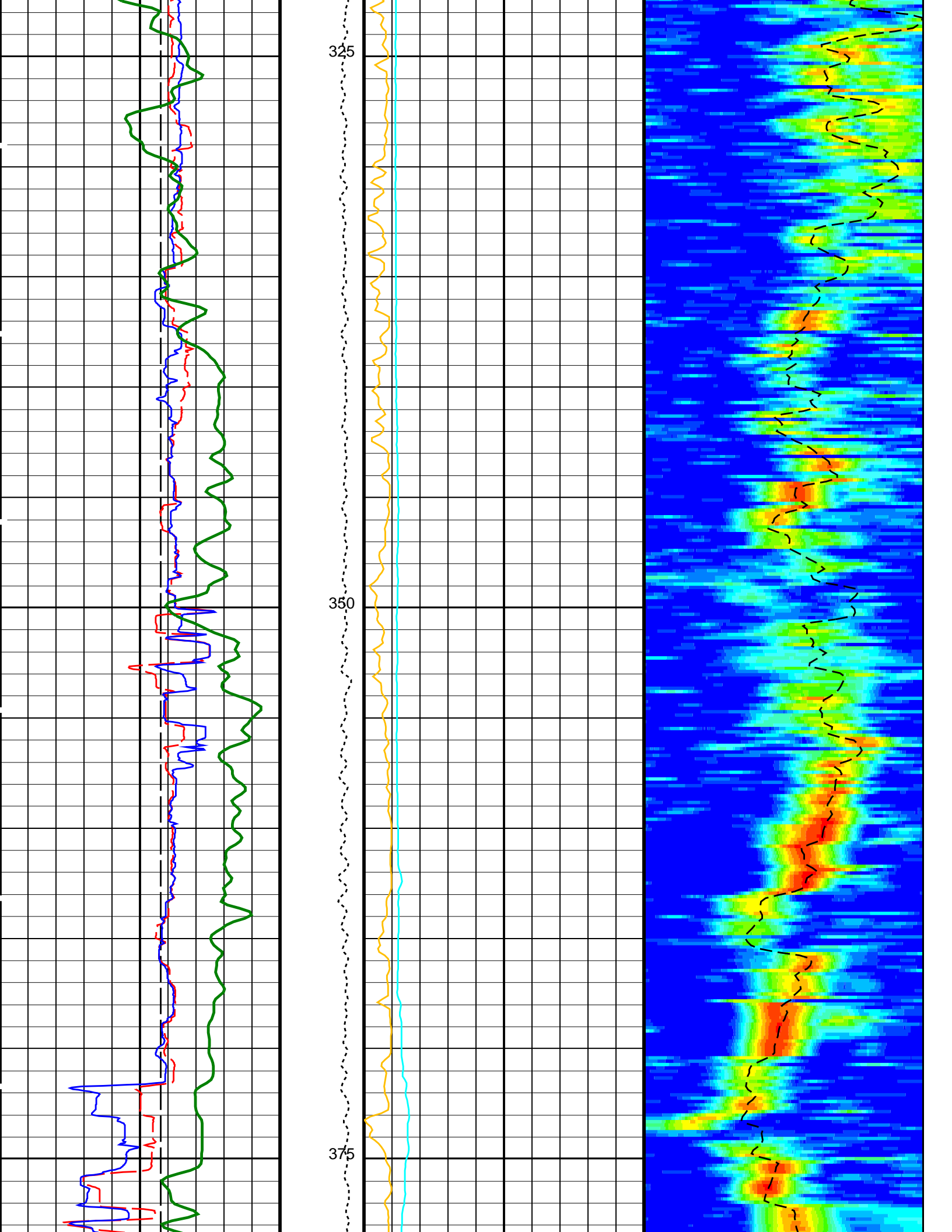


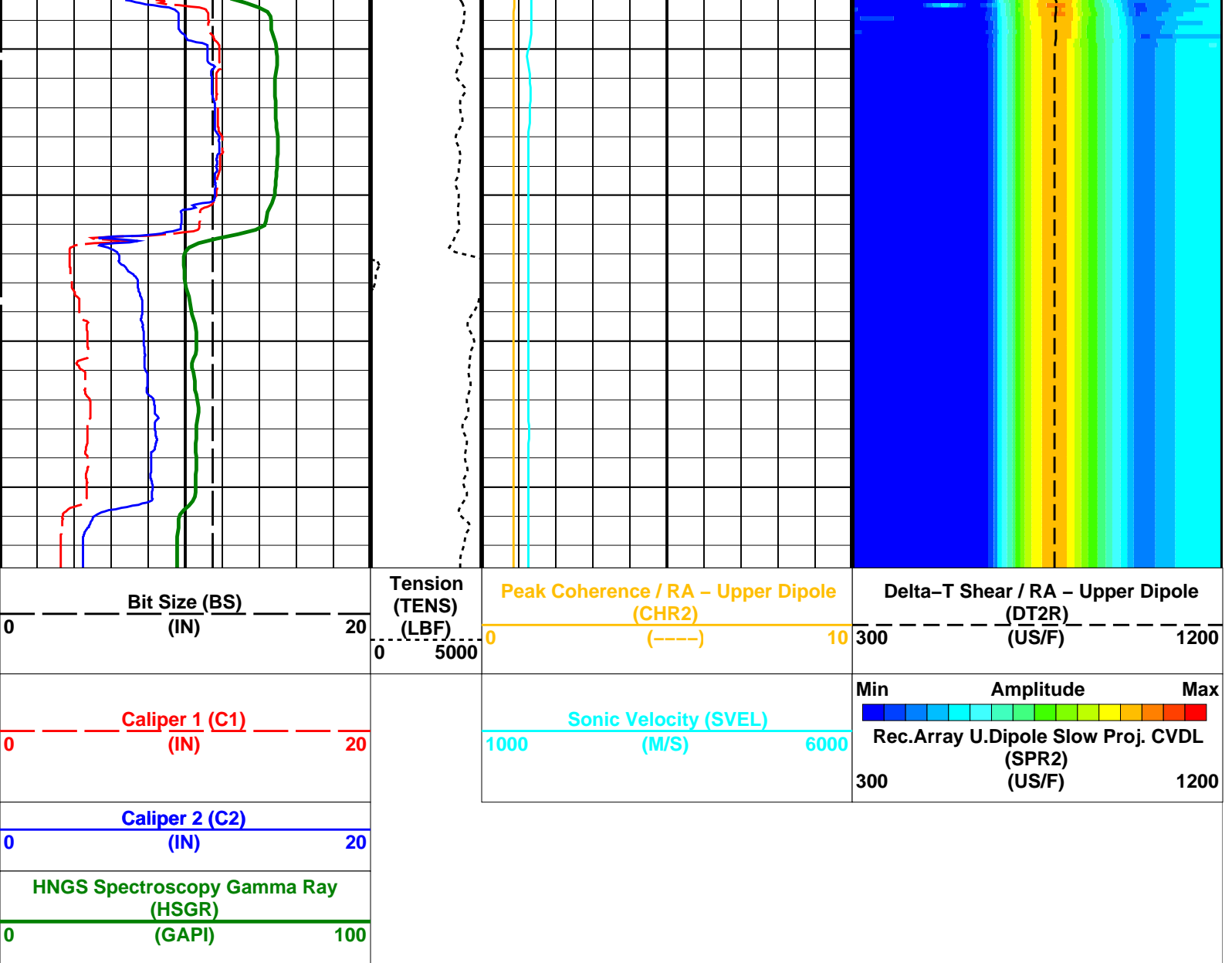












PIP SUMMARY

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	300 US/F
DSHU	Label Slowness Upper Limit - Dipole Shear	1200 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	0
RX1G	Receiver 1 Geometry	294 IN
RX2G	Receiver 2 Geometry	300 IN
RX3G	Receiver 3 Geometry	306 IN
RX4G	Receiver 4 Geometry	312 IN
RX5G	Receiver 5 Geometry	318 IN
RX6G	Receiver 6 Geometry	324 IN
RX7G	Receiver 7 Geometry	330 IN
RX8G	Receiver 8 Geometry	336 IN
SAM2	DSST Sonic Acquisition Mode 2 - Upper Dipole Mode	ODD
SAMX	DSST Sonic Acquisition Mode X - Both Dipoles or Monopole Mode for Expert	OFF

SAS2	STC Sonic Array Status – Upper Dipole	255	
SBO2	STC Search Band Offset – Upper Dipole	3000	US
SBW2	STC Search Bandwidth – Upper Dipole	8000	US
SFC2	STC Formation Character – Upper Dipole	SELECTABLE	
SFM2	STC Filter – Upper Dipole	B1–2K	
SLL2	STC Slowness Lower Limit – Upper Dipole	300	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	1200	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	2300	US
TST2	STC Time Step – Upper Dipole	200	US
TUL2	STC Time Upper Limit – Upper Dipole	20200	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
<b>HNGS–BA: Hostile Natural Gamma Ray Sonde</b>			
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	-0.00407081	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	-999.25	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	-999.25	CPS
SGRC	HNGS Standard Gamma–Ray Correction Flag	YES	
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.02293	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.02458	
<b>EDTC–B: Enhanced DTS Cartridge</b>			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	C1	
<b>System and Miscellaneous</b>			
BS	Bit Size	11.438	IN
DFD	Drilling Fluid Density	1.26	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: DSST\_UPPER\_DIPOLE\_VDL\_COLOR Vertical Scale: 1:200 Graphics File Created: 20-Sep-2013 13:55

## OP System Version: 19C0–187

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

### Input DLIS Files

DEFAULT	FMS_DSI_NGS_037PUP	FN:40	PRODUCER	31–Aug–2013 13:47	397.8 M	–10.1 M
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### Output DLIS Files

DEFAULT	FMS_DSI_NGS_048PUP	FN:55	PRODUCER	20–Sep–2013 13:55
CLIENT	FMS_DSI_NGS_048PUC	FN:56	CUSTOMER	20–Sep–2013 13:55

**Schlumberger**

**Calibrations**



## Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 1 Check							
Master: 29-Jul-2013 20:46 Before: 30-Aug-2013 3:43 After: 30-Aug-2013 9:52							
Na 511 Peak Loc	40.00	39.74	39.66	39.66	-0.001842	1.000	
Na 511 Peak Res	15.50	15.31	14.99	15.59	0.6071	2.000	%
High Voltage	1150	1168	1175	1177	1.875	N/A	V
Na 1785 Peak Loc	142.6	142.6	141.1	143.1	1.995	7.000	
Na 1785 Peak Res	8.500	9.002	8.739	8.350	-0.3891	2.000	%
Temperature	15.50	21.46	30.66	29.21	-1.452	N/A	DEGC
Na Count Rate	45.00	15.10	12.22	12.96	0.7358	8.000	CPS
Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 2 Check							
Master: 29-Jul-2013 20:46 Before: 30-Aug-2013 3:43 After: 30-Aug-2013 9:52							
Na 511 Peak Loc	40.00	39.58	39.50	39.79	0.2864	1.000	
Na 511 Peak Res	15.50	16.04	16.51	15.30	-1.204	2.000	%
High Voltage	1150	1093	1109	1110	1.251	N/A	V
Na 1785 Peak Loc	142.6	141.7	143.1	142.4	-0.7710	7.000	
Na 1785 Peak Res	8.500	9.499	8.731	9.377	0.6464	2.000	%
Temperature	15.50	21.65	30.81	30.84	0.03577	N/A	DEGC
Na Count Rate	45.00	14.93	12.29	12.87	0.5788	8.000	CPS
Hostile Natural Gamma Ray Sonde Wellsite Calibration – Ratio Of Detector 1 To Detector 2							
Master: 29-Jul-2013 20:46 Before: 30-Aug-2013 3:43 After: 30-Aug-2013 9:52							
Coincidence Count Rate Ratio	1.000	1.015	0.9928	1.007	0.01398	0.05000	
Enhanced DTS Cartridge Wellsite Calibration – EDTC Accelerometer Calibration							
Before: 30-Aug-2013 3:44							
EDTC Z-Axis Acceleration	9.810	N/A	9.794	N/A	N/A	N/A	M/S2
Enhanced DTS Cartridge Wellsite Calibration – Detector Calibration							
Before: 30-Aug-2013 3:38							
Gamma Ray (Jig – Bkg)	204.1	N/A	204.1	N/A	N/A	18.55	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	N/A	N/A	15.00	GAPI

## Litho-Density Spectroscopy Cartridge – B / Equipment Identification

Primary Equipment:		
LDSC Cartridge	LDSC – B	326
Auxiliary Equipment:		
LDSC Housing	LDSH – A	303

## Hostile Natural Gamma Ray Cartridge – B / Equipment Identification

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

## Hostile Natural Gamma Ray Sonde / Equipment Identification

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

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Detector 1 Check

Phase	Na 511 Peak Loc	Value	Phase	Na 511 Peak Res %	Value	Phase	High Voltage V	Value	
Master		39.74	Master		15.31	Master		1168	
Before		39.66	Before		14.99	Before		1175	
After		39.66	After		15.59	After		1177	
	37.50 (Minimum)	40.00 (Nominal)	43.50 (Maximum)	12.00 (Minimum)	15.50 (Nominal)	19.00 (Maximum)	900.0 (Minimum)	1150 (Nominal)	1600 (Maximum)
Phase	Na 1785 Peak Loc	Value	Phase	Na 1785 Peak Res %	Value	Phase	Temperature DEGC	Value	
Master		142.6	Master		9.002	Master		21.46	
Before		141.1	Before		8.739	Before		30.66	
After		143.1	After		8.350	After		29.21	
	135.0 (Minimum)	142.6 (Nominal)	150.3 (Maximum)	7.000 (Minimum)	8.500 (Nominal)	11.00 (Maximum)	-28.89 (Minimum)	15.50 (Nominal)	60.00 (Maximum)
Phase	Na Count Rate CPS	Value							
Master		15.10							
Before		12.22							
After		12.96							
	10.00 (Minimum)	45.00 (Nominal)	100.0 (Maximum)						
Master: 29-Jul-2013 20:46			Before: 30-Aug-2013 3:43			After: 30-Aug-2013 9:52			

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Detector 2 Check

Phase	Na 511 Peak Loc	Value	Phase	Na 511 Peak Res %	Value	Phase	High Voltage V	Value	
Master		39.58	Master		16.04	Master		1093	
Before		39.50	Before		16.51	Before		1109	
After		39.79	After		15.30	After		1110	
	37.50 (Minimum)	40.00 (Nominal)	43.50 (Maximum)	12.00 (Minimum)	15.50 (Nominal)	19.00 (Maximum)	900.0 (Minimum)	1150 (Nominal)	1600 (Maximum)
Phase	Na 1785 Peak Loc	Value	Phase	Na 1785 Peak Res %	Value	Phase	Temperature DEGC	Value	
Master		141.7	Master		9.499	Master		21.65	
Before		143.1	Before		8.731	Before		30.81	
After		142.4	After		9.377	After		30.84	
	135.0 (Minimum)	142.6 (Nominal)	150.3 (Maximum)	7.000 (Minimum)	8.500 (Nominal)	11.00 (Maximum)	-28.89 (Minimum)	15.50 (Nominal)	60.00 (Maximum)
Phase	Na Count Rate CPS	Value							
Master		14.93							
Before		12.29							
After		12.87							
	10.00 (Minimum)	45.00 (Nominal)	100.0 (Maximum)						
Master: 29-Jul-2013 20:46			Before: 30-Aug-2013 3:43			After: 30-Aug-2013 9:52			


Hostile Natural Gamma Ray Sonde Wellsite Calibration			
Ratio Of Detector 1 To Detector 2			
Phase	Coincidence Count Rate Ratio	Value	
Master		1.015	
Before		0.9928	
After		1.007	
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)
Master: 29-Jul-2013 20:46			
Before: 30-Aug-2013 3:43			
After: 30-Aug-2013 9:52			

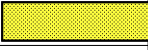


Primary Equipment:  
 EDTC Gamma Ray Detector  
 Enhanced DTS Cartridge

EDTG - A/B 8305  
 EDTC - B 8317

Auxiliary Equipment:  
 EDTC Housing

EDTH - B 8303

Enhanced DTS Cartridge Wellsite Calibration		
EDTC Accelerometer Calibration		
Phase	EDTC Z-Axis Acceleration M/S2	Value
Before		9.794
	9.610 (Minimum)      9.810 (Nominal)      10.01 (Maximum)	
Before: 30-Aug-2013 3:44		

Enhanced DTS Cartridge Wellsite Calibration											
Detector Calibration											
Phase	Gamma Ray Background GAPI		Value	Phase	Gamma Ray (Jig - Bkg) GAPI		Value	Phase	Gamma Ray (Calibrated) GAPI		Value
Before			1.864	Before			204.1	Before			165.0
	0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)		185.5 (Minimum)	204.1 (Nominal)	222.7 (Maximum)		150.0 (Minimum)	165.0 (Nominal)	180.0 (Maximum)
Before: 30-Aug-2013 3:38											

Company: **Lamont Doherty Earth Observatory**

**Schlumberger**

Well: **Expedition 346, Site U1425B**

Field: **Asian Monsoon**

Rig: **JOIDES Resolution**

Country: **USA**

DSI  
 Upper Dipole