Schlumberger

Company: **International Ocean Discovery Program**

Well: **Expedition 374, Site U1523D**
Field: **Ross Sea W. Antarctic Ice Sheet History**
Rig: **JOIDES Resolution** Ocean: **Southern**

Rig: JOIDES Resolution
Field: Ross Sea W. Antarctic Ice Sheet
Location: Latitude: S 74.15048*
Well: Expedition 374, Site U1523D
Company: International Ocean Discovery Pr

High Resolution Laterolog Array (HRLA)
Dipole Sonic Imager (DSI)
Hostile Natural Gamma Ray (HNGS)−MSS

LOCATION

Latitude: S 74.15048*
Longitude: W 176.795145*

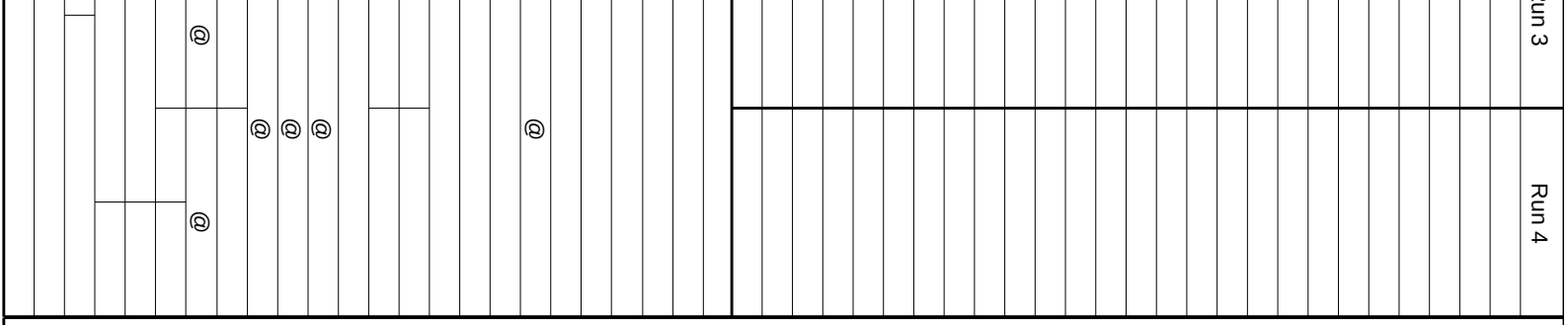
Elev.: K.B. 0.00 m
G.L. −839.00 m
D.F. 0.00 m

Permanent Datum: Sea Floor — Elev.: −839.00 m
Log Measured From: Rig Floor — 839.00 m above Perm. Datum
Drilling Measured From: Rig Floor

API Serial No.	Max. Hole Devi. 4 deg	Longitude W 176.795145	Latitude S 74.15048

	Run 1	Run 2	R
Logging Date	2−Feb−2018		
Run Number	1		
Depth Driller	1146.8 m		
Schlumberger Depth	1131 m		
Bottom Log Interval	1131 m		
Top Log Interval	839 m		
Casing Driller Size @ Depth	5.500 in @ 906.1 m	@	
Casing Schlumberger	905 m		
Bit Size	9.875 in		
Type Fluid In Hole	Sepiolite		
MUD Density / Viscosity	1.26 g/cm3		
MUD Fluid Loss / PH		8.07	
MUD Source Of Sample	N/A		
RM @ Measured Temperature	@	@	
RMF @ Measured Temperature	@	@	
RMC @ Measured Temperature	@	@	
Source RMF / RMC	N/a	N/A	
RM @ MRT / RMF @ MRT	@ 6	@ 6	@ @
Maximum Recorded Temperatures	6 degC		
Circulation Stopped / Time	2−Feb−2018	20:00	
Logger On Bottom / Time	2−Feb−2018	3:09	
Unit Number / Location	627314	Larose, LA	
Recorded By	K. Swain		
Witnessed By	J. Gales, B. Romans, L. De Santis		

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



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OTHER SERVICES1	OTHER SERVICES2
OS1: FMS	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:

REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
Hole drilled with RCB bottom hole assembly (BHA) at 9−7/8" BS	
Bit dropped using Mechanical Bit Release (MBR) prior to logging.	
Drilled TD was 1146.8mbrf.	
Drill pipe set at 921.3 and 906.1 mbrf (uplog 2 at 906.1mbrf).	
Fluid type was Sepeolite mud weighted with Barite to a density of 10.5ppg	
Depth recorded from drill floor; logs presented as−logged without depth corrections or shifts, as per client instructions.	
All logs presented in wireline measured depth below rig floor (MDBRF).	
Caliper opened during upward passes; closed inside pipe.	
Hole size corrections made using caliper measurements for upward passes.	
AHC used from TD then switched off to facilitate pipe entry.	
10.5 lb/gal mud pumped in hole prior to logging.	
NO DENSITY DATA as gamma ray source not installed per client request!	

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 6098
WITM (EDTS)−A

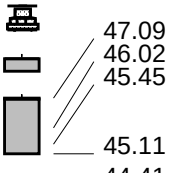
DOWNHOLE EQUIPMENT

LEH−QT 301

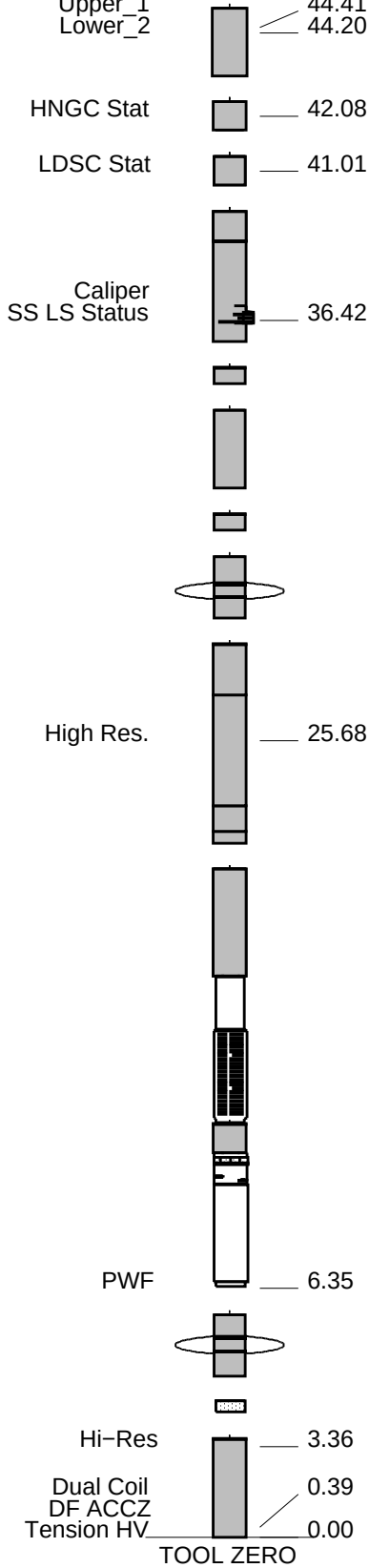
AH−369

EDTC−B
EDTH−B 8303

MDSB_EDTC
Mud Tempe
CTEM
Gamma Ray
EFTB DIAG
TelStatus
EDTCB Ele
Upper_1



48.41
47.52
47.09



HNGS−BA 45.11
HNGS−BA 194
HNSH−BA 204

HNGC−B 42.61

LDSC−B 41.54

HLDS 40.48
HLDV−D 45
HLDS−D 45
GSR−ZA 2945
HLDP−C 45
HEH−H 47

AH−184 35.66

AH−ECH−MRA 35.05
AH−ECH−MRA 5714

AH−184 32.16

AH−MCD2 31.55
AH−MCD2 1663

HRLT−B 29.27
HRUH−B 975
HRUC−B 964
HRLS−B 768
HRLH−B 1869
HRLC−B 974
AH−270 773

DSST−B 21.89
SPAC−B 8194
ECH−SD 8183
SMDR−BD 8232
SSIJ−BA 8192
SMDX−AA 8194

AH−MCD 6.35
AH−MCD 82

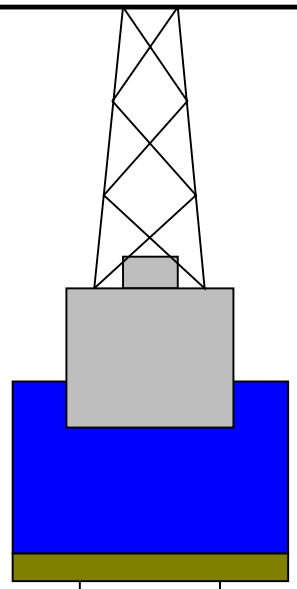
AH−230 4.07

MSS_LDEO−A 3.67
ELIC−A 1
MSS_LDEO−A 1

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

	OD	ID	MD		MD	OD	ID	
Kelly Bushing Elevation			0					
Derrick Floor Elevation			0					
Mean Sea Level			11					
						4.1		
					839	4.1		Sea Floor
					921.3	9.875		Open Hole
					1146.8			Total Depth



Company: International Ocean Discovery Program | Well: Expedition 374, Site U1523D

Input DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_008LUP	FN:12	PRODUCER	02−Feb−2018 13:12	1127.0 M	830.8 M

Output DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_031PUP	FN:40	PRODUCER	03−Feb−2018 21:43	1127.0 M	830.9 M

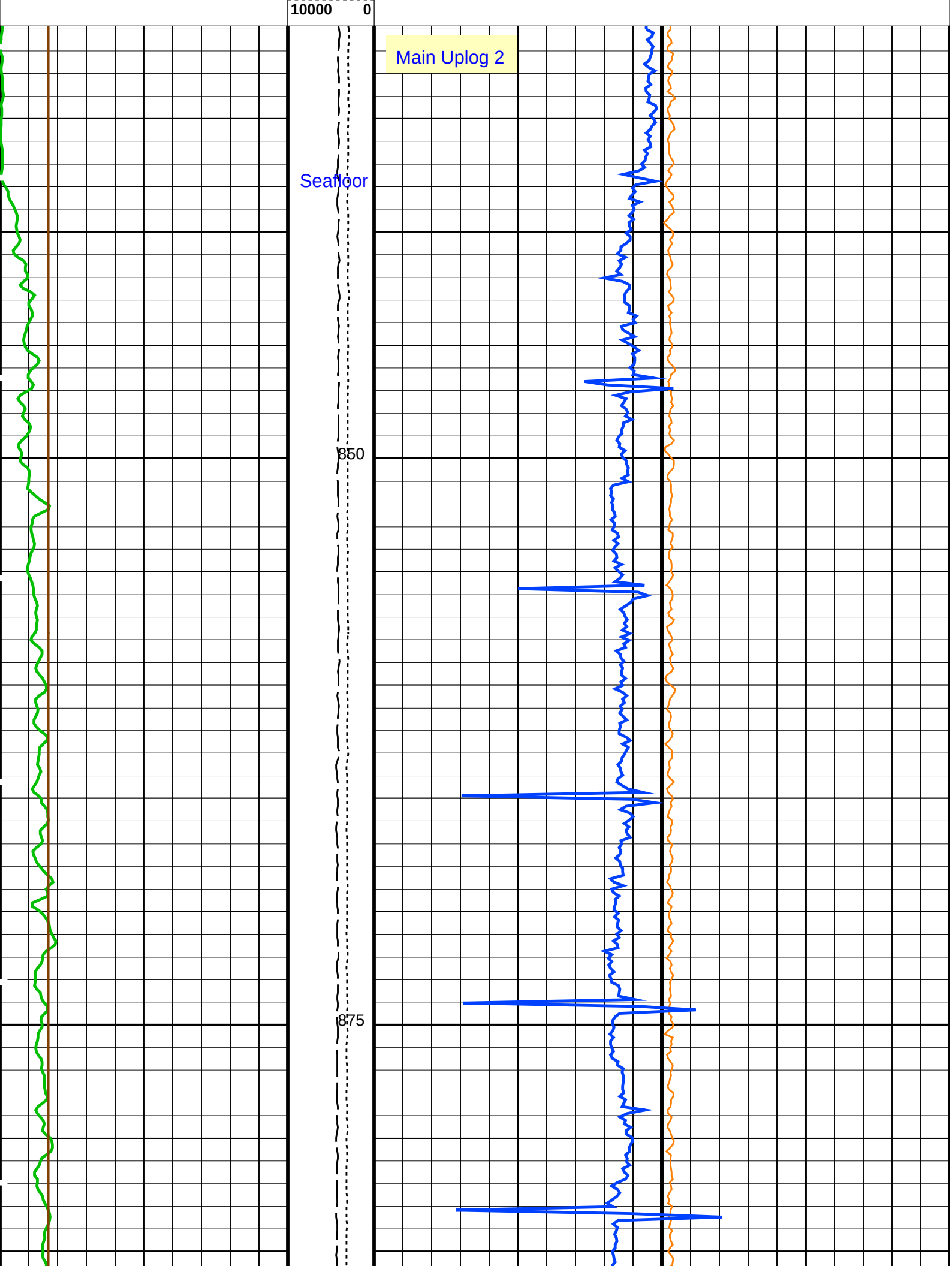
OP System Version: 19C0−187

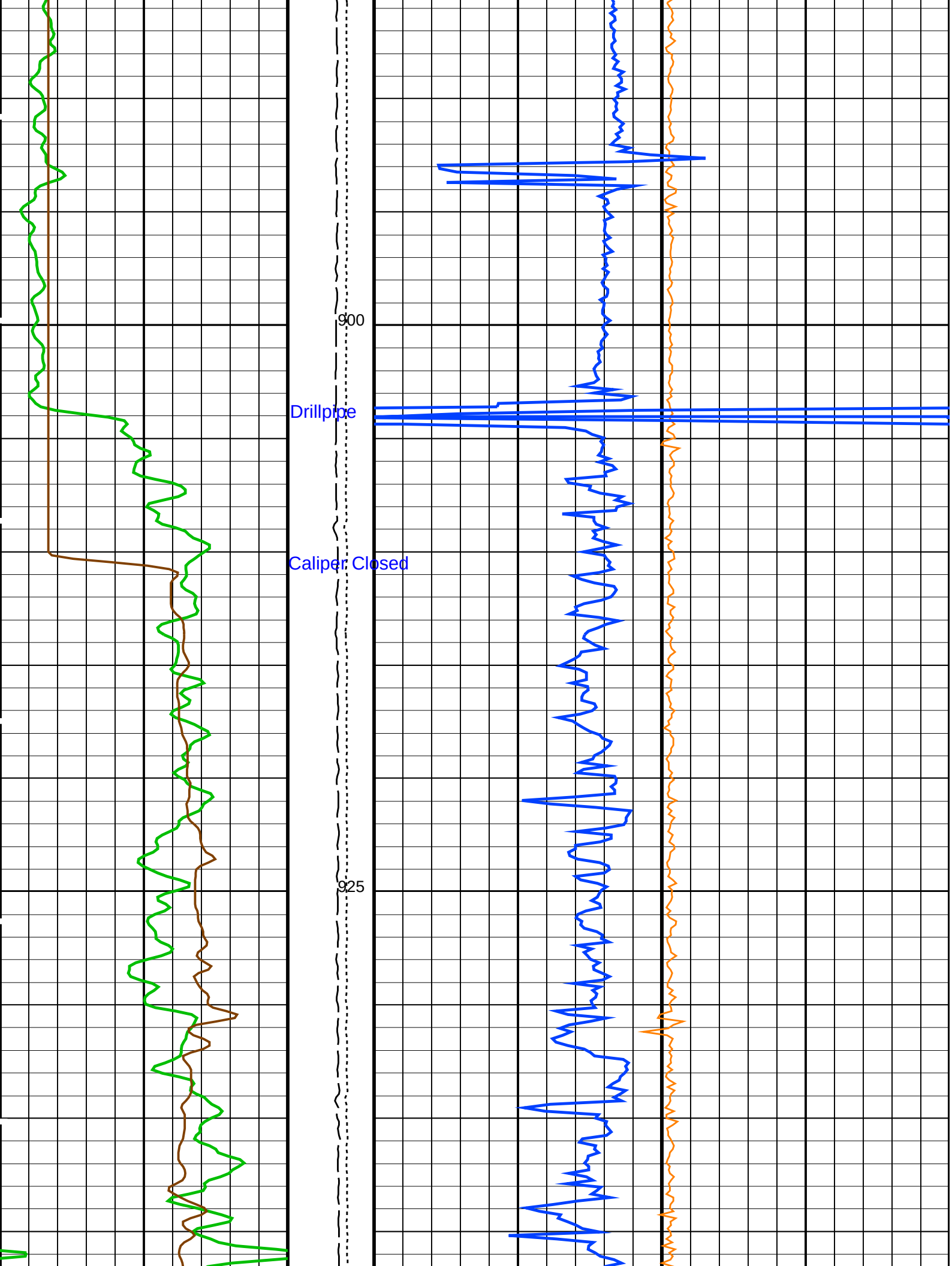
MSS_LDEO−A	19C0−187	DSST−B	19C0−187
HRLT−B	19C0−187	HLDS	19C0−187
LDSC−B	19C0−187	HNGC−B	19C0−187
HNGS−BA	19C0−187	EDTC−B	SKK−5169−EDTCB

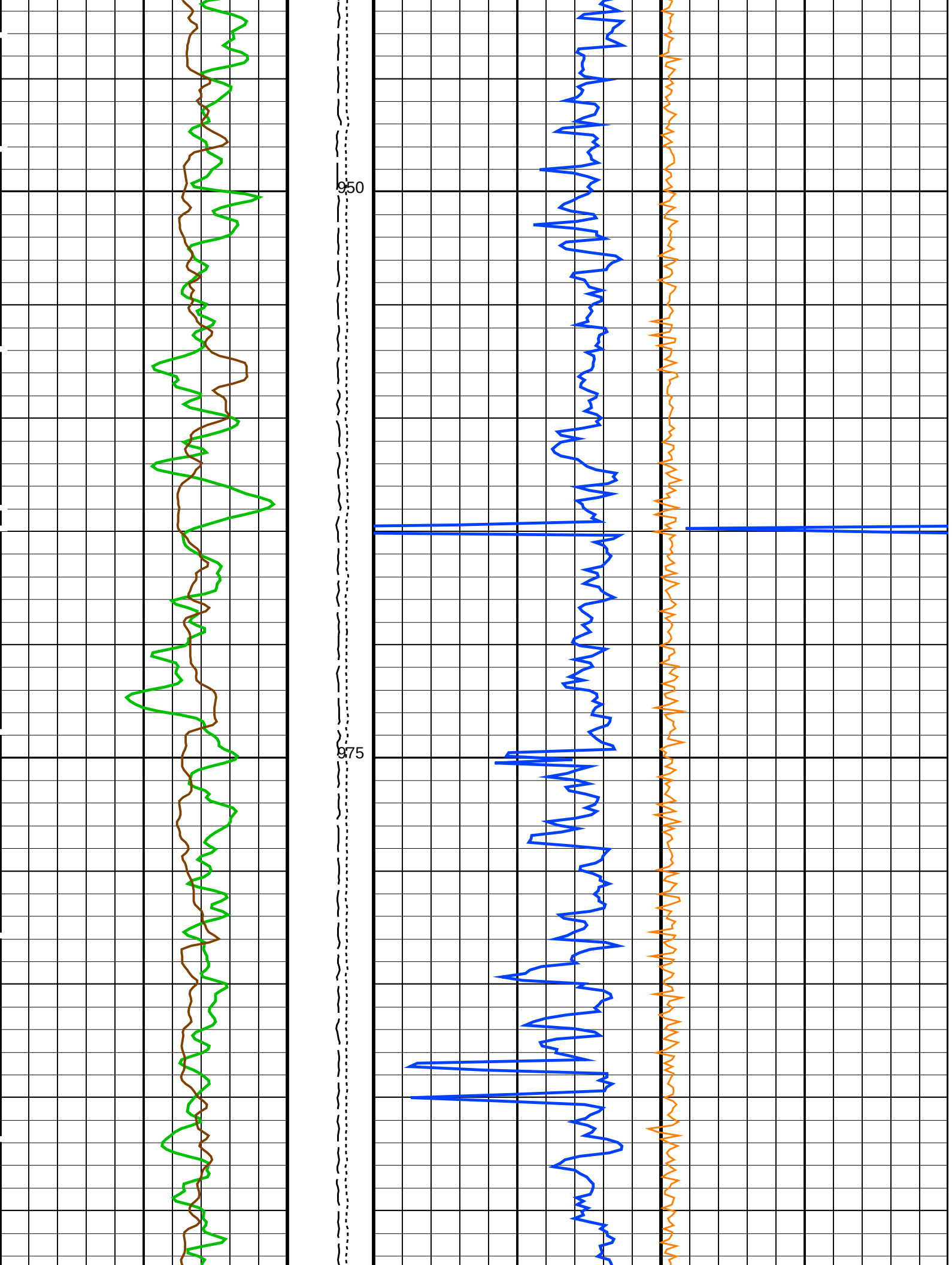
PIP SUMMARY

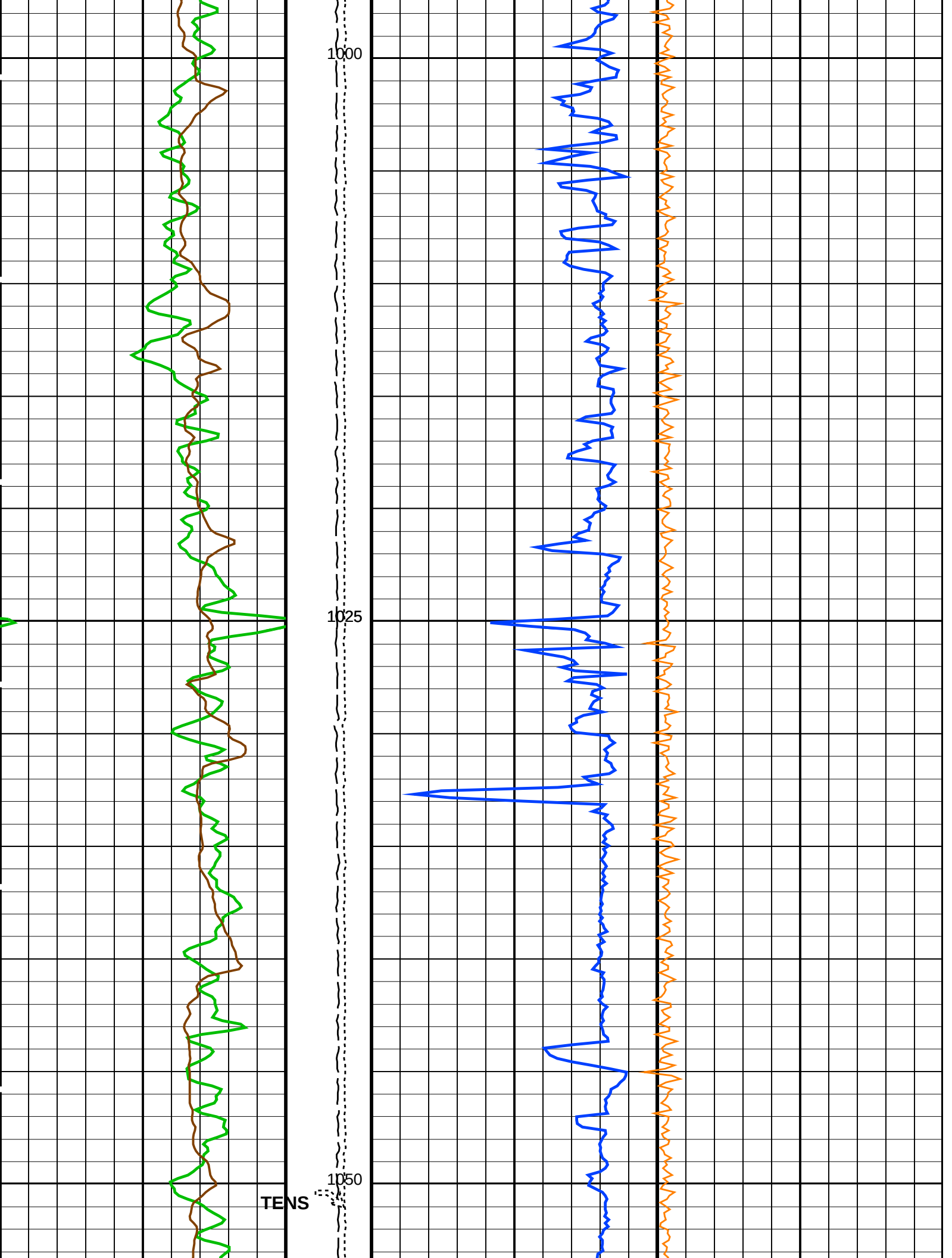
Time Mark Every 60 S

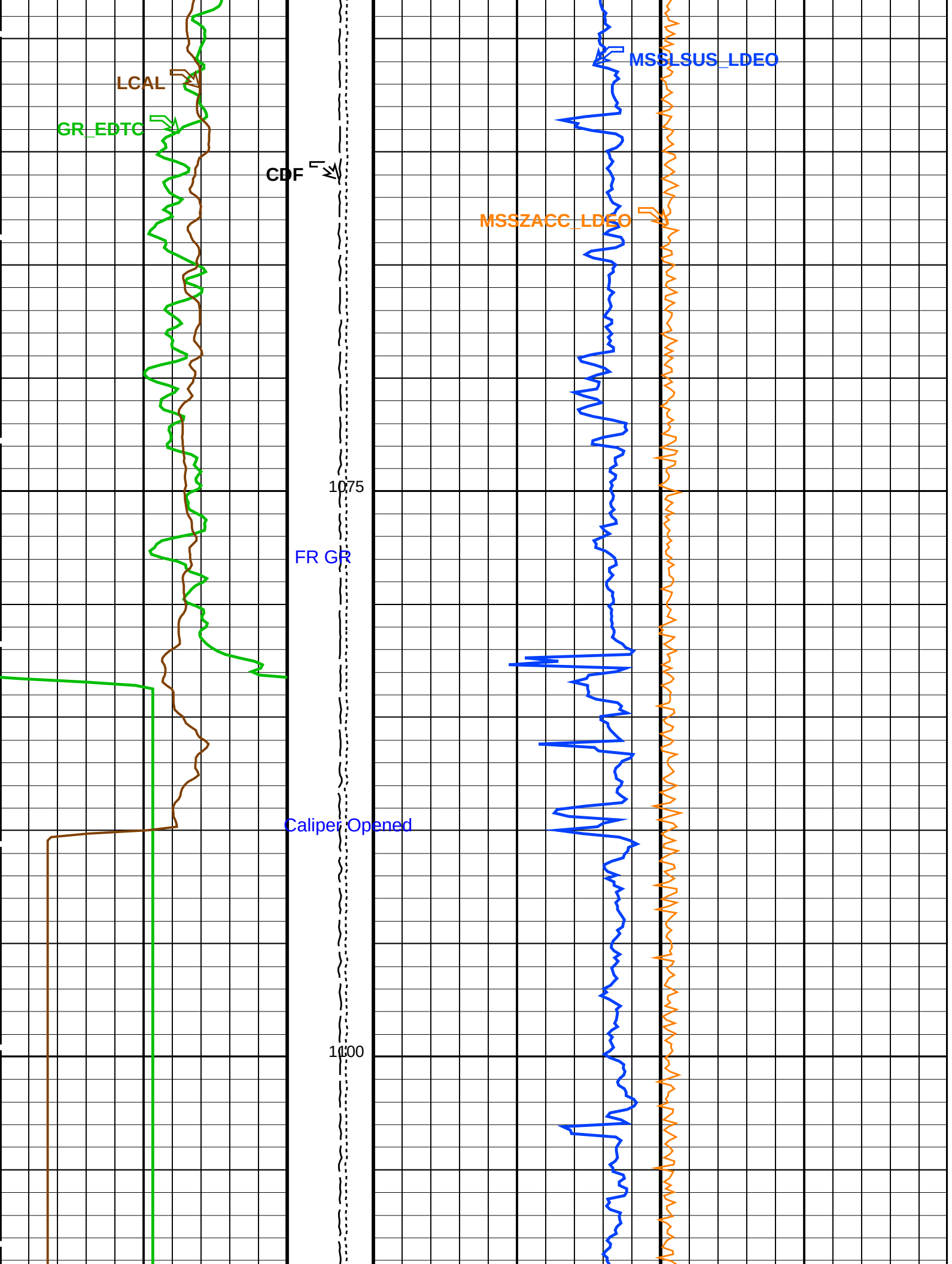
Gamma Ray (GR_EDTC) 0 (GAPI) 100	Calibrated Downhole Force (CDF) (LBF) 5000 0	Dual−Coil Susceptibility (MSSLSUS_LDEO) 0 (PPM) 5000
HLDS Caliper (LCAL) 0 (IN) 20	Tension (TENS) (LBF)	Axial Acceleration (MSSZACC_LDEO) 0 (M/S2) 20

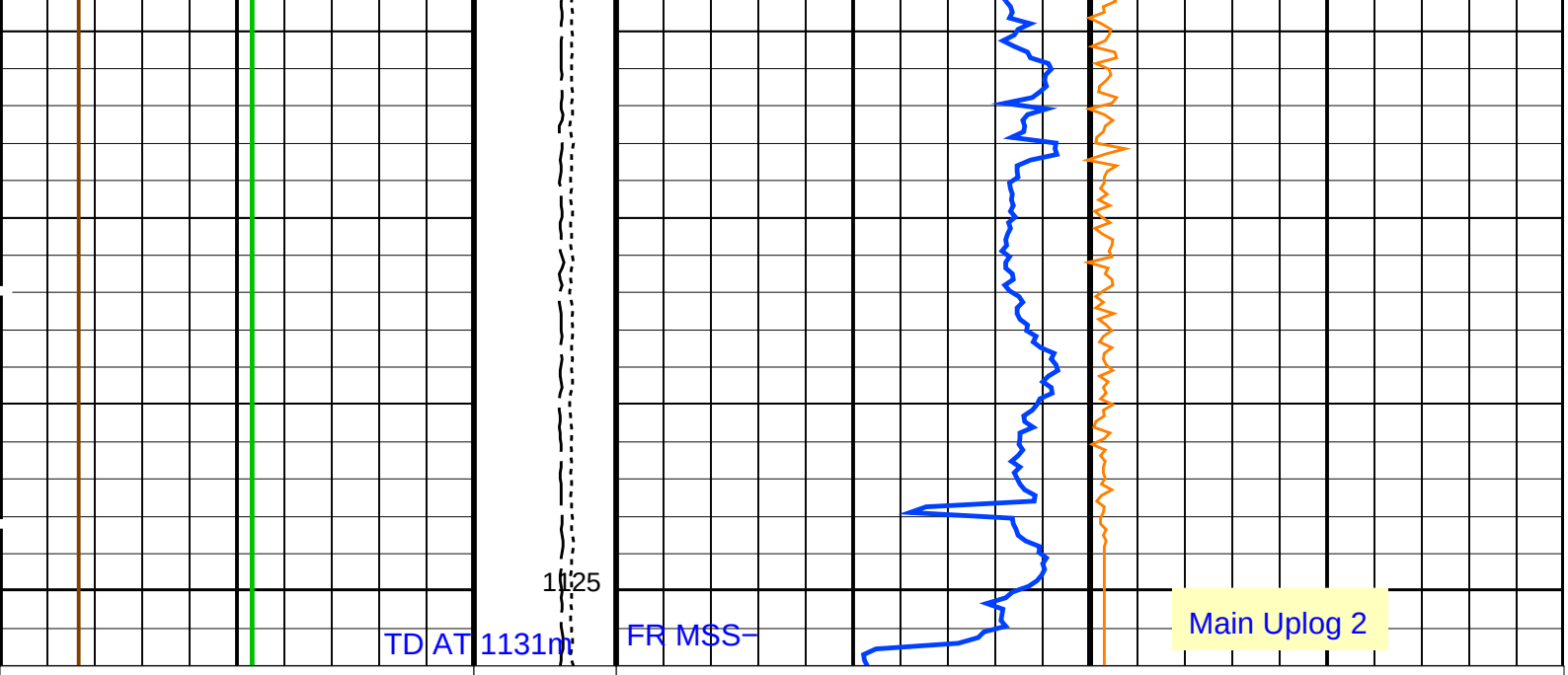

10000
0
Main Uplog 2
Seafloor
850
875


900
Drillpipe
Caliper Closed
925


950
975


1000
1025
1050
TENS


LCAL
GR_EDTC
CDF
MSSLSUS_LDEO
MSSZACC_LDEO
1075
FR GR
Caliper Opened
1100



HLDS Caliper (LCAL)	Tension (TENS)	Axial Acceleration (MSSZACC_LDEO)
0 (IN) 20	(LBF) 10000 0	0 (M/S2) 20
Gamma Ray (GR_EDTC)	**Calibrated Downhole Force (CDF) (LBF)**	**Dual−Coil Susceptibility (MSSLSUS_LDEO)**
0 (GAPI) 100	5000 0	0 (PPM) 5000

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
AGC1	Automatic Gain Control 1	ON	
AGC2	Automatic Gain Control 2	ON	
AGC3	Automatic Gain Control 3	ON	
AGC4	Automatic Gain Control 4	ON	
AGC5	Automatic Gain Control 5	ON	
AGCX	Automatic Gain Control X	ON	
BARS_MTR1	Length for Monopole Transmitter to Receiver 1	2.7432	M
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
CASF	Label Casing Function − Monopole P&S	60	
CDTS	C−Delta−T Shale	100	US/F
COLL	Label Slowness Lower Limit − Monopole P&S Compressional	150	US/F
COUL	Label Slowness Upper Limit − Monopole P&S Compressional	202	US/F
DDE1	Digitizing Delay 1	0	US
DDE2	Digitizing Delay 2	0	US
DDE3	Digitizing Delay 3	0	US
DDE4	Digitizing Delay 4	0	US
DDE5	Digitizing Delay 5	0	US
DDEX	Digitizing Delay X	0	US
DLCS	Label Compressional Source − Dipole Shear	USE	
DLHS	Label Hole Diameter Source for SOBS Channel	AUTO	
DSHL	Label Slowness Lower Limit − Dipole Shear	200	US/F
DSHU	Label Slowness Upper Limit − Dipole Shear	1200	US/F
DSI1	Digitizer Sample Interval 1	40	US
DSI2	Digitizer Sample Interval 2	40	US
DSI3	Digitizer Sample Interval 3	40	US
DSI4	Digitizer Sample Interval 4	10	US
DSI5	Digitizer Sample Interval 5	10	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta−T Source for DTCO Channel	PS_COMP	
DTF	Delta−T Fluid	205	US/F
DTM	Delta−T Matrix	56	US/F
DTSS	Shear Delta−T Source for DTSM Channel	LOWER_DIPOLE	
DWC1	Digitizer Word Count 1	512	
DWC2	Digitizer Word Count 2	512	

DWC2	Digitizer Word Count 2	512	
DWC3	Digitizer Word Count 3	512	
DWC4	Digitizer Word Count 4	512	
DWC5	Digitizer Word Count 5	512	
DWCX	Digitizer Word Count X	512	
FDE1	Firing Delay 1	0	
FDE2	Firing Delay 2	0	
FDE3	Firing Delay 3	0	
FDE4	Firing Delay 4	0	
FDE5	Firing Delay 5	0	
FDEX	Firing Delay X	0	
FGM5	First Motion Gate Moveout 5	40	US/F
FGMX	First Motion Gate Moveout X	40	US/F
FILG	Label Fill Gap Control − Monopole P&S	COMP_SHEAR	
FMG5	First Motion Minimum Gate 5	500	US
FMGX	First Motion Minimum Gate X	500	US
FMLL	Slowness Lower Limit − FMD	40	US/F
FMRC	Restart Control − FMD	CONTINUE	
FMT5	First Motion Threshold 5	UP	
FMTX	First Motion Threshold X	NONE	
FMUL	Slowness Upper Limit − FMD	180	US/F
FNC5	First Motion Noise Counter Input 5	ALO	
FNCX	First Motion Noise Counter Input X	ALO	
FPM	Processing Mode − FMD	NONE	
FTD5	First Motion Threshold Direction 5	UP	
FTDX	First Motion Threshold Direction X	UP	
GAI1	Manual Gain 1	10	
GAI2	Manual Gain 2	10	
GAI3	Manual Gain 3	6	
GAI4	Manual Gain 4	16	
GAI5	Manual Gain 5	16	
GAIX	Manual Gain X	10	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GDT1	Gain Delta−T 1	800	US/F
GDT2	Gain Delta−T 2	800	US/F
GDT3	Gain Delta−T 3	800	US/F
GDT4	Gain Delta−T 4	160	US/F
GDT5	Gain Delta−T 5	160	US/F
GDTX	Gain Delta−T X	800	US/F
GGRD	Geothermal Gradient	0.01	DF/F
GIN1	Gain Interval 1	15360	US
GIN2	Gain Interval 2	15360	US
GIN3	Gain Interval 3	15360	US
GIN4	Gain Interval 4	2560	US
GIN5	Gain Interval 5	1600	US
GINX	Gain Interval X	15360	US
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HPF1	High Pass Filter 1	F80	
HPF2	High Pass Filter 2	F80	
HPF3	High Pass Filter 3	F80	
HPF4	High Pass Filter 4	F8K	
HPF5	High Pass Filter 5	F8K	
HPFX	High Pass Filter X	F80	
ISSBAR	Barite Mud Switch	BARITE	
ITTS	Integrated Transit Time Source	DTCO	
LFC	Label Formation Character − Monopole P&S	DYNAMIC	
LPF1	Low Pass Filter 1	F5K	
LPF2	Low Pass Filter 2	F5K	
LPF3	Low Pass Filter 3	F5K	
LPF4	Low Pass Filter 4	F30K	
LPF5	Low Pass Filter 5	F30K	
LPFX	Low Pass Filter X	F5K	
LTXG	Lower Dipole Transmitter Geometry	156	IN
MAI5	Slowness Averaging Interval − FMD	42	IN
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCS	Mean Casing Slowness	57	US/F
MDS5	Multishot Delta−T Scatter − FMD	20	US
MTXG	Monopole Transmitter Geometry	186	IN
MUX1	Sum Difference Multiplexor Input 1	RR	
MUX2	Sum Difference Multiplexor Input 2	RR	
MUX3	Sum Difference Multiplexor Input 3	RR	
MUX4	Sum Difference Multiplexor Input 4	RR	
MUX5	Sum Difference Multiplexor Input 5	RR	
MUXX	Sum Difference Multiplexor Input X	RR	
NTI5	Number Threshold Items 5	0	
NTIX	Number Threshold Items X	0	
NWI1	Number Waveform Items 1	8	
NWI2	Number Waveform Items 2	8	
NWI3	Number Waveform Items 3	0	
NWI4	Number Waveform Items 4	8	
NWI5	Number Waveform Items 5	0	
NWIX	Number Waveform Items X	0	
NWS1	Number Waveforms Stacked 1	1	

NWS2	Number Waveforms Stacked 2	1	
NWS3	Number Waveforms Stacked 3	1	
NWS4	Number Waveforms Stacked 4	1	
NWS5	Number Waveforms Stacked 5	1	
NWSX	Number Waveforms Stacked X	1	
RATE	Firing Rate	R7	
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
SAM1	DSST Sonic Acquisition Mode 1 − Lower Dipole Mode	LFD_EVEN	
SAM2	DSST Sonic Acquisition Mode 2 − Upper Dipole Mode	ODD	
SAM3	DSST Sonic Acquisition Mode 3 − Monopole Mode for Stoneley	OFF	
SAM4	DSST Sonic Acquisition Mode 4 − Monopole Mode for P&S	EVEN	
SAM5	DSST Sonic Acquisition Mode 5 − Monopole Mode for FMD	OFF	
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	
SAS3	STC Sonic Array Status − Monopole Stoneley	255	
SAS4	STC Sonic Array Status − Monopole P&S	255	
SAS5	Sonic Array Status − FMD	255	
SBO1	STC Search Band Offset − Lower Dipole	3000	US
SBO2	STC Search Band Offset − Upper Dipole	3000	US
SBO3	STC Search Band Offset − Monopole Stoneley	3000	US
SBO4	STC Search Band Offset − Monopole P&S	500	US
SBR4	STC Baseline Removal − Monopole P&S	ON	
SBW1	STC Search Bandwidth − Lower Dipole	8000	US
SBW2	STC Search Bandwidth − Upper Dipole	8000	US
SBW3	STC Search Bandwidth − Monopole Stoneley	8000	US
SBW4	STC Search Bandwidth − Monopole P&S	2000	US
SFC1	STC Formation Character − Lower Dipole	SELECTABLE	
SFC2	STC Formation Character − Upper Dipole	SELECTABLE	
SFC3	STC Formation Character − Monopole Stoneley	SELECTABLE	
SFC4	STC Formation Character − Monopole P&S	SELECTABLE	
SFM1	STC Filter − Lower Dipole	B.3−1.5K	
SFM2	STC Filter − Upper Dipole	B1−2K	
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	239	US/F
SHT	Surface Hole Temperature	55	DEGF
SHUL	Label Slowness Upper Limit − Monopole P&S Shear	240	US/F
SLL1	STC Slowness Lower Limit − Lower Dipole	40	US/F
SLL2	STC Slowness Lower Limit − Upper Dipole	40	US/F
SLL3	STC Slowness Lower Limit − Monopole Stoneley	180	US/F
SLL4	STC Slowness Lower Limit − Monopole P&S	40	US/F
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DTCO	
SST1	STC Slowness Step − Lower Dipole	4	US/F
SST2	STC Slowness Step − Upper Dipole	4	US/F
SST3	STC Slowness Step − Monopole Stoneley	4	US/F
SST4	STC Slowness Step − Monopole P&S	2	US/F
SSW1	STC Source Waveform − Lower Dipole	WF_SAM1	
SSW2	STC Source Waveform − Upper Dipole	WF_SAM2	
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
SUL1	STC Slowness Upper Limit − Lower Dipole	1200	US/F
SUL2	STC Slowness Upper Limit − Upper Dipole	1200	US/F
SUL3	STC Slowness Upper Limit − Monopole Stoneley	780	US/F
SUL4	STC Slowness Upper Limit − Monopole P&S	240	US/F
SWD1	STC Slowness Width − Lower Dipole	40	US/F
SWD2	STC Slowness Width − Upper Dipole	40	US/F
SWD3	STC Slowness Width − Monopole Stoneley	40	US/F
SWD4	STC Slowness Width − Monopole P&S	10	US/F
TBDB	Tool String Bottom to DSST Bottom	249.908	IN
TBF1	STC Time for Baseline Fill − Lower Dipole	0	US
TBF2	STC Time for Baseline Fill − Upper Dipole	0	US
TBF3	STC Time for Baseline Fill − Monopole Stoneley	0	US
TBF4	STC Time for Baseline Fill − Monopole P&S	300	US
TLL1	STC Time Lower Limit − Lower Dipole	600	US
TLL2	STC Time Lower Limit − Upper Dipole	600	US
TLL3	STC Time Lower Limit − Monopole Stoneley	600	US
TLL4	STC Time Lower Limit − Monopole P&S	150	US
TST1	STC Time Step − Lower Dipole	200	US
TST2	STC Time Step − Upper Dipole	200	US
TST3	STC Time Step − Monopole Stoneley	200	US
TST4	STC Time Step − Monopole P&S	50	US

TTDB	Tool String Top to DSST Bottom	1656.11	IN
TUL1	STC Time Upper Limit − Lower Dipole	20440	US
TUL2	STC Time Upper Limit − Upper Dipole	20200	US
TUL3	STC Time Upper Limit − Monopole Stoneley	12000	US
TUL4	STC Time Upper Limit − Monopole P&S	3660	US
TWA1	Transmitter Waveform Amplitude 1	179	
TWA2	Transmitter Waveform Amplitude 2	179	
TWA3	Transmitter Waveform Amplitude 3	166	
TWA4	Transmitter Waveform Amplitude 4	150	
TWA5	Transmitter Waveform Amplitude 5	150	
TWAX	Transmitter Waveform Amplitude X	179	
TWD1	STC Time Width − Lower Dipole	2000	US
TWD2	STC Time Width − Upper Dipole	2000	US
TWD3	STC Time Width − Monopole Stoneley	2000	US
TWD4	STC Time Width − Monopole P&S	1000	US
TWI1	STC Integration Time Window − Lower Dipole	1600	US
TWI2	STC Integration Time Window − Upper Dipole	1600	US
TWI3	STC Integration Time Window − Monopole Stoneley	2400	US
TWI4	STC Integration Time Window − Monopole P&S	500	US
TWR1	Transmitter Waveform Sample Rate 1	20	US
TWR2	Transmitter Waveform Sample Rate 2	5	US
TWR3	Transmitter Waveform Sample Rate 3	5	US
TWR4	Transmitter Waveform Sample Rate 4	5	US
TWR5	Transmitter Waveform Sample Rate 5	5	US
TWRX	Transmitter Waveform Sample Rate X	5	US
TWS1	Transmitter Waveform Select 1	2	
TWS2	Transmitter Waveform Select 2	0	
TWS3	Transmitter Waveform Select 3	4	
TWS4	Transmitter Waveform Select 4	6	
TWS5	Transmitter Waveform Select 5	6	
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFDTSP1	SAM1 Waveform Delta for Spectrum	0	US/F
WFDTSP2	SAM2 Waveform Delta for Spectrum	0	US/F
WFDTSP3	SAM3 Waveform Delta for Spectrum	0	US/F
WFDTSP4	SAM4 Waveform Delta for Spectrum	0	US/F
WFDTSPX	SAMX Waveform Delta for Spectrum	0	US/F
WFLLSP1	SAM1 Waveform Lower Limit for Spectrum	0	US
WFLLSP2	SAM2 Waveform Lower Limit for Spectrum	0	US
WFLLSP3	SAM3 Waveform Lower Limit for Spectrum	0	US
WFLLSP4	SAM4 Waveform Lower Limit for Spectrum	0	US
WFLLSPX	SAMX Waveform Lower Limit for Spectrum	0	US
WFM1	Waveform Mode 1	W1	
WFM2	Waveform Mode 2	W1	
WFM3	Waveform Mode 3	W1	
WFM4	Waveform Mode 4	W1	
WFM5	Waveform Mode 5	W1	
WFMX	Waveform Mode X	W1	
WFULSP1	SAM1 Waveform Upper Limit for Spectrum	20000	US
WFULSP2	SAM2 Waveform Upper Limit for Spectrum	20000	US
WFULSP3	SAM3 Waveform Upper Limit for Spectrum	20000	US
WFULSP4	SAM4 Waveform Upper Limit for Spectrum	5000	US
WFULSPX	SAMX Waveform Upper Limit for Spectrum	20000	US
XMT1	Transmitter Select 1	DLO	
XMT2	Transmitter Select 2	DUP	
XMT3	Transmitter Select 3	MONO	
XMT4	Transmitter Select 4	MONO	
XMT5	Transmitter Select 5	MONO	
XMTX	Transmitter Select X	DUP	
HRLT−B: High Resolution Laterolog Array − B			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE	
CALTEMP	HRLTB Calibration Temperature	−0.0505813	DEGC
FREQ0	HRLT Frequency Index for Mode 0	32	
FREQ1	HRLT Frequency Index for Mode 1	128	
FREQ2	HRLT Frequency Index for Mode 2	104	
FREQ3	HRLT Frequency Index for Mode 3	86	
FREQ4	HRLT Frequency Index for Mode 4	56	
FREQ5	HRLT Frequency Index for Mode 5	44	
FREQ6	HRLT Frequency Index for Mode 6	116	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	BARITE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
LOOPCOEF_S	HRLT Loop Coefficient for Shallow Modes	LOW	
LOOPMOD0	HRLT Mode 0 Loop Mode	AUTO	
LOOPMOD1	HRLT Mode 1 Loop Mode	AUTO	
LOOPMOD2	HRLT Mode 2 Loop Mode	AUTO	
LOOPMOD3	HRLT Mode 3 Loop Mode	AUTO	
LOOPMOD4	HRLT Mode 4 Loop Mode	AUTO	

LOOPMOD5	HRLT Mode 5 Loop Mode	AUTO	
LOOPMOD6	HRLT Mode 6 Loop Mode	AUTO	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PROCINV	Inversion Selection	ON	
PROCMFL	Inversion Micro−Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	0	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSPO	Sonde Position	Centered	
SHT	Surface Hole Temperature	55	DEGF
HLDS: Hostile Litho−Density Sonde			
CLCL	HLDS LS Control Loop Controller Mode	AUTO_DEFAULT	
CLCS	HLDS SS Control Loop Controller Mode	AUTO_DEFAULT	
CLLS	HLDS Mode Loop Long Spacing	AUTO	
CLSS	HLDS Mode Loop Short Spacing	AUTO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
LATC	HLDS Activation Correction	OFF	
LLDL	HLDS LS Low Level Discriminator DAC	14000	
LLDS	HLDS SS Low Level Discriminator DAC	14000	
LLML	HLDS LS Low Level Discriminator Mode	AUTO	
LLMS	HLDS SS Low Level Discriminator Mode	AUTO	
MDEN	Matrix Density	2.6	G/C3
PHVL	HLDS Long Spacing High Voltage Setting	1000	V
PHVS	HLDS Short Spacing High Voltage Setting	1000	V
PSDL	HLDS LS Pulse Shape Compensation DAC	30000	
PSDS	HLDS SS Pulse Shape Compensation DAC	30000	
PSML	HLDS LS Pulse Shape Compensation Mode	AUTO	
PSMS	HLDS SS Pulse Shape Compensation Mode	AUTO	
HNGS−BA: Hostile Natural Gamma Ray Sonde			
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
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	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.0026414	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
SHT	Surface Hole Temperature	55	DEGF
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.964366	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.975746	
EDTC−B: Enhanced DTS Cartridge			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	HIRS	
FSAL	Formation Salinity	−50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	BARITE	
ISSBAR_EDTC	Nuclear Mud Type	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	BARI	
MWCO	Mud Weight Correction Option	YES	
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	55	DEGF

SOCN	Standoff Distance	0.5	IN
SOCO	Standoff Correction Option	NO	
TPOS_EDTC	EDTC Tool Centered/Eccentered	Eccentered	
U−ETELM_EDTS	Telemetry Mode for eWAFE	Standard_EDTS	
U−TELM_EDTS	Telemetry Mode for WAFE	Standard_EDTS	
System and Miscellaneous			
ALTDPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	38000.00	PPM
CSIZ	Current Casing Size	5.500	IN
CWEI	Casing Weight	168.00	LB/F
DFD	Drilling Fluid Density	1.26	G/C3
DO	Depth Offset for Playback	0.0	M
FLEV	Fluid Level	−50000.00	M
MST	Mud Sample Temperature	23.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	−50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	4166	FT
TDD	Total Depth − Driller	1270.30	M
TDL	Total Depth − Logger	1270.11	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: MSS_Logging Vertical Scale: 1:200 Graphics File Created: 03−Feb−2018 21:43

OP System Version: 19C0−187

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

Input DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_008LUP	FN:12	PRODUCER	02−Feb−2018 13:12	1127.0 M	830.8 M

Output DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_031PUP	FN:40	PRODUCER	03−Feb−2018 21:43

Company: International Ocean Discovery Program Well: Expedition 374, Site U1523D

Input DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_007LUP	FN:10	PRODUCER	02−Feb−2018 12:44	1131.6 M	996.8 M

Output DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_030PUP	FN:39	PRODUCER	03−Feb−2018 21:37	1131.6 M	996.8 M

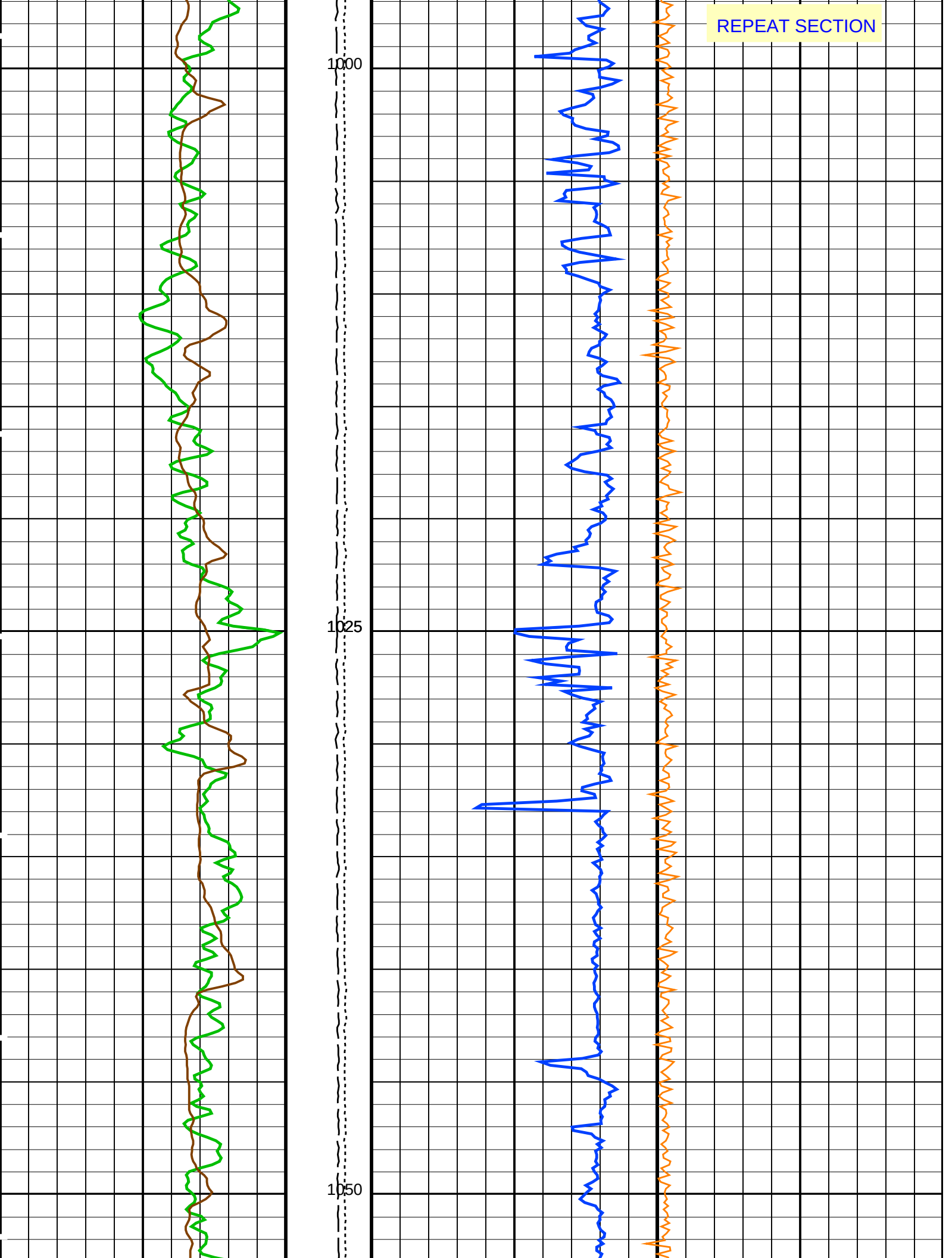
OP System Version: 19C0−187

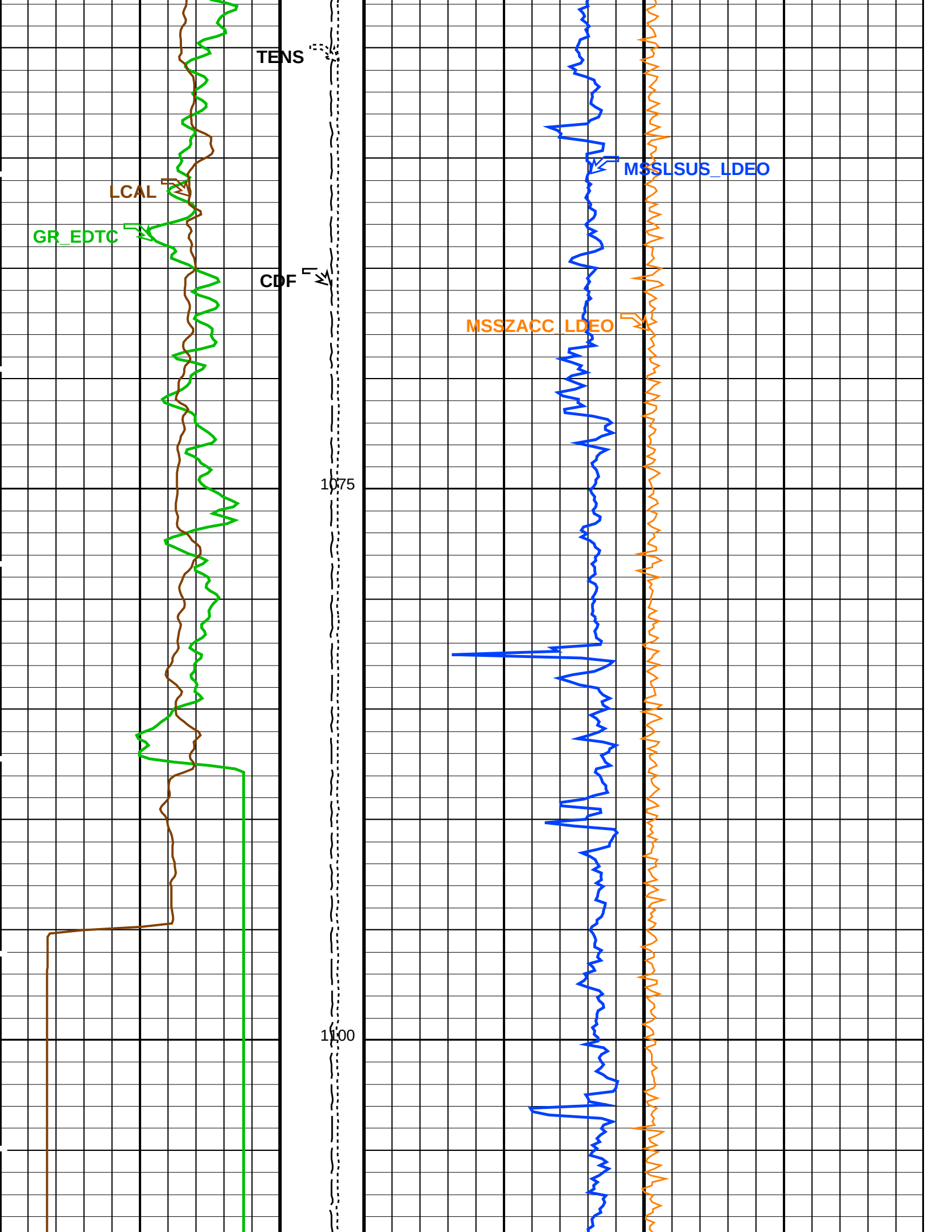
MSS_LDEO−A	19C0−187	DSST−B	19C0−187
HRLT−B	19C0−187	HLDS	19C0−187
LDSC−B	19C0−187	HNGC−B	19C0−187
HNGS−BA	19C0−187	EDTC−B	SKK−5169−EDTCB

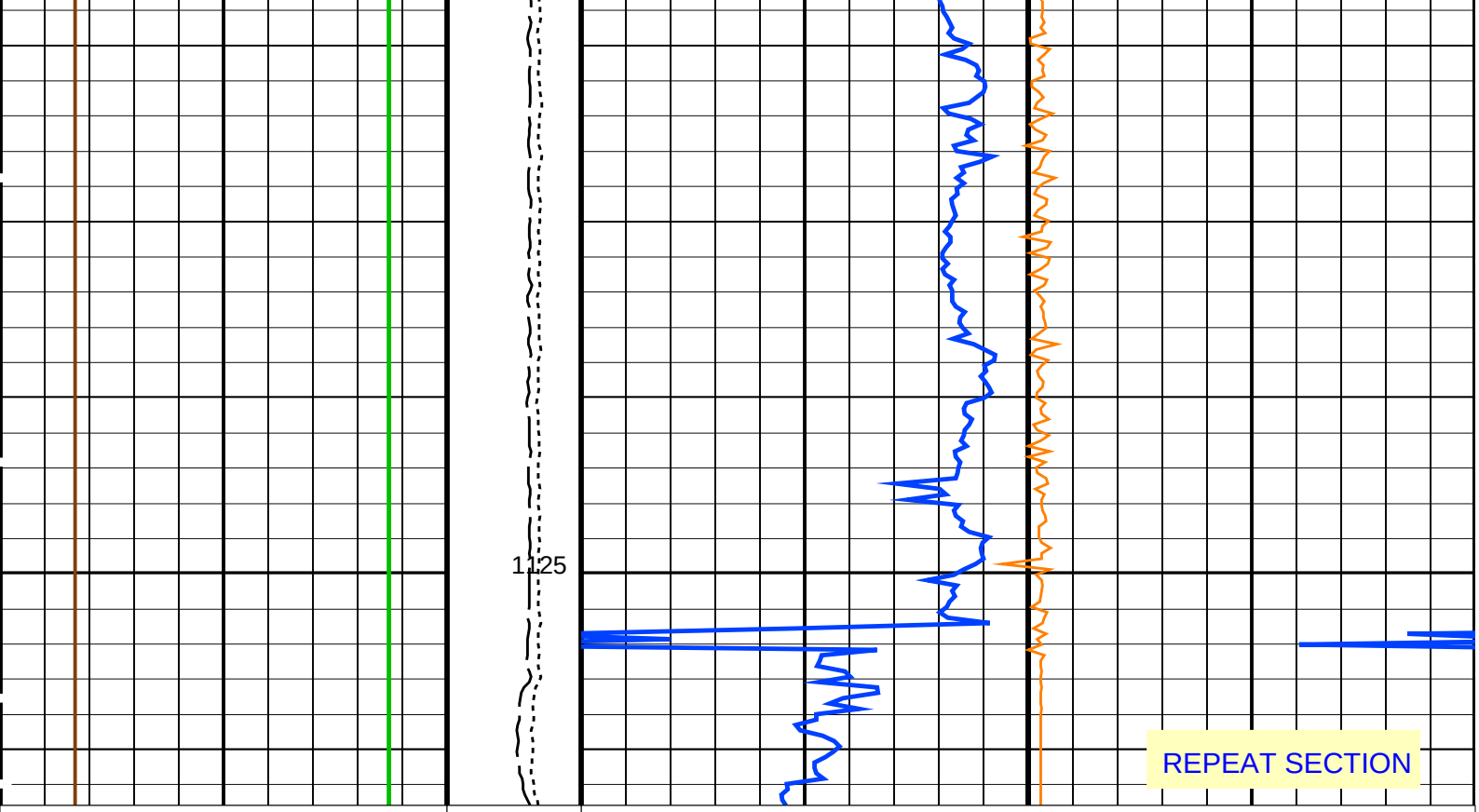
PIP SUMMARY

Time Mark Every 60 S

Gamma Ray (GR_EDTC) 0 (GAPI) 100	Calibrated Downhole Force (CDF) (LBF) 5000 0	Dual−Coil Susceptibility (MSSLSUS_LDEO) 0 (PPM) 5000
HLDS Caliper (LCAL) 0 (IN) 20	Tension (TENS) (LBF) 10000 0	Axial Acceleration (MSSZACC_LDEO) 0 (M/S2) 20


REPEAT SECTION
1000
1025
1050


TENS
LCAL
GR_EDTC
CDF
MSSLSUS_LDEO
MSSZACC_LDEO
1075
1100



HLDS Caliper (LCAL)	Tension (TENS)	Axial Acceleration (MSSZACC_LDEO)
0 (IN) 20	(LBF) 10000 0	0 (M/S2) 20

Gamma Ray (GR_EDTC)	Calibrated Downhole Force (CDF)	Dual−Coil Susceptibility (MSSLSUS_LDEO)
0 (GAPI) 100	(LBF) 5000 0	0 (PPM) 5000

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
AGC1	Automatic Gain Control 1	ON	
AGC2	Automatic Gain Control 2	ON	
AGC3	Automatic Gain Control 3	ON	
AGC4	Automatic Gain Control 4	ON	
AGC5	Automatic Gain Control 5	ON	
AGCX	Automatic Gain Control X	ON	
BARS_MTR1	Length for Monopole Transmitter to Receiver 1	2.7432	M
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
CASF	Label Casing Function − Monopole P&S	60	
CDTS	C−Delta−T Shale	100	US/F
COLL	Label Slowness Lower Limit − Monopole P&S Compressional	150	US/F
COUL	Label Slowness Upper Limit − Monopole P&S Compressional	202	US/F
DDE1	Digitizing Delay 1	0	US
DDE2	Digitizing Delay 2	0	US
DDE3	Digitizing Delay 3	0	US
DDE4	Digitizing Delay 4	0	US
DDE5	Digitizing Delay 5	0	US
DDEX	Digitizing Delay X	0	US
DLCS	Label Compressional Source − Dipole Shear	USE	
DLHS	Label Hole Diameter Source for SOBS Channel	AUTO	
DSHL	Label Slowness Lower Limit − Dipole Shear	200	US/F
DSHU	Label Slowness Upper Limit − Dipole Shear	1200	US/F
DSI1	Digitizer Sample Interval 1	40	US
DSI2	Digitizer Sample Interval 2	40	US
DSI3	Digitizer Sample Interval 3	40	US
DSI4	Digitizer Sample Interval 4	10	US

DSI5	Digitizer Sample Interval 5	10	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta−T Source for DTCO Channel	PS_COMP	
DTF	Delta−T Fluid	205	US/F
DTM	Delta−T Matrix	56	US/F
DTSS	Shear Delta−T Source for DTSM Channel	LOWER_DIPOLE	
DWC1	Digitizer Word Count 1	512	
DWC2	Digitizer Word Count 2	512	
DWC3	Digitizer Word Count 3	512	
DWC4	Digitizer Word Count 4	512	
DWC5	Digitizer Word Count 5	512	
DWCX	Digitizer Word Count X	512	
FDE1	Firing Delay 1	0	
FDE2	Firing Delay 2	0	
FDE3	Firing Delay 3	0	
FDE4	Firing Delay 4	0	
FDE5	Firing Delay 5	0	
FDEX	Firing Delay X	0	
FGM5	First Motion Gate Moveout 5	40	US/F
FGMX	First Motion Gate Moveout X	40	US/F
FILG	Label Fill Gap Control − Monopole P&S	COMP_SHEAR	
FMG5	First Motion Minimum Gate 5	500	US
FMGX	First Motion Minimum Gate X	500	US
FMLL	Slowness Lower Limit − FMD	40	US/F
FMRC	Restart Control − FMD	CONTINUE	
FMT5	First Motion Threshold 5	UP	
FMTX	First Motion Threshold X	NONE	
FMUL	Slowness Upper Limit − FMD	180	US/F
FNC5	First Motion Noise Counter Input 5	ALO	
FNCX	First Motion Noise Counter Input X	ALO	
FPM	Processing Mode − FMD	NONE	
FTD5	First Motion Threshold Direction 5	UP	
FTDX	First Motion Threshold Direction X	UP	
GAI1	Manual Gain 1	10	
GAI2	Manual Gain 2	10	
GAI3	Manual Gain 3	6	
GAI4	Manual Gain 4	16	
GAI5	Manual Gain 5	16	
GAIX	Manual Gain X	10	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GDT1	Gain Delta−T 1	800	US/F
GDT2	Gain Delta−T 2	800	US/F
GDT3	Gain Delta−T 3	800	US/F
GDT4	Gain Delta−T 4	160	US/F
GDT5	Gain Delta−T 5	160	US/F
GDTX	Gain Delta−T X	800	US/F
GGRD	Geothermal Gradient	0.01	DF/F
GIN1	Gain Interval 1	15360	US
GIN2	Gain Interval 2	15360	US
GIN3	Gain Interval 3	15360	US
GIN4	Gain Interval 4	2560	US
GIN5	Gain Interval 5	1600	US
GINX	Gain Interval X	15360	US
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HPF1	High Pass Filter 1	F80	
HPF2	High Pass Filter 2	F80	
HPF3	High Pass Filter 3	F80	
HPF4	High Pass Filter 4	F8K	
HPF5	High Pass Filter 5	F8K	
HPFX	High Pass Filter X	F80	
ISSBAR	Barite Mud Switch	BARITE	
ITTS	Integrated Transit Time Source	DTCO	
LFC	Label Formation Character − Monopole P&S	DYNAMIC	
LPF1	Low Pass Filter 1	F5K	
LPF2	Low Pass Filter 2	F5K	
LPF3	Low Pass Filter 3	F5K	
LPF4	Low Pass Filter 4	F30K	
LPF5	Low Pass Filter 5	F30K	
LPFX	Low Pass Filter X	F5K	
LTXG	Lower Dipole Transmitter Geometry	156	IN
MAI5	Slowness Averaging Interval − FMD	42	IN
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCS	Mean Casing Slowness	57	US/F
MDS5	Multishot Delta−T Scatter − FMD	20	US
MTXG	Monopole Transmitter Geometry	186	IN
MUX1	Sum Difference Multiplexor Input 1	RR	
MUX2	Sum Difference Multiplexor Input 2	RR	
MUX3	Sum Difference Multiplexor Input 3	RR	
MUX4	Sum Difference Multiplexor Input 4	RR	
MUX5	Sum Difference Multiplexor Input 5	RR	
MUXX	Sum Difference Multiplexor Input X	RR	
NTI5	Number Threshold Items 5	0	
NTIX	Number Threshold Items X	0	

NTIX	Number Threshold Items X	0	
NWI1	Number Waveform Items 1	8	
NWI2	Number Waveform Items 2	8	
NWI3	Number Waveform Items 3	0	
NWI4	Number Waveform Items 4	8	
NWI5	Number Waveform Items 5	0	
NWIX	Number Waveform Items X	0	
NWS1	Number Waveforms Stacked 1	1	
NWS2	Number Waveforms Stacked 2	1	
NWS3	Number Waveforms Stacked 3	1	
NWS4	Number Waveforms Stacked 4	1	
NWS5	Number Waveforms Stacked 5	1	
NWSX	Number Waveforms Stacked X	1	
RATE	Firing Rate	R7	
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
SAM1	DSST Sonic Acquisition Mode 1 − Lower Dipole Mode	LFD_EVEN	
SAM2	DSST Sonic Acquisition Mode 2 − Upper Dipole Mode	ODD	
SAM3	DSST Sonic Acquisition Mode 3 − Monopole Mode for Stoneley	OFF	
SAM4	DSST Sonic Acquisition Mode 4 − Monopole Mode for P&S	EVEN	
SAM5	DSST Sonic Acquisition Mode 5 − Monopole Mode for FMD	OFF	
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	
SAS3	STC Sonic Array Status − Monopole Stoneley	255	
SAS4	STC Sonic Array Status − Monopole P&S	255	
SAS5	Sonic Array Status − FMD	255	
SBO1	STC Search Band Offset − Lower Dipole	3000	US
SBO2	STC Search Band Offset − Upper Dipole	3000	US
SBO3	STC Search Band Offset − Monopole Stoneley	3000	US
SBO4	STC Search Band Offset − Monopole P&S	500	US
SBR4	STC Baseline Removal − Monopole P&S	ON	
SBW1	STC Search Bandwidth − Lower Dipole	8000	US
SBW2	STC Search Bandwidth − Upper Dipole	8000	US
SBW3	STC Search Bandwidth − Monopole Stoneley	8000	US
SBW4	STC Search Bandwidth − Monopole P&S	2000	US
SFC1	STC Formation Character − Lower Dipole	SELECTABLE	
SFC2	STC Formation Character − Upper Dipole	SELECTABLE	
SFC3	STC Formation Character − Monopole Stoneley	SELECTABLE	
SFC4	STC Formation Character − Monopole P&S	SELECTABLE	
SFM1	STC Filter − Lower Dipole	B.3−1.5K	
SFM2	STC Filter − Upper Dipole	B1−2K	
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	239	US/F
SHT	Surface Hole Temperature	55	DEGF
SHUL	Label Slowness Upper Limit − Monopole P&S Shear	240	US/F
SLL1	STC Slowness Lower Limit − Lower Dipole	40	US/F
SLL2	STC Slowness Lower Limit − Upper Dipole	40	US/F
SLL3	STC Slowness Lower Limit − Monopole Stoneley	180	US/F
SLL4	STC Slowness Lower Limit − Monopole P&S	40	US/F
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DTCO	
SST1	STC Slowness Step − Lower Dipole	4	US/F
SST2	STC Slowness Step − Upper Dipole	4	US/F
SST3	STC Slowness Step − Monopole Stoneley	4	US/F
SST4	STC Slowness Step − Monopole P&S	2	US/F
SSW1	STC Source Waveform − Lower Dipole	WF_SAM1	
SSW2	STC Source Waveform − Upper Dipole	WF_SAM2	
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
SUL1	STC Slowness Upper Limit − Lower Dipole	1200	US/F
SUL2	STC Slowness Upper Limit − Upper Dipole	1200	US/F
SUL3	STC Slowness Upper Limit − Monopole Stoneley	780	US/F
SUL4	STC Slowness Upper Limit − Monopole P&S	240	US/F
SWD1	STC Slowness Width − Lower Dipole	40	US/F
SWD2	STC Slowness Width − Upper Dipole	40	US/F
SWD3	STC Slowness Width − Monopole Stoneley	40	US/F
SWD4	STC Slowness Width − Monopole P&S	10	US/F
TBDB	Tool String Bottom to DSST Bottom	249.908	IN
TBF1	STC Time for Baseline Fill − Lower Dipole	0	US
TBF2	STC Time for Baseline Fill − Upper Dipole	0	US
TBF3	STC Time for Baseline Fill − Monopole Stoneley	0	US
TBF4	STC Time for Baseline Fill − Monopole P&S	300	US

TLL1	STC Time Lower Limit − Lower Dipole	600	US
TLL2	STC Time Lower Limit − Upper Dipole	600	US
TLL3	STC Time Lower Limit − Monopole Stoneley	600	US
TLL4	STC Time Lower Limit − Monopole P&S	150	US
TST1	STC Time Step − Lower Dipole	200	US
TST2	STC Time Step − Upper Dipole	200	US
TST3	STC Time Step − Monopole Stoneley	200	US
TST4	STC Time Step − Monopole P&S	50	US
TTDB	Tool String Top to DSST Bottom	1656.11	IN
TUL1	STC Time Upper Limit − Lower Dipole	20440	US
TUL2	STC Time Upper Limit − Upper Dipole	20200	US
TUL3	STC Time Upper Limit − Monopole Stoneley	12000	US
TUL4	STC Time Upper Limit − Monopole P&S	3660	US
TWA1	Transmitter Waveform Amplitude 1	179	
TWA2	Transmitter Waveform Amplitude 2	179	
TWA3	Transmitter Waveform Amplitude 3	166	
TWA4	Transmitter Waveform Amplitude 4	150	
TWA5	Transmitter Waveform Amplitude 5	150	
TWAX	Transmitter Waveform Amplitude X	179	
TWD1	STC Time Width − Lower Dipole	2000	US
TWD2	STC Time Width − Upper Dipole	2000	US
TWD3	STC Time Width − Monopole Stoneley	2000	US
TWD4	STC Time Width − Monopole P&S	1000	US
TWI1	STC Integration Time Window − Lower Dipole	1600	US
TWI2	STC Integration Time Window − Upper Dipole	1600	US
TWI3	STC Integration Time Window − Monopole Stoneley	2400	US
TWI4	STC Integration Time Window − Monopole P&S	500	US
TWR1	Transmitter Waveform Sample Rate 1	20	US
TWR2	Transmitter Waveform Sample Rate 2	5	US
TWR3	Transmitter Waveform Sample Rate 3	5	US
TWR4	Transmitter Waveform Sample Rate 4	5	US
TWR5	Transmitter Waveform Sample Rate 5	5	US
TWRX	Transmitter Waveform Sample Rate X	5	US
TWS1	Transmitter Waveform Select 1	2	
TWS2	Transmitter Waveform Select 2	0	
TWS3	Transmitter Waveform Select 3	4	
TWS4	Transmitter Waveform Select 4	6	
TWS5	Transmitter Waveform Select 5	6	
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFDTSP1	SAM1 Waveform Delta for Spectrum	0	US/F
WFDTSP2	SAM2 Waveform Delta for Spectrum	0	US/F
WFDTSP3	SAM3 Waveform Delta for Spectrum	0	US/F
WFDTSP4	SAM4 Waveform Delta for Spectrum	0	US/F
WFDTSPX	SAMX Waveform Delta for Spectrum	0	US/F
WFLLSP1	SAM1 Waveform Lower Limit for Spectrum	0	US
WFLLSP2	SAM2 Waveform Lower Limit for Spectrum	0	US
WFLLSP3	SAM3 Waveform Lower Limit for Spectrum	0	US
WFLLSP4	SAM4 Waveform Lower Limit for Spectrum	0	US
WFLLSPX	SAMX Waveform Lower Limit for Spectrum	0	US
WFM1	Waveform Mode 1	W1	
WFM2	Waveform Mode 2	W1	
WFM3	Waveform Mode 3	W1	
WFM4	Waveform Mode 4	W1	
WFM5	Waveform Mode 5	W1	
WFMX	Waveform Mode X	W1	
WFULSP1	SAM1 Waveform Upper Limit for Spectrum	20000	US
WFULSP2	SAM2 Waveform Upper Limit for Spectrum	20000	US
WFULSP3	SAM3 Waveform Upper Limit for Spectrum	20000	US
WFULSP4	SAM4 Waveform Upper Limit for Spectrum	5000	US
WFULSPX	SAMX Waveform Upper Limit for Spectrum	20000	US
XMT1	Transmitter Select 1	DLO	
XMT2	Transmitter Select 2	DUP	
XMT3	Transmitter Select 3	MONO	
XMT4	Transmitter Select 4	MONO	
XMT5	Transmitter Select 5	MONO	
XMTX	Transmitter Select X	DUP	
HRLT−B: High Resolution Laterolog Array − B			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE	
CALTEMP	HRLTB Calibration Temperature	−0.0505813	DEGC
FREQ0	HRLT Frequency Index for Mode 0	32	
FREQ1	HRLT Frequency Index for Mode 1	128	
FREQ2	HRLT Frequency Index for Mode 2	104	
FREQ3	HRLT Frequency Index for Mode 3	86	
FREQ4	HRLT Frequency Index for Mode 4	56	
FREQ5	HRLT Frequency Index for Mode 5	44	
FREQ6	HRLT Frequency Index for Mode 6	116	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	BARITE	

KFAC_HRLT	HRLT K Factor Option	SONDE	
LOOPCOEF_S	HRLT Loop Coefficient for Shallow Modes	LOW	
LOOPMOD0	HRLT Mode 0 Loop Mode	AUTO	
LOOPMOD1	HRLT Mode 1 Loop Mode	AUTO	
LOOPMOD2	HRLT Mode 2 Loop Mode	AUTO	
LOOPMOD3	HRLT Mode 3 Loop Mode	AUTO	
LOOPMOD4	HRLT Mode 4 Loop Mode	AUTO	
LOOPMOD5	HRLT Mode 5 Loop Mode	AUTO	
LOOPMOD6	HRLT Mode 6 Loop Mode	AUTO	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PROCINV	Inversion Selection	ON	
PROCMFL	Inversion Micro−Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	0	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSPO	Sonde Position	Centered	
SHT	Surface Hole Temperature	55	DEGF
HLDS: Hostile Litho−Density Sonde			
CLCL	HLDS LS Control Loop Controller Mode	AUTO_DEFAULT	
CLCS	HLDS SS Control Loop Controller Mode	AUTO_DEFAULT	
CLLS	HLDS Mode Loop Long Spacing	AUTO	
CLSS	HLDS Mode Loop Short Spacing	AUTO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
LATC	HLDS Activation Correction	OFF	
LLDL	HLDS LS Low Level Discriminator DAC	14000	
LLDS	HLDS SS Low Level Discriminator DAC	14000	
LLML	HLDS LS Low Level Discriminator Mode	AUTO	
LLMS	HLDS SS Low Level Discriminator Mode	AUTO	
MDEN	Matrix Density	2.6	G/C3
PHVL	HLDS Long Spacing High Voltage Setting	1000	V
PHVS	HLDS Short Spacing High Voltage Setting	1000	V
PSDL	HLDS LS Pulse Shape Compensation DAC	30000	
PSDS	HLDS SS Pulse Shape Compensation DAC	30000	
PSML	HLDS LS Pulse Shape Compensation Mode	AUTO	
PSMS	HLDS SS Pulse Shape Compensation Mode	AUTO	
HNGS−BA: Hostile Natural Gamma Ray Sonde			
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
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	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00303098	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
SHT	Surface Hole Temperature	55	DEGF
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.951557	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.970175	
EDTC−B: Enhanced DTS Cartridge			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	HIRS	
FSAL	Formation Salinity	−50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	BARITE	

ISSBAR_EDTC	Nuclear Mud Type	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	BARI	
MWCO	Mud Weight Correction Option	YES	
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	55	DEGF
SOCN	Standoff Distance	0.5	IN
SOCO	Standoff Correction Option	NO	
TPOS_EDTC	EDTC Tool Centered/Eccentered	Eccentered	
U−ETELM_EDTS	Telemetry Mode for eWAFE	Standard_EDTS	
U−TELM_EDTS	Telemetry Mode for WAFE	Standard_EDTS	
System and Miscellaneous			
ALTDPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	38000.00	PPM
CSIZ	Current Casing Size	5.500	IN
CWEI	Casing Weight	168.00	LB/F
DFD	Drilling Fluid Density	1.26	G/C3
DO	Depth Offset for Playback	0.0	M
FLEV	Fluid Level	−50000.00	M
MST	Mud Sample Temperature	23.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	−50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	4166	FT
TDD	Total Depth − Driller	1270.30	M
TDL	Total Depth − Logger	1270.11	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: MSS_Logging Vertical Scale: 1:200 Graphics File Created: 03−Feb−2018 21:37

OP System Version: 19C0−187

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

Input DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_007LUP	FN:10	PRODUCER	02−Feb−2018 12:44	1131.6 M	996.8 M

Output DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_030PUP	FN:39	PRODUCER	03−Feb−2018 21:37		

Input DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_008LUP	FN:12	PRODUCER	02−Feb−2018 13:12	1127.0 M	830.8 M

Output DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_031PUP	FN:40	PRODUCER	03−Feb−2018 21:43	1127.0 M	830.9 M

OP System Version: 19C0−187

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

PIP SUMMARY

Time Mark Every 60 S

HNGS Spectroscopy Gamma Ray (HSGR)

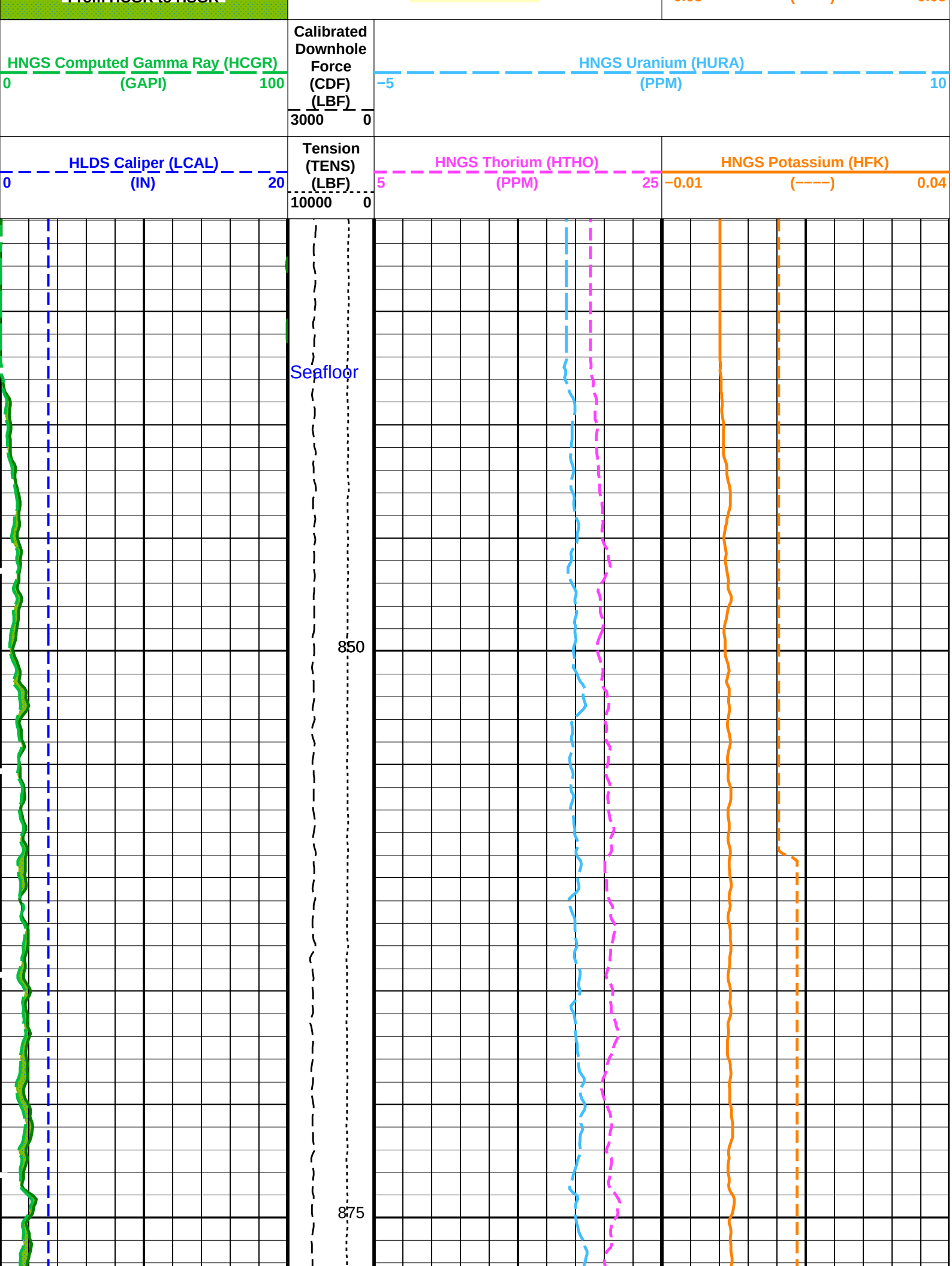
0 (GAPI) 100

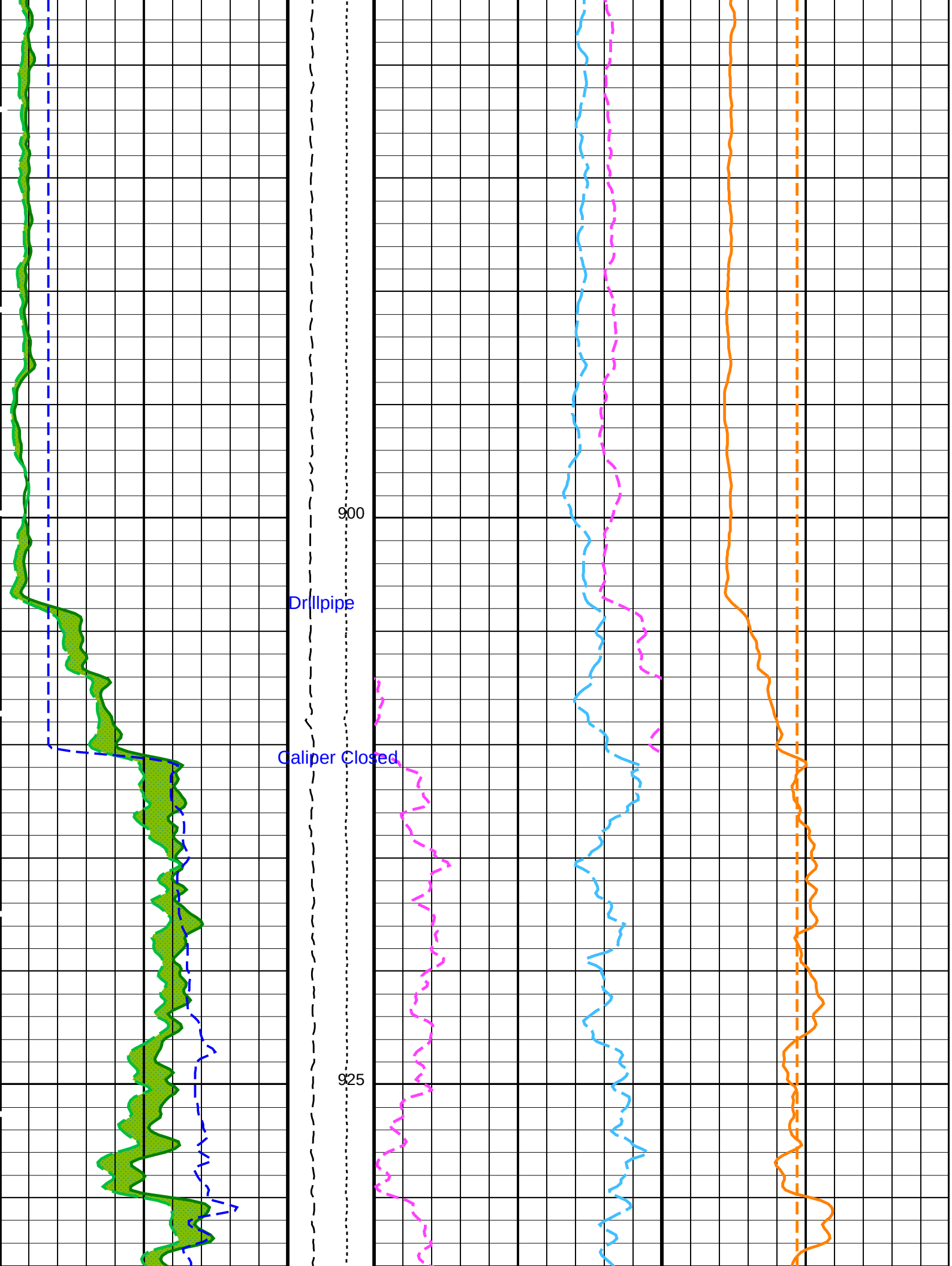
Area1
From HCGR to HSGR

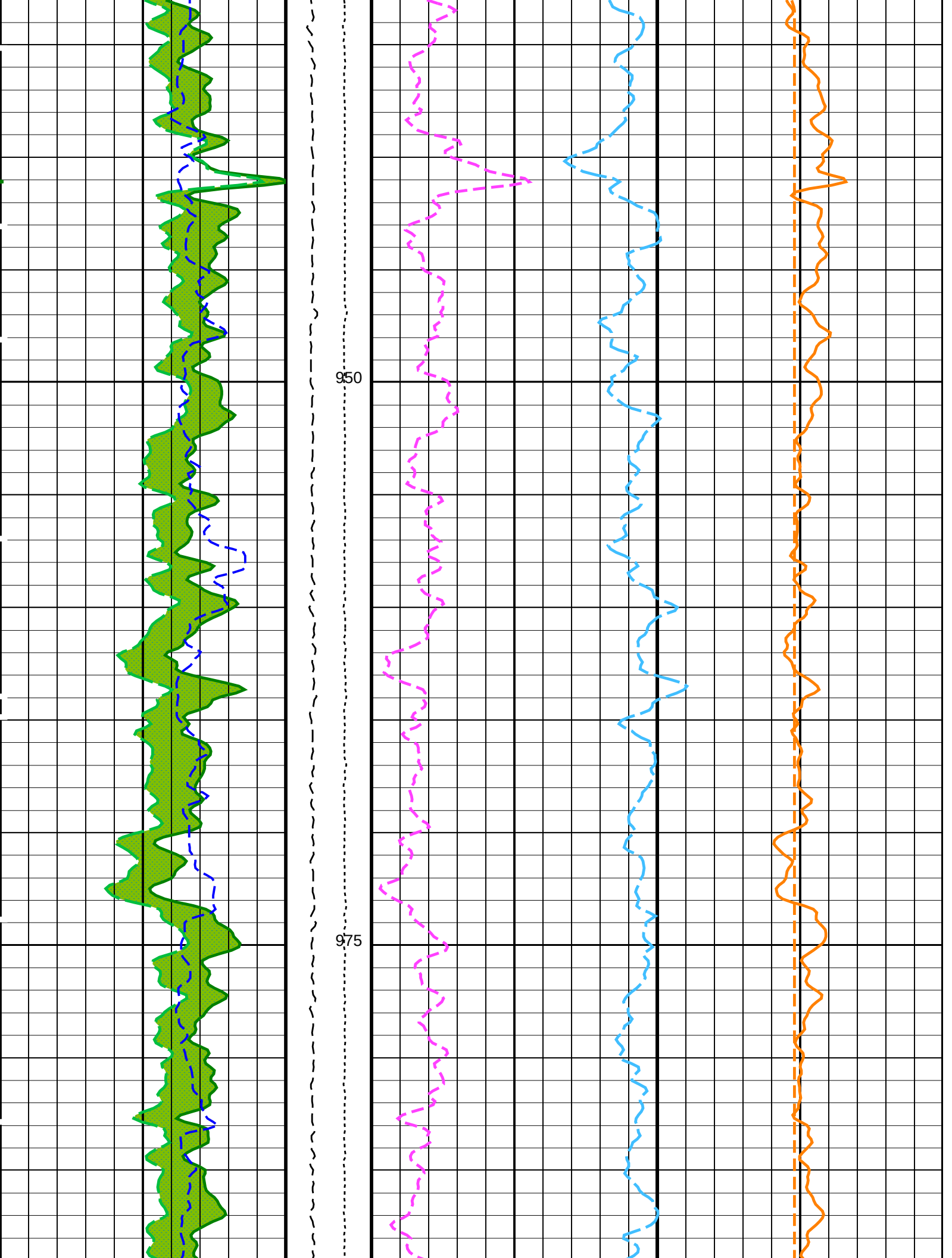
Main Uplog 2

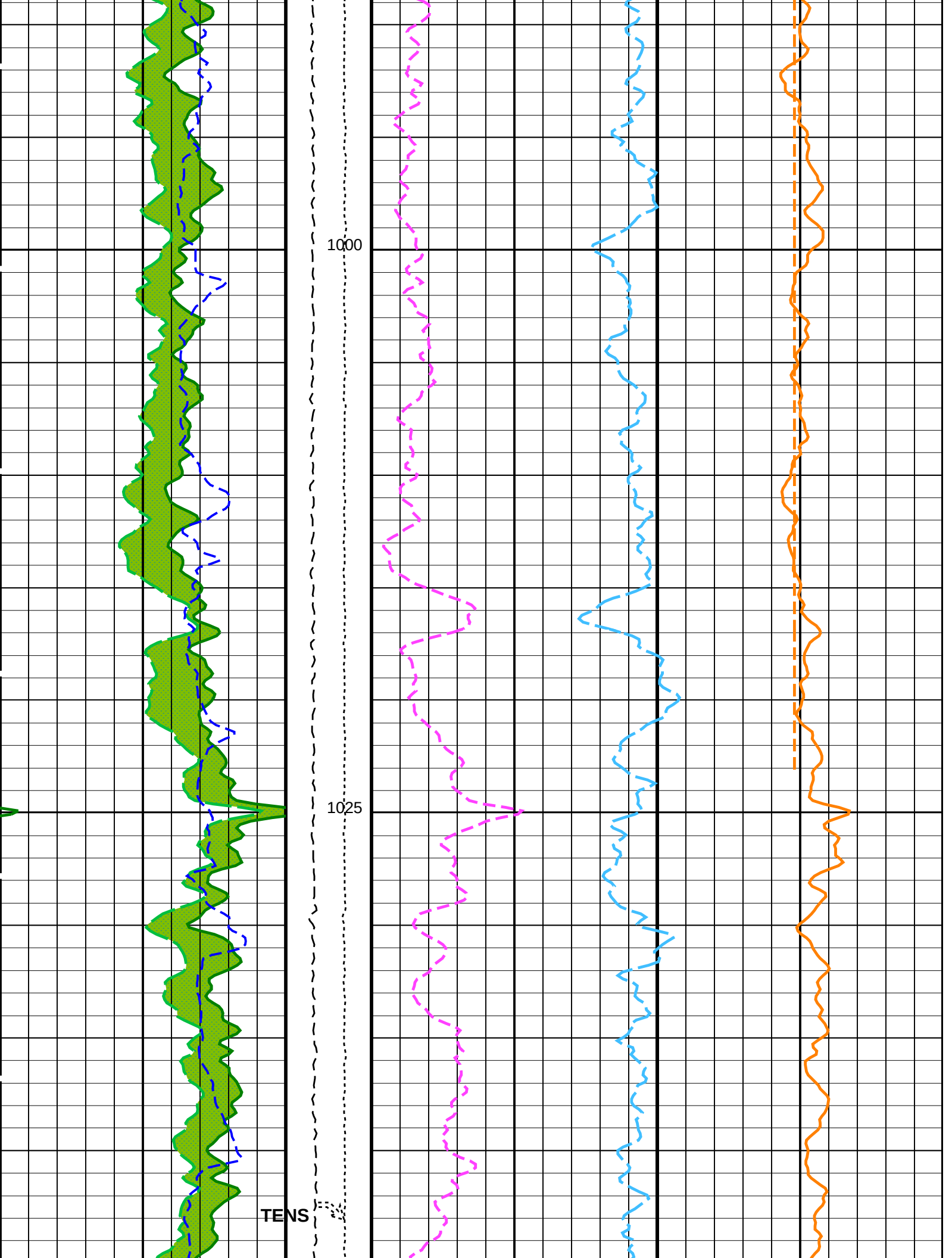
HNGS Borehole Potassium (HBHK)

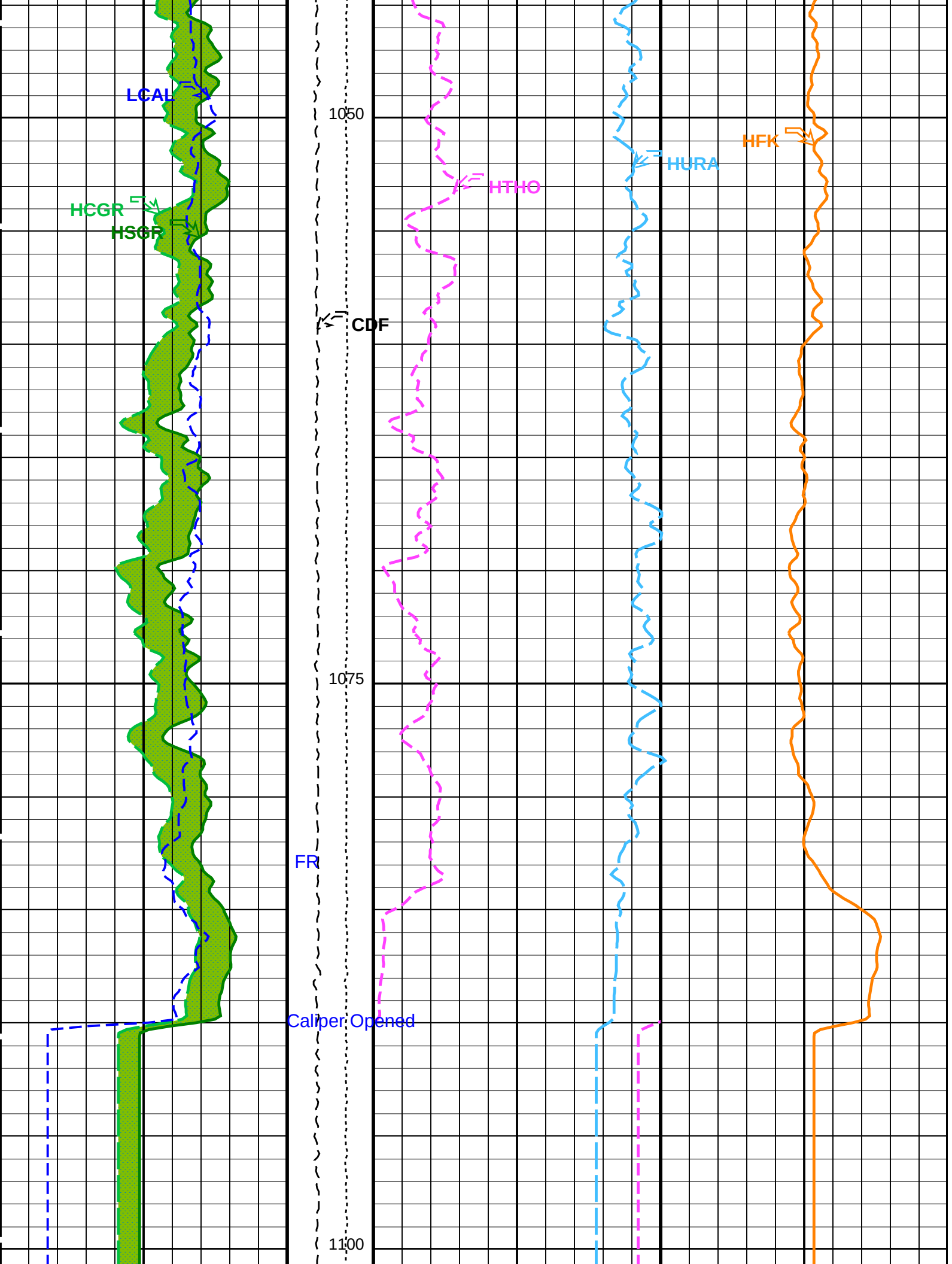
−0.05 (−−−−) 0.05

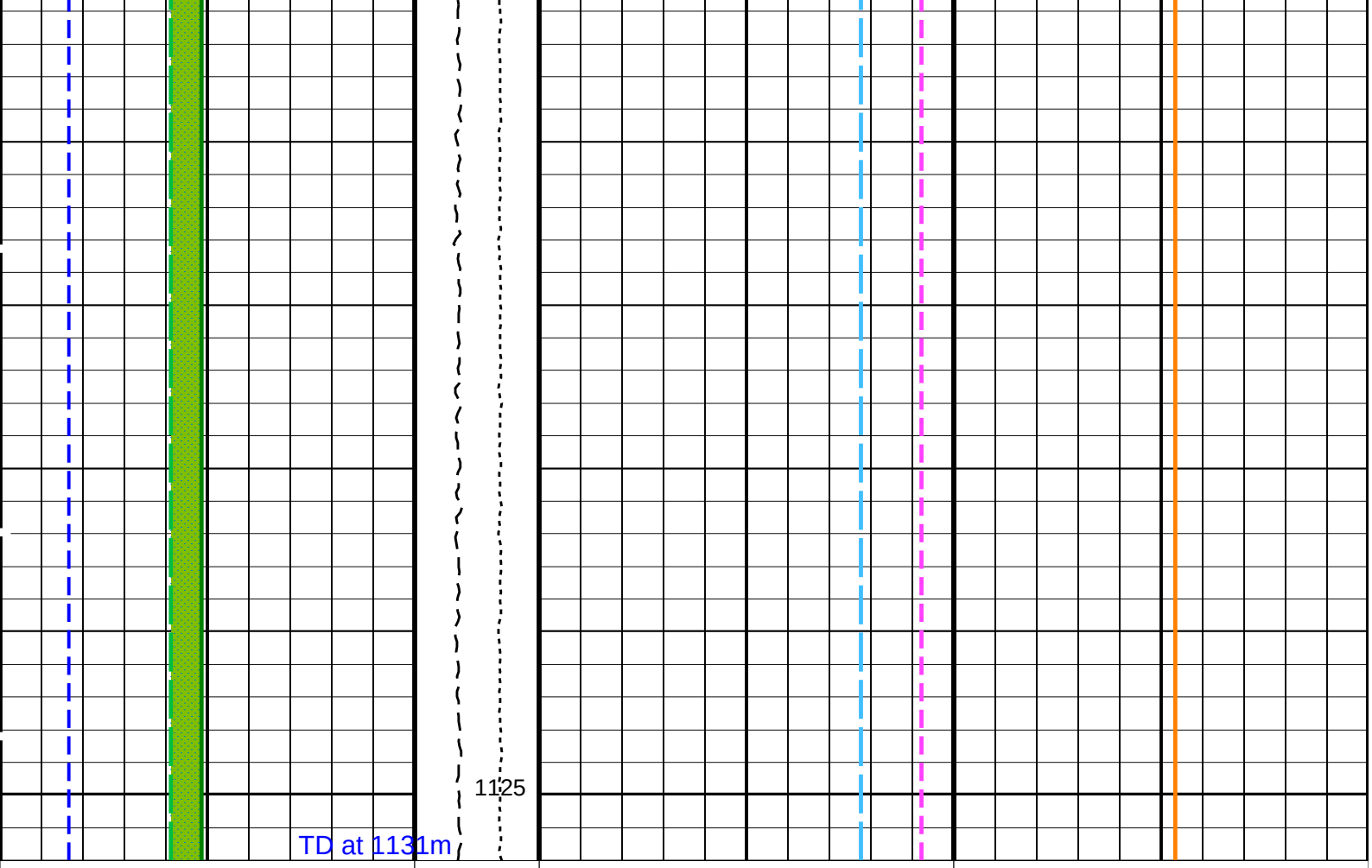

HNGS Computed Gamma Ray (HCGR)
0
(GAPI)
100
Calibrated Downhole Force (CDF) (LBF)
3000
0
HNGS Uranium (HURA)
−5
(PPM)
10
HLDS Caliper (LCAL)
0
(IN)
20
Tension (TENS) (LBF)
10000
0
HNGS Thorium (HTHO)
5
(PPM)
25
HNGS Potassium (HFK)
−0.01
(−−−−)
0.04
Seafloor
850
875


900
Drillpipe
Caliper Closed
925


950
975


1000
1025
TENS


LCAL
HCGR
HSGR
CDF
HTHO
HURA
HFK
1050
1075
1100
FR
Caliper Opened



HLDS Caliper (LCAL)
0 (IN) 20

Tension (TENS) (LBF)
10000 0

HNGS Thorium (HTHO)
5 (PPM) 25

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

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

Calibrated Downhole Force (CDF) (LBF)
3000 0

HNGS Uranium (HURA)
−5 (PPM) 10

Area1
From HCGR to HSGR

Main Uplog 2

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

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

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	HNGS−BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	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	LCAL	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.0026414	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.964366	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.975746	
EDTC−B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.26	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: HNGSYields Vertical Scale: 1:200 Graphics File Created: 03−Feb−2018 21:43

OP System Version: 19C0−187

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

Input DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_008LUP	FN:12	PRODUCER	02−Feb−2018 13:12	1127.0 M	830.8 M

Output DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_031PUP	FN:40	PRODUCER	03−Feb−2018 21:43		

Input DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_007LUP	FN:10	PRODUCER	02−Feb−2018 12:44	1131.6 M	996.8 M

Output DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_030PUP	FN:39	PRODUCER	03−Feb−2018 21:37	1131.6 M	996.8 M

OP System Version: 19C0−187

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

PIP SUMMARY

Time Mark Every 60 S

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

Area1
From HCGR to HSGR

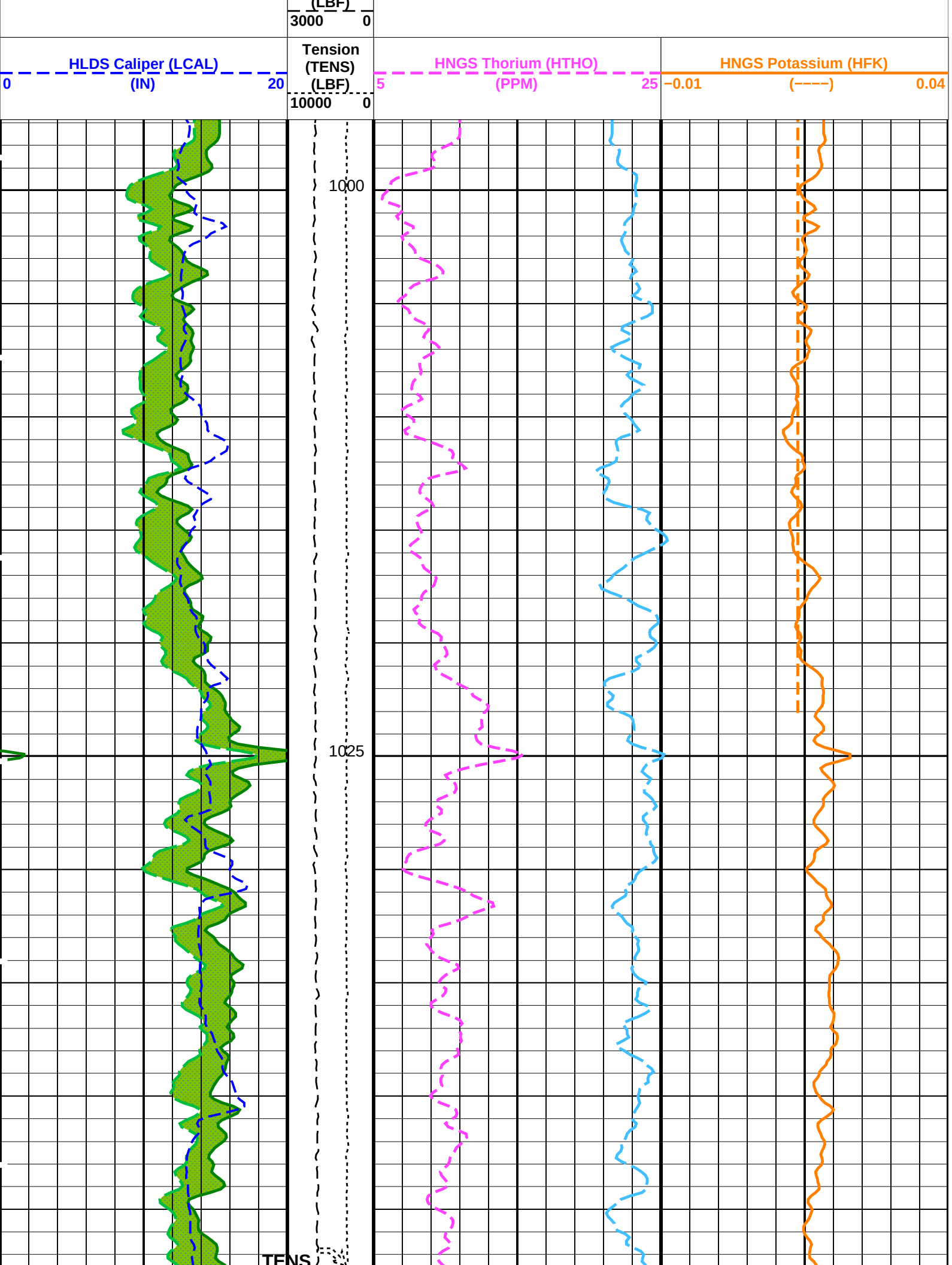
REPEAT SECTION

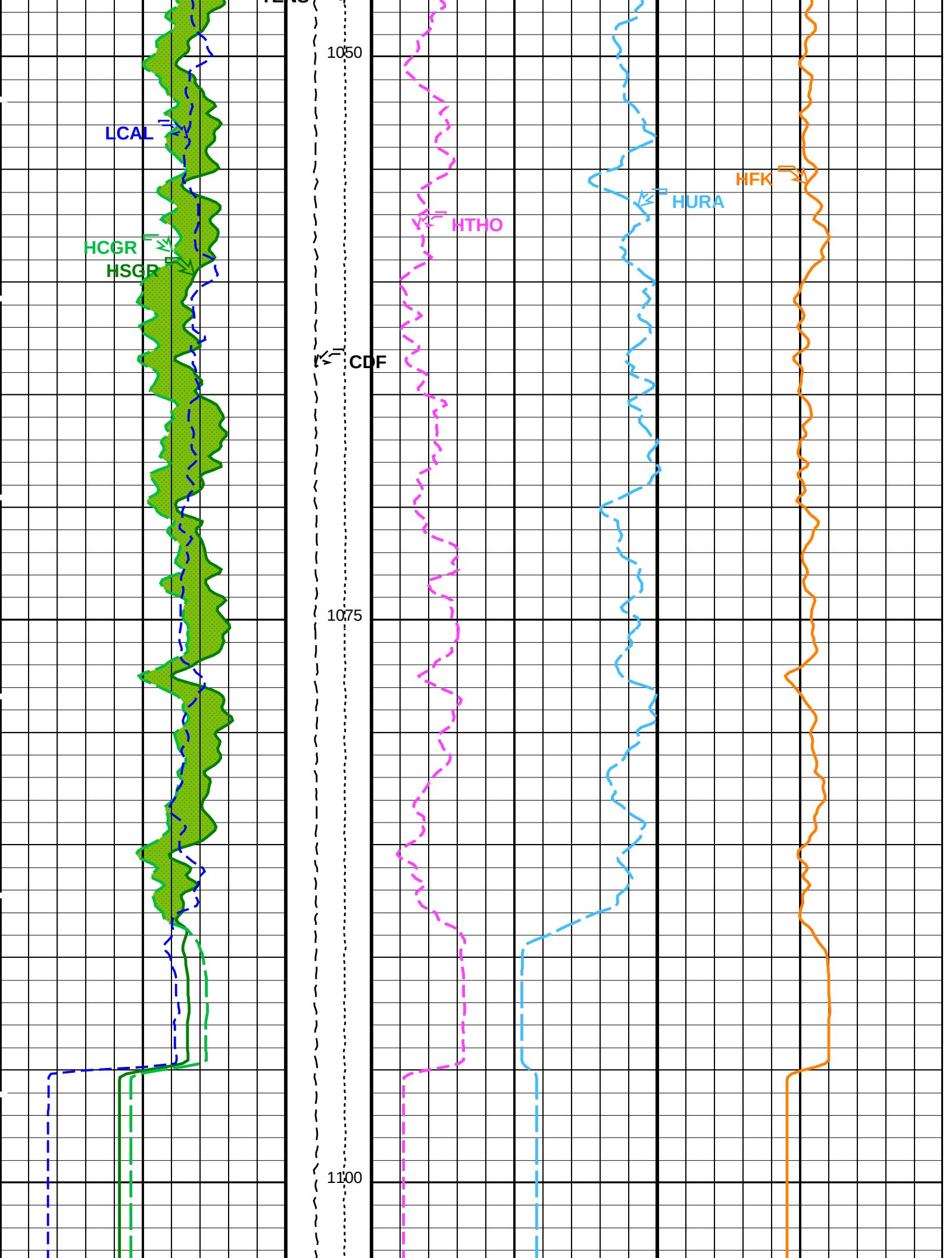
HNGS Borehole Potassium (HBHK)
−0.05 (−−−−) 0.05

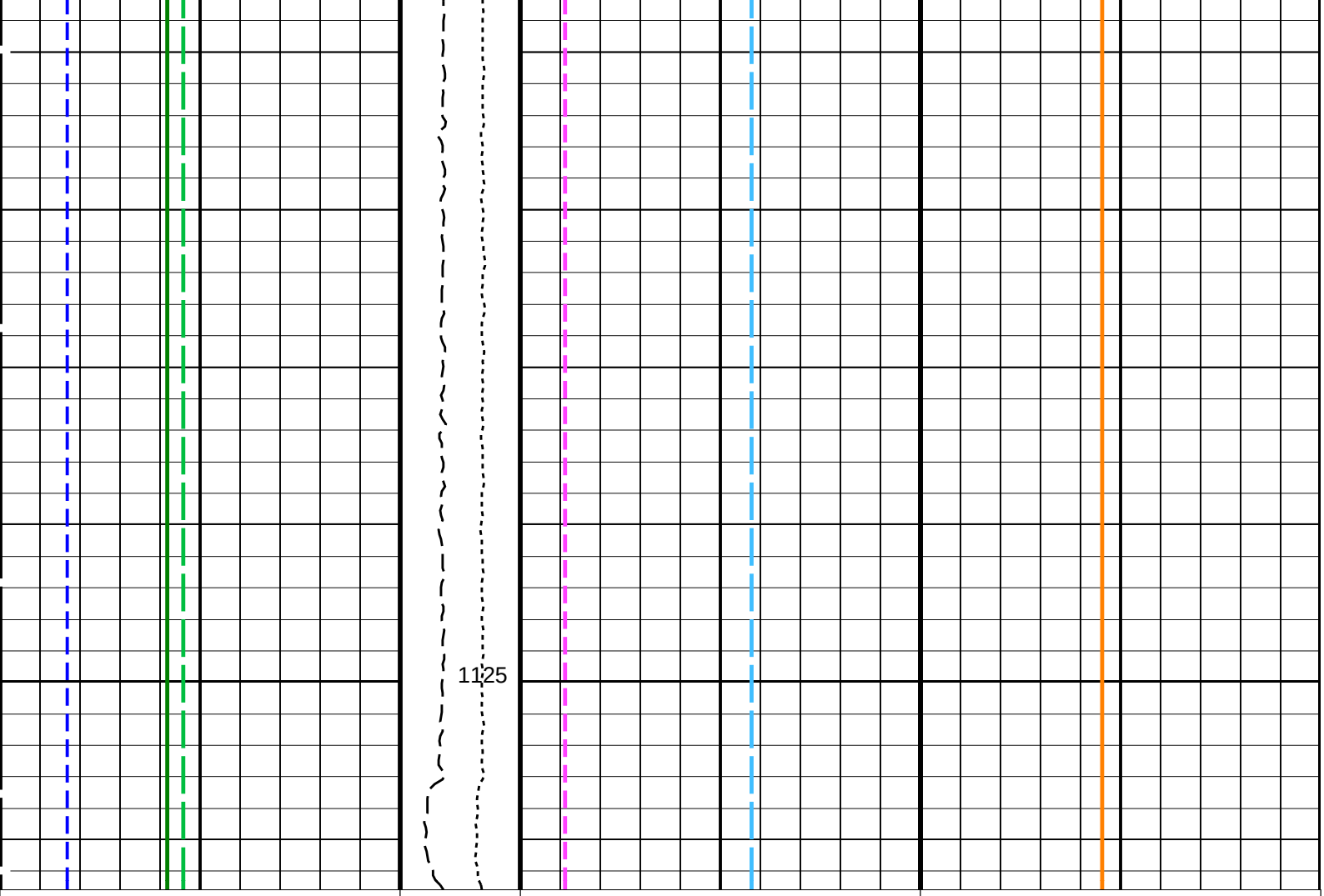
HNGS Computed Gamma Ray (HCGR)
0 (GAPI) 100

Calibrated Downhole Force (CDF)

HNGS Uranium (HURA)
−5 (PPM) 10


(LBF)
3000
0
HLDS Caliper (LCAL)
0
(IN)
20
Tension
(TENS)
(LBF)
10000
0
HNGS Thorium (HTHO)
5
(PPM)
25
HNGS Potassium (HFK)
−0.01
(−−−−)
0.04
1000
1025
TENS


1050
LCAL
HCGR
HSGR
CDF
HTHO
HURA
HFK
1075
1100



HLDS Caliper (LCAL)
0 (IN) 20

Tension (TENS) (LBF)
10000 0

HNGS Thorium (HTHO)
5 (PPM) 25

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

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

Calibrated Downhole Force (CDF) (LBF)
3000 0

HNGS Uranium (HURA)
−5 (PPM) 10

Area1
From HCGR to HSGR

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

REPEAT SECTION

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

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
	DSST−B: Dipole Shear Imager − B	
BHS	Borehole Status	OPEN
GCSE	Generalized Caliper Selection	LCAL
	HRLT−B: High Resolution Laterolog Array − B	
BHS	Borehole Status	OPEN
GCSE	Generalized Caliper Selection	LCAL
	HNGS−BA: Hostile Natural Gamma Ray Sonde	
BAR1	HNGS Detector 1 Barite Constant	1
BAR2	HNGS Detector 2 Barite Constant	1
BHK	HNGS Borehole Potassium Correction Concentration	0
BHS	Borehole Status	OPEN

CSD1	Inner Casing Outer Diameter	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	LCAL	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00303098	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.951557	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.970175	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.26	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: HNGSYields Vertical Scale: 1:200 Graphics File Created: 03−Feb−2018 21:37

OP System Version: 19C0−187

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

Input DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_007LUP	FN:10	PRODUCER	02−Feb−2018 12:44	1131.6 M	996.8 M

Output DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_030PUP	FN:39	PRODUCER	03−Feb−2018 21:37		

Company: International Ocean Discovery Program Well: Expedition 374, Site U1523D

Input DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_008LUP	FN:12	PRODUCER	02−Feb−2018 13:12	1127.0 M	830.8 M

Output DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_031PUP	FN:40	PRODUCER	03−Feb−2018 21:43	1127.0 M	830.9 M

OP System Version: 19C0−187

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

PIP SUMMARY

Time Mark Every 60 S

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

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

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

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

Main Uplog 2

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

Calibrated Downhole Force (CDF) (LBF)
5000 0

Min Amplitude Max
Tr.Array U.Dipole Slow Proj. CVDL (SPT2)
40 (US/F) 1200

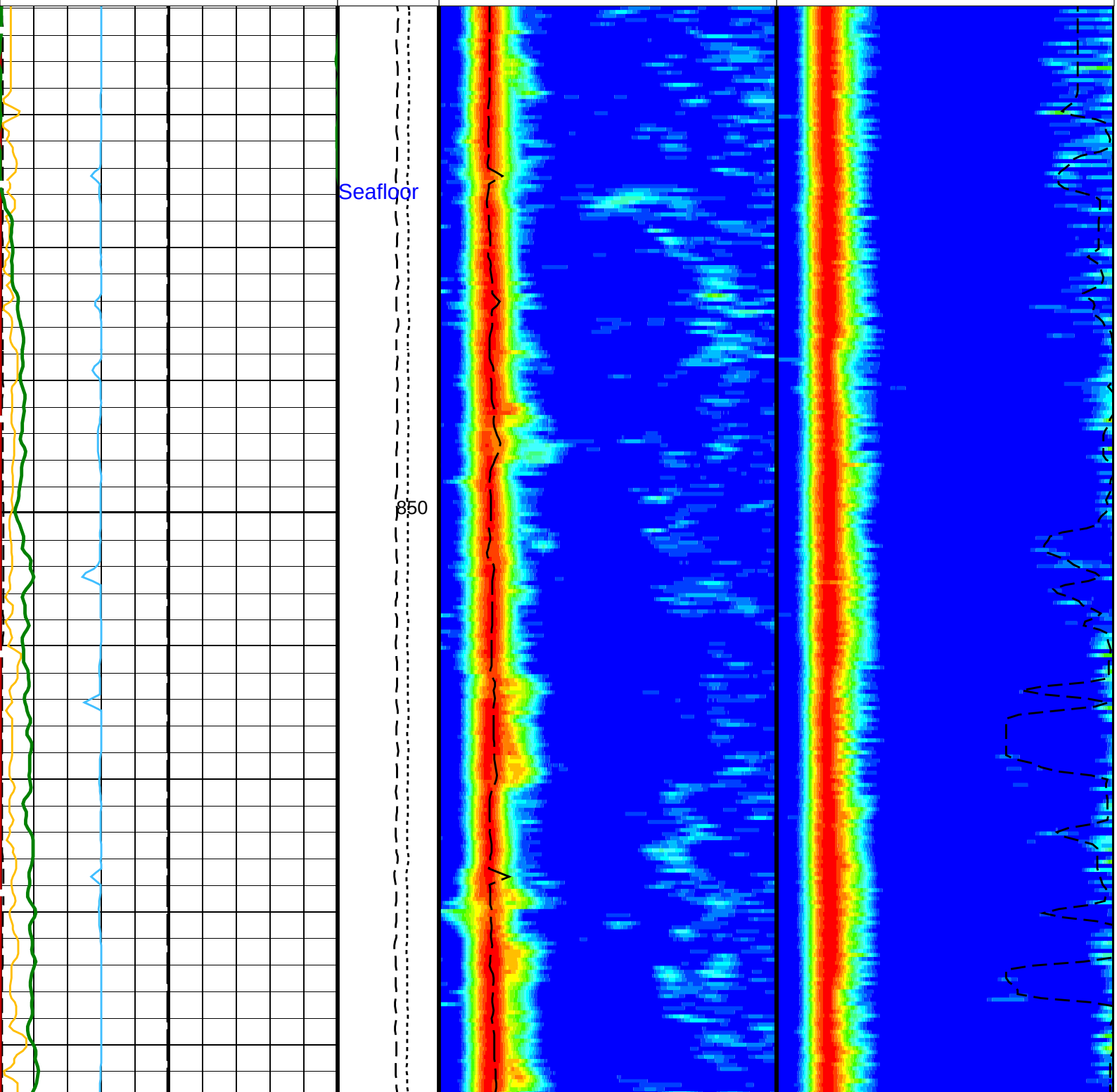
Min Amplitude Max
Rec.Array U.Dipole Slow Proj. CVDL (SPR2)
40 (US/F) 1200

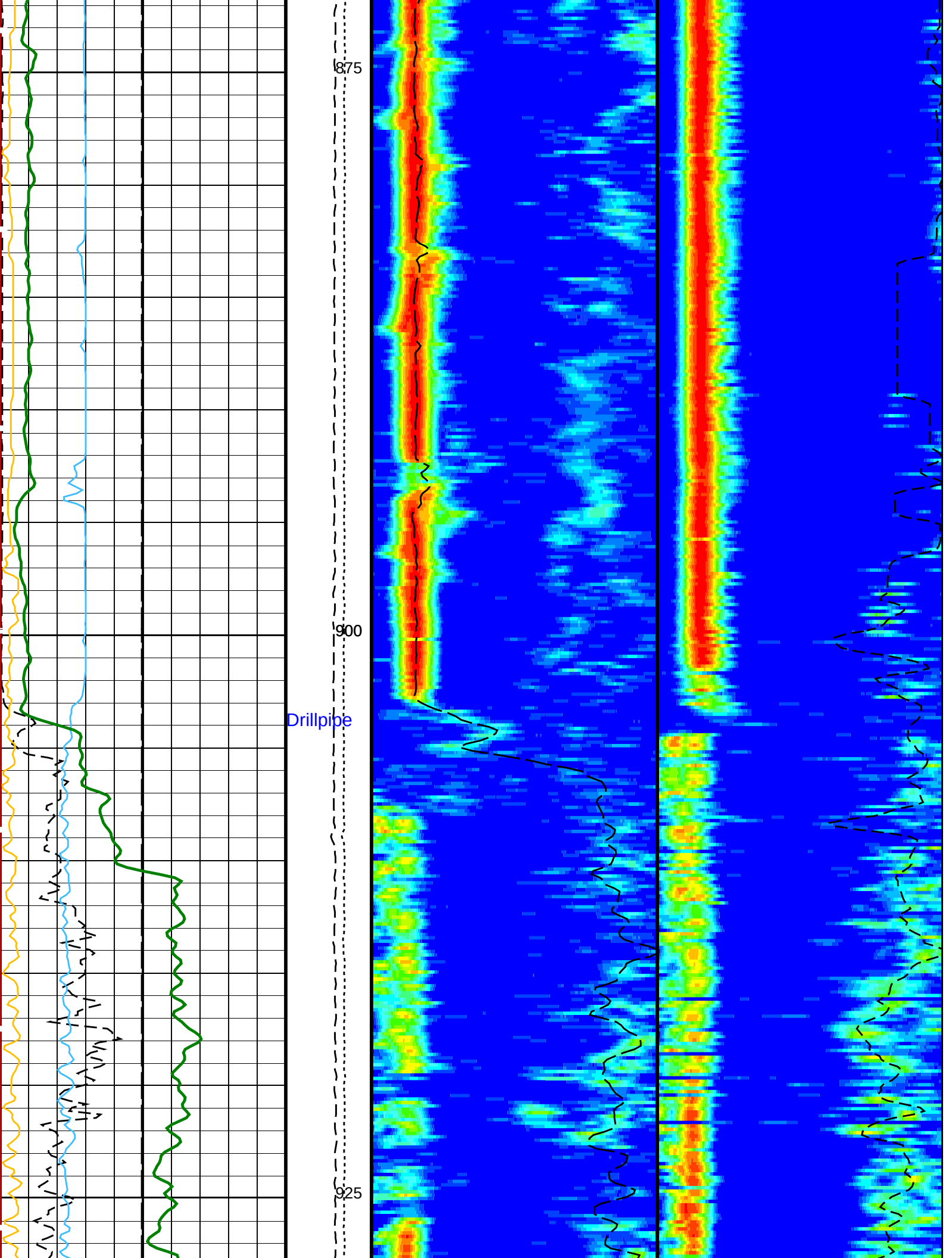
Bit Size (BS)
0 (IN) 20

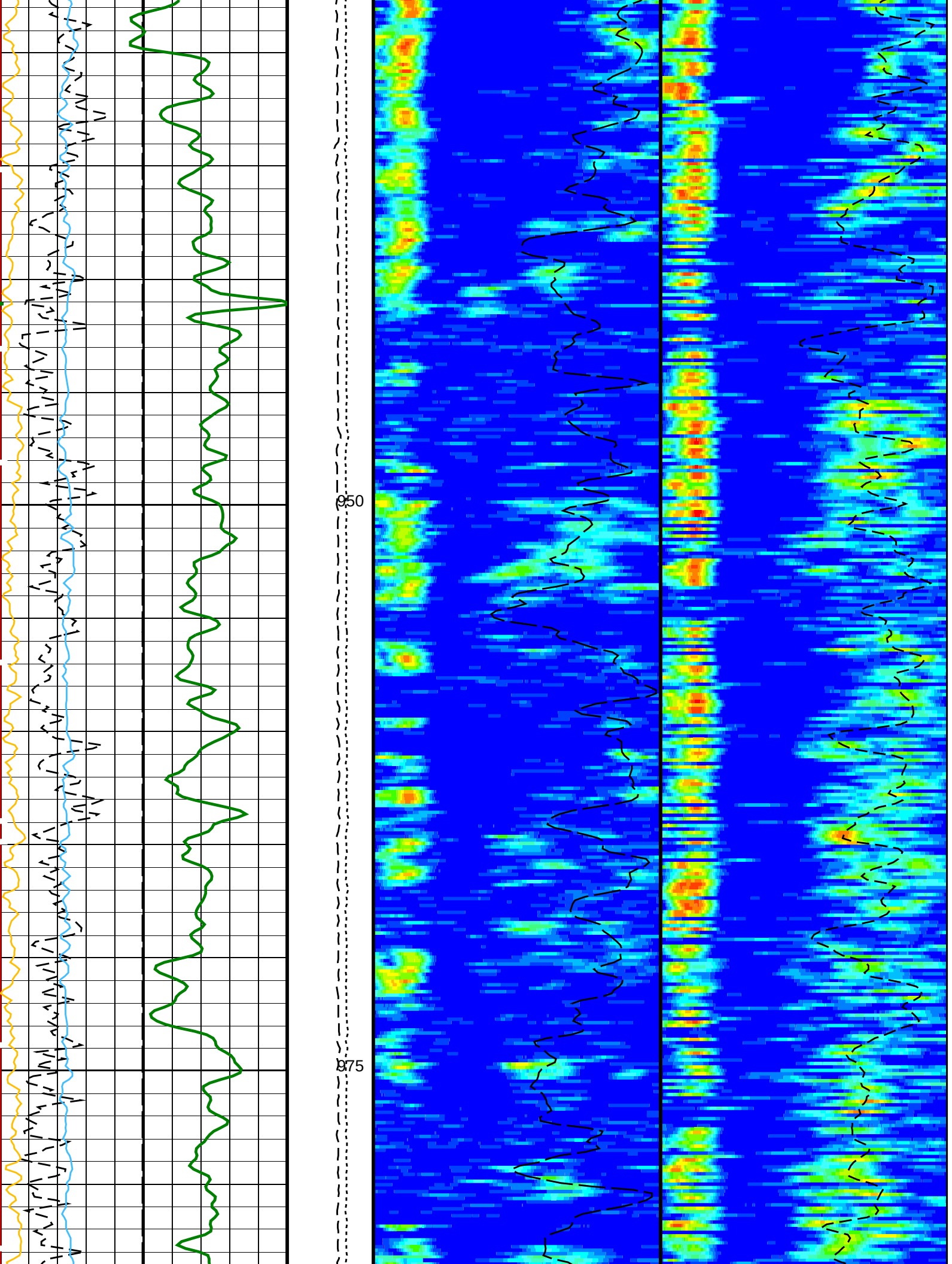
Tension (TENS) (LBF)
10000 0

Delta−T Shear / TA − Upper Dipole (DT2T)
40 (US/F) 1200

Delta−T Shear / RA − Upper Dipole (DT2R)
40 (US/F) 1200




875
900
Drillpipe
925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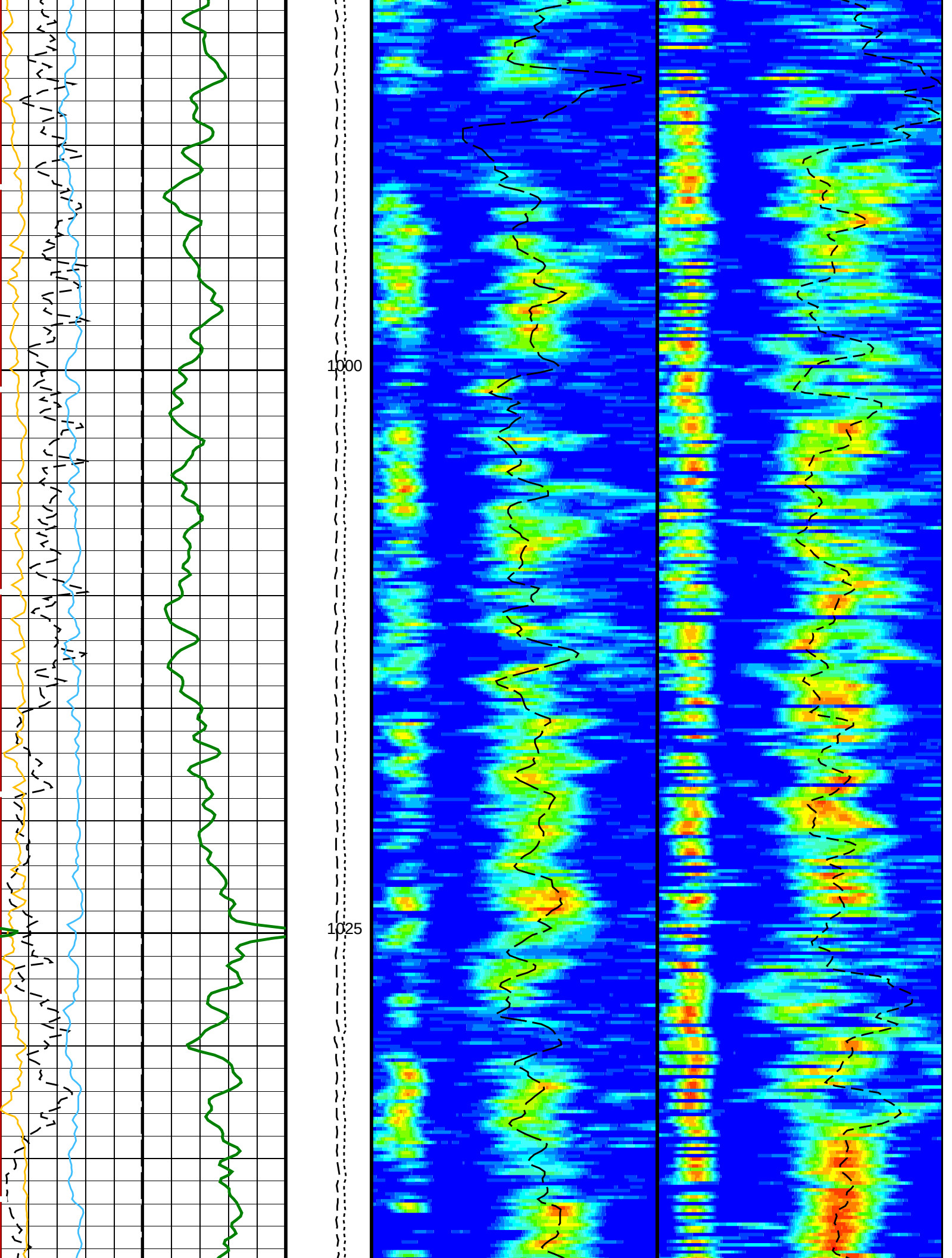
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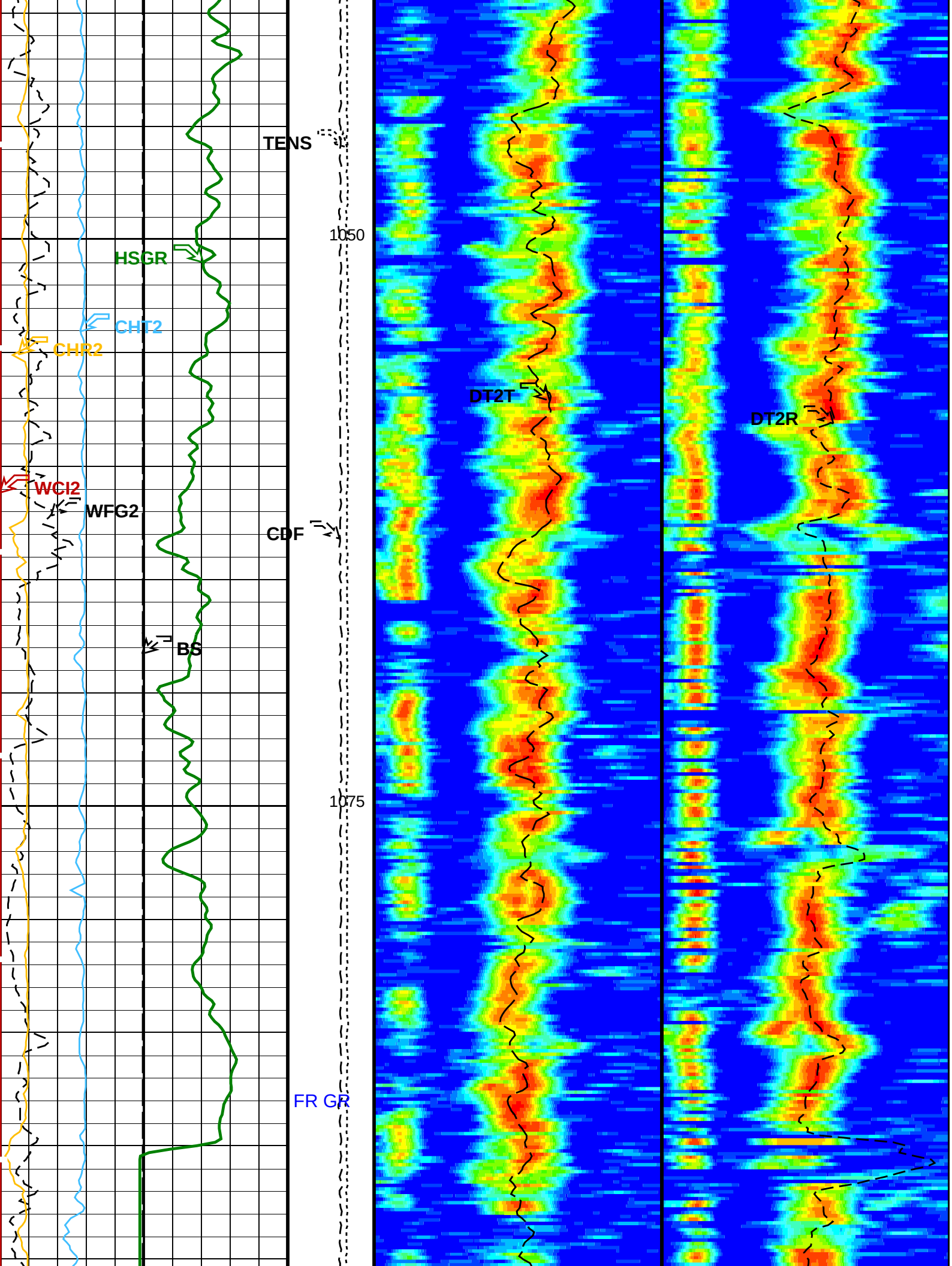
1025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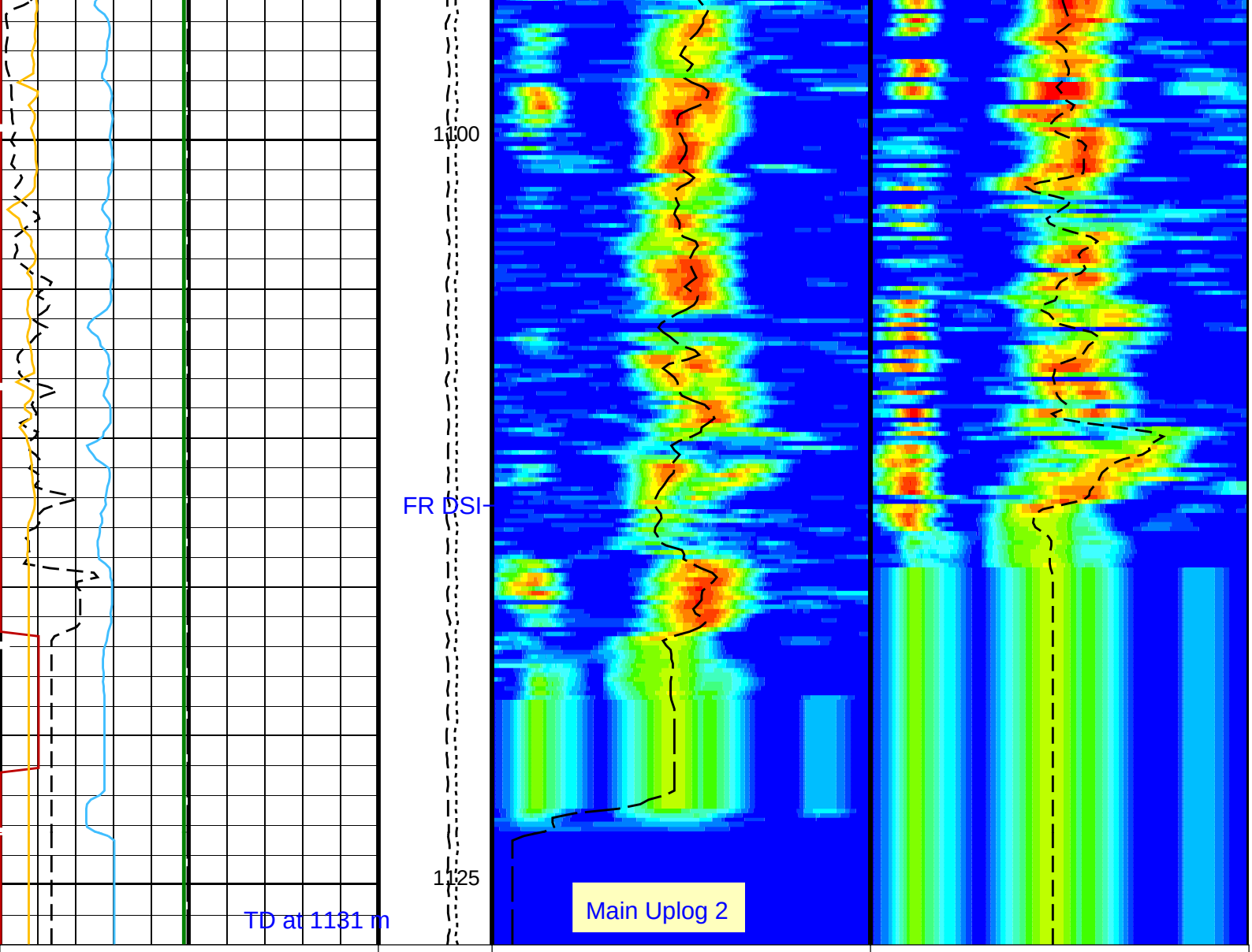
HSGR
CHT2
CHR2
DT2T
DT2R
WCI2
WFG2
CDF
BS
1075
FR GR



Bit Size (BS) 0 (IN) 20	Tension (TENS) (LBF) 10000 0	Delta−T Shear / TA − Upper Dipole (DT2T) 40 (US/F) 1200	Delta−T Shear / RA − Upper Dipole (DT2R) 40 (US/F) 1200
SAM2 Waveform Gain (WFG2) 0 (−−−−) 1000	Calibrated Downhole Force (CDF) (LBF) 5000 0	Min Amplitude Max Tr.Array U.Dipole Slow Proj. CVDL (SPT2) 40 (US/F) 1200	Min Amplitude Max Rec.Array U.Dipole Slow Proj. CVDL (SPR2) 40 (US/F) 1200
Waveform Data Copy Indicator 2 − Upper Dipole (WCI2) 0 (−−−−) 10			
Peak Coherence / RA − Upper Dipole (CHR2) 0 (−−−−) 10			
Peak Coherence / TA − Upper Dipole (CHT2) −2 (−−−−) 8			
HNGS Spectroscopy Gamma Ray (HSGR) 0 (GAPI) 100			

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
BHS	Borehole Status	OPEN	
DDE2	Digitizing Delay 2	0	US
DDEX	Digitizing Delay X	0	US
DLCS	Label Compressional Source − Dipole Shear	USE	
DSHL	Label Slowness Lower Limit − Dipole Shear	200	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	LCAL	
NWI2	Number Waveform Items 2	8	
NWIX	Number Waveform Items X	0	
RX1G	Receiver 1 Geometry	294	IN
RX2G	Receiver 2 Geometry	300	IN
RX3G	Receiver 3 Geometry	306	IN
RX4G	Receiver 4 Geometry	312	IN
RX5G	Receiver 5 Geometry	318	IN
RX6G	Receiver 6 Geometry	324	IN
RX7G	Receiver 7 Geometry	330	IN
RX8G	Receiver 8 Geometry	336	IN
SAM2	DSST Sonic Acquisition Mode 2 − Upper Dipole Mode	ODD	
SAMX	DSST Sonic Acquisition Mode X − Both Dipoles or Monopole Mode for Expert	OFF	
SAS2	STC Sonic Array Status − Upper Dipole	255	
SBO2	STC Search Band Offset − Upper Dipole	3000	US
SBW2	STC Search Bandwidth − Upper Dipole	8000	US
SFC2	STC Formation Character − Upper Dipole	SELECTABLE	
SFM2	STC Filter − Upper Dipole	B1−2K	
SLL2	STC Slowness Lower Limit − Upper Dipole	40	US/F
SST2	STC Slowness Step − Upper Dipole	4	US/F
SSW2	STC Source Waveform − Upper Dipole	WF_SAM2	
SUL2	STC Slowness Upper Limit − Upper Dipole	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	600	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
WFM2	Waveform Mode 2	W1	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	HNGS−BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	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	LCAL	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.0026414	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.964366	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.975746	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.26	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: DSST_UPPER_DIPOLE_RC_TR_VDL_COLOR Vertical Scale: 1:200 Graphics File Created: 03−Feb−2018 21:43

OP System Version: 19C0−187

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

Input DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_008LUP	FN:12	PRODUCER	02−Feb−2018 13:12	1127.0 M	830.8 M

Output DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_031PUP	FN:40	PRODUCER	03−Feb−2018 21:43		

Company: International Ocean Discovery Program Well: Expedition 374, Site U1523D

Input DLIS Files

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Output DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_030PUP	FN:39	PRODUCER	03−Feb−2018 21:37	1131.6 M	996.8 M

OP System Version: 19C0−187

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

PIP SUMMARY

Time Mark Every 60 S

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

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

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

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

REPEAT SECTION

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

Calibrated Downhole Force (CDF) (LBF)
5000 0

Min Amplitude Max
Tr.Array U.Dipole Slow Proj. CVDL (SPT2)
40 (US/F) 1200

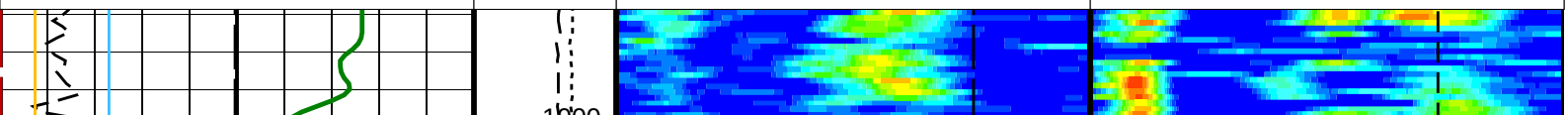
Min Amplitude Max
Rec.Array U.Dipole Slow Proj. CVDL (SPR2)
40 (US/F) 1200

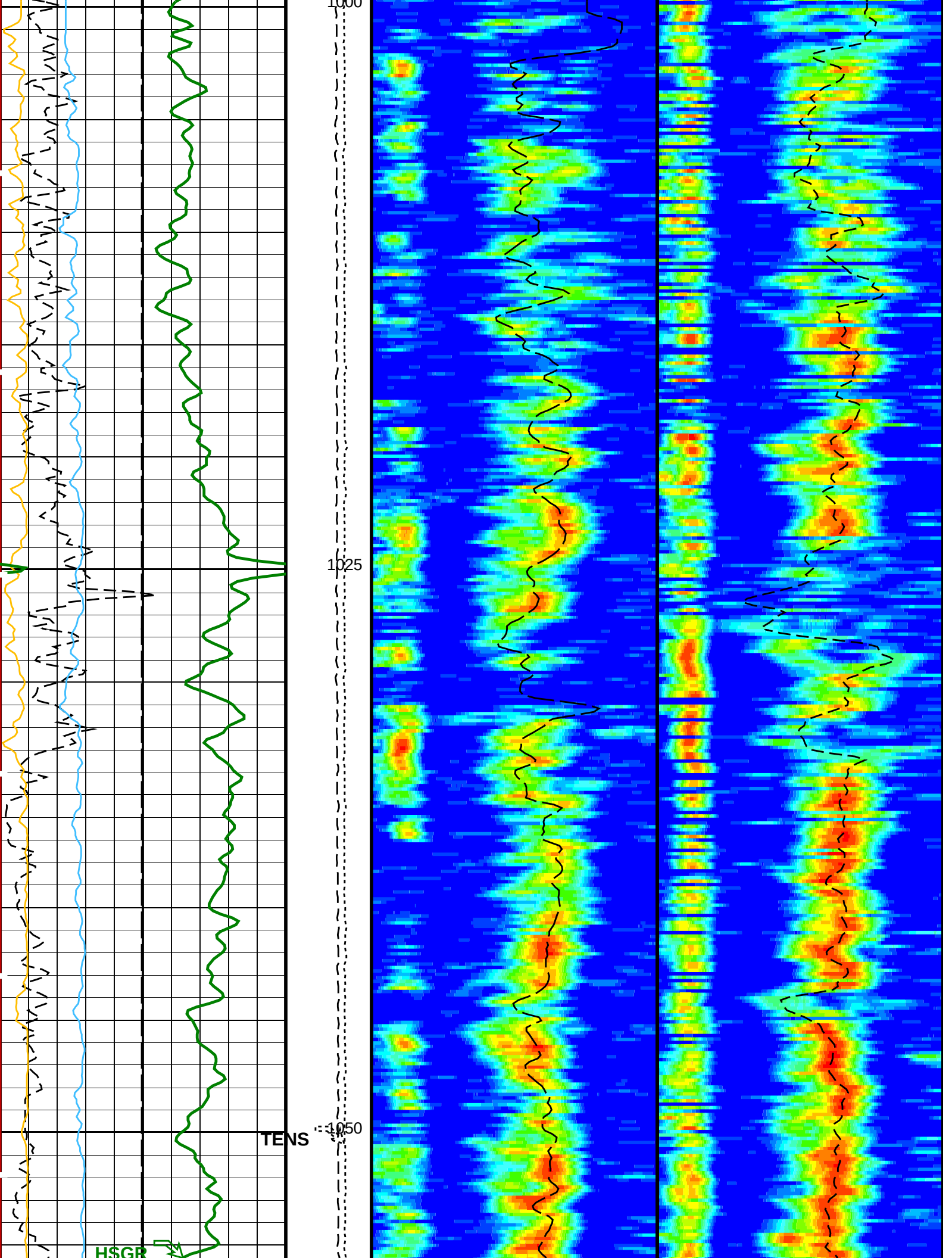
Bit Size (BS)
0 (IN) 20

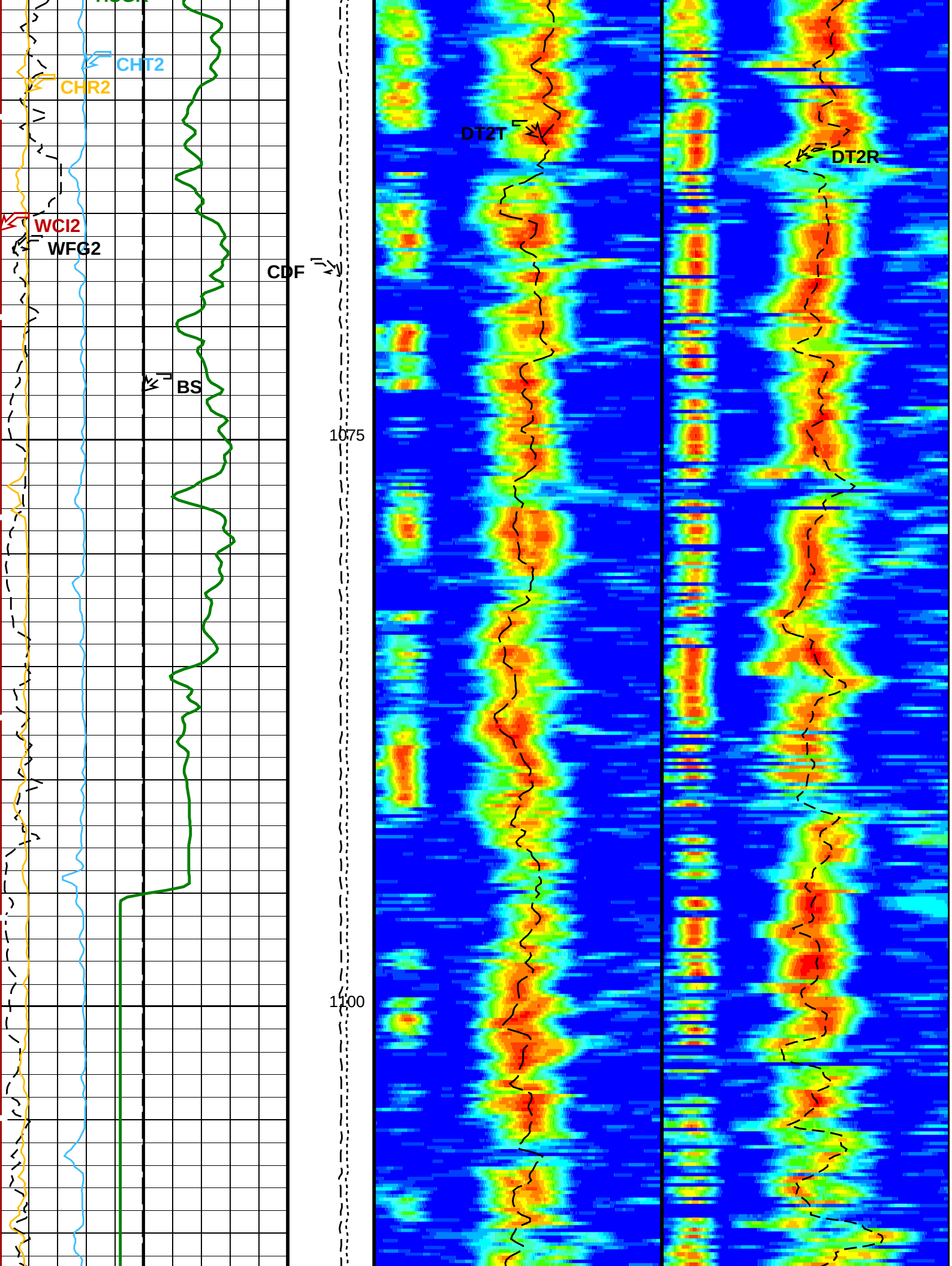
Tension (TENS) (LBF)
10000 0

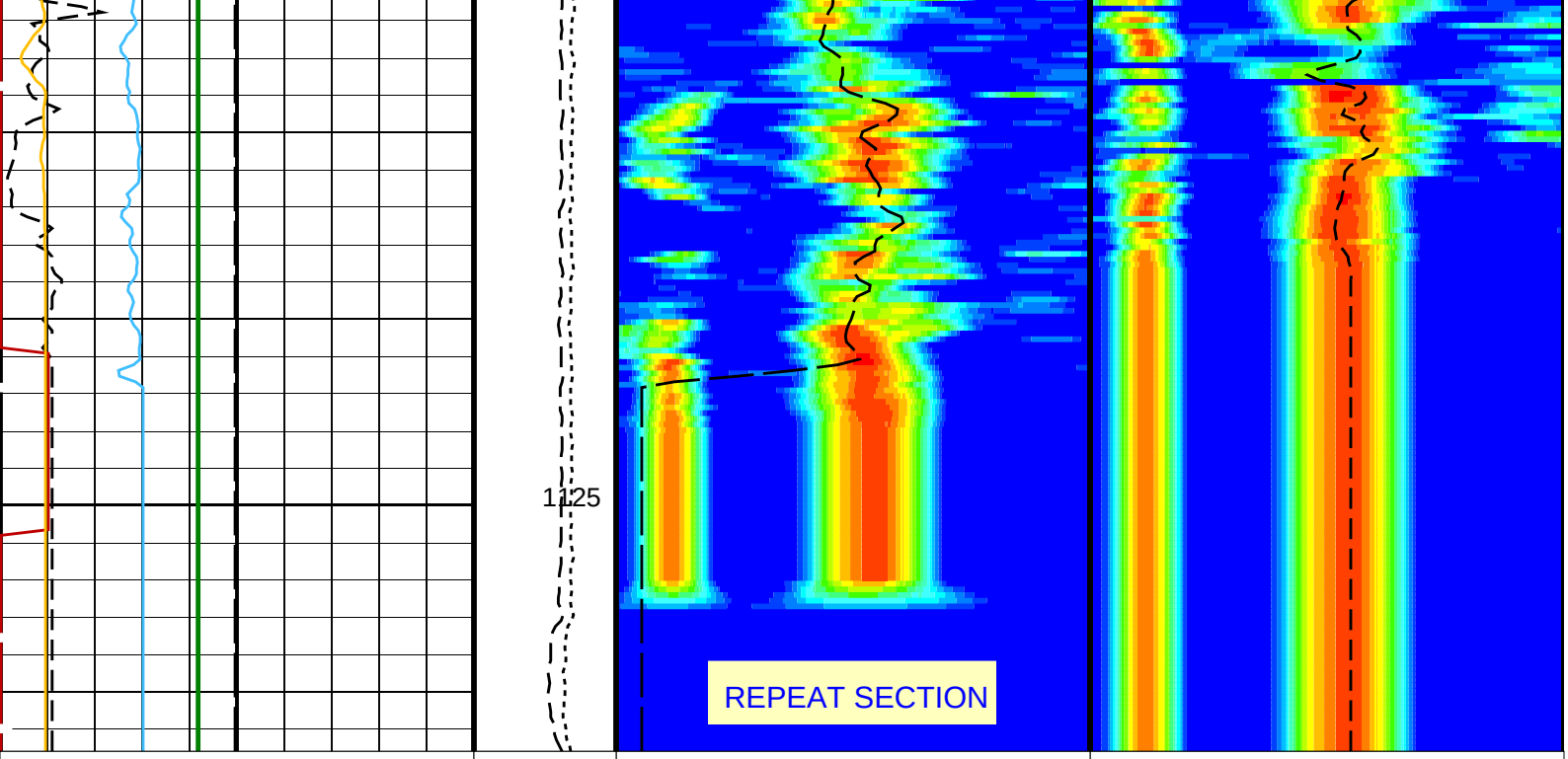
Delta−T Shear / TA − Upper Dipole (DT2T)
40 (US/F) 1200

Delta−T Shear / RA − Upper Dipole (DT2R)
40 (US/F) 1200




1000
1025
1050
TENS
H$GR


CHT2
CHR2
WCI2
WFG2
CDF
BS
DT2T
DT2R
1075
1100



Bit Size (BS) 0 (IN) 20	Tension (TENS) (LBF) 10000 0	Delta−T Shear / TA − Upper Dipole (DT2T) 40 (US/F) 1200	Delta−T Shear / RA − Upper Dipole (DT2R) 40 (US/F) 1200
SAM2 Waveform Gain (WFG2) 0 (−−−−) 1000	Calibrated Downhole Force (CDF) (LBF) 5000 0	Min Amplitude Max Tr.Array U.Dipole Slow Proj. CVDL (SPT2) 40 (US/F) 1200	Min Amplitude Max Rec.Array U.Dipole Slow Proj. CVDL (SPR2) 40 (US/F) 1200
Waveform Data Copy Indicator 2 − Upper Dipole (WCI2) 0 (−−−−) 10			
Peak Coherence / RA − Upper Dipole (CHR2) 0 (−−−−) 10			
Peak Coherence / TA − Upper Dipole (CHT2) −2 (−−−−) 8			
HNGS Spectroscopy Gamma Ray (HSGR) 0 (GAPI) 100			

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
BHS	Borehole Status	OPEN	
DDE2	Digitizing Delay 2	0	US
DDEX	Digitizing Delay X	0	US
DLCS	Label Compressional Source − Dipole Shear	USE	
DSHL	Label Slowness Lower Limit − Dipole Shear	200	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	LCAL	

NWI2	Number Waveform Items 2	8	
NWIX	Number Waveform Items X	0	
RX1G	Receiver 1 Geometry	294	IN
RX2G	Receiver 2 Geometry	300	IN
RX3G	Receiver 3 Geometry	306	IN
RX4G	Receiver 4 Geometry	312	IN
RX5G	Receiver 5 Geometry	318	IN
RX6G	Receiver 6 Geometry	324	IN
RX7G	Receiver 7 Geometry	330	IN
RX8G	Receiver 8 Geometry	336	IN
SAM2	DSST Sonic Acquisition Mode 2 − Upper Dipole Mode	ODD	
SAMX	DSST Sonic Acquisition Mode X − Both Dipoles or Monopole Mode for Expert	OFF	
SAS2	STC Sonic Array Status − Upper Dipole	255	
SBO2	STC Search Band Offset − Upper Dipole	3000	US
SBW2	STC Search Bandwidth − Upper Dipole	8000	US
SFC2	STC Formation Character − Upper Dipole	SELECTABLE	
SFM2	STC Filter − Upper Dipole	B1−2K	
SLL2	STC Slowness Lower Limit − Upper Dipole	40	US/F
SST2	STC Slowness Step − Upper Dipole	4	US/F
SSW2	STC Source Waveform − Upper Dipole	WF_SAM2	
SUL2	STC Slowness Upper Limit − Upper Dipole	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	600	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
WFM2	Waveform Mode 2	W1	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	HNGS−BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	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	LCAL	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00303098	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.951557	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.970175	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.26	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: DSST_UPPER_DIPOLE_RC_TR_VDL_COLOR Vertical Scale: 1:200 Graphics File Created: 03−Feb−2018 21:37

OP System Version: 19C0−187

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

Input DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_007LUP	FN:10	PRODUCER	02−Feb−2018 12:44	1131.6 M	996.8 M

Output DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_030PUP	FN:39	PRODUCER	03−Feb−2018 21:37		

Company: International Ocean Discovery Program — Well: Expedition 374, Site U1523D

Input DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_008LUP	FN:12	PRODUCER	02−Feb−2018 13:12	1127.0 M	830.8 M

Output DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_031PUP	FN:40	PRODUCER	03−Feb−2018 21:43	1127.0 M	830.9 M

OP System Version: 19C0−187

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

PIP SUMMARY

Time Mark Every 60 S

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

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

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

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

Main Uplog 2

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

Calibrated Downhole Force (CDF) (LBF)
5000 0

Min Amplitude Max
Tr.Array L.Dipole Slow Proj. CVDL (SPT1)
40 (US/F) 1200

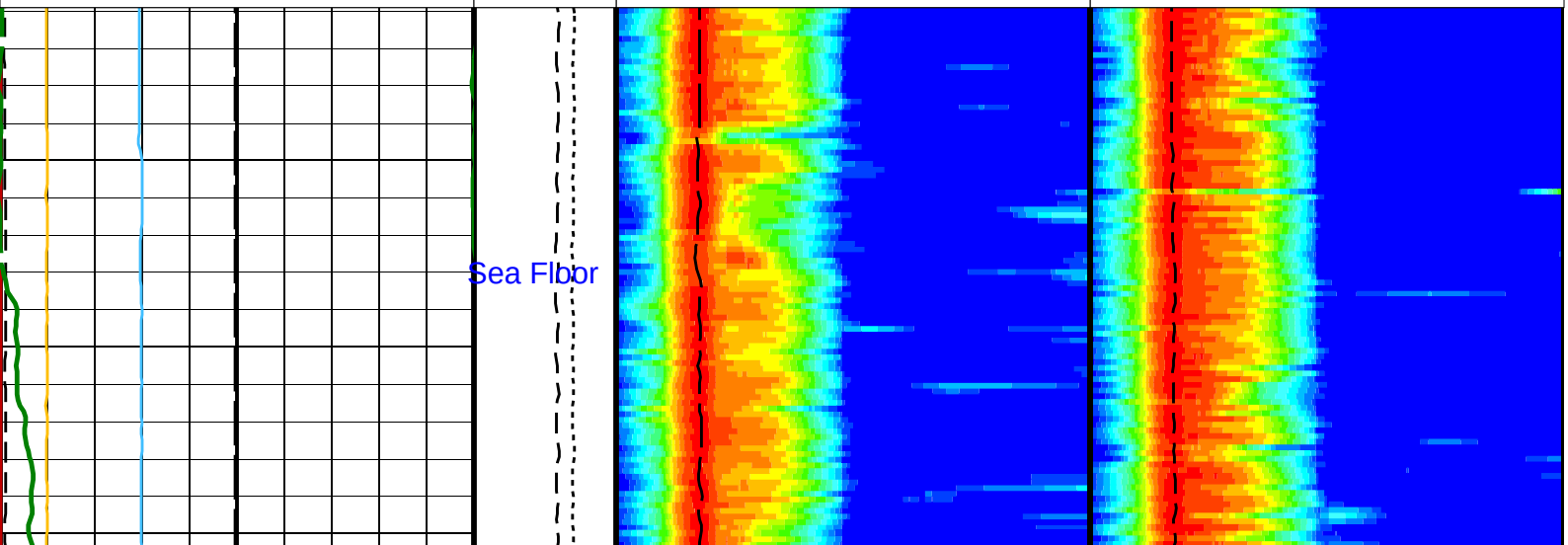
Min Amplitude Max
Rec.Array L.Dipole Slow Proj. CVDL (SPR1)
40 (US/F) 1200

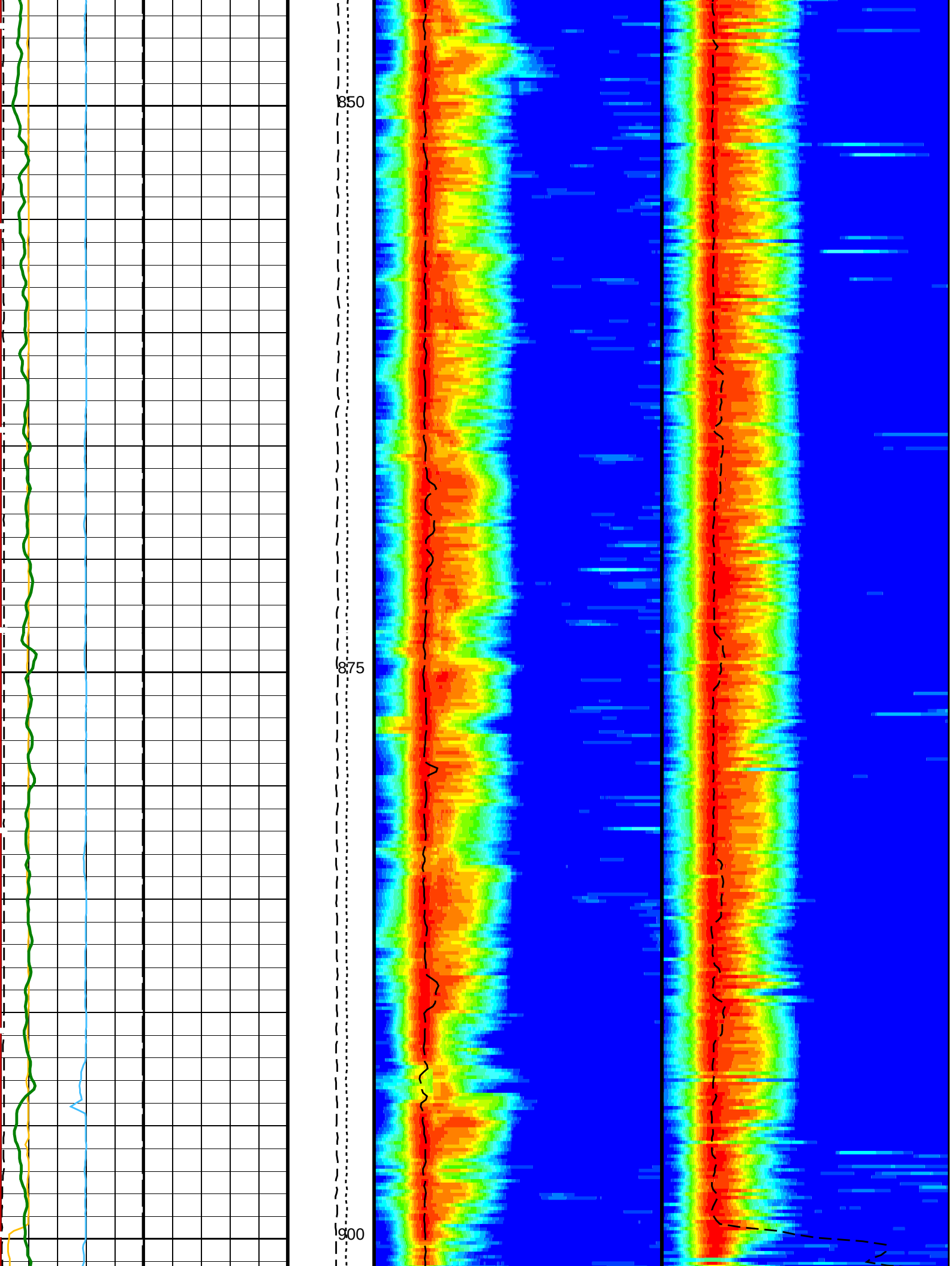
Bit Size (BS)
0 (IN) 20

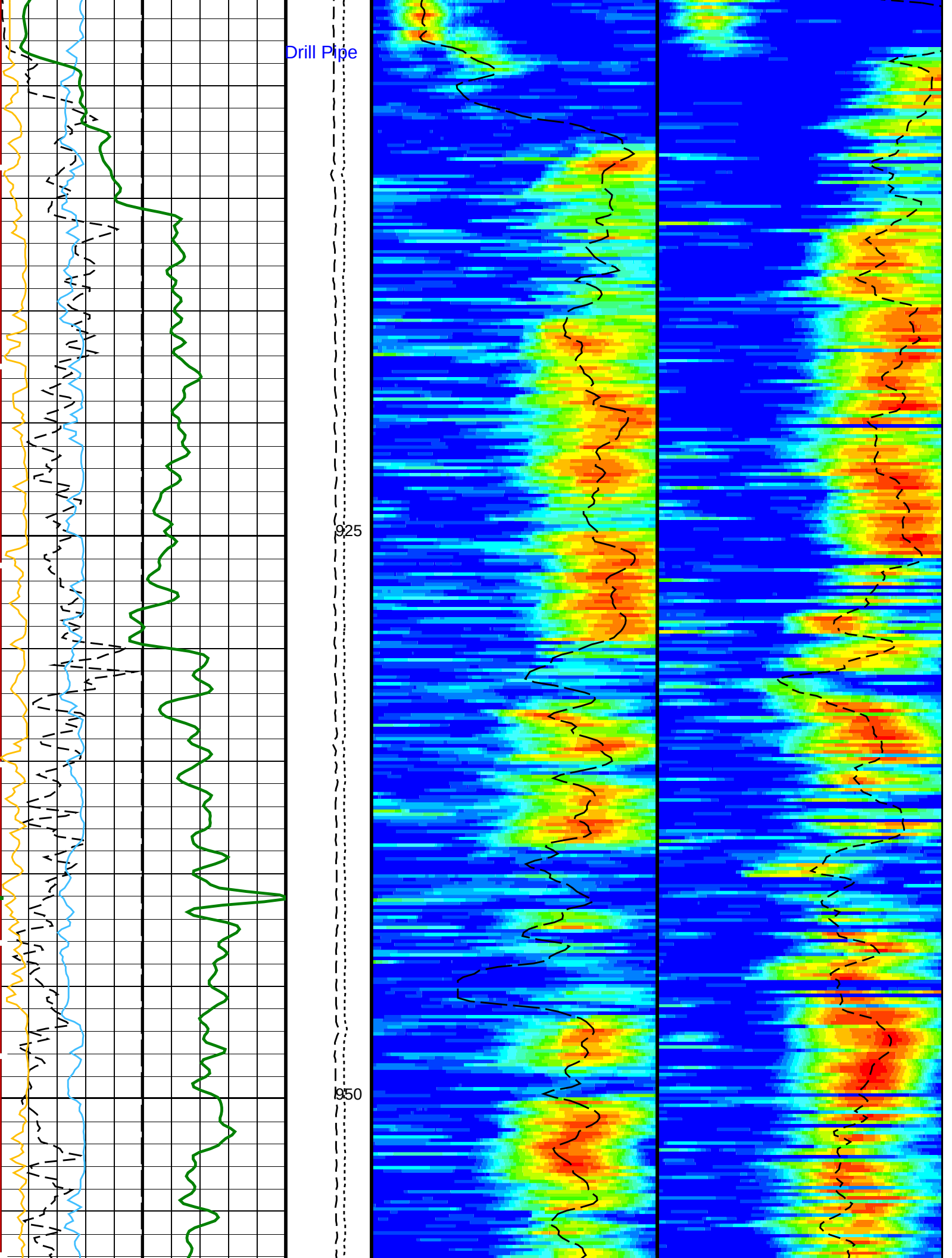
Tension (TENS) (LBF)
10000 0

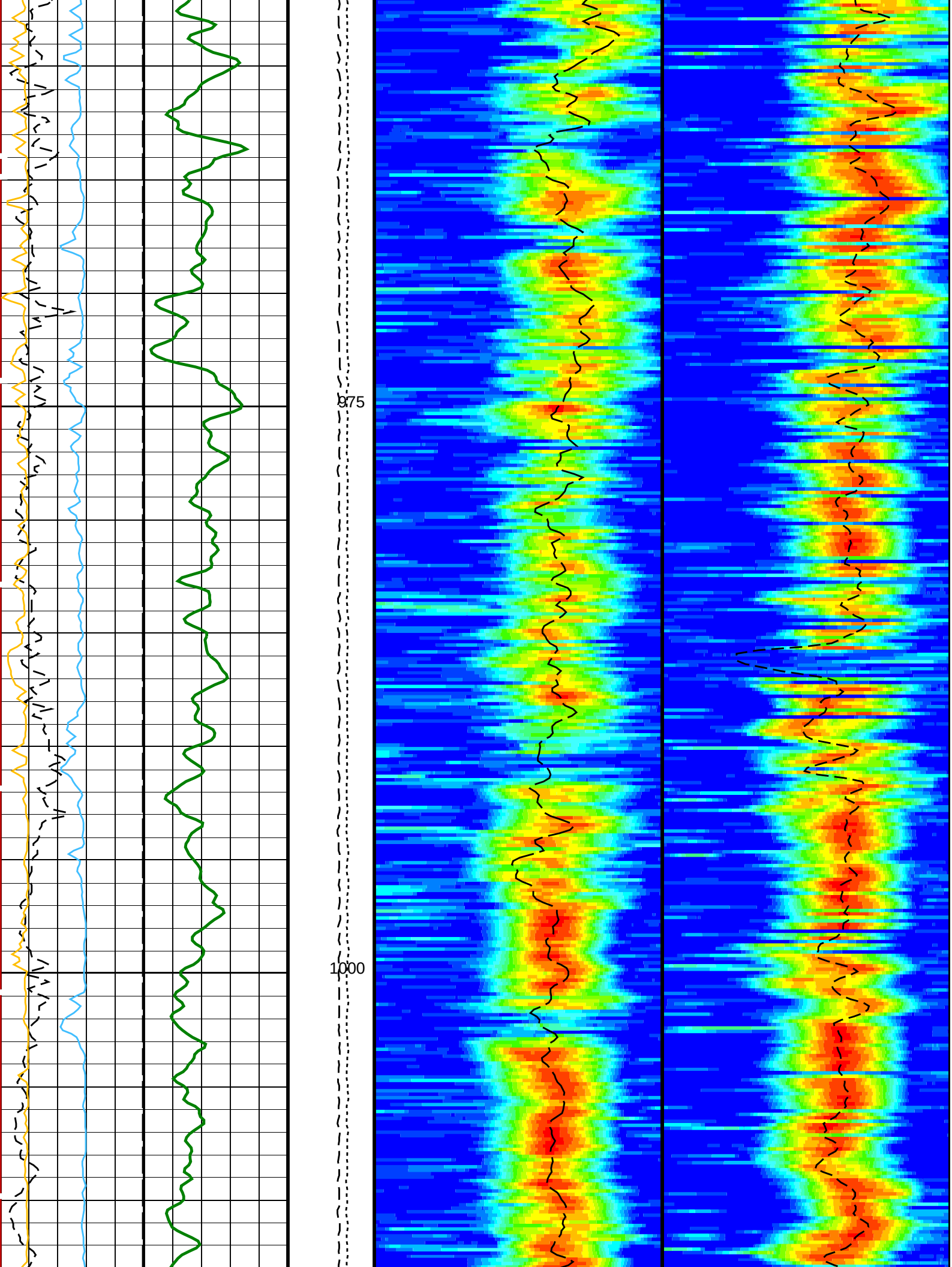
Delta−T Shear / TA − Lower Dipole (DT1T)
40 (US/F) 1200

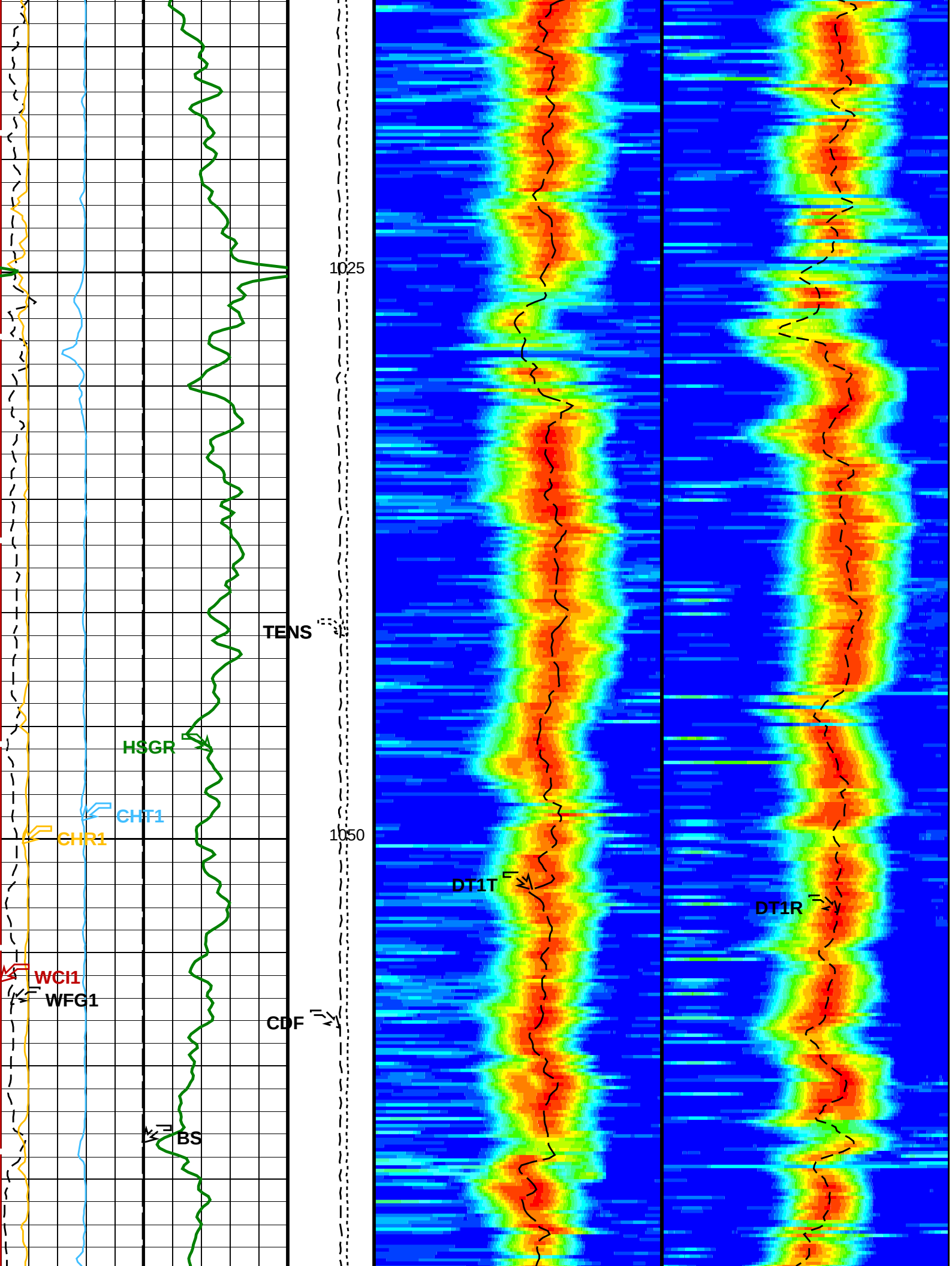
Delta−T Shear / RA − Lower Dipole (DT1R)
40 (US/F) 1200

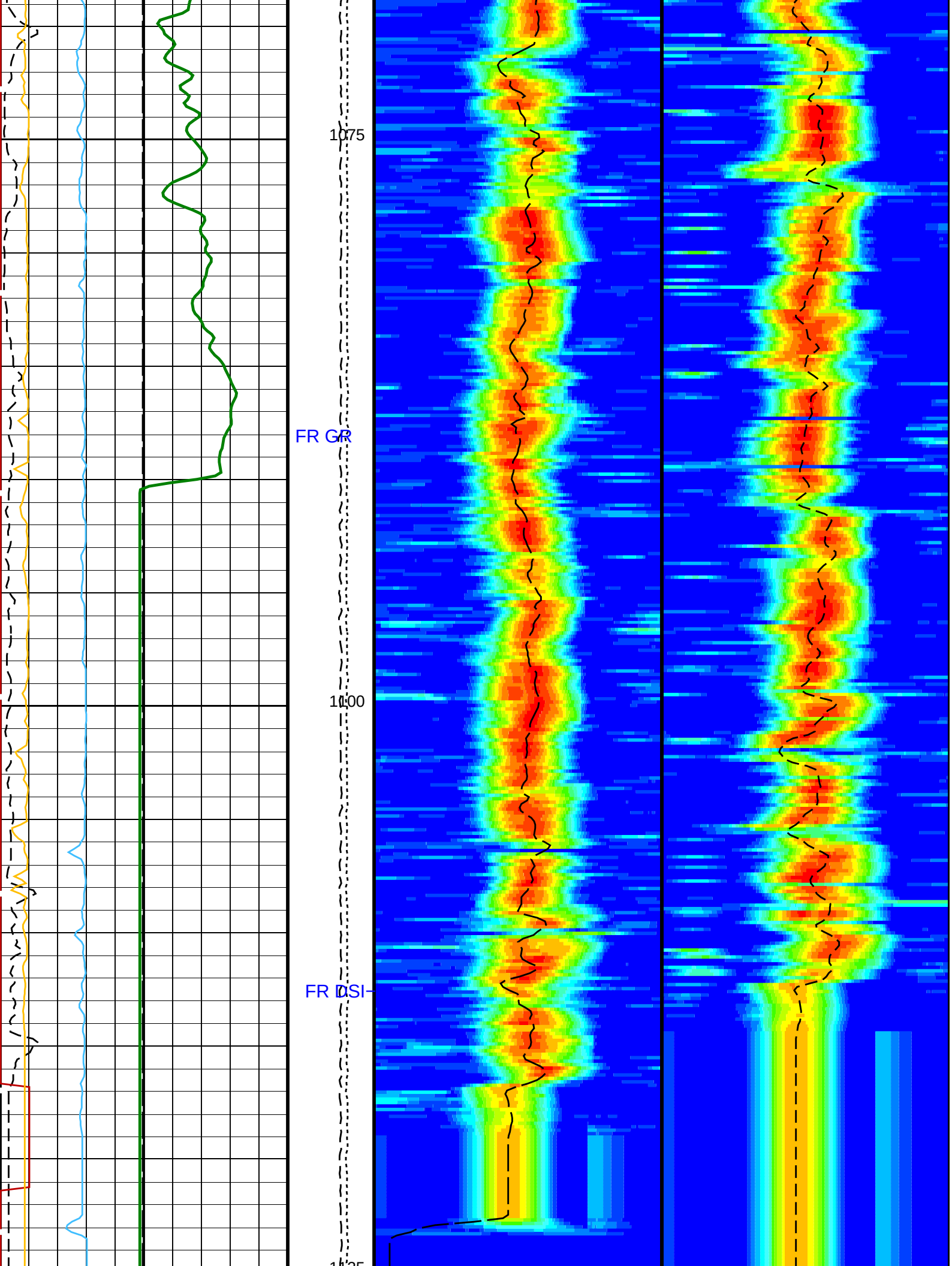



850
875
900


Drill Pipe
925
950


975
1000


1025
TENS
HSGR
CHT1
CHR1
1050
DT1T
DT1R
WCI1
WFG1
CDF
BS


1075
FR GR
1100
FR DSI

Bit Size (BS) (IN)	Tension (TENS) (LBF)	Delta−T Shear / TA − Lower Dipole (DT1T) (US/F)	Delta−T Shear / RA − Lower Dipole (DT1R) (US/F)
0 — 20	10000 — 0	40 — 1200	40 — 1200

SAM1 Waveform Gain (WFG1) (−−−−)	Calibrated Downhole Force (CDF) (LBF)	Min Amplitude Max Tr.Array L.Dipole Slow Proj. CVDL (SPT1) (US/F)	Min Amplitude Max Rec.Array L.Dipole Slow Proj. CVDL (SPR1) (US/F)
0 — 1000	5000 — 0	40 — 1200	40 — 1200

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

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

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

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

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
BHS	Borehole Status	OPEN	
DDE1	Digitizing Delay 1	0	US
DDEX	Digitizing Delay X	0	US
DLCS	Label Compressional Source − Dipole Shear	USE	
DSHL	Label Slowness Lower Limit − Dipole Shear	200	US/F
DSHU	Label Slowness Upper Limit − Dipole Shear	1200	US/F
DSI1	Digitizer Sample Interval 1	40	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta−T Source for DTCO Channel	PS_COMP	
DWC1	Digitizer Word Count 1	512	
DWCX	Digitizer Word Count X	512	
GCSE	Generalized Caliper Selection	LCAL	
LTXG	Lower Dipole Transmitter Geometry	156	IN
NWI1	Number Waveform Items 1	8	
NWIX	Number Waveform Items X	0	
RX1G	Receiver 1 Geometry	294	IN
RX2G	Receiver 2 Geometry	300	IN
RX3G	Receiver 3 Geometry	306	IN
RX4G	Receiver 4 Geometry	312	IN
RX5G	Receiver 5 Geometry	318	IN
RX6G	Receiver 6 Geometry	324	IN
RX7G	Receiver 7 Geometry	330	IN
RX8G	Receiver 8 Geometry	336	IN
SAM1	DSST Sonic Acquisition Mode 1 − Lower Dipole Mode	LFD_EVEN	
SAMX	DSST Sonic Acquisition Mode X − Both Dipoles or Monopole Mode for Expert	OFF	
SAS1	STC Sonic Array Status − Lower Dipole	255	
SBO1	STC Search Band Offset − Lower Dipole	3000	US
SBW1	STC Search Bandwidth − Lower Dipole	8000	US
SFC1	STC Formation Character − Lower Dipole	SELECTABLE	
SFM1	STC Filter − Lower Dipole	B.3−1.5K	
SLL1	STC Slowness Lower Limit − Lower Dipole	40	US/F
SST1	STC Slowness Step − Lower Dipole	4	US/F
SSW1	STC Source Waveform − Lower Dipole	WF_SAM1	
SUL1	STC Slowness Upper Limit − Lower Dipole	1200	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
TWSX	Transmitter Waveform Select X	0	
WFM1	Waveform Mode 1	W1	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	HNGS−BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	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	LCAL	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.0026414	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.964366	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.975746	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.26	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: DSST_LOWER_DIPOLE_RC_TR_VDL_COLOR Vertical Scale: 1:200 Graphics File Created: 03−Feb−2018 21:43

OP System Version: 19C0−187

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

Input DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_008LUP	FN:12	PRODUCER	02−Feb−2018 13:12	1127.0 M	830.8 M

Output DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_031PUP	FN:40	PRODUCER	03−Feb−2018 21:43

Company: International Ocean Discovery Program Well: Expedition 374, Site U1523D

Input DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_007LUP	FN:10	PRODUCER	02−Feb−2018 12:44	1131.6 M	996.8 M

Output DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_030PUP	FN:39	PRODUCER	03−Feb−2018 21:37	1131.6 M	996.8 M

OP System Version: 19C0−187

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

PIP SUMMARY

Time Mark Every 60 S

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

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

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

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

REPEAT SECTION

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

Calibrated Downhole Force (CDF) (LBF)
5000 0

Min Amplitude Max
Tr.Array L.Dipole Slow Proj. CVDL (SPT1)
40 (US/F) 1200

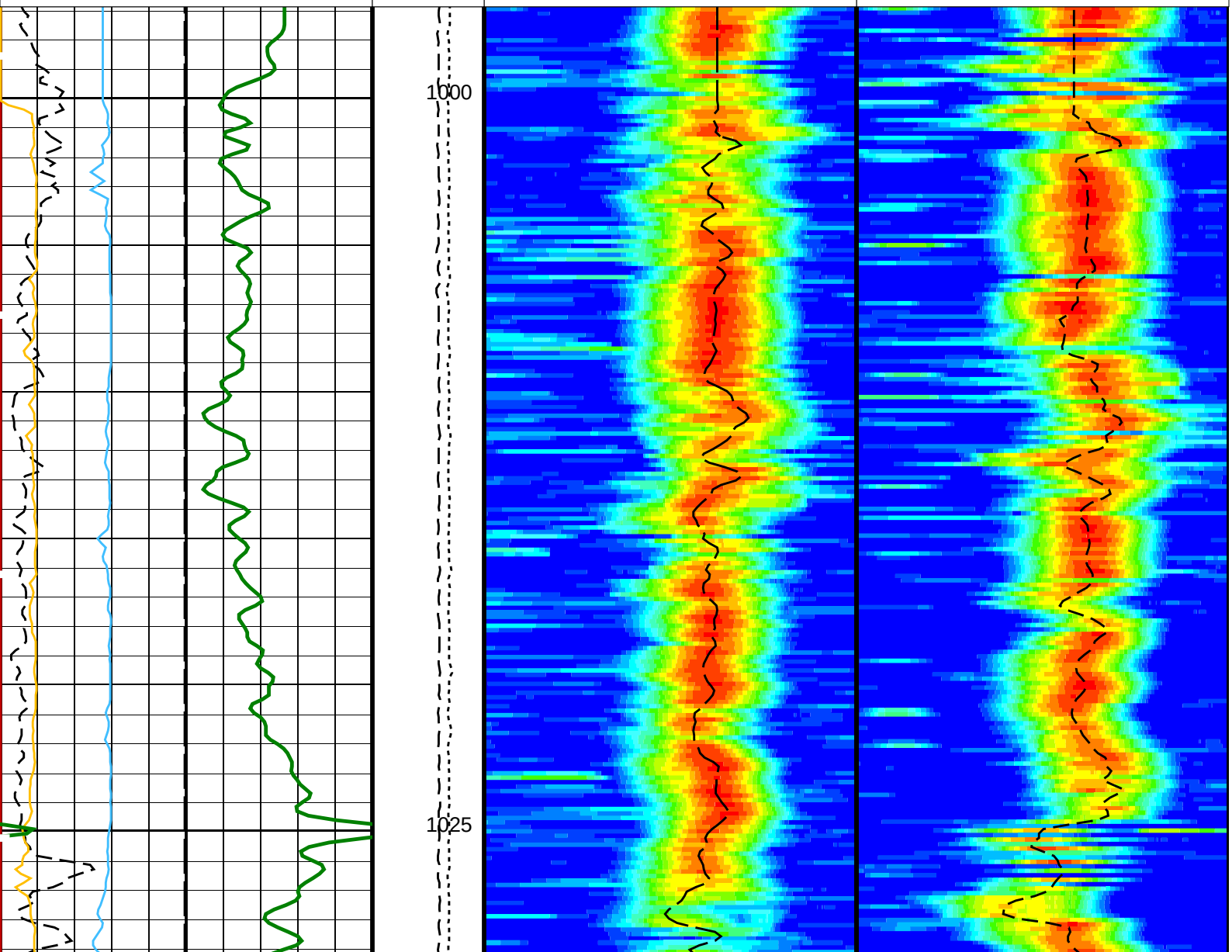
Min Amplitude Max
Rec.Array L.Dipole Slow Proj. CVDL (SPR1)
40 (US/F) 1200

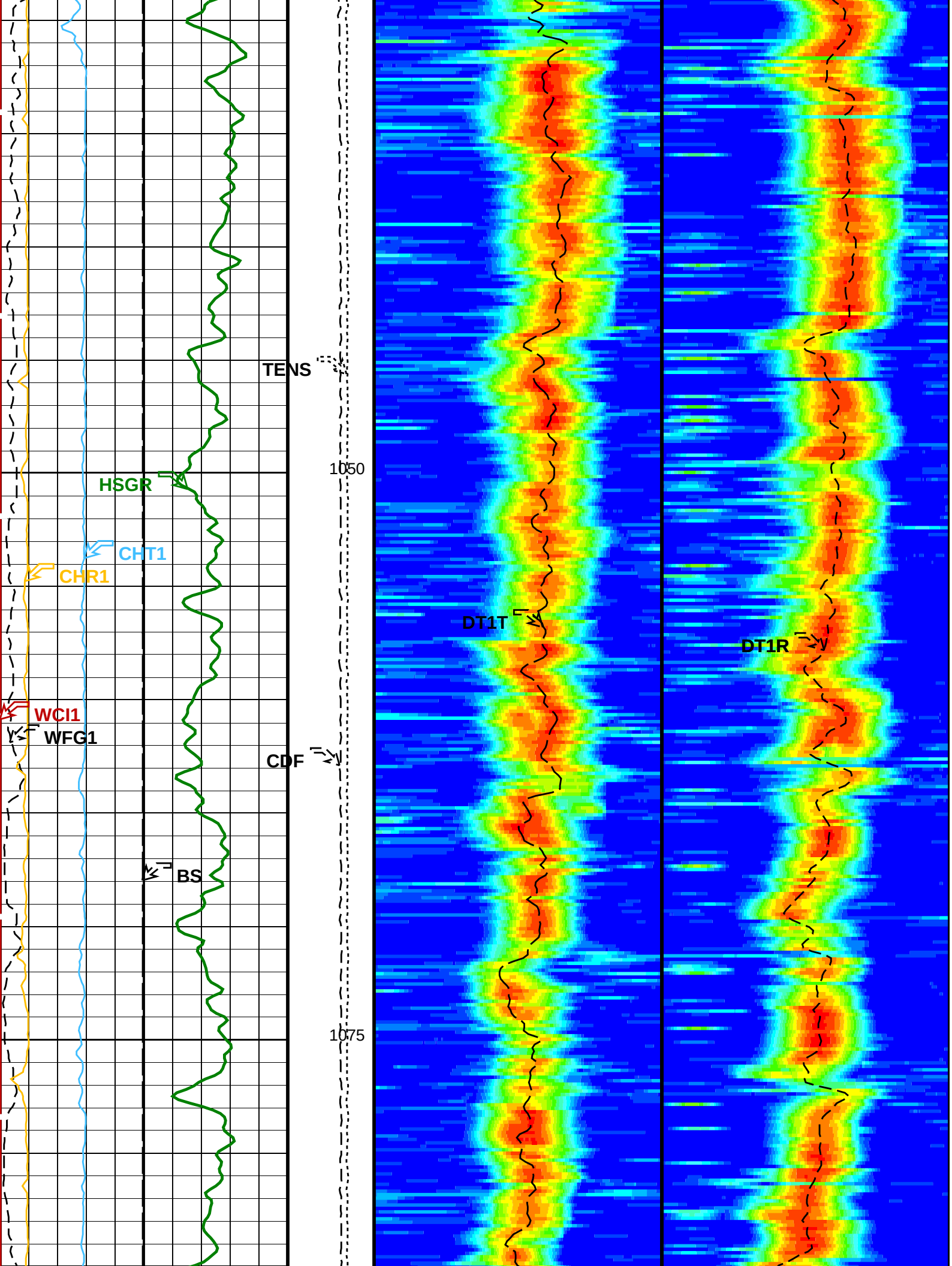
Bit Size (BS)
0 (IN) 20

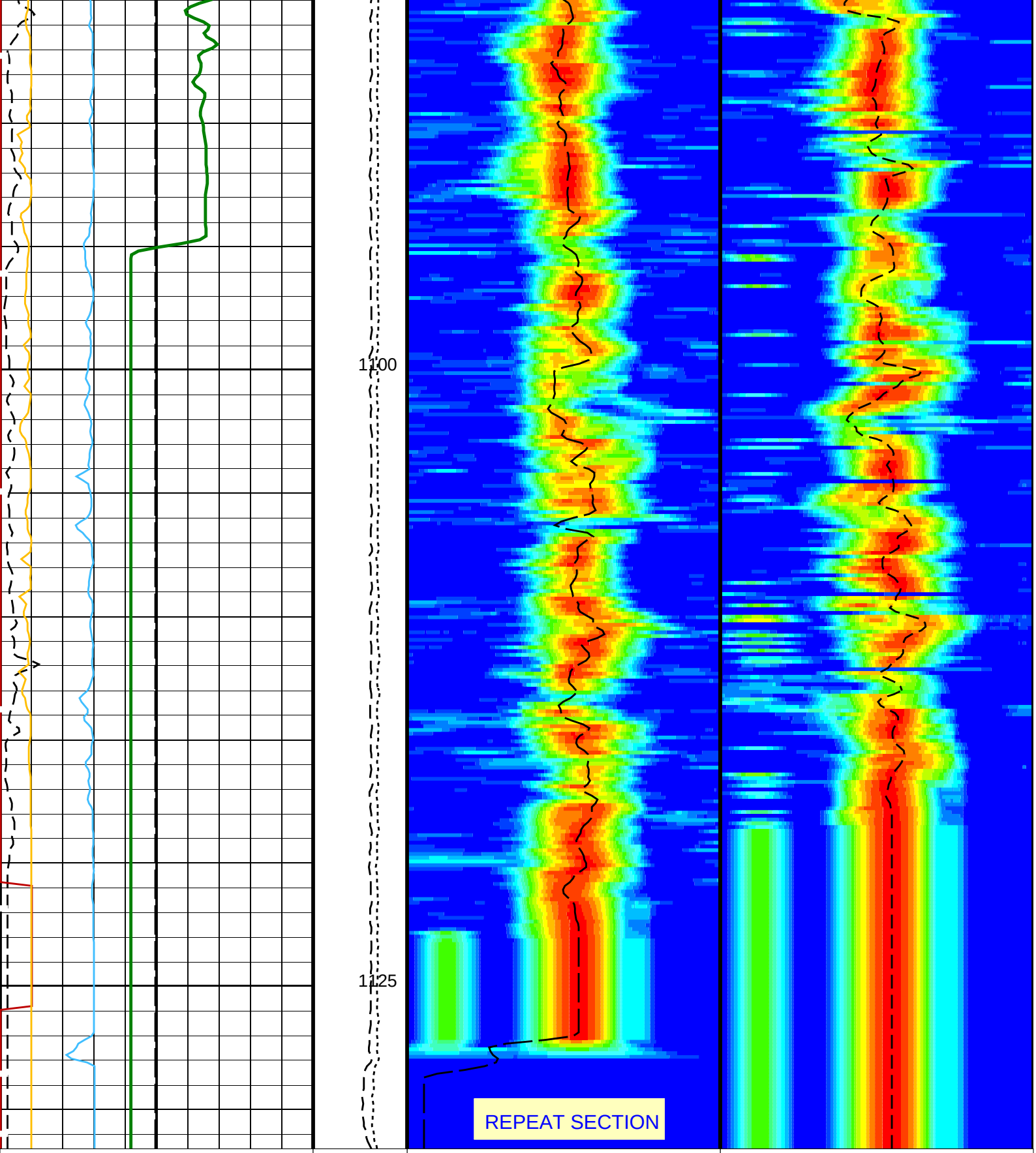
Tension (TENS) (LBF)
10000 0

Delta−T Shear / TA − Lower Dipole (DT1T)
40 (US/F) 1200

Delta−T Shear / RA − Lower Dipole (DT1R)
40 (US/F) 1200




TENS
1050
HSGR
CHT1
CHR1
DT1T
DT1R
WCI1
WFG1
CDF
BS
1075



Bit Size (BS)	Tension (TENS)	Delta−T Shear / TA − Lower Dipole (DT1T)	Delta−T Shear / RA − Lower Dipole (DT1R)
0 (IN) 20	10000 (LBF) 0	40 (US/F) 1200	40 (US/F) 1200
SAM1 Waveform Gain (WFG1)	Calibrated Downhole Force (CDF)	Min Amplitude Max	Min Amplitude Max
0 (−−−−) 1000	5000 (LBF) 0	Tr.Array L.Dipole Slow Proj. CVDL (SPT1)	Rec.Array L.Dipole Slow Proj. CVDL (SPR1)
		40 (US/F) 1200	40 (US/F) 1200
Waveform Data Copy Indicator 1			

Waveform Data Copy Indicator 1 − Lower Dipole (WCI1)

0 (−−−−) 10

Peak Coherence / RA − Lower Dipole (CHR1)

0 (−−−−) 10

Peak Coherence / TA − Lower Dipole (CHT1)

−2 (−−−−) 8

HNGS Spectroscopy Gamma Ray (HSGR)

0 (GAPI) 100

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
BHS	Borehole Status	OPEN	
DDE1	Digitizing Delay 1	0	US
DDEX	Digitizing Delay X	0	US
DLCS	Label Compressional Source − Dipole Shear	USE	
DSHL	Label Slowness Lower Limit − Dipole Shear	200	US/F
DSHU	Label Slowness Upper Limit − Dipole Shear	1200	US/F
DSI1	Digitizer Sample Interval 1	40	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta−T Source for DTCO Channel	PS_COMP	
DWC1	Digitizer Word Count 1	512	
DWCX	Digitizer Word Count X	512	
GCSE	Generalized Caliper Selection	LCAL	
LTXG	Lower Dipole Transmitter Geometry	156	IN
NWI1	Number Waveform Items 1	8	
NWIX	Number Waveform Items X	0	
RX1G	Receiver 1 Geometry	294	IN
RX2G	Receiver 2 Geometry	300	IN
RX3G	Receiver 3 Geometry	306	IN
RX4G	Receiver 4 Geometry	312	IN
RX5G	Receiver 5 Geometry	318	IN
RX6G	Receiver 6 Geometry	324	IN
RX7G	Receiver 7 Geometry	330	IN
RX8G	Receiver 8 Geometry	336	IN
SAM1	DSST Sonic Acquisition Mode 1 − Lower Dipole Mode	LFD_EVEN	
SAMX	DSST Sonic Acquisition Mode X − Both Dipoles or Monopole Mode for Expert	OFF	
SAS1	STC Sonic Array Status − Lower Dipole	255	
SBO1	STC Search Band Offset − Lower Dipole	3000	US
SBW1	STC Search Bandwidth − Lower Dipole	8000	US
SFC1	STC Formation Character − Lower Dipole	SELECTABLE	
SFM1	STC Filter − Lower Dipole	B.3−1.5K	
SLL1	STC Slowness Lower Limit − Lower Dipole	40	US/F
SST1	STC Slowness Step − Lower Dipole	4	US/F
SSW1	STC Source Waveform − Lower Dipole	WF_SAM1	
SUL1	STC Slowness Upper Limit − Lower Dipole	1200	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
TWSX	Transmitter Waveform Select X	0	
WFM1	Waveform Mode 1	W1	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	HNGS−BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	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	

DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	LCAL	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00303098	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.951557	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.970175	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.26	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: DSST_LOWER_DIPOLE_RC_TR_VDL_COLOR Vertical Scale: 1:200 Graphics File Created: 03−Feb−2018 21:37

OP System Version: 19C0−187

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

Input DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_007LUP	FN:10	PRODUCER	02−Feb−2018 12:44	1131.6 M	996.8 M

Output DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_030PUP	FN:39	PRODUCER	03−Feb−2018 21:37		

Company: International Ocean Discovery Program Well: Expedition 374, Site U1523D

Input DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_008LUP	FN:12	PRODUCER	02−Feb−2018 13:12	1127.0 M	830.8 M

Output DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_031PUP	FN:40	PRODUCER	03−Feb−2018 21:43	1127.0 M	830.9 M

OP System Version: 19C0−187

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

PIP SUMMARY

Time Mark Every 60 S

HNGS Spectroscopy Gamma Ray (HSGR)		
0	(GAPI)	100
Peak Coherence / TA − P & S Shear (CHTS)		
−1	(−−−−)	9
Peak Coherence / RA − P & S Shear (CHRS)		
−1	(−−−−)	9

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

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

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

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

Bit Size (BS)
0 (IN) 20

Main Uplog 2

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

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

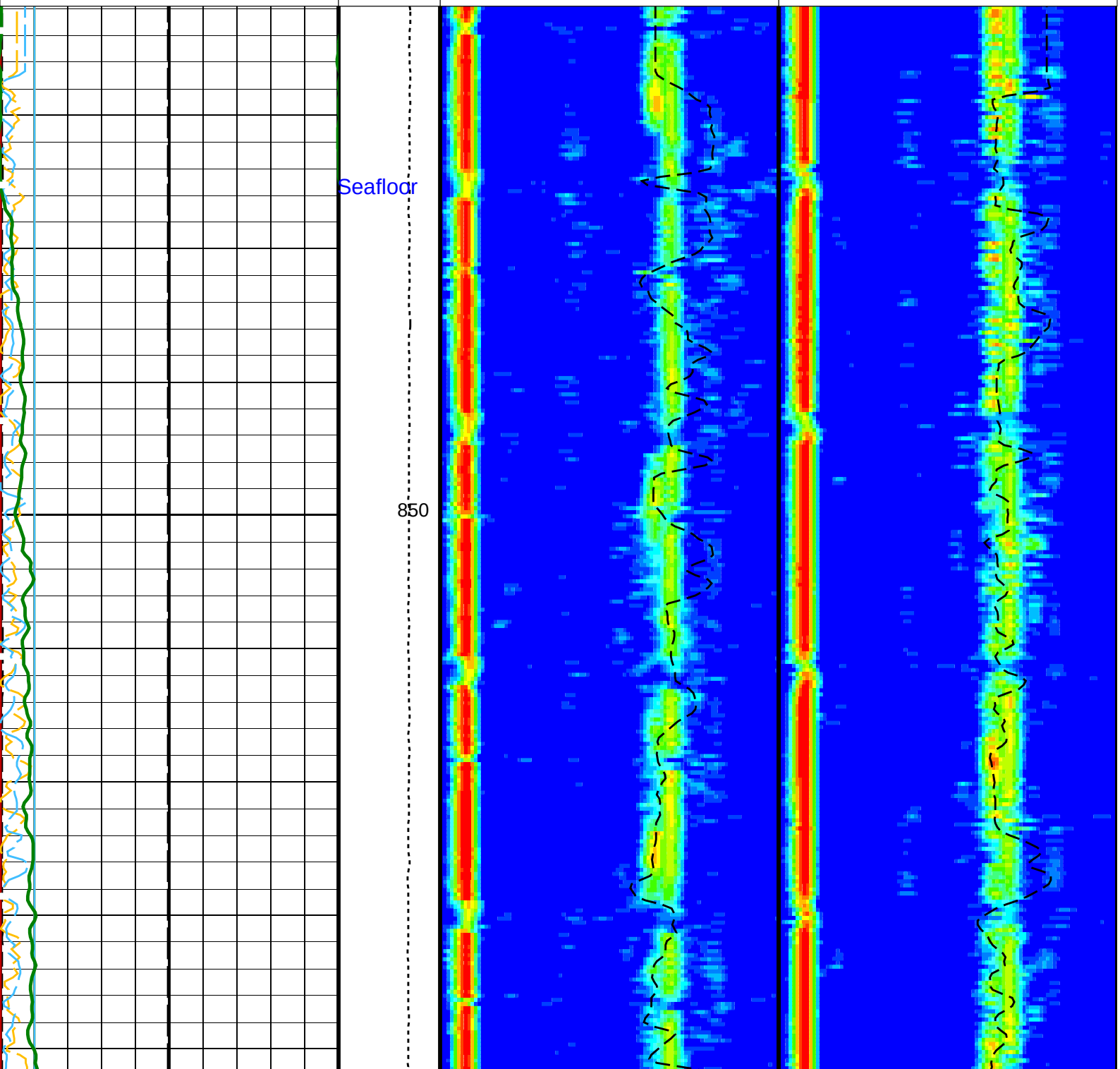
Delta−T Shear / TA − P & S (DTTS)
40 (US/F) 240

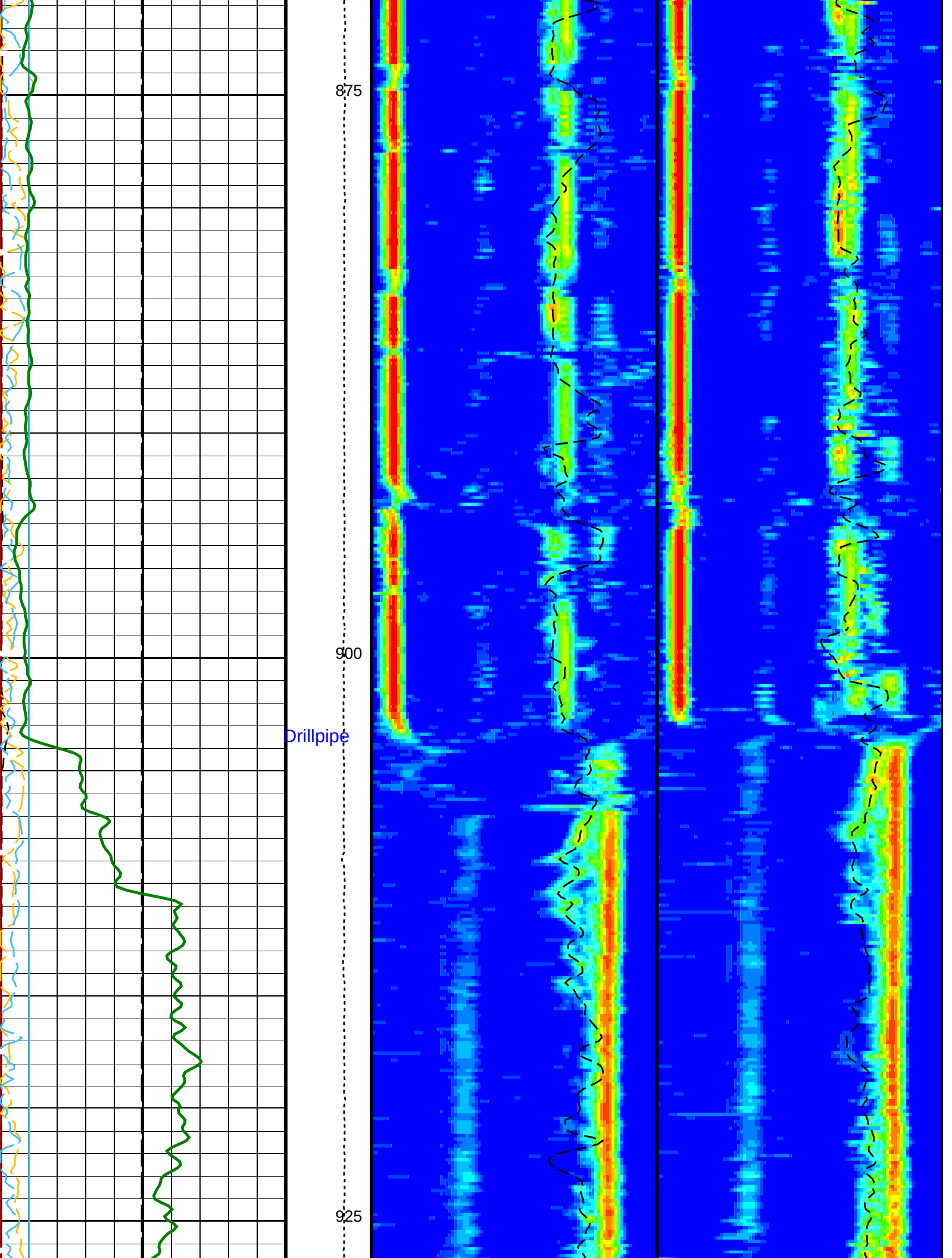
Delta−T Shear / RA − P & S (DTRS)
40 (US/F) 240

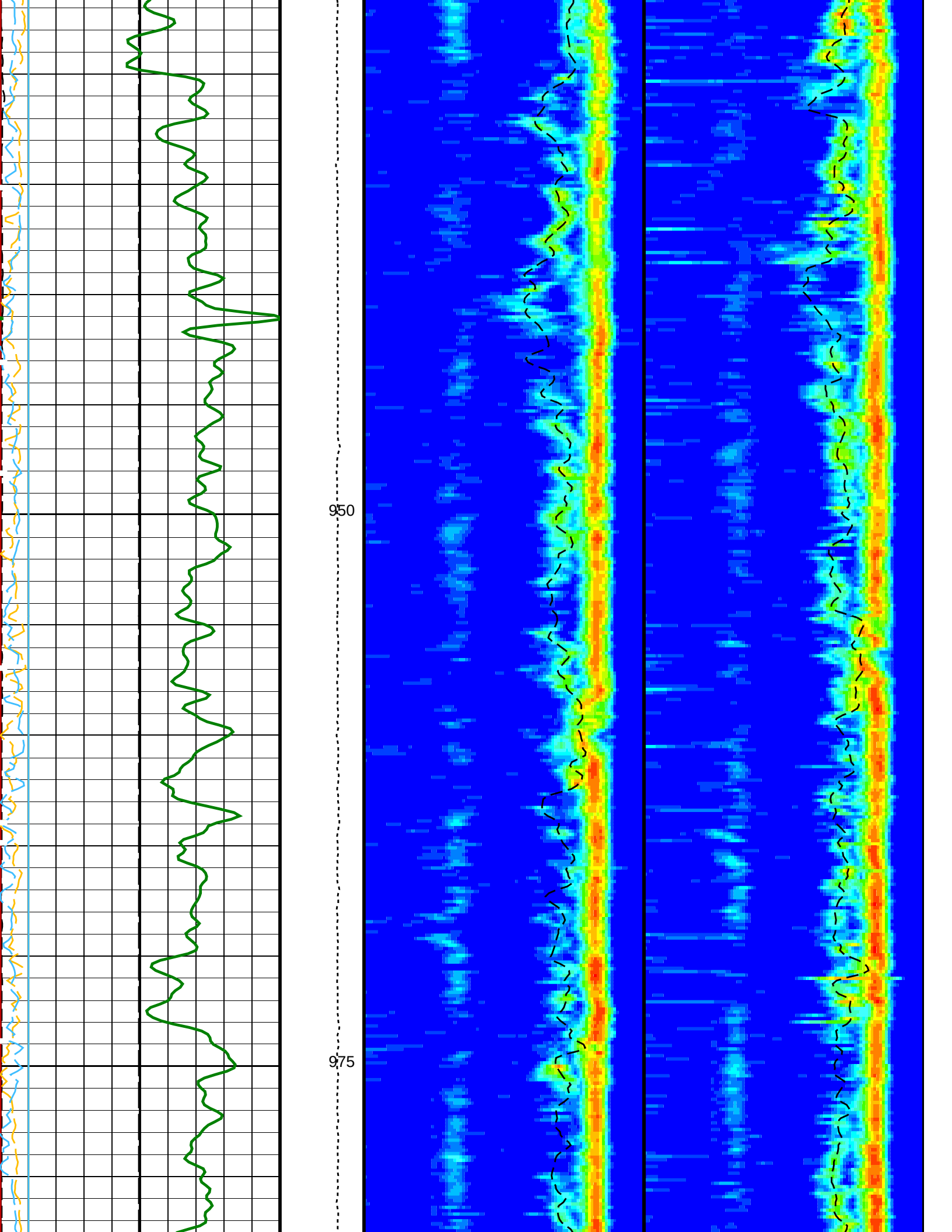
Tension (TENS) (LBF)
10000 0

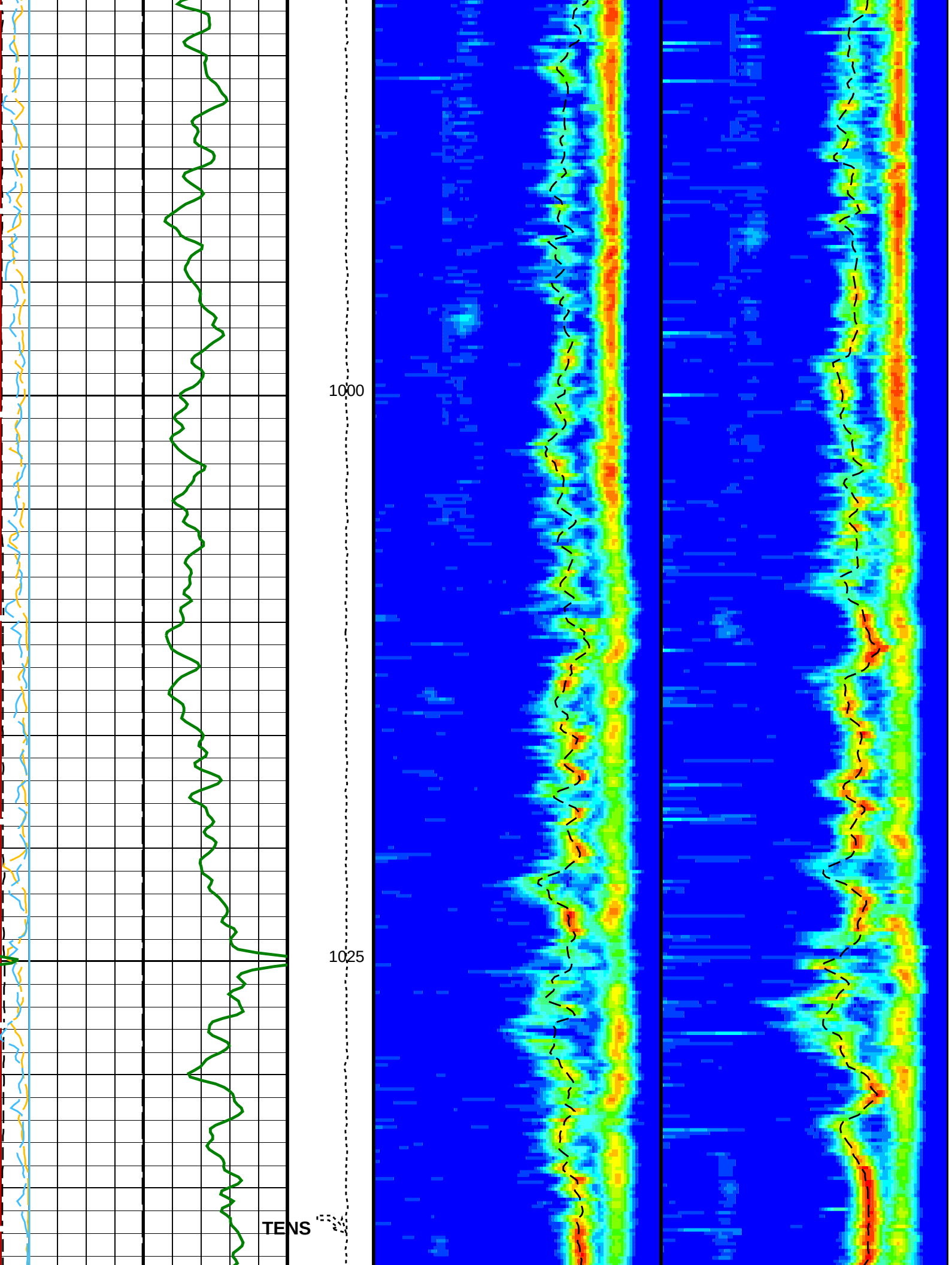
Delta−T Comp / TA − P & S (DTTP)
40 (US/F) 240

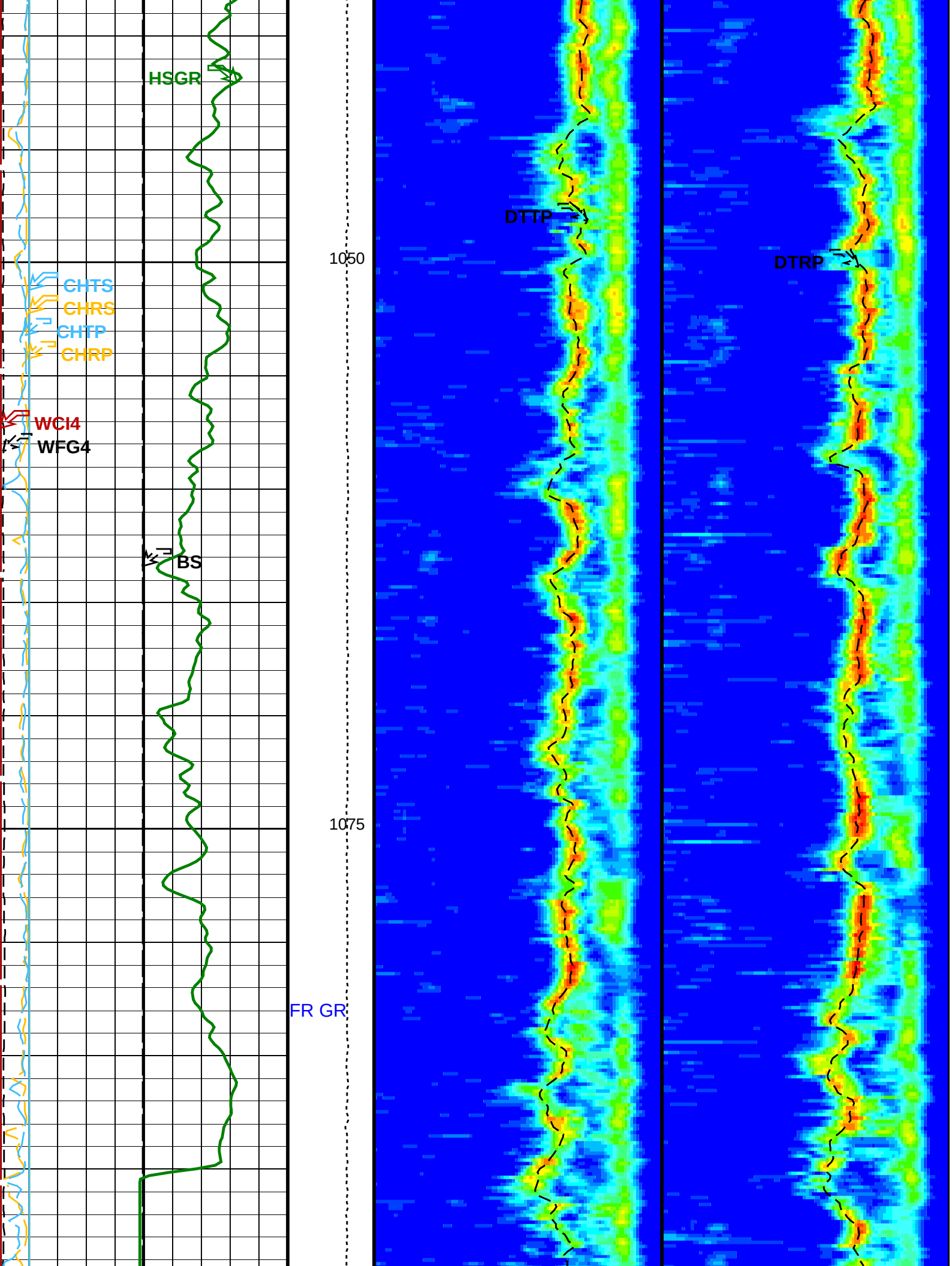
Delta−T Comp / RA − P & S (DTRP)
40 (US/F) 240

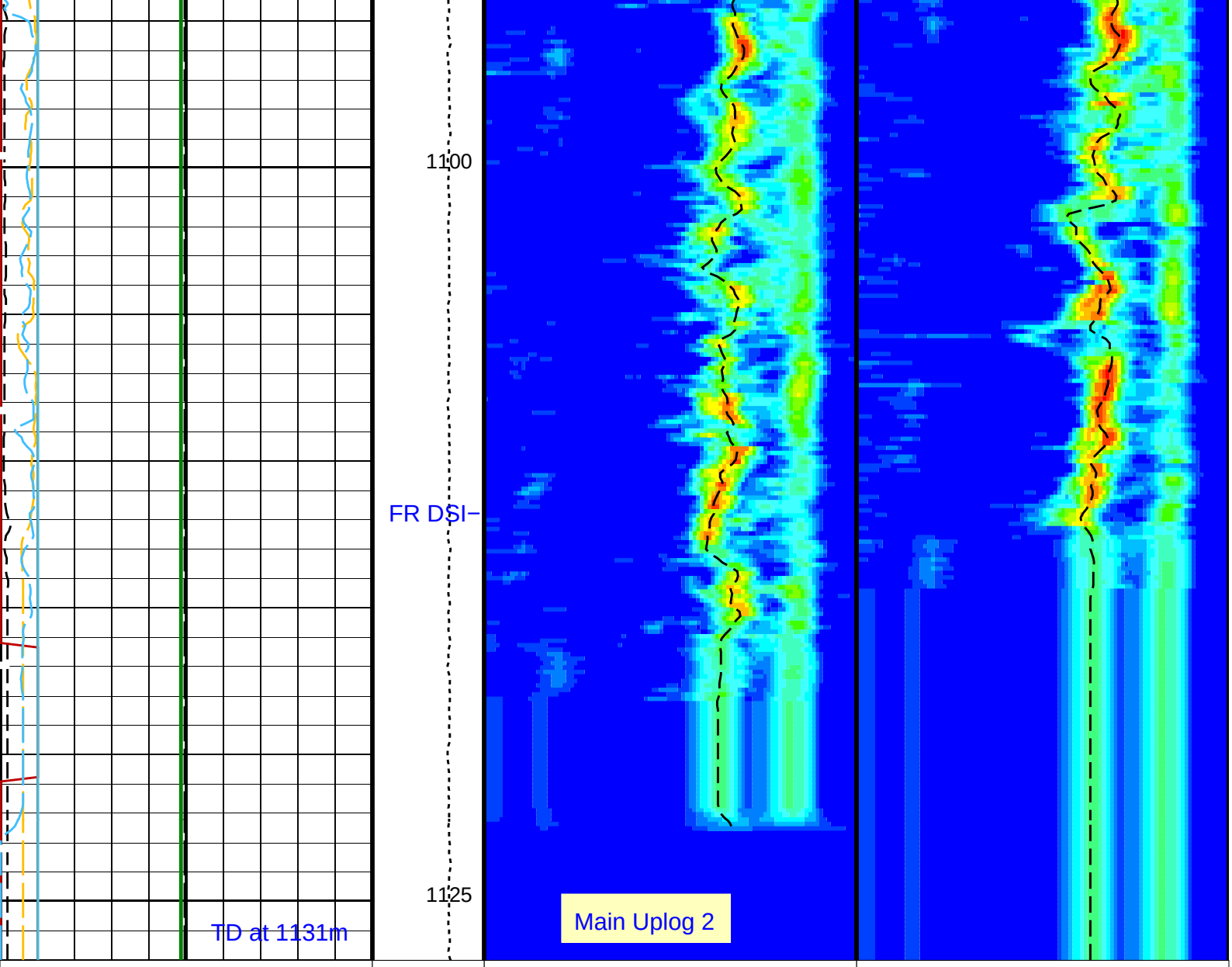



875
900
Drillpipe
925


950
975


1000
1025
TENS


HSGR
CHTS
CHRS
CHTP
CHRP
WCI4
WFG4
BS
DTTP
DTRP
1050
1075
FR GR



Bit Size (BS)	Tension (TENS)	Delta−T Comp / TA − P & S (DTTP)	Delta−T Comp / RA − P & S (DTRP)
0 (IN) 20	10000 (LBF) 0	40 (US/F) 240	40 (US/F) 240
SAM4 Waveform Gain (WFG4)		Delta−T Shear / TA − P & S (DTTS)	Delta−T Shear / RA − P & S (DTRS)
0 (−−−−) 1000		40 (US/F) 240	40 (US/F) 240
Waveform Data Copy Indicator 4 − Monopole P&S (WCI4)		Min Amplitude Max Tr.Array P&S Slow Proj. CVDL (SPT4)	Min Amplitude Max Rec.Array P&S Slow Proj. CVDL (SPR4)
0 (−−−−) 10		40 (US/F) 240	40 (US/F) 240
Peak Coherence / RA − P & S Comp (CHRP)			
0 (−−−−) 10			
Peak Coherence / TA − P & S Comp (CHTP)			
0 (−−−−) 10			
Peak Coherence / RA − P & S Shear (CHRS)			
−1 (−−−−) 9			
Peak Coherence / TA − P & S Shear (CHTS)			
−1 (−−−−) 9			
HNGS Spectroscopy Gamma Ray			

	(HSGR)	
0	(GAPI)	100

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
BHS	Borehole Status	OPEN	
CASF	Label Casing Function − Monopole P&S	60	
COLL	Label Slowness Lower Limit − Monopole P&S Compressional	150	US/F
COUL	Label Slowness Upper Limit − Monopole P&S Compressional	202	US/F
DDE4	Digitizing Delay 4	0	US
DDEX	Digitizing Delay X	0	US
DSI4	Digitizer Sample Interval 4	10	US
DSIX	Digitizer Sample Interval X	40	US
DTF	Delta−T Fluid	205	US/F
DWC4	Digitizer Word Count 4	512	
DWCX	Digitizer Word Count X	512	
FILG	Label Fill Gap Control − Monopole P&S	COMP_SHEAR	
GCSE	Generalized Caliper Selection	LCAL	
LFC	Label Formation Character − Monopole P&S	DYNAMIC	
MCS	Mean Casing Slowness	57	US/F
MTXG	Monopole Transmitter Geometry	186	IN
NWI4	Number Waveform Items 4	8	
NWIX	Number Waveform Items X	0	
RSMN	Label Shear/Compressional Minimum Ratio − Monopole P&S	1.4	
RSMX	Label Shear/Compressional Maximum Ratio − Monopole P&S	2.12	
RX1G	Receiver 1 Geometry	294	IN
RX2G	Receiver 2 Geometry	300	IN
RX3G	Receiver 3 Geometry	306	IN
RX4G	Receiver 4 Geometry	312	IN
RX5G	Receiver 5 Geometry	318	IN
RX6G	Receiver 6 Geometry	324	IN
RX7G	Receiver 7 Geometry	330	IN
RX8G	Receiver 8 Geometry	336	IN
SAM4	DSST Sonic Acquisition Mode 4 − Monopole Mode for P&S	EVEN	
SAMX	DSST Sonic Acquisition Mode X − Both Dipoles or Monopole Mode for Expert	OFF	
SAS4	STC Sonic Array Status − Monopole P&S	255	
SBO4	STC Search Band Offset − Monopole P&S	500	US
SBR4	STC Baseline Removal − Monopole P&S	ON	
SBW4	STC Search Bandwidth − Monopole P&S	2000	US
SFC4	STC Formation Character − Monopole P&S	SELECTABLE	
SFM4	STC Filter − Monopole P&S	B3−20K	
SHLL	Label Slowness Lower Limit − Monopole P&S Shear	239	US/F
SHUL	Label Slowness Upper Limit − Monopole P&S Shear	240	US/F
SLL4	STC Slowness Lower Limit − Monopole P&S	40	US/F
SST4	STC Slowness Step − Monopole P&S	2	US/F
SSW4	STC Source Waveform − Monopole P&S	WF_SAM4	
STLL	Label Slowness Lower Limit − Monopole Stoneley	180	US/F
STUL	Label Slowness Upper Limit − Monopole Stoneley	780	US/F
SUL4	STC Slowness Upper Limit − Monopole P&S	240	US/F
SWD4	STC Slowness Width − Monopole P&S	10	US/F
TBF4	STC Time for Baseline Fill − Monopole P&S	300	US
TLL4	STC Time Lower Limit − Monopole P&S	150	US
TST4	STC Time Step − Monopole P&S	50	US
TUL4	STC Time Upper Limit − Monopole P&S	3660	US
TWD4	STC Time Width − Monopole P&S	1000	US
TWI4	STC Integration Time Window − Monopole P&S	500	US
TWSX	Transmitter Waveform Select X	0	
WFM4	Waveform Mode 4	W1	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	HNGS−BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	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	LCAL	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.0026414	
HALF	HNGS Alpha Filter Length	60	IN

HALP	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.964366	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.975746	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.26	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: DSST_P_S_RC_TR_VDL_COLOR Vertical Scale: 1:200 Graphics File Created: 03−Feb−2018 21:43

OP System Version: 19C0−187

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

Input DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_008LUP	FN:12	PRODUCER	02−Feb−2018 13:12	1127.0 M	830.8 M

Output DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_031PUP	FN:40	PRODUCER	03−Feb−2018 21:43		

Company: International Ocean Discovery Program Well: Expedition 374, Site U1523D

Input DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_007LUP	FN:10	PRODUCER	02−Feb−2018 12:44	1131.6 M	996.8 M

Output DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_030PUP	FN:39	PRODUCER	03−Feb−2018 21:37	1131.6 M	996.8 M

OP System Version: 19C0−187

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

PIP SUMMARY

Time Mark Every 60 S

HNGS Spectroscopy Gamma Ray (HSGR)		
0	(GAPI)	100
Peak Coherence / TA − P & S Shear (CHTS)		
−1	(−−−−)	9
Peak Coherence / RA − P & S Shear (CHRS)		
−1	(−−−−)	9
Peak Coherence / TA − P & S Comp (CHTP)		
0	(−−−−)	10

REPEAT SECTION

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

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

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

Bit Size (BS)
0 (IN) 20

Tension (TENS) (LBF)
10000 0

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

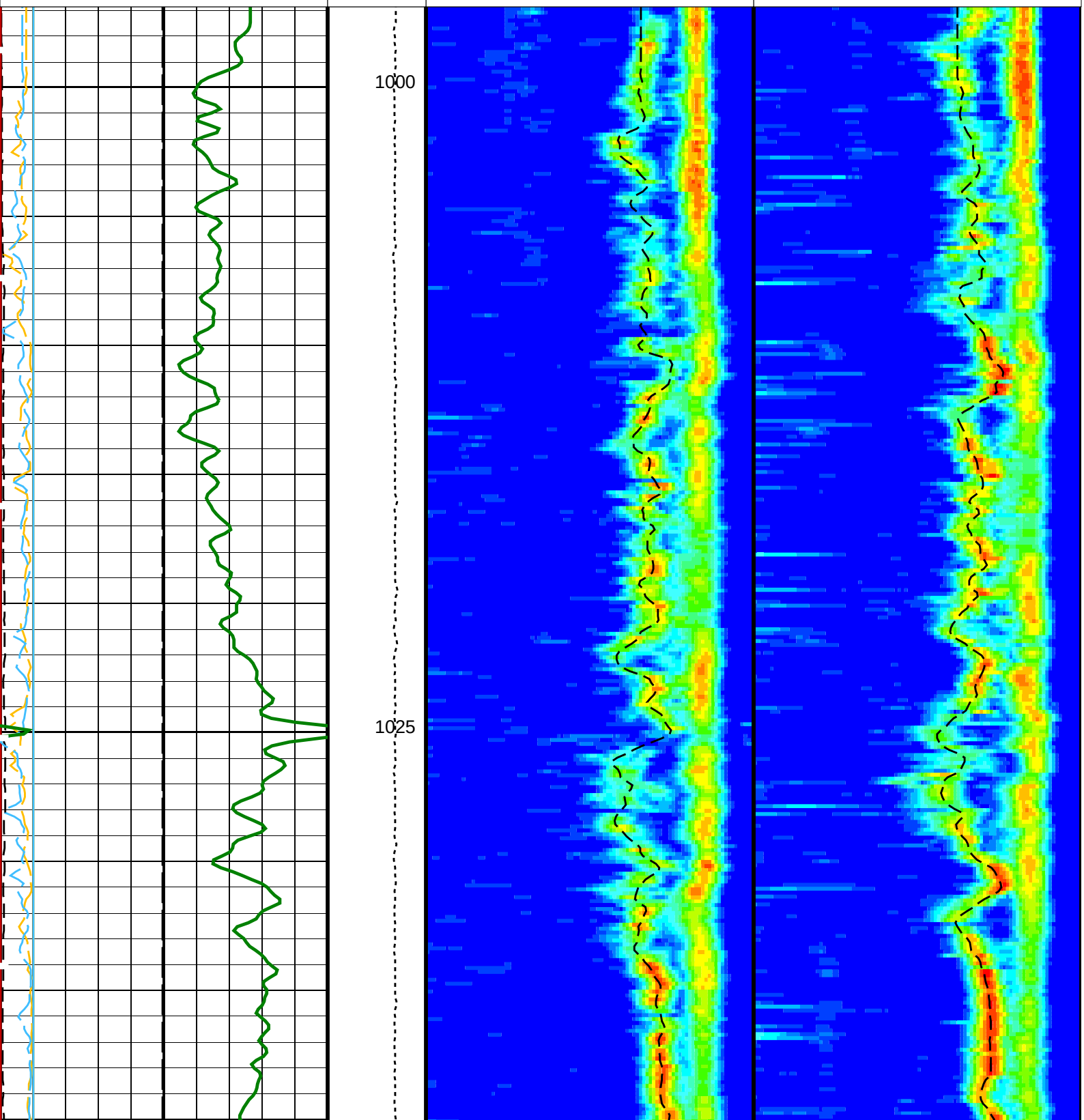
Min Amplitude Max
Rec.Array P&S Slow Proj. CVDL (SPR4)
40 (US/F) 240

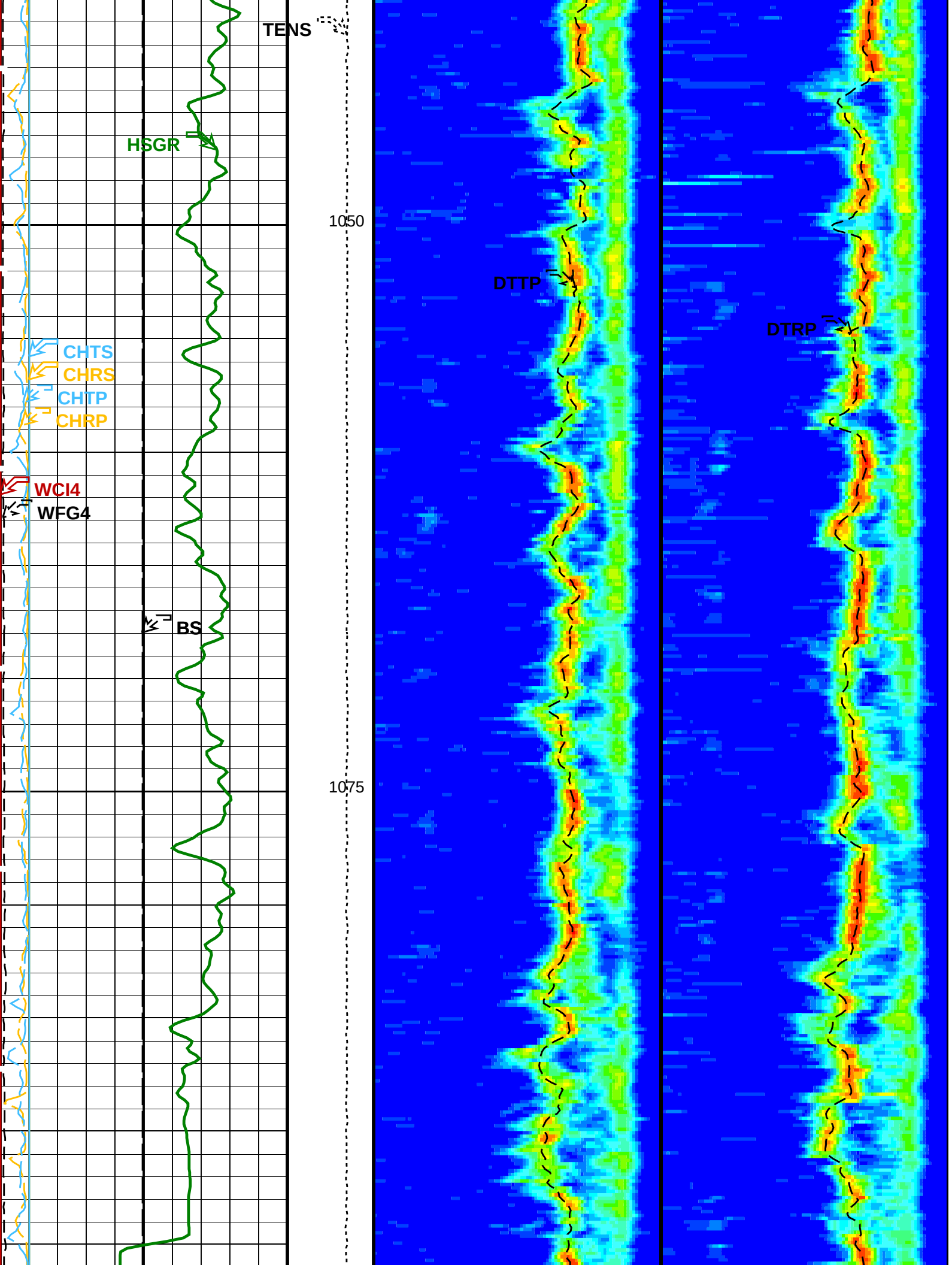
Delta−T Shear / TA − P & S (DTTS)
40 (US/F) 240

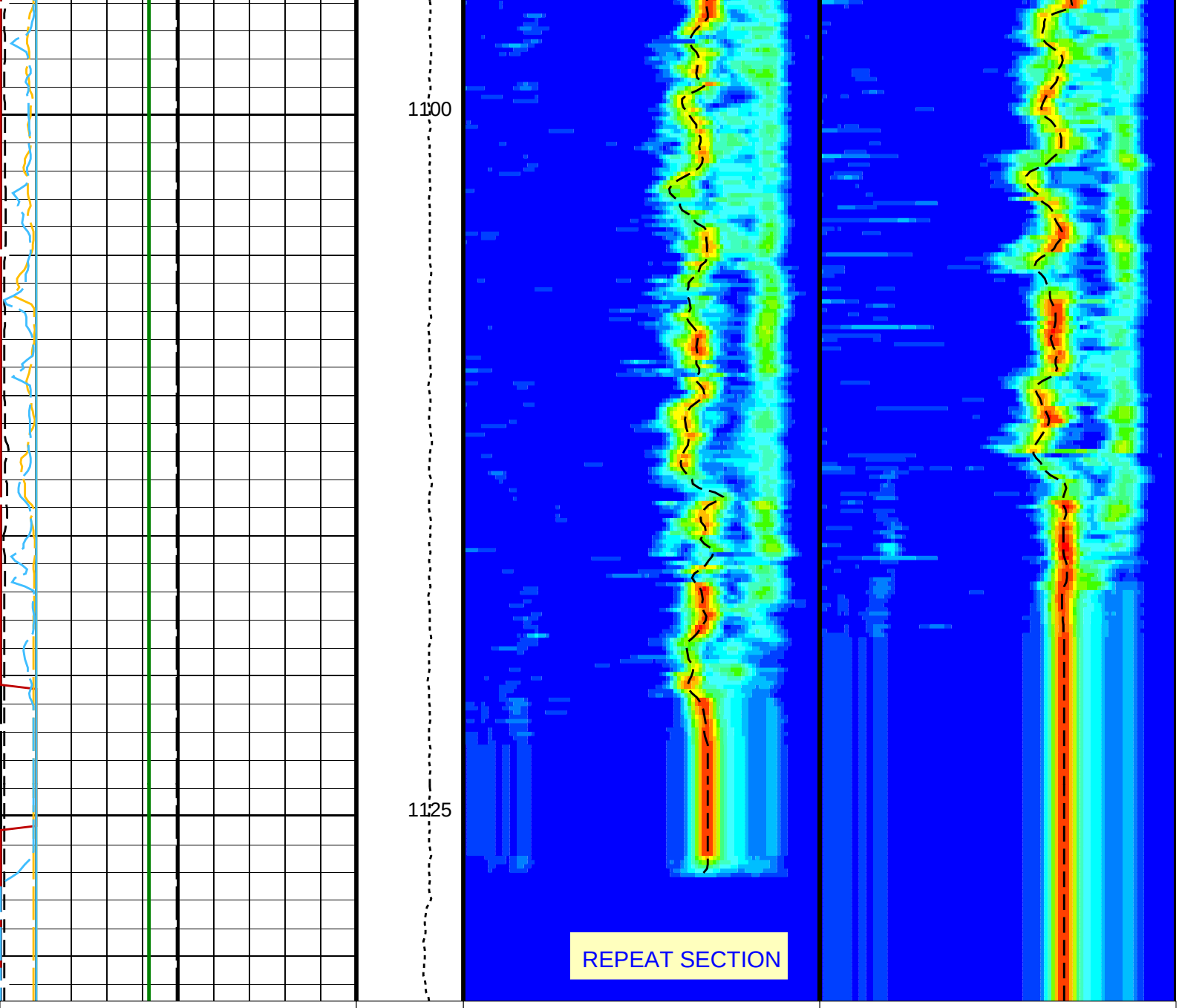
Delta−T Shear / RA − P & S (DTRS)
40 (US/F) 240

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

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




TENS
HSGR
1050
DTTP
DTRP
CHTS
CHRS
CHTP
CHRP
WCI4
WFG4
BS
1075



Bit Size (BS)	Tension (TENS)	Delta−T Comp / TA − P & S (DTTP)	Delta−T Comp / RA − P & S (DTRP)
0 (IN) 20	(LBF) 10000 0	40 (US/F) 240	40 (US/F) 240
SAM4 Waveform Gain (WFG4)		Delta−T Shear / TA − P & S (DTTS)	Delta−T Shear / RA − P & S (DTRS)
0 (−−−−) 1000		40 (US/F) 240	40 (US/F) 240
Waveform Data Copy Indicator 4 − Monopole P&S (WCI4)		Min Amplitude Max	Min Amplitude Max
0 (−−−−) 10		Tr.Array P&S Slow Proj. CVDL (SPT4) 40 (US/F) 240	Rec.Array P&S Slow Proj. CVDL (SPR4) 40 (US/F) 240
Peak Coherence / RA − P & S Comp (CHRP)			
0 (−−−−) 10			
Peak Coherence / TA − P & S Comp (CHTP)			
0 (−−−−) 10			
Peak Coherence / RA − P & S Shear (CHRS)			
−1 (−−−−) 9			
Peak Coherence / TA − P & S Shear			

(CHTS)

−1	(−−−−)	9

HNGS Spectroscopy Gamma Ray (HSGR)

0	(GAPI)	100

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
BHS	Borehole Status	OPEN	
CASF	Label Casing Function − Monopole P&S	60	
COLL	Label Slowness Lower Limit − Monopole P&S Compressional	150	US/F
COUL	Label Slowness Upper Limit − Monopole P&S Compressional	202	US/F
DDE4	Digitizing Delay 4	0	US
DDEX	Digitizing Delay X	0	US
DSI4	Digitizer Sample Interval 4	10	US
DSIX	Digitizer Sample Interval X	40	US
DTF	Delta−T Fluid	205	US/F
DWC4	Digitizer Word Count 4	512	
DWCX	Digitizer Word Count X	512	
FILG	Label Fill Gap Control − Monopole P&S	COMP_SHEAR	
GCSE	Generalized Caliper Selection	LCAL	
LFC	Label Formation Character − Monopole P&S	DYNAMIC	
MCS	Mean Casing Slowness	57	US/F
MTXG	Monopole Transmitter Geometry	186	IN
NWI4	Number Waveform Items 4	8	
NWIX	Number Waveform Items X	0	
RSMN	Label Shear/Compressional Minimum Ratio − Monopole P&S	1.4	
RSMX	Label Shear/Compressional Maximum Ratio − Monopole P&S	2.12	
RX1G	Receiver 1 Geometry	294	IN
RX2G	Receiver 2 Geometry	300	IN
RX3G	Receiver 3 Geometry	306	IN
RX4G	Receiver 4 Geometry	312	IN
RX5G	Receiver 5 Geometry	318	IN
RX6G	Receiver 6 Geometry	324	IN
RX7G	Receiver 7 Geometry	330	IN
RX8G	Receiver 8 Geometry	336	IN
SAM4	DSST Sonic Acquisition Mode 4 − Monopole Mode for P&S	EVEN	
SAMX	DSST Sonic Acquisition Mode X − Both Dipoles or Monopole Mode for Expert	OFF	
SAS4	STC Sonic Array Status − Monopole P&S	255	
SBO4	STC Search Band Offset − Monopole P&S	500	US
SBR4	STC Baseline Removal − Monopole P&S	ON	
SBW4	STC Search Bandwidth − Monopole P&S	2000	US
SFC4	STC Formation Character − Monopole P&S	SELECTABLE	
SFM4	STC Filter − Monopole P&S	B3−20K	
SHLL	Label Slowness Lower Limit − Monopole P&S Shear	239	US/F
SHUL	Label Slowness Upper Limit − Monopole P&S Shear	240	US/F
SLL4	STC Slowness Lower Limit − Monopole P&S	40	US/F
SST4	STC Slowness Step − Monopole P&S	2	US/F
SSW4	STC Source Waveform − Monopole P&S	WF_SAM4	
STLL	Label Slowness Lower Limit − Monopole Stoneley	180	US/F
STUL	Label Slowness Upper Limit − Monopole Stoneley	780	US/F
SUL4	STC Slowness Upper Limit − Monopole P&S	240	US/F
SWD4	STC Slowness Width − Monopole P&S	10	US/F
TBF4	STC Time for Baseline Fill − Monopole P&S	300	US
TLL4	STC Time Lower Limit − Monopole P&S	150	US
TST4	STC Time Step − Monopole P&S	50	US
TUL4	STC Time Upper Limit − Monopole P&S	3660	US
TWD4	STC Time Width − Monopole P&S	1000	US
TWI4	STC Integration Time Window − Monopole P&S	500	US
TWSX	Transmitter Waveform Select X	0	
WFM4	Waveform Mode 4	W1	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	HNGS−BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	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	LCAL	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00303098	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.951557	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.970175	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.26	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: DSST_P_S_RC_TR_VDL_COLOR Vertical Scale: 1:200 Graphics File Created: 03−Feb−2018 21:37

OP System Version: 19C0−187

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

Input DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_007LUP	FN:10	PRODUCER	02−Feb−2018 12:44	1131.6 M	996.8 M

Output DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_030PUP	FN:39	PRODUCER	03−Feb−2018 21:37		

Input DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_008LUP	FN:12	PRODUCER	02−Feb−2018 13:12	1127.0 M	830.8 M

Output DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_031PUP	FN:40	PRODUCER	03−Feb−2018 21:43	1127.0 M	830.9 M

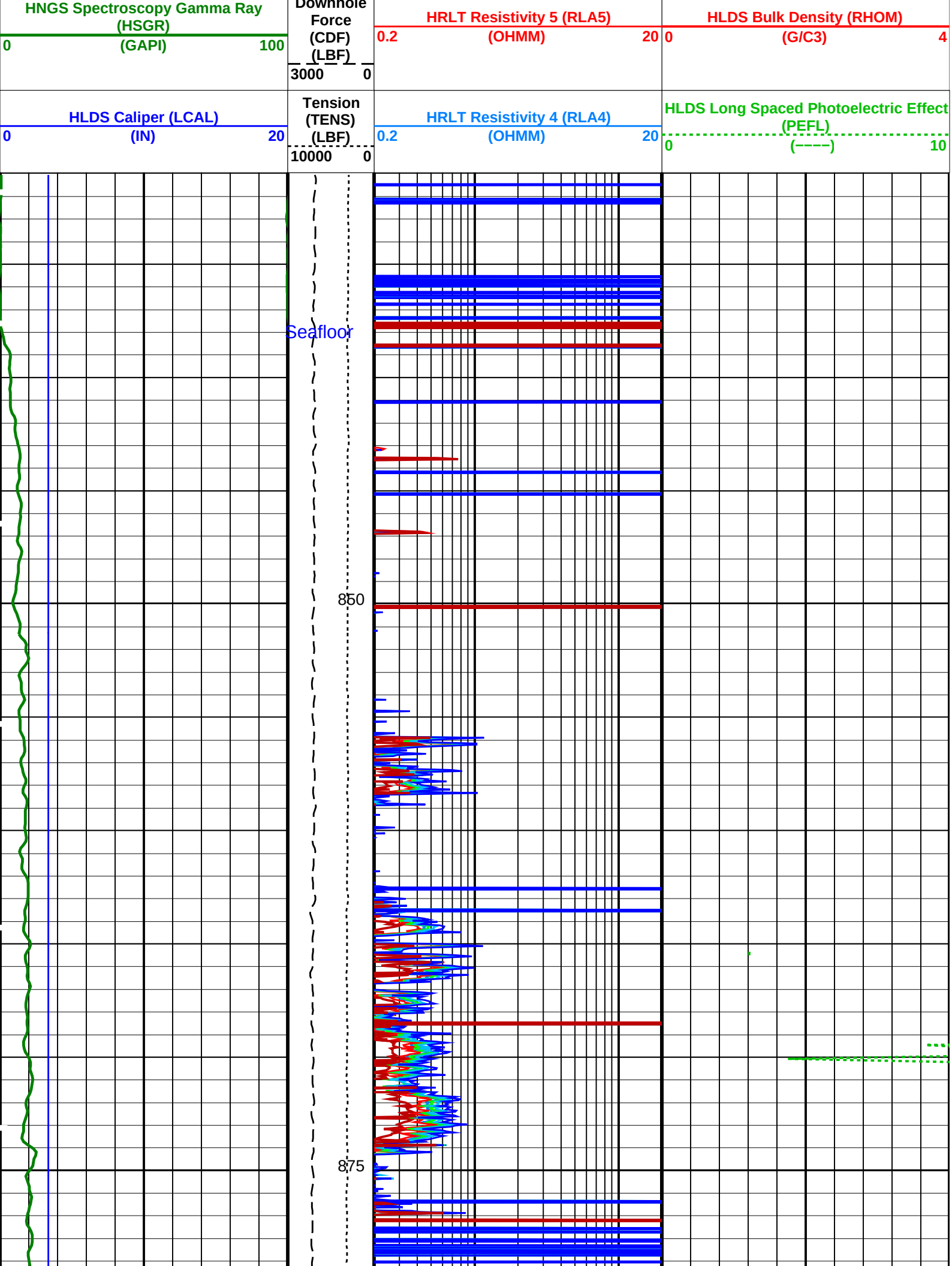
OP System Version: 19C0−187

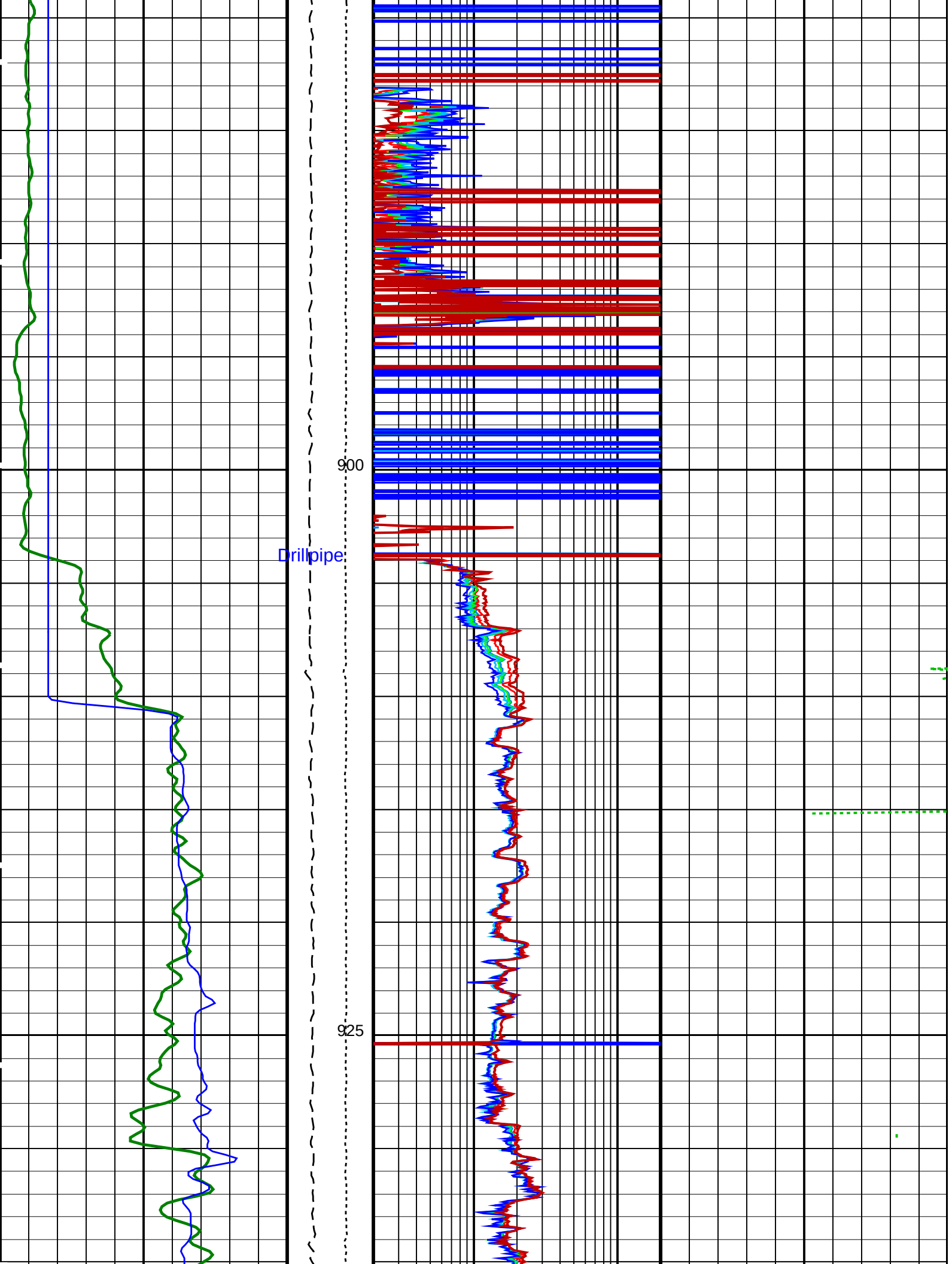
MSS_LDEO−A	19C0−187	DSST−B	19C0−187
HRLT−B	19C0−187	HLDS	19C0−187
LDSC−B	19C0−187	HNGC−B	19C0−187
HNGS−BA	19C0−187	EDTC−B	SKK−5169−EDTCB

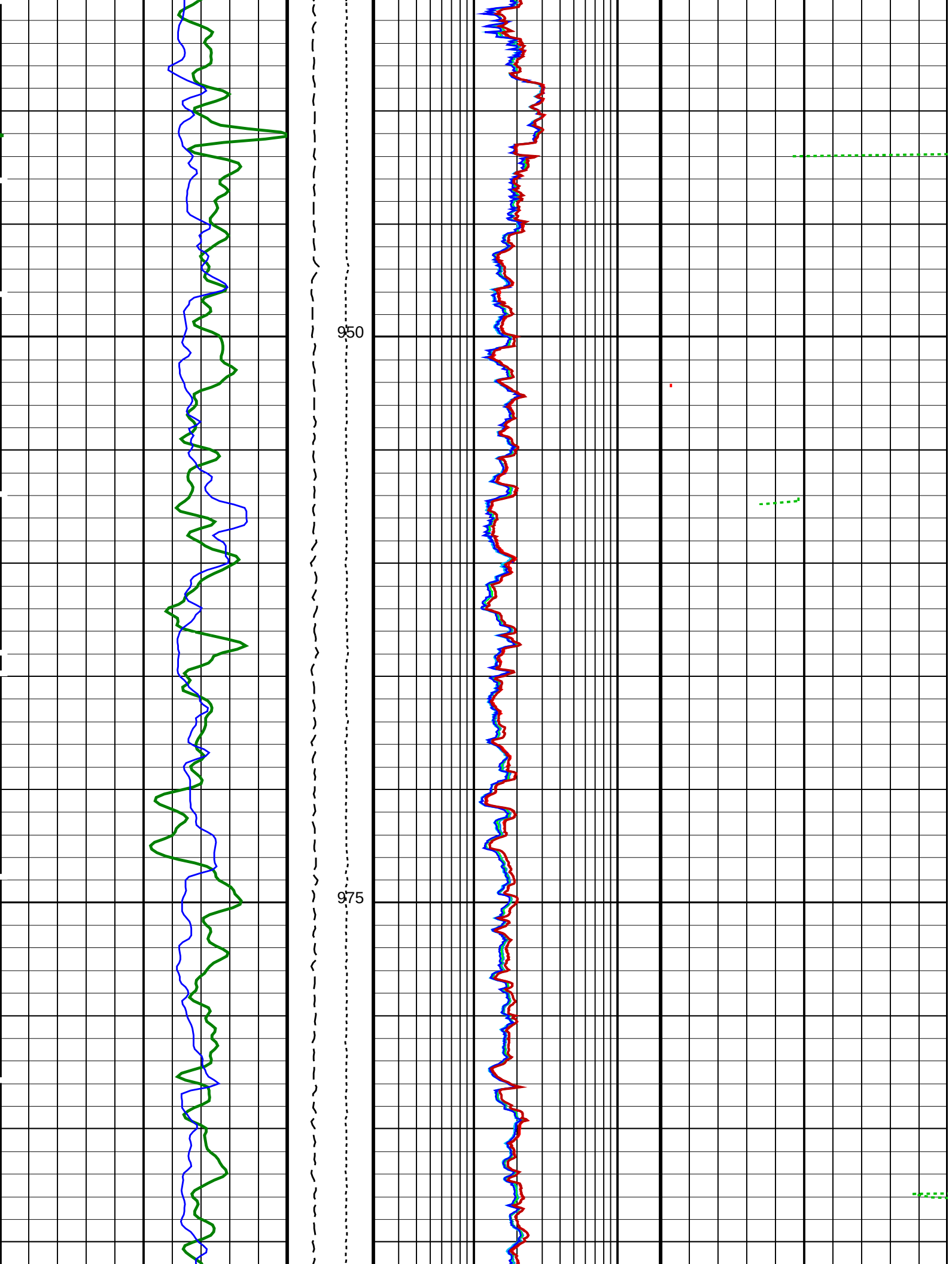
PIP SUMMARY

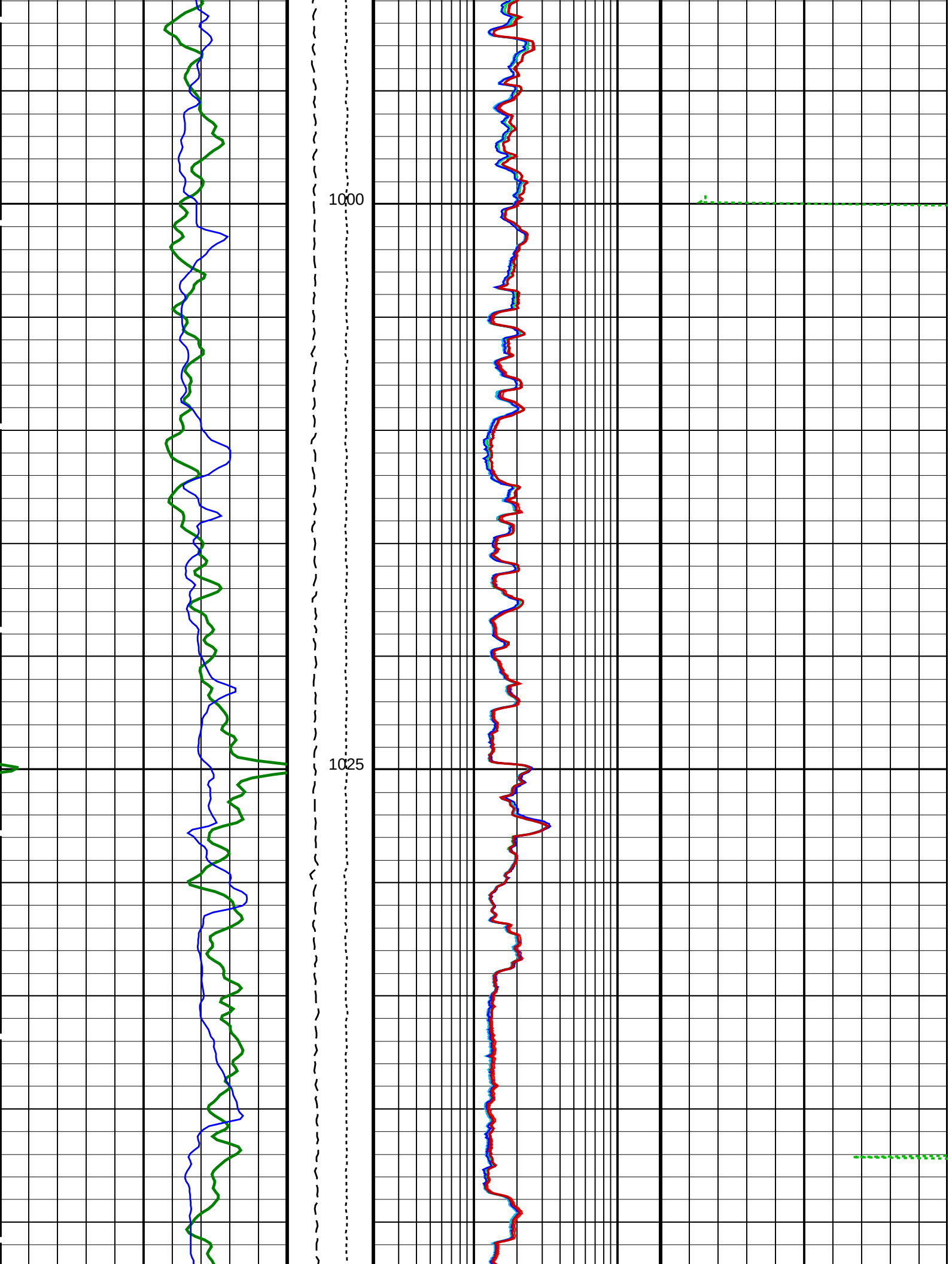
Time Mark Every 60 S

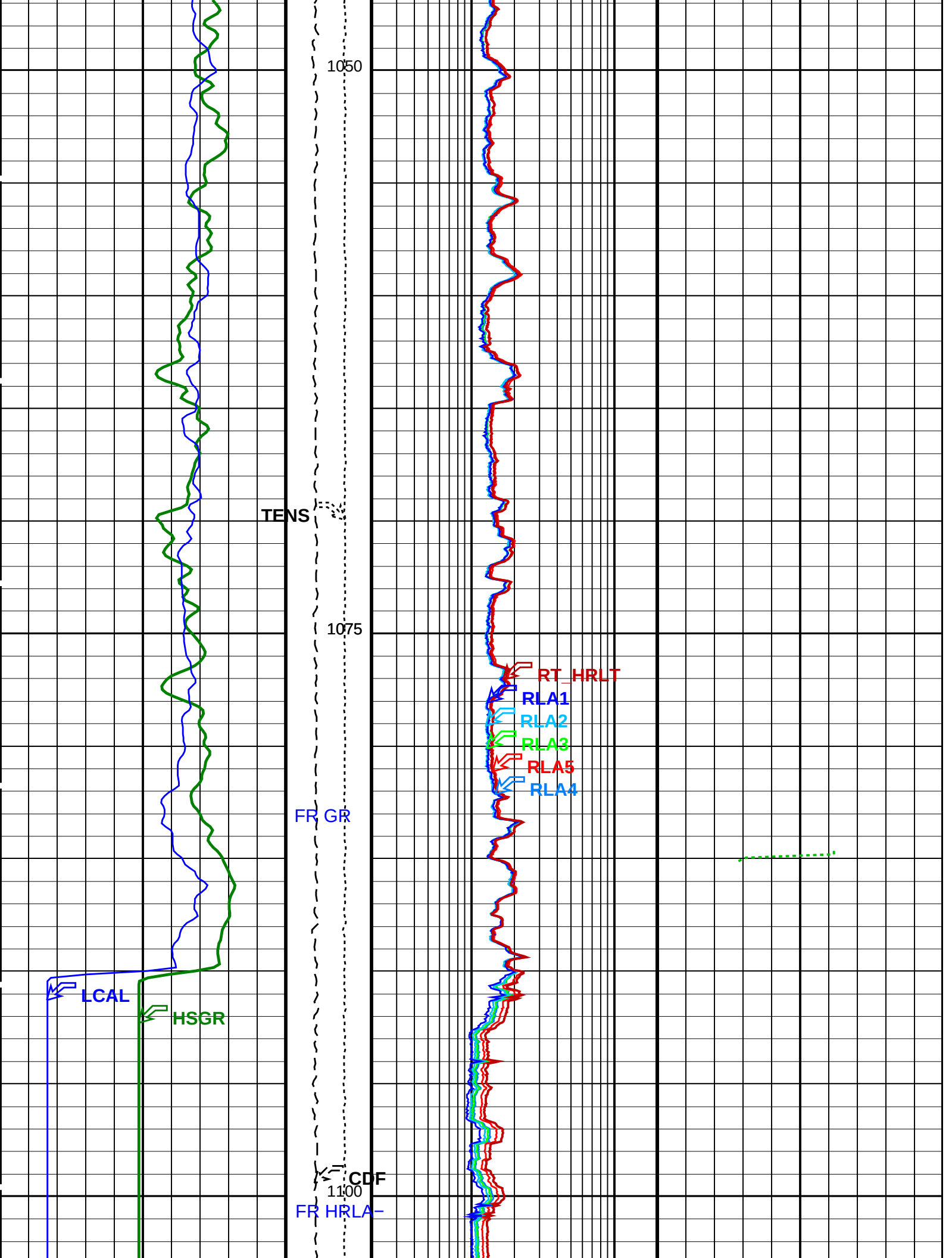
	HRLT True Resistivity (RT_HRLT)		
	0.2 (OHMM) 20		
	HRLT Resistivity 1 (RLA1)		
	0.2 (OHMM) 20		
	HRLT Resistivity 2 (RLA2)		
	0.2 (OHMM) 20		
Main Uplog2	HRLT Resistivity 3 (RLA3)	HLDS Bulk Density Correction (DRH)	
	0.2 (OHMM) 20	−0.25 (G/C3) 0.25	
Calibrated Downhole			

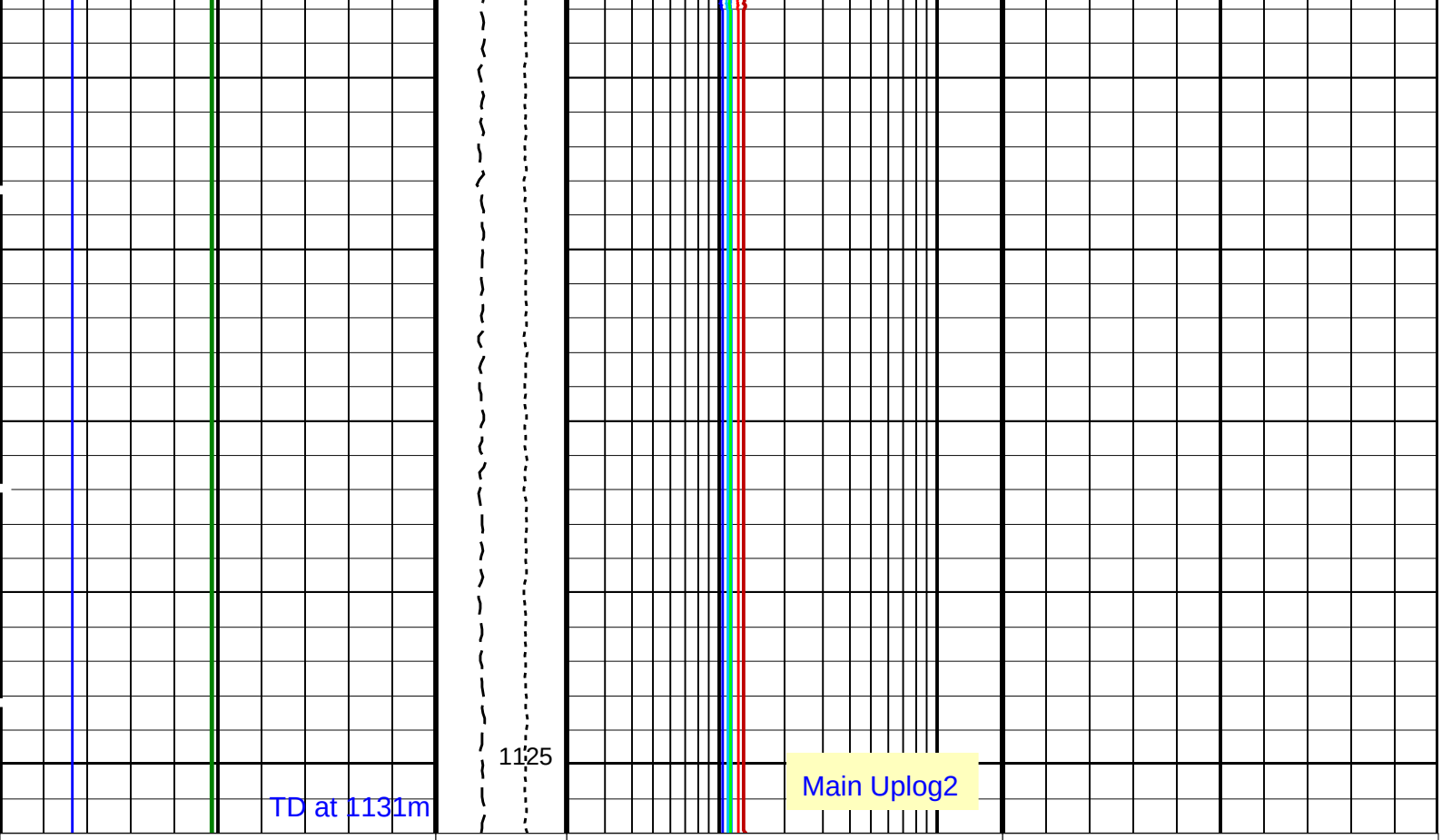

HNGS Spectroscopy Gamma Ray (HSGR)
0
(GAPI)
100
Downhole Force (CDF) (LBF)
3000
0
HRLT Resistivity 5 (RLA5)
0.2
(OHMM)
20
HLDS Bulk Density (RHOM)
0
(G/C3)
4
HLDS Caliper (LCAL)
0
(IN)
20
Tension (TENS) (LBF)
10000
0
HRLT Resistivity 4 (RLA4)
0.2
(OHMM)
20
HLDS Long Spaced Photoelectric Effect (PEFL)
0
(----)
10
Seafloor
850
875


900
Drillpipe
925


950
975


1000
1025


1050
TENS
1075
RT_HRLT
RLA1
RLA2
RLA3
RLA5
RLA4
FR GR
LCAL
HSGR
CDF
1100
FR HRLA



HLDS Caliper (LCAL)	Tension (TENS)	HRLT Resistivity 4 (RLA4)	HLDS Long Spaced Photoelectric Effect (PEFL)
0 (IN) 20	10000 (LBF) 0	0.2 (OHMM) 20	0 (−−−−) 10
HNGS Spectroscopy Gamma Ray (HSGR)	**Calibrated Downhole Force (CDF)**	**HRLT Resistivity 5 (RLA5)**	**HLDS Bulk Density (RHOM)**
0 (GAPI) 100	3000 (LBF) 0	0.2 (OHMM) 20	0 (G/C3) 4
		HRLT Resistivity 3 (RLA3)	**HLDS Bulk Density Correction (DRH)**
		0.2 (OHMM) 20	−0.25 (G/C3) 0.25
		HRLT Resistivity 2 (RLA2)	
		0.2 (OHMM) 20	
		HRLT Resistivity 1 (RLA1)	
		0.2 (OHMM) 20	
		HRLT True Resistivity (RT_HRLT)	
		0.2 (OHMM) 20	

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
AGC1	Automatic Gain Control 1	ON	
AGC2	Automatic Gain Control 2	ON	
AGC3	Automatic Gain Control 3	ON	
AGC4	Automatic Gain Control 4	ON	
AGC5	Automatic Gain Control 5	ON	
AGCX	Automatic Gain Control X	ON	
BARS_MTR1	Length for Monopole Transmitter to Receiver 1	2.7432	M
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
CASF	Label Casing Function − Monopole P&S	60	
CDTS	C-Delta-T Shale	100	US/F

CDTS	C−Delta−T Shale	100	US/F
COLL	Label Slowness Lower Limit − Monopole P&S Compressional	150	US/F
COUL	Label Slowness Upper Limit − Monopole P&S Compressional	202	US/F
DDE1	Digitizing Delay 1	0	US
DDE2	Digitizing Delay 2	0	US
DDE3	Digitizing Delay 3	0	US
DDE4	Digitizing Delay 4	0	US
DDE5	Digitizing Delay 5	0	US
DDEX	Digitizing Delay X	0	US
DLCS	Label Compressional Source − Dipole Shear	USE	
DLHS	Label Hole Diameter Source for SOBS Channel	AUTO	
DSHL	Label Slowness Lower Limit − Dipole Shear	200	US/F
DSHU	Label Slowness Upper Limit − Dipole Shear	1200	US/F
DSI1	Digitizer Sample Interval 1	40	US
DSI2	Digitizer Sample Interval 2	40	US
DSI3	Digitizer Sample Interval 3	40	US
DSI4	Digitizer Sample Interval 4	10	US
DSI5	Digitizer Sample Interval 5	10	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta−T Source for DTCO Channel	PS_COMP	
DTF	Delta−T Fluid	205	US/F
DTM	Delta−T Matrix	56	US/F
DTSS	Shear Delta−T Source for DTSM Channel	LOWER_DIPOLE	
DWC1	Digitizer Word Count 1	512	
DWC2	Digitizer Word Count 2	512	
DWC3	Digitizer Word Count 3	512	
DWC4	Digitizer Word Count 4	512	
DWC5	Digitizer Word Count 5	512	
DWCX	Digitizer Word Count X	512	
FDE1	Firing Delay 1	0	
FDE2	Firing Delay 2	0	
FDE3	Firing Delay 3	0	
FDE4	Firing Delay 4	0	
FDE5	Firing Delay 5	0	
FDEX	Firing Delay X	0	
FGM5	First Motion Gate Moveout 5	40	US/F
FGMX	First Motion Gate Moveout X	40	US/F
FILG	Label Fill Gap Control − Monopole P&S	COMP_SHEAR	
FMG5	First Motion Minimum Gate 5	500	US
FMGX	First Motion Minimum Gate X	500	US
FMLL	Slowness Lower Limit − FMD	40	US/F
FMRC	Restart Control − FMD	CONTINUE	
FMT5	First Motion Threshold 5	UP	
FMTX	First Motion Threshold X	NONE	
FMUL	Slowness Upper Limit − FMD	180	US/F
FNC5	First Motion Noise Counter Input 5	ALO	
FNCX	First Motion Noise Counter Input X	ALO	
FPM	Processing Mode − FMD	NONE	
FTD5	First Motion Threshold Direction 5	UP	
FTDX	First Motion Threshold Direction X	UP	
GAI1	Manual Gain 1	10	
GAI2	Manual Gain 2	10	
GAI3	Manual Gain 3	6	
GAI4	Manual Gain 4	16	
GAI5	Manual Gain 5	16	
GAIX	Manual Gain X	10	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GDT1	Gain Delta−T 1	800	US/F
GDT2	Gain Delta−T 2	800	US/F
GDT3	Gain Delta−T 3	800	US/F
GDT4	Gain Delta−T 4	160	US/F
GDT5	Gain Delta−T 5	160	US/F
GDTX	Gain Delta−T X	800	US/F
GGRD	Geothermal Gradient	0.01	DF/F
GIN1	Gain Interval 1	15360	US
GIN2	Gain Interval 2	15360	US
GIN3	Gain Interval 3	15360	US
GIN4	Gain Interval 4	2560	US
GIN5	Gain Interval 5	1600	US
GINX	Gain Interval X	15360	US
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HPF1	High Pass Filter 1	F80	
HPF2	High Pass Filter 2	F80	
HPF3	High Pass Filter 3	F80	
HPF4	High Pass Filter 4	F8K	
HPF5	High Pass Filter 5	F8K	
HPFX	High Pass Filter X	F80	
ISSBAR	Barite Mud Switch	BARITE	
ITTS	Integrated Transit Time Source	DTCO	
LFC	Label Formation Character − Monopole P&S	DYNAMIC	
LPF1	Low Pass Filter 1	F5K	
LPF2	Low Pass Filter 2	F5K	
LPF3	Low Pass Filter 3	F5K	

LPF4	Low Pass Filter 4	F30K	
LPF5	Low Pass Filter 5	F30K	
LPFX	Low Pass Filter X	F5K	
LTXG	Lower Dipole Transmitter Geometry	156	IN
MAI5	Slowness Averaging Interval − FMD	42	IN
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCS	Mean Casing Slowness	57	US/F
MDS5	Multishot Delta−T Scatter − FMD	20	US
MTXG	Monopole Transmitter Geometry	186	IN
MUX1	Sum Difference Multiplexor Input 1	RR	
MUX2	Sum Difference Multiplexor Input 2	RR	
MUX3	Sum Difference Multiplexor Input 3	RR	
MUX4	Sum Difference Multiplexor Input 4	RR	
MUX5	Sum Difference Multiplexor Input 5	RR	
MUXX	Sum Difference Multiplexor Input X	RR	
NTI5	Number Threshold Items 5	0	
NTIX	Number Threshold Items X	0	
NWI1	Number Waveform Items 1	8	
NWI2	Number Waveform Items 2	8	
NWI3	Number Waveform Items 3	0	
NWI4	Number Waveform Items 4	8	
NWI5	Number Waveform Items 5	0	
NWIX	Number Waveform Items X	0	
NWS1	Number Waveforms Stacked 1	1	
NWS2	Number Waveforms Stacked 2	1	
NWS3	Number Waveforms Stacked 3	1	
NWS4	Number Waveforms Stacked 4	1	
NWS5	Number Waveforms Stacked 5	1	
NWSX	Number Waveforms Stacked X	1	
RATE	Firing Rate	R7	
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
SAM1	DSST Sonic Acquisition Mode 1 − Lower Dipole Mode	LFD_EVEN	
SAM2	DSST Sonic Acquisition Mode 2 − Upper Dipole Mode	ODD	
SAM3	DSST Sonic Acquisition Mode 3 − Monopole Mode for Stoneley	OFF	
SAM4	DSST Sonic Acquisition Mode 4 − Monopole Mode for P&S	EVEN	
SAM5	DSST Sonic Acquisition Mode 5 − Monopole Mode for FMD	OFF	
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	
SAS3	STC Sonic Array Status − Monopole Stoneley	255	
SAS4	STC Sonic Array Status − Monopole P&S	255	
SAS5	Sonic Array Status − FMD	255	
SBO1	STC Search Band Offset − Lower Dipole	3000	US
SBO2	STC Search Band Offset − Upper Dipole	3000	US
SBO3	STC Search Band Offset − Monopole Stoneley	3000	US
SBO4	STC Search Band Offset − Monopole P&S	500	US
SBR4	STC Baseline Removal − Monopole P&S	ON	
SBW1	STC Search Bandwidth − Lower Dipole	8000	US
SBW2	STC Search Bandwidth − Upper Dipole	8000	US
SBW3	STC Search Bandwidth − Monopole Stoneley	8000	US
SBW4	STC Search Bandwidth − Monopole P&S	2000	US
SFC1	STC Formation Character − Lower Dipole	SELECTABLE	
SFC2	STC Formation Character − Upper Dipole	SELECTABLE	
SFC3	STC Formation Character − Monopole Stoneley	SELECTABLE	
SFC4	STC Formation Character − Monopole P&S	SELECTABLE	
SFM1	STC Filter − Lower Dipole	B.3−1.5K	
SFM2	STC Filter − Upper Dipole	B1−2K	
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	239	US/F
SHT	Surface Hole Temperature	55	DEGF
SHUL	Label Slowness Upper Limit − Monopole P&S Shear	240	US/F
SLL1	STC Slowness Lower Limit − Lower Dipole	40	US/F
SLL2	STC Slowness Lower Limit − Upper Dipole	40	US/F
SLL3	STC Slowness Lower Limit − Monopole Stoneley	180	US/F
SLL4	STC Slowness Lower Limit − Monopole P&S	40	US/F
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DTCO	
SST1	STC Slowness Step − Lower Dipole	4	US/F
SST2	STC Slowness Step − Upper Dipole	4	US/F
SST3	STC Slowness Step − Monopole Stoneley	4	US/F
SST4	STC Slowness Step − Monopole P&S	2	US/F
SSW1	STC Source Waveform − Lower Dipole	WF_SAM1	
SSW2	STC Source Waveform − Upper Dipole	WF_SAM2	
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
SUL1	STC Slowness Upper Limit − Lower Dipole	1200	US/F
SUL2	STC Slowness Upper Limit − Upper Dipole	1200	US/F
SUL3	STC Slowness Upper Limit − Monopole Stoneley	780	US/F
SUL4	STC Slowness Upper Limit − Monopole P&S	240	US/F
SWD1	STC Slowness Width − Lower Dipole	40	US/F
SWD2	STC Slowness Width − Upper Dipole	40	US/F
SWD3	STC Slowness Width − Monopole Stoneley	40	US/F
SWD4	STC Slowness Width − Monopole P&S	10	US/F
TBDB	Tool String Bottom to DSST Bottom	249.908	IN
TBF1	STC Time for Baseline Fill − Lower Dipole	0	US
TBF2	STC Time for Baseline Fill − Upper Dipole	0	US
TBF3	STC Time for Baseline Fill − Monopole Stoneley	0	US
TBF4	STC Time for Baseline Fill − Monopole P&S	300	US
TLL1	STC Time Lower Limit − Lower Dipole	600	US
TLL2	STC Time Lower Limit − Upper Dipole	600	US
TLL3	STC Time Lower Limit − Monopole Stoneley	600	US
TLL4	STC Time Lower Limit − Monopole P&S	150	US
TST1	STC Time Step − Lower Dipole	200	US
TST2	STC Time Step − Upper Dipole	200	US
TST3	STC Time Step − Monopole Stoneley	200	US
TST4	STC Time Step − Monopole P&S	50	US
TTDB	Tool String Top to DSST Bottom	1656.11	IN
TUL1	STC Time Upper Limit − Lower Dipole	20440	US
TUL2	STC Time Upper Limit − Upper Dipole	20200	US
TUL3	STC Time Upper Limit − Monopole Stoneley	12000	US
TUL4	STC Time Upper Limit − Monopole P&S	3660	US
TWA1	Transmitter Waveform Amplitude 1	179	
TWA2	Transmitter Waveform Amplitude 2	179	
TWA3	Transmitter Waveform Amplitude 3	166	
TWA4	Transmitter Waveform Amplitude 4	150	
TWA5	Transmitter Waveform Amplitude 5	150	
TWAX	Transmitter Waveform Amplitude X	179	
TWD1	STC Time Width − Lower Dipole	2000	US
TWD2	STC Time Width − Upper Dipole	2000	US
TWD3	STC Time Width − Monopole Stoneley	2000	US
TWD4	STC Time Width − Monopole P&S	1000	US
TWI1	STC Integration Time Window − Lower Dipole	1600	US
TWI2	STC Integration Time Window − Upper Dipole	1600	US
TWI3	STC Integration Time Window − Monopole Stoneley	2400	US
TWI4	STC Integration Time Window − Monopole P&S	500	US
TWR1	Transmitter Waveform Sample Rate 1	20	US
TWR2	Transmitter Waveform Sample Rate 2	5	US
TWR3	Transmitter Waveform Sample Rate 3	5	US
TWR4	Transmitter Waveform Sample Rate 4	5	US
TWR5	Transmitter Waveform Sample Rate 5	5	US
TWRX	Transmitter Waveform Sample Rate X	5	US
TWS1	Transmitter Waveform Select 1	2	
TWS2	Transmitter Waveform Select 2	0	
TWS3	Transmitter Waveform Select 3	4	
TWS4	Transmitter Waveform Select 4	6	
TWS5	Transmitter Waveform Select 5	6	
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFDTSP1	SAM1 Waveform Delta for Spectrum	0	US/F
WFDTSP2	SAM2 Waveform Delta for Spectrum	0	US/F
WFDTSP3	SAM3 Waveform Delta for Spectrum	0	US/F
WFDTSP4	SAM4 Waveform Delta for Spectrum	0	US/F
WFDTSPX	SAMX Waveform Delta for Spectrum	0	US/F
WFLLSP1	SAM1 Waveform Lower Limit for Spectrum	0	US
WFLLSP2	SAM2 Waveform Lower Limit for Spectrum	0	US
WFLLSP3	SAM3 Waveform Lower Limit for Spectrum	0	US
WFLLSP4	SAM4 Waveform Lower Limit for Spectrum	0	US
WFLLSPX	SAMX Waveform Lower Limit for Spectrum	0	US
WFM1	Waveform Mode 1	W1	
WFM2	Waveform Mode 2	W1	
WFM3	Waveform Mode 3	W1	
WFM4	Waveform Mode 4	W1	
WFM5	Waveform Mode 5	W1	
WFMX	Waveform Mode X	W1	
WFULSP1	SAM1 Waveform Upper Limit for Spectrum	20000	US
WFULSP2	SAM2 Waveform Upper Limit for Spectrum	20000	US
WFULSP3	SAM3 Waveform Upper Limit for Spectrum	20000	US
WFULSP4	SAM4 Waveform Upper Limit for Spectrum	5000	US
WFULSPX	SAMX Waveform Upper Limit for Spectrum	20000	US
XMT1	Transmitter Select 1	DLO	
XMT2	Transmitter Select 2	DUP	
XMT3	Transmitter Select 3	MONO	
XMT4	Transmitter Select 4	MONO	
XMT5	Transmitter Select 5	MONO	
XMTX	Transmitter Select X	DUP	

HRLT−B: High Resolution Laterolog Array − B

BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE	
CALTEMP	HRLTB Calibration Temperature	−0.0505813	DEGC
FREQ0	HRLT Frequency Index for Mode 0	32	
FREQ1	HRLT Frequency Index for Mode 1	128	
FREQ2	HRLT Frequency Index for Mode 2	104	
FREQ3	HRLT Frequency Index for Mode 3	86	
FREQ4	HRLT Frequency Index for Mode 4	56	
FREQ5	HRLT Frequency Index for Mode 5	44	
FREQ6	HRLT Frequency Index for Mode 6	116	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	BARITE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
LOOPCOEF_S	HRLT Loop Coefficient for Shallow Modes	LOW	
LOOPMOD0	HRLT Mode 0 Loop Mode	AUTO	
LOOPMOD1	HRLT Mode 1 Loop Mode	AUTO	
LOOPMOD2	HRLT Mode 2 Loop Mode	AUTO	
LOOPMOD3	HRLT Mode 3 Loop Mode	AUTO	
LOOPMOD4	HRLT Mode 4 Loop Mode	AUTO	
LOOPMOD5	HRLT Mode 5 Loop Mode	AUTO	
LOOPMOD6	HRLT Mode 6 Loop Mode	AUTO	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PROCINV	Inversion Selection	ON	
PROCMFL	Inversion Micro−Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	0	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSPO	Sonde Position	Centered	
SHT	Surface Hole Temperature	55	DEGF
HLDS: Hostile Litho−Density Sonde			
CLCL	HLDS LS Control Loop Controller Mode	AUTO_DEFAULT	
CLCS	HLDS SS Control Loop Controller Mode	AUTO_DEFAULT	
CLLS	HLDS Mode Loop Long Spacing	AUTO	
CLSS	HLDS Mode Loop Short Spacing	AUTO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
LATC	HLDS Activation Correction	OFF	
LLDL	HLDS LS Low Level Discriminator DAC	14000	
LLDS	HLDS SS Low Level Discriminator DAC	14000	
LLML	HLDS LS Low Level Discriminator Mode	AUTO	
LLMS	HLDS SS Low Level Discriminator Mode	AUTO	
MDEN	Matrix Density	2.6	G/C3
PHVL	HLDS Long Spacing High Voltage Setting	1000	V
PHVS	HLDS Short Spacing High Voltage Setting	1000	V
PSDL	HLDS LS Pulse Shape Compensation DAC	30000	
PSDS	HLDS SS Pulse Shape Compensation DAC	30000	
PSML	HLDS LS Pulse Shape Compensation Mode	AUTO	
PSMS	HLDS SS Pulse Shape Compensation Mode	AUTO	
HNGS−BA: Hostile Natural Gamma Ray Sonde			
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
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	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.0026414	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
SHT	Surface Hole Temperature	55	DEGF
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.964366	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.975746	

EDTC−B: Enhanced DTS Cartridge			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	HIRS	
FSAL	Formation Salinity	−50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	BARITE	
ISSBAR_EDTC	Nuclear Mud Type	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	BARI	
MWCO	Mud Weight Correction Option	YES	
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	55	DEGF
SOCN	Standoff Distance	0.5	IN
SOCO	Standoff Correction Option	NO	
TPOS_EDTC	EDTC Tool Centered/Eccentered	Eccentered	
U−ETELM_EDTS	Telemetry Mode for eWAFE	Standard_EDTS	
U−TELM_EDTS	Telemetry Mode for WAFE	Standard_EDTS	
System and Miscellaneous			
ALTDPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	38000.00	PPM
CSIZ	Current Casing Size	5.500	IN
CWEI	Casing Weight	168.00	LB/F
DFD	Drilling Fluid Density	1.26	G/C3
DO	Depth Offset for Playback	0.0	M
FLEV	Fluid Level	−50000.00	M
MST	Mud Sample Temperature	23.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	−50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	4166	FT
TDD	Total Depth − Driller	1270.30	M
TDL	Total Depth − Logger	1270.11	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: TripleCombo Vertical Scale: 1:200 Graphics File Created: 03−Feb−2018 21:43

OP System Version: 19C0−187

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

Input DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_008LUP	FN:12	PRODUCER	02−Feb−2018 13:12	1127.0 M	830.8 M

Output DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_031PUP	FN:40	PRODUCER	03−Feb−2018 21:43

Input DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_007LUP	FN:10	PRODUCER	02−Feb−2018 12:44	1131.6 M	996.8 M

Output DLIS Files

DEFAULT	MSS_LDEO_DSI_HRLA_030PUP	FN:39	PRODUCER	03−Feb−2018 21:37	1131.6 M	996.8 M

OP System Version: 19C0−187

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

PIP SUMMARY

Time Mark Every 60 S

HRLT True Resistivity (RT_HRLT)
0.2 (OHMM) 20

HRLT Resistivity 1 (RLA1)
0.2 (OHMM) 20

HRLT Resistivity 2 (RLA2)
0.2 (OHMM) 20

REPEAT SECTION

HRLT Resistivity 3 (RLA3)
0.2 (OHMM) 20

HLDS Bulk Density Correction (DRH)
−0.25 (G/C3) 0.25

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

Calibrated Downhole Force (CDF) (LBF)
3000 0

HRLT Resistivity 5 (RLA5)
0.2 (OHMM) 20

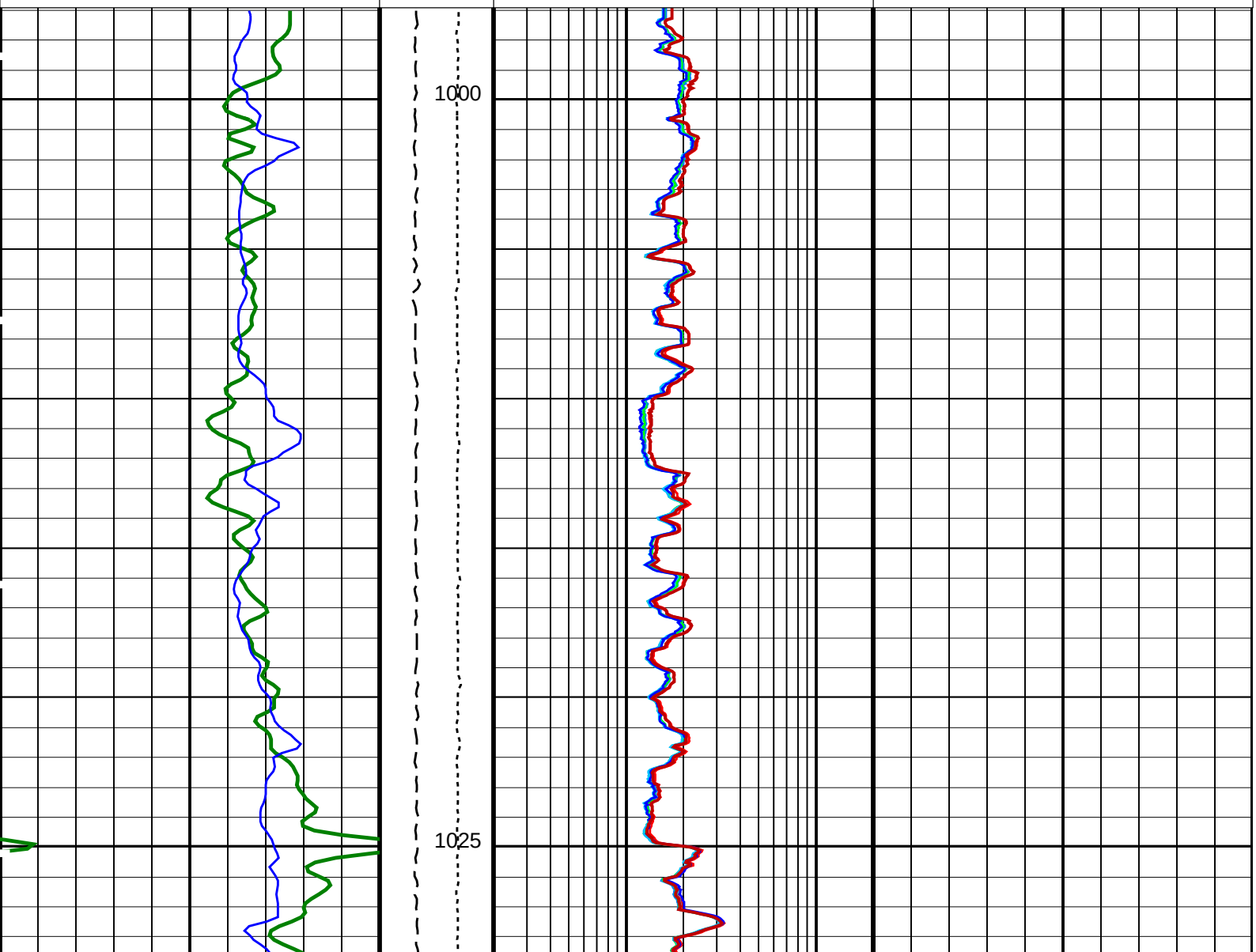
HLDS Bulk Density (RHOM)
0 (G/C3) 4

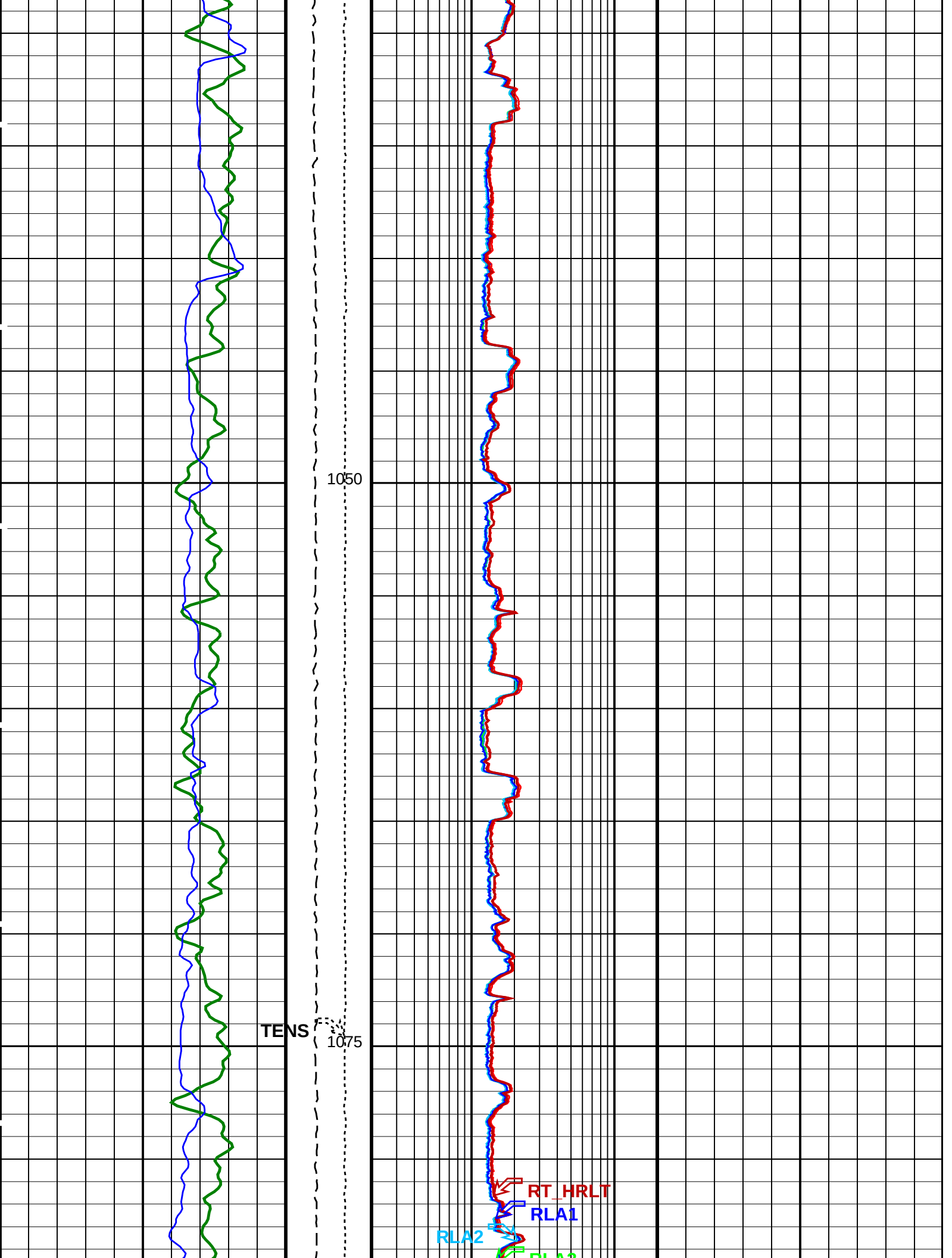
HLDS Caliper (LCAL)
0 (IN) 20

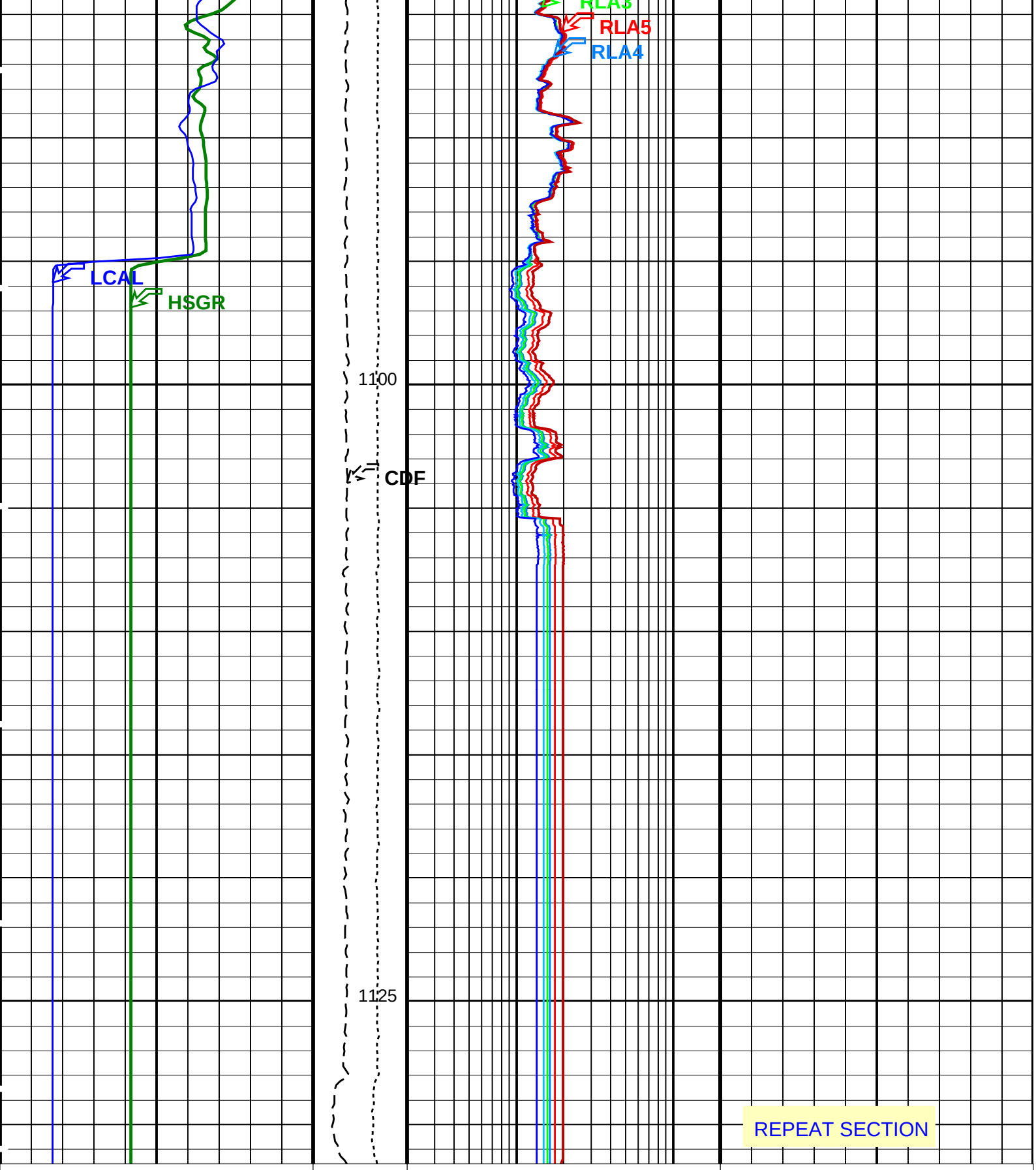
Tension (TENS) (LBF)
10000 0

HRLT Resistivity 4 (RLA4)
0.2 (OHMM) 20

HLDS Long Spaced Photoelectric Effect (PEFL)
0 (−−−−) 10




1050
TENS
1075
RT_HRLT
RLA1
RLA2



HLDS Caliper (LCAL) 0 (IN) 20	Tension (TENS) (LBF) 10000 0	HRLT Resistivity 4 (RLA4) 0.2 (OHMM) 20
HLDS Long Spaced Photoelectric Effect (PEFL) 0 (----) 10		
HNGS Spectroscopy Gamma Ray (HSGR) 0 (GAPI) 100	Calibrated Downhole Force (CDF) (LBF) 3000 0	HRLT Resistivity 5 (RLA5) 0.2 (OHMM) 20
HLDS Bulk Density (RHOM) 0 (G/C3) 4		

HRLT Resistivity 3 (RLA3)			HLDS Bulk Density Correction (DRH)		
0.2	(OHMM)	20	−0.25	(G/C3)	0.25
HRLT Resistivity 2 (RLA2)					
0.2	(OHMM)	20			
HRLT Resistivity 1 (RLA1)					
0.2	(OHMM)	20			
HRLT True Resistivity (RT_HRLT)					
0.2	(OHMM)	20			

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
AGC1	Automatic Gain Control 1	ON	
AGC2	Automatic Gain Control 2	ON	
AGC3	Automatic Gain Control 3	ON	
AGC4	Automatic Gain Control 4	ON	
AGC5	Automatic Gain Control 5	ON	
AGCX	Automatic Gain Control X	ON	
BARS_MTR1	Length for Monopole Transmitter to Receiver 1	2.7432	M
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
CASF	Label Casing Function − Monopole P&S	60	
CDTS	C−Delta−T Shale	100	US/F
COLL	Label Slowness Lower Limit − Monopole P&S Compressional	150	US/F
COUL	Label Slowness Upper Limit − Monopole P&S Compressional	202	US/F
DDE1	Digitizing Delay 1	0	US
DDE2	Digitizing Delay 2	0	US
DDE3	Digitizing Delay 3	0	US
DDE4	Digitizing Delay 4	0	US
DDE5	Digitizing Delay 5	0	US
DDEX	Digitizing Delay X	0	US
DLCS	Label Compressional Source − Dipole Shear	USE	
DLHS	Label Hole Diameter Source for SOBS Channel	AUTO	
DSHL	Label Slowness Lower Limit − Dipole Shear	200	US/F
DSHU	Label Slowness Upper Limit − Dipole Shear	1200	US/F
DSI1	Digitizer Sample Interval 1	40	US
DSI2	Digitizer Sample Interval 2	40	US
DSI3	Digitizer Sample Interval 3	40	US
DSI4	Digitizer Sample Interval 4	10	US
DSI5	Digitizer Sample Interval 5	10	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta−T Source for DTCO Channel	PS_COMP	
DTF	Delta−T Fluid	205	US/F
DTM	Delta−T Matrix	56	US/F
DTSS	Shear Delta−T Source for DTSM Channel	LOWER_DIPOLE	
DWC1	Digitizer Word Count 1	512	
DWC2	Digitizer Word Count 2	512	
DWC3	Digitizer Word Count 3	512	
DWC4	Digitizer Word Count 4	512	
DWC5	Digitizer Word Count 5	512	
DWCX	Digitizer Word Count X	512	
FDE1	Firing Delay 1	0	
FDE2	Firing Delay 2	0	
FDE3	Firing Delay 3	0	
FDE4	Firing Delay 4	0	
FDE5	Firing Delay 5	0	
FDEX	Firing Delay X	0	
FGM5	First Motion Gate Moveout 5	40	US/F
FGMX	First Motion Gate Moveout X	40	US/F
FILG	Label Fill Gap Control − Monopole P&S	COMP_SHEAR	
FMG5	First Motion Minimum Gate 5	500	US
FMGX	First Motion Minimum Gate X	500	US
FMLL	Slowness Lower Limit − FMD	40	US/F
FMRC	Restart Control − FMD	CONTINUE	
FMT5	First Motion Threshold 5	UP	
FMTX	First Motion Threshold X	NONE	
FMUL	Slowness Upper Limit − FMD	180	US/F
FNC5	First Motion Noise Counter Input 5	ALO	
FNCX	First Motion Noise Counter Input X	ALO	
FPM	Processing Mode − FMD	NONE	
FTD5	First Motion Threshold Direction 5	UP	
FTDX	First Motion Threshold Direction X	UP	

GAI1	Manual Gain 1	10	
GAI2	Manual Gain 2	10	
GAI3	Manual Gain 3	6	
GAI4	Manual Gain 4	16	
GAI5	Manual Gain 5	16	
GAIX	Manual Gain X	10	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GDT1	Gain Delta−T 1	800	US/F
GDT2	Gain Delta−T 2	800	US/F
GDT3	Gain Delta−T 3	800	US/F
GDT4	Gain Delta−T 4	160	US/F
GDT5	Gain Delta−T 5	160	US/F
GDTX	Gain Delta−T X	800	US/F
GGRD	Geothermal Gradient	0.01	DF/F
GIN1	Gain Interval 1	15360	US
GIN2	Gain Interval 2	15360	US
GIN3	Gain Interval 3	15360	US
GIN4	Gain Interval 4	2560	US
GIN5	Gain Interval 5	1600	US
GINX	Gain Interval X	15360	US
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HPF1	High Pass Filter 1	F80	
HPF2	High Pass Filter 2	F80	
HPF3	High Pass Filter 3	F80	
HPF4	High Pass Filter 4	F8K	
HPF5	High Pass Filter 5	F8K	
HPFX	High Pass Filter X	F80	
ISSBAR	Barite Mud Switch	BARITE	
ITTS	Integrated Transit Time Source	DTCO	
LFC	Label Formation Character − Monopole P&S	DYNAMIC	
LPF1	Low Pass Filter 1	F5K	
LPF2	Low Pass Filter 2	F5K	
LPF3	Low Pass Filter 3	F5K	
LPF4	Low Pass Filter 4	F30K	
LPF5	Low Pass Filter 5	F30K	
LPFX	Low Pass Filter X	F5K	
LTXG	Lower Dipole Transmitter Geometry	156	IN
MAI5	Slowness Averaging Interval − FMD	42	IN
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCS	Mean Casing Slowness	57	US/F
MDS5	Multishot Delta−T Scatter − FMD	20	US
MTXG	Monopole Transmitter Geometry	186	IN
MUX1	Sum Difference Multiplexor Input 1	RR	
MUX2	Sum Difference Multiplexor Input 2	RR	
MUX3	Sum Difference Multiplexor Input 3	RR	
MUX4	Sum Difference Multiplexor Input 4	RR	
MUX5	Sum Difference Multiplexor Input 5	RR	
MUXX	Sum Difference Multiplexor Input X	RR	
NTI5	Number Threshold Items 5	0	
NTIX	Number Threshold Items X	0	
NWI1	Number Waveform Items 1	8	
NWI2	Number Waveform Items 2	8	
NWI3	Number Waveform Items 3	0	
NWI4	Number Waveform Items 4	8	
NWI5	Number Waveform Items 5	0	
NWIX	Number Waveform Items X	0	
NWS1	Number Waveforms Stacked 1	1	
NWS2	Number Waveforms Stacked 2	1	
NWS3	Number Waveforms Stacked 3	1	
NWS4	Number Waveforms Stacked 4	1	
NWS5	Number Waveforms Stacked 5	1	
NWSX	Number Waveforms Stacked X	1	
RATE	Firing Rate	R7	
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
SAM1	DSST Sonic Acquisition Mode 1 − Lower Dipole Mode	LFD_EVEN	
SAM2	DSST Sonic Acquisition Mode 2 − Upper Dipole Mode	ODD	
SAM3	DSST Sonic Acquisition Mode 3 − Monopole Mode for Stoneley	OFF	
SAM4	DSST Sonic Acquisition Mode 4 − Monopole Mode for P&S	EVEN	
SAM5	DSST Sonic Acquisition Mode 5 − Monopole Mode for FMD	OFF	
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	
SAS3	STC Sonic Array Status − Monopole Stoneley	255	

SAS4	STC Sonic Array Status − Monopole P&S	255	
SAS5	Sonic Array Status − FMD	255	
SBO1	STC Search Band Offset − Lower Dipole	3000	US
SBO2	STC Search Band Offset − Upper Dipole	3000	US
SBO3	STC Search Band Offset − Monopole Stoneley	3000	US
SBO4	STC Search Band Offset − Monopole P&S	500	US
SBR4	STC Baseline Removal − Monopole P&S	ON	
SBW1	STC Search Bandwidth − Lower Dipole	8000	US
SBW2	STC Search Bandwidth − Upper Dipole	8000	US
SBW3	STC Search Bandwidth − Monopole Stoneley	8000	US
SBW4	STC Search Bandwidth − Monopole P&S	2000	US
SFC1	STC Formation Character − Lower Dipole	SELECTABLE	
SFC2	STC Formation Character − Upper Dipole	SELECTABLE	
SFC3	STC Formation Character − Monopole Stoneley	SELECTABLE	
SFC4	STC Formation Character − Monopole P&S	SELECTABLE	
SFM1	STC Filter − Lower Dipole	B.3−1.5K	
SFM2	STC Filter − Upper Dipole	B1−2K	
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	239	US/F
SHT	Surface Hole Temperature	55	DEGF
SHUL	Label Slowness Upper Limit − Monopole P&S Shear	240	US/F
SLL1	STC Slowness Lower Limit − Lower Dipole	40	US/F
SLL2	STC Slowness Lower Limit − Upper Dipole	40	US/F
SLL3	STC Slowness Lower Limit − Monopole Stoneley	180	US/F
SLL4	STC Slowness Lower Limit − Monopole P&S	40	US/F
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DTCO	
SST1	STC Slowness Step − Lower Dipole	4	US/F
SST2	STC Slowness Step − Upper Dipole	4	US/F
SST3	STC Slowness Step − Monopole Stoneley	4	US/F
SST4	STC Slowness Step − Monopole P&S	2	US/F
SSW1	STC Source Waveform − Lower Dipole	WF_SAM1	
SSW2	STC Source Waveform − Upper Dipole	WF_SAM2	
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
SUL1	STC Slowness Upper Limit − Lower Dipole	1200	US/F
SUL2	STC Slowness Upper Limit − Upper Dipole	1200	US/F
SUL3	STC Slowness Upper Limit − Monopole Stoneley	780	US/F
SUL4	STC Slowness Upper Limit − Monopole P&S	240	US/F
SWD1	STC Slowness Width − Lower Dipole	40	US/F
SWD2	STC Slowness Width − Upper Dipole	40	US/F
SWD3	STC Slowness Width − Monopole Stoneley	40	US/F
SWD4	STC Slowness Width − Monopole P&S	10	US/F
TBDB	Tool String Bottom to DSST Bottom	249.908	IN
TBF1	STC Time for Baseline Fill − Lower Dipole	0	US
TBF2	STC Time for Baseline Fill − Upper Dipole	0	US
TBF3	STC Time for Baseline Fill − Monopole Stoneley	0	US
TBF4	STC Time for Baseline Fill − Monopole P&S	300	US
TLL1	STC Time Lower Limit − Lower Dipole	600	US
TLL2	STC Time Lower Limit − Upper Dipole	600	US
TLL3	STC Time Lower Limit − Monopole Stoneley	600	US
TLL4	STC Time Lower Limit − Monopole P&S	150	US
TST1	STC Time Step − Lower Dipole	200	US
TST2	STC Time Step − Upper Dipole	200	US
TST3	STC Time Step − Monopole Stoneley	200	US
TST4	STC Time Step − Monopole P&S	50	US
TTDB	Tool String Top to DSST Bottom	1656.11	IN
TUL1	STC Time Upper Limit − Lower Dipole	20440	US
TUL2	STC Time Upper Limit − Upper Dipole	20200	US
TUL3	STC Time Upper Limit − Monopole Stoneley	12000	US
TUL4	STC Time Upper Limit − Monopole P&S	3660	US
TWA1	Transmitter Waveform Amplitude 1	179	
TWA2	Transmitter Waveform Amplitude 2	179	
TWA3	Transmitter Waveform Amplitude 3	166	
TWA4	Transmitter Waveform Amplitude 4	150	
TWA5	Transmitter Waveform Amplitude 5	150	
TWAX	Transmitter Waveform Amplitude X	179	
TWD1	STC Time Width − Lower Dipole	2000	US
TWD2	STC Time Width − Upper Dipole	2000	US
TWD3	STC Time Width − Monopole Stoneley	2000	US
TWD4	STC Time Width − Monopole P&S	1000	US
TWI1	STC Integration Time Window − Lower Dipole	1600	US
TWI2	STC Integration Time Window − Upper Dipole	1600	US
TWI3	STC Integration Time Window − Monopole Stoneley	2400	US
TWI4	STC Integration Time Window − Monopole P&S	500	US
TWR1	Transmitter Waveform Sample Rate 1	20	US
TWR2	Transmitter Waveform Sample Rate 2	5	US
TWR3	Transmitter Waveform Sample Rate 3	5	US
TWR4	Transmitter Waveform Sample Rate 4	5	US
TWR5	Transmitter Waveform Sample Rate 5	5	US
TWRX	Transmitter Waveform Sample Rate X	5	US
TWS1	Transmitter Waveform Select 1	2	

TWS1	Transmitter Waveform Select 1	2	
TWS2	Transmitter Waveform Select 2	0	
TWS3	Transmitter Waveform Select 3	4	
TWS4	Transmitter Waveform Select 4	6	
TWS5	Transmitter Waveform Select 5	6	
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFDTSP1	SAM1 Waveform Delta for Spectrum	0	US/F
WFDTSP2	SAM2 Waveform Delta for Spectrum	0	US/F
WFDTSP3	SAM3 Waveform Delta for Spectrum	0	US/F
WFDTSP4	SAM4 Waveform Delta for Spectrum	0	US/F
WFDTSPX	SAMX Waveform Delta for Spectrum	0	US/F
WFLLSP1	SAM1 Waveform Lower Limit for Spectrum	0	US
WFLLSP2	SAM2 Waveform Lower Limit for Spectrum	0	US
WFLLSP3	SAM3 Waveform Lower Limit for Spectrum	0	US
WFLLSP4	SAM4 Waveform Lower Limit for Spectrum	0	US
WFLLSPX	SAMX Waveform Lower Limit for Spectrum	0	US
WFM1	Waveform Mode 1	W1	
WFM2	Waveform Mode 2	W1	
WFM3	Waveform Mode 3	W1	
WFM4	Waveform Mode 4	W1	
WFM5	Waveform Mode 5	W1	
WFMX	Waveform Mode X	W1	
WFULSP1	SAM1 Waveform Upper Limit for Spectrum	20000	US
WFULSP2	SAM2 Waveform Upper Limit for Spectrum	20000	US
WFULSP3	SAM3 Waveform Upper Limit for Spectrum	20000	US
WFULSP4	SAM4 Waveform Upper Limit for Spectrum	5000	US
WFULSPX	SAMX Waveform Upper Limit for Spectrum	20000	US
XMT1	Transmitter Select 1	DLO	
XMT2	Transmitter Select 2	DUP	
XMT3	Transmitter Select 3	MONO	
XMT4	Transmitter Select 4	MONO	
XMT5	Transmitter Select 5	MONO	
XMTX	Transmitter Select X	DUP	
HRLT−B: High Resolution Laterolog Array − B			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE	
CALTEMP	HRLTB Calibration Temperature	−0.0505813	DEGC
FREQ0	HRLT Frequency Index for Mode 0	32	
FREQ1	HRLT Frequency Index for Mode 1	128	
FREQ2	HRLT Frequency Index for Mode 2	104	
FREQ3	HRLT Frequency Index for Mode 3	86	
FREQ4	HRLT Frequency Index for Mode 4	56	
FREQ5	HRLT Frequency Index for Mode 5	44	
FREQ6	HRLT Frequency Index for Mode 6	116	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	BARITE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
LOOPCOEF_S	HRLT Loop Coefficient for Shallow Modes	LOW	
LOOPMOD0	HRLT Mode 0 Loop Mode	AUTO	
LOOPMOD1	HRLT Mode 1 Loop Mode	AUTO	
LOOPMOD2	HRLT Mode 2 Loop Mode	AUTO	
LOOPMOD3	HRLT Mode 3 Loop Mode	AUTO	
LOOPMOD4	HRLT Mode 4 Loop Mode	AUTO	
LOOPMOD5	HRLT Mode 5 Loop Mode	AUTO	
LOOPMOD6	HRLT Mode 6 Loop Mode	AUTO	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PROCINV	Inversion Selection	ON	
PROCMFL	Inversion Micro−Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	0	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSPO	Sonde Position	Centered	
SHT	Surface Hole Temperature	55	DEGF
HLDS: Hostile Litho−Density Sonde			
CLCL	HLDS LS Control Loop Controller Mode	AUTO_DEFAULT	
CLCS	HLDS SS Control Loop Controller Mode	AUTO_DEFAULT	
CLLS	HLDS Mode Loop Long Spacing	AUTO	
CLSS	HLDS Mode Loop Short Spacing	AUTO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
LATC	HLDS Activation Correction	OFF	
LLDL	HLDS LS Low Level Discriminator DAC	14000	
LLDS	HLDS SS Low Level Discriminator DAC	14000	
LLML	HLDS LS Low Level Discriminator Mode	AUTO	
LLMS	HLDS SS Low Level Discriminator Mode	AUTO	
MDEN	Matrix Density	2.6	G/C3
PHVL	HLDS Long Spacing High Voltage Setting	1000	V
PHVS	HLDS Short Spacing High Voltage Setting	1000	V
PSDL	HLDS LS Pulse Shape Compensation DAC	30000	

PSDS	HLDS SS Pulse Shape Compensation DAC	30000	
PSML	HLDS LS Pulse Shape Compensation Mode	AUTO	
PSMS	HLDS SS Pulse Shape Compensation Mode	AUTO	
HNGS−BA: Hostile Natural Gamma Ray Sonde			
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
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	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00303098	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
SHT	Surface Hole Temperature	55	DEGF
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.951557	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.970175	
EDTC−B: Enhanced DTS Cartridge			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	HIRS	
FSAL	Formation Salinity	−50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	BARITE	
ISSBAR_EDTC	Nuclear Mud Type	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	BARI	
MWCO	Mud Weight Correction Option	YES	
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	55	DEGF
SOCN	Standoff Distance	0.5	IN
SOCO	Standoff Correction Option	NO	
TPOS_EDTC	EDTC Tool Centered/Eccentered	Eccentered	
U−ETELM_EDTS	Telemetry Mode for eWAFE	Standard_EDTS	
U−TELM_EDTS	Telemetry Mode for WAFE	Standard_EDTS	
System and Miscellaneous			
ALTDPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	38000.00	PPM
CSIZ	Current Casing Size	5.500	IN
CWEI	Casing Weight	168.00	LB/F
DFD	Drilling Fluid Density	1.26	G/C3
DO	Depth Offset for Playback	0.0	M
FLEV	Fluid Level	−50000.00	M
MST	Mud Sample Temperature	23.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	−50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	4166	FT
TDD	Total Depth − Driller	1270.30	M
TDL	Total Depth − Logger	1270.11	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

OP System Version: 19C0−187

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

Input DLIS Files

DEFAULT	**MSS_LDEO_DSI_HRLA_007LUP**	**FN:10**	**PRODUCER**	**02−Feb−2018 12:44**	**1131.6 M**	**996.8 M**

Output DLIS Files

DEFAULT	**MSS_LDEO_DSI_HRLA_030PUP**	**FN:39**	**PRODUCER**	**03−Feb−2018 21:37**

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
High Resolution Laterolog Array − B Wellsite Calibration − HRLT M01							
Before: 2−Feb−2018 11:02 After: 2−Feb−2018 14:08							
HRLT M0−M1 Voltage Plus − 0	0	N/A	−318.4	−318.2	0.1490	9.681	UV
HRLT M0−M1 Voltage Plus − 1	0	N/A	−328.3	−329.2	−0.8683	9.681	UV
HRLT M0−M1 Voltage Plus − 2	0	N/A	−335.8	−336.5	−0.7830	9.681	UV
HRLT M0−M1 Voltage Plus − 3	0	N/A	−326.8	−327.6	−0.7483	9.681	UV
HRLT M0−M1 Voltage Plus − 4	0	N/A	−319.4	−319.4	−0.05478	9.681	UV
HRLT M0−M1 Voltage Plus − 5	0	N/A	−321.0	−321.2	−0.2084	9.681	UV
HRLT M0−M1 Voltage Plus − 6	0	N/A	317.3	318.2	0.9059	9.681	UV
HRLT M0−M1 Voltage Plus − 7	0	N/A	−322.7	−322.7	0	9.681	UV
High Resolution Laterolog Array − B Wellsite Calibration − HRLT M12							
Before: 2−Feb−2018 11:02 After: 2−Feb−2018 14:08							
HRLT M1−M2 Voltage Plus − 0	0	N/A	1736	1735	−0.5173	53.42	UV
HRLT M1−M2 Voltage Plus − 1	0	N/A	1798	1803	4.825	53.42	UV
HRLT M1−M2 Voltage Plus − 2	0	N/A	1831	1835	4.761	53.42	UV
HRLT M1−M2 Voltage Plus − 3	0	N/A	1780	1785	4.283	53.42	UV
HRLT M1−M2 Voltage Plus − 4	0	N/A	1738	1739	0.8385	53.42	UV
HRLT M1−M2 Voltage Plus − 5	0	N/A	1748	1750	1.625	53.42	UV
HRLT M1−M2 Voltage Plus − 6	0	N/A	−1745	−1751	−5.452	53.42	UV
HRLT M1−M2 Voltage Plus − 7	0	N/A	1781	1781	0	53.42	UV
High Resolution Laterolog Array − B Wellsite Calibration − HRLT M23							
Before: 2−Feb−2018 11:02 After: 2−Feb−2018 14:08							
HRLT M2−M3 Voltage Plus − 0	0	N/A	1729	1728	−1.570	53.42	UV
HRLT M2−M3 Voltage Plus − 1	0	N/A	1800	1805	4.865	53.42	UV
HRLT M2−M3 Voltage Plus − 2	0	N/A	1836	1840	4.212	53.42	UV
HRLT M2−M3 Voltage Plus − 3	0	N/A	1790	1793	2.794	53.42	UV
HRLT M2−M3 Voltage Plus − 4	0	N/A	1741	1741	−0.02734	53.42	UV
HRLT M2−M3 Voltage Plus − 5	0	N/A	1752	1753	1.353	53.42	UV
HRLT M2−M3 Voltage Plus − 6	0	N/A	−1737	−1742	−4.616	53.42	UV
HRLT M2−M3 Voltage Plus − 7	0	N/A	1781	1781	0	53.42	UV
High Resolution Laterolog Array − B Wellsite Calibration − HRLT V34							
Before: 2−Feb−2018 11:02 After: 2−Feb−2018 14:08							
HRLT A3−A4 Voltage Plus − 0	0	N/A	68510	68510	−1.258	2100	UV
HRLT A3−A4 Voltage Plus − 1	0	N/A	71200	71390	188.4	2100	UV
HRLT A3−A4 Voltage Plus − 2	0	N/A	72890	73080	186.5	2100	UV
HRLT A3−A4 Voltage Plus − 3	0	N/A	71280	71450	175.3	2100	UV
HRLT A3−A4 Voltage Plus − 4	0	N/A	69330	69360	34.77	2100	UV
HRLT A3−A4 Voltage Plus − 5	0	N/A	69760	69850	88.02	2100	UV
HRLT A3−A4 Voltage Plus − 6	0	N/A	−67720	−67930	−210.6	2100	UV
HRLT A3−A4 Voltage Plus − 7	0	N/A	70000	70000	0	2100	UV
High Resolution Laterolog Array − B Wellsite Calibration − HRLT V45							
Before: 2−Feb−2018 11:02 After: 2−Feb−2018 14:08							
HRLT A4−A5 Voltage Plus − 0	0	N/A	68590	68590	−6.273	2100	UV
HRLT A4−A5 Voltage Plus − 1	0	N/A	71420	71600	181.0	2100	UV
HRLT A4−A5 Voltage Plus − 2	0	N/A	73080	73260	186.5	2100	UV
HRLT A4−A5 Voltage Plus − 3	0	N/A	71440	71610	177.6	2100	UV
HRLT A4−A5 Voltage Plus − 4	0	N/A	69440	69480	37.44	2100	UV
HRLT A4−A5 Voltage Plus − 5	0	N/A	69850	69940	89.31	2100	UV
HRLT A4−A5 Voltage Plus − 6	0	N/A	−67930	−68140	−214.1	2100	UV
HRLT A4−A5 Voltage Plus − 7	0	N/A	70000	70000	0	2100	UV

HRLT A4−A5 Voltage Plus − 7	0	N/A	70000	70000	0	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT V56
Before: 2−Feb−2018 11:02 After: 2−Feb−2018 14:08

HRLT A5−A6 Voltage Plus − 0	0	N/A	68440	68430	−18.19	2100	UV
HRLT A5−A6 Voltage Plus − 1	0	N/A	71230	71460	223.1	2100	UV
HRLT A5−A6 Voltage Plus − 2	0	N/A	72910	73110	201.3	2100	UV
HRLT A5−A6 Voltage Plus − 3	0	N/A	71280	71460	187.5	2100	UV
HRLT A5−A6 Voltage Plus − 4	0	N/A	69300	69340	39.45	2100	UV
HRLT A5−A6 Voltage Plus − 5	0	N/A	69720	69800	82.84	2100	UV
HRLT A5−A6 Voltage Plus − 6	0	N/A	−67760	−67980	−218.4	2100	UV
HRLT A5−A6 Voltage Plus − 7	0	N/A	70000	70000	0	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT VTP
Before: 2−Feb−2018 11:02 After: 2−Feb−2018 14:08

HRLT Torpedo−M0 Voltage − 0	0	N/A	−68010	−67980	28.16	2100	UV
HRLT Torpedo−M0 Voltage − 1	0	N/A	−71060	−71260	−199.9	2100	UV
HRLT Torpedo−M0 Voltage − 2	0	N/A	−72780	−72960	−186.1	2100	UV
HRLT Torpedo−M0 Voltage − 3	0	N/A	−71220	−71390	−172.2	2100	UV
HRLT Torpedo−M0 Voltage − 4	0	N/A	−69290	−69300	−12.13	2100	UV
HRLT Torpedo−M0 Voltage − 5	0	N/A	−69710	−69770	−63.67	2100	UV
HRLT Torpedo−M0 Voltage − 6	0	N/A	67540	67750	208.6	2100	UV
HRLT Torpedo−M0 Voltage − 7	0	N/A	−70000	−70000	0	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT VBD
Before: 2−Feb−2018 11:02 After: 2−Feb−2018 14:08

HRLT Bridle#9−M0 Voltage − 0	0	N/A	−68050	−68010	31.75	2100	UV
HRLT Bridle#9−M0 Voltage − 1	0	N/A	−71150	−71350	−199.9	2100	UV
HRLT Bridle#9−M0 Voltage − 2	0	N/A	−72850	−73040	−186.1	2100	UV
HRLT Bridle#9−M0 Voltage − 3	0	N/A	−71290	−71450	−162.7	2100	UV
HRLT Bridle#9−M0 Voltage − 4	0	N/A	−69320	−69350	−32.55	2100	UV
HRLT Bridle#9−M0 Voltage − 5	0	N/A	−69750	−69810	−59.97	2100	UV
HRLT Bridle#9−M0 Voltage − 6	0	N/A	67620	67830	208.6	2100	UV
HRLT Bridle#9−M0 Voltage − 7	0	N/A	−70000	−70000	0	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT ISO
Before: 2−Feb−2018 11:02 After: 2−Feb−2018 14:08

HRLT Source Current Plus − 0	0	N/A	283.9	283.8	−0.04990	8.520	UA
HRLT Source Current Plus − 1	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus − 2	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus − 3	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus − 4	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus − 5	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus − 6	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus − 7	0	N/A	281.1	281.1	0	8.520	UA

High Resolution Laterolog Array − B Wellsite Calibration − HRLT MV
Before: 2−Feb−2018 11:02 After: 2−Feb−2018 14:08

HRLT Vertical Voltage Pl − 0	0	N/A	−320.3	−319.9	0.4379	9.681	UV
HRLT Vertical Voltage Pl − 1	0	N/A	−323.3	−323.9	−0.5849	9.681	UV
HRLT Vertical Voltage Pl − 2	0	N/A	−329.4	−329.8	−0.4268	9.681	UV
HRLT Vertical Voltage Pl − 3	0	N/A	−318.9	−319.3	−0.4758	9.681	UV
HRLT Vertical Voltage Pl − 4	0	N/A	−308.6	−308.4	0.2509	9.681	UV
HRLT Vertical Voltage Pl − 5	0	N/A	−325.1	−325.1	0.01755	9.681	UV
HRLT Vertical Voltage Pl − 6	0	N/A	325.0	325.7	0.6975	9.681	UV
HRLT Vertical Voltage Pl − 7	0	N/A	−322.7	−322.7	0	9.681	UV

Hostile Litho−Density Sonde Wellsite Calibration − Background Measurement
Master: 30−Nov−2017 7:34 Before: 20−Jan−2018 20:41 After: 30−Nov−2017 8:16

SS Cs Resolution Bkg	9.000	8.081	8.130	7.987	−0.1422	1.800	%
LS Cs Resolution Bkg	9.000	8.109	8.233	8.163	−0.06907	1.800	%
LSW1 Background	100.0	65.60	63.45	64.77	1.328	0.03000	CPS
LSW2 Background	100.0	60.23	59.06	59.51	0.4491	0.03000	CPS
LSW3 Background	200.0	131.4	130.3	131.0	0.7533	0.03000	CPS
LSW4 Background	250.0	156.8	158.7	160.2	1.516	0.03000	CPS
LSW5 Background	600.0	364.3	364.1	368.3	4.134	0.03000	CPS
SSW1 Background	100.0	72.68	73.49	72.25	−1.242	0.03000	CPS
SSW2 Background	200.0	129.0	128.0	128.7	0.6814	0.03000	CPS
SSW3 Background	500.0	346.2	344.2	345.5	1.305	0.03000	CPS
SSW4 Background	270.0	177.6	180.9	180.9	0.02322	0.03000	CPS
SSW5 Background	200.0	132.1	129.3	130.2	0.9099	0.03000	CPS

Hostile Litho−Density Sonde Wellsite Calibration − Aluminum Measurement
Master: 30−Nov−2017 8:00

LSW1 Aluminum	600.0	519.1	N/A	N/A	N/A	N/A	CPS
LSW2 Aluminum	900.0	746.8	N/A	N/A	N/A	N/A	CPS
LSW3 Aluminum	1100	899.8	N/A	N/A	N/A	N/A	CPS
LSW4 Aluminum	580.0	457.7	N/A	N/A	N/A	N/A	CPS
LSW5 Aluminum	570.0	414.7	N/A	N/A	N/A	N/A	CPS
SSW1 Aluminum	2800	2406	N/A	N/A	N/A	N/A	CPS
SSW2 Aluminum	8000	6494	N/A	N/A	N/A	N/A	CPS
SSW3 Aluminum	11600	8978	N/A	N/A	N/A	N/A	CPS

SSW4 Aluminum	5000	3692	N/A	N/A	N/A	N/A	CPS
SSW5 Aluminum	660.0	447.6	N/A	N/A	N/A	N/A	CPS

Hostile Litho−Density Sonde Wellsite Calibration − Lithology Measurement
Master: 30−Nov−2017 7:55

LSW1 Iron	400.0	353.1	N/A	N/A	N/A	N/A	CPS
LSW2 Iron	730.0	601.8	N/A	N/A	N/A	N/A	CPS
LSW3 Iron	1000	791.8	N/A	N/A	N/A	N/A	CPS
LSW4 Iron	520.0	414.2	N/A	N/A	N/A	N/A	CPS
LSW5 Iron	470.0	380.9	N/A	N/A	N/A	N/A	CPS
SSW1 Iron	2100	1741	N/A	N/A	N/A	N/A	CPS
SSW2 Iron	6800	5384	N/A	N/A	N/A	N/A	CPS
SSW3 Iron	10800	8153	N/A	N/A	N/A	N/A	CPS
SSW4 Iron	4600	3353	N/A	N/A	N/A	N/A	CPS
SSW5 Iron	580.0	394.4	N/A	N/A	N/A	N/A	CPS

Hostile Litho−Density Sonde Wellsite Calibration − Caliper Calibration
Before: 30−Nov−2017 8:30

HLDS Caliper Small Ring	12.00	N/A	16.03	N/A	N/A	N/A	IN
HLDS Caliper Large Ring	15.19	N/A	20.03	N/A	N/A	N/A	IN

Hostile Natural Gamma Ray Sonde Wellsite Calibration − Detector 1 Check
Master: 8−Jan−2018 8:17 Before: 18−Jan−2018 15:02 After: 8−Jan−2018 8:28

Na 511 Peak Loc	40.00	39.59	39.55	39.53	−0.01984	1.000	
Na 511 Peak Res	15.50	15.64	14.43	15.55	1.119	2.000	%
High Voltage	1150	1167	1135	1167	32.27	N/A	V
Na 1785 Peak Loc	142.6	142.6	142.3	141.4	−0.9036	7.000	
Na 1785 Peak Res	8.500	7.971	7.766	8.609	0.8427	2.000	%
Temperature	15.50	23.45	6.172	23.47	17.30	N/A	DEGC
Na Count Rate	45.00	25.59	25.18	25.12	−0.06201	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration − Detector 2 Check
Master: 8−Jan−2018 8:17 Before: 18−Jan−2018 15:02 After: 8−Jan−2018 8:28

Na 511 Peak Loc	40.00	39.56	39.62	39.54	−0.08187	1.000	
Na 511 Peak Res	15.50	15.96	14.71	16.21	1.496	2.000	%
High Voltage	1150	1099	1064	1099	34.71	N/A	V
Na 1785 Peak Loc	142.6	141.9	140.7	141.4	0.6870	7.000	
Na 1785 Peak Res	8.500	8.488	8.077	8.675	0.5976	2.000	%
Temperature	15.50	24.00	6.628	24.04	17.41	N/A	DEGC
Na Count Rate	45.00	25.29	25.36	24.99	−0.3764	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration − Ratio Of Detector 1 To Detector 2
Master: 8−Jan−2018 8:17 Before: 18−Jan−2018 15:02 After: 8−Jan−2018 8:28

Coincidence Count Rate Ratio	1.000	1.012	0.9949	1.005	0.01014	0.05000	

Hostile Natural Gamma Ray Sonde Master Calibration − Detector 1 Calibration
Master: 8−Jan−2018 8:08

Na 511 Peak Set Point	40.00	41.00	−−	−−	−−	−−	
Th Peak Loc	209.6	209.5	−−	−−	−−	−−	
Th Peak Res	7.000	6.944	−−	−−	−−	−−	%
Background Count Rate	142.5	28.74	−−	−−	−−	−−	CPS
Gain Ratio	1.000	1.006	−−	−−	−−	−−	

Hostile Natural Gamma Ray Sonde Master Calibration − Detector 2 Calibration
Master: 8−Jan−2018 8:08

Na 511 Peak Set Point	40.00	41.00	−−	−−	−−	−−	
Th Peak Loc	209.6	209.2	−−	−−	−−	−−	
Th Peak Res	7.000	6.965	−−	−−	−−	−−	%
Background Count Rate	142.5	27.70	−−	−−	−−	−−	CPS
Gain Ratio	1.000	1.006	−−	−−	−−	−−	

Enhanced DTS Cartridge Wellsite Calibration − EDTC Accelerometer Calibration
Before: 2−Feb−2018 11:01

EDTC Z−Axis Acceleration	9.810	N/A	9.800	N/A	N/A	N/A	M/S2

Enhanced DTS Cartridge Wellsite Calibration − Detector Calibration
Before: 8−Jan−2018 7:48 After: 8−Jan−2018 8:26

Gamma Ray (Jig − Bkg)	139.2	N/A	139.2	139.5	0.3707	12.65	GAPI
Gamma Ray (Calibrated)	164.0	N/A	164.0	164.4	0.4368	15.00	GAPI

High Resolution Laterolog Array − B / Equipment Identification

Primary Equipment:

HRLT Sonde	HRLS − B	768

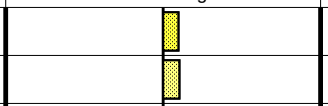
Auxiliary Equipment:

HRLT lower Housing	HRLH − B	1869
HRLT Lower Cartridge	HRLC − B	974

HRLT upper Housing	HRUH − B	975
HRLT Upper Cartridge	HRUC − B	964

High Resolution Laterolog Array − B Wellsite Calibration

HRLT M01

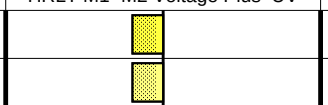
Idx	Phase	HRLT M0−M1 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−318.4	−322.7	−280.7	−379.7
	After		−318.2			
1	Before		−328.3	−322.7	−280.7	−379.7
	After		−329.2			
2	Before		−335.8	−322.7	−280.7	−379.7
	After		−336.5			
3	Before		−326.8	−322.7	−280.7	−379.7
	After		−327.6			
4	Before		−319.4	−322.7	−280.7	−379.7
	After		−319.4			
5	Before		−321.0	−322.7	−280.7	−379.7
	After		−321.2			
6	Before		317.3	322.7	379.7	280.7
	After		318.2			
7	Before		−322.7	−322.7	−280.7	−379.7
	After		−322.7			
		(Minimum) (Nominal) (Maximum)				

Before: 2−Feb−2018 11:02

After: 2−Feb−2018 14:08

High Resolution Laterolog Array − B Wellsite Calibration

HRLT M12

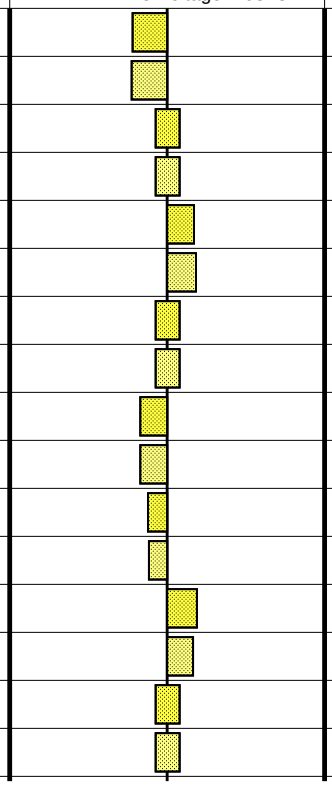
Idx	Phase	HRLT M1−M2 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1736	1781	2095	1549
	After		1735			
1	Before		1798	1781	2095	1549
	After		1803			
2	Before		1831	1781	2095	1549
	After		1835			
3	Before		1780	1781	2095	1549
	After		1785			
4	Before		1738	1781	2095	1549
	After		1739			
5	Before		1748	1781	2095	1549
	After		1750			
6	Before		−1745	−1781	−1549	−2095
	After		−1751			
7	Before		1781	1781	2095	1549
	After		1781			
		(Minimum) (Nominal) (Maximum)				

Before: 2−Feb−2018 11:02

After: 2−Feb−2018 14:08

High Resolution Laterolog Array − B Wellsite Calibration

HRLT M23

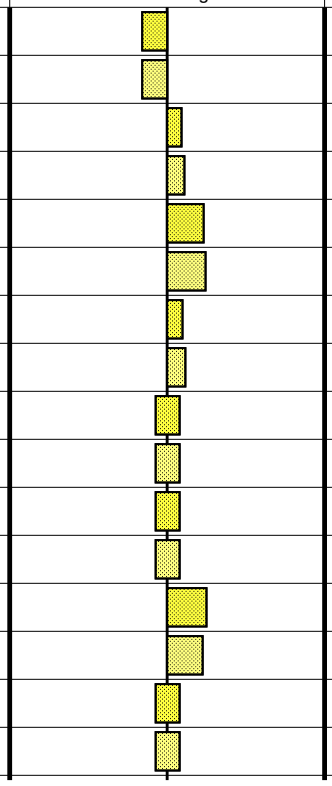
Idx	Phase	HRLT M2−M3 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1729	1781	2095	1549
	After		1728			
1	Before		1800	1781	2095	1549
	After		1805			
2	Before		1836	1781	2095	1549
	After		1840			
3	Before		1790	1781	2095	1549
	After		1793			
4	Before		1741	1781	2095	1549
	After		1741			
5	Before		1752	1781	2095	1549
	After		1753			
6	Before		−1737	−1781	−1549	−2095
	After		−1742			
7	Before		1781	1781	2095	1549
	After		1781			
		(Minimum) (Nominal) (Maximum)				

Before: 2−Feb−2018 11:02

After: 2−Feb−2018 14:08

High Resolution Laterolog Array − B Wellsite Calibration

HRLT V34

Idx	Phase	HRLT A3−A4 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68510	70000	82360	60900
	After		68510			
1	Before		71200	70000	82360	60900
	After		71390			
2	Before		72890	70000	82360	60900
	After		73080			
3	Before		71280	70000	82360	60900
	After		71450			
4	Before		69330	70000	82360	60900
	After		69360			
5	Before		69760	70000	82360	60900
	After		69850			
6	Before		−67720	−70000	−60900	−82360
	After		−67930			
7	Before		70000	70000	82360	60900
	After		70000			
		(Minimum) (Nominal) (Maximum)				

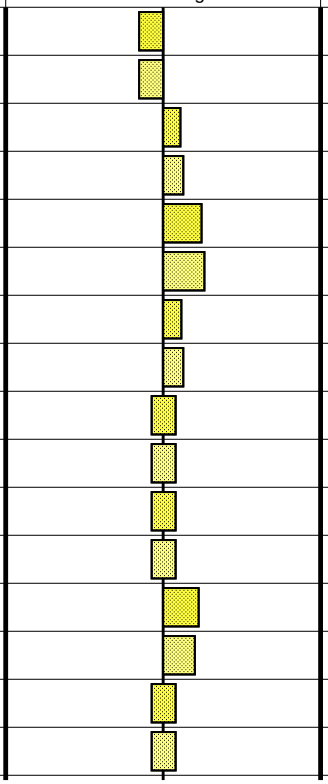
Before: 2−Feb−2018 11:02

After: 2−Feb−2018 14:08

High Resolution Laterolog Array − B Wellsite Calibration

HRLT V45

Idx	Phase	HRLT A4−A5 Voltage Plus UV	Value	Nominal	Maximum	Minimum

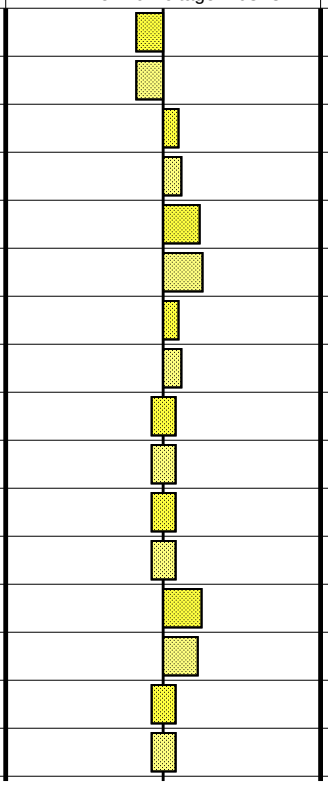
Idx	Phase	HRLT A4−A5 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68590	70000	82360	60900
	After		68590			
1	Before		71420	70000	82360	60900
	After		71600			
2	Before		73080	70000	82360	60900
	After		73260			
3	Before		71440	70000	82360	60900
	After		71610			
4	Before		69440	70000	82360	60900
	After		69480			
5	Before		69850	70000	82360	60900
	After		69940			
6	Before		−67930	−70000	−60900	−82360
	After		−68140			
7	Before		70000	70000	82360	60900
	After		70000			
	(Minimum) (Nominal) (Maximum)					

Before: 2−Feb−2018 11:02

After: 2−Feb−2018 14:08

High Resolution Laterolog Array − B Wellsite Calibration

HRLT V56

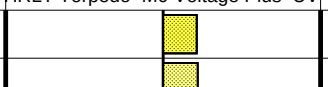
Idx	Phase	HRLT A5−A6 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68440	70000	82360	60900
	After		68430			
1	Before		71230	70000	82360	60900
	After		71460			
2	Before		72910	70000	82360	60900
	After		73110			
3	Before		71280	70000	82360	60900
	After		71460			
4	Before		69300	70000	82360	60900
	After		69340			
5	Before		69720	70000	82360	60900
	After		69800			
6	Before		−67760	−70000	−60900	−82360
	After		−67980			
7	Before		70000	70000	82360	60900
	After		70000			
	(Minimum) (Nominal) (Maximum)					

Before: 2−Feb−2018 11:02

After: 2−Feb−2018 14:08

High Resolution Laterolog Array − B Wellsite Calibration

HRLT VTP

Idx	Phase	HRLT Torpedo−M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−68010	−70000	−60900	−82360
	After		−67980			

	After	−67980			
1	Before	−71060	−70000	−60900	−82360
	After	−71260			
2	Before	−72780	−70000	−60900	−82360
	After	−72960			
3	Before	−71220	−70000	−60900	−82360
	After	−71390			
4	Before	−69290	−70000	−60900	−82360
	After	−69300			
5	Before	−69710	−70000	−60900	−82360
	After	−69770			
6	Before	67540	70000	82360	60900
	After	67750			
7	Before	−70000	−70000	−60900	−82360
	After	−70000			
	(Minimum) (Nominal) (Maximum)				

Before: 2−Feb−2018 11:02

After: 2−Feb−2018 14:08

High Resolution Laterolog Array − B Wellsite Calibration

HRLT VBD

Idx	Phase	HRLT Bridle#9−M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−68050	−70000	−60900	−82360
	After		−68010			
1	Before		−71150	−70000	−60900	−82360
	After		−71350			
2	Before		−72850	−70000	−60900	−82360
	After		−73040			
3	Before		−71290	−70000	−60900	−82360
	After		−71450			
4	Before		−69320	−70000	−60900	−82360
	After		−69350			
5	Before		−69750	−70000	−60900	−82360
	After		−69810			
6	Before		67620	70000	82360	60900
	After		67830			
7	Before		−70000	−70000	−60900	−82360
	After		−70000			
	(Minimum) (Nominal) (Maximum)					

Before: 2−Feb−2018 11:02

After: 2−Feb−2018 14:08

High Resolution Laterolog Array − B Wellsite Calibration

HRLT ISO

Idx	Phase	HRLT Source Current Plus UA	Value	Nominal	Maximum	Minimum
0	Before		283.9	284.0	334.1	247.0
	After		283.8			
1	Before		281.1	281.1	330.7	244.4
	After		281.1			

Idx	Phase	HRLT Vertical Voltage Plus UV	Value	Nominal	Maximum	Minimum
	After		281.1			
2	Before		281.1	281.1	330.7	244.4
	After		281.1			
3	Before		281.1	281.1	330.7	244.4
	After		281.1			
4	Before		281.1	281.1	330.7	244.4
	After		281.1			
5	Before		281.1	281.1	330.7	244.4
	After		281.1			
6	Before		281.1	281.1	330.7	244.4
	After		281.1			
7	Before		281.1	281.1	330.7	244.4
	After		281.1			
		(Minimum) (Nominal) (Maximum)				

Before: 2−Feb−2018 11:02

After: 2−Feb−2018 14:08

High Resolution Laterolog Array − B Wellsite Calibration

HRLT MV

Idx	Phase	HRLT Vertical Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−320.3	−322.7	−280.7	−379.7
	After		−319.9			
1	Before		−323.3	−322.7	−280.7	−379.7
	After		−323.9			
2	Before		−329.4	−322.7	−280.7	−379.7
	After		−329.8			
3	Before		−318.9	−322.7	−280.7	−379.7
	After		−319.3			
4	Before		−308.6	−322.7	−280.7	−379.7
	After		−308.4			
5	Before		−325.1	−322.7	−280.7	−379.7
	After		−325.1			
6	Before		325.0	322.7	379.7	280.7
	After		325.7			
7	Before		−322.7	−322.7	−280.7	−379.7
	After		−322.7			
		(Minimum) (Nominal) (Maximum)				

Before: 2−Feb−2018 11:02

After: 2−Feb−2018 14:08

Hostile Litho−Density Sonde / Equipment Identification

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

Litho−Density Spectroscopy Cartridge − B / Equipment Identification

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

Hostile Natural Gamma Ray Cartridge − B / Equipment Identification

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

Hostile Natural Gamma Ray Sonde / Equipment Identification

Primary Equipment:		
HNGS Sonde	HNGS − BA	194
Auxiliary Equipment:		
HNGS Sonde Housing	HNSH − BA	204
Gamma Source Radioactive	GSR − U	6098

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Detector 1 Check

Phase	Na 511 Peak Loc	Value
Master		39.59
Before		39.55
After		39.53
37.50 (Minimum)	40.00 (Nominal)	43.50 (Maximum)

Phase	Na 511 Peak Res %	Value
Master		15.64
Before		14.43
After		15.55
12.00 (Minimum)	15.50 (Nominal)	19.00 (Maximum)

Phase	High Voltage V	Value
Master		1167
Before		1135
After		1167
900.0 (Minimum)	1150 (Nominal)	1600 (Maximum)

Phase	Na 1785 Peak Loc	Value
Master		142.6
Before		142.3
After		141.4
135.0 (Minimum)	142.6 (Nominal)	150.3 (Maximum)

Phase	Na 1785 Peak Res %	Value
Master		7.971
Before		7.766
After		8.609
7.000 (Minimum)	8.500 (Nominal)	11.00 (Maximum)

Phase	Temperature DEGC	Value
Master		23.45
Before		6.172
After		23.47
−28.89 (Minimum)	15.50 (Nominal)	60.00 (Maximum)

Phase	Na Count Rate CPS	Value
Master		25.59
Before		25.18
After		25.12
10.00 (Minimum)	45.00 (Nominal)	100.0 (Maximum)

Master: 8−Jan−2018 8:17 Before: 18−Jan−2018 15:02 After: 8−Jan−2018 8:28

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Detector 2 Check

Phase	Na 511 Peak Loc	Value
Master		39.56
Before		39.62
After		39.54
37.50 (Minimum)	40.00 (Nominal)	43.50 (Maximum)

Phase	Na 511 Peak Res %	Value
Master		15.96
Before		14.71
After		16.21
12.00 (Minimum)	15.50 (Nominal)	19.00 (Maximum)

Phase	High Voltage V	Value
Master		1099
Before		1064
After		1099
900.0 (Minimum)	1150 (Nominal)	1600 (Maximum)

Phase	Na 1785 Peak Loc	Value
Master		141.9
Before		140.7

Phase	Na 1785 Peak Res %	Value
Master		8.488
Before		8.077

Phase	Temperature DEGC	Value
Master		24.00
Before		6.628

After		141.4

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

After		8.675

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

After		24.04

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

Phase	Na Count Rate CPS	Value
Master		25.29
Before		25.36
After		24.99

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

Master: 8−Jan−2018 8:17 Before: 18−Jan−2018 15:02 After: 8−Jan−2018 8:28

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Ratio Of Detector 1 To Detector 2

Phase	Coincidence Count Rate Ratio	Value
Master		1.012
Before		0.9949
After		1.005

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

Master: 8−Jan−2018 8:17
Before: 18−Jan−2018 15:02
After: 8−Jan−2018 8:28

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		209.5

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

Phase	Th Peak Res %	Value
Master		6.944

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

Phase	Background Count Rate CPS	Value
Master		28.74

10.00 (Minimum) 142.5 (Nominal) 265.0 (Maximum)

Phase	Gain Ratio	Value
Master		1.006

0.9400 (Minimum) 1.000 (Nominal) 1.060 (Maximum)

Master: 8−Jan−2018 8:08

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		209.2

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

Phase	Th Peak Res %	Value
Master		6.965

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

Phase	Background Count Rate CPS	Value
Master		27.70

10.00 (Minimum) 142.5 (Nominal) 265.0 (Maximum)

Phase	Gain Ratio	Value
Master		1.006

0.9400 (Minimum) 1.000 (Nominal) 1.060 (Maximum)

Master: 8−Jan−2018 8:08

Enhanced DTS Cartridge / Equipment Identification

Primary Equipment:

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

Auxiliary Equipment:

EDTC Housing	EDTH − B	8303

Enhanced DTS Cartridge Wellsite Calibration

EDTC Accelerometer Calibration

Phase	EDTC Z−Axis Acceleration M/S2	Value
Before		9.800

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

Before: 2−Feb−2018 11:01

Before: 2−Feb−2018 11:01

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		8.772	Before		139.2	Before		164.0
After		8.903	After		139.5	After		164.4
0 (Minimum)	30.00 (Nominal) 120.0 (Maximum)		126.5 (Minimum)	139.2 (Nominal) 151.8 (Maximum)		149.0 (Minimum)	164.0 (Nominal) 179.0 (Maximum)	

Before: 8−Jan−2018 7:48 After: 8−Jan−2018 8:26

Company: **International Ocean Discovery Program**

Schlumberger

Well: **Expedition 374, Site U1523D**
Field: **Ross Sea W. Antarctic Ice Sheet History**
Rig: **JOIDES Resolution**
Ocean: **Southern**

High Resolution Laterolog Array (HRLA)
Dipole Sonic Imager (DSI)
Hostile Natural Gamma Ray (HNGS)−MSS