Schlumberger

Company: **Lamont Doherty Earth Observatory**

Well: **Expedition 349, Site U1431**
Field: **South China Sea Tectonics**
Rig: **JOIDES Resolution** Ocean: **South China Sea**

Rig: JOIDES Resolution
Field: South China Sea Tectonics
Location: Latitude: N 15.375633*
Well: Expedition 349, Site U1431
Company: Lamont Doherty Earth Observatory

Borehole Profile Caliper Log
Gamma Ray
Caliper 2−Axis from FMS

LOCATION

Latitude: N 15.375633*
Longitude: E 116.999838*

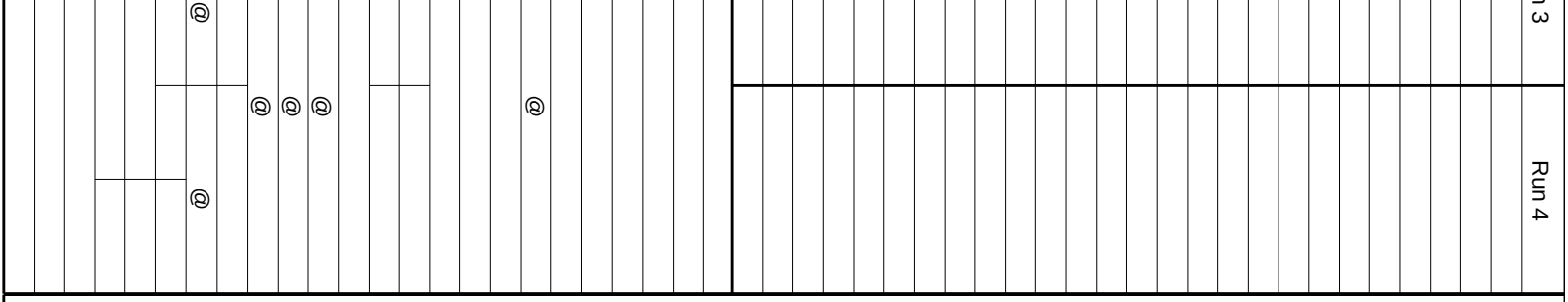
Elev.: K.B. −4251.00 m
G.L. 0.00 m
D.F. −4251.00 m

Permanent Datum: Sea Floor — Elev.: 0.00 m
Log Measured From: Sea Floor — 0 m above Perm. Datum
Drilling Measured From: Sea Floor

API Serial No.	N 15.375633	E 116.999838	

	Run 1	Run 2	Run
Logging Date	14−Feb−2014		
Run Number	1		
Depth Driller	1008.8 m		
Schlumberger Depth	471 m		
Bottom Log Interval	471 m		
Top Log Interval	0 m		
Casing Driller Size @ Depth	13.375 in @ 149.6 m	@	
Casing Schlumberger	155 m		
Bit Size	9.875 in		
Type Fluid In Hole	Seawater Sepiolite		
MUD Density / Viscosity	1.029 g/cm3		
MUD Fluid Loss / PH			
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	@ 7 / @ 7	@ / @	
Maximum Recorded Temperatures	7 degC		
Circulation Stopped / Time	15−Feb−2014 / 3:00		
Logger On Bottom / Time	14−Feb−2014 / 7:30		
Unit Number / Location	625003 / Houston		
Recorded By	K. Swain		
Witnessed By	T. Williams		

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



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

REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
Hole drilled with RCB coring bit and bottom hole assembly (BHA). 9 7/8 " BS	
FMS/DSI run bridged at 471mbsf.	
Diopole sonic data requires processing with Geoframe BestDT for best results.	
2 MCD (mechanical Caliper Device) centralizers run with FMS/DSI.	
The RCB bit was dropped at the bottom of the hole prior to logging.	
Logs originally recorded in meters below rig floor but changed to meters below	
sea floor in playback	

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

EQUIPMENT DESCRIPTION

RUN 1 RUN 2

SURFACE EQUIPMENT

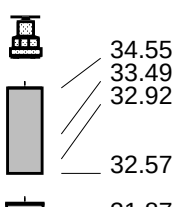
GSR−U 616008
WITM (EDTS)−A

DOWNHOLE EQUIPMENT

LEH−MT 101
LEH−MT 101 101

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

MDSB_EDTC
Mud Tempe
CTEM
Gamma Ray
EFTB DIAG
TelStatus
EDTCB Ele



35.51

34.55

HNGS−BA
HNGS−BA 194
HNSH−BA 205

Upper_1 31.87
Lower_2 31.66
32.57

HNGC−B
HNGH−A 115

HNGC Stat 29.54
30.07

AH−MCD
AH−MCD 82

29.01

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

26.73

PWF 11.18

AH−MCD1
AH−MCD1 1

11.18

DTA−A 8453
ECH−KE 8456

8.90

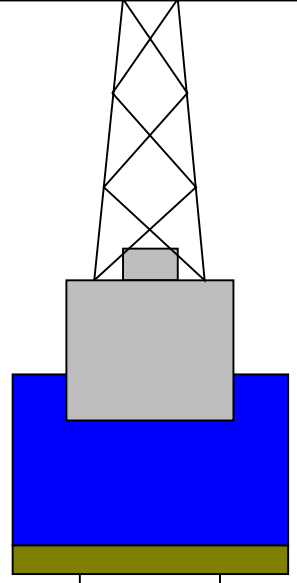
MEST−B
MEAH−B 769
MEAC−A 875
MEPH−A 702
GPIC−AC 840
MEPC−AB 807
MEDS−B 724

7.68

MEDR MEAC
MEPC MEDS−B 0.46
HV DF ACCZ
Tension GPIT 0.00
TOOL ZERO

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

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



Kelly Bushing Elevation	−425.1			
Derrick Floor Elevation	−425.1			
Mean Sea Level	−424.0			
			4.1	
		0	4.1	Sea Floor
		149.6	9.875	Open Hole
		1008.8		Total Depth

Input DLIS Files

DEFAULT	FMS_DSI_NGS_037PUP	FN:59	PRODUCER	18−Feb−2014 04:12	4702.3 M	4242.8 M

Output DLIS Files

DEFAULT	FMS_DSI_NGS_061PUP	FN:81	PRODUCER	17−Mar−2014 14:43	451.1 M	−8.2 M

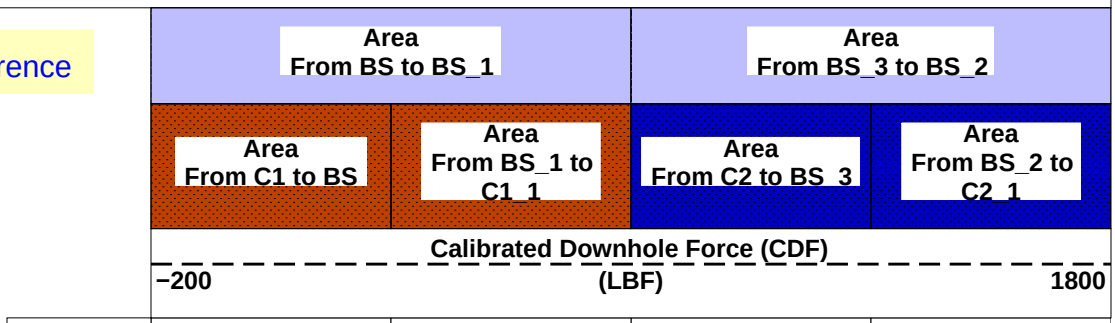
OP System Version: 19C0−187

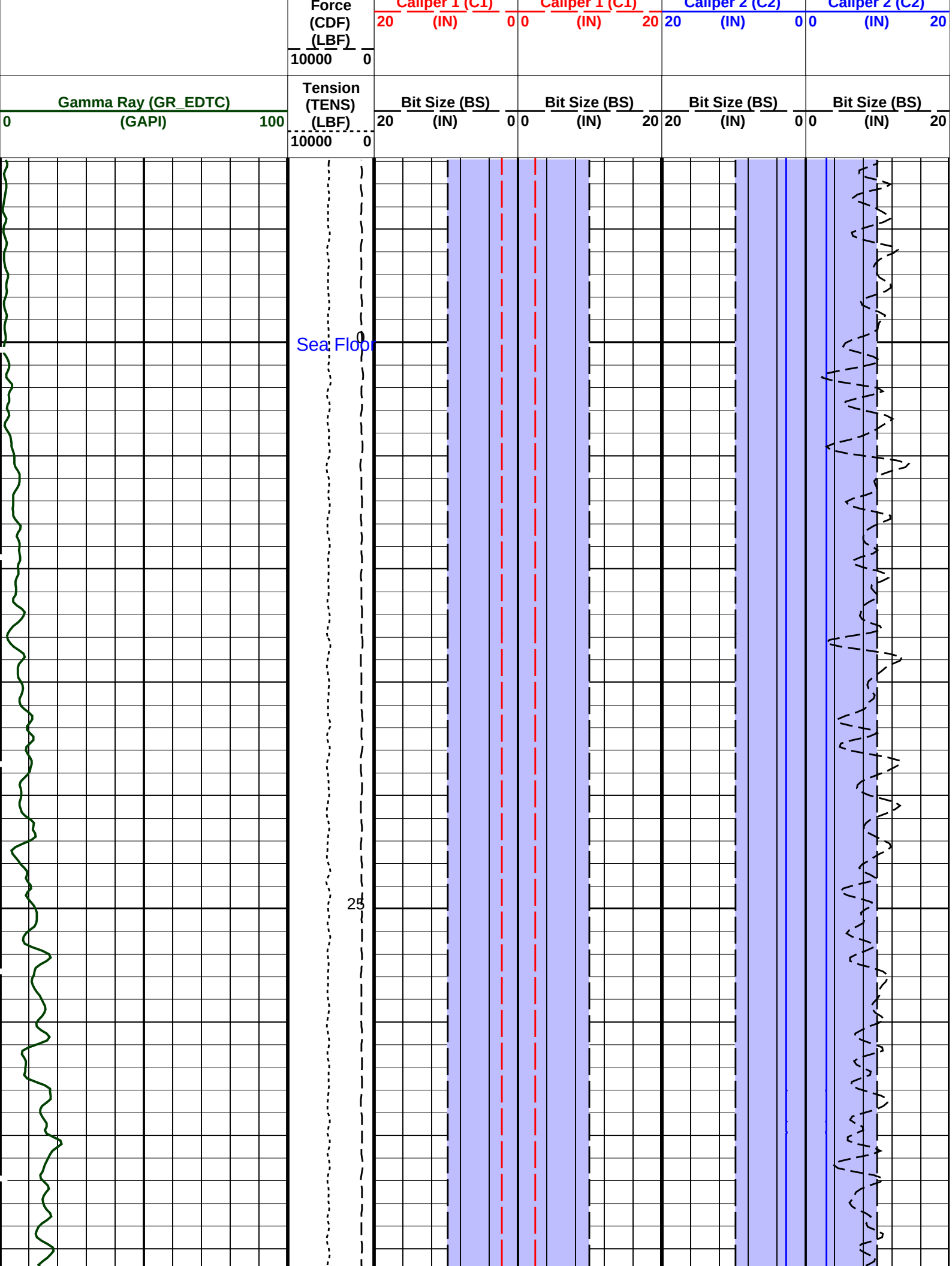
MEST−B	19C0−187	DTA−A	8453
DSST−B	19C0−187	HNGC−B	19C0−187
HNGS−BA	19C0−187	EDTC−B	SKK−5169−EDTCB

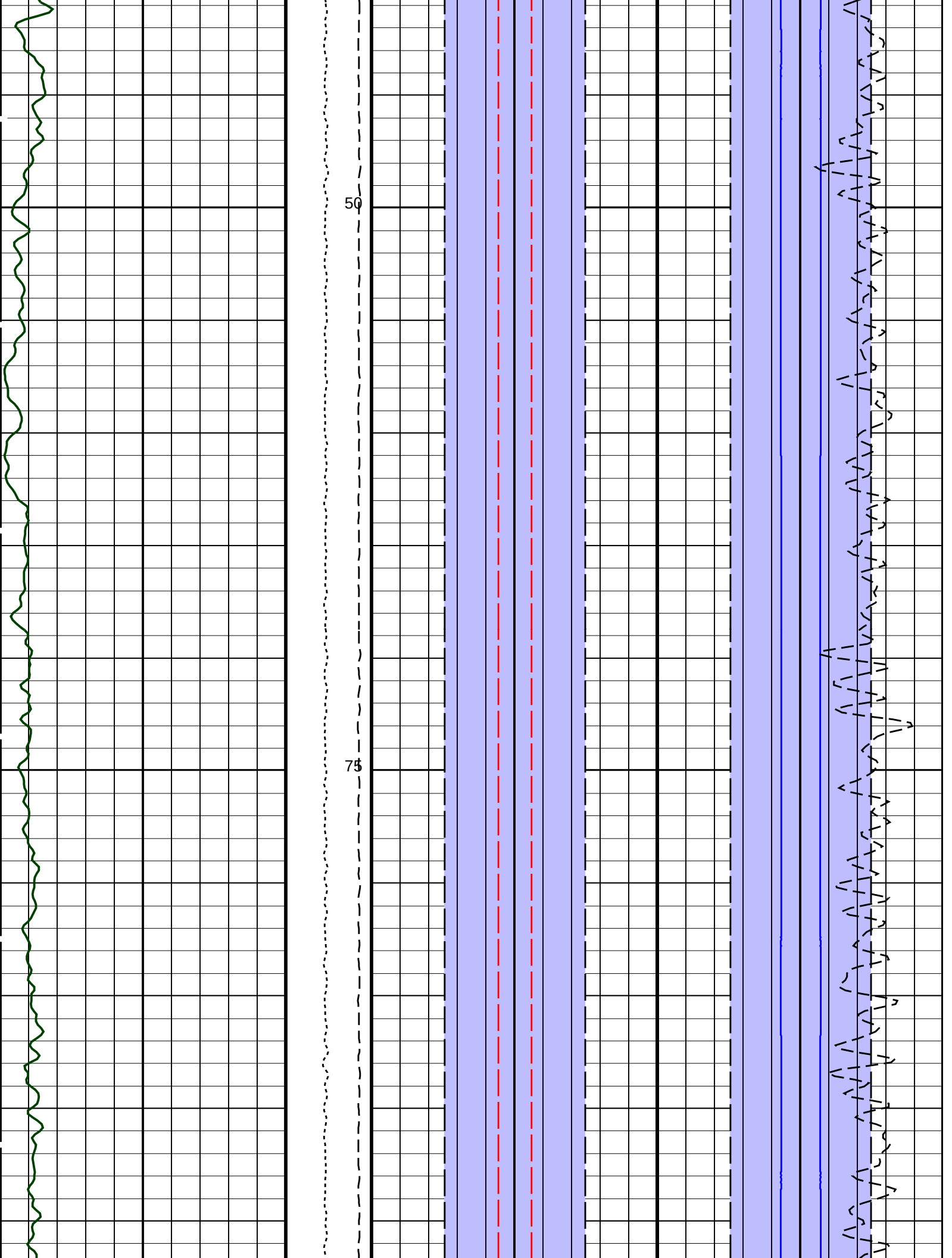
PIP SUMMARY

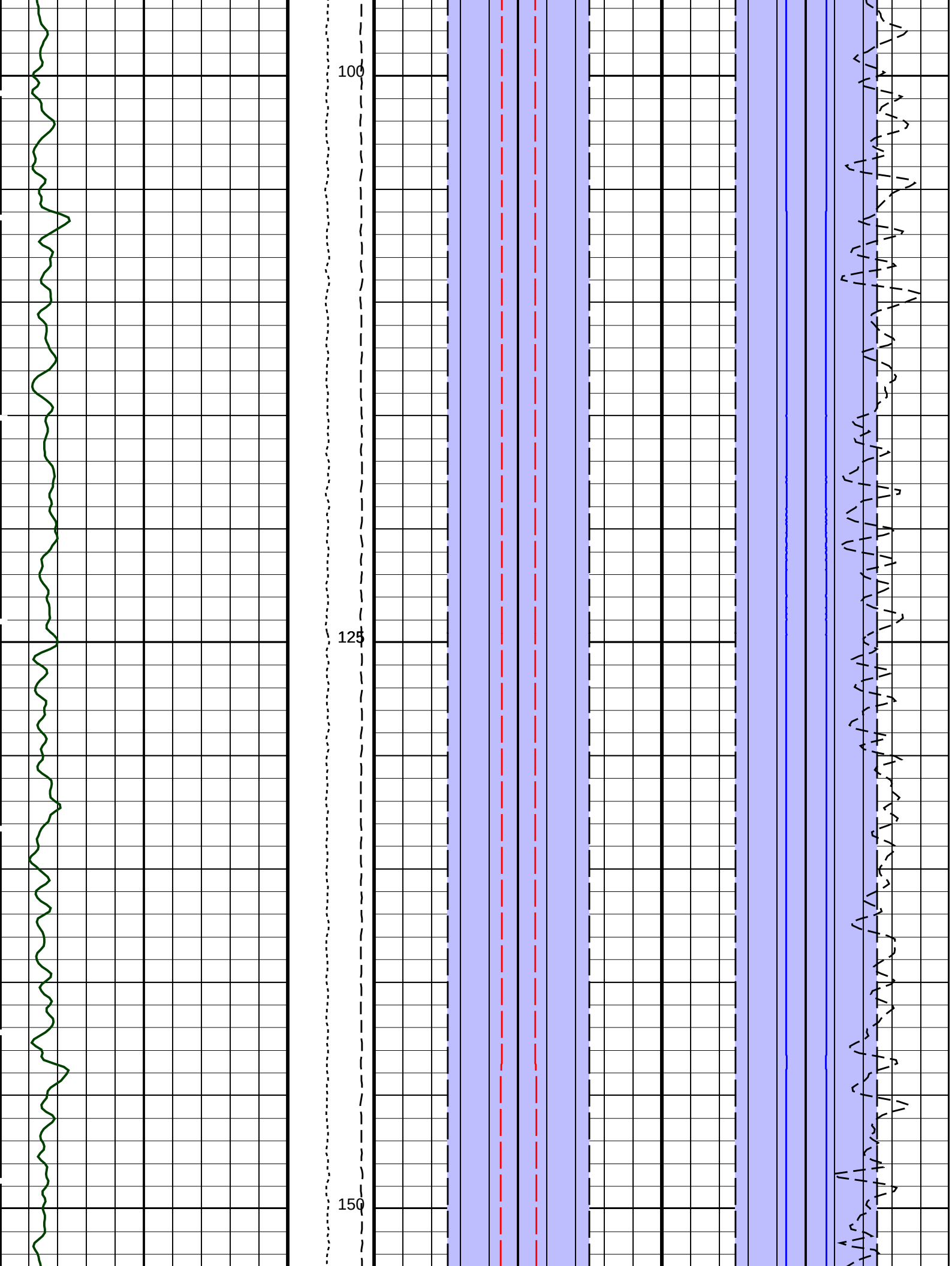
Time Mark Every 60 S

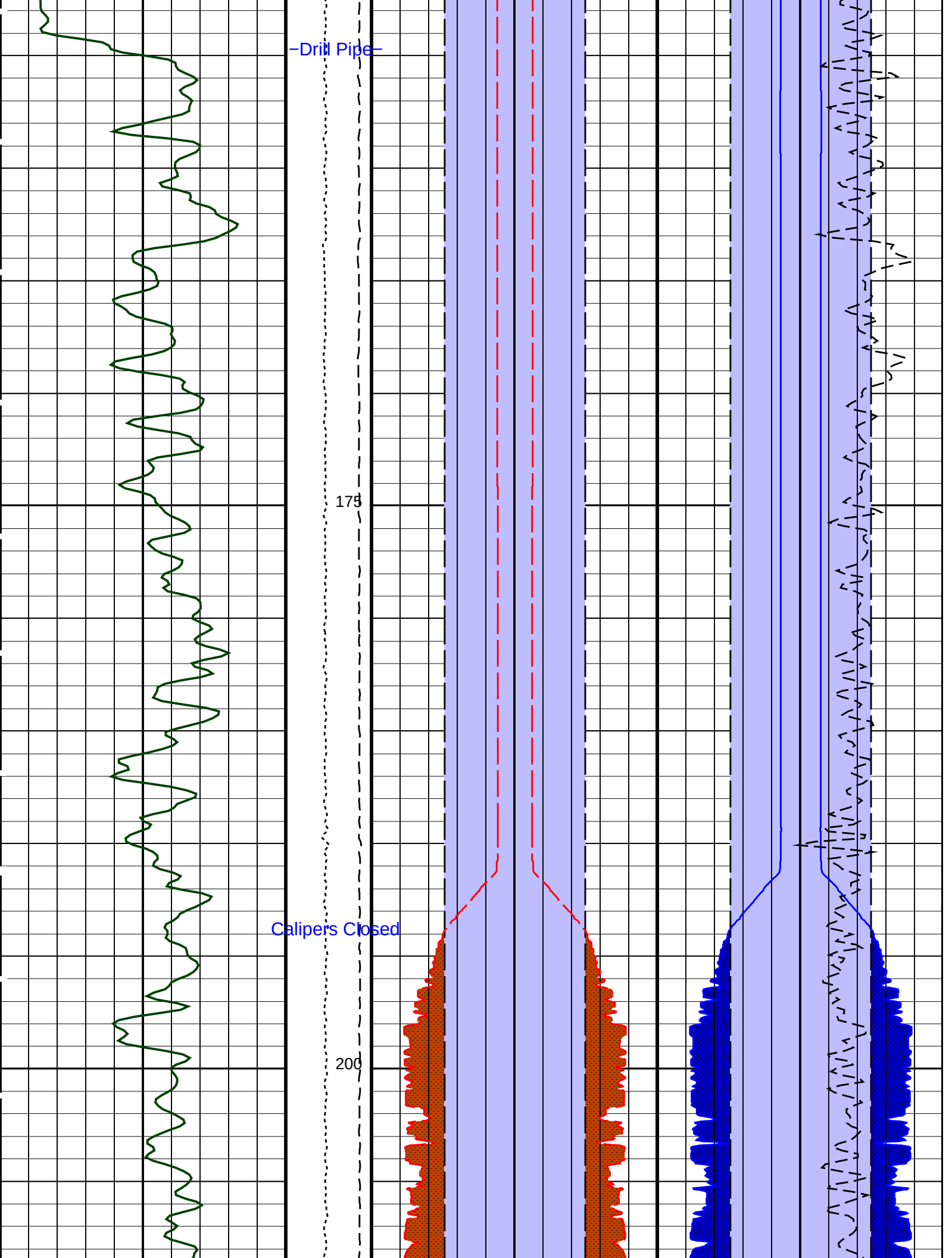
2nd Pass, Sea Floor Depth Reference

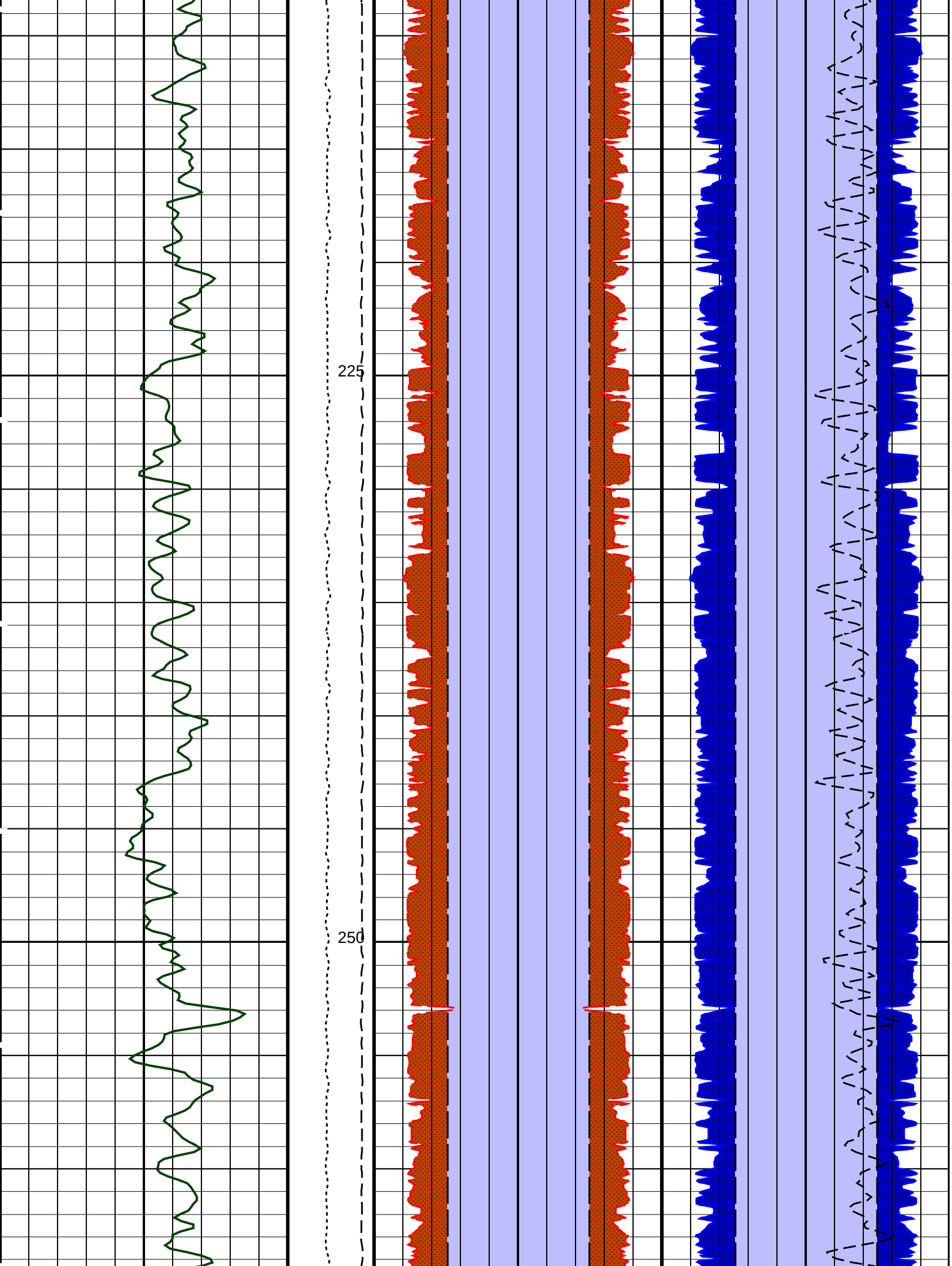


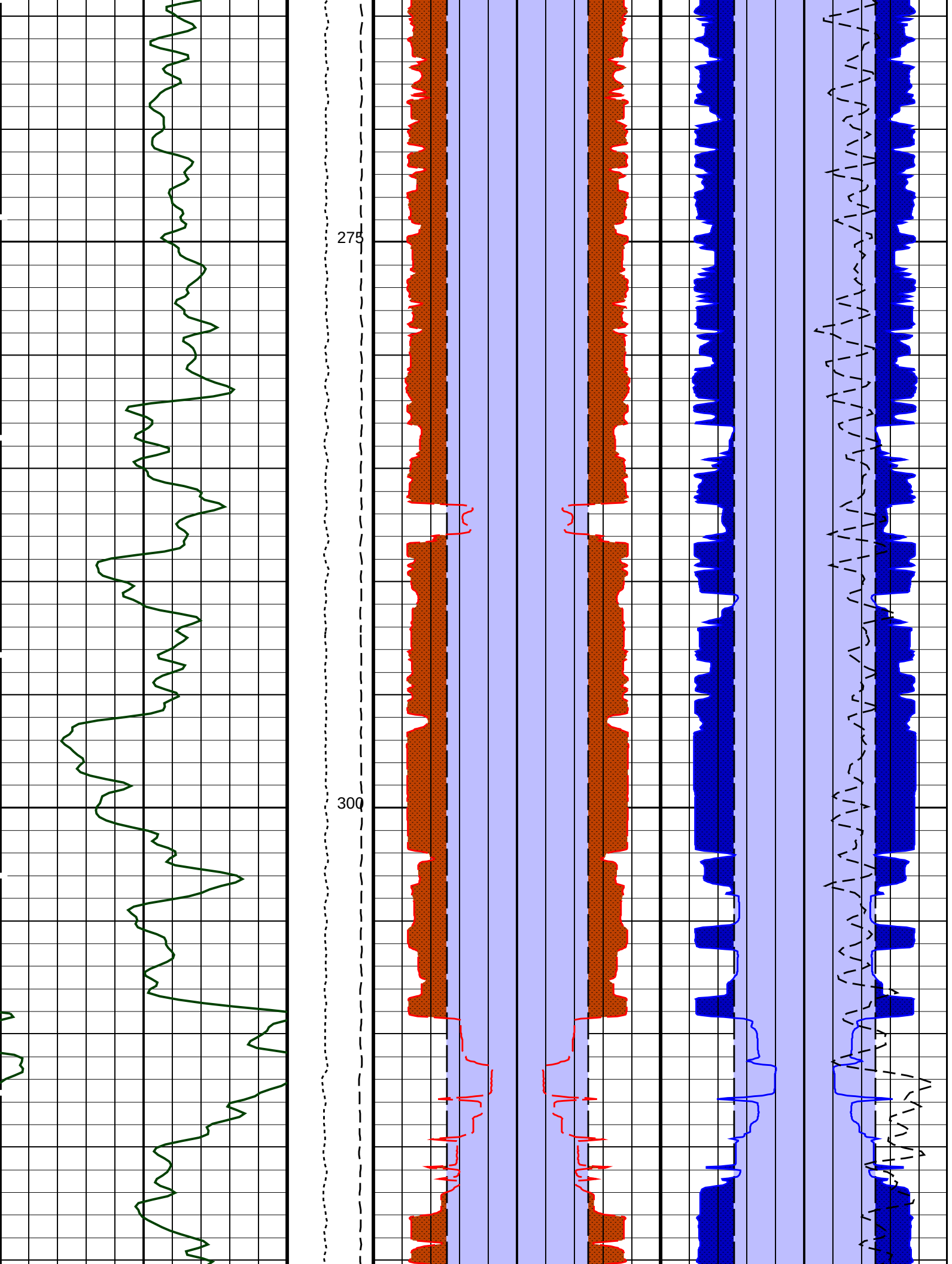

Force (CDF) (LBF)
10000 0
Caliper 1 (C1)
20 (IN) 0
Caliper 1 (C1)
0 (IN) 20
Caliper 2 (C2)
20 (IN) 0
Caliper 2 (C2)
0 (IN) 20
Gamma Ray (GR_EDTC)
0 (GAPI) 100
Tension (TENS) (LBF)
10000 0
Bit Size (BS)
20 (IN) 0
Bit Size (BS)
0 (IN) 20
Bit Size (BS)
20 (IN) 0
Bit Size (BS)
0 (IN) 20
Sea Floor
0
25

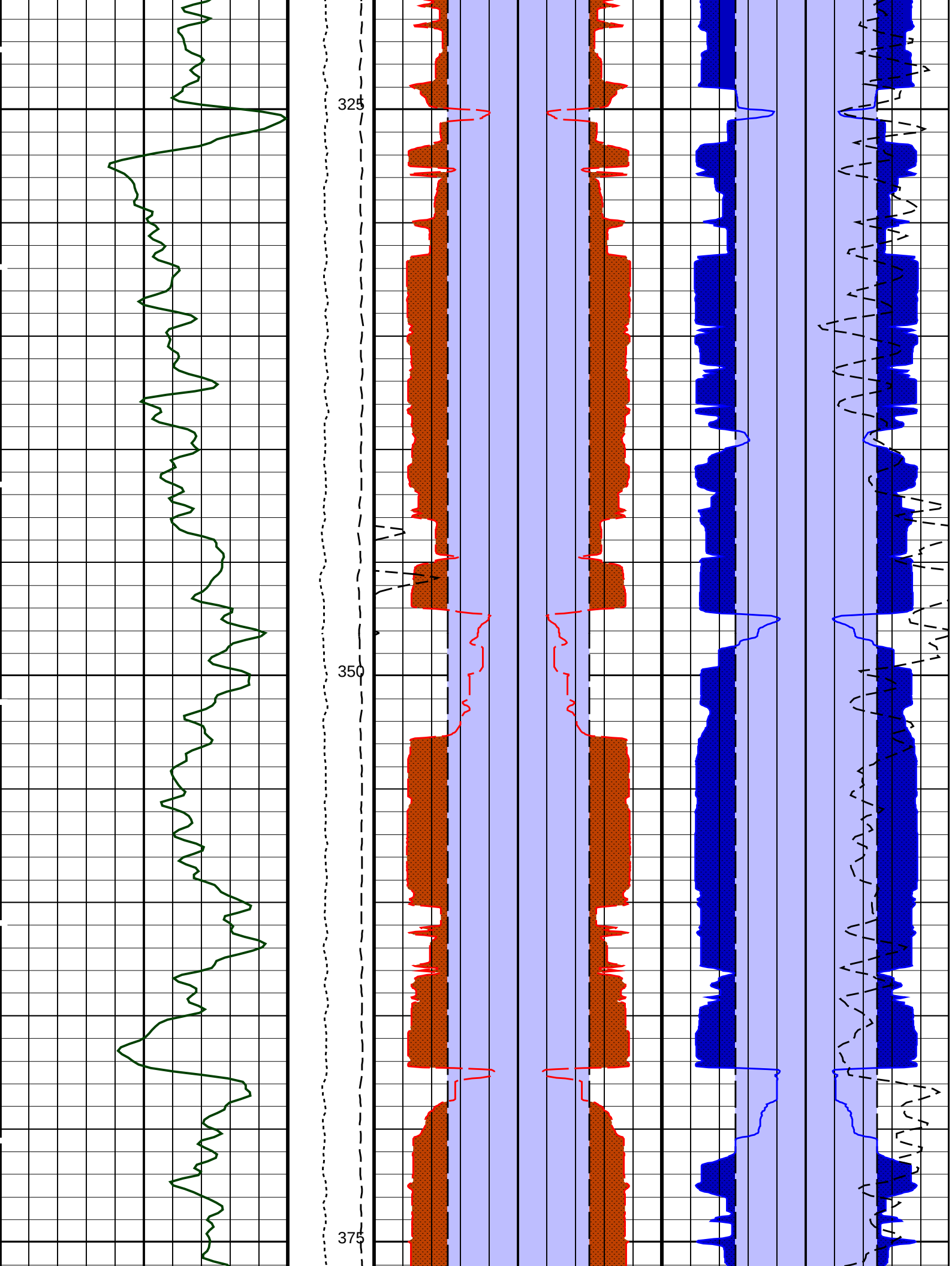

50
75

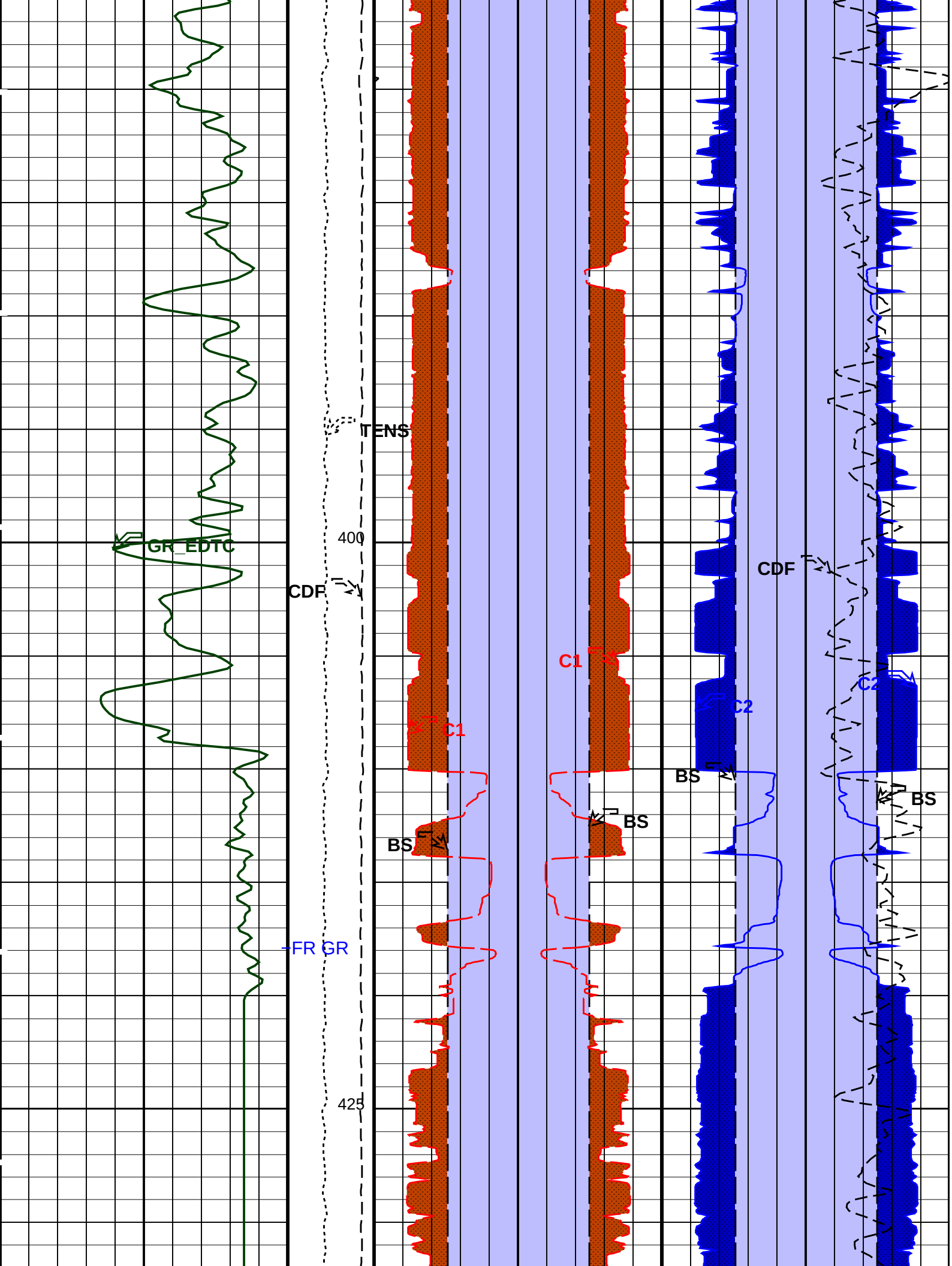

100
125
150

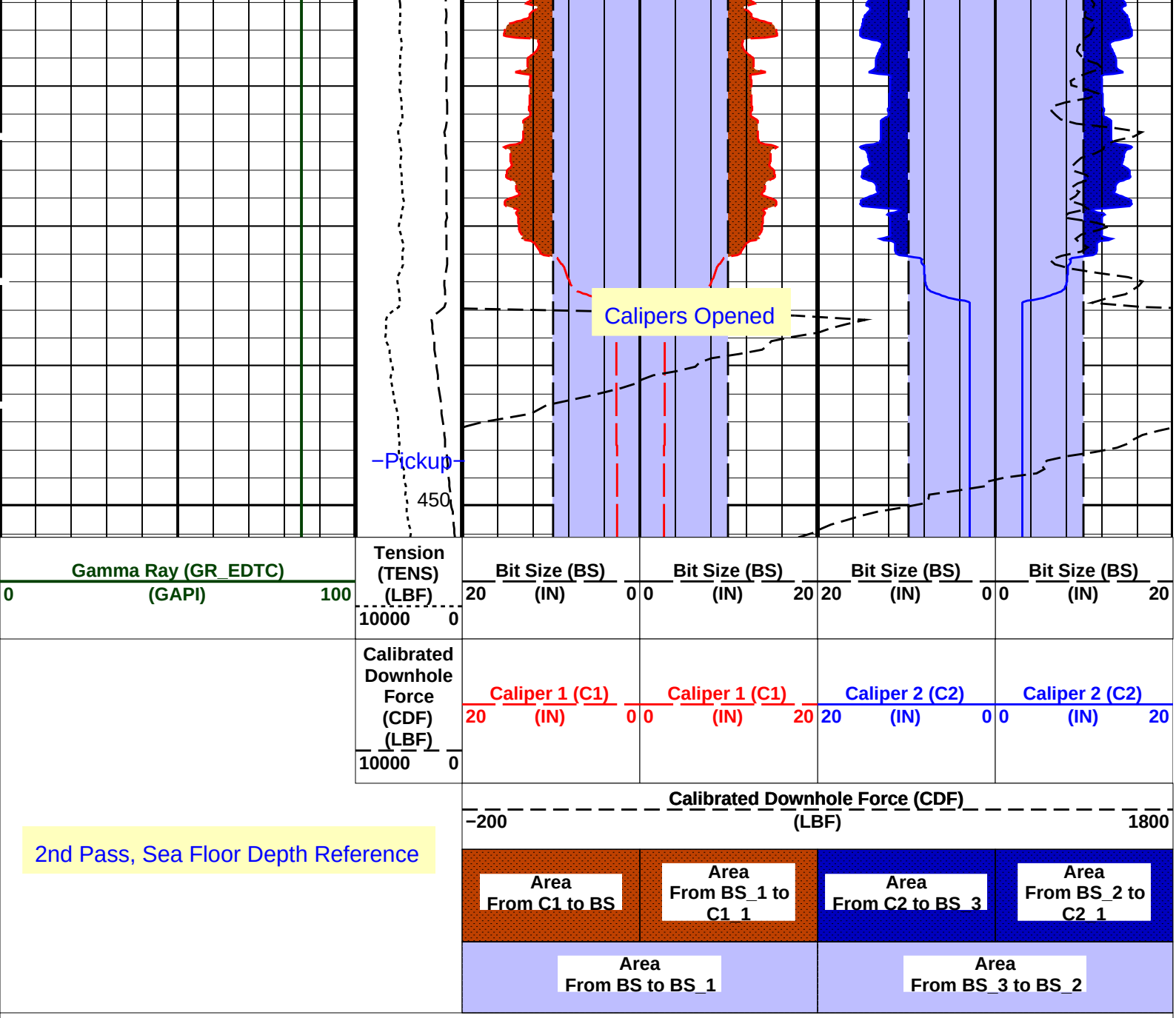

−Drill Pipe−
175
Calipers Closed
200


225
250


275
300


325
350
375


TENS
GR_EDTC
400
CDF
C1
BS
FR GR
425
CDF
C2
BS



Parameters

DLIS Name	Description	Value	
	MEST−B: Micro Electrical Scanner − B (Slim)		
ACPP	Accelerometer PROM Presence	PRESENT	
AFMO	Accelerometer Filtering Mode	MOVING_AVERAGE	
ART	Accelerometer Reference Temperature	20	DEGC
GLM	GPIT Logging Mode	DIPM	
ICMO	Inclinometry Computation Mode	AUTOMATIC_SELECTION	
MAPP	Magnetometer PROM Presence	PRESENT	
MDEC	Magnetic Field Declination	−1.64492	DEG
MLM	MEST Logging Mode	SCAN1800	
MRTE	Magneto Reference Temperature	23	DEGC
PTYP	Pad Type − High Resolution or Medium Extended Coverage	HR_SLIM_0_12_IN	
RBS	Resistivity Button Selection	AUTO	
TEMS	GPIT Temperature Sensor Used	BOTH	
U−GPOF	Playback OLD VERSION GPIT FILE (BEFORE OP14 + SRPC−3098−FEB_2006_C) ?	NO	
XGAI	Gain	GAIN_2	
XMOD	Emex Mode	MANUAL	
XOFF	Offset	OFFSET_0	
XVOL	Emex Voltage	0	V
	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)	21	DEGC
CASF	Label Casing Function − Monopole P&S	50	
CDTS	C−Delta−T Shale	100	US/F
COLL	Label Slowness Lower Limit − Monopole P&S Compressional	60	US/F
COUL	Label Slowness Upper Limit − Monopole P&S Compressional	209	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	C1	
DSHL	Label Slowness Lower Limit − Dipole Shear	75	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	10	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	210	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	
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	10	
GAI4	Manual Gain 4	16	
GAI5	Manual Gain 5	16	
GAIX	Manual Gain X	10	
GCSE	Generalized Caliper Selection	BS	
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	0.018227	DC/M
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	

HPF2	High Pass Filter 2	F80	
HPF3	High Pass Filter 3	F80	
HPF4	High Pass Filter 4	F80	
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	COMP_FIRST	
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	MFD_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	2000	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	6000	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	B3−12K	
SHLL	Label Slowness Lower Limit − Monopole P&S Shear	235	US/F
SHT	Surface Hole Temperature	20	DEGC
SHUL	Label Slowness Upper Limit − Monopole P&S Shear	240	US/F
SLL1	STC Slowness Lower Limit − Lower Dipole	75	US/F
SLL2	STC Slowness Lower Limit − Upper Dipole	75	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	1200	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	1200	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	440.25	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	620	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	957.95	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	5110	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	179	
TWA4	Transmitter Waveform Amplitude 4	200	
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	1600	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	10	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	0	
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	NONE	
XMT4	Transmitter Select 4	MONO	
XMT5	Transmitter Select 5	MONO	
XMTX	Transmitter Select X	NONE	
HNGS−BA: Hostile Natural Gamma Ray Sonde			
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.0012706	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
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	20	DEGC
TPOS	Tool Position	CENT	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.991683	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.994182	
EDTC−B: Enhanced DTS Cartridge			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
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	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
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	NOBARITE	
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	20	DEGC
SOCN	Standoff Distance	0.5	IN
SOCO	Standoff Correction Option	NO	
TPOS_EDTC	EDTC Tool Centered/Eccentered	Centered	
U−ETELM_EDTS	Telemetry Mode for eWAFE	Standard_EDTS	
U−TELM_EDTS	Telemetry Mode for WAFE	Standard_EDTS	
DIP: Dip Computation			
	DIP Tool	SHDT	
CSBL	CSB DIP Number of Levels	2L	
DPAD	Disabled Pad	NONE	
ELRA	Electrical Radius	0.5	IN
INT	Correlation Interval	1.2192	M
SANG	Correlation Search Angle	35	DEG
SBUT	DIP Set of Buttons	MSD	
SDFA	Side−by−Side Distance Factor	0.9	IN
SPAN	DIP Spanning	1/4	
STDA	Structural DIP Azimuth	0	DEG
STDI	Structural DIP Angle	0	DEG
STEP	Correlation Step	0.6096	M
System and Miscellaneous			
ALTDPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	

ALTDPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	−50000.00	PPM
CSIZ	Current Casing Size	13.375	IN
CWEI	Casing Weight	168.00	LB/F
DFD	Drilling Fluid Density	1.03	G/C3
DO	Depth Offset for Playback	−4251.0	M
FLEV	Fluid Level	−50000.00	M
MST	Mud Sample Temperature	−50000.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	NORMAL	
RMFS	Resistivity of Mud Filtrate Sample	−50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	5260	M
TDD	Total Depth − Driller	5260.00	M
TDL	Total Depth − Logger	5260.00	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: BHP Vertical Scale: 1:200 Graphics File Created: 17−Mar−2014 14:43

OP System Version: 19C0−187

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

Input DLIS Files

DEFAULT	FMS_DSI_NGS_037PUP	FN:59	PRODUCER	18−Feb−2014 04:12	4702.3 M	4242.8 M

Output DLIS Files

DEFAULT	FMS_DSI_NGS_061PUP	FN:81	PRODUCER	17−Mar−2014 14:43		

Input DLIS Files

DEFAULT	FMS_DSI_NGS_036PUP	FN:58	PRODUCER	18−Feb−2014 04:10	4672.6 M	4454.3 M

Output DLIS Files

DEFAULT	FMS_DSI_NGS_060PUP	FN:80	PRODUCER	17−Mar−2014 14:28	421.4 M	203.3 M

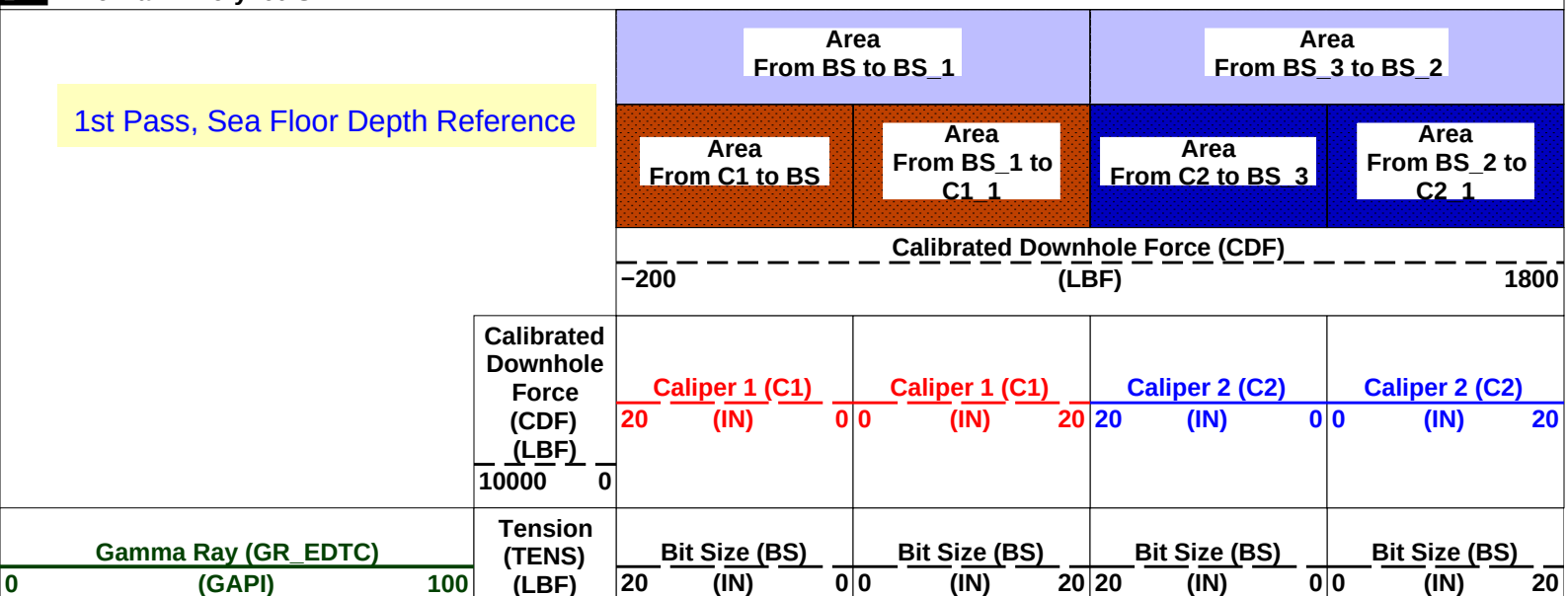
OP System Version: 19C0−187

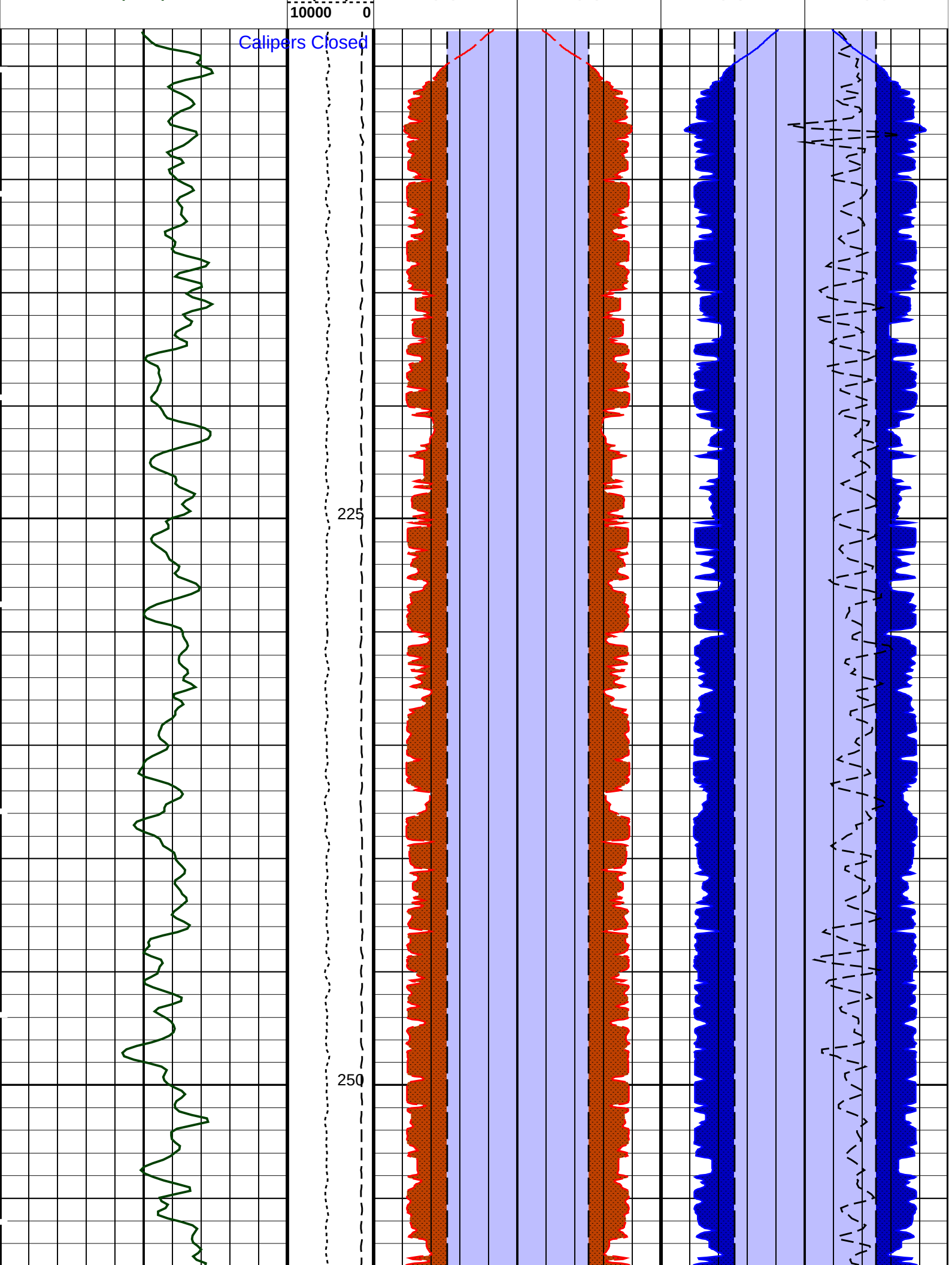
MEST−B	19C0−187	DTA−A	8453
DSST−B	19C0−187	HNGC−B	19C0−187
HNGS−BA	19C0−187	EDTC−B	SKK−5169−EDTCB

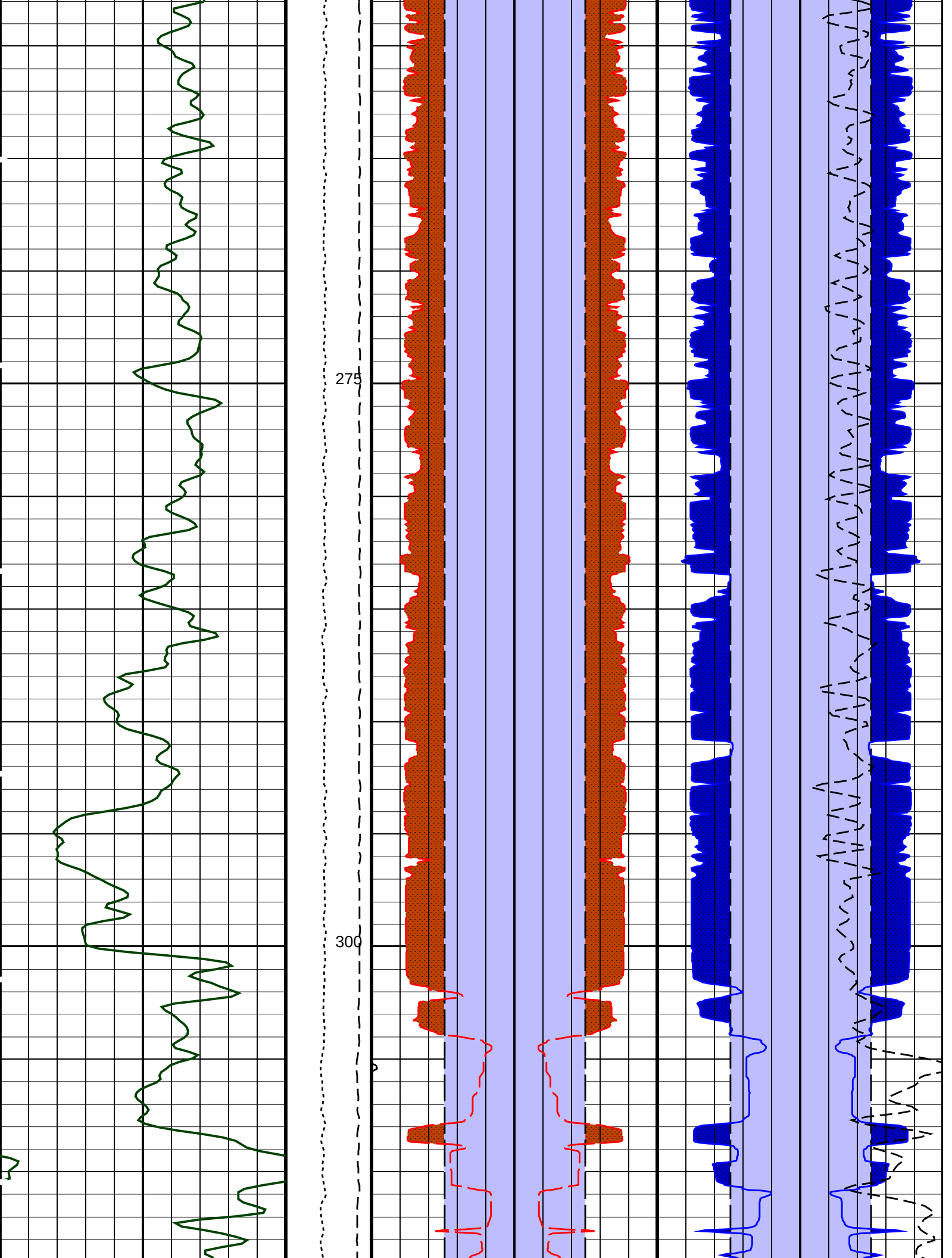
PIP SUMMARY

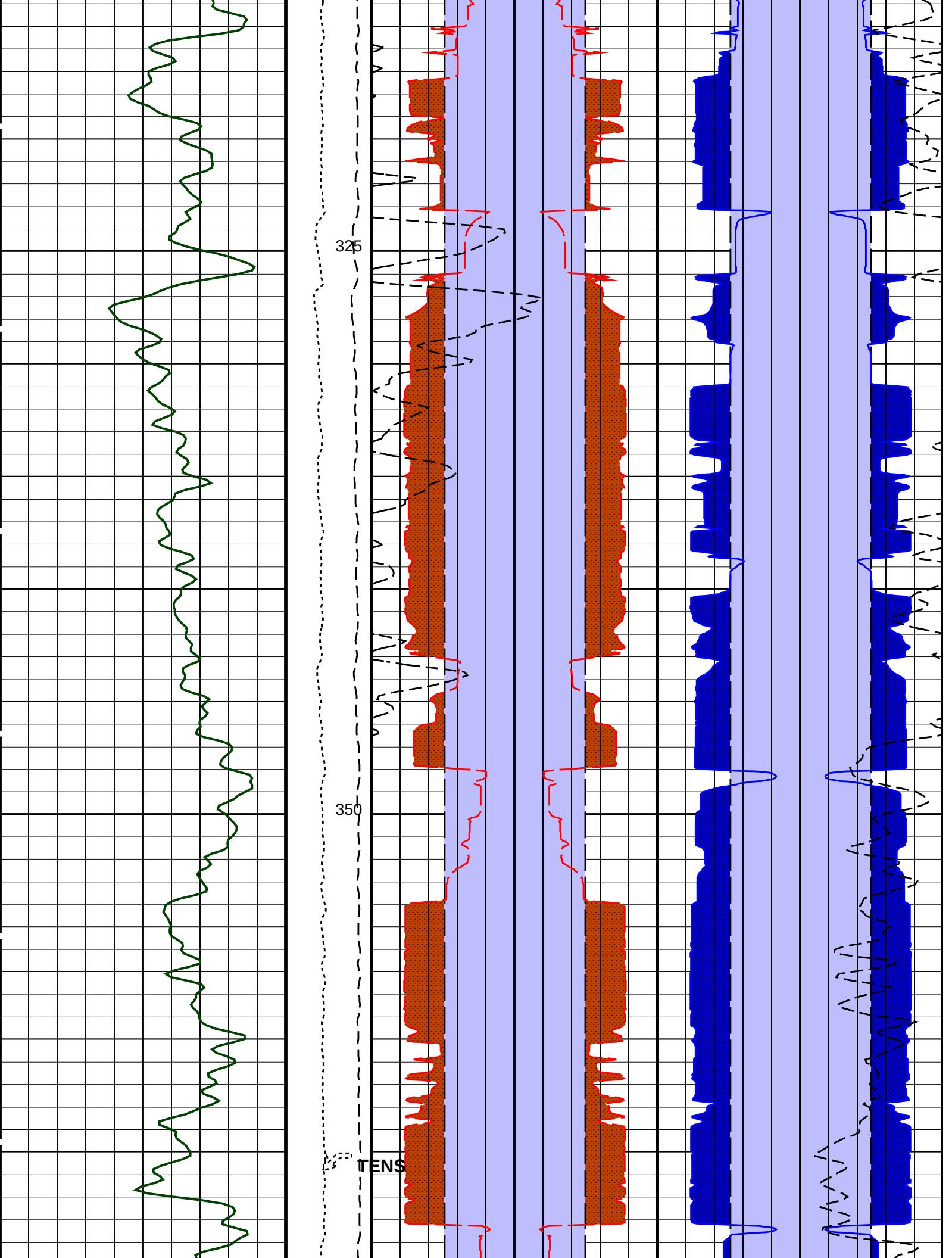
Time Mark Every 60 S

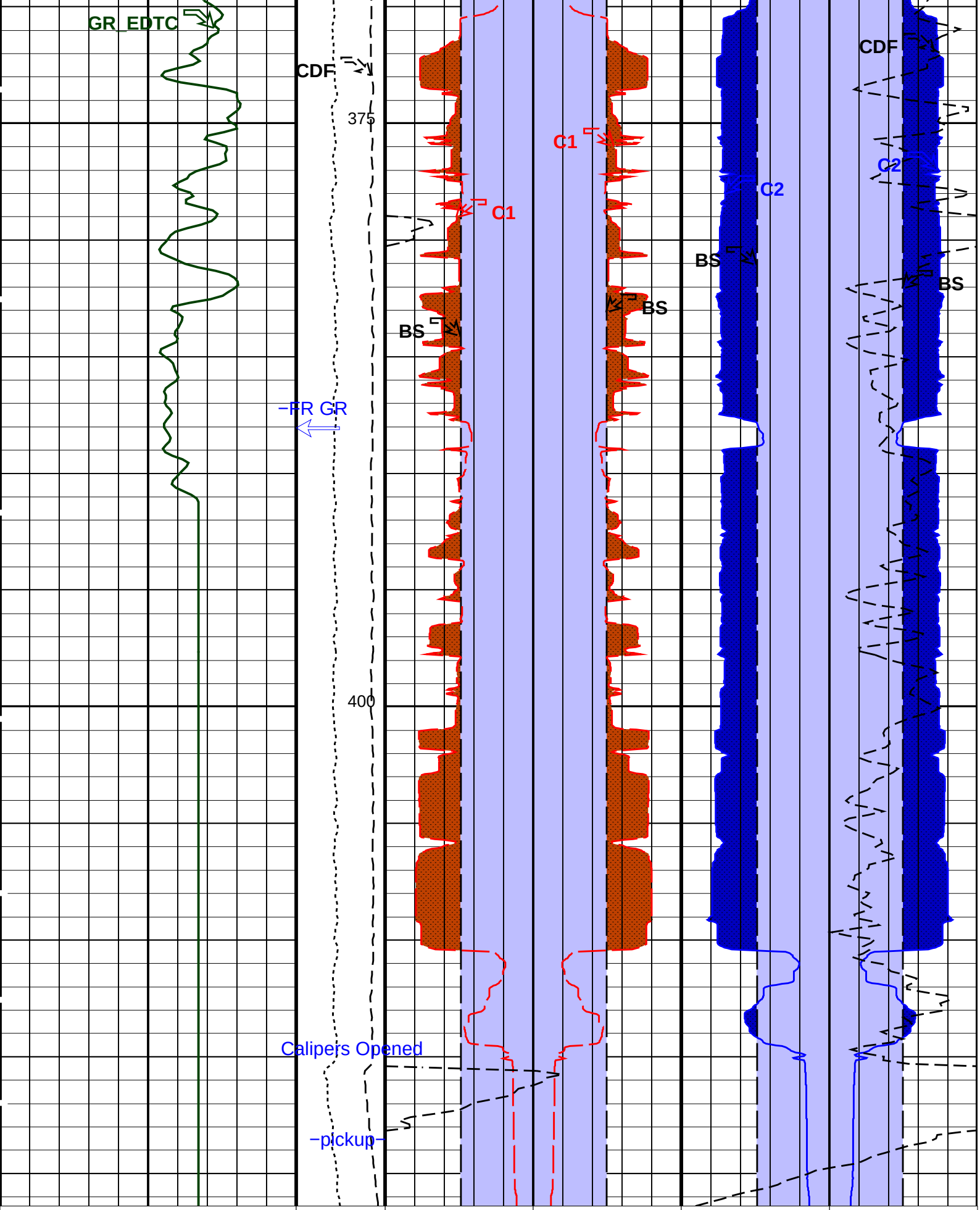
1st Pass, Sea Floor Depth Reference



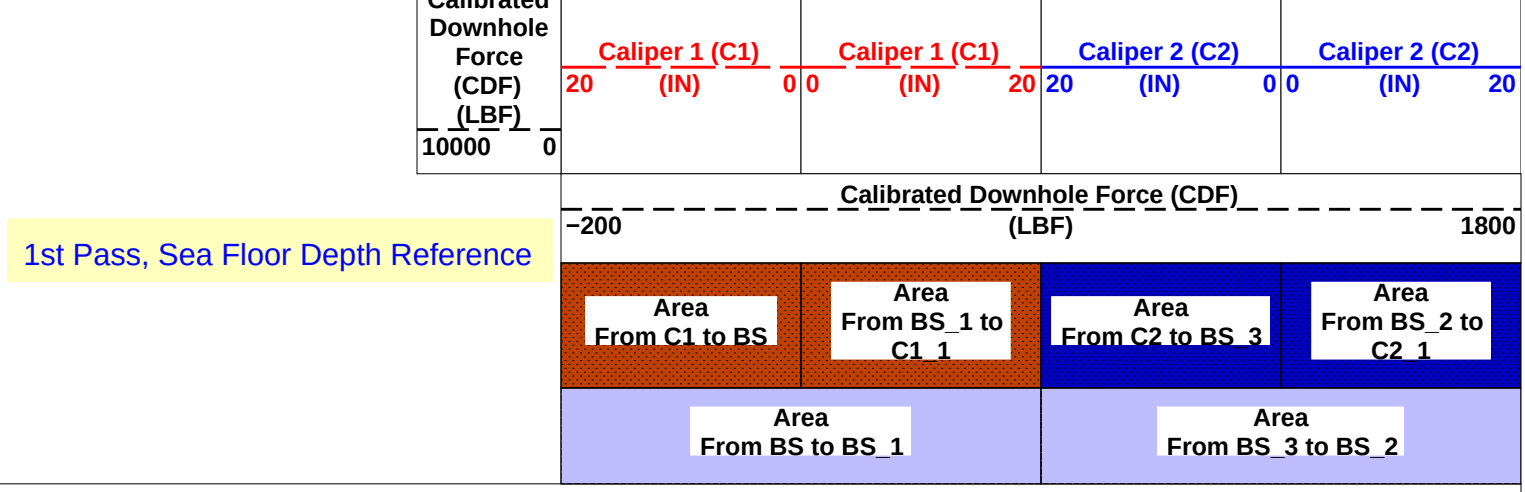

10000
0
Calipers Closed
225
250


275
300


325
350
TENS



Gamma Ray (GR_EDTC)	Tension (TENS) (LBF)	Bit Size (BS)	Bit Size (BS)	Bit Size (BS)	Bit Size (BS)
0 (GAPI) 100	10000 0	20 (IN) 0	0 (IN) 20	20 (IN) 0	0 (IN) 20
	Calibrated				



Parameters

DLIS Name	Description	Value	
	MEST−B: Micro Electrical Scanner − B (Slim)		
ACPP	Accelerometer PROM Presence	PRESENT	
AFMO	Accelerometer Filtering Mode	MOVING_AVERAGE	
ART	Accelerometer Reference Temperature	20	DEGC
GLM	GPIT Logging Mode	DIPM	
ICMO	Inclinometry Computation Mode	AUTOMATIC_SELECTION	
MAPP	Magnetometer PROM Presence	PRESENT	
MDEC	Magnetic Field Declination	−1.64492	DEG
MLM	MEST Logging Mode	SCAN1800	
MRTE	Magneto Reference Temperature	23	DEGC
PTYP	Pad Type − High Resolution or Medium Extended Coverage	HR_SLIM_0_12_IN	
RBS	Resistivity Button Selection	AUTO	
TEMS	GPIT Temperature Sensor Used	BOTH	
U−GPOF	Playback OLD VERSION GPIT FILE (BEFORE OP14 + SRPC−3098−FEB_2006_C) ?	NO	
XGAI	Gain	GAIN_2	
XMOD	Emex Mode	MANUAL	
XOFF	Offset	OFFSET_0	
XVOL	Emex Voltage	0	V
	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)	21	DEGC
CASF	Label Casing Function − Monopole P&S	50	
CDTS	C−Delta−T Shale	100	US/F
COLL	Label Slowness Lower Limit − Monopole P&S Compressional	60	US/F
COUL	Label Slowness Upper Limit − Monopole P&S Compressional	209	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	C1	
DSHL	Label Slowness Lower Limit − Dipole Shear	75	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	10	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	210	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	
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	10	
GAI4	Manual Gain 4	16	
GAI5	Manual Gain 5	16	
GAIX	Manual Gain X	10	
GCSE	Generalized Caliper Selection	BS	
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	0.018227	DC/M
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	F80	
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	COMP_FIRST	
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	LFD_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	2000	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	6000	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	B3−12K	
SHLL	Label Slowness Lower Limit − Monopole P&S Shear	235	US/F
SHT	Surface Hole Temperature	20	DEGC
SHUL	Label Slowness Upper Limit − Monopole P&S Shear	240	US/F
SLL1	STC Slowness Lower Limit − Lower Dipole	75	US/F
SLL2	STC Slowness Lower Limit − Upper Dipole	75	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	1200	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	1200	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	440.25	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	620	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	957.95	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	5110	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	179	
TWA4	Transmitter Waveform Amplitude 4	200	
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	1600	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	15	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	0	
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	NONE	
XMT4	Transmitter Select 4	MONO	
XMT5	Transmitter Select 5	MONO	
XMTX	Transmitter Select X	NONE	
HNGS−BA: Hostile Natural Gamma Ray Sonde			
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00178767	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
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	20	DEGC
TPOS	Tool Position	CENT	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.04423	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.01776	
EDTC−B: Enhanced DTS Cartridge			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
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	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
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	NOBARITE	
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	20	DEGC
SOCN	Standoff Distance	0.5	IN
SOCO	Standoff Correction Option	NO	
TPOS_EDTC	EDTC Tool Centered/Eccentered	Centered	
U−ETELM_EDTS	Telemetry Mode for eWAFE	Standard_EDTS	
U−TELM_EDTS	Telemetry Mode for WAFE	Standard_EDTS	
DIP: Dip Computation			
	DIP Tool	SHDT	
CSBL	CSB DIP Number of Levels	2L	
DPAD	Disabled Pad	NONE	
ELRA	Electrical Radius	0.5	IN
INT	Correlation Interval	1.2192	M
SANG	Correlation Search Angle	35	DEG
SBUT	DIP Set of Buttons	MSD	
SDFA	Side−by−Side Distance Factor	0.9	IN
SPAN	DIP Spanning	1/4	
STDA	Structural DIP Azimuth	0	DEG
STDI	Structural DIP Angle	0	DEG
STEP	Correlation Step	0.6096	M
System and Miscellaneous			
ALTDPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	−50000.00	PPM
CSIZ	Current Casing Size	13.375	IN
CWEI	Casing Weight	168.00	LB/F
DFD	Drilling Fluid Density	1.03	G/C3
DO	Depth Offset for Playback	−4251.0	M
FLEV	Fluid Level	−50000.00	M
MST	Mud Sample Temperature	−50000.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	NORMAL	
RMFS	Resistivity of Mud Filtrate Sample	−50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	5260	M
TDD	Total Depth − Driller	5260.00	M
TDL	Total Depth − Logger	5260.00	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: BHP **Vertical Scale: 1:200** **Graphics File Created: 17−Mar−2014 14:28**

OP System Version: 19C0−187

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

Input DLIS Files

DEFAULT	FMS_DSI_NGS_036PUP	FN:58	PRODUCER	18−Feb−2014 04:10	4672.6 M	4454.3 M

Output DLIS Files

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Micro Electrical Scanner − B (Slim) Wellsite Calibration − Caliper Calibration							
Before: Calibration out of date 4−Feb−2014 5:22							
Caliper 1 Zero Measurement	12.00	N/A	11.98	N/A	N/A	N/A	IN
Caliper 2 Zero Measurement	12.00	N/A	12.05	N/A	N/A	N/A	IN
Caliper 1 Plus Measurement	15.19	N/A	15.18	N/A	N/A	N/A	IN
Caliper 2 Plus Measurement	15.19	N/A	15.38	N/A	N/A	N/A	IN
Micro Electrical Scanner − B (Slim) Wellsite Calibration − CROUZET ACCELEROMETER PROM HAS BEEN READ CORRECTLY							
Before: Calibration out of date 15−Feb−2014 0:36							
TEMPERATURE REFERENCE :	N/A	N/A	20	N/A	N/A	N/A	DEGC
YEAR OF CALIBRATION :	N/A	N/A	99	N/A	N/A	N/A	
MONTH OF CALIBRATION :	N/A	N/A	3	N/A	N/A	N/A	
SERIAL NUMBER :	N/A	N/A	743	N/A	N/A	N/A	
Micro Electrical Scanner − B (Slim) Wellsite Calibration − CROUZET MAGNETOMETER PROM HAS BEEN READ CORRECTLY							
Before: Calibration out of date 15−Feb−2014 0:36							
TEMPERATURE REFERENCE :	N/A	N/A	23	N/A	N/A	N/A	DEGC
YEAR OF CALIBRATION :	N/A	N/A	3	N/A	N/A	N/A	
MONTH OF CALIBRATION :	N/A	N/A	9	N/A	N/A	N/A	
SERIAL NUMBER :	N/A	N/A	507	N/A	N/A	N/A	
Hostile Natural Gamma Ray Sonde Wellsite Calibration − Detector 1 Check							
Master: 4−Feb−2014 23:51 Before: 5−Feb−2014 0:02 After: 5−Feb−2014 0:07							
Na 511 Peak Loc	40.00	39.52	39.48	39.57	0.09216	1.000	
Na 511 Peak Res	15.50	15.96	16.77	17.05	0.2800	2.000	%
High Voltage	1150	1194	1193	1193	0.08801	N/A	V
Na 1785 Peak Loc	142.6	142.1	141.8	142.0	0.2398	7.000	
Na 1785 Peak Res	8.500	9.703	8.709	9.174	0.4646	2.000	%
Temperature	15.50	35.74	35.71	35.75	0.03577	N/A	DEGC
Na Count Rate	45.00	11.77	12.16	12.19	0.02500	8.000	CPS
Hostile Natural Gamma Ray Sonde Wellsite Calibration − Detector 2 Check							
Master: 4−Feb−2014 23:51 Before: 5−Feb−2014 0:02 After: 5−Feb−2014 0:07							
Na 511 Peak Loc	40.00	39.56	39.51	40.01	0.4946	1.000	
Na 511 Peak Res	15.50	16.07	16.56	16.11	−0.4463	2.000	%
High Voltage	1150	1126	1128	1128	0.1504	N/A	V
Na 1785 Peak Loc	142.6	142.3	143.1	142.2	−0.8427	7.000	
Na 1785 Peak Res	8.500	8.959	9.953	8.887	−1.065	2.000	%
Temperature	15.50	36.60	36.88	36.96	0.08454	N/A	DEGC
Na Count Rate	45.00	12.28	12.68	12.52	−0.1613	8.000	CPS
Hostile Natural Gamma Ray Sonde Wellsite Calibration − Ratio Of Detector 1 To Detector 2							
Master: 4−Feb−2014 23:51 Before: 5−Feb−2014 0:02 After: 5−Feb−2014 0:07							
Coincidence Count Rate Ratio	1.000	0.9624	0.9606	0.9690	0.008355	0.05000	
Hostile Natural Gamma Ray Sonde Master Calibration − Detector 1 Calibration							
Master: 4−Feb−2014 20:09							
Na 511 Peak Set Point	40.00	41.00	−−	−−	−−	−−	
Th Peak Loc	209.6	210.4	−−	−−	−−	−−	
Th Peak Res	7.000	7.207	−−	−−	−−	−−	%
Background Count Rate	142.5	16.20	−−	−−	−−	−−	CPS
Gain Ratio	1.000	1.012	−−	−−	−−	−−	
Hostile Natural Gamma Ray Sonde Master Calibration − Detector 2 Calibration							
Master: 4−Feb−2014 20:09							
Na 511 Peak Set Point	40.00	41.00	−−	−−	−−	−−	
Th Peak Loc	209.6	208.9	−−	−−	−−	−−	
Th Peak Res	7.000	7.337	−−	−−	−−	−−	%
Background Count Rate	142.5	16.52	−−	−−	−−	−−	CPS
Gain Ratio	1.000	1.004	−−	−−	−−	−−	
Enhanced DTS Cartridge Wellsite Calibration − EDTC Accelerometer Calibration							
Before: Calibration out of date 15−Feb−2014 0:36							
EDTC Z−Axis Acceleration	9.810	N/A	9.771	N/A	N/A	N/A	M/S2
Enhanced DTS Cartridge Wellsite Calibration − Detector Calibration							
Before: Calibration out of date 4−Feb−2014 5:11							
Gamma Ray (Jig − Bkg)	158.1	N/A	158.1	N/A	N/A	14.38	GAPI
Gamma Ray (Calibrated)	164.0	N/A	164.0	N/A	N/A	15.00	GAPI

Micro Electrical Scanner − B (Slim) / Equipment Identification

Primary Equipment:		
MEST Sonde − B	MEDS − B	724
MEST Preamplifier Cartridge − AB	MEPC − AB	807
GPIT Cartridge − AC	GPIC − AC	840
MEST Acquisition Cartridge − A	MEAC − A	875
Auxiliary Equipment:		
MEST−B Preamplifier Cartridge Housing	MEPH − A	702
MEST Acquisition Cartridge Housing (Slim	MEAH − B	769

Hostile Natural Gamma Ray Cartridge − B / Equipment Identification

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

Hostile Natural Gamma Ray Sonde / Equipment Identification

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

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Detector 1 Check

Phase	Na 511 Peak Loc	Value
Master		39.52
Before		39.48
After		39.57
37.50 (Minimum)	40.00 (Nominal)	43.50 (Maximum)

Phase	Na 511 Peak Res %	Value
Master		15.96
Before		16.77
After		17.05
12.00 (Minimum)	15.50 (Nominal)	19.00 (Maximum)

Phase	High Voltage V	Value
Master		1194
Before		1193
After		1193
900.0 (Minimum)	1150 (Nominal)	1600 (Maximum)

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

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

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

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

Master: 4−Feb−2014 23:51 Before: 5−Feb−2014 0:02 After: 5−Feb−2014 0:07

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Detector 2 Check

Phase	Na 511 Peak Loc	Value
Master		39.56
Before		39.51
After		40.01
37.50	40.00	43.50

Phase	Na 511 Peak Res %	Value
Master		16.07
Before		16.56
After		16.11
12.00	15.50	19.00

Phase	High Voltage V	Value
Master		1126
Before		1128
After		1128
900.0	1150	1600

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

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

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

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

Master: 4−Feb−2014 23:51 Before: 5−Feb−2014 0:02 After: 5−Feb−2014 0:07

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Ratio Of Detector 1 To Detector 2

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

Master: 4−Feb−2014 23:51
Before: 5−Feb−2014 0:02
After: 5−Feb−2014 0:07

Hostile Natural Gamma Ray Sonde Master Calibration

Detector 1 Calibration

Phase	Na 511 Peak Set Point	Value
Master		41.00
38.00 (Minimum)	40.00 (Nominal)	43.00 (Maximum)

Phase	Th Peak Loc	Value
Master		210.4
201.0 (Minimum)	209.6 (Nominal)	218.3 (Maximum)

Phase	Th Peak Res %	Value
Master		7.207
5.000 (Minimum)	7.000 (Nominal)	9.000 (Maximum)

Phase	Background Count Rate CPS	Value
Master		16.20
10.00 (Minimum)	142.5 (Nominal)	265.0 (Maximum)

Phase	Gain Ratio	Value
Master		1.012
0.9400 (Minimum)	1.000 (Nominal)	1.060 (Maximum)

Master: 4−Feb−2014 20:09

Hostile Natural Gamma Ray Sonde Master Calibration

Detector 2 Calibration

Phase	Na 511 Peak Set Point	Value
Master		41.00
38.00 (Minimum)	40.00 (Nominal)	43.00 (Maximum)

Phase	Th Peak Loc	Value
Master		208.9
201.0 (Minimum)	209.6 (Nominal)	218.3 (Maximum)

Phase	Th Peak Res %	Value
Master		7.337
5.000 (Minimum)	7.000 (Nominal)	9.000 (Maximum)

Phase	Background Count Rate CPS	Value
Master		16.52
10.00 (Minimum)	142.5 (Nominal)	265.0 (Maximum)

Phase	Gain Ratio	Value
Master		1.004
0.9400 (Minimum)	1.000 (Nominal)	1.060 (Maximum)

Master: 4−Feb−2014 20:09

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		9.771
	9.610 (Minimum) 9.810 (Nominal) 10.01 (Maximum)	

Before: Calibration out of date 15−Feb−2014 0:36

Enhanced DTS Cartridge Wellsite Calibration

Detector Calibration

Phase	Gamma Ray Background GAPI	Value
Before		6.615
	0 (Minimum) 30.00 (Nominal) 120.0 (Maximum)	

Phase	Gamma Ray (Jig − Bkg) GAPI	Value
Before		158.1
	143.8 (Minimum) 158.1 (Nominal) 172.5 (Maximum)	

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

Before: Calibration out of date 4−Feb−2014 5:11

Company: **Lamont Doherty Earth Observatory**

Schlumberger

Well: **Expedition 349, Site U1431**
Field: **South China Sea Tectonics**
Rig: **JOIDES Resolution**
Ocean: **South China Sea**

Borehole Profile Caliper Log
Gamma Ray
Caliper 2−Axis from FMS