

DISCLAIMER

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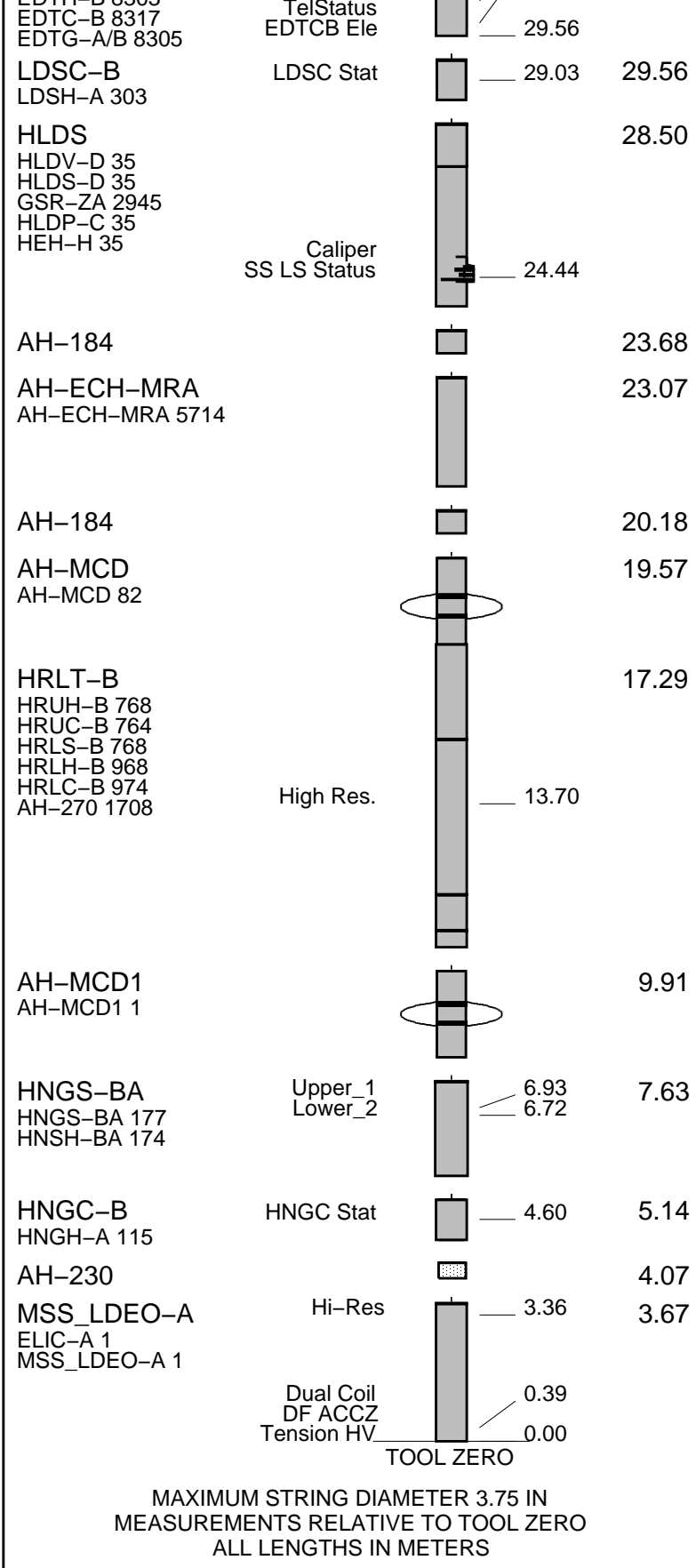
REMARKS: RUN NUMBER 1

Hole drilled with RCB bottom hole assembly (BHA) at 9-7/8" BS
 Pipe positioned 50m below sea floor after bit was dropped to bottom using MBR.
 Sea Floor: 3296mbrf
 Driller's TD: 3556mbrf
 Tools run as per client request with HNGS near bottom to provide maximum spectral GR coverage.
 Lower part of string centralized using modified MCD devices on either side of the HRLA.
 Upper part of string eccentralized by HLDS caliper and decoupled from lower string using kuckle joints.
 Tool run WITHOUT nuclear sources per client request.
 LITHO-DENSITY CURVES --NOT-- VALID due to lack of nuclear source.
 Mud Temperature recorded using LEH-MT mud temperature sensor; readings may be affected by tool heat.
 Sea floor found to be 3296.4mbrf, piipe found at 3347.4mbrf; hole found obstructed at 3523mbrf.
 Active Heave Compensator used below 3400m / deactivated above 3400mbrf as per standard practice in pipe
 Natural GR emissions from the formation were VERY low over much of the interval; this causes "noisy" readings below zero on HNG

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

EQUIPMENT DESCRIPTION

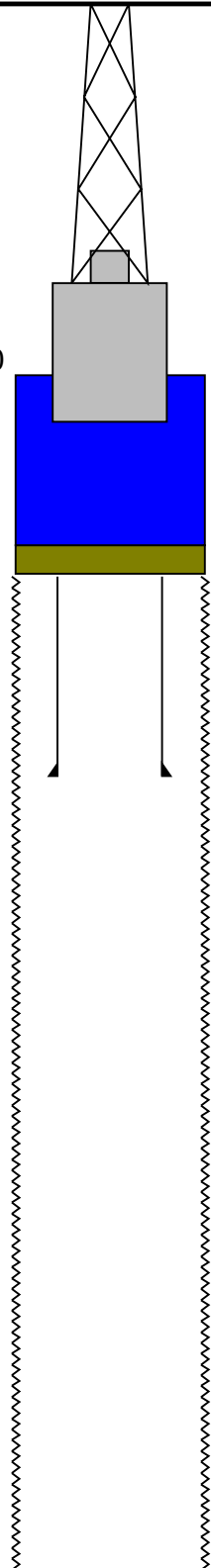
RUN 1		RUN 2	
SURFACE EQUIPMENT			
GSR-U 616008 WITM (EDTS)-A			
DOWNHOLE EQUIPMENT			
LEH-MT	32.94		
LEH-MT 101			
AH-369	31.54		
EDTC-B	30.48		
EDTH-B 8303	29.91		



Kelly Bushing Elevation 0.0

Derrick Floor Elevation 0.0

Mean Sea Level 11.0



3296.60000 Sea Floor

3348.10000 Pipe

3556.875 TD Driller

Schlumberger

**Second Pass
1:200 Scale**

MAXIS Field Log

Company: International Ocean Discovery Program

Well: Expedition 366, Site U1498B

Output DLIS Files

DEFAULT	MSS_LDEO_NGS_HRLA_011LUP	FN:11	PRODUCER	29-Jan-2017 14:52	3522.7 M	3285.0 M
RTB	MSS_LDEO_NGS_HRLA_011LUP	FN:12	PRODUCER	29-Jan-2017 14:52	3522.7 M	3285.0 M

OP System Version: 19C0-187

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

PIP SUMMARY

Time Mark Every 60 S

HNGS Spectroscopy Gamma Ray (HSGR)
(GAPI) 0 50
Area1
From HCGR to HSGR

HNGS Borehole Potassium (HBHK)
-0.01 (V/V) 0.01

HNGS Computed Gamma Ray (HCGR)
(GAPI) 0 50

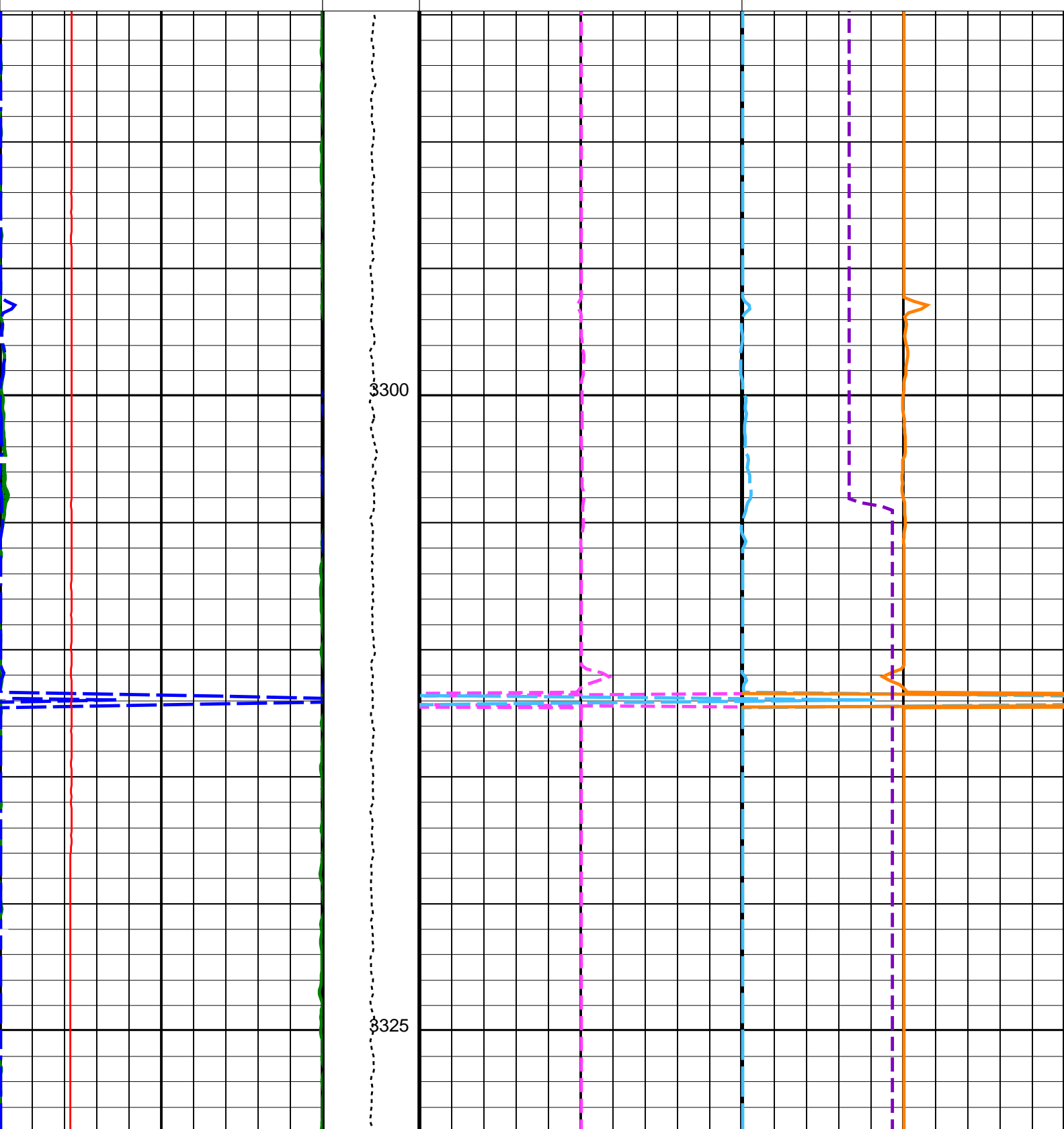
HNGS Uranium (HURA)
-5 (PPM) 5

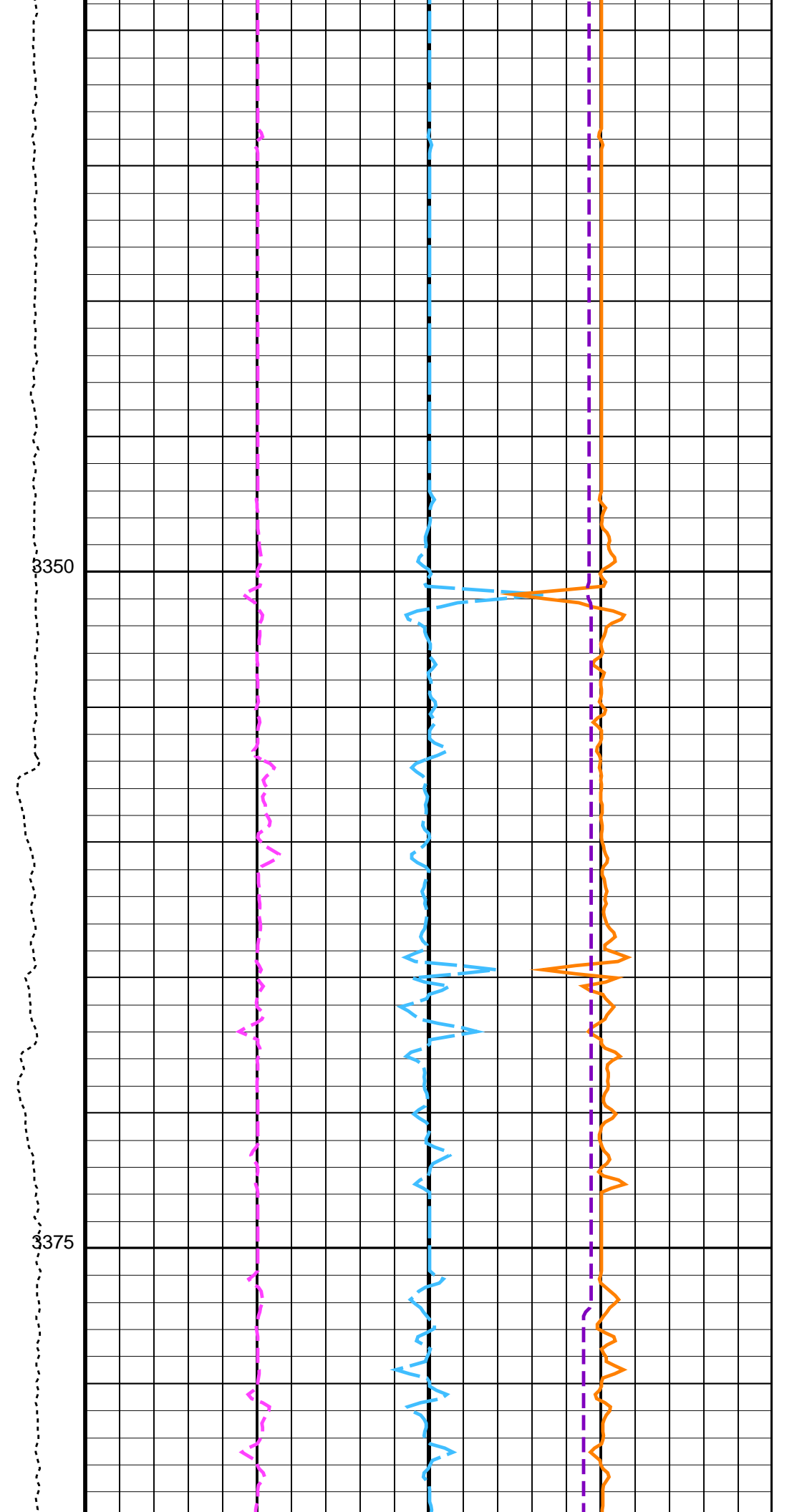
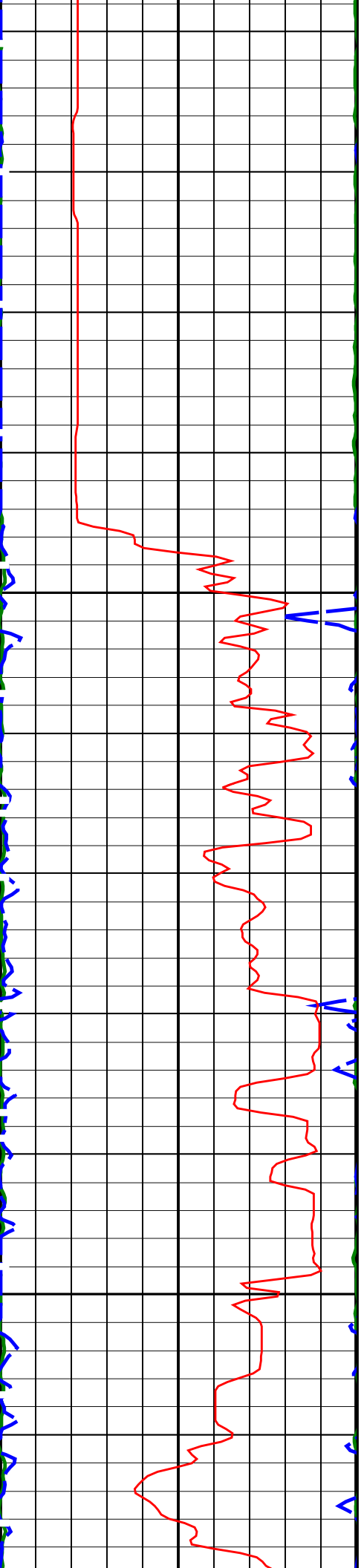
HLDS Caliper (LCAL)
(IN) 0 20

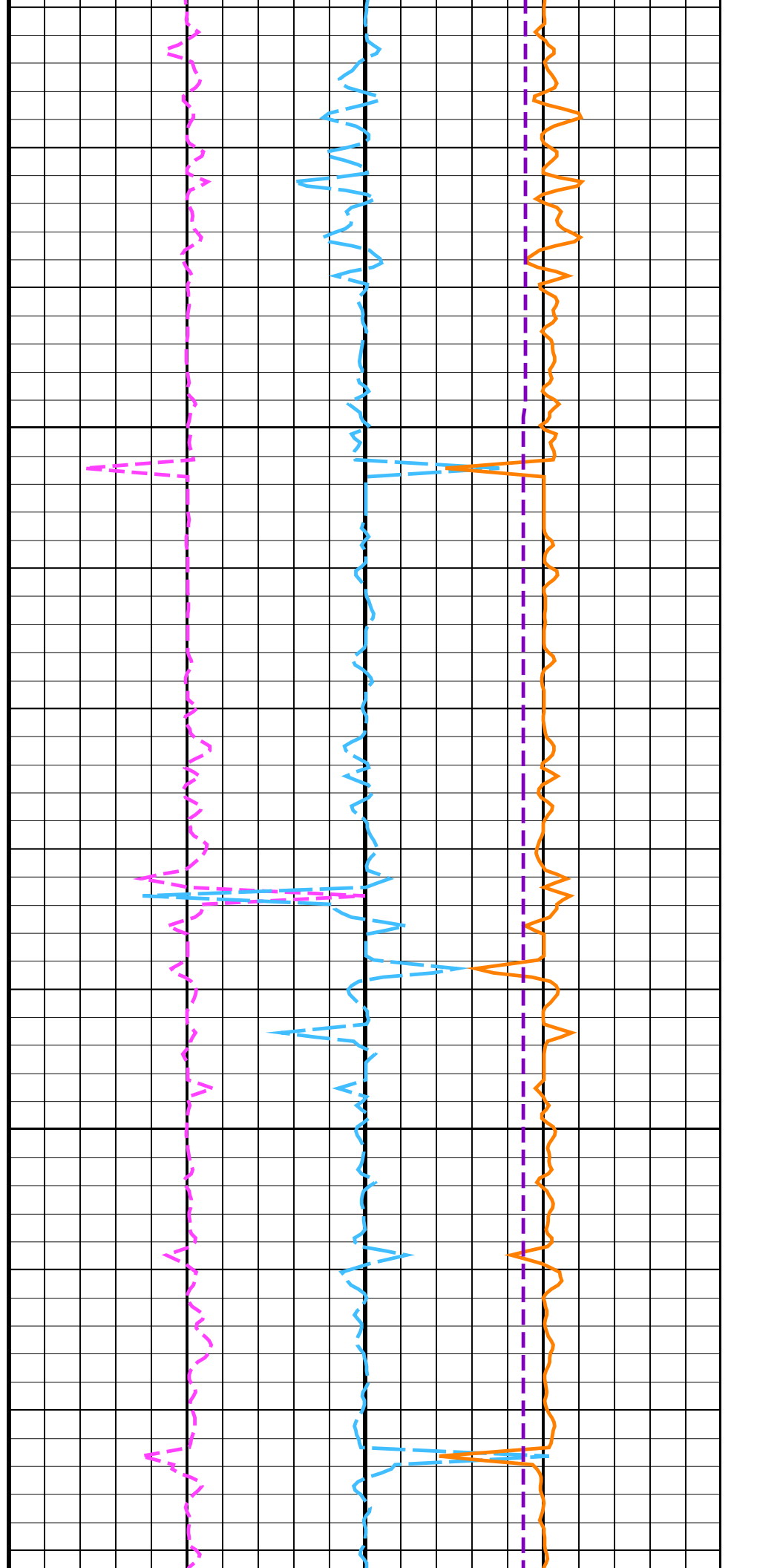
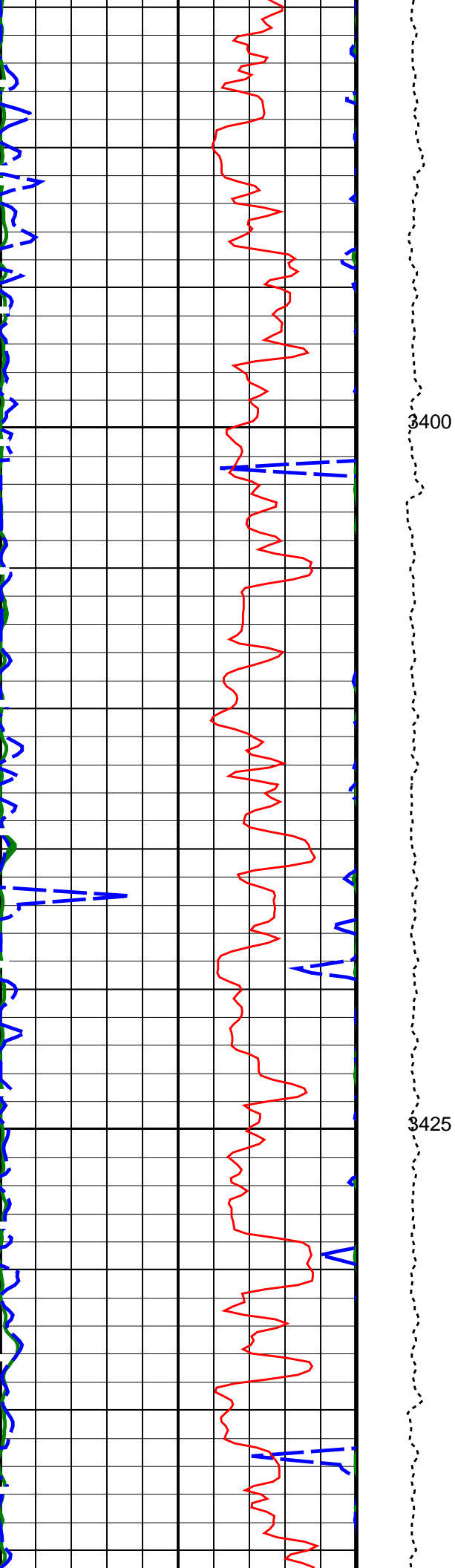
Tension (TENS) (LBF) 10000 0

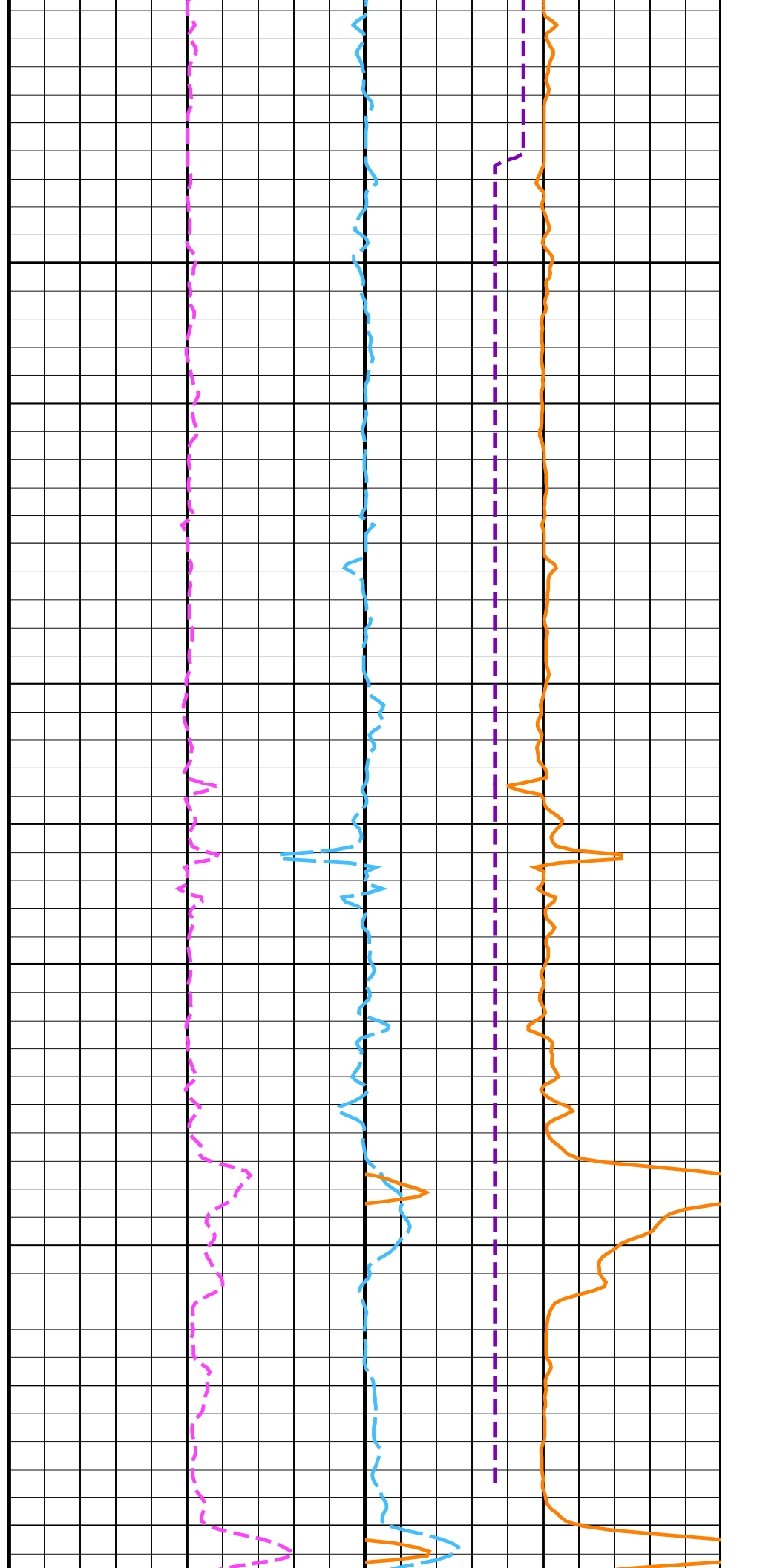
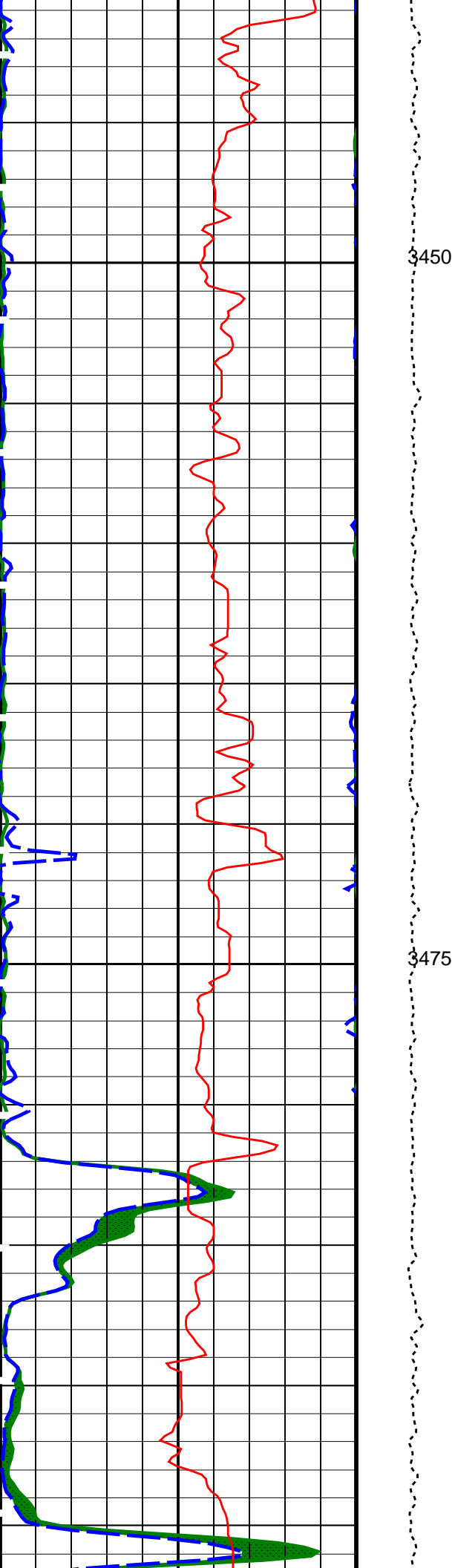
HNGS Thorium (HTHO)
-5 (PPM) 5

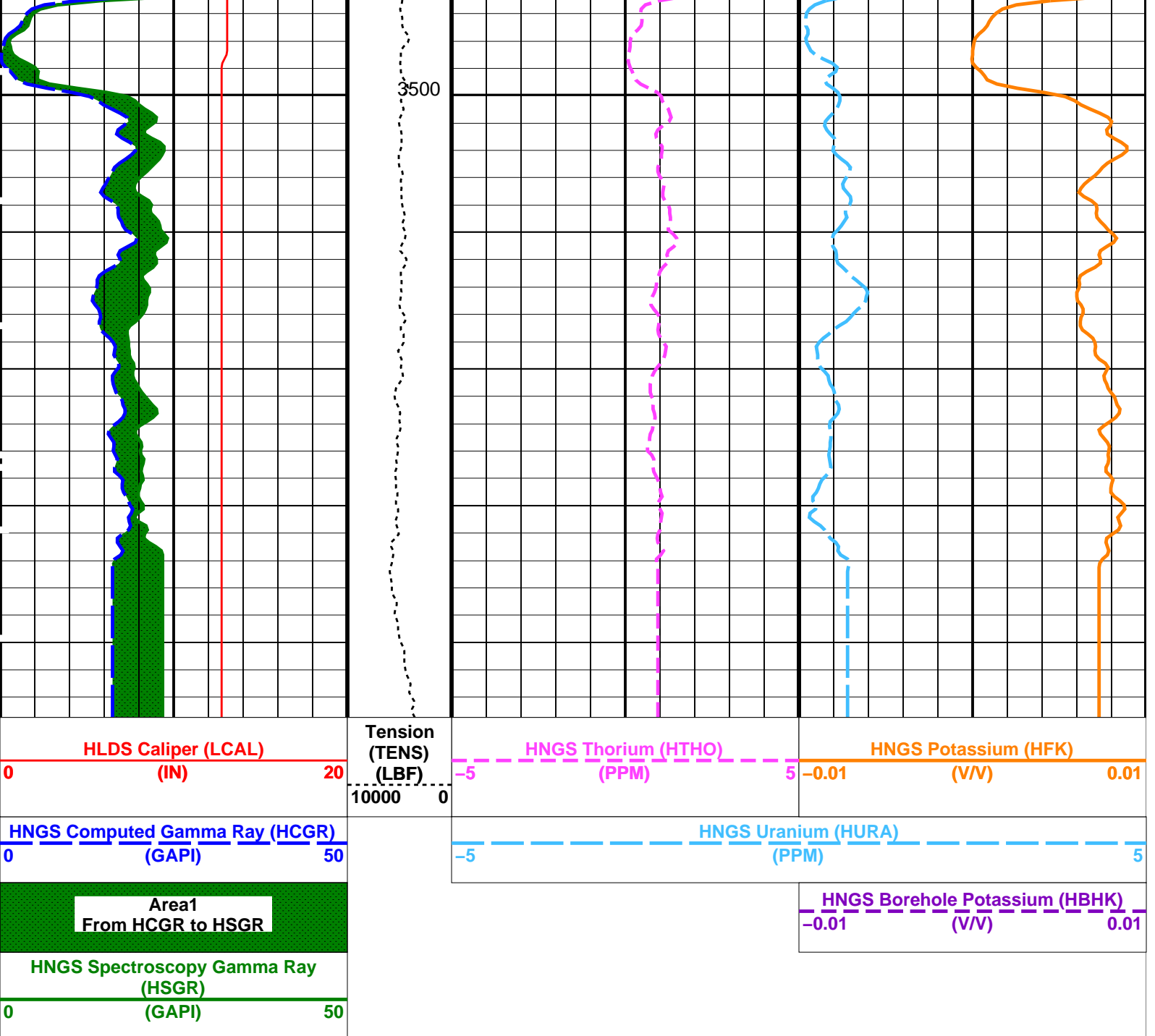
HNGS Potassium (HFK)
-0.01 (V/V) 0.01











PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
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	-0.0028469
HALF	HNGS Alpha Filter Length	60 IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE
HMWM	Mud Weighting Material	NATU
HNPE	HNGS Processing Enable	YES
HNGS	HNGS Detector 1 Calibration Diameter Count Rate	1.8

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	-1.88948	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	-14.267	
HRLT-B: High Resolution Laterolog Array - B			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
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	1.05	G/C3

Format: HNGSYields Vertical Scale: 1:200 Graphics File Created: 29-Jan-2017 14:52

OP System Version: 19C0-187

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

Output DLIS Files

DEFAULT	MSS_LDEO_NGS_HRLA_011LUP	FN:11	PRODUCER	29-Jan-2017 14:52
RTB	MSS_LDEO_NGS_HRLA_011LUP	FN:12	PRODUCER	29-Jan-2017 14:52

Company: International Ocean Discovery Program Well: Expedition 366, Site U1498B

Output DLIS Files

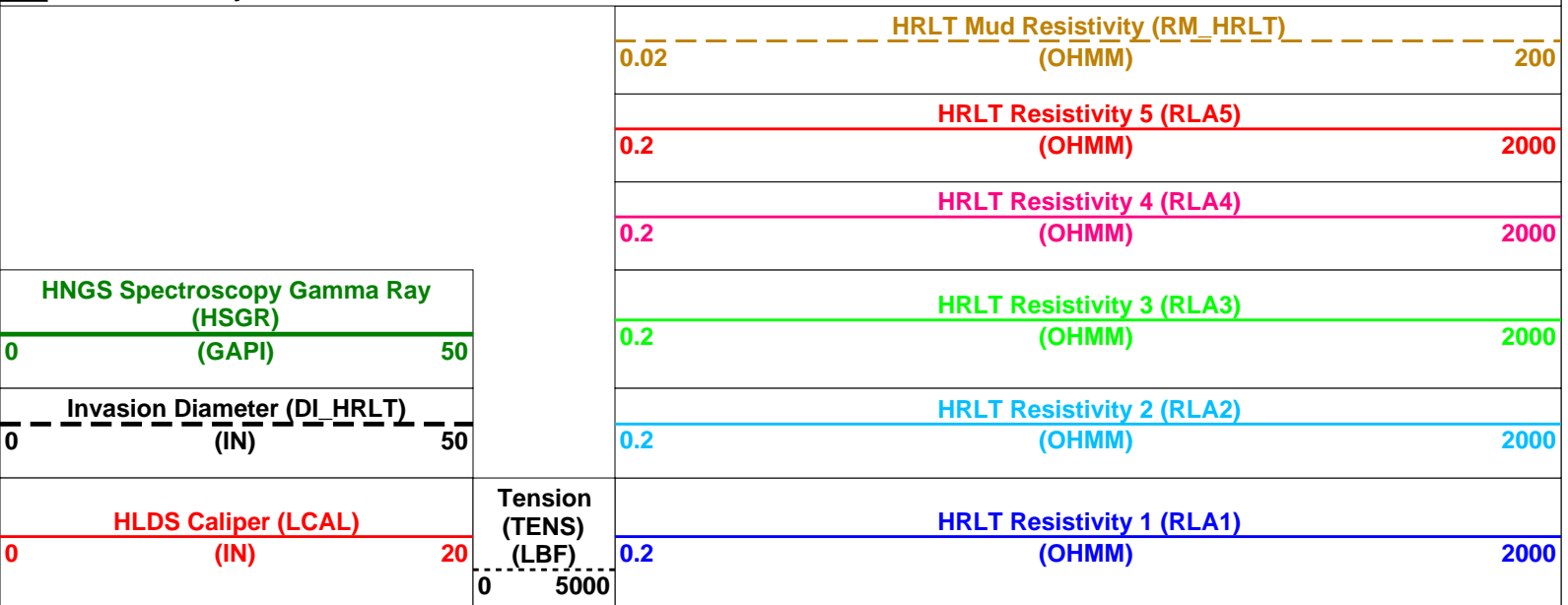
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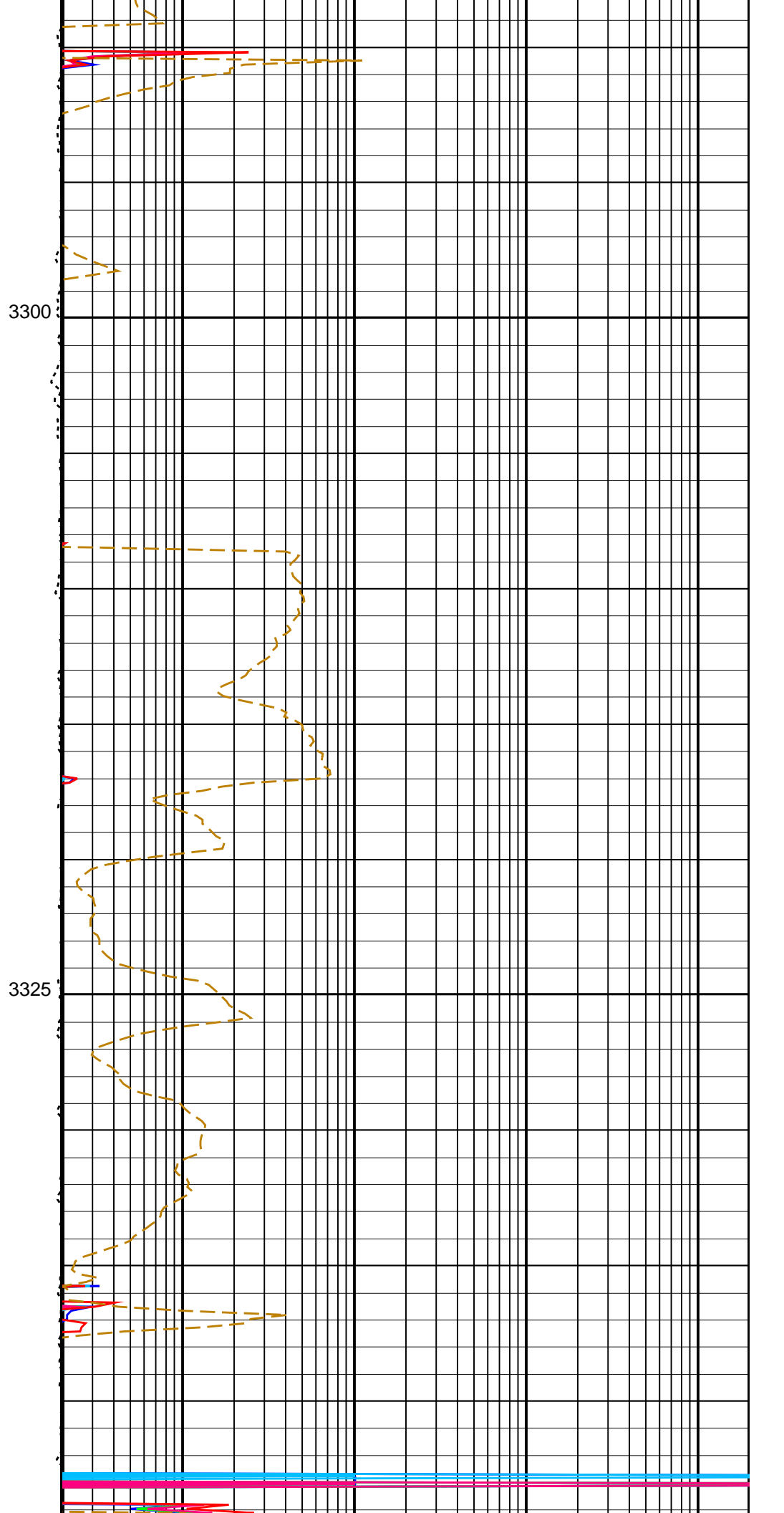
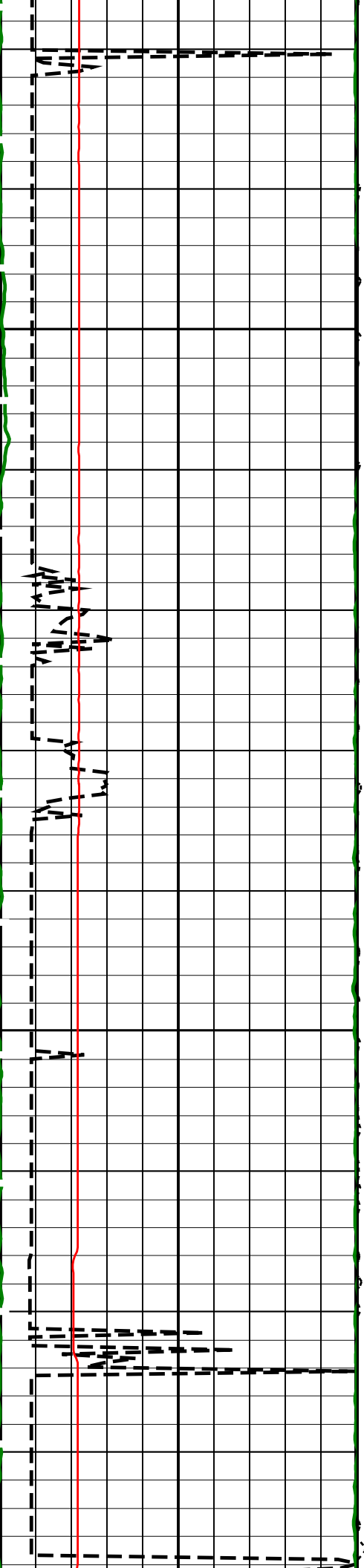
OP System Version: 19C0-187

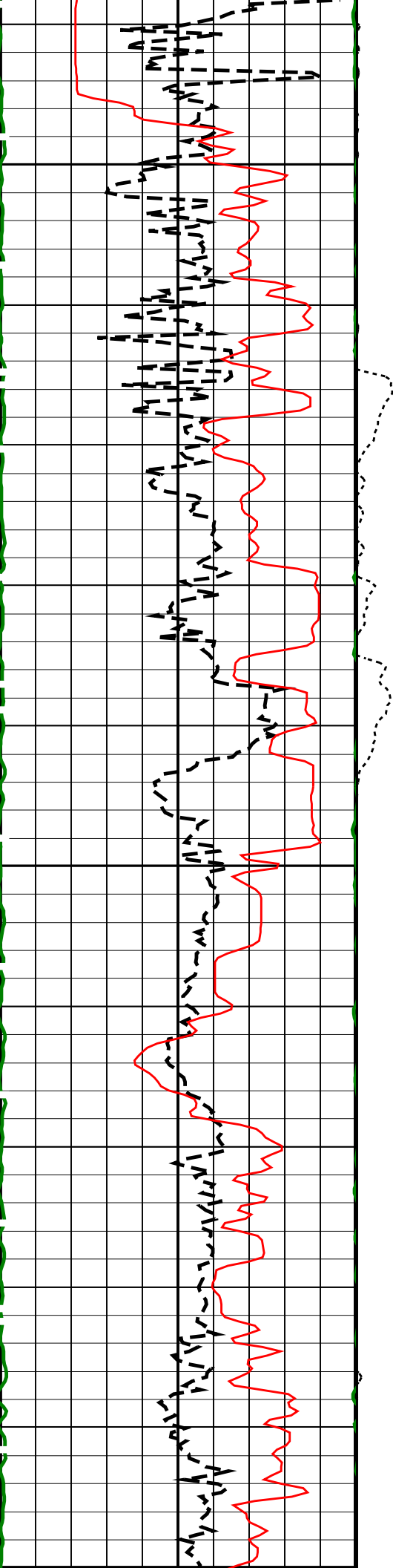
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HNGS-BA	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
EDTC-B	SKK-5169-EDTCB		

PIP SUMMARY

Time Mark Every 60 S



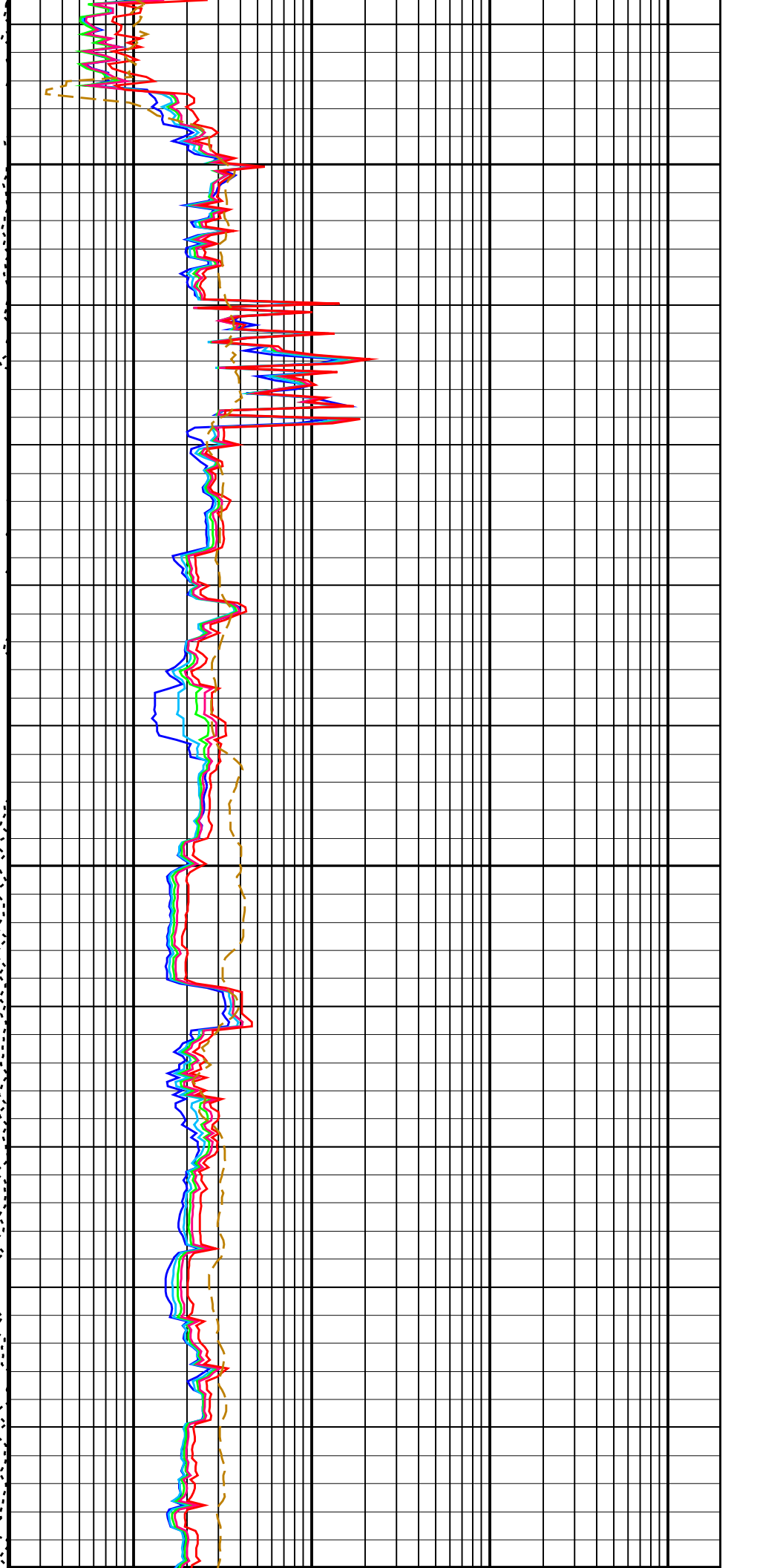


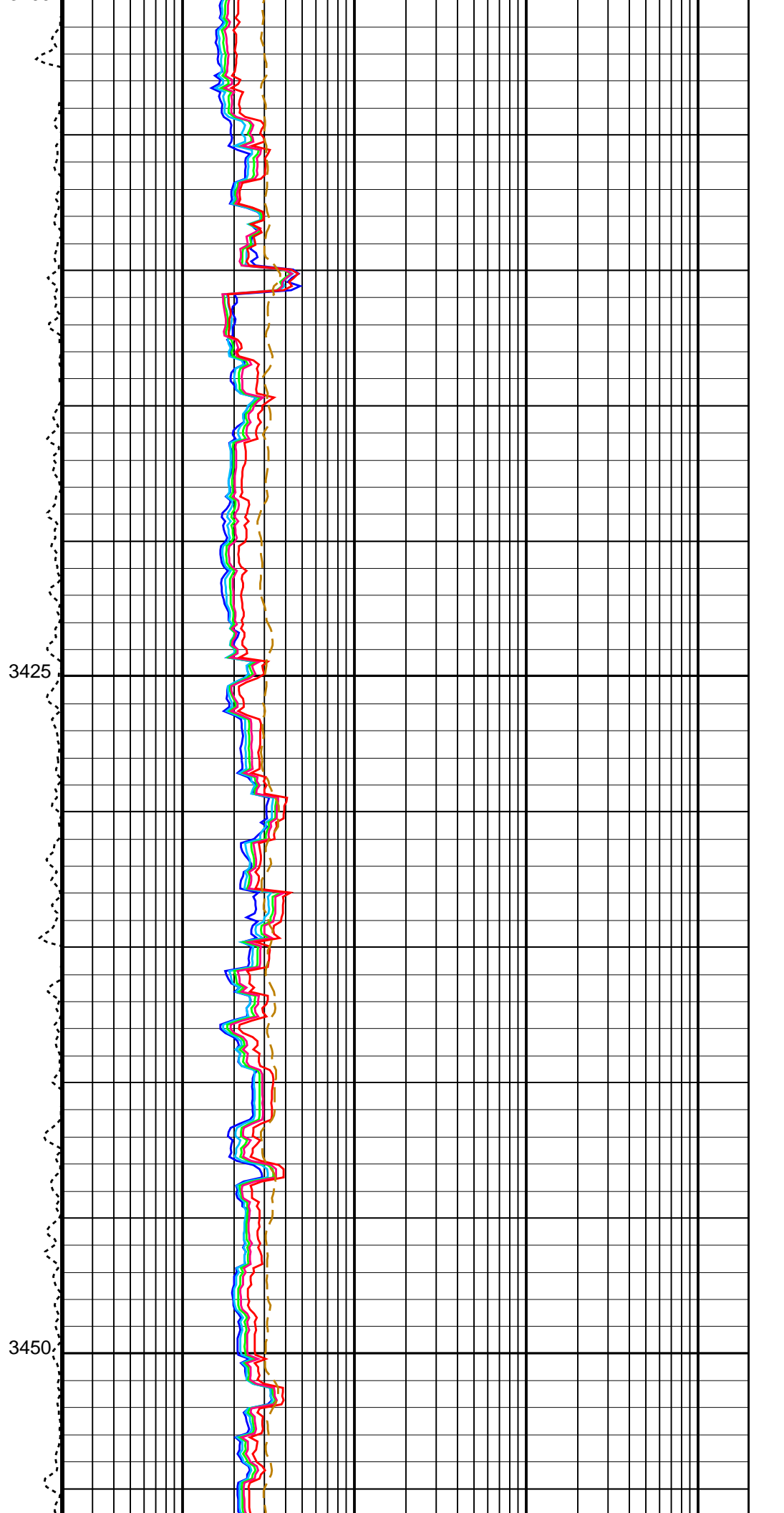
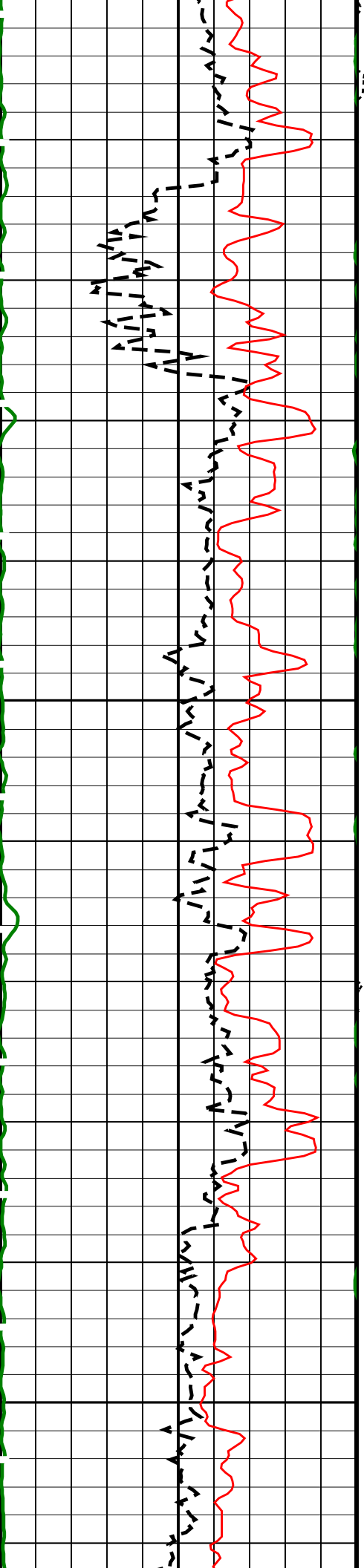


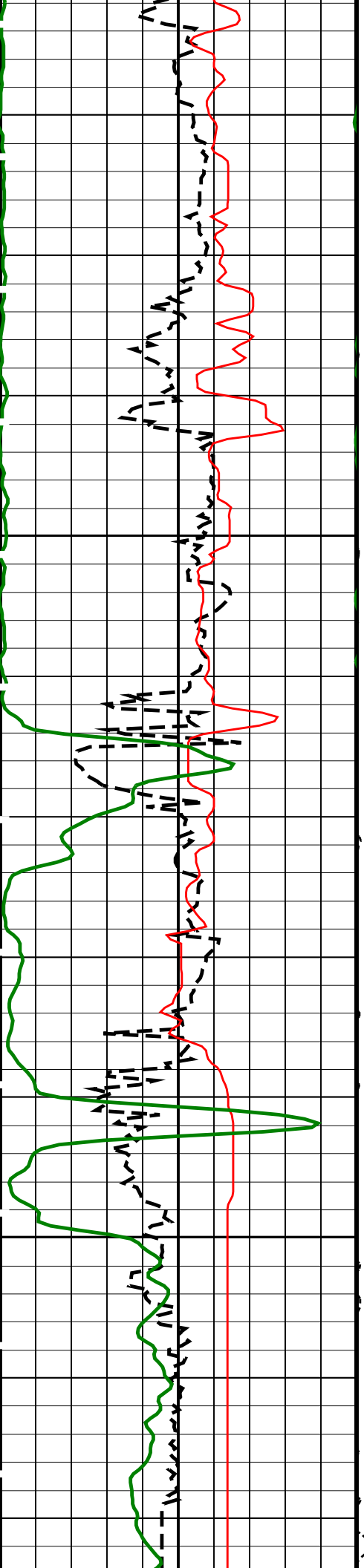
3350

3375

3400

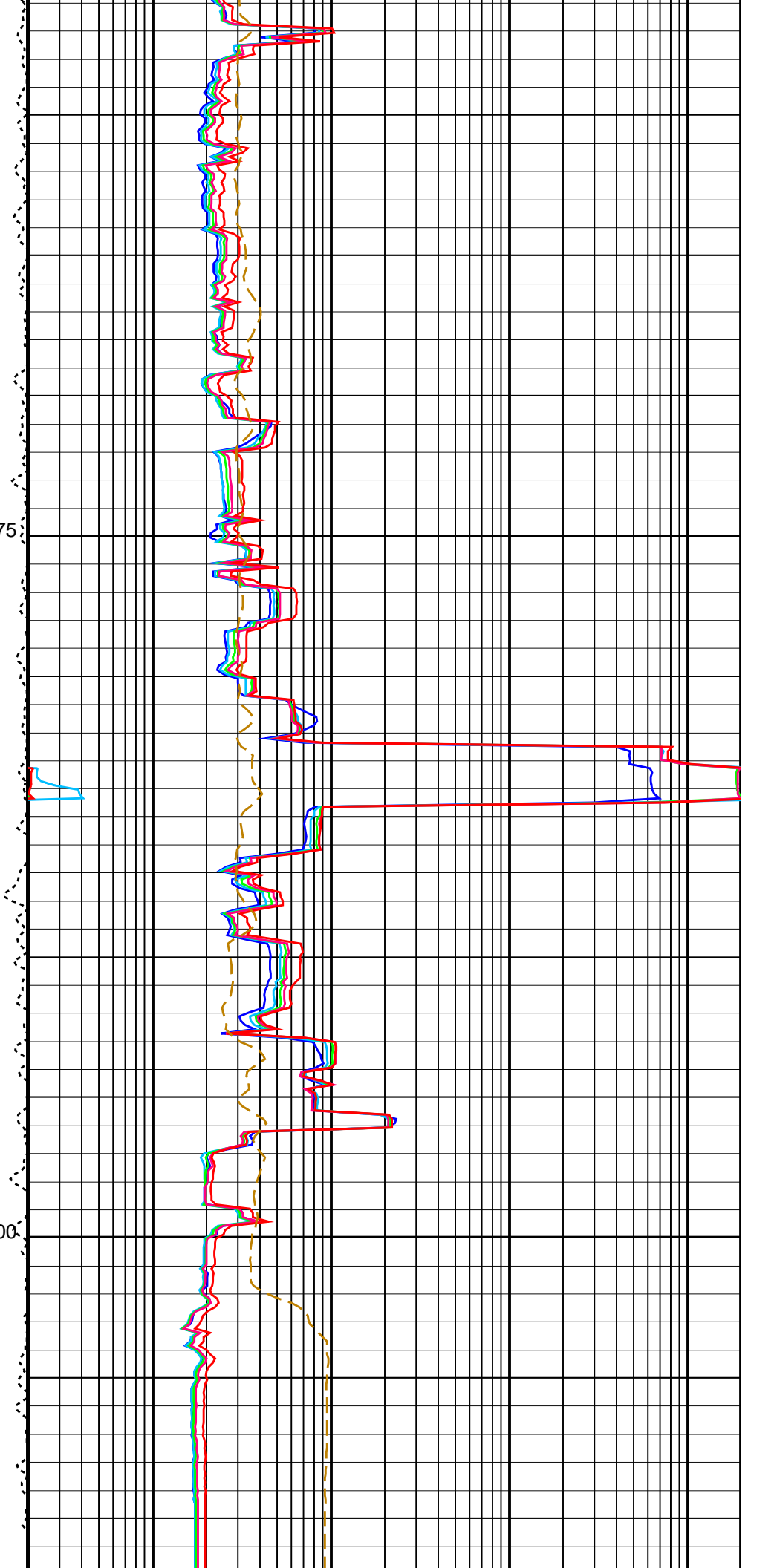


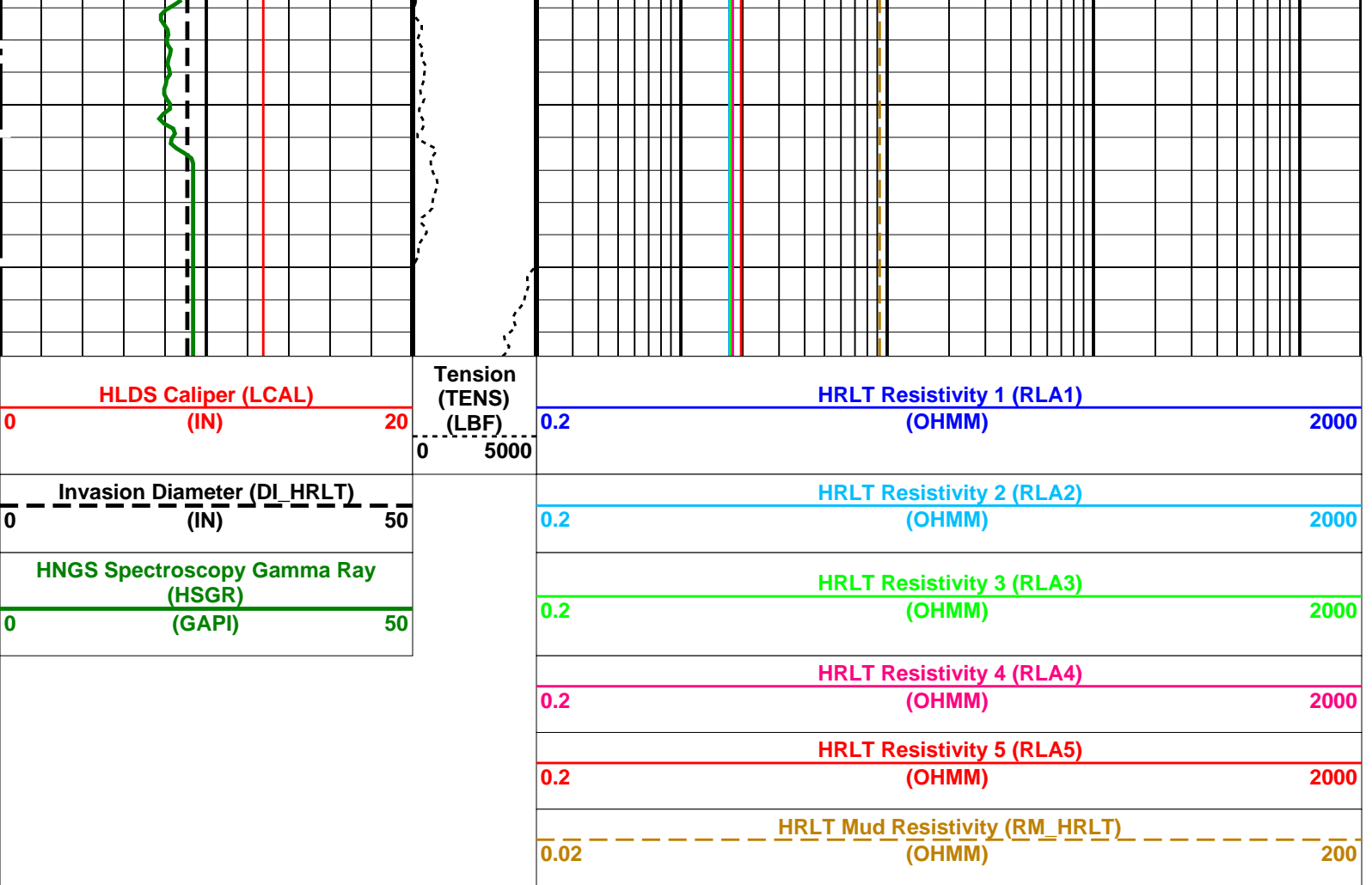




3475

3500





PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
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	LCAL
GGRD	Geothermal Gradient	0.018227 DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW
HABK	HNGS Borehole Potassium Running Average	-0.0028469
HALF	HNGS Alpha Filter Length	60 IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE
HMWM	Mud Weighting Material	NATU
HNPE	HNGS Processing Enable	YES
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3 CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3 CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES
SHT	Surface Hole Temperature	20 DEGC
TPOS	Tool Position	ECCE
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	-1.88948
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	-14.267
HRLT-B: High Resolution Laterolog Array - B		
BHS	Borehole Status	OPEN
BHT	Bottom Hole Temperature (used in calculations)	21 DEGC
GCSE	Generalized Caliper Selection	LCAL
GGRD	Geothermal Gradient	0.018227 DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9

GRSE	Generalized mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
PROCINV	Inversion Selection	ON	
PROCMFL	Inversion Micro-Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	0	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSPO	Sonde Position	Centered	
SHT	Surface Hole Temperature	20	DEGC
EDTC-B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
GCSE	Generalized Caliper Selection	LCAL	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	20	DEGC
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.05	G/C3
MST	Mud Sample Temperature	23.00	DEGC
TD	Total Depth	2015	M

Format: HRLT Vertical Scale: 1:200 Graphics File Created: 29-Jan-2017 14:52

OP System Version: 19C0-187

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

Output DLIS Files

DEFAULT	MSS_LDEO_NGS_HRLA_011LUP	FN:11	PRODUCER	29-Jan-2017 14:52
RTB	MSS_LDEO_NGS_HRLA_011LUP	FN:12	PRODUCER	29-Jan-2017 14:52

Company: International Ocean Discovery Program Well: Expedition 366, Site U1498B

Output DLIS Files

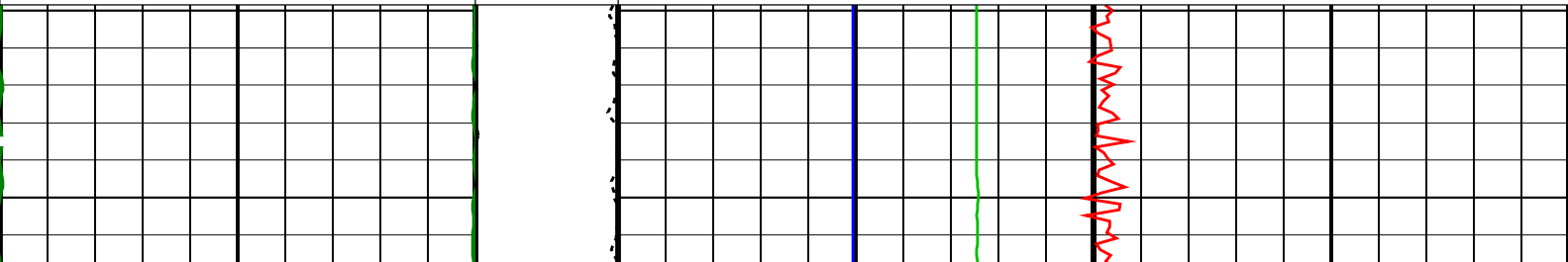
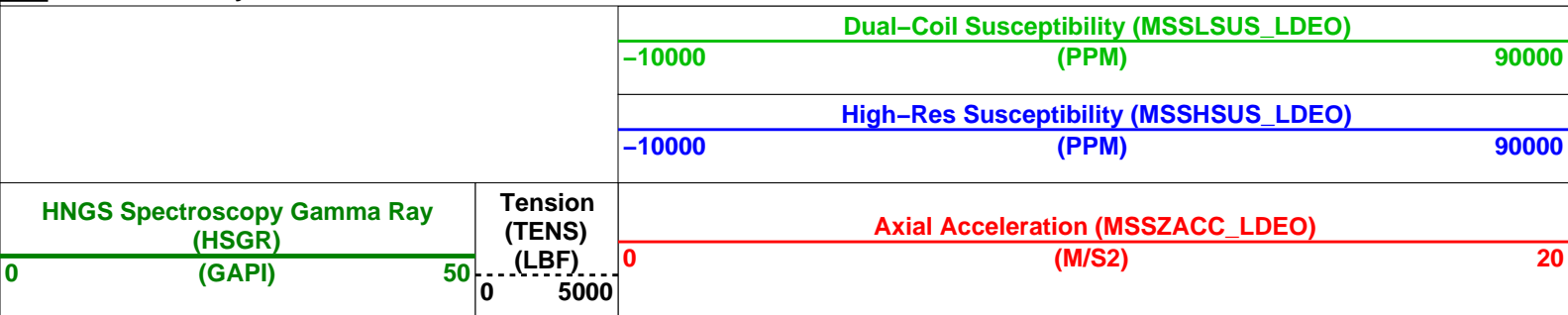
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RTB	MSS_LDEO_NGS_HRLA_011LUP	FN:12	PRODUCER	29-Jan-2017 14:52	3522.7 M	3284.7 M

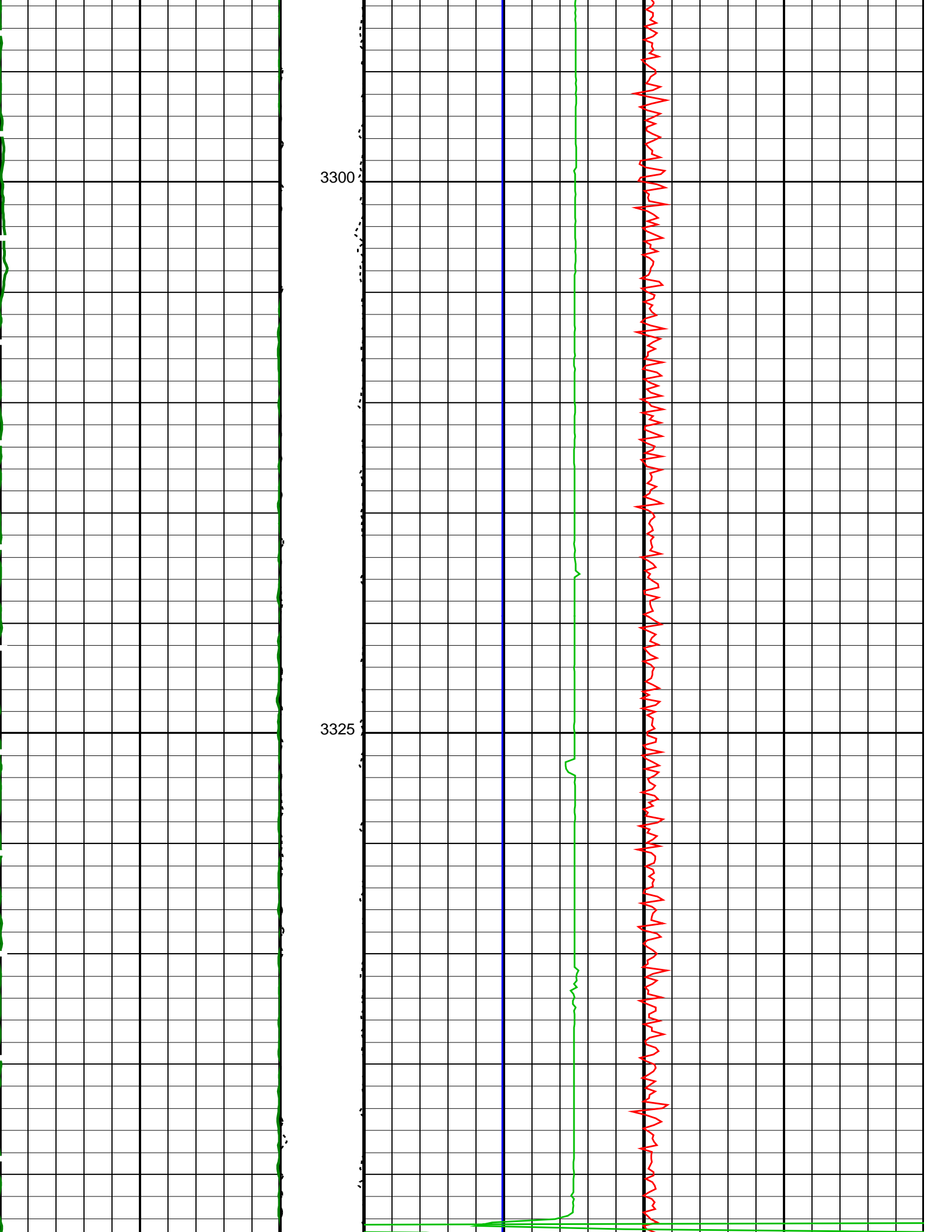
OP System Version: 19C0-187

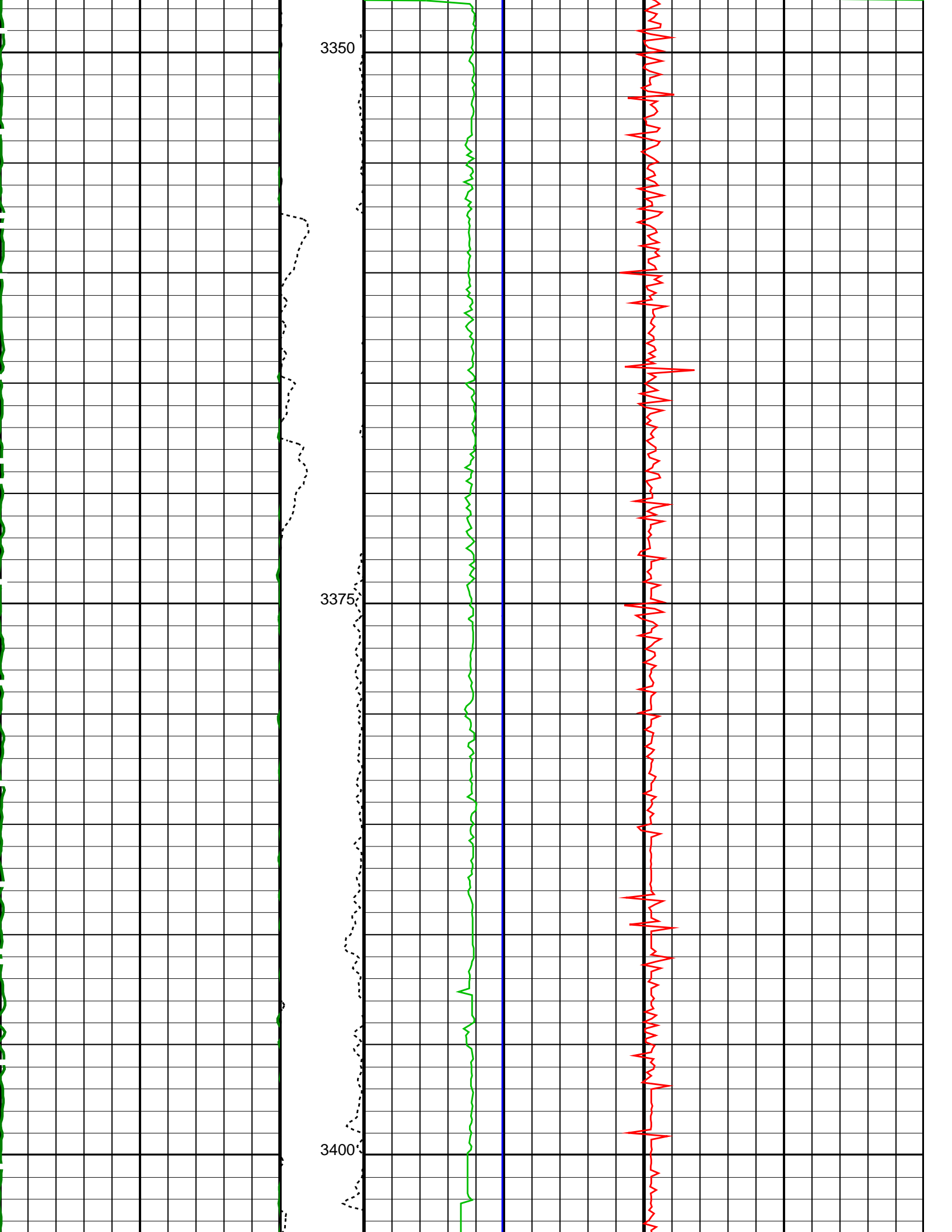
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HNGS-BA	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
EDTC-B	SKK-5169-EDTCB		

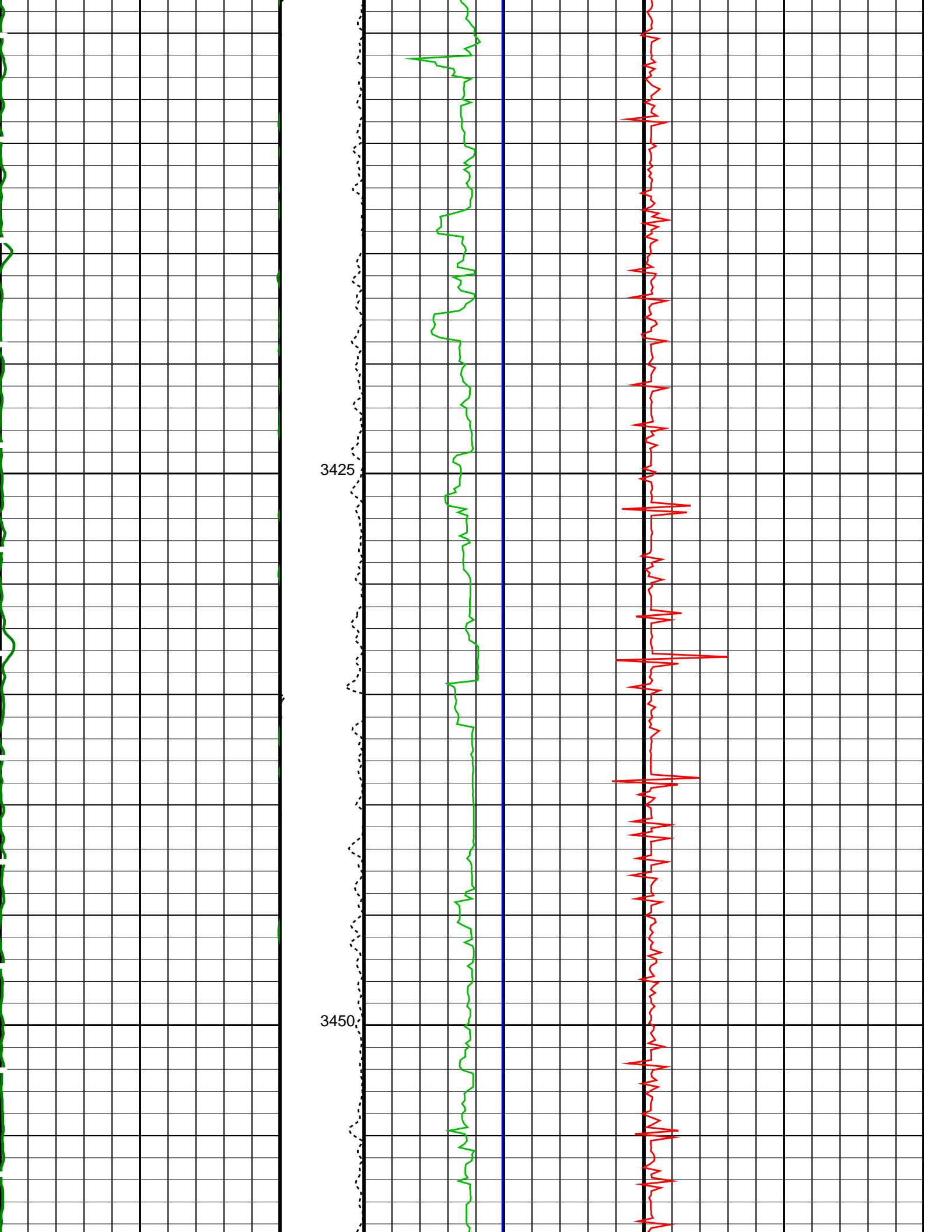
PIP SUMMARY

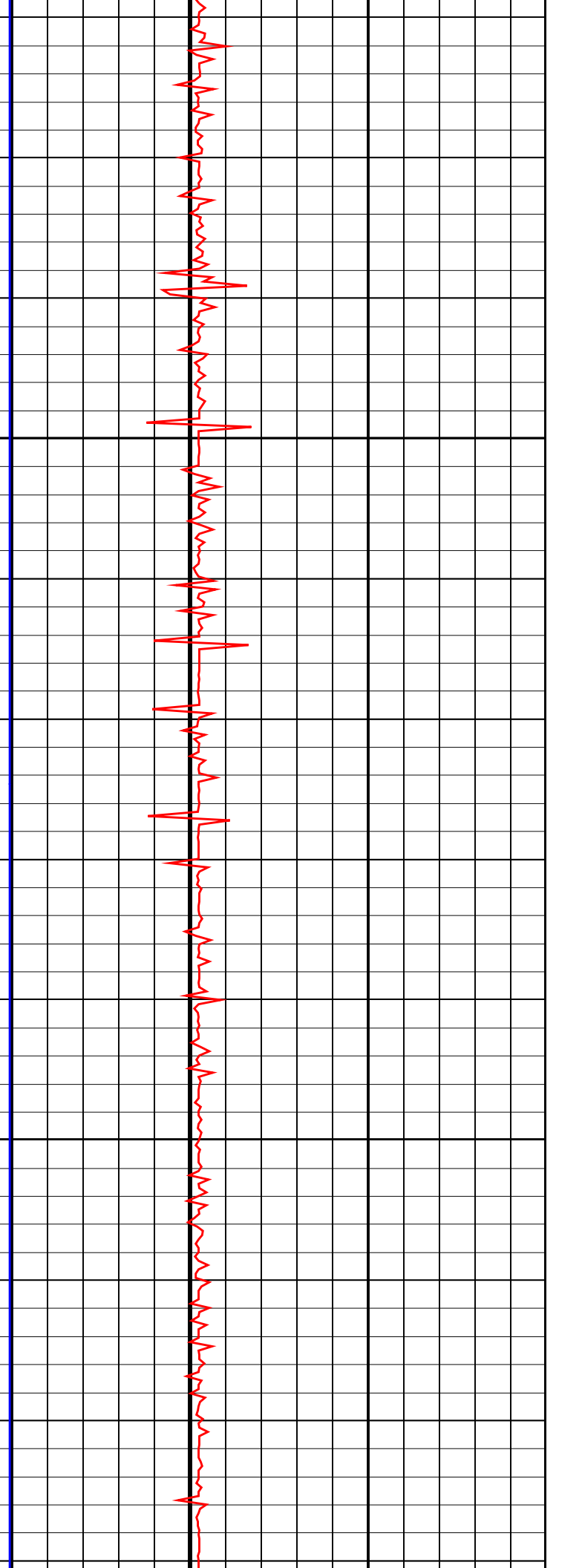
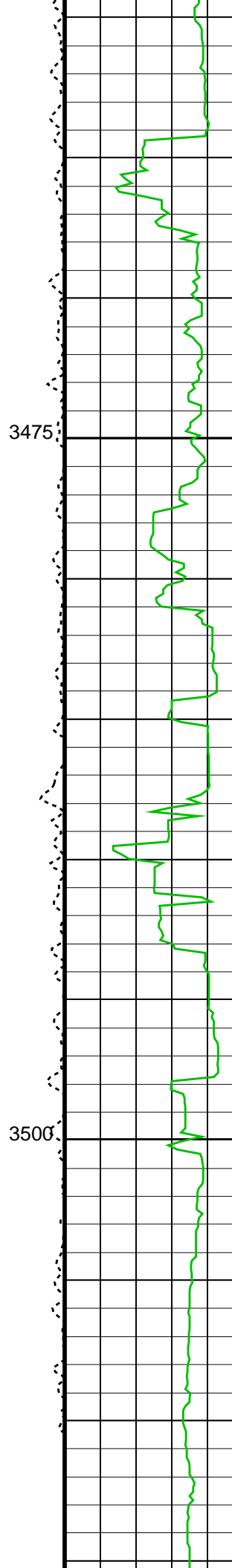
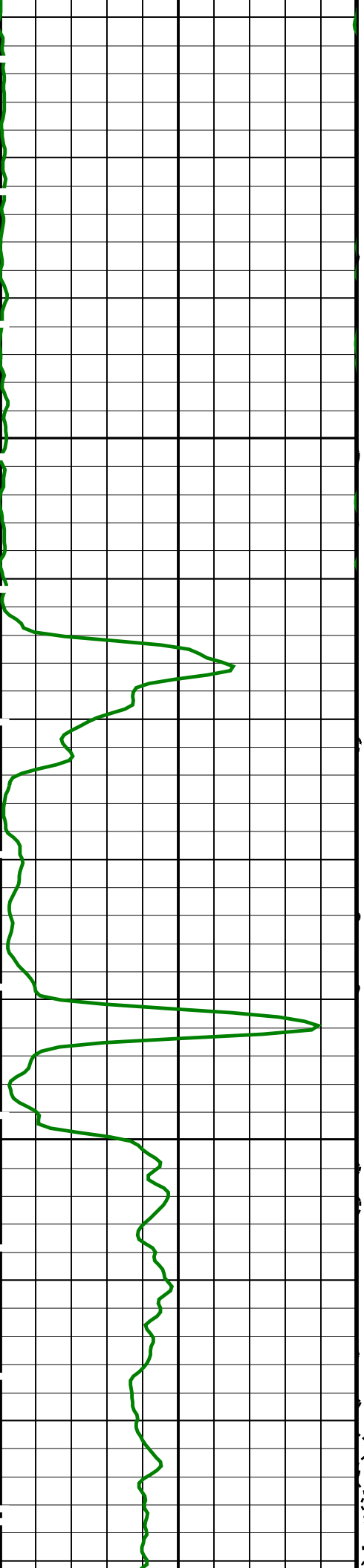
Time Mark Every 60 S

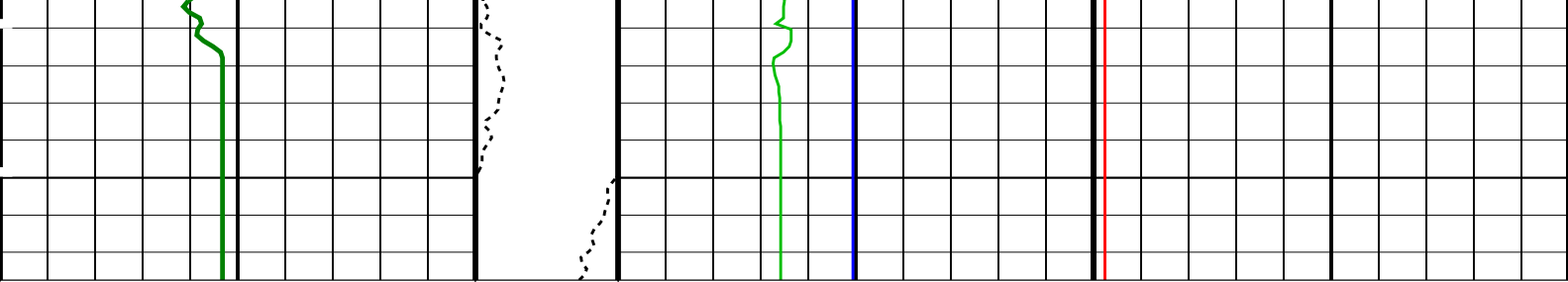












HNGS Spectroscopy Gamma Ray (HSGR)	Tension (TENS)	Axial Acceleration (MSSZACC_LDEO)	
(GAPI)	(LBF)	(M/S2)	
0 50	0 5000	0 20	
		High-Res Susceptibility (MSSHSUS_LDEO)	
		-10000	90000
		(PPM)	
		Dual-Coil Susceptibility (MSSLSUS_LDEO)	
		-10000	90000
		(PPM)	

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
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	-0.0028469	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	-1.88948	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	-14.267	
HRLT-B: High Resolution Laterolog Array - B			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
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	1.05	G/C3

Format: MSS_Logging Vertical Scale: 1:200 Graphics File Created: 29-Jan-2017 14:52

OP System Version: 19C0-187

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

Output DLIS Files

DEFAULT	MSS_LDEO_NGS_HRLA_011LUP	FN:11	PRODUCER	29-Jan-2017 14:52
RTB	MSS_LDEO_NGS_HRLA_011LUP	FN:12	PRODUCER	29-Jan-2017 14:52

Company: International Ocean Discovery Program

Well: Expedition 366, Site U1498B

Output DLIS Files

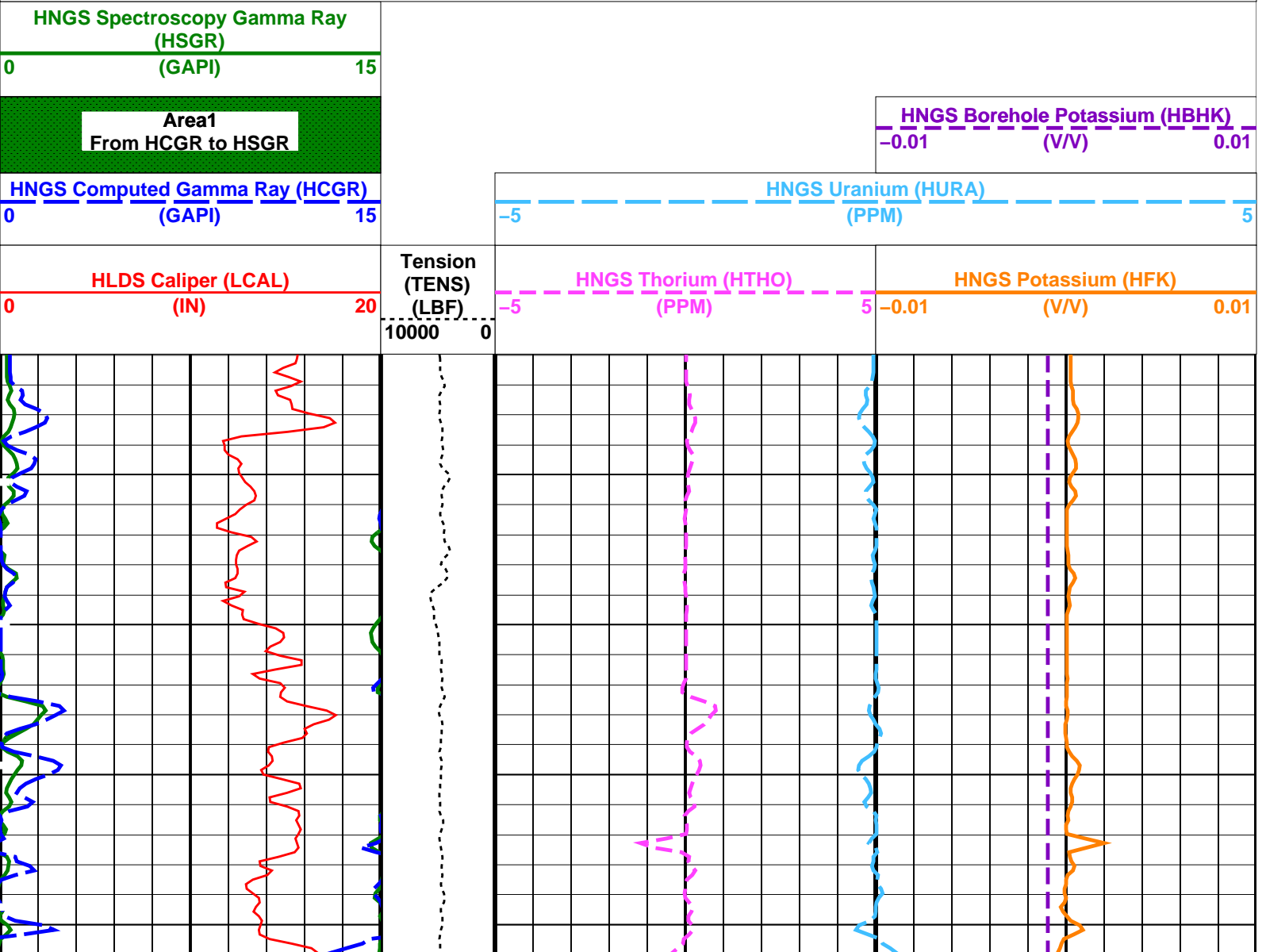
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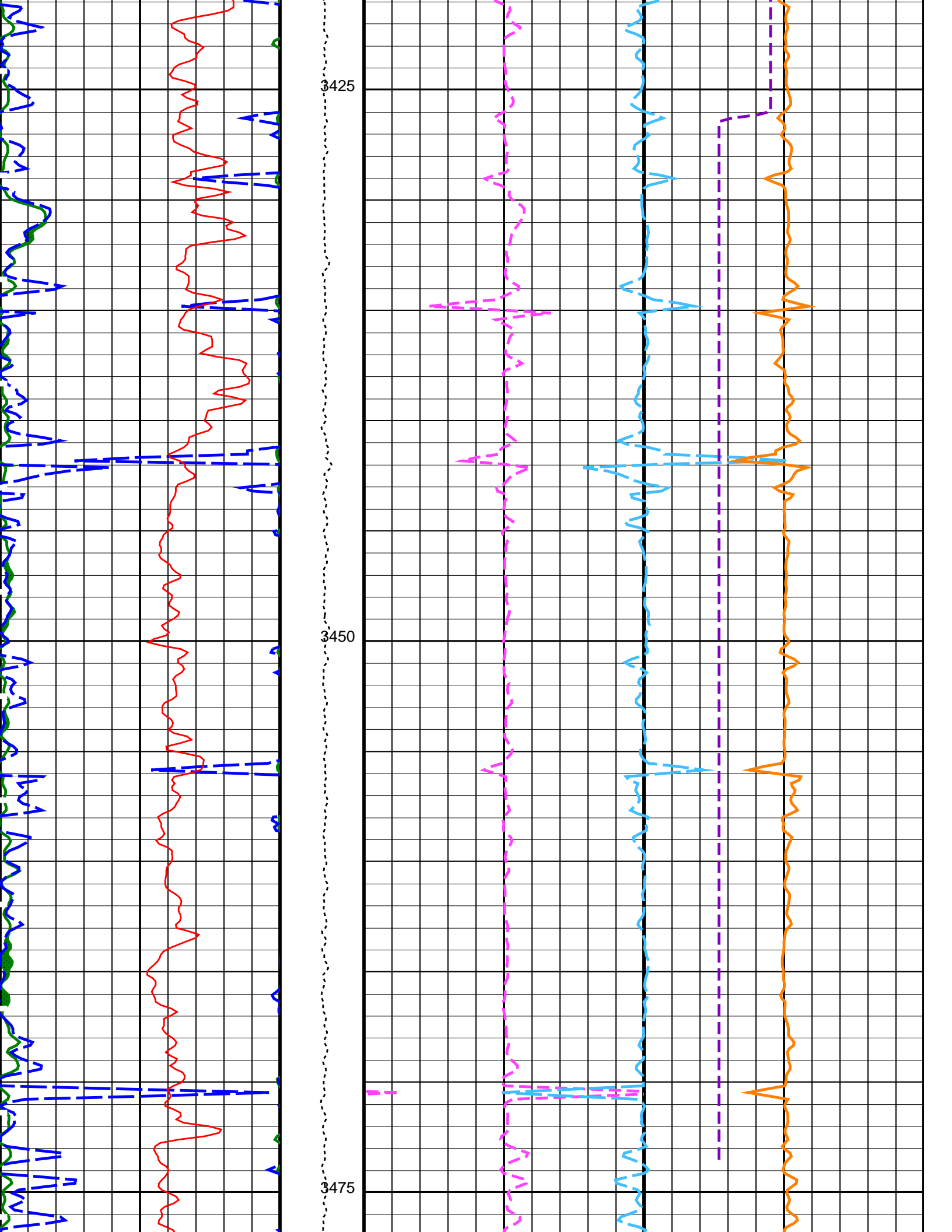
OP System Version: 19C0-187

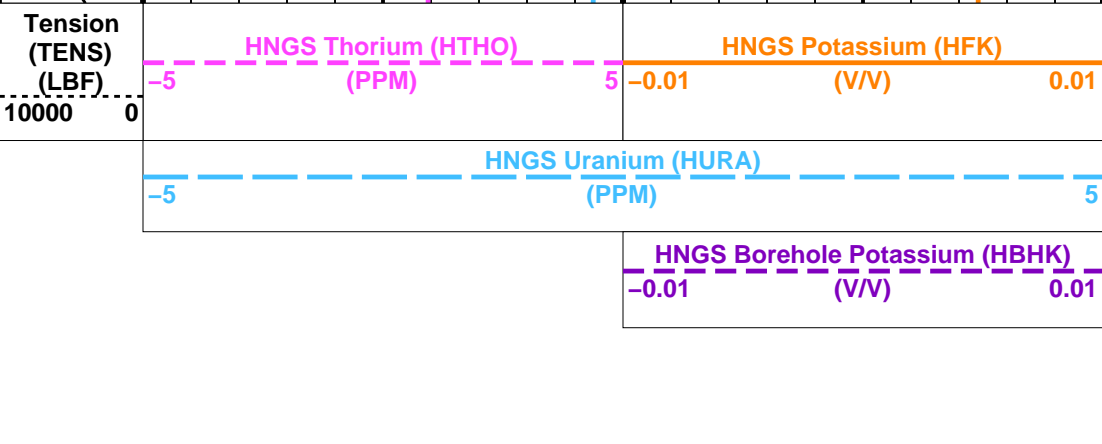
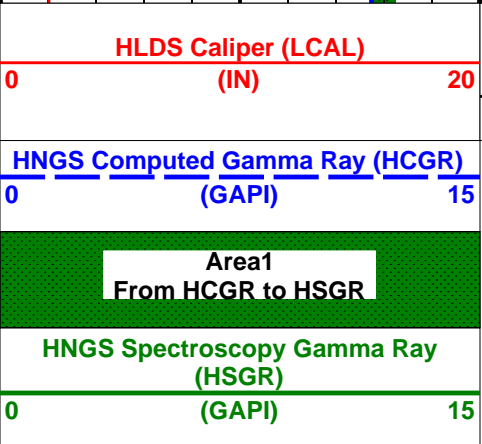
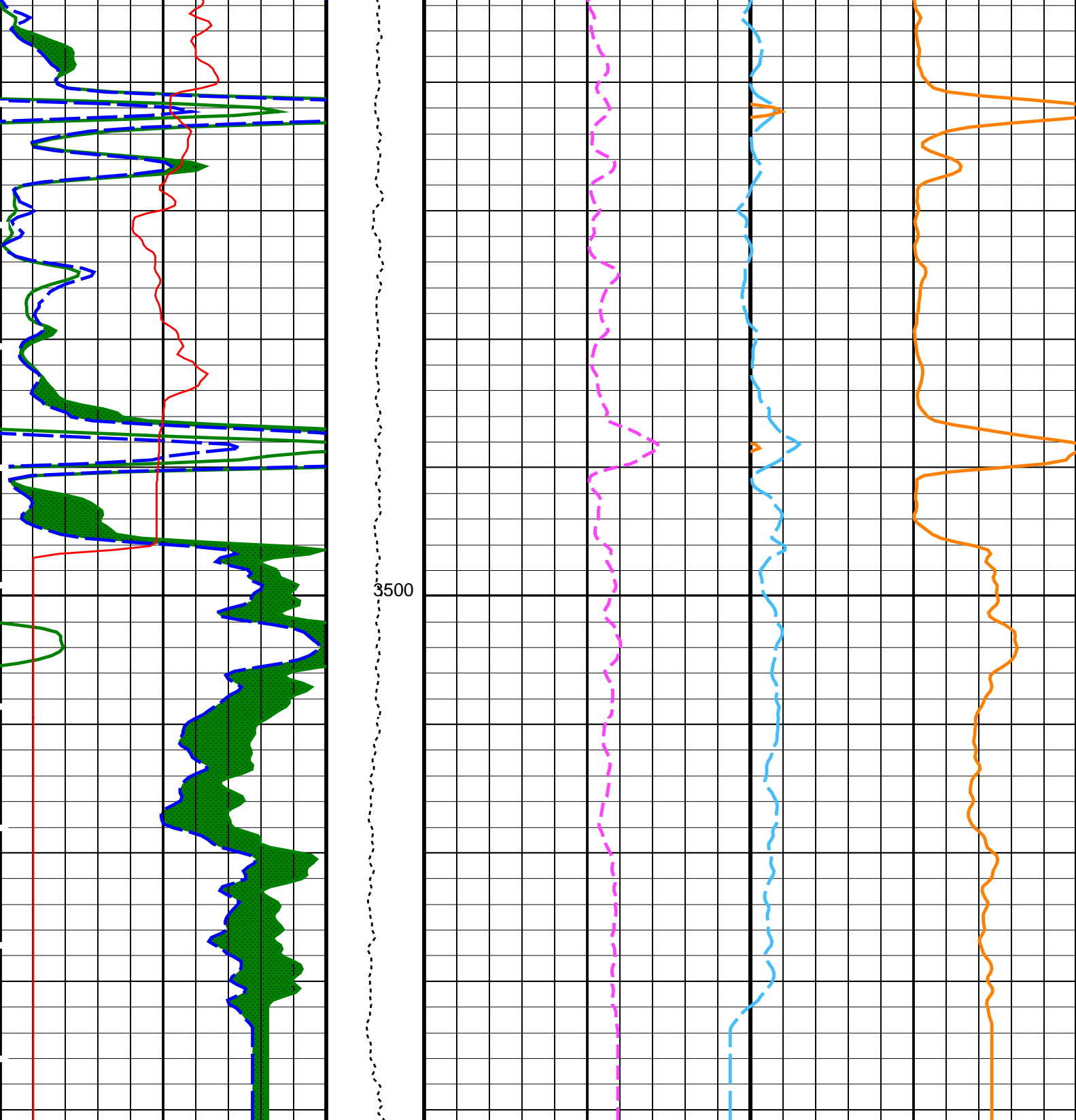
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HNGS-BA	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
EDTC-B	SKK-5169-EDTCB		

PIP SUMMARY

Time Mark Every 60 S







Parameters

DLIS Name	Description	Value
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	-0.0135493
HALF	HNGS Alpha Filter Length	60 IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE
HMWM	Mud Weighting Material	NATU
HNPE	HNGS Processing Enable	YES
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3 CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3 CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES
TPOS	Tool Position	ECCE
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.677707
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	5.13394
HRLT-B: High Resolution Laterolog Array - B		
BHS	Borehole Status	OPEN
GCSE	Generalized Caliper Selection	LCAL
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	1.05 G/C3

Format: HNGSYields Vertical Scale: 1:200 Graphics File Created: 29-Jan-2017 14:14

OP System Version: 19C0-187

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

Output DLIS Files

DEFAULT	MSS_LDEO_NGS_HRLA_009LUP	FN:8	PRODUCER	29-Jan-2017 14:14
RTB	MSS_LDEO_NGS_HRLA_009LUP	FN:9	PRODUCER	29-Jan-2017 14:14

Company: International Ocean Discovery Program

Well: Expedition 366, Site U1498B

Output DLIS Files

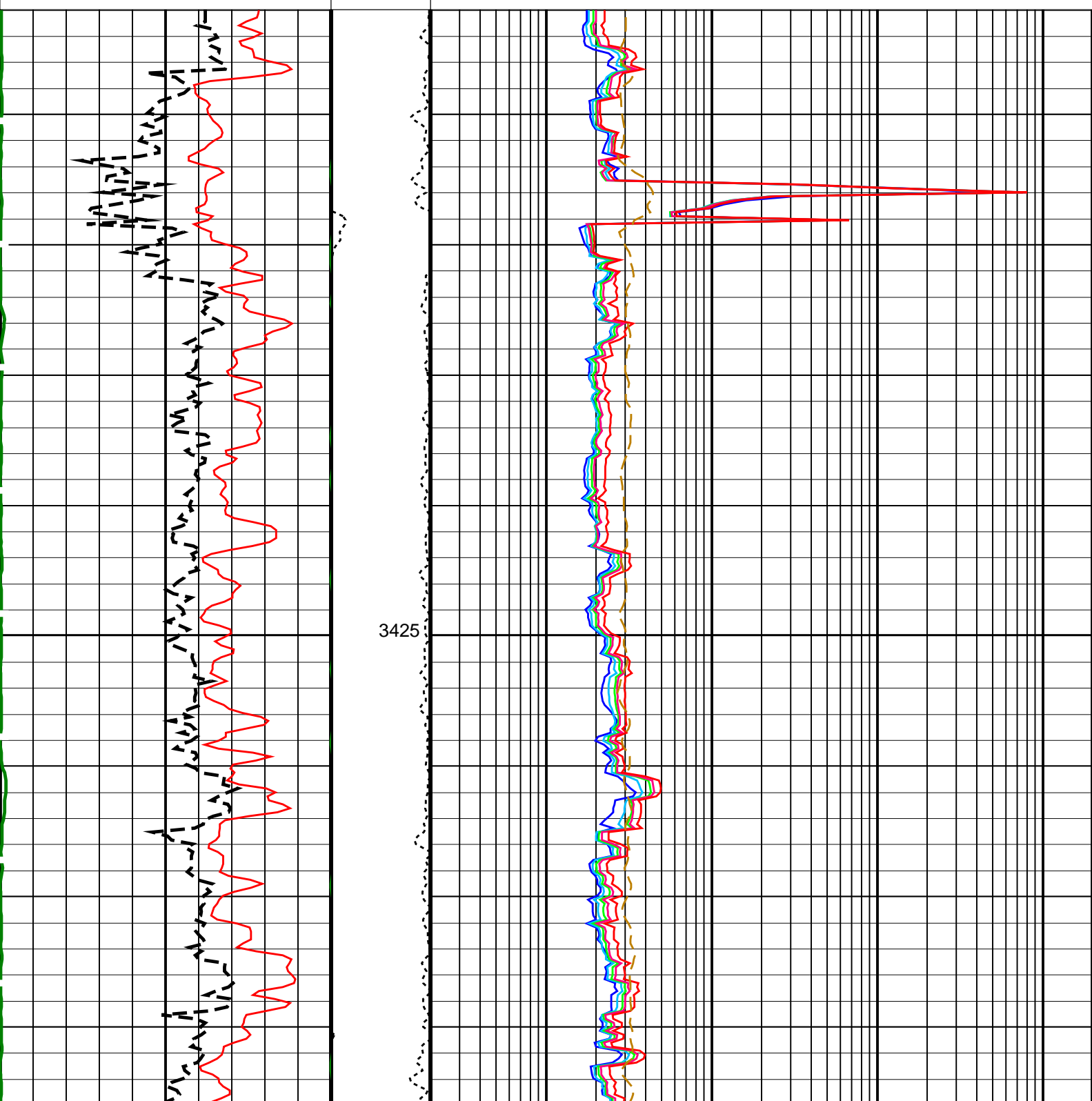
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RTB	MSS_LDEO_NGS_HRLA_009LUP	FN:9	PRODUCER	29-Jan-2017 14:14	3520.4 M	3401.6 M

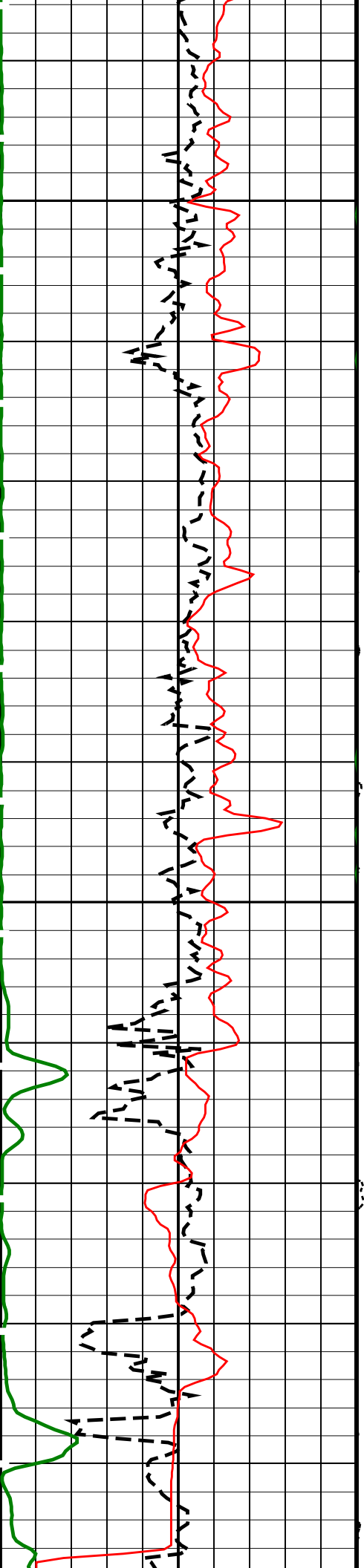
OP System Version: 19C0-187

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



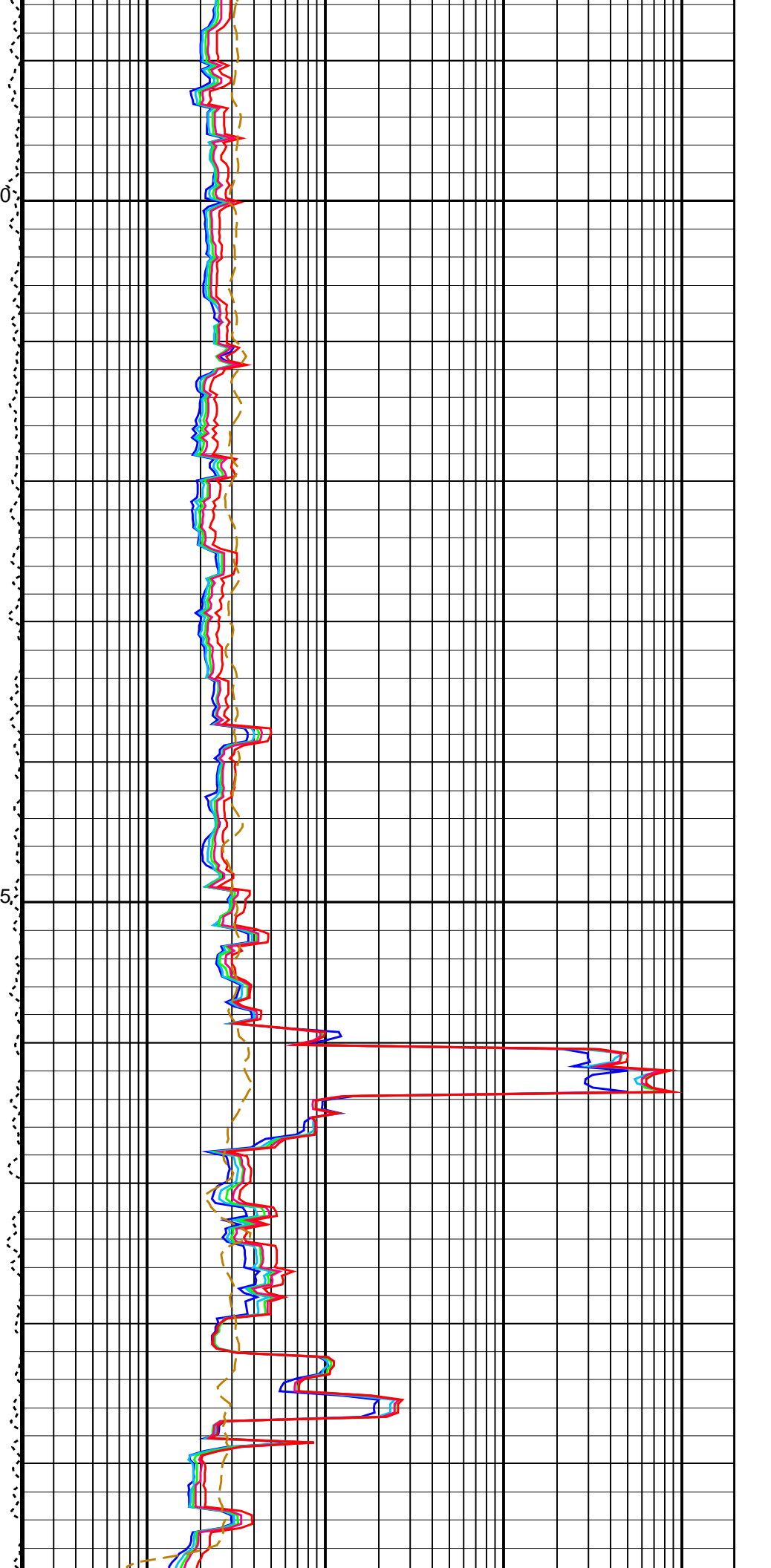
HNGS Spectroscopy Gamma Ray (HSGR)		HRLT Resistivity 5 (RLA5)	
0	(GAPI)	150	0.2 (OHMM) 2000
Invasion Diameter (DI_HRLT)		HRLT Resistivity 4 (RLA4)	
0	(IN)	50	0.2 (OHMM) 2000
HLDS Caliper (LCAL)		HRLT Resistivity 3 (RLA3)	
0	(IN)	20	0.2 (OHMM) 2000
Tension (TENS) (LBF)		HRLT Resistivity 2 (RLA2)	
0	5000	0.2 (OHMM) 2000	0.2 (OHMM) 2000
		HRLT Resistivity 1 (RLA1)	
		0.2 (OHMM) 2000	

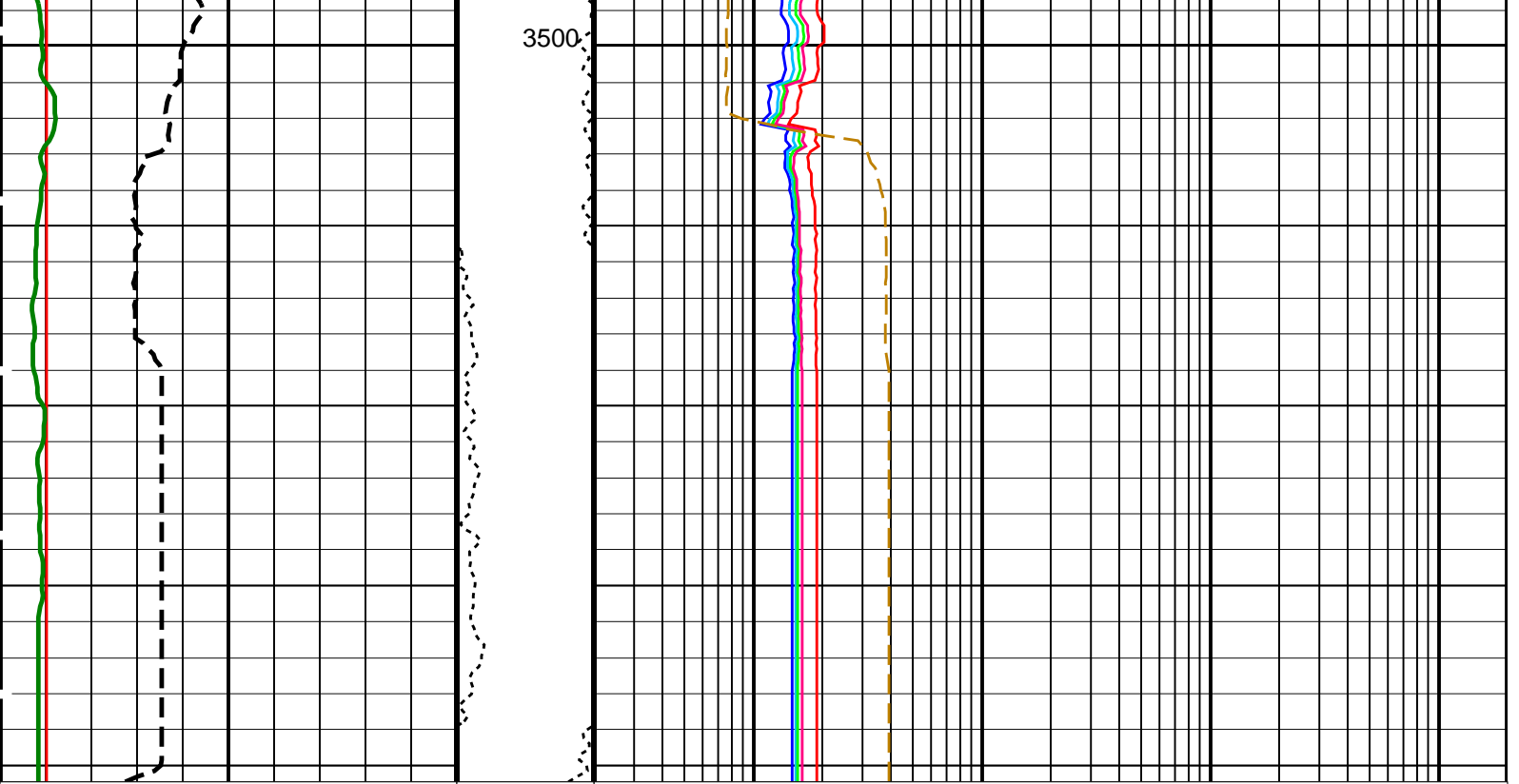




3450

3475





HLDS Caliper (LCAL) 0 (IN) 20	Tension (TENS) (LBF) 0 5000	HRLT Resistivity 1 (RLA1) (OHMM) 0.2 2000
Invasion Diameter (DI_HRLT) (IN) 0 50		HRLT Resistivity 2 (RLA2) (OHMM) 0.2 2000
HNGS Spectroscopy Gamma Ray (HSGR) (GAPI) 0 150		HRLT Resistivity 3 (RLA3) (OHMM) 0.2 2000
		HRLT Resistivity 4 (RLA4) (OHMM) 0.2 2000
		HRLT Resistivity 5 (RLA5) (OHMM) 0.2 2000
		HRLT Mud Resistivity (RM_HRLT) (OHMM) 0.02 200

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
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	LCAL
GGRD	Geothermal Gradient	0.018227 DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW
HABK	HNGS Borehole Potassium Running Average	-0.0135493

HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
SHT	Surface Hole Temperature	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.677707	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	5.13394	
HRLT-B: High Resolution Laterolog Array - B			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
GCSE	Generalized Caliper Selection	LCAL	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
PROGINV	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	
PROCSP0	Sonde Position	Centered	
SHT	Surface Hole Temperature	20	DEGC
EDTC-B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
GCSE	Generalized Caliper Selection	LCAL	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	20	DEGC
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.05	G/C3
MST	Mud Sample Temperature	23.00	DEGC
TD	Total Depth	2015	M

Format: HRLT Vertical Scale: 1:200 Graphics File Created: 29-Jan-2017 14:14

OP System Version: 19C0-187

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

Output DLIS Files

DEFAULT	MSS_LDEO_NGS_HRLA_009LUP	FN:8	PRODUCER	29-Jan-2017 14:14
RTB	MSS_LDEO_NGS_HRLA_009LUP	FN:9	PRODUCER	29-Jan-2017 14:14

Company: International Ocean Discovery Program Well: Expedition 366, Site U1498B

Output DLIS Files

DEFAULT	MSS_LDEO_NGS_HRLA_009LUP	FN:8	PRODUCER	29-Jan-2017 14:14	3520.4 M	3401.6 M
RTB	MSS_LDEO_NGS_HRLA_009LUP	FN:9	PRODUCER	29-Jan-2017 14:14	3520.4 M	3401.6 M

OP System Version: 19C0-187

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

PIP SUMMARY

Time Mark Every 60 S

Dual-Coil Susceptibility (MSSL SUS_LDEO)		
-10000	(PPM)	90000
High-Res Susceptibility (MSSH SUS_LDEO)		
-10000	(PPM)	90000

HNGS Spectroscopy Gamma Ray
(HSGR)
(GAPI)

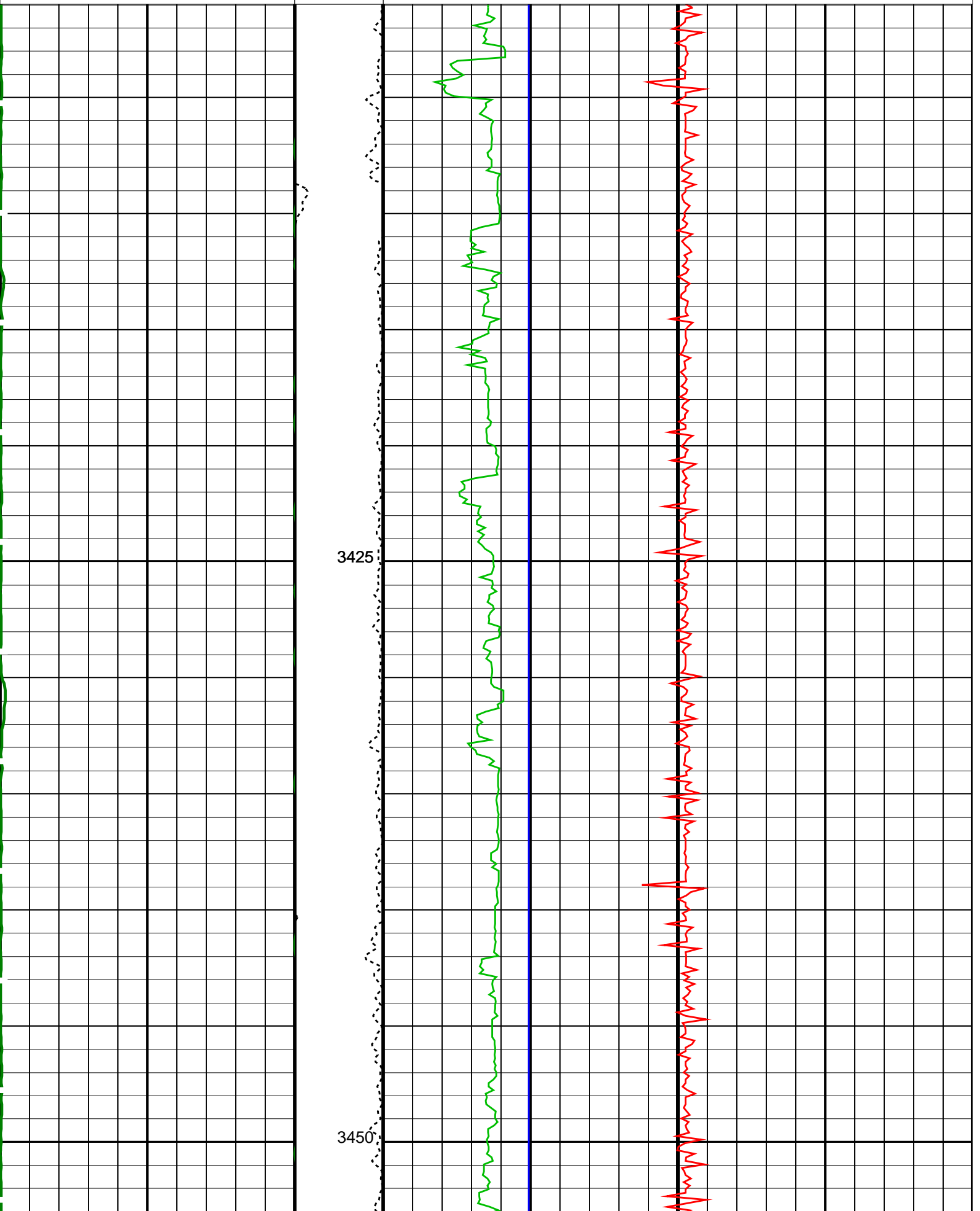
0 150

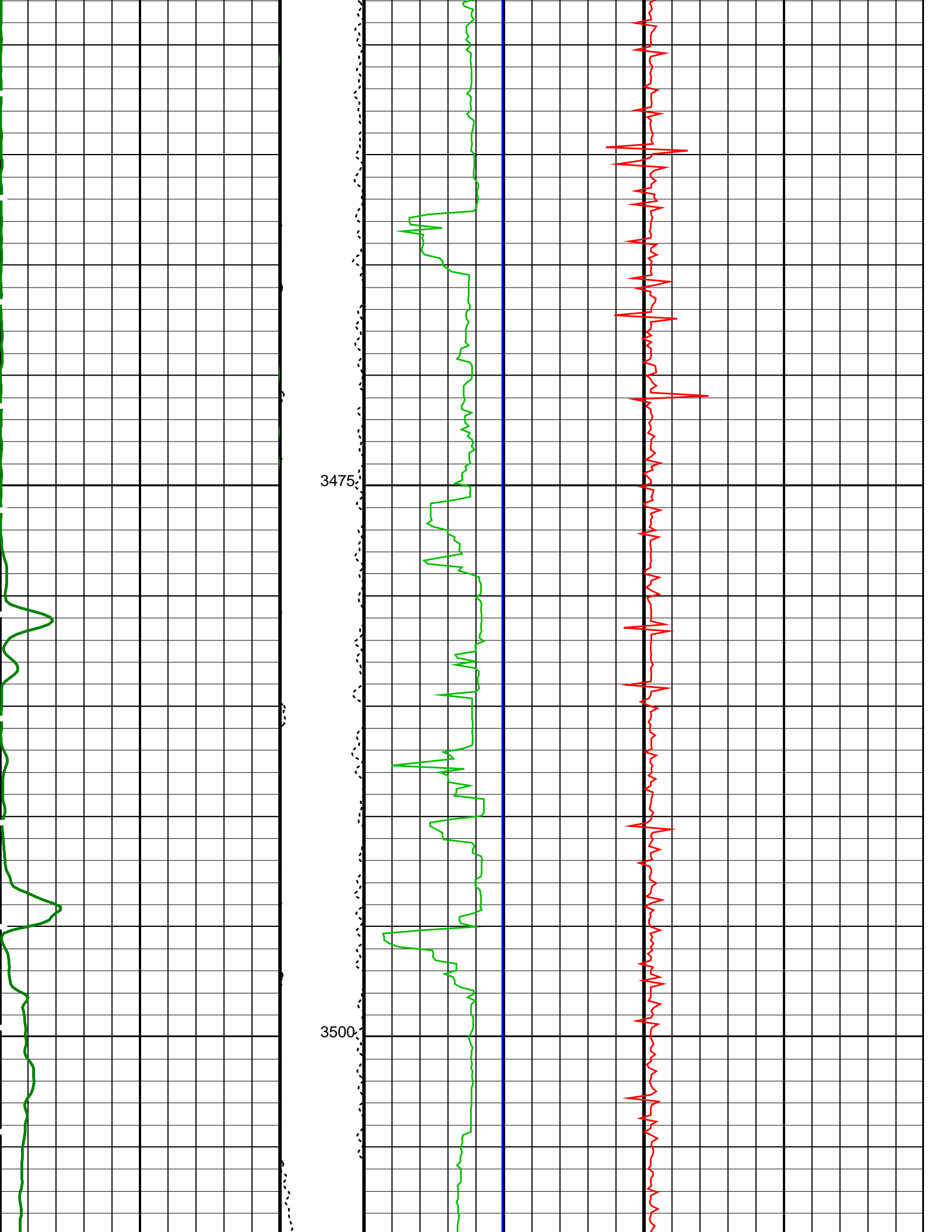
Tension
(TENS)
(LBF)

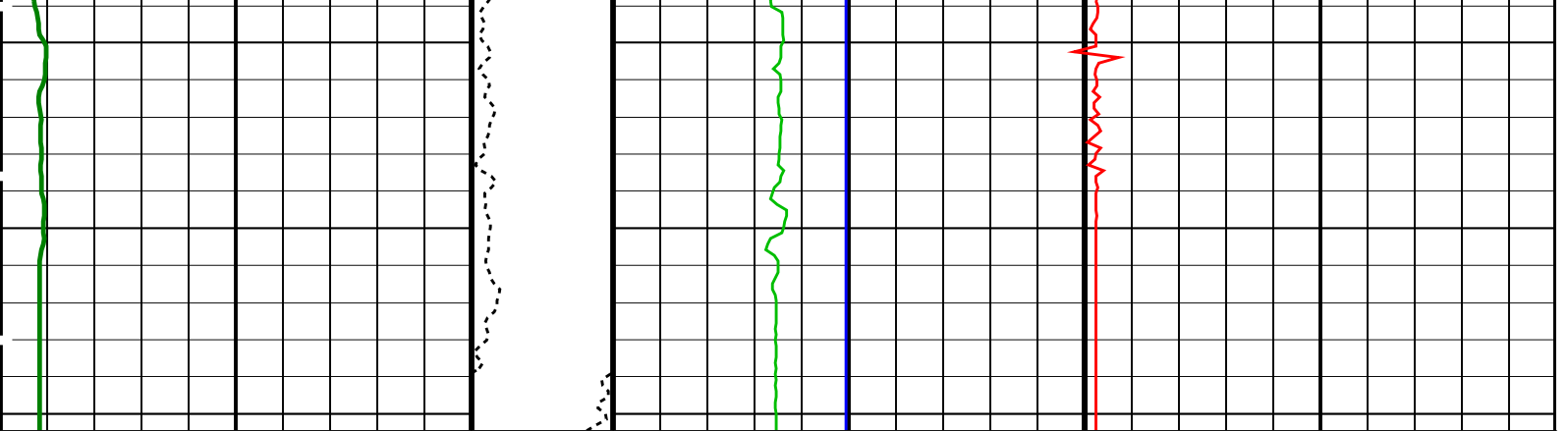
0 5000

Axial Acceleration (MSSZACC_LDEO)
(M/S²)

0 20







HNGS Spectroscopy Gamma Ray (HSGR) 0 (GAPI) 150	Tension (TENS) (LBF) 0 5000	Axial Acceleration (MSSZACC_LDEO) (M/S2) 0 20
		High-Res Susceptibility (MSSHSUS_LDEO) (PPM) -10000 90000
		Dual-Coil Susceptibility (MSSLSUS_LDEO) (PPM) -10000 90000

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
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	-0.0135493
HALF	HNGS Alpha Filter Length	60 IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE
HMWM	Mud Weighting Material	NATU
HNPE	HNGS Processing Enable	YES
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3 CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3 CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES
TPOS	Tool Position	ECCE
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.677707
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	5.13394
HRLT-B: High Resolution Laterolog Array - B		
BHS	Borehole Status	OPEN
GCSE	Generalized Caliper Selection	LCAL
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	1.05 G/C3

Format: MSS_Logging Vertical Scale: 1:200 Graphics File Created: 29-Jan-2017 14:14

OP System Version: 19C0-187

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

DEFAULT	MSS_LDEO_NGS_HRLA_009LUP	FN:8	PRODUCER	29-Jan-2017 14:14
RTB	MSS_LDEO_NGS_HRLA_009LUP	FN:9	PRODUCER	29-Jan-2017 14:14



Calibrations

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 1 Check							
Master: 6-Dec-2016 2:13 Before: 29-Jan-2017 11:45 After: 29-Jan-2017 17:59							
Na 511 Peak Loc	40.00	38.77	38.52	38.63	0.1191	1.000	
Na 511 Peak Res	15.50	16.30	16.38	17.29	0.9106	2.000	%
High Voltage	1150	1225	1218	1217	-0.8701	N/A	V
Na 1785 Peak Loc	142.6	138.8	138.8	140.1	1.296	7.000	
Na 1785 Peak Res	8.500	8.654	8.936	9.844	0.9082	2.000	%
Temperature	15.50	34.01	32.37	30.58	-1.798	N/A	DEGC
Na Count Rate	45.00	31.03	28.62	28.59	-0.03392	8.000	CPS
Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 2 Check							
Master: 6-Dec-2016 2:13 Before: 29-Jan-2017 11:45 After: 29-Jan-2017 17:59							
Na 511 Peak Loc	40.00	39.49	39.60	39.55	-0.04882	1.000	
Na 511 Peak Res	15.50	16.58	16.59	16.10	-0.4844	2.000	%
High Voltage	1150	1105	1100	1100	-0.1598	N/A	V
Na 1785 Peak Loc	142.6	142.2	142.8	142.6	-0.1832	7.000	
Na 1785 Peak Res	8.500	8.911	9.391	8.777	-0.6138	2.000	%
Temperature	15.50	33.34	31.86	31.19	-0.6666	N/A	DEGC
Na Count Rate	45.00	31.02	28.75	28.86	0.1166	8.000	CPS
Hostile Natural Gamma Ray Sonde Wellsite Calibration – Ratio Of Detector 1 To Detector 2							
Master: 6-Dec-2016 2:13 Before: 29-Jan-2017 11:45 After: 29-Jan-2017 17:59							
Coincidence Count Rate Ratio	1.000	0.9985	0.9921	0.9874	-0.004708	0.05000	
High Resolution Laterolog Array – B Wellsite Calibration – HRLT M01							
Before: 29-Jan-2017 13:42 After: 29-Jan-2017 17:56							
HRLT M0-M1 Voltage Plus – 0	0	N/A	-318.2	-318.1	0.08551	9.681	UV
HRLT M0-M1 Voltage Plus – 1	0	N/A	-328.0	-327.8	0.2061	9.681	UV
HRLT M0-M1 Voltage Plus – 2	0	N/A	-336.1	-336.1	-0.04388	9.681	UV
HRLT M0-M1 Voltage Plus – 3	0	N/A	-327.0	-327.0	-0.01901	9.681	UV
HRLT M0-M1 Voltage Plus – 4	0	N/A	-319.3	-319.1	0.2047	9.681	UV
HRLT M0-M1 Voltage Plus – 5	0	N/A	-321.1	-320.9	0.1690	9.681	UV
HRLT M0-M1 Voltage Plus – 6	0	N/A	317.9	317.8	-0.01410	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: 29-Jan-2017 13:42 After: 29-Jan-2017 17:56							
HRLT M1-M2 Voltage Plus – 0	0	N/A	1735	1735	0.3079	53.42	UV
HRLT M1-M2 Voltage Plus – 1	0	N/A	1795	1795	0.7627	53.42	UV
HRLT M1-M2 Voltage Plus – 2	0	N/A	1832	1834	1.865	53.42	UV
HRLT M1-M2 Voltage Plus – 3	0	N/A	1781	1783	1.338	53.42	UV
HRLT M1-M2 Voltage Plus – 4	0	N/A	1738	1738	-0.1807	53.42	UV
HRLT M1-M2 Voltage Plus – 5	0	N/A	1749	1749	0.05042	53.42	UV
HRLT M1-M2 Voltage Plus – 6	0	N/A	-1747	-1749	-2.013	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: 29-Jan-2017 13:42 After: 29-Jan-2017 17:56							
HRLT M2-M3 Voltage Plus – 0	0	N/A	1728	1728	-0.3602	53.42	UV
HRLT M2-M3 Voltage Plus – 1	0	N/A	1797	1797	-0.3168	53.42	UV
HRLT M2-M3 Voltage Plus – 2	0	N/A	1837	1838	1.024	53.42	UV
HRLT M2-M3 Voltage Plus – 3	0	N/A	1790	1791	0.7137	53.42	UV

HRLT M2-M3 Voltage Plus - 4	0	N/A	1741	1740	-1.205	53.42	UV
HRLT M2-M3 Voltage Plus - 5	0	N/A	1753	1752	-0.8358	53.42	UV
HRLT M2-M3 Voltage Plus - 6	0	N/A	-1738	-1740	-1.079	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: 29-Jan-2017 13:42 After: 29-Jan-2017 17:56

HRLT A3-A4 Voltage Plus - 0	0	N/A	68480	68500	14.43	2100	UV
HRLT A3-A4 Voltage Plus - 1	0	N/A	71040	71100	58.52	2100	UV
HRLT A3-A4 Voltage Plus - 2	0	N/A	72900	73010	115.8	2100	UV
HRLT A3-A4 Voltage Plus - 3	0	N/A	71300	71370	66.79	2100	UV
HRLT A3-A4 Voltage Plus - 4	0	N/A	69300	69300	-6.688	2100	UV
HRLT A3-A4 Voltage Plus - 5	0	N/A	69790	69800	7.773	2100	UV
HRLT A3-A4 Voltage Plus - 6	0	N/A	-67760	-67860	-94.48	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: 29-Jan-2017 13:42 After: 29-Jan-2017 17:56

HRLT A4-A5 Voltage Plus - 0	0	N/A	68560	68580	20.70	2100	UV
HRLT A4-A5 Voltage Plus - 1	0	N/A	71250	71320	68.58	2100	UV
HRLT A4-A5 Voltage Plus - 2	0	N/A	73080	73200	115.9	2100	UV
HRLT A4-A5 Voltage Plus - 3	0	N/A	71440	71500	56.92	2100	UV
HRLT A4-A5 Voltage Plus - 4	0	N/A	69410	69410	-4.680	2100	UV
HRLT A4-A5 Voltage Plus - 5	0	N/A	69890	69890	9.711	2100	UV
HRLT A4-A5 Voltage Plus - 6	0	N/A	-67970	-68060	-97.95	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: 29-Jan-2017 13:42 After: 29-Jan-2017 17:56

HRLT A5-A6 Voltage Plus - 0	0	N/A	68400	68420	16.93	2100	UV
HRLT A5-A6 Voltage Plus - 1	0	N/A	71110	71130	22.86	2100	UV
HRLT A5-A6 Voltage Plus - 2	0	N/A	72950	73020	67.37	2100	UV
HRLT A5-A6 Voltage Plus - 3	0	N/A	71310	71380	63.76	2100	UV
HRLT A5-A6 Voltage Plus - 4	0	N/A	69280	69280	-2.672	2100	UV
HRLT A5-A6 Voltage Plus - 5	0	N/A	69750	69750	1.297	2100	UV
HRLT A5-A6 Voltage Plus - 6	0	N/A	-67800	-67900	-98.82	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: 29-Jan-2017 13:42 After: 29-Jan-2017 17:56

HRLT Torpedo-M0 Voltage - 0	0	N/A	-67970	-67970	-5.391	2100	UV
HRLT Torpedo-M0 Voltage - 1	0	N/A	-70930	-70950	-22.59	2100	UV
HRLT Torpedo-M0 Voltage - 2	0	N/A	-72800	-72880	-81.33	2100	UV
HRLT Torpedo-M0 Voltage - 3	0	N/A	-71230	-71280	-53.52	2100	UV
HRLT Torpedo-M0 Voltage - 4	0	N/A	-69250	-69240	8.938	2100	UV
HRLT Torpedo-M0 Voltage - 5	0	N/A	-69720	-69720	-5.570	2100	UV
HRLT Torpedo-M0 Voltage - 6	0	N/A	67580	67670	85.75	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: 29-Jan-2017 13:42 After: 29-Jan-2017 17:56

HRLT Bridle#9-M0 Voltage - 0	0	N/A	-67990	-68010	-17.38	2100	UV
HRLT Bridle#9-M0 Voltage - 1	0	N/A	-71000	-71050	-47.81	2100	UV
HRLT Bridle#9-M0 Voltage - 2	0	N/A	-72890	-72970	-78.98	2100	UV
HRLT Bridle#9-M0 Voltage - 3	0	N/A	-71300	-71360	-57.87	2100	UV
HRLT Bridle#9-M0 Voltage - 4	0	N/A	-69300	-69290	1.922	2100	UV
HRLT Bridle#9-M0 Voltage - 5	0	N/A	-69760	-69760	-4.336	2100	UV
HRLT Bridle#9-M0 Voltage - 6	0	N/A	67680	67770	89.05	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: 29-Jan-2017 13:42 After: 29-Jan-2017 17:56

HRLT Source Current Plus - 0	0	N/A	283.7	283.8	0.05515	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: 29-Jan-2017 13:42 After: 29-Jan-2017 17:56

HRLT Vertical Voltage PI - 0	0	N/A	-320.1	-319.8	0.2796	9.681	UV
HRLT Vertical Voltage PI - 1	0	N/A	-322.6	-322.5	0.1429	9.681	UV
HRLT Vertical Voltage PI - 2	0	N/A	-329.4	-329.3	0.09348	9.681	UV
HRLT Vertical Voltage PI - 3	0	N/A	-318.9	-318.8	0.1113	9.681	UV
HRLT Vertical Voltage PI - 4	0	N/A	-308.4	-308.1	0.3197	9.681	UV
HRLT Vertical Voltage PI - 5	0	N/A	-325.1	-324.8	0.3021	9.681	UV
HRLT Vertical Voltage PI - 6	0	N/A	325.2	325.2	0.004211	9.681	UV
HRLT Vertical Voltage PI - 7	0	N/A	-322.7	-322.7	0	9.681	UV

Hostile Litho-Density Sonde Wellsite Calibration – Background Measurement

Master: 4-Dec-2016 22:52 Before: 5-Dec-2016 0:01 After: 5-Dec-2016 0:14

SS Cs Resolution Bkg	9.000	7.761	7.833	7.746	-0.08627	1.800	%
LS Cs Resolution Bkg	9.000	8.023	8.054	7.994	-0.06029	1.800	%
LSW1 Background	100.0	79.31	78.69	79.84	1.149	3.000	CPS
LSW2 Background	100.0	71.29	71.11	70.50	-0.6154	3.000	CPS
LSW3 Background	200.0	163.3	160.8	161.4	0.6474	6.000	CPS
LSW4 Background	250.0	199.5	200.6	199.0	-1.557	7.500	CPS
LSW5 Background	600.0	467.3	466.2	466.1	-0.06833	18.00	CPS
SSW1 Background	100.0	75.92	76.43	75.62	-0.8169	3.000	CPS
SSW2 Background	200.0	130.0	132.0	131.7	-0.3687	6.000	CPS
SSW3 Background	500.0	367.0	366.1	366.2	0.04886	15.00	CPS
SSW4 Background	270.0	197.6	197.7	197.5	-0.2104	8.100	CPS
SSW5 Background	200.0	141.3	140.4	139.4	-0.9591	6.000	CPS

Hostile Litho-Density Sonde Wellsite Calibration – Aluminum Measurement

Master: 4-Dec-2016 23:22

LSW1 Aluminum	600.0	490.3	N/A	N/A	N/A	N/A	CPS
LSW2 Aluminum	900.0	711.1	N/A	N/A	N/A	N/A	CPS
LSW3 Aluminum	1100	853.5	N/A	N/A	N/A	N/A	CPS
LSW4 Aluminum	580.0	428.5	N/A	N/A	N/A	N/A	CPS
LSW5 Aluminum	570.0	386.9	N/A	N/A	N/A	N/A	CPS
SSW1 Aluminum	2800	2220	N/A	N/A	N/A	N/A	CPS
SSW2 Aluminum	8000	6108	N/A	N/A	N/A	N/A	CPS
SSW3 Aluminum	11600	8580	N/A	N/A	N/A	N/A	CPS
SSW4 Aluminum	5000	3535	N/A	N/A	N/A	N/A	CPS
SSW5 Aluminum	660.0	421.8	N/A	N/A	N/A	N/A	CPS

Hostile Litho-Density Sonde Wellsite Calibration – Lithology Measurement

Master: 4-Dec-2016 23:14

LSW1 Iron	400.0	341.1	N/A	N/A	N/A	N/A	CPS
LSW2 Iron	730.0	578.9	N/A	N/A	N/A	N/A	CPS
LSW3 Iron	1000	757.1	N/A	N/A	N/A	N/A	CPS
LSW4 Iron	520.0	389.6	N/A	N/A	N/A	N/A	CPS
LSW5 Iron	470.0	359.4	N/A	N/A	N/A	N/A	CPS
SSW1 Iron	2100	1637	N/A	N/A	N/A	N/A	CPS
SSW2 Iron	6800	5104	N/A	N/A	N/A	N/A	CPS
SSW3 Iron	10800	7843	N/A	N/A	N/A	N/A	CPS
SSW4 Iron	4600	3227	N/A	N/A	N/A	N/A	CPS
SSW5 Iron	580.0	374.6	N/A	N/A	N/A	N/A	CPS

Hostile Litho-Density Sonde Wellsite Calibration – Caliper Calibration

Before: 4-Dec-2016 23:57

HLDS Caliper Small Ring	12.00	N/A	14.30	N/A	N/A	N/A	IN
HLDS Caliper Large Ring	15.19	N/A	17.84	N/A	N/A	N/A	IN

Enhanced DTS Cartridge Wellsite Calibration – EDTC Accelerometer Calibration

Before: 29-Jan-2017 11:49

EDTC Z-Axis Acceleration	9.810	N/A	9.717	N/A	N/A	N/A	M/S2
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Enhanced DTS Cartridge Wellsite Calibration – Detector Calibration

Before: 29-Jan-2017 11:41 After: 29-Jan-2017 17:57

Gamma Ray (Jig – Bkg)	153.3	N/A	153.3	149.9	-3.444	13.94	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	161.3	-3.705	15.00	GAPI

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 177

Auxiliary Equipment:
HNGS Sonde Housing
Gamma Source Radioactive

HNSH – BA 174
GSR – U 616008

Detector 1 Check

Phase	Na 511 Peak Loc	Value	Phase	Na 511 Peak Res %	Value	Phase	High Voltage V	Value
Master		38.77	Master		16.30	Master		1225
Before		38.52	Before		16.38	Before		1218
After		38.63	After		17.29	After		1217
	37.50 (Minimum) 40.00 (Nominal) 43.50 (Maximum)			12.00 (Minimum) 15.50 (Nominal) 19.00 (Maximum)			900.0 (Minimum) 1150 (Nominal) 1600 (Maximum)	
Phase	Na 1785 Peak Loc	Value	Phase	Na 1785 Peak Res %	Value	Phase	Temperature DEGC	Value
Master		138.8	Master		8.654	Master		34.01
Before		138.8	Before		8.936	Before		32.37
After		140.1	After		9.844	After		30.58
	135.0 (Minimum) 142.6 (Nominal) 150.3 (Maximum)			7.000 (Minimum) 8.500 (Nominal) 11.00 (Maximum)			-28.89 (Minimum) 15.50 (Nominal) 60.00 (Maximum)	
Phase	Na Count Rate CPS	Value						
Master		31.03						
Before		28.62						
After		28.59						
	10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)							
Master: 6-Dec-2016 2:13			Before: 29-Jan-2017 11:45			After: 29-Jan-2017 17:59		

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Detector 2 Check

Phase	Na 511 Peak Loc	Value	Phase	Na 511 Peak Res %	Value	Phase	High Voltage V	Value
Master		39.49	Master		16.58	Master		1105
Before		39.60	Before		16.59	Before		1100
After		39.55	After		16.10	After		1100
	37.50 (Minimum) 40.00 (Nominal) 43.50 (Maximum)			12.00 (Minimum) 15.50 (Nominal) 19.00 (Maximum)			900.0 (Minimum) 1150 (Nominal) 1600 (Maximum)	
Phase	Na 1785 Peak Loc	Value	Phase	Na 1785 Peak Res %	Value	Phase	Temperature DEGC	Value
Master		142.2	Master		8.911	Master		33.34
Before		142.8	Before		9.391	Before		31.86
After		142.6	After		8.777	After		31.19
	135.0 (Minimum) 142.6 (Nominal) 150.3 (Maximum)			7.000 (Minimum) 8.500 (Nominal) 11.00 (Maximum)			-28.89 (Minimum) 15.50 (Nominal) 60.00 (Maximum)	
Phase	Na Count Rate CPS	Value						
Master		31.02						
Before		28.75						
After		28.86						
	10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)							
Master: 6-Dec-2016 2:13			Before: 29-Jan-2017 11:45			After: 29-Jan-2017 17:59		

Hostile Natural Gamma Ray Sonde Wellsite Calibration		
Ratio Of Detector 1 To Detector 2		
Phase	Coincidence Count Rate Ratio	Value
Master		0.9985
Before		0.9921
After		0.9874
	0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)	
Master: 6-Dec-2016 2:13		
Before: 29-Jan-2017 11:45		
After: 29-Jan-2017 17:59		

Primary Equipment:

HRLT Sonde

HRLS - B

768

Auxiliary Equipment:

HRLT lower Housing

HRLH - B

968

HRLT Lower Cartridge

HRLC - B

974

HRLT upper Housing

HRUH - B

768

HRLT Upper Cartridge

HRUC - B

764

High Resolution Laterolog Array - B Wellsite Calibration

HRLT M01

Idx	Phase	HRLT M0-M1 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		-318.2	-322.7	-280.7	-379.7
	After		-318.1			
1	Before		-328.0	-322.7	-280.7	-379.7
	After		-327.8			
2	Before		-336.1	-322.7	-280.7	-379.7
	After		-336.1			
3	Before		-327.0	-322.7	-280.7	-379.7
	After		-327.0			
4	Before		-319.3	-322.7	-280.7	-379.7
	After		-319.1			
5	Before		-321.1	-322.7	-280.7	-379.7
	After		-320.9			
6	Before		317.9	322.7	379.7	280.7
	After		317.8			
7	Before		-322.7	-322.7	-280.7	-379.7
	After		-322.7			
<p>(Minimum) (Nominal) (Maximum)</p>						

Before: 29-Jan-2017 13:42

After: 29-Jan-2017 17:56

High Resolution Laterolog Array - B Wellsite Calibration

HRLT M12

Idx	Phase	HRLT M1-M2 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1735	1781	2095	1549
	After		1735			
1	Before		1795	1781	2095	1549
	After		1795			
2	Before		1832	1781	2095	1549
	After		1834			
3	Before		1781	1781	2095	1549
	After		1783			
4	Before		1738	1781	2095	1549
	After		1738			
5	Before		1749	1781	2095	1549
	After		1749			
6	Before		-1747	-1781	-1549	-2095
	After		-1749			
7	Before		1781	1781	2095	1549
	After		1781			

	(Minimum)	(Nominal)	(Maximum)		
Before: 29-Jan-2017 13:42					
After: 29-Jan-2017 17:56					

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT M23						
Idx	Phase	HRLT M2–M3 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1728	1781	2095	1549
	After		1728			
1	Before		1797	1781	2095	1549
	After		1797			
2	Before		1837	1781	2095	1549
	After		1838			
3	Before		1790	1781	2095	1549
	After		1791			
4	Before		1741	1781	2095	1549
	After		1740			
5	Before		1753	1781	2095	1549
	After		1752			
6	Before		-1738	-1781	-1549	-2095
	After		-1740			
7	Before		1781	1781	2095	1549
	After		1781			
(Minimum) (Nominal) (Maximum)						
Before: 29-Jan-2017 13:42						
After: 29-Jan-2017 17:56						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT V34						
Idx	Phase	HRLT A3–A4 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68480	70000	82360	60900
	After		68500			
1	Before		71040	70000	82360	60900
	After		71100			
2	Before		72900	70000	82360	60900
	After		73010			
3	Before		71300	70000	82360	60900
	After		71370			
4	Before		69300	70000	82360	60900
	After		69300			
5	Before		69790	70000	82360	60900
	After		69800			
6	Before		-67760	-70000	-60900	-82360
	After		-67860			
7	Before		70000	70000	82360	60900
	After		70000			
(Minimum) (Nominal) (Maximum)						
Before: 29-Jan-2017 13:42						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT V45						
Idx	Phase	HRLT A4–A5 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68560	70000	82360	60900
	After		68580			
1	Before		71250	70000	82360	60900
	After		71320			
2	Before		73080	70000	82360	60900
	After		73200			
3	Before		71440	70000	82360	60900
	After		71500			
4	Before		69410	70000	82360	60900
	After		69410			
5	Before		69890	70000	82360	60900
	After		69890			
6	Before		-67970	-70000	-60900	-82360
	After		-68060			
7	Before		70000	70000	82360	60900
	After		70000			
		(Minimum) (Nominal) (Maximum)				
Before: 29-Jan-2017 13:42						
After: 29-Jan-2017 17:56						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT V56						
Idx	Phase	HRLT A5–A6 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68400	70000	82360	60900
	After		68420			
1	Before		71110	70000	82360	60900
	After		71130			
2	Before		72950	70000	82360	60900
	After		73020			
3	Before		71310	70000	82360	60900
	After		71380			
4	Before		69280	70000	82360	60900
	After		69280			
5	Before		69750	70000	82360	60900
	After		69750			
6	Before		-67800	-70000	-60900	-82360
	After		-67900			
7	Before		70000	70000	82360	60900
	After		70000			
		(Minimum) (Nominal) (Maximum)				
Before: 29-Jan-2017 13:42						
After: 29-Jan-2017 17:56						

HRLT VTP

Idx	Phase	HRLT Torpedo-M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		-67970	-70000	-60900	-82360
	After		-67970			
1	Before		-70930	-70000	-60900	-82360
	After		-70950			
2	Before		-72800	-70000	-60900	-82360
	After		-72880			
3	Before		-71230	-70000	-60900	-82360
	After		-71280			
4	Before		-69250	-70000	-60900	-82360
	After		-69240			
5	Before		-69720	-70000	-60900	-82360
	After		-69720			
6	Before		67580	70000	82360	60900
	After		67670			
7	Before		-70000	-70000	-60900	-82360
	After		-70000			
			(Minimum)	(Nominal)	(Maximum)	

Before: 29-Jan-2017 13:42
 After: 29-Jan-2017 17:56

High Resolution Laterolog Array - B Wellsite Calibration

HRLT VBD

Idx	Phase	HRLT Bridle#9-M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		-67990	-70000	-60900	-82360
	After		-68010			
1	Before		-71000	-70000	-60900	-82360
	After		-71050			
2	Before		-72890	-70000	-60900	-82360
	After		-72970			
3	Before		-71300	-70000	-60900	-82360
	After		-71360			
4	Before		-69300	-70000	-60900	-82360
	After		-69290			
5	Before		-69760	-70000	-60900	-82360
	After		-69760			
6	Before		67680	70000	82360	60900
	After		67770			
7	Before		-70000	-70000	-60900	-82360
	After		-70000			
			(Minimum)	(Nominal)	(Maximum)	

Before: 29-Jan-2017 13:42
 After: 29-Jan-2017 17:56

High Resolution Laterolog Array - B Wellsite Calibration

HRLT ISO

Idx	Phase	HRLT Source Current Plus UA	Value	Nominal	Maximum	Minimum
0	Before		222.7	200	250	150
	After		222.7			

Idx	Phase	HRLT Vertical Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		283.7	284.0	334.1	247.0
	After		283.8			
1	Before		281.1	281.1	330.7	244.4
	After		281.1			
2	Before		281.1	281.1	330.7	244.4
	After		281.1			
3	Before		281.1	281.1	330.7	244.4
	After		281.1			
4	Before		281.1	281.1	330.7	244.4
	After		281.1			
5	Before		281.1	281.1	330.7	244.4
	After		281.1			
6	Before		281.1	281.1	330.7	244.4
	After		281.1			
7	Before		281.1	281.1	330.7	244.4
	After		281.1			
			(Minimum)	(Nominal)	(Maximum)	

Before: 29-Jan-2017 13:42
After: 29-Jan-2017 17:56

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT MV						
Idx	Phase	HRLT Vertical Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		-320.1	-322.7	-280.7	-379.7
	After		-319.8			
1	Before		-322.6	-322.7	-280.7	-379.7
	After		-322.5			
2	Before		-329.4	-322.7	-280.7	-379.7
	After		-329.3			
3	Before		-318.9	-322.7	-280.7	-379.7
	After		-318.8			
4	Before		-308.4	-322.7	-280.7	-379.7
	After		-308.1			
5	Before		-325.1	-322.7	-280.7	-379.7
	After		-324.8			
6	Before		325.2	322.7	379.7	280.7
	After		325.2			
7	Before		-322.7	-322.7	-280.7	-379.7
	After		-322.7			
			(Minimum)	(Nominal)	(Maximum)	

Before: 29-Jan-2017 13:42
After: 29-Jan-2017 17:56

Hostile Litho-Density Sonde / Equipment Identification

Primary Equipment:

Gamma Source Radioactive
Hostile Litho Density Sonde
Hostile Litho Density High Voltage

GSR – ZA 2945
HLDS – D 35
HLDV – D 35

Hostile Litho-Density Sonde Wellsite Calibration								
Background Measurement								
Phase	SS Cs Resolution Bkg %	Value	Phase	LS Cs Resolution Bkg %	Value	Phase	LSW1 Background CPS	Value
Master		7.761	Master		8.023	Master		79.31
Before		7.833	Before		8.054	Before		78.69
After		7.746	After		7.994	After		79.84
7.000 (Minimum)		9.000 (Nominal)	11.00 (Maximum)		7.000 (Minimum)		9.000 (Nominal)	11.00 (Maximum)
55.00 (Minimum)		100.0 (Nominal)	150.0 (Maximum)		55.00 (Minimum)		100.0 (Nominal)	150.0 (Maximum)
Phase	LSW2 Background CPS	Value	Phase	LSW3 Background CPS	Value	Phase	LSW4 Background CPS	Value
Master		71.29	Master		163.3	Master		199.5
Before		71.11	Before		160.8	Before		200.6
After		70.50	After		161.4	After		199.0
50.00 (Minimum)		100.0 (Nominal)	140.0 (Maximum)		110.0 (Minimum)		200.0 (Nominal)	290.0 (Maximum)
140.0 (Minimum)		250.0 (Nominal)	360.0 (Maximum)		140.0 (Minimum)		250.0 (Nominal)	360.0 (Maximum)
Phase	LSW5 Background CPS	Value	Phase	SSW1 Background CPS	Value	Phase	SSW2 Background CPS	Value
Master		467.3	Master		75.92	Master		130.0
Before		466.2	Before		76.43	Before		132.0
After		466.1	After		75.62	After		131.7
330.0 (Minimum)		600.0 (Nominal)	830.0 (Maximum)		55.00 (Minimum)		100.0 (Nominal)	150.0 (Maximum)
100.0 (Minimum)		200.0 (Nominal)	260.0 (Maximum)		100.0 (Minimum)		200.0 (Nominal)	260.0 (Maximum)
Phase	SSW3 Background CPS	Value	Phase	SSW4 Background CPS	Value	Phase	SSW5 Background CPS	Value
Master		367.0	Master		197.6	Master		141.3
Before		366.1	Before		197.7	Before		140.4
After		366.2	After		197.5	After		139.4
280.0 (Minimum)		500.0 (Nominal)	700.0 (Maximum)		150.0 (Minimum)		270.0 (Nominal)	380.0 (Maximum)
110.0 (Minimum)		200.0 (Nominal)	270.0 (Maximum)		110.0 (Minimum)		200.0 (Nominal)	270.0 (Maximum)
Master: 4-Dec-2016 22:52			Before: 5-Dec-2016 0:01			After: 5-Dec-2016 0:14		

Litho-Density Spectroscopy Cartridge - B / Equipment Identification


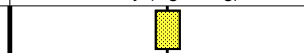
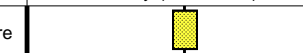
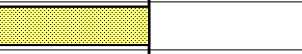
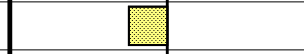
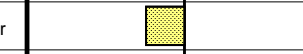
Primary Equipment: LDSC Cartridge	LDSC - B	326
Auxiliary Equipment: LDSC Housing	LDSH - A	303

Enhanced DTS Cartridge / Equipment Identification

Primary Equipment: EDTC Gamma Ray Detector Enhanced DTS Cartridge	EDTG - A/B EDTC - B	8305 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		9.717
9.610 (Minimum)		9.810 (Nominal)
		10.01 (Maximum)
Before: 29-Jan-2017 11:49		

Enhanced DTS Cartridge Wellsite Calibration
 Detector Calibration

Phase	Gamma Ray Background GAPI	Value	Phase	Gamma Ray (Jig - Bkg) GAPI	Value	Phase	Gamma Ray (Calibrated) GAPI	Value
Before		1.344	Before		153.3	Before		165.0
After		0.7758	After		149.9	After		161.3
0 (Minimum) 30.00 (Nominal) 120.0 (Maximum)			139.4 (Minimum) 153.3 (Nominal) 167.3 (Maximum)			150.0 (Minimum) 165.0 (Nominal) 180.0 (Maximum)		
Before: 29-Jan-2017 11:41			After: 29-Jan-2017 17:57					

Company: **International Ocean Discovery Program**

Schlumberger

Well: **Expedition 366, Site U1498B**

Field: **Mariana Convergent Margin**

Rig: **JOIDES Resolution**

Country:

Triple Combo without Sources
(Magnetic Susceptibility, Spectral GR,
Resistivity, Caliper, Mud Temperature)