Schlumberger

Company: **International Ocean Discovery Program**

Well: **Expedition 396, Site U1570D**
Field: **Mid−Norwegian Cont. Margin Magmatism**
Rig: **JOIDES Resolution** Country: **Iceland**

Rig: JOIDES Resolution
Field: Mid−Norwegian Cont. Margin Ma
Location: Latitude: N 65.8312
Well: Expedition 396, Site U1570D
Company: International Ocean Discovery Pr

High Resolution Laterolog (HRLA)
Litho Density (HLDS)
Natural Gamma / MSS (HNGS)

LOCATION

Latitude: N 65.8312
Longitude: E 1.9862

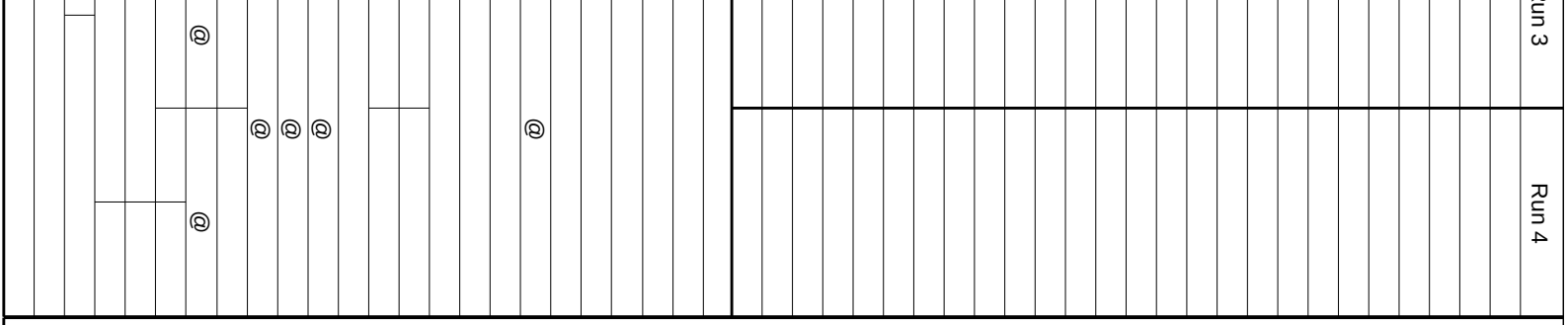
Elev.: K.B. 0.00 m
G.L. −2219.40 m
D.F. 0.00 m

Permanent Datum: Sea Floor — Elev.: −2219.40 m
Log Measured From: Rig Floor — 2219.40 m above Perm. Datum
Drilling Measured From: Rig Floor

Ocean:	Max. Well Deviation	Longitude	Latitude
Atlantic	5 deg	E 1.9862	N 65.8312

	Run 1	Run 2	Run 3
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			

	Run 1	Run 2	Run 3
Logging Date	5−Sep−2021		
Run Number	1		
Depth Driller	2419 m		
Schlumberger Depth	2418.6 m		
Bottom Log Interval	2415 m		
Top Log Interval	2221.5 m		
Casing Driller Size @ Depth	5.500 in @ 2295 m	@	@
Casing Schlumberger	2294 m		
Bit Size	9.875 in		
Type Fluid In Hole	Barite Weighted WBM		
MUD Density / Viscosity	1.26 g/cm3 /		
MUD Fluid Loss / PH	/ 8.07		
MUD Source Of Sample	Mudpit		
RM @ Measured Temperature	0.220 ohm.m @ 23 degC	@	@
RMF @ Measured Temperature	@	@	@
RMC @ Measured Temperature	@	@	@
Source RMF / RMC	N/A / N/A		
RM @ MRT / RMF @ MRT	0.369 @ 5 / @ 5	@ / @	@ / @
Maximum Recorded Temperatures	5 degC		
Circulation Stopped / Time	5−Sep−2021 / 5:00		
Logger On Bottom / Time	5−Sep−2021 / 10:00		
Unit Number / Location	627314 / Larose, LA		
Recorded By	C. Furman		
Witnessed By	S. Midgley		



DISCLAIMER

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OTHER SERVICES1

OS1: FMS

OS2: DSI

REMARKS: RUN NUMBER 1

Hole drilled with RCB bottom hole assembly (BHA) at 9.875" BS

Drill pipe set at 2295mbrf (76mbsf)

Fluid type was water−based mud, weighted with barite, displaced in the hole prior to logging.

Depth recorded from drill floor; logs presented as−logged without depth corrections or shifts, as per client instructions.

All logs presented in wireline measured depth below rig floor (MDBRF).

Caliper opened during upward passes; closed inside pipe and while logging down.

Hole size corrections made using caliper measurements for upward passes bit size

used for downlog corrections.

AHC used from TD then switched off to facilitate pipe entry.

Caliper closed prior to shutting off compensator and entering pipe or casing.

Downlog flipped and note the caliper closed logging down.

RUN 1

SERVICE ORDER #:

PROGRAM VERSION: 19C0−187

FLUID LEVEL:

LOGGED INTERVAL	START	STOP

RUN 2

SERVICE ORDER #:

PROGRAM VERSION:

FLUID LEVEL:

LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1

SURFACE EQUIPMENT

GSR−U 6098

WITM (DTS)−A

DOWNHOLE EQUIPMENT

LEH−QT 31.80

LEH−QT 301

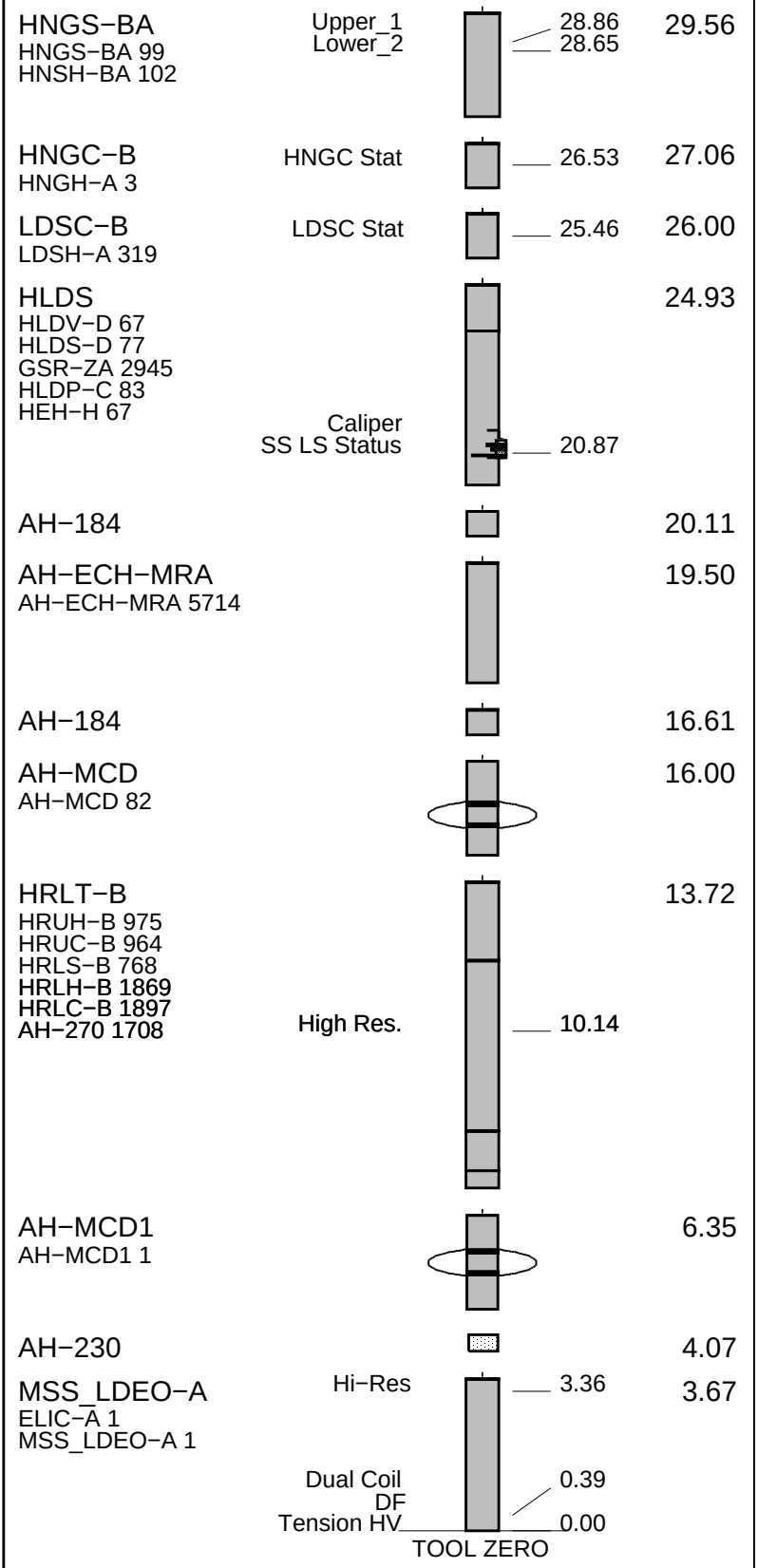
AH−369 30.91

CTEM 30.20

DTC−H TelStatus 30.48

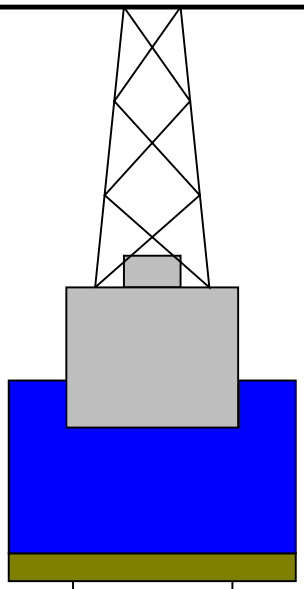
ECH−KC 9842 ToolStatu 29.56

RUN 2



MAXIMUM STRING DIAMETER 3.75 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

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

	OD	ID	MD		MD	OD	ID	
Kelly Bushing Elevation			0.0					
Derrick Floor Elevation			0.0					
Mean Sea Level			11.1					
					0.0	5.500	4.125	
					2219.0	9.875		Driller's Sea Floor
					2295.0	5.500	4.125	Pipe Depth
					2419.0	9.875		Driller's TD

Schlumberger

Downlog

MAXIS Field Log

Company: International Ocean Discovery Program **Well: Expedition 396, Site U1570D**

Input DLIS Files

DEFAULT	**Flip_MSS_LDEO_HRLA_025LUP**		**PRODUCER**	**05−Sep−2021 11:34**	**2418.4 M**	**2180.8 M**

Output DLIS Files

DEFAULT	**MSS_LDEO_HRLA_LDL_026PUP**	**FN:18**	**PRODUCER**	**05−Sep−2021 11:35**	**2418.4 M**	**2180.8 M**
RTB	**MSS_LDEO_HRLA_LDL_026PUP**	**FN:19**	**PRODUCER**	**05−Sep−2021 11:35**	**2418.4 M**	**2180.8 M**

OP System Version: 19C0−187

MSS_LDEO−A	**19C0−187**	**HRLT−B**	**19C0−187**
HLDS	**19C0−187**	**LDSC−B**	**19C0−187**
HNGC−B	**19C0−187**	**HNGS−BA**	**19C0−187**

DTC−H 19C0−187

PIP SUMMARY

Time Mark Every 60 S

HNGS Spectroscopy Gamma Ray (HSGR)
0 (GAPI) 50

Area1
From HCGR to HSGR

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

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

HNGS Uranium (HURA)
−5 (PPM) 5

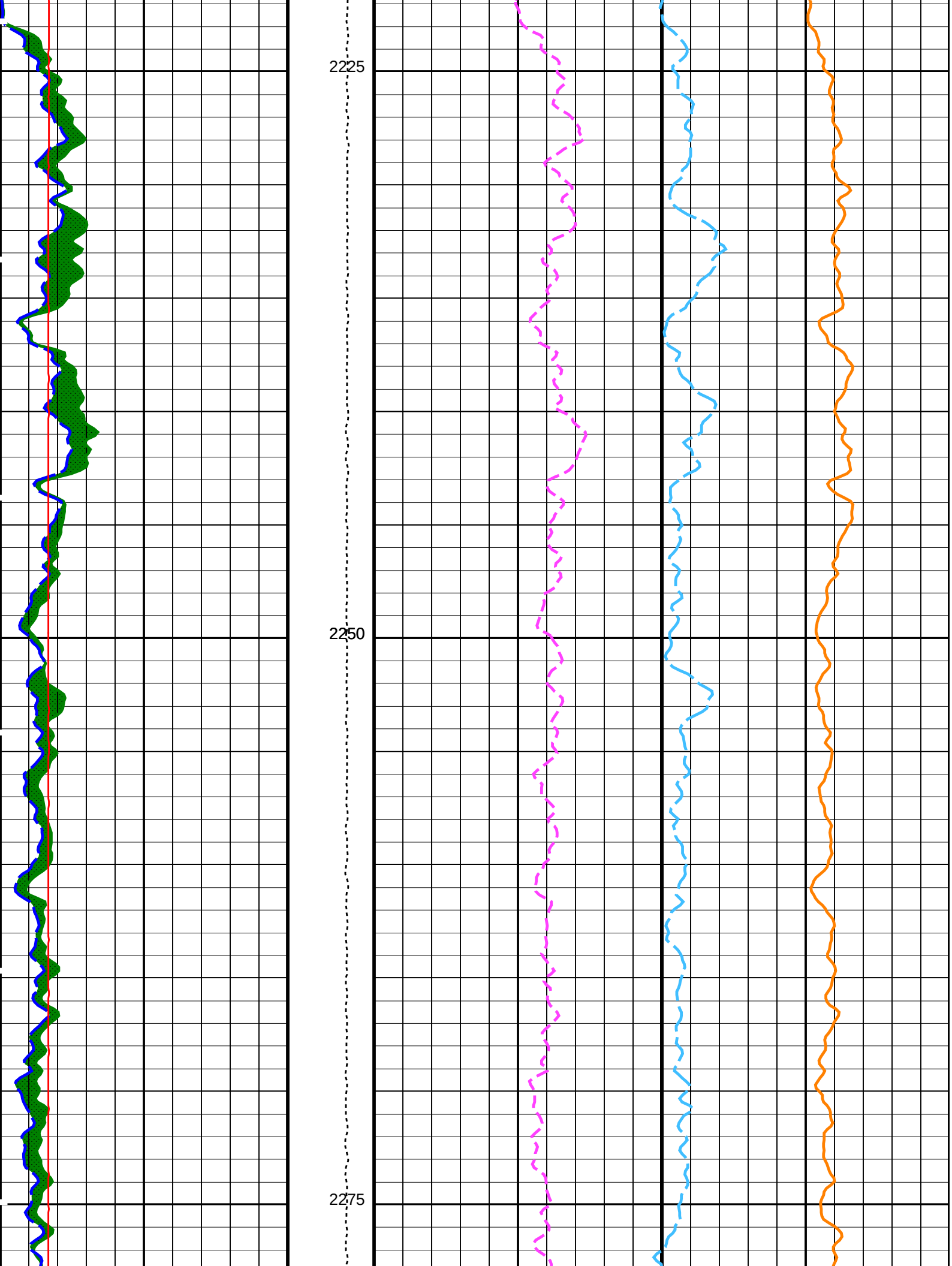
HLDS Caliper (LCAL)
0 (IN) 20

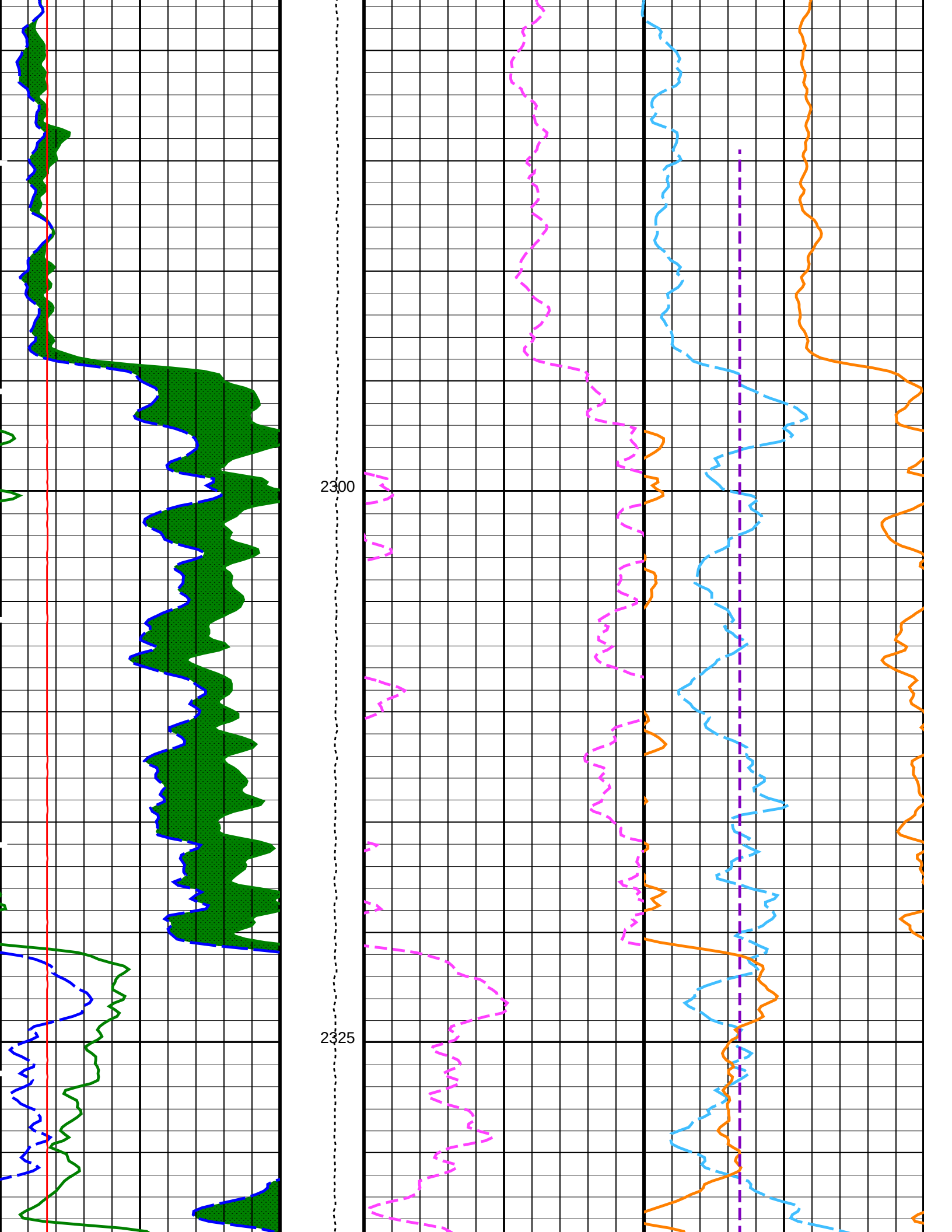
Tension (TENS) (LBF)
10000 0

HNGS Thorium (HTHO)
−5 (PPM) 5

HNGS Potassium (HFK)
−0.01 (V/V) 0.01

2200


2225
2250
2275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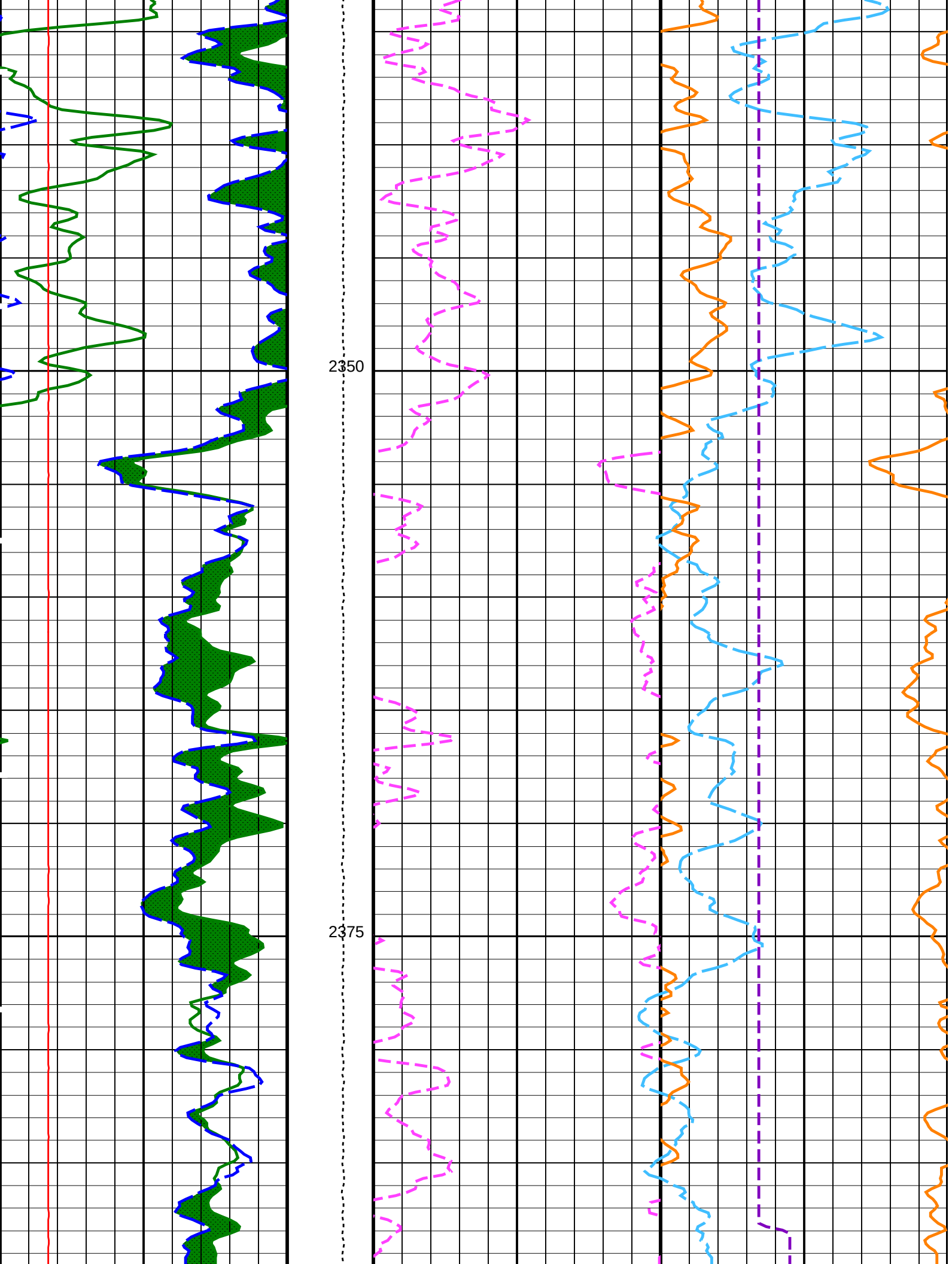
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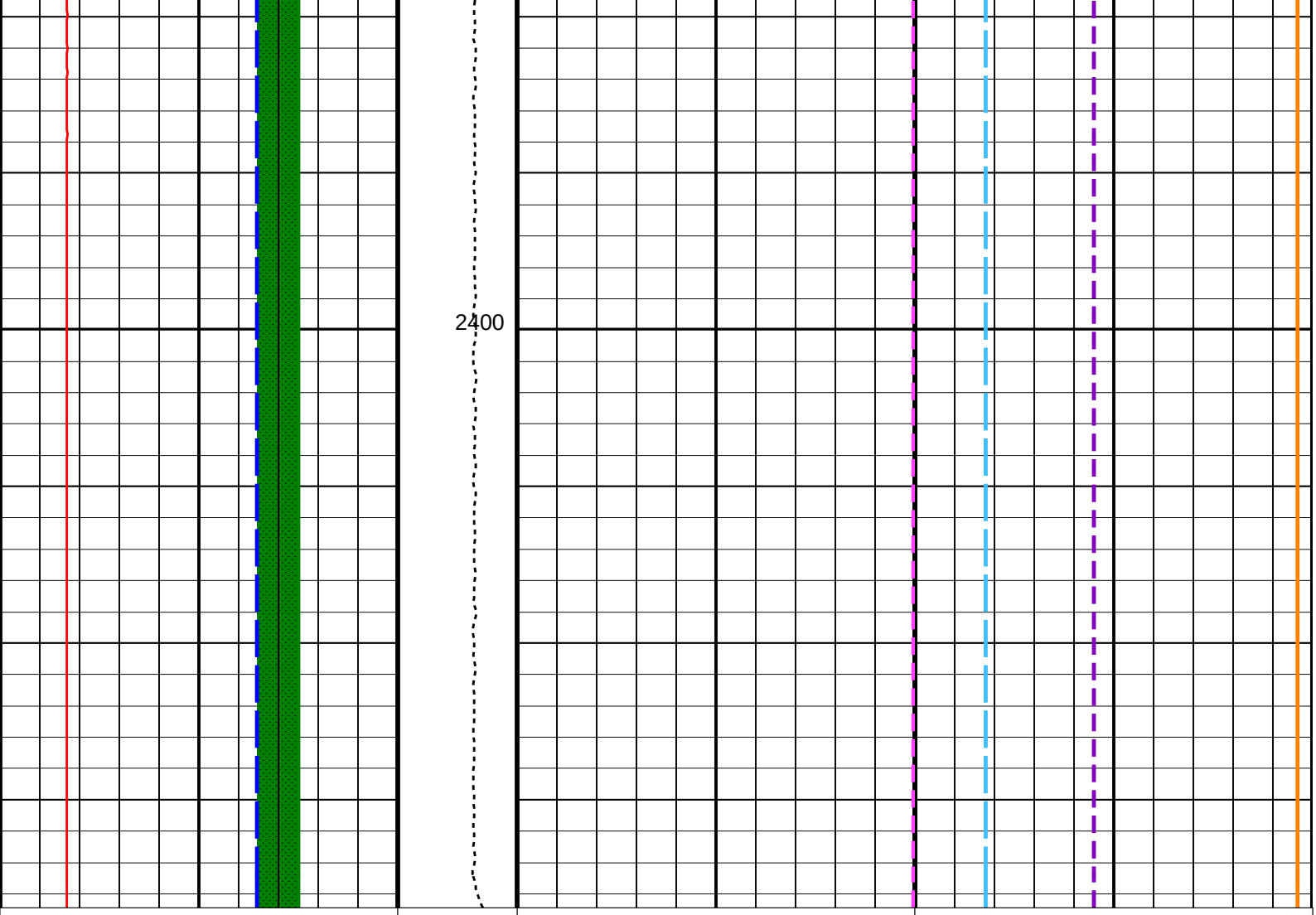
2375



Parameters

DLIS Name	Description	Value	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	BS	
	HNGS−BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	BS	

H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00835459	
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	0.942886	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.963783	
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.26	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	NORMAL	

Format: HNGSYields **Vertical Scale: 1:200** **Graphics File Created: 05−Sep−2021 11:36**

OP System Version: 19C0−187

MSS_LDEO−A	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
DTC−H	19C0−187		

Input DLIS Files

DEFAULT	Flip_MSS_LDEO_HRLA_025LUP	PRODUCER	05−Sep−2021 11:34	2418.4 M	2180.8 M

Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_026PUP	FN:18	PRODUCER	05−Sep−2021 11:35		
RTB	MSS_LDEO_HRLA_LDL_026PUP	FN:19	PRODUCER	05−Sep−2021 11:35		

Company: International Ocean Discovery Program **Well: Expedition 396, Site U1570D**

Input DLIS Files

DEFAULT	Flip_MSS_LDEO_HRLA_025LUP	PRODUCER	05−Sep−2021 11:34	2418.4 M	2180.8 M

Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_026PUP	FN:18	PRODUCER	05−Sep−2021 11:35	2418.4 M	2180.8 M
RTB	MSS_LDEO_HRLA_LDL_026PUP	FN:19	PRODUCER	05−Sep−2021 11:35	2418.4 M	2180.8 M

OP System Version: 19C0−187

MSS_LDEO−A	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
DTC−H	19C0−187		

PIP SUMMARY

Time Mark Every 60 S

HRLT Mud Resistivity (RM_HRLT)
0.02 (OHMM) 200

HRLT Resistivity 5 (RLA5)
0.2 (OHMM) 2000

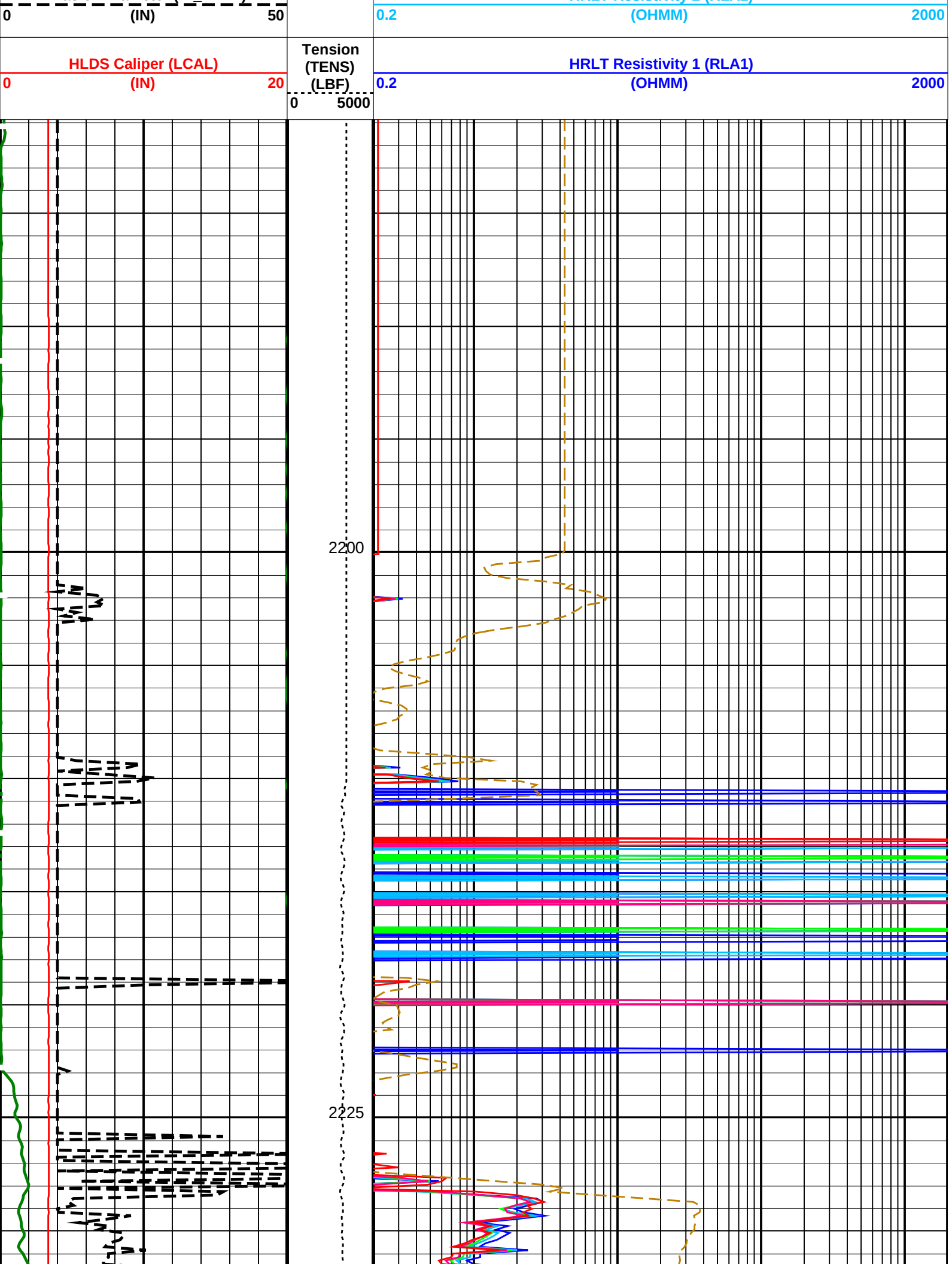
HRLT Resistivity 4 (RLA4)
0.2 (OHMM) 2000

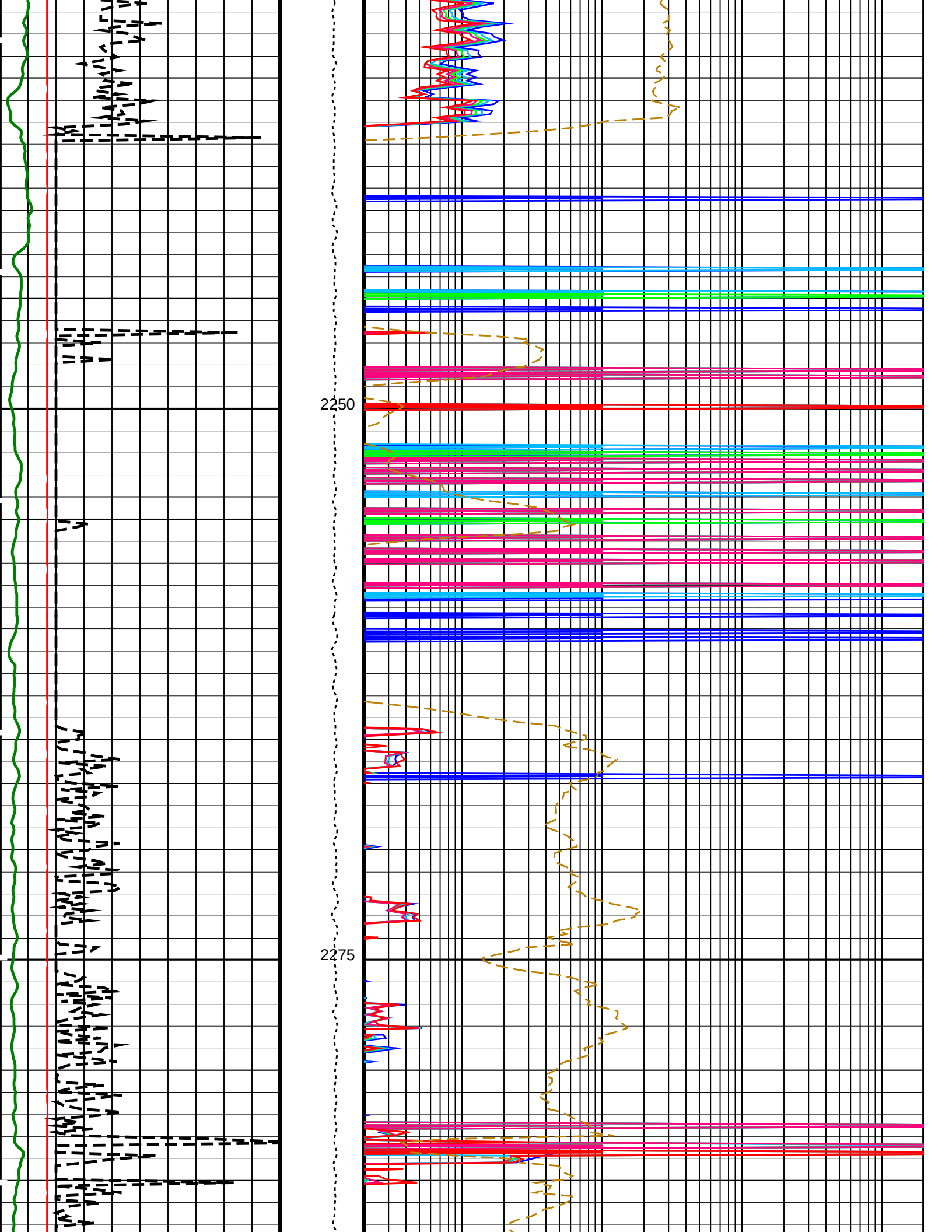
HNGS Spectroscopy Gamma Ray (HSGR)
0 (GAPI) 150

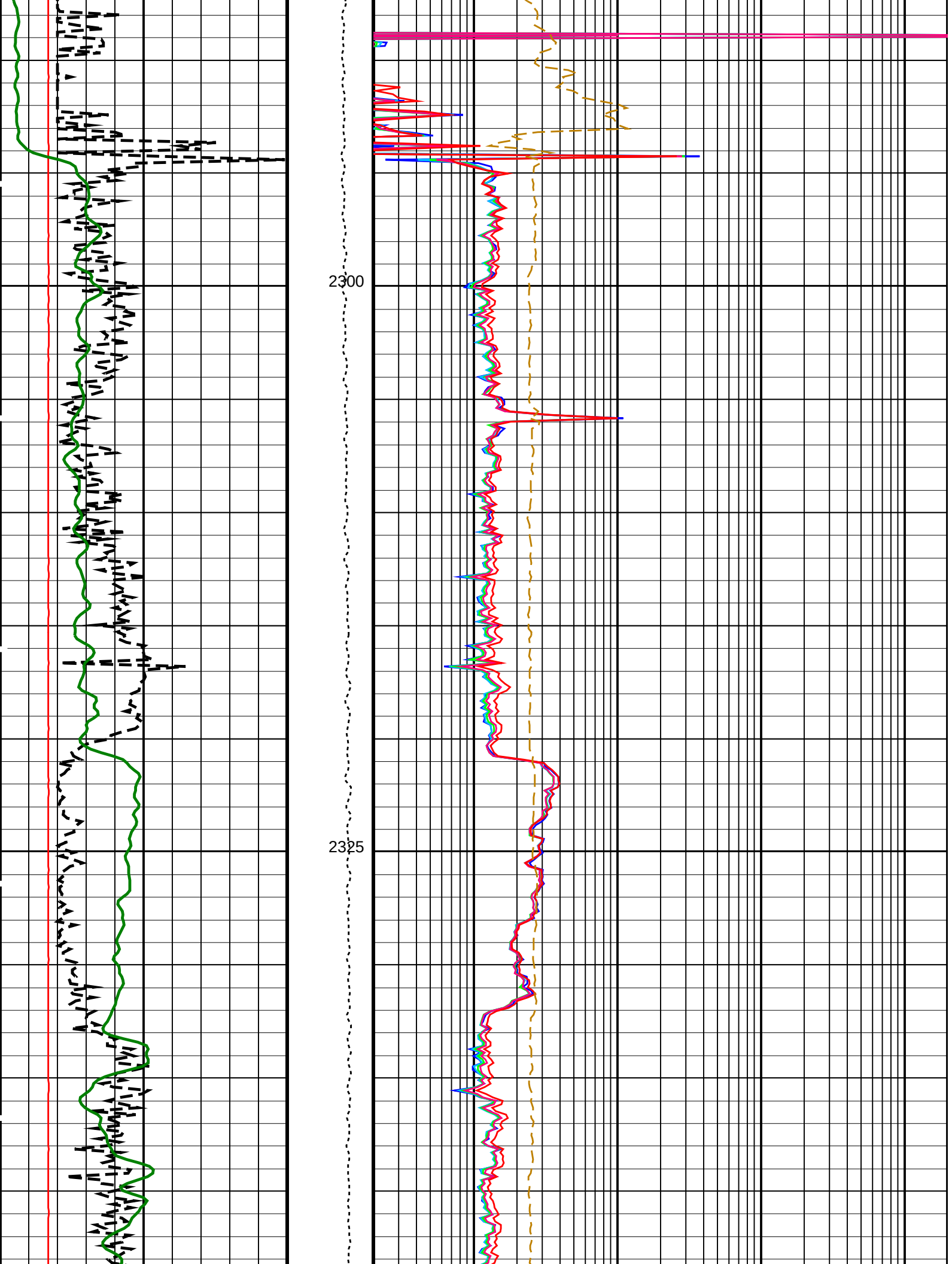
HRLT Resistivity 3 (RLA3)
0.2 (OHMM) 2000

Invasion Diameter (DI_HRLT)

HRLT Resistivity 2 (RLA2)


0
(IN)
50
0.2
(OHMM)
2000
HLDS Caliper (LCAL)
0
(IN)
20
Tension
(TENS)
(LBF)
0
5000
HRLT Resistivity 1 (RLA1)
0.2
(OHMM)
2000
2200
2225


2250
2275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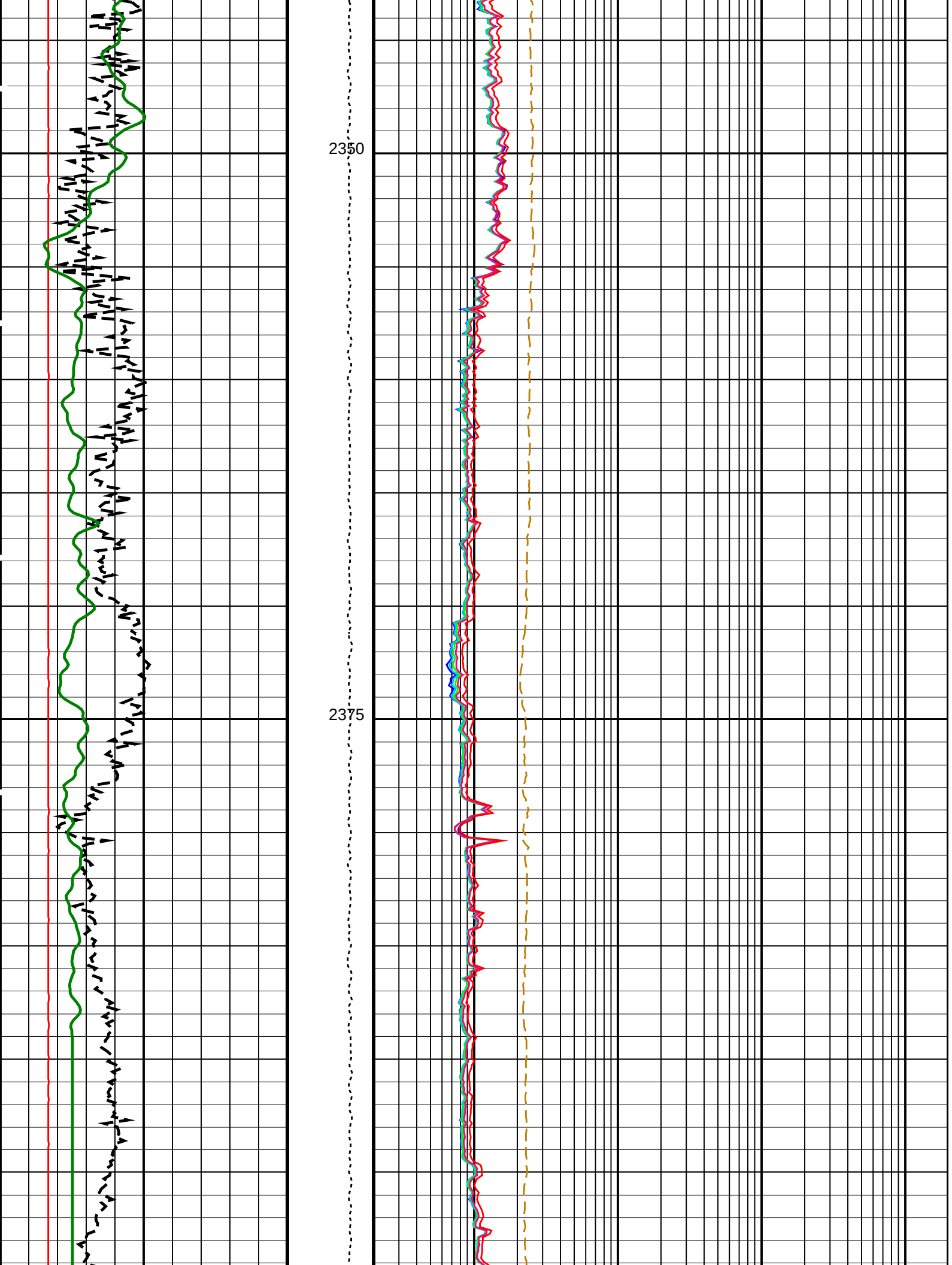
2325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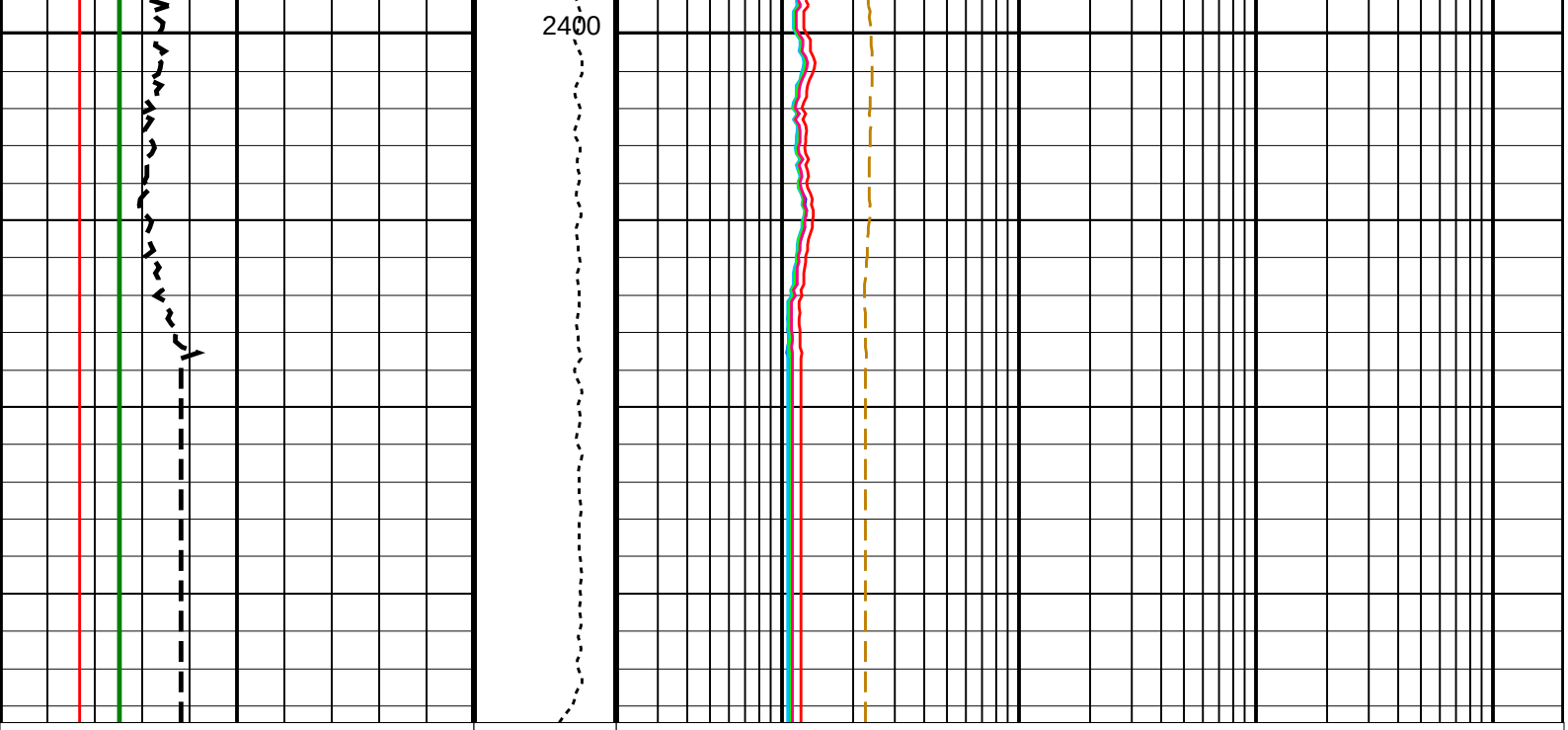
2375



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

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	7	DEGC
GCSE	Generalized Caliper Selection	BS	
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	
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	Eccentered	
SHT	Surface Hole Temperature	20	DEGC
	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)	7	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	
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	−0.00835459	
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	0.942886	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.963783	
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.26	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	NORMAL	
TD	Total Depth	2292	M

Format: HRLT Vertical Scale: 1:200 Graphics File Created: 05−Sep−2021 11:36

OP System Version: 19C0−187

MSS_LDEO−A	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
DTC−H	19C0−187		

Input DLIS Files

DEFAULT	Flip_MSS_LDEO_HRLA_025LUP	PRODUCER	05−Sep−2021 11:34	2418.4 M	2180.8 M

Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_026PUP	FN:18	PRODUCER	05−Sep−2021 11:35	
RTB	MSS_LDEO_HRLA_LDL_026PUP	FN:19	PRODUCER	05−Sep−2021 11:35	

Company: International Ocean Discovery Program Well: Expedition 396, Site U1570D

Input DLIS Files

DEFAULT	Flip_MSS_LDEO_HRLA_025LUP	PRODUCER	05−Sep−2021 11:34	2418.4 M	2180.8 M

Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_026PUP	FN:18	PRODUCER	05−Sep−2021 11:35	2418.4 M	2180.8 M
RTB	MSS_LDEO_HRLA_LDL_026PUP	FN:19	PRODUCER	05−Sep−2021 11:35	2418.4 M	2180.8 M

OP System Version: 19C0−187

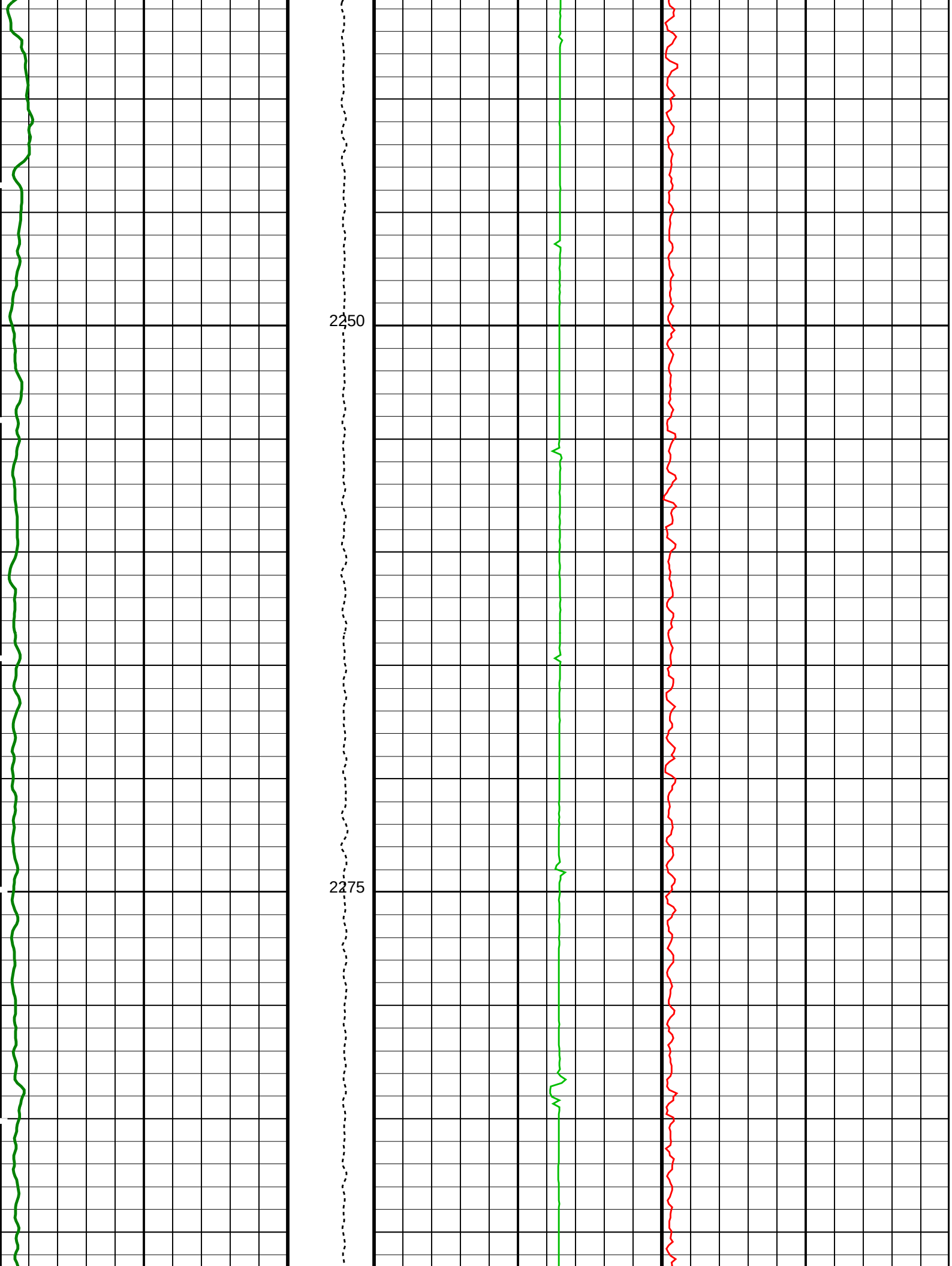
MSS_LDEO−A	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
DTC−H	19C0−187		

PIP SUMMARY

Time Mark Every 60 S

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


(GAPI)
150
0
5000
2200
2225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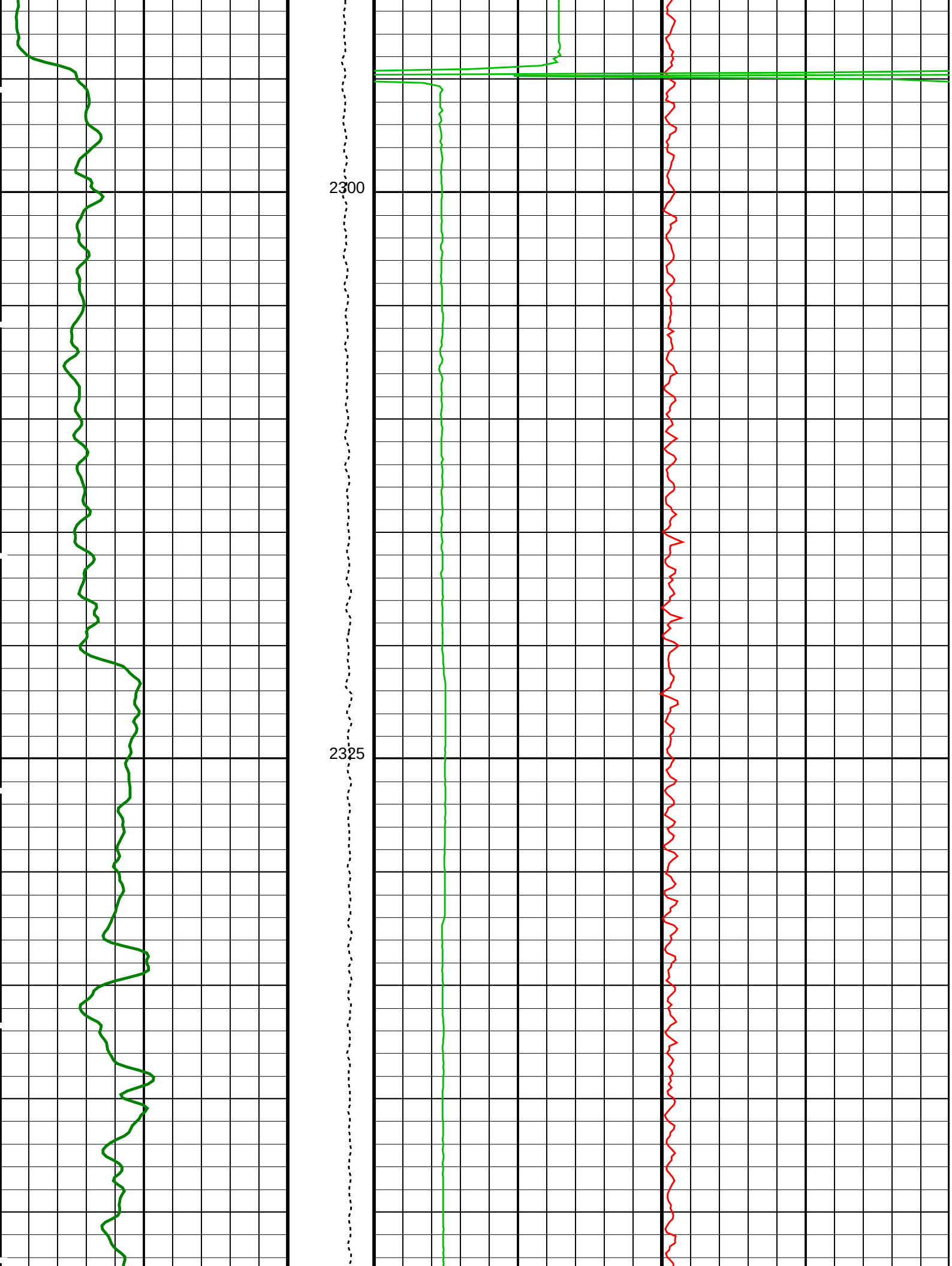
2275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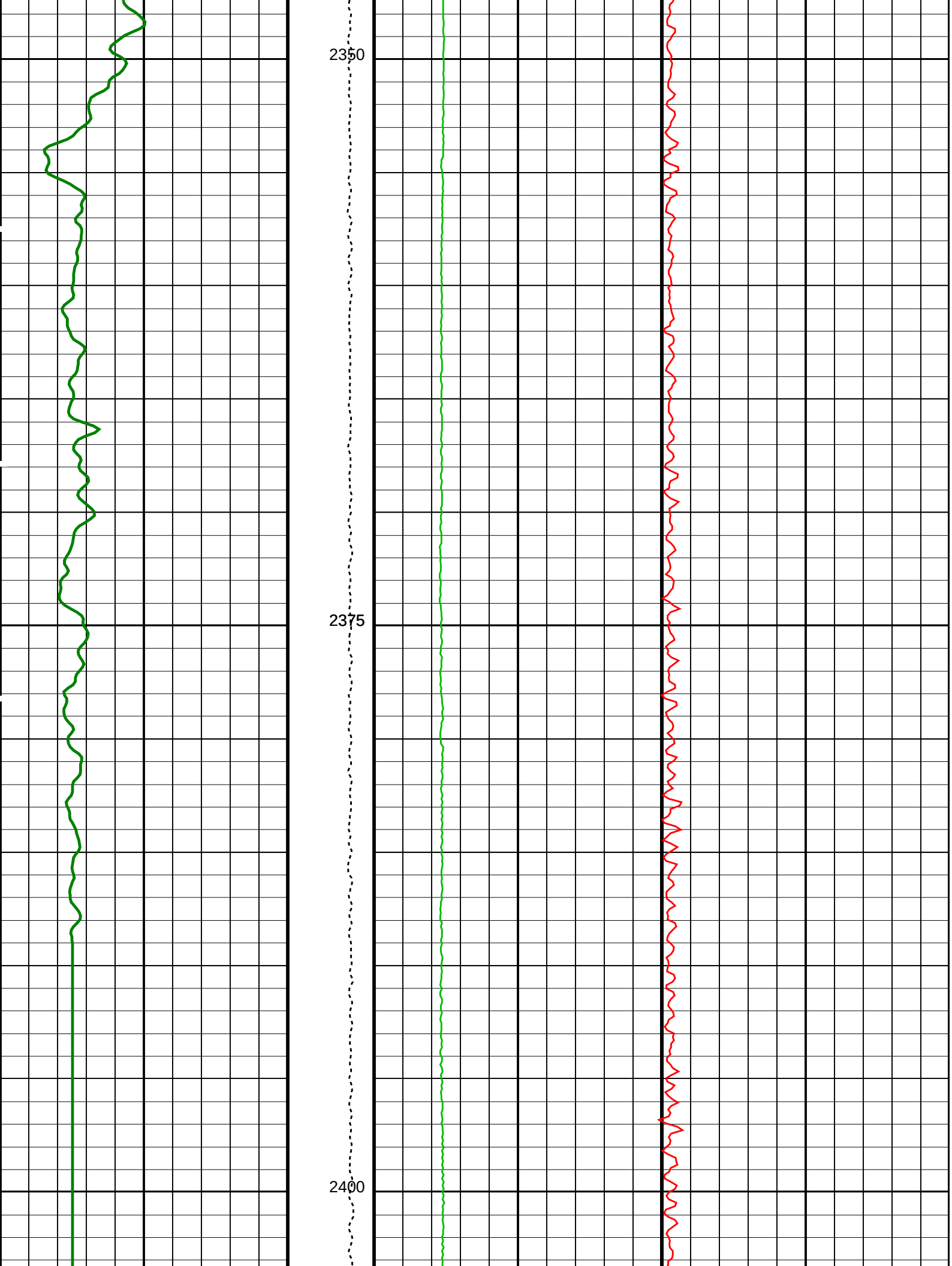
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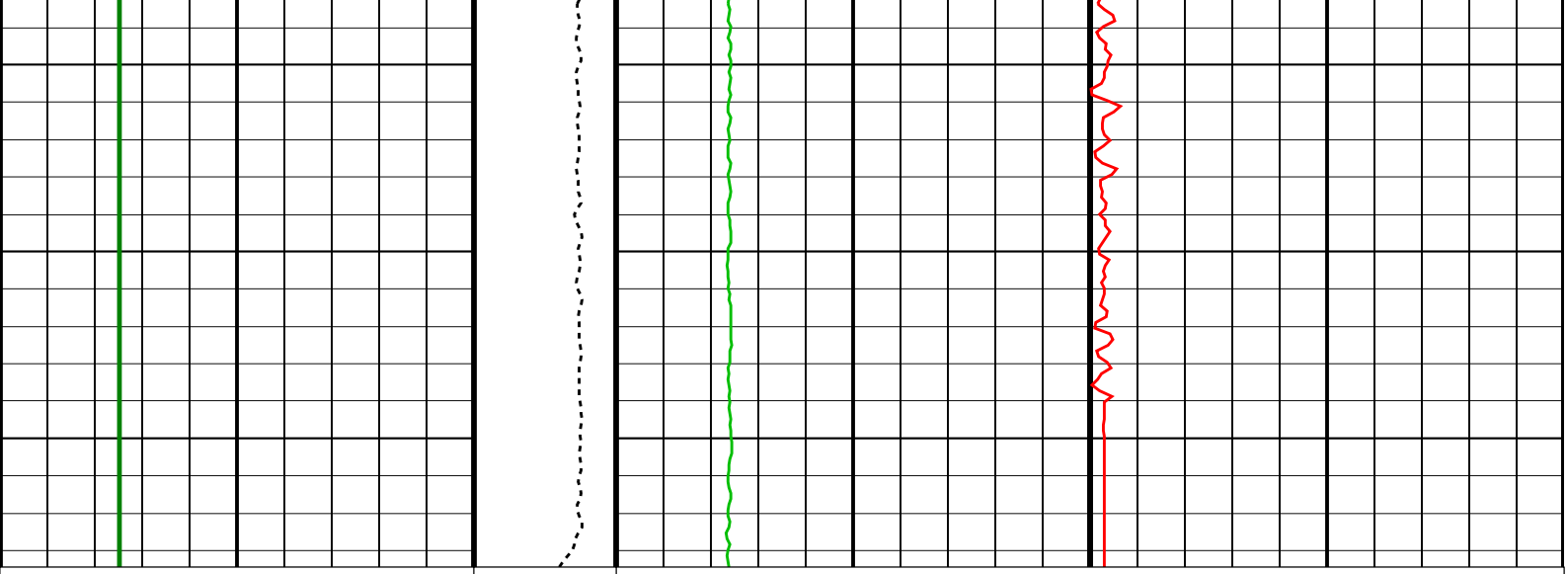


PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	BS	
	HNGS−BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	BS	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00835459	
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	0.942886	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.963783	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.26	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	NORMAL	

Format: MSS_Logging Vertical Scale: 1:200 Graphics File Created: 05−Sep−2021 11:36

OP System Version: 19C0−187

MSS_LDEO−A	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
DTC−H	19C0−187		

Input DLIS Files

DEFAULT	Flip_MSS_LDEO_HRLA_025LUP		PRODUCER	05−Sep−2021 11:34	2418.4 M	2180.8 M

Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_026PUP	FN:18	PRODUCER	05−Sep−2021 11:35		
RTB	MSS_LDEO_HRLA_LDL_026PUP	FN:19	PRODUCER	05−Sep−2021 11:35		

Schlumberger

First Pass

MAXIS Field Log

Company: International Ocean Discovery Program **Well: Expedition 396, Site U1570D**

Output DLIS Files

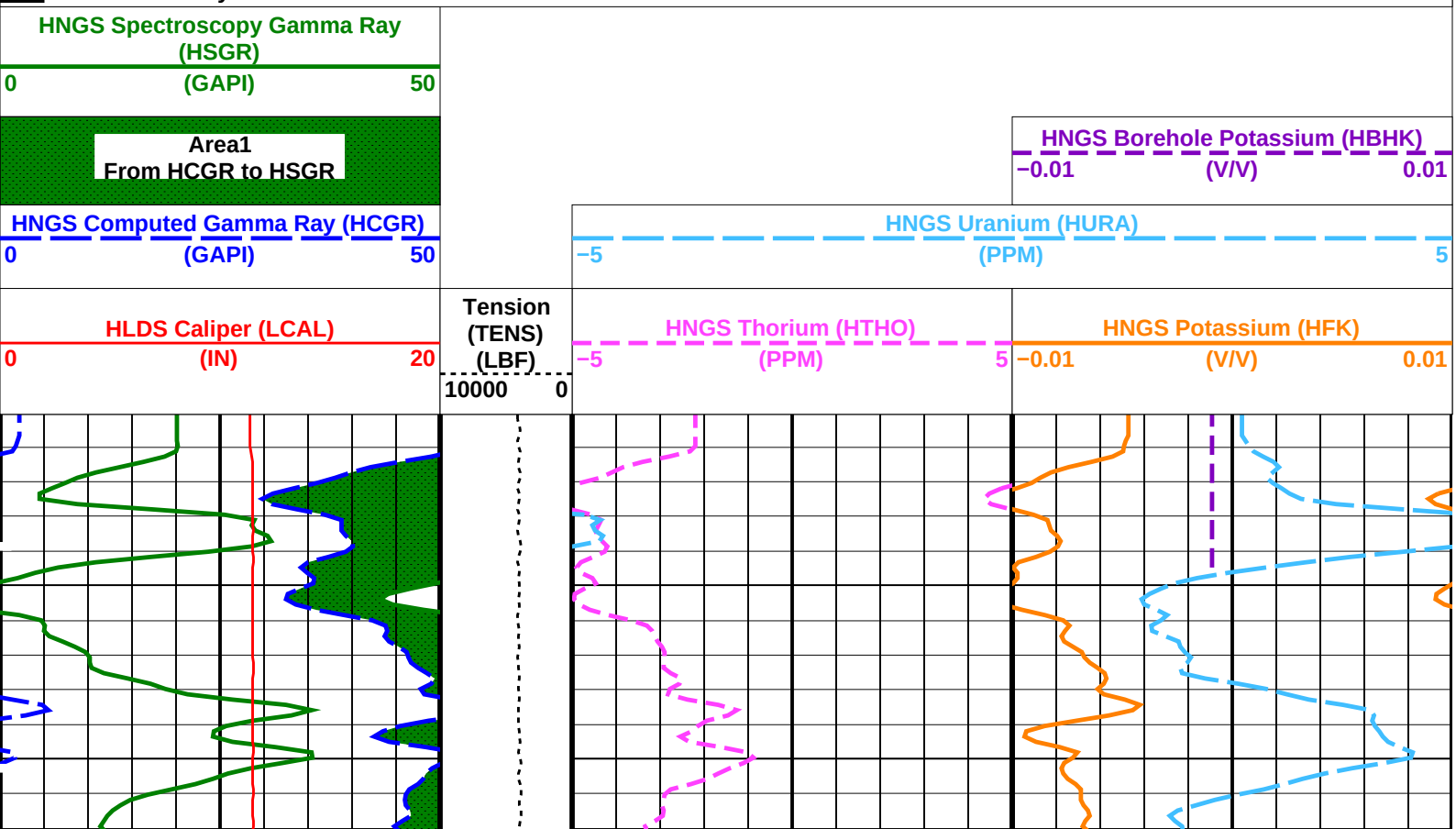
DEFAULT	MSS_LDEO_HRLA_LDL_021LUP	FN:12	PRODUCER	05−Sep−2021 10:00	2418.6 M	2331.7 M
RTB	MSS_LDEO_HRLA_LDL_021LUP	FN:13	PRODUCER	05−Sep−2021 10:00	2418.6 M	2331.7 M

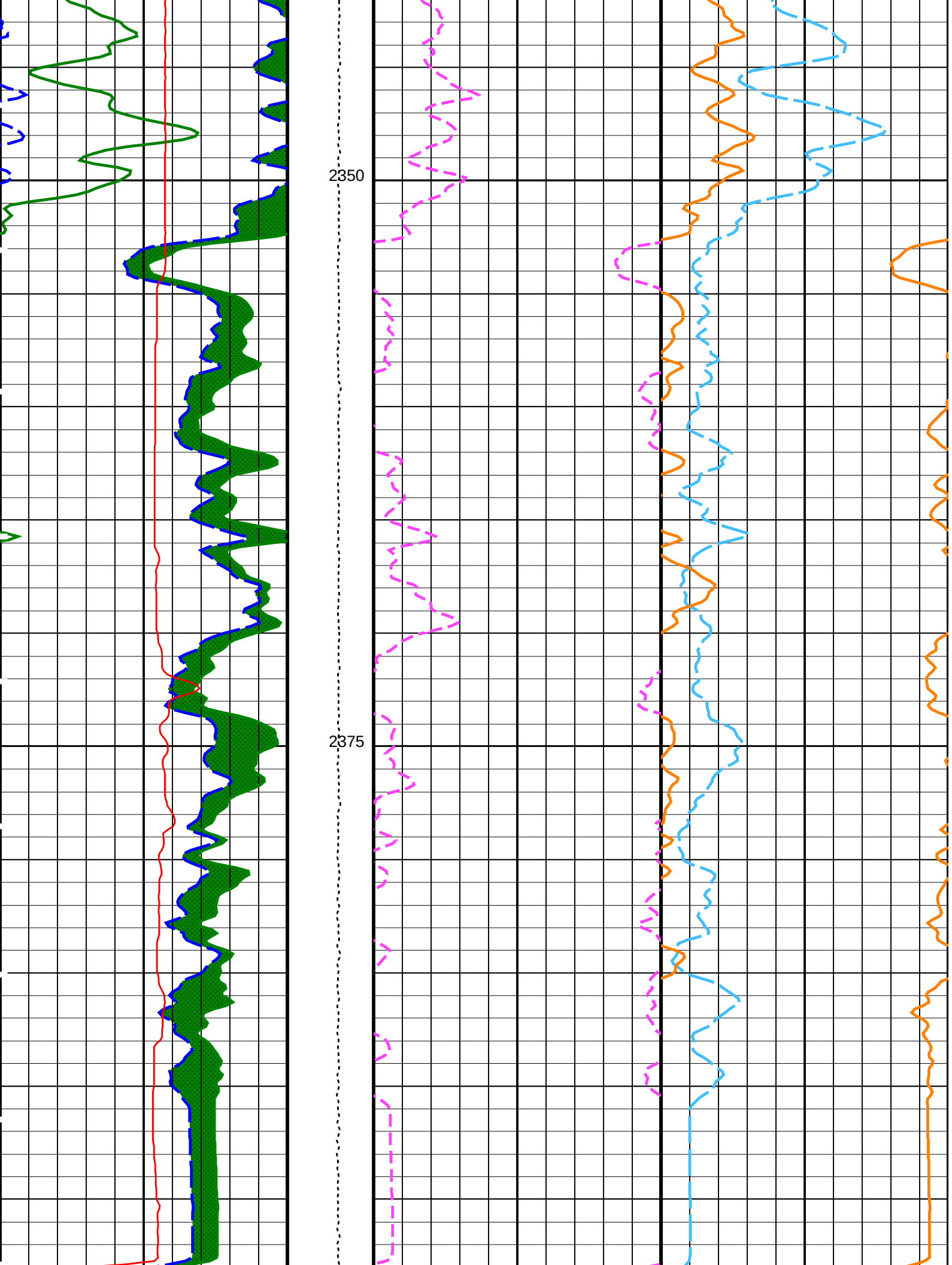
OP System Version: 19C0−187

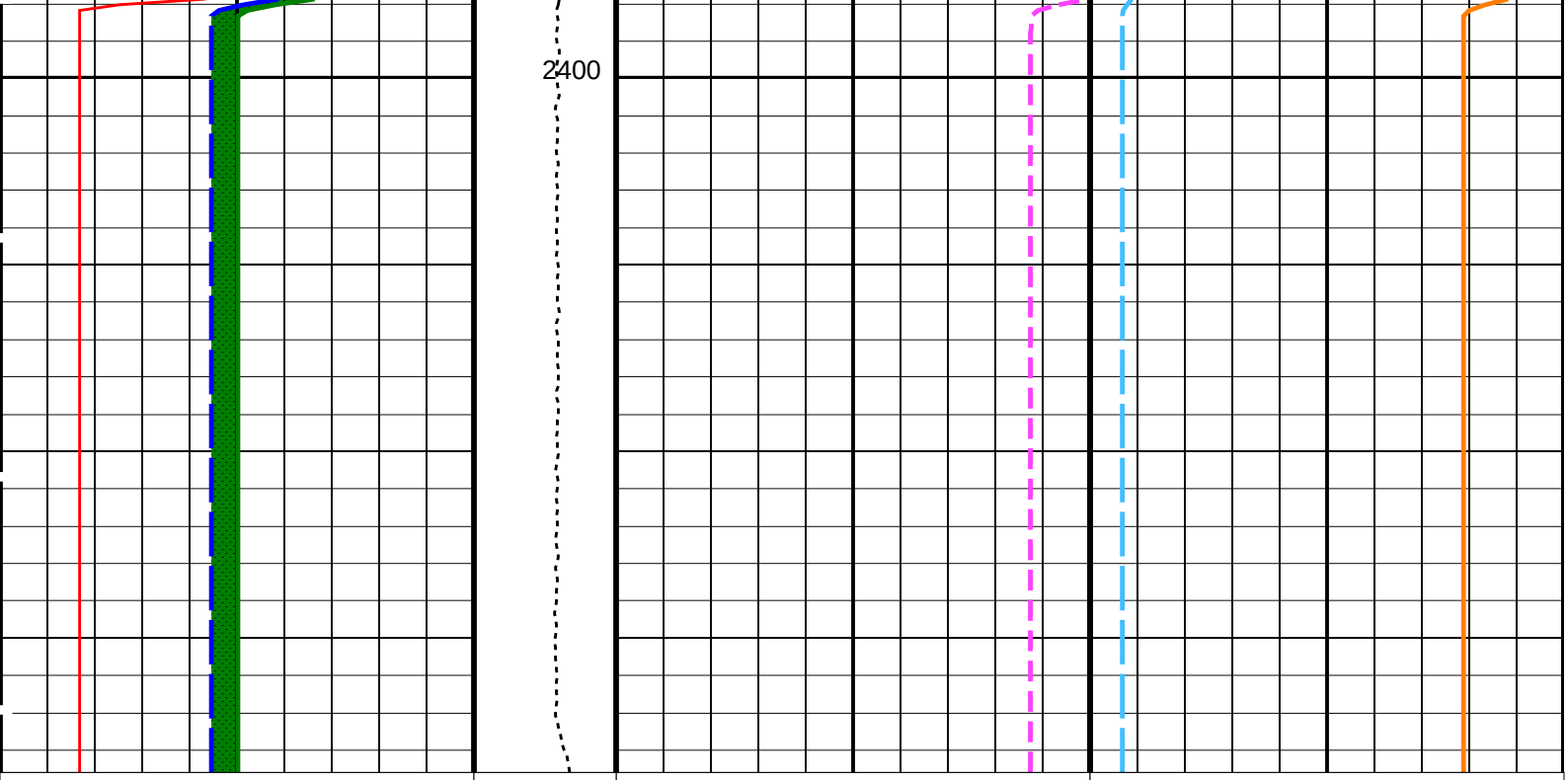
MSS_LDEO−A	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
DTC−H	19C0−187		

PIP SUMMARY

Time Mark Every 60 S




2350
2375



PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	HNGS−BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	LCAL	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00211831	
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	0.940593	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.986688	

System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.26	G/C3

Format: HNGSYields **Vertical Scale: 1:200** **Graphics File Created: 05−Sep−2021 10:00**

OP System Version: 19C0−187

MSS_LDEO−A	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
DTC−H	19C0−187		

Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_021LUP	FN:12	PRODUCER	05−Sep−2021 10:00		
RTB	MSS_LDEO_HRLA_LDL_021LUP	FN:13	PRODUCER	05−Sep−2021 10:00		

Company: International Ocean Discovery Program **Well: Expedition 396, Site U1570D**

Output DLIS Files

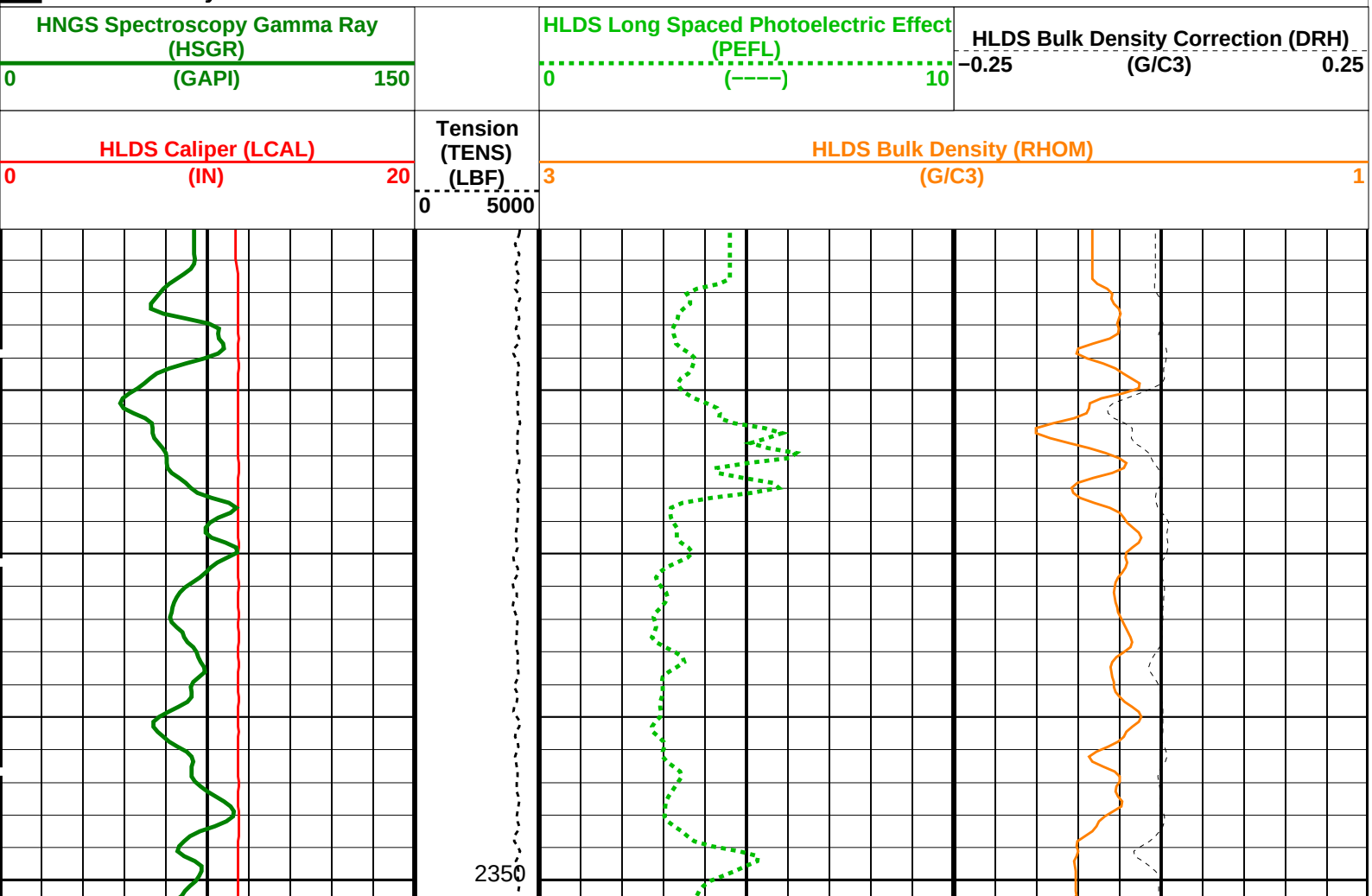
DEFAULT	MSS_LDEO_HRLA_LDL_021LUP	FN:12	PRODUCER	05−Sep−2021 10:00	2418.6 M	2331.7 M
RTB	MSS_LDEO_HRLA_LDL_021LUP	FN:13	PRODUCER	05−Sep−2021 10:00	2418.6 M	2331.7 M

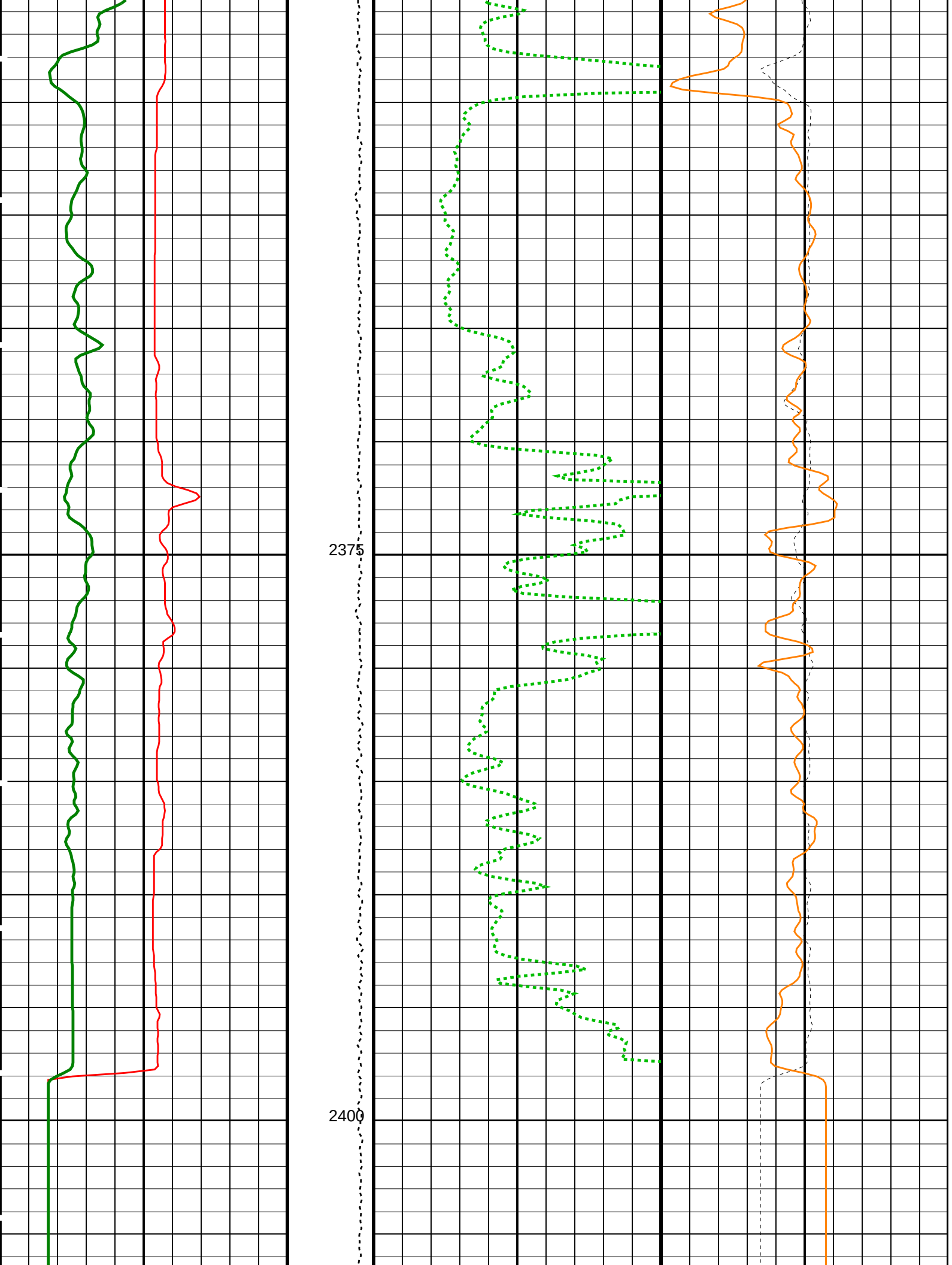
OP System Version: 19C0−187

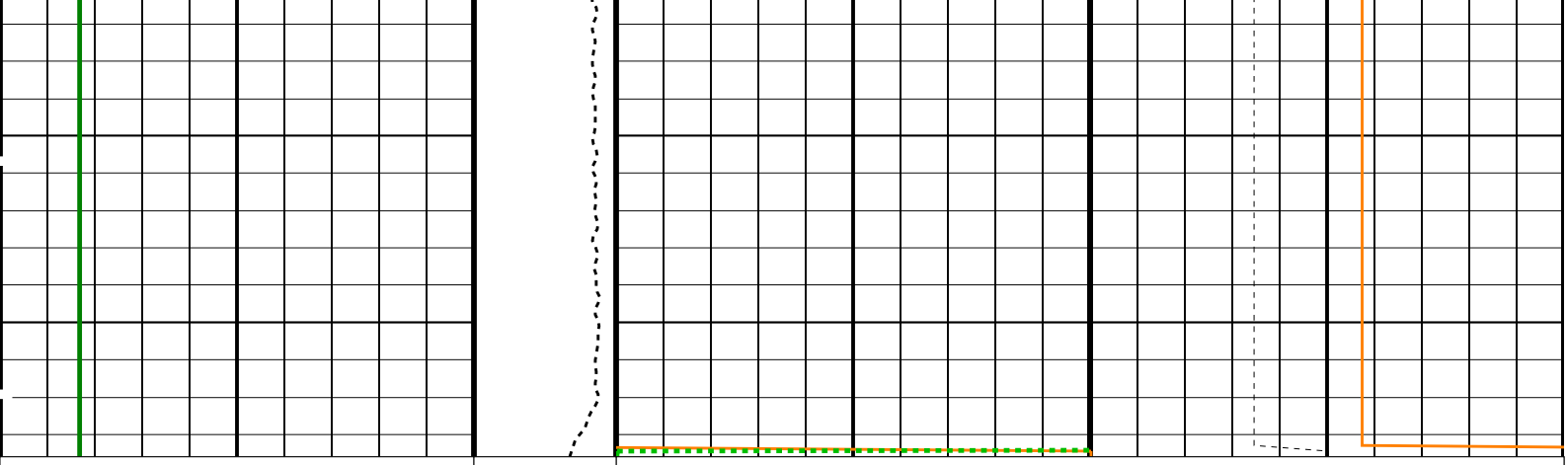
MSS_LDEO−A	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
DTC−H	19C0−187		

PIP SUMMARY

Time Mark Every 60 S




2375
2400



HLDS Caliper (LCAL)	Tension (TENS)	HLDS Bulk Density (RHOM)
0 (IN) 20	(LBF) 0 5000	3 (G/C3) 1

HNGS Spectroscopy Gamma Ray (HSGR)		HLDS Long Spaced Photoelectric Effect (PEFL)	HLDS Bulk Density Correction (DRH)
0 (GAPI) 150		0 (----) 10	−0.25 (G/C3) 0.25

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	HLDS: Hostile Litho−Density Sonde		
DHC	Density Hole Correction	CALIPER	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
LATC	HLDS Activation Correction	ON	
MDEN	Matrix Density	2.6	G/C3
	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	−0.00211831	
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	0.940593	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.986688	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.26	G/C3

Format: HLDSDensityPE **Vertical Scale: 1:200** **Graphics File Created: 05−Sep−2021 10:00**

OP System Version: 19C0−187

MSS_LDEO−A	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
DTC−H	19C0−187		

Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_021LUP	FN:12	PRODUCER	05−Sep−2021 10:00	
RTB	MSS_LDEO_HRLA_LDL_021LUP	FN:13	PRODUCER	05−Sep−2021 10:00	

Company: International Ocean Discovery Program | Well: Expedition 396, Site U1570D

Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_021LUP	FN:12	PRODUCER	05−Sep−2021 10:00	2418.6 M	2331.7 M
RTB	MSS_LDEO_HRLA_LDL_021LUP	FN:13	PRODUCER	05−Sep−2021 10:00	2418.6 M	2331.7 M

OP System Version: 19C0−187

MSS_LDEO−A	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
DTC−H	19C0−187		

PIP SUMMARY

Time Mark Every 60 S

HRLT Mud Resistivity (RM_HRLT)
0.02 (OHMM) 200

HRLT Resistivity 5 (RLA5)
0.2 (OHMM) 2000

HRLT Resistivity 4 (RLA4)
0.2 (OHMM) 2000

HRLT Resistivity 3 (RLA3)
0.2 (OHMM) 2000

HRLT Resistivity 2 (RLA2)
0.2 (OHMM) 2000

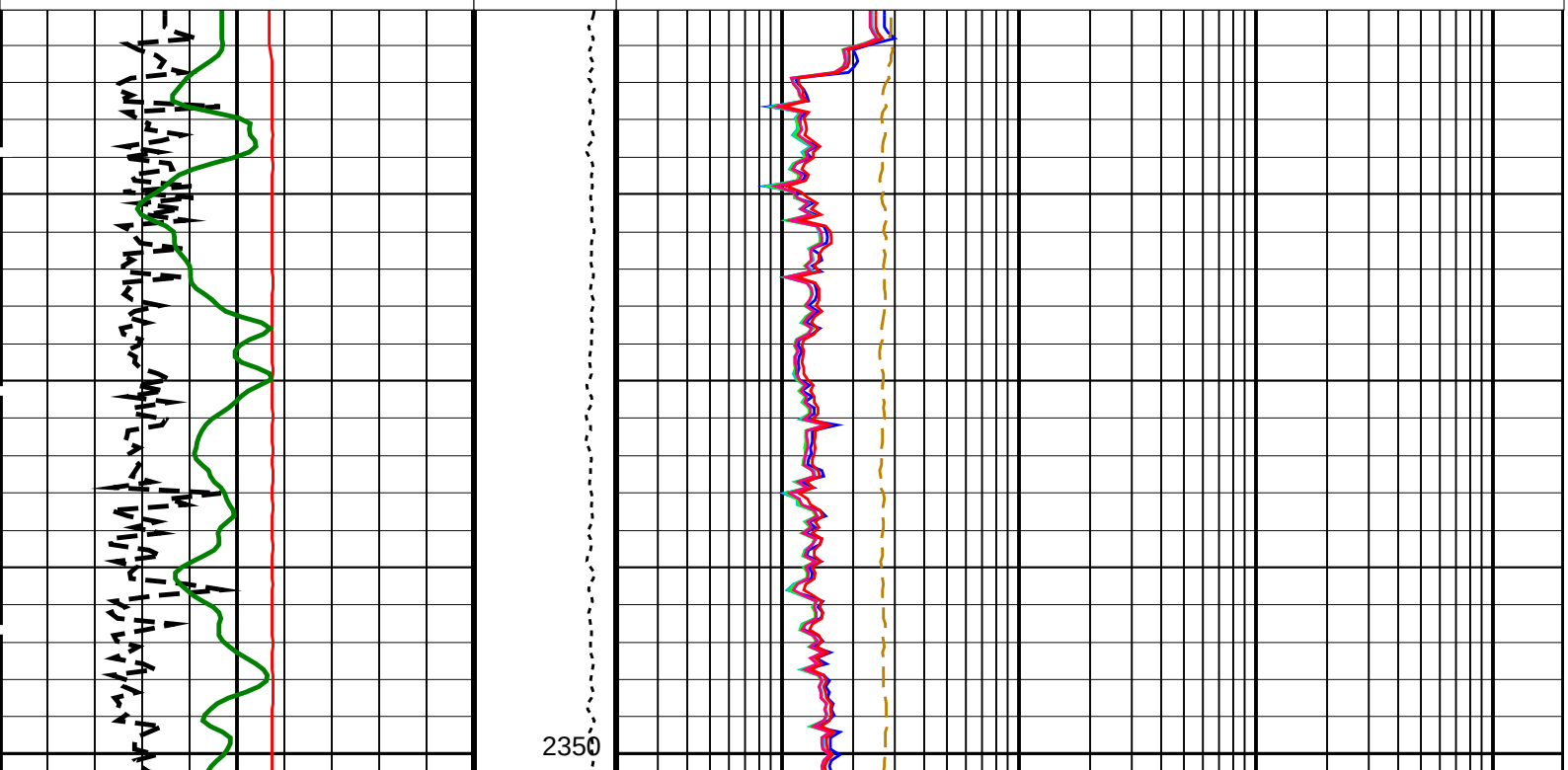
HRLT Resistivity 1 (RLA1)
0.2 (OHMM) 2000

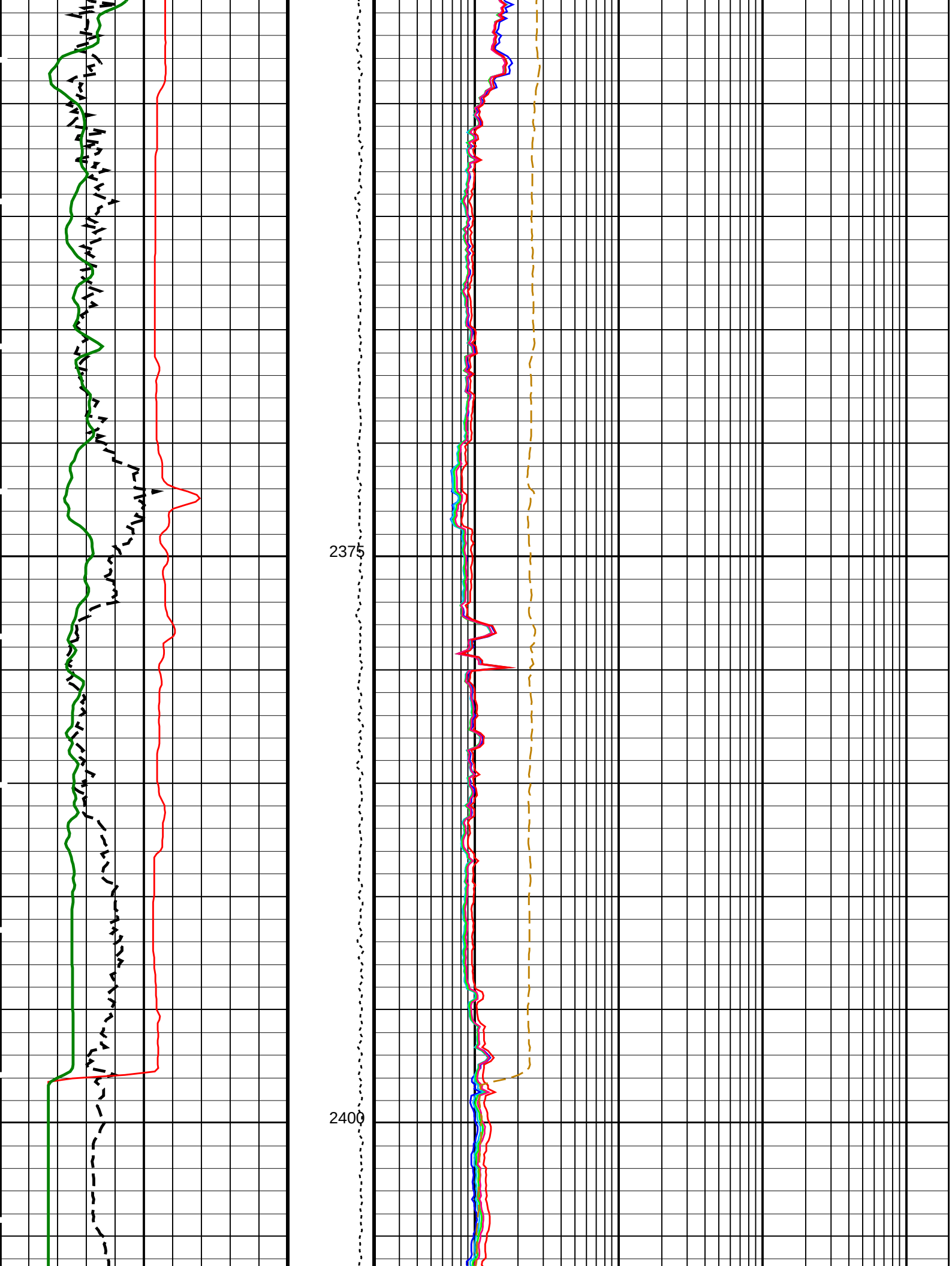
HNGS Spectroscopy Gamma Ray (HSGR)
0 (GAPI) 150

Invasion Diameter (DI_HRLT)
0 (IN) 50

HLDS Caliper (LCAL)
0 (IN) 20

Tension (TENS) (LBF)
0 5000

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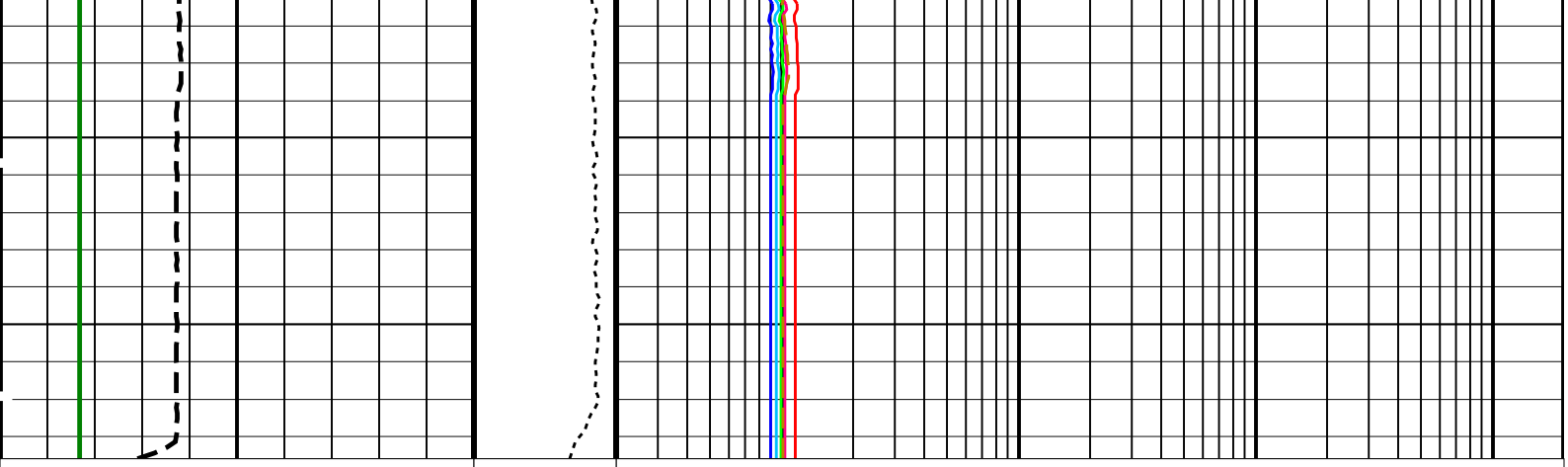


HLDS Caliper (LCAL)	Tension (TENS)	HRLT Resistivity 1 (RLA1)
0 (IN) 20	(LBF) 0 5000	0.2 (OHMM) 2000
Invasion Diameter (DI_HRLT)		HRLT Resistivity 2 (RLA2)
0 (IN) 50		0.2 (OHMM) 2000
HNGS Spectroscopy Gamma Ray (HSGR)		HRLT Resistivity 3 (RLA3)
0 (GAPI) 150		0.2 (OHMM) 2000
		HRLT Resistivity 4 (RLA4)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

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	7	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	
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	Eccentered	
SHT	Surface Hole Temperature	20	DEGC
	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)	7	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	−0.00211831	
HALF	HNGS Alpha Filter Length	60	IN

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	0.940593	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.986688	
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.26	G/C3
TD	Total Depth	2292	M

Format: HRLT Vertical Scale: 1:200 Graphics File Created: 05−Sep−2021 10:00

OP System Version: 19C0−187

MSS_LDEO−A	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
DTC−H	19C0−187		

Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_021LUP	FN:12	PRODUCER	05−Sep−2021 10:00		
RTB	MSS_LDEO_HRLA_LDL_021LUP	FN:13	PRODUCER	05−Sep−2021 10:00		

Company: International Ocean Discovery Program Well: Expedition 396, Site U1570D

Output DLIS Files

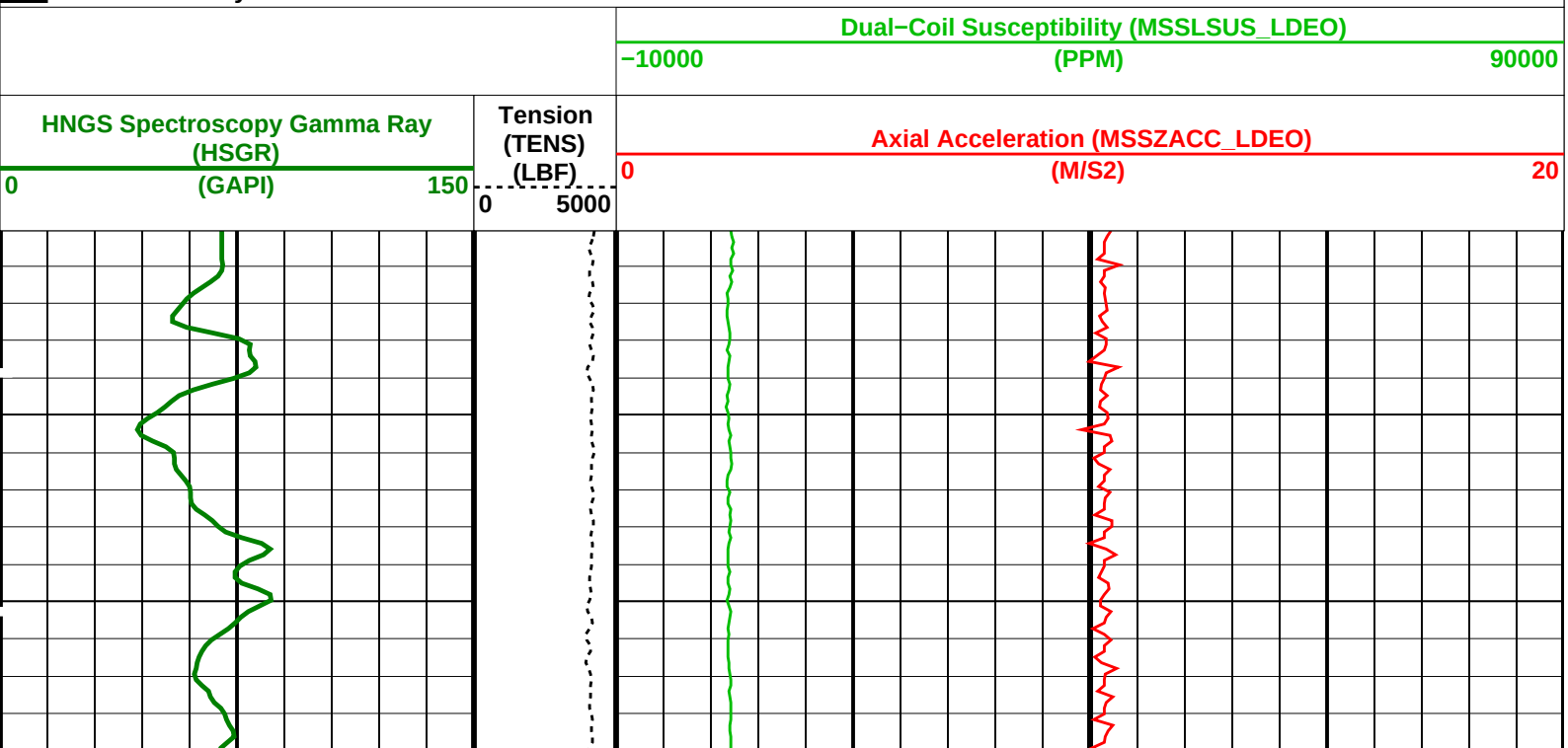
DEFAULT	MSS_LDEO_HRLA_LDL_021LUP	FN:12	PRODUCER	05−Sep−2021 10:00	2418.6 M	2331.7 M
RTB	MSS_LDEO_HRLA_LDL_021LUP	FN:13	PRODUCER	05−Sep−2021 10:00	2418.6 M	2331.7 M

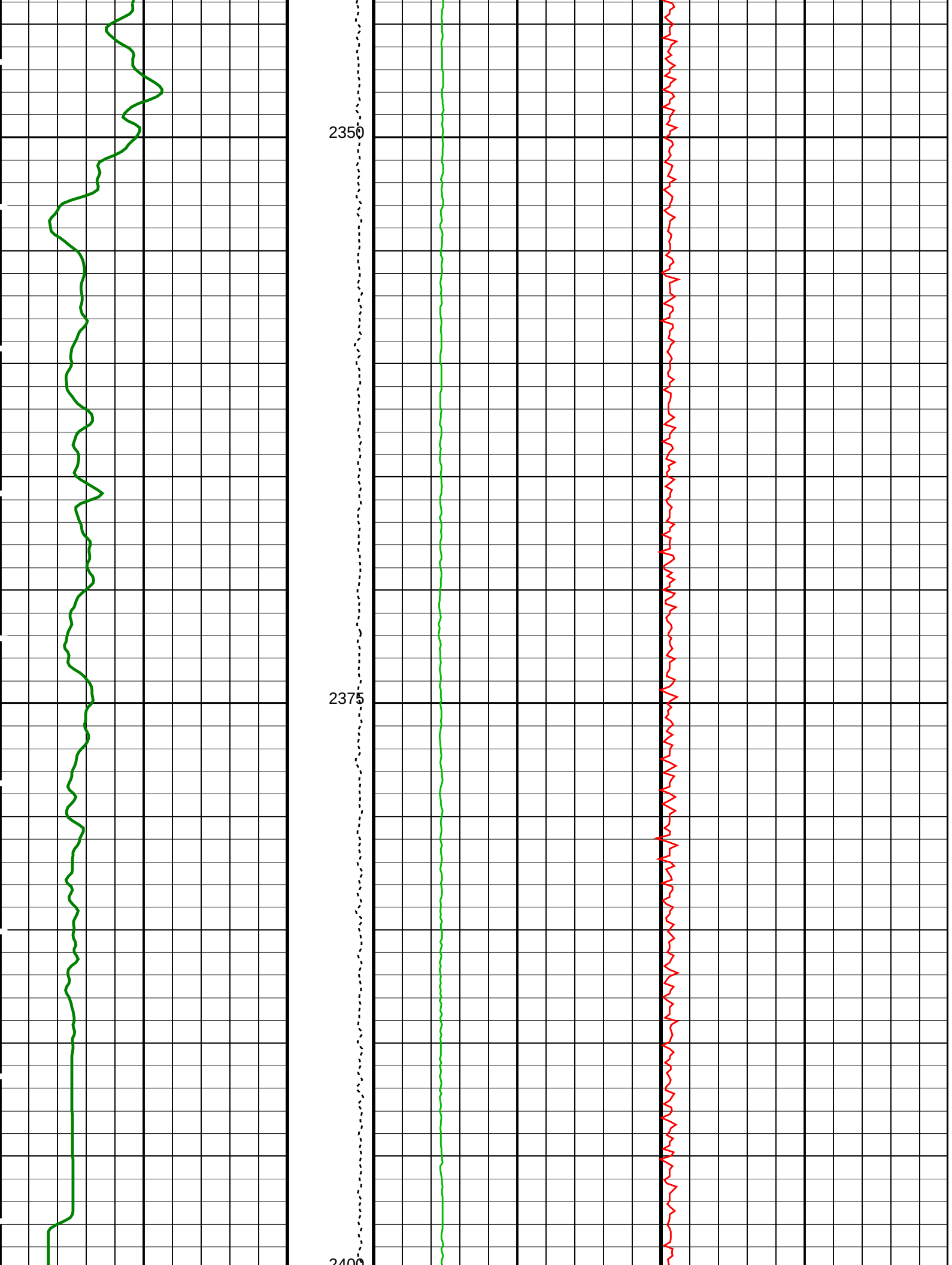
OP System Version: 19C0−187

MSS_LDEO−A	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
DTC−H	19C0−187		

PIP SUMMARY

Time Mark Every 60 S

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2375
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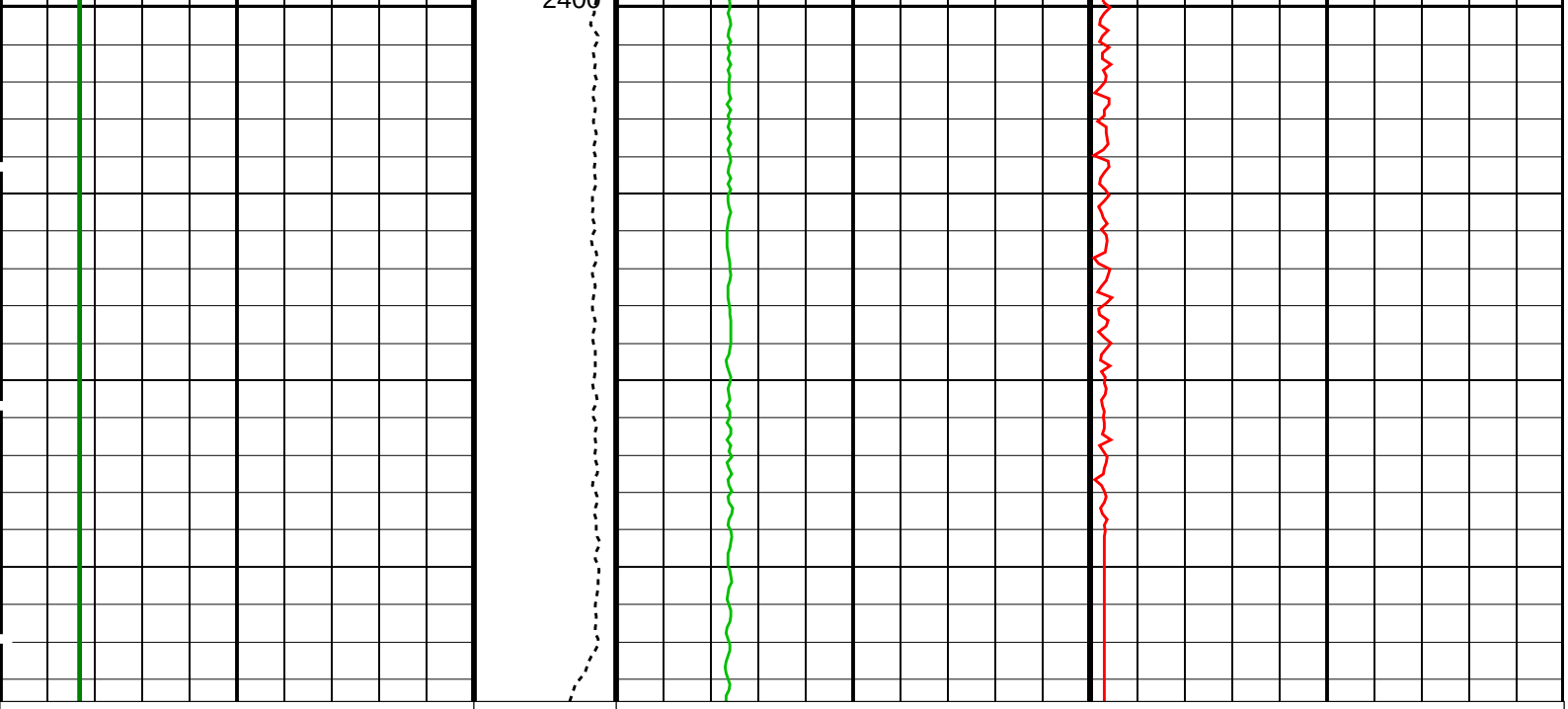


HNGS Spectroscopy Gamma Ray (HSGR)	Tension (TENS) (LBF)	Axial Acceleration (MSSZACC_LDEO)
0 (GAPI) 150	0 5000	0 (M/S2) 20
		Dual−Coil Susceptibility (MSSLSUS_LDEO)
		−10000 (PPM) 90000

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	HNGS−BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	LCAL	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00211831	
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	0.940593	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.986688	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.26	G/C3

Format: MSS_Logging Vertical Scale: 1:200 Graphics File Created: 05−Sep−2021 10:00

OP System Version: 19C0−187

MSS_LDEO−A	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187

HNGC−B	19C0−187	HNGS−BA	19C0−187
DTC−H	19C0−187		

Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_021LUP	FN:12	PRODUCER	05−Sep−2021 10:00	
RTB	MSS_LDEO_HRLA_LDL_021LUP	FN:13	PRODUCER	05−Sep−2021 10:00	

Schlumberger

Second Pass

MAXIS Field Log

Company: International Ocean Discovery Program **Well: Expedition 396, Site U1570D**

Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_022LUP	FN:14	PRODUCER	05−Sep−2021 10:23	2416.3 M	2208.3 M
RTB	MSS_LDEO_HRLA_LDL_022LUP	FN:15	PRODUCER	05−Sep−2021 10:23	2416.3 M	2208.3 M

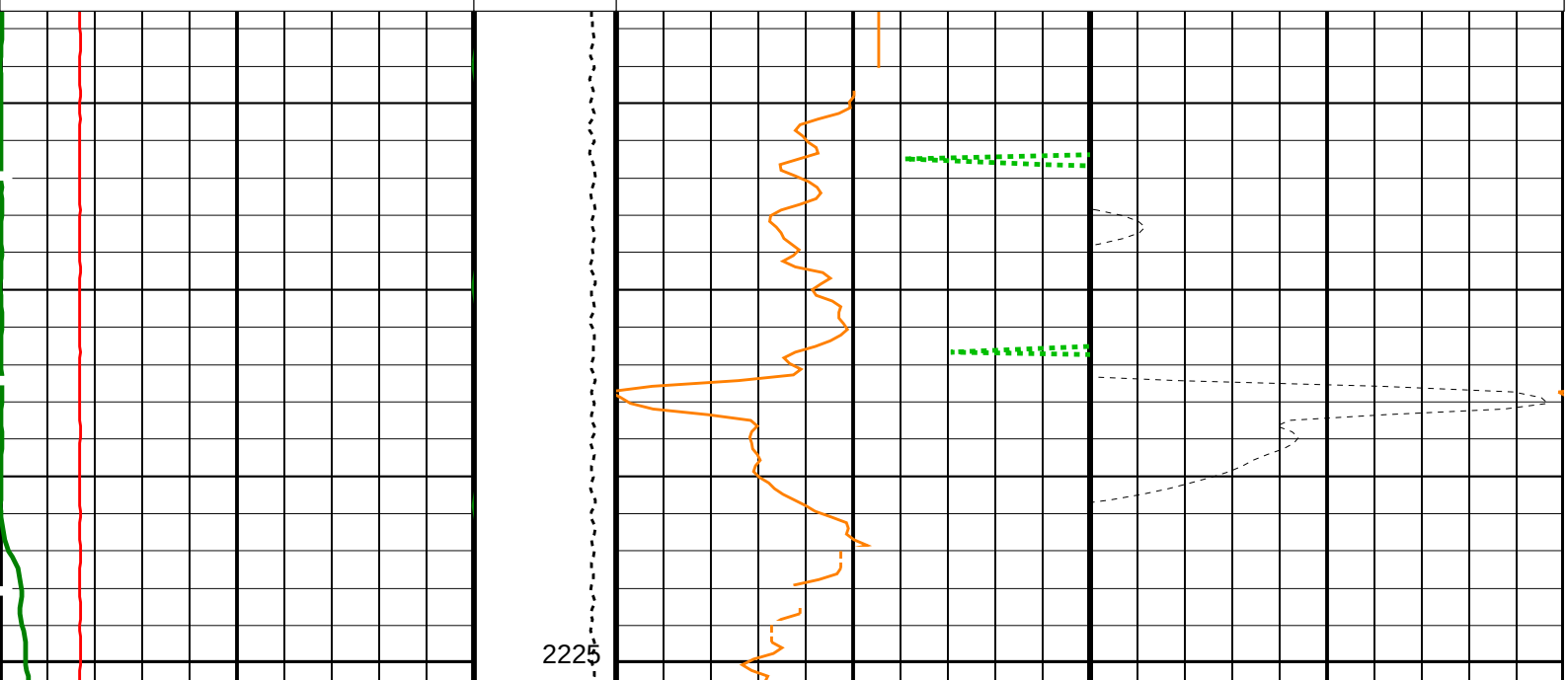
OP System Version: 19C0−187

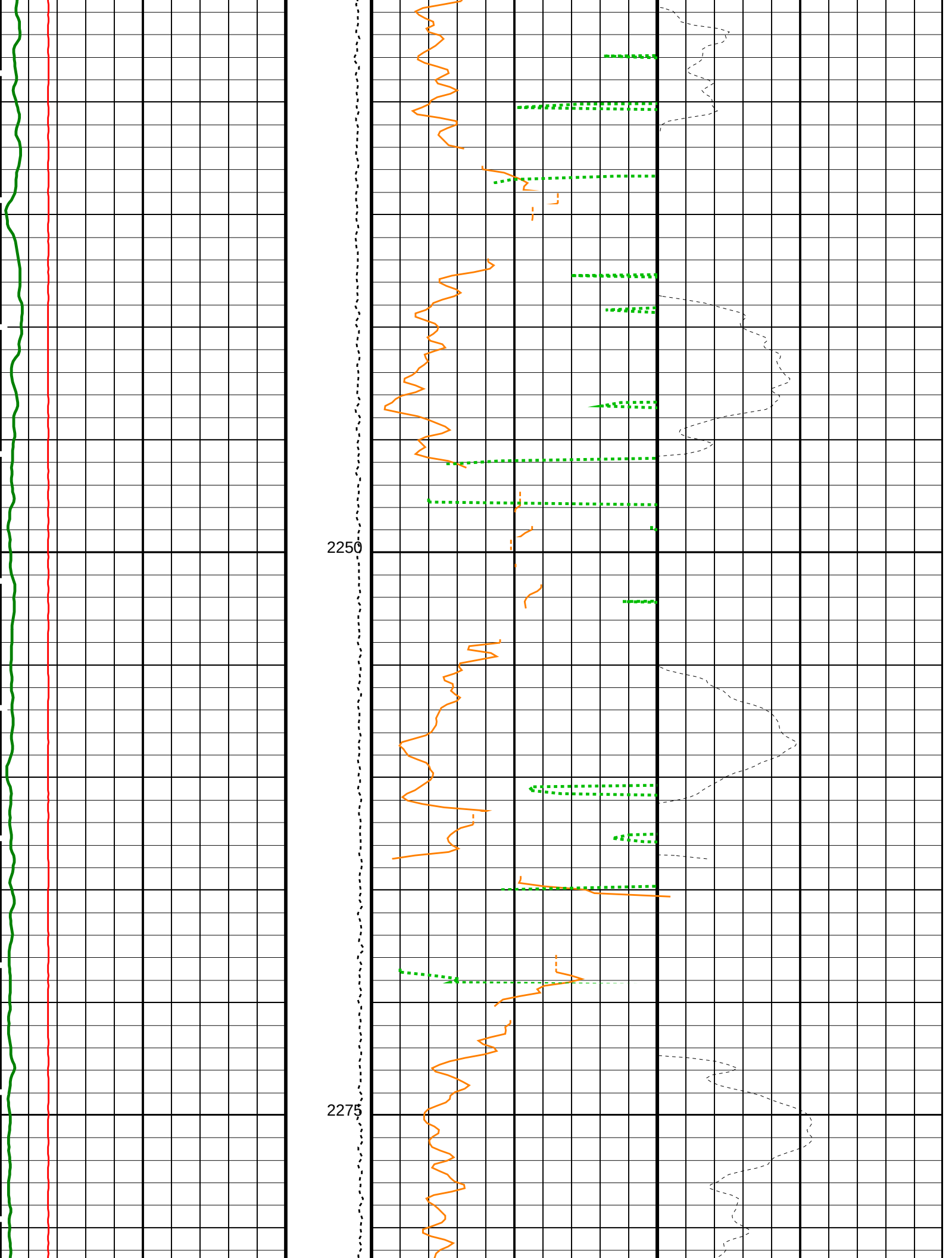
MSS_LDEO−A	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
DTC−H	19C0−187		

PIP SUMMARY

Time Mark Every 60 S

HNGS Spectroscopy Gamma Ray (HSGR)		HLDS Long Spaced Photoelectric Effect (PEFL)	HLDS Bulk Density Correction (DRH)
0 (GAPI) 150		0 (−−−−) 10	−0.25 (G/C3) 0.25
HLDS Caliper (LCAL)	**Tension (TENS) (LBF)**	**HLDS Bulk Density (RHOM)**	
0 (IN) 20	0 5000	3 (G/C3) 1	

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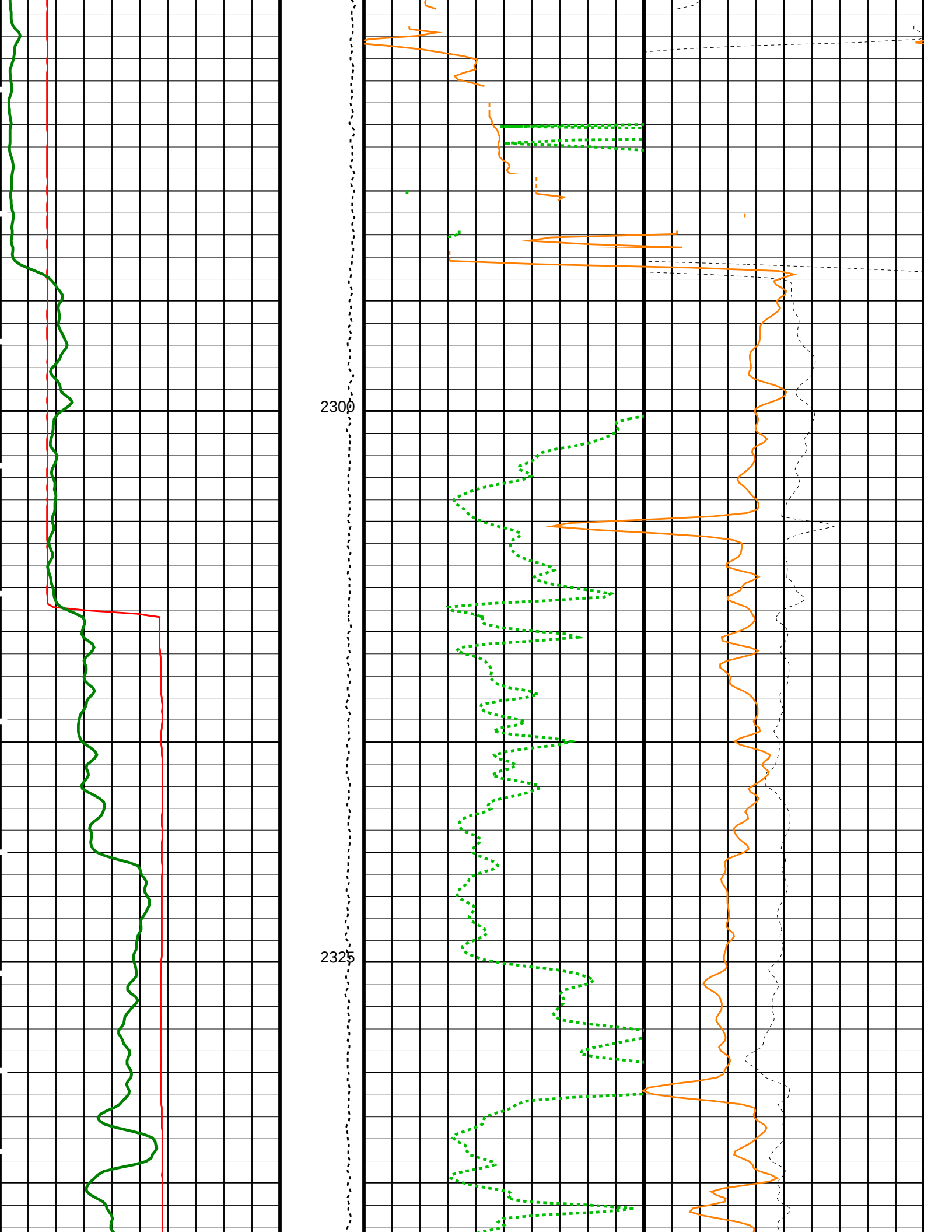
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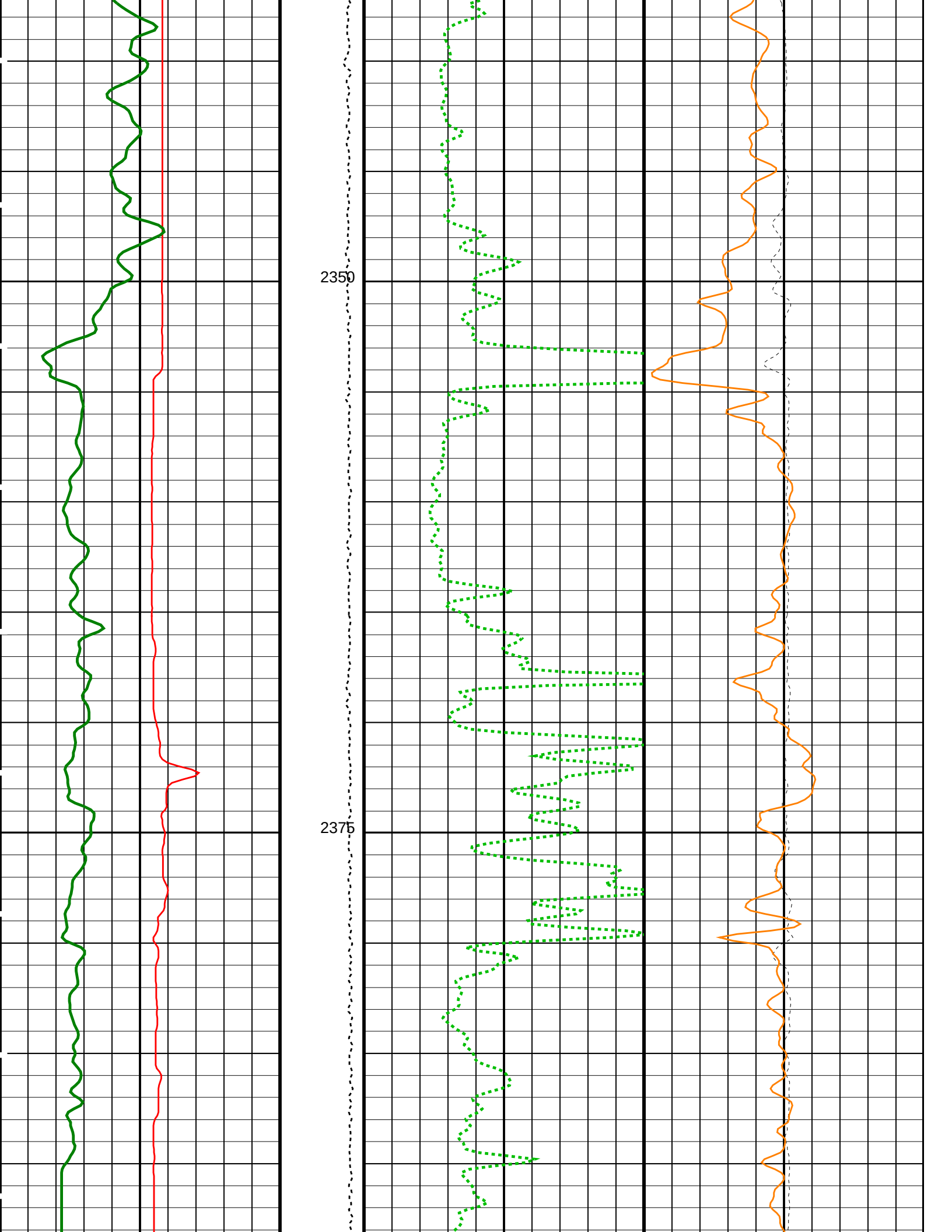
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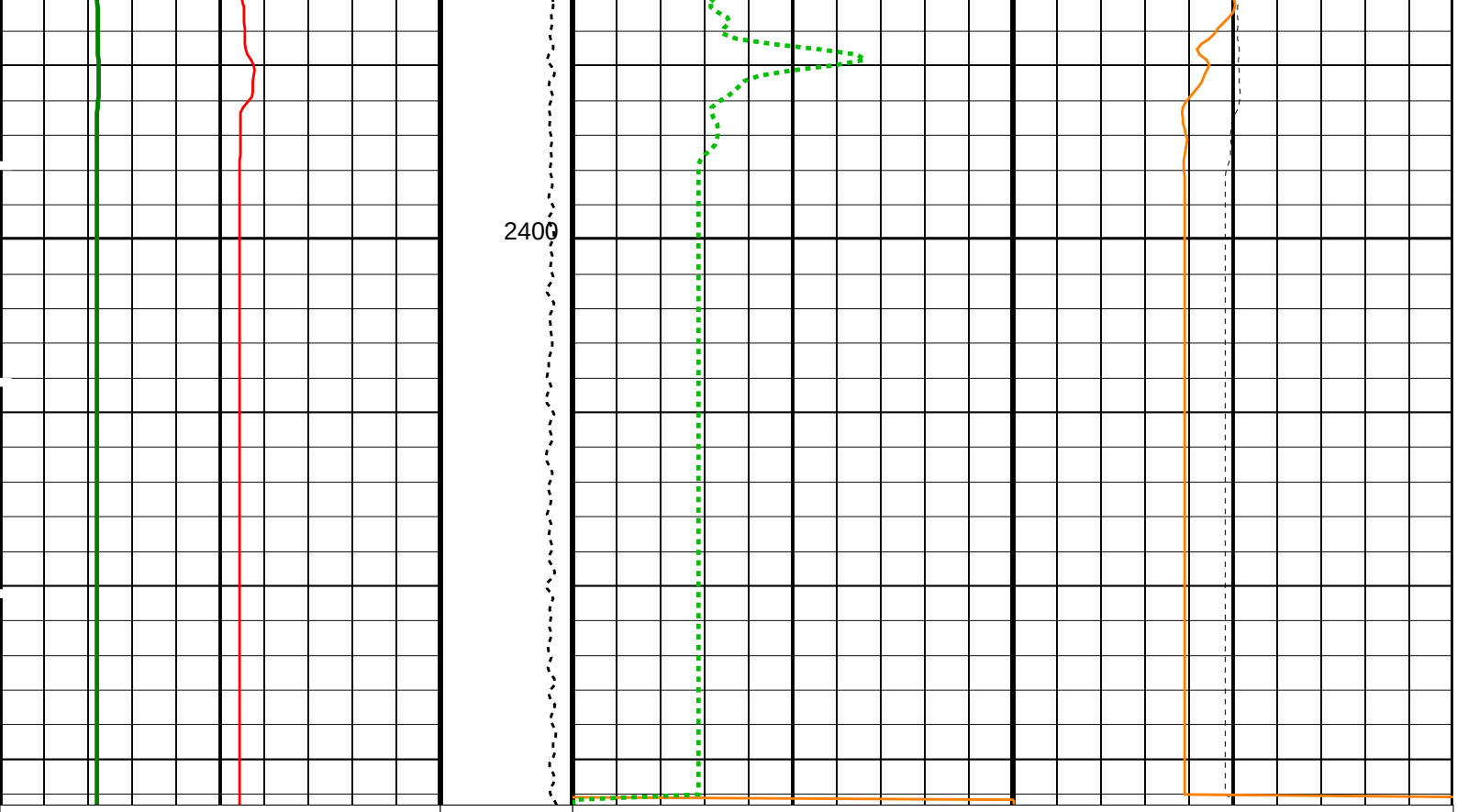
2375



Parameters

DLIS Name	Description	Value	
	HRLT-B: High Resolution Laterolog Array - B		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	HLDS: Hostile Litho-Density Sonde		
DHC	Density Hole Correction	CALIPER	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
LATC	HLDS Activation Correction	ON	
MDEN	Matrix Density	2.6	G/C3
	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	-0.000947187	
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	0.973083	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.989447	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.26	G/C3

Format: HLDSDensityPE Vertical Scale: 1:200 Graphics File Created: 05−Sep−2021 10:23

OP System Version: 19C0−187

MSS_LDEO−A	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
DTC−H	19C0−187		

Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_022LUP	FN:14	PRODUCER	05−Sep−2021 10:23		
RTB	MSS_LDEO_HRLA_LDL_022LUP	FN:15	PRODUCER	05−Sep−2021 10:23		

Company: International Ocean Discovery Program Well: Expedition 396, Site U1570D

Output DLIS Files

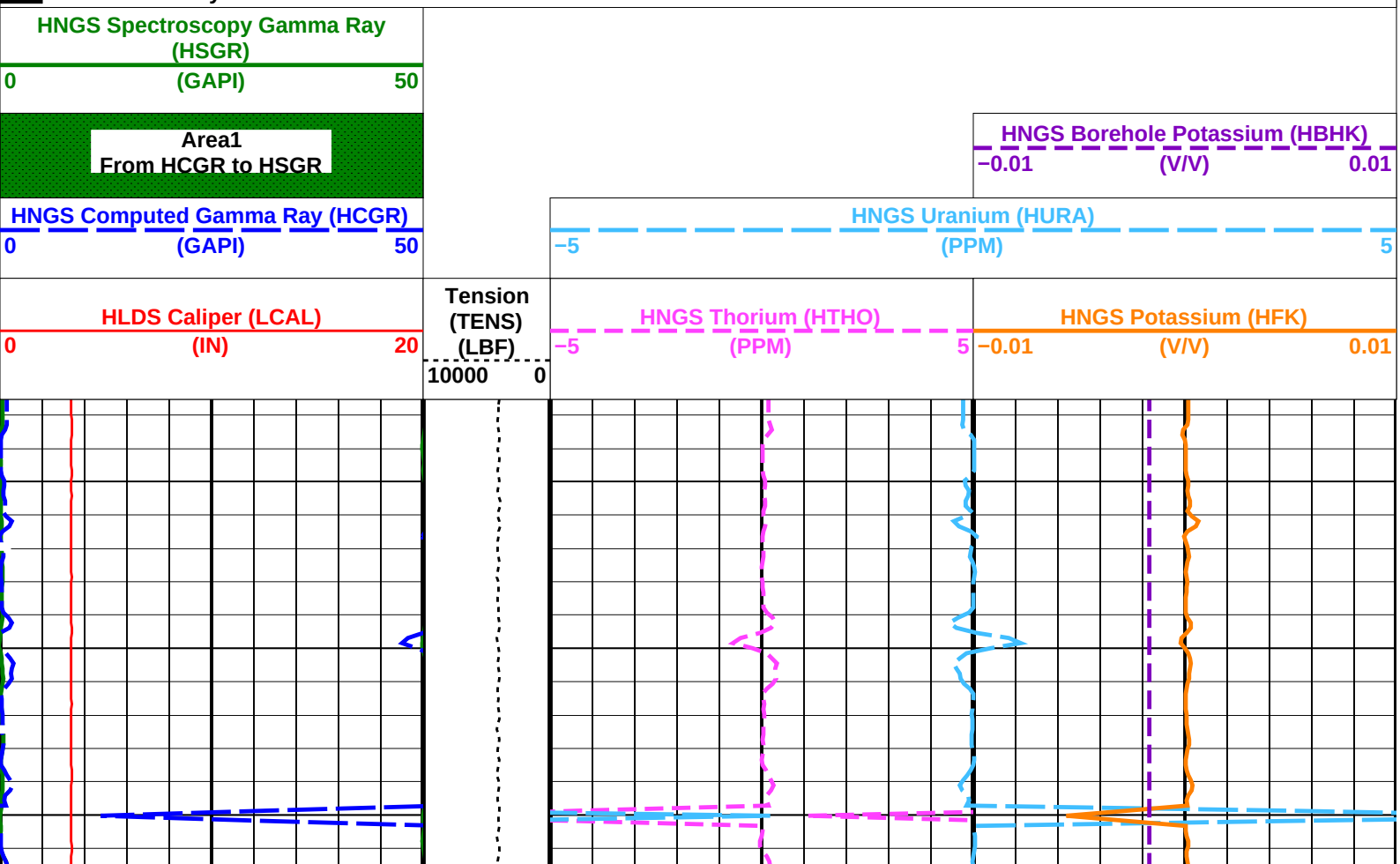
DEFAULT	MSS_LDEO_HRLA_LDL_022LUP	FN:14	PRODUCER	05−Sep−2021 10:23	2416.3 M	2208.3 M
RTB	MSS_LDEO_HRLA_LDL_022LUP	FN:15	PRODUCER	05−Sep−2021 10:23	2416.3 M	2208.3 M

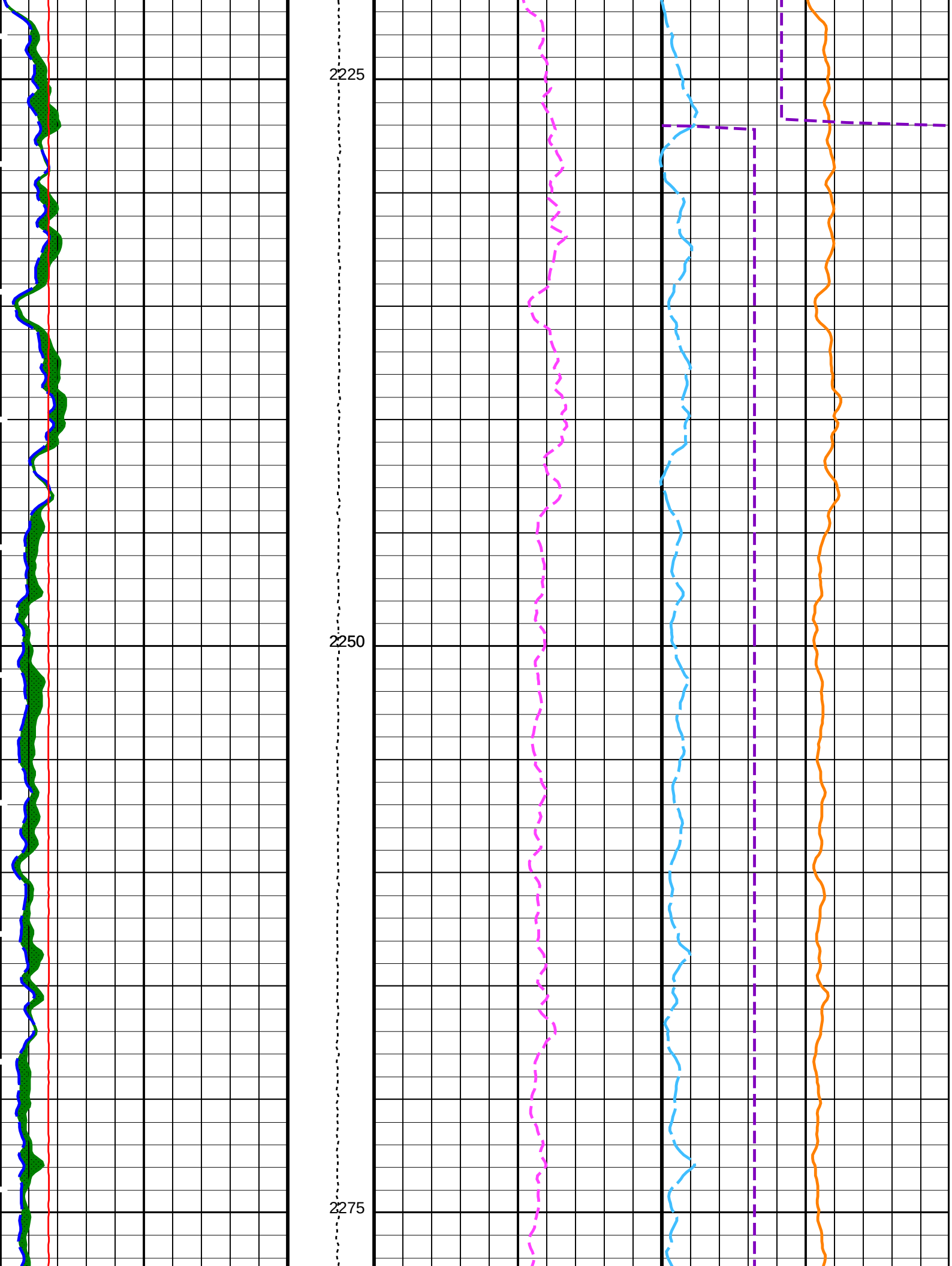
OP System Version: 19C0−187

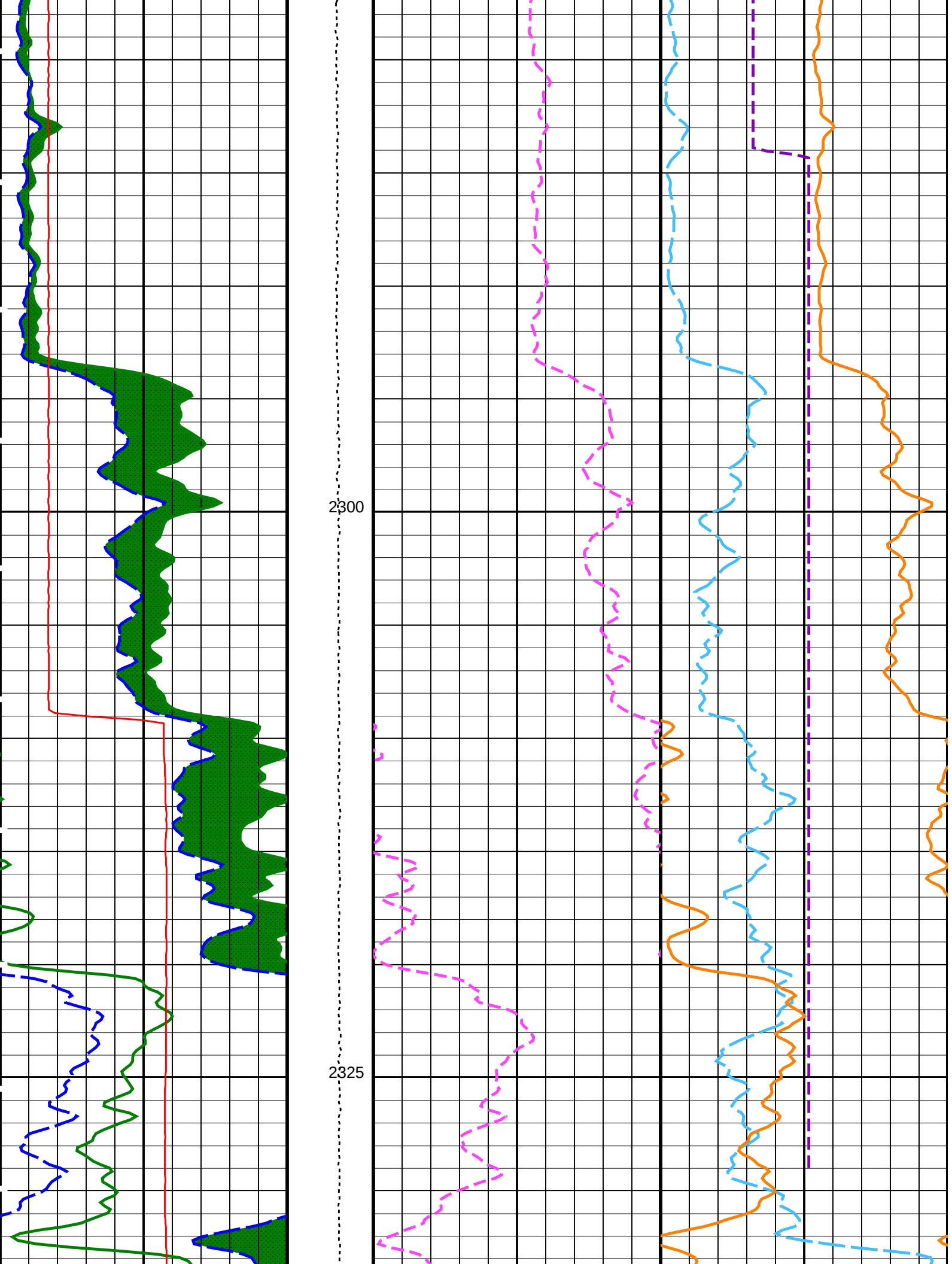
MSS_LDEO−A	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
DTC−H	19C0−187		

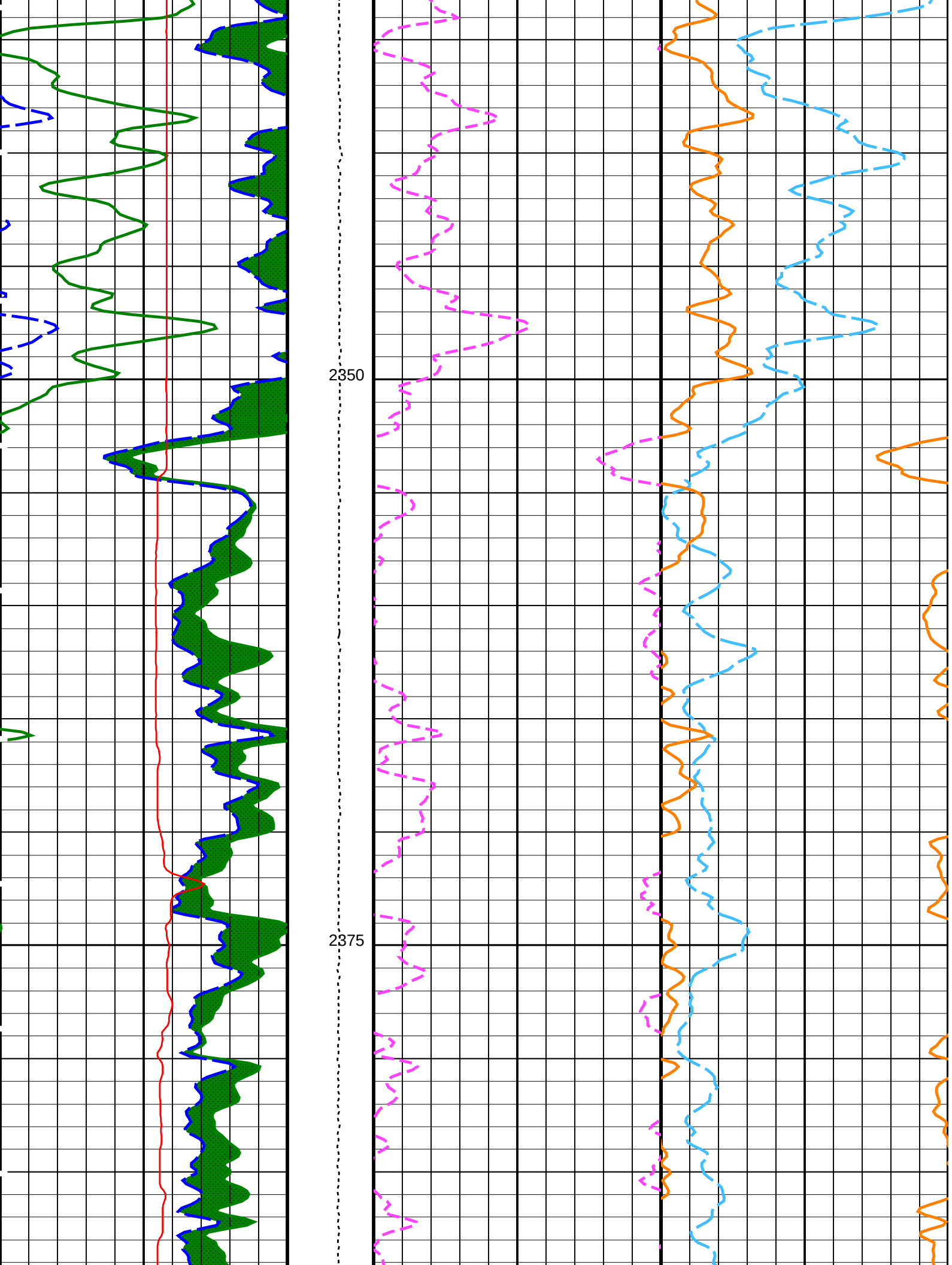
PIP SUMMARY

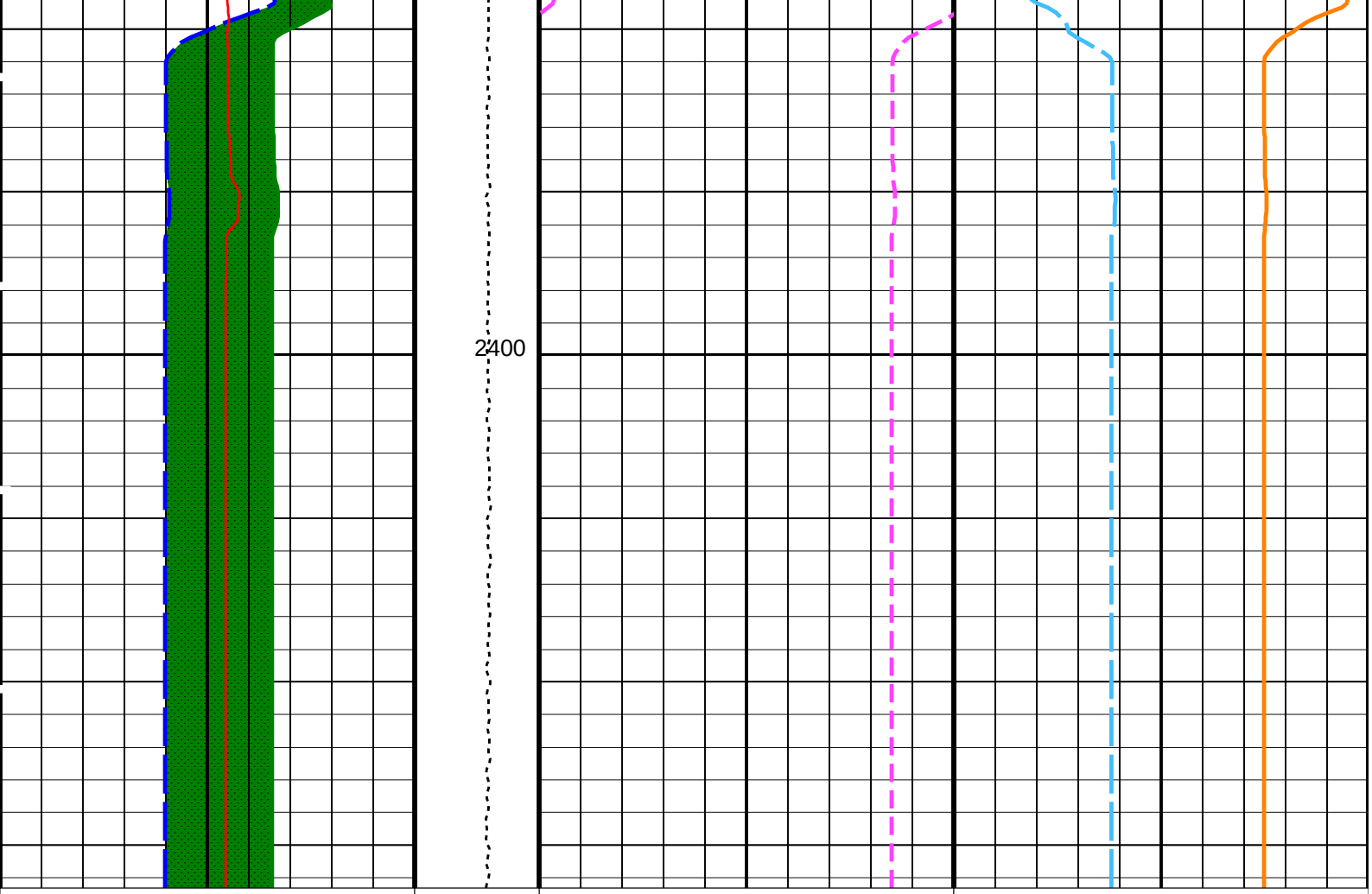
Time Mark Every 60 S




2225
2250
2275


2300
2325


2350
2375



Parameters

DLIS Name	Description	Value	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	HNGS−BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	LCAL	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.000947187	

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	0.973083	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.989447	
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.26	G/C3

Format: HNGSYields Vertical Scale: 1:200 Graphics File Created: 05−Sep−2021 10:23

OP System Version: 19C0−187

MSS_LDEO−A	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
DTC−H	19C0−187		

Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_022LUP	FN:14	PRODUCER	05−Sep−2021 10:23		
RTB	MSS_LDEO_HRLA_LDL_022LUP	FN:15	PRODUCER	05−Sep−2021 10:23		

Company: International Ocean Discovery Program Well: Expedition 396, Site U1570D

Output DLIS Files

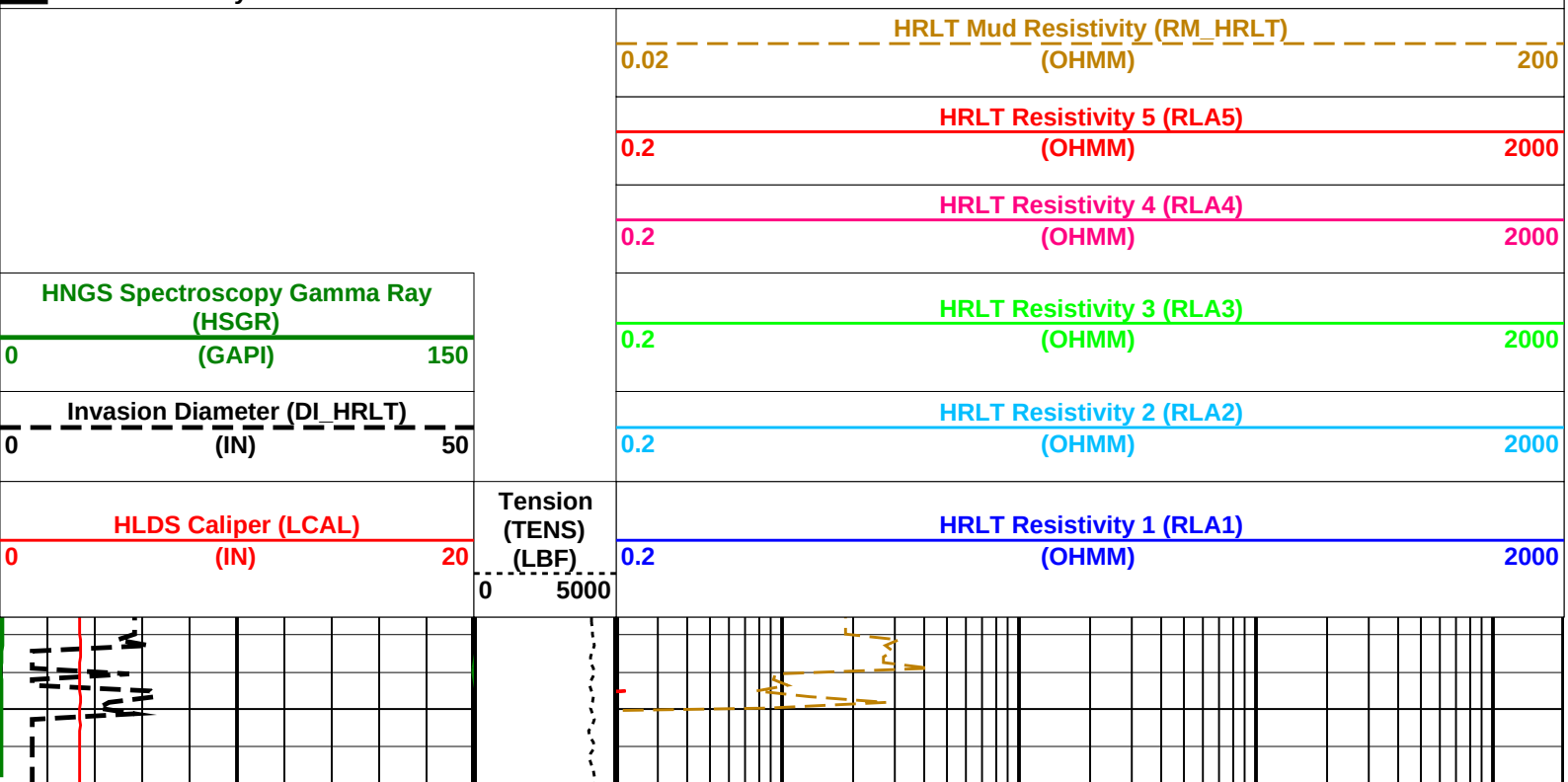
DEFAULT	MSS_LDEO_HRLA_LDL_022LUP	FN:14	PRODUCER	05−Sep−2021 10:23	2416.3 M	2208.3 M
RTB	MSS_LDEO_HRLA_LDL_022LUP	FN:15	PRODUCER	05−Sep−2021 10:23	2416.3 M	2208.3 M

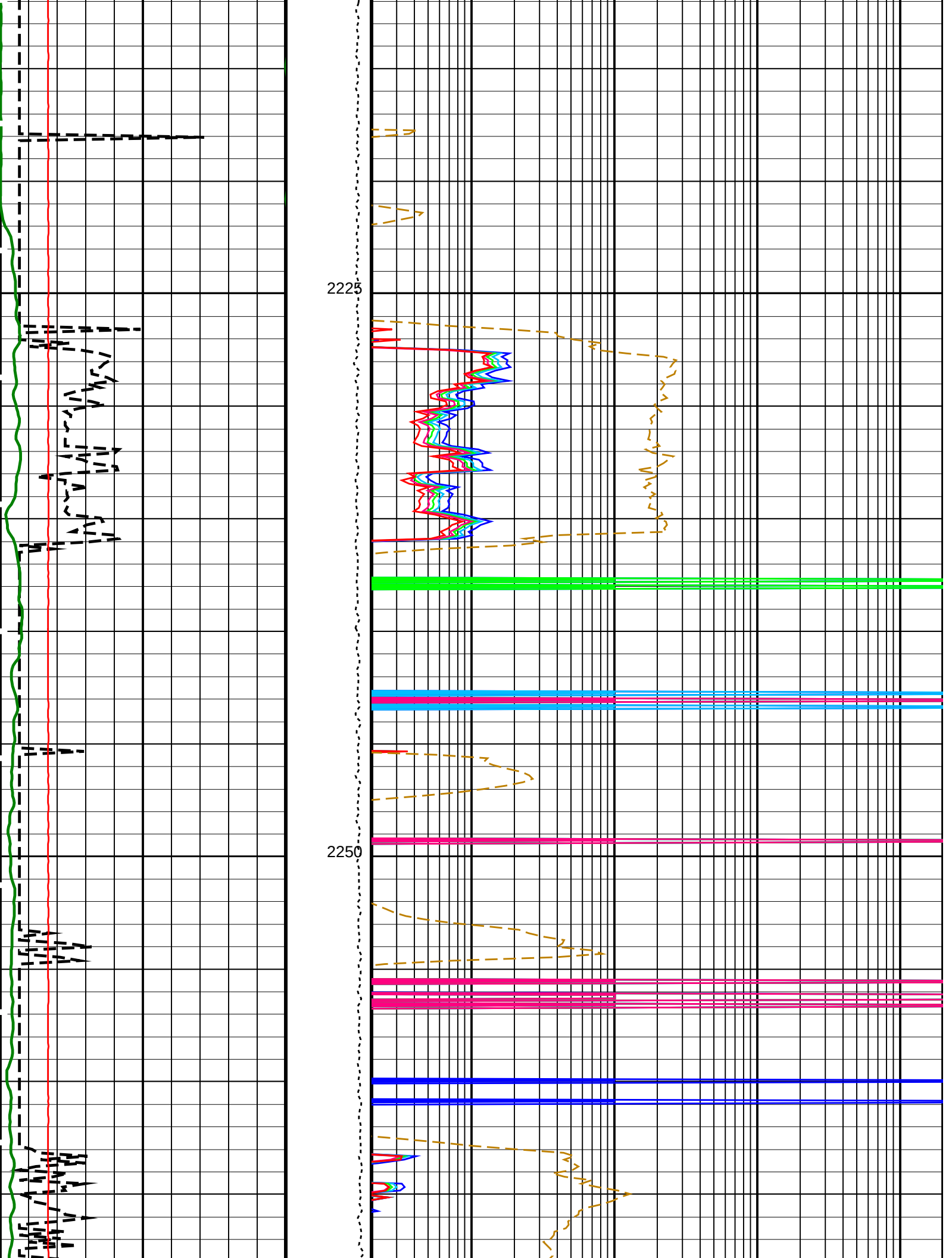
OP System Version: 19C0−187

MSS_LDEO−A	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
DTC−H	19C0−187		

PIP SUMMARY

Time Mark Every 60 S

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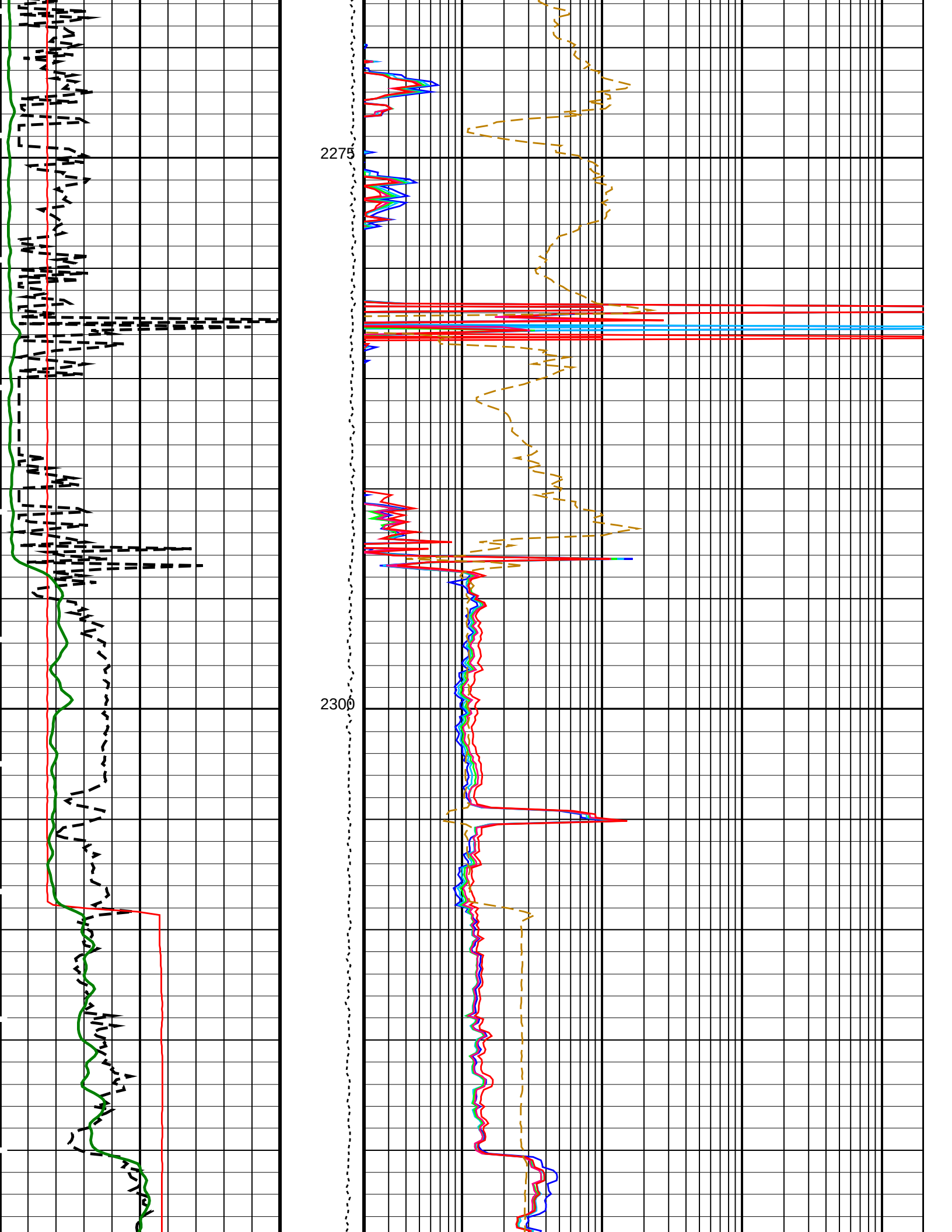
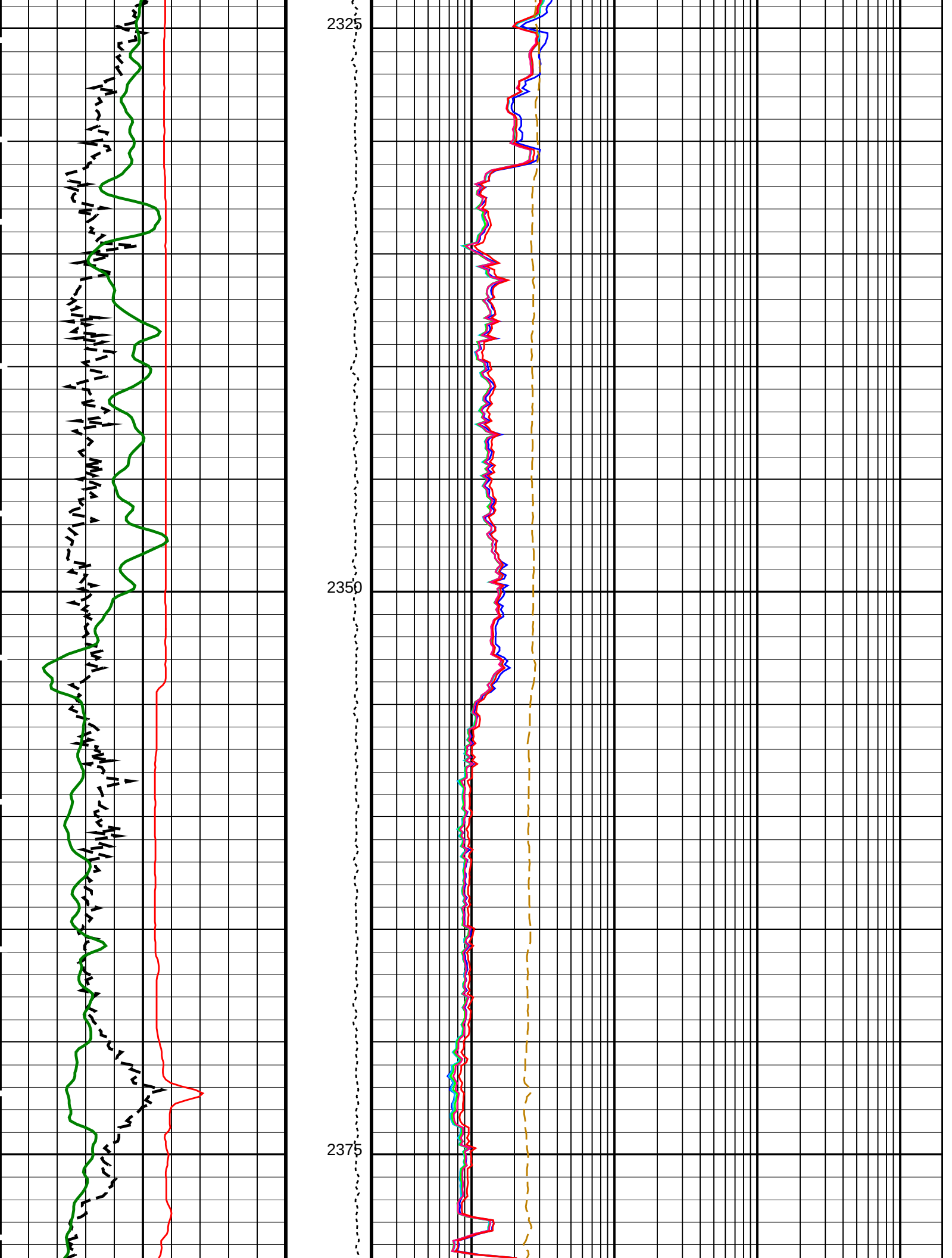
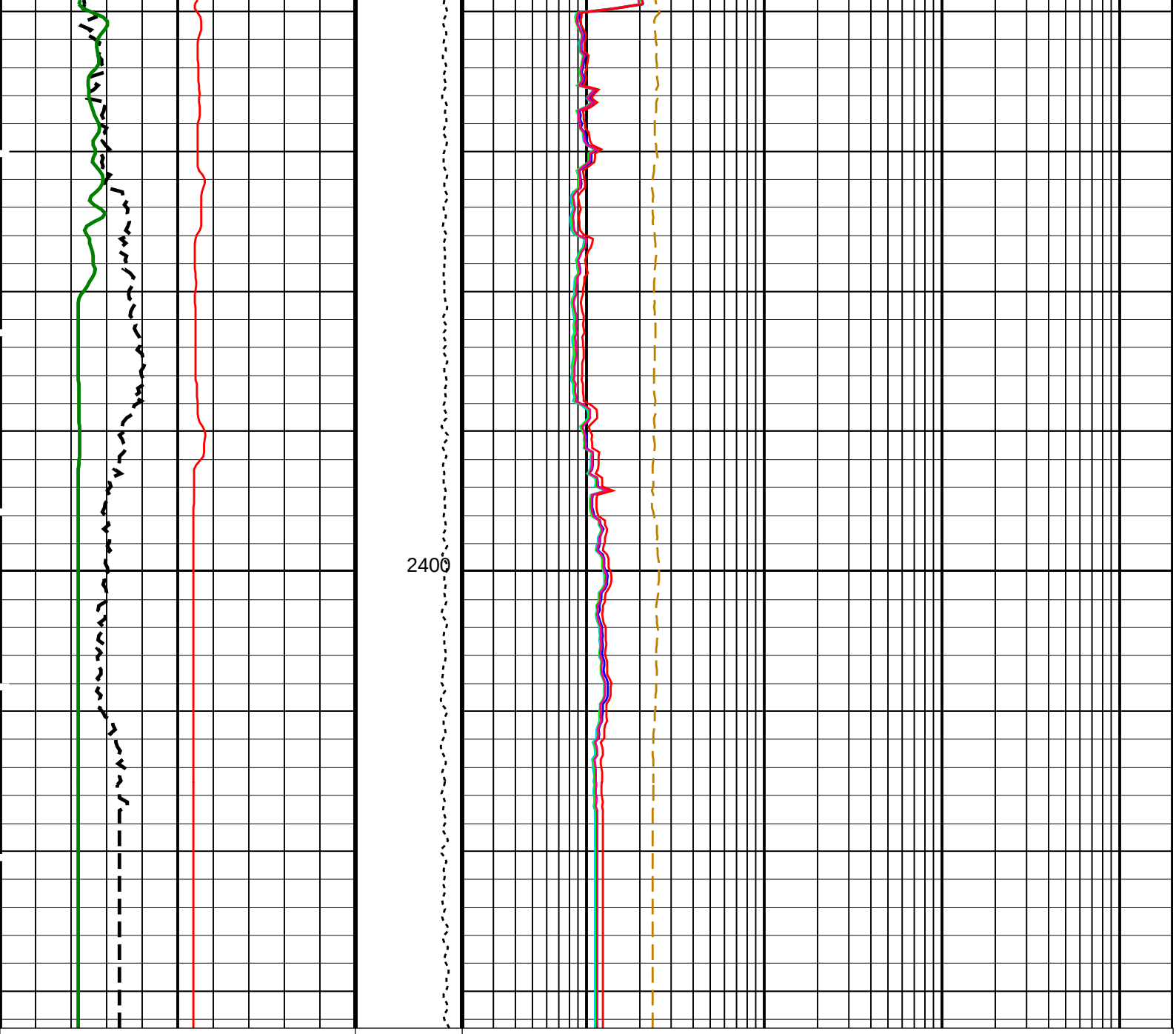
2250


2275
2300


2325
2350
2375



HLDS Caliper (LCAL)
0 (IN) 20

Tension (TENS) (LBF)
0 5000

HRLT Resistivity 1 (RLA1)
0.2 (OHMM) 2000

Invasion Diameter (DI_HRLT)
0 (IN) 50

HRLT Resistivity 2 (RLA2)
0.2 (OHMM) 2000

HNGS Spectroscopy Gamma Ray (HSGR)
0 (GAPI) 150

HRLT Resistivity 3 (RLA3)
0.2 (OHMM) 2000

HRLT Resistivity 4 (RLA4)
0.2 (OHMM) 2000

HRLT Resistivity 5 (RLA5)
0.2 (OHMM) 2000

HRLT Mud Resistivity (RM_HRLT)
0.02 (OHMM) 200

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	7	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	
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	Eccentered	
SHT	Surface Hole Temperature	20	DEGC
	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)	7	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	−0.000947187	
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	0.973083	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.989447	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.26	G/C3
TD	Total Depth	2292	M

Format: HRLT **Vertical Scale: 1:200** **Graphics File Created: 05−Sep−2021 10:23**

OP System Version: 19C0−187

MSS_LDEO−A	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
DTC−H	19C0−187		

Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_022LUP	FN:14	PRODUCER	05−Sep−2021 10:23		
RTB	MSS_LDEO_HRLA_LDL_022LUP	FN:15	PRODUCER	05−Sep−2021 10:23		

Company: International Ocean Discovery Program **Well: Expedition 396, Site U1570D**

Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_022LUP	FN:14	PRODUCER	05−Sep−2021 10:23	2416.3 M	2208.3 M
RTB	MSS_LDEO_HRLA_LDL_022LUP	FN:15	PRODUCER	05−Sep−2021 10:23	2416.3 M	2208.3 M

OP System Version: 19C0−187

MSS_LDEO−A	19C0−187	HRLT−B	19C0−187

HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
DTC−H	19C0−187		

PIP SUMMARY

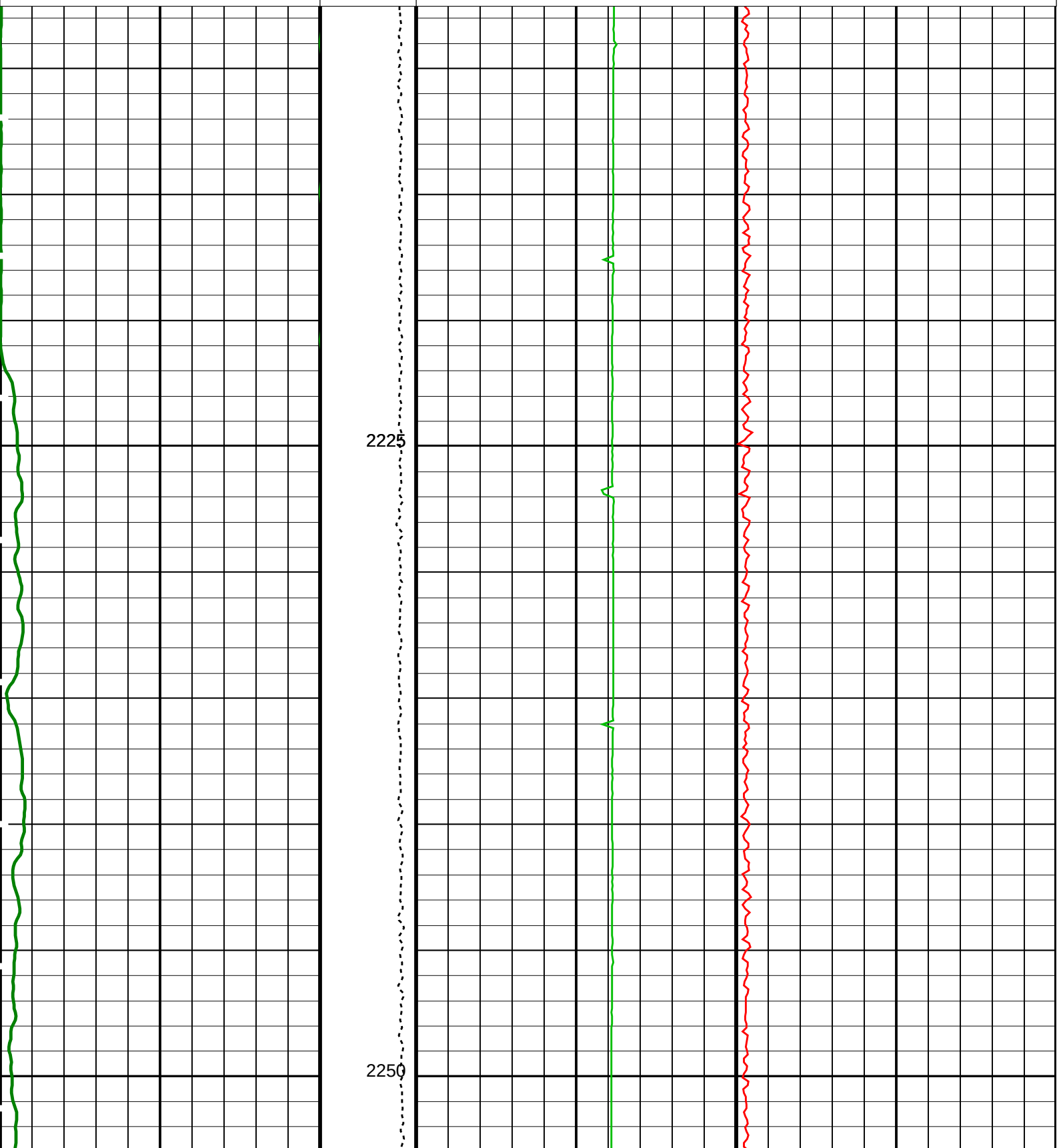
Time Mark Every 60 S

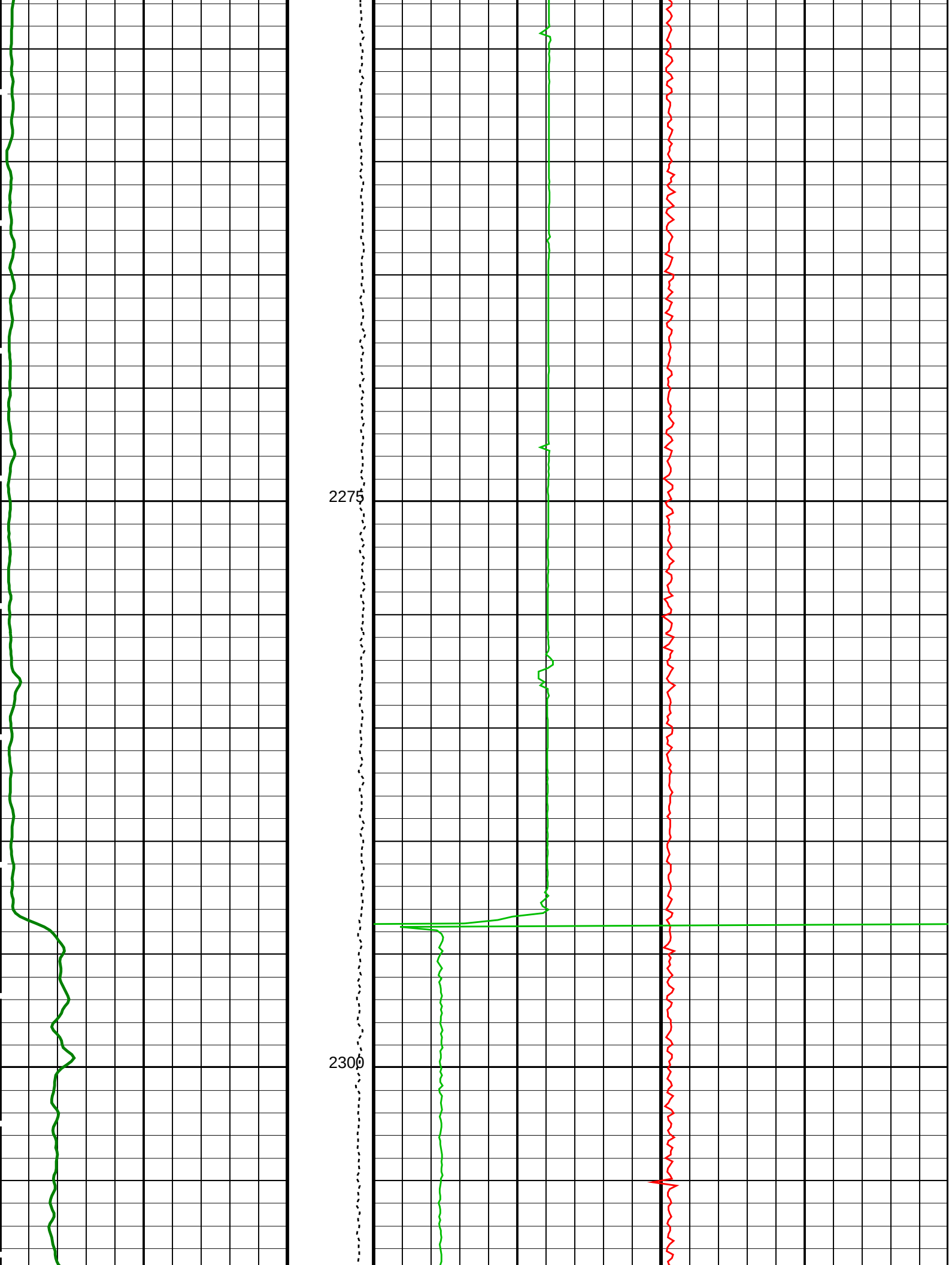
Dual−Coil Susceptibility (MSSLSUS_LDEO)
−10000 (PPM) 90000

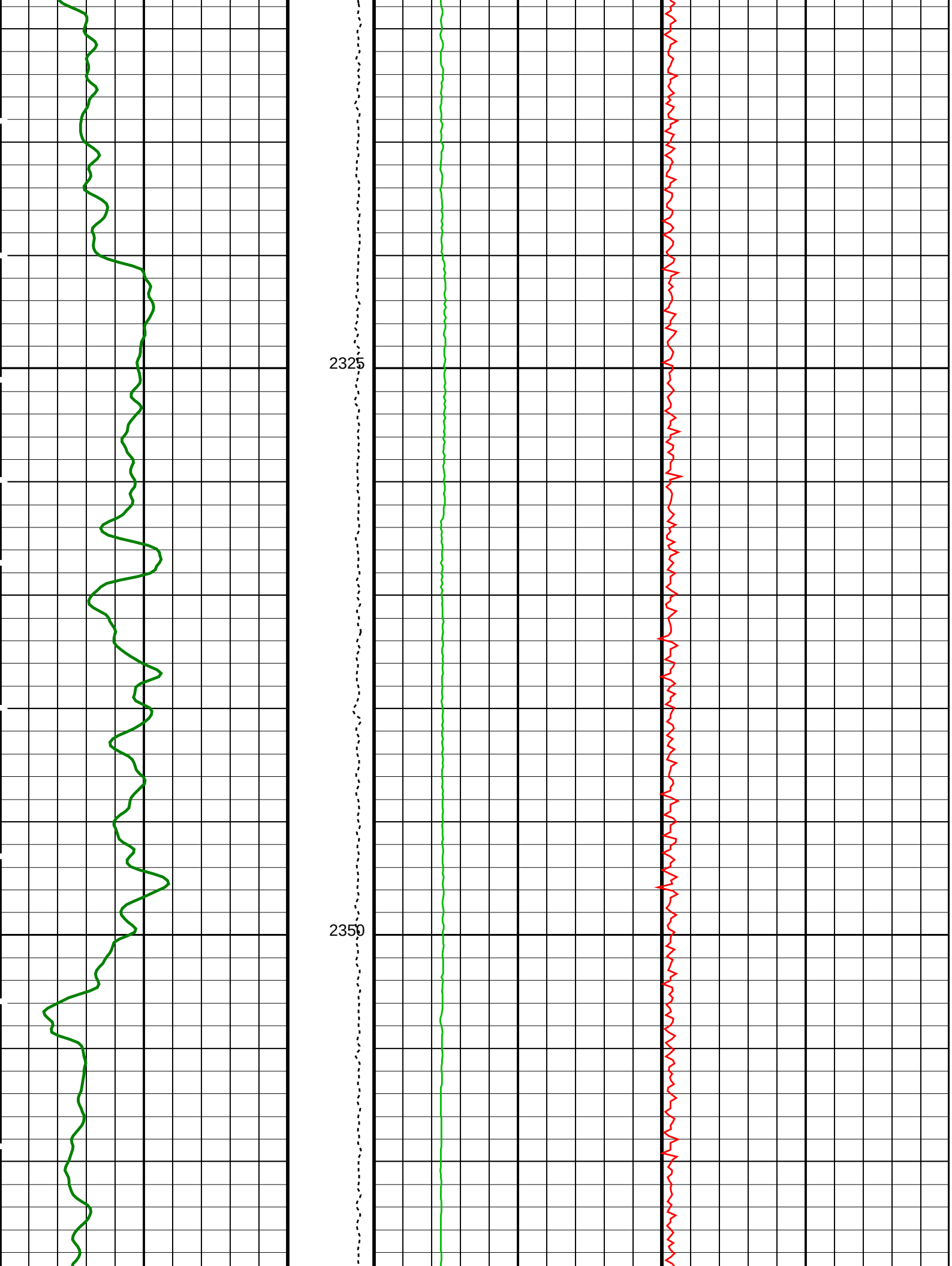
HNGS Spectroscopy Gamma Ray (HSGR)
0 (GAPI) 150

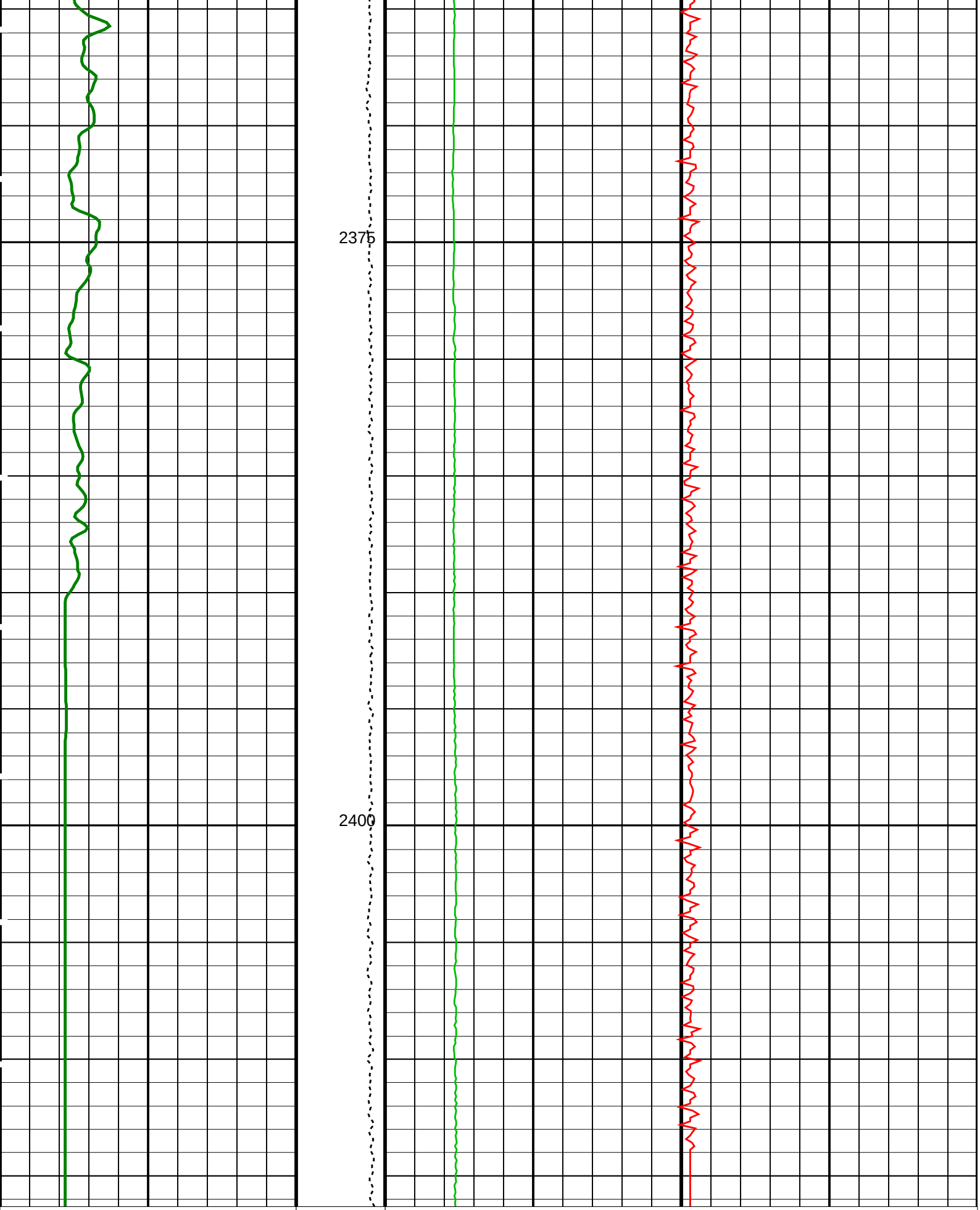
Tension (TENS) (LBF)
0 5000

Axial Acceleration (MSSZACC_LDEO)
0 (M/S2) 20




2275
2300


2325
2350



HNGS Spectroscopy Gamma Ray (HSGR)
0 (GAPI) 150

Tension (TENS) (LBF)
0 5000

Axial Acceleration (MSSZACC_LDEO)
0 (M/S2) 20

Dual-Coil Susceptibility (MSSLSUS_LDEO)

Dual−Coil Susceptibility (MSSLSUS_LDEO)

−10000 (PPM) 90000

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	HNGS−BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	LCAL	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.000947187	
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	0.973083	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.989447	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.26	G/C3

Format: MSS_Logging **Vertical Scale: 1:200** **Graphics File Created: 05−Sep−2021 10:23**

OP System Version: 19C0−187

MSS_LDEO−A	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
HNGC−B	19C0−187	HNGS−BA	19C0−187
DTC−H	19C0−187		

Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_022LUP	FN:14	PRODUCER	05−Sep−2021 10:23
RTB	MSS_LDEO_HRLA_LDL_022LUP	FN:15	PRODUCER	05−Sep−2021 10:23

Schlumberger

Calibrations

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units

High Resolution Laterolog Array − B Wellsite Calibration − HRLT M01
Before: 5−Sep−2021 8:12 After: 5−Sep−2021 12:24

HRLT M0−M1 Voltage Plus −	0	0	N/A	−318.6	−318.6	0.01935	9.681	UV
HRLT M0−M1 Voltage Plus −	1	0	N/A	−330.2	−330.2	−0.01102	9.681	UV
HRLT M0−M1 Voltage Plus −	2	0	N/A	−337.4	−337.7	−0.2768	9.681	UV
HRLT M0−M1 Voltage Plus −	3	0	N/A	−328.3	−328.3	0.009521	9.681	UV
HRLT M0−M1 Voltage Plus −	4	0	N/A	−319.8	−319.8	0.04614	9.681	UV
HRLT M0−M1 Voltage Plus −	5	0	N/A	−321.5	−321.5	−0.002808	9.681	UV
HRLT M0−M1 Voltage Plus −	6	0	N/A	319.3	319.3	0.04584	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: 5−Sep−2021 8:12 After: 5−Sep−2021 12:24

HRLT M1−M2 Voltage Plus −	0	0	N/A	1739	1738	−0.9237	53.42	UV
HRLT M1−M2 Voltage Plus −	1	0	N/A	1810	1809	−0.6631	53.42	UV
HRLT M1−M2 Voltage Plus −	2	0	N/A	1842	1843	0.7126	53.42	UV
HRLT M1−M2 Voltage Plus −	3	0	N/A	1790	1790	−0.8821	53.42	UV
HRLT M1−M2 Voltage Plus −	4	0	N/A	1743	1742	−1.071	53.42	UV
HRLT M1−M2 Voltage Plus −	5	0	N/A	1753	1752	−0.8438	53.42	UV
HRLT M1−M2 Voltage Plus −	6	0	N/A	−1758	−1757	0.7609	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: 5−Sep−2021 8:12 After: 5−Sep−2021 12:24

HRLT M2−M3 Voltage Plus −	0	0	N/A	1731	1731	−0.5533	53.42	UV
HRLT M2−M3 Voltage Plus −	1	0	N/A	1811	1811	0.07458	53.42	UV
HRLT M2−M3 Voltage Plus −	2	0	N/A	1846	1847	0.7717	53.42	UV
HRLT M2−M3 Voltage Plus −	3	0	N/A	1797	1797	−0.07764	53.42	UV
HRLT M2−M3 Voltage Plus −	4	0	N/A	1745	1744	−0.6439	53.42	UV
HRLT M2−M3 Voltage Plus −	5	0	N/A	1756	1755	−0.3848	53.42	UV
HRLT M2−M3 Voltage Plus −	6	0	N/A	−1748	−1748	0.3361	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: 5−Sep−2021 8:12 After: 5−Sep−2021 12:24

HRLT A3−A4 Voltage Plus −	0	0	N/A	68630	68620	−5.016	2100	UV
HRLT A3−A4 Voltage Plus −	1	0	N/A	71630	71640	9.148	2100	UV
HRLT A3−A4 Voltage Plus −	2	0	N/A	73300	73350	46.83	2100	UV
HRLT A3−A4 Voltage Plus −	3	0	N/A	71630	71630	−1.516	2100	UV
HRLT A3−A4 Voltage Plus −	4	0	N/A	69480	69460	−24.06	2100	UV
HRLT A3−A4 Voltage Plus −	5	0	N/A	69940	69910	−28.48	2100	UV
HRLT A3−A4 Voltage Plus −	6	0	N/A	−68190	−68190	0	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: 5−Sep−2021 8:12 After: 5−Sep−2021 12:24

HRLT A4−A5 Voltage Plus −	0	0	N/A	68720	68700	−18.82	2100	UV
HRLT A4−A5 Voltage Plus −	1	0	N/A	71830	71840	9.141	2100	UV
HRLT A4−A5 Voltage Plus −	2	0	N/A	73480	73530	45.18	2100	UV
HRLT A4−A5 Voltage Plus −	3	0	N/A	71780	71790	0.7656	2100	UV
HRLT A4−A5 Voltage Plus −	4	0	N/A	69590	69570	−16.71	2100	UV
HRLT A4−A5 Voltage Plus −	5	0	N/A	70030	70010	−21.36	2100	UV
HRLT A4−A5 Voltage Plus −	6	0	N/A	−68400	−68400	−0.8594	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: 5−Sep−2021 8:12 After: 5−Sep−2021 12:24

HRLT A5−A6 Voltage Plus −	0	0	N/A	68560	68540	−20.70	2100	UV
HRLT A5−A6 Voltage Plus −	1	0	N/A	71690	71690	4.570	2100	UV
HRLT A5−A6 Voltage Plus −	2	0	N/A	73330	73390	59.98	2100	UV
HRLT A5−A6 Voltage Plus −	3	0	N/A	71660	71660	−4.555	2100	UV
HRLT A5−A6 Voltage Plus −	4	0	N/A	69450	69440	−12.70	2100	UV
HRLT A5−A6 Voltage Plus −	5	0	N/A	69900	69900	−3.242	2100	UV
HRLT A5−A6 Voltage Plus −	6	0	N/A	−68240	−68240	−1.727	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: 5−Sep−2021 8:12 After: 5−Sep−2021 12:24

HRLT Torpedo−M0 Voltage −	0	0	N/A	−68100	−68080	15.57	2100	UV
HRLT Torpedo−M0 Voltage −	1	0	N/A	−71500	−71500	−6.086	2100	UV
HRLT Torpedo−M0 Voltage −	2	0	N/A	−73170	−73220	−43.80	2100	UV
HRLT Torpedo−M0 Voltage −	3	0	N/A	−71560	−71560	3.609	2100	UV
HRLT Torpedo−M0 Voltage −	4	0	N/A	−69420	−69400	20.43	2100	UV
HRLT Torpedo−M0 Voltage −	5	0	N/A	−69860	−69850	14.83	2100	UV
HRLT Torpedo−M0 Voltage −	6	0	N/A	68000	68000	4.945	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: 5−Sep−2021 8:12 After: 5−Sep−2021 12:24

HRLT Bridle#9−M0 Voltage −	0	0	N/A	−68140	−68130	8.984	2100	UV
HRLT Bridle#9−M0 Voltage −	1	0	N/A	−71580	−71590	−8.695	2100	UV
HRLT Bridle#9−M0 Voltage −	2	0	N/A	−73260	−73320	−53.18	2100	UV

HRLT Bridle#9−M0 Voltage − 2	0	N/A	−73260	−73320	−53.18	2100	UV
HRLT Bridle#9−M0 Voltage − 3	0	N/A	−71640	−71640	2.172	2100	UV
HRLT Bridle#9−M0 Voltage − 4	0	N/A	−69460	−69450	14.68	2100	UV
HRLT Bridle#9−M0 Voltage − 5	0	N/A	−69900	−69880	20.40	2100	UV
HRLT Bridle#9−M0 Voltage − 6	0	N/A	68090	68090	−0.8281	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: 5−Sep−2021 8:12 After: 5−Sep−2021 12:24

HRLT Source Current Plus − 0	0	N/A	284.2	284.2	−0.002625	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: 5−Sep−2021 8:12 After: 5−Sep−2021 12:24

HRLT Vertical Voltage Pl − 0	0	N/A	−320.6	−320.3	0.3201	9.681	UV
HRLT Vertical Voltage Pl − 1	0	N/A	−325.2	−324.9	0.2221	9.681	UV
HRLT Vertical Voltage Pl − 2	0	N/A	−331.1	−331.0	0.05283	9.681	UV
HRLT Vertical Voltage Pl − 3	0	N/A	−320.3	−320.0	0.2917	9.681	UV
HRLT Vertical Voltage Pl − 4	0	N/A	−309.1	−308.8	0.2887	9.681	UV
HRLT Vertical Voltage Pl − 5	0	N/A	−325.6	−325.3	0.2950	9.681	UV
HRLT Vertical Voltage Pl − 6	0	N/A	327.0	326.7	−0.2959	9.681	UV
HRLT Vertical Voltage Pl − 7	0	N/A	−322.7	−322.7	0	9.681	UV

Hostile Litho−Density Sonde Wellsite Calibration − Background Measurement
Master: Calibration out of date 2−May−2021 7:20 Before: 5−Sep−2021 8:15 After: 5−Sep−2021 12:27

SS Cs Resolution Bkg	9.000	7.698	7.702	7.648	−0.05352	1.800	%
LS Cs Resolution Bkg	9.000	7.989	7.982	8.011	0.02887	1.800	%
LSW1 Background	100.0	71.96	69.25	70.78	1.521	3.000	CPS
LSW2 Background	100.0	65.02	63.63	64.47	0.8364	3.000	CPS
LSW3 Background	200.0	146.1	145.6	144.2	−1.338	6.000	CPS
LSW4 Background	250.0	183.2	178.7	181.8	3.100	7.500	CPS
LSW5 Background	600.0	424.9	420.7	420.4	−0.3299	18.00	CPS
SSW1 Background	100.0	68.97	68.19	67.74	−0.4523	3.000	CPS
SSW2 Background	200.0	118.2	117.5	117.7	0.1749	6.000	CPS
SSW3 Background	500.0	331.3	328.0	327.1	−0.9327	15.00	CPS
SSW4 Background	270.0	178.4	177.9	176.2	−1.654	8.100	CPS
SSW5 Background	200.0	127.4	126.3	125.9	−0.4092	6.000	CPS

Hostile Litho−Density Sonde Wellsite Calibration − Aluminum Measurement
Master: Calibration out of date 2−May−2021 7:46

LSW1 Aluminum	600.0	437.4	N/A	N/A	N/A	N/A	CPS
LSW2 Aluminum	900.0	651.2	N/A	N/A	N/A	N/A	CPS
LSW3 Aluminum	1100	787.2	N/A	N/A	N/A	N/A	CPS
LSW4 Aluminum	580.0	396.8	N/A	N/A	N/A	N/A	CPS
LSW5 Aluminum	570.0	364.1	N/A	N/A	N/A	N/A	CPS
SSW1 Aluminum	2800	2070	N/A	N/A	N/A	N/A	CPS
SSW2 Aluminum	8000	5832	N/A	N/A	N/A	N/A	CPS
SSW3 Aluminum	11600	8191	N/A	N/A	N/A	N/A	CPS
SSW4 Aluminum	5000	3322	N/A	N/A	N/A	N/A	CPS
SSW5 Aluminum	660.0	384.2	N/A	N/A	N/A	N/A	CPS

Hostile Litho−Density Sonde Wellsite Calibration − Lithology Measurement
Master: Calibration out of date 2−May−2021 7:41

LSW1 Iron	400.0	298.6	N/A	N/A	N/A	N/A	CPS
LSW2 Iron	730.0	524.2	N/A	N/A	N/A	N/A	CPS
LSW3 Iron	1000	699.6	N/A	N/A	N/A	N/A	CPS
LSW4 Iron	520.0	360.1	N/A	N/A	N/A	N/A	CPS
LSW5 Iron	470.0	333.9	N/A	N/A	N/A	N/A	CPS
SSW1 Iron	2100	1520	N/A	N/A	N/A	N/A	CPS
SSW2 Iron	6800	4870	N/A	N/A	N/A	N/A	CPS
SSW3 Iron	10800	7479	N/A	N/A	N/A	N/A	CPS
SSW4 Iron	4600	3030	N/A	N/A	N/A	N/A	CPS
SSW5 Iron	580.0	343.3	N/A	N/A	N/A	N/A	CPS

Hostile Litho−Density Sonde Wellsite Calibration − Caliper Calibration
Before: Calibration out of date 2−May−2021 8:12

HLDS Caliper Small Ring	12.00	N/A	16.10	N/A	N/A	N/A	IN
HLDS Caliper Large Ring	15.19	N/A	20.13	N/A	N/A	N/A	IN

Hostile Natural Gamma Ray Sonde Wellsite Calibration − Detector 1 Check
Master: Calibration out of date 2−May−2021 10:04 Before: 5−Sep−2021 8:16 After: 5−Sep−2021 12:28

Na 511 Peak Loc	40.00	39.25	39.60	39.79	0.1892	1.000	
Na 511 Peak Res	15.50	16.53	15.69	15.51	−0.1810	2.000	%
High Voltage	1150	1197	1173	1174	1.272	N/A	V
Na 1785 Peak Loc	142.6	141.8	142.3	141.7	−0.6377	7.000	
Na 1785 Peak Res	8.500	8.905	8.528	10.88	2.348	2.000	%

Temperature	15.50	26.59	14.36	14.31	−0.04541	N/A	DEGC
Na Count Rate	45.00	12.01	10.84	11.17	0.3311	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration − Detector 2 Check

Master: Calibration out of date 2−May−2021 10:04 Before: 5−Sep−2021 8:16 After: 5−Sep−2021 12:28

Na 511 Peak Loc	40.00	39.88	39.64	39.65	0.002850	1.000	
Na 511 Peak Res	15.50	15.29	15.87	15.12	−0.7509	2.000	%
High Voltage	1150	1122	1099	1097	−1.795	N/A	V
Na 1785 Peak Loc	142.6	142.6	141.2	140.9	−0.2853	7.000	
Na 1785 Peak Res	8.500	8.040	9.093	8.532	−0.5603	2.000	%
Temperature	15.50	27.21	14.94	15.72	0.7800	N/A	DEGC
Na Count Rate	45.00	12.32	10.93	11.30	0.3753	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration − Ratio Of Detector 1 To Detector 2

Master: Calibration out of date 2−May−2021 10:04 Before: 5−Sep−2021 8:16 After: 5−Sep−2021 12:28

Coincidence Count Rate Ratio	1.000	0.9728	0.9945	0.9862	−0.008349	0.05000

High Resolution Laterolog Array − B / Equipment Identification

Primary Equipment:		
HRLT Sonde	HRLS − B	768
Auxiliary Equipment:		
HRLT lower Housing	HRLH − B	1869
HRLT Lower Cartridge	HRLC − B	1897
HRLT upper Housing	HRUH − B	975
HRLT Upper Cartridge	HRUC − B	964

High Resolution Laterolog Array − B Wellsite Calibration

HRLT M01

Idx	Phase	HRLT M0−M1 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−318.6	−322.7	−280.7	−379.7
	After		−318.6			
1	Before		−330.2	−322.7	−280.7	−379.7
	After		−330.2			
2	Before		−337.4	−322.7	−280.7	−379.7
	After		−337.7			
3	Before		−328.3	−322.7	−280.7	−379.7
	After		−328.3			
4	Before		−319.8	−322.7	−280.7	−379.7
	After		−319.8			
5	Before		−321.5	−322.7	−280.7	−379.7
	After		−321.5			
6	Before		319.3	322.7	379.7	280.7
	After		319.3			
7	Before		−322.7	−322.7	−280.7	−379.7
	After		−322.7			
		(Minimum) (Nominal) (Maximum)				

Before: 5−Sep−2021 8:12

After: 5−Sep−2021 12:24

High Resolution Laterolog Array − B Wellsite Calibration

HRLT M12

Idx	Phase	HRLT M1−M2 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1739	1781	2095	1549
	After		1738			
1	Before		1810	1781	2095	1549
	After		1809			

	After	1809			
2	Before	1842	1781	2095	1549
	After	1843			
3	Before	1790	1781	2095	1549
	After	1790			
4	Before	1743	1781	2095	1549
	After	1742			
5	Before	1753	1781	2095	1549
	After	1752			
6	Before	−1758	−1781	−1549	−2095
	After	−1757			
7	Before	1781	1781	2095	1549
	After	1781			
	(Minimum) (Nominal) (Maximum)				

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After: 5−Sep−2021 12:24

High Resolution Laterolog Array − B Wellsite Calibration

HRLT M23

Idx	Phase	HRLT M2−M3 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1731	1781	2095	1549
	After		1731			
1	Before		1811	1781	2095	1549
	After		1811			
2	Before		1846	1781	2095	1549
	After		1847			
3	Before		1797	1781	2095	1549
	After		1797			
4	Before		1745	1781	2095	1549
	After		1744			
5	Before		1756	1781	2095	1549
	After		1755			
6	Before		−1748	−1781	−1549	−2095
	After		−1748			
7	Before		1781	1781	2095	1549
	After		1781			
	(Minimum) (Nominal) (Maximum)					

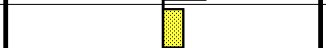
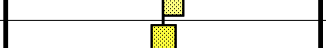
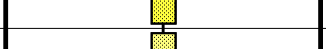
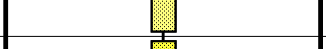
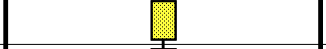
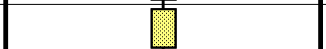
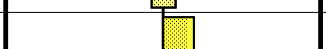
Before: 5−Sep−2021 8:12

After: 5−Sep−2021 12:24

High Resolution Laterolog Array − B Wellsite Calibration

HRLT V34

Idx	Phase	HRLT A3−A4 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68630	70000	82360	60900
	After		68620			
1	Before		71630	70000	82360	60900
	After		71640			
2	Before		73300	70000	82360	60900

	After		73350			
3	Before		71630	70000	82360	60900
	After		71630			
4	Before		69480	70000	82360	60900
	After		69460			
5	Before		69940	70000	82360	60900
	After		69910			
6	Before		−68190	−70000	−60900	−82360
	After		−68190			
7	Before		70000	70000	82360	60900
	After		70000			
	(Minimum) (Nominal) (Maximum)					

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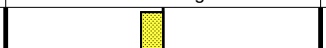
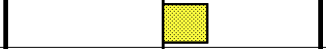
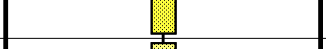
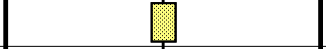
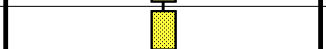
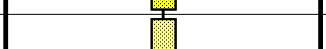
After: 5−Sep−2021 12:24

High Resolution Laterolog Array − B Wellsite Calibration

HRLT V45

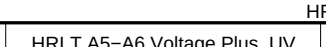
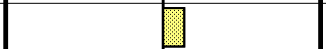
Idx	Phase	HRLT A4−A5 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68720	70000	82360	60900
	After		68700			
1	Before		71830	70000	82360	60900
	After		71840			
2	Before		73480	70000	82360	60900
	After		73530			
3	Before		71780	70000	82360	60900
	After		71790			
4	Before		69590	70000	82360	60900
	After		69570			
5	Before		70030	70000	82360	60900
	After		70010			
6	Before		−68400	−70000	−60900	−82360
	After		−68400			
7	Before		70000	70000	82360	60900
	After		70000			
	(Minimum) (Nominal) (Maximum)					

Before: 5−Sep−2021 8:12

After: 5−Sep−2021 12:24

High Resolution Laterolog Array − B Wellsite Calibration

HRLT V56

Idx	Phase	HRLT A5−A6 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68560	70000	82360	60900
	After		68540			
1	Before		71690	70000	82360	60900
	After		71690			
2	Before		73330	70000	82360	60900
	After		73390			
3	Before		71660	70000	82360	60900

	After	71660			
4	Before	69450	70000	82360	60900
	After	69440			
5	Before	69900	70000	82360	60900
	After	69900			
6	Before	−68240	−70000	−60900	−82360
	After	−68240			
7	Before	70000	70000	82360	60900
	After	70000			
	(Minimum) (Nominal) (Maximum)				

Before: 5−Sep−2021 8:12

After: 5−Sep−2021 12:24

High Resolution Laterolog Array − B Wellsite Calibration

HRLT VTP

Idx	Phase	HRLT Torpedo−M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−68100	−70000	−60900	−82360
	After		−68080			
1	Before		−71500	−70000	−60900	−82360
	After		−71500			
2	Before		−73170	−70000	−60900	−82360
	After		−73220			
3	Before		−71560	−70000	−60900	−82360
	After		−71560			
4	Before		−69420	−70000	−60900	−82360
	After		−69400			
5	Before		−69860	−70000	−60900	−82360
	After		−69850			
6	Before		68000	70000	82360	60900
	After		68000			
7	Before		−70000	−70000	−60900	−82360
	After		−70000			
	(Minimum) (Nominal) (Maximum)					

Before: 5−Sep−2021 8:12

After: 5−Sep−2021 12:24

High Resolution Laterolog Array − B Wellsite Calibration

HRLT VBD

Idx	Phase	HRLT Bridle#9−M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−68140	−70000	−60900	−82360
	After		−68130			
1	Before		−71580	−70000	−60900	−82360
	After		−71590			
2	Before		−73260	−70000	−60900	−82360
	After		−73320			
3	Before		−71640	−70000	−60900	−82360
	After		−71640			
4	Before		−69460	−70000	−60900	−82360

4	After	−69450	−70000	−60900	−82360
5	Before	−69900	−70000	−60900	−82360
	After	−69880			
6	Before	68090	70000	82360	60900
	After	68090			
7	Before	−70000	−70000	−60900	−82360
	After	−70000			
	(Minimum) (Nominal) (Maximum)				

Before: 5−Sep−2021 8:12
After: 5−Sep−2021 12:24

High Resolution Laterolog Array − B Wellsite Calibration

HRLT ISO

Idx	Phase	HRLT Source Current Plus UA	Value	Nominal	Maximum	Minimum
0	Before		284.2	284.0	334.1	247.0
	After		284.2			
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: 5−Sep−2021 8:12
After: 5−Sep−2021 12:24

High Resolution Laterolog Array − B Wellsite Calibration

HRLT MV

Idx	Phase	HRLT Vertical Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−320.6	−322.7	−280.7	−379.7
	After		−320.3			
1	Before		−325.2	−322.7	−280.7	−379.7
	After		−324.9			
2	Before		−331.1	−322.7	−280.7	−379.7
	After		−331.0			
3	Before		−320.3	−322.7	−280.7	−379.7
	After		−320.0			
4	Before		−309.1	−322.7	−280.7	−379.7
	After		−308.8			
5	Before		−325.6	−322.7	−280.7	−379.7

5	After	−325.3	−322.7	−280.7	−379.7
6	Before	327.0	322.7	379.7	280.7
	After	326.7			
7	Before	−322.7	−322.7	−280.7	−379.7
	After	−322.7			
	(Minimum) (Nominal) (Maximum)				

Before: 5−Sep−2021 8:12

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Hostile Litho−Density Sonde / Equipment Identification

Primary Equipment:		
Gamma Source Radioactive	GSR − ZA	2945
Hostile Litho Density Sonde	HLDS − D	77
Hostile Litho Density High Voltage	HLDV − D	67
Auxiliary Equipment:		
Hostile Litho Density High Voltage Housi	HEH − H	67
Hostile Litho Density Pad	HLDP − C	83

Hostile Litho−Density Sonde Wellsite Calibration

Background Measurement

Phase	SS Cs Resolution Bkg %	Value
Master		7.698
Before		7.702
After		7.648
	7.000 (Minimum) 9.000 (Nominal) 11.00 (Maximum)	

Phase	LS Cs Resolution Bkg %	Value
Master		7.989
Before		7.982
After		8.011
	7.000 (Minimum) 9.000 (Nominal) 11.00 (Maximum)	

Phase	LSW1 Background CPS	Value
Master		71.96
Before		69.25
After		70.78
	55.00 (Minimum) 100.0 (Nominal) 150.0 (Maximum)	

Phase	LSW2 Background CPS	Value
Master		65.02
Before		63.63
After		64.47
	50.00 (Minimum) 100.0 (Nominal) 140.0 (Maximum)	

Phase	LSW3 Background CPS	Value
Master		146.1
Before		145.6
After		144.2
	110.0 (Minimum) 200.0 (Nominal) 290.0 (Maximum)	

Phase	LSW4 Background CPS	Value
Master		183.2
Before		178.7
After		181.8
	140.0 (Minimum) 250.0 (Nominal) 360.0 (Maximum)	

Phase	LSW5 Background CPS	Value
Master		424.9
Before		420.7
After		420.4
	330.0 (Minimum) 600.0 (Nominal) 830.0 (Maximum)	

Phase	SSW1 Background CPS	Value
Master		68.97
Before		68.19
After		67.74
	55.00 (Minimum) 100.0 (Nominal) 150.0 (Maximum)	

Phase	SSW2 Background CPS	Value
Master		118.2
Before		117.5
After		117.7
	100.0 (Minimum) 200.0 (Nominal) 260.0 (Maximum)	

Phase	SSW3 Background CPS	Value
Master		331.3
Before		328.0
After		327.1
	280.0 (Minimum) 500.0 (Nominal) 700.0 (Maximum)	

Phase	SSW4 Background CPS	Value
Master		178.4
Before		177.9
After		176.2
	150.0 (Minimum) 270.0 (Nominal) 380.0 (Maximum)	

Phase	SSW5 Background CPS	Value
Master		127.4
Before		126.3
After		125.9
	110.0 (Minimum) 200.0 (Nominal) 270.0 (Maximum)	

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Litho−Density Spectroscopy Cartridge − B / Equipment Identification

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

Hostile Natural Gamma Ray Cartridge − B / Equipment Identification

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

Hostile Natural Gamma Ray Sonde / Equipment Identification

Primary Equipment:		
HNGS Sonde	HNGS − BA	99
Auxiliary Equipment:		
HNGS Sonde Housing	HNSH − BA	102
Gamma Source Radioactive	GSR − U	6098

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Detector 1 Check

Phase	Na 511 Peak Loc	Value
Master		39.25
Before		39.60
After		39.79
	37.50 (Minimum) 40.00 (Nominal) 43.50 (Maximum)	

Phase	Na 511 Peak Res %	Value
Master		16.53
Before		15.69
After		15.51
	12.00 (Minimum) 15.50 (Nominal) 19.00 (Maximum)	

Phase	High Voltage V	Value
Master		1197
Before		1173
After		1174
	900.0 (Minimum) 1150 (Nominal) 1600 (Maximum)	

Phase	Na 1785 Peak Loc	Value
Master		141.8
Before		142.3
After		141.7
	135.0 (Minimum) 142.6 (Nominal) 150.3 (Maximum)	

Phase	Na 1785 Peak Res %	Value
Master		8.905
Before	BEFORE−AFTER LIMIT	8.528
After		10.88
	7.000 (Minimum) 8.500 (Nominal) 11.00 (Maximum)	

Phase	Temperature DEGC	Value
Master		26.59
Before		14.36
After		14.31
	−28.89 (Minimum) 15.50 (Nominal) 60.00 (Maximum)	

Phase	Na Count Rate CPS	Value
Master		12.01
Before		10.84
After		11.17
	10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)	

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Hostile Natural Gamma Ray Sonde Wellsite Calibration

Detector 2 Check

Phase	Na 511 Peak Loc	Value
Master		39.88
Before		39.64
After		39.65
	37.50 (Minimum) 40.00 (Nominal) 43.50 (Maximum)	

Phase	Na 511 Peak Res %	Value
Master		15.29
Before		15.87
After		15.12
	12.00 (Minimum) 15.50 (Nominal) 19.00 (Maximum)	

Phase	High Voltage V	Value
Master		1122
Before		1099
After		1097
	900.0 (Minimum) 1150 (Nominal) 1600 (Maximum)	

Phase	Na 1785 Peak Loc	Value
Master		142.6
Before		141.2
After		140.9
	135.0 (Minimum) 142.6 (Nominal) 150.3 (Maximum)	

Phase	Na 1785 Peak Res %	Value
Master		8.040
Before		9.093
After		8.532
	7.000 (Minimum) 8.500 (Nominal) 11.00 (Maximum)	

Phase	Temperature DEGC	Value
Master		27.21
Before		14.94
After		15.72
	−28.89 (Minimum) 15.50 (Nominal) 60.00 (Maximum)	

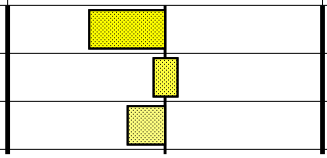
Phase	Na Count Rate CPS	Value
Master		12.32
Before		10.93
After		11.30
	10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)	

Master: Calibration out of date 2−May−2021 10:04 Before: 5−Sep−2021 8:16 After: 5−Sep−2021 12:28

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Ratio Of Detector 1 To Detector 2

Phase	Coincidence Count Rate Ratio	Value
Master		0.9728
Before		0.9945
After		0.9862



Master: Calibration out of date 2−May−2021 10:04

Before: 5−Sep−2021 8:16

After: 5−Sep−2021 12:28

DTS Telemetry Tool / Equipment Identification

Primary Equipment:		
DTC−H Auxiliary Cartridge	DTCH − A	8799
DTC−H Telemetry Cartridge	DTCH − A	8799
Auxiliary Equipment:		
DTCH Telemetry Cartridge Housing	ECH − KC	9842

Company: **International Ocean Discovery Program**

Schlumberger

Well: **Expedition 396, Site U1570D**

Field: **Mid−Norwegian Cont. Margin Magmatism**

Rig: **JOIDES Resolution**

Country: **Iceland**

High Resolution Laterolog (HRLA)
Litho Density (HLDS)
Natural Gamma / MSS (HNGS)