

Schlumberger

Company: **International Ocean Discovery Program**

Well: **Expedition 402, Site U1617B**

Field: **Tyrrhenian Continent–Ocean Transition**

Rig: **JOIDES Resolution** Country: **Italy**

Well: **Expedition 402, Site U1617B**
Field: **Tyrrhenian Continent–Ocean Transition**
Rig: **JOIDES Resolution** Country: **Italy**

Rig:	JOIDES Resolution	High Resolution Laterolog (HRLA) / HLDS			
Field:	Tyrrhenian Continent–Ocean Transect	Magnetic Susceptibility (MSS)			
Location:	Latitude: N 40° 00.0317'	Natural Gamma / MSS (HNGS)			
Well:	Expedition 402, Site U1617B				
Company:	International Ocean Discovery Program				
LOCATION		Latitude: N 40° 00.0317'		Elev.:	K.B. 0.00 m
		Longitude: E 13° 24.4662'			G.L. –3833.60 m
					D.F. 0.00 m
		Permanent Datum: Sea Floor		Elev.:	–3833.60 m
		Log Measured From: Rig Floor		3833.60 m above Perm. Datum	
		Drilling Measured From: Rig Floor			
Ocean: Mediterranean		Max. Well Deviation 5 deg		Longitude E 13.40777*	Latitude N 40.00053*

Logging Date			30-Mar-2024					
Run Number			1					
Depth Driller			3204 m					
Schlumberger Depth			3158 m					
Bottom Log Interval			3158 m					
Top Log Interval			2833.6 m					
Casing Driller Size @ Depth			5.500 in @ 3111.6 m			@		
Casing Schlumberger			3111.6 m					
Bit Size			9.875 in					
Type Fluid In Hole			Sea Water					
MUD	Density	Viscosity	1.023 g/cm3					
	Fluid Loss	PH		8.07				
	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	30-Mar-2024 11:00					
Logger On Bottom		Time	30-Mar-2024 11:15					
Unit Number	Location	627314 Larose, LA						
Recorded By		C. Furman						
Witnessed By		K. Grigar						

[illegible]

Run 4

THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

OS1: DSI

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

No Casing present.

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

Caliper remained closed for entire logged interval due to proximity to pipe.

Density not presented, as it is not considered valid without the caliper open.

Active heave compensator switched on at 3146mbrf while logging down.

HRLA, HNGS, and MSS were run again in the lower part of the hole after moving the pipe down past the ledge at 3158mbrf (Run 3).

AHC switched off at 3146m to facilitate pipe entry.

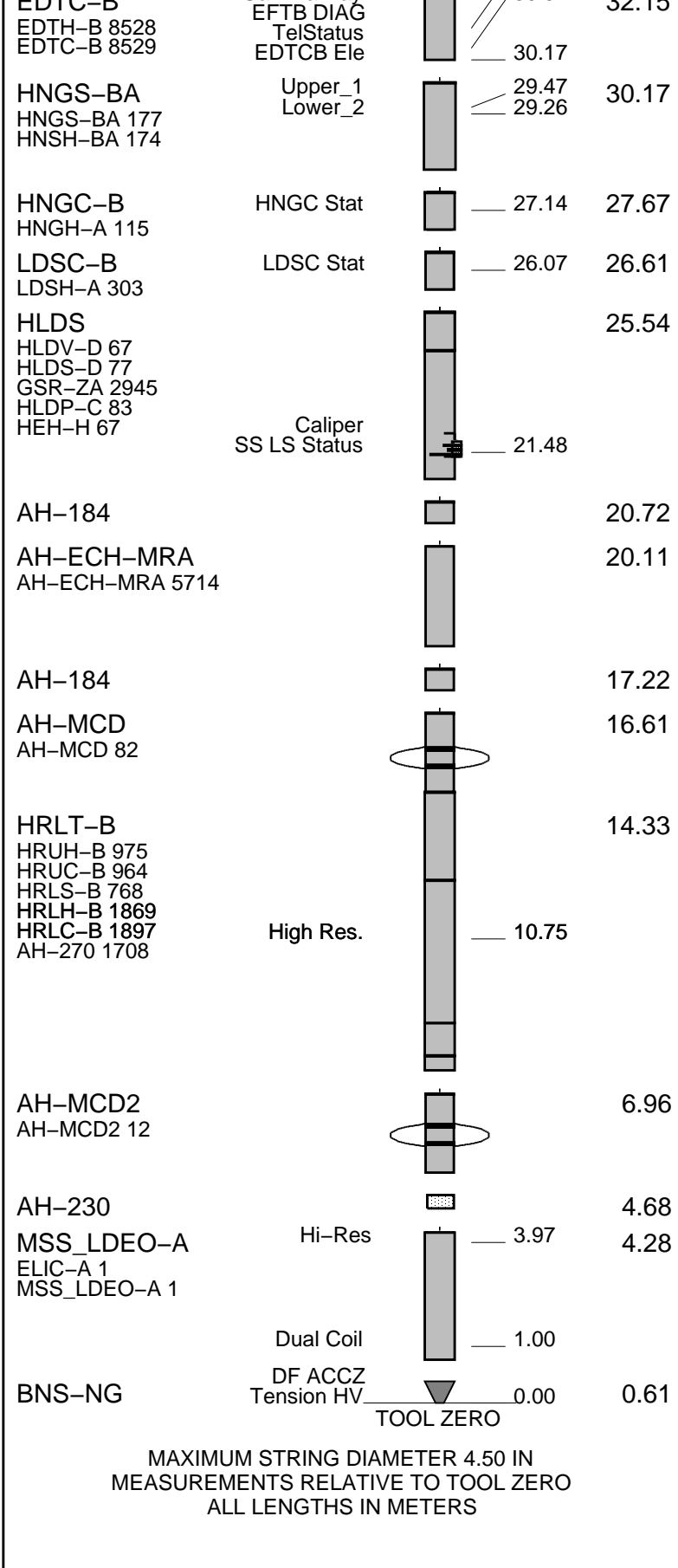
STOP

RUN 2

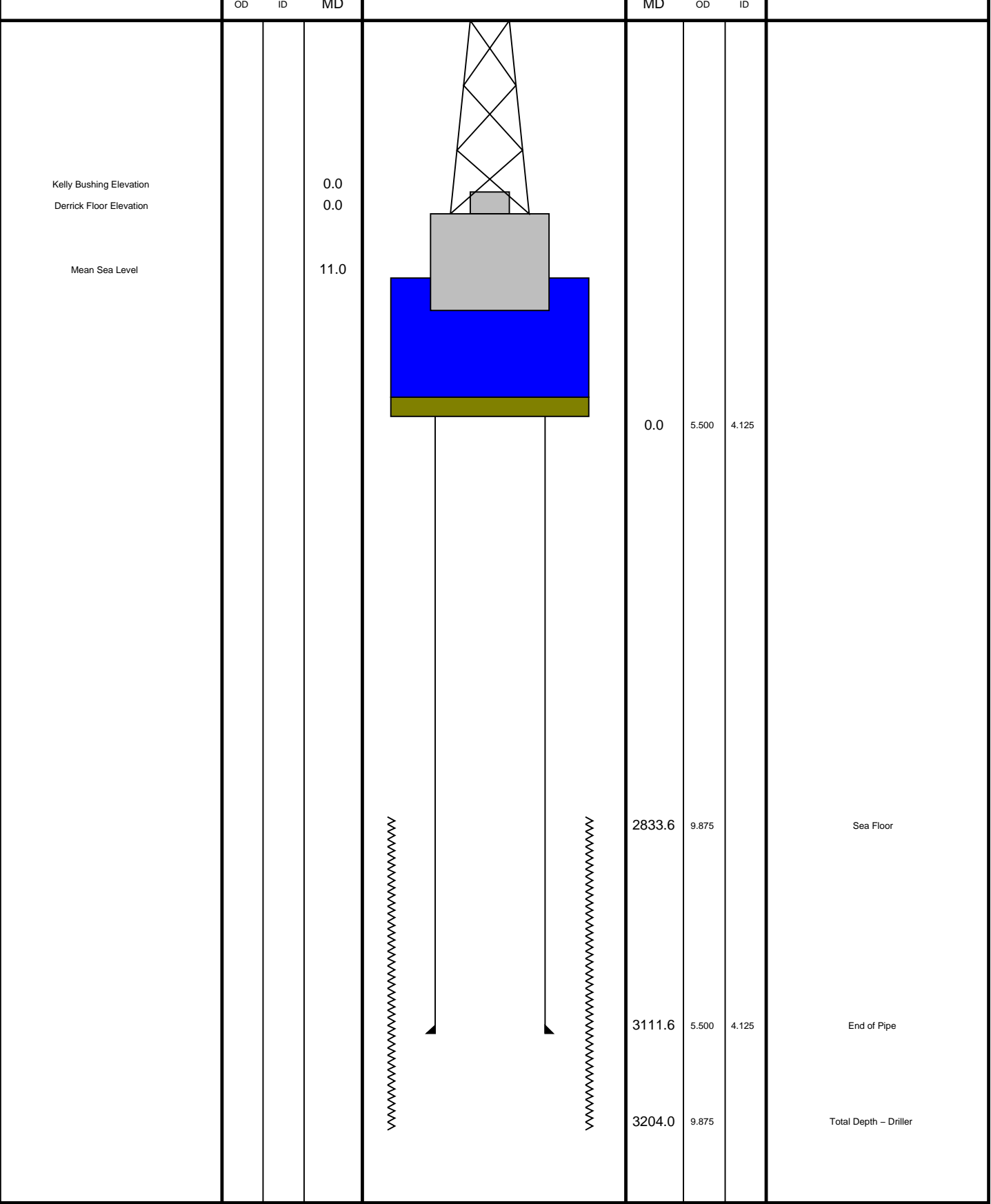
GSR-U 135
WITM (EDTS)-A

STEM
Comm Rev

32 15



Production String	(in)	(m)	Well Schematic	(m)	(in)	Casing String
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Downlog
1:200 Scale

MAXIS Field Log

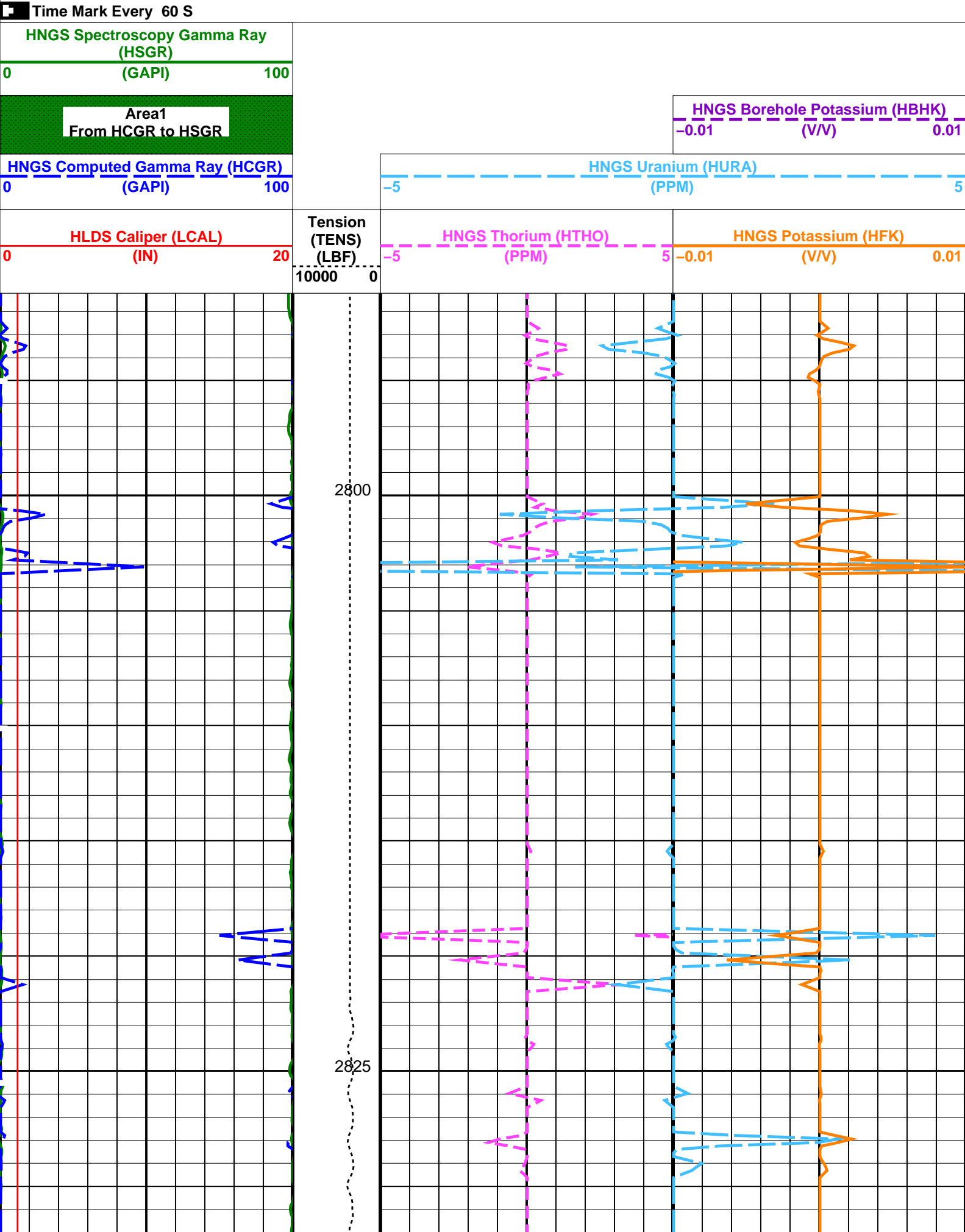
Company: International Ocean Discovery Program Well: Expedition 402, Site U1617B

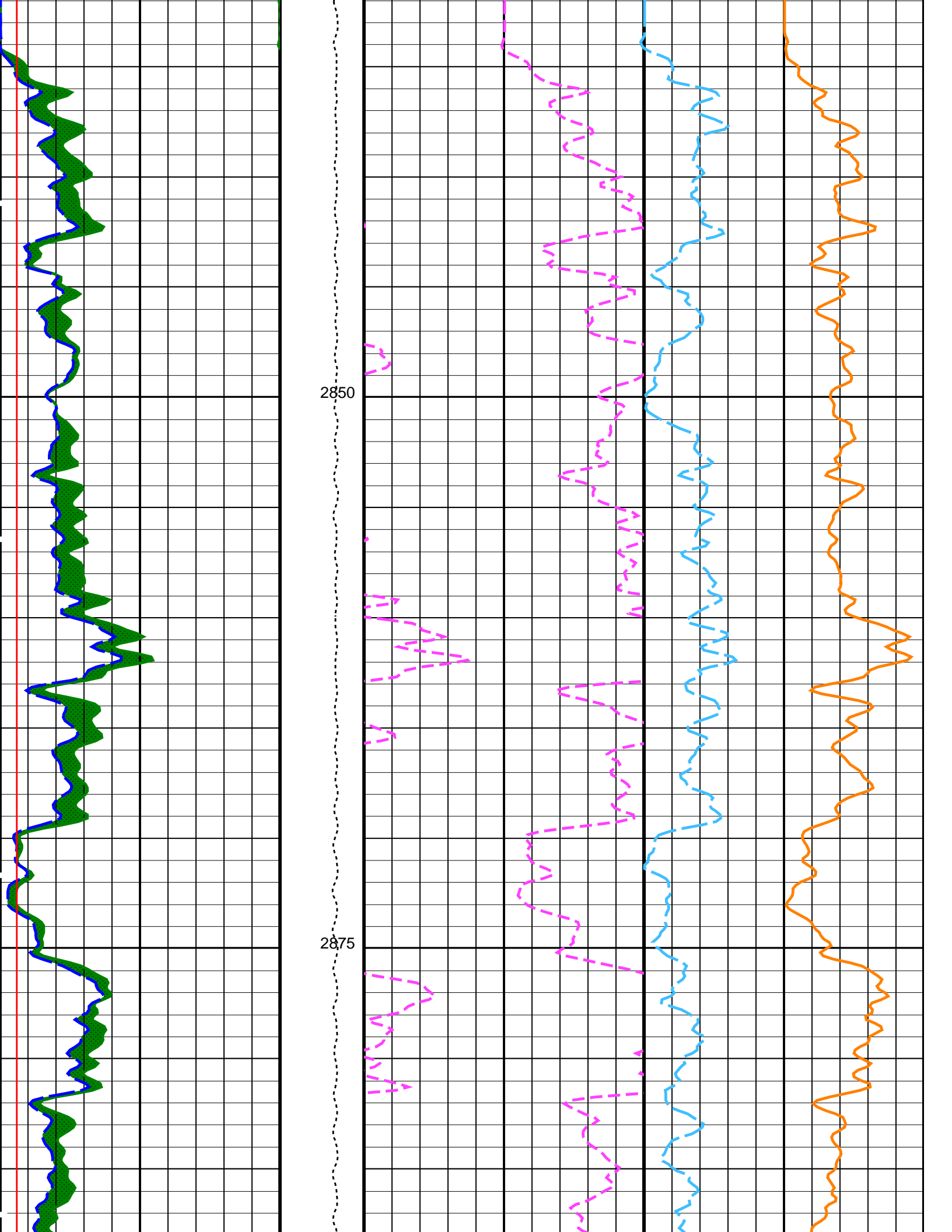
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Output DLIS Files						
DEFAULT	MSS_LDEO_HRLA_LDL_015PUP	FN:9	PRODUCER	30-Mar-2024 20:52	3158.0 M	2791.2 M
RTB	MSS_LDEO_HRLA_LDL_015PUP	FN:10	PRODUCER	30-Mar-2024 20:52	3158.0 M	2791.2 M

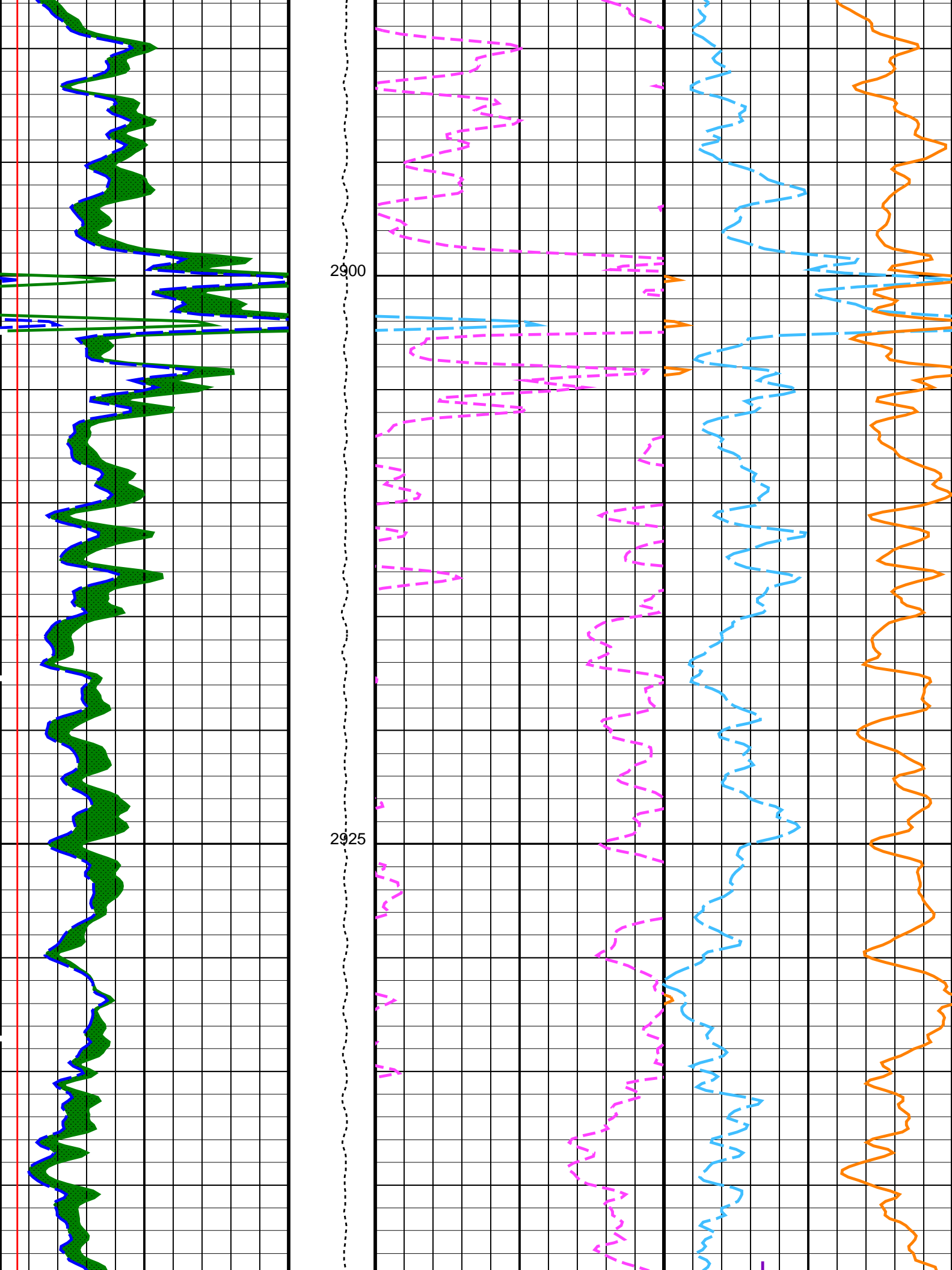
OP System Version: 19C0-187

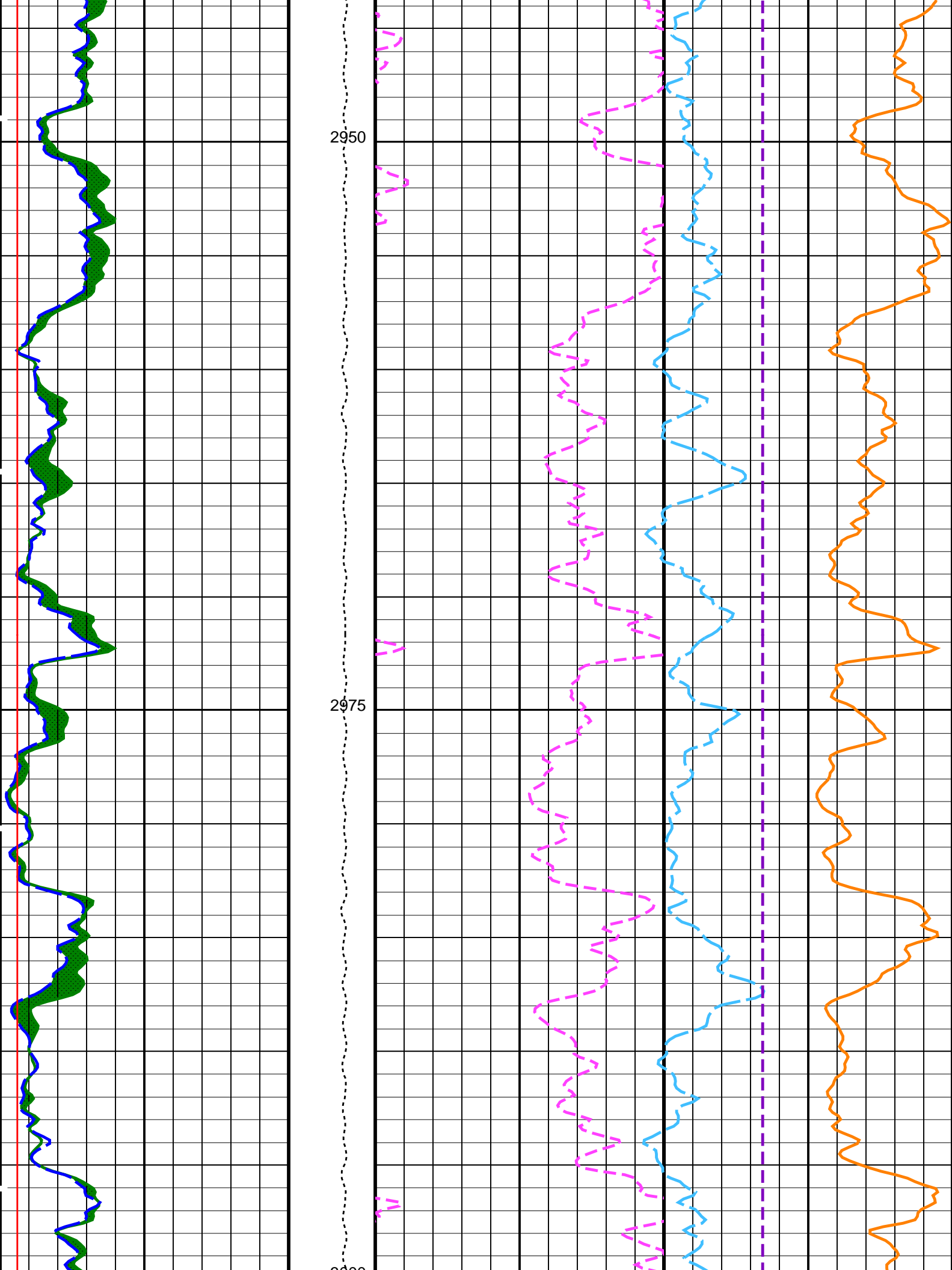
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HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187

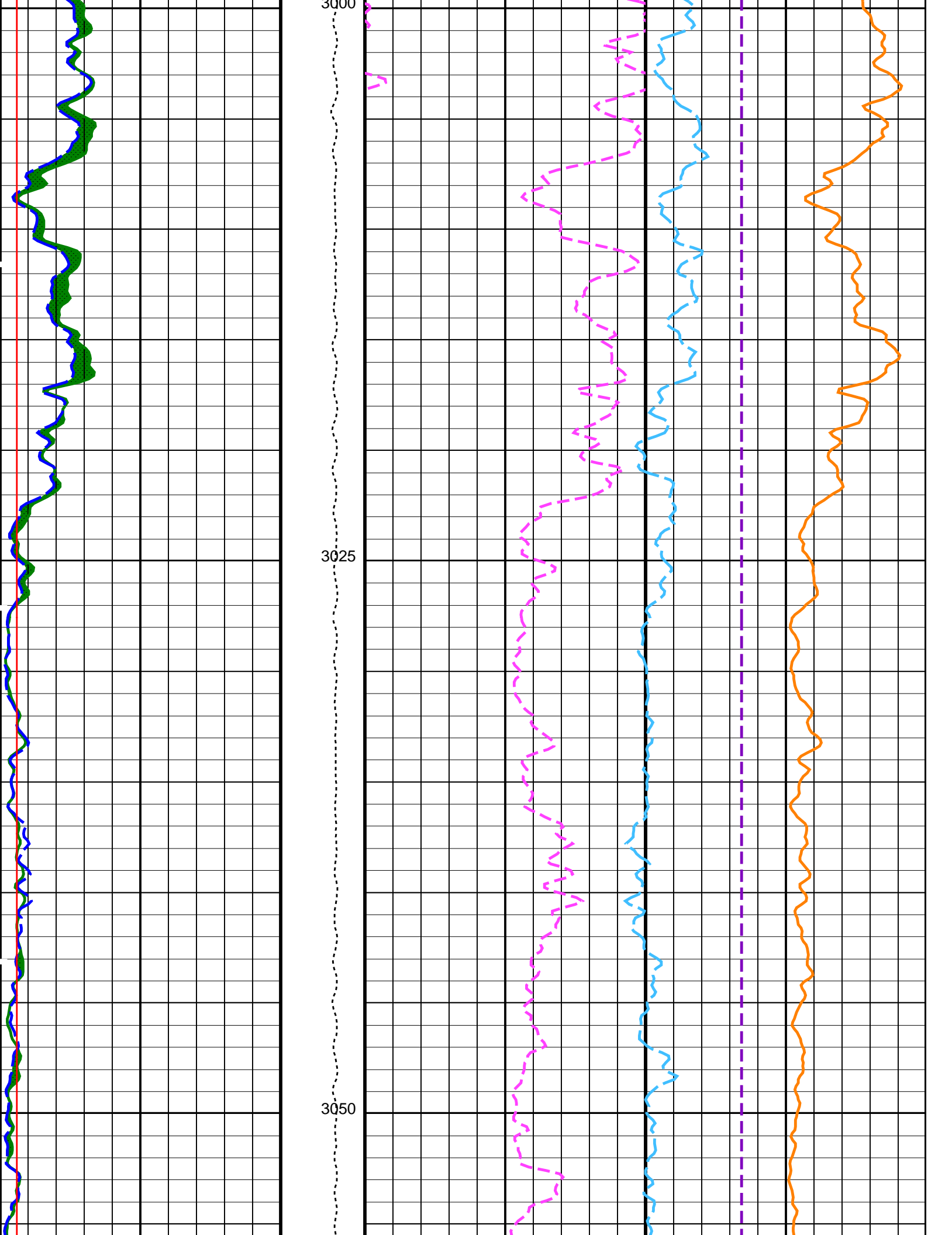
PIP SUMMARY

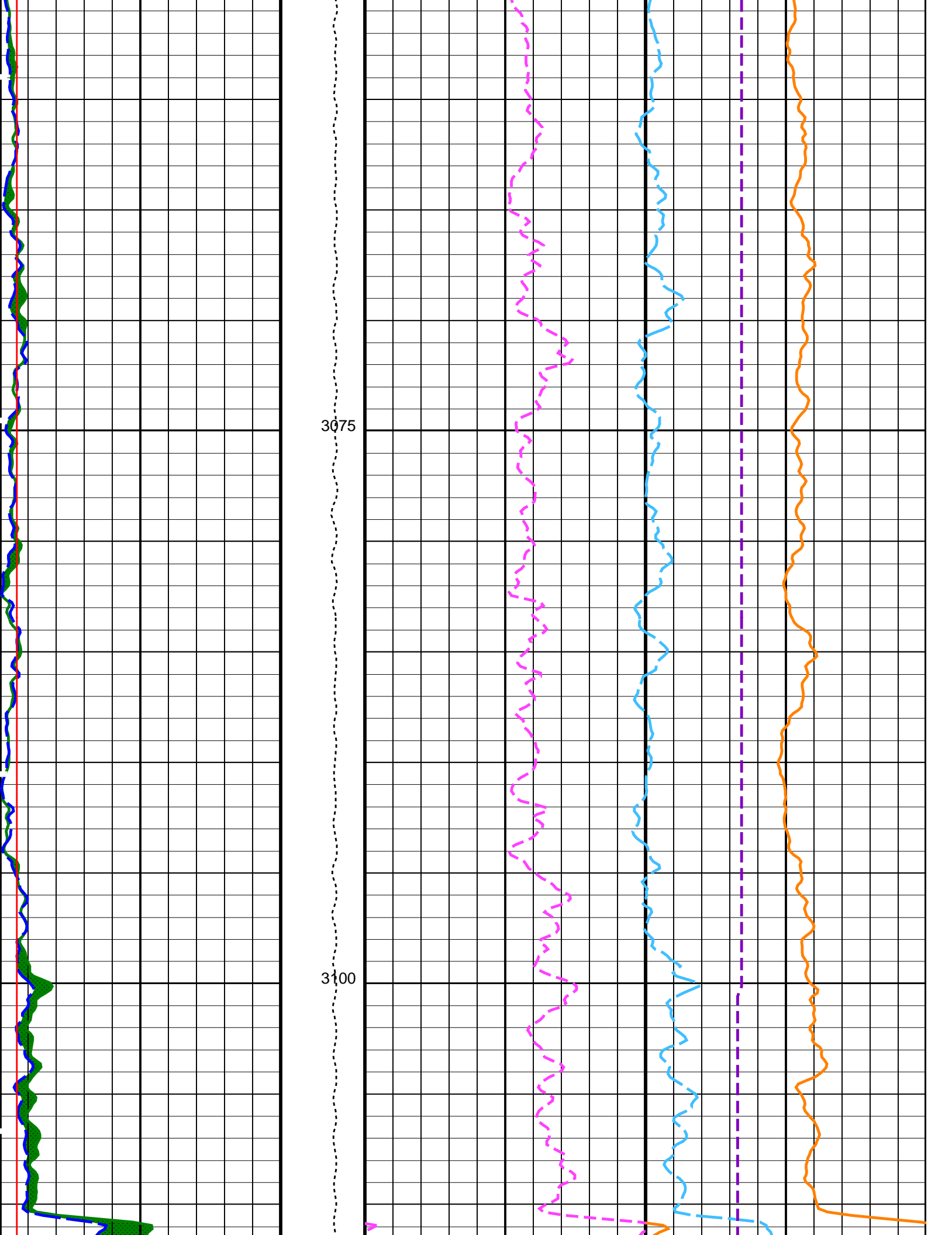


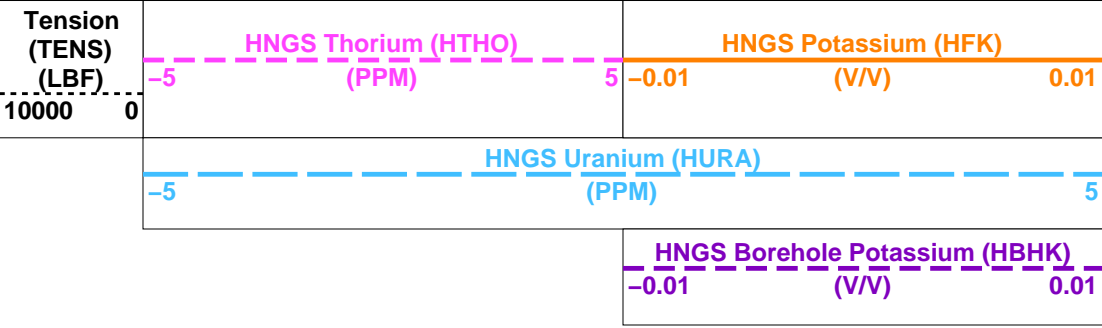
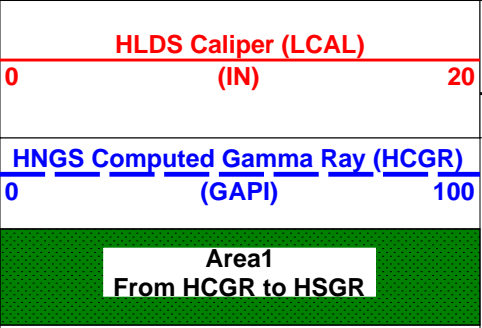
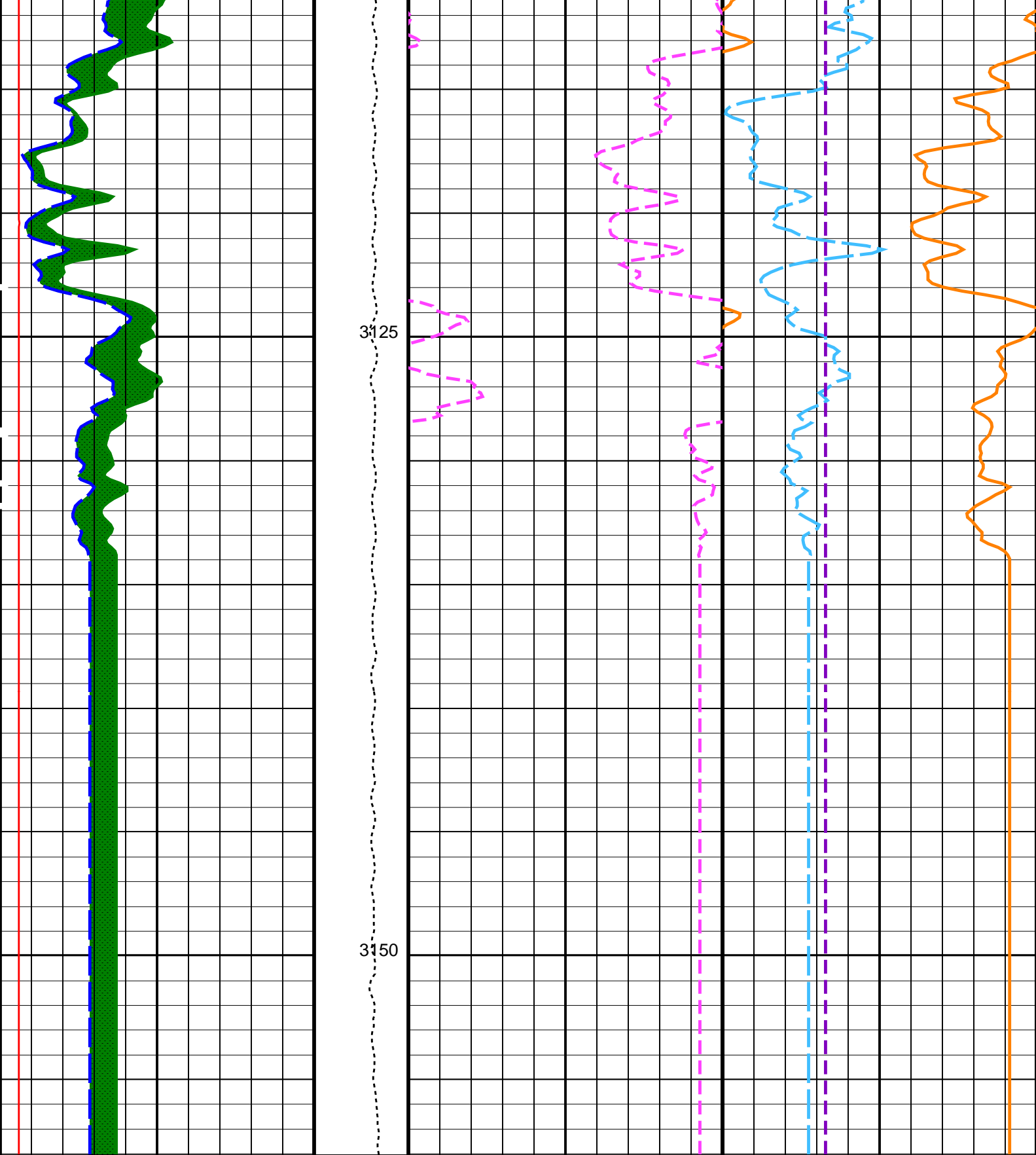












Parameters			
DLIS Name	Description	Value	
BHS GCSE	HRLT-B: High Resolution Laterolog Array – B		
	Borehole Status	OPEN	
HNGS-BA: Hostile Natural Gamma Ray Sonde	Generalized Caliper Selection	BS	
	HNGS Detector 1 Barite Constant	1	
BAR1	HNGS Detector 2 Barite Constant	1	
BAR2	HNGS Borehole Potassium Correction Concentration	0	
BHK	Borehole Status	OPEN	
BHS	Inner Casing Outer Diameter	0	IN
CSD1	Outer Casing Outer Diameter	0	IN
CSD2	Inner Casing Weight	0	LB/F
CSW1	Outer Casing Weight	0	LB/F
CSW2	HNGS Barite Constant Correction Flag	NONE	
DBCC	Generalized Caliper Selection	BS	
GCSE	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H1P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Borehole Potassium Running Average	-0.00374399	
HABK	HNGS Alpha Filter Length	60	IN
HALF	HNGS Apply Borehole Potassium Correction	NONE	
HCRB	Mud Weighting Material	NATU	
HMWM	HNGS Processing Enable	YES	
HNPE	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S1BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Standard Gamma-Ray Correction Flag	YES	
SGRC	Tool Position	ECCE	
TPOS	HNGS Detector 1 Variable Barite Factor Running Average	0.965896	
VBA1	HNGS Detector 2 Variable Barite Factor Running Average	0.966453	
VBA2	EDTC-B: Enhanced DTS Cartridge		
BHS GCSE	Borehole Status	OPEN	
	Generalized Caliper Selection	BS	
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.02	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	NORMAL	

Format: HNGSYields

Vertical Scale: 1:200

Graphics File Created: 30-Mar-2024 20:52

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
EDTC-B	19C0-187		

Input DLIS Files					
DEFAULT	Flip_MSS_LDEO_HRLA_014LUP	PRODUCER	30-Mar-2024 20:20	3163.2 M	2791.2 M
Output DLIS Files					
DEFAULT	MSS_LDEO_HRLA_LDL_015PUP	FN:9	PRODUCER	30-Mar-2024 20:52	
RTB	MSS_LDEO_HRLA_LDL_015PUP	FN:10	PRODUCER	30-Mar-2024 20:52	

Input DLIS Files					
DEFAULT	Flip_MSS_LDEO_HRLA_014LUP	PRODUCER	30-Mar-2024 20:20	3163.2 M	2791.2 M
Output DLIS Files					
DEFAULT	MSS_LDEO_HRLA_LDL_015PUP	FN:9	PRODUCER	30-Mar-2024 20:52	3158.0 M
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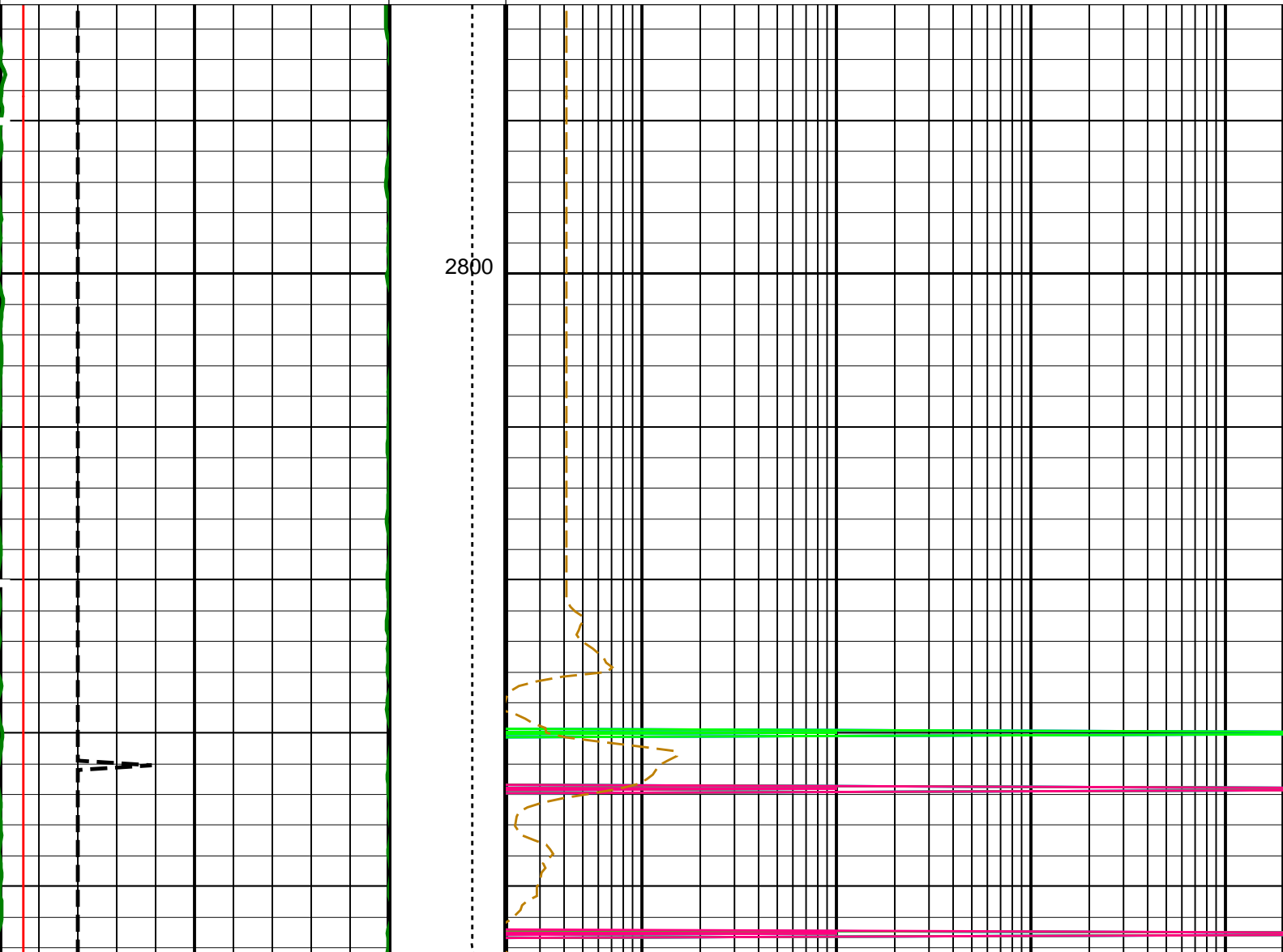
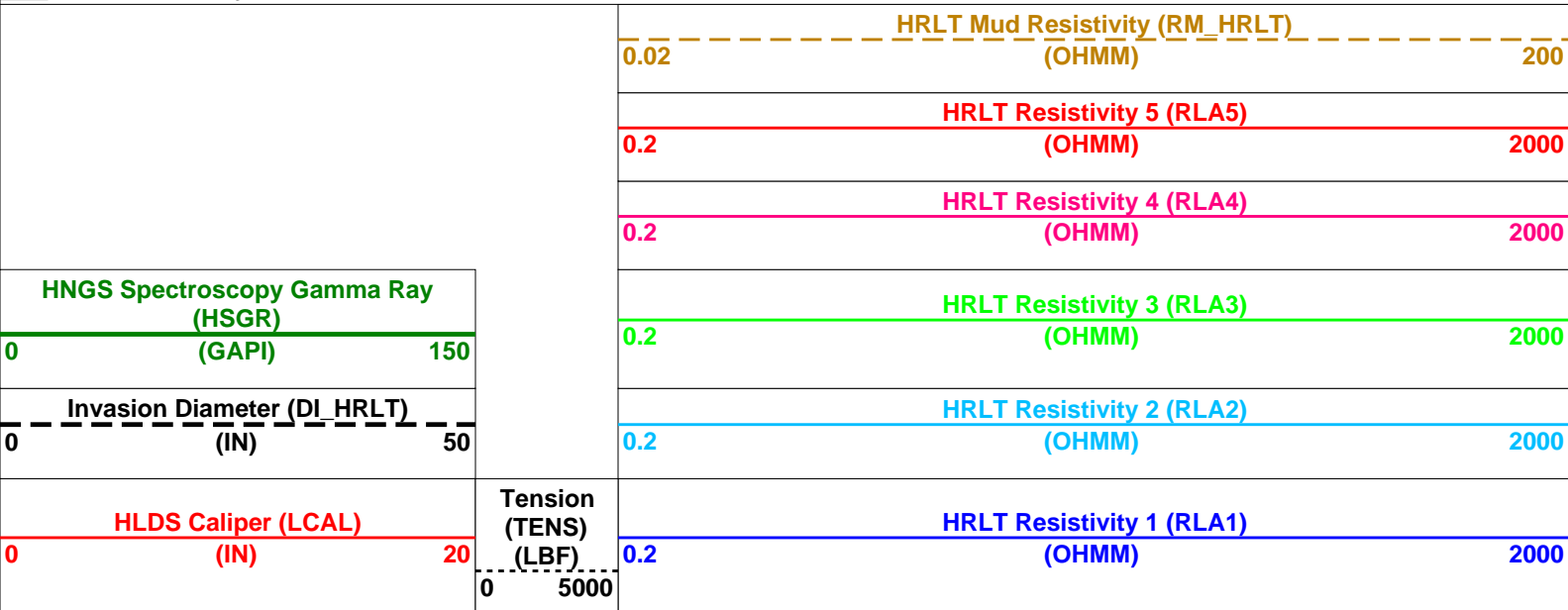
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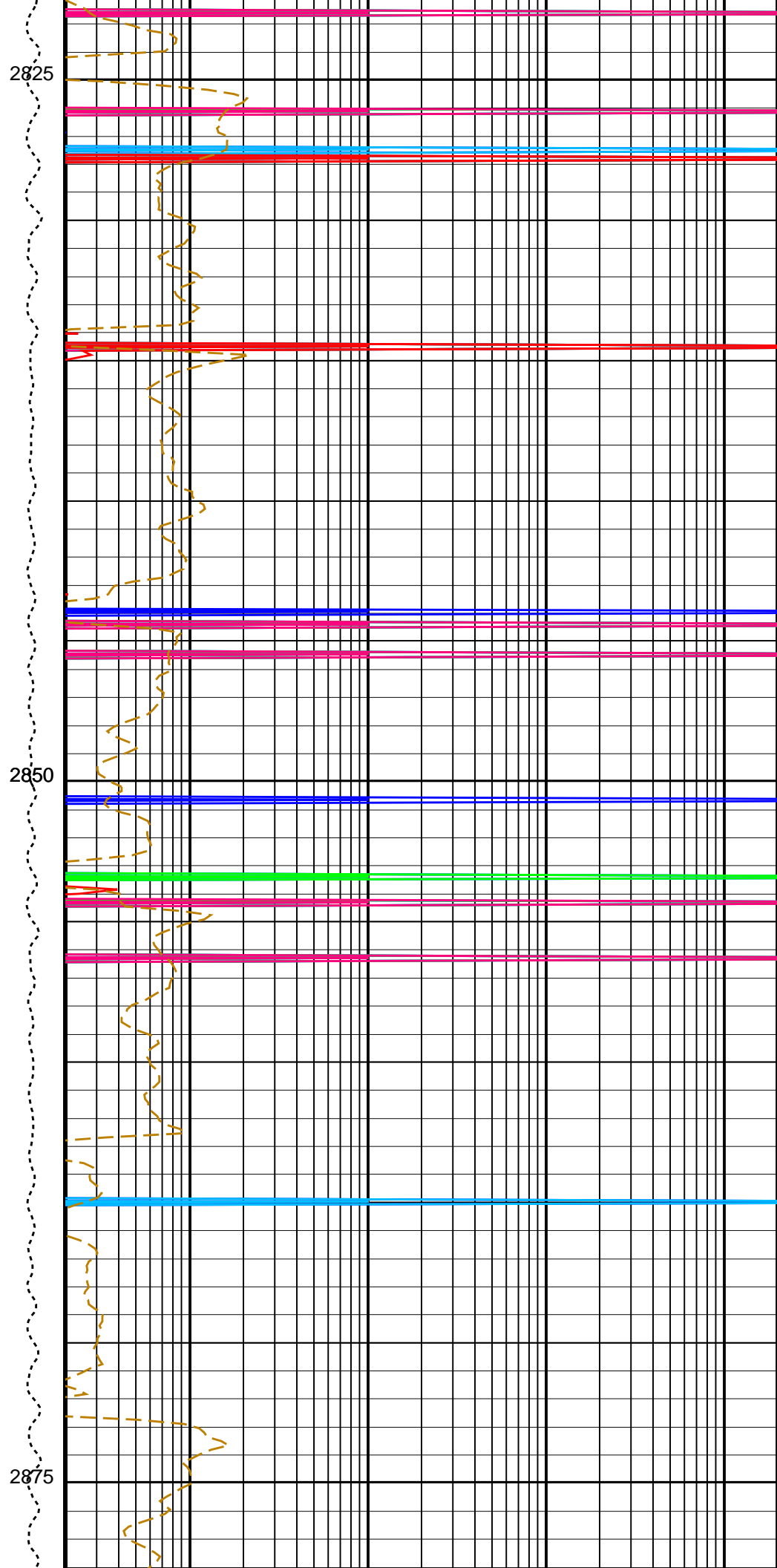
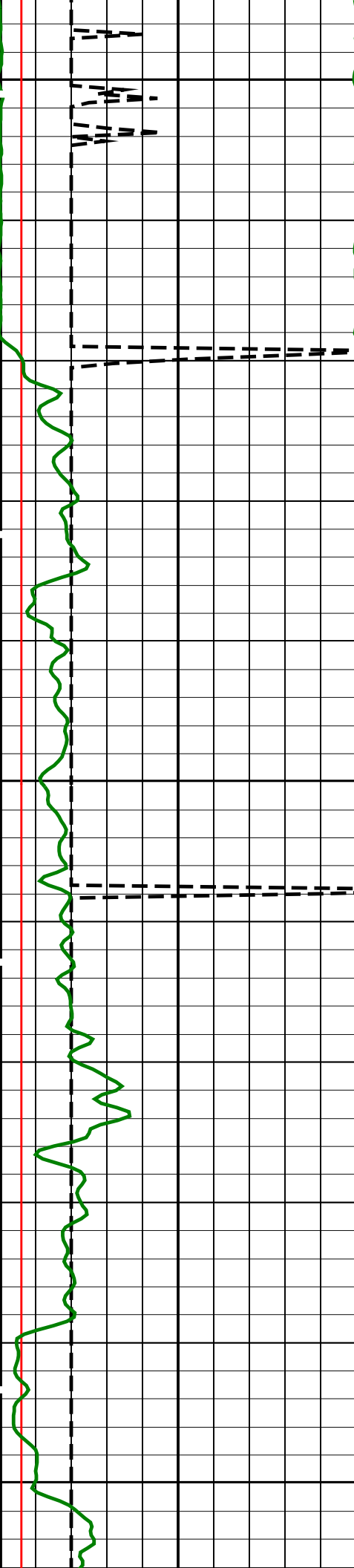
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HLDS 19C0-187
HNGC-B 19C0-187
EDTC-B 19C0-187

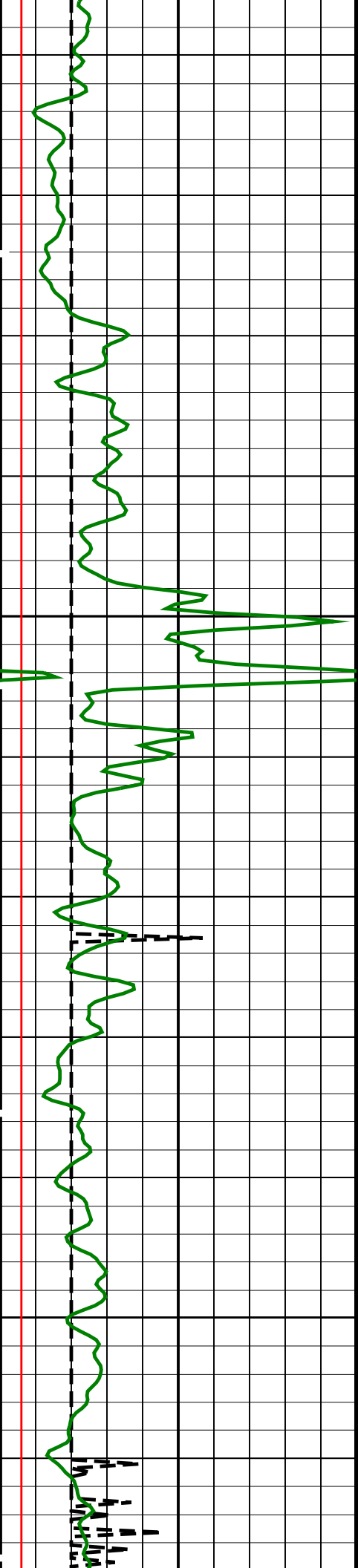
HRLT-B 19C0-187
LDSC-B 19C0-187
HNGS-BA 19C0-187

PIP SUMMARY

Time Mark Every 60 S

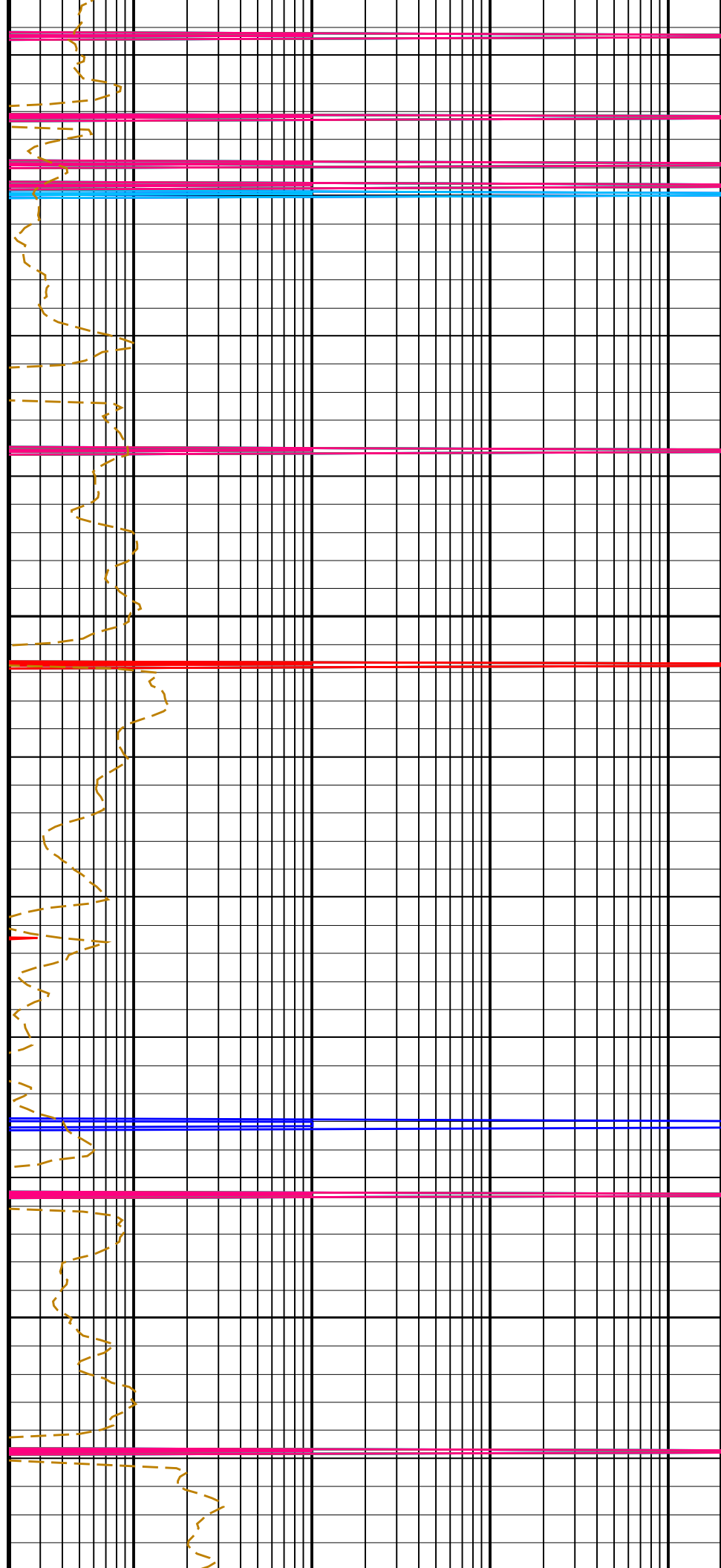


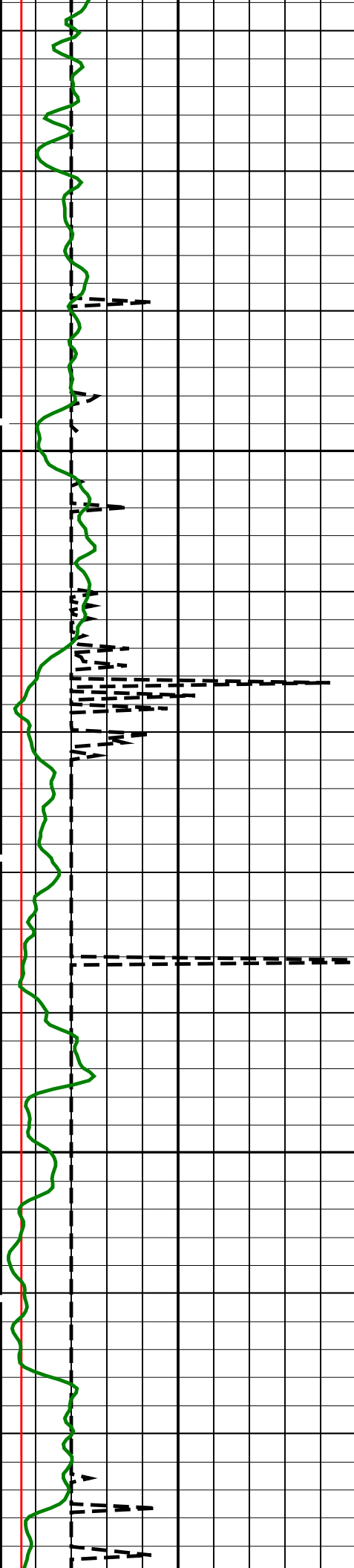




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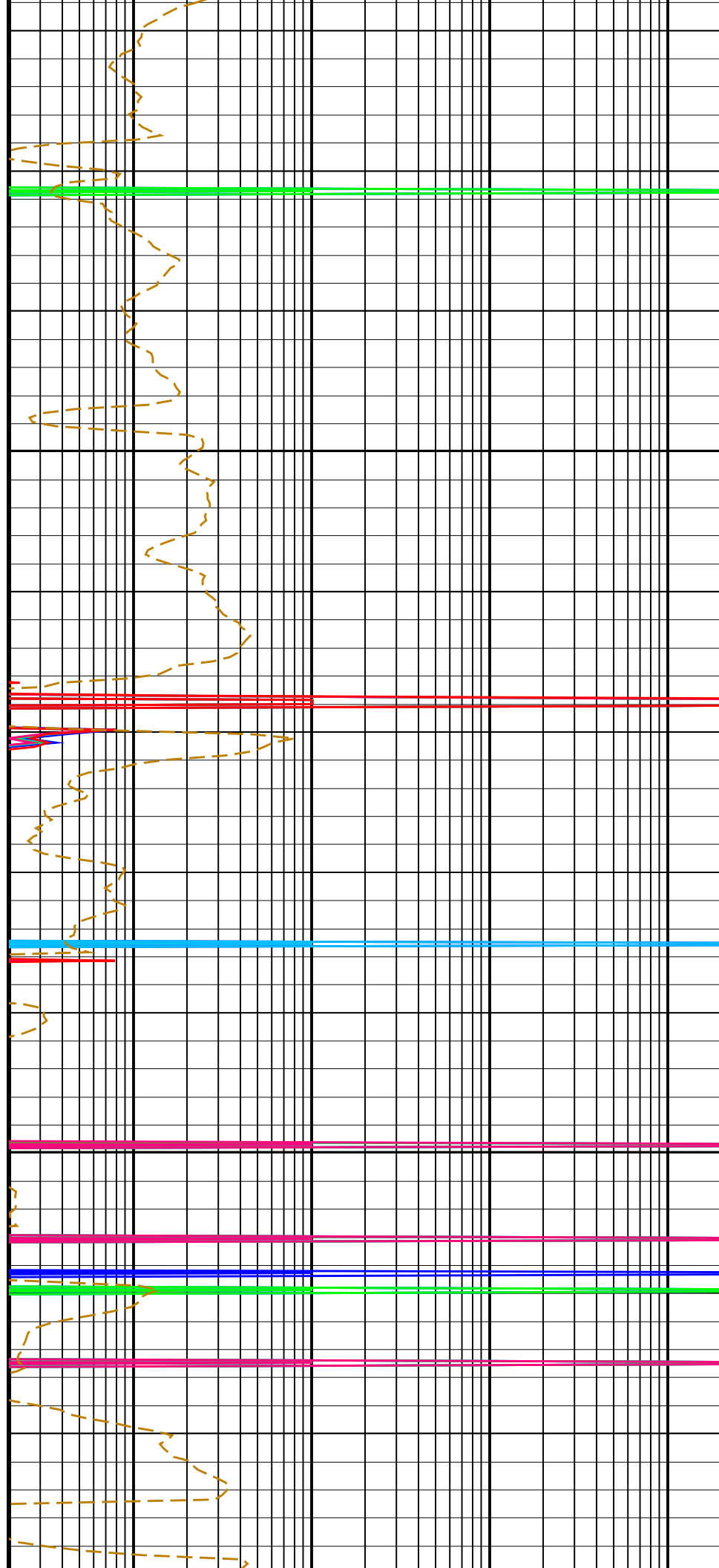
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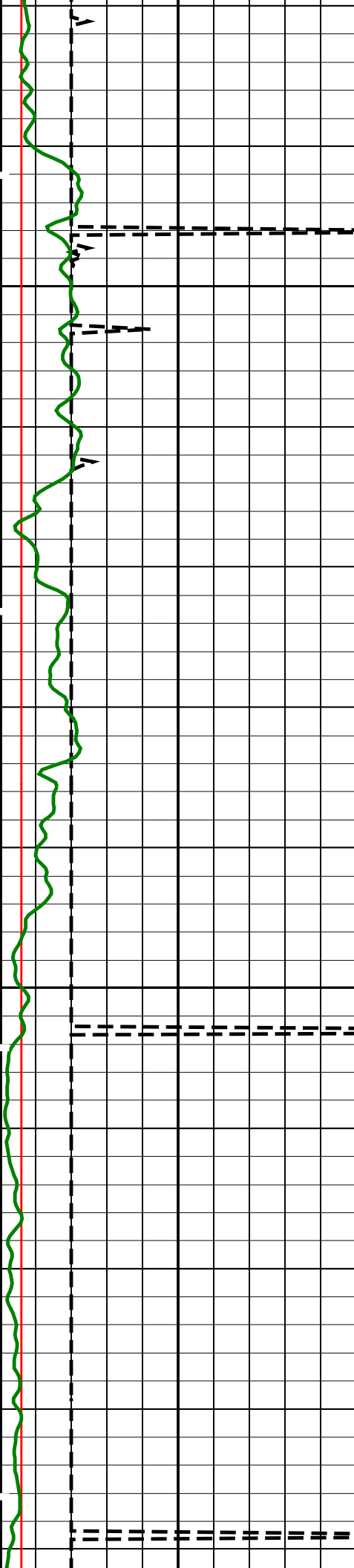




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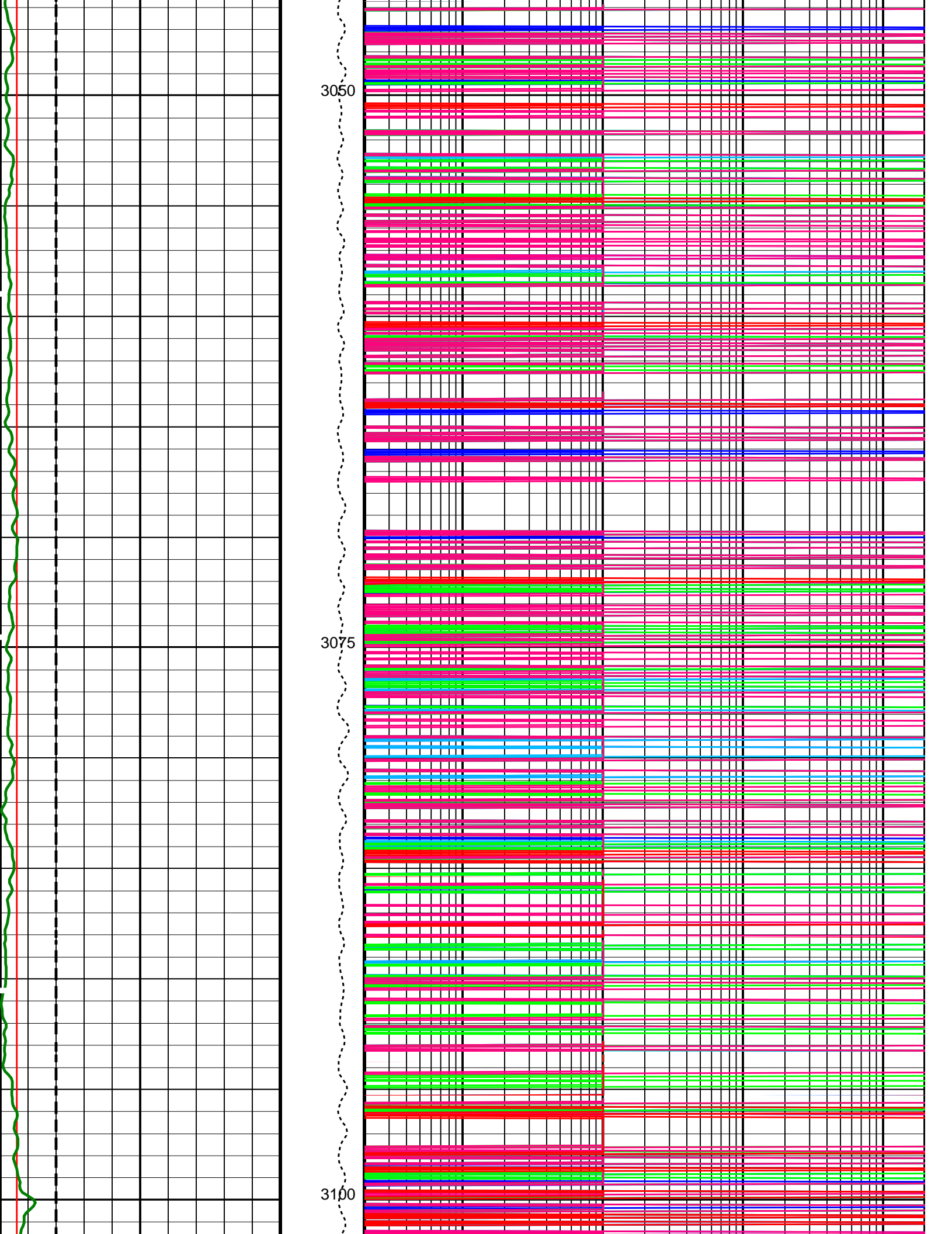


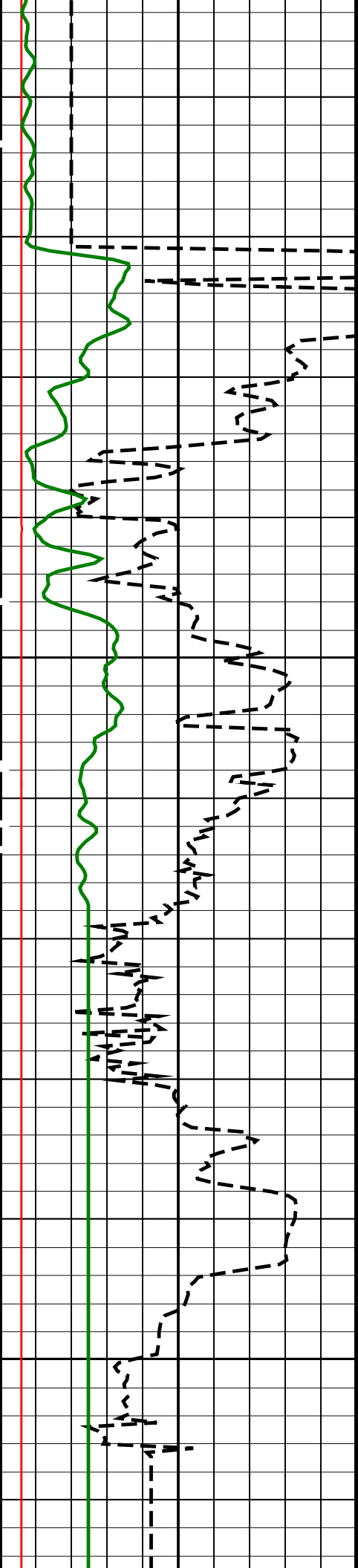


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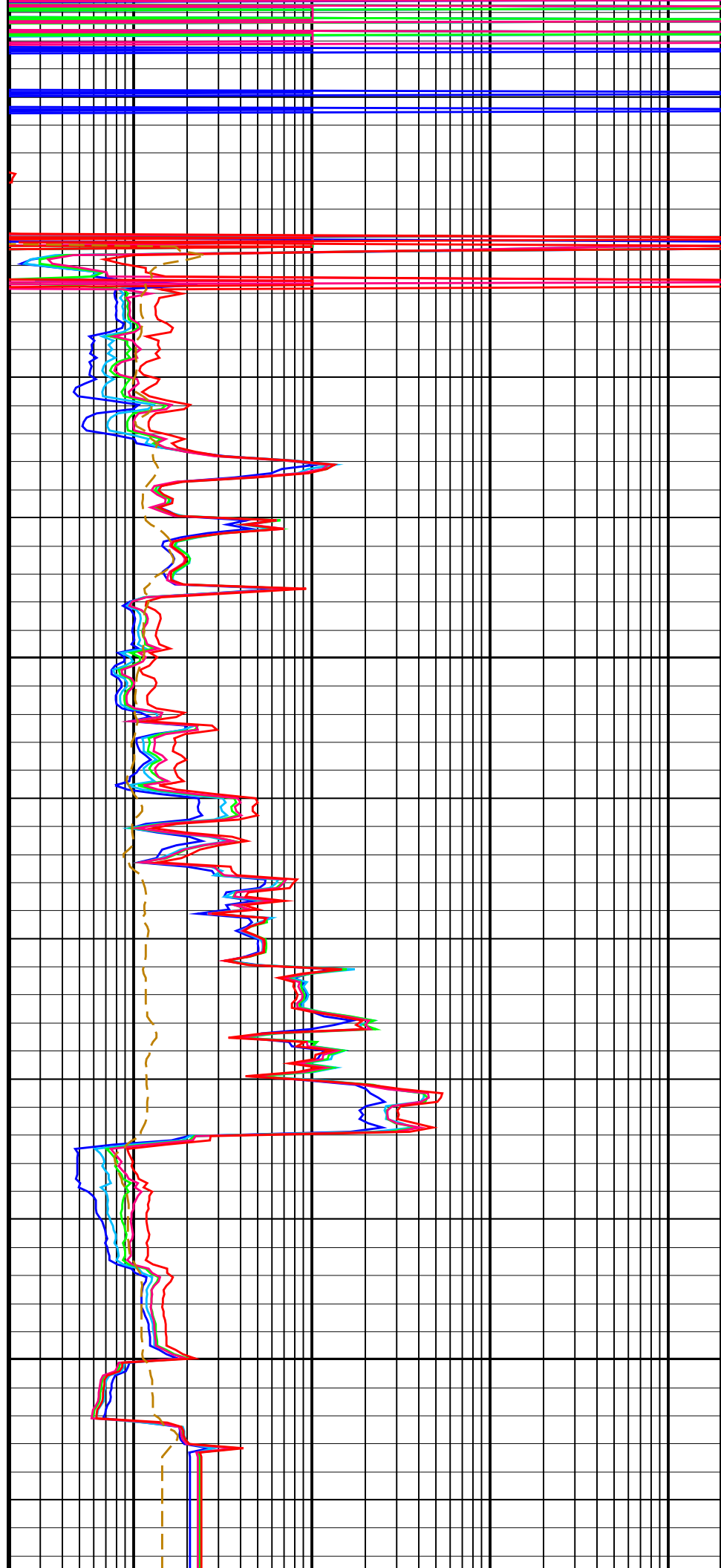






3125

3150



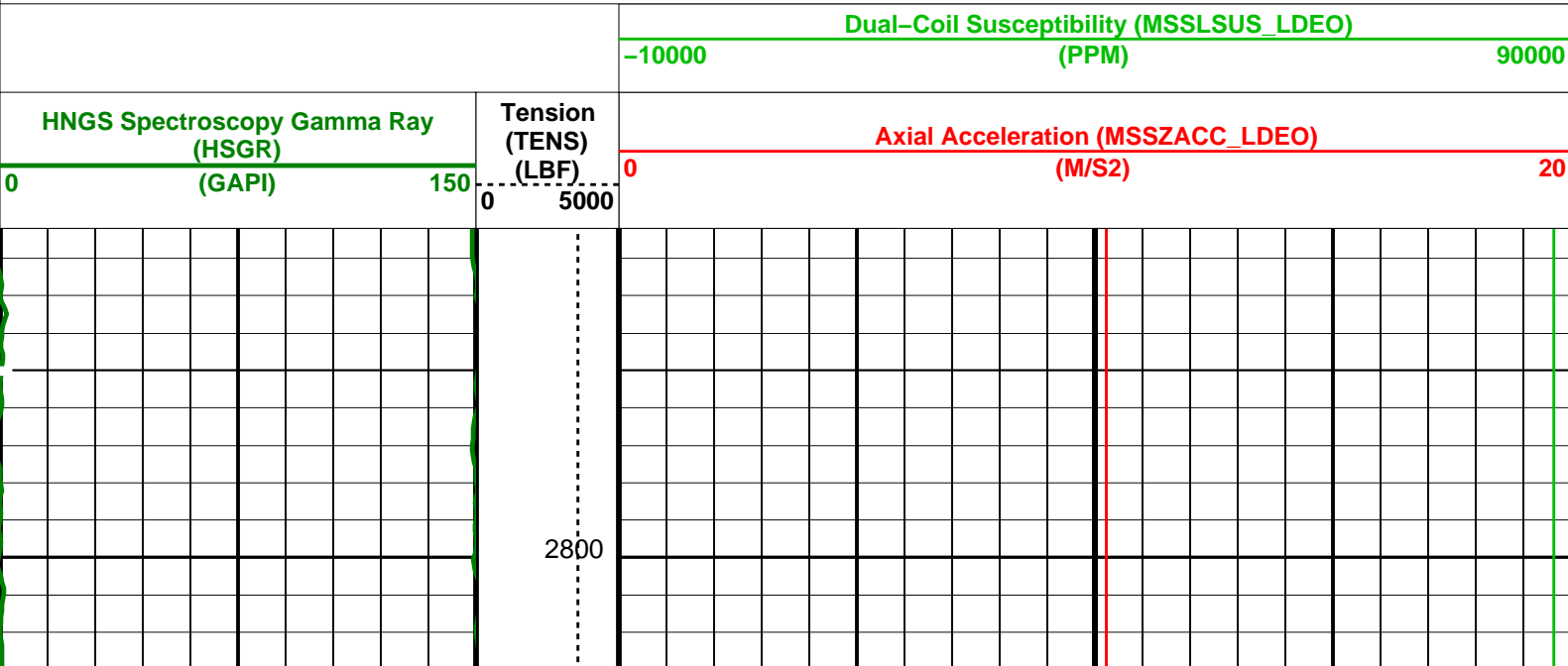
<div>HLDS Caliper (LCAL)</div> <div>0 (IN) 20</div>			<div>Tension (TENS) (LBF)</div> <div>0 5000</div>	<div>HRLT Resistivity 1 (RLA1)</div> <div>0.2 (OHMM) 2000</div>		
<div>Invasion Diameter (DI_HRLT)</div> <div>0 (IN) 50</div>				<div>HRLT Resistivity 2 (RLA2)</div> <div>0.2 (OHMM) 2000</div>		
<div>HNGS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

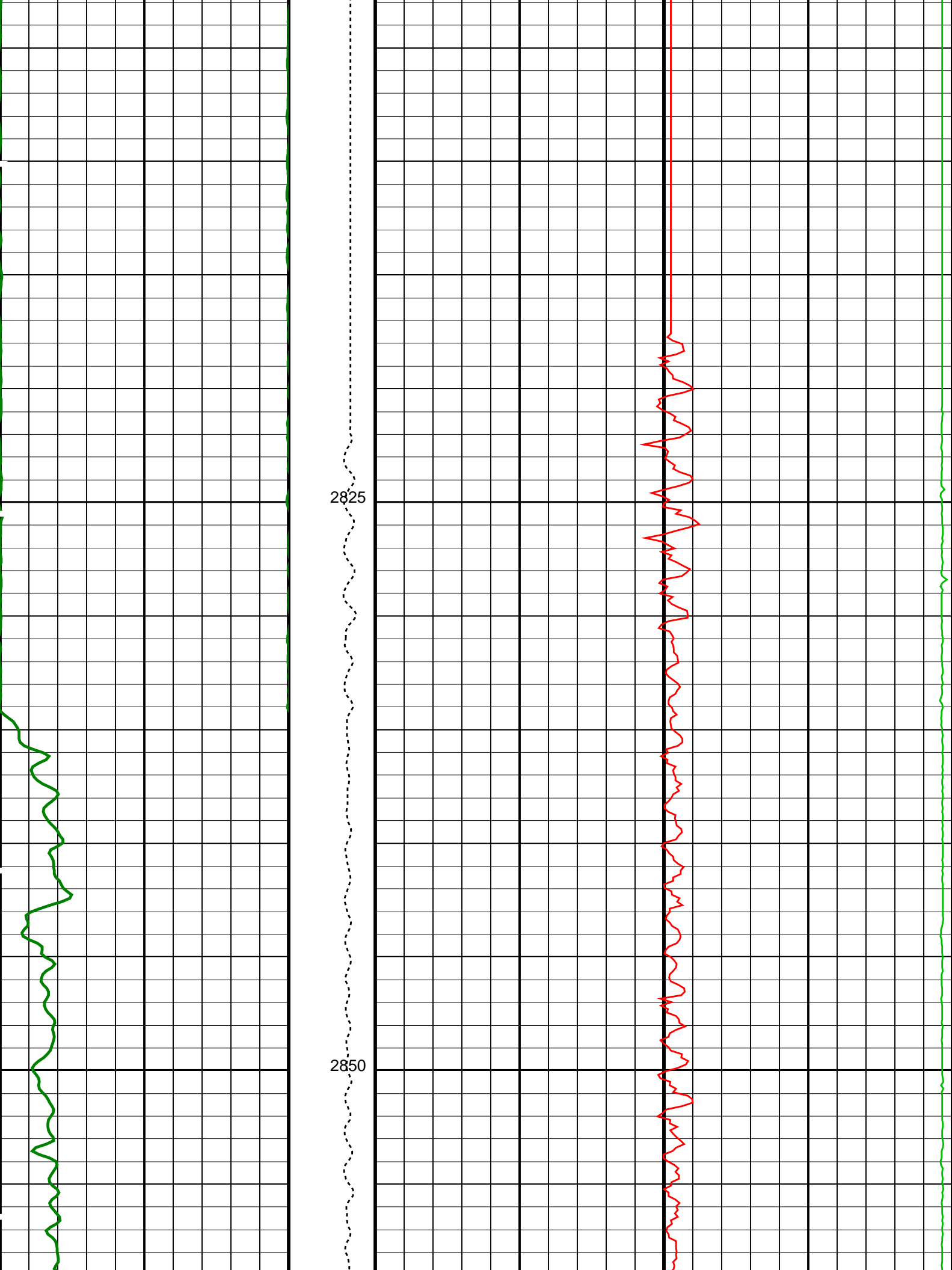
PIP SUMMARY

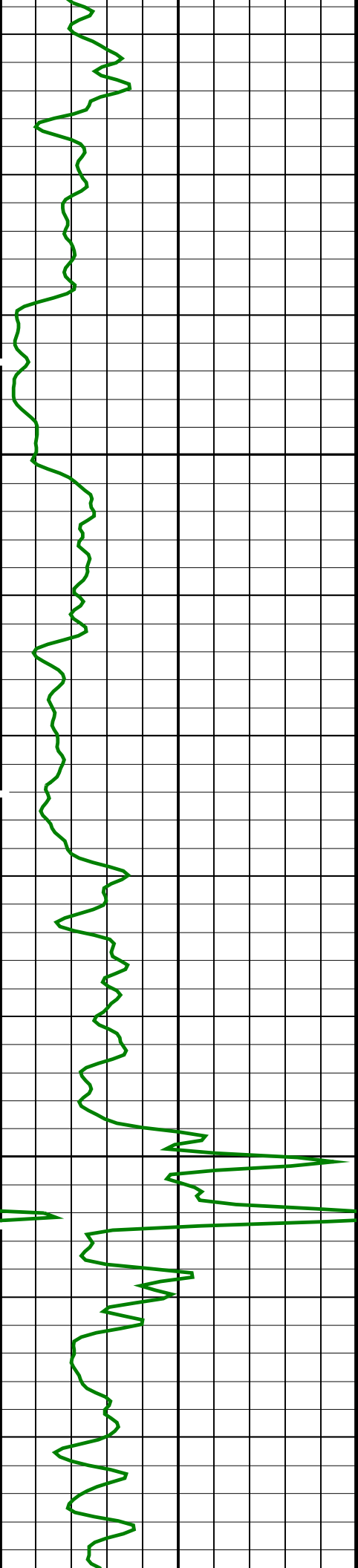
Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
HRLT-B: High Resolution Laterolog Array – B			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	35	DEGF
GCSE	Generalized Caliper Selection	BS	
GGRD	Geothermal Gradient	0.01	DF/F
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	
PROCSP0	Sonde Position	Centered	
SHT	Surface Hole Temperature	68	DEGF
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)	35	DEGF
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	BS	
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	-0.00374399	
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	68	DEGF
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.965896	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.966453	
EDTC-B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	35	DEGF
GCSE	Generalized Caliper Selection	BS	
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	

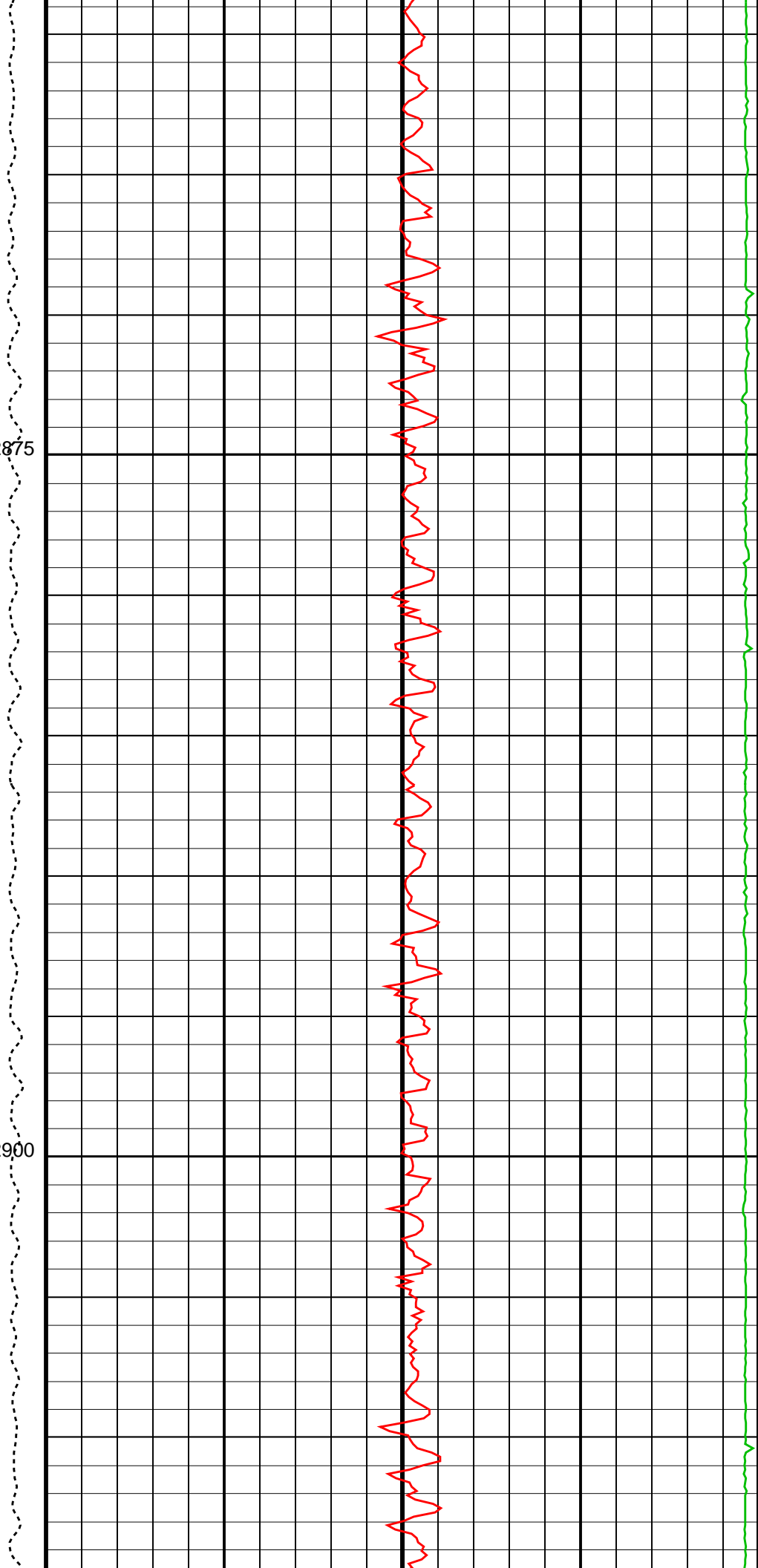


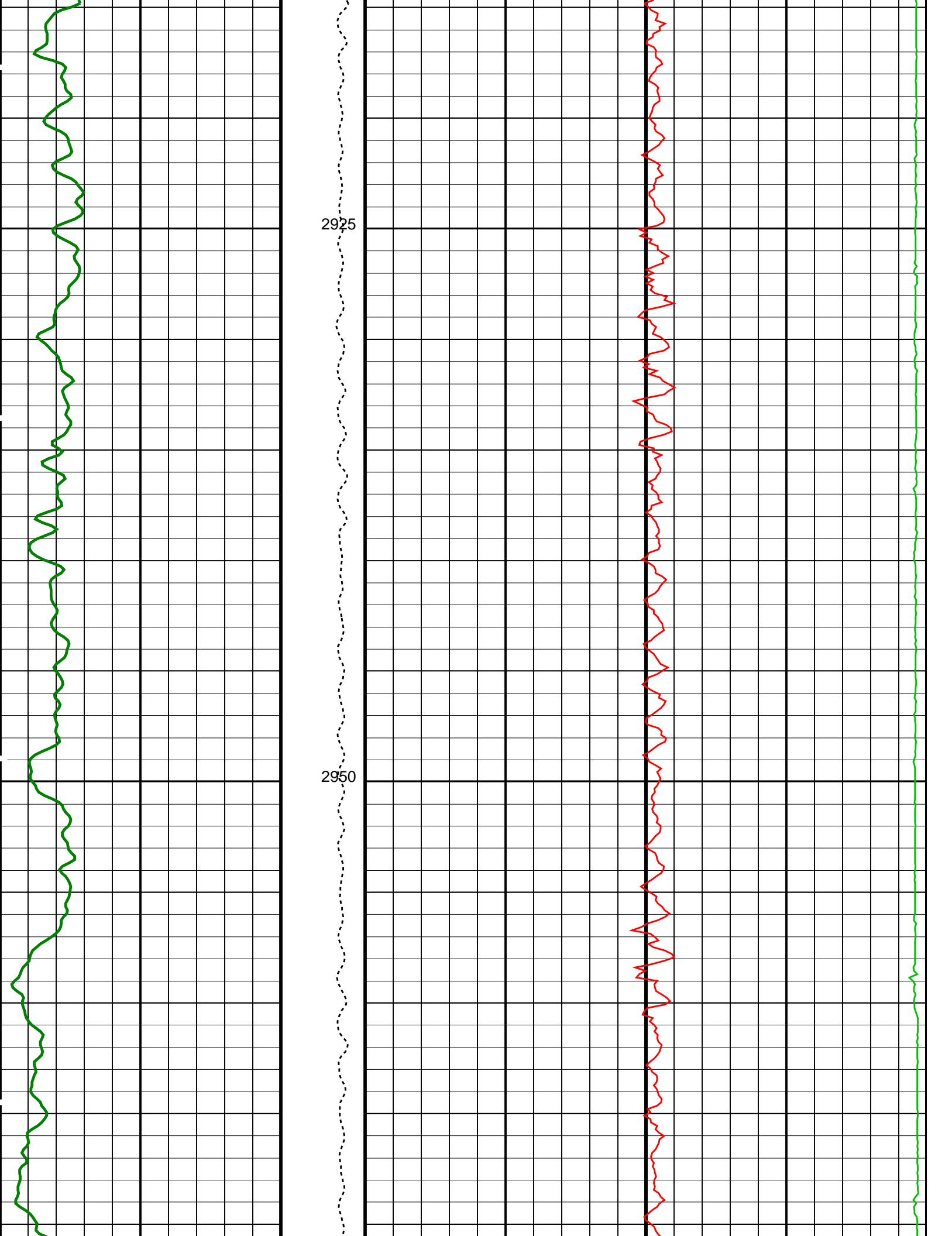


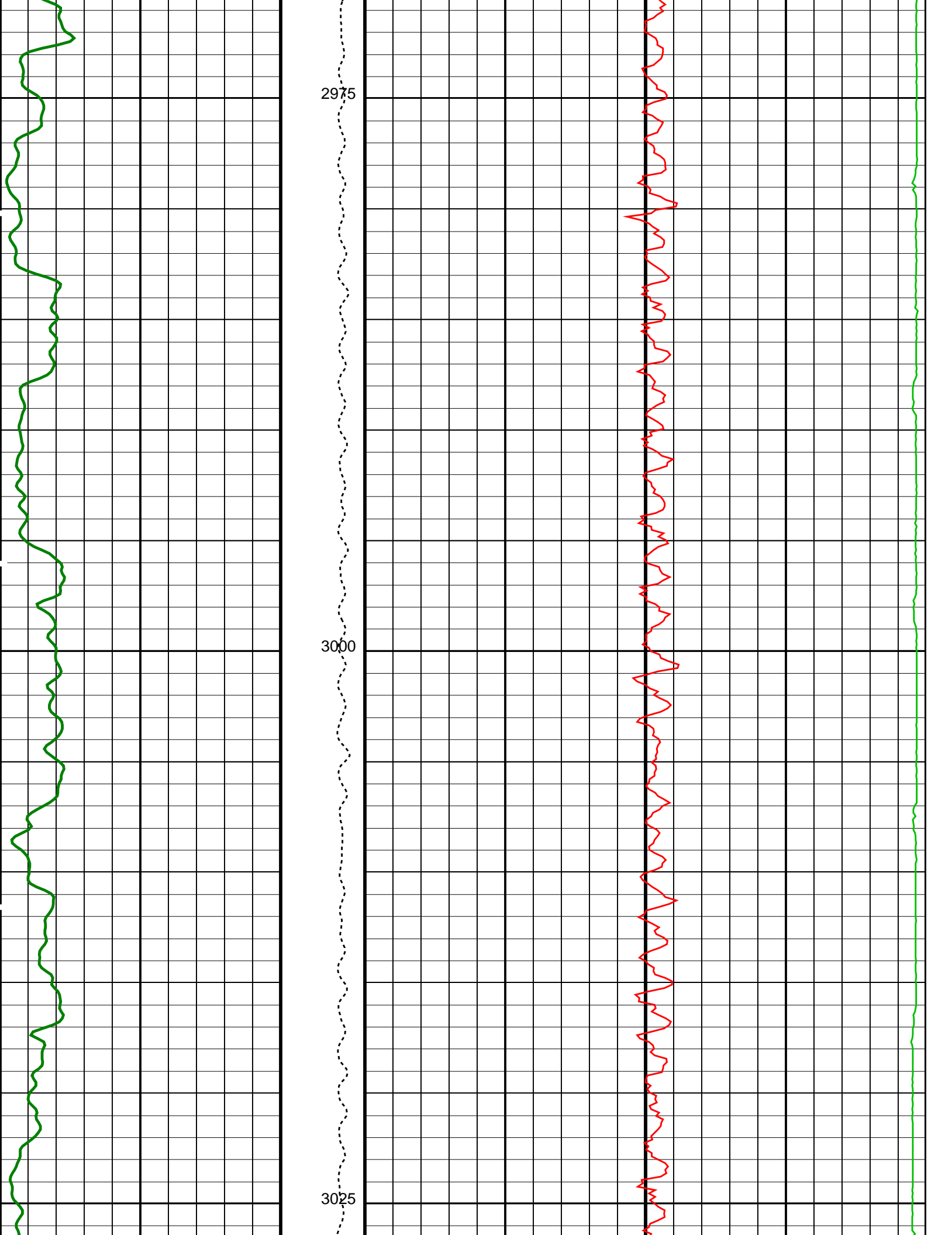


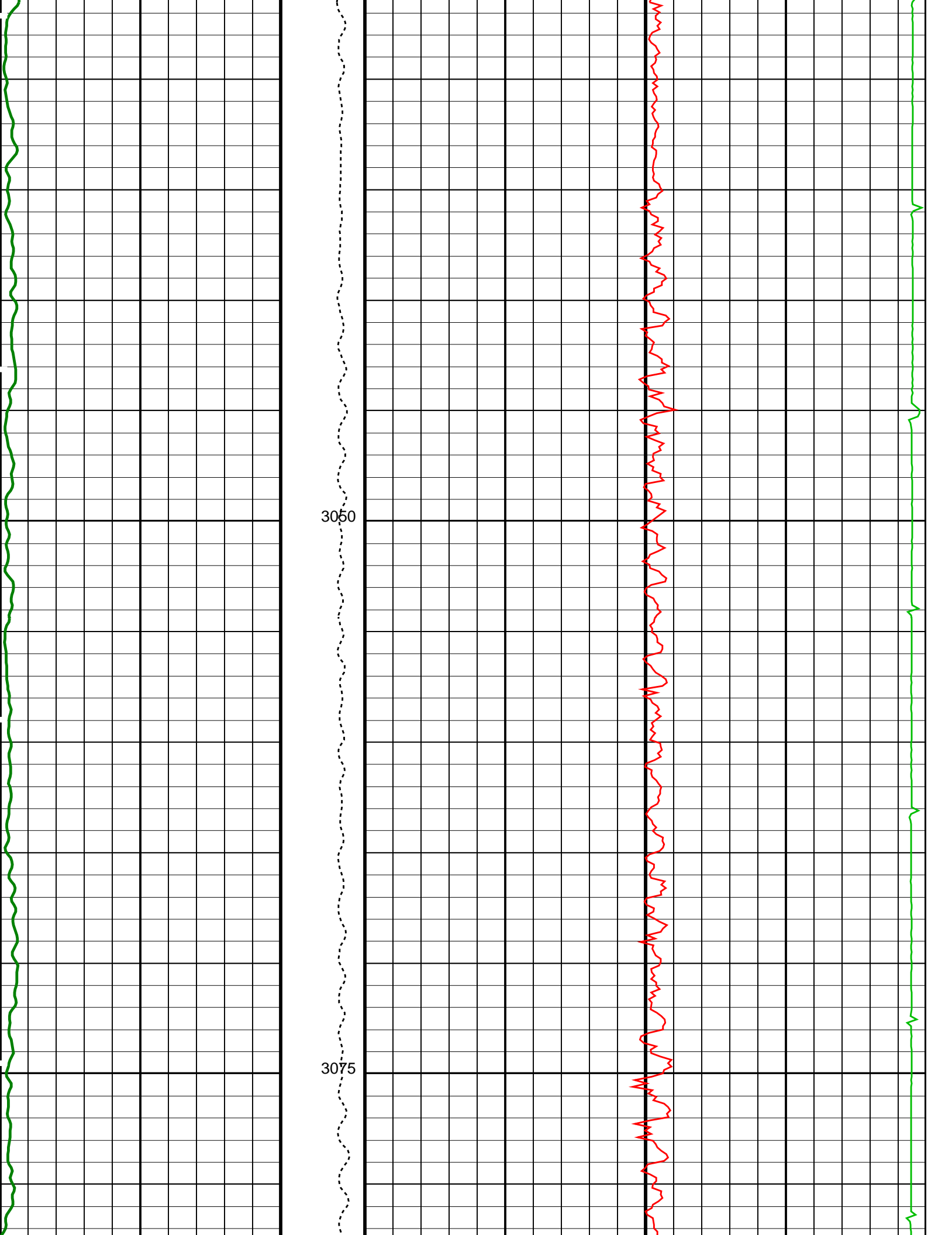
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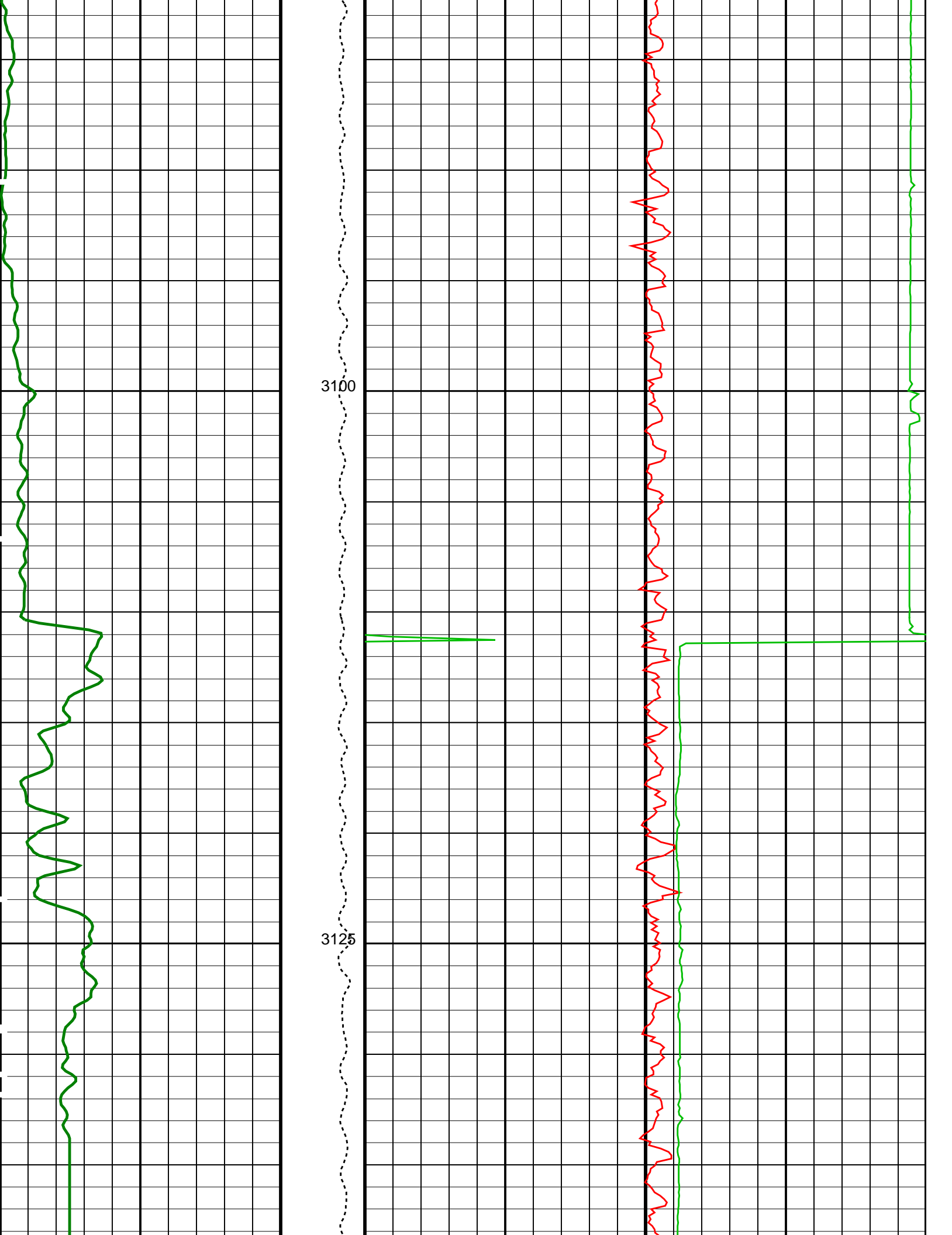
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OP System Version: 19C0-187

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

Input DLIS Files

DEFAULT	Flip_MSS_LDEO_HRLA_014LUP	PRODUCER	30-Mar-2024 20:20	3163.2 M	2791.2 M
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Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_015PUP	FN:9	PRODUCER	30-Mar-2024 20:52
RTB	MSS_LDEO_HRLA_LDL_015PUP	FN:10	PRODUCER	30-Mar-2024 20:52

Schlumberger

Uplog
1:200 Scale

MAXIS Field Log

Company: International Ocean Discovery ProgramWell: Expedition 402, Site U1617B

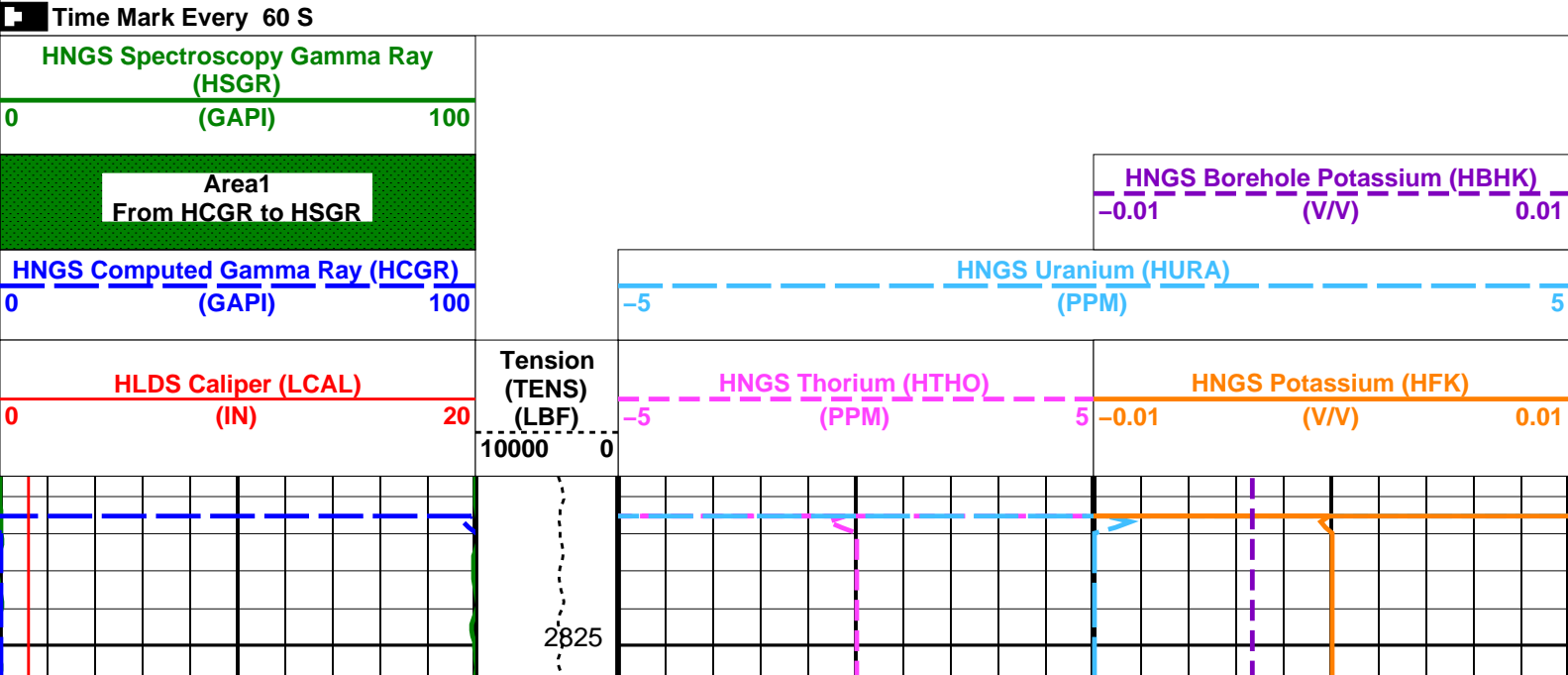
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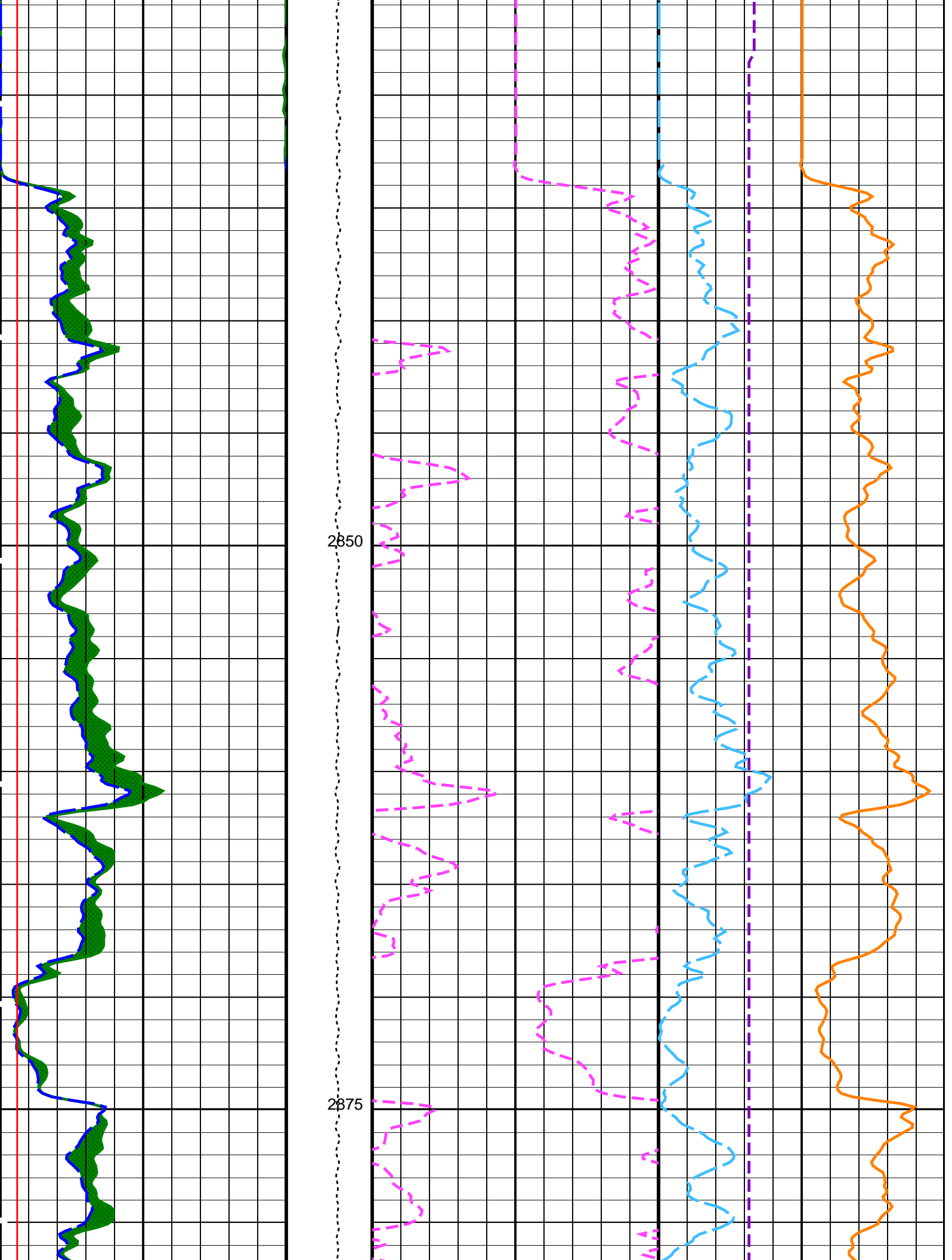
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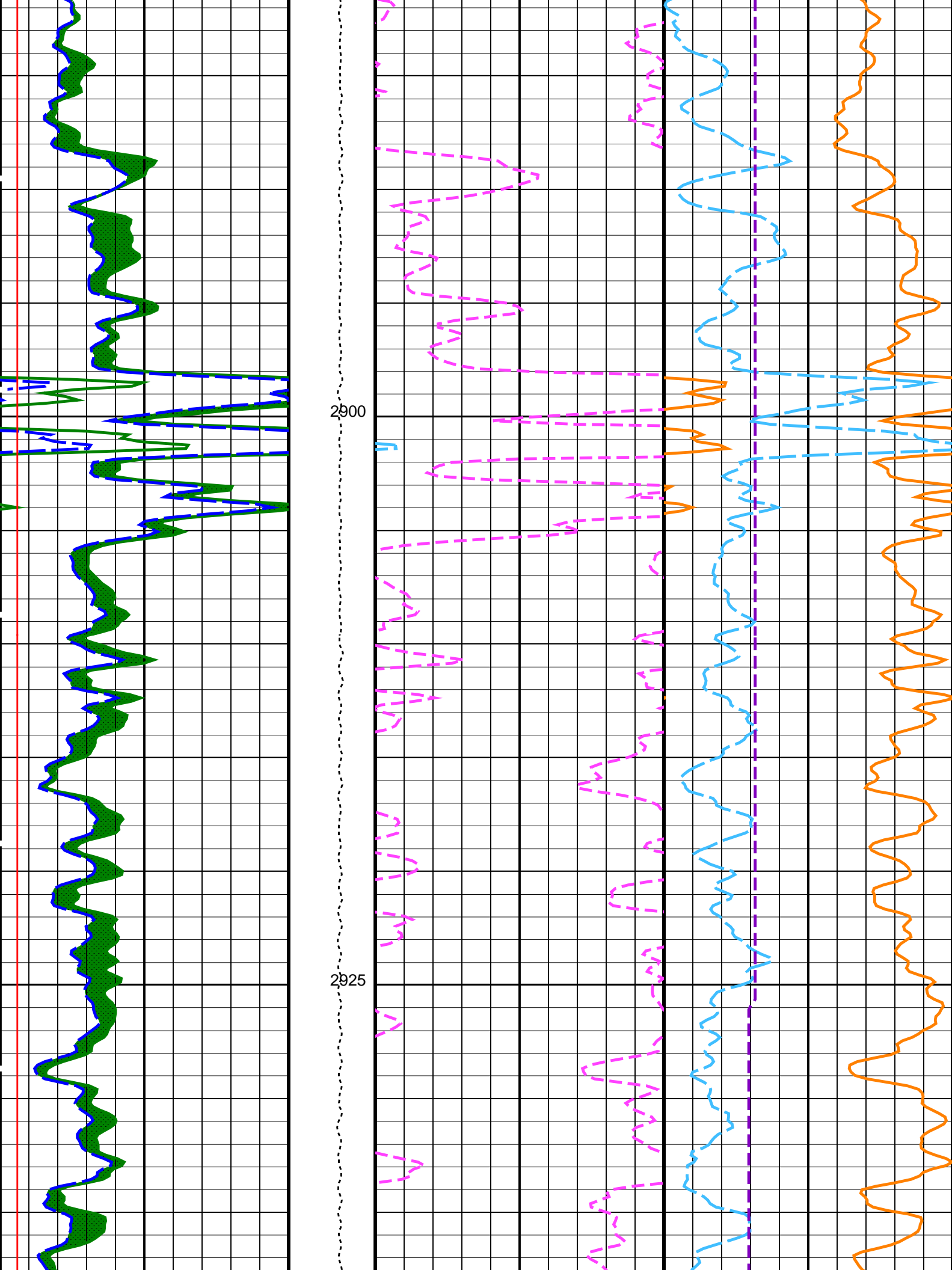
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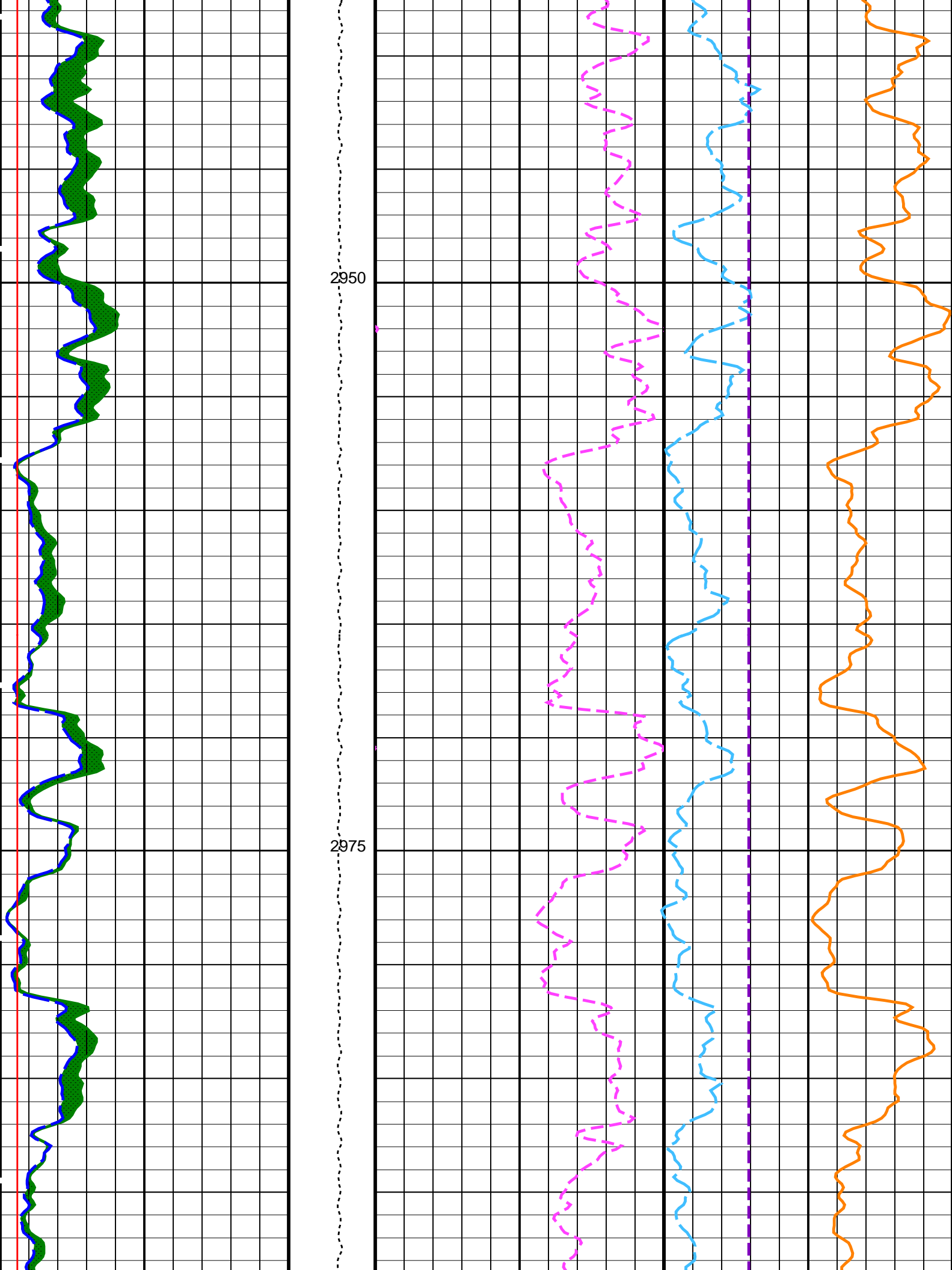
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HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	19C0-187		

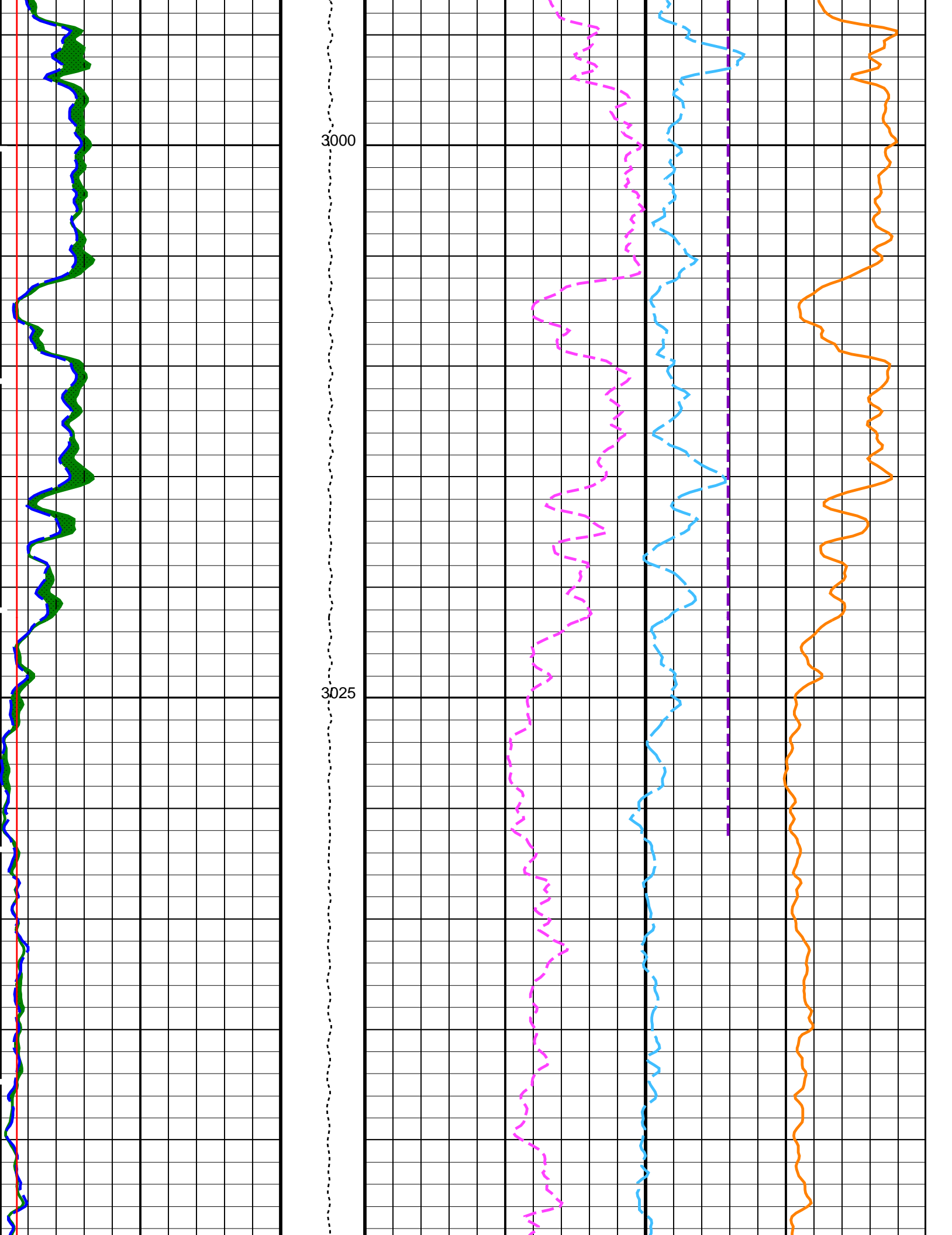
PIP SUMMARY

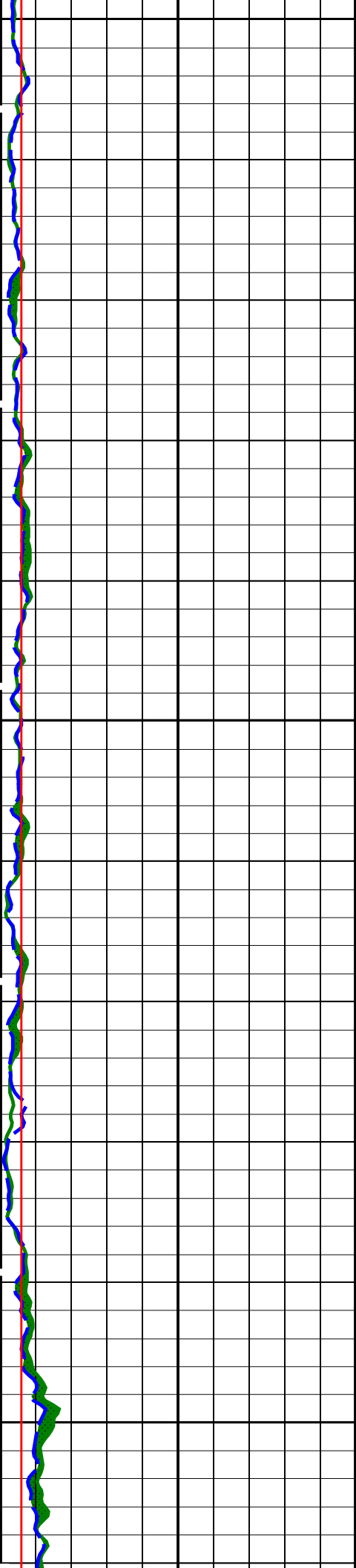








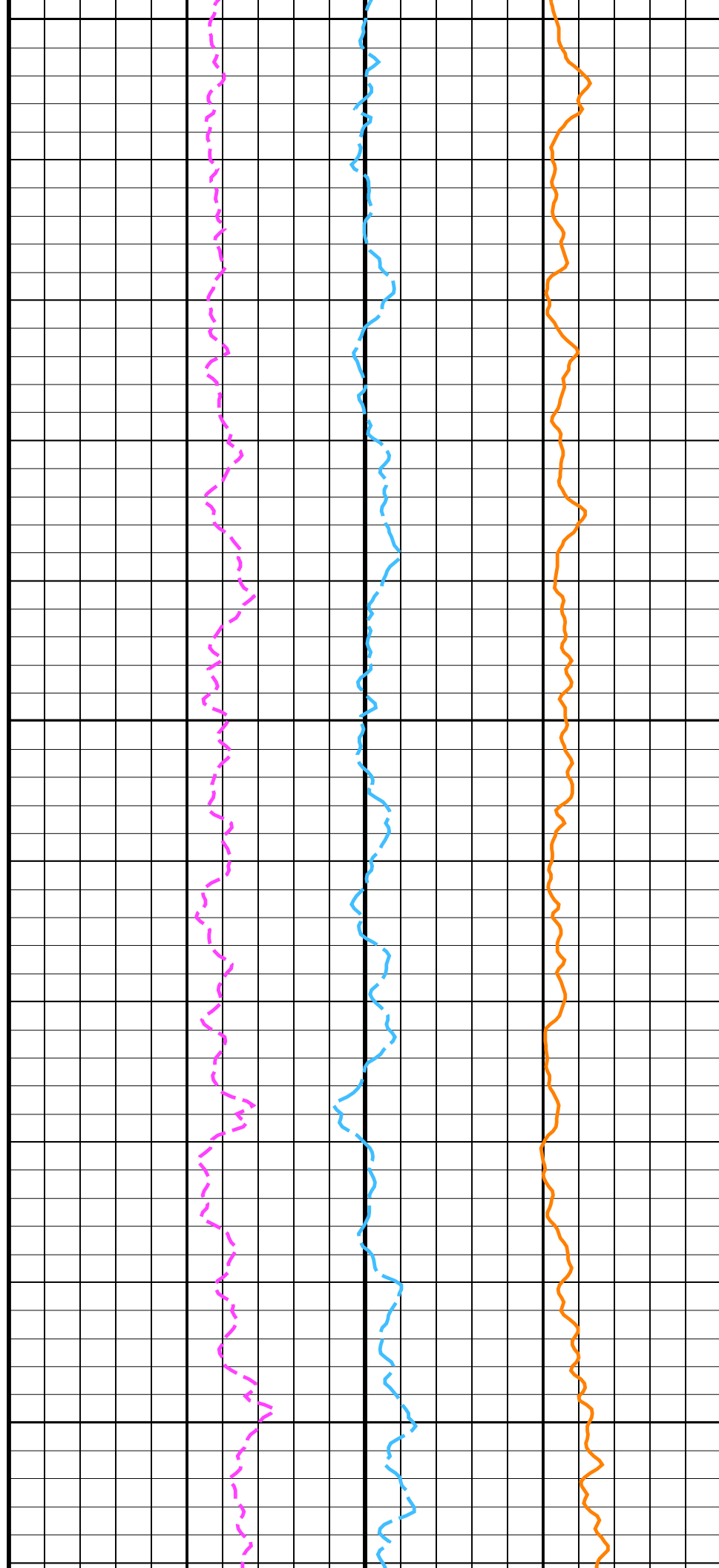


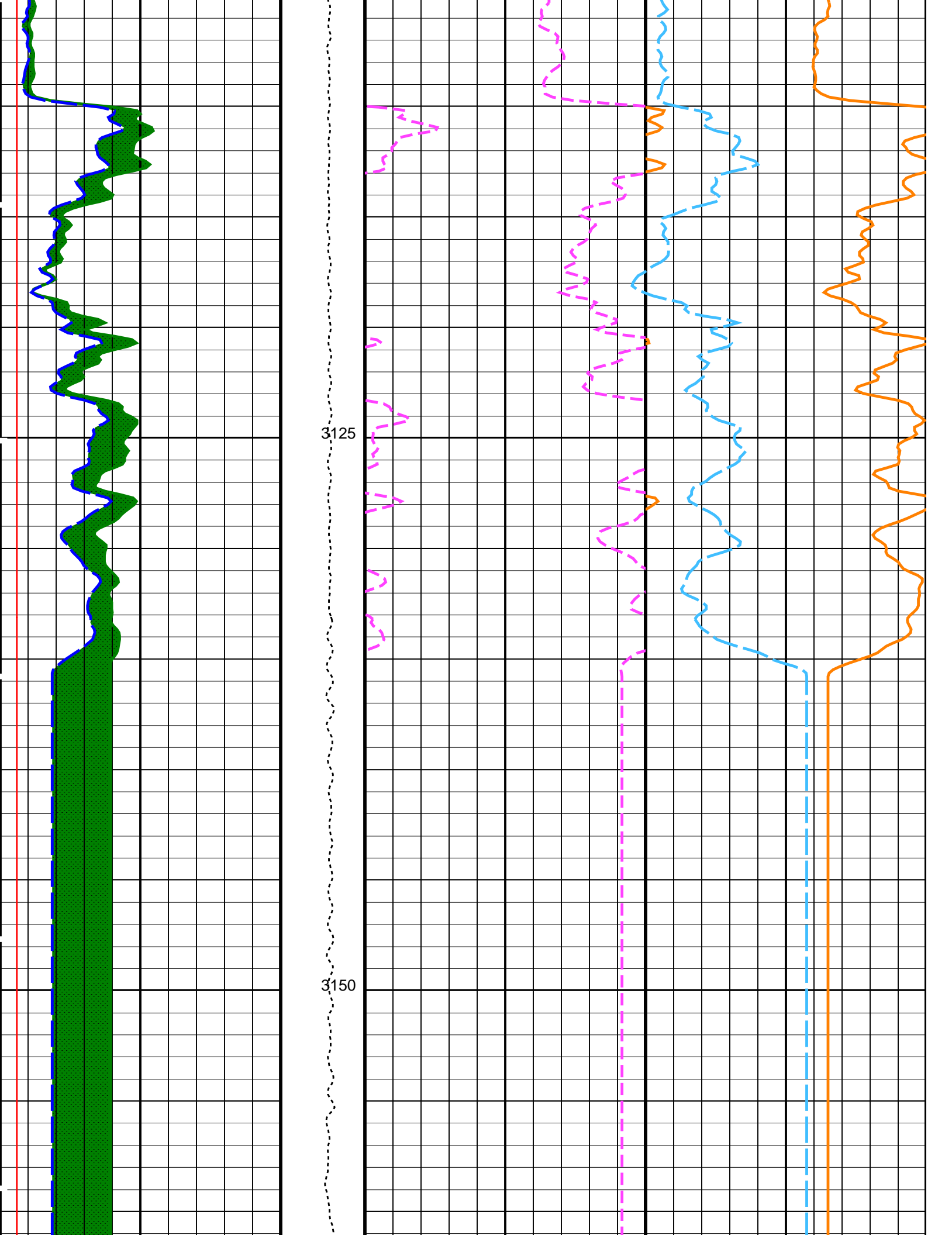


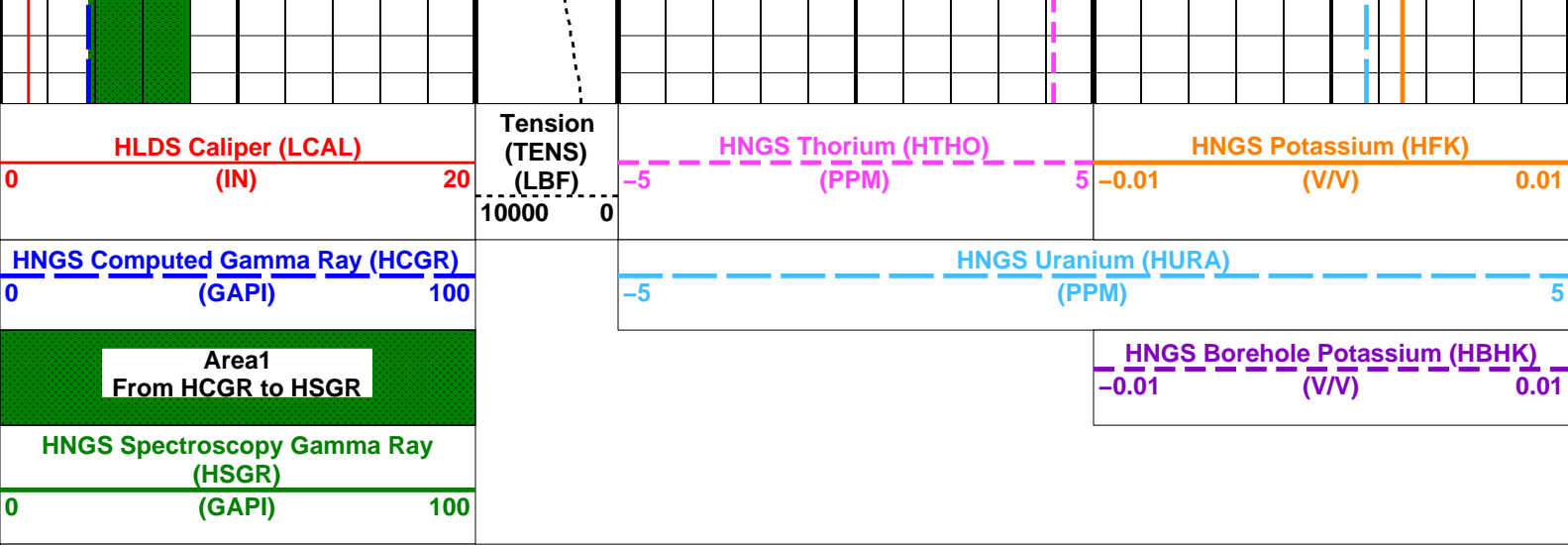
3050

3075

3100







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	-0.00333852		
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	0.993859		
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.963167		
EDTC-B: Enhanced DTS Cartridge				
BHS	Borehole Status	OPEN		
GCSE	Generalized Caliper Selection	BS		
System and Miscellaneous				
BS	Bit Size	9.875	IN	
DFD	Drilling Fluid Density	1.02	G/C3	

Format: HNGSYields Vertical Scale: 1:200 Graphics File Created: 30-Mar-2024 19:21

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
EDTC-B	19C0-187		

Output DLIS Files				
DEFAULT	MSS_LDEO_HRLA_LDL_013LUP	FN:7	PRODUCER	30-Mar-2024 19:21
RTB	MSS_LDEO_HRLA_LDL_013LUP	FN:8	PRODUCER	30-Mar-2024 19:21

Output DLIS Files

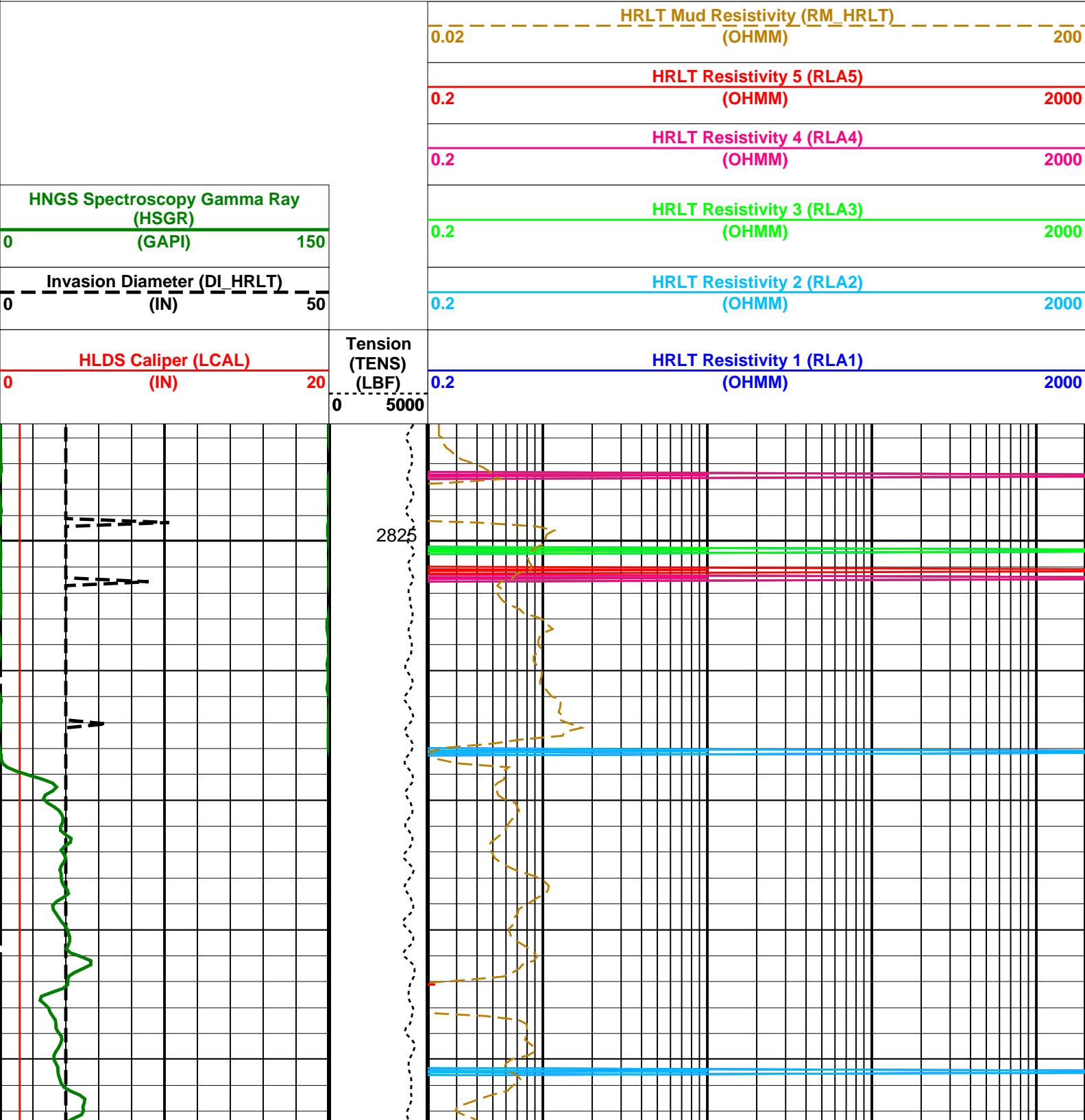
DEFAULT	MSS_LDEO_HRLA_LDL_013LUP	FN:7	PRODUCER	30-Mar-2024 19:21	3163.8 M	2820.5 M
RTB	MSS_LDEO_HRLA_LDL_013LUP	FN:8	PRODUCER	30-Mar-2024 19:21	3163.8 M	2820.5 M

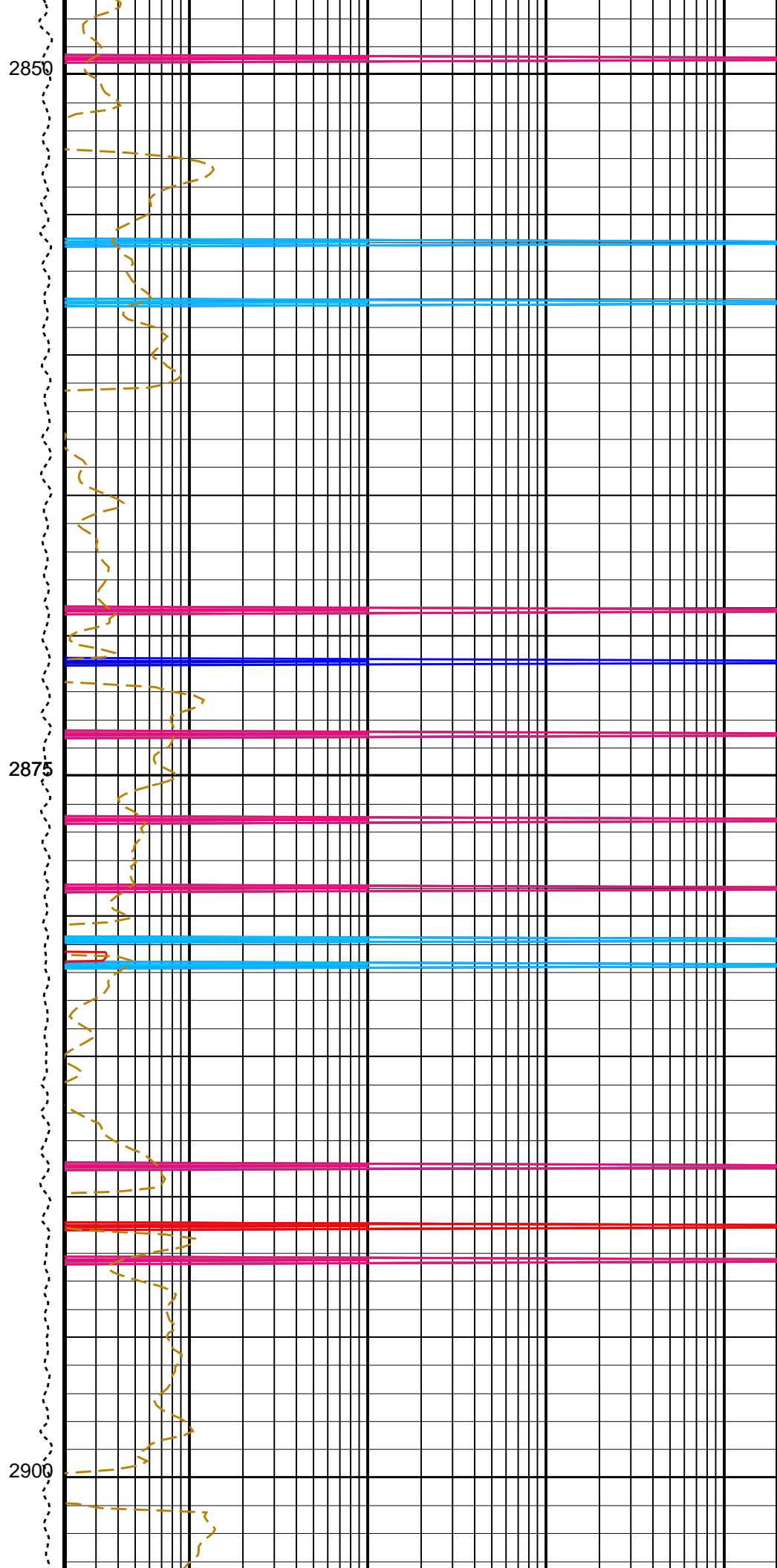
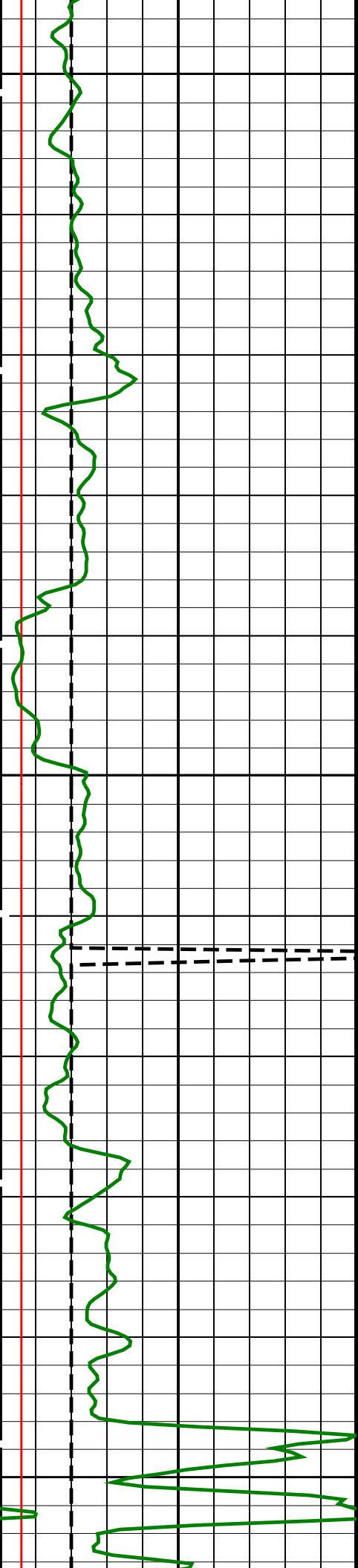
OP System Version: 19C0-187

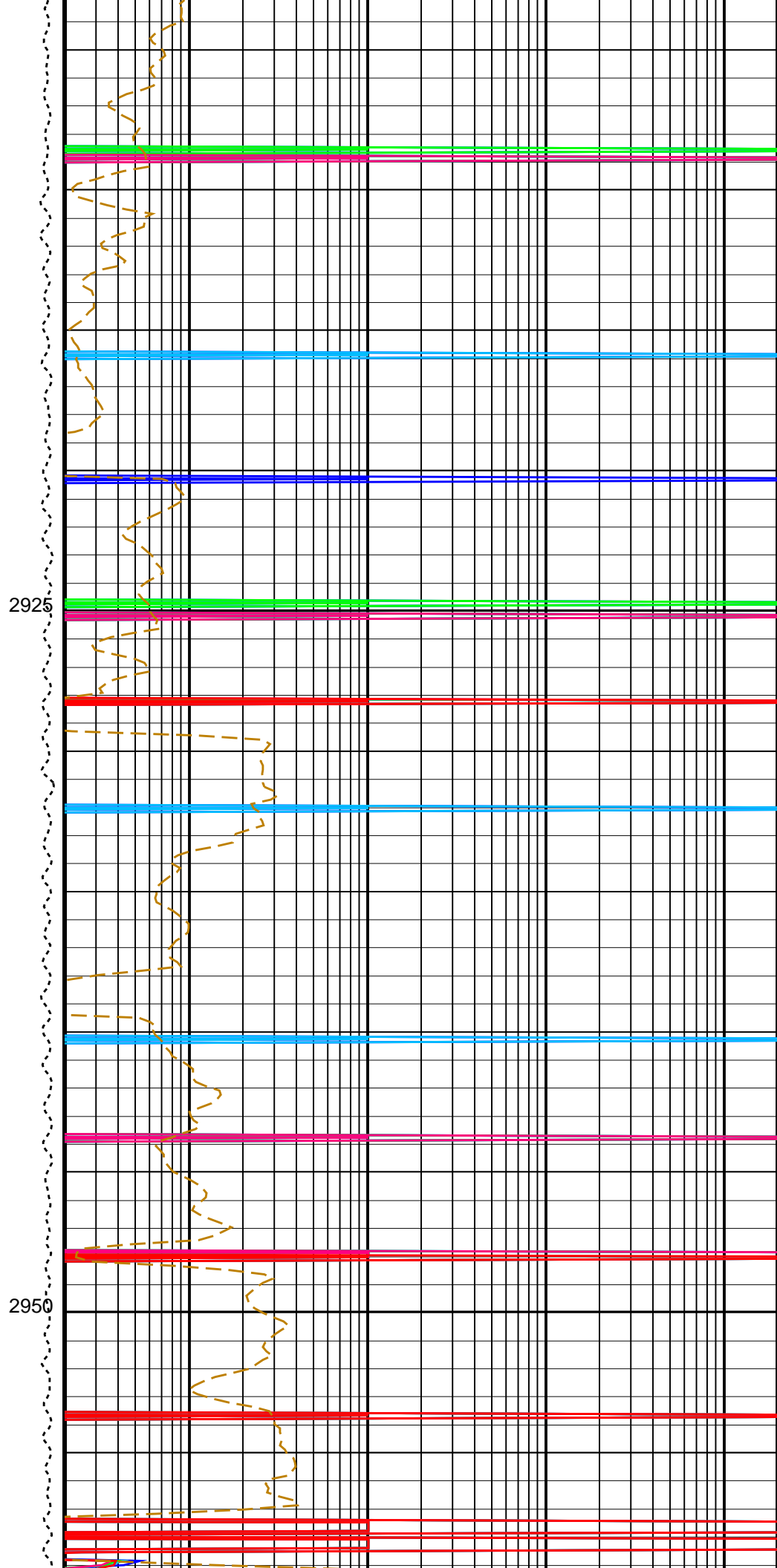
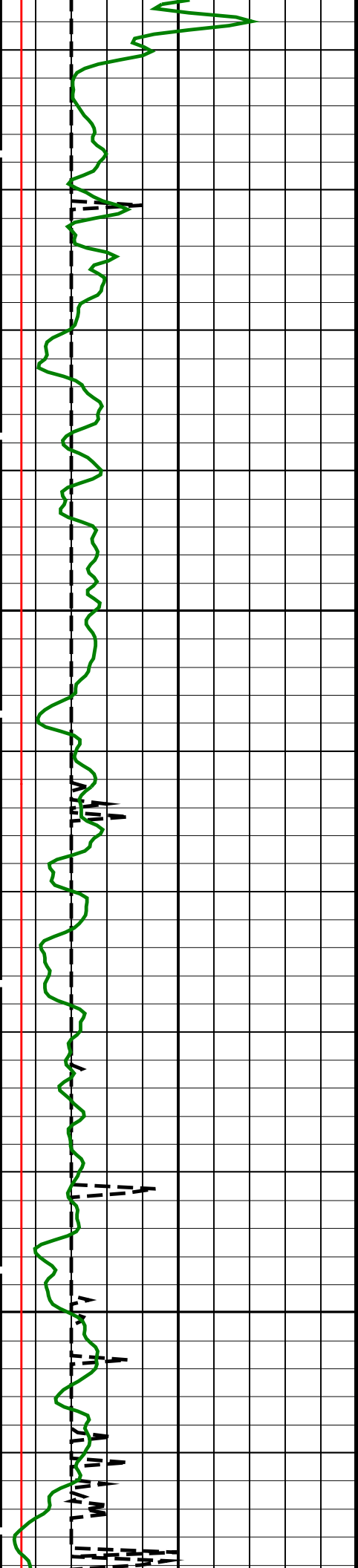
MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	19C0-187		

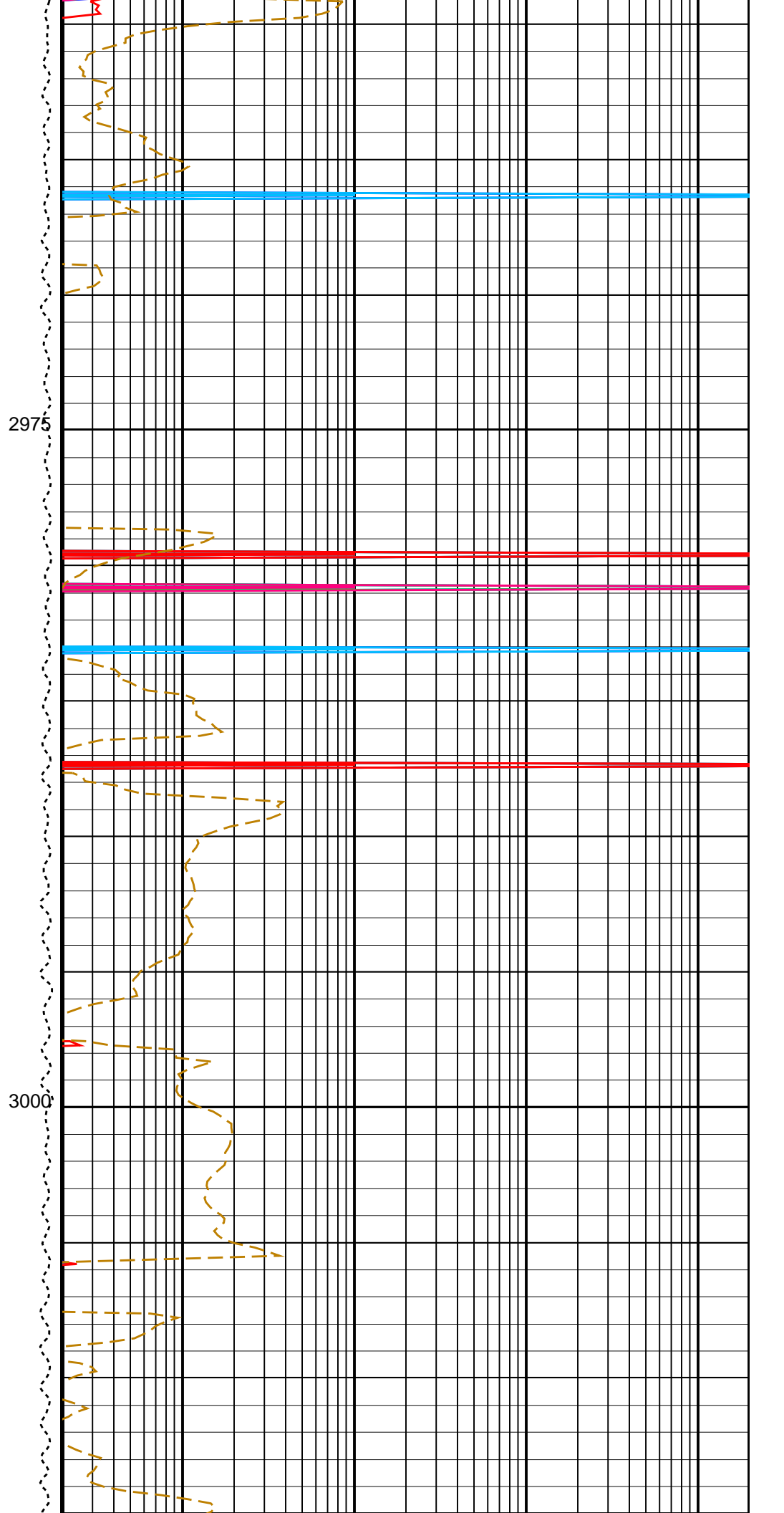
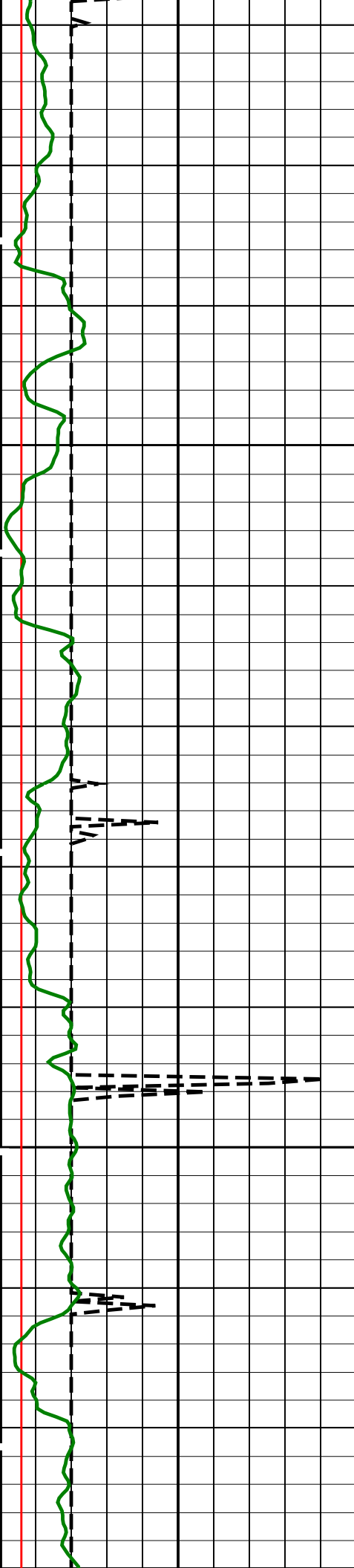
PIP SUMMARY

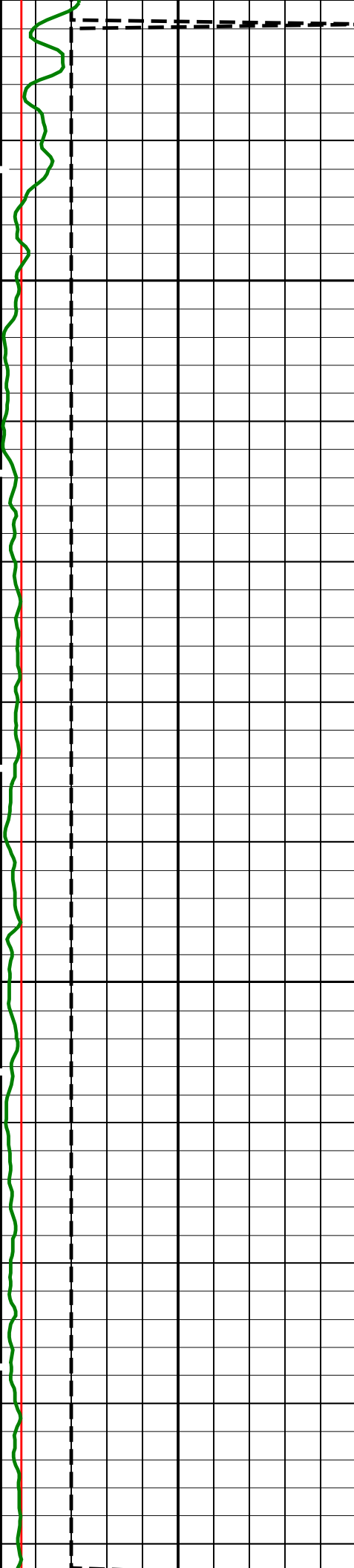
Time Mark Every 60 S





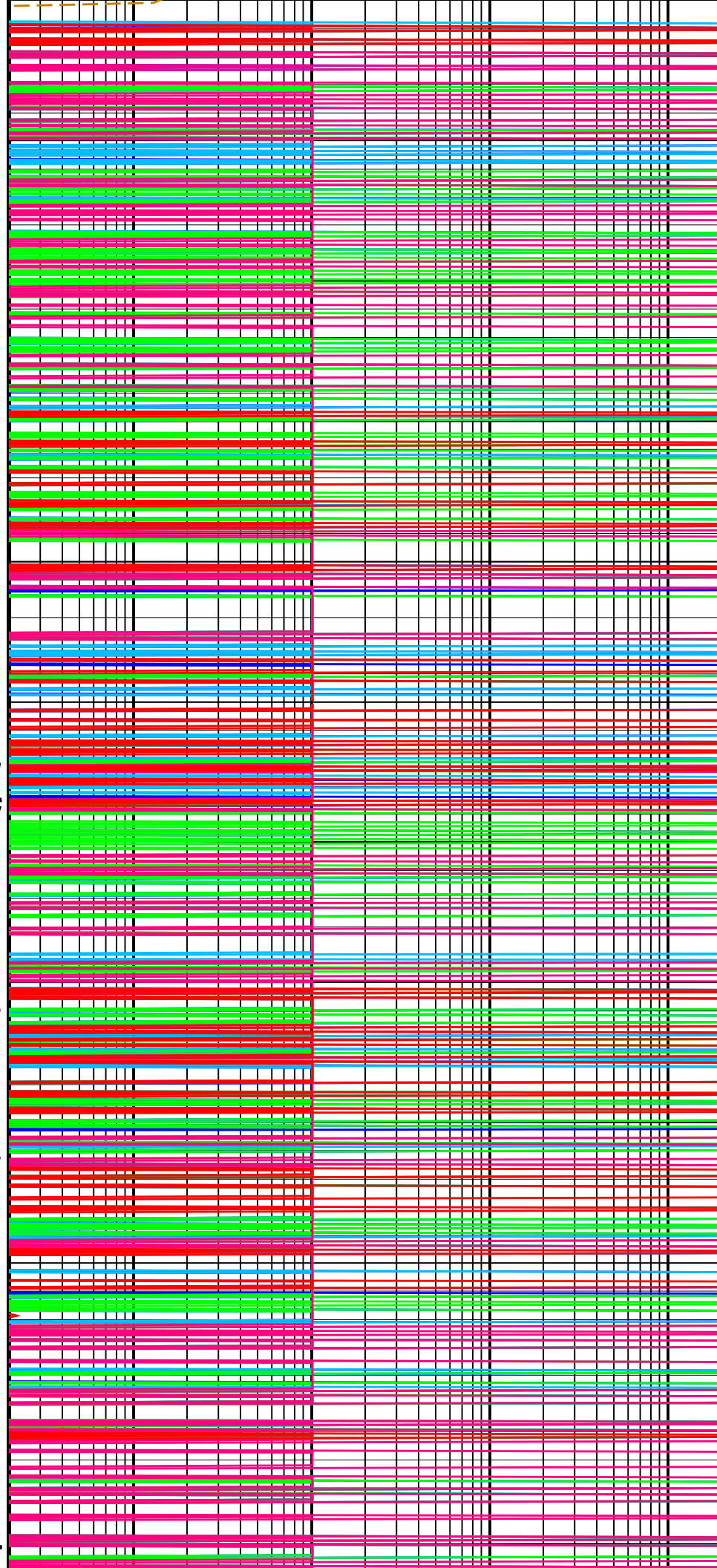


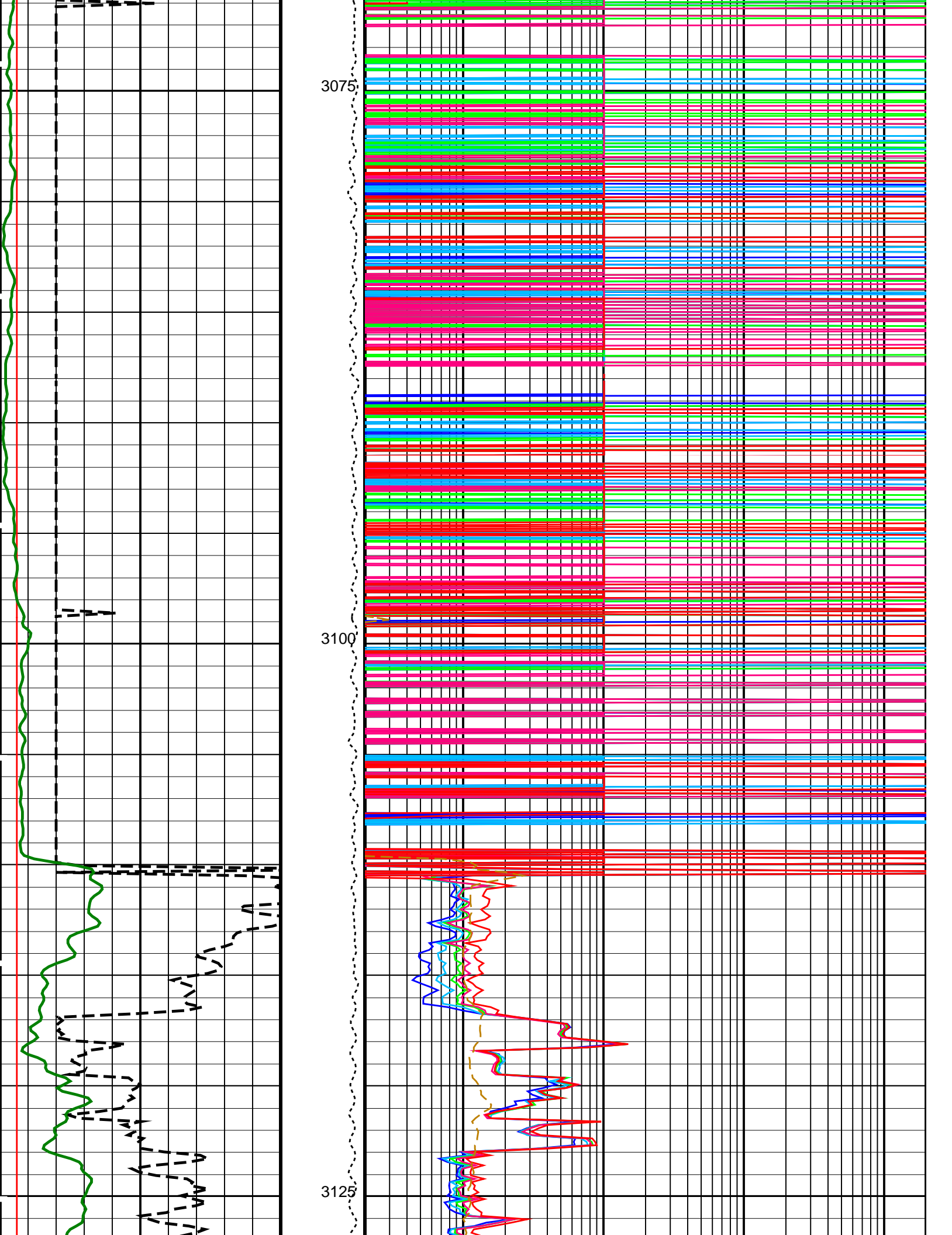


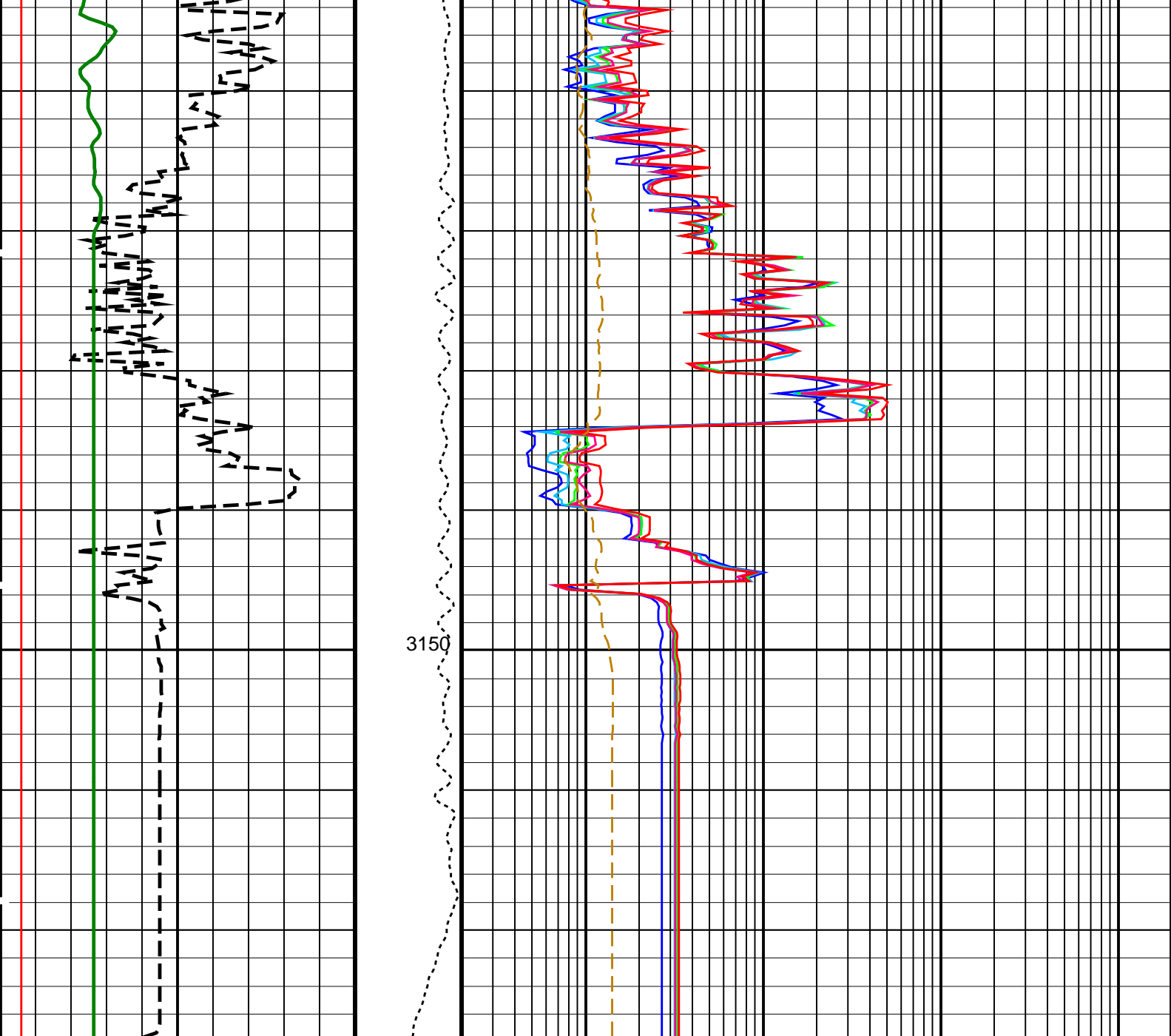


3025

3050







<div>HLDS Caliper (LCAL)</div> <div>020</div> <div>(IN)</div>	<div>Tension (TENS)</div> <div>(LBF)</div> <div>05000</div>	<div>HRLT Resistivity 1 (RLA1)</div> <div>(OHMM)</div> <div>0.22000</div>
<div>Invasion Diameter (DI_HRLT)</div> <div>050</div> <div>(IN)</div>		<div>HRLT Resistivity 2 (RLA2)</div> <div>(OHMM)</div> <div>0.22000</div>
<div>HNGS Spectroscopy Gamma Ray (HSGR)</div> <div>(GAPI)</div> <div>0150</div>		<div>HRLT Resistivity 3 (RLA3)</div> <div>(OHMM)</div> <div>0.22000</div>
		<div>HRLT Resistivity 4 (RLA4)</div> <div>(OHMM)</div> <div>0.22000</div>
		<div>HRLT Resistivity 5 (RLA5)</div> <div>(OHMM)</div> <div>0.22000</div>
		<div>HRLT Mud Resistivity (RM_HRLT)</div> <div>(OHMM)</div> <div>0.02200</div>

PIP SUMMARY

Parameters

DLIS Name	Description	Value	
HRLT-B: High Resolution Laterolog Array – B			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	35	DEGF
GCSE	Generalized Caliper Selection	BS	
GGRD	Geothermal Gradient	0.01	DF/F
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	68	DEGF
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)	35	DEGF
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	BS	
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	-0.00333852	
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	68	DEGF
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.993859	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.963167	
EDTC-B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	35	DEGF
GCSE	Generalized Caliper Selection	BS	
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	68	DEGF
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.02	G/C3
MST	Mud Sample Temperature	23.00	DEGC
TD	Total Depth	10190.3	FT

Format: HRLT Vertical Scale: 1:200 Graphics File Created: 30-Mar-2024 19:21

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
EDTC-B	19C0-187		

Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_013LUP	FN:7	PRODUCER	30-Mar-2024 19:21
RTB	MSS_LDEO_HRLA_LDL_013LUP	FN:8	PRODUCER	30-Mar-2024 19:21

Company: International Ocean Discovery Program Well: Expedition 402, Site U1617B

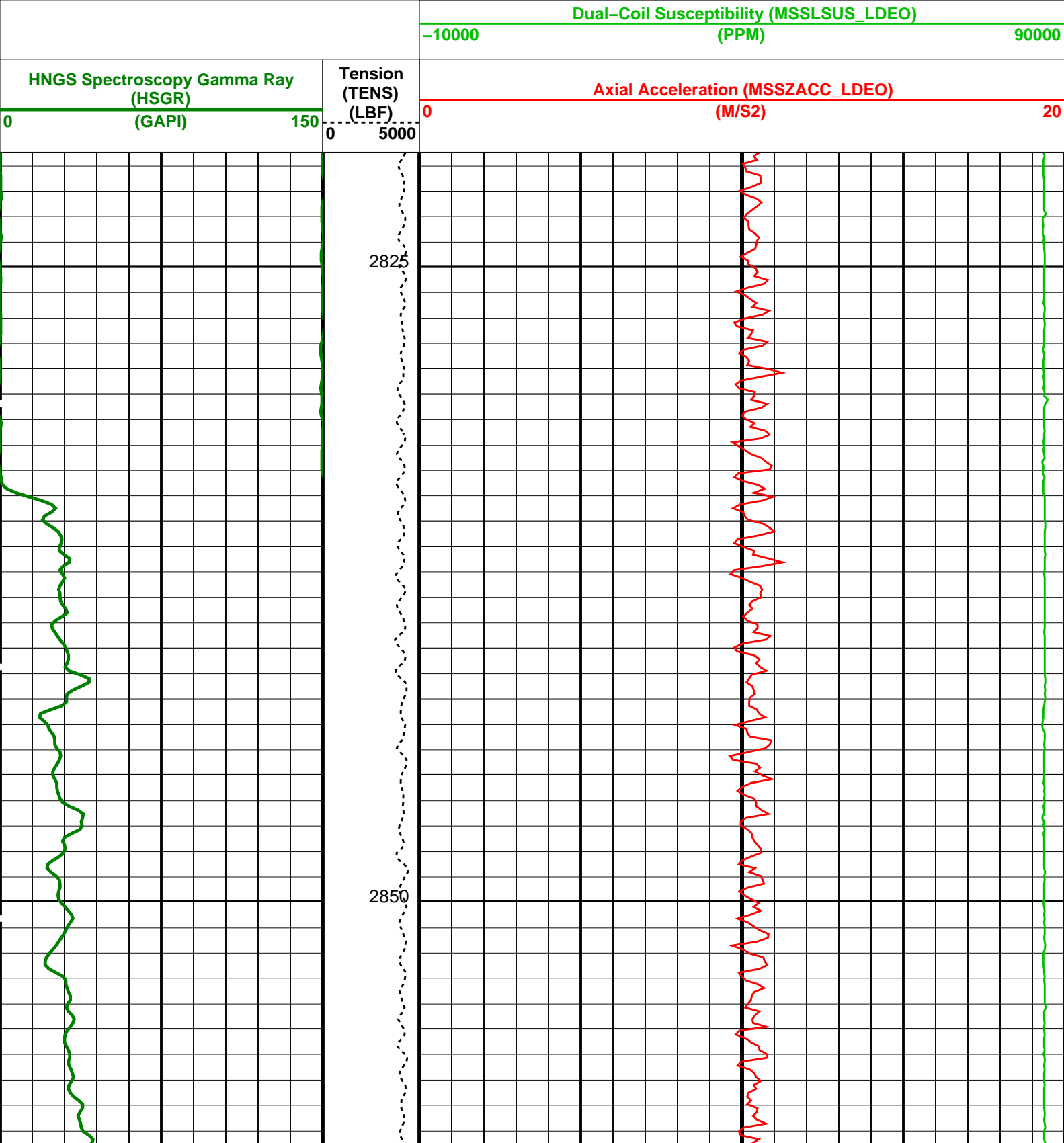
Output DLIS Files

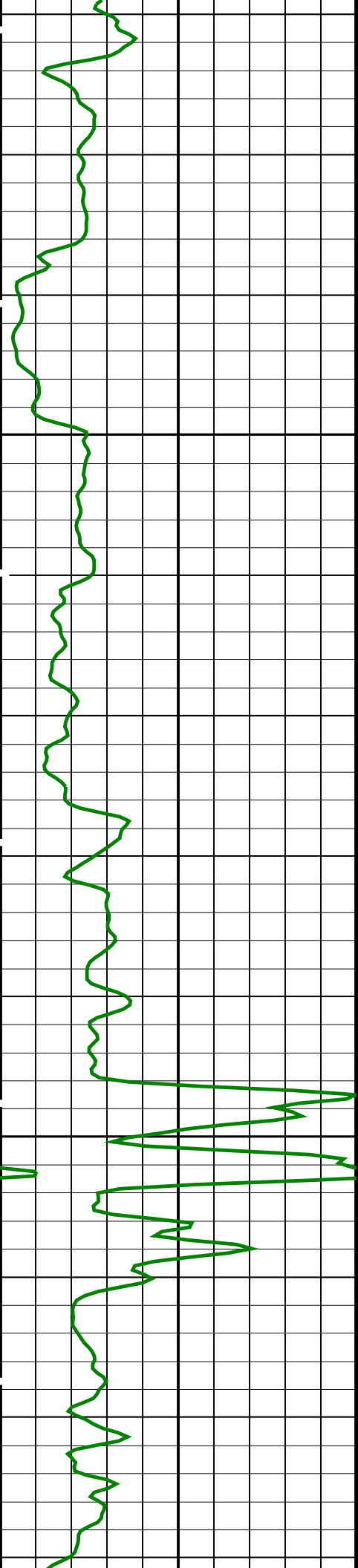
OP System Version: 19C0-187

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

PIP SUMMARY

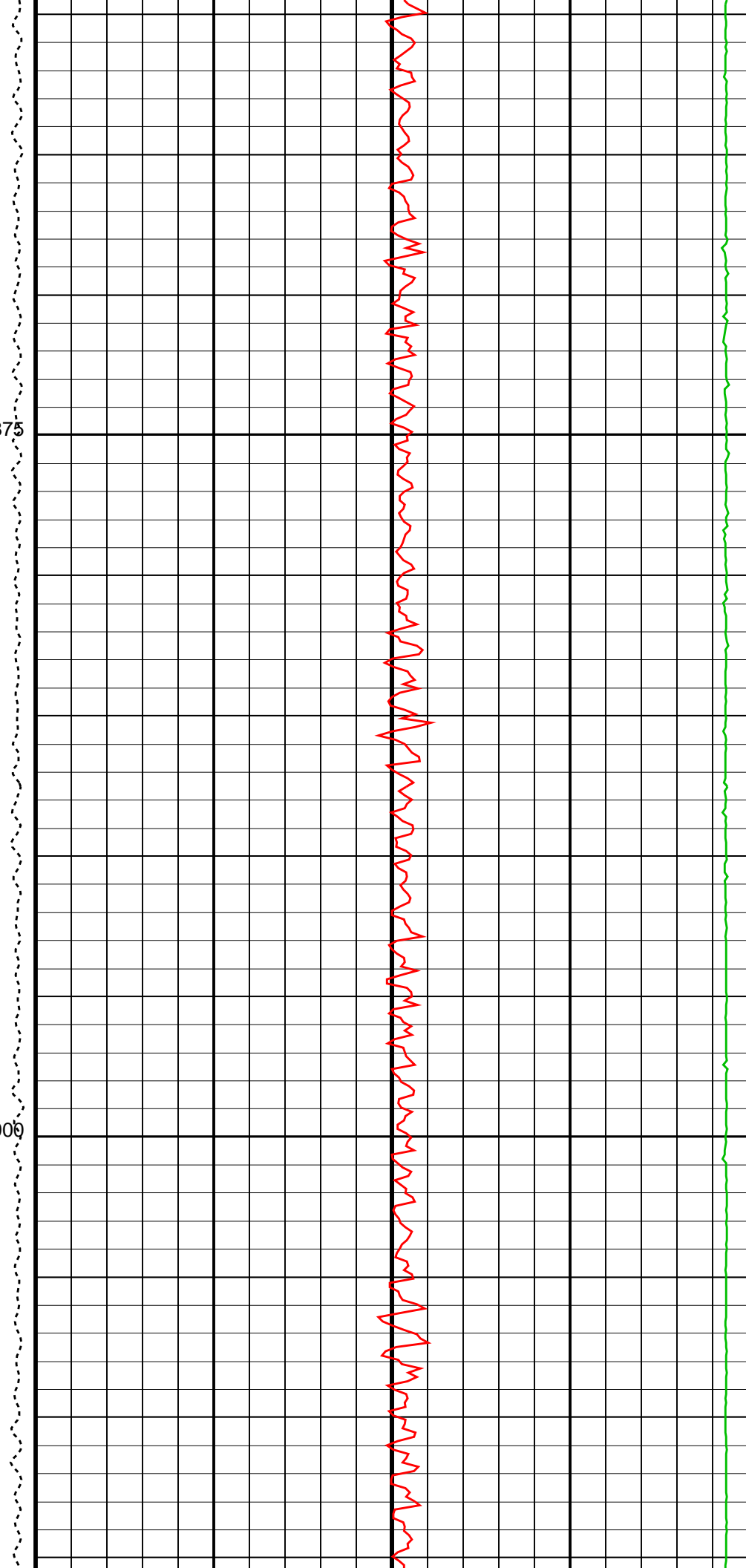
Time Mark Every 60 S

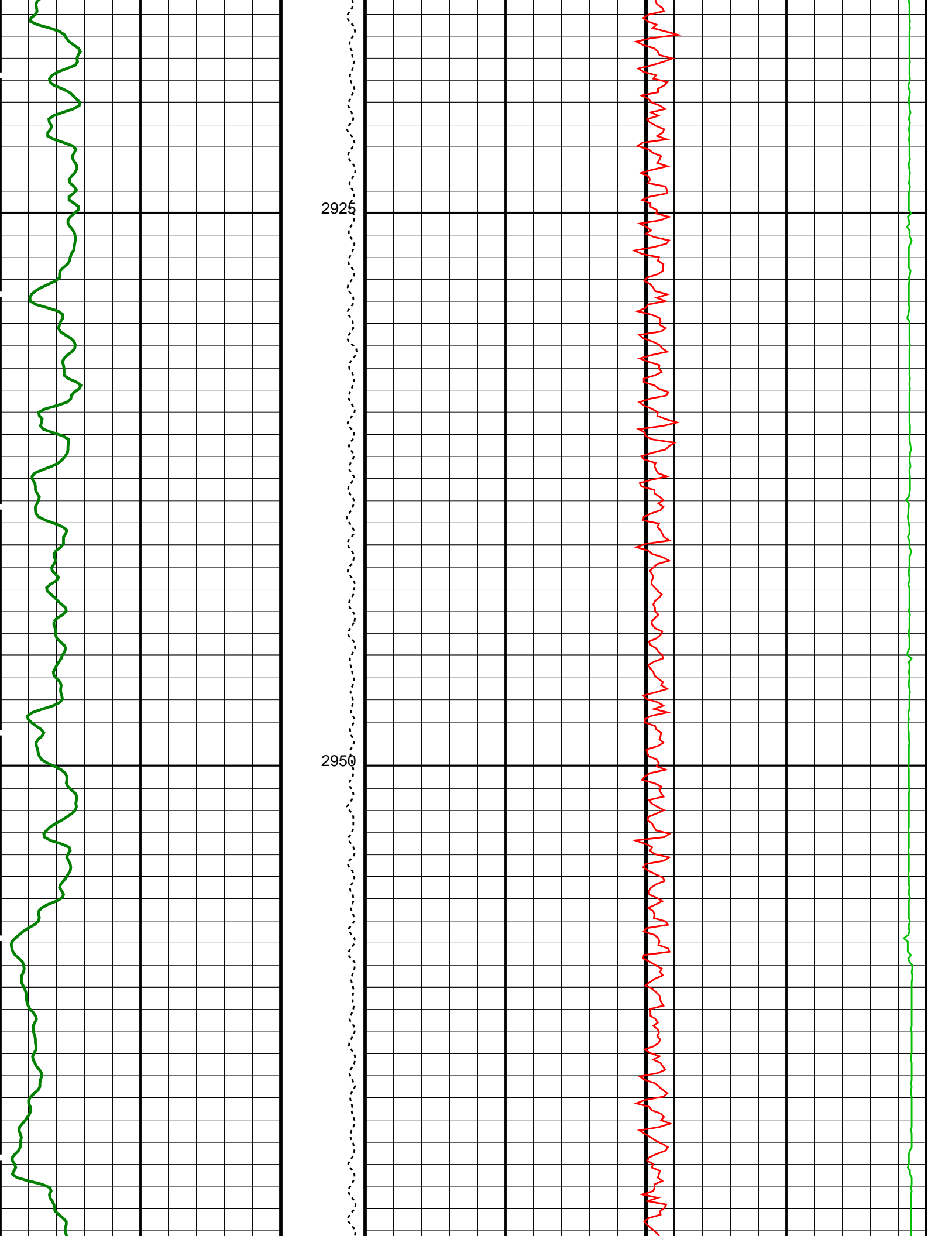


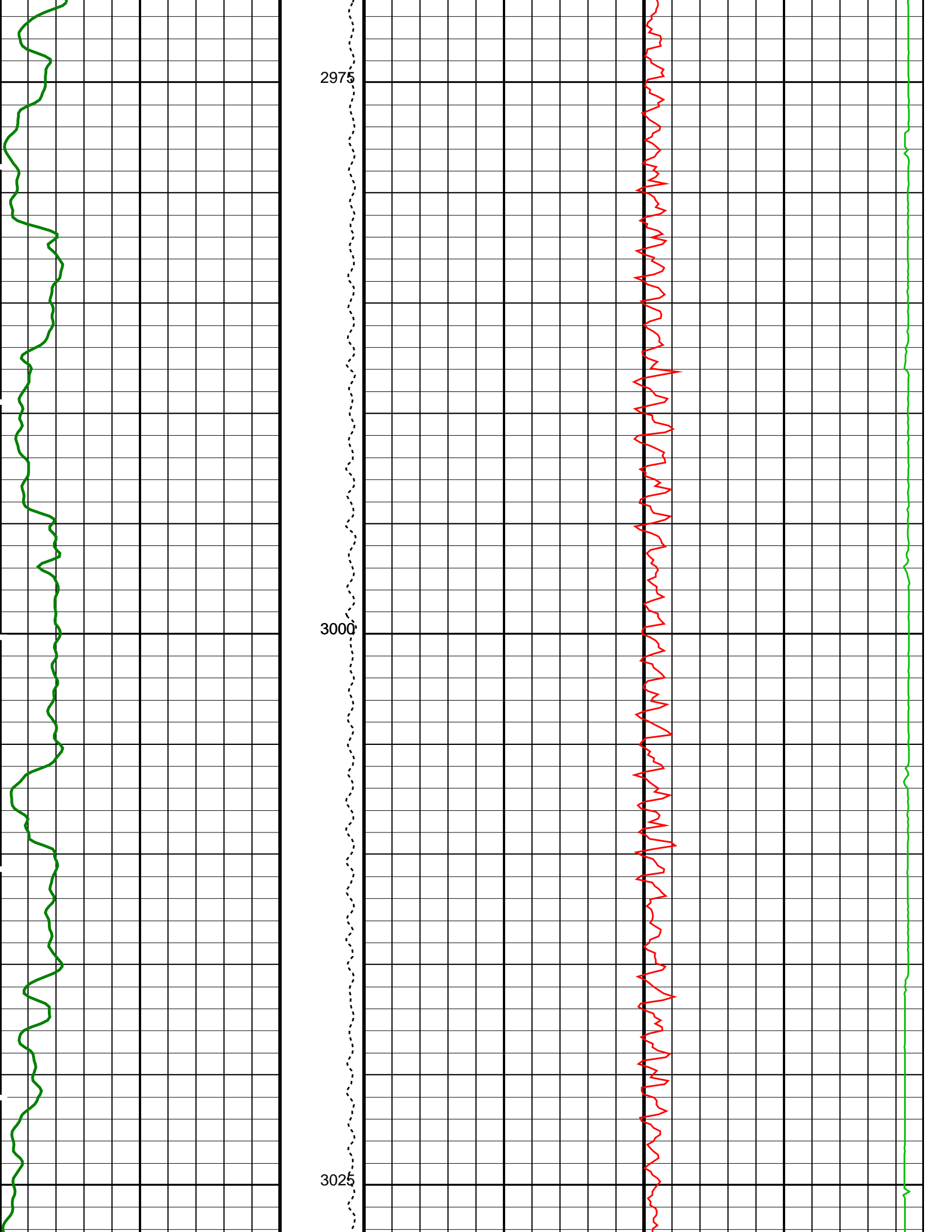


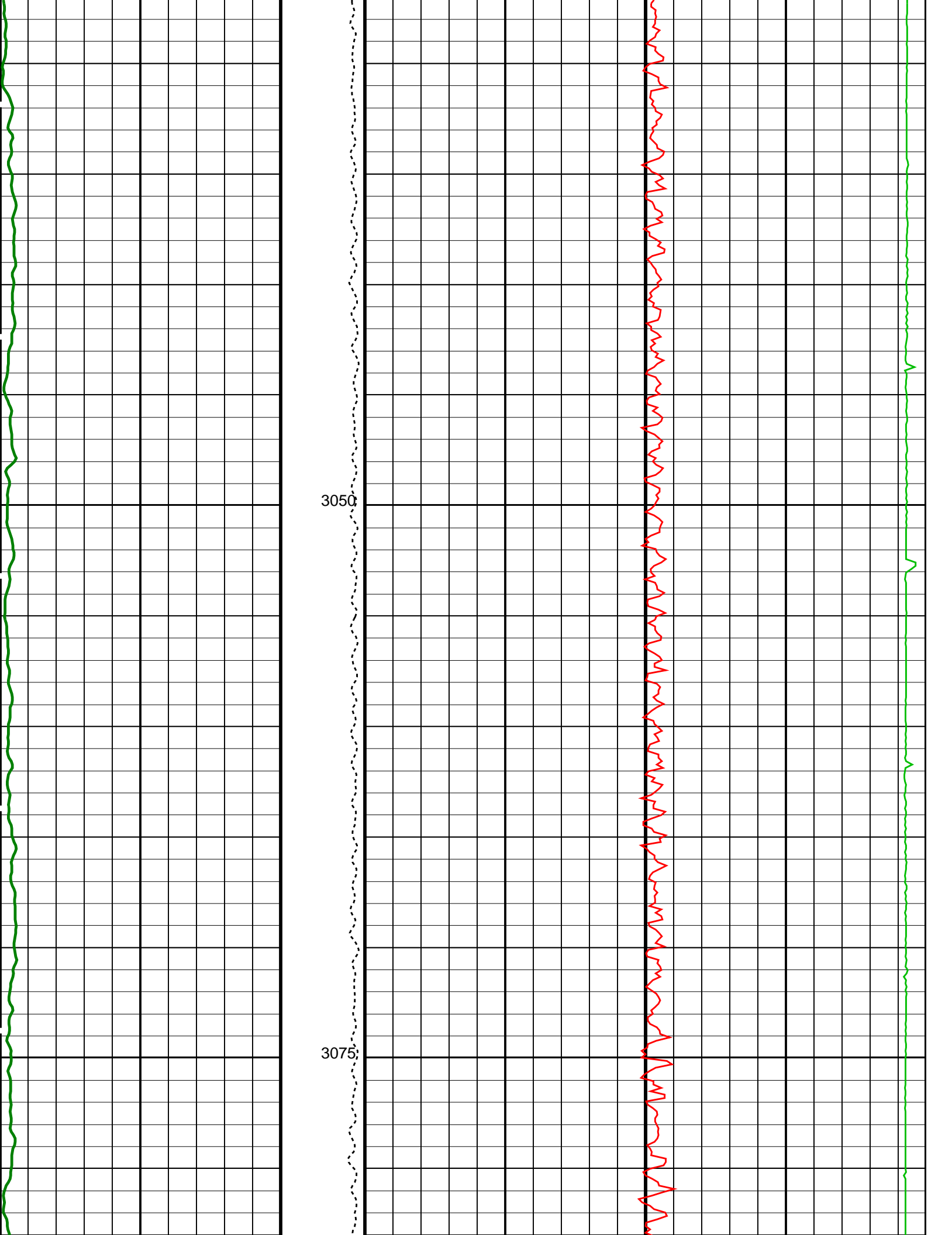
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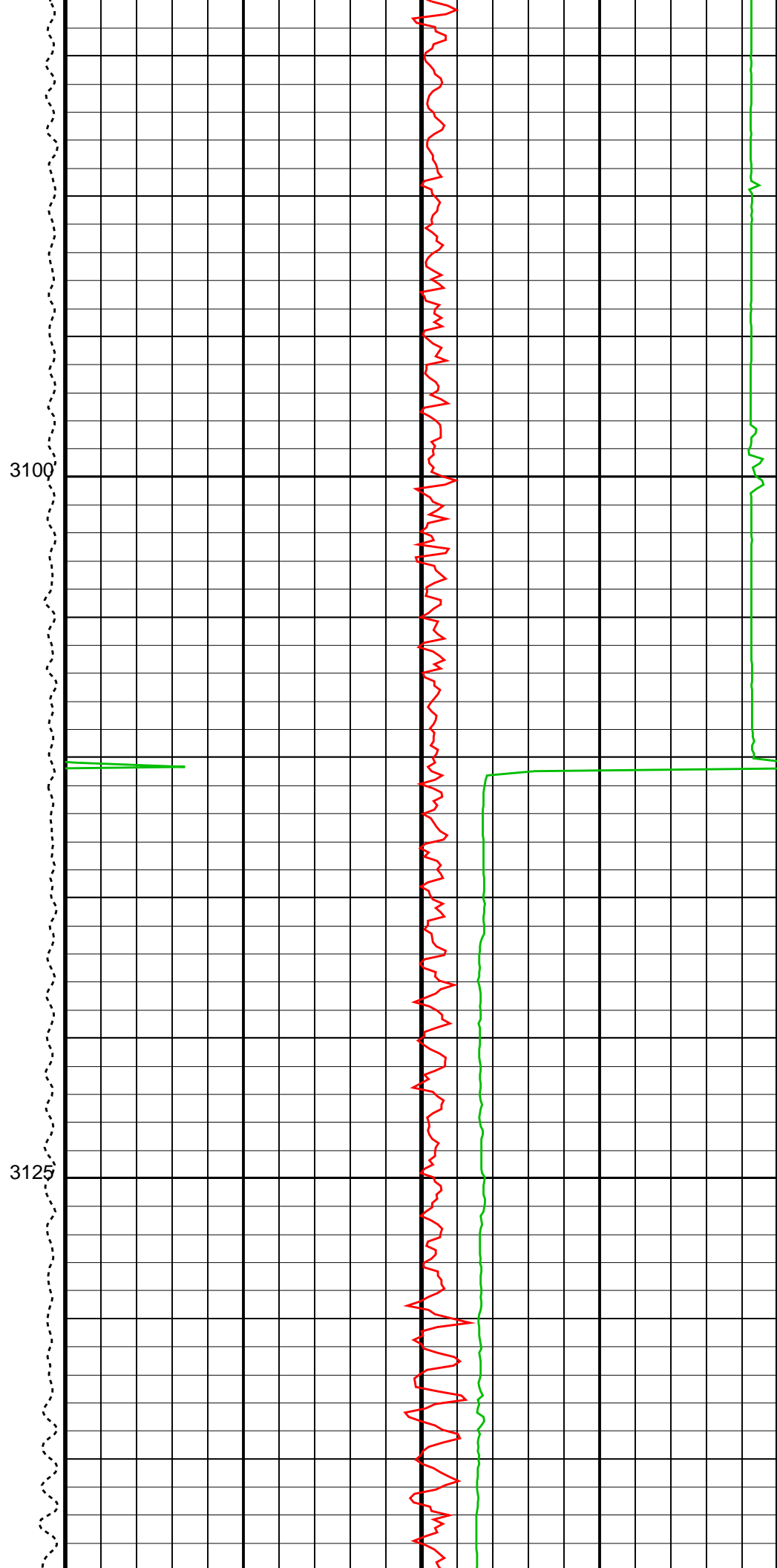
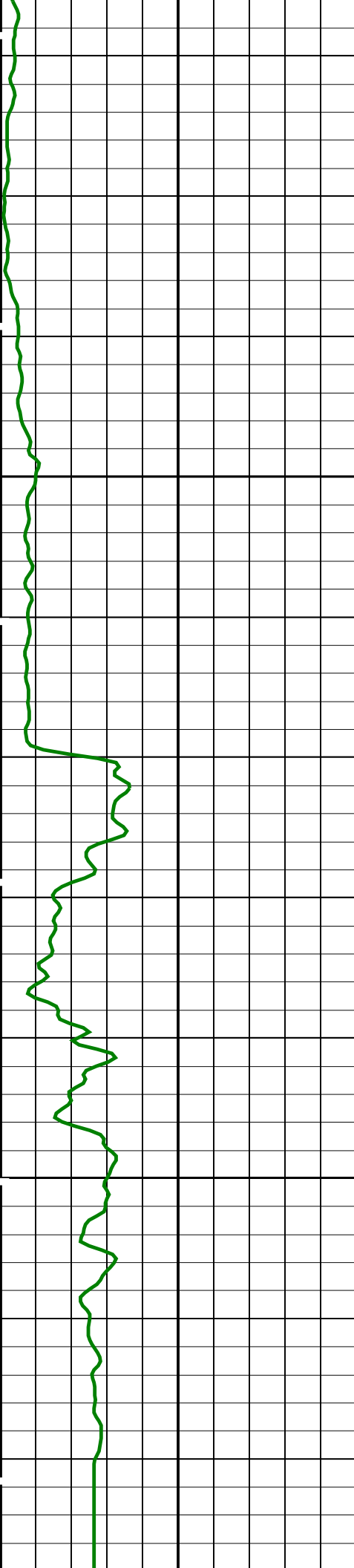
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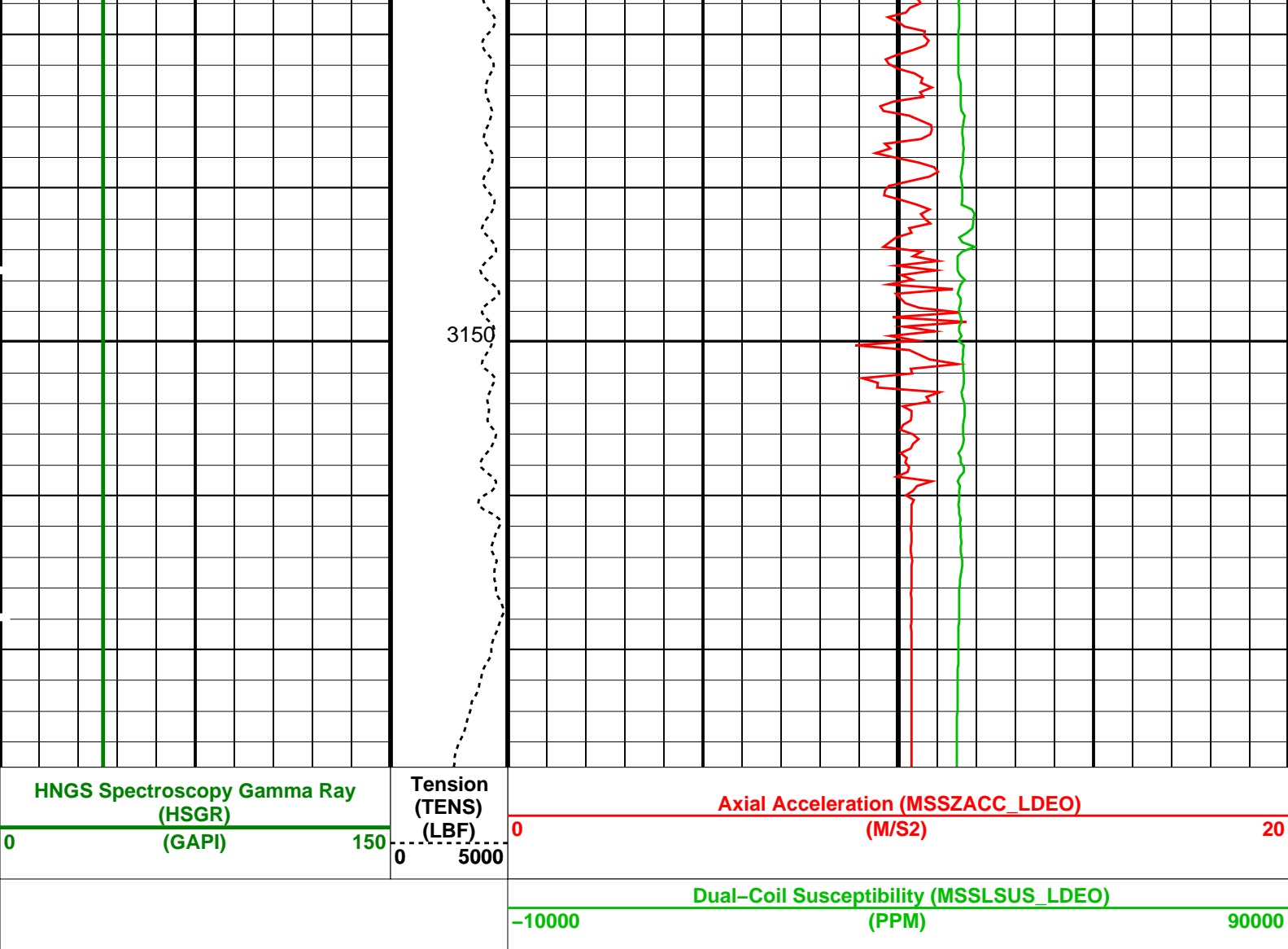












PIP SUMMARY

Time Mark Every 60 S

Parameters

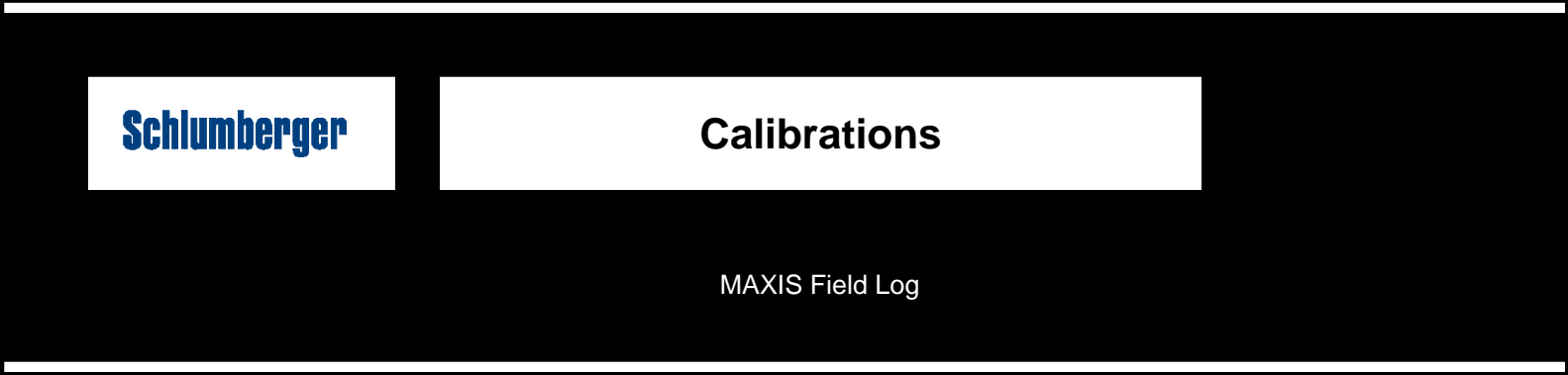
DLIS Name	Description	Value	
HRLT-B: High Resolution Laterolog Array – B			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	BS	
HNGS-BA: Hostile Natural Gamma Ray Sonde			
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction 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	–0.00333852	
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	0.993859	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.963167	
EDTC-B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	

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
EDTC-B	19C0-187		

Output DLIS Files				
DEFAULT	MSS_LDEO_HRLA_LDL_013LUP	FN:7	PRODUCER	30-Mar-2024 19:21
RTB	MSS_LDEO_HRLA_LDL_013LUP	FN:8	PRODUCER	30-Mar-2024 19:21



Calibrations



Calibration and Check Summary							
Measurement	Nominal	Master	Before	After	Change	Limit	Units
High Resolution Laterolog Array – B Wellsite Calibration – HRLT M01							
Before: 30–Mar–2024 16:56 After: 30–Mar–2024 21:42							
HRLT M0–M1 Voltage Plus – 0	0	N/A	–318.9	–319.1	–0.1241	9.681	UV
HRLT M0–M1 Voltage Plus – 1	0	N/A	–333.2	–333.0	0.1177	9.681	UV
HRLT M0–M1 Voltage Plus – 2	0	N/A	–340.0	–339.8	0.1991	9.681	UV
HRLT M0–M1 Voltage Plus – 3	0	N/A	–329.9	–330.0	–0.1522	9.681	UV
HRLT M0–M1 Voltage Plus – 4	0	N/A	–319.9	–320.1	–0.1269	9.681	UV
HRLT M0–M1 Voltage Plus – 5	0	N/A	–321.5	–321.7	–0.1465	9.681	UV
HRLT M0–M1 Voltage Plus – 6	0	N/A	322.9	323.3	0.4759	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: 30–Mar–2024 16:56 After: 30–Mar–2024 21:42							
HRLT M1–M2 Voltage Plus – 0	0	N/A	1741	1742	0.1477	53.42	UV
HRLT M1–M2 Voltage Plus – 1	0	N/A	1821	1820	–1.061	53.42	UV
HRLT M1–M2 Voltage Plus – 2	0	N/A	1853	1852	–1.531	53.42	UV
HRLT M1–M2 Voltage Plus – 3	0	N/A	1799	1799	0.3273	53.42	UV
HRLT M1–M2 Voltage Plus – 4	0	N/A	1745	1746	0.5804	53.42	UV
HRLT M1–M2 Voltage Plus – 5	0	N/A	1756	1756	0.4282	53.42	UV
HRLT M1–M2 Voltage Plus – 6	0	N/A	–1772	–1775	–2.378	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: 30–Mar–2024 16:56 After: 30–Mar–2024 21:42							
HRLT M2–M3 Voltage Plus – 0	0	N/A	1733	1733	0.01282	53.42	UV
HRLT M2–M3 Voltage Plus – 1	0	N/A	1824	1821	–2.721	53.42	UV
HRLT M2–M3 Voltage Plus – 2	0	N/A	1858	1855	–2.316	53.42	UV
HRLT M2–M3 Voltage Plus – 3	0	N/A	1807	1807	0.1553	53.42	UV
HRLT M2–M3 Voltage Plus – 4	0	N/A	1747	1747	0.2603	53.42	UV
HRLT M2–M3 Voltage Plus – 5	0	N/A	1759	1759	0.1592	53.42	UV
HRLT M2–M3 Voltage Plus – 6	0	N/A	–1763	–1765	–1.468	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: 30–Mar–2024 16:56 After: 30–Mar–2024 21:42							
HRLT A3–A4 Voltage Plus – 0	0	N/A	68650	68720	69.00	2100	UV

HRLT A3-A4 Voltage Plus - 1	2	N/A	72070	72070	-6.398	2100	UV
HRLT A3-A4 Voltage Plus - 2	0	N/A	73690	73680	-8.219	2100	UV
HRLT A3-A4 Voltage Plus - 3	0	N/A	71920	71990	69.83	2100	UV
HRLT A3-A4 Voltage Plus - 4	0	N/A	69540	69590	51.48	2100	UV
HRLT A3-A4 Voltage Plus - 5	0	N/A	70000	70060	63.43	2100	UV
HRLT A3-A4 Voltage Plus - 6	0	N/A	-68700	-68820	-116.2	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: 30-Mar-2024 16:56 After: 30-Mar-2024 21:42

HRLT A4-A5 Voltage Plus - 0	0	N/A	68740	68800	62.10	2100	UV
HRLT A4-A5 Voltage Plus - 1	0	N/A	72280	72280	-9.148	2100	UV
HRLT A4-A5 Voltage Plus - 2	0	N/A	73870	73870	-4.109	2100	UV
HRLT A4-A5 Voltage Plus - 3	0	N/A	72070	72130	56.17	2100	UV
HRLT A4-A5 Voltage Plus - 4	0	N/A	69650	69690	48.80	2100	UV
HRLT A4-A5 Voltage Plus - 5	0	N/A	70090	70150	60.19	2100	UV
HRLT A4-A5 Voltage Plus - 6	0	N/A	-68910	-69030	-123.1	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: 30-Mar-2024 16:56 After: 30-Mar-2024 21:42

HRLT A5-A6 Voltage Plus - 0	0	N/A	68600	68650	54.58	2100	UV
HRLT A5-A6 Voltage Plus - 1	0	N/A	72110	72110	-7.313	2100	UV
HRLT A5-A6 Voltage Plus - 2	0	N/A	73730	73690	-39.44	2100	UV
HRLT A5-A6 Voltage Plus - 3	0	N/A	71950	72000	50.09	2100	UV
HRLT A5-A6 Voltage Plus - 4	0	N/A	69510	69580	64.84	2100	UV
HRLT A5-A6 Voltage Plus - 5	0	N/A	69970	70030	60.84	2100	UV
HRLT A5-A6 Voltage Plus - 6	0	N/A	-68750	-68860	-114.4	2100	UV
HRLT A5-A6 Voltage Plus - 7	0	N/A	70000	70000	0	2100	UV

High Resolution Laterolog Array - B Wellsite Calibration - HRLT VTP

Before: 30-Mar-2024 16:56 After: 30-Mar-2024 21:42

HRLT Torpedo-M0 Voltage - 0	0	N/A	-68110	-68180	-64.70	2100	UV
HRLT Torpedo-M0 Voltage - 1	0	N/A	-71930	-71910	20.87	2100	UV
HRLT Torpedo-M0 Voltage - 2	0	N/A	-73560	-73540	23.46	2100	UV
HRLT Torpedo-M0 Voltage - 3	0	N/A	-71850	-71900	-57.14	2100	UV
HRLT Torpedo-M0 Voltage - 4	0	N/A	-69470	-69510	-46.59	2100	UV
HRLT Torpedo-M0 Voltage - 5	0	N/A	-69920	-69980	-59.97	2100	UV
HRLT Torpedo-M0 Voltage - 6	0	N/A	68510	68620	107.2	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: 30-Mar-2024 16:56 After: 30-Mar-2024 21:42

HRLT Bridle#9-M0 Voltage - 0	0	N/A	-68150	-68210	-65.30	2100	UV
HRLT Bridle#9-M0 Voltage - 1	0	N/A	-72010	-71990	16.51	2100	UV
HRLT Bridle#9-M0 Voltage - 2	0	N/A	-73660	-73620	40.66	2100	UV
HRLT Bridle#9-M0 Voltage - 3	0	N/A	-71920	-71980	-64.38	2100	UV
HRLT Bridle#9-M0 Voltage - 4	0	N/A	-69510	-69570	-56.17	2100	UV
HRLT Bridle#9-M0 Voltage - 5	0	N/A	-69960	-70010	-54.41	2100	UV
HRLT Bridle#9-M0 Voltage - 6	0	N/A	68580	68720	134.4	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: 30-Mar-2024 16:56 After: 30-Mar-2024 21:42

HRLT Source Current Plus - 0	0	N/A	284.2	284.6	0.3543	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: 30-Mar-2024 16:56 After: 30-Mar-2024 21:42

HRLT Vertical Voltage PI - 0	0	N/A	-320.5	-320.4	0.05054	9.681	UV
HRLT Vertical Voltage PI - 1	0	N/A	-326.8	-326.5	0.3606	9.681	UV
HRLT Vertical Voltage PI - 2	0	N/A	-332.6	-332.3	0.3658	9.681	UV
HRLT Vertical Voltage PI - 3	0	N/A	-321.3	-321.2	0.02689	9.681	UV
HRLT Vertical Voltage PI - 4	0	N/A	-309.0	-309.0	-0.003448	9.681	UV
HRLT Vertical Voltage PI - 5	0	N/A	-325.7	-325.6	0.03513	9.681	UV
HRLT Vertical Voltage PI - 6	0	N/A	329.3	329.5	0.2113	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: 5-Feb-2024 14:31 Before: 30-Mar-2024 16:59 After: 30-Mar-2024 21:45

SS Cs Resolution Bkg	9.000	7.740	7.632	7.738	0.1060	1.800	%
LS Cs Resolution Bkg	9.000	8.164	7.999	8.037	0.03718	1.800	%
LSW1 Background	100.0	67.09	66.50	66.95	0.4483	3.000	CPS
LSW2 Background	100.0	61.34	61.31	61.03	-0.2789	3.000	CPS
LSW3 Background	200.0	139.1	139.2	137.0	-2.201	6.000	CPS
LSW4 Background	250.0	170.9	169.9	169.5	-0.3955	7.500	CPS

SSW4 Background	200.0	178.3	189.2	183.8	0.8333	7.000	CPS
LSW5 Background	600.0	398.8	399.2	396.9	-2.383	18.00	CPS
SSW1 Background	100.0	64.20	63.92	64.37	0.4489	3.000	CPS
SSW2 Background	200.0	111.7	112.5	110.8	-1.783	6.000	CPS
SSW3 Background	500.0	309.0	309.9	309.8	-0.07074	15.00	CPS
SSW4 Background	270.0	168.1	166.9	166.7	-0.2103	8.100	CPS
SSW5 Background	200.0	118.8	118.4	117.7	-0.6300	6.000	CPS
Hostile Litho-Density Sonde Wellsite Calibration – Aluminum Measurement							
Master: 5-Feb-2024 15:19							
LSW1 Aluminum	600.0	404.4	N/A	N/A	N/A	N/A	CPS
LSW2 Aluminum	900.0	584.3	N/A	N/A	N/A	N/A	CPS
LSW3 Aluminum	1100	709.7	N/A	N/A	N/A	N/A	CPS
LSW4 Aluminum	580.0	358.1	N/A	N/A	N/A	N/A	CPS
LSW5 Aluminum	570.0	321.6	N/A	N/A	N/A	N/A	CPS
SSW1 Aluminum	2800	1939	N/A	N/A	N/A	N/A	CPS
SSW2 Aluminum	8000	5349	N/A	N/A	N/A	N/A	CPS
SSW3 Aluminum	11600	7472	N/A	N/A	N/A	N/A	CPS
SSW4 Aluminum	5000	2948	N/A	N/A	N/A	N/A	CPS
SSW5 Aluminum	660.0	328.7	N/A	N/A	N/A	N/A	CPS
Hostile Litho-Density Sonde Wellsite Calibration – Lithology Measurement							
Master: 5-Feb-2024 15:12							
LSW1 Iron	400.0	282.3	N/A	N/A	N/A	N/A	CPS
LSW2 Iron	730.0	487.5	N/A	N/A	N/A	N/A	CPS
LSW3 Iron	1000	641.5	N/A	N/A	N/A	N/A	CPS
LSW4 Iron	520.0	332.1	N/A	N/A	N/A	N/A	CPS
LSW5 Iron	470.0	306.1	N/A	N/A	N/A	N/A	CPS
SSW1 Iron	2100	1464	N/A	N/A	N/A	N/A	CPS
SSW2 Iron	6800	4601	N/A	N/A	N/A	N/A	CPS
SSW3 Iron	10800	7020	N/A	N/A	N/A	N/A	CPS
SSW4 Iron	4600	2788	N/A	N/A	N/A	N/A	CPS
SSW5 Iron	580.0	307.0	N/A	N/A	N/A	N/A	CPS
Hostile Litho-Density Sonde Wellsite Calibration – Caliper Calibration							
Before: 5-Feb-2024 13:50							
HLDS Caliper Small Ring	12.00	N/A	16.56	N/A	N/A	N/A	IN
HLDS Caliper Large Ring	15.19	N/A	19.92	N/A	N/A	N/A	IN
Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 1 Check							
Master: Calibration out of date 20-Apr-2023 2:22 Before: 30-Mar-2024 17:01 After: 30-Mar-2024 21:46							
Na 511 Peak Loc	40.00	38.56	38.62	38.62	0.002377	1.000	
Na 511 Peak Res	15.50	16.82	16.73	16.68	-0.05842	2.000	%
High Voltage	1150	1206	1194	1200	5.835	N/A	V
Na 1785 Peak Loc	142.6	139.2	139.5	139.6	0.08415	7.000	
Na 1785 Peak Res	8.500	9.087	8.710	9.122	0.4116	2.000	%
Temperature	15.50	26.64	21.44	21.83	0.3934	N/A	DEGC
Na Count Rate	45.00	47.40	37.25	37.44	0.1949	8.000	CPS
Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 2 Check							
Master: Calibration out of date 20-Apr-2023 2:22 Before: 30-Mar-2024 17:01 After: 30-Mar-2024 21:46							
Na 511 Peak Loc	40.00	39.72	39.58	39.67	0.08819	1.000	
Na 511 Peak Res	15.50	15.41	16.53	15.75	-0.7861	2.000	%
High Voltage	1150	1089	1082	1085	2.735	N/A	V
Na 1785 Peak Loc	142.6	142.9	142.2	142.6	0.3491	7.000	
Na 1785 Peak Res	8.500	8.753	9.042	8.837	-0.2048	2.000	%
Temperature	15.50	25.53	20.81	22.01	1.203	N/A	DEGC
Na Count Rate	45.00	47.70	37.29	37.57	0.2836	8.000	CPS
Hostile Natural Gamma Ray Sonde Wellsite Calibration – Ratio Of Detector 1 To Detector 2							
Master: Calibration out of date 20-Apr-2023 2:22 Before: 30-Mar-2024 17:01 After: 30-Mar-2024 21:46							
Coincidence Count Rate Ratio	1.000	0.9913	0.9955	0.9933	-0.002193	0.05000	
Enhanced DTS Cartridge Wellsite Calibration – EDTC Accelerometer Calibration							
Before: 30-Mar-2024 16:56							
EDTC Z-Axis Acceleration	9.810	N/A	9.791	N/A	N/A	N/A	M/S2
Enhanced DTS Cartridge Wellsite Calibration – Detector Calibration							
Before: 30-Mar-2024 16:57 After: 30-Mar-2024 21:44							
Gamma Ray (Jig – Bkg)	166.1	N/A	166.1	167.9	1.810	15.10	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	166.8	1.798	15.00	GAPI

















High Resolution Laterolog Array – B / Equipment Identification

Primary Equipment:		
HRLT Sonde	HRLS – B	768
Auxiliary Equipment:		
HRLT lower Housing	HRLH – B	1869

HRUC – B	1897
HRUH – B	975
HRUC – B	964

After: 30-Mar-2024 21:42

















Absenteeism

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT M23						
Idx	Phase	HRLT M2–M3 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1733	1781	2095	1549
	After		1733			
1	Before		1824	1781	2095	1549
	After		1821			
2	Before		1858	1781	2095	1549
	After		1855			
3	Before		1807	1781	2095	1549
	After		1807			
4	Before		1747	1781	2095	1549
	After		1747			
5	Before		1759	1781	2095	1549
	After		1759			
6	Before		-1763	-1781	-1549	-2095
	After		-1765			
7	Before		1781	1781	2095	1549
	After		1781			
		(Minimum) (Nominal) (Maximum)				

Before: 30–Mar–2024 16:56

After: 30–Mar–2024 21:42

HRLT V45

















Idx	Phase	HRLT A4--A5 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68740	70000	82360	60900
	After		68800			
1	Before		72280	70000	82360	60900
	After		72280			
2	Before		73870	70000	82360	60900
	After		73870			
3	Before		72070	70000	82360	60900
	After		72130			
4	Before		69650	70000	82360	60900
	After		69690			
5	Before		70090	70000	82360	60900
	After		70150			
6	Before		-68910	-70000	-60900	-82360
	After		-69030			
7	Before		70000	70000	82360	60900
	After		70000			
(Minimum) (Nominal) (Maximum)						

Before: 30-Mar-2024 16:56

After: 30-Mar-2024 21:42

High Resolution Laterolog Array – B Wellsite Calibration

HRLT V56


Idx	Phase	HRLT A5--A6 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68600	70000	82360	60900
	After		68650			
1	Before		72110	70000	82360	60900
	After		72110			
2	Before		73730	70000	82360	60900
	After		73690			
3	Before		71950	70000	82360	60900
	After		72000			
4	Before		69510	70000	82360	60900
	After		69580			
5	Before		69970	70000	82360	60900
	After		70030			
6	Before		-68750	-70000	-60900	-82360
	After		-68860			
7	Before		70000	70000	82360	60900
	After		70000			
(Minimum) (Nominal) (Maximum)						

Before: 30-Mar-2024 16:56

After: 30-Mar-2024 21:42

High Resolution Laterolog Array – B Wellsite Calibration














HRLT VTP

















Idx	Phase	HRLT Torpedo-M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum
	Before		-68110			

0	After		-68180	-70000	-60900	-82360
1	Before		-71930	-70000	-60900	-82360
	After		-71910			
2	Before		-73560	-70000	-60900	-82360
	After		-73540			
3	Before		-71850	-70000	-60900	-82360
	After		-71900			
4	Before		-69470	-70000	-60900	-82360
	After		-69510			
5	Before		-69920	-70000	-60900	-82360
	After		-69980			
6	Before		68510	70000	82360	60900
	After		68620			
7	Before		-70000	-70000	-60900	-82360
	After		-70000			
(Minimum) (Nominal) (Maximum)						
Before: 30-Mar-2024 16:56						
After: 30-Mar-2024 21:42						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT VBD						
Idx	Phase	HRLT Bridle#9-M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		-68150	-70000	-60900	-82360
	After		-68210			
1	Before		-72010	-70000	-60900	-82360
	After		-71990			
2	Before		-73660	-70000	-60900	-82360
	After		-73620			
3	Before		-71920	-70000	-60900	-82360
	After		-71980			
4	Before		-69510	-70000	-60900	-82360
	After		-69570			
5	Before		-69960	-70000	-60900	-82360
	After		-70010			
6	Before		68580	70000	82360	60900
	After		68720			
7	Before		-70000	-70000	-60900	-82360
	After		-70000			
(Minimum) (Nominal) (Maximum)						
Before: 30-Mar-2024 16:56						
After: 30-Mar-2024 21:42						

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		284.6			
	Before		281.1			

1	After		281.1	281.1	330.7	244.4
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: 30-Mar-2024 16:56						
After: 30-Mar-2024 21:42						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT MV						
Idx	Phase	HRLT Vertical Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		–320.5	–322.7	–280.7	–379.7
	After		–320.4			
1	Before		–326.8	–322.7	–280.7	–379.7
	After		–326.5			
2	Before		–332.6	–322.7	–280.7	–379.7
	After		–332.3			
3	Before		–321.3	–322.7	–280.7	–379.7
	After		–321.2			
4	Before		–309.0	–322.7	–280.7	–379.7
	After		–309.0			
5	Before		–325.7	–322.7	–280.7	–379.7
	After		–325.6			
6	Before		329.3	322.7	379.7	280.7
	After		329.5			
7	Before		–322.7	–322.7	–280.7	–379.7
	After		–322.7			
(Minimum) (Nominal) (Maximum)						
Before: 30-Mar-2024 16:56						
After: 30-Mar-2024 21:42						




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	Phase	LS Cs Resolution Bkg %		Value	Phase	LSW1 Background CPS		Value	
Master	<div><div></div></div>		7.740	Master	<div><div></div></div>		8.164	Master	<div><div></div></div>		67.09	
Before	<div><div></div></div>		7.632	Before	<div><div></div></div>		7.999	Before	<div><div></div></div>		66.50	
After	<div><div></div></div>		7.738	After	<div><div></div></div>		8.037	After	<div><div></div></div>		66.95	
7.000 (Minimum)			9.000 (Nominal)	7.000 (Minimum)			9.000 (Nominal)	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	<div><div></div></div>		61.34	Master	<div><div></div></div>		139.1	Master	<div><div></div></div>		170.9	
Before	<div><div></div></div>		61.31	Before	<div><div></div></div>		139.2	Before	<div><div></div></div>		169.9	
After	<div><div></div></div>		61.03	After	<div><div></div></div>		137.0	After	<div><div></div></div>		169.5	
50.00 (Minimum)			100.0 (Nominal)	110.0 (Minimum)			200.0 (Nominal)	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	<div><div></div></div>		398.8	Master	<div><div></div></div>		64.20	Master	<div><div></div></div>		111.7	
Before	<div><div></div></div>		399.2	Before	<div><div></div></div>		63.92	Before	<div><div></div></div>		112.5	
After	<div><div></div></div>		396.9	After	<div><div></div></div>		64.37	After	<div><div></div></div>		110.8	
330.0 (Minimum)			600.0 (Nominal)	55.00 (Minimum)			100.0 (Nominal)	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	<div><div></div></div>		309.0	Master	<div><div></div></div>		168.1	Master	<div><div></div></div>		118.8	
Before	<div><div></div></div>		309.9	Before	<div><div></div></div>		166.9	Before	<div><div></div></div>		118.4	
After	<div><div></div></div>		309.8	After	<div><div></div></div>		166.7	After	<div><div></div></div>		117.7	
280.0 (Minimum)			500.0 (Nominal)	150.0 (Minimum)			270.0 (Nominal)	110.0 (Minimum)			200.0 (Nominal)	270.0 (Maximum)
Master: 5-Feb-2024 14:31 Before: 30-Mar-2024 16:59 After: 30-Mar-2024 21:45												

Litho-Density Spectroscopy Cartridge – B / Equipment Identification		
Primary Equipment: LDSC Cartridge	LDSC – B	326
Auxiliary Equipment: LDSC Housing	LDSH – A	303

Hostile Natural Gamma Ray Cartridge – B / Equipment Identification		
Primary Equipment: HNGC Cartridge	HNGC – B	300
Auxiliary Equipment: HNGC Housing	HNGH – A	115

Hostile Natural Gamma Ray Sonde / Equipment Identification		
Primary Equipment: HNGS Sonde	HNGS – BA	177
Auxiliary Equipment: HNGS Sonde Housing	HNSH – BA	174
Gamma Source Radioactive	GSR – U	135

Hostile Natural Gamma Ray Sonde Wellsite Calibration											
Detector 1 Check											
Phase	Na 511 Peak Loc		Value	Phase	Na 511 Peak Res %		Value	Phase	High Voltage V		Value
Master			38.56	Master			16.82	Master			1206

Before	<div><div></div></div>	38.62	Before	<div><div></div></div>	16.73	Before	<div><div></div></div>	1194
After	<div><div></div></div>	38.62	After	<div><div></div></div>	16.68	After	<div><div></div></div>	1200
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	<div><div></div></div>	139.2	Master	<div><div></div></div>	9.087	Master	<div><div></div></div>	26.64
Before	<div><div></div></div>	139.5	Before	<div><div></div></div>	8.710	Before	<div><div></div></div>	21.44
After	<div><div></div></div>	139.6	After	<div><div></div></div>	9.122	After	<div><div></div></div>	21.83
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	<div><div></div><div>MASTER-BEFORE LIMIT</div></div>	47.40						
Before	<div><div></div></div>	37.25						
After	<div><div></div></div>	37.44						
10.00 (Minimum)45.00 (Nominal)100.0 (Maximum)								
Master: Calibration out of date 20-Apr-2023 2:22 Before: 30-Mar-2024 17:01 After: 30-Mar-2024 21:46								

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	<div><div></div></div>		39.72	Master	<div><div></div></div>		15.41	Master	<div><div></div></div>		1089															
Before	<div><div></div></div>		39.58	Before	<div><div></div></div>		16.53	Before	<div><div></div></div>		1082															
After	<div><div></div></div>		39.67	After	<div><div></div></div>		15.75	After	<div><div></div></div>		1085															
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	<div><div></div></div>		142.9	Master	<div><div></div></div>		8.753	Master	<div><div></div></div>		25.53															
Before	<div><div></div></div>		142.2	Before	<div><div></div></div>		9.042	Before	<div><div></div></div>		20.81															
After	<div><div></div></div>		142.6	After	<div><div></div></div>		8.837	After	<div><div></div></div>		22.01															
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	<div><div></div></div>		47.70																							
Before	<div><div></div></div>		37.29																							
After	<div><div></div></div>		37.57																							
10.00 (Minimum)			45.00 (Nominal)									100.0 (Maximum)														
Master: Calibration out of date 20-Apr-2023 2:22									Before: 30-Mar-2024 17:01									After: 30-Mar-2024 21:46								

Hostile Natural Gamma Ray Sonde Wellsite Calibration		
Ratio Of Detector 1 To Detector 2		
Phase	Coincidence Count Rate Ratio	Value
Master		0.9913
Before		0.9955
After		0.9933
0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)		
Master: Calibration out of date 20-Apr-2023 2:22		
Before: 30-Mar-2024 17:01		
After: 30-Mar-2024 21:46		

Enhanced DTS Cartridge / Equipment Identification


Primary Equipment:

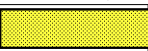


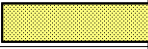


EDTC Gamma Ray Detector
Enhanced DTS Cartridge

EDTG – A/B
EDTC – B

77693
8529

Auxiliary Equipment:

Enhanced DTS Cartridge Wellsite Calibration		
EDTC Accelerometer Calibration		
Phase	EDTC Z-Axis Acceleration M/S2	Value
Before		9.791
	9.610 (Minimum) 9.810 (Nominal) 10.01 (Maximum)	
Before: 30-Mar-2024 16:56		

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			1.621	Before			166.1	Before			165.0
After			1.863	After			167.9	After			166.8
	0 (Minimum) 30.00 (Nominal) 120.0 (Maximum)				151.0 (Minimum) 166.1 (Nominal) 181.2 (Maximum)				150.0 (Minimum) 165.0 (Nominal) 180.0 (Maximum)		
Before: 30-Mar-2024 16:57				After: 30-Mar-2024 21:44							

Company: **International Ocean Discovery Program**

Schlumberger

Well: **Expedition 402, Site U1617B**

Field: **Tyrrhenian Continent–Ocean Transition**

Rig: **JOIDES Resolution**

Country: **Italy**

High Resolution Laterolog (HRLA) / HLDS

Magnetic Susceptibility (MSS)

Natural Gamma / MSS (HNGS)