Baker Atlas

RADIAL ANALYSIS BOND LOG

File No:	CH081545
API No:	05045220850000
Company	WPX ENERGY
Well	WPX ENERGY RWF 422-4
Field	RULISON
County	GARFIELD
State	COLORADO

Location

4 7S 94W

RMV 108-4 PAD

NABORS 574

SHL: 449' FNL X 1712' FEL

BHL: 2374' FNL X 1928' FWL (SWNW)

SEC 4 TWP 7S RGE 94W

Other Services

RPM

Permanent Datum	GL	Elevation	5794 ft
Log Measured From	KB	26 ft	Above P. D.
Drill Measured From	KELLY BUSHING		

Elevations

KB 5820 ft

DF

GL 5794 ft

Date	14/JAN/14		
Run	ONE		
Service Order	US625086		
Depth Driller	8724 ft		
Depth Logger	8700 ft		
Bottom Logged Interval	8690 ft		
Top Logged Interval	26 ft		
Time Started	1000		
Time Finished	1400		
Operator Rig Time	4 HRS		
Type of Fluid in Hole	WATER		
Fluid Density	NA		
Salinity	NA		
Fluid Level	66 ft		
Logged Cement Top	NA		
Wellhead Pressure	0 psi		
Maximum Hole Deviation	NA		
Nominal Logging Speed	65 fpm		
Maximum Recorded Temperature	246 degF		
Reference Log	NONE		
Reference Log Date	NA		
Equipment No. / Location	4271	GRAND JCT	
Recorded By	FLOYD RENEAU		
Witnessed By	CHRIS TILLER		

- FOLD HERE

In making interpretations of logs, our employees will give the customer the benefit of their best judgement. But since all interpretations are opinions based on inferences from electrical or other measurements, we cannot, and we do not guarantee the accuracy or correctness of any interpretation. We shall not be liable or responsible for any loss, cost, damages, or expenses whatsoever incurred or sustained by the customer resulting from any interpretation made by any of our employees.

Casing Record

Size	Weight	Grade	From	To
9.625 in			0 ft	2529 ft
4.5 in	11.6 lbm/ft	I-80	0 ft	8724 ft

Borehole Record

Bit Size	From	To
13.5 in	0 ft	2529 ft
8.75 in	2529 ft	8724 ft

Remarks

All data on this log is shifted using the CCL curve to put the wellhead (top CCL mark) on depth with ground level elevation at the client's request.

Top ccl mark is 8' above ground level (height of flange on production tree).

The amount of linear shift is 18 feet.

Logged with zero PSI at wellhead.

BHT = 246°F

SJ = 5199'-5223'

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	VDL	1426XA	10218496	CENT
1	1	GR	2459XA	10124121	CENT

PRIMARY PRESENTATION
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	315.000	usec	27.675	8721.000
RAL	Amp Gate Start Near	200.000	usec	27.675	8721.000
RAL	Amp Gate Start Radial	200.000	usec	27.675	8721.000
RAL	Amp Gate Width Far	15.000	usec	27.675	8721.000
RAL	Amp Gate Width Near	25.000	usec	27.675	8721.000
RAL	Amp Gate Width Radial	25.000	usec	27.675	8721.000
RAL	casing od	4.500	inches	27.675	8721.000
RAL	casing wt	11.600	lbm/ft	27.675	8721.000
RAL	FB Start Far	291.900	usec	27.675	8721.000
RAL	FB Start Near	175.391	usec	27.675	8721.000
RAL	FB Start Radial	175.391	usec	27.675	8721.000
RAL	FB Thresh Far	10.000	mv	27.675	8721.000
RAL	FB Thresh Near	4.000	mv	27.675	8721.000
RAL	FB Thresh Radial	4.000	mv	27.675	8721.000
RAL	Fluid Travel Time	200.000	usec/ft	27.675	8721.706

DEPTH OFFSETS
(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-16.750	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	AR8	CHV	FPR2

		FPR3 FPR5 TT3 TTR1 TTR2 TTR3
		TTR4 TTR5 TTR6 TTR7 TTR8 XAMP
1426XA	-15.750	AFAR SIG TT5
2459XA	-11.340	CCL
2459XA	-9.490	GR
2459XA	-4.090	NEU

Created by : RAL, v4.8.008
Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY
Well : WPX ENERGY RWF 422-4
File Name : d:\welldata\wpx energy\rwf 422-4\ral422\main.xtf
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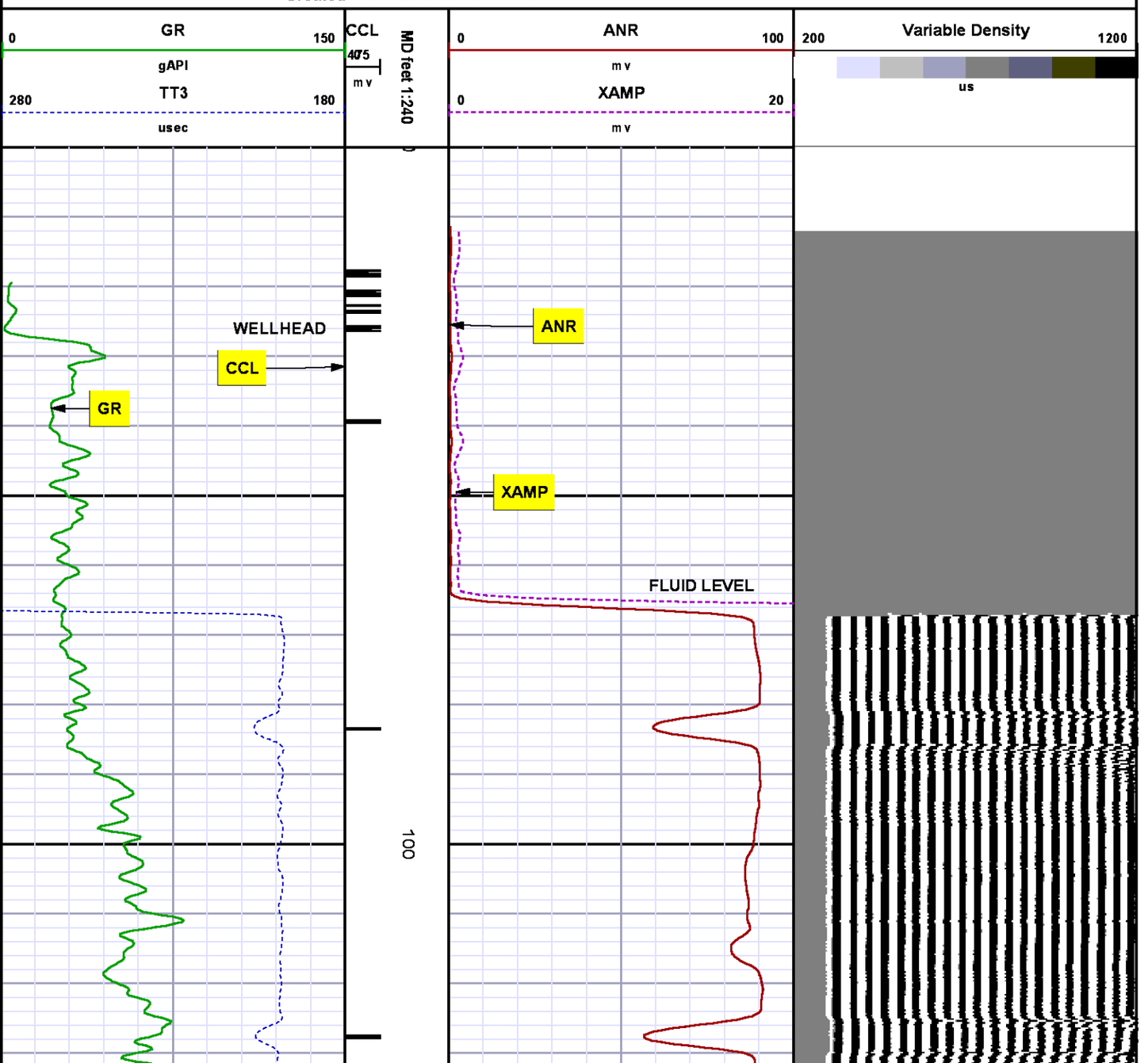

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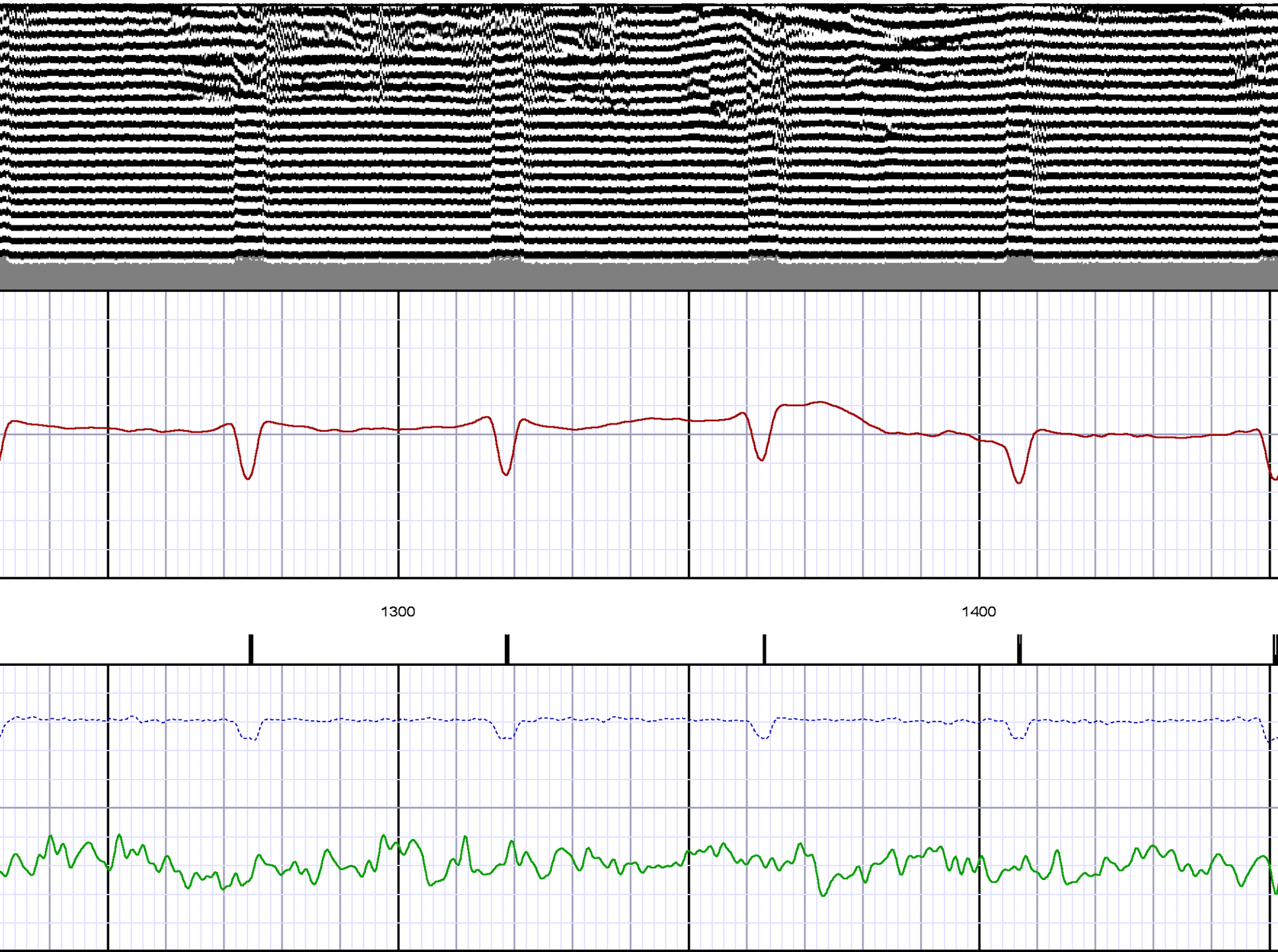
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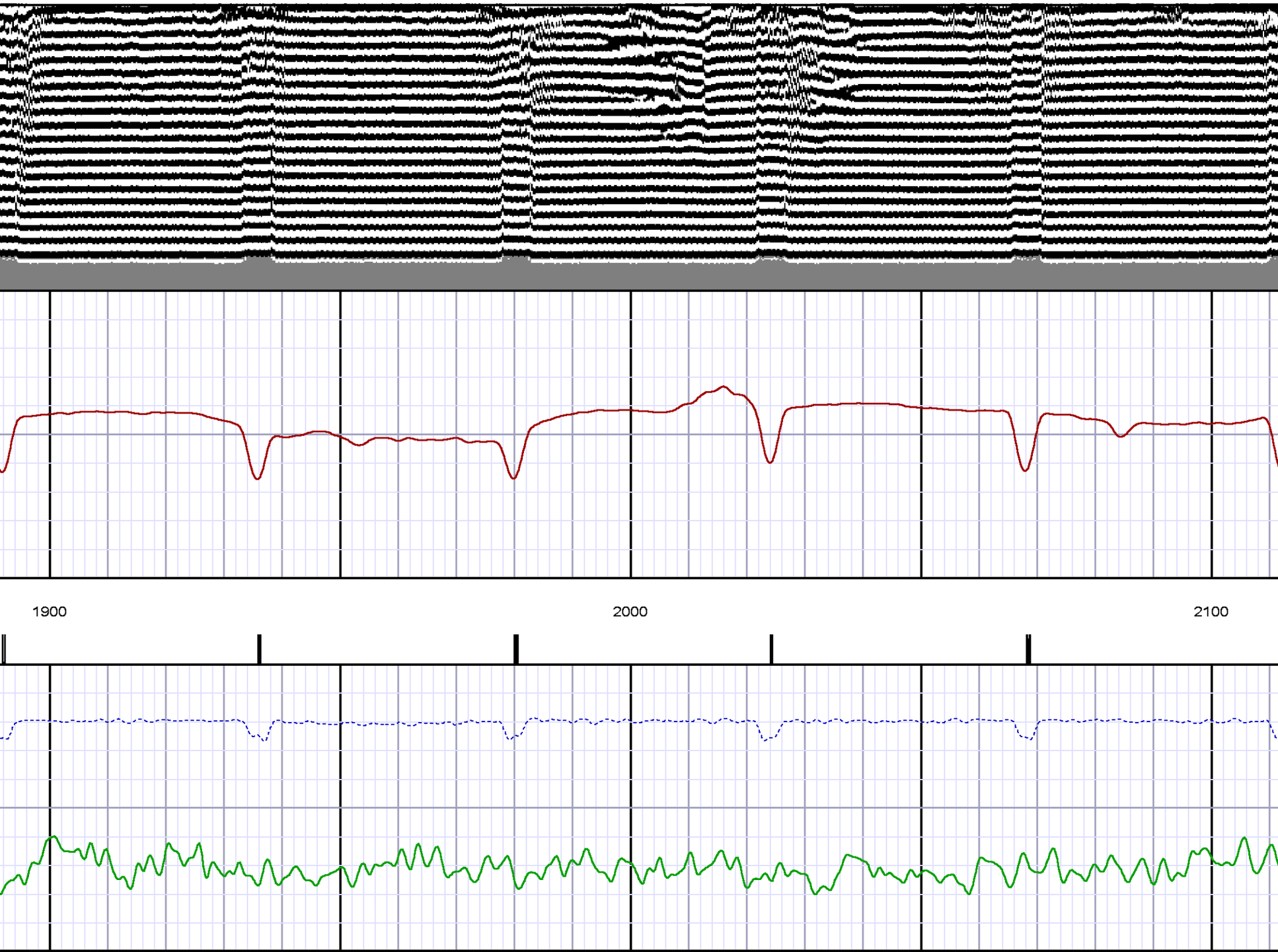
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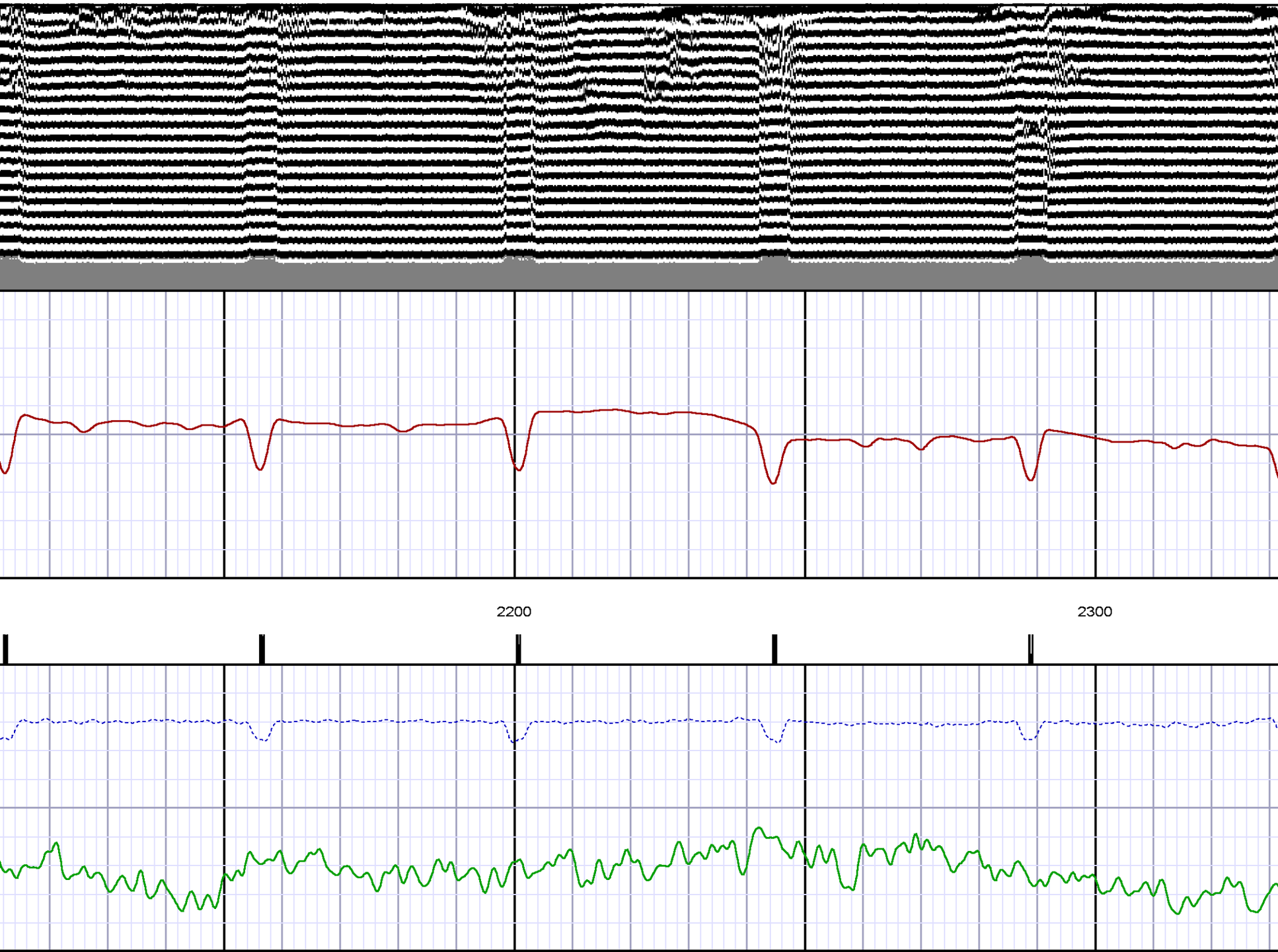
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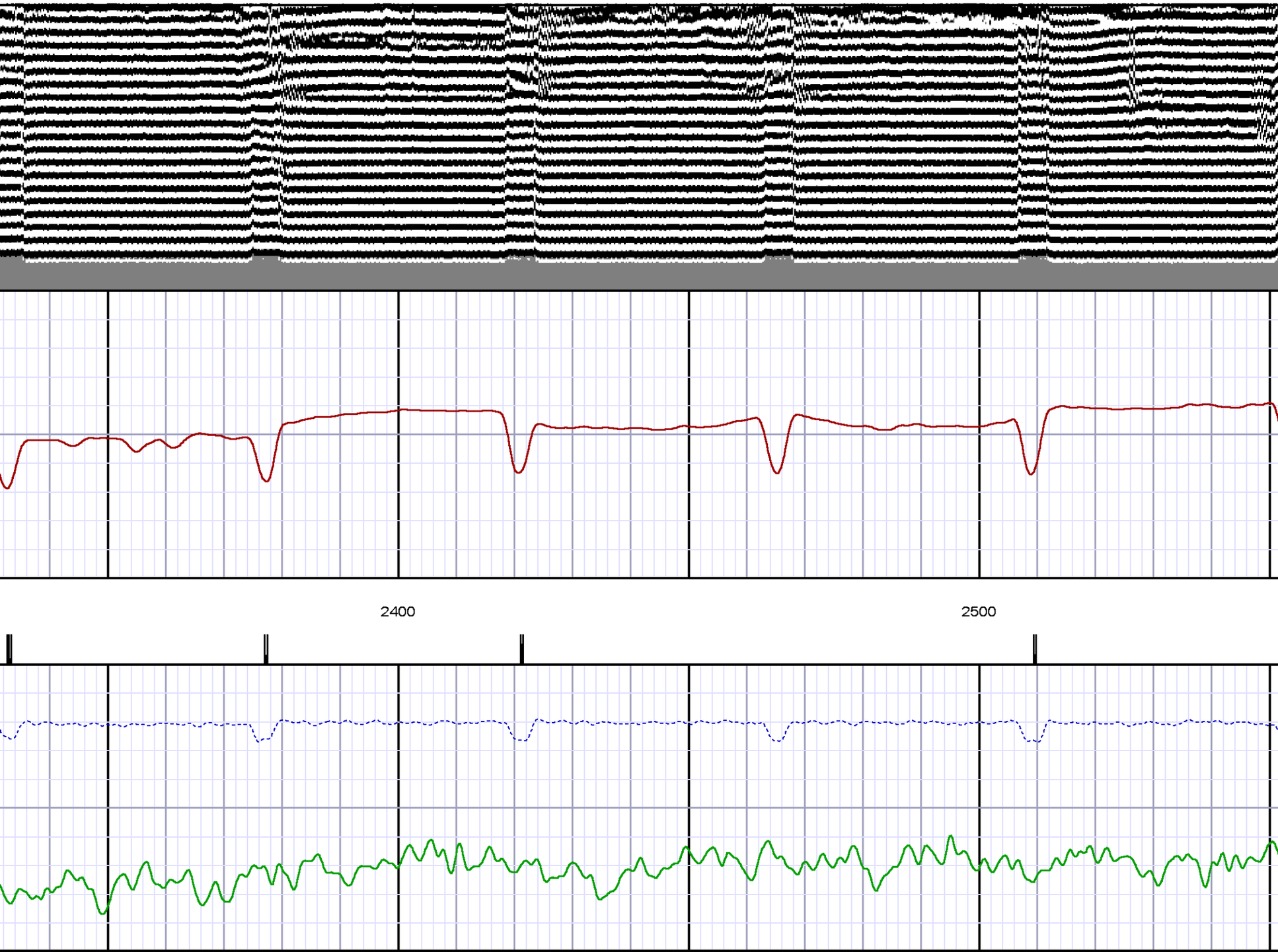
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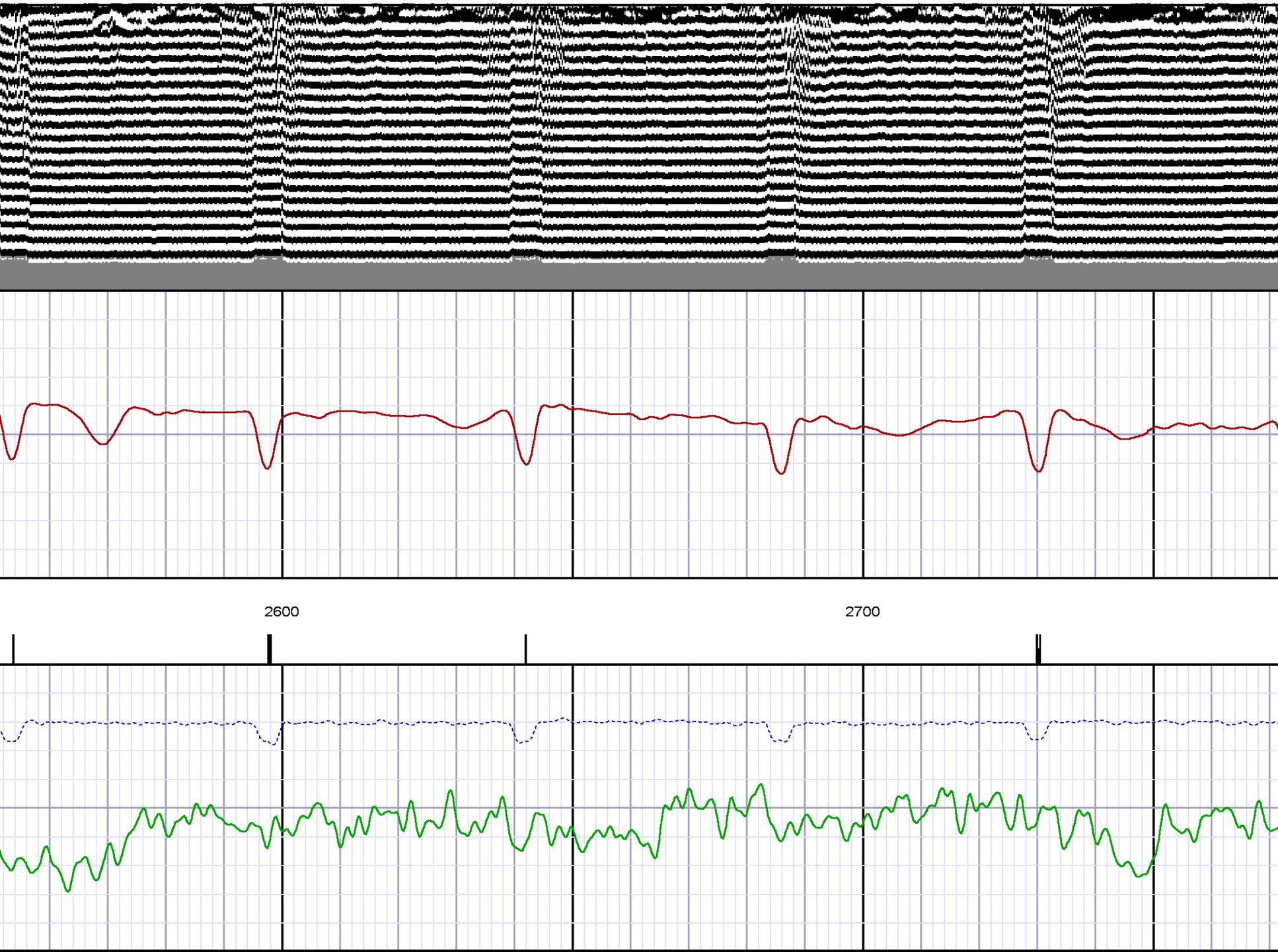
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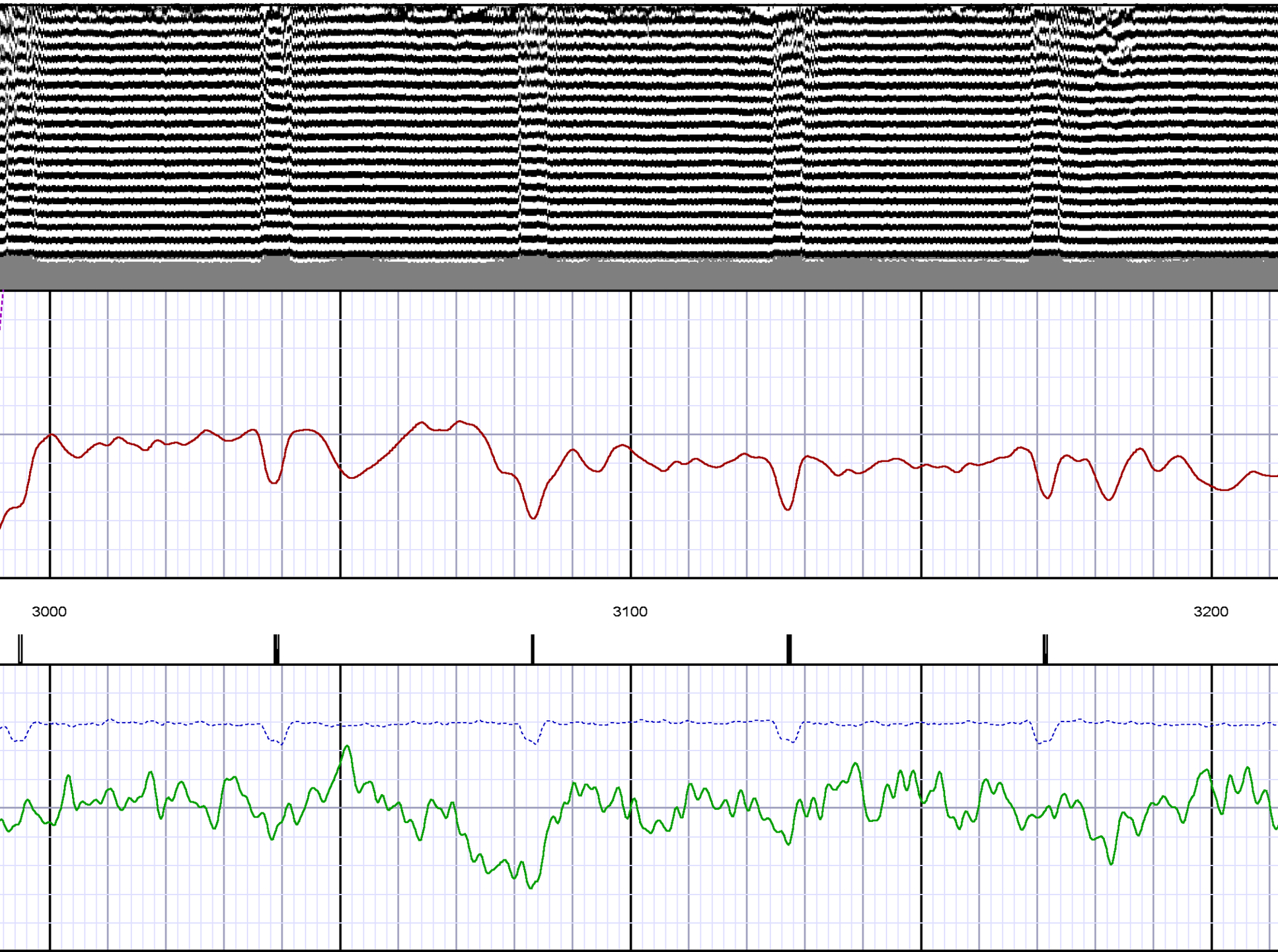
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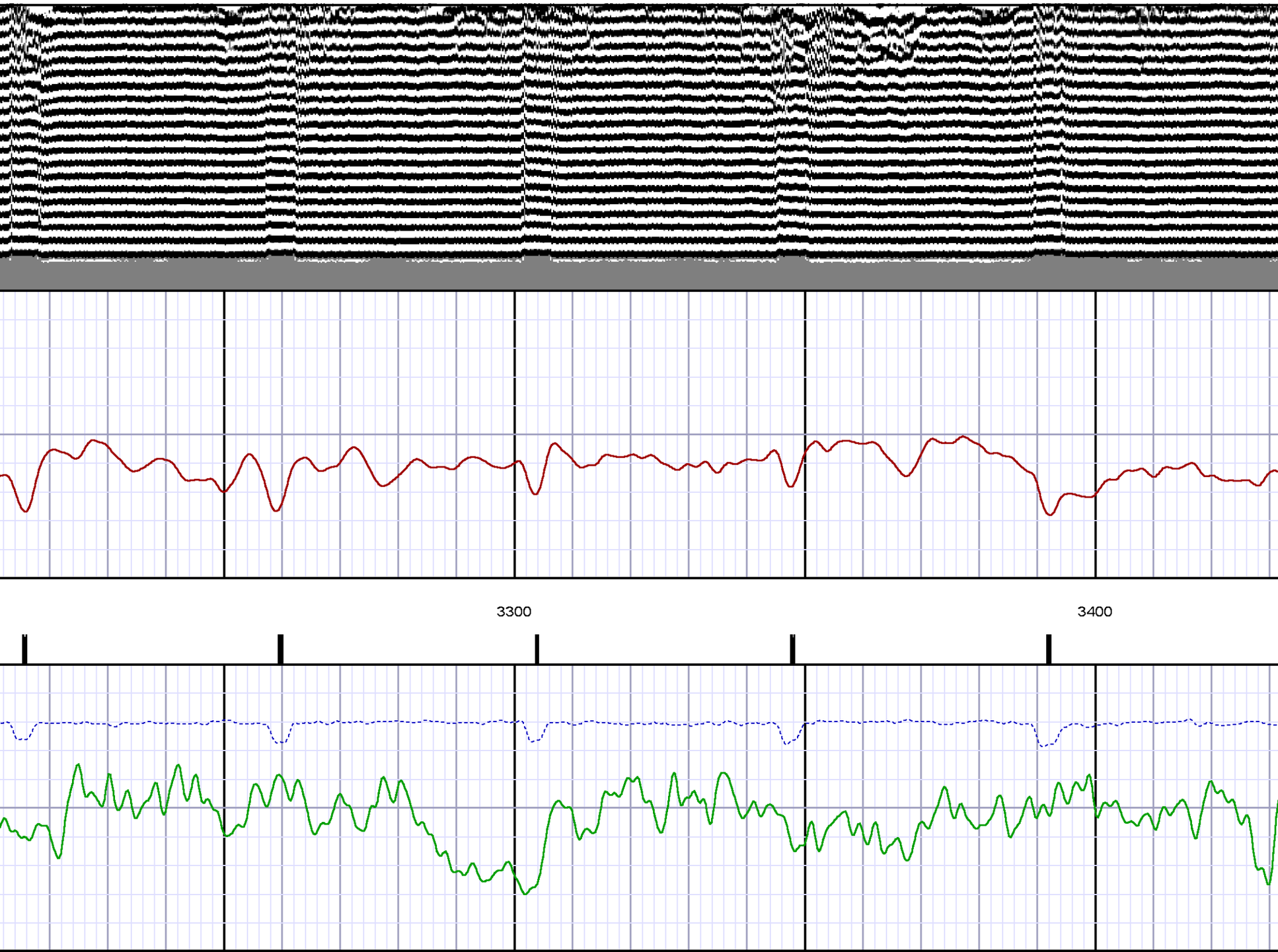
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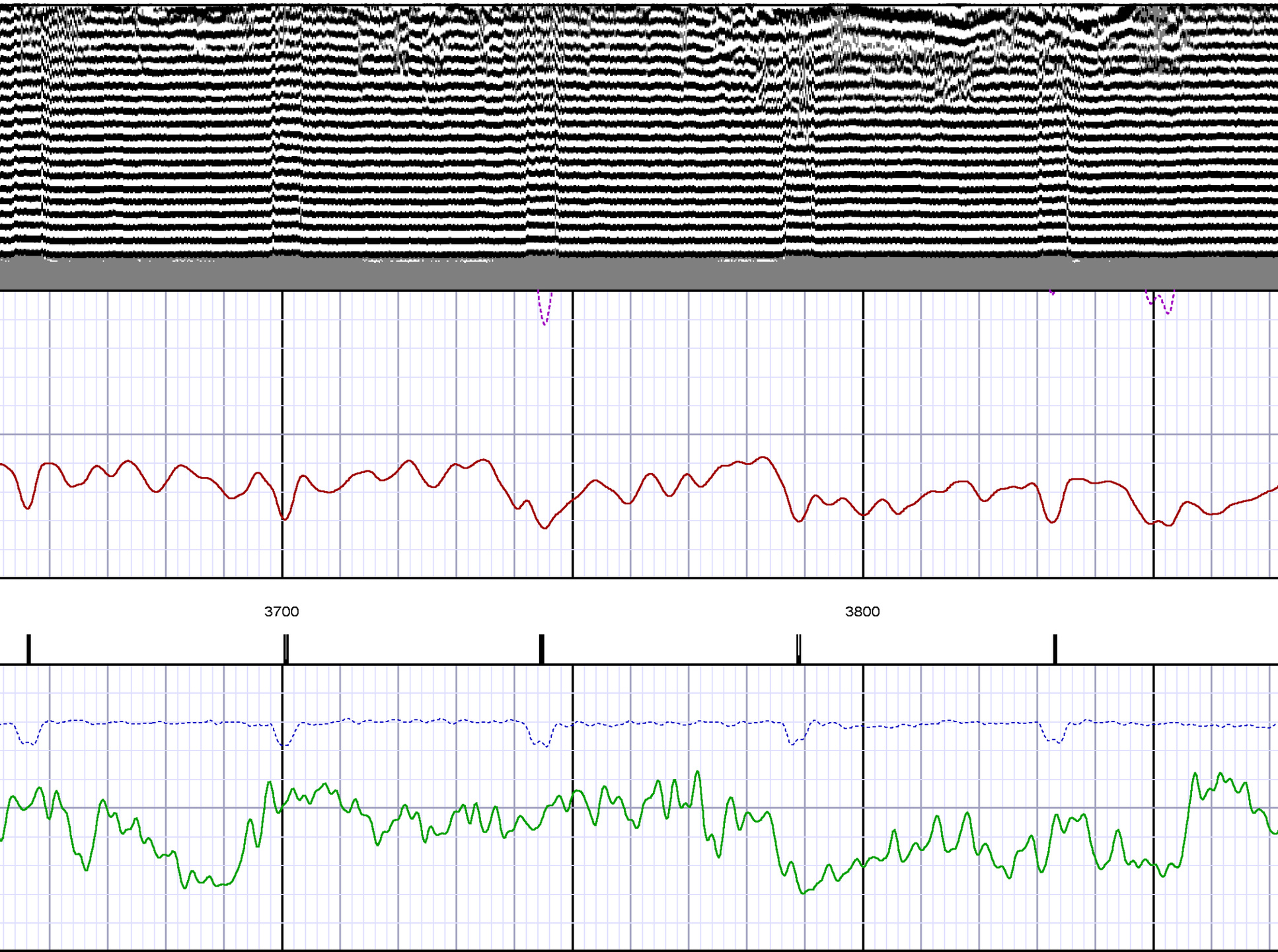
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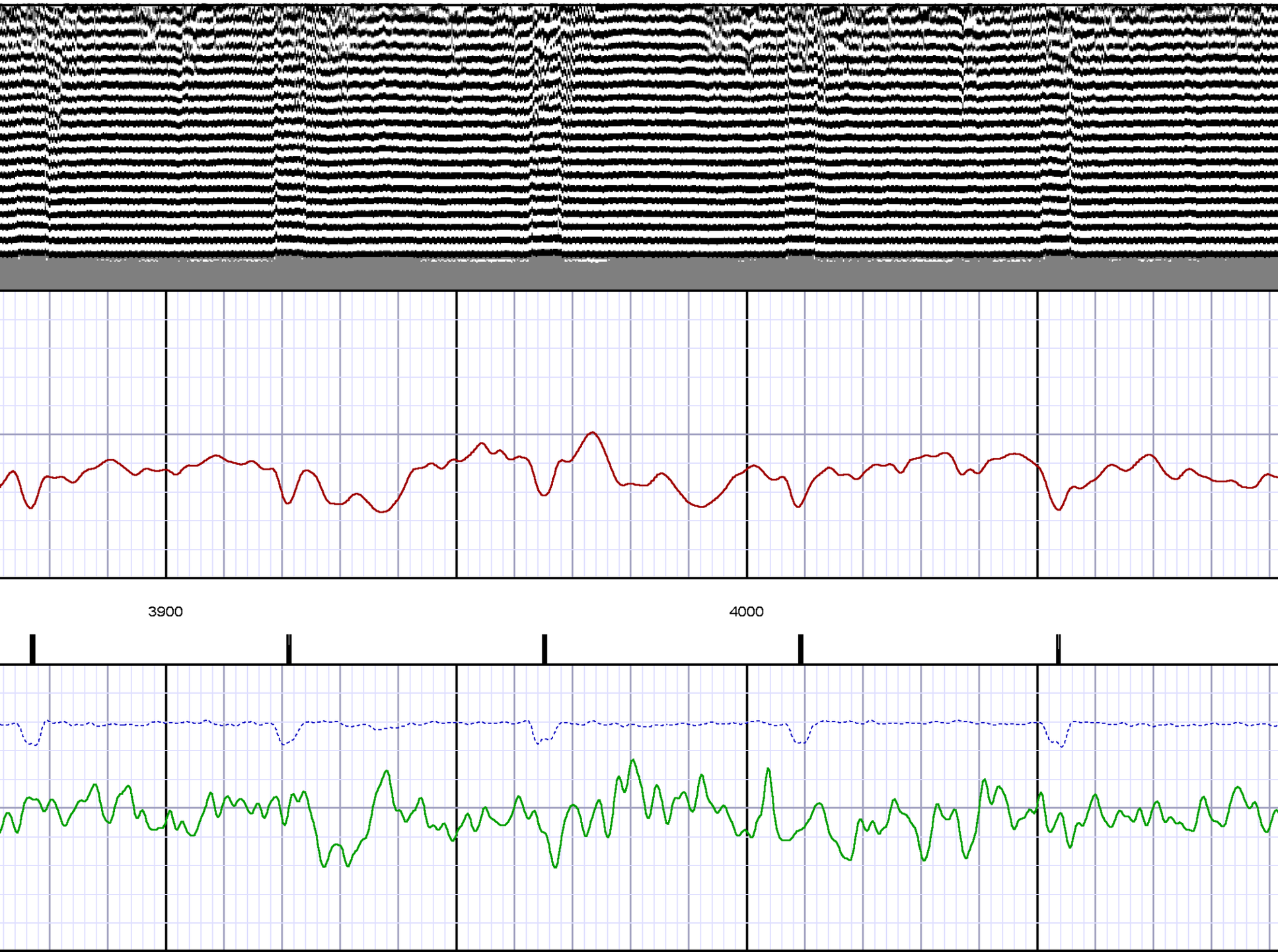
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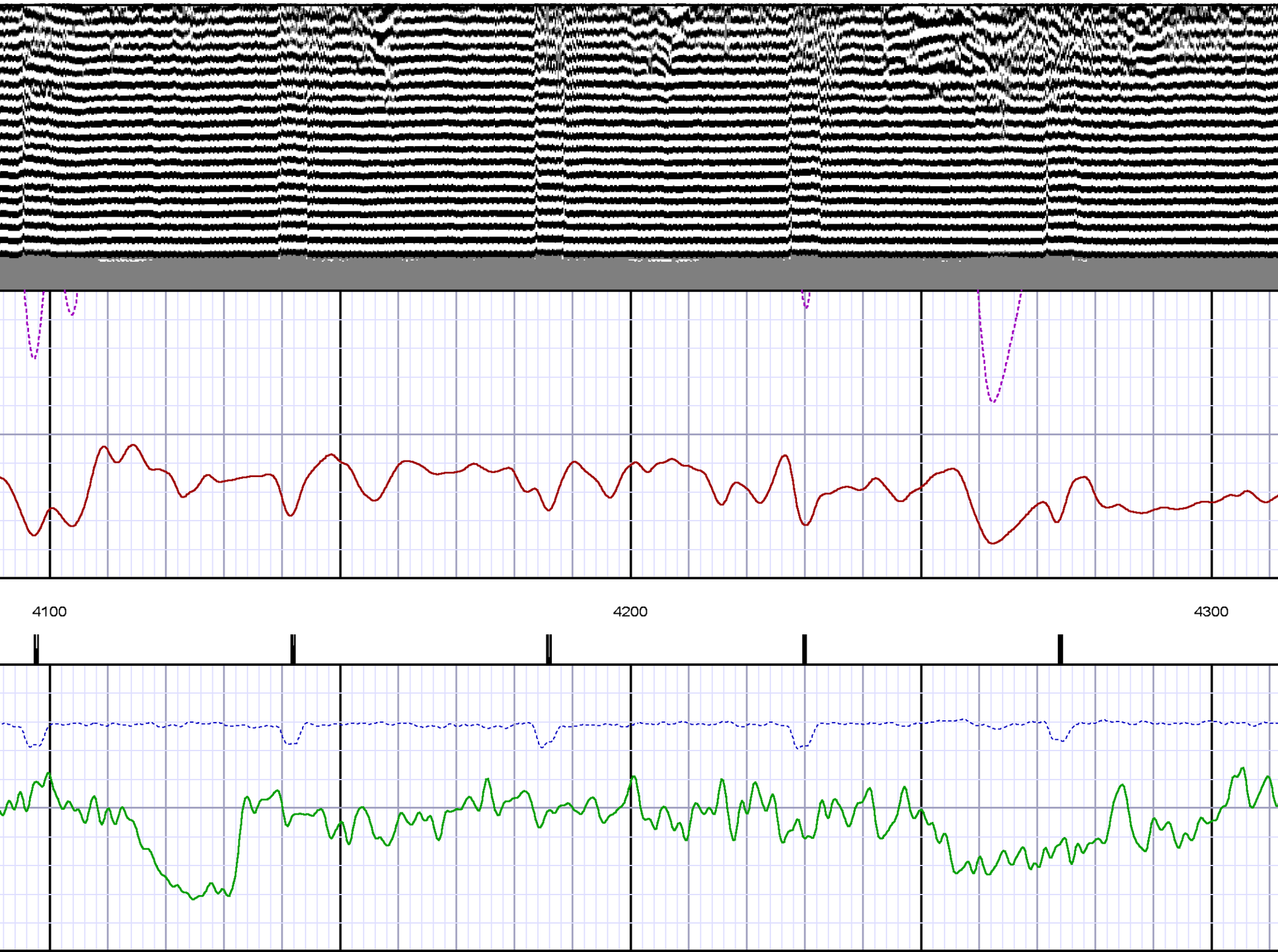
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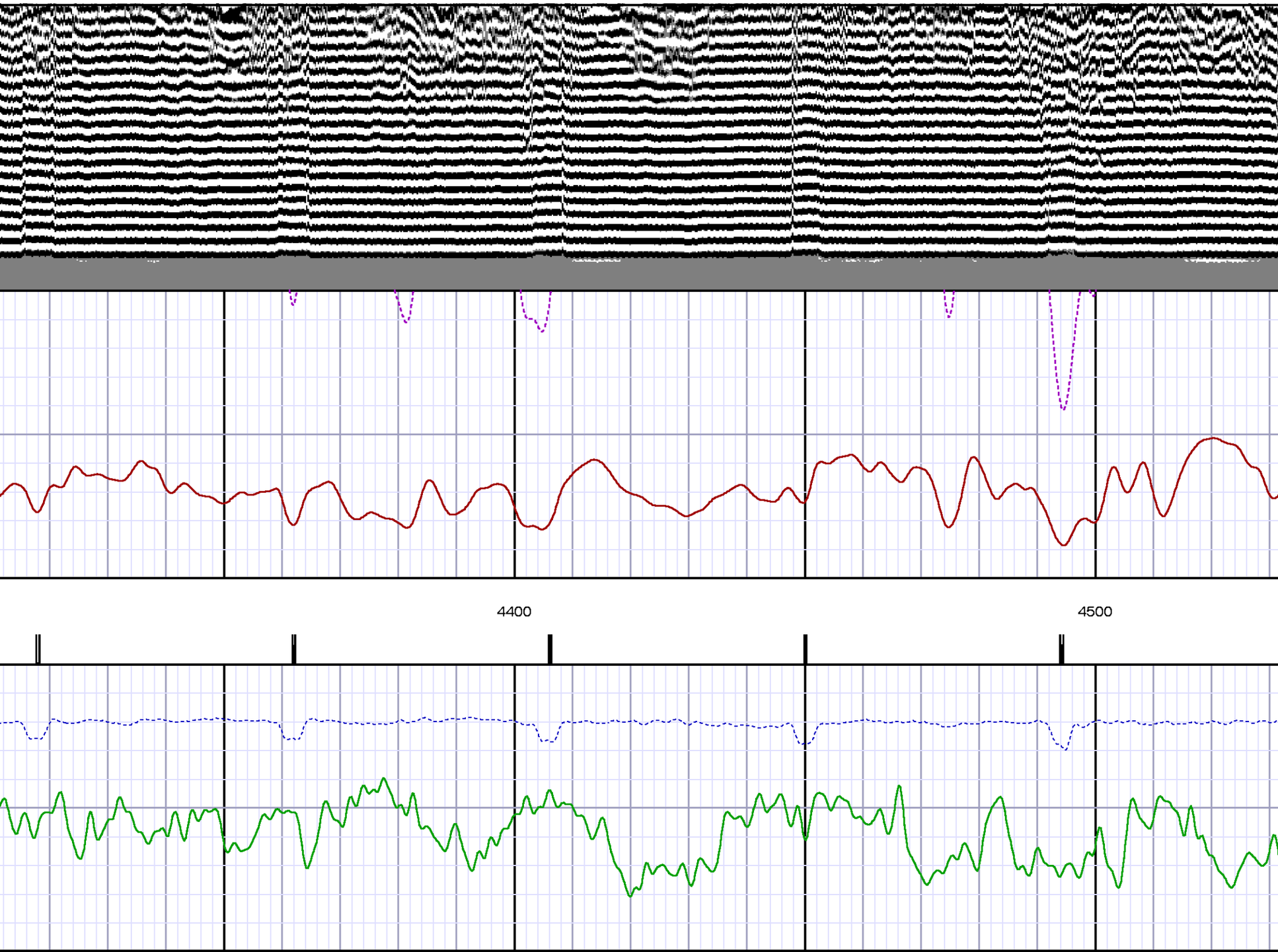
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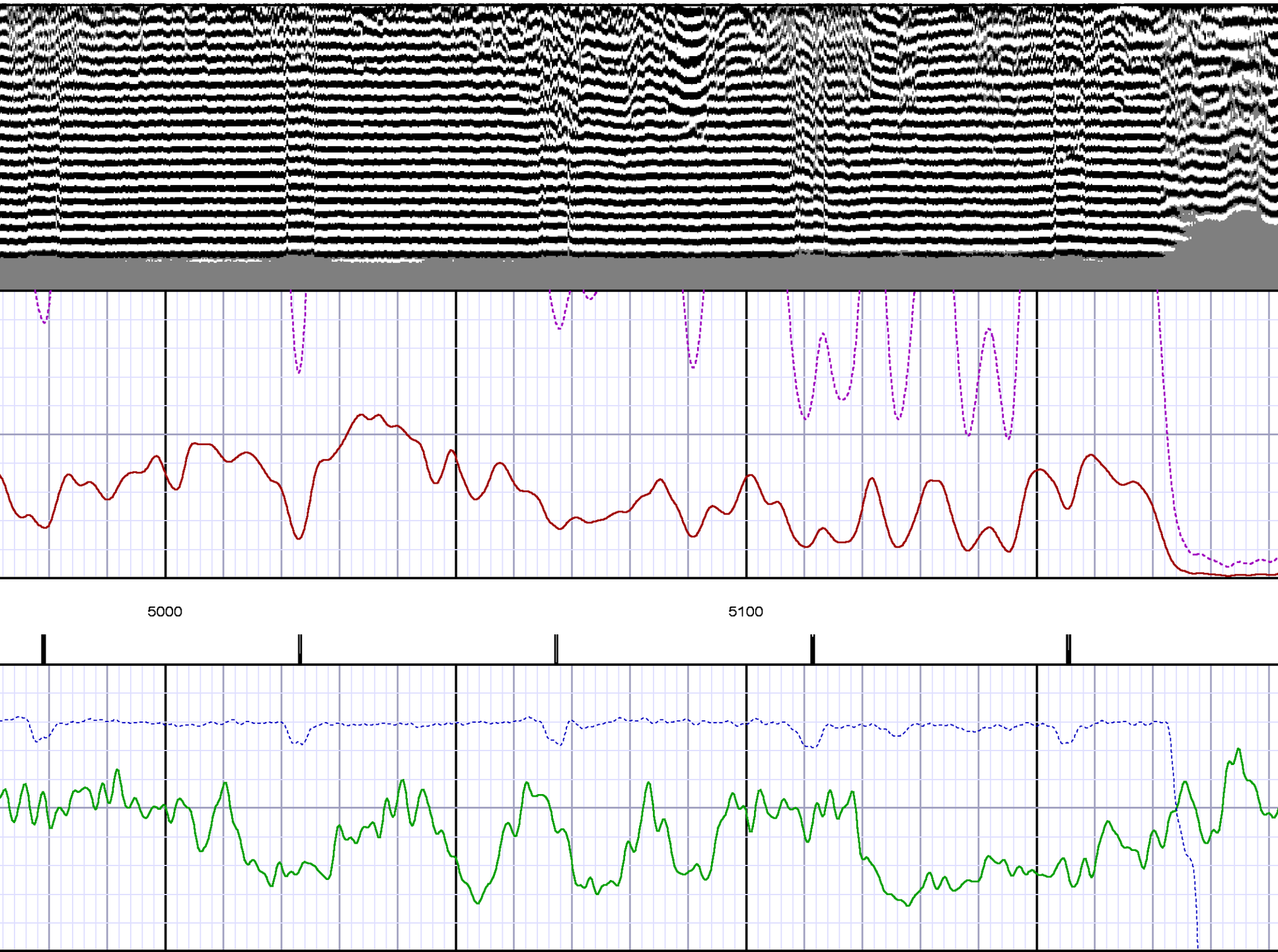
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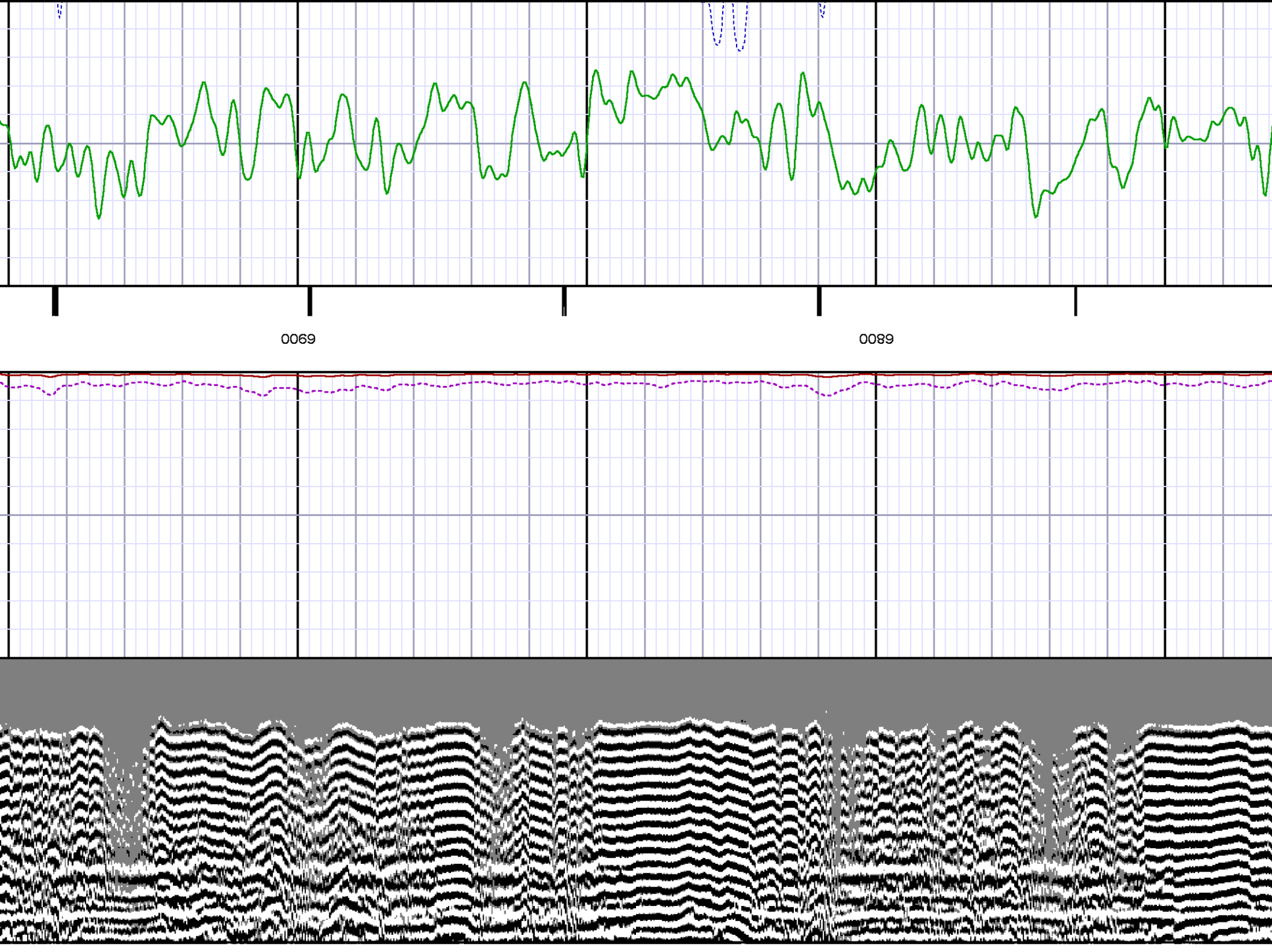
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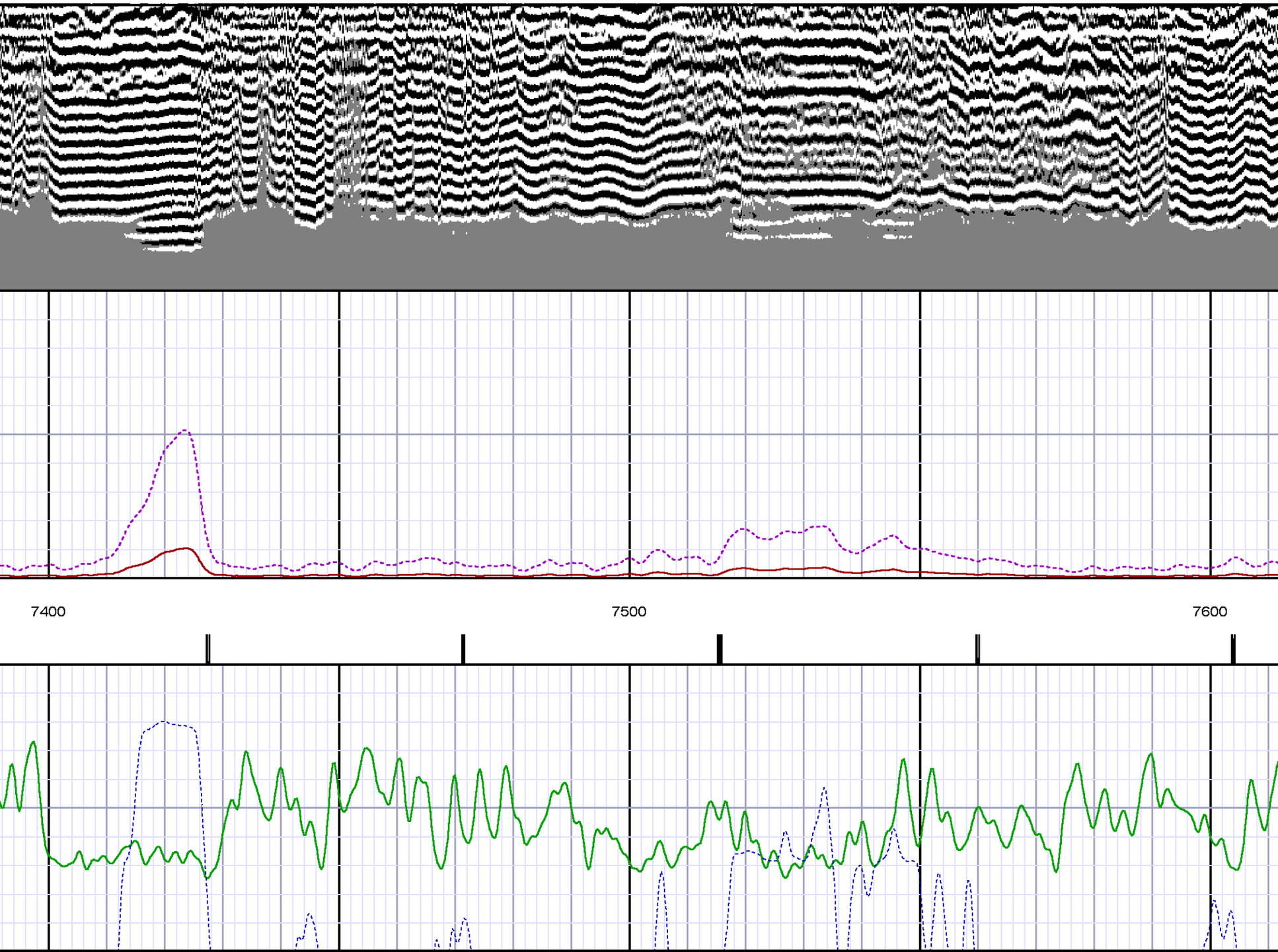
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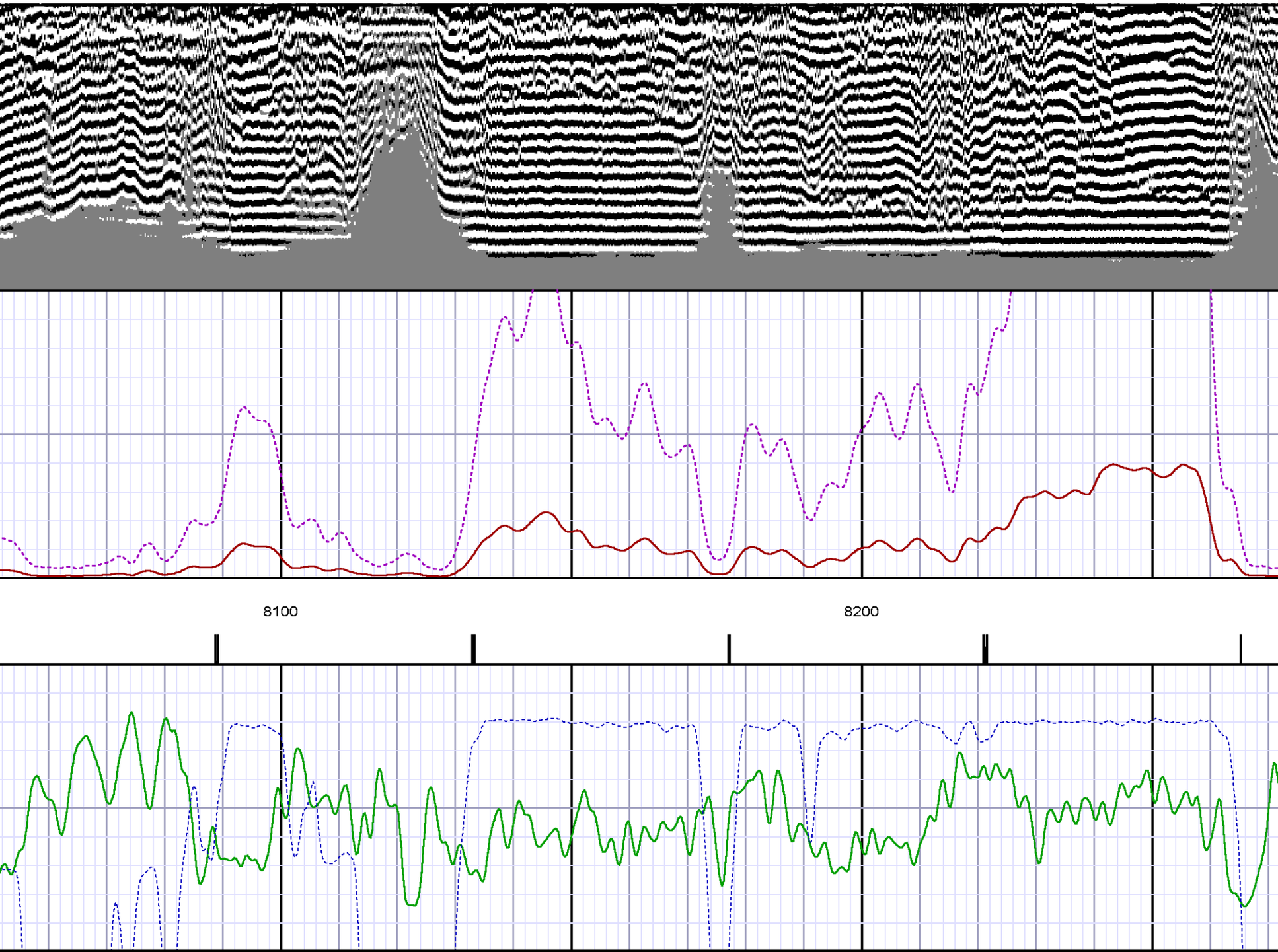
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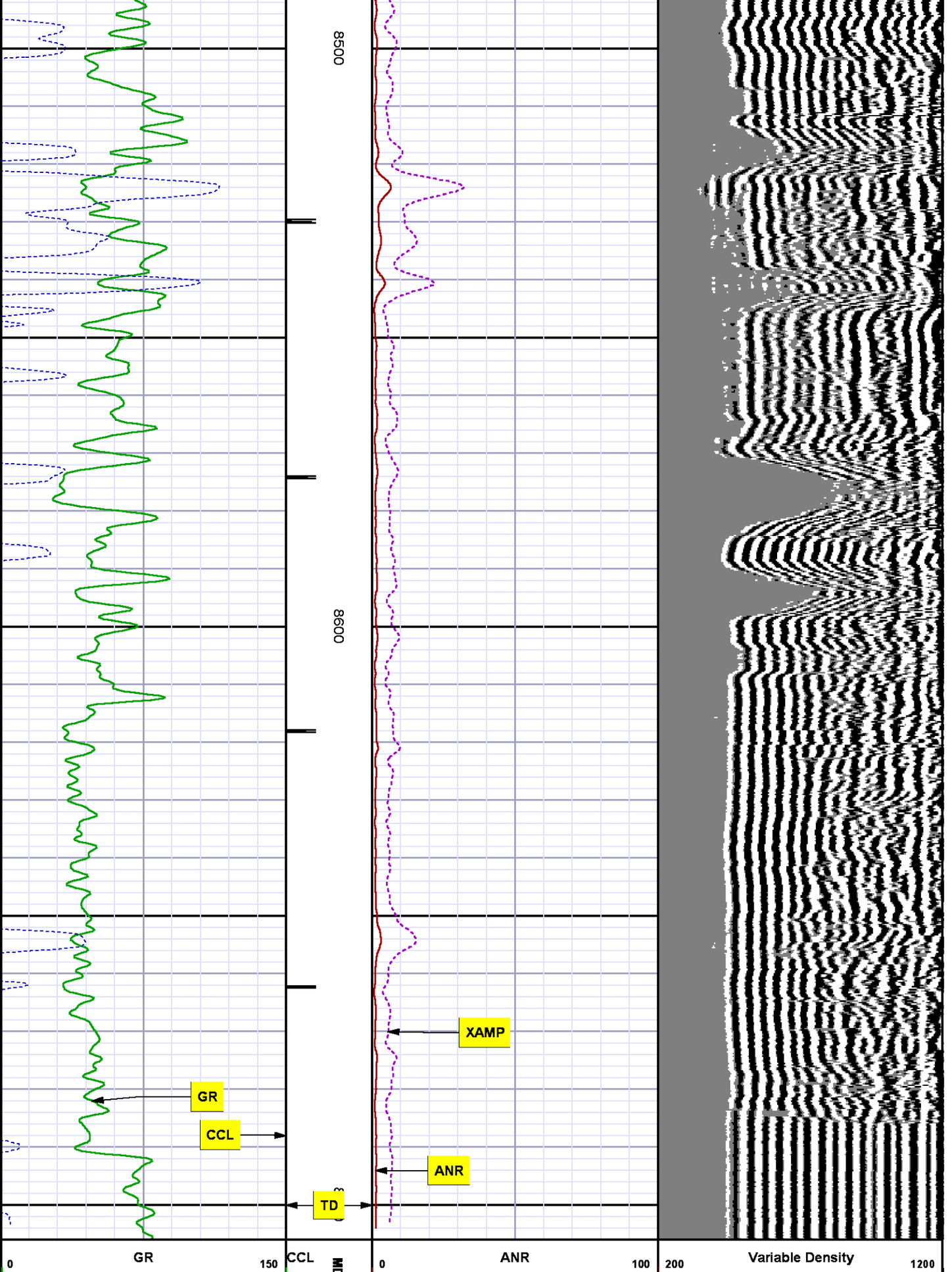
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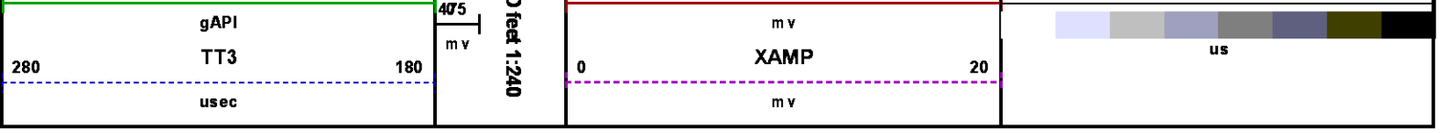

SECONDARY PRESENTATION
O PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	315.000	usec	27.675	8721.000
RAL	Amp Gate Start Near	200.000	usec	27.675	8721.000
RAL	Amp Gate Start Radial	200.000	usec	27.675	8721.000
RAL	Amp Gate Width Far	15.000	usec	27.675	8721.000
RAL	Amp Gate Width Near	25.000	usec	27.675	8721.000
RAL	Amp Gate Width Radial	25.000	usec	27.675	8721.000
RAL	casing od	4.500	inches	27.675	8721.000
RAL	casing wt	11.600	lbm/ft	27.675	8721.000
RAL	FB Start Far	291.900	usec	27.675	8721.000
RAL	FB Start Near	175.391	usec	27.675	8721.000
RAL	FB Start Radial	175.391	usec	27.675	8721.000
RAL	FB Thresh Far	10.000	mv	27.675	8721.000
RAL	FB Thresh Near	4.000	mv	27.675	8721.000
RAL	FB Thresh Radial	4.000	mv	27.675	8721.000
RAL	Fluid Travel Time	200.000	usec/ft	27.675	8721.706

DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES
1426XA	-16.750	ACAL ANR AR1 AR2 AR3 AR4 AR5 AR6 AR7 AR8 CHV FPR2 FPR3 FPR5 TT3 TTR1 TTR2 TTR3 TTR4 TTR5 TTR6 TTR7 TTR8 XAMP
1426XA	-15.750	AFAR SIG TT5
2459XA	-11.340	CCL
2459XA	-9.490	GR

2459XA	-4.090	NEU

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

Well : WPX ENERGY RWF 422-4

File Name : d:\welldata\wpx energy\rwf 422-4\ral422\main.xtf

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Interval : 0.00 - 8706.00 feet UP

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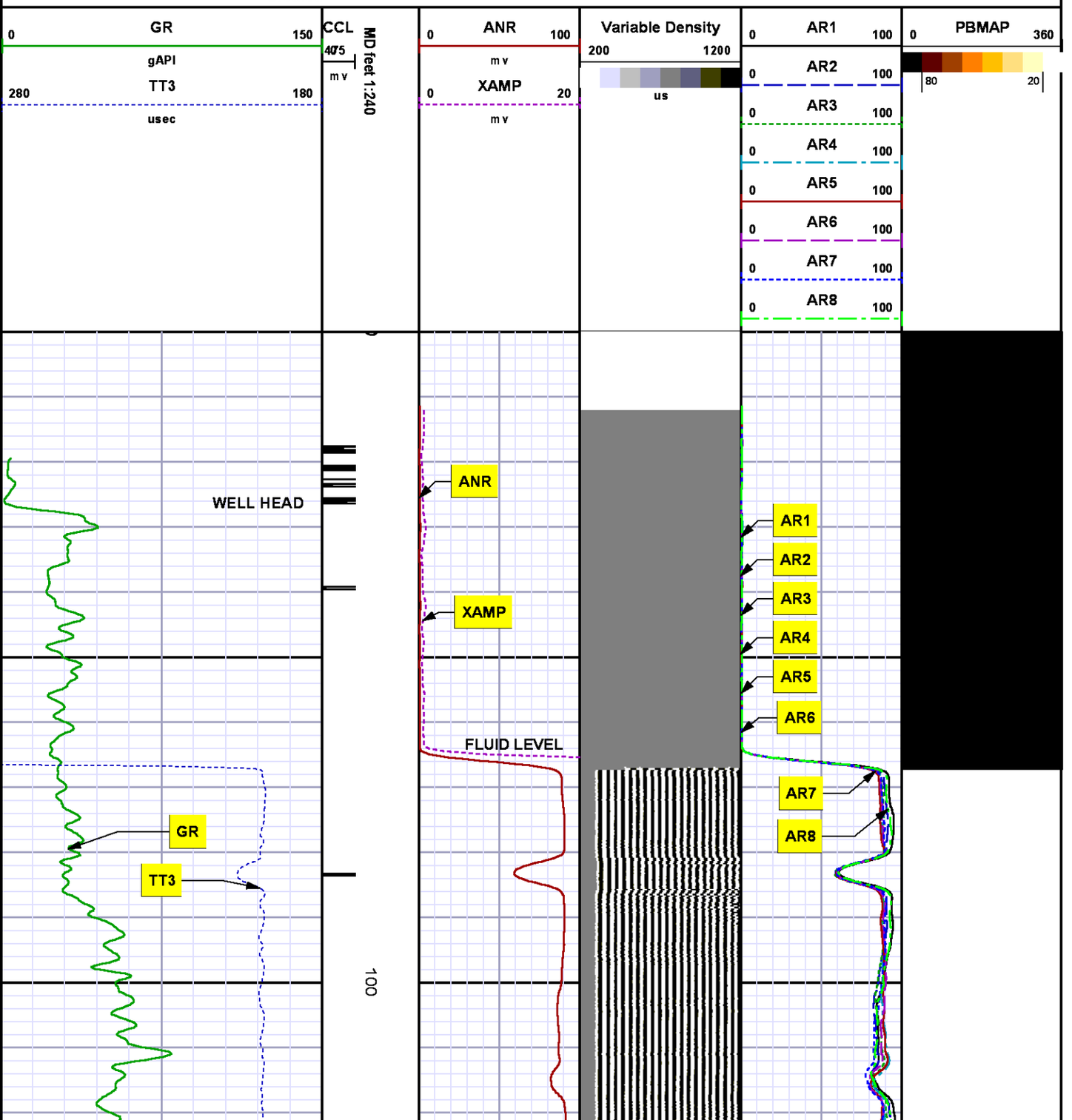

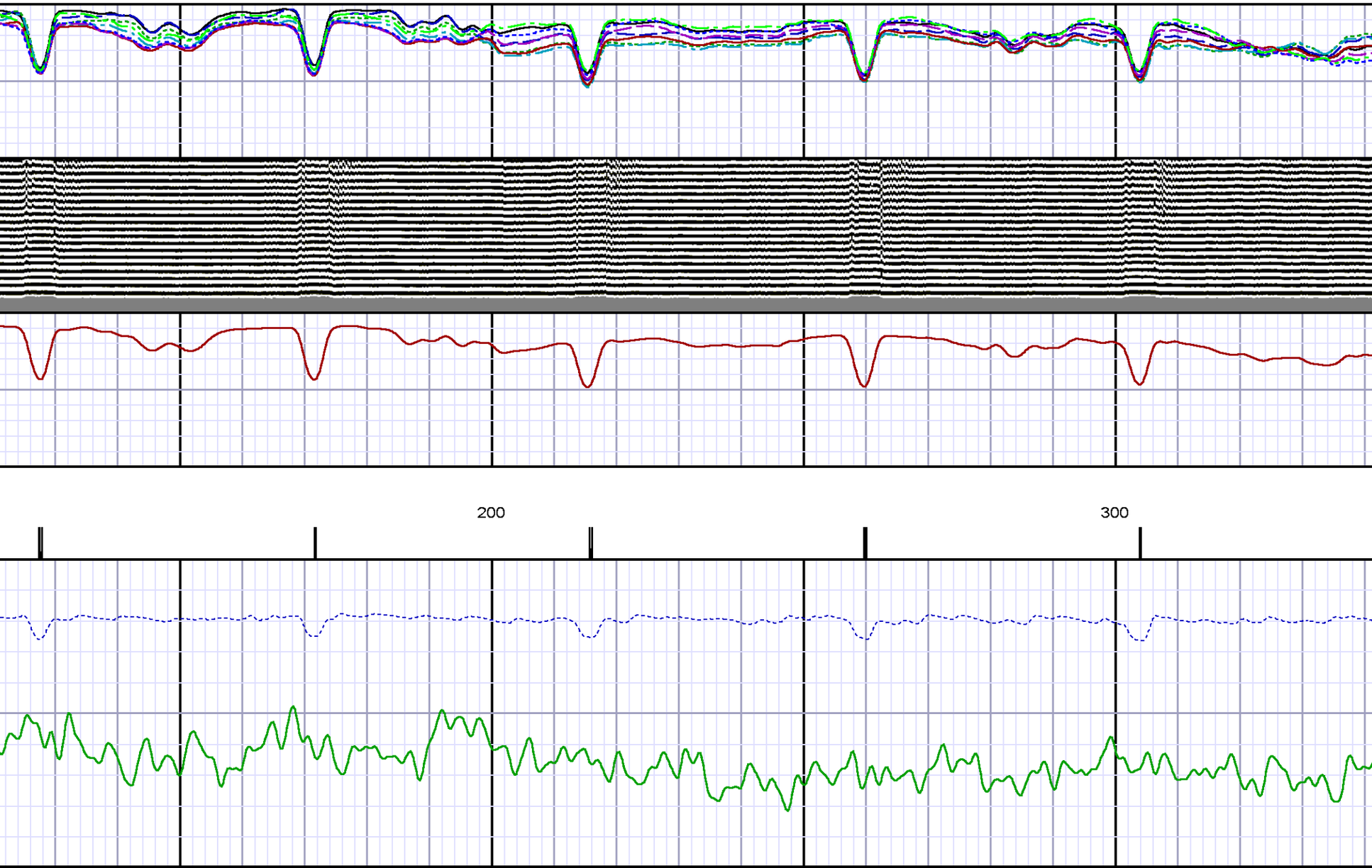
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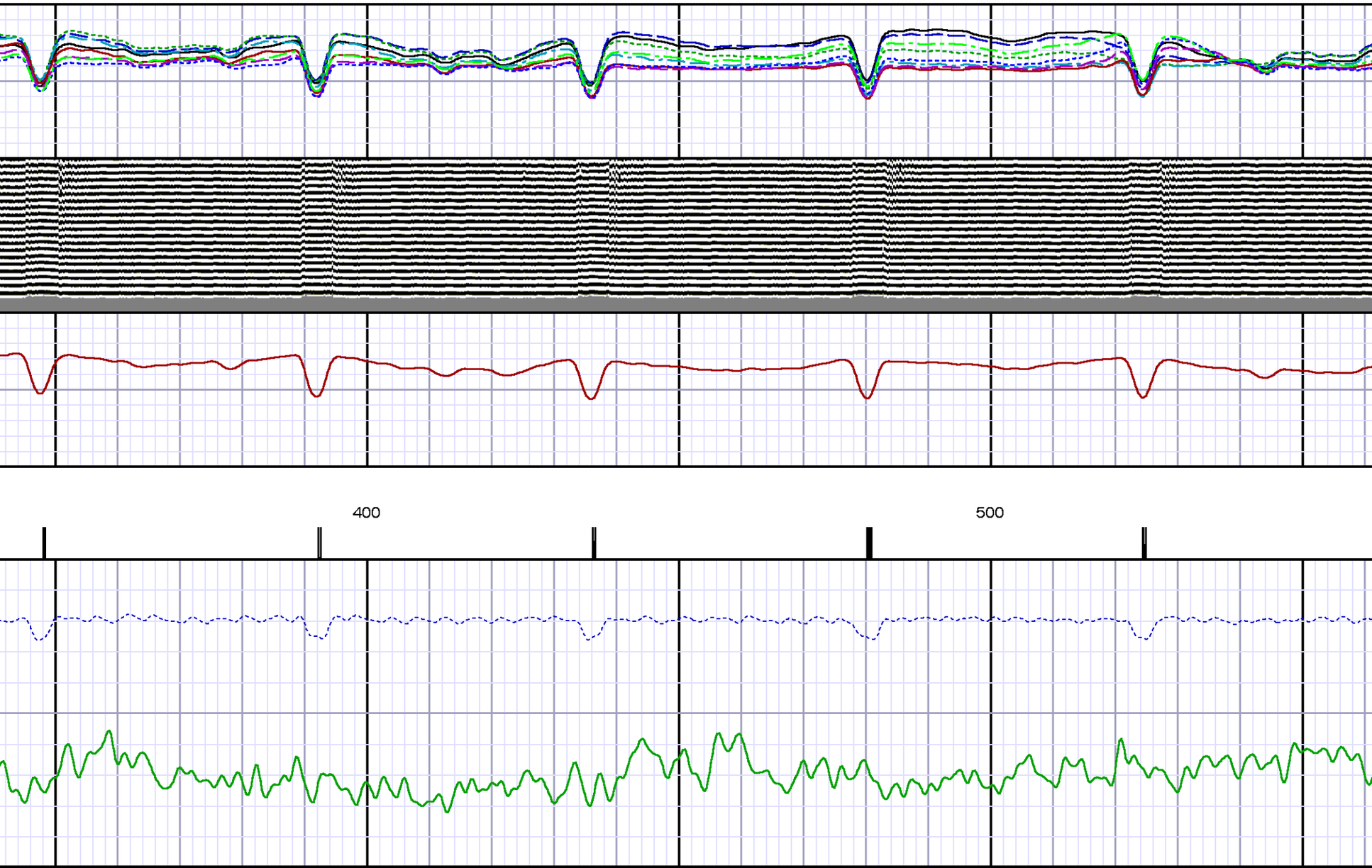
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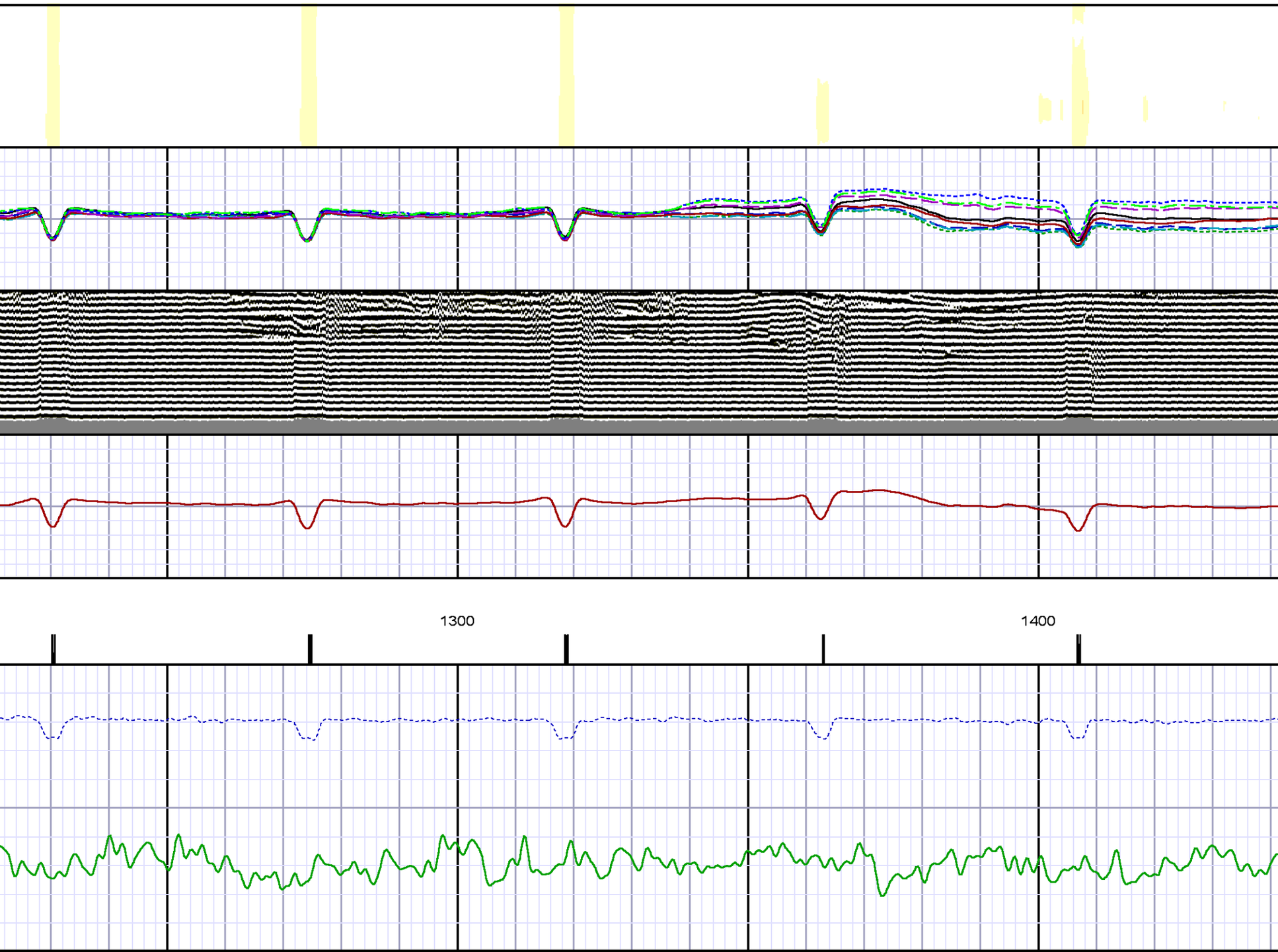
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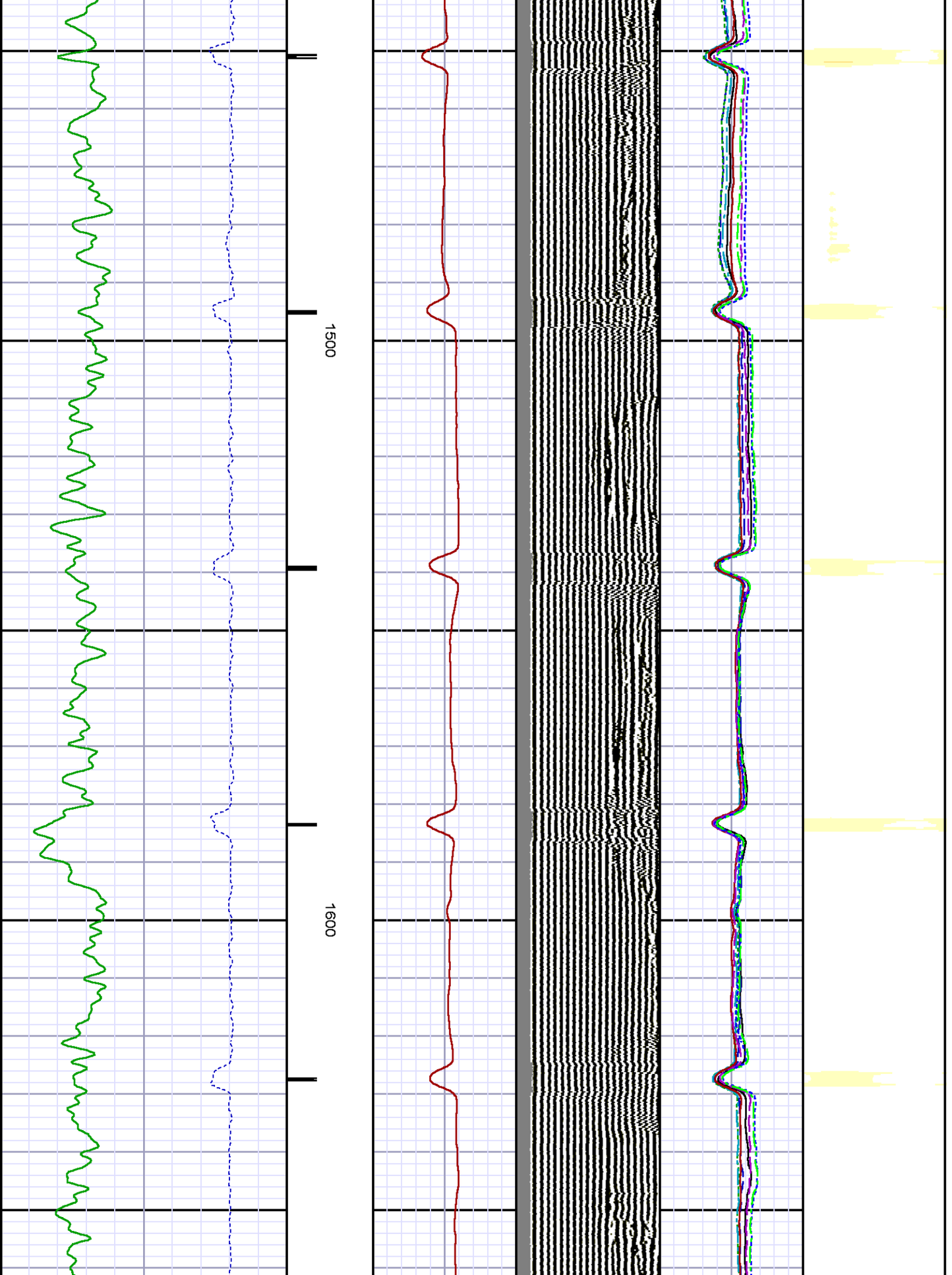
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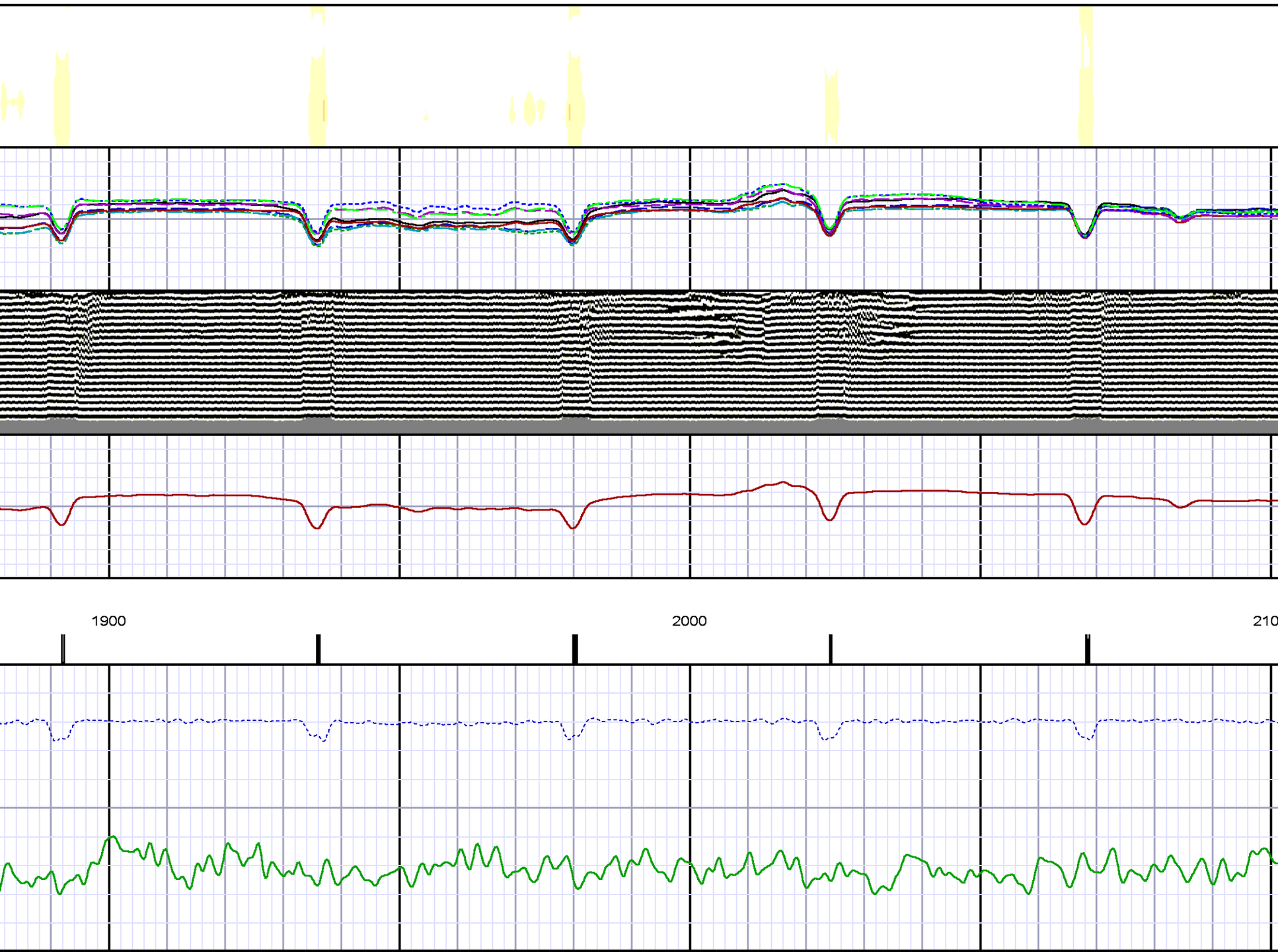
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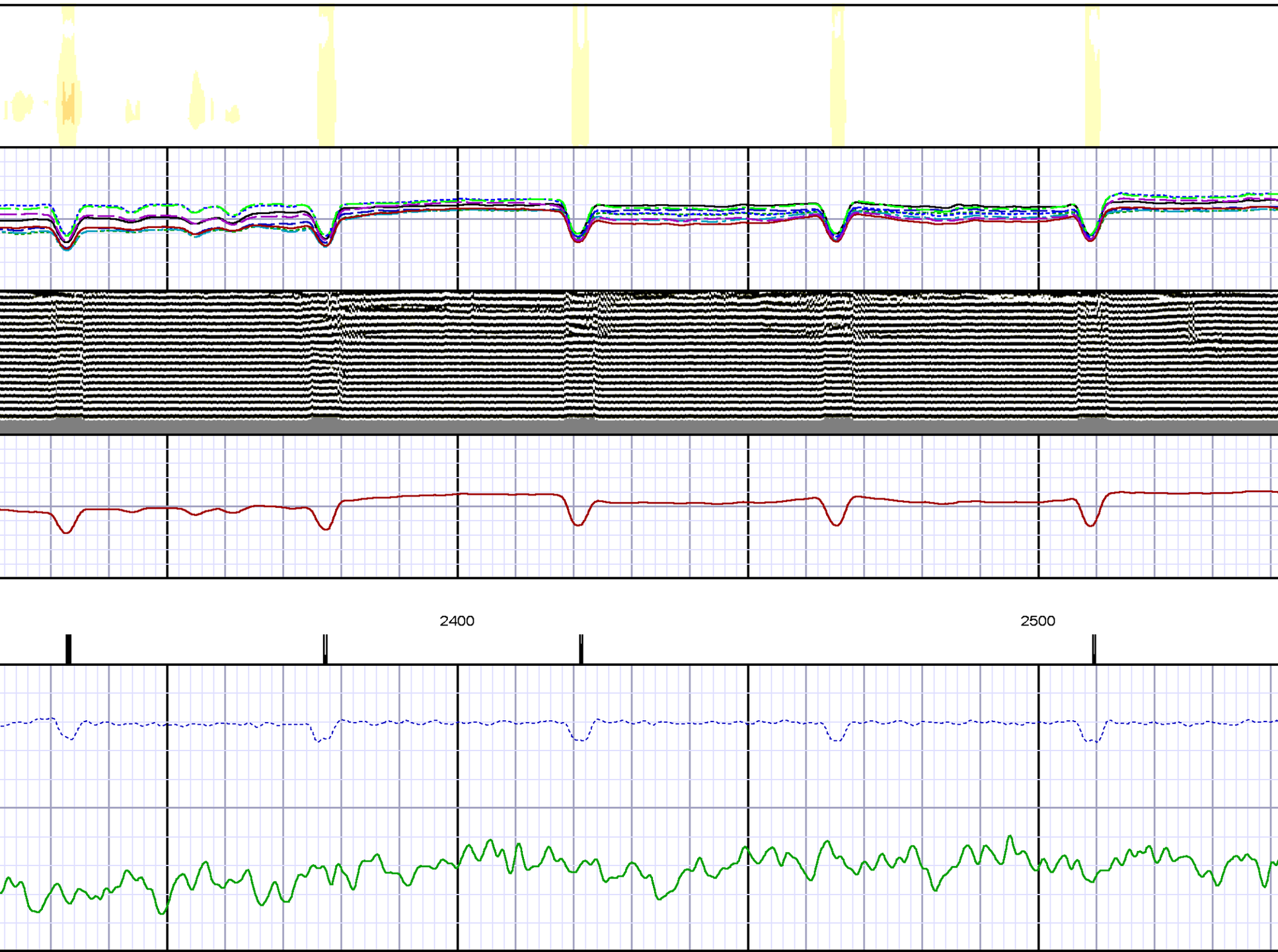
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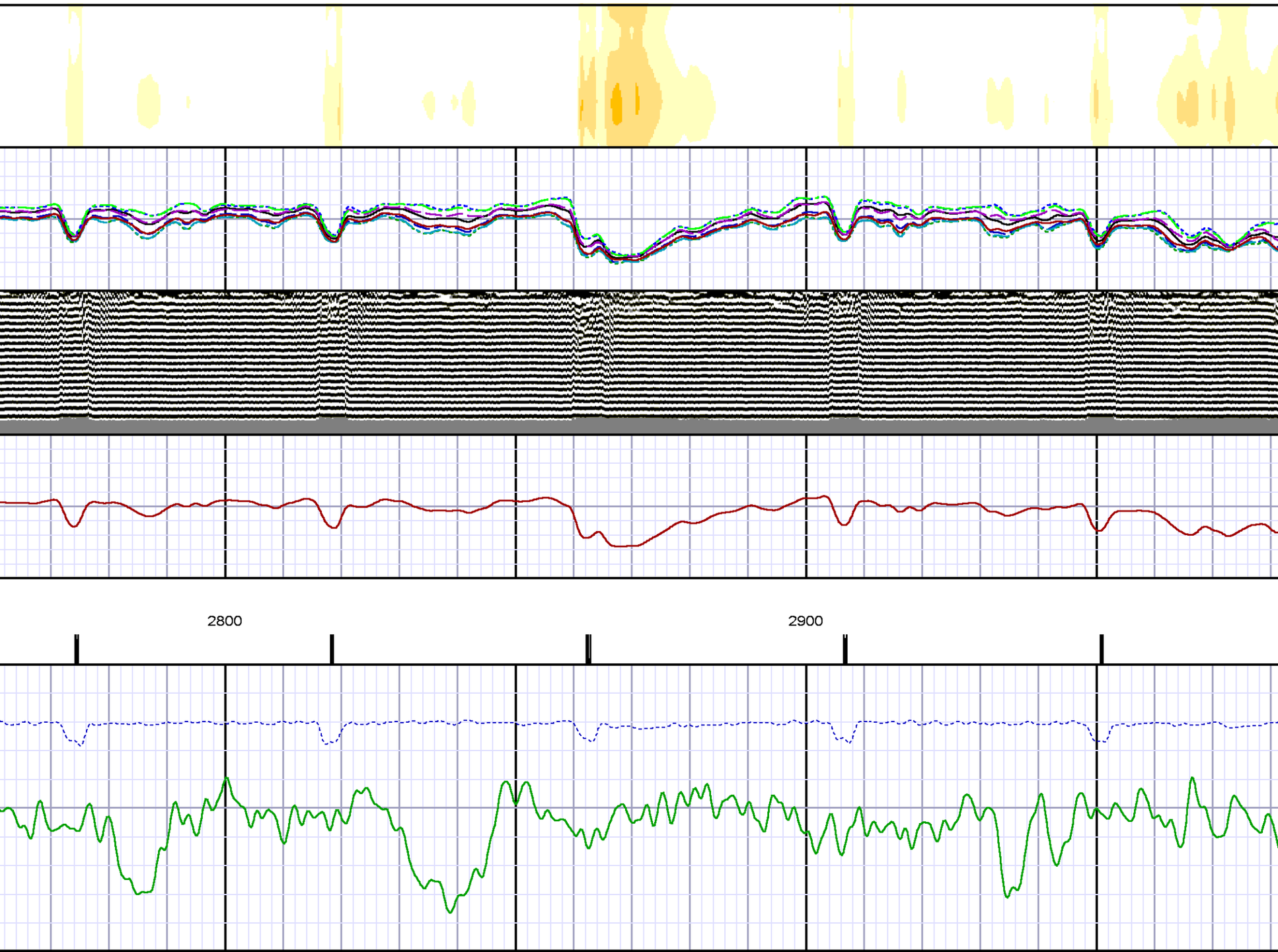
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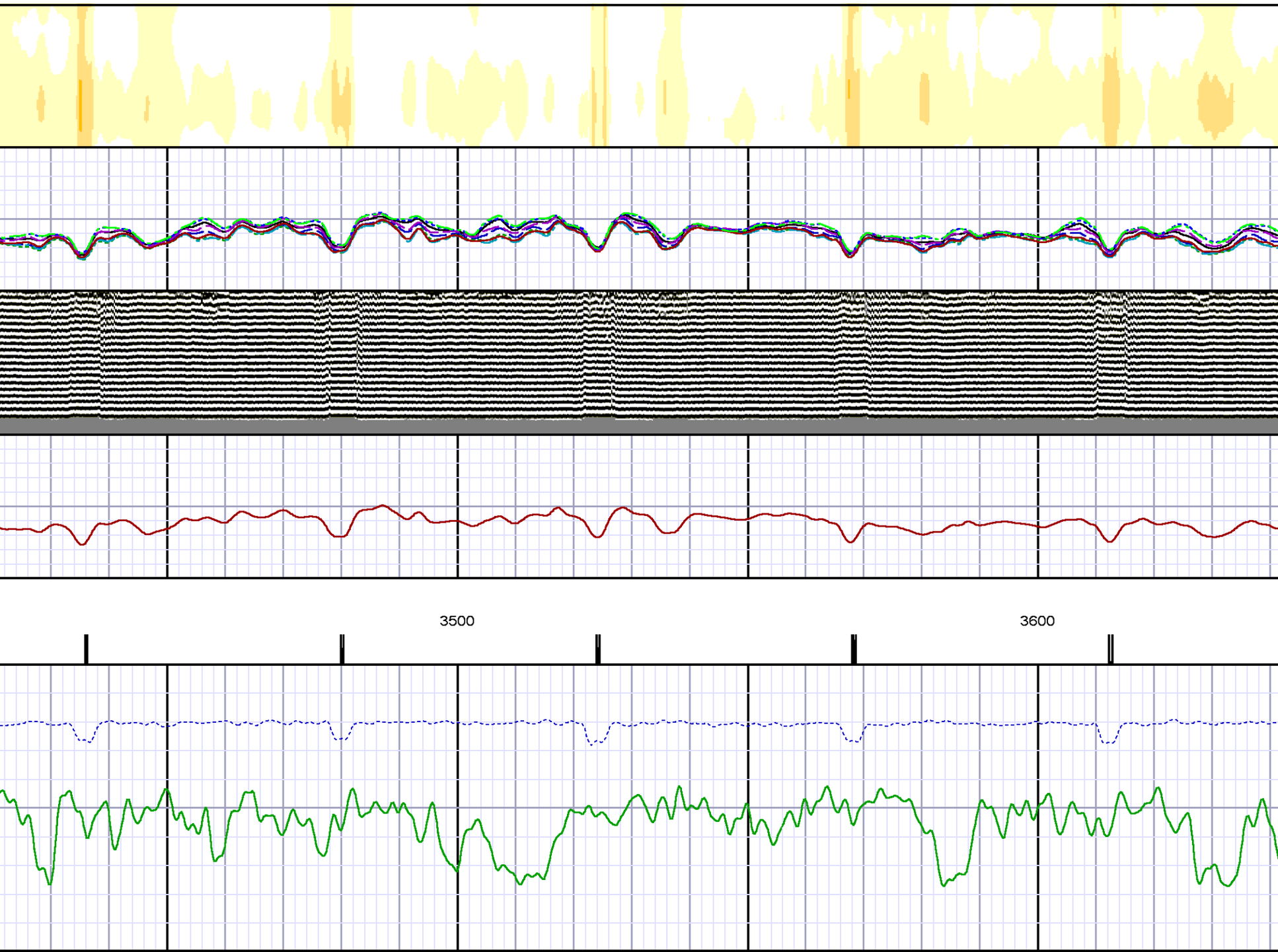
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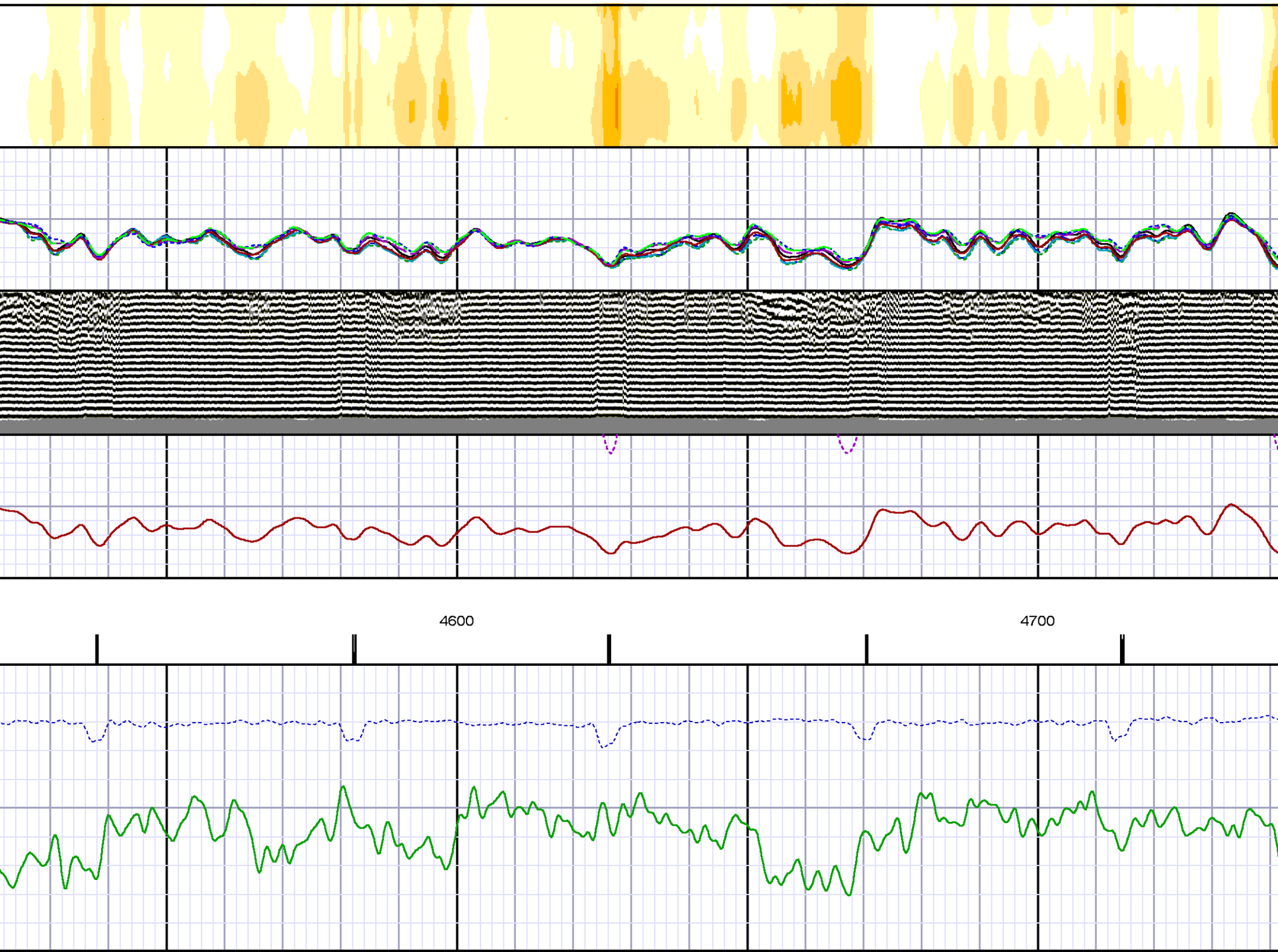
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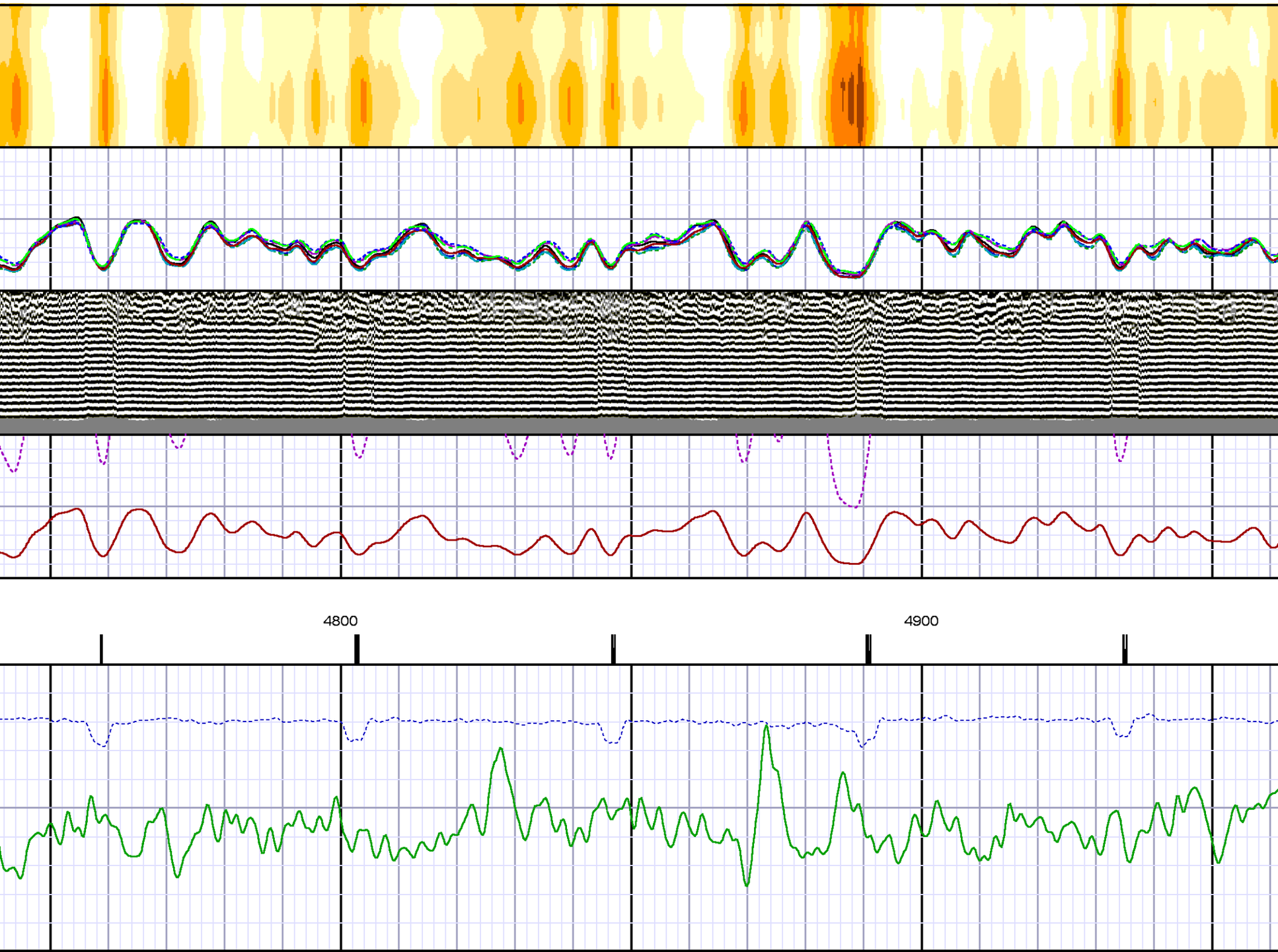
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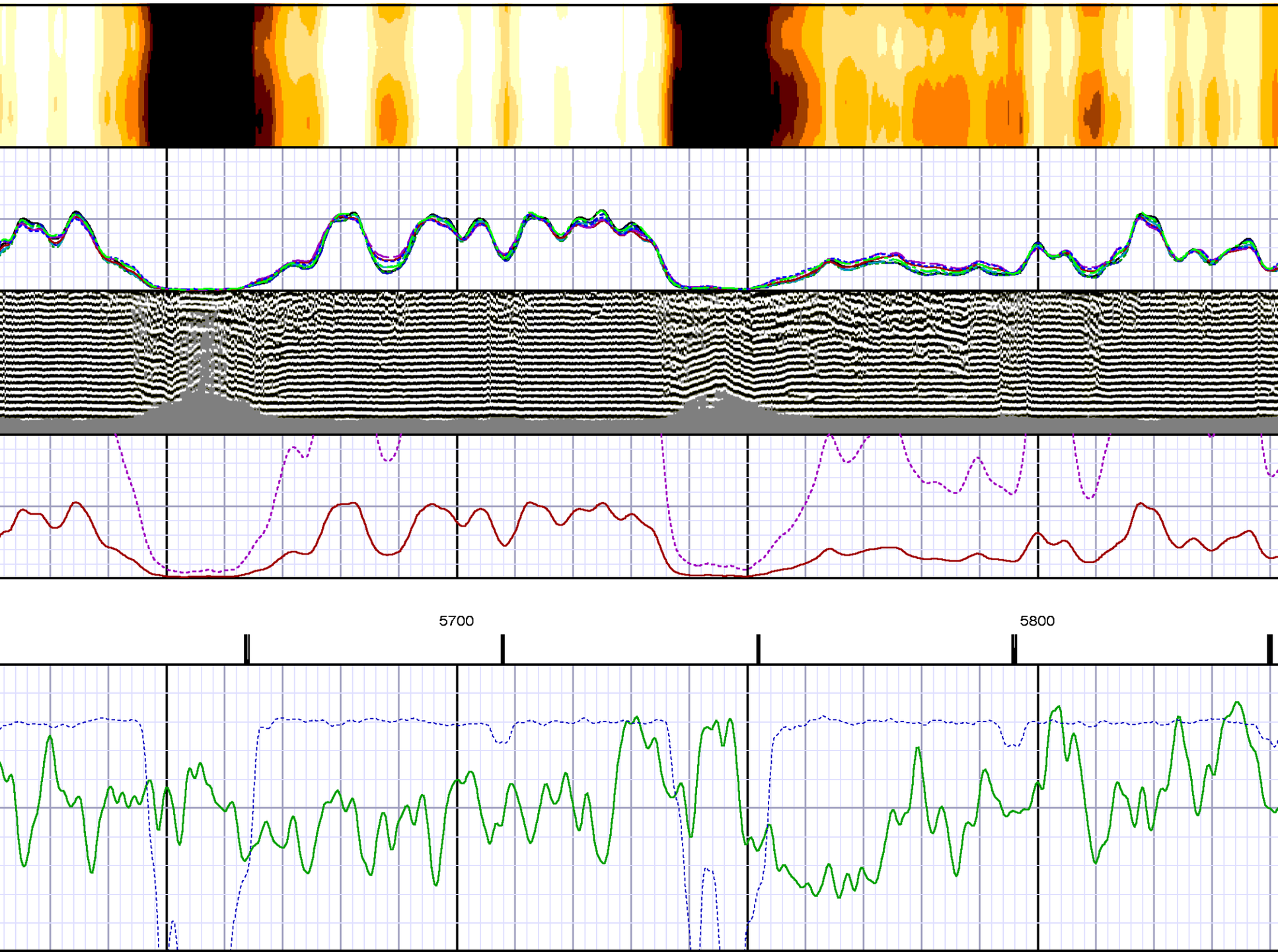
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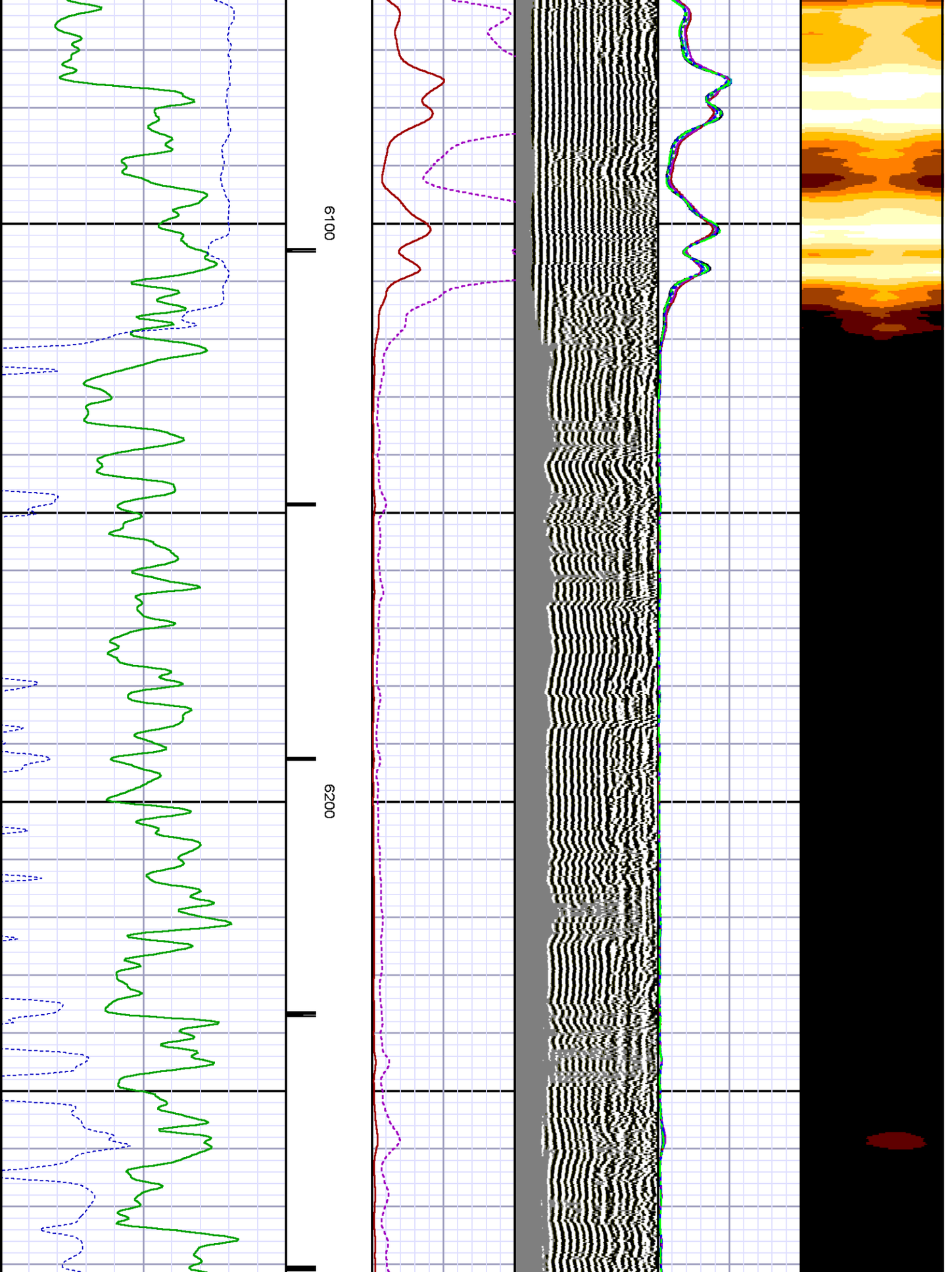
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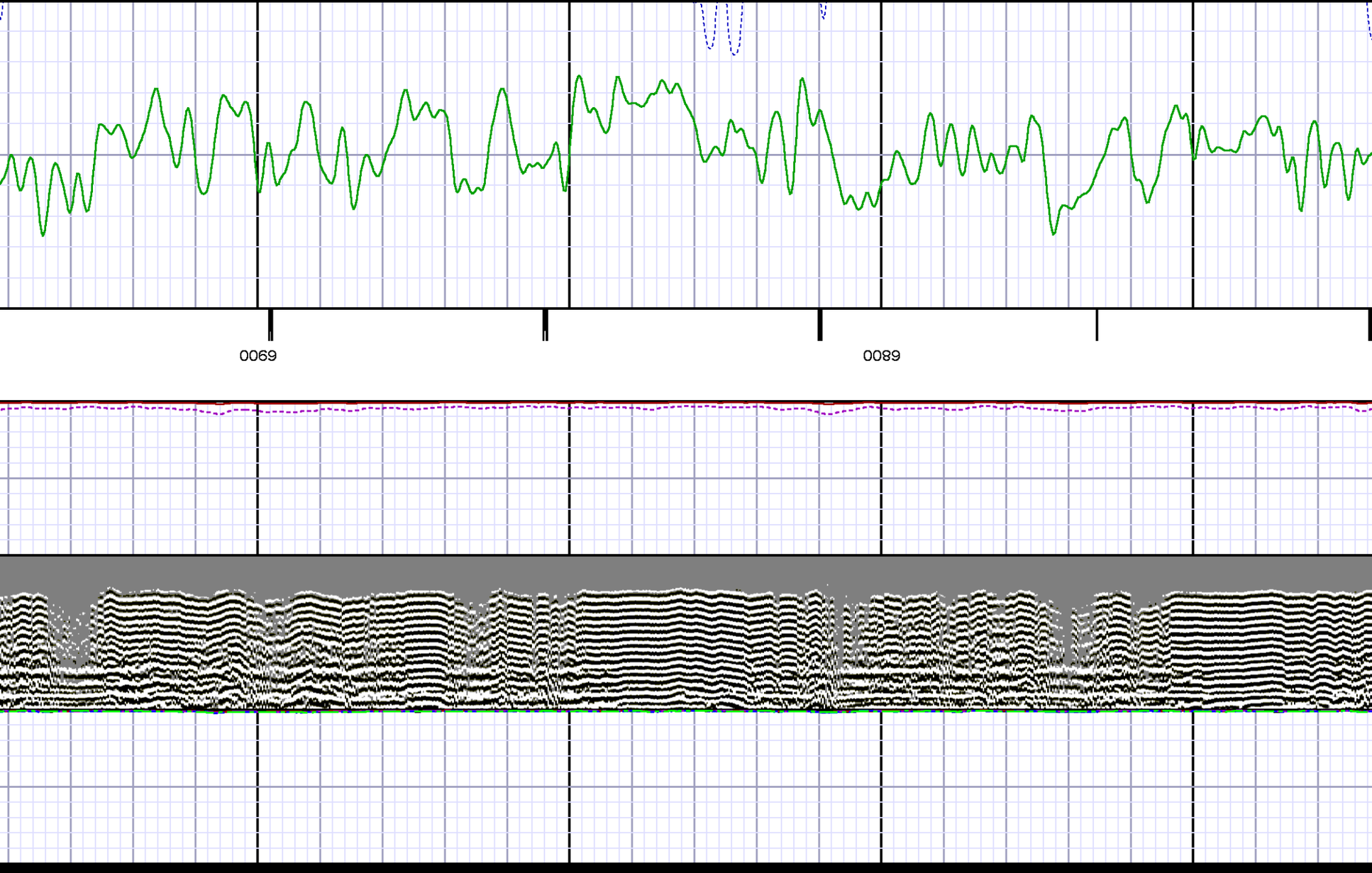
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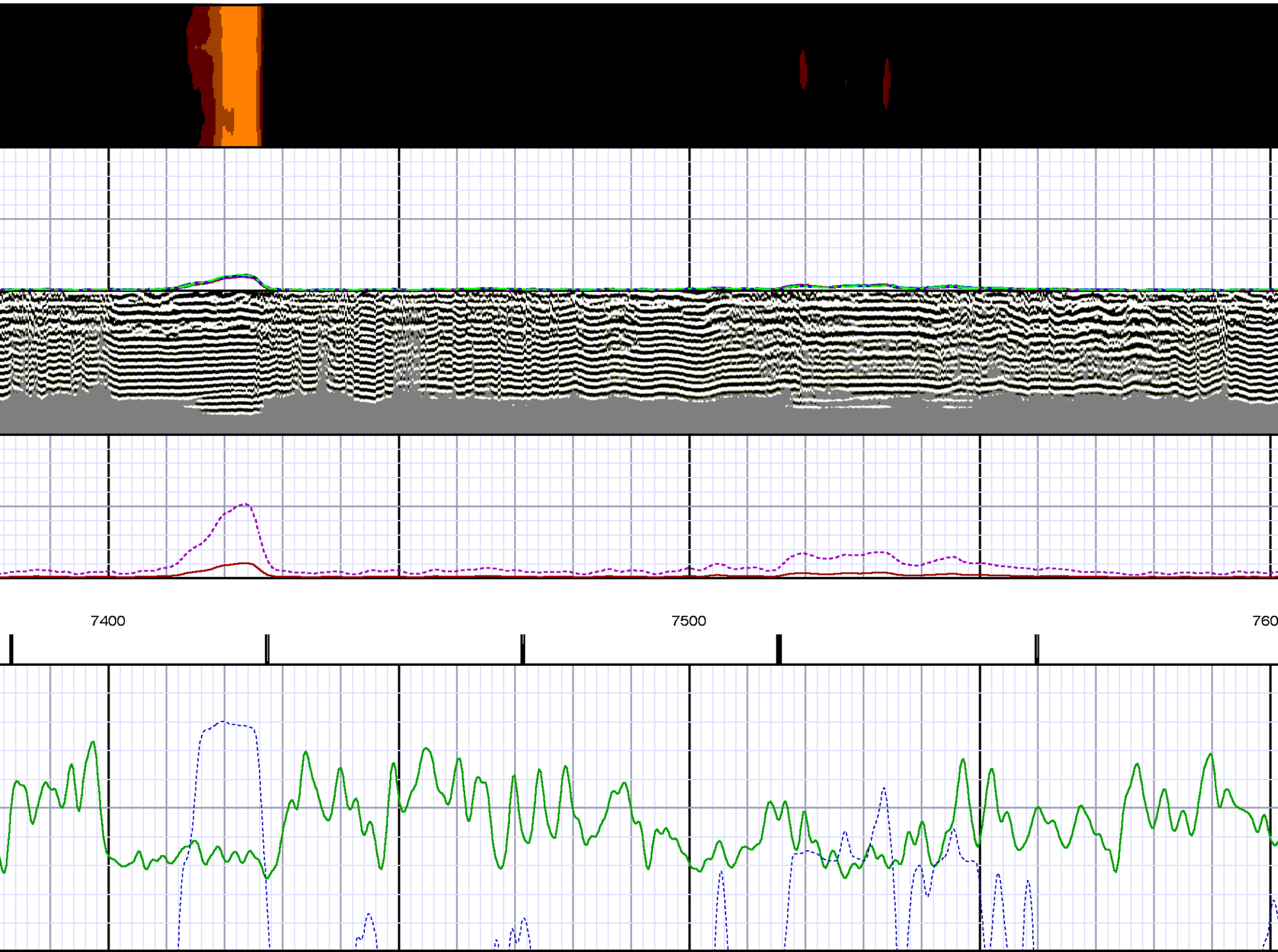
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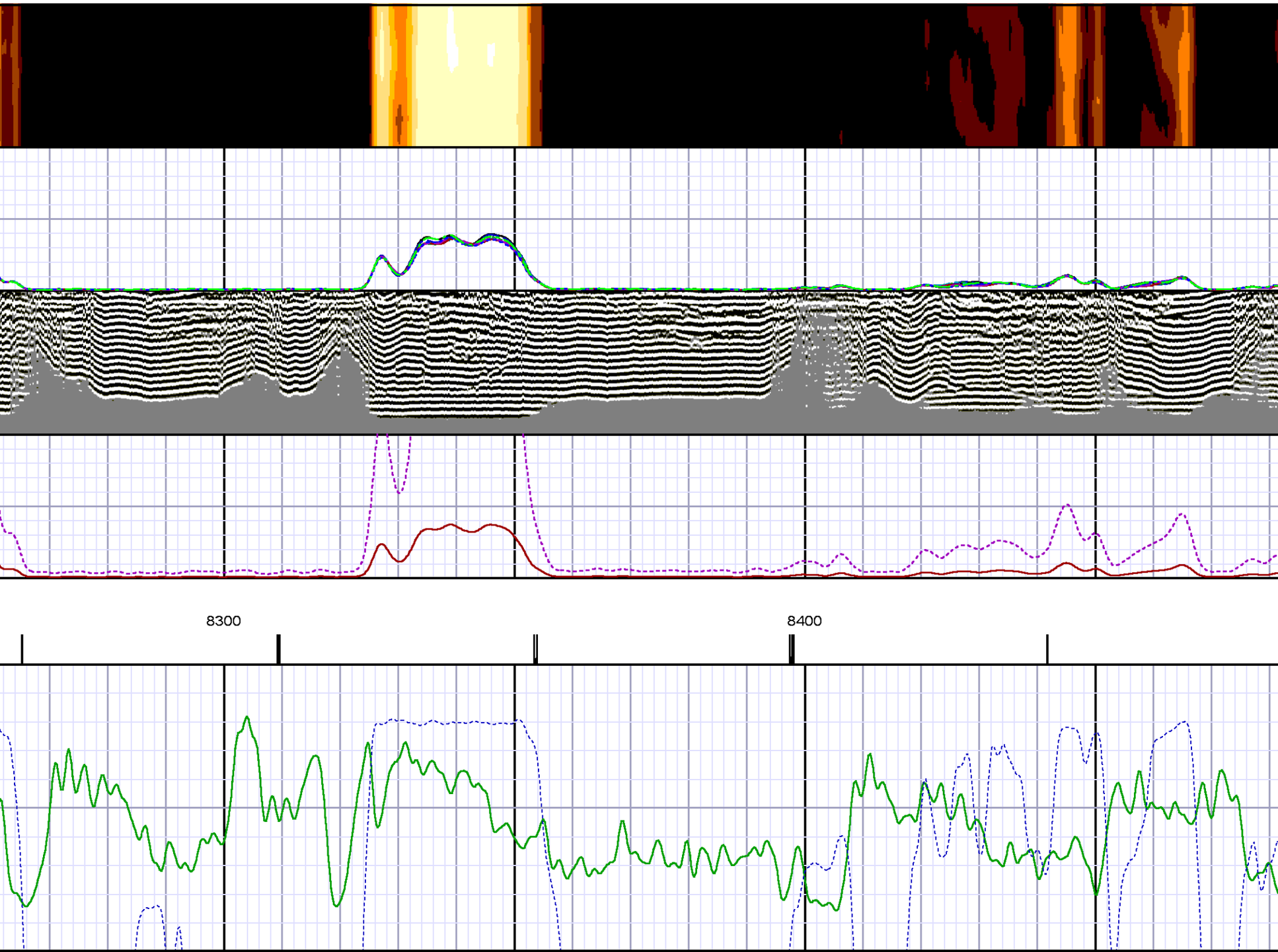
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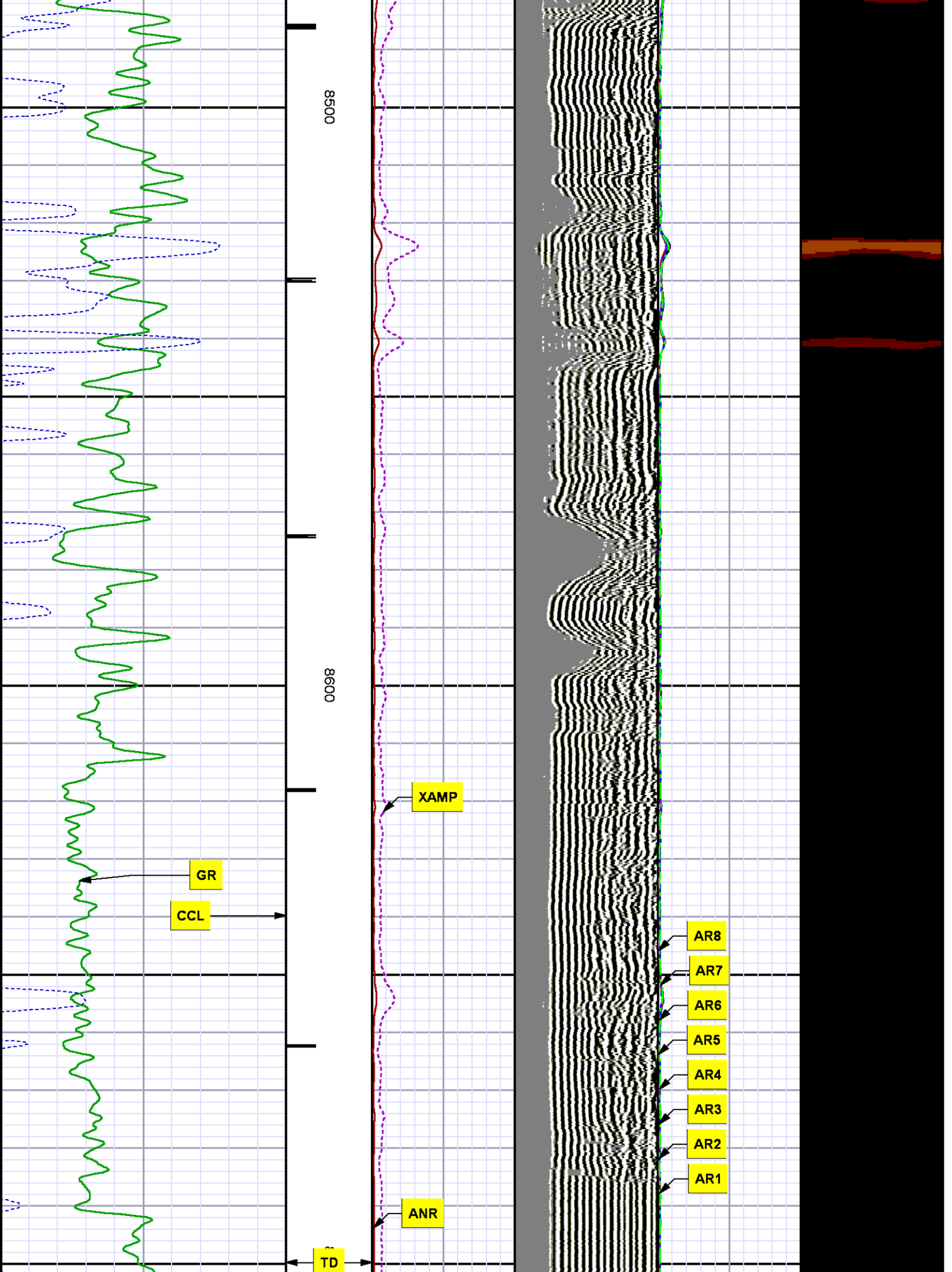
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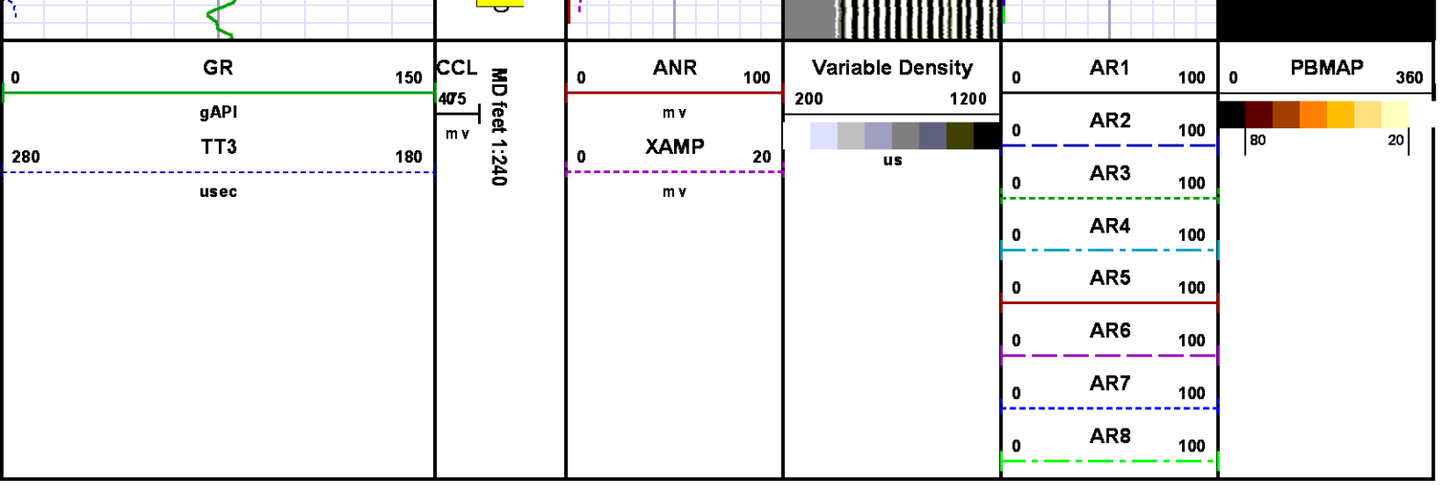


REPEAT SECTION
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	315.000	usec	8384.220	8723.470
RAL	Amp Gate Start Near	200.000	usec	8384.220	8723.470
RAL	Amp Gate Start Radial	200.000	usec	8384.220	8723.470
RAL	Amp Gate Width Far	15.000	usec	8384.220	8723.470
RAL	Amp Gate Width Near	25.000	usec	8384.220	8723.470
RAL	Amp Gate Width Radial	25.000	usec	8384.220	8723.470
RAL	casing od	4.500	inches	8384.220	8723.470
RAL	casing wt	11.600	lbm/ft	8384.220	8723.470
RAL	FB Start Far	291.900	usec	8384.220	8723.470
RAL	FB Start Near	175.391	usec	8384.220	8723.470
RAL	FB Start Radial	175.391	usec	8384.220	8723.470
RAL	FB Thresh Far	10.000	mv	8384.220	8723.470
RAL	FB Thresh Near	4.000	mv	8384.220	8723.470
RAL	FB Thresh Radial	4.000	mv	8384.220	8723.470
RAL	Fluid Travel Time	200.000	usec/ft	8384.220	8724.363

DEPTH OFFSETS

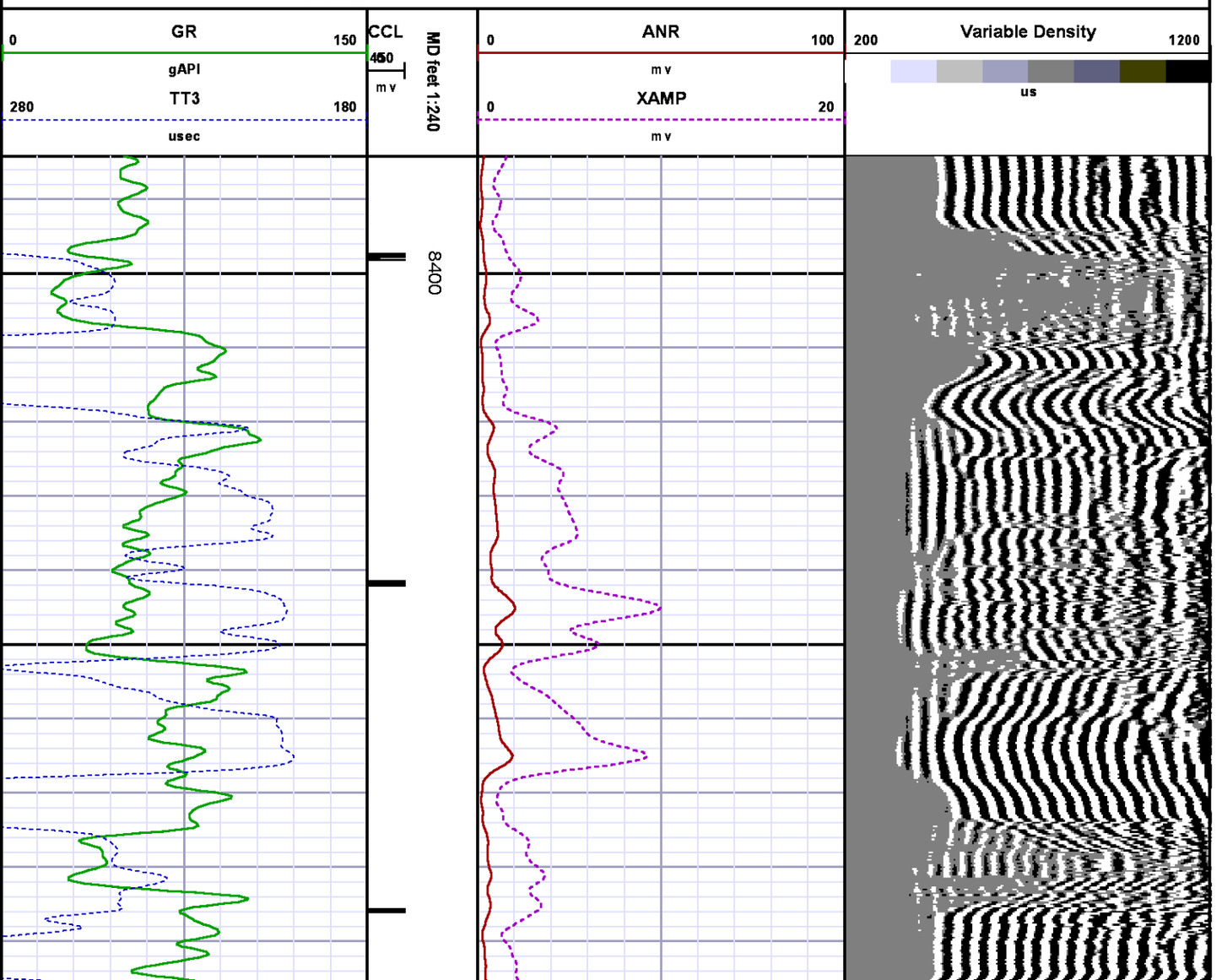
(for Acquired Curves)

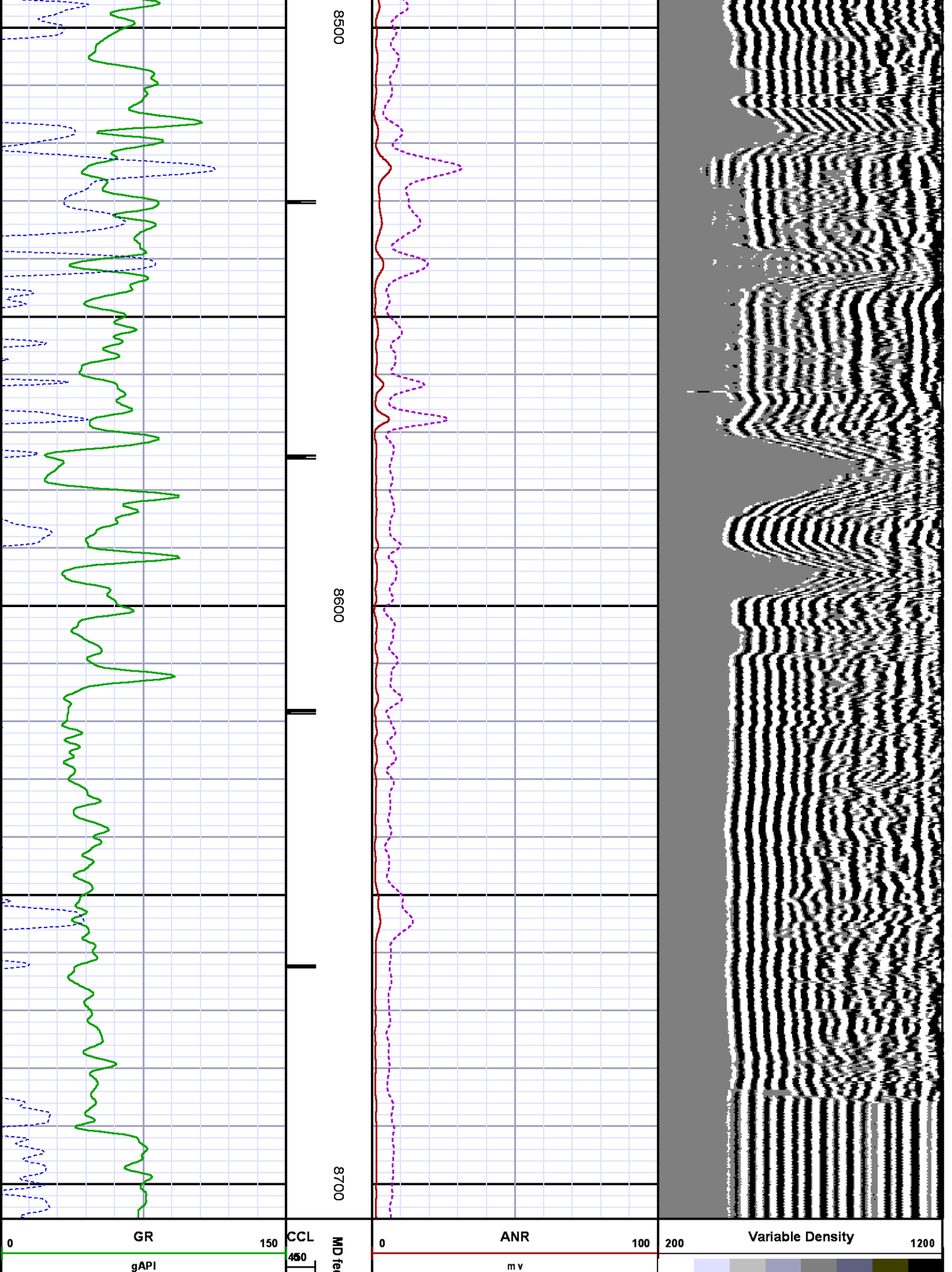
(for Acquired Curves)

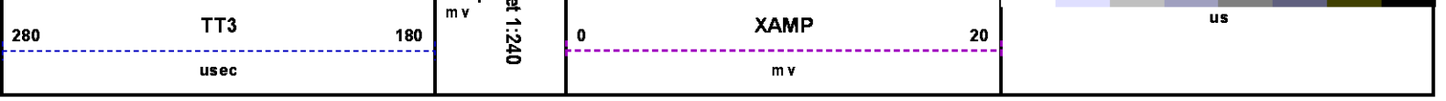
SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-16.750	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	AR8	CHV	FPR2
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
1426XA	-15.750	AFAR	SIG	TT5			
2459XA	-11.340	CCL					
2459XA	-9.490	GR					
2459XA	-4.090	NEU					

Created by : RAL, v4.8.008
Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY
Well : WPX ENERGY RWF 422-4
File Name : D:\WELLDATA\WPX Energy\RWF 422-4\ral422\REPEAT.XTF
Mode : PlotMgr 5.4.504
Interval : 8384.22 - 8706.00 feet UP
Created : 1/14/2014 2:54:00 PM




8500
8600
8700
0
GR
150
gAPI
CCL
450
MD feet
0
ANR
100
mv
200
Variable Density
1200



CALIBRATION SUMMARY

RALSHP

Shop Calibration: C:\case\calver\RALSHP\496J14_shp.cal

SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Tue Jan 14 13:44:11 2014 **TOOL SERIES:** 1426XA **ASSET:** 496 **SEQ:** J14

Tool Delay [usec]	Tank OD in	Tank Wt lbm/ft	Tank ID in
-55.00	5.50	15.50	4.95

RECEIVER	Travel Time [usec]	Amp. Gate Start [usec]	Amp. Gate Width [usec]	Zero Gate Start [usec]	Zero Gate Width [usec]	Zero Amp. [mV]	Amp Ref. [mV]	Shop Factor
CAL Pulse	218	216	30	166	25	-0.057	100.00	0.17
3 Ft. Receiver	217	216	30	151	22	-0.242	100.00	0.16
5 Ft. Receiver	326	324	30	241	25	0.258	150.00	0.18
Radial #1	217	216	30	151	25	0.096	100.00	0.16
Radial #2	217	216	30	151	25	-0.251	100.00	0.16
Radial #3	218	216	30	151	25	-0.193	100.00	0.16
Radial #4	217	216	30	151	25	-0.255	100.00	0.16
Radial #5	217	216	30	151	25	-0.326	100.00	0.16
Radial #6	216	216	30	151	25	-0.201	100.00	0.16
Radial #7	216	216	30	151	25	-0.216	100.00	0.16
Radial #8	217	216	30	151	25	-0.141	100.00	0.16

RALFLD

Wellsite Calibration: C:\case\calver\RALFLD\496J14_fld.cal

WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Tue Jan 14 13:47:08 2014 **TOOL SERIES:** 1426XA **ASSET:** 496 **SEQ:** J14

Tool Delay [usec]	Casing OD in	Casing Wt lbm/ft	Casing ID in
-55.00	4.50	11.60	4.00

RECEIVER	Zero Gate Start [usec]	Zero Gate Width [usec]	Zero Amp. [mV]	Full Amp. [mV]	Wellsite Factor	Amp. Ref [mV]
CAL Pulse	166	25	0.048	0.000	1.00	100.000

3 Ft. Receiver	200	25	1.704
5 Ft. Receiver	315	15	1.917
Radial #1	200	25	1.257
Radial #2	200	25	1.299
Radial #3	200	25	1.388
Radial #4	200	25	1.358
Radial #5	200	25	1.574
Radial #6	200	25	1.656
Radial #7	200	25	1.337
Radial #8	200	25	1.338

GAMMA RAY

Calibration File: C:\case\calver\GR\121D7.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Thu Dec 19 13:07:05 2013 **TOOL SERIES:** 2459XA **ASSET:** 121 **SEQ:** D7

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA612	72.18	324.27	0.734	52.97	237.97	185.00

Verification File: C:\case\calver\GR\121D7.VP

PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED: Thu Dec 19 13:08:40 2013 **TOOL SERIES:** 2459XA **ASSET:** 121 **SEQ:** D7

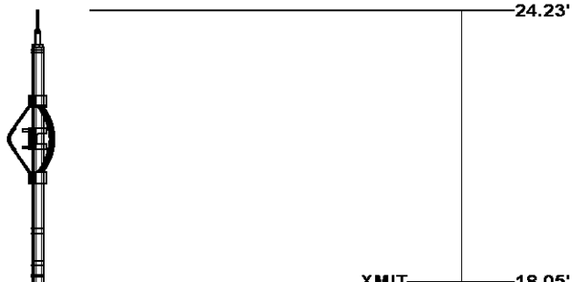
Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA612	78.40	322.22	0.734	57.54	236.47	178.93

TOOL DIAGRAM

OTA SHORT CABLE HEAD

PROBE 2 3/4 DUAL RECEIVER RADII

Series	1426XA
Mnemonic	PROB
Diameter	2.75"
Length	11.17'



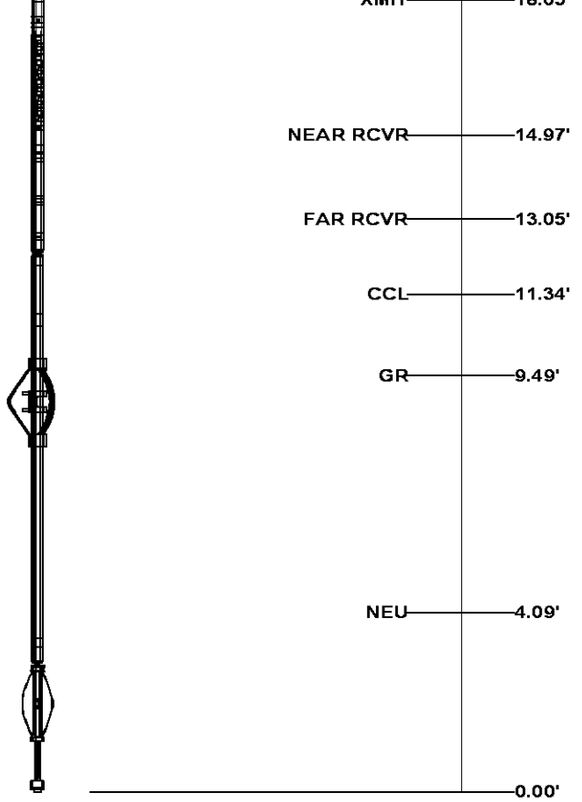
Measure Point	0.75' FAR RCVR
Measure Point	2.67' NEAR RCVR
Measure Point	5.75' XMIT
Temp Rating	350.00 °F
Press Rating	18000.00 PSI

Probe GR/CCL/NEU

Series	2459XA
Mnemonic	PROB
Diameter	2.75"
Length	9.42'
Measure Point	1.21' NEU
Measure Point	6.60' GR
Measure Point	8.46' CCL

CENTRALIZER

Series	RALCENT
Mnemonic	CENT
Diameter	3.12"
Weight	20.00 lb



Total Length: 24.23'
Total Weight: Not Available
Max Diameter: 0' 3.12"

BAKER HUGHES

Baker Atlas

CASE

Company	WPX ENERGY		File No:
Well	WPX ENERGY RWF 422-4		CH081545
Field	RULISON		API No:
County	GARFIELD	State COLORADO	05045220850000

Location	Elevations	
SHL: 449' FNL X 1712' FEL	KB 5820 ft	4 7S 94W
BHL: 2374' FNL X 1928' FWL (SWNW)	DF	RMV 108-4 PAD
	GL 5794 ft	NABORS 574
SEC 4 TWP 7S RGE 94W		