



RADIAL ANALYSIS BOND LOG

Baker Atlas

File No: **EXXONMOBIL PRODUCTION COMPANY**
 1770 Well **PCU 197-3487**
 API No: **PIGEANCE CREEK**
 05103110860000 County **RIO BLANCO** State **COLORADO**

Location **SHL 831' FEL & 831' FEL**
 SEC **34** TWP **15** RGE **87W**
 Other Services **RFM**

Permanent Datum **G.L. Elevation 6638 ft**
 Log Measured From **K.B. 13 ft Above P. D.**
 Drill Measured From **KELLY BUSHING**
 Elevations **KB 6631 ft**
DF 6650 ft
GL 6638 ft

Date	27-APR-2010
Run	ONE
Service Order	588778
Depth Driller	12834 ft
Depth Logger	12830 ft
Bottom Logged Interval	12820 ft
Top Logged Interval	5000 ft
Time Started	06:30
Time Finished	12:30
Operator Rig Time	4 HRS
Type of Fluid in Hole	WATER
Fluid Density	N/A
Salinity	N/A
Fluid Level	FULL
Logged Cement Top	N/A
Wellhead Pressure	0 psi
Maximum Hole Deviation	N/A
Nominal Logging Speed	45 fpm
Maximum Recorded Temperature	N/A
Reference Log	BA/RPM
Reference Log Date	27-APR-10
Equipment No.	4271
Location	VERNAL, UT
Recorded By	TIM KAUTT
Witnessed By	MR. MIKE ROBERSON

- 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.

Borehole Record		
Bit Size	From	To
9.875 in		
8.125 in		

Casing Record				
Size	Weight	Grade	From	To
7 in	28 lbm/ft	P-110	SURFACE	9200 ft
4.5 in	15.1 lbm/ft	P-110	SURFACE	12834 ft

Remarks

SHORT JOINT ARE MARKED ON LOG.
 THE CREW OF 4271 THANKS YOU.

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position

Created by : RAL, v4.8.007

Plotted by : PlotMgr, v5.4.504

Company : EXXONMOBIL PRODUCTION COMPANY

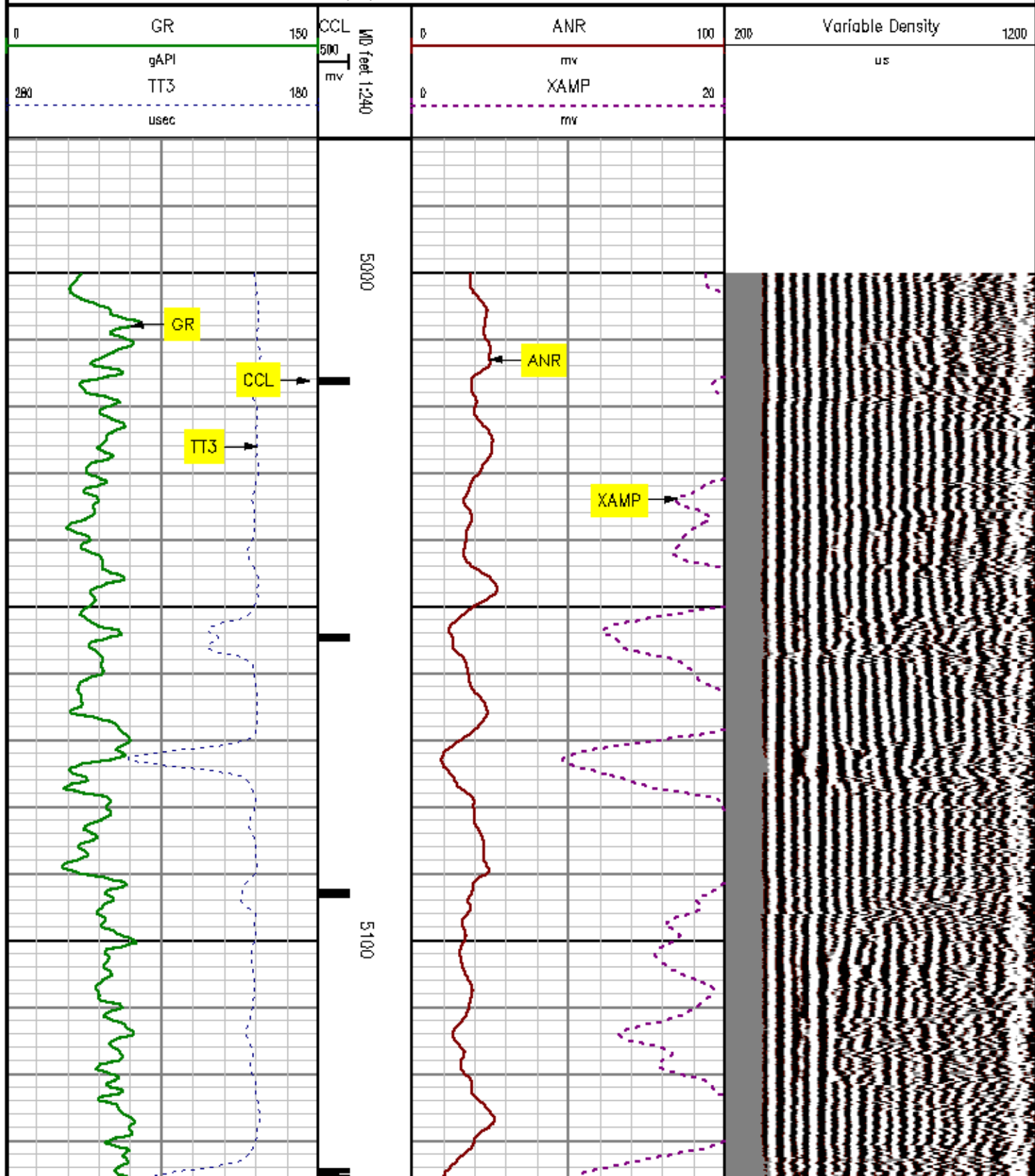
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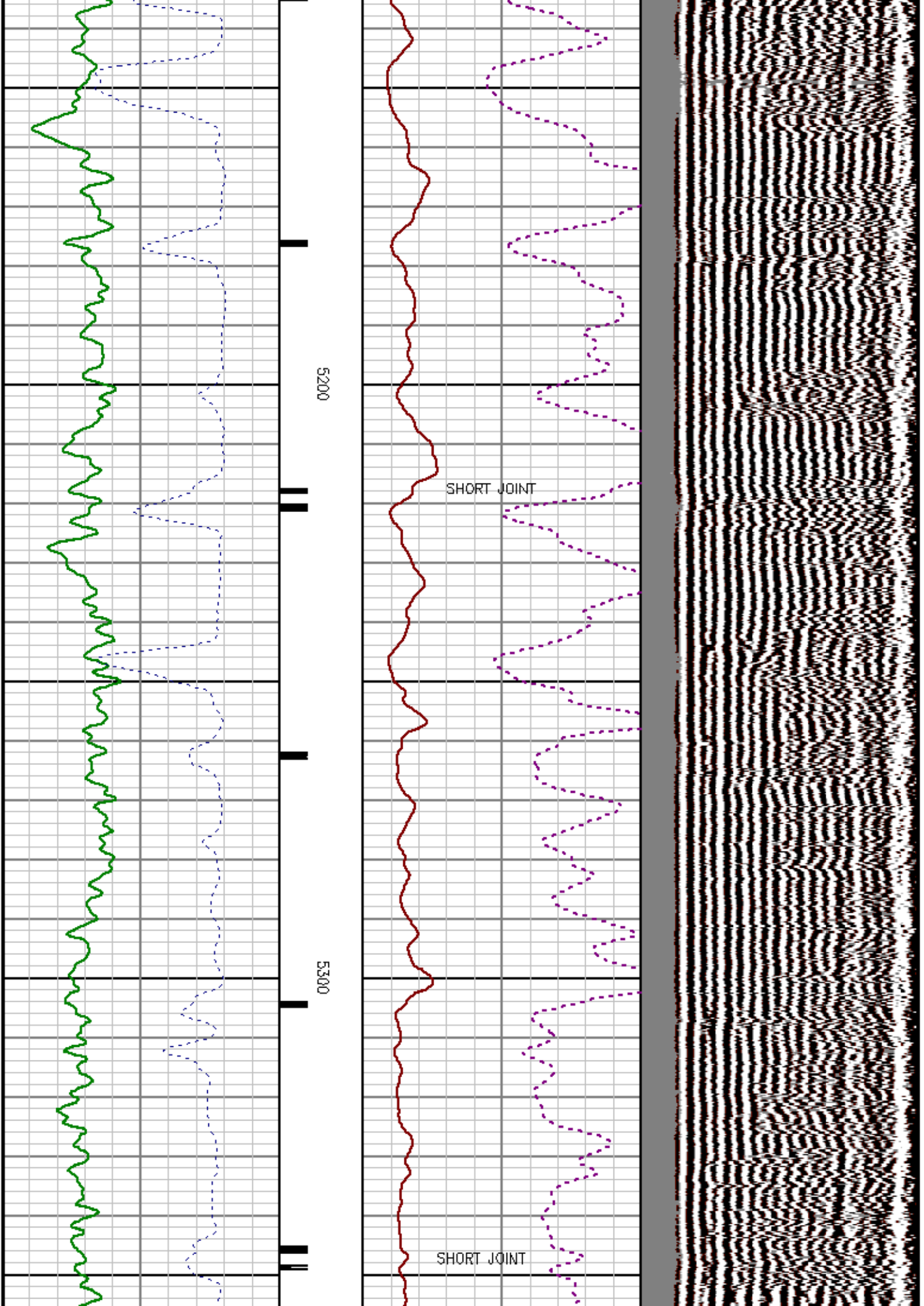
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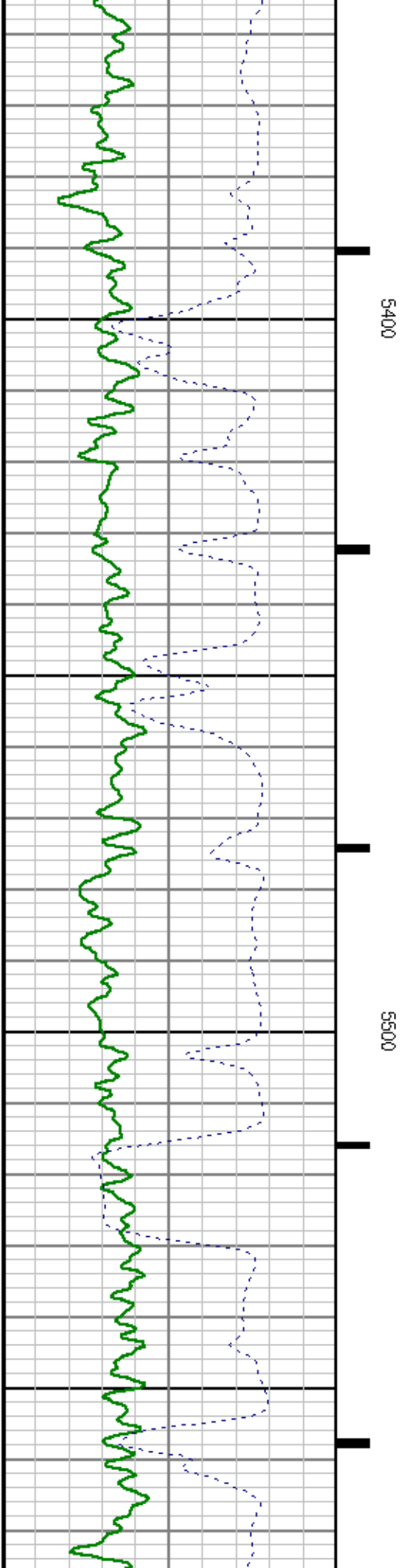
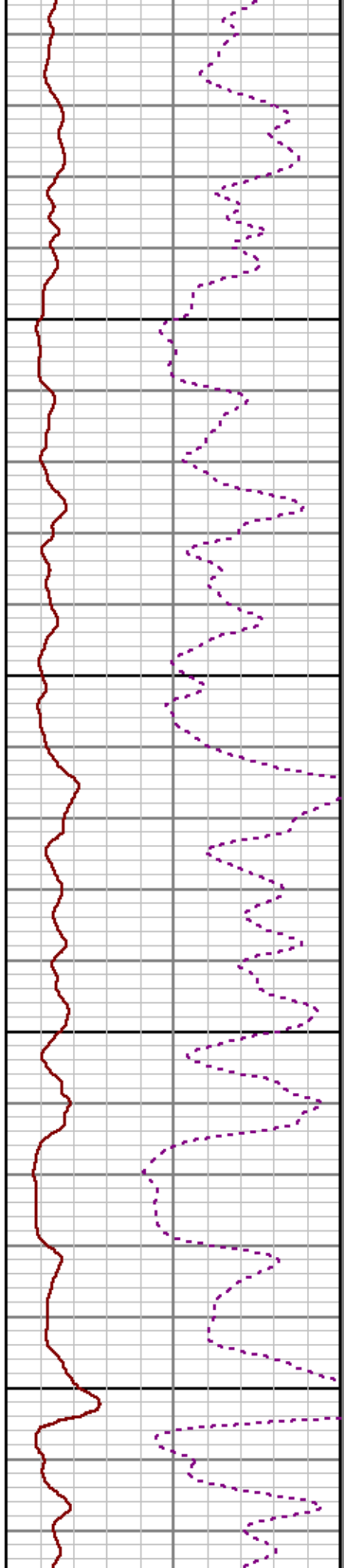
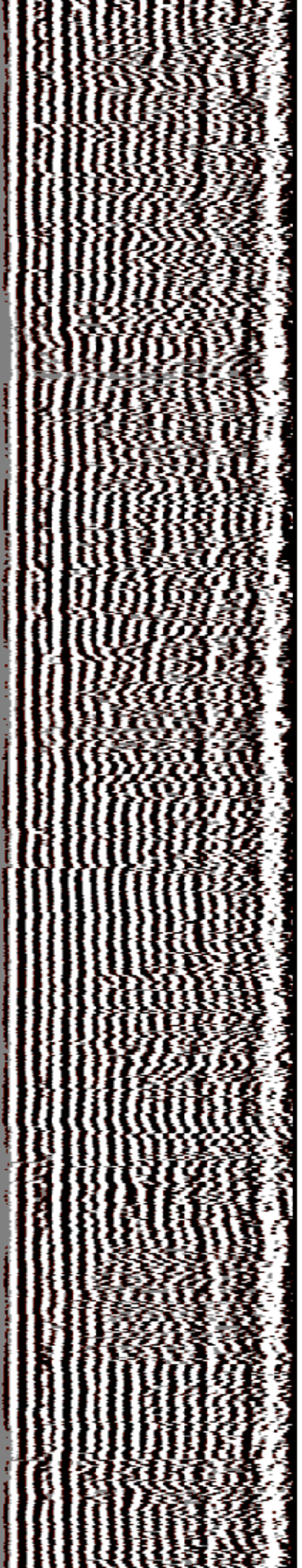
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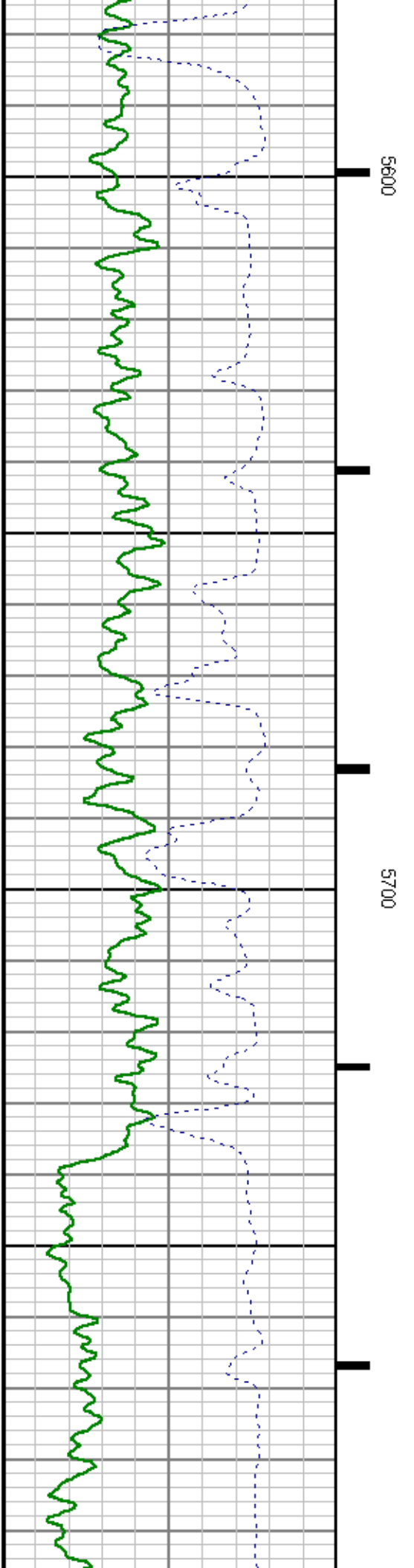
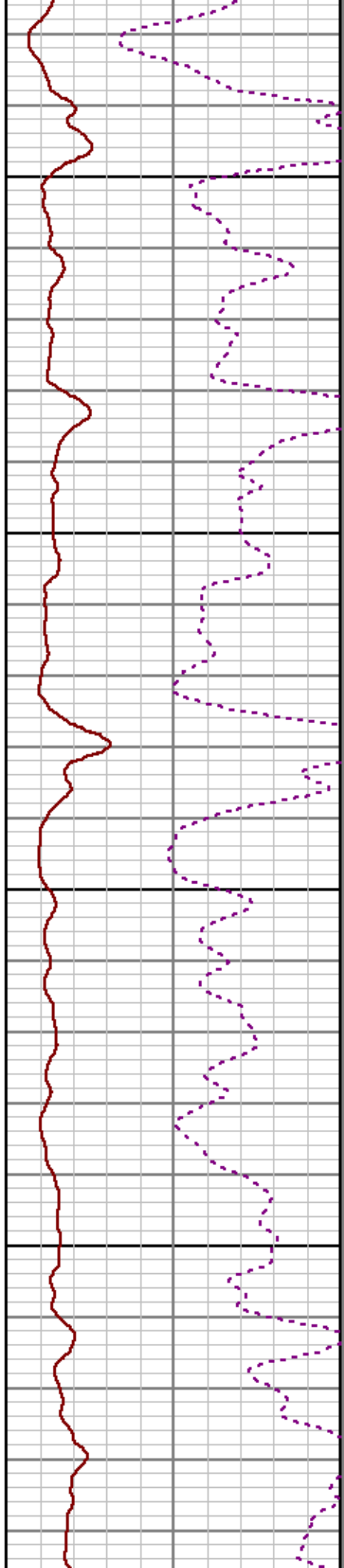
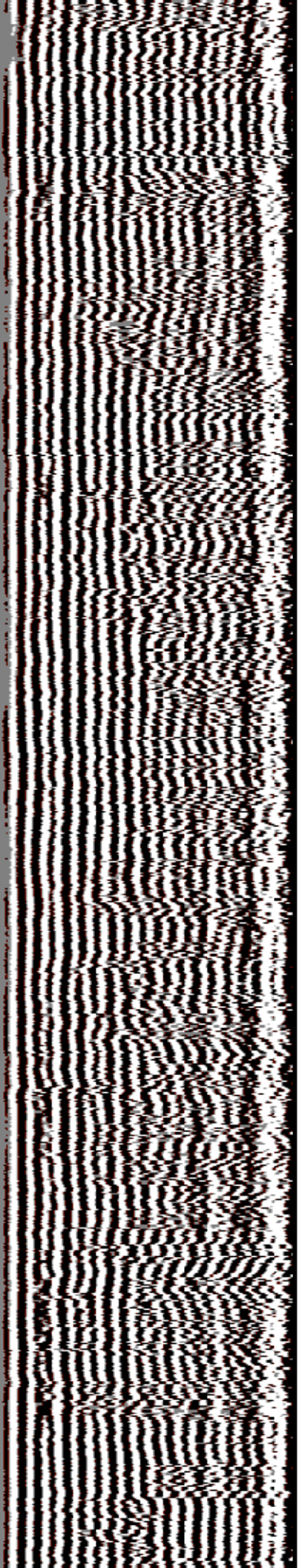
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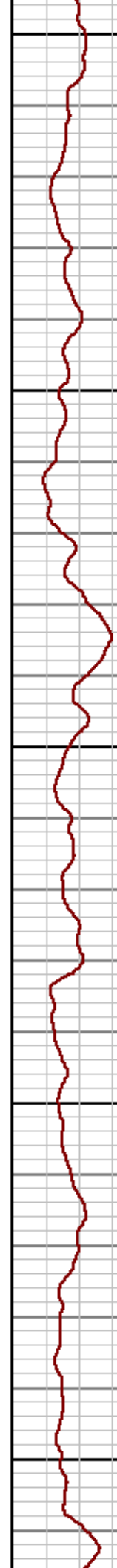
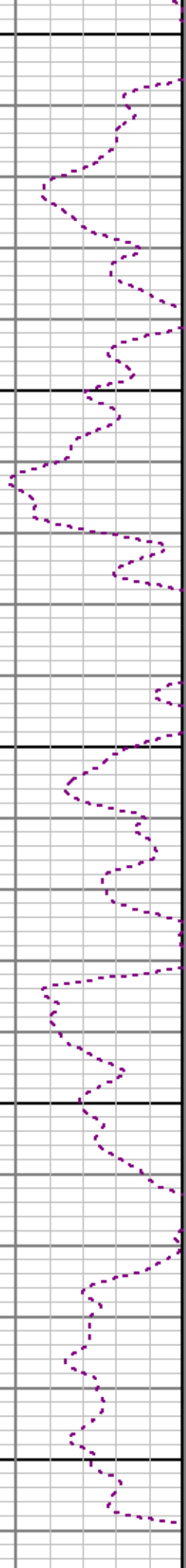
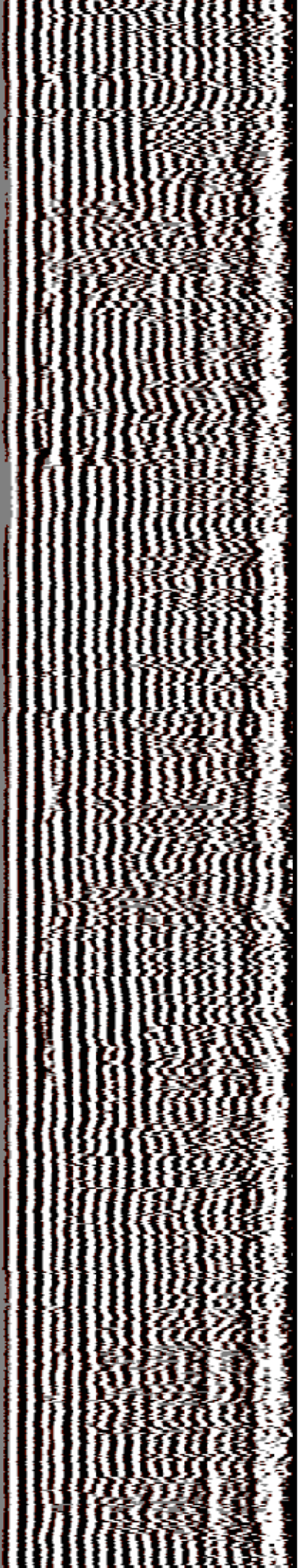
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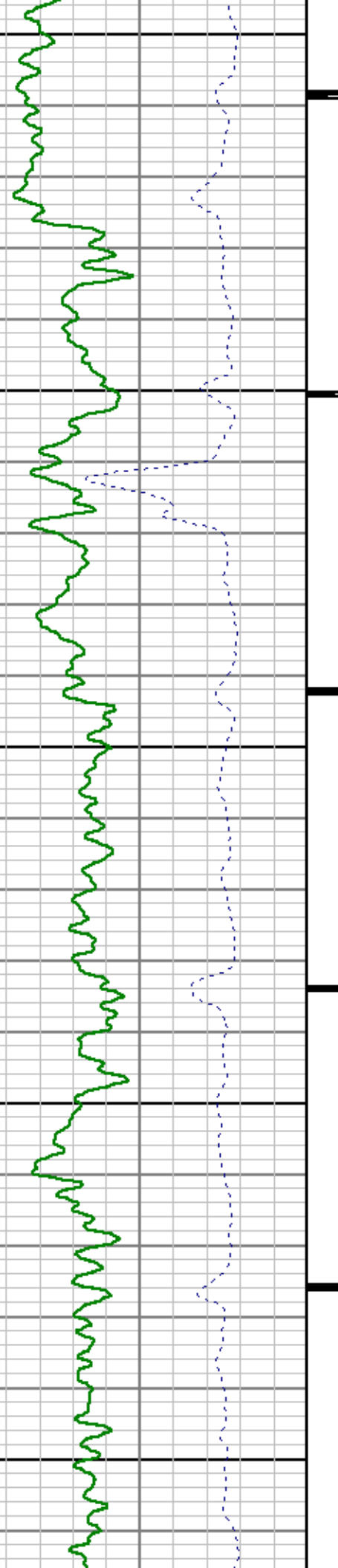


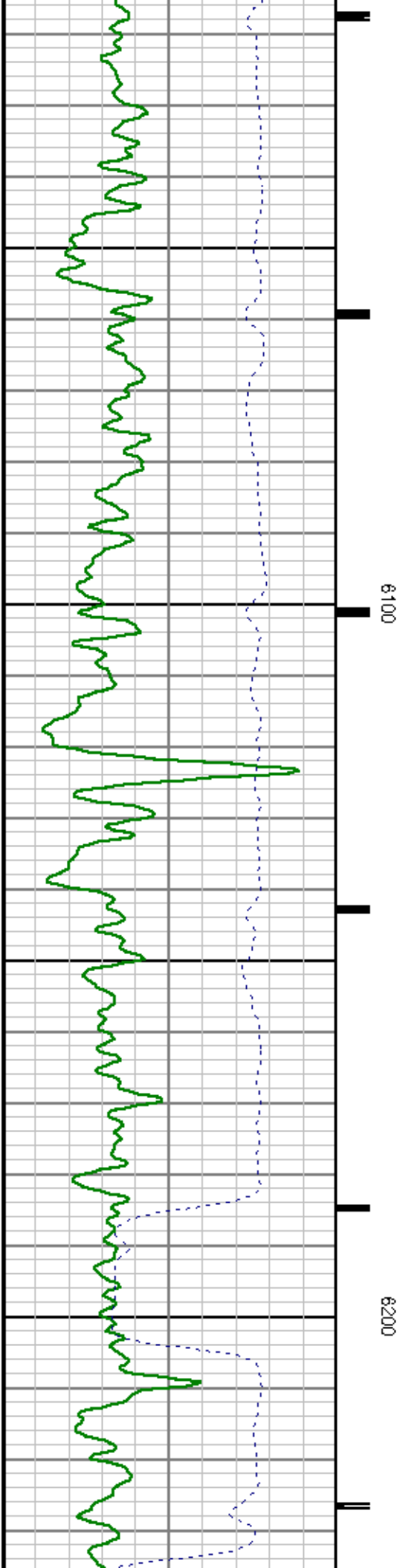
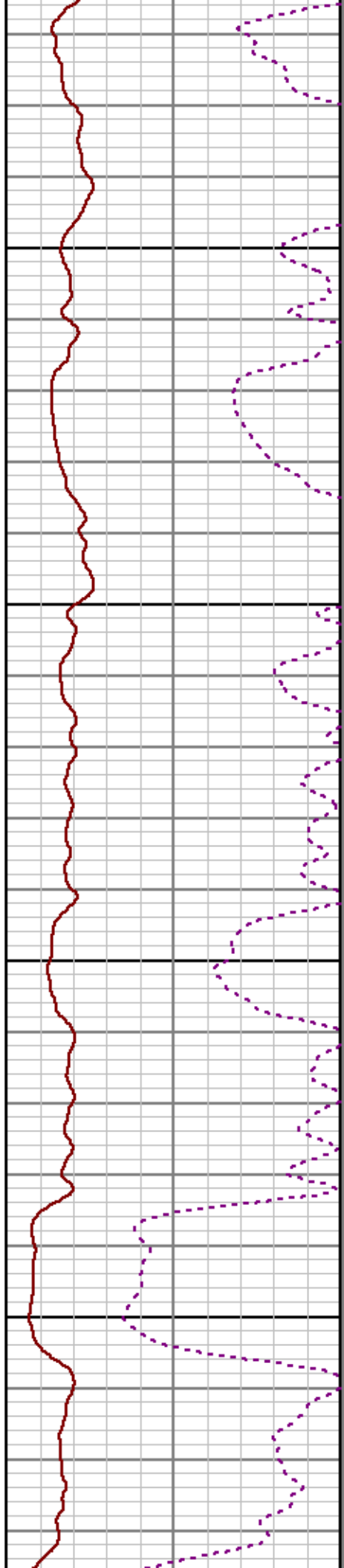
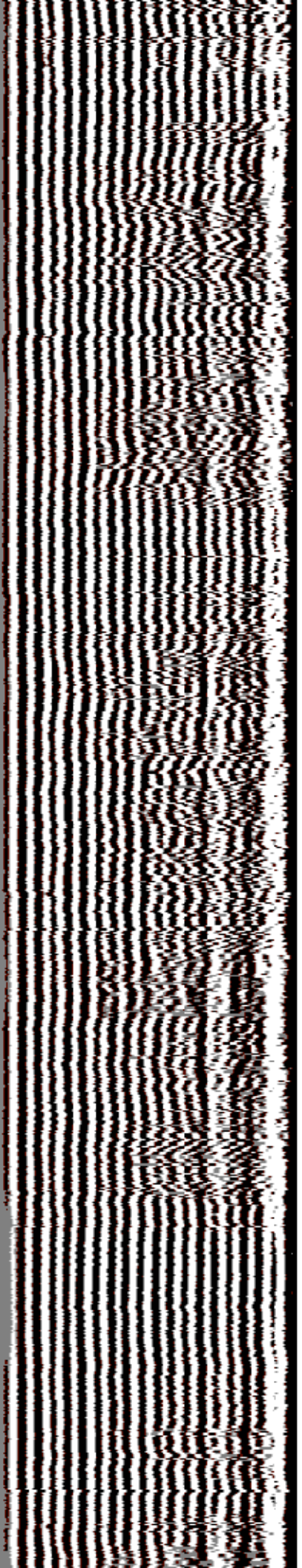


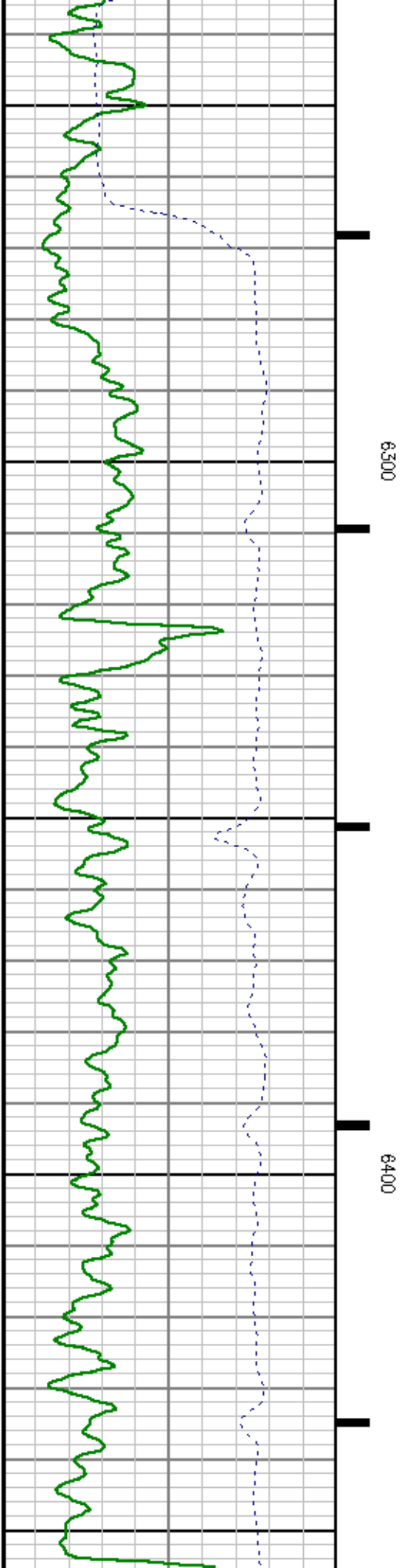
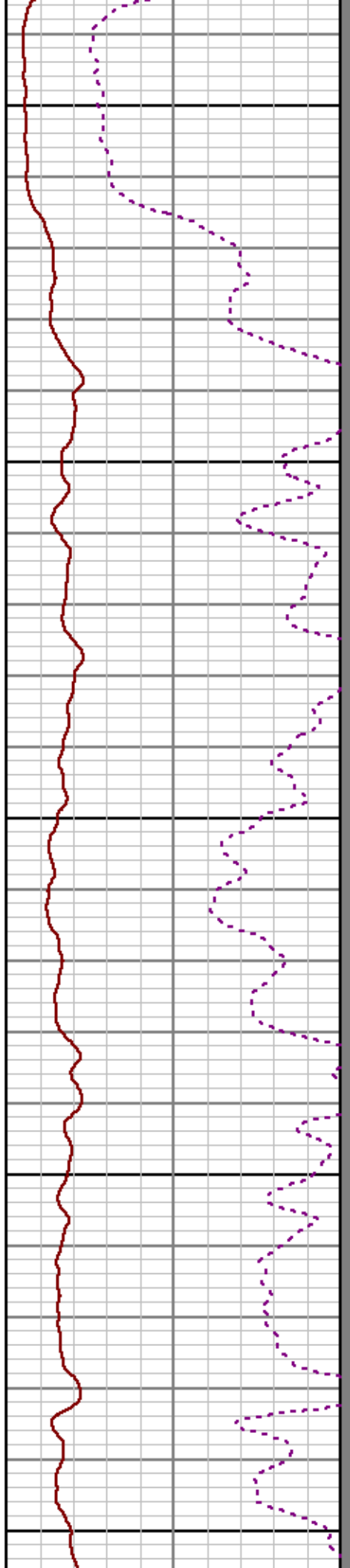
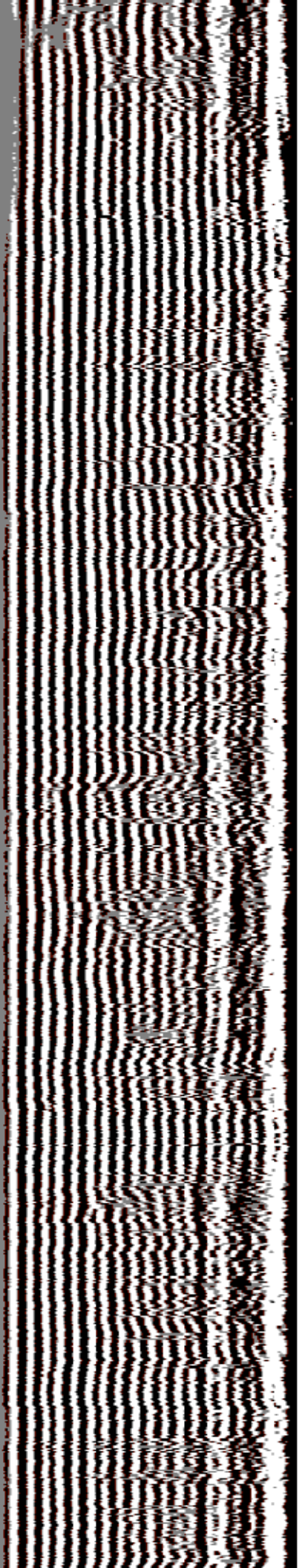


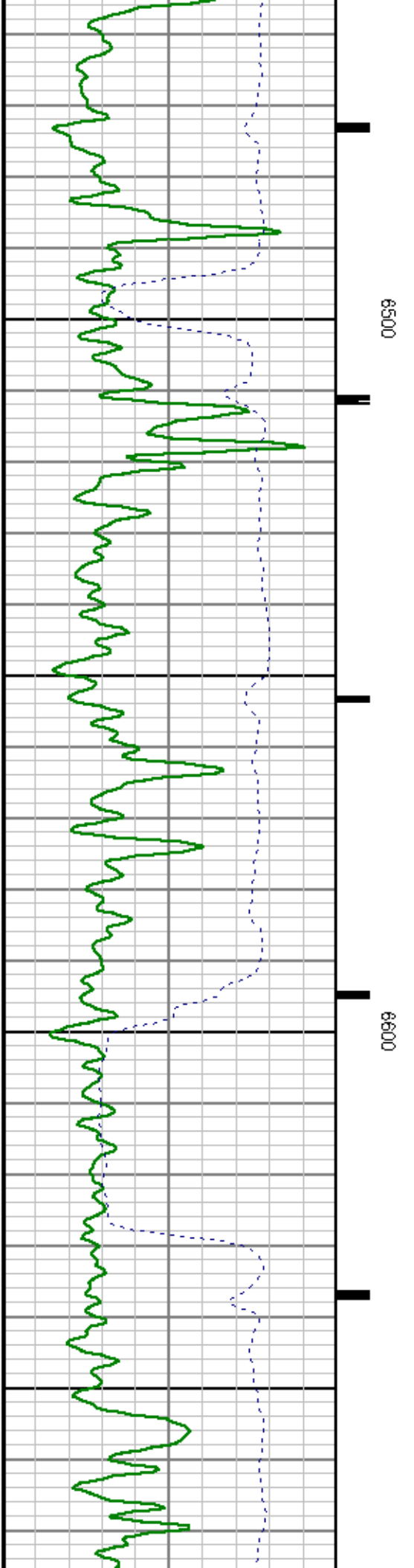
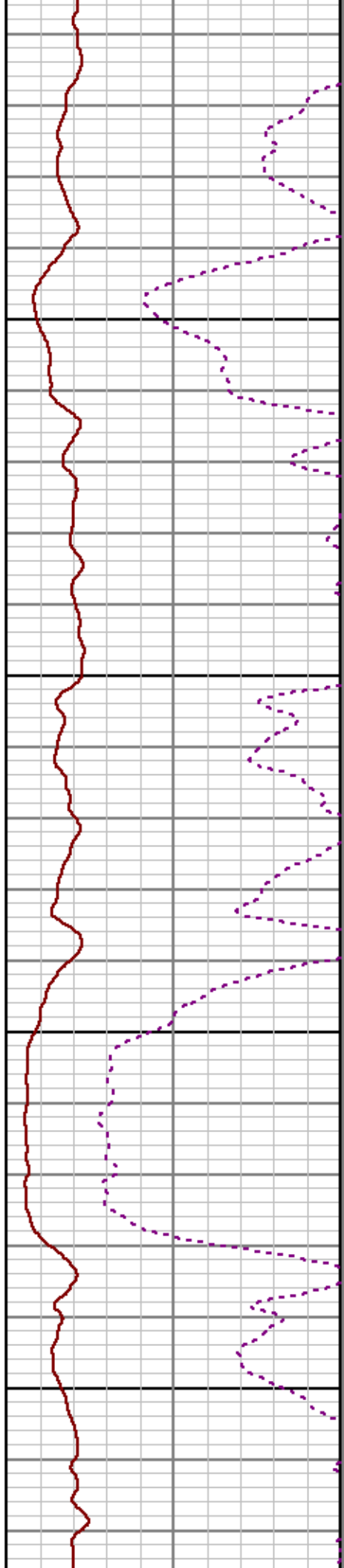
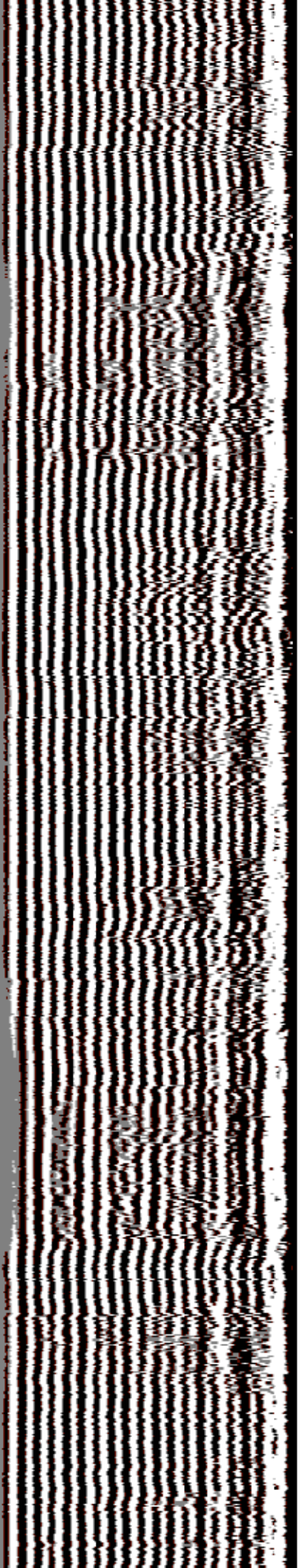


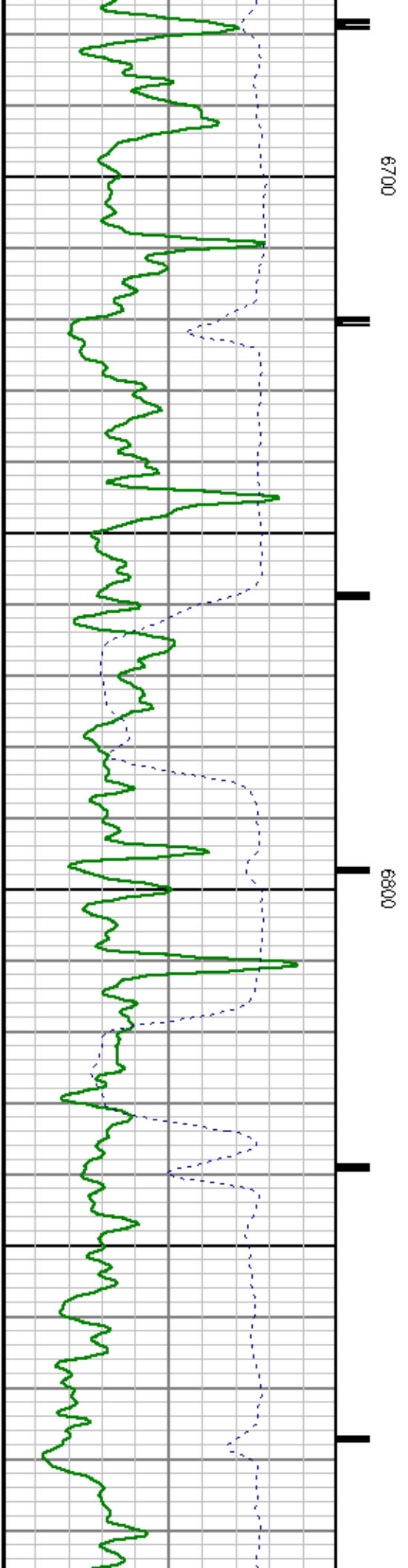
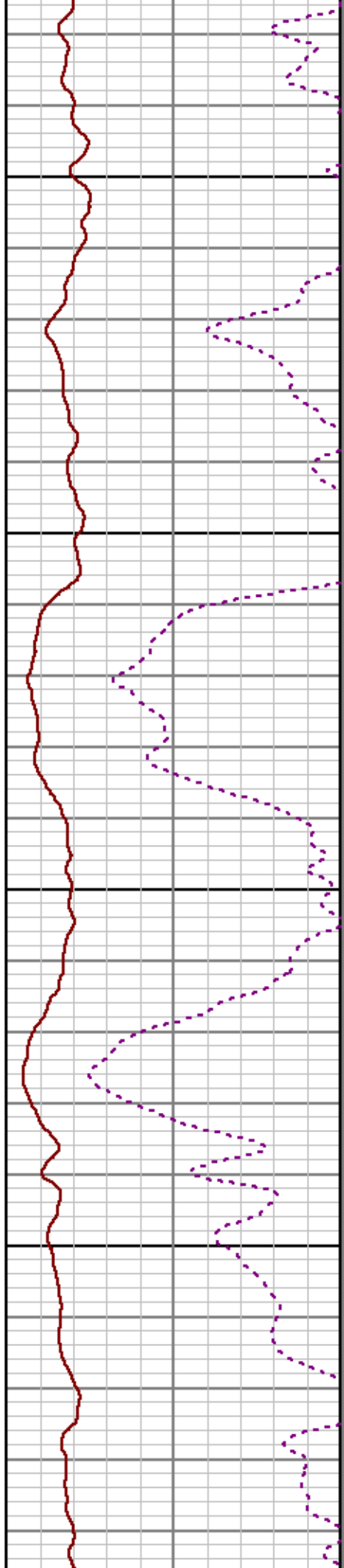
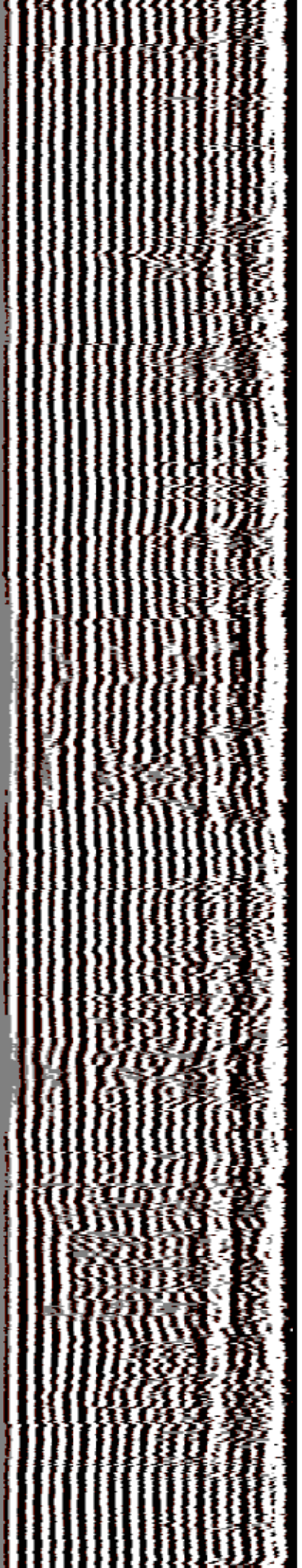
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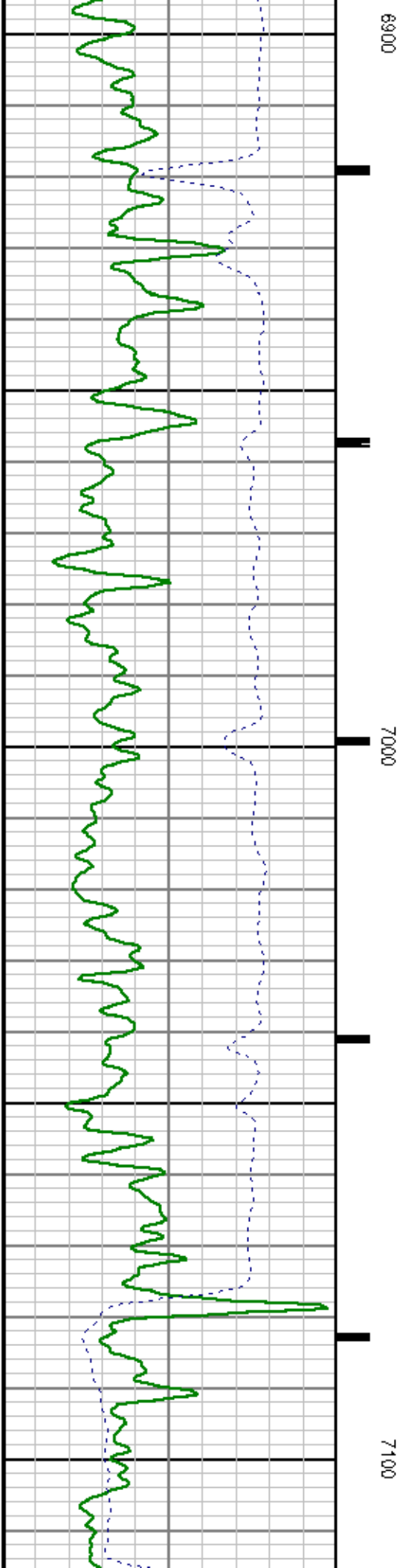
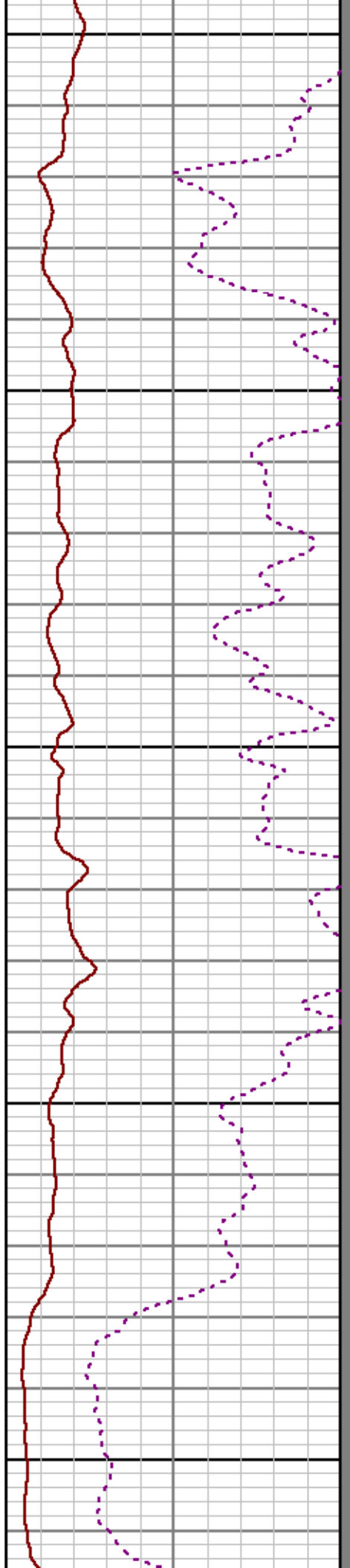
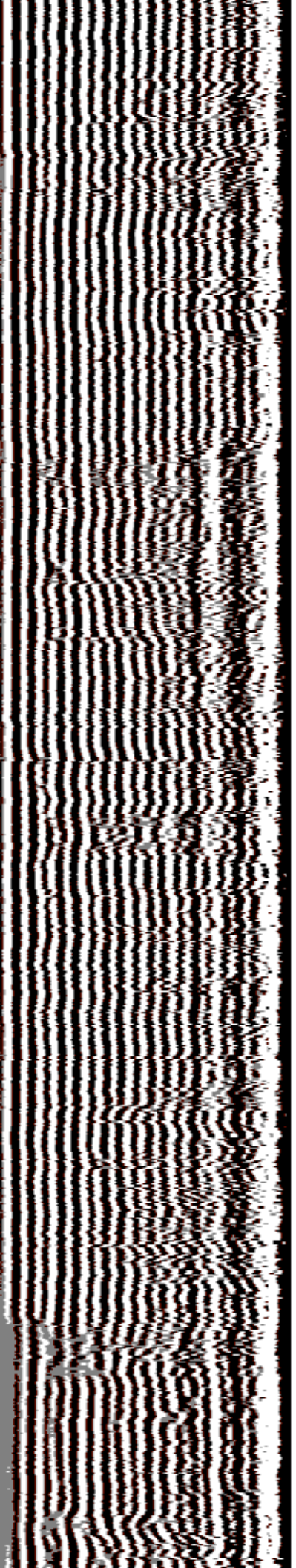


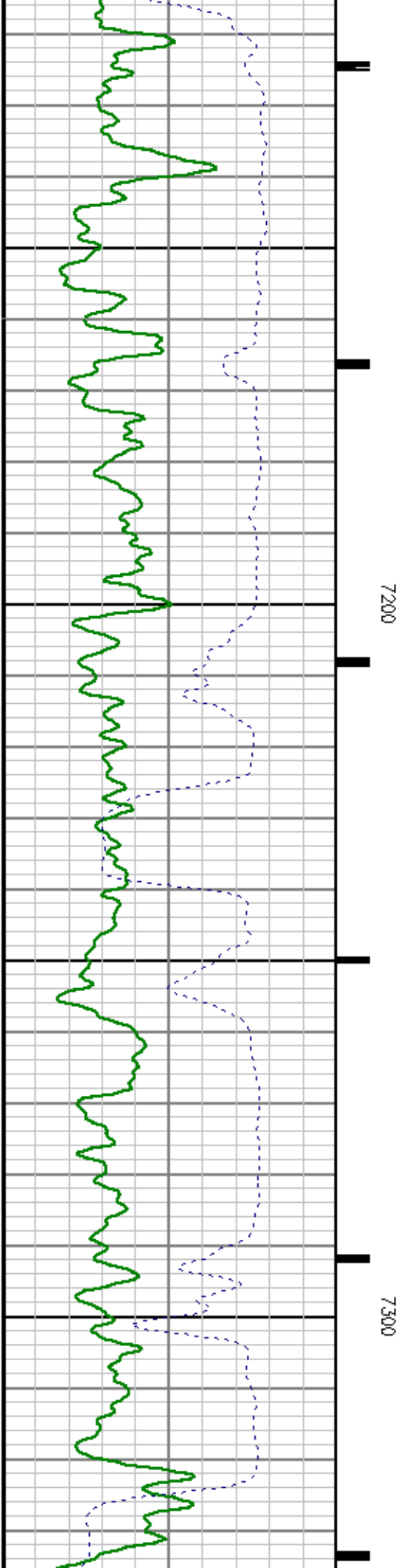
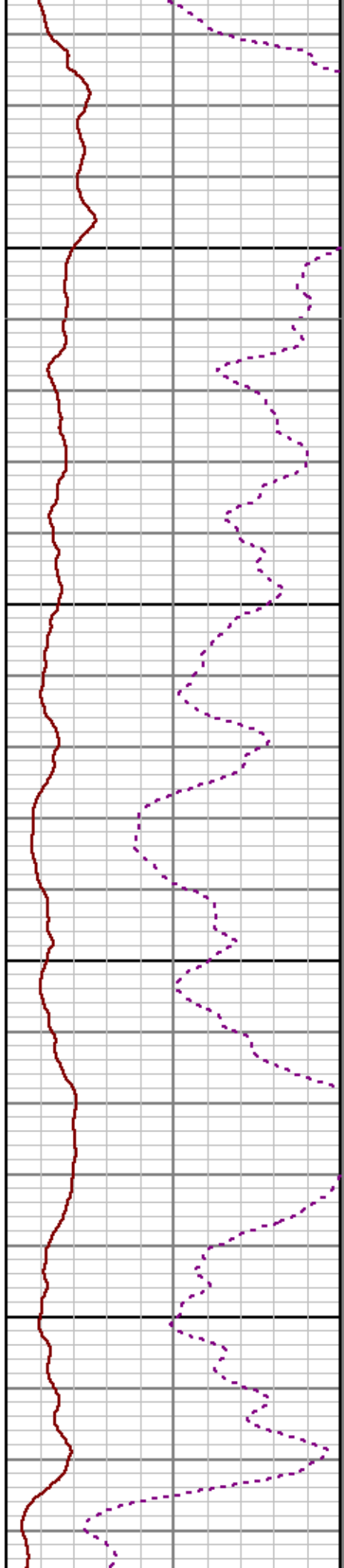
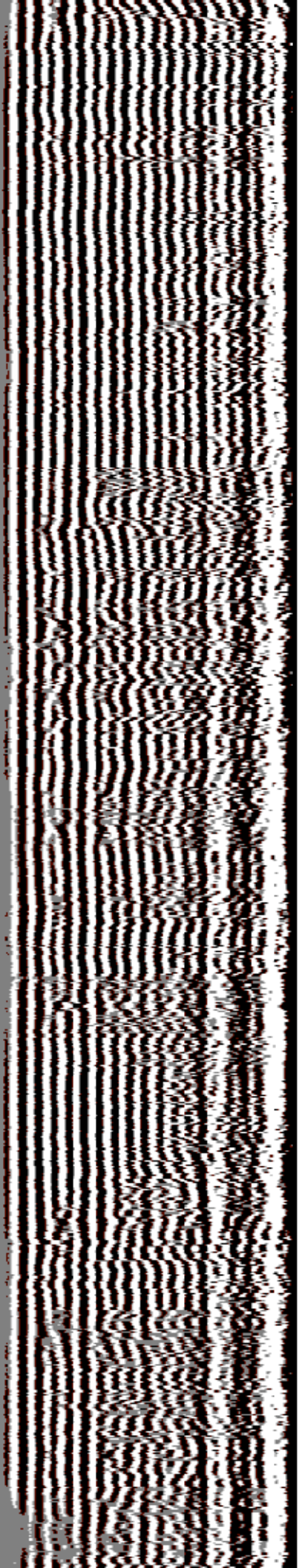


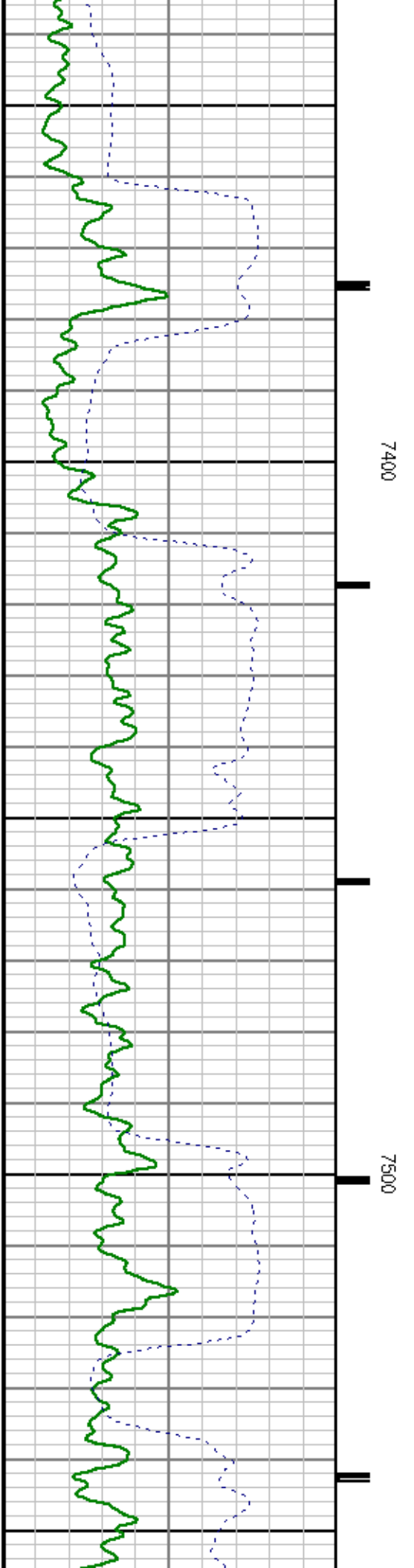
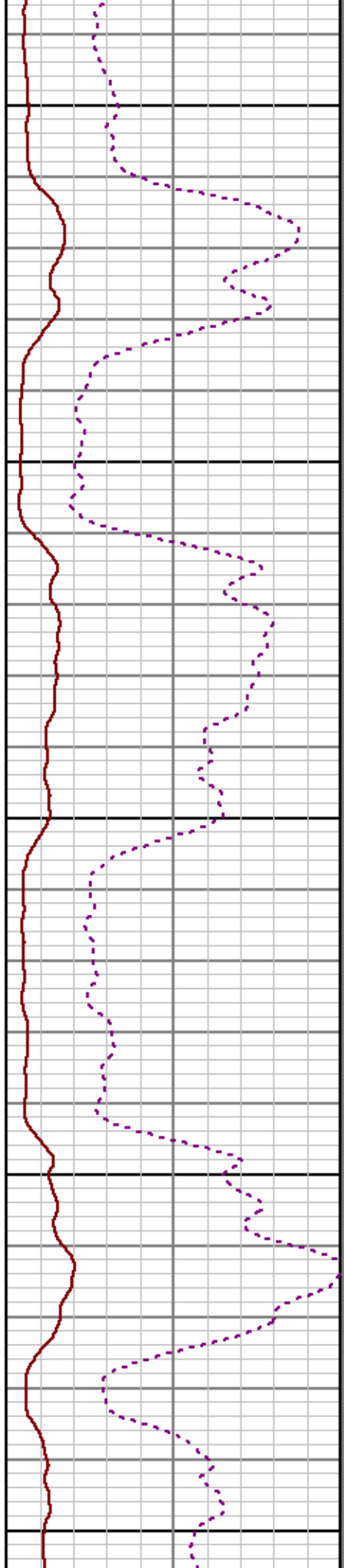
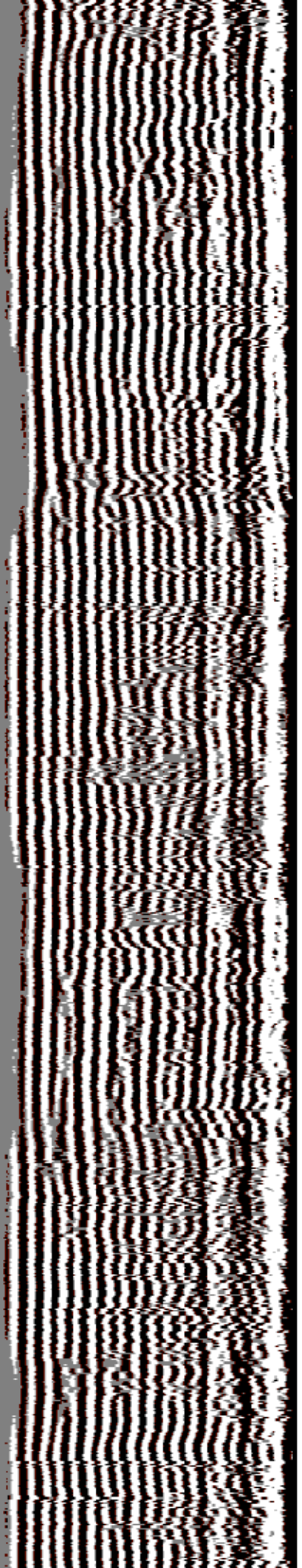


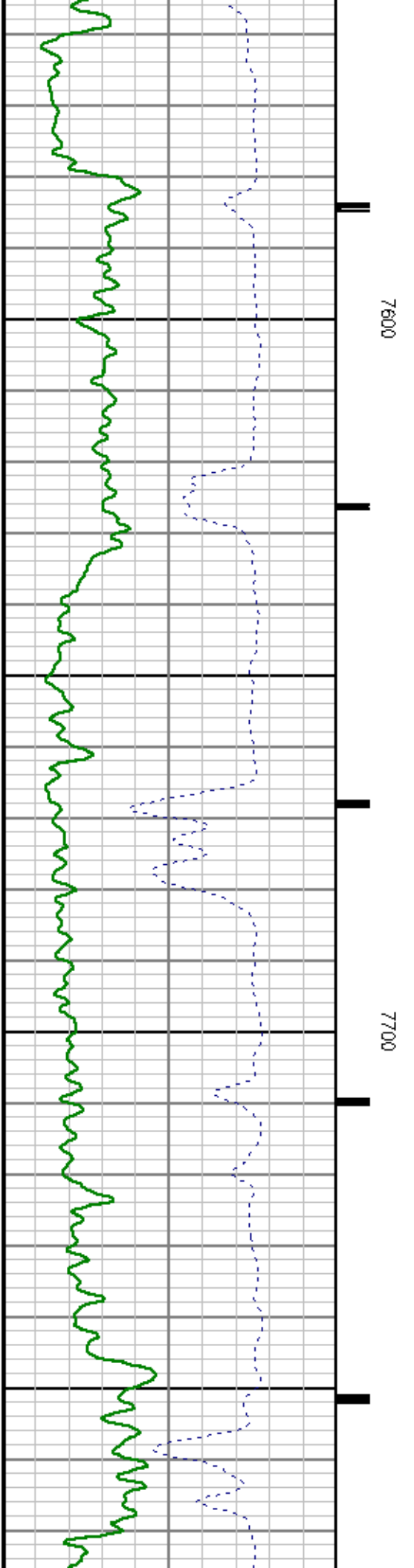
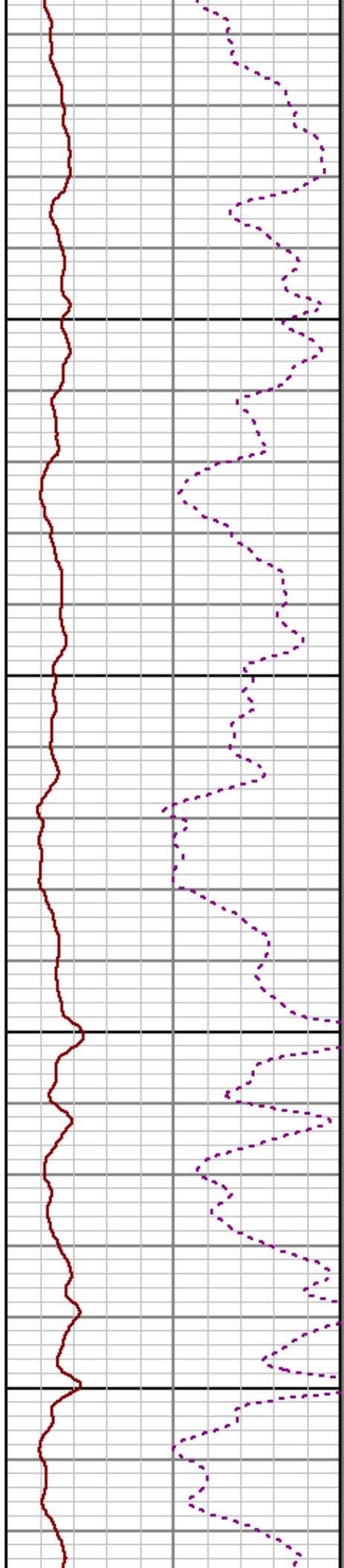
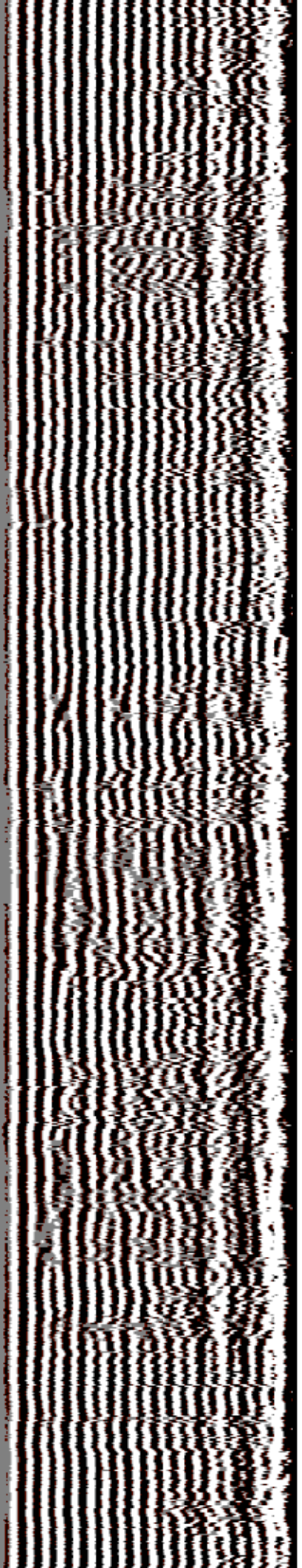


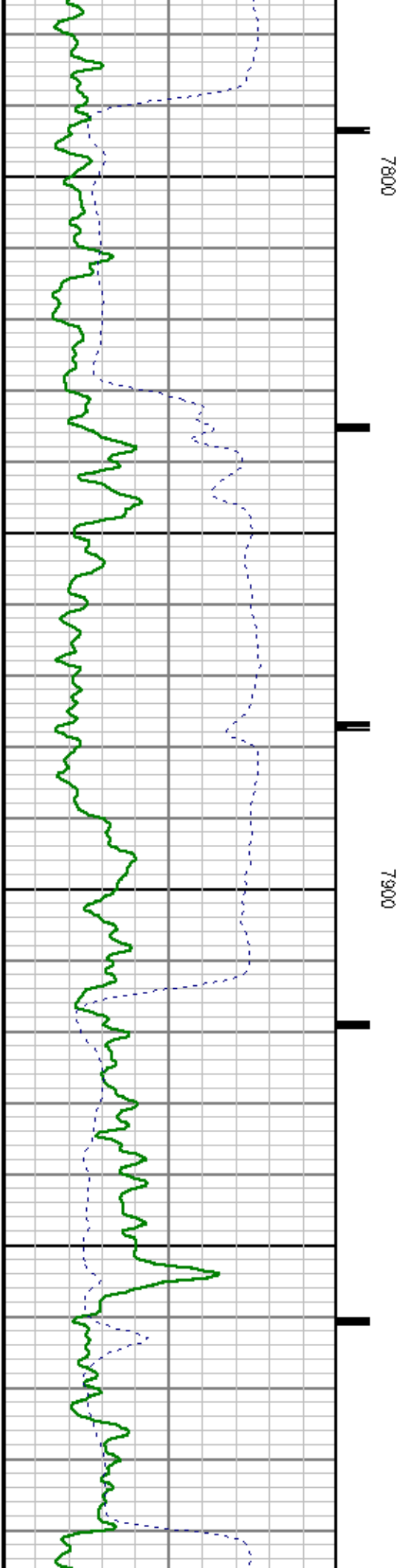
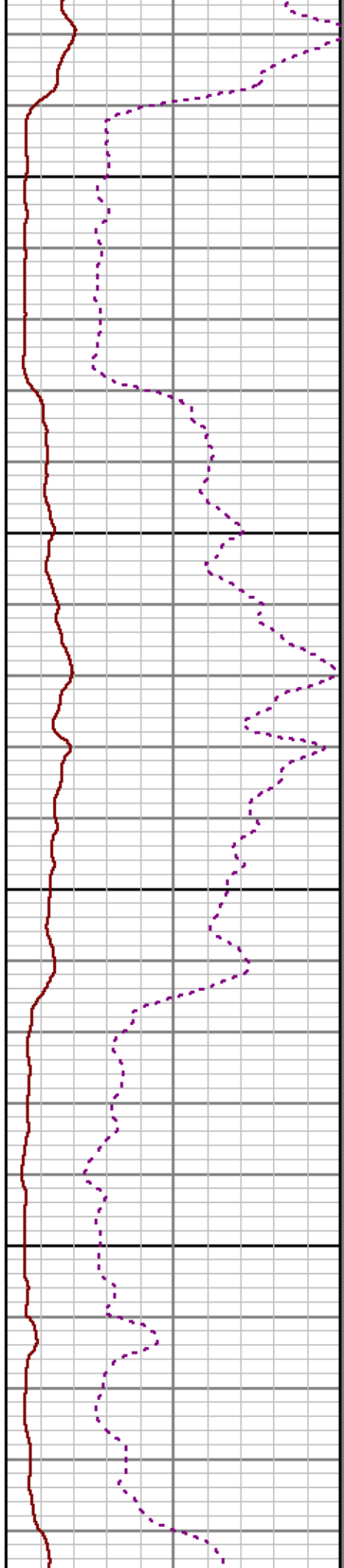
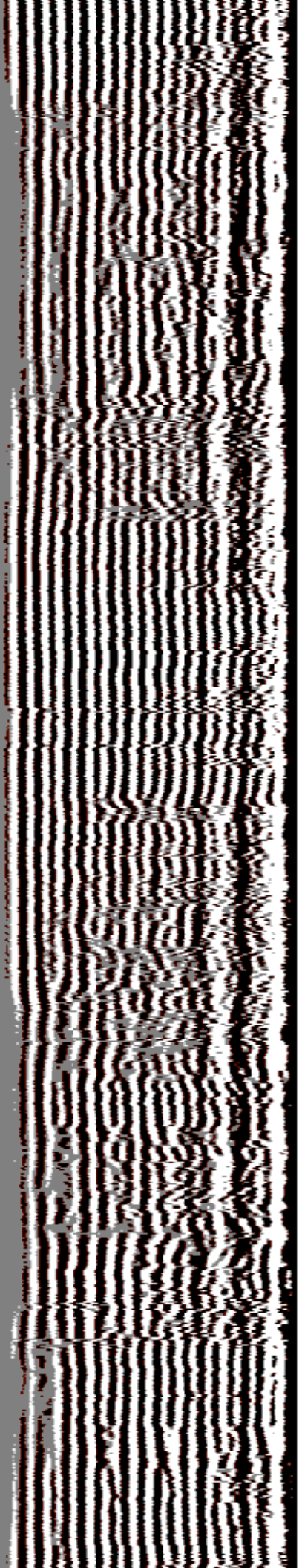


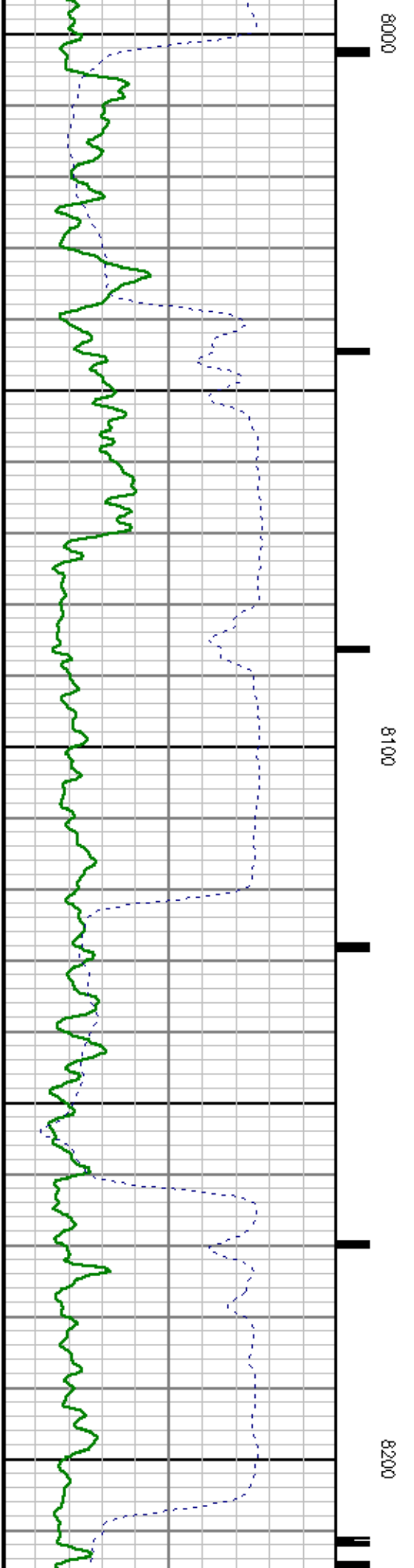
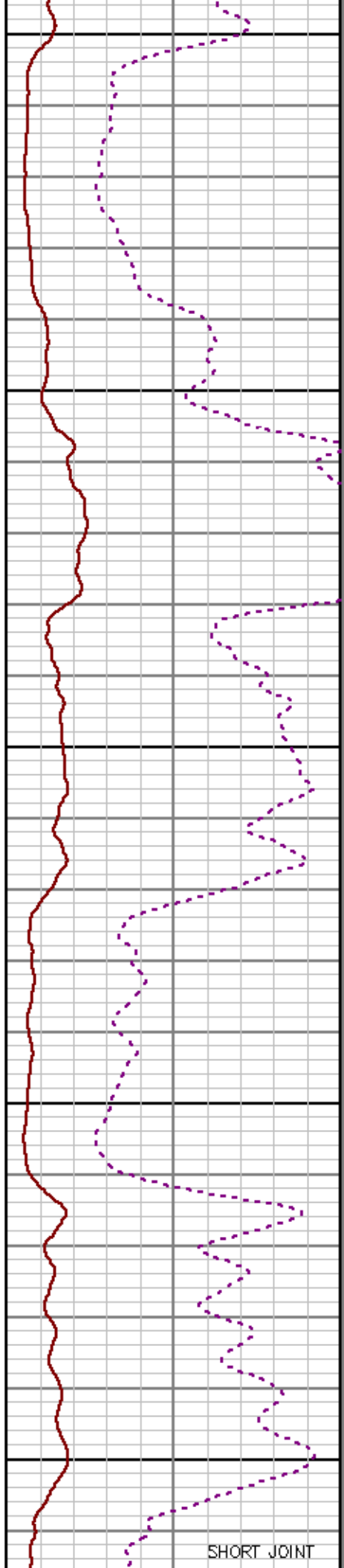
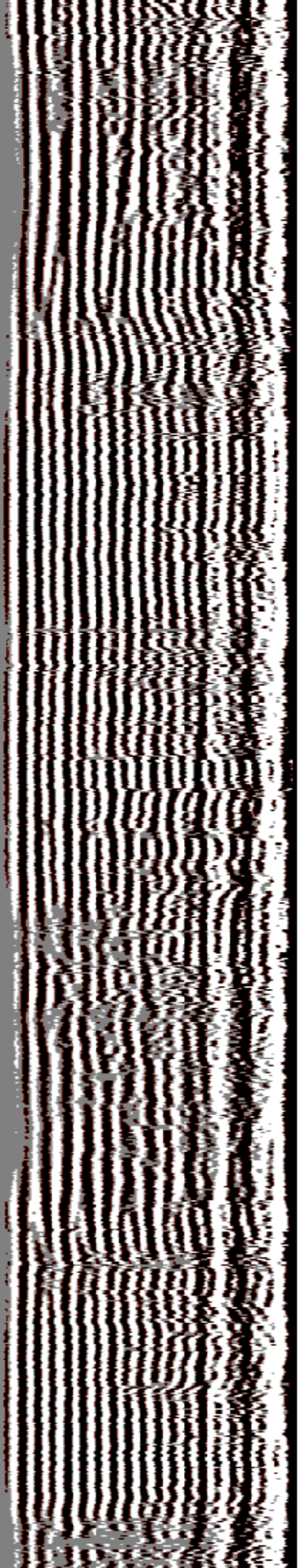


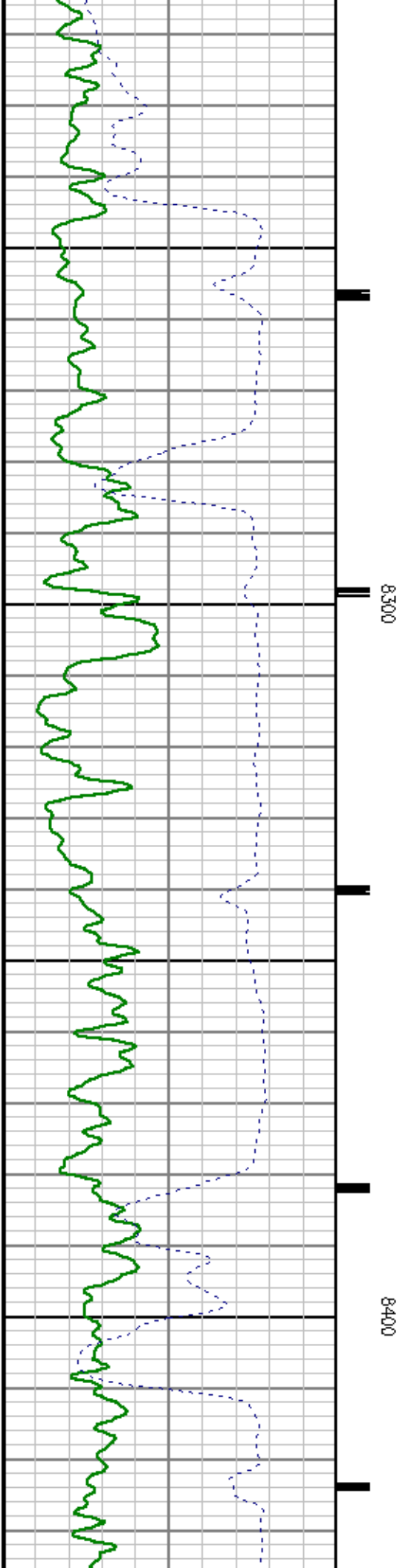
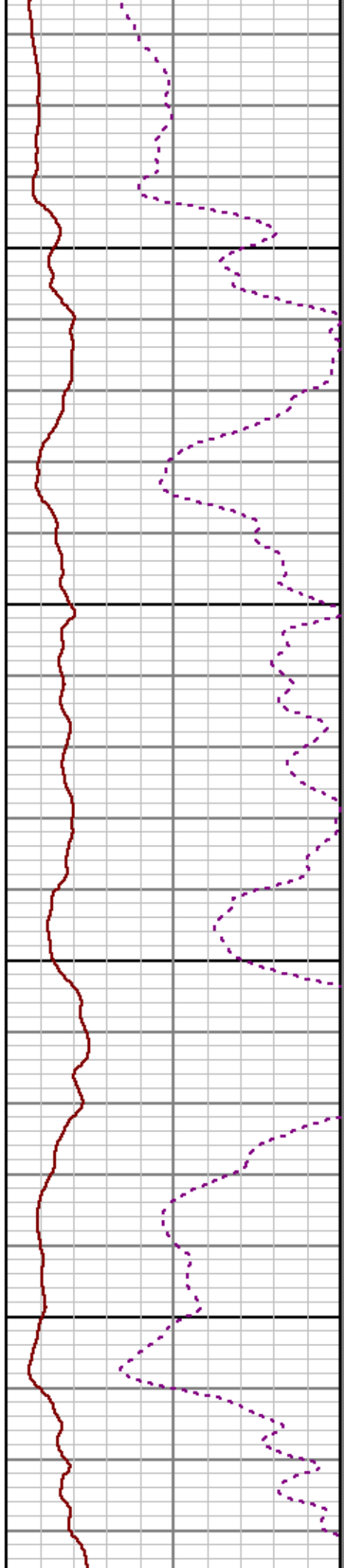
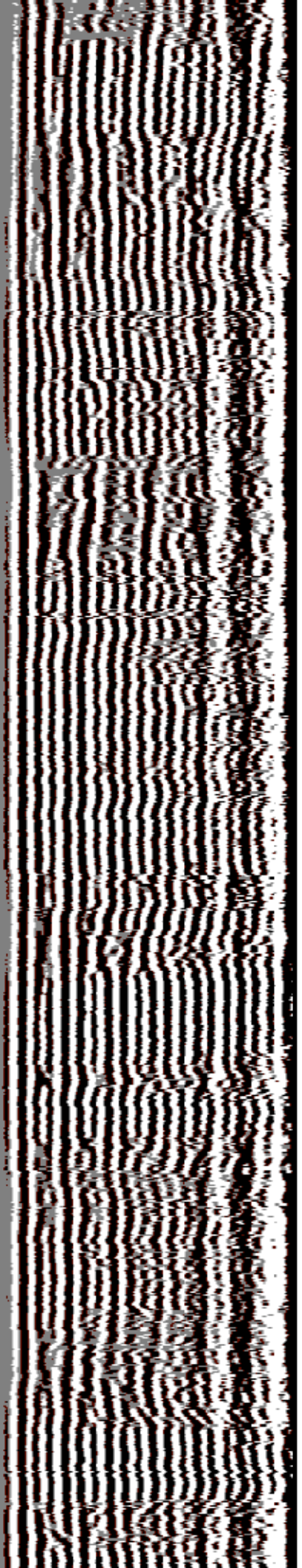


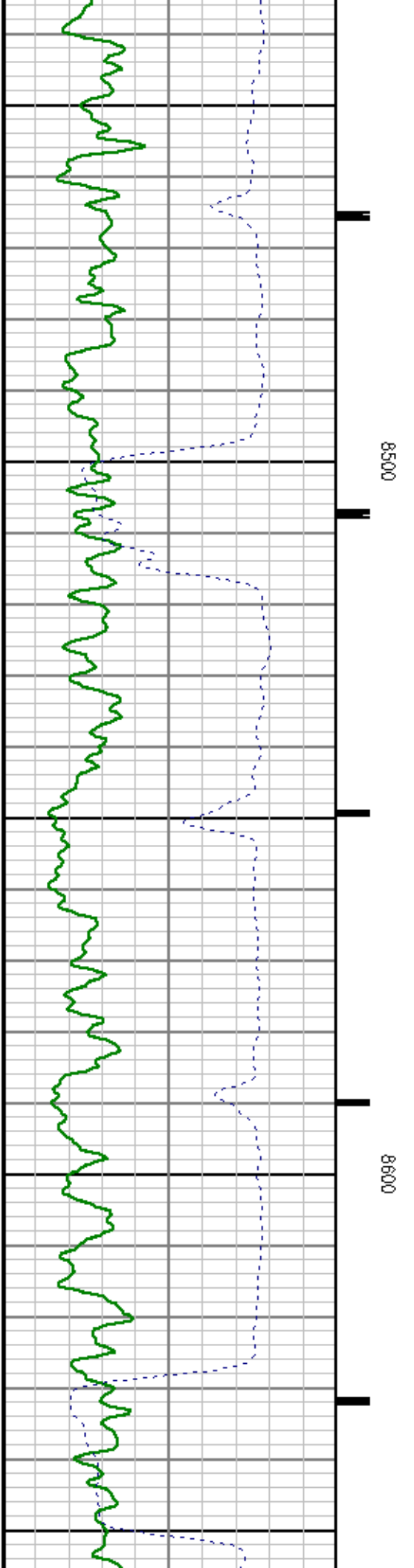
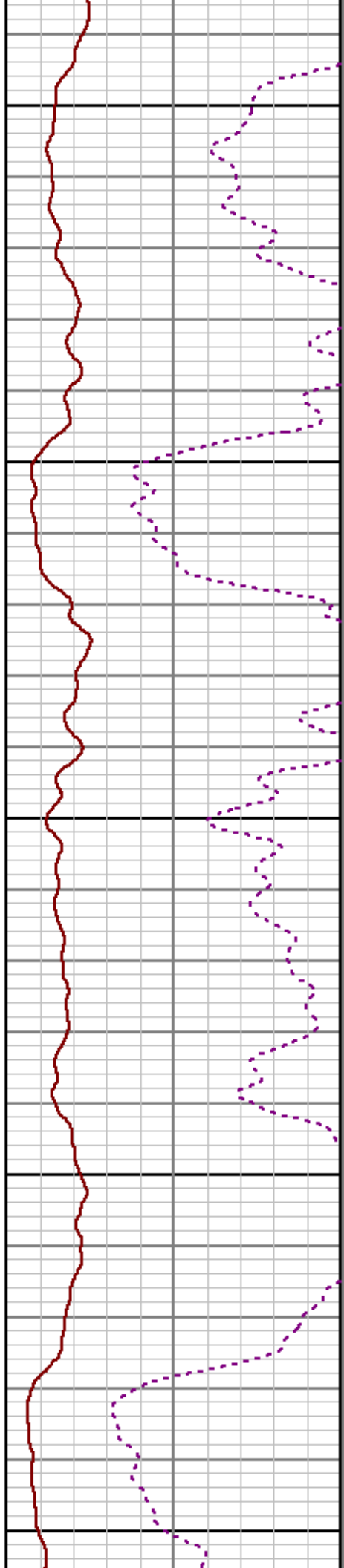
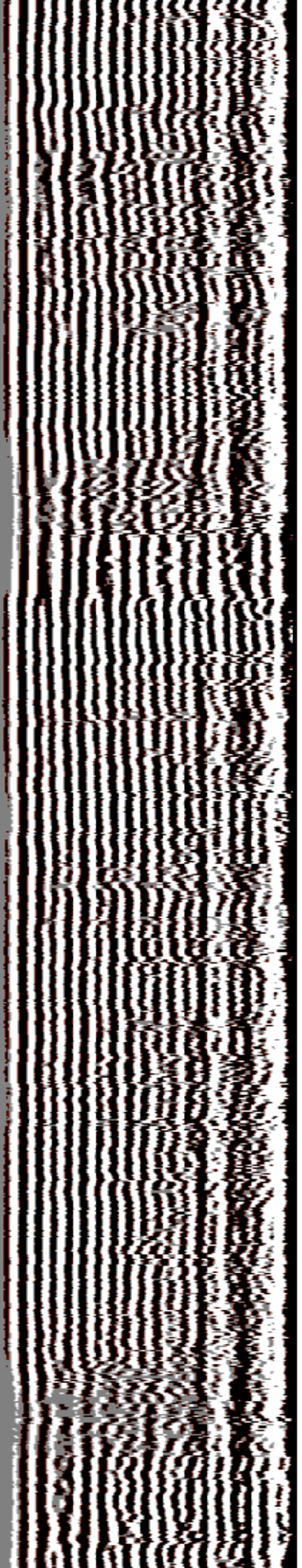


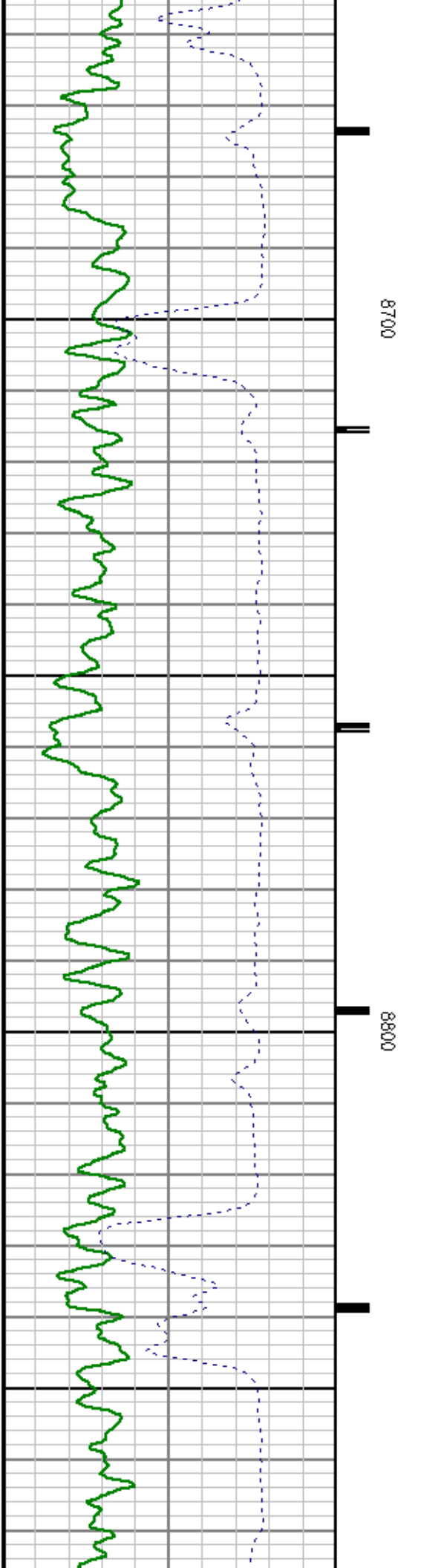
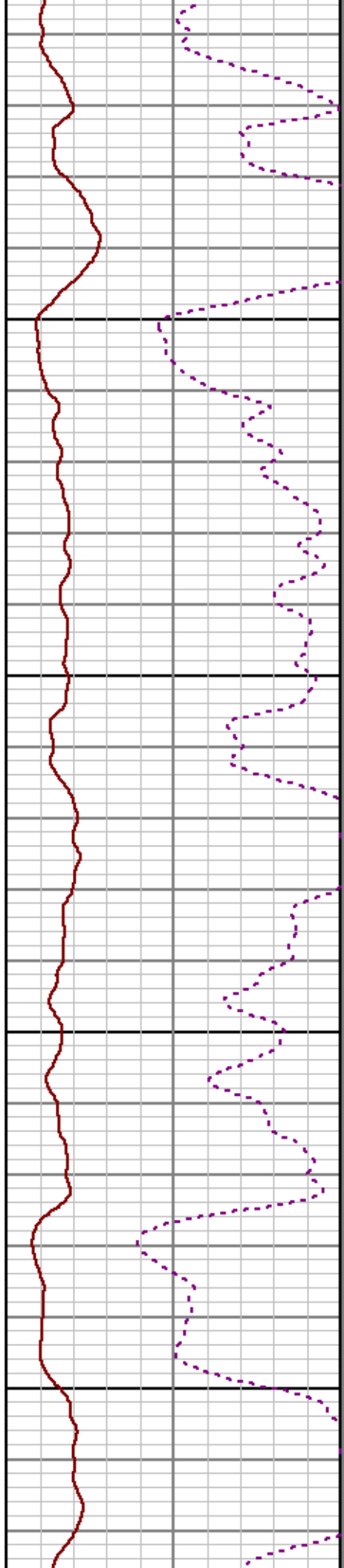
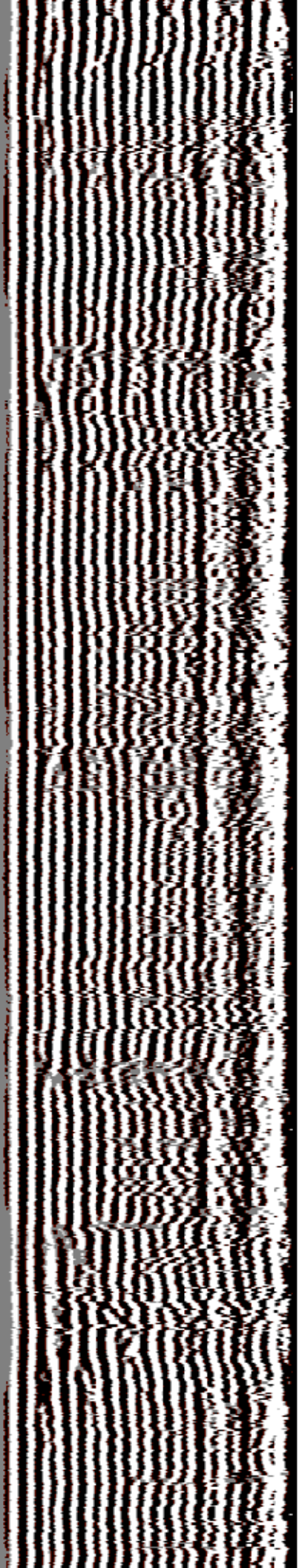


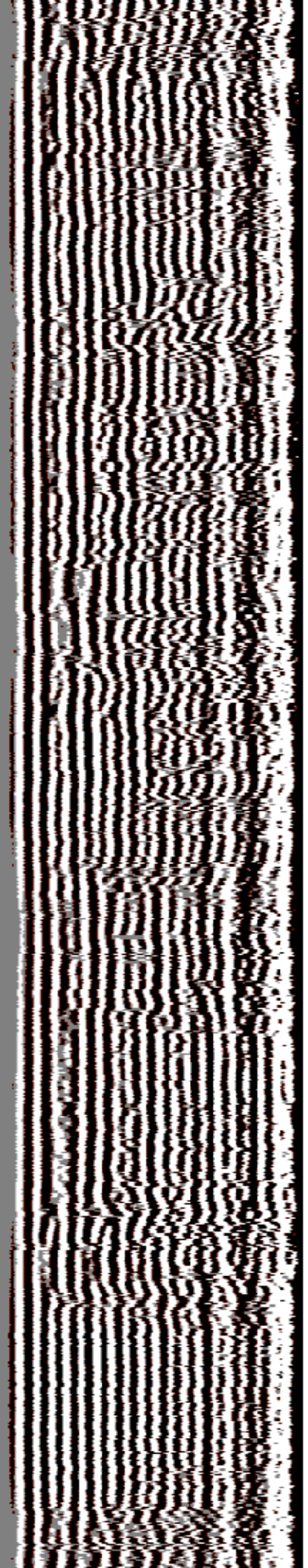
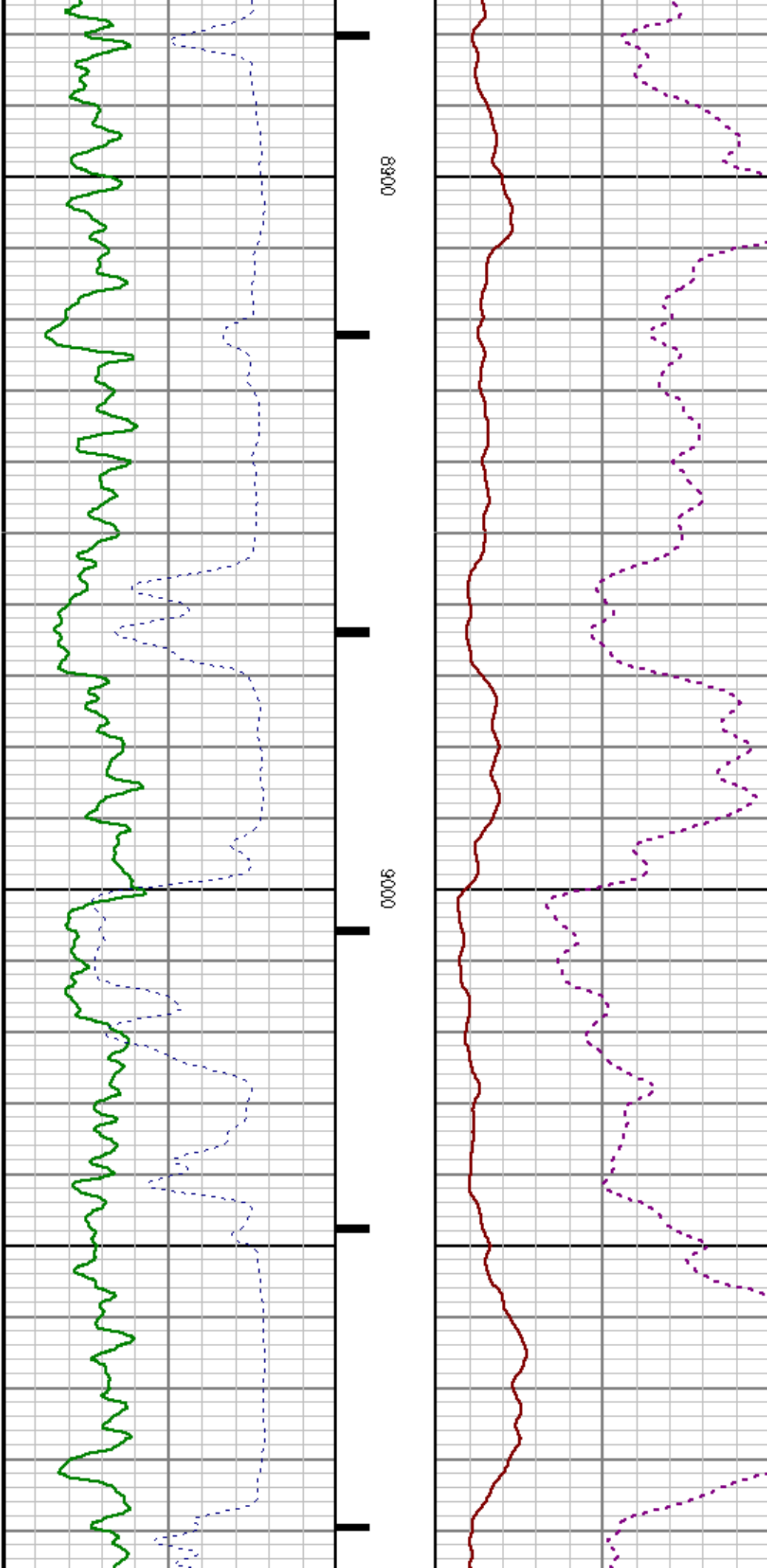


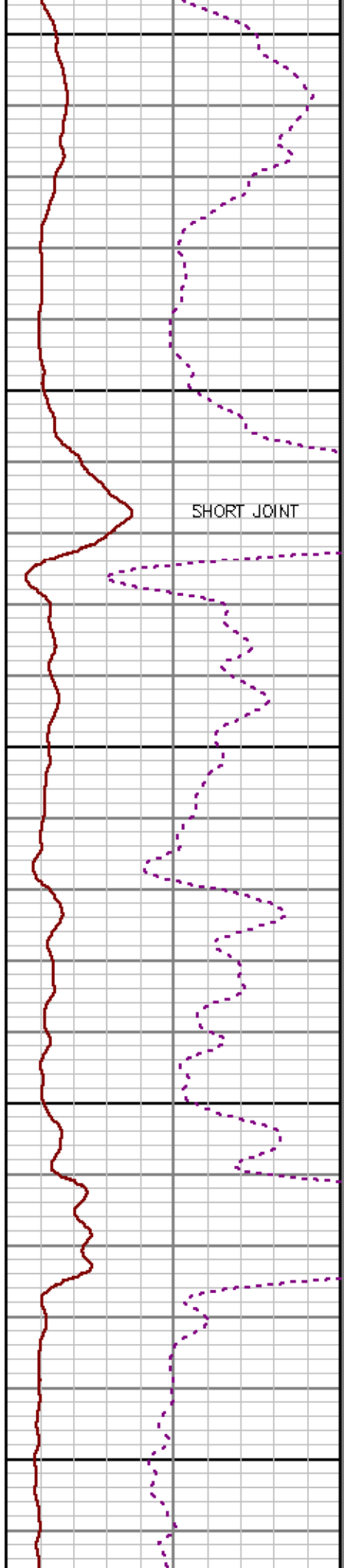
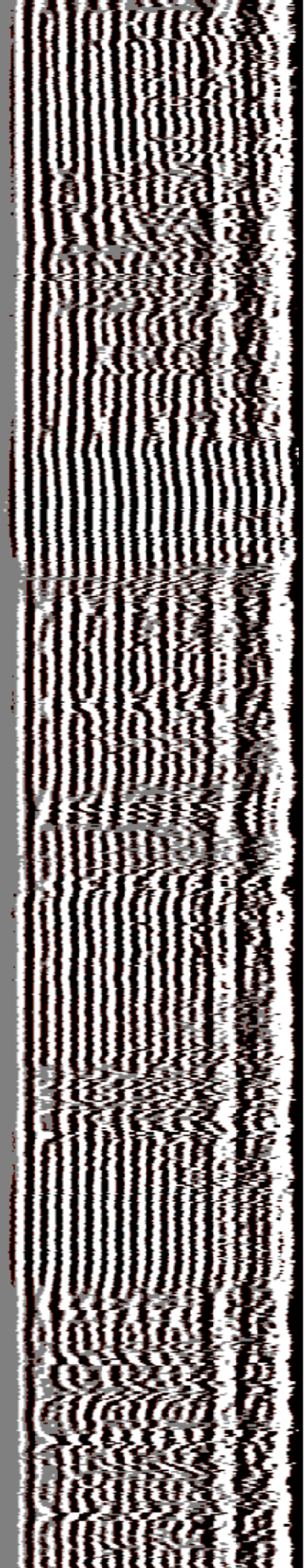




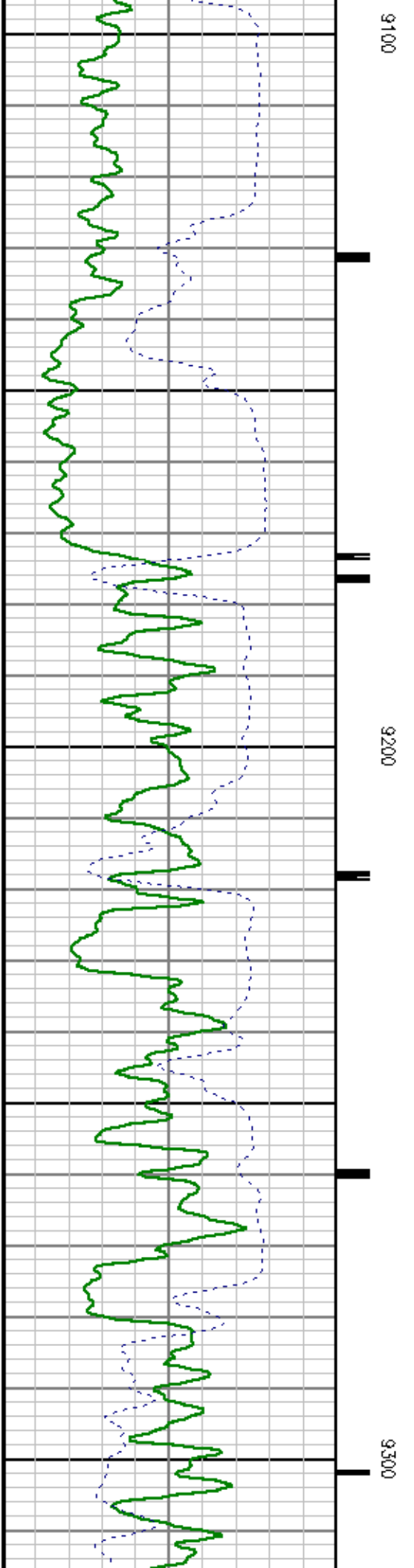


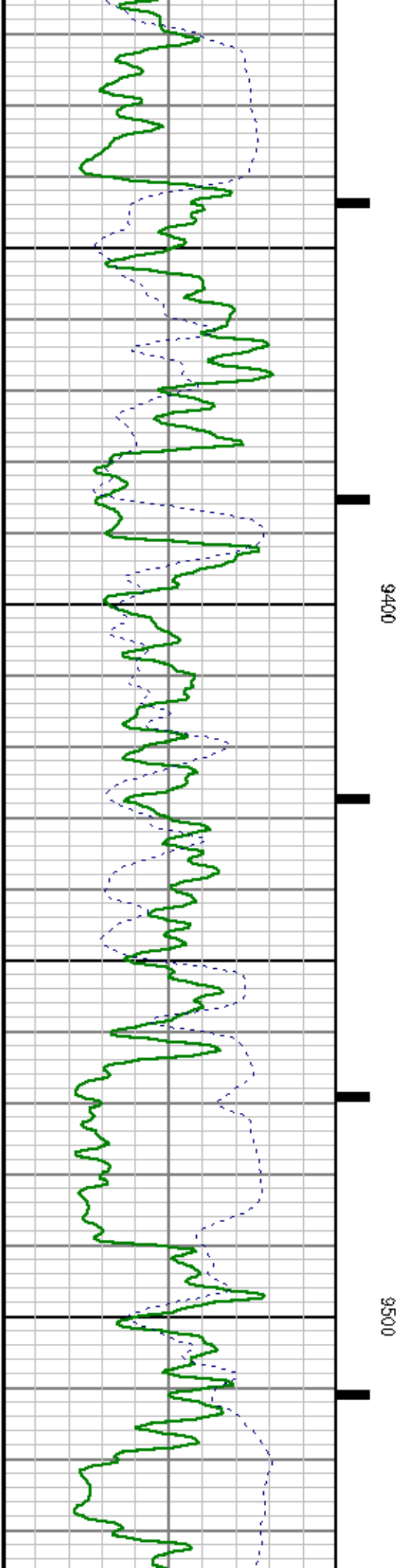
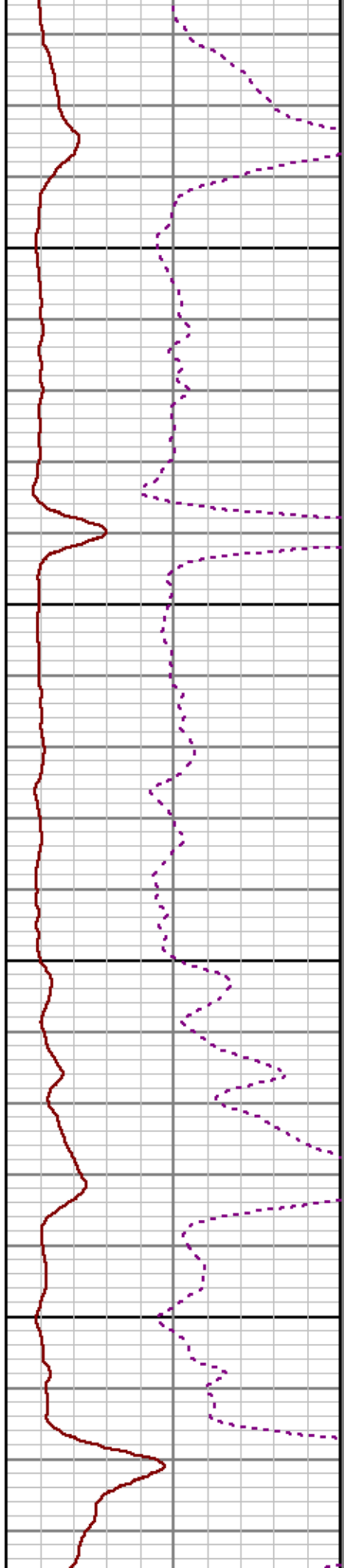
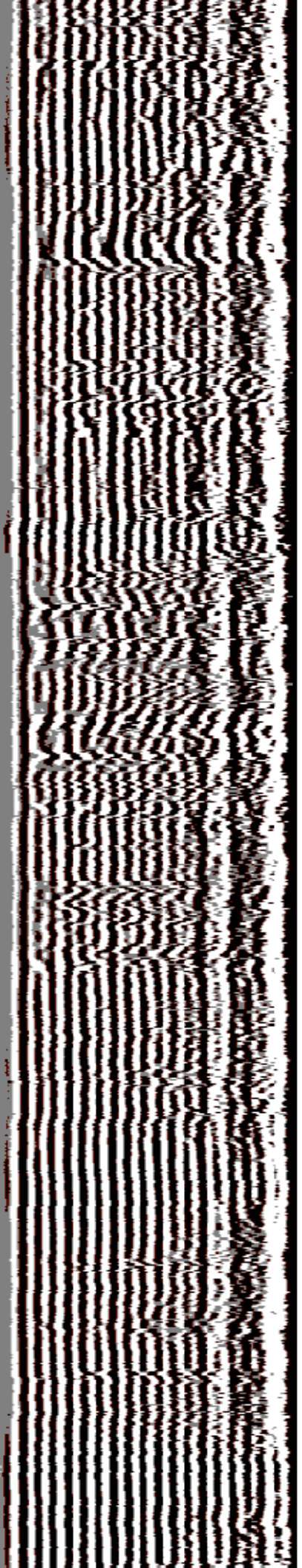


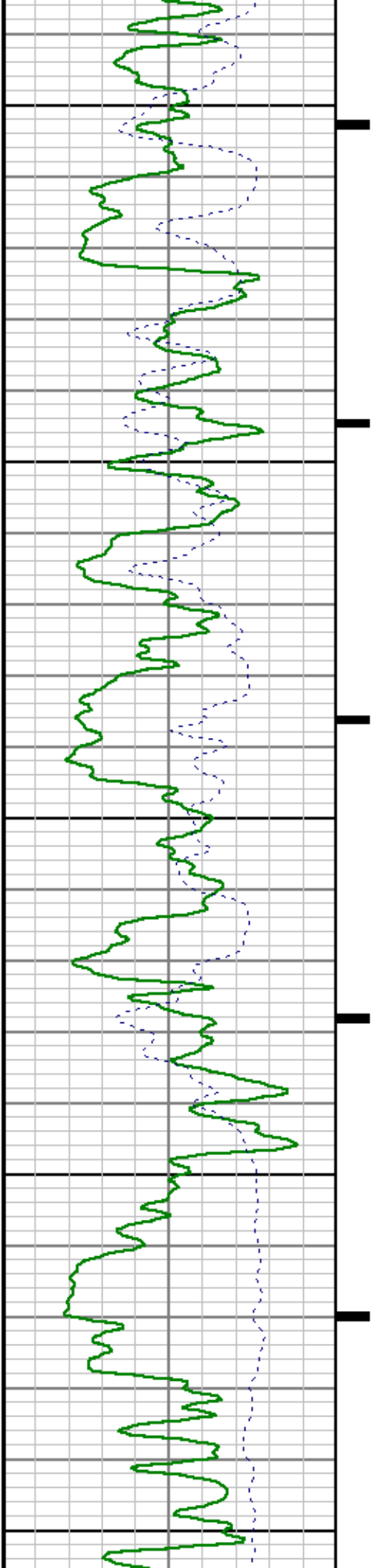




SHORT JOINT

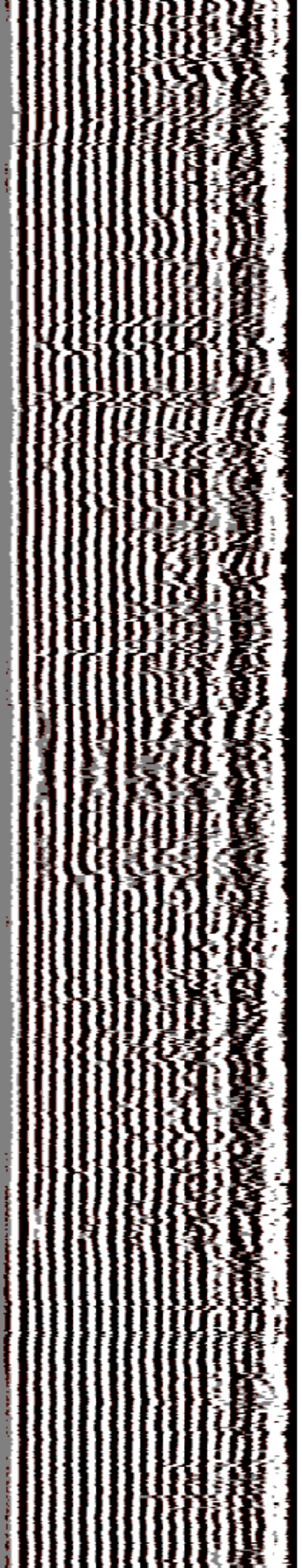
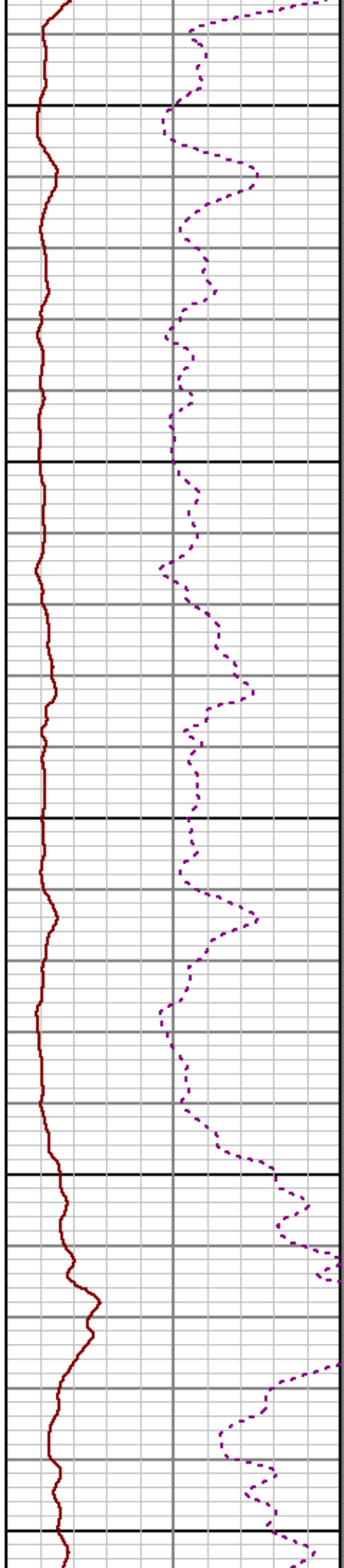


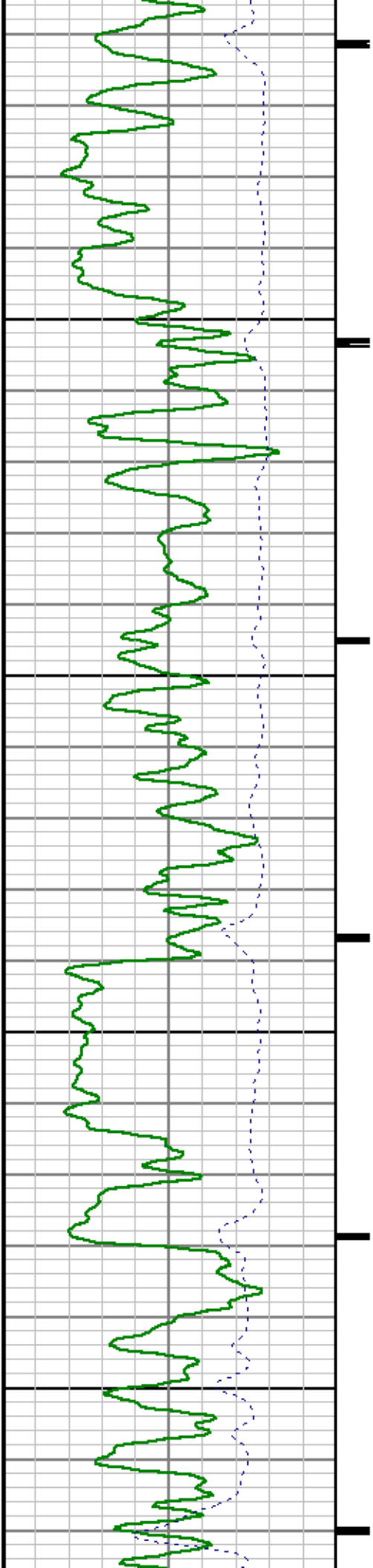




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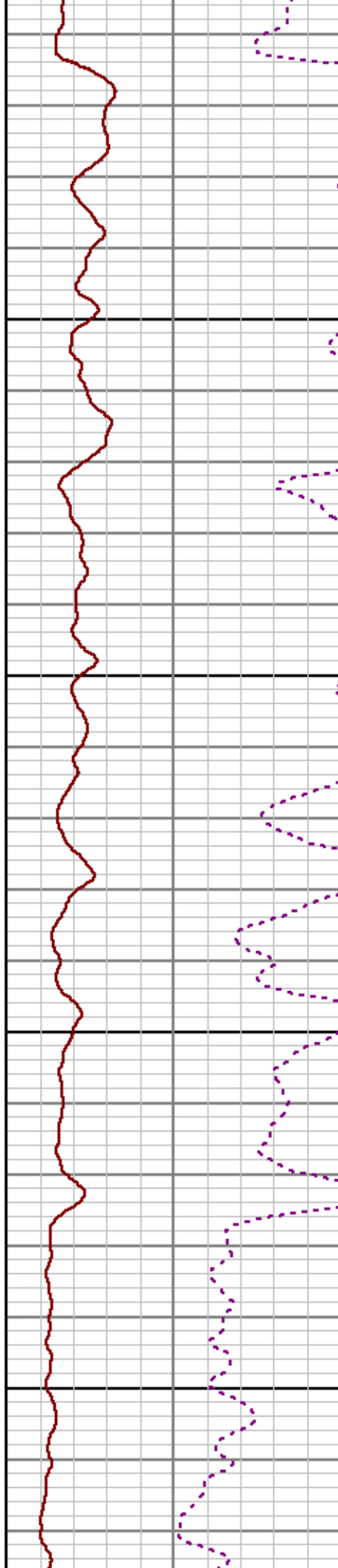
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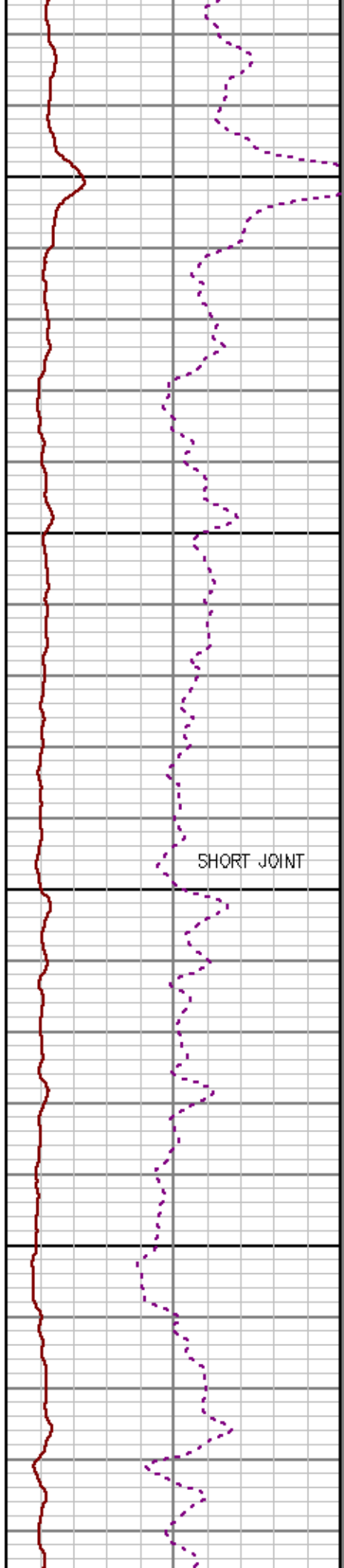
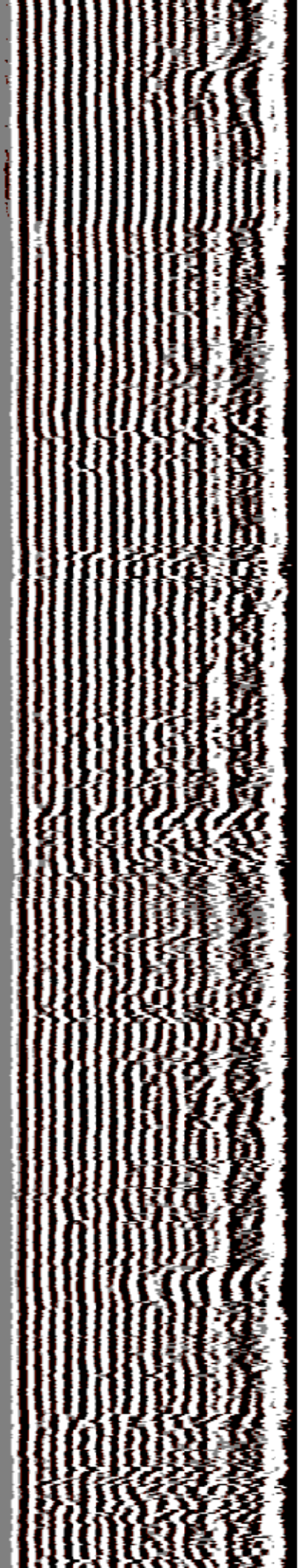




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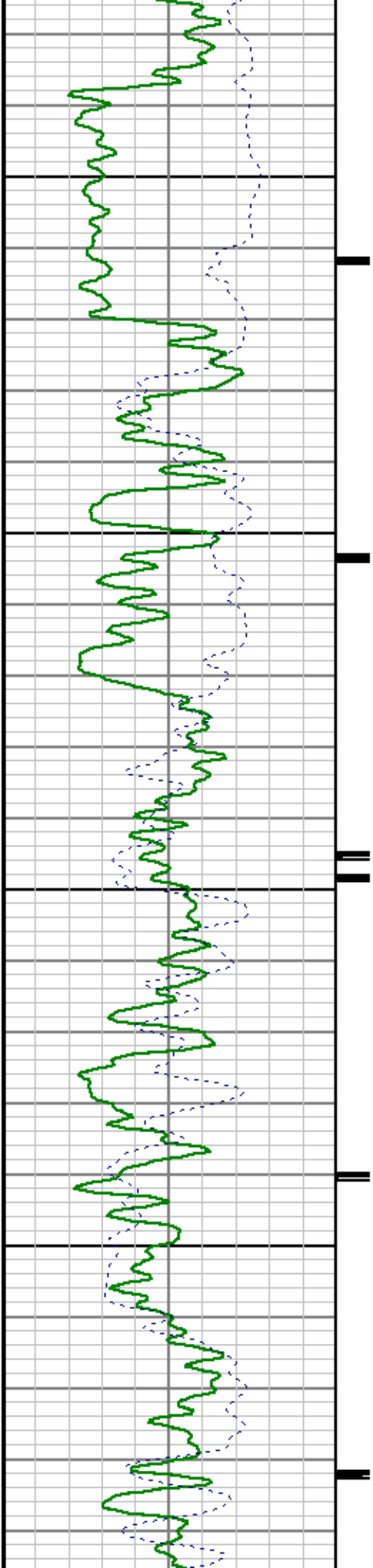


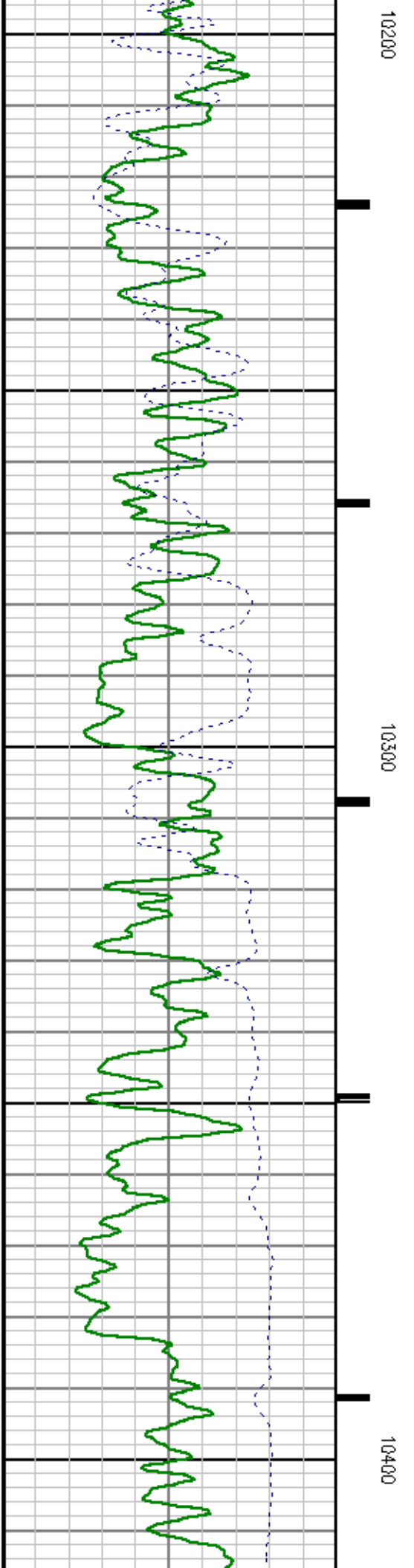
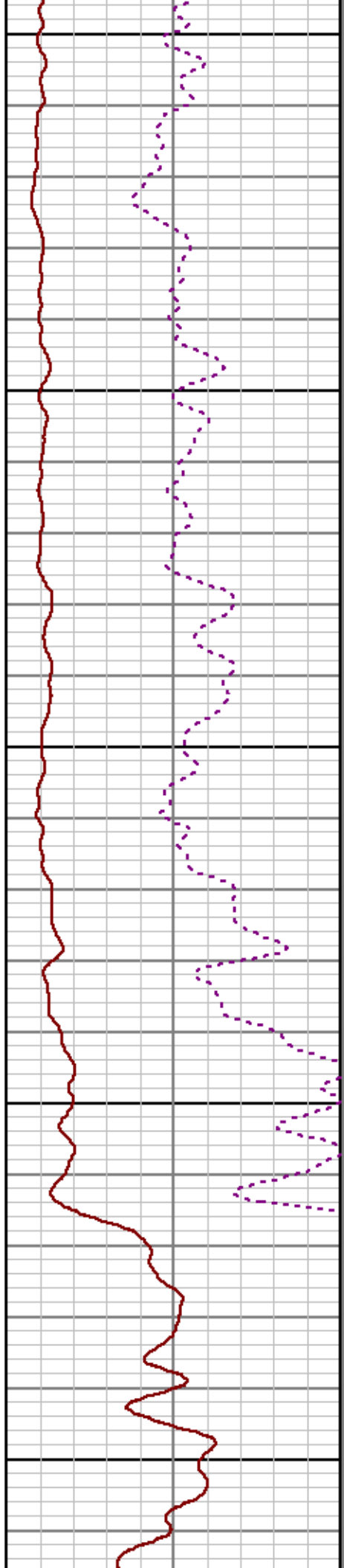
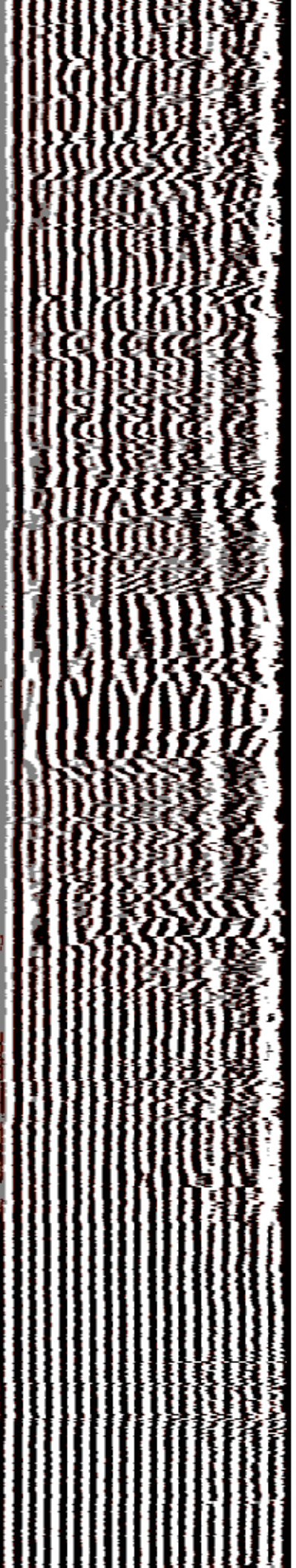


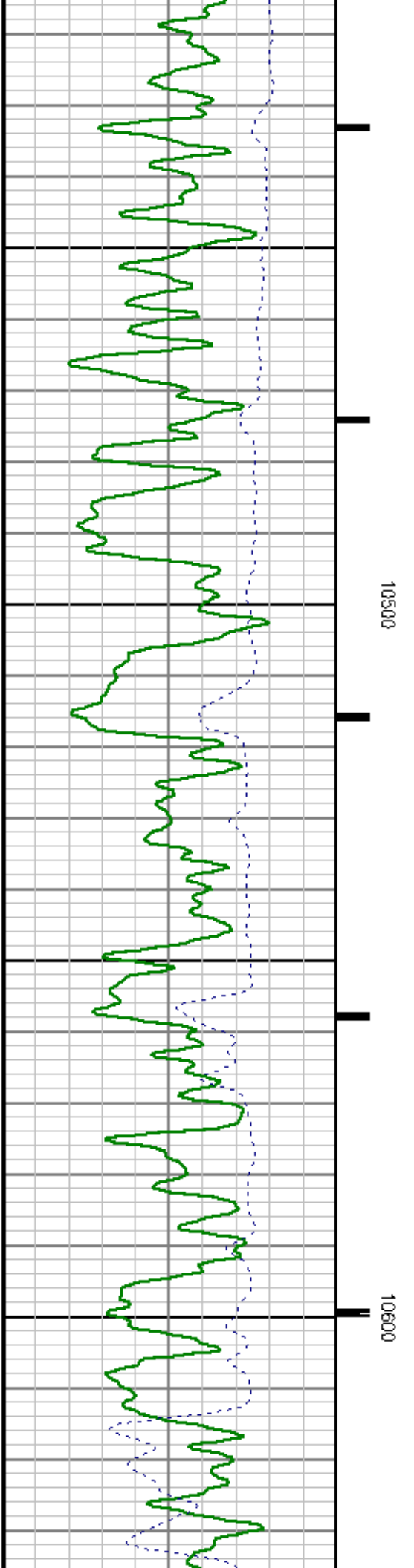
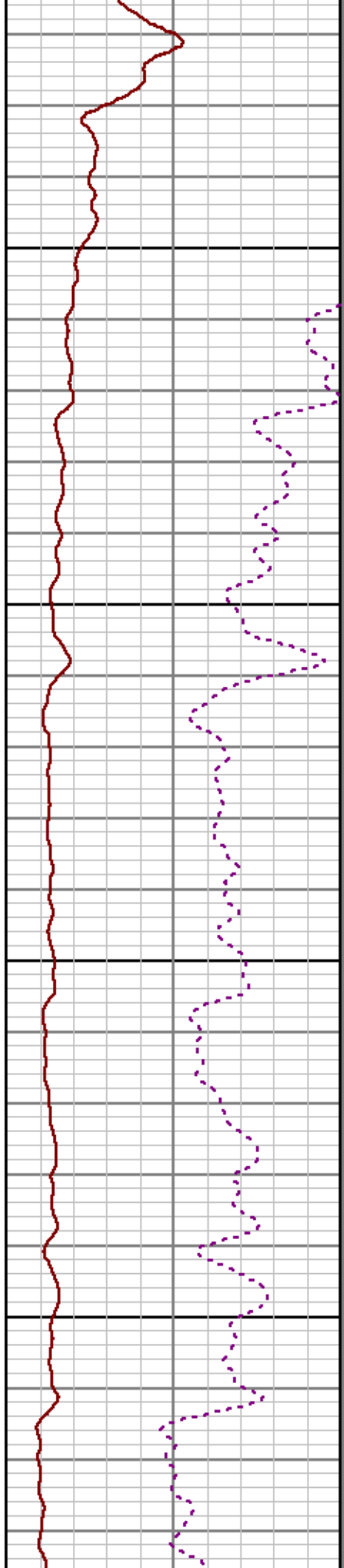
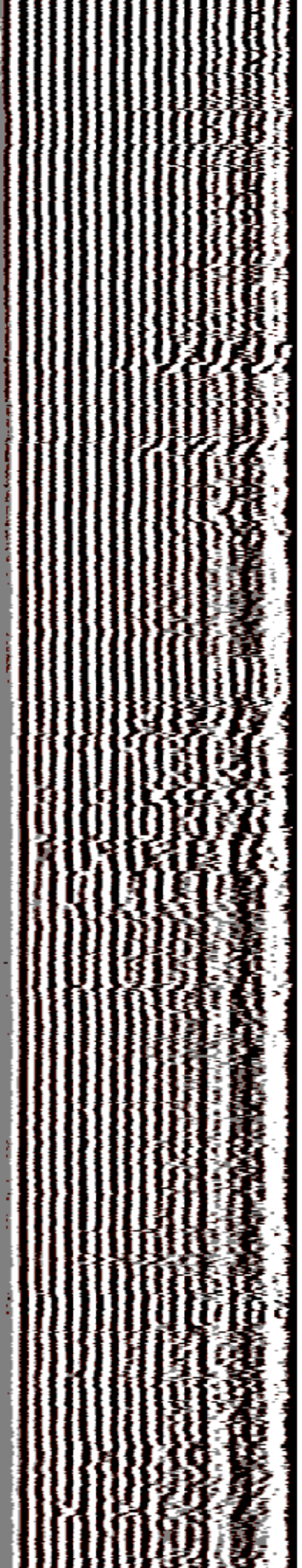
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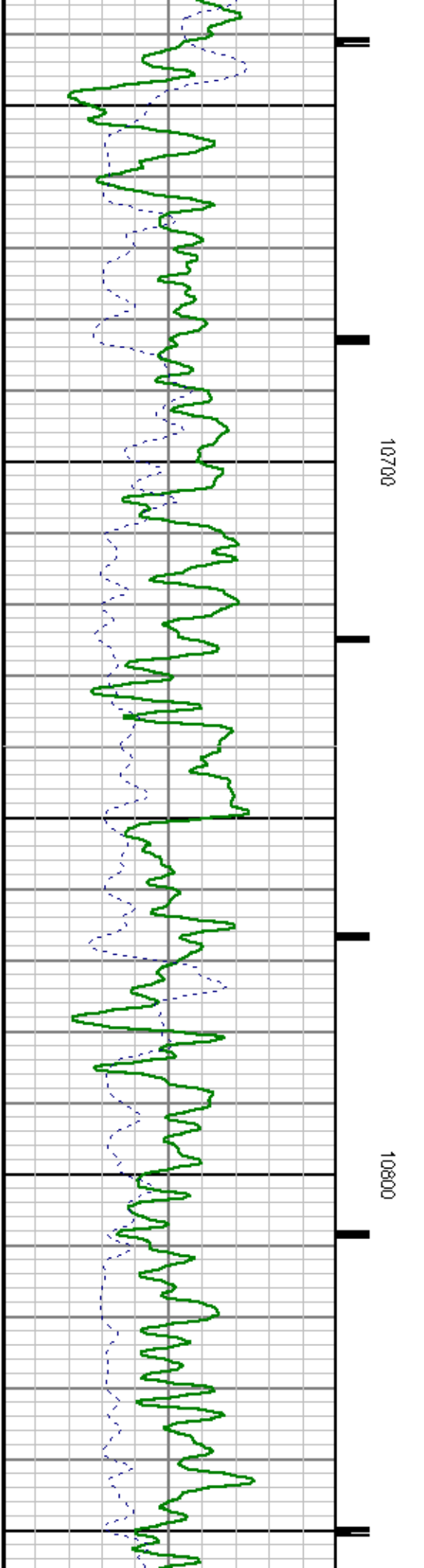
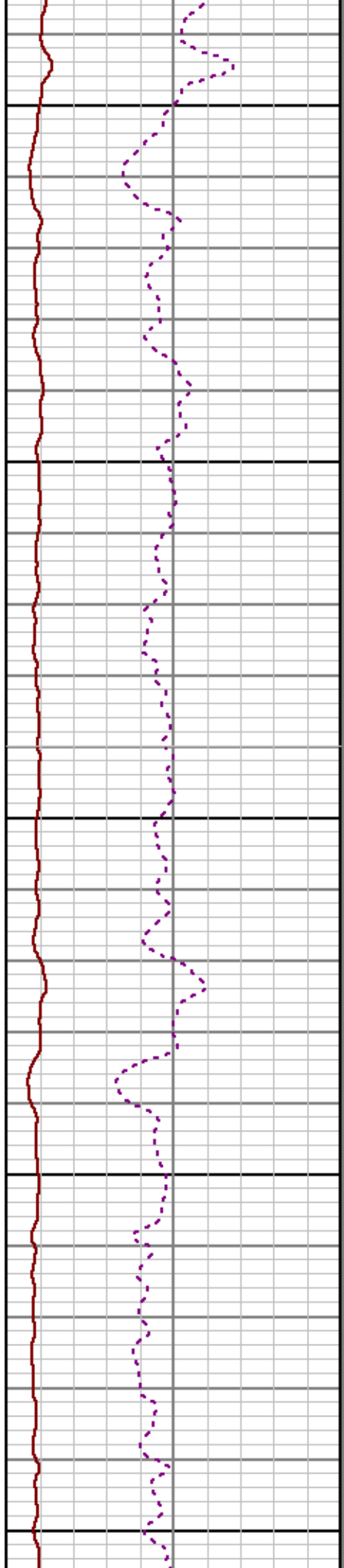
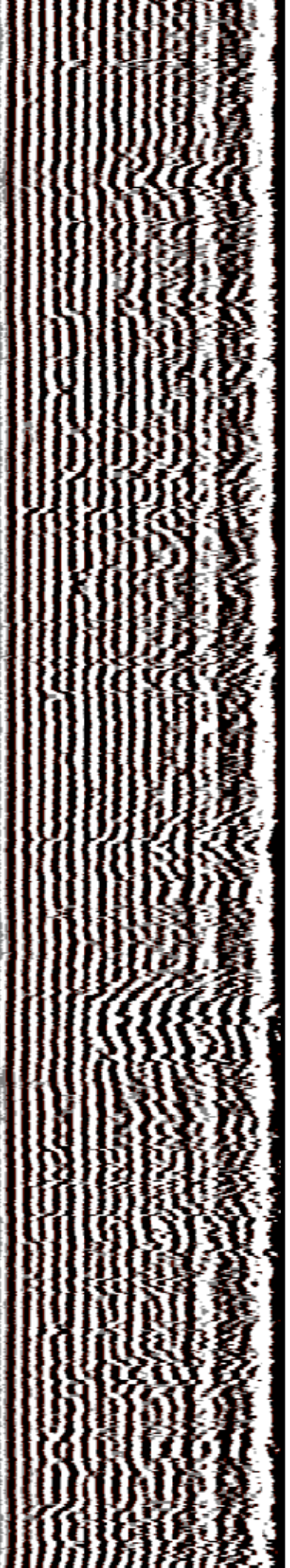
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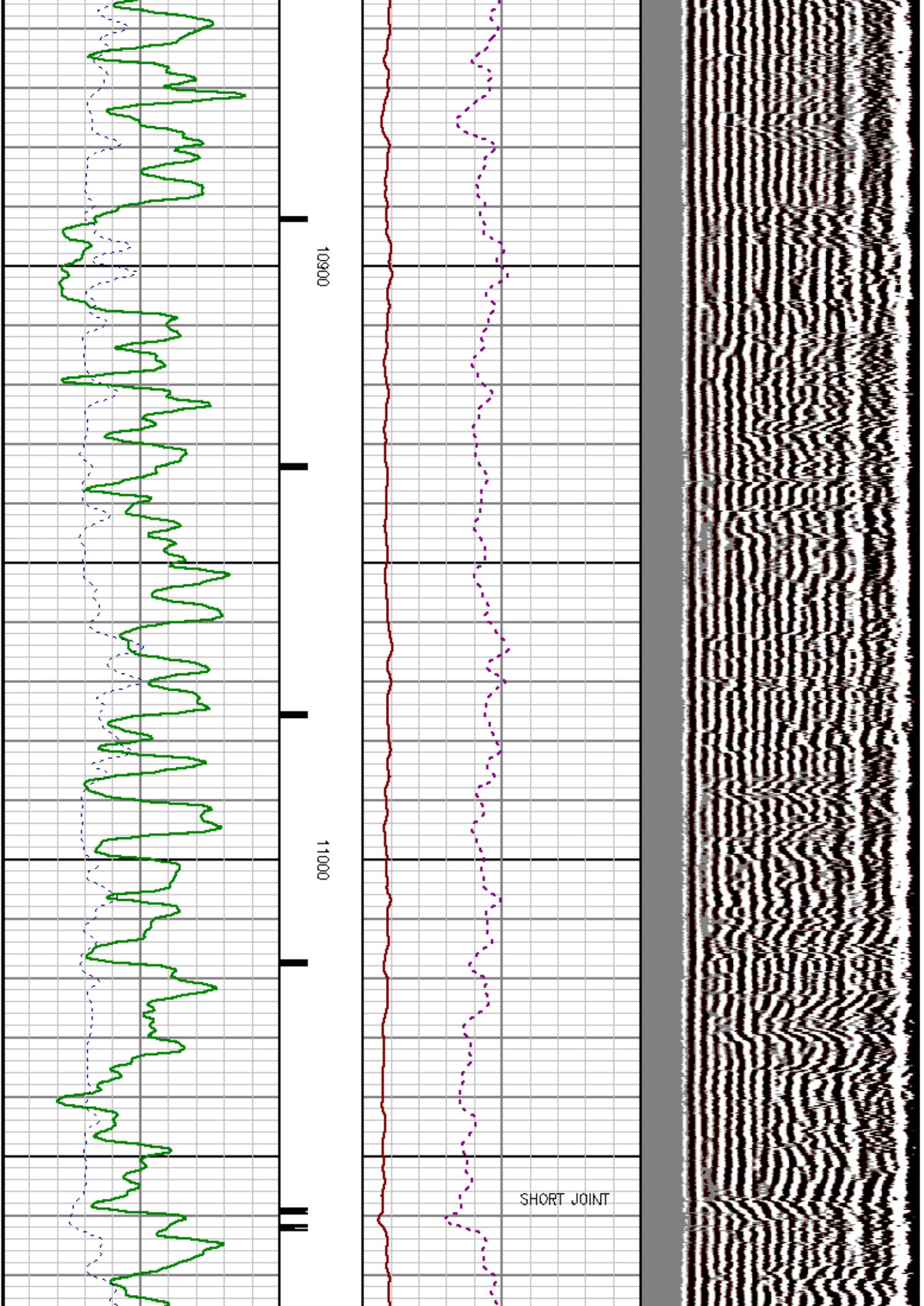
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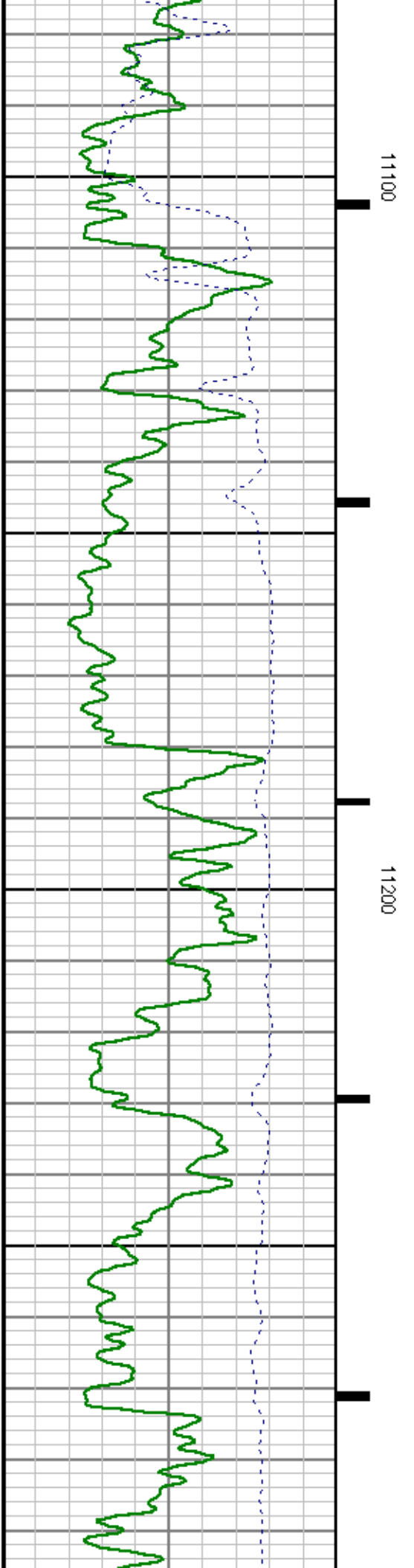
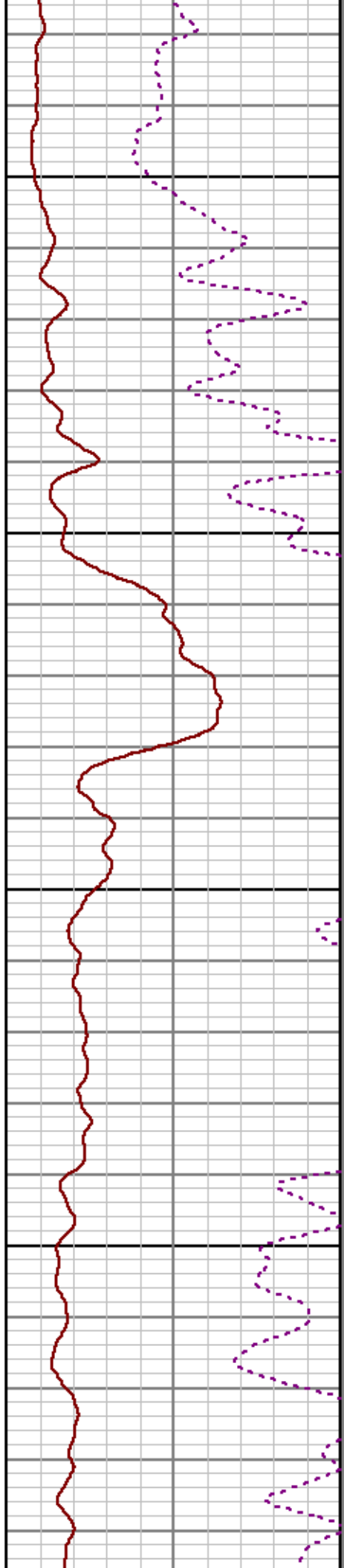


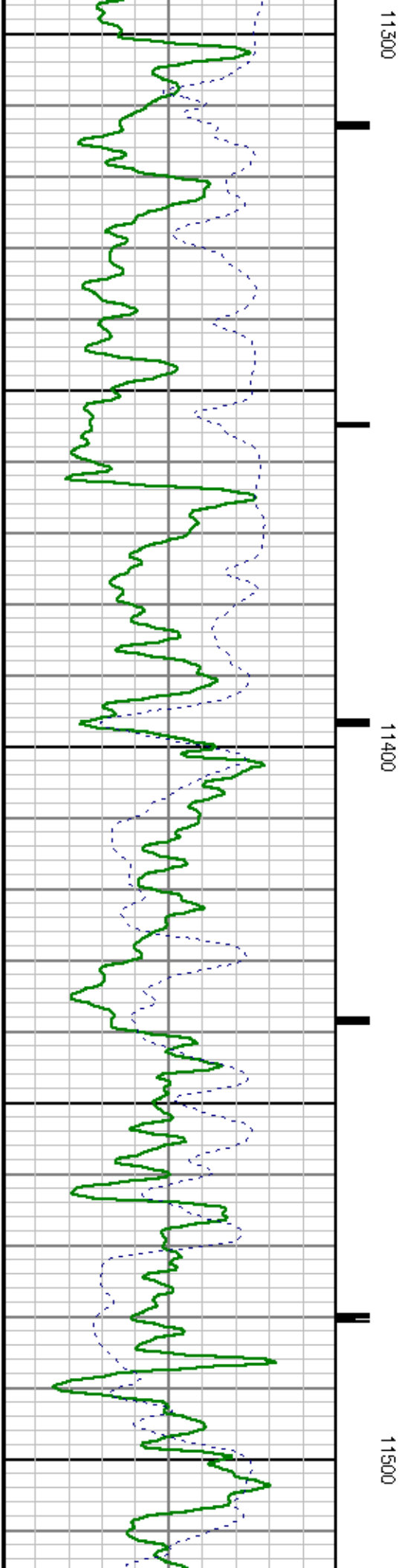
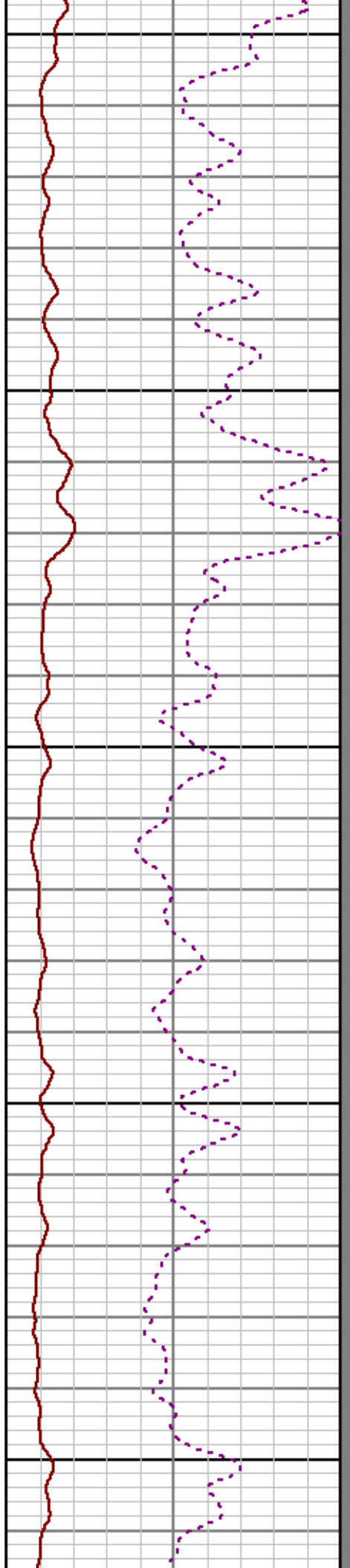
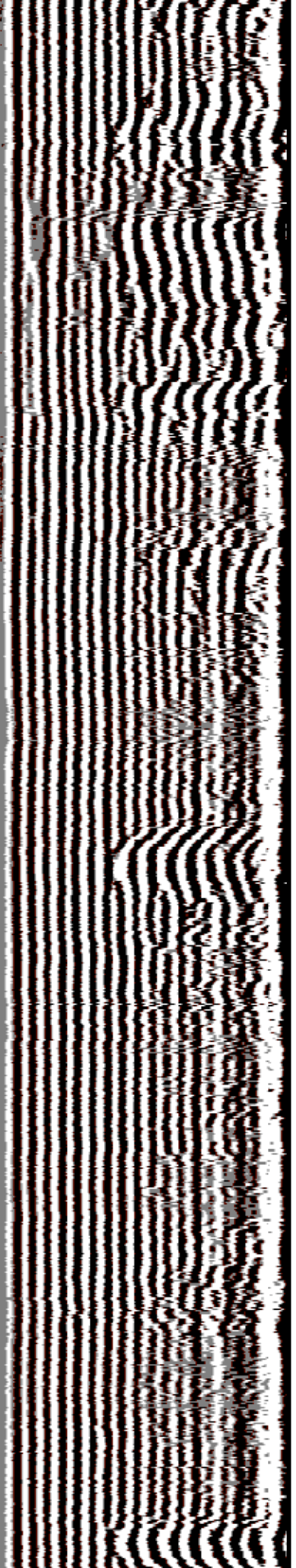


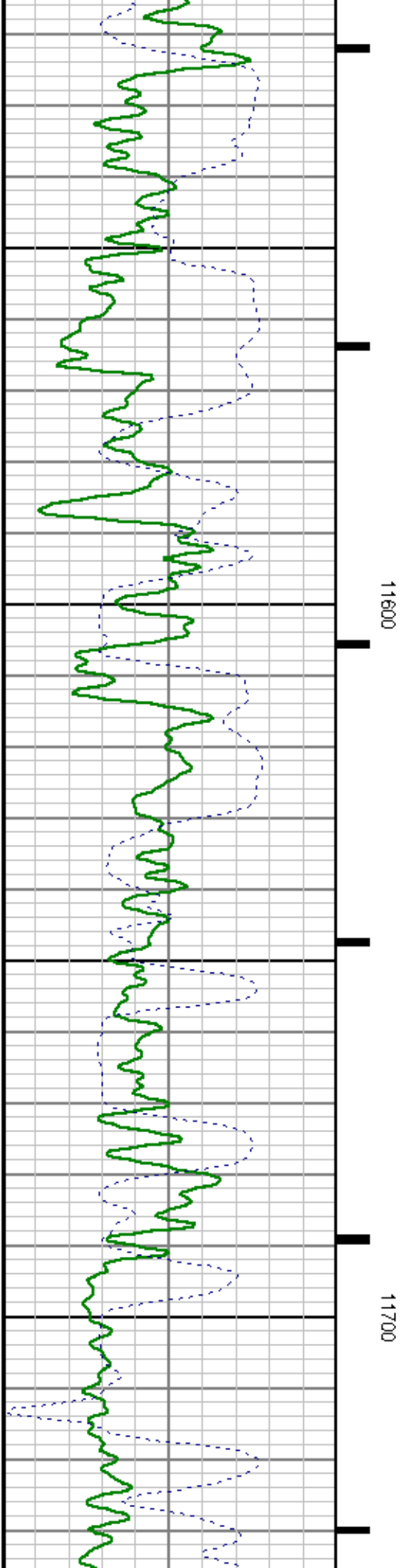
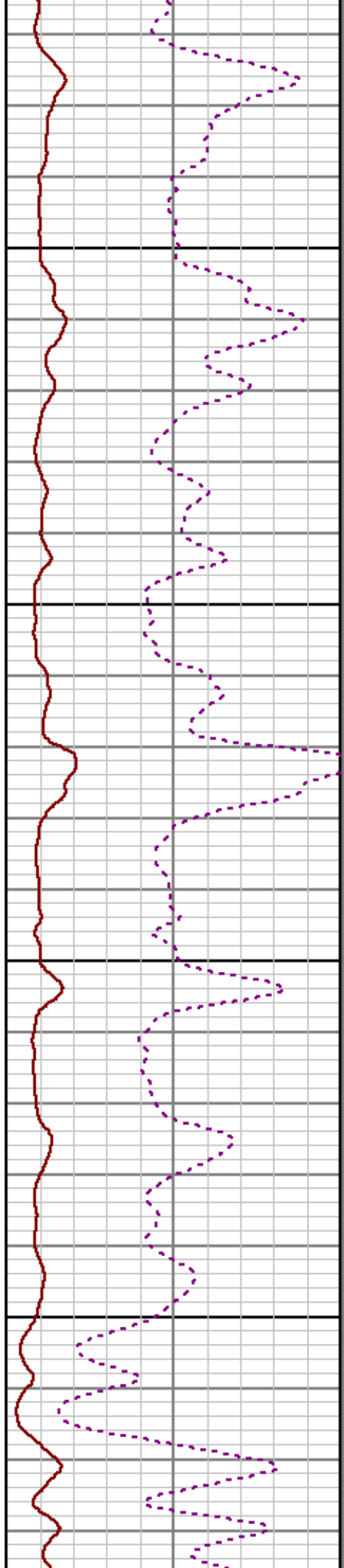
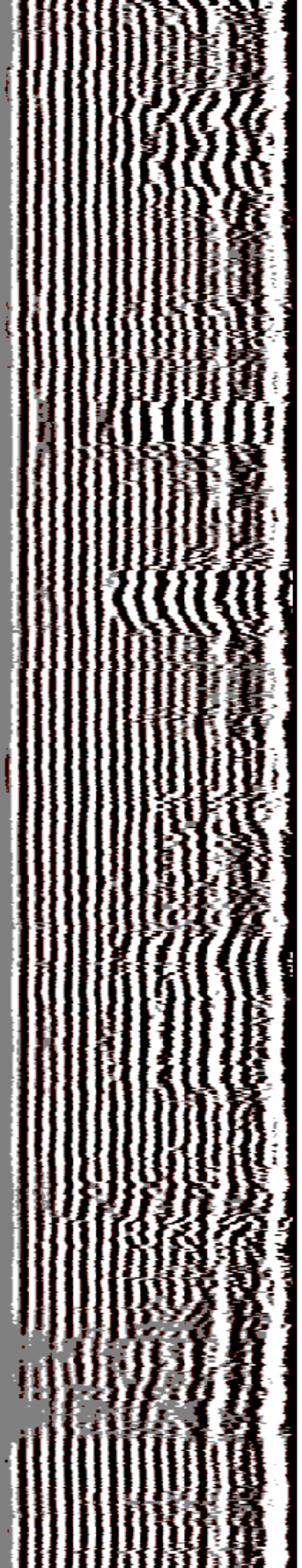


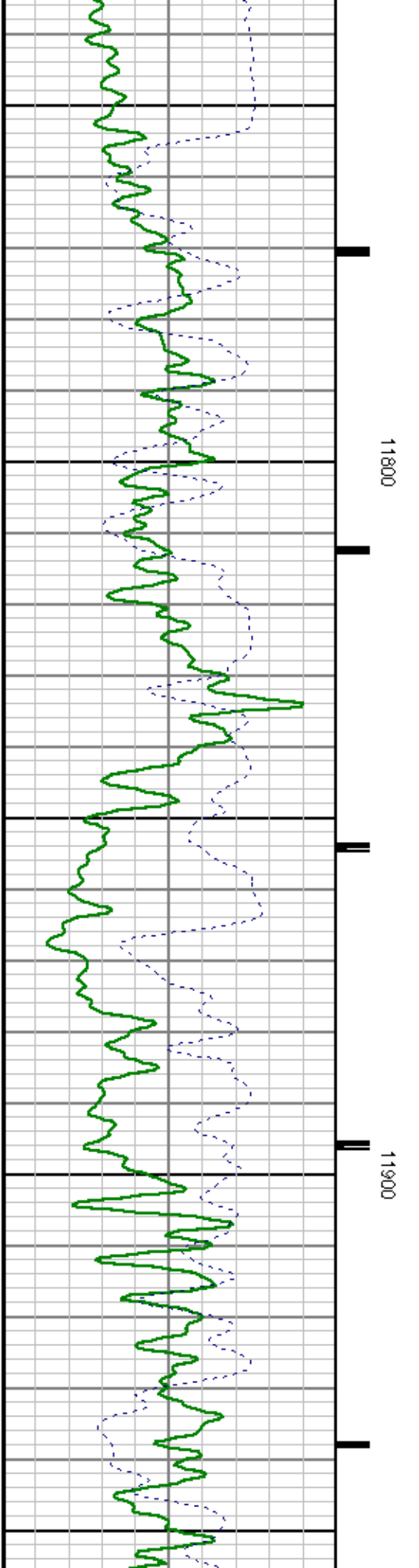
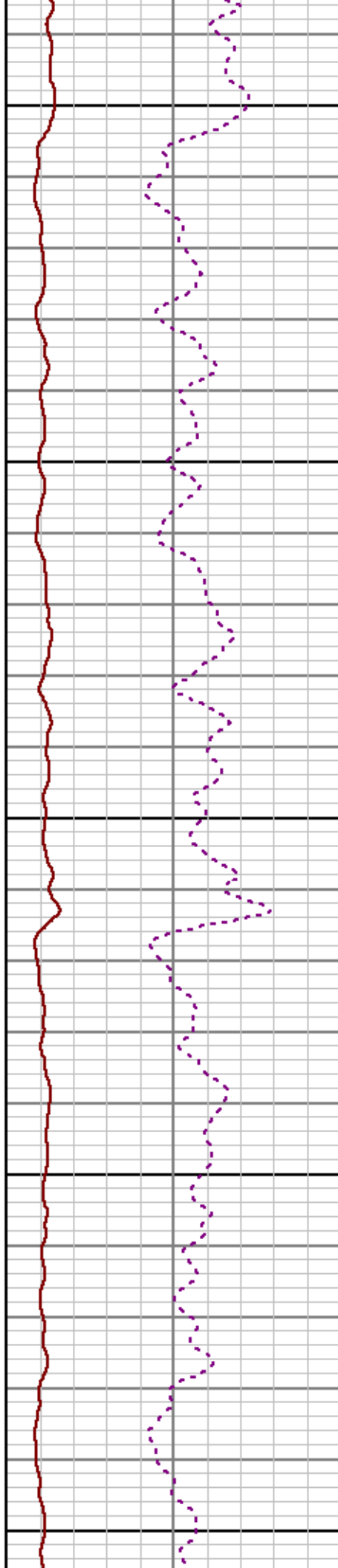
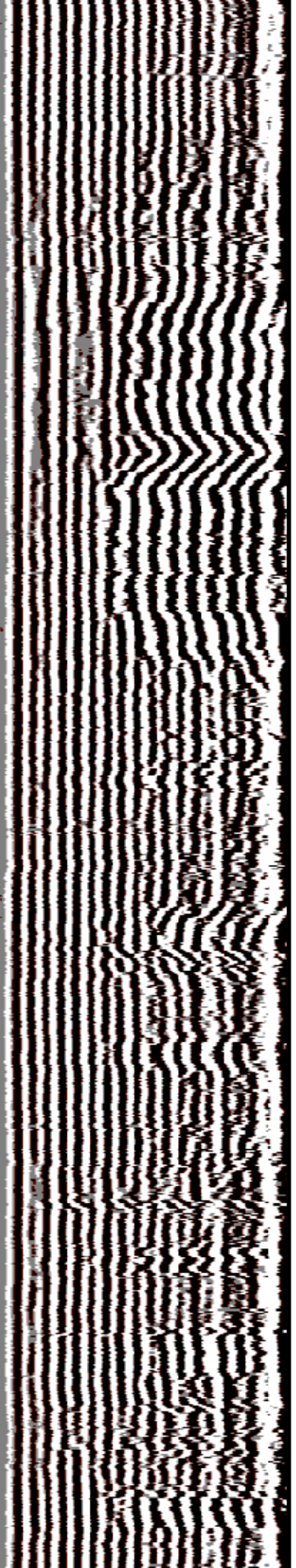


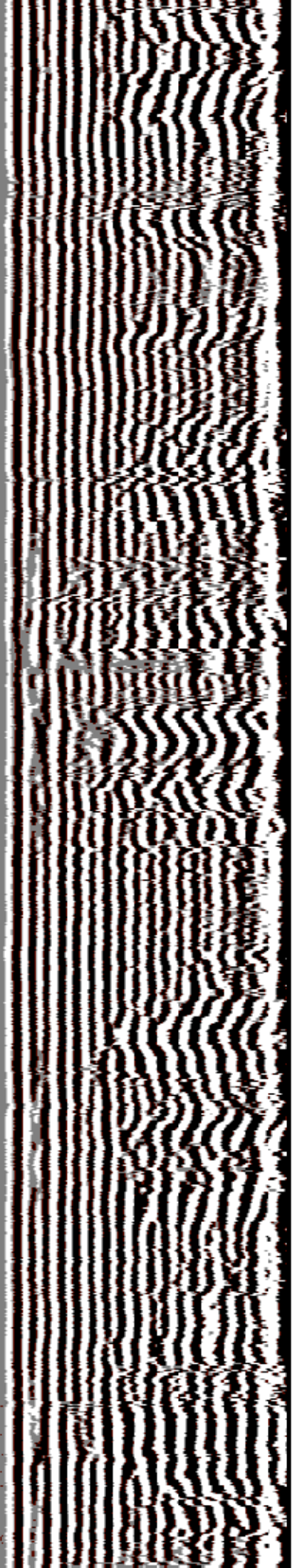




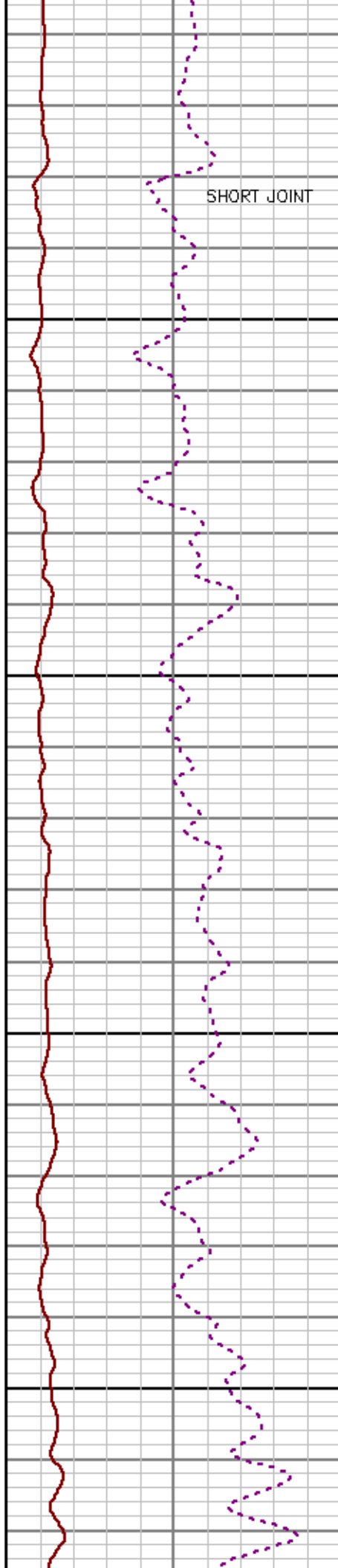






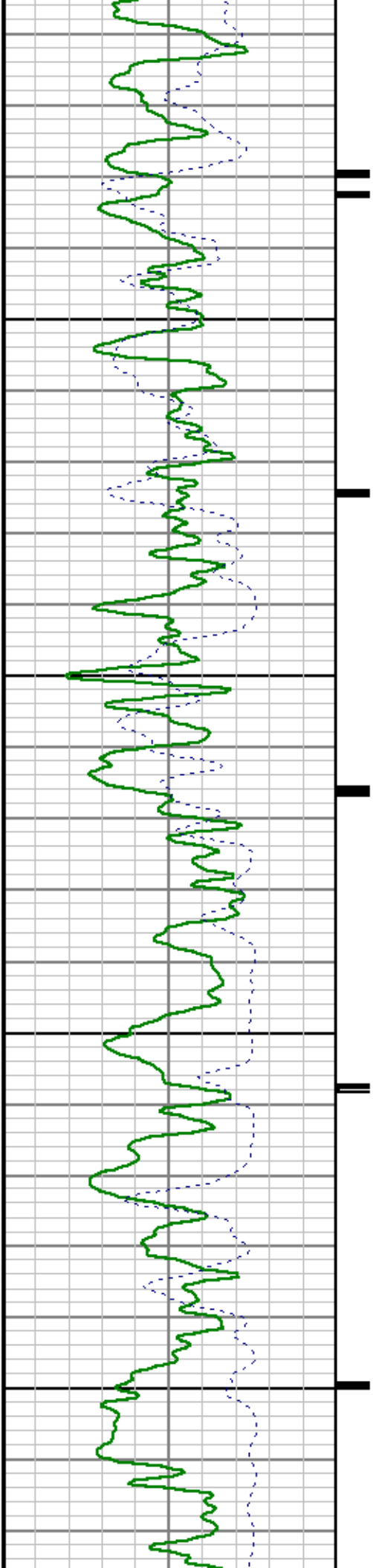


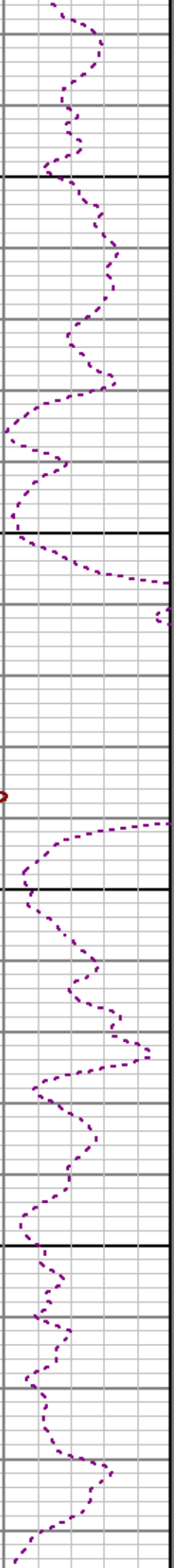
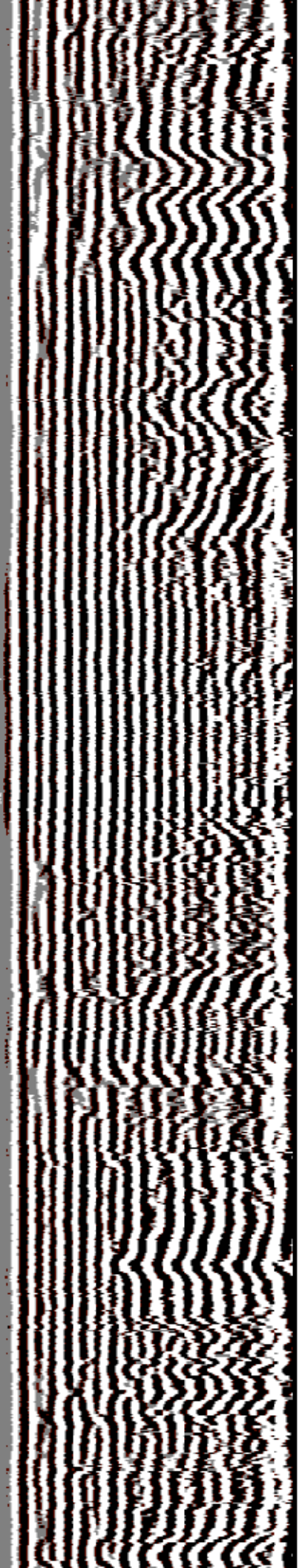
SHORT JOINT



12000

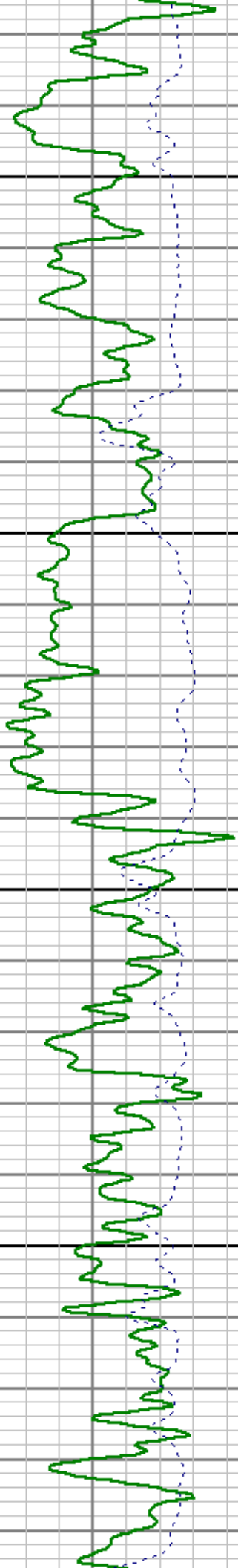
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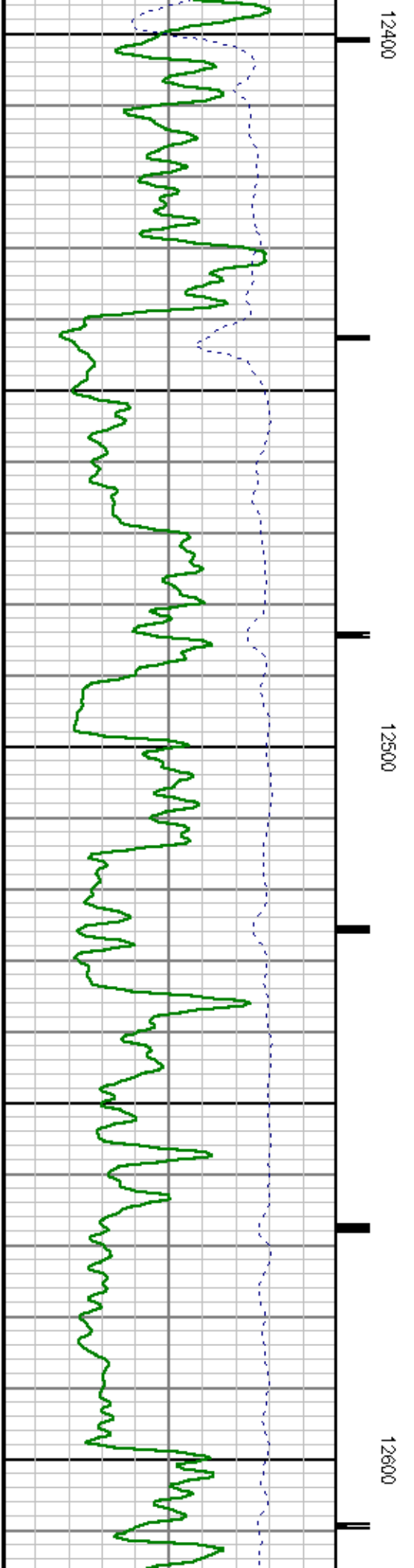
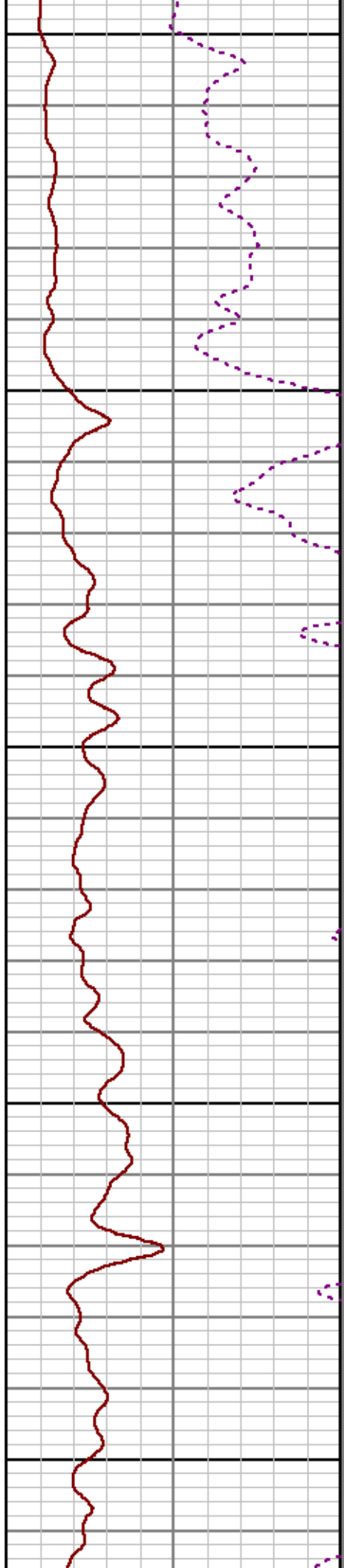


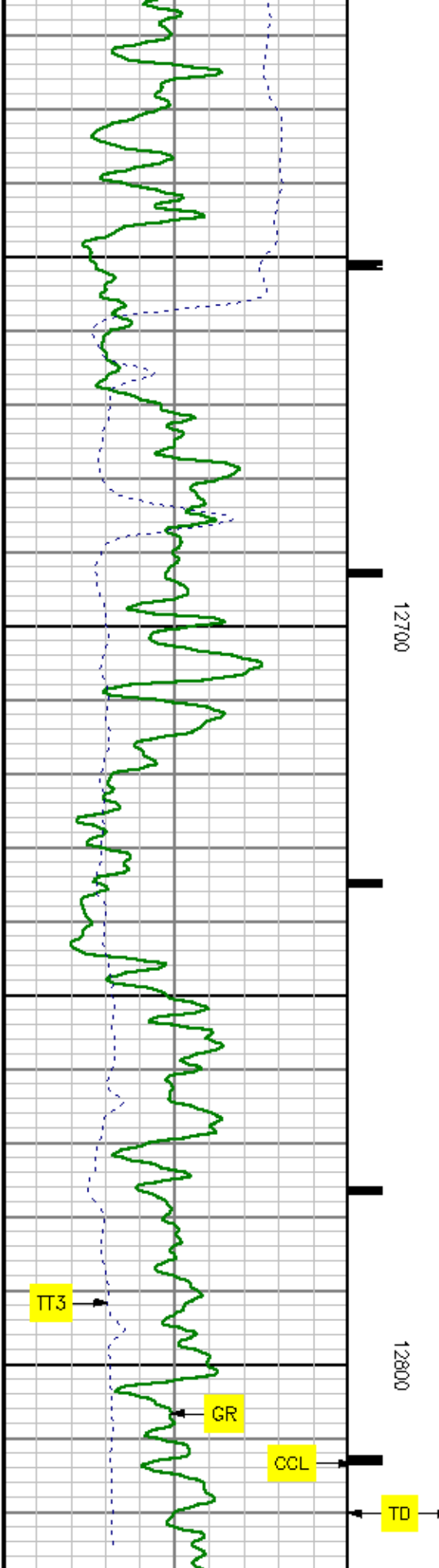
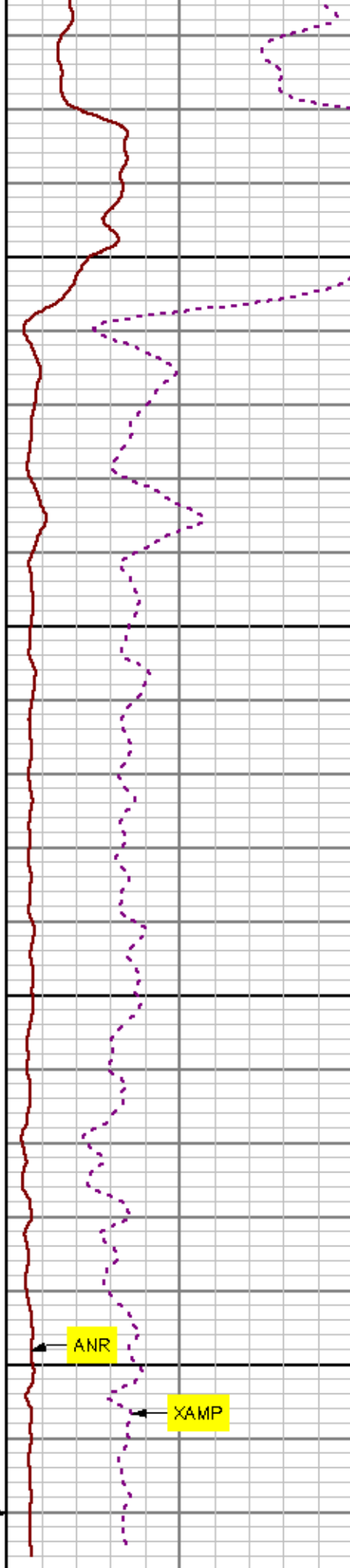
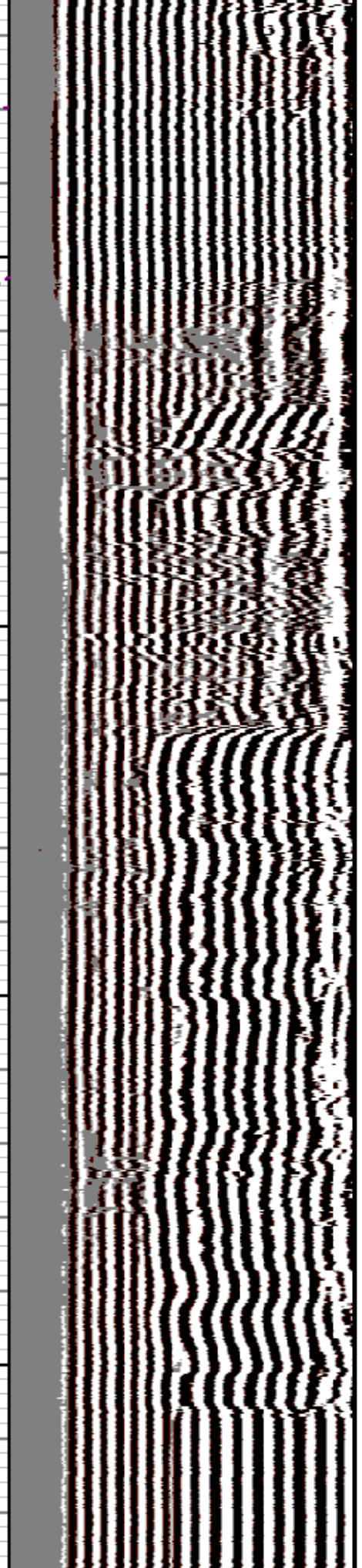


12200

12300







TT3

GR

CCL

TD

12700

12800

ANR

XAMP

0	GR	150	OCL MD feet 1240 500 mv	0	ANR	100	200	Variable Density	1200
	gAPI					mv			uB
200	TT3	180			0	XAMP	20		
	uBac				mv				

MAIN SECTION SECONDARY PRESENTATION

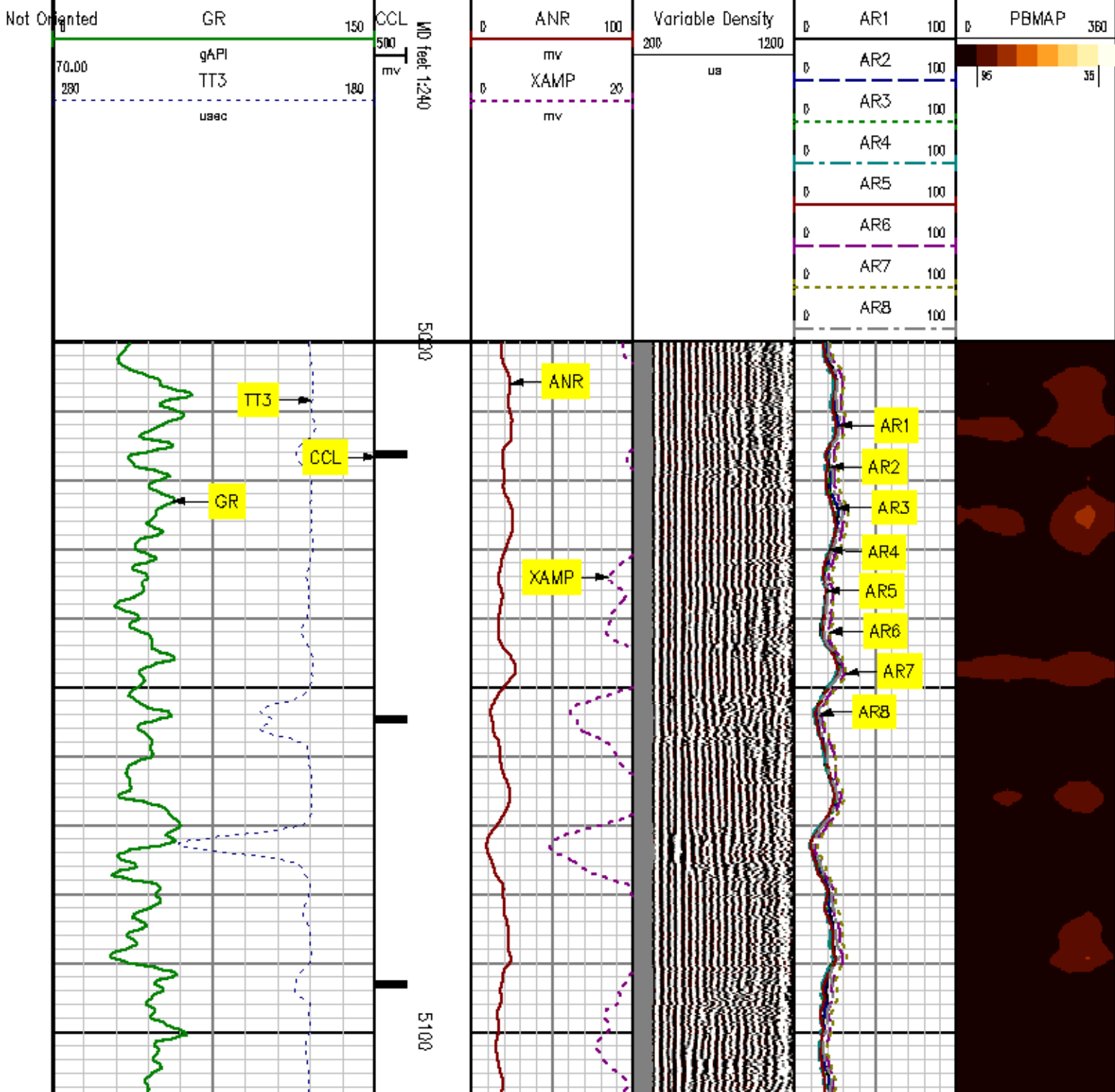
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	314.263	usec	4460.250	12842.000
RAL	Amp Gate Start Near	197.754	usec	4460.250	12842.000
RAL	Amp Gate Start Radial	197.754	usec	4460.250	12842.000
RAL	Amp Gate Width Far	25.000	usec	4460.250	12842.000
RAL	Amp Gate Width Near	25.000	usec	4460.250	12842.000
RAL	Amp Gate Width Radial	25.000	usec	4460.250	12842.000
RAL	casing od	4.500	inches	4460.250	12842.000
RAL	casing wt	15.100	lbm/ft	4460.250	12842.000
RAL	FB Start Far	289.263	usec	4460.250	12842.000
RAL	FB Start Near	172.754	usec	4460.250	12842.000
RAL	FB Start Radial	172.754	usec	4460.250	12842.000
RAL	FB Thresh Far	15.000	mv	4460.250	12842.000
RAL	FB Thresh Near	10.000	mv	4460.250	12842.000
RAL	FB Thresh Radial	10.000	mv	4460.250	12842.000
RAL	Fluid Travel Time	200.000	usec/ft	4460.250	12841.530

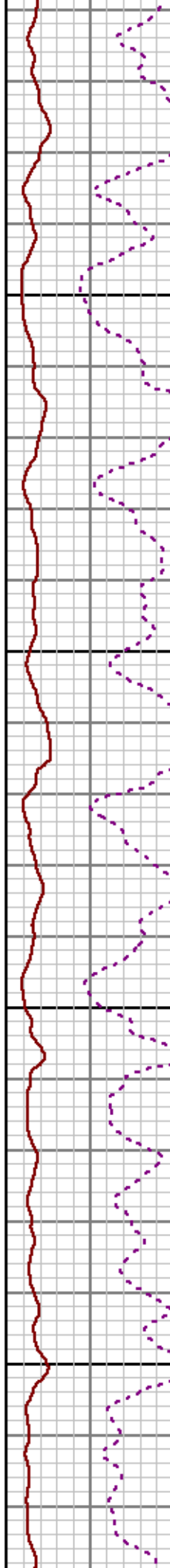
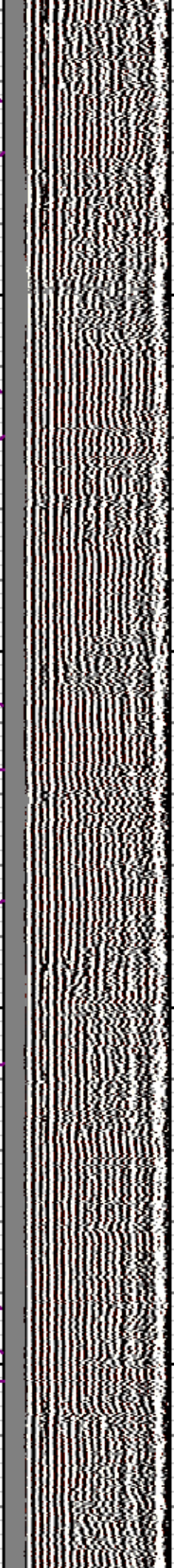
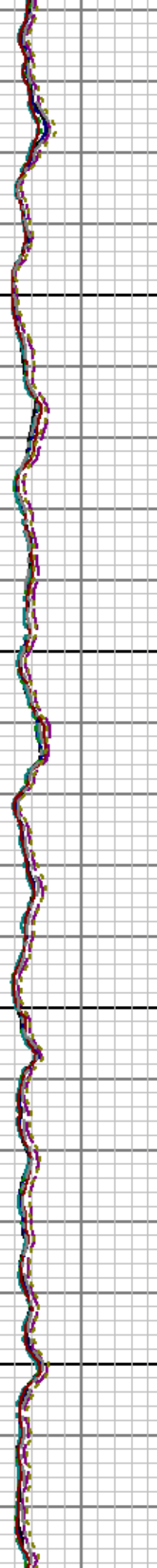
DEPTH OFFSETS (for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES							
1426XA	-15.360	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	-14.360	AFAR	SIG	TT5
1426XA	-7.250	CCL		
1426XA	-5.390	GR		
1426XA	0.000	NEU		

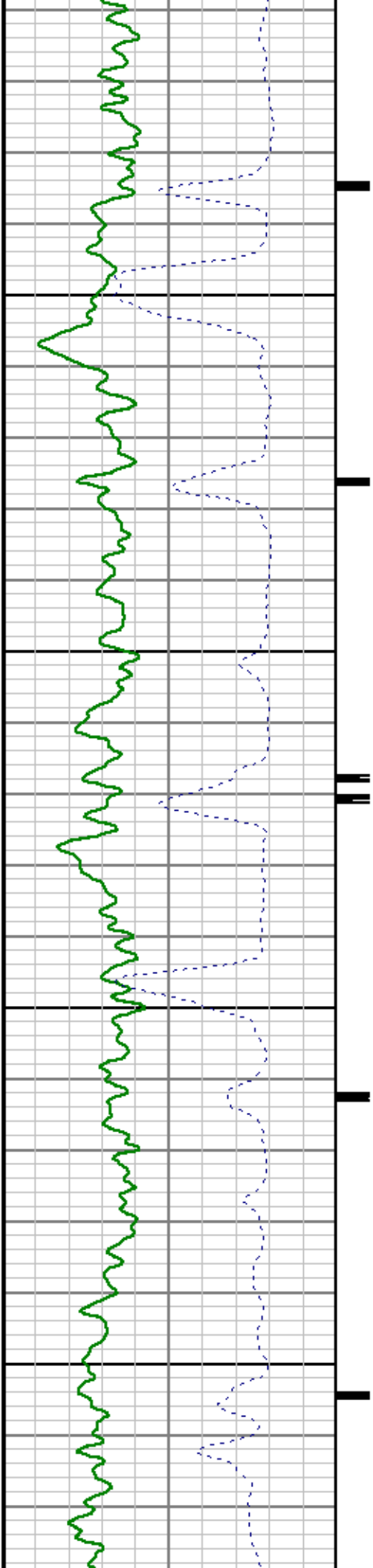
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 Plotted by : PlotMgr, v5.4.504
 Company : EXXONMOBIL PRODUCTION COMPANY
 Well : PCU 197-34B7
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 Mode : PlotMgr 5.4.504
 Interval : 5000.00 - 12842.00 feet UP
 Created : 4/28/2010 9:28:21 AM

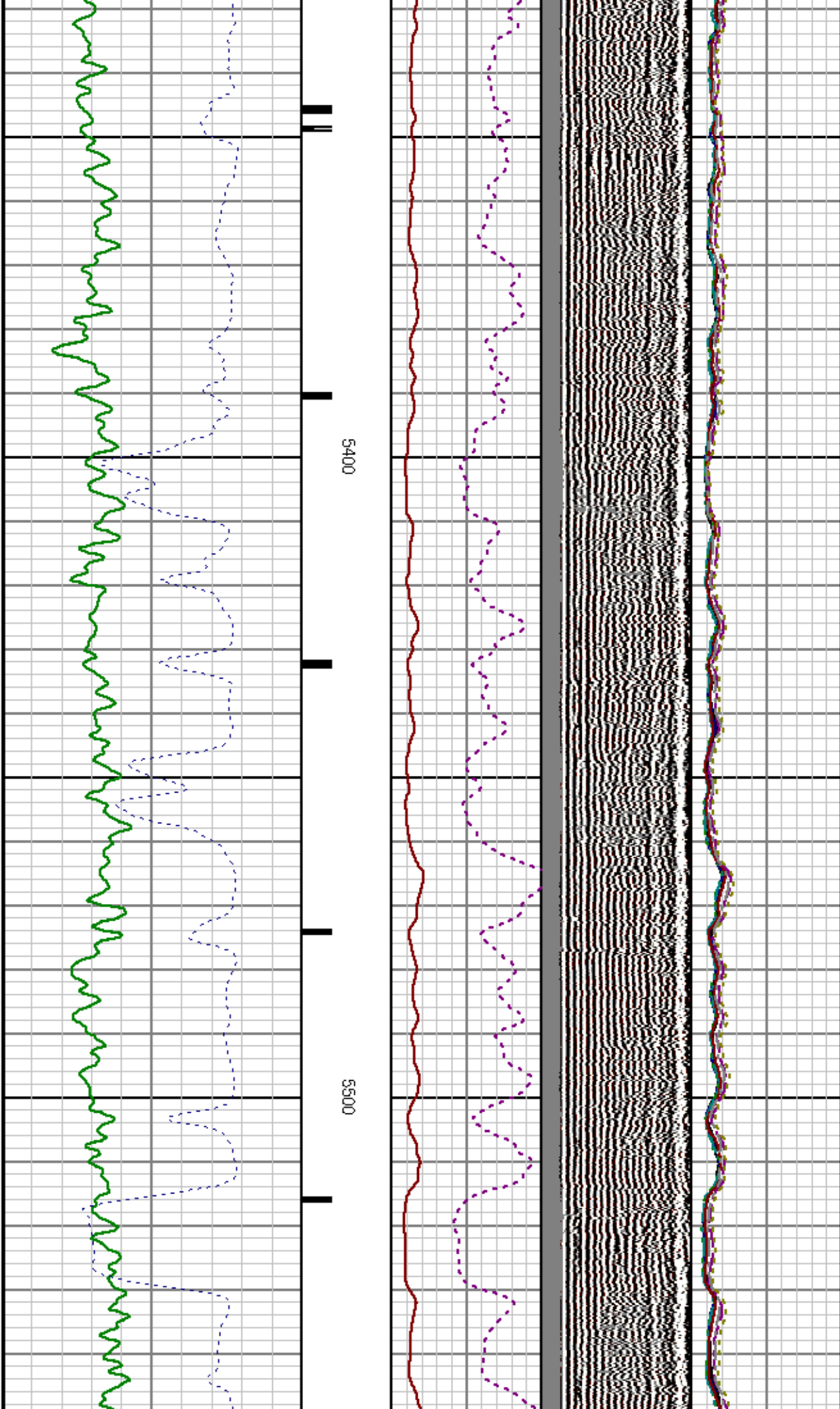


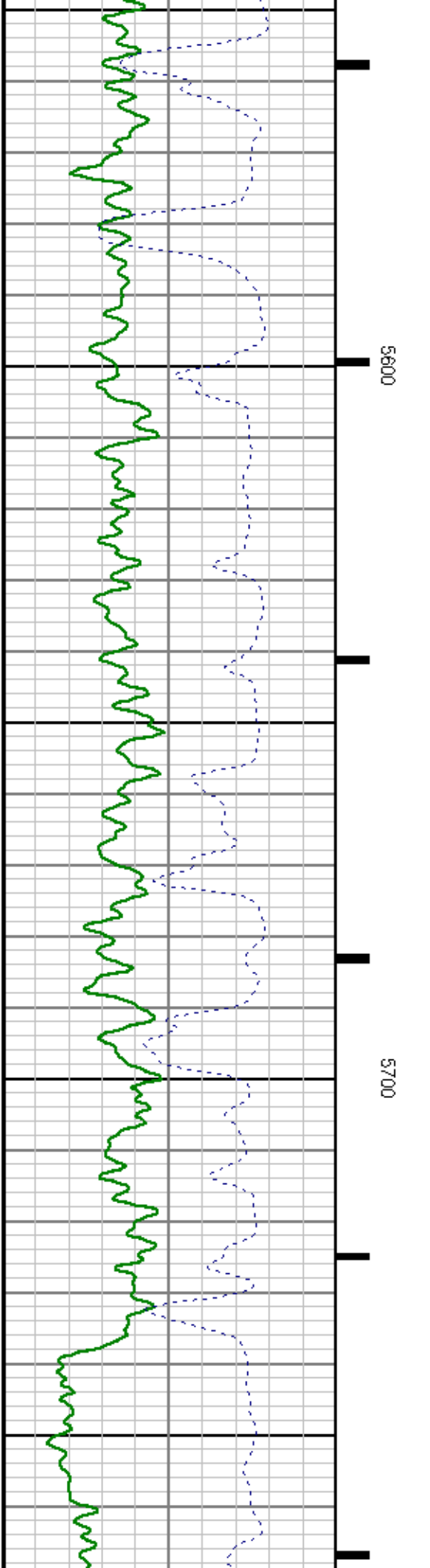
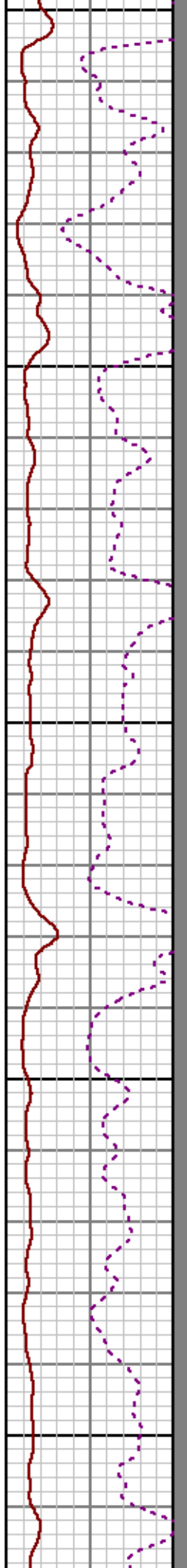
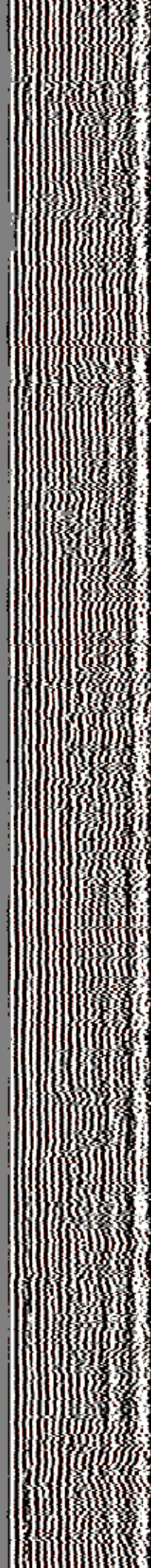
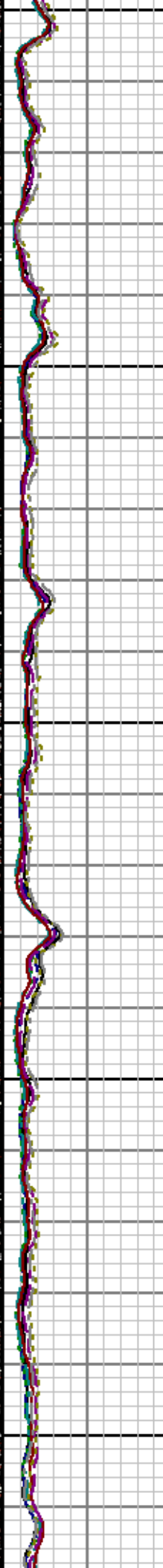
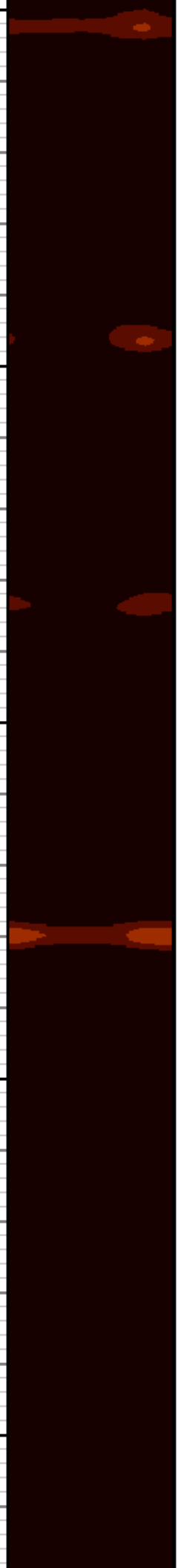


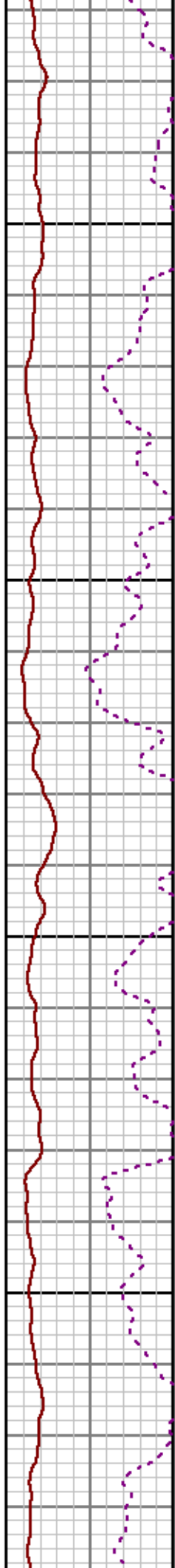
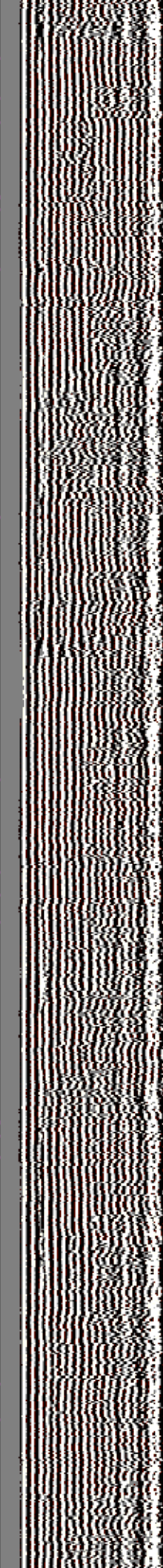
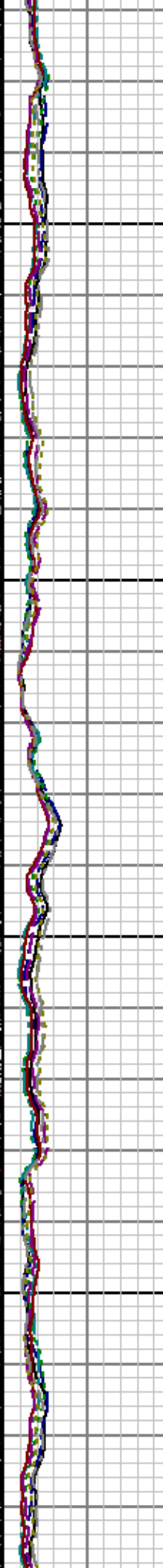
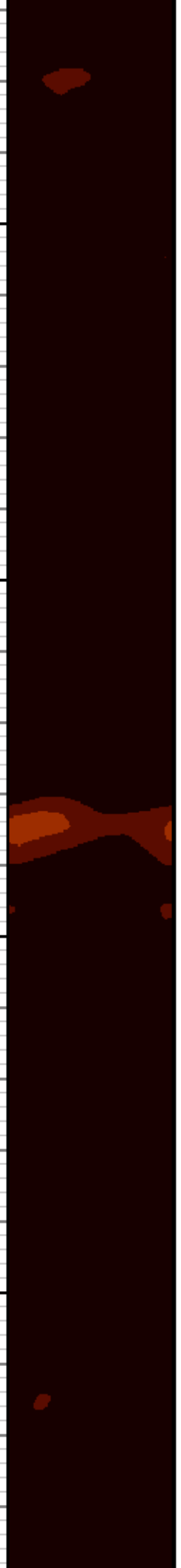
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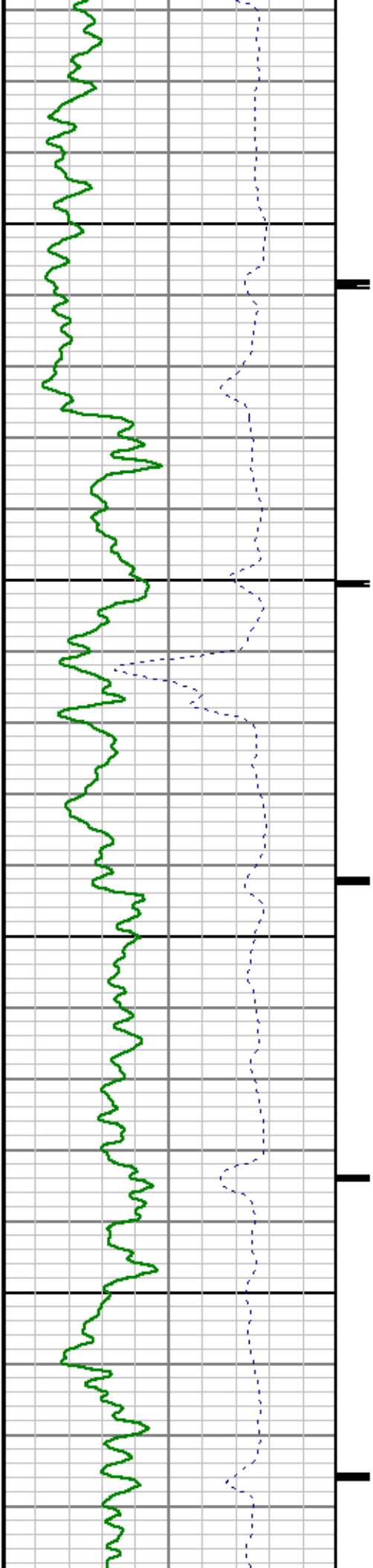


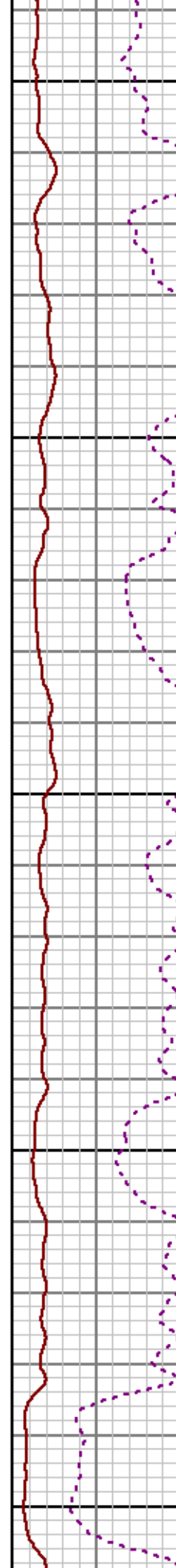
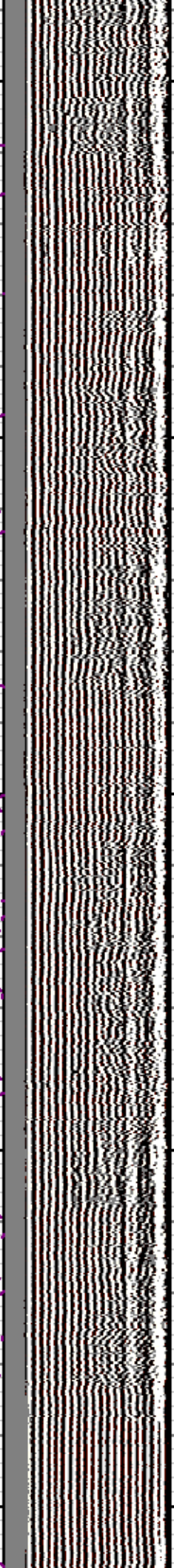
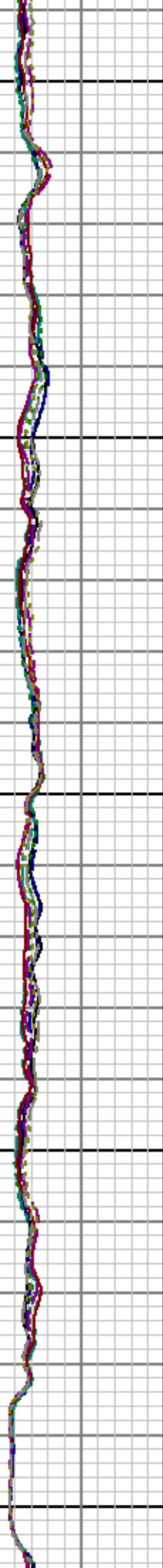




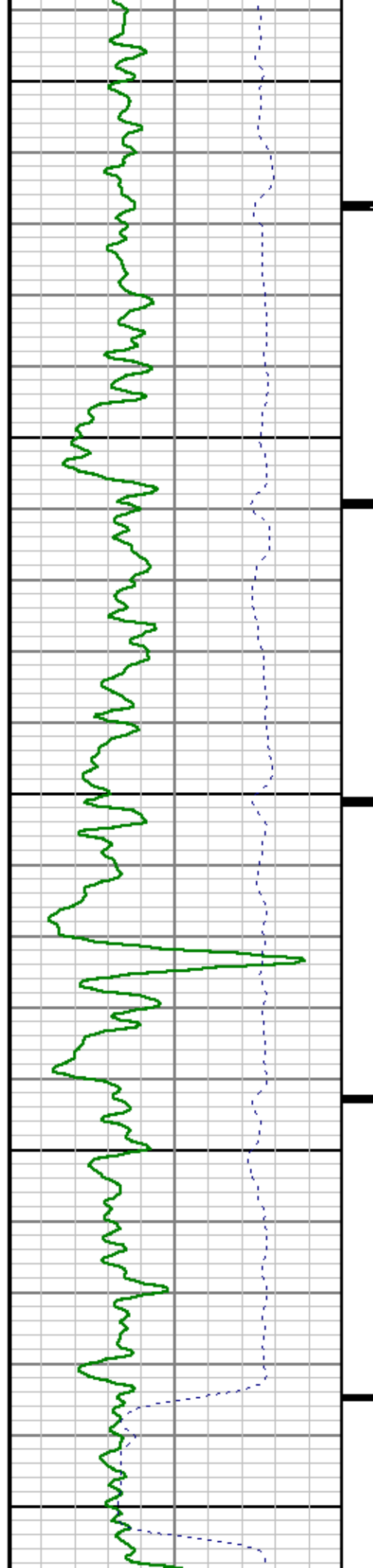
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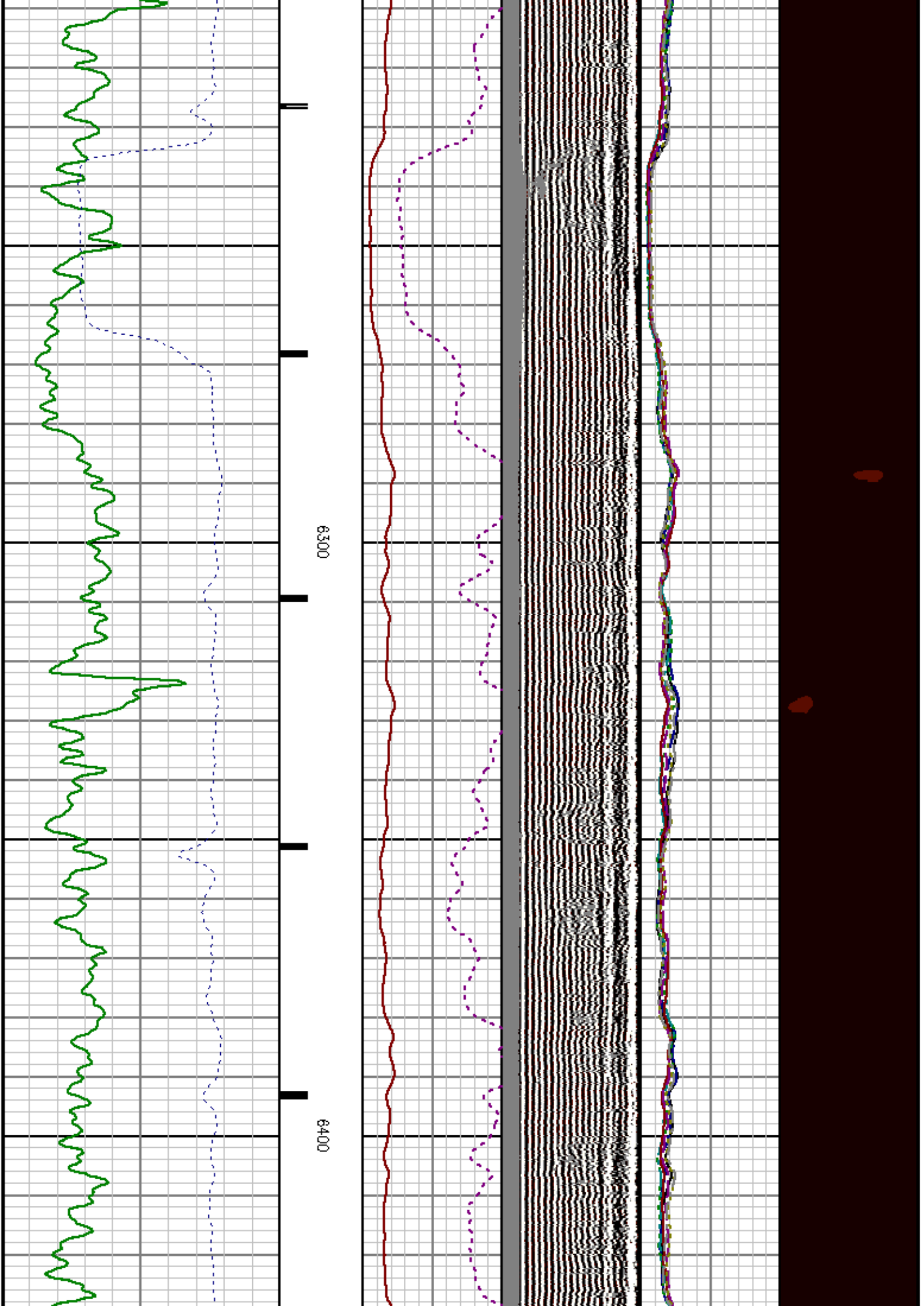
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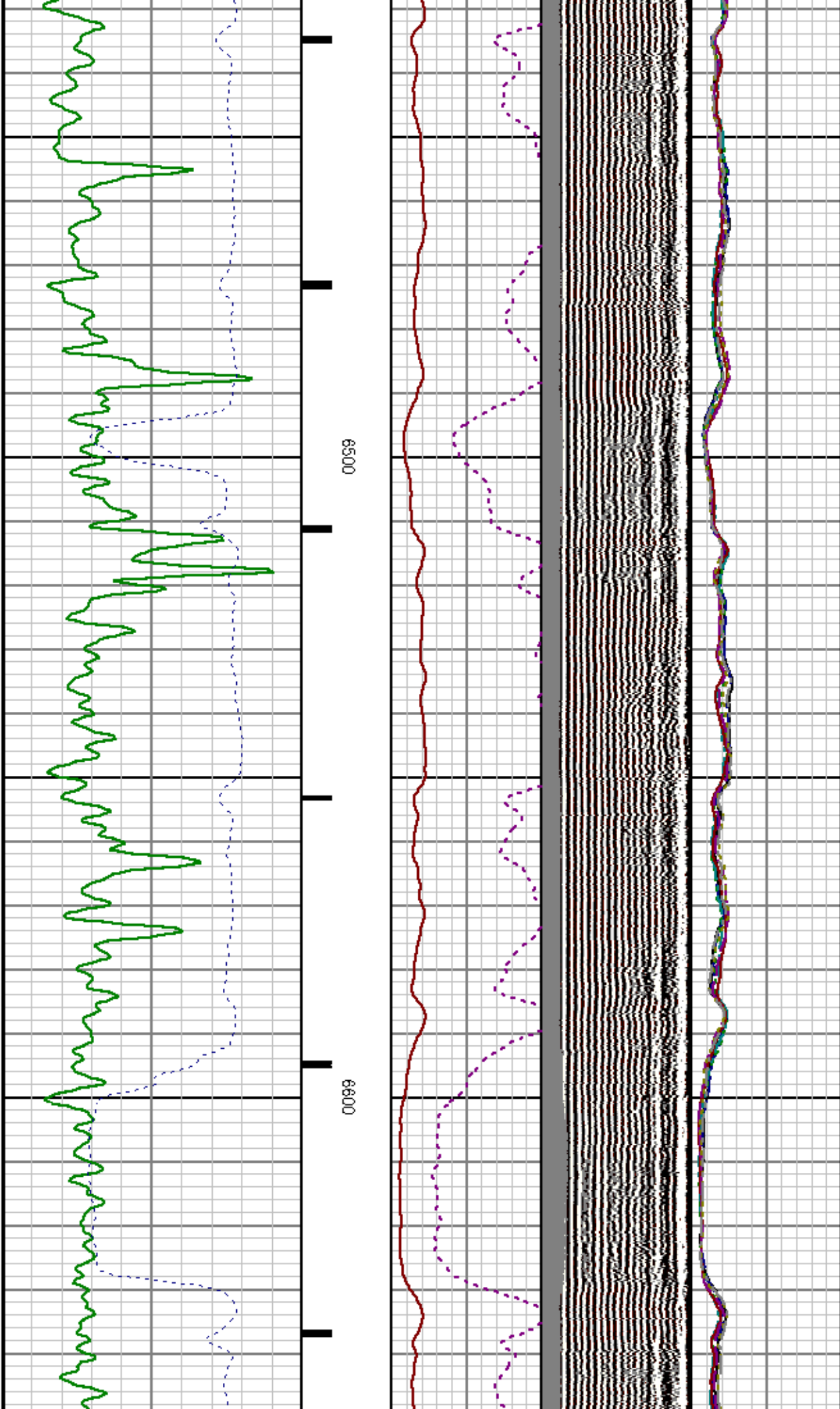


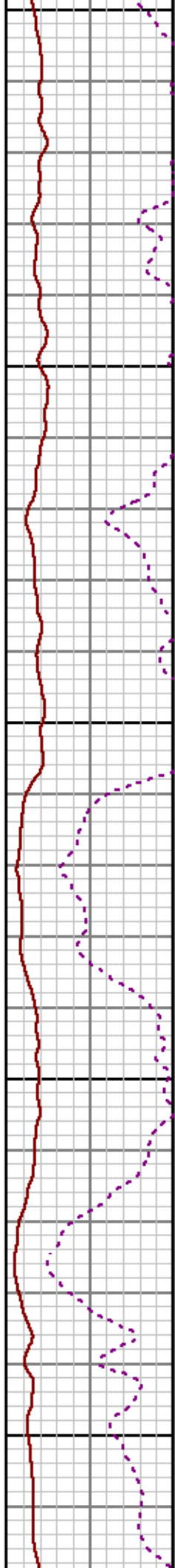
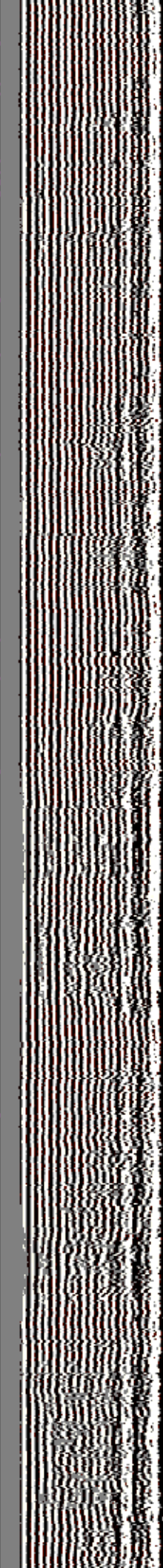
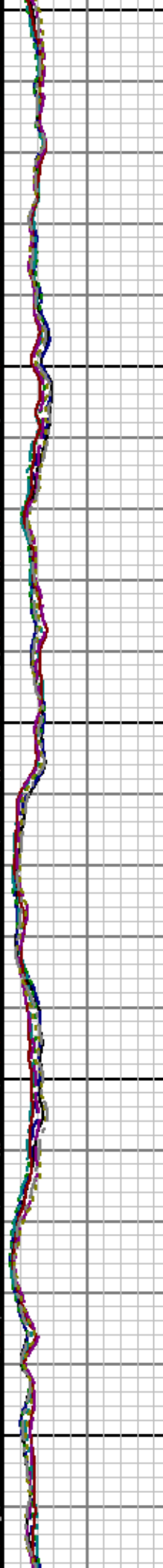
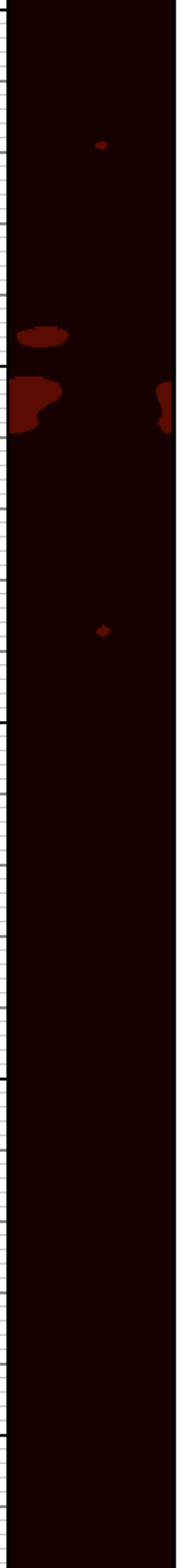


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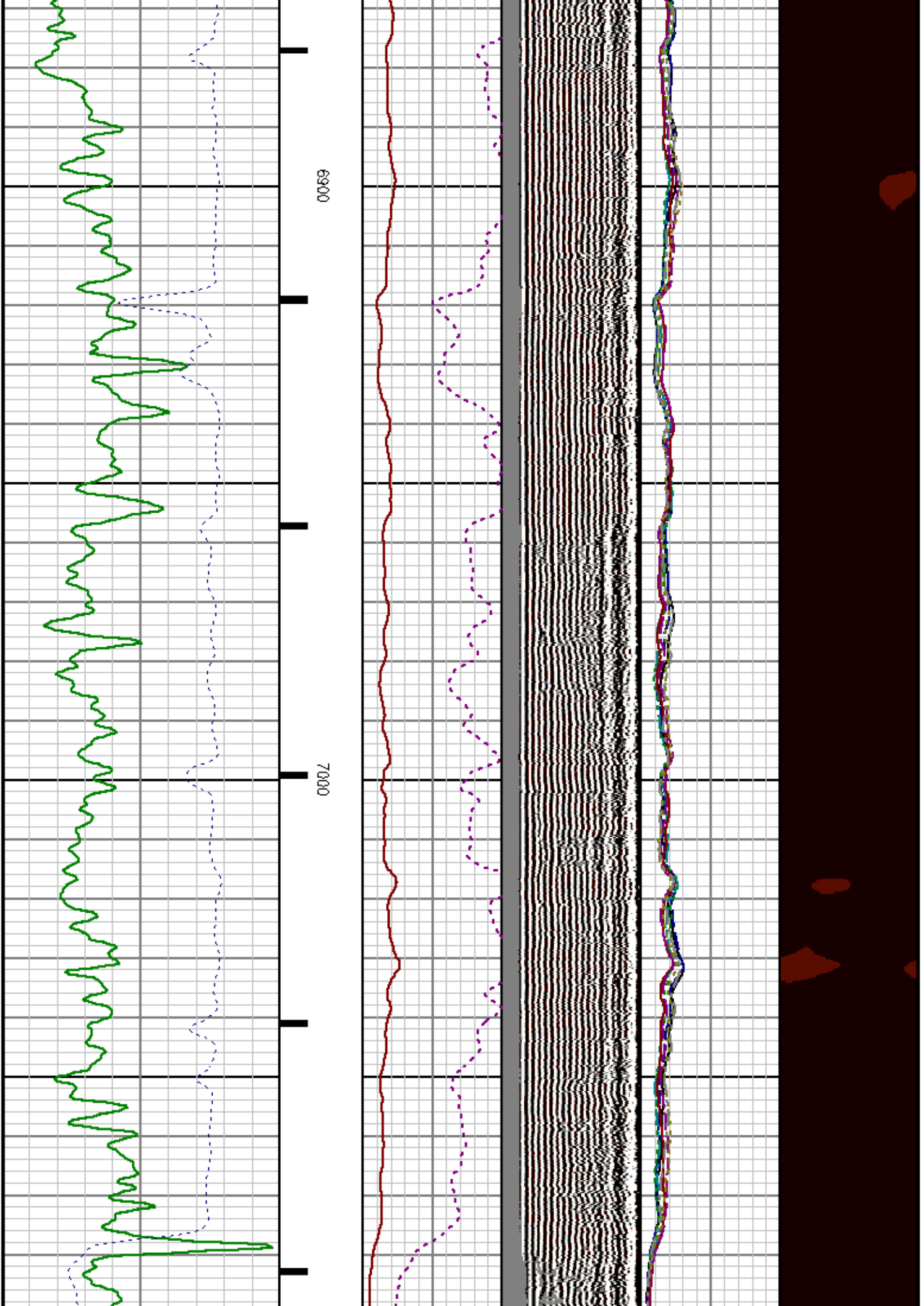


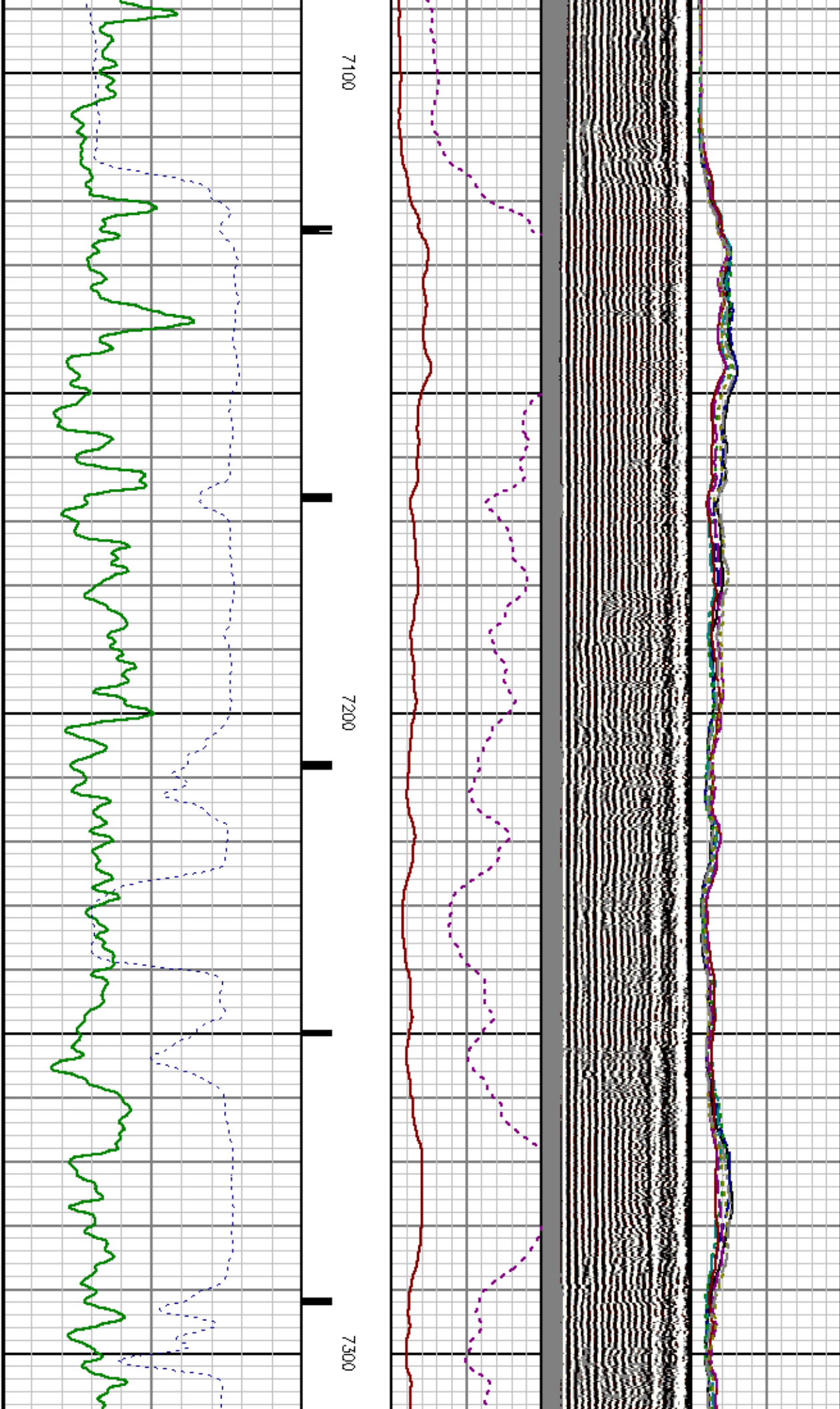


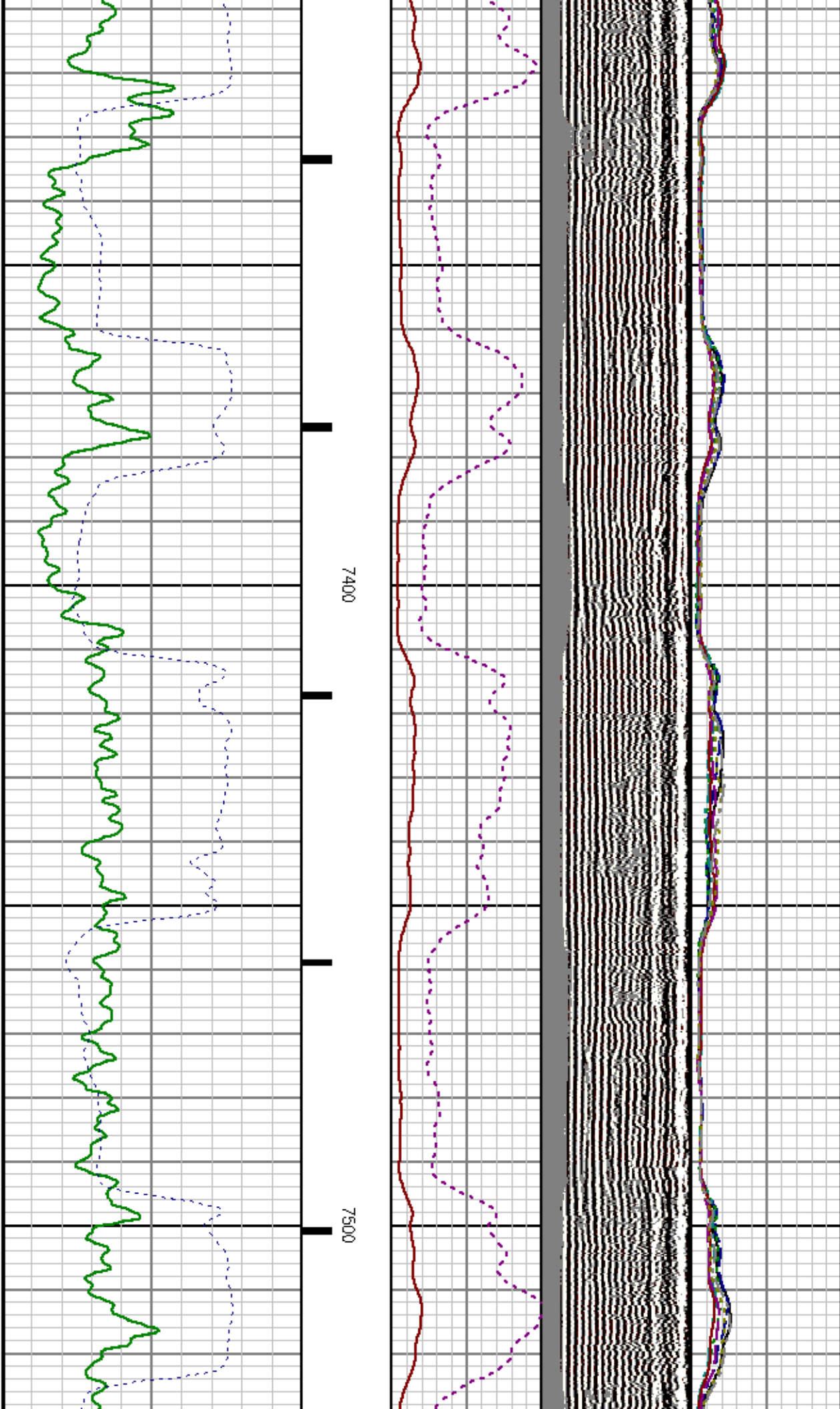


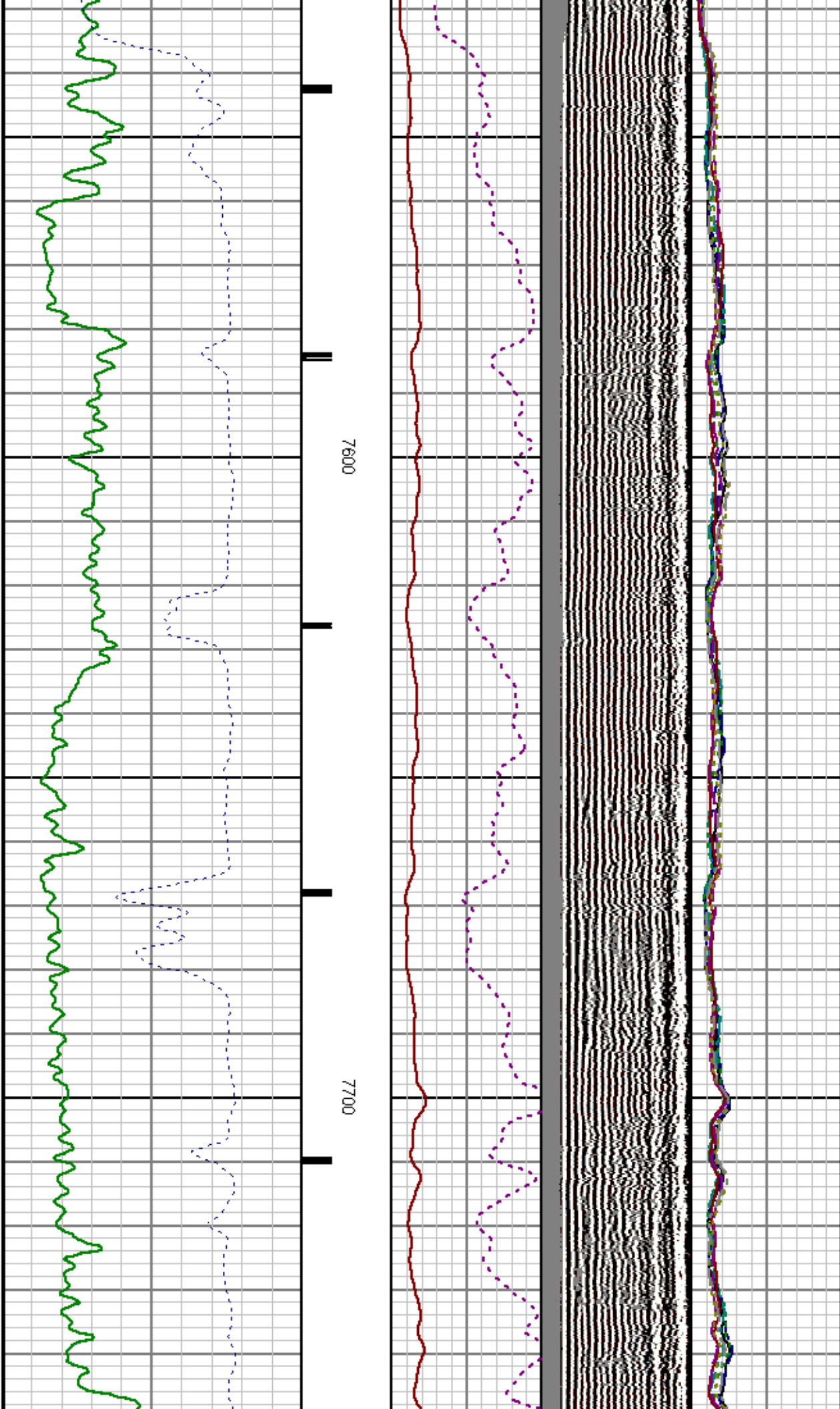
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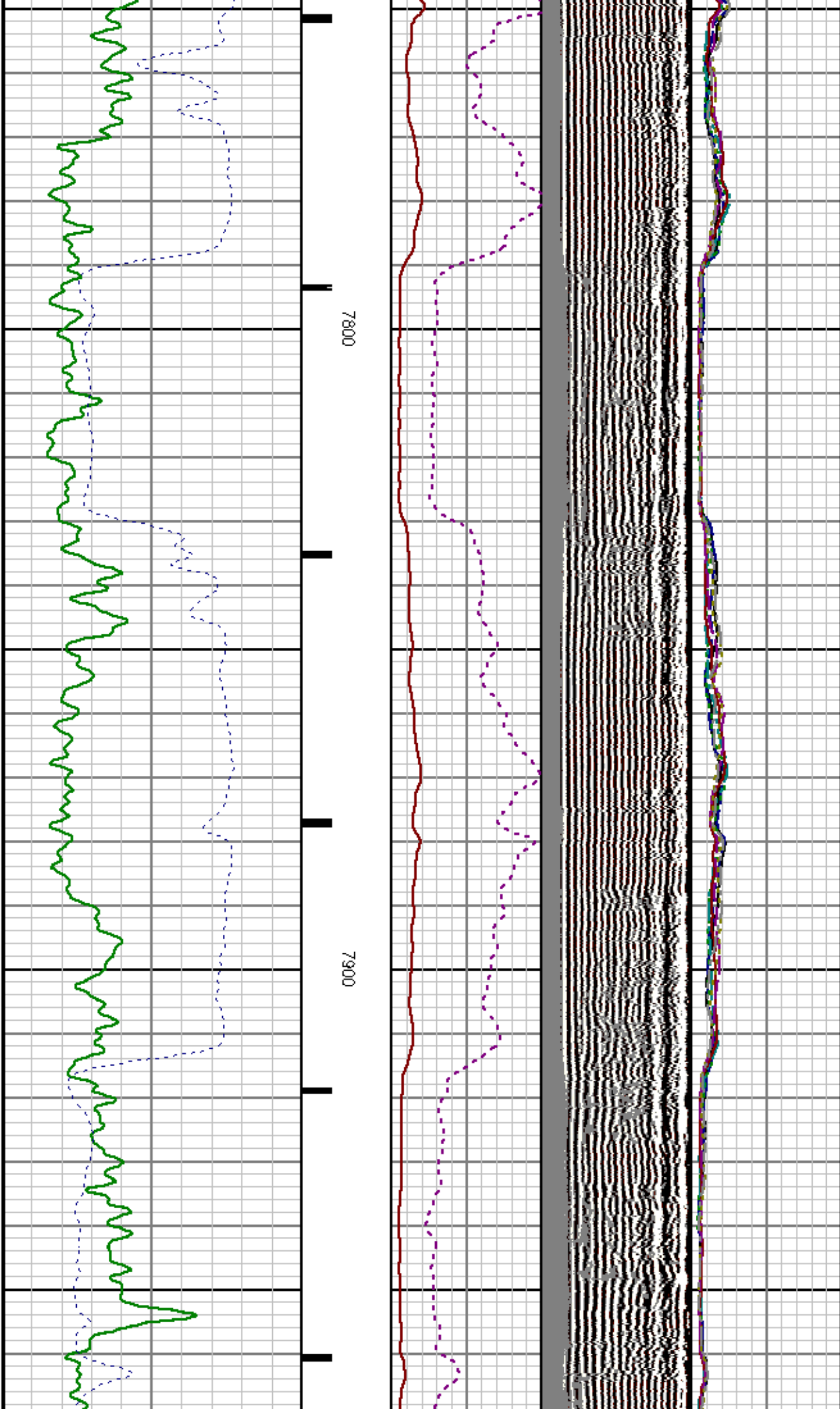
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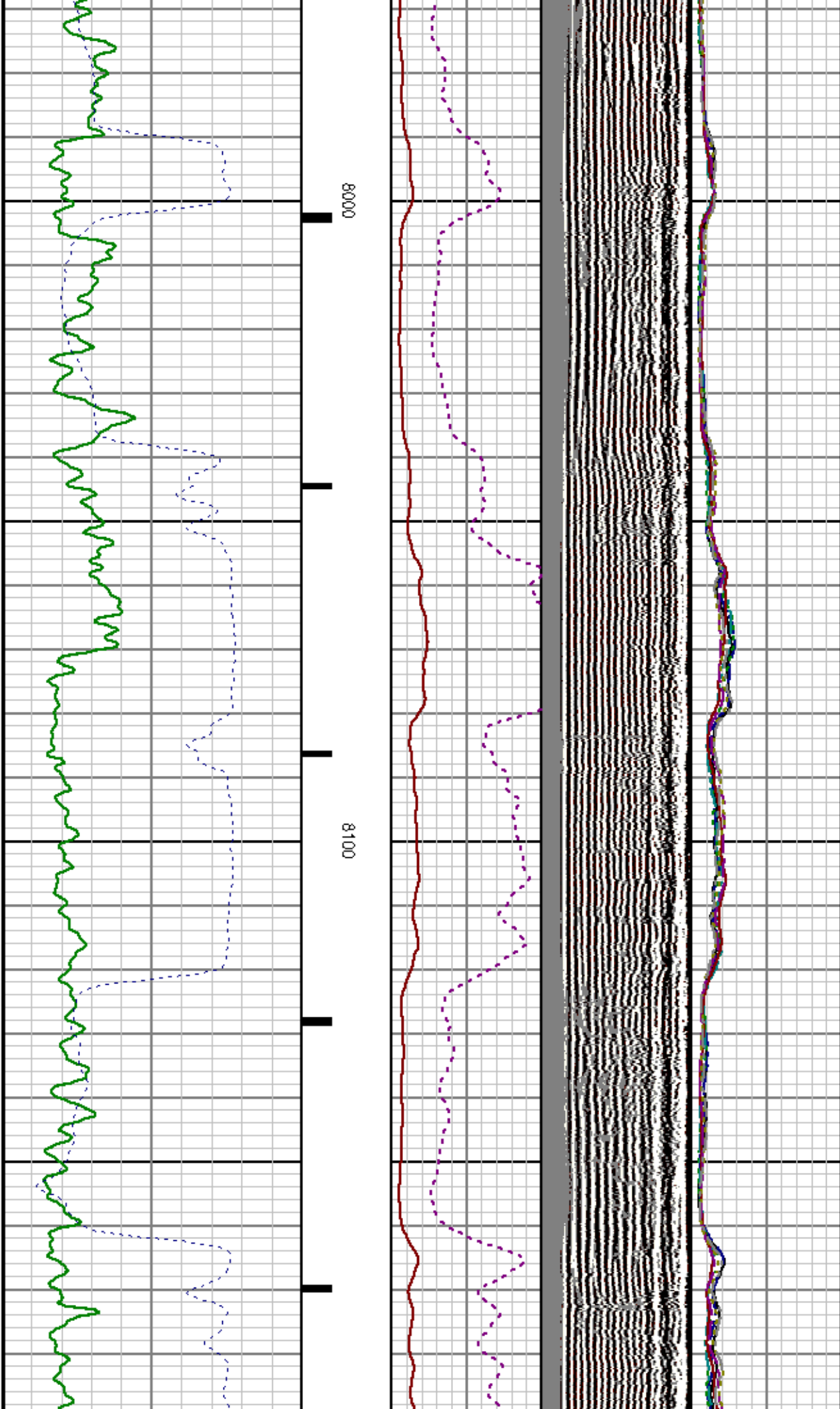


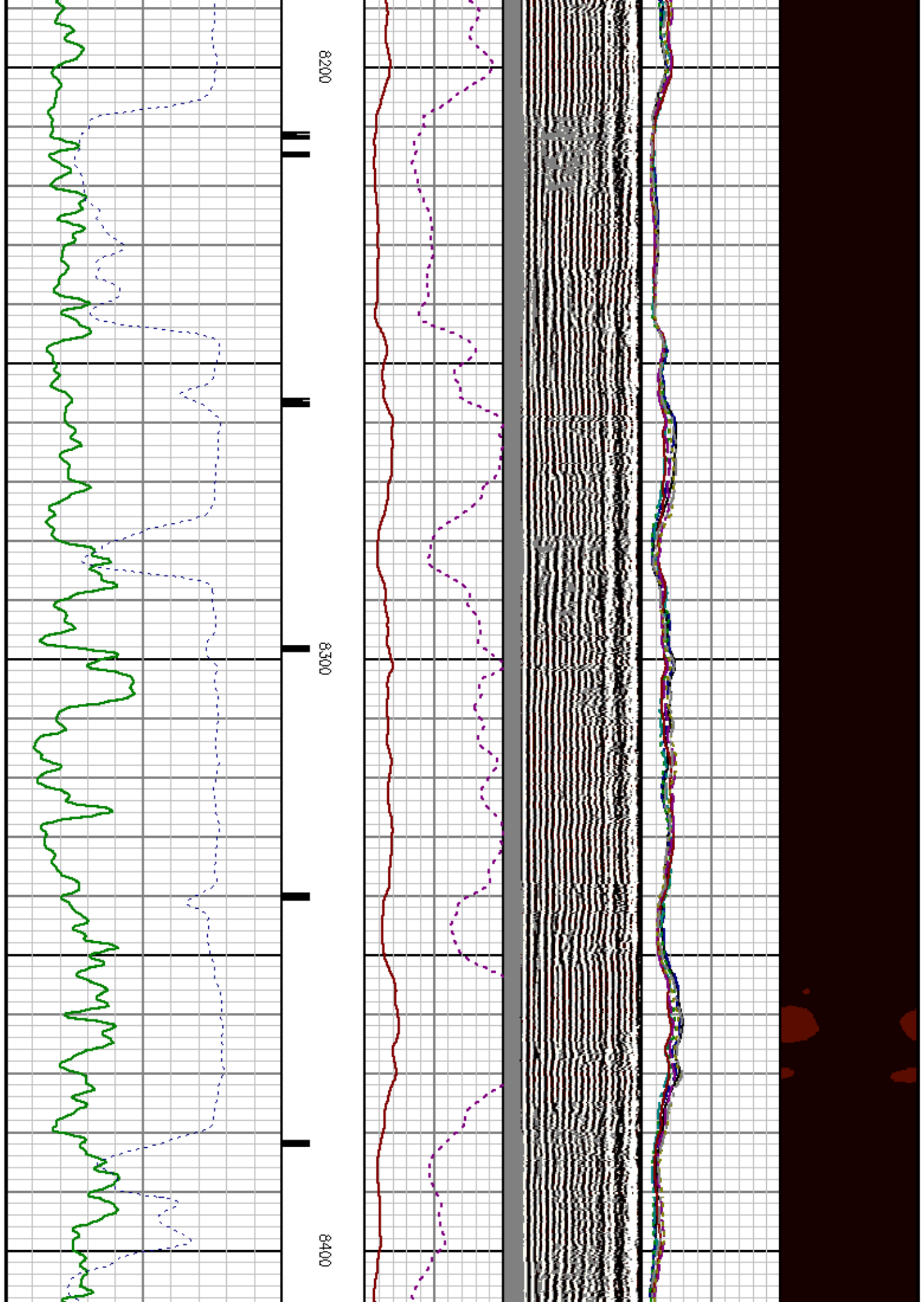


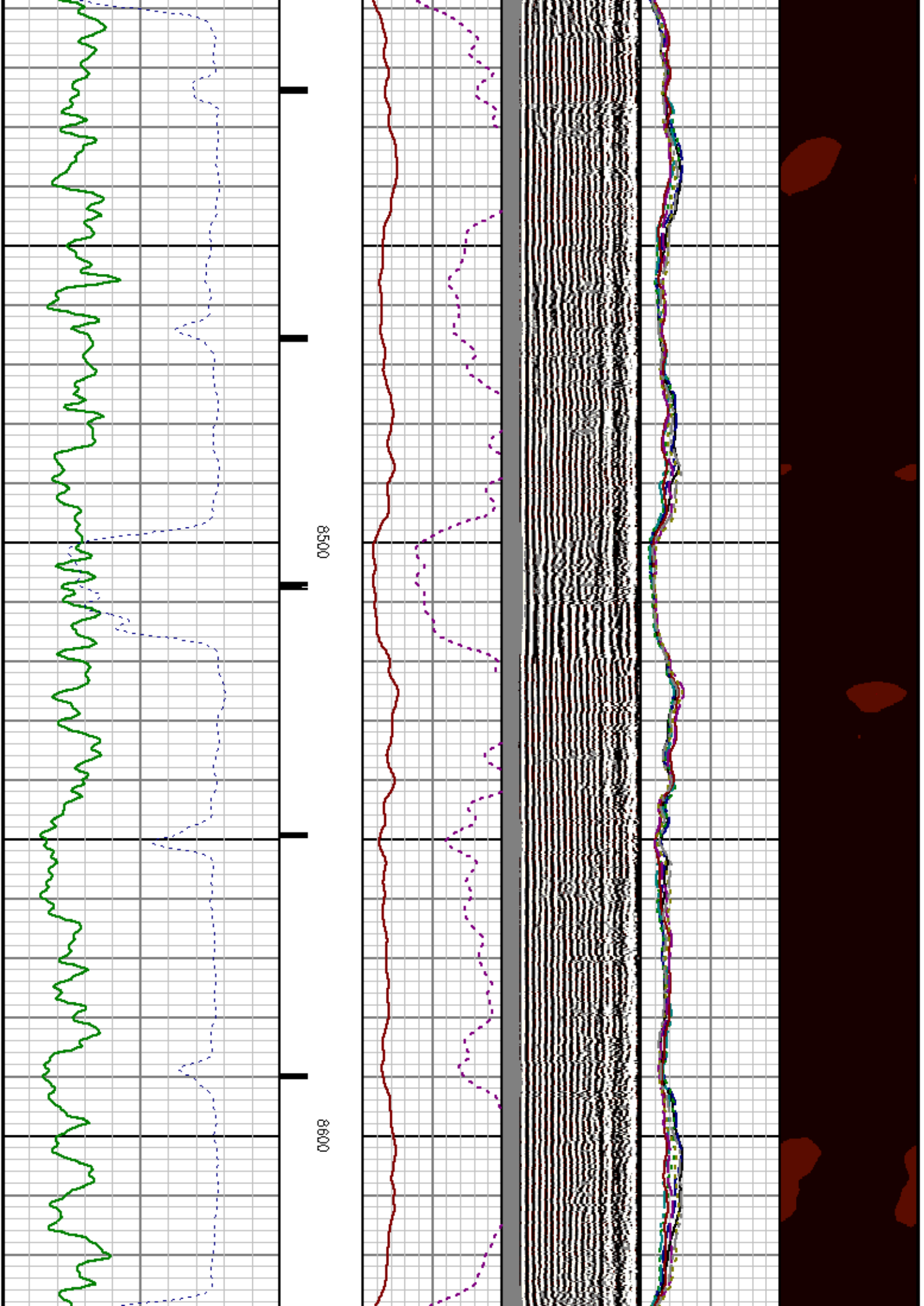


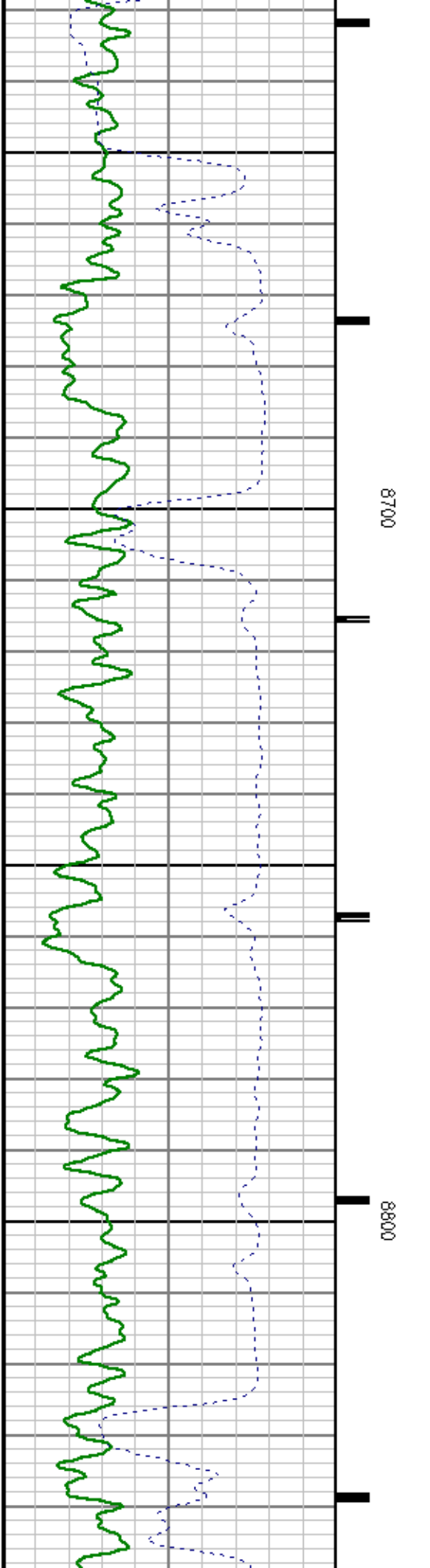
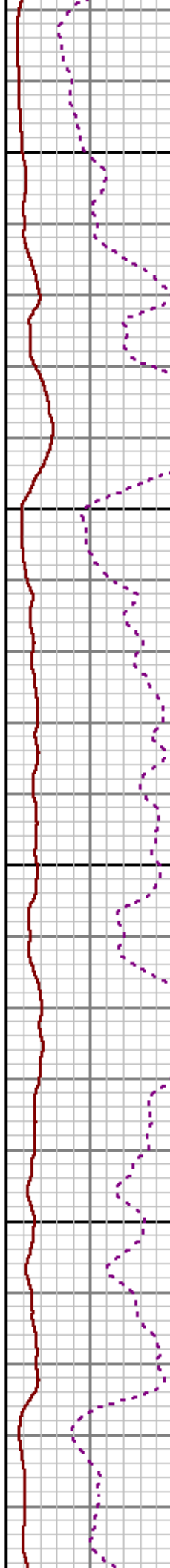
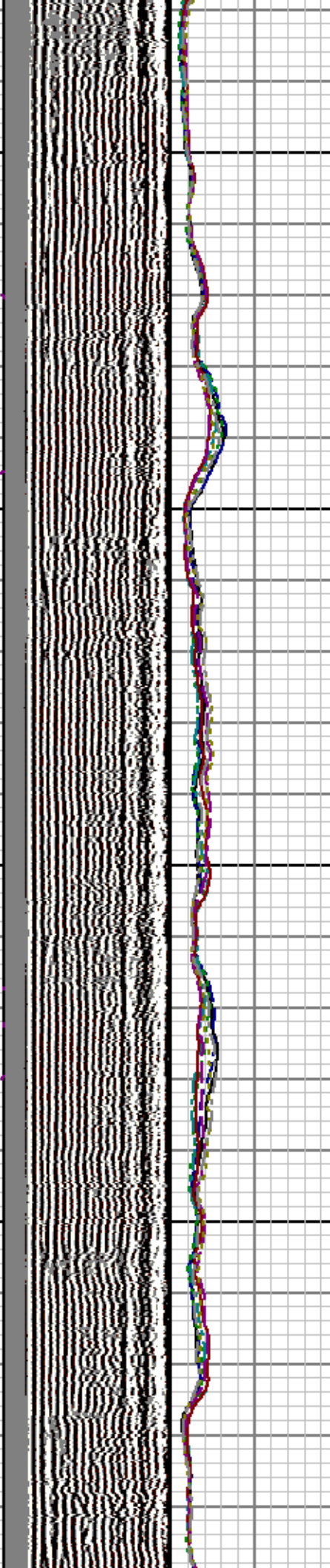
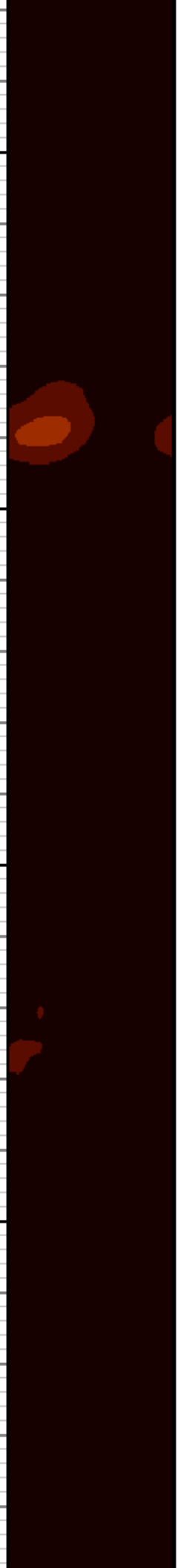


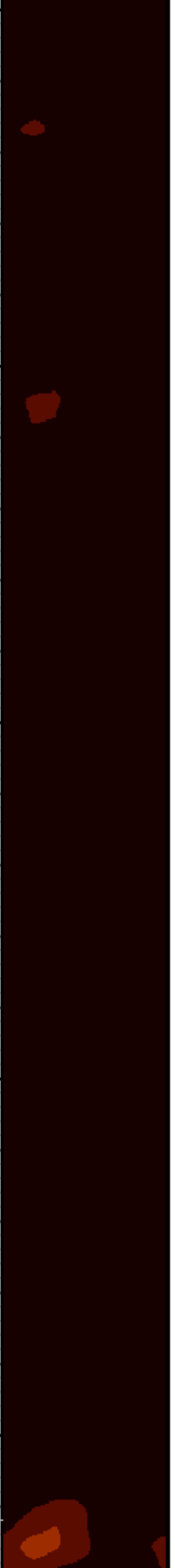
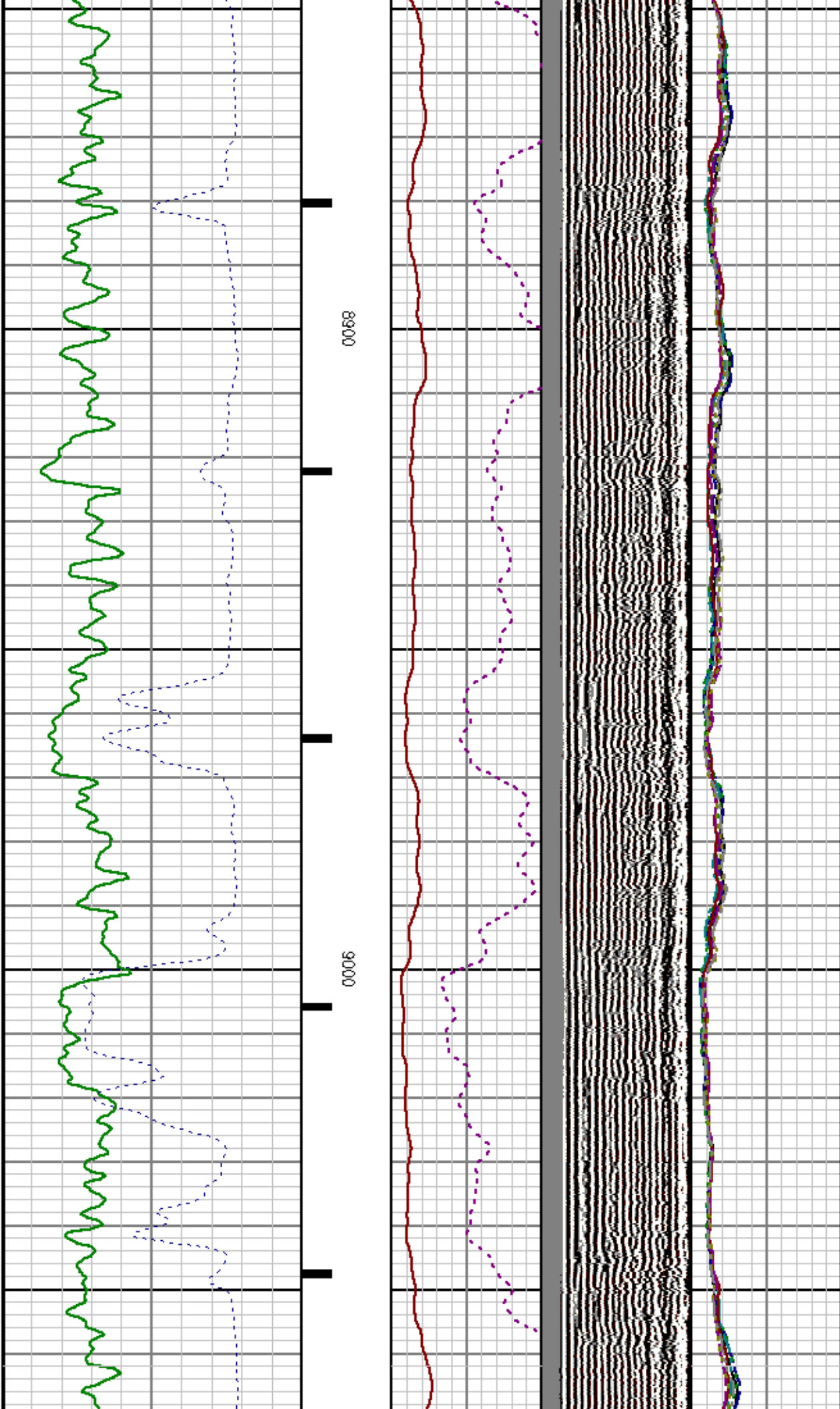


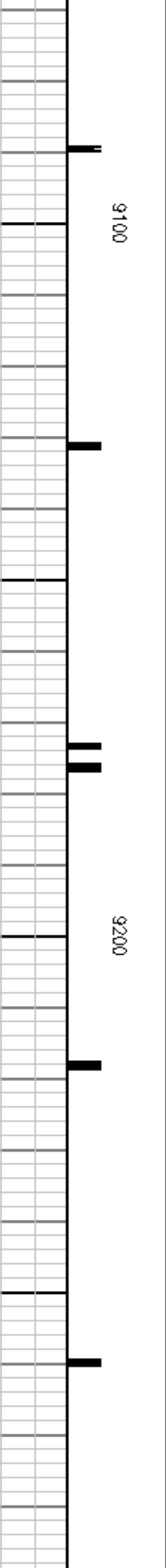
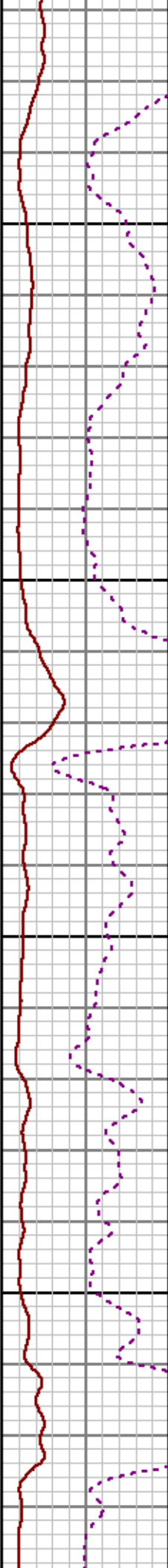
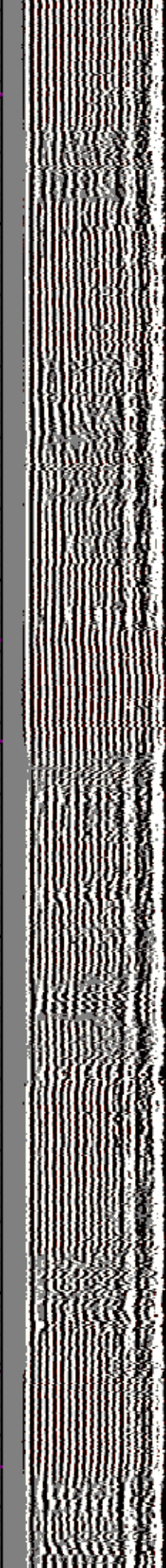
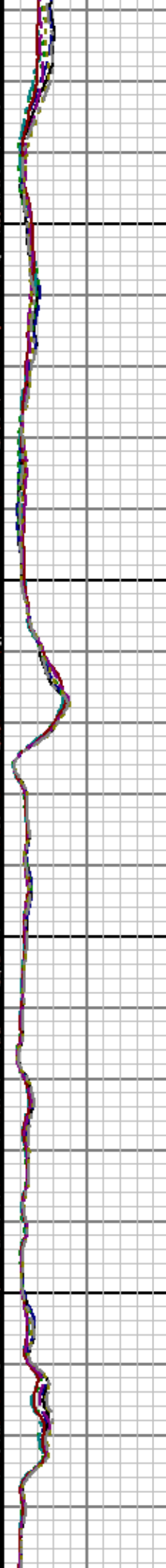


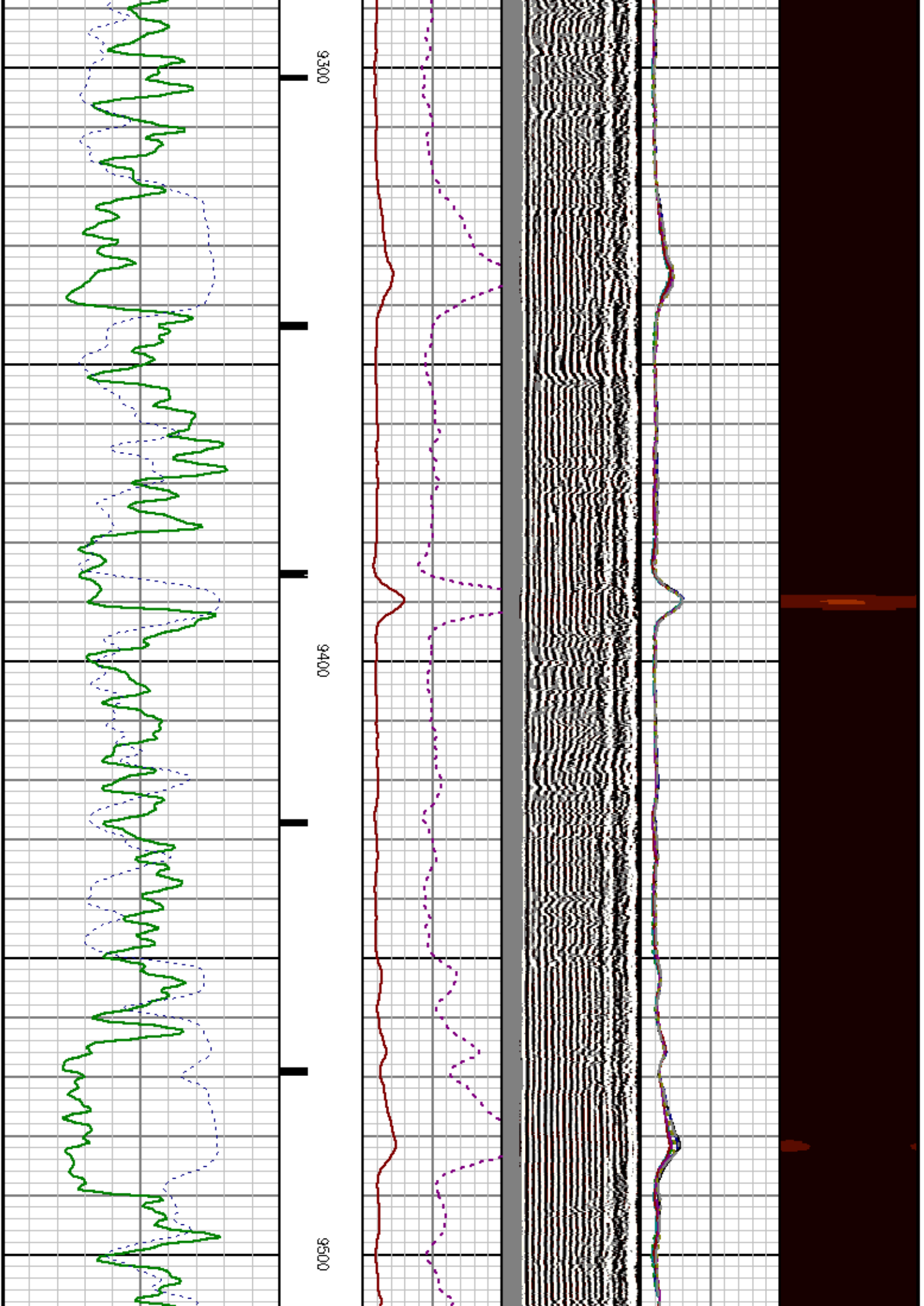


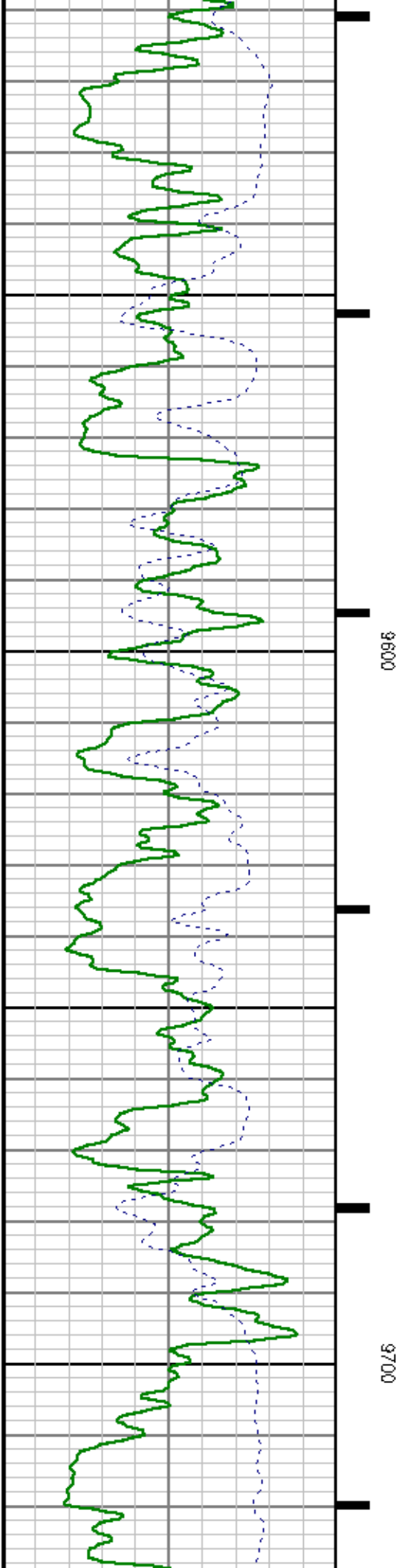
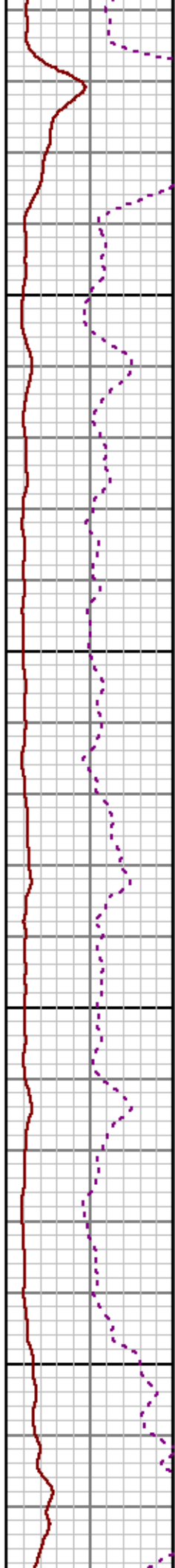
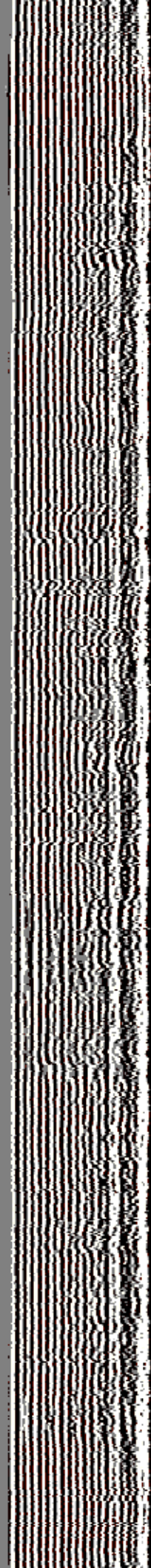
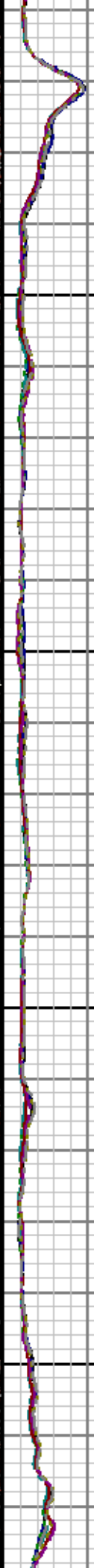
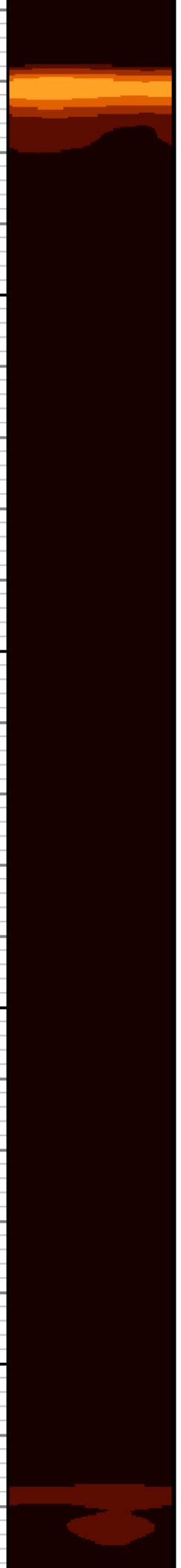


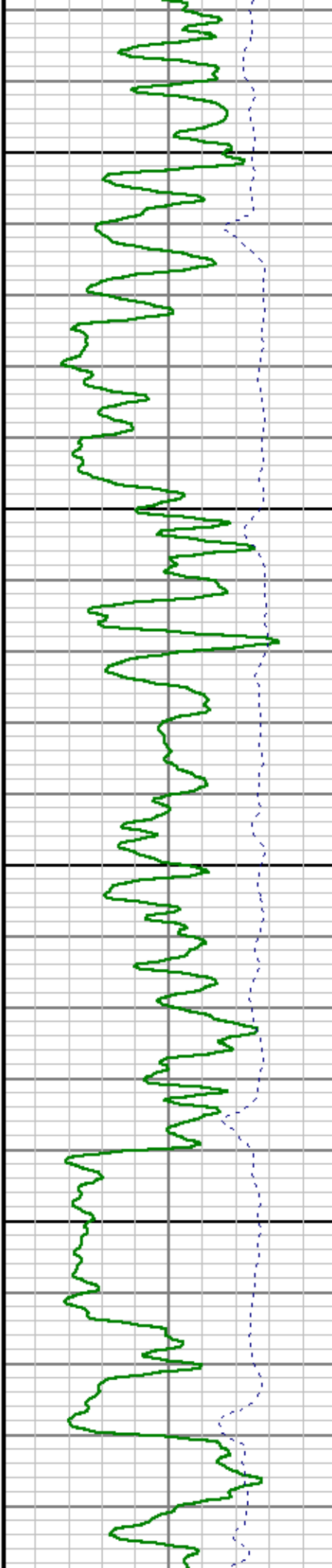






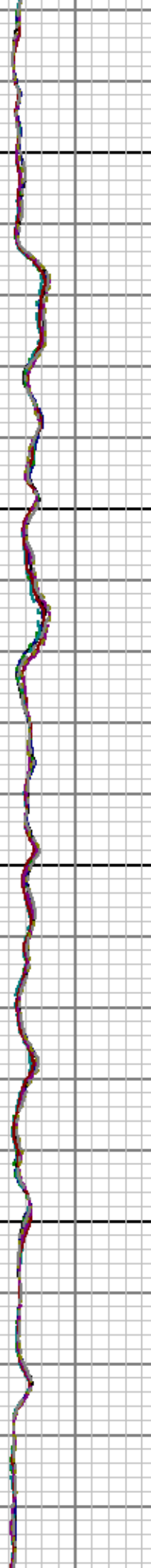
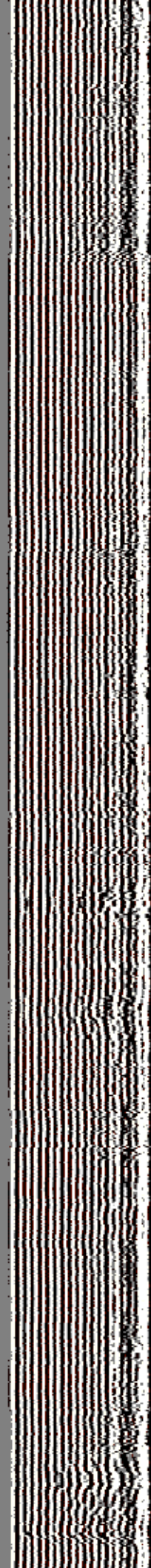
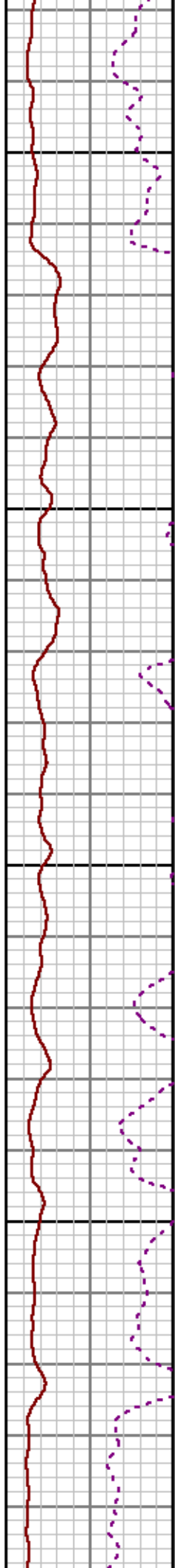


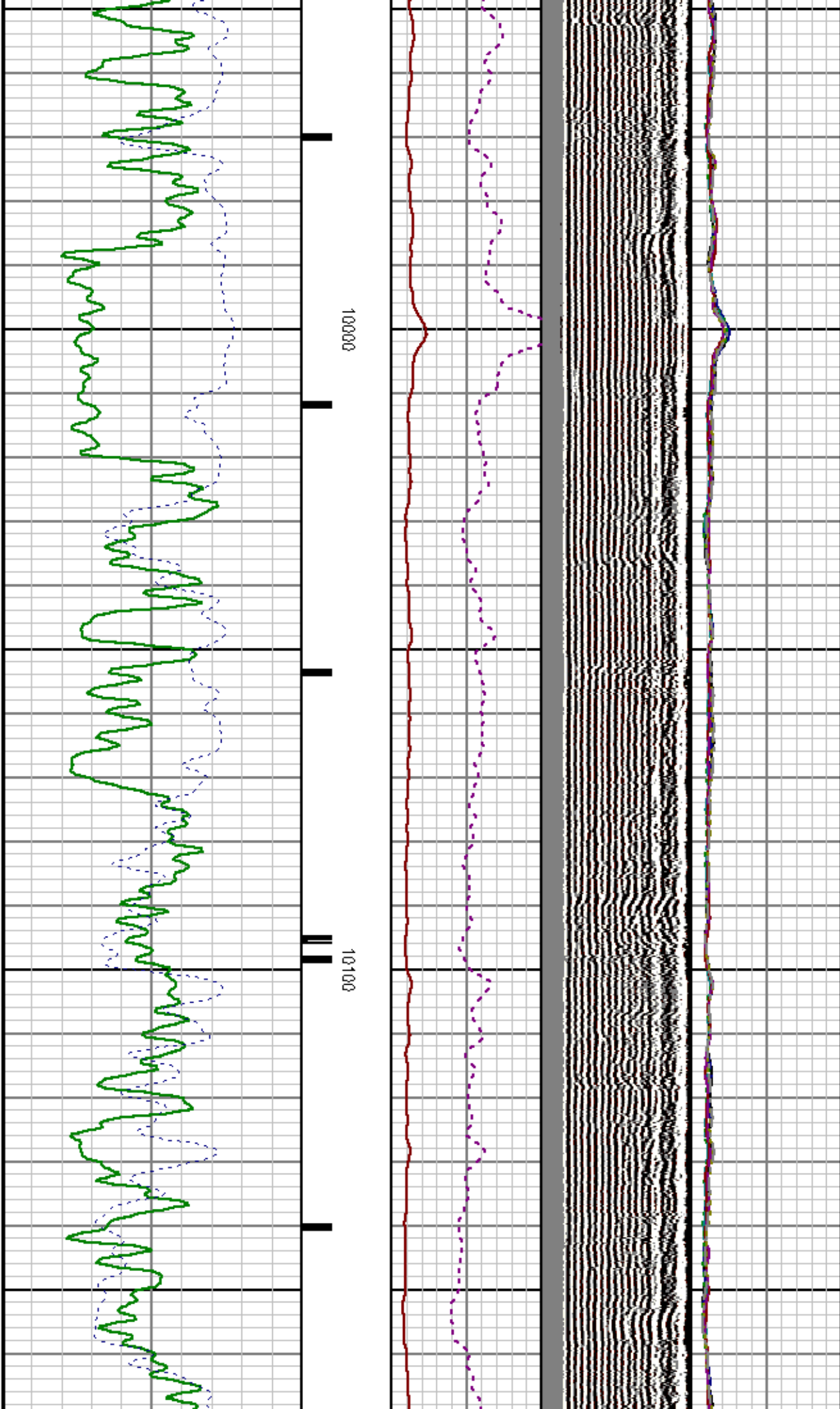


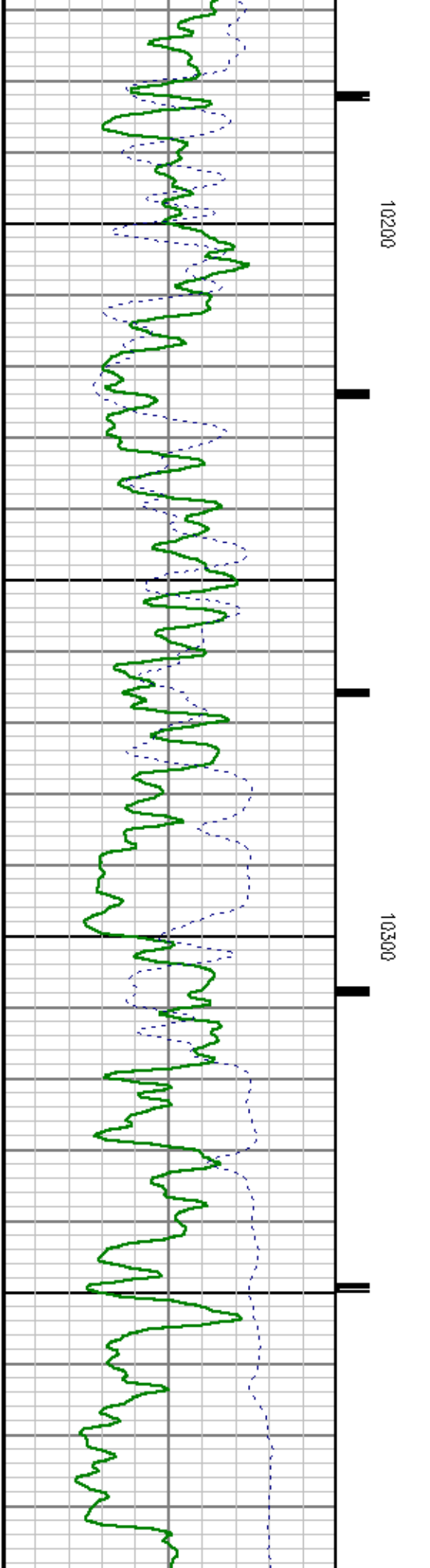
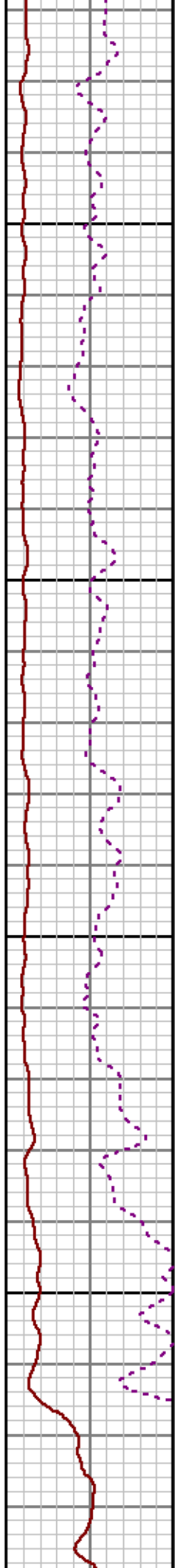
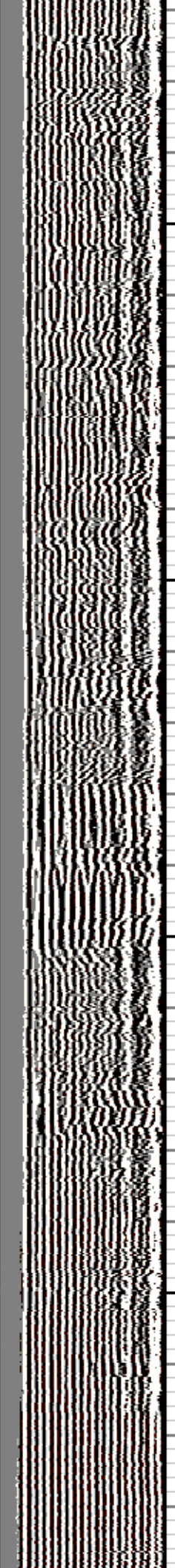
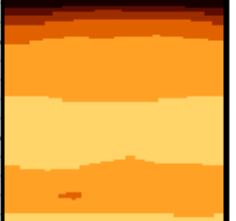


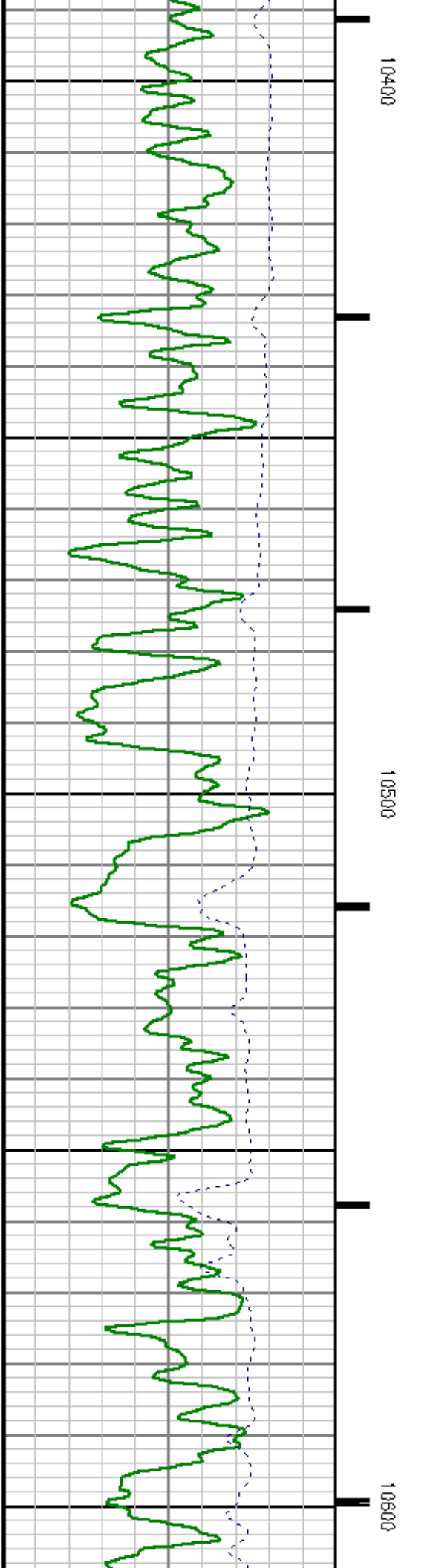
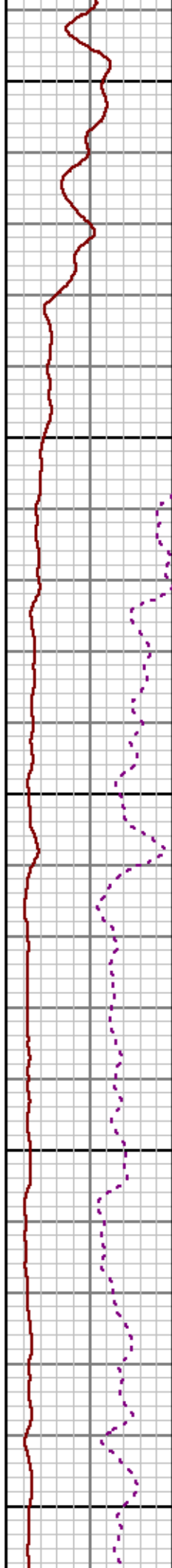
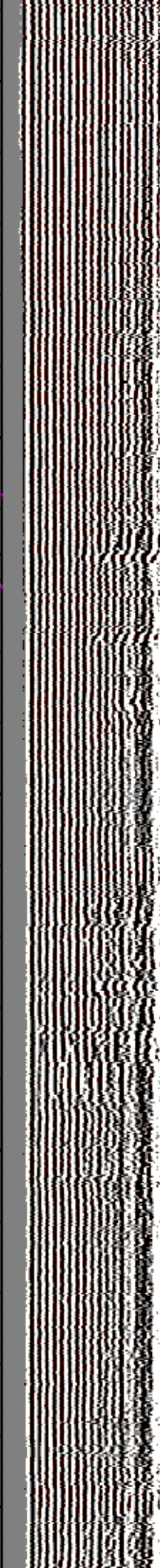
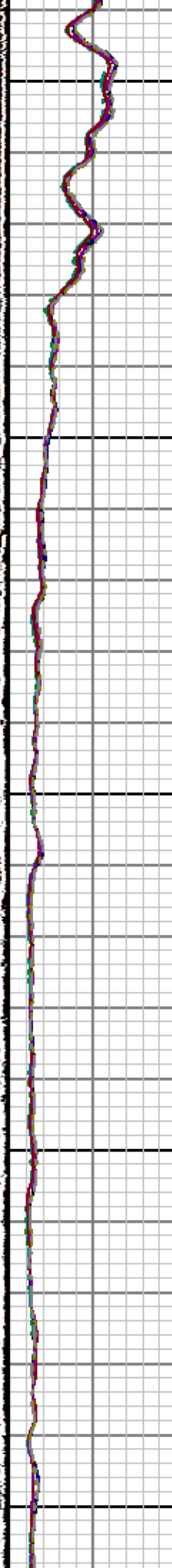
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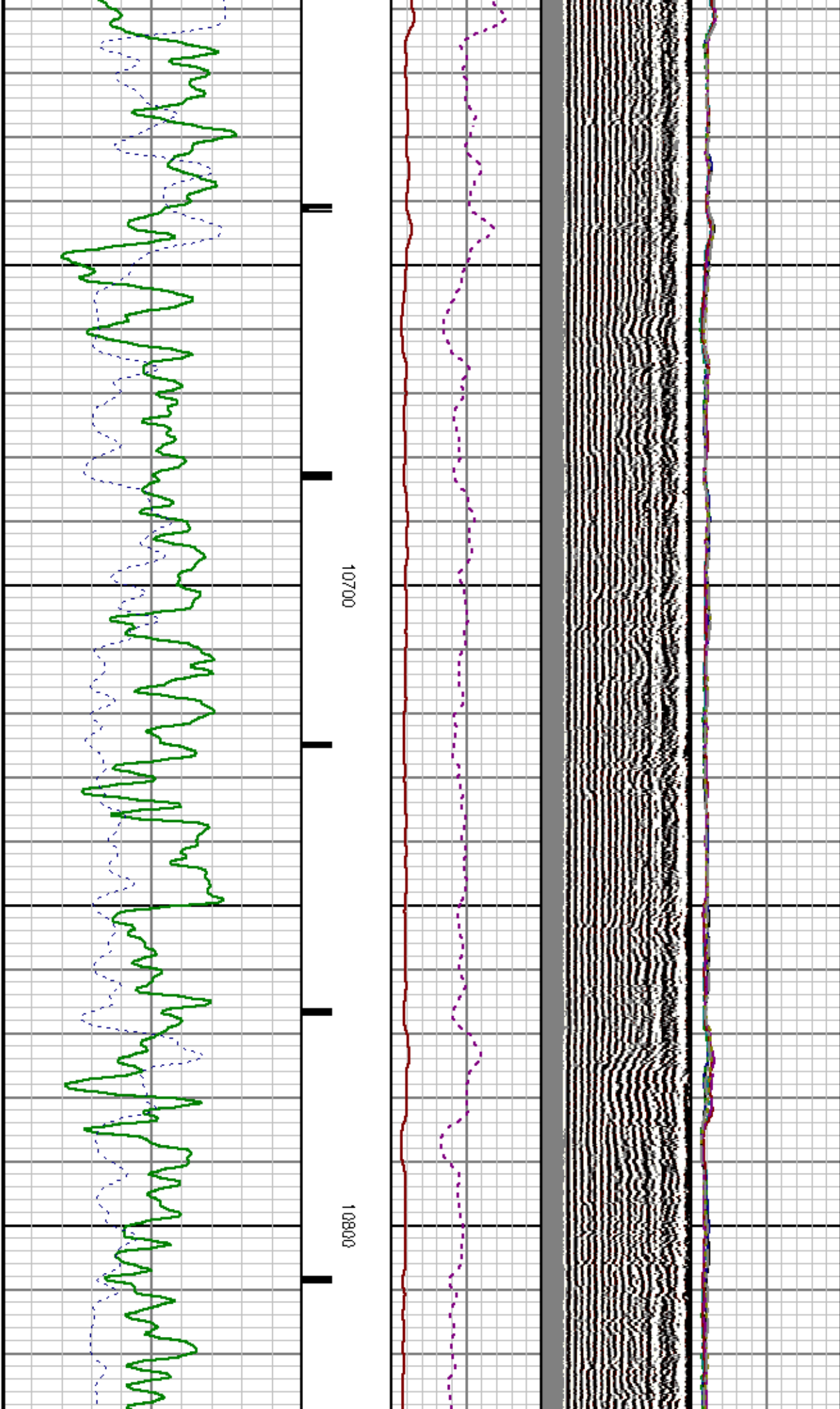
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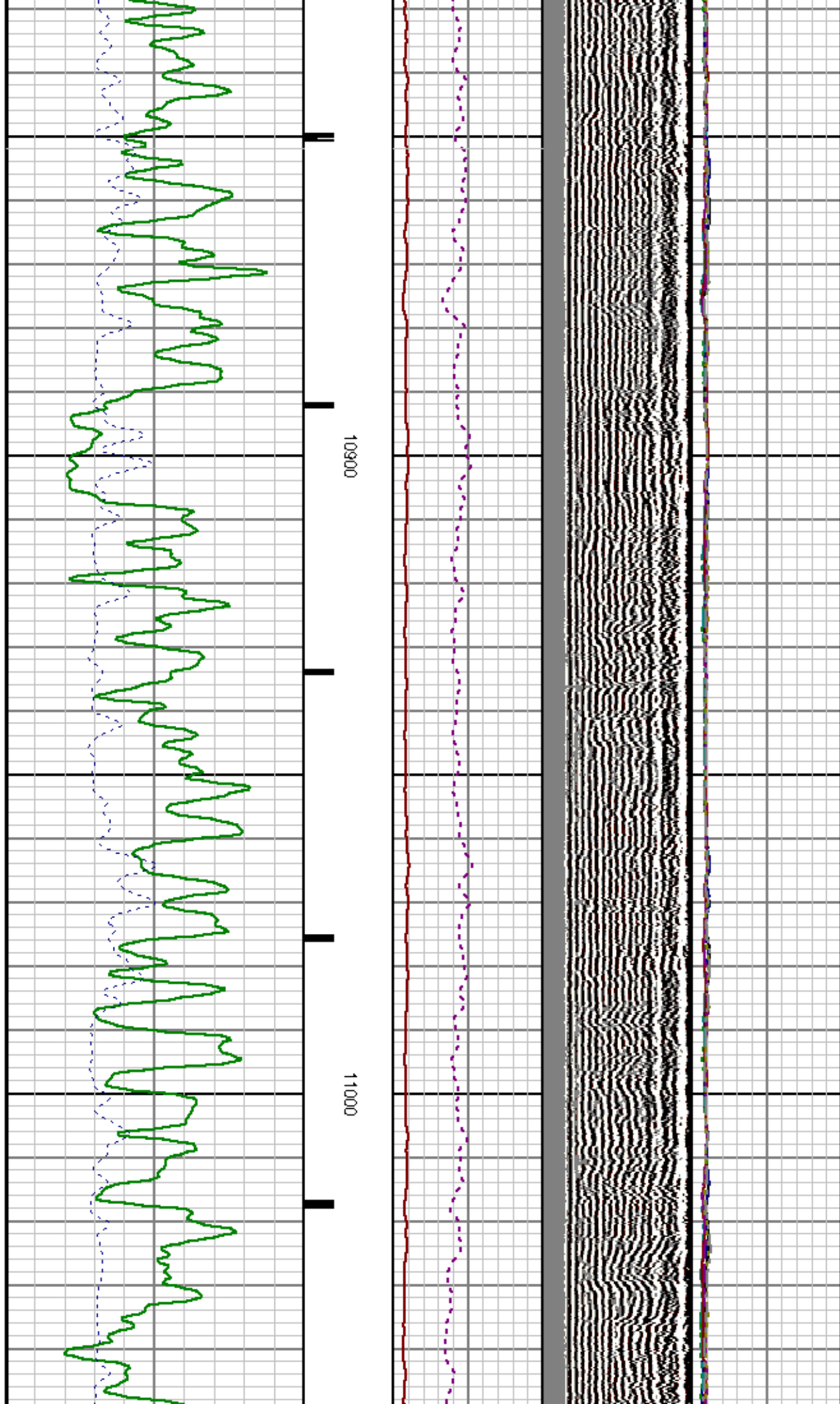


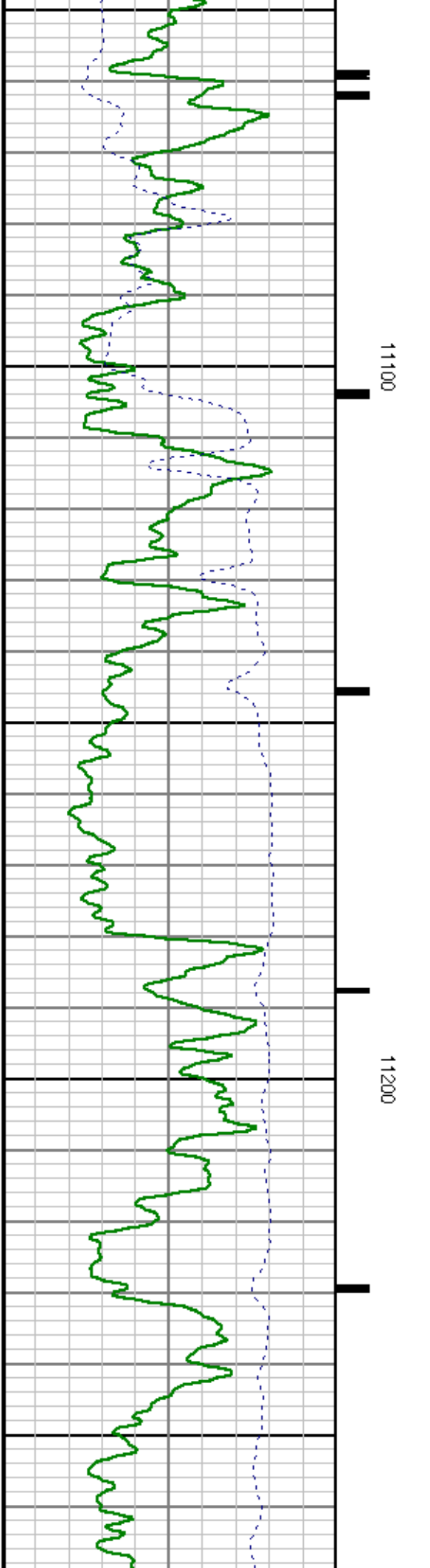
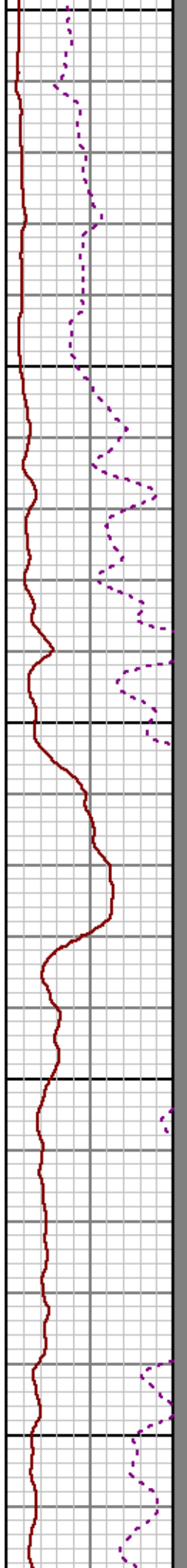
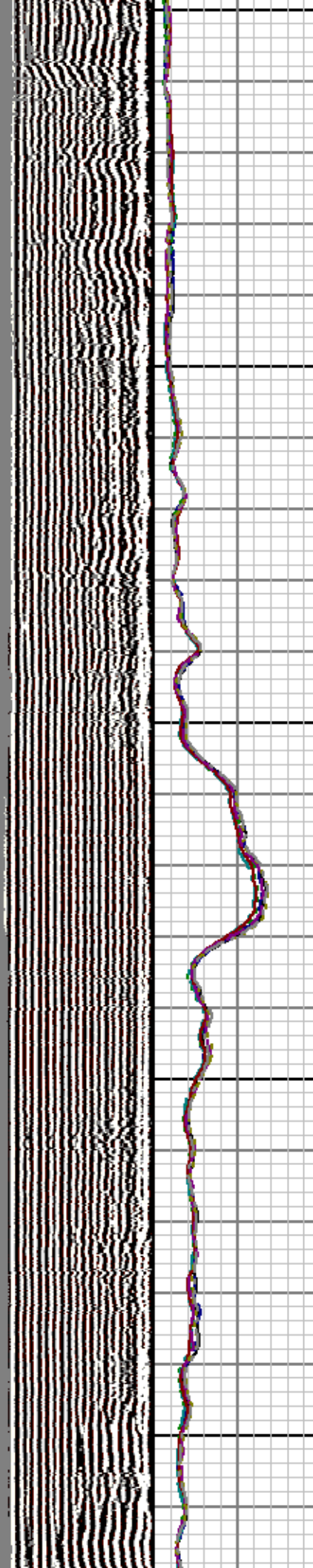
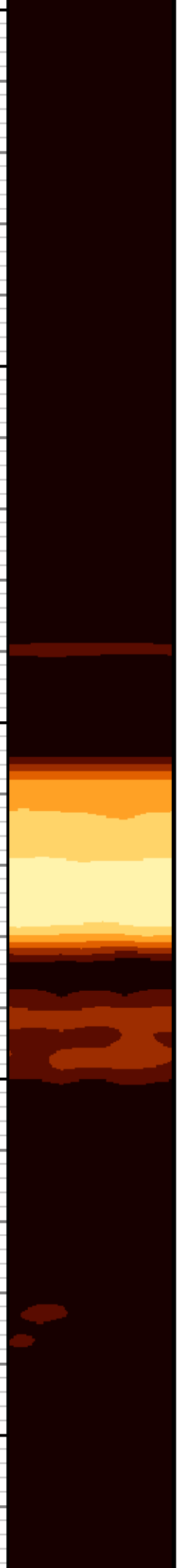


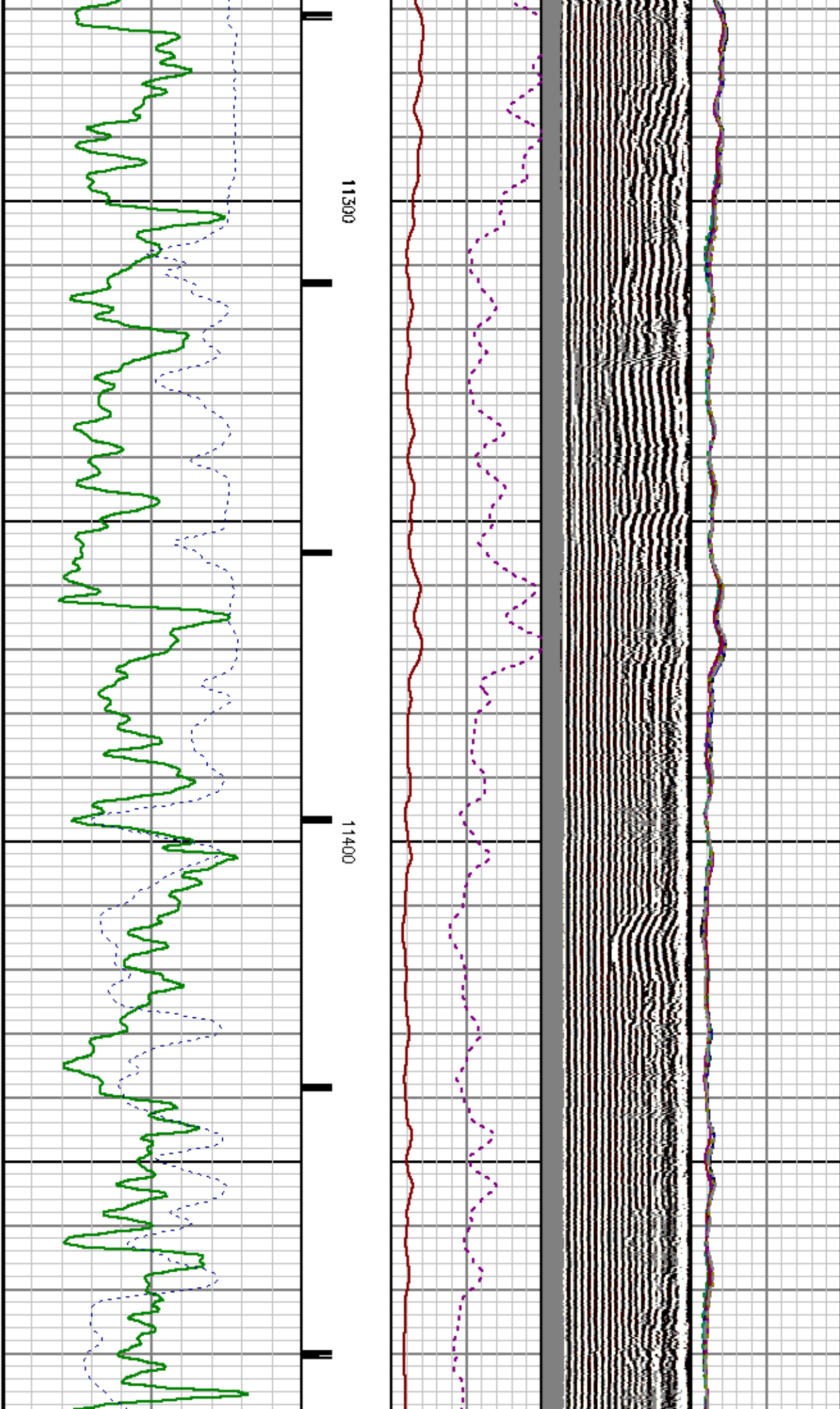


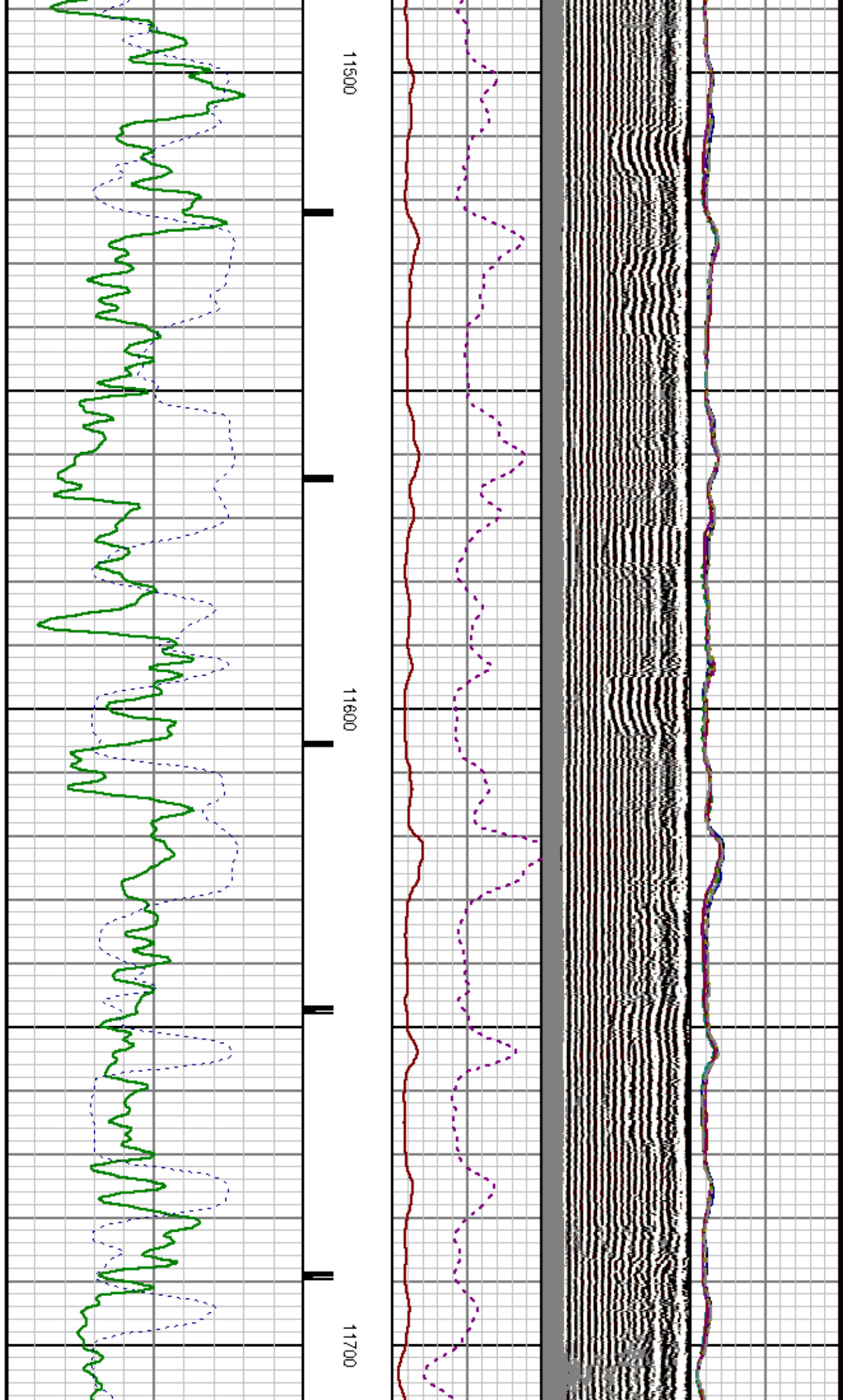


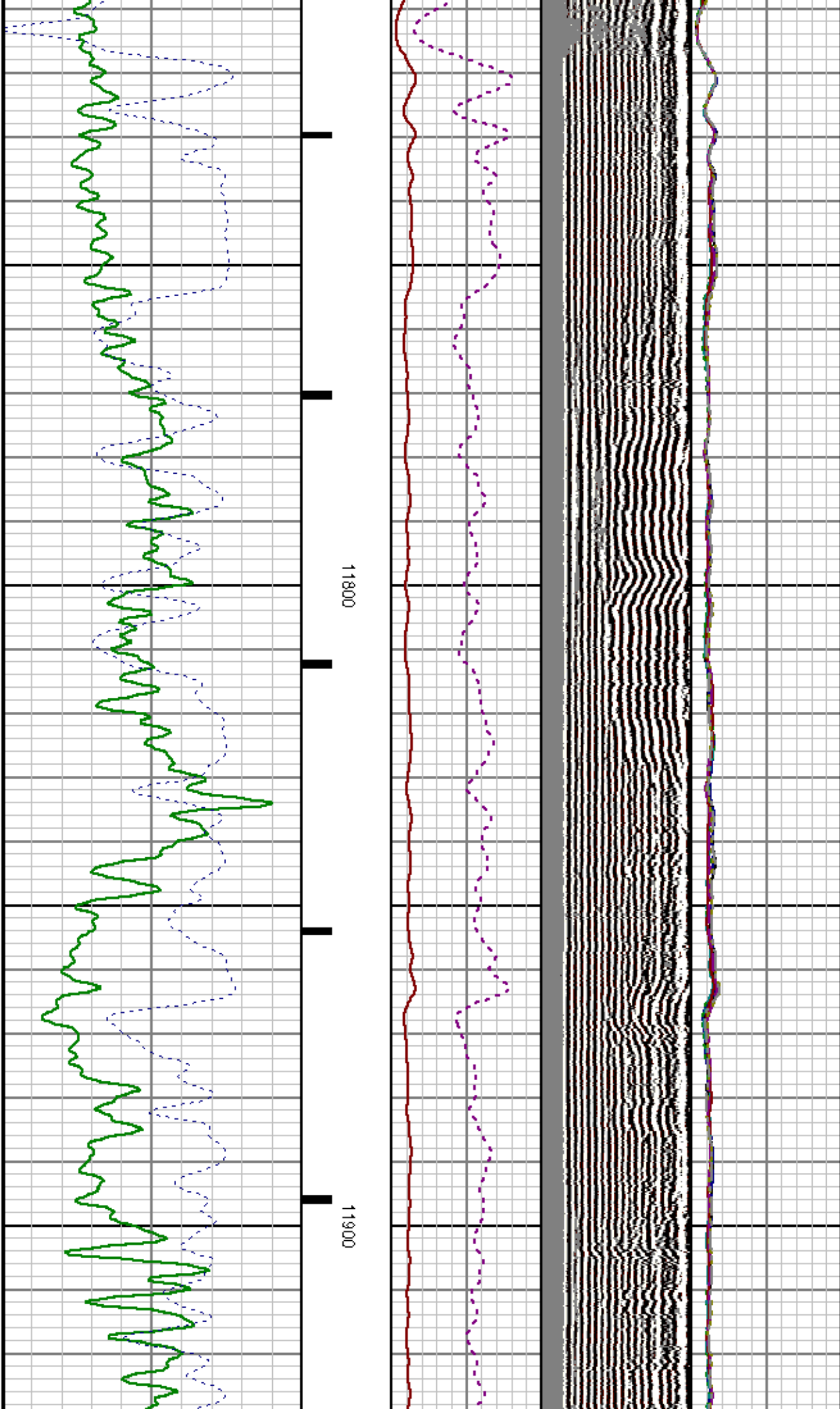


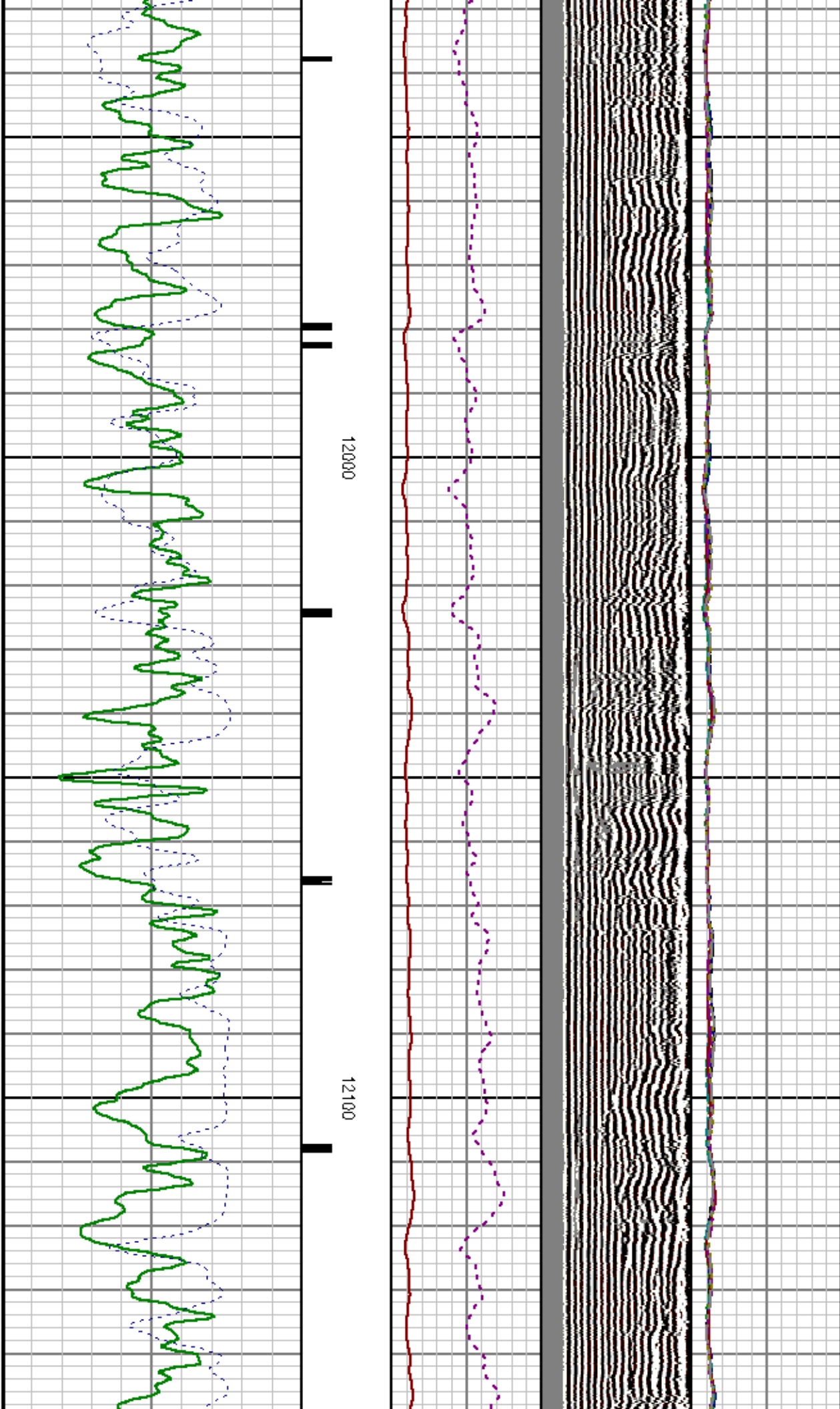


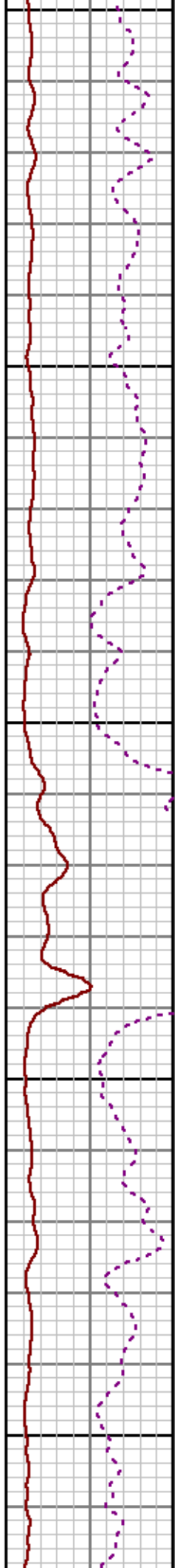
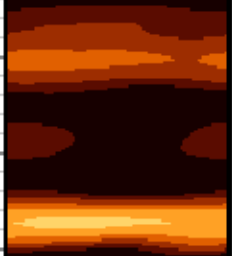






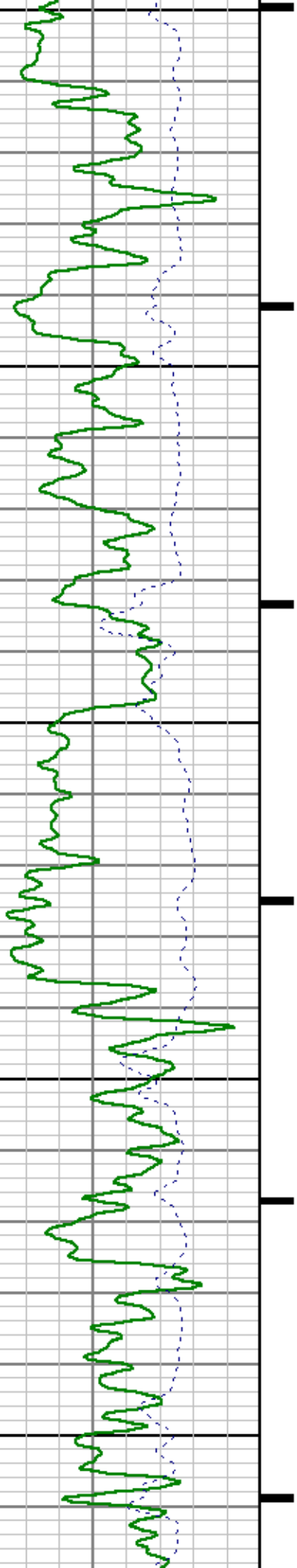


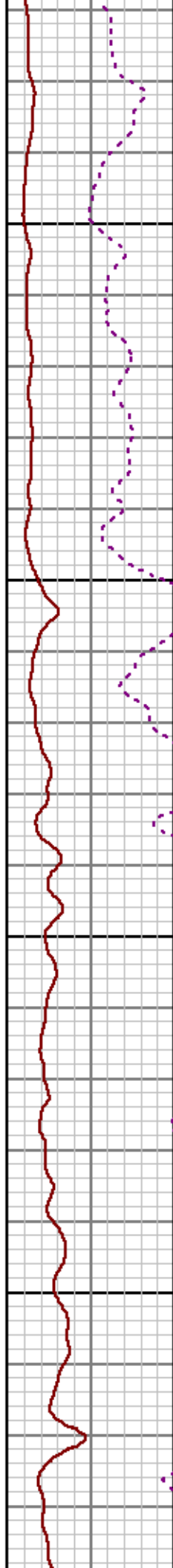
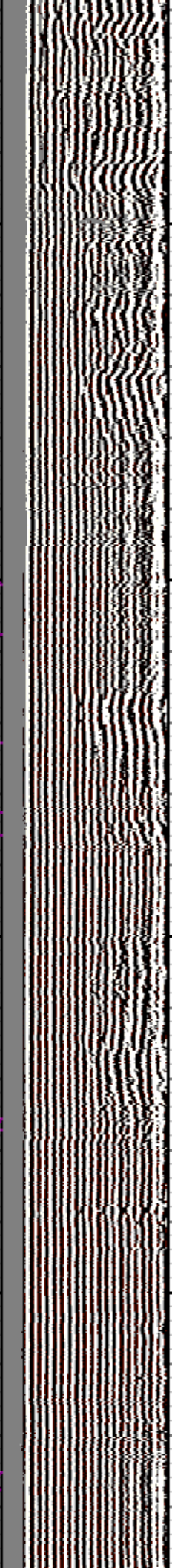
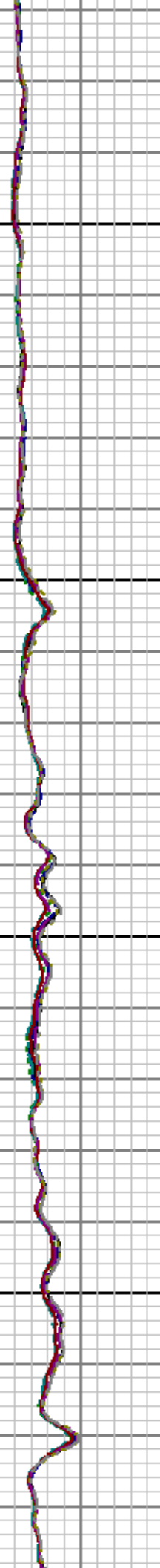
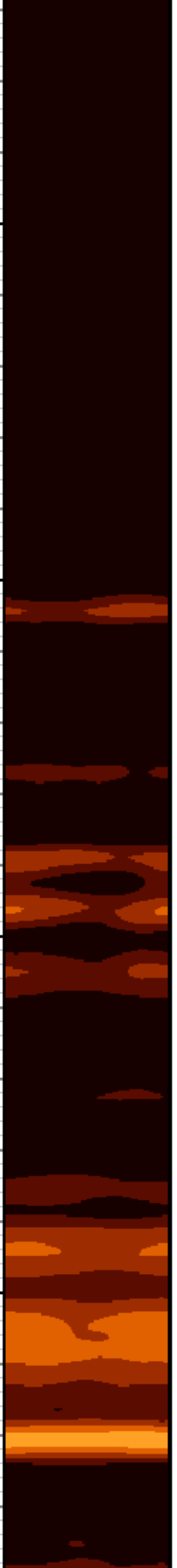




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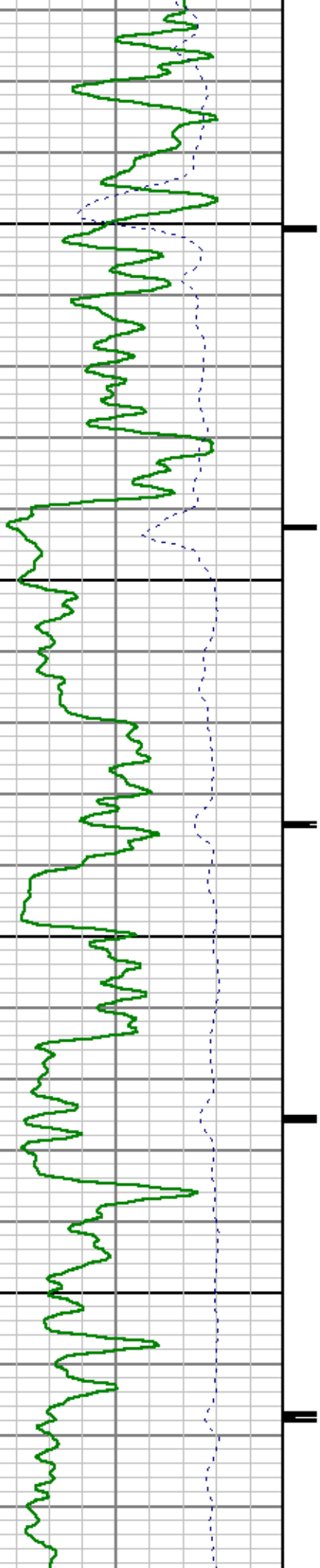
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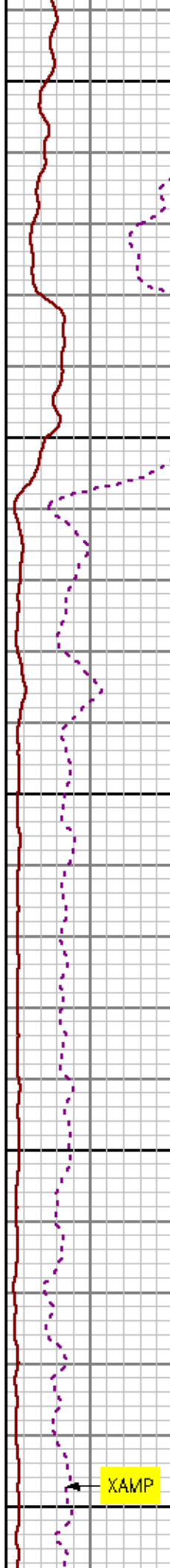
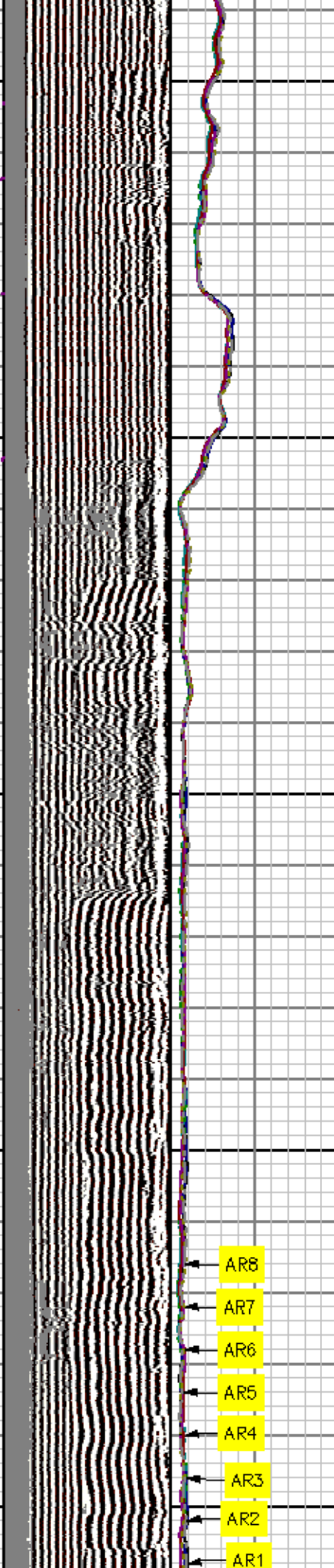




12400

12500





12600

12700

12800

AR8

AR7

AR6

AR5

AR4

AR3

AR2

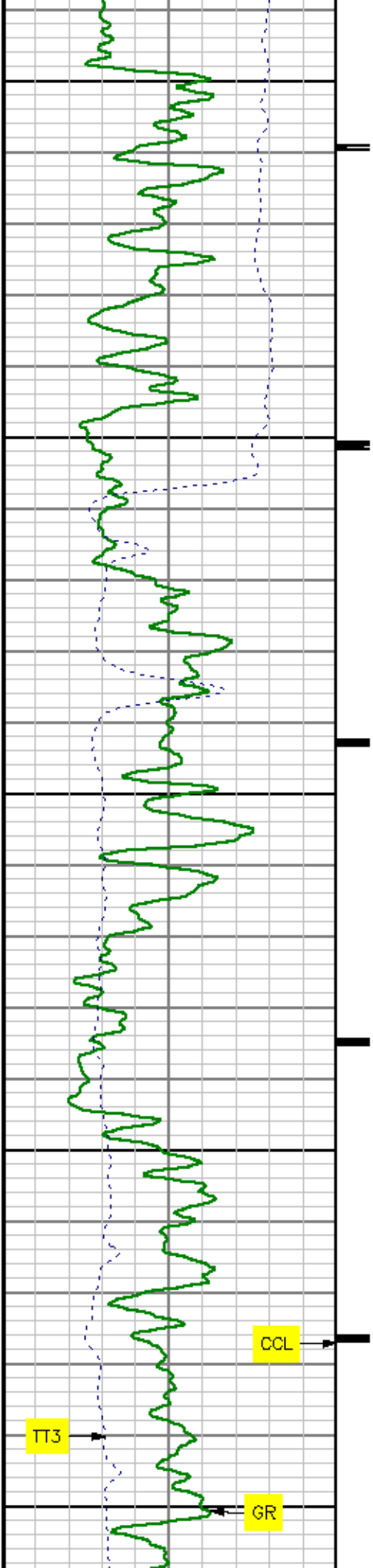
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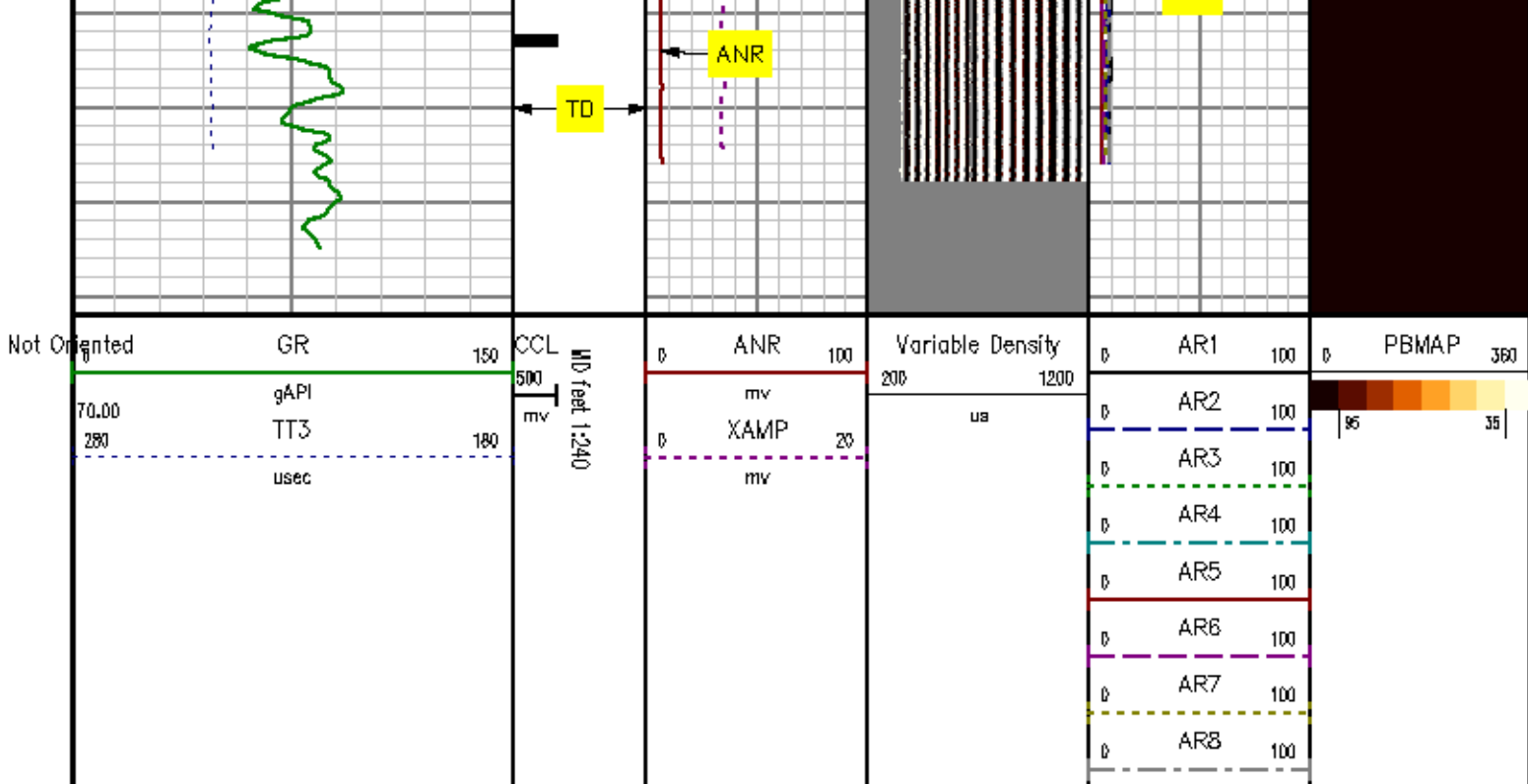
XAMP

CCL

GR

TT3





MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	314.263	usec	12579.937	12847.000
RAL	Amp Gate Start Near	197.754	usec	12579.937	12847.000
RAL	Amp Gate Start Radial	197.754	usec	12579.937	12847.000
RAL	Amp Gate Width Far	25.000	usec	12579.937	12847.000
RAL	Amp Gate Width Near	25.000	usec	12579.937	12847.000
RAL	Amp Gate Width Radial	25.000	usec	12579.937	12847.000
RAL	casing od	4.500	inches	12579.937	12847.000
RAL	casing wt	15.100	lbm/ft	12579.937	12847.000
RAL	FB Start Far	289.263	usec	12579.937	12847.000
RAL	FB Start Near	172.754	usec	12579.937	12847.000
RAL	FB Start Radial	172.754	usec	12579.937	12847.000
RAL	FB Thresh Far	15.000	mv	12579.937	12847.000
RAL	FB Thresh Near	10.000	mv	12579.937	12847.000
RAL	FB Thresh Radial	10.000	mv	12579.937	12847.000
RAL	Fluid Travel Time	200.000	usec/ft	12579.937	12846.749

DEPTH OFFSETS (for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES							
1426XA	-15.360	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	-14.360	AFAR	SIG	TT5					
1426XA	-7.250	CCL							
1426XA	-5.390	GR							
1426XA	0.000	NEU							

Created by : RAL, v4.8.007

Plotted by : PlotMgr, v5.4.504

Company : EXXONMOBI PRODUCTION COMPANY

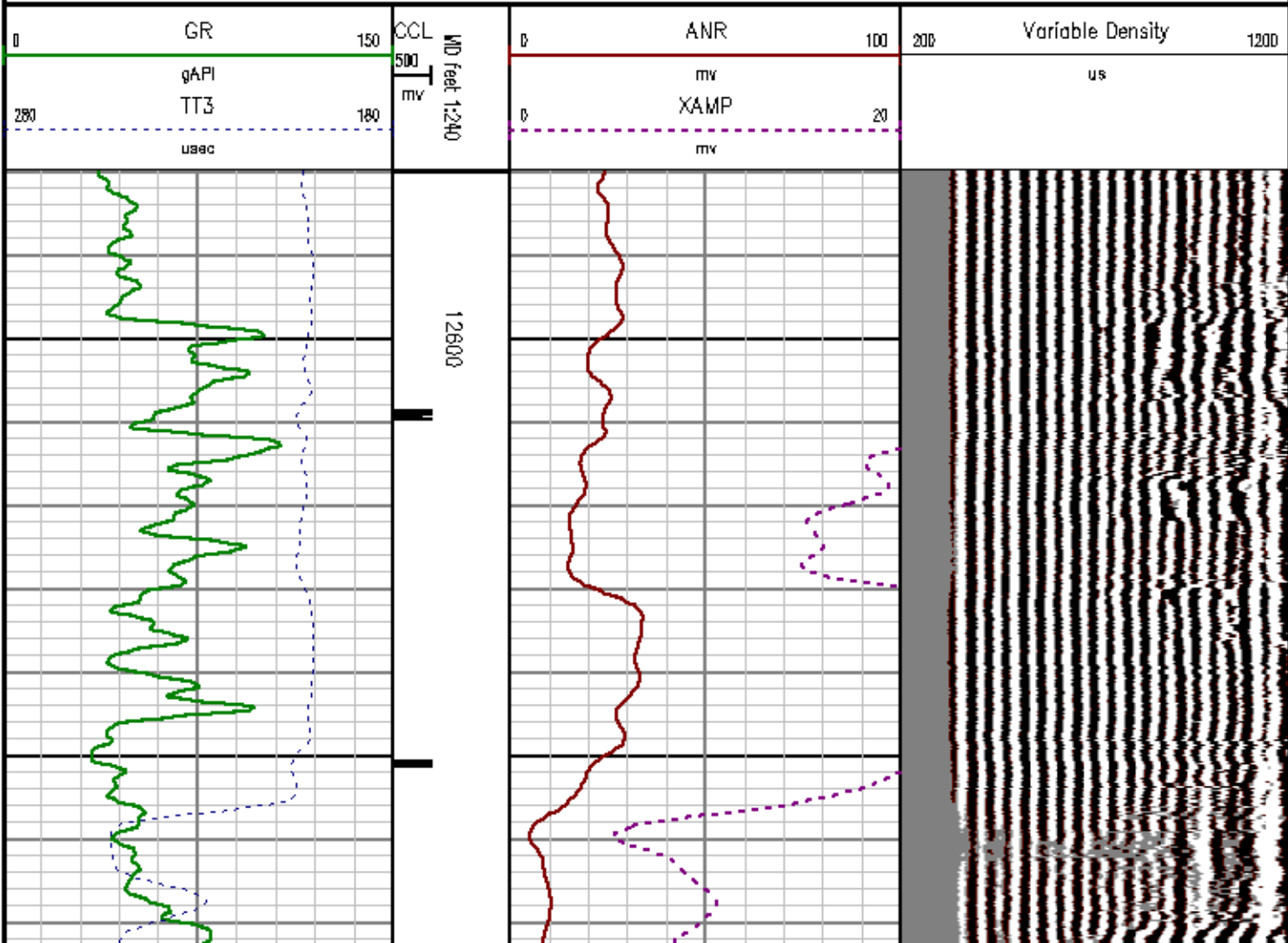
Well : PCJ 197-34B6

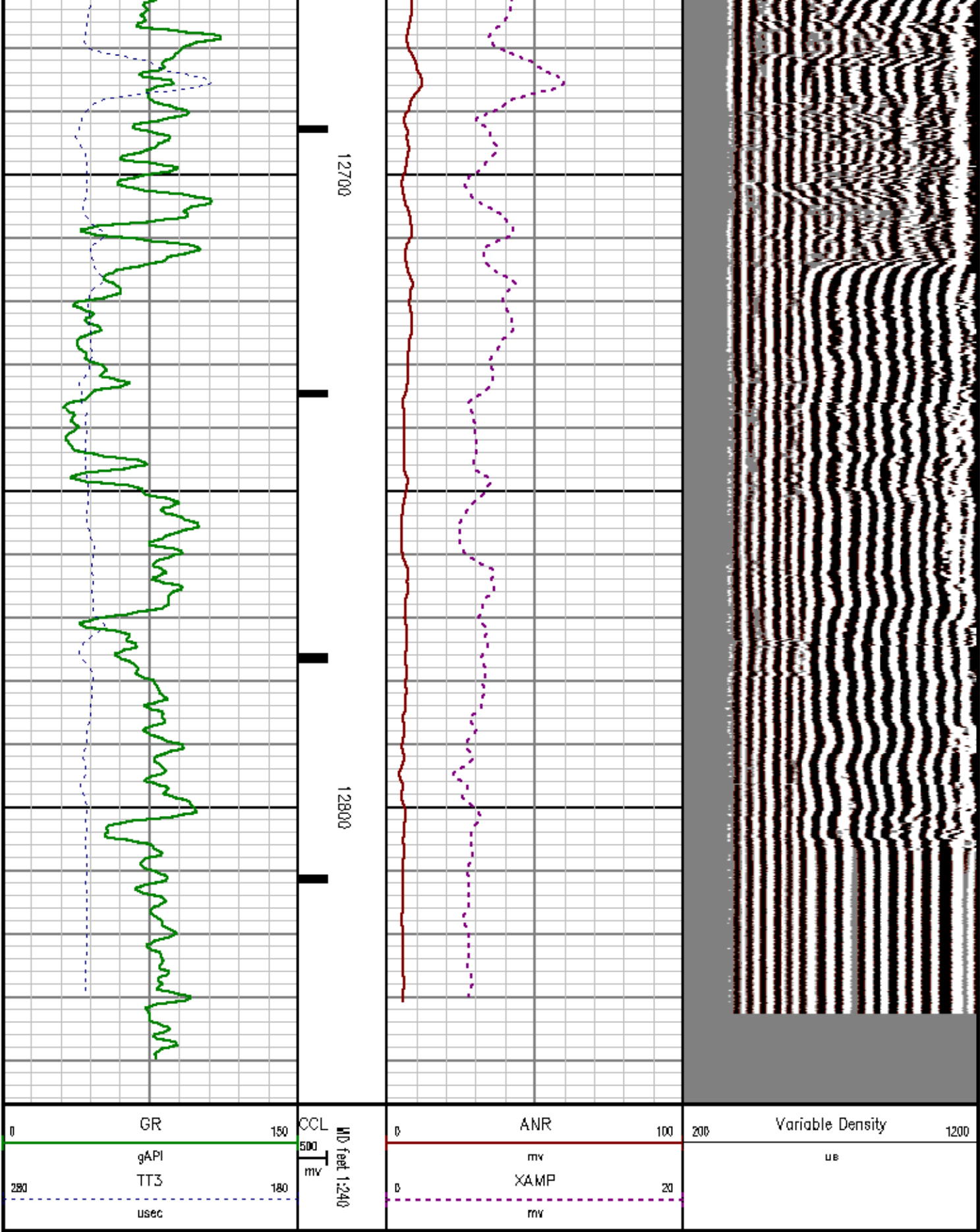
File Name : d:\well\data\7rad\repeat.xtf

Mode : PlotMgr 5.4.504

Interval : 12580.00 - 12847.00 feet UP

Created : 4/28/2010 9:18:04 AM





FREE PIPE SECTION

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	314.263	usec	87.781	170.000
RAL	Amp Gate Start Near	197.754	usec	87.781	170.000
RAL	Amp Gate Start Radial	197.754	usec	87.781	170.000
RAL	Amp Gate Width Far	25.000	usec	87.781	170.000
RAL	Amp Gate Width Near	25.000	usec	87.781	170.000
RAL	Amp Gate Width Radial	25.000	usec	87.781	170.000
RAL	casing od	4.500	inches	87.781	170.000
RAL	casing wt	15.100	lbm/ft	87.781	170.000
RAL	FB Start Far	289.263	usec	87.781	170.000
RAL	FB Start Near	172.754	usec	87.781	170.000
RAL	FB Start Radial	172.754	usec	87.781	170.000
RAL	FB Thresh Far	15.000	mv	87.781	170.000
RAL	FB Thresh Near	10.000	mv	87.781	170.000
RAL	FB Thresh Radial	10.000	mv	87.781	170.000
RAL	Fluid Travel Time	200.000	usec/ft	87.781	170.000

DEPTH OFFSETS
(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES																								
		ACAL	ANR	AR1	AR2	AR3	AR4	AR5	ARB	AR7	ARB	CHV	FPR2	FPR3	FPRS	TT3	TTR1	TTR2	TTR3	TTR4	TTRS	TTR6	TTR7	TTR8	XAMP	
1428XA	-15.360																									
1426XA	-14.360	AFAR	SIG	TTS																						
1426XA	-7.250	OCL																								
1426XA	-5.390	GR																								
1426XA	0.000	NEU																								

Created by : RAL, v4.8.007

Plotted by : PlotMgr, v5.4.504

Company : EXXONMOBIL PRODUCTION COMPANY

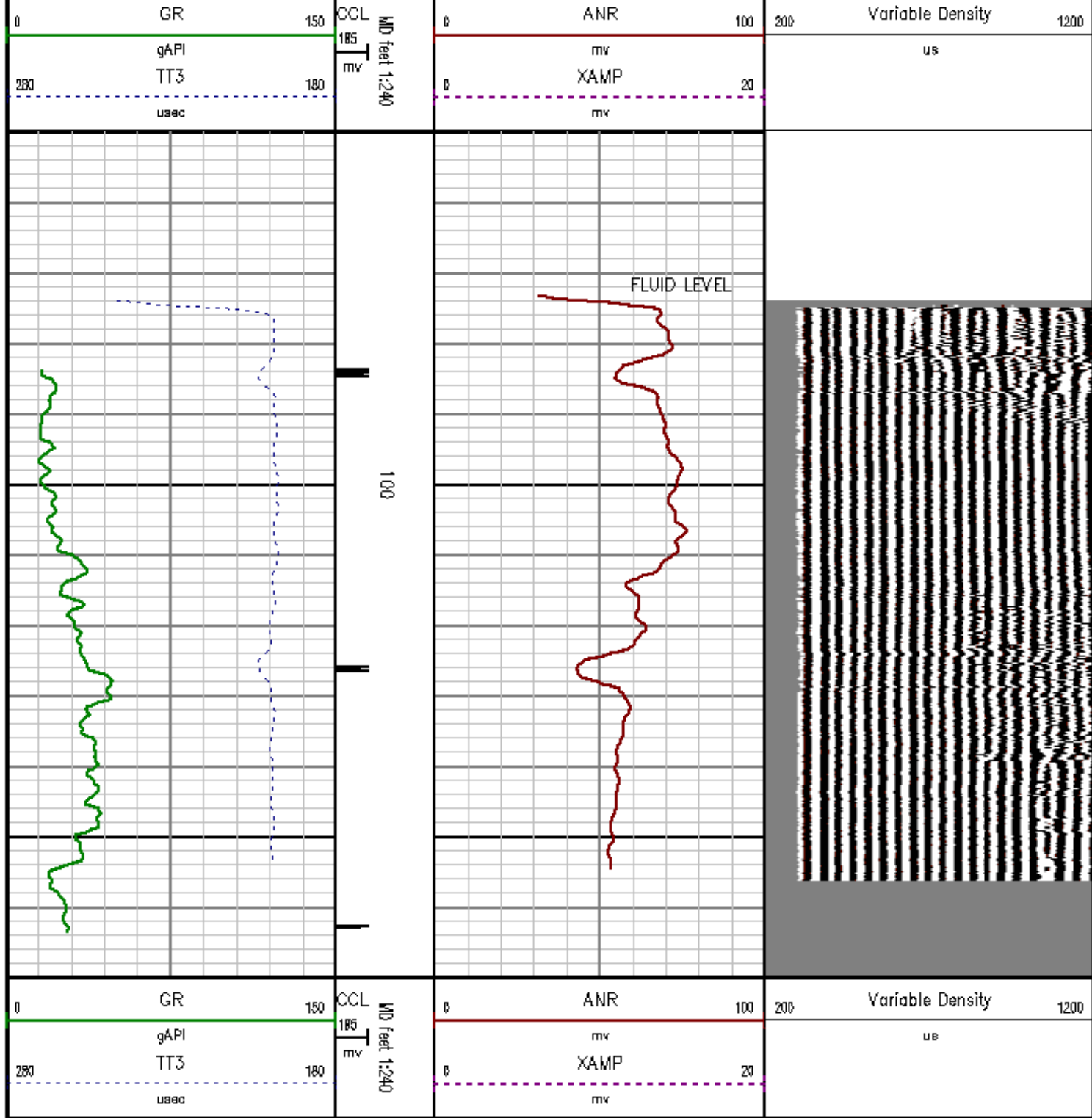
Well : PCJ 197-34B7

File Name : D:\WELLDATA\7RAD\FREE.XTF

Mode : PlotMgr 5.4.504

Interval : 50.00 - 170.00 feet UP

Created : 4/28/2010 12:17:05 PM



CALIBRATION SUMMARY

GAMMA RAY

CALIBRATION SUMMARY

DATE/TIME PERFORMED:	Thu Apr 08 03:25:20 2010	TOOL SERIES:	2459XA	ASSET:	457	SEQ:	A1
Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]	
52K DAS05	66.67	340.53	0.676	45.03	230.03	185.00	

Verification Files: C:\case\calver\GR\457A1.VP

PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED:	Thu Apr 08 03:27:39 2010	TOOL SERIES:	2459XA	ASSET:	457	SEQ:	A1
Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]	
52K DAS05	58.98	332.71	0.676	39.84	224.75	184.91	

RALSHP

Shop Calibration: C:\case\calver\RALSHP\452M1_shp.cal

SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED:	Wed Apr 28 05:00:49 2010	TOOL SERIES:	1426XA	ASSET:	452	SEQ:	M1	
Tool Delay [usec]	-54.00	Tank OD In	5.50	Tank Wt lbm/ft ³	15.50	Tank ID In	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	217	216	30	166	25	-0.120	100.00	0.20
3 Ft. Receiver	219	216	30	166	25	-0.296	100.00	0.20
5 Ft. Receiver	327	324	28	258	25	0.727	150.00	0.22
Radial #1	217	216	25	95	39	1.564	100.00	0.20
Radial #2	218	216	25	95	39	0.342	100.00	0.20
Radial #3	219	216	25	95	39	0.106	100.00	0.20
Radial #4	220	216	25	95	39	-0.342	100.00	0.20
Radial #5	221	216	25	95	39	-0.031	100.00	0.20
Radial #6	219	216	25	95	39	0.387	100.00	0.20
Radial #7	217	216	25	95	39	-0.577	100.00	0.20
Radial #8	218	216	25	95	39	0.068	100.00	0.20

RALFLD

Well Site Calibration: C:\case\calver\RALFLD\452M1 fld.cal

WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED:	Wed Apr 28 05:02:17 2010	TOOL SERIES:	1426XA	ASSET:	452	SEQ:	M1
Tool Delay	-54.00	Casing OD	4.50	Casing Wt	15.10	Casing ID	3.83

[usec]

0.100

In

1.00

lbm/ft

10.1V

In

0.00

RECEIVER	Zero Gate Start [usec]	Zero Gate Width [usec]	Zero Amp. [mV]	Full Amp. [mV]	Wellsite Factor	Amp. Ref [mV]
CAL Pulse	166	25	-0.244	0.000	1.02	100.000
3 Ft. Receiver	198	25	0.558			
5 Ft. Receiver	264	25	0.311			
Radial #1	198	25	-0.123			
Radial #2	198	25	0.084			
Radial #3	198	25	0.232			
Radial #4	198	25	-0.054			
Radial #5	198	25	-0.321			
Radial #6	198	25	-0.012			
Radial #7	198	25	-0.197			
Radial #8	198	25	-0.011			

TOOL DIAGRAM

OTA SHORT CABLE HEAD

CENTRALIZER

Series RALCENT
 Mnemonic CENT
 Diameter 3.12"
 Weight 20.00 lb

PROBE 2 3/4 DUAL RECEIVER RADII (1426XA)

CENTRALIZER

Series RALCENT
 Mnemonic CENT
 Diameter 3.12"
 Weight 20.00 lb

Probe GR/CCL/NEU



30.00'

XMIT — 20.94'

NEAR RCVR — 17.85'

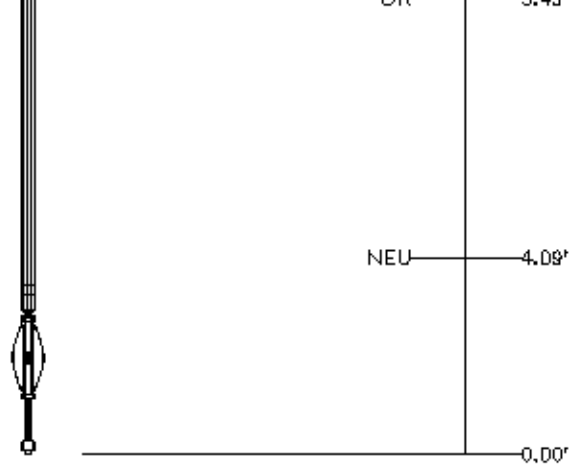
FAR RCVR — 15.94'

CCL — 11.34'


GR — 9.48'

Series	2458XA
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: 30.00'
 Total Weight: Not Available
 Max Diameter: 0' 3.12"

 Baker Atlas	Company EXXONMOBIL PRODUCTION COMPANY Well PCU 197-34B7 Field PICEANCE CREEK County RIO BLANCO State COLORADO	File No: 1770 API No: 05103110880000
	Location SHL: 831' FSL & 951' FEL SEC 34 TWP 15 RGE 97W	Elevations KB 8651 ft DF 8650 ft GL 8638 ft

CASE