



RESERVOIR PERFORMANCE MONITOR

Baker Atlas

File No:

Company

WARATHON OIL COMPANY

API No:

Well

596-31A-11

05-045-150910000

Field

GRAND VALLEY

County

GARFIELD

State

COLORADO

Location

779' R/L & 1675' FEL

Other Services

3.70" GAUGE
BOND

SEC

31

TWP

SS

RGE

908

Permanent Datum

G.L.

Elevation

8418 ft

Log Measured From

K.B.

24 ft

Above P. D.

Drill Measured From

KELLY BUSHING

Elevations

KB 8442 ft
DF 8441 ft
GL 8218 ft

Date 11-DEC-2008

Run

ONE

Service Order

547519

Depth Driller

9751 ft

Depth Logger

9707 ft

Bottom Logged Interval

9707 ft

Top Logged Interval

9174 ft

Time Started

13:30

Time Finished

21:30

Operator Rig Time

8 HRS

Type of Fluid in Hole

WATER

Fluid Density

N/A

Salinity

N/A

Fluid Level

PULL

Logged Cement Top

N/A

Wellhead Pressure

0 psi

Maximum Hole Deviation

N/A

Nominal Logging Speed

10 fpm

Maximum Recorded Temperature

N/A

Reference Log Date

11-DEC-08

Equipment No.

8054

Recorded By

TIM KAUTT

Witnessed By

MR. TIM NEED

- 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
8.75	2641 ft	7456 ft
7.875 in	7458 ft	9580 ft

Casing Record

Size	Weight	Grade	From	To
4.5 in	11.6 lbm/ft	P-110	SURFACE	9751 ft

Remarks

THE CREW OF 8054 THANKS YOU.

Equipment Data

Run	Trip	Tool	Series Number	Serial Number	Position
1	1	RPM	8291FA	10185574	FREE

1	1	RPM	B291PA	10170965	FREE
1	1	RPM	B291EA	10190964	FREE
1	1	GAUSS. RAY	B262XA	217	FREE
1	1	QCL	B248EA	10222778	FREE
1	1	PCM	B250EA	166326	FREE

MAIN SECTION IN PNC 3-D MODE

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		6119.913	9733.317
PNC Porosity	Borehole Size	8.750	Inch	6119.913	7458.349
PNC Porosity	Borehole Size	7.875	inch	7458.349	9733.317
PNC Porosity	Casing Size	4.500	inch	6119.913	9733.317
PNC Porosity	Gas Filled	Non Gas Filled		6119.913	7458.349
PNC Porosity	Gas Filled	Non Gas Filled		7458.349	9733.317
PNC Porosity	Matrix	Sandstone		6119.913	9733.317

DEPTH OFFSETS (for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
B248EA	-15.470	FLTM					
B248EA	-13.470	QCL CHV					
B262XA	-10.189	GR					
B281XA	-0.662	HVC3Q0	SEQ3	AMA3	AML3	BKX	CXS
		CPT3Q0	CPT3Q2	CPT3Q3	CPT3Q4	ET3	IXS
		MCS3	MCS3Q0	QCAL3	RGN3	RICK	SDA3
		SDL3	SGA3	SGL3	STA3	XS	ASPEC3
		AMB3	AMF3	CHF3	IXSC	IXSN	RAT023
		RICKC	RIN13C	RIN23	RIN23C	SD3D	SG3D
		SGB3	SGF3	WDTH3	CXSR	IXSR	XSR
		RICKR					
B281XA	-0.250	HVC2Q0	SEQ2	AMA2	AMB2	AMF2	AML2
		BKL	CHF2	CLS	CPT2Q0	CPT2Q2	CPT2Q3
		CPT2Q4	ET2	LL2	LL2	W200	W200B

8281XA

0.000

CPT1Q4	ET2	ILS	LS	MCS2	MCS2Q0
QCAL2	RGN2	RICL	RONE23	RTW023	SDA2
SDL2	SGA2	SGB2	SGF2	SGK2	SGL2
STA2	ASPEC2	ILSC	ILSN	WIDTH2	RICLC
CLSR	ILSR	LSR	RICLR		
QPRS	HVC1Q0	WV	SEQ	SEQ1	AMA1
AMB1	AME1	AMF1	AML1	BKS	CHF1
GSS	CORB	QGRF	CPT1Q0	CPT1Q2	CPT1Q2A
CPT1Q2B	CPT1Q2C	CPT1Q3	CPT1Q4	CPT1Q5	ET1
G1	G2	GE1S	GE2S	ISS	MCS1
MCS1Q0	QA1	QCAL1	QM1	RAT0	RAT013
RBOR	RGN1	RICS	RIN	RONE	RPOR
RTW0	RIN13	RONE13	RTW013	SALB	SC1
SDA1	SDL1	SGA1	SGB1	SGBC	SGE1
SGF1	SGFC	SGK1	SGL1	SS	SS2
STA1	PD1S	PD2S	PD3S	MD1S	MD2S
MD3S	DG1S	DG2S	DG3S	PD1M	PD2M
PD3M	MD1M	MD2M	MD3M	DG1M	DG2M
DG3M	WVS	WA	WVM	FILV	IAM
TA	PVM	PVS	IAS	SSTAT	QPD1
QPD2	QPD3	QMD1	QMD2	QMD3	QDG1
QDG2	QDG3	QMA	QTA	QFILV	QMV
QPV	QIA	DERR	DCNT	QPK1	QSA1
PKS1	ASPEC1	HOC	FE2XC	ISSC	RINC
ISSN	RDEN	WIDTH1	RICSC	CSSR	G1R
G2R	ISSR	SSR	SS2R	RATOR	RAT013R
RBORR	RICSR	RINR	RIN13R	RONER	RPORR
RTWOR					
SYSTEM	0.000	TEN	TTEN		

Created by : RPM9, v5.0.0.0

Plotted by : PlatMgr, v5.4.504

Company : MARATHON OIL COMPANY

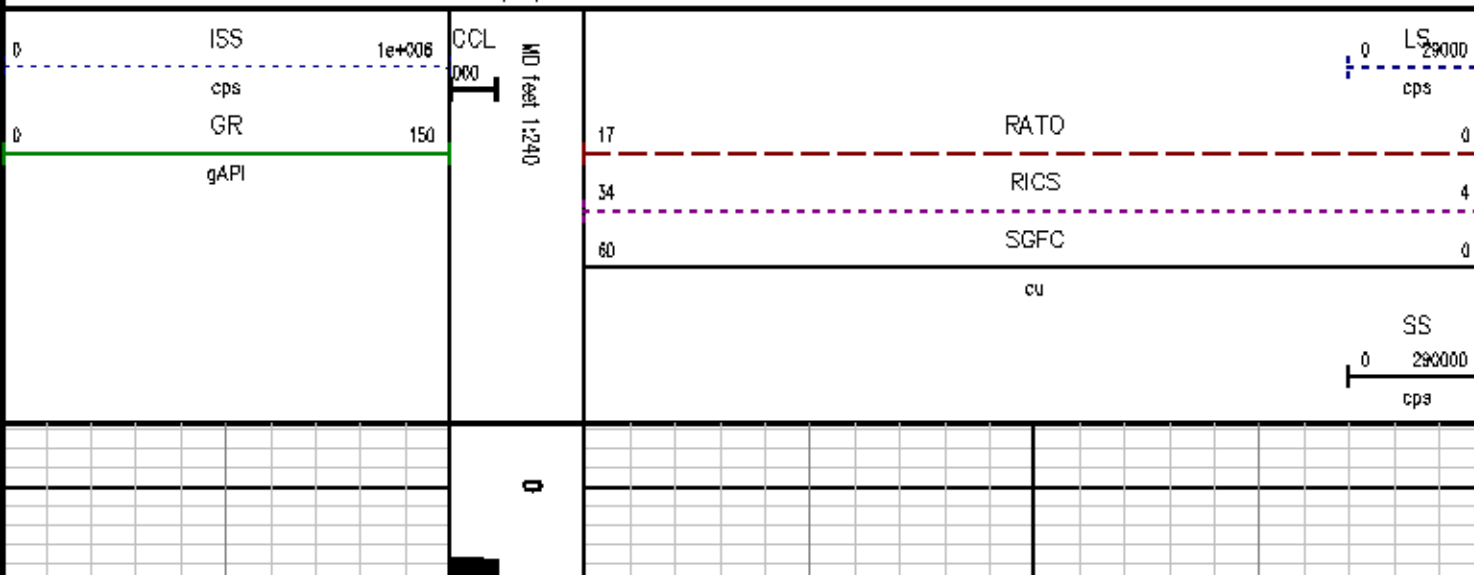
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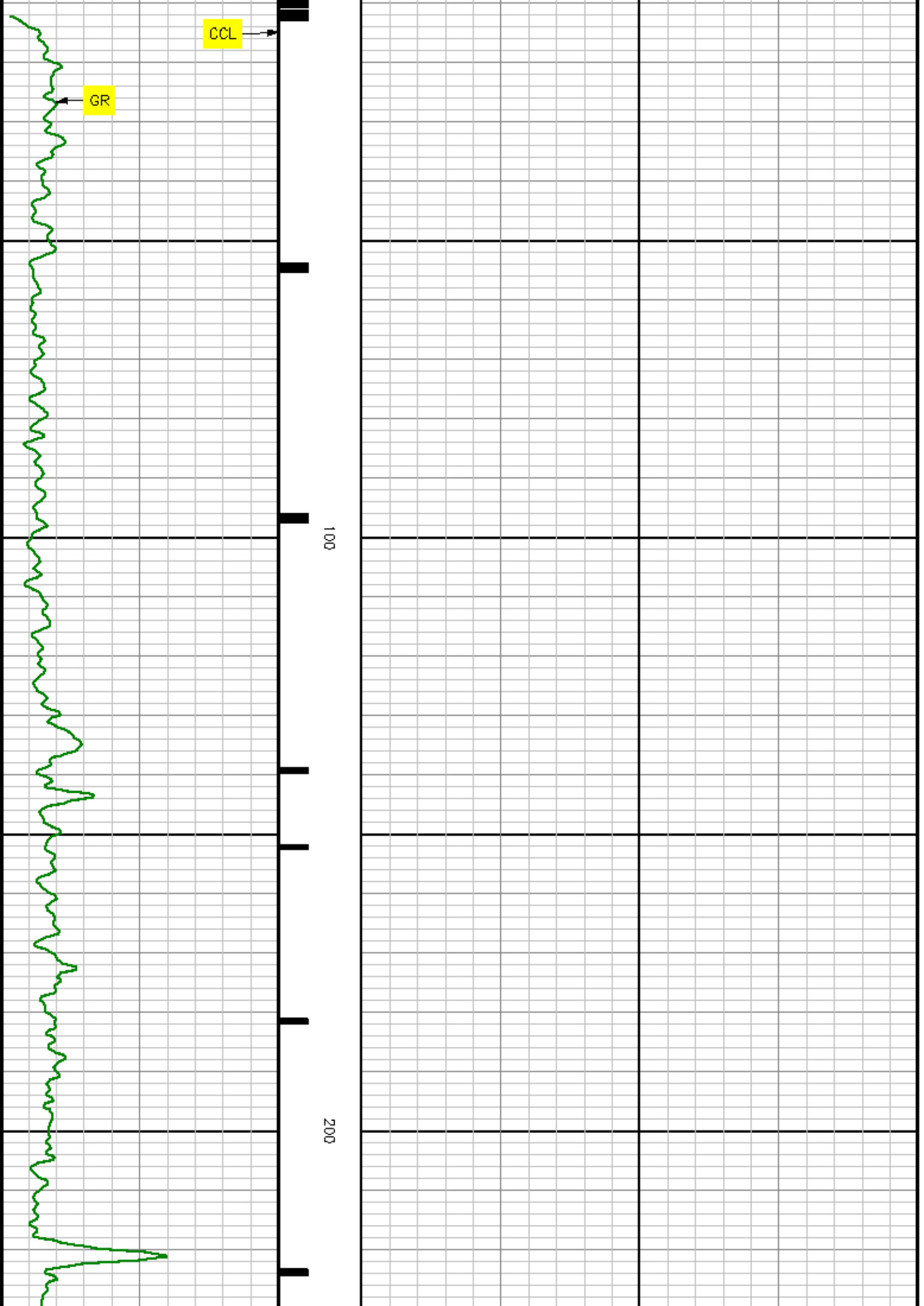
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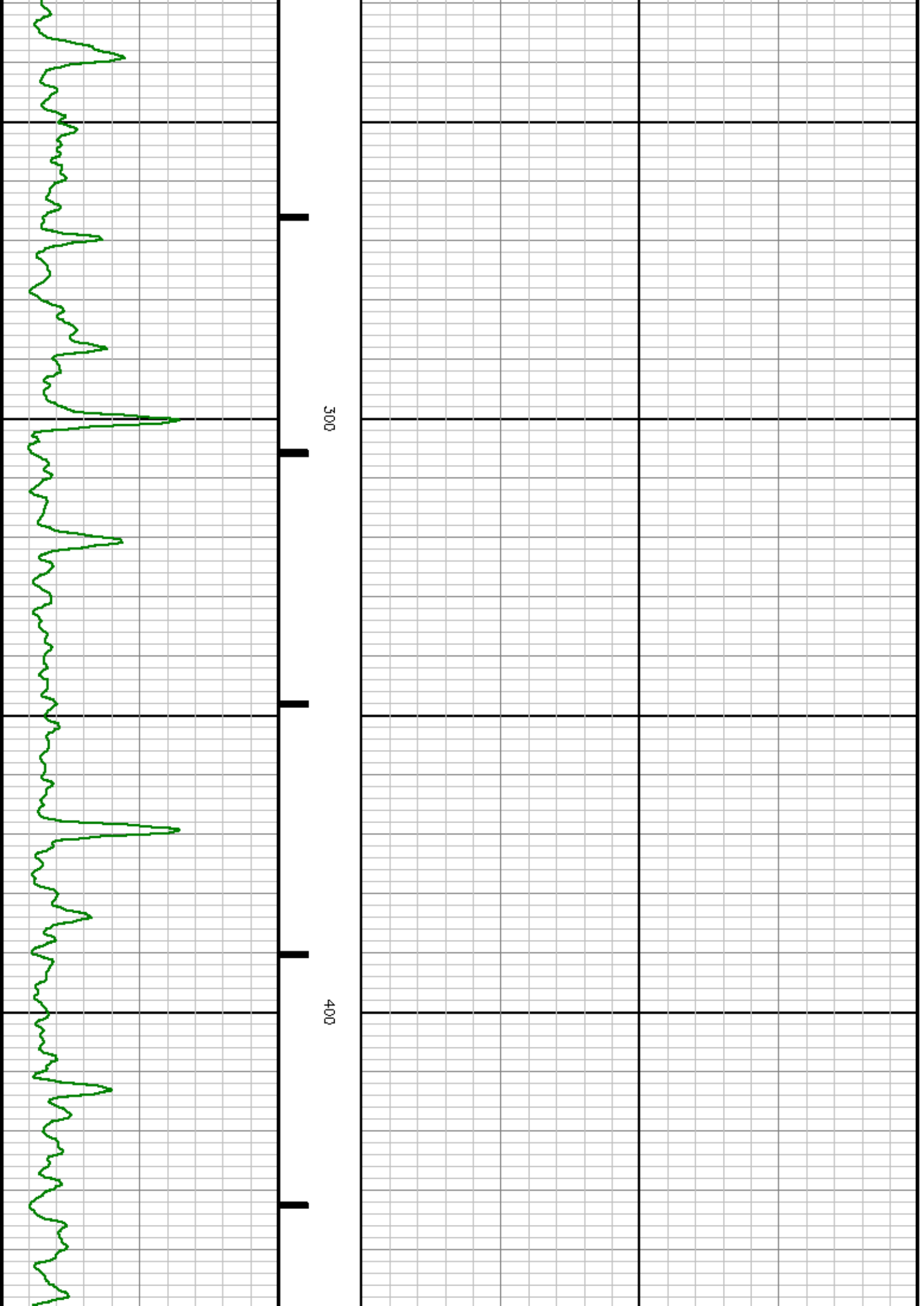
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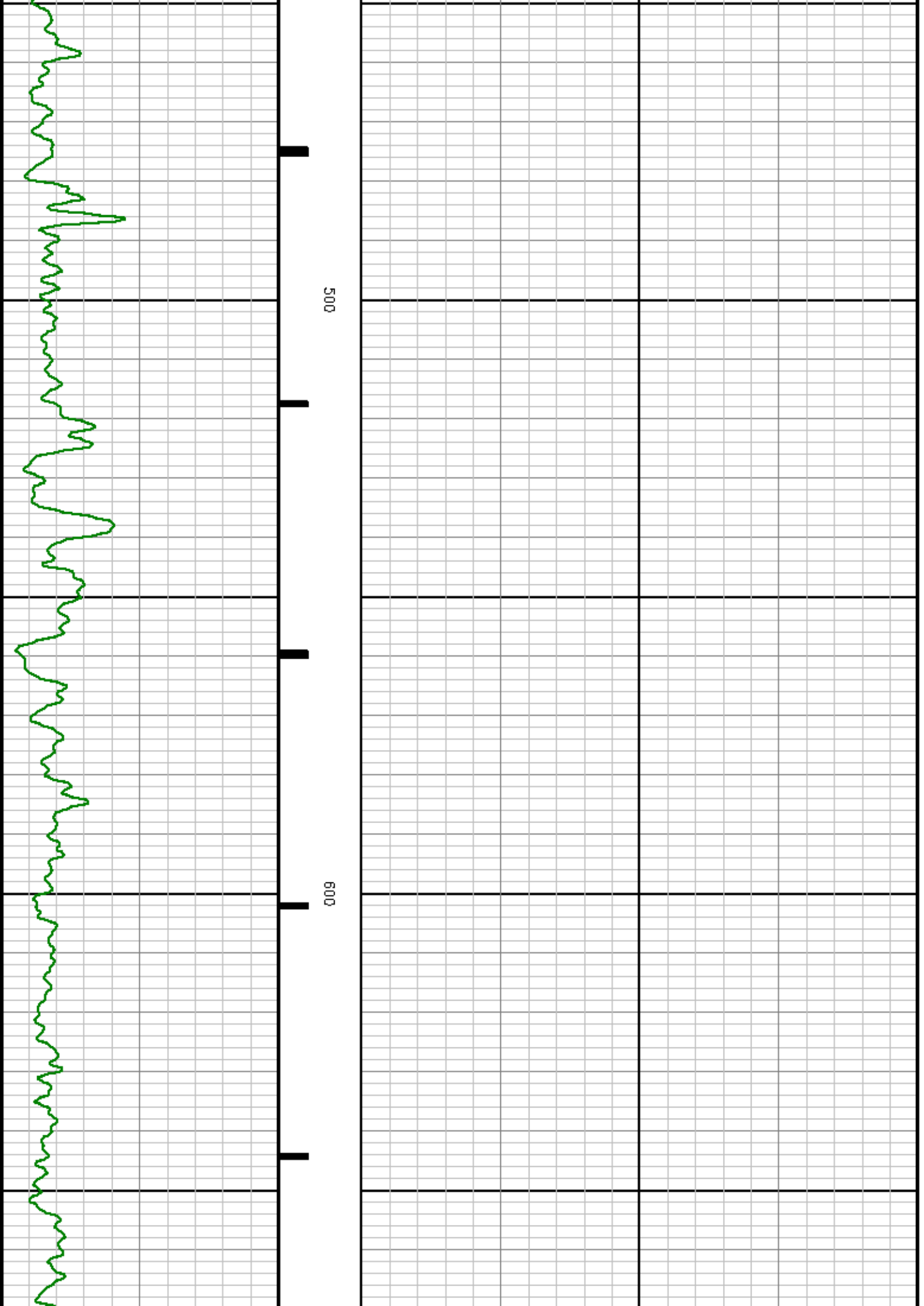
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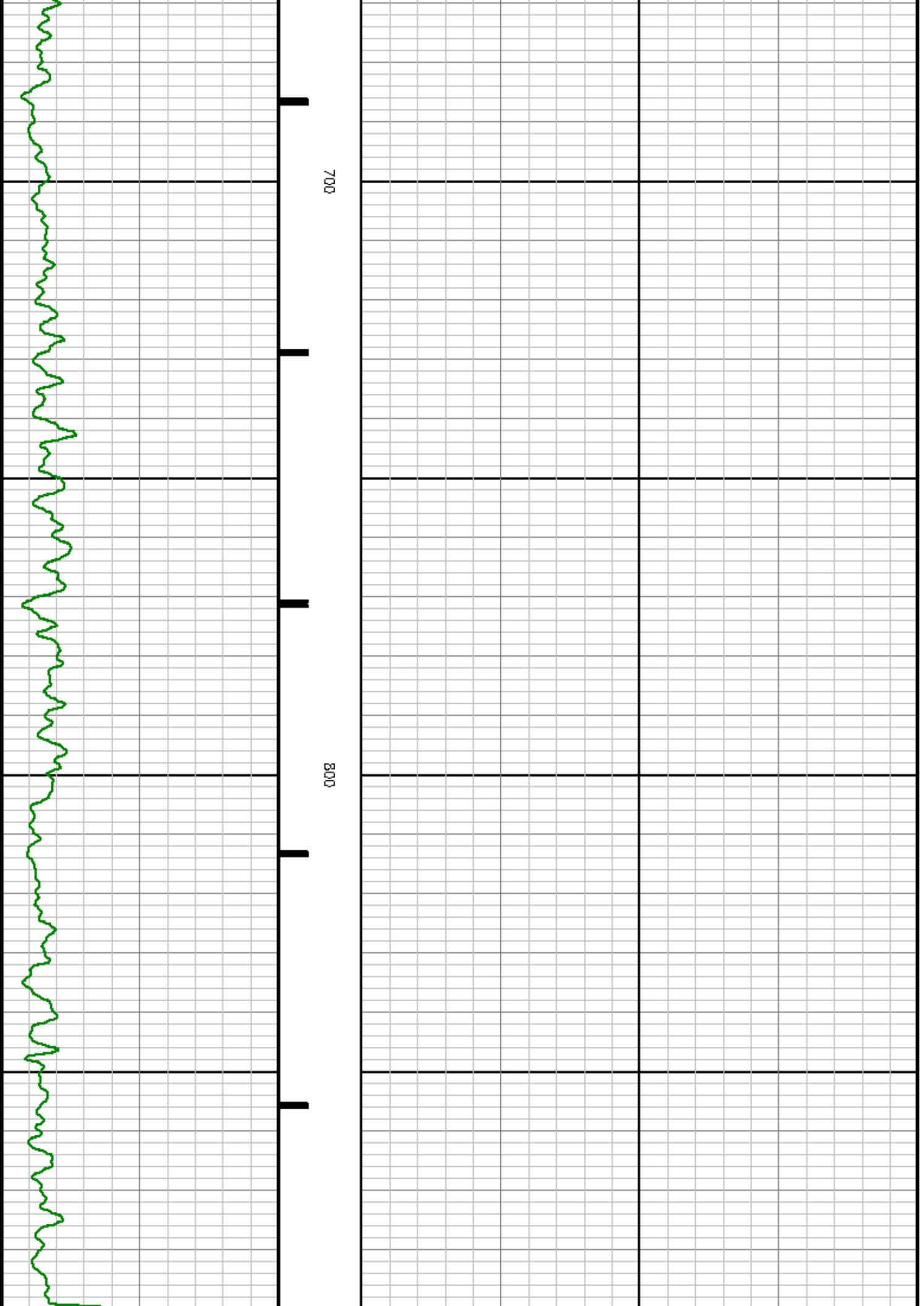
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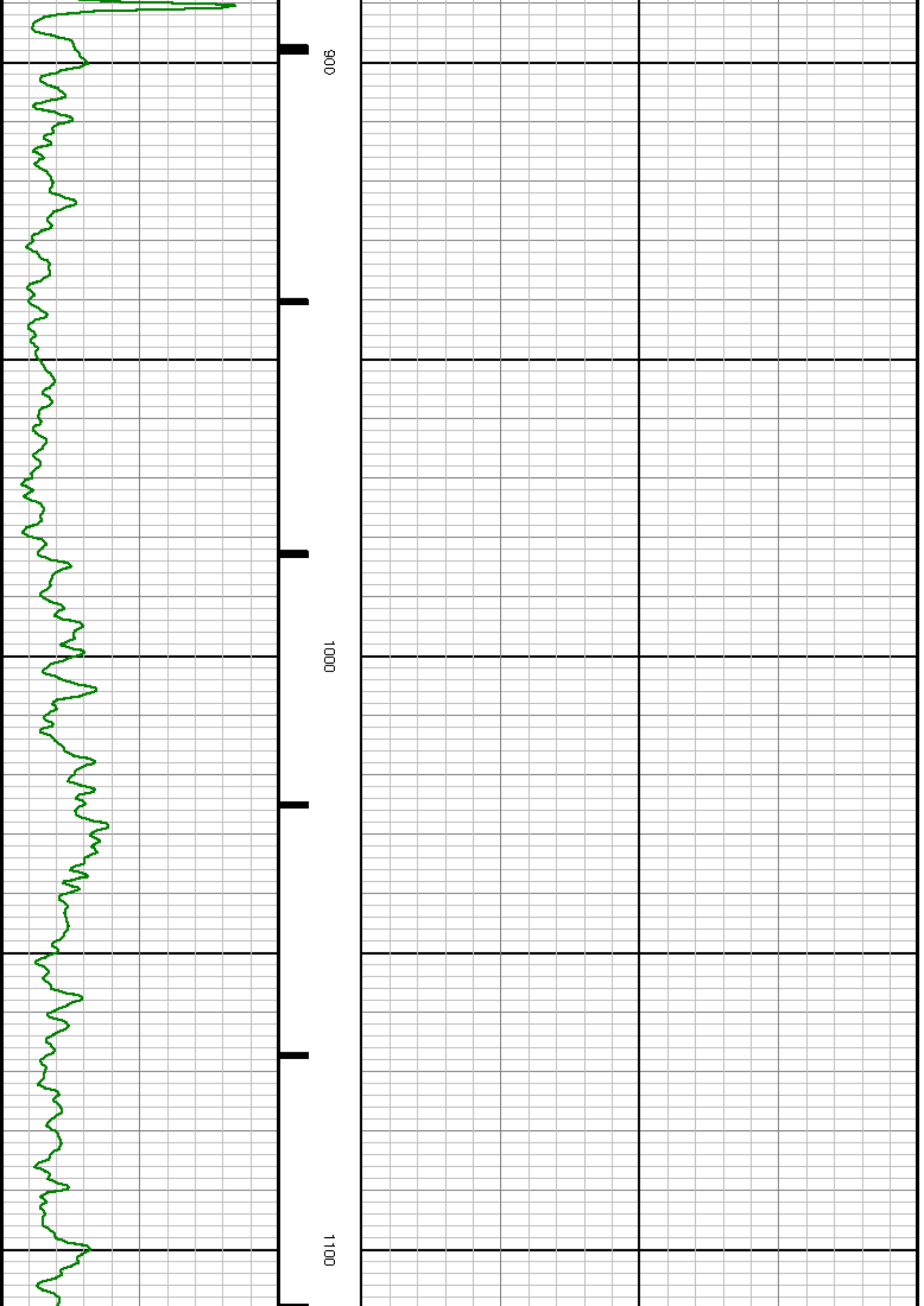


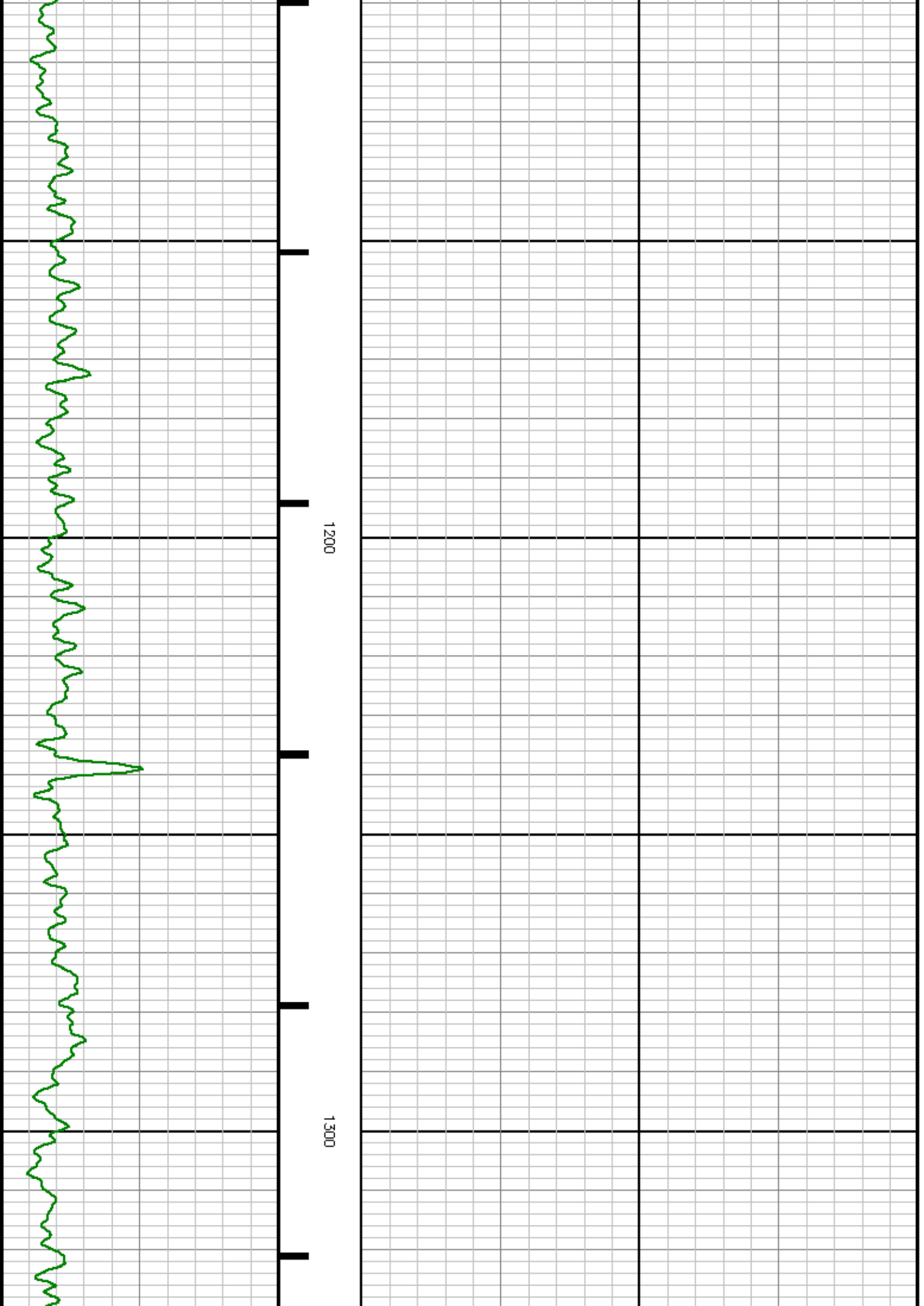


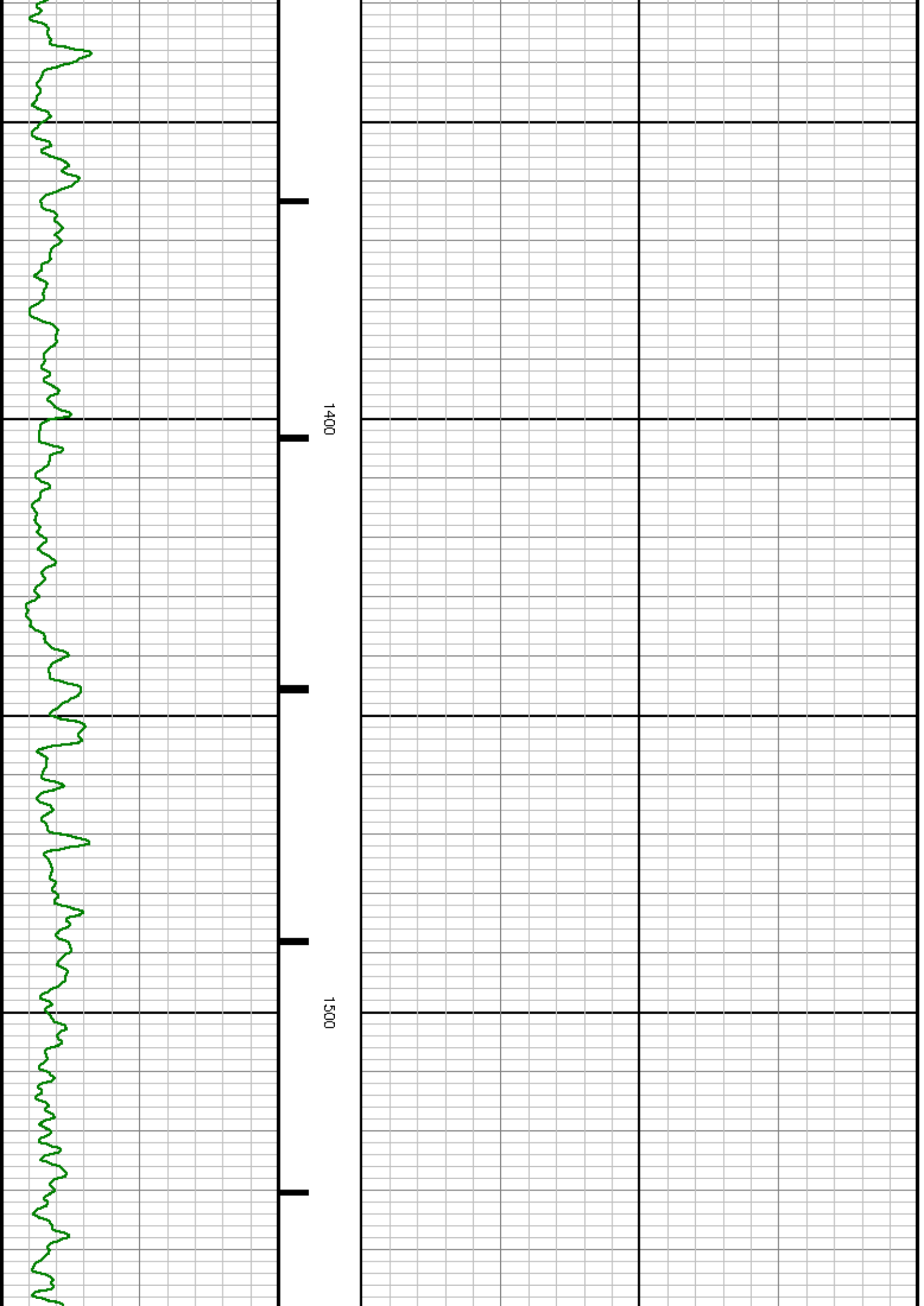


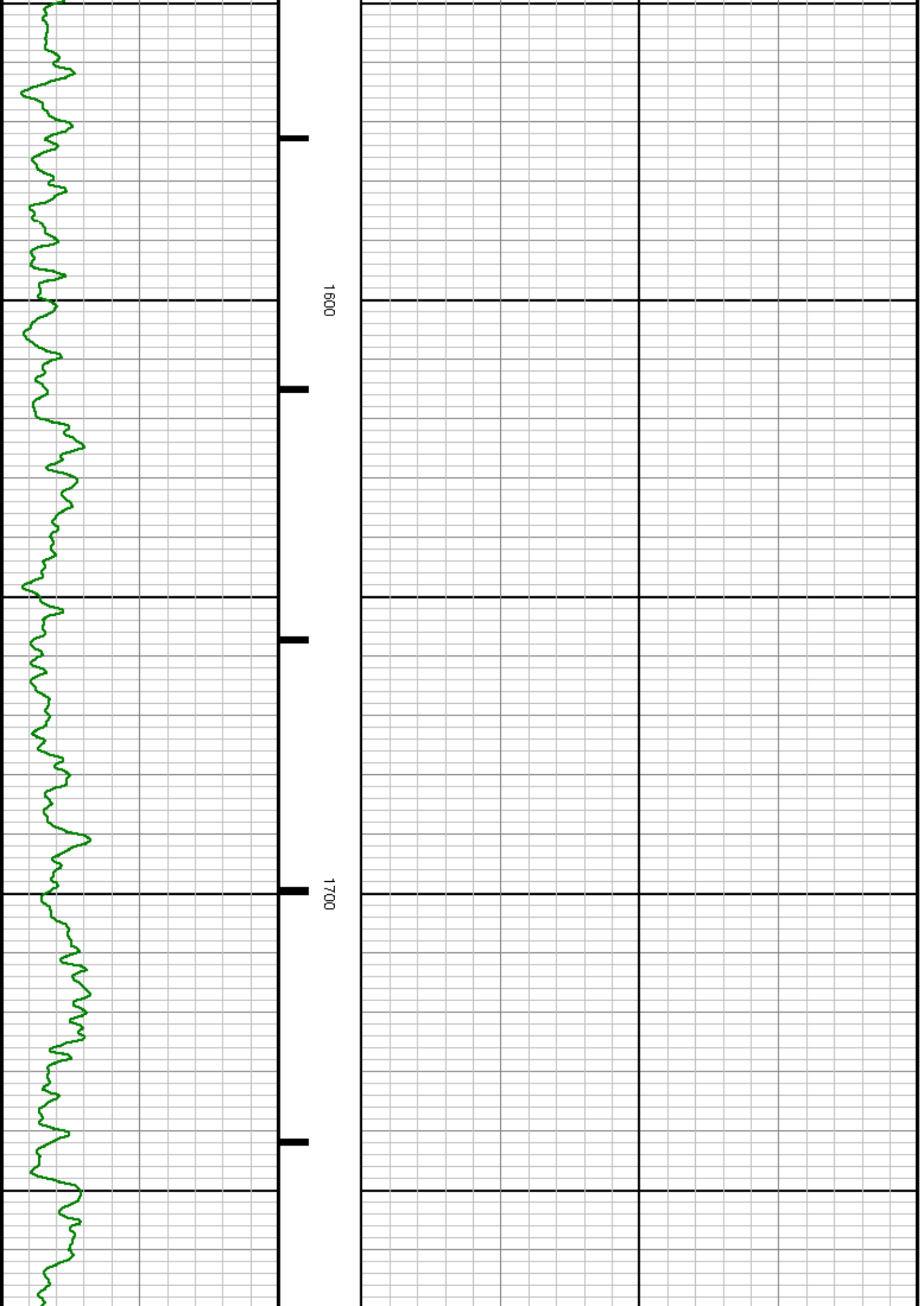


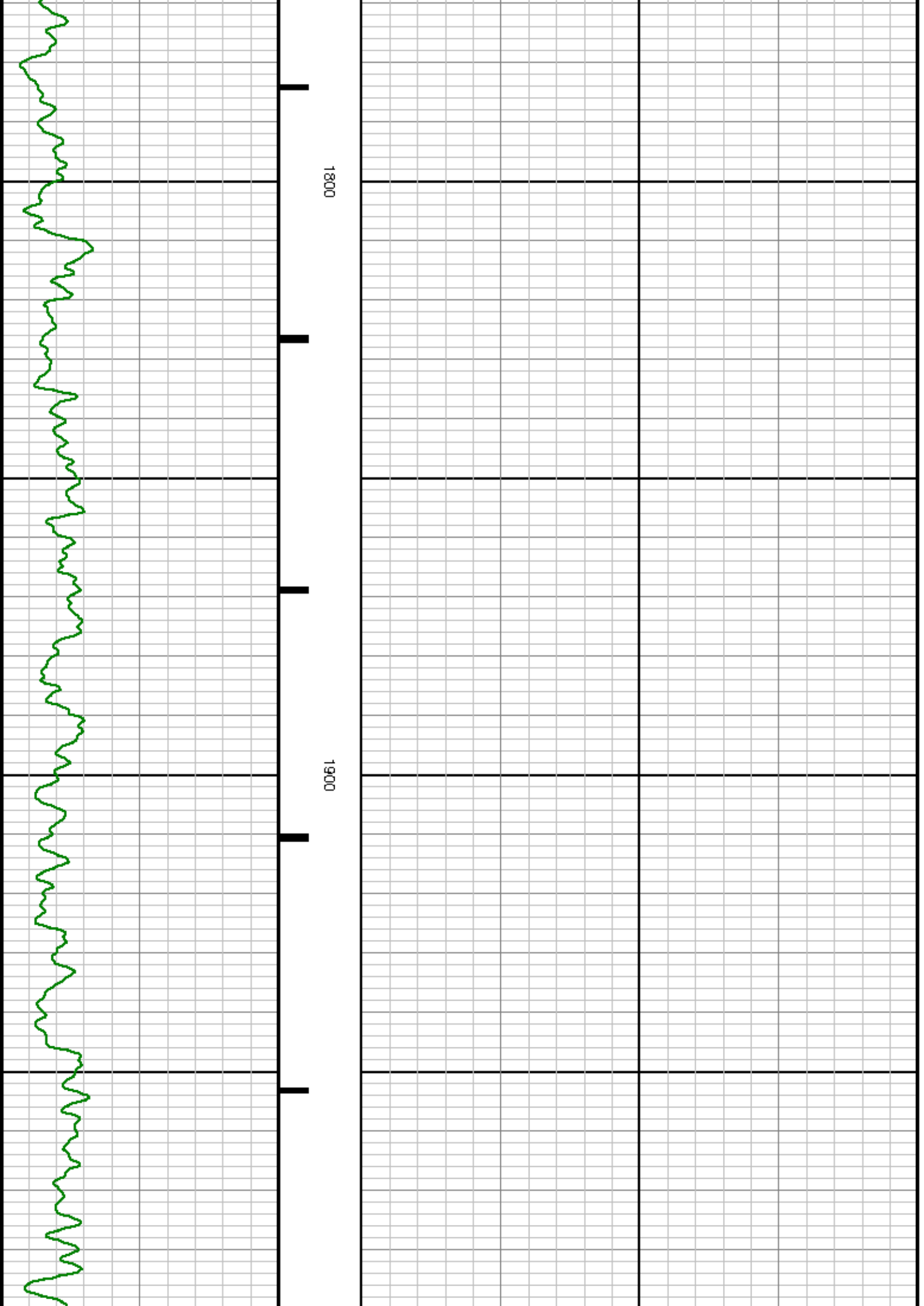


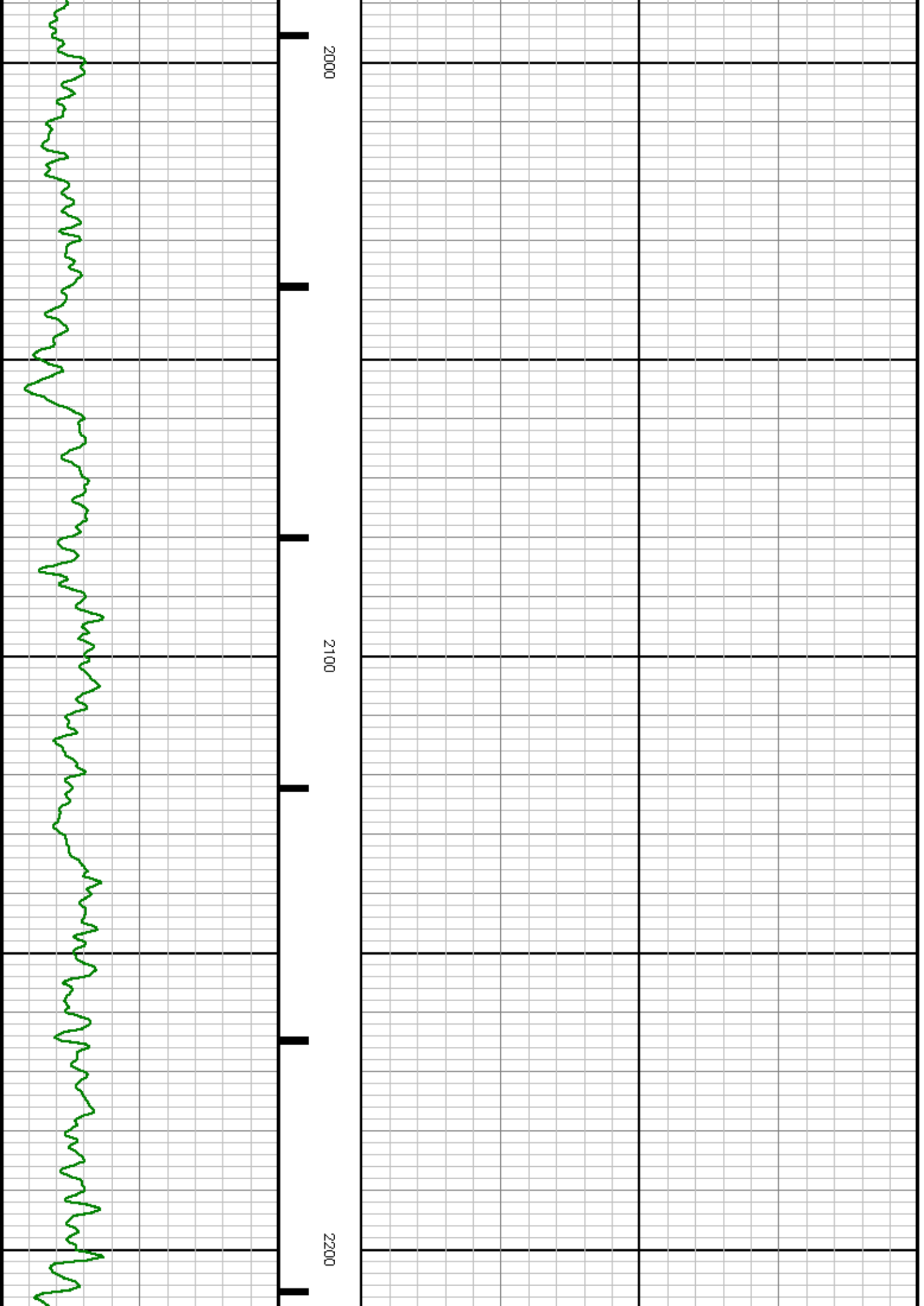


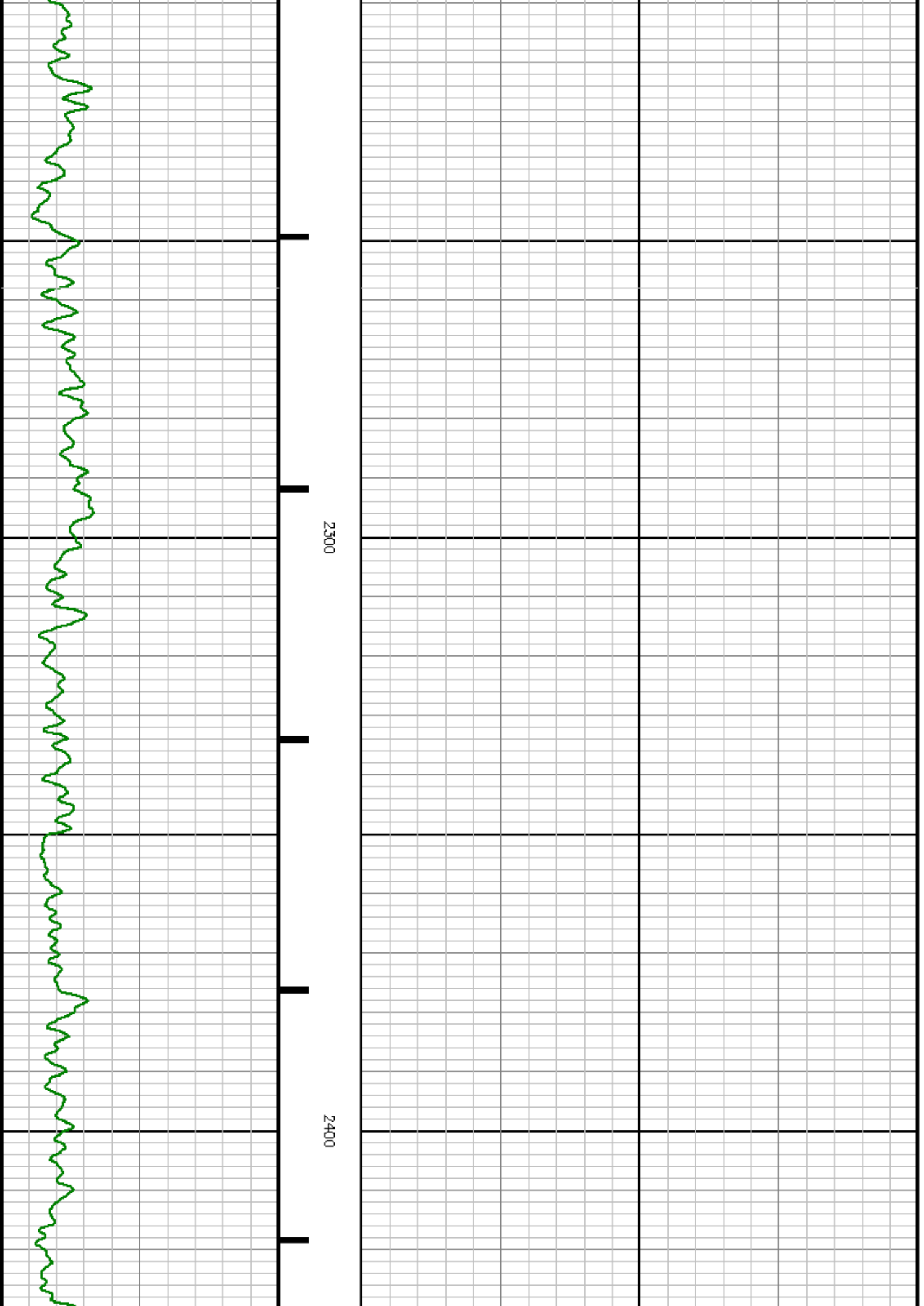


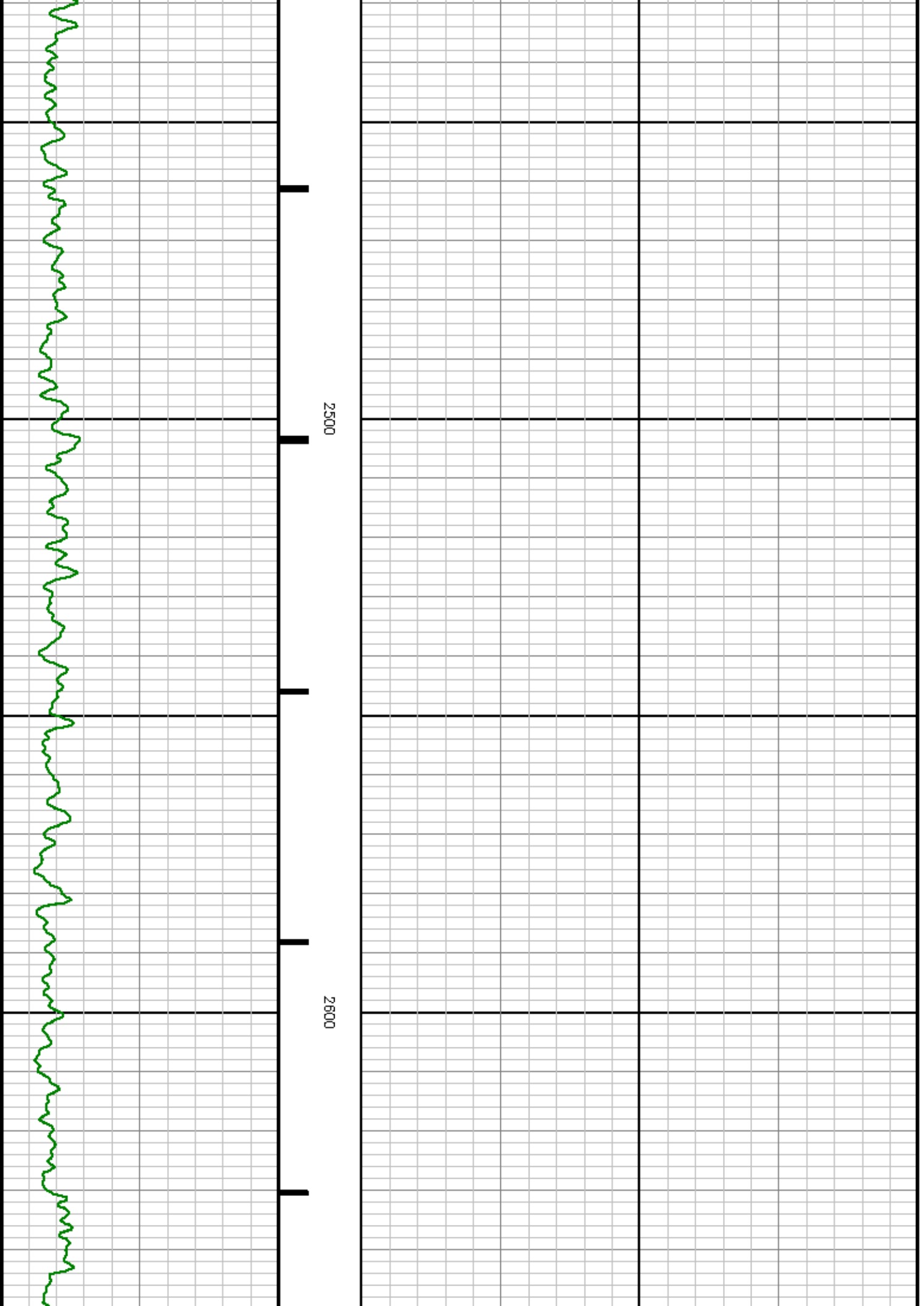


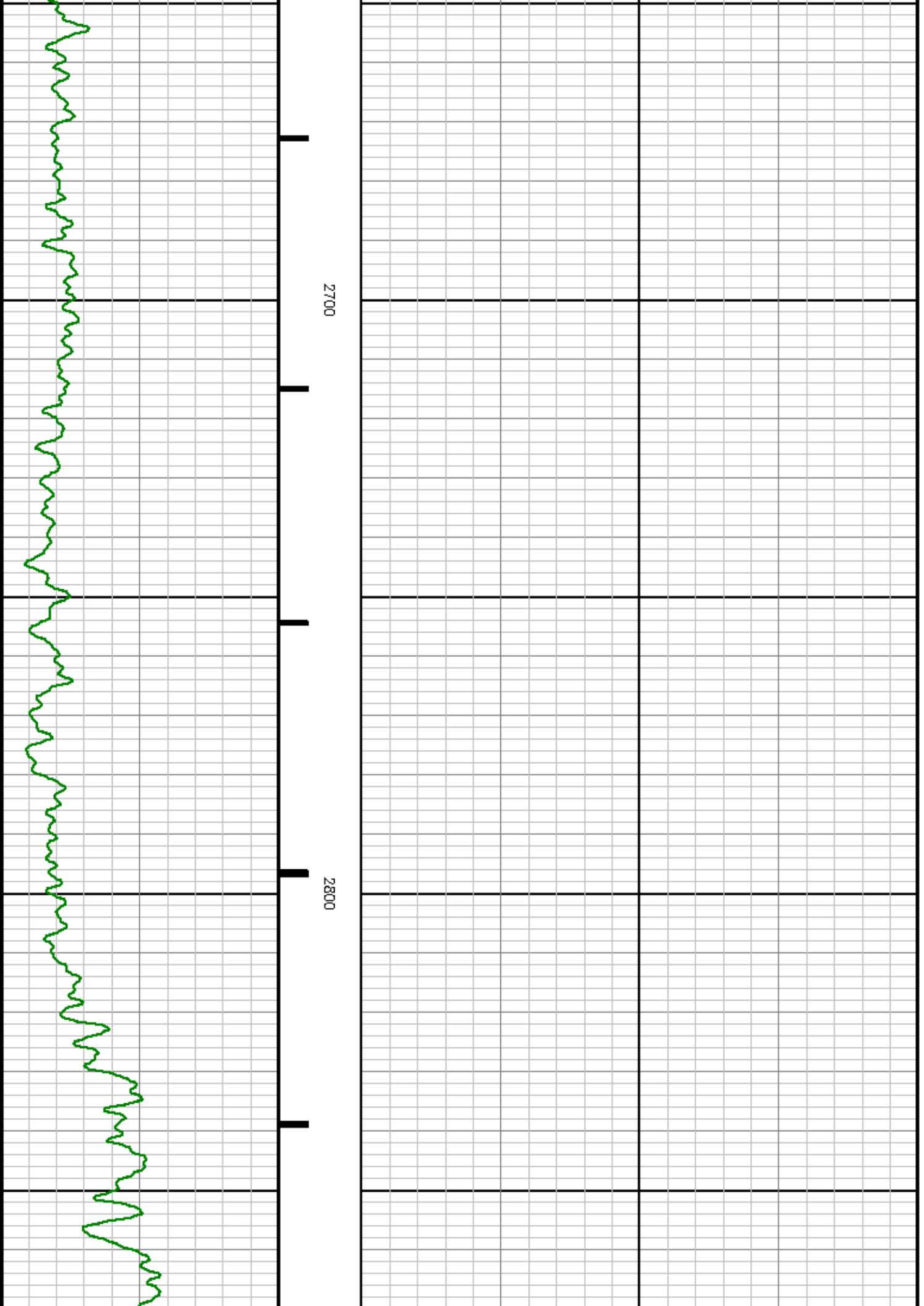


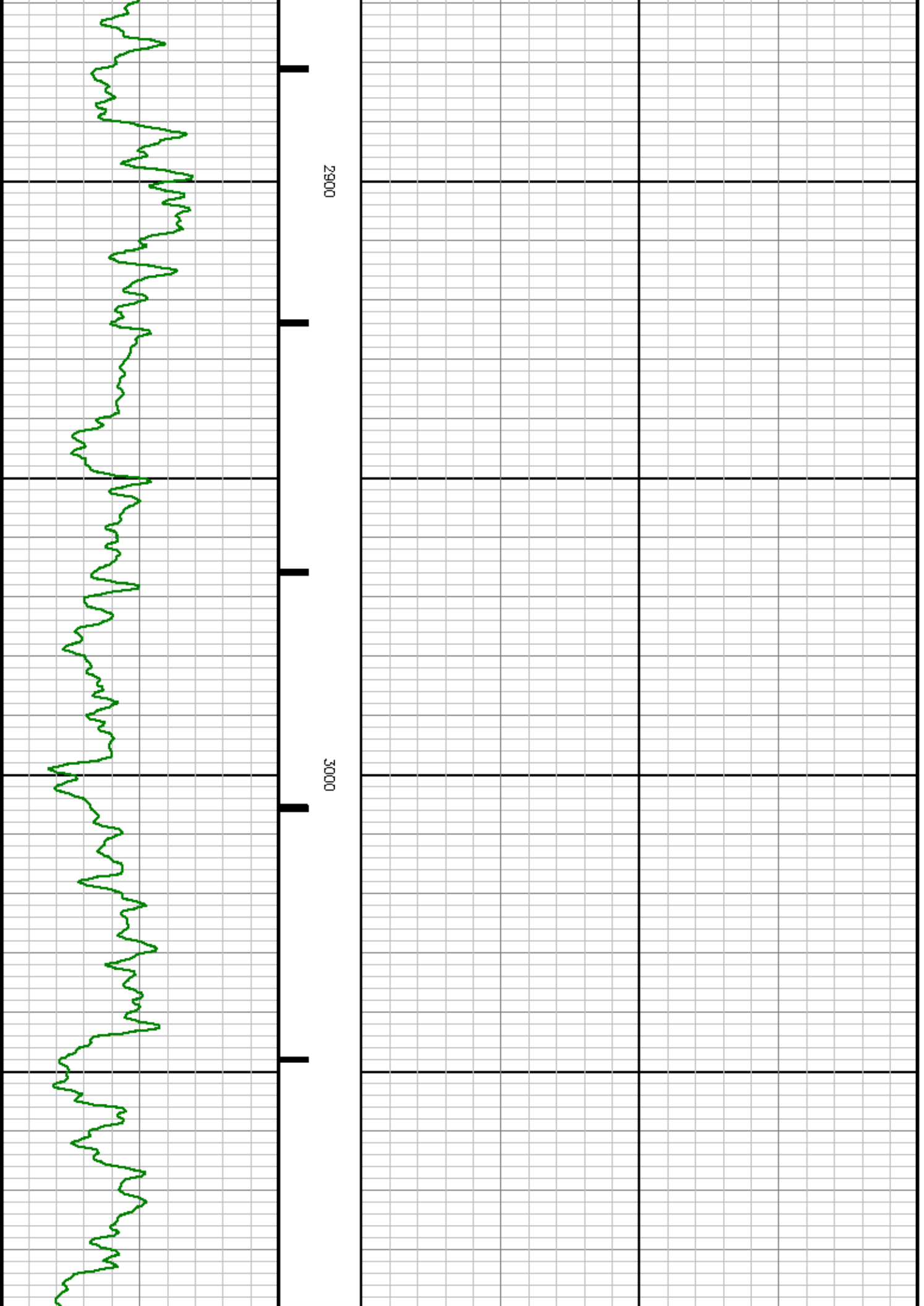


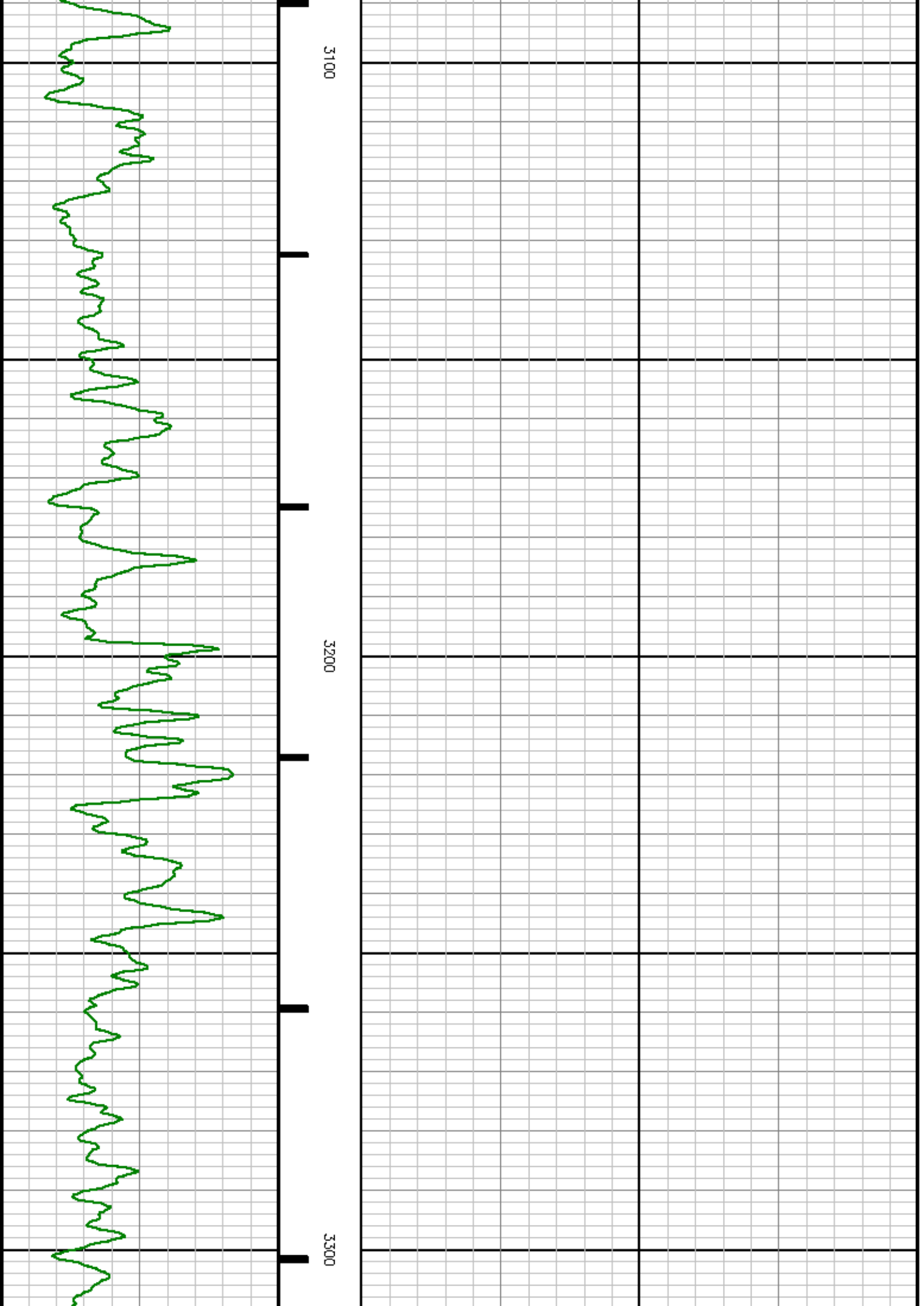


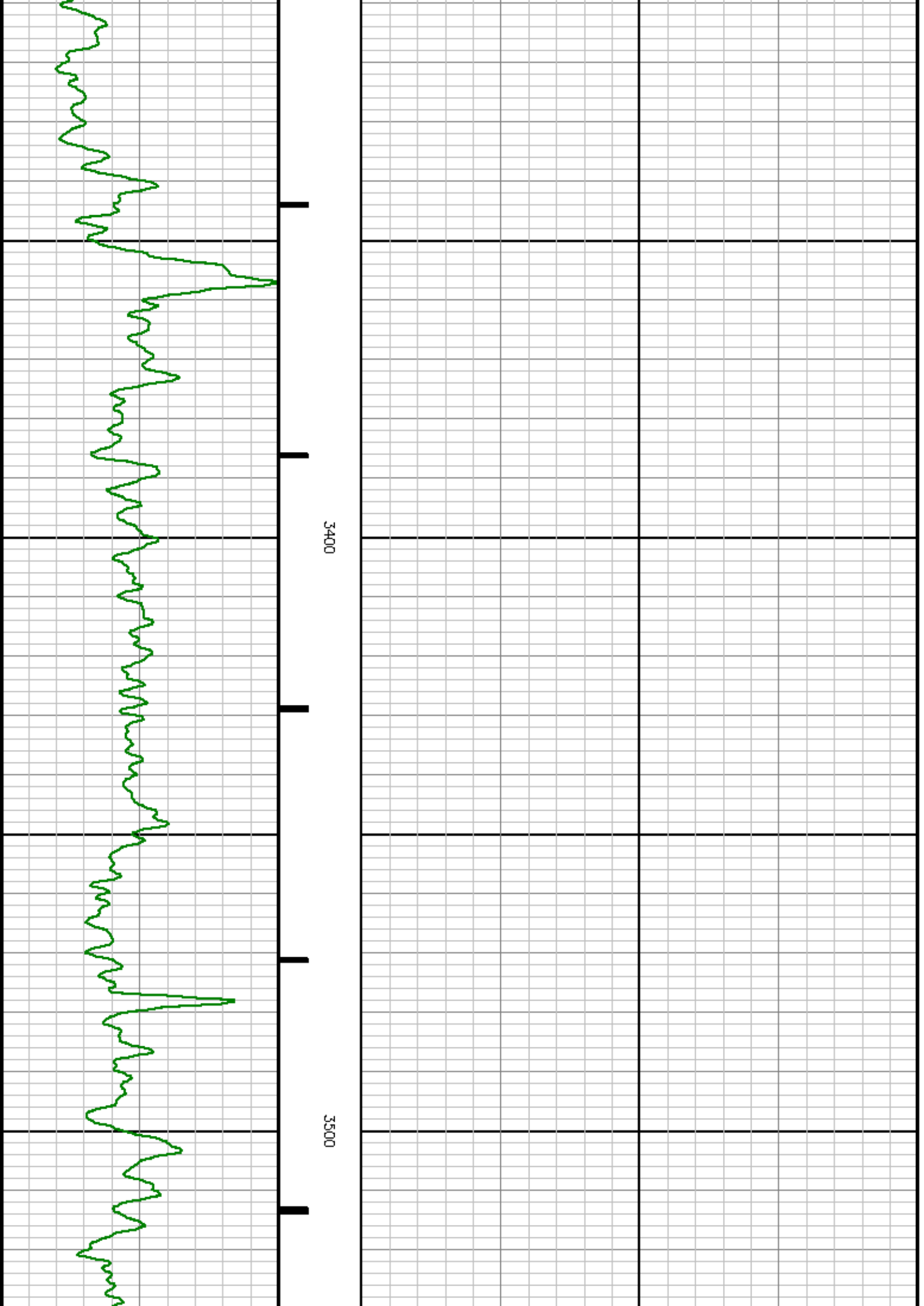


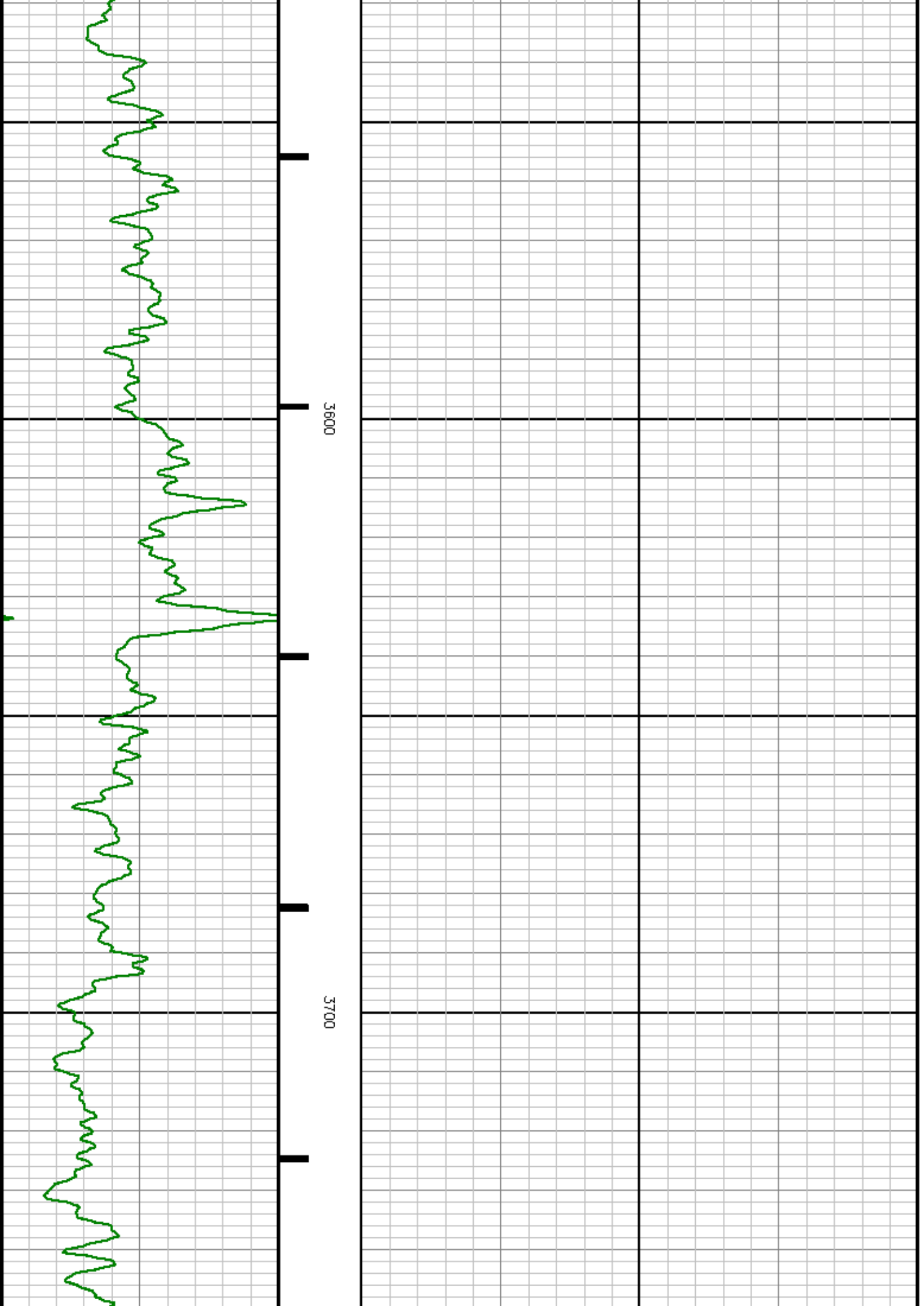


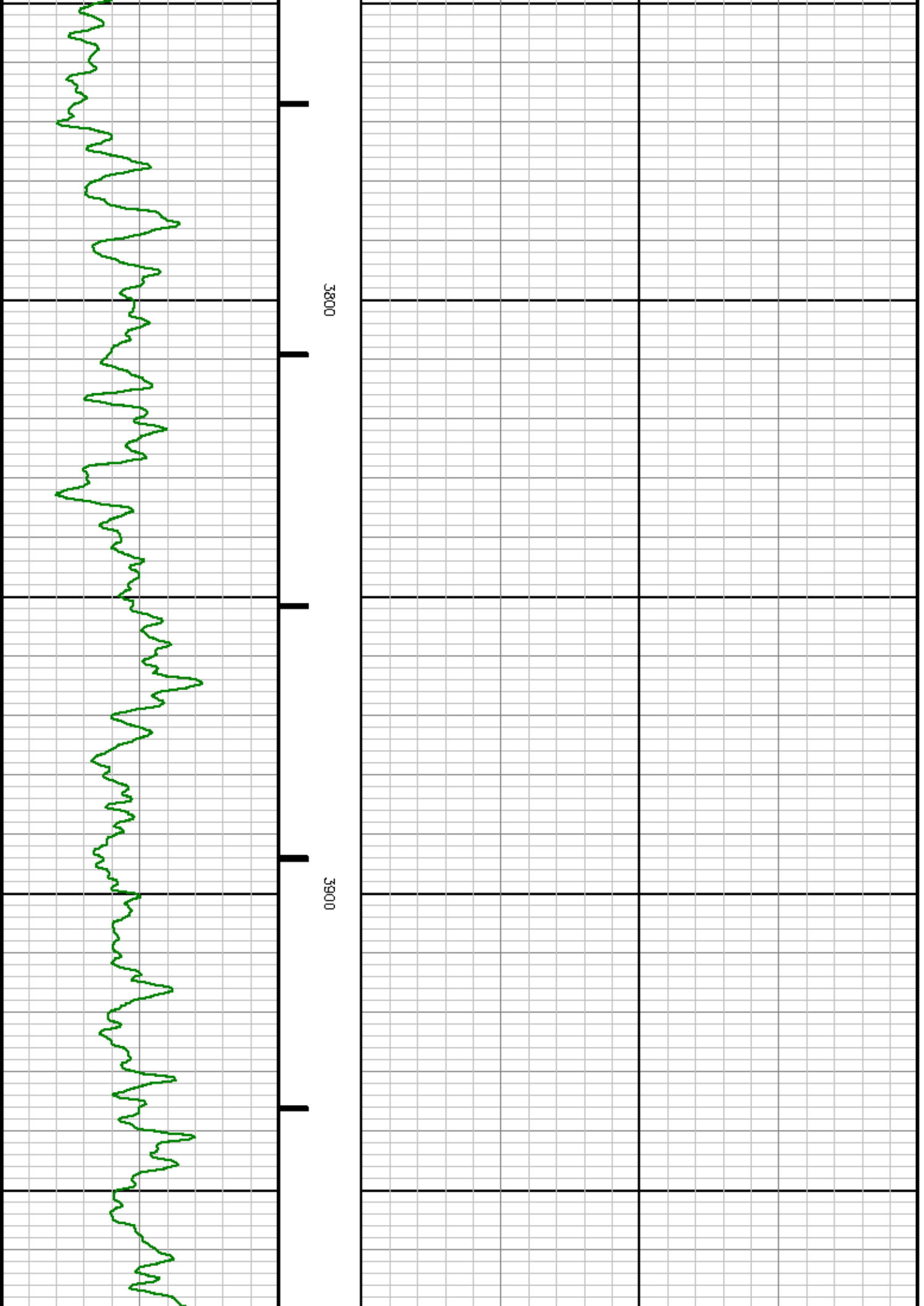


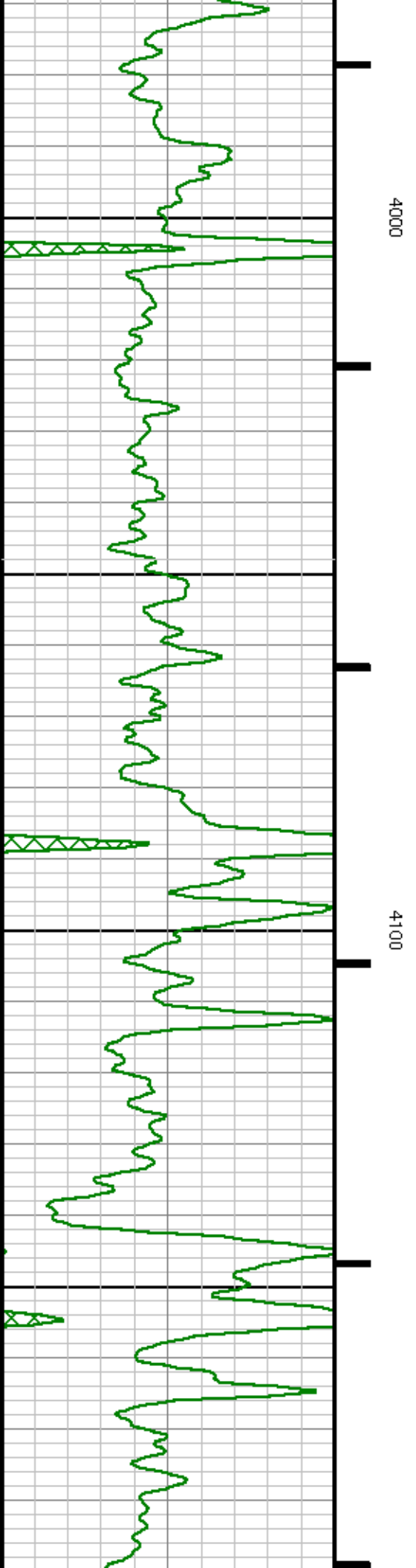


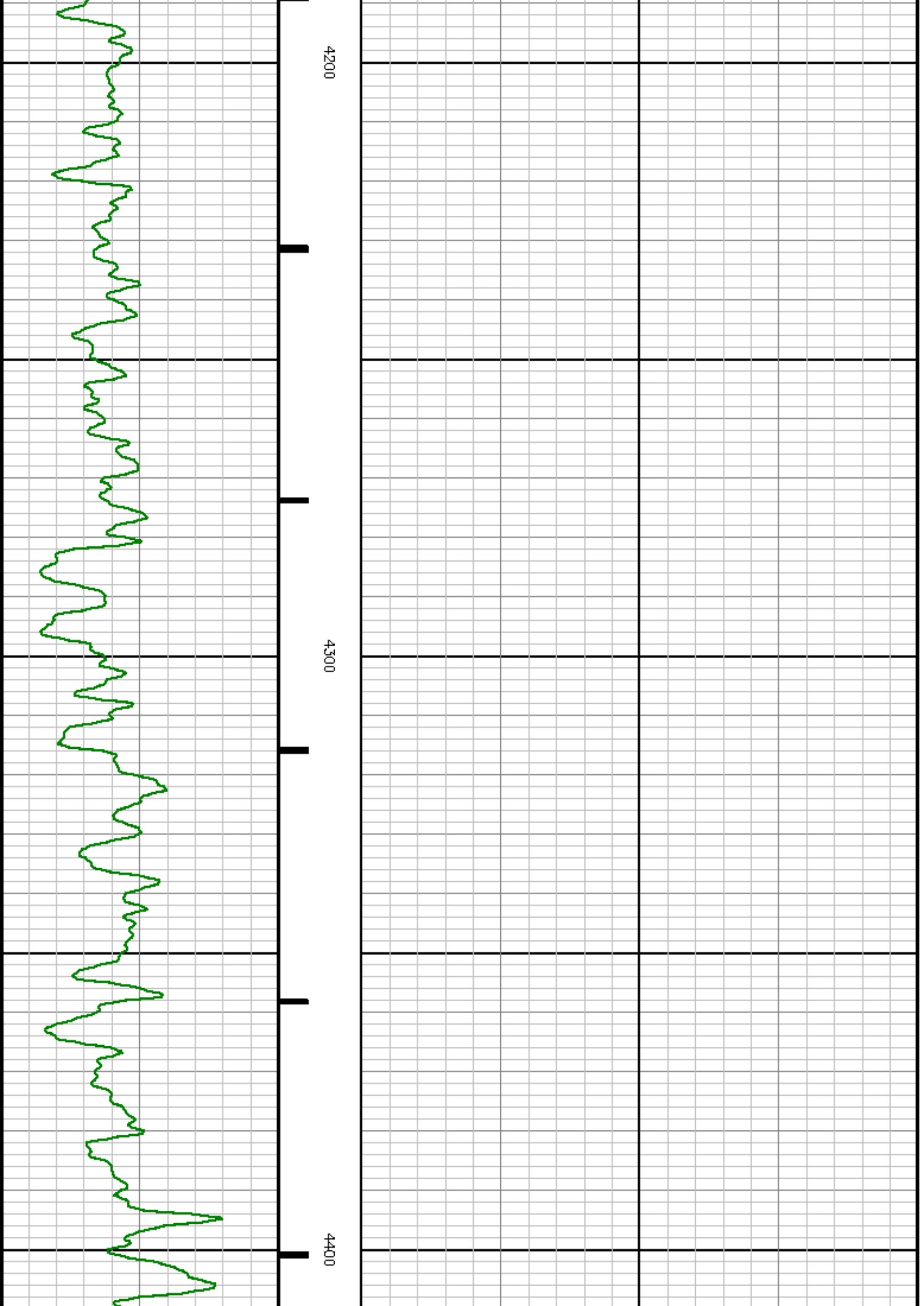


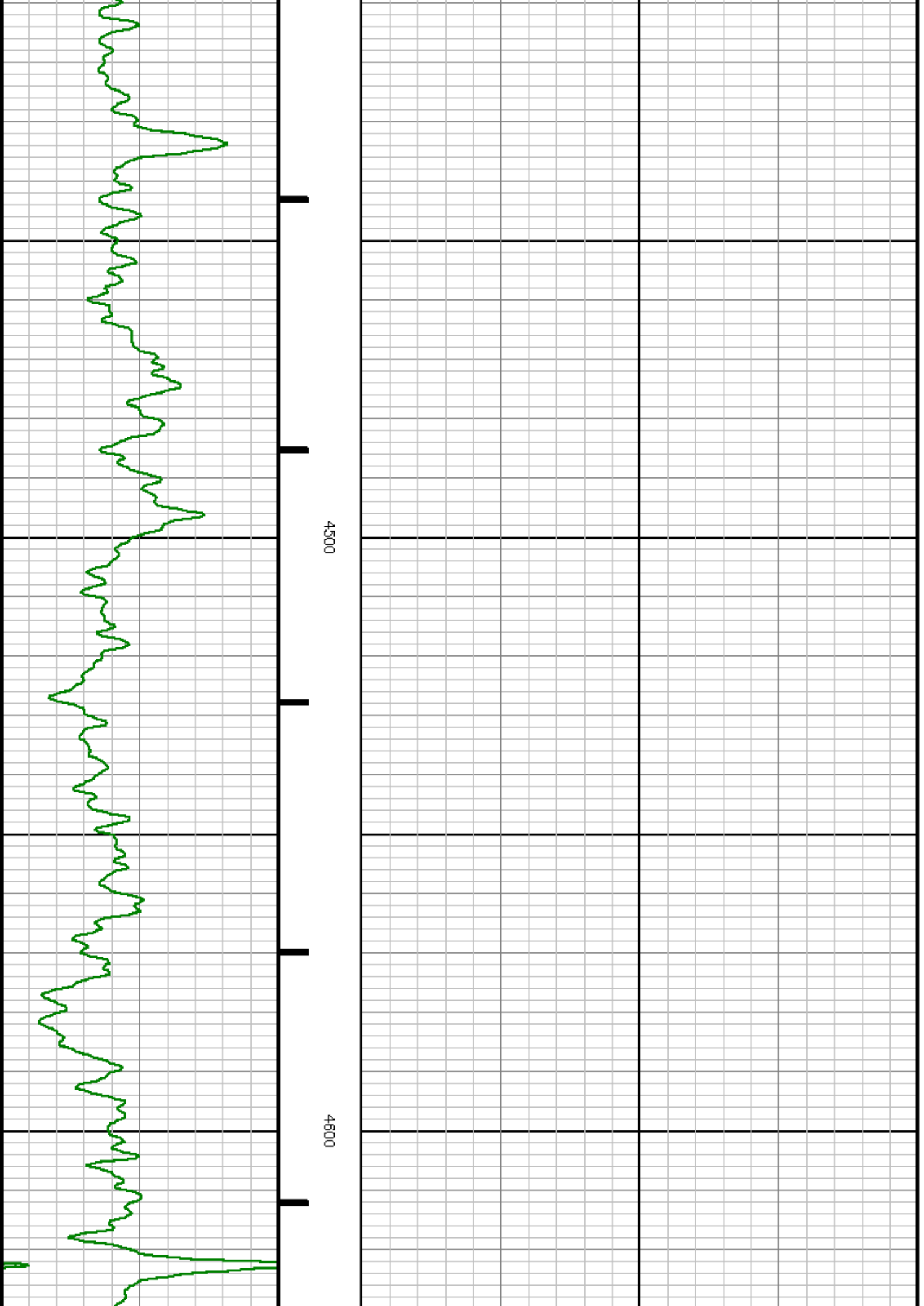


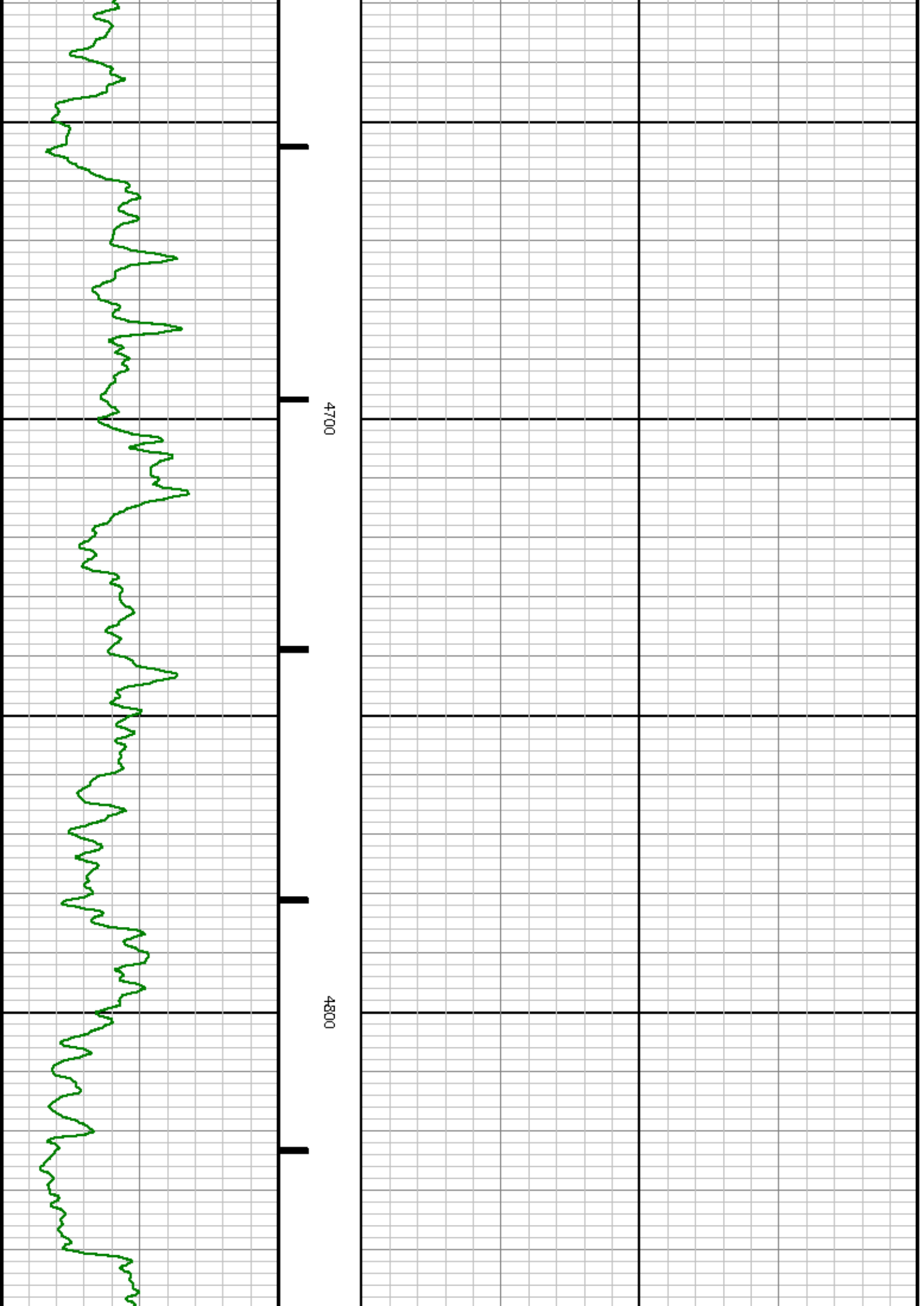


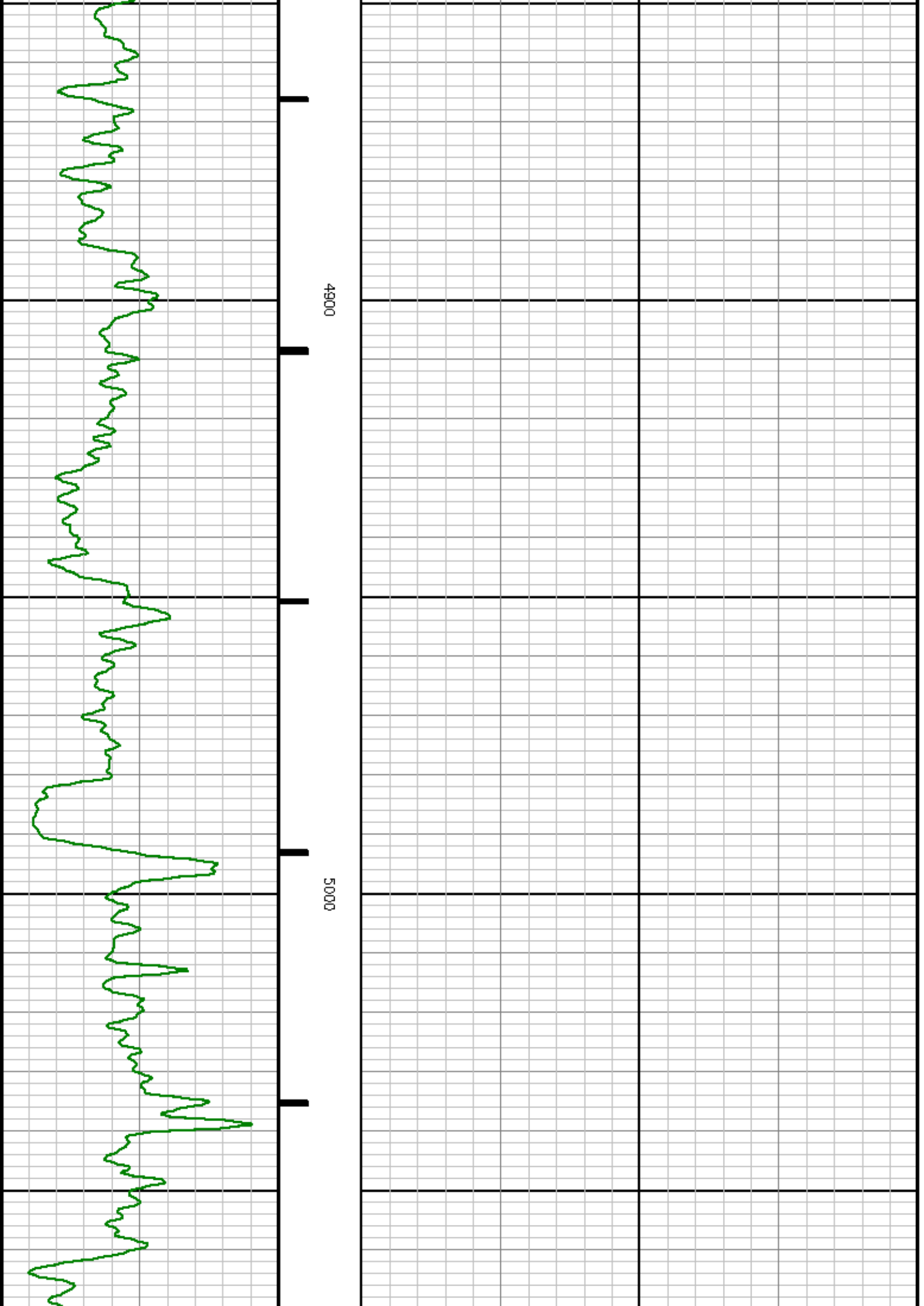


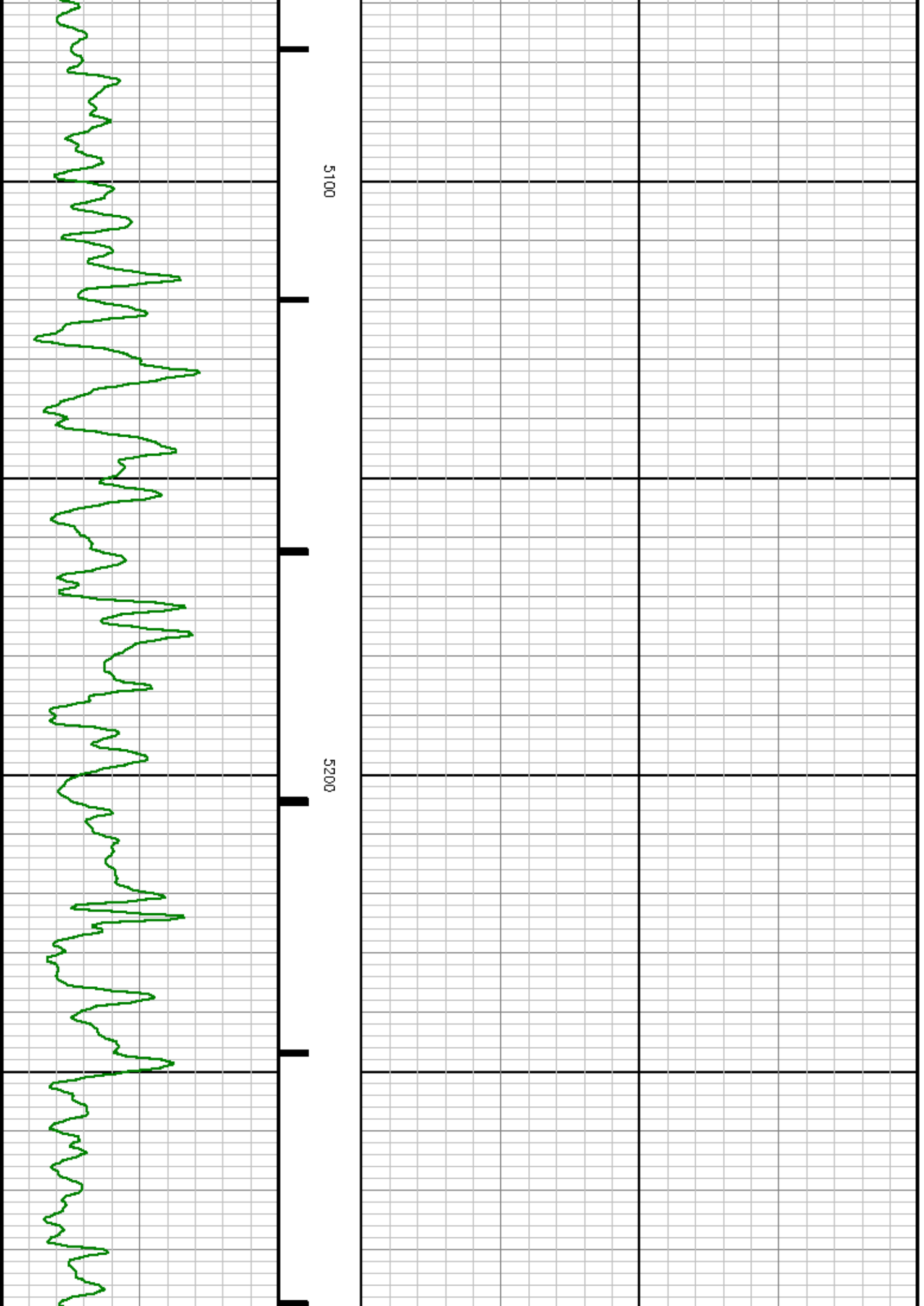


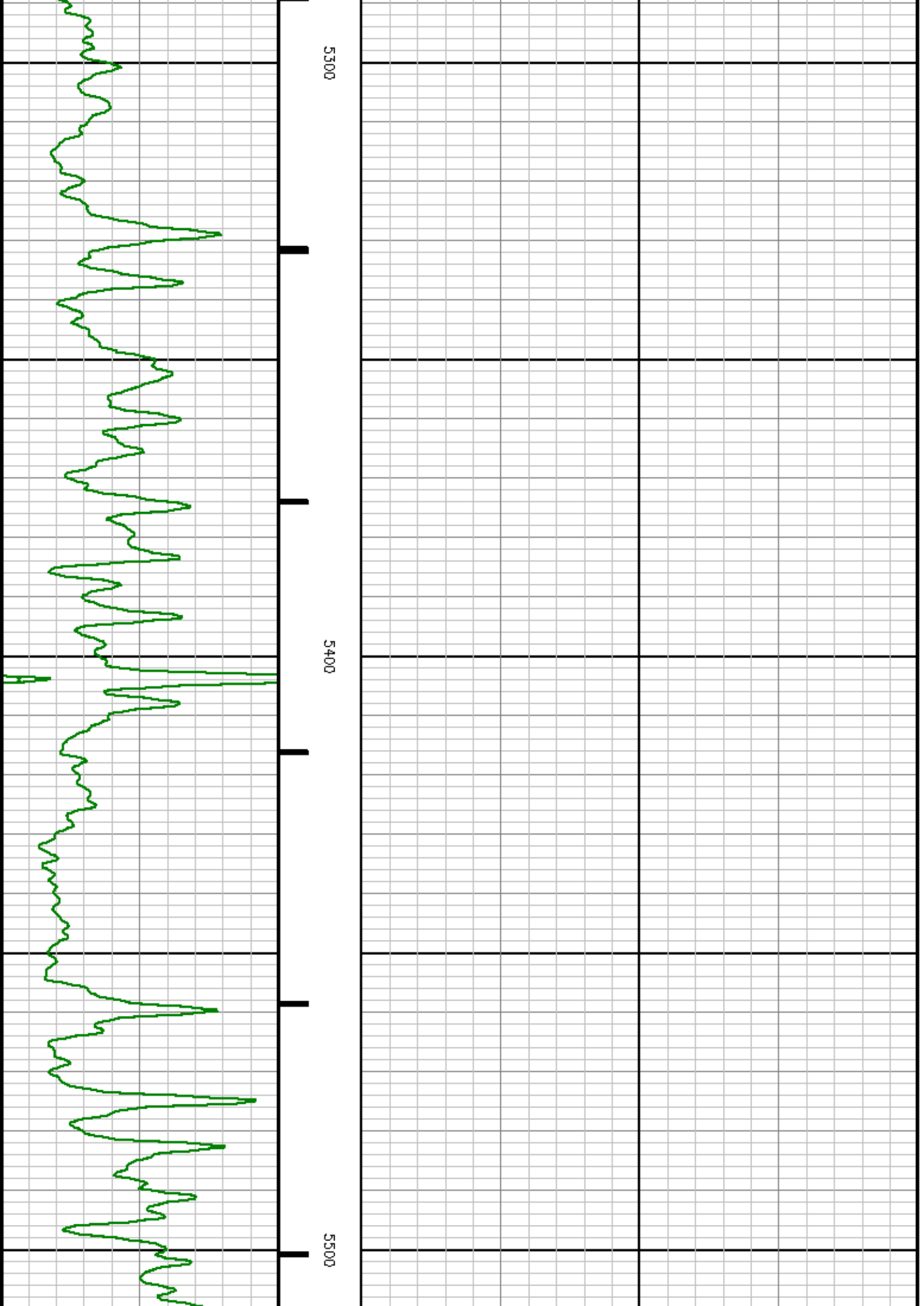


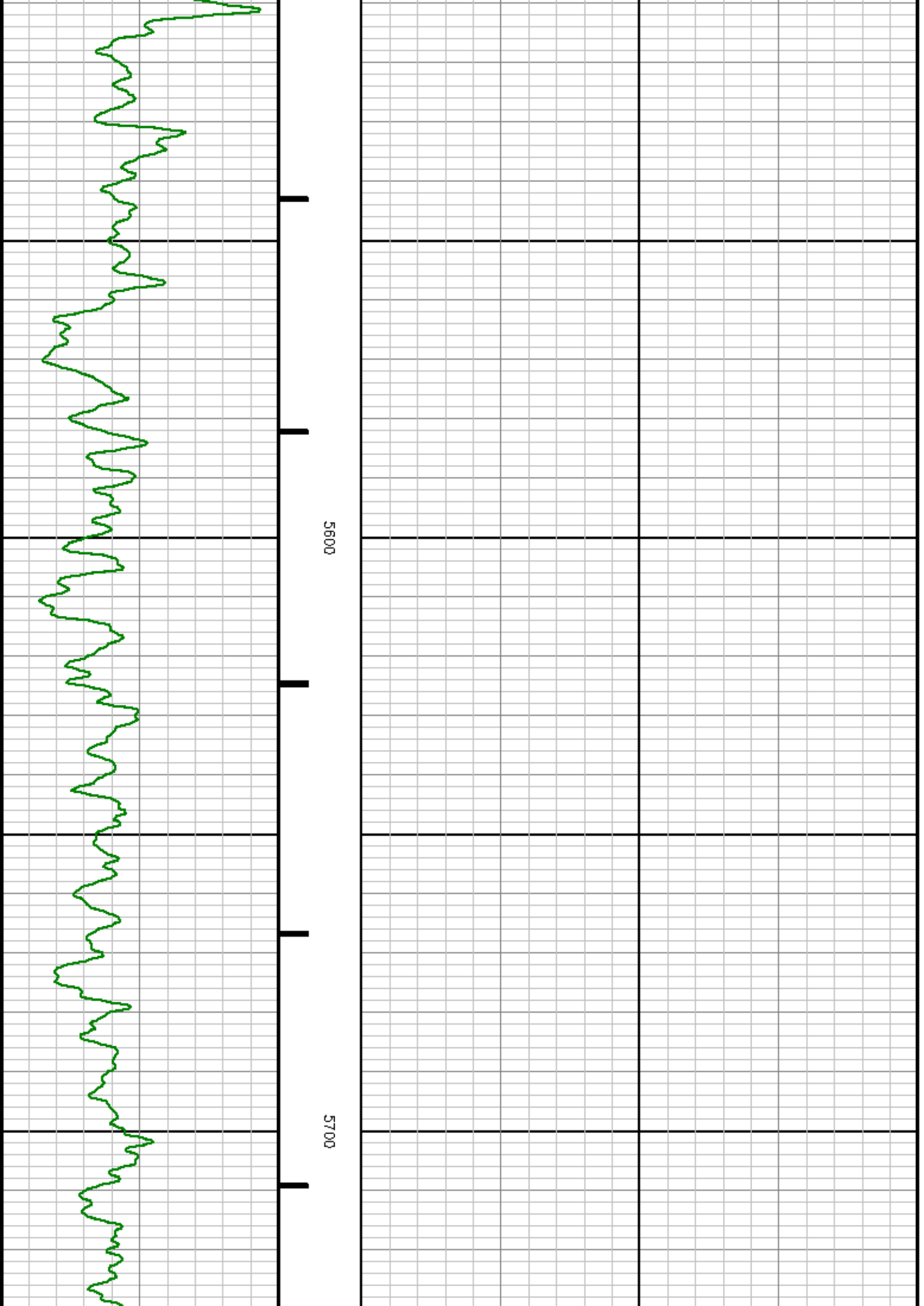


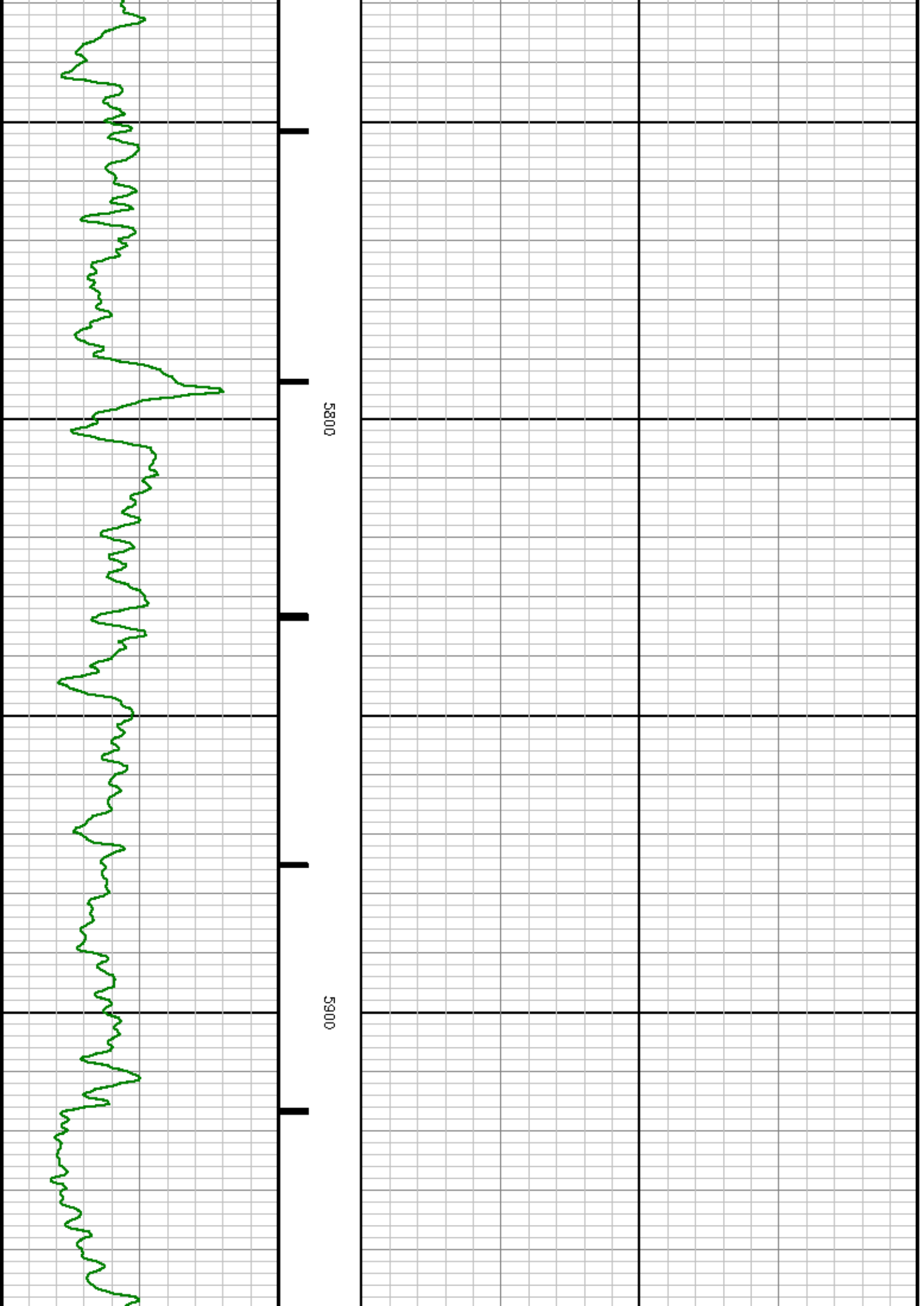


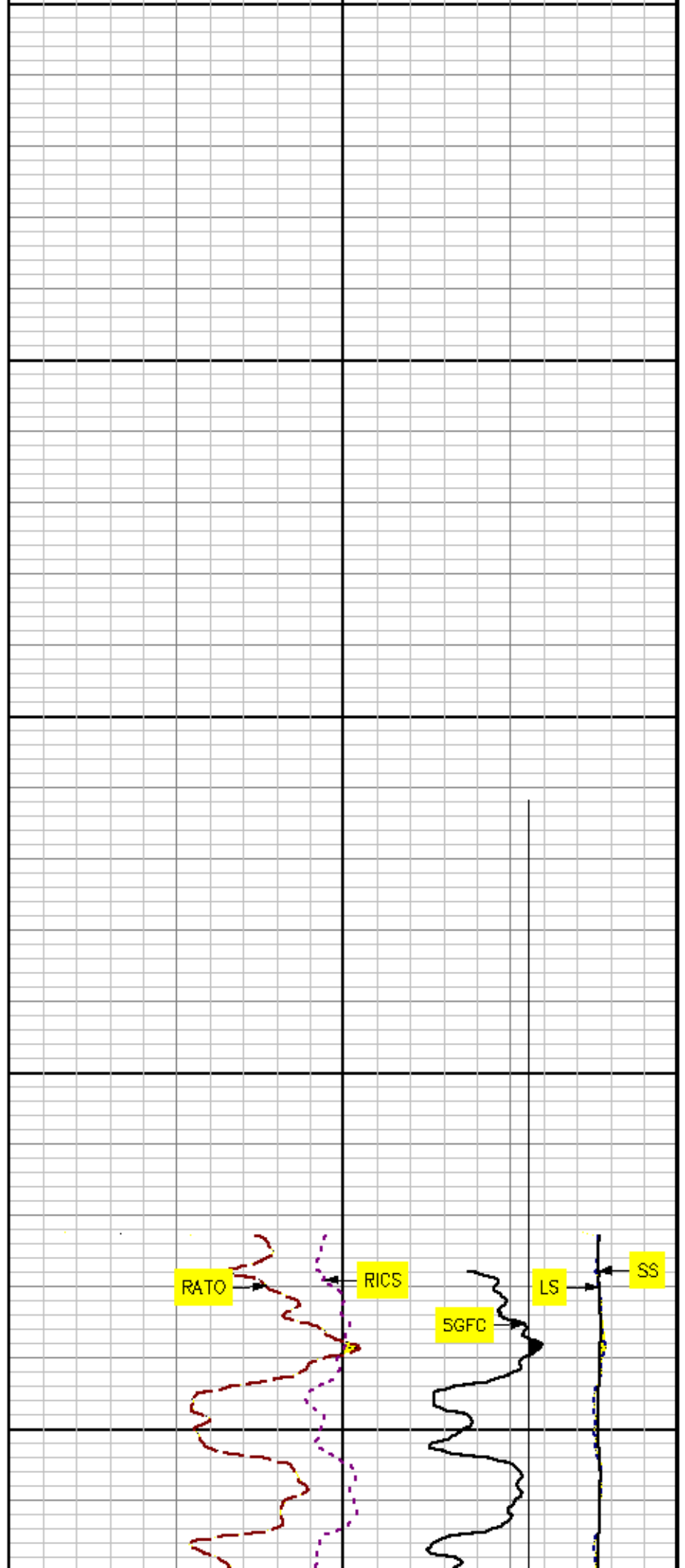
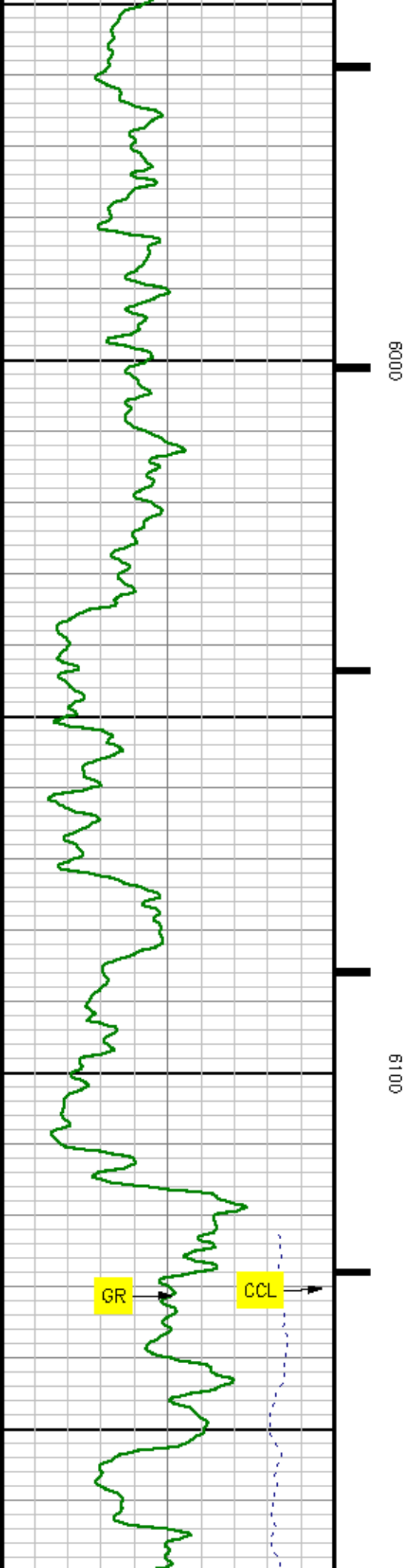


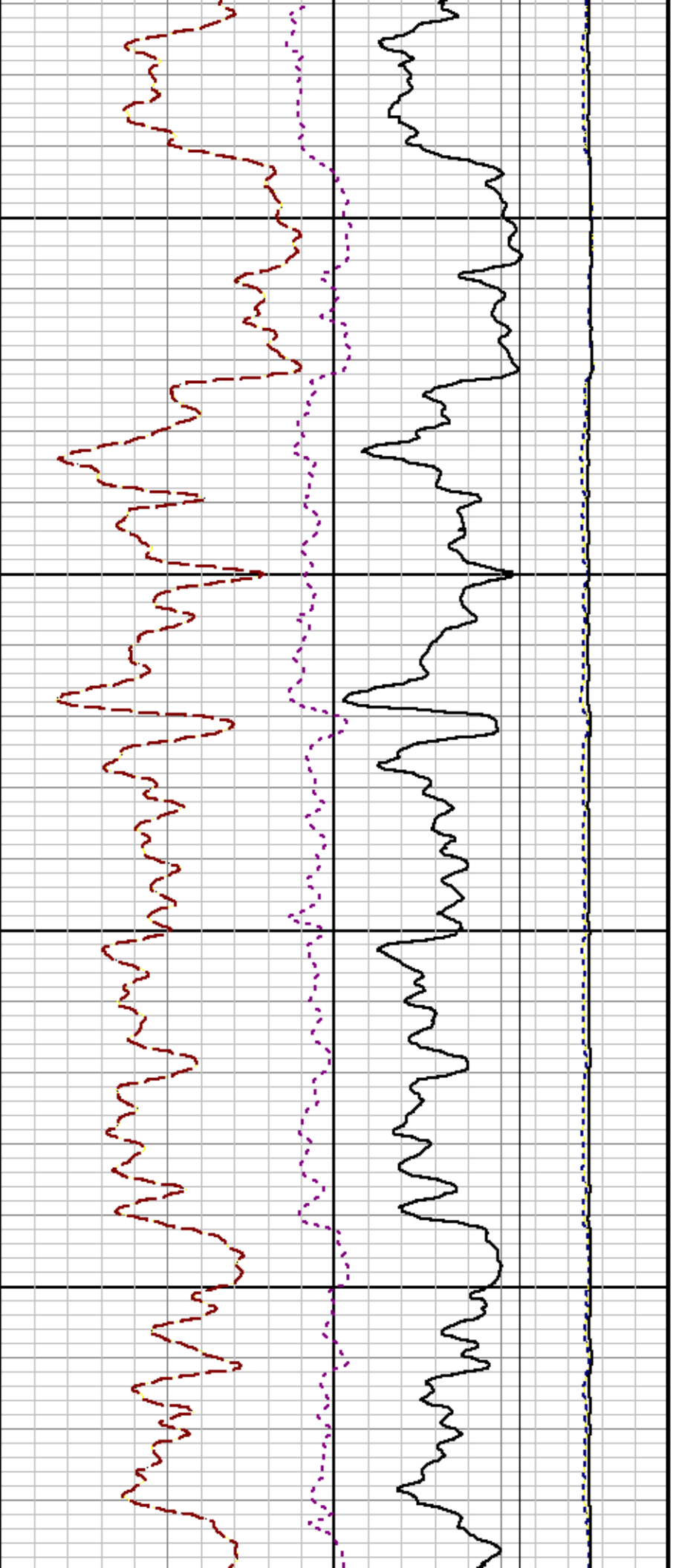






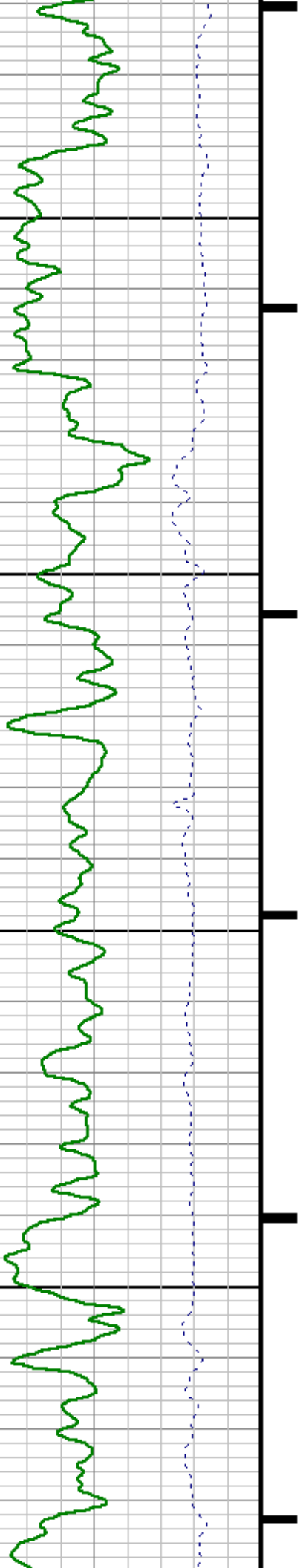


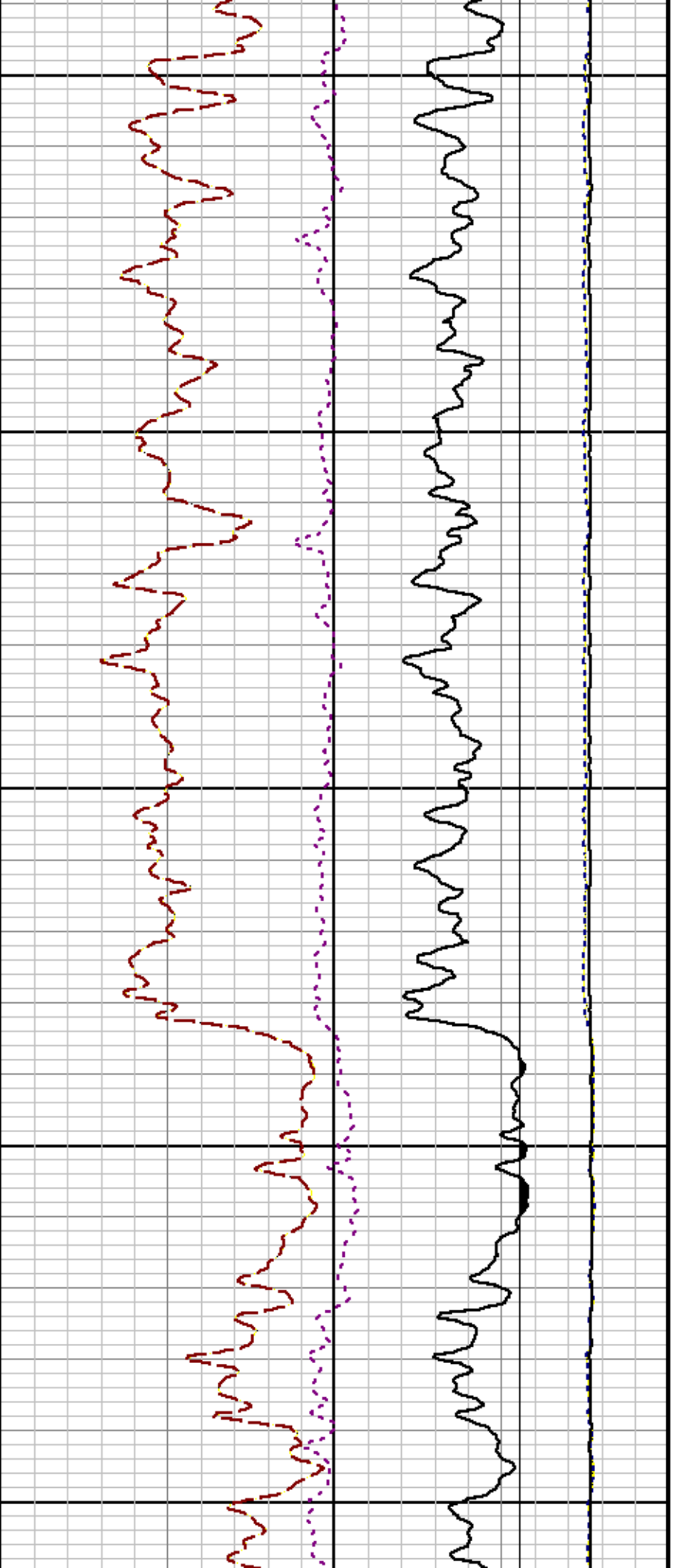




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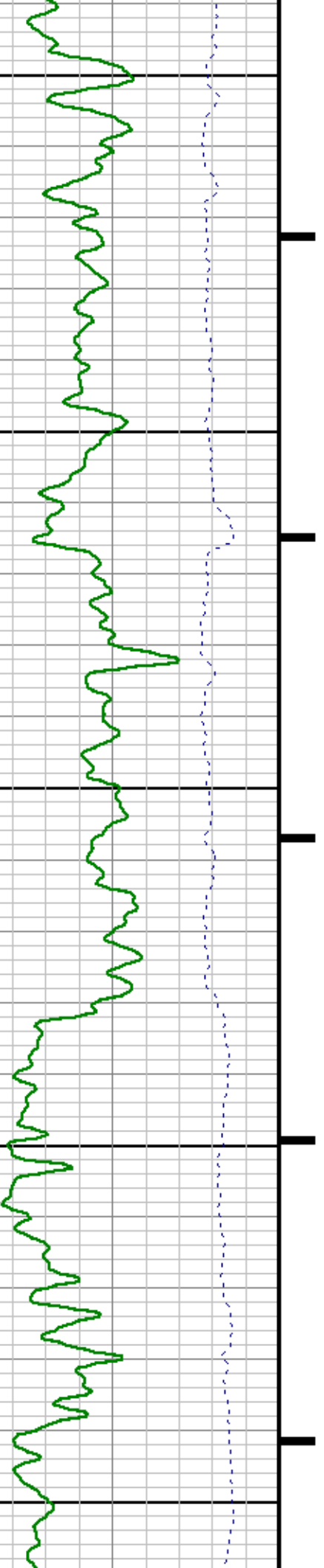


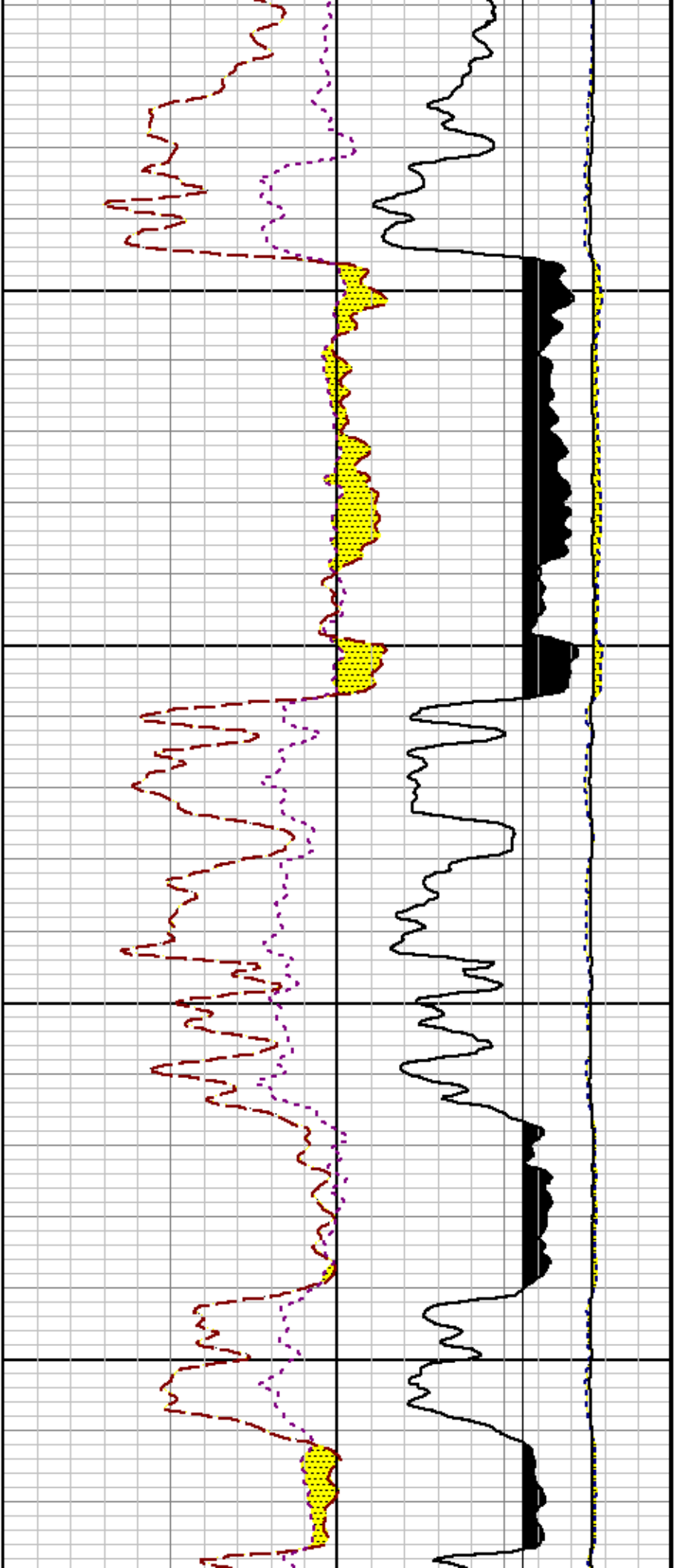


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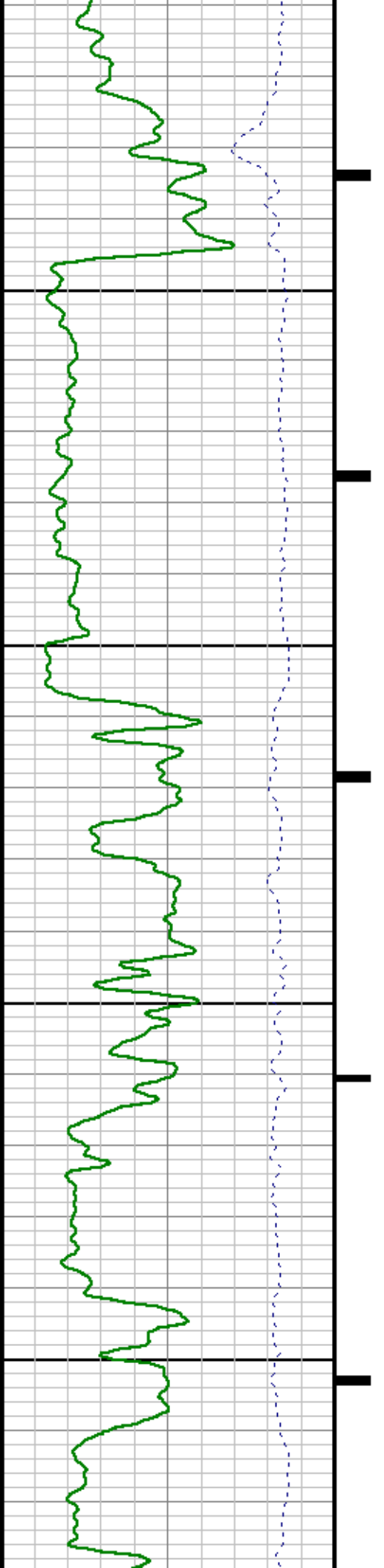
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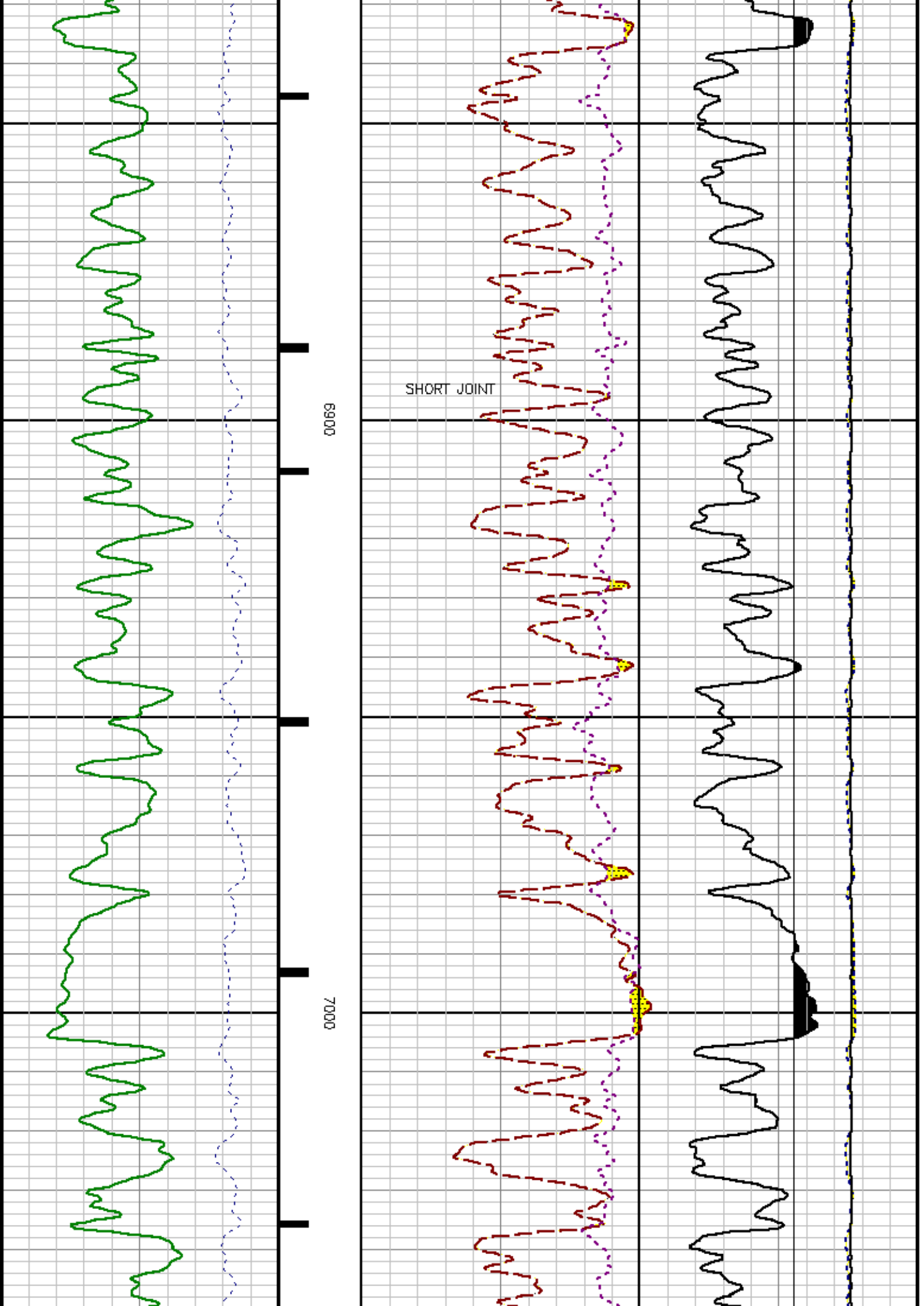


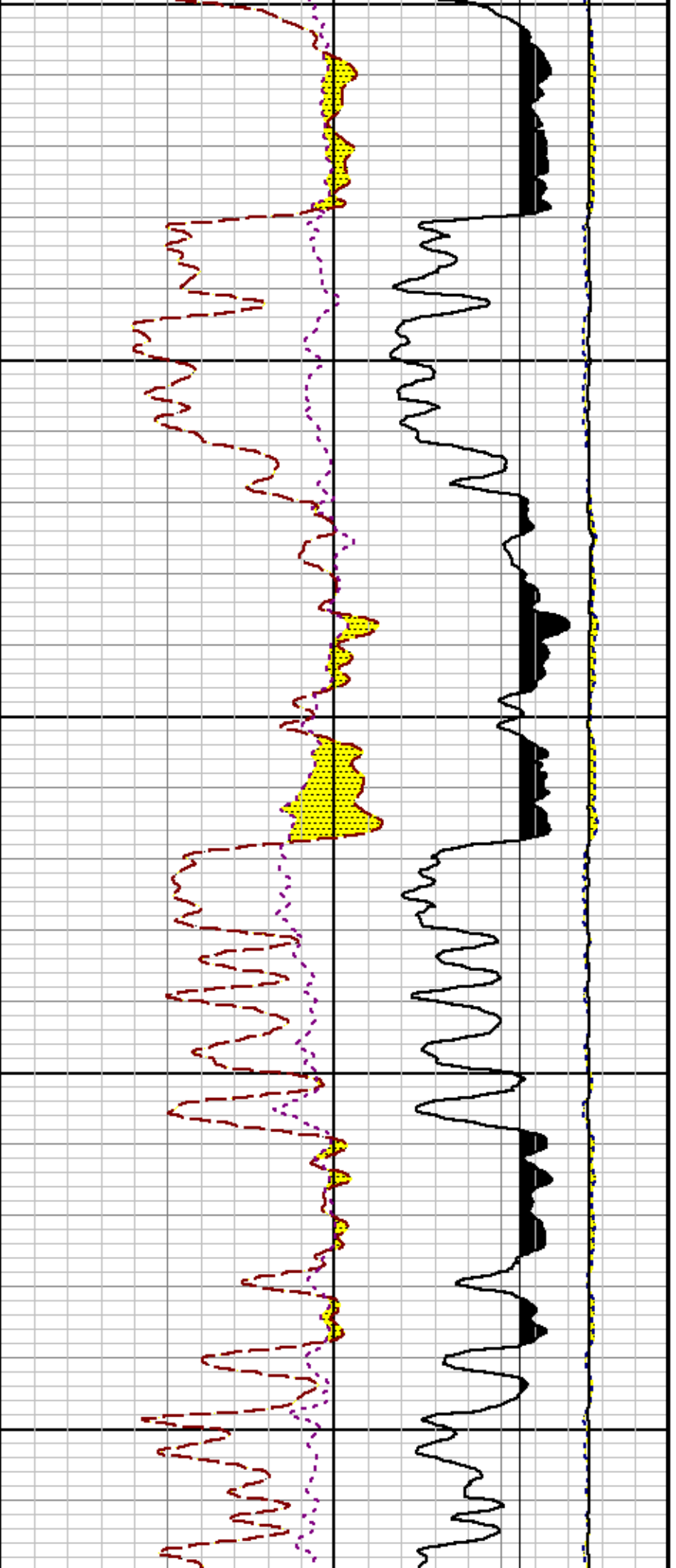


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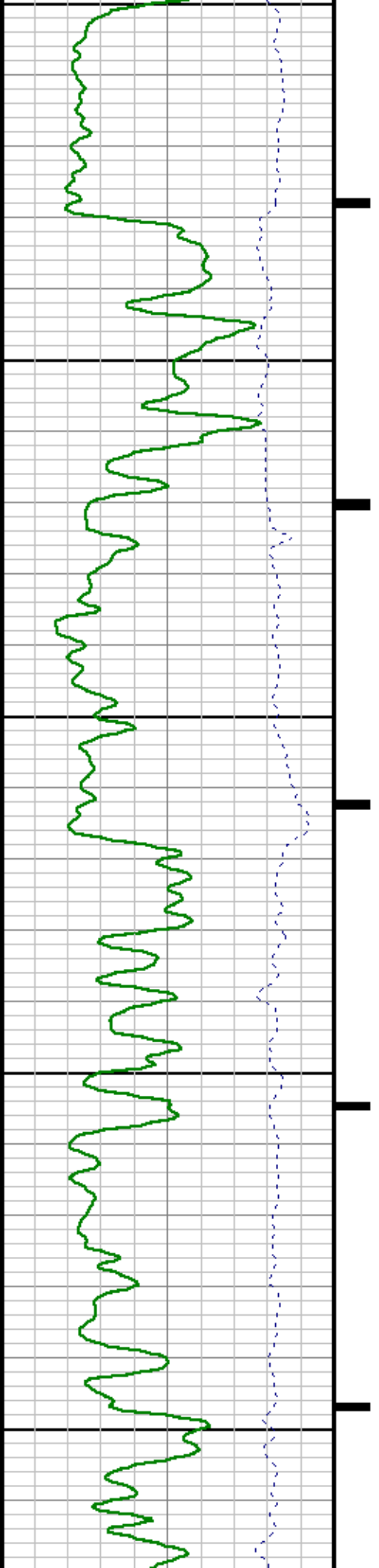


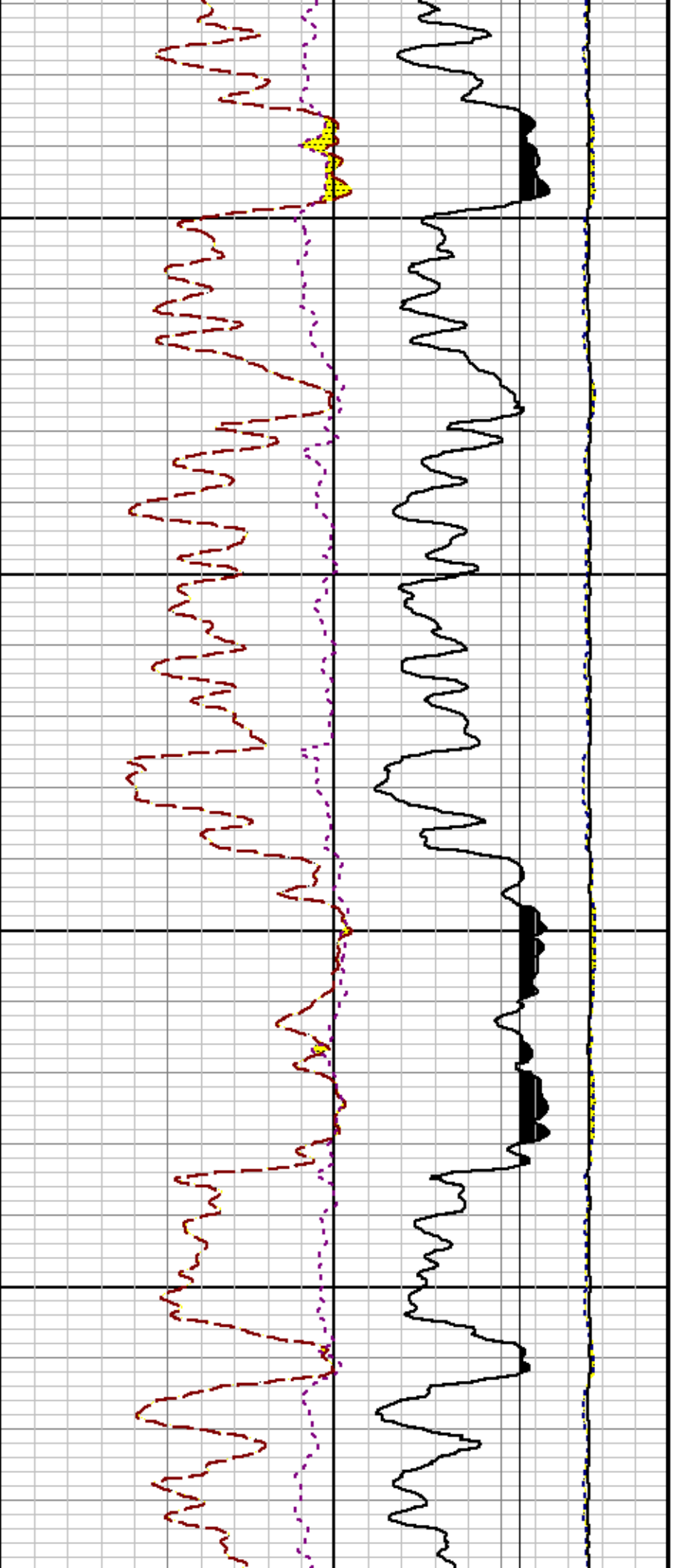




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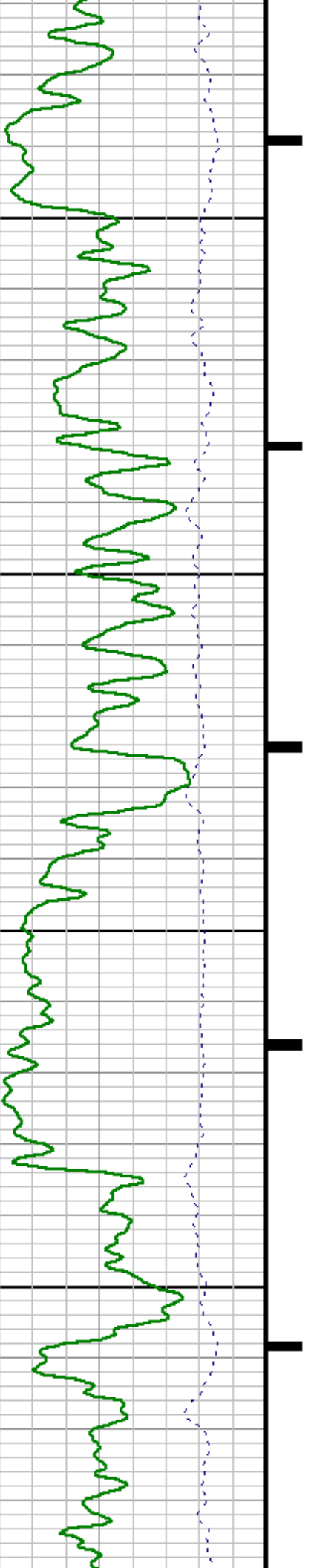
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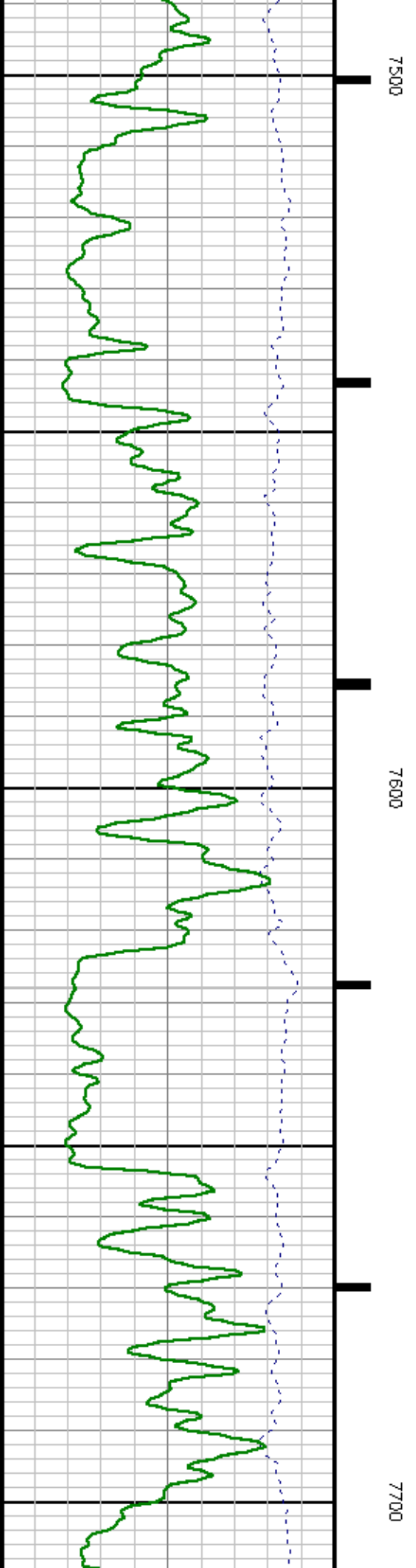
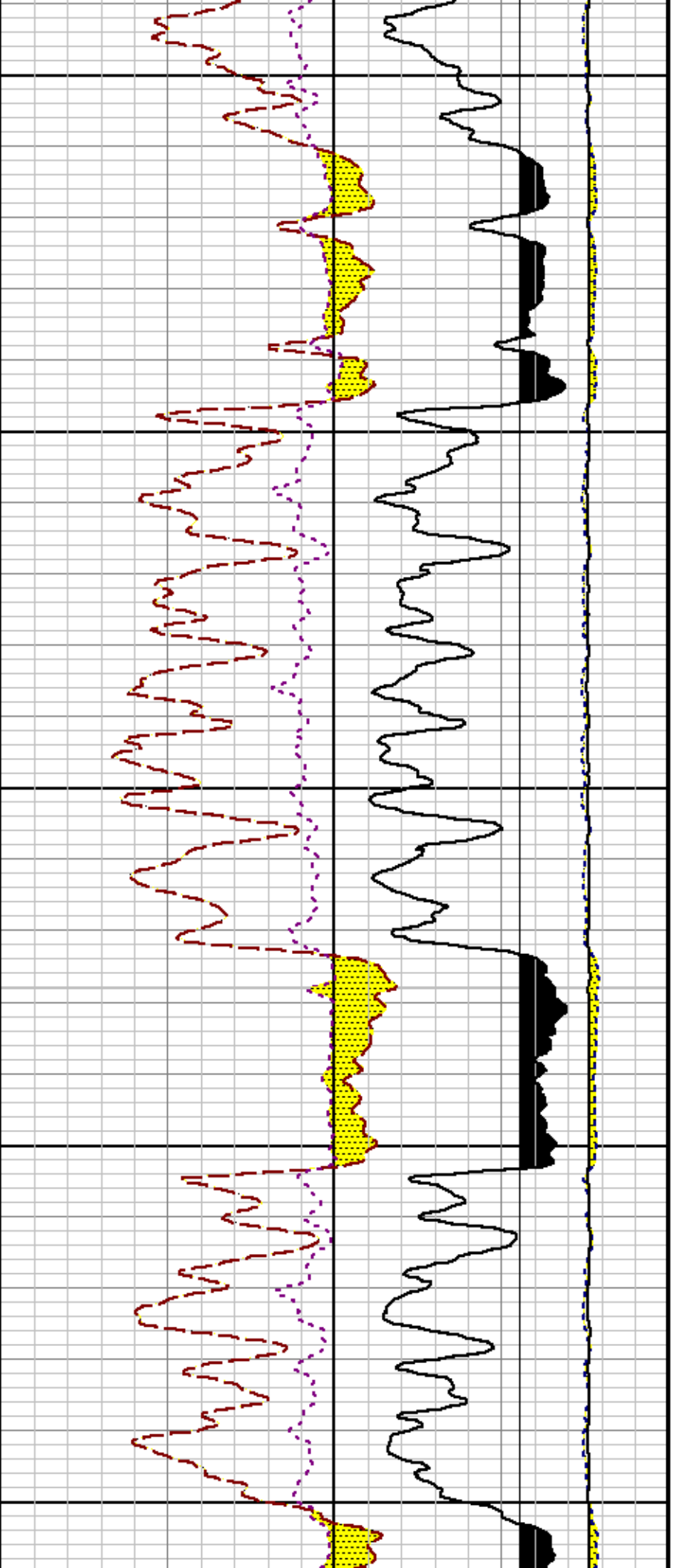


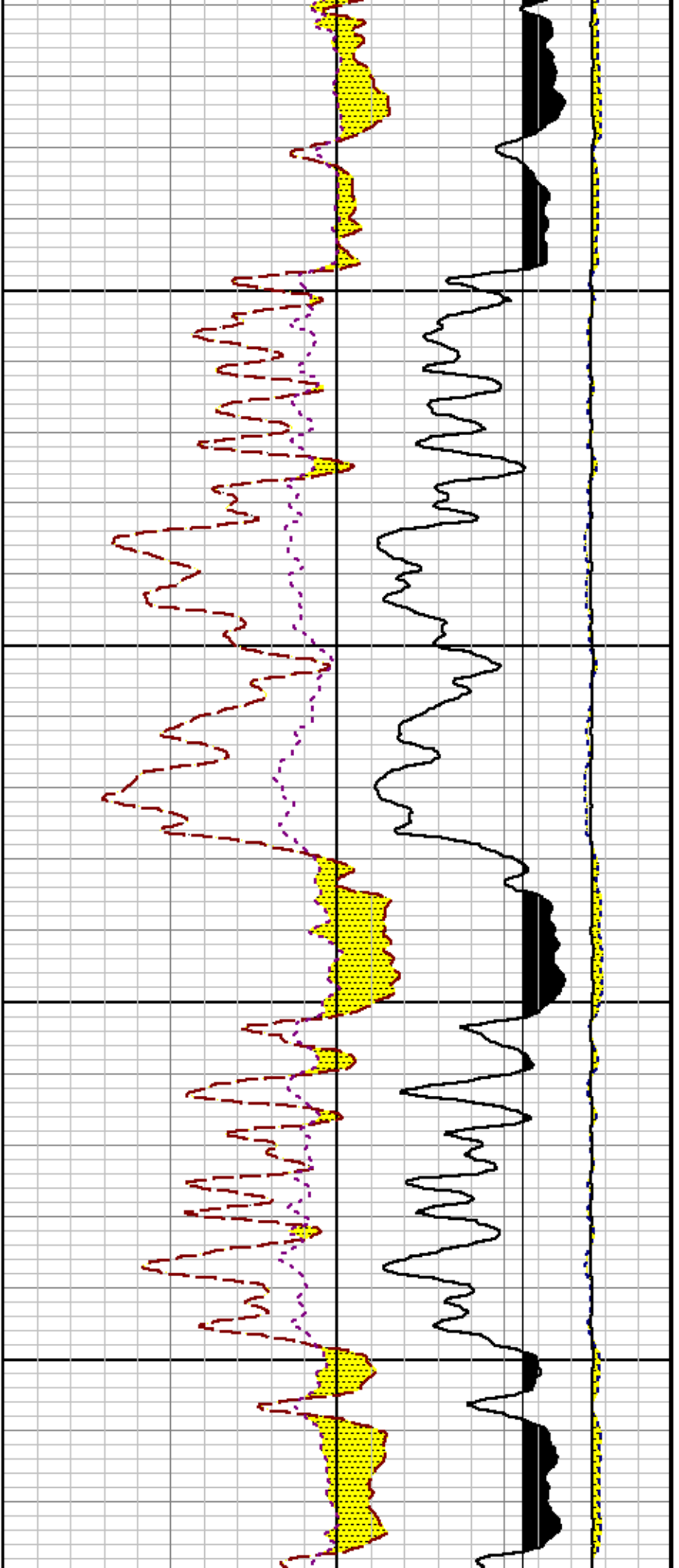


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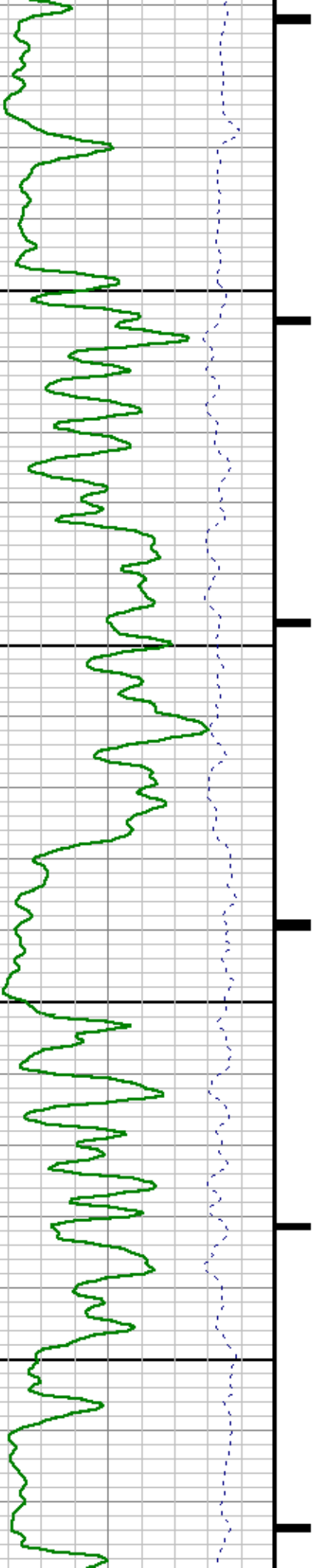


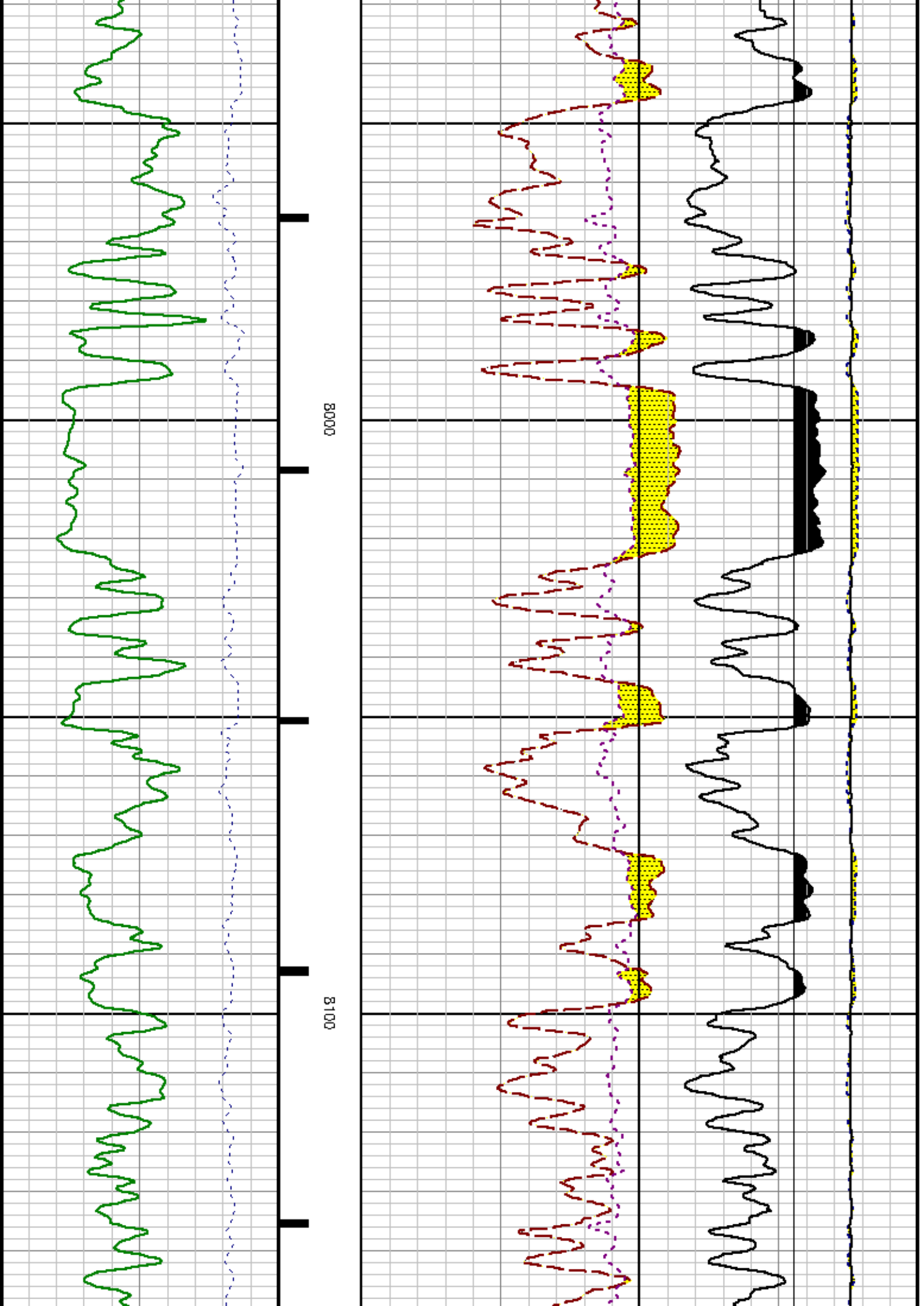


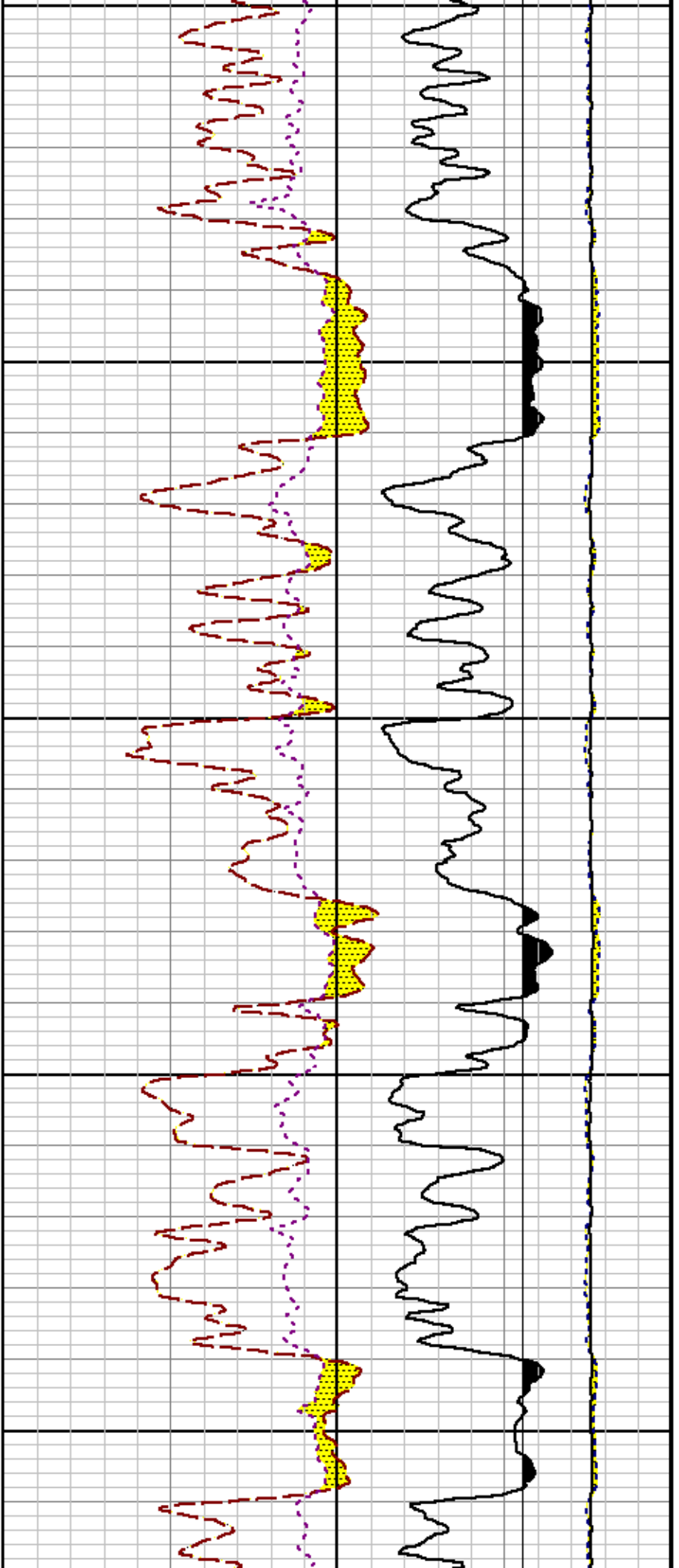


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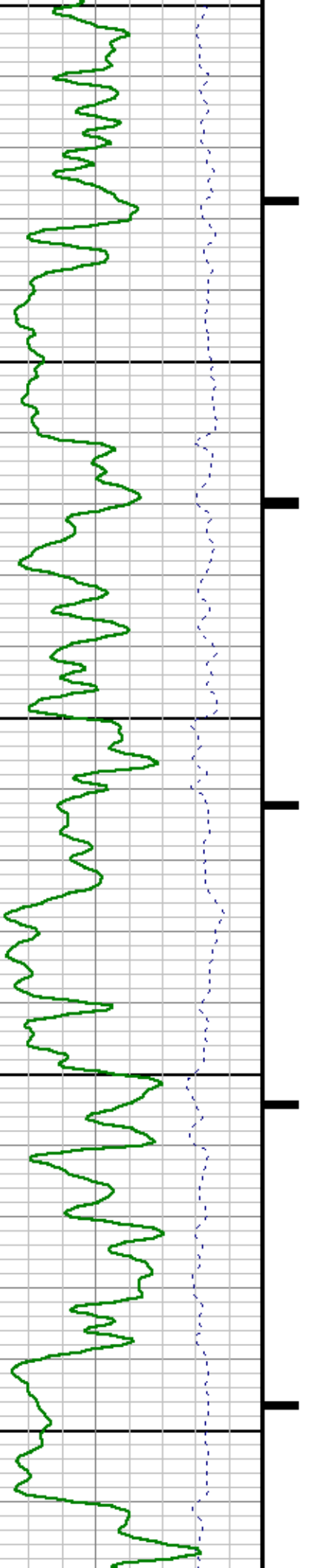


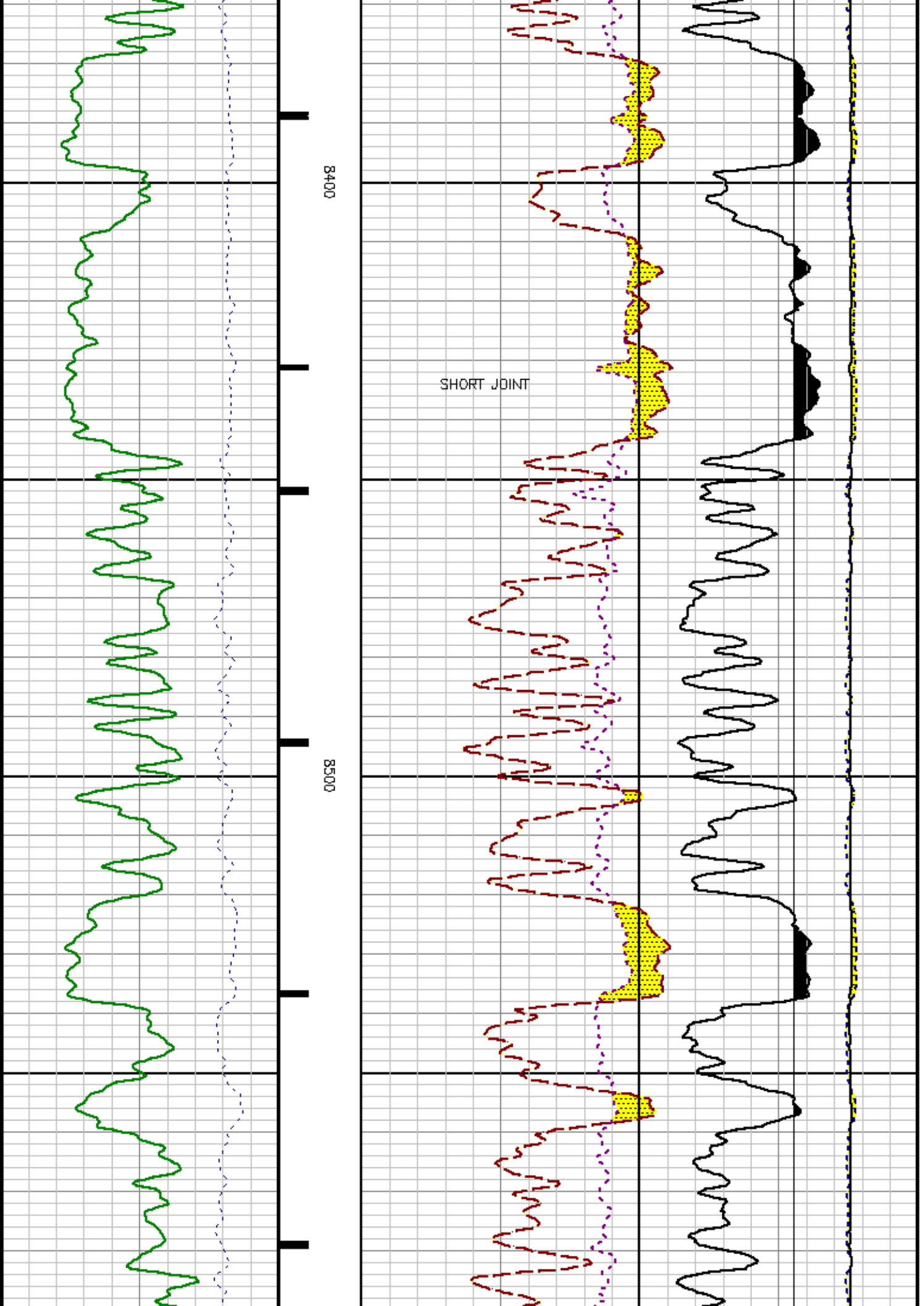


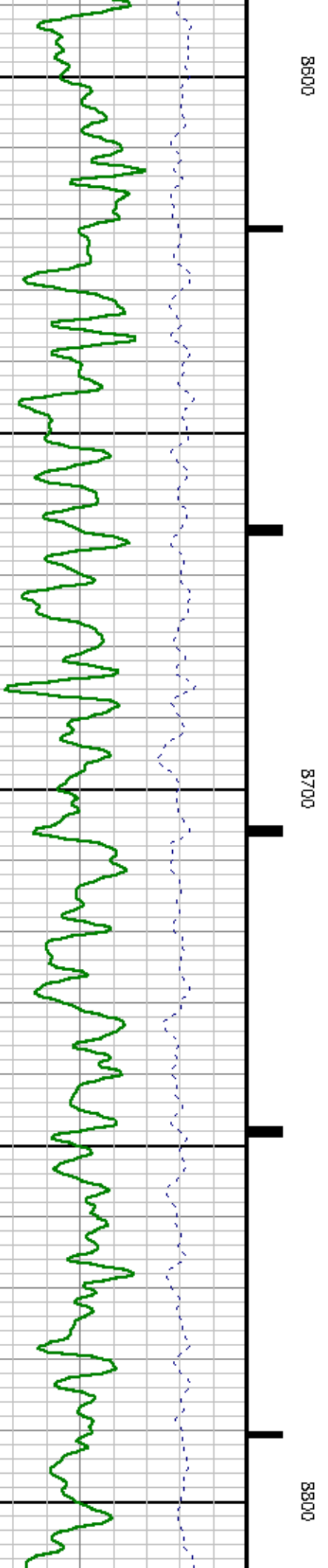
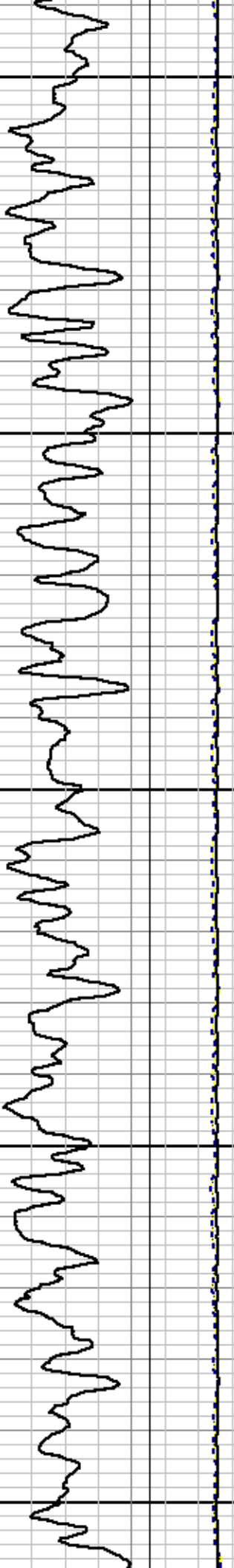


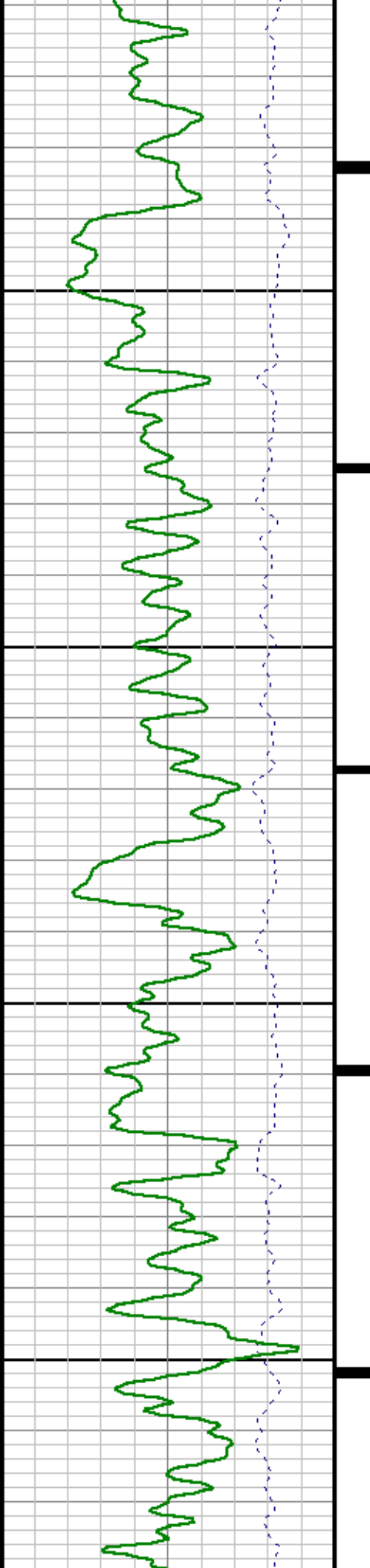
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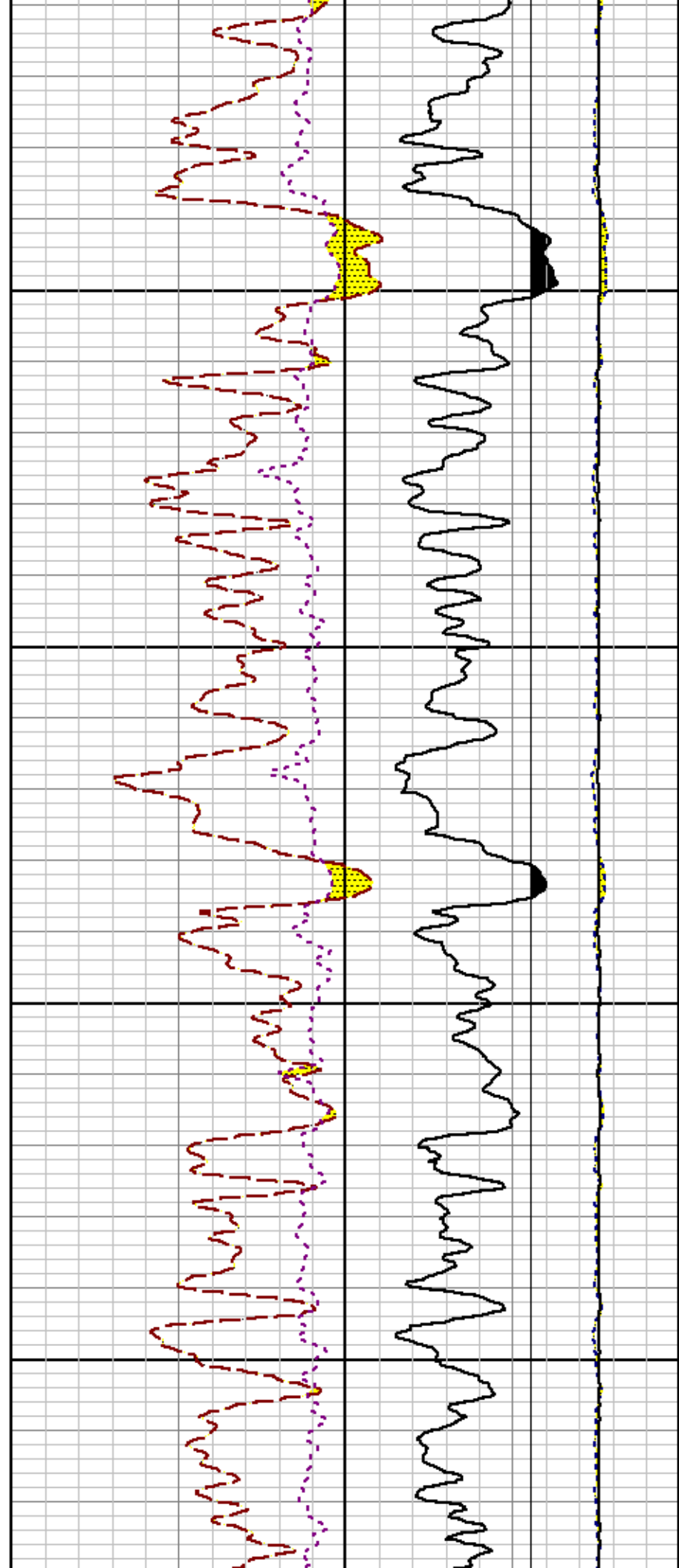


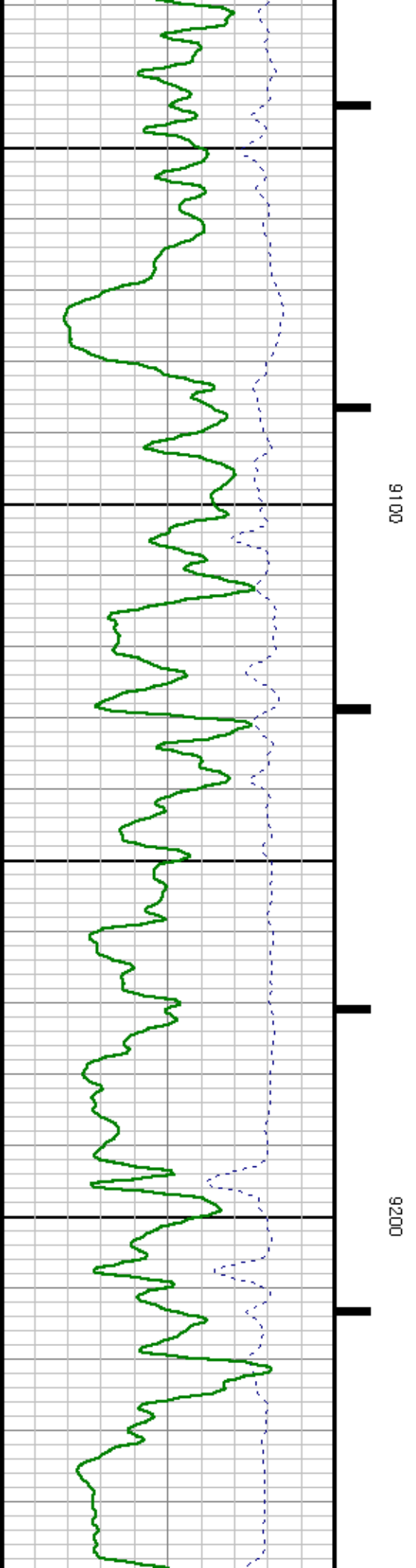
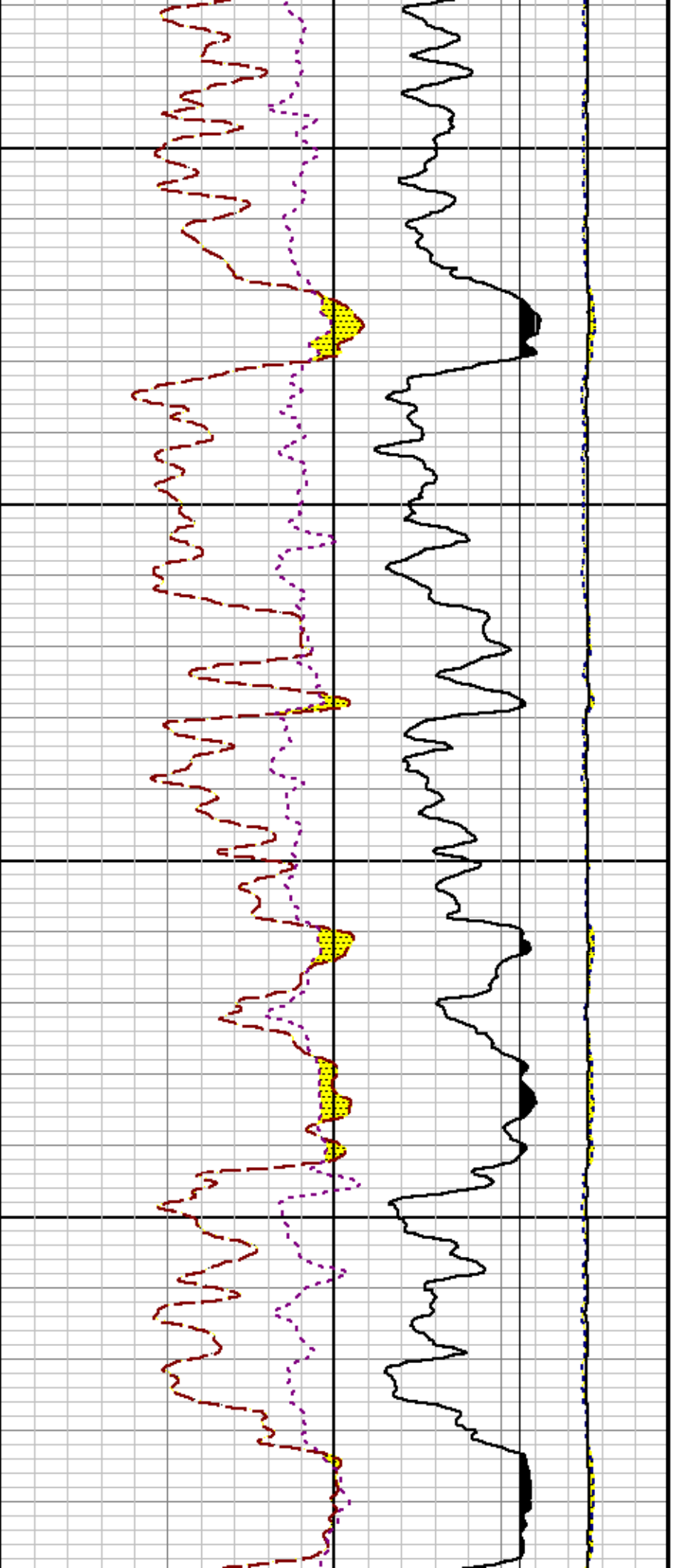


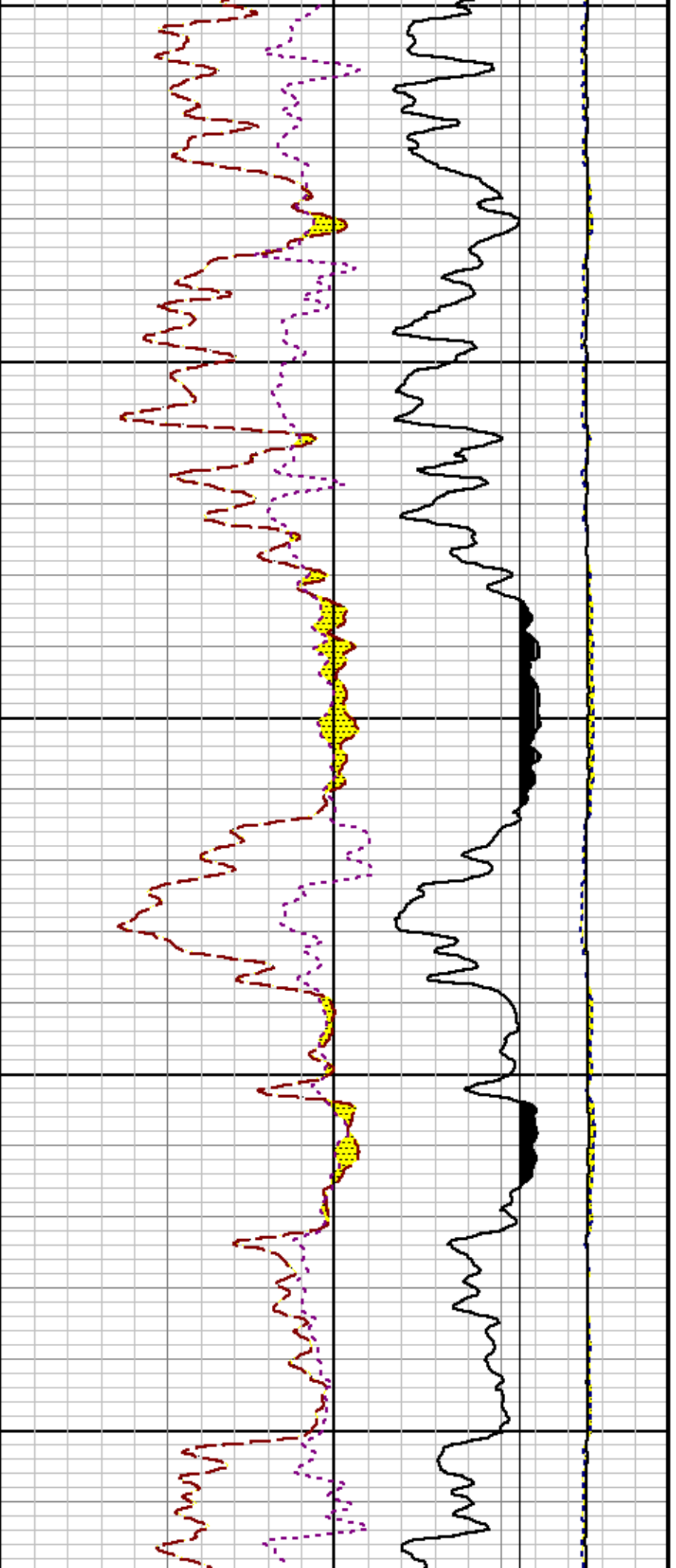


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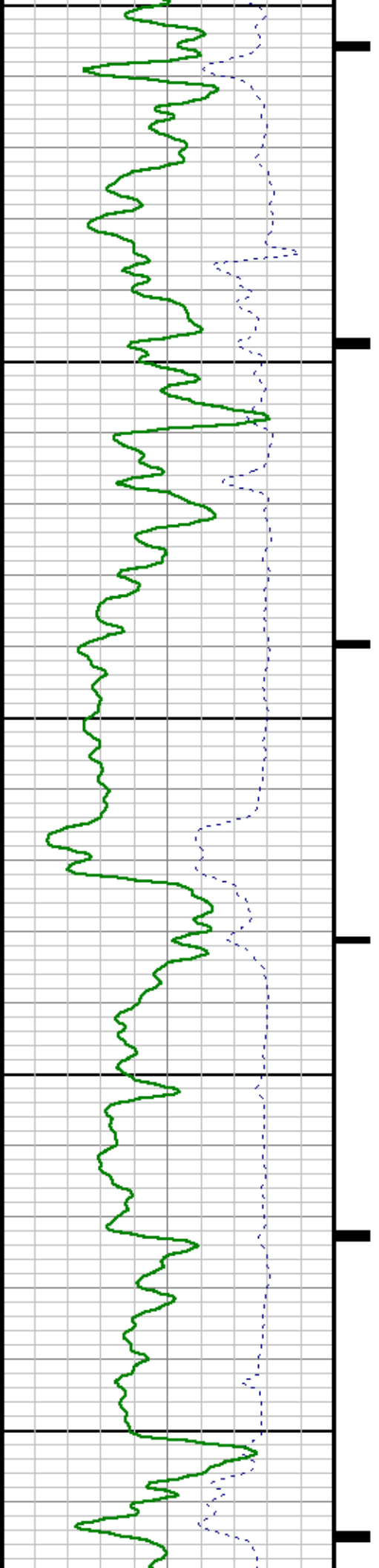


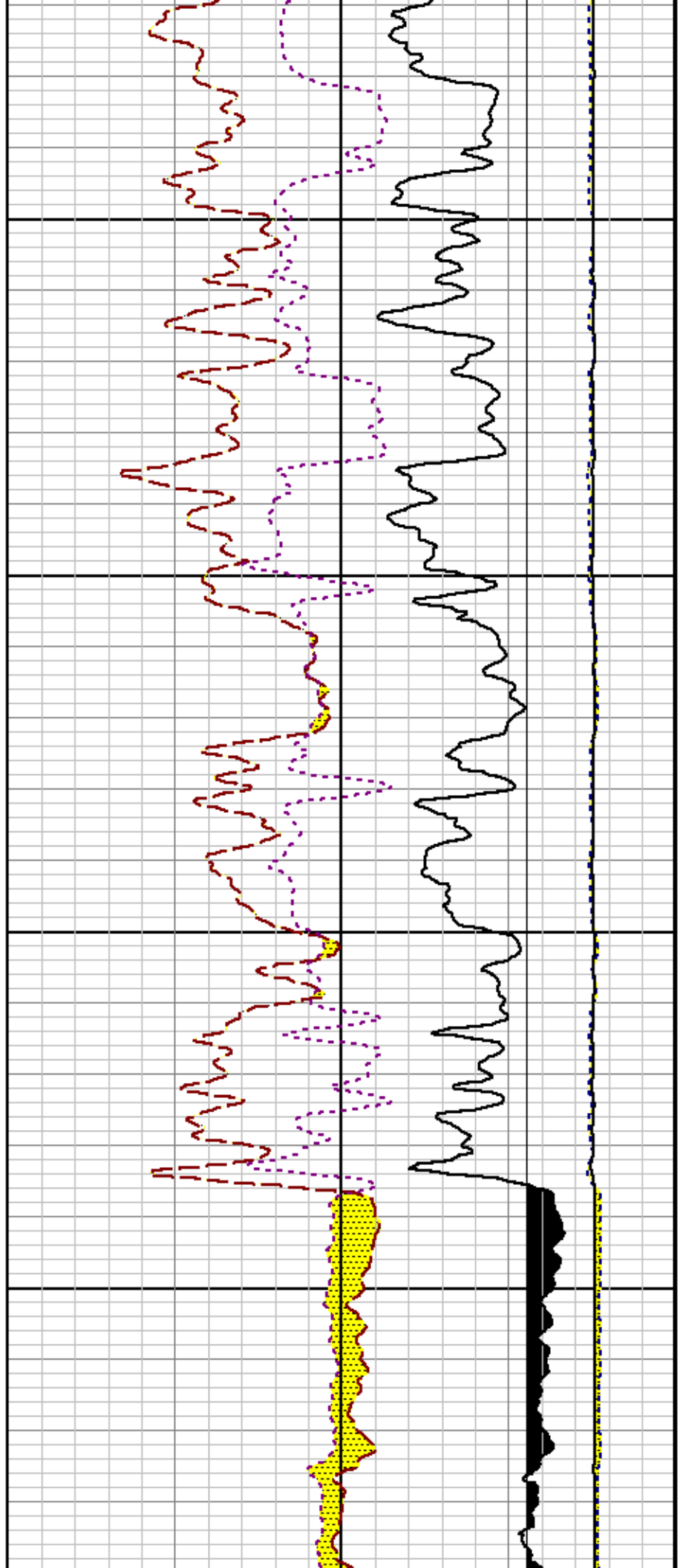




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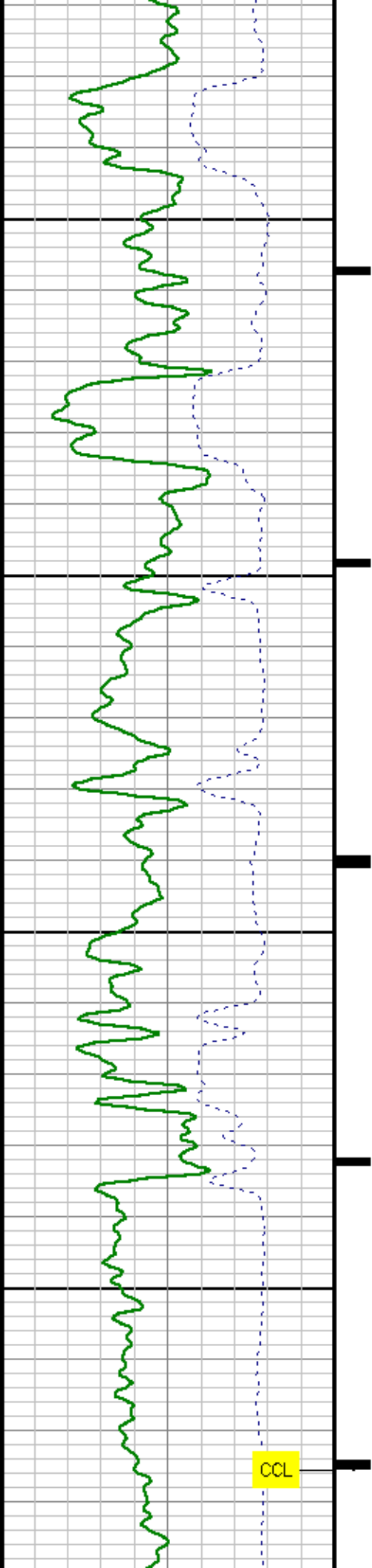




9500

9600

CCL



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		WCS3	WCS3Q0	QCAL3	RGN3	RICK	SDA3	
		SDL3	SGA3	SGL3	STA3	XS	ASPEC3	
		AMB3	AMF3	CHF3	IXSC	IXSN	RAT023	
		RICKX	RIN13C	RIN23	RIN23C	SD3D	SG3D	
		SGB3	SGF3	WDTH3	CXSR	IXSR	XSR	
		RICKR						
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		CLSR	ILSR	LSR	RICLR			
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		RBOR	RGN1	RICS	RIN	RONE	RPCR	
		RTW0	RIN13	RONE13	RTW013	SALB	SC1	
		SDA1	SDL1	SGA1	SGB1	SGBC	SGE1	
		SGF1	SGFC	SGK1	SGL1	SS	SS2	
		STA1	PD1S	PD2S	PD3S	MD1S	MD2S	
		MD3S	DC1S	DC2S	DC3S	PD1M	PD2M	
		PD3M	MD1M	MD2M	MD3M	DC1M	DC2M	
		DC3M	MVS	WA	MVM	FILV	IAM	
		TA	PVM	PVS	IAS	SSTAT	QPD1	
		QPD2	QPD3	QMD1	QMD2	QMD3	QDG1	
		QDG2	QDG3	QMA	QTA	QFILV	QMV	
		QPV	QIA	DERR	DCNT	QPK1	QSA1	
		PKS1	ASPEC1	HOC	FE2XC	ISSC	RINC	
		ISSN	RDEN	WDTH1	RICSC	CSSR	G1R	
		G2R	ISSR	SSR	SS2R	RAT0R	RAT013R	
		RBORR	RICSR	RINR	RIN13R	RONER	RPCRR	
		RTWOR						
SYSTEM	0.000	TEN	TTEN					

Created by : RPW9, v5.0.0.0

Plotted by : PlotMgr, v5.4.504

Company : MARATHON OIL COMPANY

Well : 596-31A-11

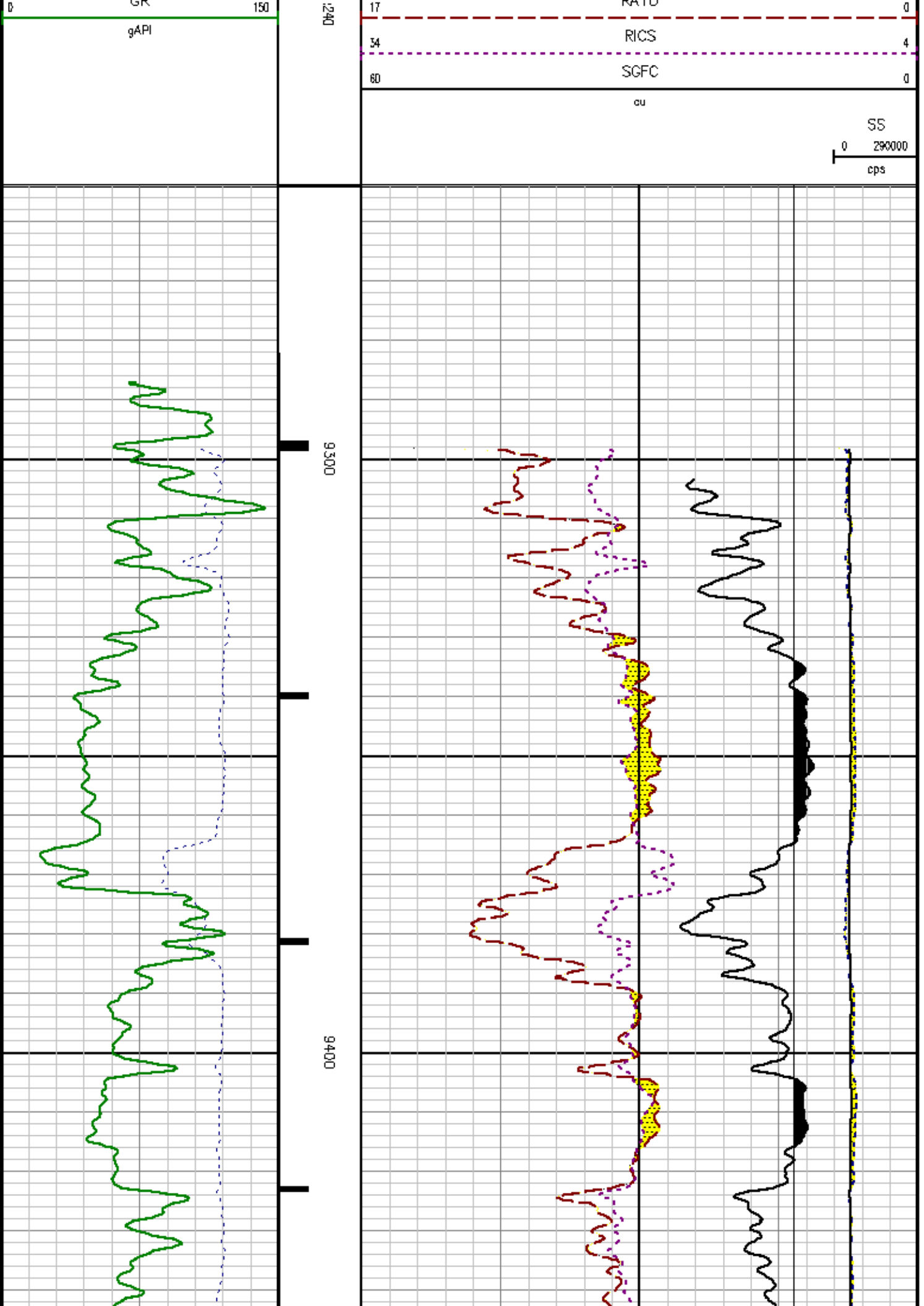
File Name : d:\welldata\11rpm\repeat.xtf

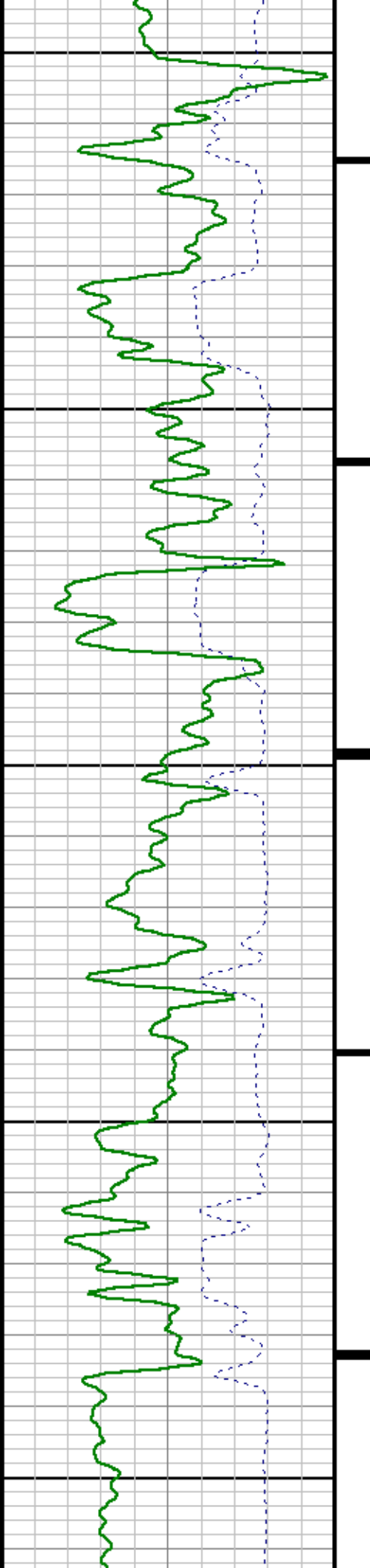
Mode : PlotMgr 5.4.504

Interval : 9254.00 - 9728.00 feet UP

Created : 12/11/2008 2:58:13 PM

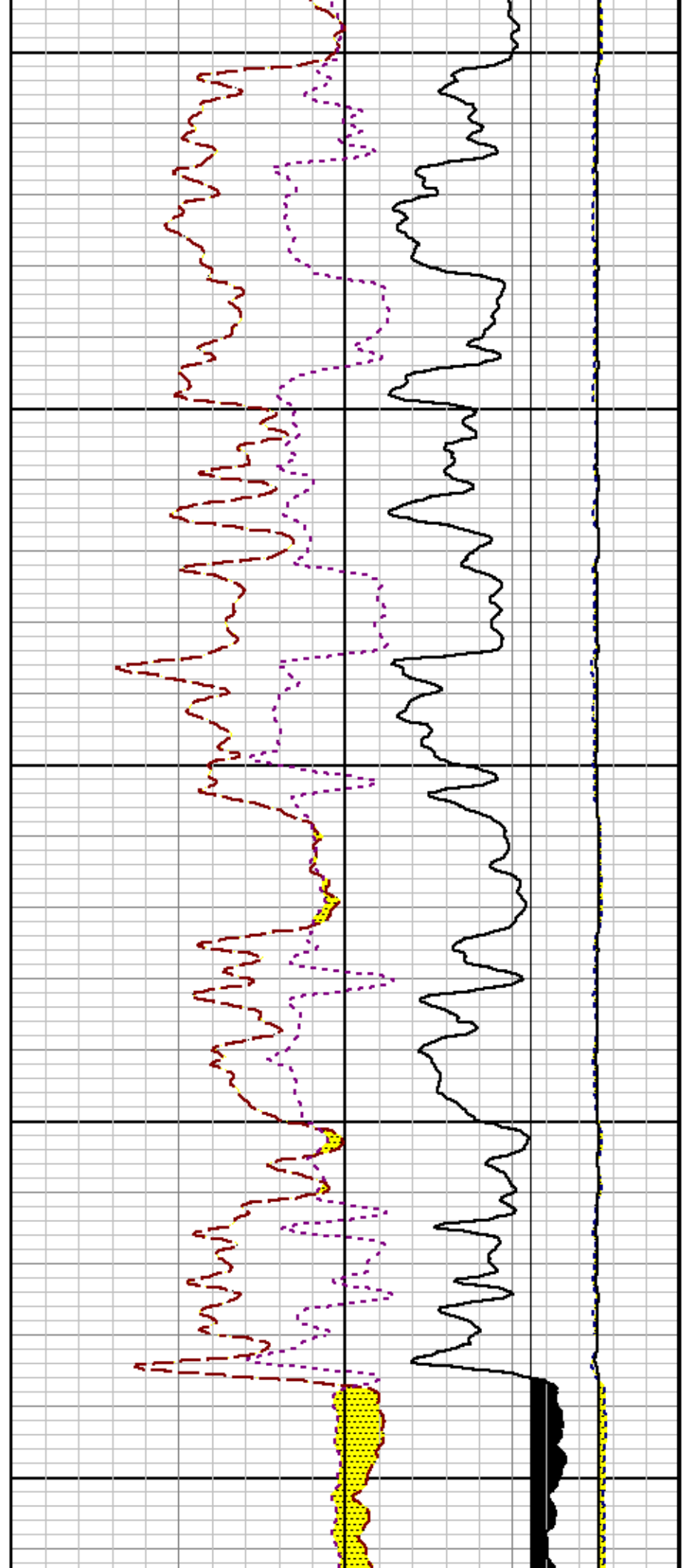


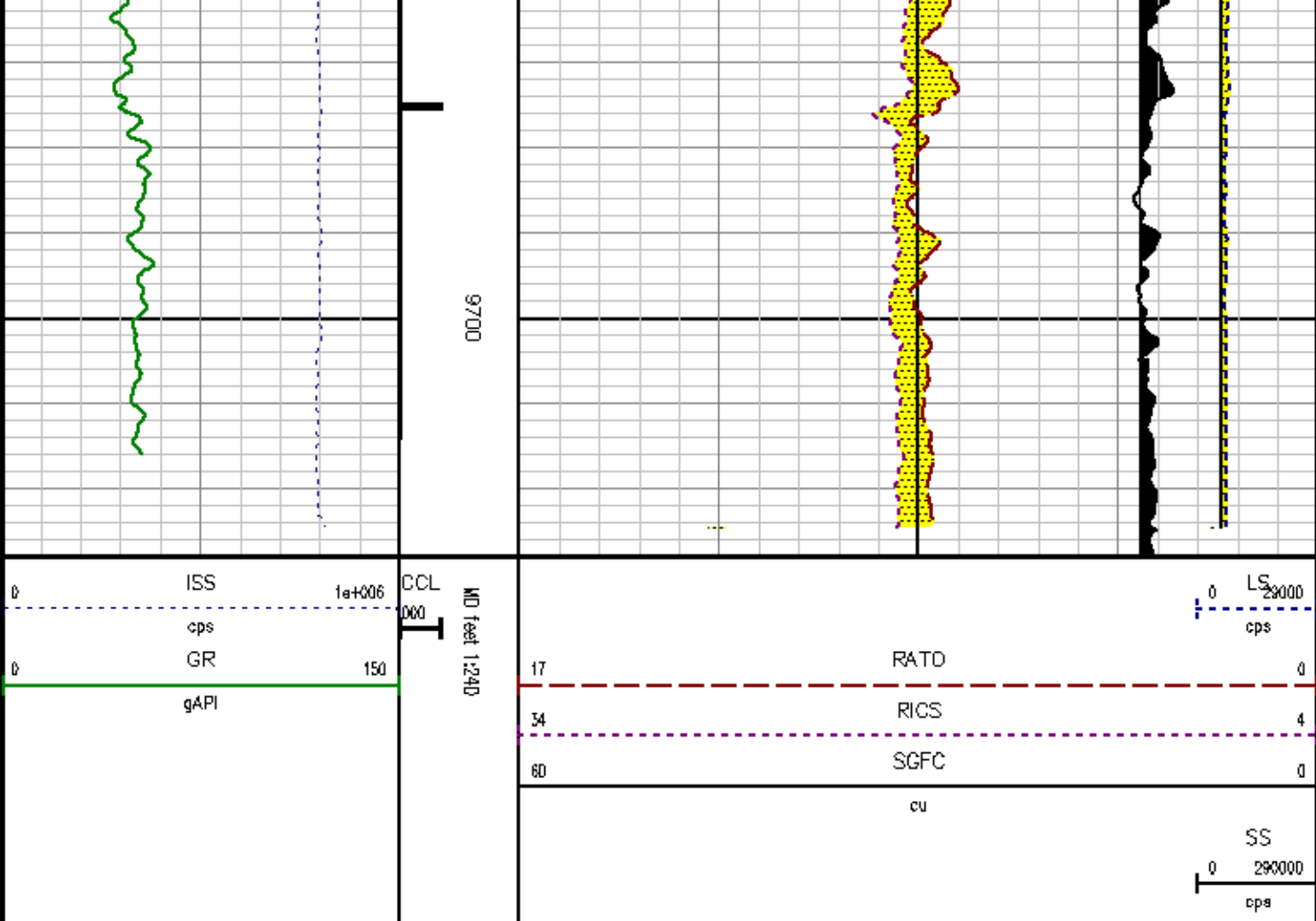




9500

9600





CALIBRATION SUMMARY

GAMMA RAY

Calibration Files C:\case\calver\GR\217NB.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED:	Wed Nov 19 08:41:49 2008	TOOL SERIES:	B262XA	ASSET:	217	SEQ:	NB
Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]	
GJ 857	97.38	364.33	0.627	81.08	241.08	160.00	

Verification Files C:\case\calver\GR\217NB.VP

PRIMARY VERIFICATION

DATE/TIME PERFORMED:	Wed Nov 19 16:07:46 2008	TOOL SERIES:	B262XA	ASSET:	217	SEQ:	NB
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Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
GJ 857	BD.11	362.54	0.627	50.25	227.41	177.16

PNC

Calibration File: C:\case\calver\PNC\985NB.cal

PNC 3D CALIBRATION SUMMARY

DATE/TIME PERFORMED: Tue Nov 16 12:02:14 2008 TOOL SERIES: B2B1XA ASSET: 985 SEQ: NB

Calibrator #

GJ GJ

Source #

B2B1AA 10361737

	ISS	Mtr Vltz (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	820509	121.00	2282.00	2293.00	2324.00	108.85	8.00	0.9641
Interpolated	1300000	142.99	2258.83	2279.92	2309.55			

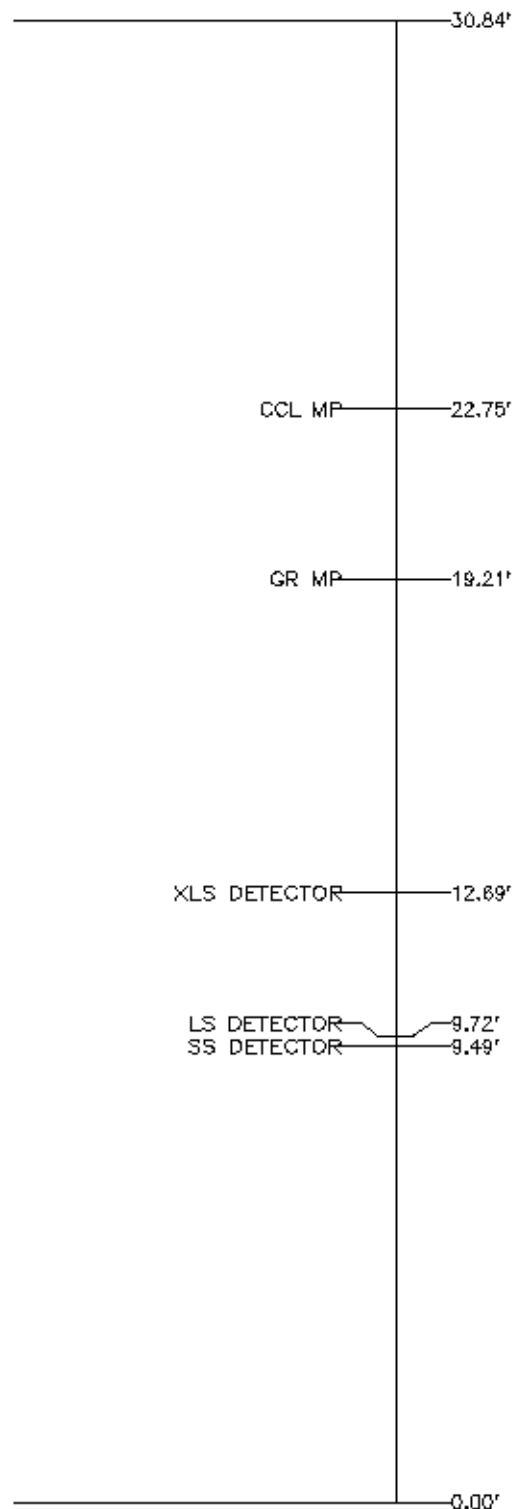
	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	820509	7368.79	1134.52	151.16	26.01	0.13	24.49	0.27
					25.35 26.15	0.00 0.20	23.60 24.80	0.00 0.40

	ISS	ILS	IXS	SS	SS2	LS	CSS	CLS
Raw Data	820509	179866.13	28031.69	96948.85	34456.55	8807.50	58444.64	14111.46
Fit Quality %		0.15	0.33	0.19	0.14	0.21	0.17	0.18

	ISS	RBOR	RIN ISS/ILS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS
Raw Data	820509	1.43	4.56	29.27	14.04	11.01	3.91	4.14
		1.42 1.45	3.66 5.21	22.20 32.10	10.99 16.34	10.08 11.10	3.57 3.95	3.78 4.22
Fit Quality %		0.05	0.38	0.32	0.35	0.07	0.07	0.05
Reduced	1391409	1.43	4.58	29.38	14.10	11.00	3.91	4.14
		1.42 1.45	4.33 5.62	27.60 32.70	13.70 16.70	10.80 11.00	3.78 3.92	4.01 4.17

TOOL DIAGRAM

OTA SHORT CABLE HEAD
PCM POWER SUPPLY (8250EA)
TELEMETRY / CCL (8248EA)
GAMMA RAY (8262XA)
RESERVOIR PERFORMANCE MONITOR (8281XA)



Total Length: 30.84'
 Total Weight: Not Available
 Max Diameter: Ø 1.70"



Company	MARATHON OIL COMPANY		
Well	596-31A-11		
Field	GRAND VALLEY		
County	GARFIELD	State	COLORADO

File No:
API No:
05-045-150910000

Location

Elevation

CASE

LOCATION

779' ENL & 1675' FEL

SEC 31 TWP 55 RGE 95W

DEVELOPS

KB 8442 ft

DF 8441 ft

GL 8218 ft