



RESERVOIR PERFORMANCE MONITOR

Baker Atlas

File No: CH090704	Company Well Field County	WPX ENERGY FEDERAL NER 423-32 RULISON GARFIELD	State COLORADO
API No: 05045217890000	Location SHL: 110' FWL x 2581' FWL SEC 5 7S 93W BHL: 2045' FSL x 1944' FWL SEC 32 6S 93W SEC 32 TWP 6S RGE 93W		Other Services CBL
32 6S 93W RU 23-5 PAD NABORS 676	Permanent Datum Log Measured From Drill Measured From		Elevations KB 7629 ft DF GL 7603 ft
GL KB KELLY BUSHING		Elevation 26 ft Above P. D.	

Date	24/SEP/14	27/SEP/14
Run	ONE	TWO
Service Order	US090704	US090704
Depth Driller	10404 ft	10404 ft
Depth Logger	10361 ft	7520 ft
Bottom Logged Interval	10351 ft	7520 ft
Top Logged Interval	26 ft	7230 ft
Time Started	1230	2200
Time Finished	1900	0000
Operator Rig Time	5.5 HOURS	2 HRS
Type of Fluid in Hole	WATER	WATER
Fluid Density	NA	NA
Salinity	NA	NA
Fluid Level	82 ft	82 ft
Logged Cement Top	NA	NA
Wellhead Pressure	0 psi	0 psi
Maximum Hole Deviation	NA	NA
Nominal Logging Speed	10 fpm	10 fpm
Maximum Recorded Temperature	25.1 degF	25.1 degF
Reference Log	NONE	NONE
Reference Log Date	NA	NA
Equipment No.	44271	44271
Location	GRAND JCT	GRAND JCT
Recorded By	FLOYD RENEAU	FLOYD RENEAU
Witnessed By	JEFF DUCY	JEFF DUCY

- 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
13.5 in	26 ft	1141 ft
8.75 in	1141 ft	10404 ft

Casing Record				
Size	Weight	Grade	From	To
9.625 in			26 ft	1141 ft
4.5 in	11.6 lbm/ft	P-110	26 ft	10404 ft

Remarks
All data on this log is shifted and depth matched using the Gamma Ray curve to the Baker Hughes bond log dated 9/24/2014 at the clients request.
Logged in PNC-3D mode.
The amount of linear shift is 2 feet.
BHT 251°
SHORT JOINT 6883' - 6905'

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
2	1	TEMP	8255XA	Z120516	FREE
2	1	RPM	8281FA	10191667	FREE
2	1	RPM	8281PA	10169261	FREE
2	1	RPM	8281EA	10273848	FREE
2	1	GR	2812LA	10274385	FREE
2	1	TEL/CCL	8248ED	10460262	FREE
2	1	PCM	8250EA	10586851	FREE

MAIN SECTION
PNC 3-D MODE

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		6257.820	7266.000
PNC Porosity	Borehole Size	8.750	inch	6257.820	7266.000
PNC Porosity	Casing Size	4.500	inch	6257.820	7266.000
PNC Porosity	Gas Filled	Non Gas Filled		6257.820	7266.000
PNC Porosity	Matrix	Sandstone		6257.820	7266.000
TPS Pressure	Temperature Corr. Source	Fixed (72.00)	degF	6257.820	7266.000
PNC Porosity	Borehole	Cased		7266.000	7509.000
PNC Porosity	Borehole Size	8.750	inch	7266.000	7509.000
PNC Porosity	Casing Size	4.500	inch	7266.000	7509.000
PNC Porosity	Gas Filled	Non Gas Filled		7266.000	7509.000
PNC Porosity	Matrix	Sandstone		7266.000	7509.000

DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES
8248ED	-26.519	FLTM
8248ED	-24.519	CCL CHV
2812LA	-21.969	GR

8281XA

-12.702

HVC3Q0 SEQ3 AMA3 AML3 BKX CXS
 CPT3Q0 CPT3Q2 CPT3Q3 CPT3Q4 ET3 IXS
 MCS3 MCS3Q0 QCAL3 RGN3 RICX SDA3
 SDL3 SGA3 SGL3 STA3 XS ASPEC3
 AMB3 AMF3 CHF3 IXSC IXSN RATO23
 RICXC RIN13C RIN23 RIN23C SD3D SG3D
 SGB3 SGF3 WDT3 CXSR IXSR XSR
 RICXR

8281XA

-12.291

HVC2Q0 SEQ2 AMA2 AMB2 AMF2 AML2
 BKL CHF2 CLS CPT2Q0 CPT2Q2 CPT2Q3
 CPT2Q4 ET2 ILS LS MCS2 MCS2Q0
 QCAL2 RGN2 RICL RONE23 RTWO23 SDA2
 SDL2 SGA2 SGB2 SGF2 SGK2 SGL2
 STA2 ASPEC2 ILSC ILSN WDT2 RICLC
 CLSR ILSR LSR RICLR

8281XA

-12.041

CPRS HVC1Q0 MV SEQ SEQ1 AMA1
 AMB1 AME1 AMF1 AML1 BKS CHF1
 CSS CORB CORF CPT1Q0 CPT1Q2 CPT1Q2A
 CPT1Q2B CPT1Q2C CPT1Q3 CPT1Q4 CPT1Q5 ET1
 G1 G2 GE1S GE2S ISS MCS1
 MCS1Q0 QA1 QCAL1 QM1 RATO RATO13
 RBOR RGN1 RICS RIN RONE RPOR
 RTWO RIN13 RONE13 RTWO13 SALB SC1
 SDA1 SDL1 SGA1 SGB1 SGB1 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 MVS MA 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 H0C FE2XC ISSC RINC
 ISSN RDEN WDT1 RICSC CSSR G1R
 G2R ISSR SSR SS2R RATOR RATO13R
 RBORR RICSR RINR RIN13R RONE RPORR
 RTWOR

8255XA

-0.792

PTFS PTMS

8255XA

-0.775

SPF1 SPFQ TSCP TSDP

8255XA

0.000

DTEM TEMP TNF

SYSTEM

0.000

TEN TTEN

Created by : RPM9, v5.3.1.0

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

Well : FEDERAL NER 423-32

File Name : d:\welldata\wp\ner 423-32\423rpm\mainsplice2.xtf

Mode : PlotMgr 5.4.504

Interval : 6260.00 - 10366.00 feet UP

Created : 9/24/2014 4:48:19 PM

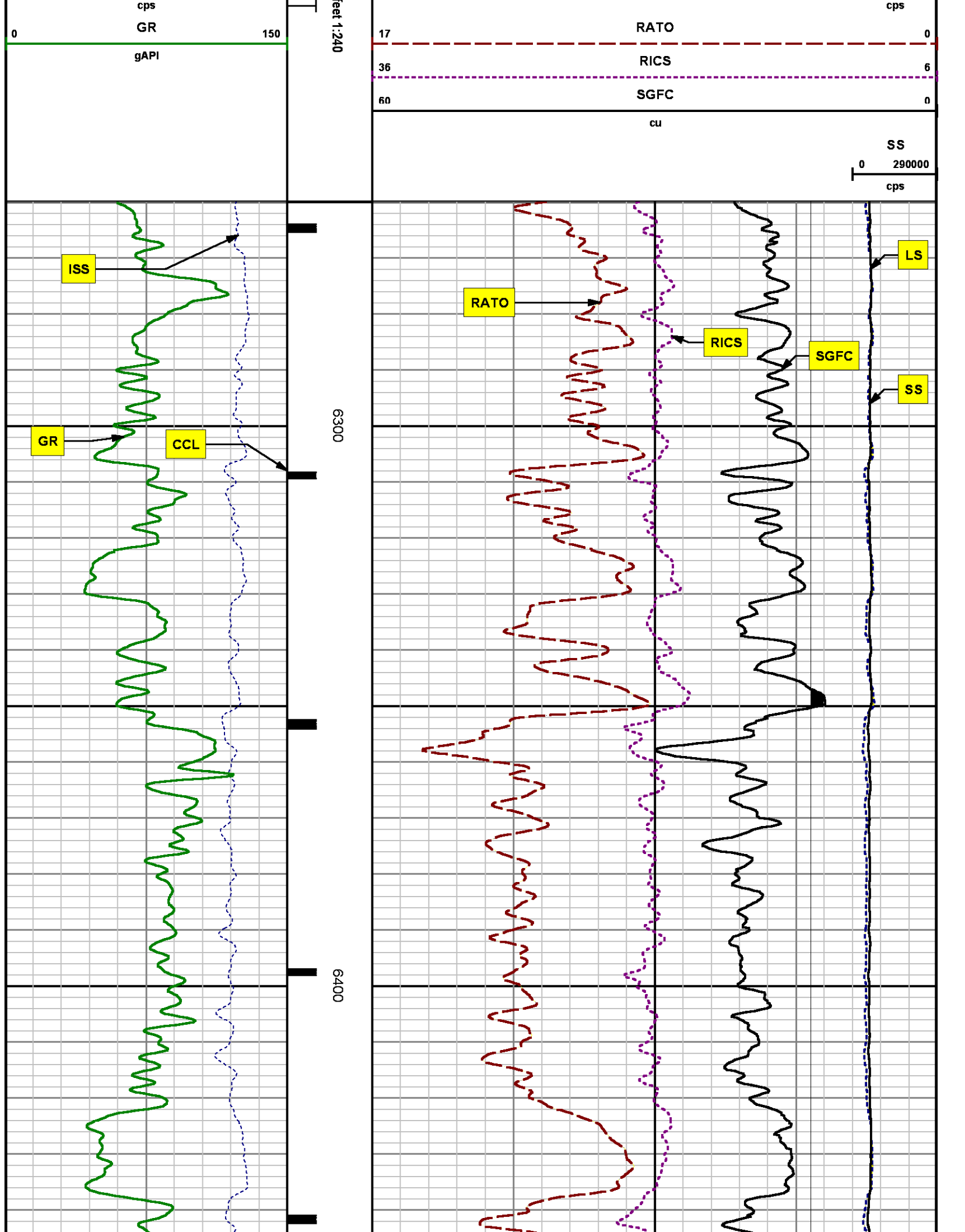
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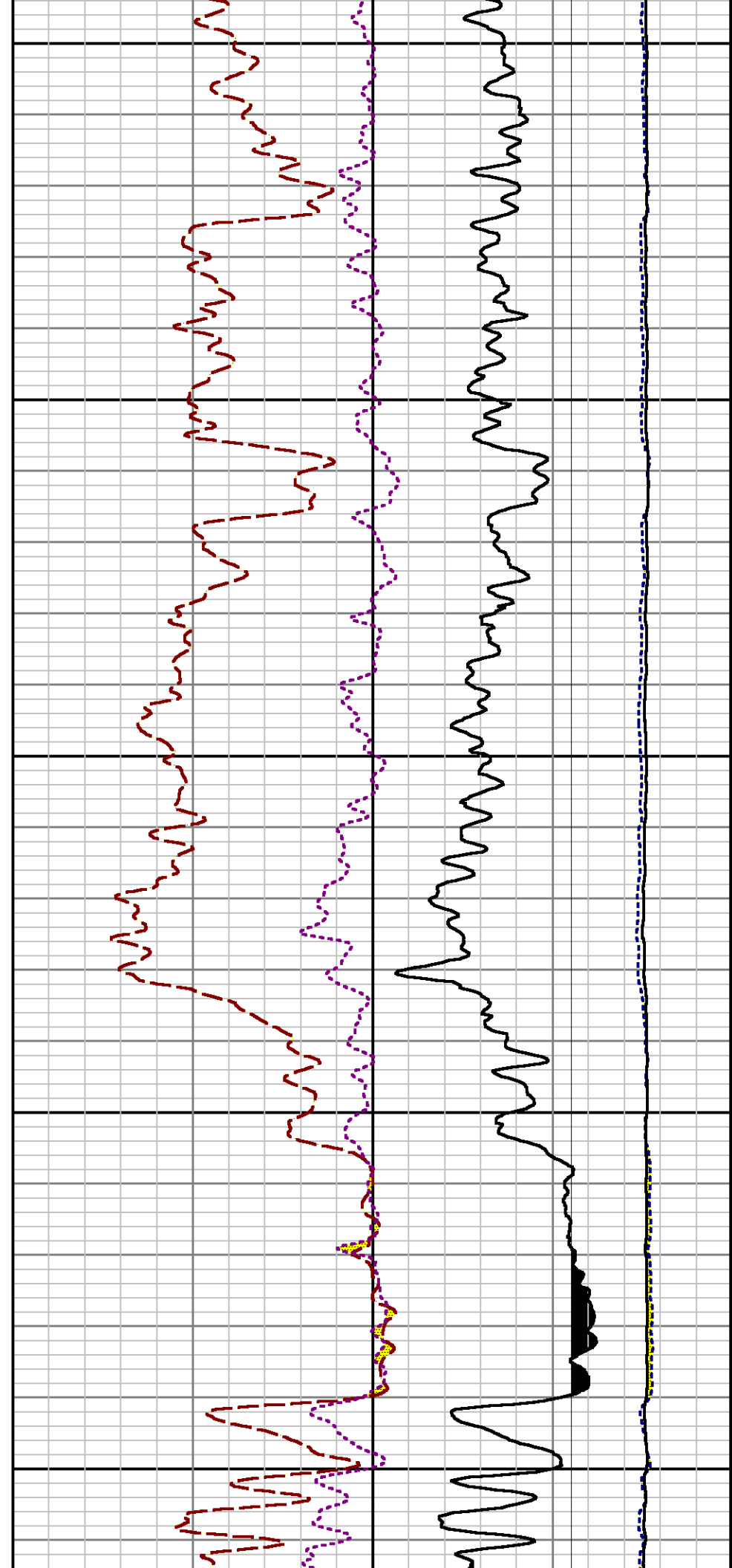
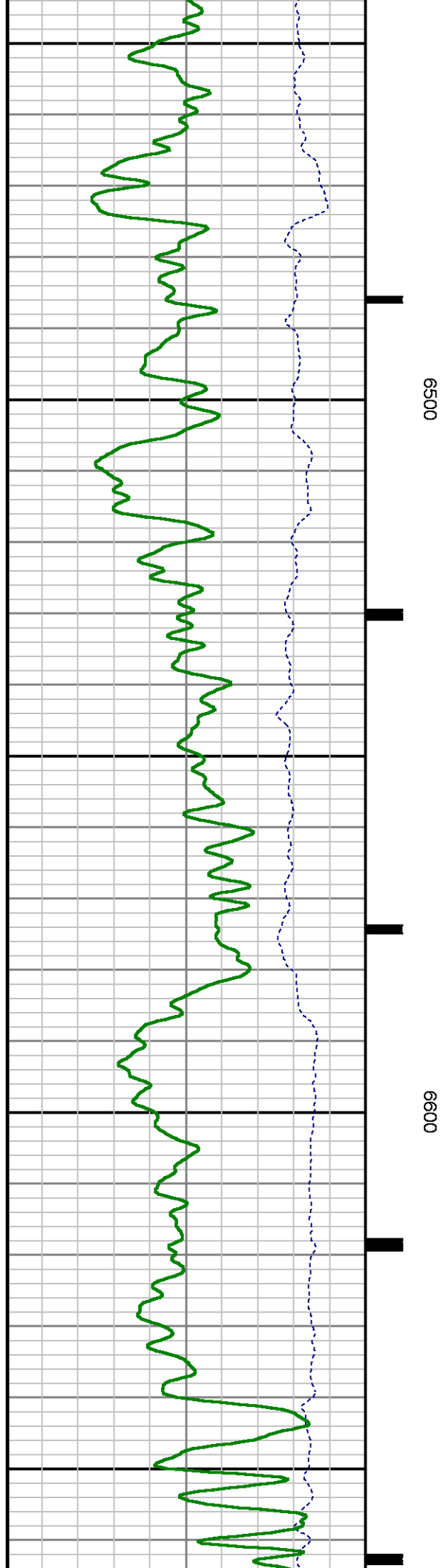
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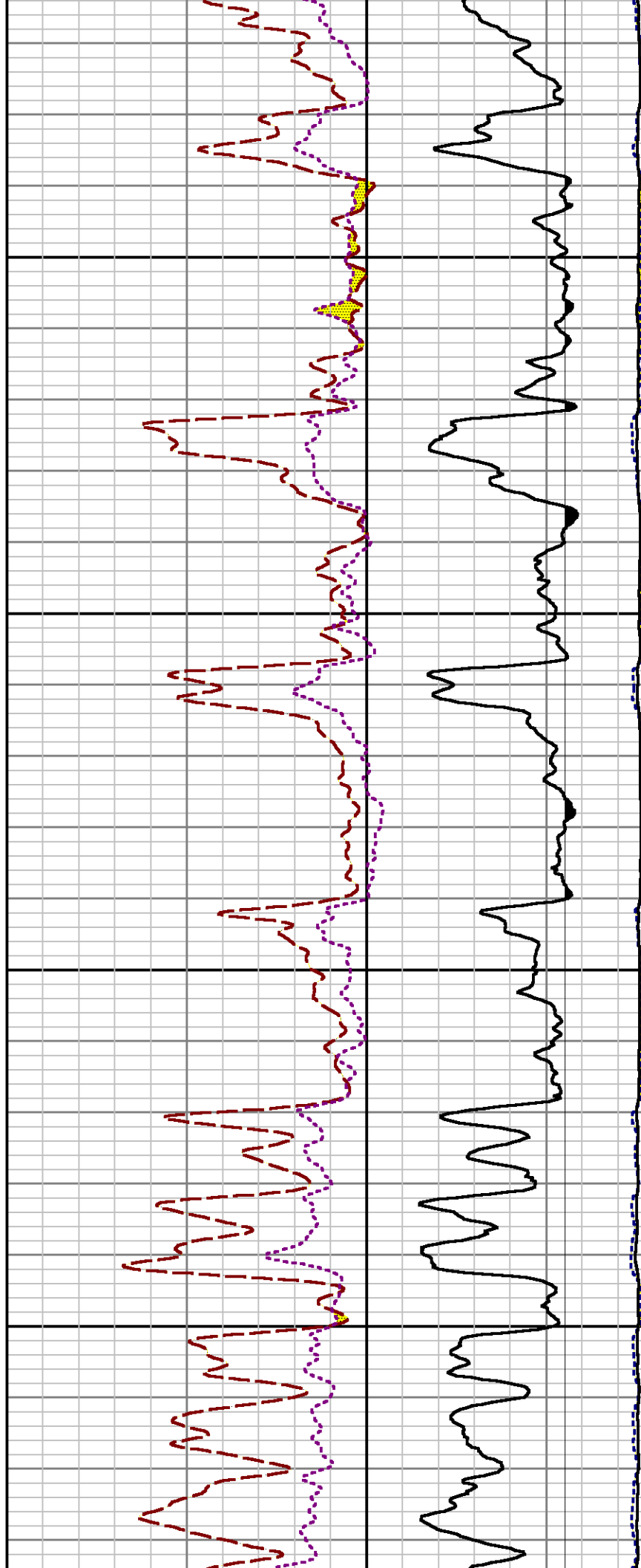
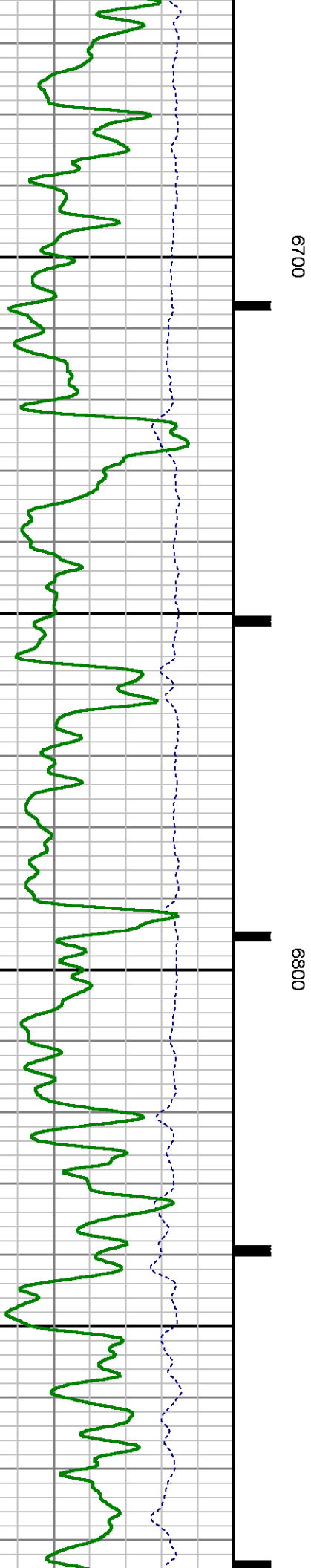
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MD

0 LS 29000





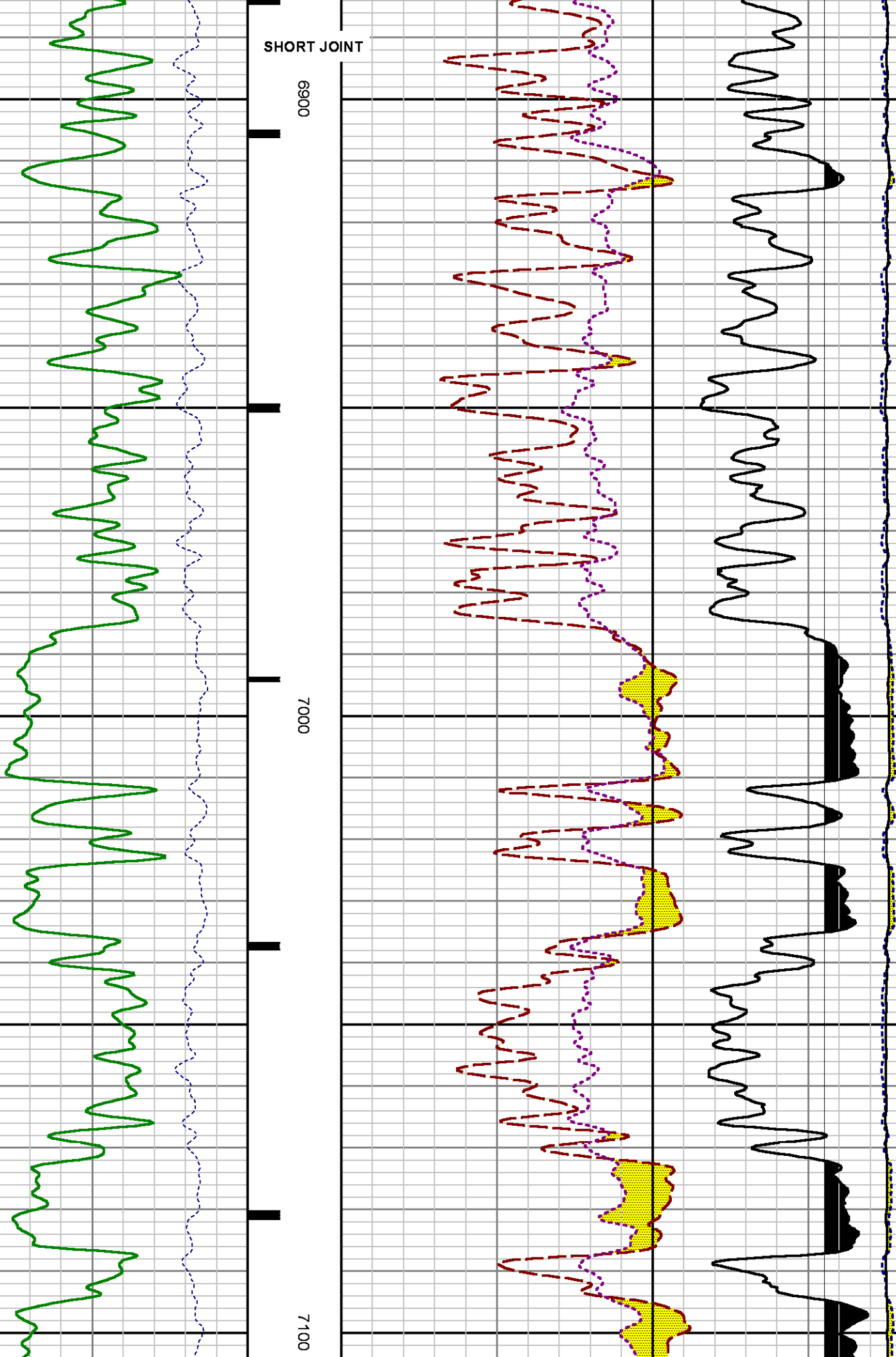


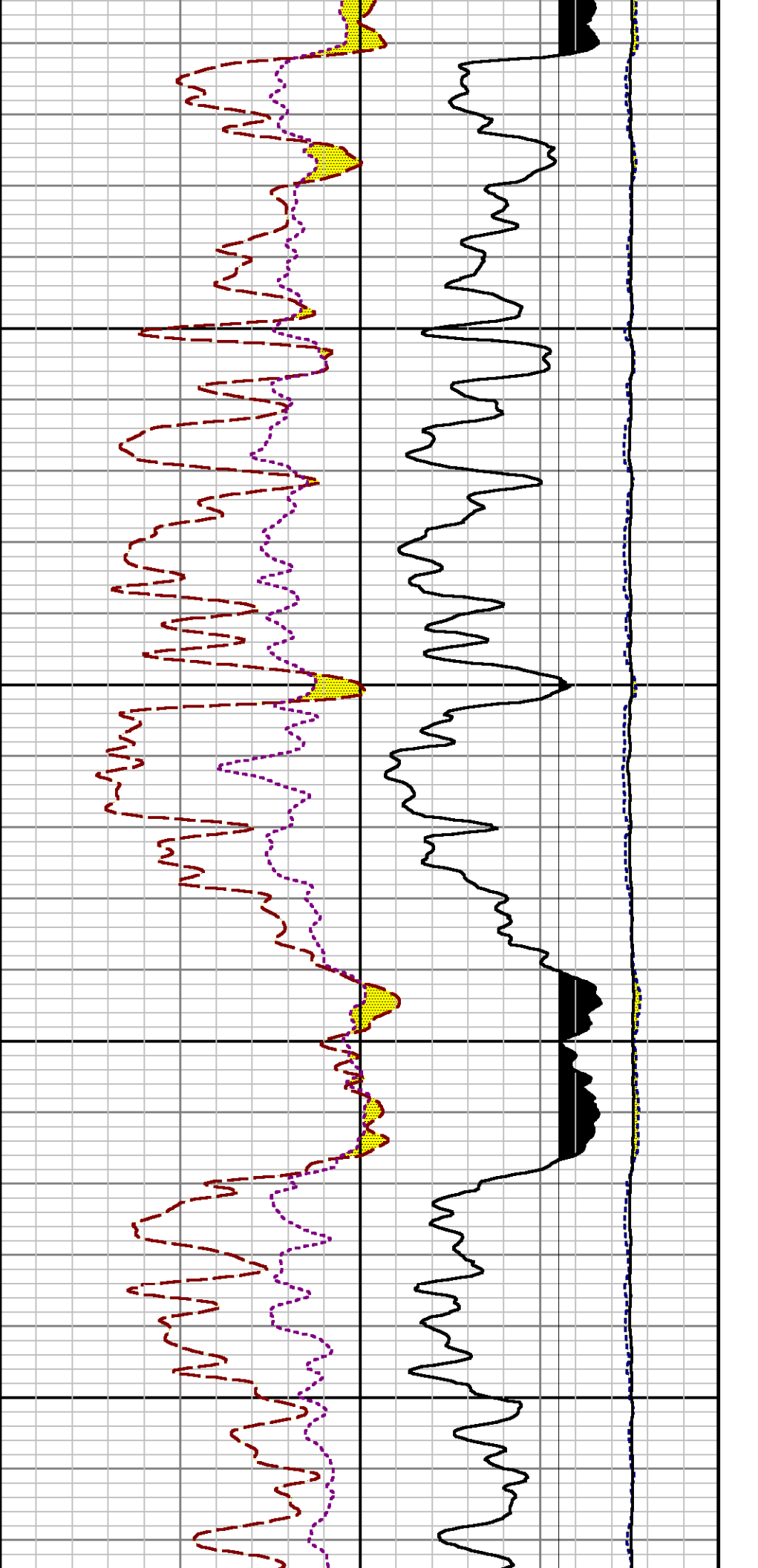
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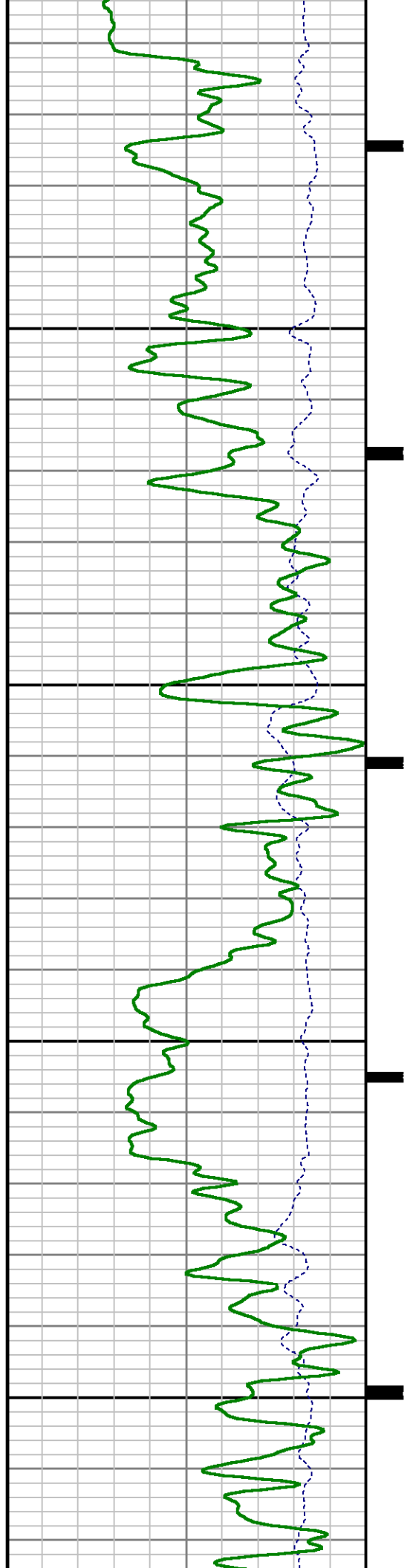
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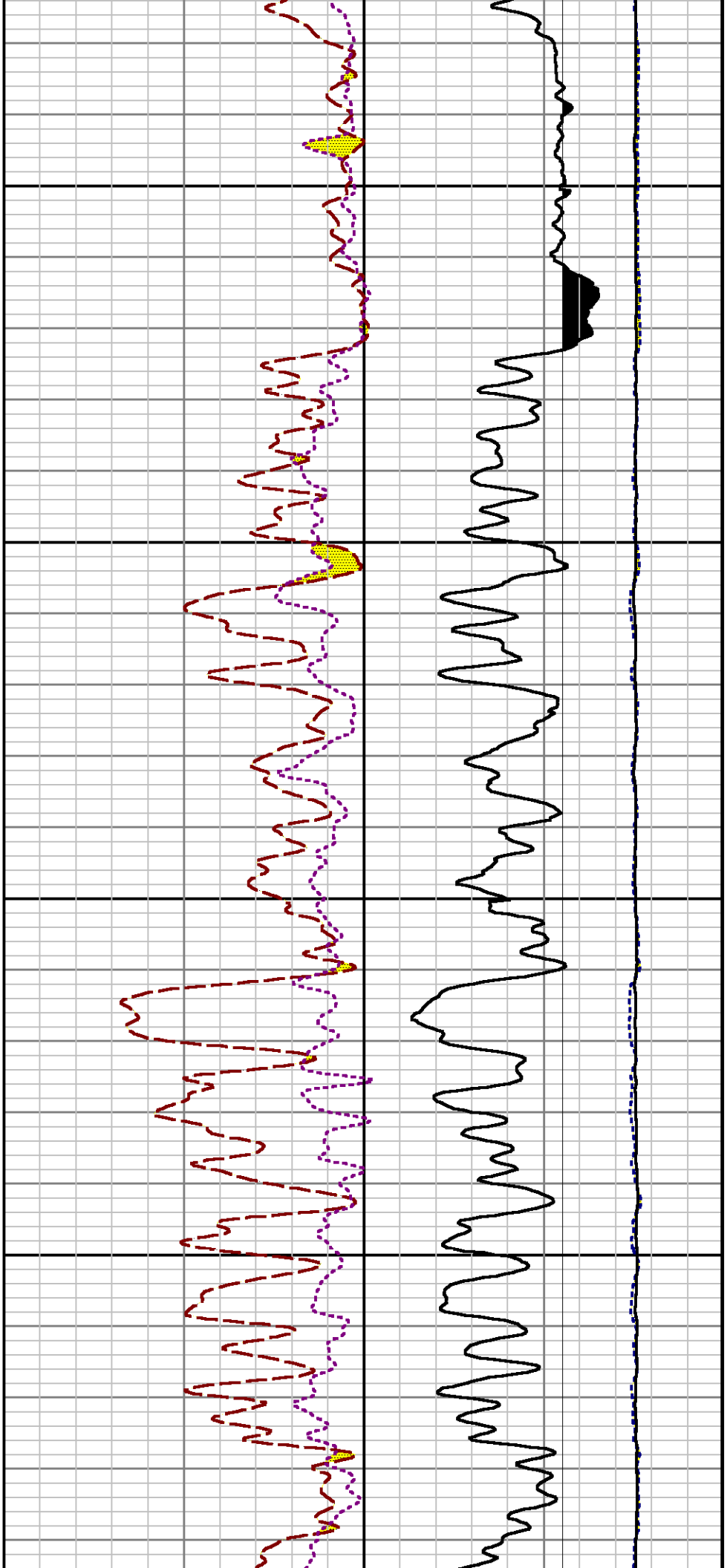




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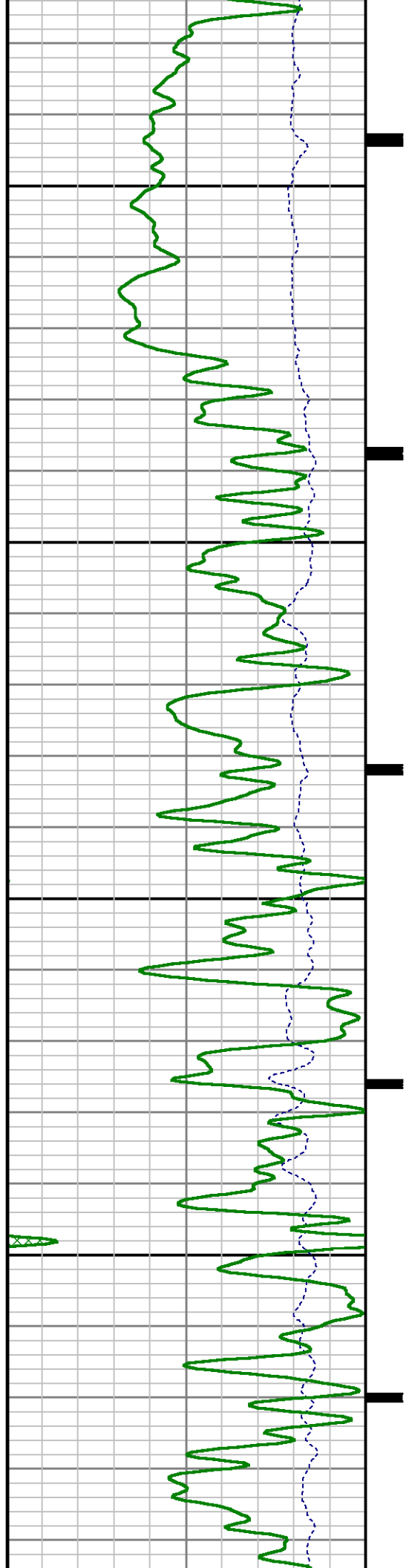
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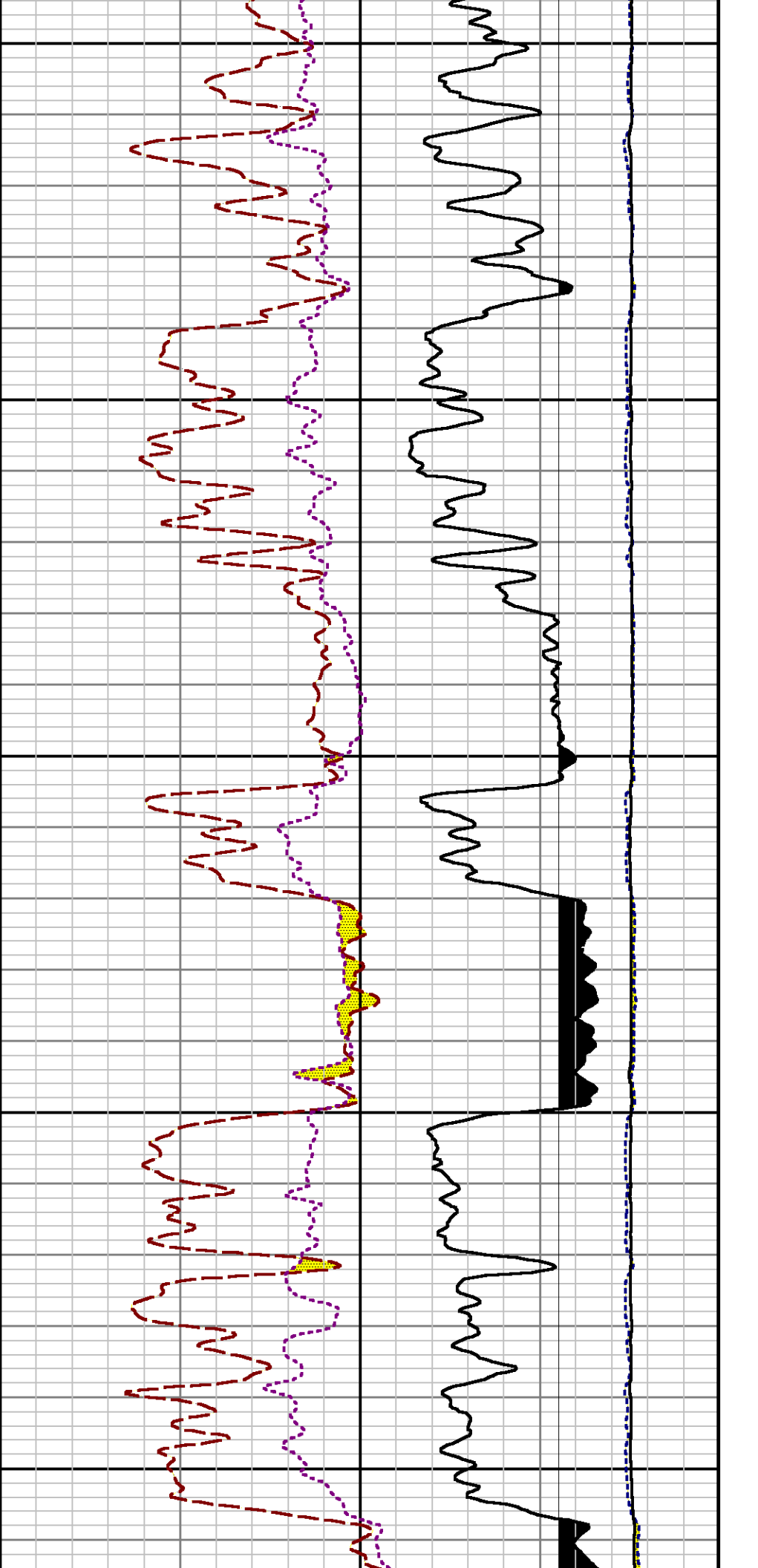




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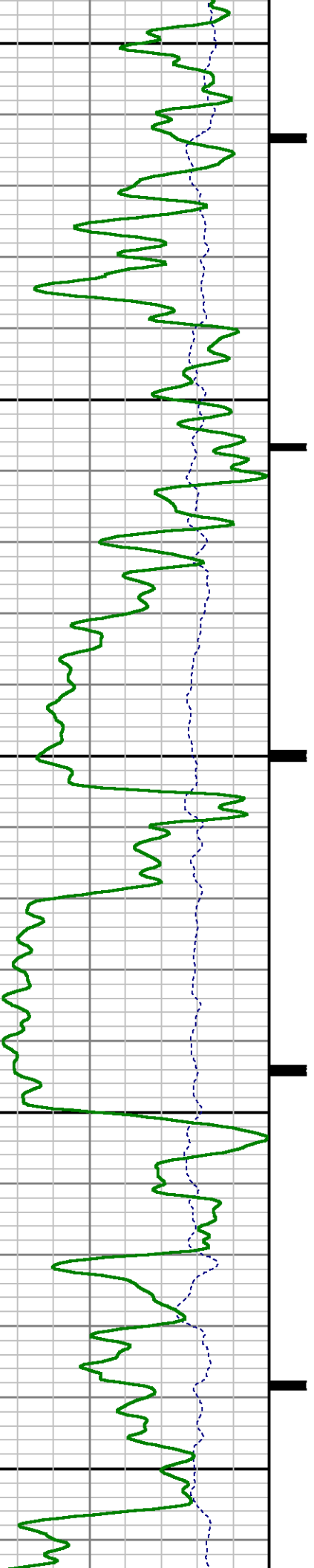
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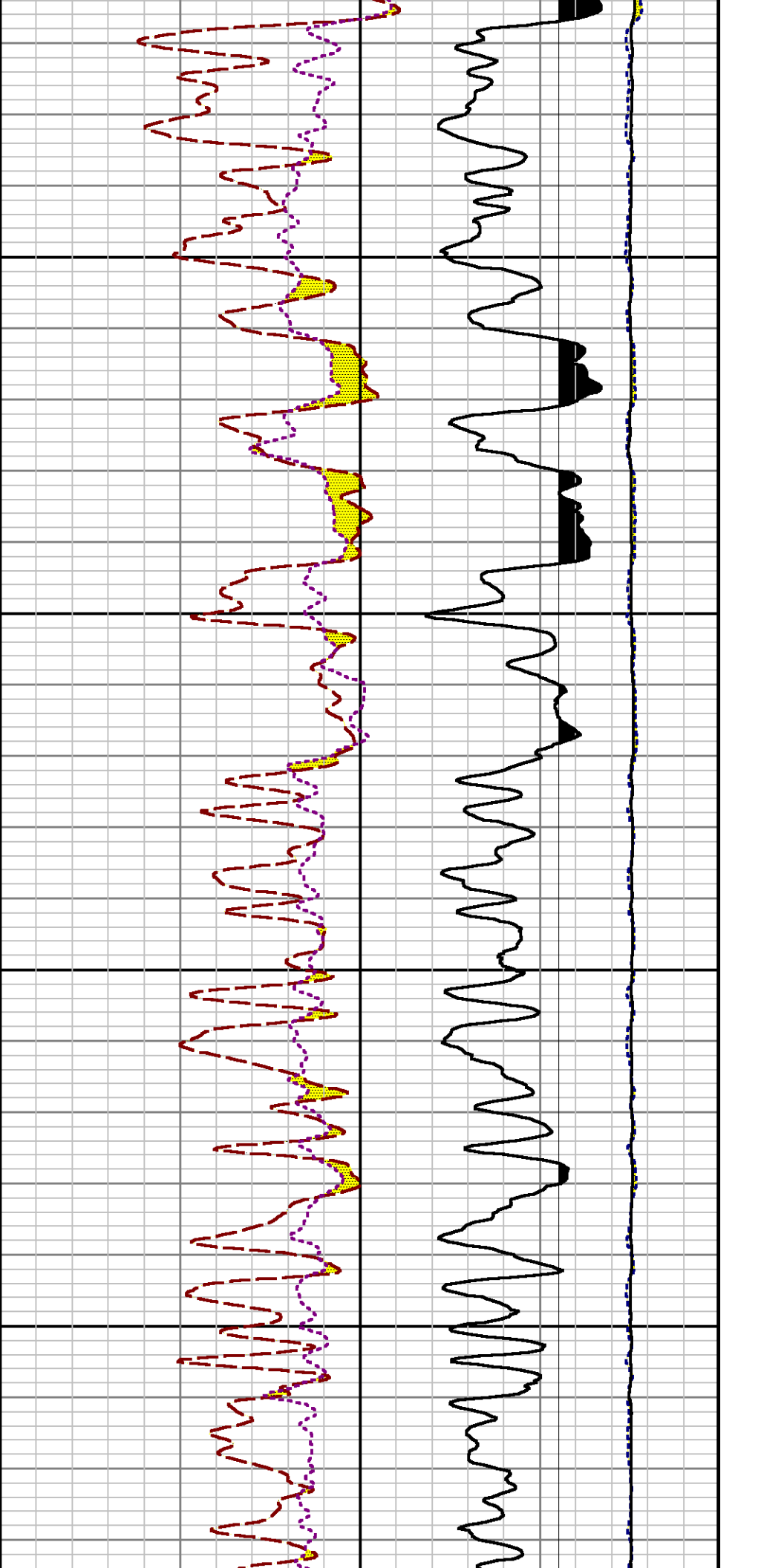




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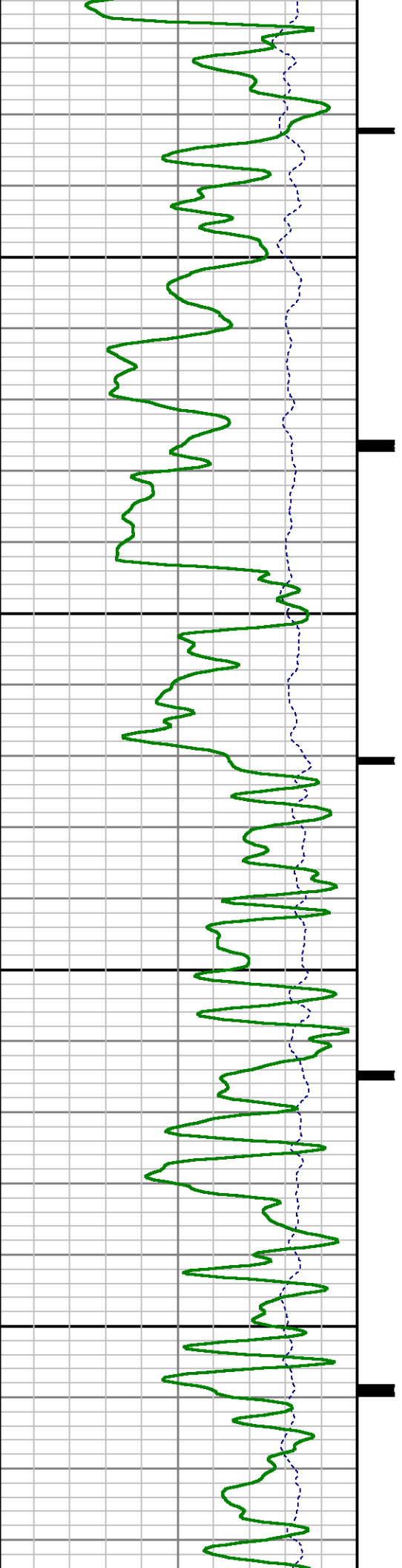
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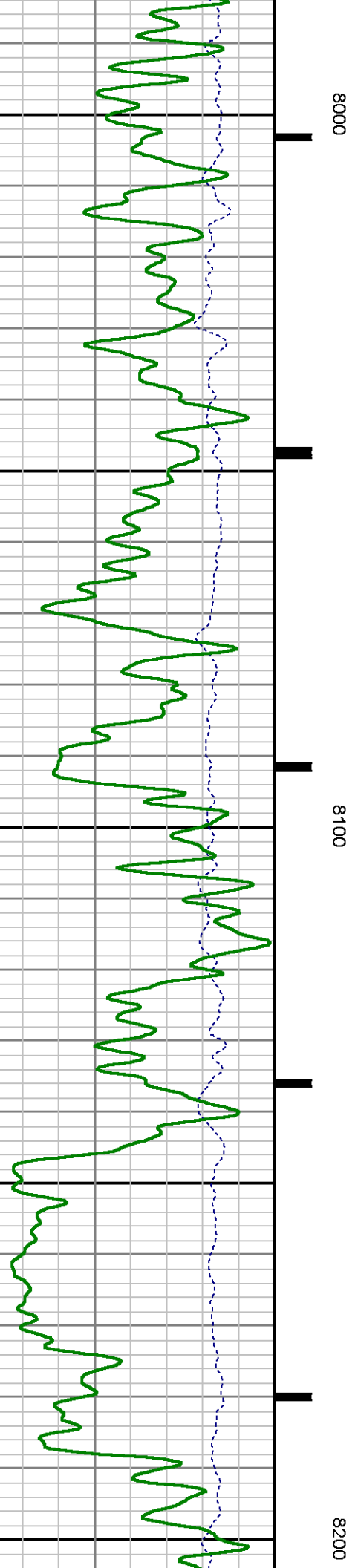
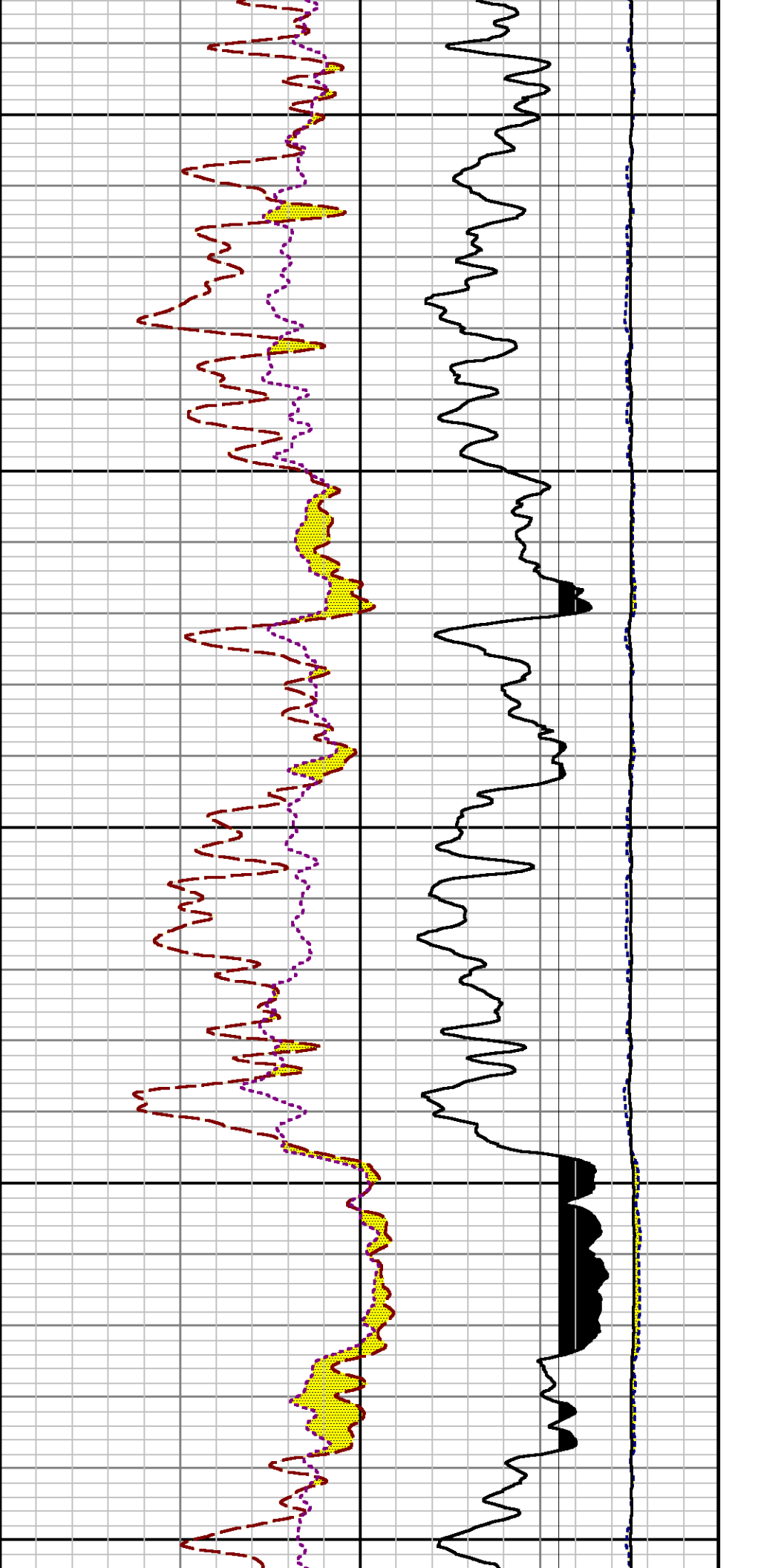


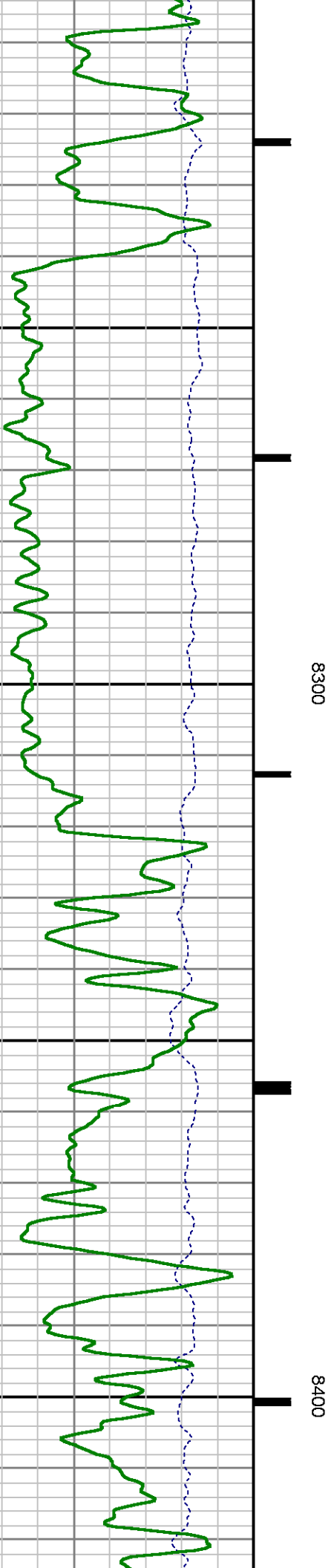
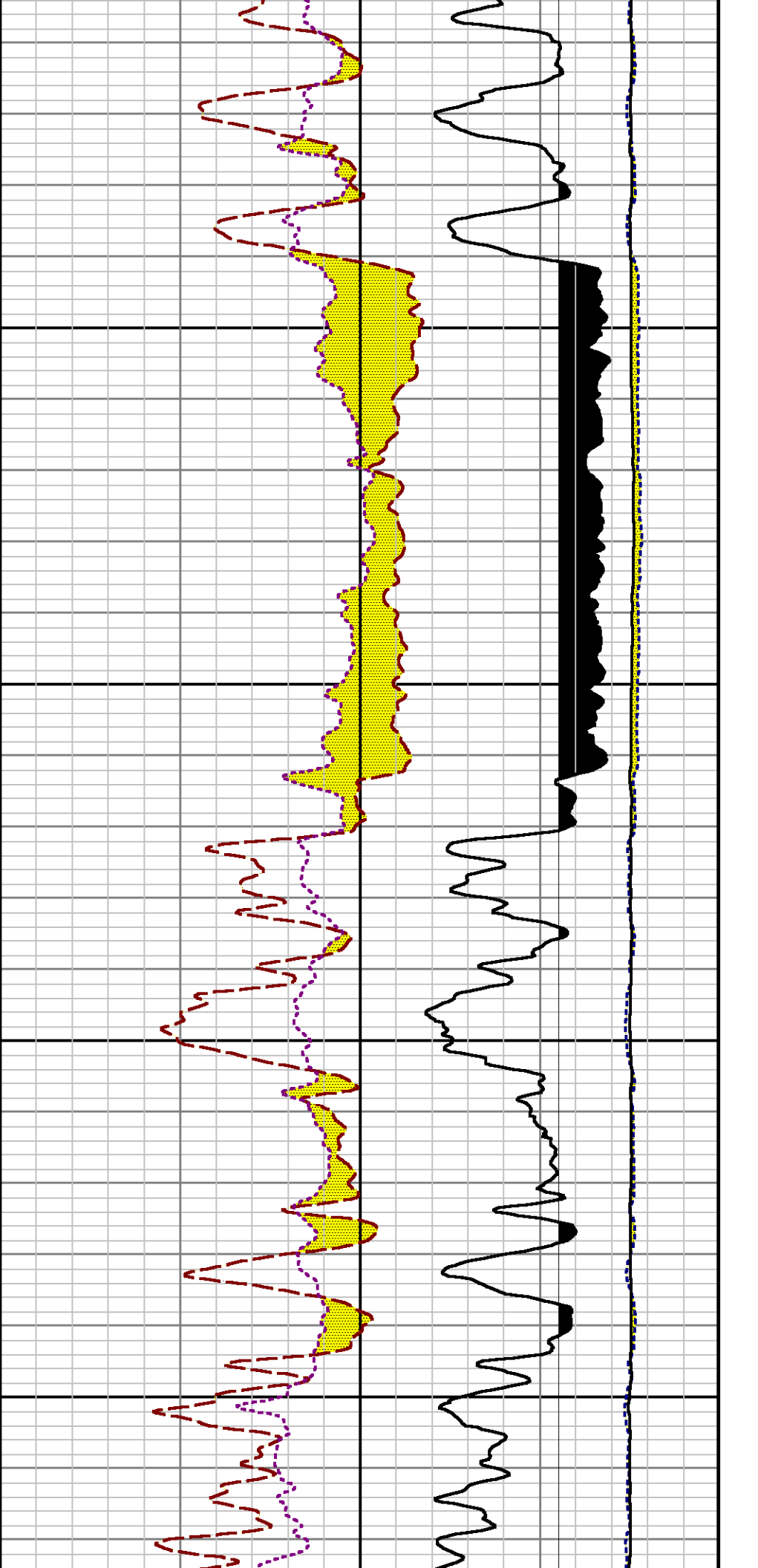


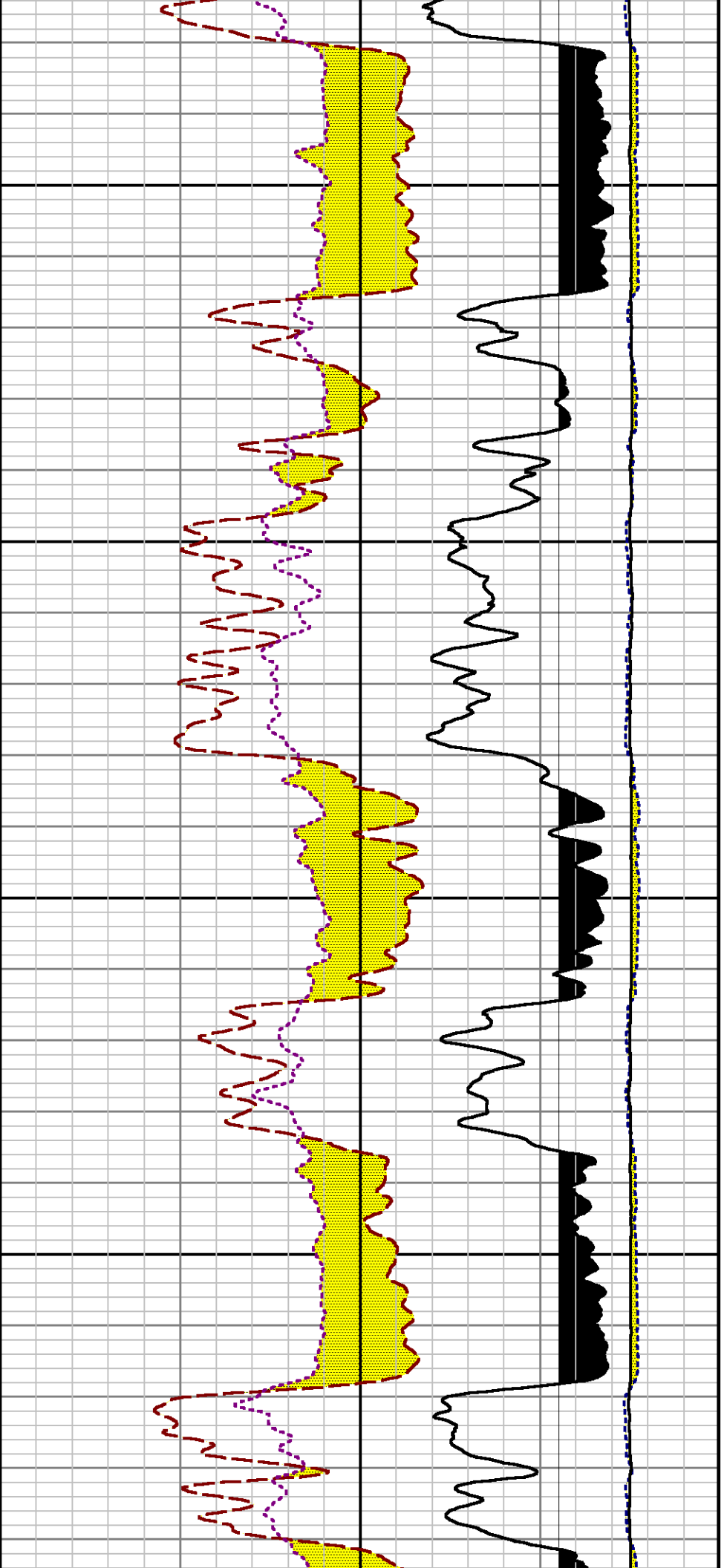
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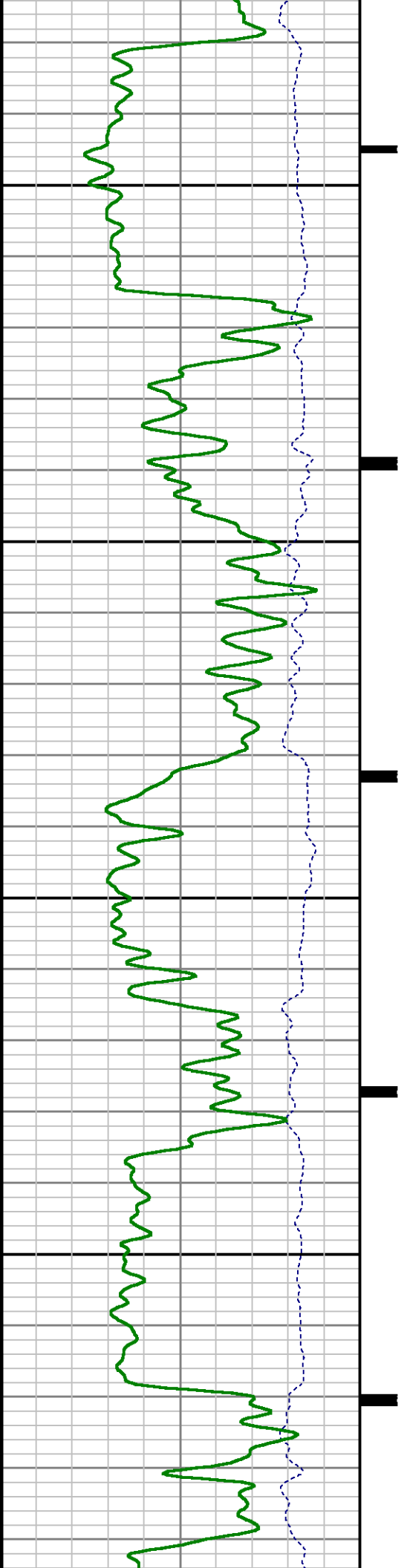


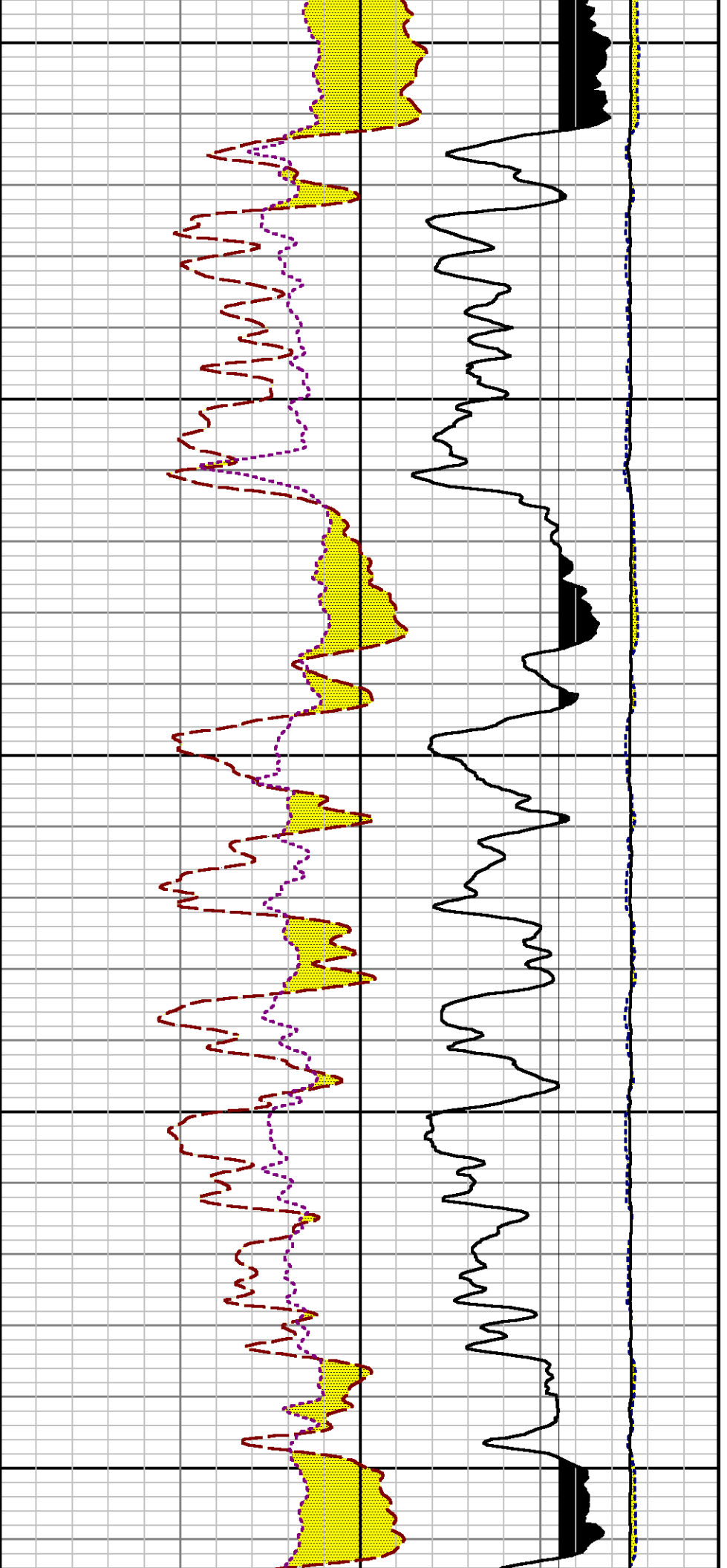




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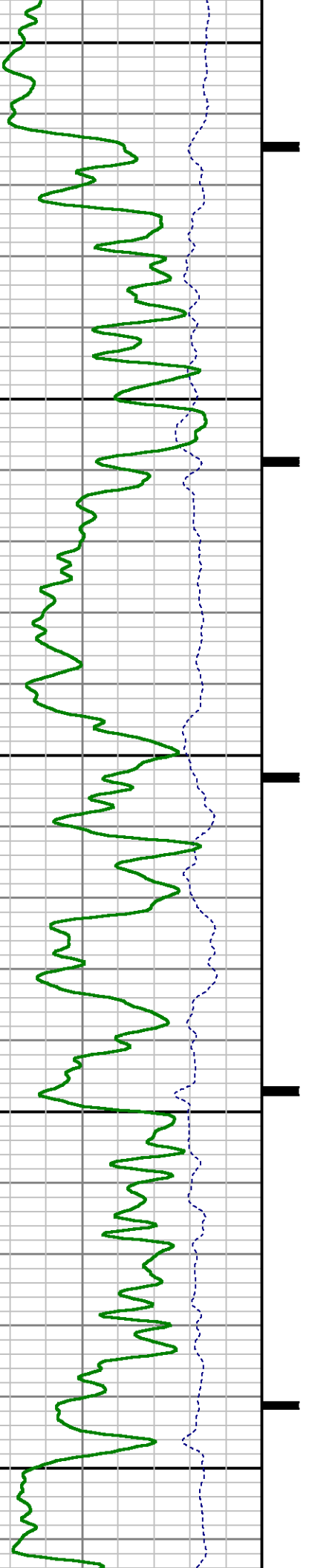
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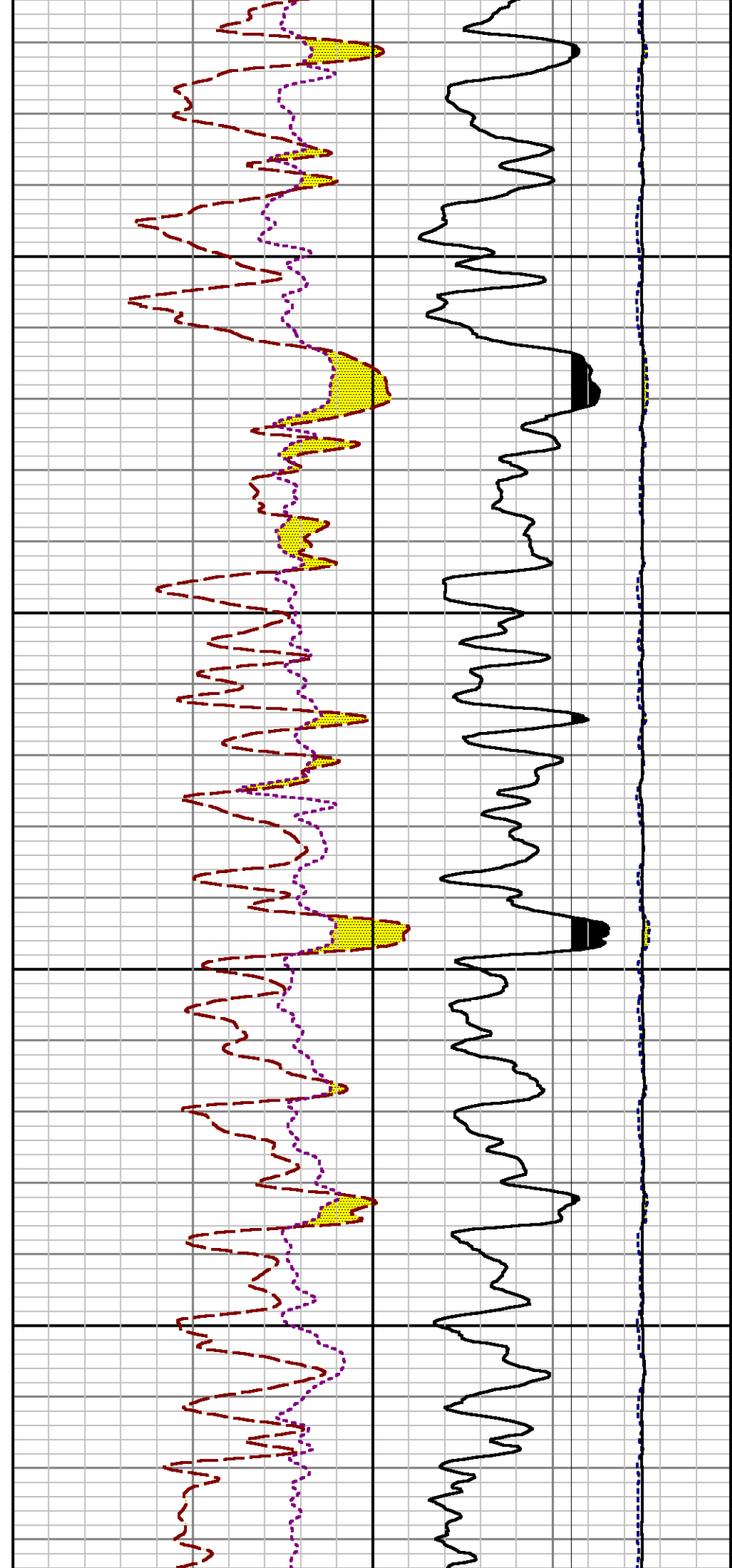
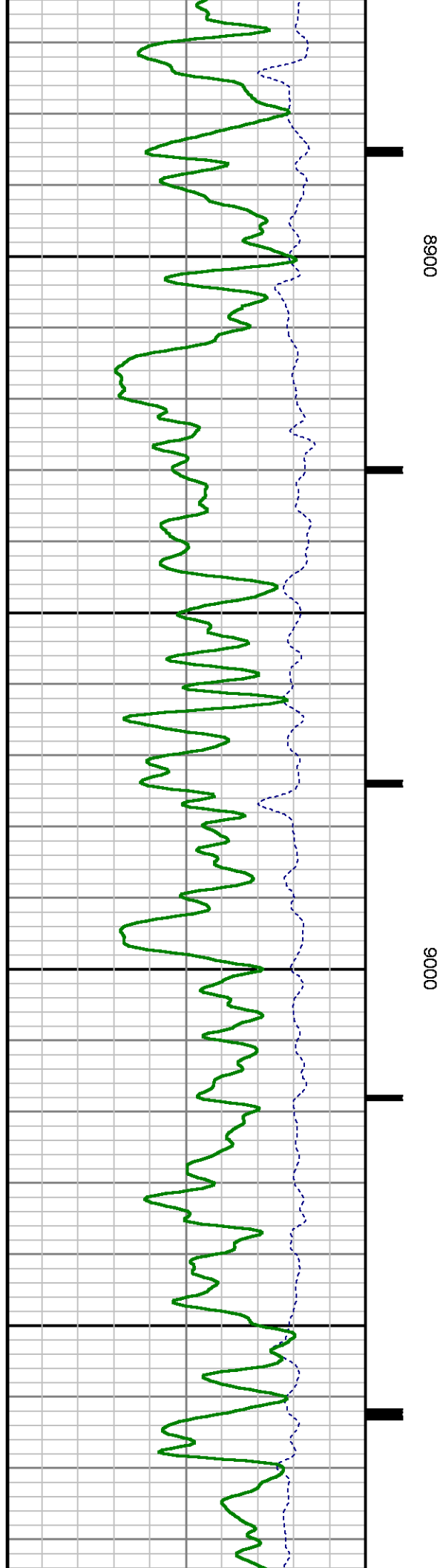


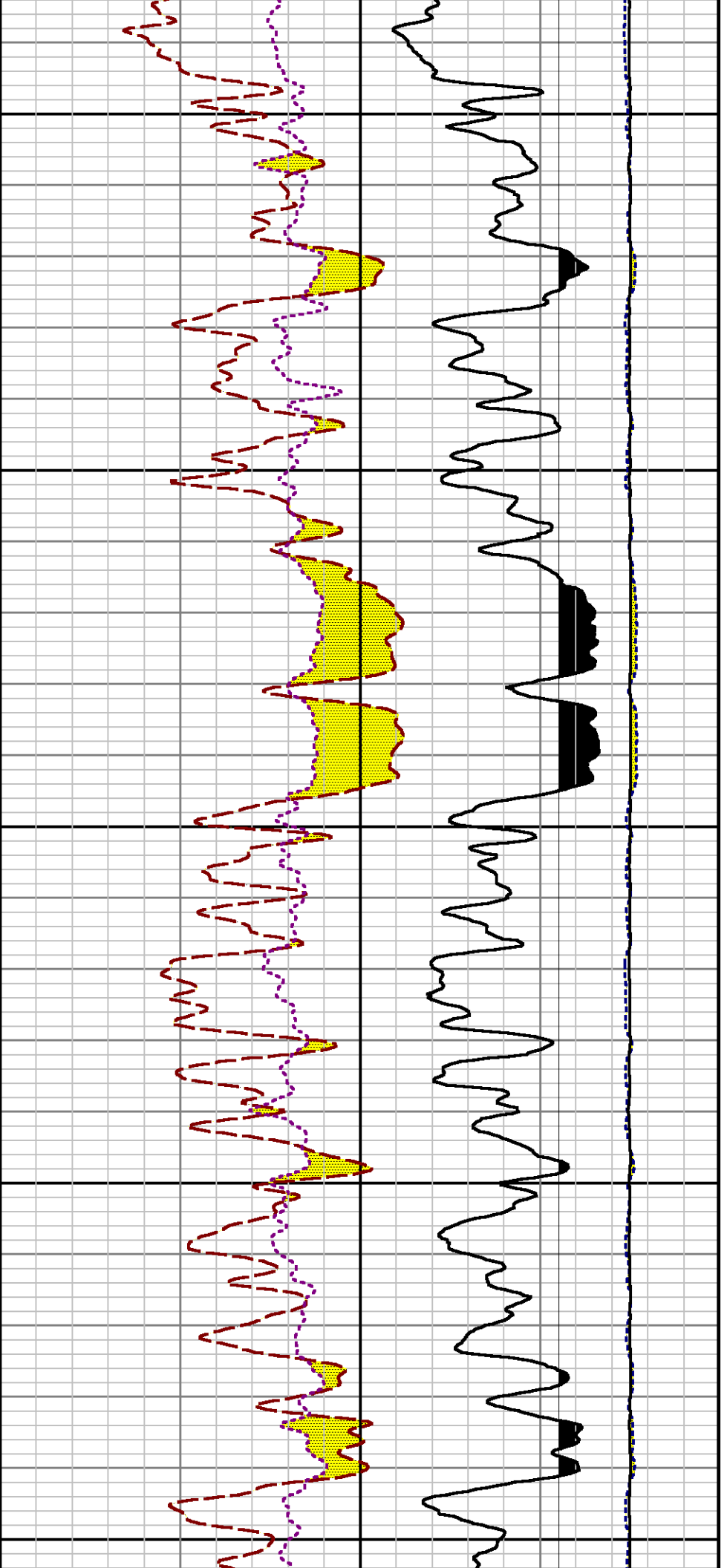


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8800



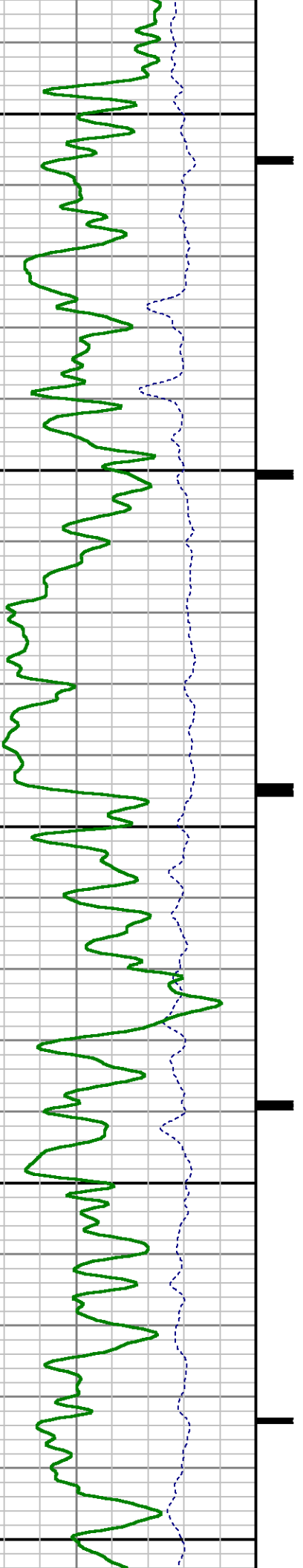


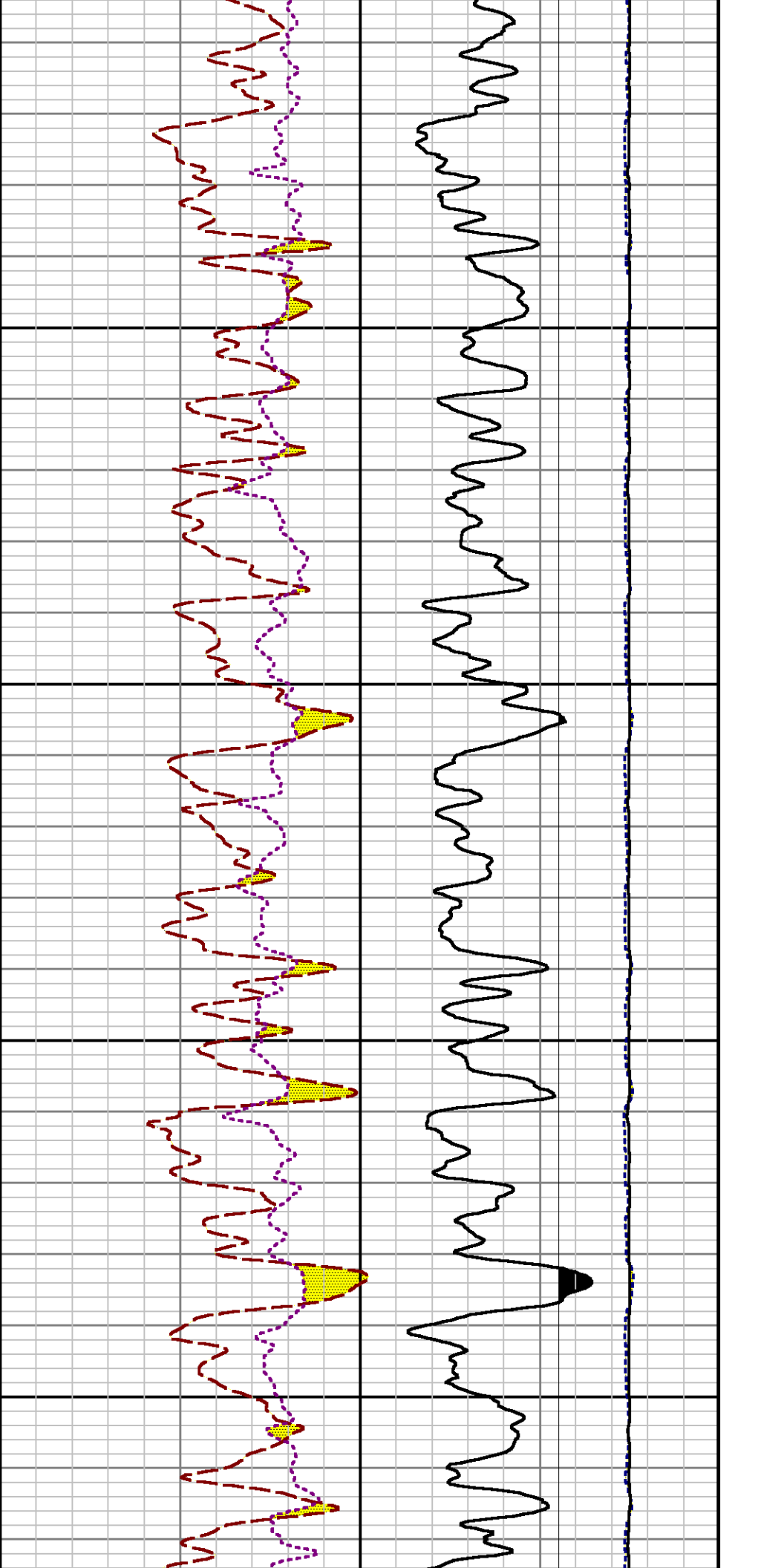


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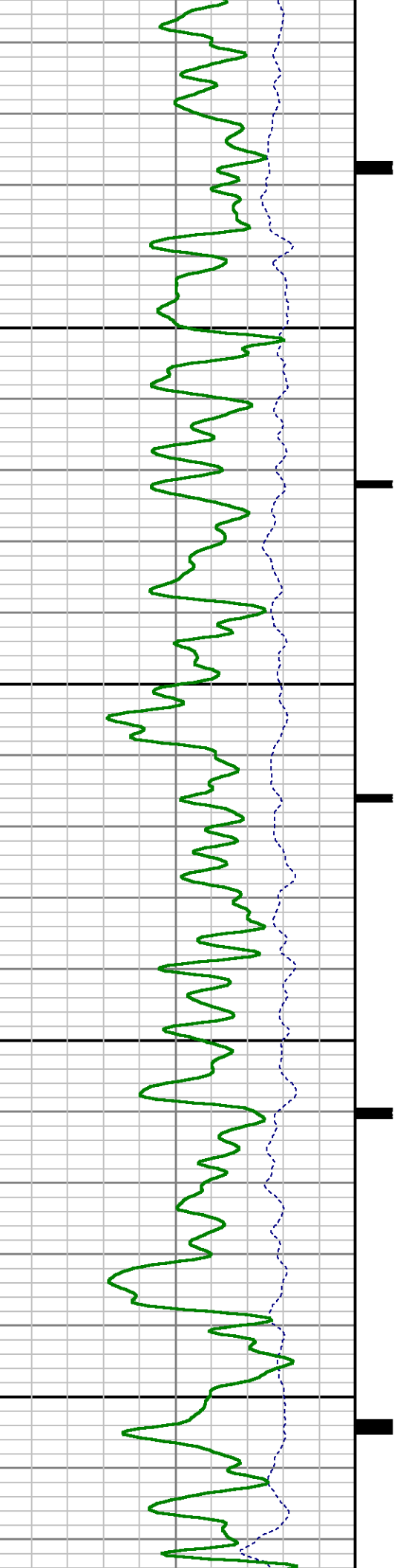
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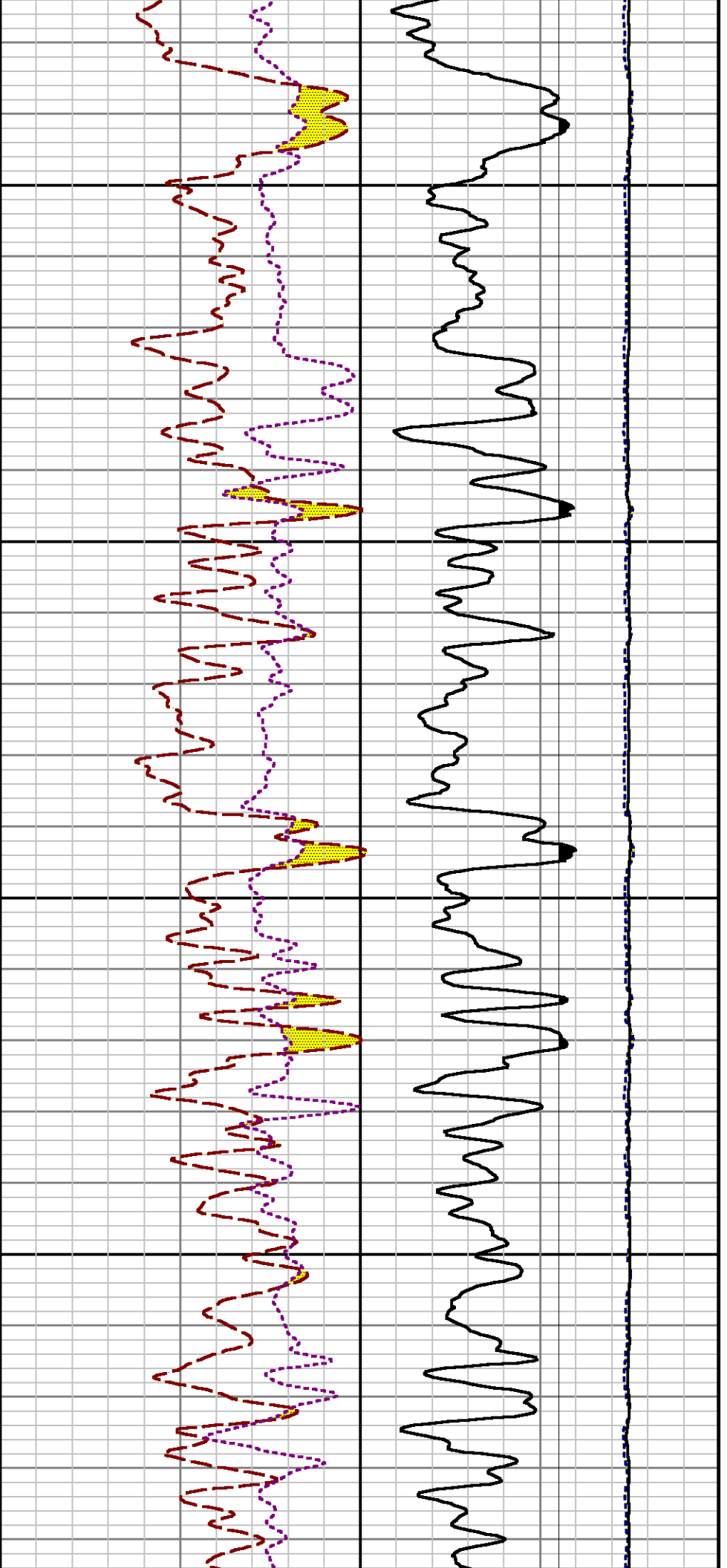




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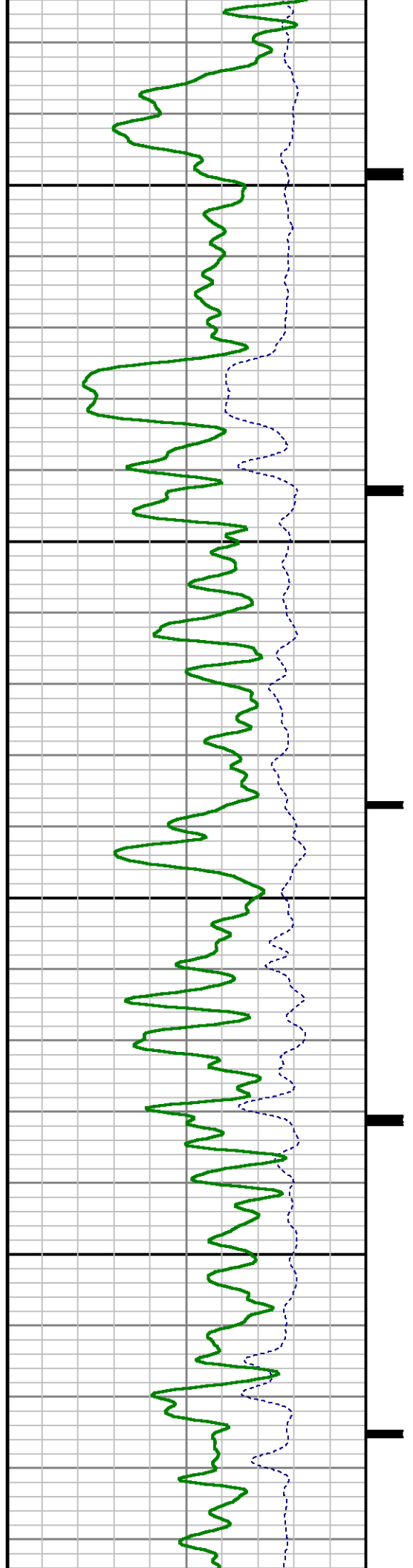
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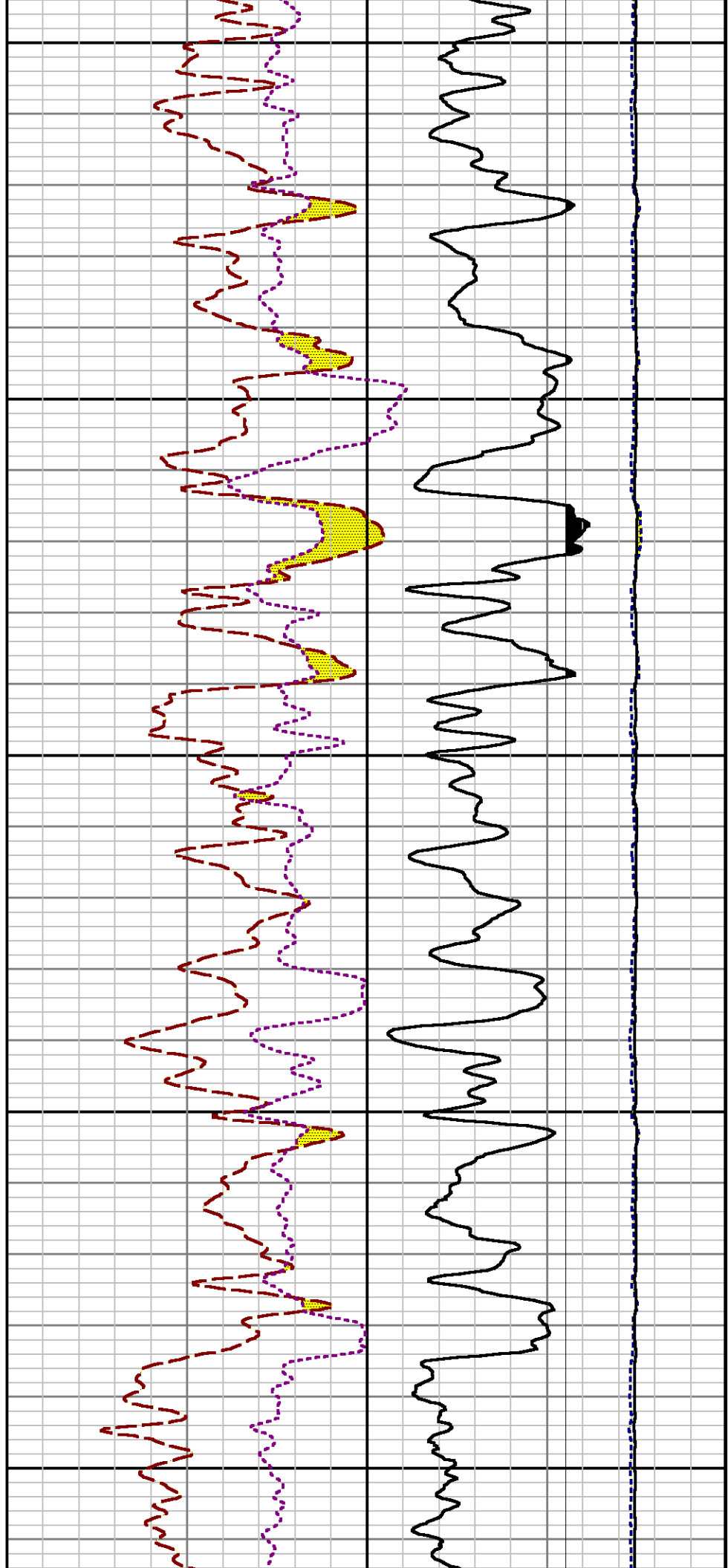




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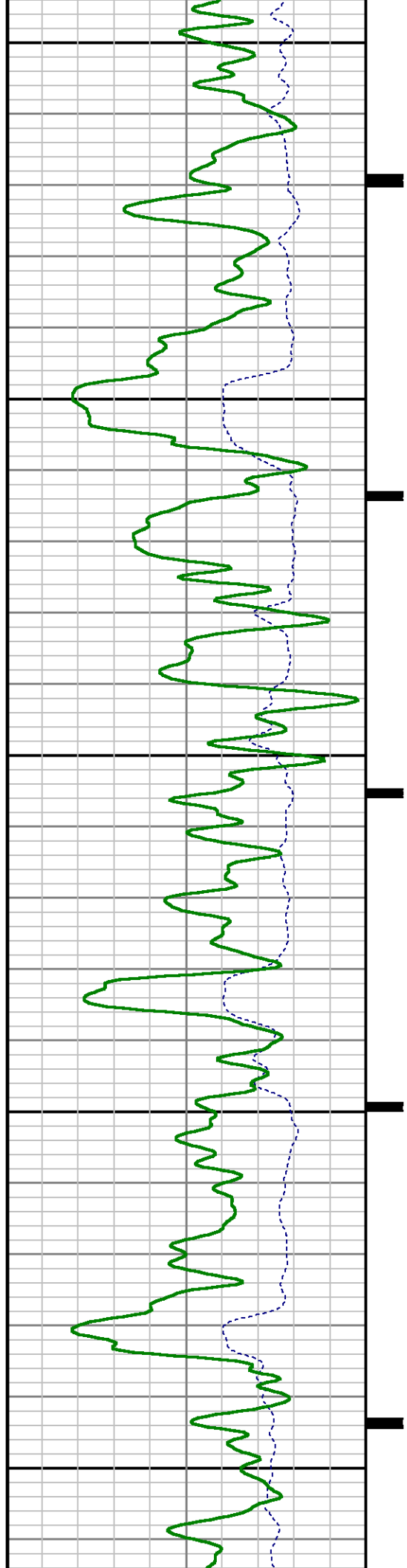
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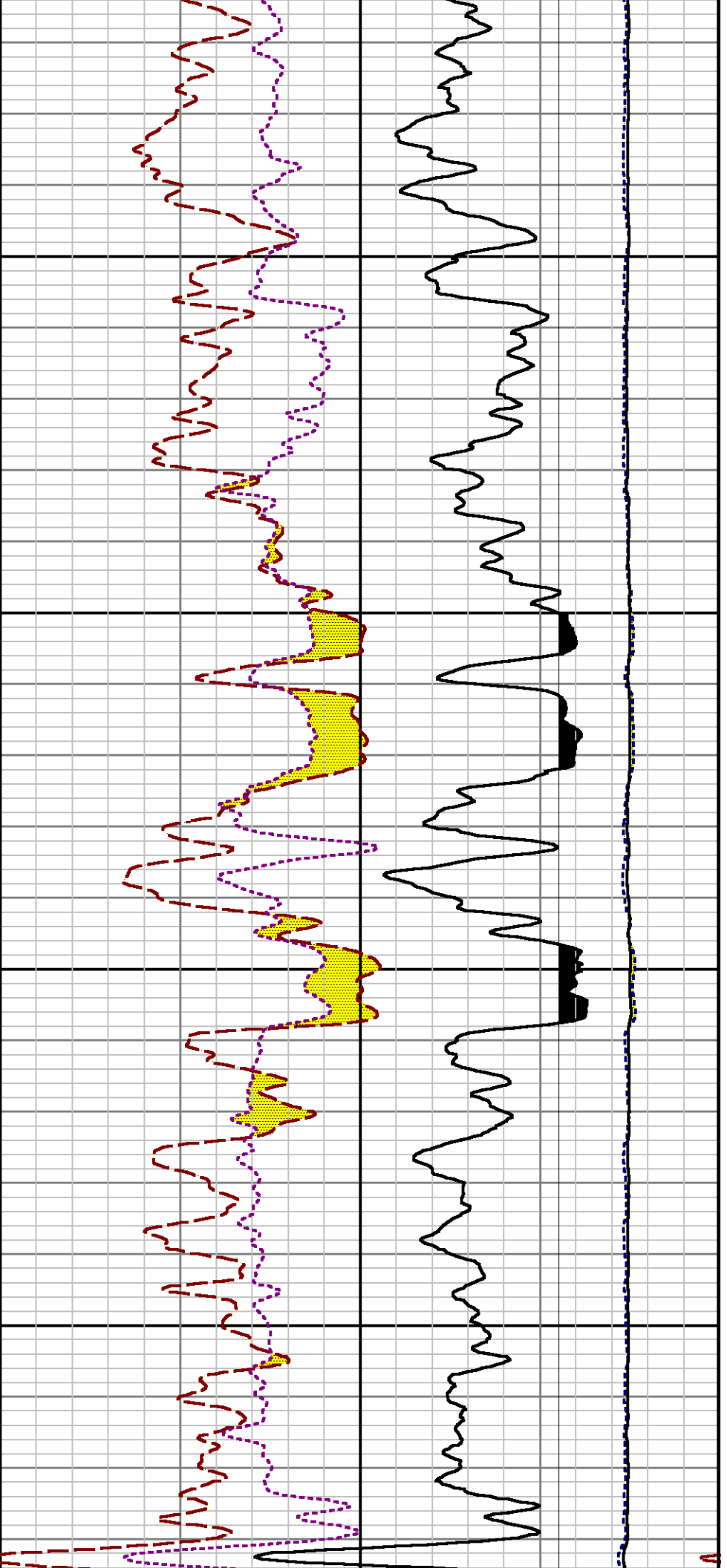




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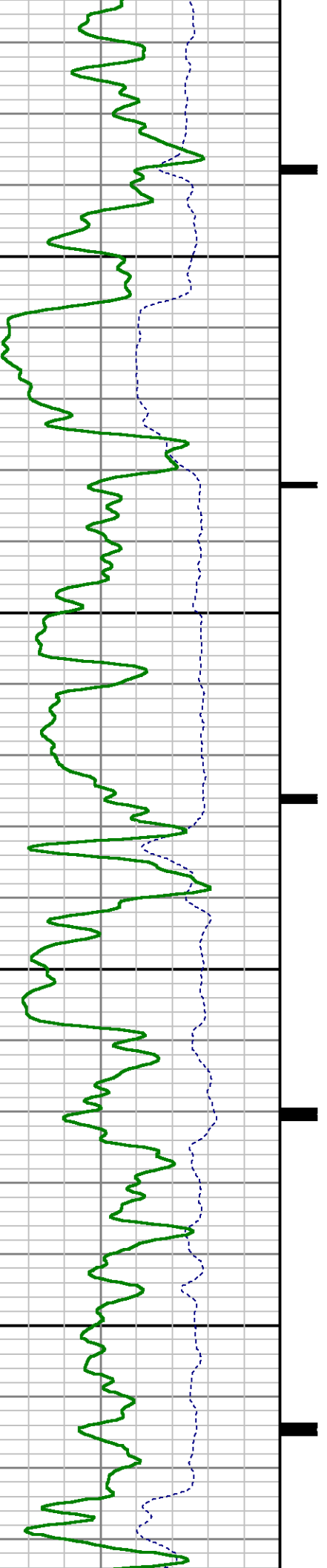
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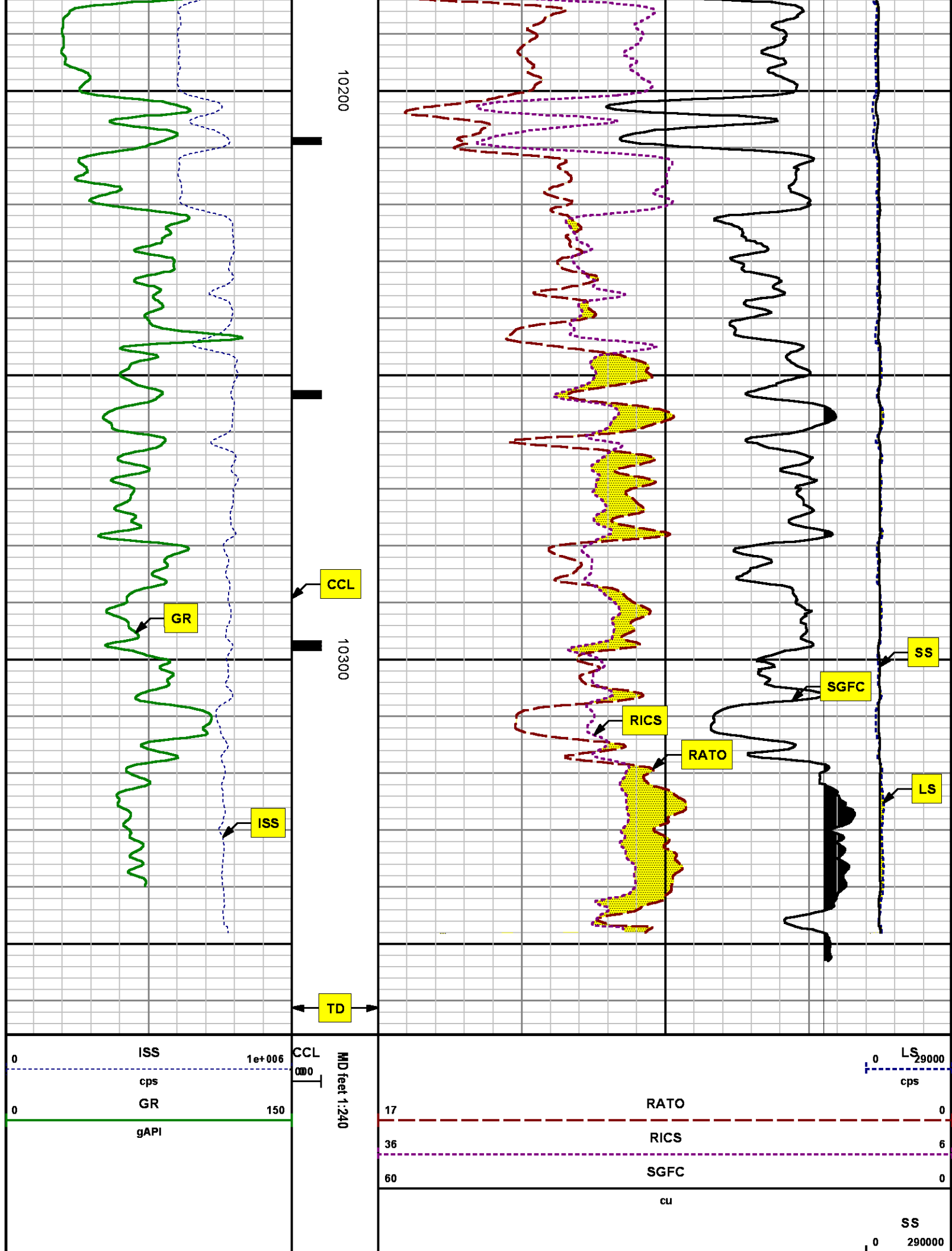




10000

10100





REPEAT SECTION

PNC 3-D MODE

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		9519.750	9836.000
PNC Porosity	Borehole Size	8.750	inch	9519.750	9836.000
PNC Porosity	Casing Size	4.500	inch	9519.750	9836.000
PNC Porosity	Gas Filled	Non Gas Filled		9519.750	9836.000
PNC Porosity	Matrix	Sandstone		9519.750	9836.000
TPS Pressure	Temperature Corr. Source	Fixed (72.00)	degF	9519.750	9836.000

DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES
8248ED	-26.519	FLTM
8248ED	-24.519	CCL CHV
2812LA	-21.969	GR
8281XA	-12.702	HVC3Q0 SEQ3 AMA3 AML3 BKX CXS CPT3Q0 CPT3Q2 CPT3Q3 CPT3Q4 ET3 IXS MCS3 MCS3Q0 QCAL3 RGN3 RICX SDA3 SDL3 SGA3 SGL3 STA3 XS ASPEC3 AMB3 AMF3 CHF3 IXSC IXSN RATO23 RICXC RIN13C RIN23 RIN23C SD3D SG3D SGB3 SGF3 WDT3 CXSR IXSR XSR RICXR
8281XA	-12.291	HVC2Q0 SEQ2 AMA2 AMB2 AMF2 AML2 BKL CHF2 CLS CPT2Q0 CPT2Q2 CPT2Q3 CPT2Q4 ET2 ILS LS MCS2 MCS2Q0 QCAL2 RGN2 RICL RONE23 RTWO23 SDA2 SDL2 SGA2 SGB2 SGF2 SGK2 SGL2 STA2 ASPEC2 ILSC ILSN WDT2 RICL CLSR ILSR LSR RICLR
8281XA	-12.041	CPRS HVC1Q0 MV SEQ SEQ1 AMA1

AMB1	AME1	AMF1	AML1	BKS	CHF1
CSS	CORB	CORF	CPT1Q0	CPT1Q2	CPT1Q2A
CPT1Q2B	CPT1Q2C	CPT1Q3	CPT1Q4	CPT1Q5	ET1
G1	G2	GE1S	GE2S	ISS	MCS1
MCS1Q0	QA1	QCAL1	QM1	RATO	RATO13
RBOR	RGN1	RICS	RIN	RONE	RPOR
RTWO	RIN13	RONE13	RTWO13	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	MVS	MA	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	H0C	FE2XC	ISSC	RINC
ISSN	RDEN	WDTH1	RICSC	CSSR	G1R
G2R	ISSR	SSR	SS2R	RATOR	RATO13R
RBORR	RICSR	RINR	RIN13R	RONER	RPORR
RTWOR					
PTFS	PTMS				
SPF1	SPFQ	TSCP	TSDP		
DTEM	TEMP	TNF			
TEN	TTEN				

8255XA	-0.792
8255XA	-0.775
8255XA	0.000
SYSTEM	0.000

Created by : RPM9, v5.3.1.0

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

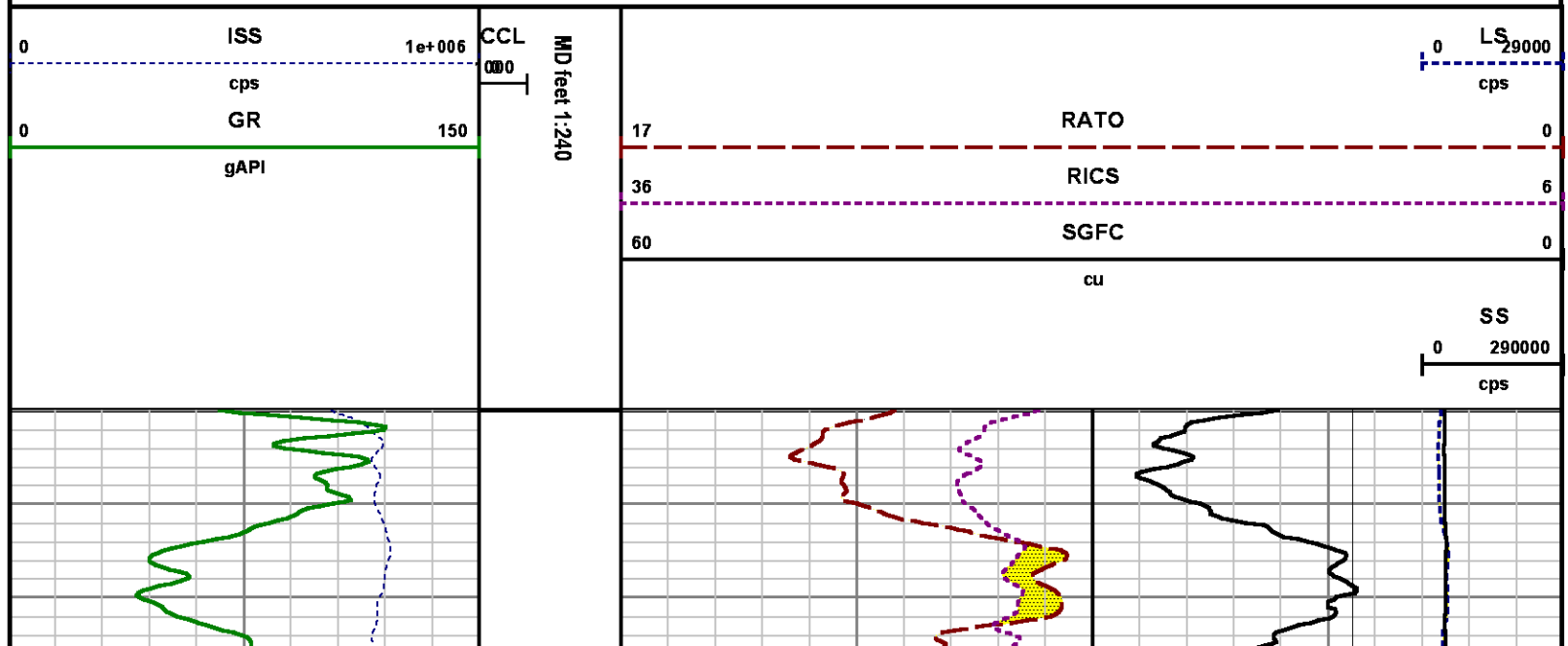
Well : FEDERAL NER 423-32

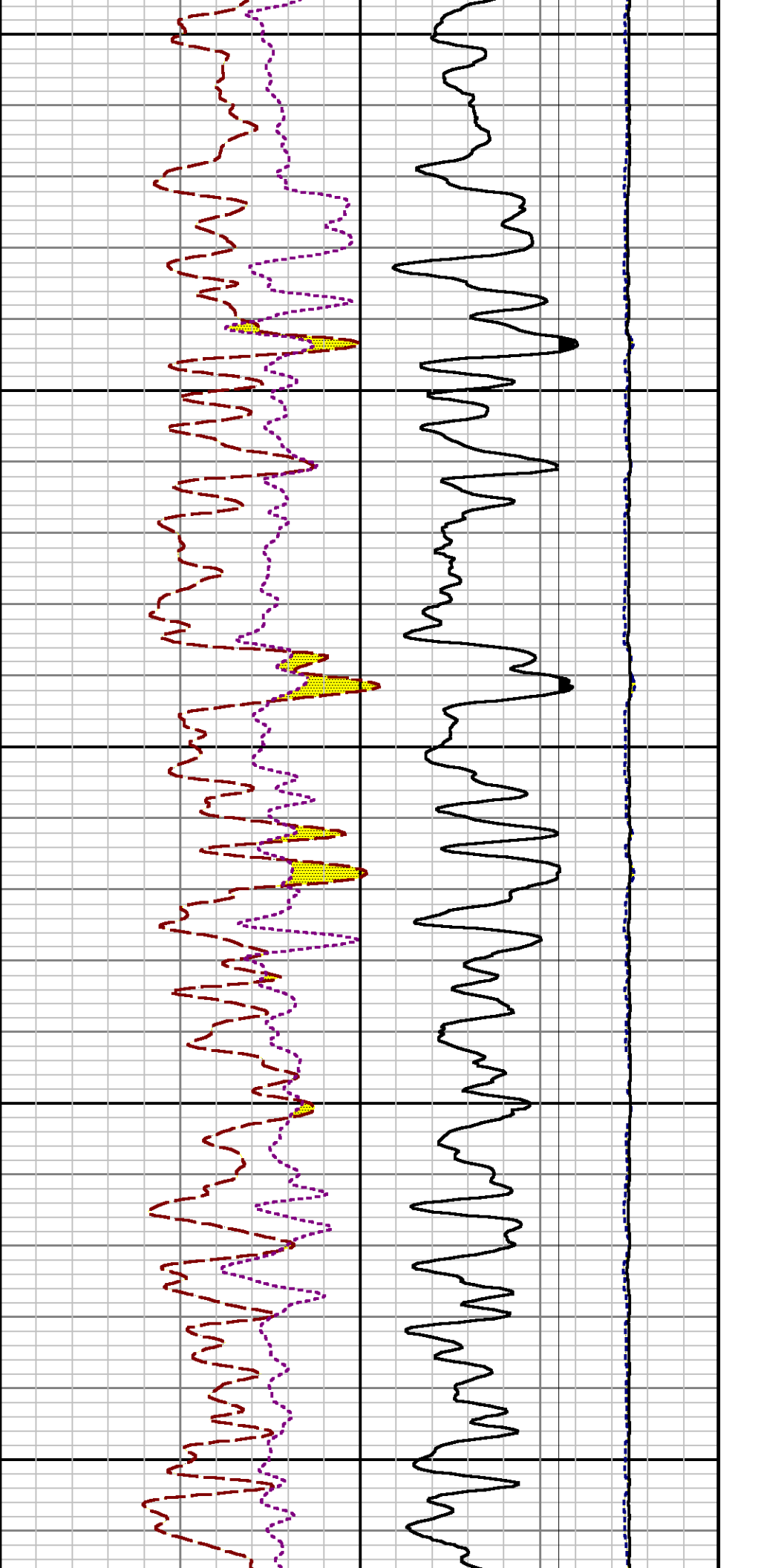
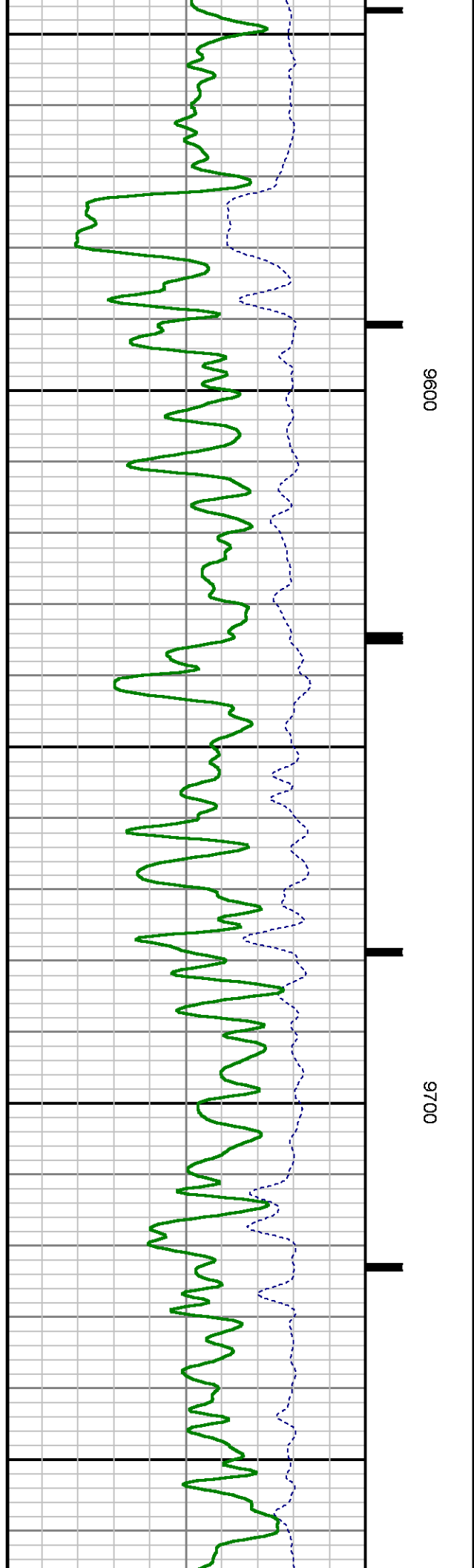
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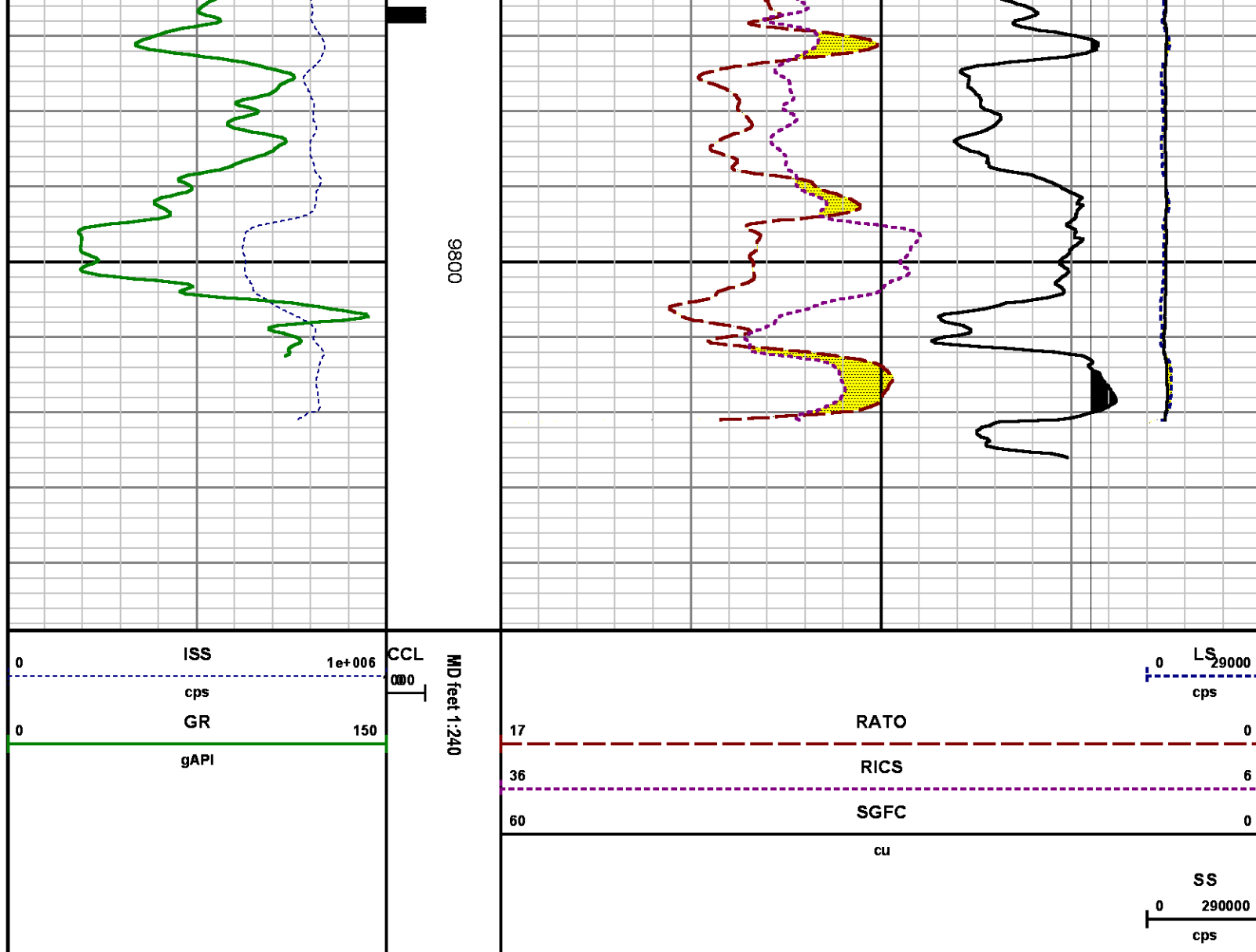
Mode : PlotMgr 5.4.504

Interval : 9520.00 - 9849.00 feet UP

Created : 9/24/2014 12:51:35 PM







CALIBRATION SUMMARY

GAMMA RAY

Calibration File: C:\case\calver\GR\38515.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Mon Sep 15 07:23:36 2014

TOOL SERIES: 2812LA ASSET: 385 SEQ: 15

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA612	85.63	306.18	0.952	81.54	291.54	210.00

PRIMARY VERIFICATION

DATE/TIME PERFORMED: Mon Sep 15 07:27:22 2014 TOOL SERIES: 2812LA ASSET: 385 SEQ: 15

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA612	85.13	310.48	0.952	81.06	295.63	214.57

PNC

PNC 3D CALIBRATION SUMMARY

DATE/TIME PERFORMED: Wed Sep 17 13:32:09 2014 TOOL SERIES: 8281XA ASSET: 251 SEQ: 17

Calibrator #

2437XB 112674

Source #

8281AA 10220684

	ISS	Mtr Vltz (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	816811	123.00	2297.00	2292.00	2306.00	108.96	7.00	0.9925
Interpolated	1300000	142.22	2278.61	2286.35	2301.44			

	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	816811	7824.32	1325.50	169.22	25.76	0.14	24.27	0.28
					25.35 26.40	0.00 0.20	23.60 24.80	0.00 0.40

	ISS	ILS	IXS	SS	SS2	LS	CSS	CLS
Raw Data	816811	169831.69	26829.93	88232.01	31440.33	8315.89	53438.83	13288.97
Fit Quality %		0.64	0.57	0.66	0.62	0.64	0.62	0.67

	ISS	RBOR	RIN ISS/ILS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS
Raw Data	816811	1.43	4.81	30.45	15.28	10.61	3.78	4.02
		1.42 1.45	3.55 5.52	22.20 32.70	10.99 16.34	10.06 11.10	3.57 3.95	3.76 4.22
Fit Quality %		0.05	0.09	0.07	0.08	0.03	0.02	0.05
Reduced	1370106	1.43	4.83	30.56	15.35	10.60	3.78	4.02
		1.42 1.45	4.33 5.52	27.60 32.70	13.70 16.34	10.06 11.10	3.57 3.95	3.76 4.22

TEMPERATURE

CALIBRATION SUMMARY

DATE/TIME PERFORMED: 09 AUG 2010

TOOL SERIES: 8255XA ASSET: 120516 SEQ: AU

	T(0)	T(1)	T(2)	T(3)	T(4)	T(5)
Coefficients	-8.673169e+000	9.576065e-002	6.395448e-006	-9.461013e-010	0.000000e+000	0.000000e+000

TOOL DIAGRAM

OTA SHORT CABLE HEAD**PCM POWER SUPPLY**

Series	8250EA
Mnemonic	PCM
Diameter	1.70"
Weight	18.00 lb
Length	3.86'
Temp Rating	350.00 °F

TELEMETRY / CCL

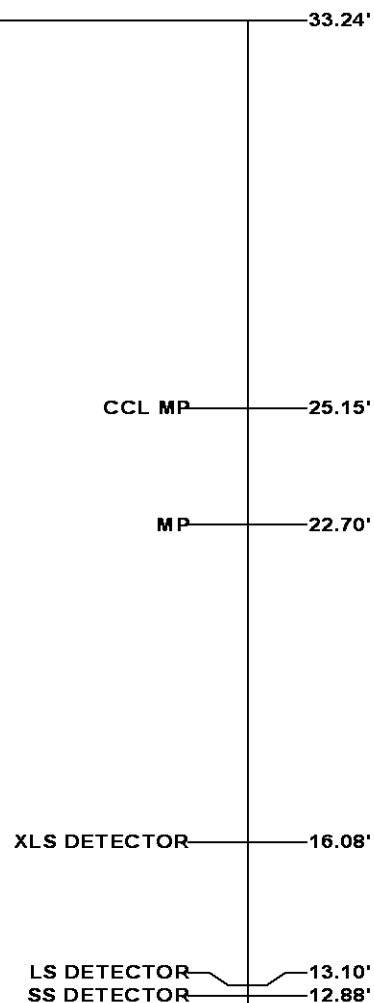
Series	8248EA
Mnemonic	PCM
Diameter	1.70"
Weight	20.00 lb
Length	4.46'
Measure Point	1.00' CCL MP
Temp Rating	350.00 °F
Press Rating	15000.00 PSI

SONDEX GAMMA RAY

Series	2812LA
Mnemonic	SNDX
Diameter	1.69"

RESERVOIR PERFORMANCE MONITOR

Series	8281XA
Mnemonic	RPM
Diameter	1.70"
Weight	75.00 lb
Length	18.58'
Measure Point	9.49' SS DETECTOR
Measure Point	9.72' LS DETECTOR
Measure Point	12.69' XLS DETECTOR
Temp Rating	350.00 °F
Press Rating	20000.00 PSI



TEMPERATURE / PRESSURE

Series	8255XA
Mnemonic	SRPL
Diameter	1.70"
Weight	13.00 lb
Length	3.30'

PRES MP 1.61'

0.00'

Total Length: 33.24'**Total Weight: Not Available****Max Diameter: 0' 1.70"****Baker Atlas***CASE***Company**

WPX ENERGY

Well

FEDERAL NER 423-32

Field

RULISON

County

GARFIELD

State

COLORADO

File No:

CH090704

API No:

05045217890000

Location

SHL: 110' FNL x 2581' FWL SEC 6 7S 93W

BHL: 2045' FSL x 1944' FWL SEC 32 6S 93W

Elevations

KB 7629 ft

DF

GL 7603 ft

32 6S 93W

RU 23-5 PAD

NABORS 576

SEC 32 TWP 6S RGE 93W