



RESERVOIR PERFORMANCE MONITOR

Baker Atlas

File No: CH082897

Company Well WPX ENERGY FEDERAL PA 43-21

API No: Field PARACHUTE

County GARFIELD State COLORADO

05045220270000

Location

21 6S 95W

PA 22-21 PAD

NABORS 673

SHL: 2610' FNL & 1448' FWL

BHL: 2615' FSL & 272' FEL (NESE)

SEC 21 TWP 6S RGE 95W

Other Services

BOND LOG

Permanent Datum GL Elevation 6030 ft

Log Measured From KB 26 ft Above P. D.

Drill Measured From KELLY BUSHING

Elevations

KB 6056 ft

DF

GL 6030 ft

Date	01/MAR/14	
Run	ONE	
Service Order	US628297	
Depth Driller	9782 ft	
Depth Logger	9757 ft	
Bottom Logged Interval	9747 ft	
Top Logged Interval	5906 ft	
Time Started	0800	
Time Finished	1530	
Operator Rig Time	7.5 HRS	
Type of Fluid in Hole	WATER	
Fluid Density	NA	
Salinity	NA	
Fluid Level	76 ft	
Logged Cement Top	NA	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	NA	
Nominal Logging Speed	10 fpm	
Maximum Recorded Temperature	236 degF	
Reference Log	BAKER HUGHES BOND LOG	
Reference Log Date	27/FEB/14	
Equipment No.	4271	GRAND UCT
Recorded By	FLYOD RENEAU	
Witnessed By	COLLEAPLEGATE	

- 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	1833 ft
8.75 in	1833 ft	9782 ft

Casing Record				
Size	Weight	Grade	From	To
9.625 in			26 ft	1833 ft
4.5 in	11.6 lbm/ft	I-80	26 ft	9782 ft

Remarks
All data on this log is shifted and depth matched using the Gamma Ray curve to the Baker Hughes bond log dated 2/27/2014 at the client's request.
The amount of linear shift is 9.5 feet.
Logged in PNC-3D mode.
BHT = 236°F
SJ = 6522'-6546'

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	TEMP	8255XA	11774568	FREE
1	1	RPM	8281FA	10307727	FREE
1	1	RPM	8281PA	10414345	FREE
1	1	RPM	8281EA	10190984	FREE
1	1	GR	2812LA	10274385	FREE
1	1	TEL/CCL	8248ED	10296408	FREE
1	1	PCM	8250EA	10397894	FREE

MAIN SECTION
PNC 3-D MODE

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		5889.941	9750.660
PNC Porosity	Borehole Size	8.750	inch	5889.941	9750.660
PNC Porosity	Casing Size	4.500	inch	5889.941	9750.660
PNC Porosity	Gas Filled	Non Gas Filled		5889.941	9750.660
PNC Porosity	Matrix	Sandstone		5889.941	9750.660
TPS Pressure	Temperature Corr. Source	Fixed (72.00)	degF	5889.941	9750.660

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

8281XA

-12.291

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

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 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 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 PA 43-21

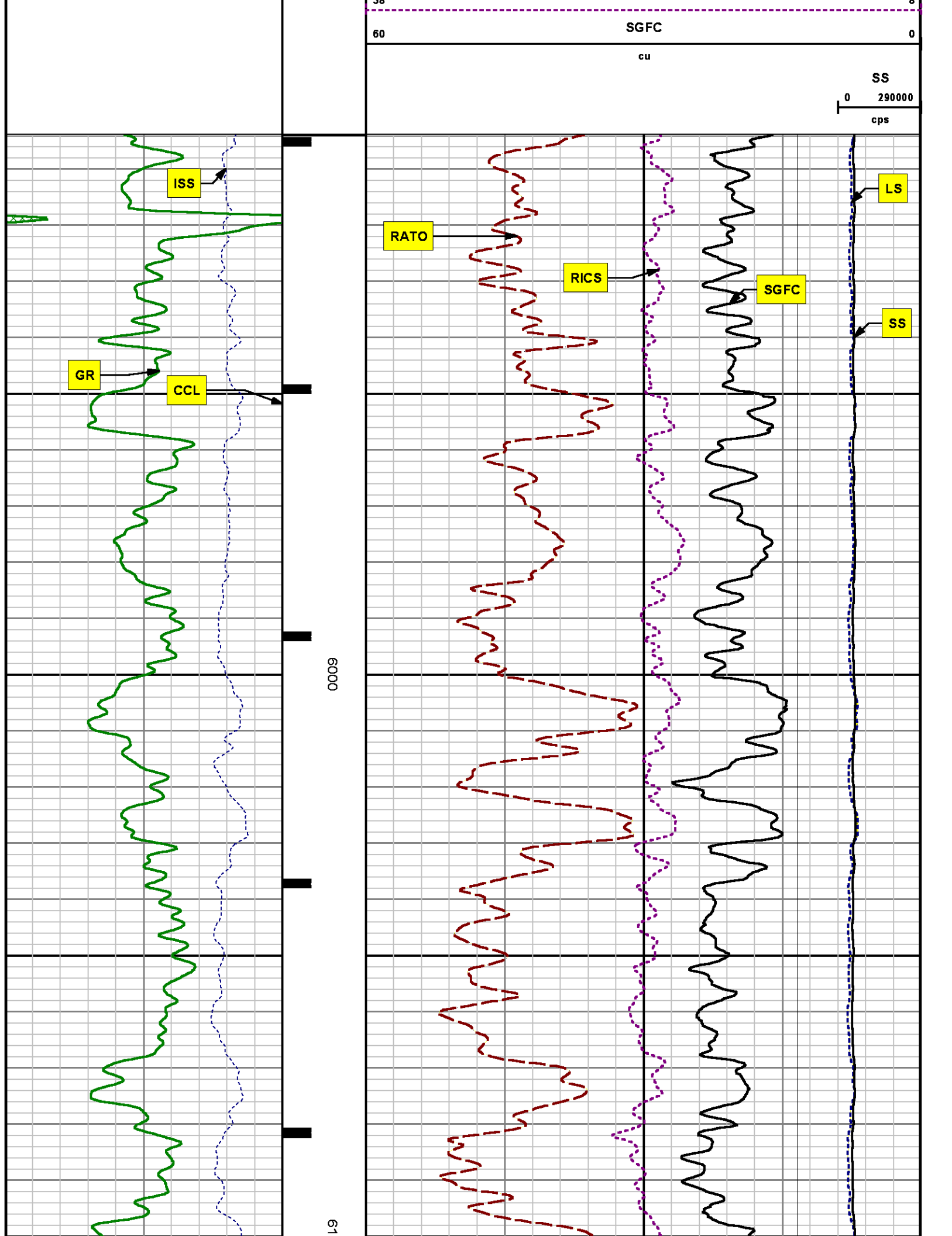
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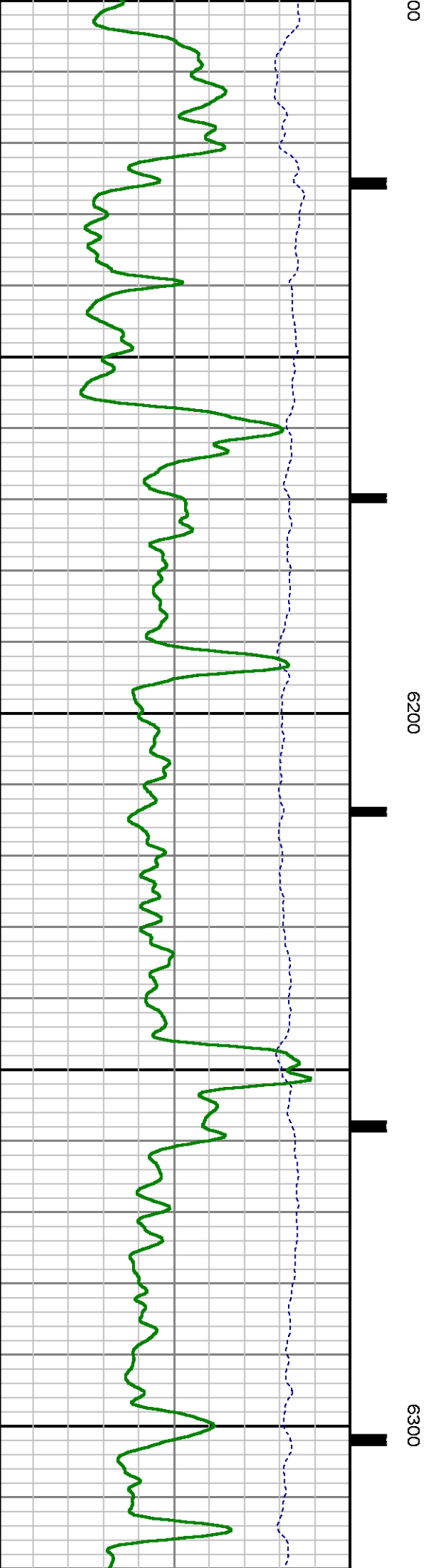
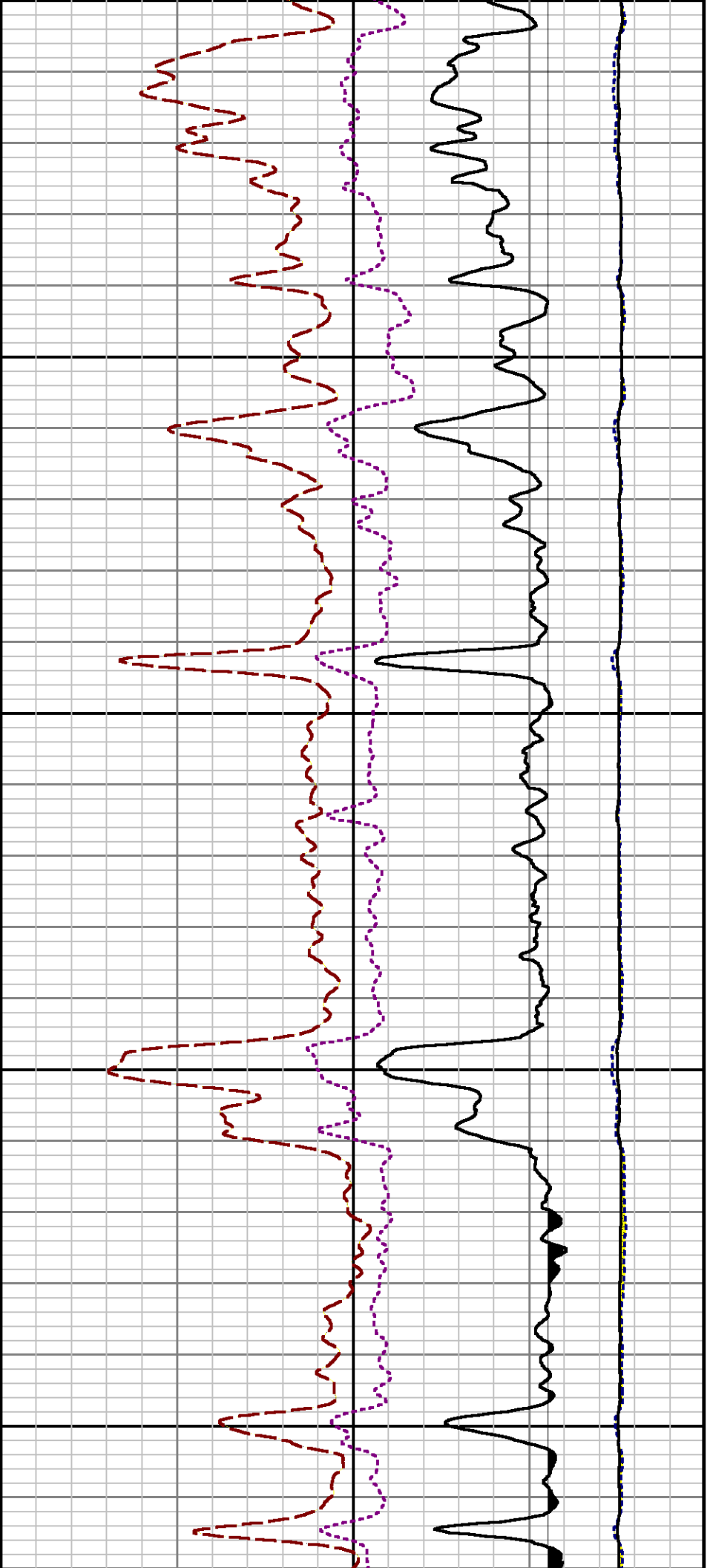
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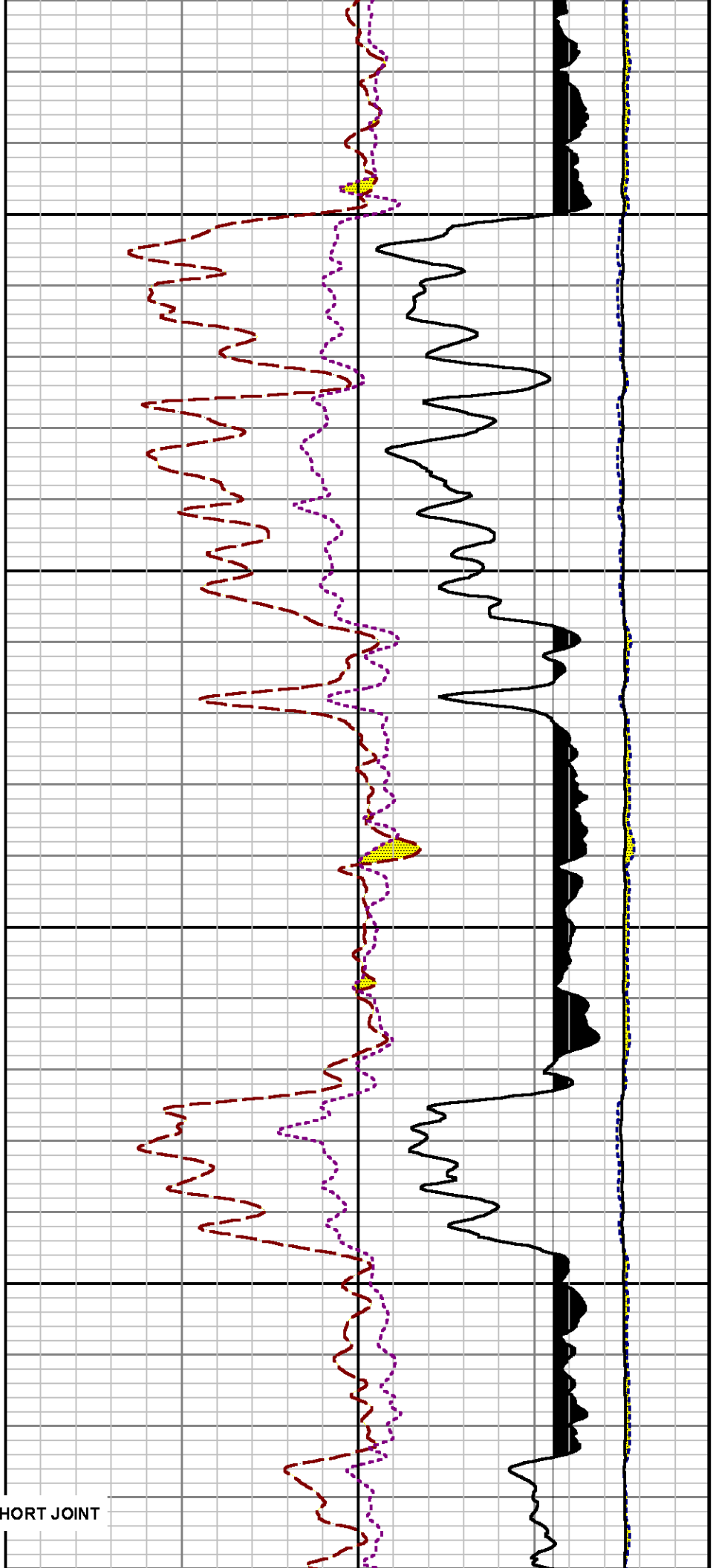
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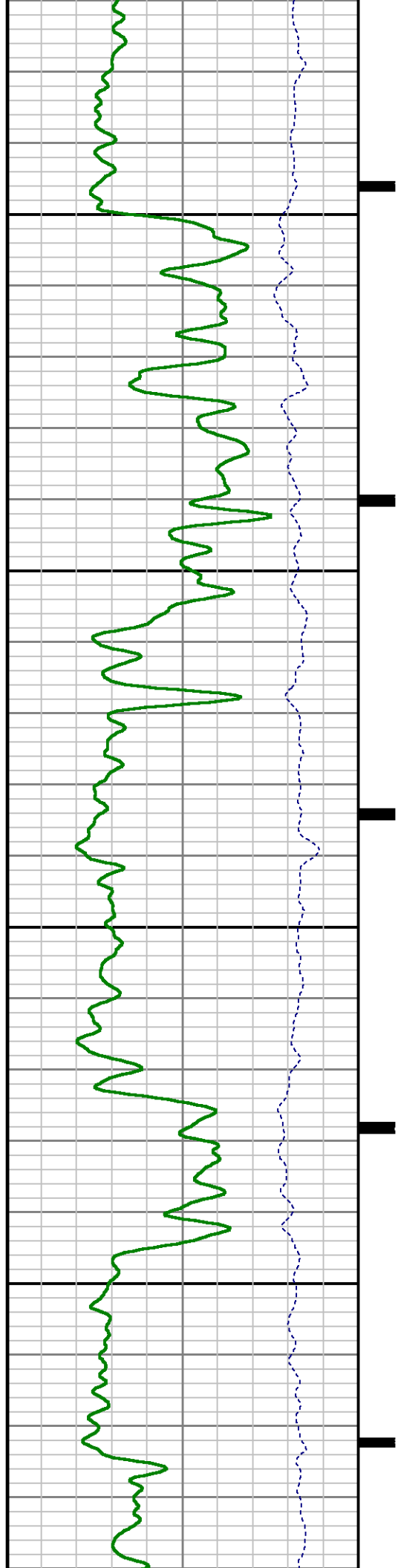


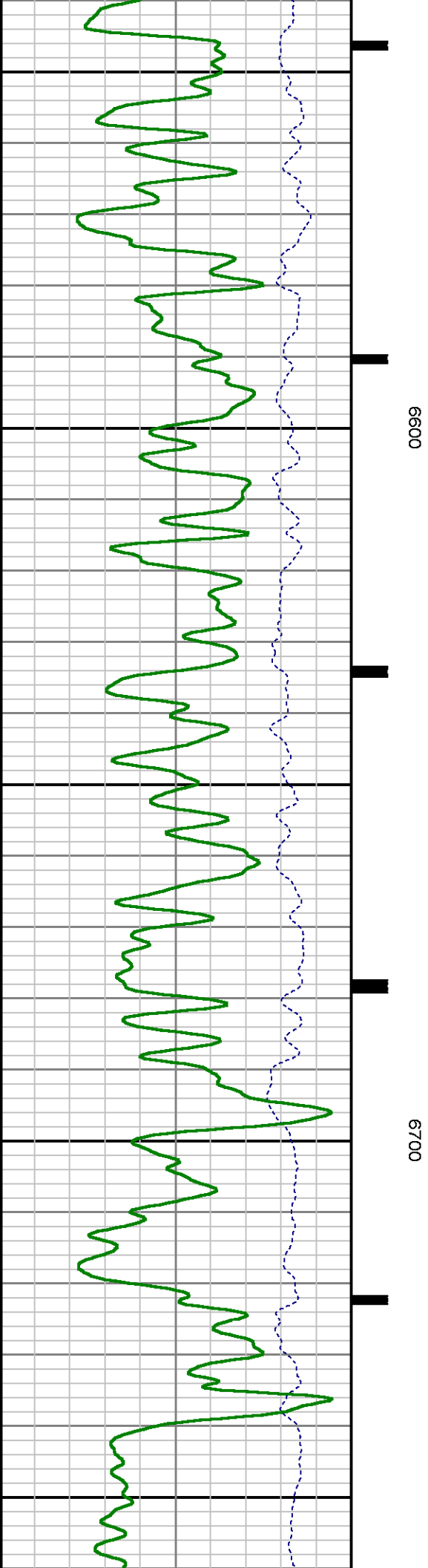
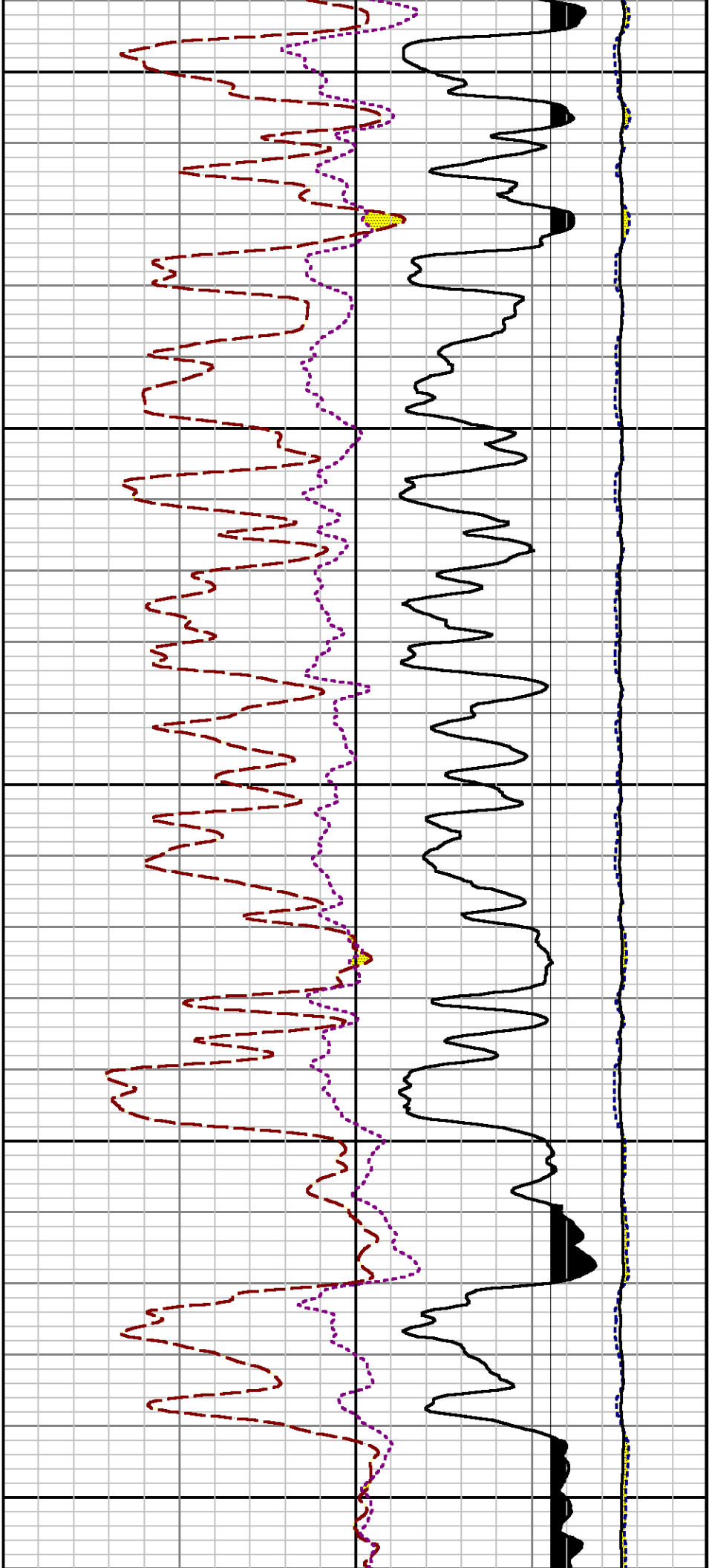


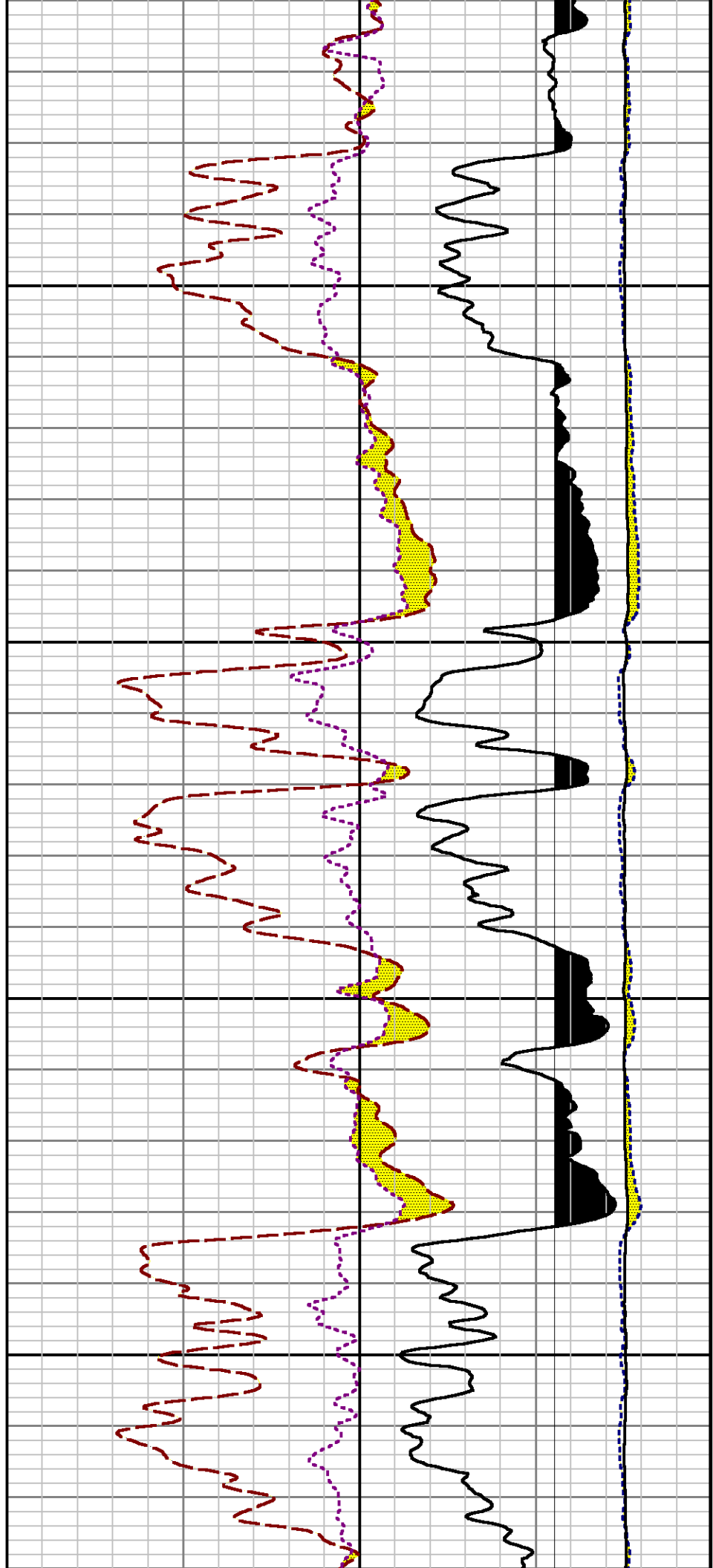
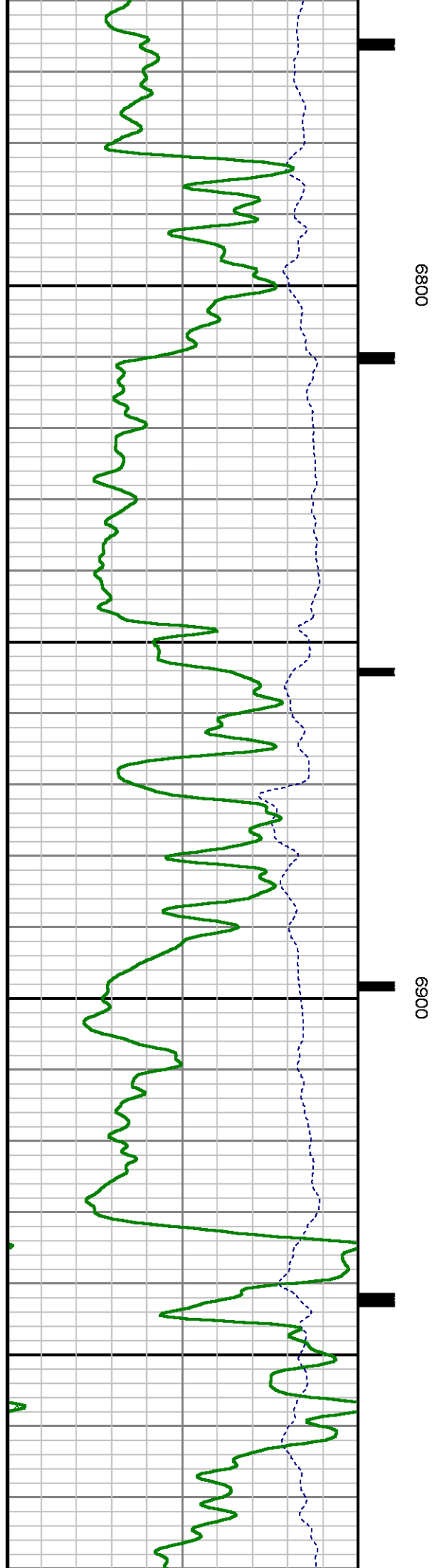
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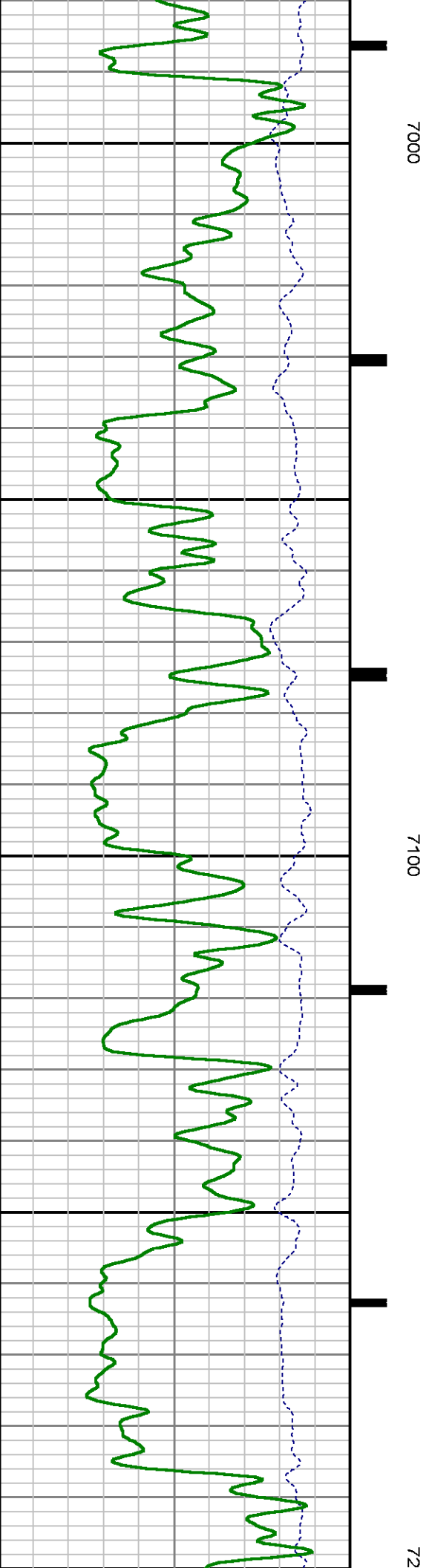
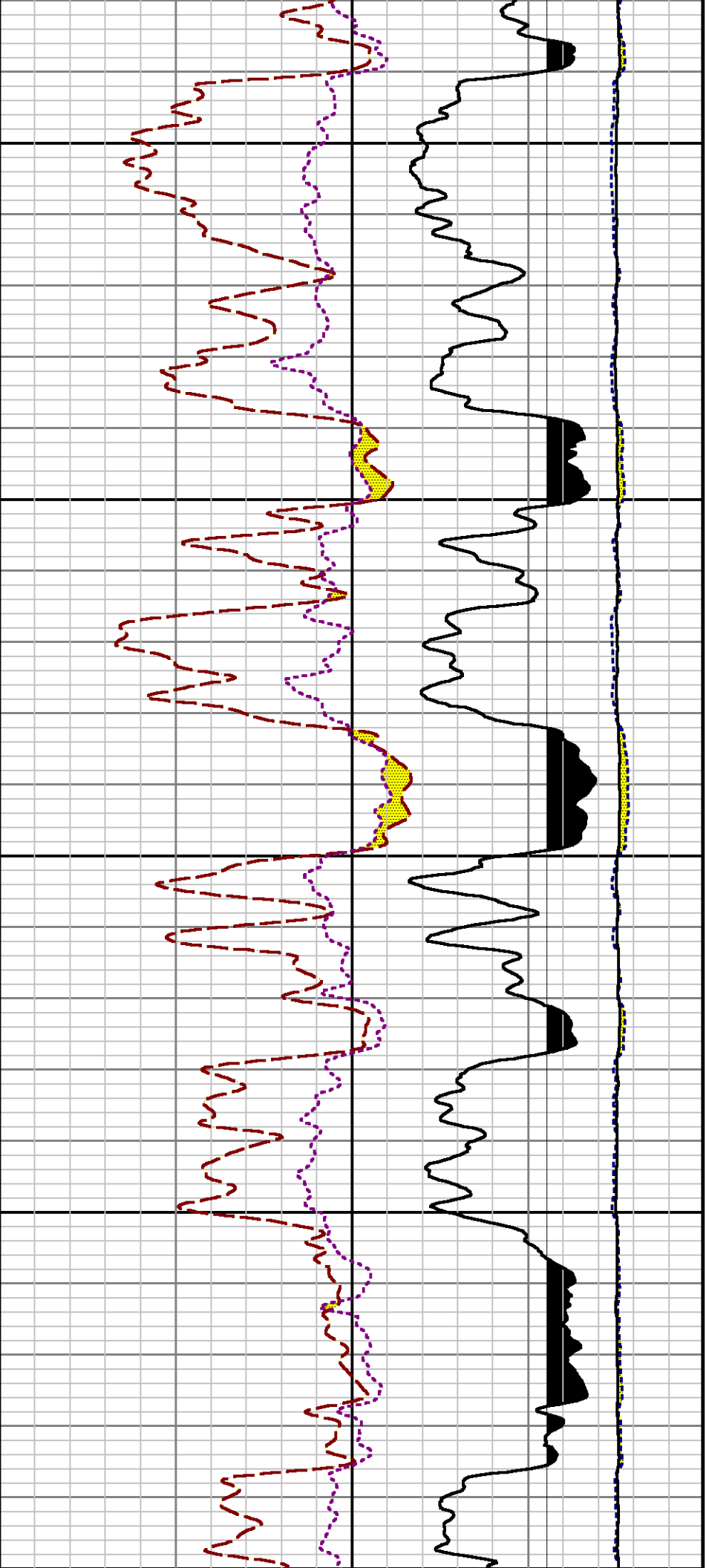
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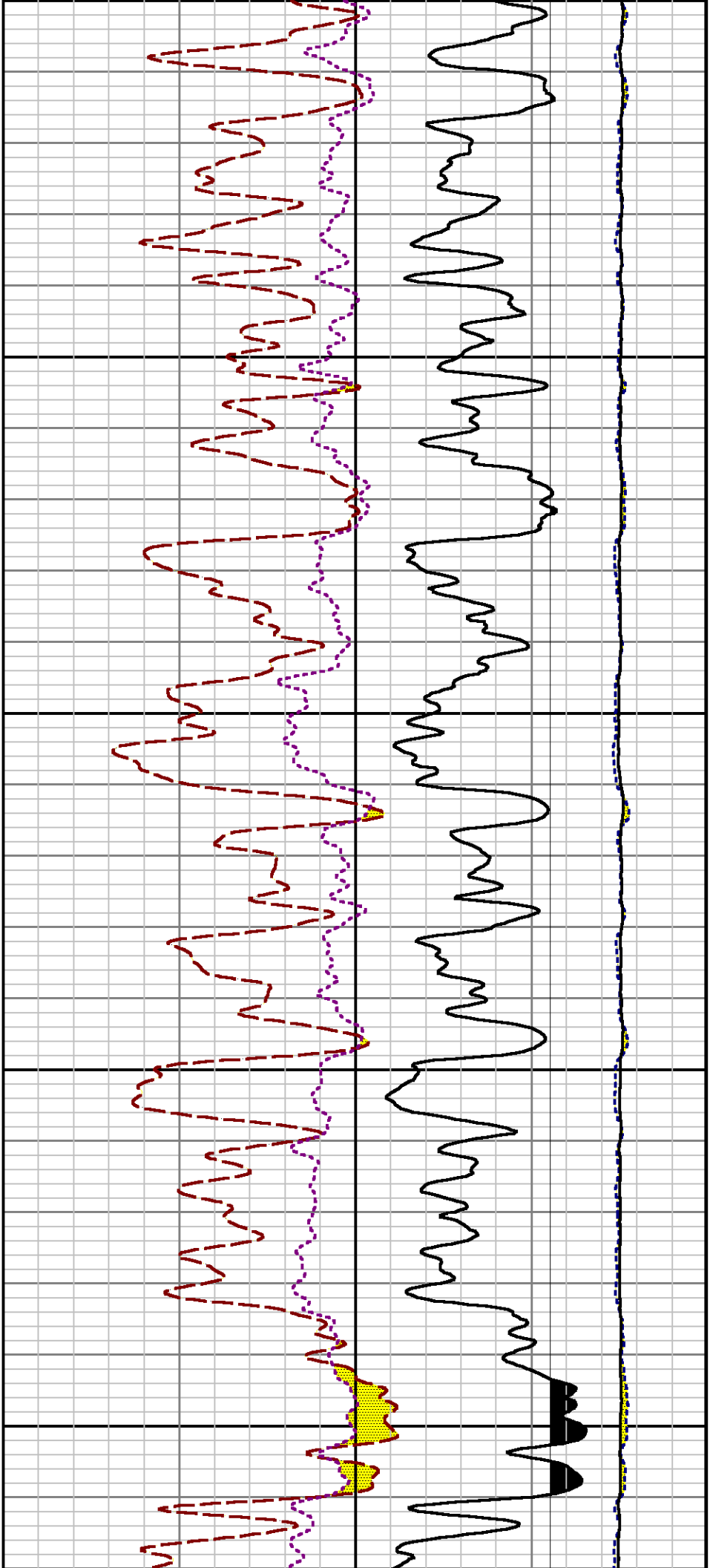
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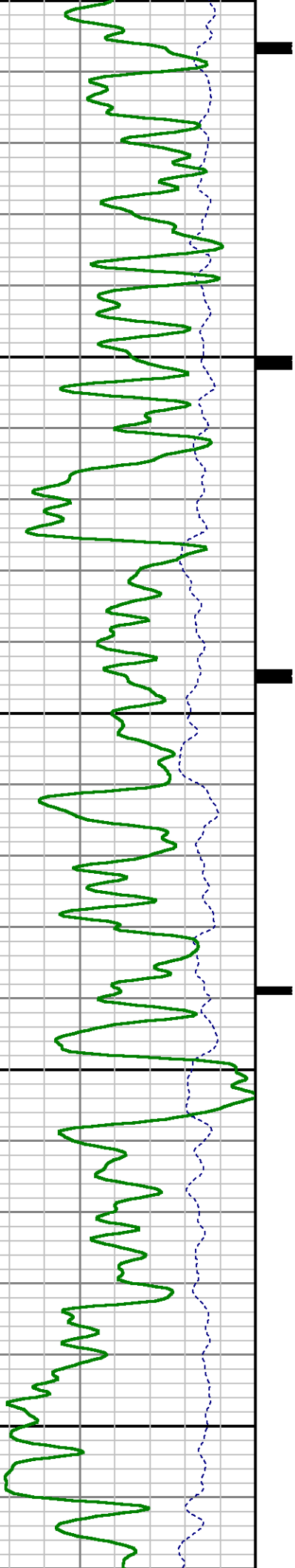


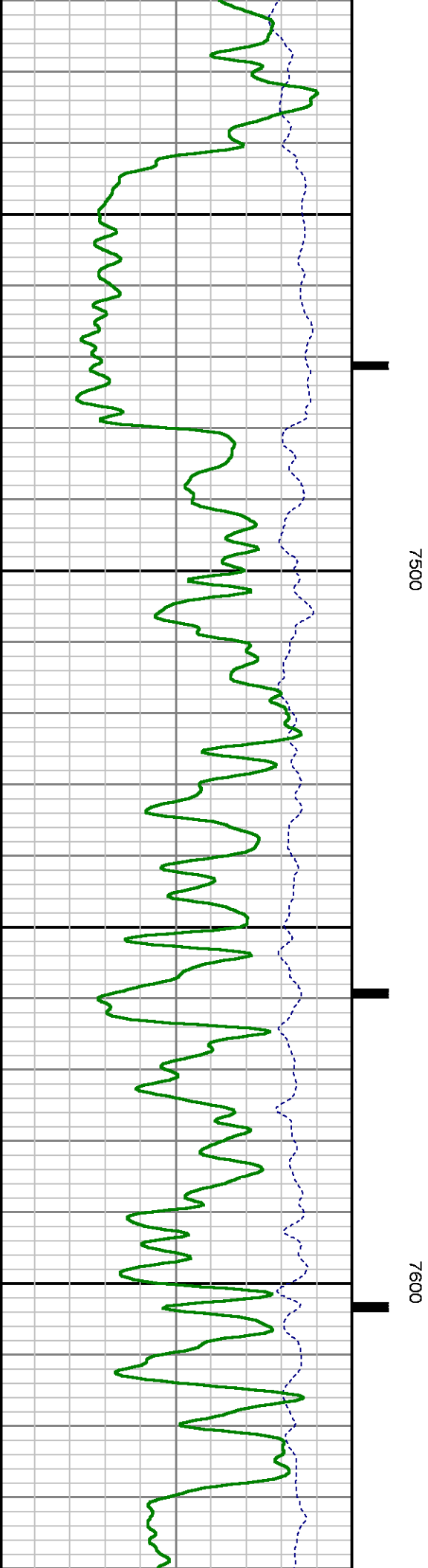
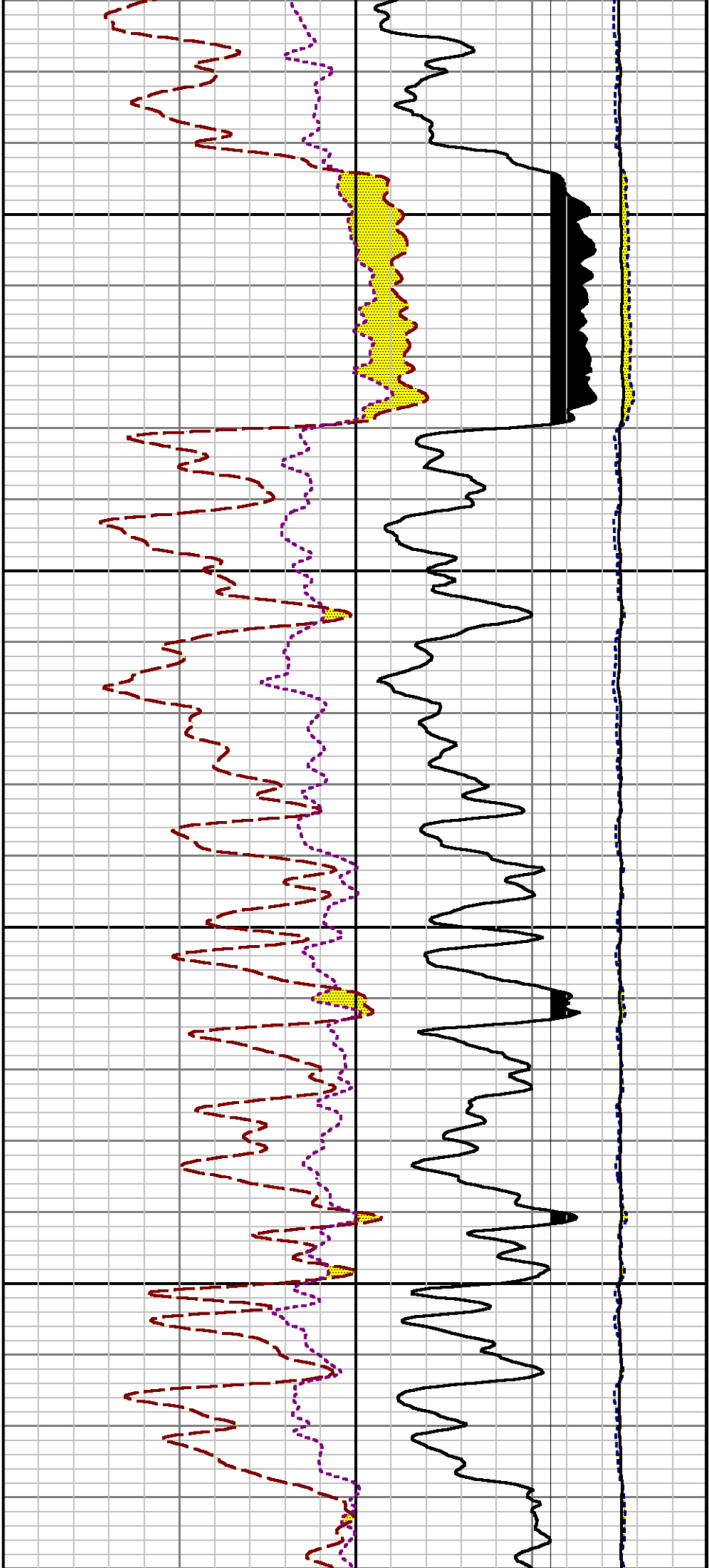


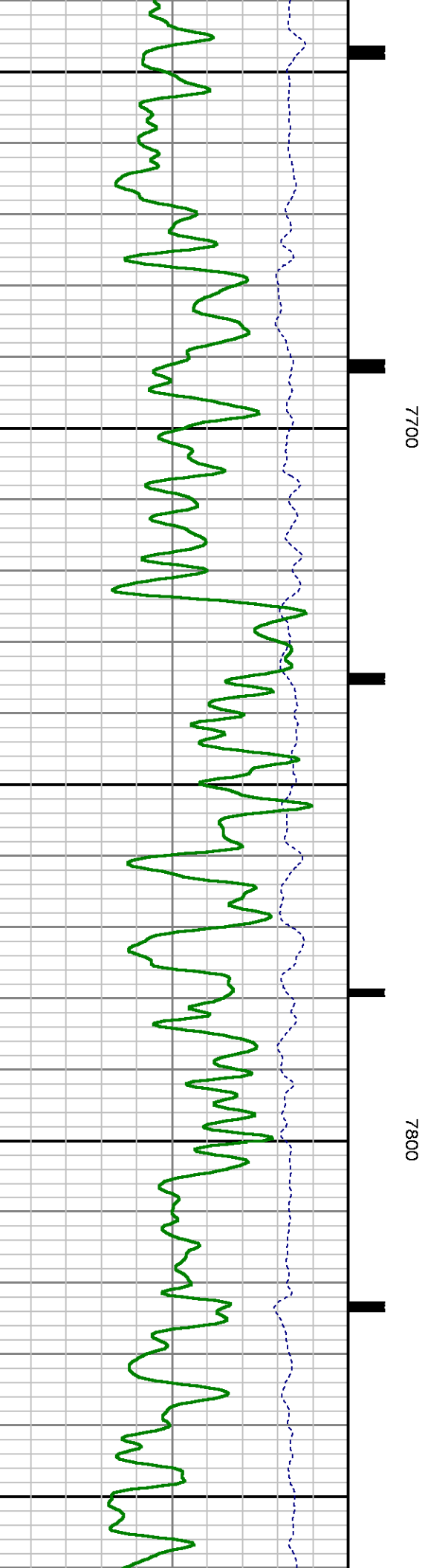
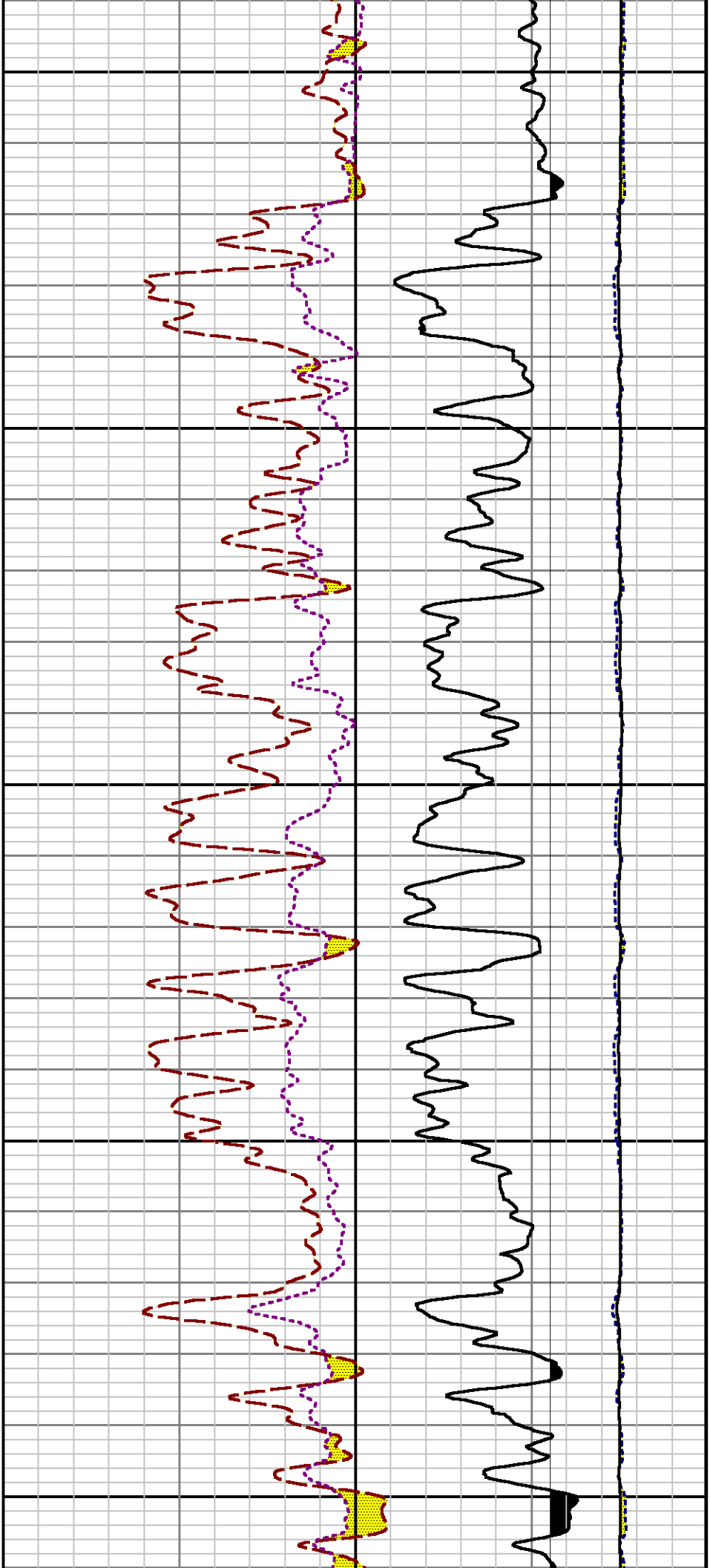
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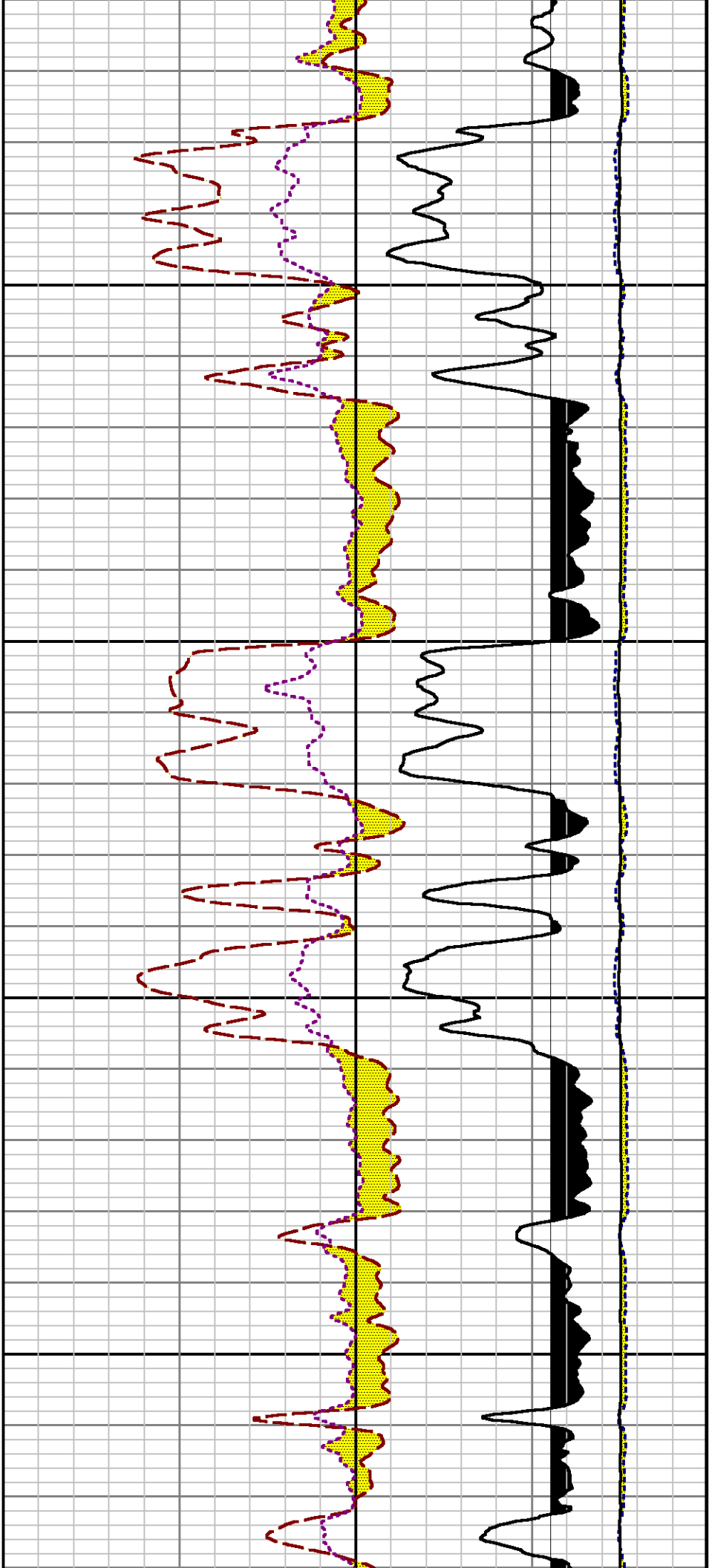
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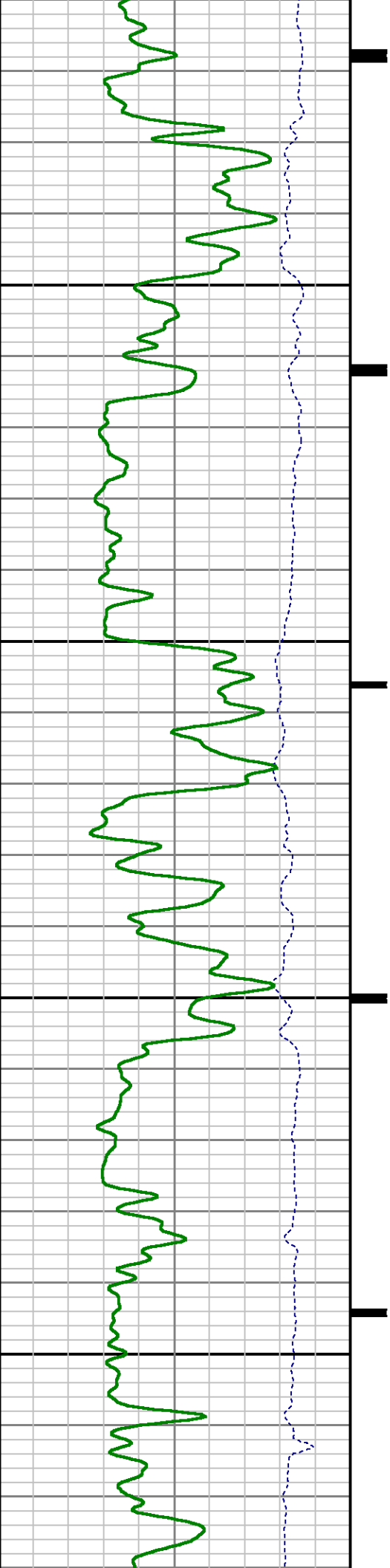


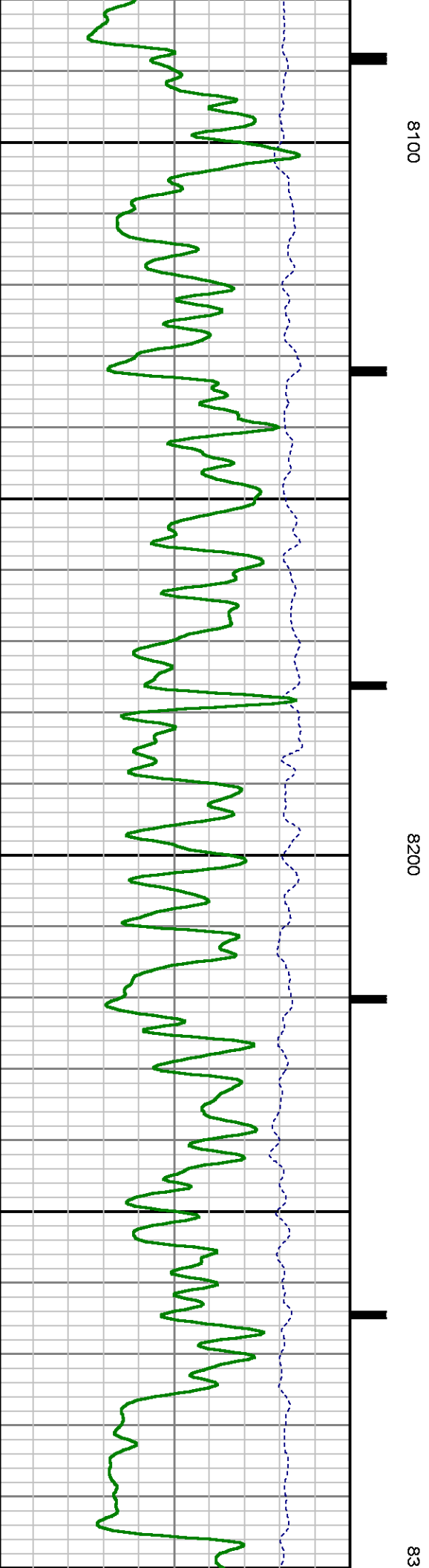
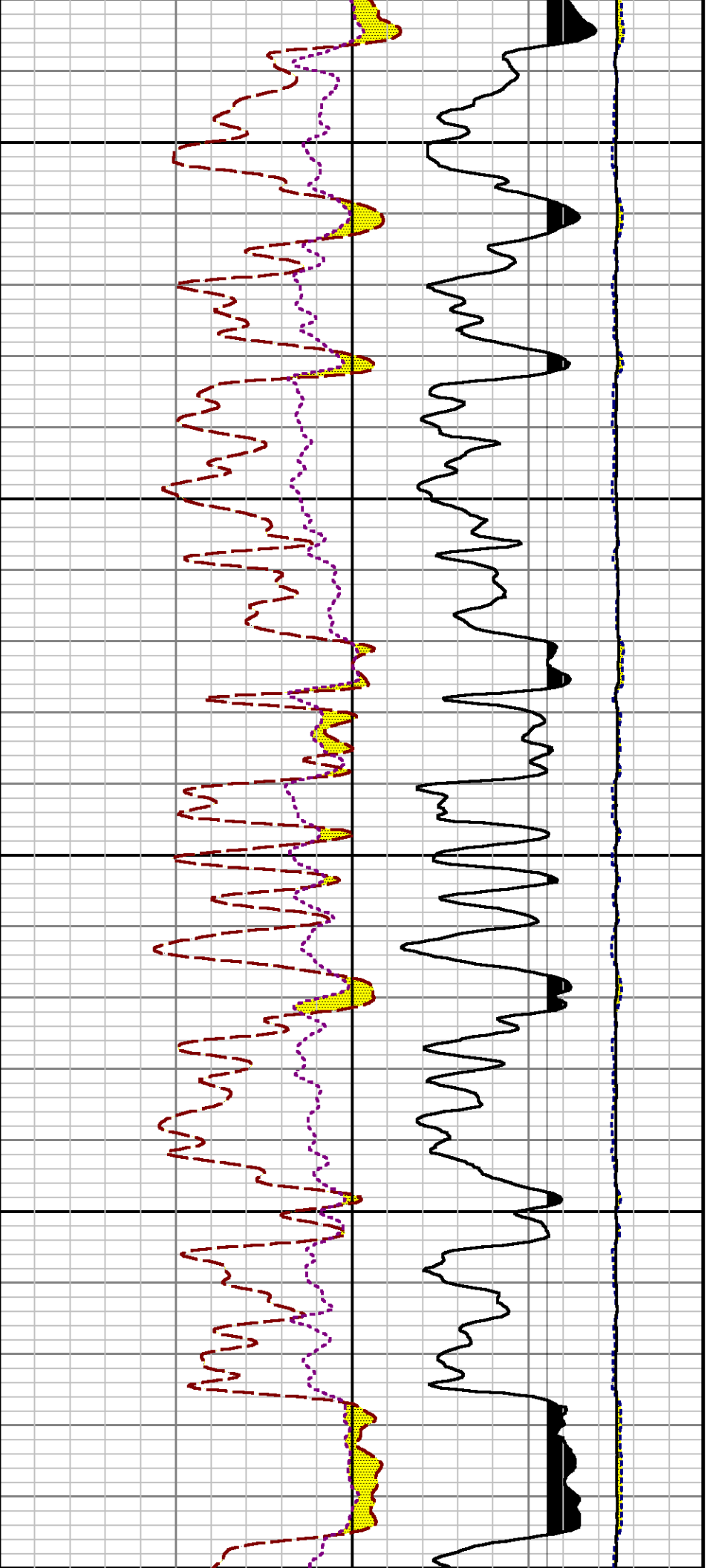


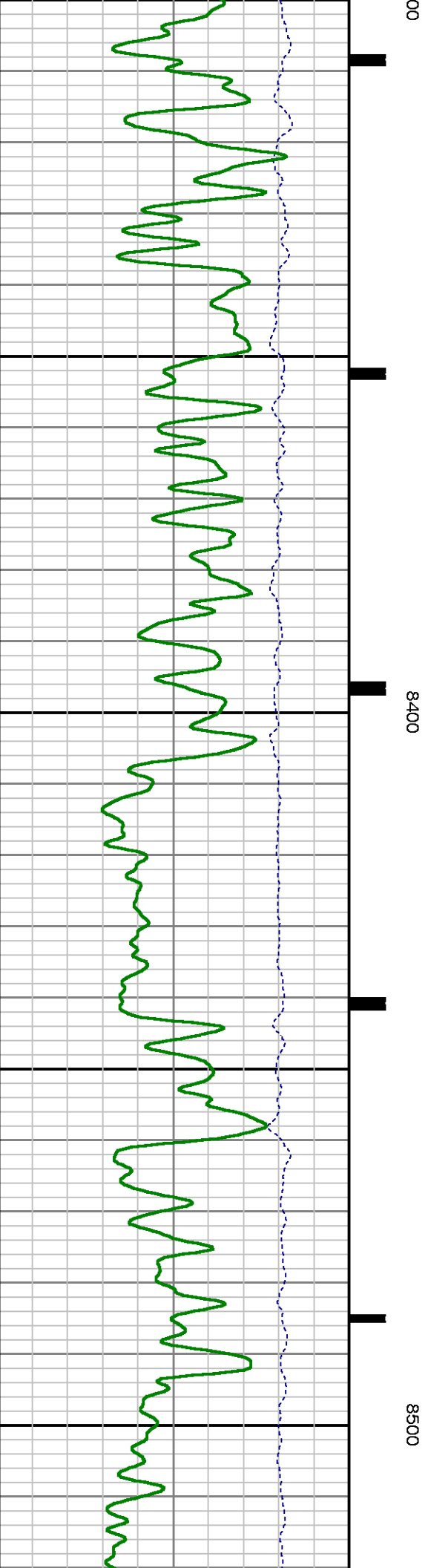
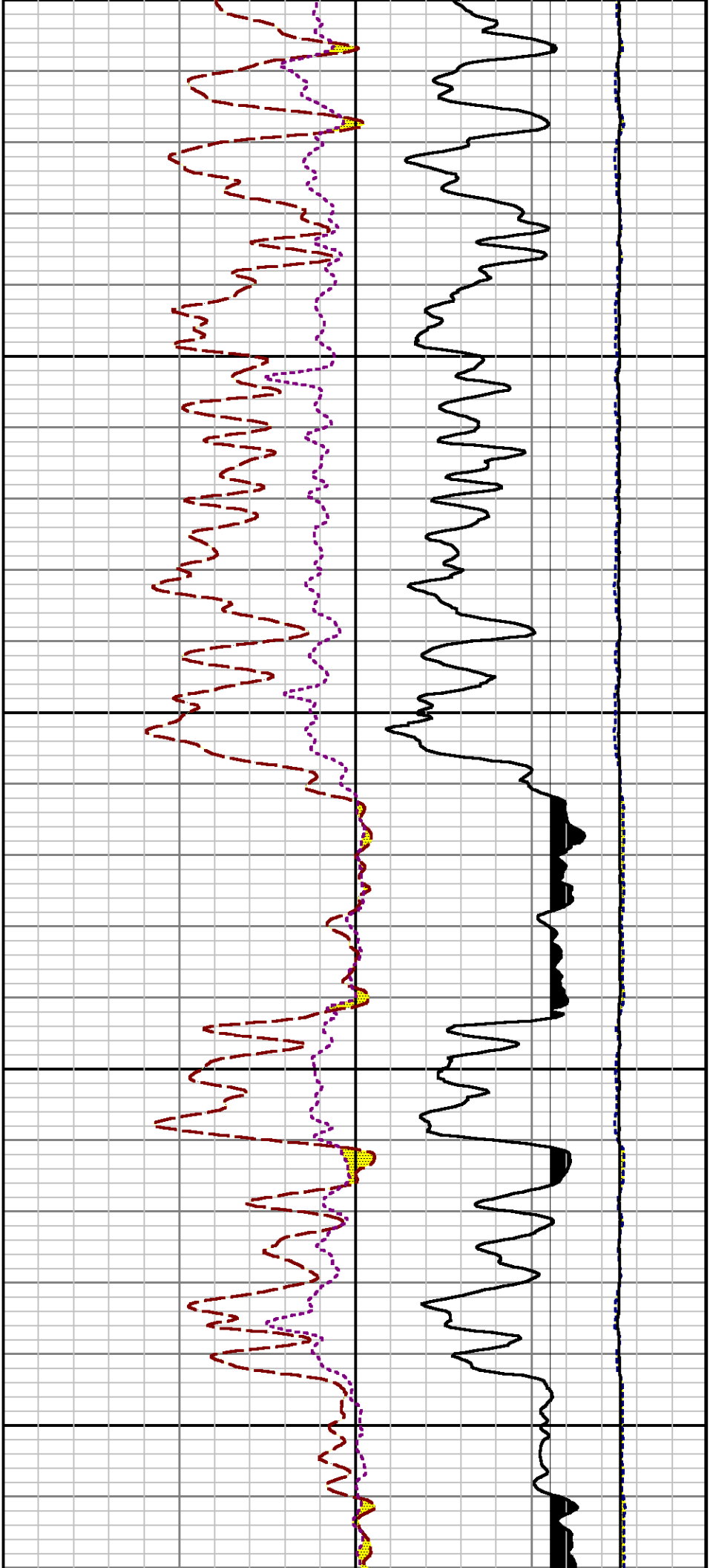


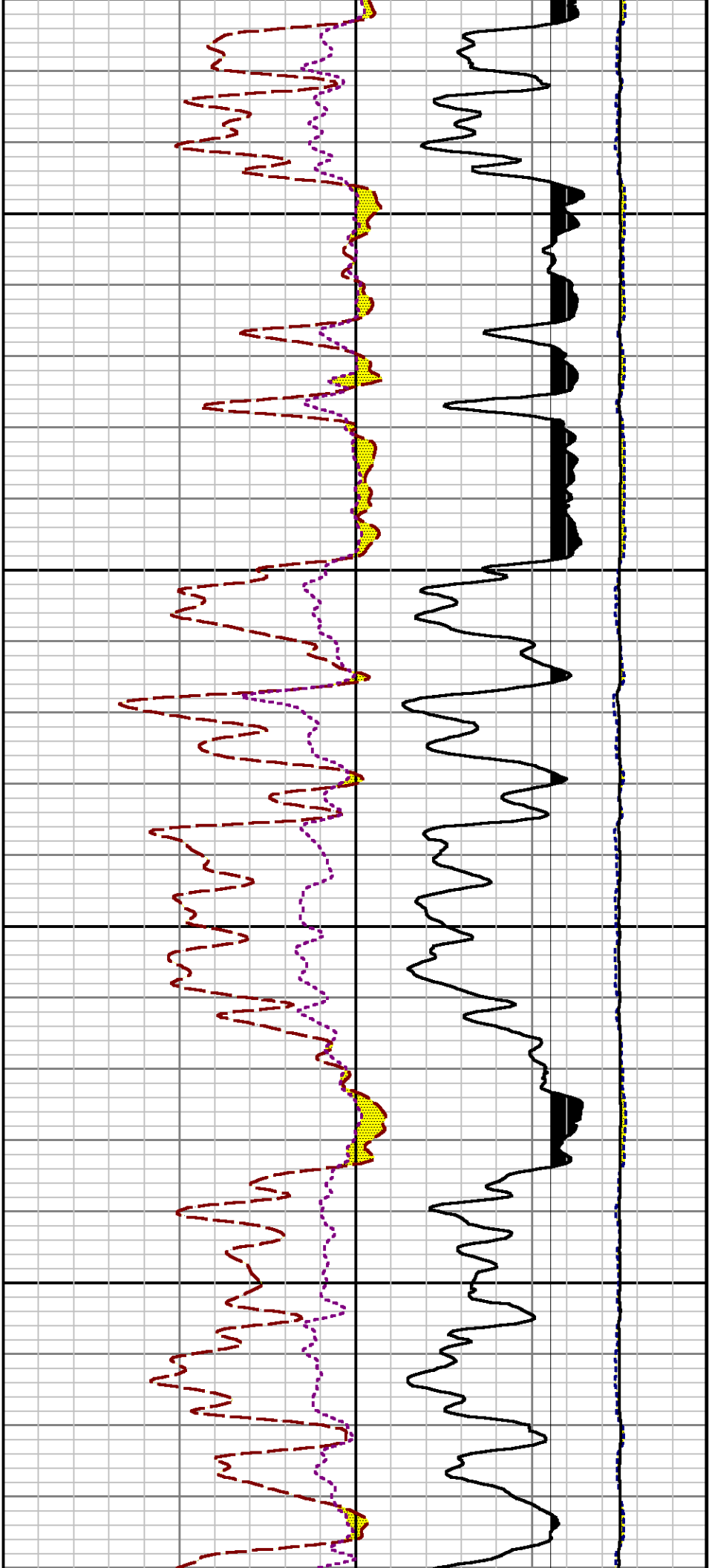
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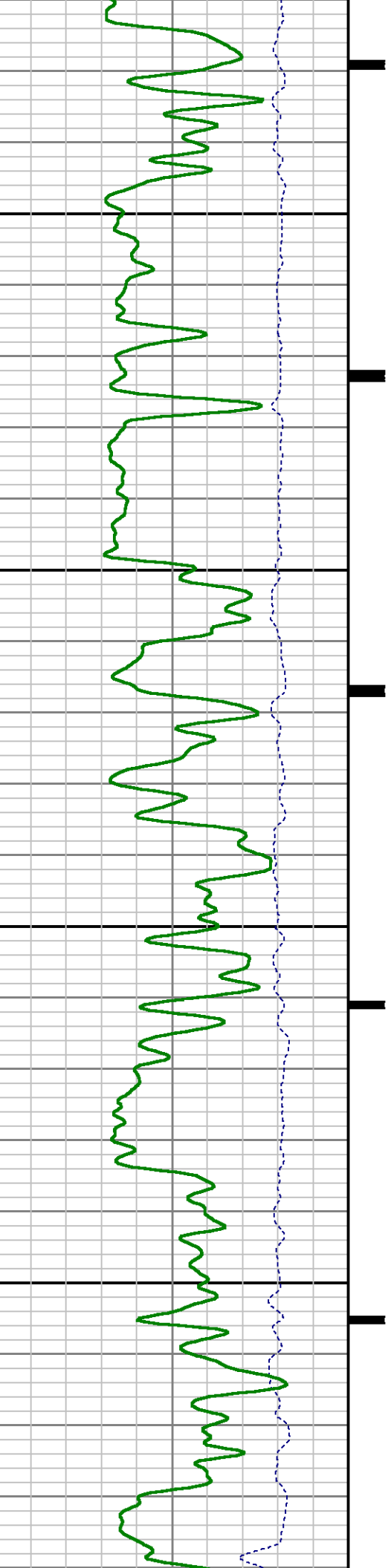


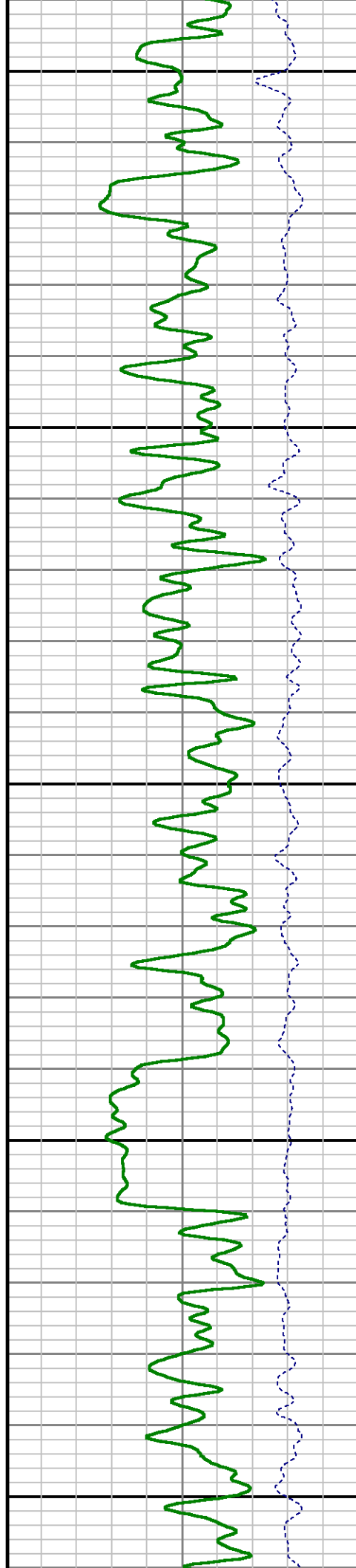




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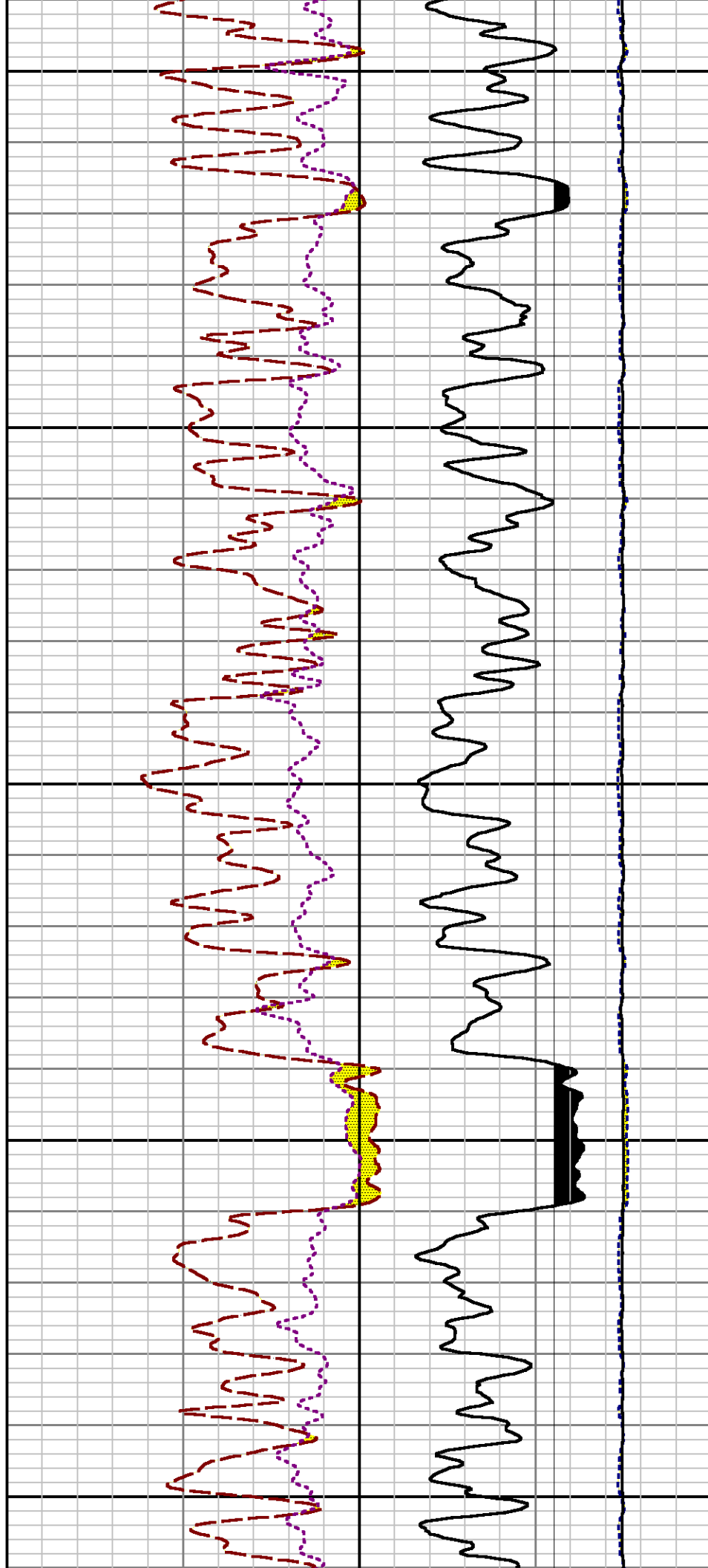
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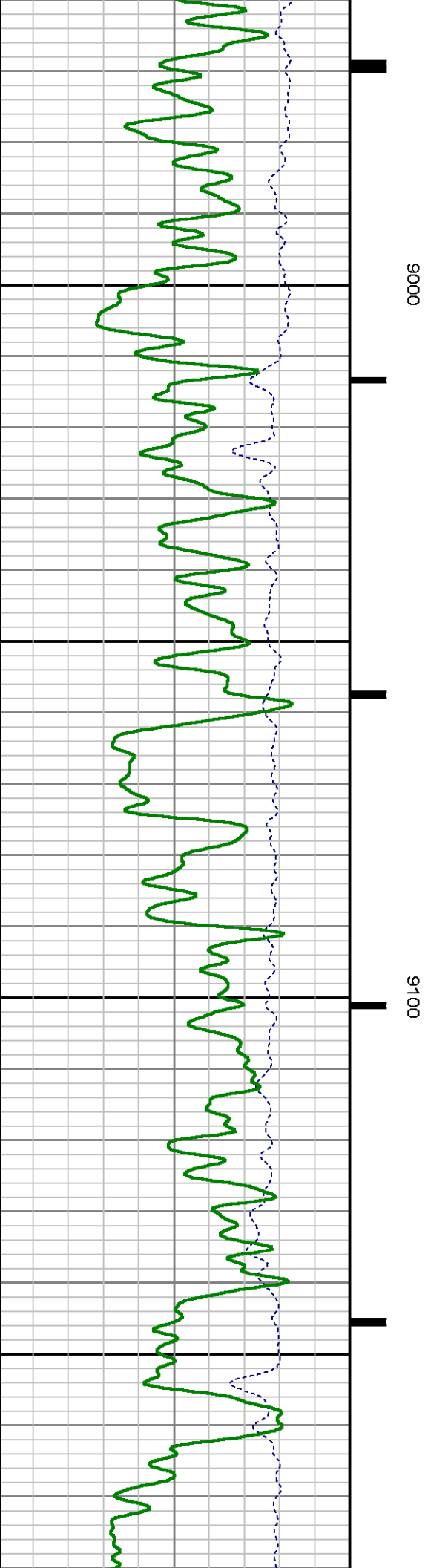
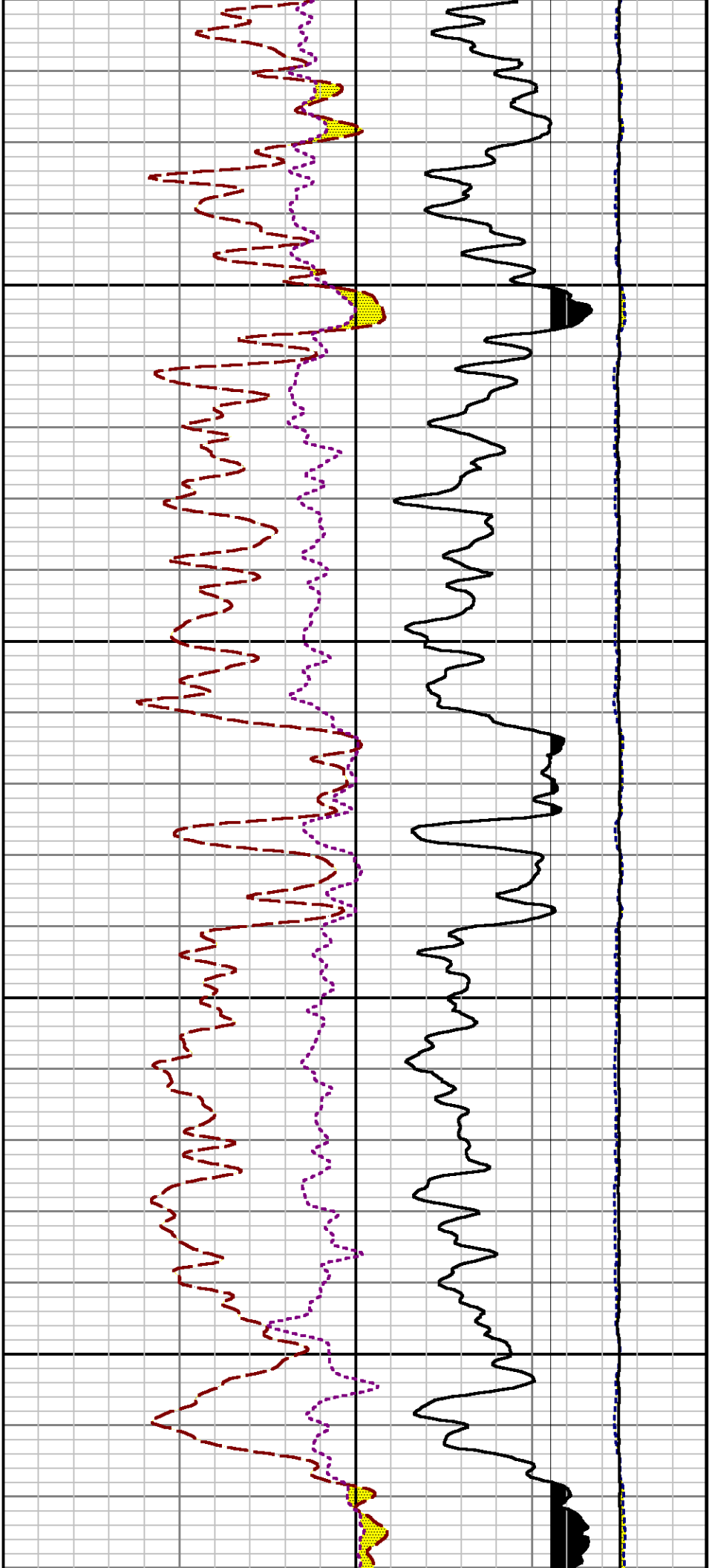


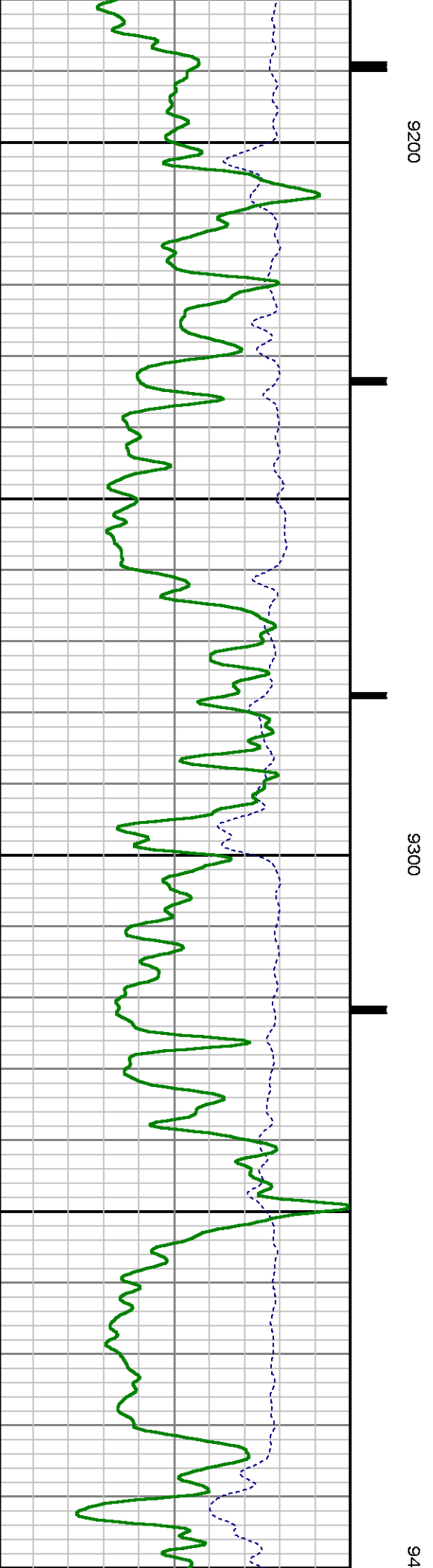
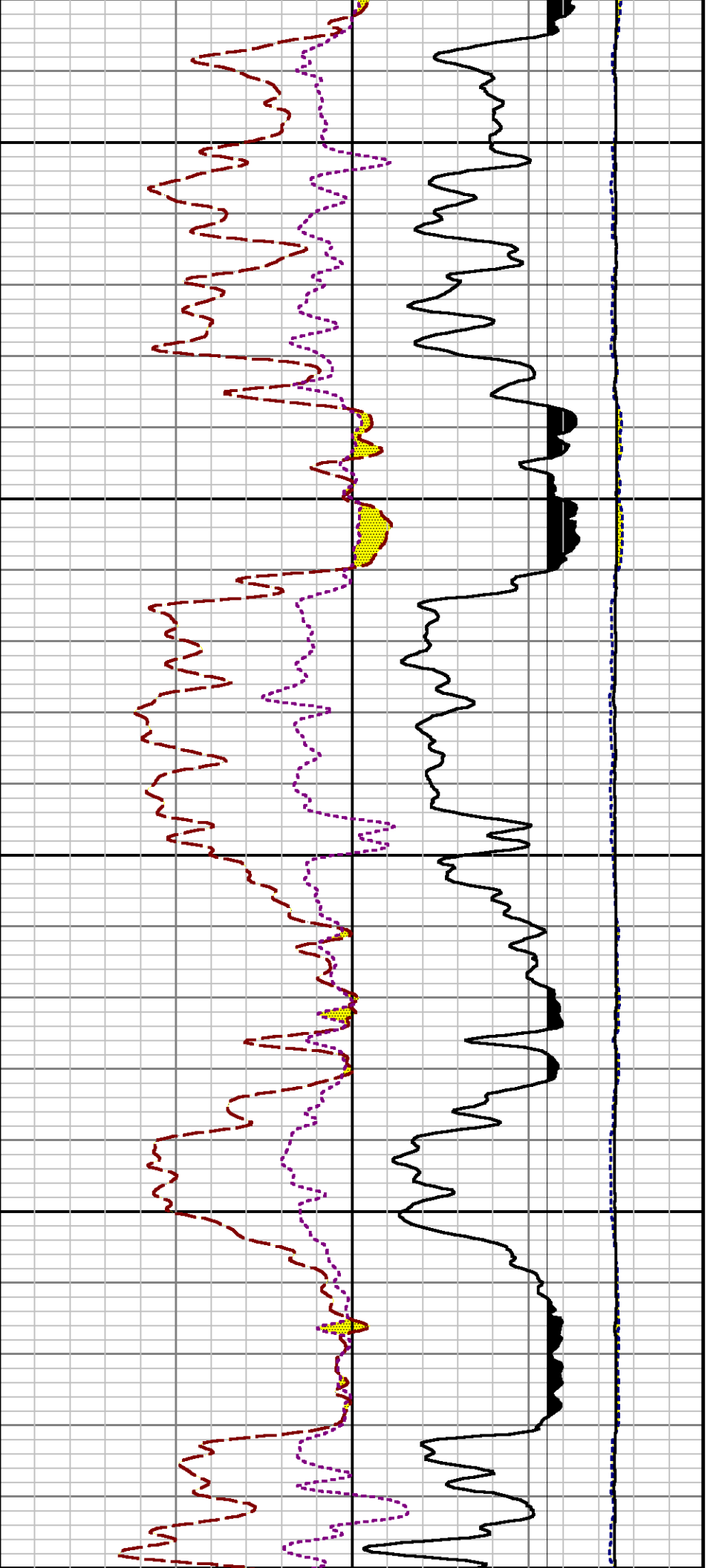


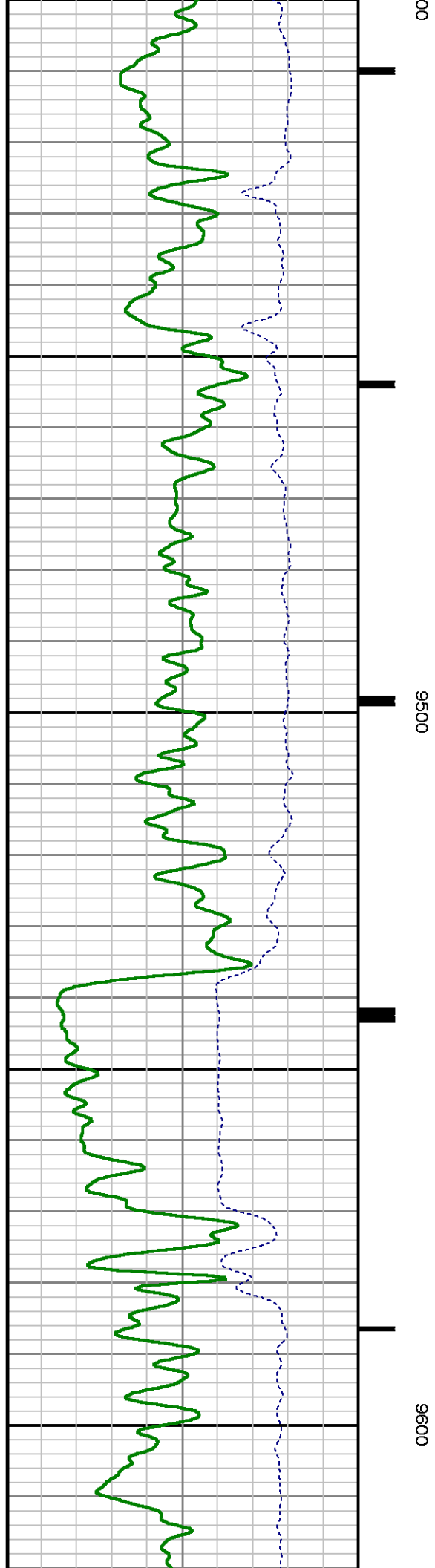
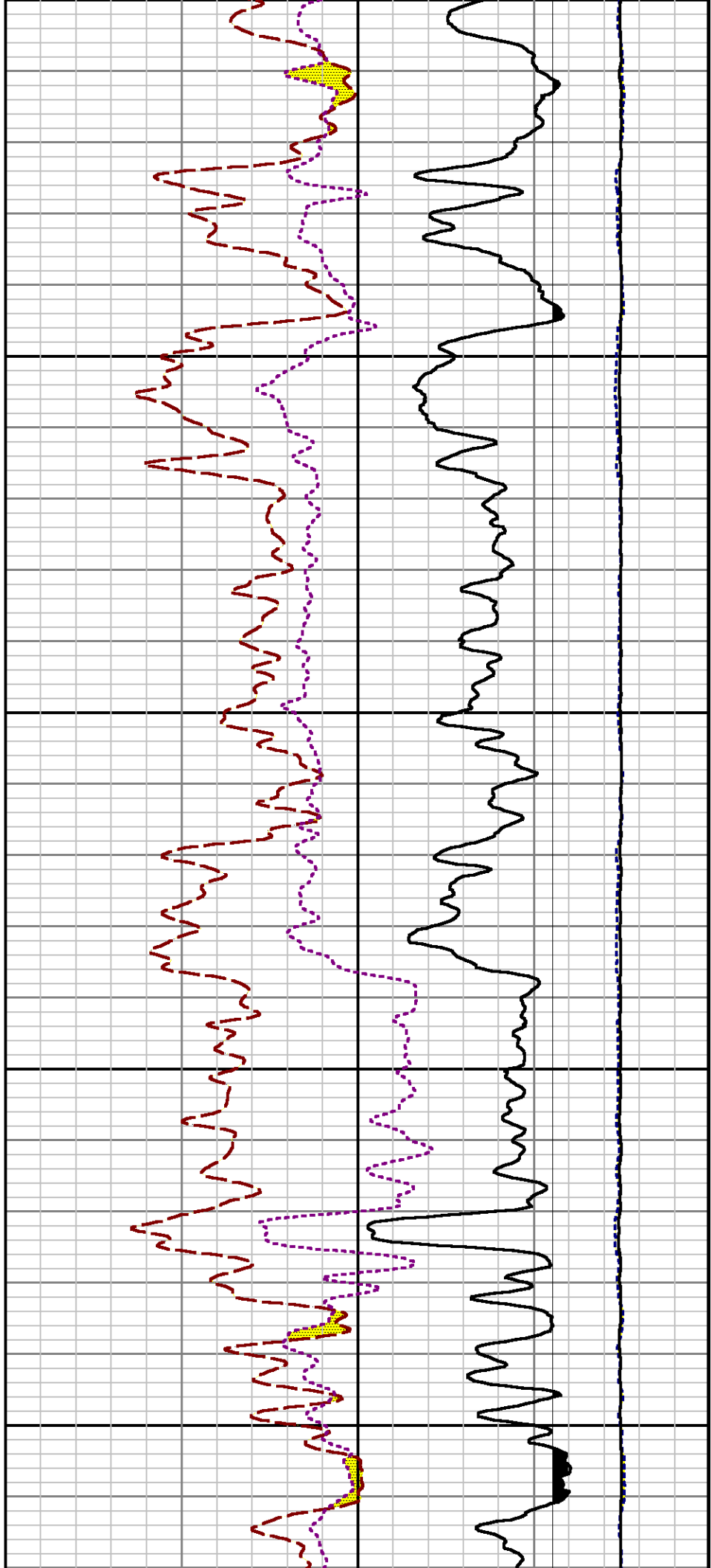
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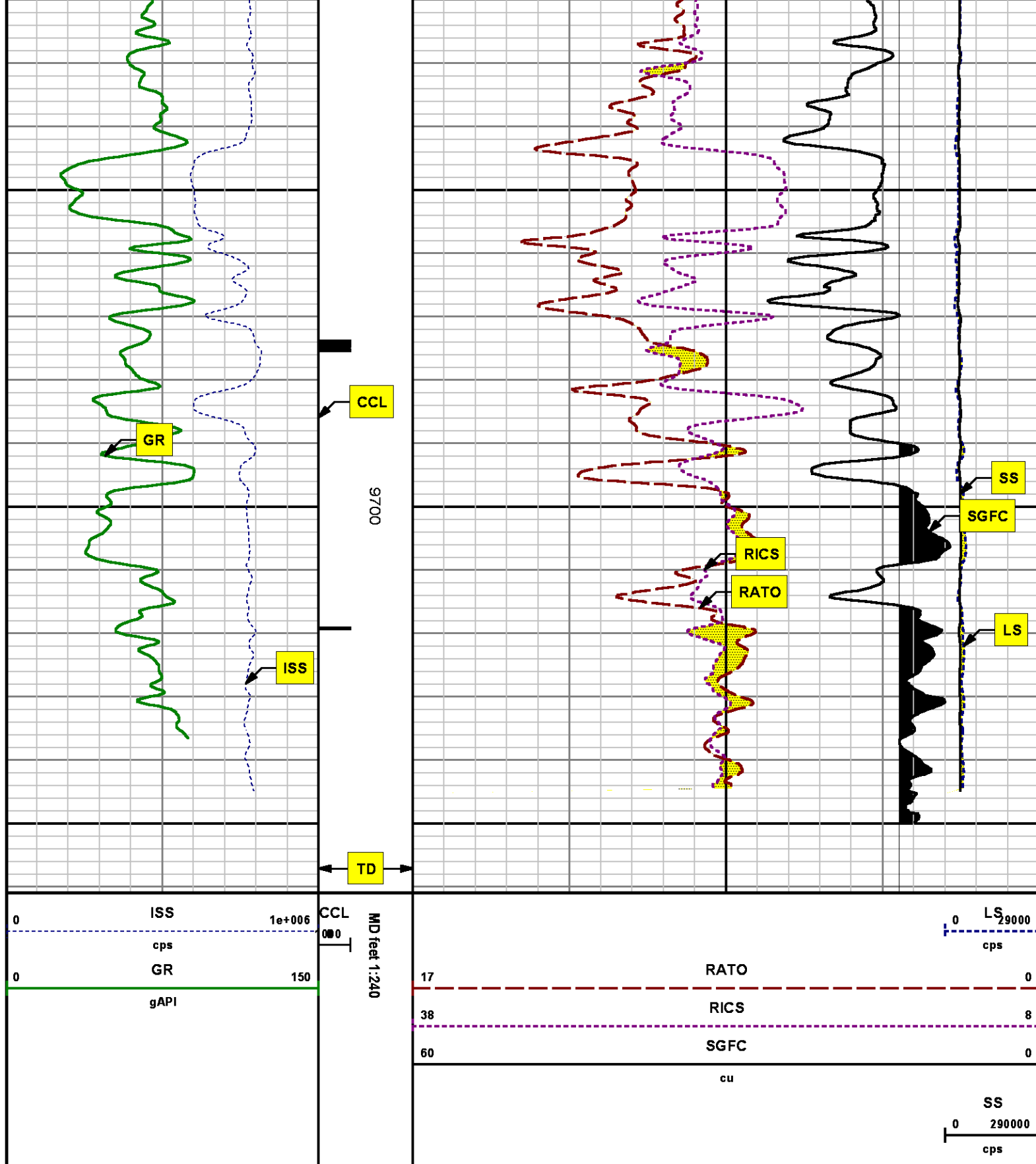
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REPEAT SECTION
PNC 3-D MODE

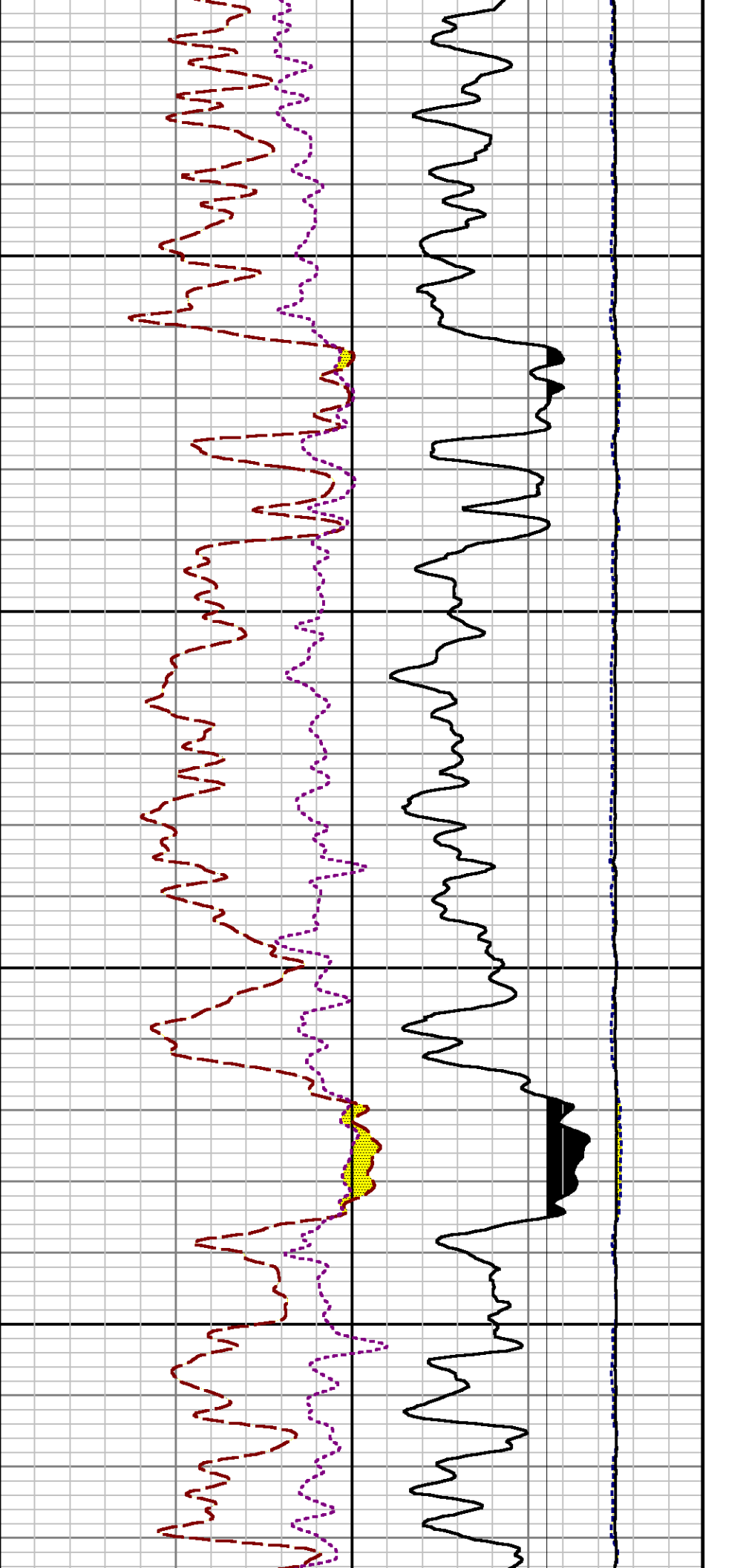
SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		8947.941	9267.566
PNC Porosity	Borehole Size	8.750	inch	8947.941	9267.566
PNC Porosity	Casing Size	4.500	inch	8947.941	9267.566
PNC Porosity	Gas Filled	Non Gas Filled		8947.941	9267.566
PNC Porosity	Matrix	Sandstone		8947.941	9267.566
TPS Pressure	Temperature Corr. Source	Fixed (72.00)	degF	8947.941	9267.566

DEPTH OFFSETS

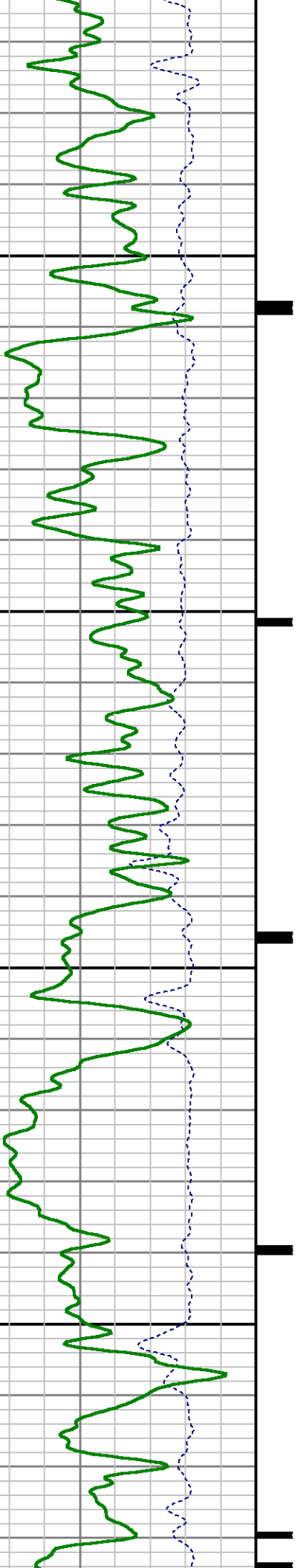
(for Acquired Curves)

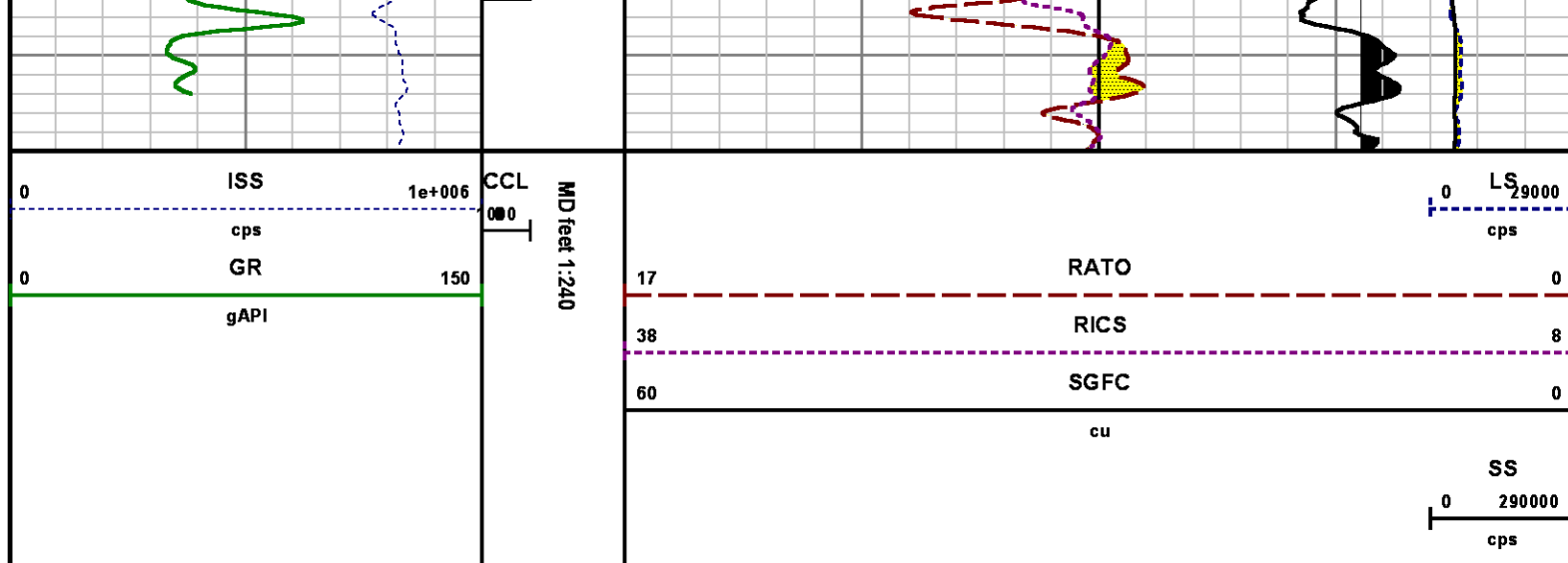
SERIES	DEPTH OFFSET	ACQUIRED CURVES
8248ED	-26.519	FLTM
8248ED	-24.519	CCL CHV
2812LA	-21.969	GR
8281XA	-12.702	HVC3Q0 SEQ3 AMA3 AML3 BKX CXS CPT3Q0 CPT3Q2 CPT3Q3 CPT3Q4 ET3 IXS MCS3 MCS3Q0 QCAL3 RGN3 RICX SDA3 SDL3 SGA3 SGL3 STA3 XS ASPEC3 AMB3 AMF3 CHF3 IXSC IXSN RATO23 RICXC RIN13C RIN23 RIN23C SD3D 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 SGBC SGE1 SGF1 SGFC SGK1 SGL1 SS SS2 STA1 PD1S PD2S PD3S MD1S MD2S



9100

9200





CALIBRATION SUMMARY

GAMMA RAY

Calibration File: C:\case\calver\GR\385TN.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Wed Feb 12 17:24:19 2014

TOOL SERIES: 2812LA ASSET: 385 SEQ: TN

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA-612	27.64	256.80	0.916	25.33	235.33	210.00

Verification File: C:\case\calver\GR\385TN.VP

PRIMARY VERIFICATION

DATE/TIME PERFORMED: Wed Feb 12 17:29:20 2014

TOOL SERIES: 2812LA ASSET: 385 SEQ: TN

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA-612	28.29	252.82	0.916	25.92	231.69	205.76

TEMPERATURE

Calibration File: C:\case\calver\TEMP\77456813.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: FEB 13 2014

TOOL SERIES: 8255XA

ASSET:

774568

SEQ: 13

	T(0)	T(1)	T(2)	T(3)	T(4)	T(5)
Coefficients	-9.274653e+000	1.055639e-001	2.143764e-006	-2.782846e-010	0.000000e+000	0.000000e+000

PNC

Calibration File: C:\case\calver\PNC\34517.cal

PNC 3D CALIBRATION SUMMARY

DATE/TIME PERFORMED: Mon Feb 17 17:46:16 2014

TOOL SERIES: 8281XA

ASSET:

345

SEQ: 17

Calibrator #

2437xb 112674

Source #

8281AA 10148476

	ISS	Mtr VIts (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	820334	120.00	2285.00	2268.00	2260.29	101.75	7.00	0.9795
Interpolated	1300000	139.11	2268.55	2260.32	2260.45			

	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	820334	6396.99	1005.70	137.84	25.78	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	820334	172554.98	26624.86	90657.22	32281.71	8422.19	54854.50	13466.67
Fit Quality %		0.58	0.67	0.54	0.53	0.54	0.50	0.57

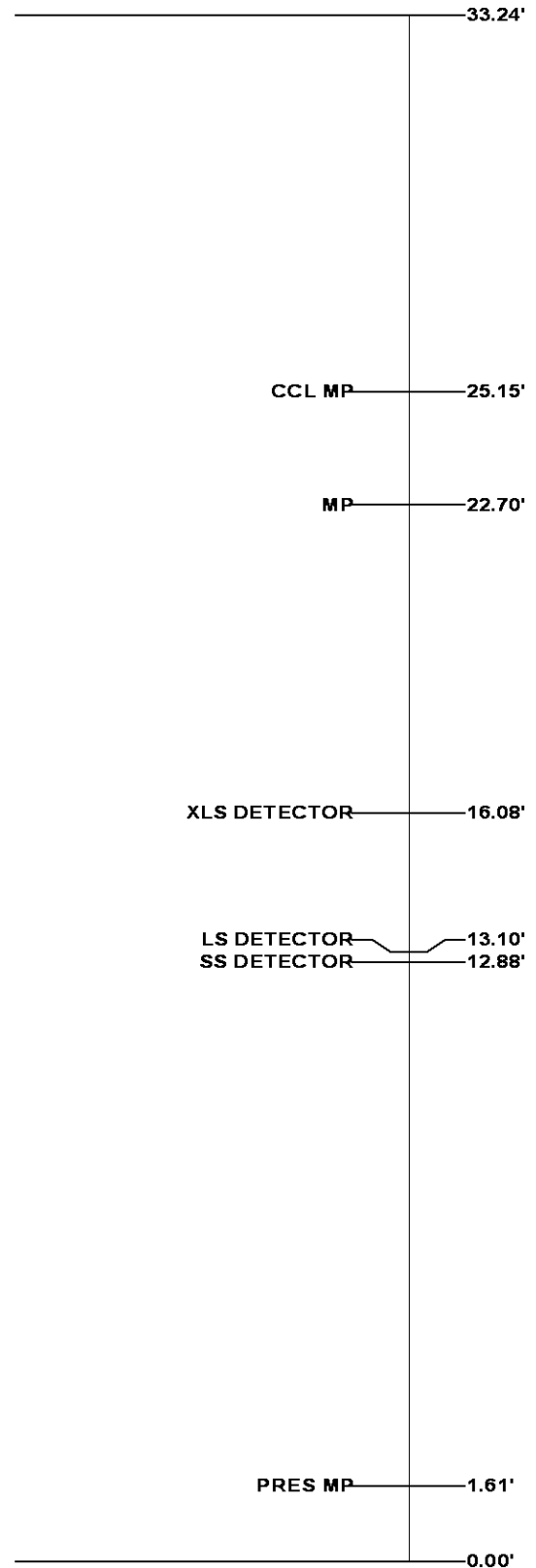
	ISS	RBOR	RIN ISS/ILS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS
Raw Data	820334	1.43	4.75	30.81	14.95	10.76	3.83	4.07
		1.42 1.45	3.55 5.52	22.20 32.70	10.99 16.34	10.06 11.10	3.57 3.95	3.76 4.22
Fit Quality %		0.08	0.27	0.26	0.24	0.04	0.04	0.08
Reduced	1397428	1.43	4.79	31.02	15.04	10.76	3.83	4.08
		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

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'



Total Length: 33.24'
Total Weight: Not Available
Max Diameter: 0' 1.70"

<div> BAKER HUGHES</div> <div>Baker Atlas</div> <div></div>	Company	WPX ENERGY		File No:	CH082897
	Well	FEDERAL PA 43-21			
	Field	PARACHUTE		API No:	05045220270000
	County	GARFIELD	State	COLORADO	
Location		Elevations			
SHL: 2610' FNL & 1448' FWL		KB 6056 ft		21 6S 95W	
BHL: 2615' FSL & 272' FEL (NESE)		DF		PA 22-21 PAD	
SEC 21 TWP 6S RGE 95W		GL 6030 ft		NABORS 573	