



# RESERVOIR PERFORMANCE MONITOR

## Baker Atlas

File No:	Company		MARATHON OIL & GAS
1963	Well	697-12A-1B	
API No:	Field	GRAND VALLEY	
02-046-1503300	County	State	COLORADO
	Location	Other Services	
	SHL: 1543' FIL & 1854' FEL	3.70" GAUGE	
	SEC 12 TWP 9S RGE 97W		
Permanent Datum	G.L.	Elevation	6305 ft
Log Measured From	K.B.	22 ft	Above P. D.
Drill Measured From	KELLY BUSHING		
		Elevations	
		KB	6327 ft
		DF	6326 ft
		GL	6305 ft

Date	02-DEC-2008	
Run	ONE	
Service Order	547343	
Depth Driller	9773 ft	
Depth Logger	9586 ft	
Bottom Logged Interval	9586 ft	
Top Logged Interval	6340 ft	
Time Started	00:00	
Time Finished	08:00	
Operator Rig Time	B HES	
Type of Fluid in Hole	WBM	
Fluid Density	8.1bm/gal	
Salinity	N/A	
Fluid Level	FULL	
Logged Cement Top	N/A	
Wellhead Pressure	150 psi	
Maximum Hole Deviation	N/A	
Nominal Logging Speed	10 fpm	
Maximum Recorded Temperature	N/A	
Reference Log	MMS/COMPACT SHUTTLE	
Reference Log Date	28-NOV-2008	
Equipment No.	Location	
4214	GRAND JCT, CO	
Recorded By	TIM KAUTT	
Witnessed By	MR. WATT WOSKUSH	

- 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 in	0 ft	6481 ft
7.875 in	6481 ft	TD

Casing Record				
Size	Weight	Grade	From	To
4.5 in	11.6 lbm/ft	P-110	SURFACE	9586 ft
4.5 in	11.6 lbm/ft	P-110	SURFACE	9586 ft

Remarks
FIRST RUN IN WELL WAS LOGGED WITH NO CEMENT AND BACK SIDE BEING PUMPED ON.
THE CREW OF 4214 THANKS YOU.

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	POW	8261 CA	10185574	FREE

1	1	RPM	8281PA	985	FREE
1	1	RPM	8281EA	101909B4	FREE
1	1	GAMMA RAY	8262XA	217	FREE
1	1	CCL	8248EA	148842	FREE
1	1	PCM	8250EA	14383	FREE

## *MAIN SECTION* *IN PNC 3-D MODE*

### SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		6337.000	9605.879
PNC Porosity	Borehole Size	8.750	Inch	6337.000	8456.000
PNC Porosity	Borehole Size	7.875	Inch	8456.000	9605.879
PNC Porosity	Casing Size	4.500	inch	6337.000	9605.879
PNC Porosity	Gas Filled	Non Gas Filled		6337.000	8456.000
PNC Porosity	Gas Filled	Non Gas Filled		8456.000	9605.879
PNC Porosity	Matrix	Sandstone		6337.000	9605.879

### DEPTH OFFSETS (for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES							
8248EA	-15.470	FLTM							
8248EA	-13.470	CCL	CHV						
8262XA	-10.189	GR							
8281XA	-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		
		RICXC	RIN13C	RIN23	RIN23C	SD3D	SG3D		
		SGB3	SGF3	WDTH3	CKSR	IXSR	XSR		
		RICKR							
		8281XA	-0.250	HVC2Q0	SEQ2	AMA2	AMB2	AMF2	AML2
				FLM	CHV2	CHV	CPT2Q0	CPT2Q2	CPT2Q3

8281XA

0.000

BKL	CHF2	CLS	CPT2Q0	CPT2Q2	CPT2Q3
CPT2Q4	ET2	ILS	LS	MCS2	MCS2Q0
QCAL2	RGN2	RICL	RONE23	RTWQ23	SDA2
SDL2	SGA2	SGB2	SGF2	SGK2	SGL2
STA2	ASPEC2	ILSC	ILSN	WDTH2	RICLC
GLSR	ILSR	LSR	RICLR		
GPRS	HVC1Q0	WV	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
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	MVS	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	WDTH1	RICSC	CSSR	G1R
G2R	ISSR	SSR	SS2R	RATOR	RATO13R
RBORR	RICSR	RINR	RIN13R	RONER	RPORR
RTWOR					
SYSTEM	0.000	TEN	TTEN		

Created by : RPMB, v5.0.0.0

Plotted by : PlotMgr, v5.4.5D4

Company : MARATHON OIL &amp; GAS

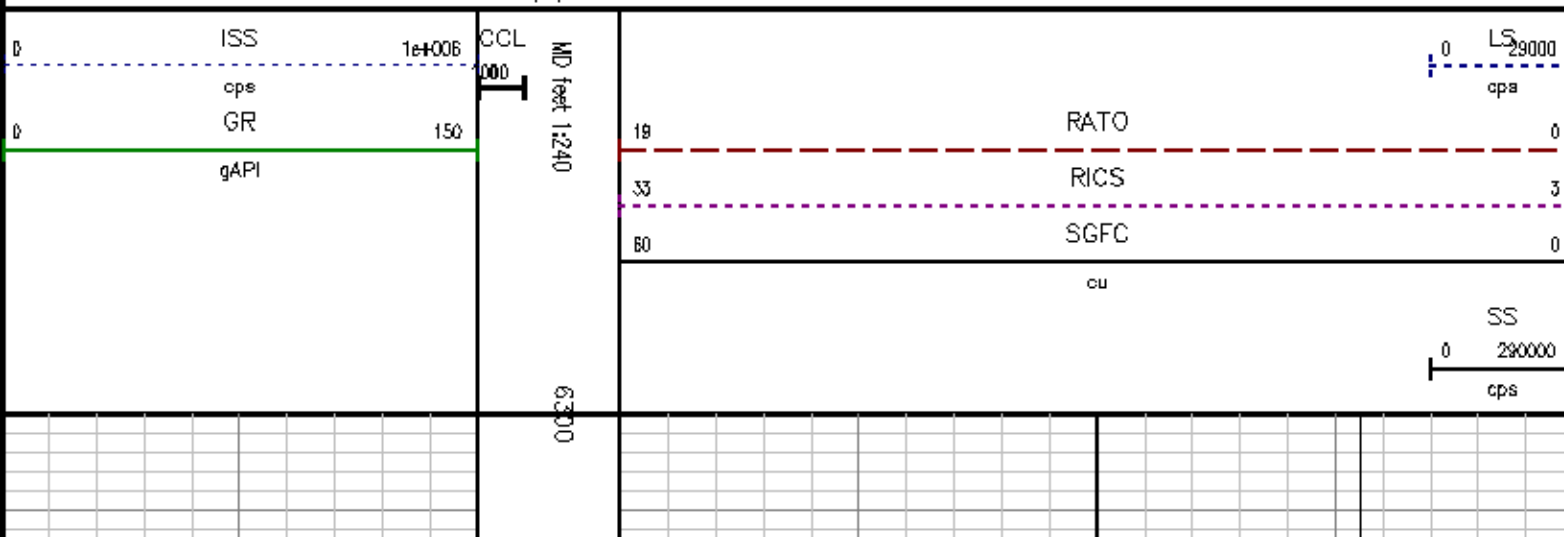
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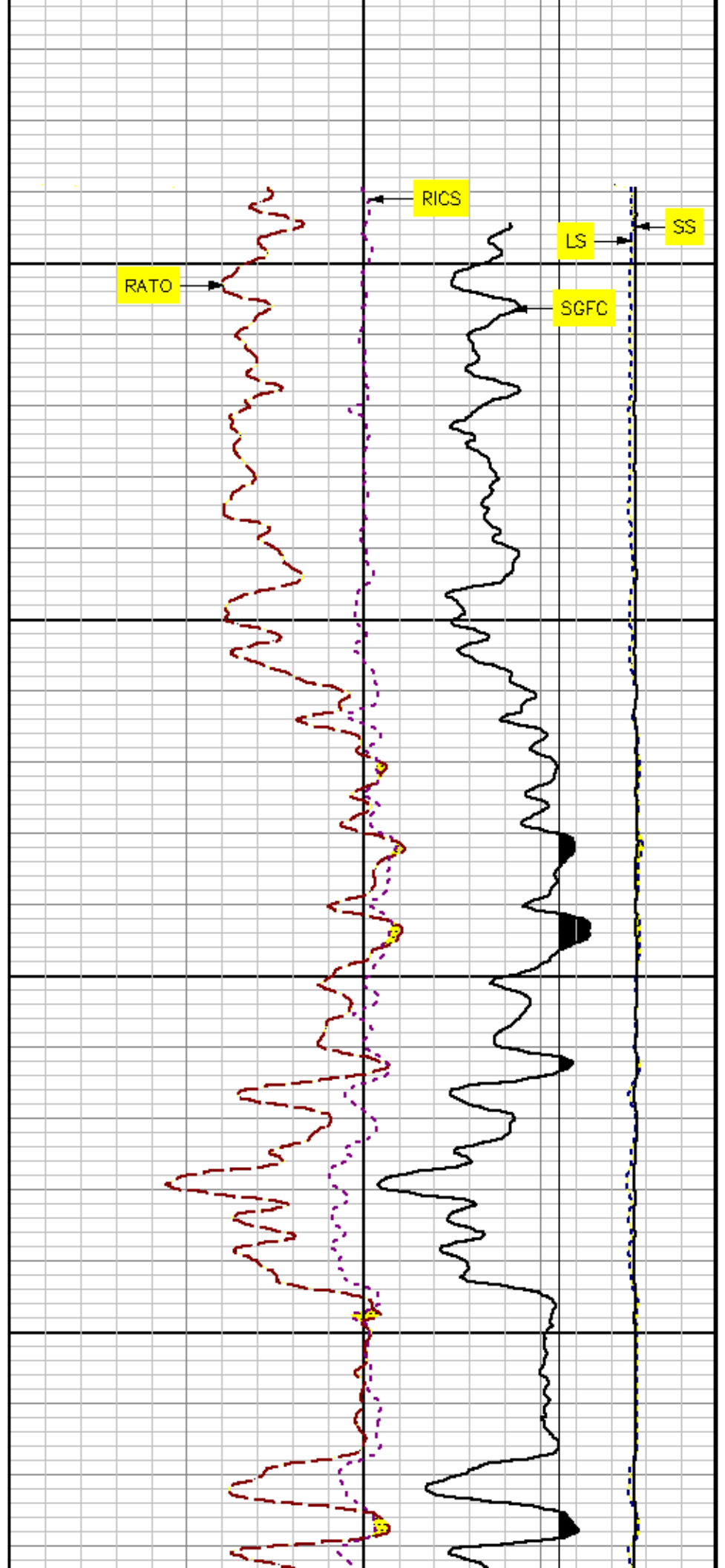
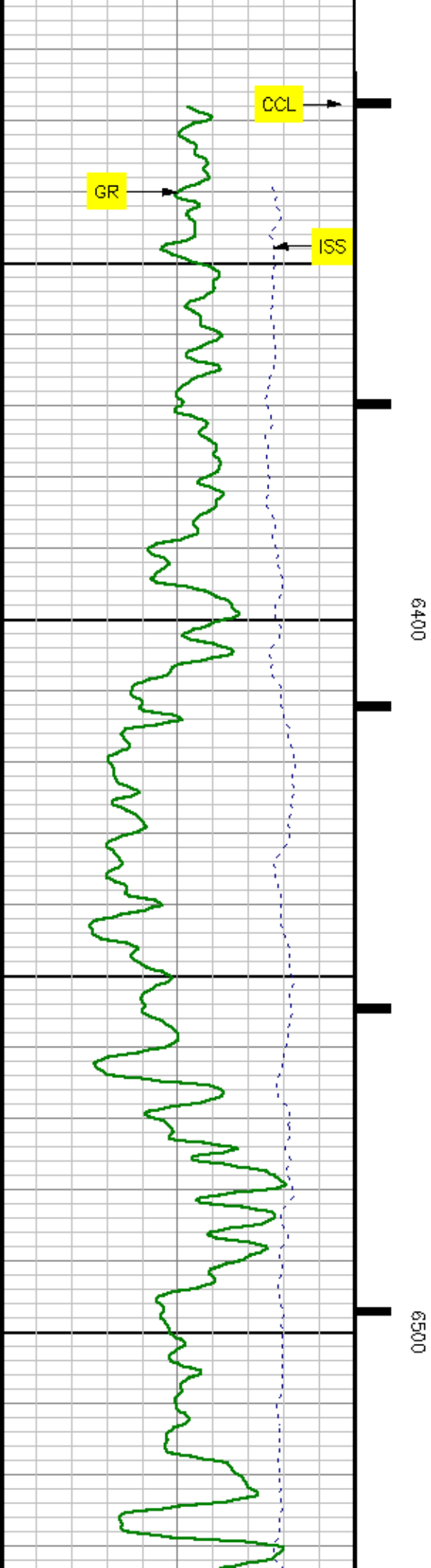
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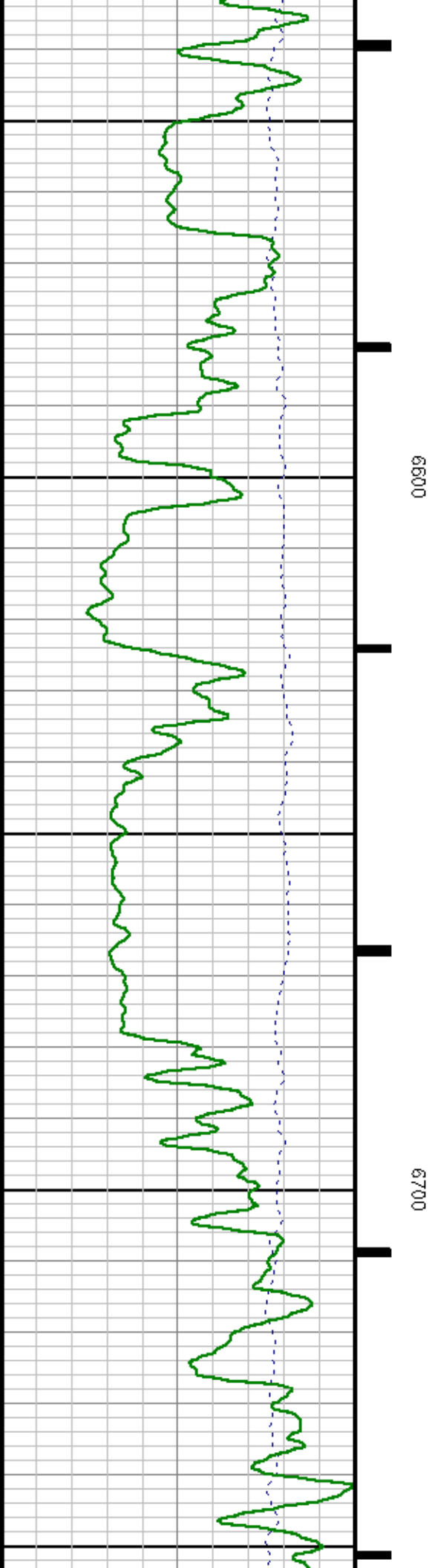
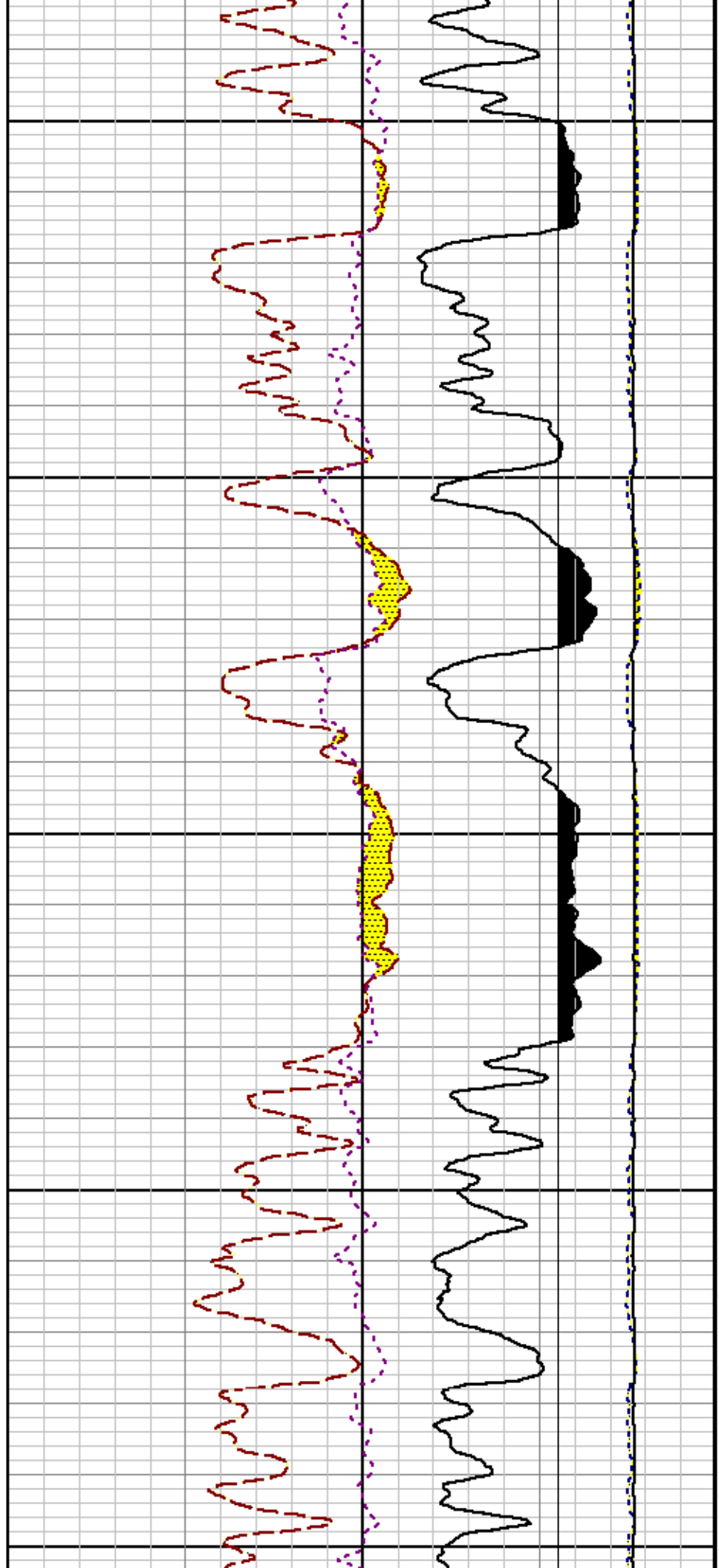
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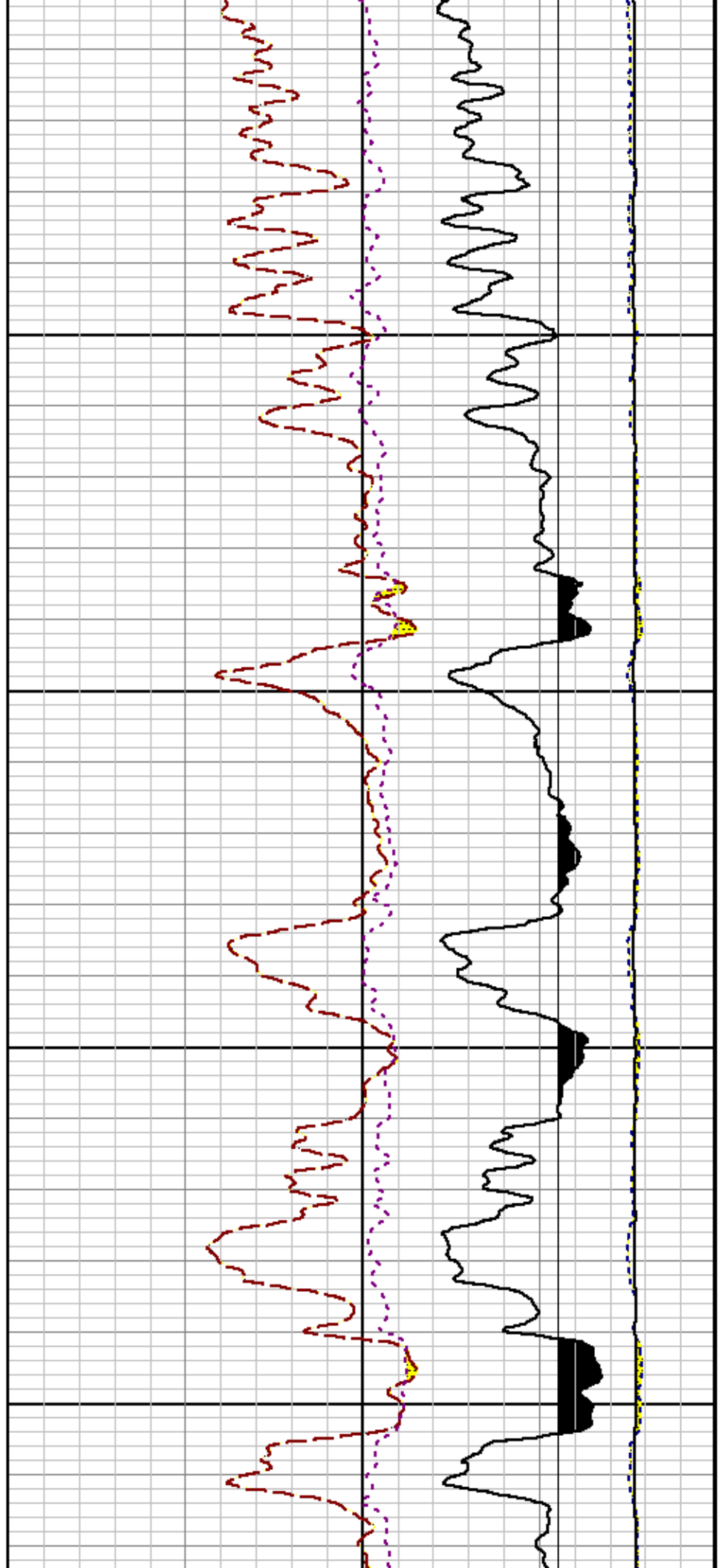
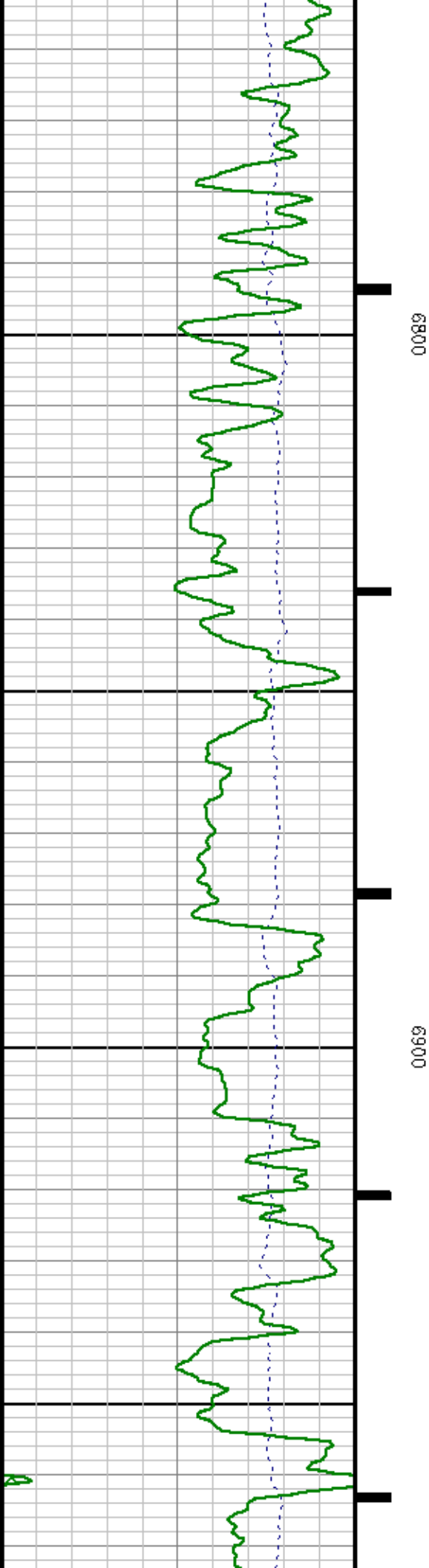
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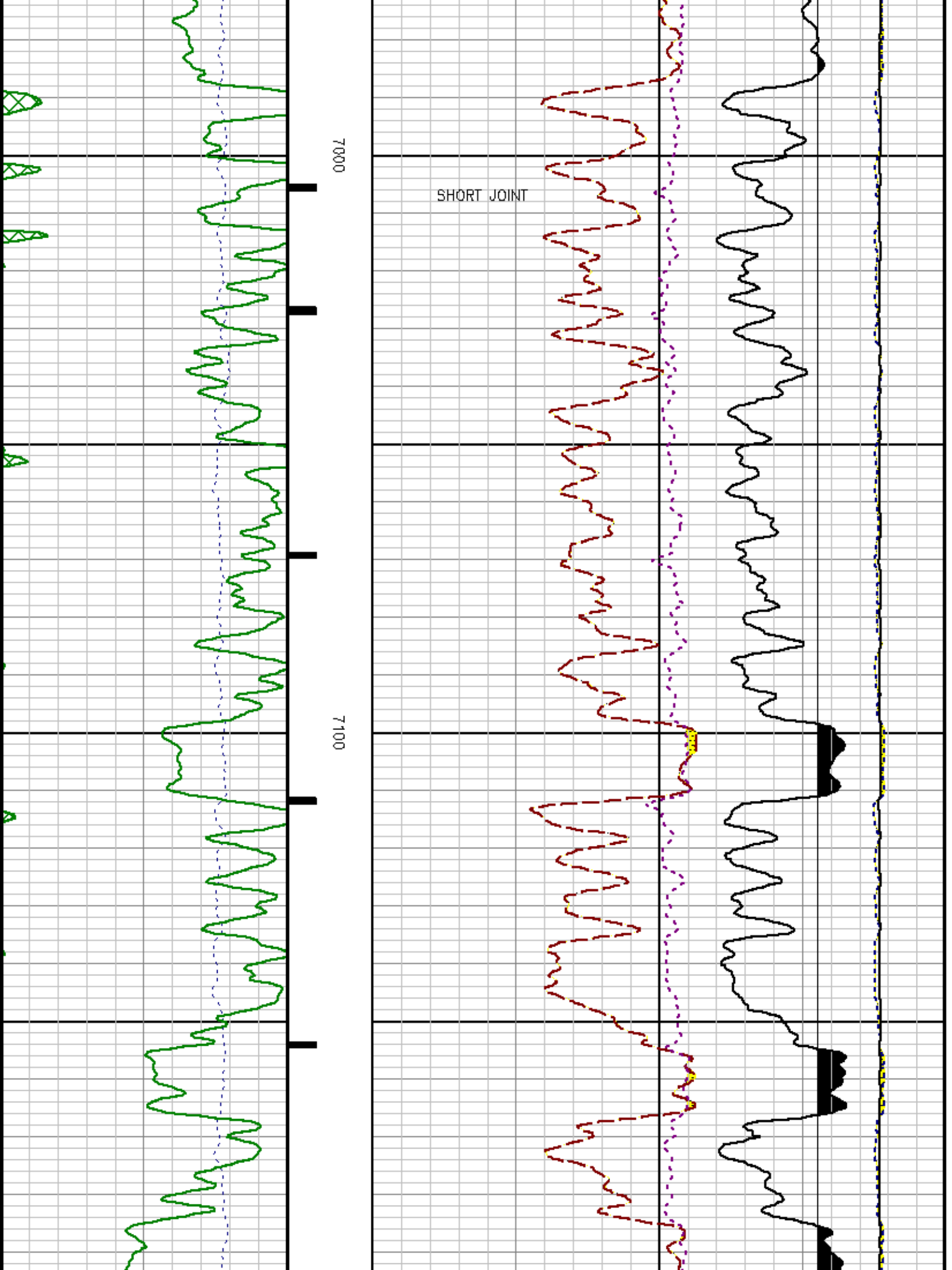
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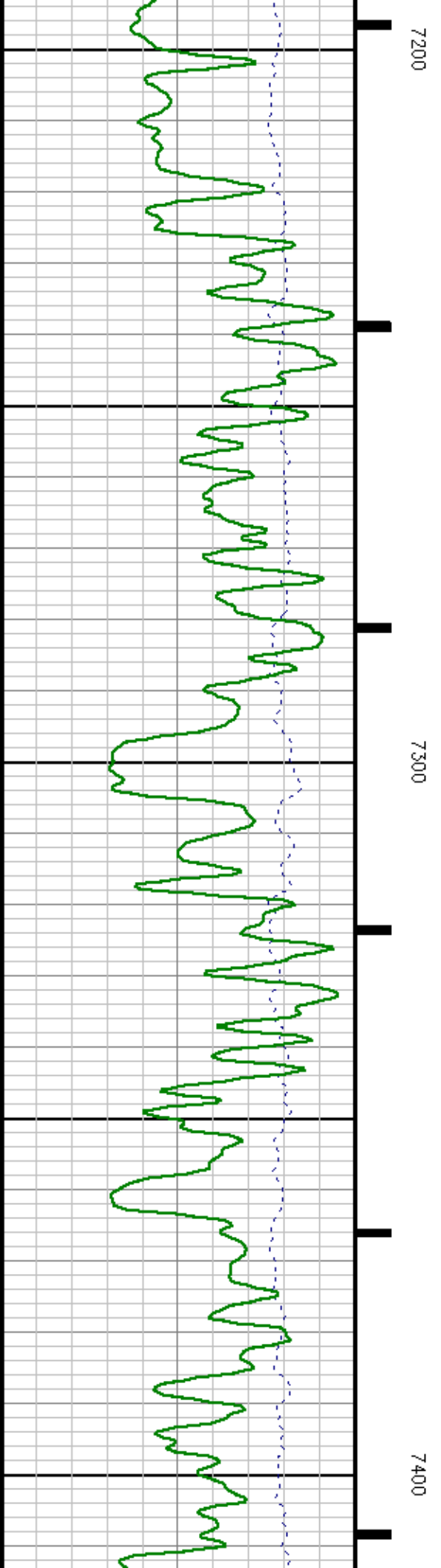
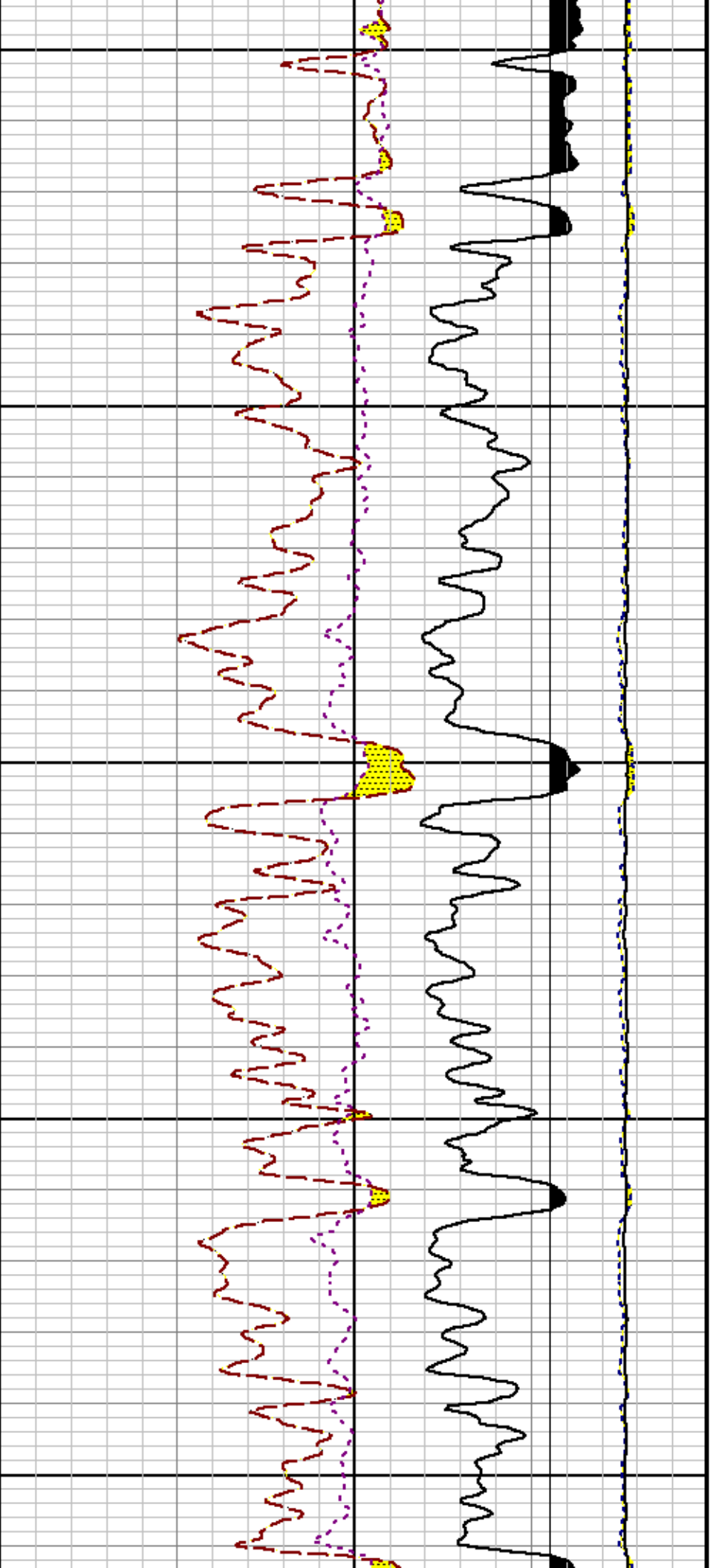




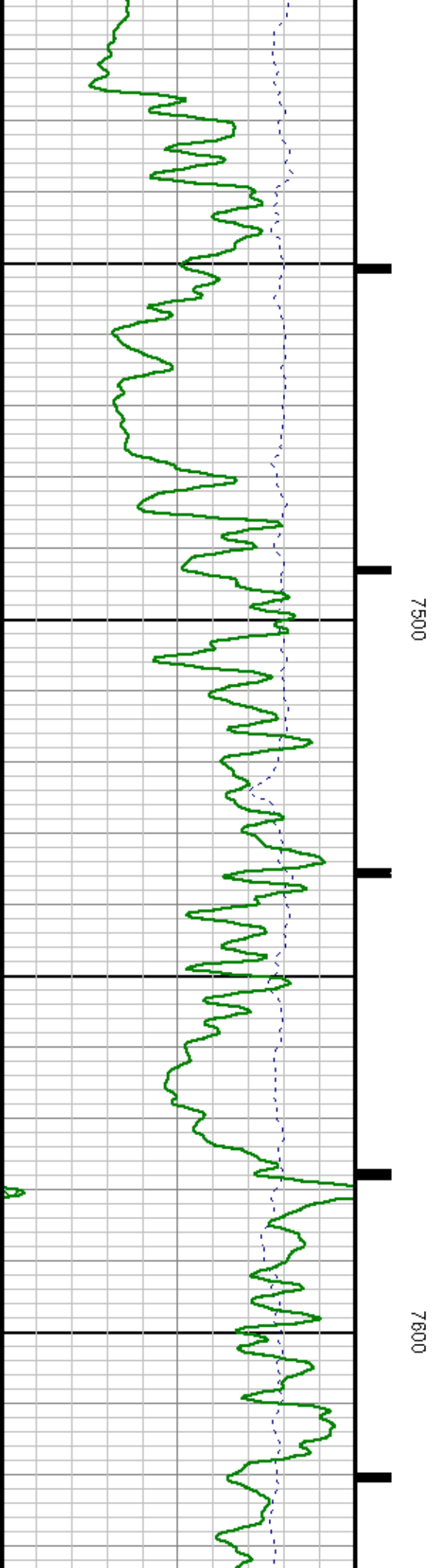
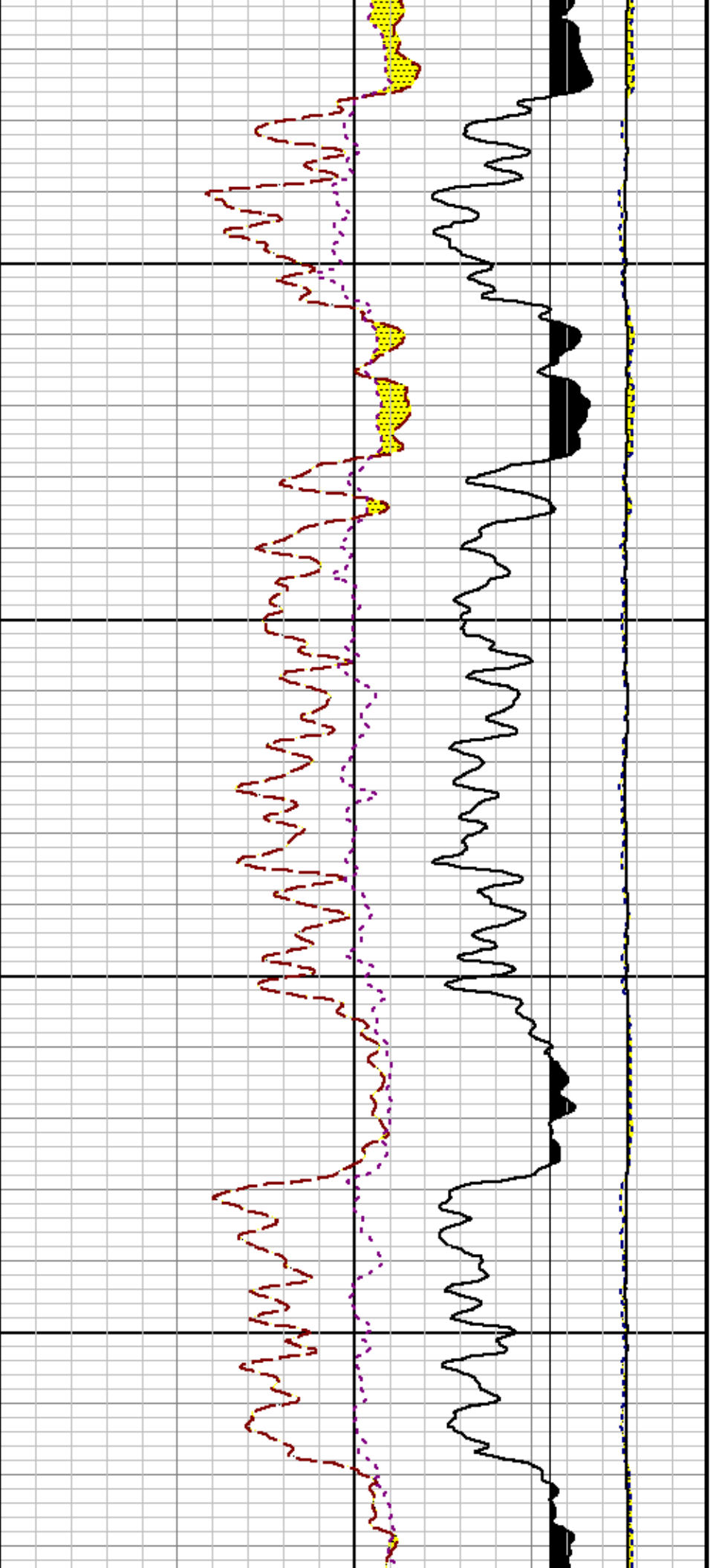


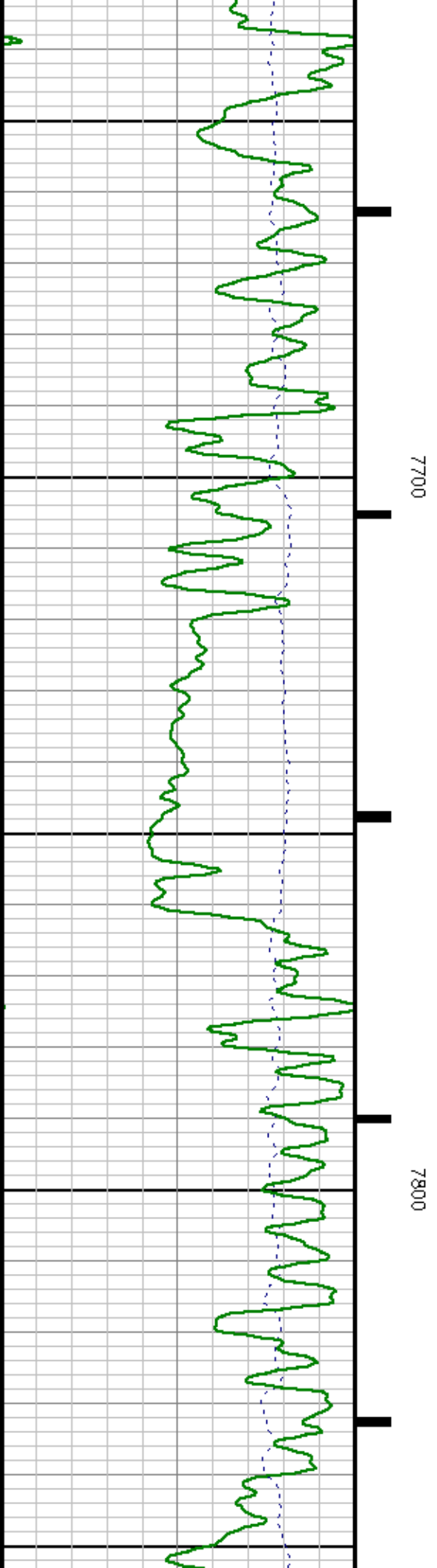
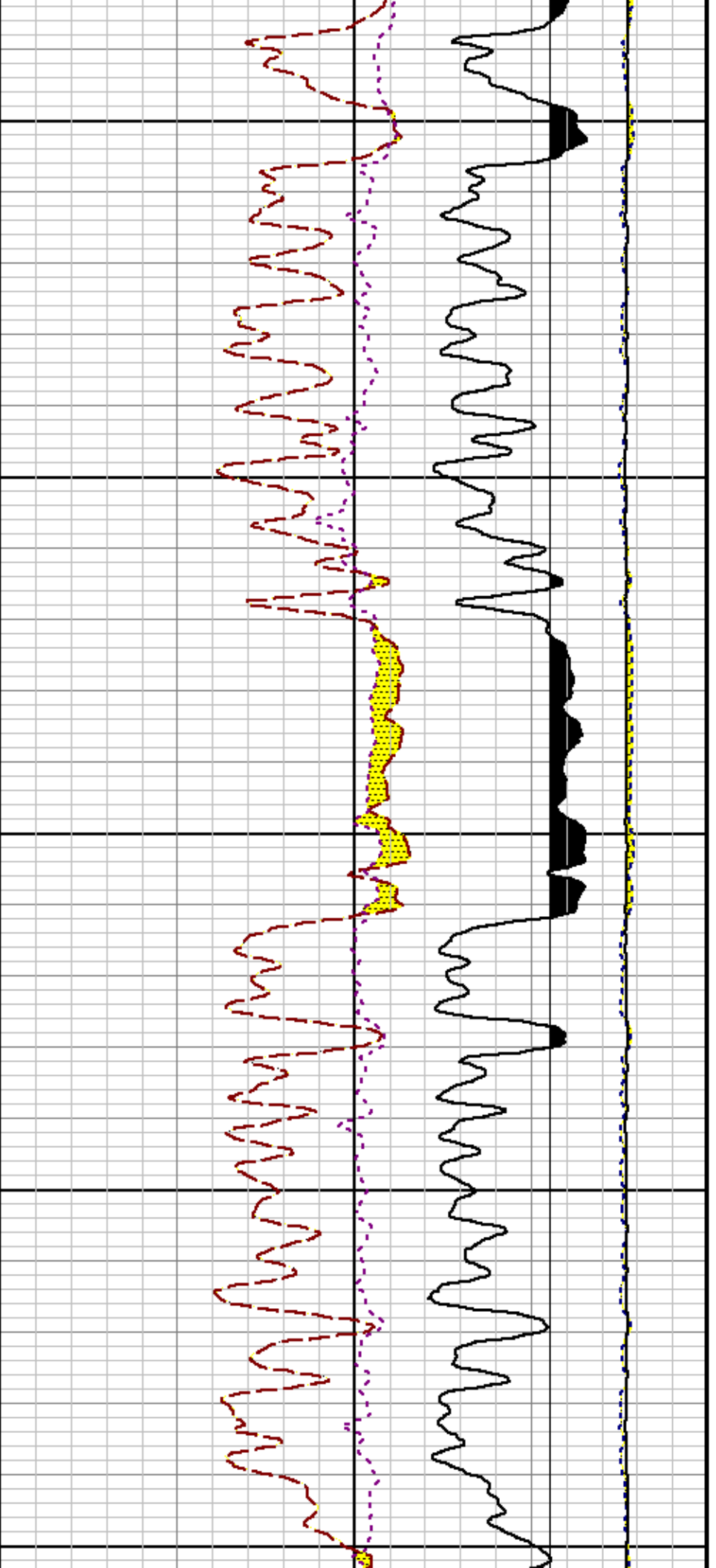


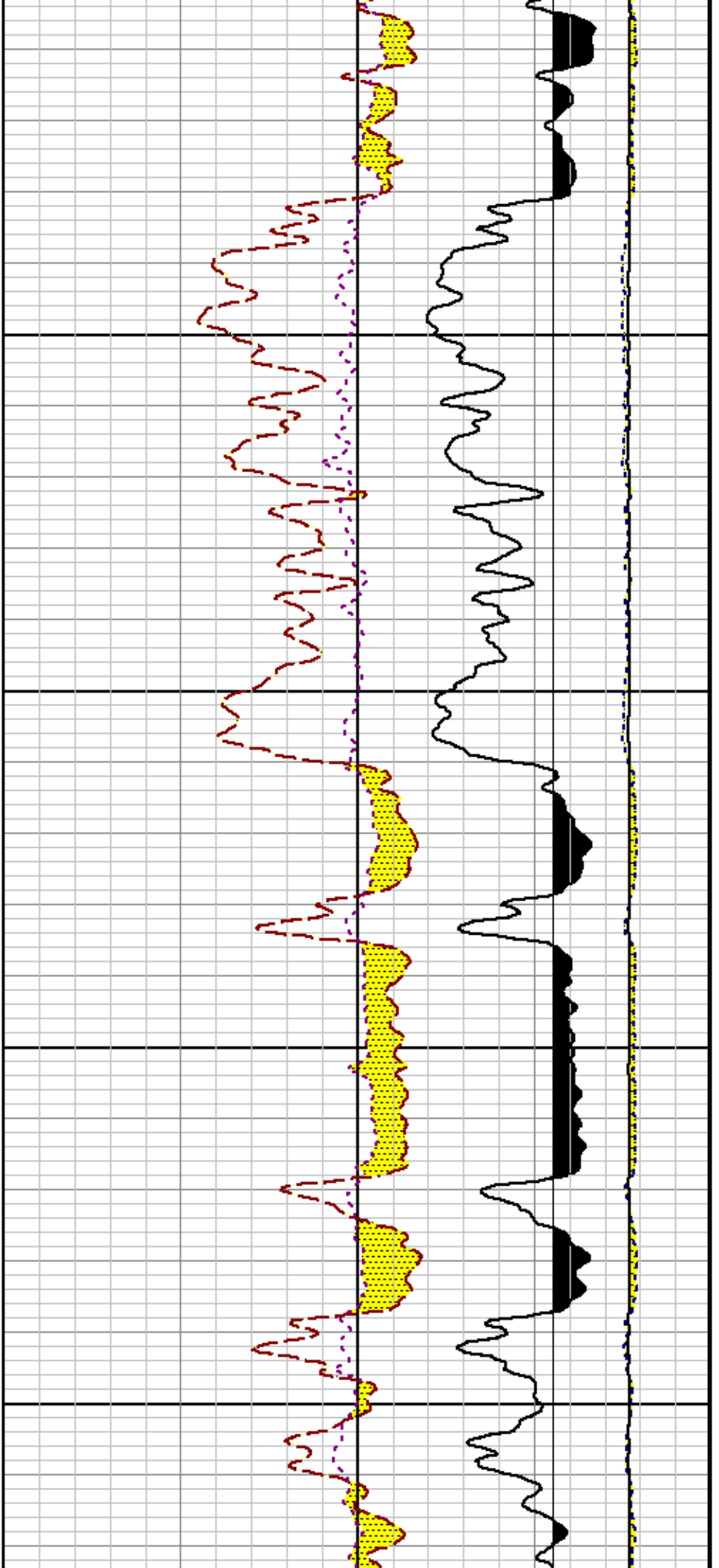






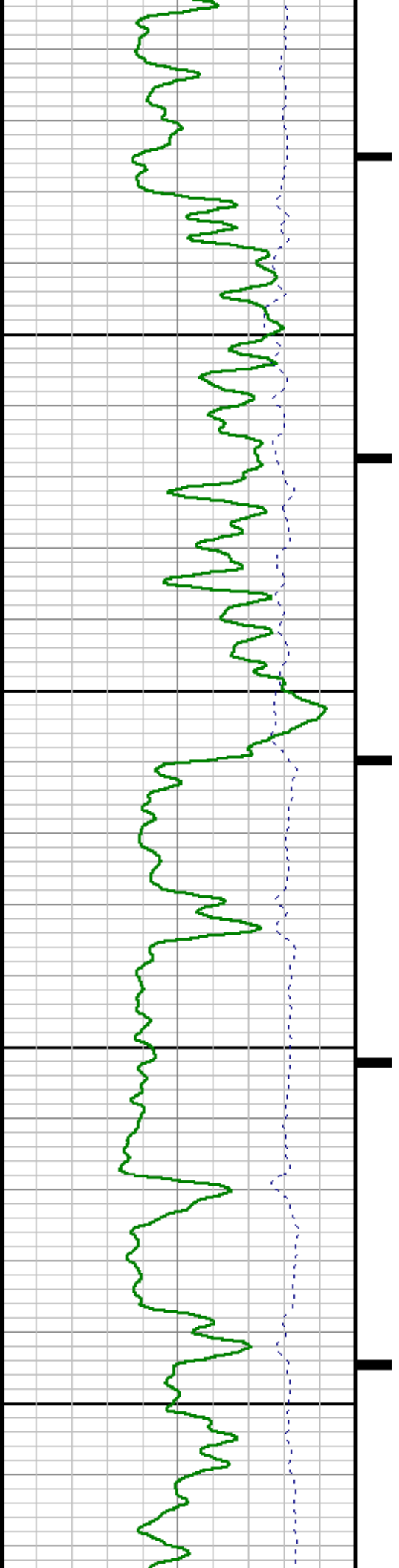


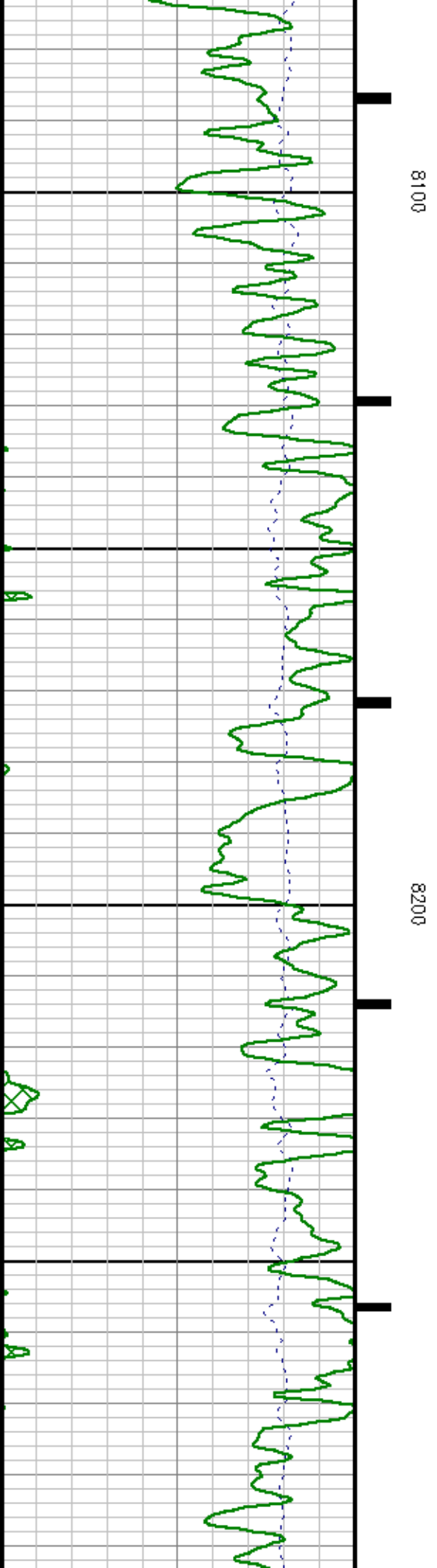
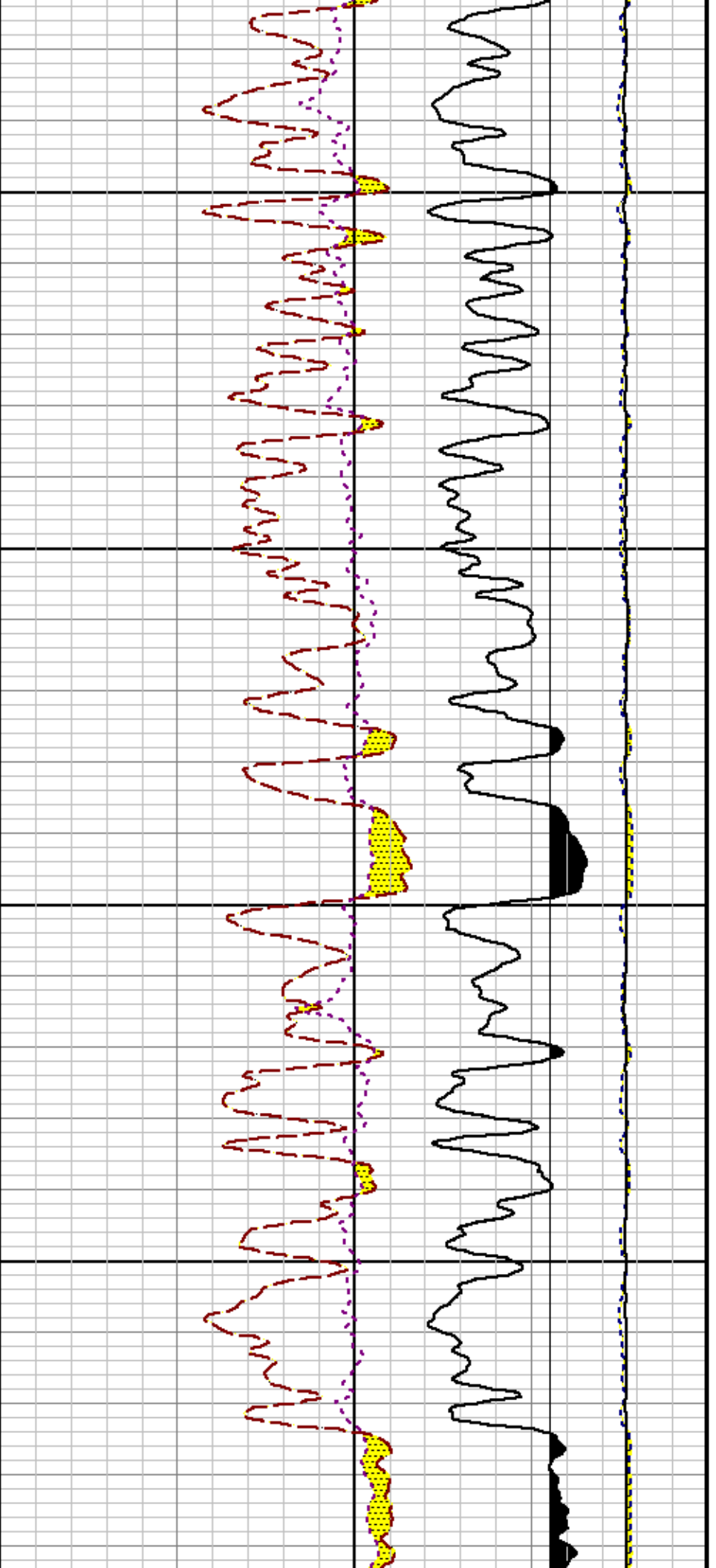


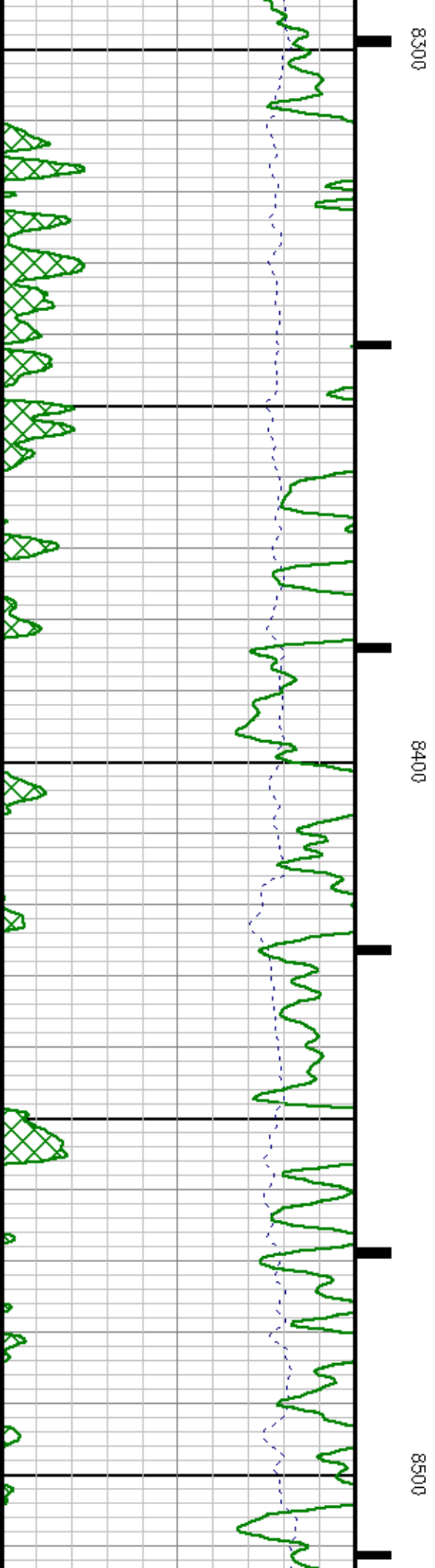
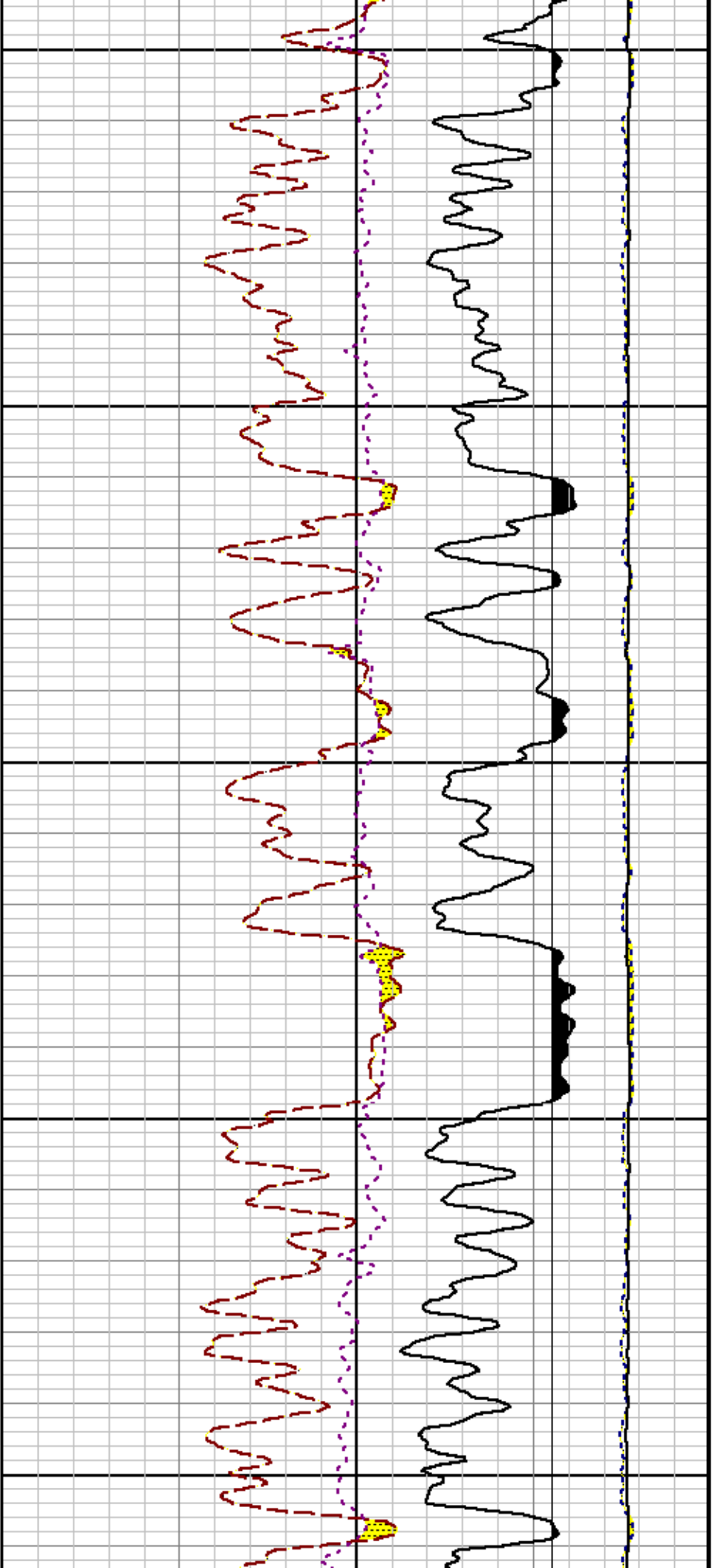


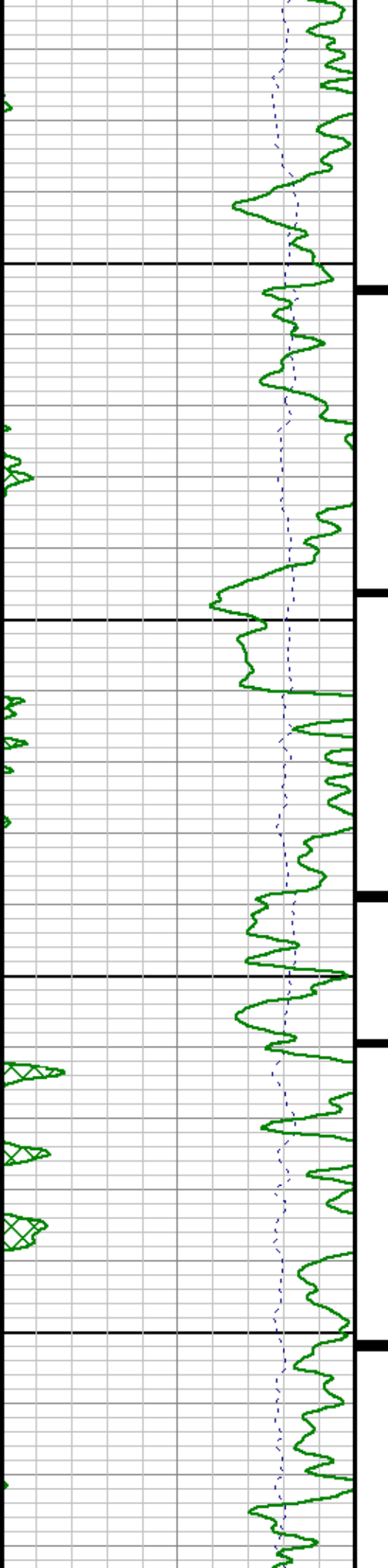
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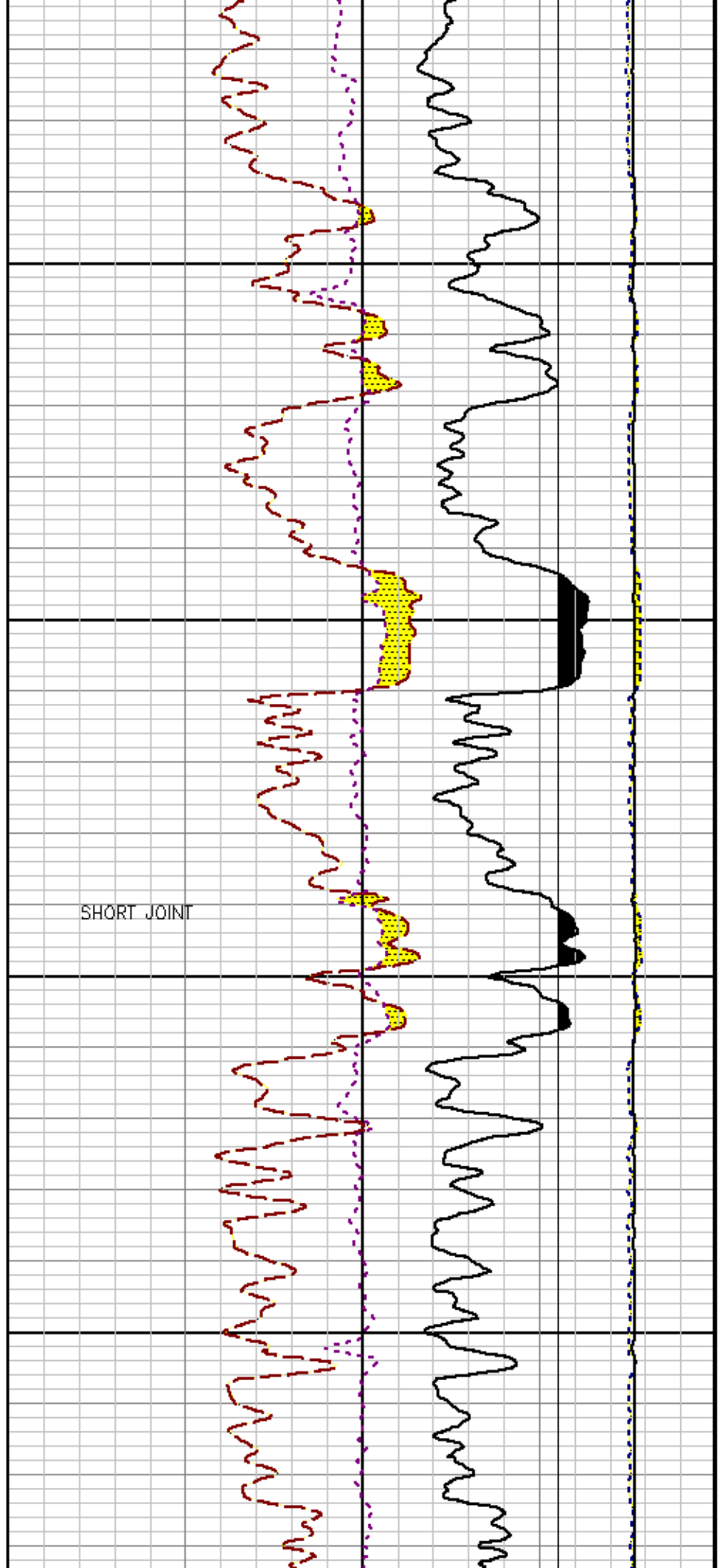




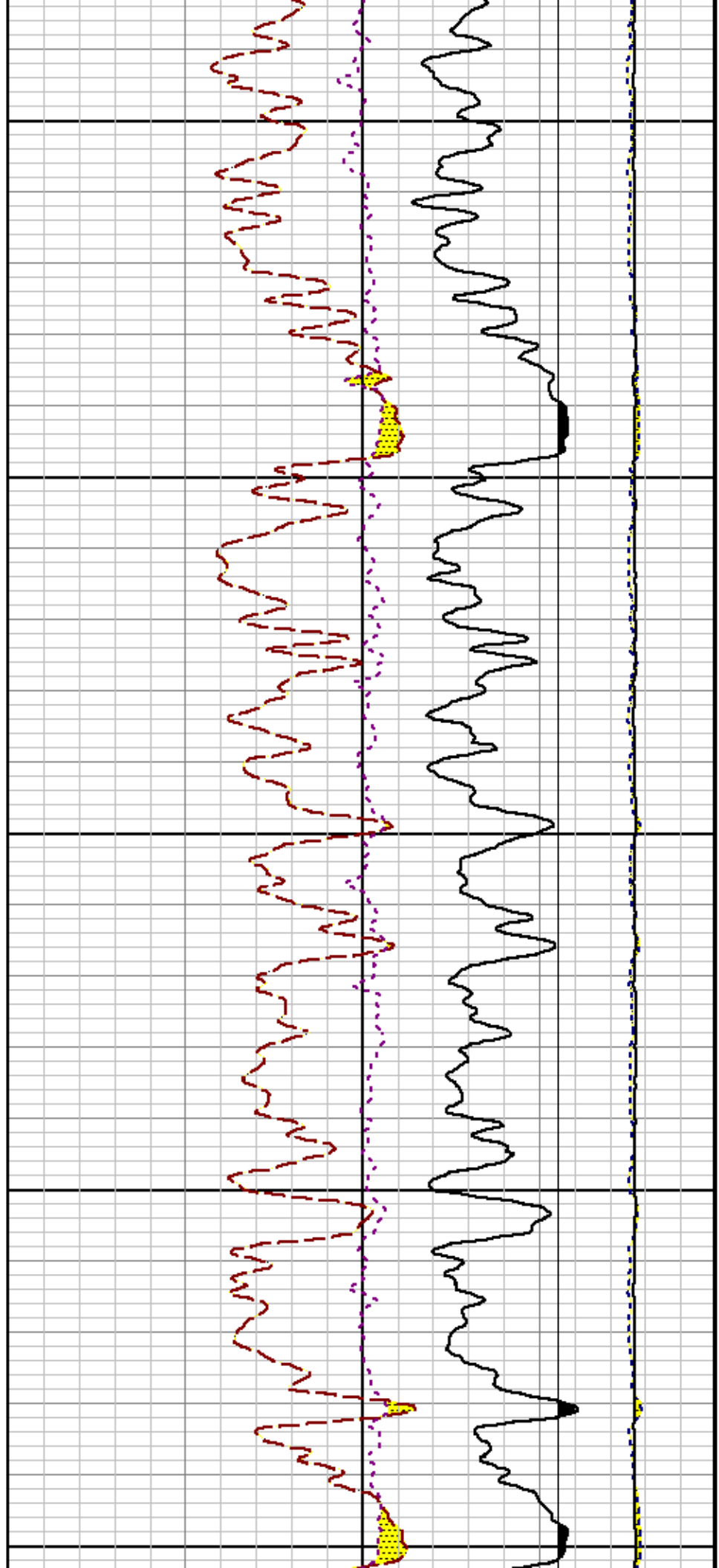
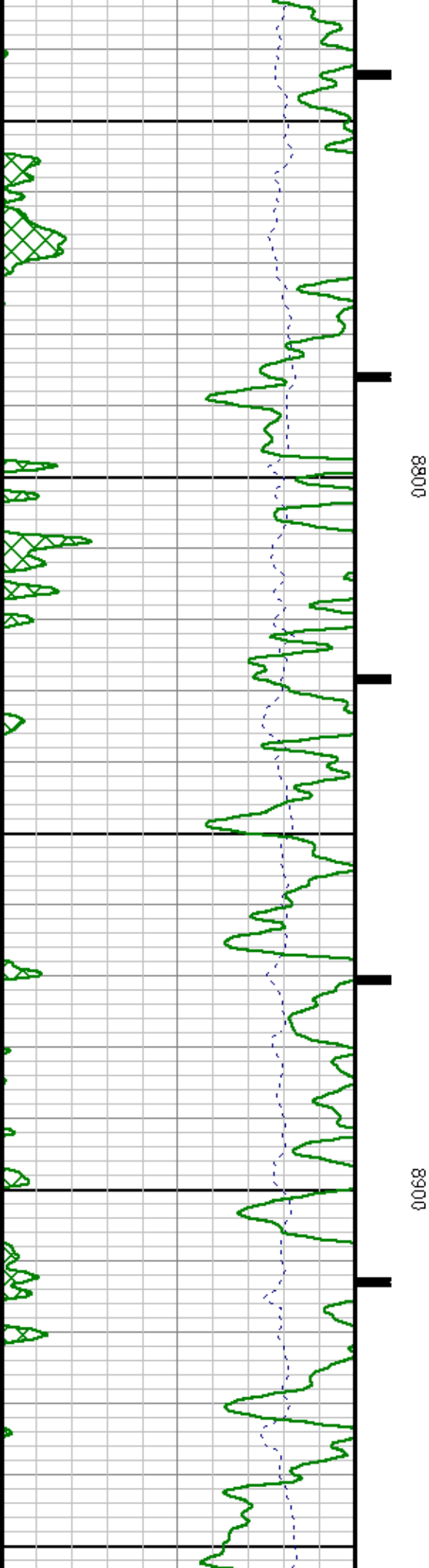


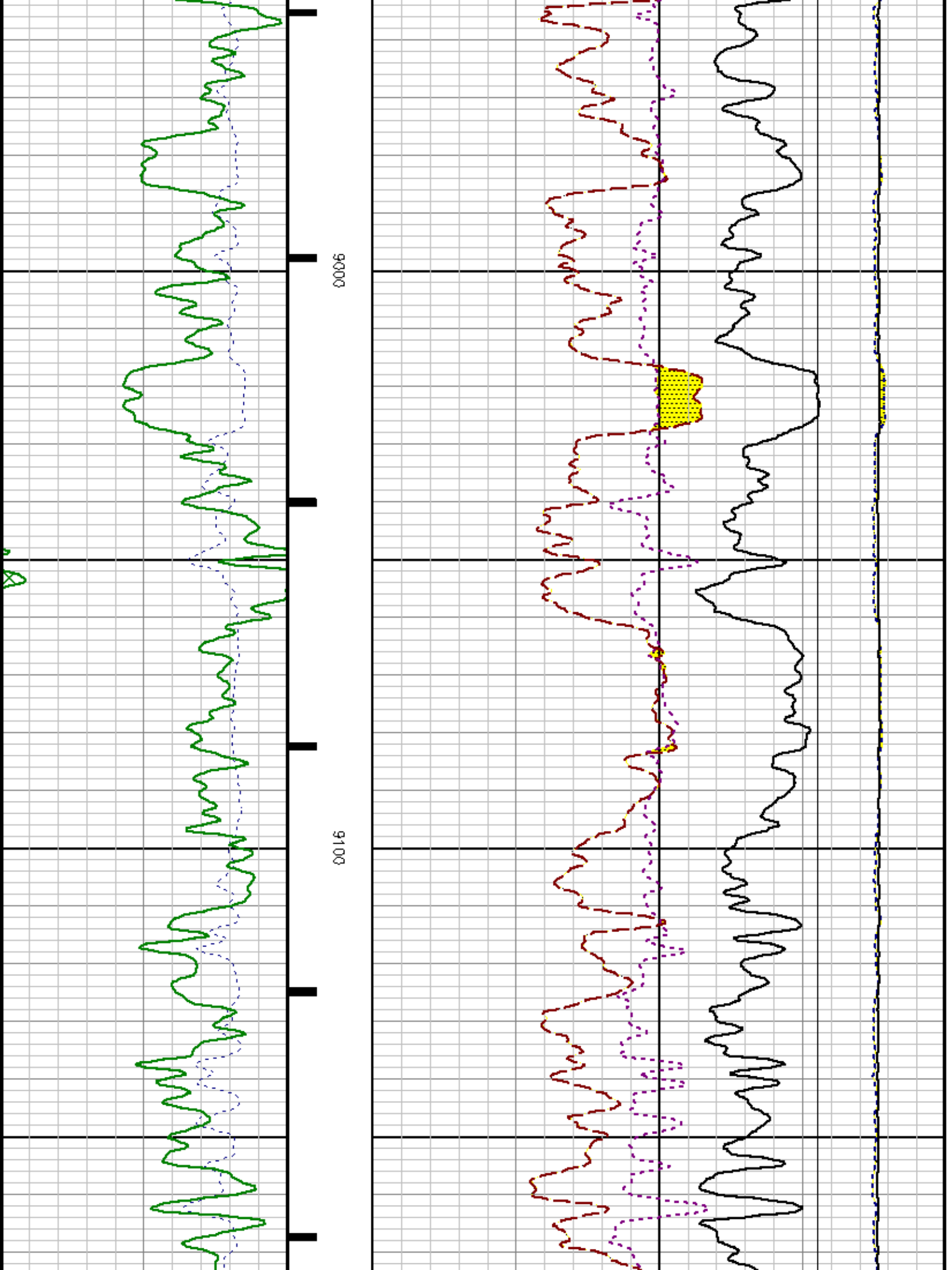
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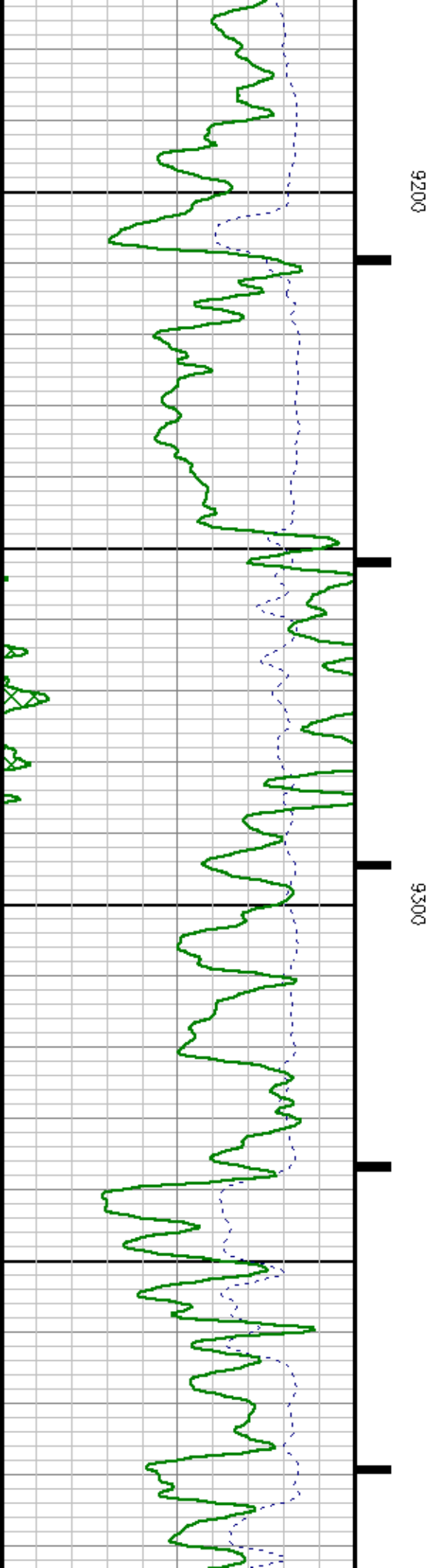
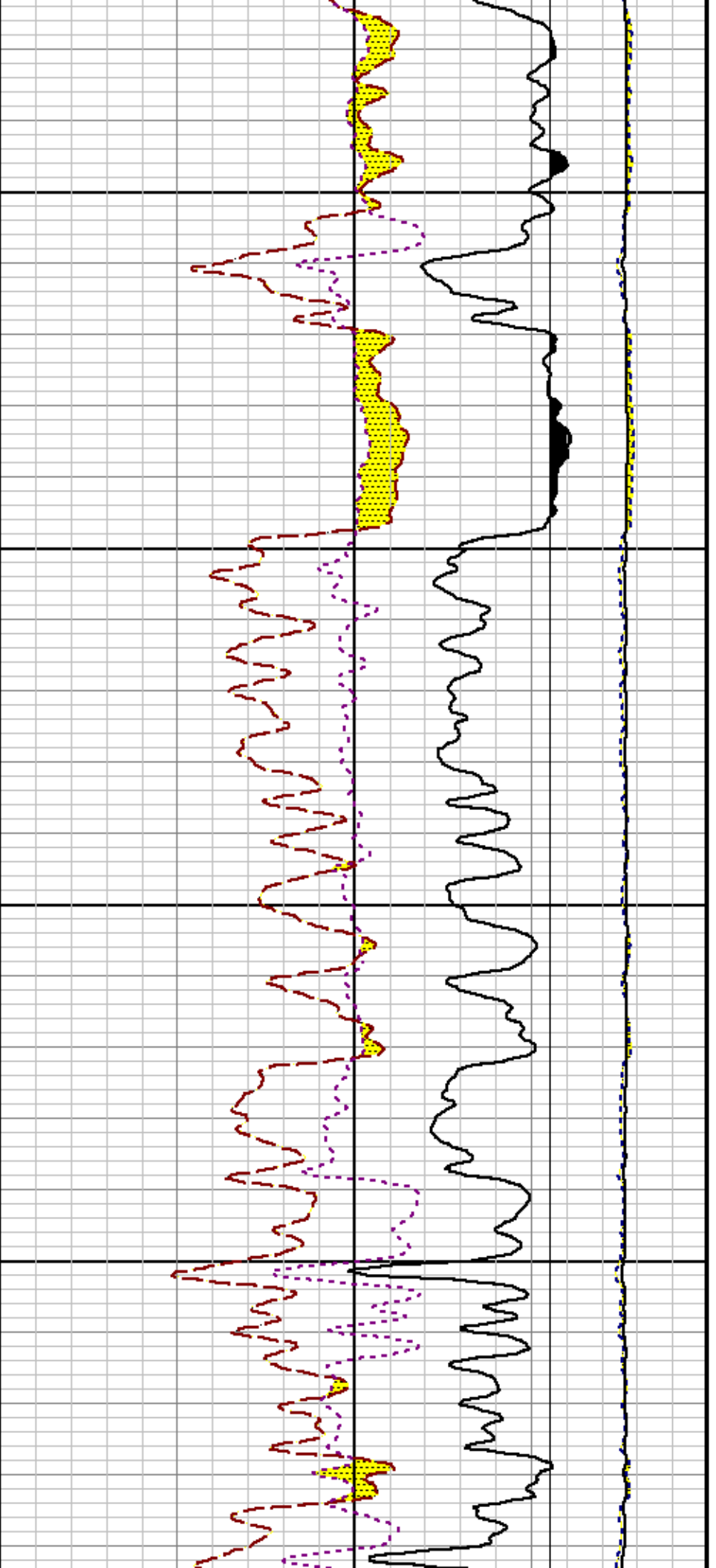


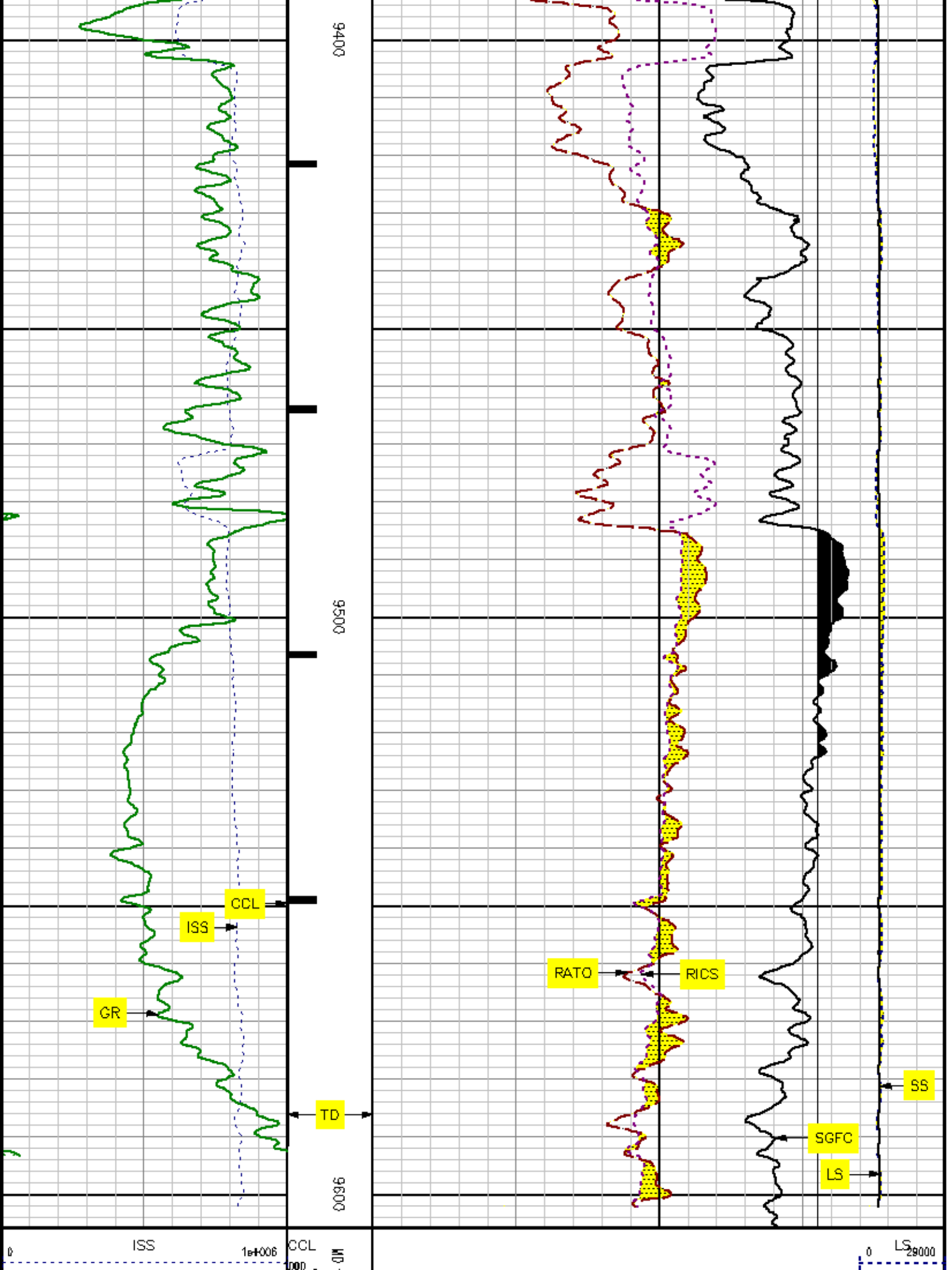
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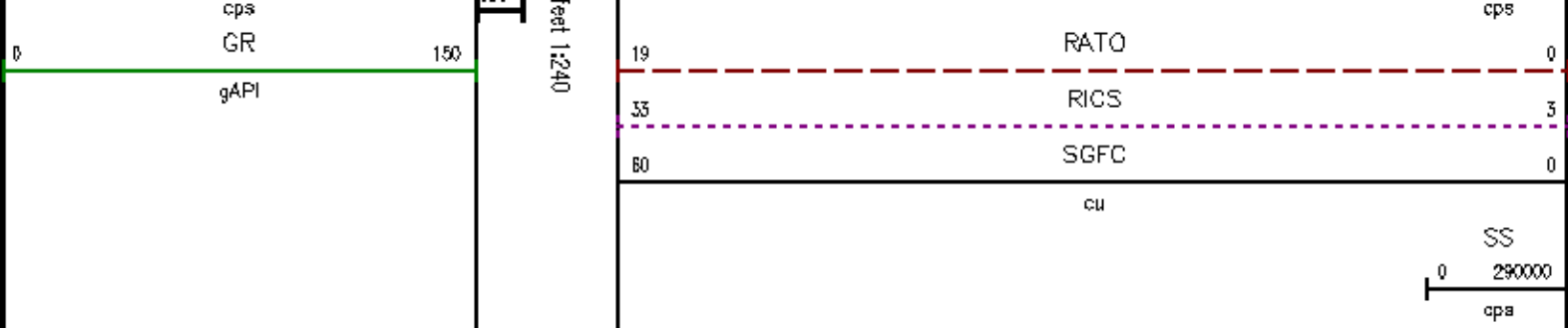












## REPEAT SECTION

### SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		9008.750	9517.719
PNC Porosity	Borehole Size	7.875	inch	9008.750	9517.719
PNC Porosity	Casing Size	4.500	inch	9008.750	9517.719
PNC Porosity	Gas Filled	Non Gas Filled		9008.750	9517.719
PNC Porosity	Matrix	Sandstone		9008.750	9517.719

### DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
8248EA	-15.470	FLTM					
8248EA	-13.470	CCL CHV					
8262XA	-10.189	GR					
8281XA	-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
		RICXC	RIN13C	RIN23	RIN23C	SD3D	SG3D
		SGB3	SGF3	WDTH3	CKSR	IXSR	XSR
		RICXR					
8281XA	-0.250	HVC2Q0	SEQ2	AMA2	AMB2	AMF2	AML2
		BKL	CHF2	CLS	CPT2Q0	CPT2Q2	CPT2Q3
		CPT2Q4	ET2	ILS	LS	MCS2	MCS2Q0
		QCAL2	RGN2	RICL	RONE23	RTW023	SDA2

8281XA

0.000

SDL2	SGA2	SGB2	SGF2	SGK2	SGL2
STA2	ASPEC2	ILSC	ILSN	WIDTH2	RICLC
CLSR	ILSR	LSR	RICLR		
CPRS	HVC100	WV	SEQ	SEQ1	AMA1
AMB1	AWE1	AMF1	AML1	BKS	CHF1
CSS	CORB	CORF	CPT100	CPT102	CPT102A
CPT102B	CPT102C	CPT103	CPT104	CPT105	ET1
G1	G2	GE1S	GE2S	ISS	MCS1
MCS100	QA1	QCAL1	QM1	RATO	RAT013
RBOR	RGN1	RICS	RIN	RONE	RPOR
RTWO	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	MVS	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		TEN	TTEN		

Created by : RPM9, v5.0.0.0

Plotted by : PlotMgr, v5.4.504

Company : MARATHON OIL &amp; GAS

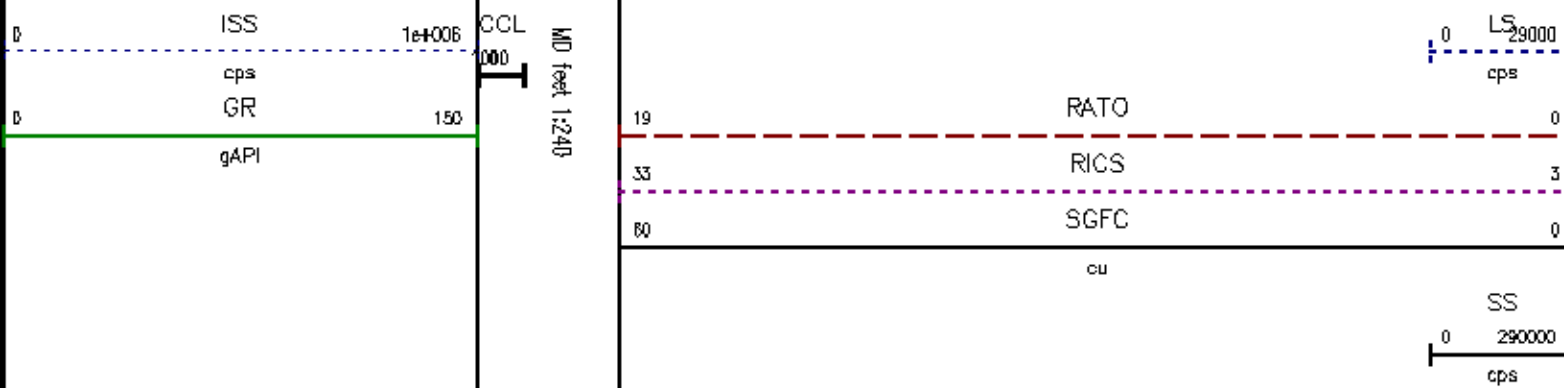
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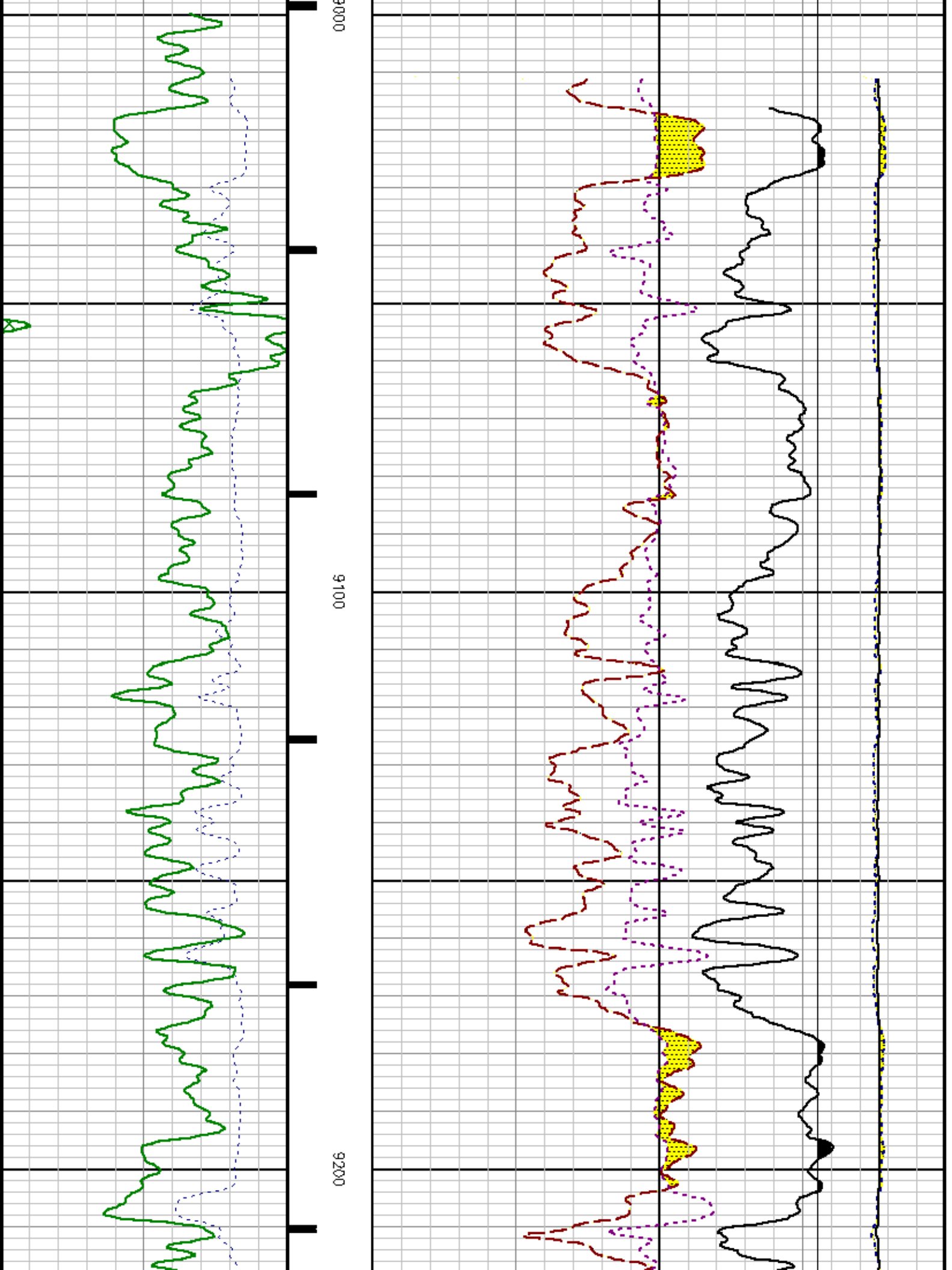
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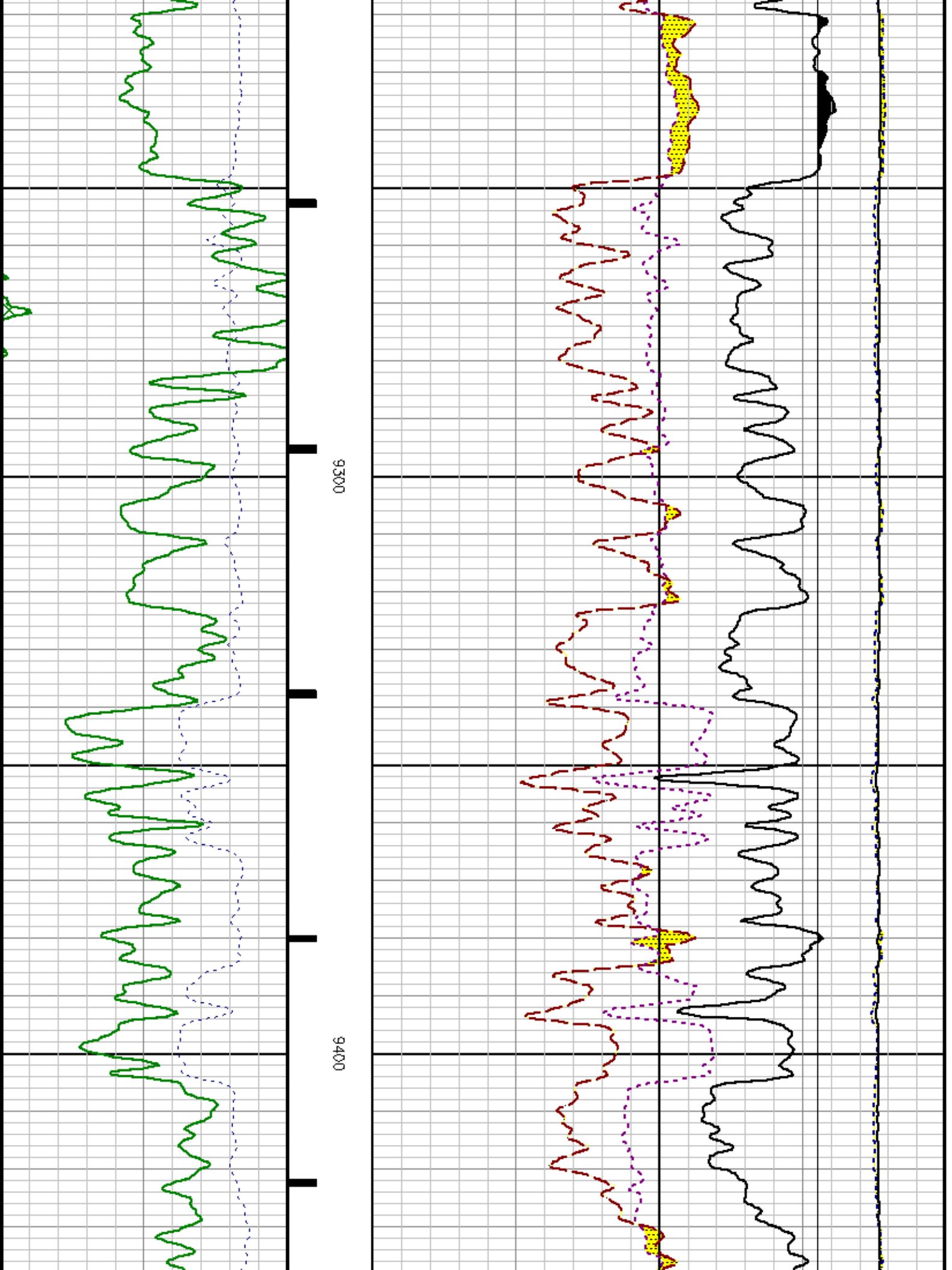
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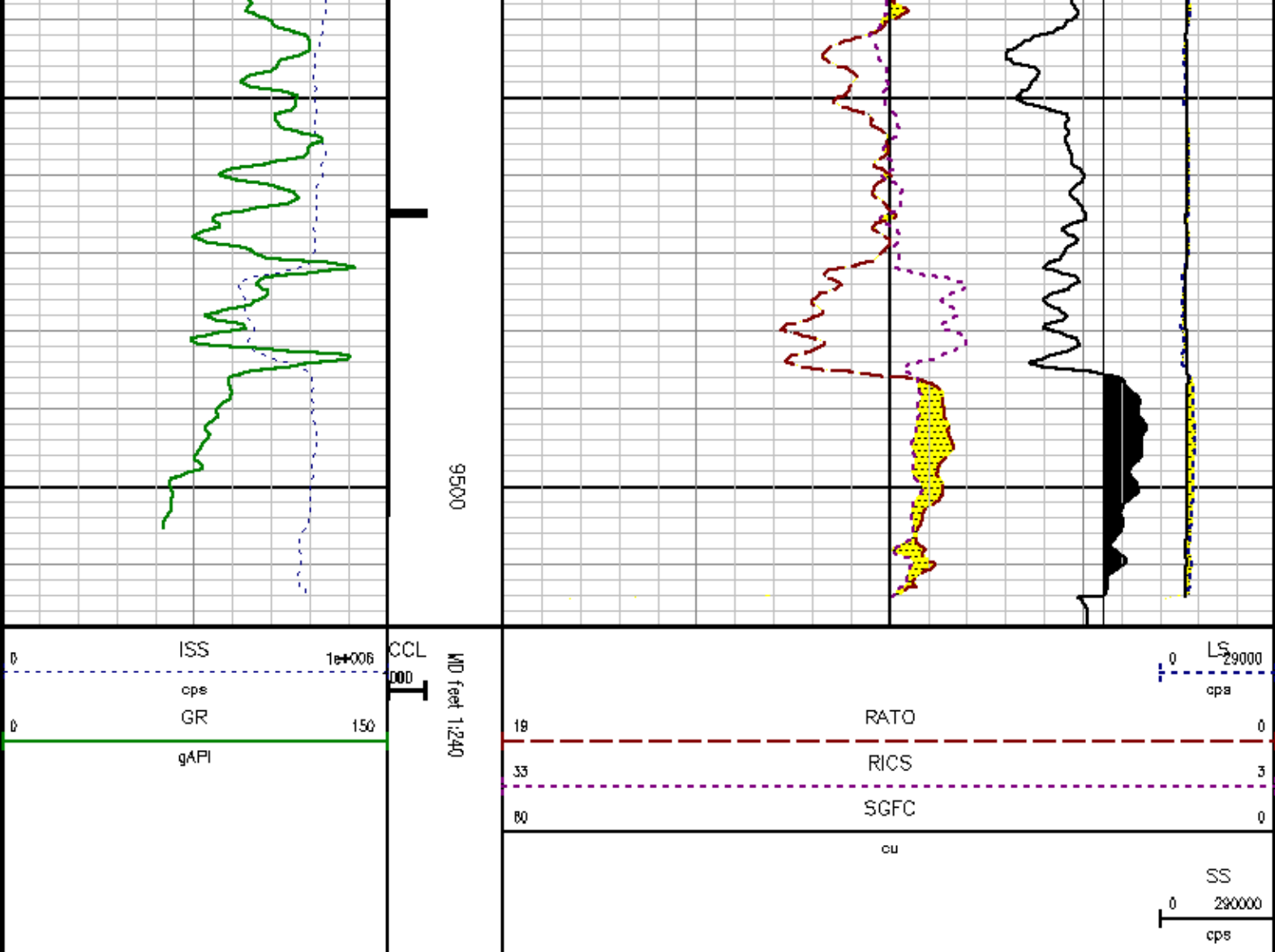
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Created : 12/3/2008 1:23:52 AM









## CALIBRATION SUMMARY

## GAMMA RAY

Calibration File: C:\case\calver\GR\217N8.cal

### CALIBRATION SUMMARY

DATE/TIME PERFORMED: Wed Nov 19 08:41:49 2008			TOOL SERIES: 8262XA		ASSET: 217		SEQ: N8
Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]	
GJ 857	97.38	384.33	0.627	61.08	241.08	180.00	

Verification File: C:\case\calver\GR\217N8.VR

## PRIMARY VERIFICATION

DATE/TIME PERFORMED: Wed Nov 19 16:07:46 2008 TOOL SERIES: 8262XA ASSET: 217 SEQ: N8

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
GJ 857	80.11	362.54	0.627	50.25	227.41	177.16

PNC

Calibration File: C:\case\calver\PNC\985N8.cal

## PNC 3D CALIBRATION SUMMARY

DATE/TIME PERFORMED: Tue Nov 18 12:02:14 2008 TOOL SERIES: 8281XA ASSET: 985 SEQ: N8

Calibrator #

GJ GJ

Source #

8281AA 10361737

	ISS	Mtr Vlt (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	142.89	2258.83	2279.92	2309.55			

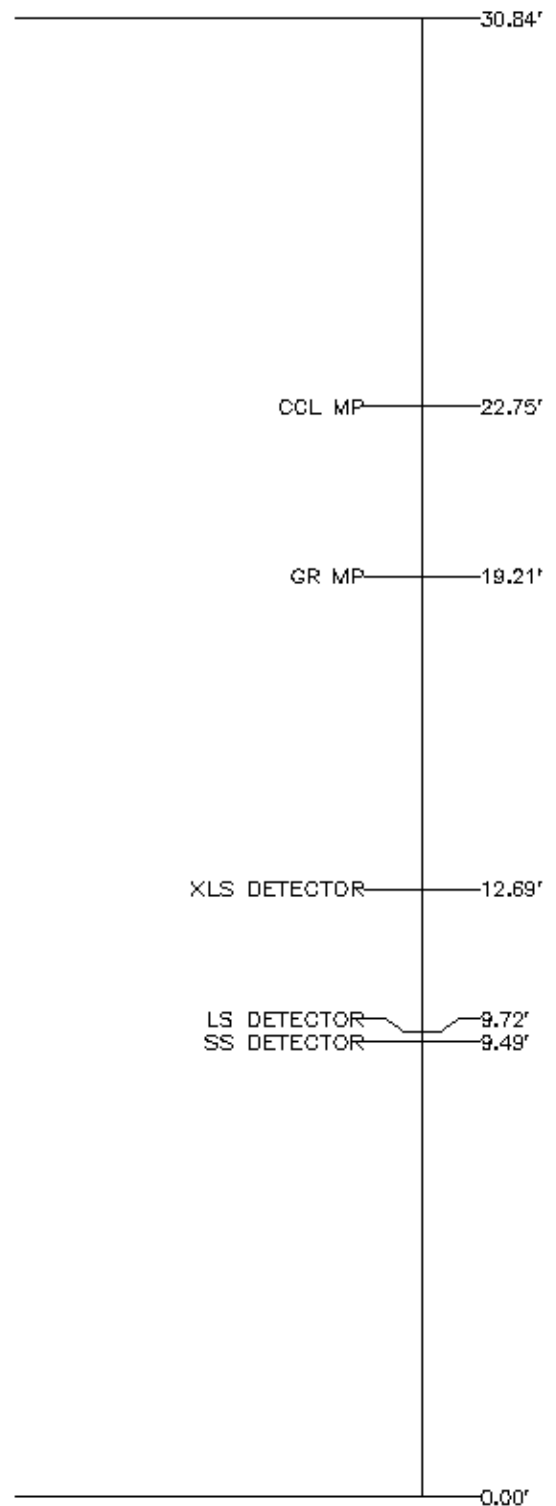
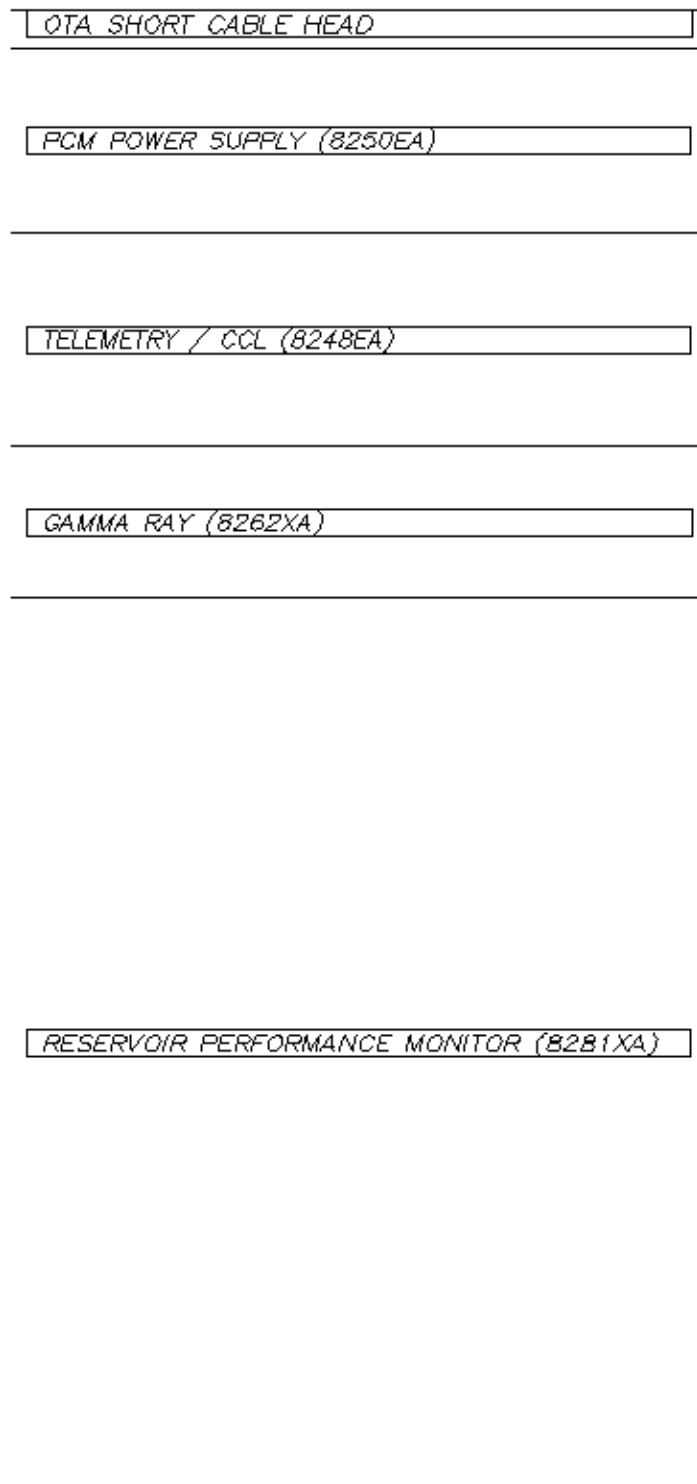
	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	820509	7368.79	1134.52	151.16	26.01	0.13	24.49	0.27
					25.35 26.15	0.00 0.20	23.60 24.80	0.00 0.40

	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	3.55 5.21	22.20 32.10	10.99 16.34	10.06 11.10	3.57 3.95	3.76 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 5.52	27.60 32.70	13.70 15.70	10.60 11.00	3.78 3.92	4.01 4.17



# TOOL DIAGRAM



Total Length: 30.84'  
Total Weight: Not Available  
Max Diameter: 0' 1.70"



Well	897-12A-18		1883
Field	GRAND VALLEY		API No:
County	GARFIELD	State	COLORADO
Location		Elevations	
SHL: 1543' FHL & 1854' FEL		KB 8327 ft	
		DF 8328 ft	
		GL 8305 ft	
SEC	12	TWP	6S
		RGE	97W