



RESERVOIR PERFORMANCE MONITOR

Baker Atlas

File No: **Company** **WPX ENERGY**

CH089401 **Well** **C&C ENERGY GM 323-13**

API No: **Field** **GRAND VALLEY**

0504522570000 **County** **GARFIELD** **State** **COLORADO**

Location

13 75 96W **SHL: 282' FSL & 987' FWL (SEC 12)**

GM 24-12 PAD **BHT: 1877' FNL & 642' FWL (SWNW SEC 13)**

H&P 318 **SEC 13 TWP 7S RGE 96W**

Other Services

BOND LOG

Permanent Datum **GL Elevation 5141 ft**

Log Measured From **KB 24 ft Above P. D.**

Drill Measured From **KELLY BUSHING**

Elevations

KB 5165 ft

DF

GL 5141 ft

Date	21/JUL/14	
Run	ONE	
Service Order	US088401J	
Depth Driller	6669 ft	
Depth Logger	6621 ft	
Bottom Logged Interval	6611 ft	
Top Logged Interval	3306 ft	
Time Started	1230	
Time Finished	1000	
Operator Rig Time	6.5 HRS	
Type of Fluid in Hole	WATER	
Fluid Density	NA	
Salinity	NA	
Fluid Level	61 ft	
Logged Cement Top	NA	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	NA	
Nominal Logging Speed	66 fpm	
Maximum Recorded Temperature	205 degF	
Reference Log	BAKER HUGHES BOND LOG	
Reference Log Date	20/JUL/14	
Equipment No.	4271	GRAND UCT
Recorded By	FLOYD RENEAU	
Witnessed By	JEFF BRADY	

- 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	24 ft	1350 ft
8.75 in	1350 ft	6569 ft

Casing Record				
Size	Weight	Grade	From	To
9.625 in			24 ft	1350 ft
4.5 in	11.6 lbm/ft	I-80	24 ft	6569 ft

Remarks
All data on this log is shifted and depth matched using the Gamma Ray curve to the Baker Hughes bond log dated 7/20/2014 at the client's request.
The amount of linear shift is 8.5 feet.
Logged in PNC-3D mode.
BHT = 205 °F
SJ = 2926'-2949'

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	TEMP	8255XA	Z120516	FREE
1	1	RPM	8281FA	10401926	FREE
1	1	RPM	8281PA	10160383	FREE
1	1	RPM	8281EA	10190984	FREE
1	1	GR	2812LA	10274385	FREE
1	1	TEL/CCL	8248ED	10460262	FREE
1	1	PCM	8250EA	10586851	FREE
1	2	RPM	8281FA	10238007	FREE
1	2	RPM	8281PA	10160383	FREE
1	2	RPM	8281EA	10190984	FREE
1	2	GR	2812LA	10274385	FREE
1	2	TEL/CCL	8248ED	10296408	FREE
1	2	PCM	8250EA	10397894	FREE

MAIN SECTION
PNC 3-D MODE

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		3279.750	4450.500
PNC Porosity	Borehole Size	8.750	inch	3279.750	4450.500
PNC Porosity	Casing Size	4.500	inch	3279.750	4450.500
PNC Porosity	Gas Filled	Non Gas Filled		3279.750	4450.500
PNC Porosity	Matrix	Sandstone		3279.750	4450.500
TPS Pressure	Temperature Corr. Source	Fixed (72.00)	degF	3279.750	4450.500

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	WDTH3	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	WDTH2	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	WDTH1	RICSC	CSSR	G1R				
G2R	ISSR	SSR	SS2R	RATOR	RATO13R				
RBORR	RICSR	RINR	RIN13R	RONER	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						

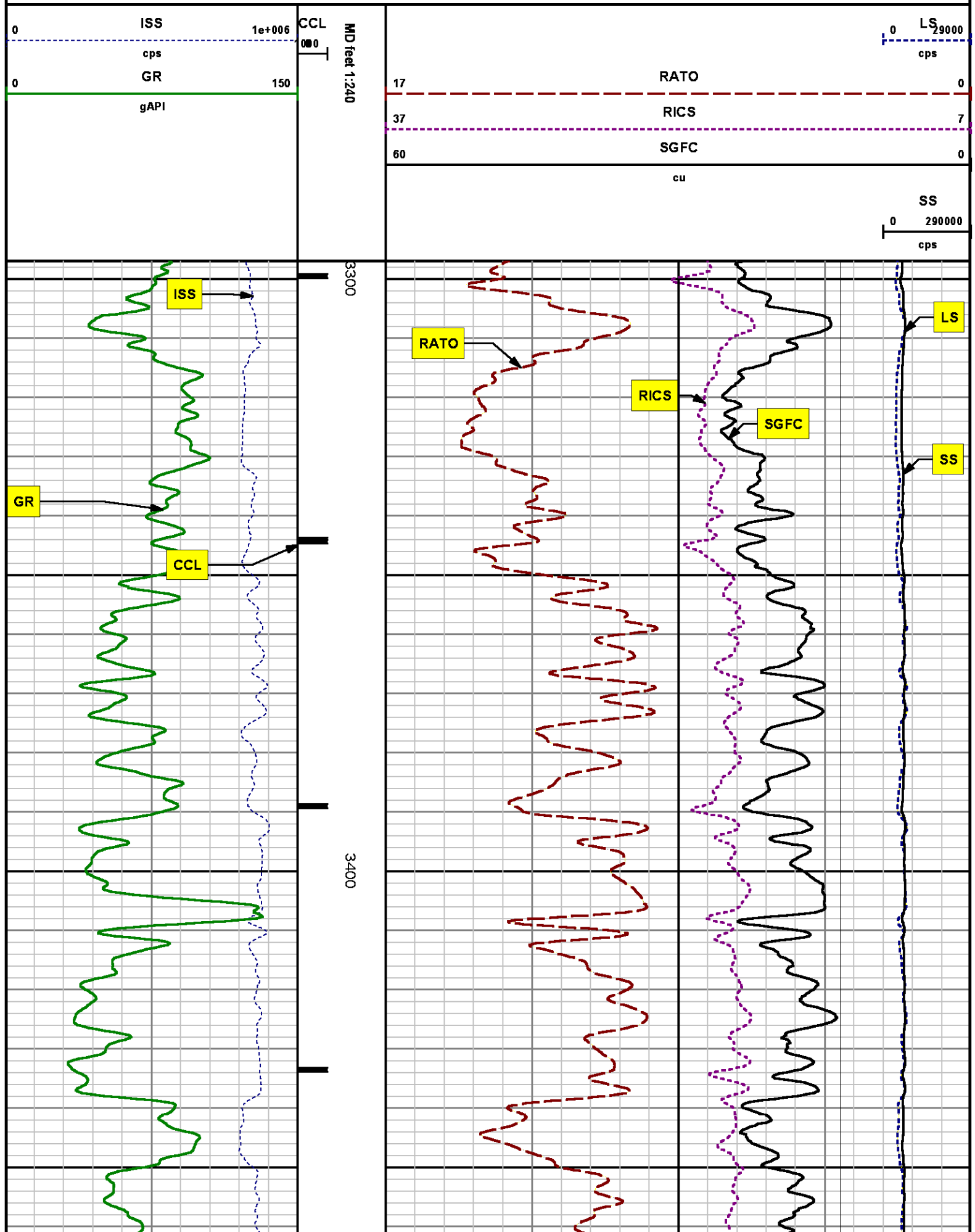
Created by : RPM9, v5.3.1.0

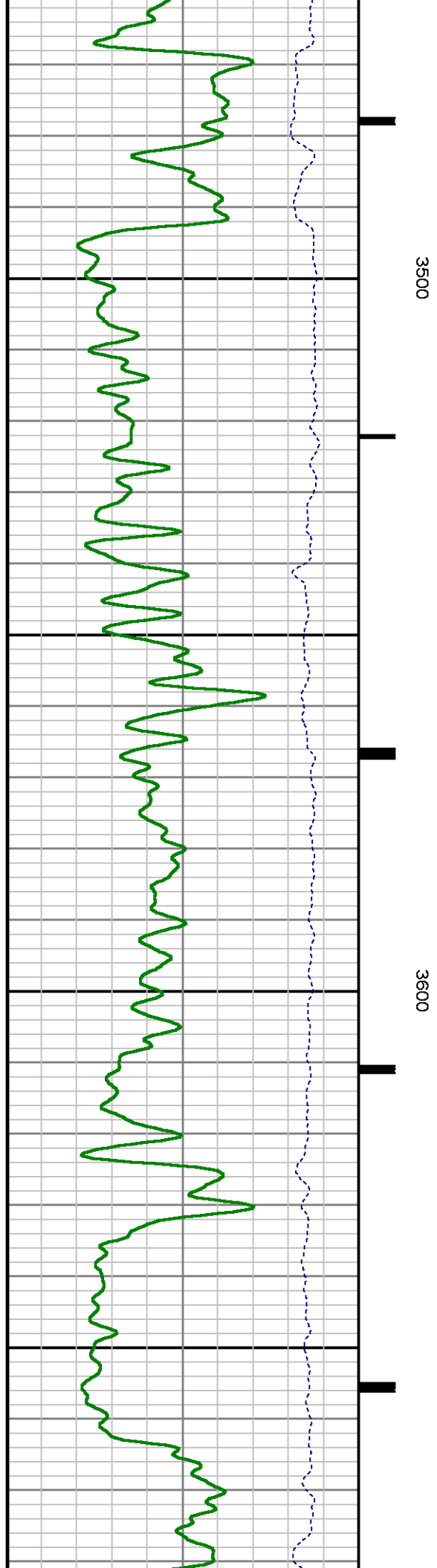
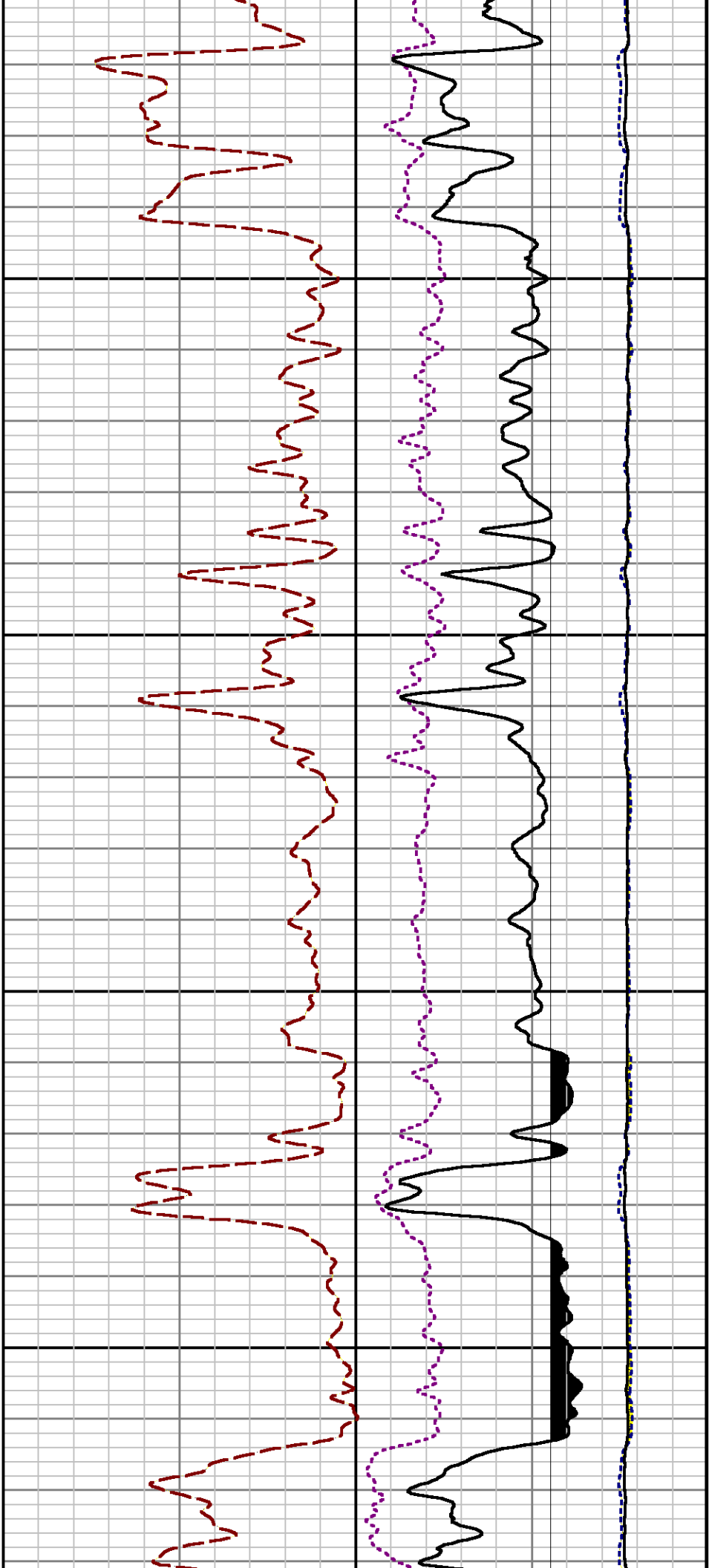
Plotted by : PlotMgr, v5.4.504

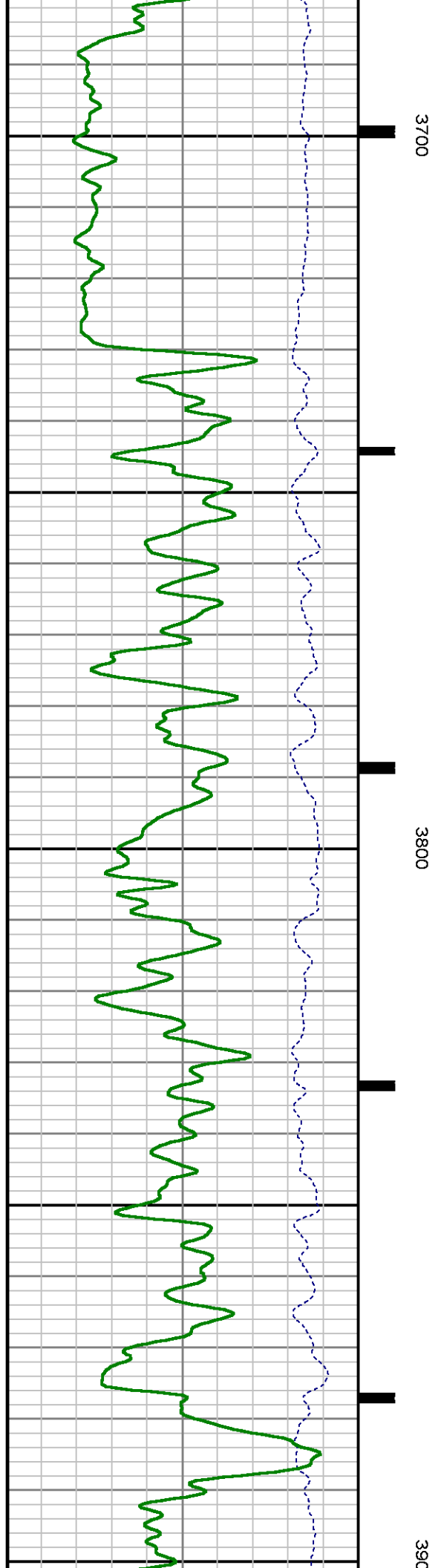
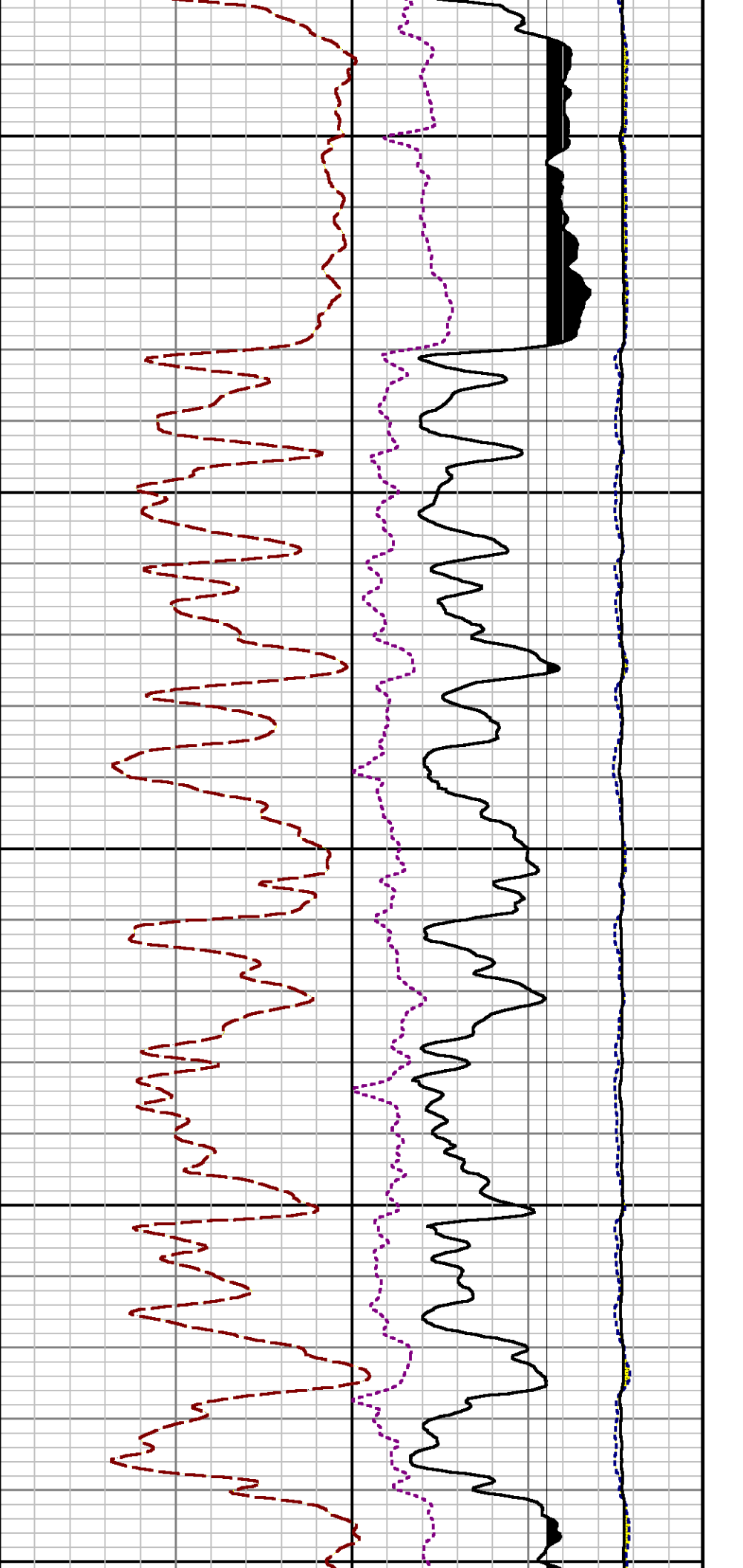
Company : WPX ENERGY

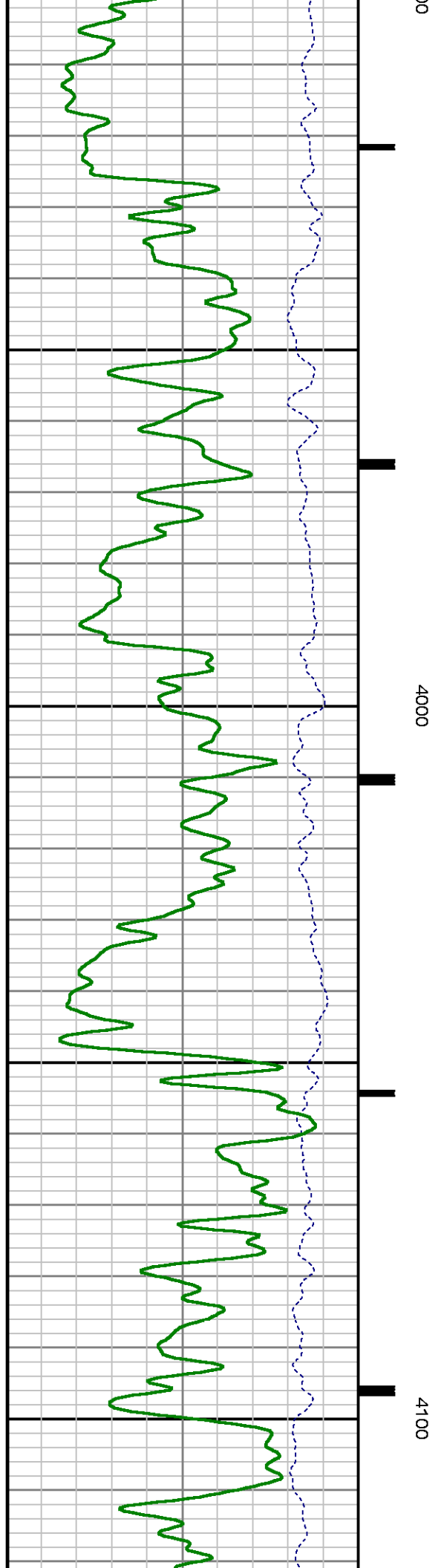
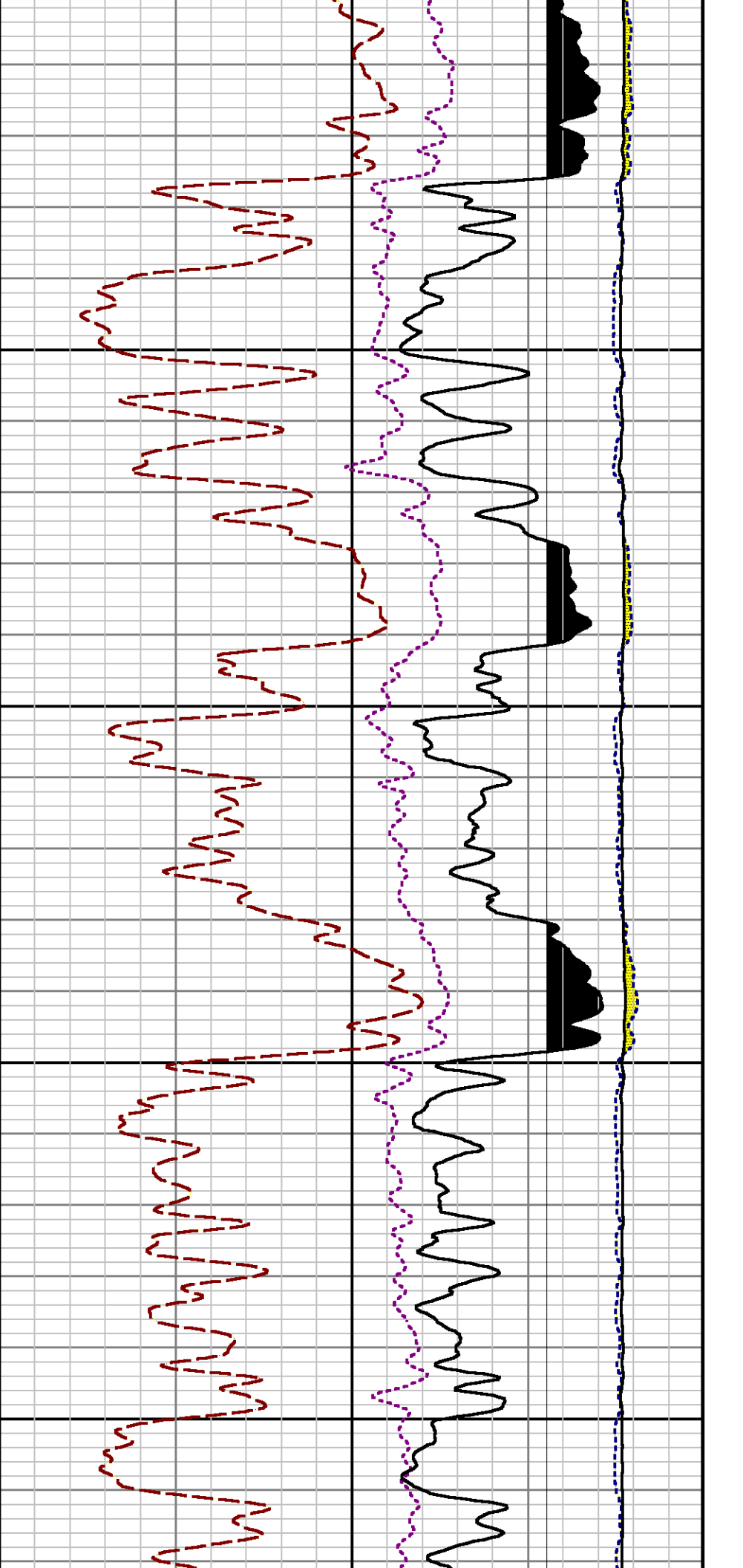
Well : C&C ENERGY GM 323-13

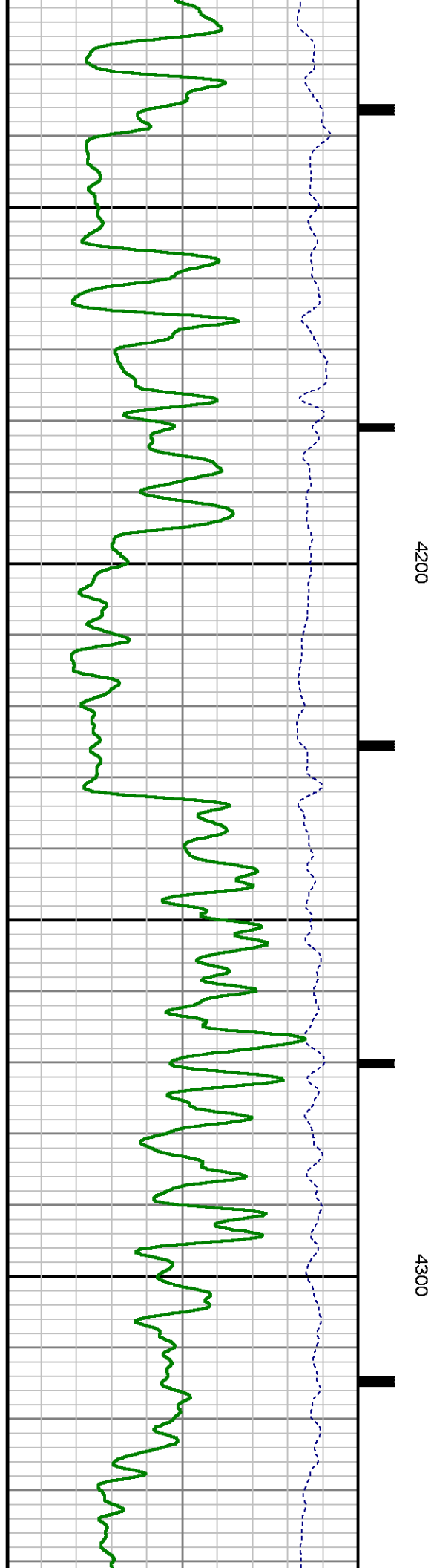
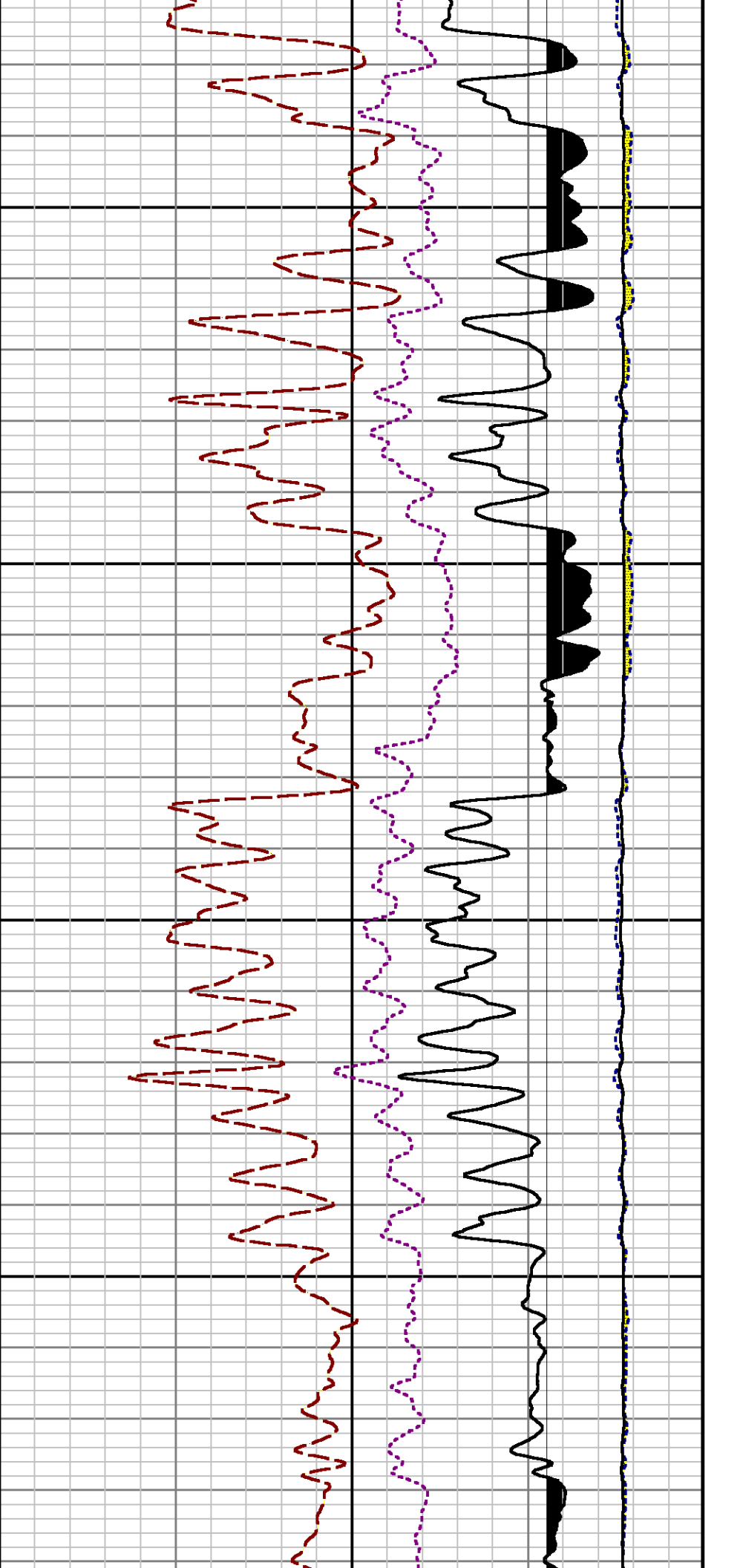
File Name : d:\welldata\wpx\gm 323-13\323rpm\mainsplice.xtf

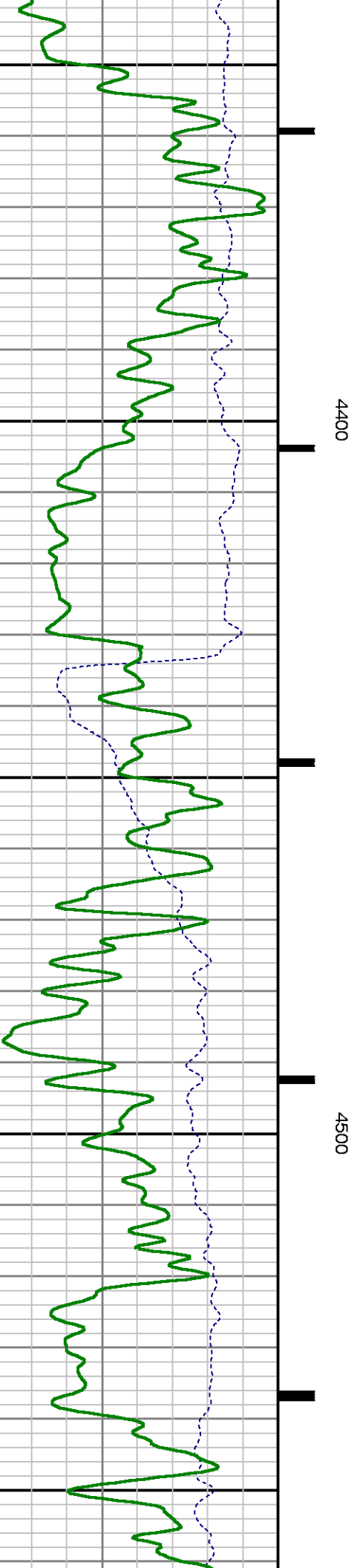
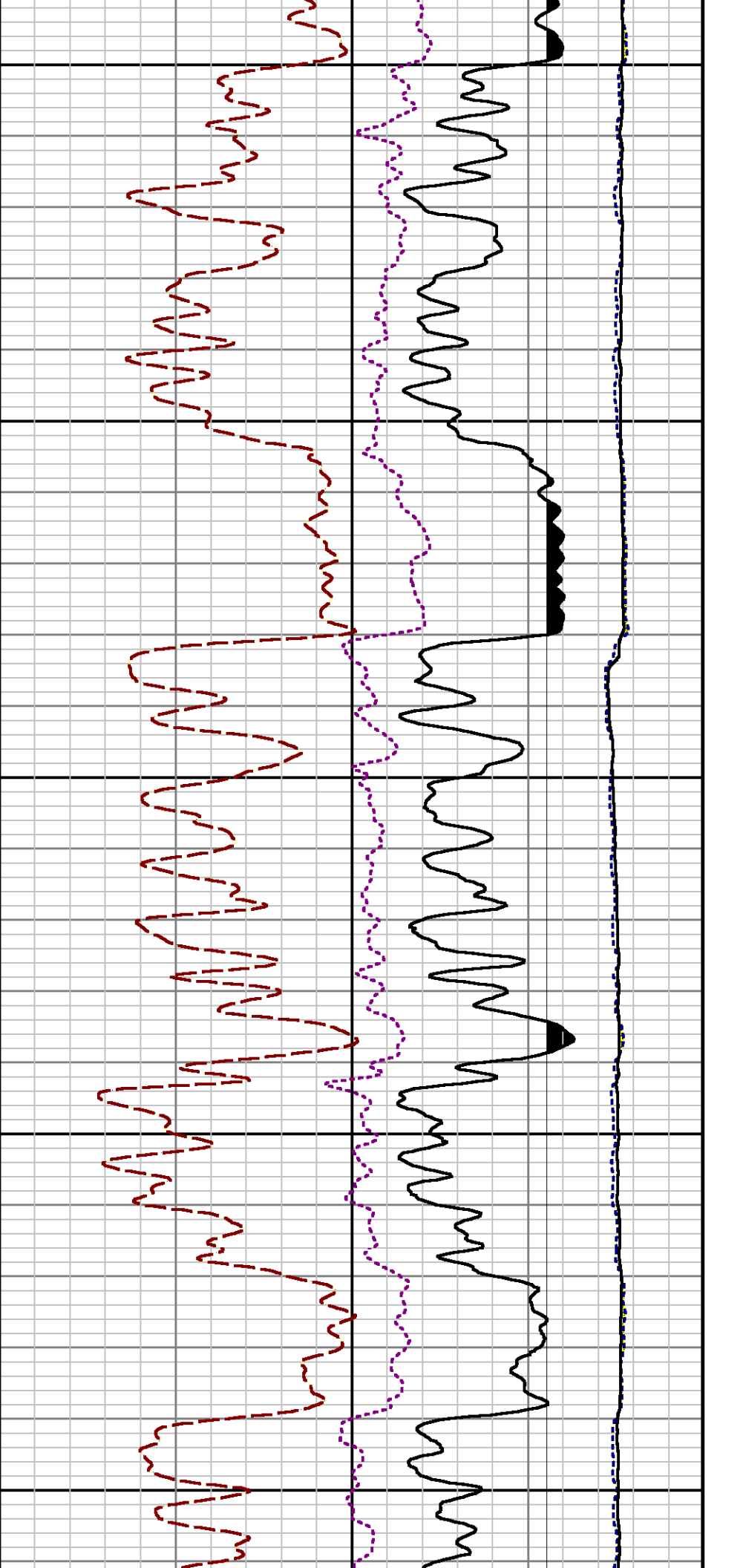


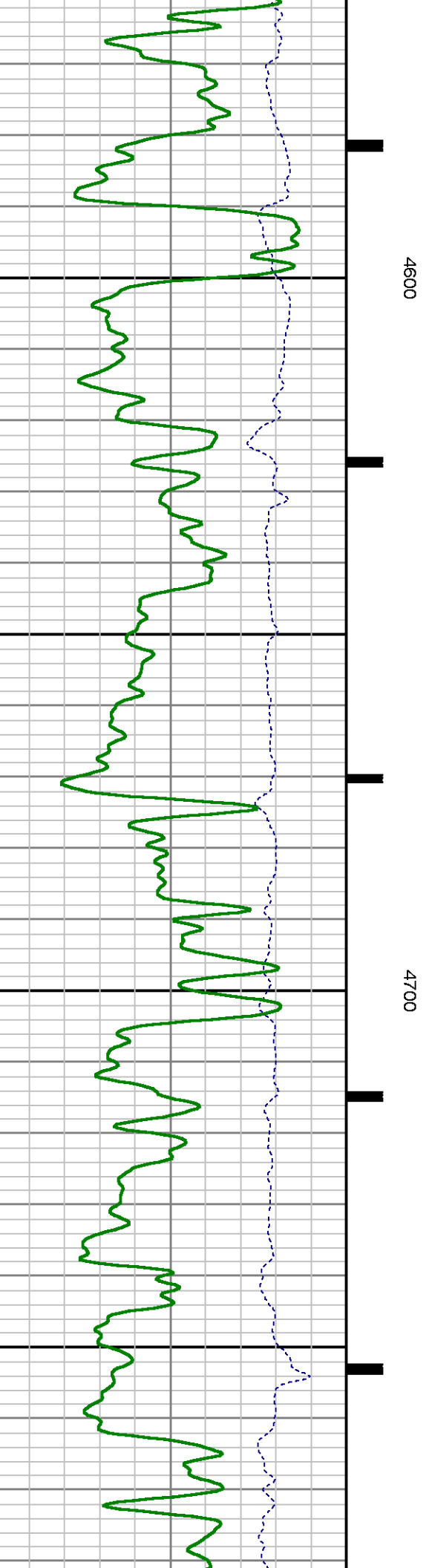
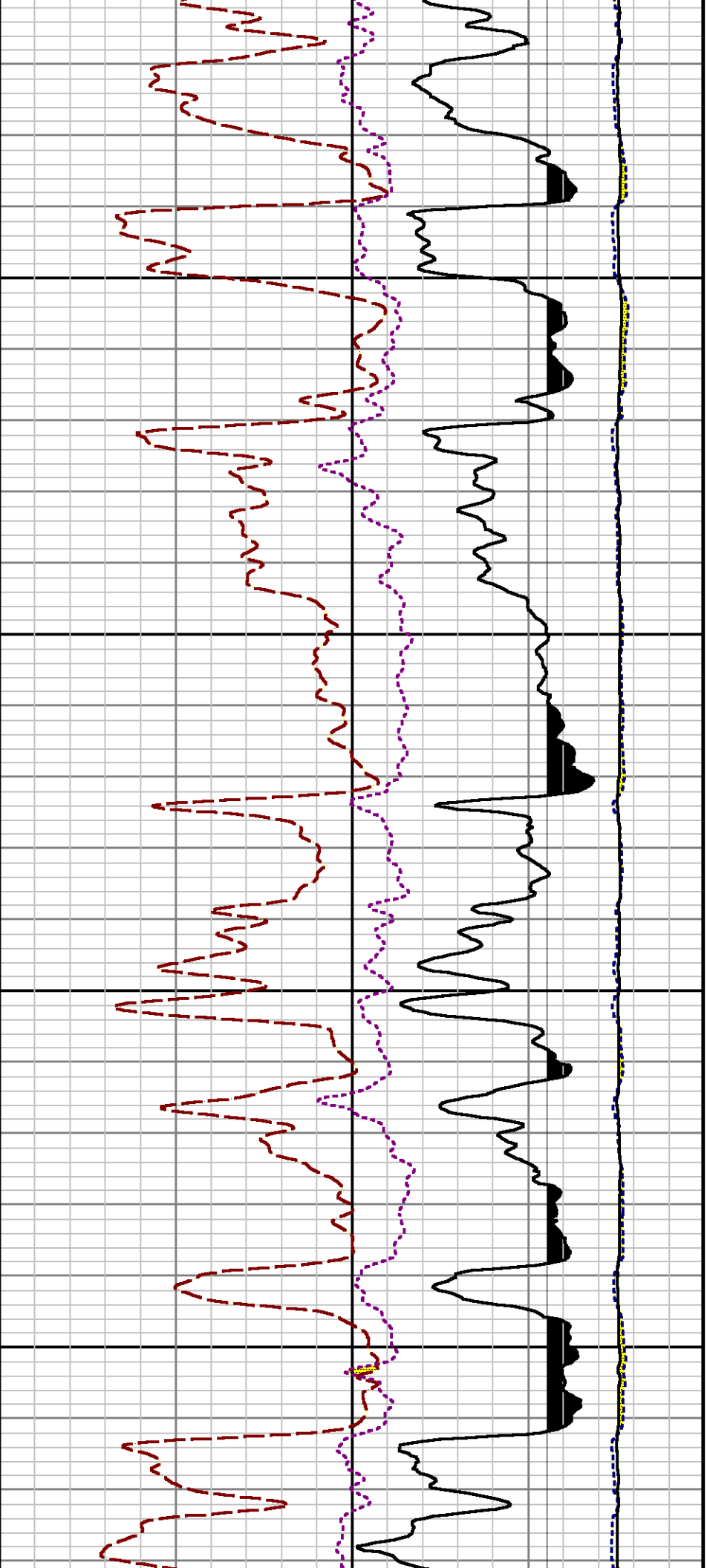


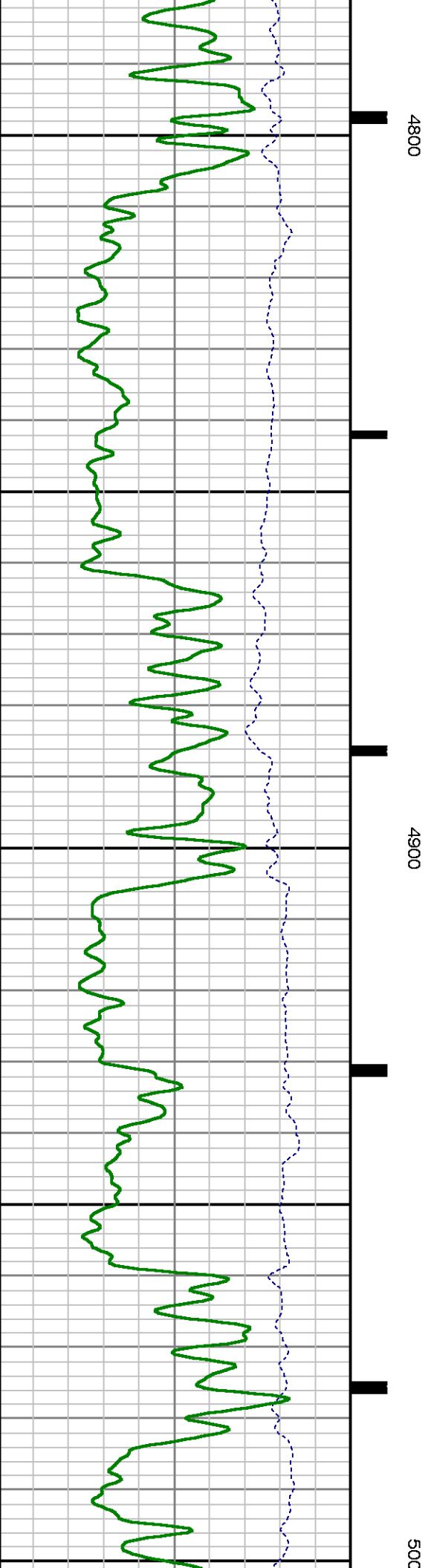
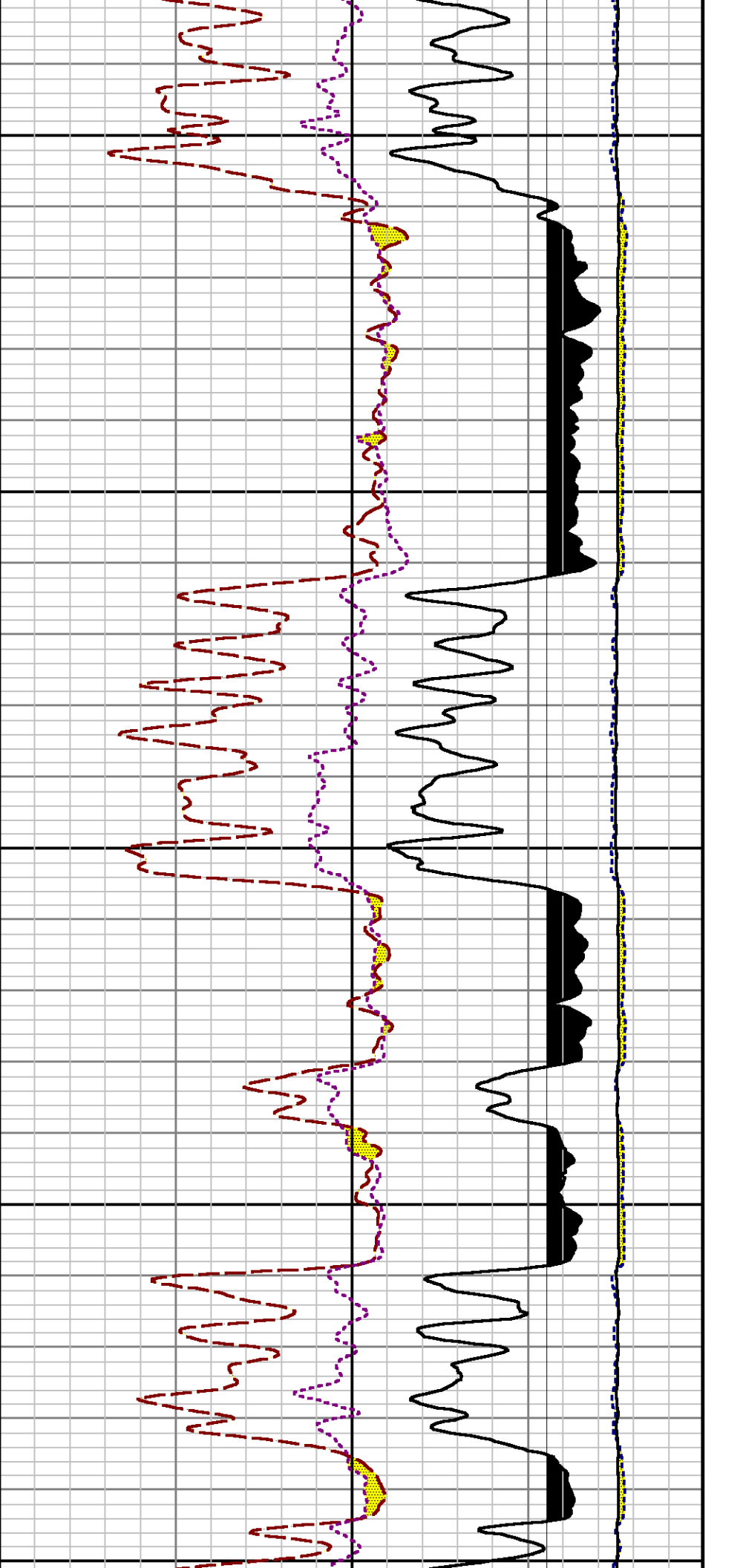


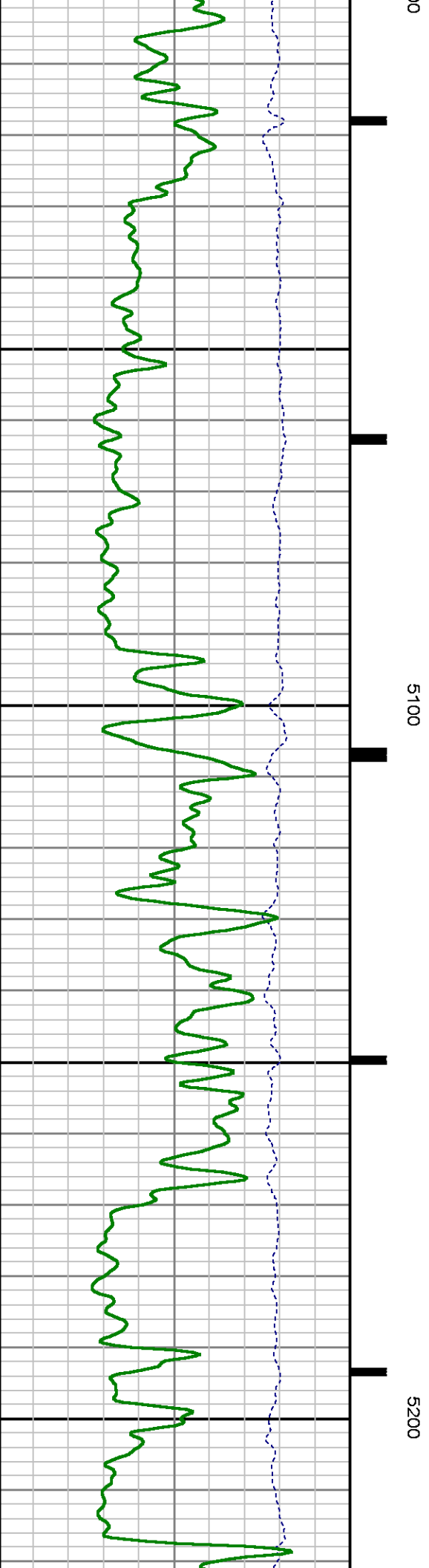
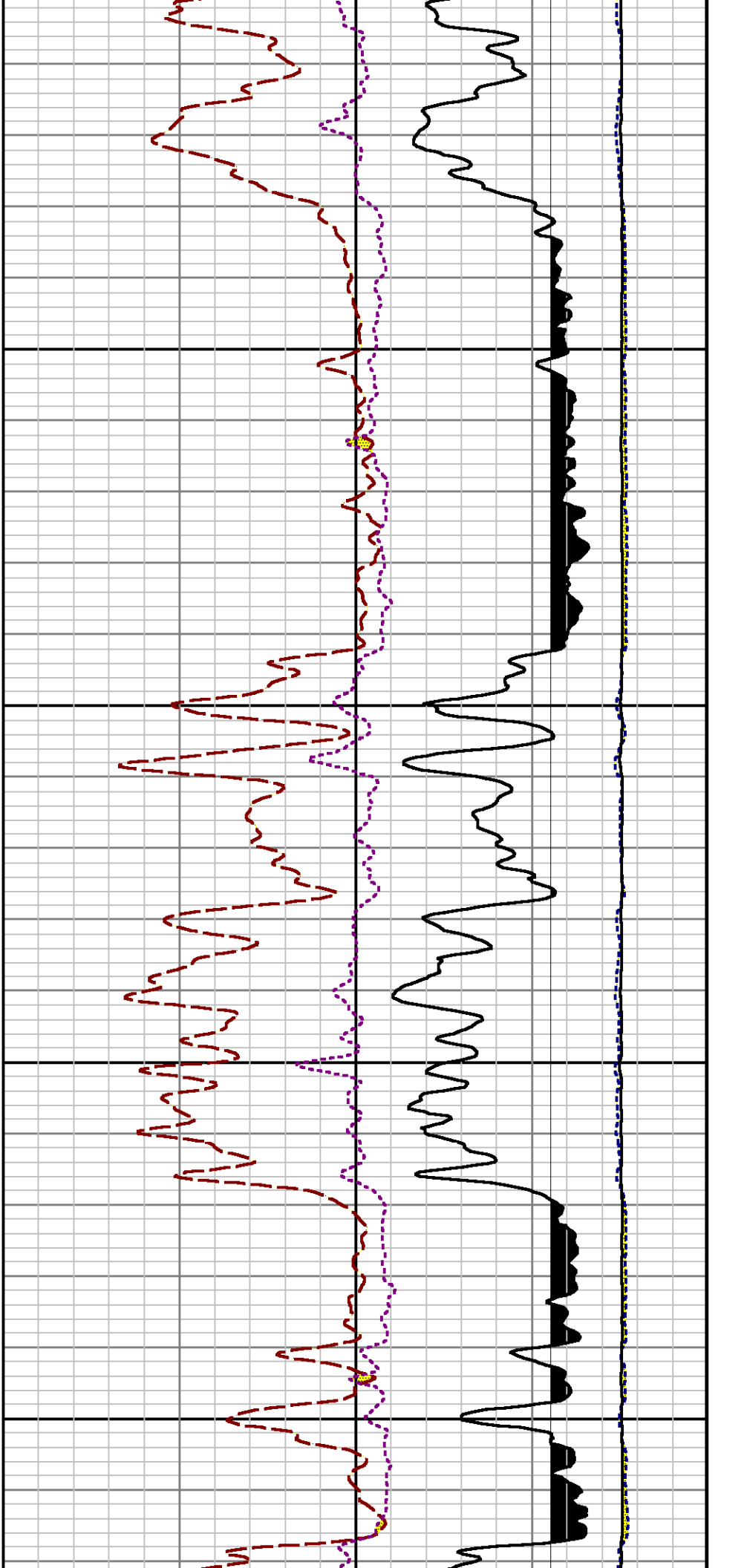


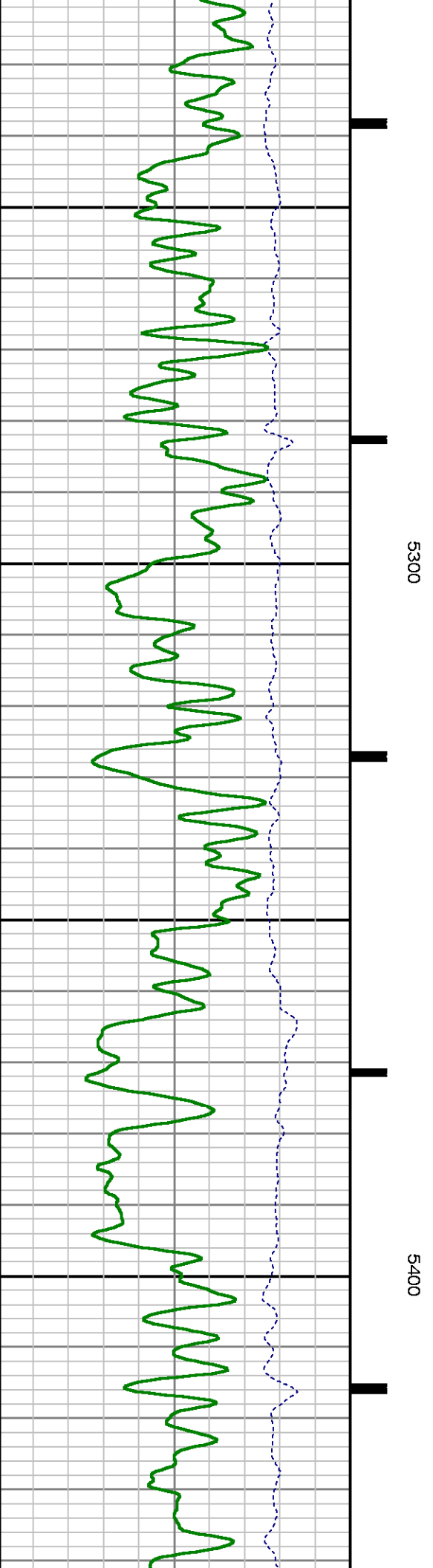
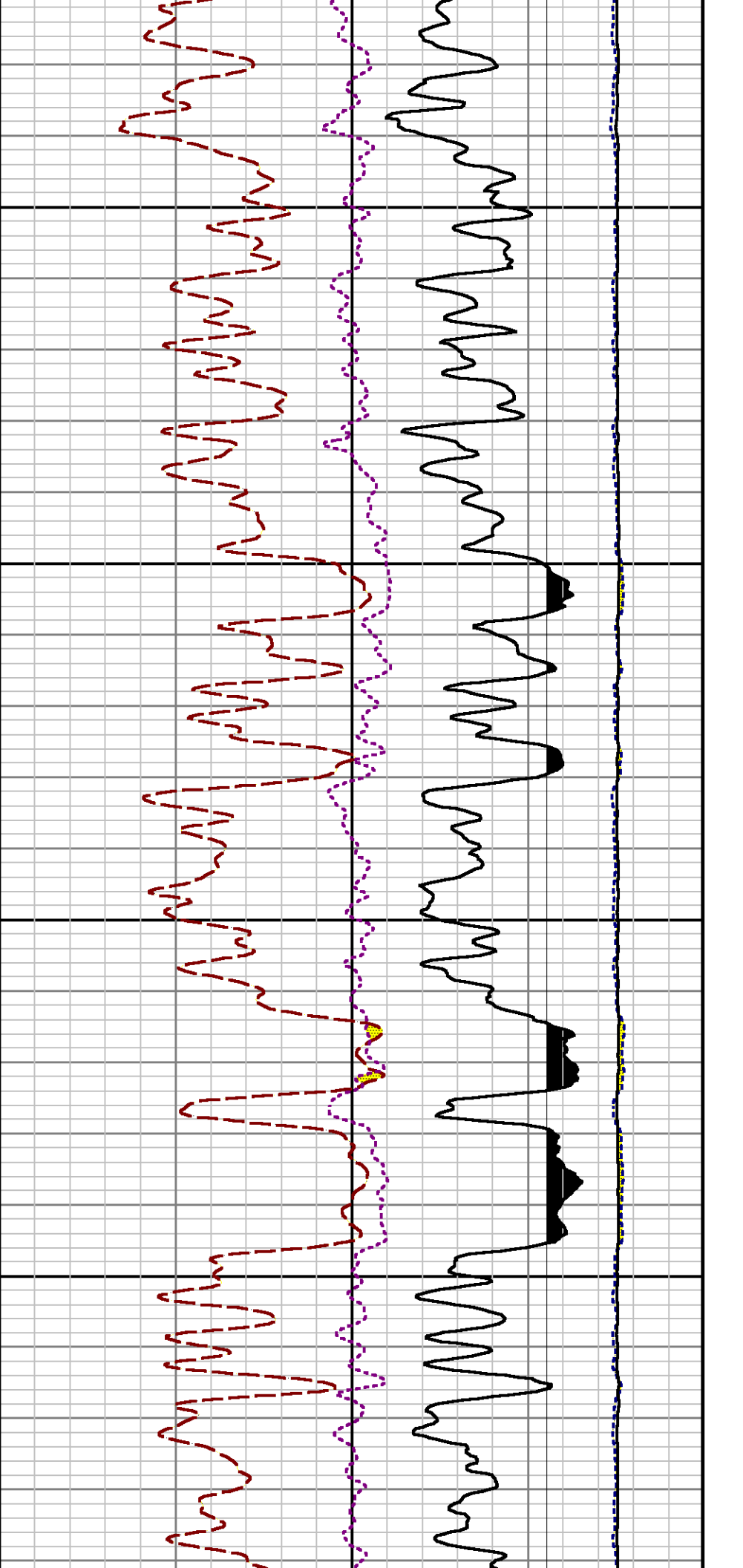


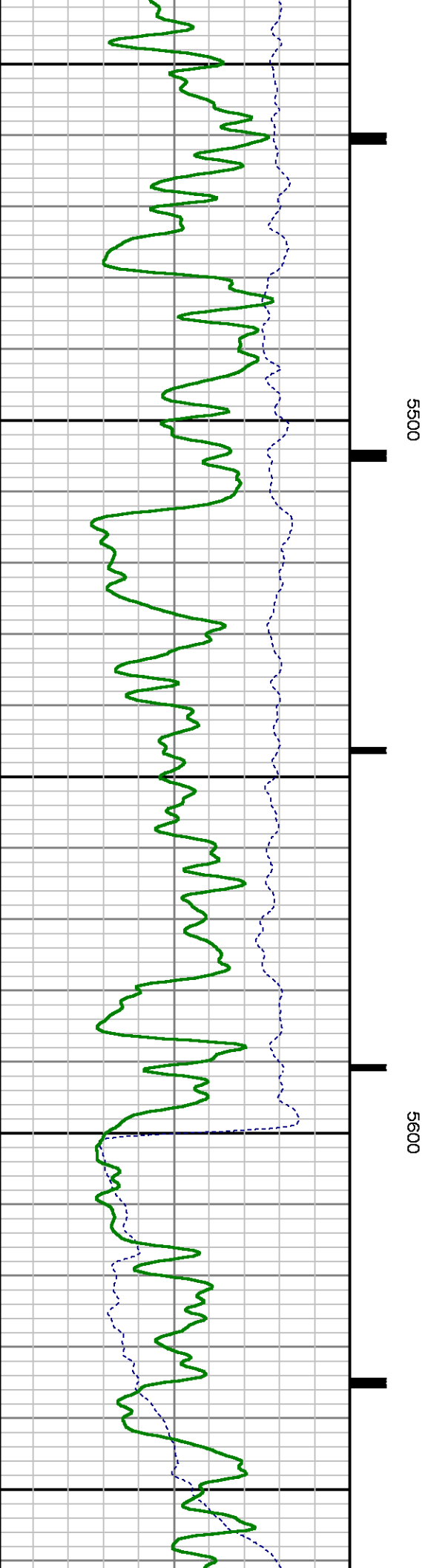
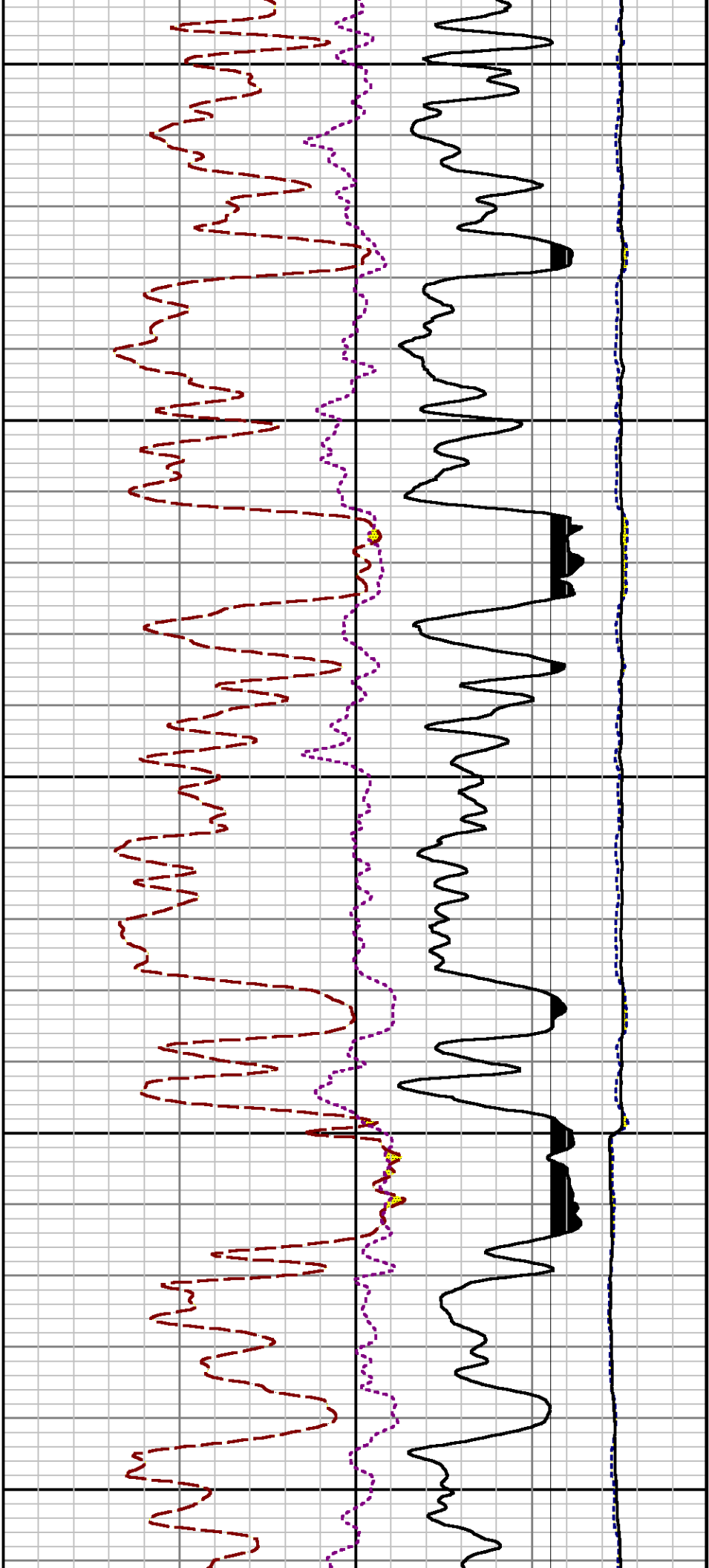


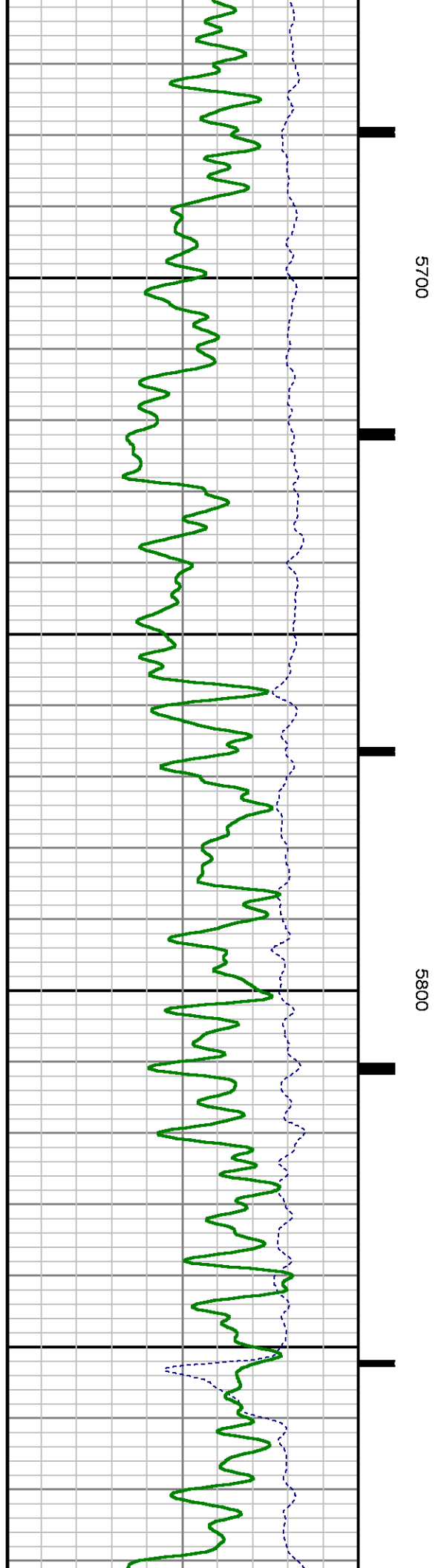
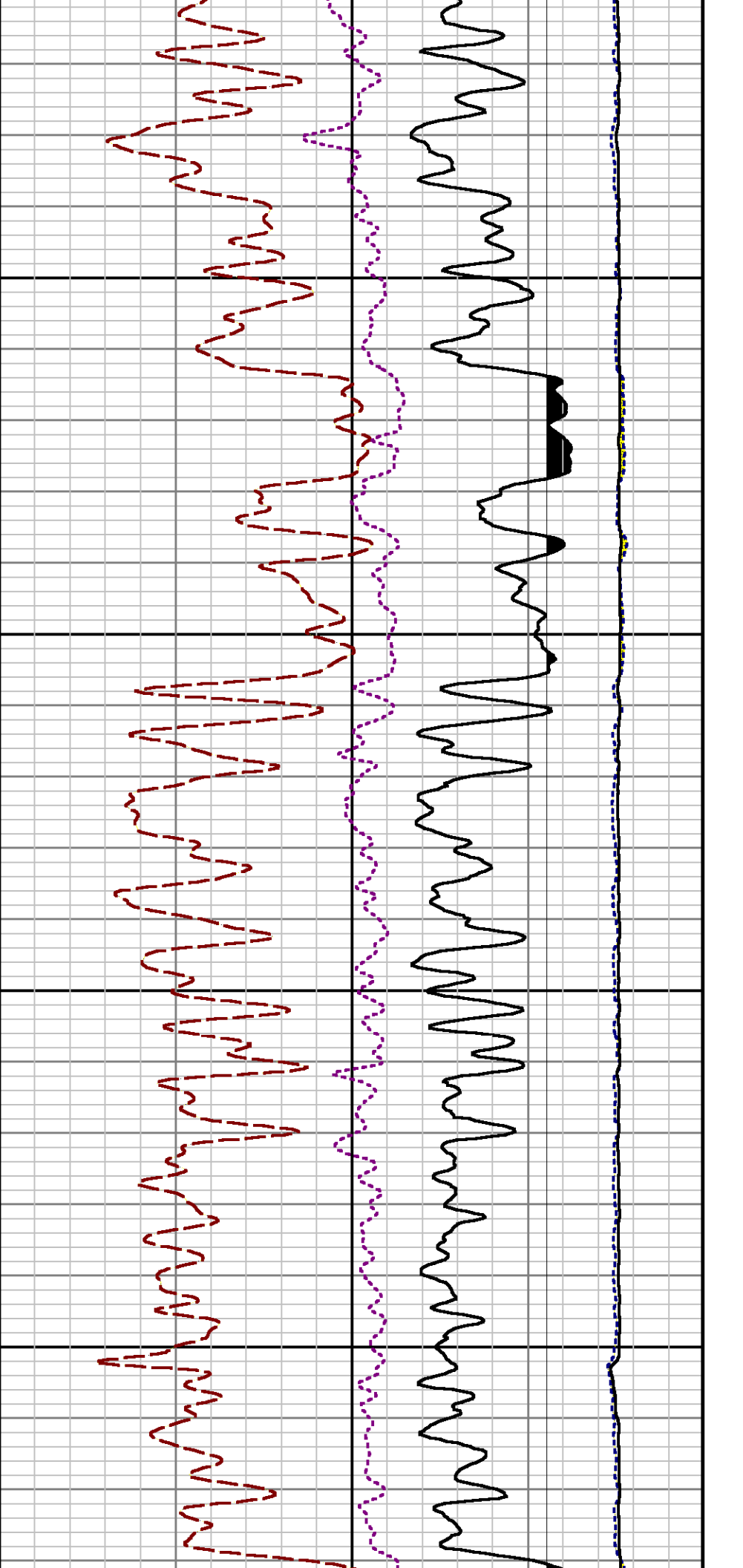


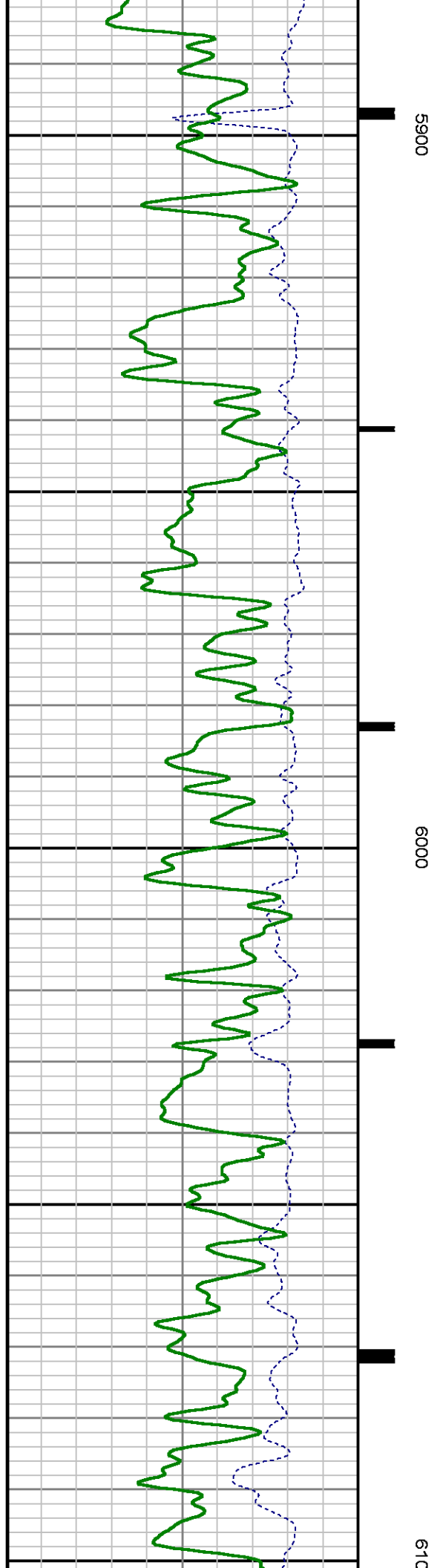
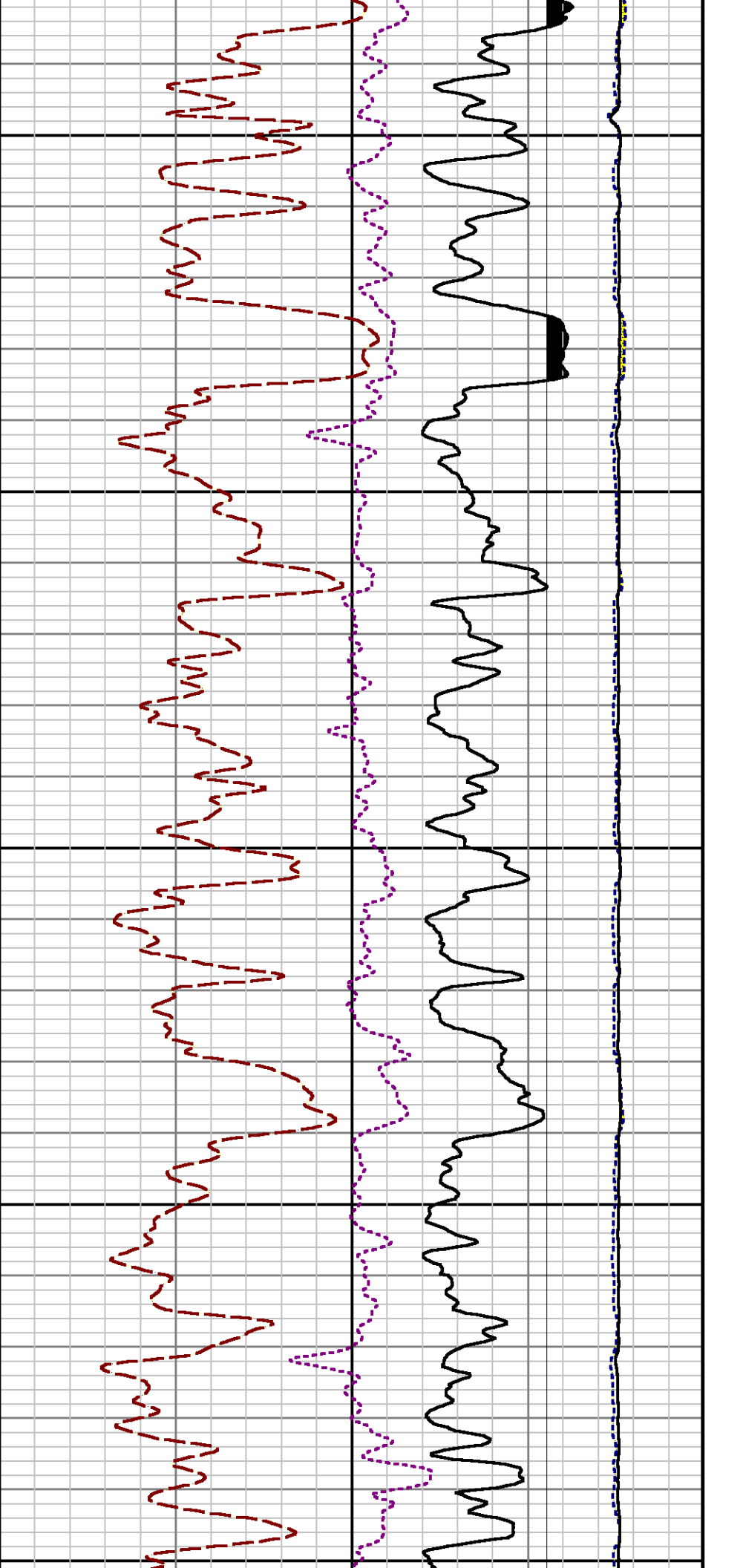


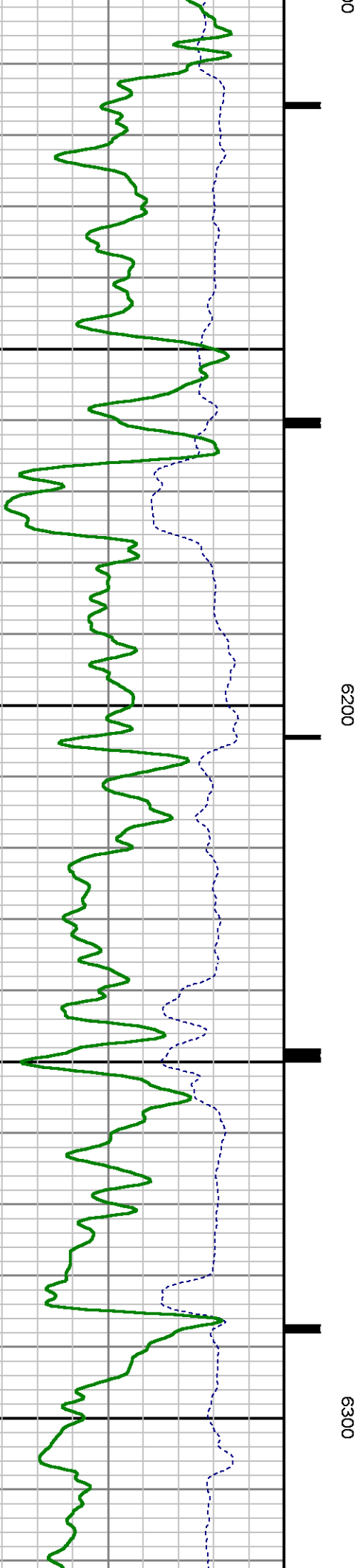
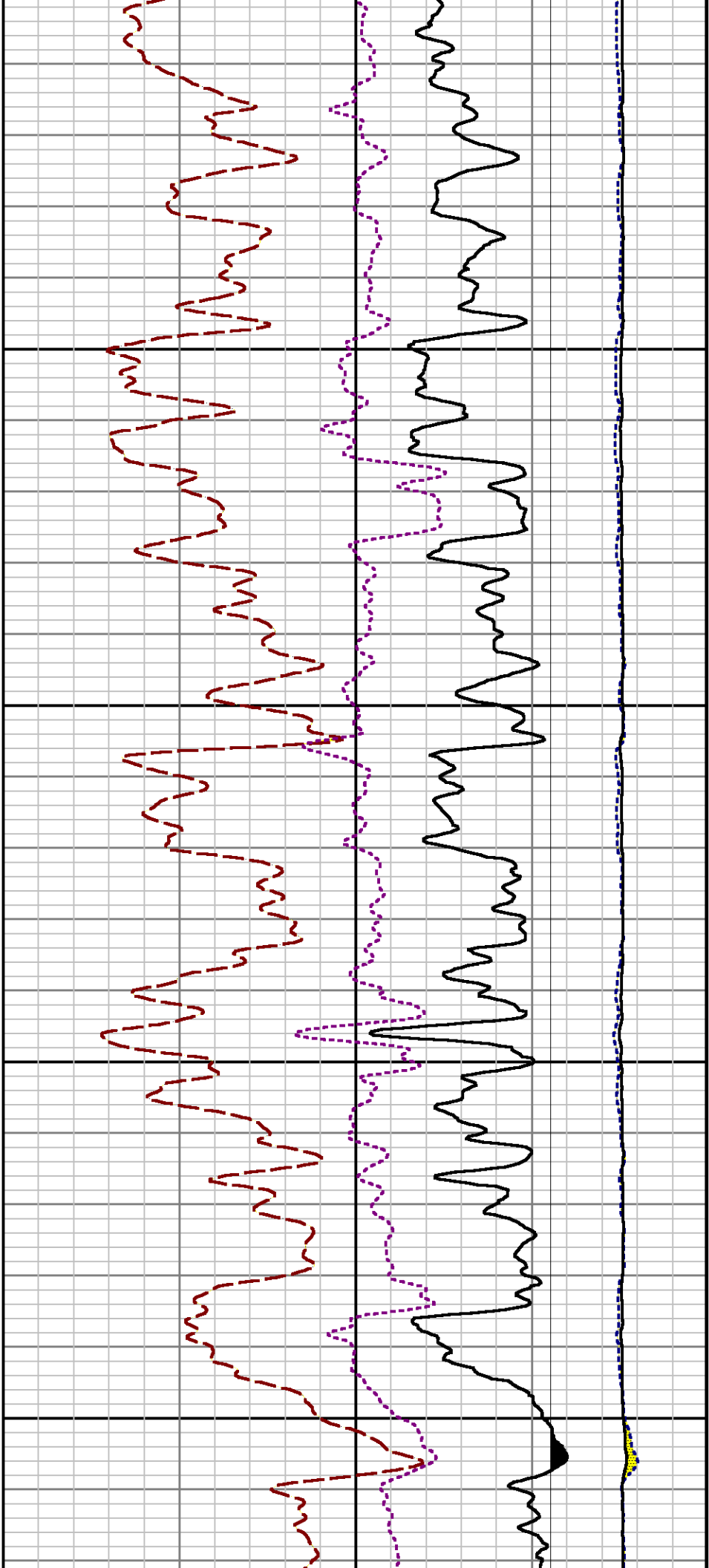


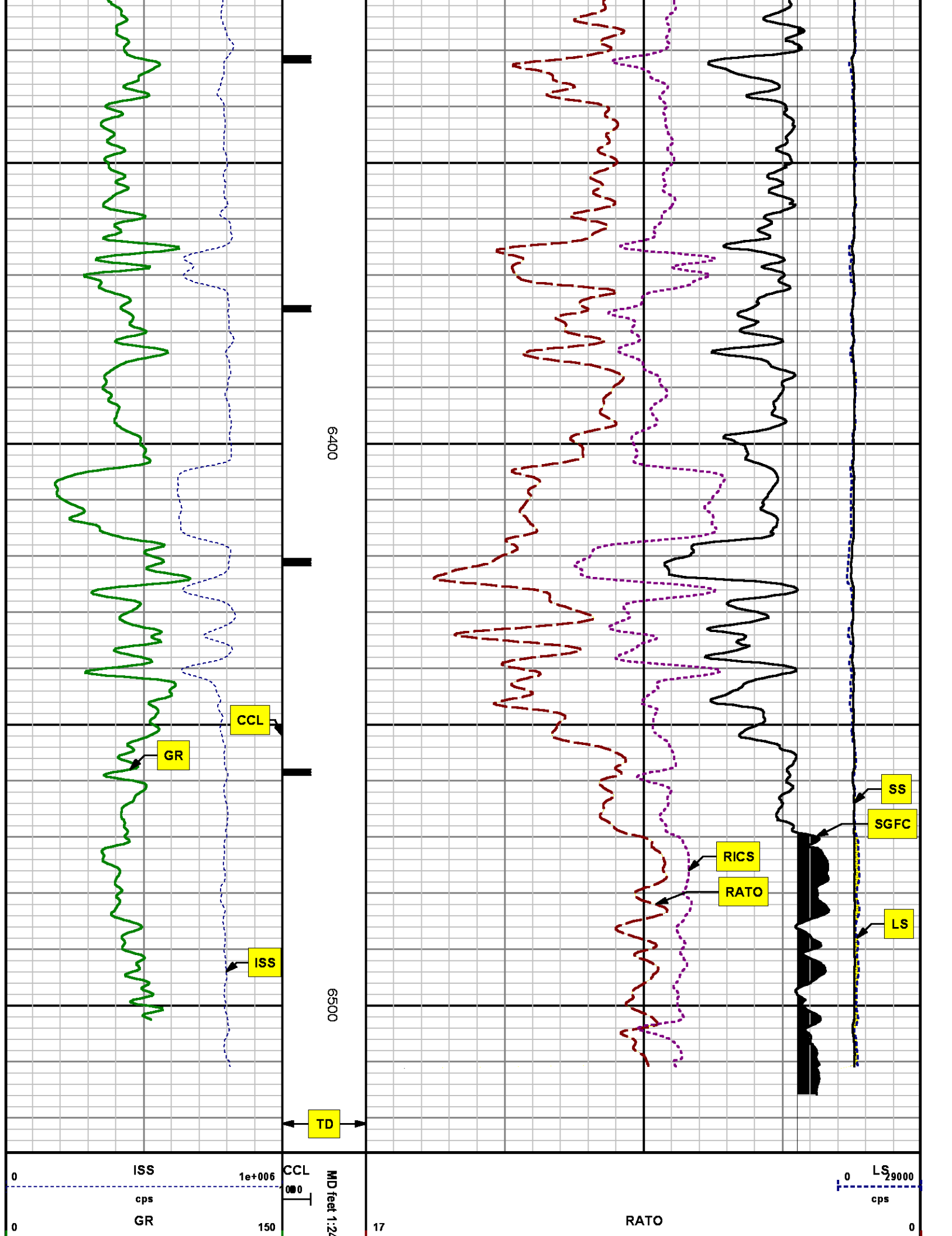












gAPI		37	RICS	7
		60	SGFC	0
		cu		
		SS		
		0 290000		
		cps		

REPEAT SECTION
PNC 3-D MODE

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		5681.143	6014.300
PNC Porosity	Borehole Size	8.750	inch	5681.143	6014.300
PNC Porosity	Casing Size	4.500	inch	5681.143	6014.300
PNC Porosity	Gas Filled	Non Gas Filled		5681.143	6014.300
PNC Porosity	Matrix	Sandstone		5681.143	6014.300
TPS Pressure	Temperature Corr. Source	Fixed (72.00)	degF	5681.143	6014.300

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	WDTH3	CXSR	IXSR	XSR
		RICXR					
8281XA	-12.291	HVC2Q0	SEQ2	AMA2	AMB2	AMF2	AML2
		BKL	CHF2	CLS	CPT2Q0	CPT2Q2	CPT2Q3

8281XA

-12.041

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
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 RDN 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

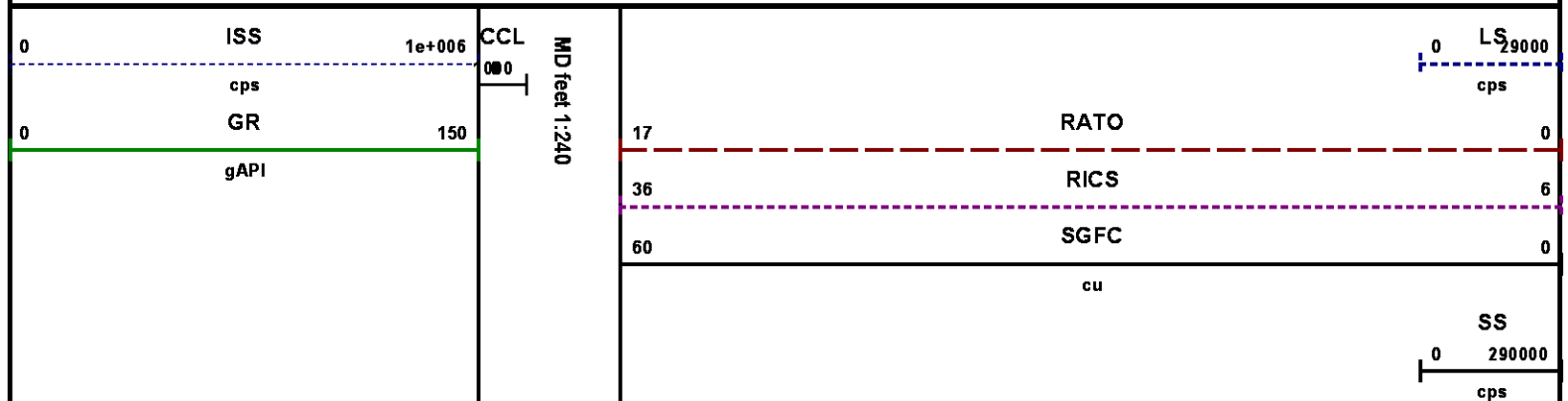
Well : C&C ENERGY GM 323-13

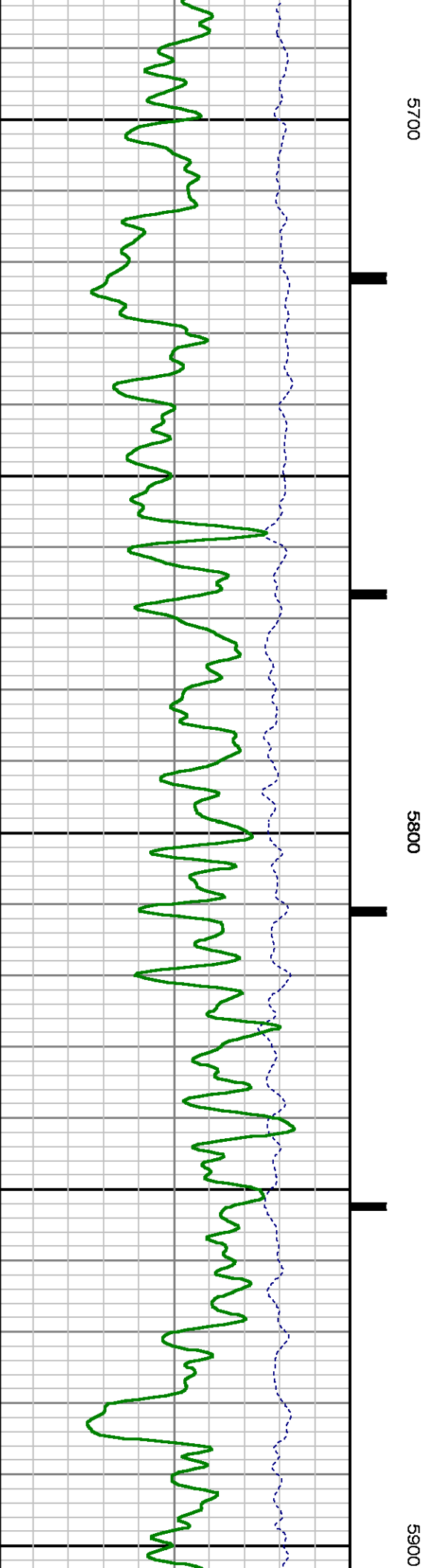
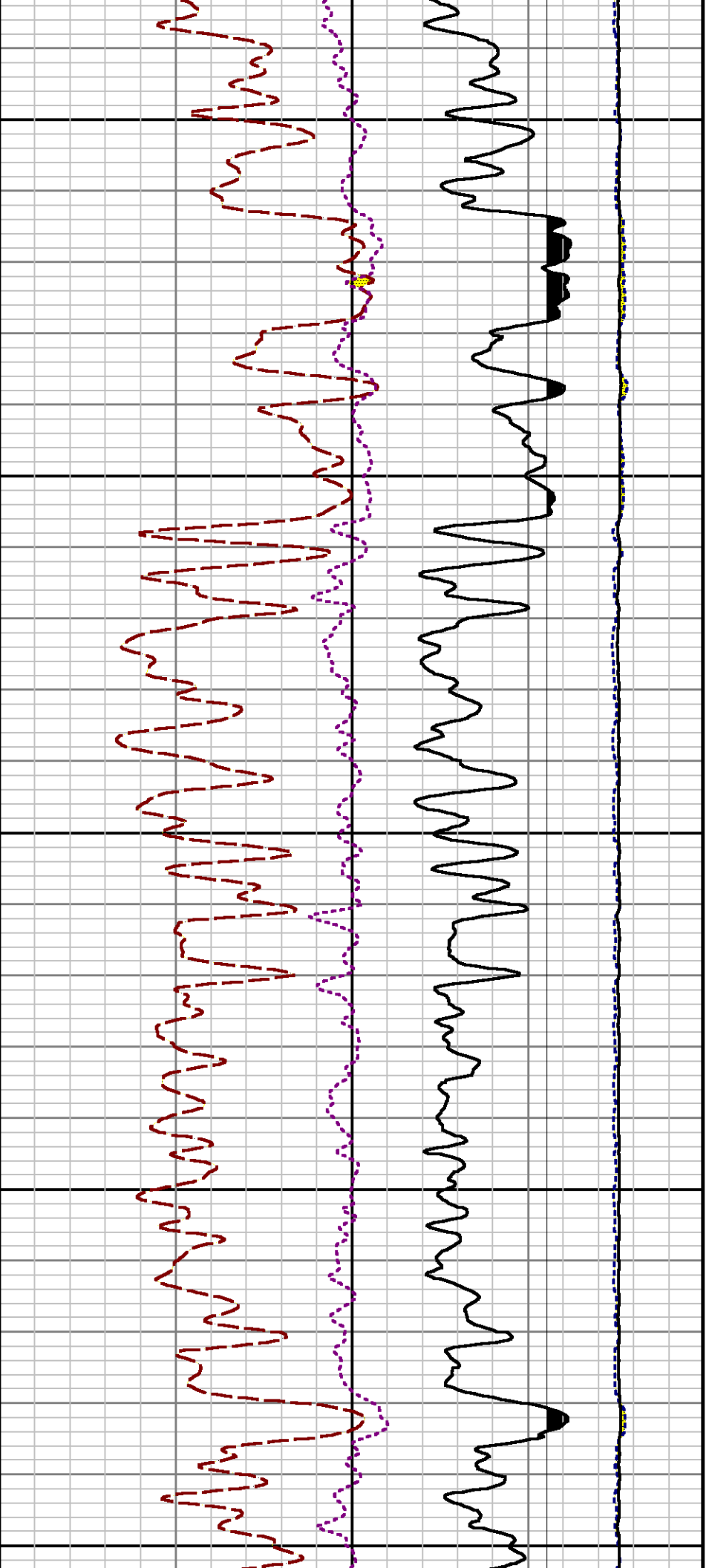
File Name : d:\weldata\wpxi\gm 323-13\323rpm\repeat.xtf

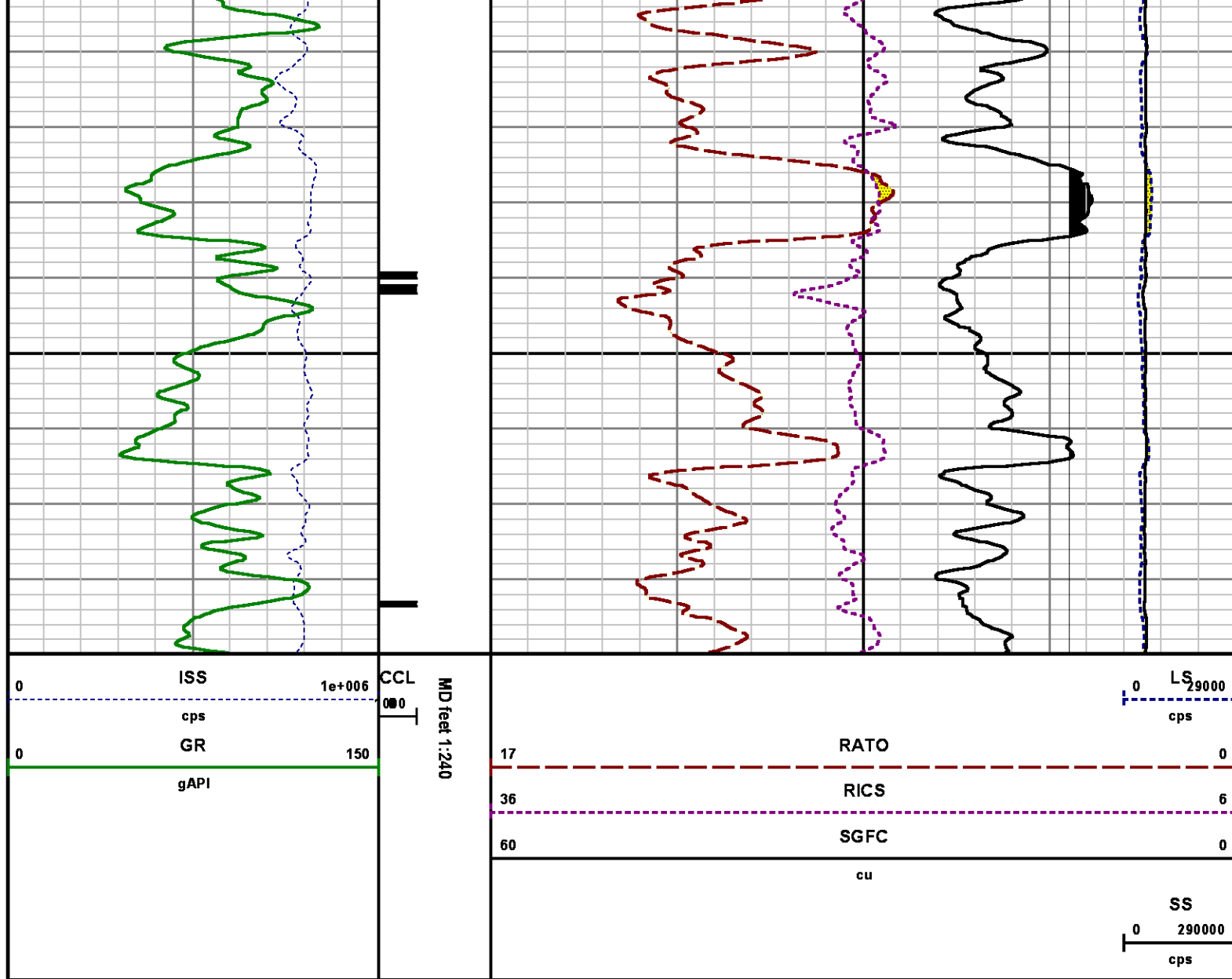
Mode : PlotMgr 5.4.504

Interval : 5681.30 - 5990.00 feet UP

Created : 7/21/2014 12:52:49 PM







CALIBRATION SUMMARY

GAMMA RAY

Calibration File: C:\case\calver\GR\38530.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Mon Jun 30 08:38:51 2014 TOOL SERIES: 2812LA ASSET: 385 SEQ: 30

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA-612	42.56	269.00	0.927	39.47	249.47	210.00

Verification File: C:\case\calver\GR\38530.VP

PRIMARY VERIFICATION

DATE/TIME PERFORMED: Mon Jun 30 08:42:33 2014 TOOL SERIES: 2812LA ASSET: 385 SEQ: 30

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA-612	41.56	270.56	0.927	38.54	250.91	212.37

PNC

Calibration File: C:\case\calver\PNC\383_02.cal

PNC 3D CALIBRATION SUMMARY

DATE/TIME PERFORMED: Wed Jul 02 11:12:40 2014 TOOL SERIES: 8281XA ASSET: 383 SEQ: 02

Calibrator #

shop shop

Source #

8281AA 11710723

	ISS	Mtr Vltz (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	815642	124.00	2273.00	2248.00	2207.00	113.01	7.00	0.9759
Interpolated	1300000	144.24	2253.89	2241.02	2201.12			

	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	815642	6112.95	967.26	132.35	25.67	0.14	24.23	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	815642	169475.86	25875.63	90426.93	32216.52	8369.17	54781.47	13381.45
Fit Quality %		1.33	1.32	0.94	0.94	1.26	0.85	1.23

	ISS	RBOR	RIN ISS/ILS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS
Raw Data	815642	1.43	4.81	31.52	14.89	10.81	3.85	4.09
		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 %		0.06	0.19	0.13	0.07	0.26	0.22	0.23
Reduced	1383476	1.43	4.82	31.60	14.95	10.76	3.84	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

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

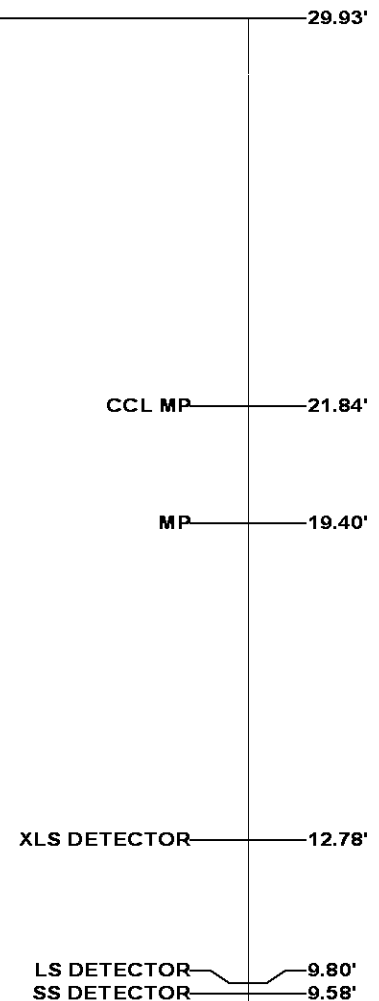
Series	8248EA
Mnemonic	PCM
Diameter	1.70"
Weight	20.00 lb
Length	4.46'
Measure Point	1.00' CCL MP
Temp Rating	350.00 °F
Press Rating	15000.00 PSI

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



0.00'

Total Length: 29.93'
Total Weight: Not Available
Max Diameter: 0' 1.70"



Baker Atlas

CASE

Company

WPX ENERGY

Well

C&C ENERGY GM 323-13

Field

GRAND VALLEY

County

GARFIELD

State

COLORADO

File No:

CH088401

API No:

05045222570000

Location

SHL: 282' FSL & 987' FWL (SEC 12)

BHT: 1877' FNL & 642' FWL (SWNW SEC 13)

Elevations

KB 5165 ft

DF

GL 5141 ft

13 7S 96W

GM 24-12 PAD

H&P 318

SEC 13 TWP 7S RGE 96W