



FILE NO: CH105972	COMPANY CAERUS OPERATING LLC
WELL PUCKETT 24A-1	
FIELD GRAND VALLEY	
COUNTY GARFIELD	STATE COLORADO
API NO: 05045226170000	
Ver. 4.06 SEC 1 T7S R97W H&P 330 MESA P2 797 PAD	LOCATION: SHL: 308' FEL 1088' FSL SEC2 T7S R97W BHL: 1909' FEL 1042' FSL SEC1 T7S R97W SEC 1 TWP 7S RGE 97W
PERMANENT DATUM LOG MEASURED FROM DRILL. MEAS. FROM	OTHER SERVICES CBL ELEVATIONS: KB 8453.8 FT DF GL 8423.8 FT
GL. ELEVATION 8423.8 FT K.B. 30 FT ABOVE P.D. K.B.	

DATE	28-FEB-2016	
RUN	TRIP	21
SERVICE ORDER	CH105972	
DEPTH DRILLER	9175 FT	
DEPTH LOGGER	9113 FT	
BOTTOM LOGGED INTERVAL	9110 FT	
TOP LOGGED INTERVAL	4613 FT	
TIME STARTED	9:30	
TIME FINISHED	15:30	
OPERATOR RIG TIME	6 HRS	
TYPE OF FLUID IN HOLE	WATER	
FLUID DENSITY	NA	
FLUID SALINITY	NA	
FLUID LEVEL	NA	
LOGGED CEMENT TOP	SEE LOG	
WELLHEAD PRESSURE	0 PSI	
MAXIMUM HOLE DEVIATION	NA	
NOMINAL LOGGING SPEED	10 F/MN	
MAX. RECORDED TEMP.	228 DEGF	
REFERENCE LOG	BAKER HUGHES BOND LOG	
REFERENCE LOG DATE	28-FEB-2016	
EQUIP. NO.	LOCATION	HL-6685GRAND JCT.
RECORDED BY	W. QUIGLEY	
WITNESSED BY	M. LEIBOVITZ	

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

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
4.5 IN	11.6 LB/F	P-110	30 FT	9175 FT

#### REMARKS

RUN 2 TRIP 1: DEPTH CORRELATED TO BAKER HUGHES BOND LOG DATED 28-FEB-2016

BHT = 228 DEGF

THANK YOU FOR CHOOSING BAKER HUGHES WIRELINE SERVICES

#### EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
2	1	PCM	8250EA	10408796	FREE
2	1	TEL/CCL	8248ED	10590814	FREE
2	1	GR	8262XA	10485470	FREE

2	1	RPM	8281EA	10273848	FREE
2	1	RPM	8281PA	10169251	FREE
2	1	RPM	8281FA	10191667	FREE
2	1	TEMP	8255XA	11774568	FREE

## MAIN SECTION PNC-3D MODE

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013

Updates: 1 Patches: 9

Plotted: Sun Feb 28 15:04:13 2016

### PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH105972/n353hx02.prm  
 LOGGING MODE: DEPTH DIRECTION: UP  
 TOP DEPTH: 4599.000 ft BOTTOM DEPTH: 9120.750 ft

#### SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)
GR	FILTER ()	medium (1)		TOP BOTTOM

#### RPM PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)
PNC Parameters	BOREHOLE CONTENTS	FLUID		TOP BOTTOM
	OPEN/CASED HOLE	CASED HOLE		" "
	BOREHOLE SIZE	7.88	in	" "
	CASING SIZE	4.50	in	" "
	MATRIX	SANDSTONE		" "
	CORRECTION BUFFER	11		" "

### CURVE DESCRIPTION REPORT

CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Feb 28 10:20:10 2016	CASING COLLAR LOCATOR
F1:GR	Feb 28 10:20:10 2016	GAMMA RAY
F1:ISS	Feb 28 10:20:10 2016	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Feb 28 10:20:10 2016	LONG SPACE COUNT RATE
F1:RATO	Feb 28 10:20:10 2016	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Feb 28 10:20:10 2016	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Feb 28 10:20:10 2016	CORRECTED FORMATION SIGMA
F1:SS	Feb 28 10:20:10 2016	SHORT SPACE COUNT RATE

### CURVE MEASURE POINT OFFSET

CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	26.00	ISS	12.75	RATO	12.75	SGFC	12.75
GR	23.00	LS	12.75	RICS	12.75	SS	12.75

Presentation : cas6685:/dat1a/CH105972/RPM\_MAIN.fvpdf [5"/100' Scale]  
 Plot Interval : 4572.75 - 9104.5 Feet

Data File 1 : F1 : cas6685:/dat1a/CH105972/n353hx02\_MAIN.xtf  
 Created On : Feb 28 10:20:10 2016  
 Company : CAERUS OPERATING LLC  
 Well : PUCKETT 24A-1  
 Field : GRAND VALLEY  
 File Interval : 4572 - 9120.75 Feet  
 OCT : n353hx

# GR BACKUP

FEET

ISS [iss] 0 1E+06  
(cts/s)  
GAMMA RAY [gr] 0 150  
(gAPI)

CCL  
(mv)

4600

4700

LS [ls] 0 29000  
(cts/s)  
SS [ss] 0 290000  
(cts/s)

RATO [rato] 17 0  
(dim)  
RICS [rics] 39 9  
(dim)  
SGFC [sgfc] 60 0  
(cu)

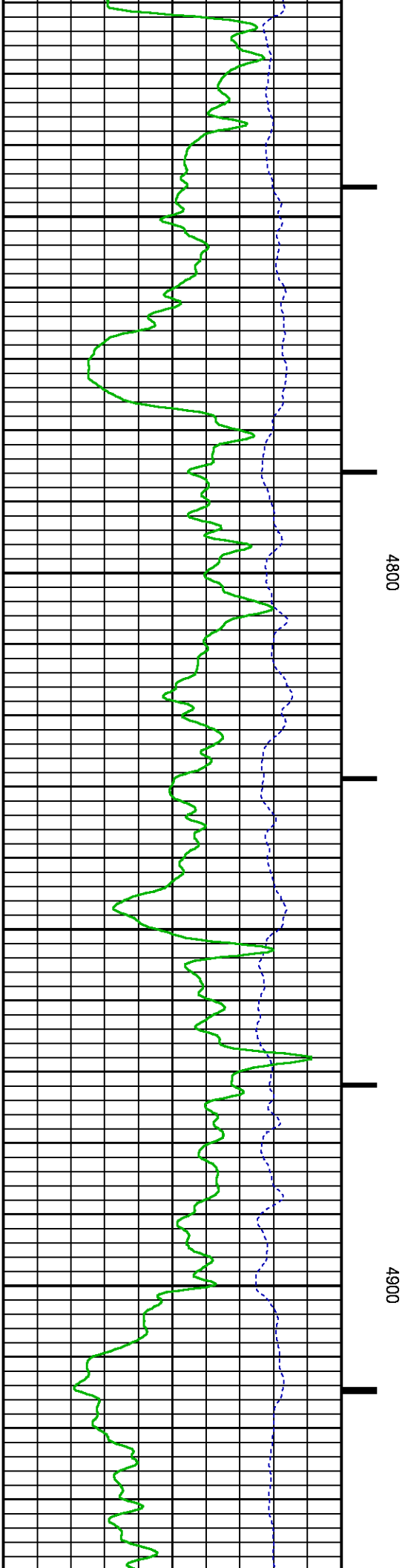
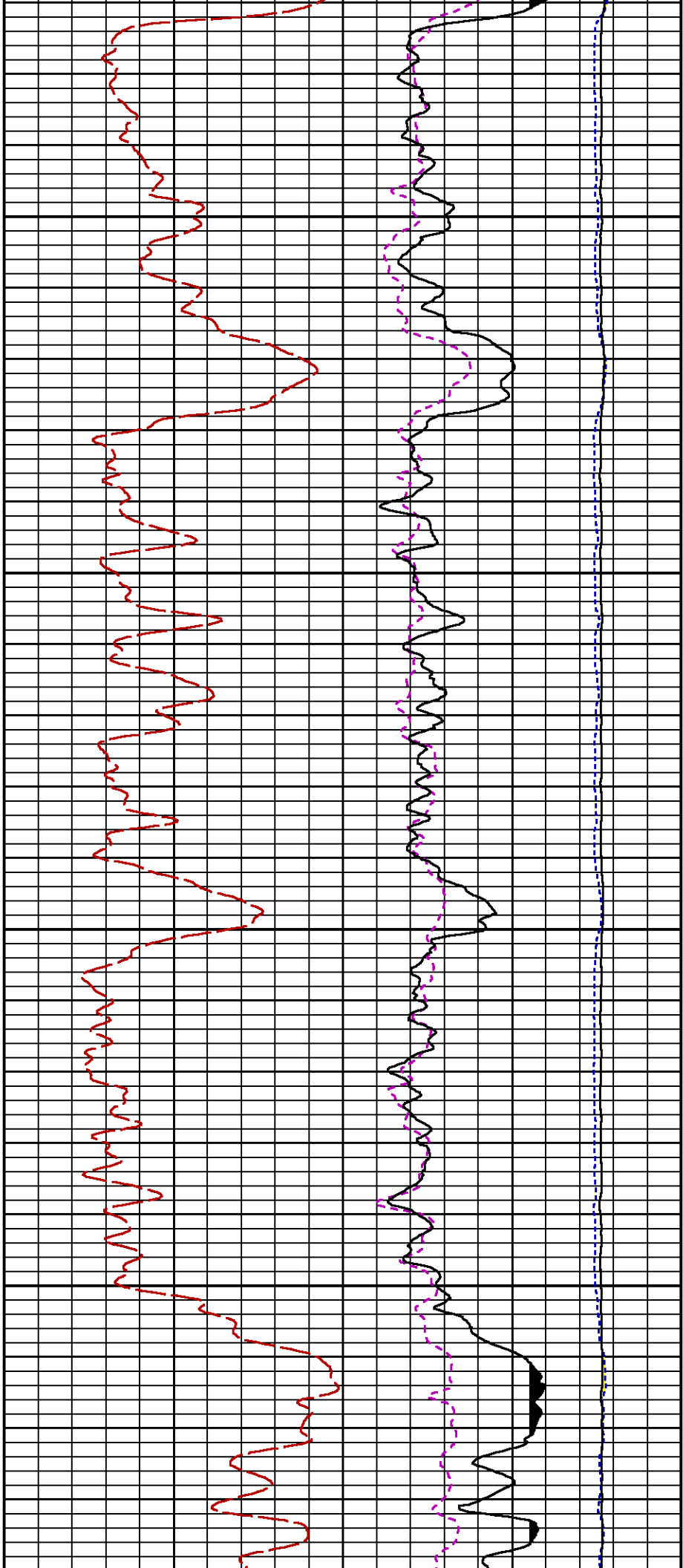
RATO

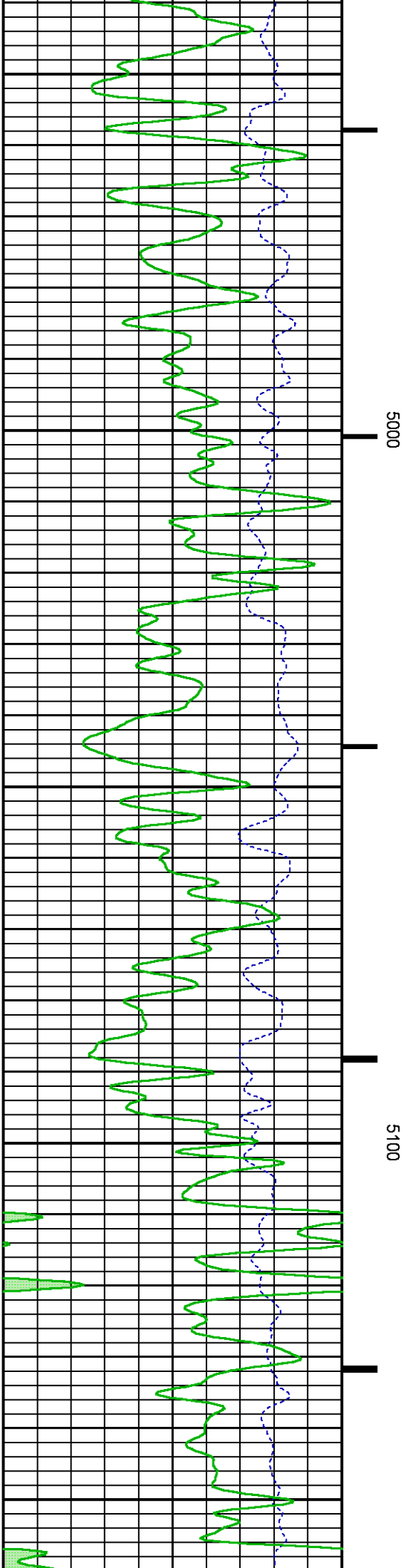
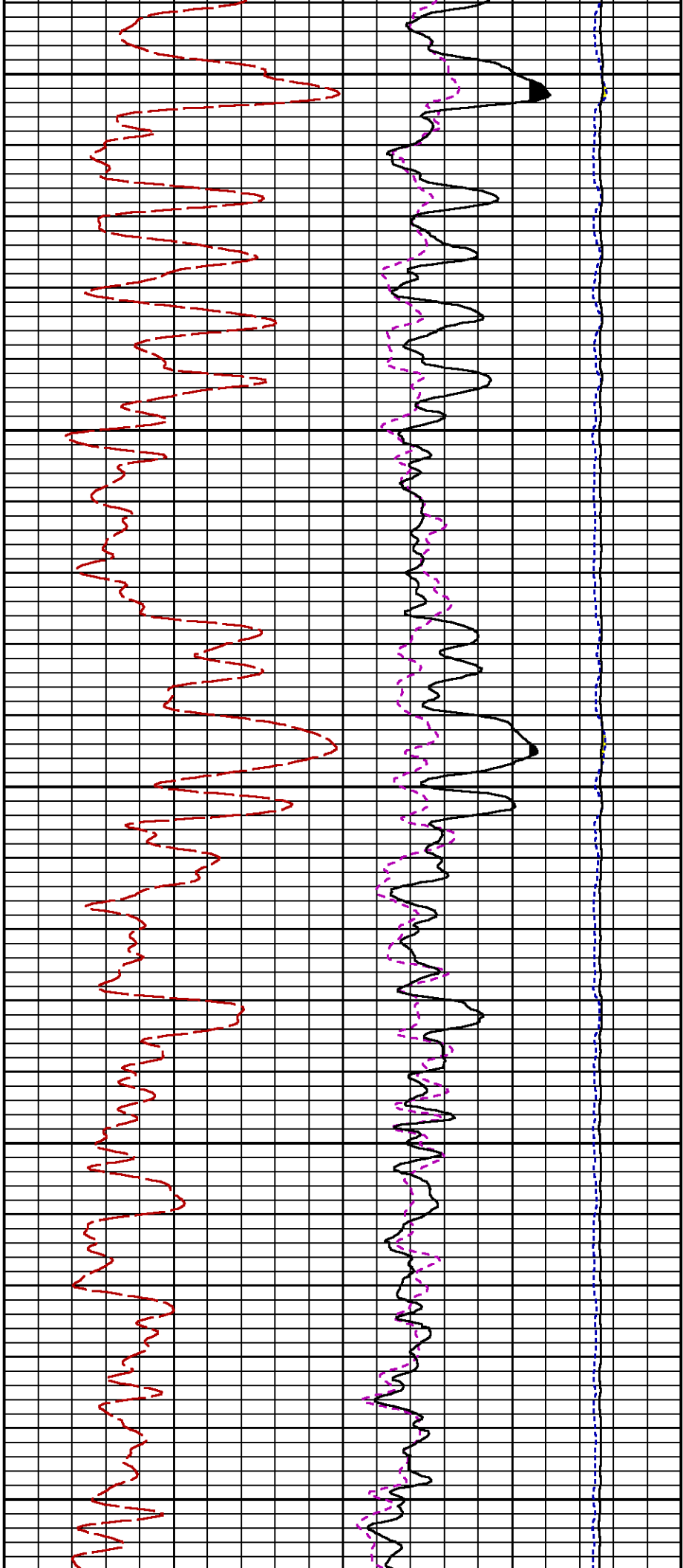
RICS

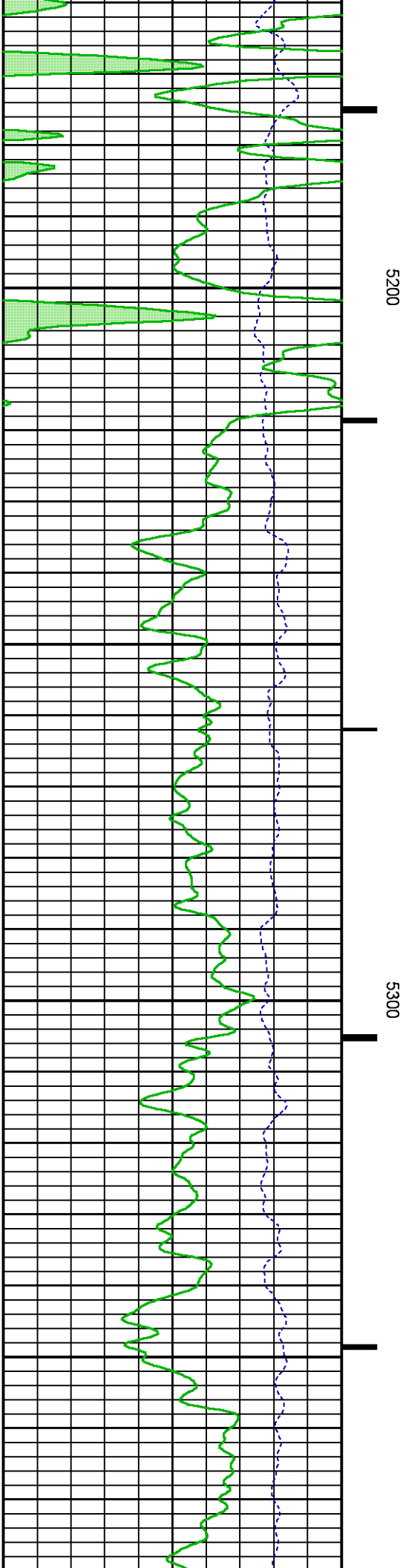
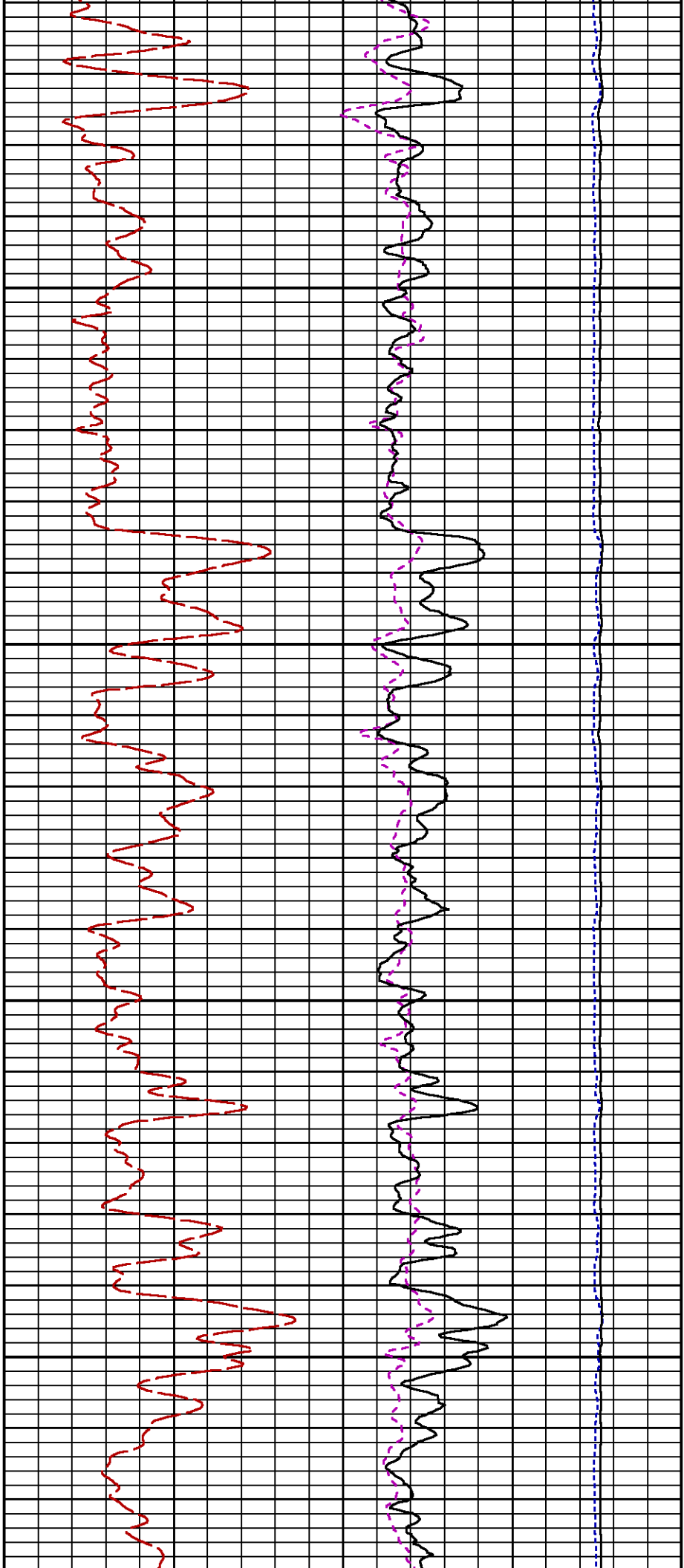
SGFC

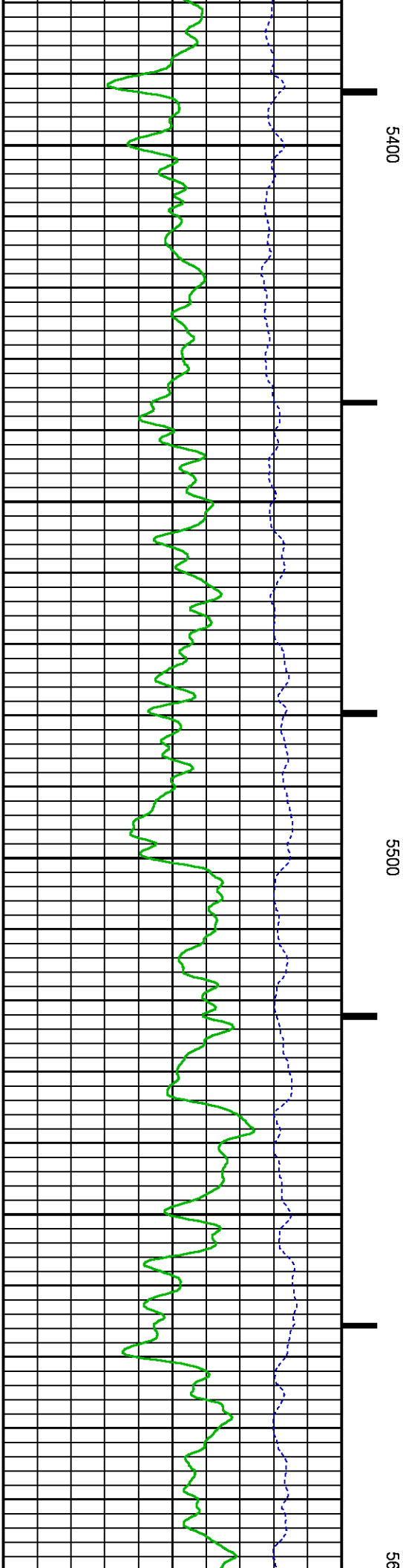
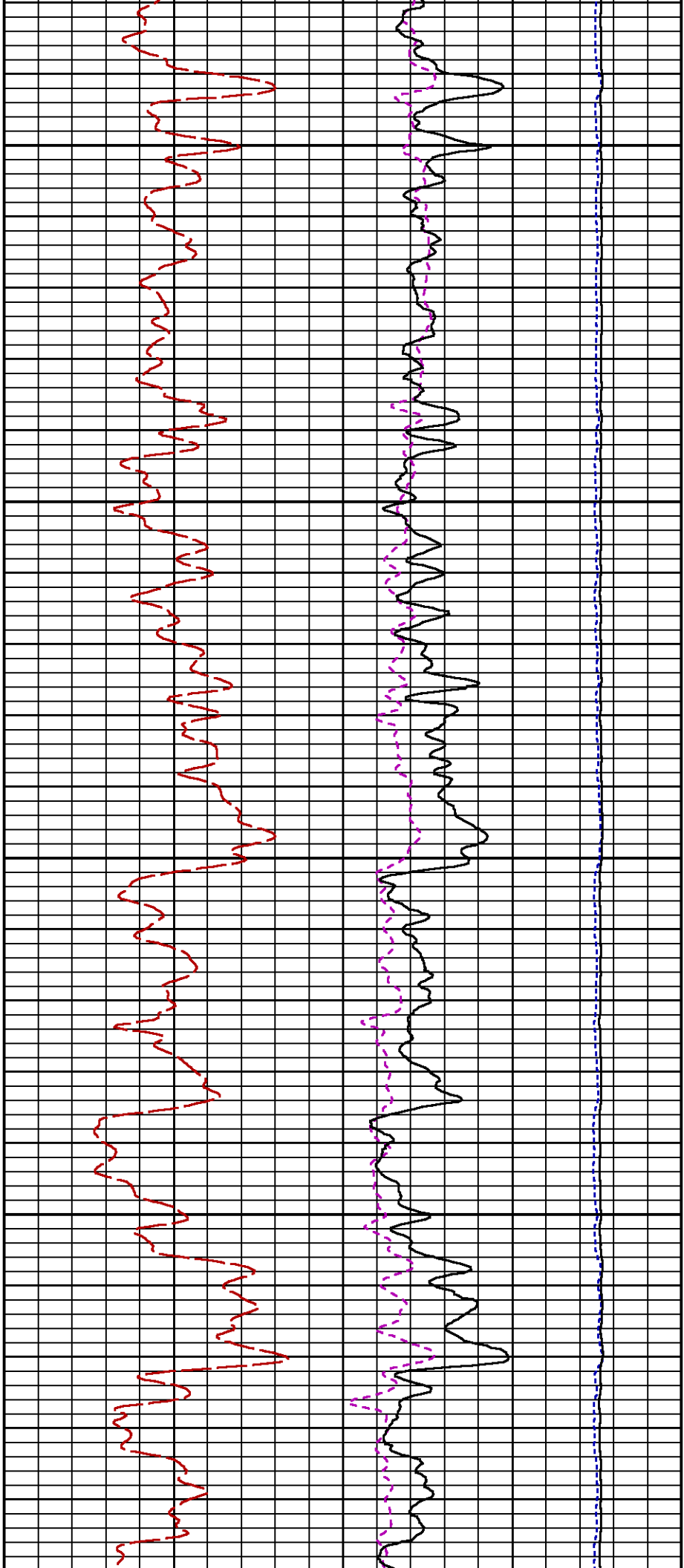
LS

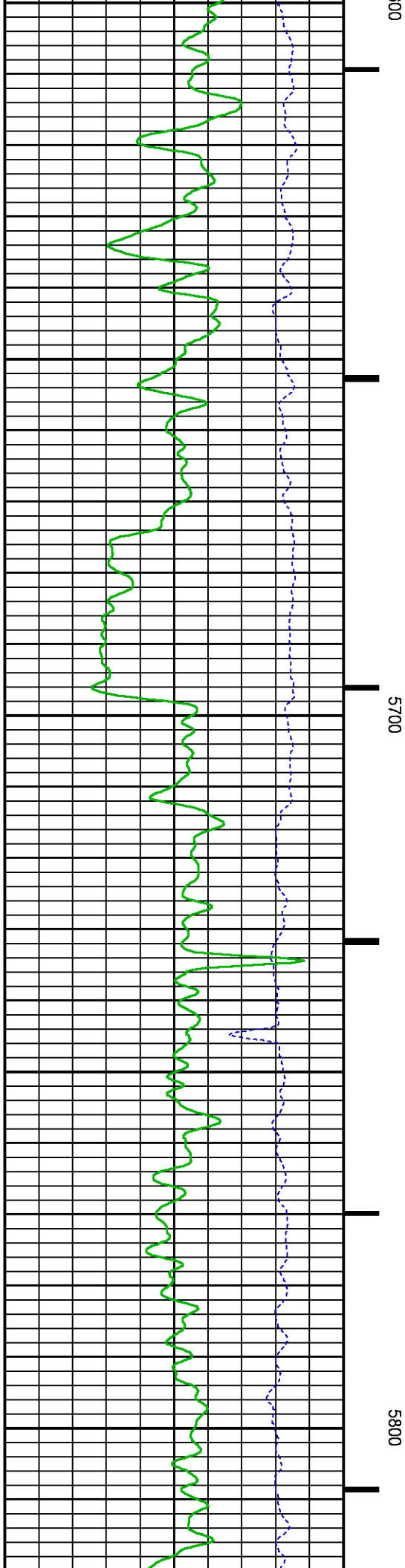
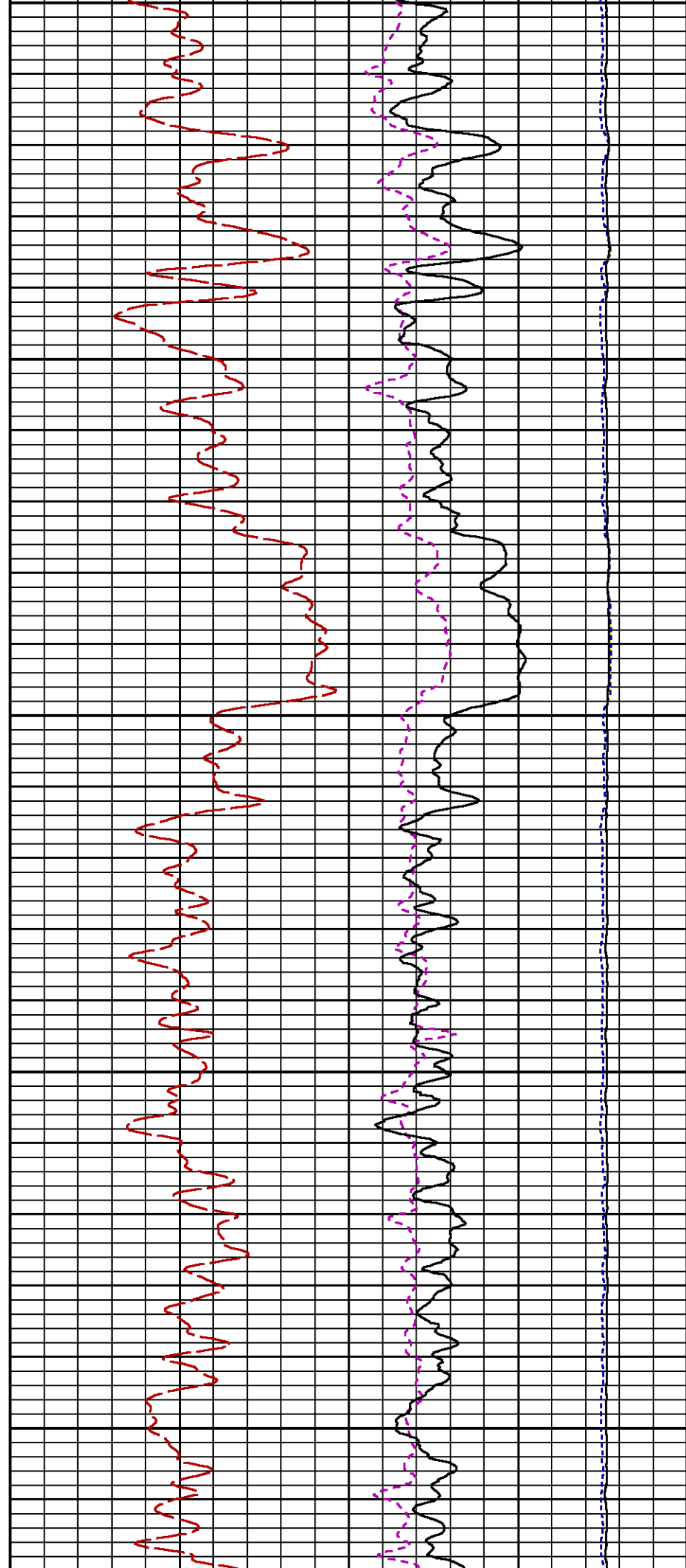
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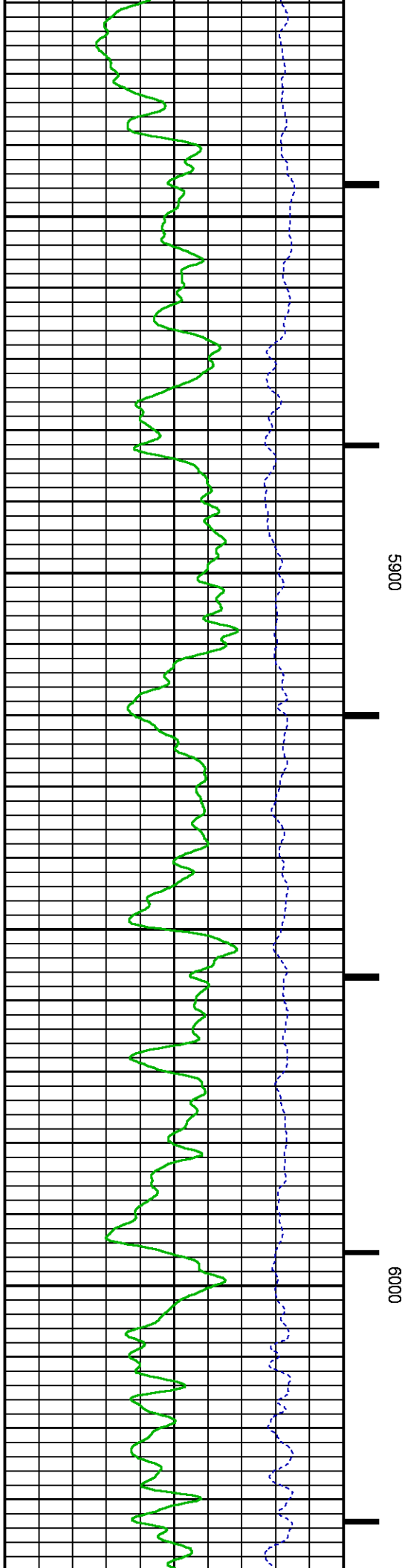
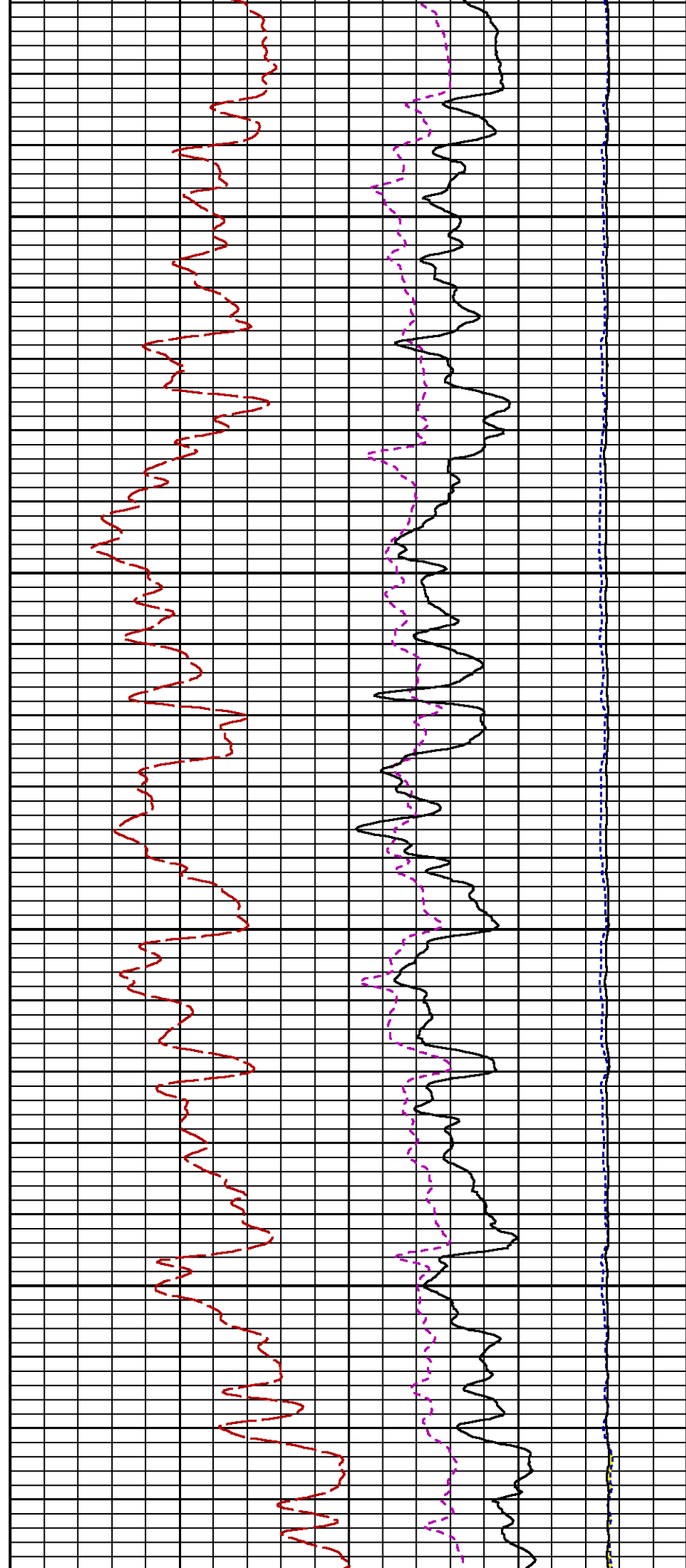


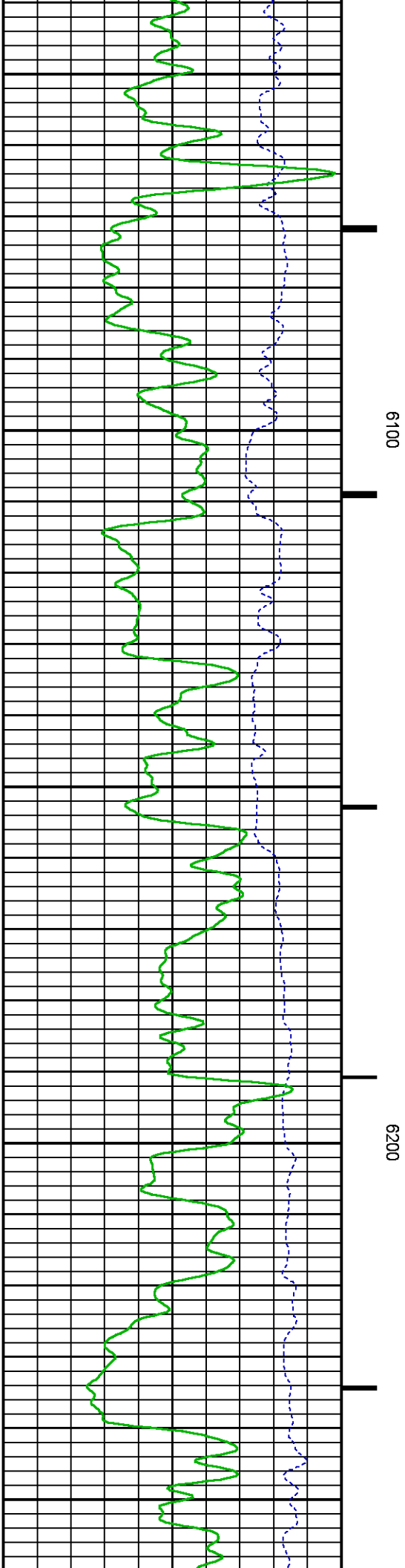
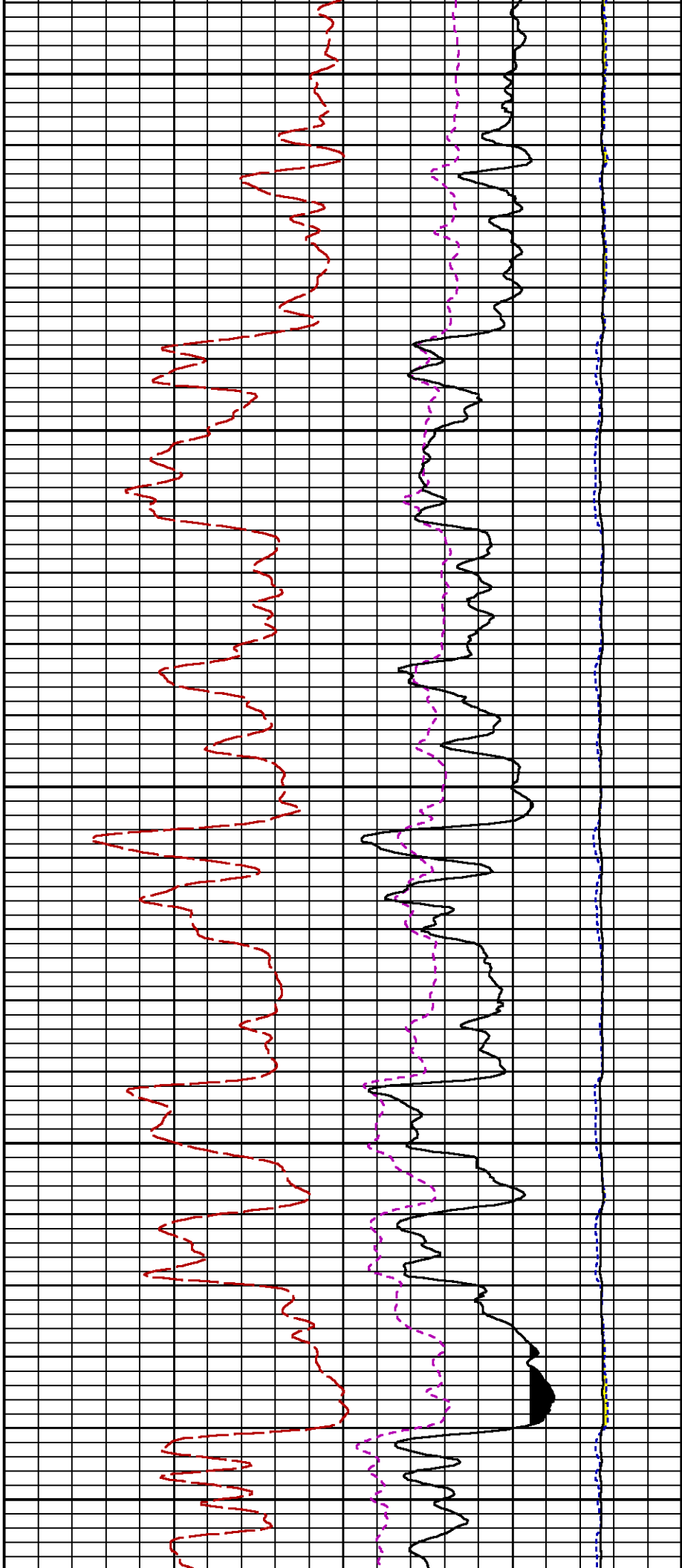


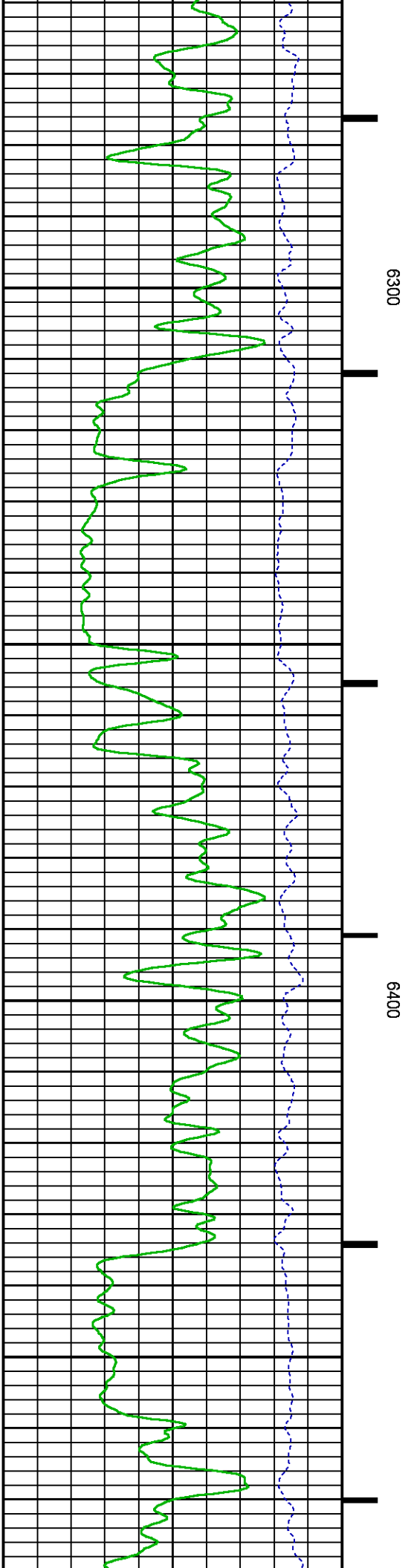
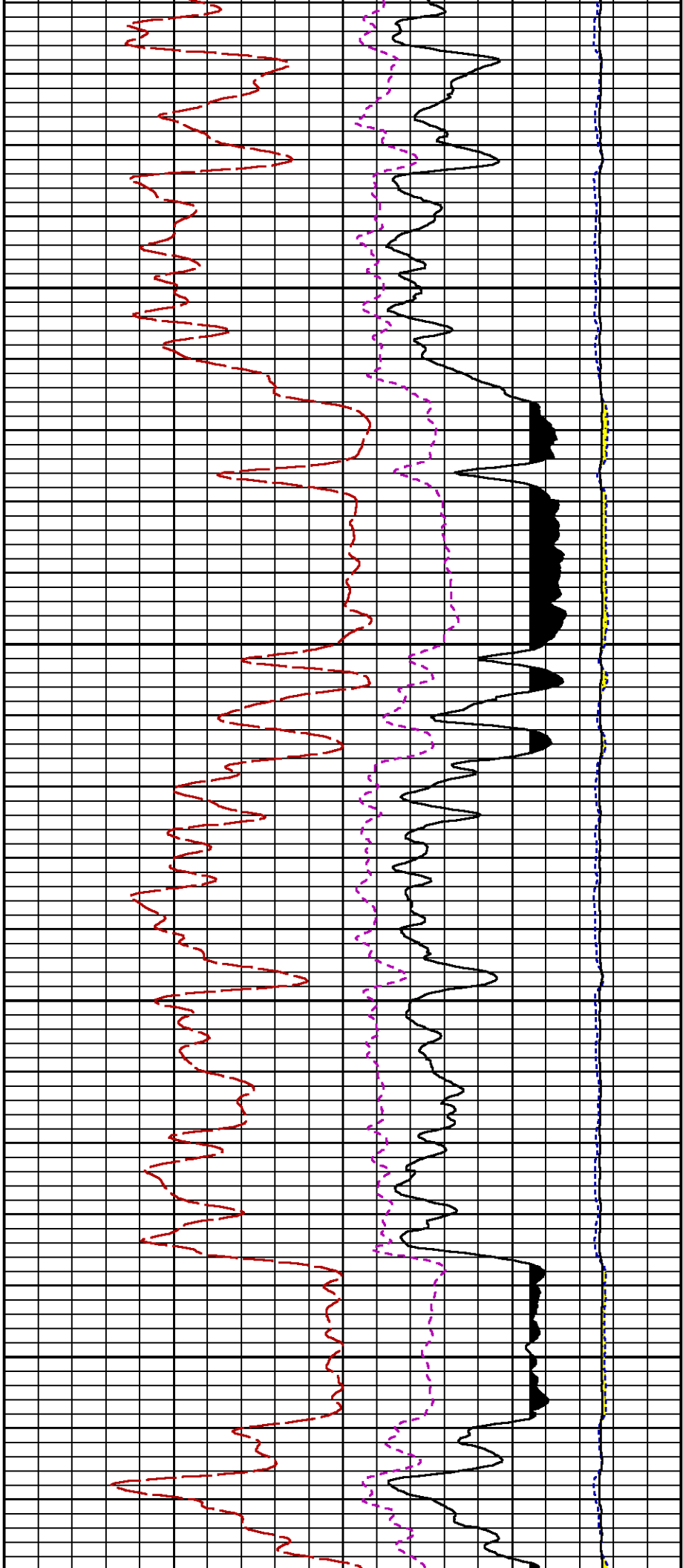


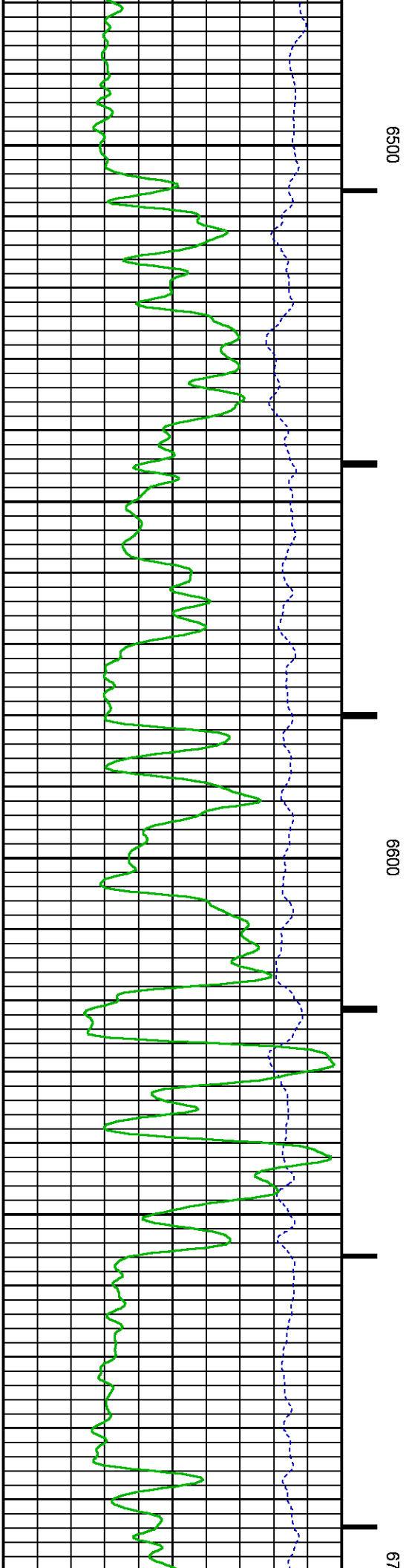
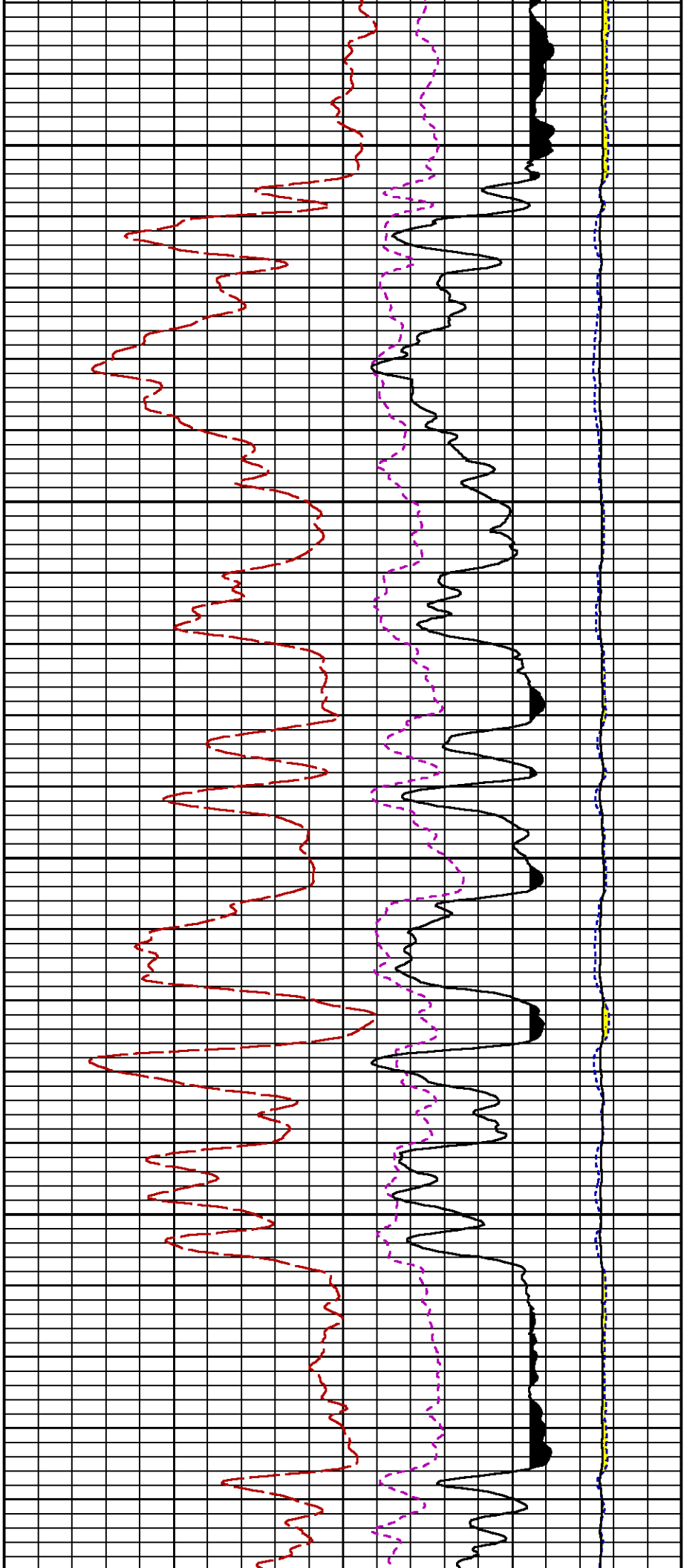


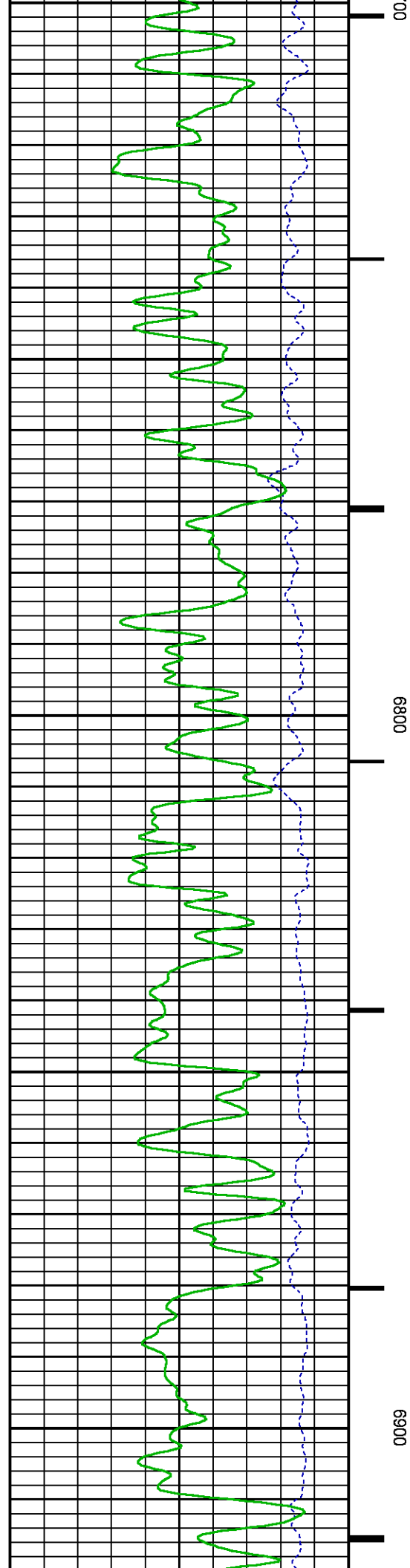
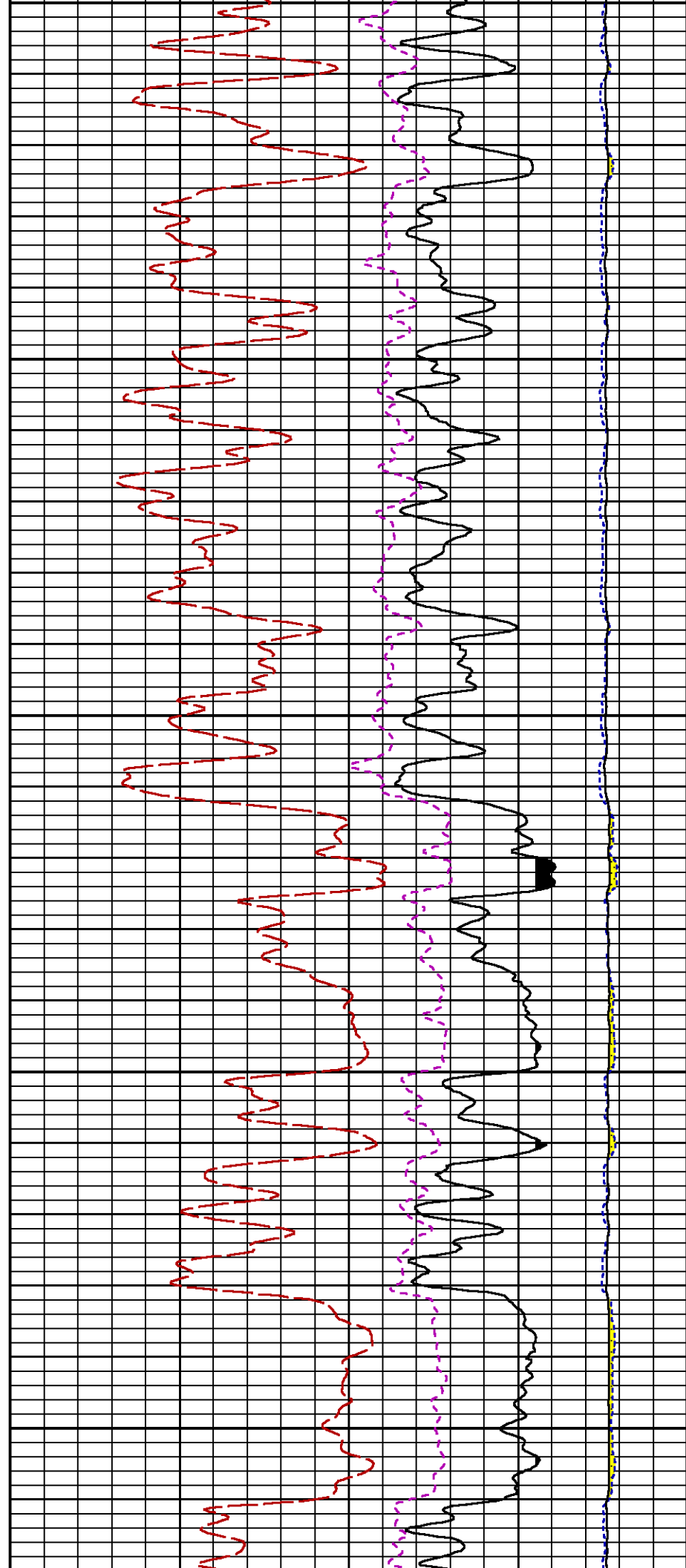


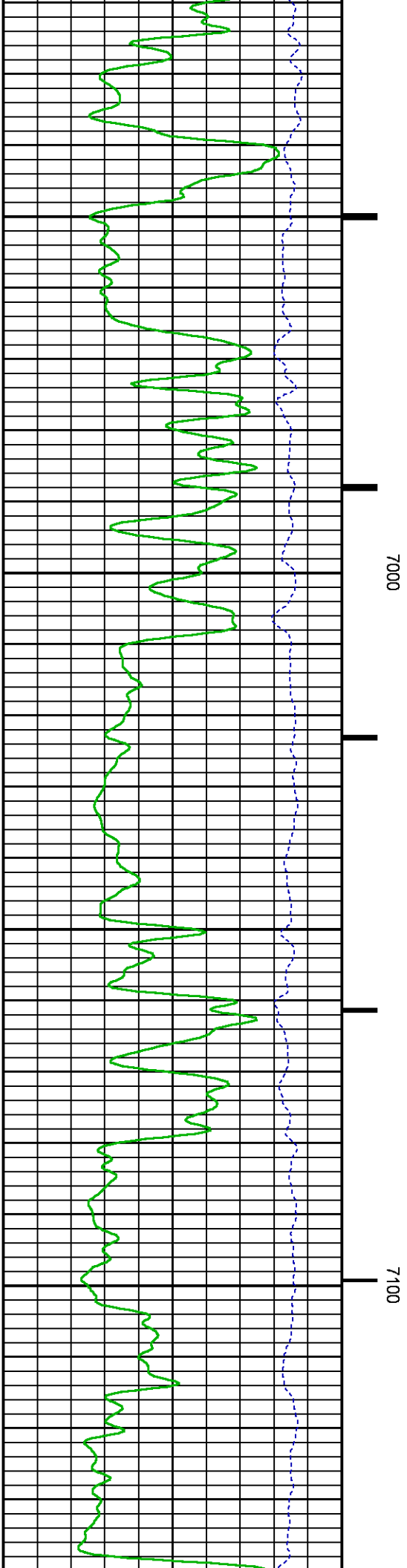
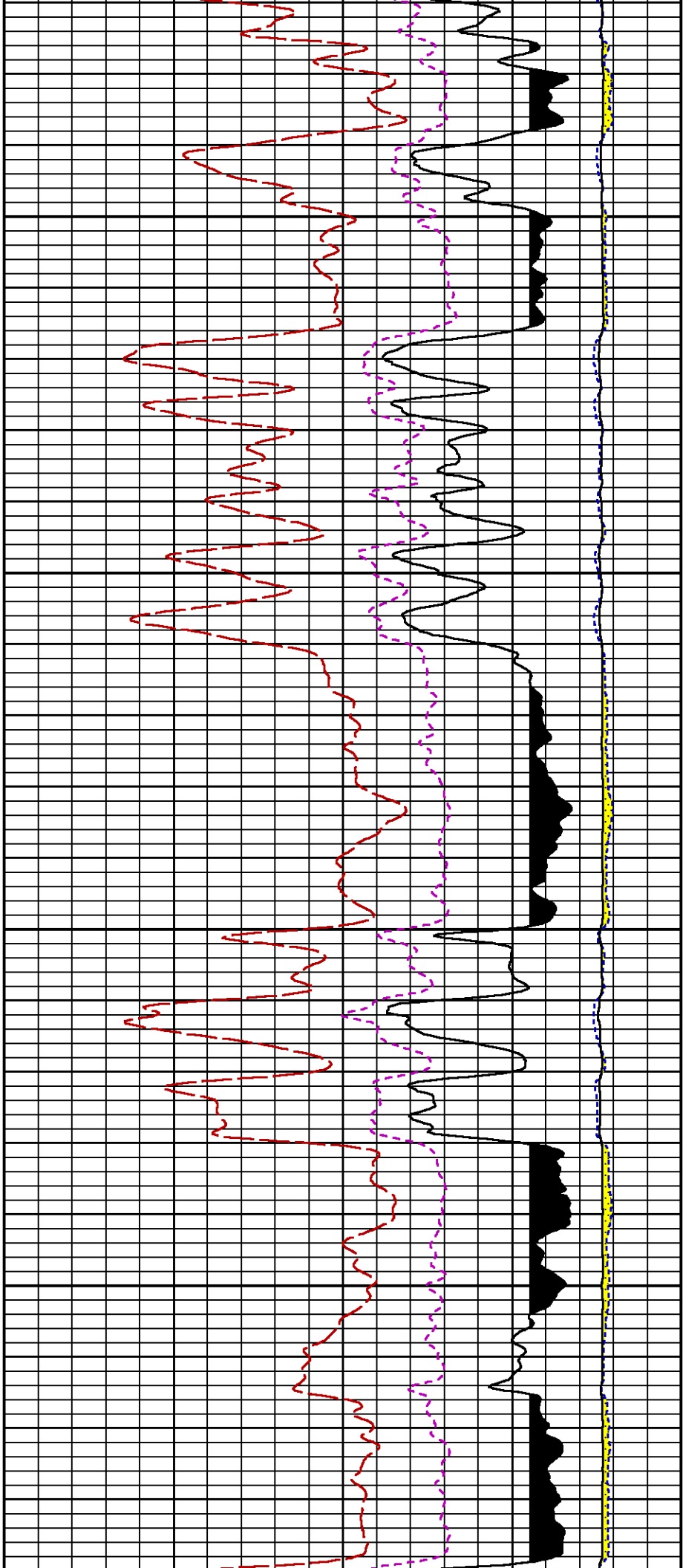


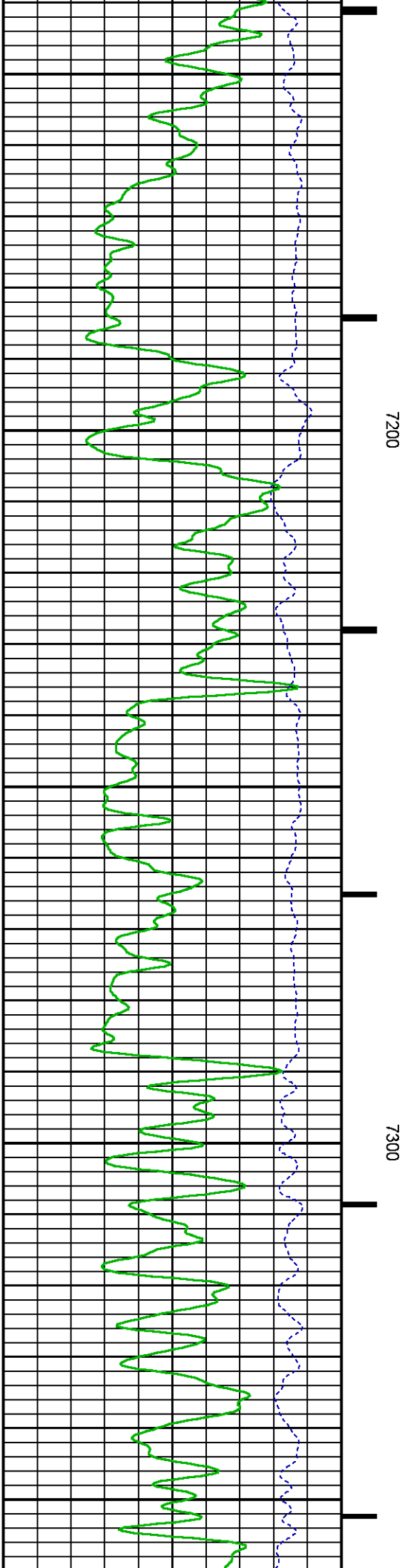
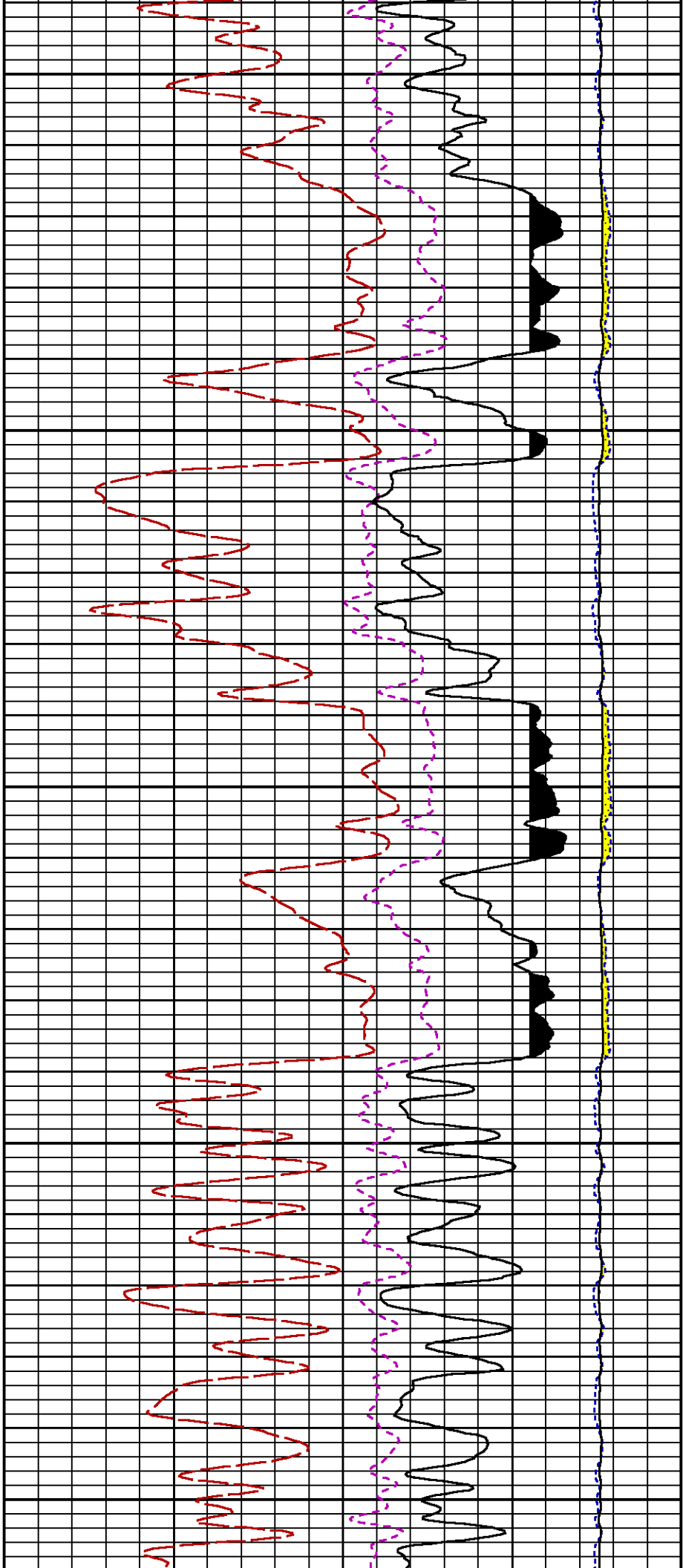


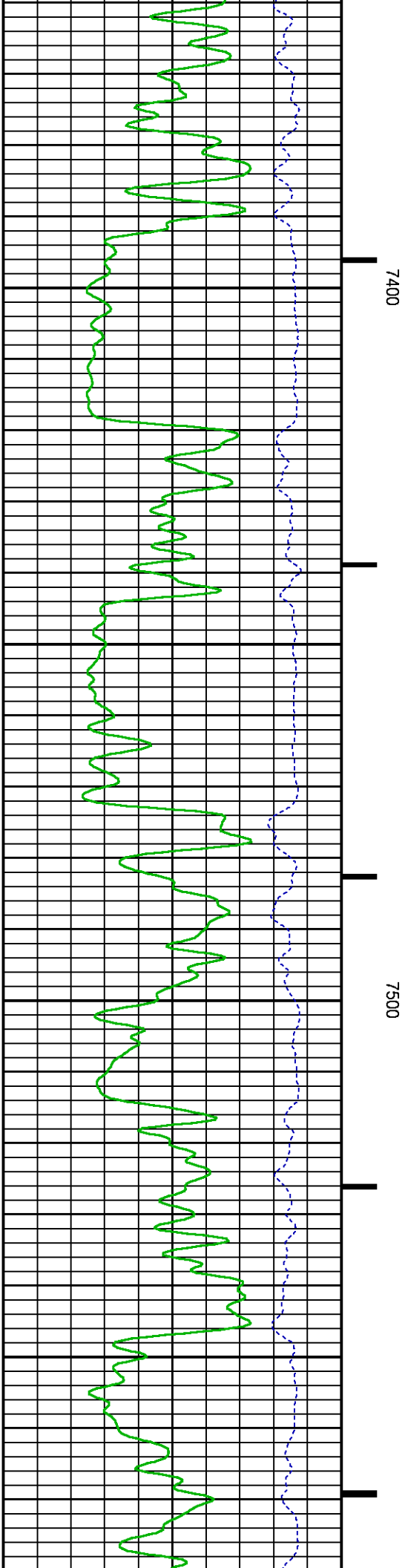
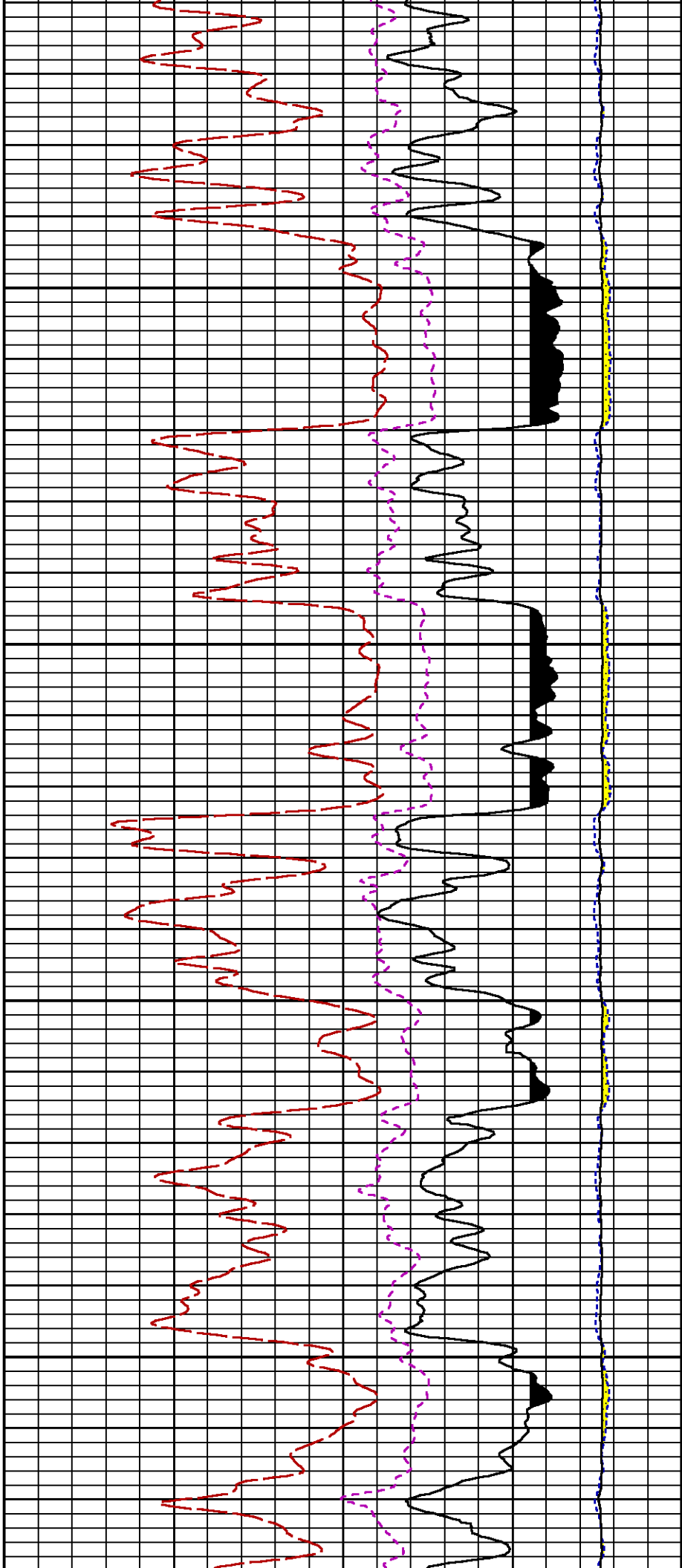


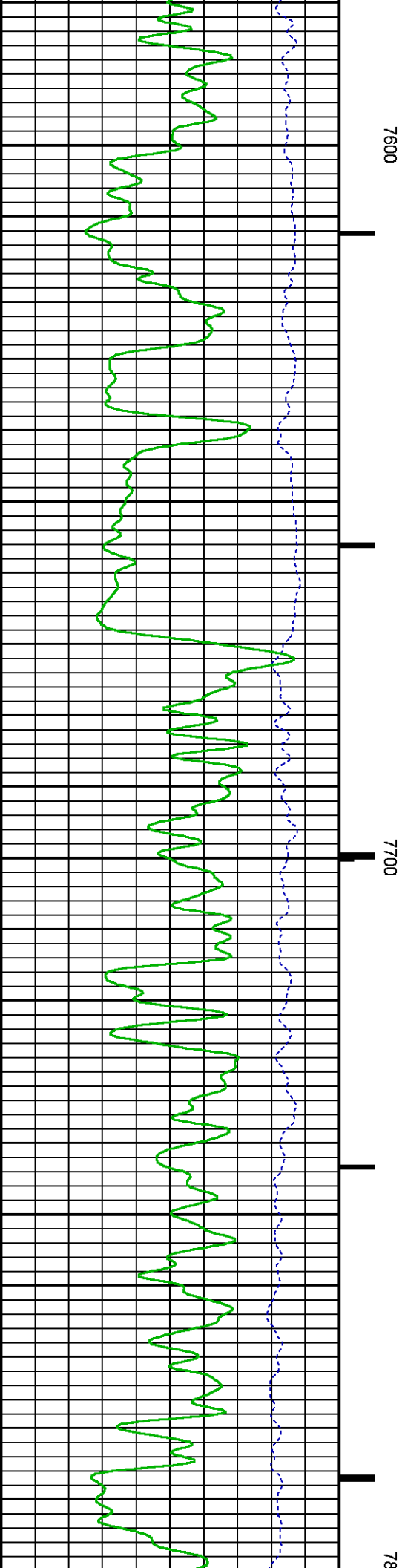
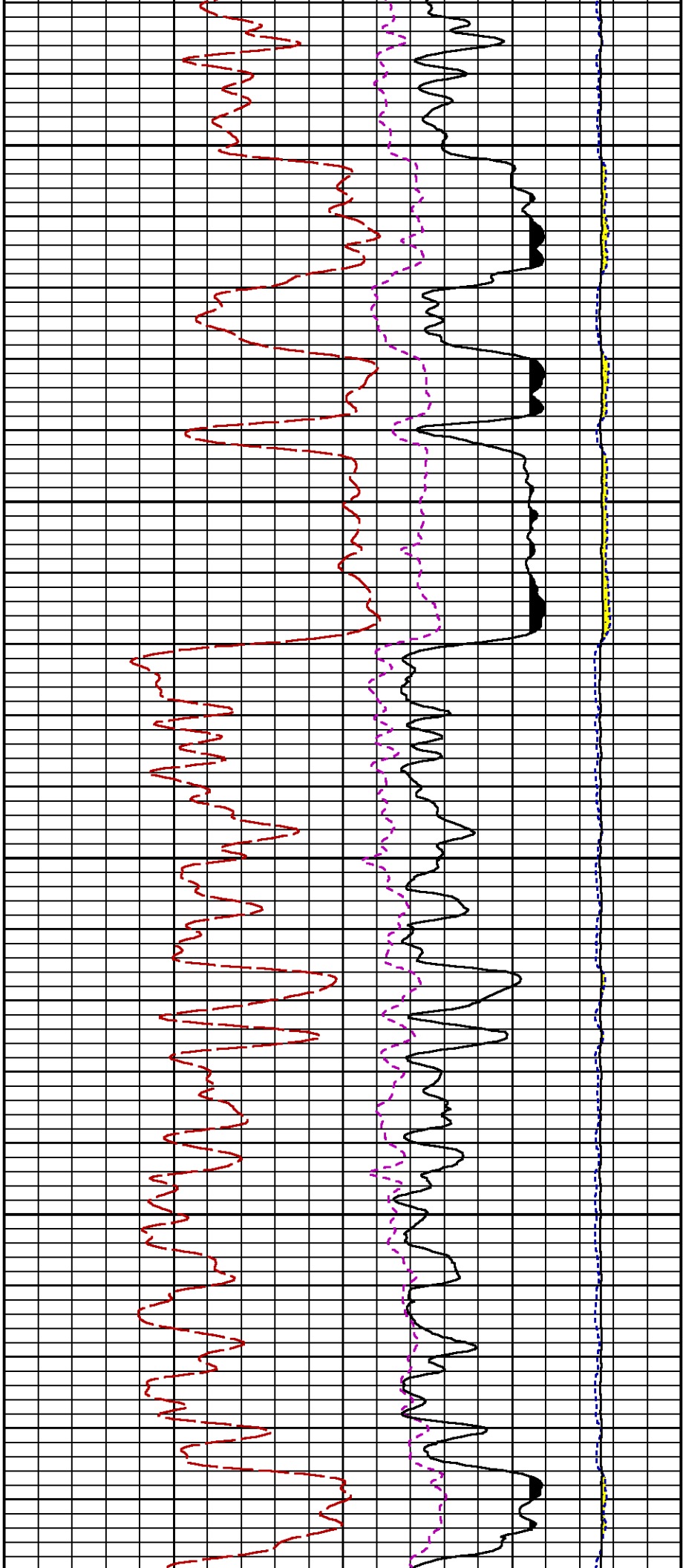


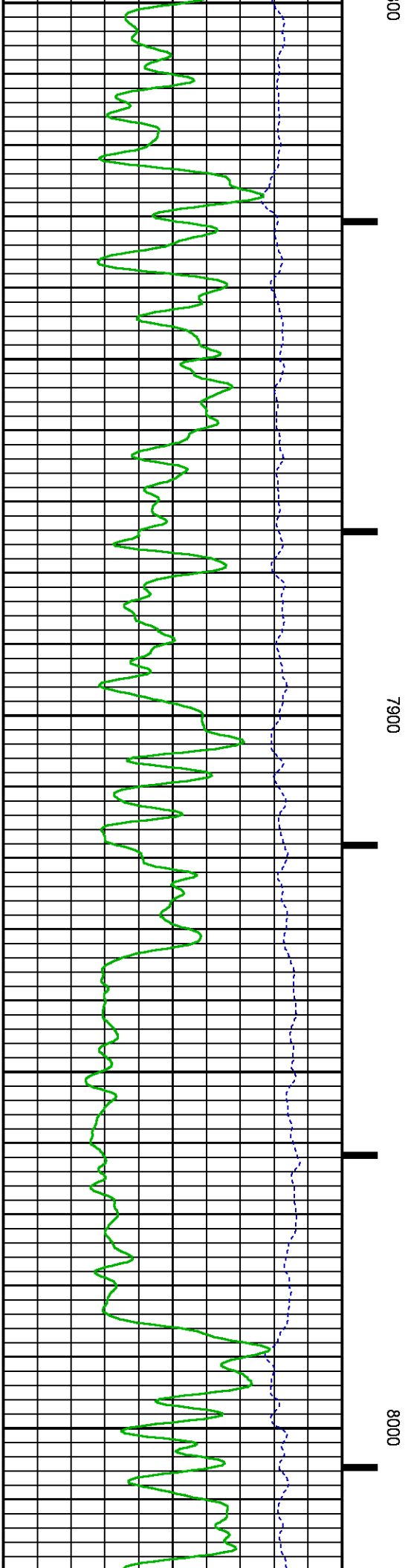
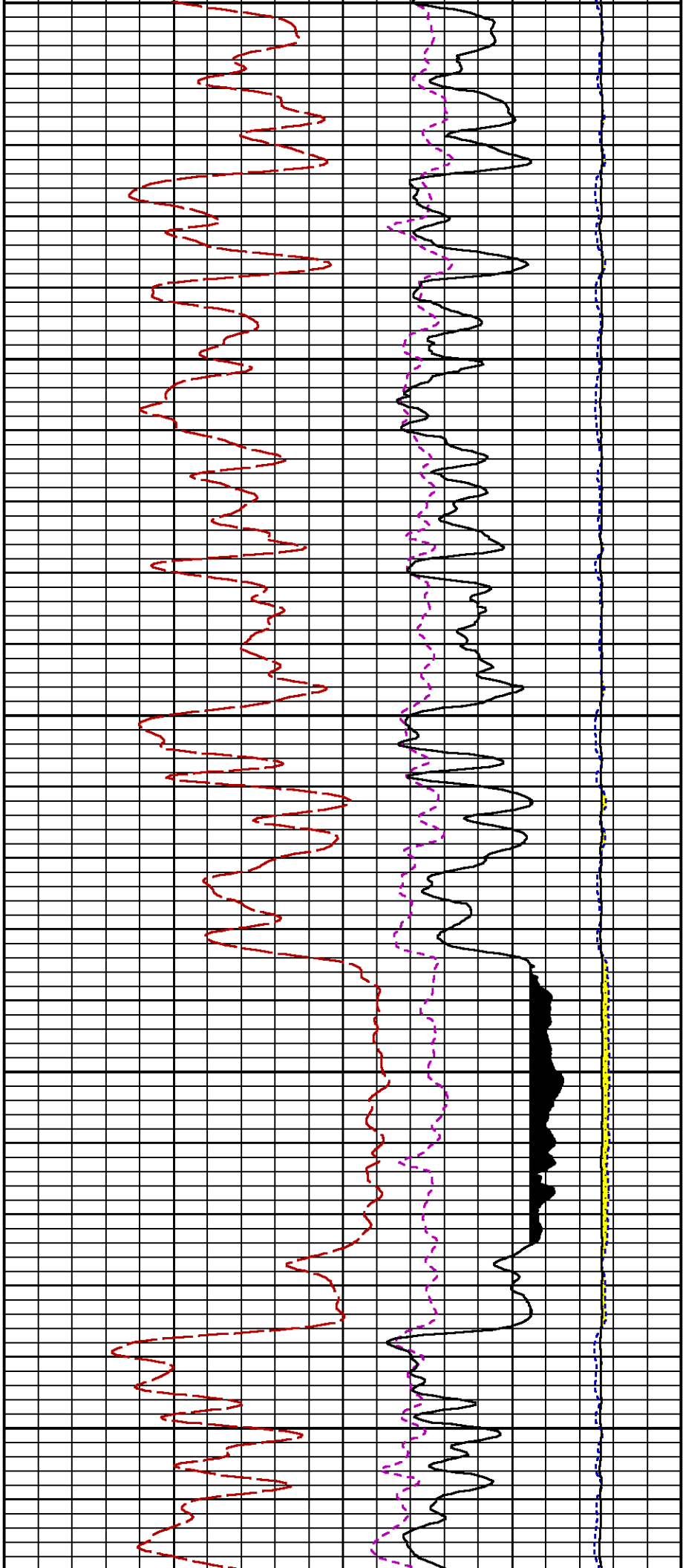


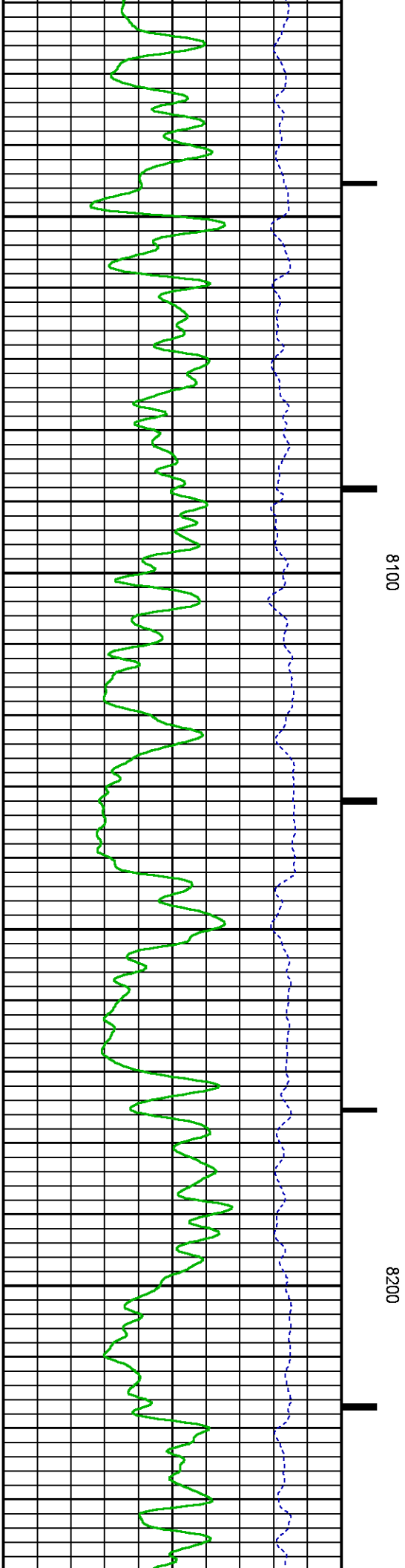
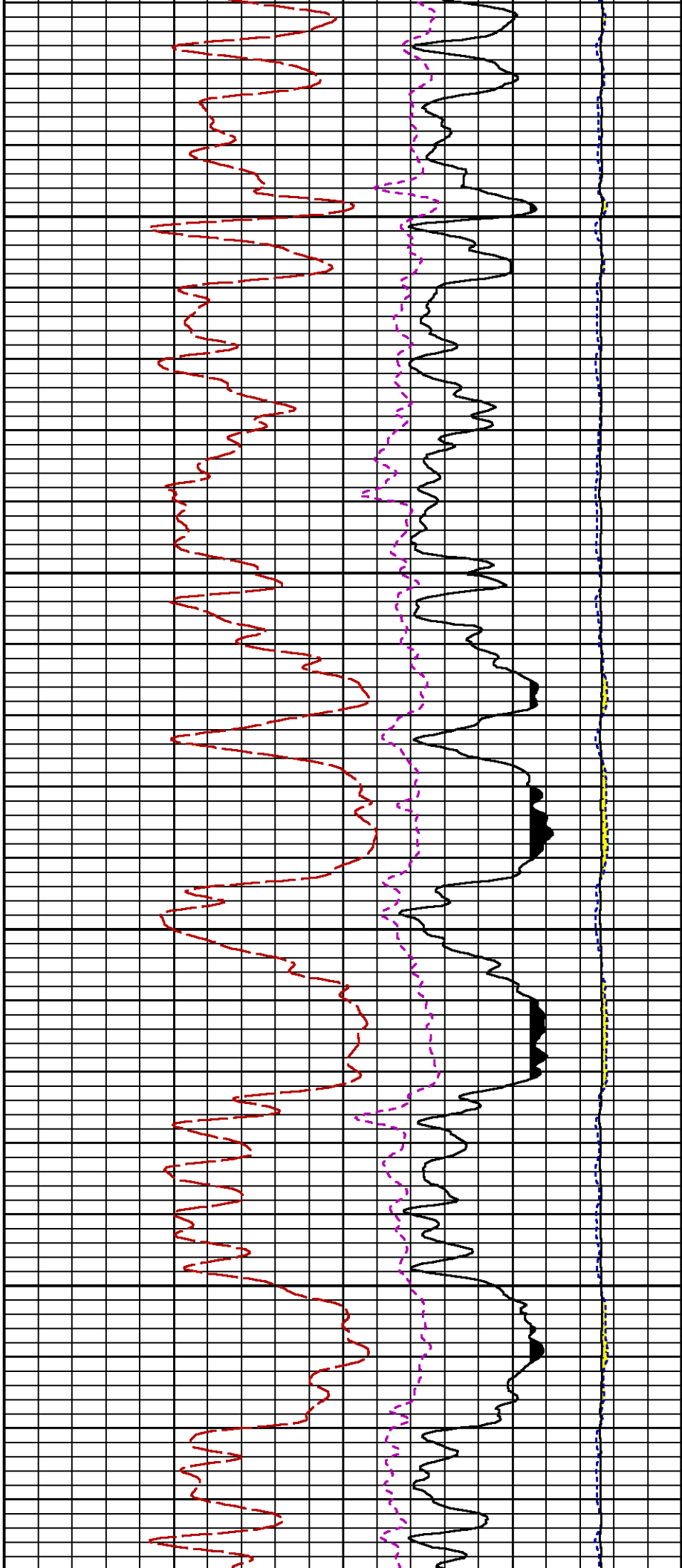


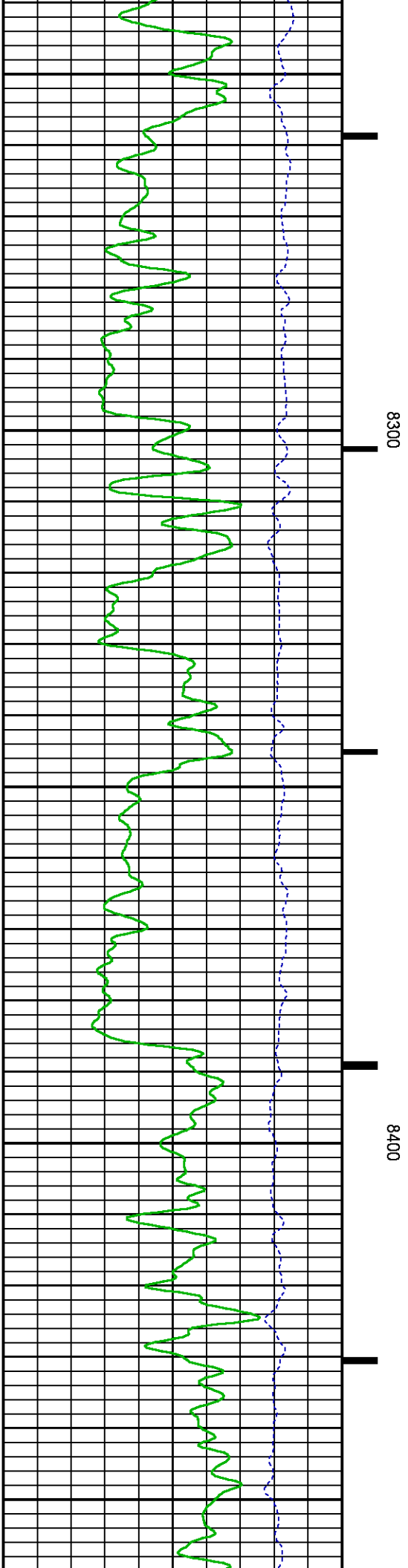
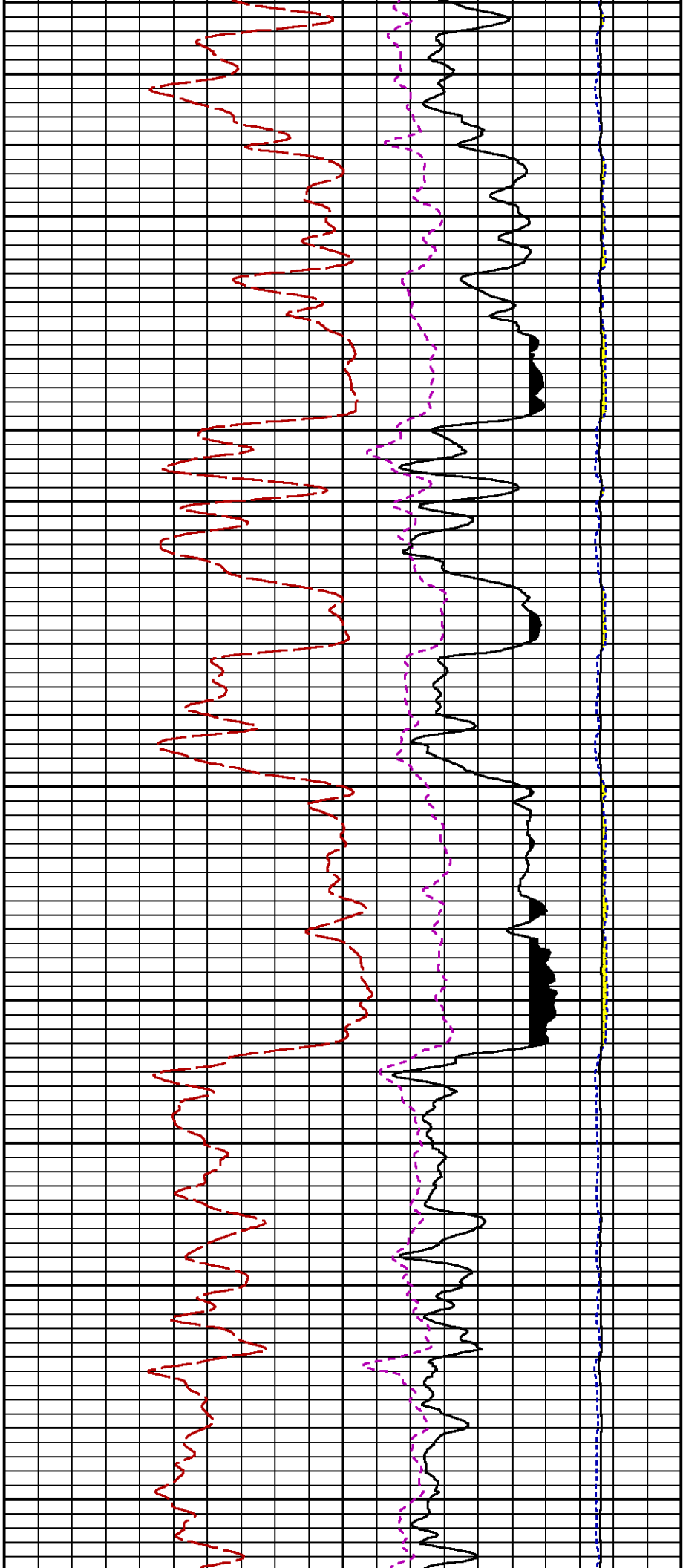


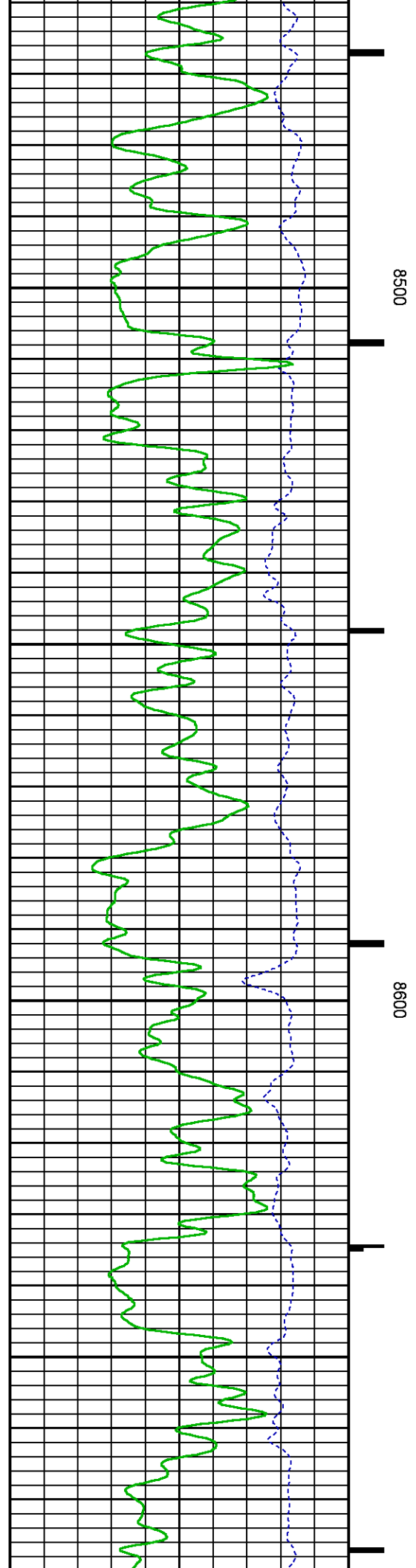
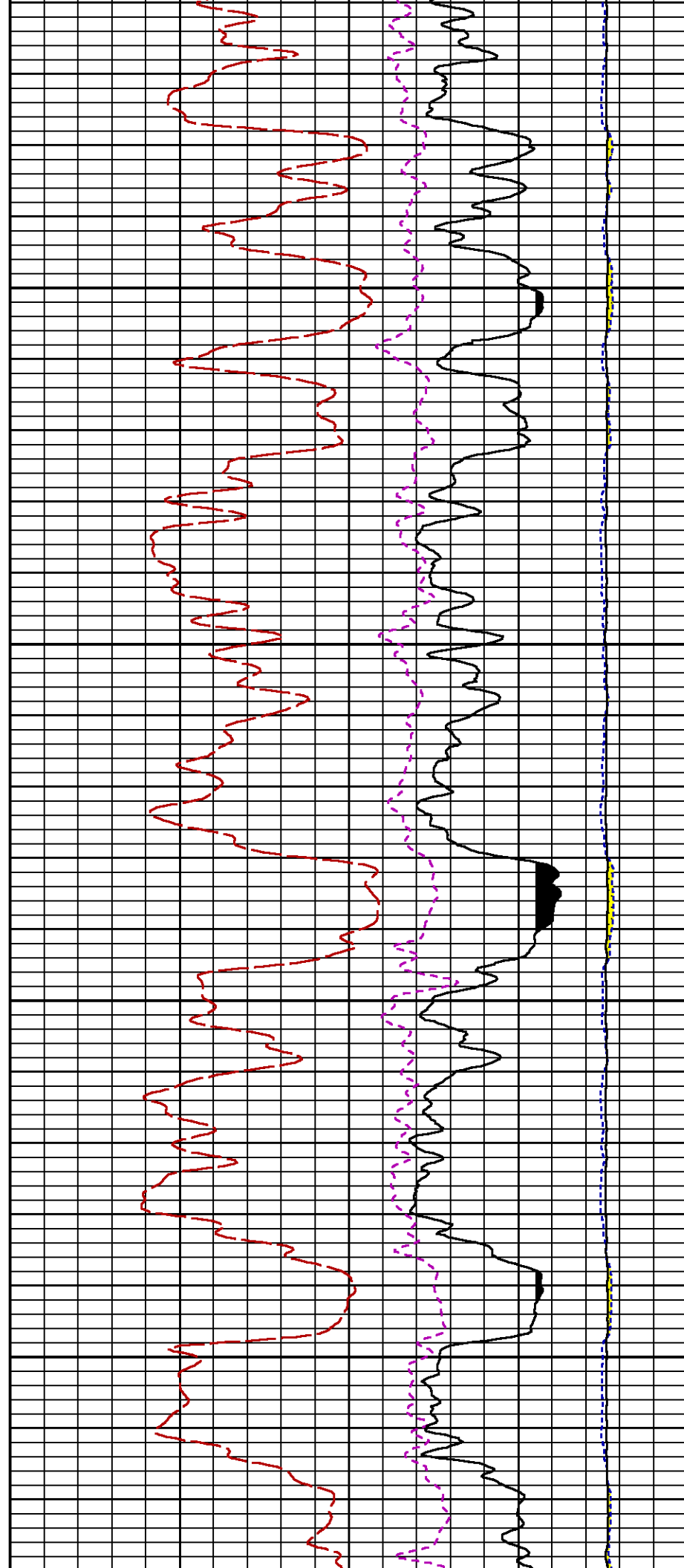


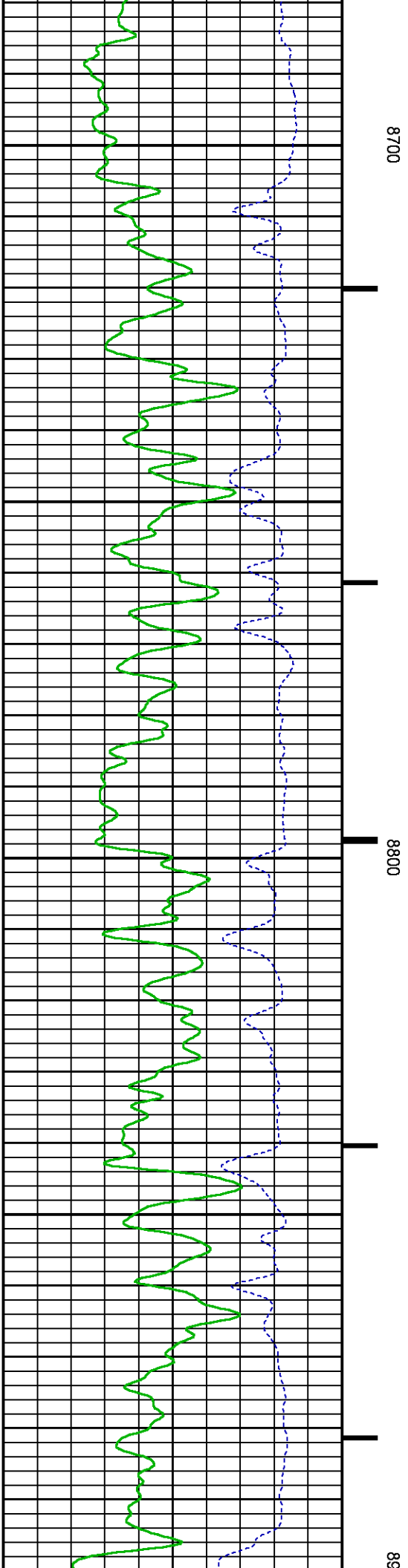
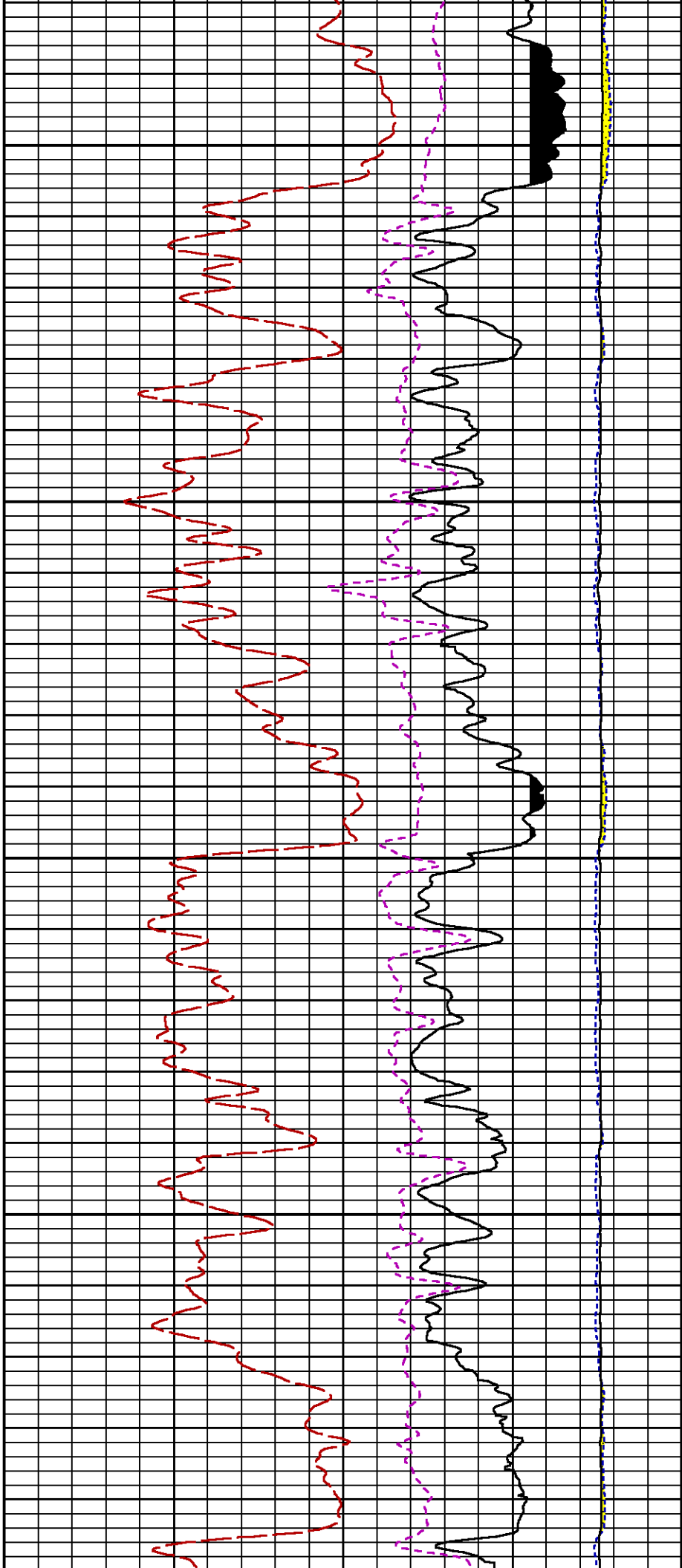


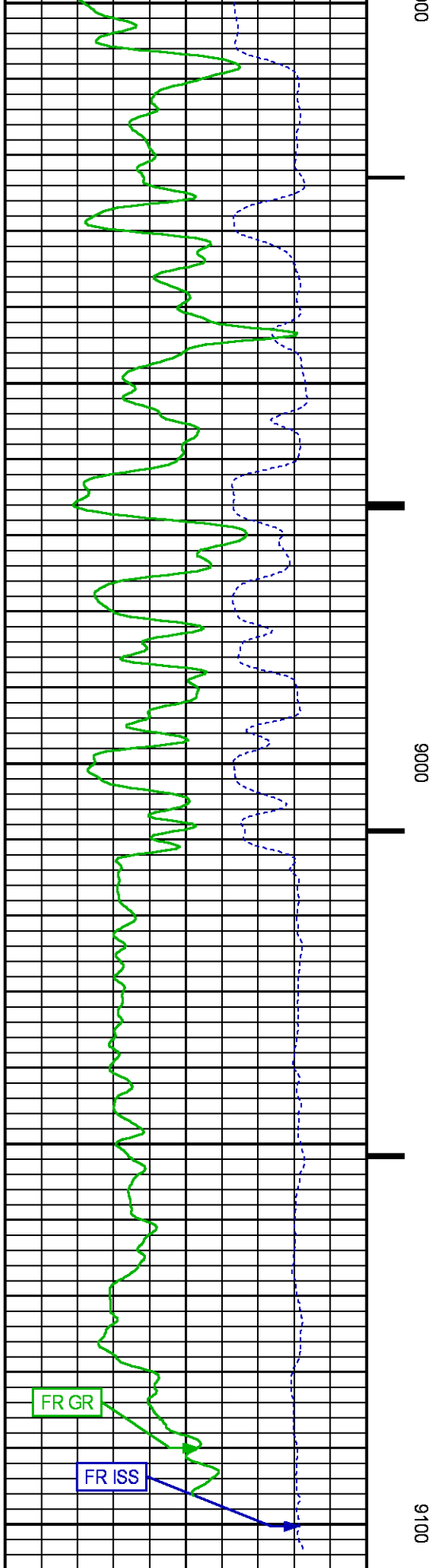
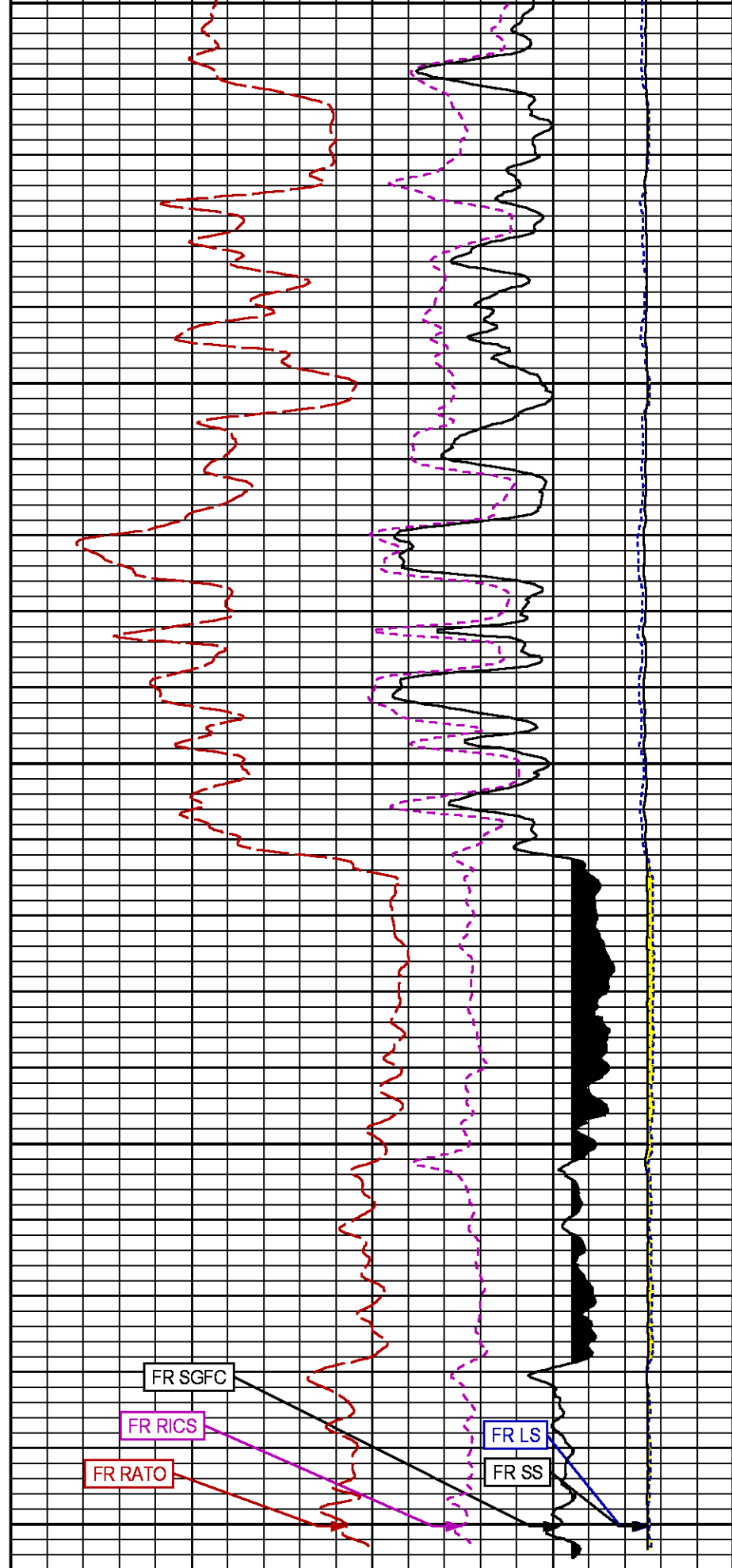




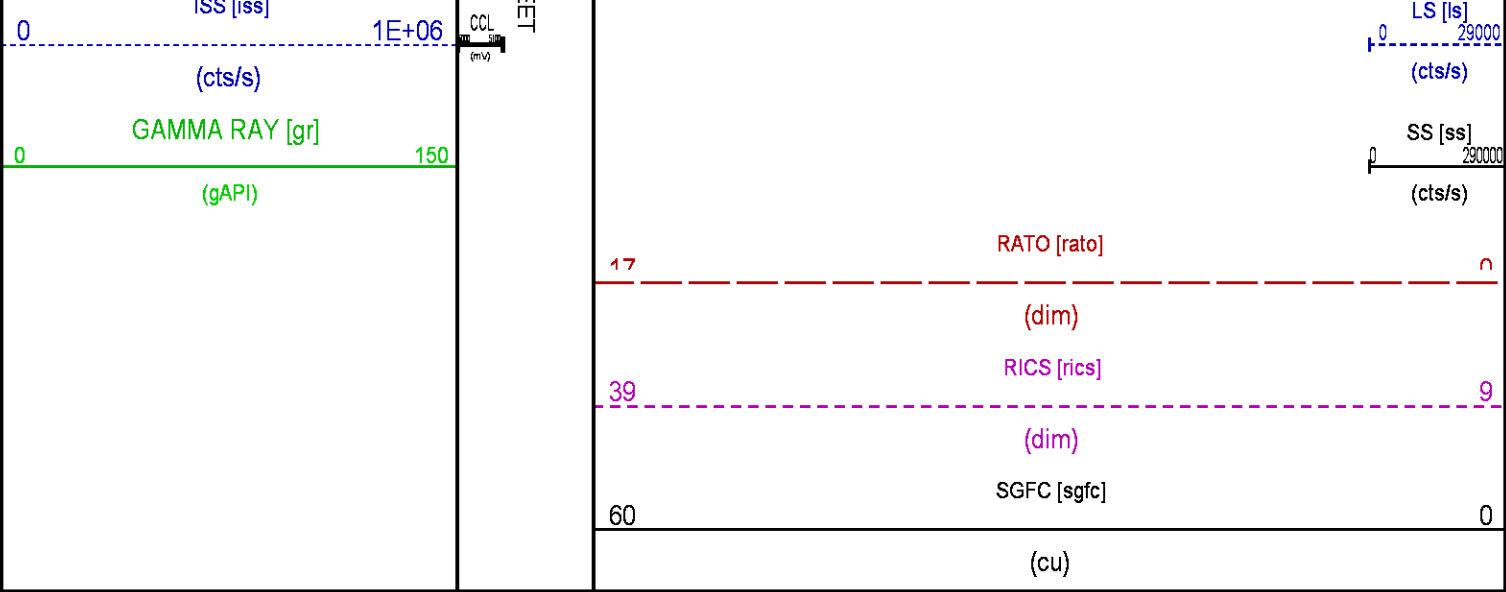








GR BACKUP



REPEAT SECTION PNC-3D MODE

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013  
Updates: 1 Patches: 9

Plotted: Sun Feb 28 15:04:29 2016

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH105972/n353hx01.prm  
LOGGING MODE: DEPTH DIRECTION: UP  
TOP DEPTH: 8895.500 ft BOTTOM DEPTH: 9124.000 ft

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR	FILTER ()	medium (1)		TOP	BOTTOM

RPM PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
PNC Parameters	BOREHOLE CONTENTS	FLUID		TOP	BOTTOM
	OPEN/CASED HOLE	CASED HOLE		"	"
	BOREHOLE SIZE	7.88	in	"	"
	CASING SIZE	4.50	in	"	"
	MATRIX	SANDSTONE		"	"
	CORRECTION BUFFER	11		"	"

CURVE DESCRIPTION REPORT

CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Feb 28 10:03:10 2016	CASING COLLAR LOCATOR
F1:GR	Feb 28 10:03:10 2016	GAMMA RAY
F1:ISS	Feb 28 10:03:10 2016	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Feb 28 10:03:10 2016	LONG SPACE COUNT RATE
F1:RATO	Feb 28 10:03:10 2016	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Feb 28 10:03:10 2016	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Feb 28 10:03:10 2016	CORRECTED FORMATION SIGMA
F1:SS	Feb 28 10:03:10 2016	SHORT SPACE COUNT RATE

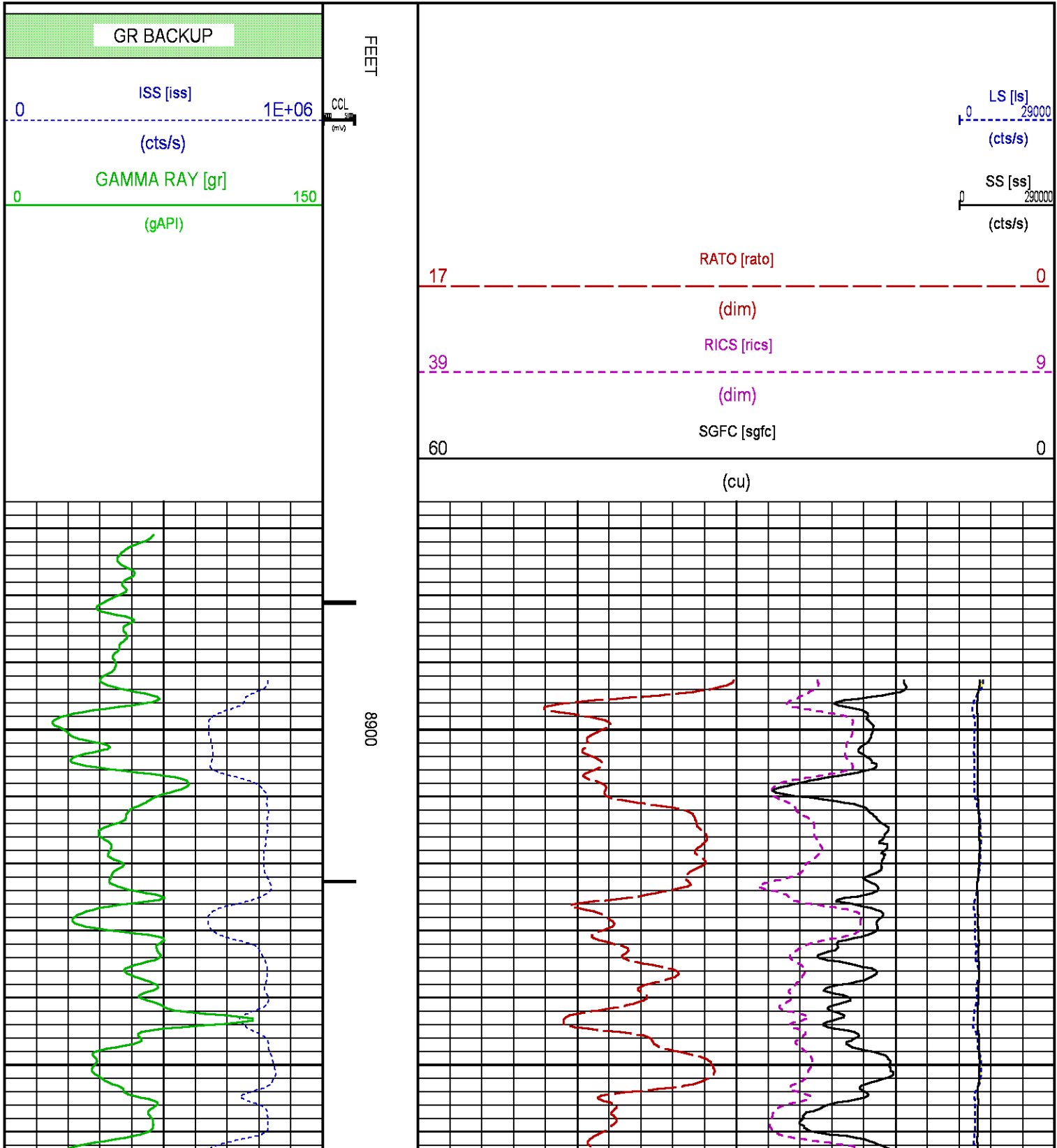
CURVE MEASURE POINT OFFSET

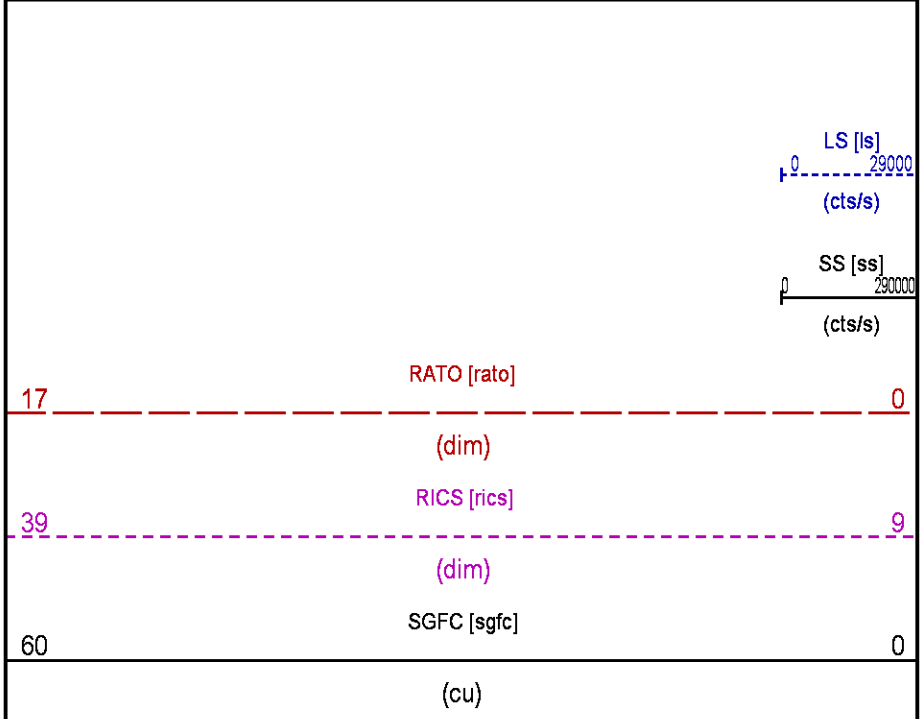
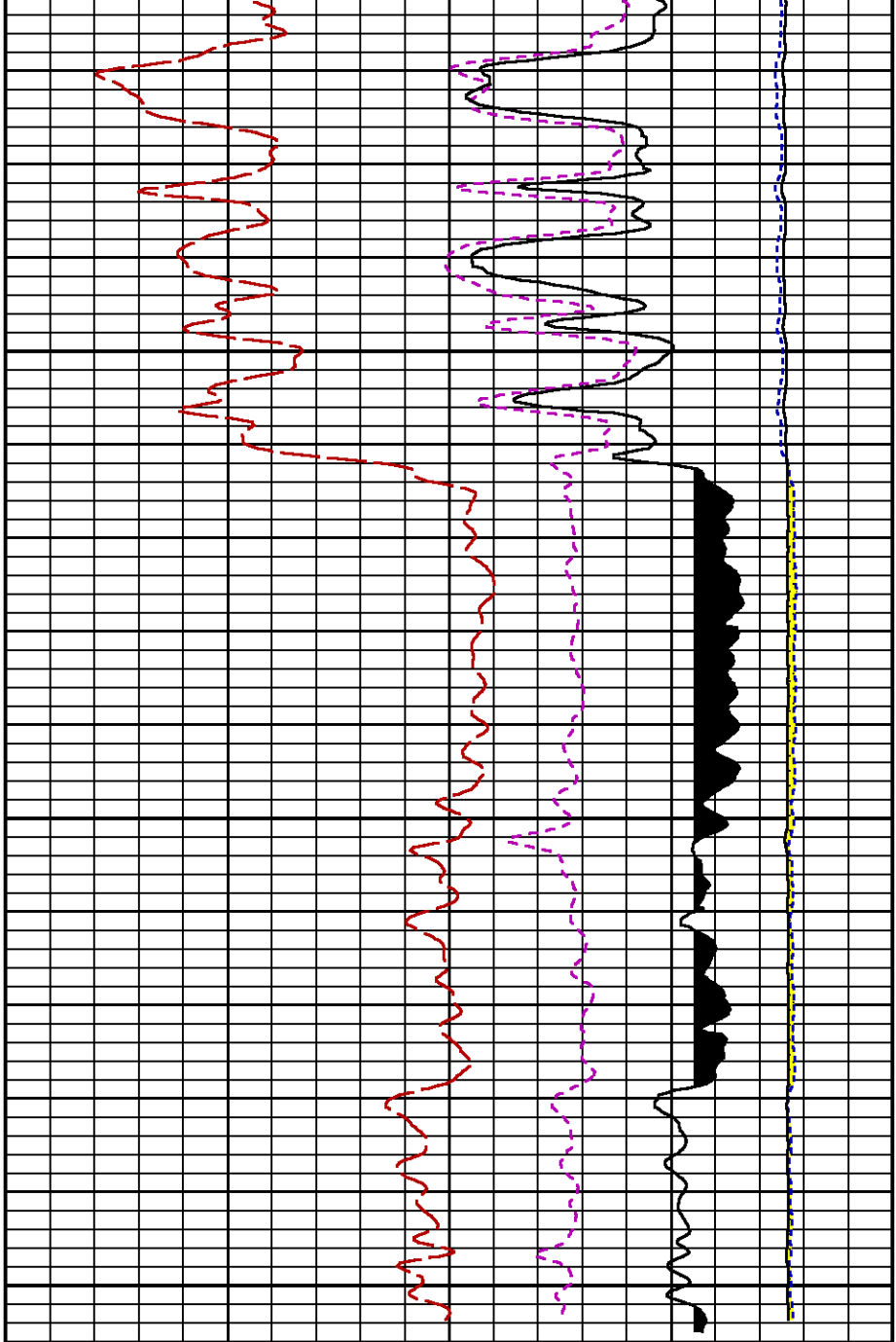
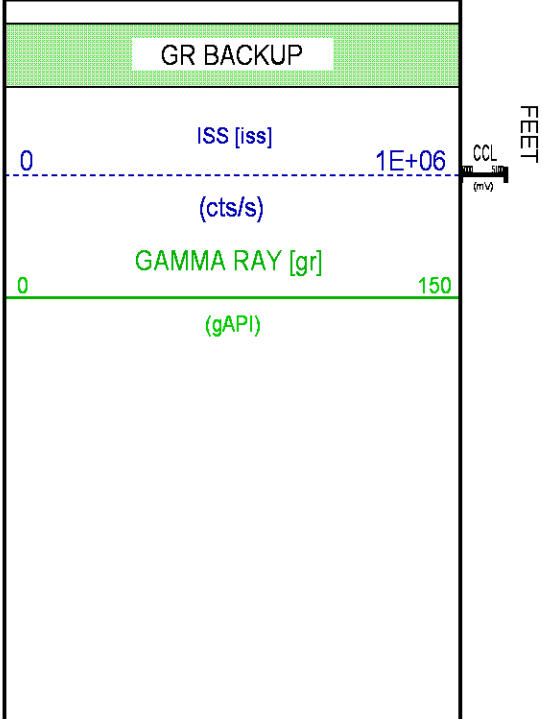
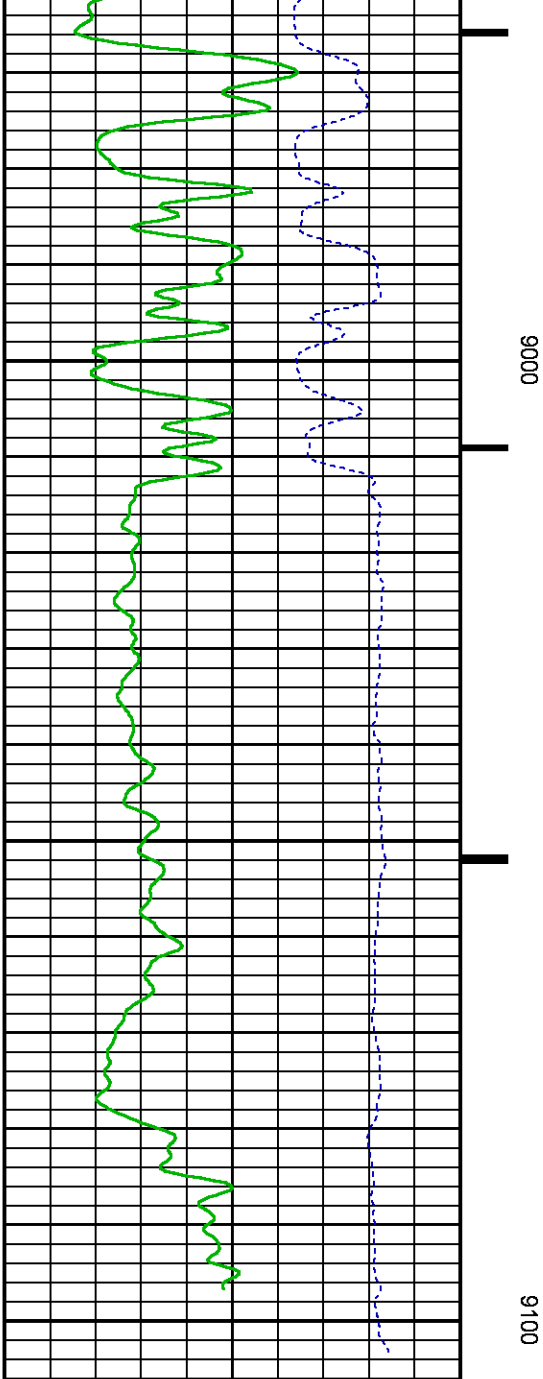
# CURVE MEASURE POINT OFFSET

CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	26.00	ISS	12.75	RATO	12.75	SGFC	12.75
GR	23.00	LS	12.75	RICS	12.75	SS	12.75

Presentation : cas6685:/dat1a/CH105972/RPM\_REPEAT.fvpdf [5"/100' Scale]  
 Plot Interval : 8866.75 - 9105 Feet

Data File 1 : F1 : cas6685:/dat1a/CH105972/n353hx01\_RPT.xtf  
 Created On : Feb 28 10:03:10 2016  
 Company : CAERUS OPERATING LLC  
 Well : PUCKETT 24A-1  
 Field : GRAND VALLEY  
 File Interval : 8866 - 9120 Feet  
 OCT : n353hx





## CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/CH105972/n353hx.tp1

### GR PRIMARY CALIBRATION SUMMARY

TOOL #: 8262XA 10485470

DATE/TIME PERFORMED: Fri Feb 19 11:58:11 2016

UNIT #: 3885TD MI4230

CALB JIG #: 4702NK BA-856

	BACKGROUND	CALBRTR ON	CR DIFF	MULT	BACKGROUND	CALBRTR ON	CALBRTR
	(cts/s)	(cts/s)	(cts/s)		(gAPI)	(gAPI)	(gAPI)
GR	106.20	451.82	345.6	0.521	55.31	235.31	180

### GR PRIMARY VERIFICATION SUMMARY

TOOL #: 8262XA 10485470

DATE/TIME PERFORMED: Fri Feb 19 12:01:19 2016

UNIT #: 3885TD MI4230

VERI JIG #: 4702NK BA-856

	BACKGROUND	CALBRTR ON	MULT	BACKGROUND	CALBRTR ON	DIFF.
	(cts/s)	(cts/s)		(gAPI)	(gAPI)	(gAPI)
GR	106.11	449.09	0.521	55.26	233.89	178.62
						170.00 190.00

### RPM\_PNC\_3D PRIMARY CALIBRATION SUMMARY

TOOL: 8283PA 10169251

DATE/TIME PERFORMED: Fri Feb 19 11:53:57 2016

UNIT: 3885TD MI4230

CALIBRATOR: 2437XB GJ\_SHOP

SOURCE: 8281AA 11765055

HOURS: 8281AA 129

	ISS	Mtr Vlt (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	808799	121	2323	2310	2316	122	7.0	0.9766
Interpolated	1300000	142	2301	2301	2311			

	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	808799	7929	1296	163	26.09	0.15	24.20	0.33
					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	808799	169212	26330	89116	31701	8255	53960	13211
Fit Quality %		1.349	1.240	1.211	1.174	1.373	1.111	1.370

	ISS	RBOR	RIN	RIN13	RICS	RATO	RTWO	RONE
			ISS/LS	ISS/IXS	ISS/CSS	SS/LS	SS2/LS	CSS/CLS
Raw Data	808799	1.43	4.78	30.73	14.99	10.80	3.84	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 %		0.114	0.041	0.027	0.132	0.131	0.153	0.156
Reduced	1400298	1.43	4.79	30.81	15.01	10.80	3.84	4.09
		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

## TPSETEMP PRIMARY CALIBRATION SUMMARY

TOOL #: 8255XA 11774568

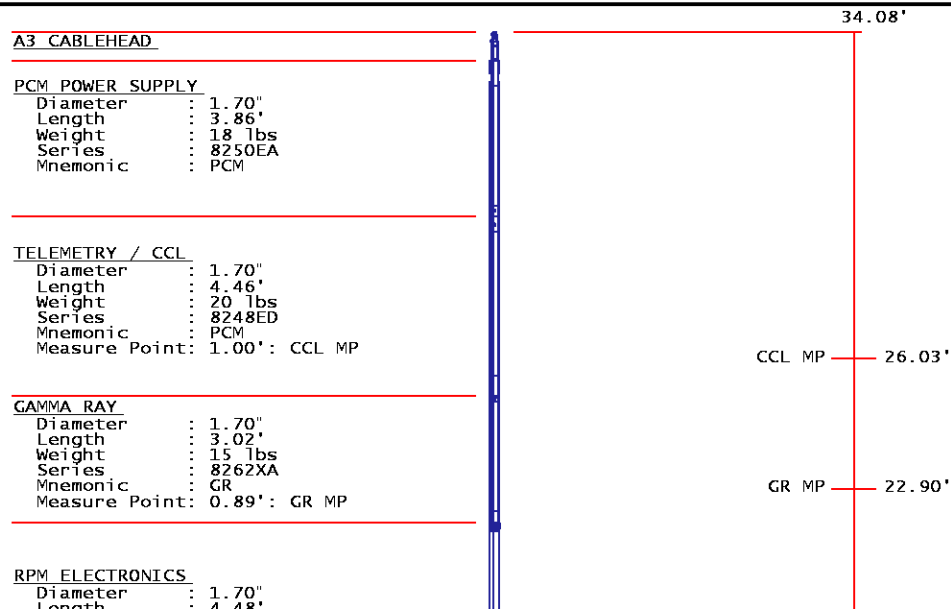
DATE/TIME PERFORMED: Wed May 14 12:39:45 2014

UNIT #: 3880TA HL6670

	T(0)	T(1)	T(2)	T(3)
Corr Coeff for Temp	-9.274653E+00	1.055639E-01	2.143764E-06	-2.782846E-10

## INSTRUMENT CONFIGURATION

Source File: /dat1a/CH105973/n353hx~joe-ldg



Weight : 16 lbs  
Series : 8281EA  
Mnemonic : RPM

RPM C DETECTOR SECTION

Diameter : 1.70"  
Length : 9.40'  
Weight : 41 lbs  
Series : 8283PA  
Mnemonic : RPM  
Measure Point: 5.45': XLS DETECTOR  
Measure Point: 5.04': LS DETECTOR  
Measure Point: 4.79': SS DETECTOR

XLS DETECTOR 13.58'  
LS DETECTOR 13.16'  
SS DETECTOR 12.91'

RPM SOURCE SECTION

Diameter : 1.70"  
Length : 4.70'  
Weight : 18 lbs  
Series : 8281FA  
Mnemonic : RPM

TEMPERATURE / PRESSURE

Diameter : 1.70"  
Length : 3.30'  
Weight : 13 lbs  
Series : 8255XA  
Mnemonic : SRPL  
Measure Point: 1.52': TEMP MP

TEMP MP 1.65'  
PRES MP

BULL PLUG 1 11/16

TOTAL LENGTH: 34.08'  
TOTAL WEIGHT: 144 lbs  
MAX DIAMETER: 0'1.70'

0.00'



COMPANY CAERUS OPERATING LLC  
WELL PUCKETT 24A-1  
FIELD GRAND VALLEY  
COUNTY GARFIELD STATE COLORADO

FILE NO:  
CH105972  
API NO:  
05045226170000

LOCATION:  
SHL: 308' FEL 1088' FSL SEC2 T7S R97W  
BHL: 1909' FEL 1042' FSL SEC1 T7S R97W  
SEC 1 TWP 7S RGE 97W

**ELEVATIONS:**

KB 8453.8 FT  
DF  
GL 8423.8 FT

SEC 1 T7S R97W  
H&P 330  
MESA P2 797 PAD

DATE 28-FEB-2016