



FILE NO:	COMPANY
CH092510	LARAMIE ENERGY
API NO:	WELL
05077100100000	SUP & SHEP FEDERAL 25-12W
	FIELD
	VEGA
	COUNTY
	MESA
	STATE
	CO

Ver. 3.87	LOCATION:	OTHER SERVICES
25 9S 93W	SHL: LAT 39.245018 LONG -107.722842	BOND LOG
SUP & SHEP 25-11	BHL: LAT 39.244698 LONG -107.726800	
PATTERSON 306	SEC 25 TWP 9S RGE 93W	

PERMANENT DATUM	GL	ELEVATION	8074 FT	ELEVATIONS:
LOG MEASURED FROM	KB	22 FT	ABOVE P.D.	KB 8096 FT
DRILL. MEAS. FROM	KB			DF
				GL 8074 FT

DATE	02-Dec-2014
RUN	1
TRIP	1
SERVICE ORDER	US092510
DEPTH DRILLER	8561 FT
DEPTH LOGGER	8501 FT
BOTTOM LOGGED INTERVAL	8491 FT
TOP LOGGED INTERVAL	3421 FT
TIME STARTED	12:00
TIME FINISHED	17:30
OPERATOR RIG TIME	5.5 HOURS
TYPE OF FLUID IN HOLE	WATER
FLUID DENSITY	NA
FLUID SALINITY	NA
FLUID LEVEL	80 FT
LOGGED CEMENT TOP	NA
WELLHEAD PRESSURE	0 PSI
MAXIMUM HOLE DEVIATION	NA
NOMINAL LOGGING SPEED	10 FMIN
MAX. RECORDED TEMP.	256 DEGF
REFERENCE LOG	BAKER HUGHES BOND LOG
REFERENCE LOG DATE	02-DEC-2014
EQUIP. NO.	HL-6670
LOCATION	GRAND JCT.
RECORDED BY	RENEAU / EDWARDS
WITNESSED BY	JOHN GRUBICH

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
7.875 IN		8642 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
4.5 IN	11.6 LB/F	I-80	0 FT	8642 FT

REMARKS

RUN 1 TRIP 1: All data on this log is shifted and depth matched using the Gamma Ray curve to the Baker Hughes bond log dated 02/DEC/2014 at the client's request.

Logged in PNC-3D mode.

BHT = 256 degF

SJ = 5277' - 5299'

SJ = 7505' - 7527'

THANK YOU FOR CHOOSING BAKER HUGHES WIRELINE SERVICES

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	TEMP	8255XA	11774586	FREE
1	1	RPM	8281FA	10307727	FREE
1	1	RPM	8283PA	10160383	FREE
1	1	RPM	8281EA	10190984	FREE
1	1	GR	2812LA	11701636	FREE
1	1	TEL/CCL	8248EA	10590814	FREE
1	1	PCM	8250EA	10408796	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: 4

Plotted: Tue Dec 2 16:32:22 2014

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH092510/n354h03.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 5152.000 ft BOTTOM DEPTH: 8505.500 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	Dec 2 12:54:31 2014	CASING COLLAR LOCATOR
F1:GR	Dec 2 12:54:31 2014	GAMMA RAY
F1:ISS	Dec 2 12:54:31 2014	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Dec 2 12:54:31 2014	LONG SPACE COUNT RATE
F1:RATO	Dec 2 12:54:31 2014	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Dec 2 12:54:31 2014	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Dec 2 12:54:31 2014	CORRECTED FORMATION SIGMA
F1:SS	Dec 2 12:54:31 2014	SHORT SPACE COUNT RATE

CURVE MEASURE POINT OFFSET

CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	25.00	ISS	12.75	RATO	12.75	SGFC	12.75
GR	22.75	LS	12.75	RICS	12.75	SS	12.75

Presentation : HL6670:/dat1a/CH092510/12W_RPM_MAIN.fvpdf [5"/100' Scale]
 Plot Interval : 5160 - 8506 Feet

Data File 1 : F1 : HL6670:/dat1a/CH092510/12W_RPM_MAIN.xtf
 Created On : Dec 2 12:54:31 2014
 Company : LARAMIE ENERGY
 Well : SUBSHER FEDERAL 25 12W

Well : SUP SHEP FEDERAL 25-12W
Field : VEGA
File Interval : 5126 - 8505.5 Feet
OCT : n354h

GR BACKUP

ISS [iss]

1E+06

(1)

GAMMA RAY [gr]

150

(gAPI)

FEET

CCL
(mV)

5200

SHORT JOINT

LS [ls]

29000

(1)

SS [ss]

290000

(1)

RATO [rato]

17

0

(1)

RICS [rics]

38

8

(1)

SGFC [sgfc]

60

0

(1)

GR

ISS

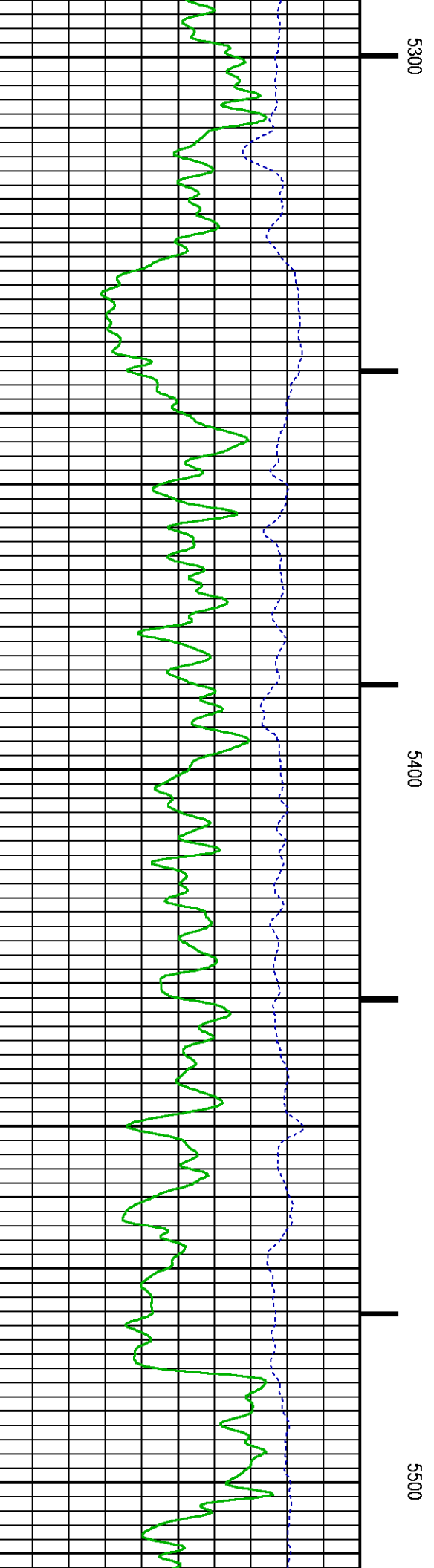
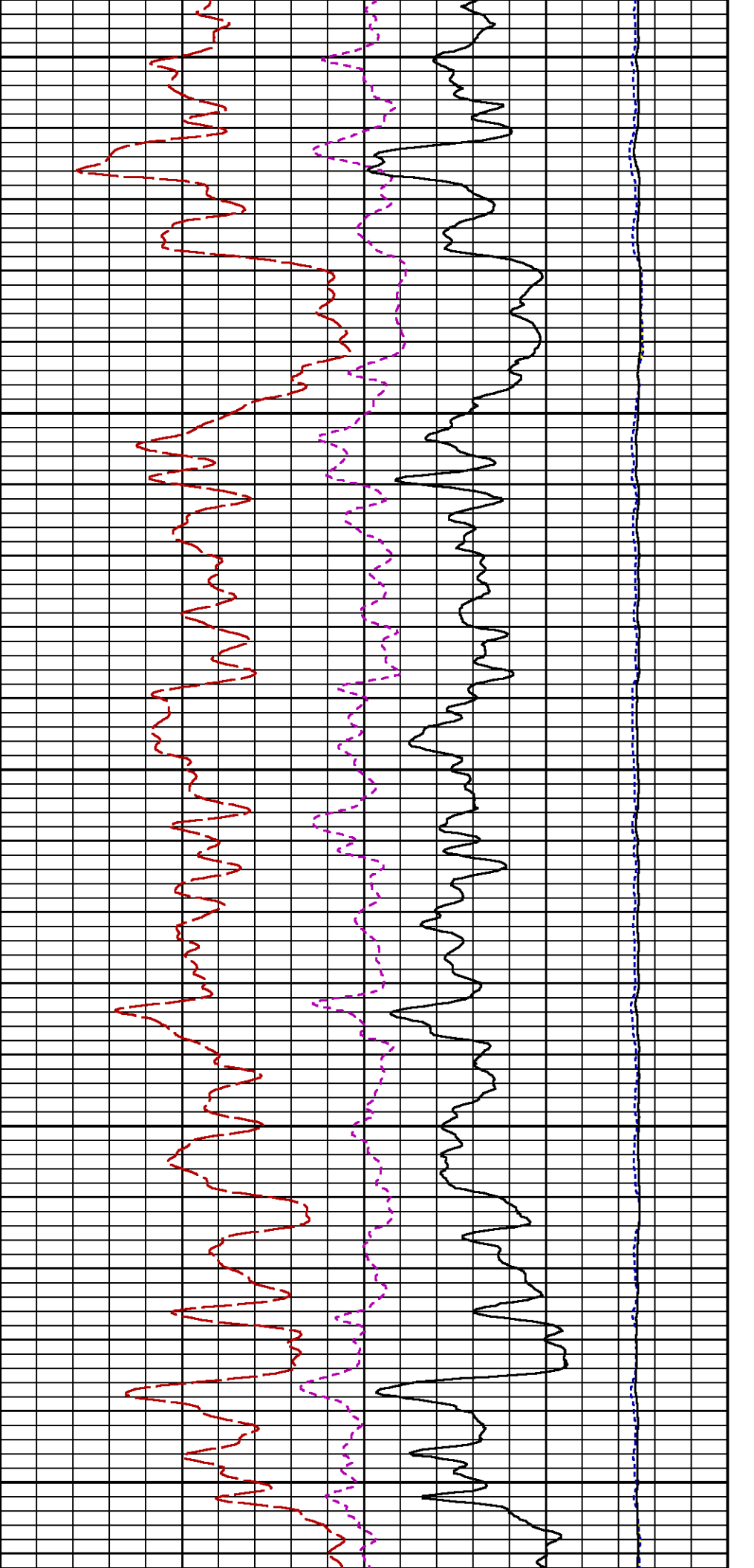
RATO

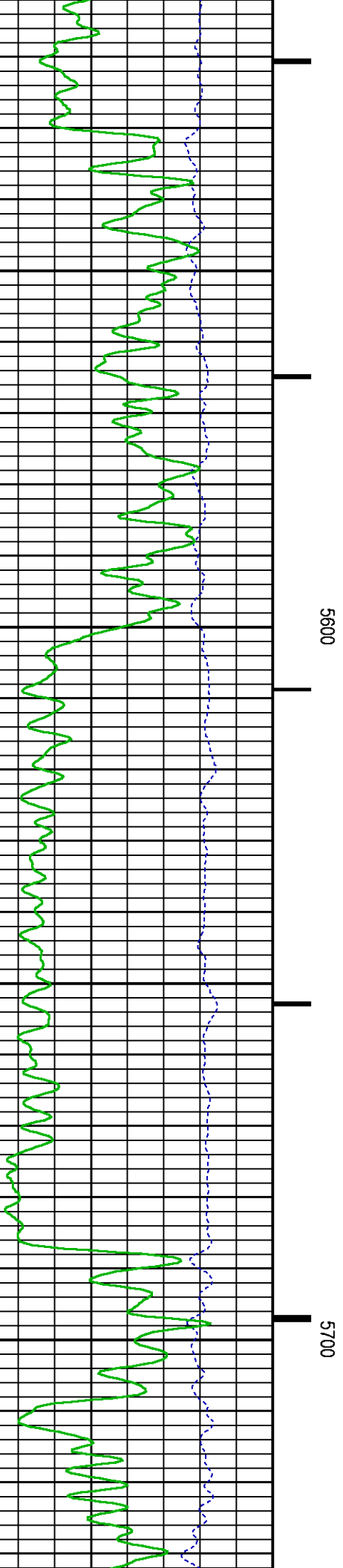
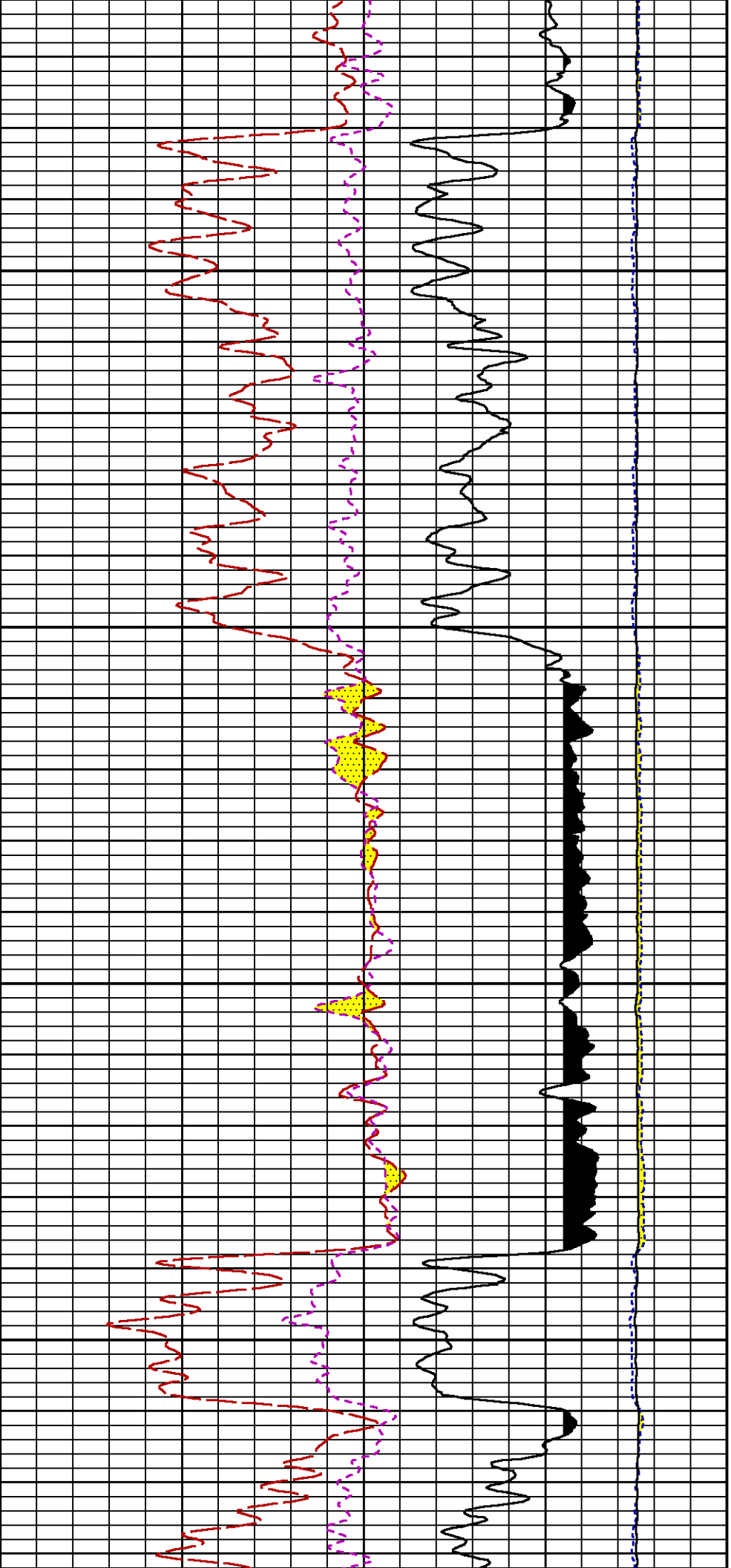
RICS

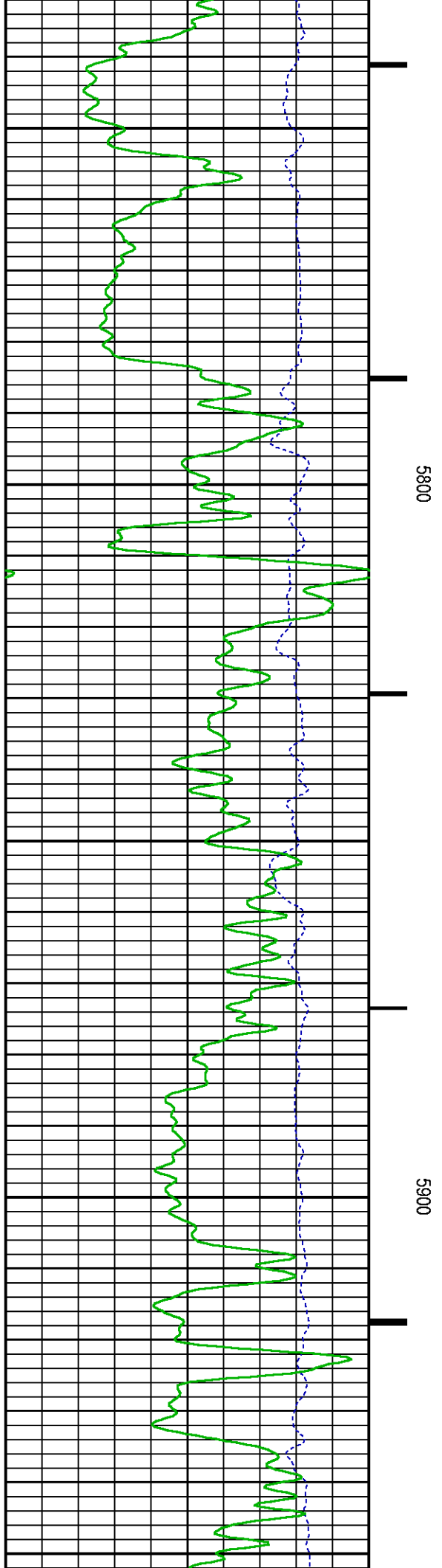
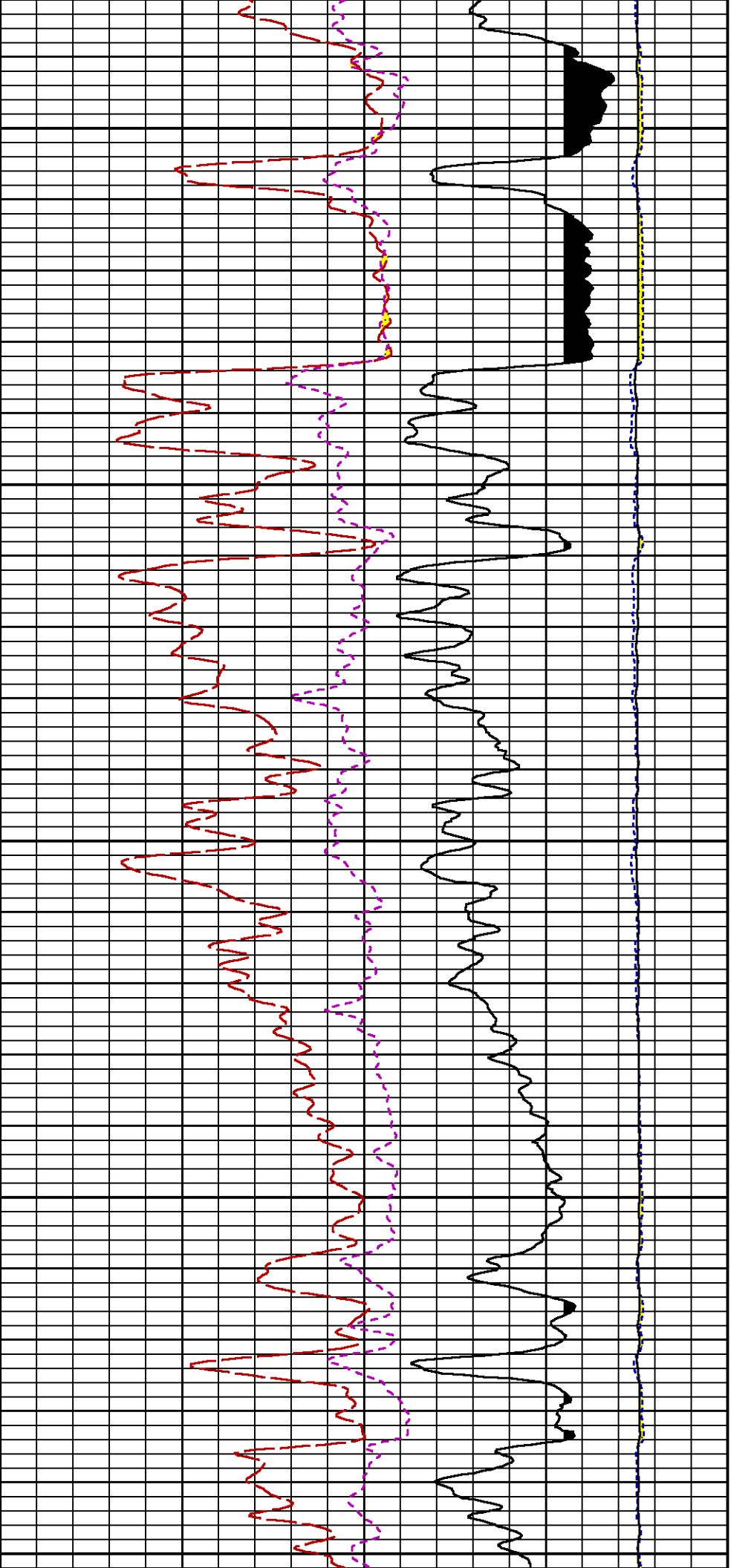
LS

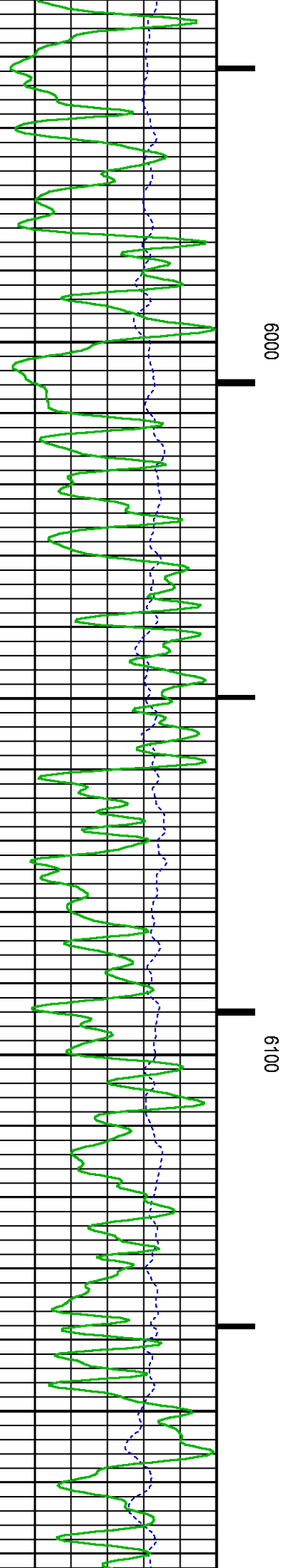
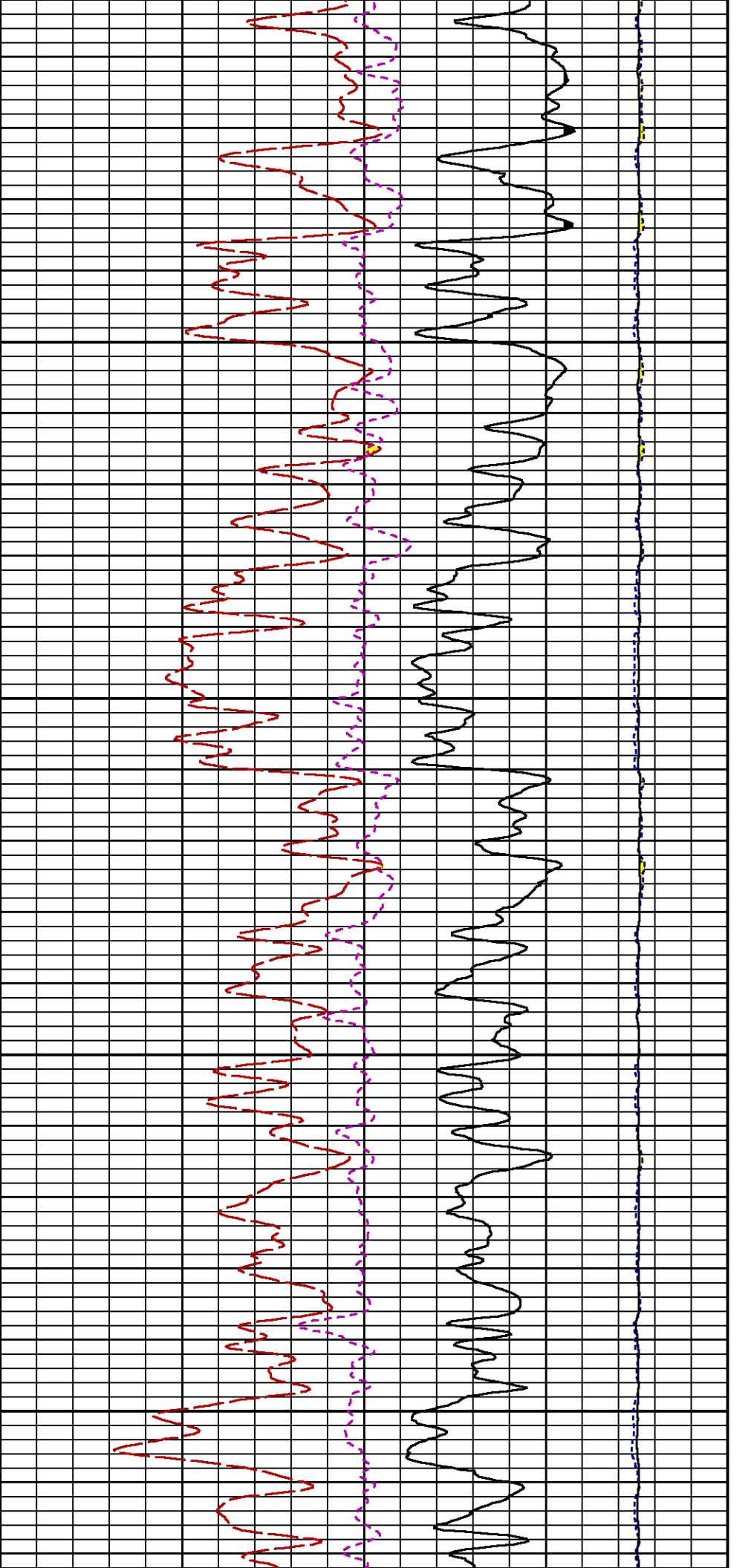
SS

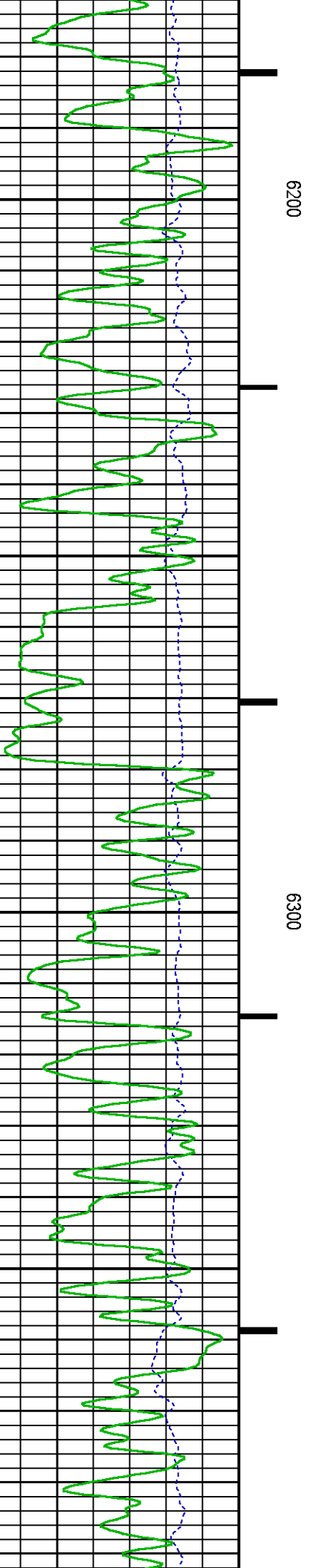
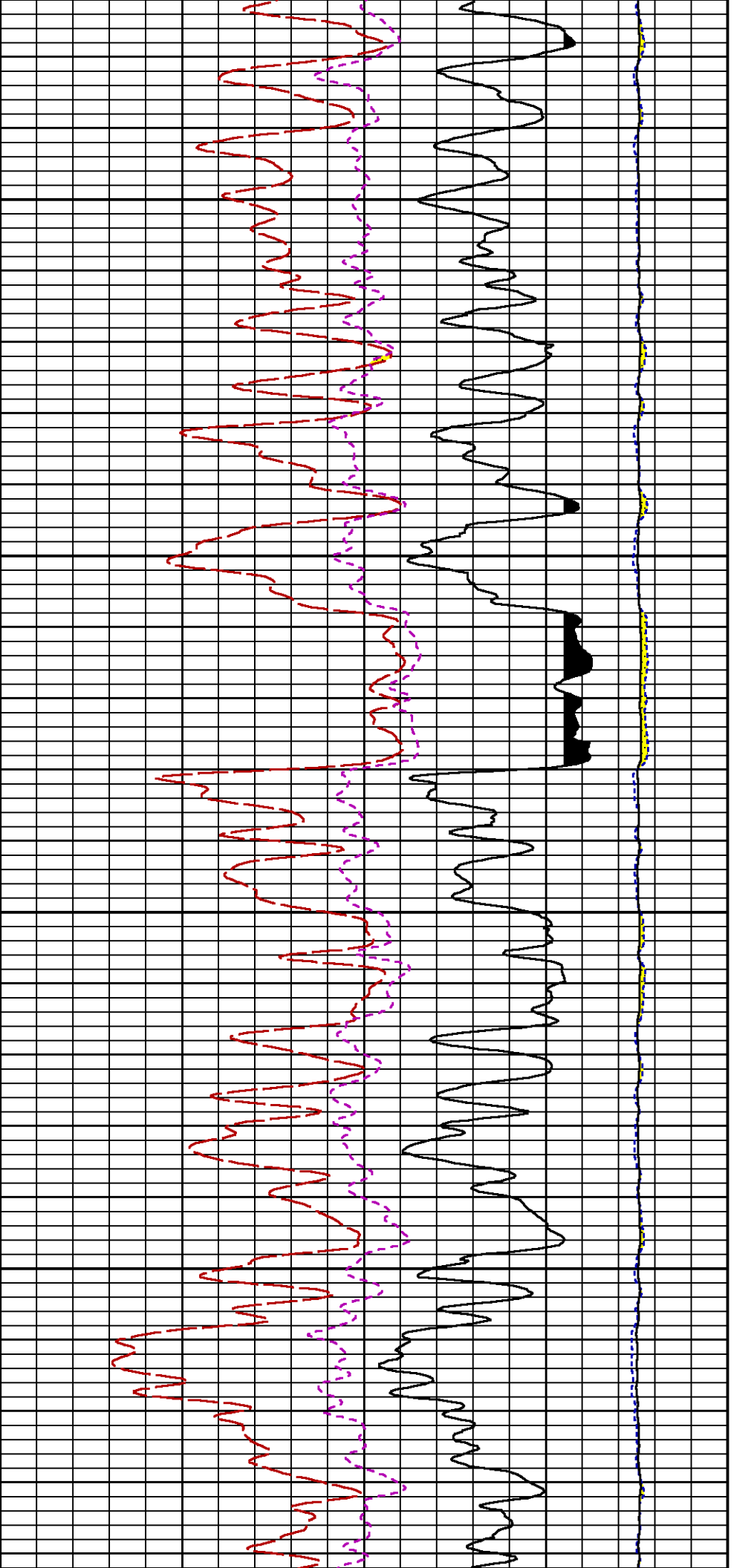
SGFC

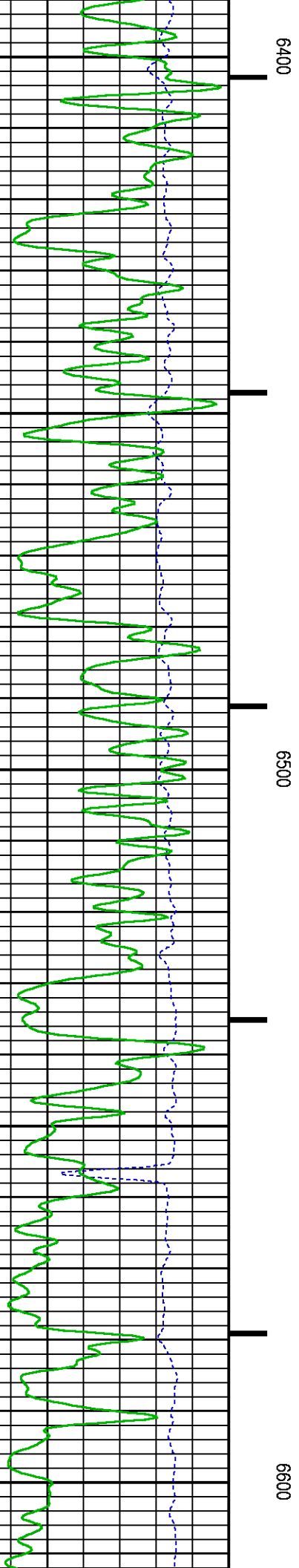
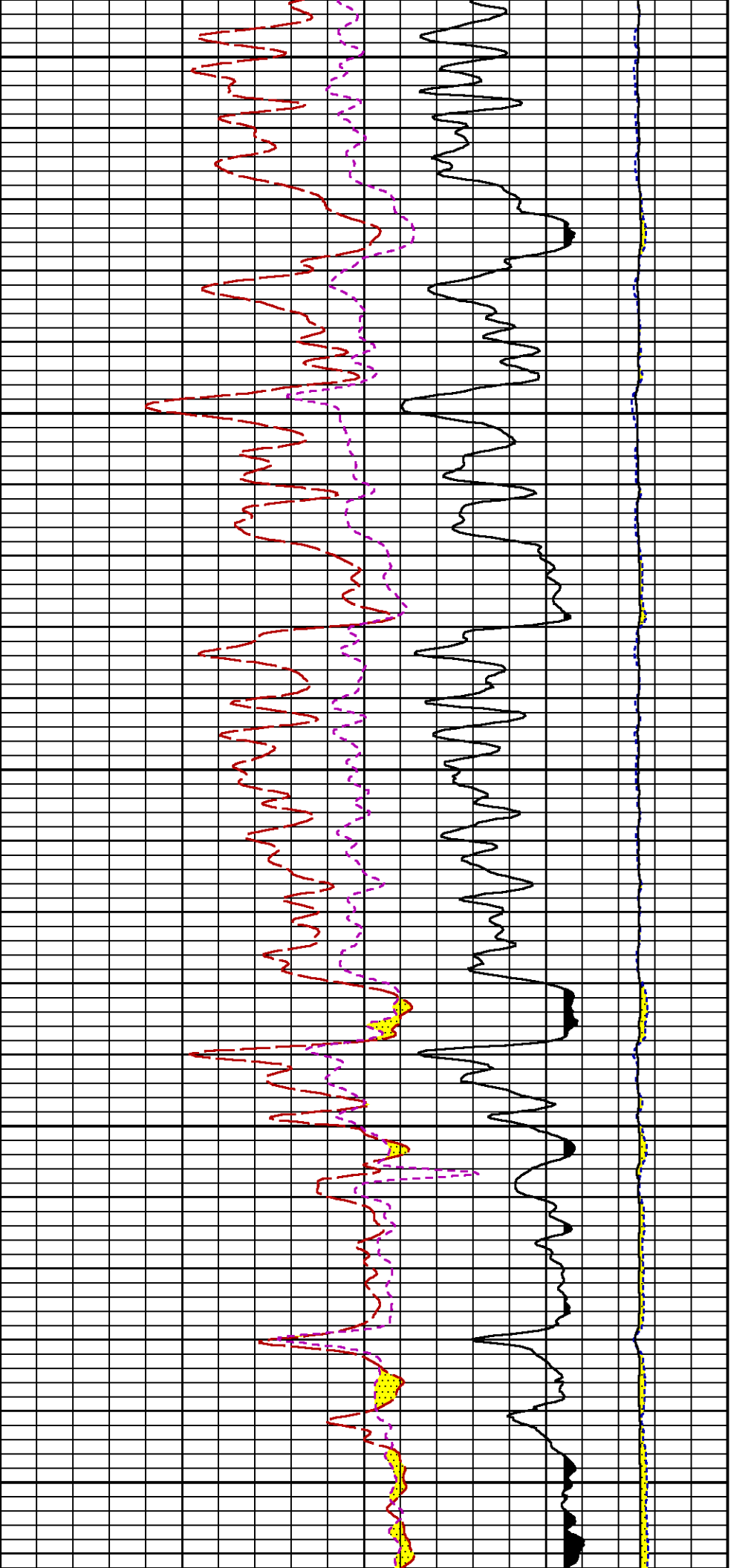


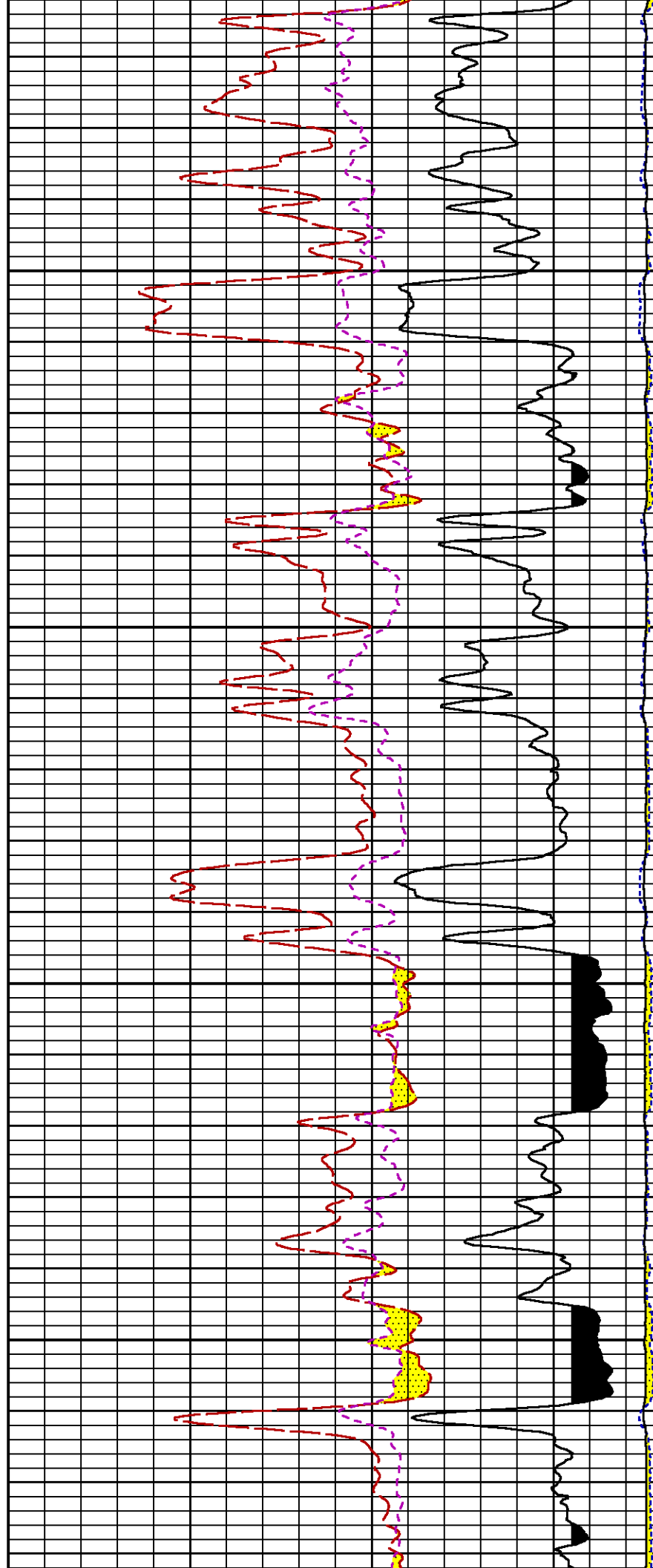
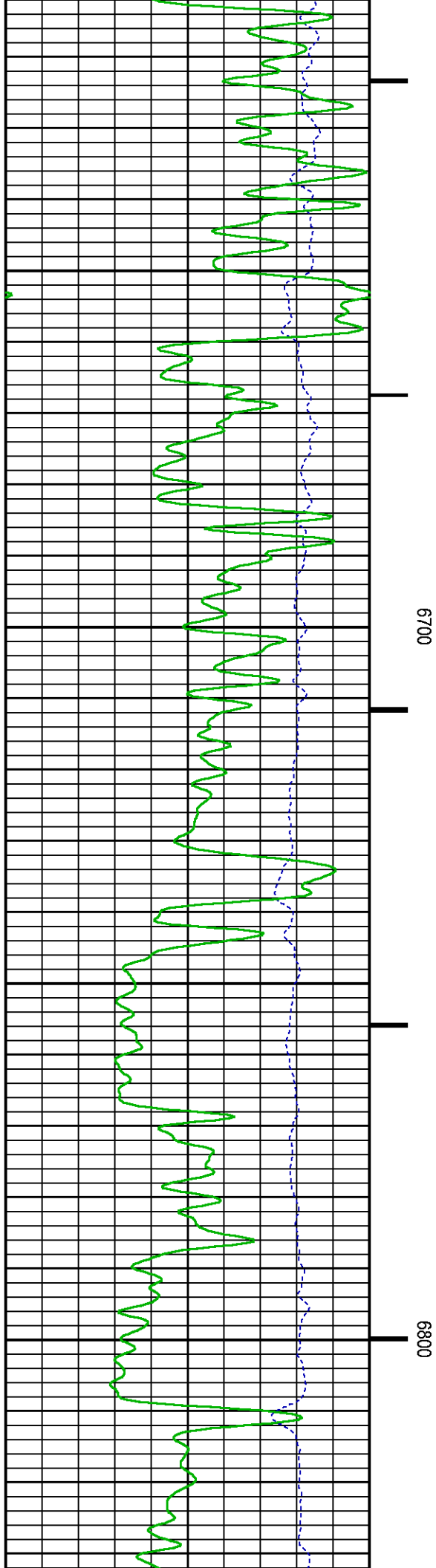


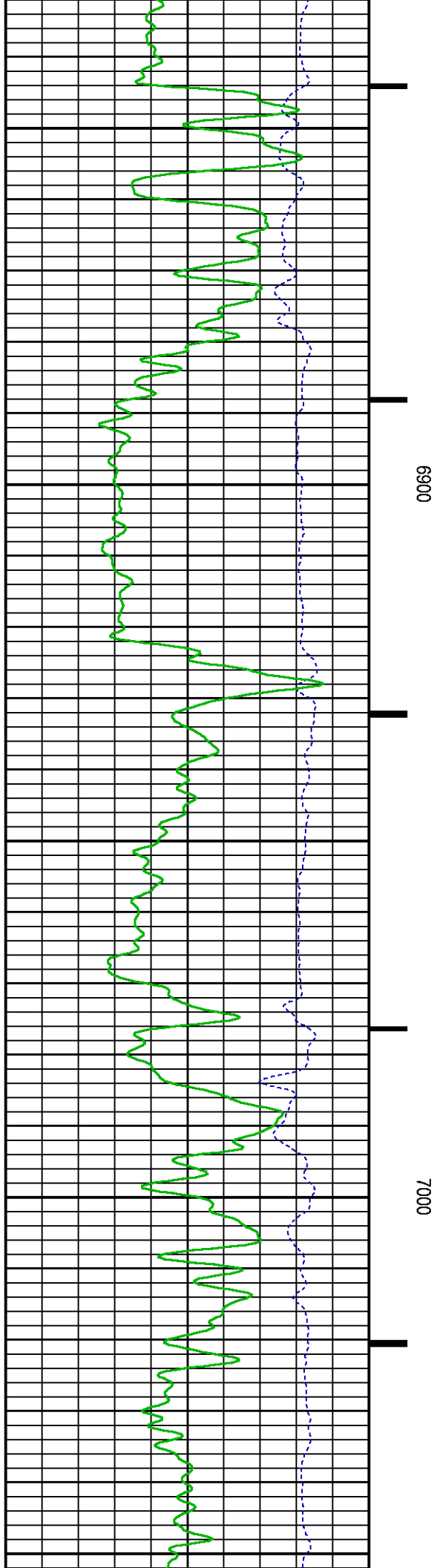
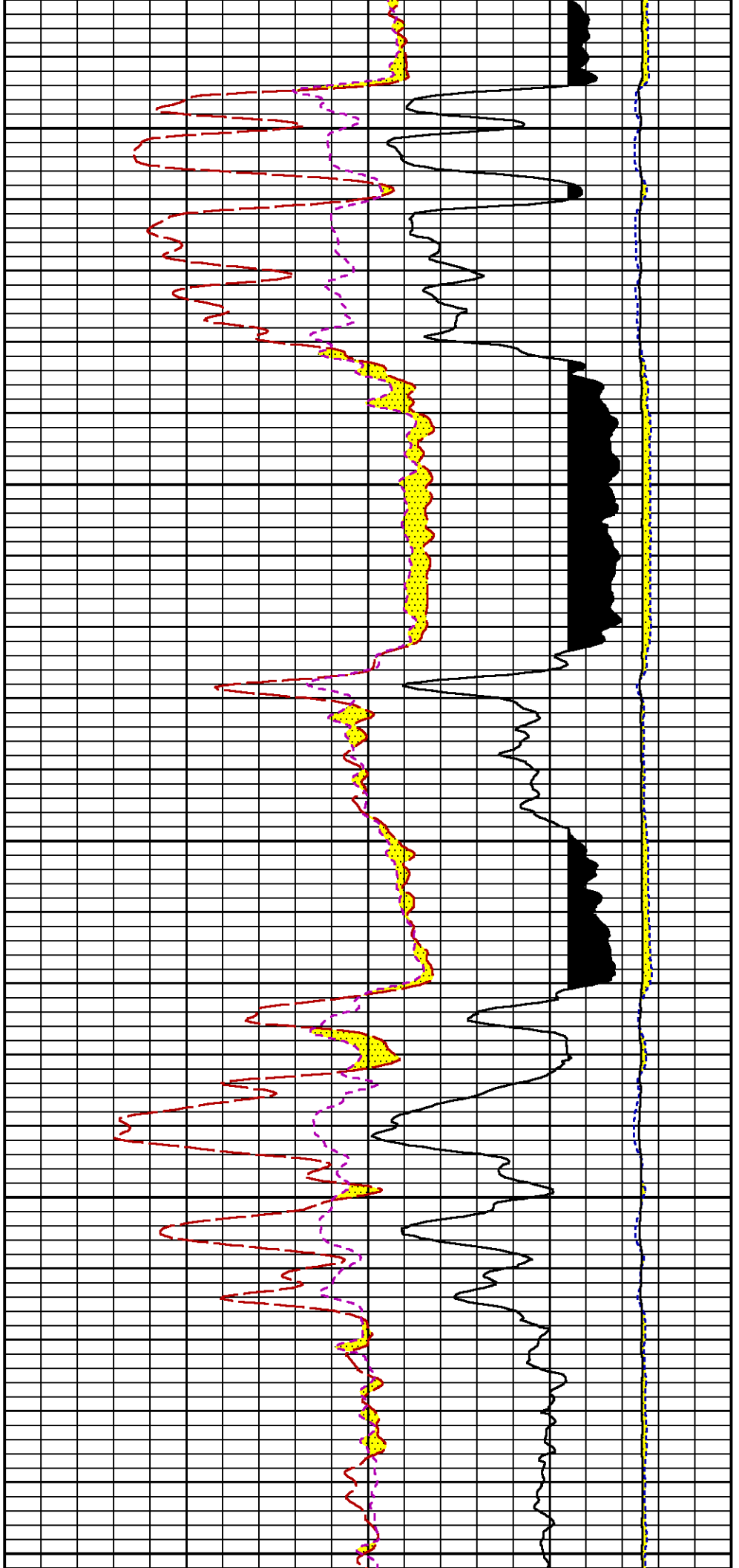


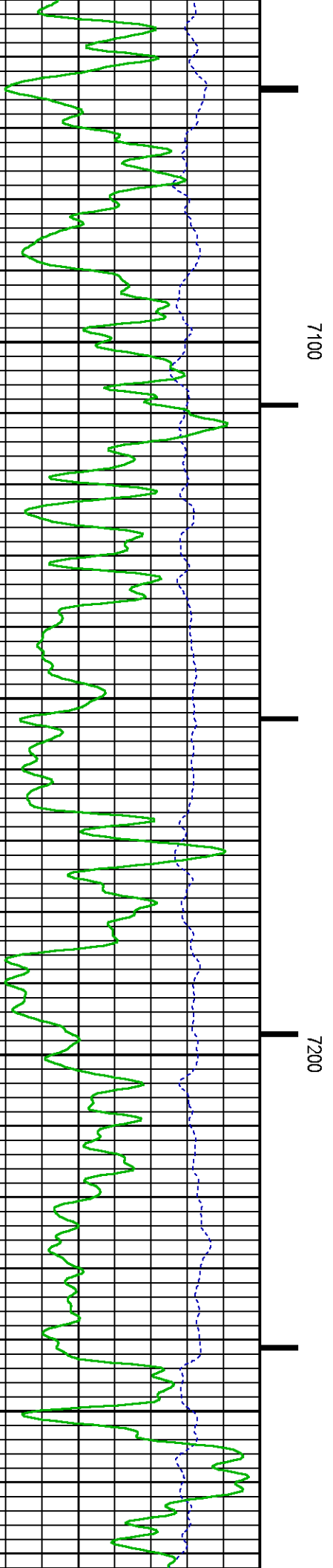
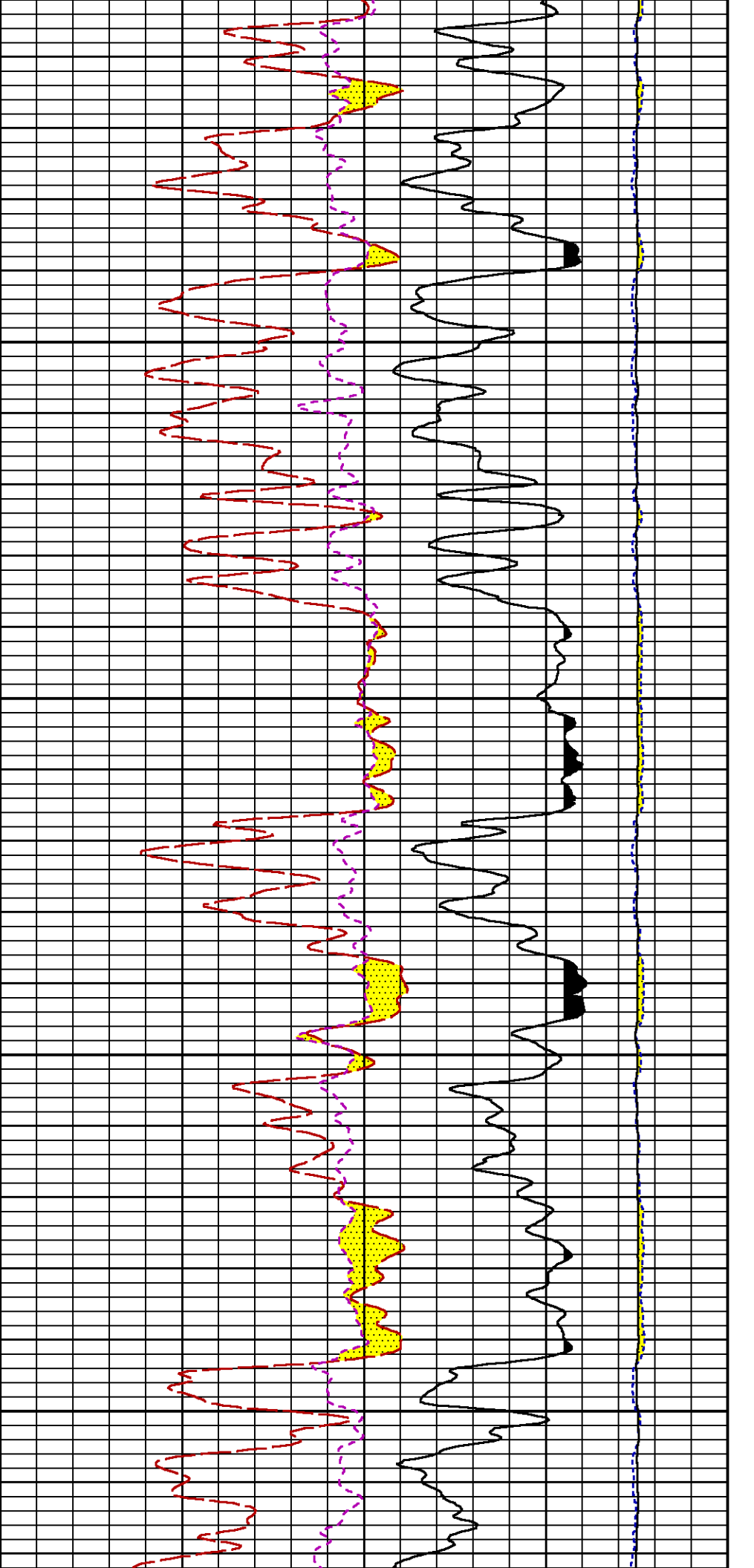


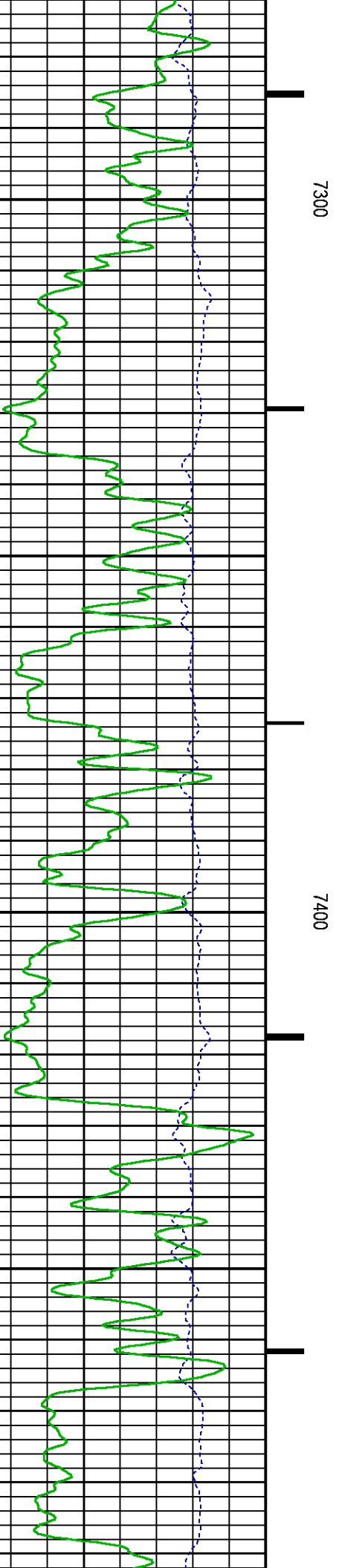
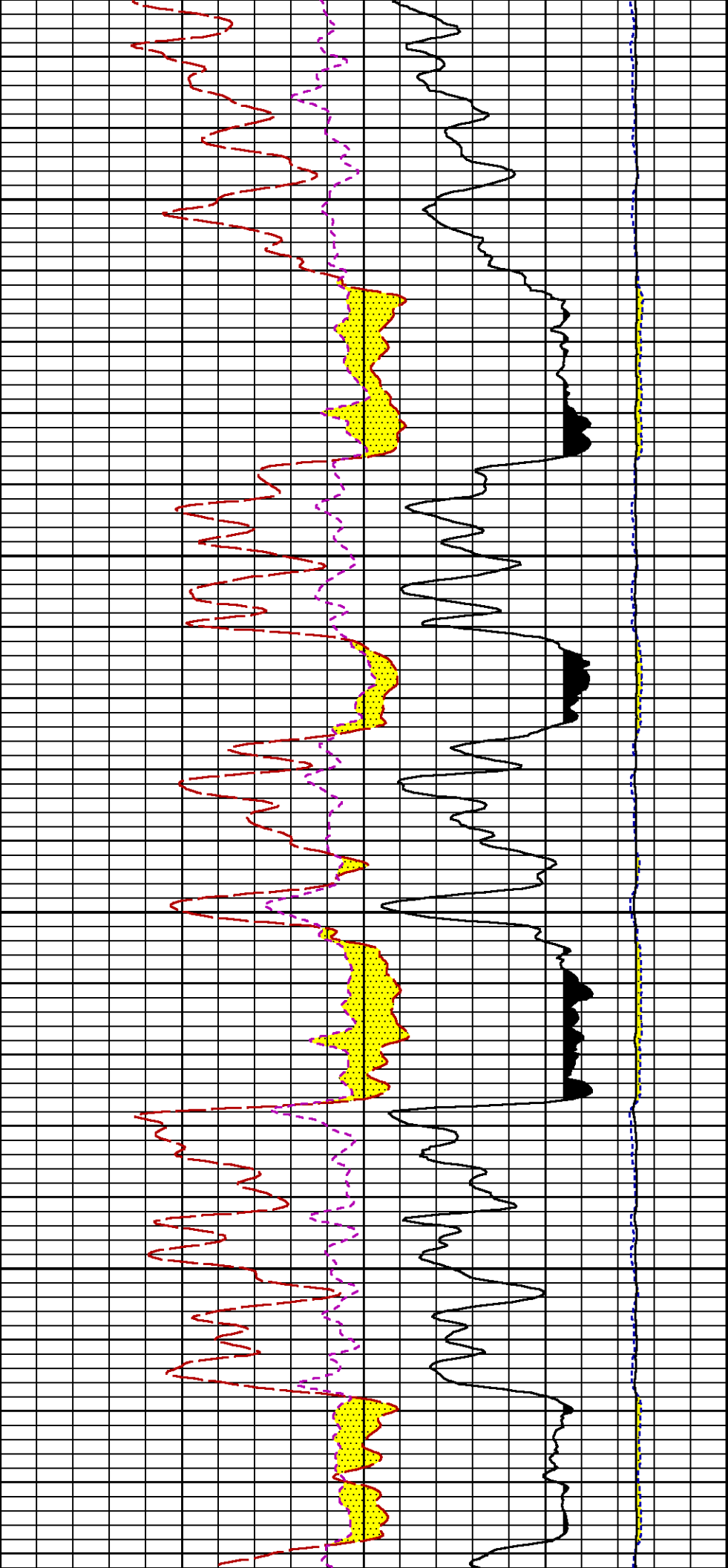


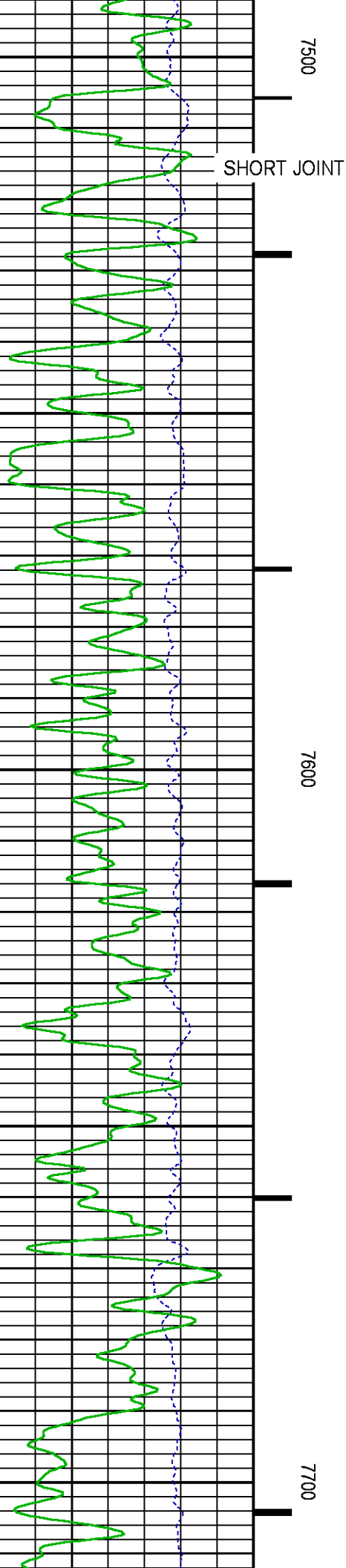
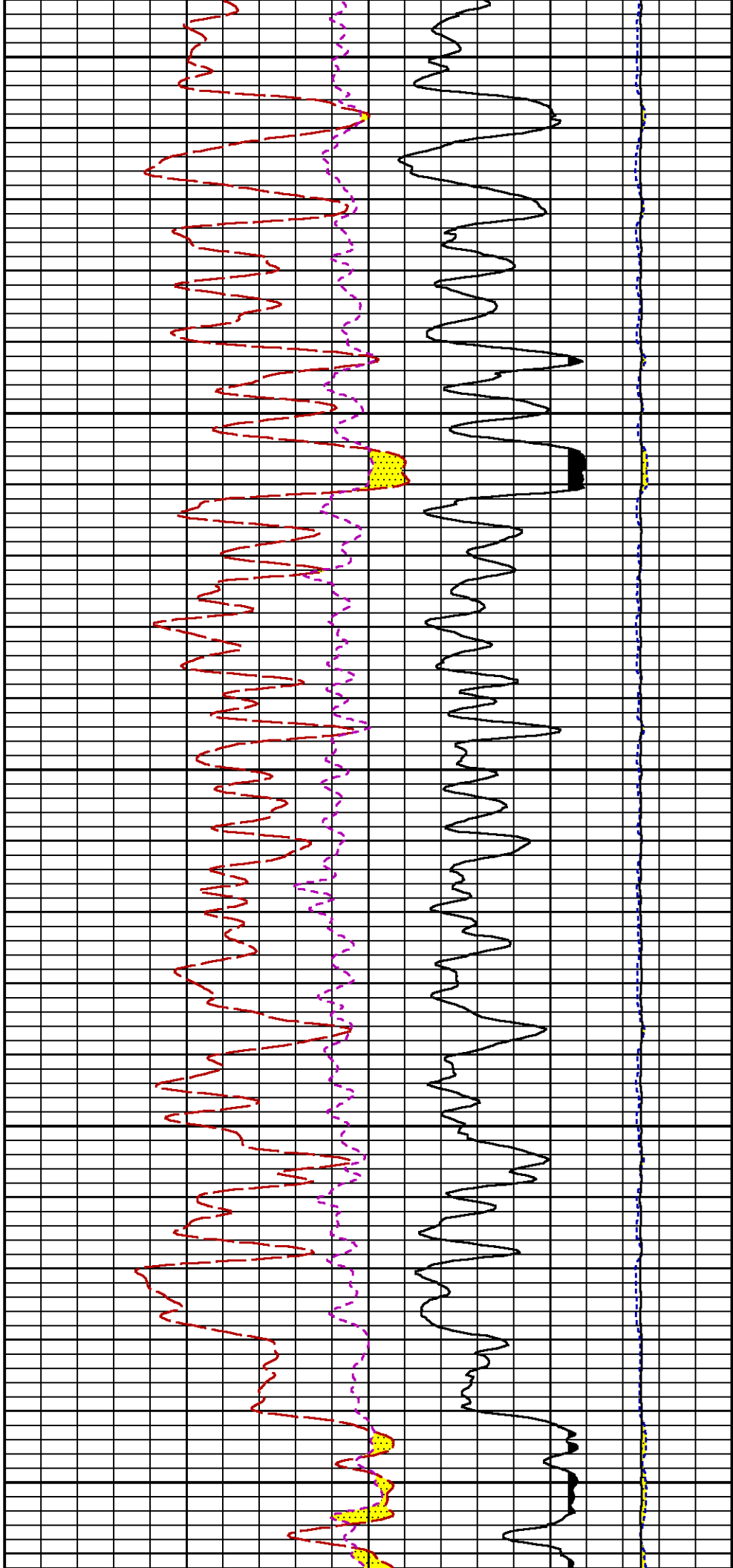


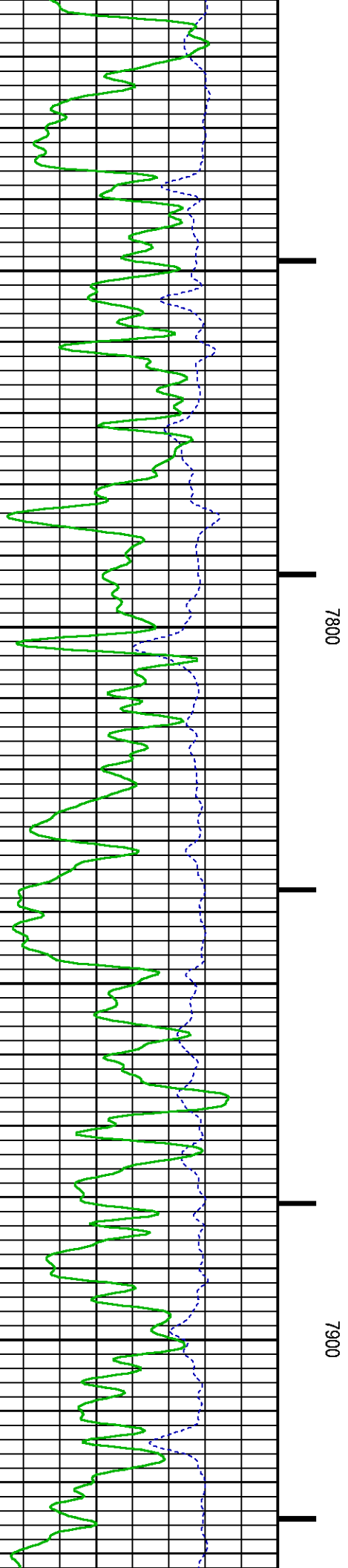
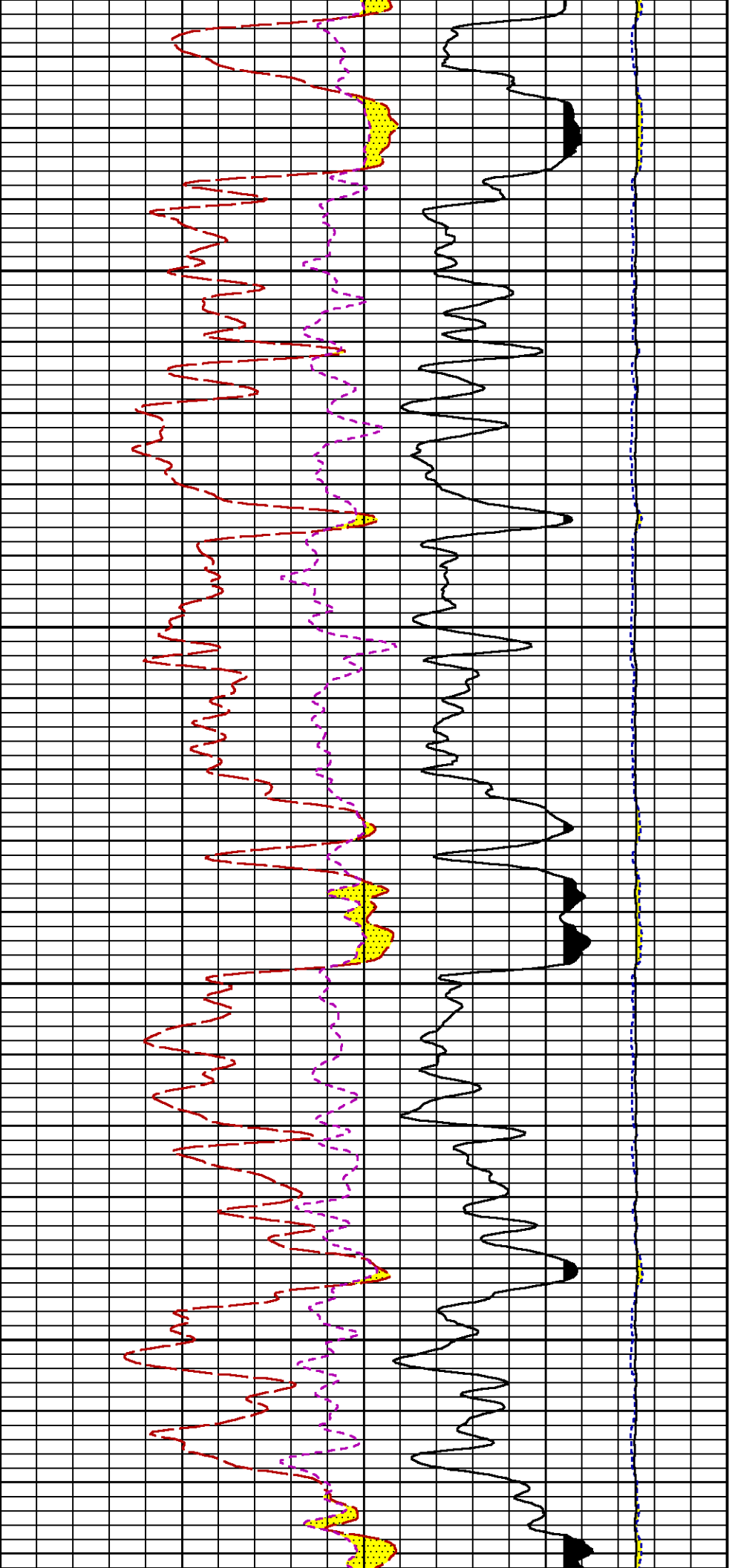


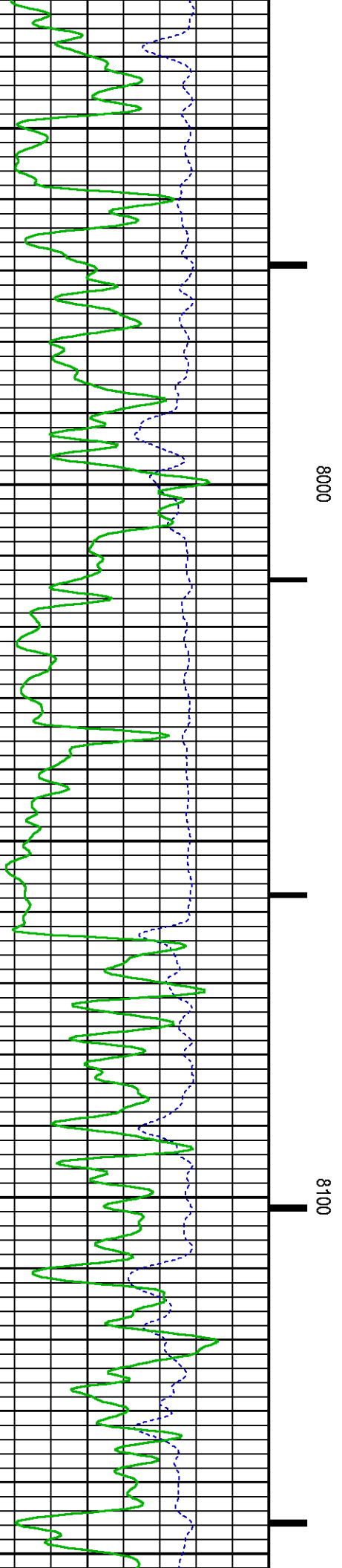
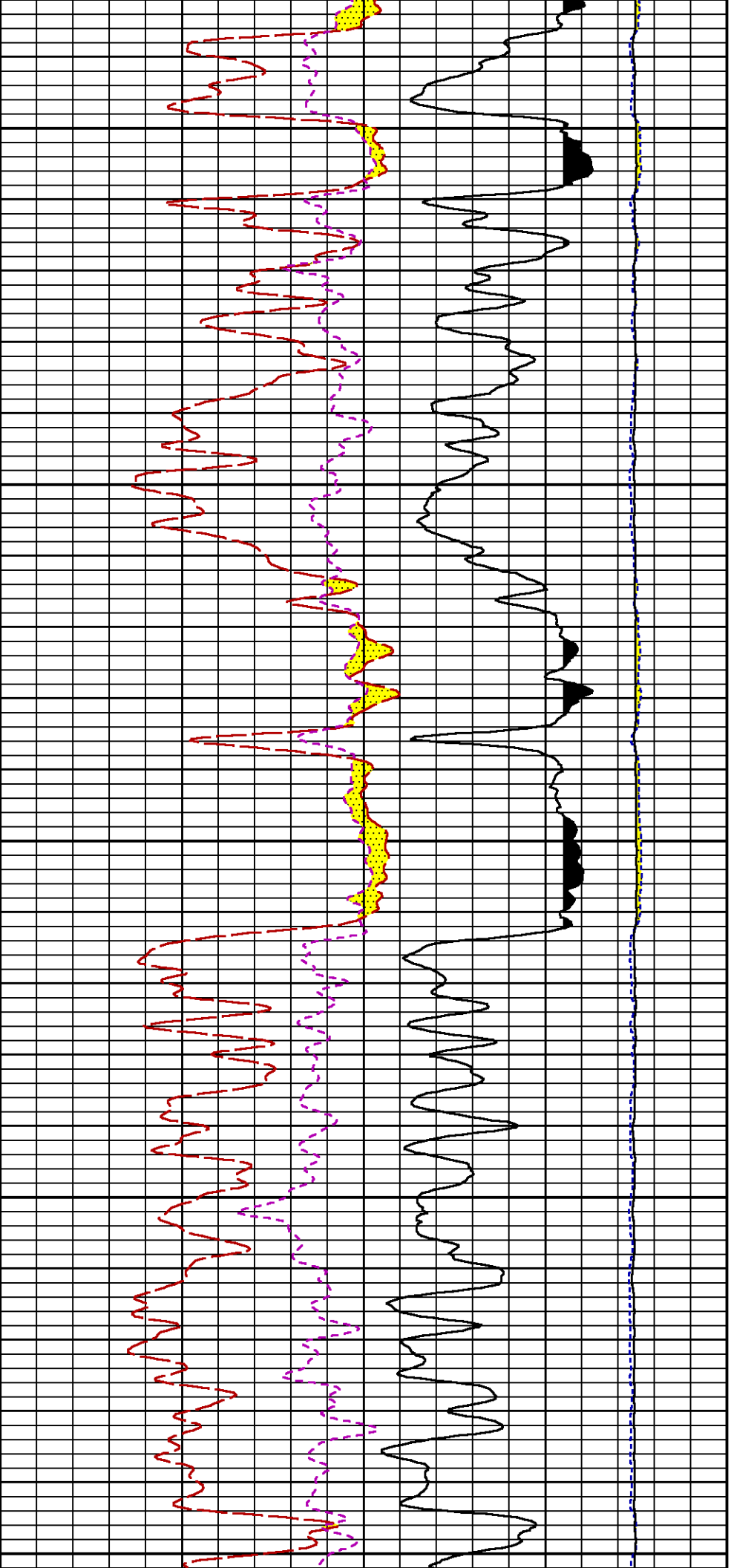


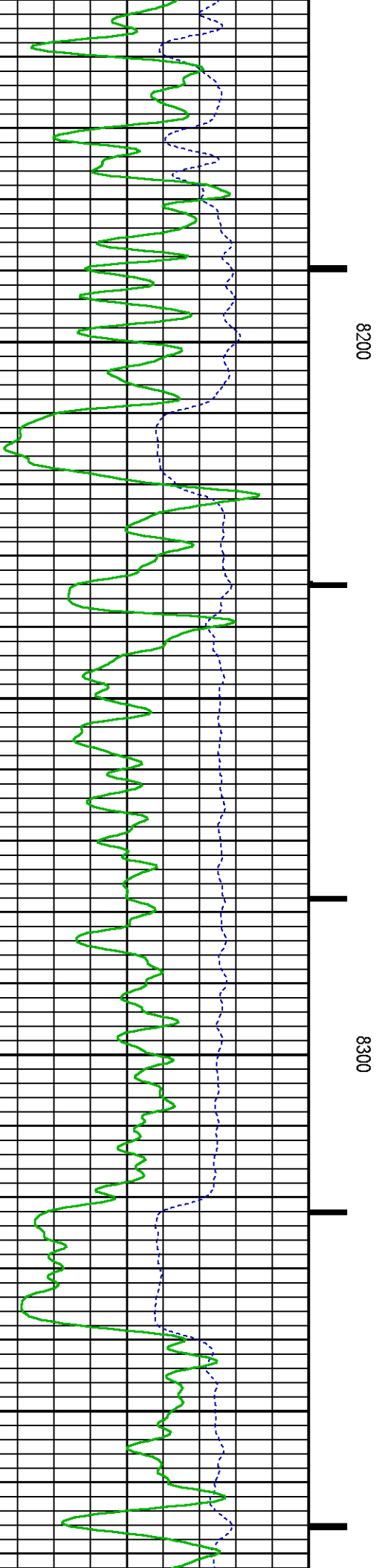
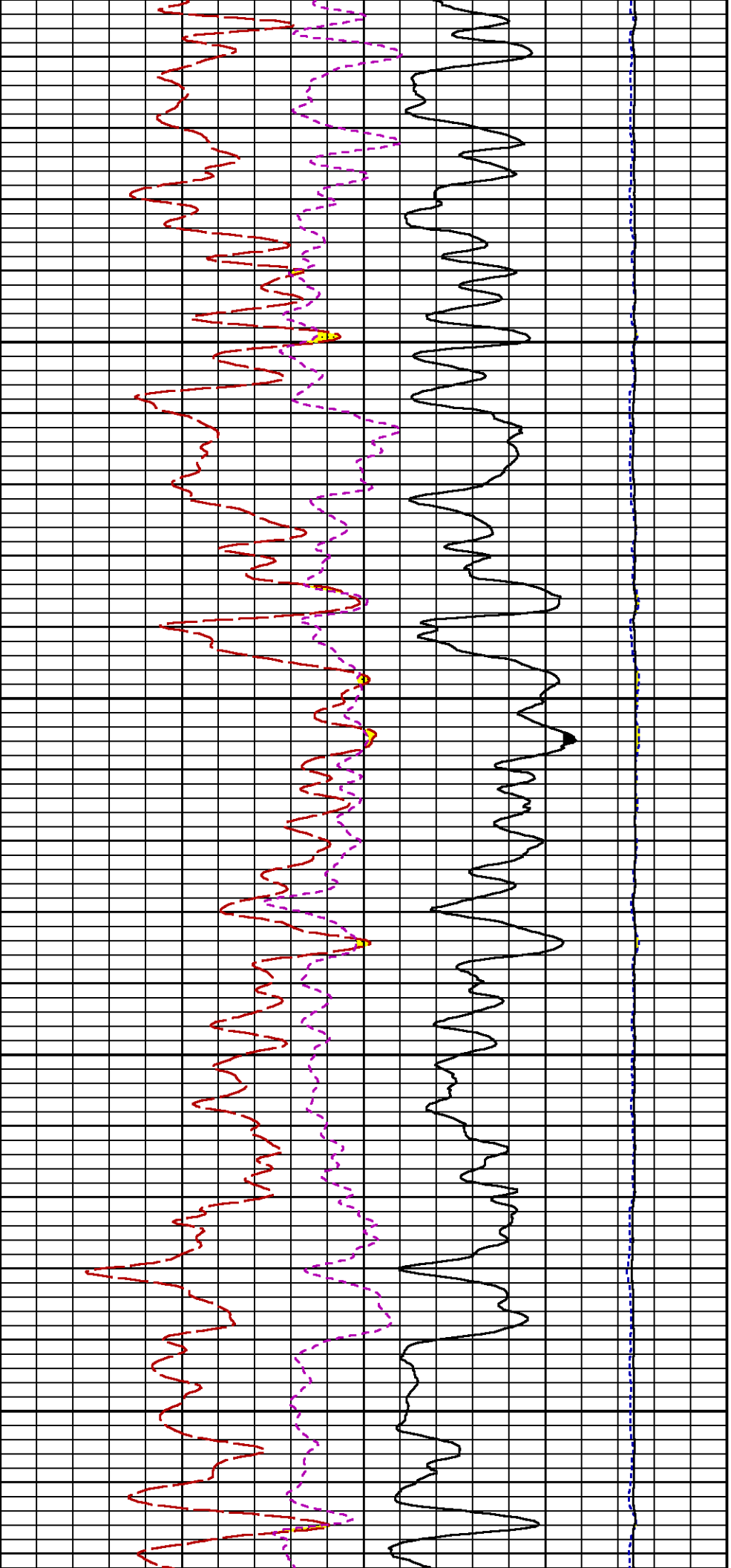


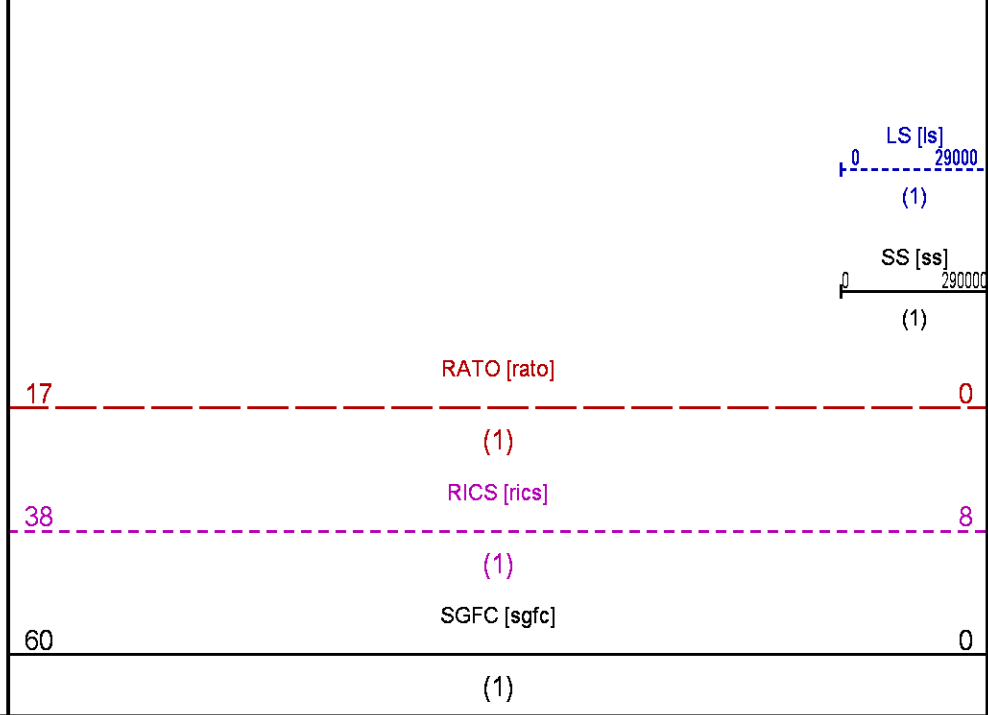
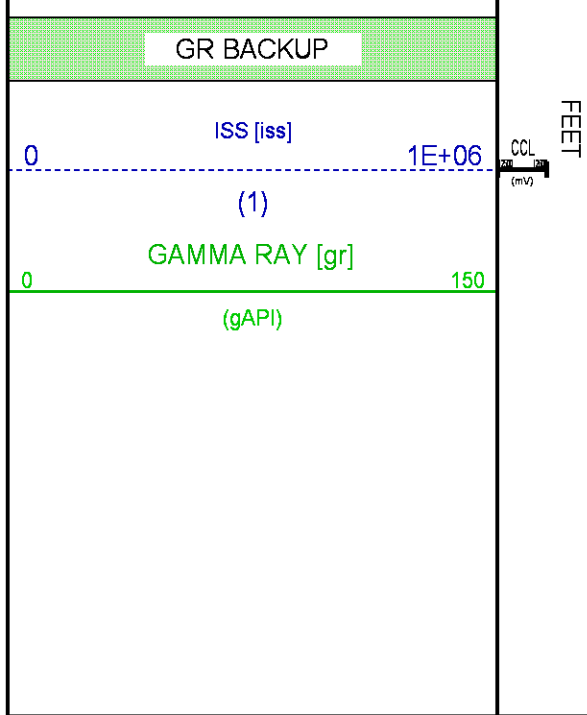
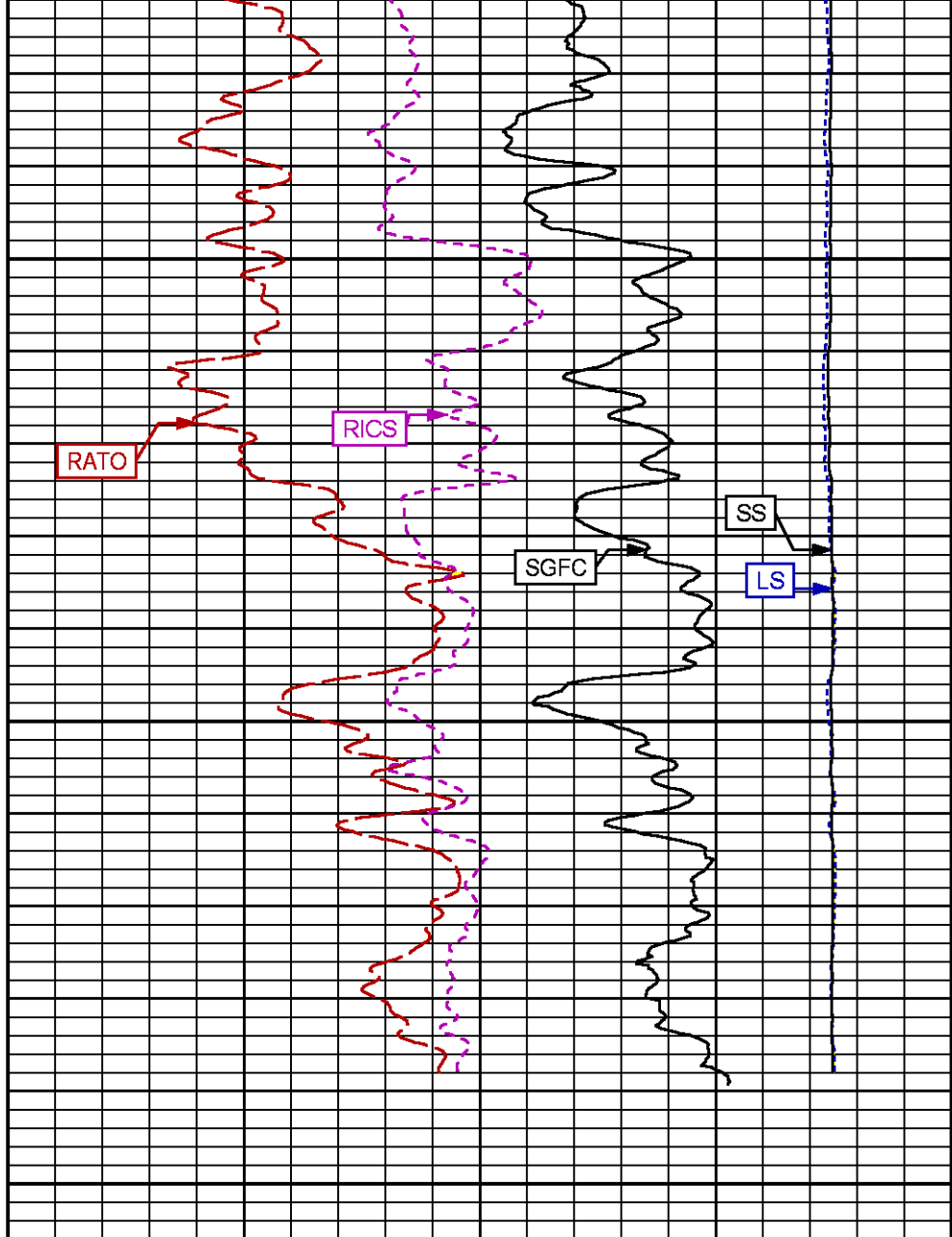
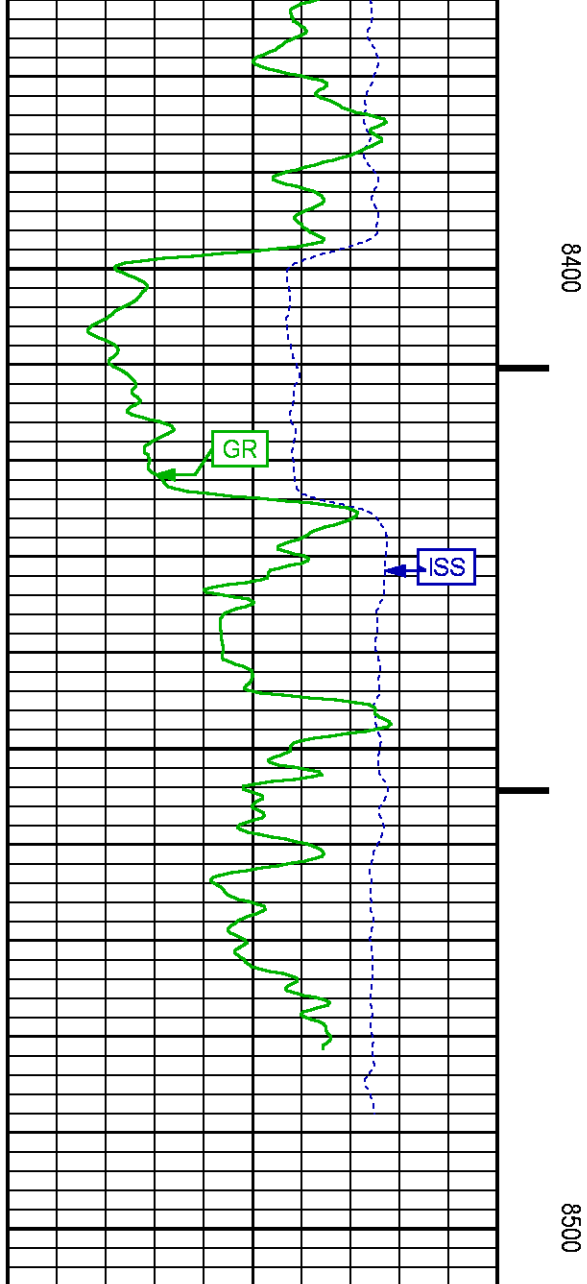












G-SAND SECTION PNC-3D MODE

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

Updates: 1 Patches: 4

Plotted: Tue Dec 2 16:50:02 2014

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH092510/n354h04.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 3413.250 ft BOTTOM DEPTH: 3748.485 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	Dec 2 16:26:33 2014	CASING COLLAR LOCATOR
F1:GR	Dec 2 16:26:33 2014	GAMMA RAY
F1:ISS	Dec 2 16:26:33 2014	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Dec 2 16:26:33 2014	LONG SPACE COUNT RATE
F1:RATO	Dec 2 16:26:33 2014	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Dec 2 16:26:33 2014	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Dec 2 16:26:33 2014	CORRECTED FORMATION SIGMA
F1:SS	Dec 2 16:26:33 2014	SHORT SPACE COUNT RATE

CURVE MEASURE POINT OFFSET

CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	25.00	ISS	12.75	RATO	12.75	SGFC	12.75
GR	22.75	LS	12.75	RICS	12.75	SS	12.75

Presentation : HL6670:/dat1a/CH092510/12W_GSAND_RPM_MAIN.fvpdf [5"/100' Scale]
Plot Interval : 3415 - 3720 Feet

Data File 1 : F1 : HL6670:/dat1a/CH092510/12W_GSAND.xtf
Created On : Dec 2 16:26:33 2014
Company : LARAMIE ENERGY
Well : SUP SHEP FEDERAL 25-12W
Field : VEGA
File Interval : 3387.25 - 3746.75 Feet
OCT : n354h

GR BACKUP

FEET

ISS [iss]

1E+06

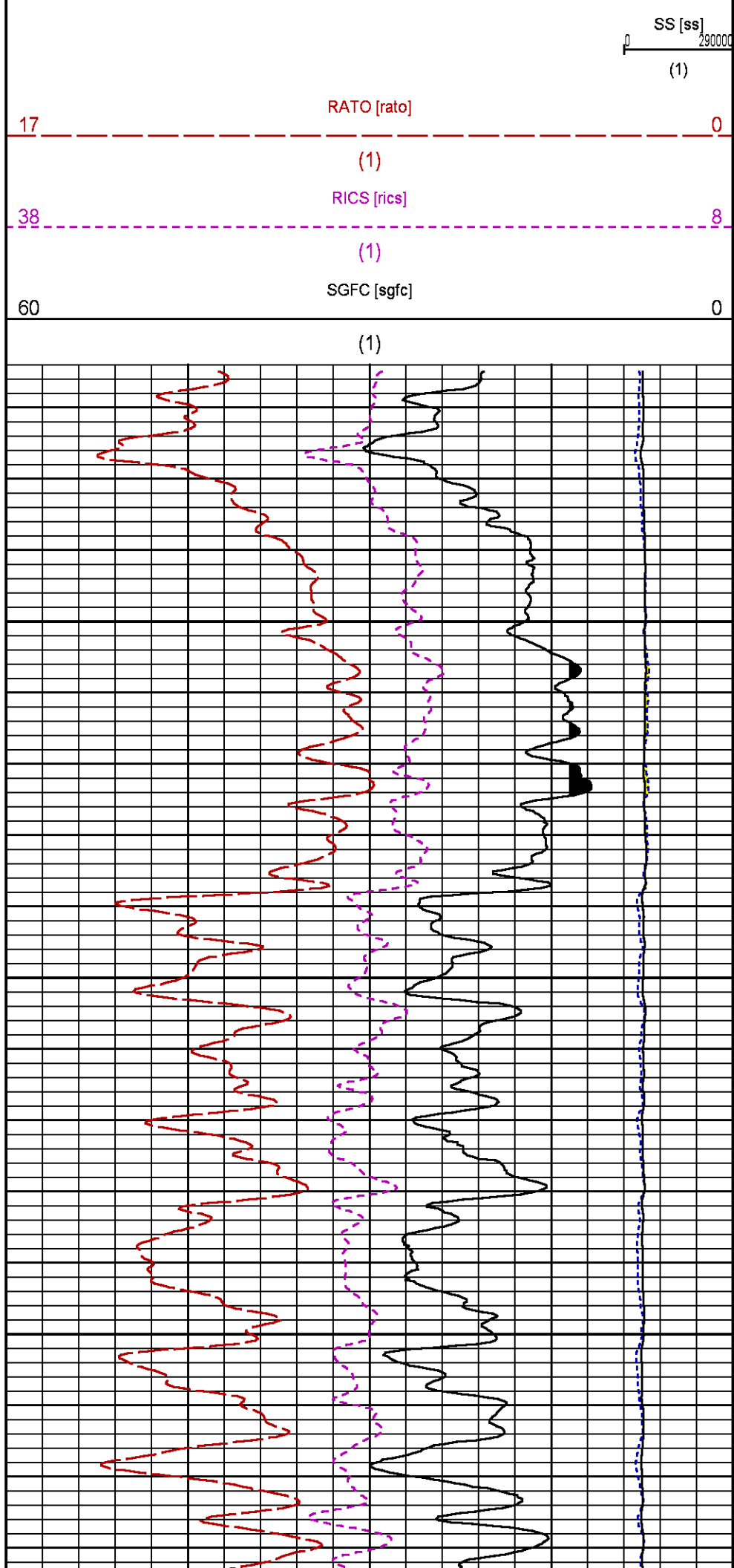
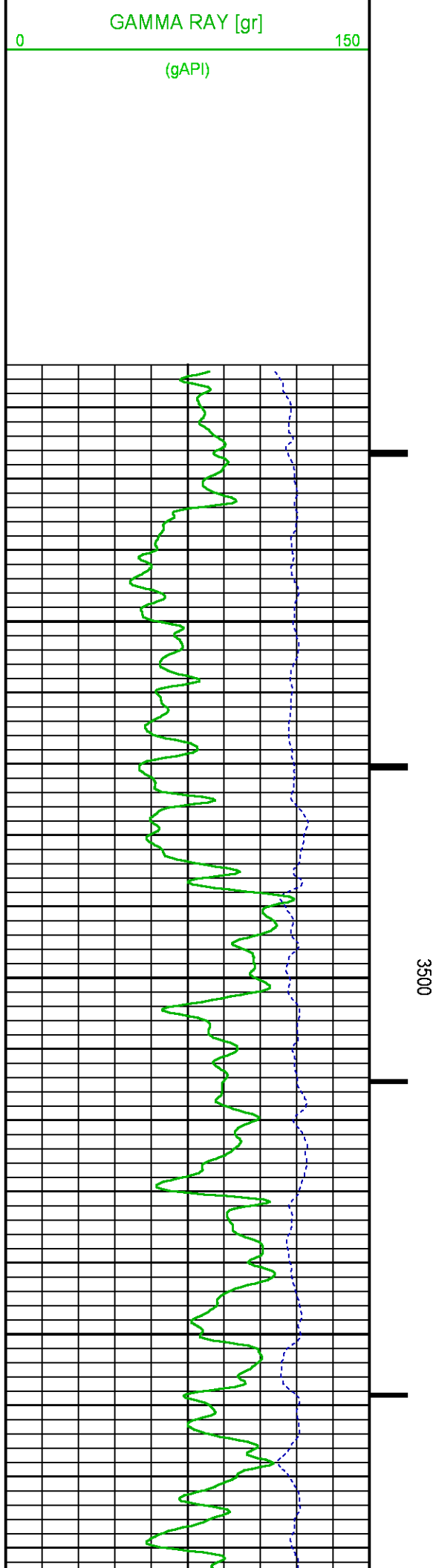
CCL
(mV)

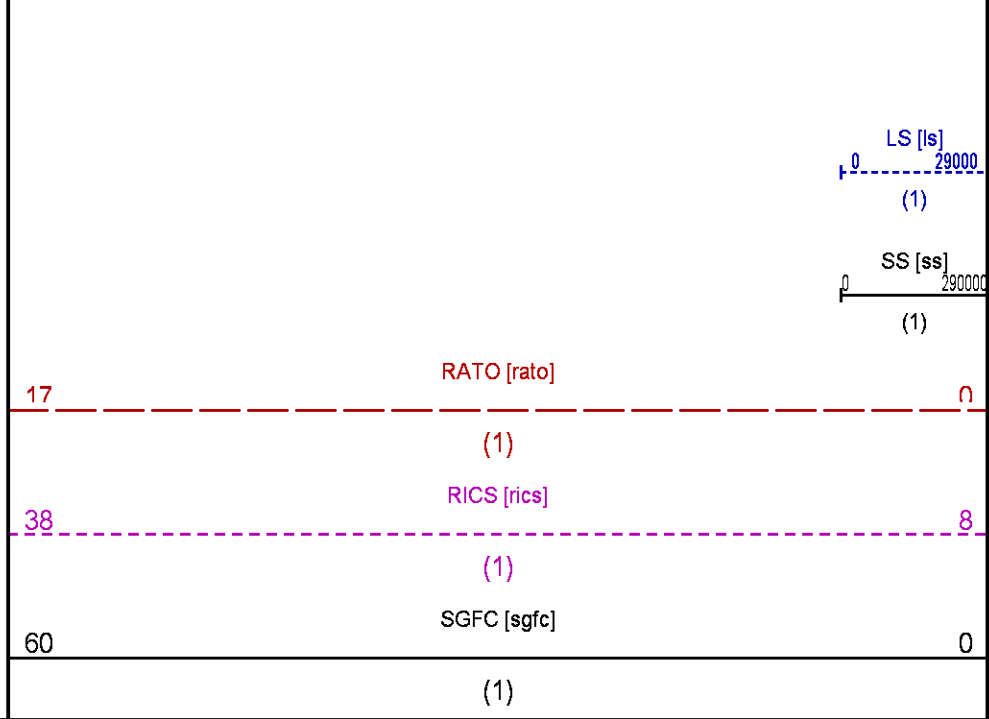
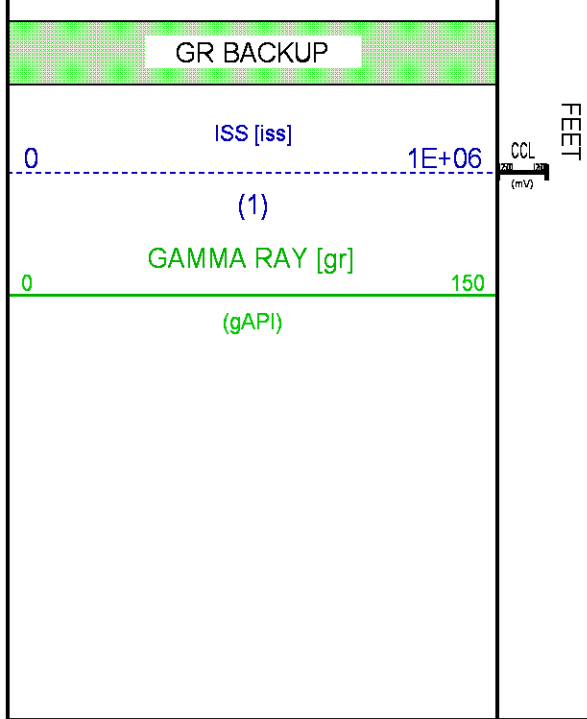
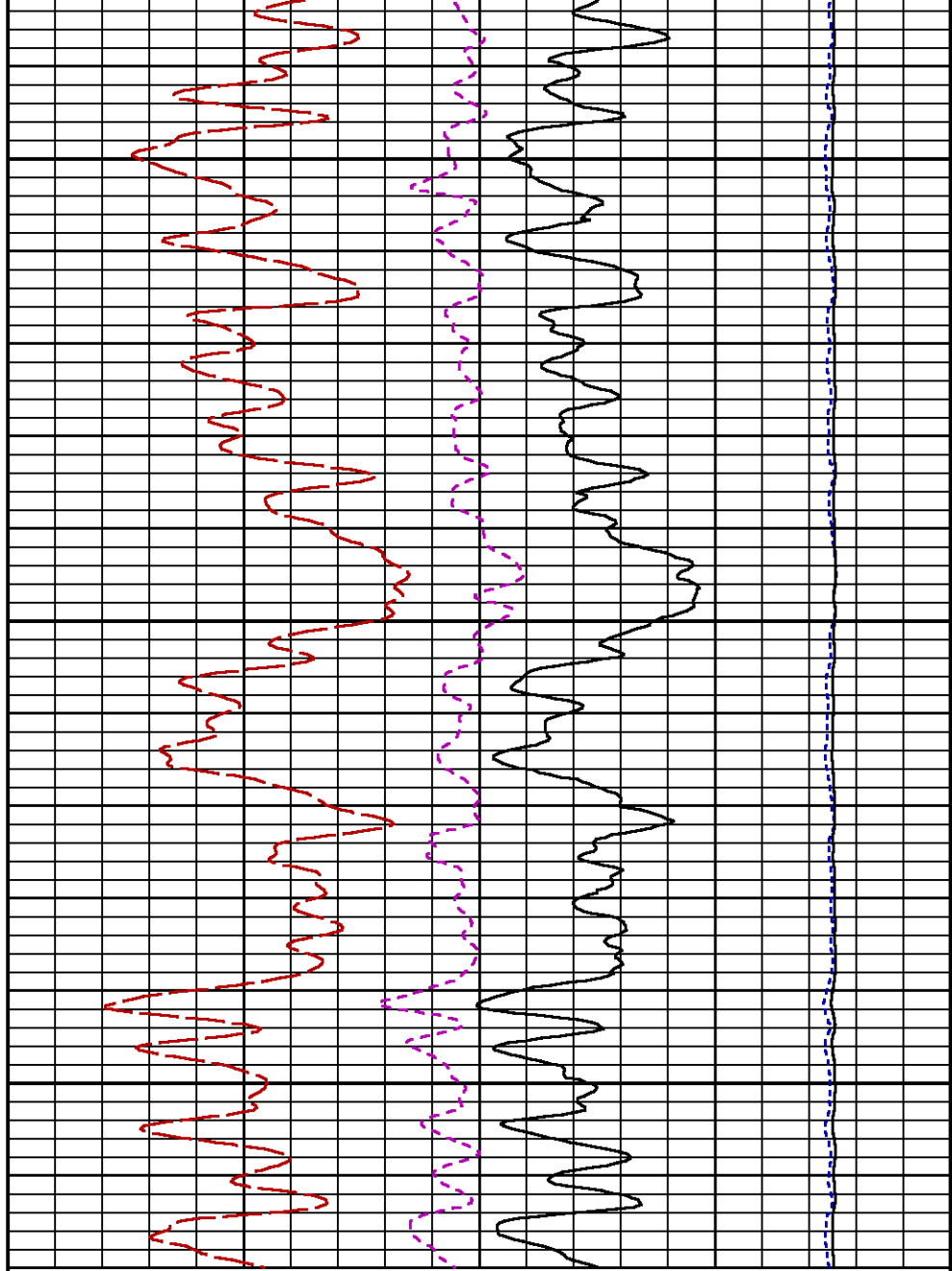
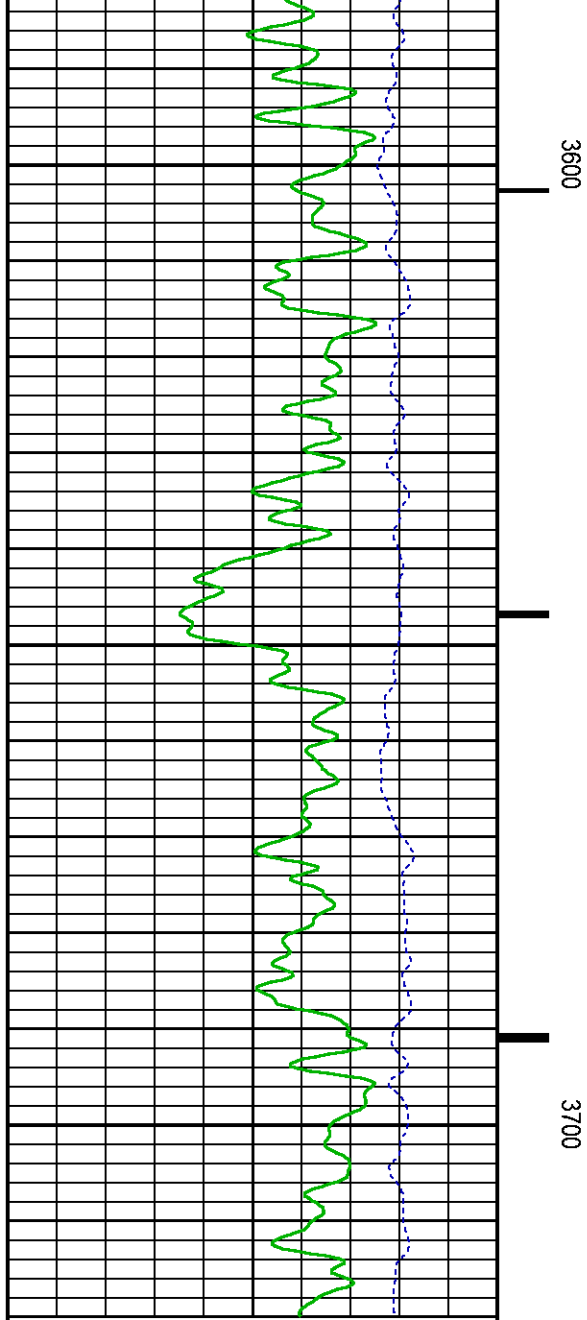
LS [ls]

29000

(1)

(1)





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: 4

Plotted: Tue Dec 2 16:22:46 2014

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH092510/n354h01.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 8247.750 ft BOTTOM DEPTH: 8497.250 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	Dec 2 12:32:57 2014	CASING COLLAR LOCATOR
F1:GR	Dec 2 12:32:57 2014	GAMMA RAY
F1:ISS	Dec 2 12:32:57 2014	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Dec 2 12:32:57 2014	LONG SPACE COUNT RATE
F1:RATO	Dec 2 12:32:57 2014	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Dec 2 12:32:57 2014	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Dec 2 12:32:57 2014	CORRECTED FORMATION SIGMA
F1:SS	Dec 2 12:32:57 2014	SHORT SPACE COUNT RATE

CURVE MEASURE POINT OFFSET

CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	25.00	ISS	12.75	RATO	12.75	SGFC	12.75
GR	22.75	LS	12.75	RICS	12.75	SS	12.75

Presentation : HL6670:/dat1a/CH092510/RPM_REPEAT.fvpdf [5"/100' Scale]
Plot Interval : 8260 - 8480 Feet

Data File 1 : F1 : HL6670:/dat1a/CH092510/12W_RPM_REPEAT.xtf
Created On : Dec 2 12:32:57 2014
Company : LARAMIE ENERGY
Well : SUP SHEP FEDERAL 25-12W
Field : VEGA
File Interval : 8227.25 - 8496.25 Feet
OCT : n354h

GR BACKUP

ISS [iss]

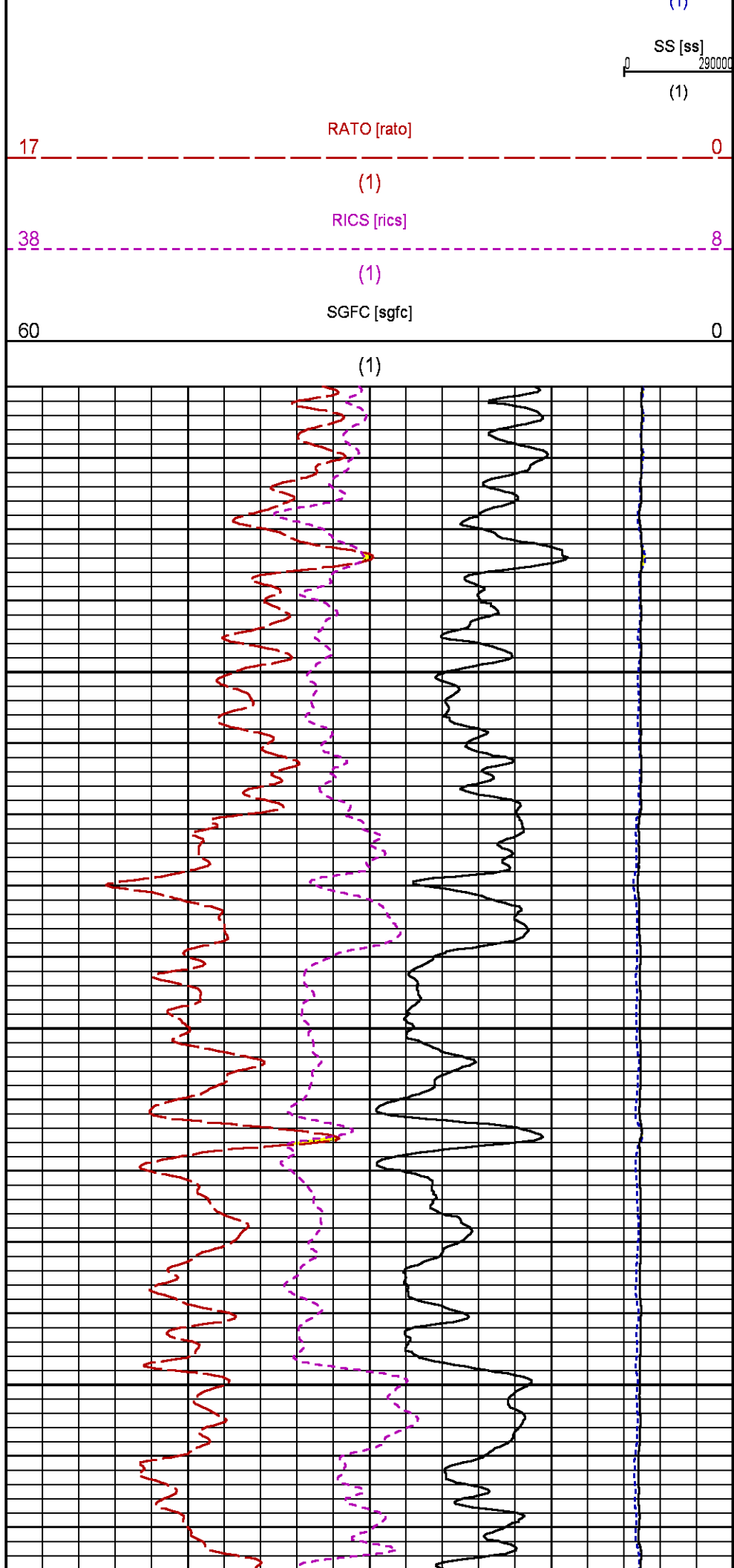
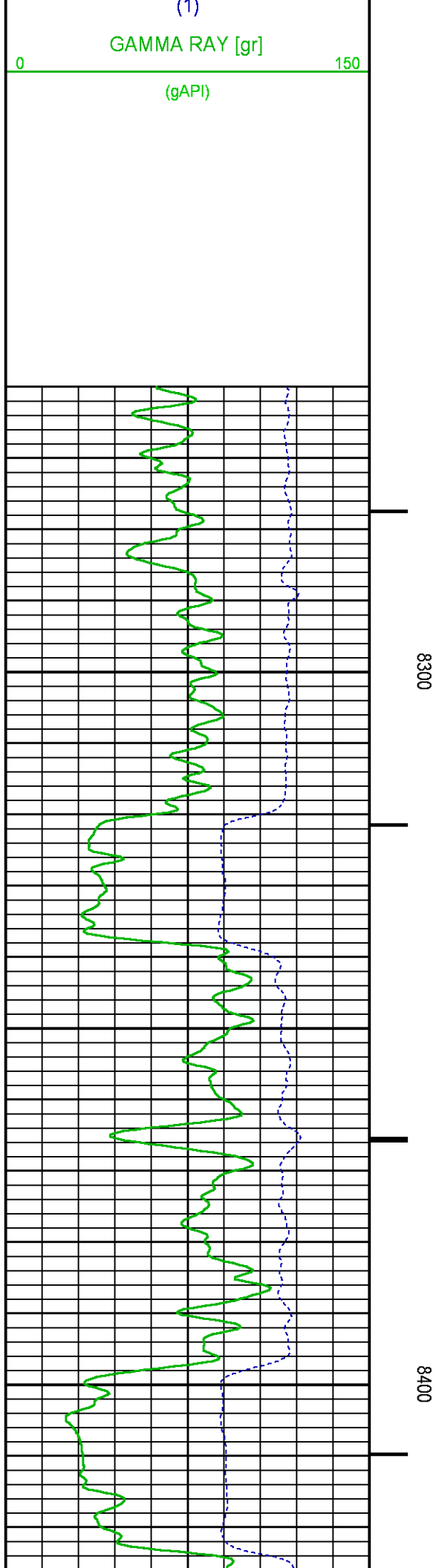
1E+06

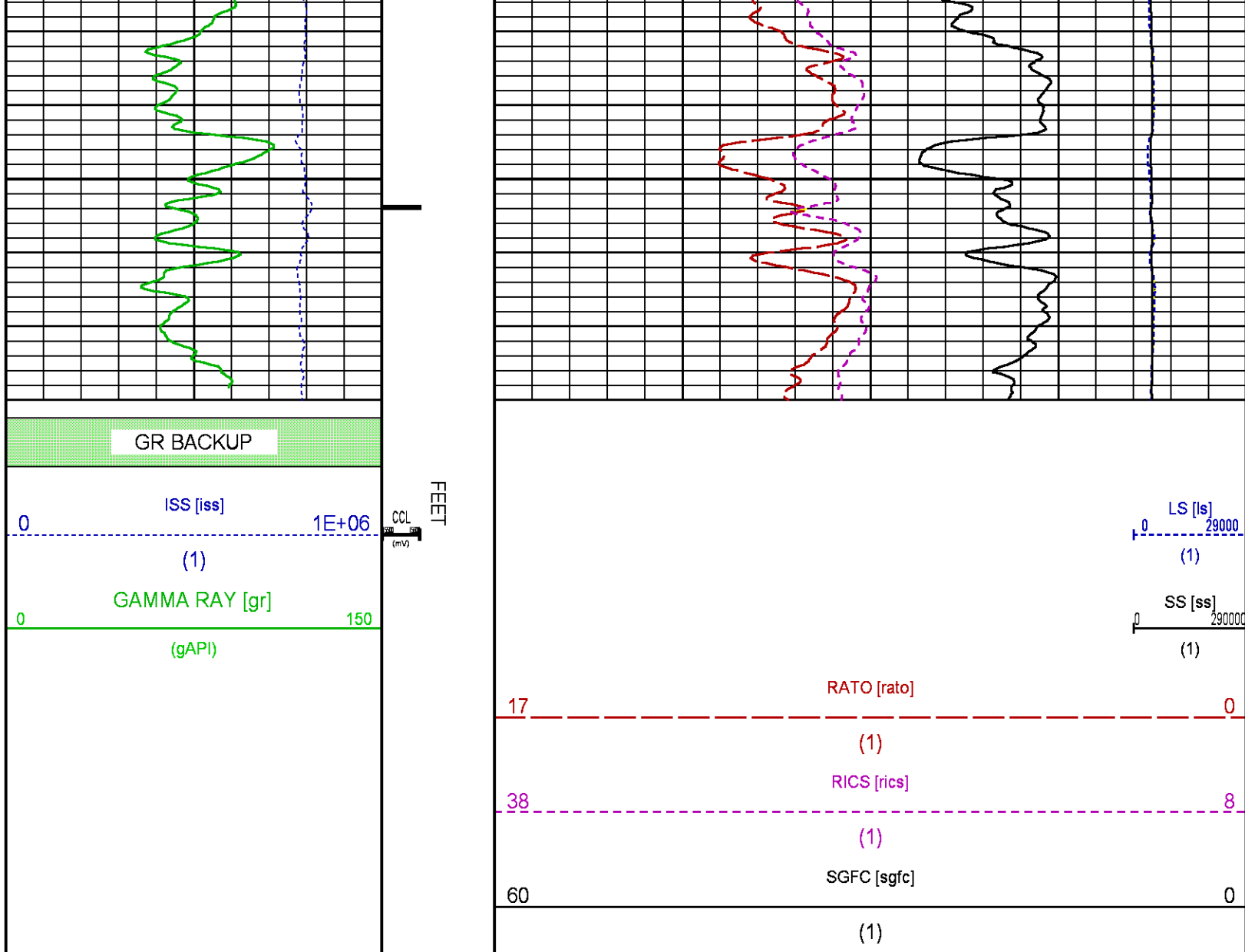
FEET

CCL

LS [ls]

29000





CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/CH092510/n354h.tp1

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 2812LA 11701636

DATE/TIME PERFORMED: Wed Nov 12 13:41:56 2014

UNIT #: 3880TA HL6670

CALB JIG #: 4702NK WA-612

	BACKGROUND CALBRTR ON (cts/s)	CALBRTR ON (cts/s)	CR DIFF (cts/s)	MULT	BACKGROUND CALBRTR ON (gAPI)	CALBRTR ON (gAPI)	CALBRTR (gAPI)
GR	59.84	276.27	216.4	0.970	58.07	268.07	210

GR PRIMARY VERIFICATION SUMMARY

TOOL #: 2812LA 11701636

DATE/TIME PERFORMED: Wed Nov 12 13:44:33 2014

UNIT #: 3880TA HL6670

VERI JIG #: 4702NK WA-612

BACKGROUND CALBRTR ON	MULT	BACKGROUND CALBRTR ON	DIFF.
-----------------------	------	-----------------------	-------

	(cts/s)	(cts/s)		(gAPI)	(gAPI)	(gAPI)
GR	56.98	275.16	0.970	55.29	266.99	211.70
						200.00 220.00

RPM_PNC_3D PRIMARY CALIBRATION SUMMARY

TOOL: 8283PA 10160383

DATE/TIME PERFORMED: Wed Nov 12 12:22:40 2014

UNIT: 3880TA HL6670

CALIBRATOR: 2437XB 112674

SOURCE: 8281AA 11765055

HOURS: 8281AA 36

	ISS	Mtr Vits (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	799301	125	2276	2258	2216	100	7	0.9764
Interpolated	1300000	148	2255	2251	2211			

	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	799301	6536	1023	136	26.07	0.15	24.33	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	799301	171372	25970	89191	31734	8236	53881	13187
Fit Quality %		0.646	0.555	0.505	0.529	0.631	0.451	0.602

	ISS	RBOR	RIN ISS/ILS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS
Raw Data	799301	1.43	4.66	30.79	14.84	10.83	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 %		0.058	0.340	0.278	0.287	0.114	0.083	0.098
Reduced	1373098	1.43	4.65	30.73	14.80	10.82	3.85	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

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

33.24'

A3 CABLEHEAD
Diameter : 1.37"

PCM POWER SUPPLY
Diameter : 1.70"
Length : 3.86'

Source File: /dat1a/CH092510/RPM-tdg

Weight : 18 lbs
Series : 8250EA
Mnemonic : PCM

TELEMETRY / CCL

Diameter : 1.70"
Length : 4.46'
Weight : 20 lbs
Series : 8248ED
Mnemonic : PCM
Measure Point: 1.00': CCL MP

CCL MP — 25.19'

SONDEX GAMMA RAY

Diameter : 1.69"
Length : 2.17'
Weight : 10 lbs
Series : 2812LA
Mnemonic : GR
Measure Point: 0.62': GR MP

GR MP — 22.64'

RPM ELECTRONICS

Diameter : 1.70"
Length : 4.48'
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
 PRES MP 1.65'

BULL PLUG 1 11/16

0.00'

TOTAL LENGTH: 33.24'
 TOTAL WEIGHT: 140 lbs
 MAX DIAMETER: 0'1.70"

	COMPANY <u>LARAMIE ENERGY</u>		FILE NO: <u>CH092510</u>
	WELL <u>SUP & SHEP FEDERAL 25-12W</u>		API NO: <u>05077100100000</u>
	FIELD <u>VEGA</u>		
	COUNTY <u>MESA</u>	STATE <u>CO</u>	
LOCATION: SHL: LAT 39.245018 LONG -107.722842 BHL: LAT 39.244698 LONG -107.726800		ELEVATIONS: KB 8096 FT DF GL 8074 FT	25 9S 93W SUP & SHEP 25-11 PATTERSON 306
SEC <u>25</u> TWP <u>9S</u> RGE <u>93W</u>		DATE <u>02-Dec-2014</u>	