



FILE NO:	COMPANY
CH108538	TERRA ENERGY PARTNERS LLC
API NO:	WELL
05045225360000	FEDERAL GM 532-9
	FIELD
	GRAND VALLEY
	COUNTY
	GARFIELD
	STATE
	COLORADO

Ver. 4.06	LOCATION:	OTHER SERVICES
SEC.9 T.7S R.96W	SHL: 656 FNL & 570' FWL	
PAD: MV 16-9	BHL: 2273 FNL & 1641' FEL	CBL
RIG: H&P 318	SEC 9	TWP 7S
		RGE 96W

PERMANENT DATUM	G.L.	ELEVATION	6086 FT
LOG MEASURED FROM	K.B.	24 FT	ABOVE P.D.
DRILL. MEAS. FROM	K.B.		
		ELEVATIONS:	
		KB	6110 FT
		DF	
		GL	6087 FT

DATE	29-Jul-2016			
RUN	TRIP	1	1	
SERVICE ORDER	US108538J			
DEPTH DRILLER	7936 FT			
DEPTH LOGGER	7816 FT			
BOTTOM LOGGED INTERVAL	7815 FT			
TOP LOGGED INTERVAL	4616 FT			
TIME STARTED	11:30			
TIME FINISHED	16:00			
OPERATOR RIG TIME	4.5 HOURS			
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/MIN			
MAX. RECORDED TEMP.	201 DEGF			
REFERENCE LOG	BAKER HUGHES BOND LOG			
REFERENCE LOG DATE	29-Jul-2016			
EQUIP. NO.	LOCATION	HL-6685	GRAND JCT.	
RECORDED BY	SPENCER			
WITNESSED BY	D. WELSH			

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	0 FT	2032 FT
8.75 IN	2032 FT	7955 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
9.625 IN			0 FT	2032 FT
4.5 IN	11.6 LB/F	E/I-80	0 FT	7955 FT

REMARKS

RUN 1 TRIP 1: ALL ADATA ON THIS LOG HAS BEEN DEPTH MATCHED WITH THE GAMMA RAY CURVE ON THE BAKER HUGHES BOND LOG DATED 29-JUL-2016. DEPTH MATCHING MAY ALTER COLLAR LENGTHS.

AMOUNT OF LINEAR SHIFT = +13.5 FEET

LOGGED WITH 0 PSI AT SURFACE
LOGGED IN PNC-3D MODE

BHT = 201 DEGF
SJ = 4875' - 4898'

THANKS FOR CHOOSING BAKER HUGHES WIRELINE
CREW: SPENCER / COATE

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	PCM	8250EA	11745584	FREE
1	1	TEL / CCL	8248ED	11908681	FREE
1	1	GR	8262XA	10317216	FREE
1	1	RPM ELEC.	8281EA	10294755	FREE
1	1	RPM SOURCE	8283PA	10160383	FREE
1	1	RPM TMTR.	8281FA	10401926	FREE
1	1	TEMP	8255XA	Z166341	FREE

MAIN SECTION PNC-3D MODE

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

Updates: 1,36 Patches: 9

Plotted: Fri Jul 29 15:35:48 2016

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH108538/n353hx02.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 4604.250 ft BOTTOM DEPTH: 7830.529 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	8.75	in	" "
	CASING SIZE	4.50	in	" "
	MATRIX	SANDSTONE		" "
	CORRECTION BUFFER	11		" "

CURVE DESCRIPTION REPORT

CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Jul 29 12:16:30 2016	CASING COLLAR LOCATOR
F1:GR	Jul 29 12:16:30 2016	GAMMA RAY
F1:ISS	Jul 29 12:16:30 2016	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Jul 29 12:16:30 2016	LONG SPACE COUNT RATE
F1:RATO	Jul 29 12:16:30 2016	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Jul 29 12:16:30 2016	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Jul 29 12:16:30 2016	CORRECTED FORMATION SIGMA
F1:SS	Jul 29 12:16:30 2016	SHORT SPACE COUNT RATE

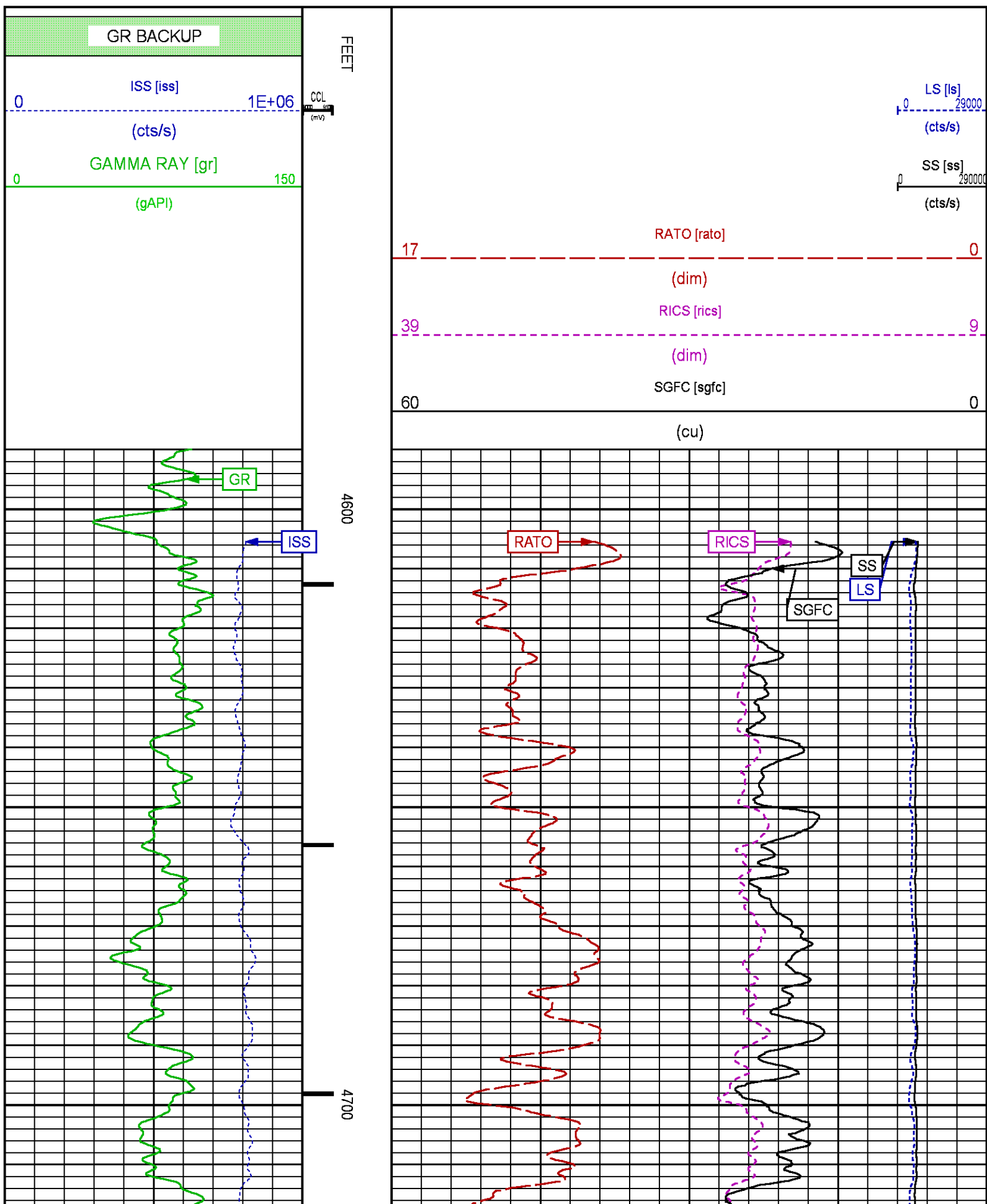
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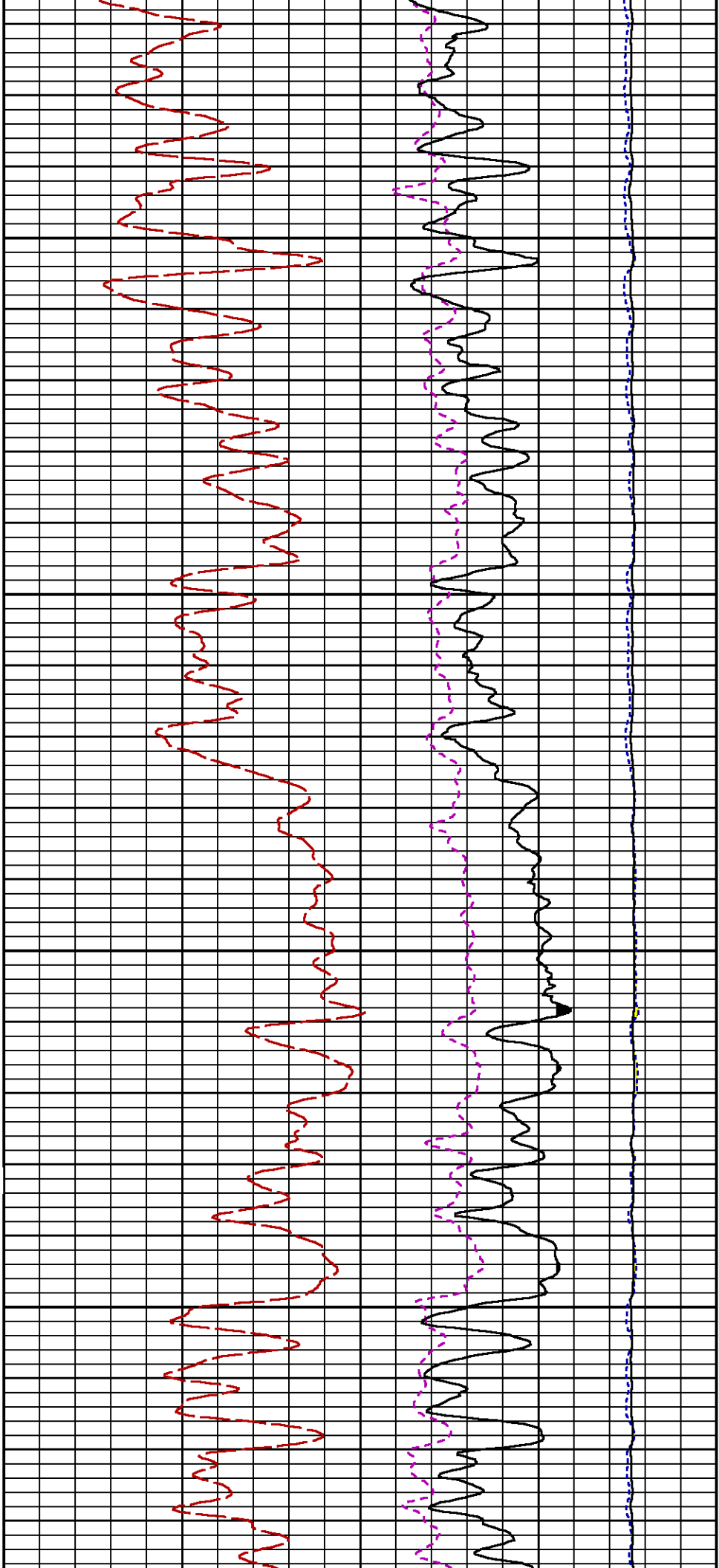
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	26.00	ISS	12.75	RATO	12.75	SGFC	12.75
GR	23.00	LS	12.75	RICS	12.75	SS	12.75

Presentation : cas6685:/dat1a/CH108538/WPX_RPM_MAIN.fvpdf [5"/100' Scale]
 Plot Interval : 4590 - 7829.5 Feet

Data File 1 : F1 : cas6685:/dat1a/CH108538/main.xtf
 Created On : Jul 29 12:16:30 2016

Created On : Jul 29 12:10:30 2010
Company : TERRA ENERGY PARTNERS LLC
Well : FEDERAL GM 532-9
Field : GRAND VALLEY
File Interval : 14 - 7829.5 Feet
OCT : n353hx

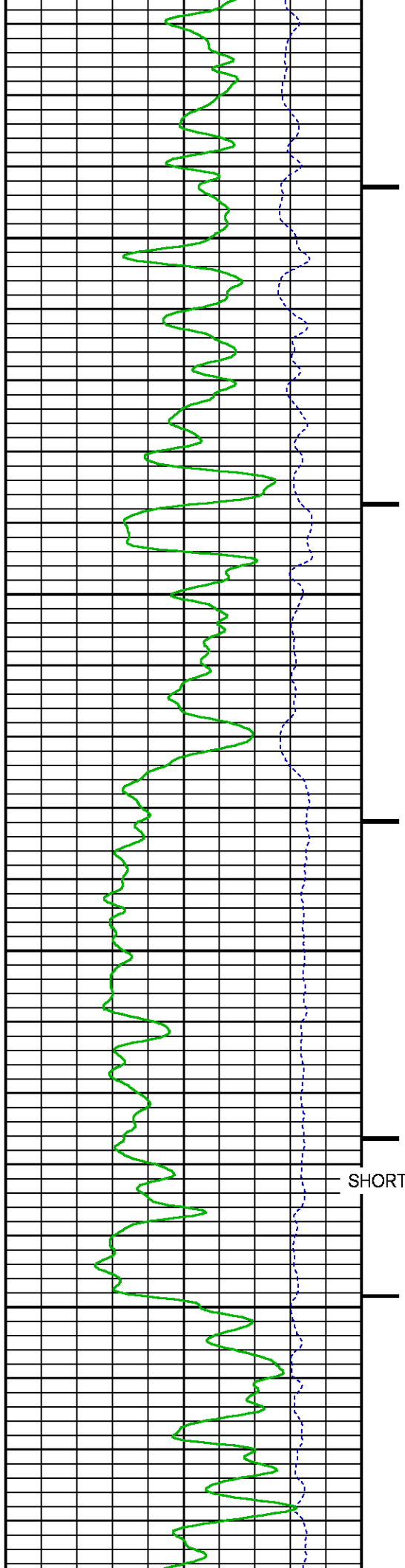


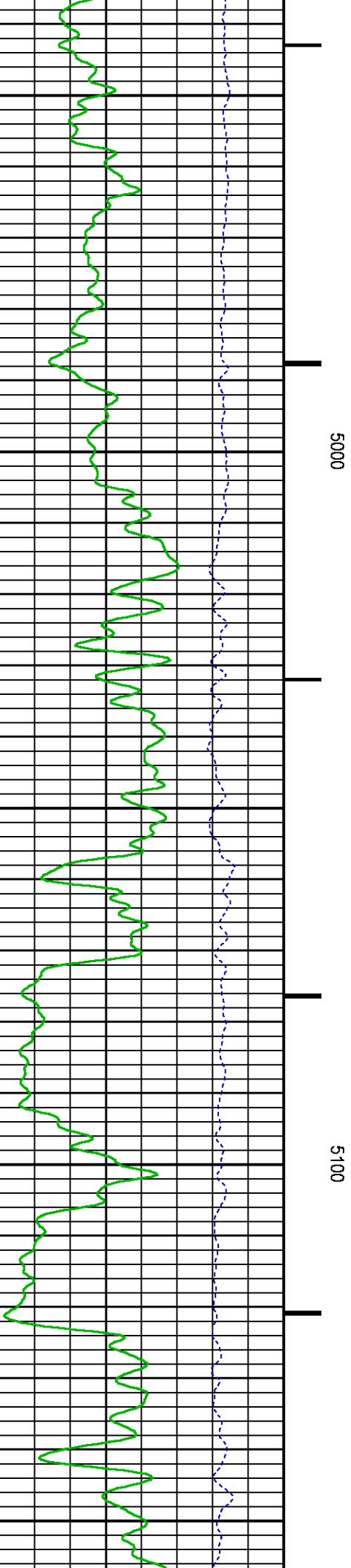
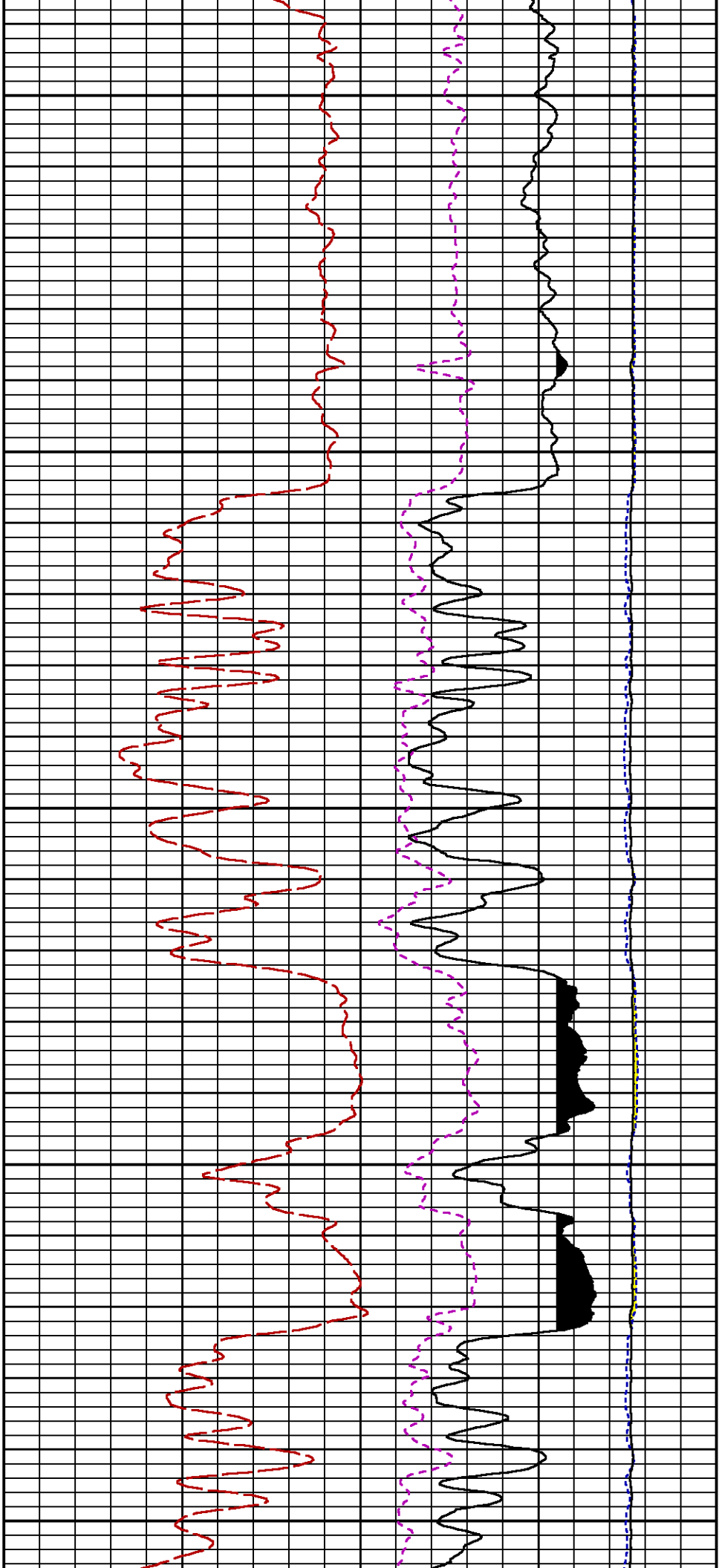


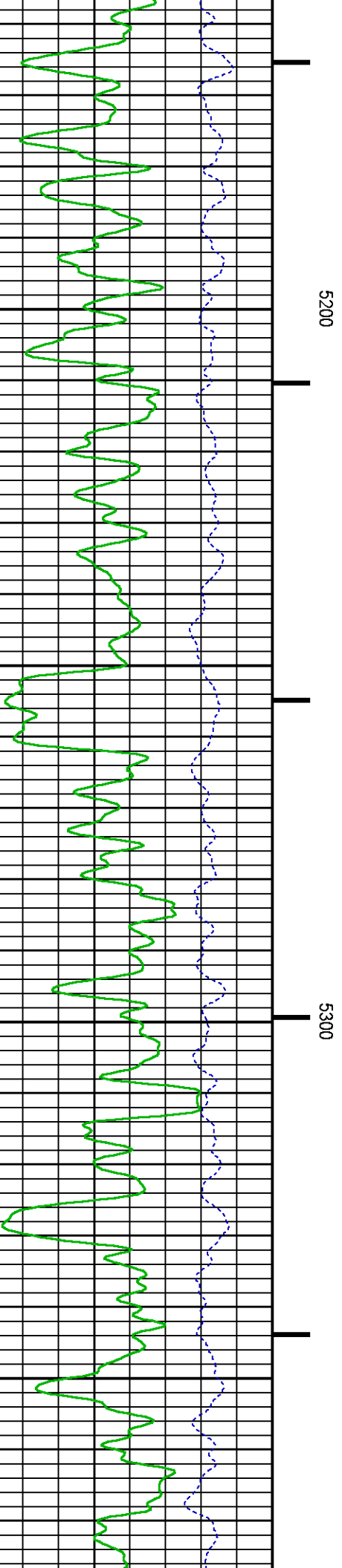
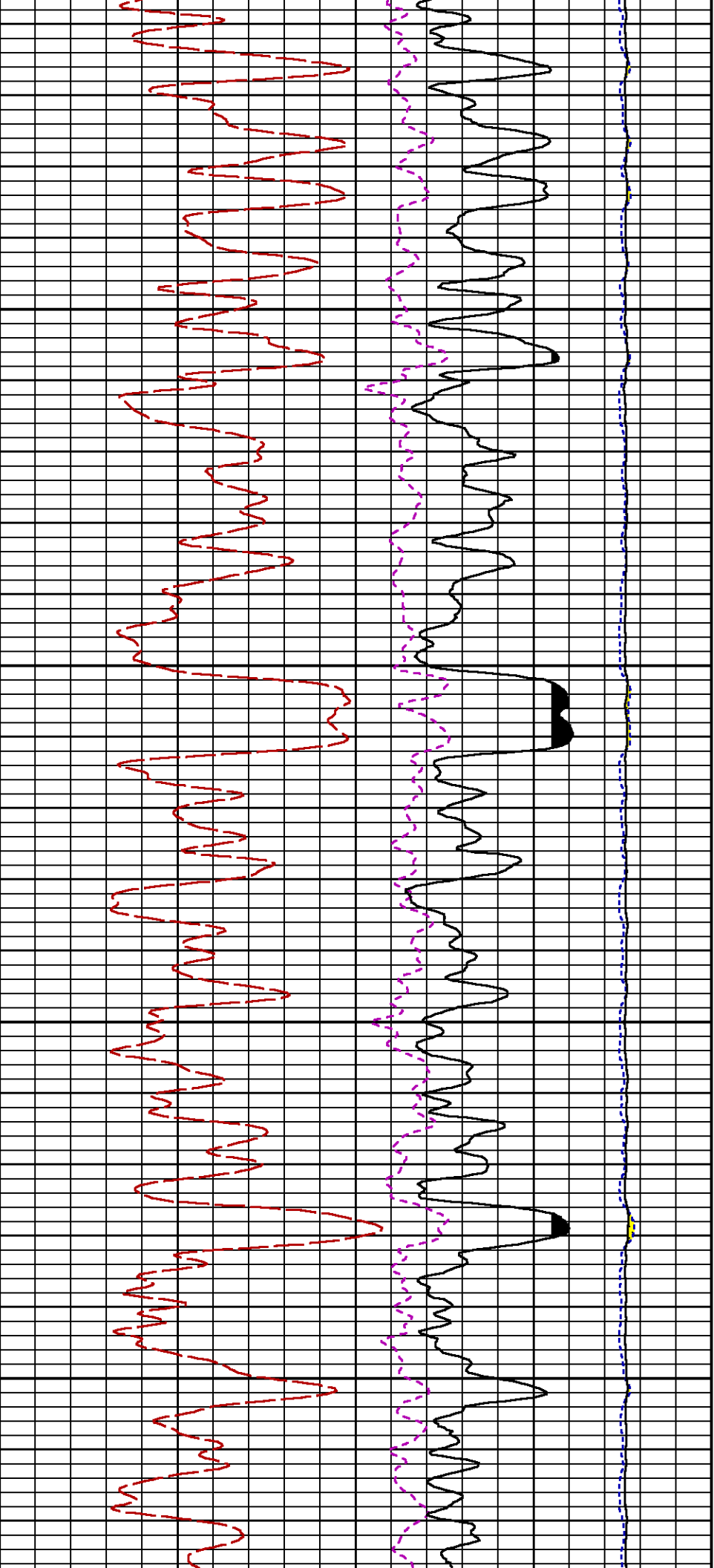
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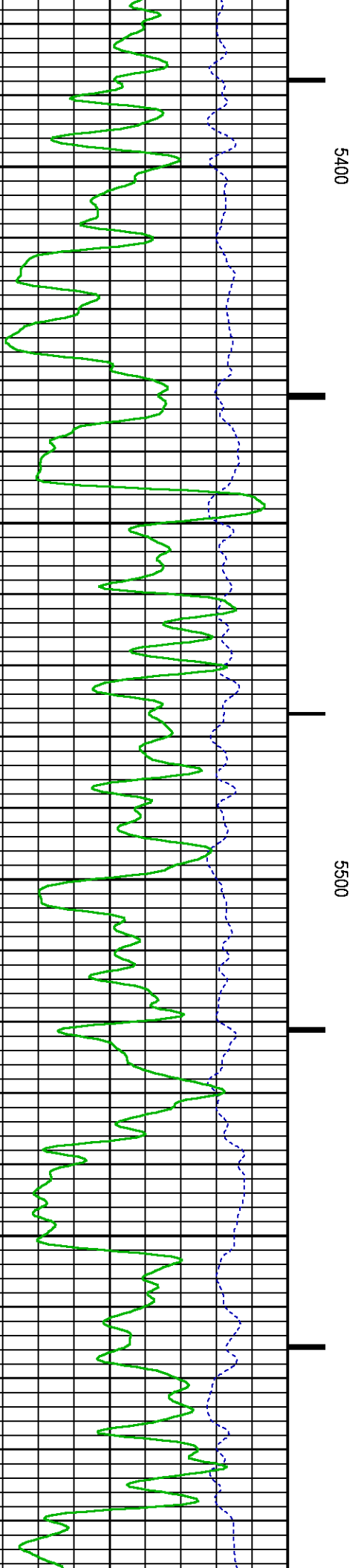
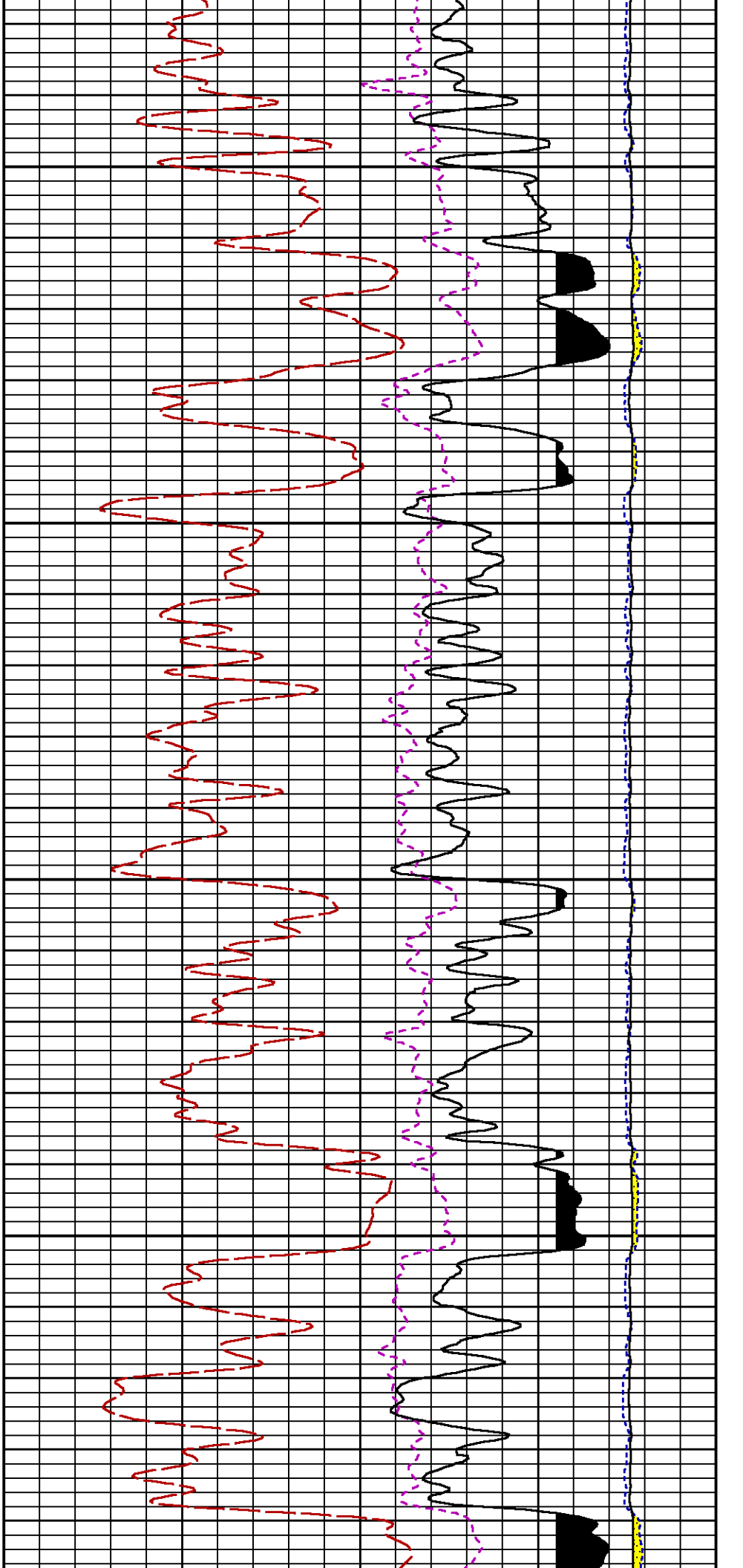
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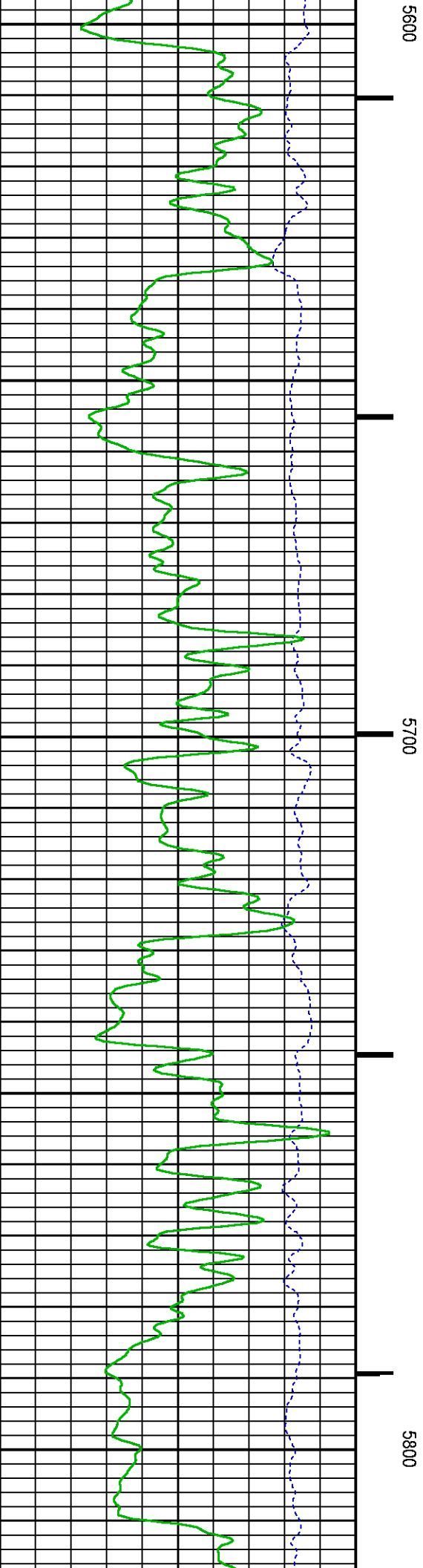
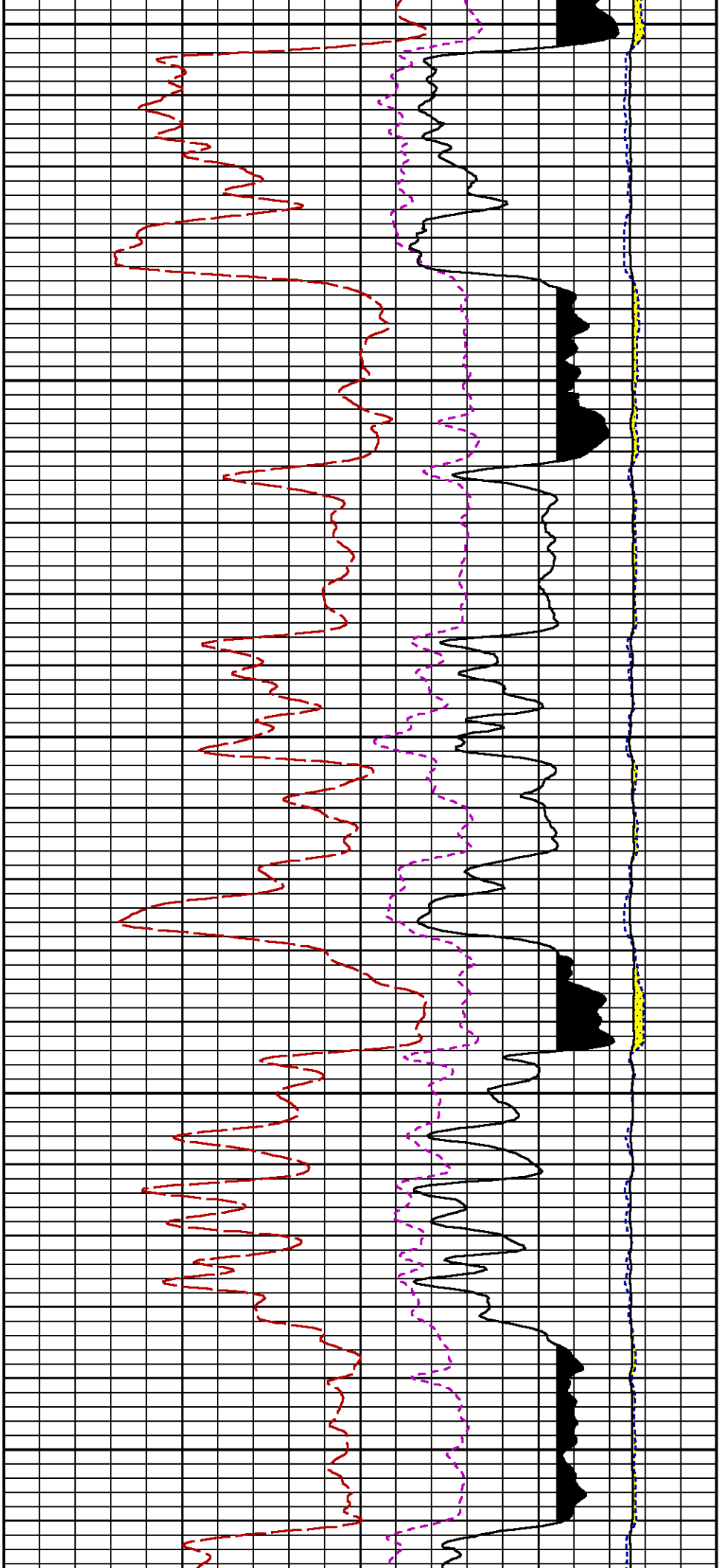
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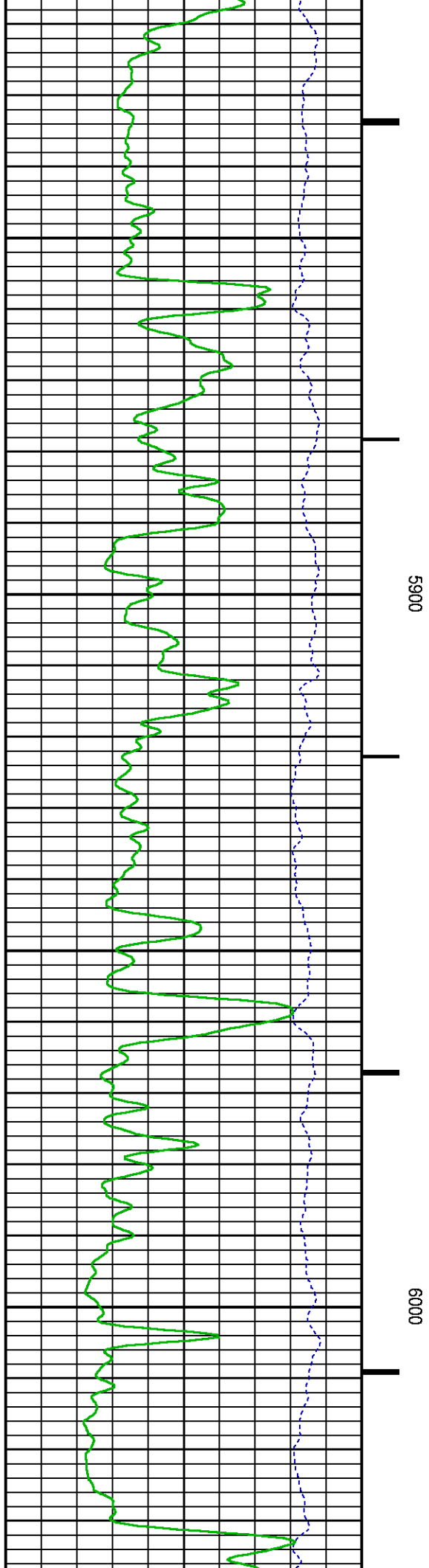
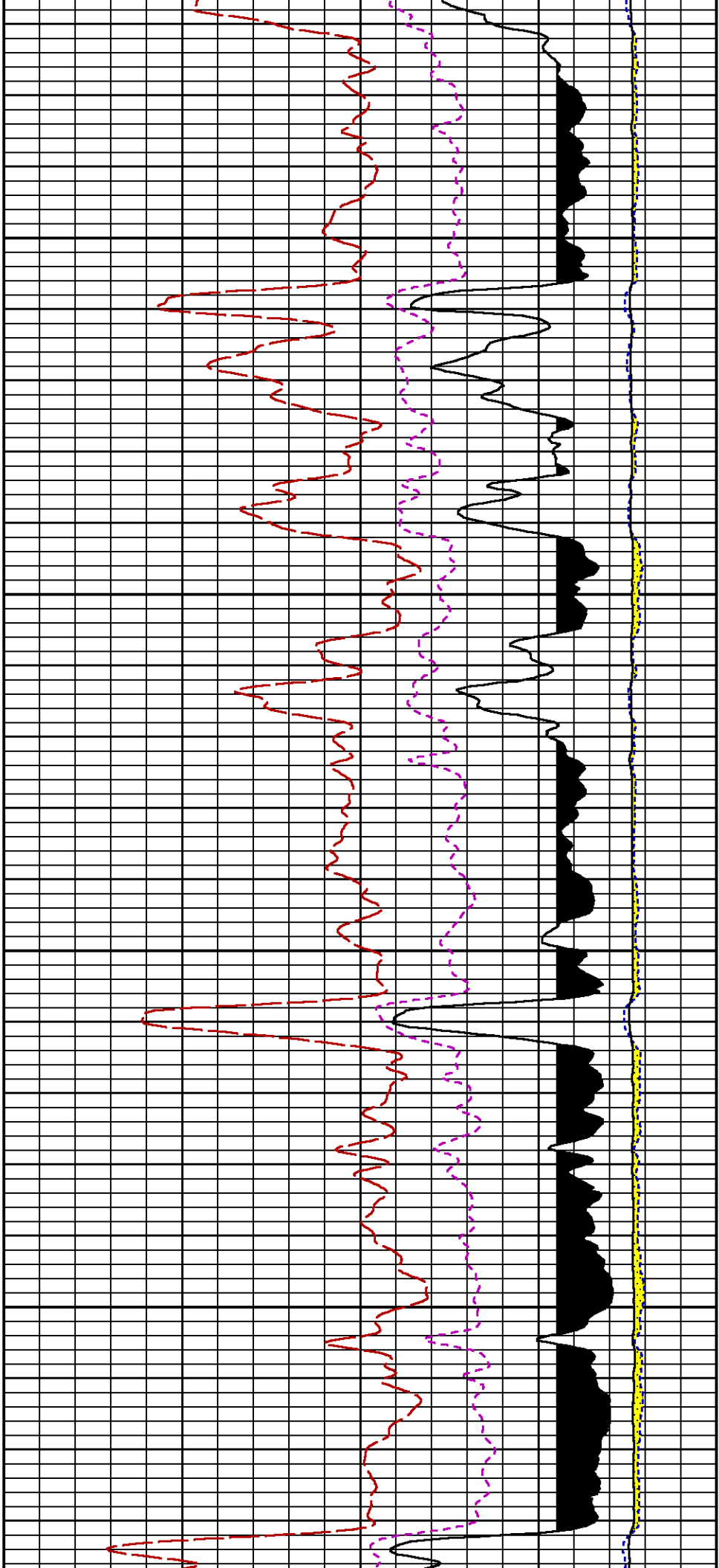


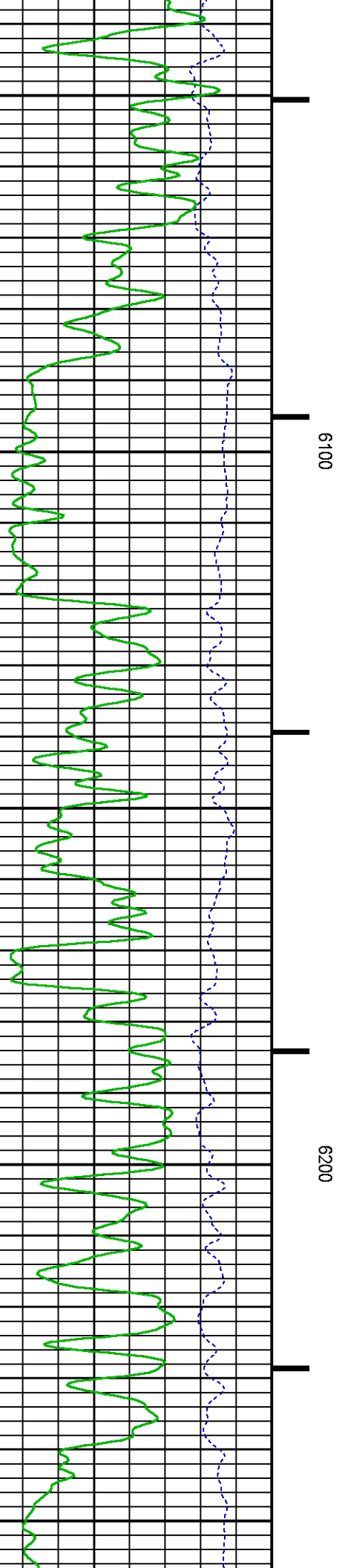
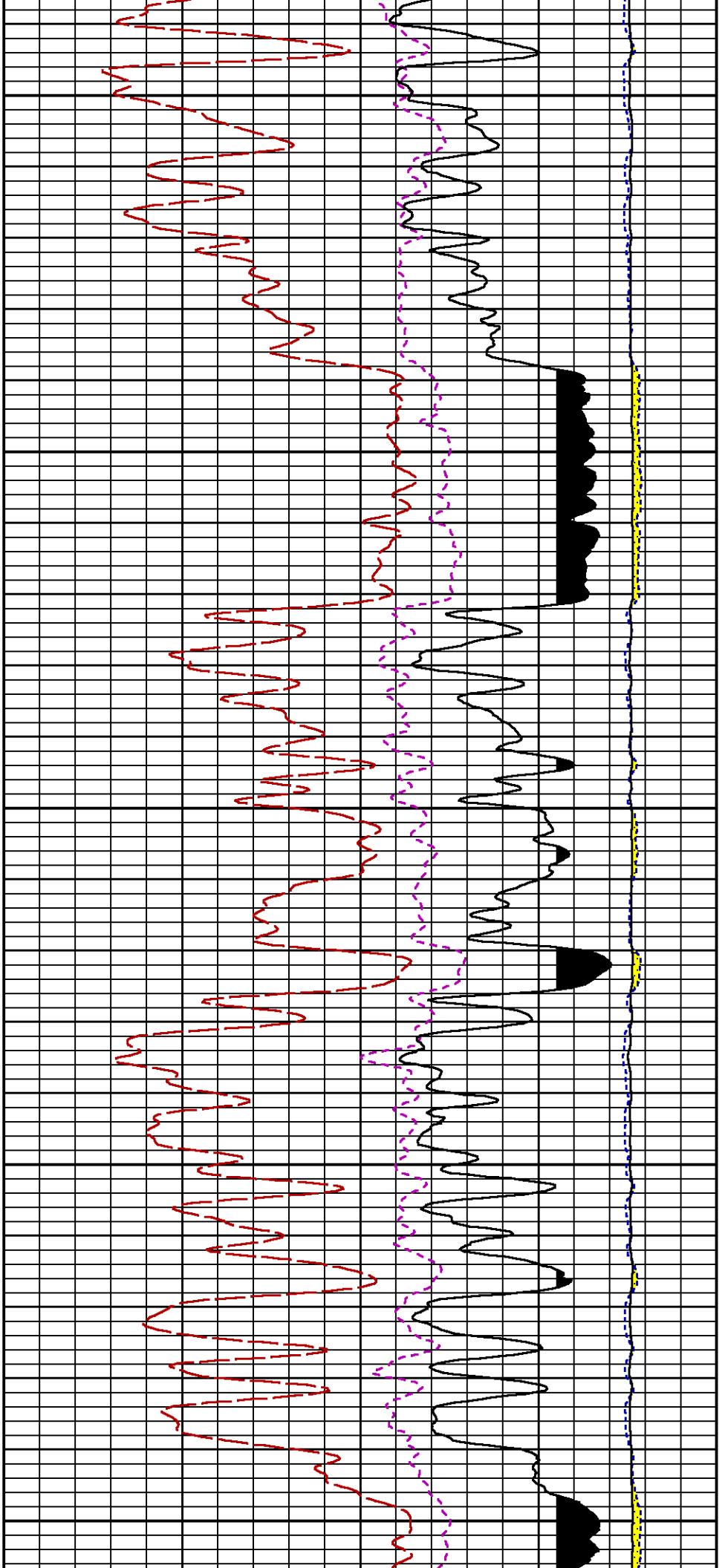


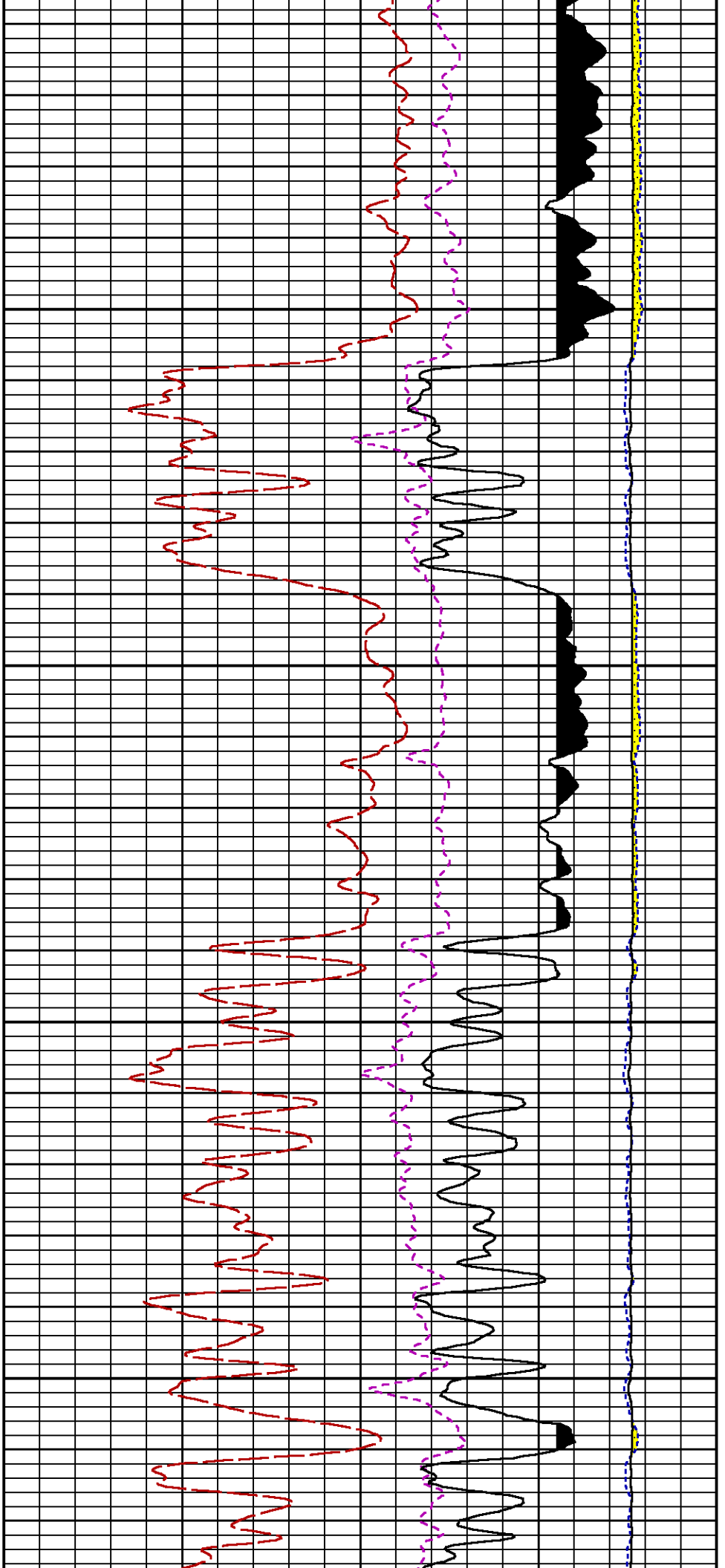






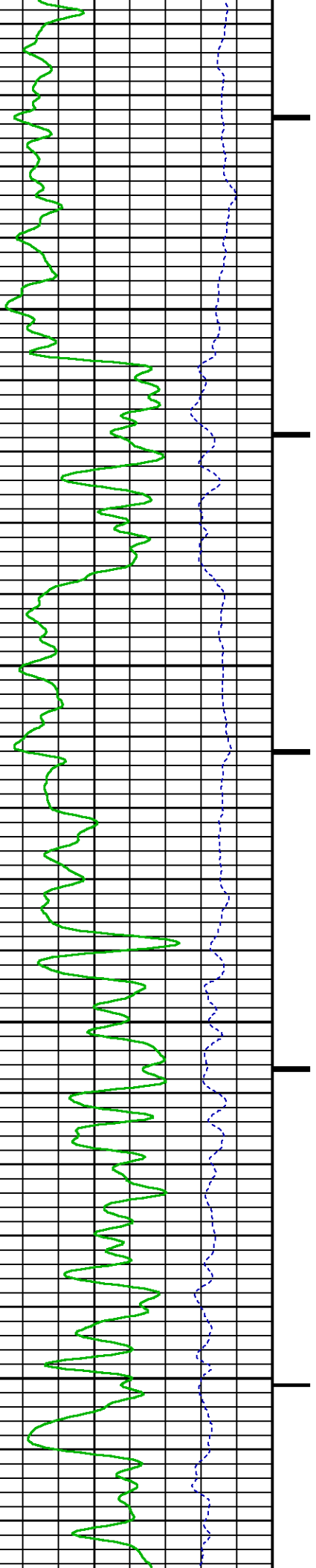


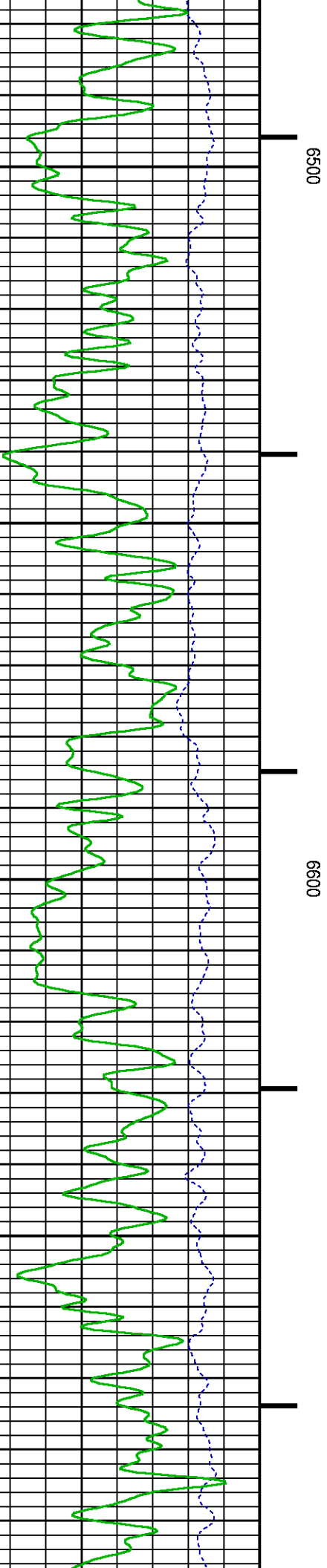
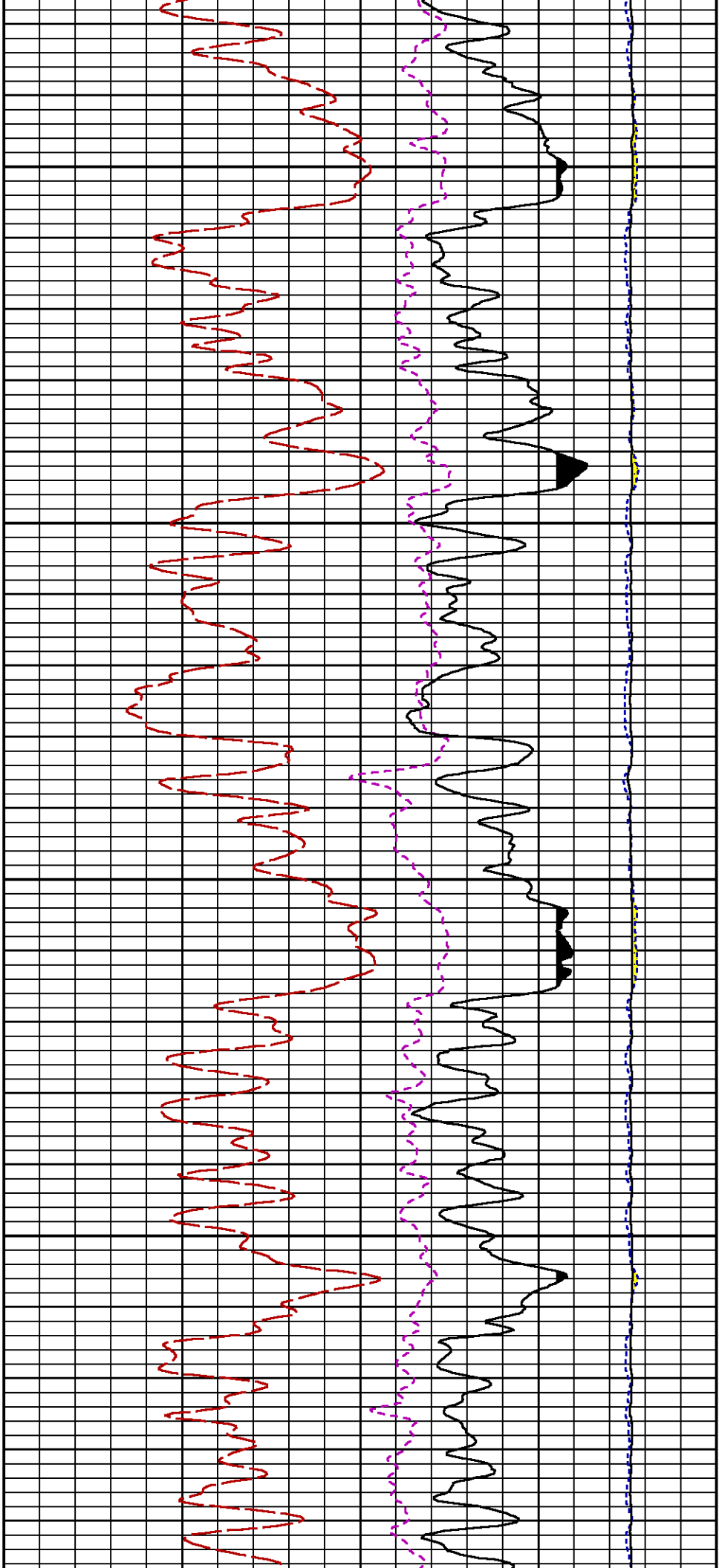


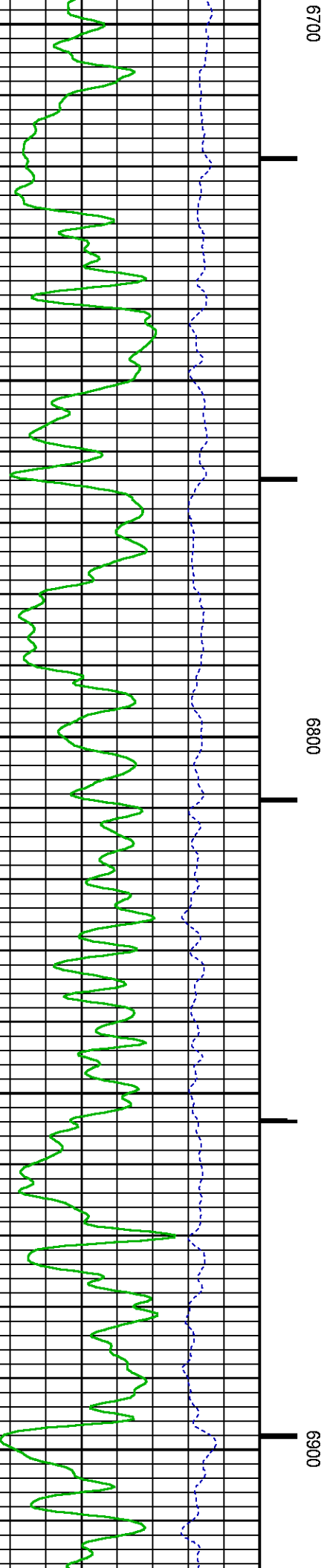
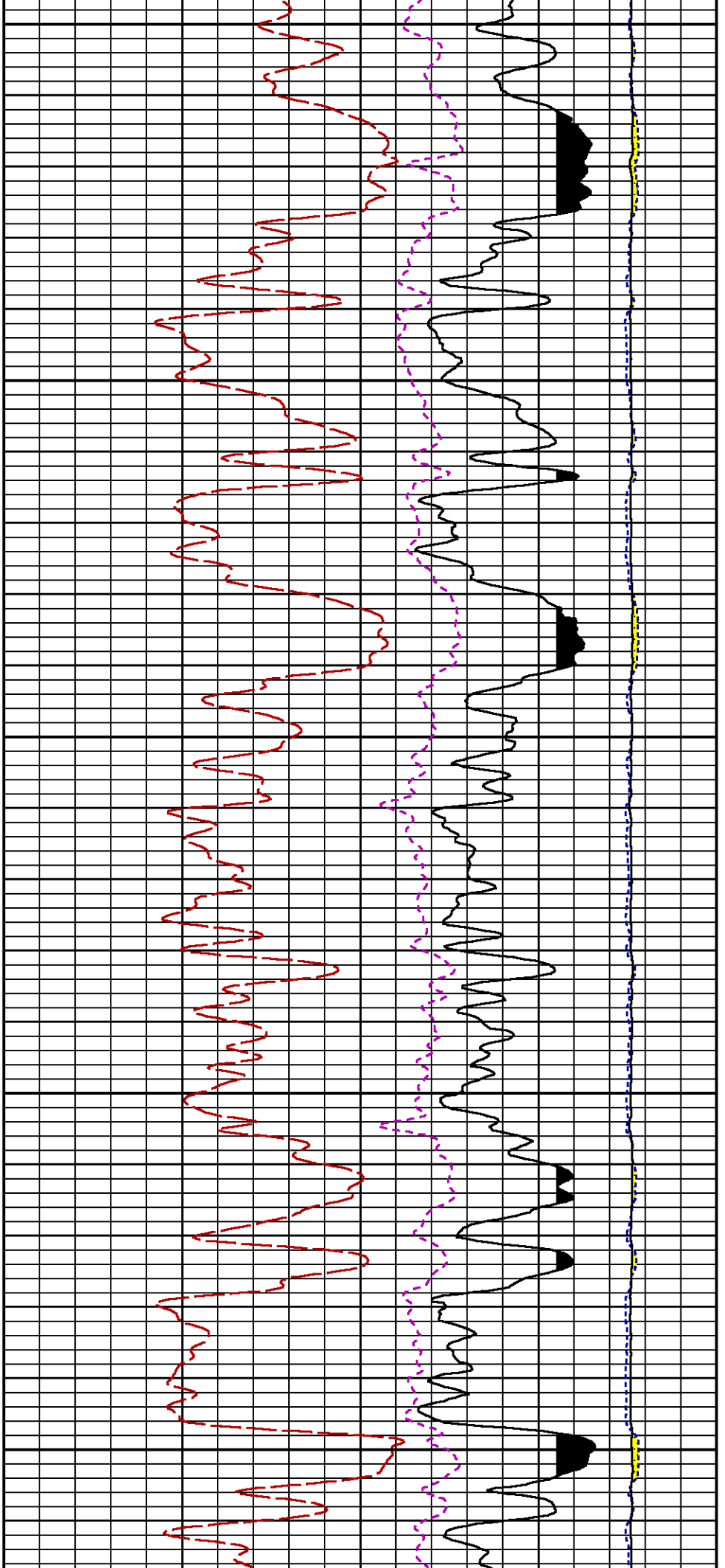


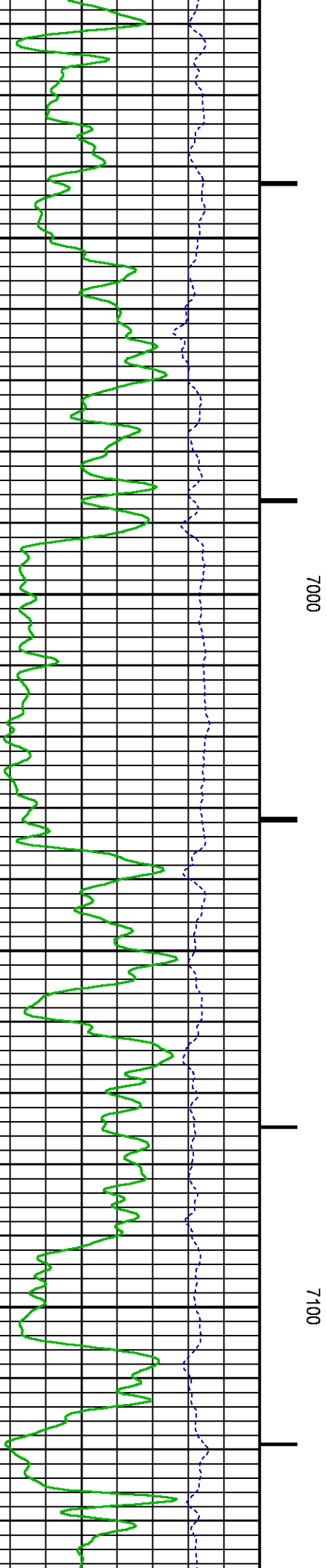
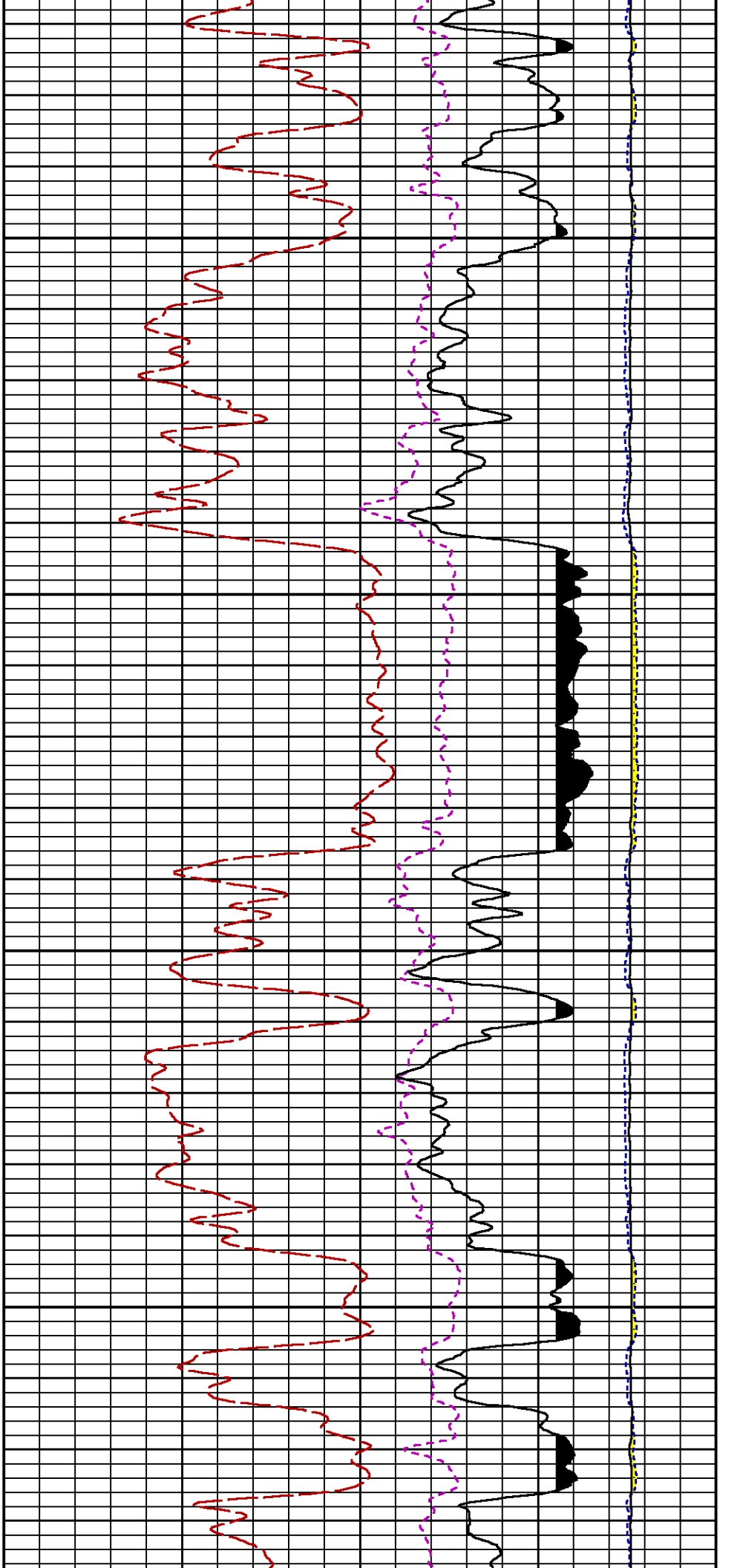
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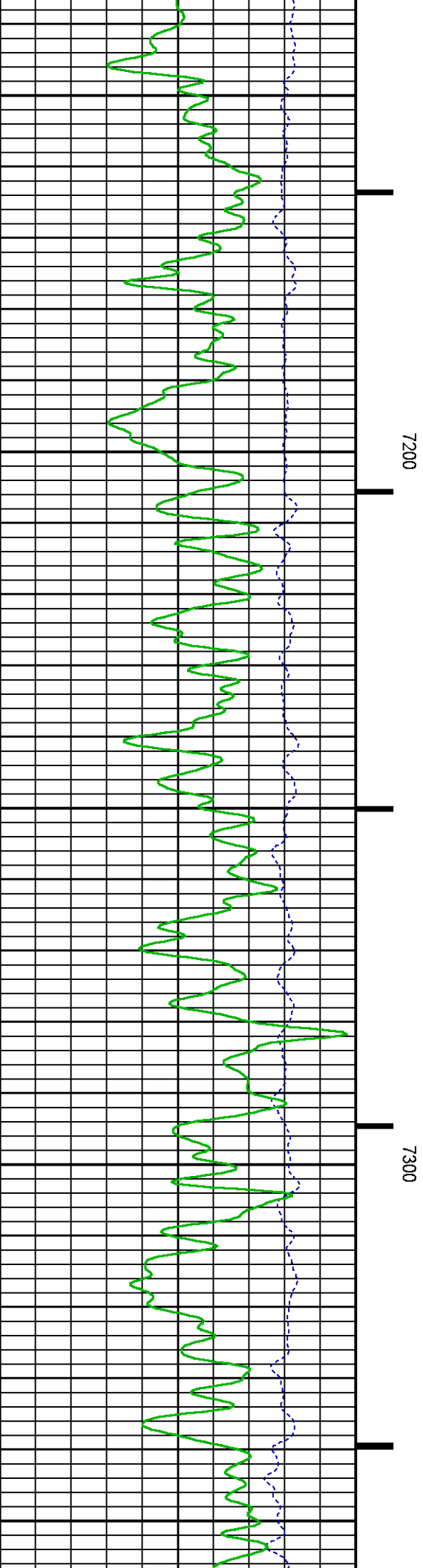
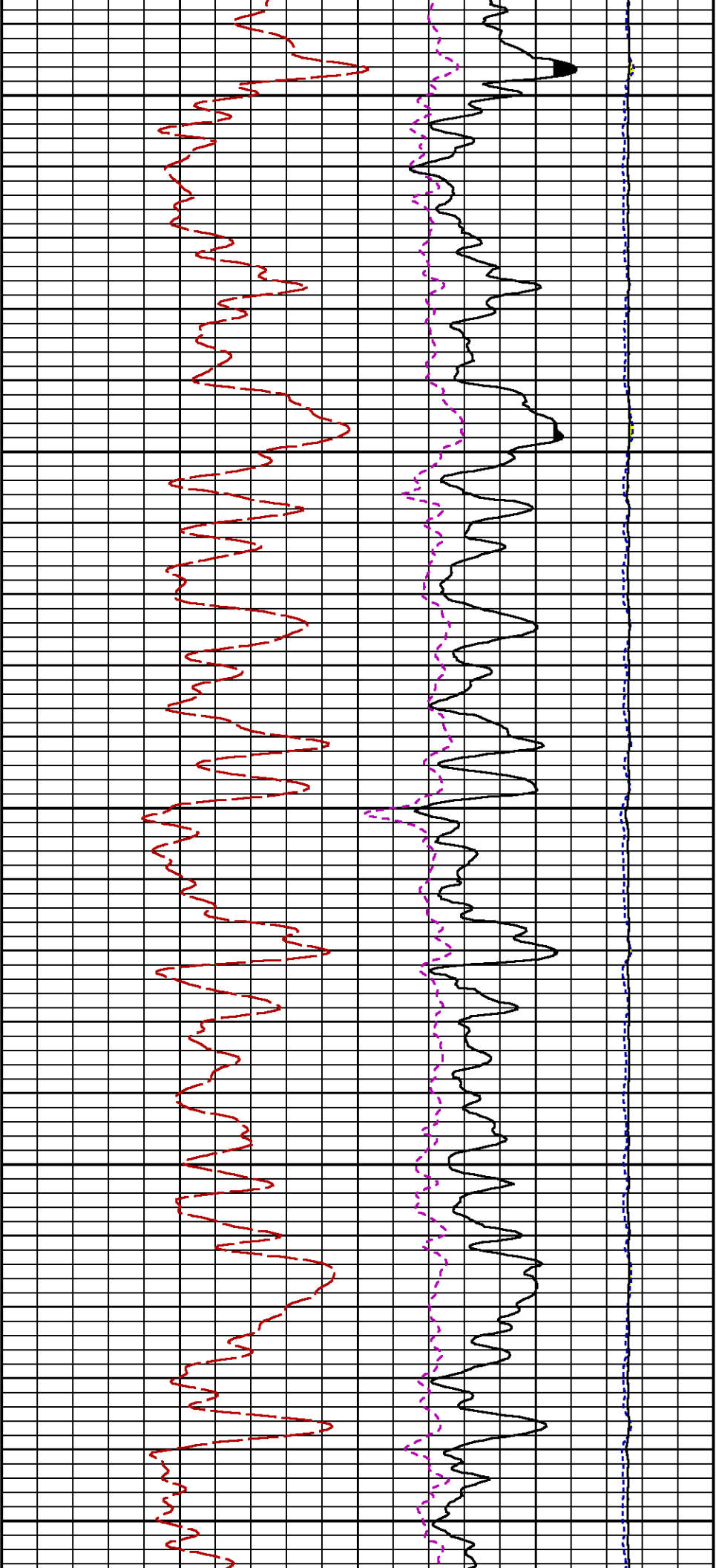
6400

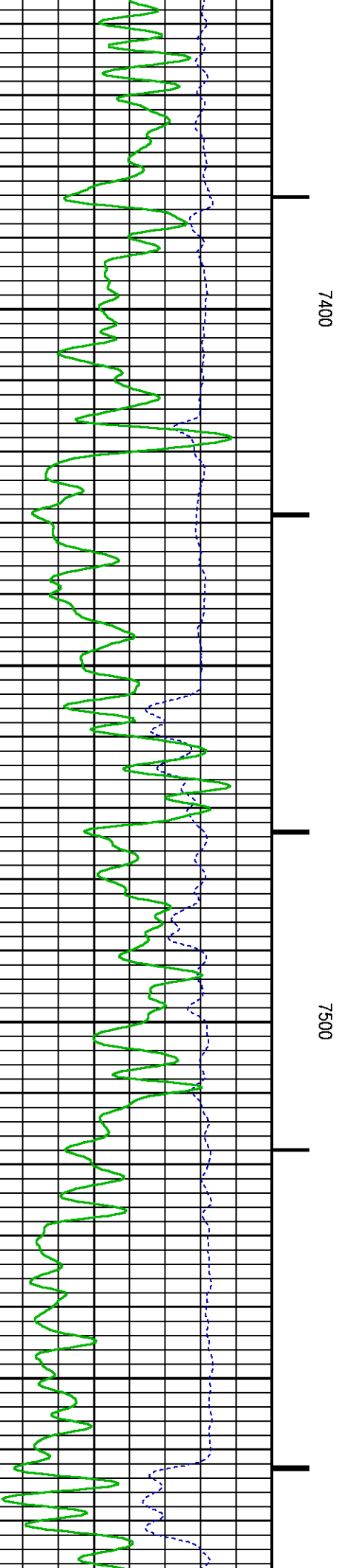
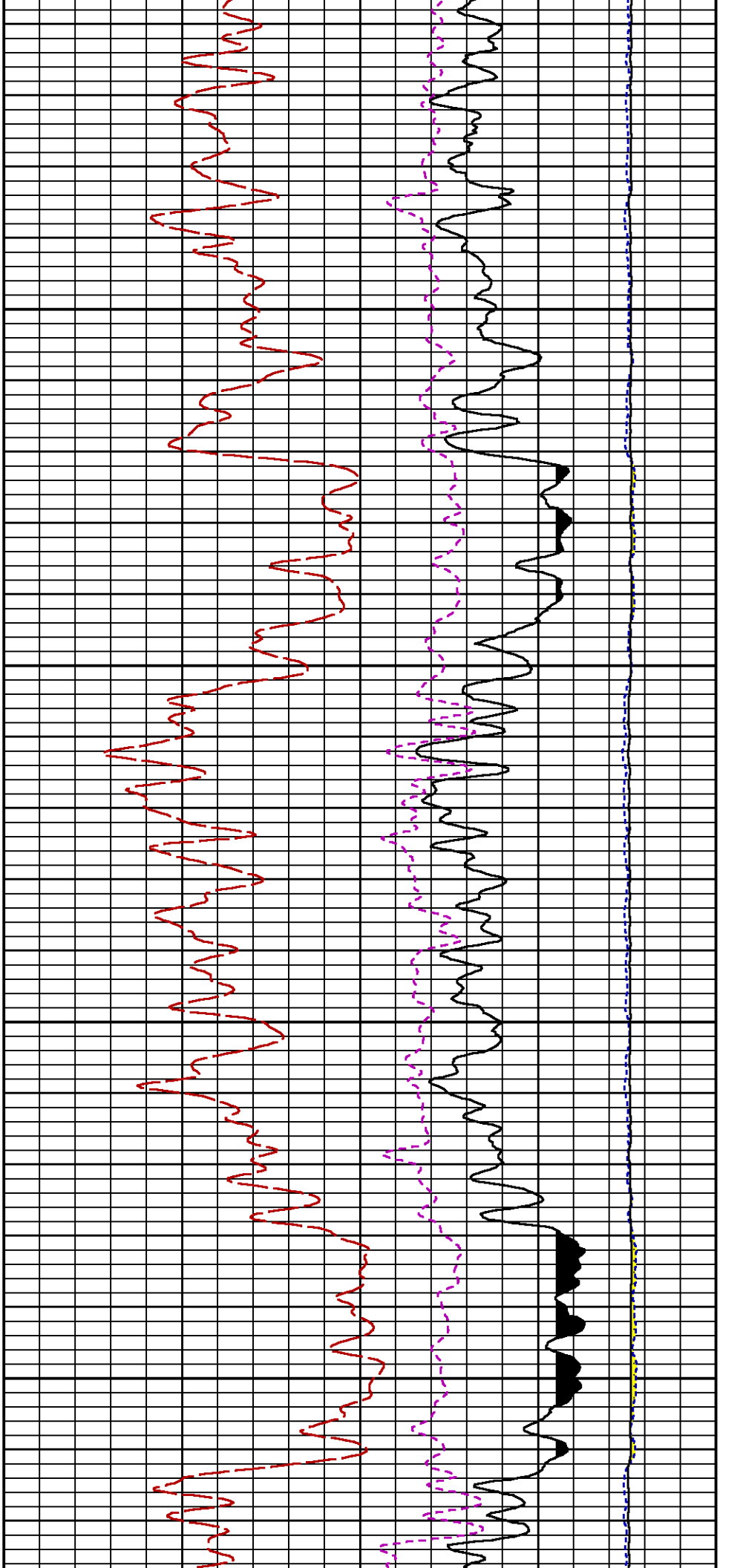


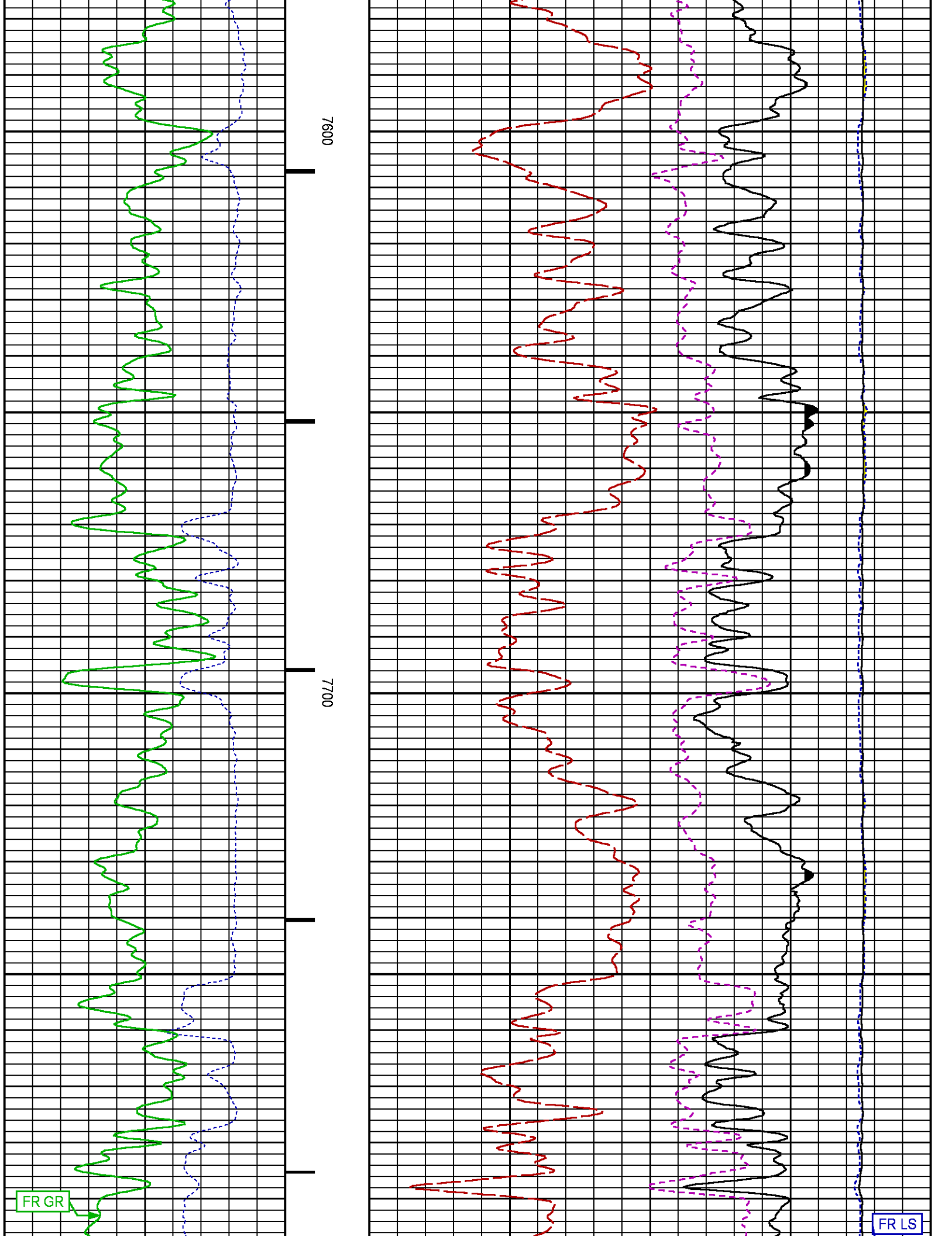


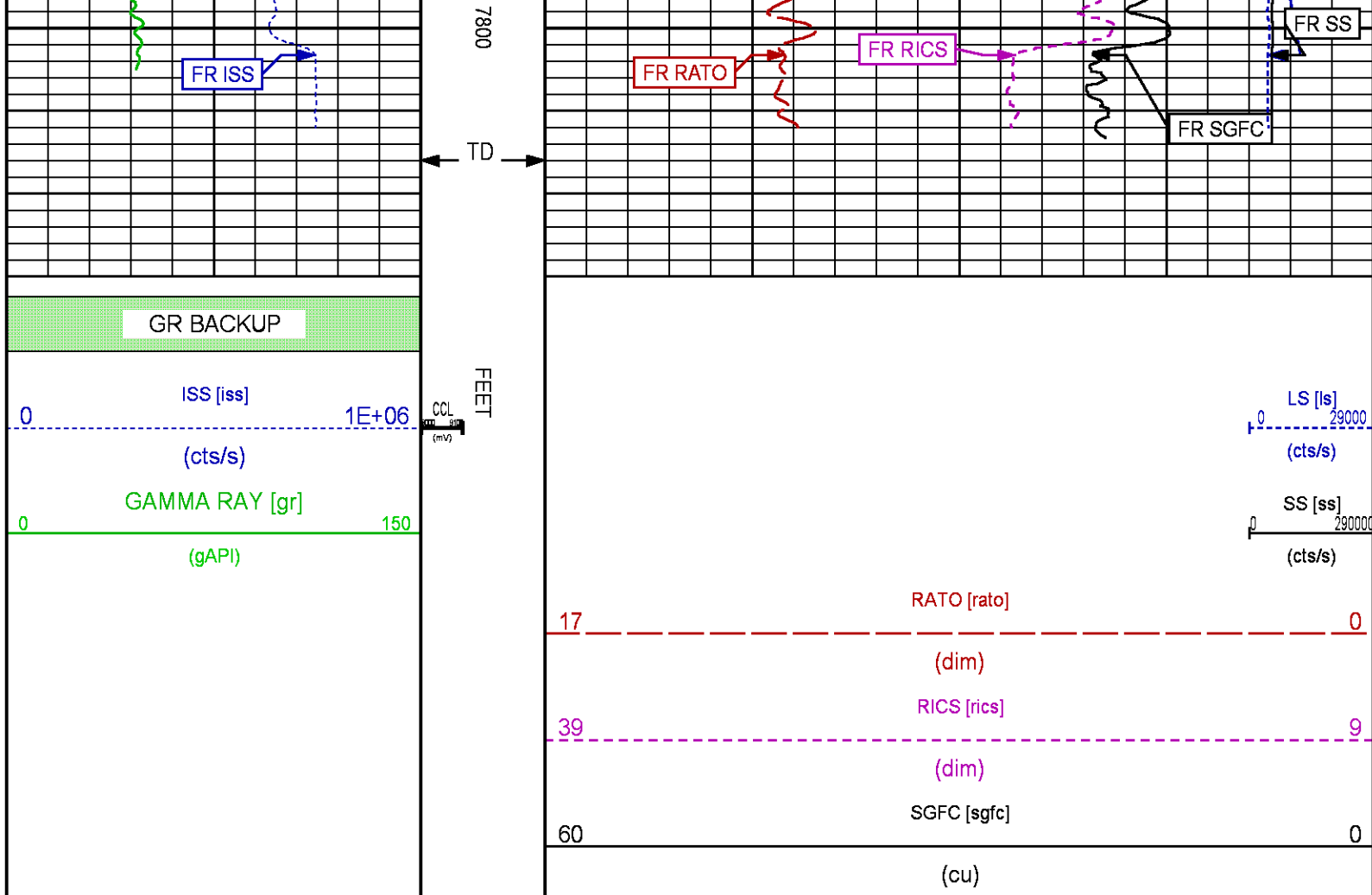












REPEAT SECTION PNC-3D MODE

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

Updates: 1,36 Patches: 9

Plotted: Fri Jul 29 12:24:45 2016

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH108538/n353hx01.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 7262.000 ft BOTTOM DEPTH: 7501.715 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	8.75	in	" "
	CASING SIZE	4.50	in	" "
	MATRIX	SANDSTONE		" "
	CORRECTION BUFFER	11		" "

CURVE DESCRIPTION REPORT

CURVE NAME CREATION DATE

CURVE DESCRIPTION

F1:CCL	Jul 29 11:57:53 2016	CASING COLLAR LOCATOR
F1:GR	Jul 29 11:57:53 2016	GAMMA RAY
F1:ISS	Jul 29 11:57:53 2016	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Jul 29 11:57:53 2016	LONG SPACE COUNT RATE
F1:RATO	Jul 29 11:57:53 2016	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Jul 29 11:57:53 2016	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Jul 29 11:57:53 2016	CORRECTED FORMATION SIGMA
F1:SS	Jul 29 11:57:53 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/CH108538/WPX_RPM_RPT.fvpdf [5"/100' Scale]
Plot Interval : 7248 - 7495.75 Feet

Data File 1 : F1 : cas6685:/dat1a/CH108538/repeat.xtf
Created On : Jul 29 11:57:53 2016
Company : TERRA ENERGY PARTNERS LLC
Well : FEDERAL GM 532-9
Field : GRAND VALLEY
File Interval : 7235.25 - 7512 Feet
OCT : n353hx

GR BACKUP

FEET

ISS [iss]

1E+06

(cts/s)

GAMMA RAY [gr]

150

(gAPI)

CCL
(mV)

ISS [iss]

29000

(cts/s)

SS [ss]

290000

(cts/s)

RATO [rato]

17

0

(dim)

RICS [rics]

39

9

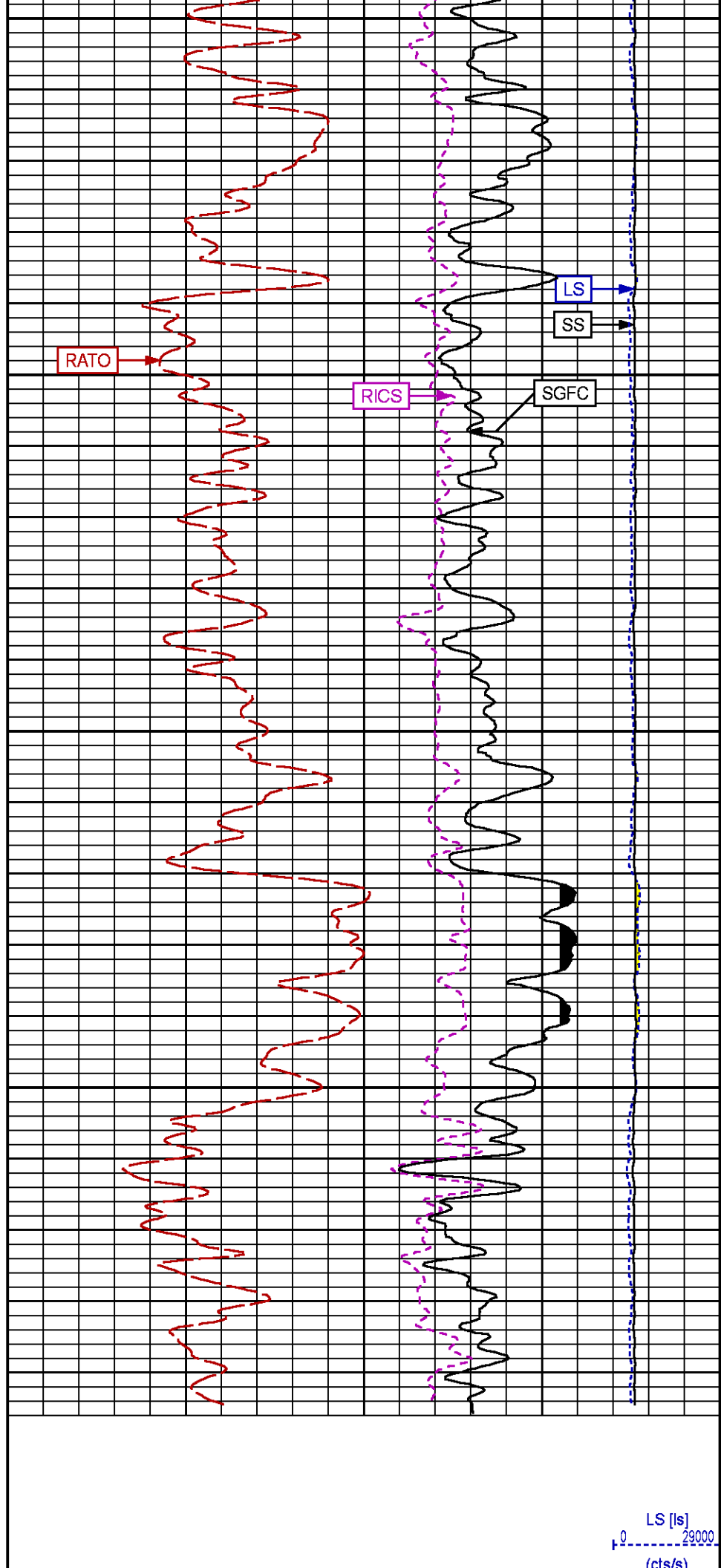
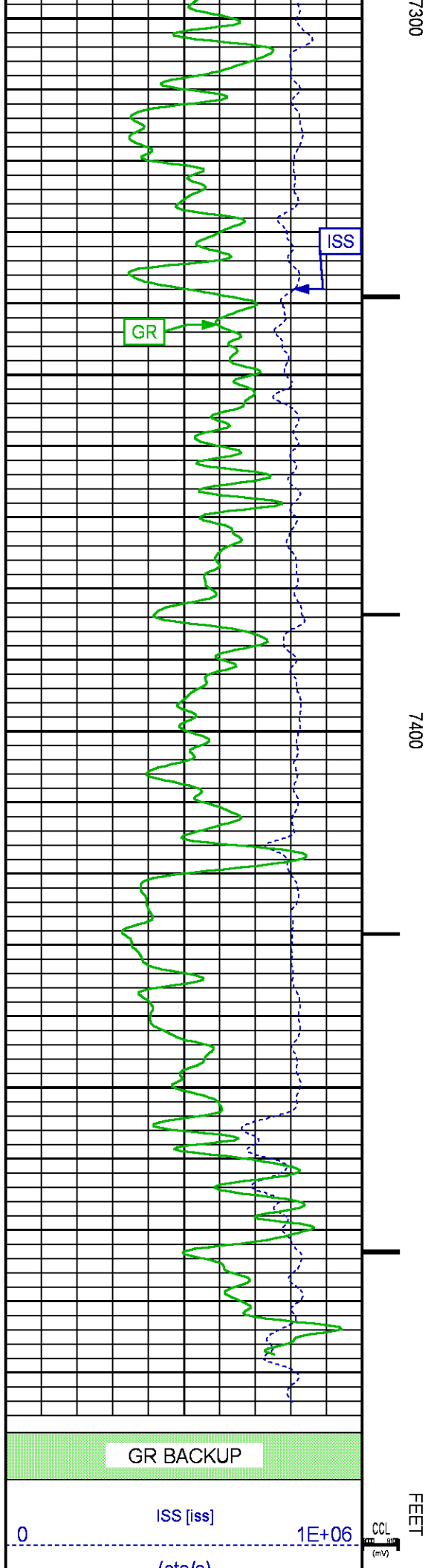
(dim)

SGFC [sgfc]

60

0

(cu)



CALIBRATION / VERIFICATION SUMMARY

GR PRIMARY CALIBRATION SUMMARY

GR PRIMARY VERIFICATION SUMMARY

RPM PNC 3D PRIMARY CALIBRATION SUMMARY

	ISS	ILS	IXS	SS	SS2	LS	CSS	CLS
Base Data	701056	162116	25061	81026	20002	7060	51121	10702

Raw Data	794956	163446	25264	84936	30293	7960	51434	12703
Fit Quality %	0.408	0.339	0.327	0.295	0.417	0.280	0.403	
	ISS	RBOR	RIN	RIN13	RICS	RATO	RTWO	RONE
	ISS/ILS		ISS/IXS		ISS/CSS	SS/LS	SS2/LS	CSS/CLS
Raw Data	794956	1.43	4.86	31.48	15.46	10.67	3.81	4.05
		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 %		0.016	0.325	0.292	0.322	0.069	0.094	0.097
Reduced	1401134	1.43	4.87	31.50	15.45	10.68	3.81	4.06
		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 Z166341

DATE/TIME PERFORMED: Wed Oct 21 14:25:56 2015

UNIT #: 3885TC 6685

	T(0)	T(1)	T(2)	T(3)
Corr Coeff for Temp	-1.828341E+01	9.988427E-02	8.122243E-07	-3.138442E-11

INSTRUMENT CONFIGURATION

Source File: /dat1a/CH108538/n353hx~joe-tdg

A3 CABLEHEAD

PCM POWER SUPPLY

Diameter : 1.70"
Length : 3.86'
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

GAMMA RAY

Diameter : 1.70"
Length : 3.02'
Weight : 15 lbs
Series : 8262XA
Mnemonic : GR
Measure Point: 0.89': GR MP

RPM ELECTRONICS

Diameter : 1.70"
Length : 4.48'
Weight : 16 lbs
Series : 8281EA
Mnemonic : RPM

34.08'

CCL MP 26.03'

GR MP 22.90'

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	TERRA ENERGY PARTNERS LLC		FILE NO:	
	WELL	FEDERAL GM 532-9			CH108538
	FIELD	GRAND VALLEY		API NO:	
	COUNTY	GARFIELD	STATE	COLORADO	05045225360000
LOCATION:			ELEVATIONS:		SEC.9 T.7S R.96W
SHL: 656' FNL & 570' FWL			KB 6110 FT		PAD: MV 16-9
BHL: 2273' FNL & 1641' FEL			DF		RIG: H&P 318
GL 6087 FT			DATE		29-Jul-2016
SEC <u>9</u> TWP <u>7S</u> RGE <u>96W</u>					