



FILE NO: CH092511	COMPANY WELL FIELD COUNTY	LARAMIE ENERGY SUP & SHEP FEDERAL 25-13W VEGA MESA STATE CO
API NO: 05077100270000		

Ver. 3.87 25 9S 93W SUP & SHEP 25-11 PATTERSON 306	LOCATION: SHL: LAT 39.245006 LONG -107.722874 BHL: LAT 39.243978 LONG -107.726799 SEC 25 TWP 9S RGE 93W	OTHER SERVICES BOND LOG
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PERMANENT DATUM LOG MEASURED FROM DRILL. MEAS. FROM	GL ELEVATION 8074 FT KB 22 FT ABOVE P.D. KB	ELEVATIONS: KB 8096 FT DF GL 8074 FT
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DATE	04-Dec-2014
RUN	1
SERVICE ORDER	US092511
DEPTH DRILLER	8632 FT
DEPTH LOGGER	8542 FT
BOTTOM LOGGED INTERVAL	8532 FT
TOP LOGGED INTERVAL	3428 FT
TIME STARTED	14:30
TIME FINISHED	19:30
OPERATOR RIG TIME	5 HOURS
TYPE OF FLUID IN HOLE	WATER
FLUID DENSITY	NA
FLUID SALINITY	NA
FLUID LEVEL	78 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	03-Dec-2014
EQUIP. NO.	HL-6670
LOCATION	NEWELL / EDWARDS
RECORDED BY	JOHN GRUBICH
WITNESSED BY	

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		8632 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
4.5 IN	11.6 LB/F	I-80	0 FT	8632 FT

REMARKS

RUN 1 TRIP 1: All data on this log is shifted using the Gamma Ray curve to the Baker Hughes bond log dated 03/DEC/2014 at the client's request.

Logged in PNC-3D mode.

BHT = 256 degF

SJ = 5376' - 5348'
SJ = 7735' - 7759'

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	10401926	FREE
1	1	RPM	8283PA	10414345	FREE
1	1	RPM	8281EA	10169280	FREE
1	1	GR	8262XA	10317216	FREE
1	1	TEL/CCL	8248EA	10387150	FREE
1	1	PCM	8250EA	Z166326	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: Thu Dec 4 19:00:01 2014

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH092511/n353h02.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 5148.500 ft BOTTOM DEPTH: 8547.339 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	7.87	in	"	"
	CASING SIZE	4.50	in	"	"
	MATRIX	SANDSTONE		"	"
	CORRECTION BUFFER	11		"	"

CURVE DESCRIPTION REPORT

CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Dec 4 15:20:25 2014	CASING COLLAR LOCATOR
F1:GR	Dec 4 15:20:25 2014	GAMMA RAY
F1:ISS	Dec 4 15:20:25 2014	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Dec 4 15:20:25 2014	LONG SPACE COUNT RATE
F1:RATO	Dec 4 15:20:25 2014	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Dec 4 15:20:25 2014	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Dec 4 15:20:25 2014	CORRECTED FORMATION SIGMA
F1:SS	Dec 4 15:20:25 2014	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 : HL6670:/dat1a/CH092511/13W_RPM_MAIN.fvpdf [5"/100' Scale]
 Plot Interval : 5150 - 8547 Feet

Data File 1 : F1 : HL6670:/dat1a/CH092511/13W_RPM_MAIN.xtf
 Created On : Dec 4 15:20:25 2014
 Company : LARAMIE ENERGY
 Well : SUD 8 SHERFF

Well : SUP & SHEP FED
Field : VEGA
File Interval : 5121.5 - 8543.25 Feet
OCT : n353h

GR BACKUP

ISS [iss]

1E+06

(1)

GAMMA RAY [gr]

150

(gAPI)

FEET

CCL
(mV)

5200

GR

ISS

LS [ls]

29000

(1)

SS [ss]

290000

(1)

RATO [rato]

17

0

(1)

RICS [rics]

38

8

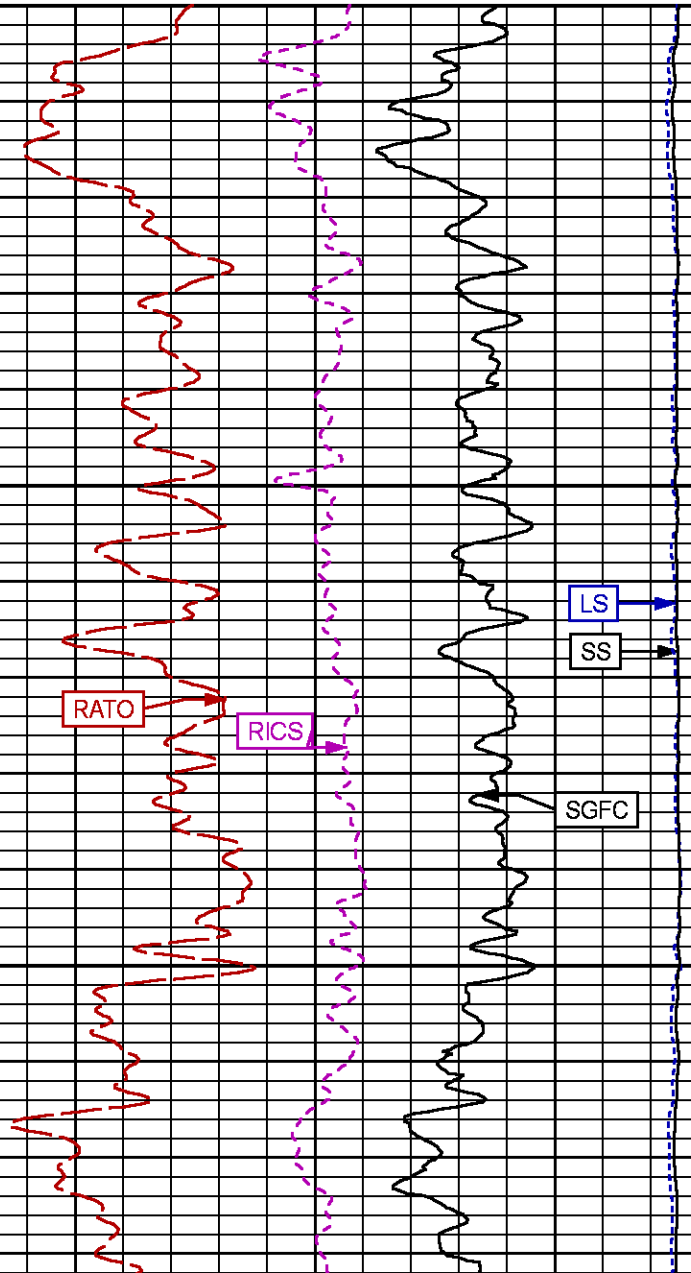
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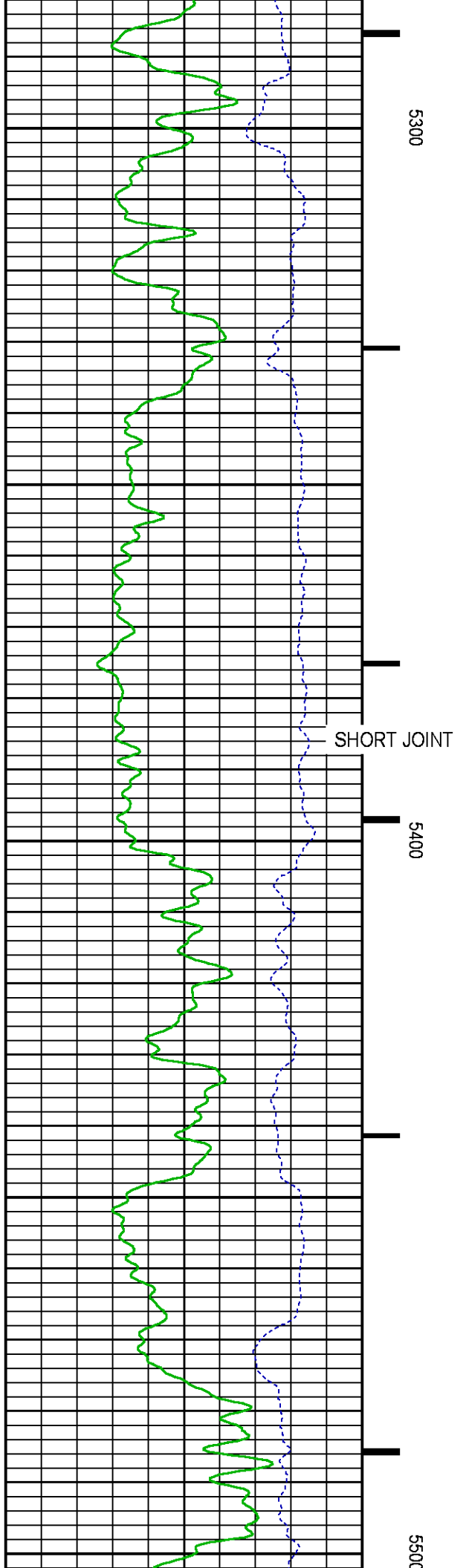
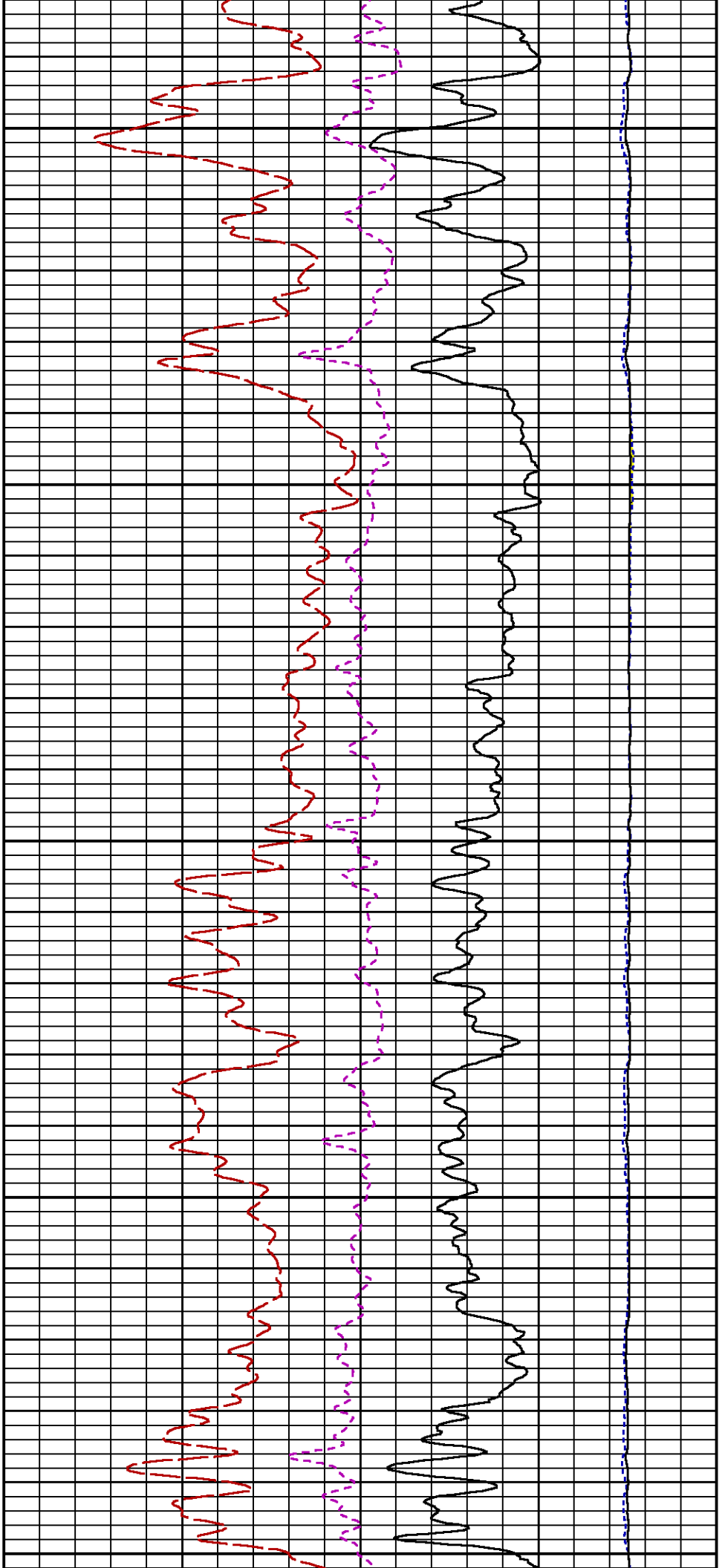
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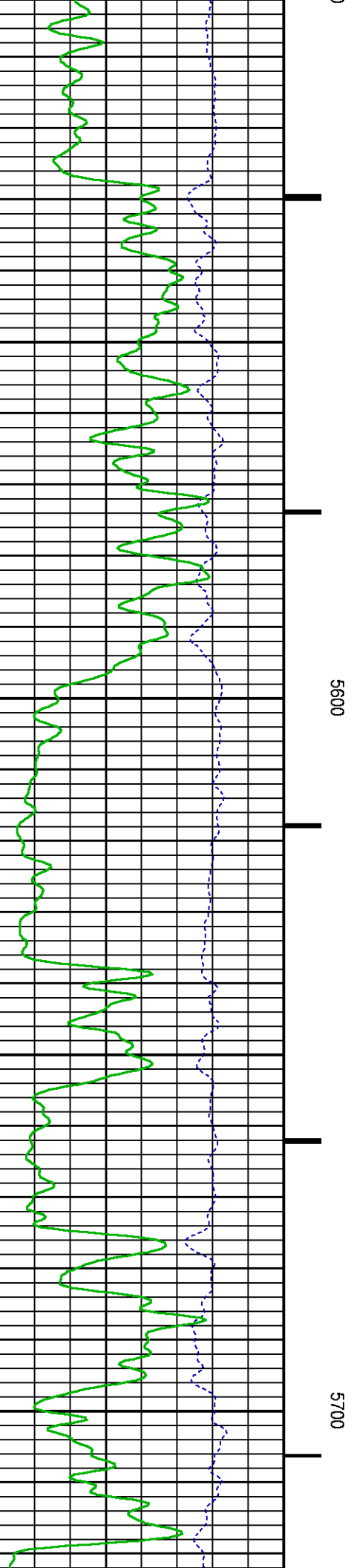
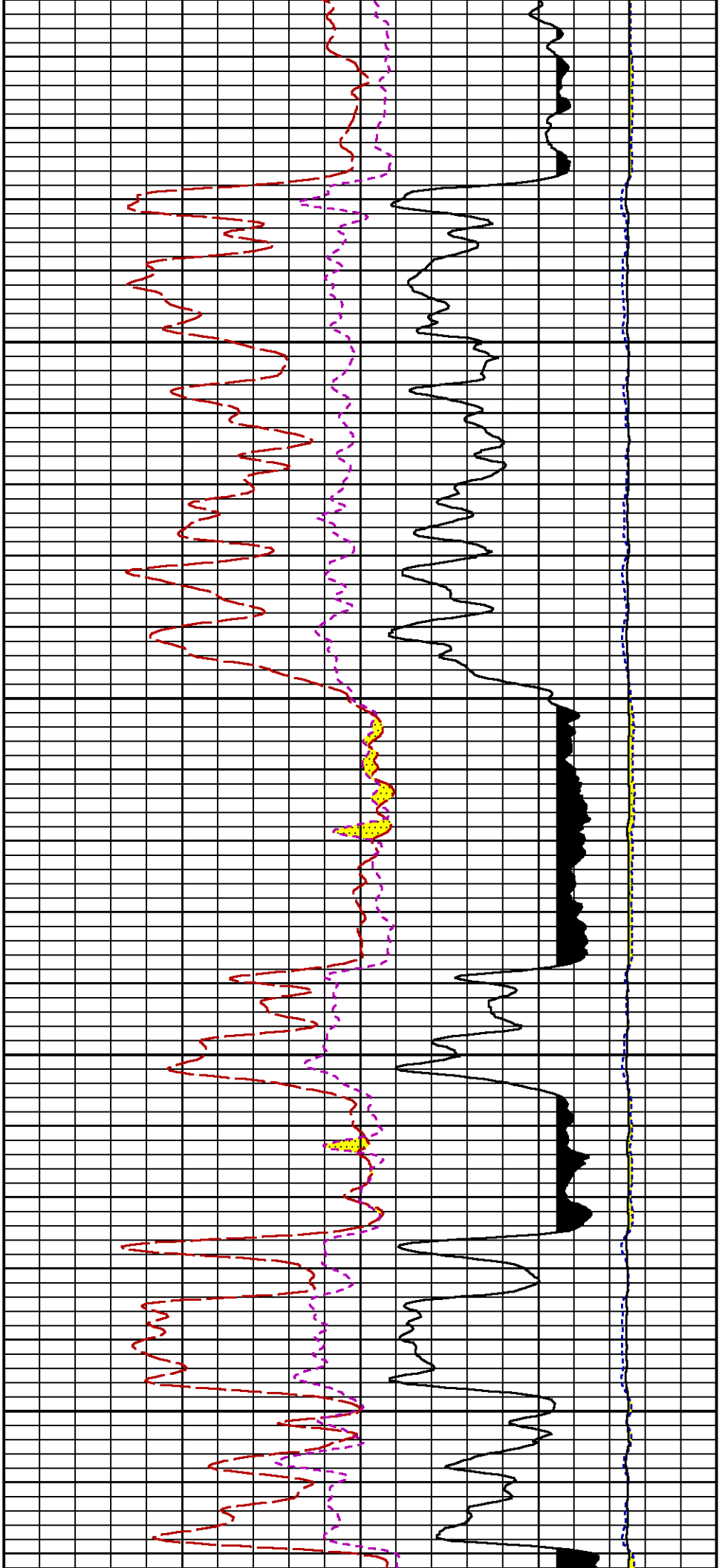
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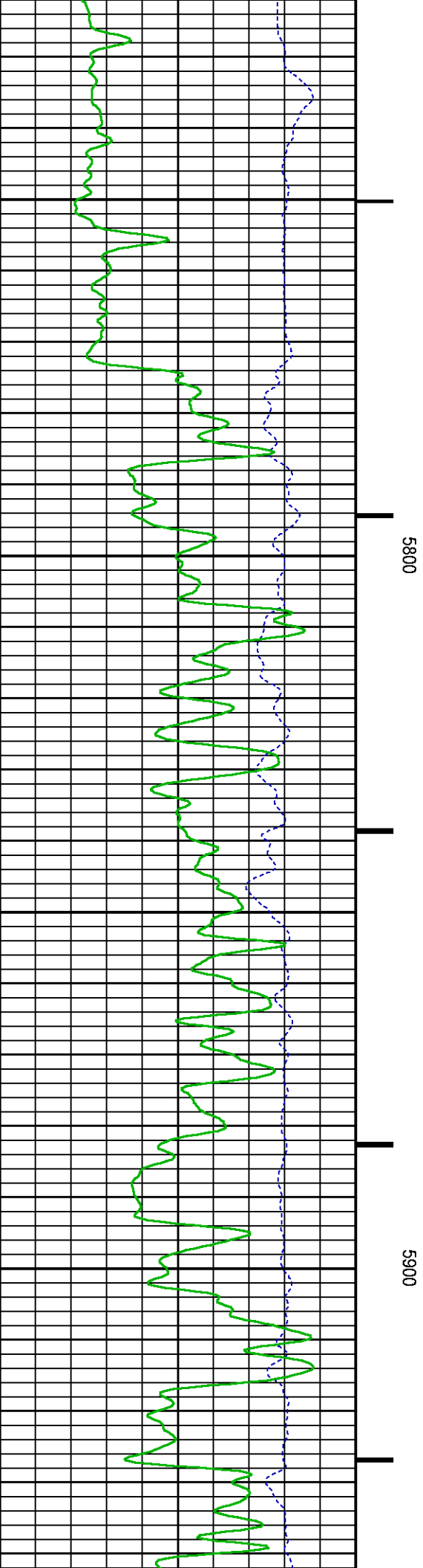
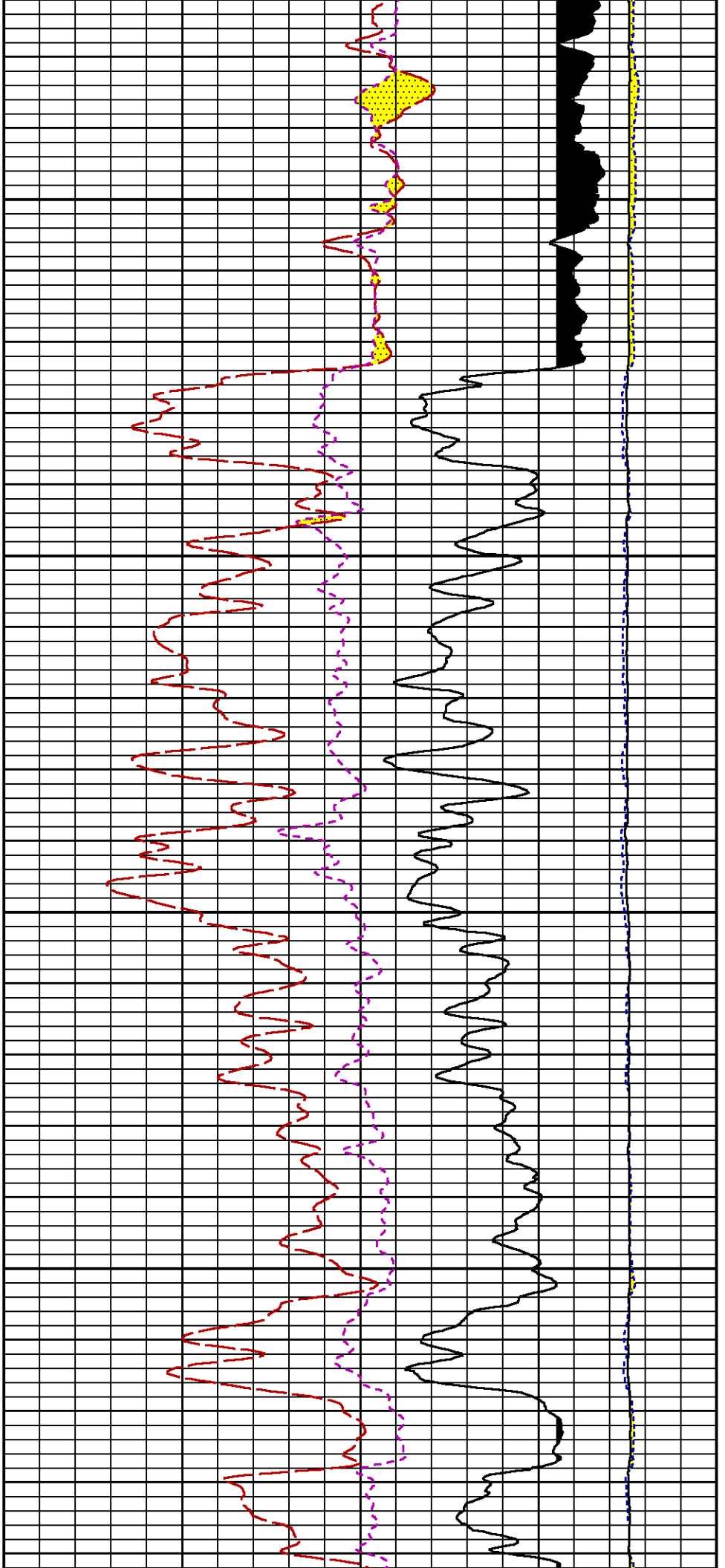
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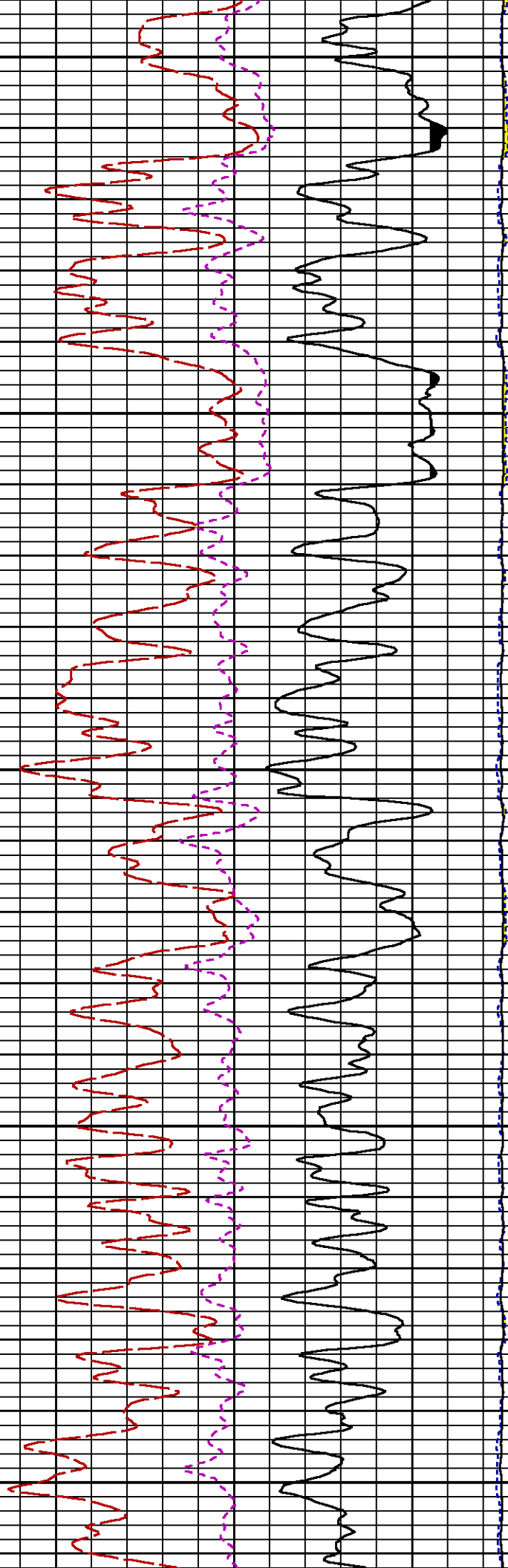
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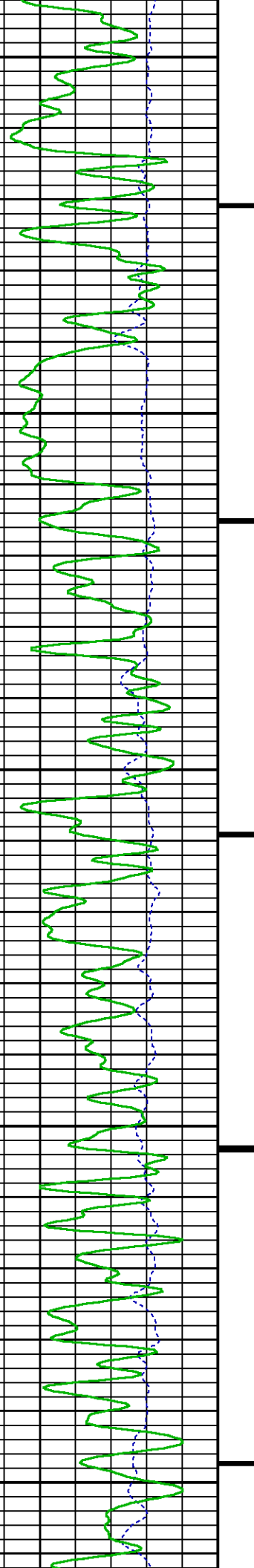


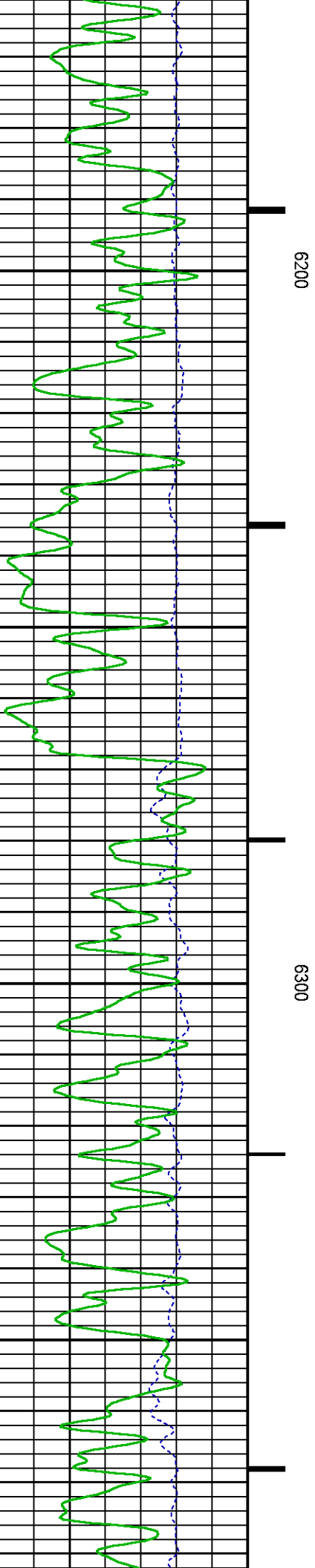
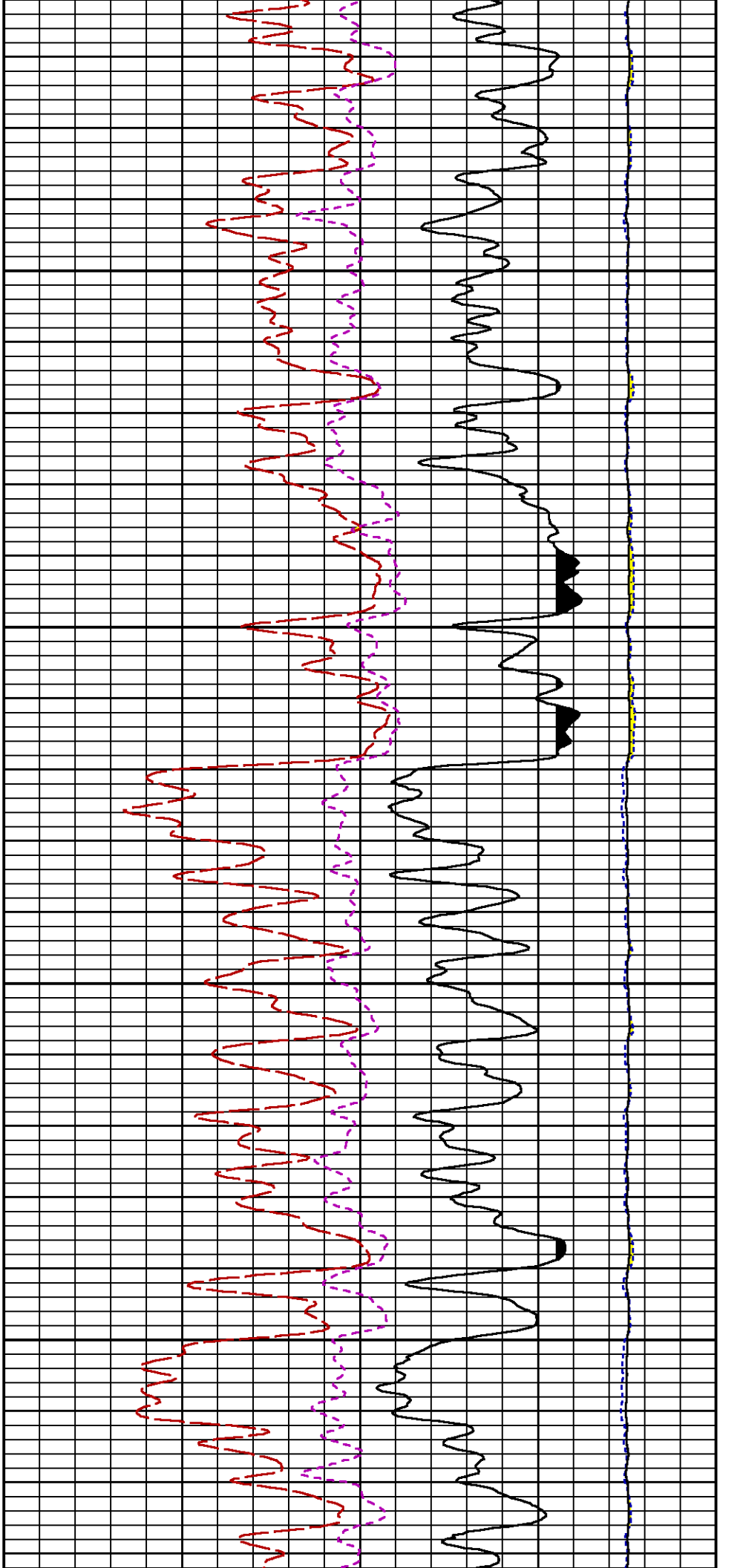


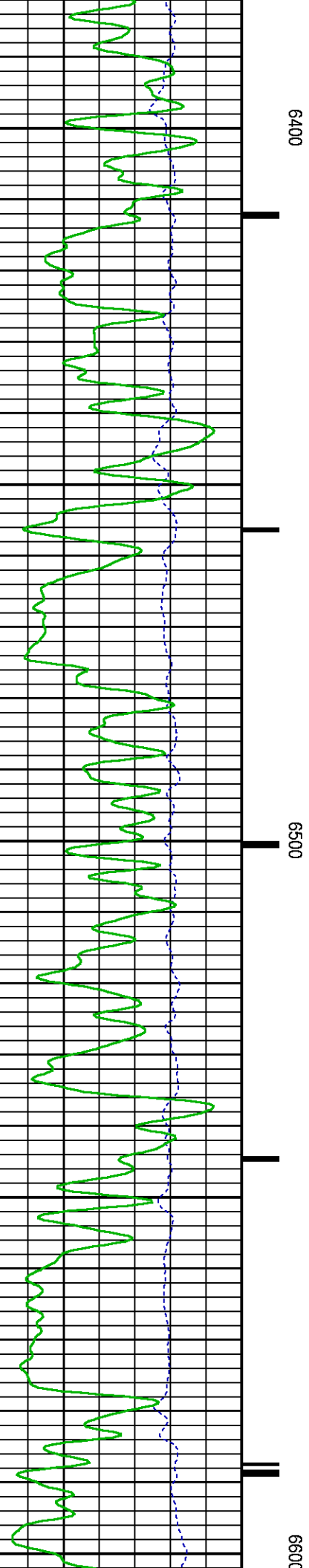
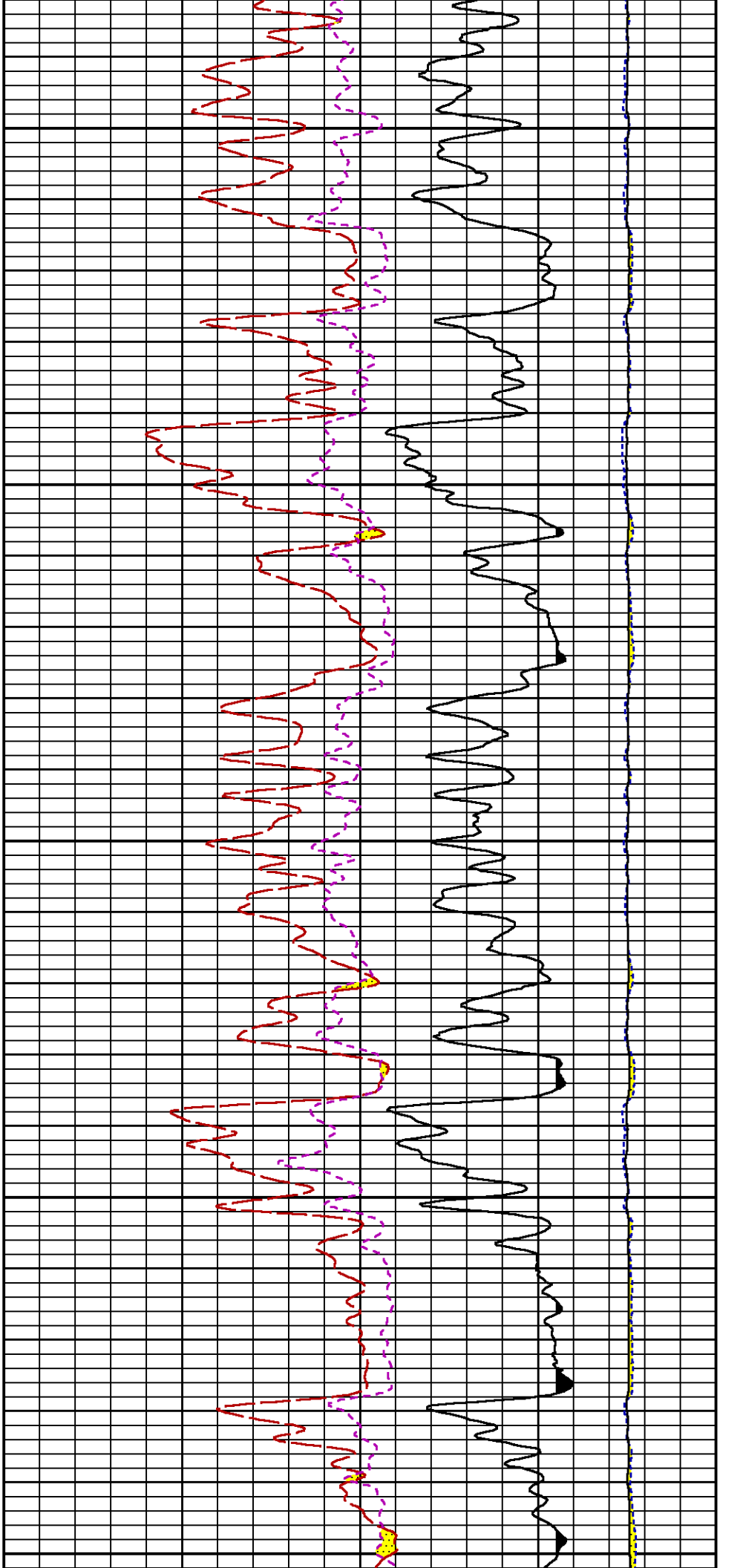


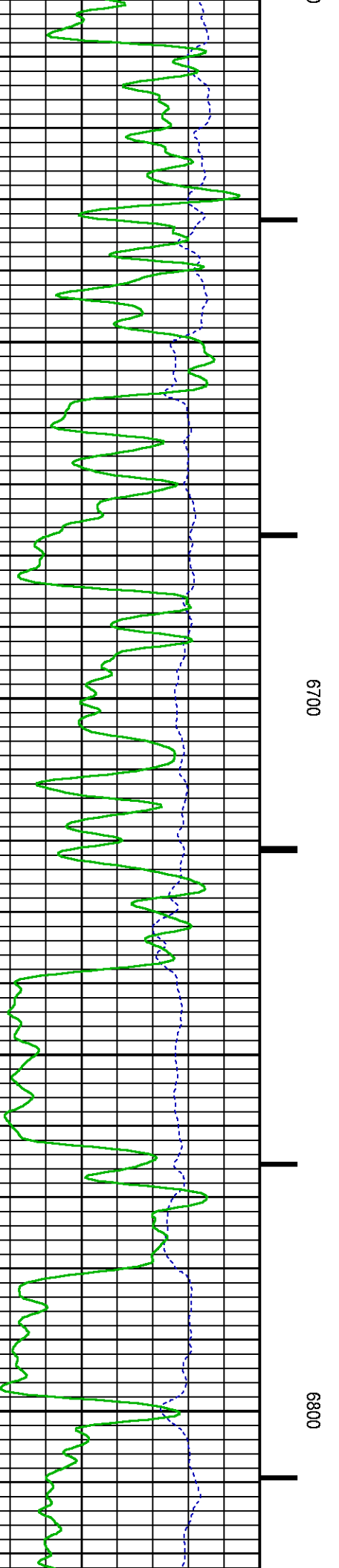
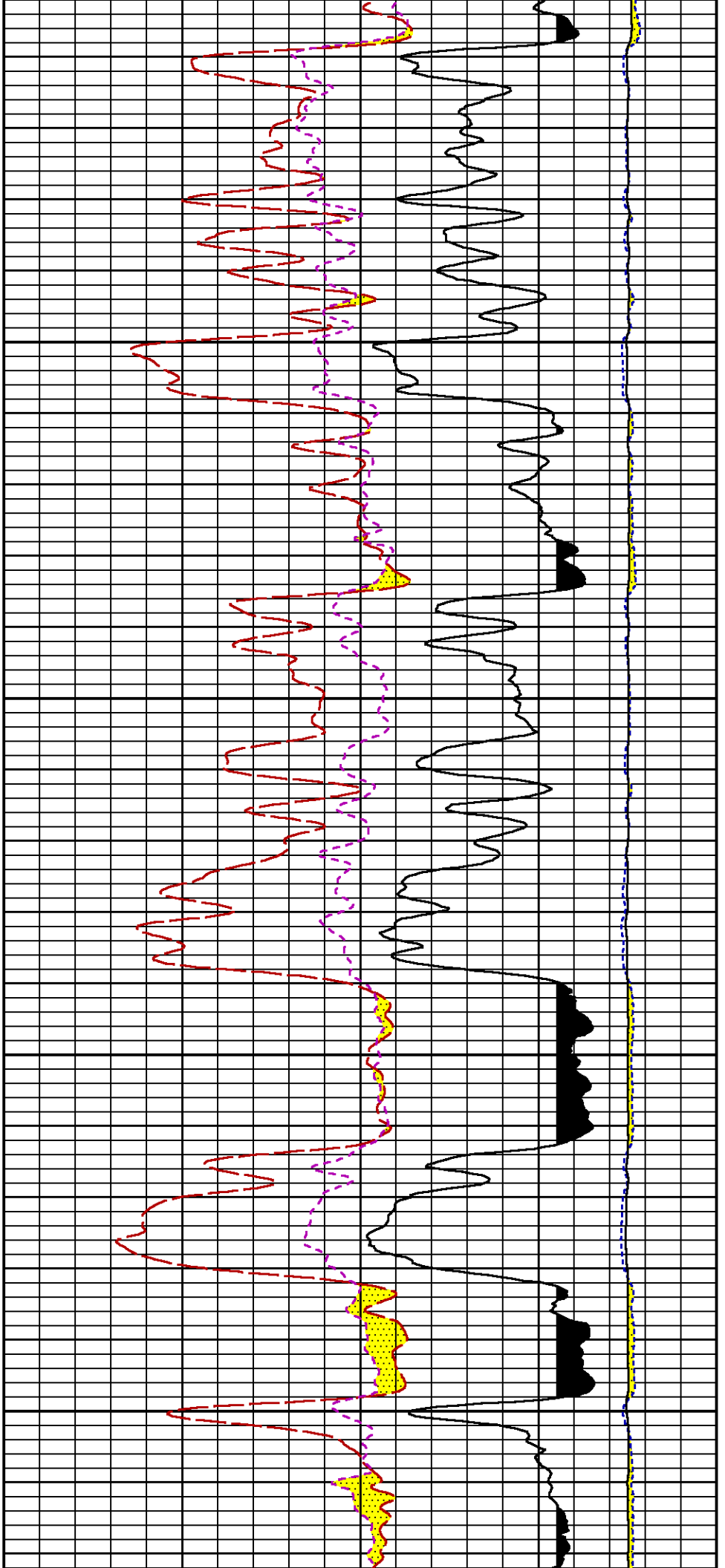
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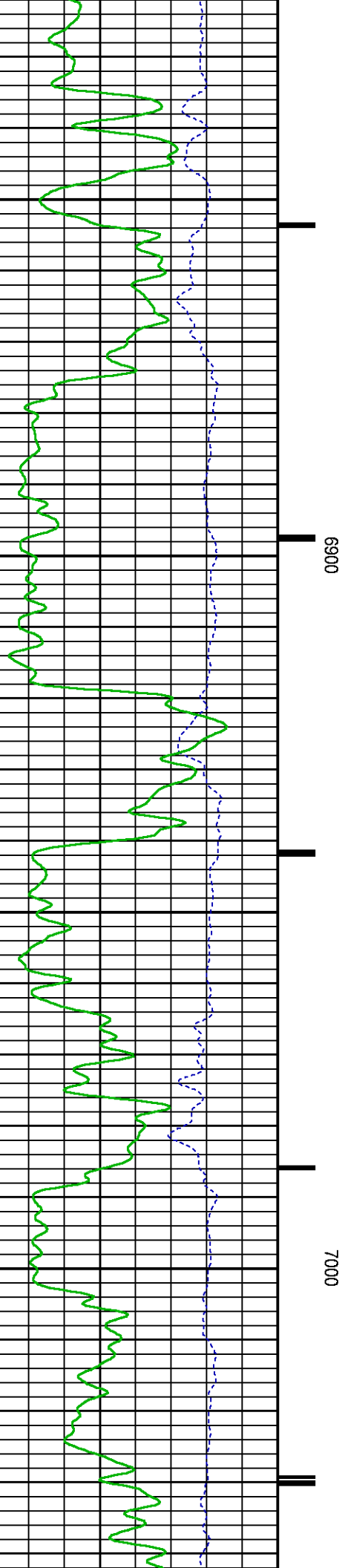
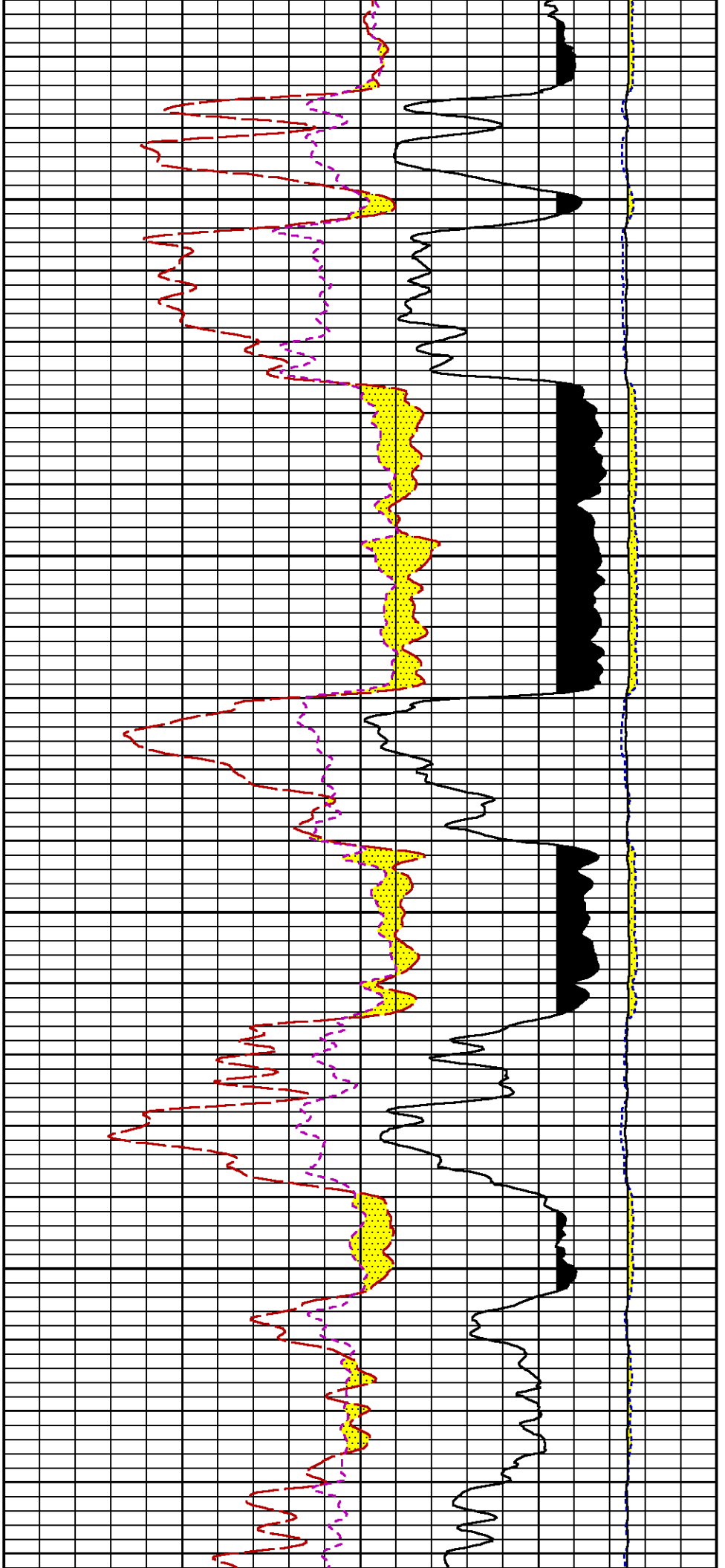
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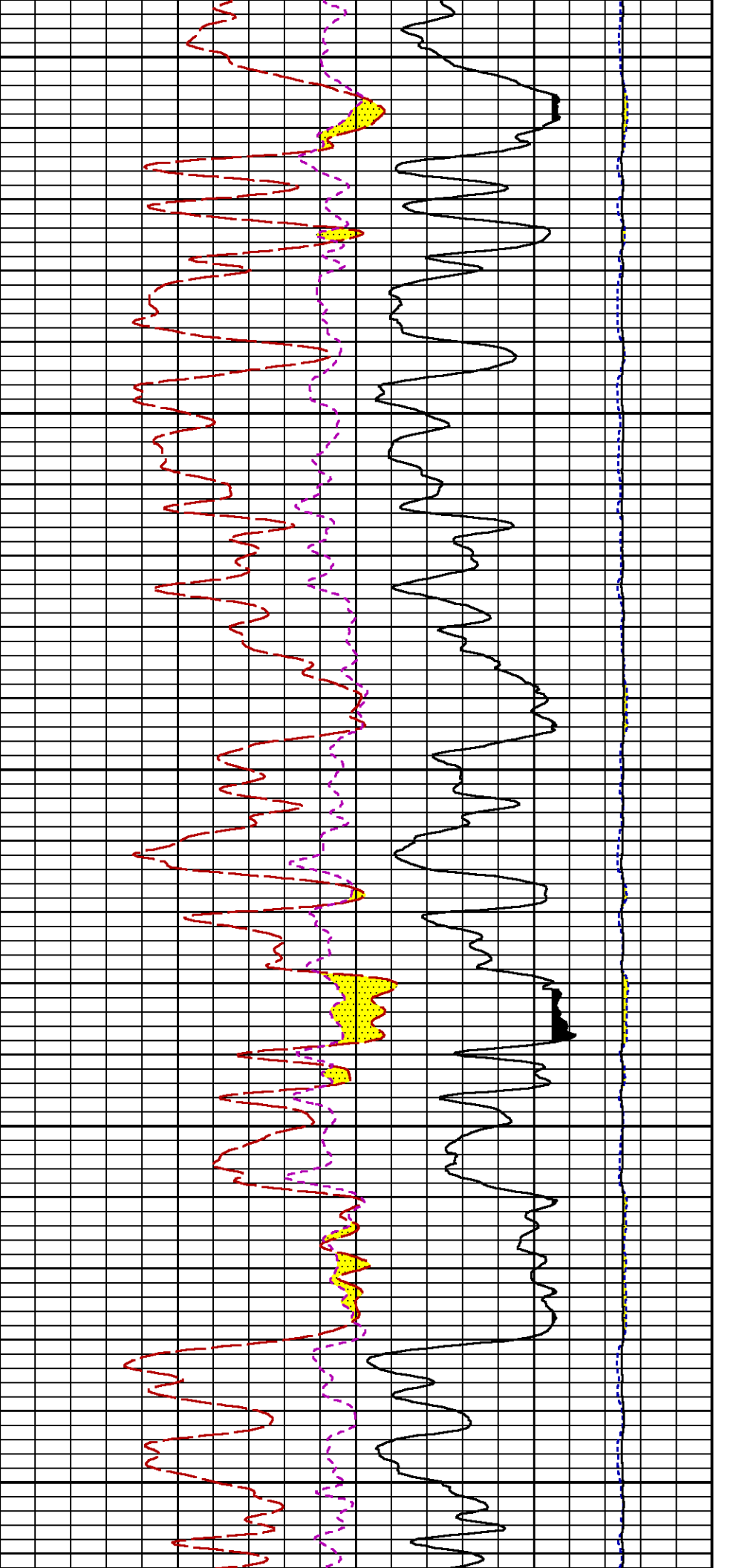






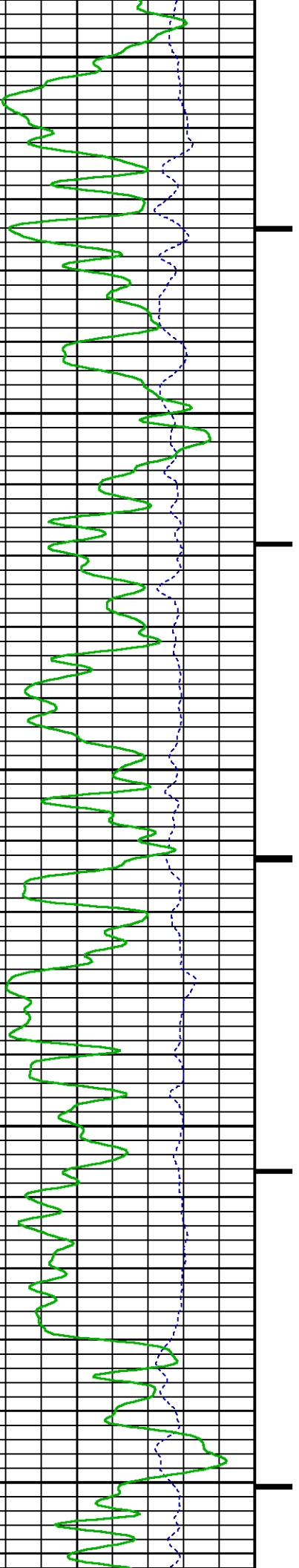


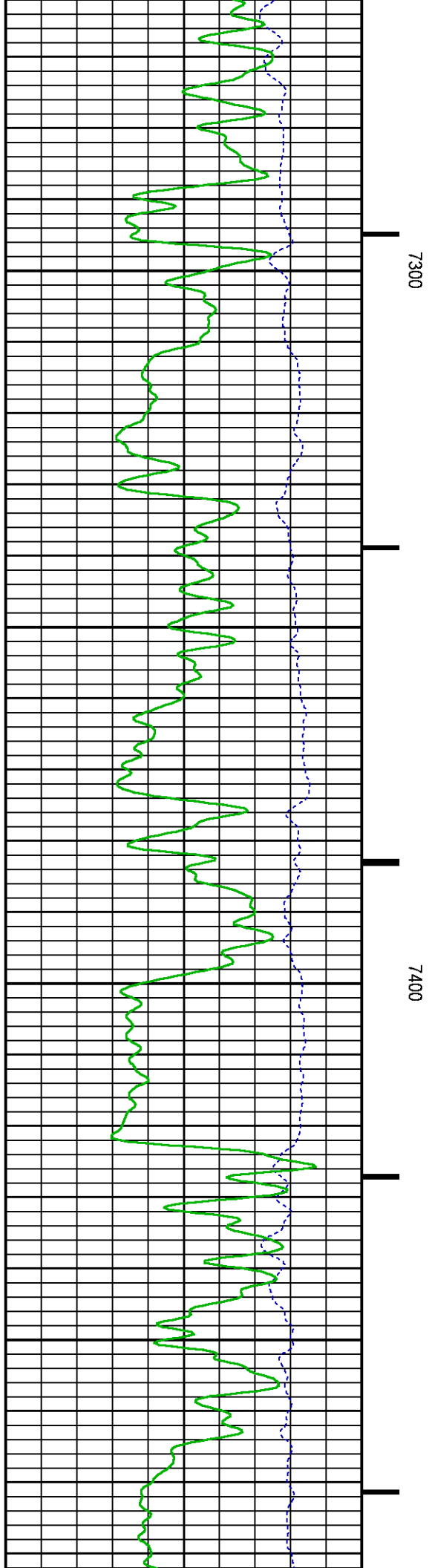
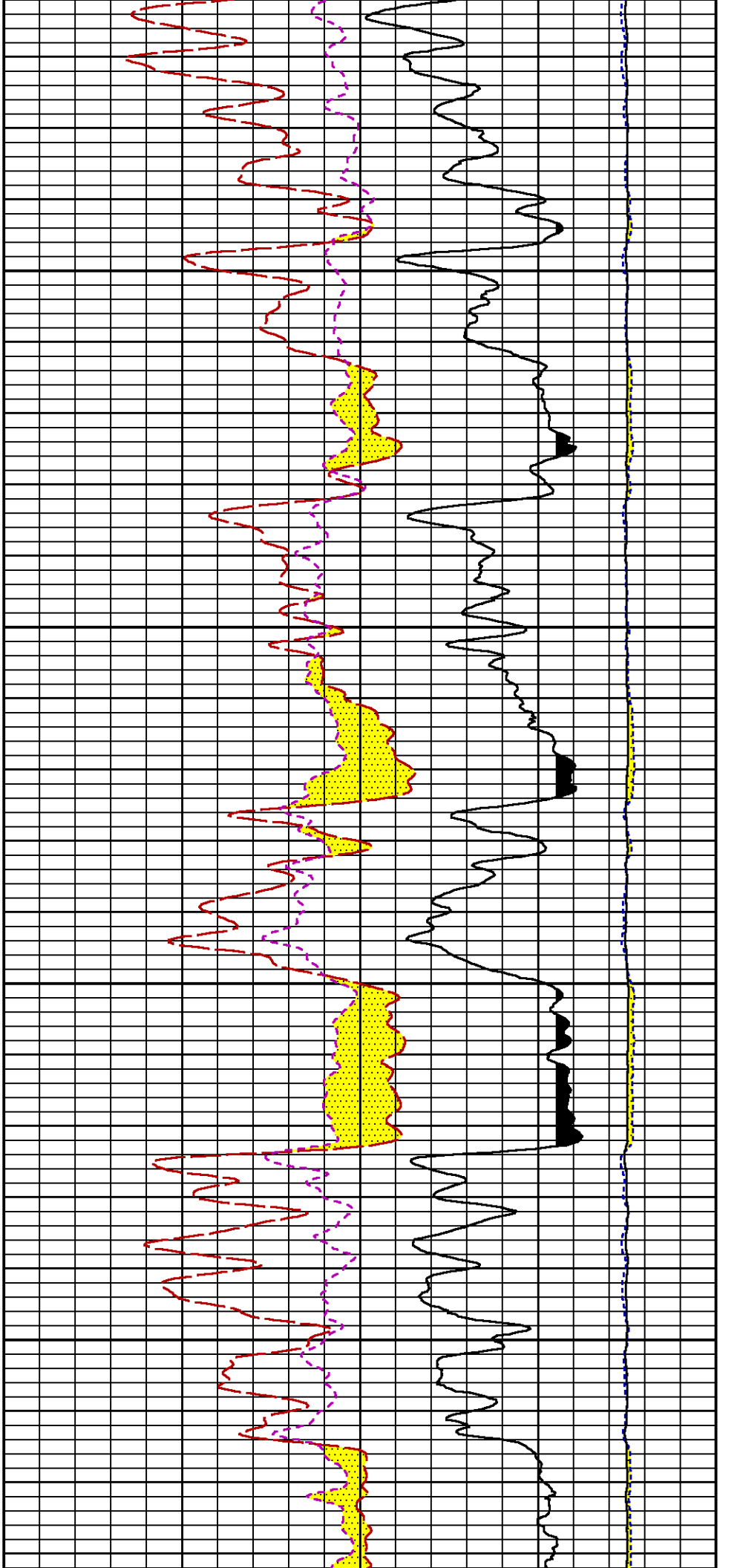


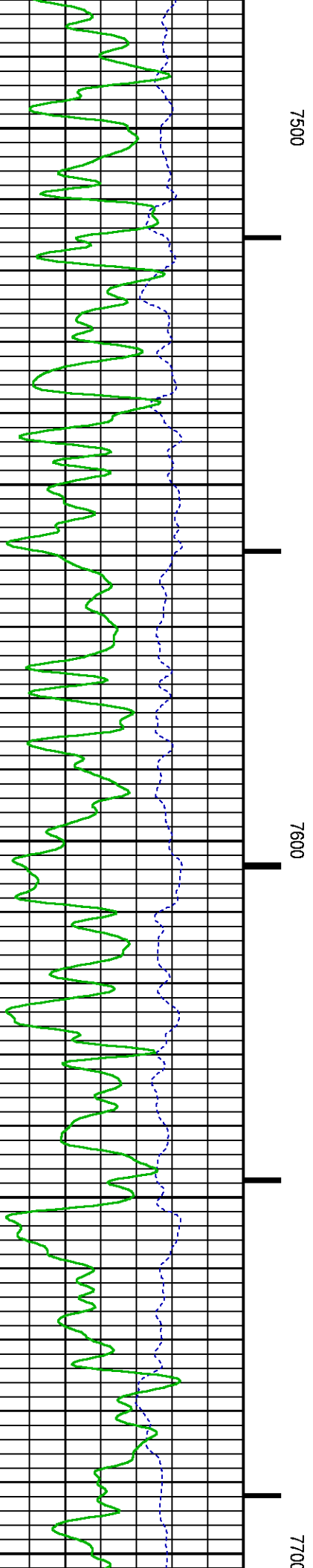
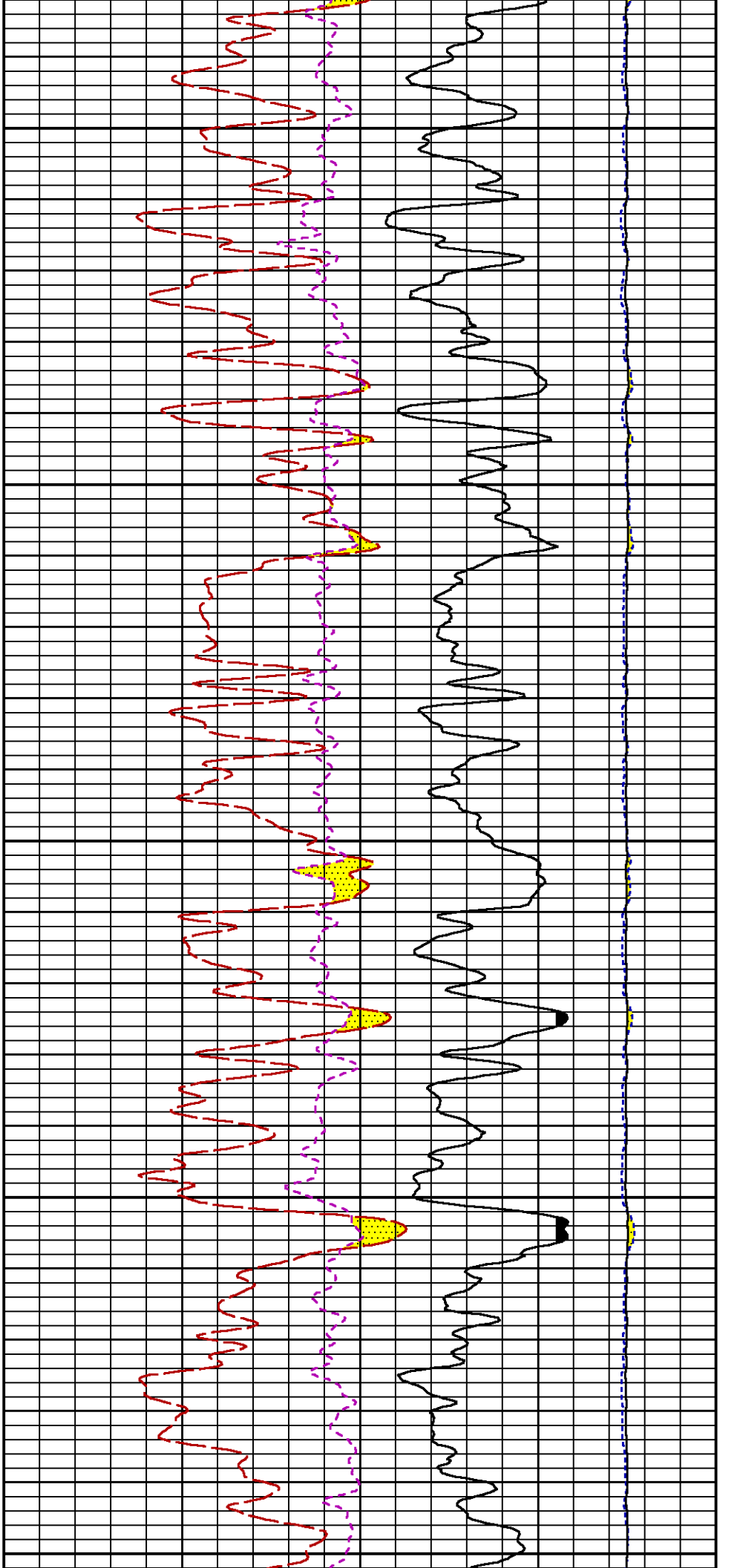


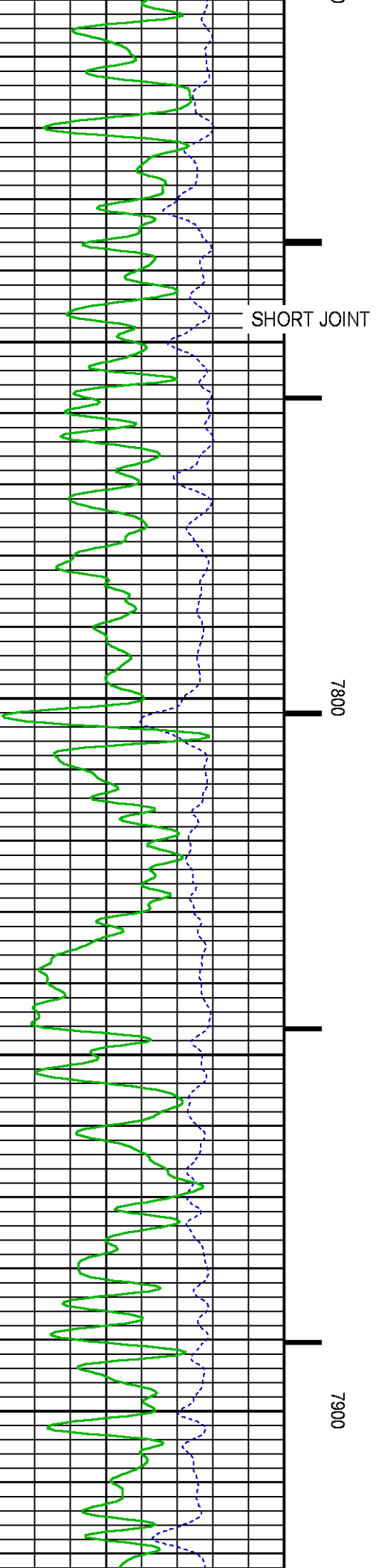
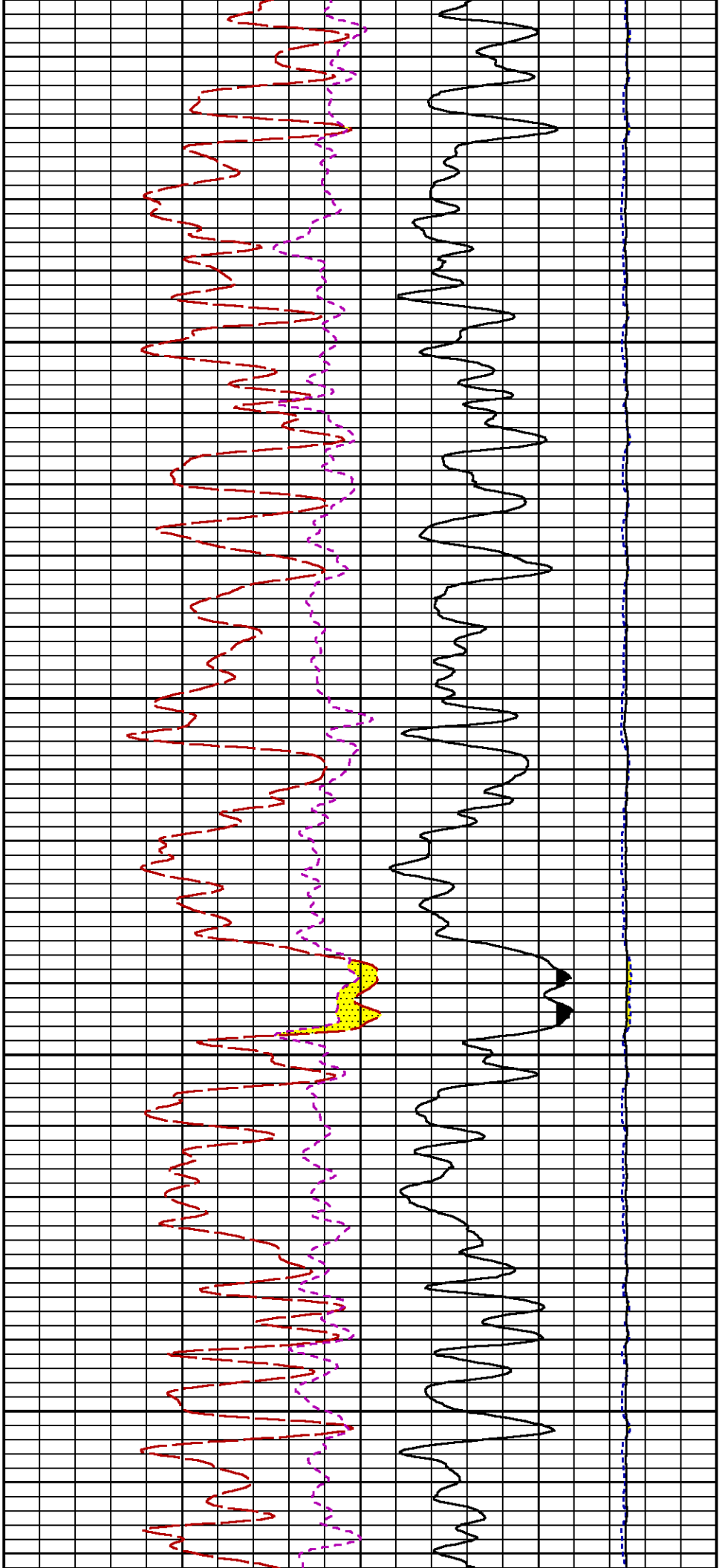
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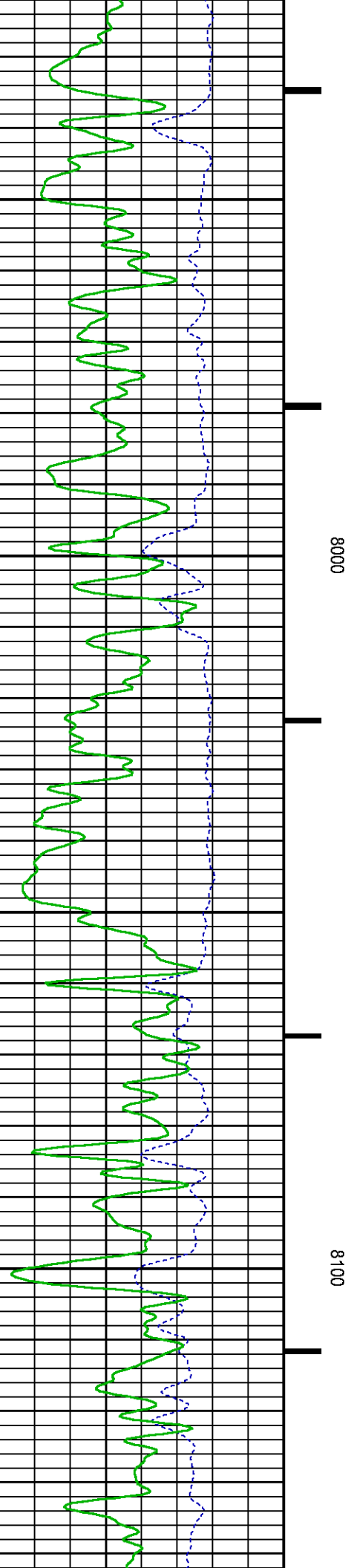
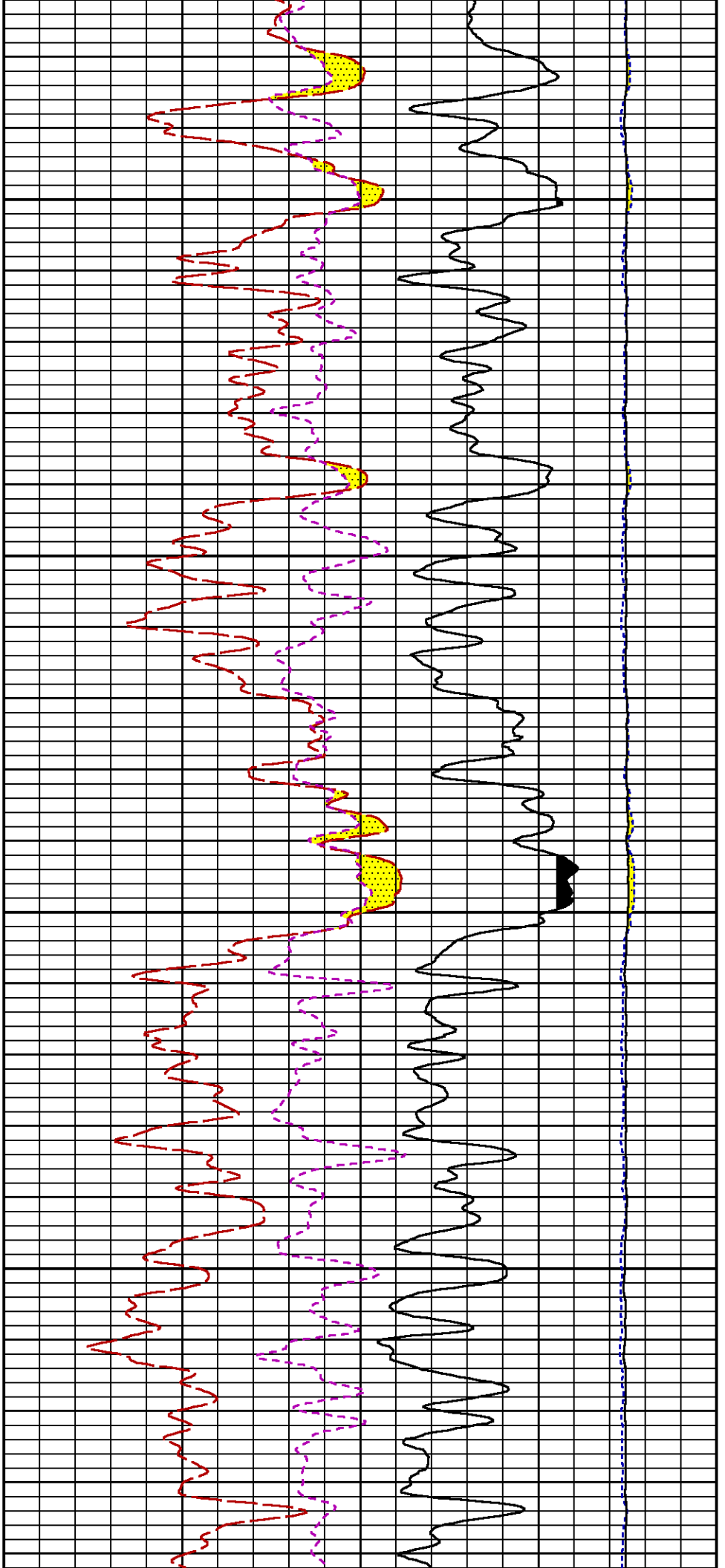
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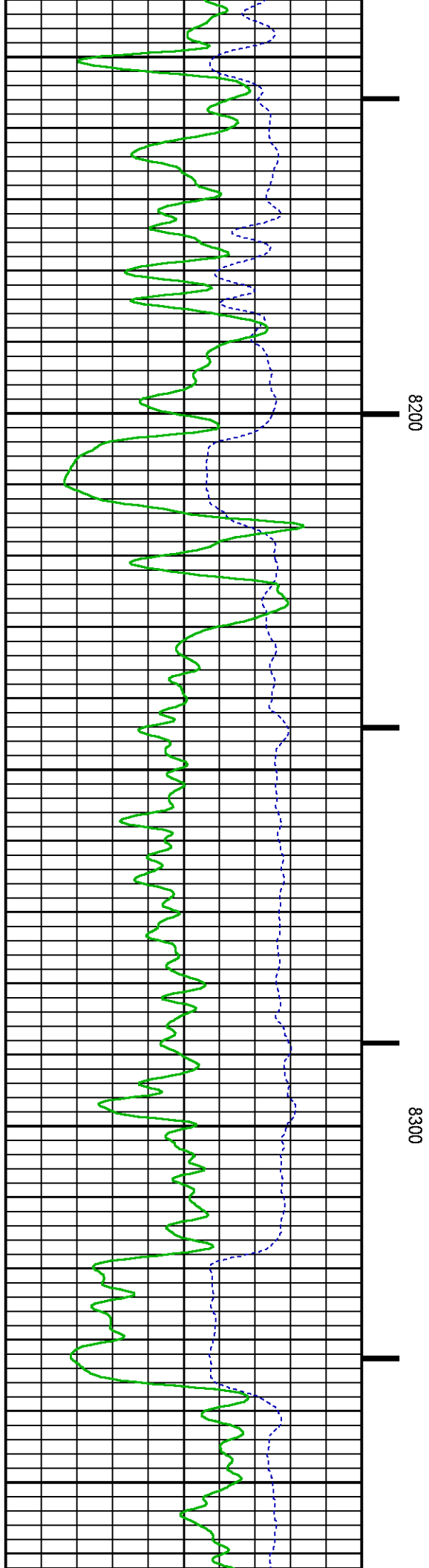
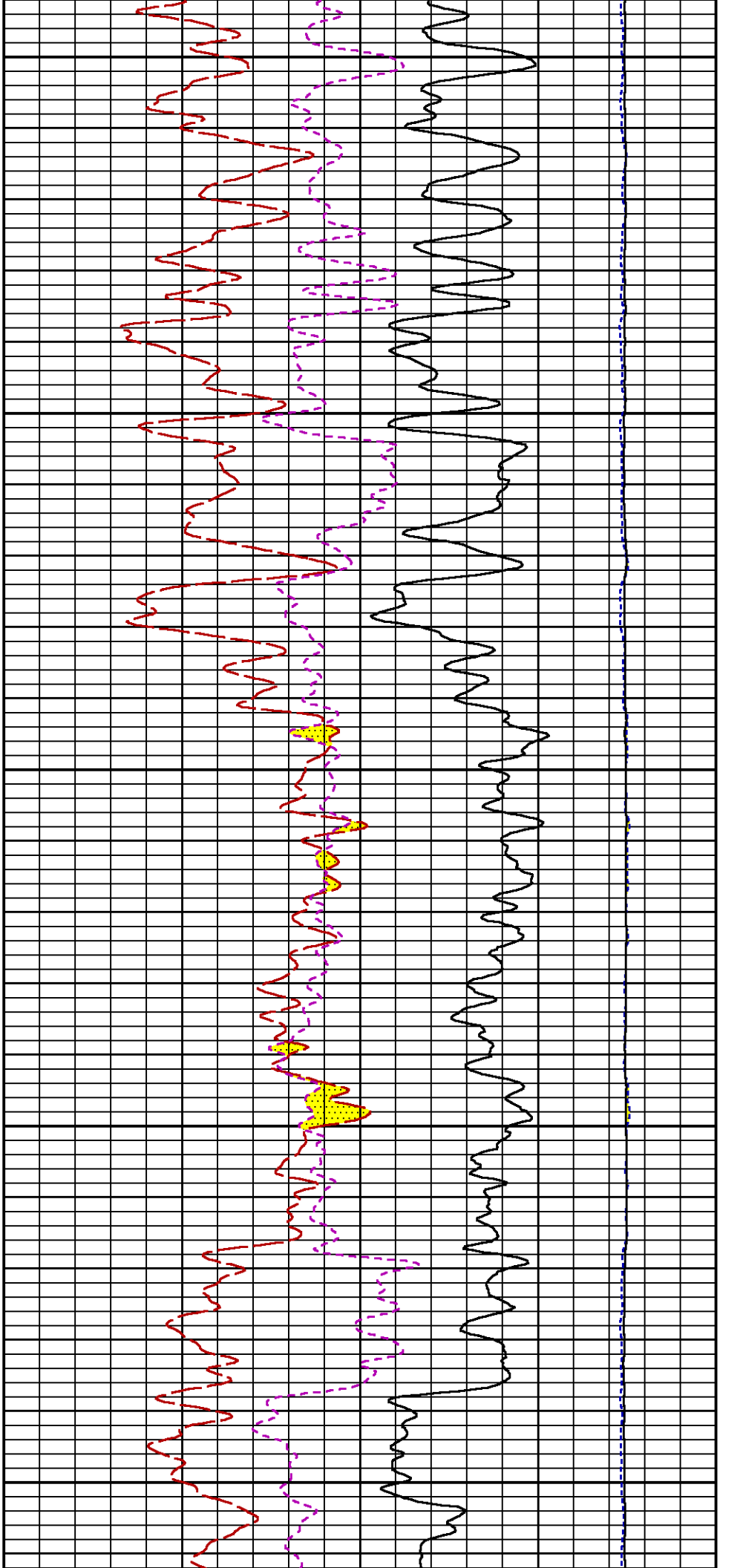


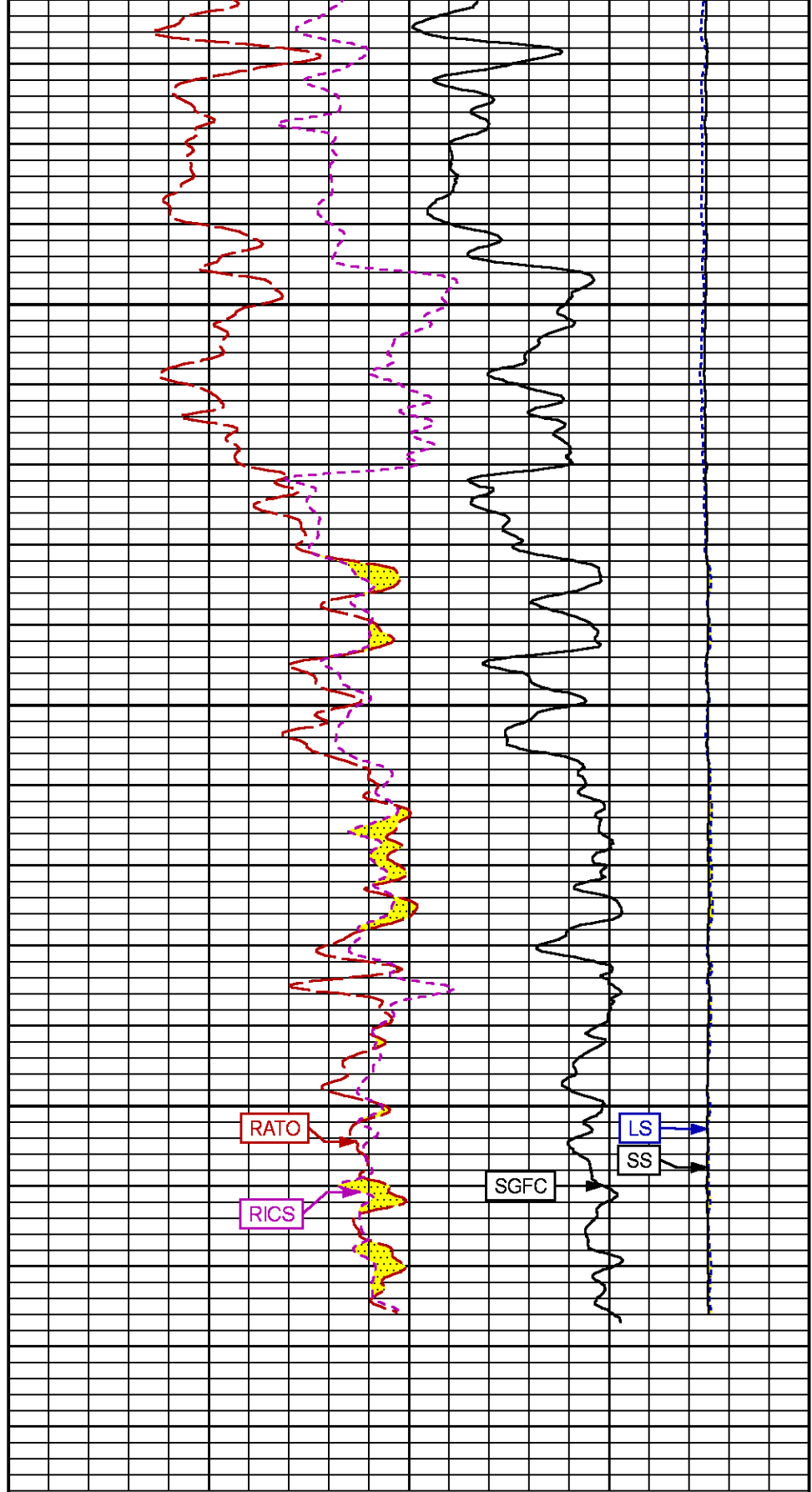
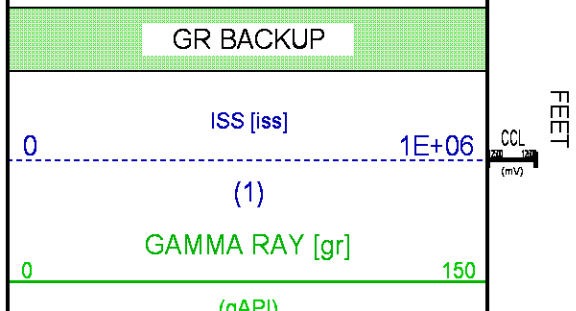
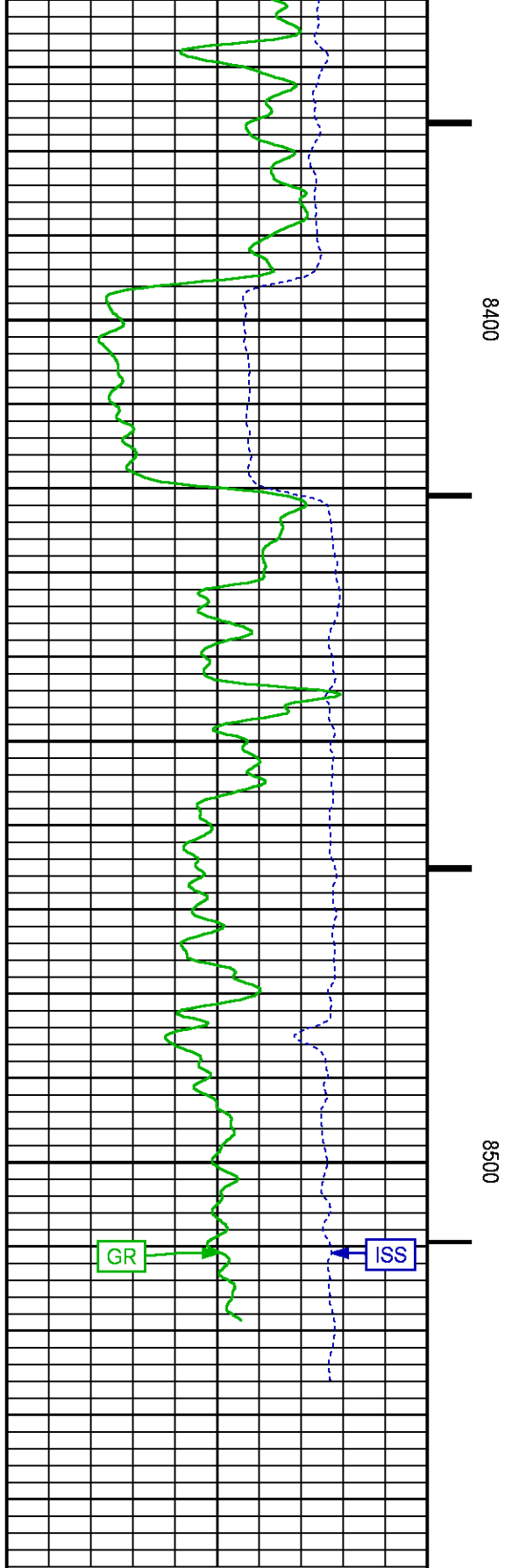












(9) 10

G-SAND SECTION PNC-3D MODE

Plotted: Thu Dec 4 19:15:36 2014

PARAMETER AND FILTER SUMMARY REPORT

FILE:	/dat1a/CH092511/n353h03.prm		
LOGGING MODE:	DEPTH	DIRECTION:	UP
TOP DEPTH:	3420.750 ft	BOTTOM DEPTH:	3800.353 ft

SYMMETRIC FILTER				
DESIGN FREQUENCY (MHz)	CHARACTERISTIC IMPEDANCE (ohms)	CAPACITANCE (pF)	INDUCTANCE (nH)	MATERIALS (mm)
100	50	1.59	15.9	FR-4
200	50	0.79	7.9	FR-4
300	50	0.53	5.3	FR-4
400	50	0.39	3.9	FR-4
500	50	0.32	3.2	FR-4
600	50	0.26	2.6	FR-4
700	50	0.22	2.2	FR-4
800	50	0.19	1.9	FR-4
900	50	0.17	1.7	FR-4
1000	50	0.16	1.6	FR-4

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	7.87	in	"	"
	CASING SIZE	4.50	in	"	"
	MATRIX	SANDSTONE		"	"
	CORRECTION BUFFER	11		"	"

CURVE DESCRIPTION REPORT

CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Dec 4 18:46:58 2014	CASING COLLAR LOCATOR
F1:GR	Dec 4 18:46:58 2014	GAMMA RAY
F1:ISS	Dec 4 18:46:58 2014	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Dec 4 18:46:58 2014	LONG SPACE COUNT RATE
F1:RATO	Dec 4 18:46:58 2014	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Dec 4 18:46:58 2014	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Dec 4 18:46:58 2014	CORRECTED FORMATION SIGMA
F1:SS	Dec 4 18:46:58 2014	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 : HL6670:/dat1a/CH092511/13W_RPM_GSAND.fvpdf [5"/100' Scale]

Plot Interval : 3420 - 3780.5 Feet

Data File 1 : F1 : HL6670:/dat1a/CH092511/13W_GSAND.xtf
Created On : Dec 4 18:46:58 2014
Company : LARAMIE ENERGY
Well : SUP & SHEP FED
Field : VEGA
File Interval : 3394.75 - 3795.5 Feet
OCT : n353h

GR BACKUP

ISS [iss]

0 1E+06

(1)

GAMMA RAY [gr]

0 150

(gAPI)

FEET

CCL
(mV)

3500

LS [ls]

0 29000

(1)

SS [ss]

0 290000

(1)

RATO [rato]

17

0

(1)

RICS [rics]

38

8

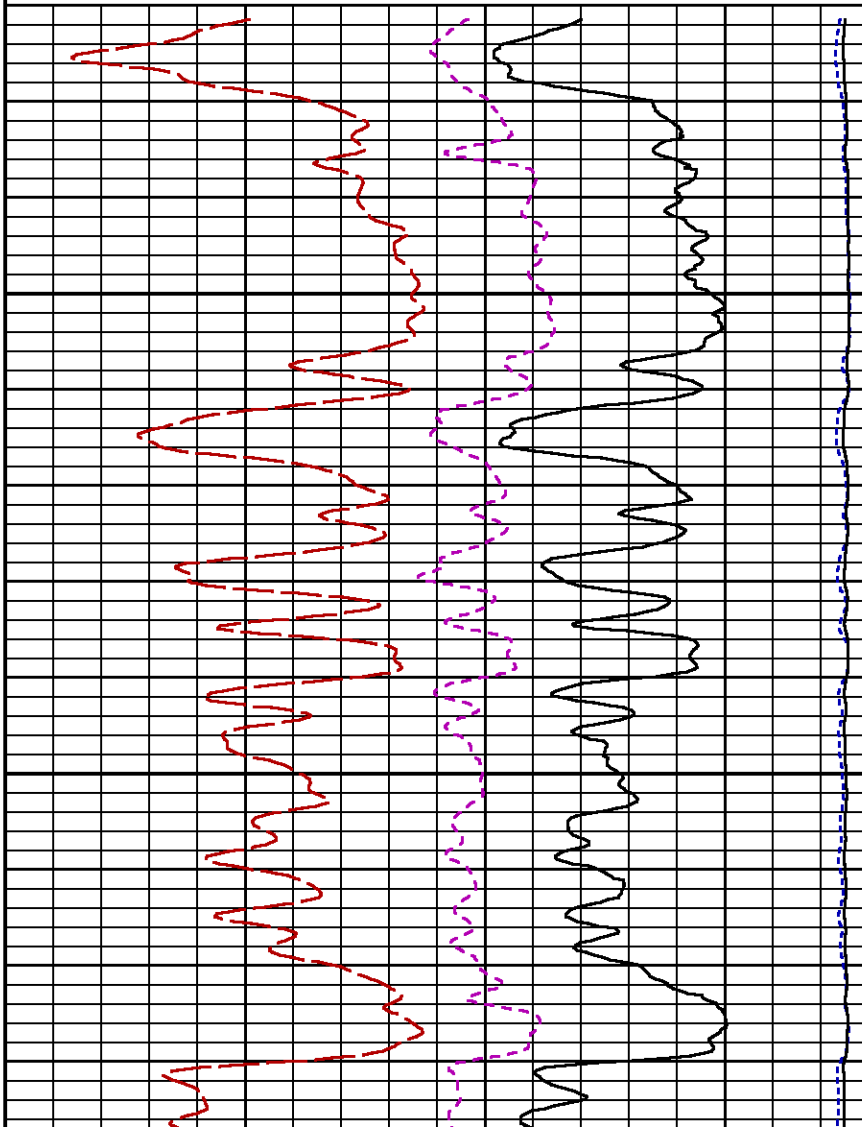
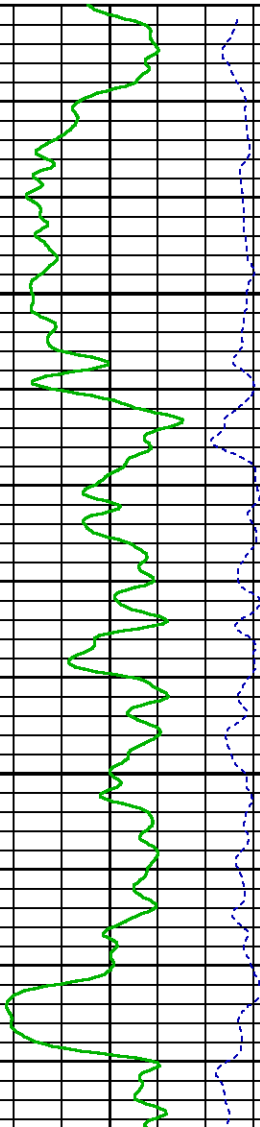
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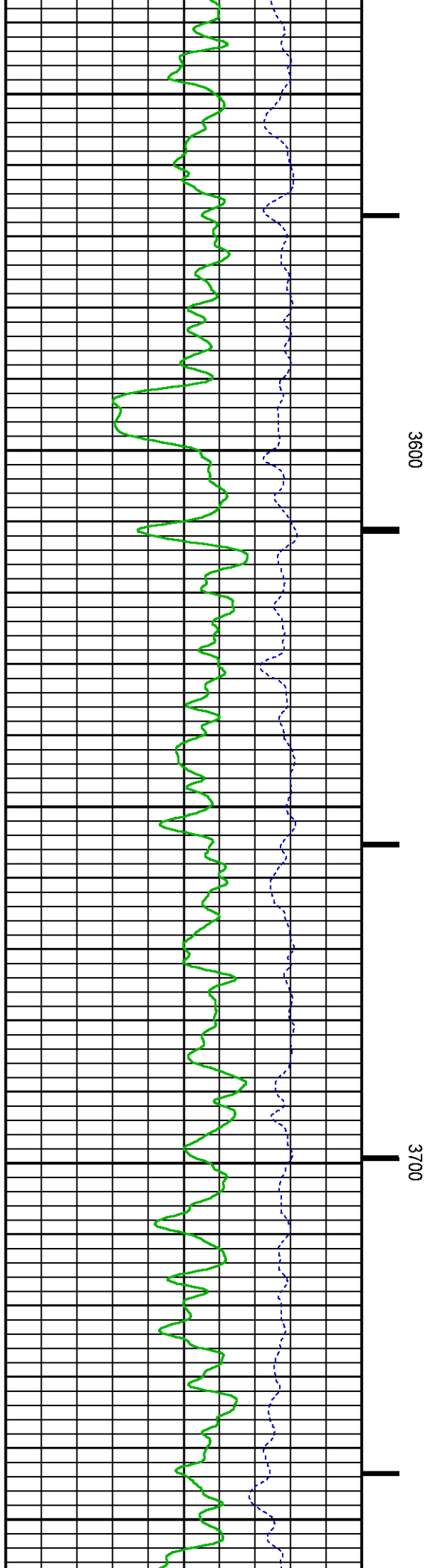
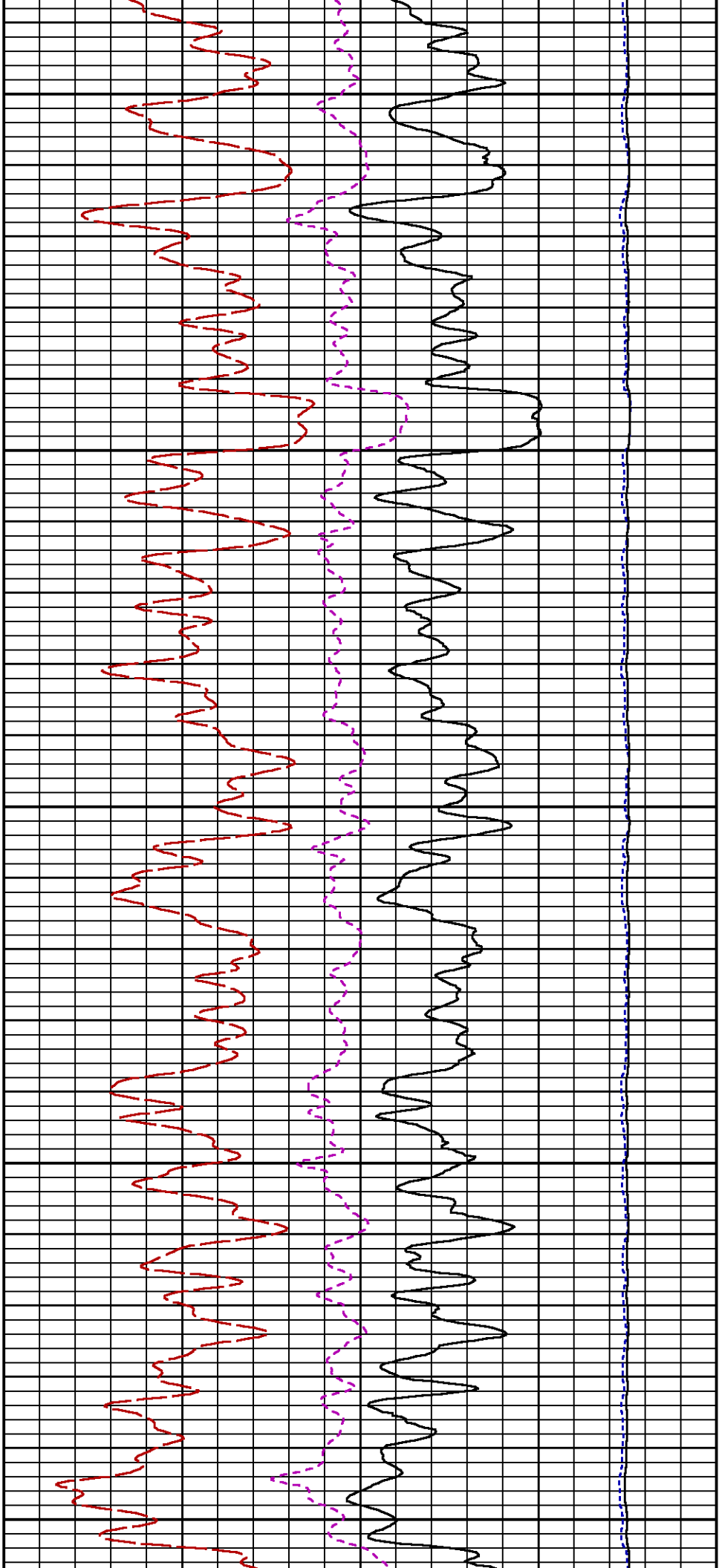
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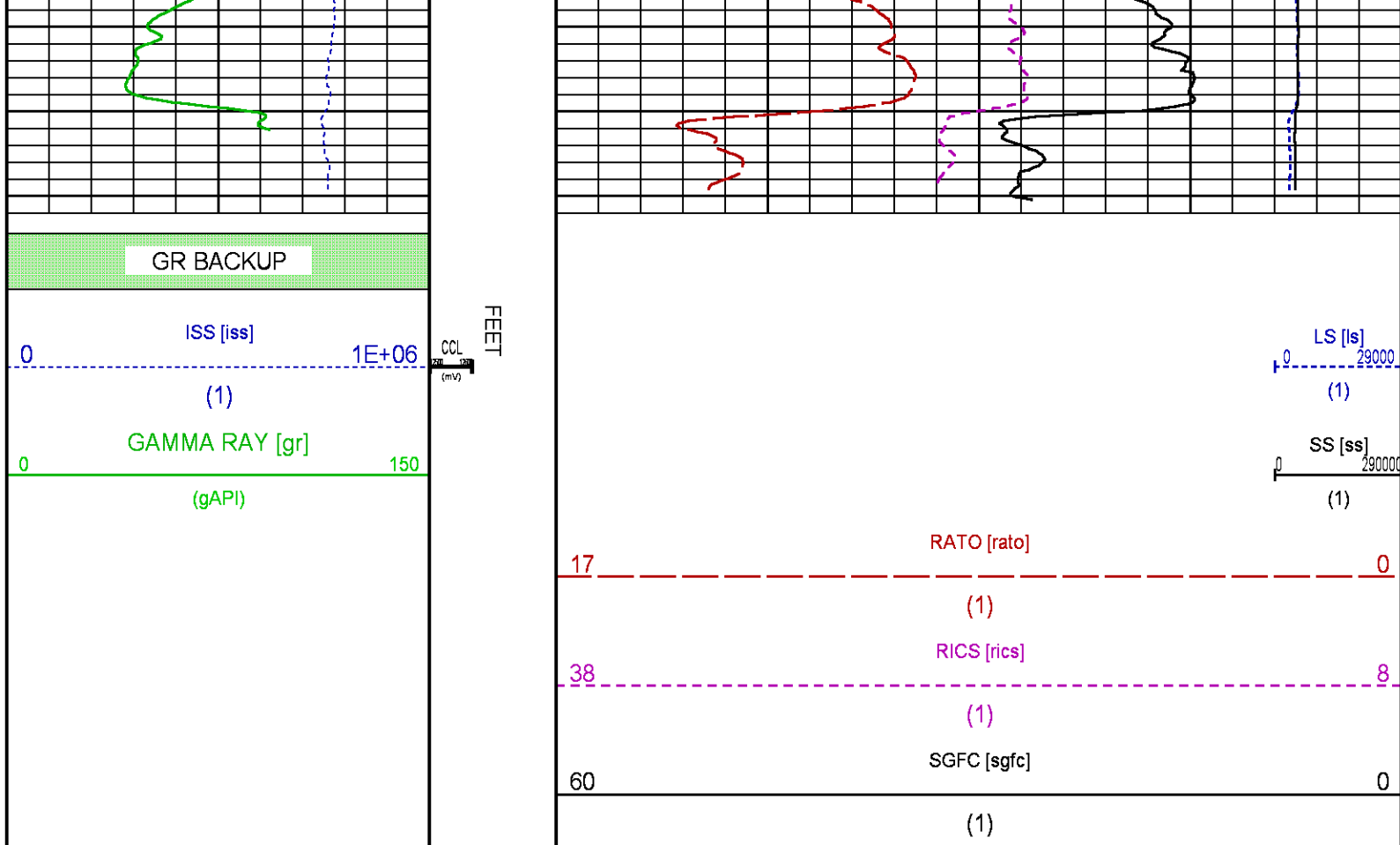
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(1)







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: Thu Dec 4 19:19:07 2014

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH092511/n353h01.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 8316.750 ft BOTTOM DEPTH: 8550.922 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	7.87	in	" "
	CASING SIZE	4.50	in	" "
	MATRIX	SANDSTONE		" "
	CORRECTION BUFFER	11		" "

CURVE DESCRIPTION REPORT

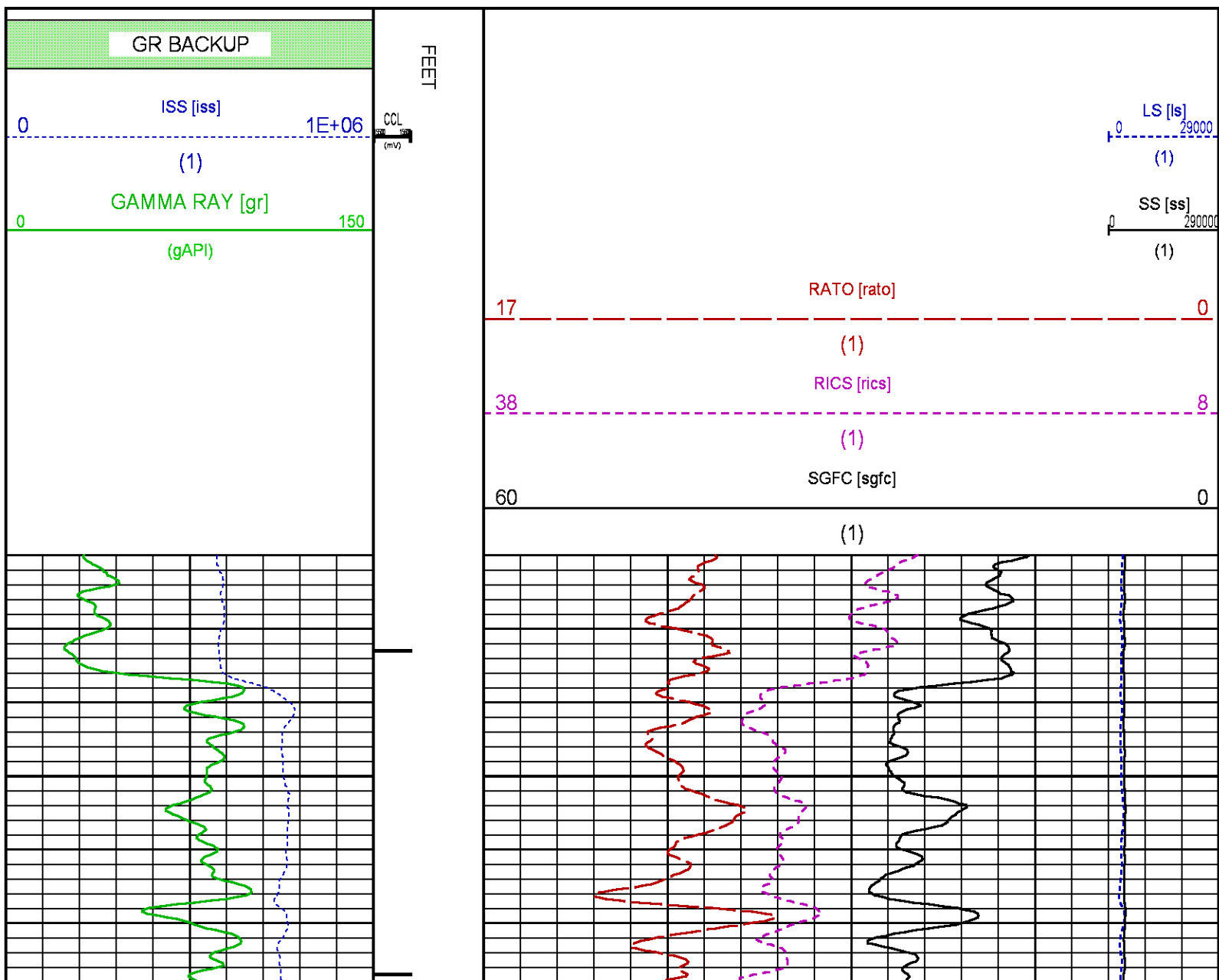
CURVE DESCRIPTION REPORT

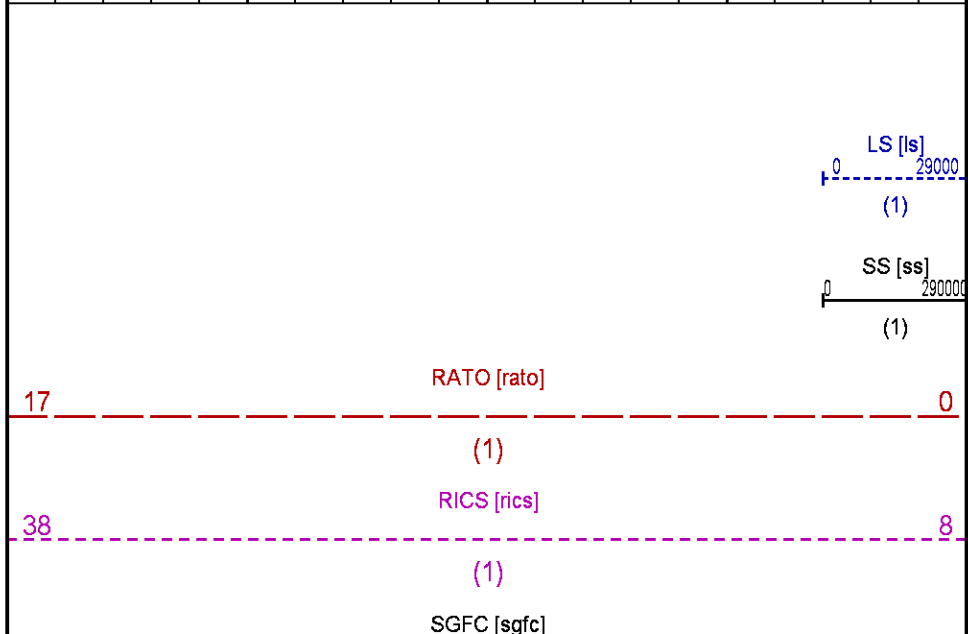
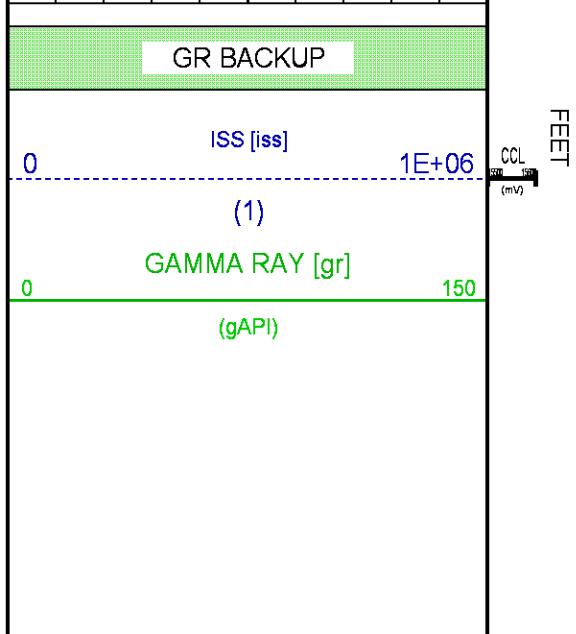
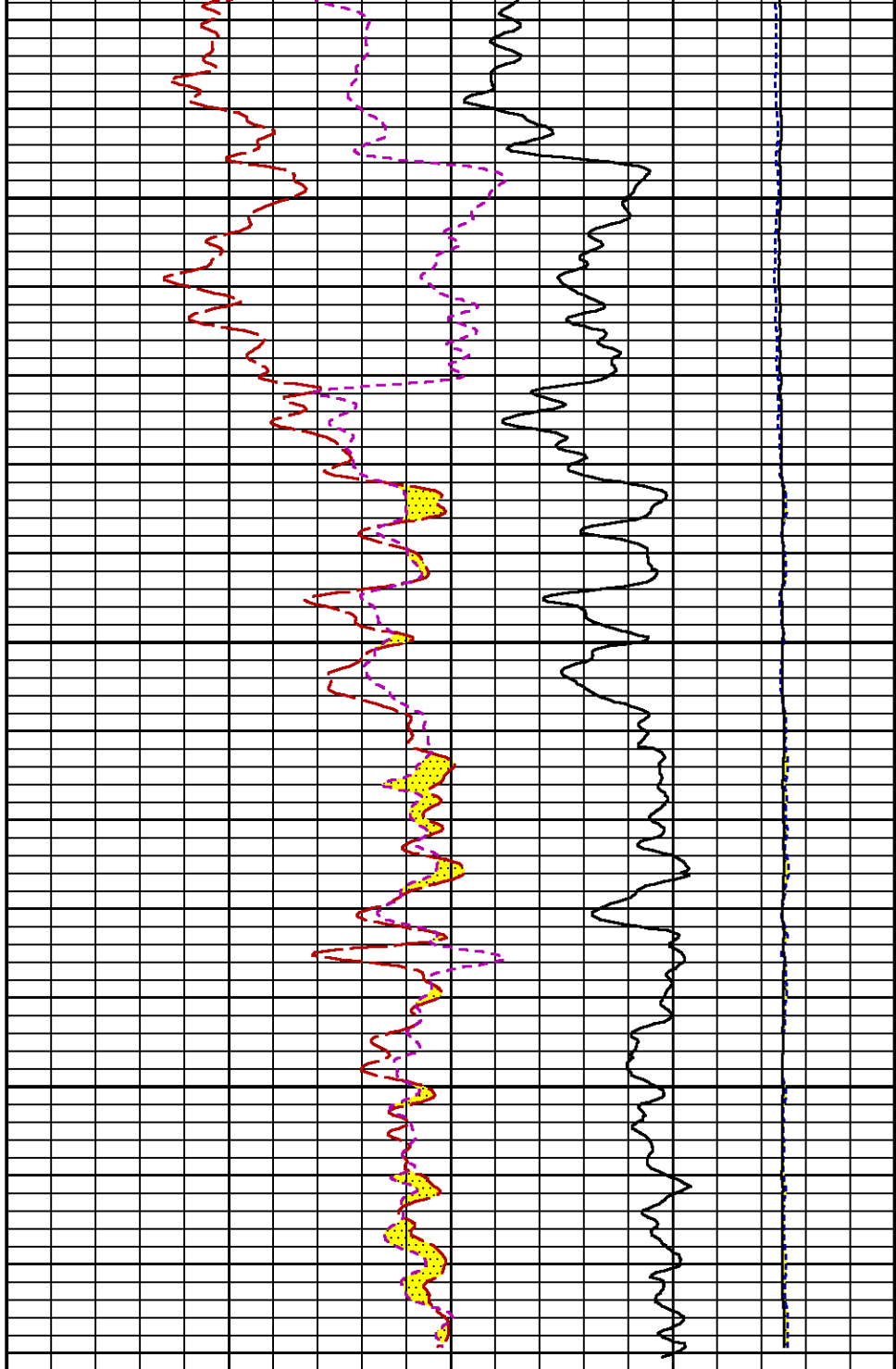
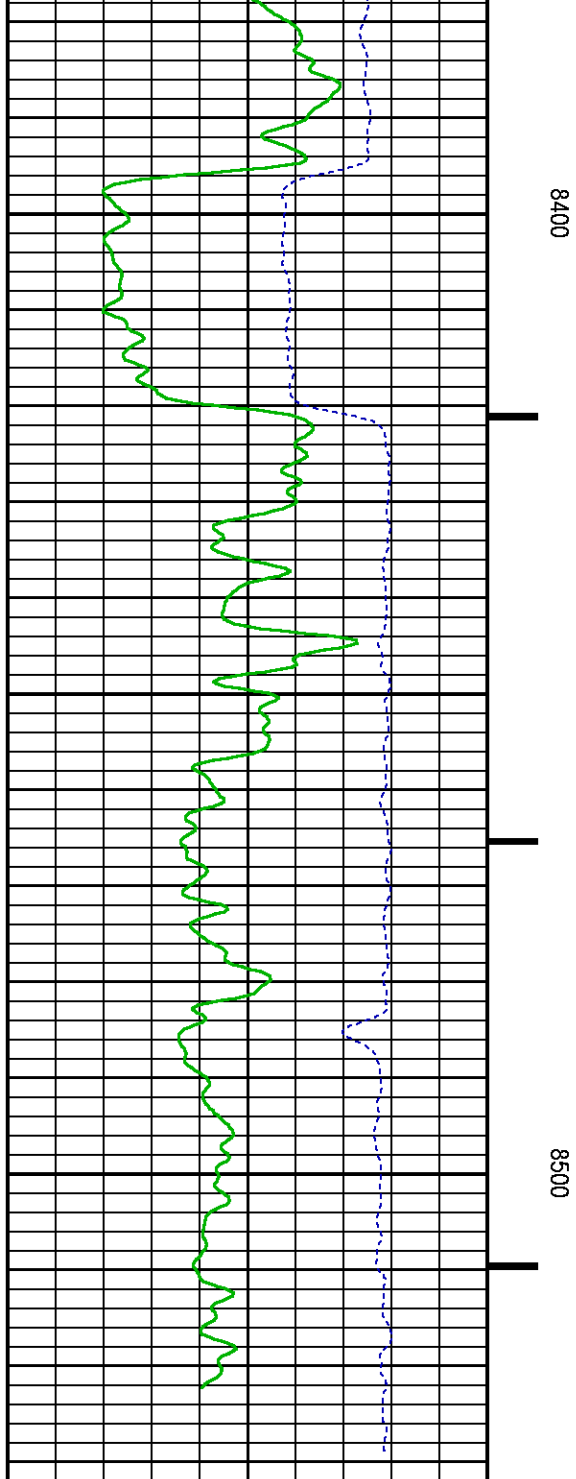
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Dec 4 15:02:03 2014	CASING COLLAR LOCATOR
F1:GR	Dec 4 15:02:03 2014	GAMMA RAY
F1:ISS	Dec 4 15:02:03 2014	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Dec 4 15:02:03 2014	LONG SPACE COUNT RATE
F1:RATO	Dec 4 15:02:03 2014	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Dec 4 15:02:03 2014	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Dec 4 15:02:03 2014	CORRECTED FORMATION SIGMA
F1:SS	Dec 4 15:02:03 2014	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	: HL6670:/dat1a/CH092511/13W_RPM_REPEAT.fvpdf [5"/100' Scale]
Plot Interval	: 8320 - 8530.5 Feet
Data File 1	: F1 : HL6670:/dat1a/CH092511/13W_RPM_REPEAT.xtf
Created On	: Dec 4 15:02:03 2014
Company	: LARAMIE ENERGY
Well	: SUP & SHEP FED
Field	: VEGA
File Interval	: 8286.75 - 8545.5 Feet
OCT	: n353h





CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/CH092511/n353h.tp1

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 8262XA 10317216

DATE/TIME PERFORMED: Wed Dec 3 14:26:54 2014

UNIT #: 3880TA HL6670

CALB JIG #: 4702NK WA-612

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	CR DIFF (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	CALBRTR (gAPI)
GR	85.76	413.31	327.6	0.550	47.12	227.12	180

GR PRIMARY VERIFICATION SUMMARY

TOOL #: 8262XA 10317216

DATE/TIME PERFORMED: Wed Dec 3 14:28:55 2014

UNIT #: 3880TA HL6670

VERI JIG #: 4702NK WA-612

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	82.16	411.60	0.550	45.15	226.18	181.04
						170.00 190.00

RPM_PNC_3D PRIMARY CALIBRATION SUMMARY

TOOL: 8283PA 10414345

DATE/TIME PERFORMED: Wed Nov 12 15:14:17 2014

UNIT: 3880TA HL6670

CALIBRATOR: 2437XB 112674

SOURCE: 8281AA 10148476

HOURS: 8281AA 311

	ISS	Mtr Vits (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	791173	121	2279	2261	2256	99	7	0.9742
Interpolated	1300000	142	2257	2253	2251			

	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	791173	6227	992	139	26.11	0.15	24.17	0.34
					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	791173	164839	25981	85951	30561	7922	52029	12706
Fit Quality %		1.057	1.002	1.077	1.086	1.163	1.019	1.169

	ISS	RBOR	RIN ISS/ILS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS
Raw Data	791173	1.43	4.80	30.46	15.21	10.85	3.86	4.10
		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 %		0.014	0.092	0.070	0.123	0.027	0.029	0.061
Reduced	1382450	1.43	4.79	30.42	15.17	10.86	3.86	4.10
		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

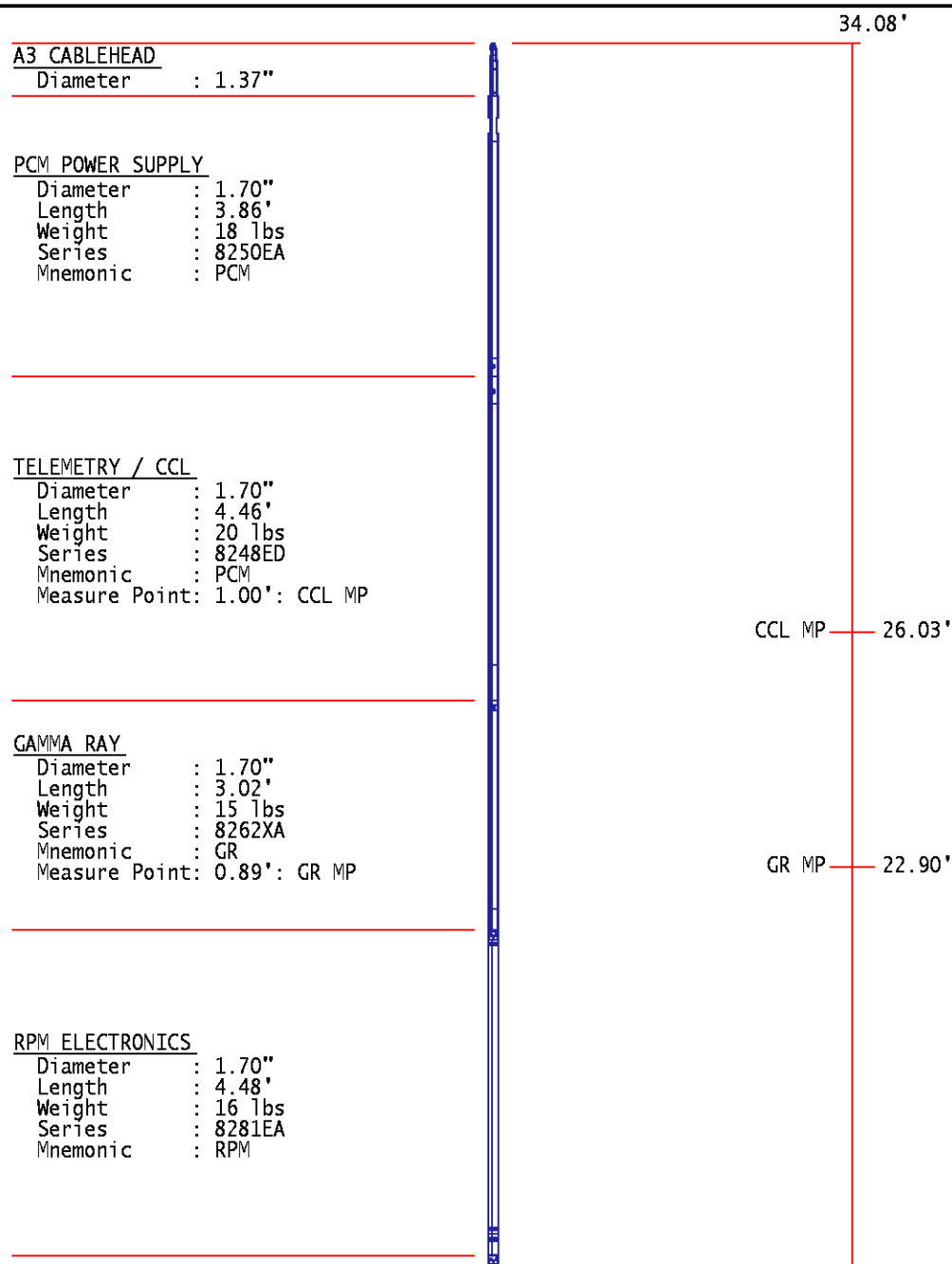
DATE/TIME PERFORMED: Wed May 14 12:39:45 2014

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/CH092511/n353h~tdg



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
WELL
FIELD
COUNTY

LARAMIE ENERGY
SUP & SHEP FEDERAL 25-13W
VEGA
MESA STATE CO

FILE NO:
CH092511
 API NO:
05077100270000

LOCATION:

SHL: LAT 39.245006 LONG -107.722874
 BHL: LAT 39.243978 LONG -107.726799

ELEVATIONS:

KB 8096 FT
 DF
 GL 8074 FT

25 9S 93W
SUP & SHEP 25-11
PATTERSON 306

SEC 25 TWP 9S RGE 93W

DATE 04-Dec-2014

