



FILE NO: CH094532	COMPANY LARAMIE ENERGY
API NO: 05-077-10223-0000	WELL PICEANCE 28-12M
	FIELD VEGA
	COUNTY MESA
	STATE COLORADO
Ver. 4.01 28 9S 93W 28-11 PAD PATTERSON 306	LOCATION: SHL: 2505' FSL & 1616' FWL NESW BHL: 2373' FSL & 2583' FWL SEC 28 TWP 9S RGE 93W
PERMANENT DATUM LOG MEASURED FROM DRILL. MEAS. FROM	OTHER SERVICES RPM ELEVATIONS: KB 7602 FT DF GL 7580 FT
G.L. ELEVATION 7580 FT K.B. 22 FT ABOVE P.D. K.B.	

DATE		8-APR-2015		
RUN	TRIP	1	1	
SERVICE ORDER		US0994532		
DEPTH DRILLER		8040 FT		
DEPTH LOGGER		7952 FT		
BOTTOM LOGGED INTERVAL		7942 FT		
TOP LOGGED INTERVAL		0 FT		
TIME STARTED		8:00		
TIME FINISHED		10:30		
OPERATOR RIG TIME		2.5 HOURS		
TYPE OF FLUID IN HOLE		WATER		
FLUID DENSITY		NA		
FLUID SALINITY		NA		
FLUID LEVEL		128 FT		
LOGGED CEMENT TOP		NA		
WELLHEAD PRESSURE		0 PSI		
MAXIMUM HOLE DEVIATION		NA		
NOMINAL LOGGING SPEED		100 F/MN		
MAX. RECORDED TEMP.		251 DEGF		
REFERENCE LOG		BAKER HUGHES OPEN HOLE		
REFERENCE LOG DATE		15-MAR-2015		
EQUIP. NO.	LOCATION	HL-6685	GRAND JCT.	
RECORDED BY		P. EDWARDS		
WITNESSED BY		J. 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	1561 FT	8040 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
8.625 IN	24 LB/F		0 FT	1561 FT
4.5 IN	11.6 LB/F		0 FT	8040 FT

REMARKS

RUN 1 TRIP 1: ALL DATA ON THIS LOG IS DEPTH SHIFTED AND CORRELATED TO THE GAMMA-RAY CURVE ON BAKER HUGHES OPEN HOLE LOG DATED 15-MAR-2015

THE DEPTH MATCHING PROCESS CREATES POTENTIAL FOR COLLAR LENGTHS TO VARY FROM THOSE RECORDED ON OTHER CASED HOLE WIRELINE UNITS WITHOUT A GAMMA RAY REFERENCE

BHT = 251 degF

SJ = 4755' - 4777'

SJ = 7073' - 7095'

THANKS FOR USING BAKER HUGHES WIRELINE
RIG: PATTERSON 306

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	CBL	1426XA	10218496	CENTRALIZED
1	1	CCL/GR	1355ZA	11871506	CENTRALIZED

MAIN PRESENTATION 0 PSI

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013
 Updates: 1 Patches: 6

Plotted: Wed Apr 8 13:30:09 2015

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH094532/n012g04.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 23.250 ft BOTTOM DEPTH: 2096.575 ft

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR	FILTER ()	medium (1)		TOP	BOTTOM
AMPLITUDE	FILTER ()	medium (1)		"	"
TRAVEL TIME	FILTER ()	medium (1)		"	"

RAL CCL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CCL FLOOR	CCL FLOOR	0		TOP	BOTTOM

ANALOG RAL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
AMPLITUDE WINDOW (NEAR)	AMP WINDOW START (fgp1*)	187	us	TOP	BOTTOM
	AMP WINDOW START (fgp2*)	187	us	"	"
	AMP WINDOW START (fgp3*)	187	us	"	"
	AMP WINDOW START (fgp4*)	187	us	"	"
	AMP WINDOW START (fgp5*)	187	us	"	"
	AMP WINDOW START (fgp6*)	187	us	"	"
	AMP WINDOW START (fgp7*)	187	us	"	"
	AMP WINDOW START (fgp8*)	187	us	"	"
	AMP WINDOW START (fgpn*)	187	us	"	"
TRAVEL TIME WINDOW (NEAR)	AMP WINDOW LENGTH	25	us	"	"
	TT WINDOW START (ttn*)	177	us	"	"
	TT WINDOW LENGTH	500	us	"	"
	FIRST BRK THRESHOLD (ttn*)	4	mV	"	"
RAL CASING PARAMETERS	PPT NEAR	200.391	us	"	"
RAL TOOL DELAY	TOOL DELAY (str1*)	-65	us	"	"
	TOOL DELAY (str2*)	-65	us	"	"
	TOOL DELAY (str3*)	-65	us	"	"
	TOOL DELAY (str4*)	-65	us	"	"
	TOOL DELAY (str5*)	-65	us	"	"
	TOOL DELAY (str6*)	-65	us	"	"
	TOOL DELAY (str7*)	-65	us	"	"
	TOOL DELAY (str8*)	-65	us	"	"
BASELINE NOISE (NEAR)	TOOL DELAY (strn*)	-65	us	"	"
	NOISE WINDOW START	136	us	"	"
	NOISE WINDOW LENGTH	25	us	"	"

PERCENT BOND CEMENT MAP

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
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MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
RAL FREE PIPE AMPLITUDE	FREE AMP REC 1	80	mV	TOP	BOTTOM
	FREE AMP REC 2	80	mV	"	"
	FREE AMP REC 3	80	mV	"	"
	FREE AMP REC 4	80	mV	"	"
	FREE AMP REC 5	80	mV	"	"
	FREE AMP REC 6	80	mV	"	"
	FREE AMP REC 7	80	mV	"	"
	FREE AMP REC 8	80	mV	"	"
RAL FULL BOND AMPLITUDE	FULL BOND AMP REC 1	2	mV	"	"
	FULL BOND AMP REC 2	2	mV	"	"
	FULL BOND AMP REC 3	2	mV	"	"
	FULL BOND AMP REC 4	2	mV	"	"
	FULL BOND AMP REC 5	2	mV	"	"
	FULL BOND AMP REC 6	2	mV	"	"
	FULL BOND AMP REC 7	2	mV	"	"
	FULL BOND AMP REC 8	2	mV	"	"

CURVE DESCRIPTION REPORT

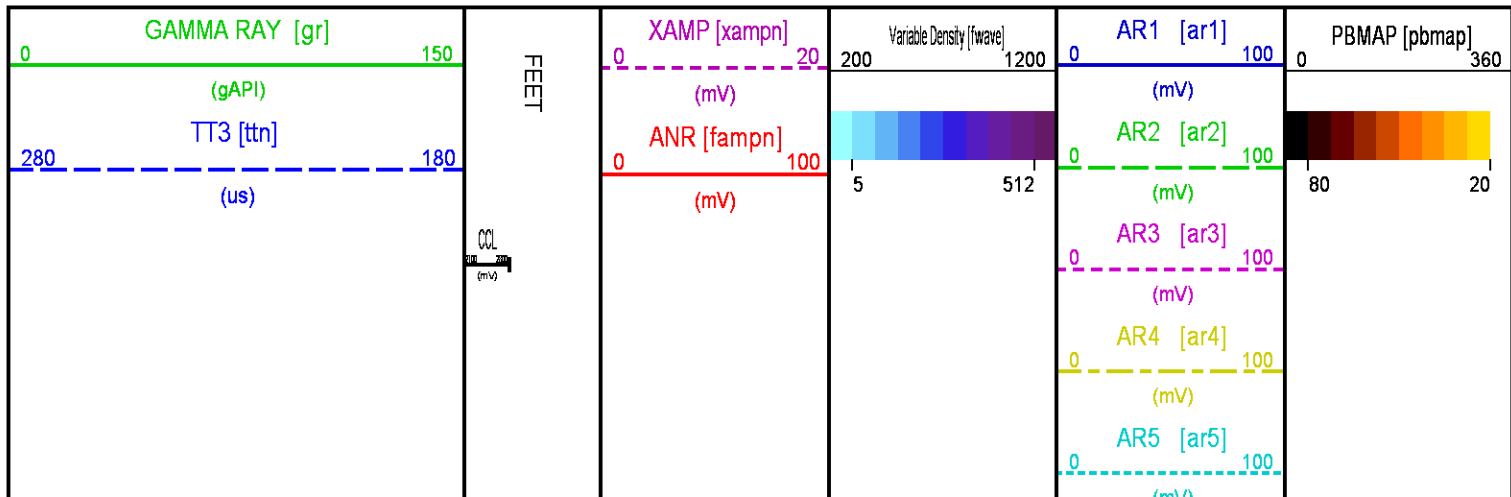
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
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F1:AR2	Apr 8 10:14:10 2015	FIXED GATE AMPLITUDE T-R2
F1:AR3	Apr 8 10:14:10 2015	FIXED GATE AMPLITUDE T-R3
F1:AR4	Apr 8 10:14:10 2015	FIXED GATE AMPLITUDE T-R4
F1:AR5	Apr 8 10:14:10 2015	FIXED GATE AMPLITUDE T-R5
F1:AR6	Apr 8 10:14:10 2015	FIXED GATE AMPLITUDE T-R6
F1:AR7	Apr 8 10:14:10 2015	FIXED GATE AMPLITUDE T-R7
F1:AR8	Apr 8 10:14:10 2015	FIXED GATE AMPLITUDE T-R8
F1:CCL	Apr 8 10:14:10 2015	CASING COLLAR LOCATOR
F1:FAMPN	Apr 8 10:14:10 2015	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Apr 8 10:14:10 2015	FAR WAVE FORM
F1:GR	Apr 8 10:14:10 2015	GAMMA RAY
F1:PBMAP	Apr 8 10:14:10 2015	PERCENT BOND CEMENT MAP
F1:TTN	Apr 8 10:14:10 2015	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Apr 8 10:14:10 2015	FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE

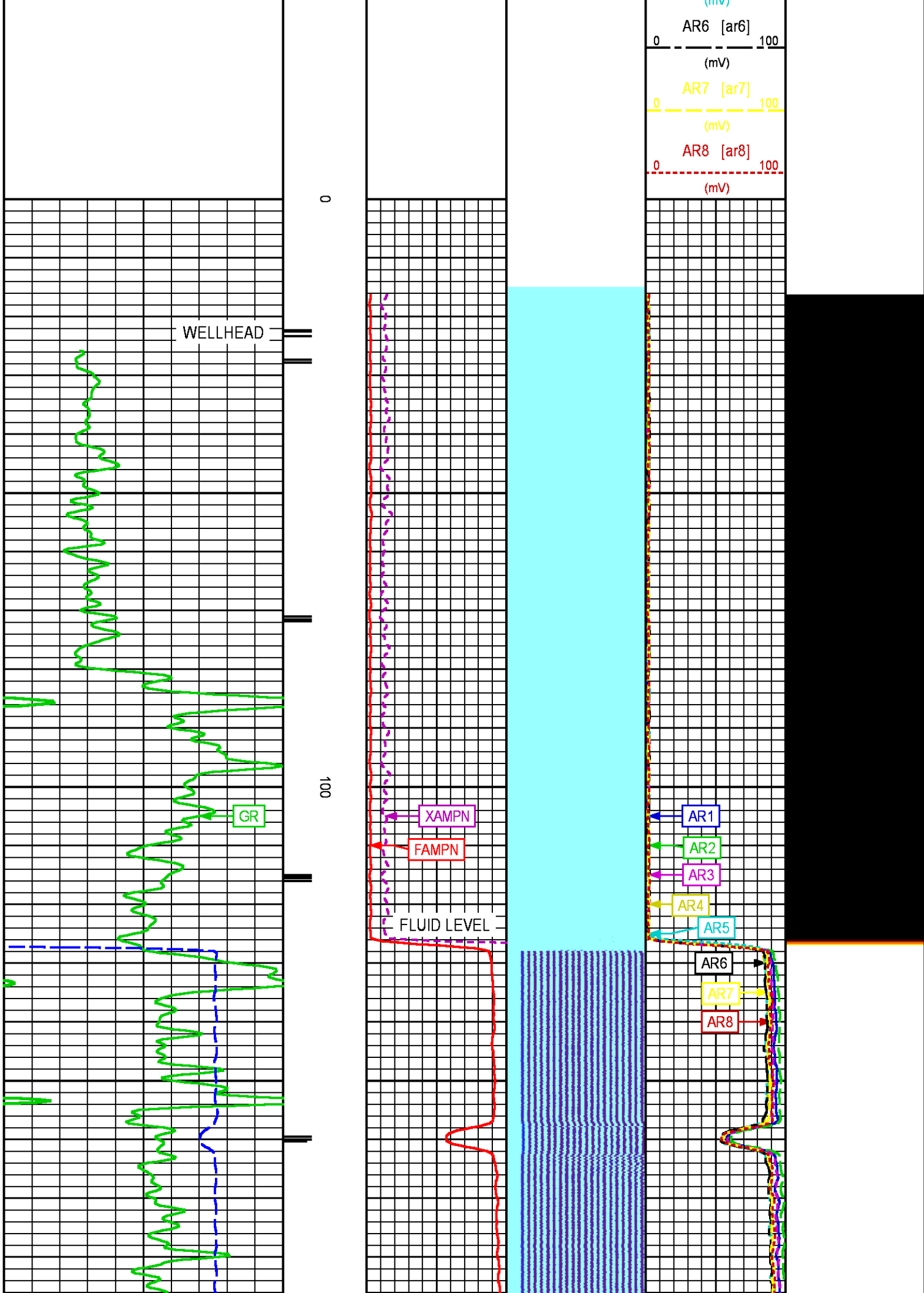
CURVE MEASURE POINT OFFSET

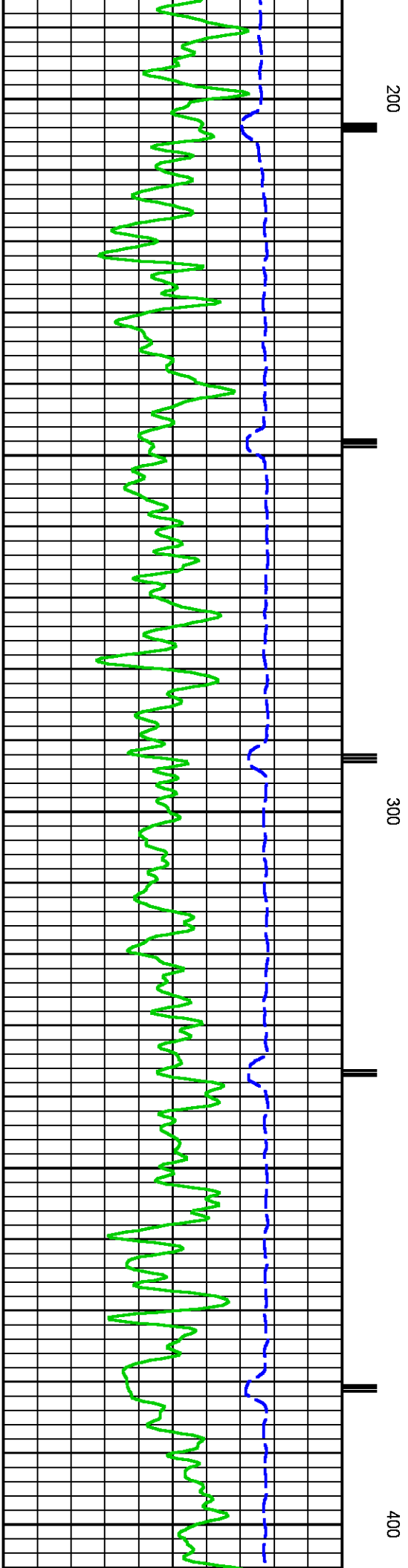
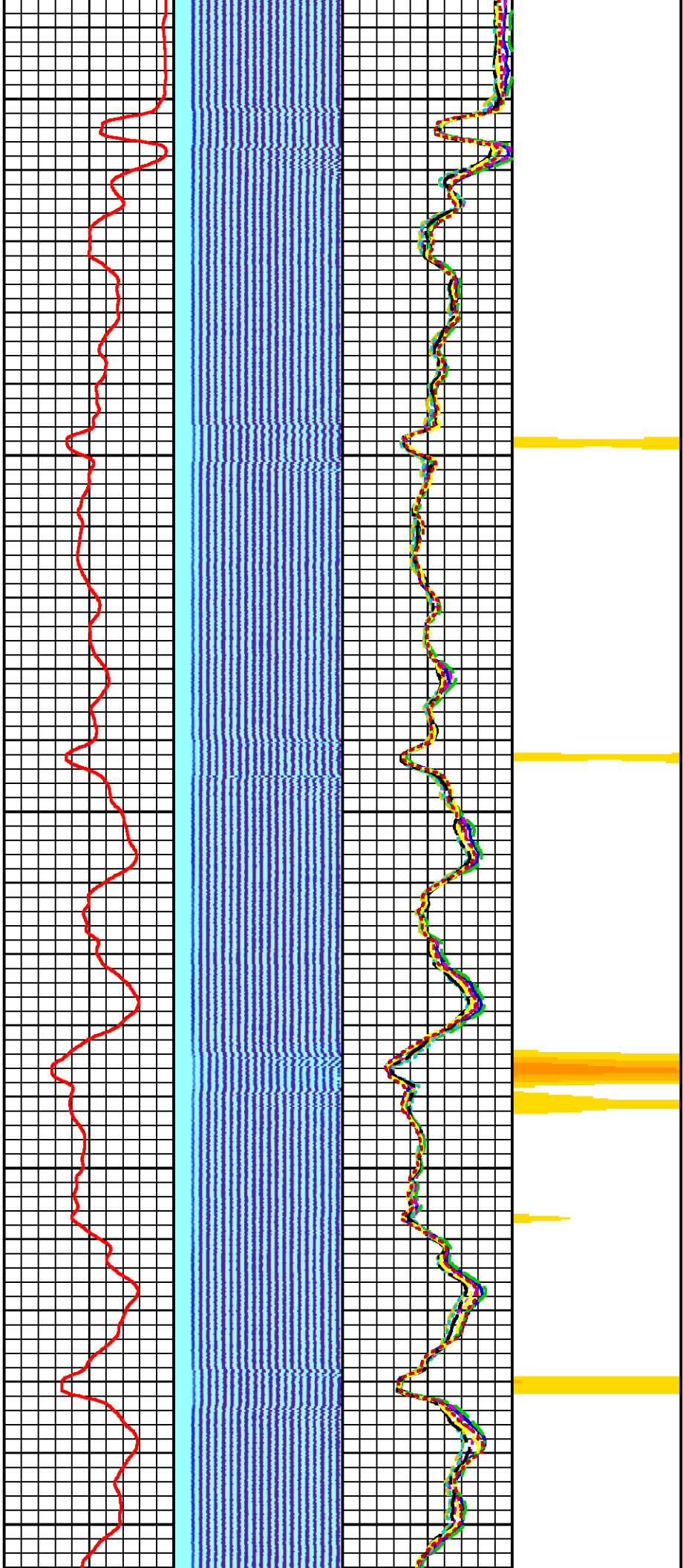
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
AR1	11.25	AR5	11.25	CCL	5.75	XAMPN	11.25
AR2	11.25	AR6	11.25	FAMPN	11.25		
AR3	11.25	AR7	11.25	GR	1.75		
AR4	11.25	AR8	11.25	TTN	11.25		

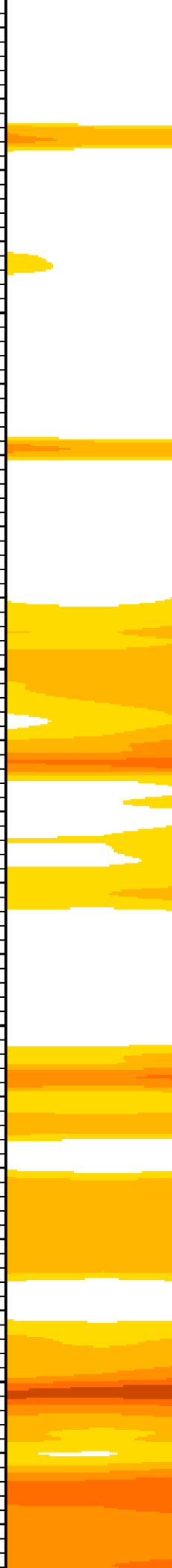
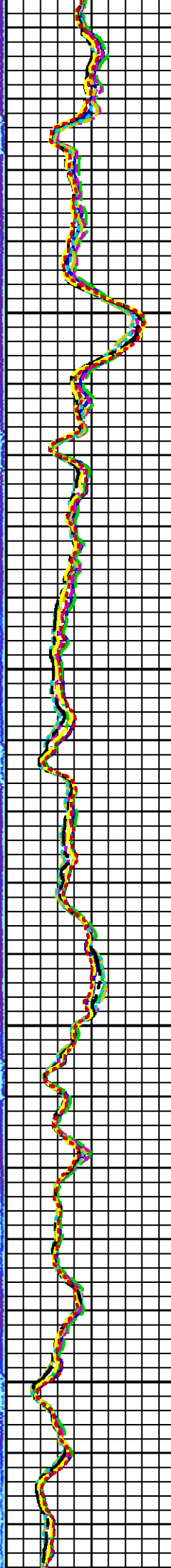
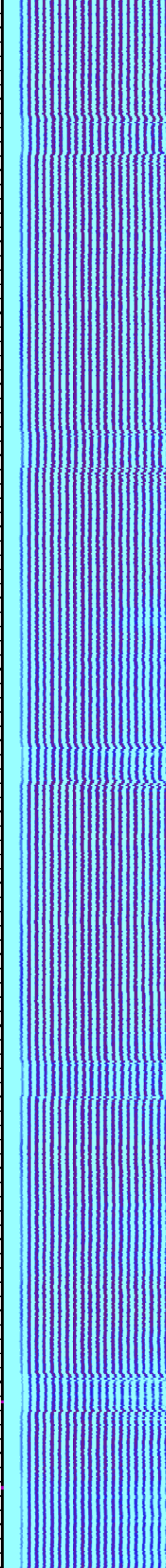
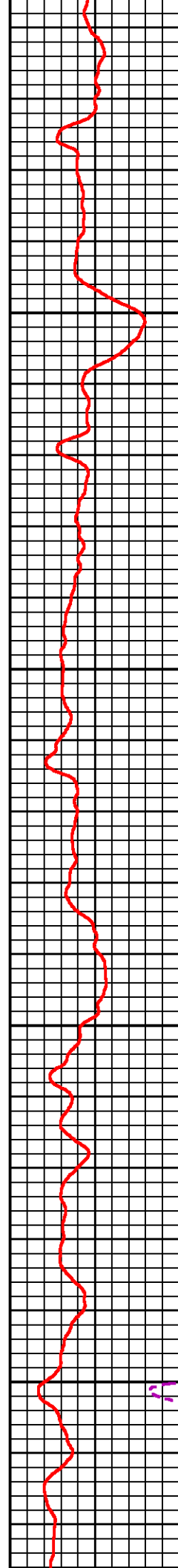
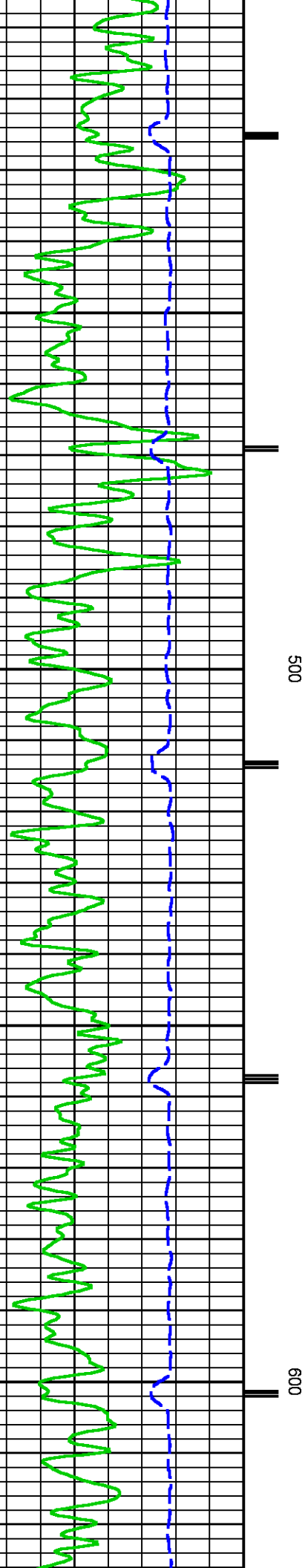
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Plot Interval : 0 - 7957 Feet

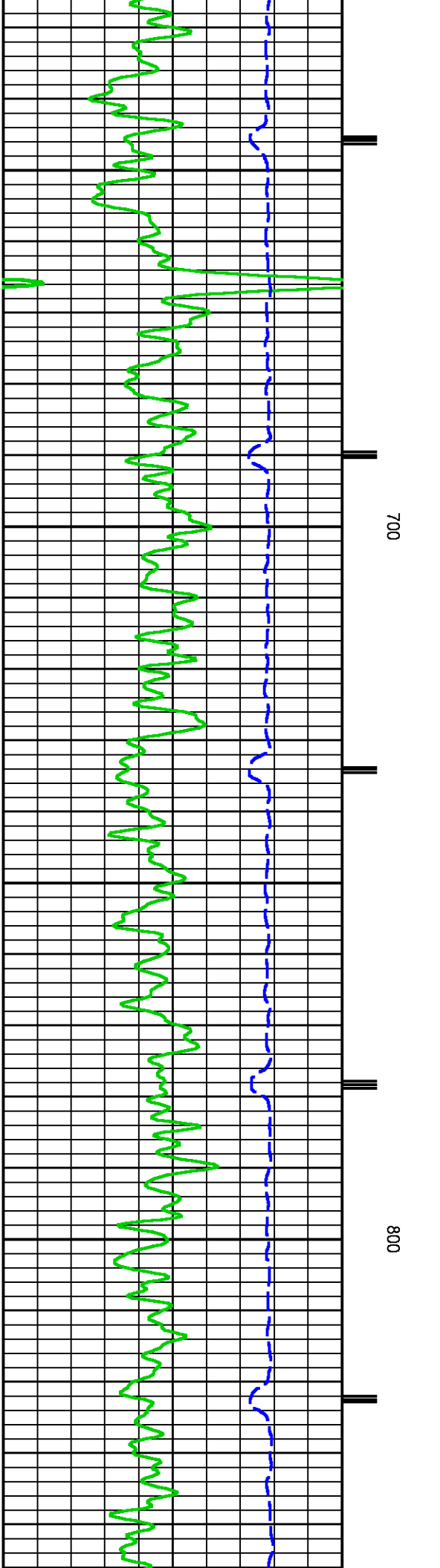
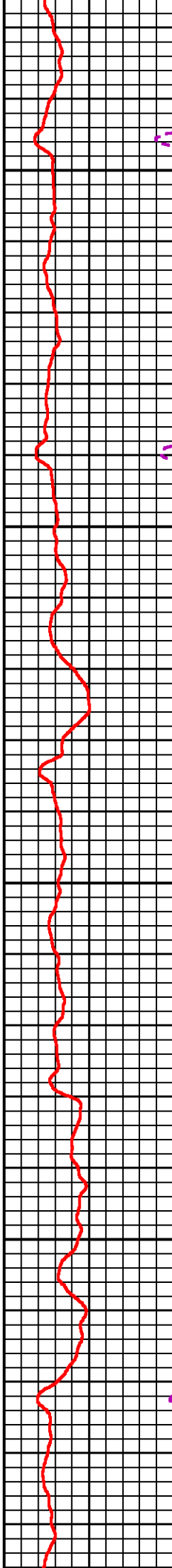
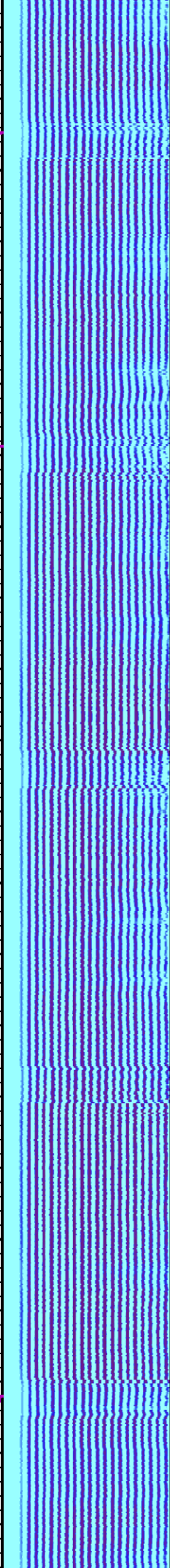
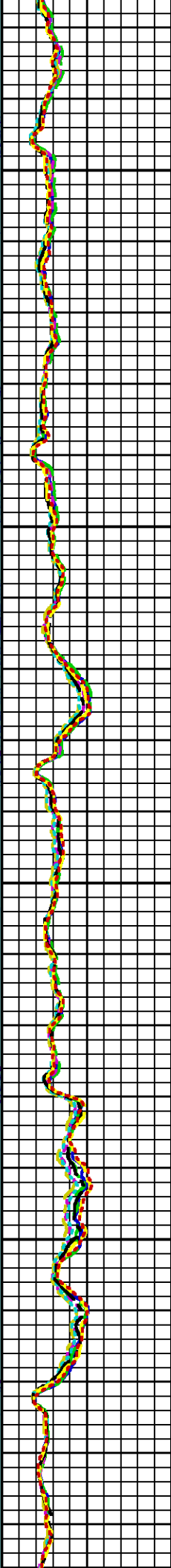
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Created On : Apr 8 10:14:10 2015
Company : LARAMIE ENERGY
Well : PICEANCE 28-12M
Field : VEGA
File Interval : 15 - 7963.25 Feet
OCT : n012g

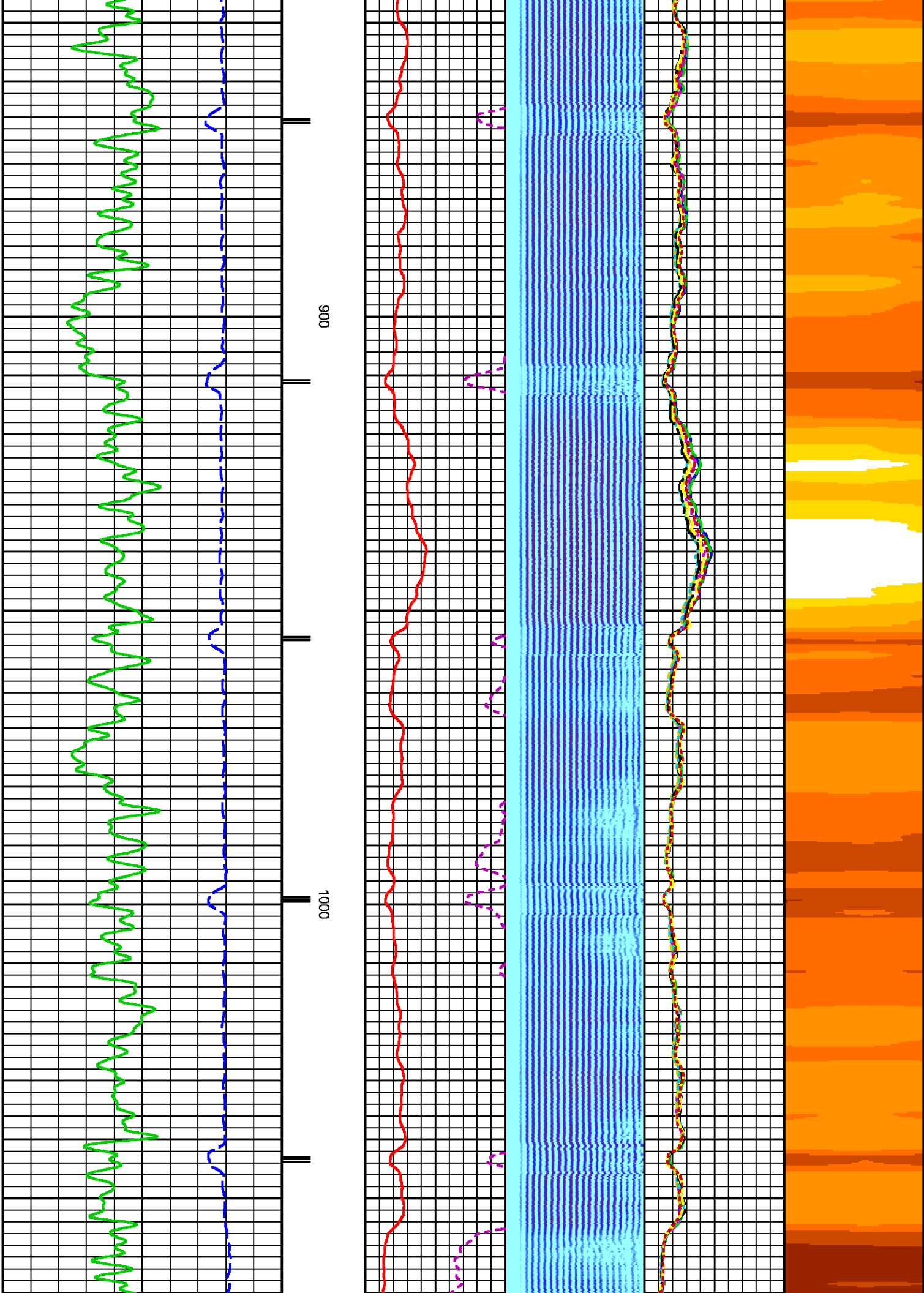


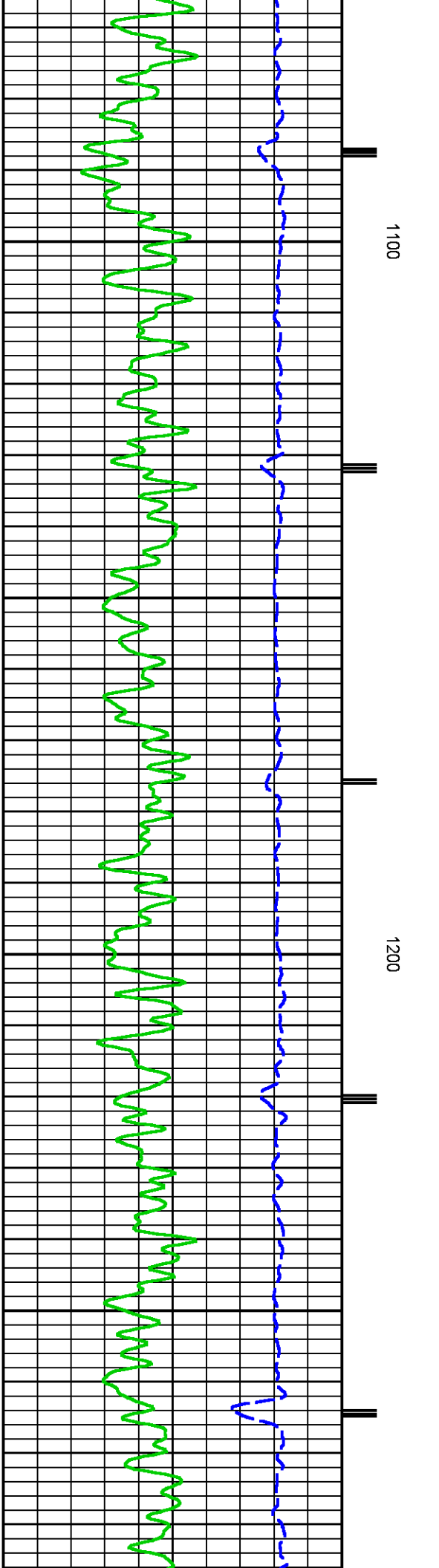
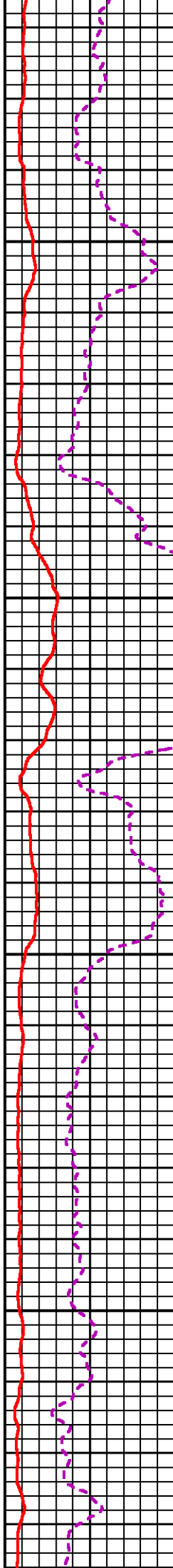
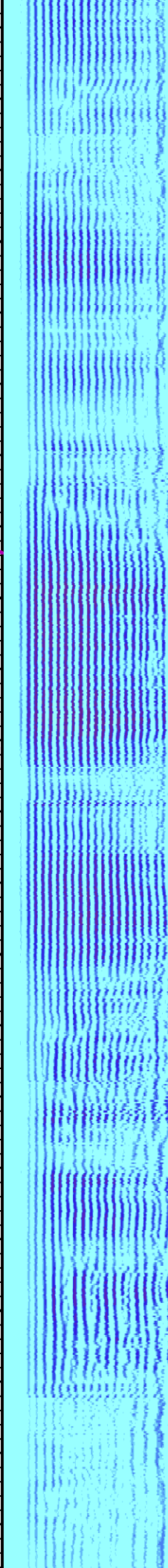
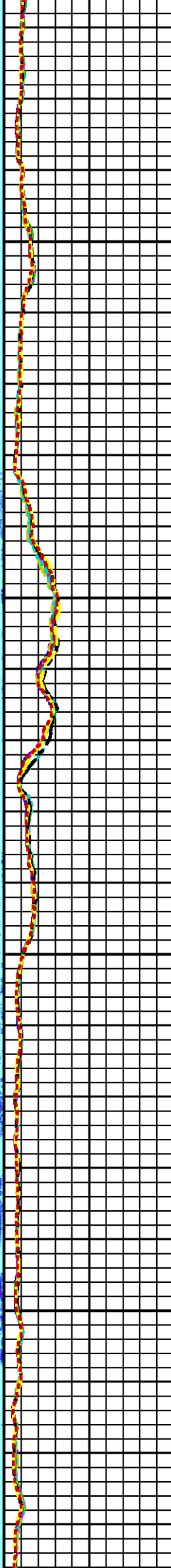
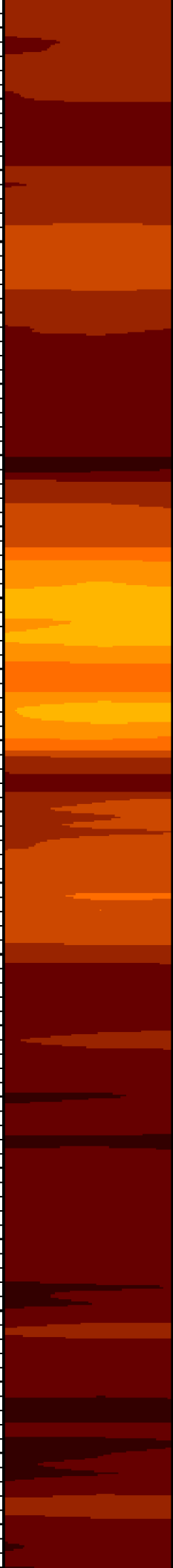


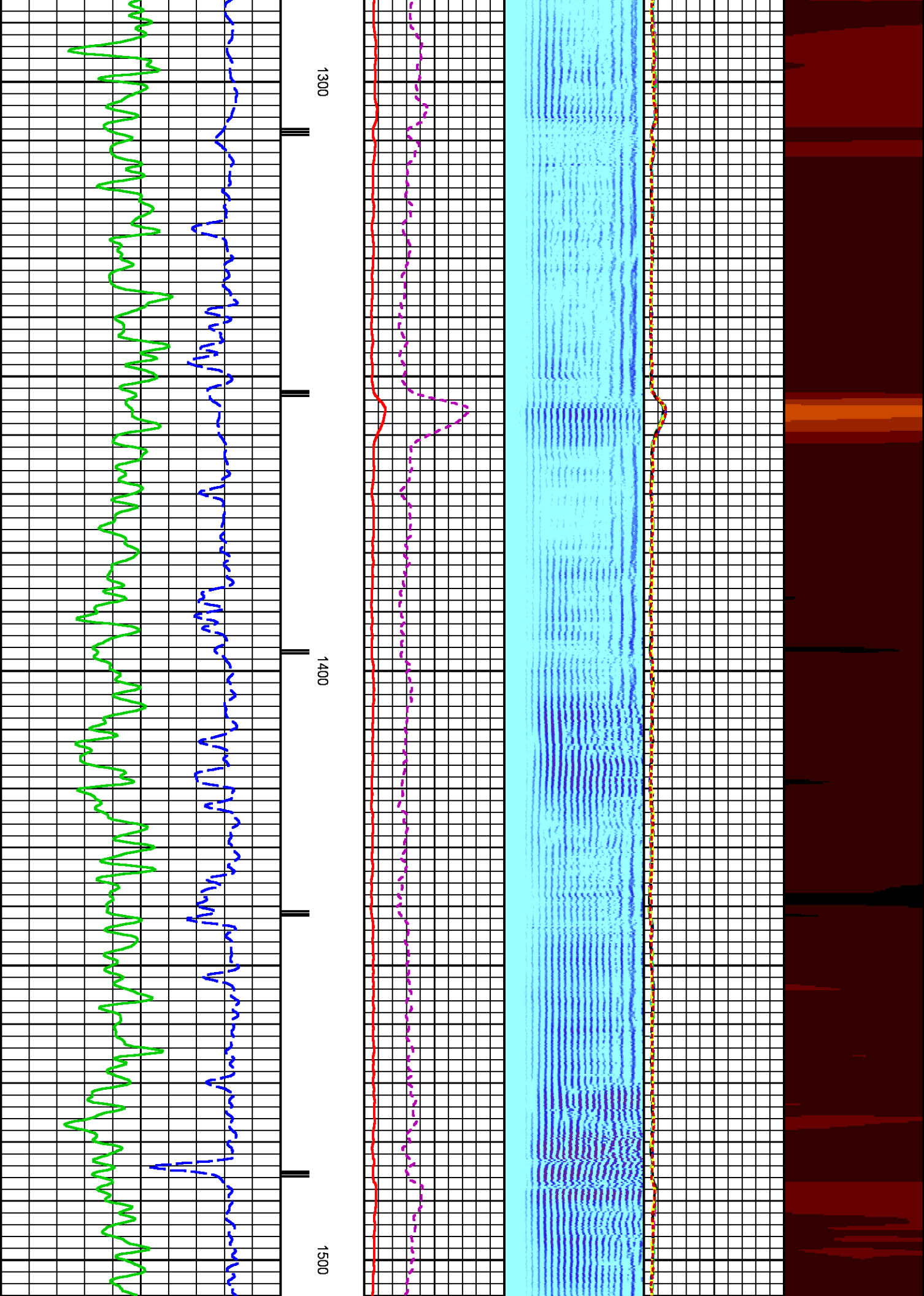


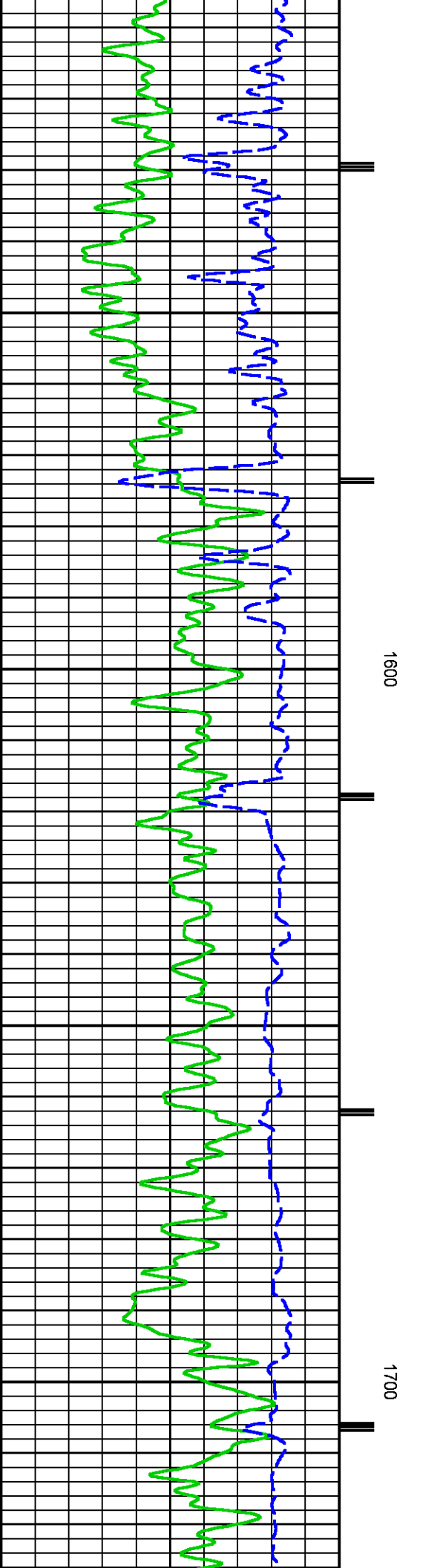
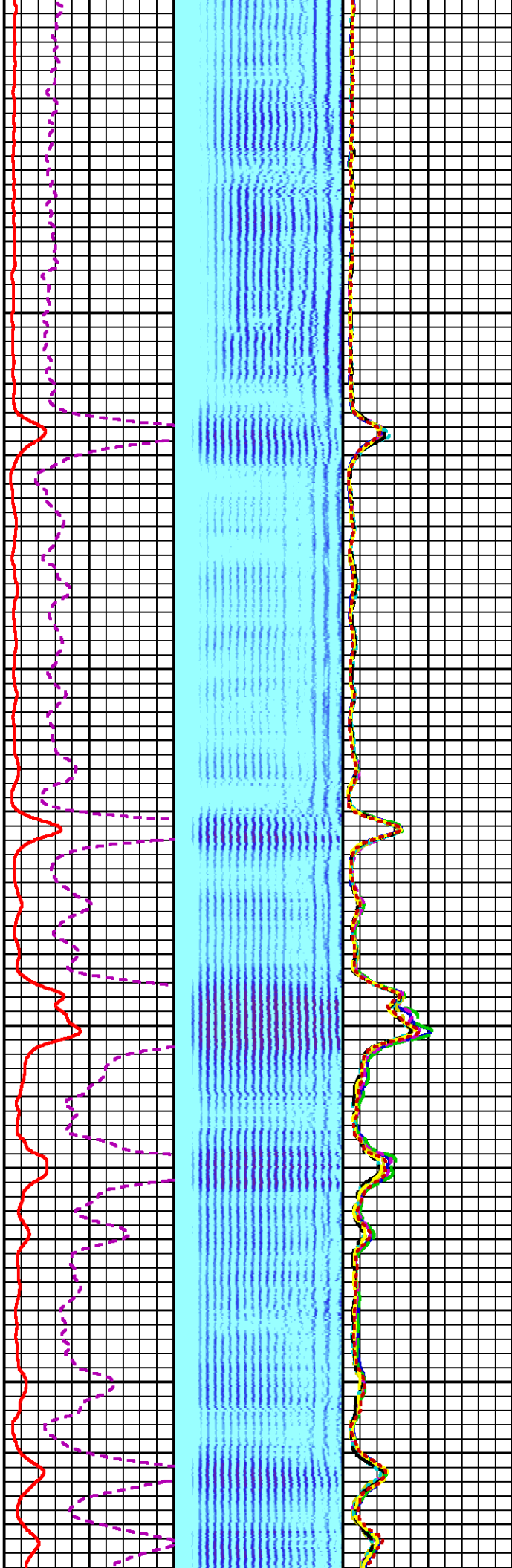
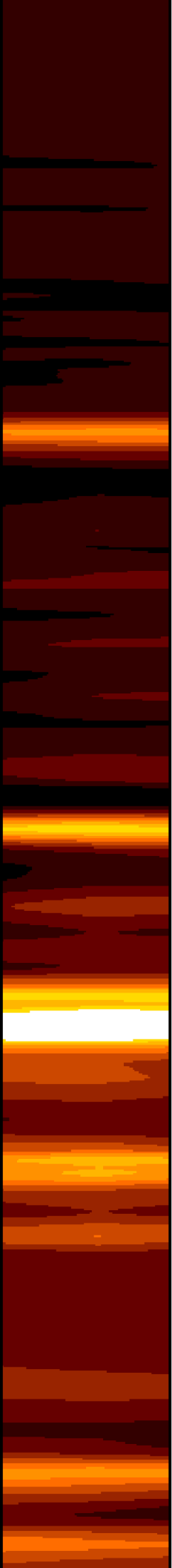


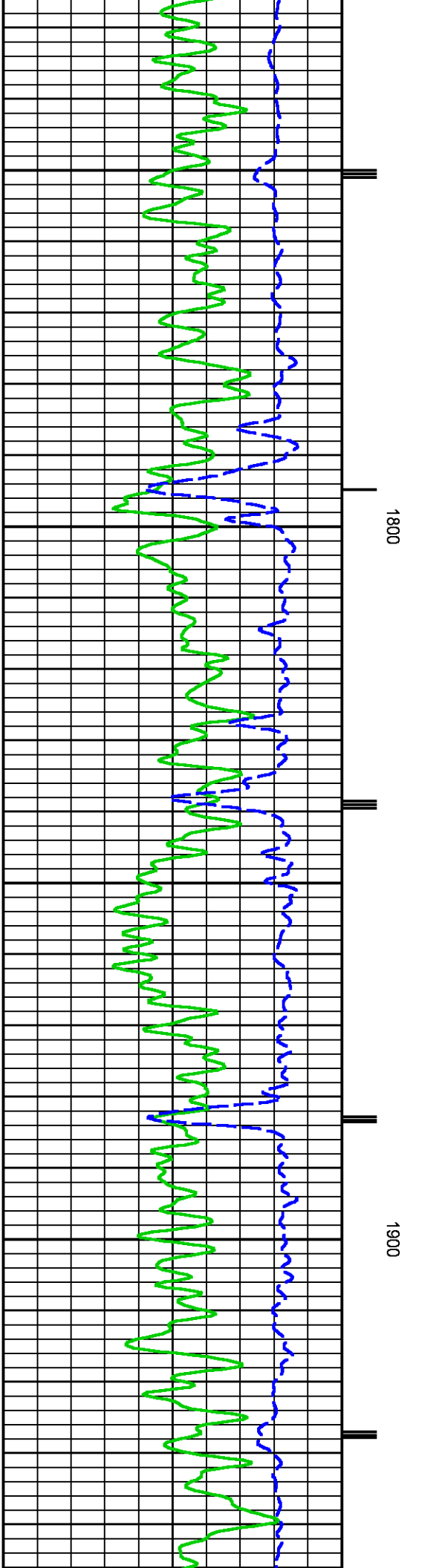
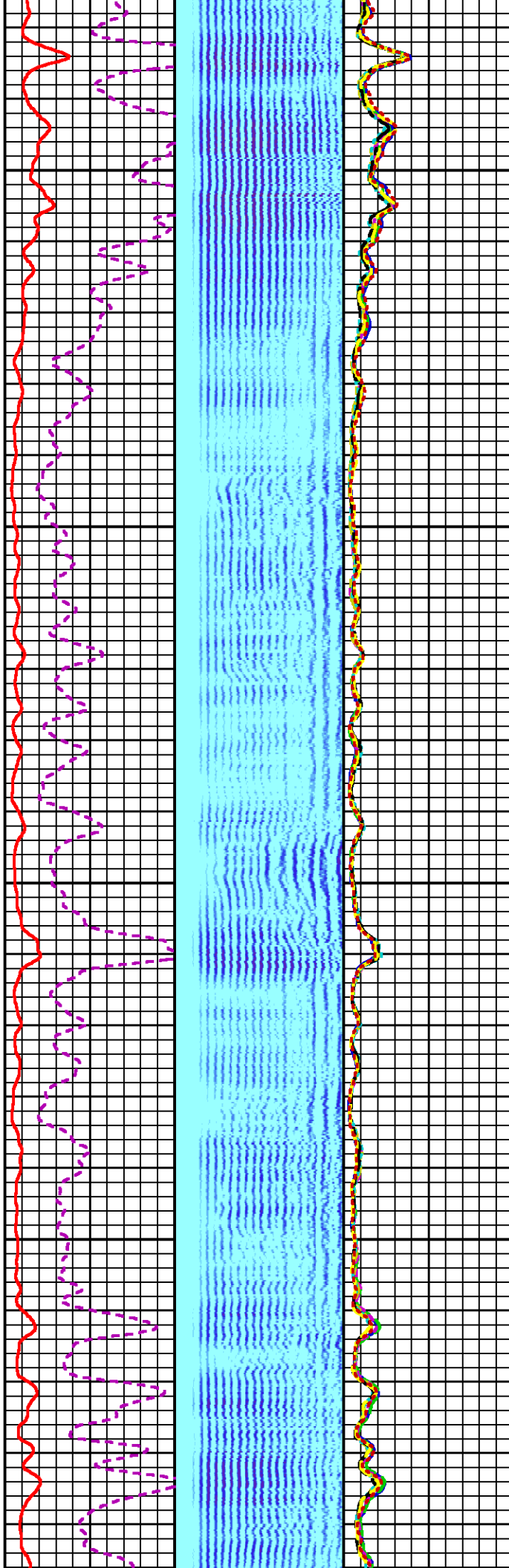
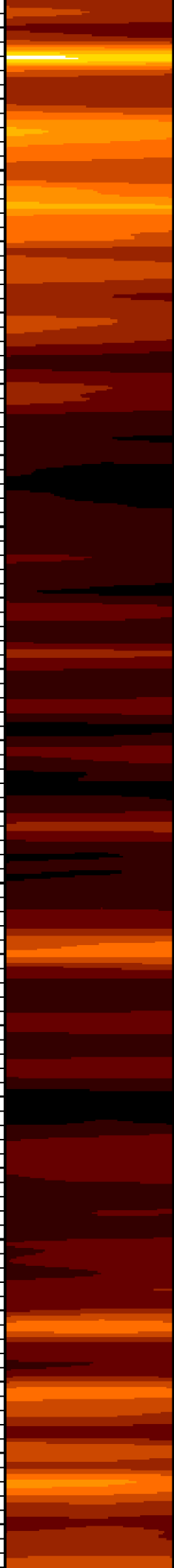


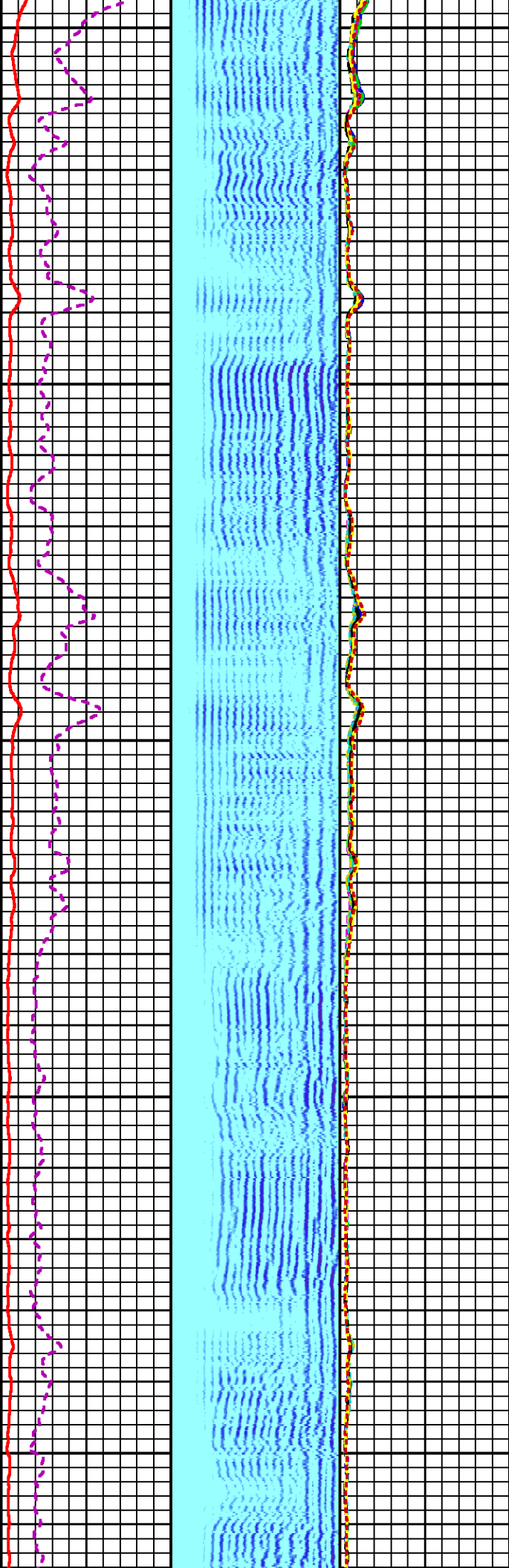






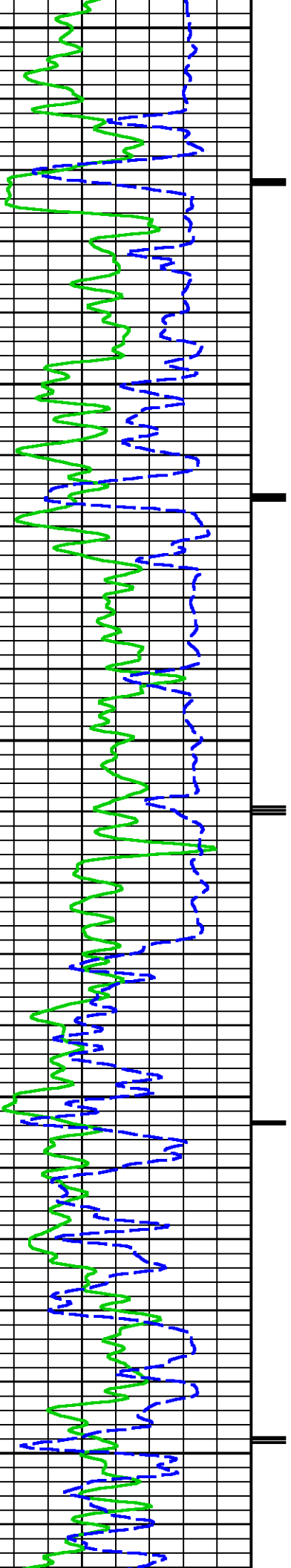


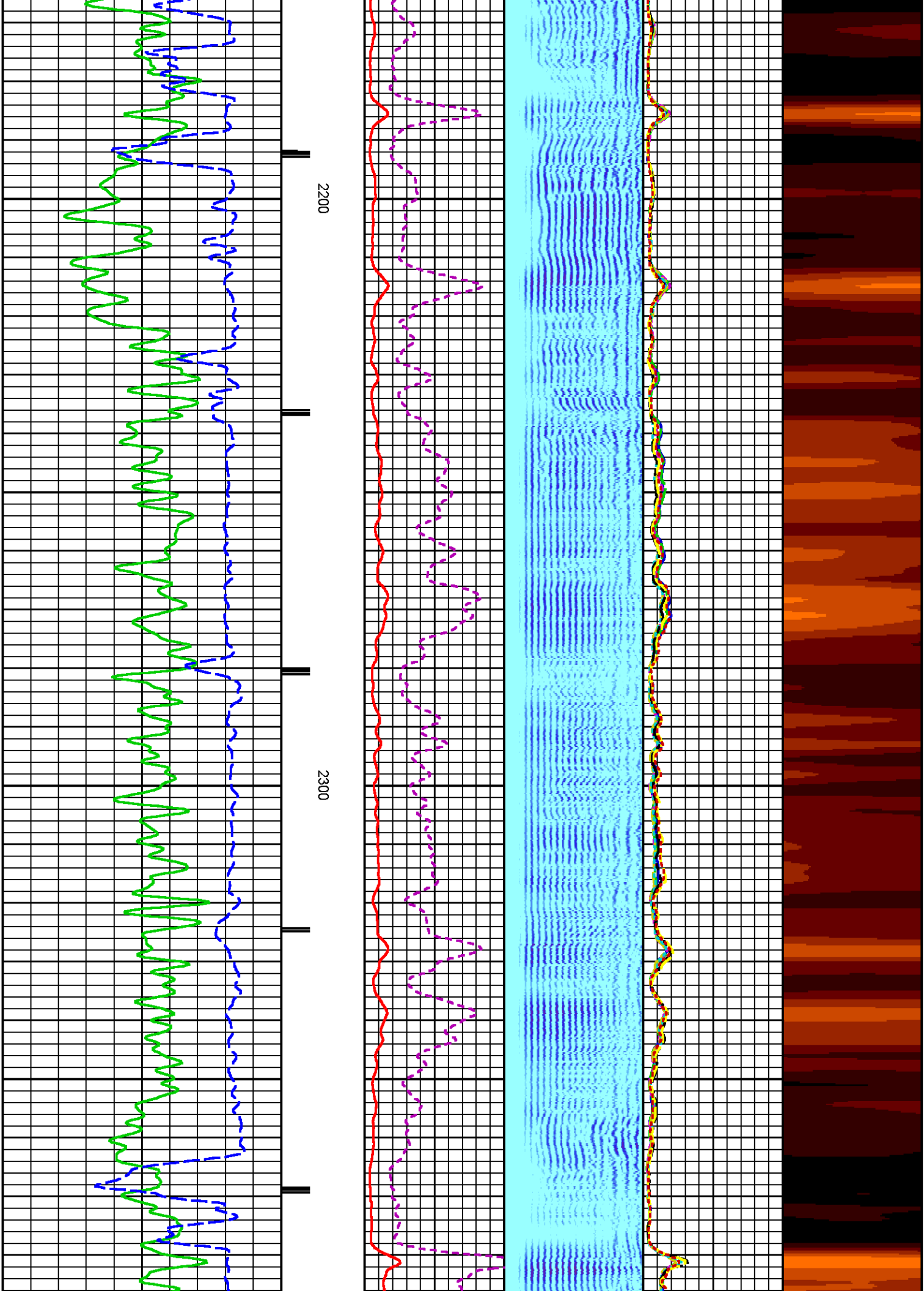


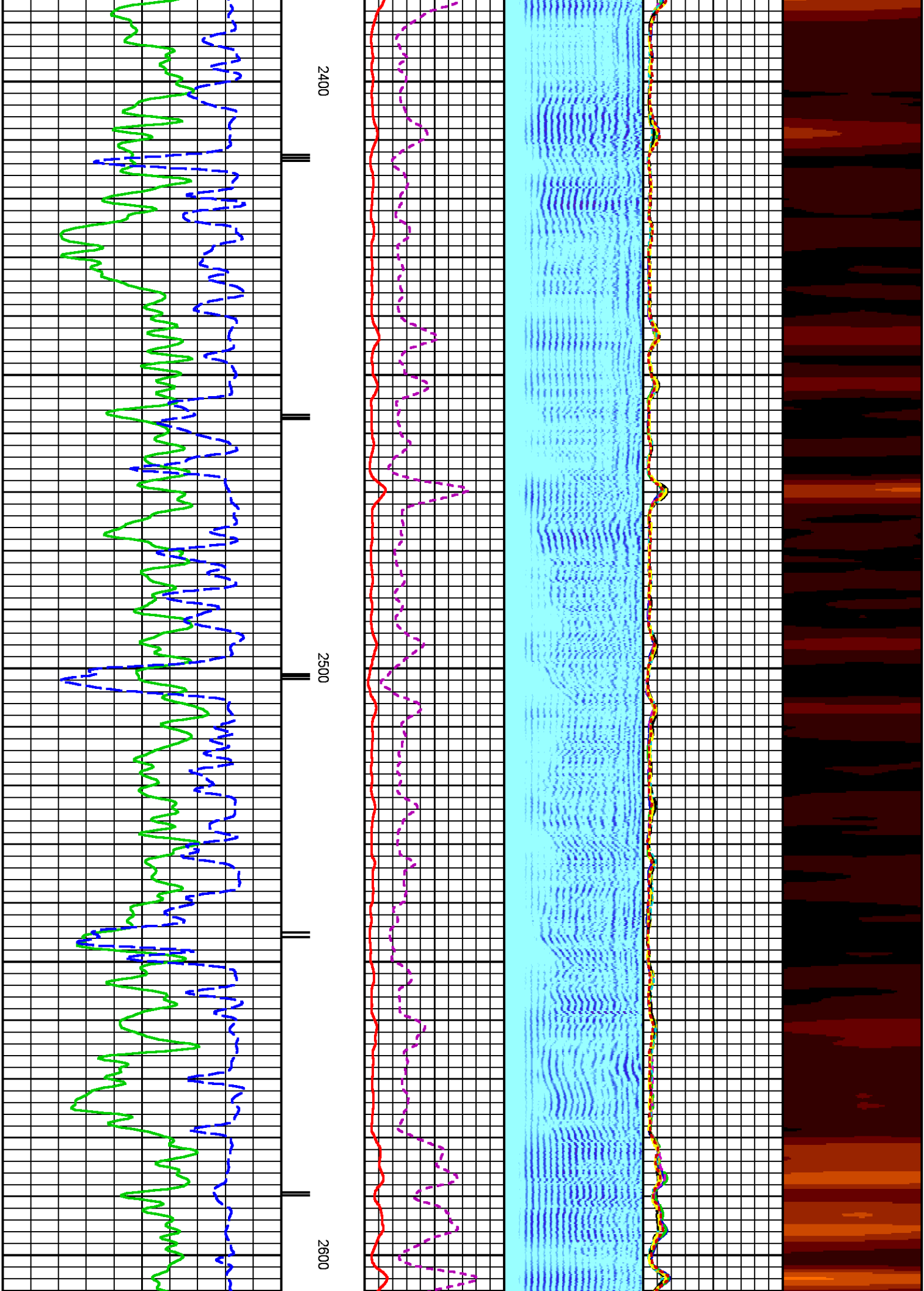


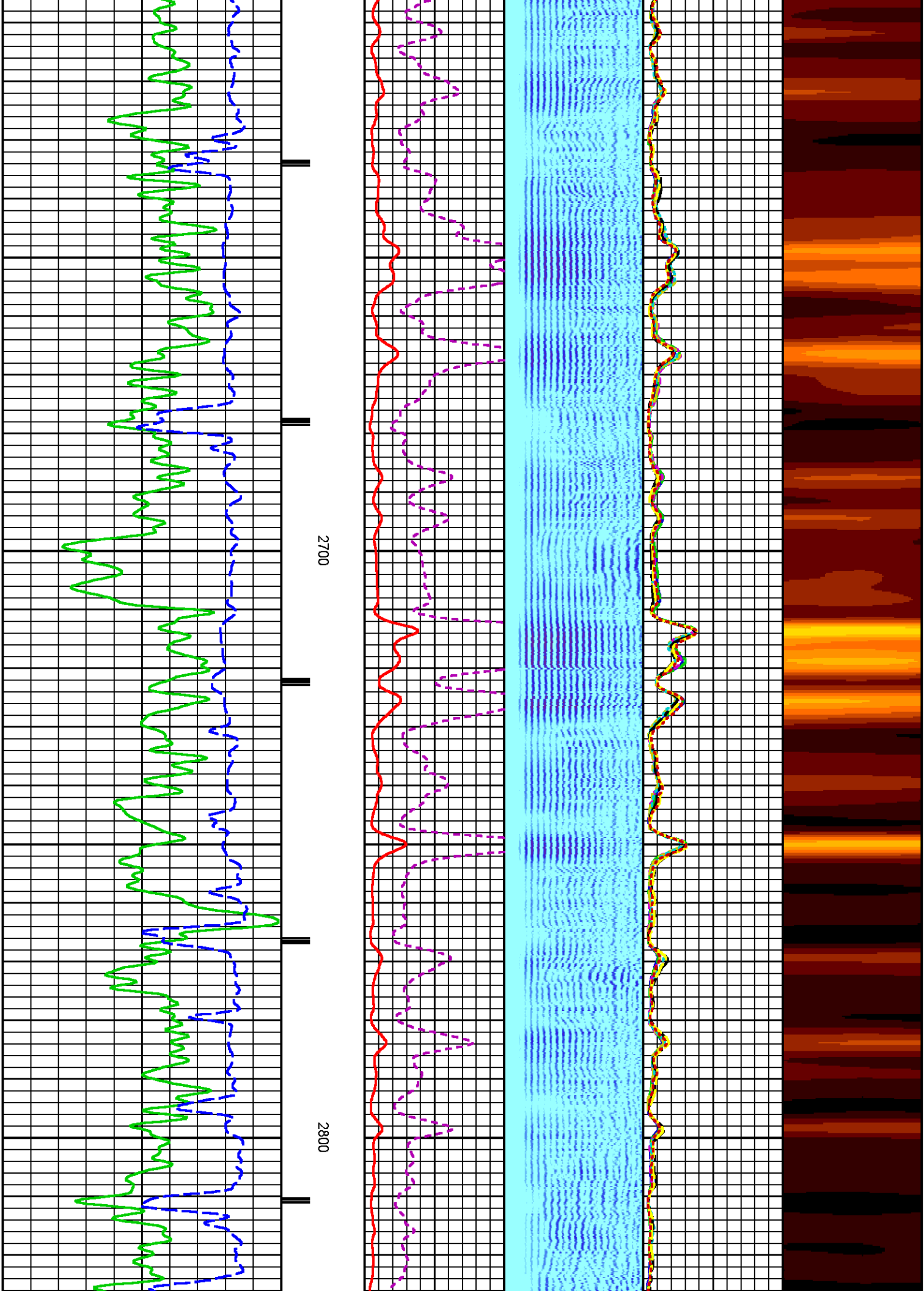
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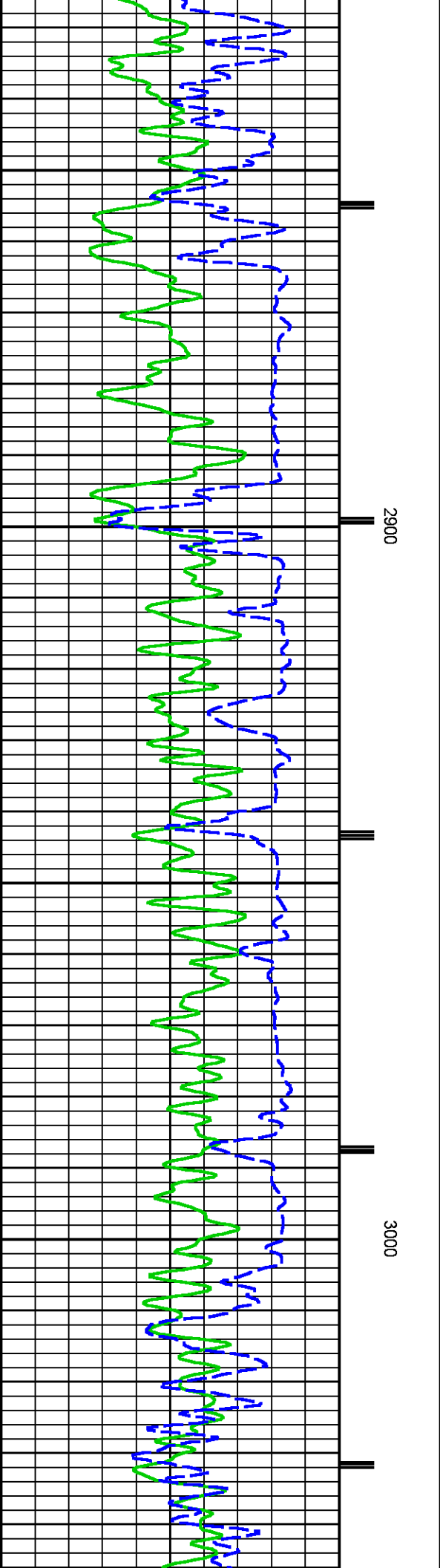
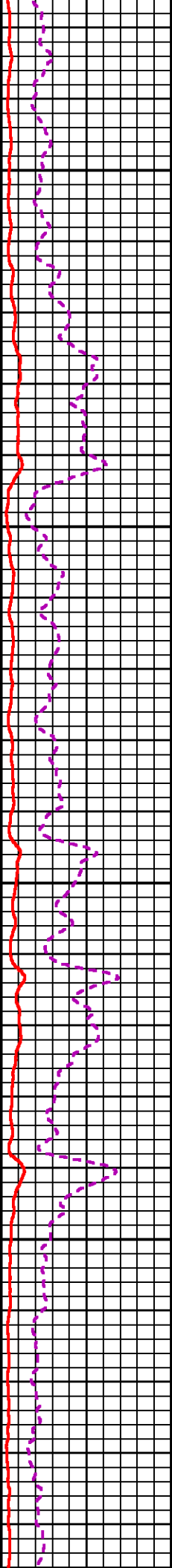
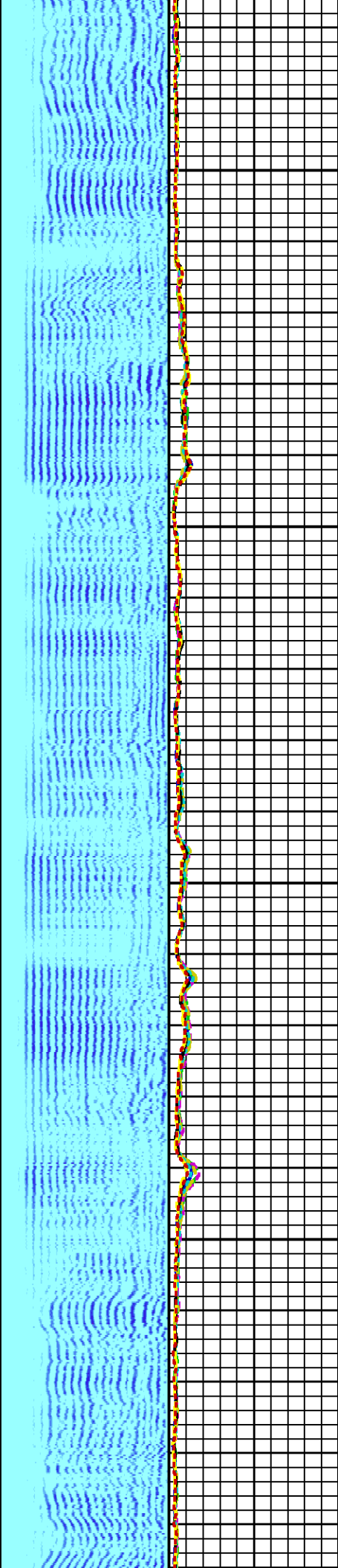
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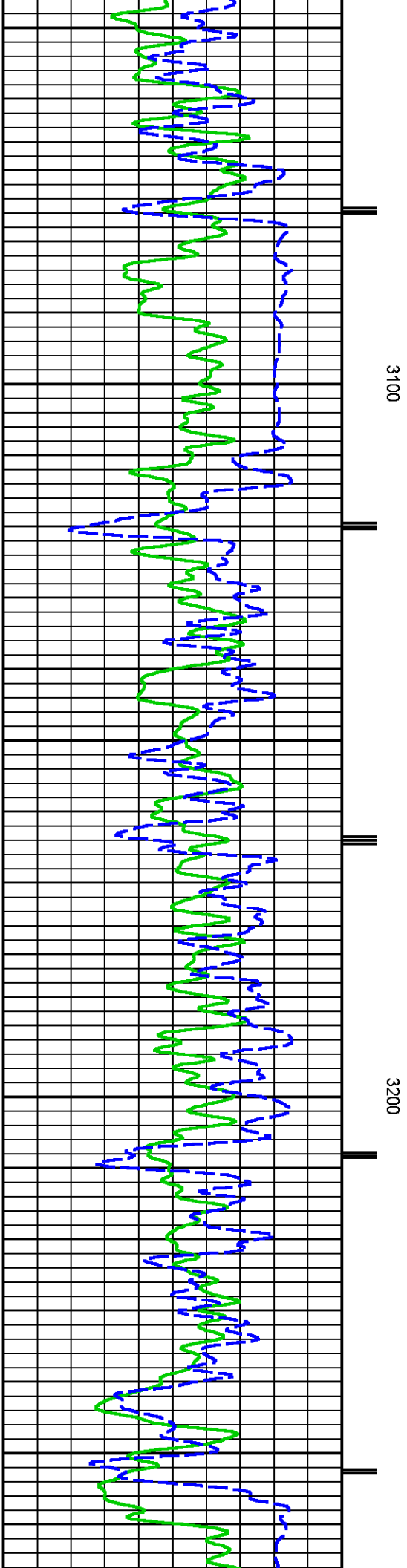
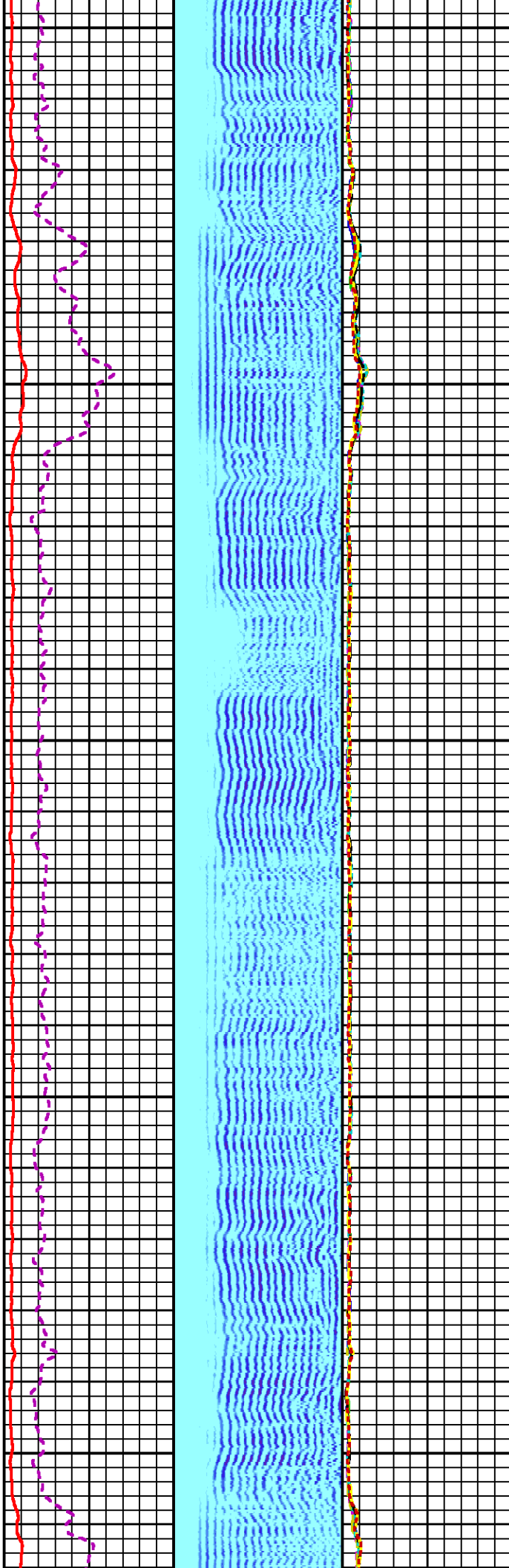
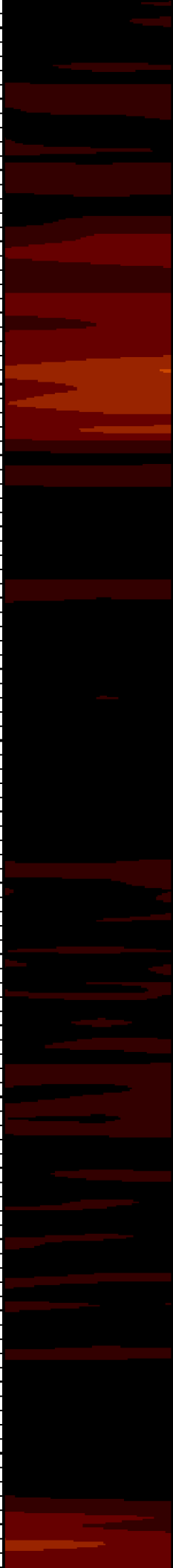


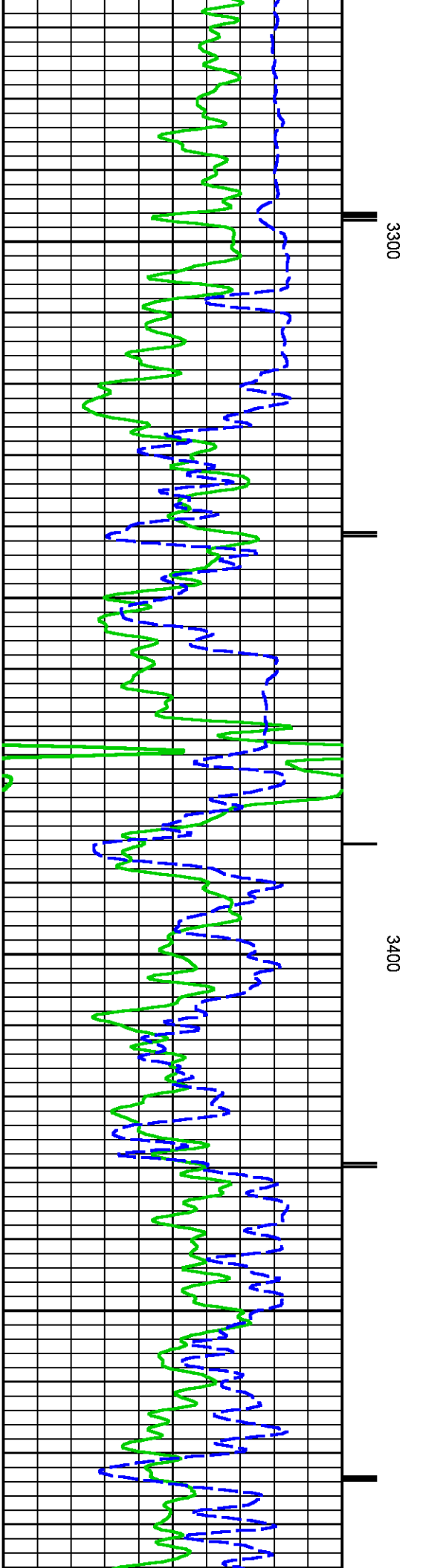
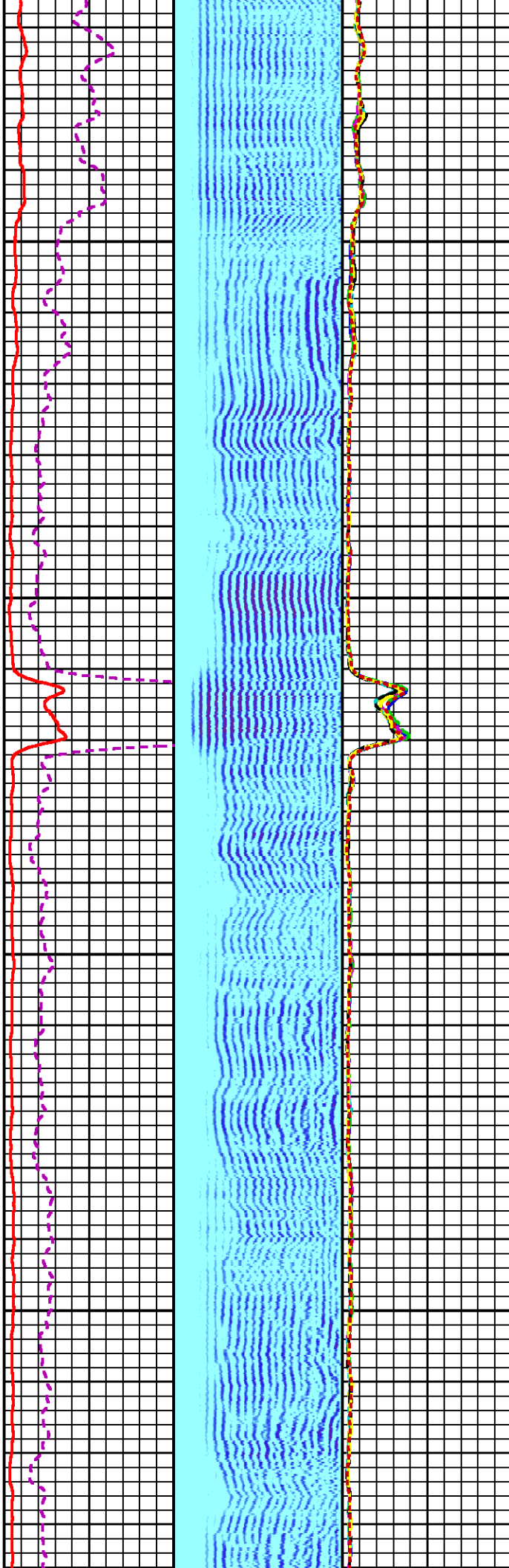
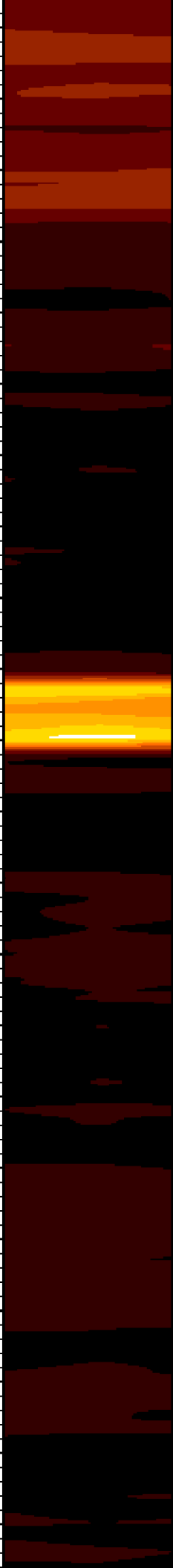


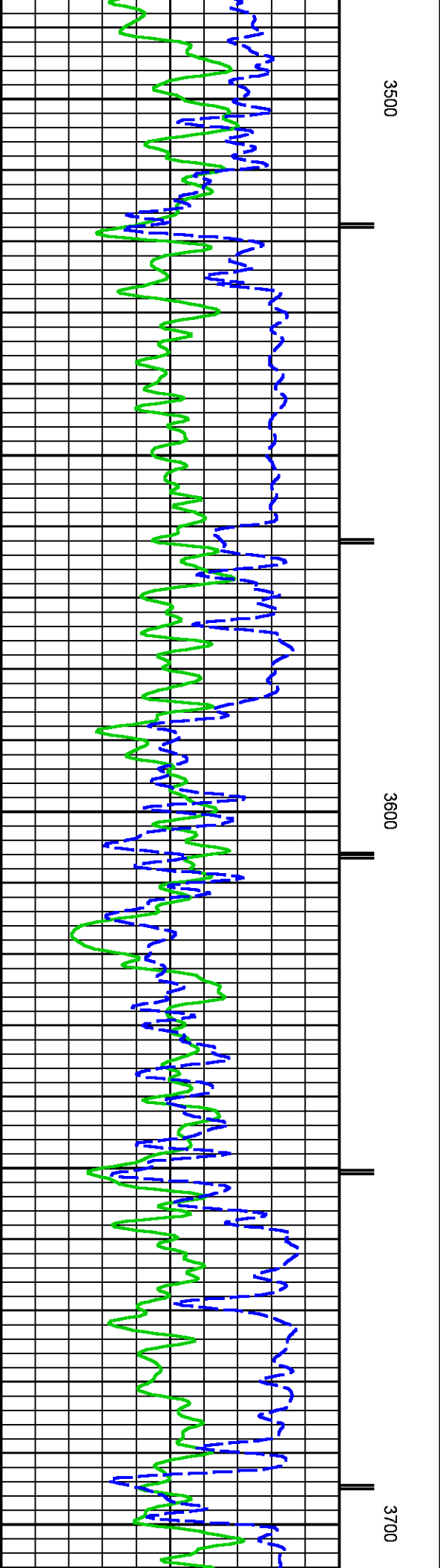
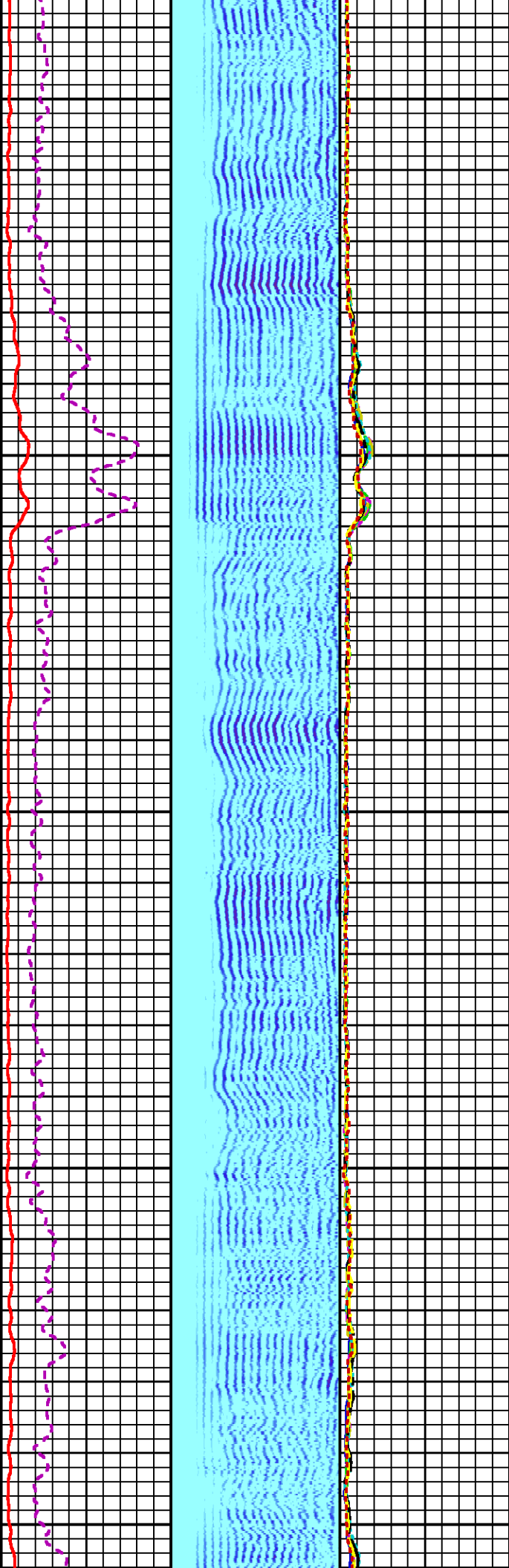
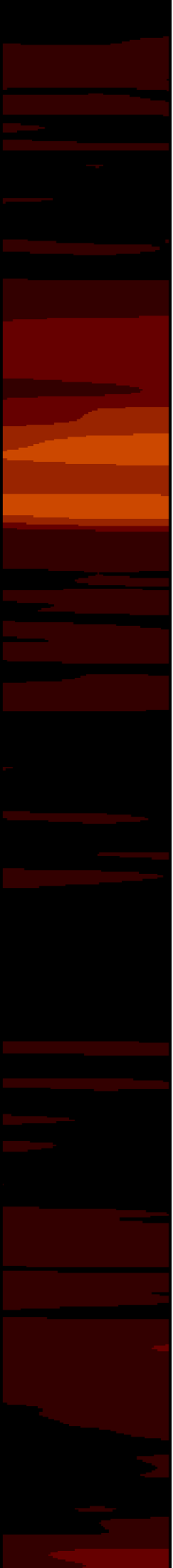


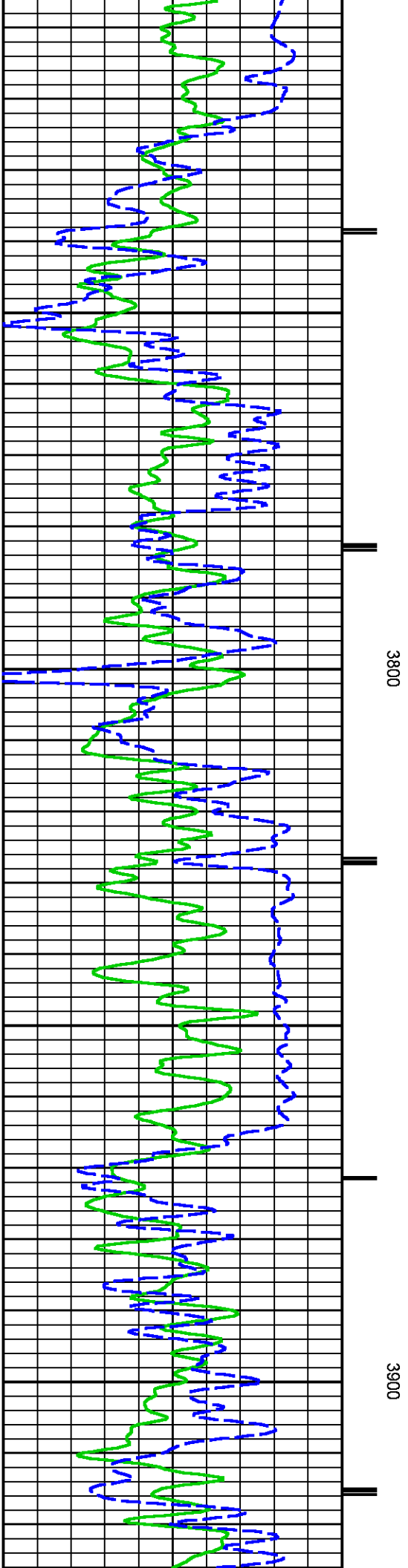
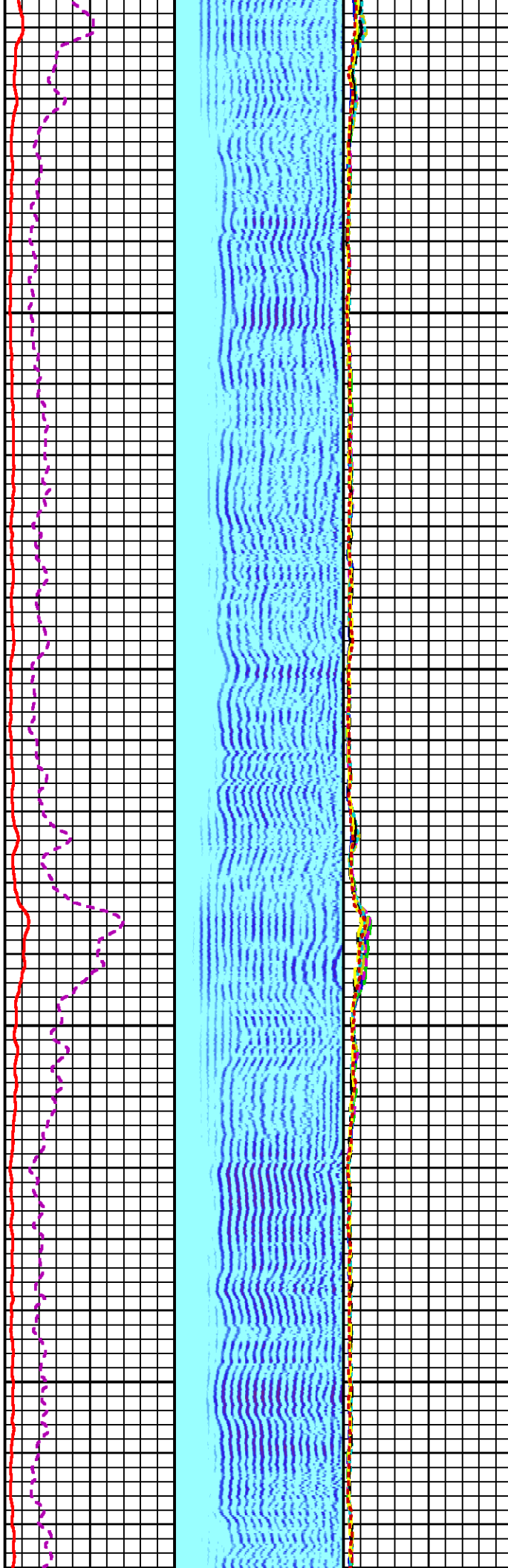
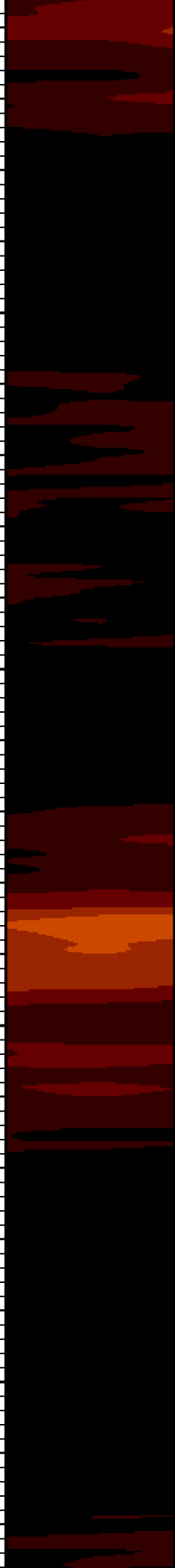


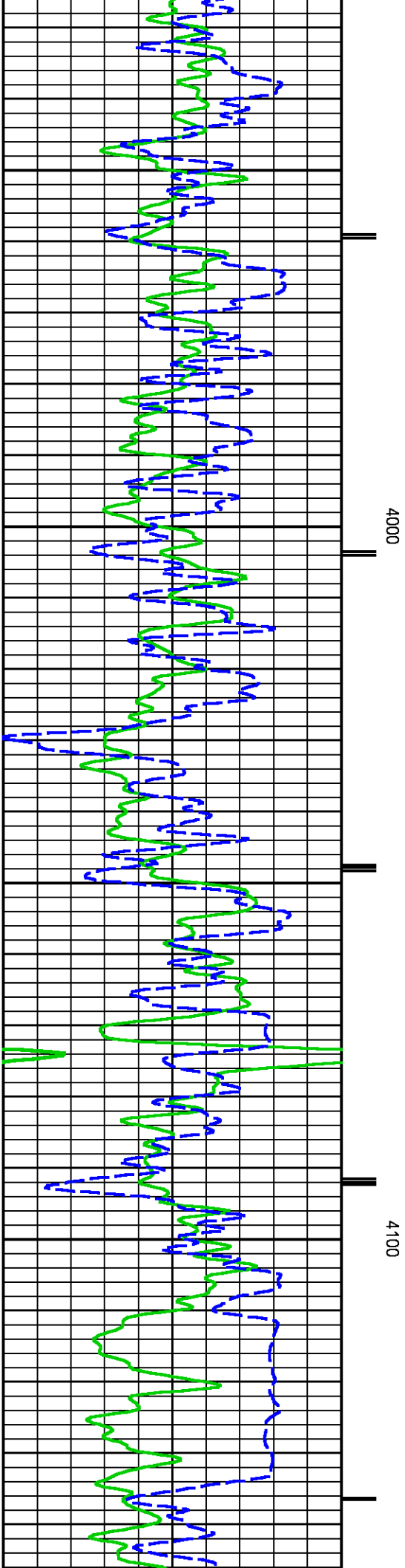
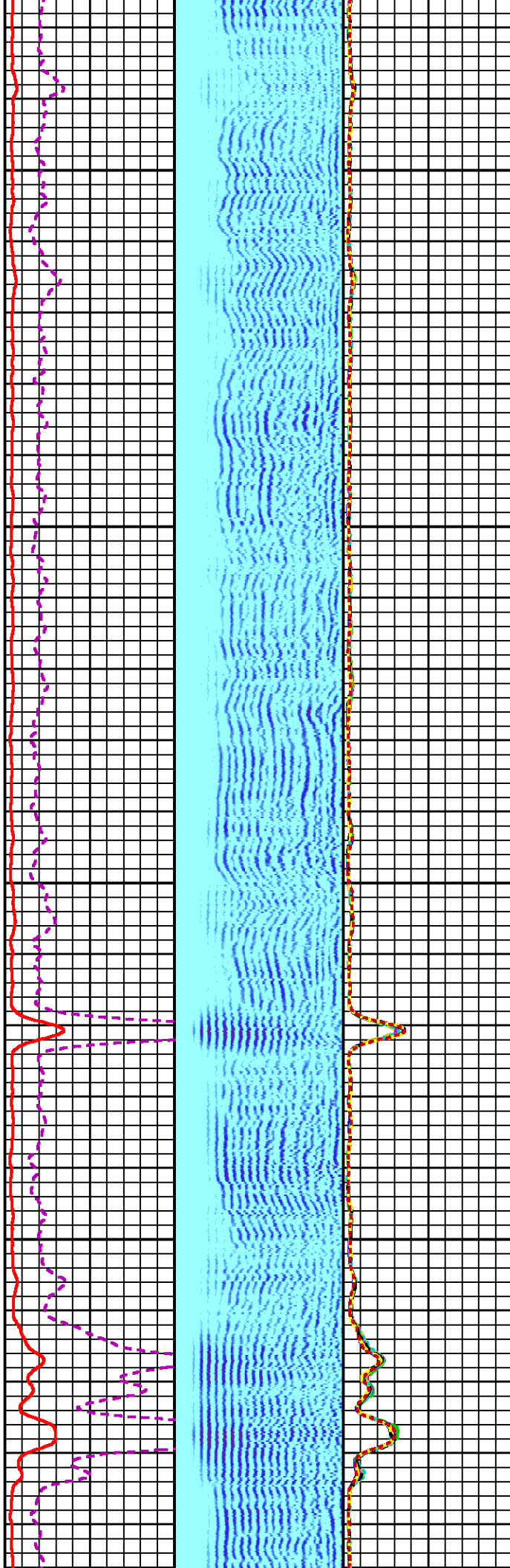
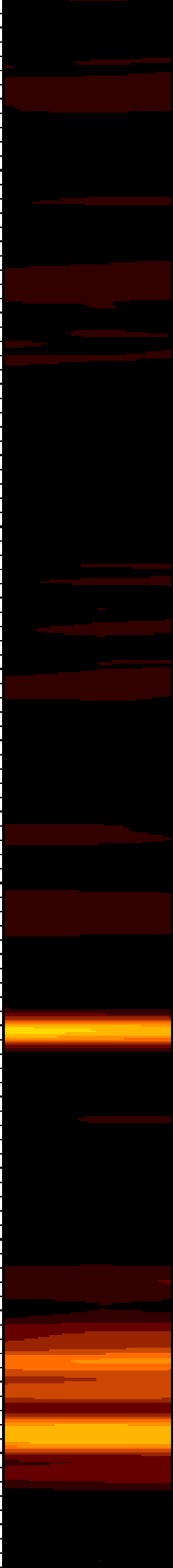


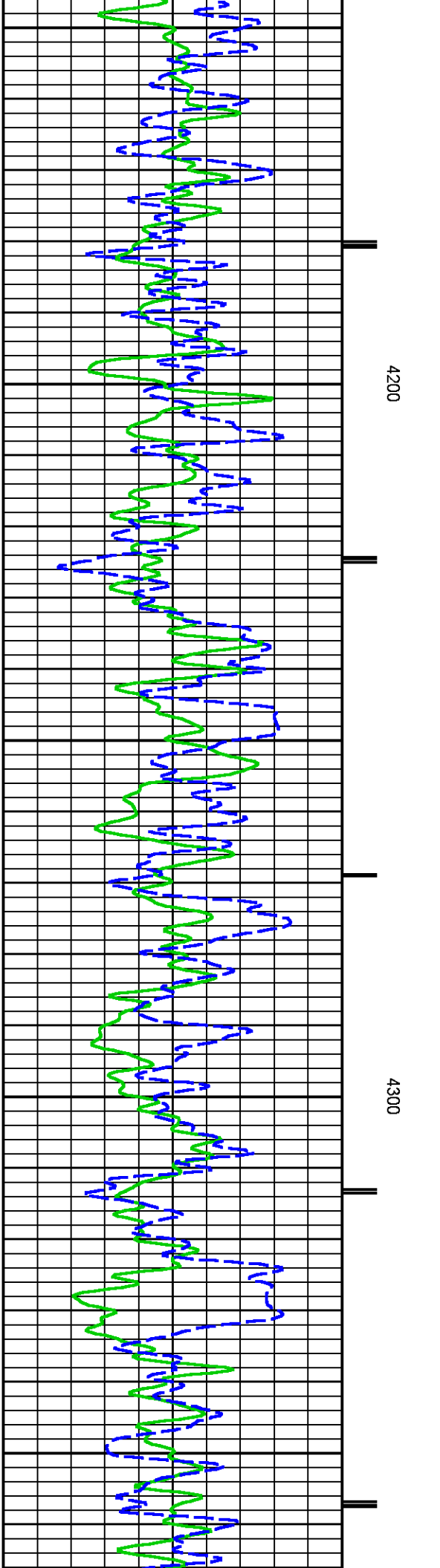
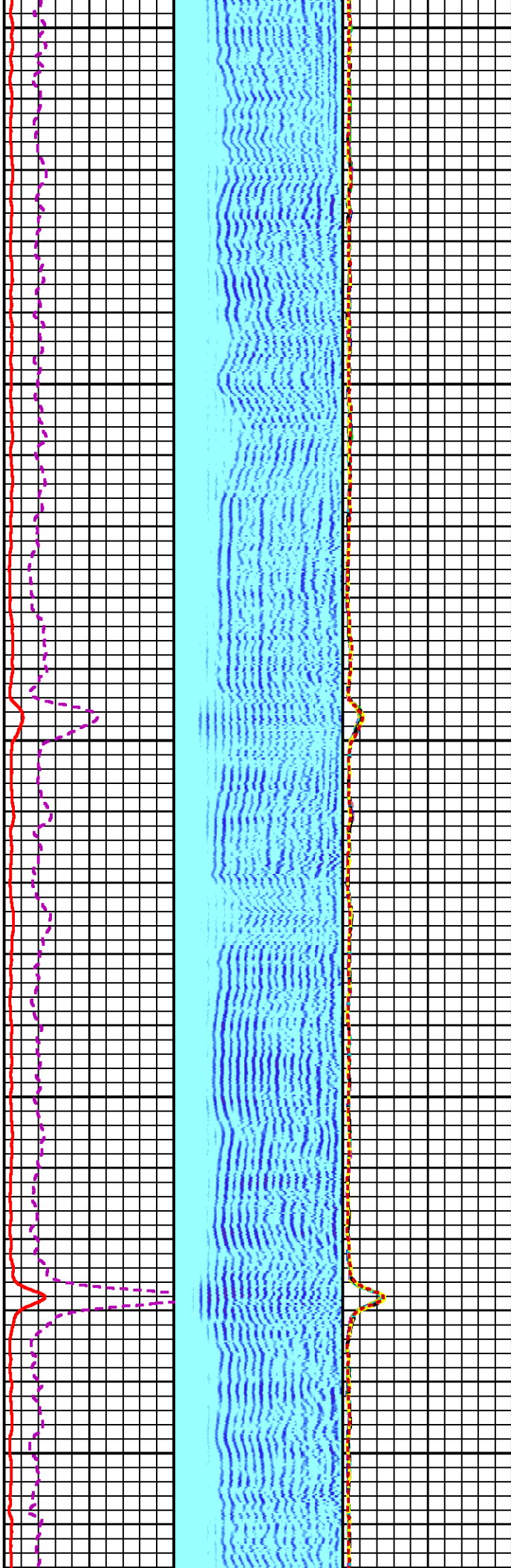
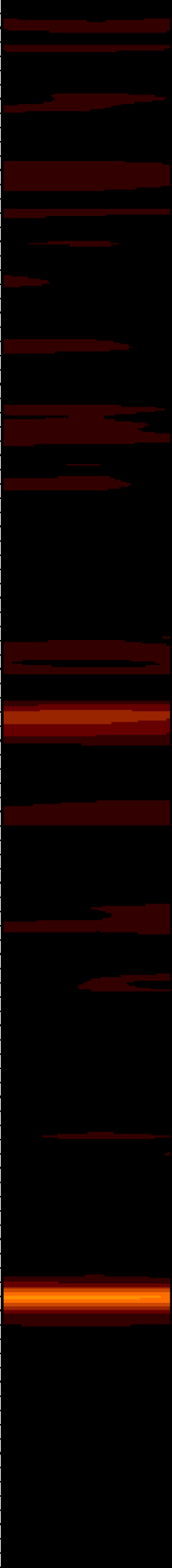


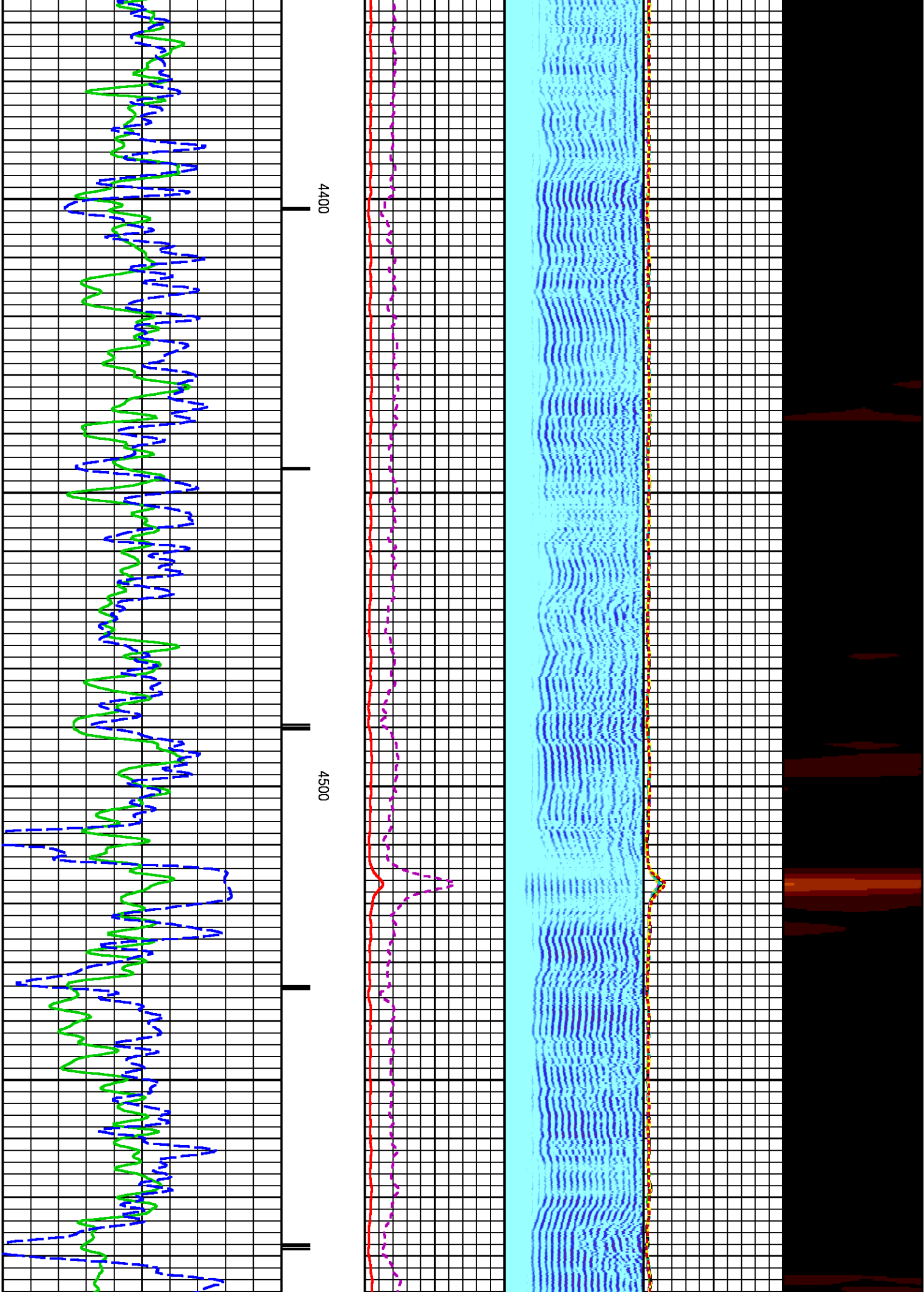


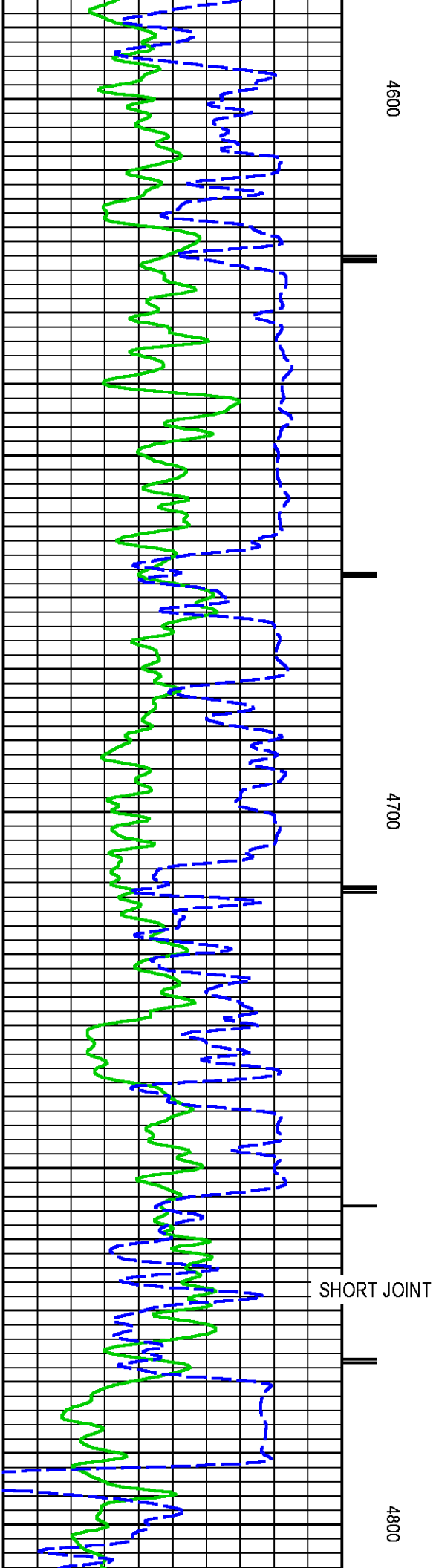
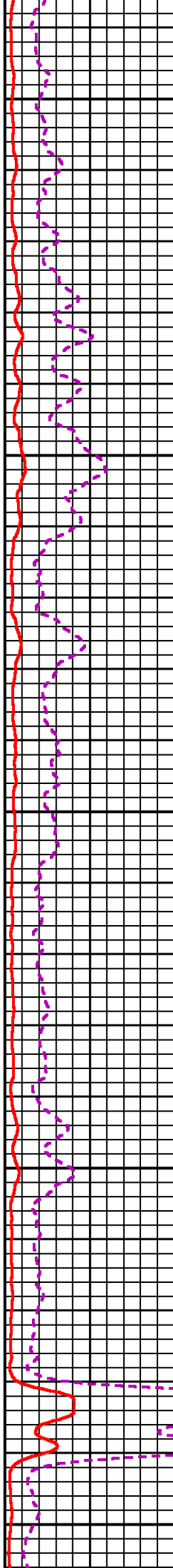
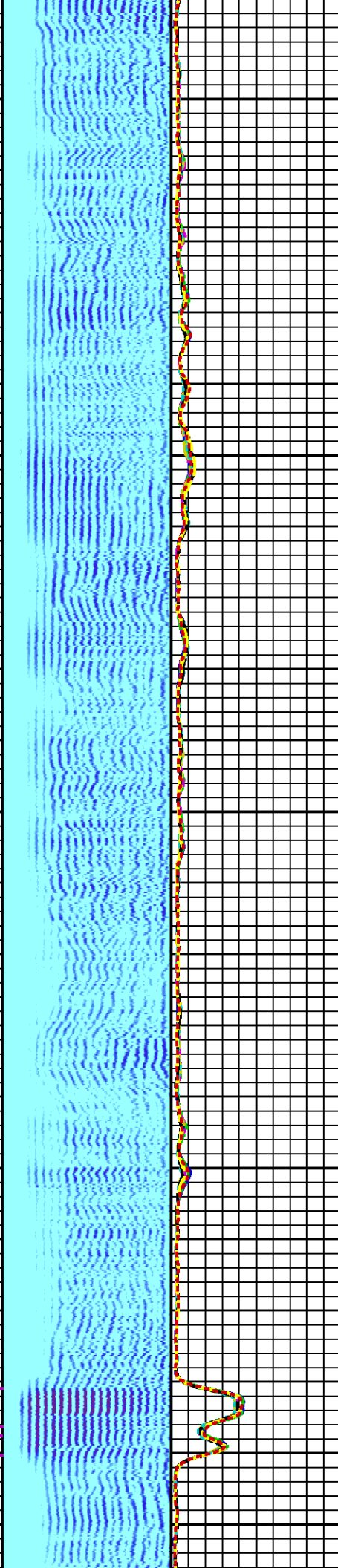
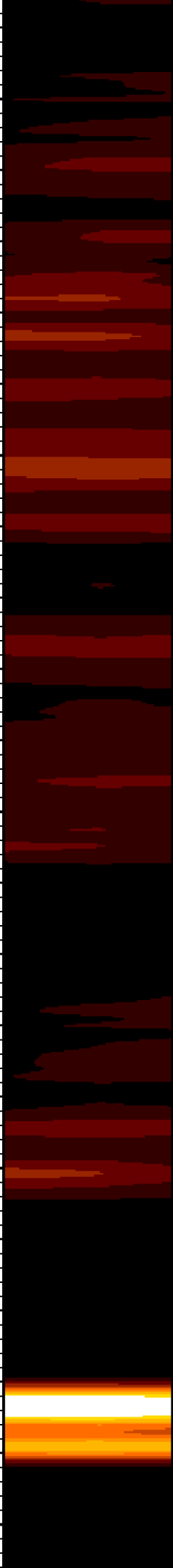


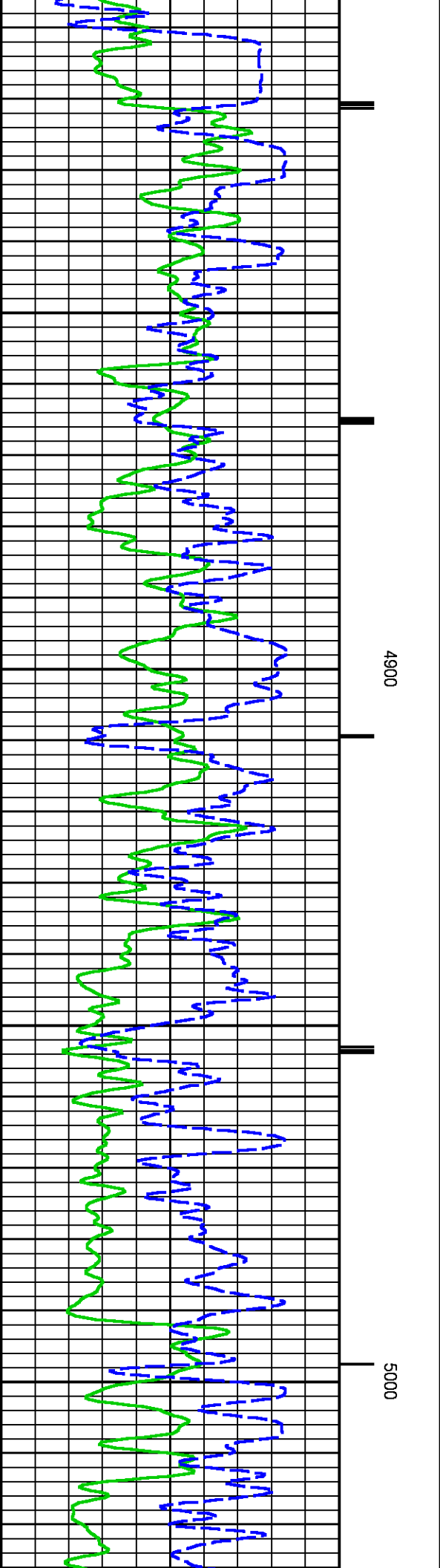
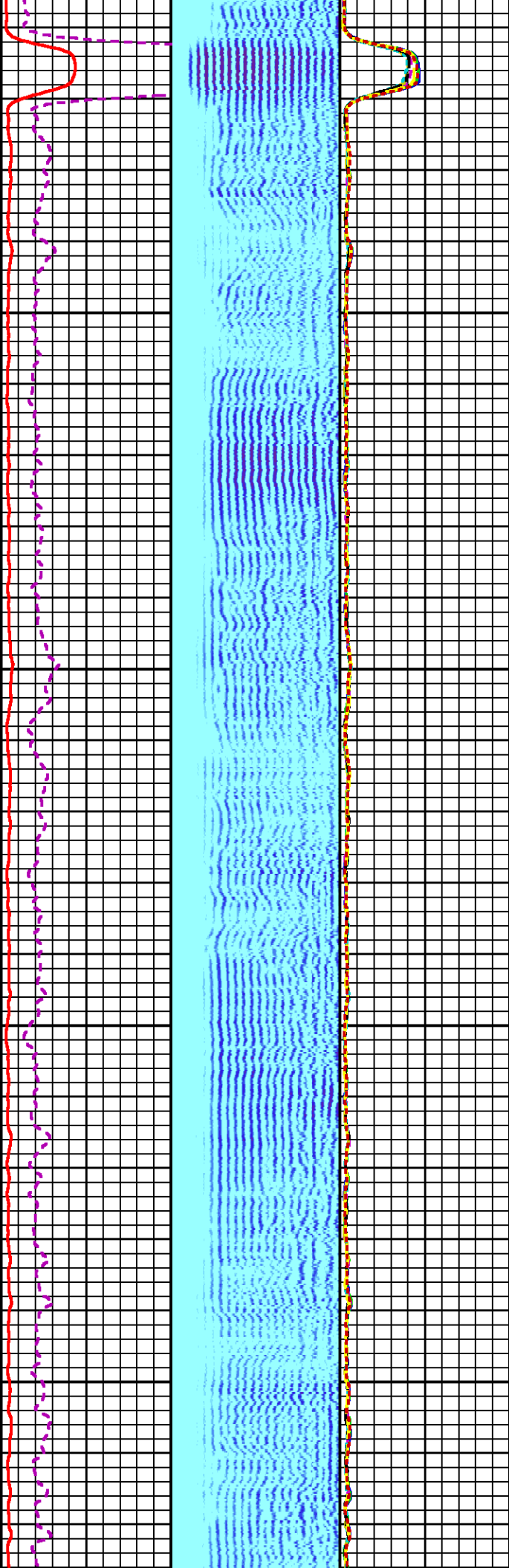
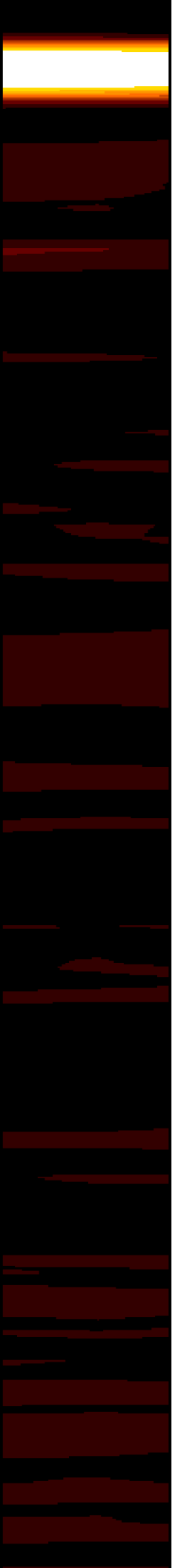


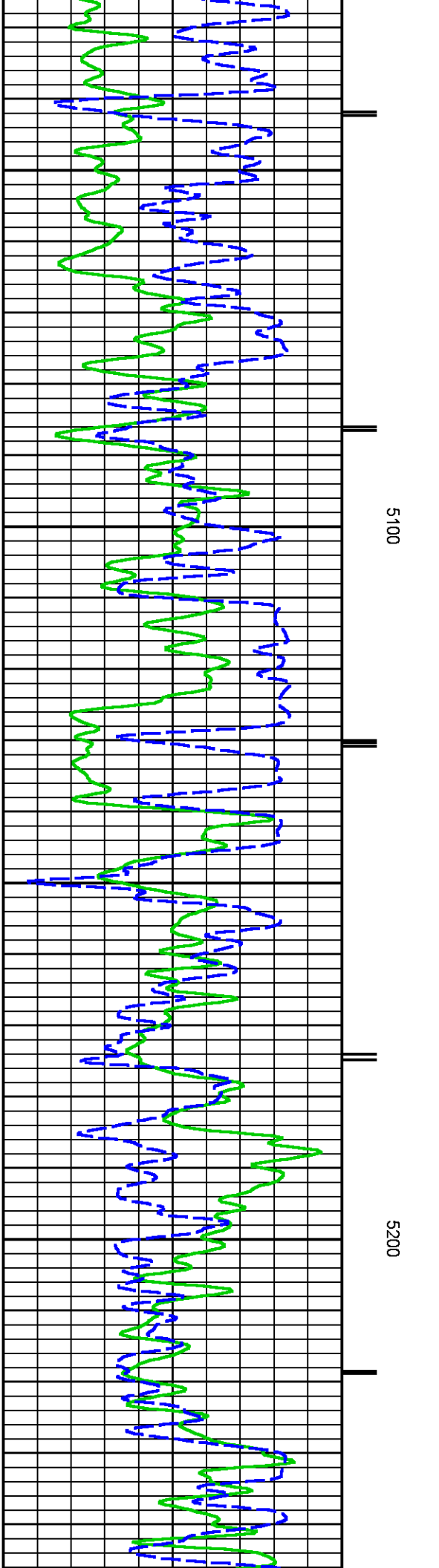
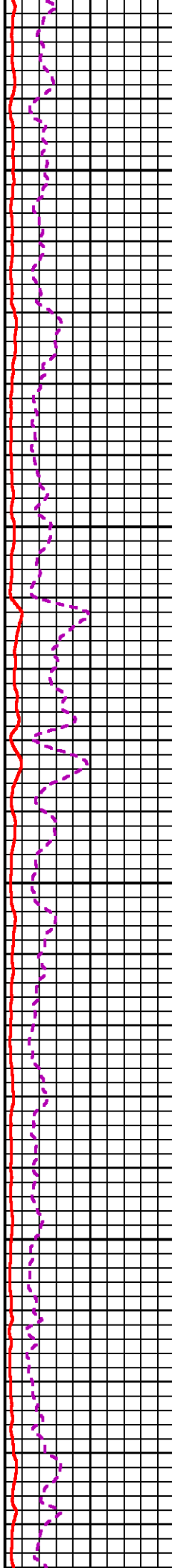
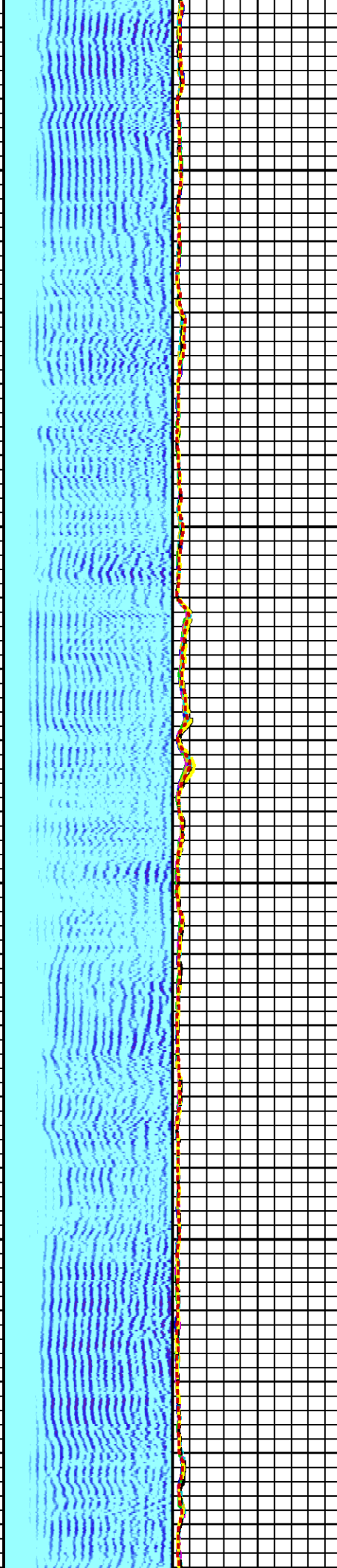
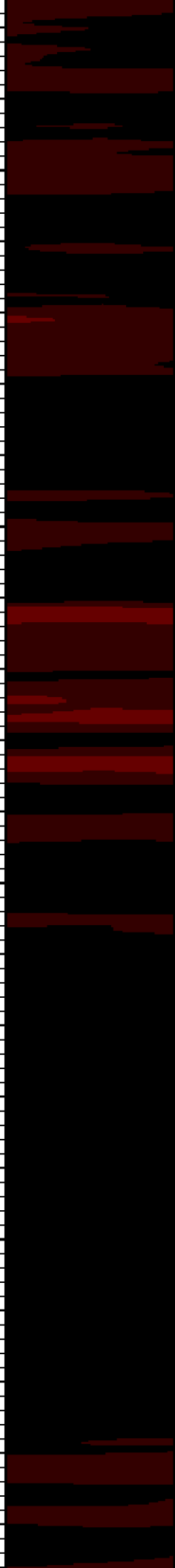


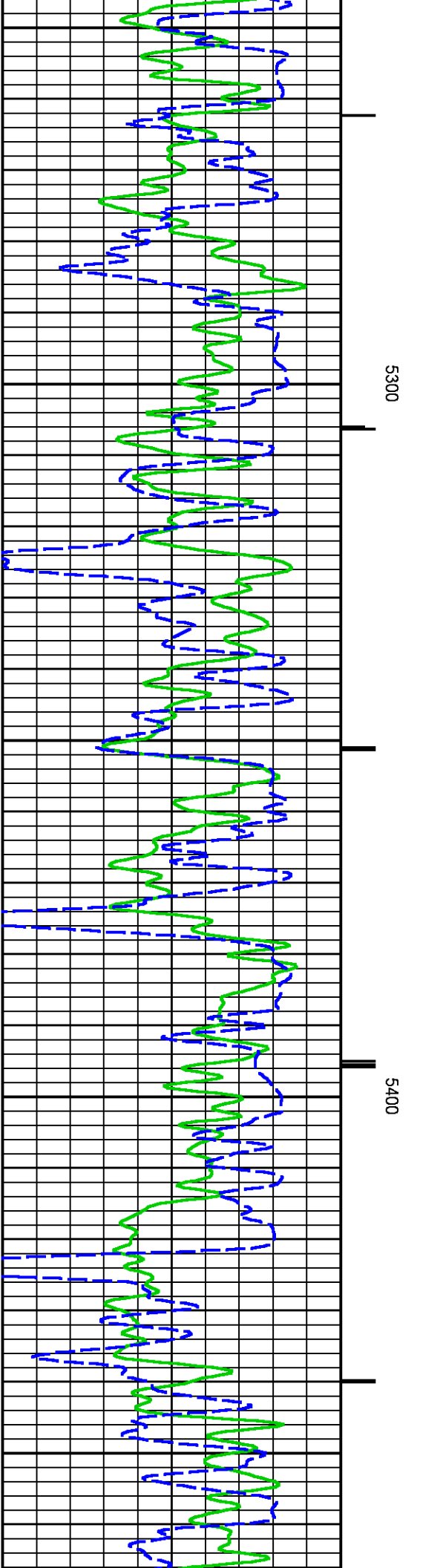
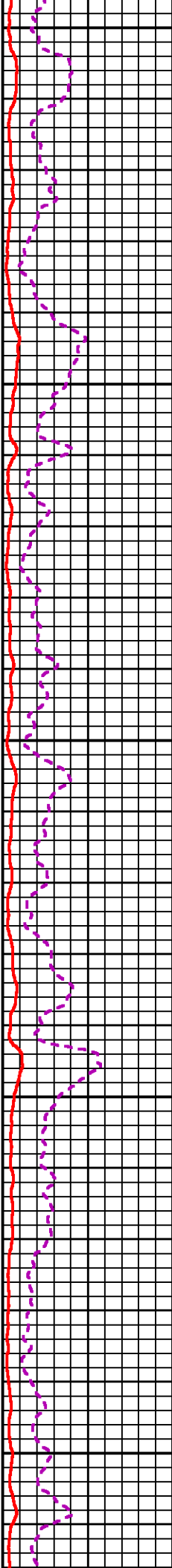
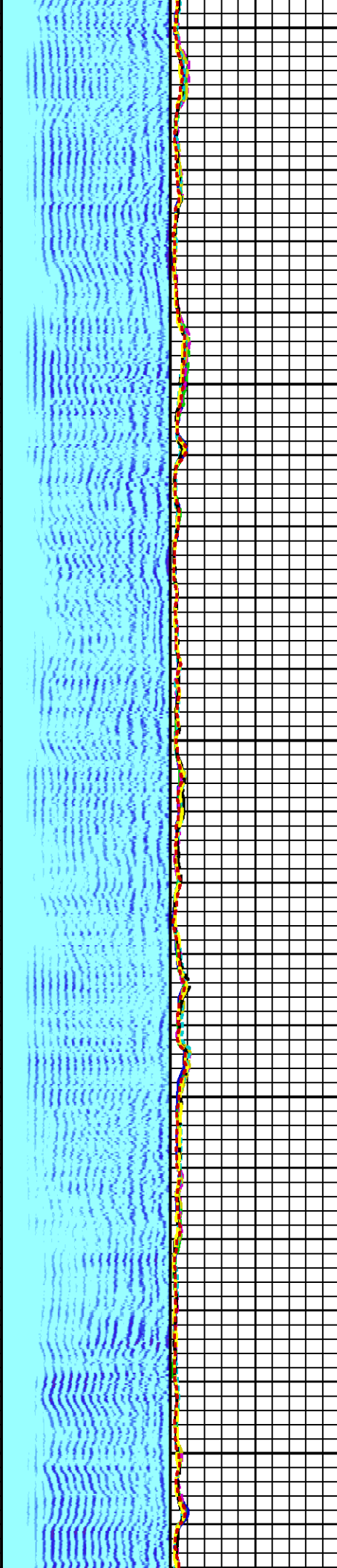
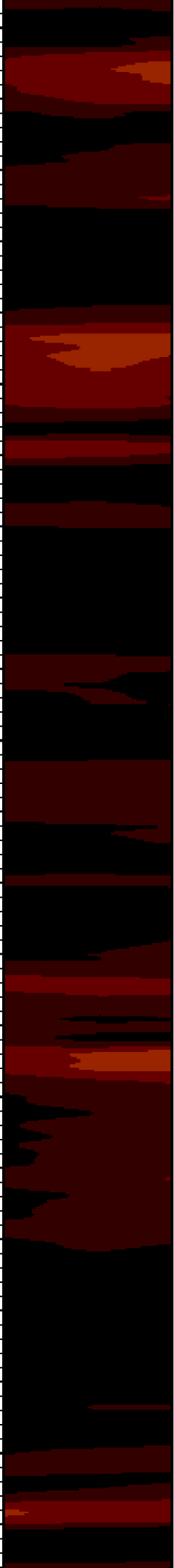


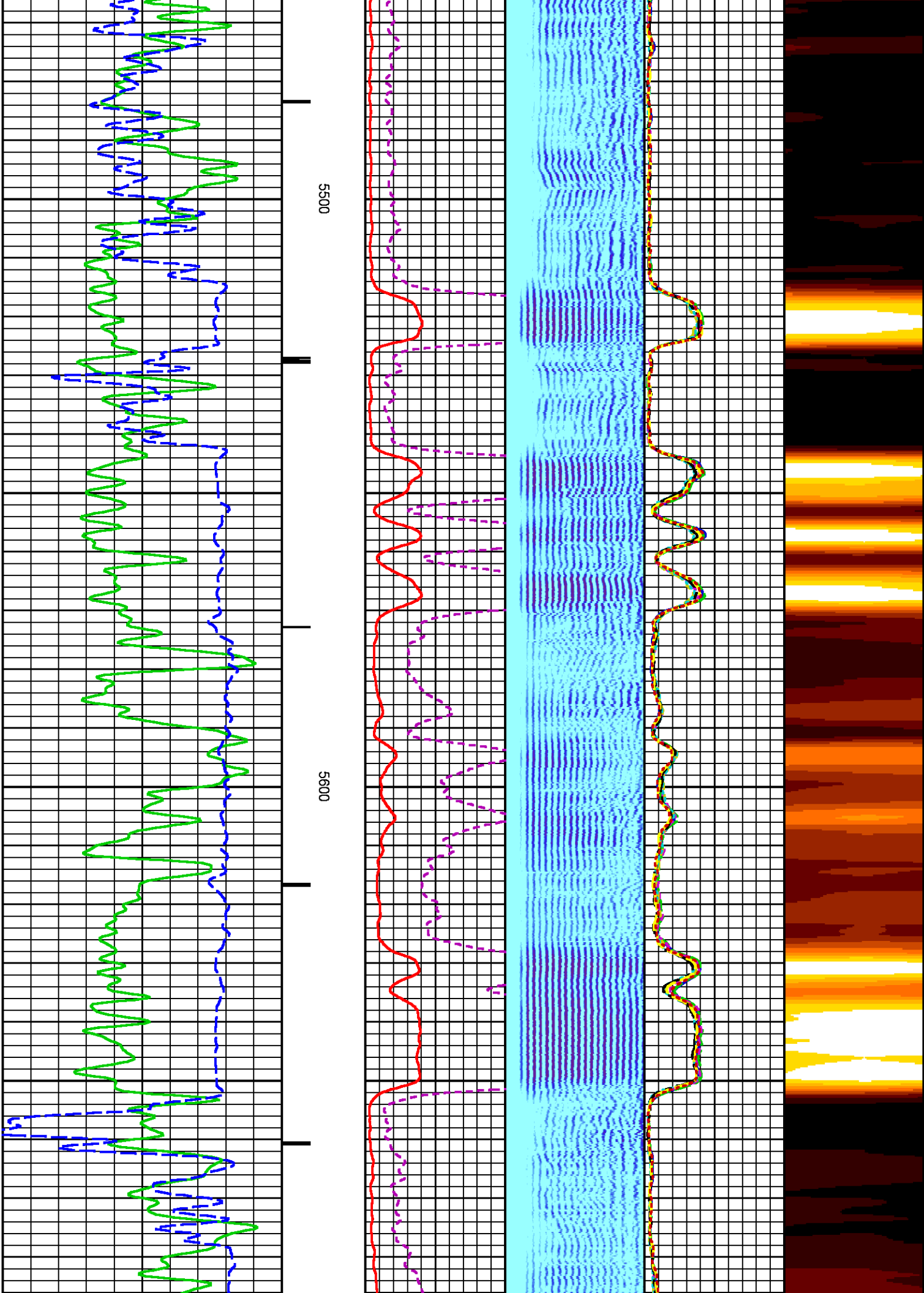


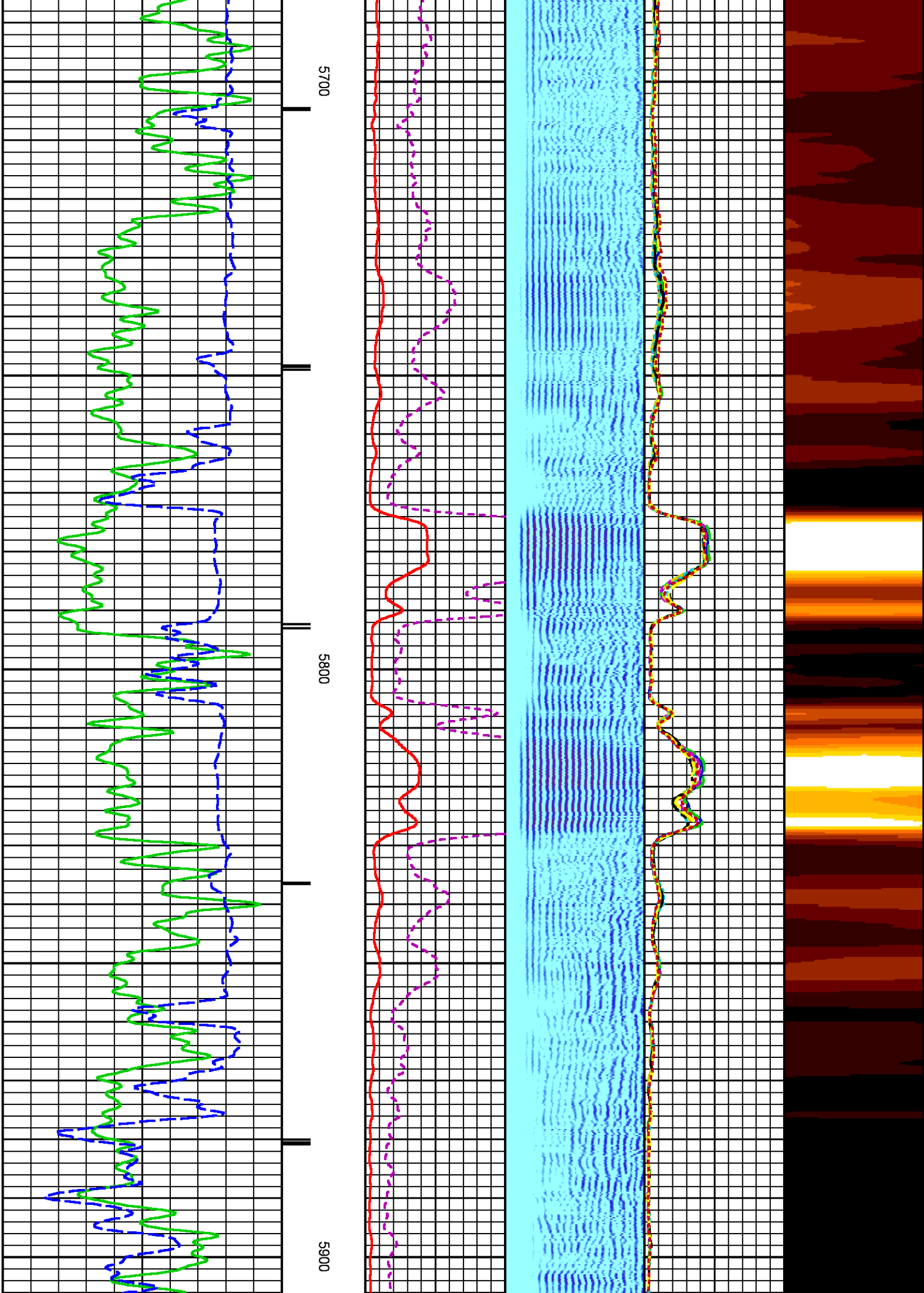


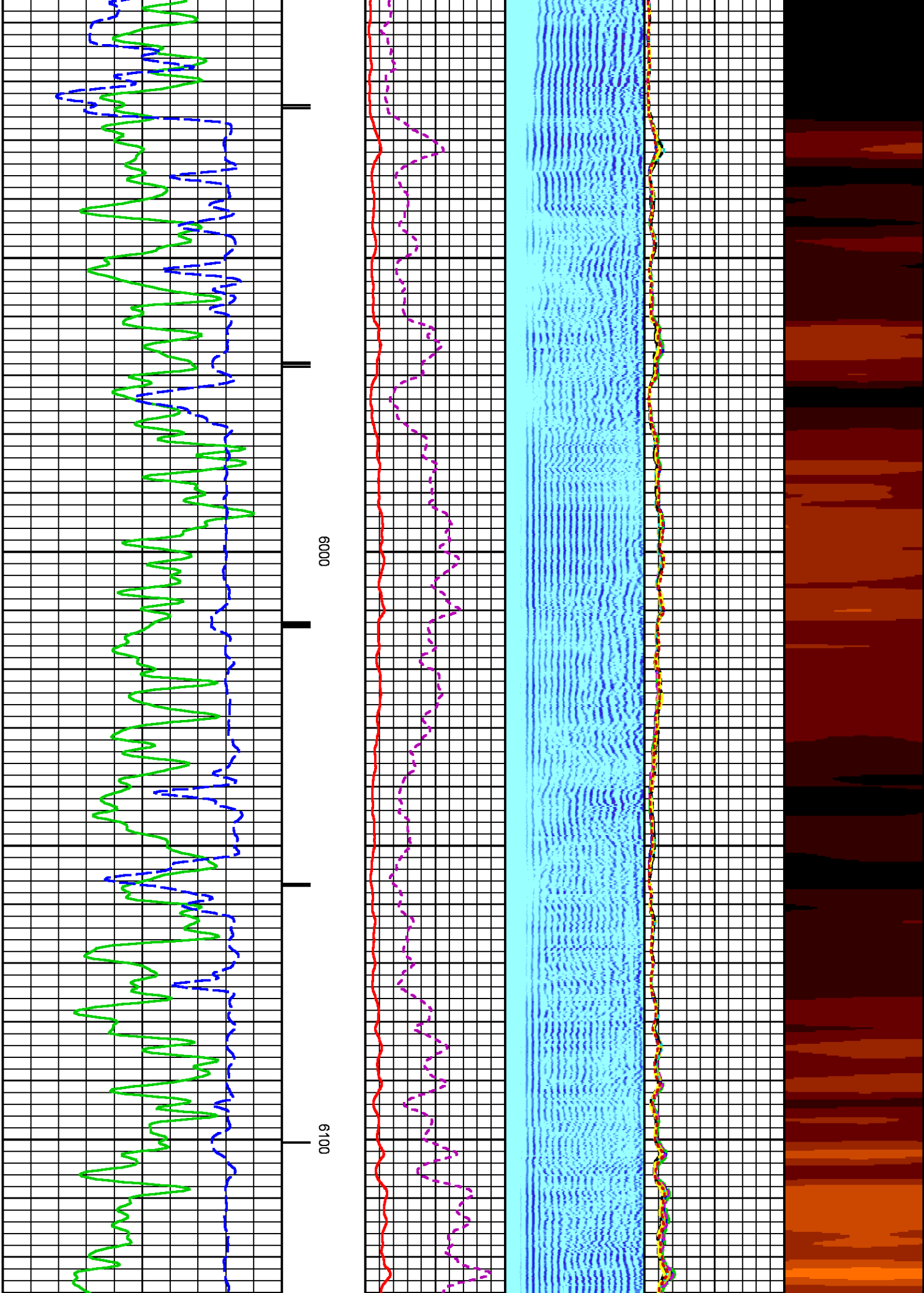


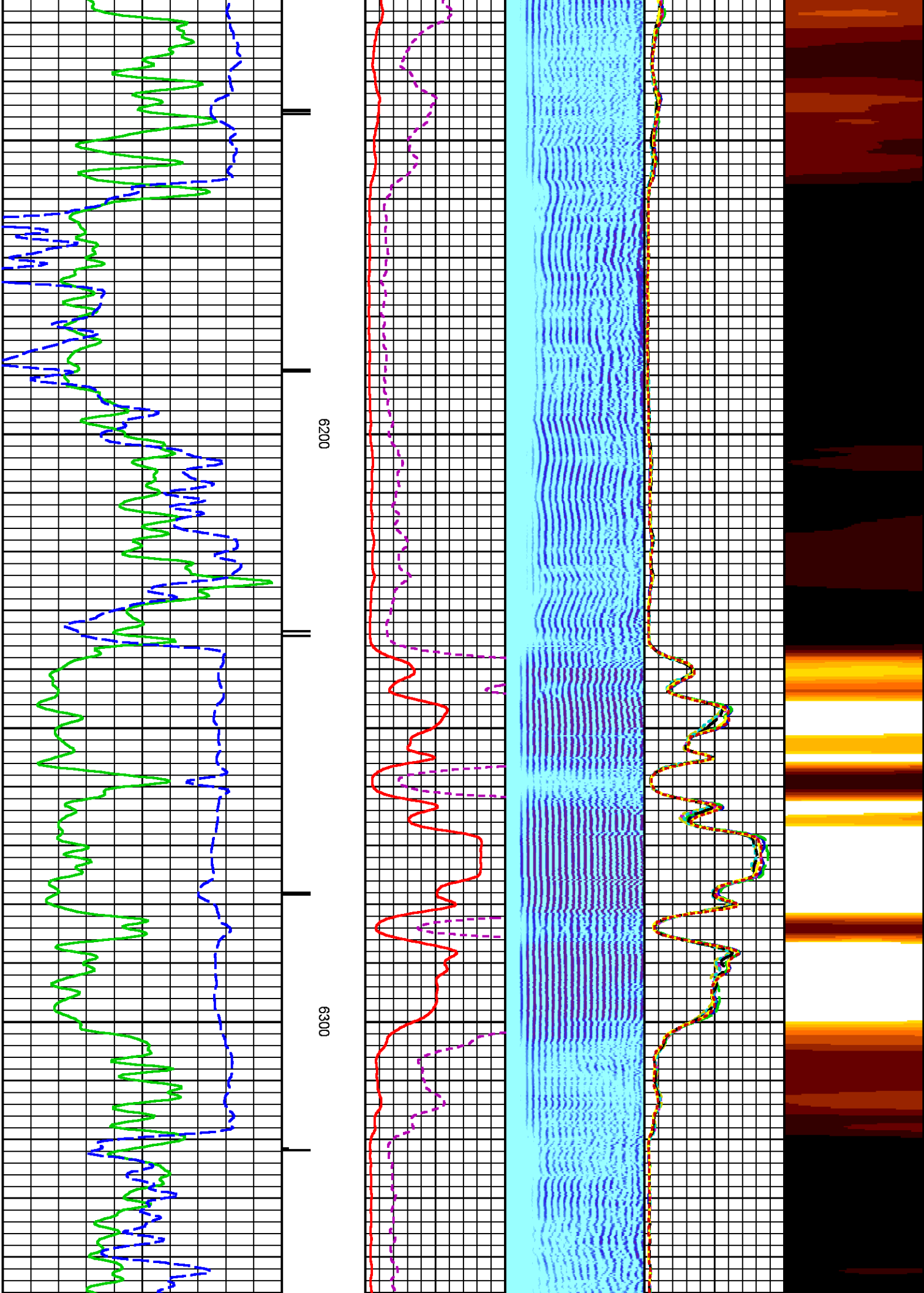


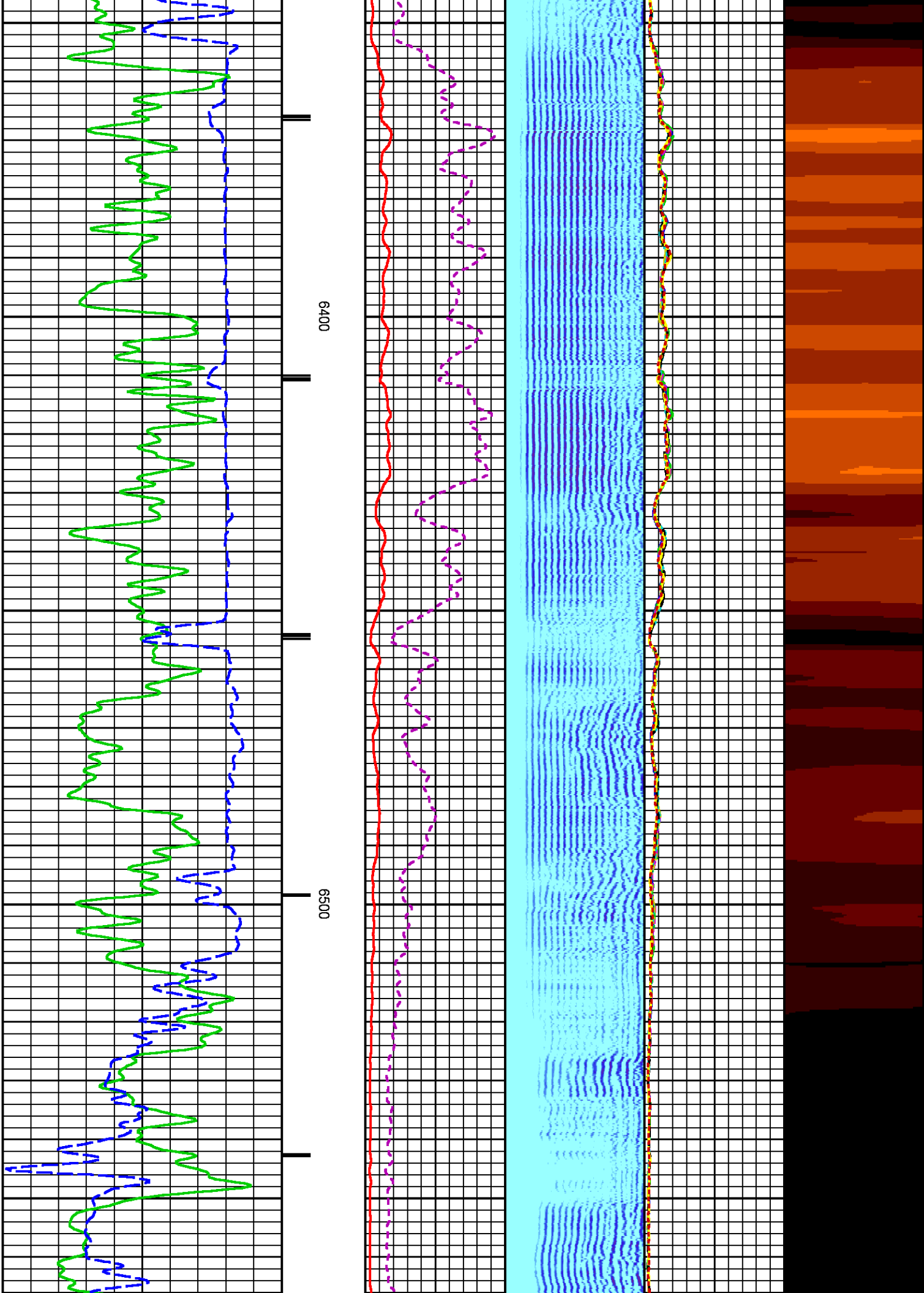


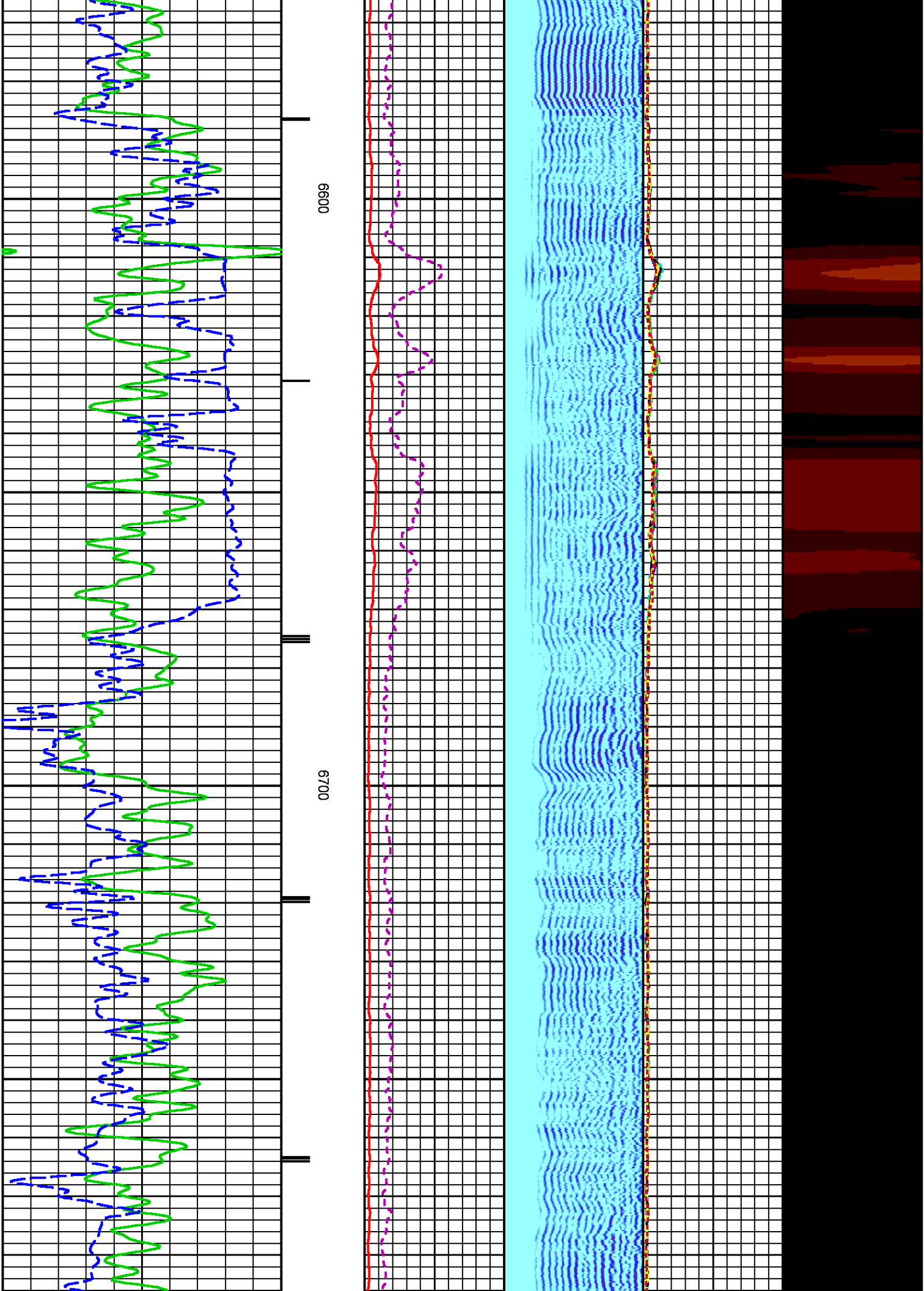


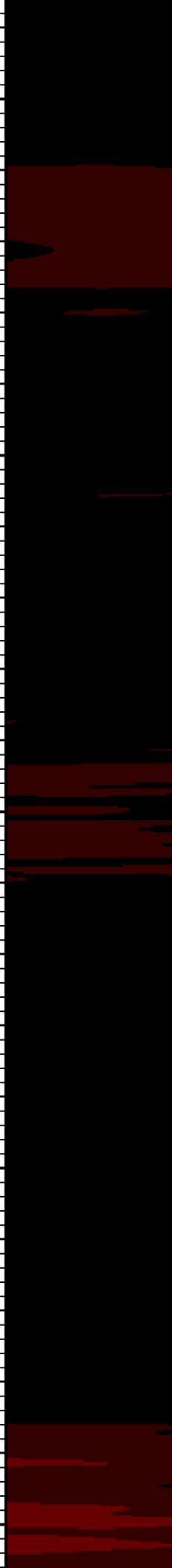
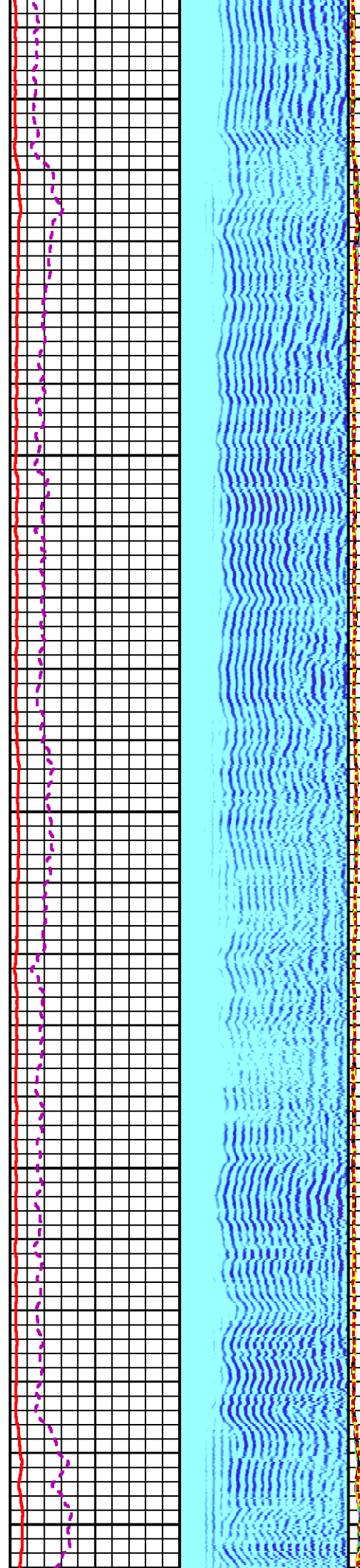
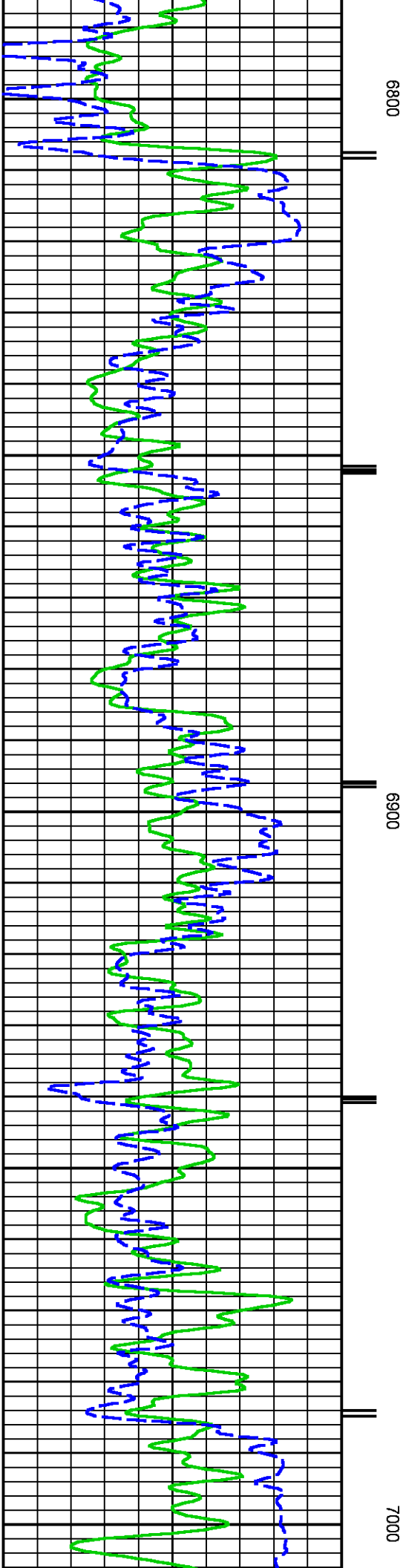


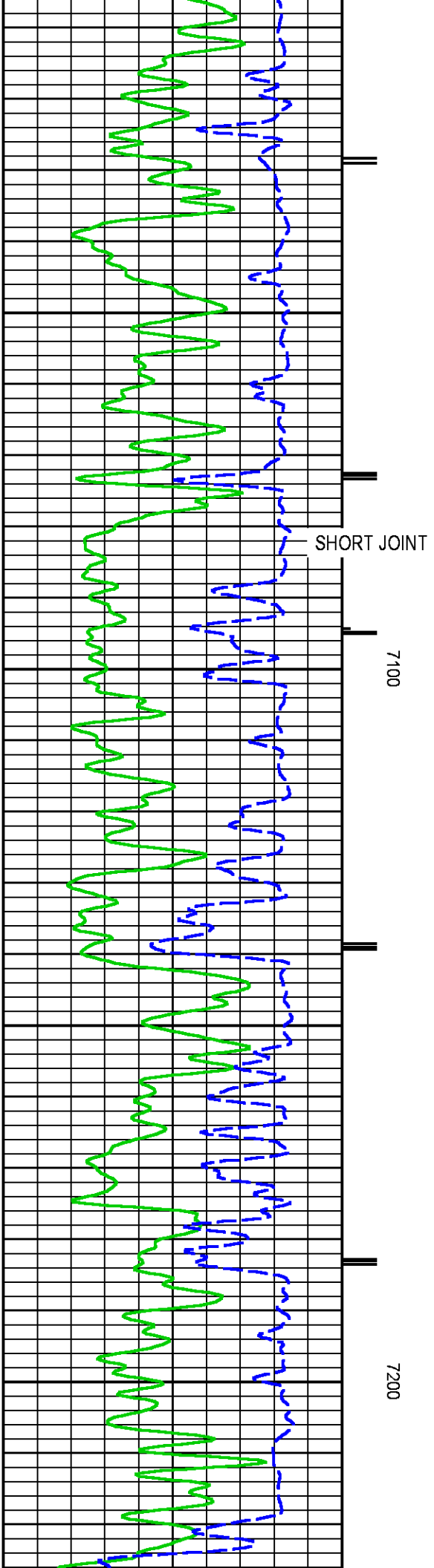
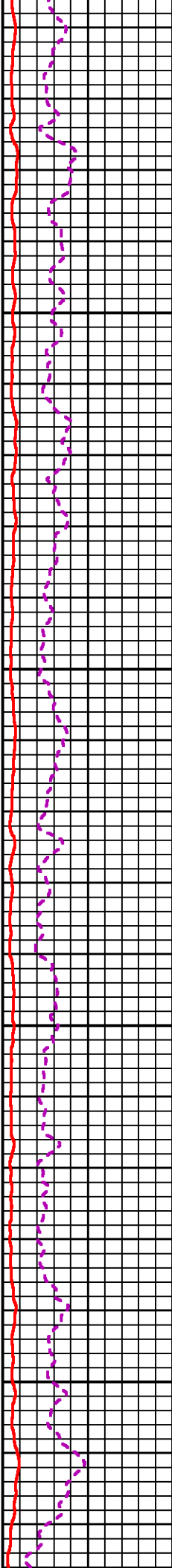
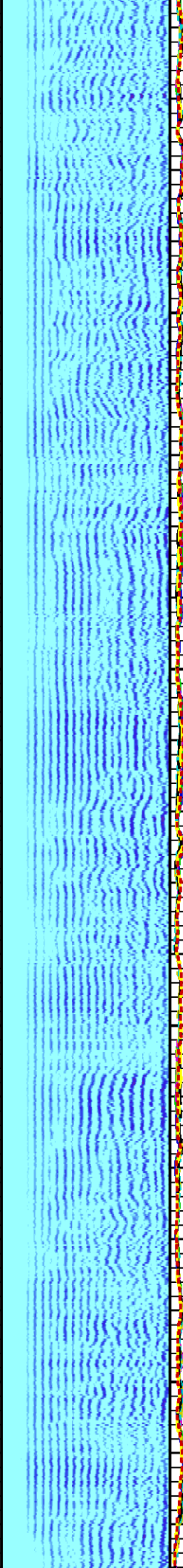
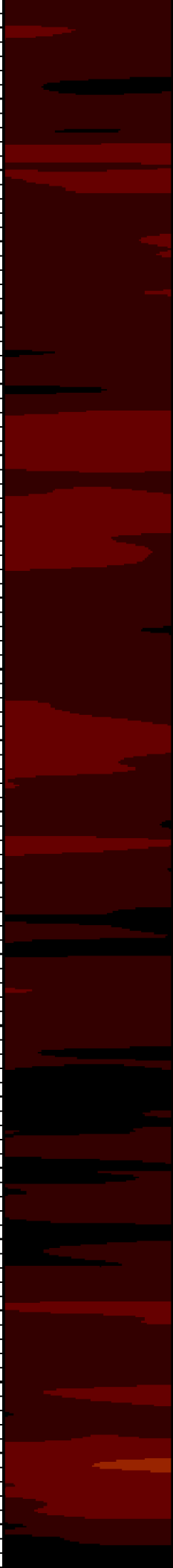


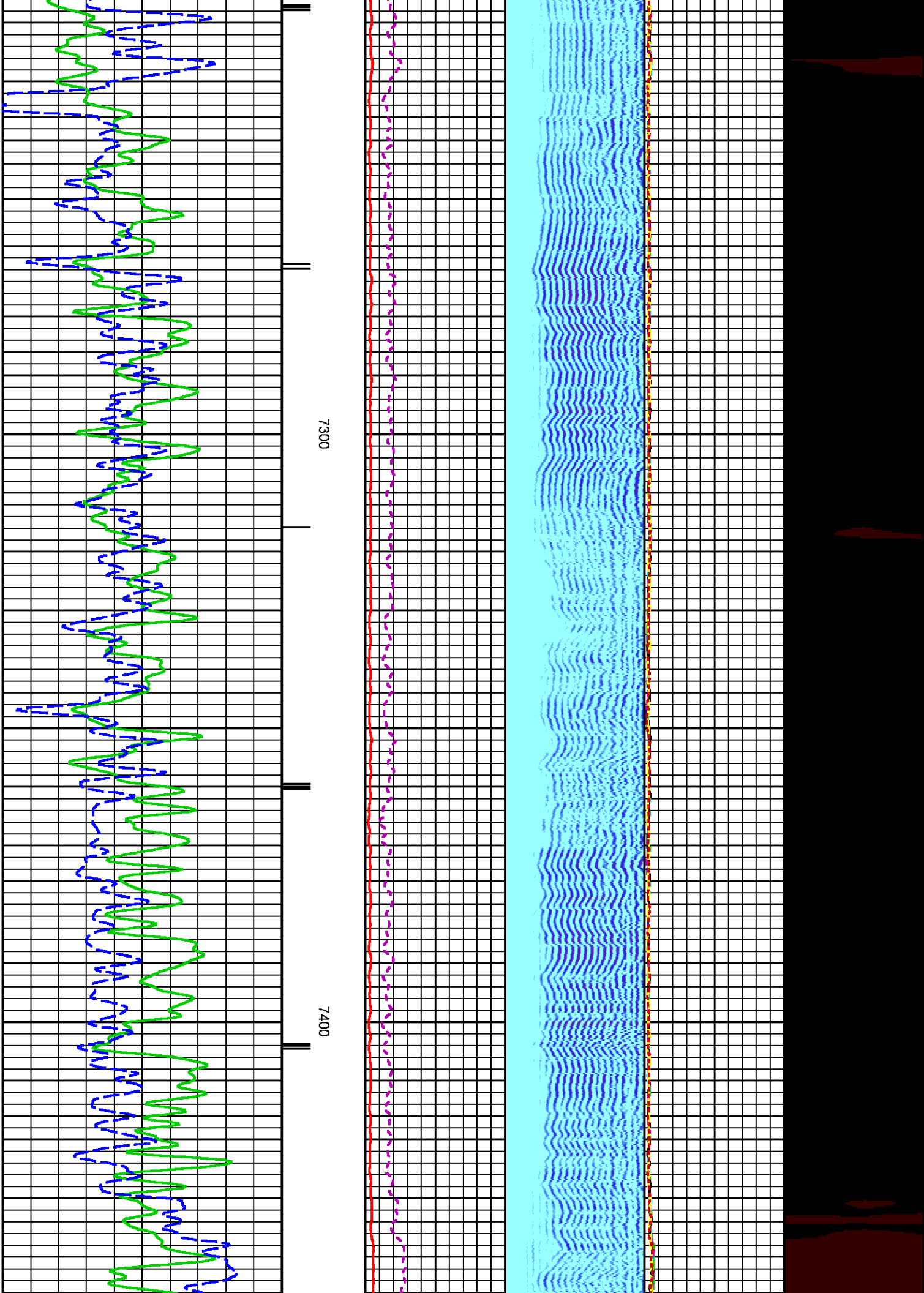


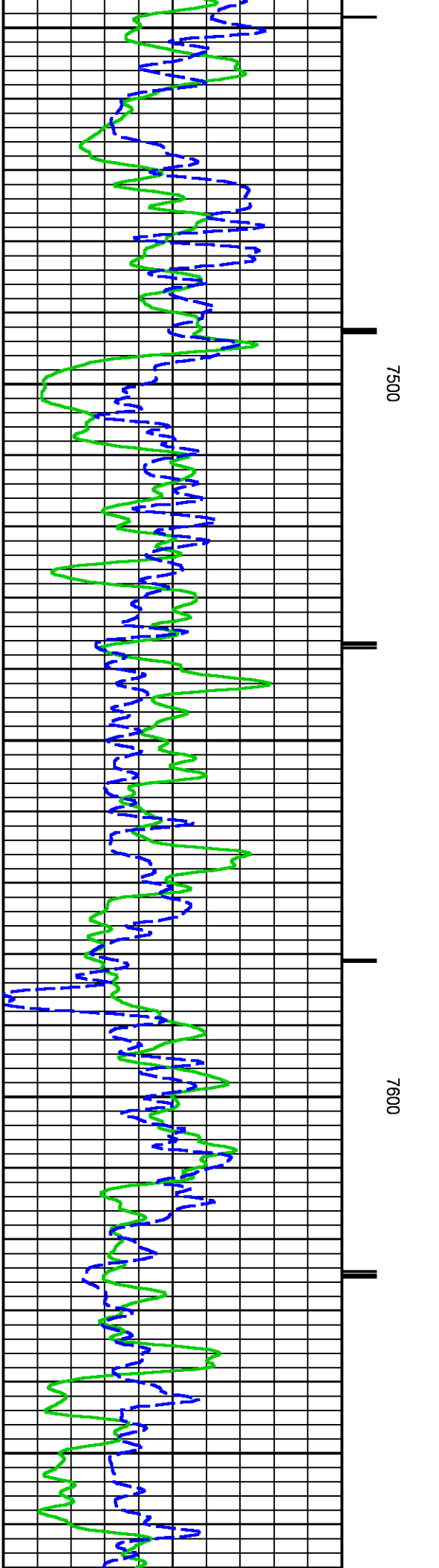
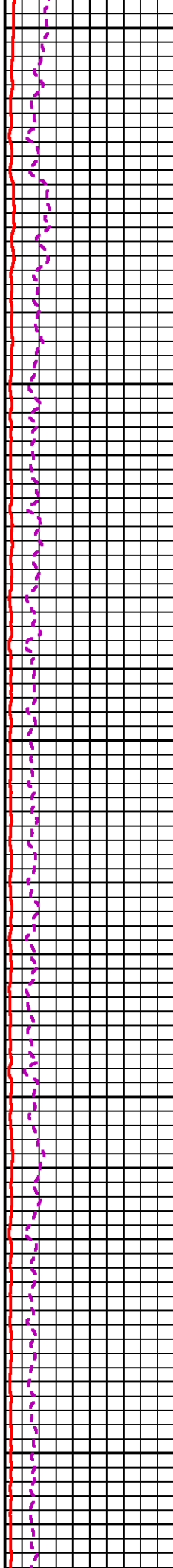
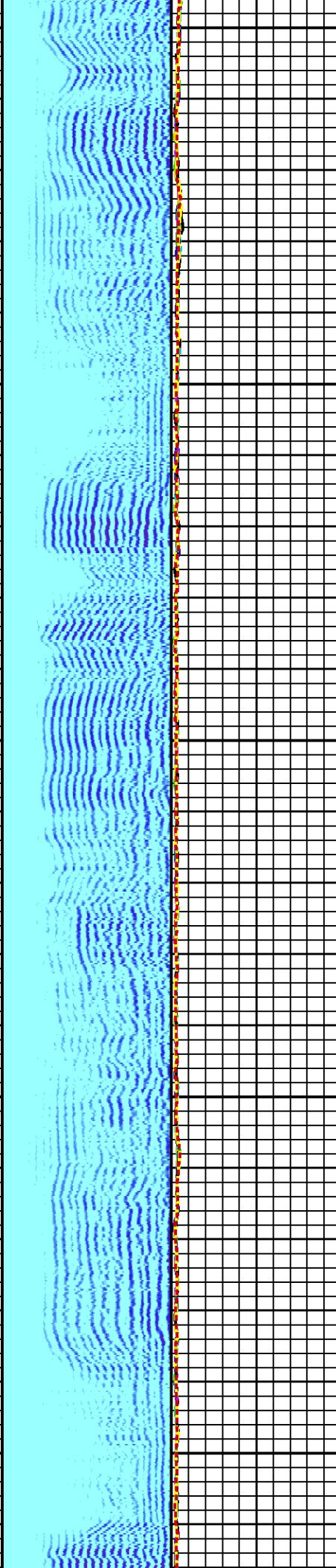


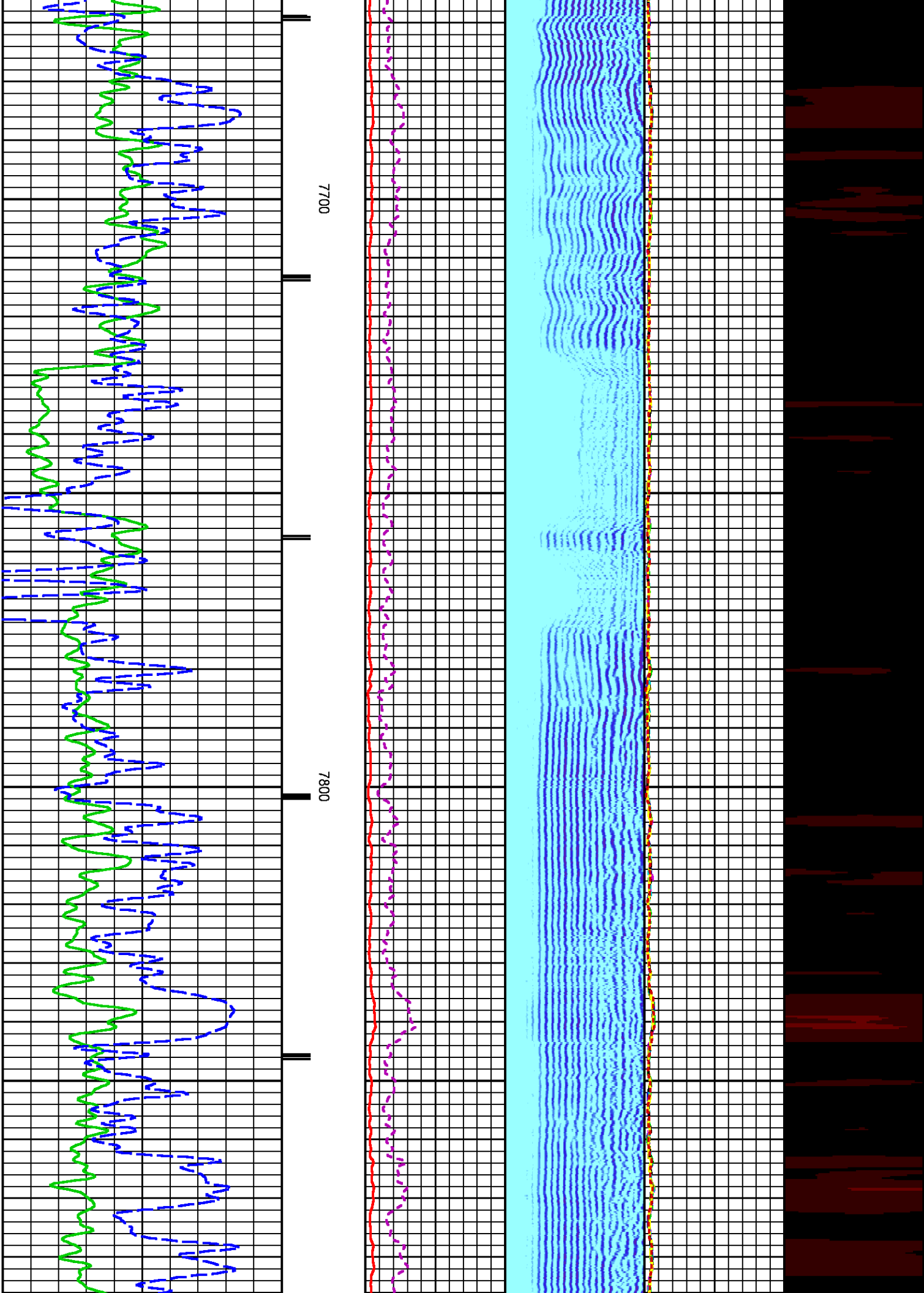


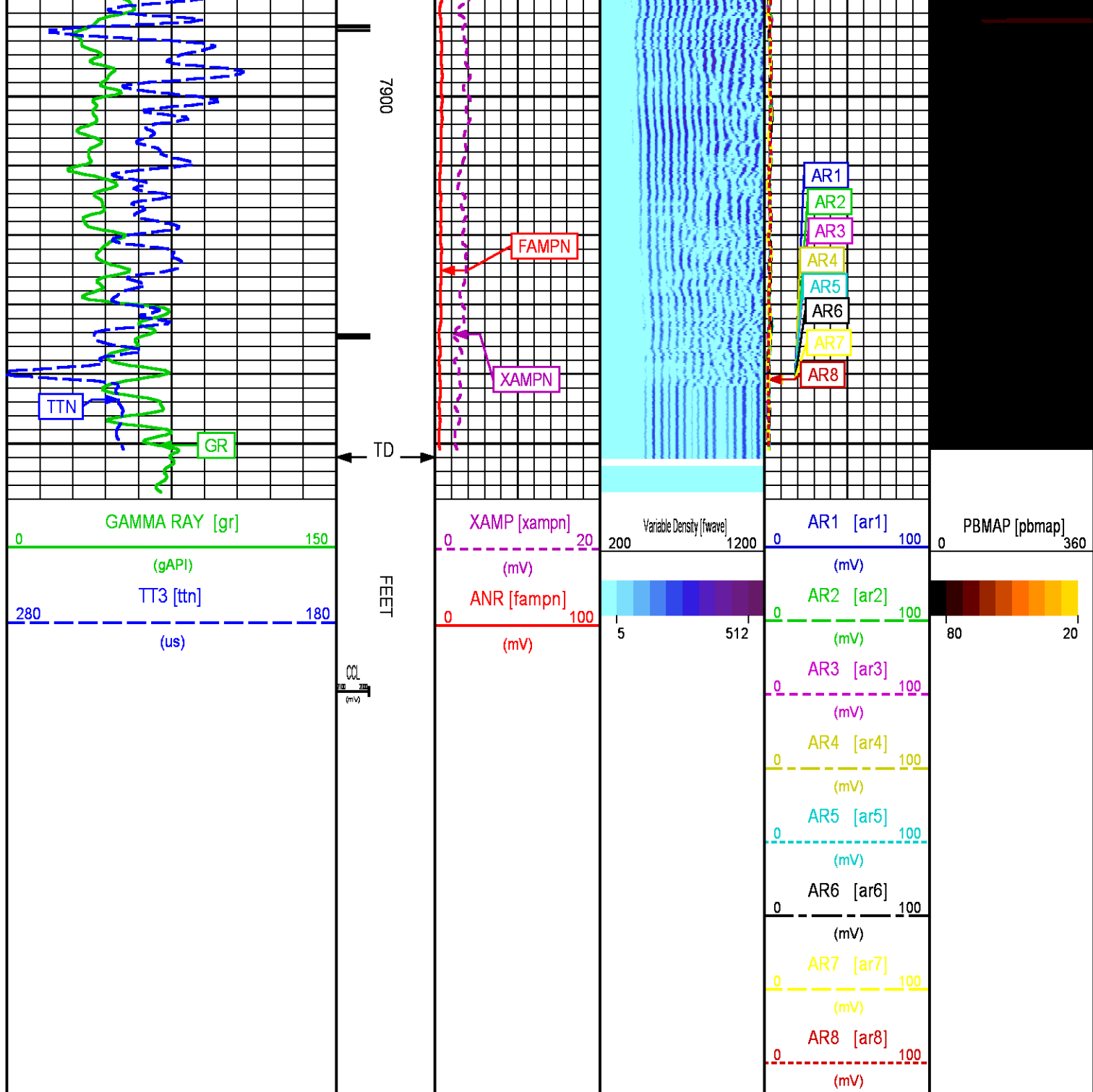












REPEAT PRESENTATION 0 PSI

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013
Updates: 1 Patches: 6

Plotted: Wed Apr 8 09:25:47 2015

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH094532/n012q01.prm

LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 7689.750 ft BOTTOM DEPTH: 7959.250 ft

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR	FILTER ()	medium (1)		TOP	BOTTOM
AMPLITUDE	FILTER ()	medium (1)		"	"
TRAVEL TIME	FILTER ()	medium (1)		"	"

RAL CCL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CCL FLOOR	CCL FLOOR	0		TOP	BOTTOM

ANALOG RAL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
AMPLITUDE WINDOW (NEAR)	AMP WINDOW START (fgp1*)	187	us	TOP	BOTTOM
	AMP WINDOW START (fgp2*)	187	us	"	"
	AMP WINDOW START (fgp3*)	187	us	"	"
	AMP WINDOW START (fgp4*)	187	us	"	"
	AMP WINDOW START (fgp5*)	187	us	"	"
	AMP WINDOW START (fgp6*)	187	us	"	"
	AMP WINDOW START (fgp7*)	187	us	"	"
	AMP WINDOW START (fgp8*)	187	us	"	"
	AMP WINDOW START (fgpn*)	187	us	"	"
TRAVEL TIME WINDOW (NEAR)	AMP WINDOW LENGTH	25	us	"	"
	TT WINDOW START (ttn*)	177	us	"	"
	TT WINDOW LENGTH	500	us	"	"
	FIRST BRK THRESHOLD (ttn*)	4	mV	"	"
RAL CASING PARAMETERS	PPT NEAR	200.391	us	"	"
RAL TOOL DELAY	TOOL DELAY (str1*)	-65	us	"	"
	TOOL DELAY (str2*)	-65	us	"	"
	TOOL DELAY (str3*)	-65	us	"	"
	TOOL DELAY (str4*)	-65	us	"	"
	TOOL DELAY (str5*)	-65	us	"	"
	TOOL DELAY (str6*)	-65	us	"	"
	TOOL DELAY (str7*)	-65	us	"	"
	TOOL DELAY (str8*)	-65	us	"	"
BASELINE NOISE (NEAR)	TOOL DELAY (strn*)	-65	us	"	"
	NOISE WINDOW START	136	us	"	"
	NOISE WINDOW LENGTH	25	us	"	"

PERCENT BOND CEMENT MAP

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
RAL FREE PIPE AMPLITUDE	FREE AMP REC 1	80	mV	TOP	BOTTOM
	FREE AMP REC 2	80	mV	"	"
	FREE AMP REC 3	80	mV	"	"
	FREE AMP REC 4	80	mV	"	"
	FREE AMP REC 5	80	mV	"	"
	FREE AMP REC 6	80	mV	"	"
	FREE AMP REC 7	80	mV	"	"
	FREE AMP REC 8	80	mV	"	"
RAL FULL BOND AMPLITUDE	FULL BOND AMP REC 1	2	mV	"	"
	FULL BOND AMP REC 2	2	mV	"	"
	FULL BOND AMP REC 3	2	mV	"	"
	FULL BOND AMP REC 4	2	mV	"	"
	FULL BOND AMP REC 5	2	mV	"	"
	FULL BOND AMP REC 6	2	mV	"	"
	FULL BOND AMP REC 7	2	mV	"	"
	FULL BOND AMP REC 8	2	mV	"	"

CURVE DESCRIPTION REPORT

CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:AR1	Apr 8 08:52:32 2015	FIXED GATE AMPLITUDE T-R1
F1:AR2	Apr 8 08:52:32 2015	FIXED GATE AMPLITUDE T-R2
F1:AR3	Apr 8 08:52:32 2015	FIXED GATE AMPLITUDE T-R3
F1:AR4	Apr 8 08:52:32 2015	FIXED GATE AMPLITUDE T-R4
F1:AR5	Apr 8 08:52:32 2015	FIXED GATE AMPLITUDE T-R5
F1:AR6	Apr 8 08:52:32 2015	FIXED GATE AMPLITUDE T-R6
F1:AR7	Apr 8 08:52:32 2015	FIXED GATE AMPLITUDE T-R7

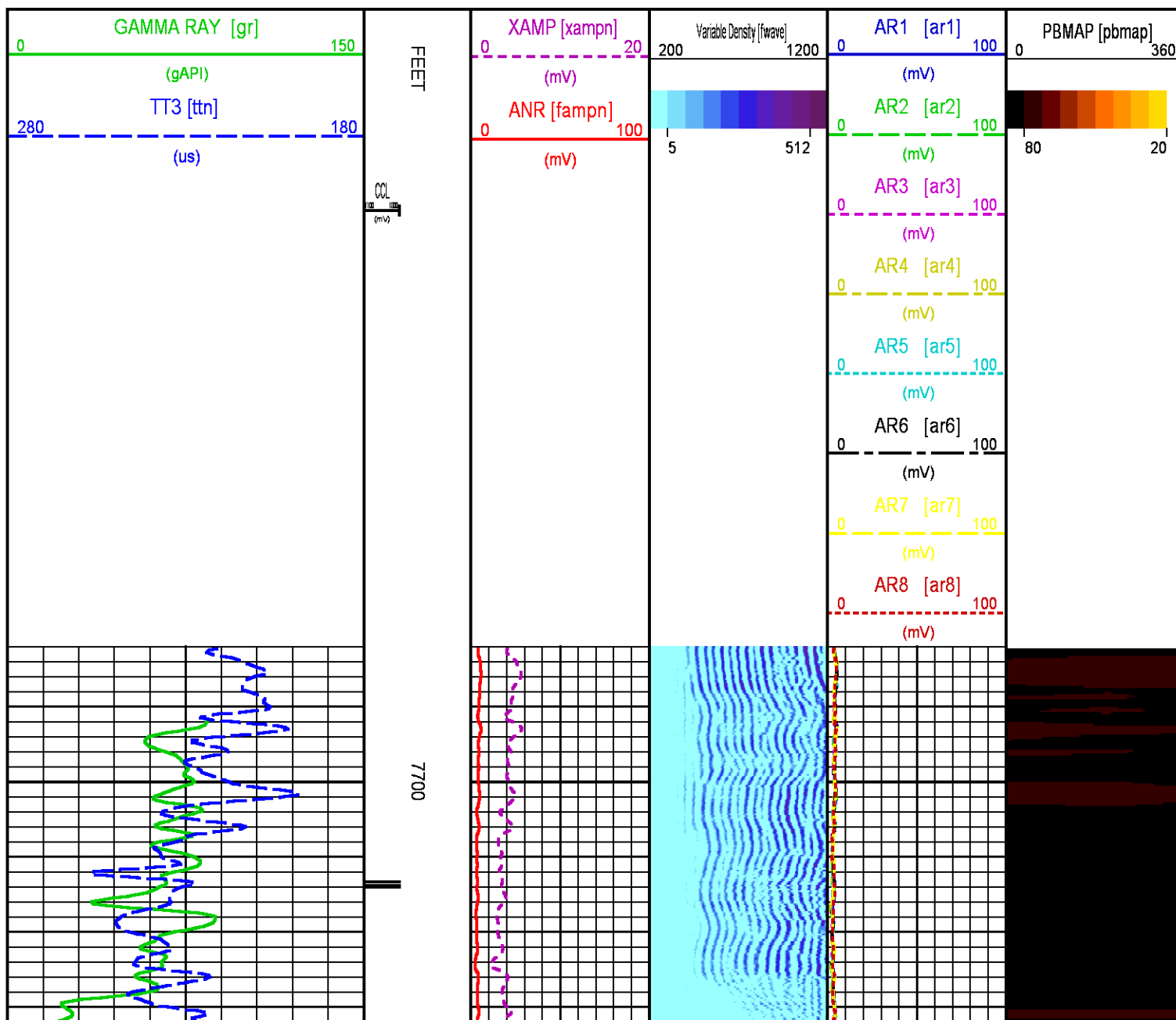
F1:AR7	Apr 8 08:52:32 2015	FIXED GATE AMPLITUDE T-R7
F1:AR8	Apr 8 08:52:32 2015	FIXED GATE AMPLITUDE T-R8
F1:CCL	Apr 8 08:52:32 2015	CASING COLLAR LOCATOR
F1:FAMPN	Apr 8 08:52:32 2015	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Apr 8 08:52:32 2015	FAR WAVE FORM
F1:GR	Apr 8 08:52:32 2015	GAMMA RAY
F1:PBMAP	Apr 8 08:52:32 2015	PERCENT BOND CEMENT MAP
F1:TTN	Apr 8 08:52:32 2015	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Apr 8 08:52:32 2015	FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE

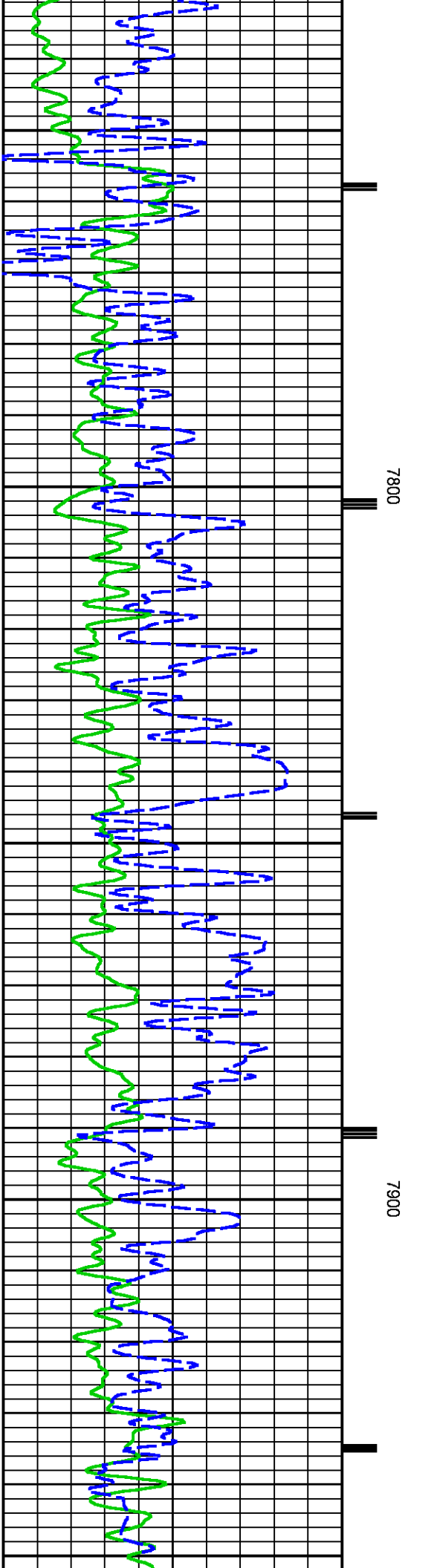
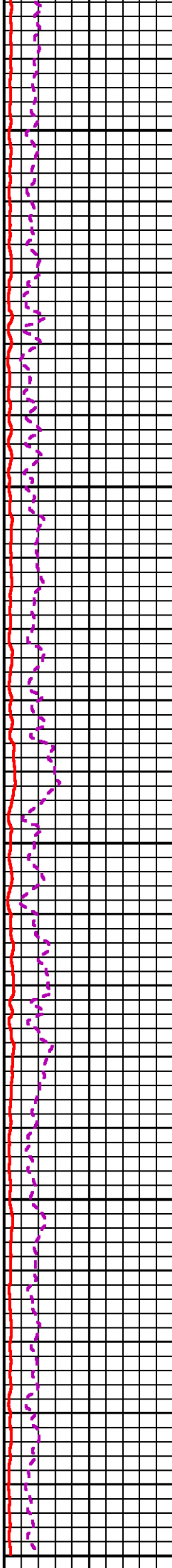
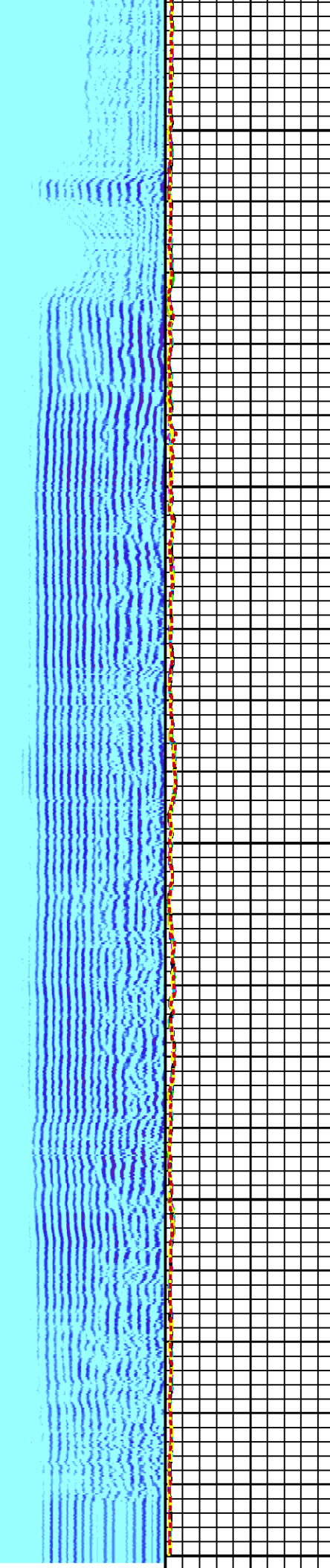
CURVE MEASURE POINT OFFSET

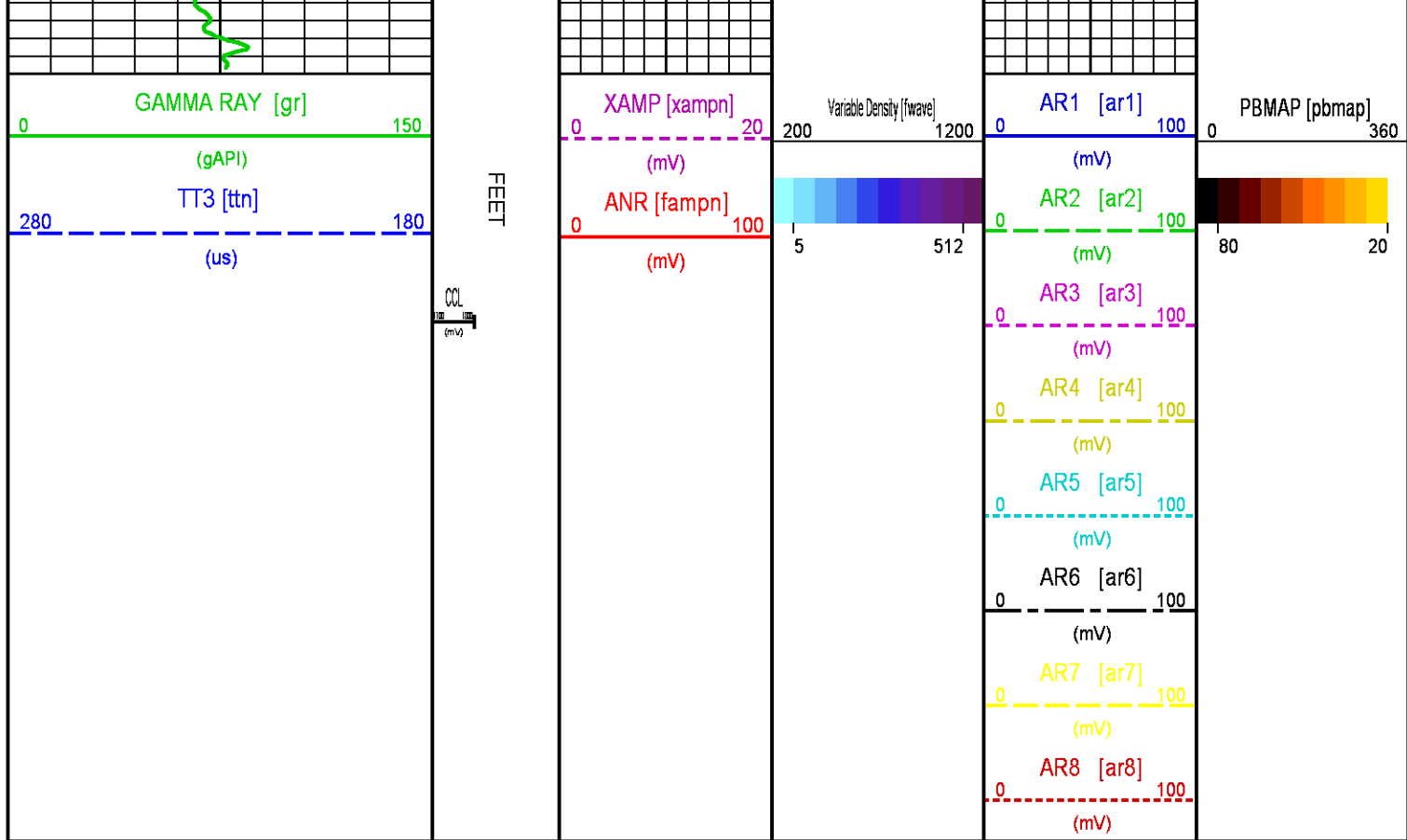
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
AR1	11.25	AR5	11.25	CCL	5.75	XAMPN	11.25
AR2	11.25	AR6	11.25	FAMPN	11.25		
AR3	11.25	AR7	11.25	GR	1.75		
AR4	11.25	AR8	11.25	TTN	11.25		

Presentation : cas6685:/dat1a/CH094532/CBLREPEAT.fvpdf [5"/100' Scale]
 Plot Interval : 7679 - 7958 Feet

Data File 1 : F1 : cas6685:/dat1a/CH094532/REPEAT_CBL12M.xtf
 Created On : Apr 8 08:52:32 2015
 Company : LARAMIE ENERGY
 Well : PICEANCE 28-12M
 Field : VEGA
 File Interval : 7678 - 7959.25 Feet
 OCT : n012g







CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/CH094532/m012g.tp1

RAL PRIMARY CALIBRATION SUMMARY

TOOL #: 1426XA 10218496

DATE/TIME PERFORMED: Wed Apr 8 08:13:58 2015

UNIT #: 3885TC 6685

	NEAR (mV)	RADIAL (mV)	FAR (mV)
TARGETS	100.00	100.00	150.00

	NEAR	R1	R2	R3	R4	R5	R6	R7	R8	FAR	CAL
ZERO (mV)	0.10	-0.03	0.01	0.00	0.02	0.02	0.08	0.08	0.02	0.66	-0.01
AMP FLUID (mV)	111	112	112	112	111	110	110	111	110	155	110
TT (us)	214	213	212	208	211	207	212	211	212	323	214
M FACTOR	0.91	0.90	0.90	0.90	0.90	0.91	0.91	0.90	0.91	0.97	0.91

RAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1426XA 10218496

DATE/TIME PERFORMED: Wed Apr 8 08:17:18 2015

DAYS SINCE CAL: 0

UNIT #: 3885TC 6685

CABLE #: 6685LG 53420-C1

	NEAR (mV)	R1 (mV)	R2 (mV)	R3 (mV)	R4 (mV)	R5 (mV)	R6 (mV)	R7 (mV)	R8 (mV)	FAR (mV)	CAL (mV)
ZERO	0.03	-0.02	0.01	0.00	0.08	0.03	0.01	-0.00	-0.00	0.08	-0.07

AMP AIR 2.51 2.46 2.08 2.06 1.78 1.96 2.30 1.97 2.03 2.43 100.26

SHOP M FACTOR	SHOP A FACTOR	WIRELINE FACTOR
0.91	0.00	1.00

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 1355XA 11871506

DATE/TIME PERFORMED: Wed Apr 1 14:38:54 2015

UNIT #: 3885TC 6685

CALB JIG #: 4702NK WA-612

	BACKGROUND (cts)	CALBRTR ON (cts)	CR DIFF (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	CALBRTR (gAPI)
GR	81.73	371.60	289.9	0.638	52.16	237.16	185

GR PRIMARY VERIFICATION SUMMARY

TOOL #: 1355XA 11871506

DATE/TIME PERFORMED: Wed Apr 1 14:40:00 2015

UNIT #: 3885TC 6685

VERI JIG #: 4702NK WA-612

	BACKGROUND (cts)	CALBRTR ON (cts)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	85.92	377.20	0.638	54.83	240.74	185.91
						175.00 195.00

INSTRUMENT CONFIGURATION

Source File: /dat1a/CH094532/CBL-tdg

CABLEHEAD

Diameter : 2.75"
Length : 2.25'
Weight : 10 lbs
Series : CABL234

RADIAL BOND TOOL

Diameter : 2.75"
Length : 11.17'
Weight : 126 lbs
Series : 1426XA
Mnemonic : RAL
Measure Point: 4.21': NEAR RCVR
Measure Point: 3.25': FAR RCVR



20.38'

NEAR RCVR — 11.17'

FAR RCVR — 10.21'

RAL GR/TEMP/CCL/CHV DETECTOR

Diameter : 2.75"
 Length : 6.96'
 Weight : 85 lbs
 Series : 1355XA
 Mnemonic : RAL
 Measure Point: 5.79': CCL
 Measure Point: 1.67': GR
 Measure Point: 0.17': TEMP



CCL 5.79'
 GR 1.67'
 TEMP 0.17'

TOTAL LENGTH: 20.38'
 TOTAL WEIGHT: 235 lbs
 MAX DIAMETER: 0' 4.00"



COMPANY LARAMIE ENERGY
 WELL PICEANCE 28-12M
 FIELD VEGA
 COUNTY MESA STATE COLORADO

FILE NO:
CH094532
 API NO:
05-077-10223-0000

LOCATION:
 SHL: 2505' FSL & 1616' FWL NE/SW
 BHL: 2373' FSL & 2583' FWL
 SEC 28 TWP 9S RGE 93W

ELEVATIONS:
 KB 7602 FT
 DF
 GL 7580 FT
 DATE 8-APR-2015

28 9S 93W
 28-11 PAD
 PATTERSON 306

DATE	TRIP	1	1
RUN			
SERVICE ORDER		US0994532	
DEPTH DRILLER		8040 FT	
DEPTH LOGGER		7952 FT	
BOTTOM LOGGED INTERVAL		7942 FT	
TOP LOGGED INTERVAL		0 FT	
TIME STARTED		8:00	
TIME FINISHED		10:30	
OPERATOR RIG TIME		2.5 HOURS	
TYPE OF FLUID IN HOLE		WATER	
FLUID DENSITY		NA	
FLUID SALINITY		NA	
FLUID LEVEL		128 FT	
LOGGED CEMENT TOP		NA	
WELLHEAD PRESSURE		0 PSI	
MAXIMUM HOLE DEVIATION		NA	
NOMINAL LOGGING SPEED		100 F/MN	
MAX. RECORDED TEMP.		251 DEGF	
REFERENCE LOG		BAKER HUGHES OPEN HOLE	
REFERENCE LOG DATE		15-MAR-2015	
EQUIP. NO.	LOCATION	HL-6685	GRAND JCT.
RECORDED BY		P. EDWARDS	
WITNESSED BY		J. GRUBICH	

PERMANENT DATUM	GL	ELEVATION	7580 FT
LOG MEASURED FROM	KB	22 FT	ABOVE P.D.
DRILL MEAS. FROM	KB		
Ver. 4.01	LOCATION:	SHL: 2505' FSL & 1616' FWL NE/SW BHL: 2373' FSL & 2583' FWL	
28 9S 93W	SEC <u>28</u>	TWP <u>9S</u>	RGE <u>93W</u>
28-11 PAD			
PATTERSON 306			
FILE NO:	COMPANY	LARAMIE ENERGY	
CH094532	WELL	PICEANCE 28-12M	
API NO:	FIELD	VEGA	
05-077-10223-0000	COUNTY	MESA	
	STATE		



																				ELEVATIONS:		OTHER SERVICES		E COLORADO		ALYSIS		OG	
																				KB 7602 FT		RPM							
																				DF 7580 FT									
																				GL 7580 FT									

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	1561 FT	8040 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
8.625 IN	24 LB/F		0 FT	1561 FT
4.5 IN	11.6 LB/F		0 FT	8040 FT

REMARKS	
<p>RUN 1 TRIP 1: ALL DATA ON THIS LOG IS DEPTH SHIFTED AND CORRELATED TO THE GAMMA-RAY CURVE ON BAKER HUGHES OPEN HOLE LOG DATED 15-MAR-2015</p> <p>THE DEPTH MATCHING PROCESS CREATES POTENTIAL FOR COLLAR LENGTHS TO VARY FROM THOSE RECORDED ON OTHER CASED HOLE WIRELINE UNITS WITHOUT A GAMMA RAY REFERENCE</p> <p>BHT = 251 degF</p> <p>SJ = 4755' - 4777'</p> <p>SJ = 7073' - 7095'</p> <p>THANKS FOR USING BAKER HUGHES WIRELINE RIG: PATTERSON 306</p>	

EQUIPMENT DATA					
RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	CBL	1426XA	10218496	CENTRALIZED
1	1	CCL/GR	1355ZA	11871506	CENTRALIZED

MAIN PRESENTATION 0 PSI

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013
Updates: 1 Patches: 6

Plotted: Wed Apr 8 13:30:09 2015

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH094532/n012g04.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 23.250 ft BOTTOM DEPTH: 2096.575 ft

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR	FILTER ()	medium (1)		TOP	BOTTOM
AMPLITUDE	FILTER ()	medium (1)		"	"
TRAVEL TIME	FILTER ()	medium (1)		"	"
RAL CCL PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CCL FLOOR	CCL FLOOR	0		TOP	BOTTOM
ANALOG RAL PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
AMPLITUDE WINDOW (NEAR)	AMP WINDOW START (fgp1*)	187	us	TOP	BOTTOM
	AMP WINDOW START (fgp2*)	187	us	"	"
	AMP WINDOW START (fgp3*)	187	us	"	"
	AMP WINDOW START (fgp4*)	187	us	"	"
	AMP WINDOW START (fgp5*)	187	us	"	"
	AMP WINDOW START (fgp6*)	187	us	"	"
	AMP WINDOW START (fgp7*)	187	us	"	"
	AMP WINDOW START (fgp8*)	187	us	"	"
	AMP WINDOW START (fgpn*)	187	us	"	"
TRAVEL TIME WINDOW (NEAR)	AMP WINDOW LENGTH	25	us	"	"
	TT WINDOW START (ttn*)	177	us	"	"
	TT WINDOW LENGTH	500	us	"	"
	FIRST BRK THRESHOLD (ttn*)	4	mV	"	"
RAL CASING PARAMETERS	PPT NEAR	200.391	us	"	"
RAL TOOL DELAY	TOOL DELAY (str1*)	-65	us	"	"
	TOOL DELAY (str2*)	-65	us	"	"
	TOOL DELAY (str3*)	-65	us	"	"
	TOOL DELAY (str4*)	-65	us	"	"
	TOOL DELAY (str5*)	-65	us	"	"
	TOOL DELAY (str6*)	-65	us	"	"
	TOOL DELAY (str7*)	-65	us	"	"
	TOOL DELAY (str8*)	-65	us	"	"
BASELINE NOISE (NEAR)	TOOL DELAY (strn*)	-65	us	"	"
	NOISE WINDOW START	136	us	"	"
	NOISE WINDOW LENGTH	25	us	"	"
PERCENT BOND CEMENT MAP					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
RAL FREE PIPE AMPLITUDE	FREE AMP REC 1	80	mV	TOP	BOTTOM
	FREE AMP REC 2	80	mV	"	"
	FREE AMP REC 3	80	mV	"	"
	FREE AMP REC 4	80	mV	"	"
	FREE AMP REC 5	80	mV	"	"
	FREE AMP REC 6	80	mV	"	"
	FREE AMP REC 7	80	mV	"	"
	FREE AMP REC 8	80	mV	"	"
RAL FULL BOND AMPLITUDE	FULL BOND AMP REC 1	2	mV	"	"
	FULL BOND AMP REC 2	2	mV	"	"
	FULL BOND AMP REC 3	2	mV	"	"
	FULL BOND AMP REC 4	2	mV	"	"
	FULL BOND AMP REC 5	2	mV	"	"
	FULL BOND AMP REC 6	2	mV	"	"
	FULL BOND AMP REC 7	2	mV	"	"
	FULL BOND AMP REC 8	2	mV	"	"

CURVE DESCRIPTION REPORT		
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:AR1	Apr 8 10:14:10 2015	FIXED GATE AMPLITUDE T-R1
F1:AR2	Apr 8 10:14:10 2015	FIXED GATE AMPLITUDE T-R2
F1:AR3	Apr 8 10:14:10 2015	FIXED GATE AMPLITUDE T-R3
F1:AR4	Apr 8 10:14:10 2015	FIXED GATE AMPLITUDE T-R4
F1:AR5	Apr 8 10:14:10 2015	FIXED GATE AMPLITUDE T-R5
F1:AR6	Apr 8 10:14:10 2015	FIXED GATE AMPLITUDE T-R6
F1:AR7	Apr 8 10:14:10 2015	FIXED GATE AMPLITUDE T-R7
F1:AR8	Apr 8 10:14:10 2015	FIXED GATE AMPLITUDE T-R8
F1:CCL	Apr 8 10:14:10 2015	CASING COLLAR LOCATOR
F1:FAMPN	Apr 8 10:14:10 2015	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Apr 8 10:14:10 2015	FAR WAVE FORM

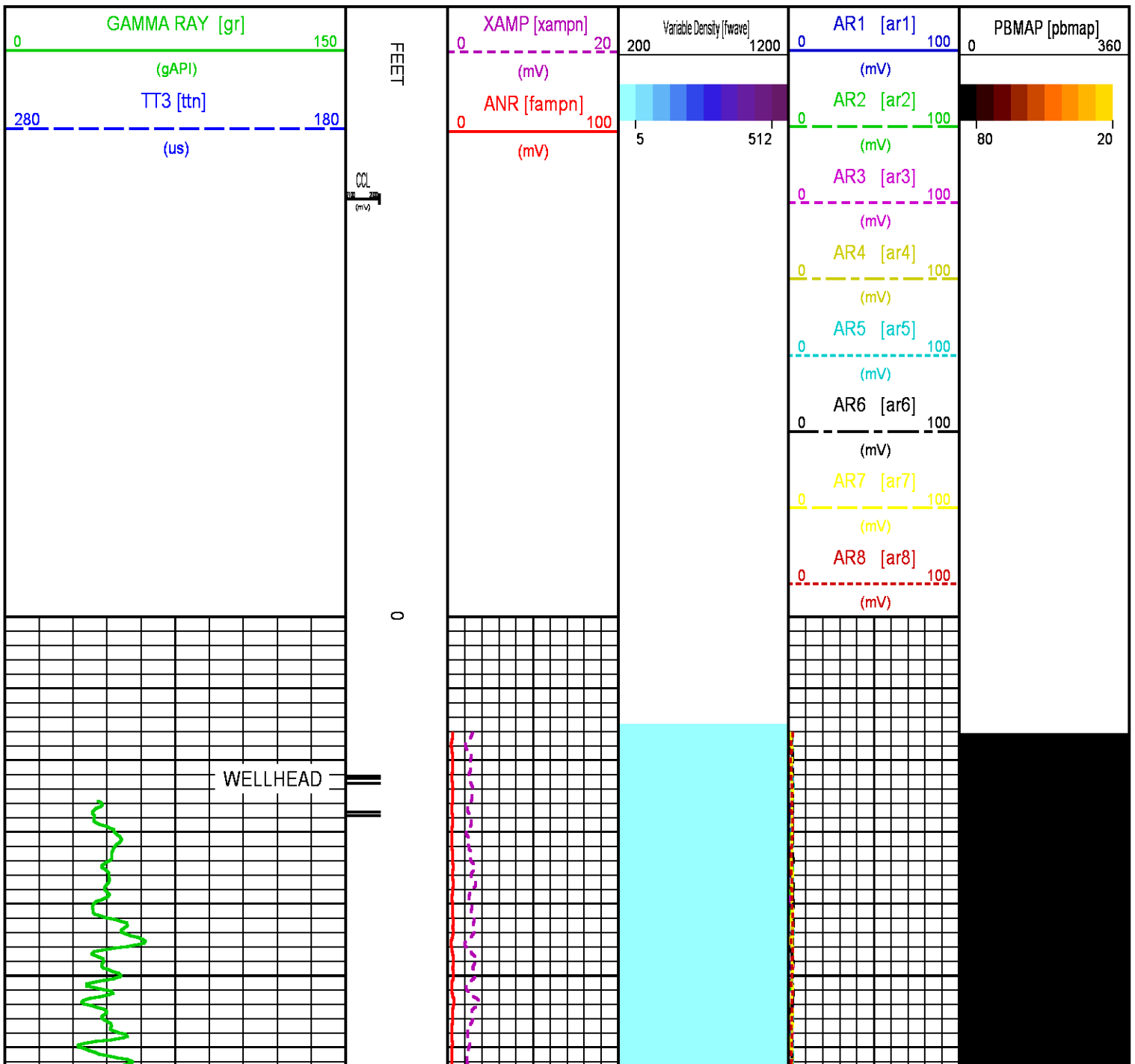
F1:GR	Apr 8 10:14:10 2015	GAMMA RAY
F1:PBMAP	Apr 8 10:14:10 2015	PERCENT BOND CEMENT MAP
F1:TTN	Apr 8 10:14:10 2015	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Apr 8 10:14:10 2015	FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE

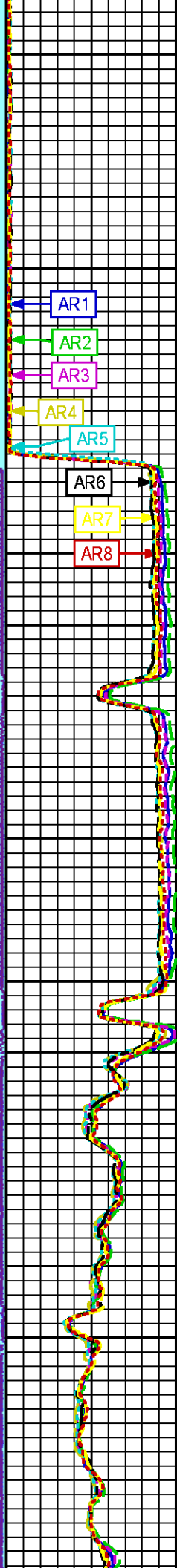
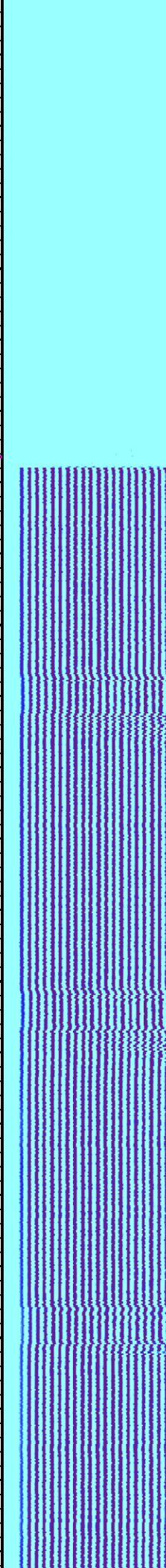
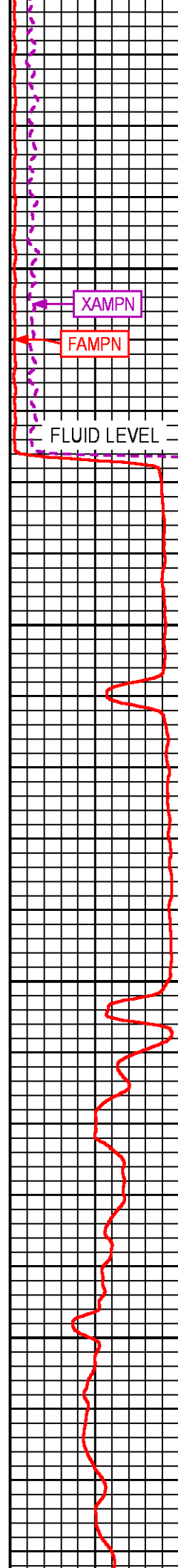
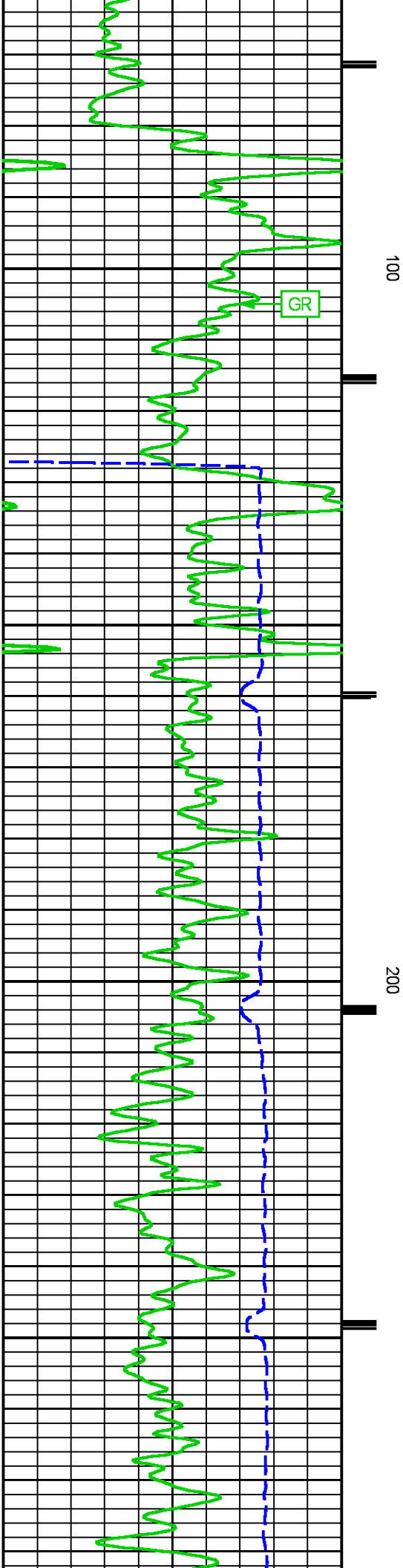
CURVE MEASURE POINT OFFSET

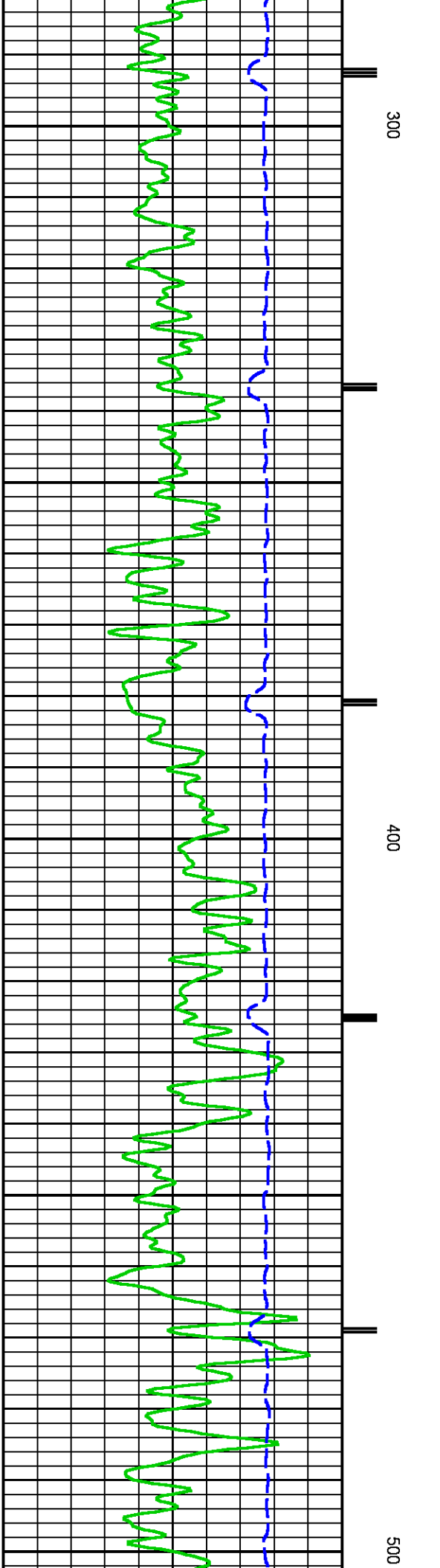
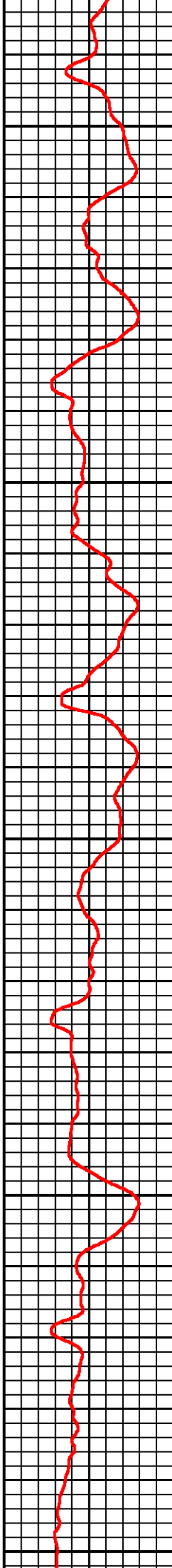
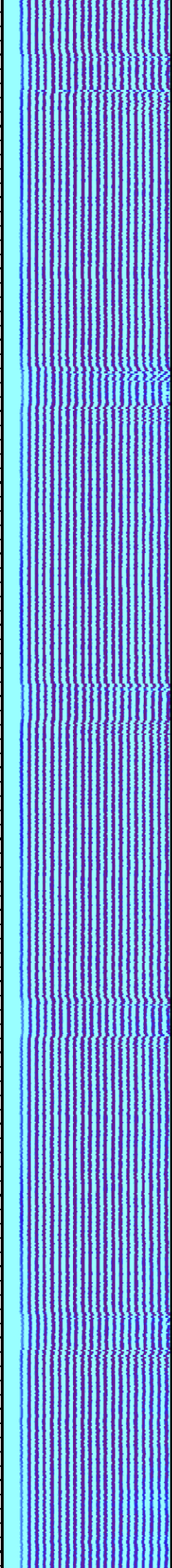
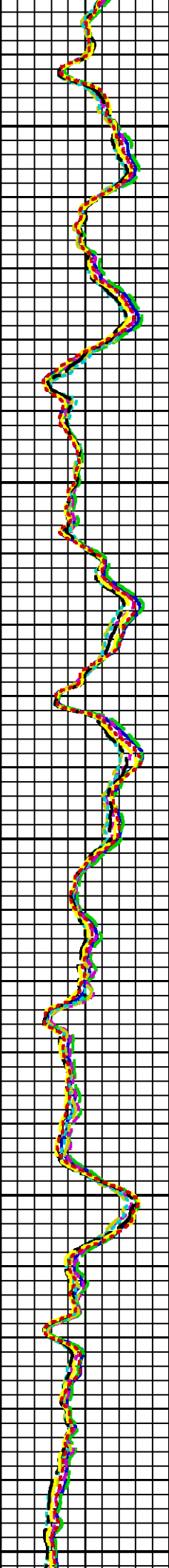
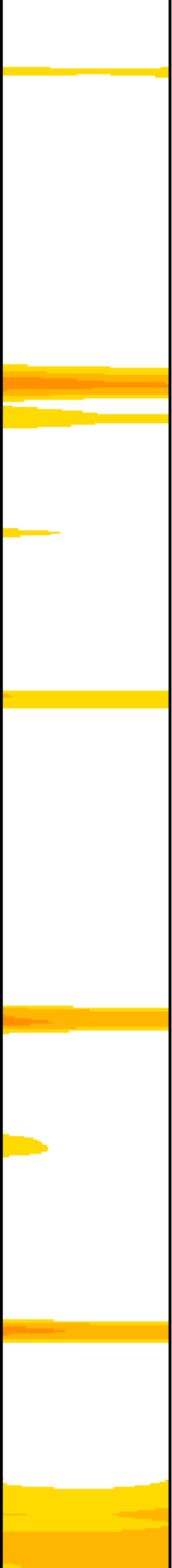
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
AR1	11.25	AR5	11.25	CCL	5.75	XAMPN	11.25
AR2	11.25	AR6	11.25	FAMPN	11.25		
AR3	11.25	AR7	11.25	GR	1.75		
AR4	11.25	AR8	11.25	TTN	11.25		

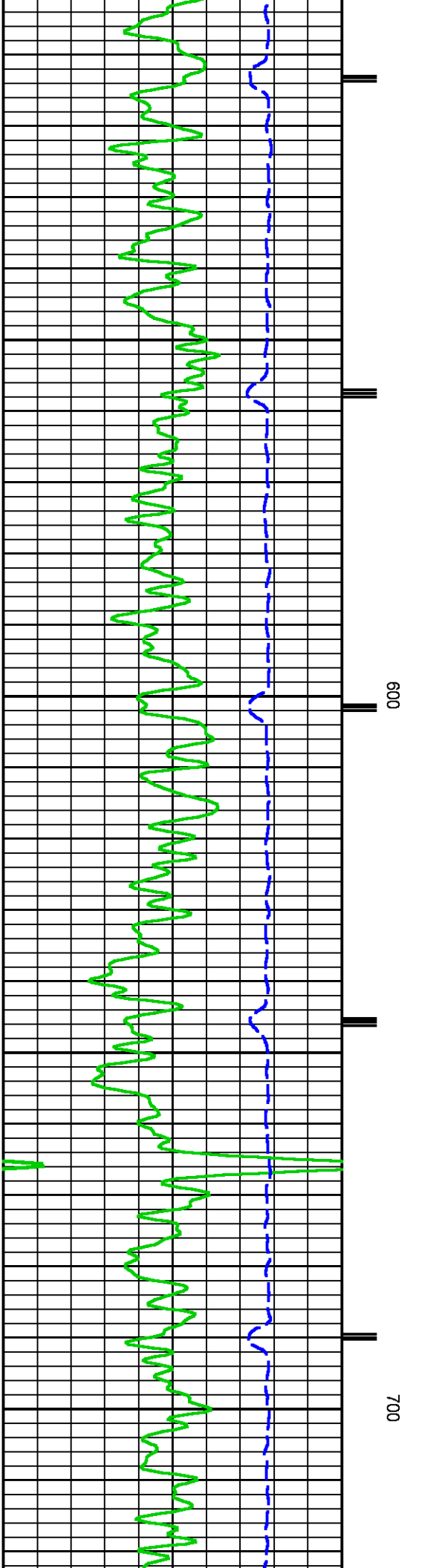
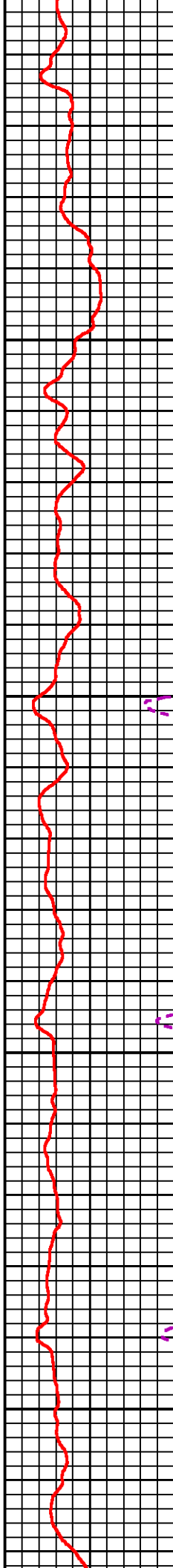
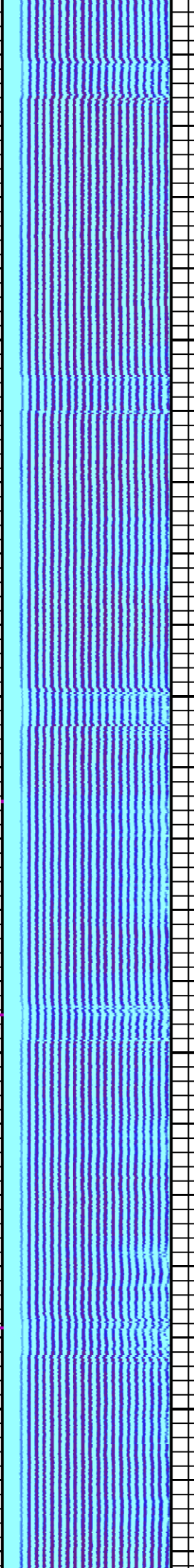
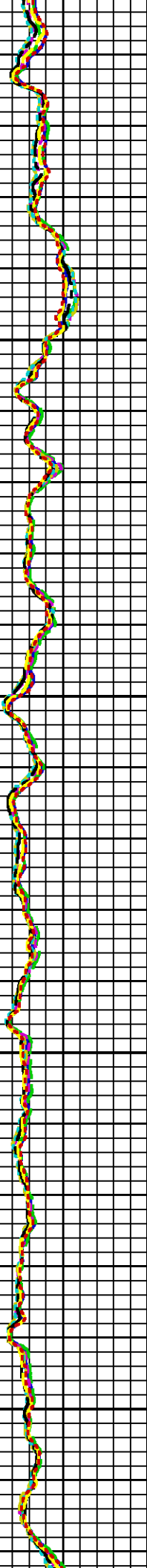
Presentation : cas6685:/dat1a/CH094532/CBLMAIN.fvpdf [5"/100' Scale]
Plot Interval : 0 - 7957 Feet

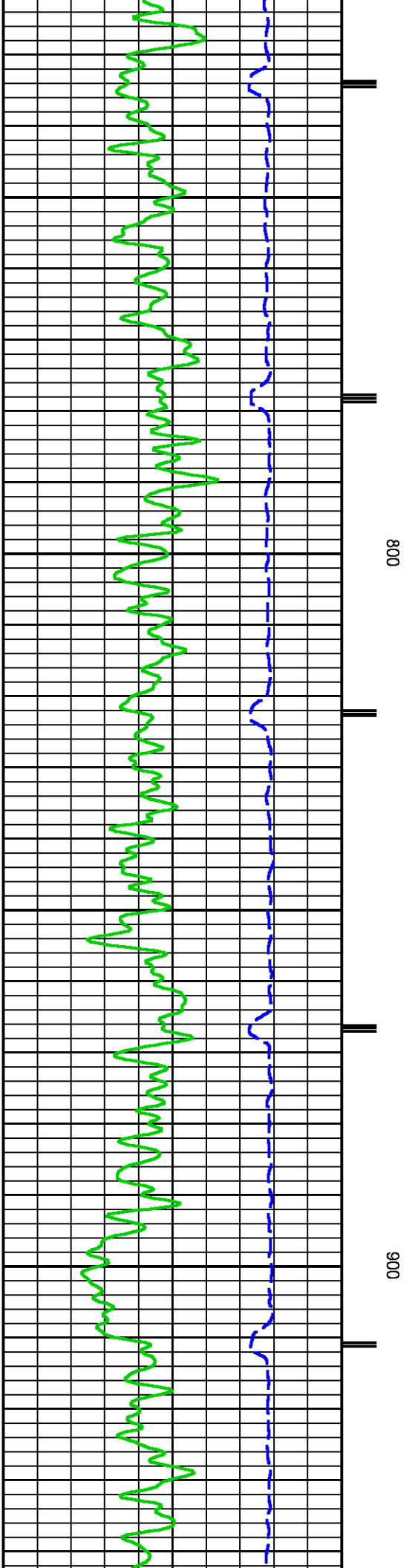
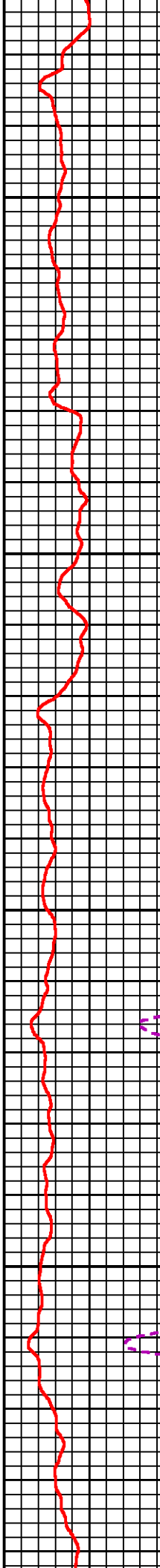
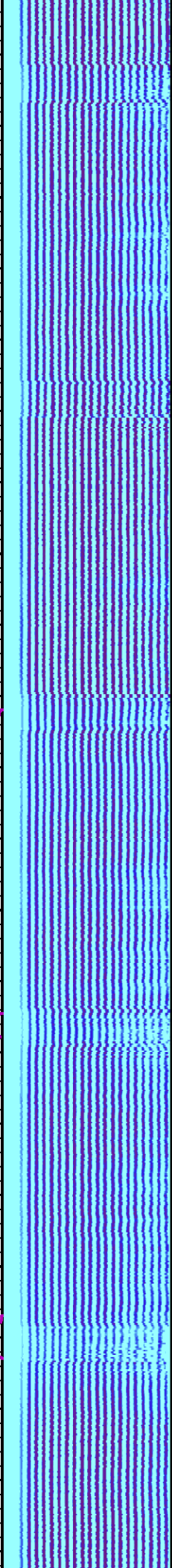
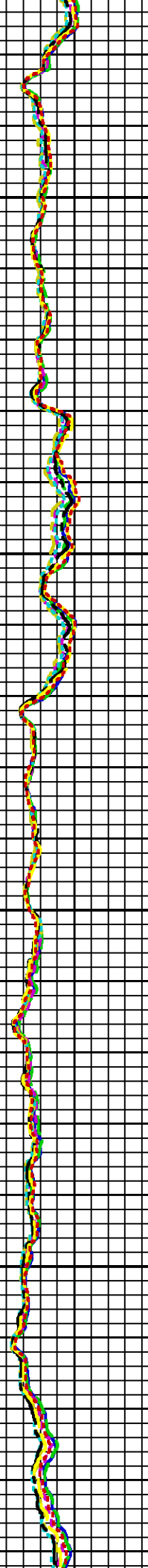
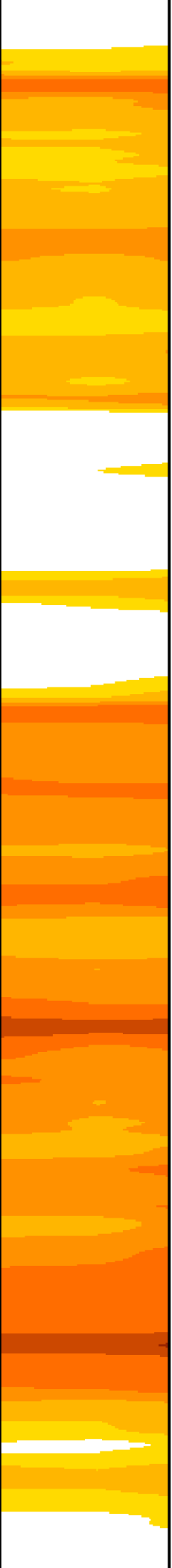
Data File 1 : F1 : cas6685:/dat1a/CH094532/CBLMAINSLPICE.xtf
Created On : Apr 8 10:14:10 2015
Company : LARAMIE ENERGY
Well : PICEANCE 28-12M
Field : VEGA
File Interval : 15 - 7963.25 Feet
OCT : n012g

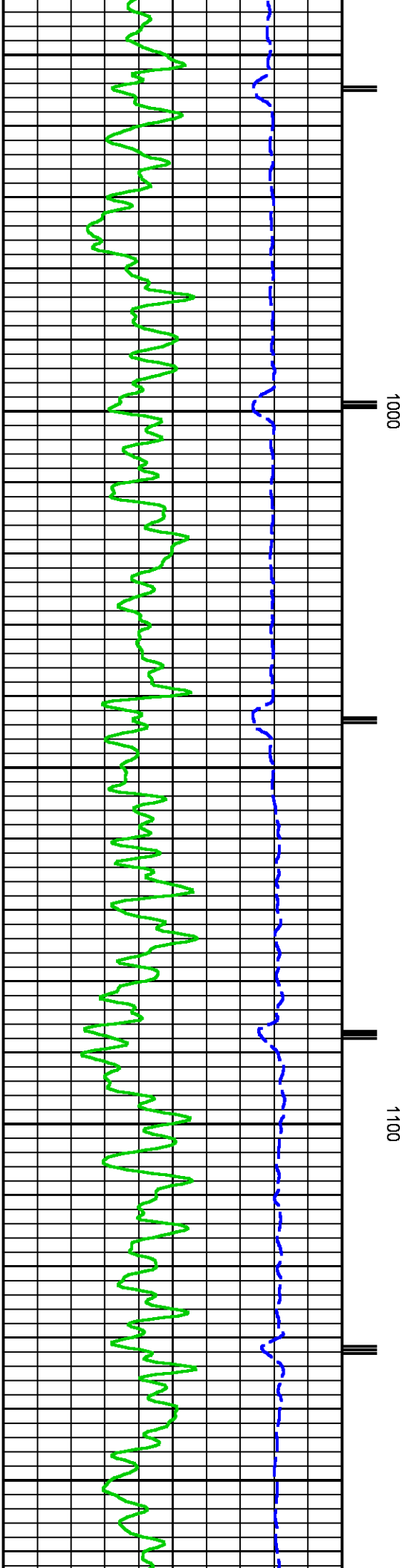
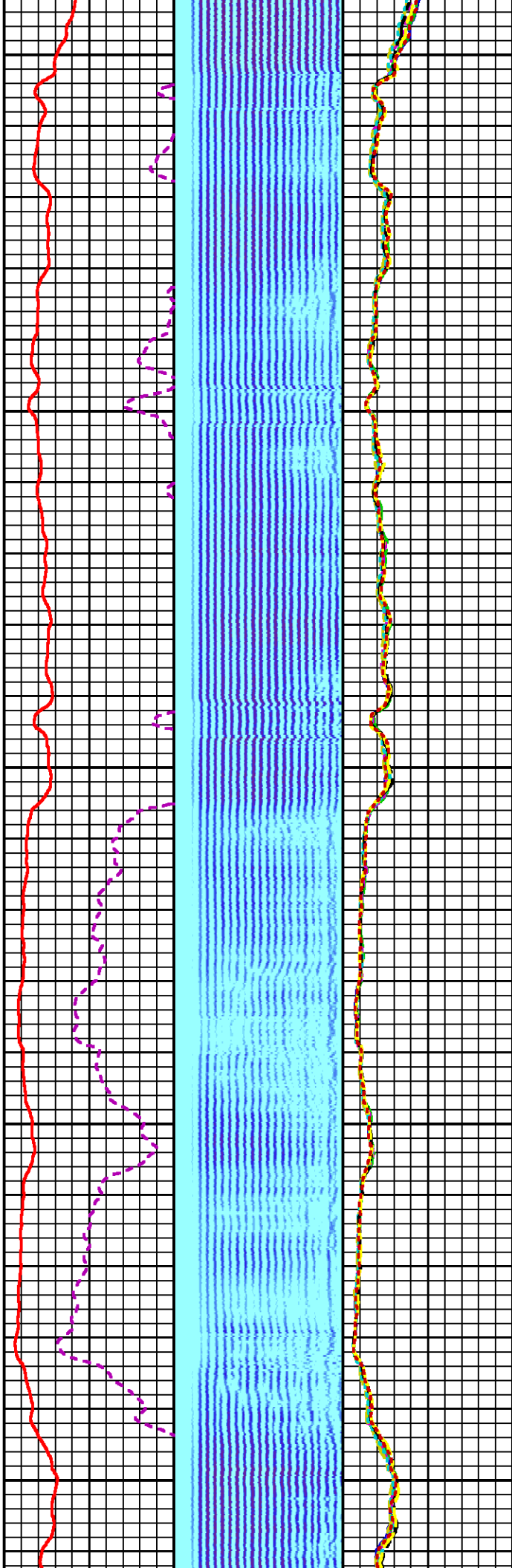


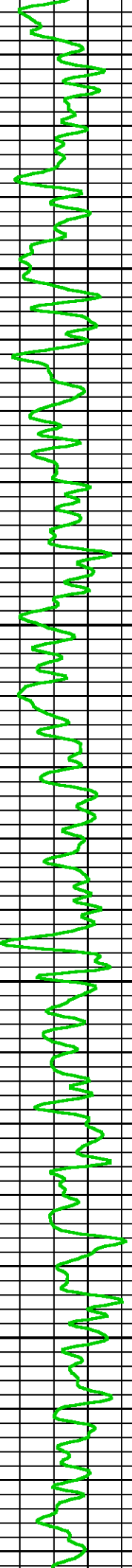
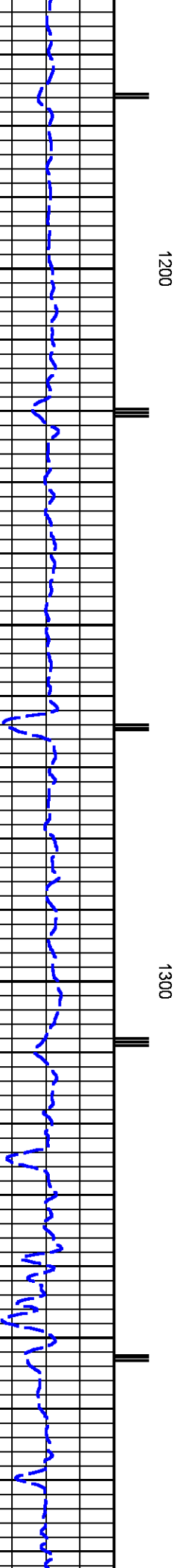
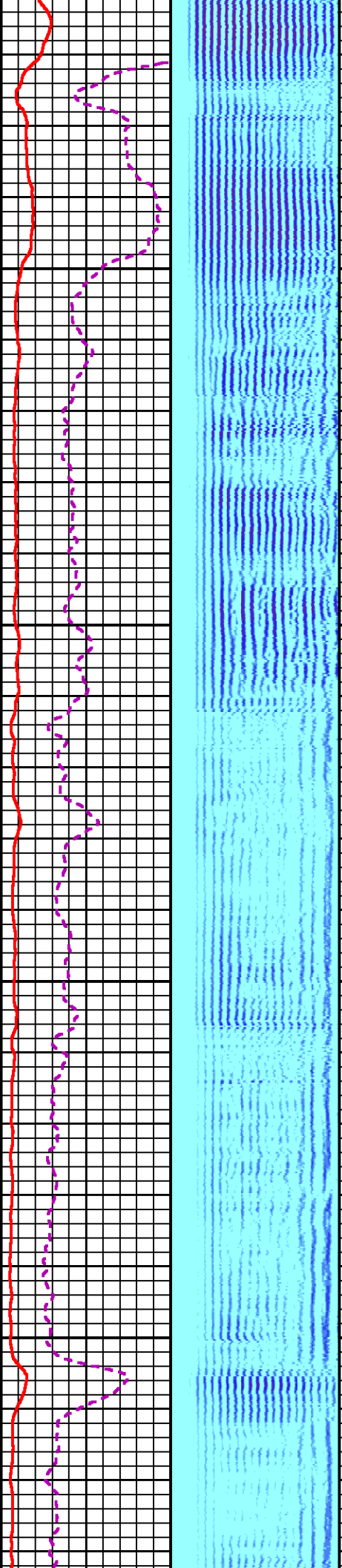
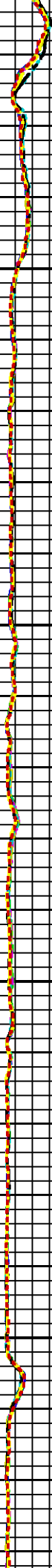


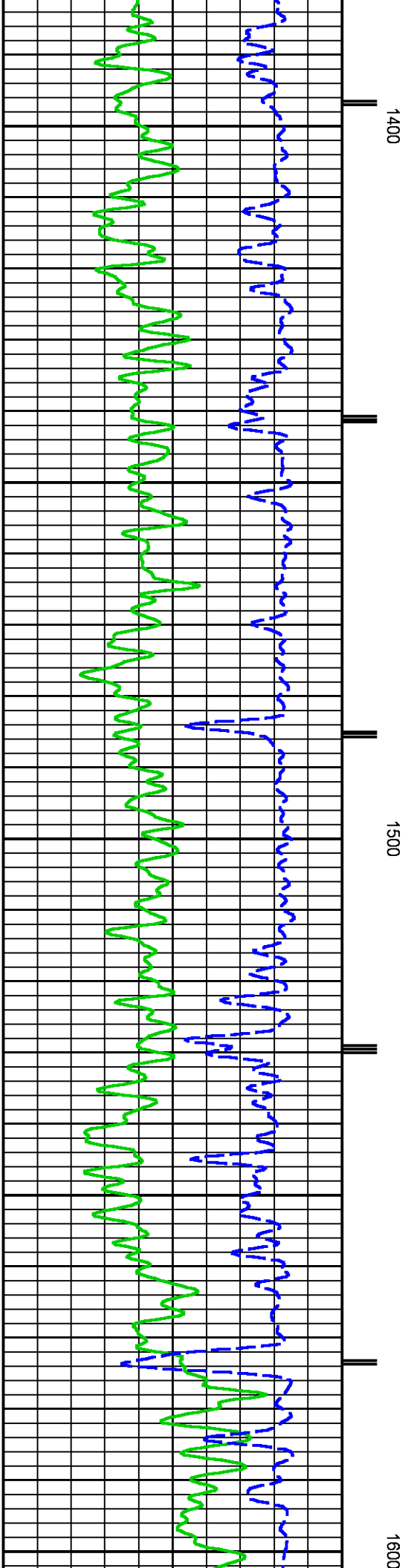
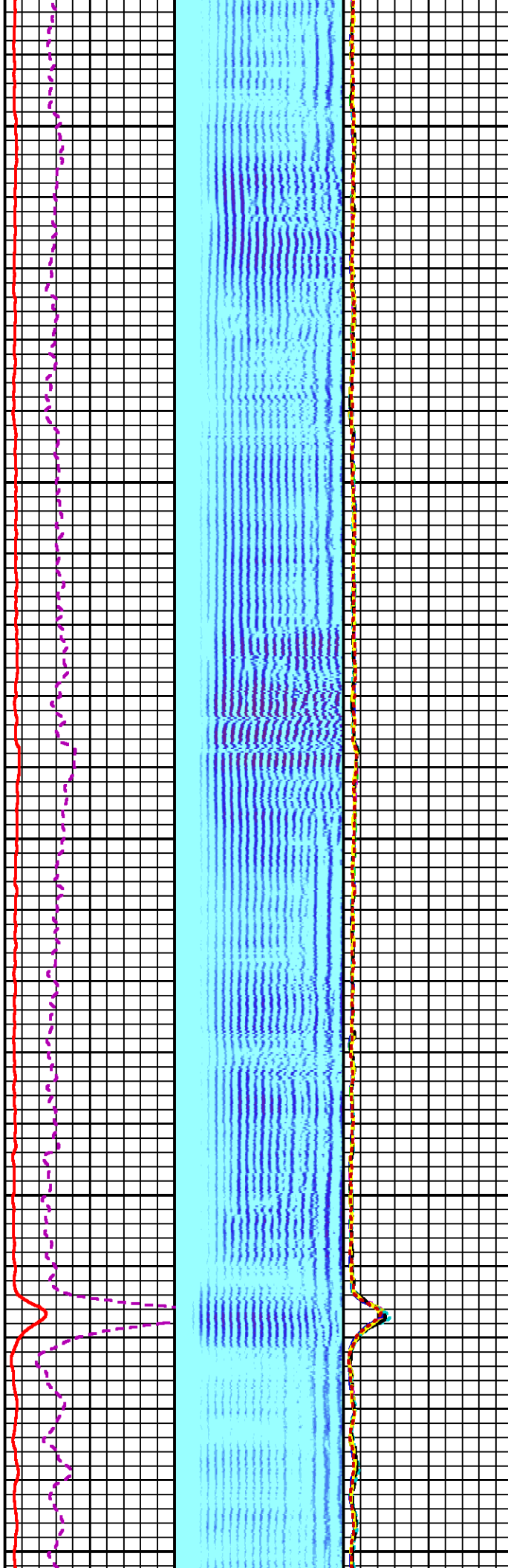
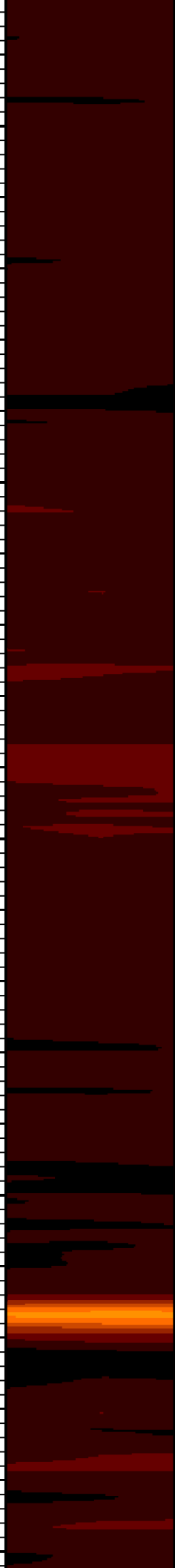


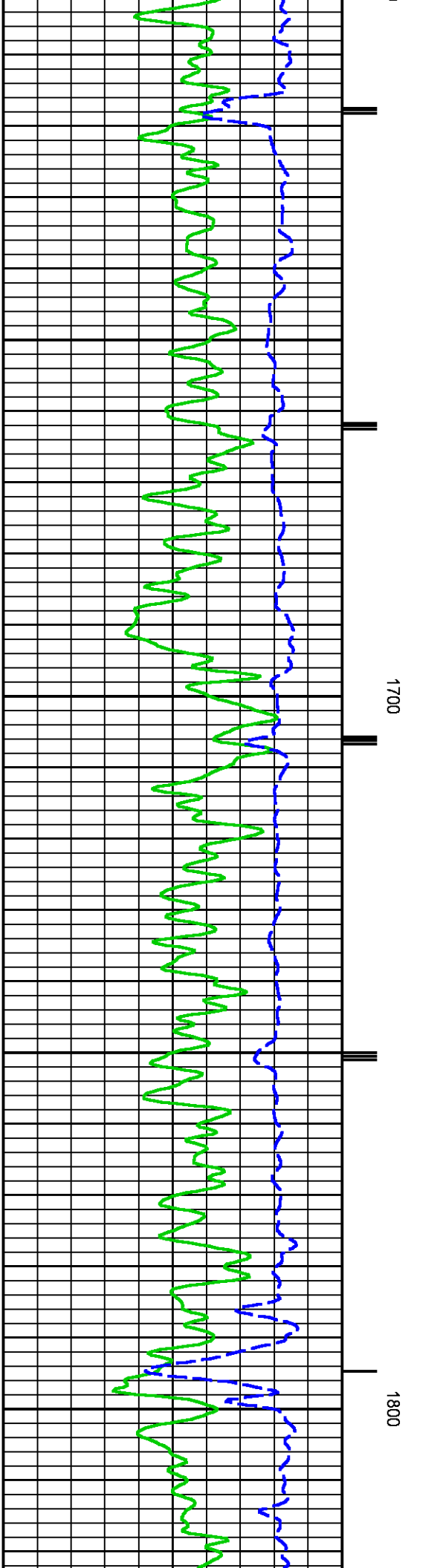
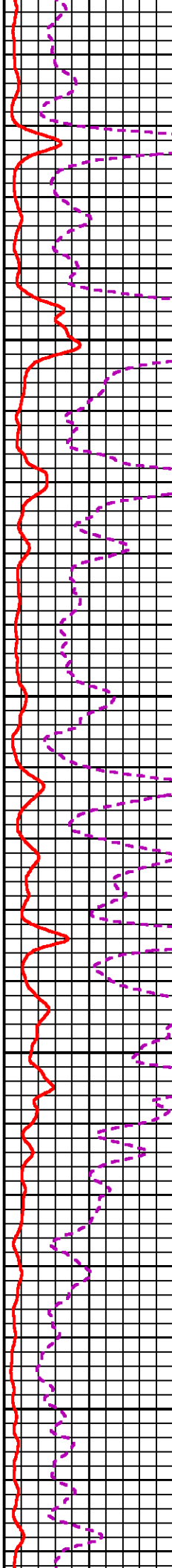
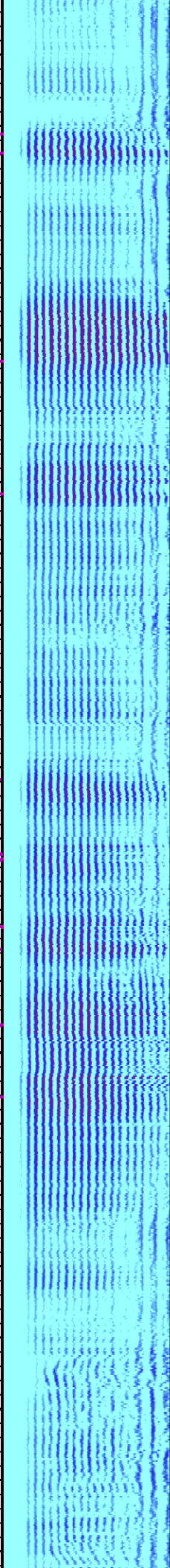
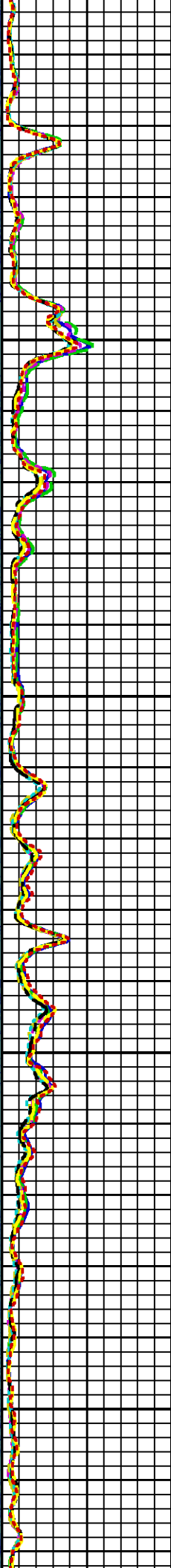
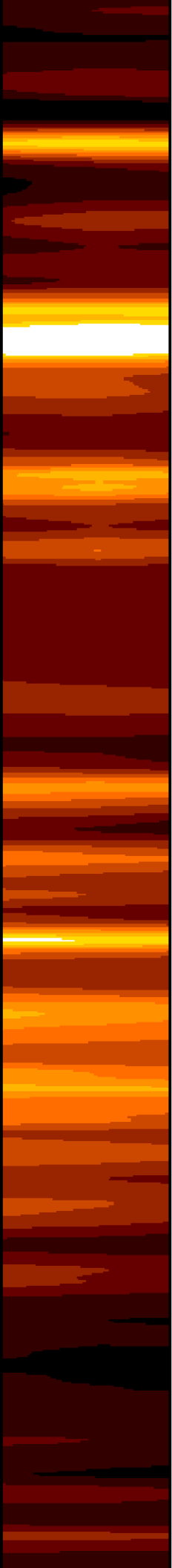


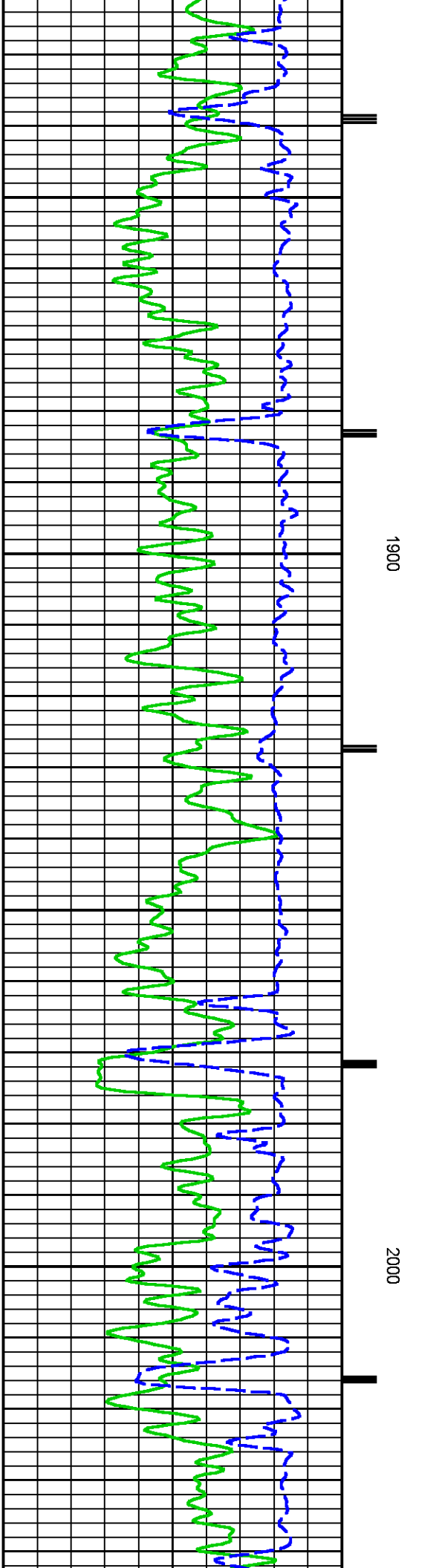
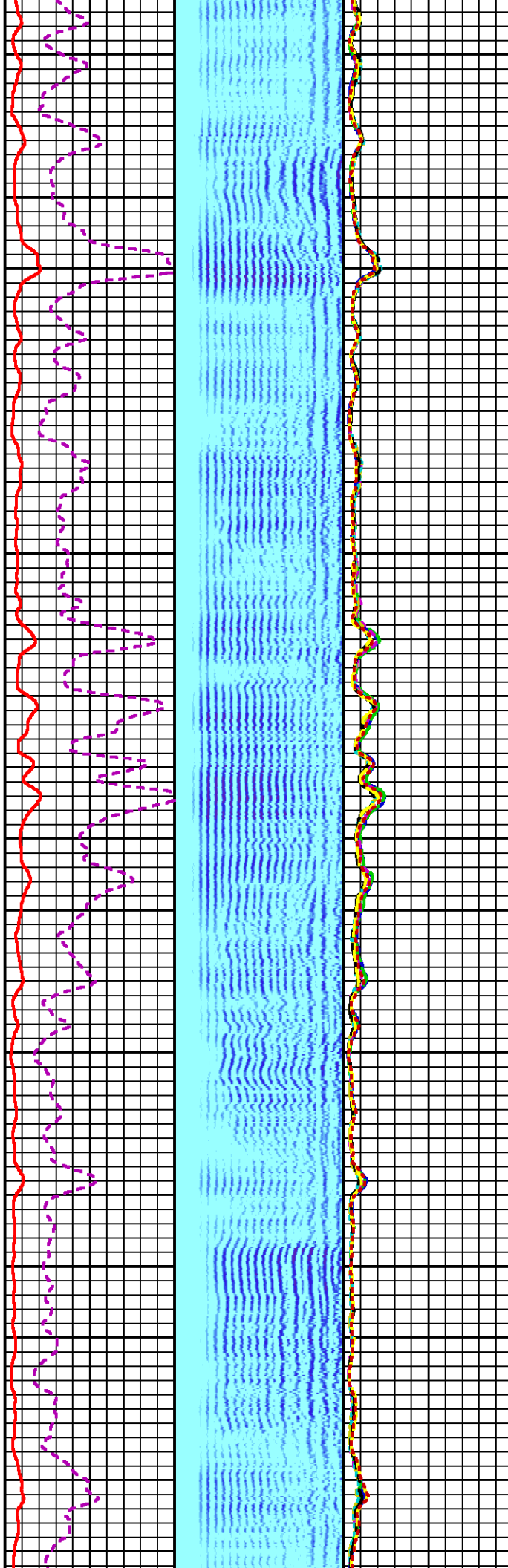
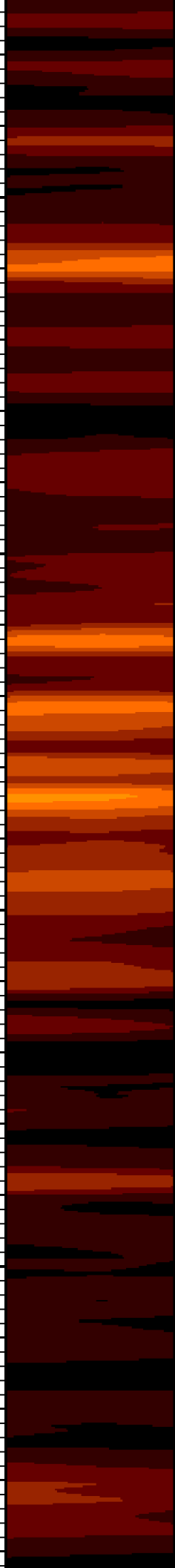


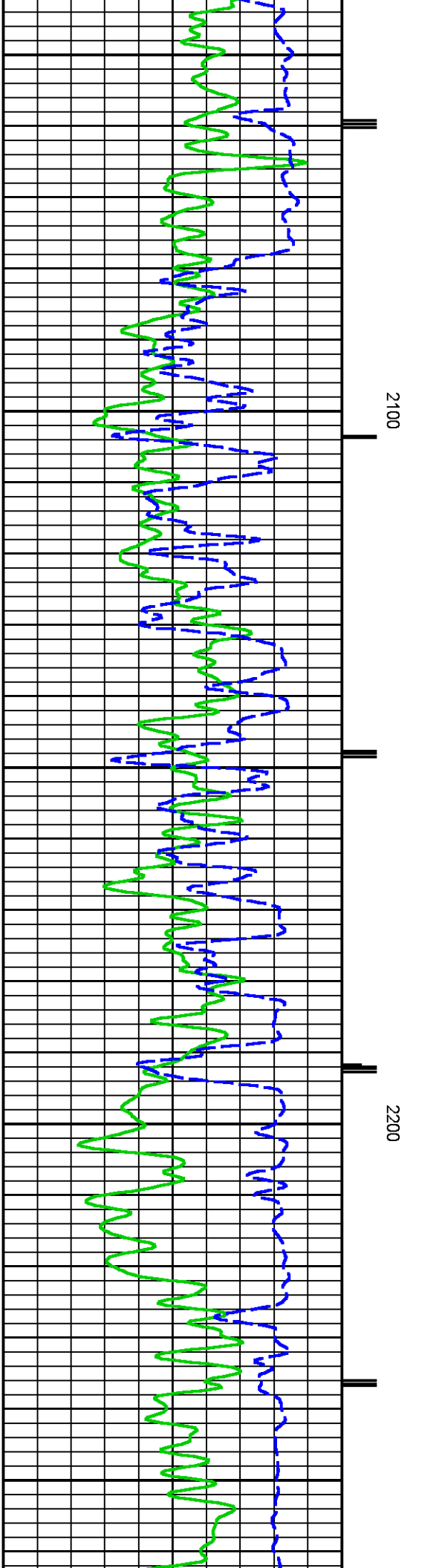
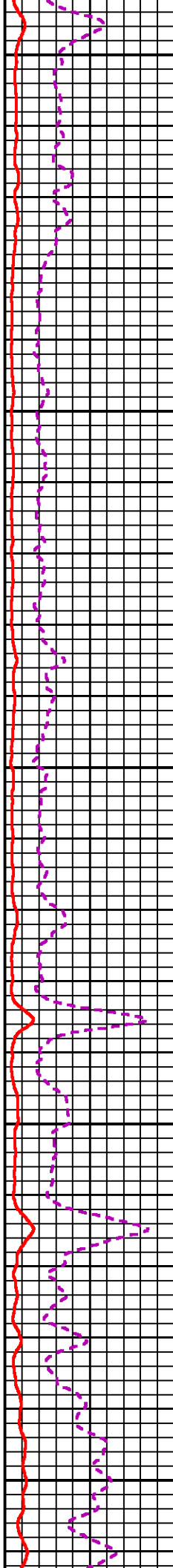
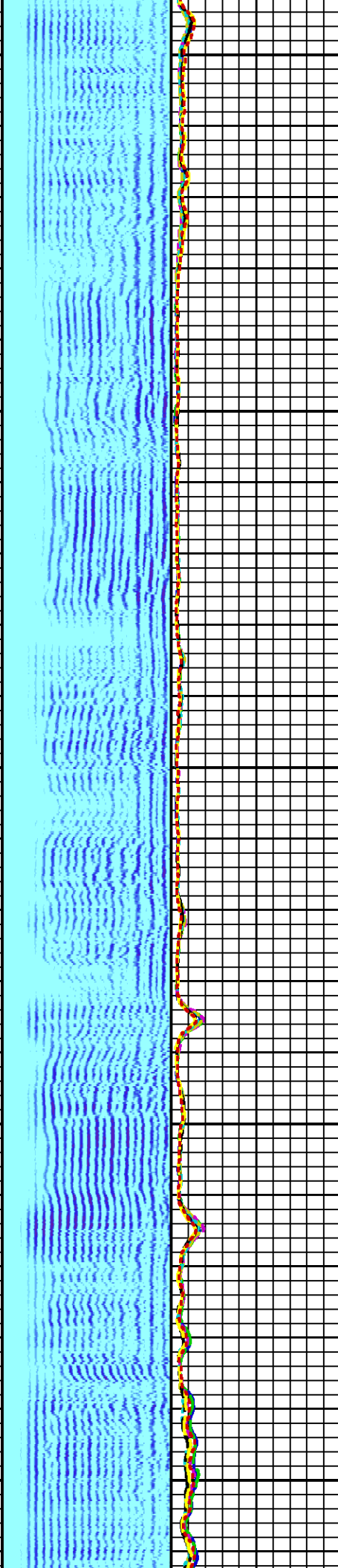
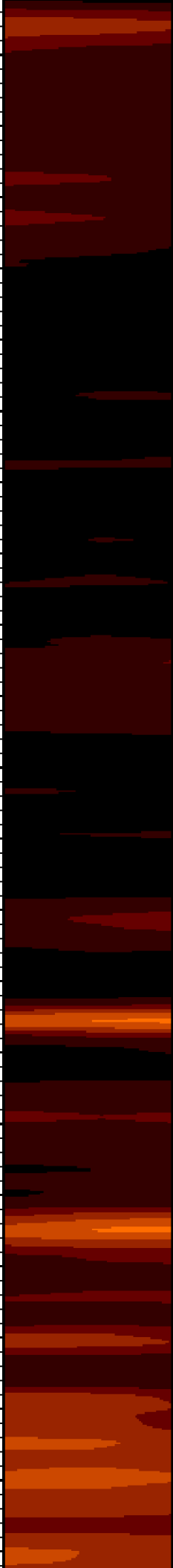


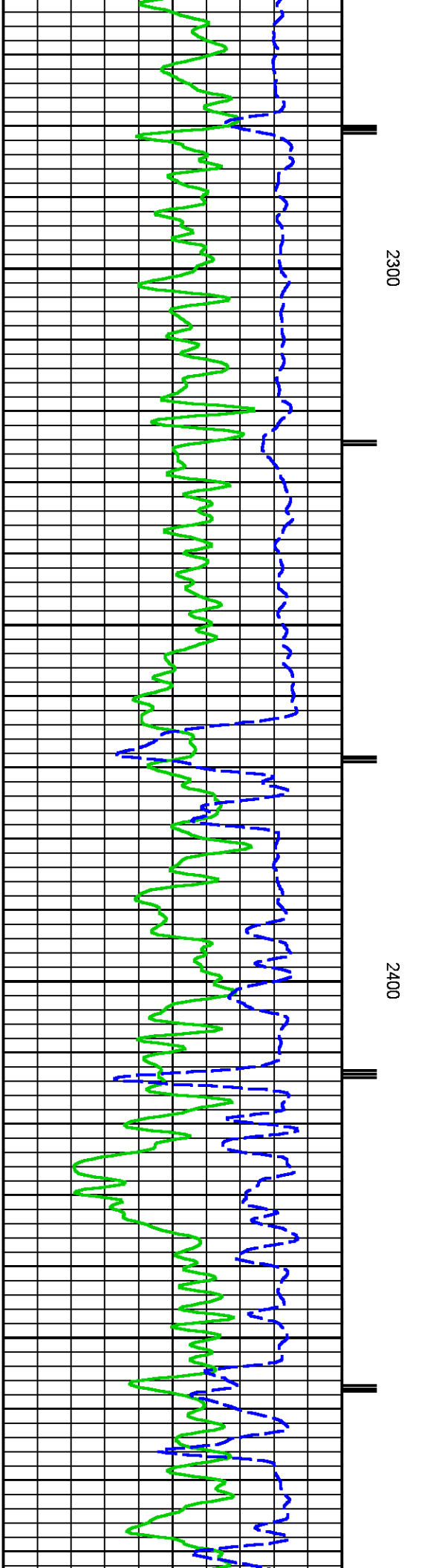
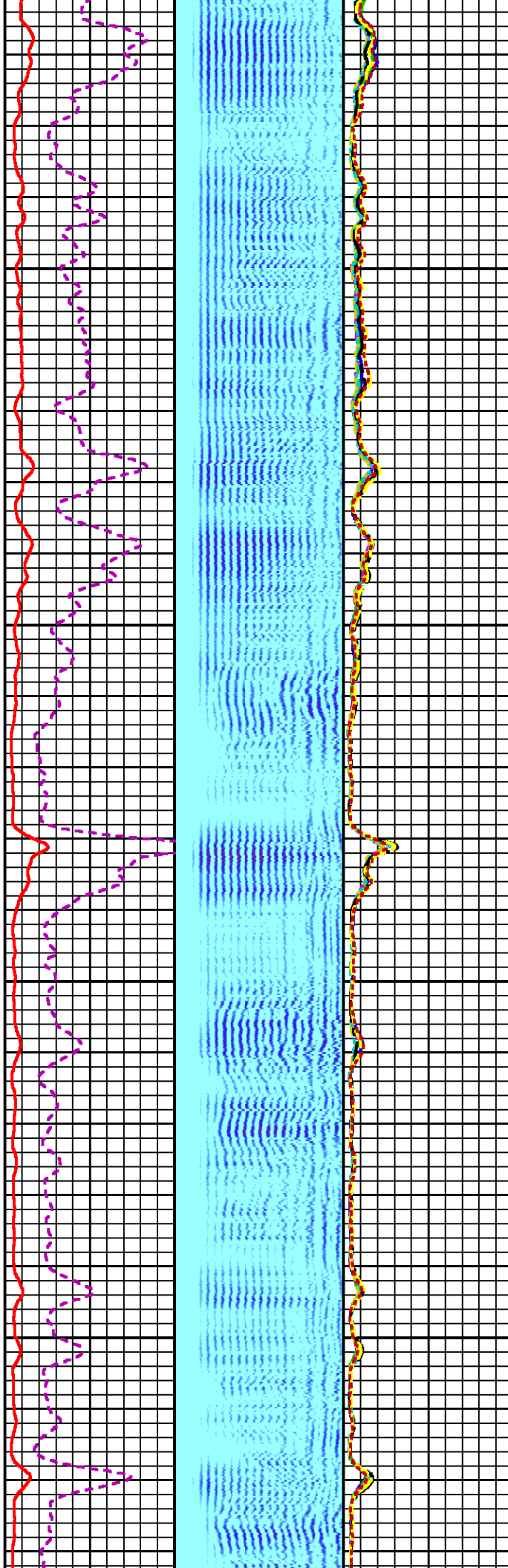
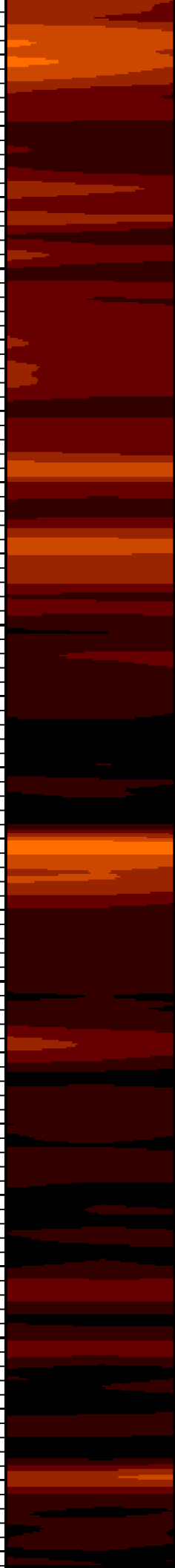


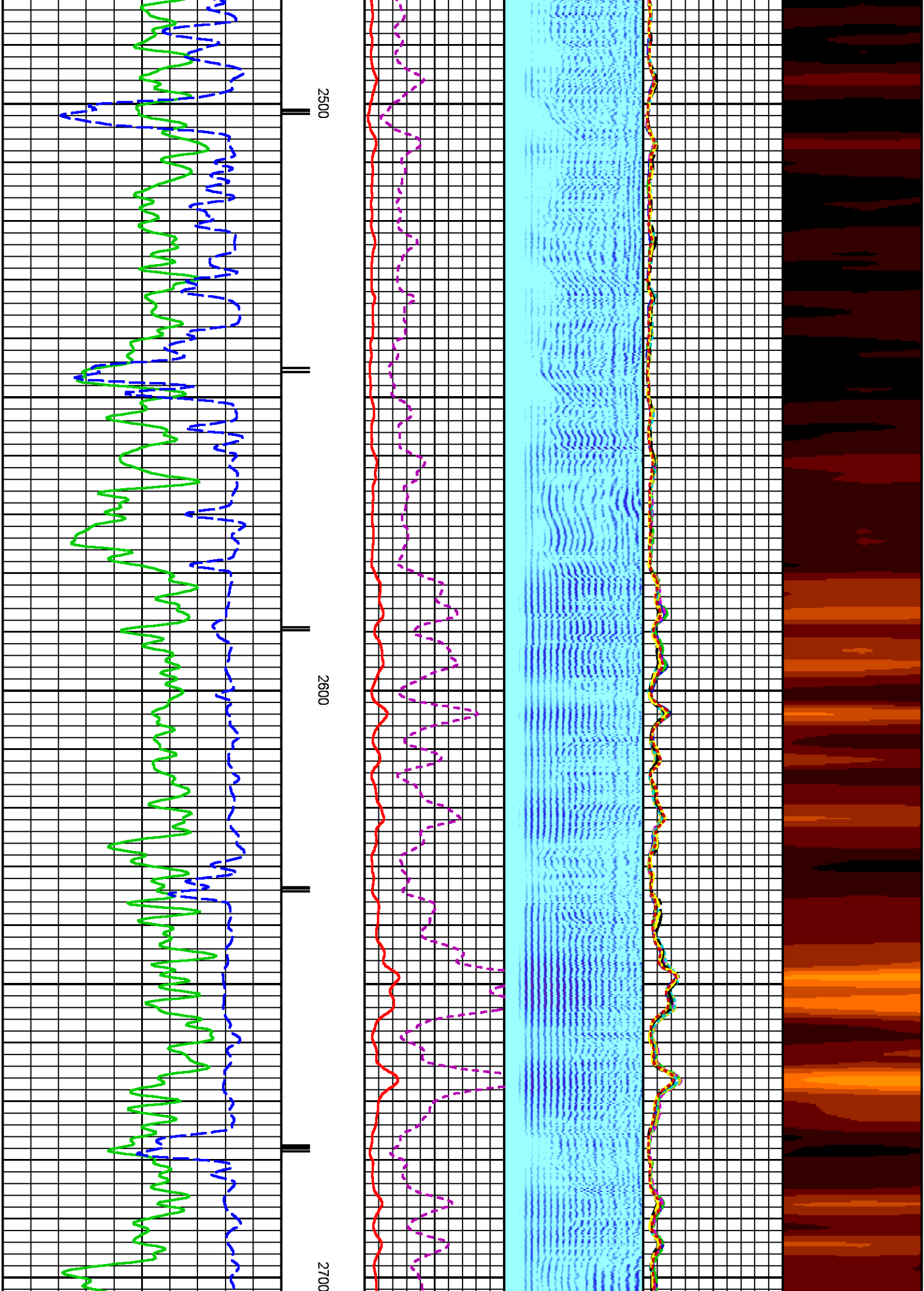


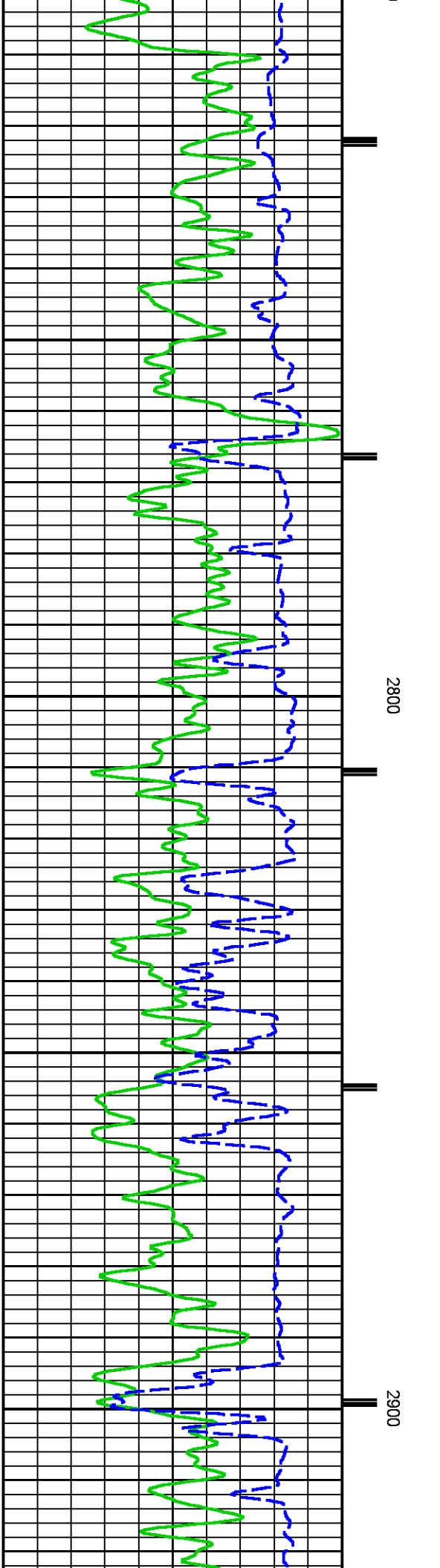
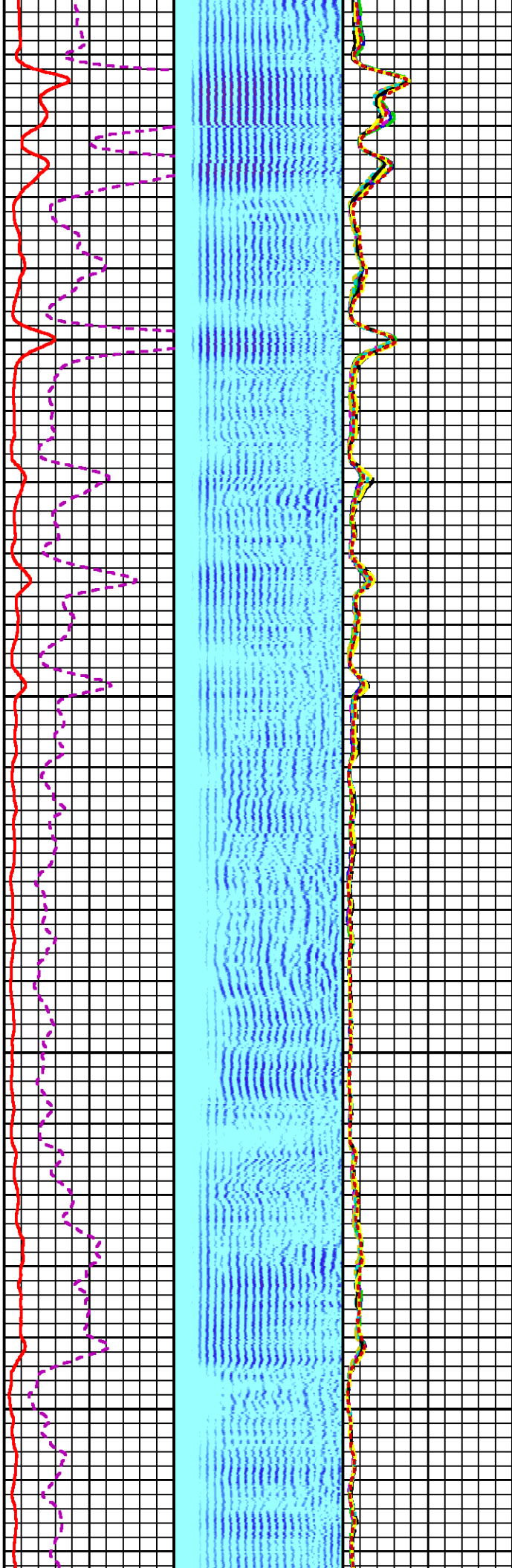


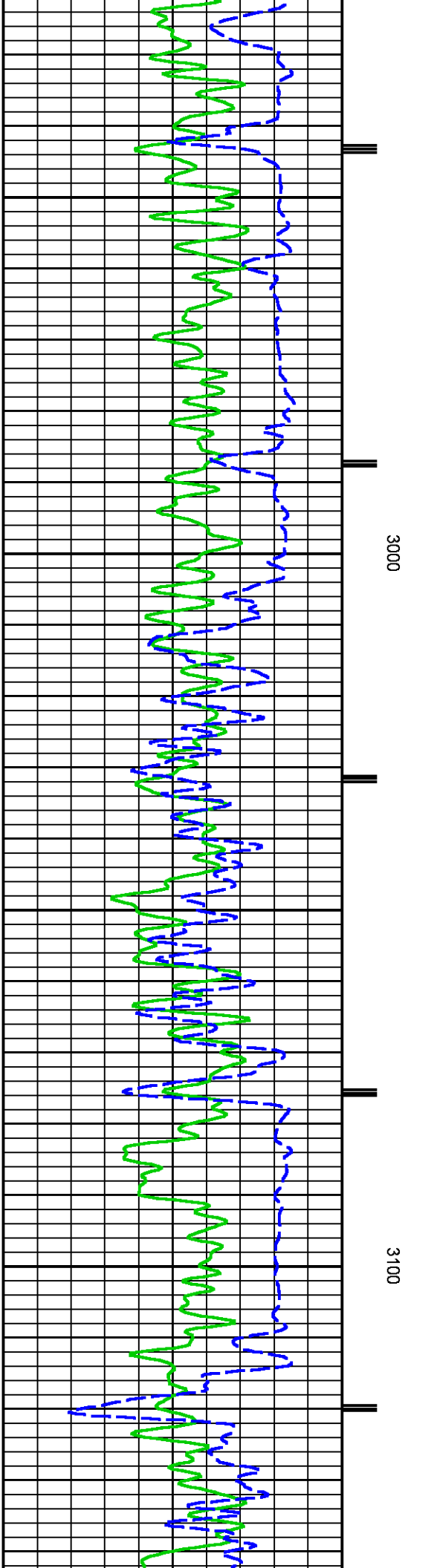
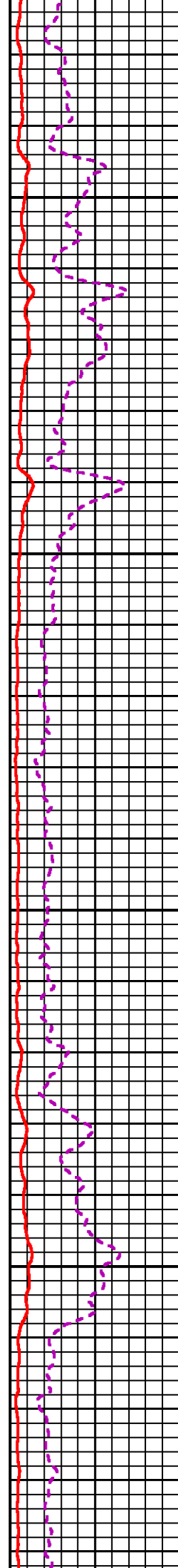
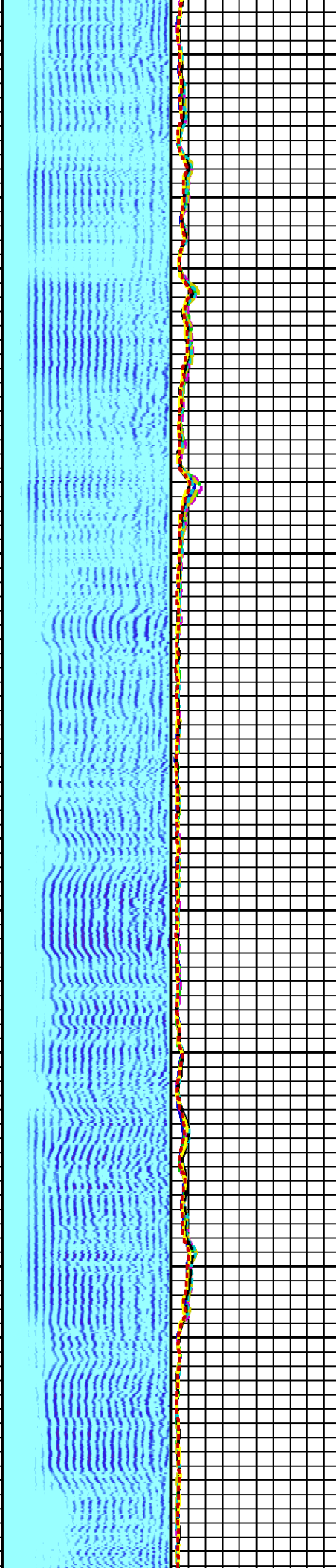
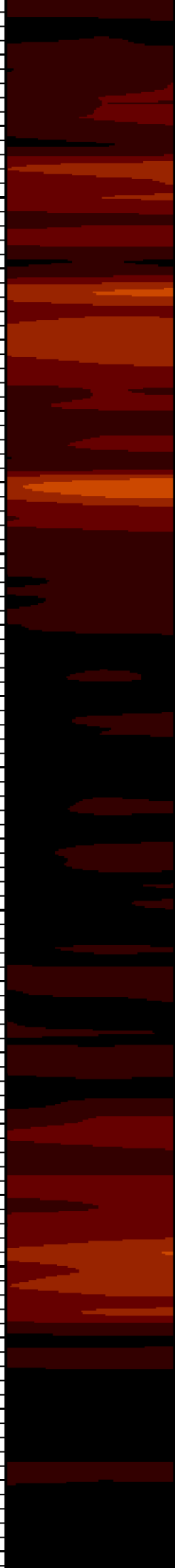


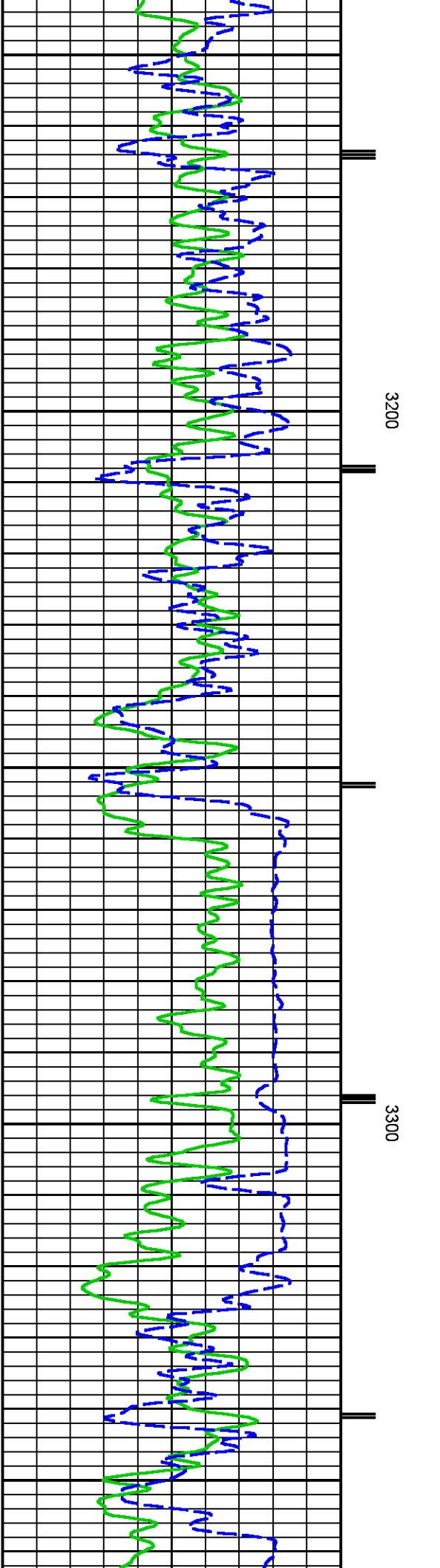
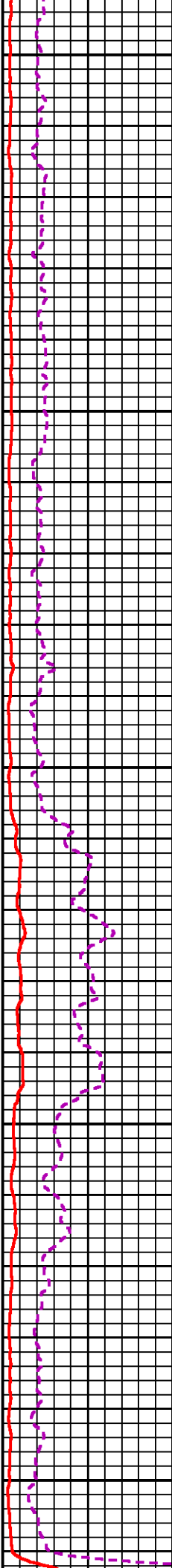
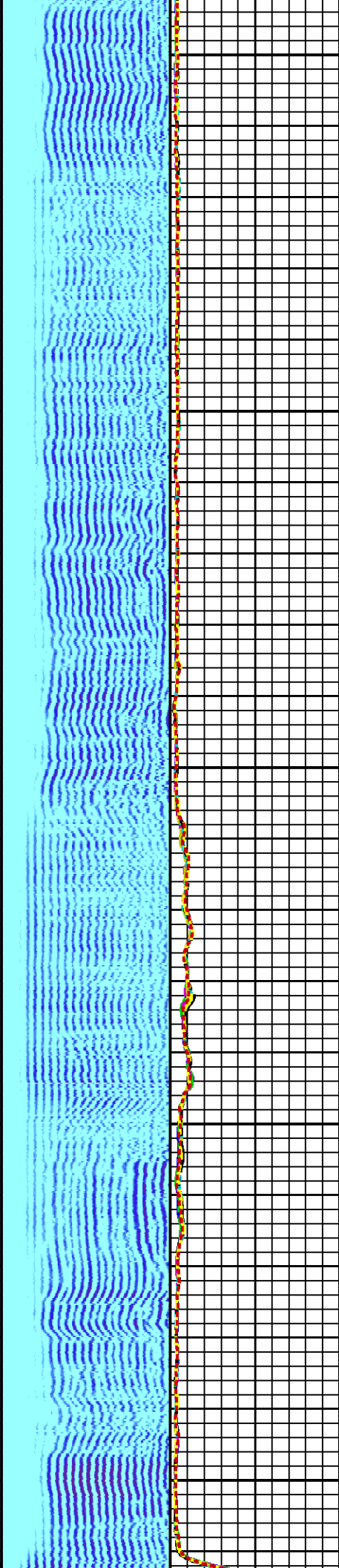


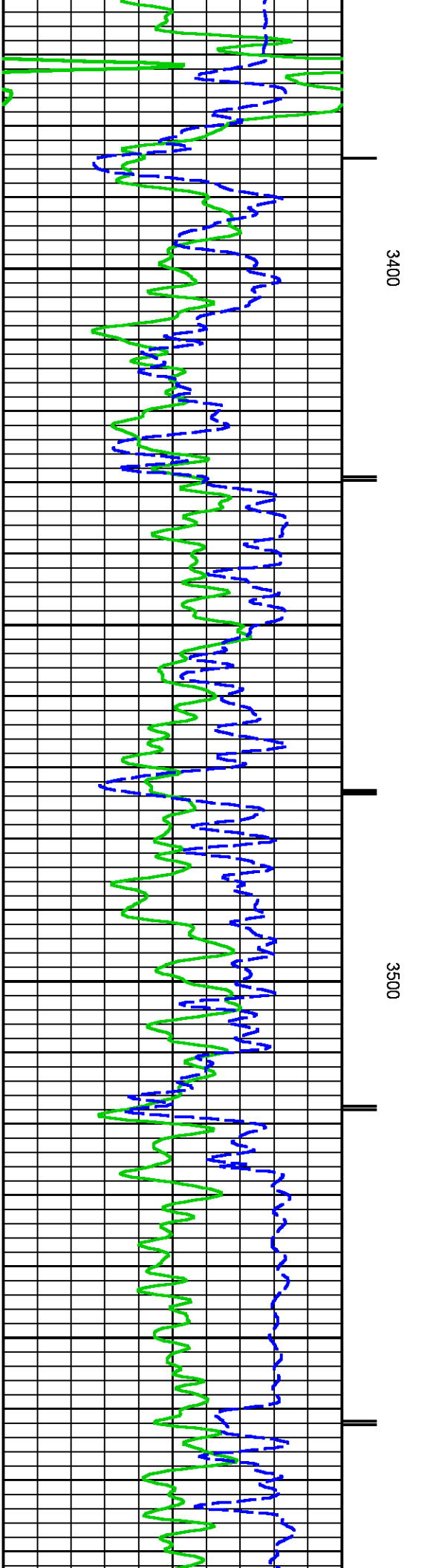
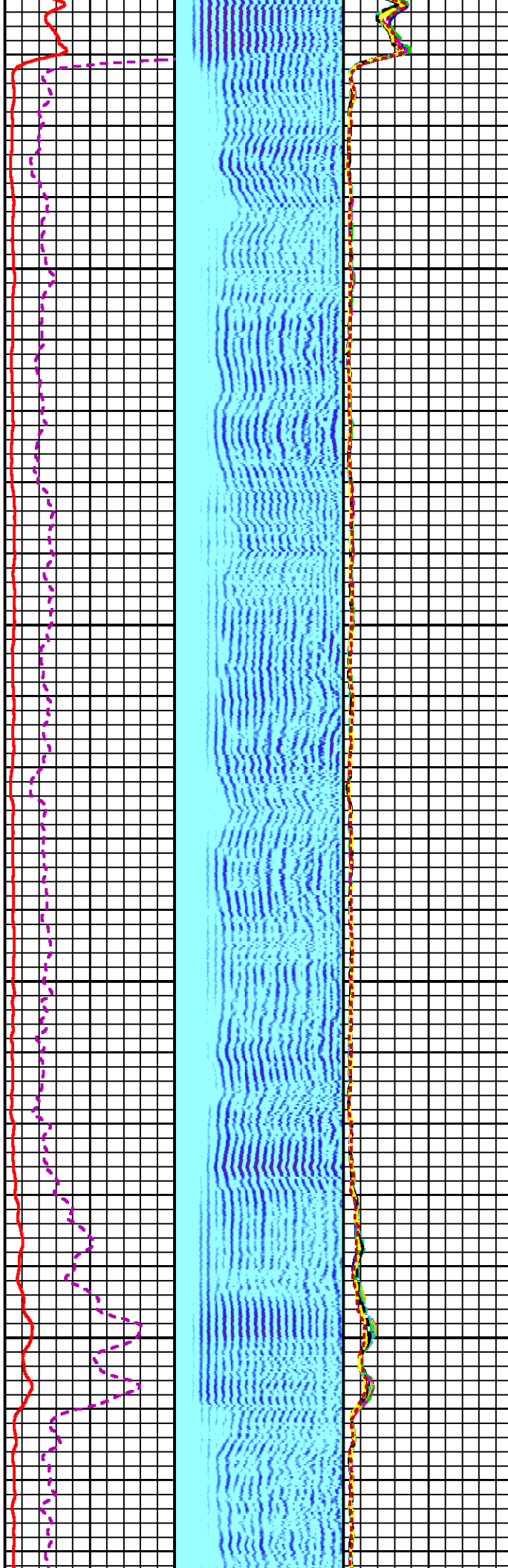
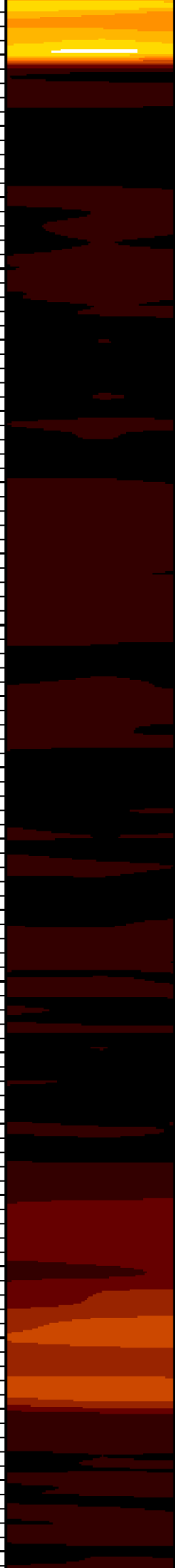


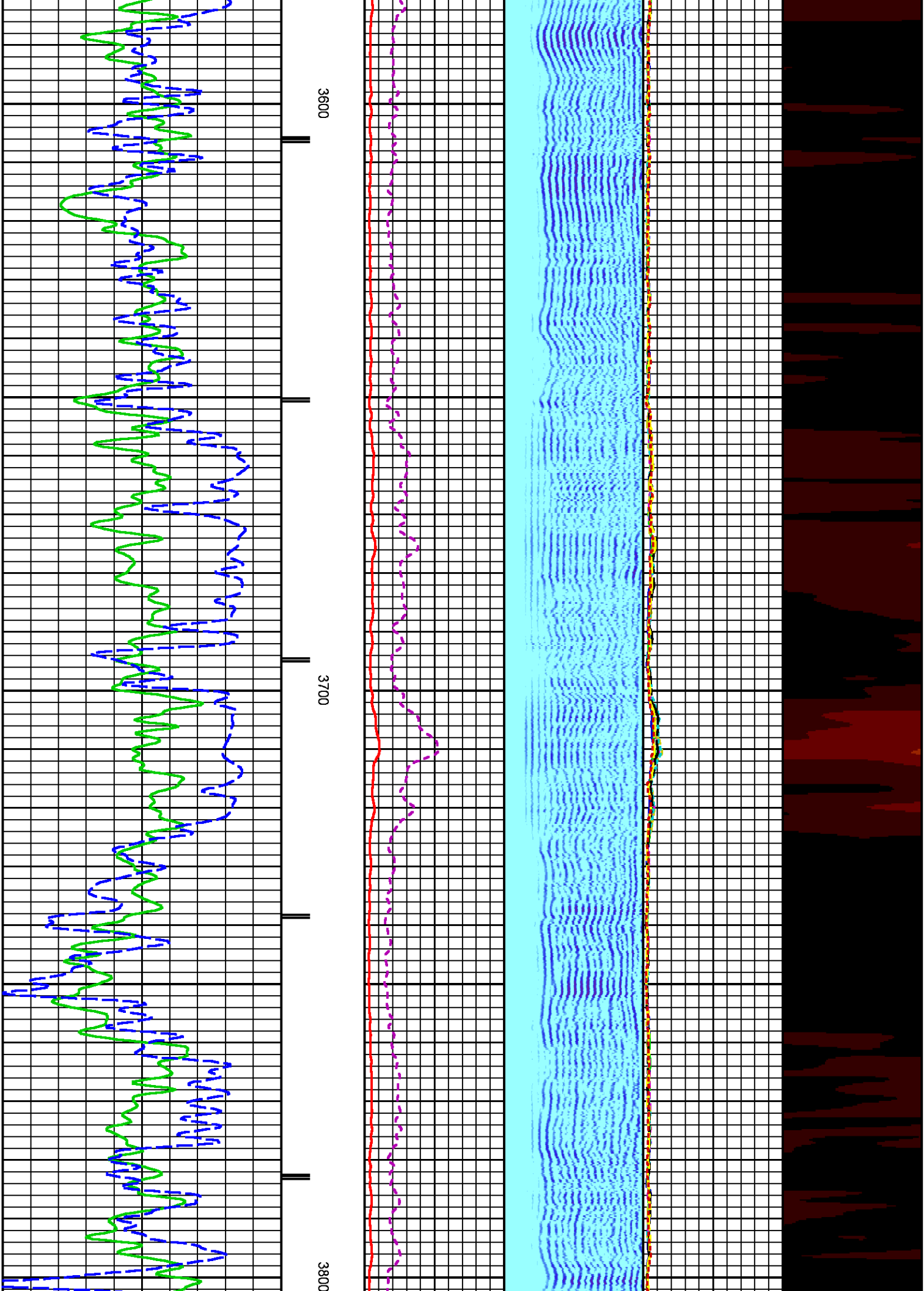


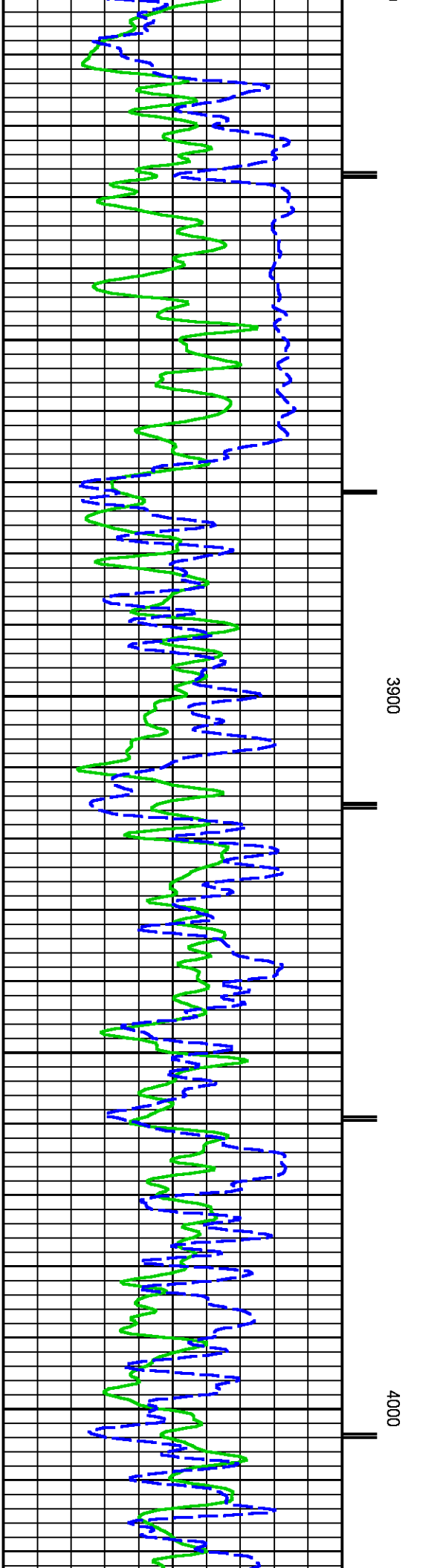
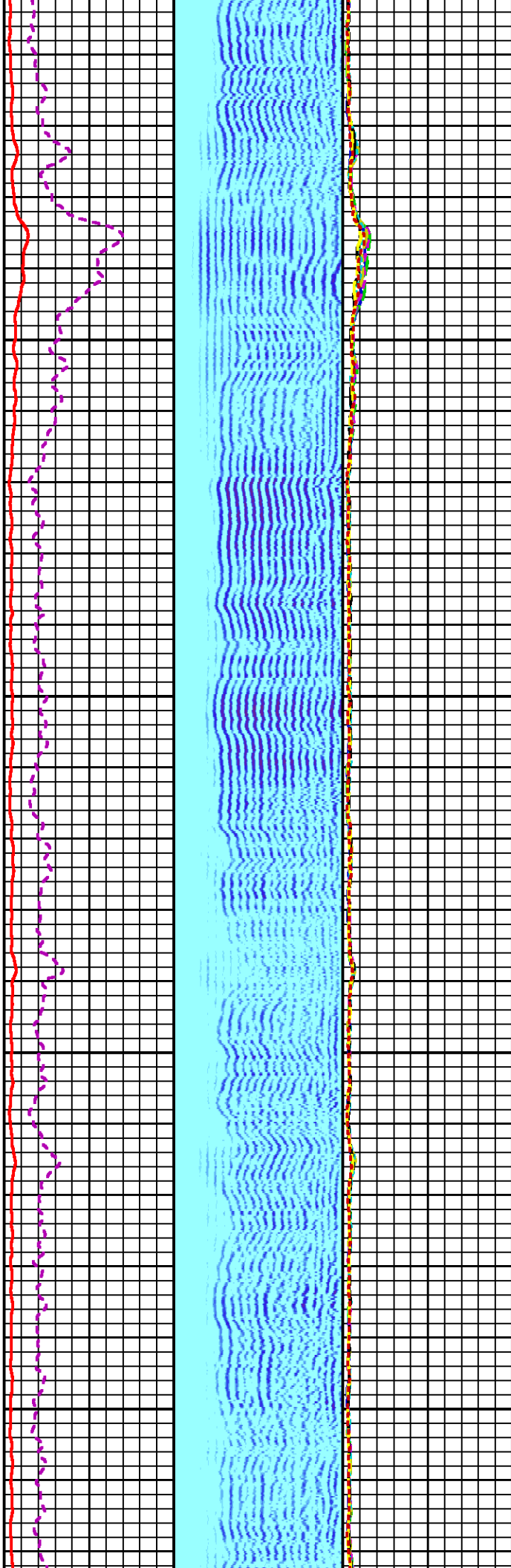
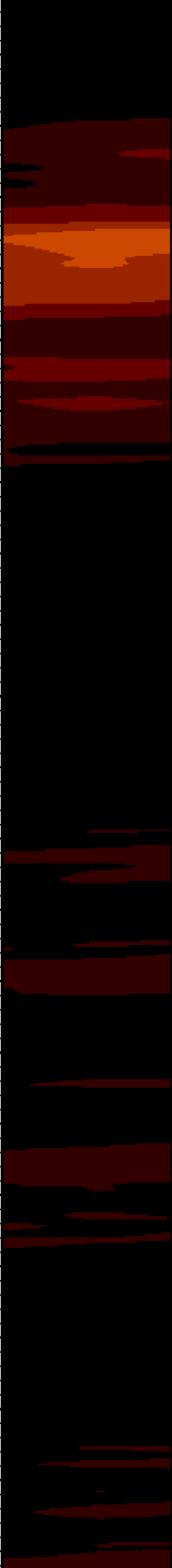


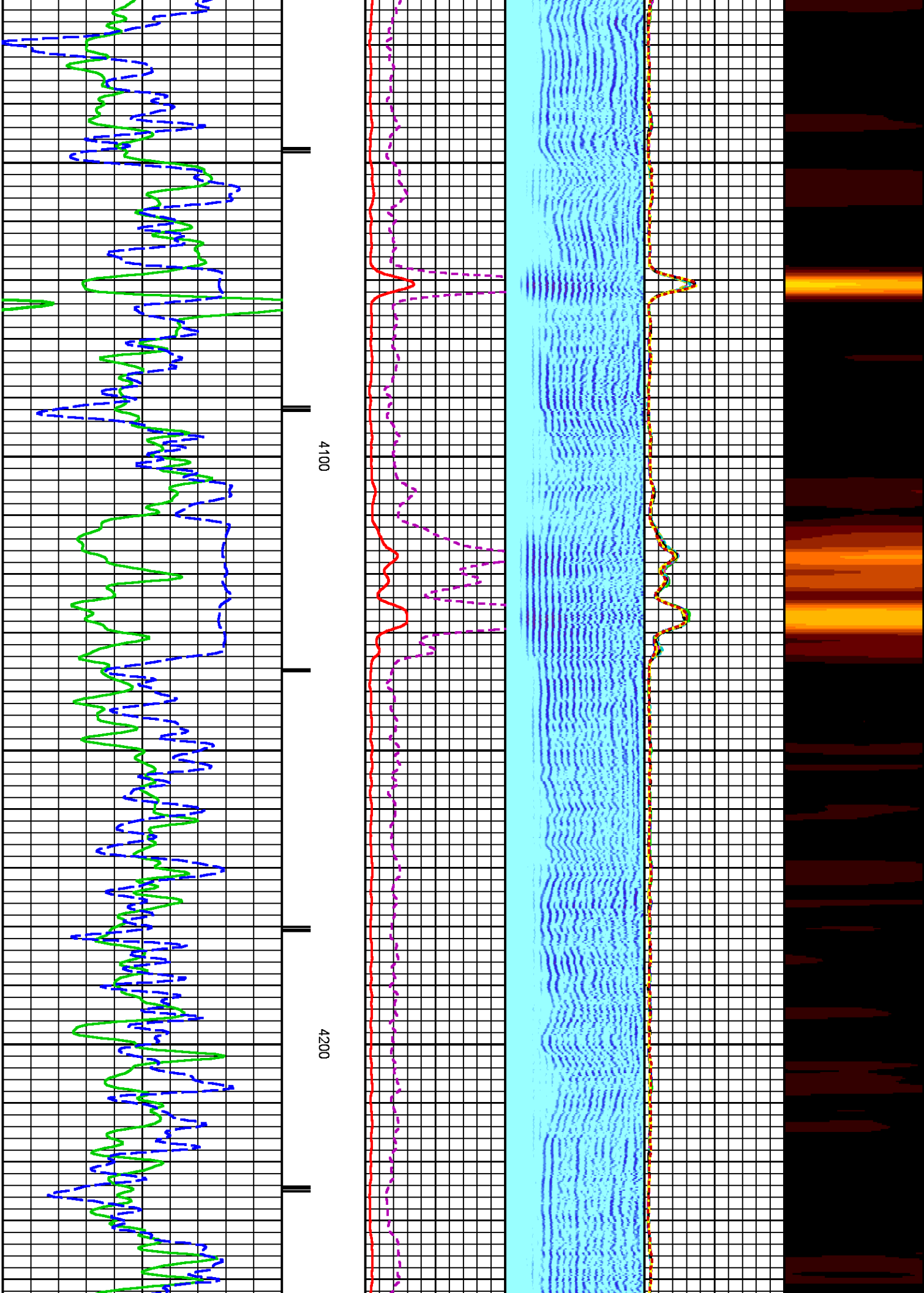


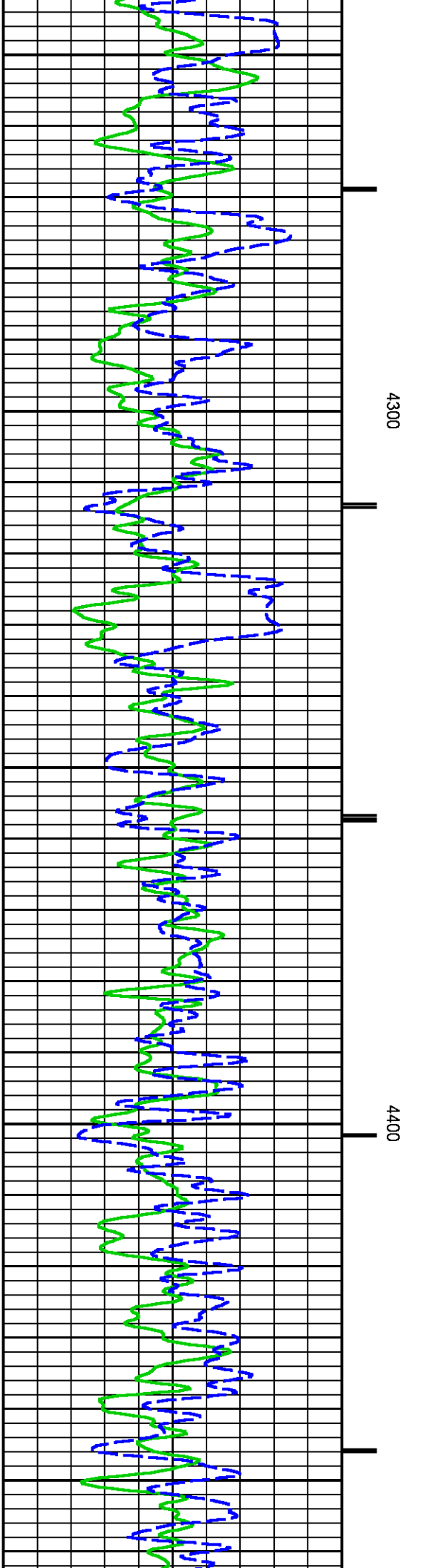
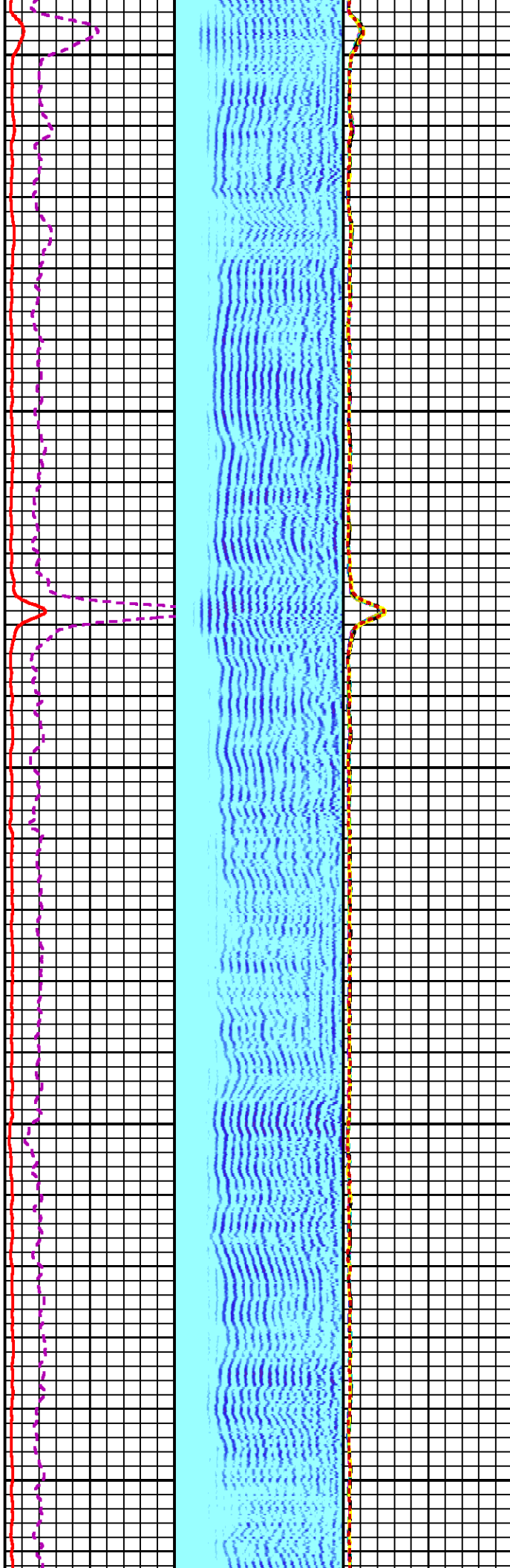
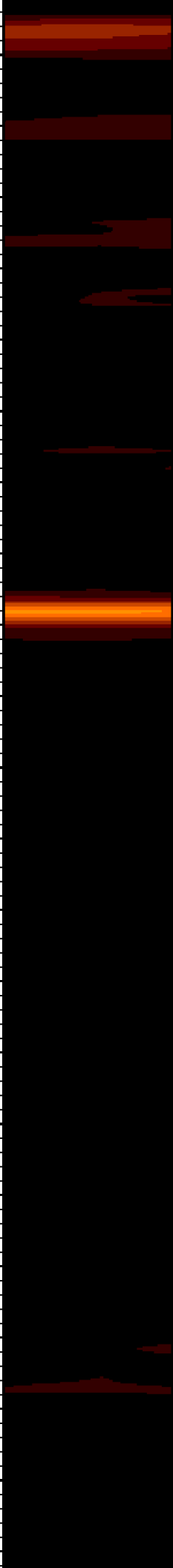


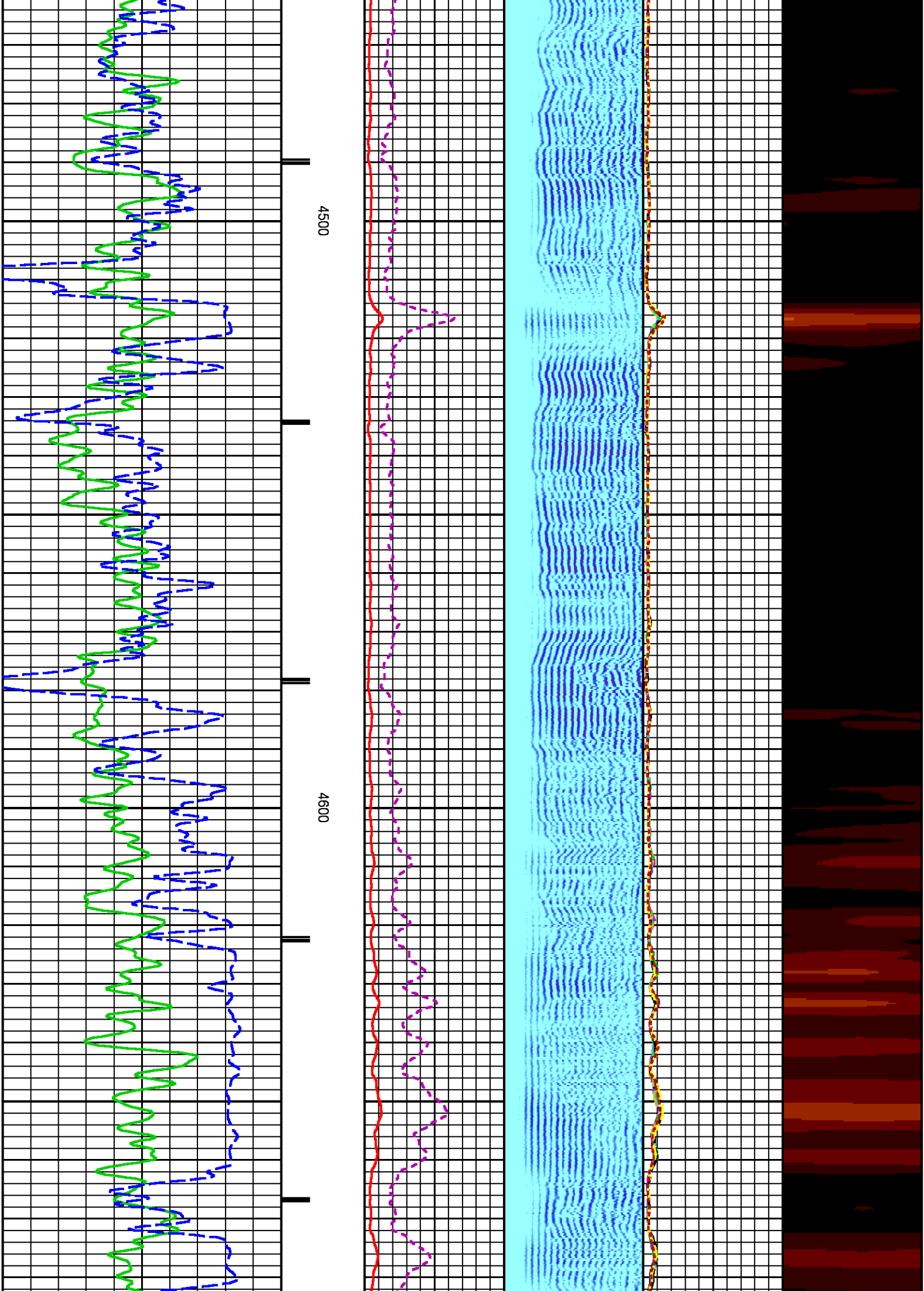


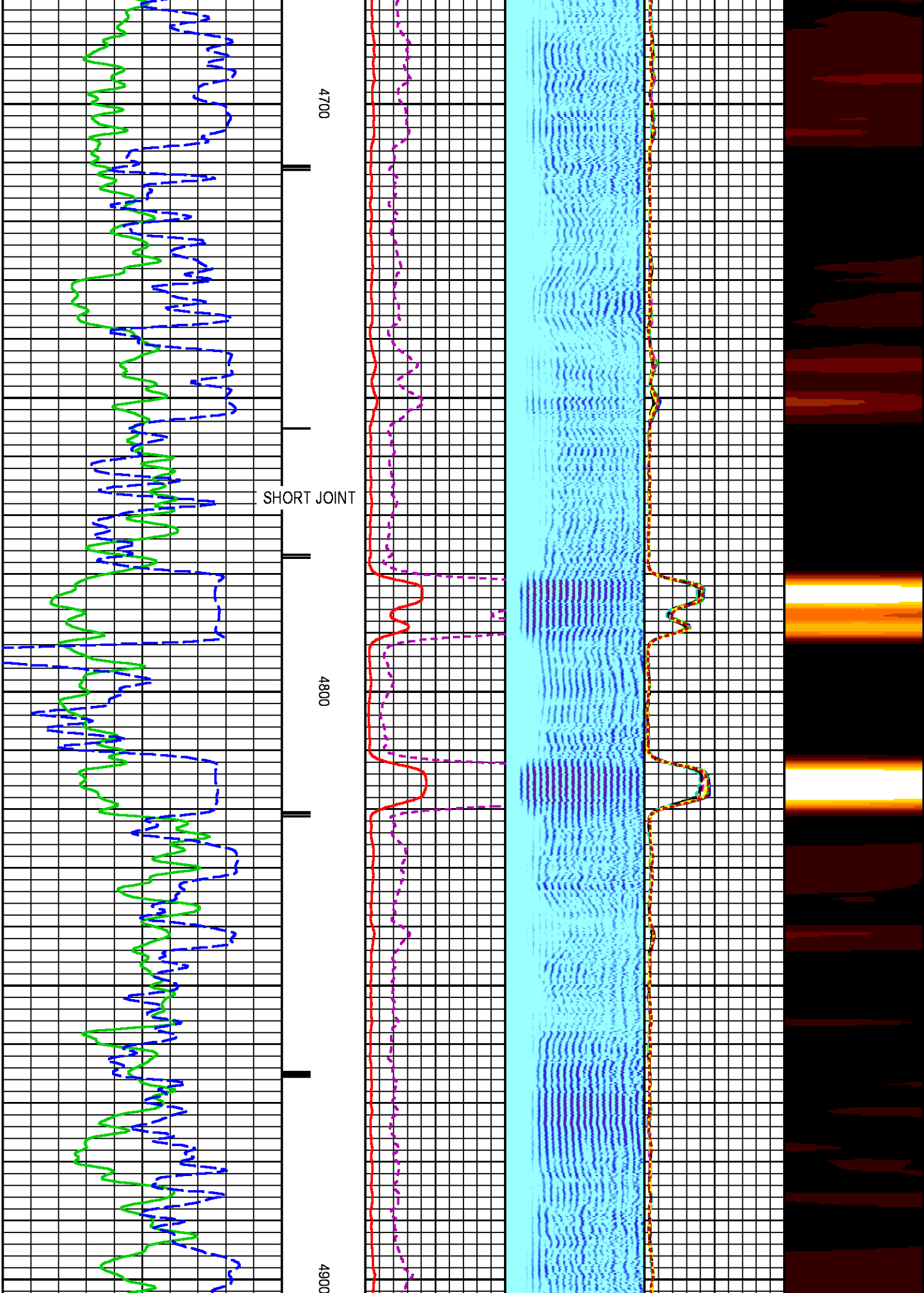


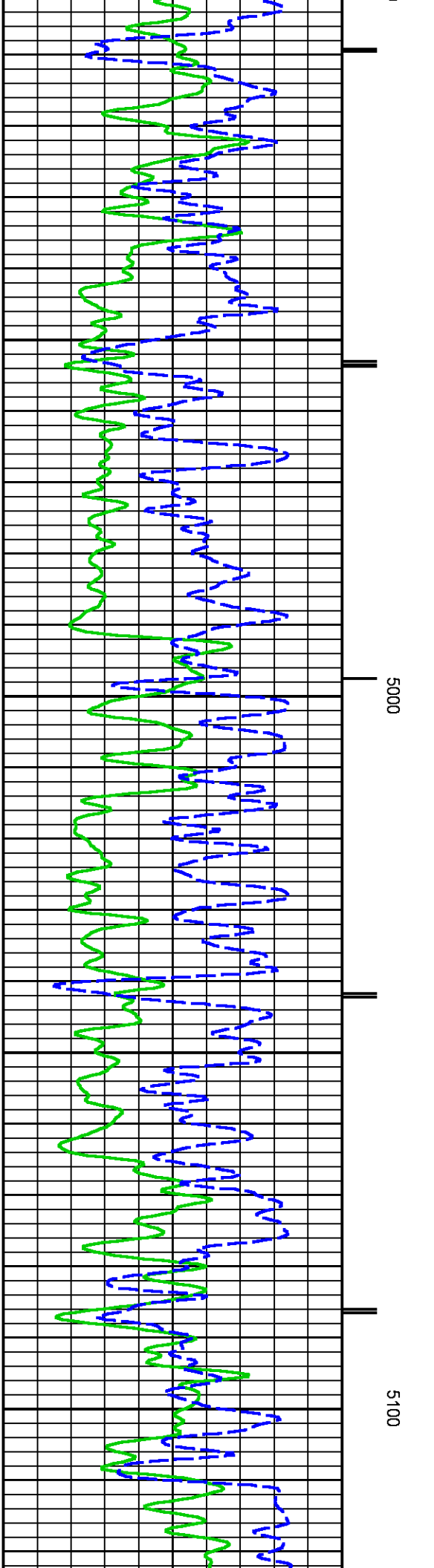
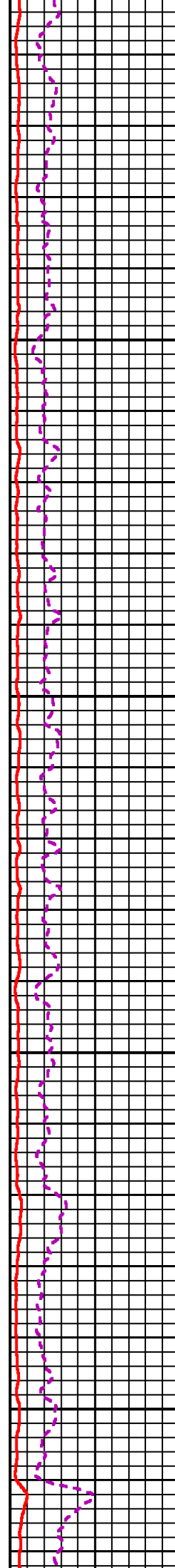
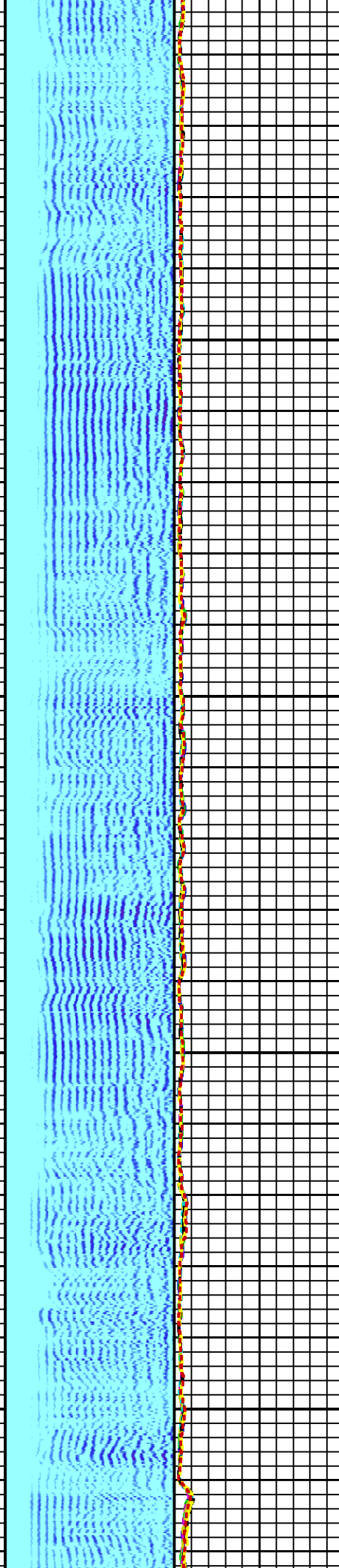
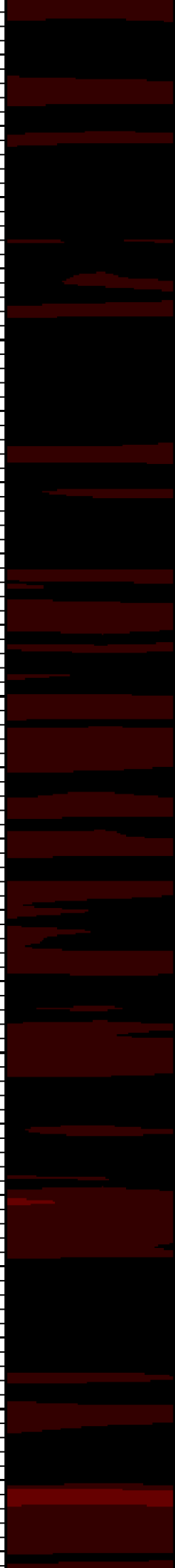


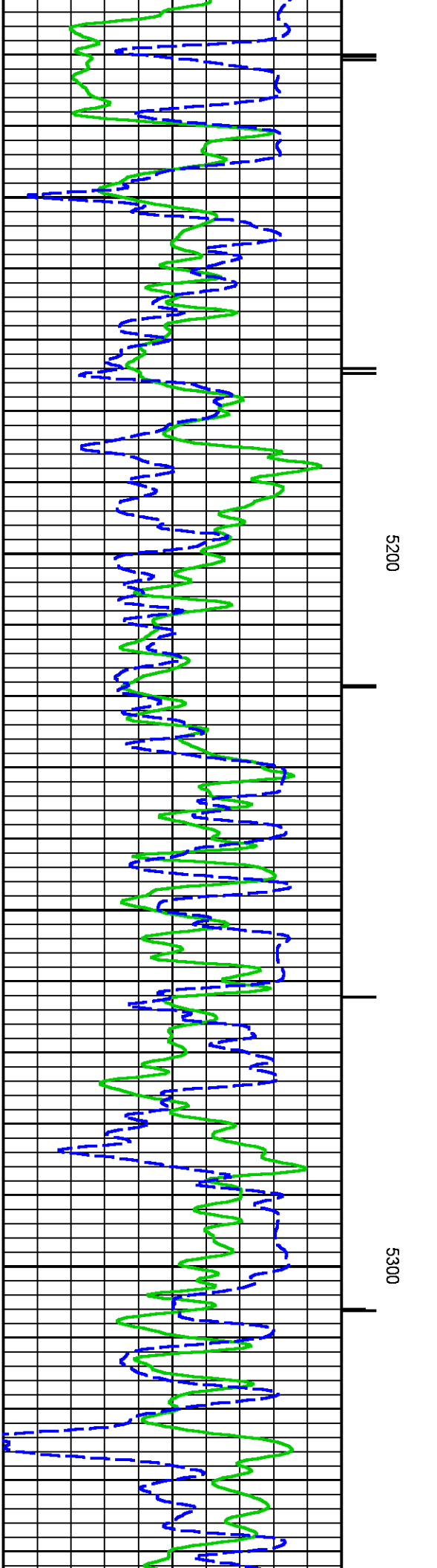
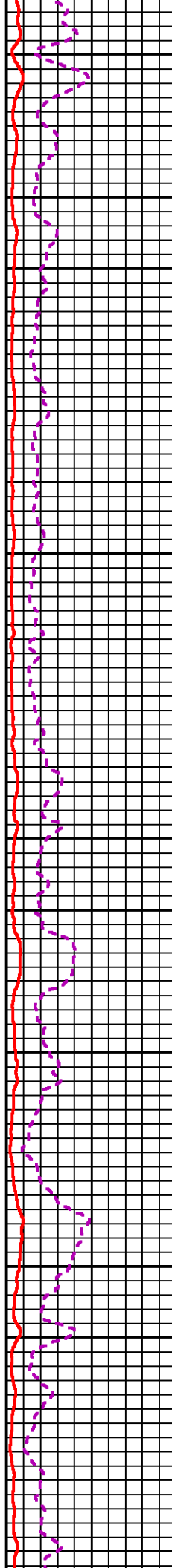
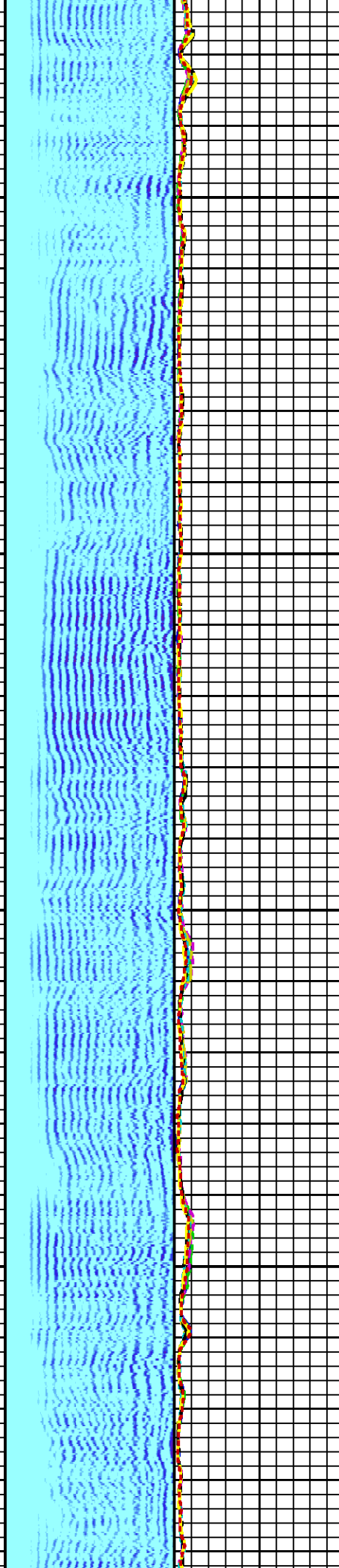
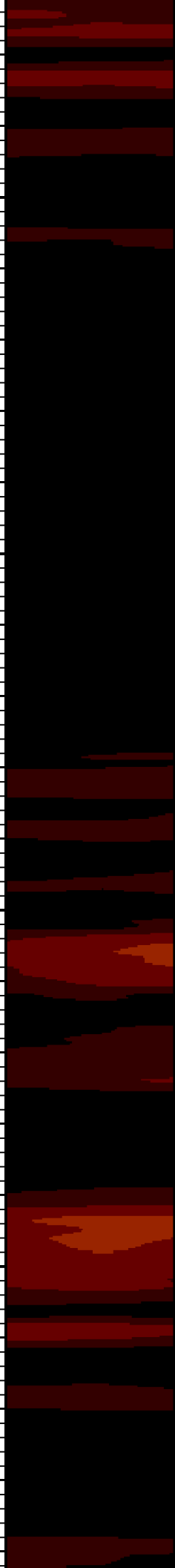


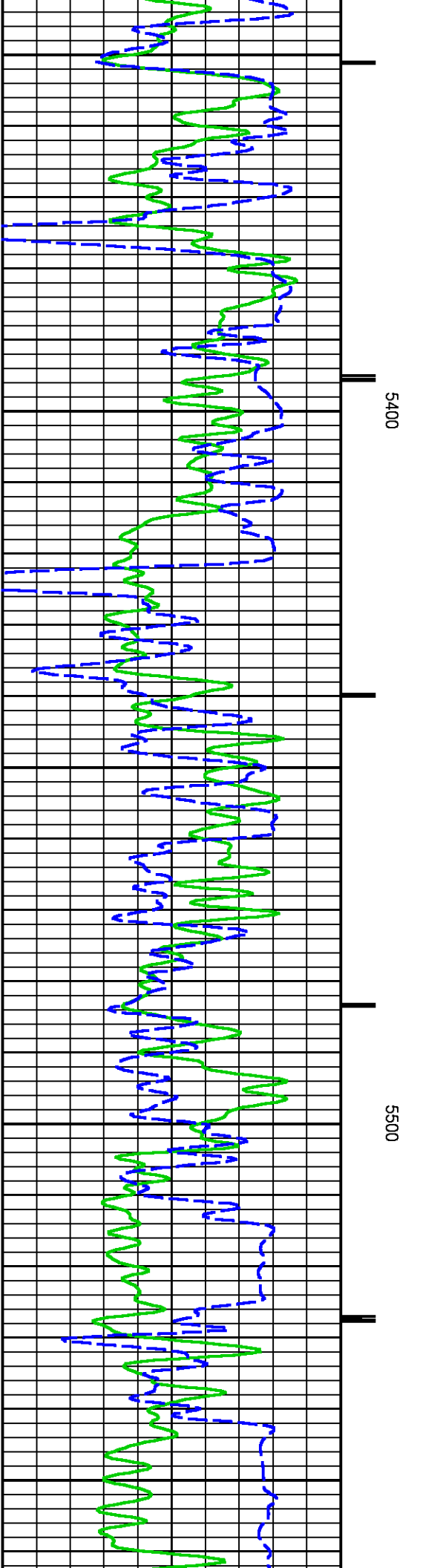
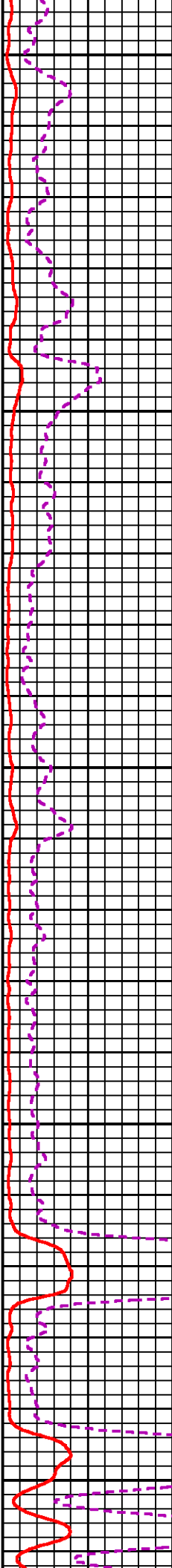
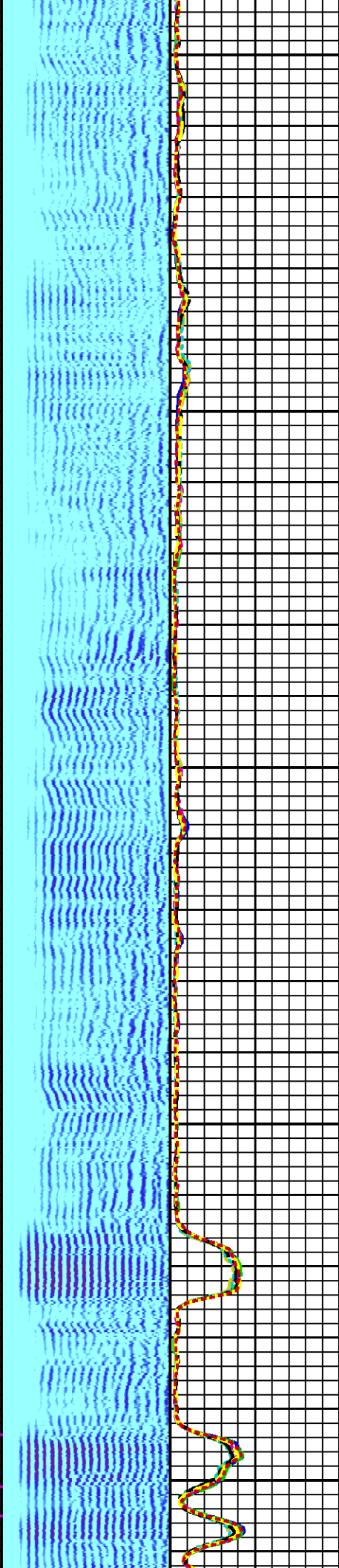


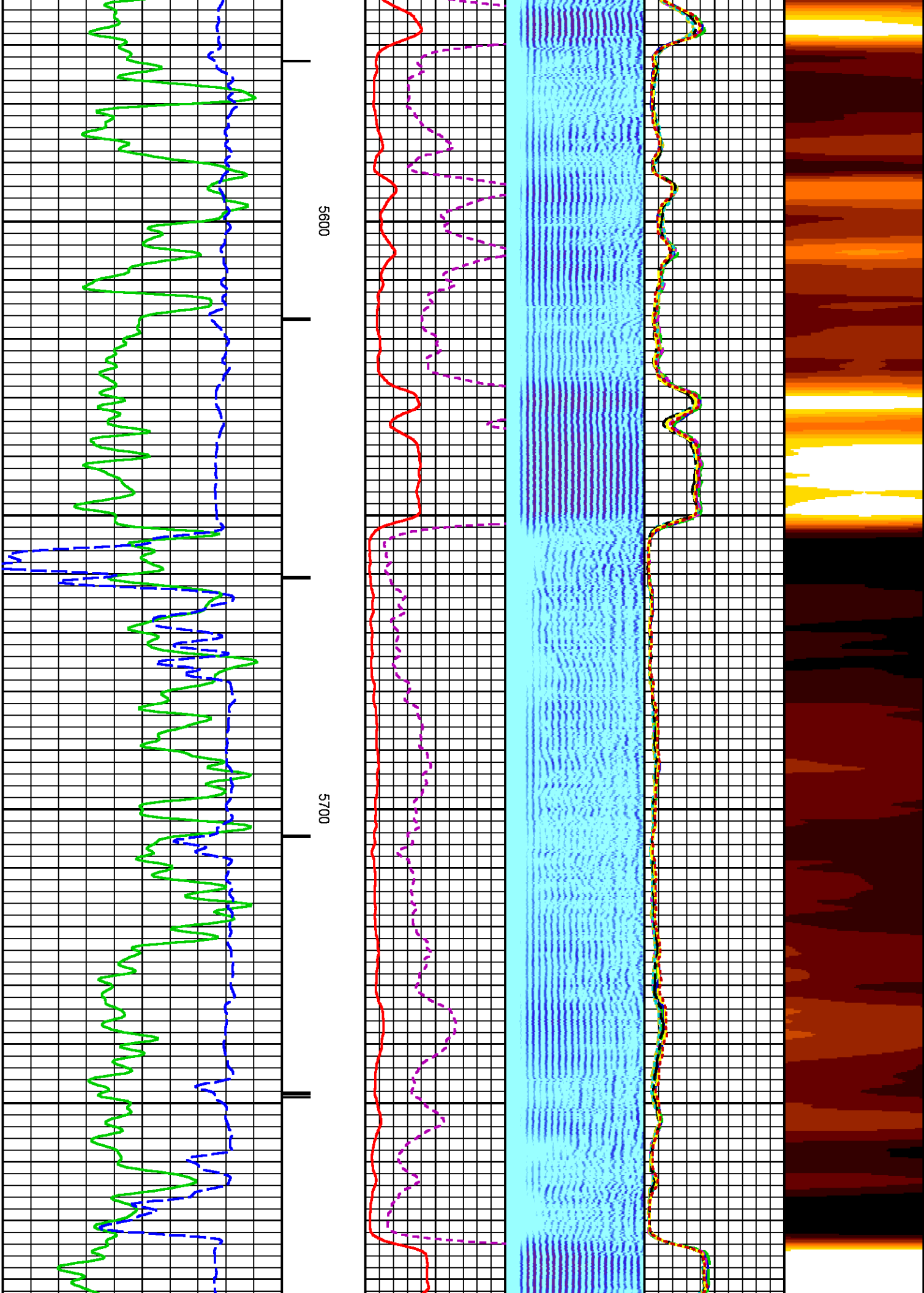


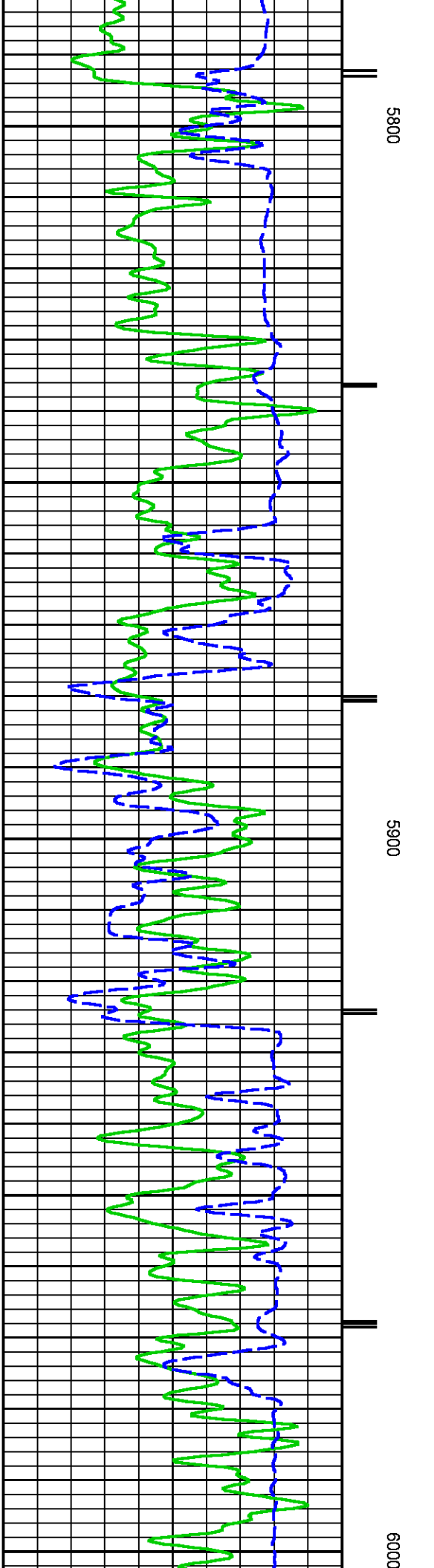
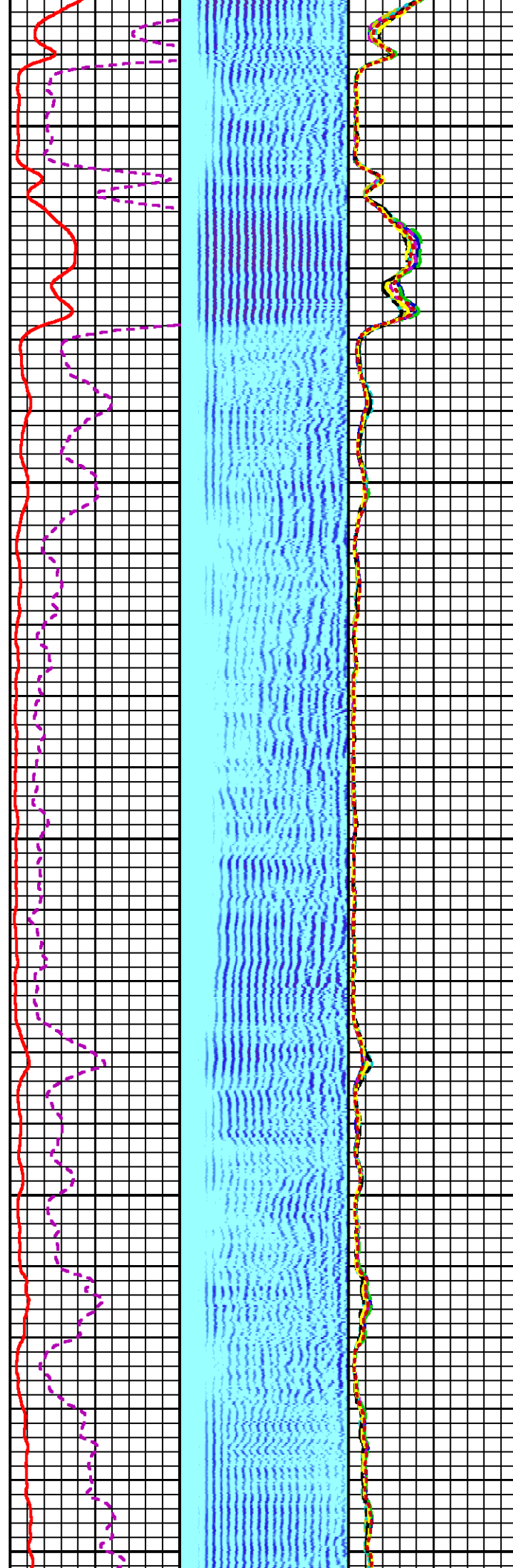
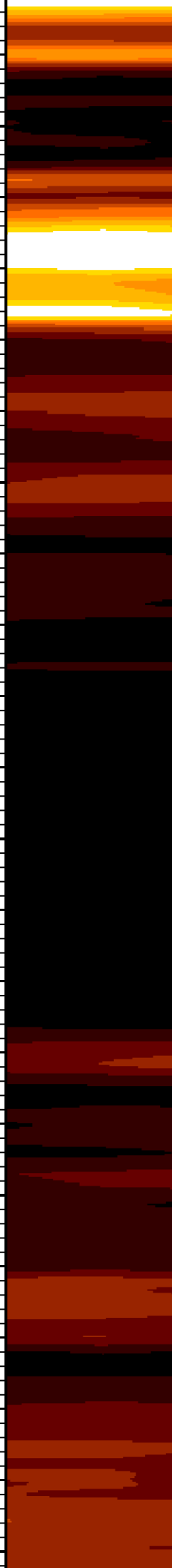


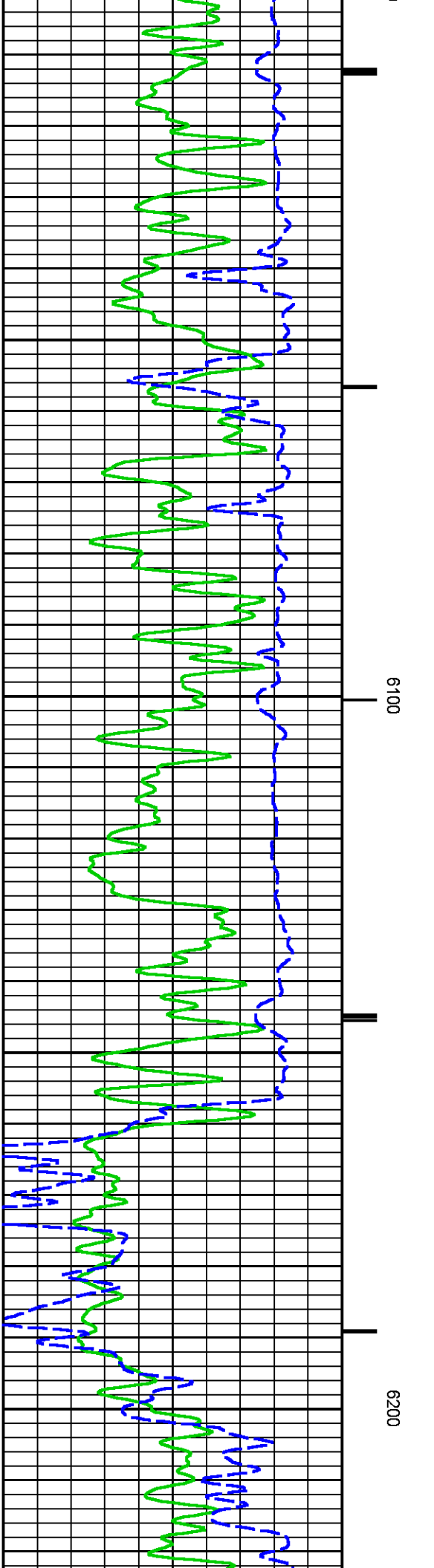
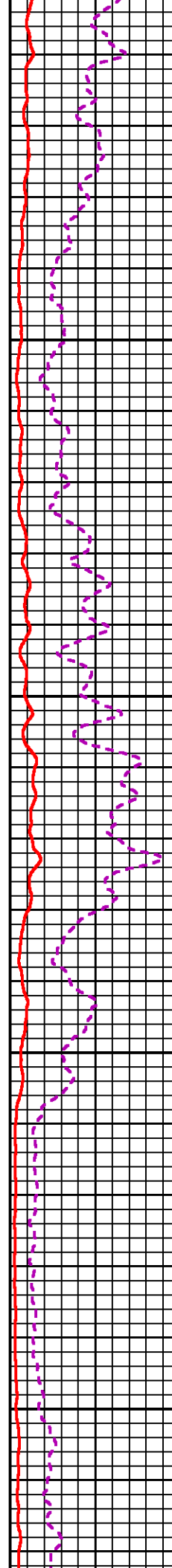
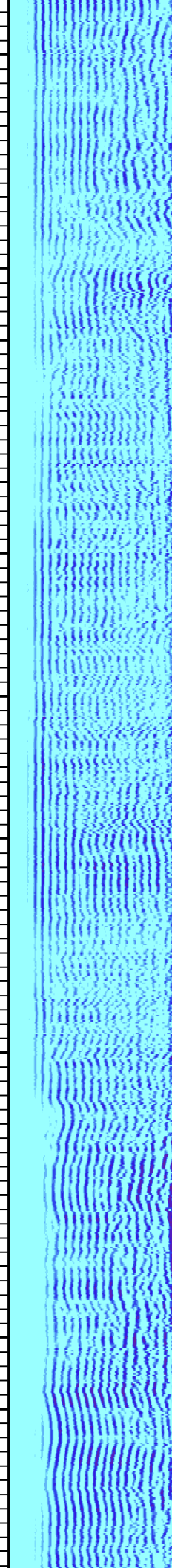
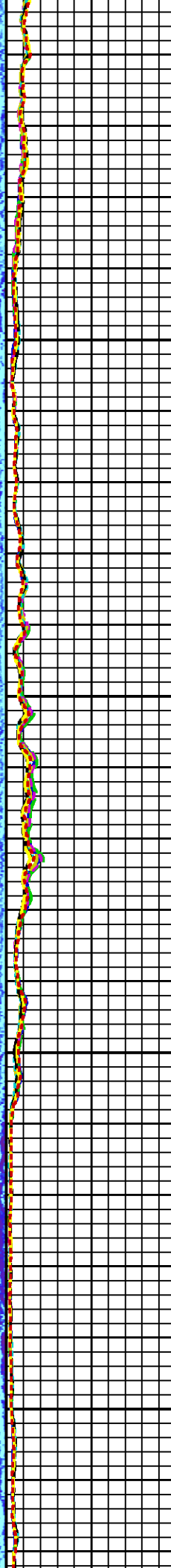
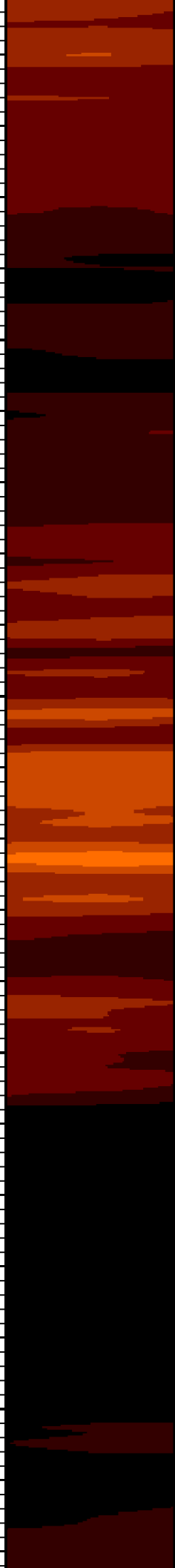


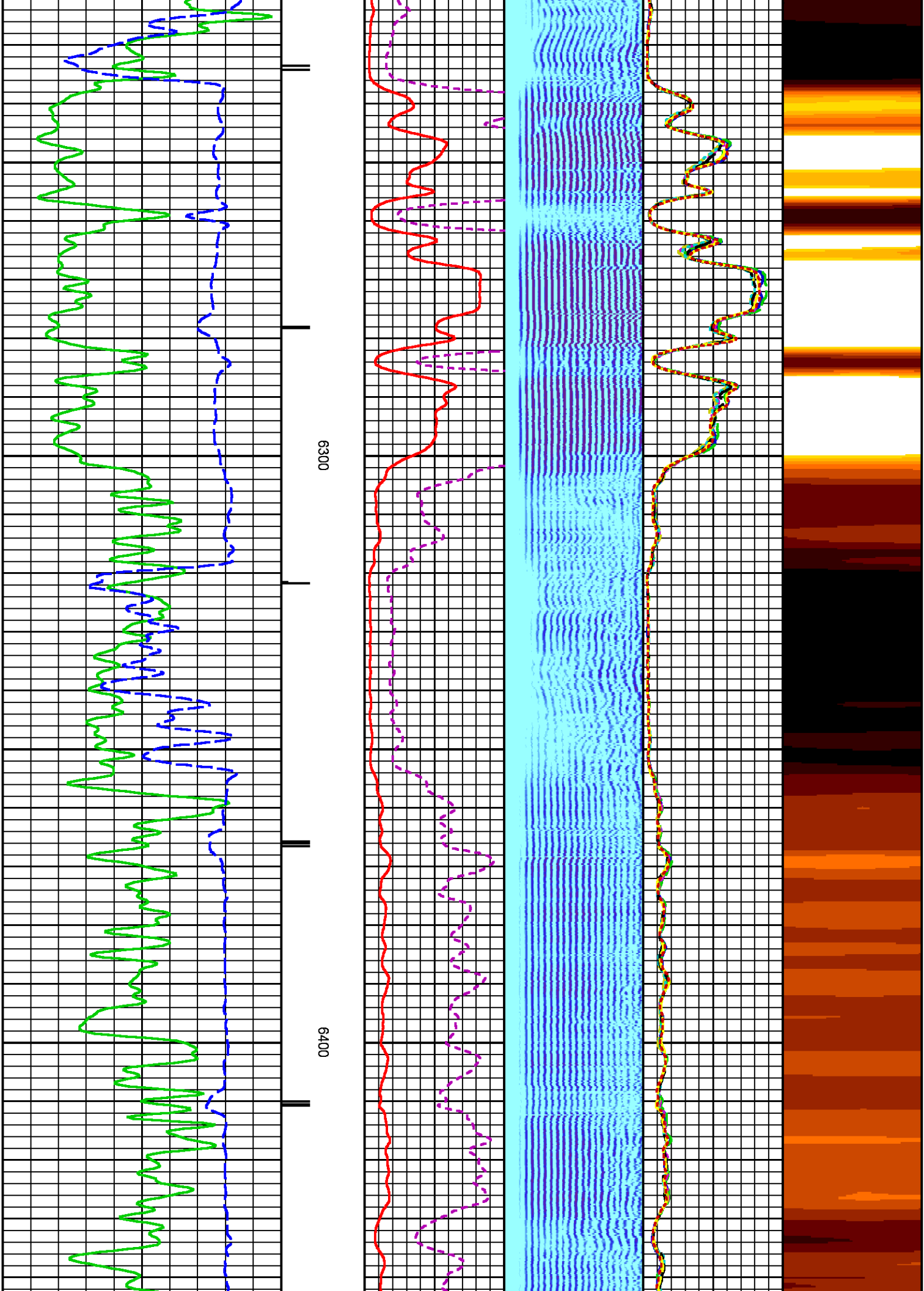


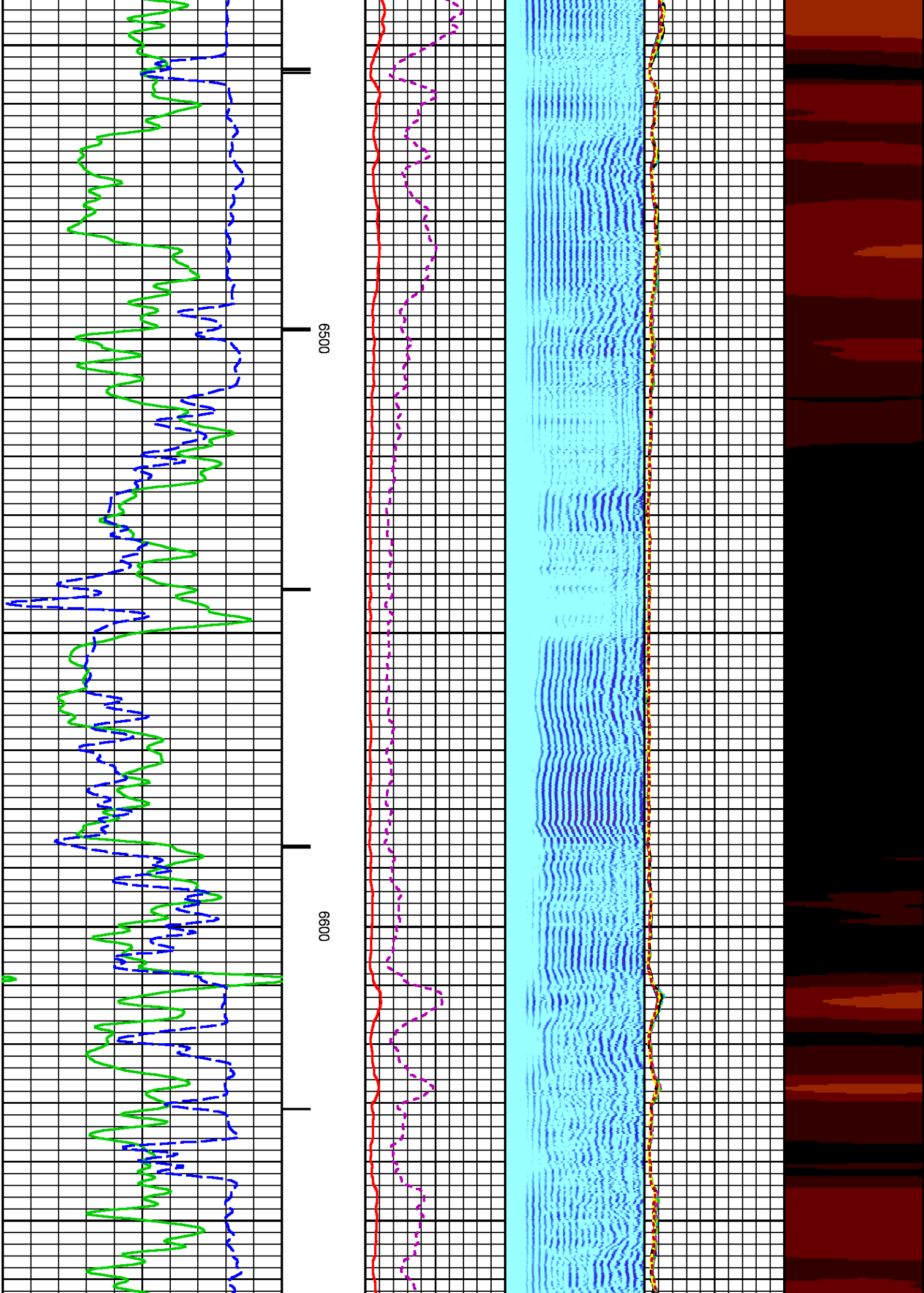


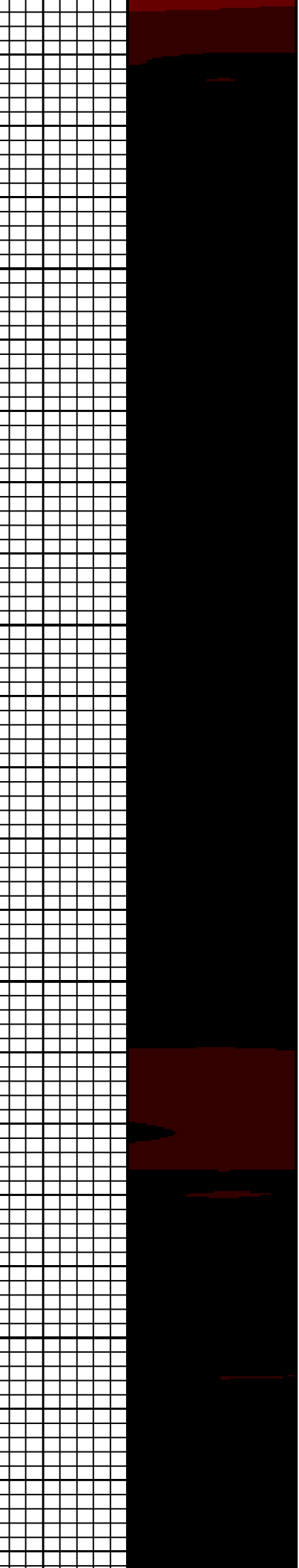
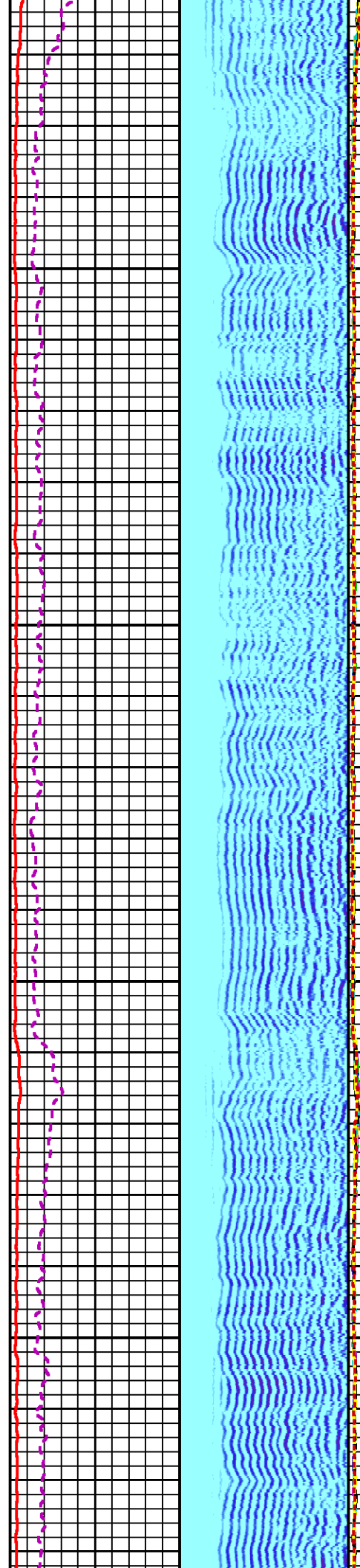
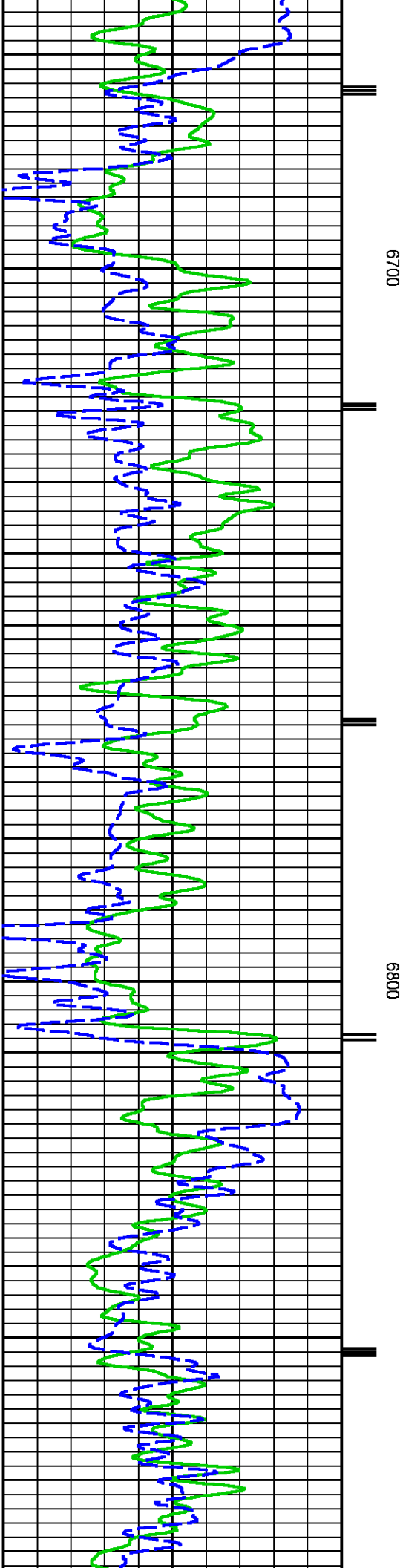


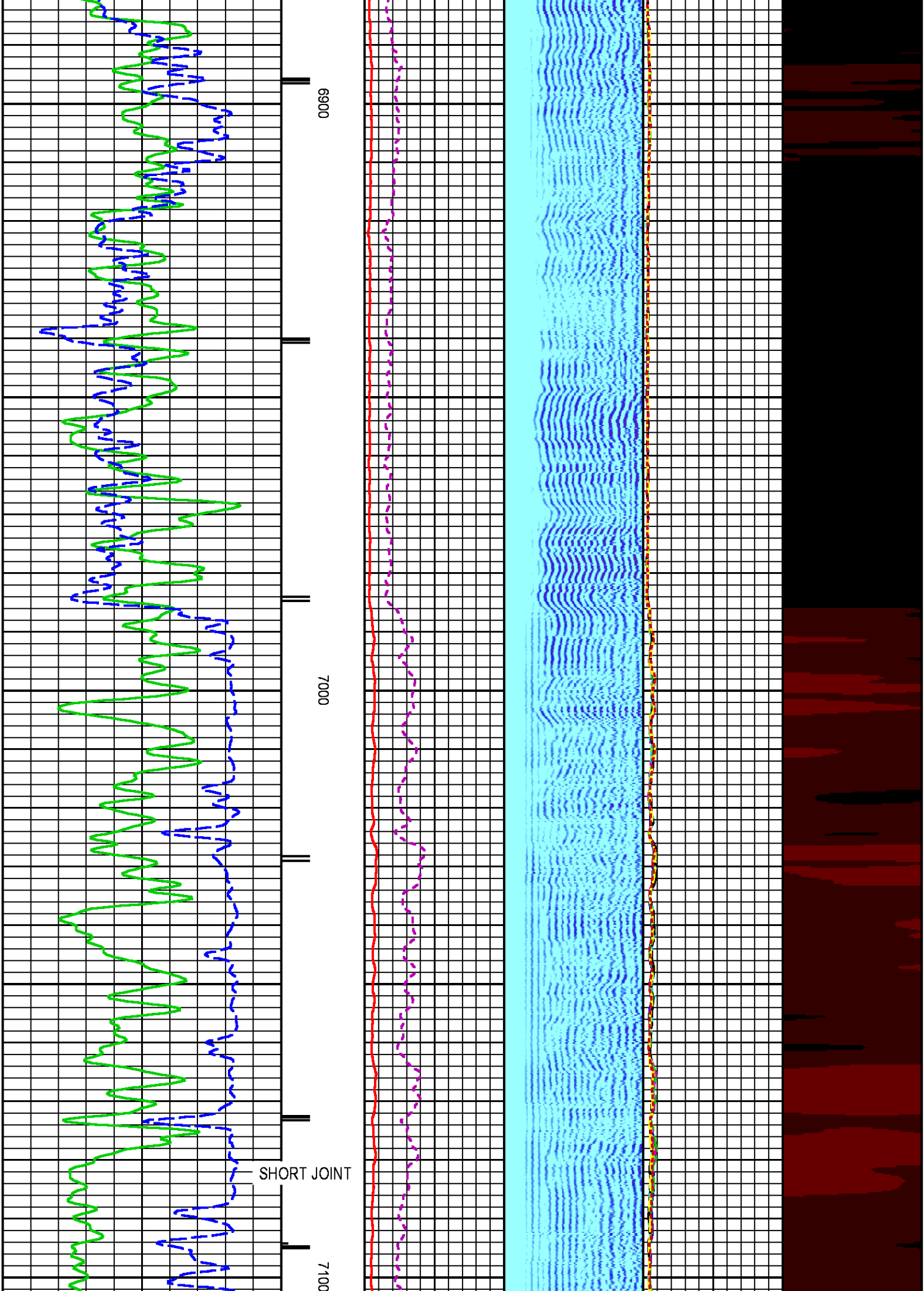


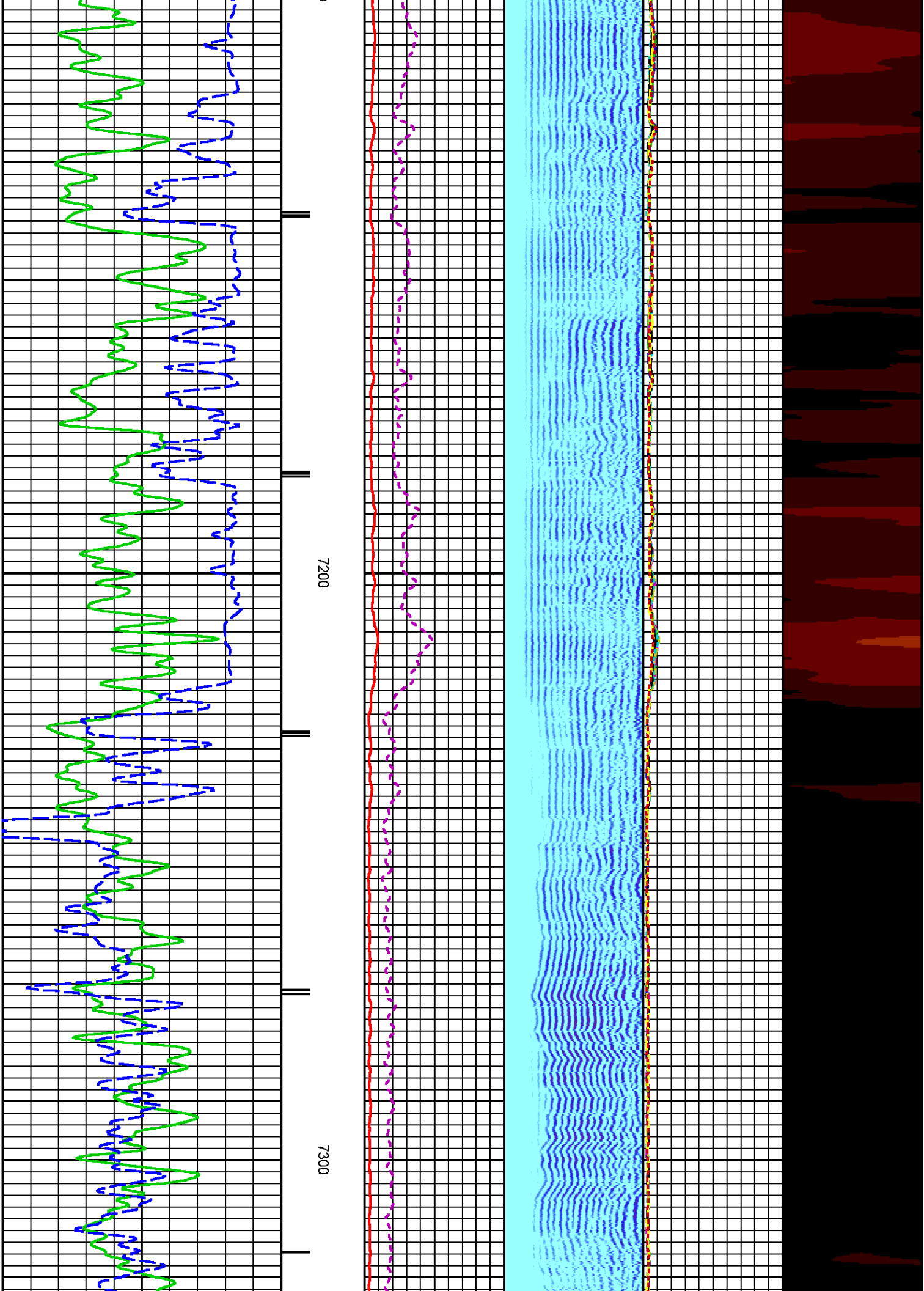


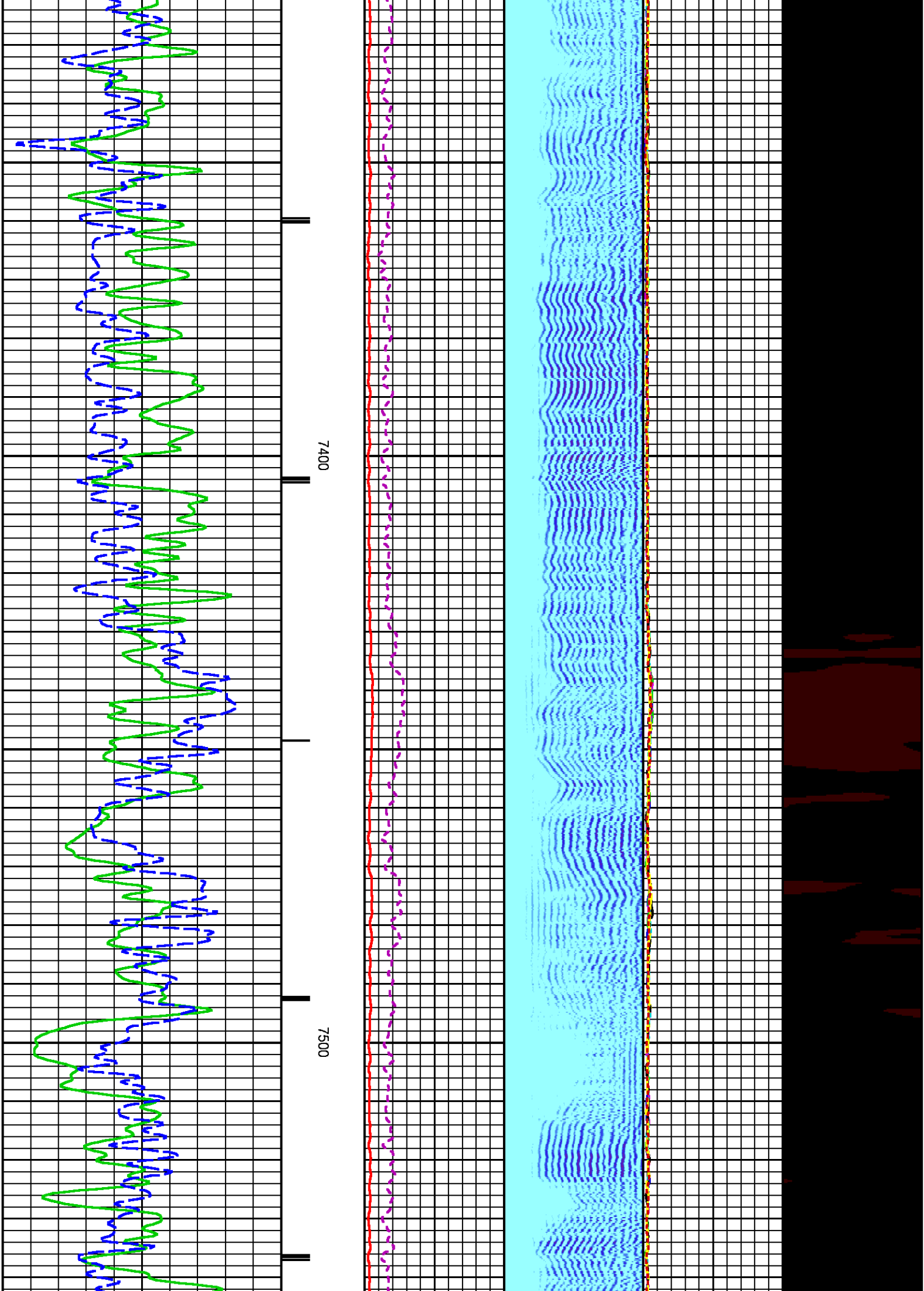


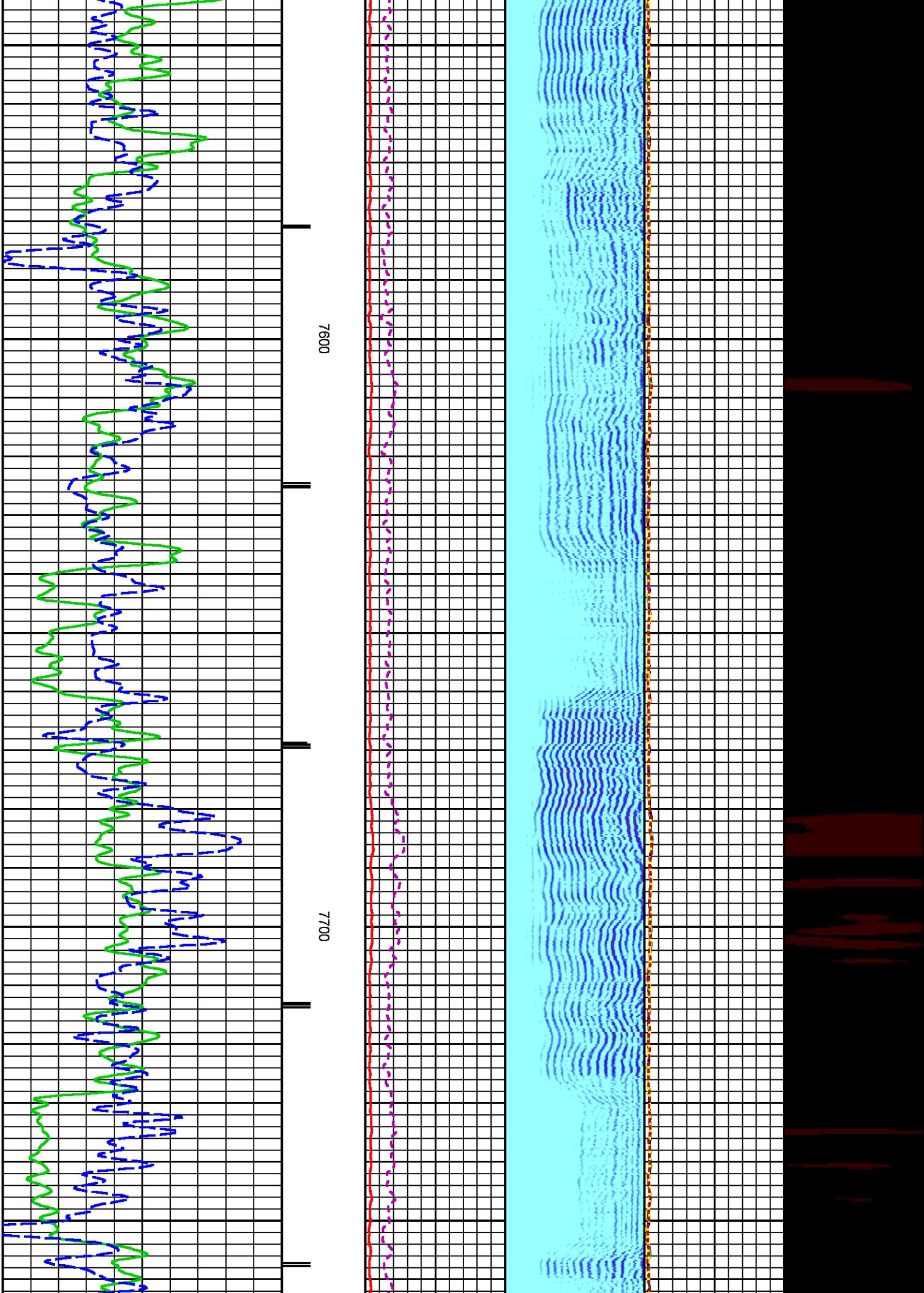


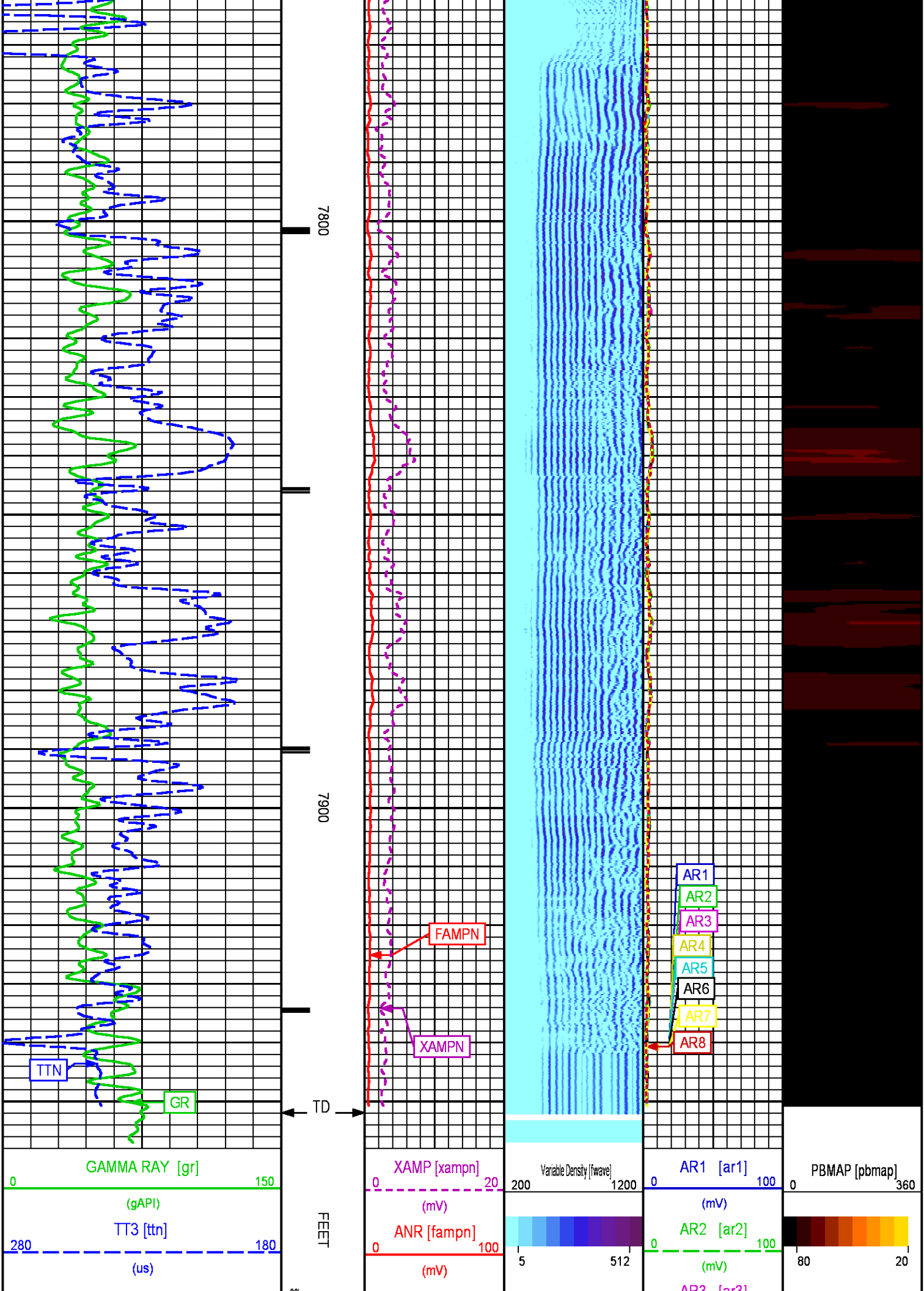


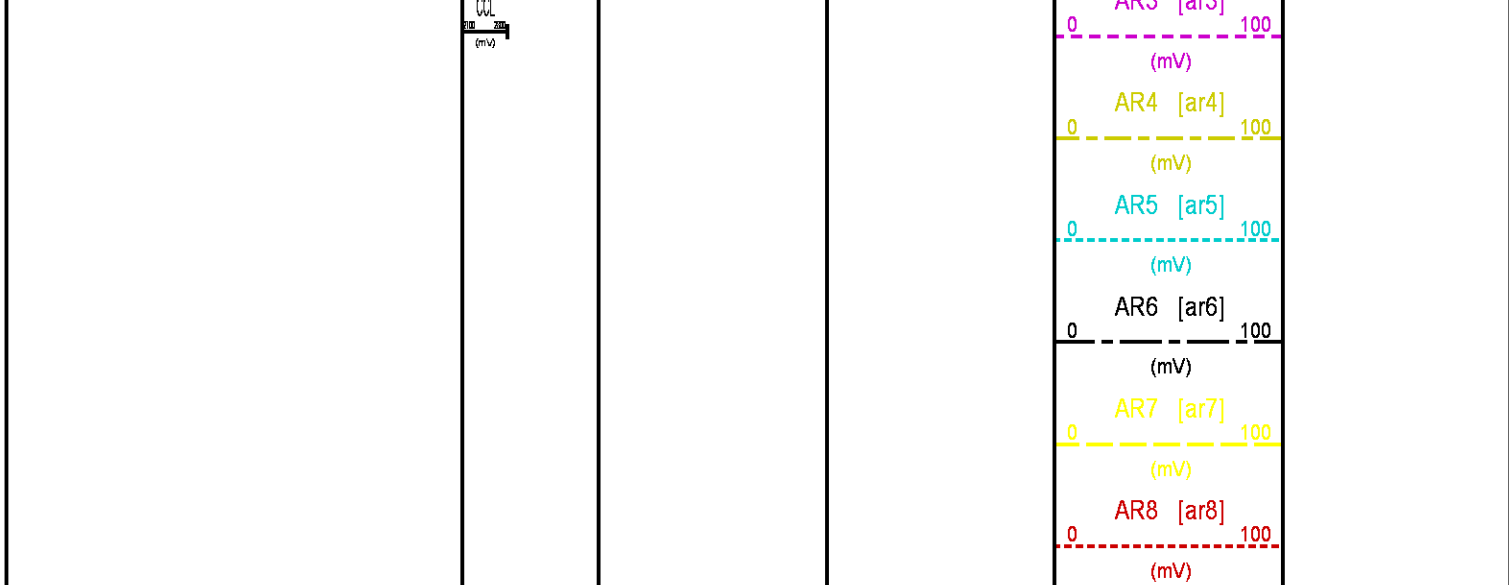












REPEAT PRESENTATION 0 PSI

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013
Updates: 1 Patches: 6

Plotted: Wed Apr 8 09:25:47 2015

PARAMETER AND FILTER SUMMARY REPORT

FILE: /data/CH094532/n012g01.prm
LOGGING MODE: DPTH DIRECTION: UP
TOP DEPTH: 7689.750 ft BOTTOM DEPTH: 7959.250 ft

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR	FILTER ()	medium (1)		TOP	BOTTOM
AMPLITUDE	FILTER ()	medium (1)		"	"
TRAVEL TIME	FILTER ()	medium (1)		"	"

RAL CCL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CCL FLOOR	CCL FLOOR	0		TOP	BOTTOM

ANALOG RAL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
AMPLITUDE WINDOW (NEAR)	AMP WINDOW START (fgp1*)	187	us	TOP	BOTTOM
	AMP WINDOW START (fgp2*)	187	us	"	"
	AMP WINDOW START (fgp3*)	187	us	"	"
	AMP WINDOW START (fgp4*)	187	us	"	"
	AMP WINDOW START (fgp5*)	187	us	"	"
	AMP WINDOW START (fgp6*)	187	us	"	"
	AMP WINDOW START (fgp7*)	187	us	"	"
	AMP WINDOW START (fgp8*)	187	us	"	"
	AMP WINDOW START (fgpn*)	187	us	"	"
	AMP WINDOW LENGTH	25	us	"	"
TRAVEL TIME WINDOW (NEAR)	TT WINDOW START (ttn*)	177	us	"	"
	TT WINDOW LENGTH	500	us	"	"
	FIRST BRK THRESHOLD (ttn*)	4	mV	"	"
RAL CASING PARAMETERS	PPT NEAR	200.391	us	"	"

RAL TOOL DELAY	TOOL DELAY (str1*)	-65	us	"	"
	TOOL DELAY (str2*)	-65	us	"	"
	TOOL DELAY (str3*)	-65	us	"	"
	TOOL DELAY (str4*)	-65	us	"	"
	TOOL DELAY (str5*)	-65	us	"	"
	TOOL DELAY (str6*)	-65	us	"	"
	TOOL DELAY (str7*)	-65	us	"	"
	TOOL DELAY (str8*)	-65	us	"	"
	TOOL DELAY (strn*)	-65	us	"	"
	NOISE WINDOW START	136	us	"	"
BASELINE NOISE (NEAR)	NOISE WINDOW LENGTH	25	us	"	"

PERCENT BOND CEMENT MAP

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
RAL FREE PIPE AMPLITUDE	FREE AMP REC 1	80	mV	TOP	BOTTOM
	FREE AMP REC 2	80	mV	"	"
	FREE AMP REC 3	80	mV	"	"
	FREE AMP REC 4	80	mV	"	"
	FREE AMP REC 5	80	mV	"	"
	FREE AMP REC 6	80	mV	"	"
	FREE AMP REC 7	80	mV	"	"
	FREE AMP REC 8	80	mV	"	"
RAL FULL BOND AMPLITUDE	FULL BOND AMP REC 1	2	mV	"	"
	FULL BOND AMP REC 2	2	mV	"	"
	FULL BOND AMP REC 3	2	mV	"	"
	FULL BOND AMP REC 4	2	mV	"	"
	FULL BOND AMP REC 5	2	mV	"	"
	FULL BOND AMP REC 6	2	mV	"	"
	FULL BOND AMP REC 7	2	mV	"	"
	FULL BOND AMP REC 8	2	mV	"	"

CURVE DESCRIPTION REPORT

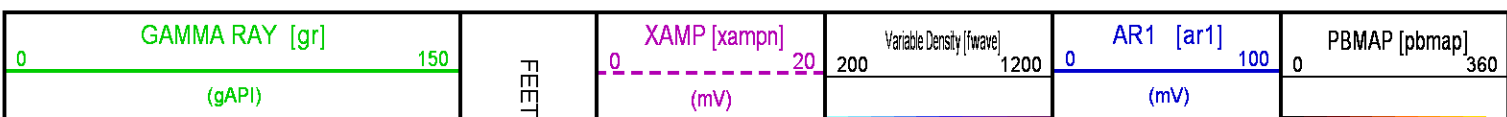
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:AR1	Apr 8 08:52:32 2015	FIXED GATE AMPLITUDE T-R1
F1:AR2	Apr 8 08:52:32 2015	FIXED GATE AMPLITUDE T-R2
F1:AR3	Apr 8 08:52:32 2015	FIXED GATE AMPLITUDE T-R3
F1:AR4	Apr 8 08:52:32 2015	FIXED GATE AMPLITUDE T-R4
F1:AR5	Apr 8 08:52:32 2015	FIXED GATE AMPLITUDE T-R5
F1:AR6	Apr 8 08:52:32 2015	FIXED GATE AMPLITUDE T-R6
F1:AR7	Apr 8 08:52:32 2015	FIXED GATE AMPLITUDE T-R7
F1:AR8	Apr 8 08:52:32 2015	FIXED GATE AMPLITUDE T-R8
F1:CCL	Apr 8 08:52:32 2015	CASING COLLAR LOCATOR
F1:FAMPN	Apr 8 08:52:32 2015	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Apr 8 08:52:32 2015	FAR WAVE FORM
F1:GR	Apr 8 08:52:32 2015	GAMMA RAY
F1:PBMAP	Apr 8 08:52:32 2015	PERCENT BOND CEMENT MAP
F1:TTN	Apr 8 08:52:32 2015	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Apr 8 08:52:32 2015	FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE

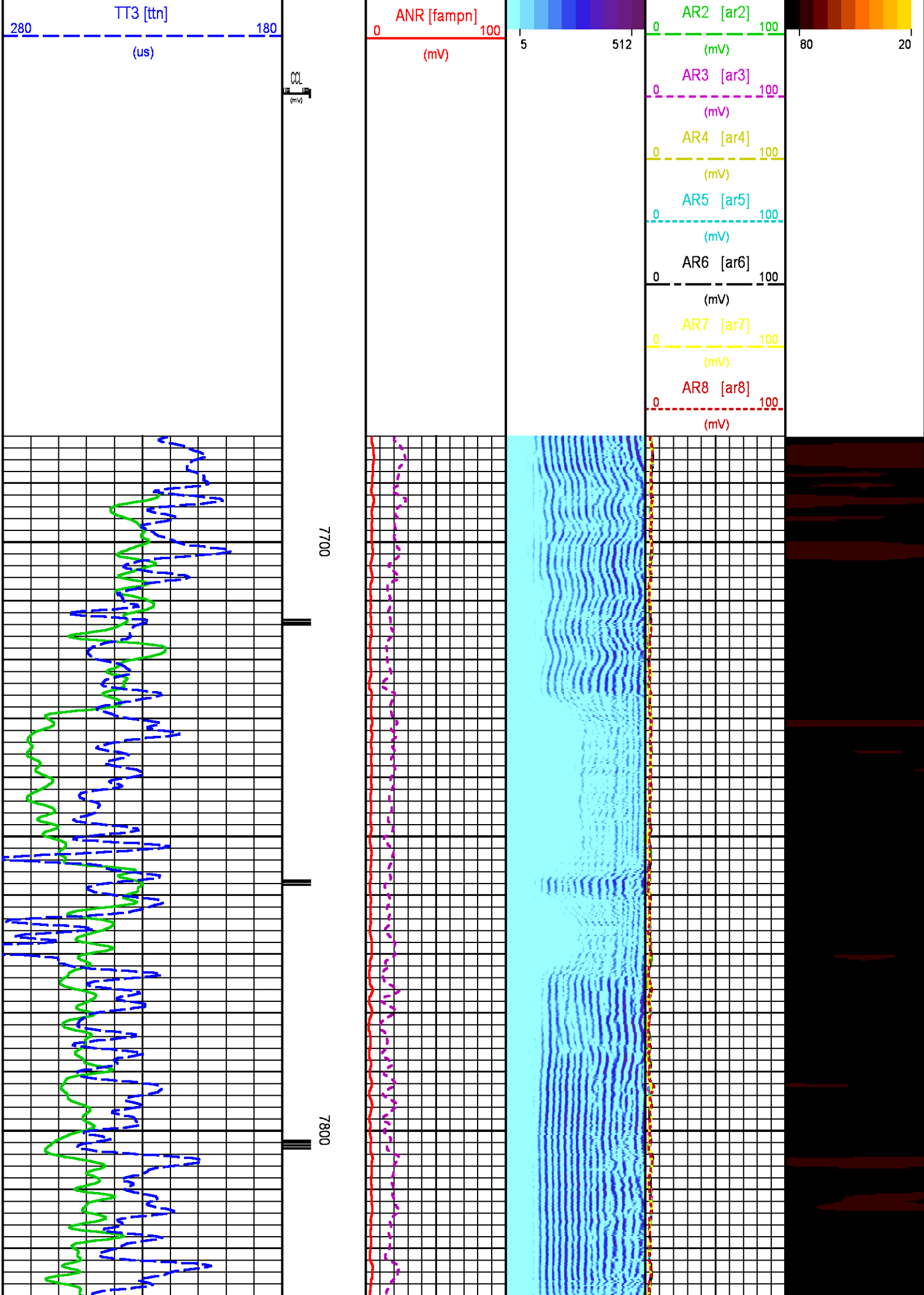
CURVE MEASURE POINT OFFSET

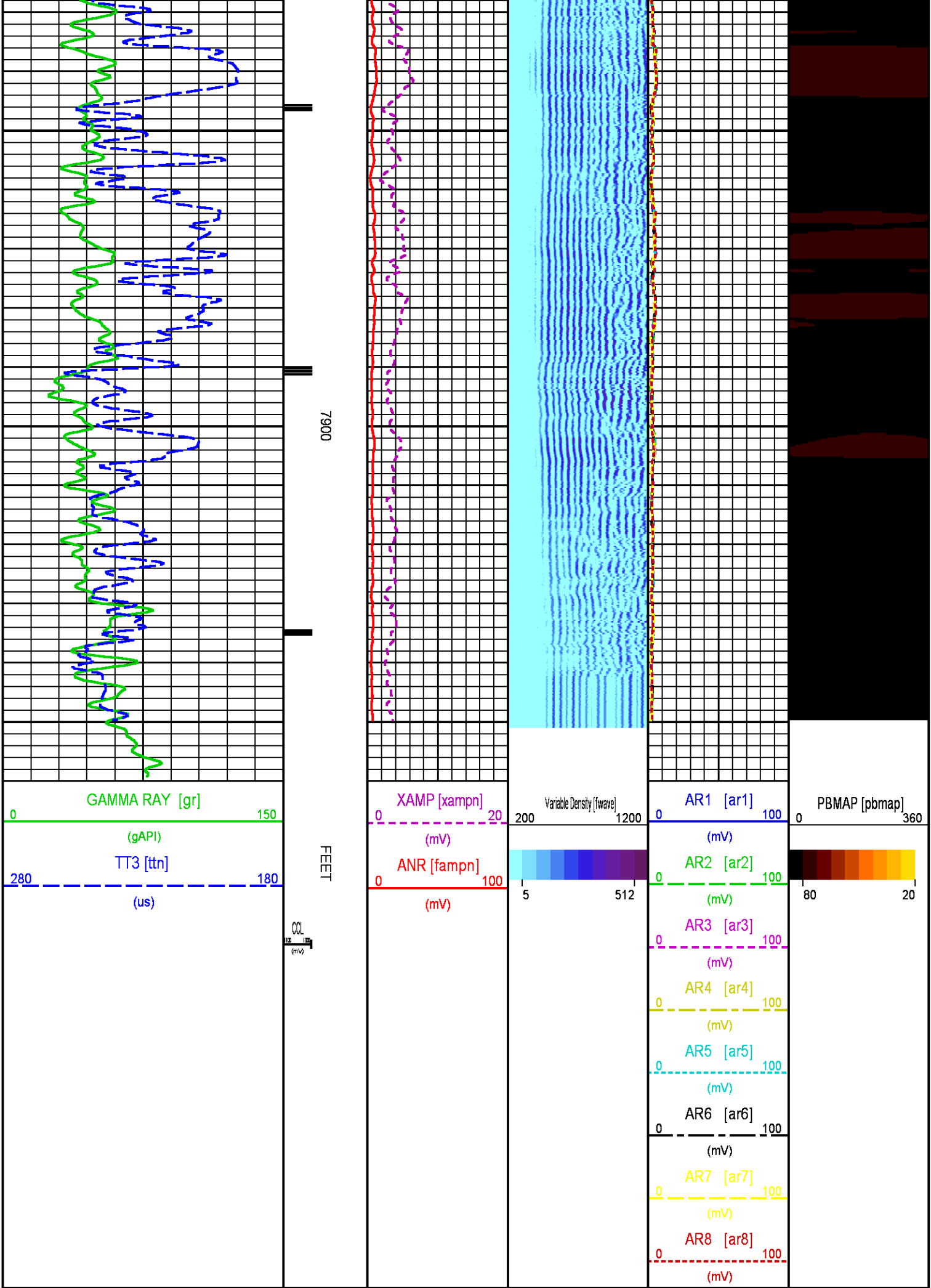
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
AR1	11.25	AR5	11.25	CCL	5.75	XAMPN	11.25
AR2	11.25	AR6	11.25	FAMPN	11.25		
AR3	11.25	AR7	11.25	GR	1.75		
AR4	11.25	AR8	11.25	TTN	11.25		

Presentation : cas6685:/dat1a/CH094532/CBLREPEAT.fvpdf [5"/100' Scale]
Plot Interval : 7679 - 7958 Feet

Data File 1 : F1 : cas6685:/dat1a/CH094532/REPEAT_CBL12M.xtf
Created On : Apr 8 08:52:32 2015
Company : LARAMIE ENERGY
Well : PICEANCE 28-12M
Field : VEGA
File Interval : 7678 - 7959.25 Feet
OCT : n012g

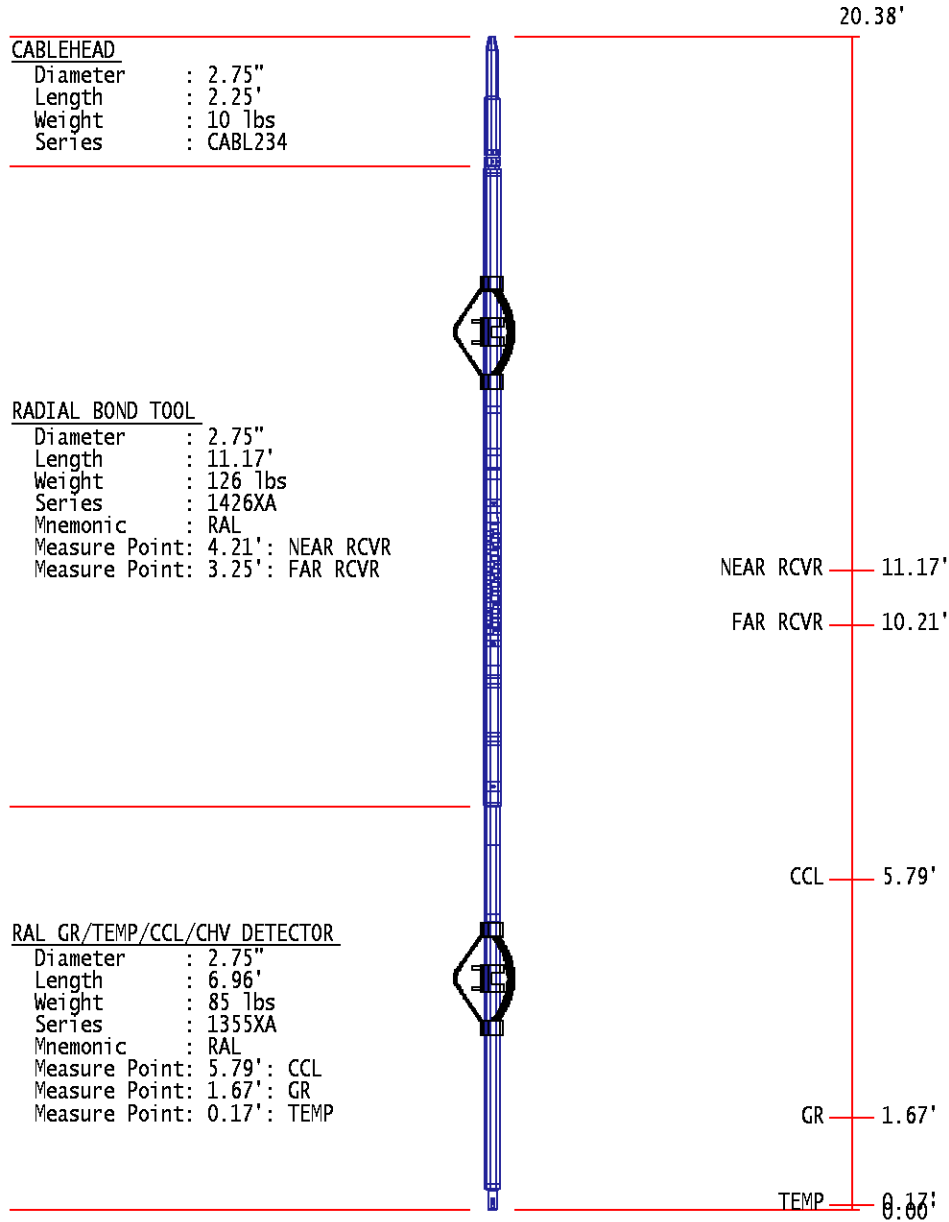






INSTRUMENT CONFIGURATION

Source File: /dat1a/CH094532/CBL-tdg



TOTAL LENGTH: 20.38'
TOTAL WEIGHT: 235 lbs
MAX DIAMETER: 0'4.00"



COMPANY LARAMIE ENERGY
WELL PICEANCE 28-12M
FIELD VEGA
COUNTY MESA STATE COLORADO

FILE NO: CH094532
API NO: 05-077-10223-0000

LOCATION:

ELEVATIONS:

28 9S 93W
82 41 21D



SHL: 2505' FSL & 1616' FWL NE/SW
BHL: 2373' FSL & 2583' FWL

KB 7602 FT
DF
GL 7580 FT

28-11 PAD
PATTERSON 306

SEC 28 TWP 9S RGE 93W

DATE 8-APR-2015