



FILE NO: COMPANY LARAMIE ENERGY

WELL BRUTON 19-02W

API NO: FIELD VEGA

05077104230000 COUNTY MESA STATE COLORADO

Ver. 4.06 LOCATION: OTHER SERVICES

SHL: LAT:39.262995N;LONG:107.815083W

BHL: LAT:39.268693N;LONG:107.816128W

SEC 19 TWP 9S RGE 93W

PERMANENT DATUM GL ELEVATION 7262 FT

LOG MEASURED FROM KB 24 FT ABOVE P.D.

DRILL. MEAS. FROM KB ELEVATIONS: KB 7286 FT DF 7286 FT GL 7262 FT

DATE 28-AUG-2017

RUN 1 TRIP 1

SERVICE ORDER US127293

DEPTH DRILLER 7962 FT

DEPTH LOGGER 7895 FT

BOTTOM LOGGED INTERVAL 7895 FT

TOP LOGGED INTERVAL 24 FT

TIME STARTED 10:30

TIME FINISHED 13:00

OPERATOR RIG TIME 2.5 HOURS

TYPE OF FLUID IN HOLE WATER

FLUID DENSITY NA

FLUID SALINITY NA

FLUID LEVEL 50 FT

LOGGED CEMENT TOP 1577 FT

WELLHEAD PRESSURE 0 PSI

MAXIMUM HOLE DEVIATION NA

NOMINAL LOGGING SPEED 100 F/MN

MAX. RECORDED TEMP. 236 DEGF

REFERENCE LOG NA

REFERENCE LOG DATE NA

EQUIP. NO. LOCATION HL-6670 WOODWARD

RECORDED BY S.YASSA

WITNESSED BY MR. CHUCK MALLARY

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.

### REMARKS

RUN 1 TRIP 1: \*2 OPERATIONS IN WELL\*

\*\*OPERATION 1: RAL/GR/CCL RUN CENTRALIZED\*\*

LOGGED WITH 0 PSI ON WELLHEAD

SJ: 6093' - 6115'

SJ: 7083' - 7101'

CREW: G.SUAREZ , J.PENA

### EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	RAL	1426XA	10218496	CENTRALIZED
1	1	GAMMA RAY	1355XA	12670180	CENTRALIZED

# MAIN PASS 0 PSI

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

Updates: 1 Patches: 9

Plotted: Mon Aug 28 13:32:45 2017

## PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/LARAMIE\_BRUTON\_19\_02W/n012g02.prm  
 LOGGING MODE: DEPTH DIRECTION: UP  
 TOP DEPTH: 1.250 ft BOTTOM DEPTH: 7953.758 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*)	160	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*)	-64	us	TOP	1024.750
		-62	us	1024.750	2151.750
		-63	us	2151.750	3396.250
		-62	us	3396.250	6757.500
		-61	us	6757.500	6820.750
		-62	us	6820.750	6823.250
		-63	us	6823.250	7139.750
		-62	us	7139.750	7144.000
		-60	us	7144.000	BOTTOM
	TOOL DELAY (str2*)	-64	us	TOP	1024.750
		-62	us	1024.750	2151.750
		-63	us	2151.750	3396.250
		-62	us	3396.250	6757.500
		-61	us	6757.500	6820.750
		-62	us	6820.750	6823.250
		-63	us	6823.250	7139.750
		-62	us	7139.750	7144.000
		-60	us	7144.000	BOTTOM
	TOOL DELAY (str3*)	-64	us	TOP	1024.750
		-62	us	1024.750	2151.750
		-63	us	2151.750	3396.250
		-62	us	3396.250	6757.500
		-61	us	6757.500	6820.750
		-62	us	6820.750	6823.250
		-63	us	6823.250	7139.750
		-62	us	7139.750	7144.000
		-60	us	7144.000	BOTTOM
	TOOL DELAY (str4*)	-64	us	TOP	1024.750
		-62	us	1024.750	2151.750
		-63	us	2151.750	3396.250
		-62	us	3396.250	6757.500
		-61	us	6757.500	6820.750

		-61	us	6757.500	6820.750
		-62	us	6820.750	6823.250
		-63	us	6823.250	7139.750
		-62	us	7139.750	7144.000
		-60	us	7144.000	BOTTOM
	TOOL DELAY (str5*)	-64	us	TOP	1024.750
		-62	us	1024.750	2151.750
		-63	us	2151.750	3396.250
		-62	us	3396.250	6757.500
		-61	us	6757.500	6820.750
		-62	us	6820.750	6823.250
		-63	us	6823.250	7139.750
		-62	us	7139.750	7144.000
		-60	us	7144.000	BOTTOM
	TOOL DELAY (str6*)	-64	us	TOP	1024.750
		-62	us	1024.750	2151.750
		-63	us	2151.750	3396.250
		-62	us	3396.250	6757.500
		-61	us	6757.500	6820.750
		-62	us	6820.750	6823.250
		-63	us	6823.250	7139.750
		-62	us	7139.750	7144.000
		-60	us	7144.000	BOTTOM
	TOOL DELAY (str7*)	-64	us	TOP	1024.750
		-62	us	1024.750	2151.750
		-63	us	2151.750	3396.250
		-62	us	3396.250	6757.500
		-61	us	6757.500	6820.750
		-62	us	6820.750	6823.250
		-63	us	6823.250	7139.750
		-62	us	7139.750	7144.000
		-60	us	7144.000	BOTTOM
	TOOL DELAY (str8*)	-64	us	TOP	1024.750
		-62	us	1024.750	2151.750
		-63	us	2151.750	3396.250
		-62	us	3396.250	6757.500
		-61	us	6757.500	6820.750
		-62	us	6820.750	6823.250
		-63	us	6823.250	7139.750
		-62	us	7139.750	7144.000
		-60	us	7144.000	BOTTOM
	TOOL DELAY (strn*)	-64	us	TOP	1024.750
		-62	us	1024.750	2151.750
		-63	us	2151.750	3396.250
		-62	us	3396.250	6757.500
		-61	us	6757.500	6820.750
		-62	us	6820.750	6823.250
		-63	us	6823.250	7139.750
		-62	us	7139.750	7144.000
		-60	us	7144.000	BOTTOM
BASELINE NOISE (NEAR)	NOISE WINDOW START	125	us	TOP	BOTTOM
	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	Aug 28 11:45:12 2017	FIXED GATE AMPLITUDE T-R1
F1:AR2	Aug 28 11:45:12 2017	FIXED GATE AMPLITUDE T-R2
F1:AR3	Aug 28 11:45:12 2017	FIXED GATE AMPLITUDE T-R3
F1:AR4	Aug 28 11:45:12 2017	FIXED GATE AMPLITUDE T-R4
F1:AR5	Aug 28 11:45:12 2017	FIXED GATE AMPLITUDE T-R5
F1:AR6	Aug 28 11:45:12 2017	FIXED GATE AMPLITUDE T-R6
F1:AR7	Aug 28 11:45:12 2017	FIXED GATE AMPLITUDE T-R7
F1:AR8	Aug 28 11:45:12 2017	FIXED GATE AMPLITUDE T-R8
F1:CCL	Aug 28 11:45:12 2017	CASING COLLAR LOCATOR

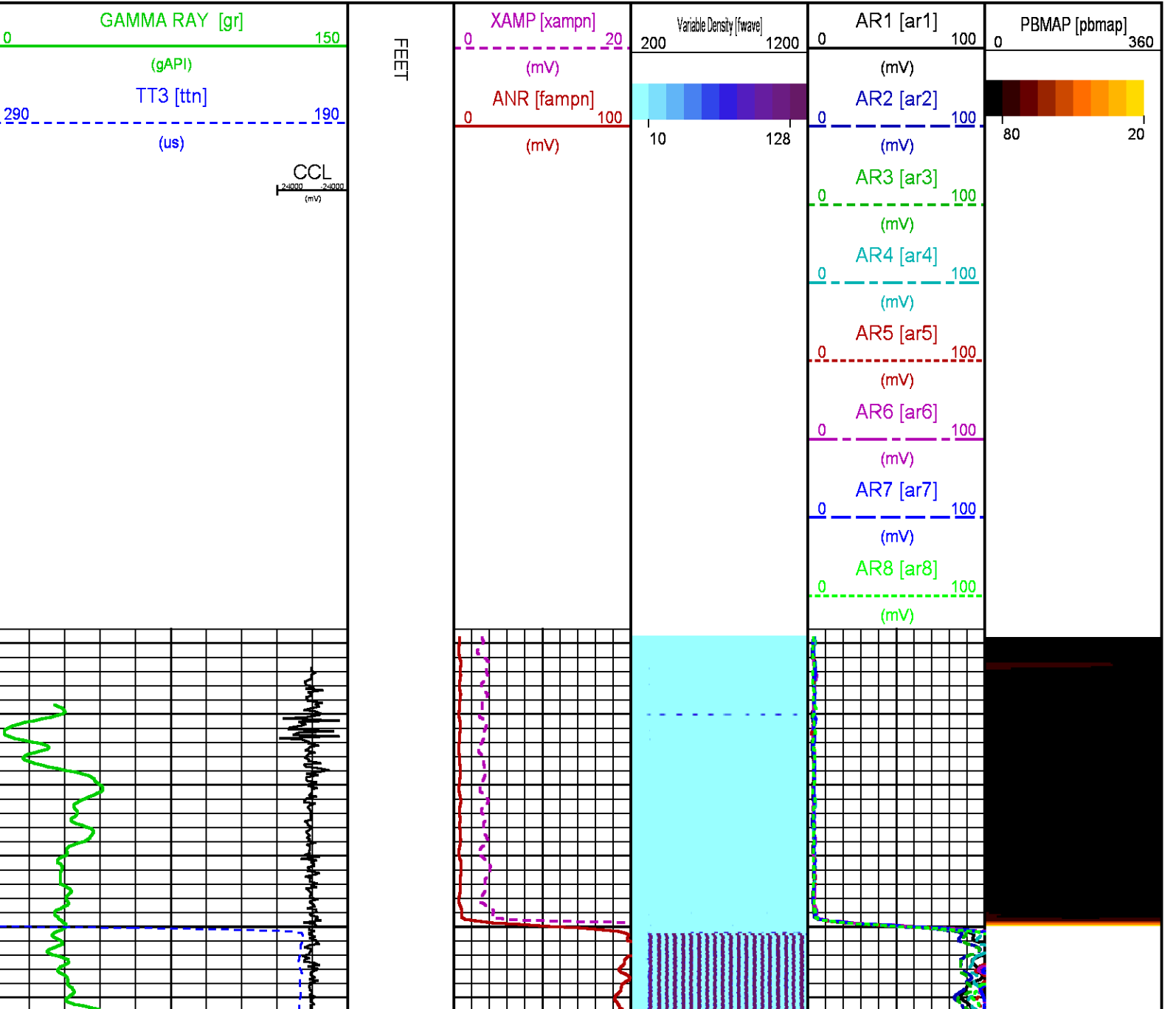
F1:FAMPN	Aug 28 11:45:12 2017	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Aug 28 11:45:12 2017	FAR WAVE FORM
F1:GR	Aug 28 11:45:12 2017	GAMMA RAY
F1:PBMAP	Aug 28 11:45:12 2017	PERCENT BOND CEMENT MAP
F1:TTN	Aug 28 11:45:12 2017	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Aug 28 11:45:12 2017	FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE

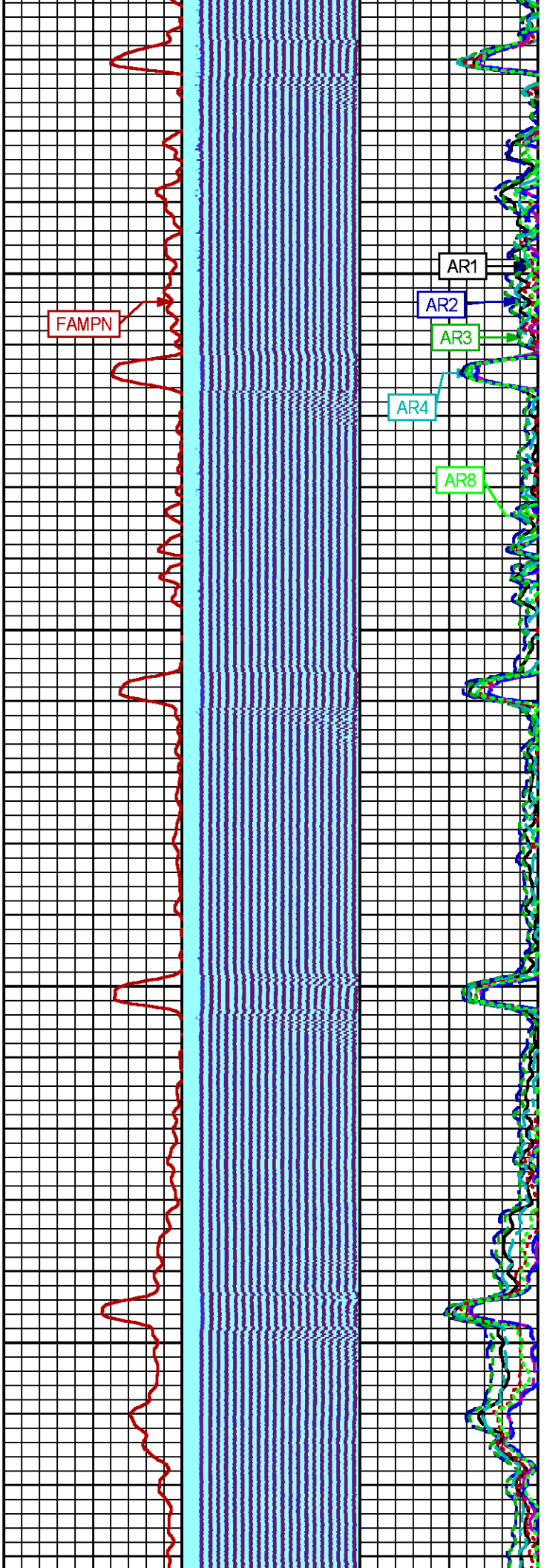
CURVE MEASURE POINT OFFSET

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 : cpu100:BRUTON\_19\_02W\_RAL\_MAIN.fvpdf [5"/100' Scale]  
Plot Interval : 9 - 7970.25 Feet

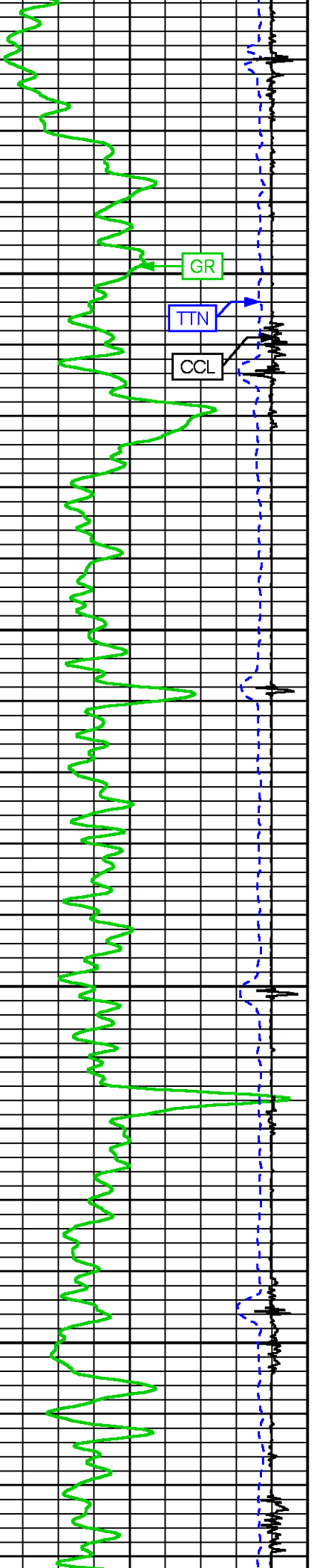
Data File 1 : F1 : cpu100:/dat1a/LARAMIE\_BRUTON\_19\_02W/BRUTON\_19\_02W\_RAL\_MAIN.xtf  
Created On : Aug 28 11:45:12 2017  
Company : LARAMIE ENERGY  
Well : BRUTON 19-02W  
Field : VEGA  
File Interval : 8 - 7971.5 Feet  
OCT : n012g

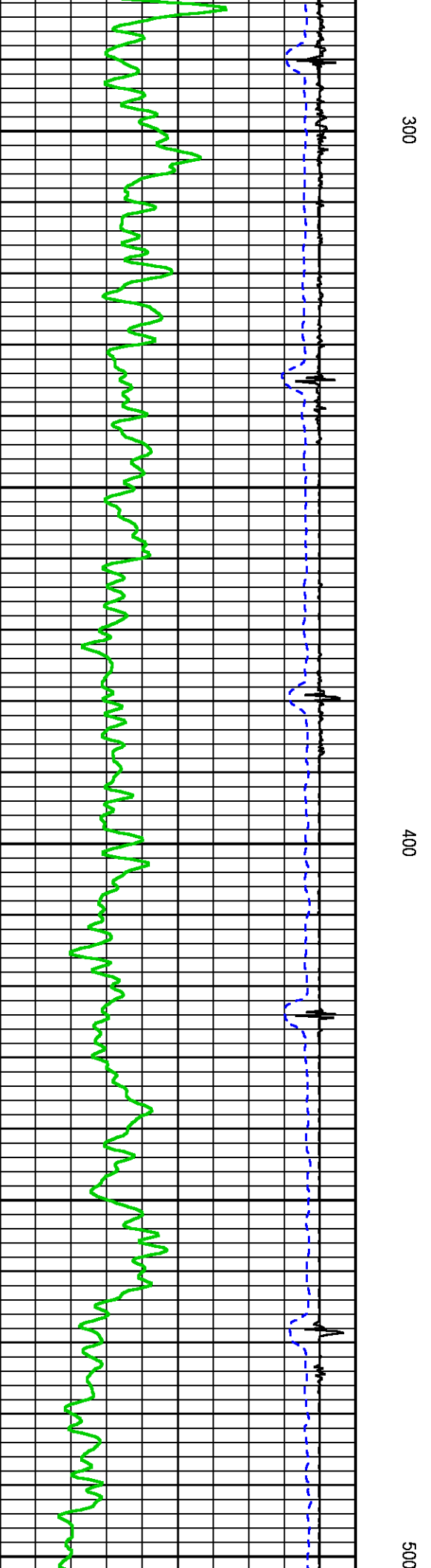
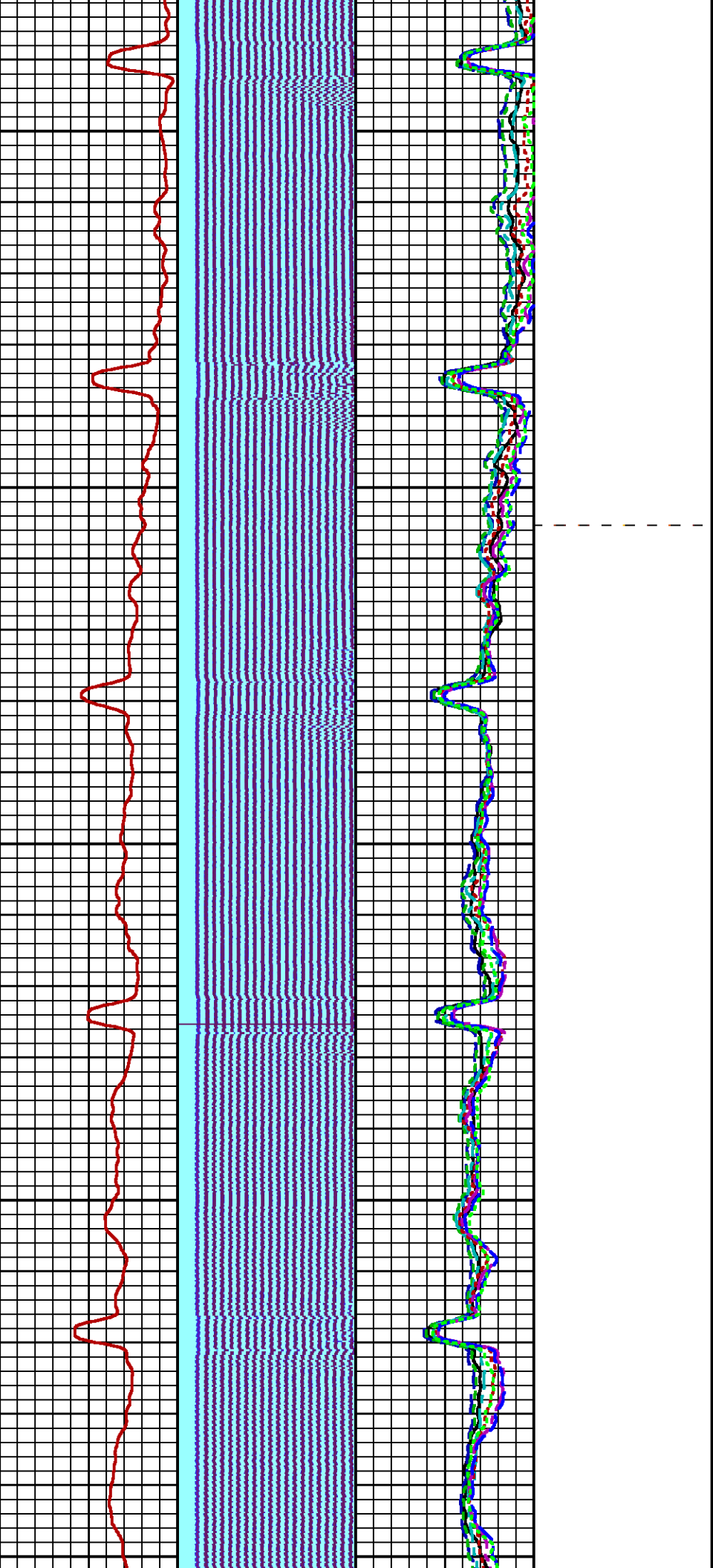




100

200

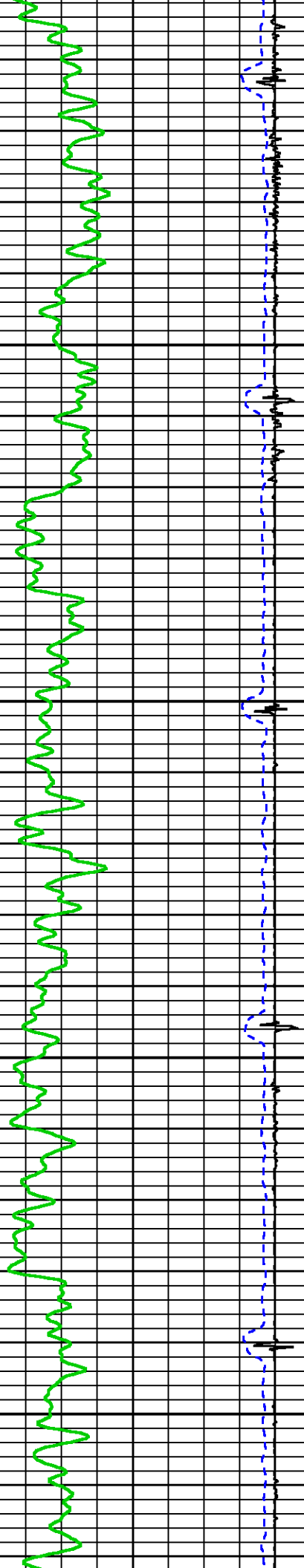
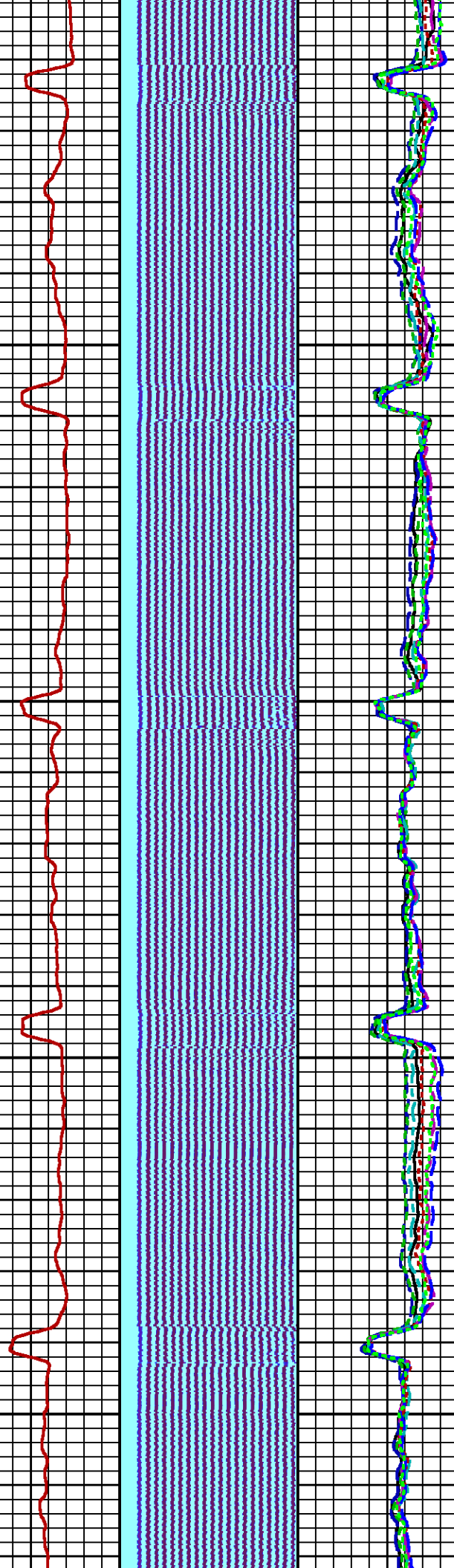


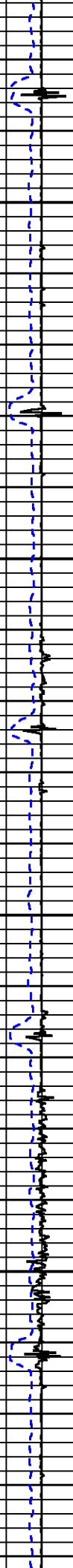




600

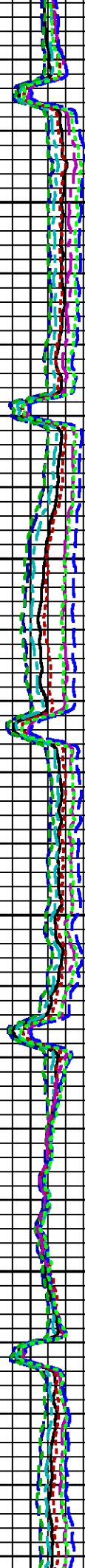
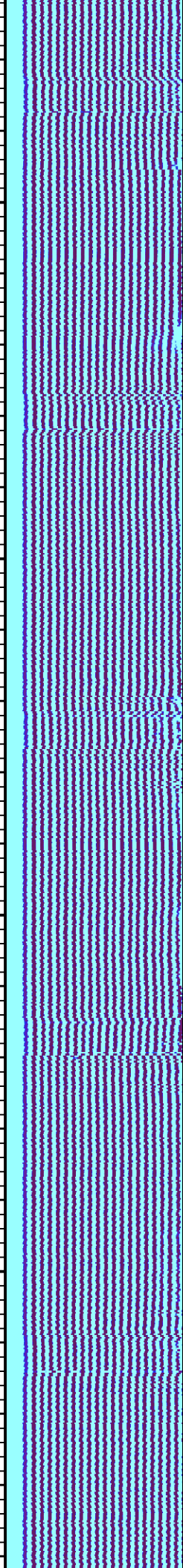
700



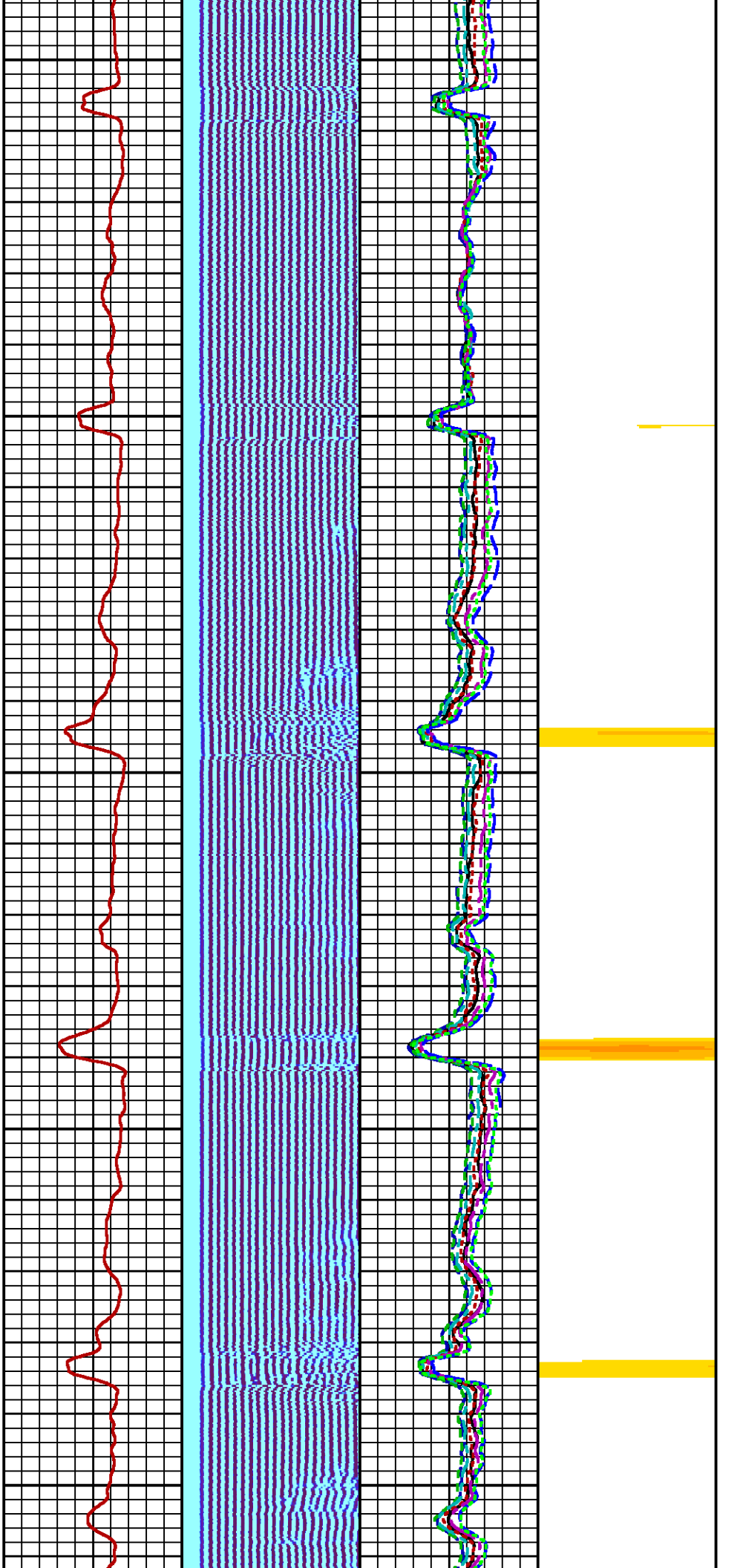


900

800

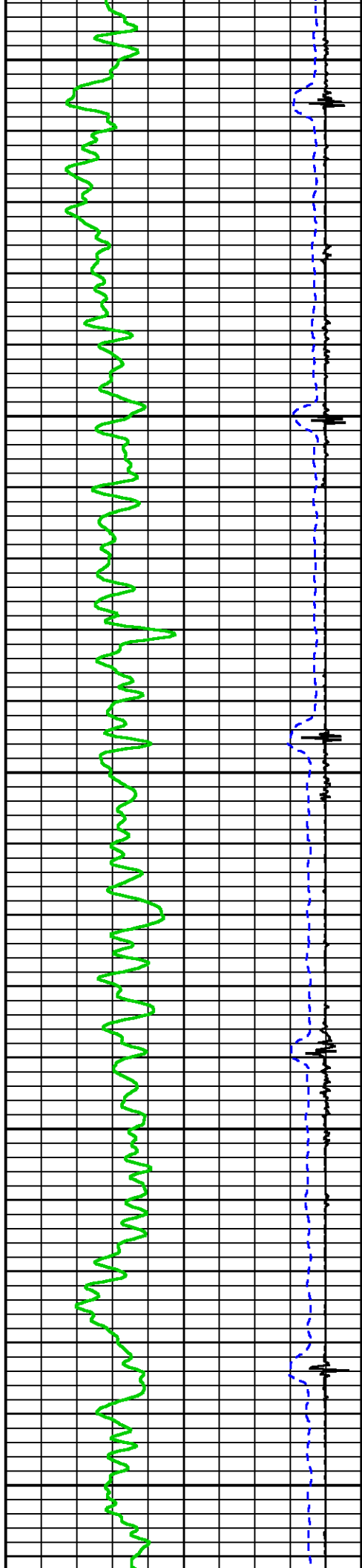


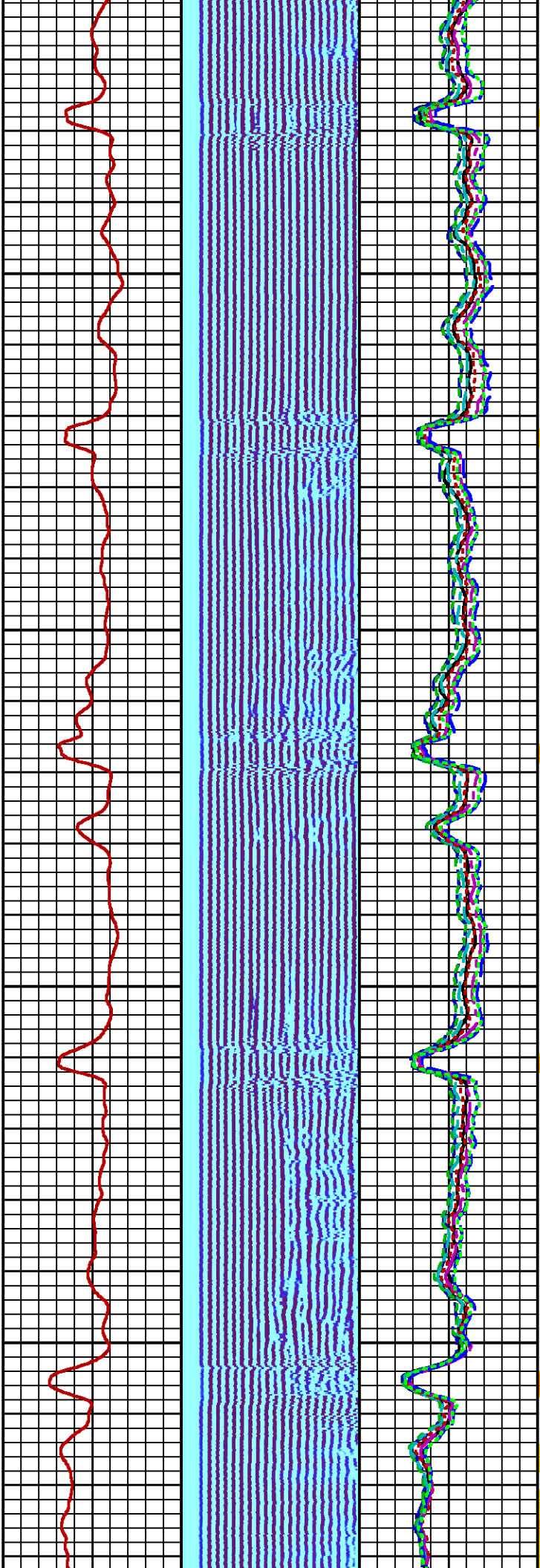
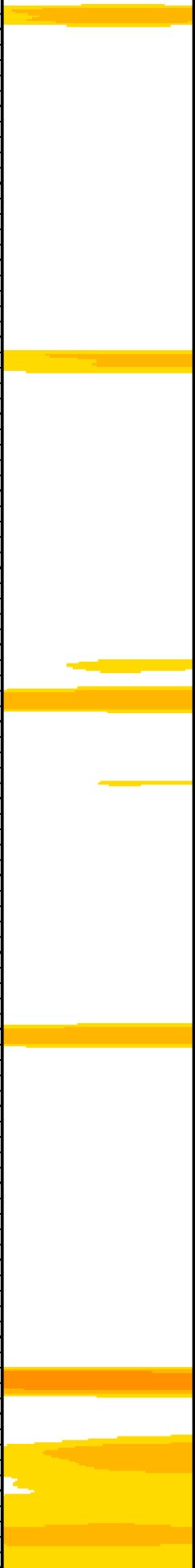




1000

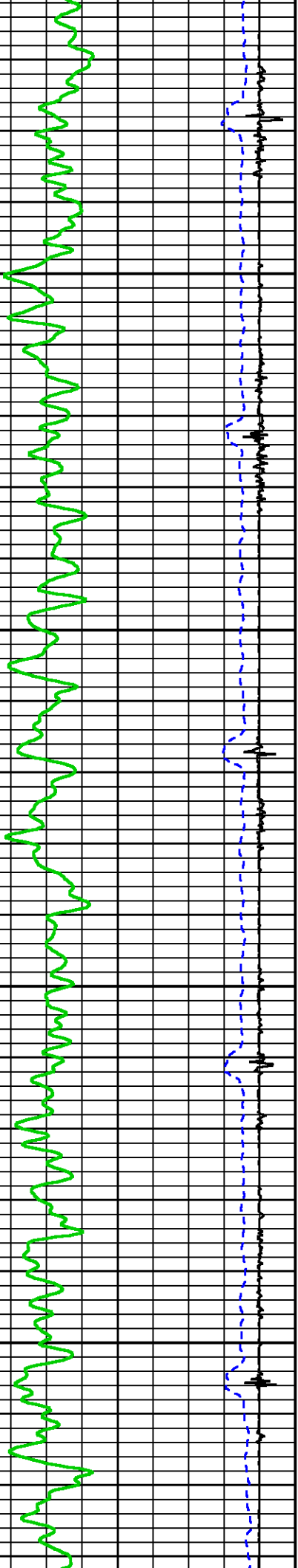
1100

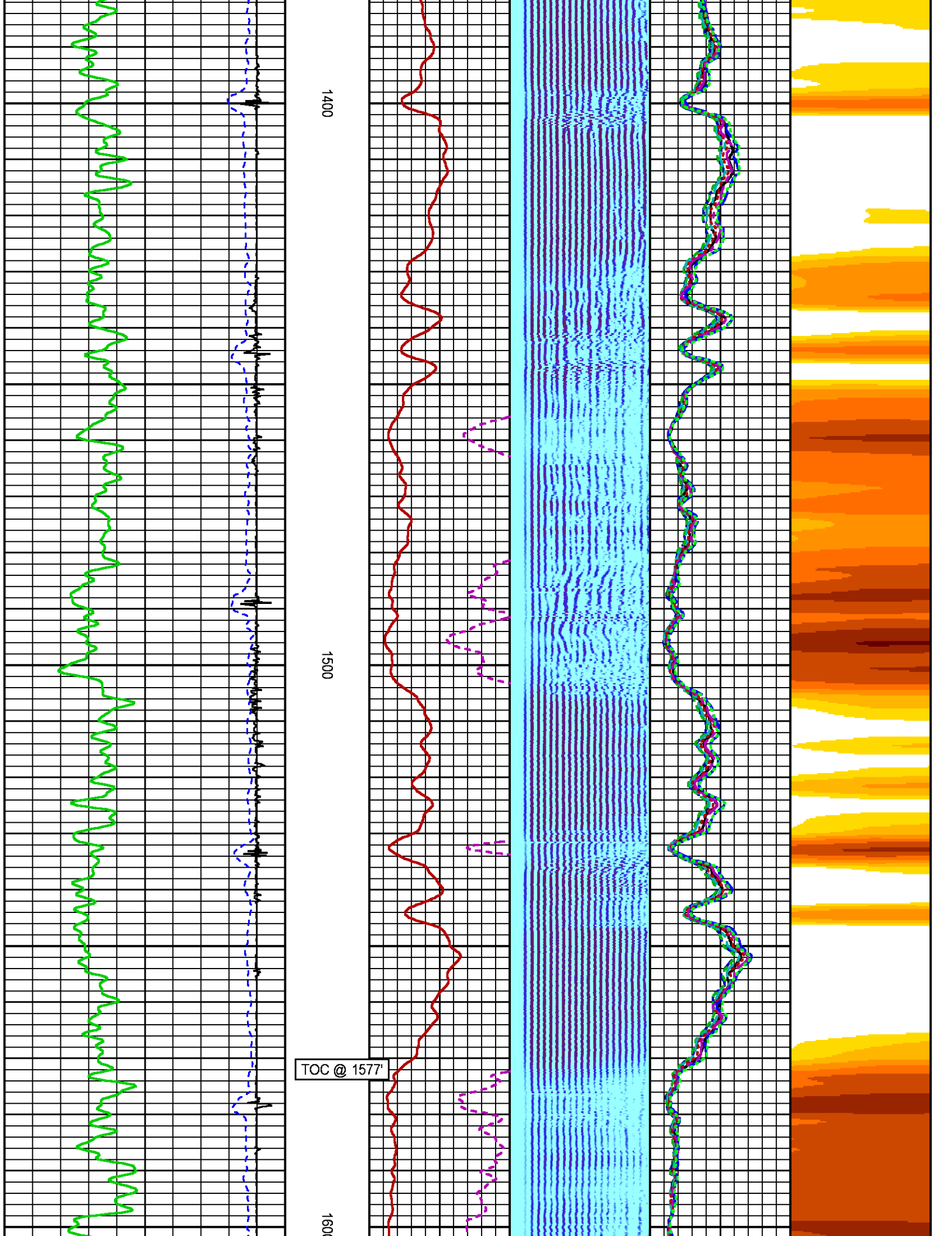


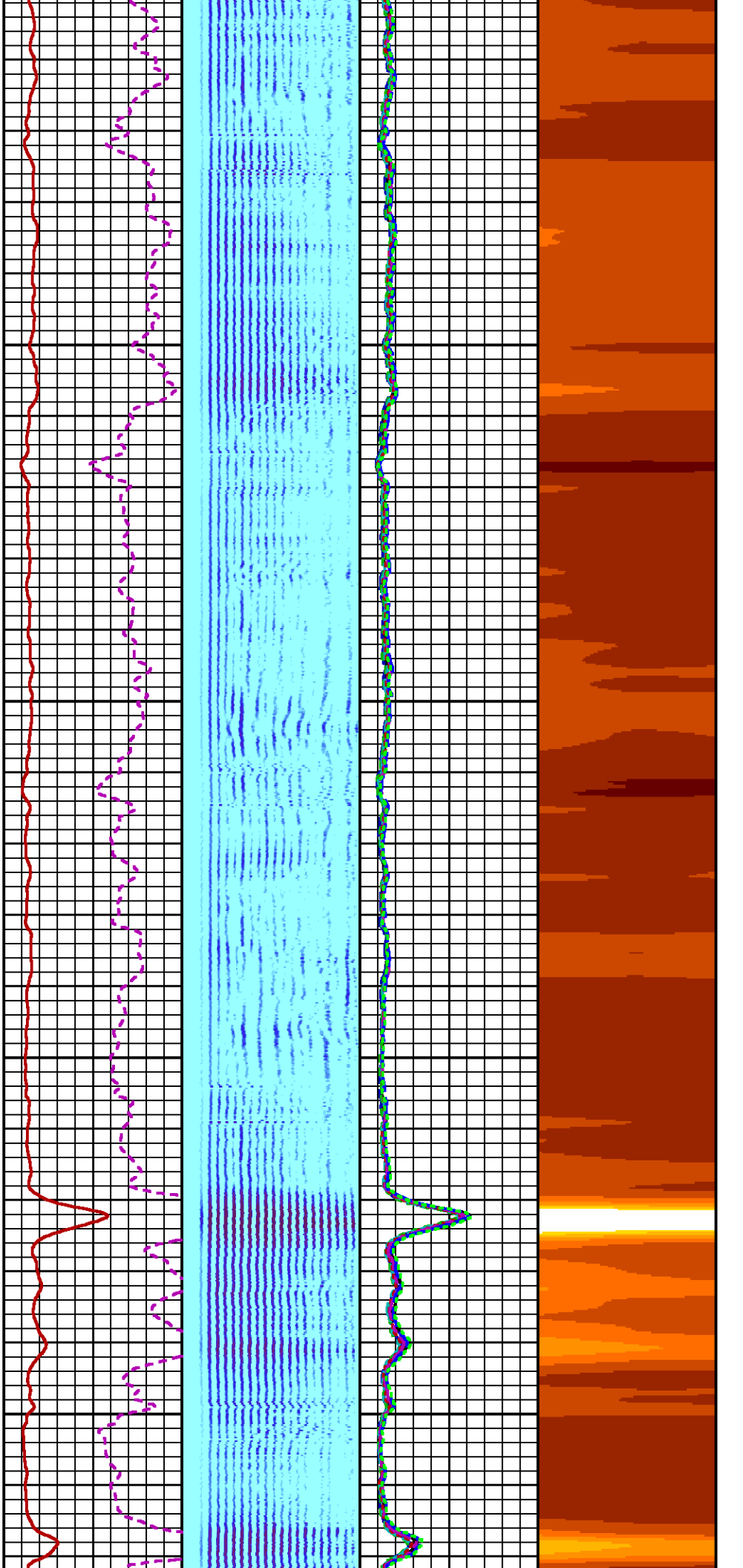


1200

1300



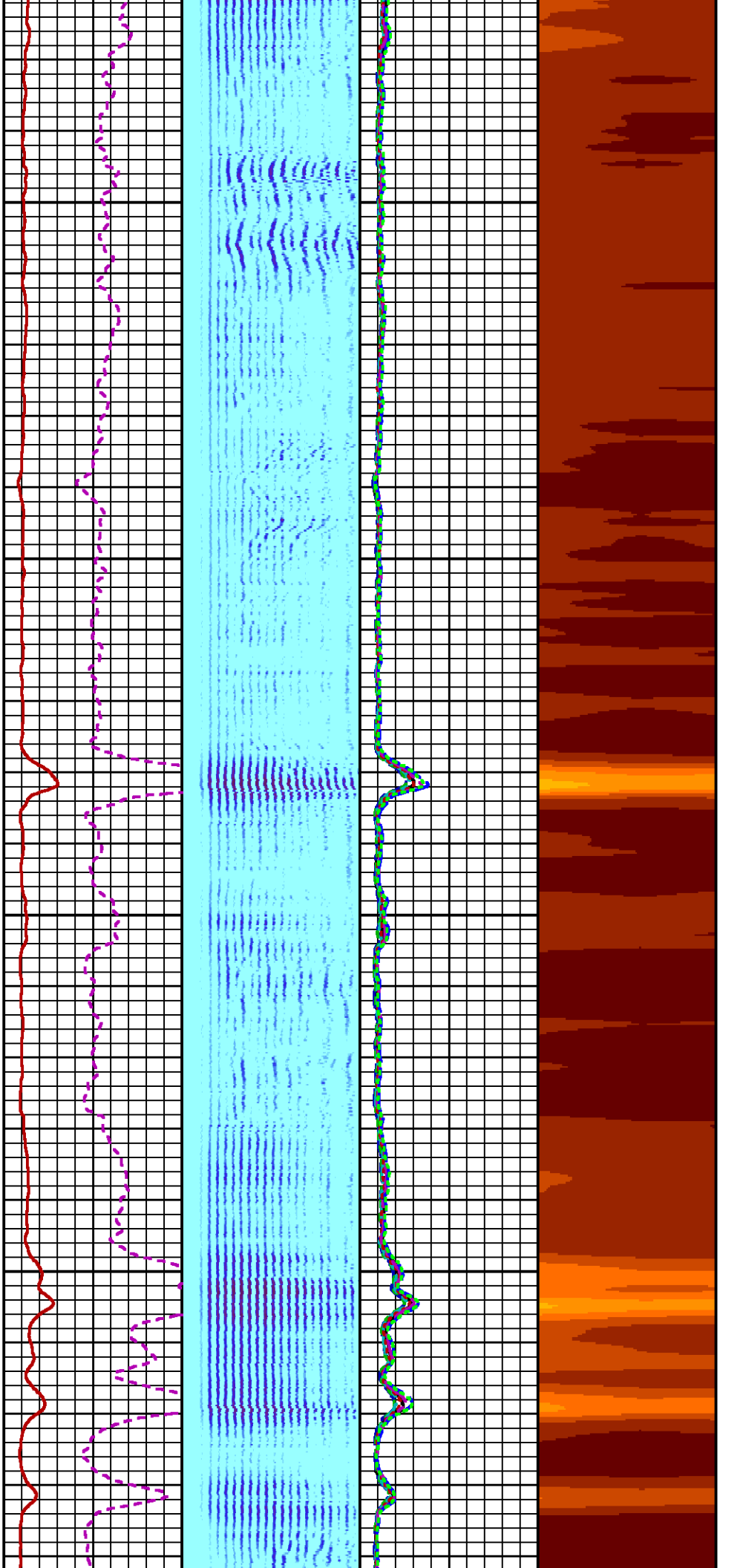




1700

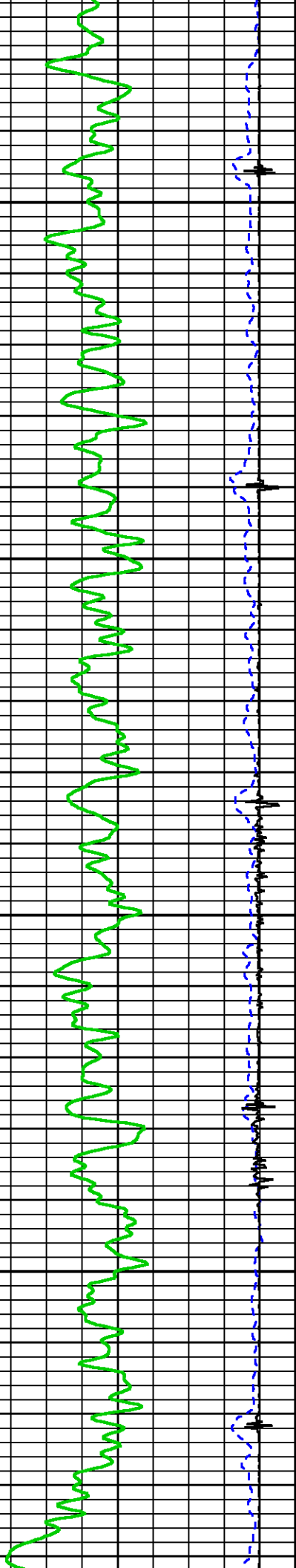
1800

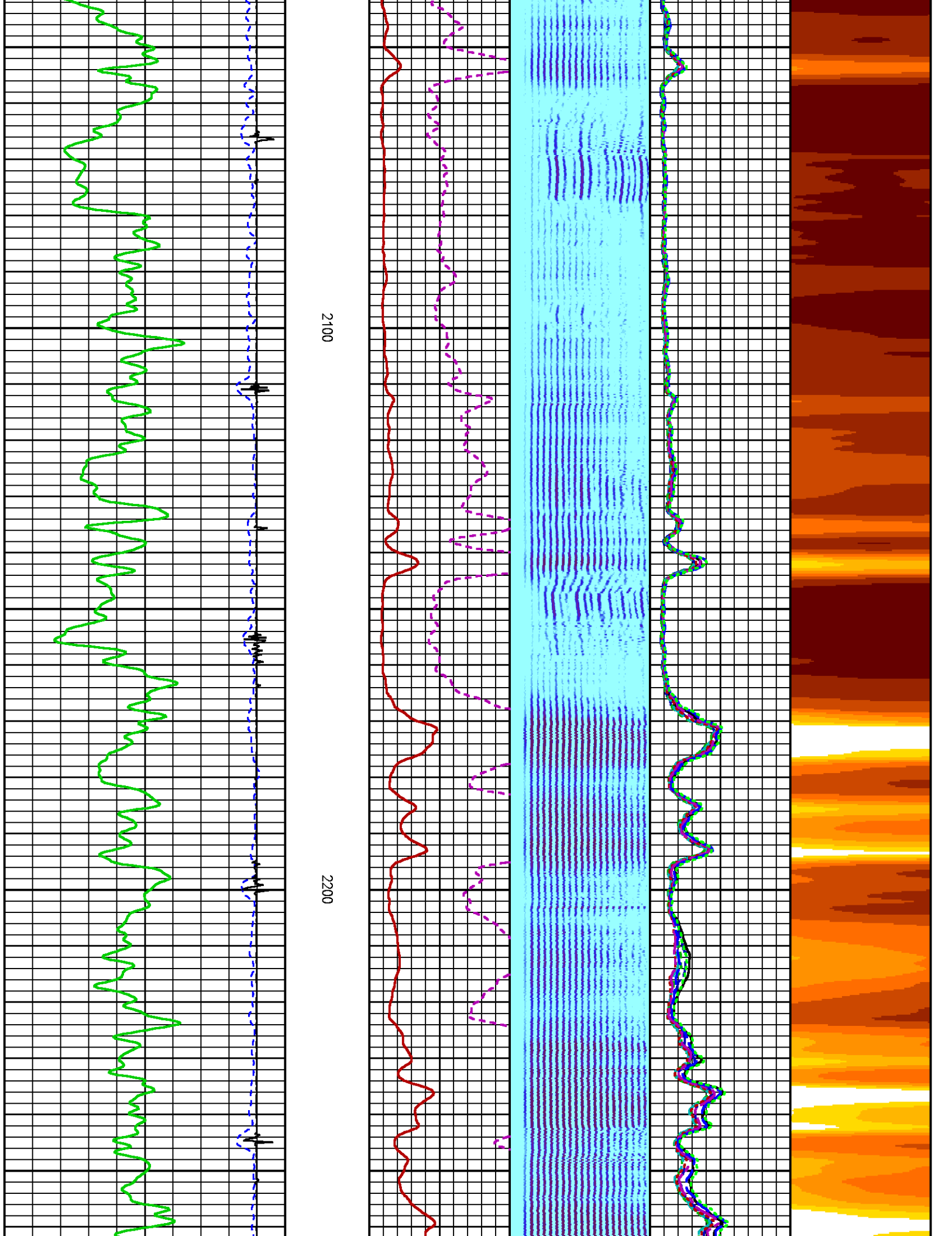




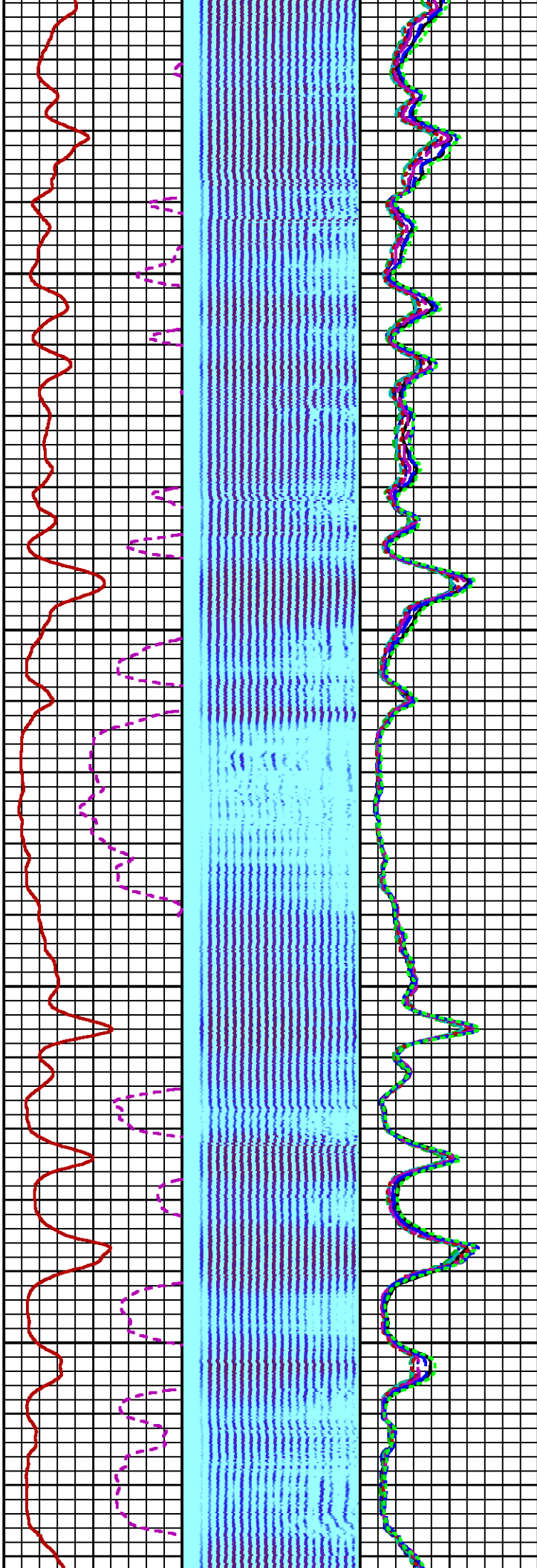
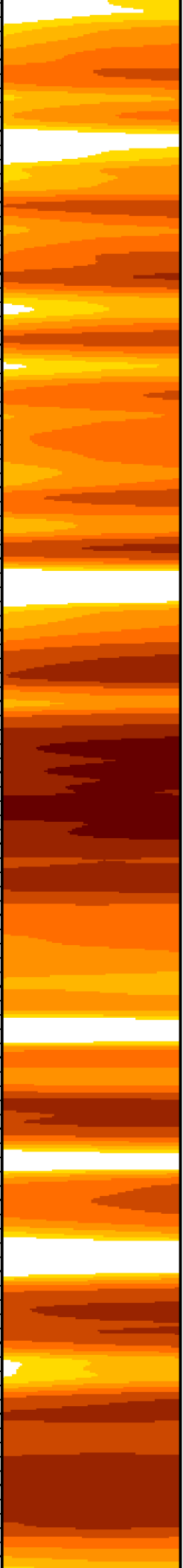
1900

2000



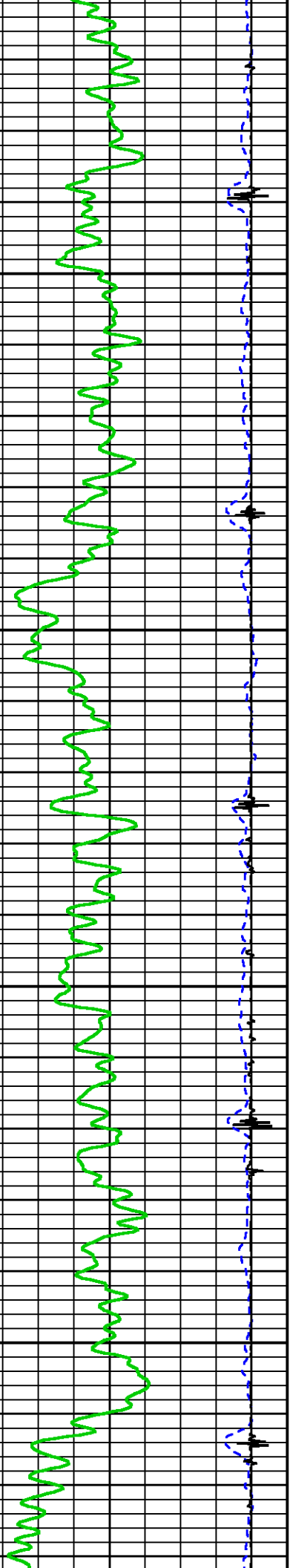


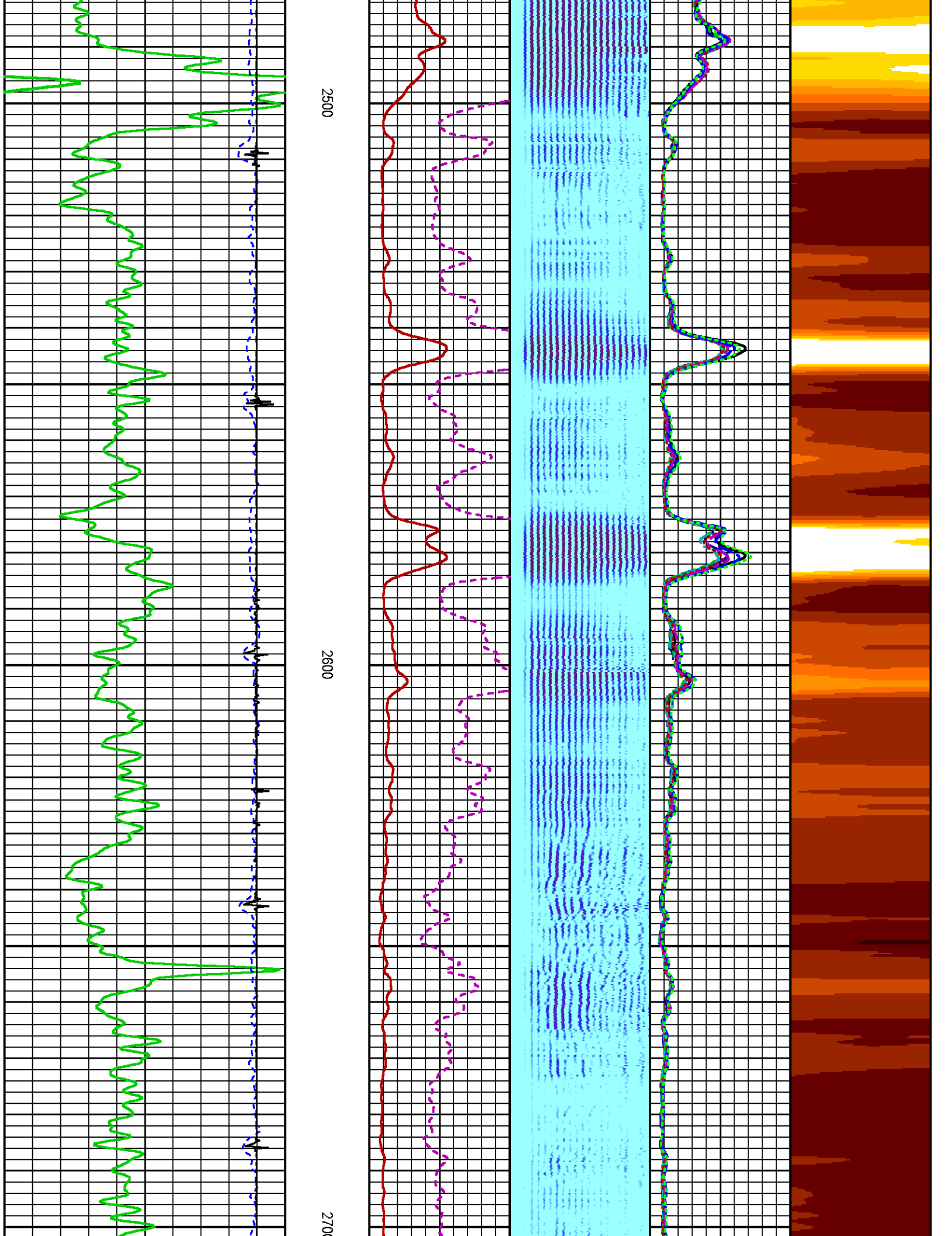


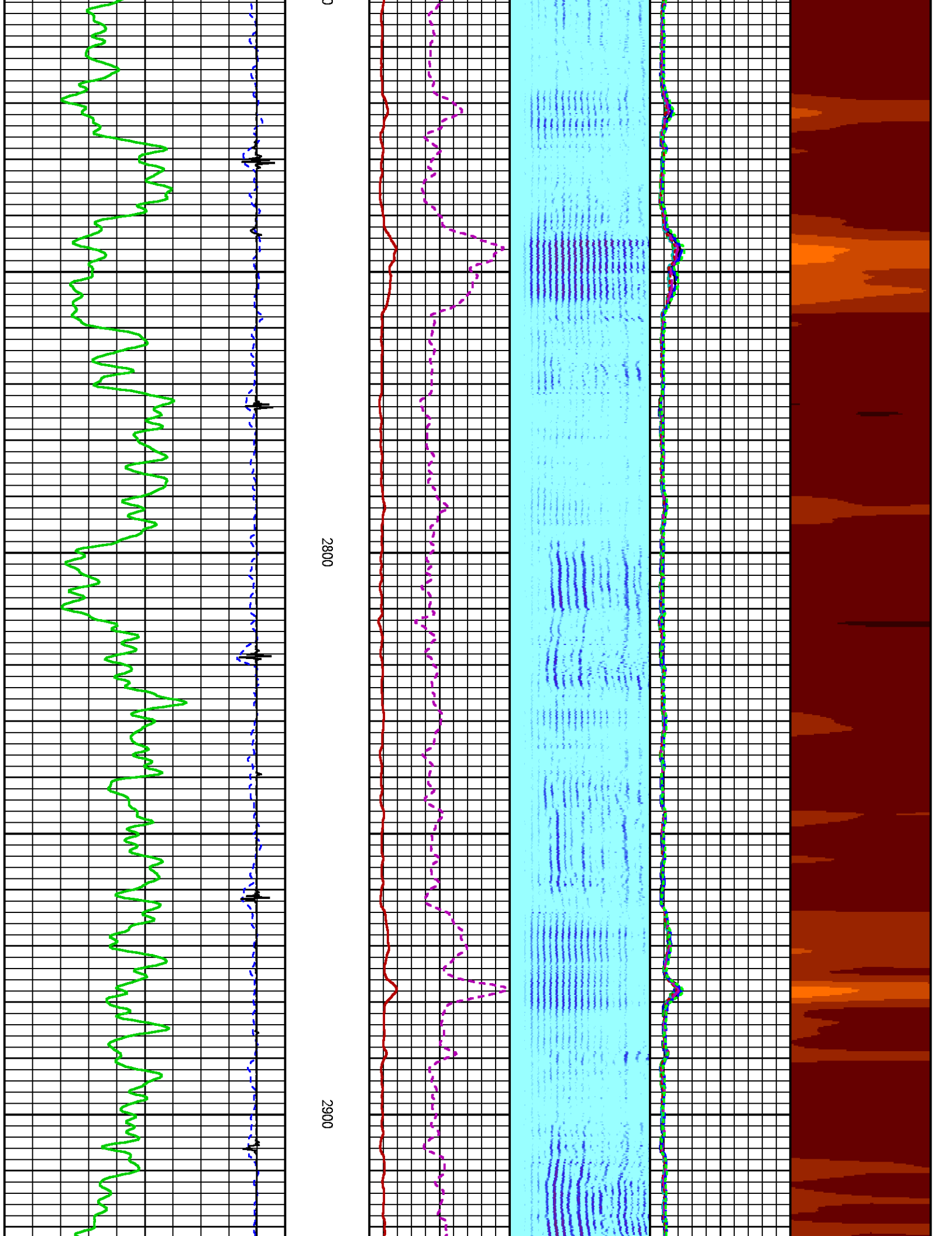


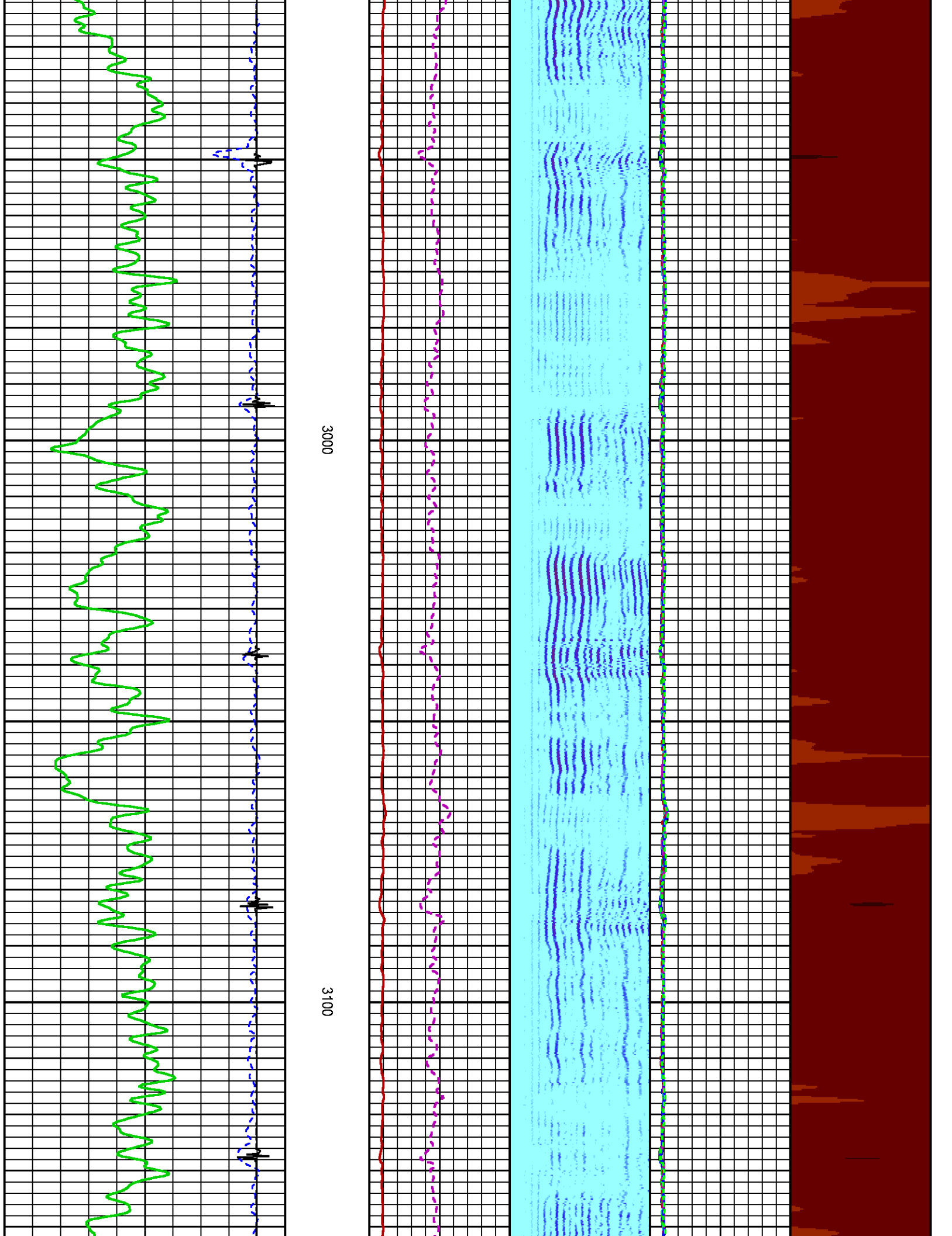
2300

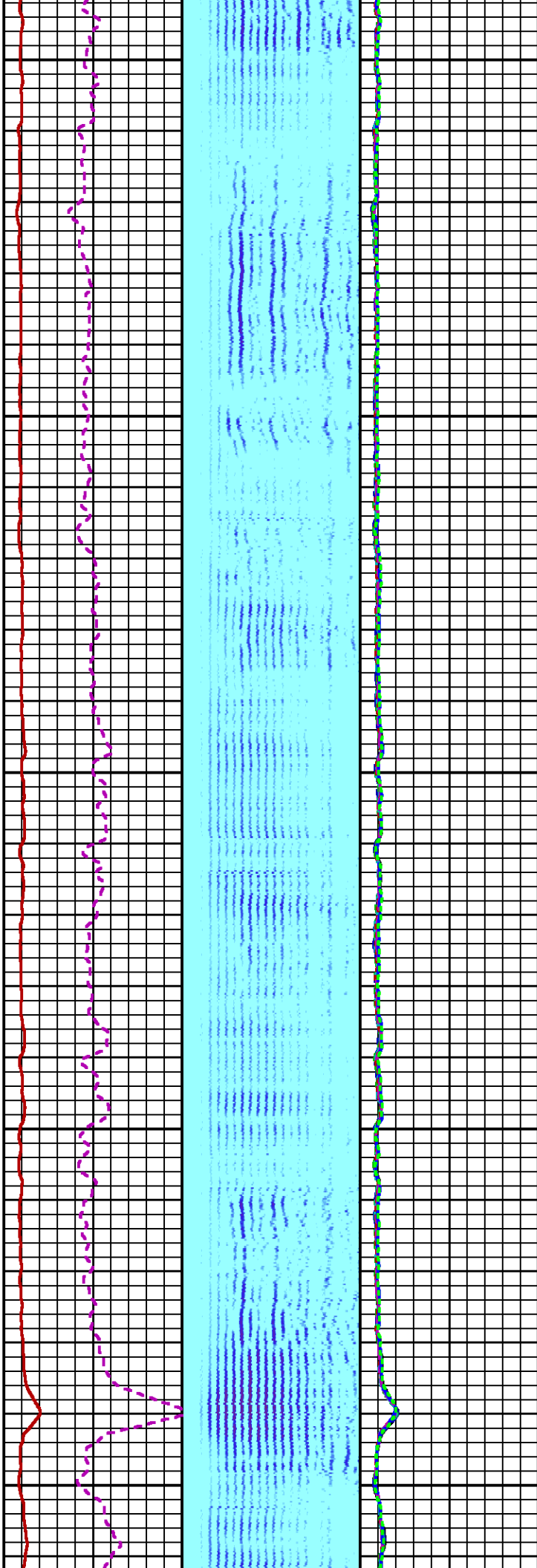
2400





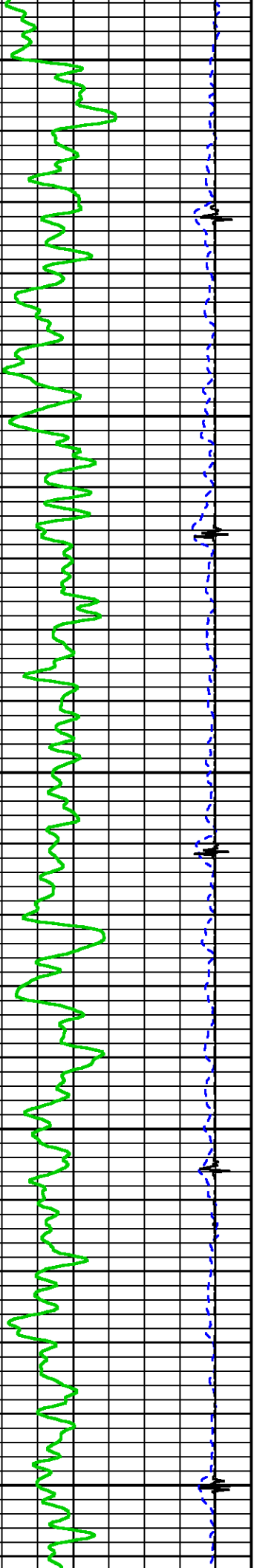




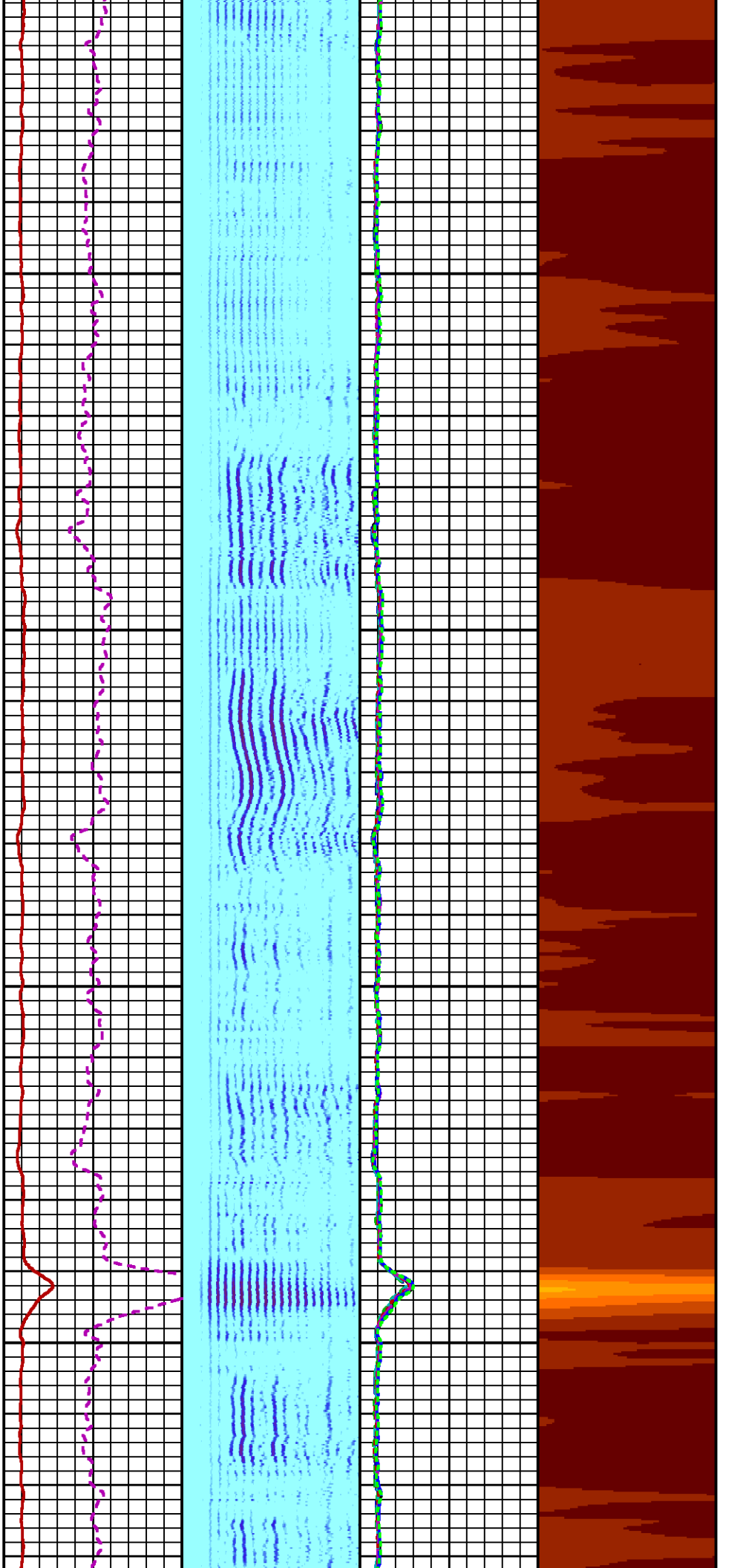


3200

3300

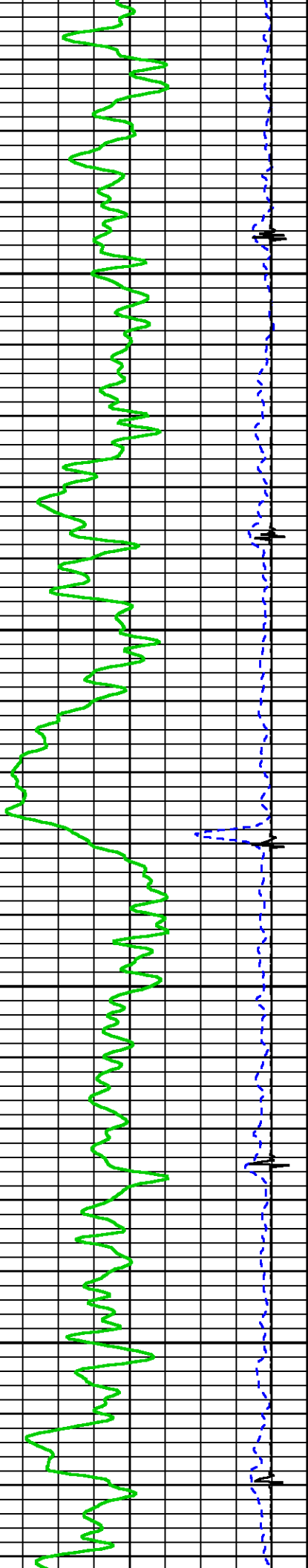




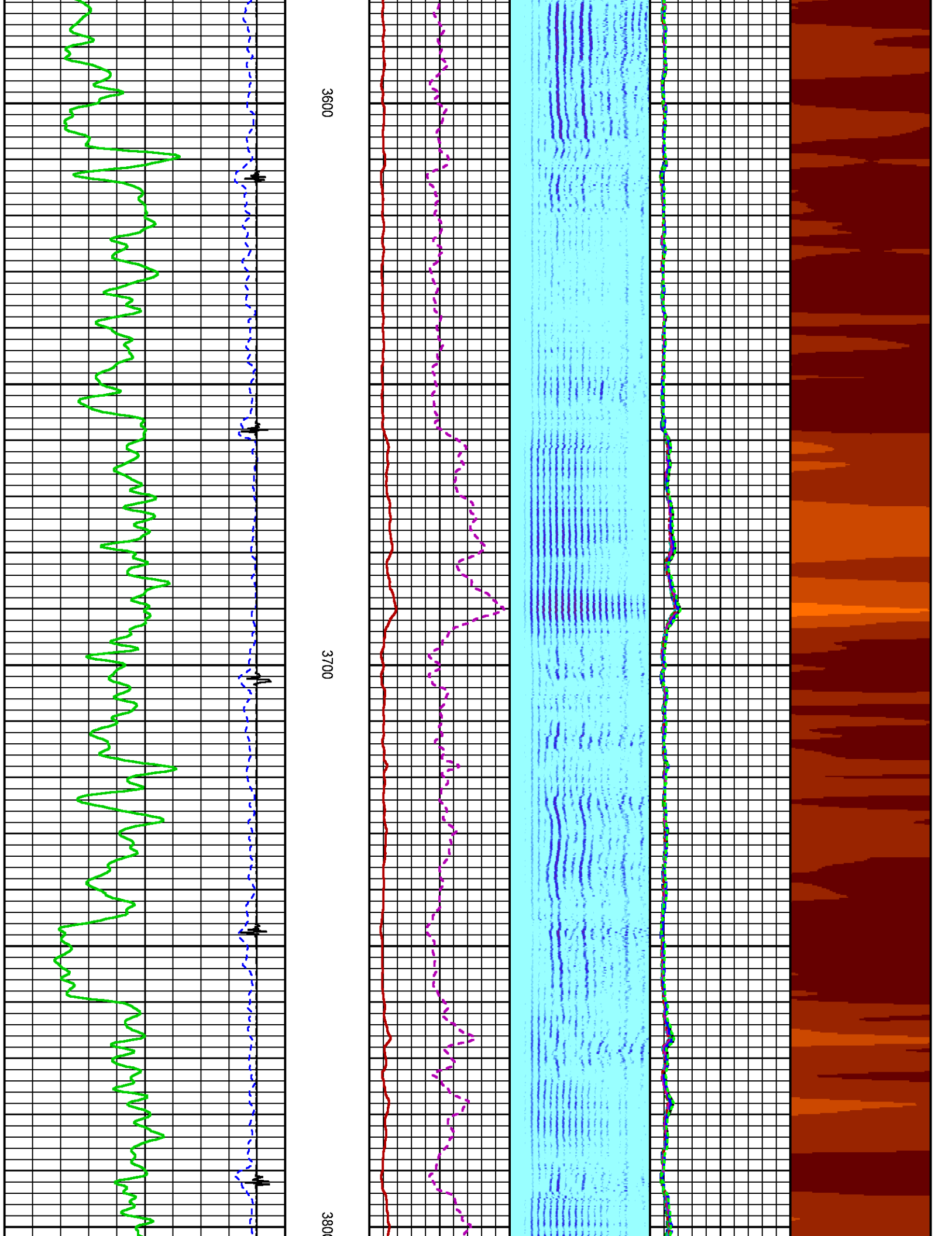


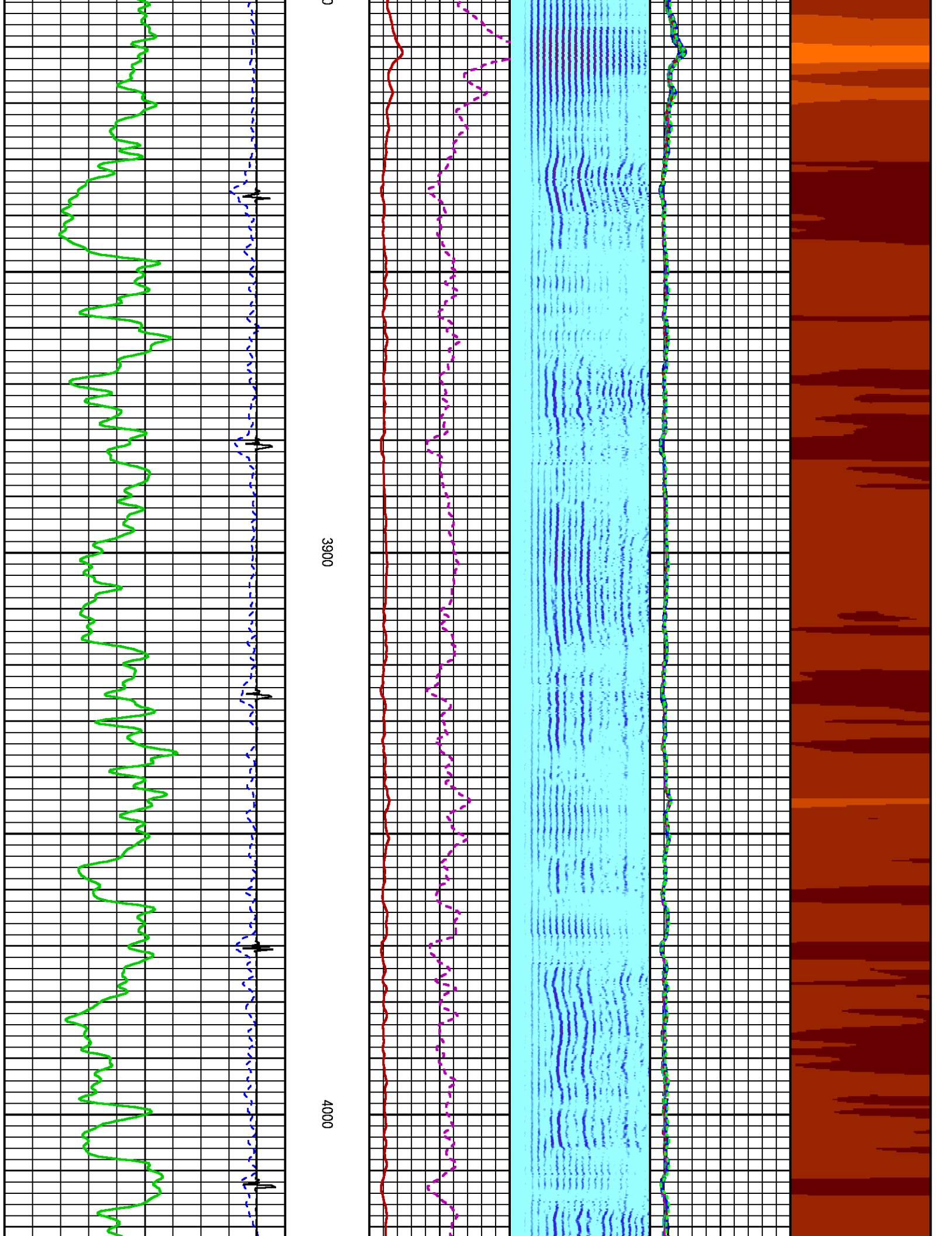
3400

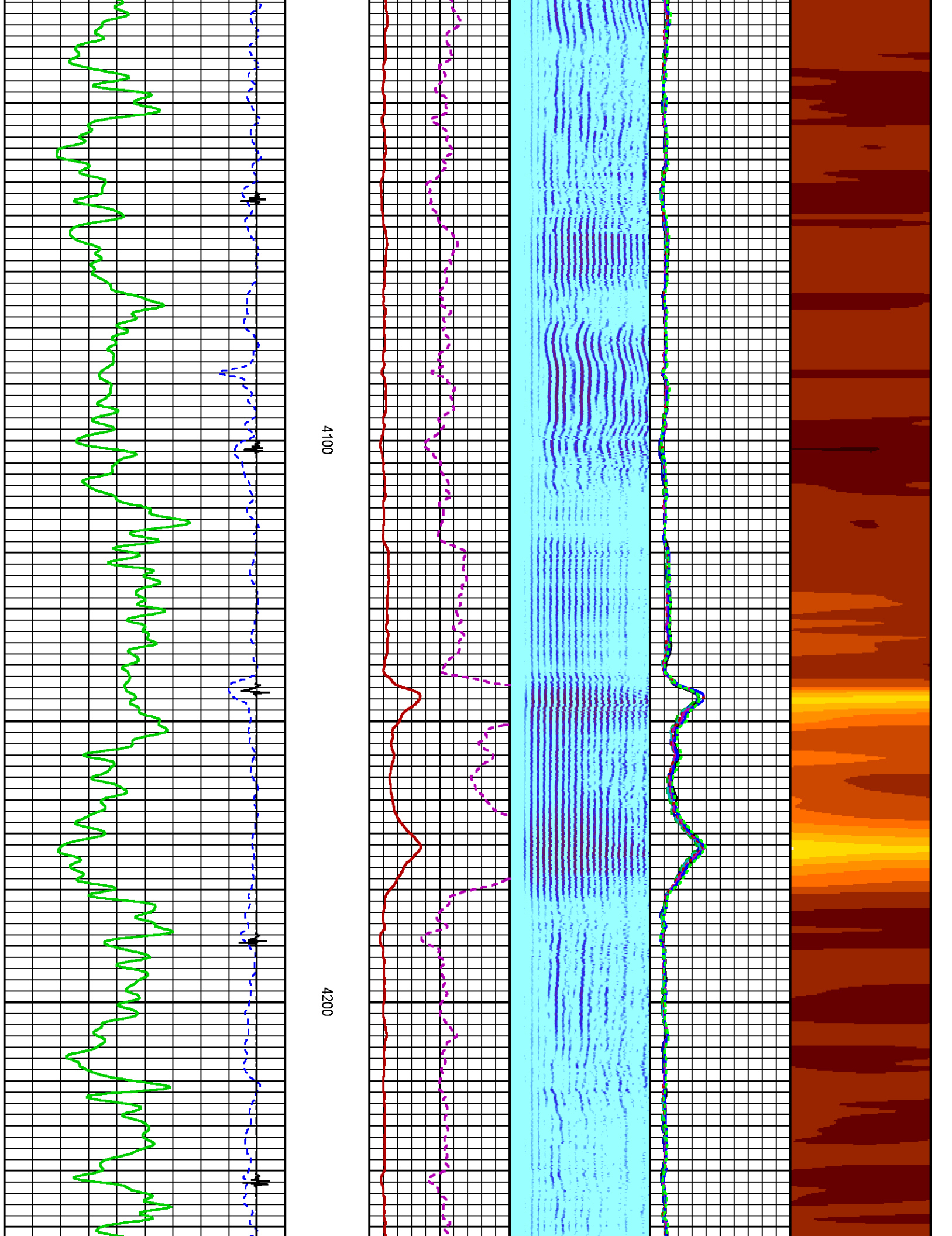
3500

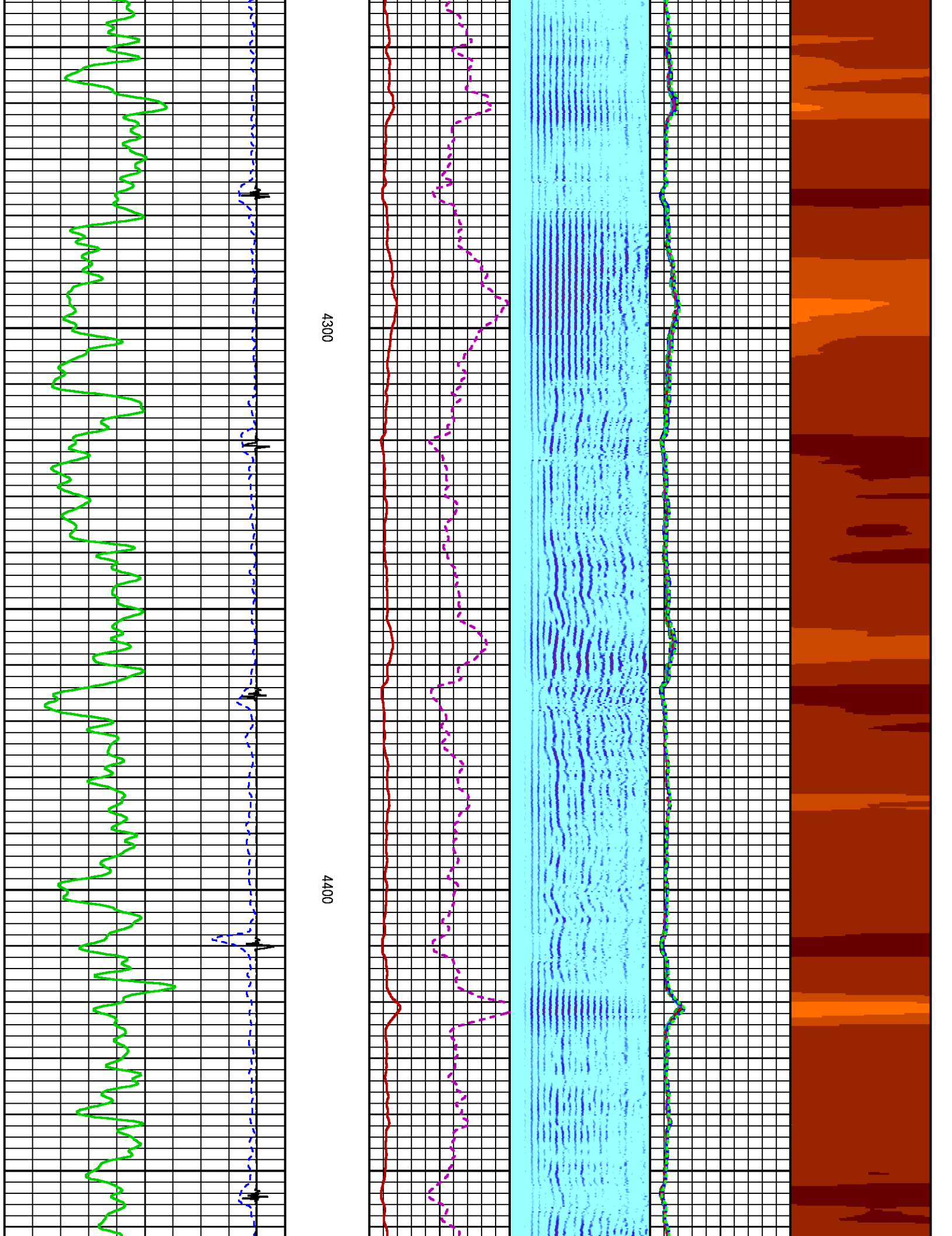


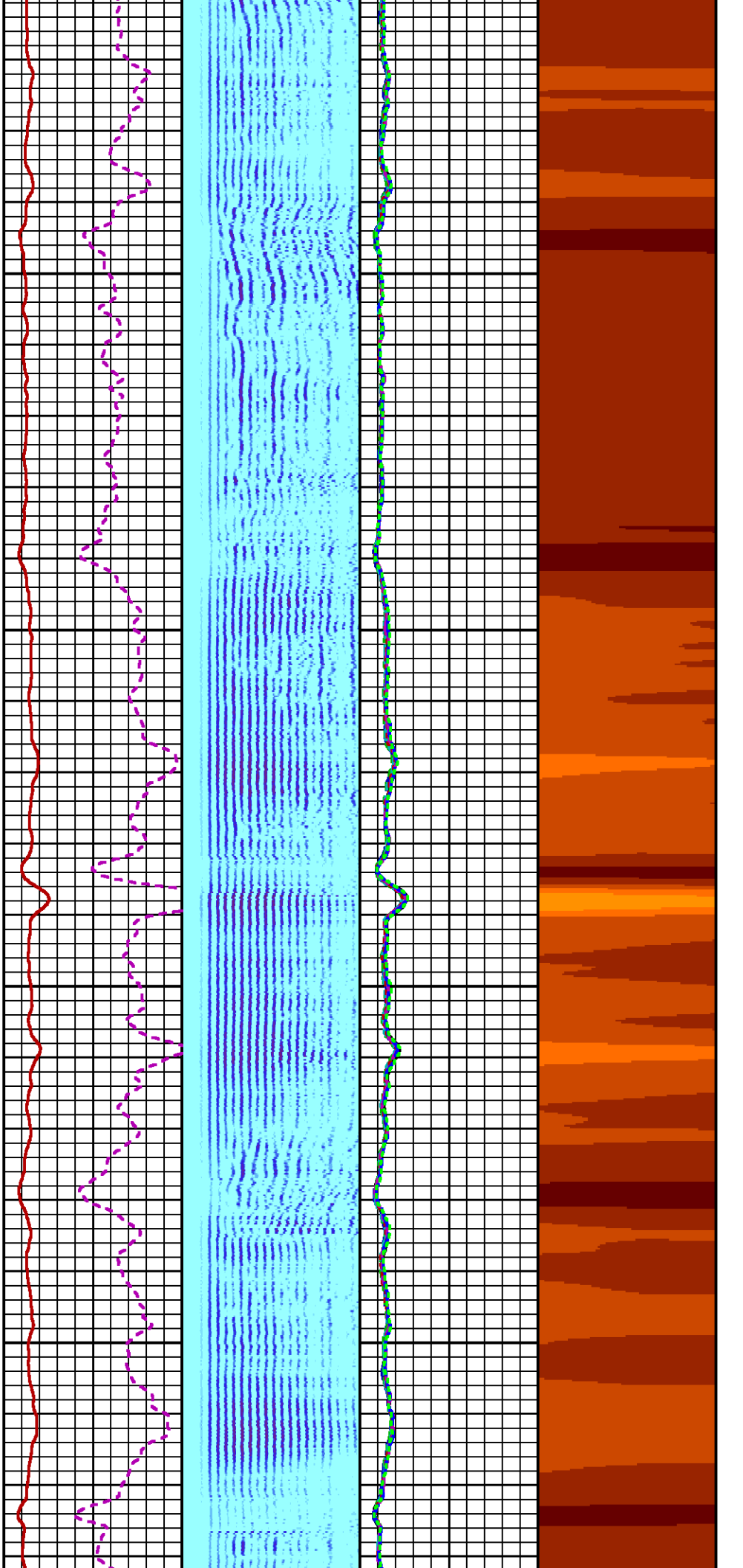








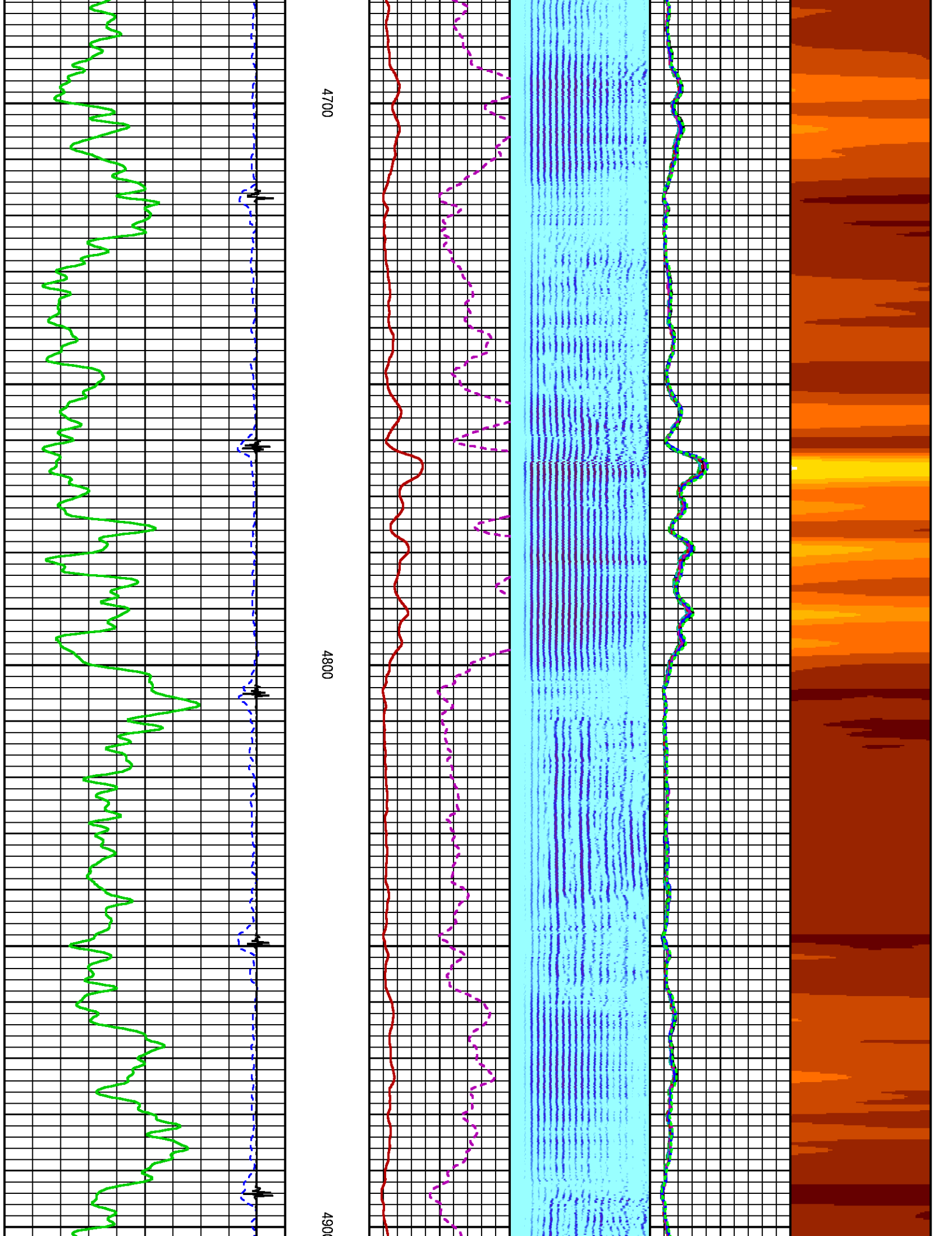




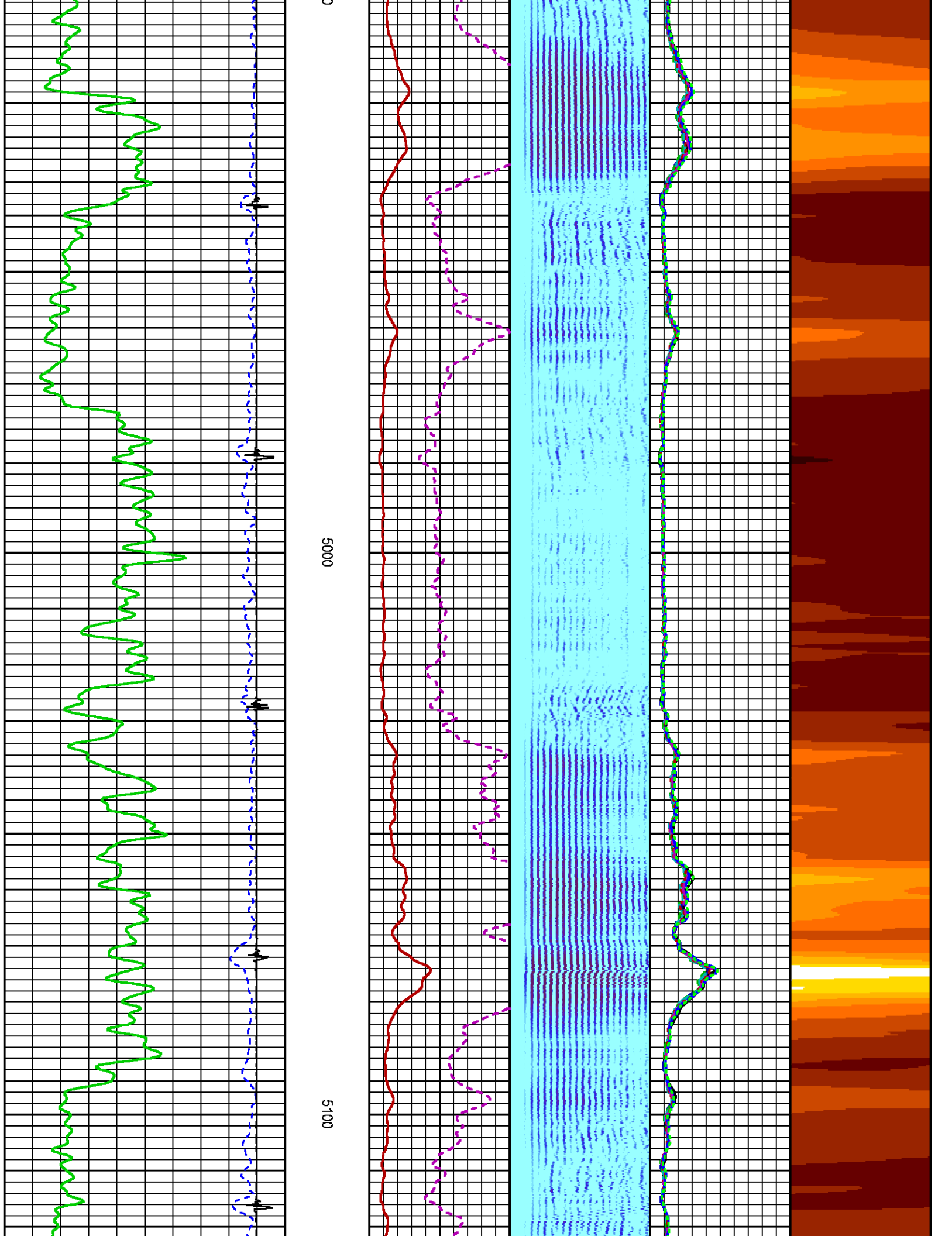
4500

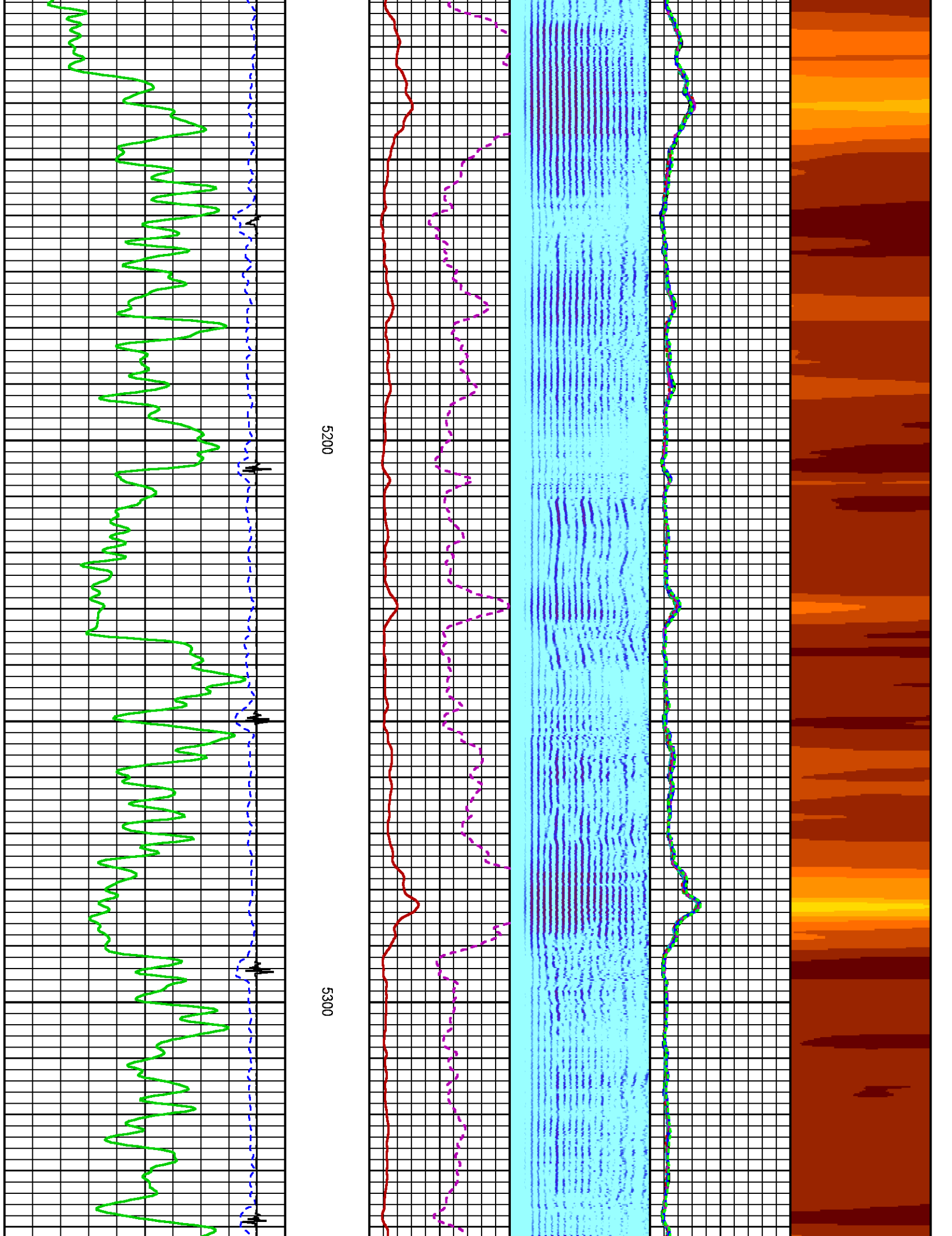
4600

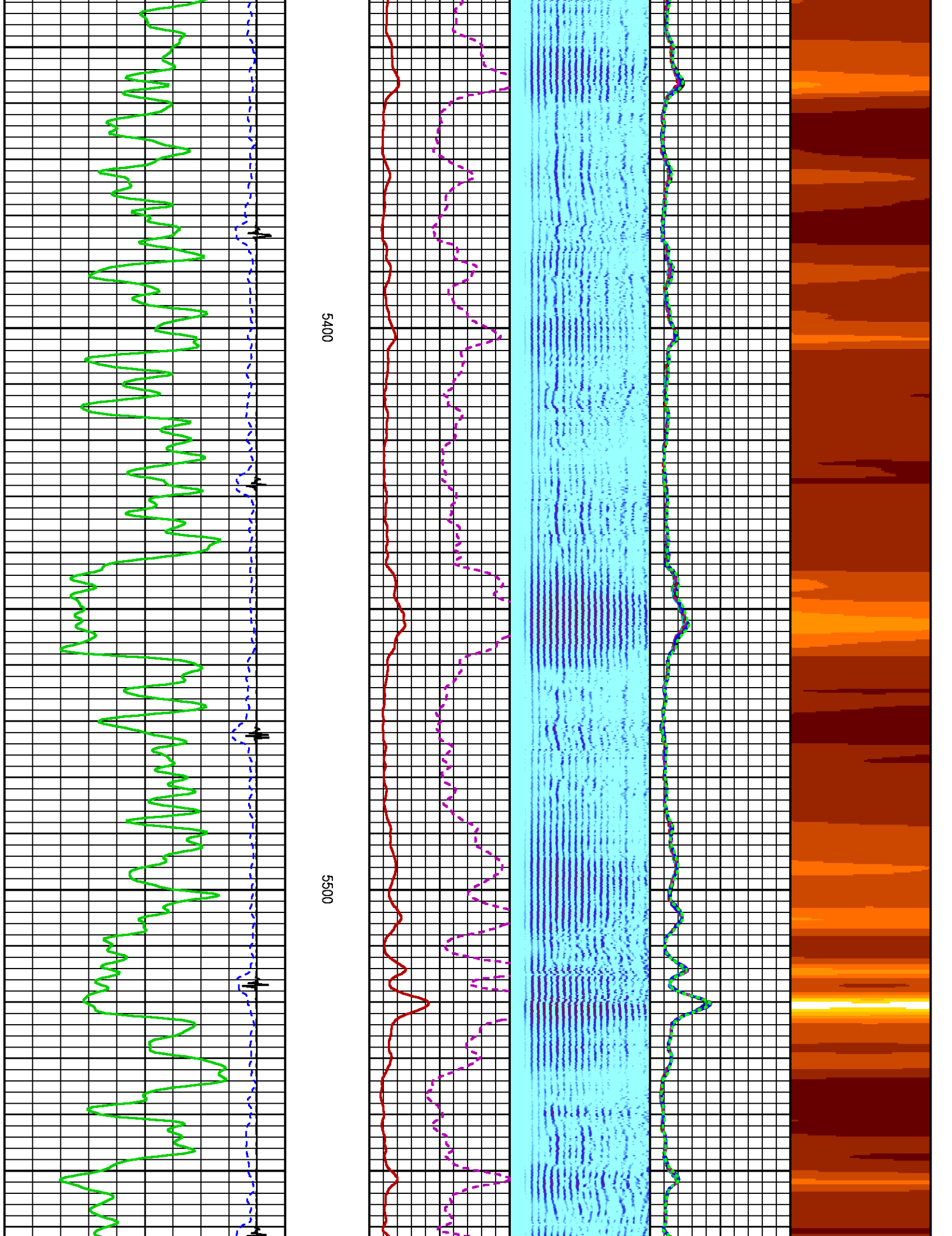


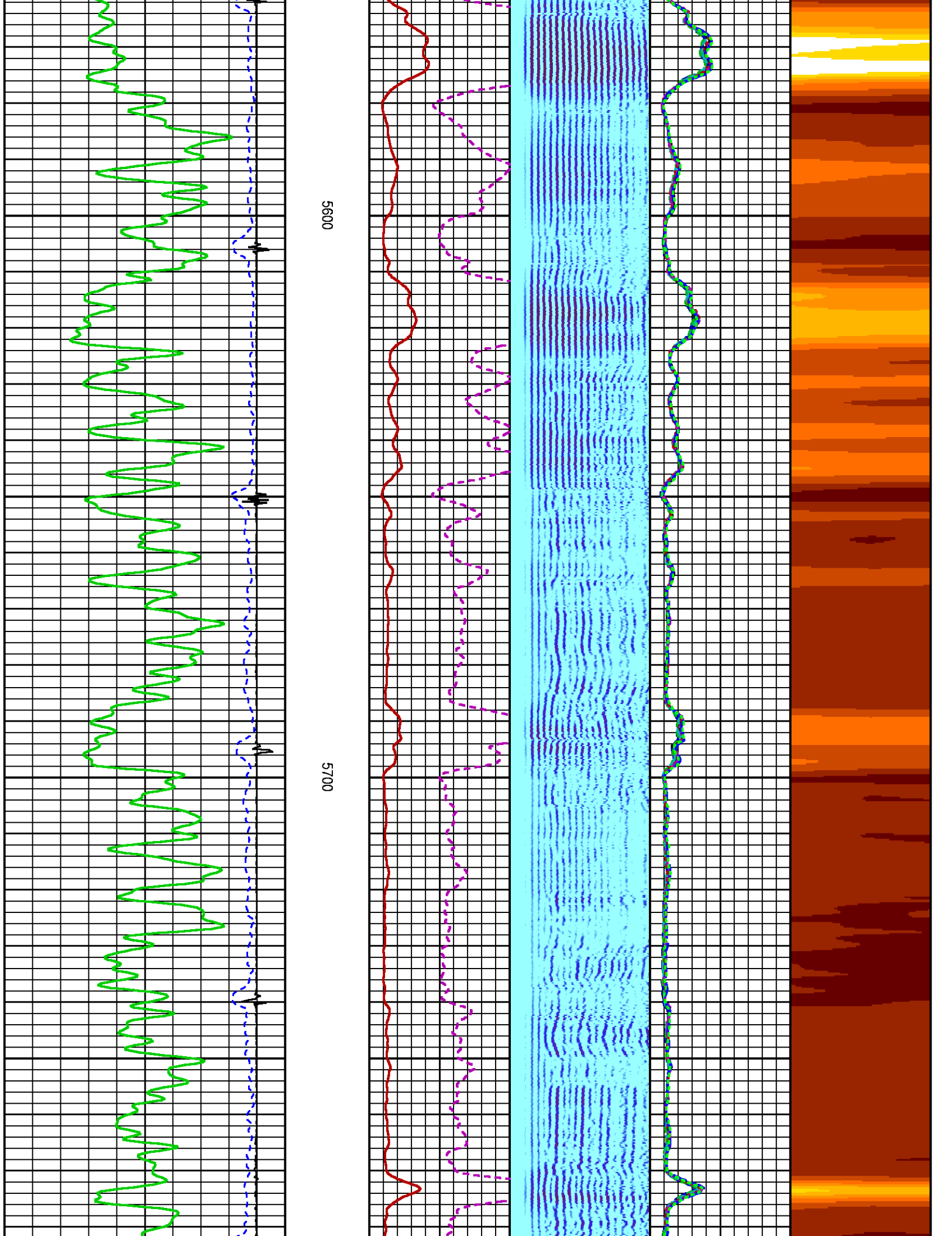


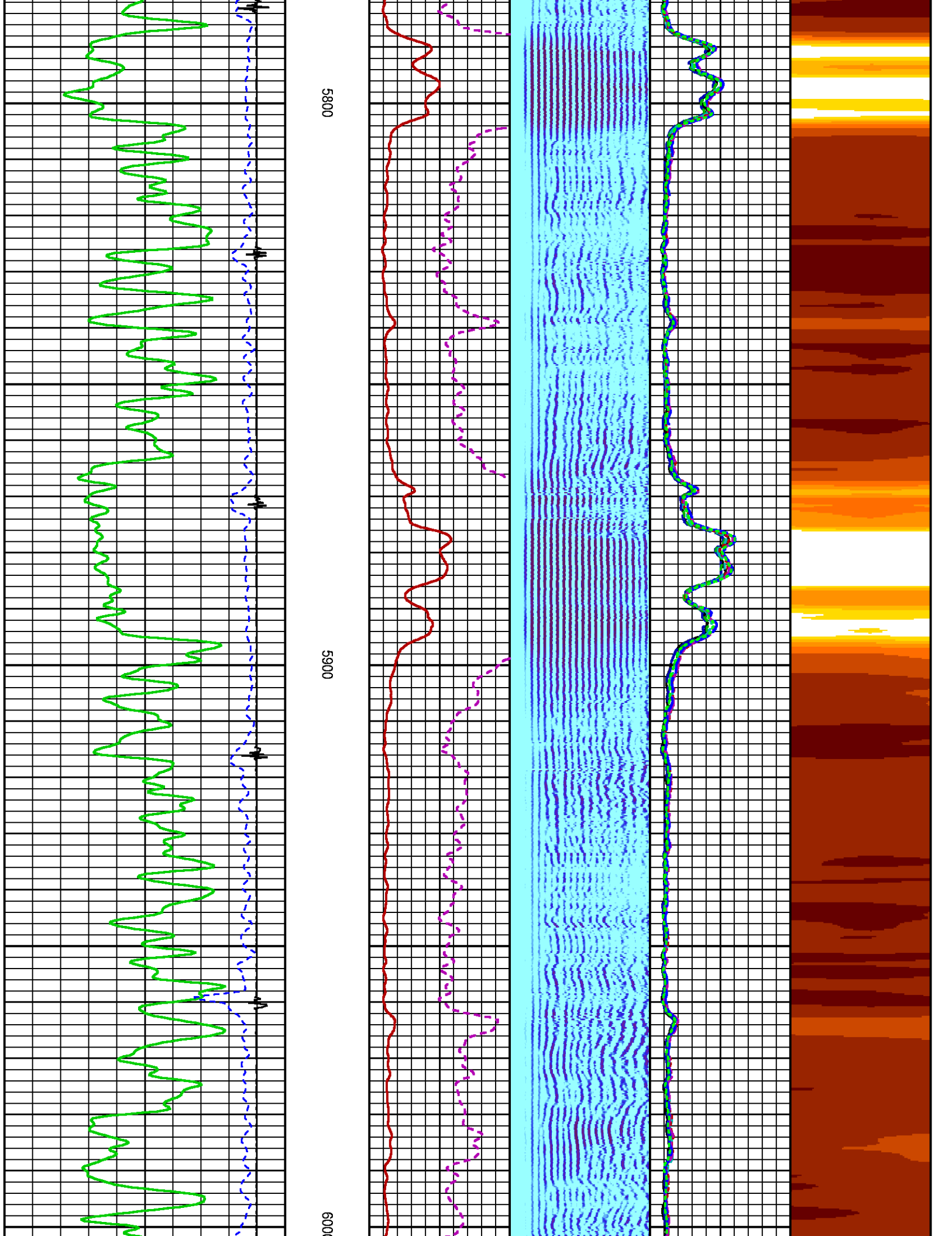




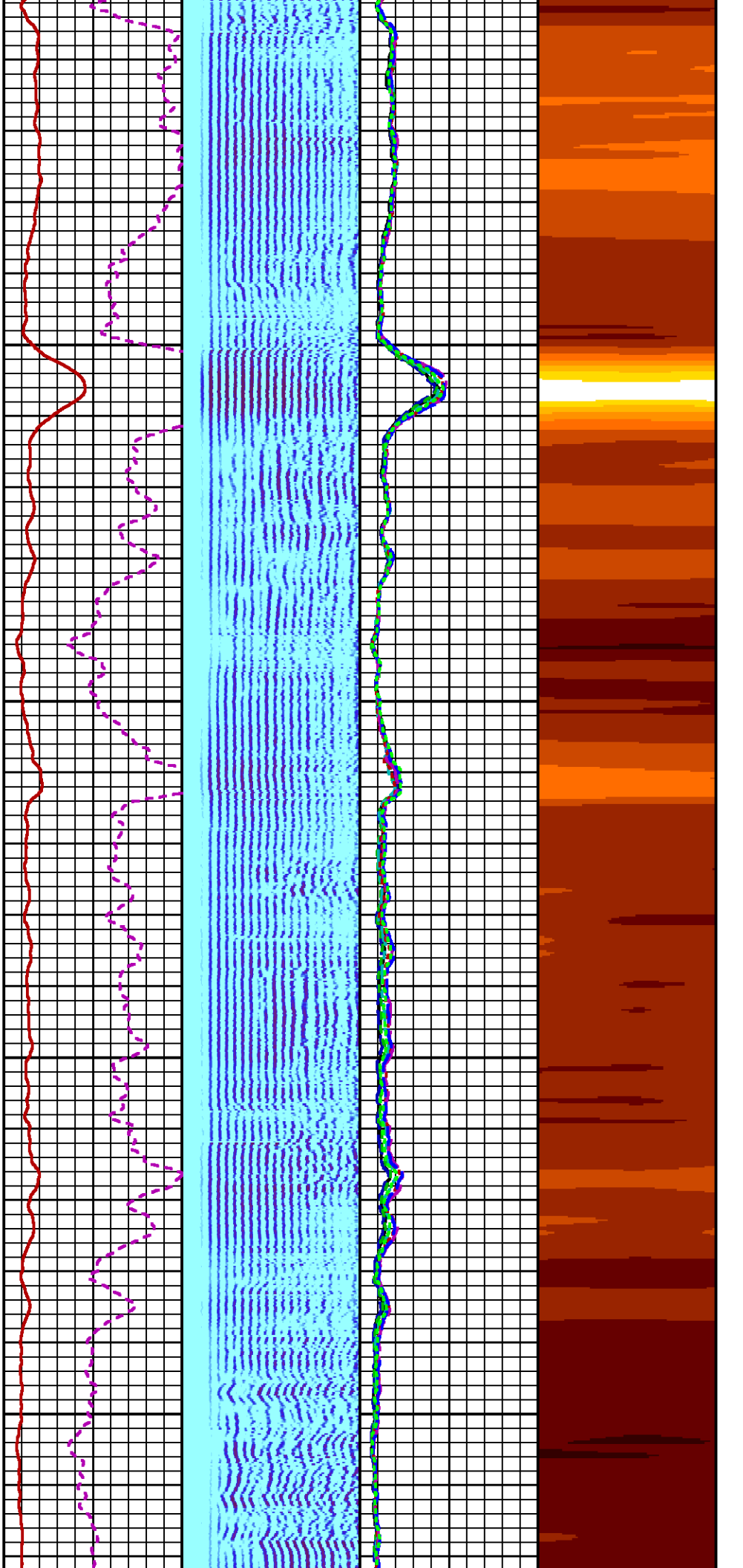






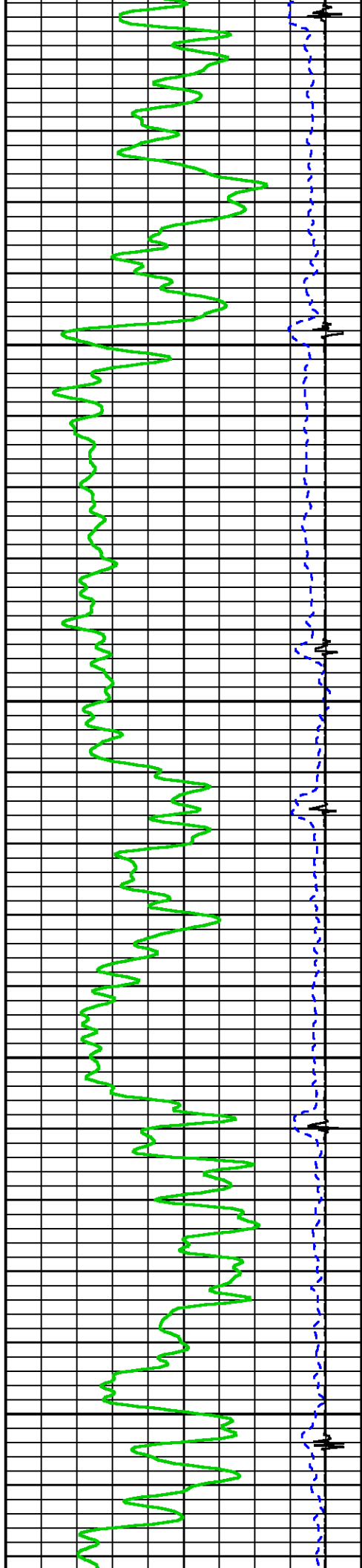




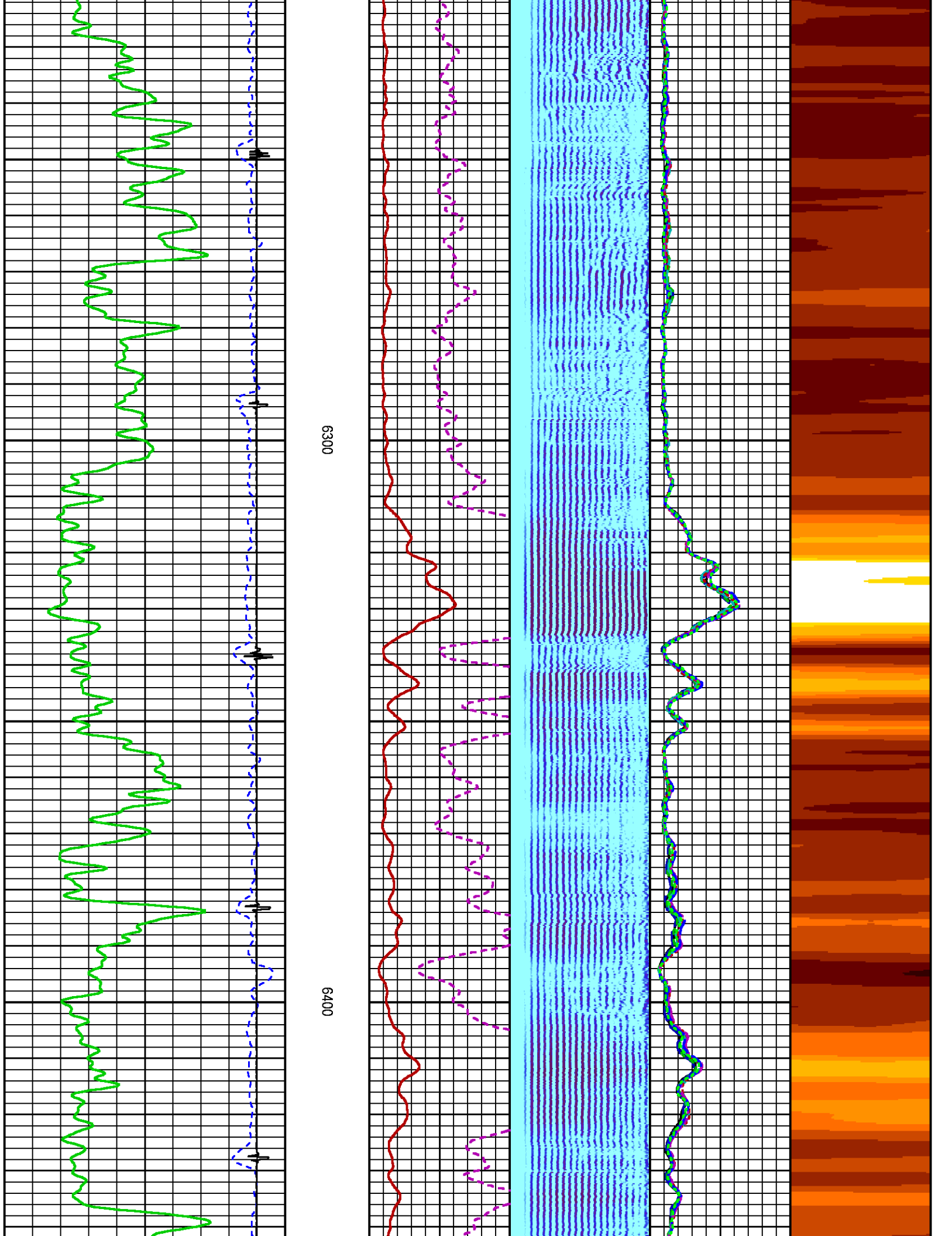


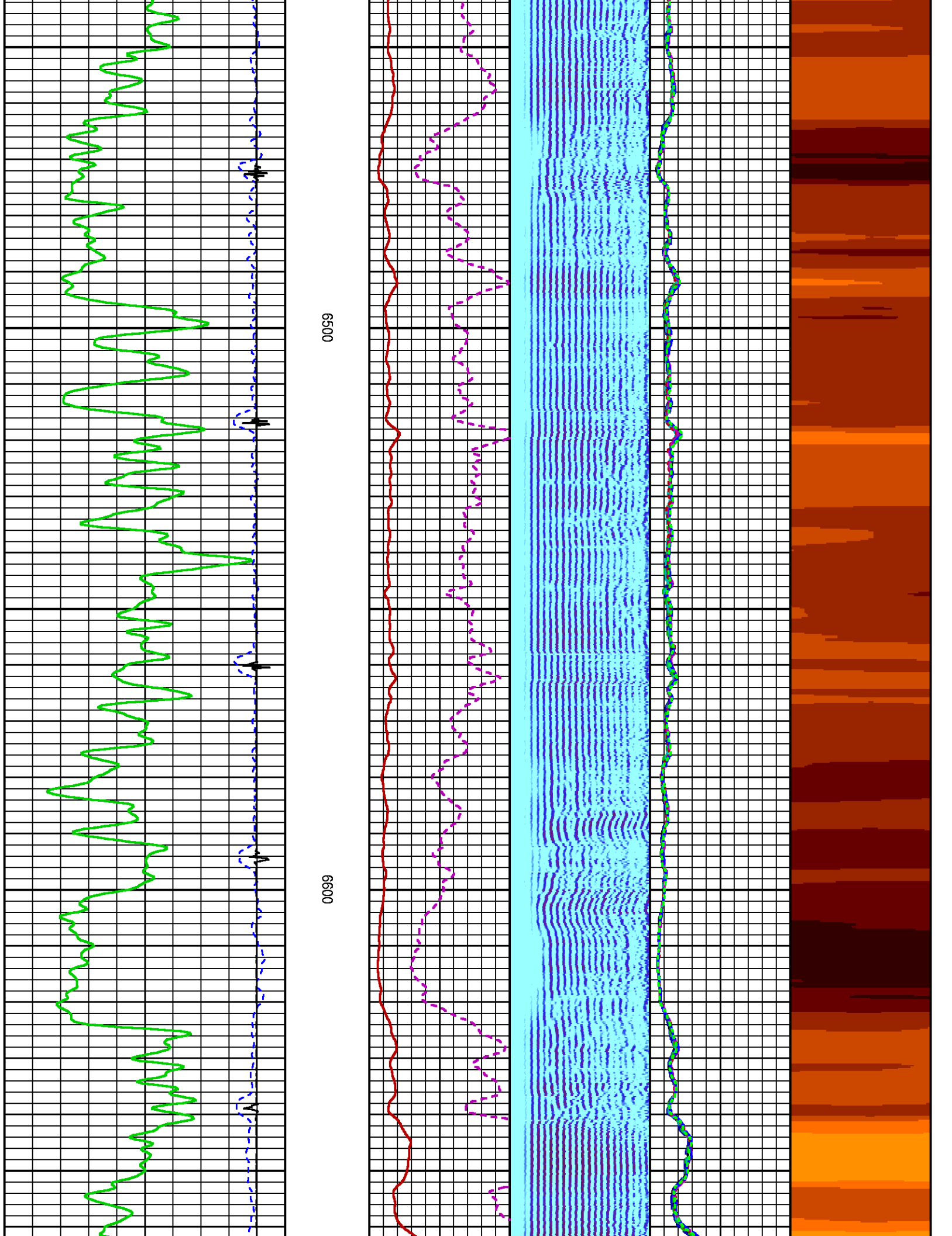
6100

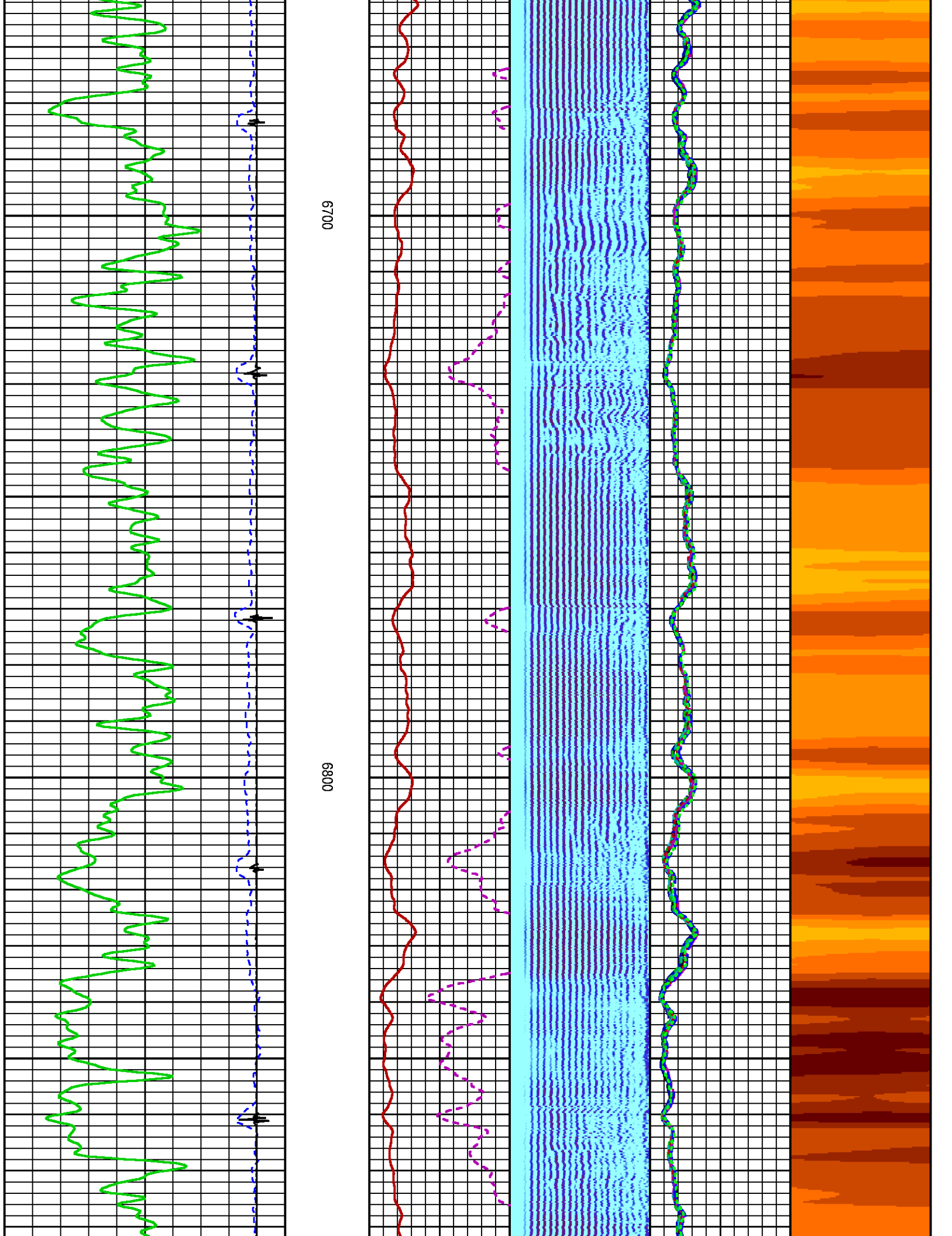
6200

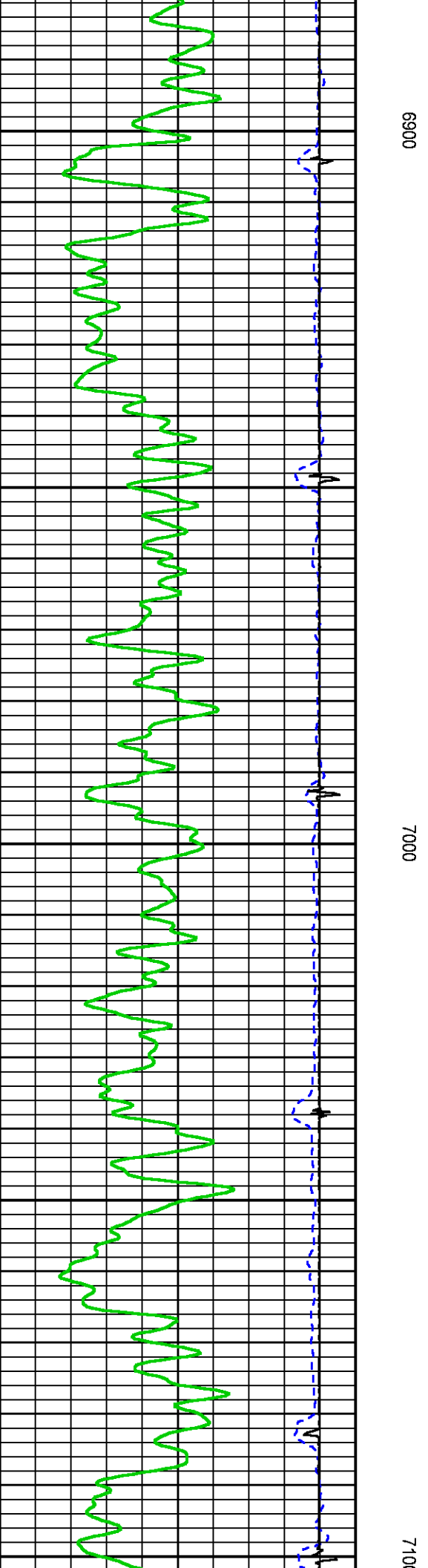
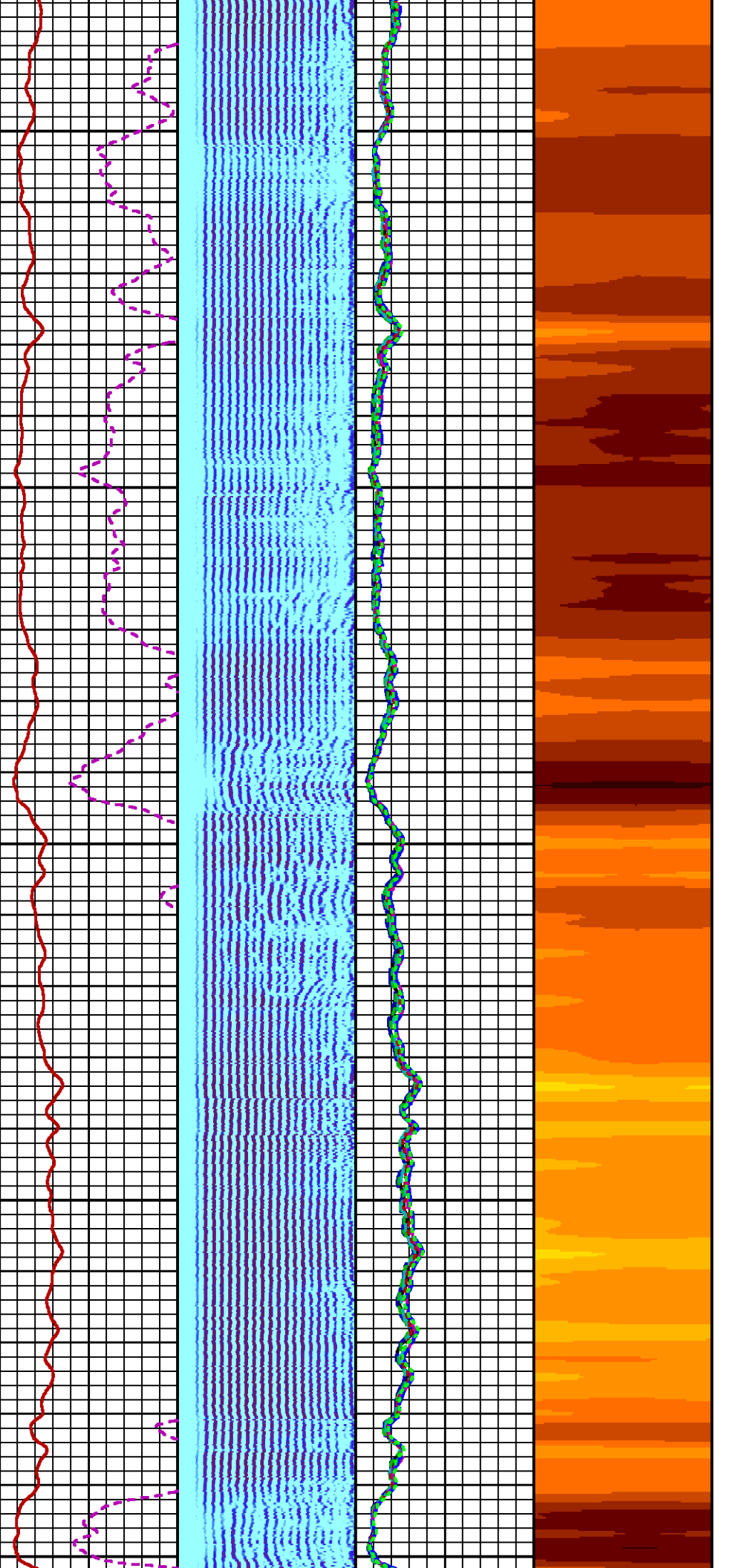




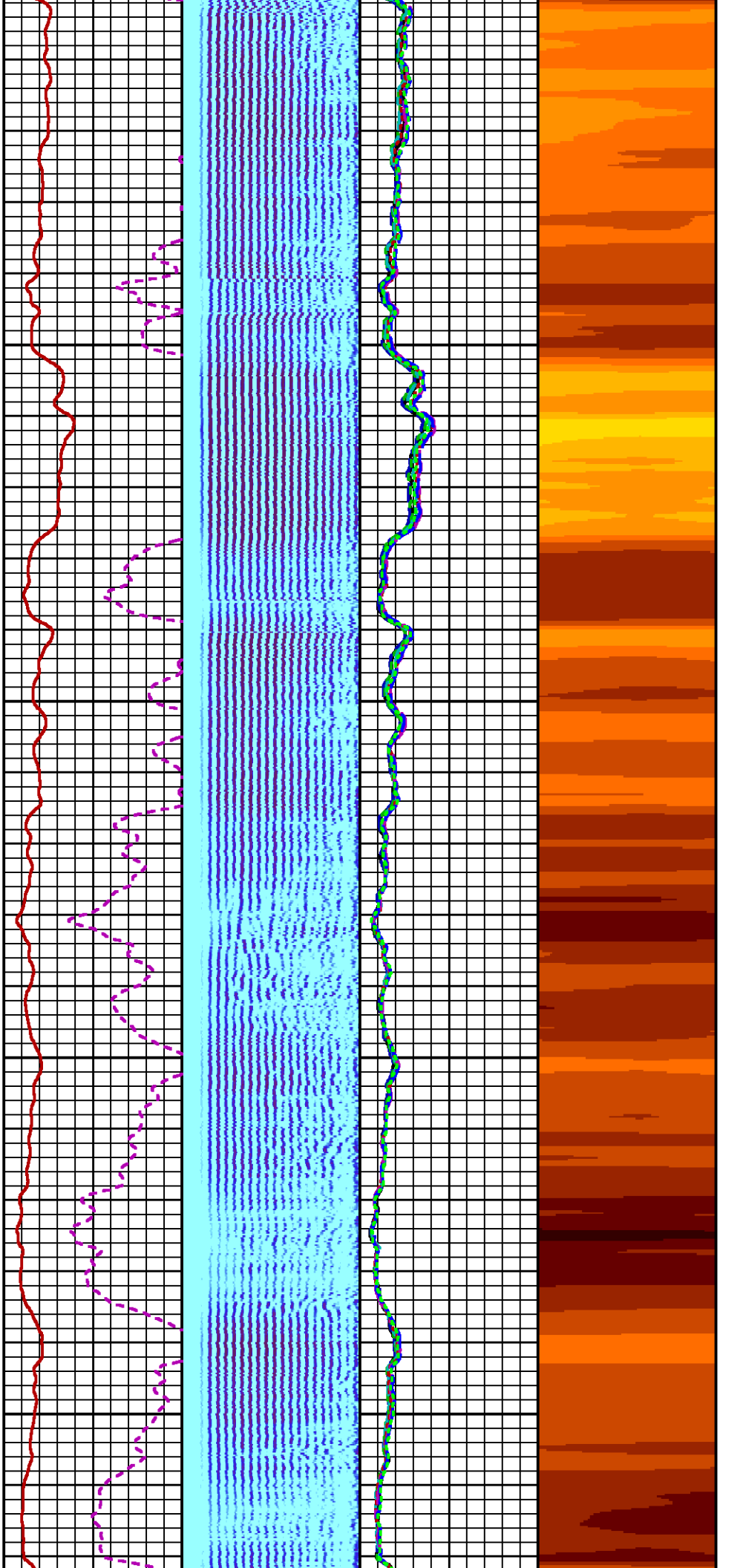






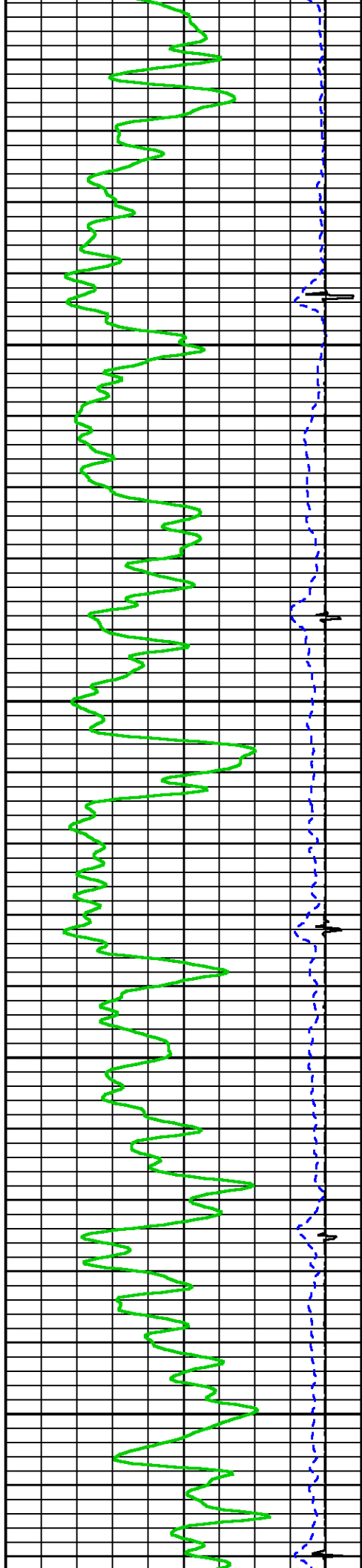




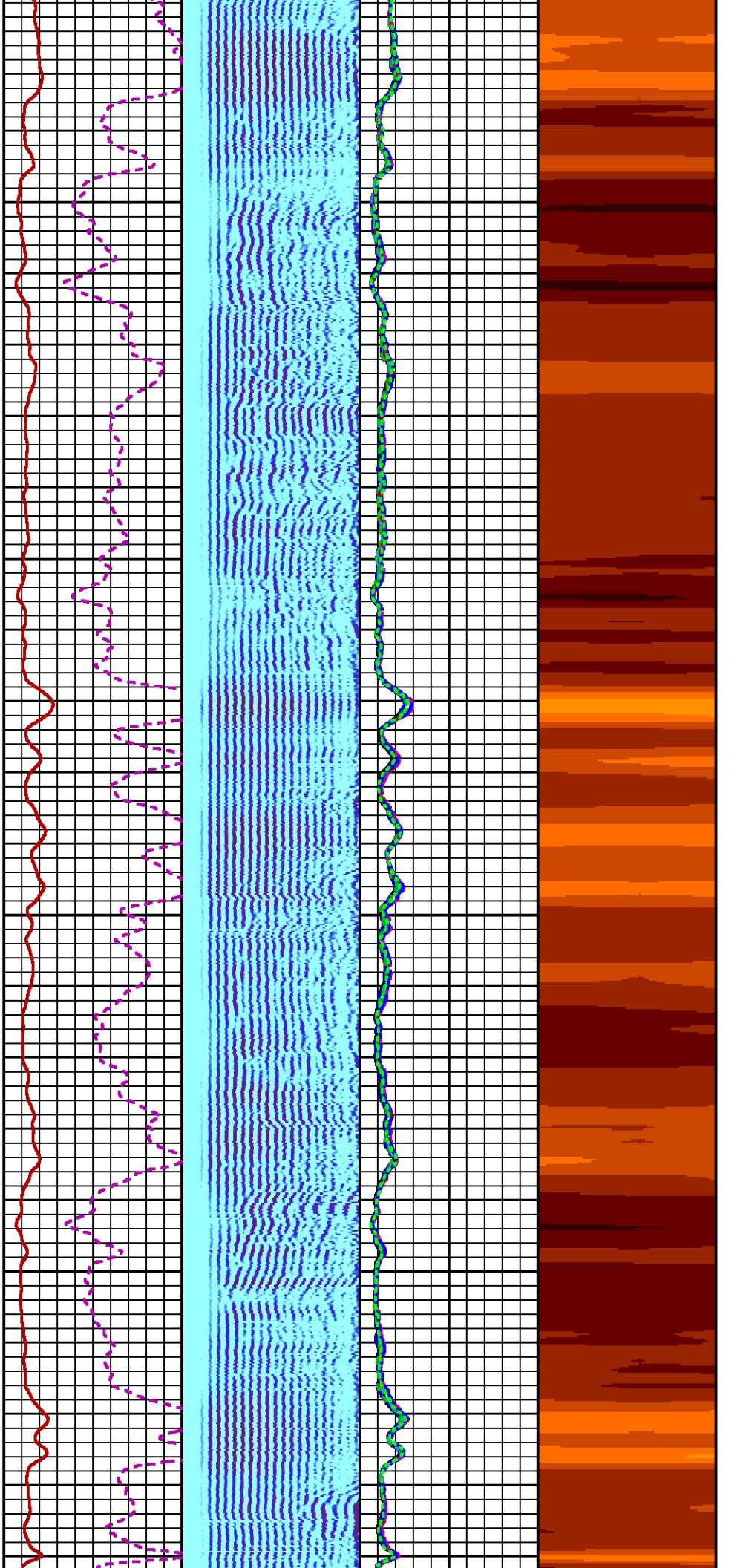


7200

7300

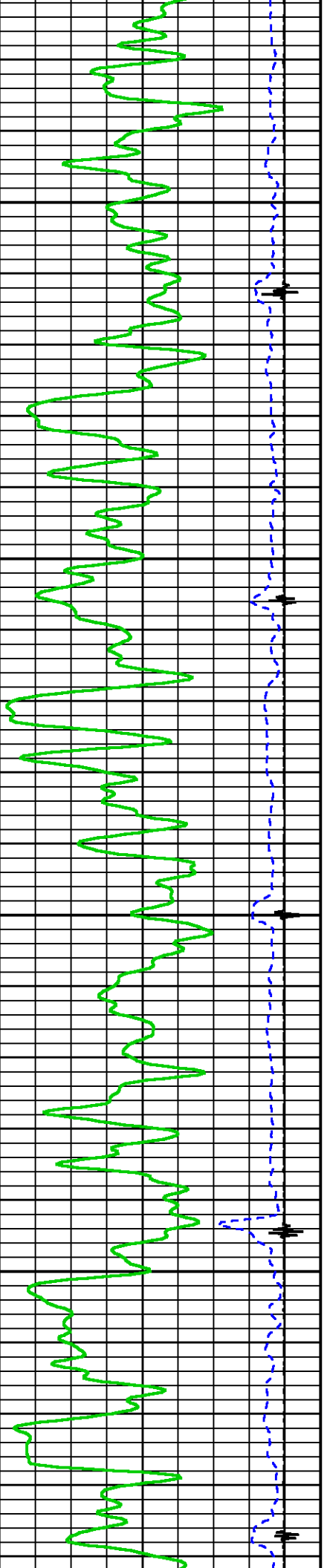


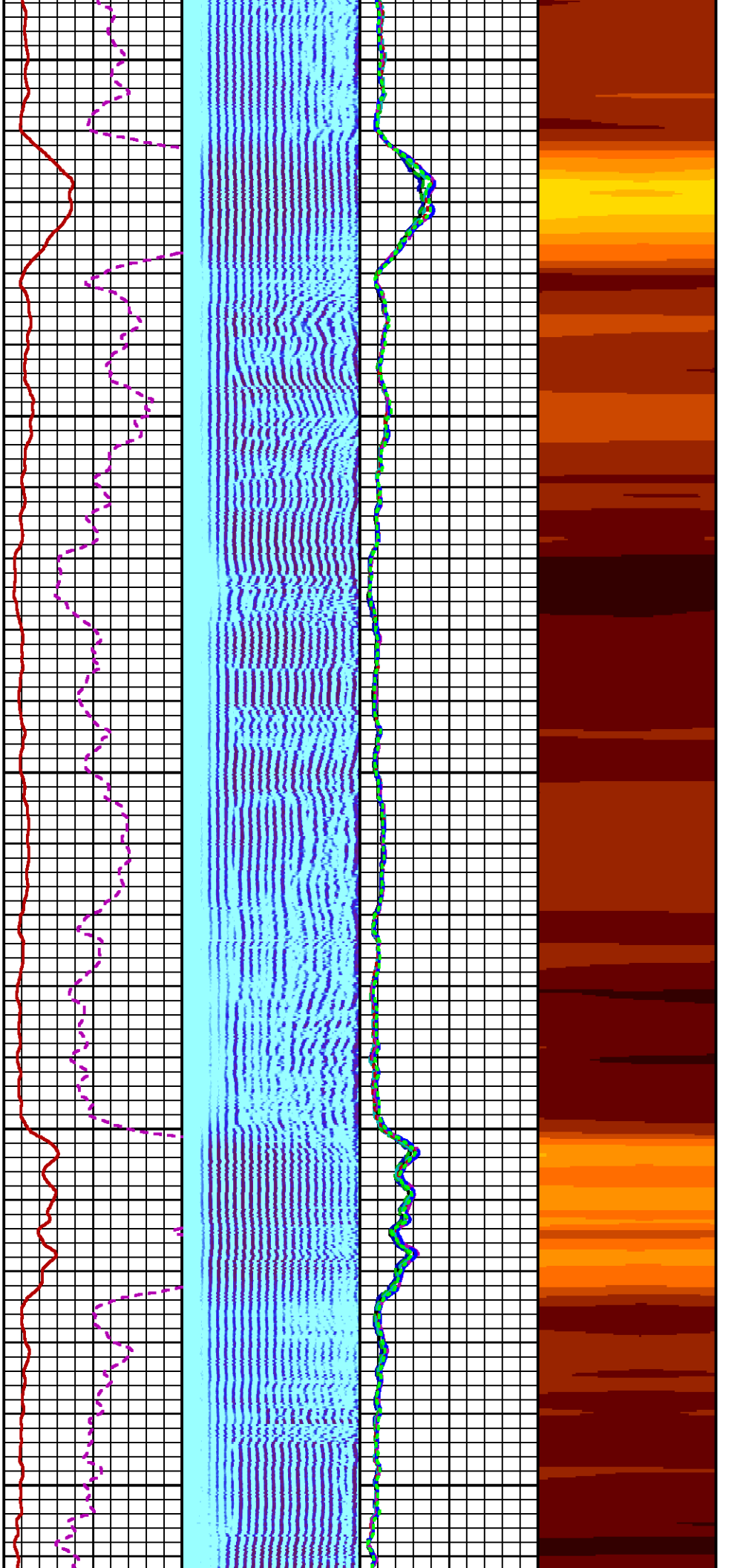




7400

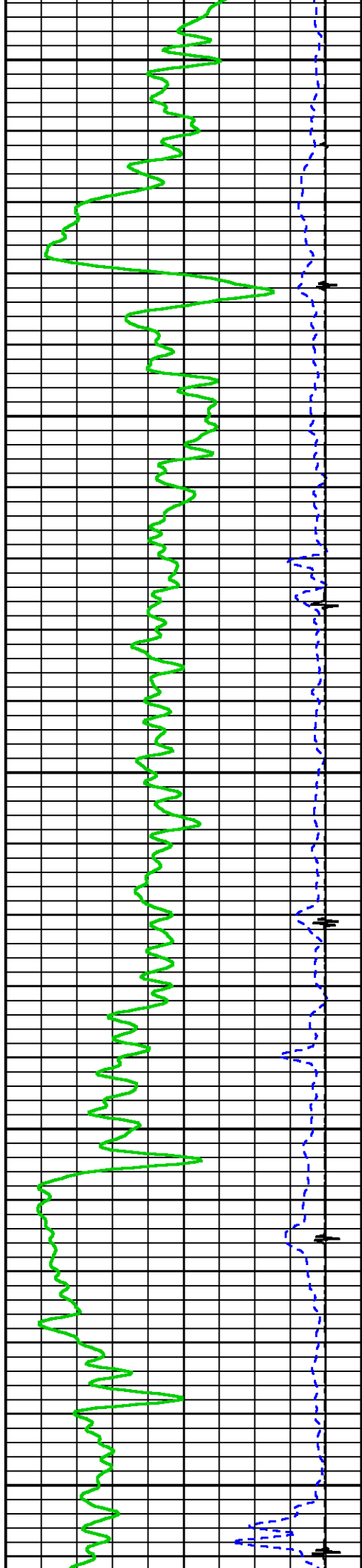
7500

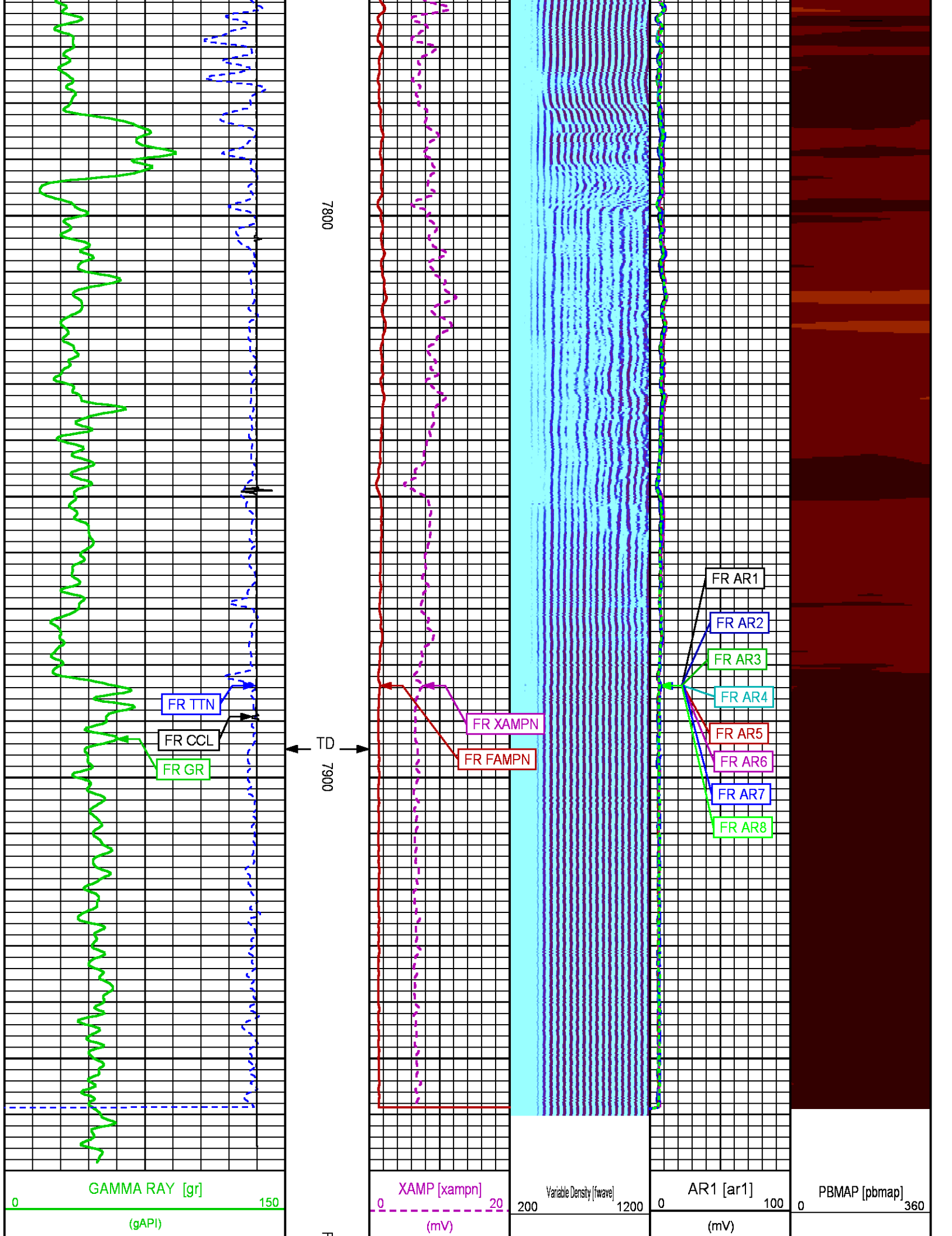


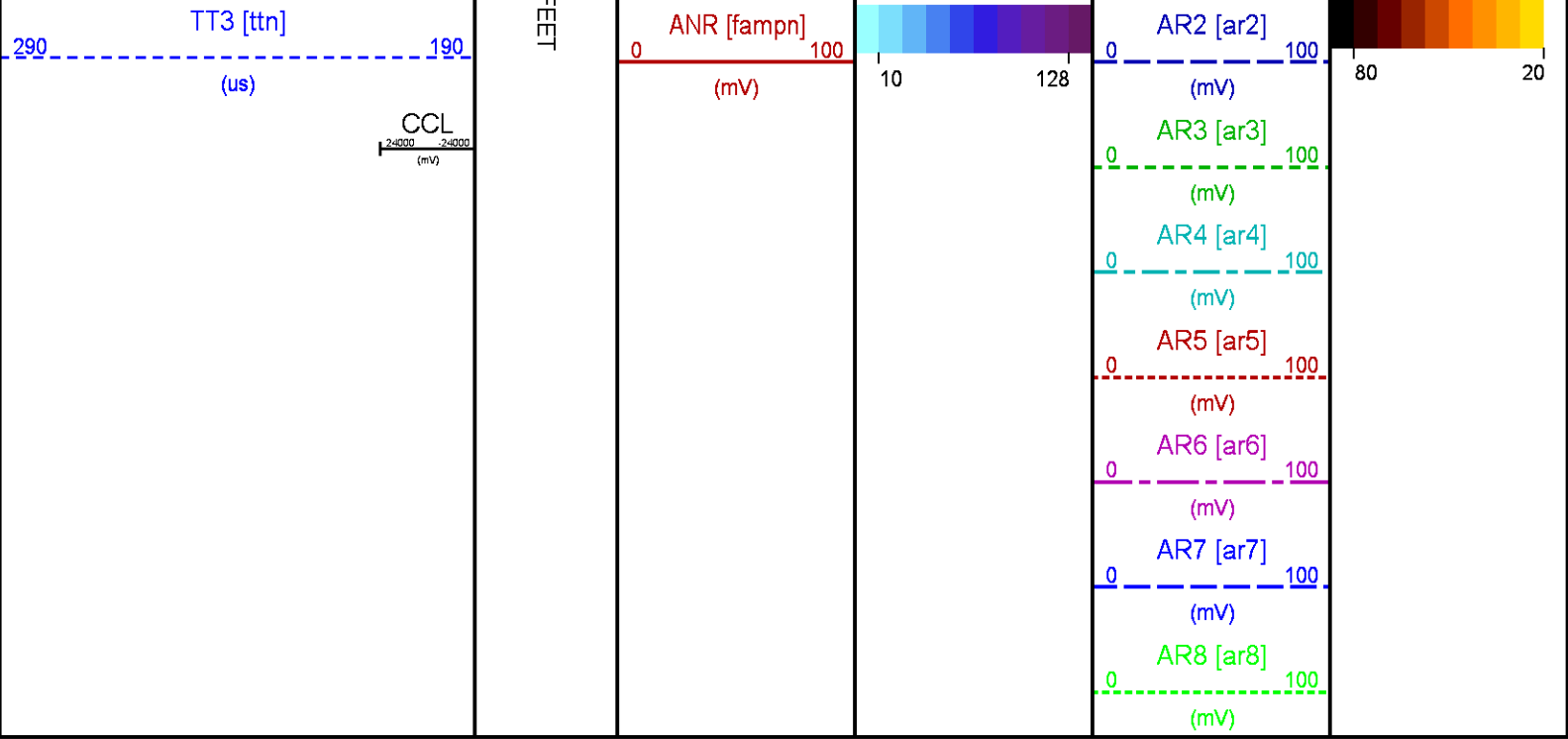


7600

7700







REPEAT PASS 0 PSI

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

Plotted: Mon Aug 28 11:44:52 2017

PARAMETER AND FILTER SUMMARY REPORT					
FILE: /dat1a/LARAMIE_BRUTON_19_02W/n012g01.prm LOGGING MODE: DEPTH DIRECTION: UP TOP DEPTH: 7551.750 ft BOTTOM DEPTH: 7929.500 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 (gpm)	25	us	"	"
TRAVEL TIME WINDOW (NEAR)	TT WINDOW START (ttn*)	160	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*)	-60	us	TOP	7823.500
		-61	us	7823.500	7832.000
		-62	us	7832.000	7877.500
		-63	us	7877.500	BOTTOM
	TOOL DELAY (str2*)	-60	us	TOP	7823.500
		-61	us	7823.500	7832.000
		-62	us	7832.000	7877.500
		-63	us	7877.500	BOTTOM
	TOOL DELAY (str3*)	-60	us	TOP	7823.500
		-61	us	7823.500	7832.000
		-62	us	7832.000	7877.500
		-63	us	7877.500	BOTTOM
	TOOL DELAY (str4*)	-60	us	TOP	7823.500
		-61	us	7823.500	7832.000
		-62	us	7832.000	7877.500
		-63	us	7877.500	BOTTOM
	TOOL DELAY (str5*)	-60	us	TOP	7823.500
		-61	us	7823.500	7832.000
		-62	us	7832.000	7877.500
		-63	us	7877.500	BOTTOM
	TOOL DELAY (str6*)	-60	us	TOP	7823.500
		-61	us	7823.500	7832.000
		-62	us	7832.000	7877.500
		-63	us	7877.500	BOTTOM
	TOOL DELAY (str7*)	-60	us	TOP	7823.500
		-61	us	7823.500	7832.000
		-62	us	7832.000	7877.500
		-63	us	7877.500	BOTTOM
	TOOL DELAY (str8*)	-60	us	TOP	7823.500
		-61	us	7823.500	7832.000
		-62	us	7832.000	7877.500
		-63	us	7877.500	BOTTOM
	TOOL DELAY (strn*)	-60	us	TOP	7823.500
		-61	us	7823.500	7832.000
		-62	us	7832.000	7877.500
		-63	us	7877.500	BOTTOM
BASELINE NOISE (NEAR)	NOISE WINDOW START	125	us	TOP	BOTTOM
	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	Aug 28 11:37:56 2017	FIXED GATE AMPLITUDE T-R1
F1:AR2	Aug 28 11:37:56 2017	FIXED GATE AMPLITUDE T-R2
F1:AR3	Aug 28 11:37:56 2017	FIXED GATE AMPLITUDE T-R3
F1:AR4	Aug 28 11:37:56 2017	FIXED GATE AMPLITUDE T-R4
F1:AR5	Aug 28 11:37:56 2017	FIXED GATE AMPLITUDE T-R5
F1:AR6	Aug 28 11:37:56 2017	FIXED GATE AMPLITUDE T-R6
F1:AR7	Aug 28 11:37:56 2017	FIXED GATE AMPLITUDE T-R7
F1:AR8	Aug 28 11:37:56 2017	FIXED GATE AMPLITUDE T-R8
F1:CCL	Aug 28 11:37:56 2017	CASING COLLAR LOCATOR
F1:FAMPN	Aug 28 11:37:56 2017	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Aug 28 11:37:56 2017	FAR WAVE FORM
F1:GR	Aug 28 11:37:56 2017	GAMMA RAY
F1:PBMAP	Aug 28 11:37:56 2017	PERCENT BOND CEMENT MAP
F1:TTN	Aug 28 11:37:56 2017	TRAVEL TIME FROM NEAR TRANSMITTER-RECEIVER

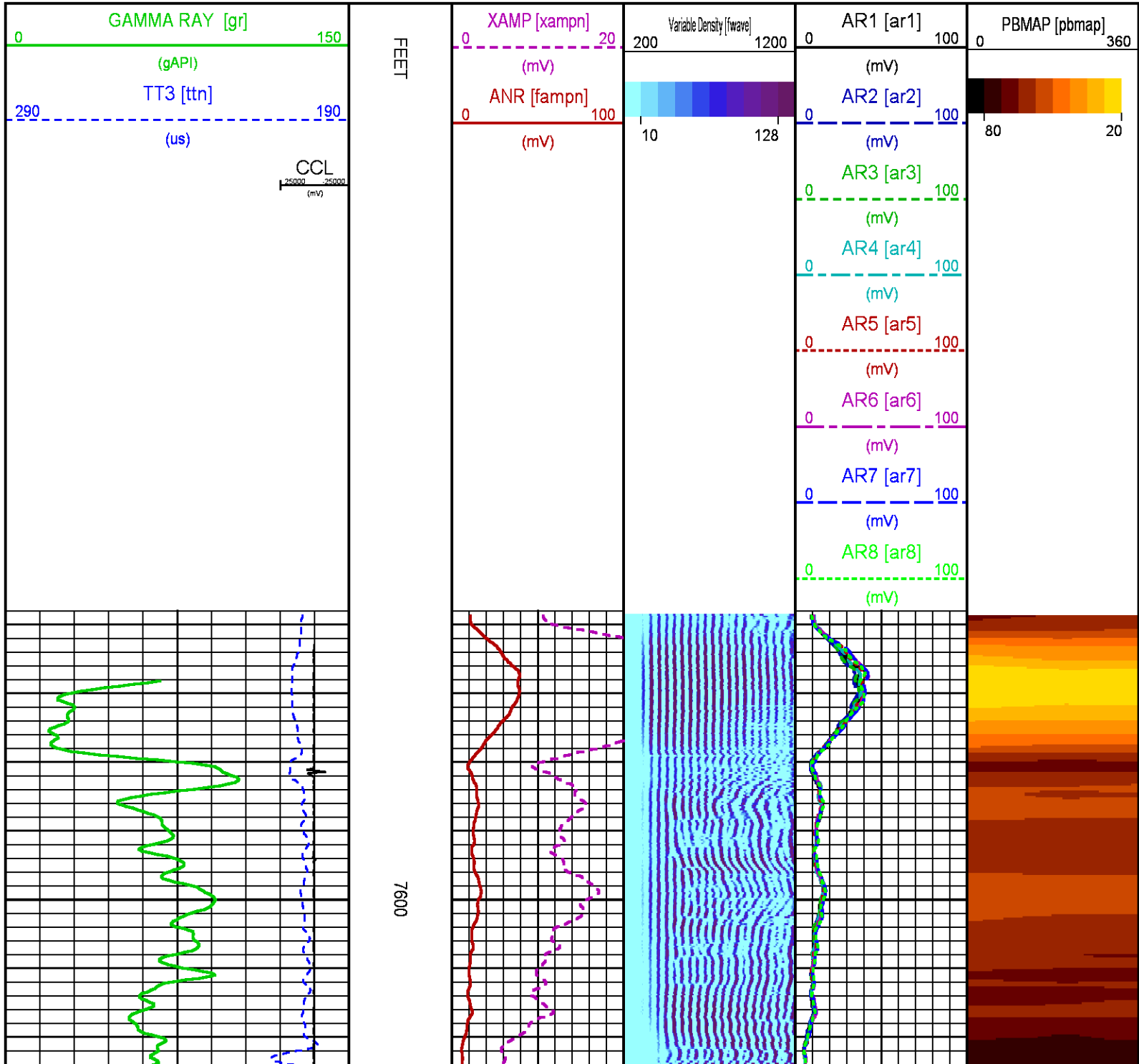


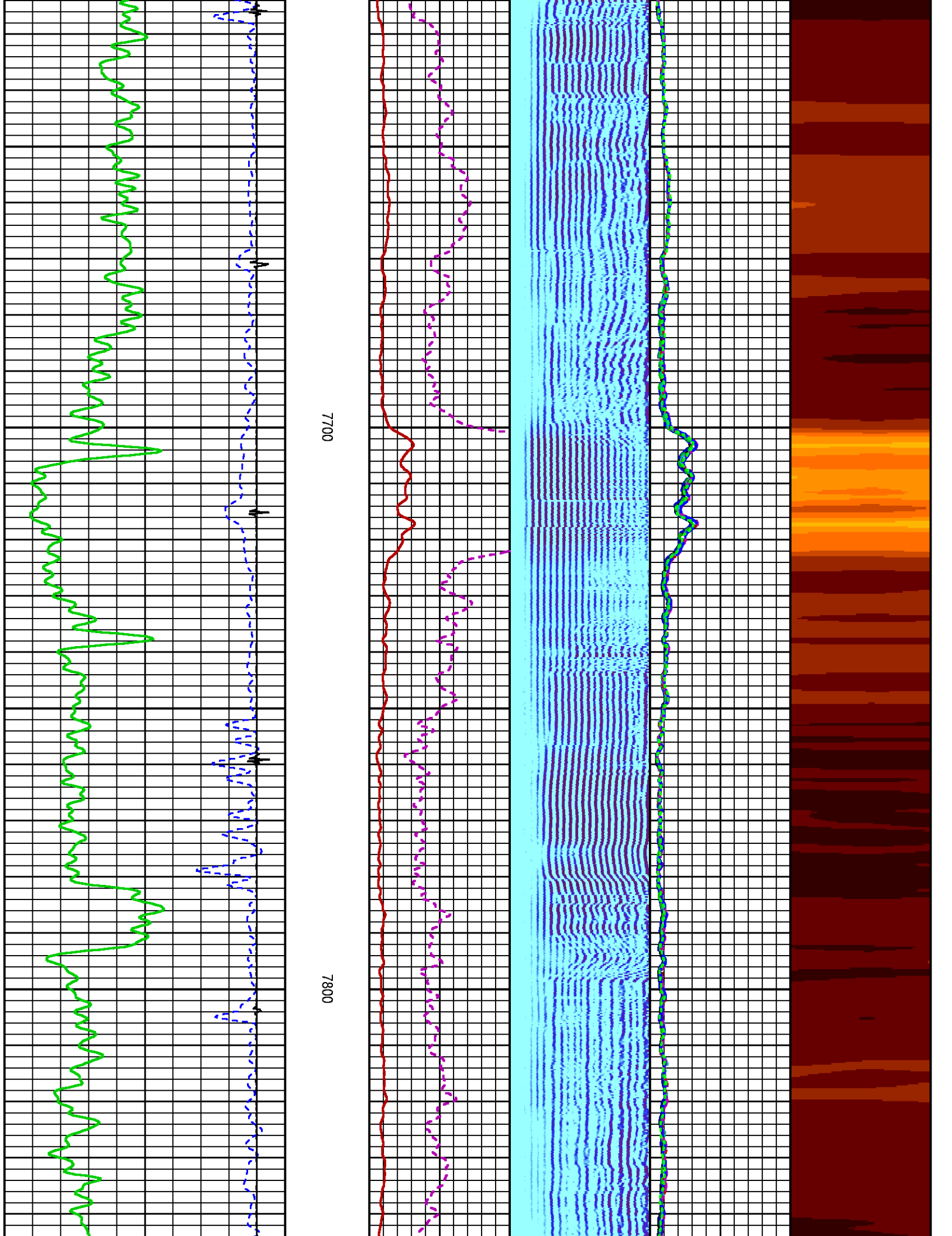
CURVE MEASURE POINT OFFSET

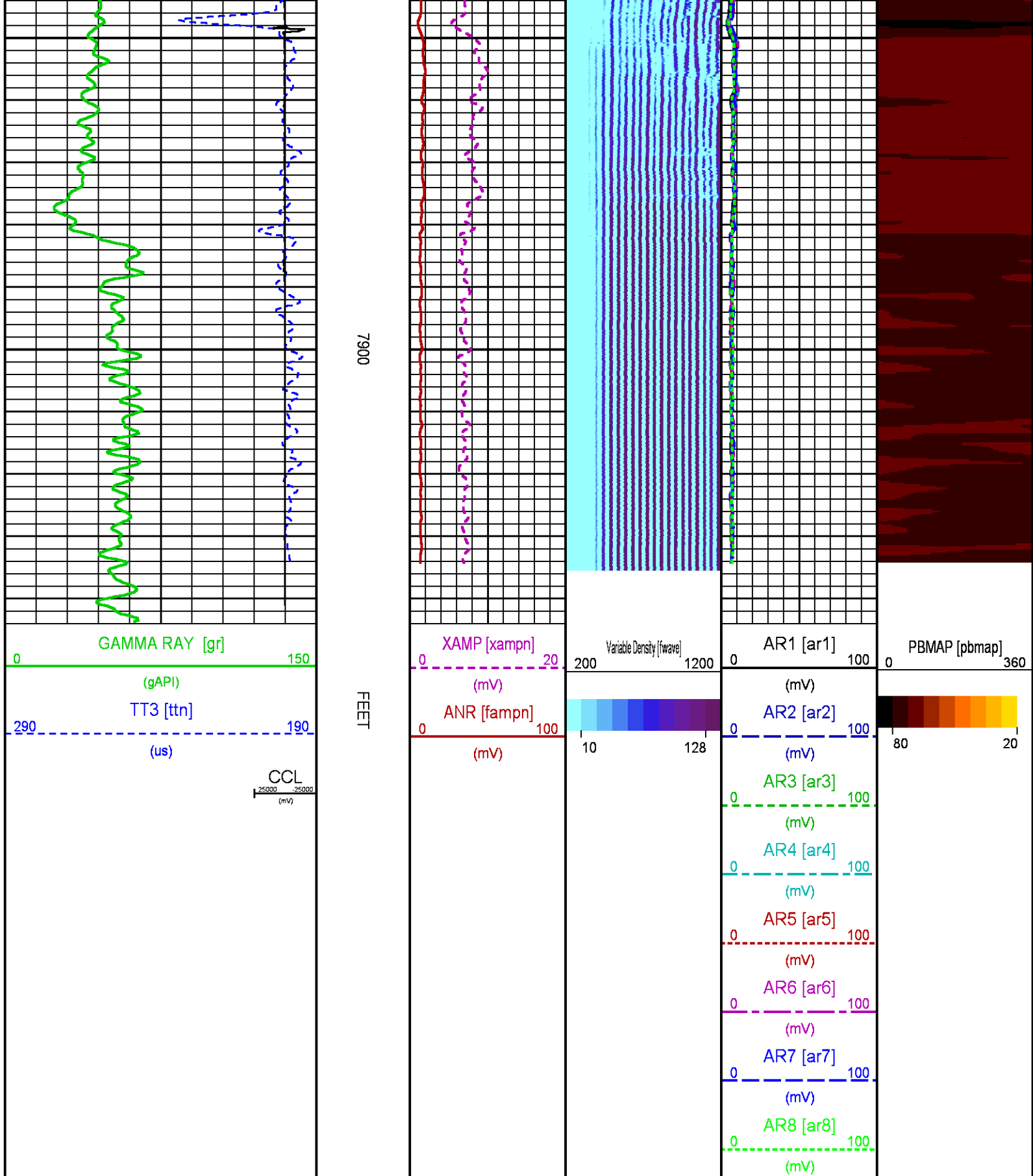
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
AR1	11.25	AR5	11.25	CCL	5.75	XAMPN	11.25
AR2	11.25	AR6	11.25	FAMPN	11.25		
AR3	11.25	AR7	11.25	GR	1.75		
AR4	11.25	AR8	11.25	TTN	11.25		

Presentation : cpu100:BRUTON\_19\_02W\_RAL\_REPEAT.fvpdf [5"/100' Scale]  
Plot Interval : 7541.5 - 7928.5 Feet

Data File 1 : F1 : cpu100:/dat1a/LARAMIE\_BRUTON\_19\_02W/BRUTON\_19\_02W\_RAL\_RPT.xtf  
Created On : Aug 28 11:37:56 2017  
Company : LARAMIE ENERGY  
Well : BRUTON 19-02W  
Field : VEGA  
File Interval : 7540.5 - 7929.75 Feet  
OCT : n012g







CALIBRATION / VERIFICATION SUMMARY

RAL PRIMARY CALIBRATION SUMMARY

TOOL # : 1426XA 10218496

DATE/TIME PERFORMED: Wed Aug 23 08:23:52 2017

UNIT # : 3880TA HL6670

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)

-0.00

-0.07

0.05

-0.05

0.22

0.14

0.13

-0.01

0.01

1.03

0.01

AMP FLUID (mV)

86

85

84

84

86

86

87

87

86

114

84

TT (us)

201

202

202

202

200

199

199

199

202

310

202

M FACTOR

1.16

1.18

1.19

1.19

1.17

1.16

1.15

1.15

1.17

1.32

1.19

RAL BEFORE LOG VERIFICATION SUMMARY

TOOL # : 1426XA 10218496

DATE/TIME PERFORMED: Wed Aug 23 08:24:49 2017

DAYS SINCE CAL: 0

UNIT # : 3880TA HL6670

CABLE # : HL6670 6670SL

NEAR (mV)

R1 (mV)

R2 (mV)

R3 (mV)

R4 (mV)

R5 (mV)

R6 (mV)

R7 (mV)

R8 (mV)

FAR (mV)

CAL (mV)

ZERO

0.12

0.07

0.08

0.05

0.07

0.09

0.10

0.05

0.06

0.71

-0.03

AMP AIR

2.67

2.09

2.21

2.27

2.21

2.88

2.66

2.51

2.19

2.52

100.29

SHOP M FACTOR

1.19

SHOP A FACTOR

0.00

WIRELINE FACTOR

1.00

GR PRIMARY CALIBRATION SUMMARY

TOOL # : 1355XA 12670180

DATE/TIME PERFORMED: Fri Dec 23 11:53:22 2016

UNIT # : 3880TA HL6670

CALB JIG #: 4702NK DA\_228

BACKGROUND CALBRTR ON (cts)

CR DIFF (cts/s)

MULT

BACKGROUND CALBRTR ON (gAPI)

CALBRTR (gAPI)

GR

75.82

247.07

171.2

0.584

44.28

144.28

100

GR PRIMARY VERIFICATION SUMMARY

TOOL # : 1355XA 12670180

DATE/TIME PERFORMED: Fri Dec 23 11:54:47 2016

UNIT # : 3880TA HL6670

VERI JIG #: 4702NK DA\_228

BACKGROUND CALBRTR ON (cts)

MULT

BACKGROUND CALBRTR ON (gAPI)

DIFF. (gAPI)

GR

77.11

254.76

0.584

45.03

148.77

103.74

95.00

110.00

INSTRUMENT CONFIGURATION

Source File: /dat1a/LARAMIE\_BRUTON\_19\_02W/RAL.tdg

CABLEHEAD

Diameter : 2.75"

Length : 2.25"

Weight : 10 lbs

Series : CABL234

RADIAL BOND TOOL

Diameter : 2.75"

20.38'

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

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"

	<b>COMPANY</b> <u>LARAMIE ENERGY</u>		<b>FILE NO:</b> _____
	<b>WELL</b> <u>BRUTON 19-02W</u>		<b>API NO:</b> _____
	<b>FIELD</b> <u>VEGA</u>	<b>STATE</b> <u>COLORADO</u>	<b>API NO:</b> <u>05077104230000</u>
	<b>COUNTY</b> <u>MESA</u>		
<b>LOCATION:</b> SHL: LAT:39.262995N;LONG:107.815083W BHL: LAT:39.268693N;LONG:107.816128W SEC <u>19</u> TWP <u>9S</u> RGE <u>93W</u>		<b>ELEVATIONS:</b> KB 7286 FT DF 7286 FT GL 7262 FT	
		<b>DATE</b> <u>28-AUG-2017</u>	