



FILE NO:	COMPANY
CH100238	LARAMIE ENERGY
API NO:	WELL
05077102440000	PICEANCE FEDERAL 28-01M
	FIELD
	VEGA
	COUNTY
	MESA
	STATE
	COLORADO

Ver. 4.05	LOCATION:	OTHER SERVICES
28 9S 93W	SHL: LAT 39.251103, LONG -107.779553	RPM
05077102440000	BHL: LAT 39.254956, LONG -107.774522	
PATTERSON 306	SEC 28 TWP 9S RGE 93W	

PERMANENT DATUM	G.L.	ELEVATION	7556 FT	ELEVATIONS: KB 7578 FT DF GL 7556 FT
LOG MEASURED FROM	K.B.	22 FT	ABOVE P.D.	
DRILL. MEAS. FROM	K.B.			

DATE	26-Oct-2015
RUN	1
TRIP	1
SERVICE ORDER	US100238J
DEPTH DRILLER	8202 FT
DEPTH LOGGER	8194 FT
BOTTOM LOGGED INTERVAL	8192 FT
TOP LOGGED INTERVAL	0 FT
TIME STARTED	07:30
TIME FINISHED	09:30
OPERATOR RIG TIME	2 HOURS
TYPE OF FLUID IN HOLE	WATER
FLUID DENSITY	NA
FLUID SALINITY	NA
FLUID LEVEL	37 FT
LOGGED CEMENT TOP	SEE LOG
WELLHEAD PRESSURE	0 PSI
MAXIMUM HOLE DEVIATION	NA
NOMINAL LOGGING SPEED	100 FMN
MAX. RECORDED TEMP.	244 DEGF
REFERENCE LOG	NA
REFERENCE LOG DATE	NA
EQUIP. NO.	HL-6685
LOCATION	GRAND JCT.
RECORDED BY	SPENCER
WITNESSED BY	JOHN GRUBICH

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE THE CUSTOMER THE BENEFIT OF THEIR BEST JUDGEMENT. BUT SINCE ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS, WE CANNOT, AND WE DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION. WE SHALL NOT BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST, DAMAGES, OR EXPENSES WHATSOEVER INCURRED OR SUSTAINED BY THE CUSTOMER RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR EMPLOYEES.

BOREHOLE RECORD		
BIT SIZE	FROM	TO
7.875 IN	0 FT	8312 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
4.5 IN	11.6 LB/F		0 FT	8202 FT

REMARKS
RUN 1 TRIP 1: THIS IS THE FIRST LOG ON THIS WELL LOGGED WITH 0PSI AT SURFACE
SJ = 6294' - 6316' SJ = 7371' - 7393'
THANKS FOR CHOOSING BAKER HUGHES...THE BEST CHOICE! CREW: COATE / OLSON

EQUIPMENT DATA				
RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.
1	1	RAL	1426XA	10154957
1	1	GR / CCL	1311XA	12670181
				POSITION
				CENTRALIZED
				CENTRALIZED

MAIN LOG PRESENTATION 0 PSI

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

Updates: 1 Patches: 8

Plotted: Mon Oct 26 10:07:11 2015

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH100238/n012g02.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 12.500 ft BOTTOM DEPTH: 8206.000 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*)	188	us	TOP	BOTTOM
	AMP WINDOW START (fgp2*)	188	us	"	"
	AMP WINDOW START (fgp3*)	188	us	"	"
	AMP WINDOW START (fgp4*)	188	us	"	"
	AMP WINDOW START (fgp5*)	188	us	"	"
	AMP WINDOW START (fgp6*)	188	us	"	"
	AMP WINDOW START (fgp7*)	188	us	"	"
	AMP WINDOW START (fgp8*)	188	us	"	"
	AMP WINDOW START (fgpn*)	188	us	"	"
TRAVEL TIME WINDOW (NEAR)	AMP WINDOW LENGTH	25	us	"	"
	TT WINDOW START (ttn*)	176	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*)	-67	us	"	"
	TOOL DELAY (str2*)	-67	us	"	"
	TOOL DELAY (str3*)	-67	us	"	"
	TOOL DELAY (str4*)	-67	us	"	"
	TOOL DELAY (str5*)	-67	us	"	"
	TOOL DELAY (str6*)	-67	us	"	"
	TOOL DELAY (str7*)	-67	us	"	"
	TOOL DELAY (str8*)	-67	us	"	"
	TOOL DELAY (strn*)	-67	us	"	"
BASELINE NOISE (NEAR)	NOISE WINDOW START	128	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	"	"

	FREE AMP REC 1	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	"	"

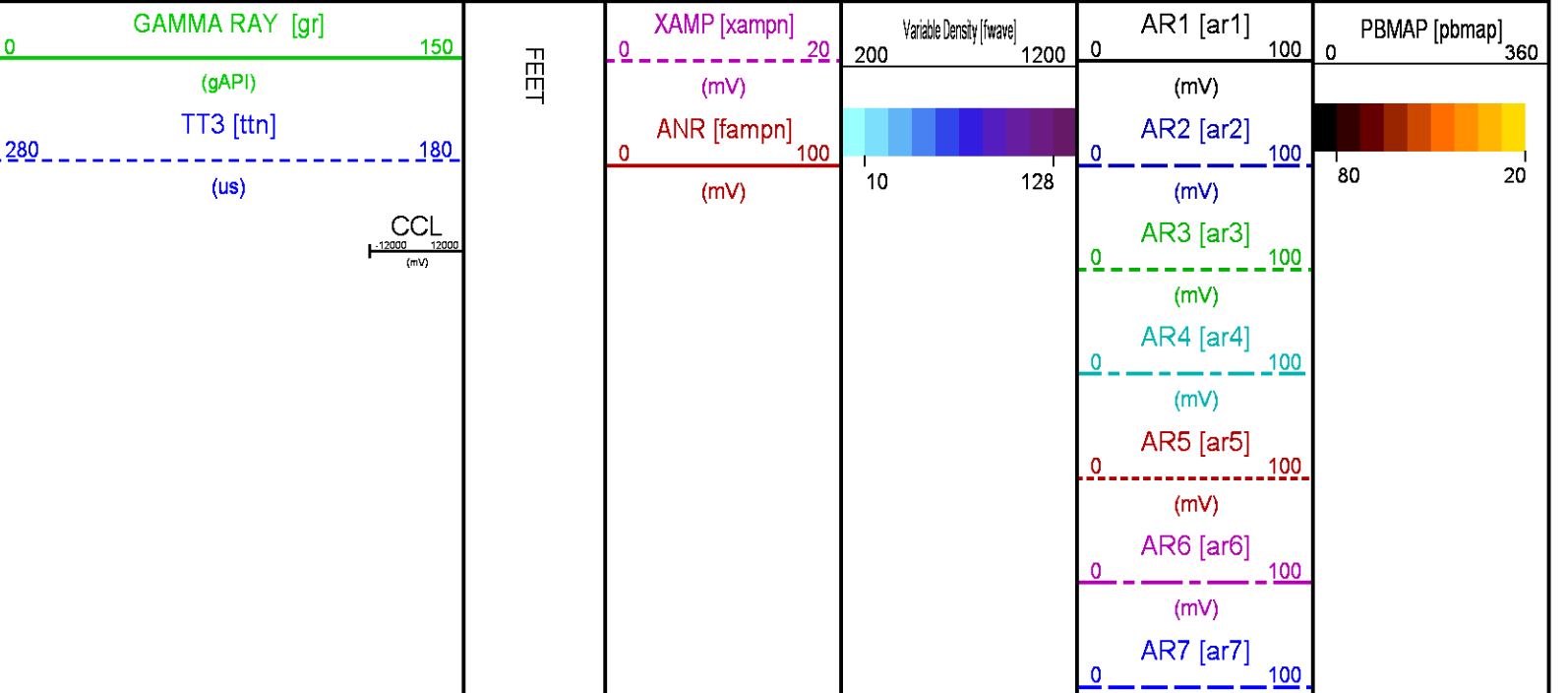
CURVE DESCRIPTION REPORT

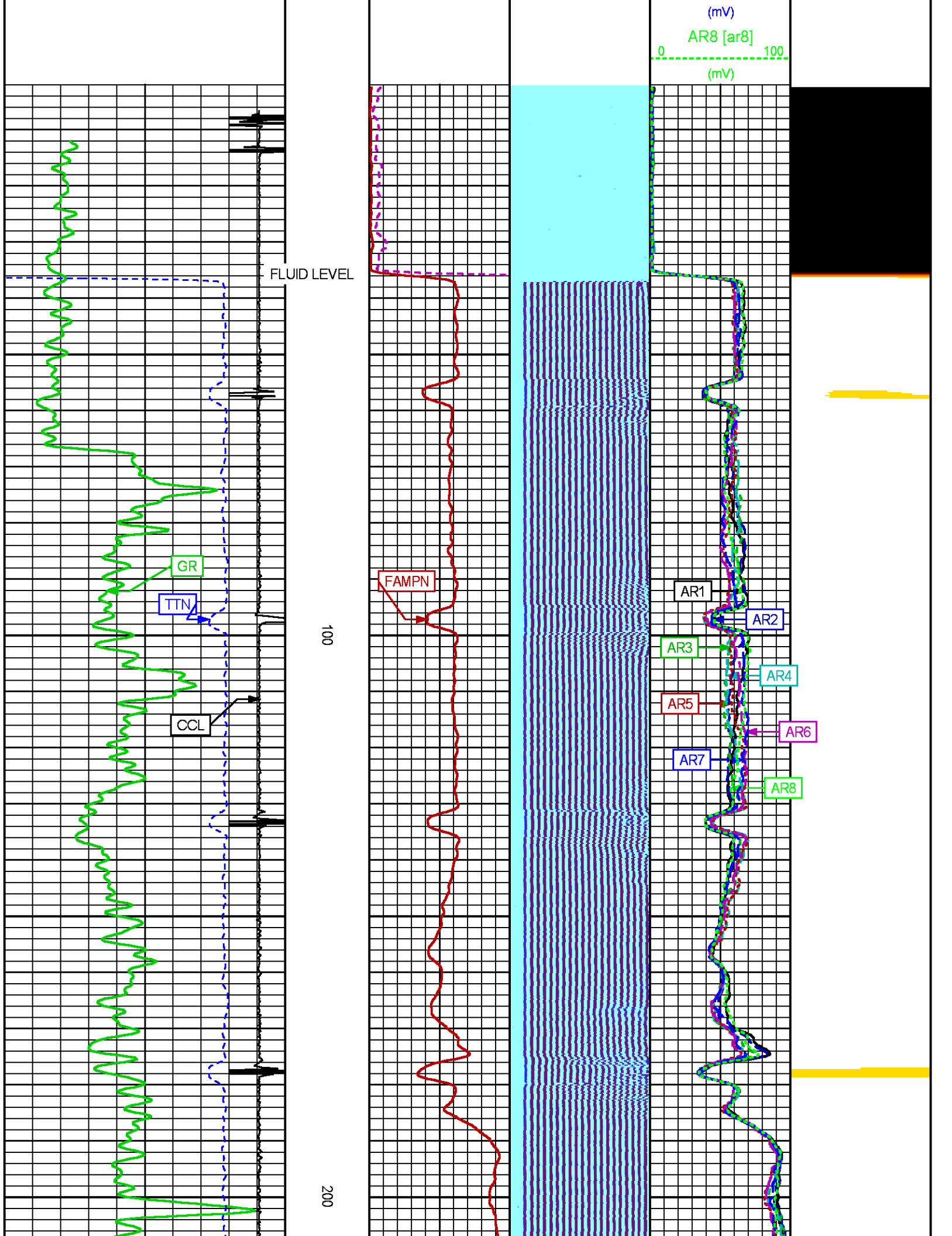
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:AR1	Oct 26 08:20:45 2015	FIXED GATE AMPLITUDE T-R1
F1:AR2	Oct 26 08:20:45 2015	FIXED GATE AMPLITUDE T-R2
F1:AR3	Oct 26 08:20:45 2015	FIXED GATE AMPLITUDE T-R3
F1:AR4	Oct 26 08:20:45 2015	FIXED GATE AMPLITUDE T-R4
F1:AR5	Oct 26 08:20:45 2015	FIXED GATE AMPLITUDE T-R5
F1:AR6	Oct 26 08:20:45 2015	FIXED GATE AMPLITUDE T-R6
F1:AR7	Oct 26 08:20:45 2015	FIXED GATE AMPLITUDE T-R7
F1:AR8	Oct 26 08:20:45 2015	FIXED GATE AMPLITUDE T-R8
F1:CCL	Oct 26 08:20:45 2015	CASING COLLAR LOCATOR
F1:FAMPN	Oct 26 08:20:45 2015	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Oct 26 08:20:45 2015	FAR WAVE FORM
F1:GR	Oct 26 08:20:45 2015	GAMMA RAY
F1:PBMAP	Oct 26 08:20:45 2015	PERCENT BOND CEMENT MAP
F1:TTN	Oct 26 08:20:45 2015	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Oct 26 08:20:45 2015	FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE

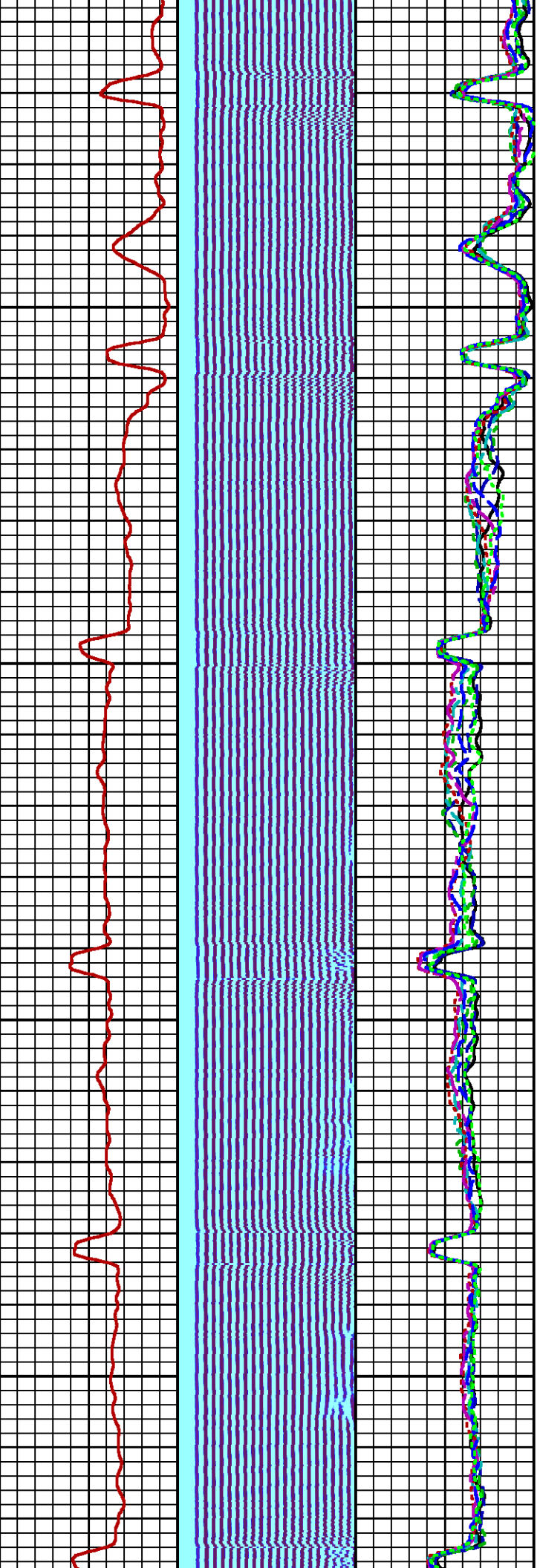
CURVE MEASURE POINT OFFSET

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/CH100238/CBL-MAIN.fvpdf [5"/100' Scale]
Plot Interval	: 2.25 - 8204.75 Feet
Data File 1	: F1 : cas6685:/dat1a/CH100238/n012g02.aff
Created On	: Oct 26 08:20:45 2015
Company	: LARAMIE ENERGY
Well	: PICEANCE 28-01M
Field	: VEGA
File Interval	: 1.25 - 8206 Feet
OCT	: n012g

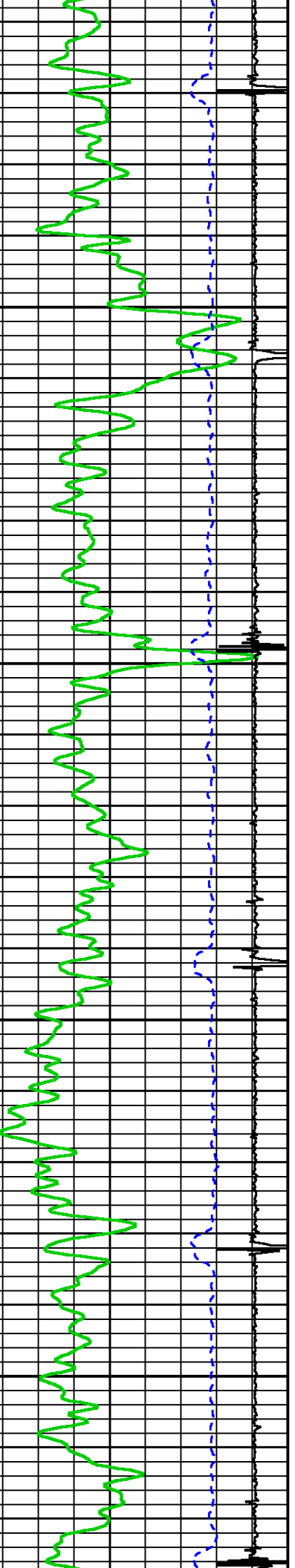


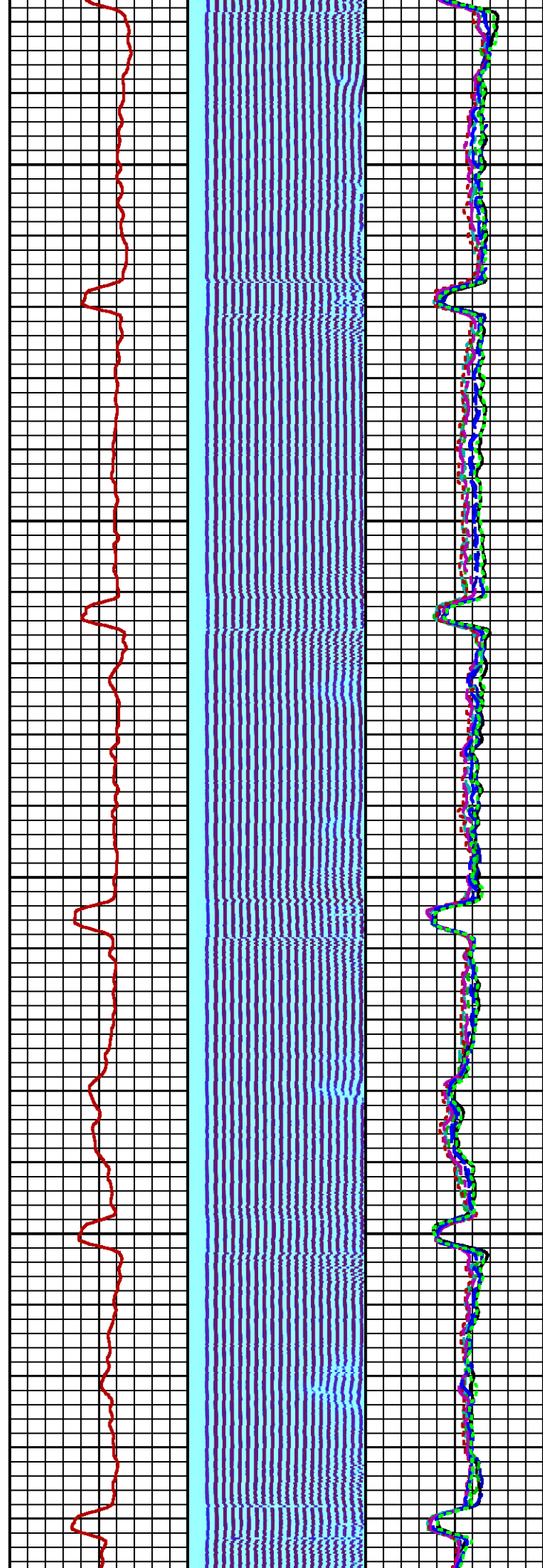




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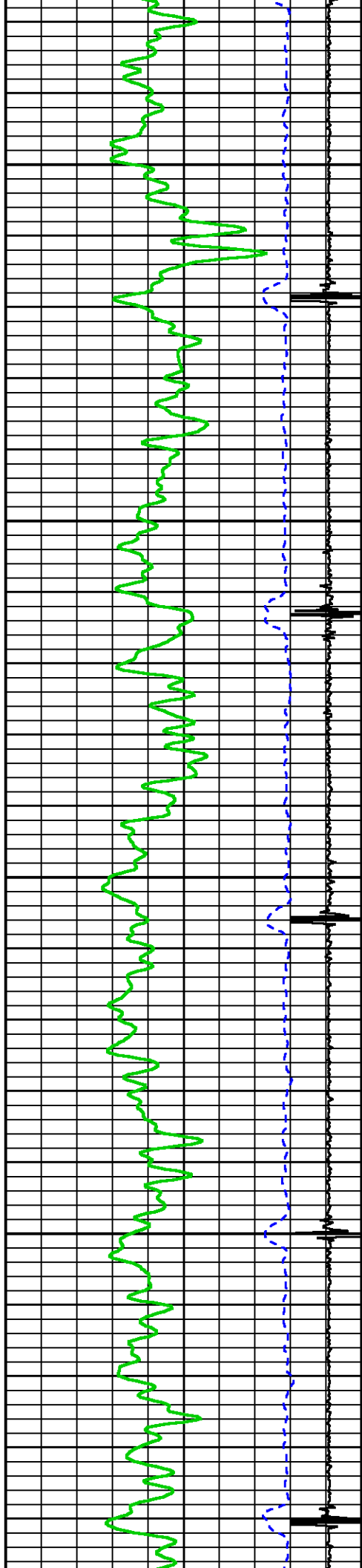
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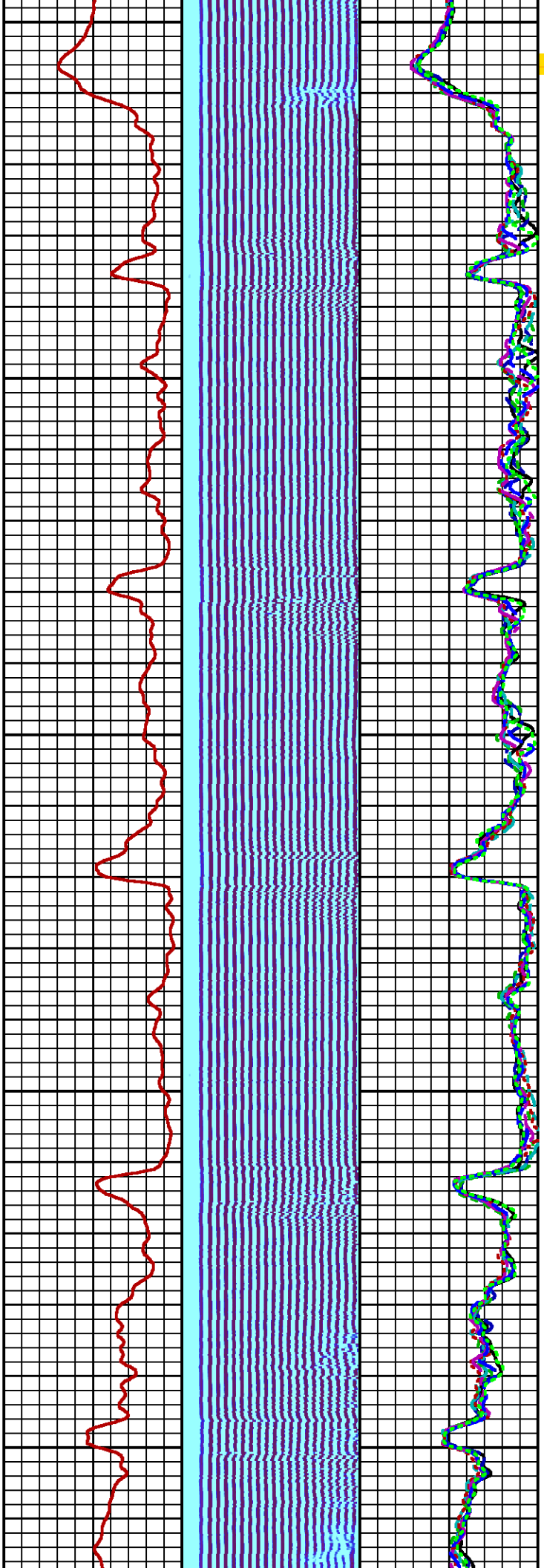




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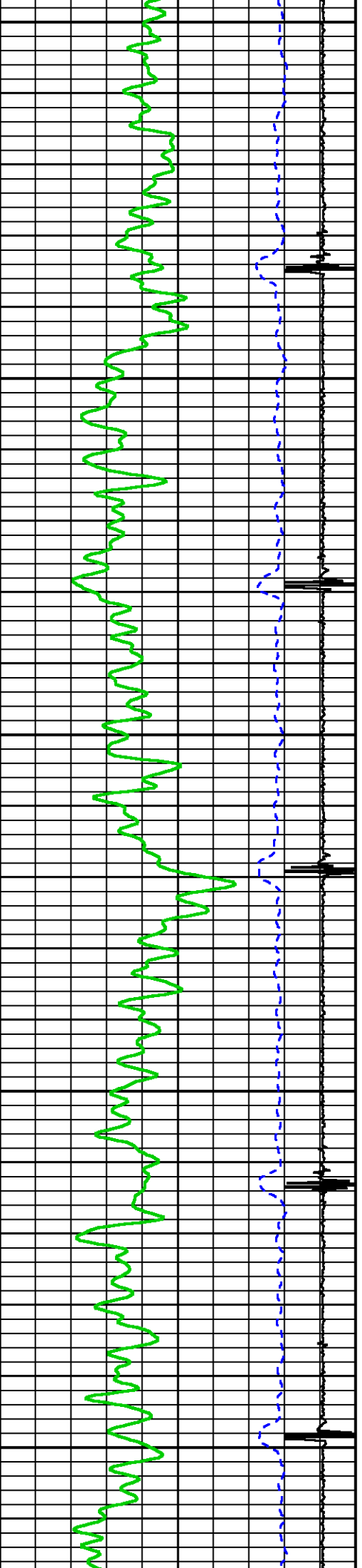
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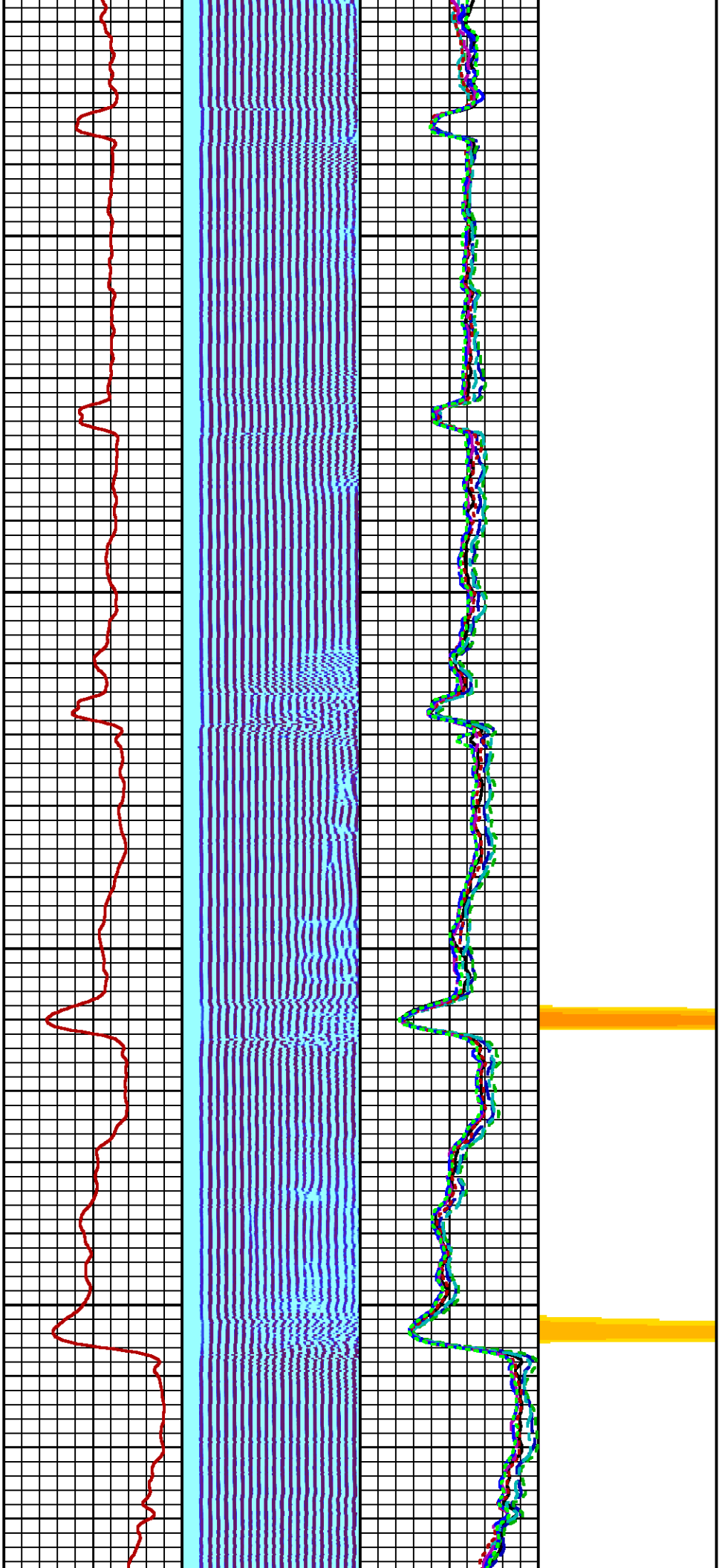




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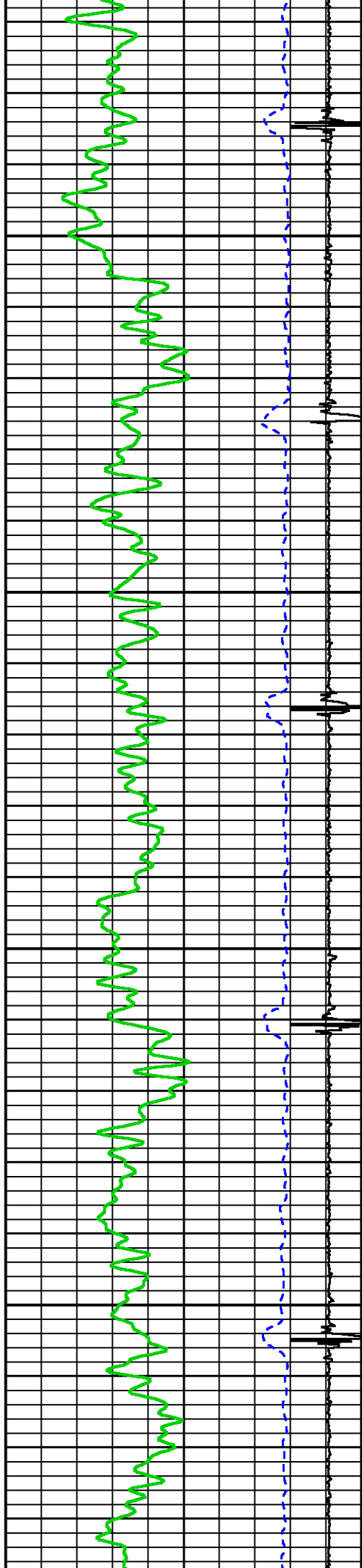
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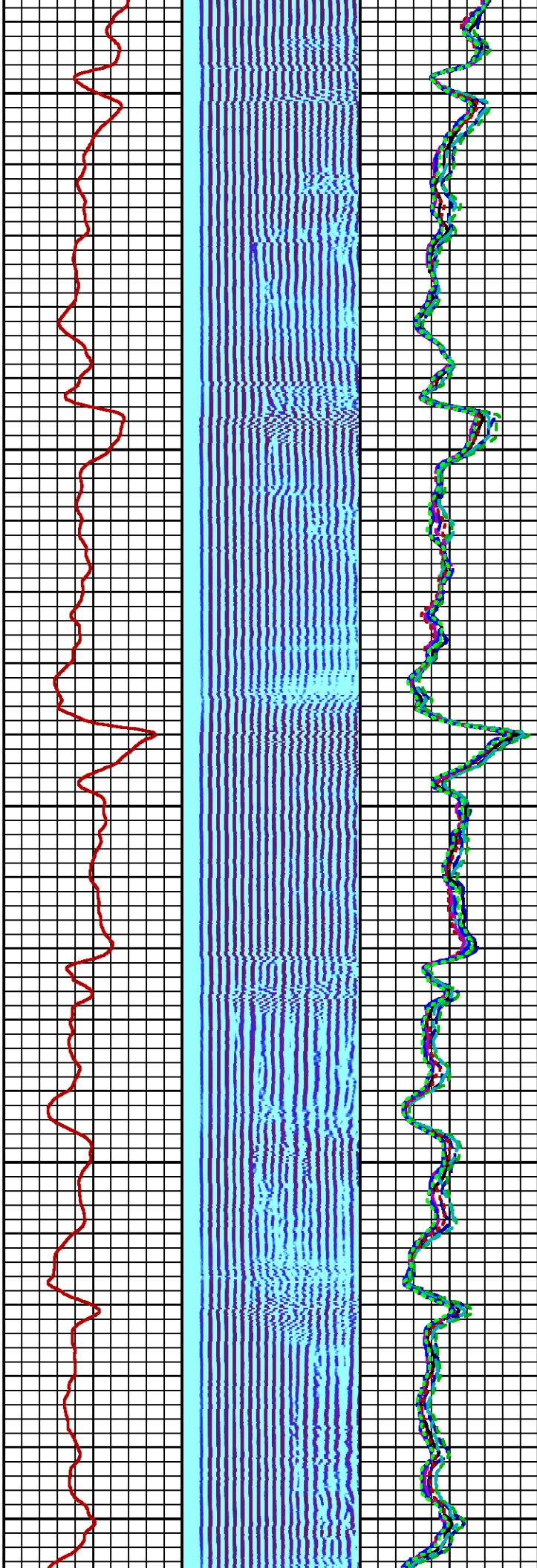




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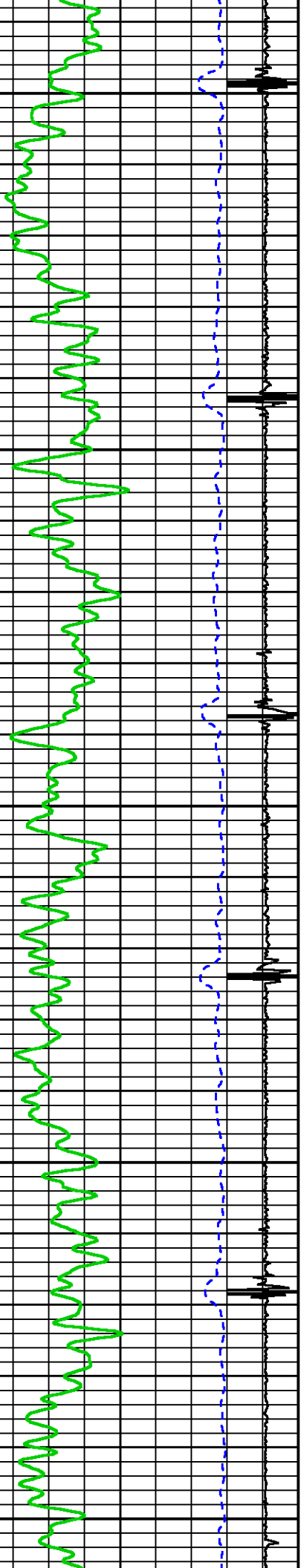


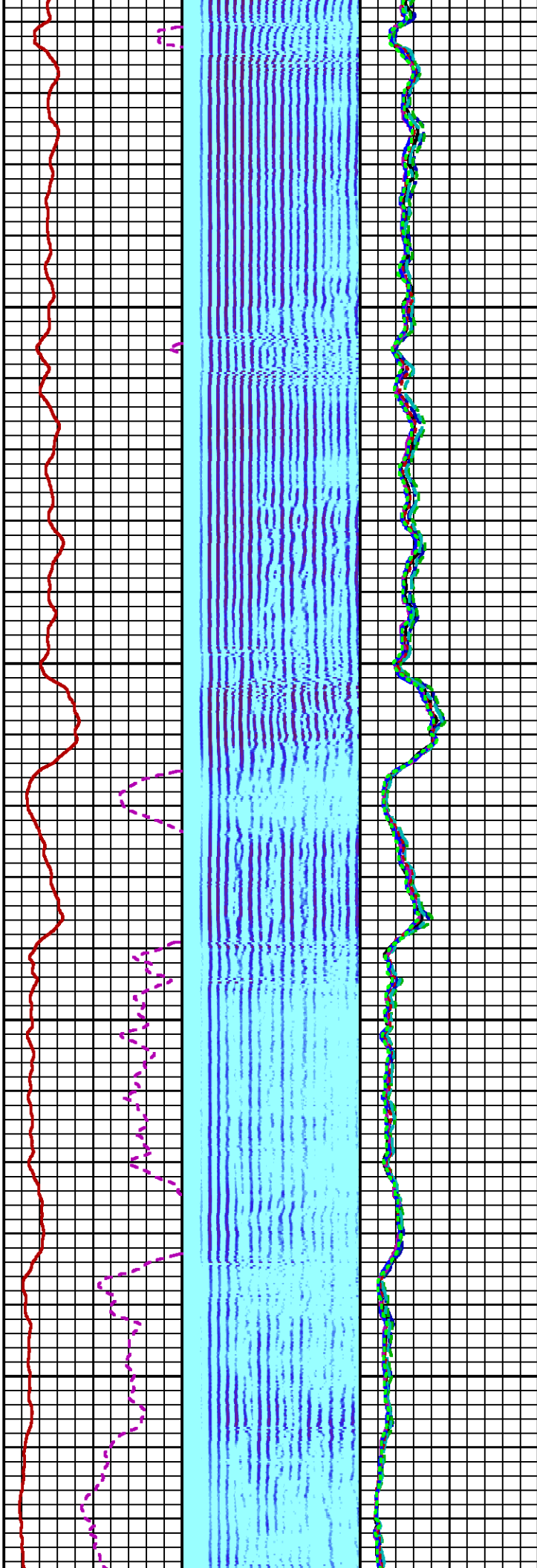


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1200

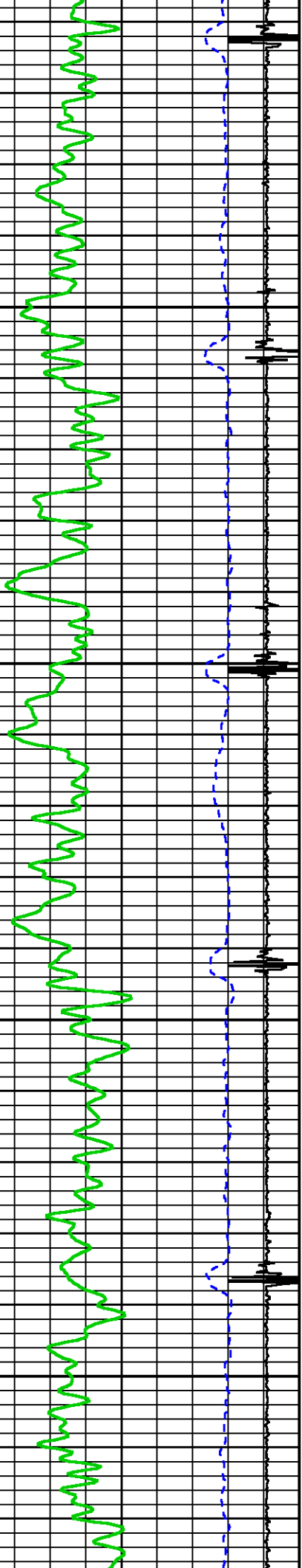
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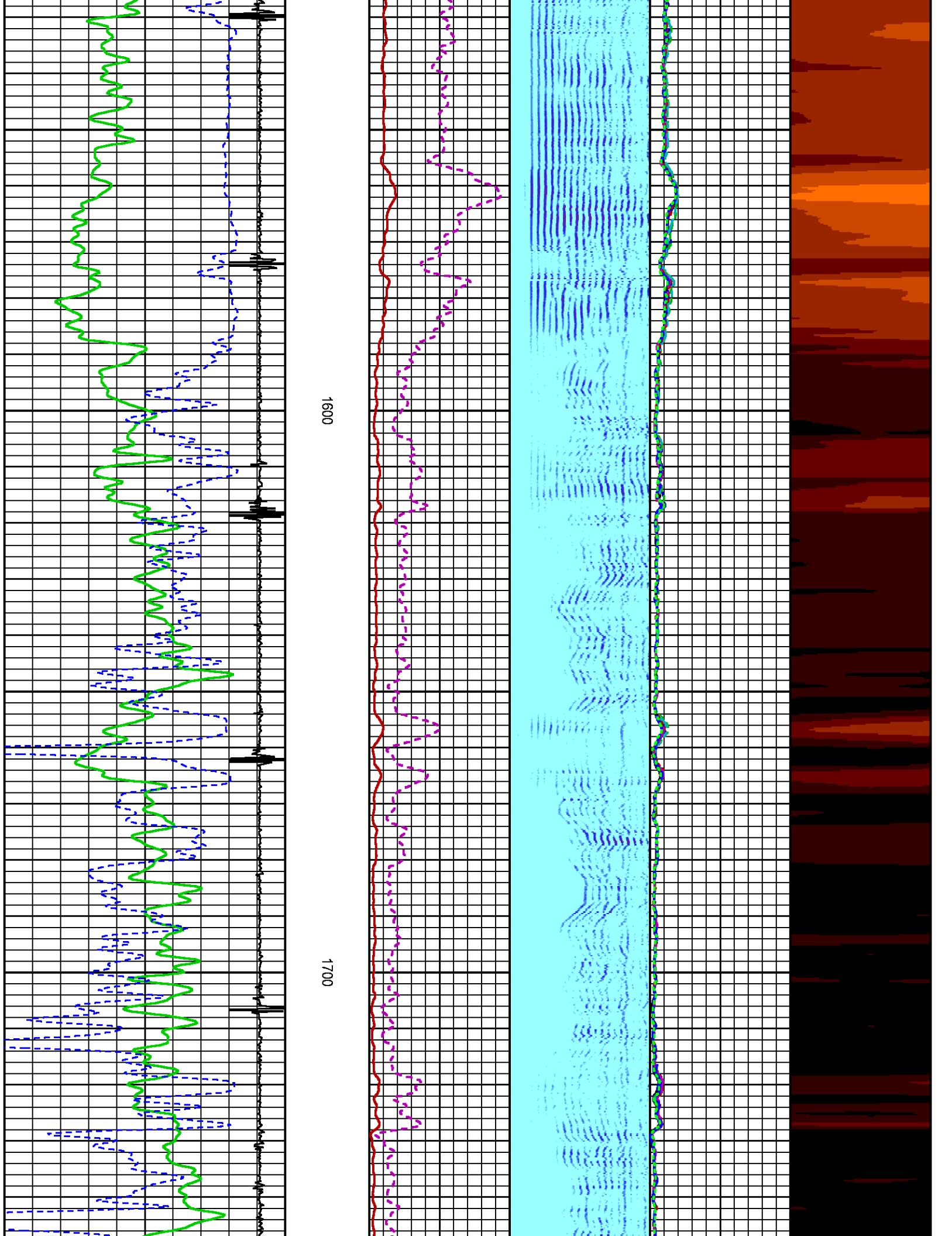


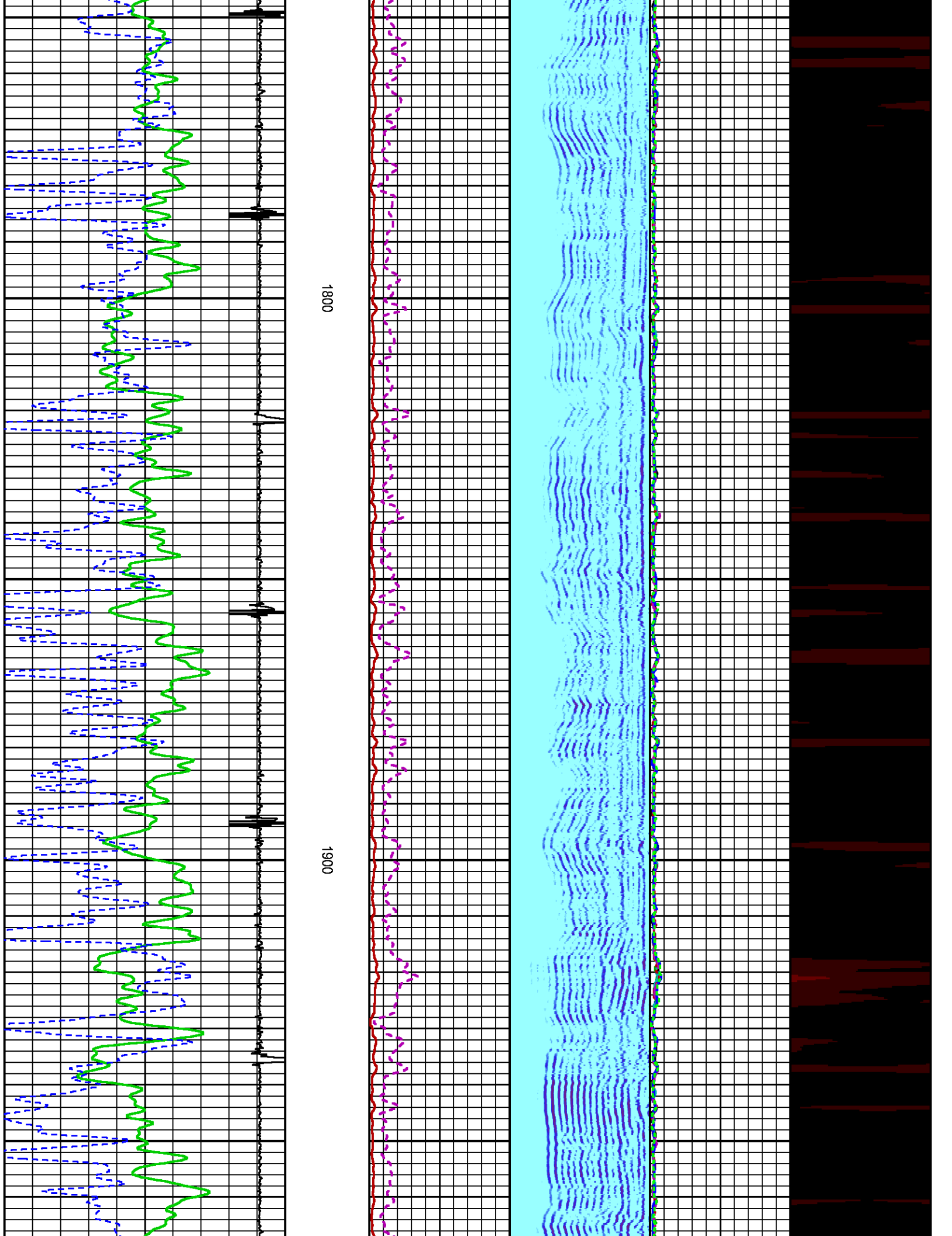


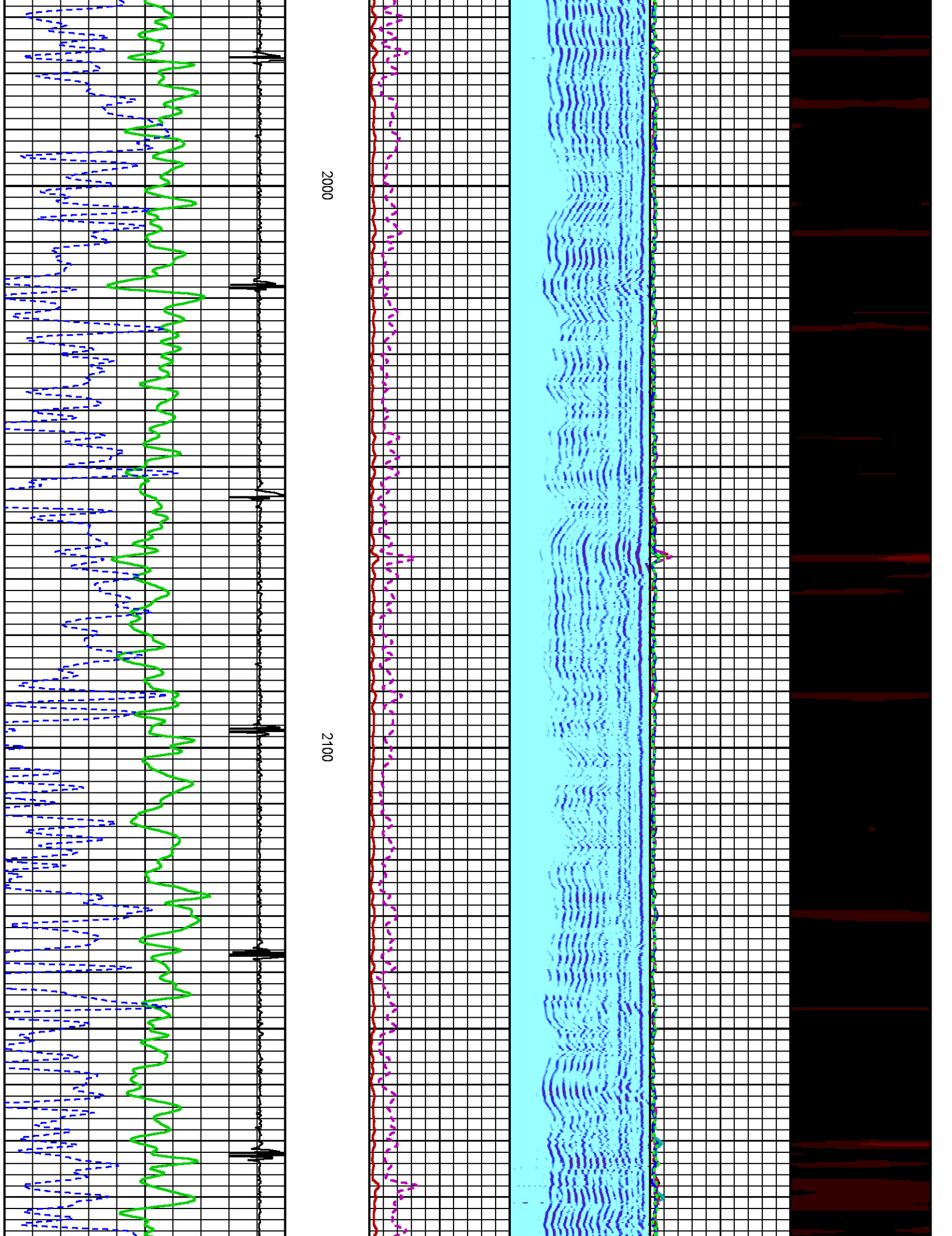
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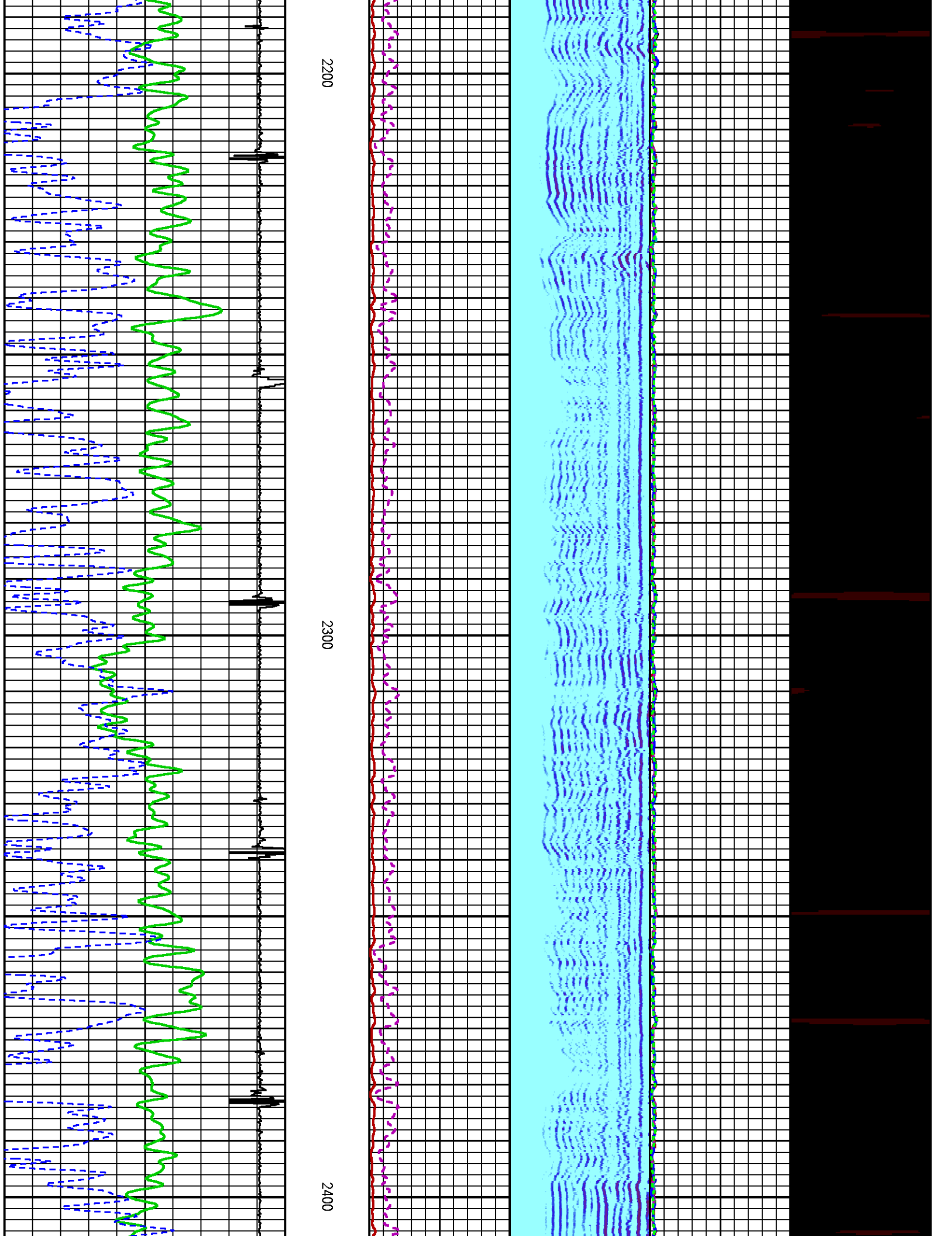
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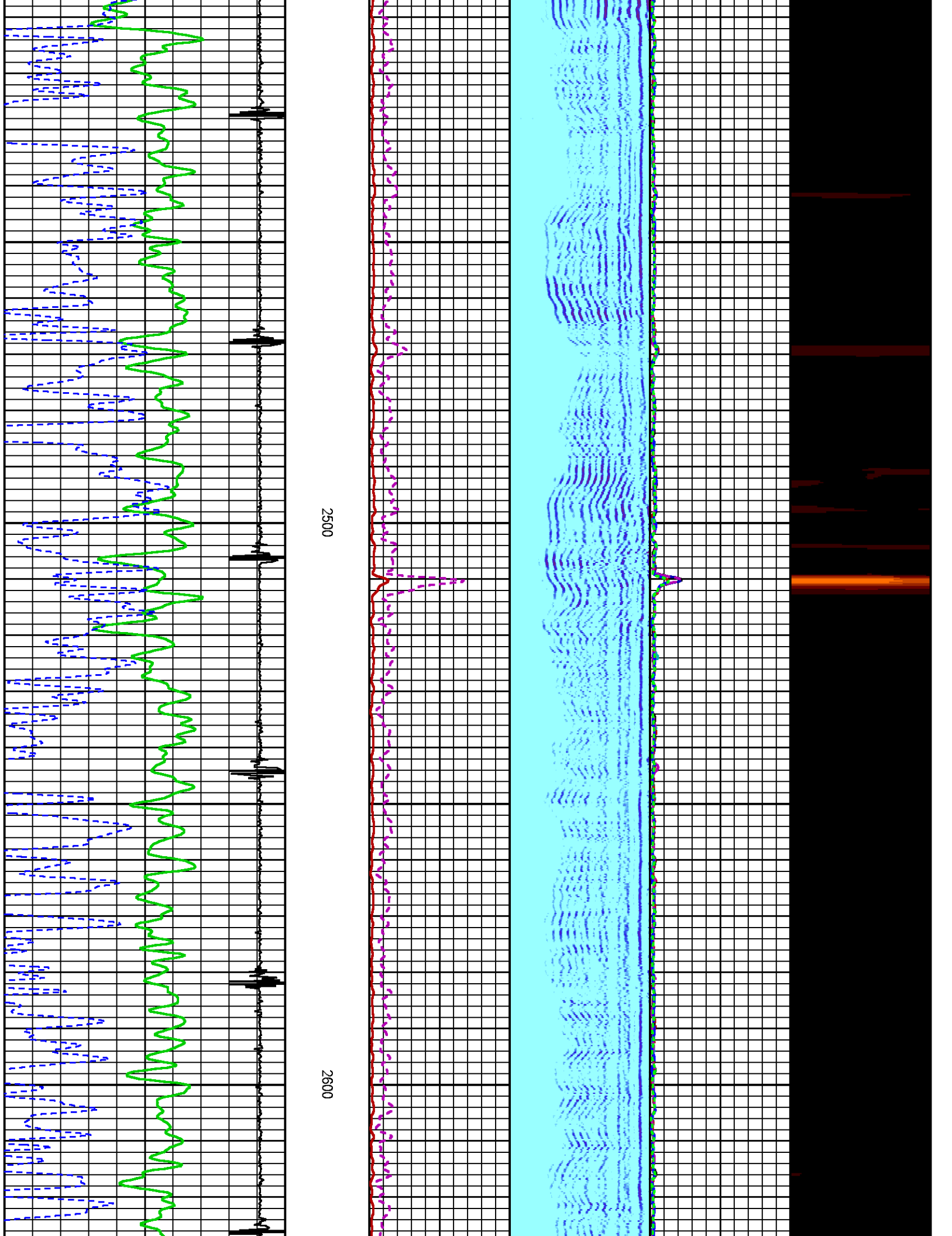


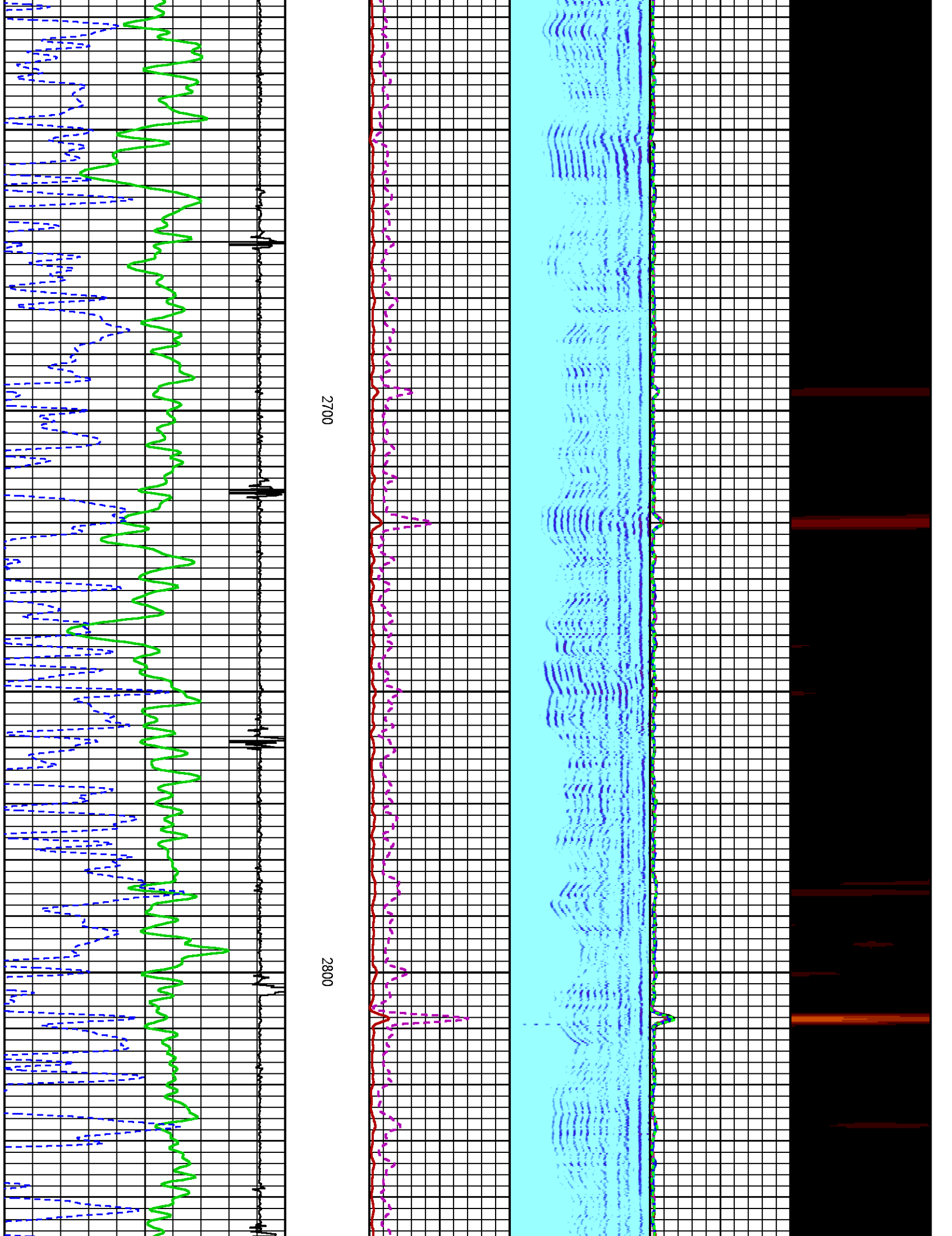


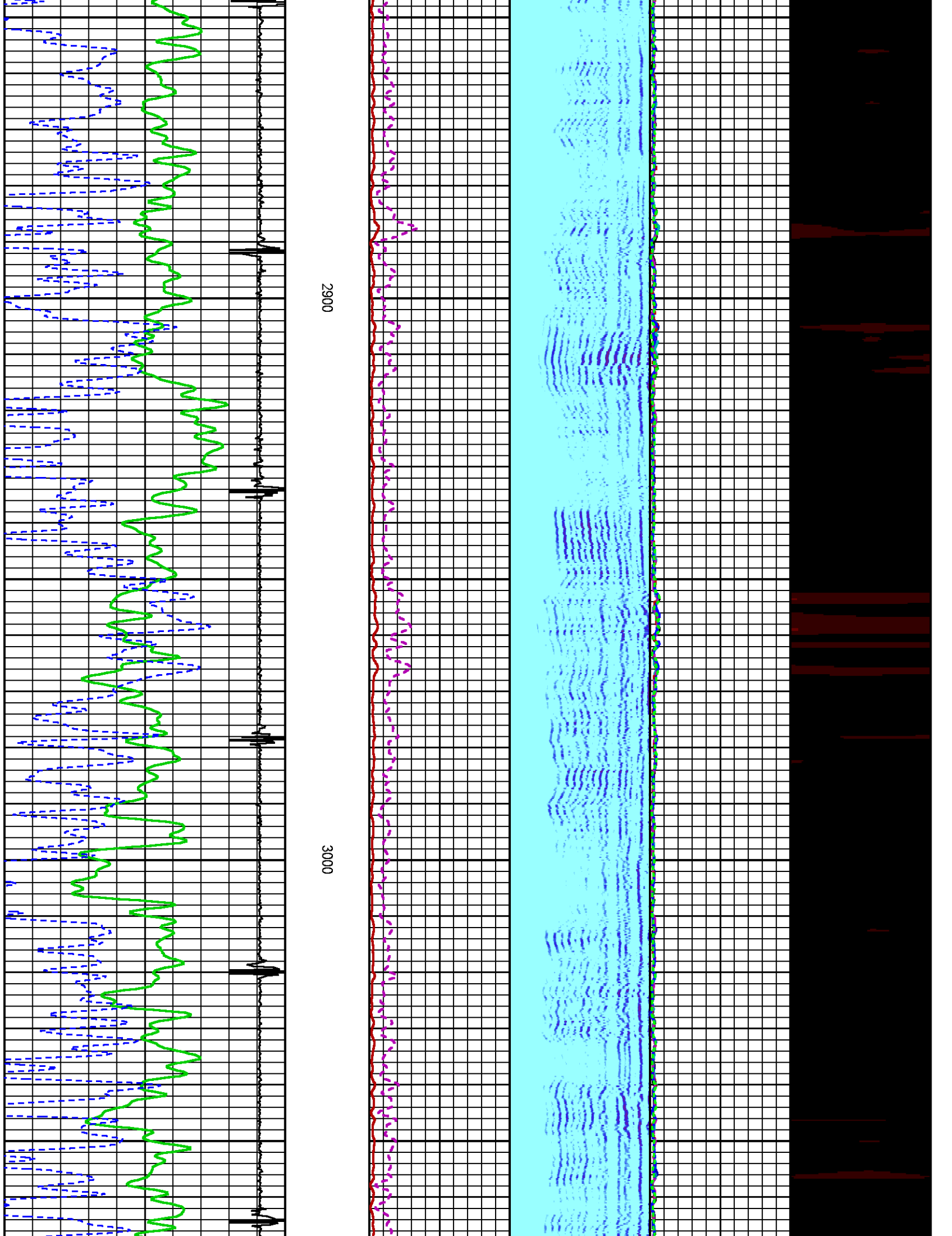


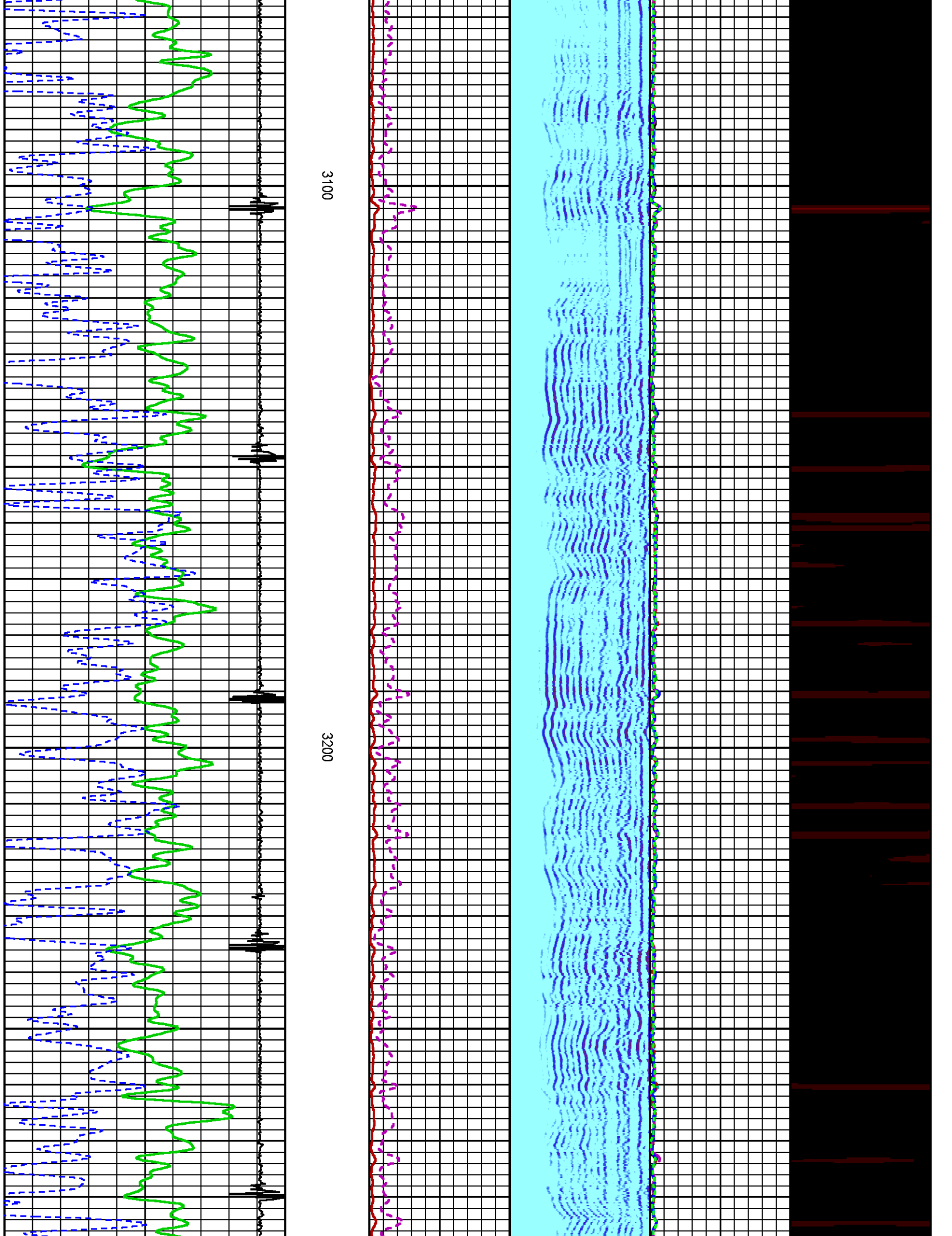


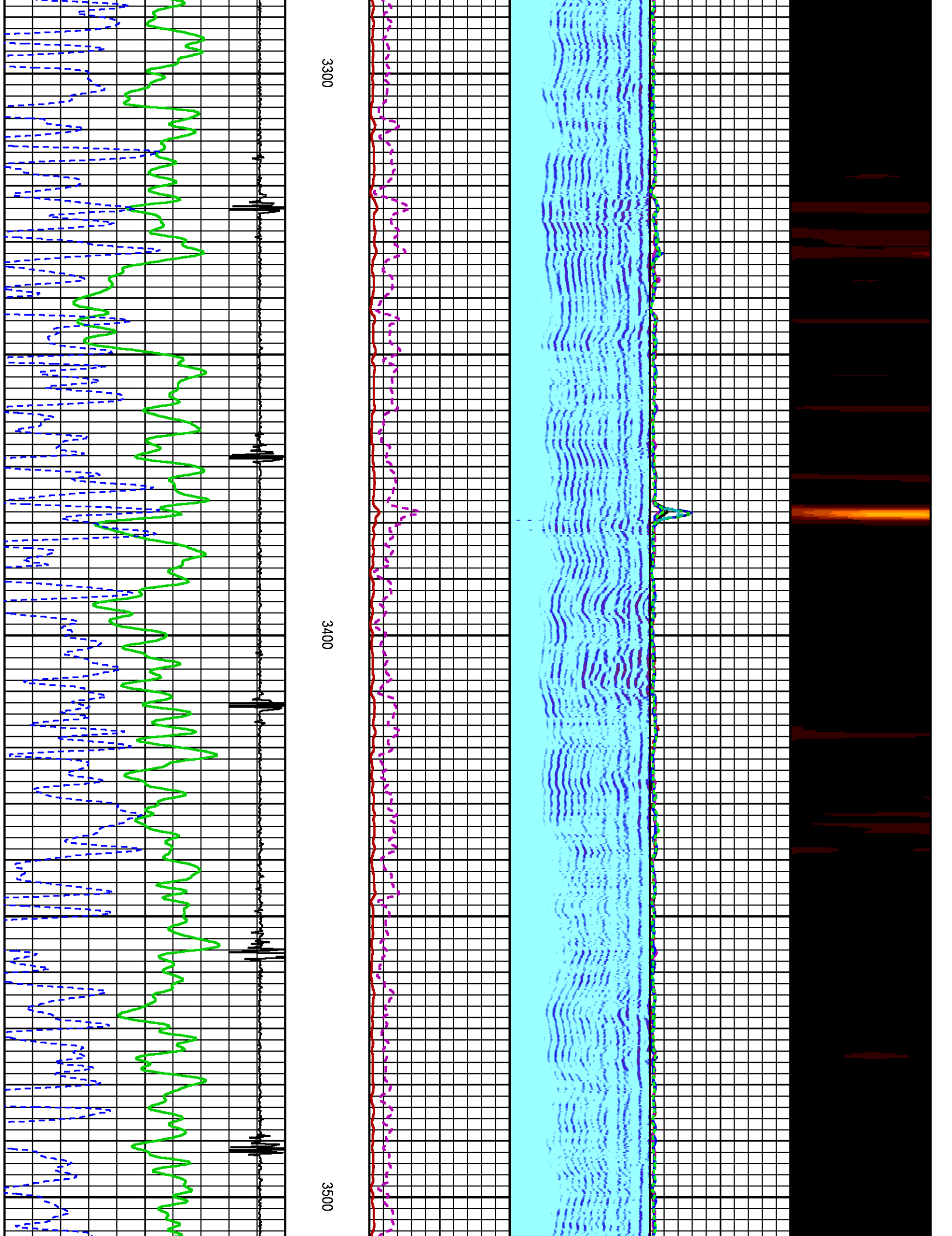


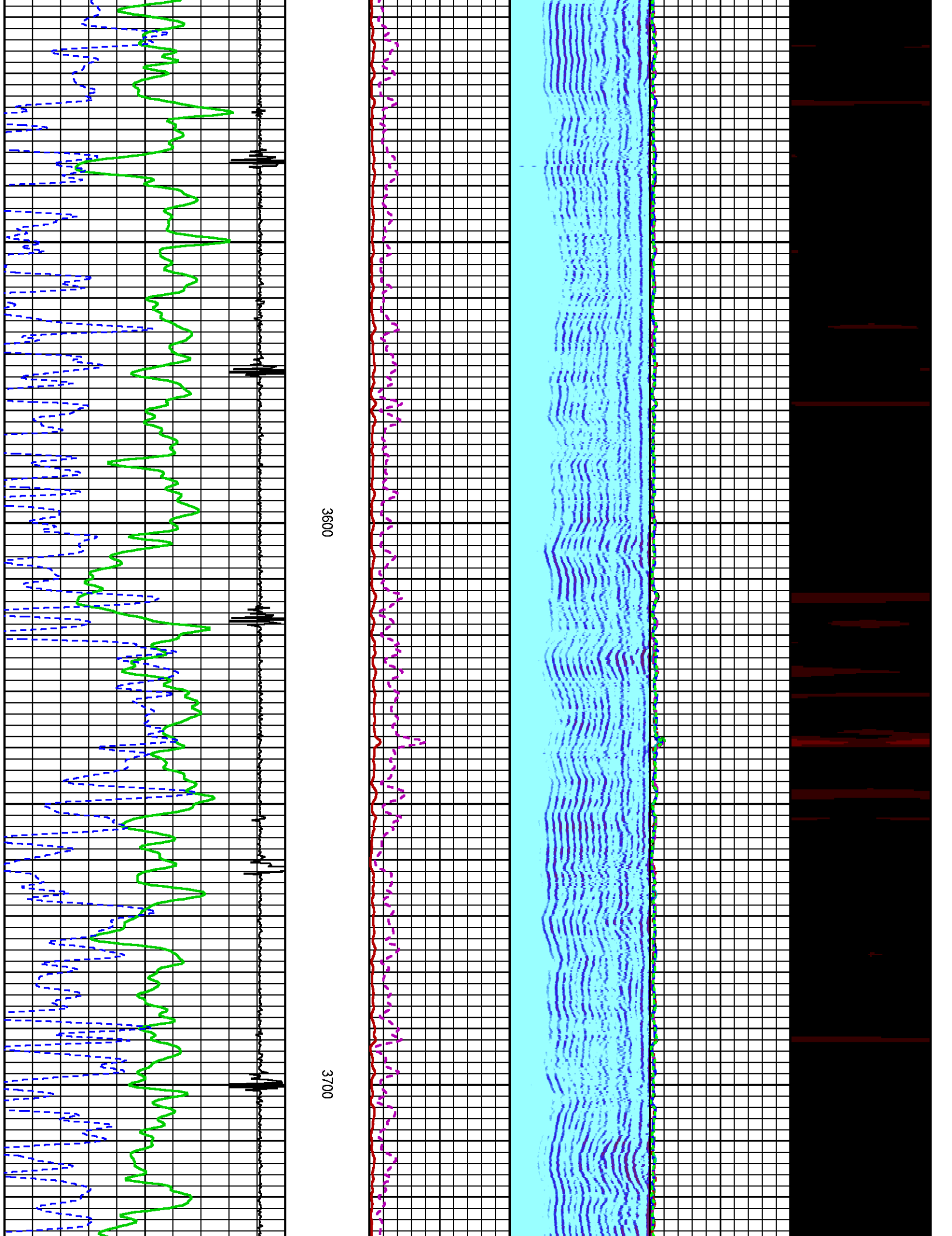


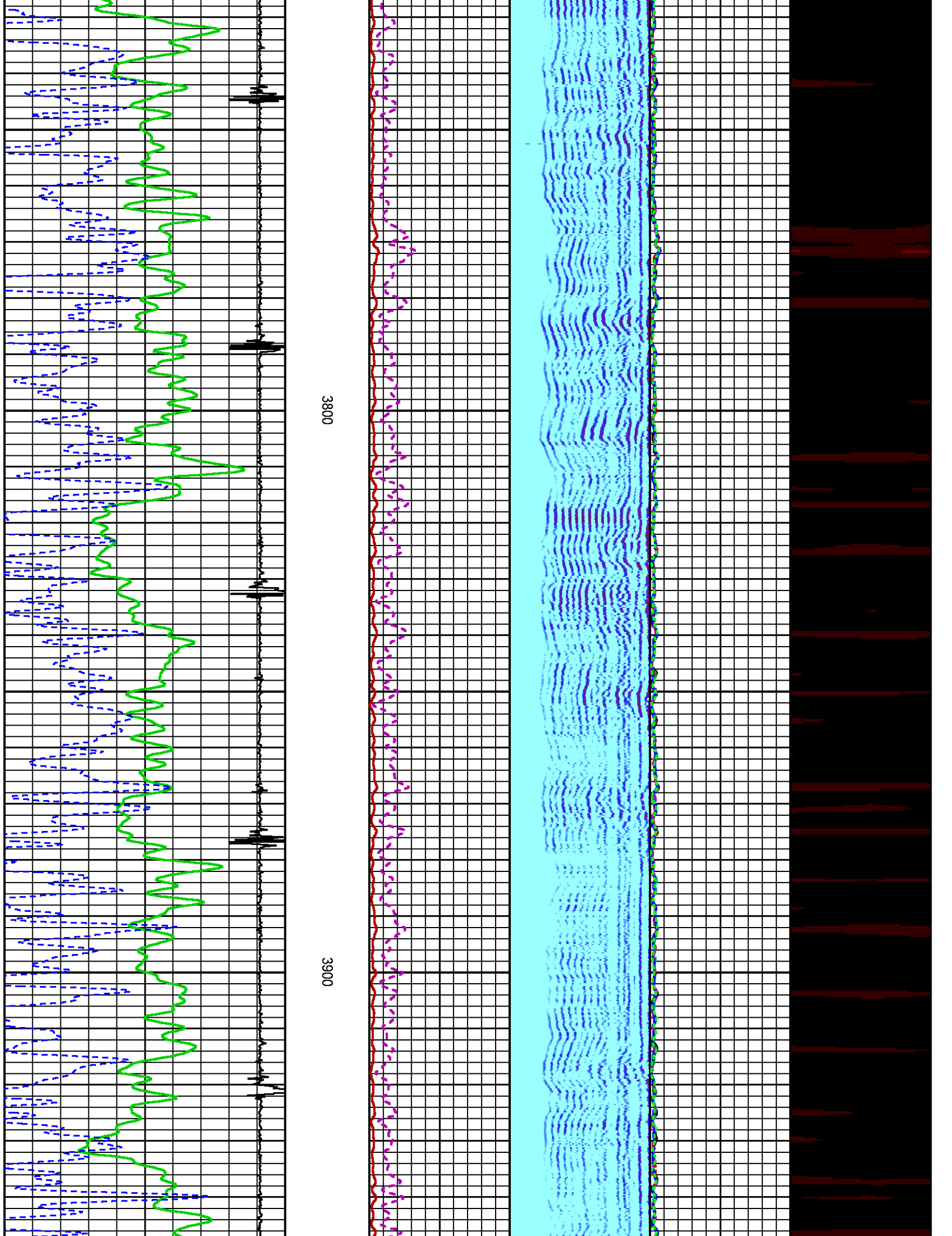


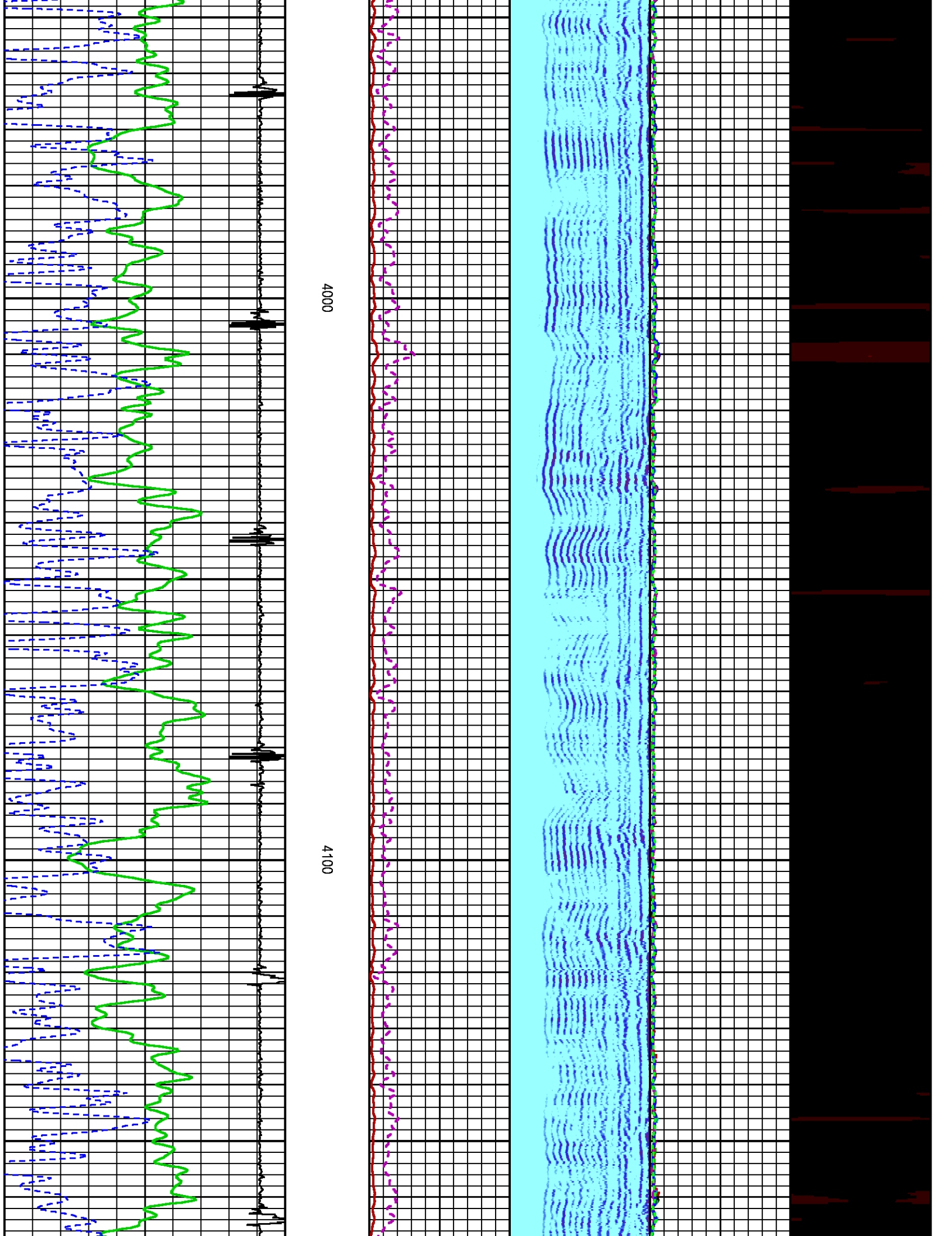


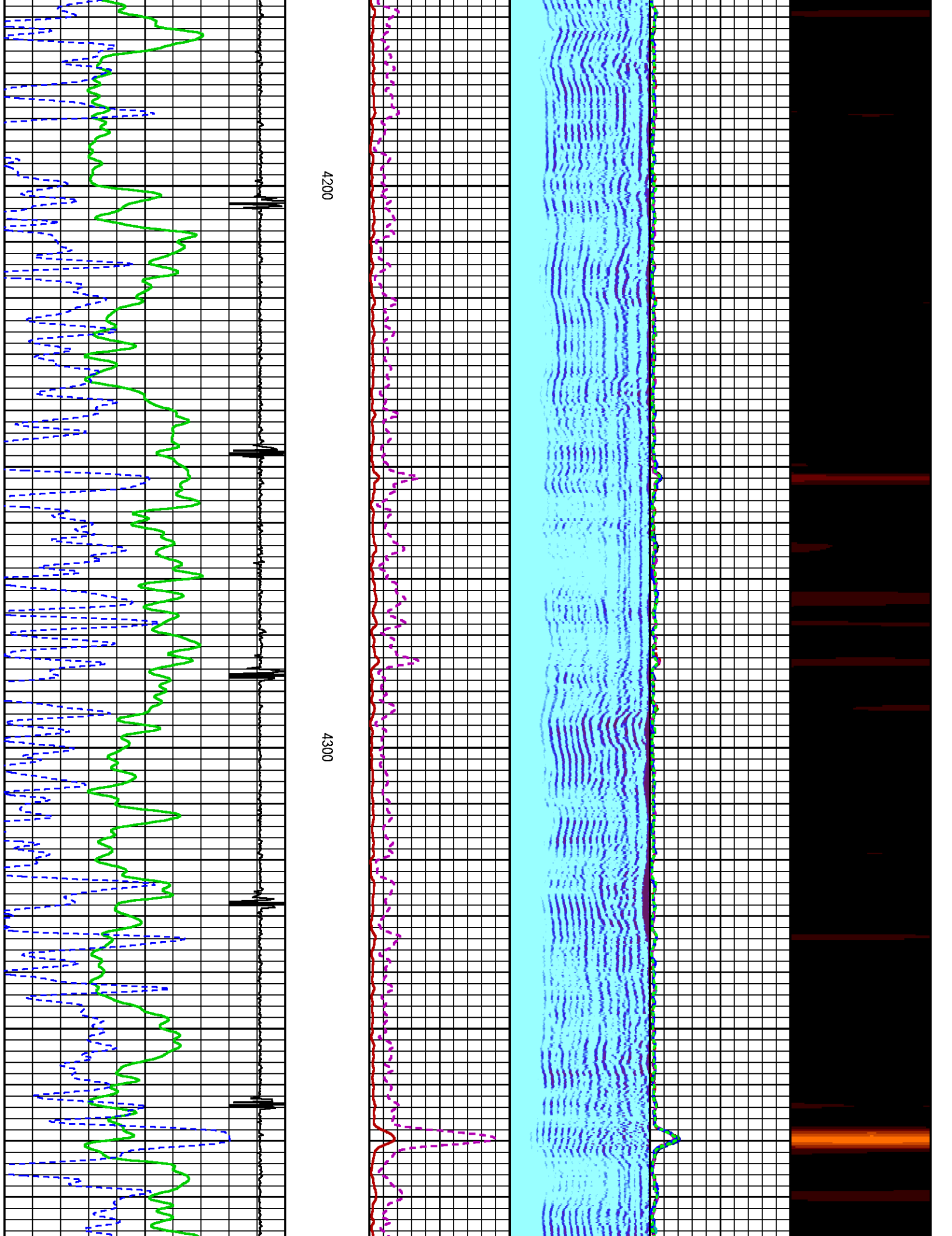


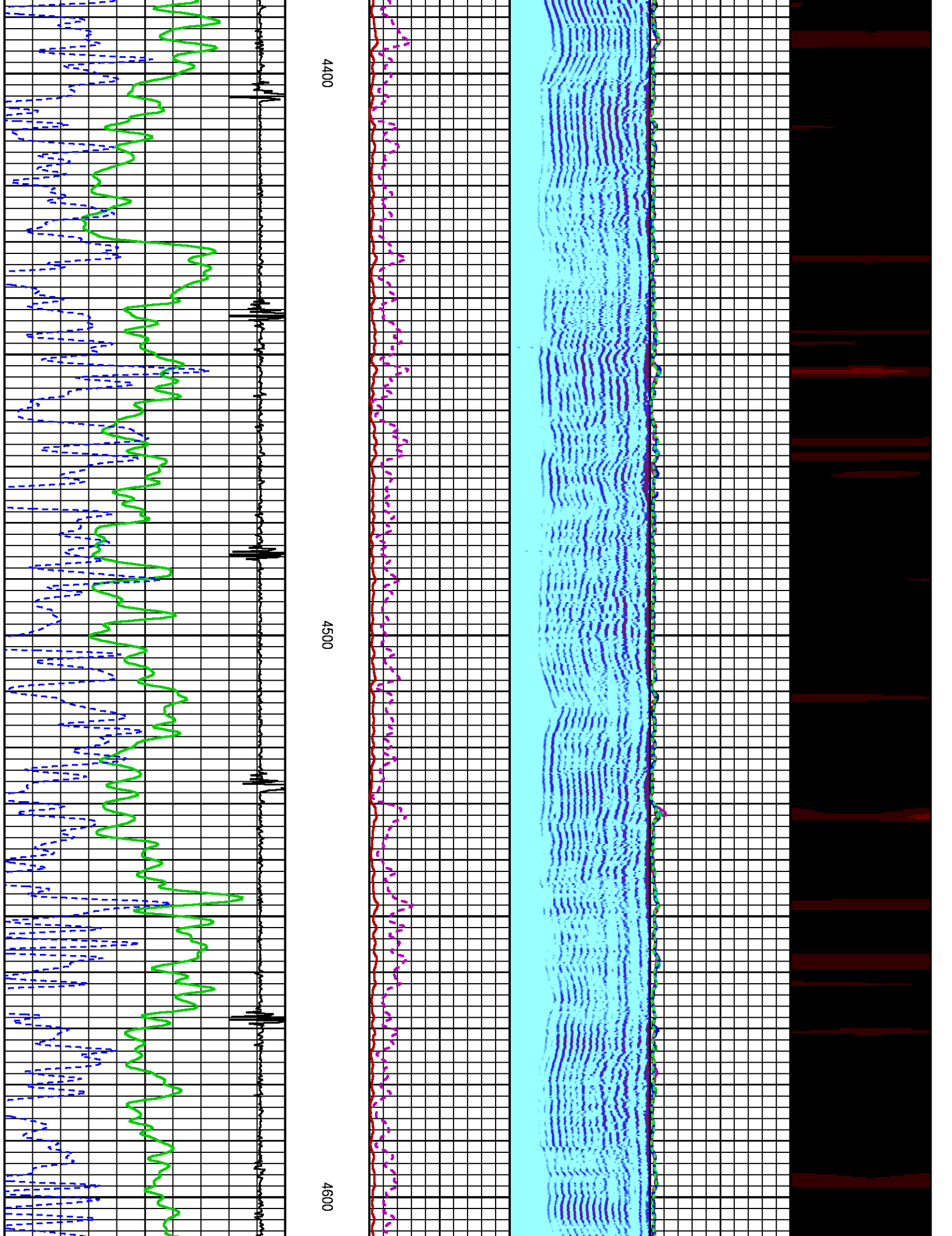


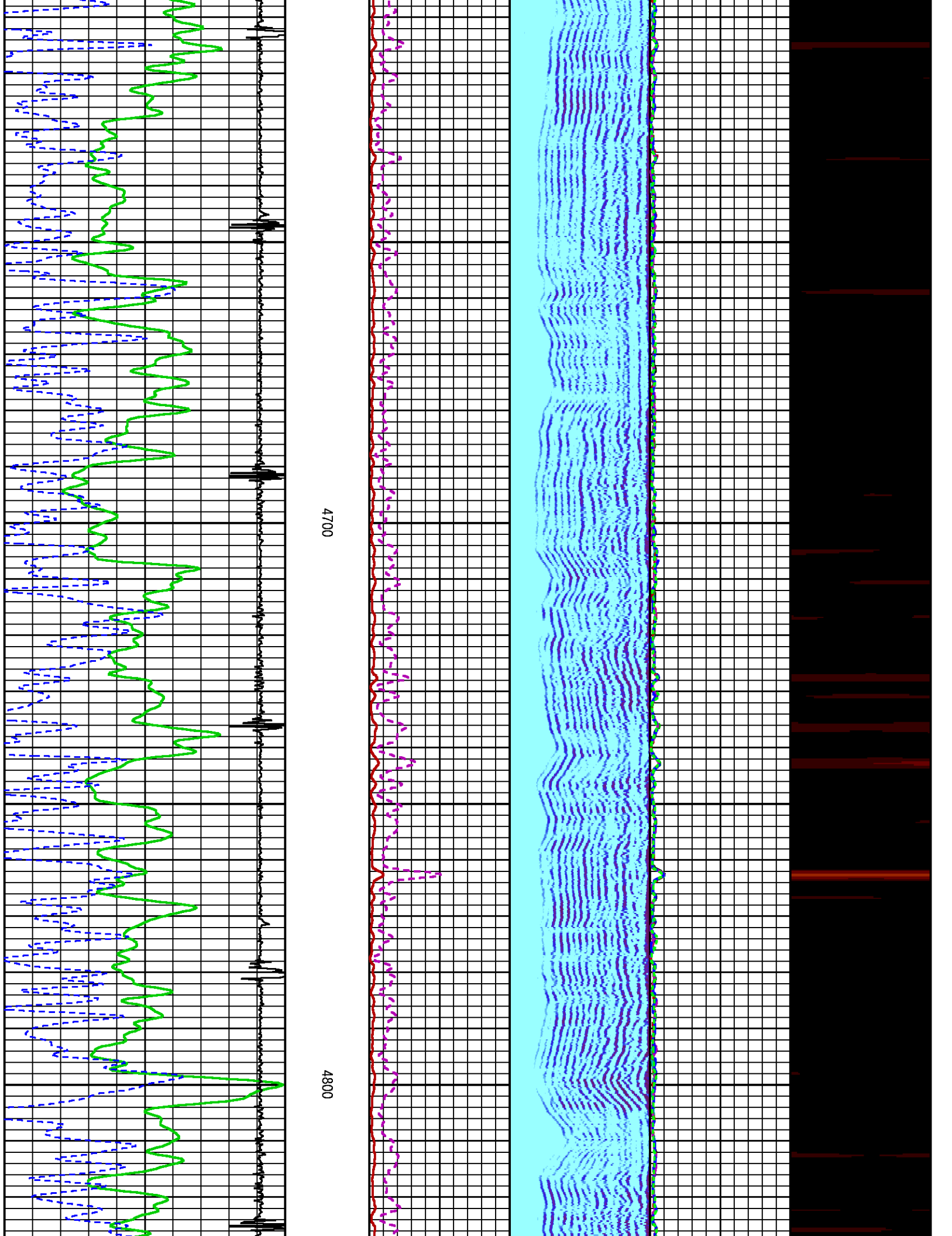


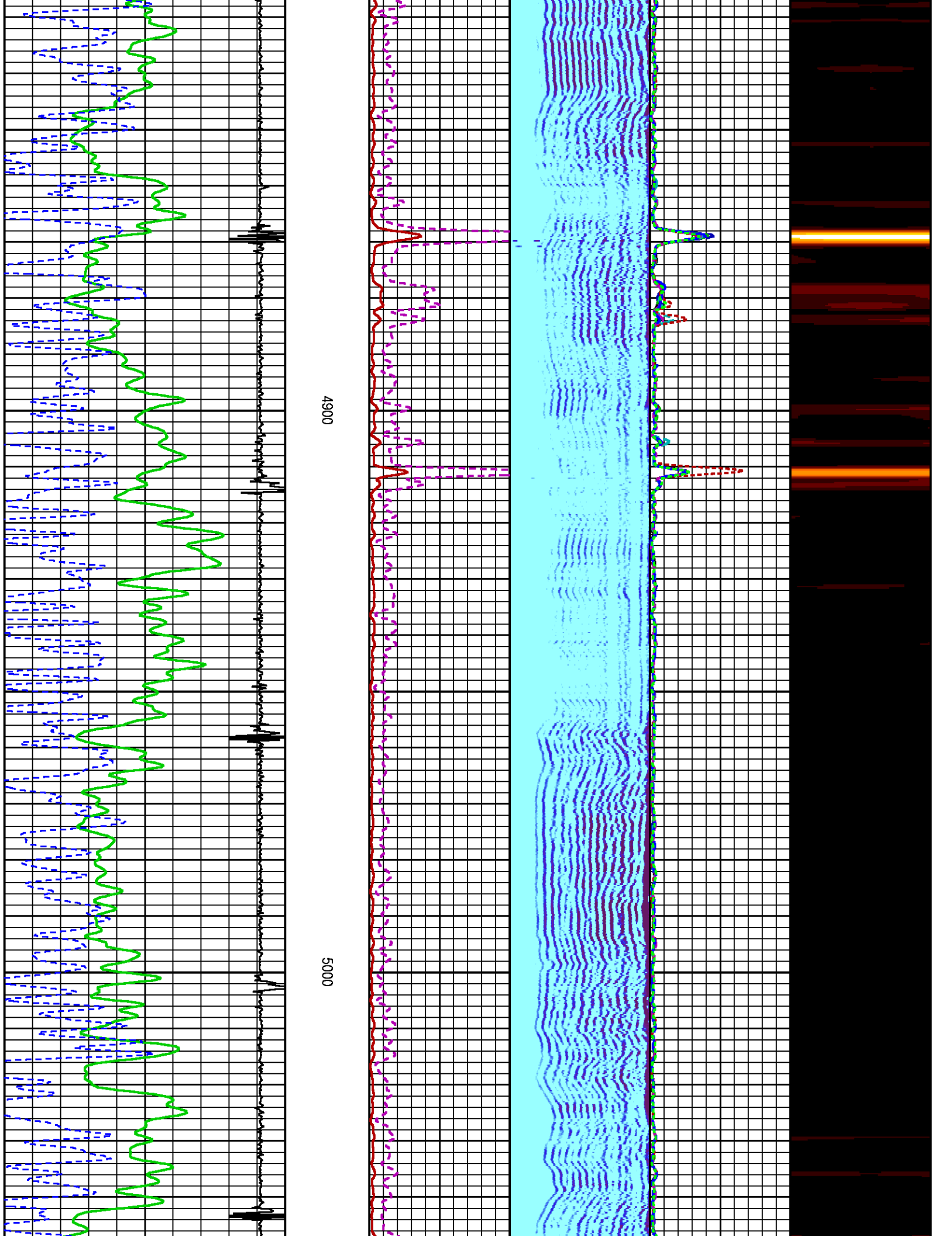


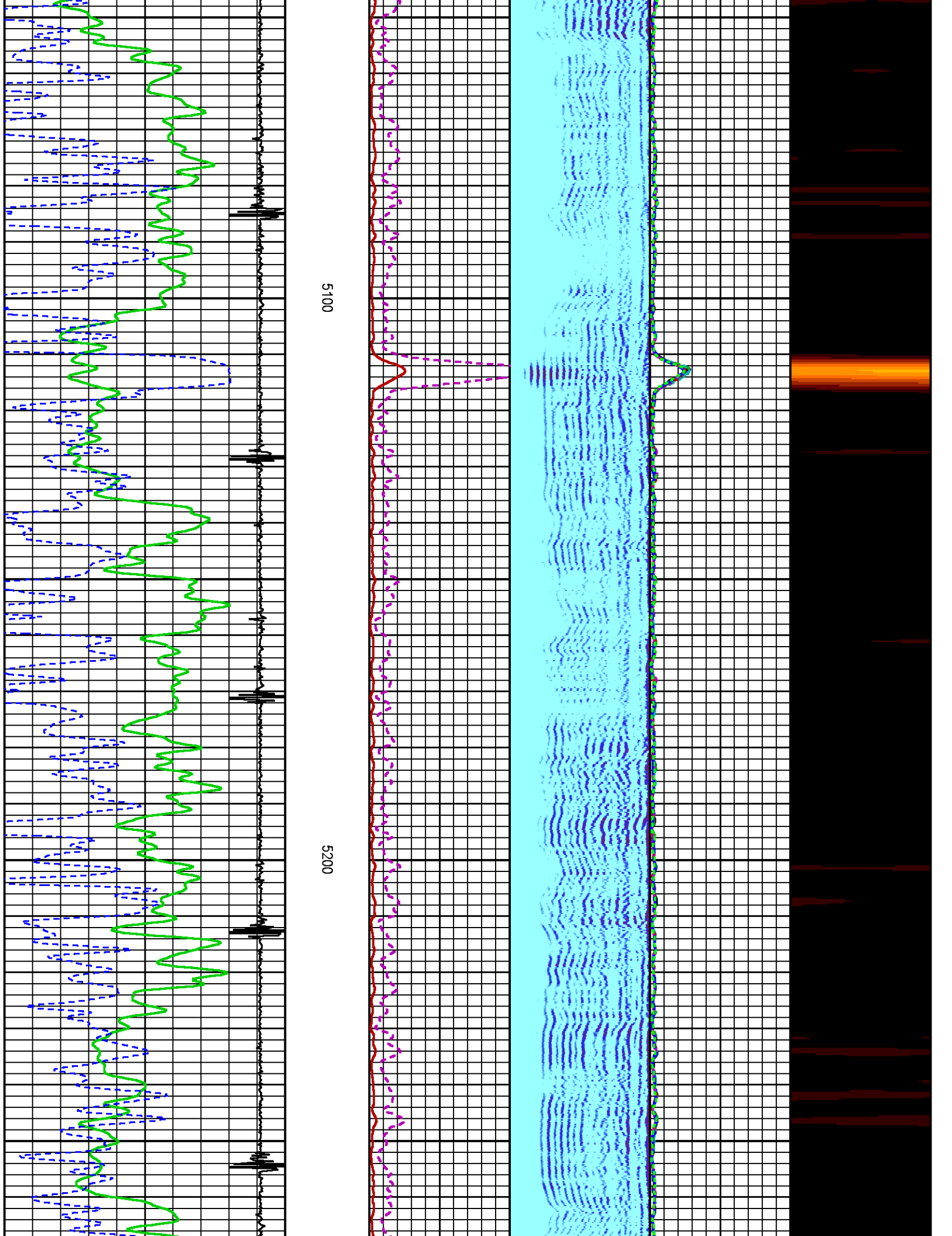


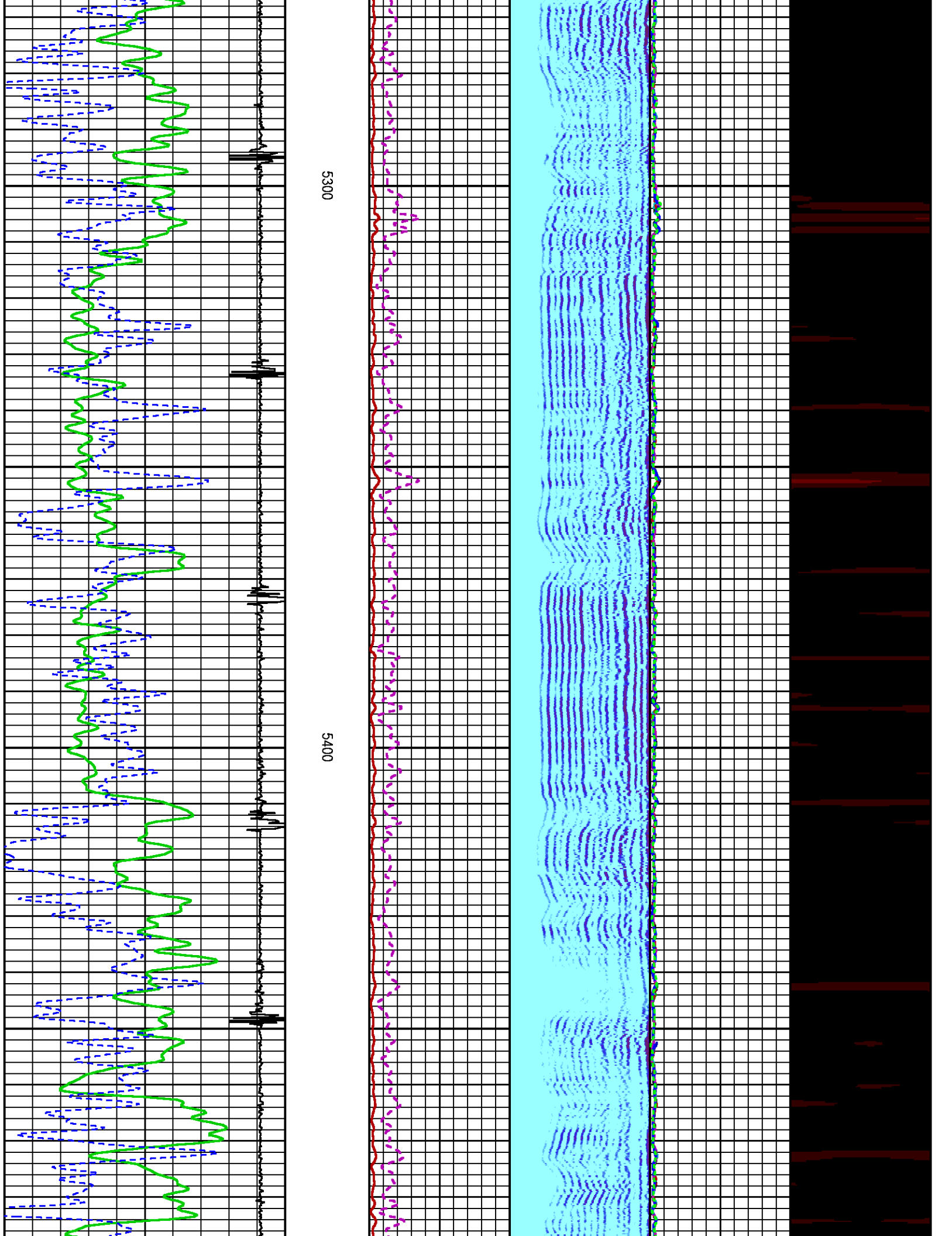


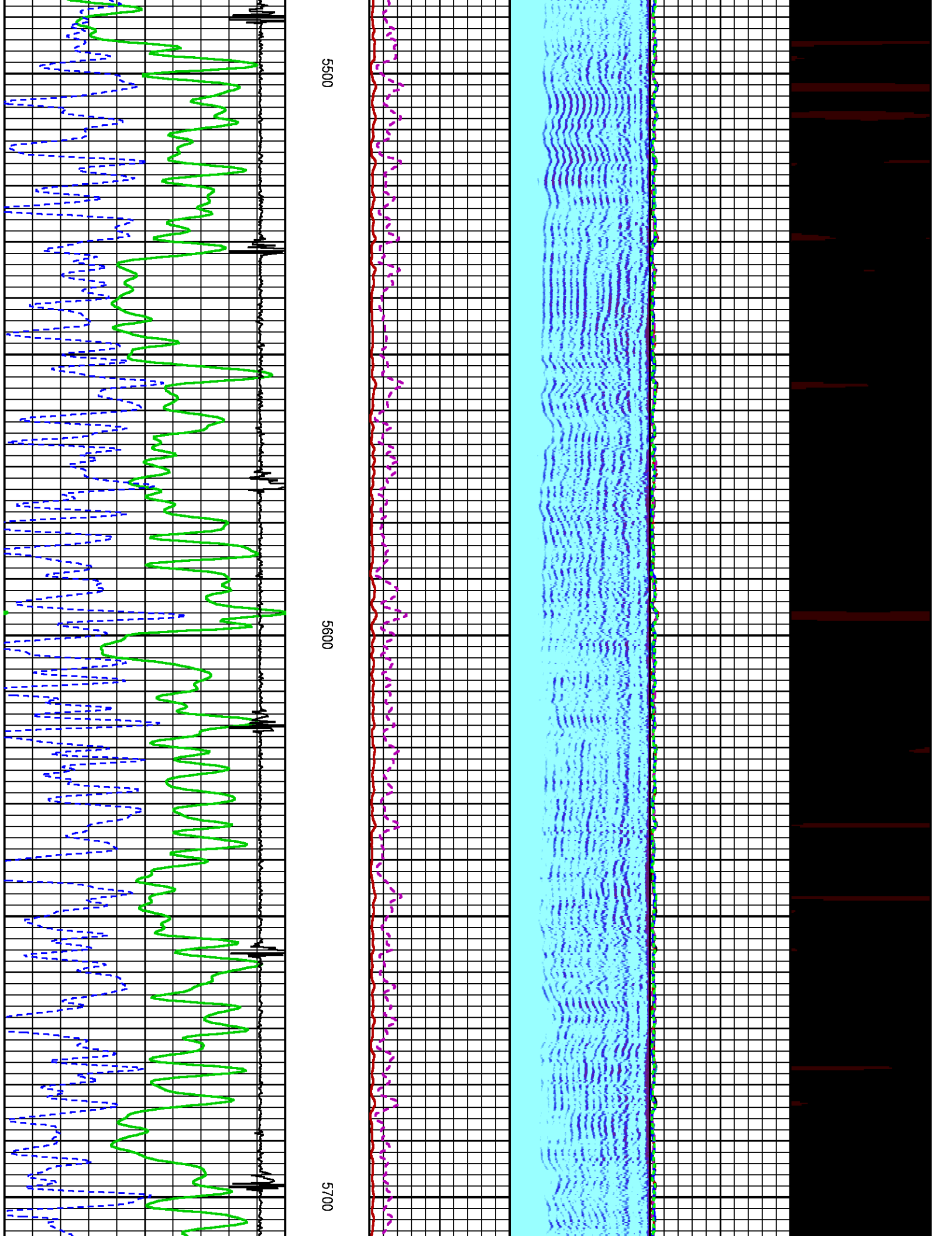


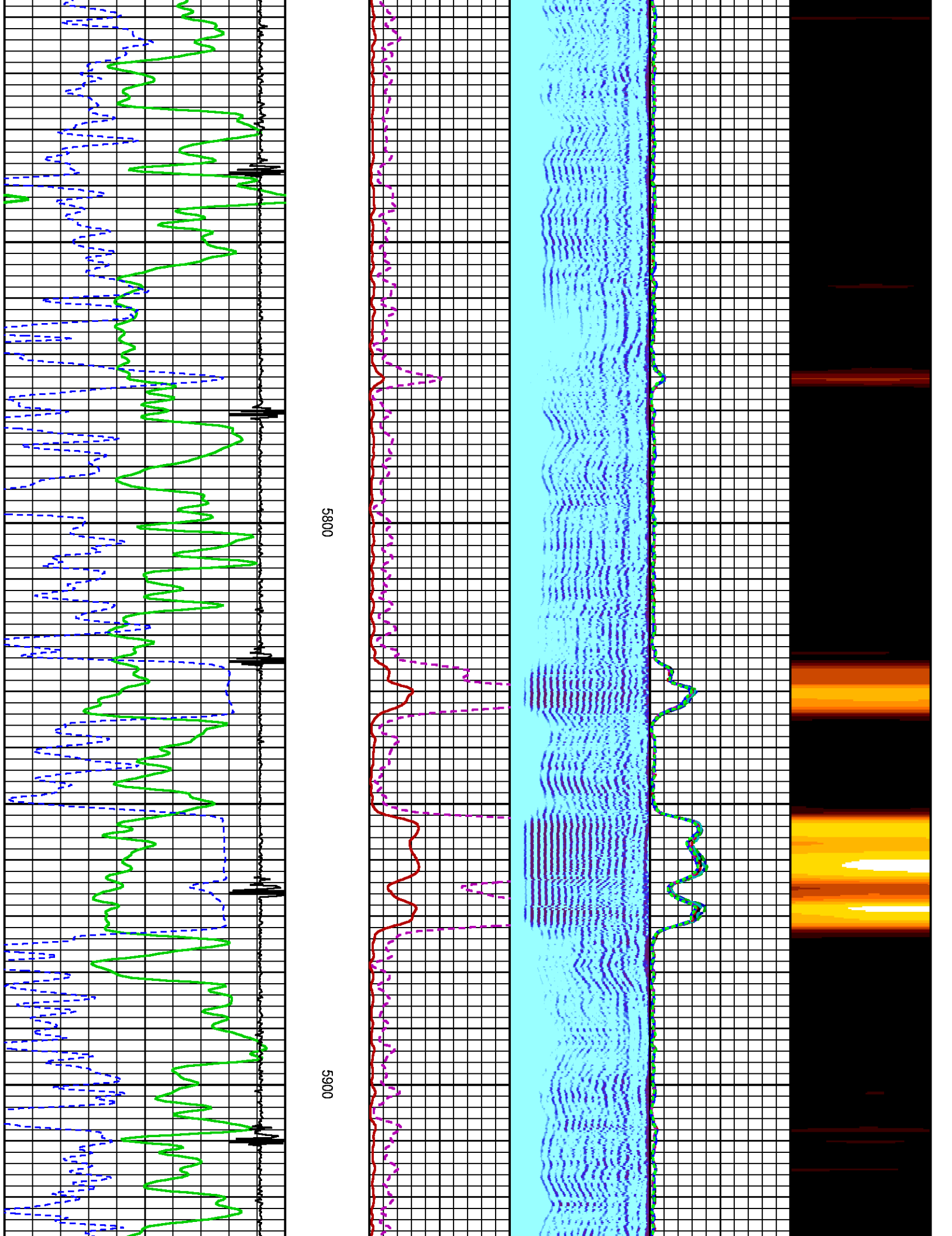


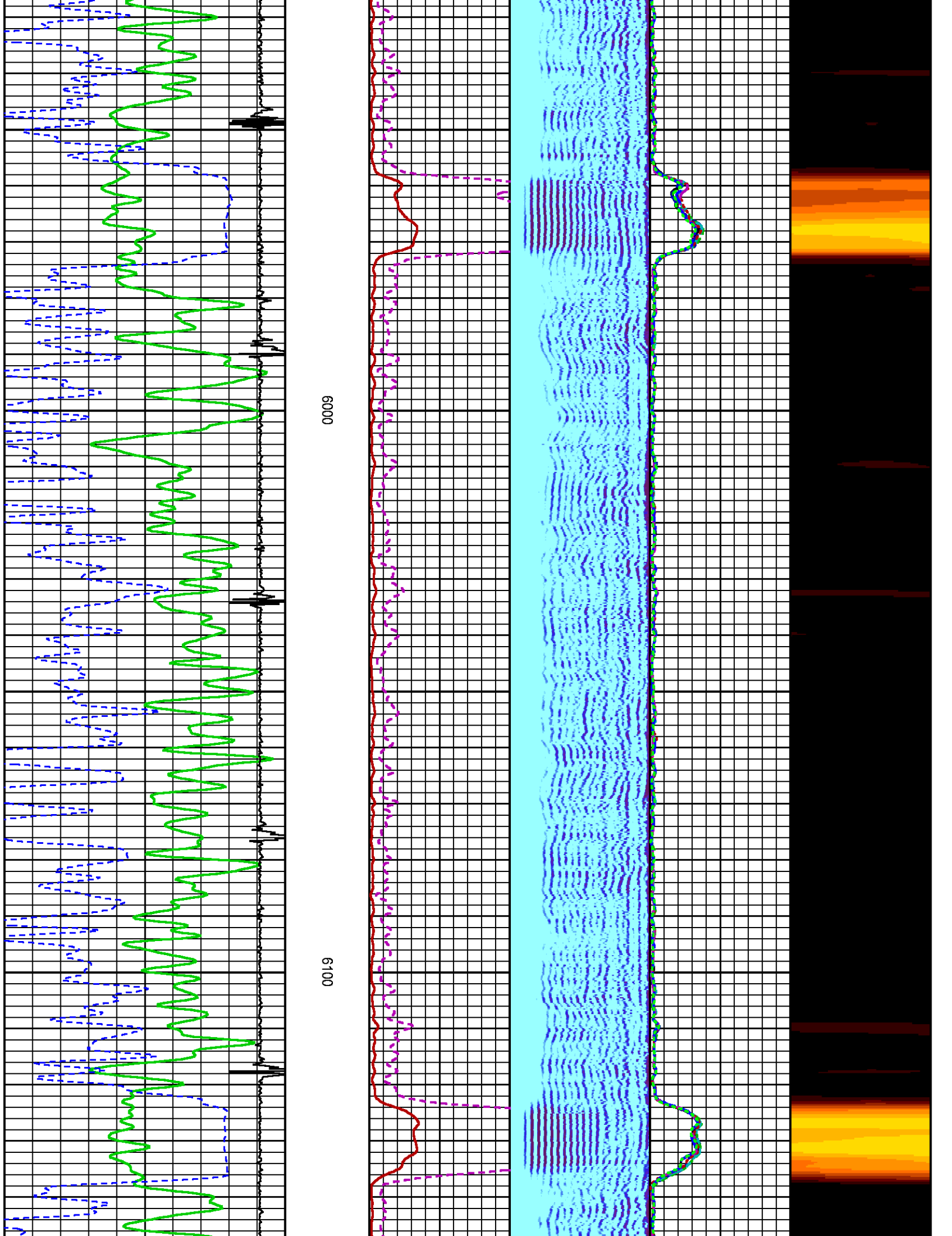


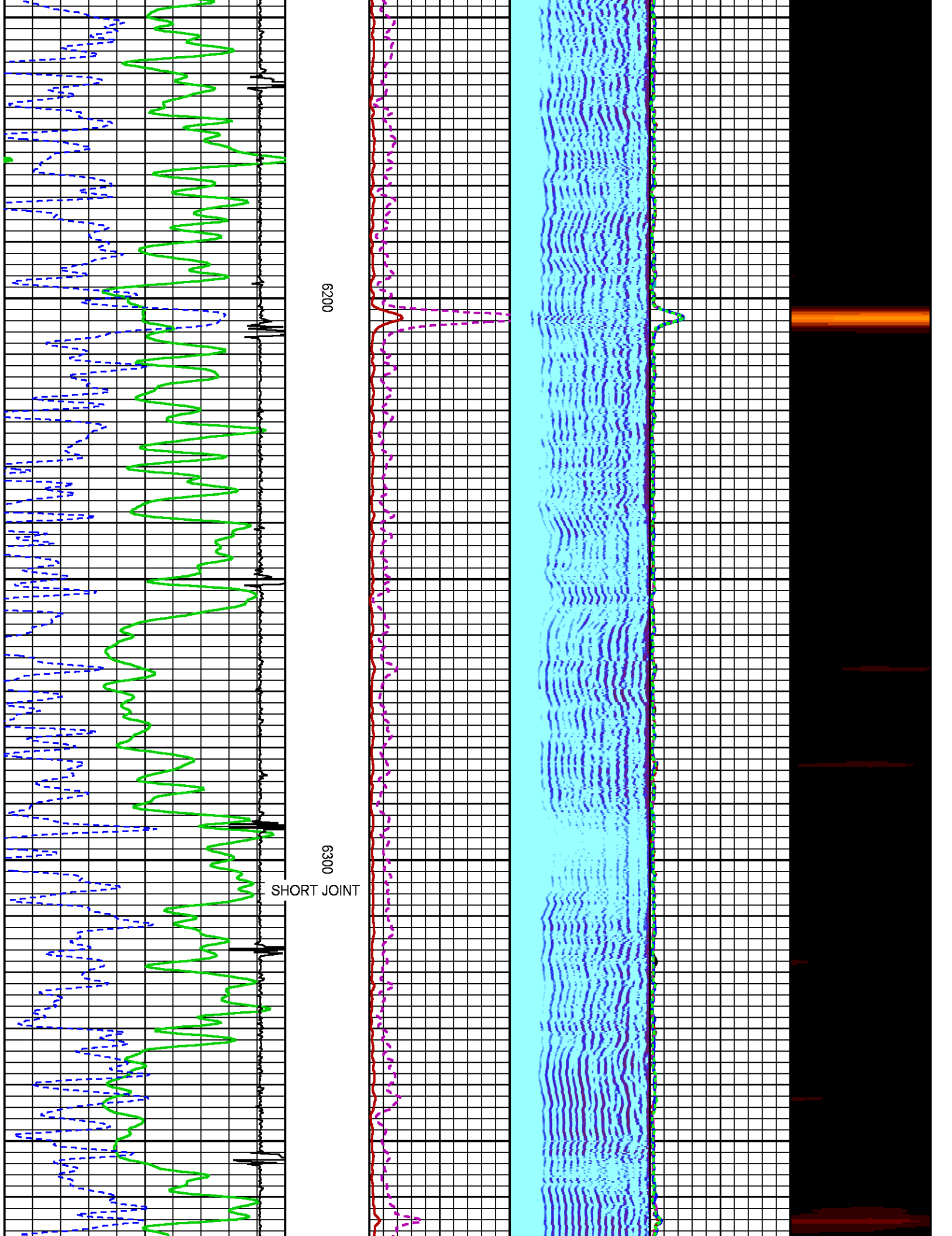


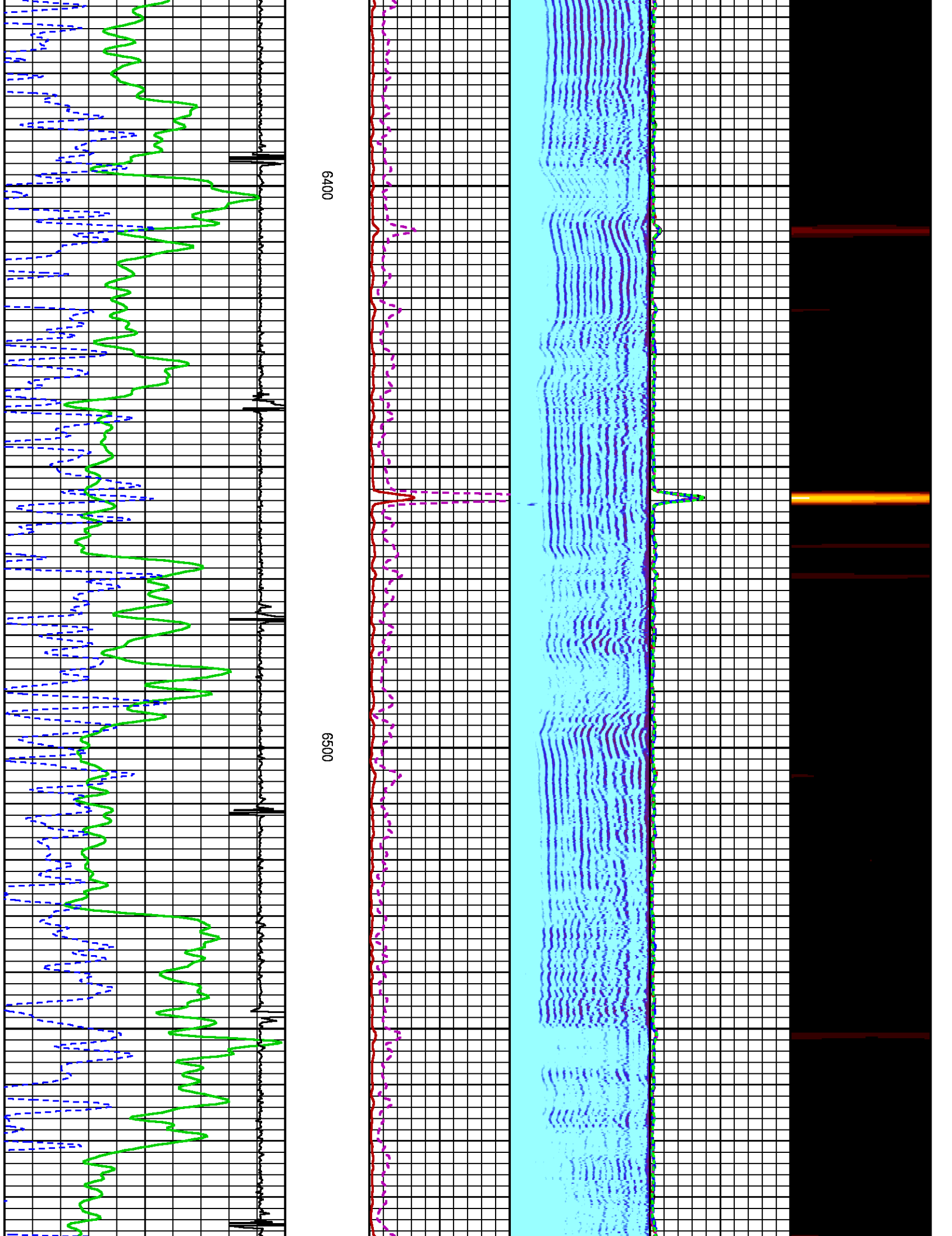


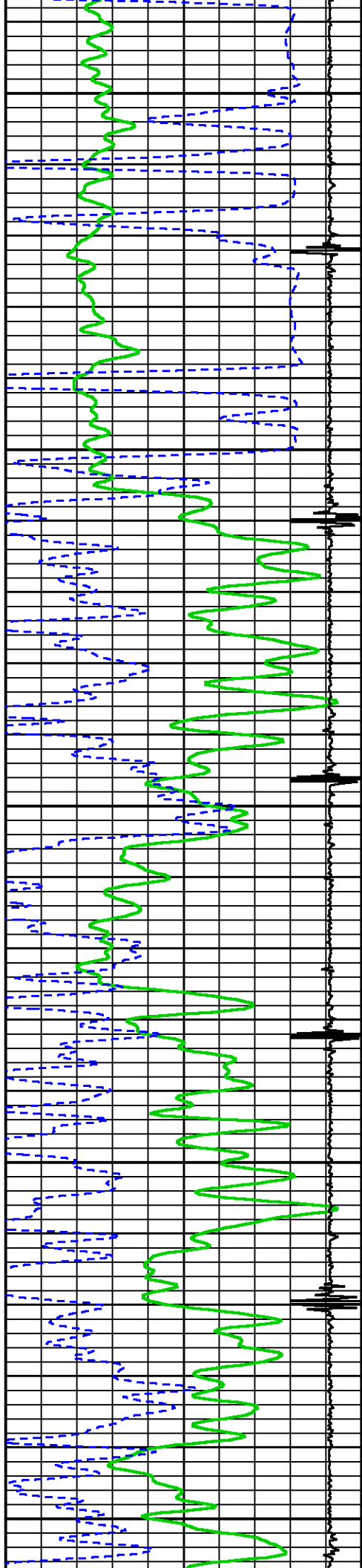








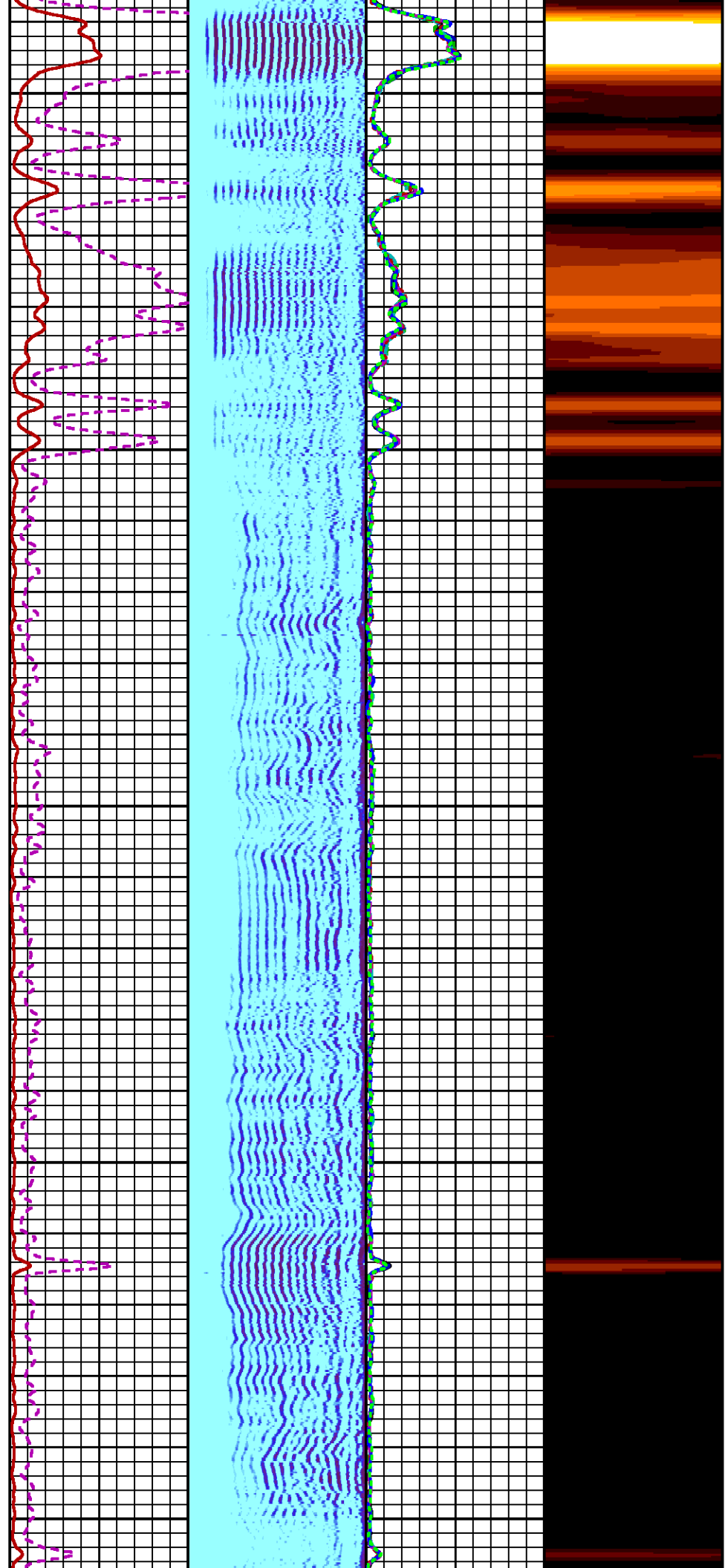


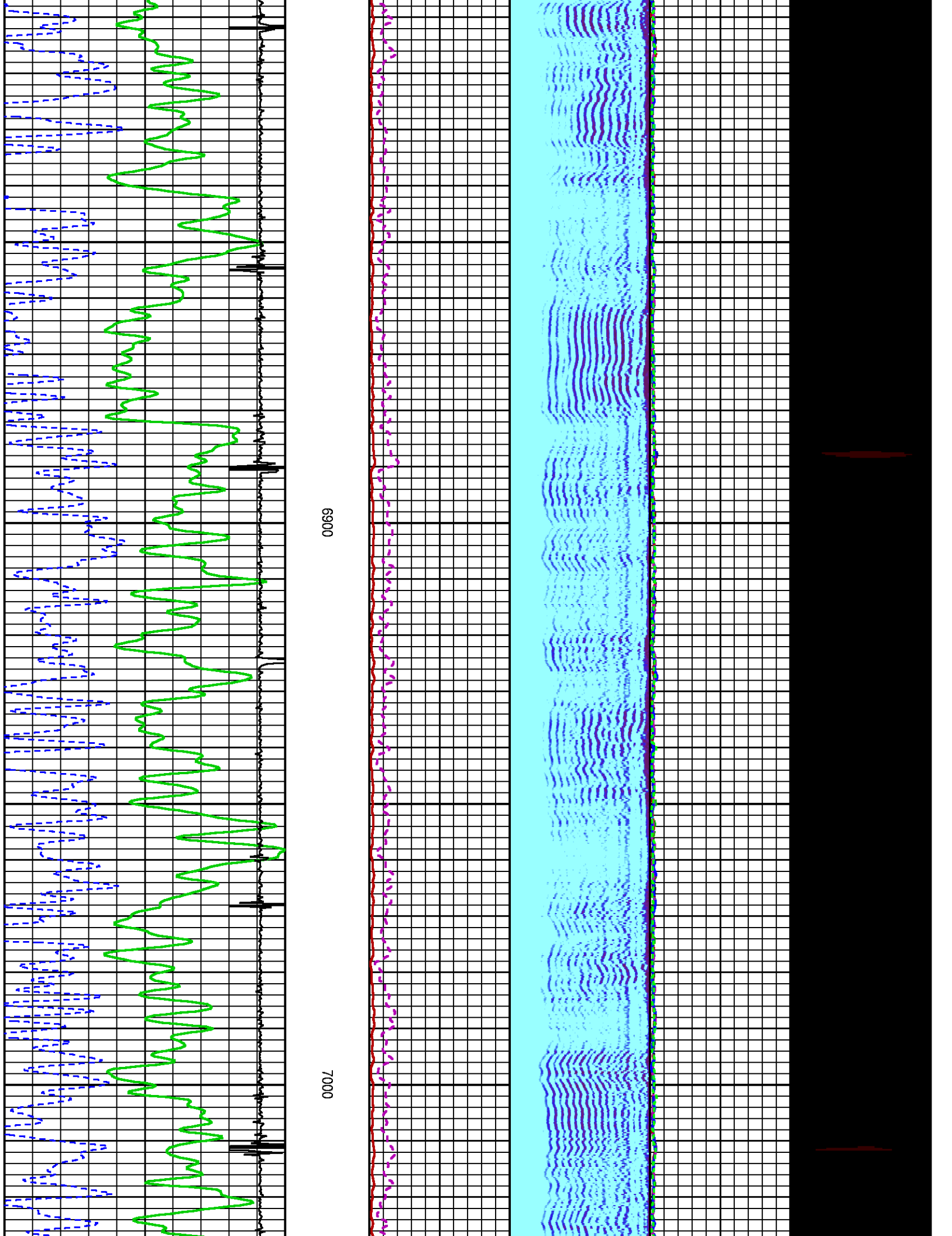


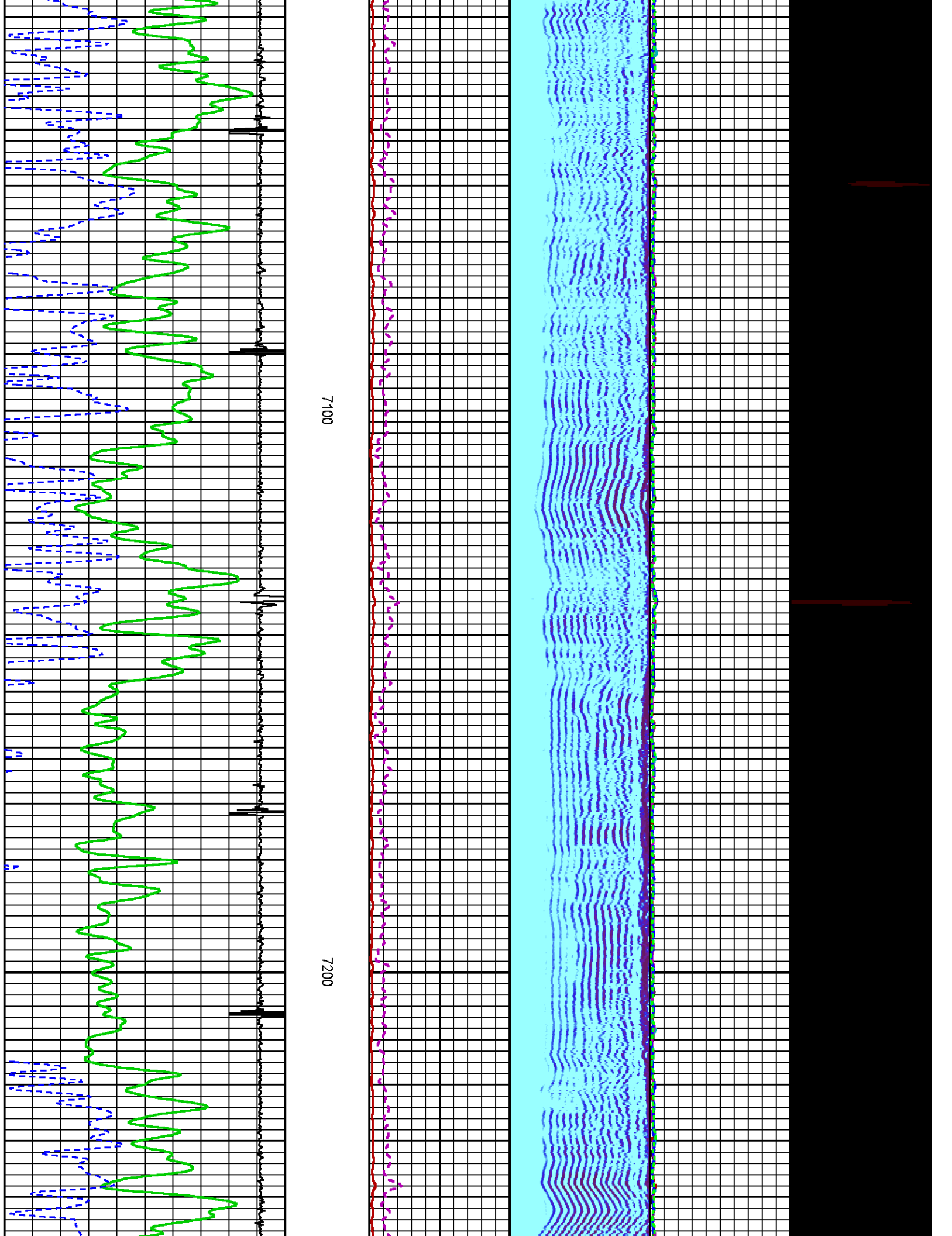
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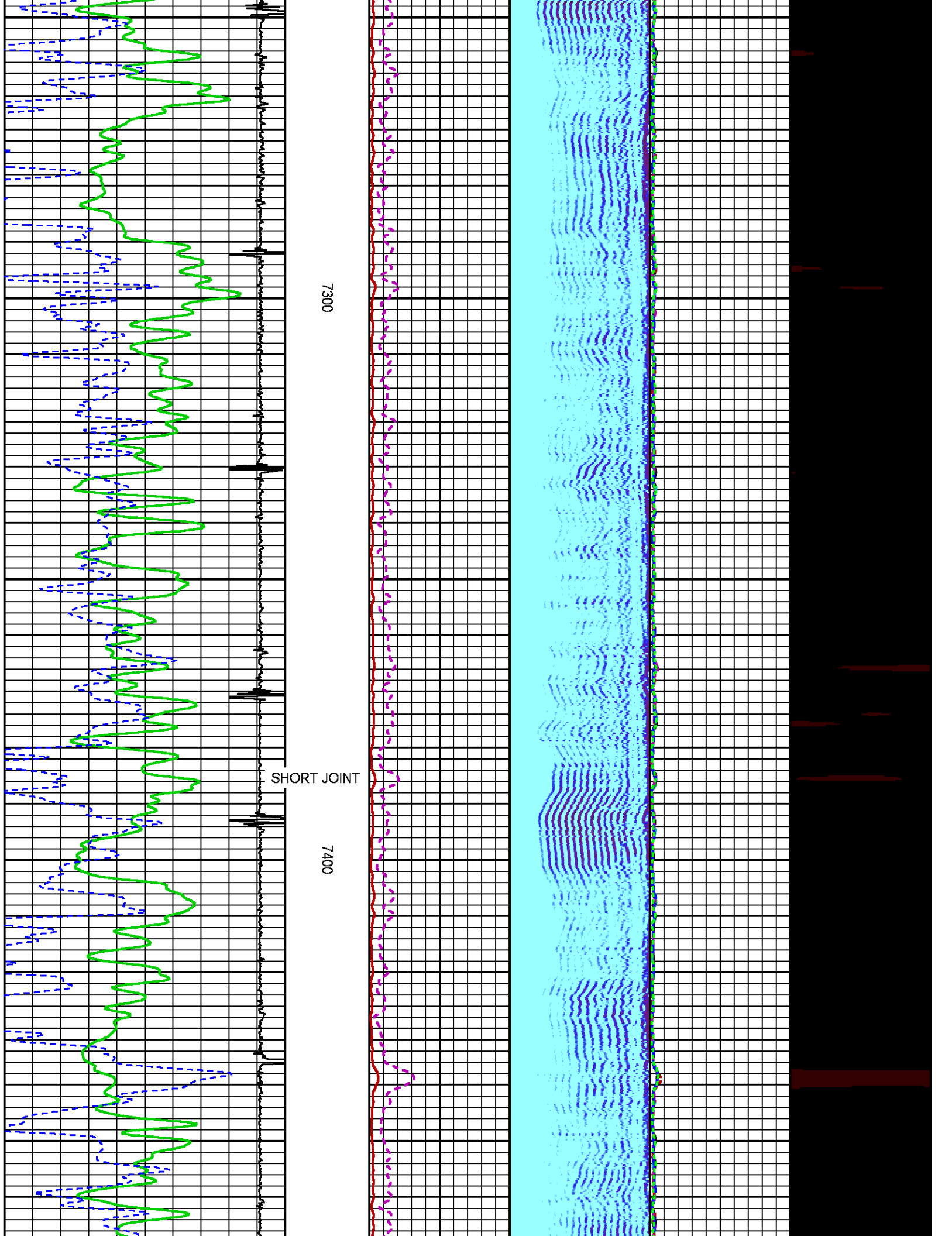


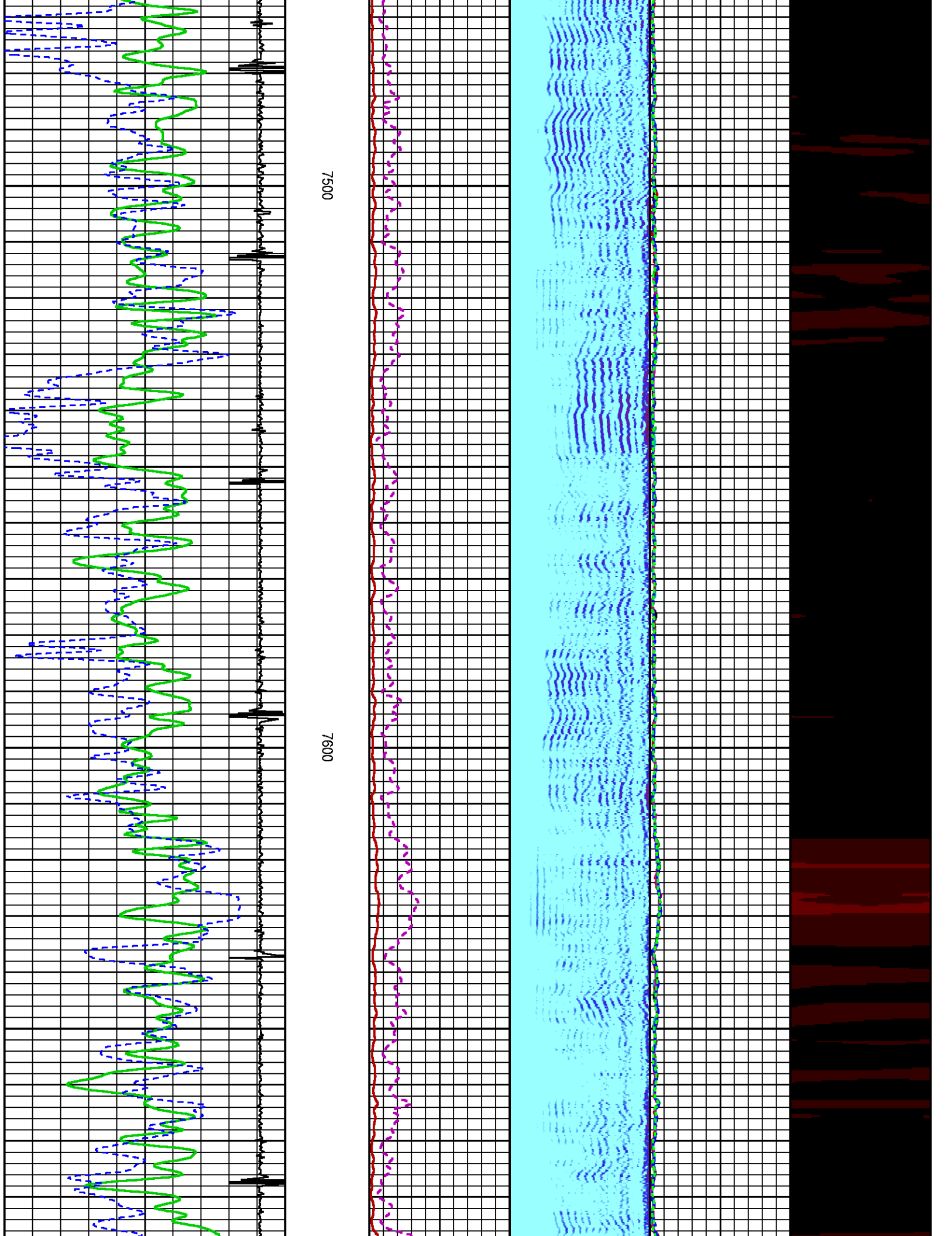


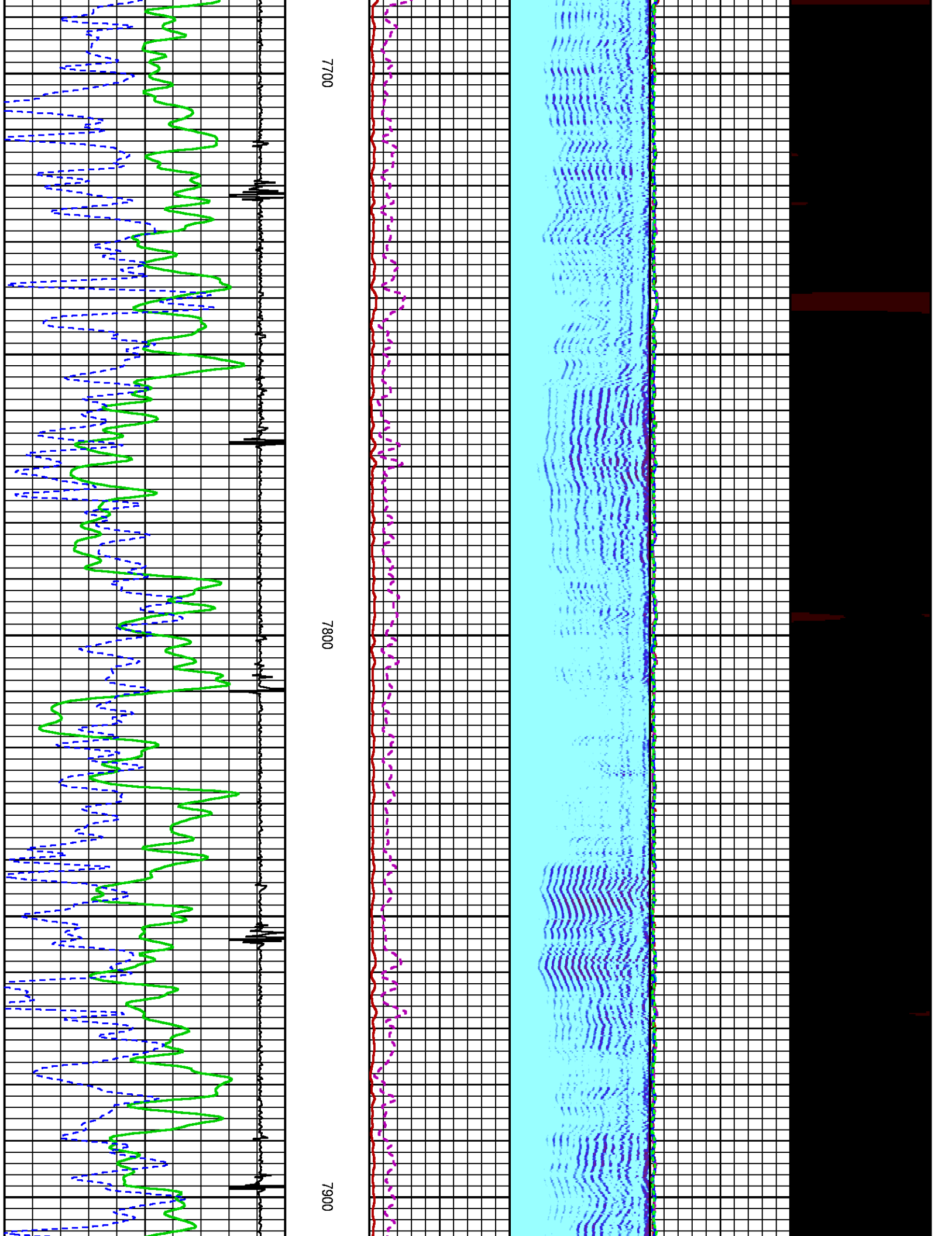


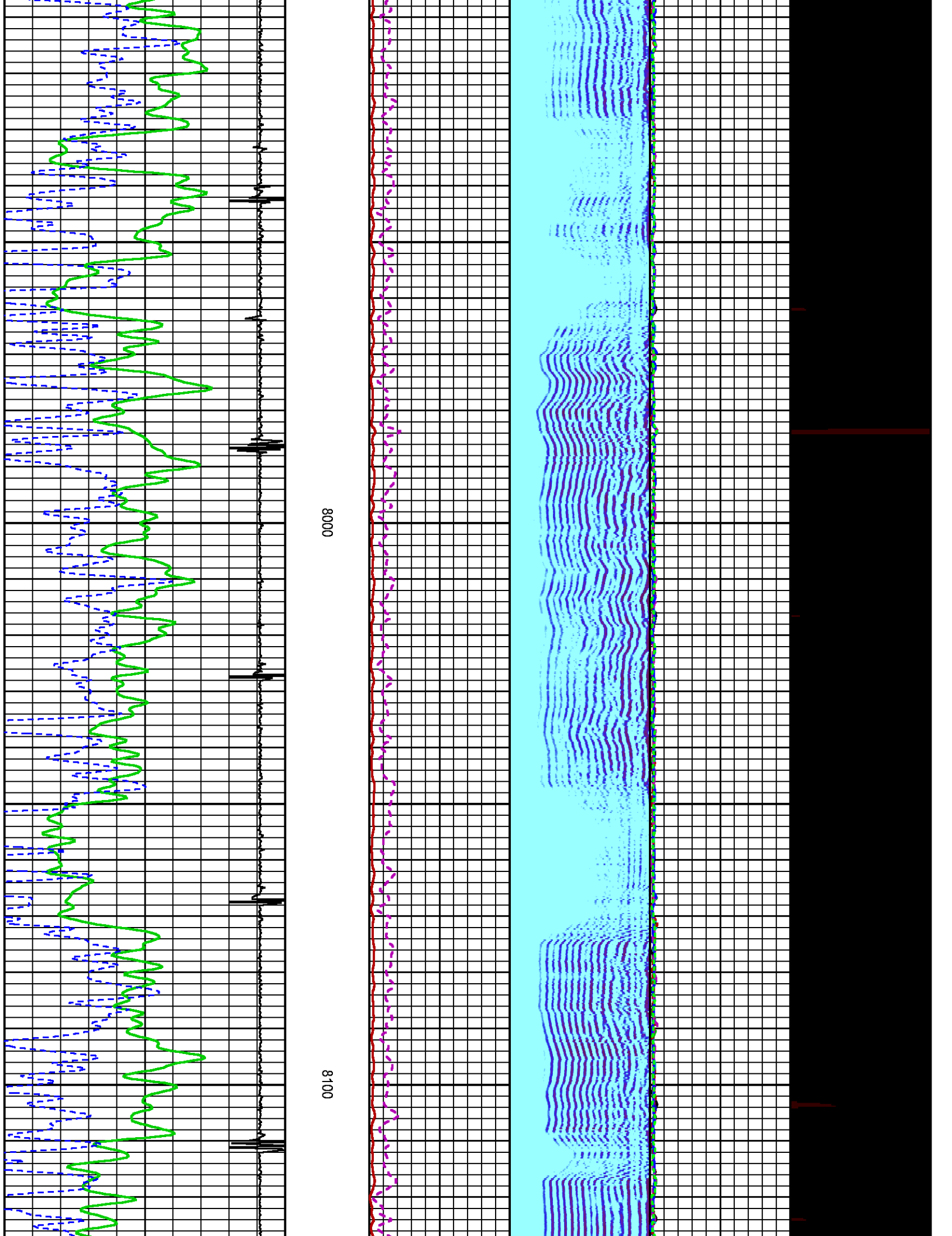
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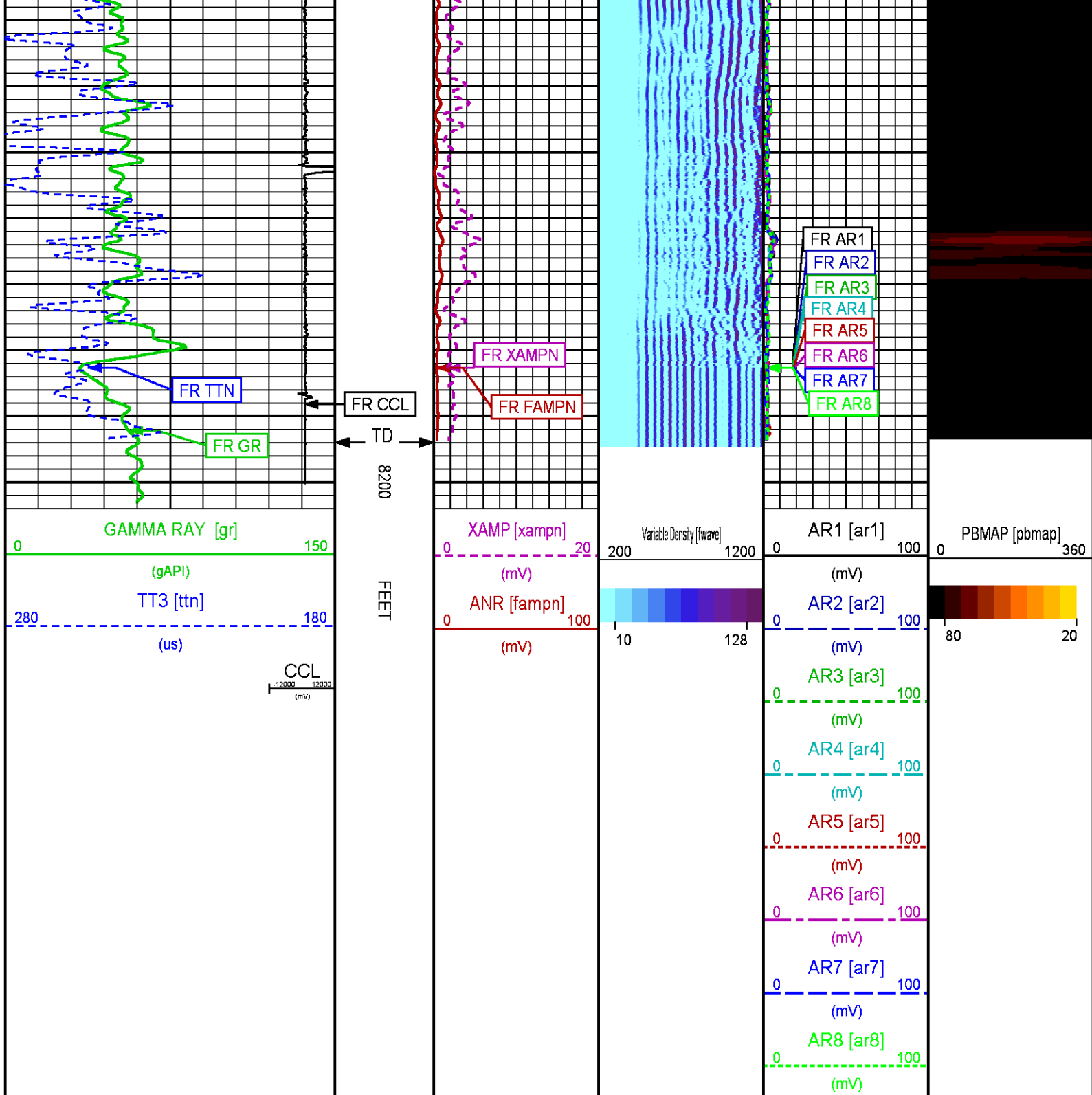
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REPEAT PRESENTATION 0 PSI

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH100238/n012g01.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 7976.000 ft BOTTOM DEPTH: 8202.000 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*)	188	us	TOP	BOTTOM
	AMP WINDOW START (fgp2*)	188	us	"	"
	AMP WINDOW START (fgp3*)	188	us	"	"
	AMP WINDOW START (fgp4*)	188	us	"	"
	AMP WINDOW START (fgp5*)	188	us	"	"
	AMP WINDOW START (fgp6*)	188	us	"	"
	AMP WINDOW START (fgp7*)	188	us	"	"
	AMP WINDOW START (fgp8*)	188	us	"	"
	AMP WINDOW START (fgpn*)	188	us	"	"
	AMP WINDOW LENGTH	25	us	"	"
TRAVEL TIME WINDOW (NEAR)	TT WINDOW START (ttn*)	176	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*)	-67	us	"	"
	TOOL DELAY (str2*)	-67	us	"	"
	TOOL DELAY (str3*)	-67	us	"	"
	TOOL DELAY (str4*)	-67	us	"	"
	TOOL DELAY (str5*)	-67	us	"	"
	TOOL DELAY (str6*)	-67	us	"	"
	TOOL DELAY (str7*)	-67	us	"	"
	TOOL DELAY (str8*)	-67	us	"	"
	TOOL DELAY (strn*)	-67	us	"	"
BASELINE NOISE (NEAR)	NOISE WINDOW START	128	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	Oct 26 08:15:27 2015	FIXED GATE AMPLITUDE T-R1
F1:AR2	Oct 26 08:15:27 2015	FIXED GATE AMPLITUDE T-R2
F1:AR3	Oct 26 08:15:27 2015	FIXED GATE AMPLITUDE T-R3
F1:AR4	Oct 26 08:15:27 2015	FIXED GATE AMPLITUDE T-R4

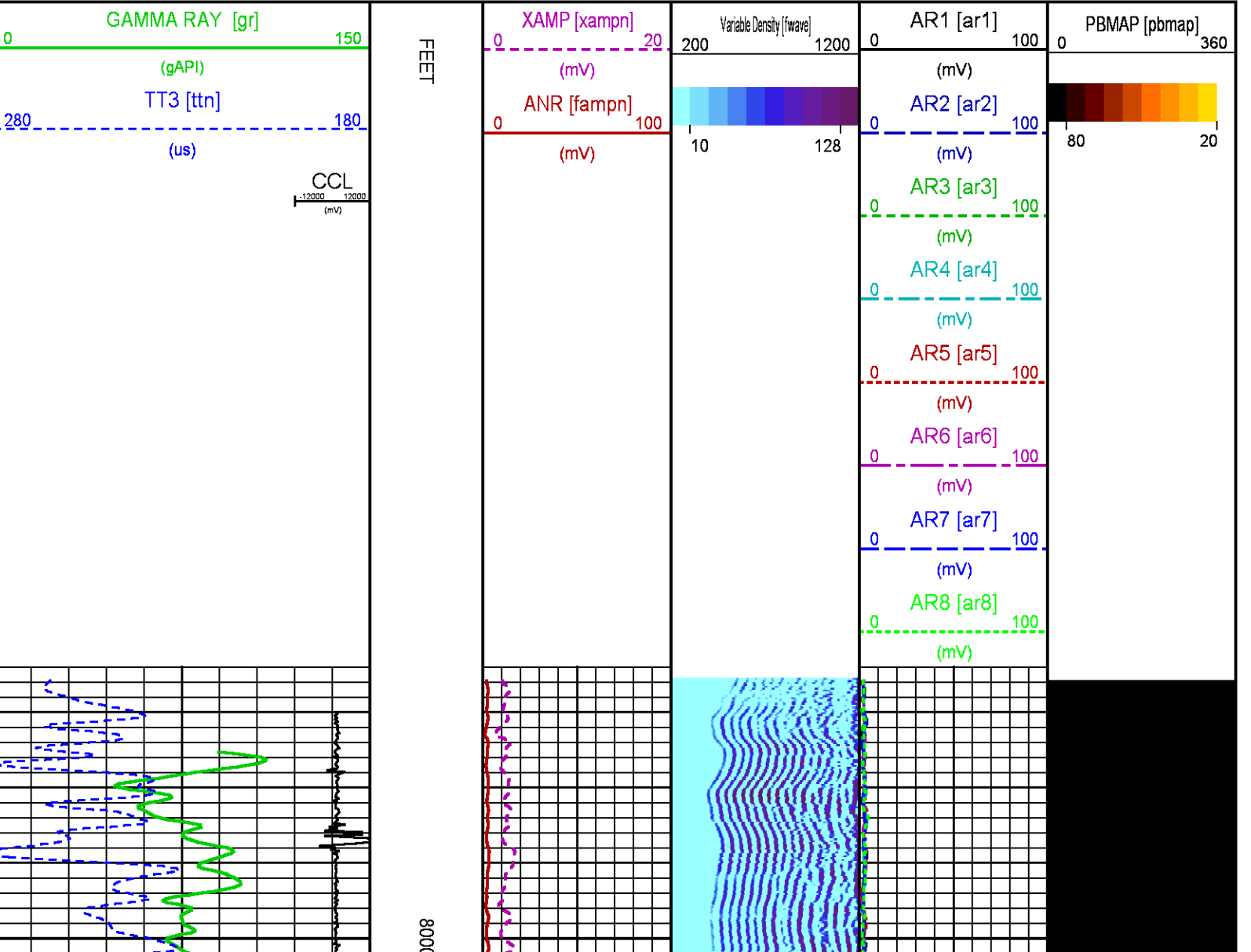
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F1:AR5	Oct 26 08:15:27 2015	FIXED GATE AMPLITUDE T-R5
F1:AR6	Oct 26 08:15:27 2015	FIXED GATE AMPLITUDE T-R6
F1:AR7	Oct 26 08:15:27 2015	FIXED GATE AMPLITUDE T-R7
F1:AR8	Oct 26 08:15:27 2015	FIXED GATE AMPLITUDE T-R8
F1:CCL	Oct 26 08:15:27 2015	CASING COLLAR LOCATOR
F1:FAMPN	Oct 26 08:15:27 2015	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Oct 26 08:15:27 2015	FAR WAVE FORM
F1:GR	Oct 26 08:15:27 2015	GAMMA RAY
F1:PBMAP	Oct 26 08:15:27 2015	PERCENT BOND CEMENT MAP
F1:TTN	Oct 26 08:15:27 2015	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Oct 26 08:15:27 2015	FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE

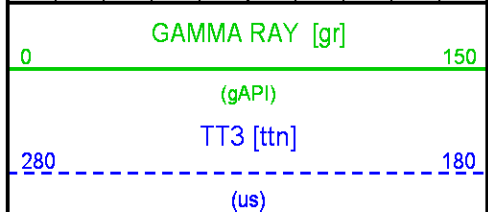
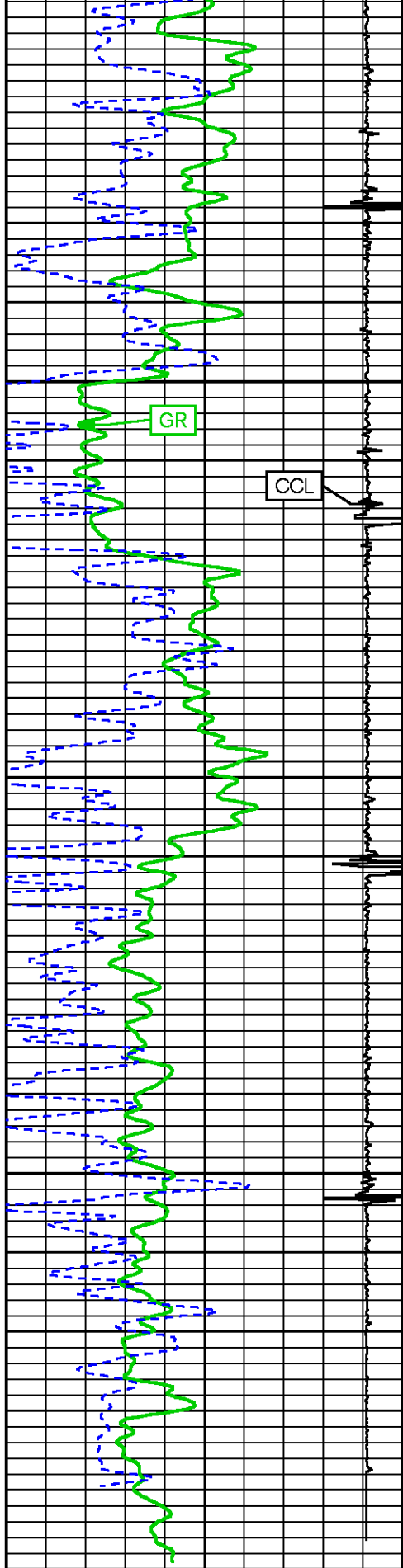
CURVE MEASURE POINT OFFSET

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/CH100238/CBL-RPT.fvpdf [5"/100' Scale]
Plot Interval : 7965.5 - 8200.75 Feet

Data File 1 : F1 : cas6685:/dat1a/CH100238/n012g01.aff
Created On : Oct 26 08:15:27 2015
Company : LARAMIE ENERGY
Well : PICEANCE 28-01M
Field : VEGA
File Interval : 7964.5 - 8202 Feet
OCT : n012g

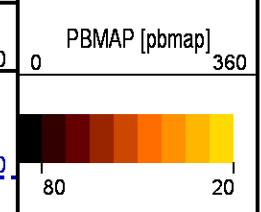
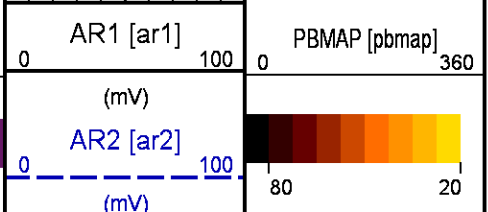
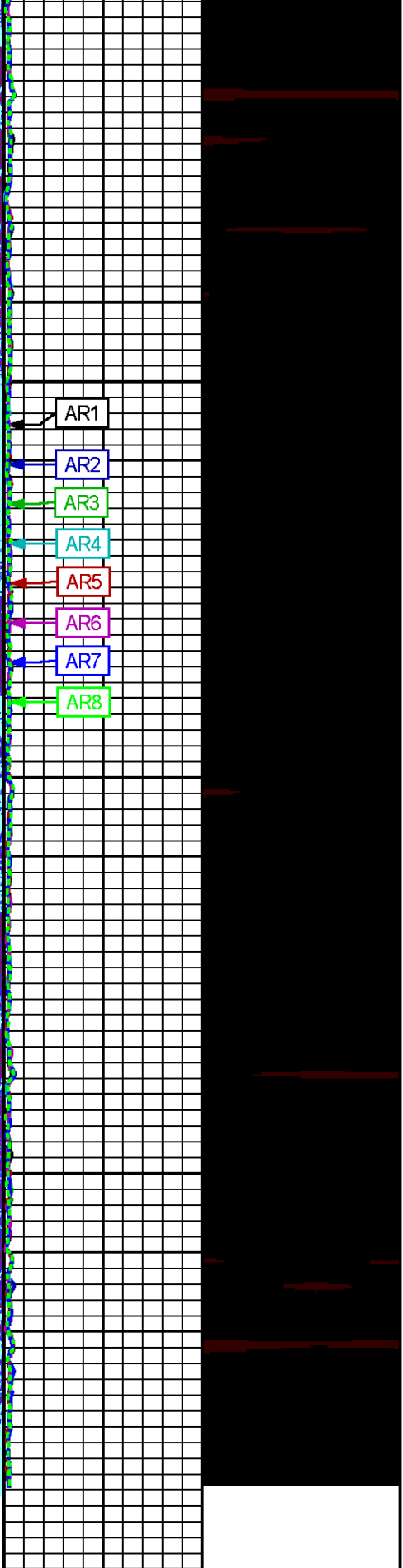
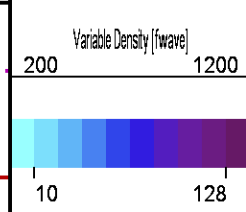
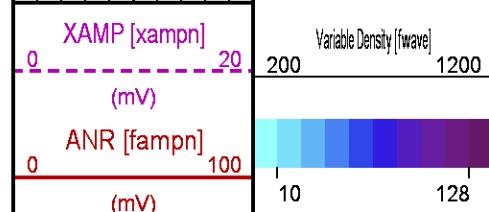
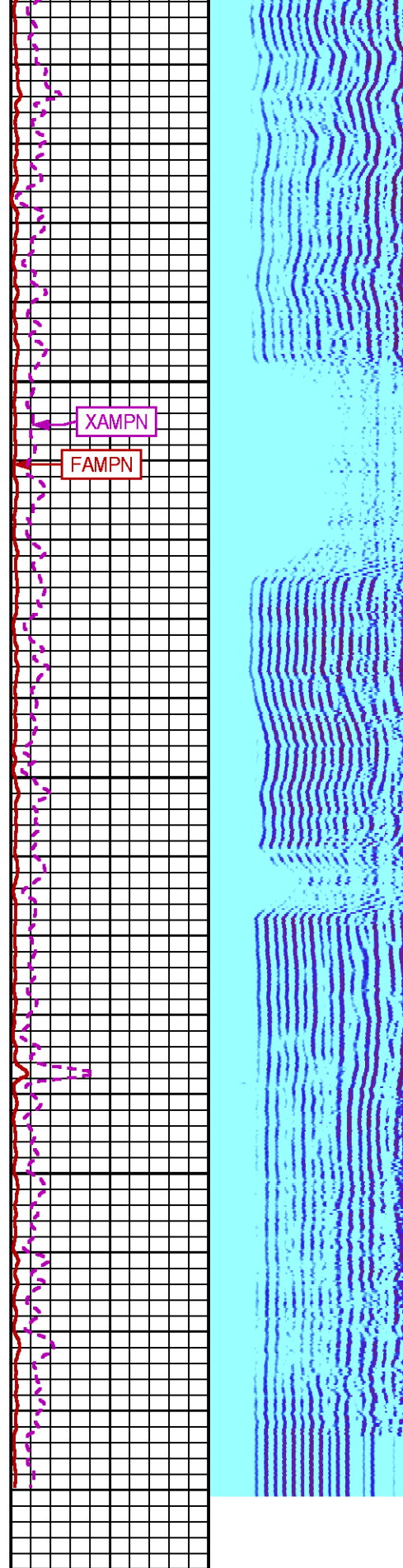




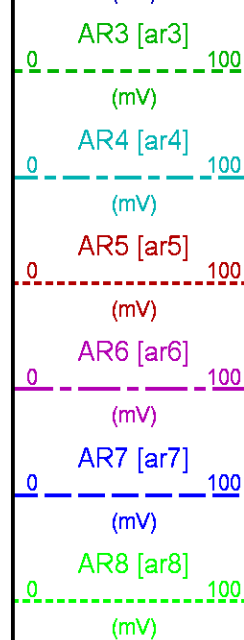
8100

8200

FEET



CCL
-12000 12000
(mV)



CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/CH100238/n012g.tp1

RAL PRIMARY CALIBRATION SUMMARY

TOOL #: 1426XA 10154957

DATE/TIME PERFORMED: Wed Oct 21 13:16:48 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)	-0.12	-0.12	-0.09	-0.19	-0.00	-0.13	-0.63	-0.36	0.05	2.16	-0.05
AMP FLUID (mV)	99	98	98	98	97	99	100	100	99	134	97
TT (us)	214	215	214	213	213	213	214	214	216	323	215
M FACTOR	1.01	1.02	1.02	1.02	1.03	1.01	1.00	1.00	1.01	1.14	1.03

RAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1426XA 10154957

DATE/TIME PERFORMED: Mon Oct 26 07:43:03 2015

DAYS SINCE CAL: 4

UNIT #: 3885TC 6685

CABLE #: HL6685 SMALL1

	NEAR (mV)	R1 (mV)	R2 (mV)	R3 (mV)	R4 (mV)	R5 (mV)	R6 (mV)	R7 (mV)	R8 (mV)	FAR (mV)	CAL (mV)
ZERO	0.09	-0.35	-0.29	-0.13	-0.33	-0.29	-0.29	-0.28	-0.29	0.90	0.07
AMP AIR	1.06	1.59	1.46	1.37	1.76	1.58	1.50	1.63	1.67	0.79	105.92

SHOP M FACTOR	SHOP A FACTOR	WIRELINE FACTOR
1.03	0.00	0.94

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 1355XA 12670181

DATE/TIME PERFORMED: Wed Oct 21 13:23:22 2015

UNIT #: 3885TC 6685

CALB JIG #: 4702NK BA-905

	BACKGROUND (cts)	CALBRTR ON (cts)	CR DIFF (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	CALBRTR (gAPI)
GR	81.51	297.38	215.9	0.695	56.64	206.64	150

GR PRIMARY VERIFICATION SUMMARY

TOOL #: 1355XA 12670181

DATE/TIME PERFORMED: Wed Oct 21 13:24:55 2015

UNIT #: 3885TC 6685

VERI JIG #: 4702NK BA-905

	BACKGROUND (cts)	CALBRTR ON (cts)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	81.82	299.20	0.695	56.86	207.91	151.05
						140.00 160.00

INSTRUMENT CONFIGURATION

Source File: /dat1a/CH100238/RAL-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

RAL GR/TEMP/CCL/CHV DETECTOR

Diameter : 2.75"
Length : 6.96'

20.38'

NEAR RCVR 11.17'

FAR RCVR 10.21'


CCL 5.79'

Weight : 85 lbs
Series : 1355XA
Mnemonic : RAL
Measure Point: 5.79': CCL
Measure Point: 1.67': GR
Measure Point: 0.17': TEMP

GR 1.67'

TEMP 0.17'

TOTAL LENGTH: 20.38'
TOTAL WEIGHT: 225 lbs
MAX DIAMETER: 0'4.25"

	COMPANY <u>LARAMIE ENERGY</u>		FILE NO:
	WELL <u>PICEANCE FEDERAL 28-01M</u>		<u>CH100238</u>
	FIELD <u>VEGA</u>		API NO:
	COUNTY <u>MESA</u>	STATE <u>COLORADO</u>	<u>05077102440000</u>
LOCATION: SHL: LAT 39.251103, LONG -107.779553 BHL: LAT 39.254956, LONG -107.774522		ELEVATIONS: KB 7578 FT DF GL 7556 FT	28 9S 93W 05077102440000 PATTERSON 306
SEC <u>28</u> TWP <u>9S</u> RGE <u>93W</u>		DATE <u>26-Oct-2015</u>	