



FILE NO: CH100243	COMPANY WELL FIELD COUNTY	LARAMIE ENERGY PICEANCE FEDERAL 28-05M VEGA MESA STATE COLORADO
API NO: 05077102420000		
Ver. 4.01 28-9S 93W 28-05 PAD PATTERSON 306	LOCATION: SHL: LAT 39.251022 LONG -107.779514 BHL: LAT 39.252211 LONG -107.774500 SEC 28 TWP 9S RGE 93W	OTHER SERVICES RPM
PERMANENT DATUM LOG MEASURED FROM DRILL. MEAS. FROM	GL ELEVATION 7556 FT KB 22 FT ABOVE P.D. KB	ELEVATIONS: KB 7578 FT DF GL 7556 FT

DATE		23-Oct-2015		
RUN	TRIP	1	1	
SERVICE ORDER		US100243		
DEPTH DRILLER		8025 FT		
DEPTH LOGGER		7965 FT		
BOTTOM LOGGED INTERVAL		7955 FT		
TOP LOGGED INTERVAL		22 FT		
TIME STARTED		7:30		
TIME FINISHED		10:00		
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		NA		
WELLHEAD PRESSURE		0 PSI		
MAXIMUM HOLE DEVIATION		NA		
NOMINAL LOGGING SPEED		100 F/MIN		
MAX. RECORDED TEMP.		232 DEGF		
REFERENCE LOG		NA		
REFERENCE LOG DATE		NA		
EQUIP. NO.	LOCATION	HL-6670	GRAND JCT.	
RECORDED BY		P. EDWARDS		
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	22 FT	8115 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
4.5 IN	11.6 LB/F		22 FT	8115 FT

REMARKS
RUN 1 TRIP 1: This is the first log on this well Logged with zero PSI at the wellhead BHT = 232 degF SJ = 6352' - 6374' SJ = 7155' - 7177' Thank you for choosing Baker Hughes ... The best choice!

EQUIPMENT DATA				
RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.
1	1	CD	1102361	12121102

1	1	CBL	1426XA	10124106	CENTRALIZED
1	1	GR/CCL	1355XA	11871510	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: Fri Oct 23 10:28:03 2015

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH100243/n012g02.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 16.750 ft BOTTOM DEPTH: 7969.250 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*)	185	us	TOP	BOTTOM
	AMP WINDOW START (fgp2*)	185	us	"	"
	AMP WINDOW START (fgp3*)	185	us	"	"
	AMP WINDOW START (fgp4*)	185	us	"	"
	AMP WINDOW START (fgp5*)	185	us	"	"
	AMP WINDOW START (fgp6*)	185	us	"	"
	AMP WINDOW START (fgp7*)	185	us	"	"
	AMP WINDOW START (fgp8*)	185	us	"	"
	AMP WINDOW START (fgpn*)	185	us	"	"
TRAVEL TIME WINDOW (NEAR)	AMP WINDOW LENGTH	30	us	"	"
	TT WINDOW START (ttn*)	172	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*)	-71	us	"	"
	TOOL DELAY (str2*)	-71	us	"	"
	TOOL DELAY (str3*)	-71	us	"	"
	TOOL DELAY (str4*)	-71	us	"	"
	TOOL DELAY (str5*)	-71	us	"	"
	TOOL DELAY (str6*)	-71	us	"	"
	TOOL DELAY (str7*)	-71	us	"	"
	TOOL DELAY (str8*)	-71	us	"	"
	TOOL DELAY (strn*)	-71	us	"	"
BASELINE NOISE (NEAR)	NOISE WINDOW START	125	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	"	"

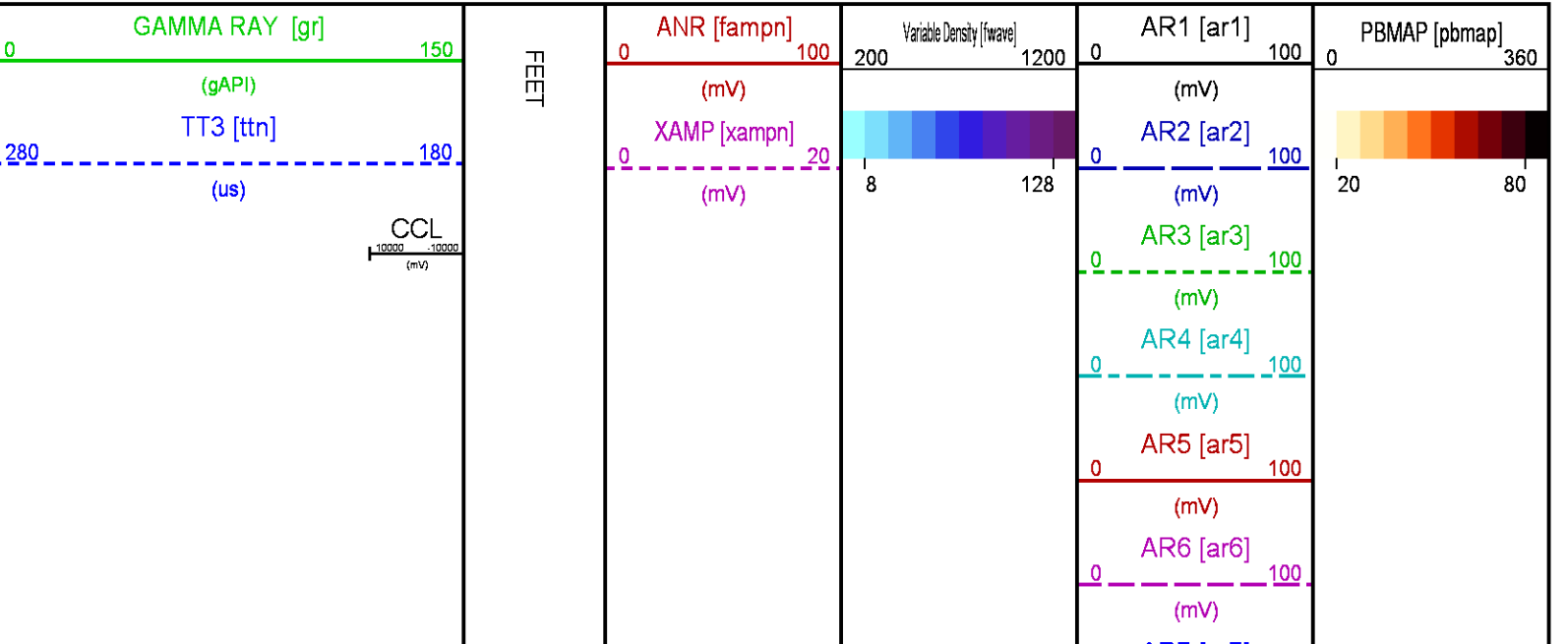
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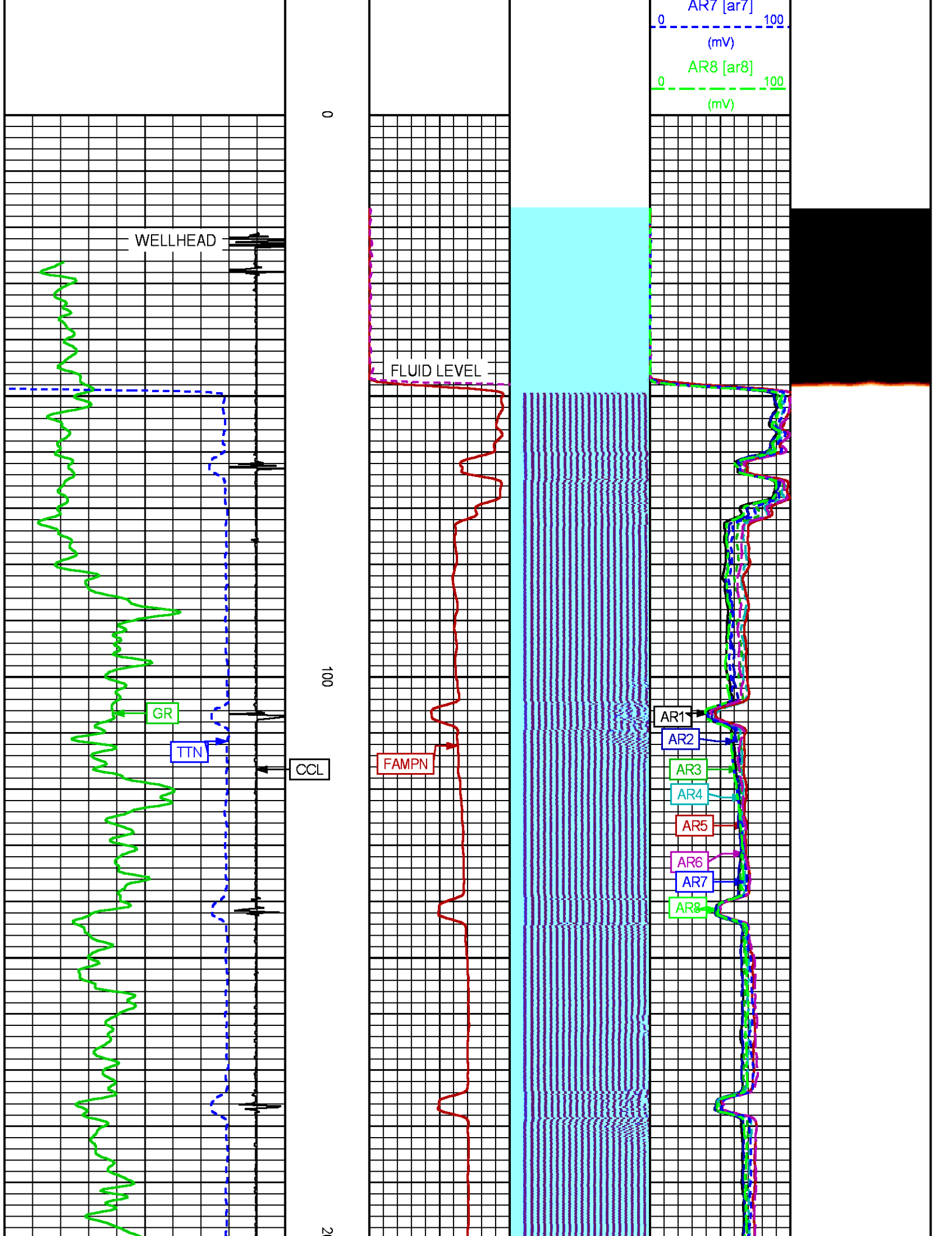
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:AR1	Oct 23 08:25:51 2015	FIXED GATE AMPLITUDE T-R1
F1:AR2	Oct 23 08:25:51 2015	FIXED GATE AMPLITUDE T-R2
F1:AR3	Oct 23 08:25:51 2015	FIXED GATE AMPLITUDE T-R3
F1:AR4	Oct 23 08:25:51 2015	FIXED GATE AMPLITUDE T-R4
F1:AR5	Oct 23 08:25:51 2015	FIXED GATE AMPLITUDE T-R5
F1:AR6	Oct 23 08:25:51 2015	FIXED GATE AMPLITUDE T-R6
F1:AR7	Oct 23 08:25:51 2015	FIXED GATE AMPLITUDE T-R7
F1:AR8	Oct 23 08:25:51 2015	FIXED GATE AMPLITUDE T-R8
F1:CCL	Oct 23 08:25:51 2015	CASING COLLAR LOCATOR
F1:FAMPN	Oct 23 08:25:51 2015	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Oct 23 08:25:51 2015	FAR WAVE FORM
F1:GR	Oct 23 08:25:51 2015	GAMMA RAY
F1:PBMAP	Oct 23 08:25:51 2015	PERCENT BOND CEMENT MAP
F1:TTN	Oct 23 08:25:51 2015	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Oct 23 08:25:51 2015	FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE

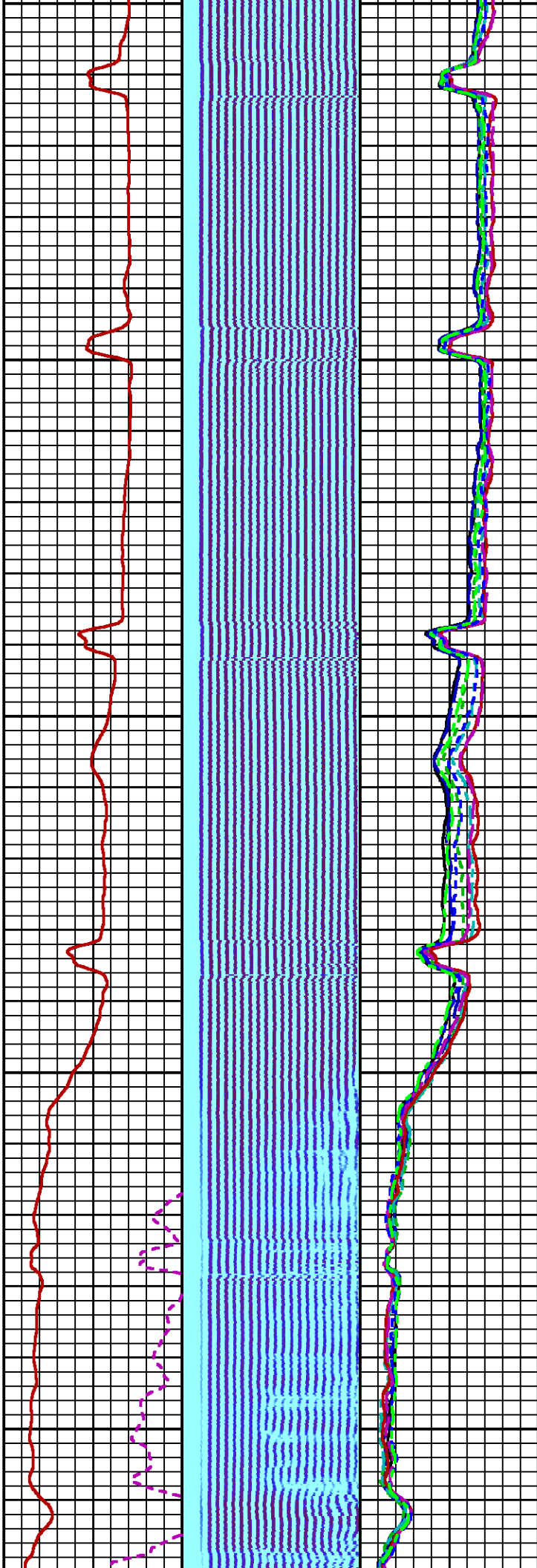
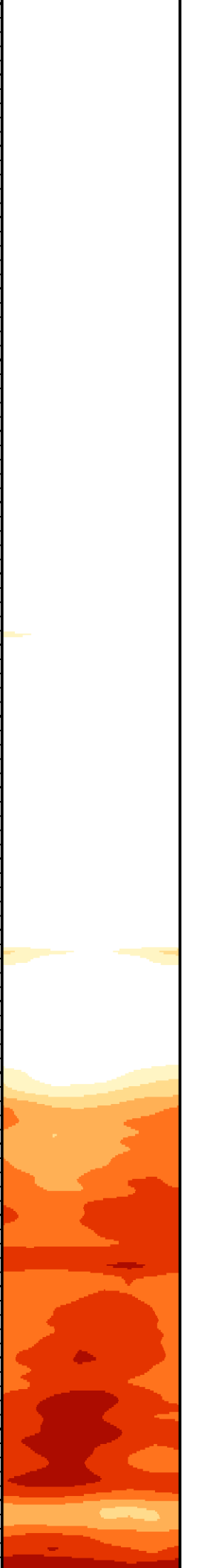
CURVE MEASURE POINT OFFSET

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	: HL6670:/dat1a/CH100243/5M_CBL_MAIN.fvpdf [5"/100' Scale]
Plot Interval	: 0 - 7970 Feet
Data File 1	: F1 : HL6670:/dat1a/CH100243/n012g02MAIN5M.xtf
Created On	: Oct 23 08:25:51 2015
Company	: LARAMIE ENERGY
Well	: PICEANCE FEDERAL 28-5M
Field	: VEGA
File Interval	: 15.5 - 7979.25 Feet
OCT	: n012g



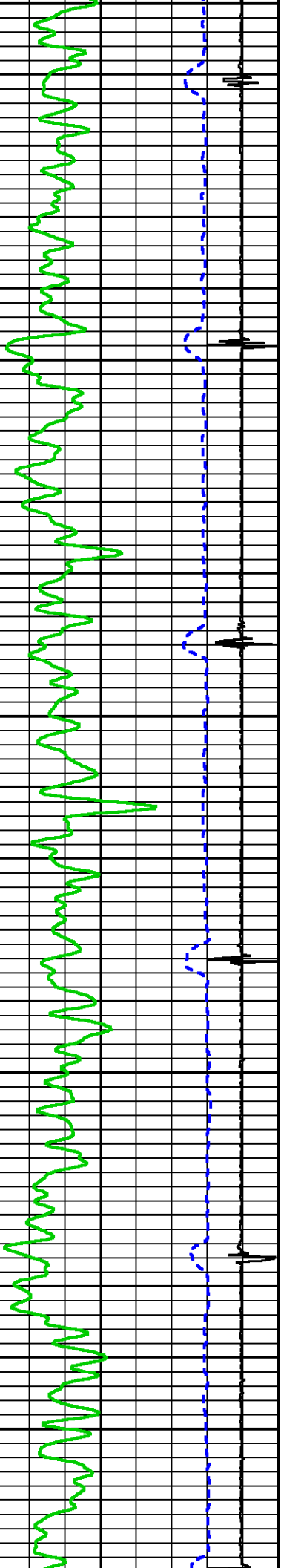


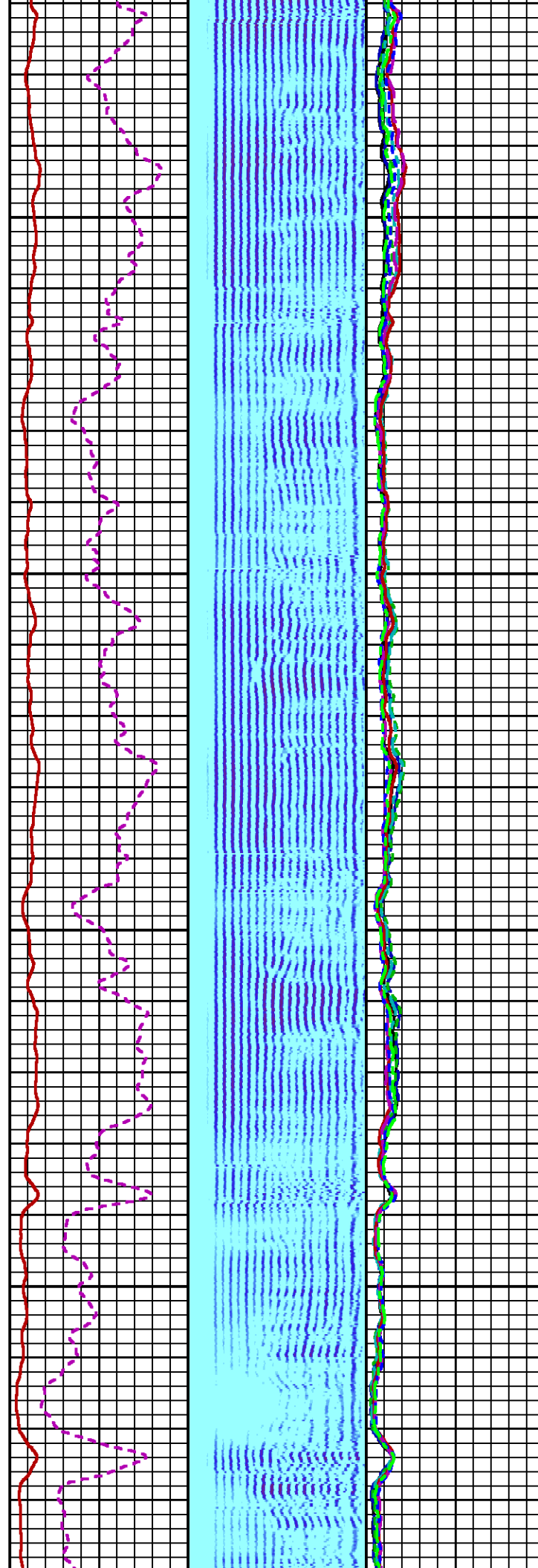
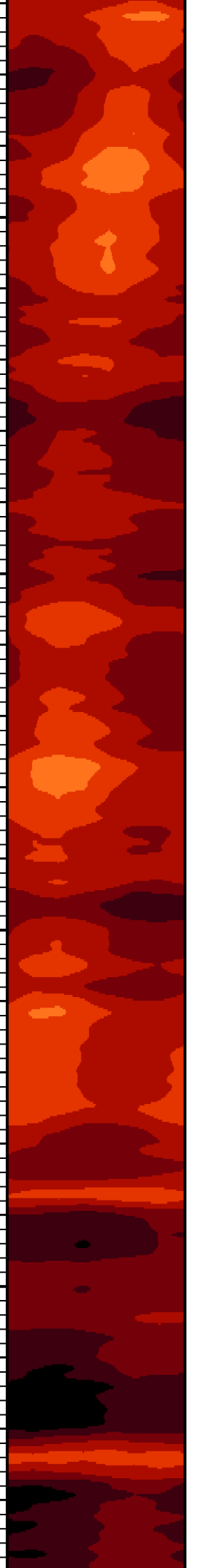


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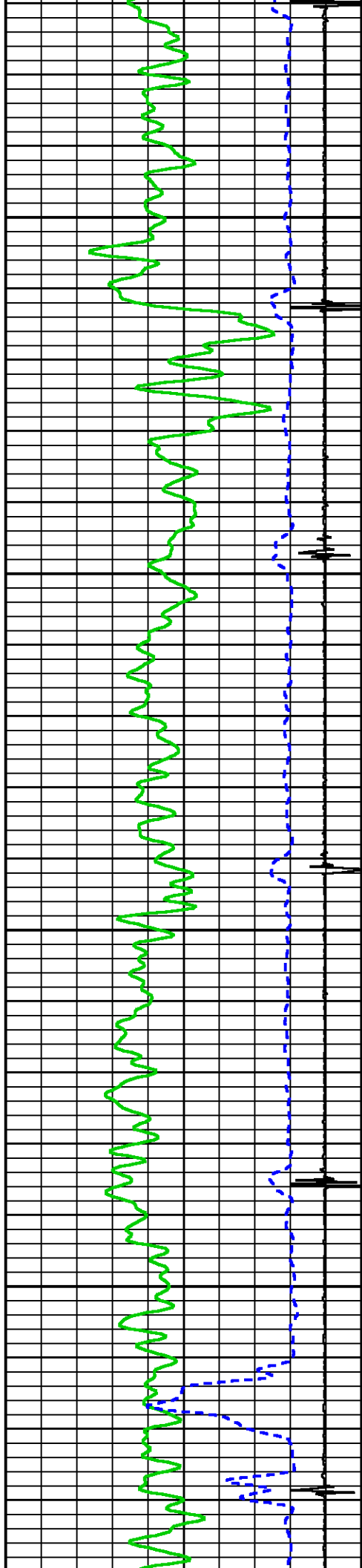
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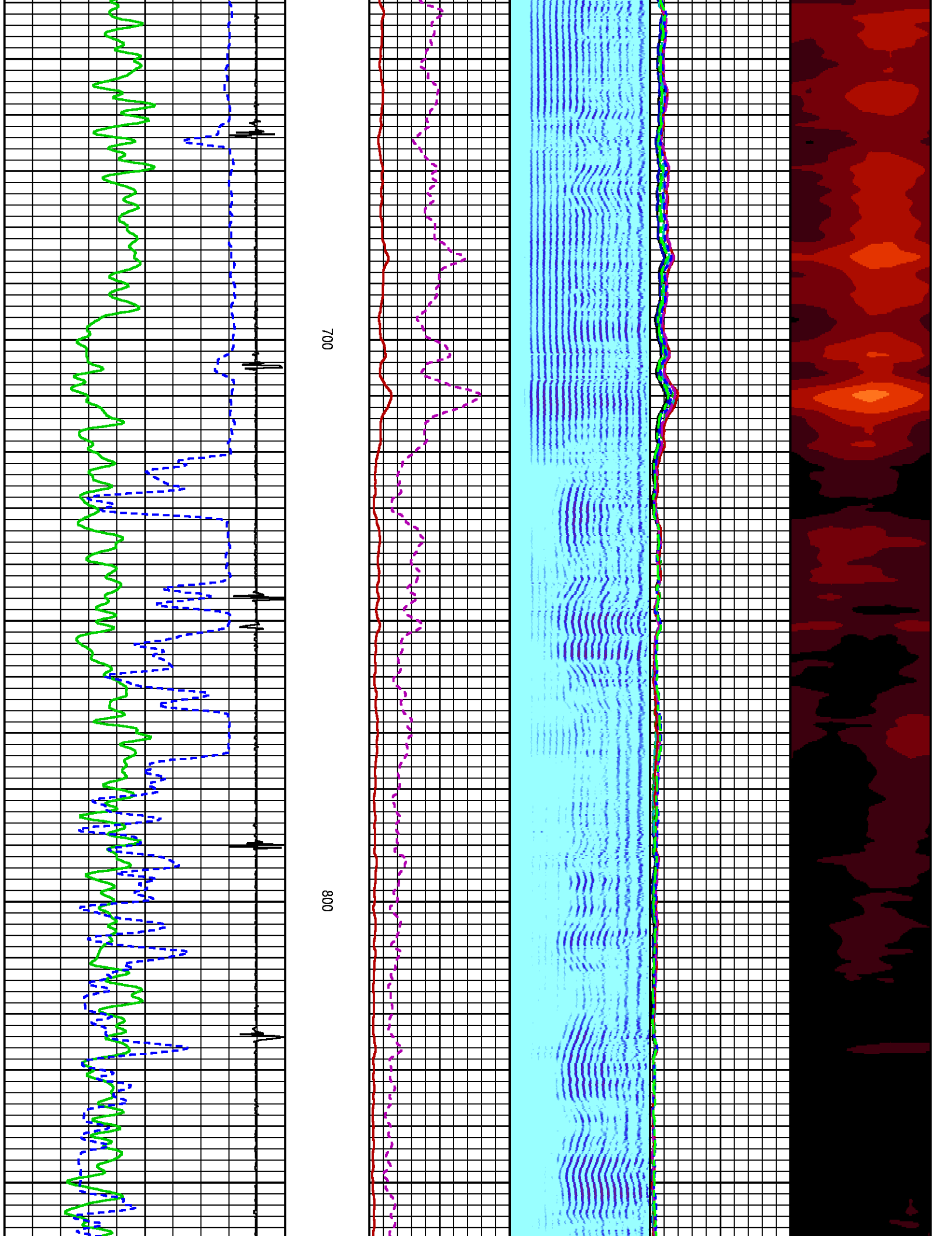


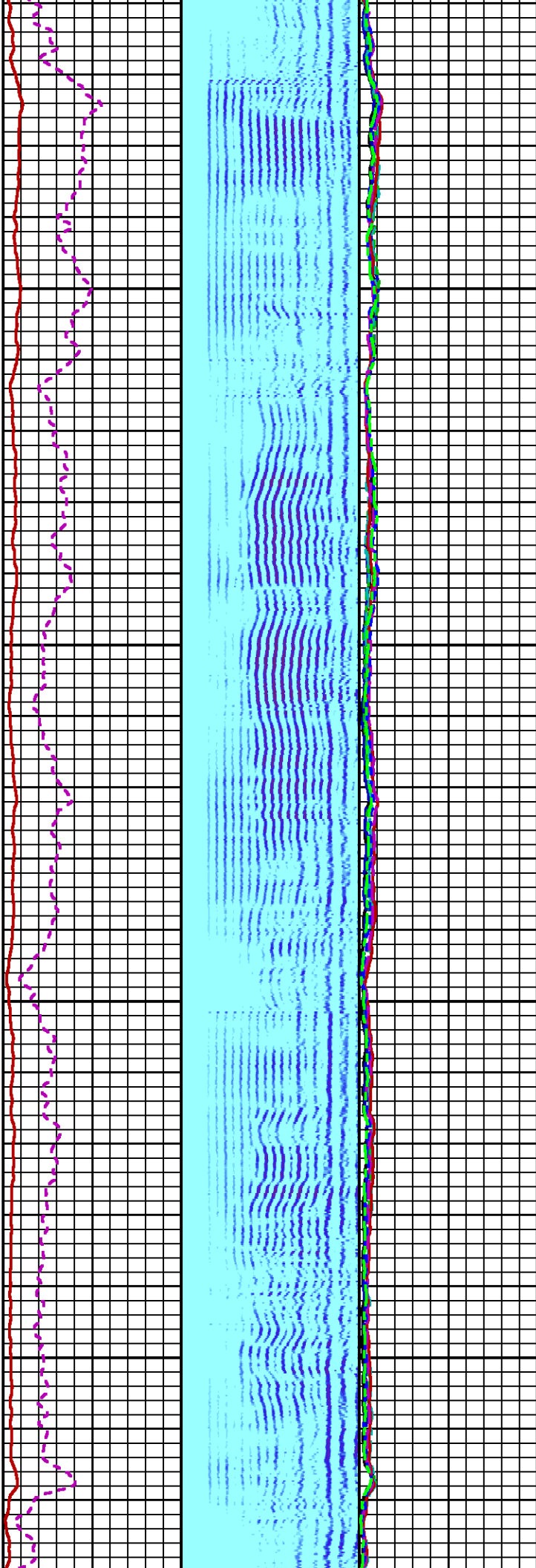
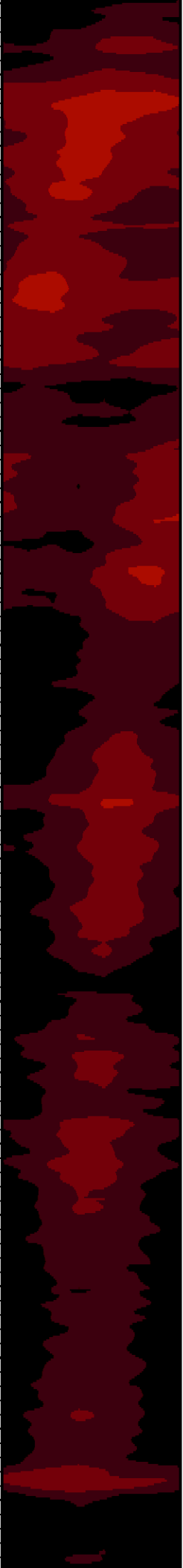


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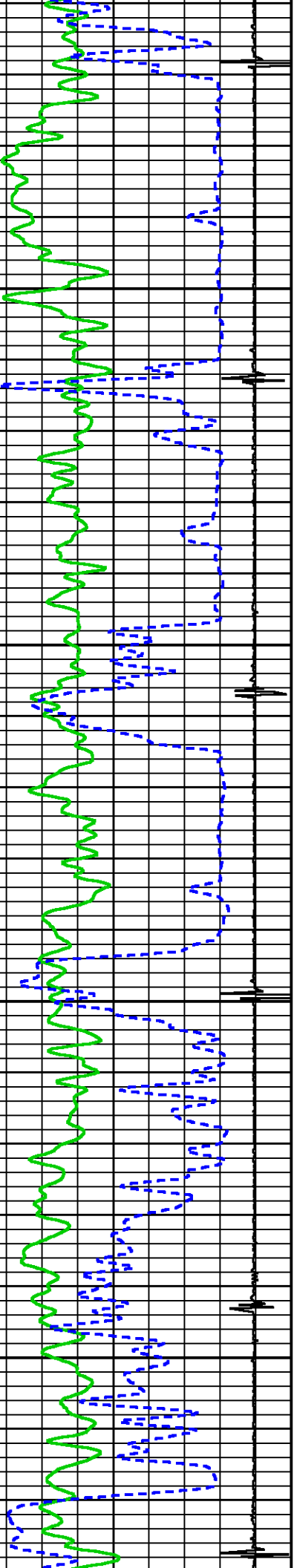


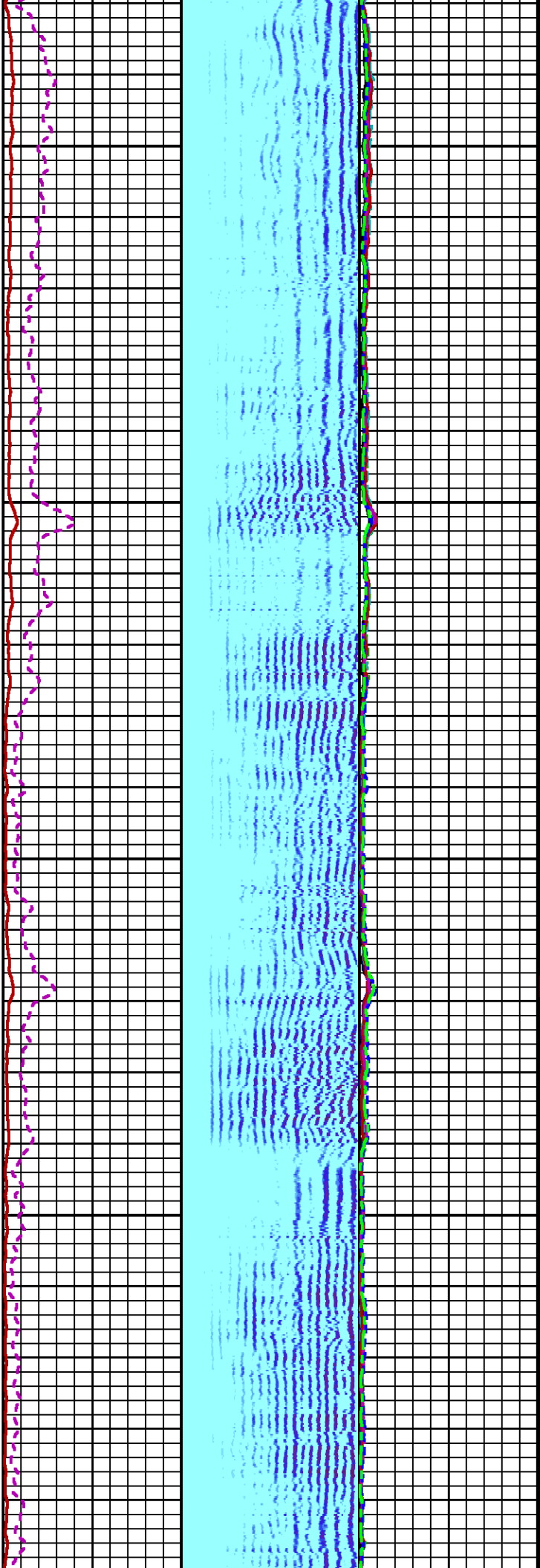




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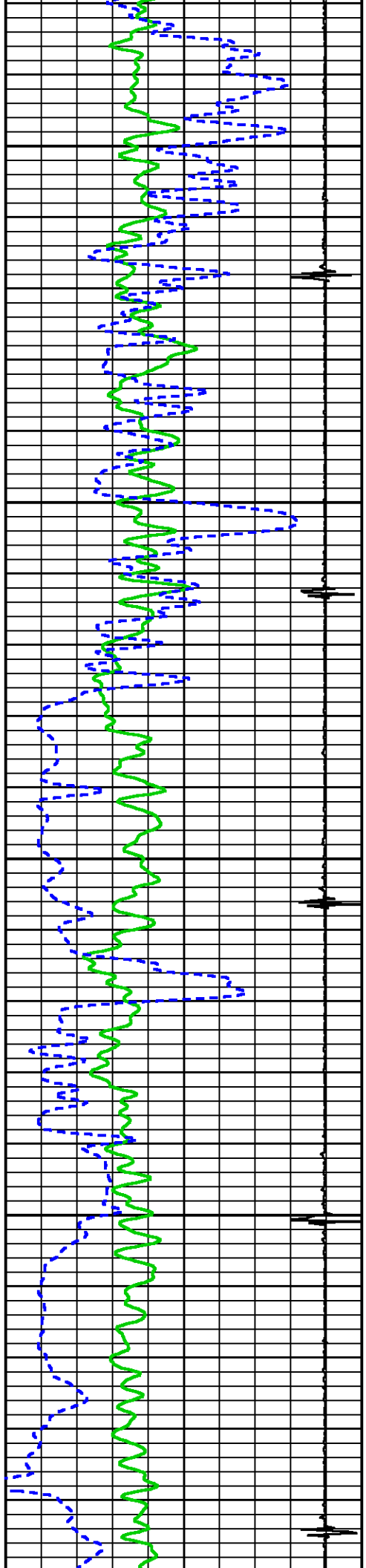


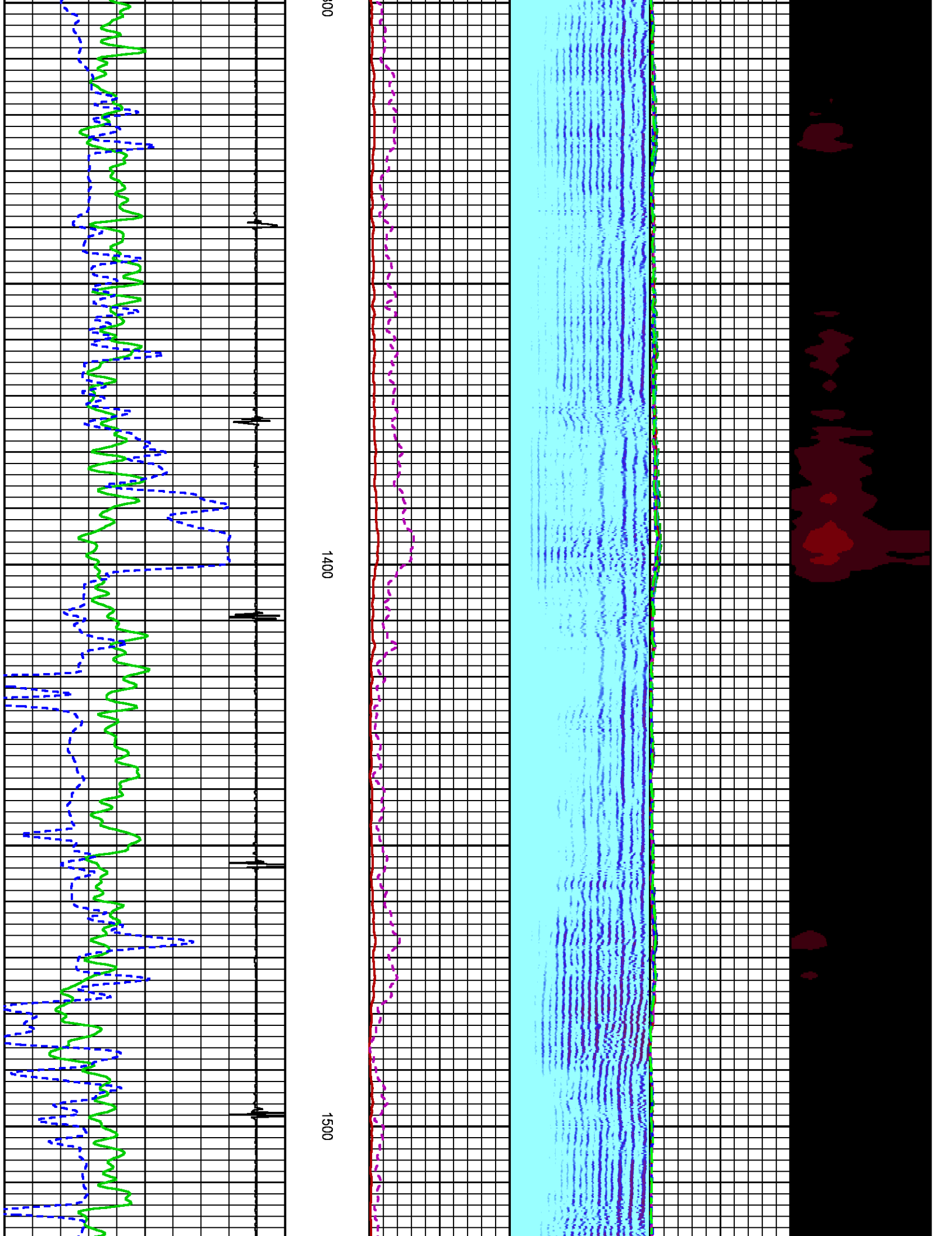


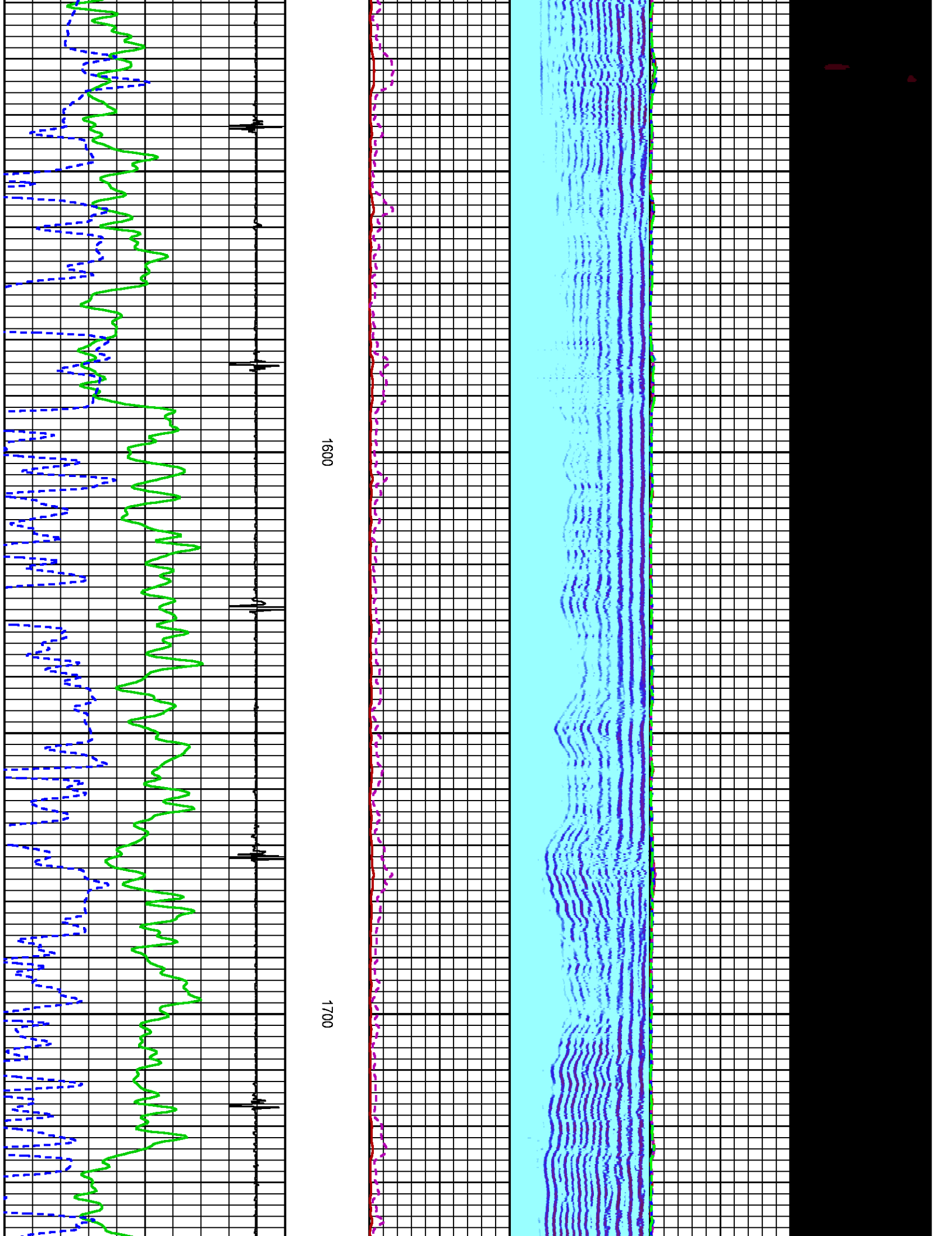
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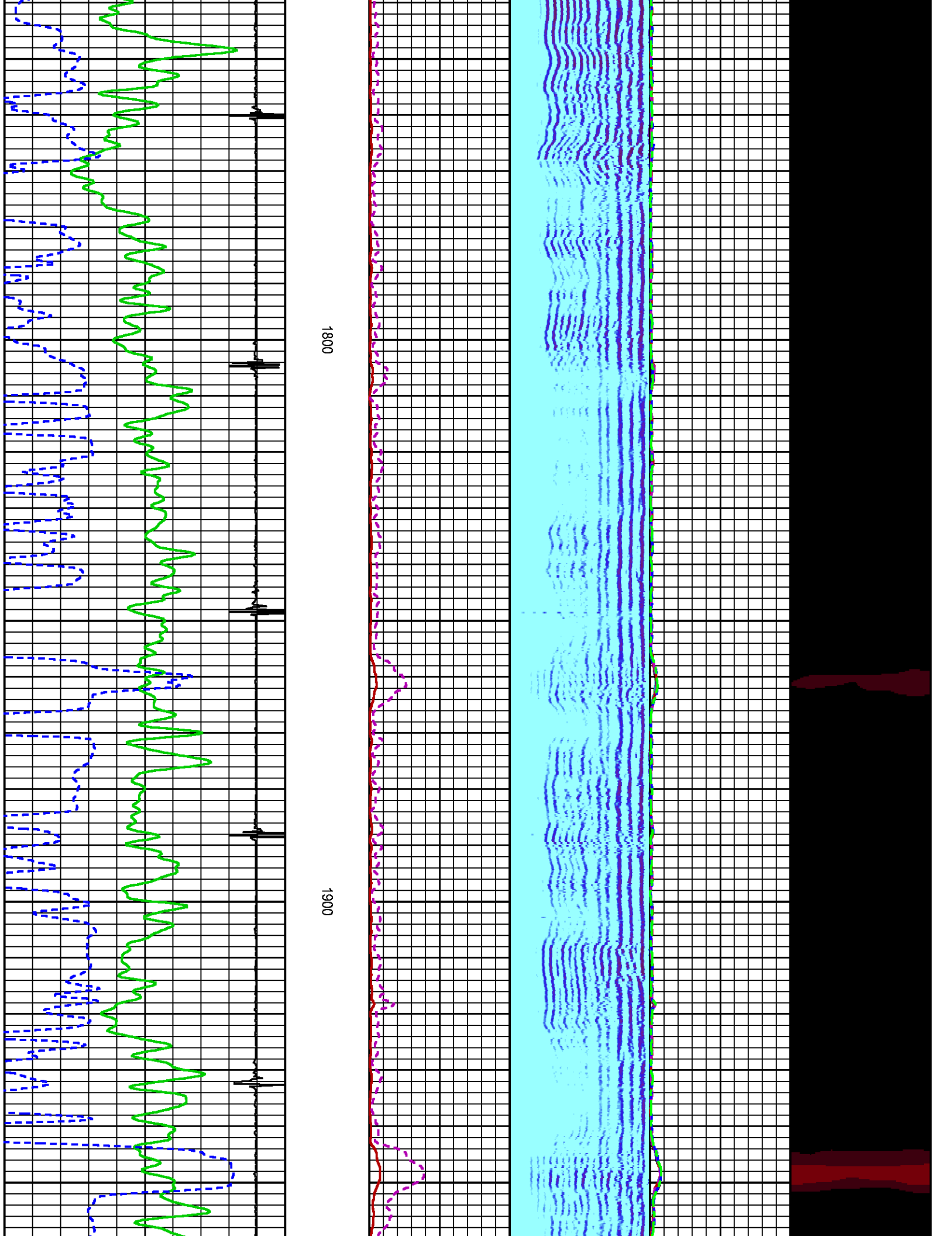
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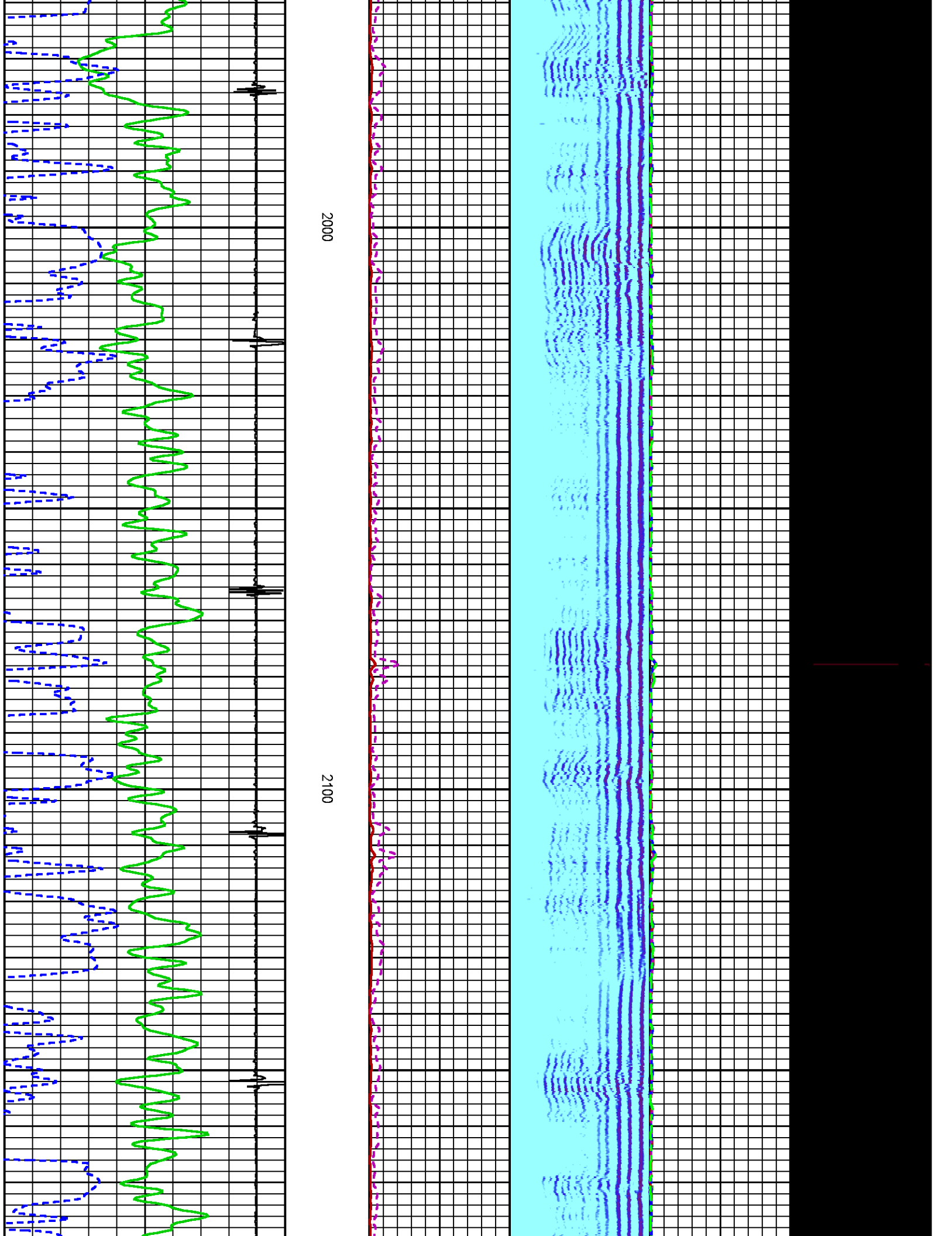
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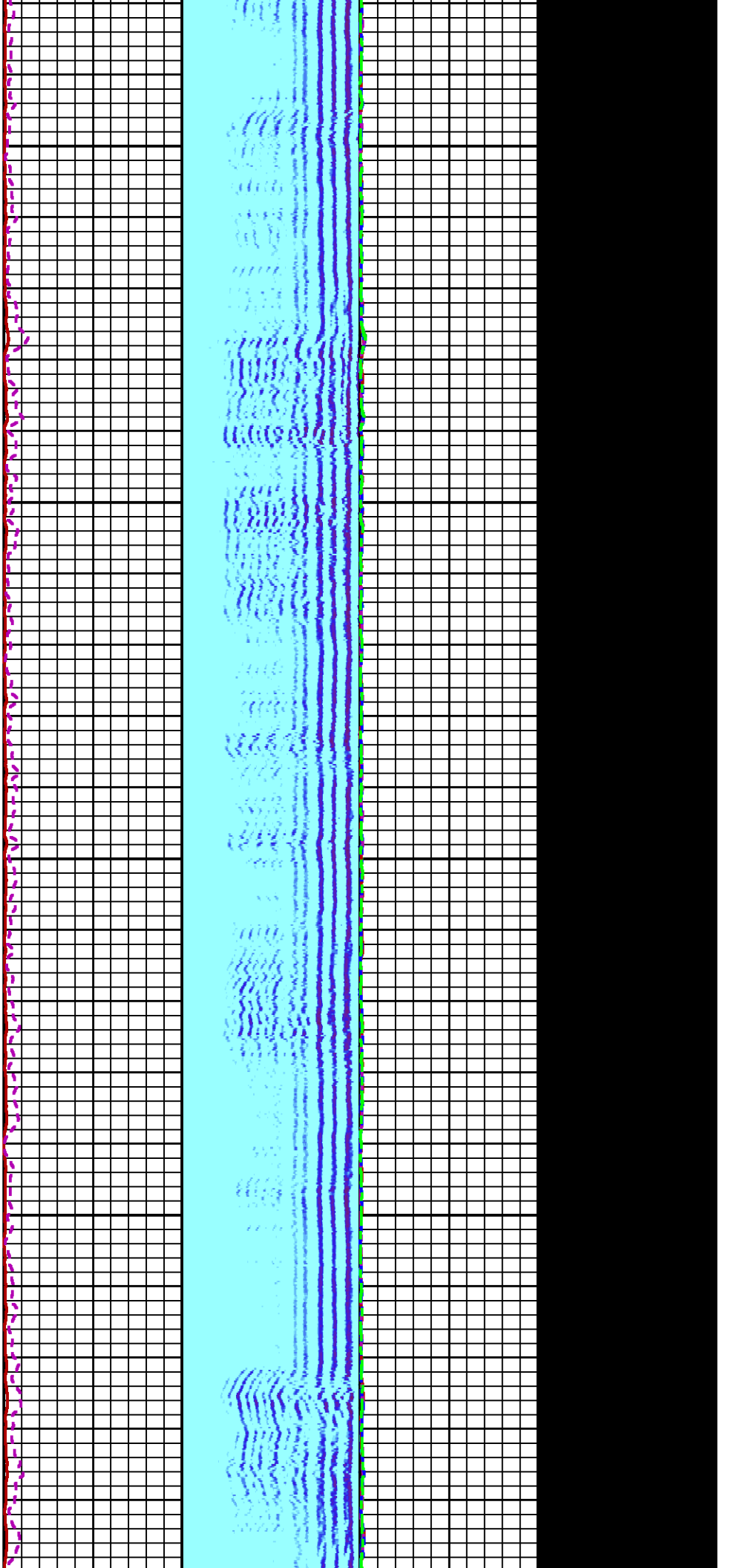






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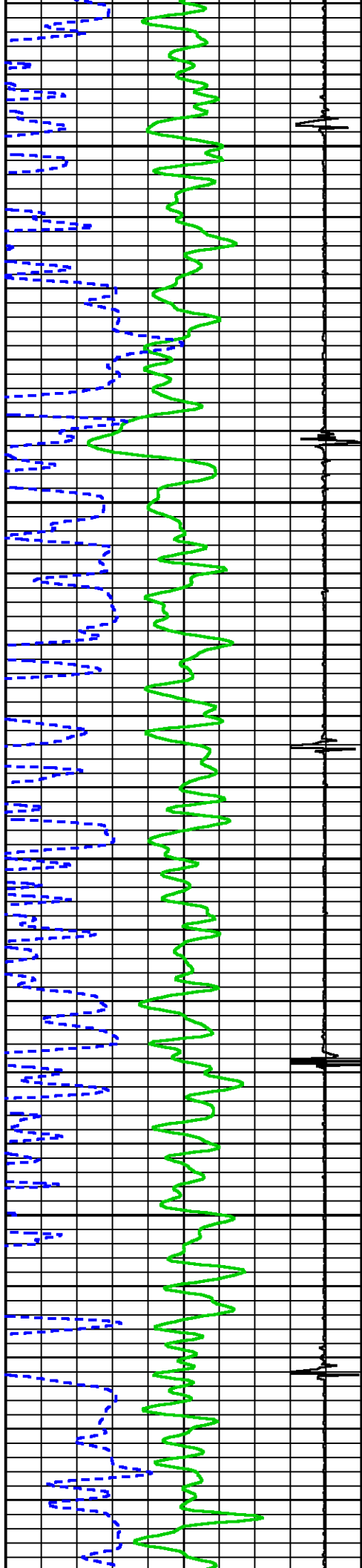
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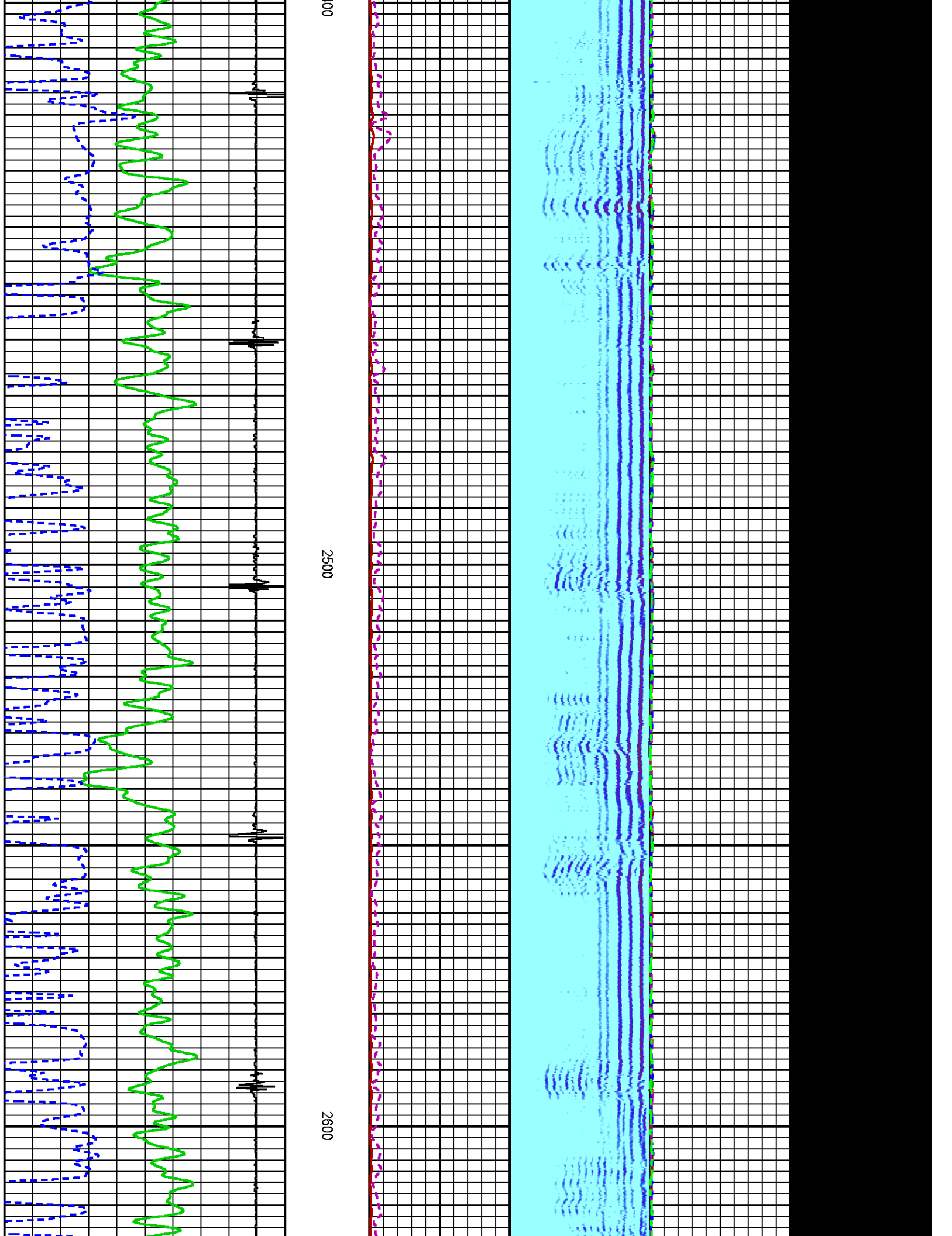


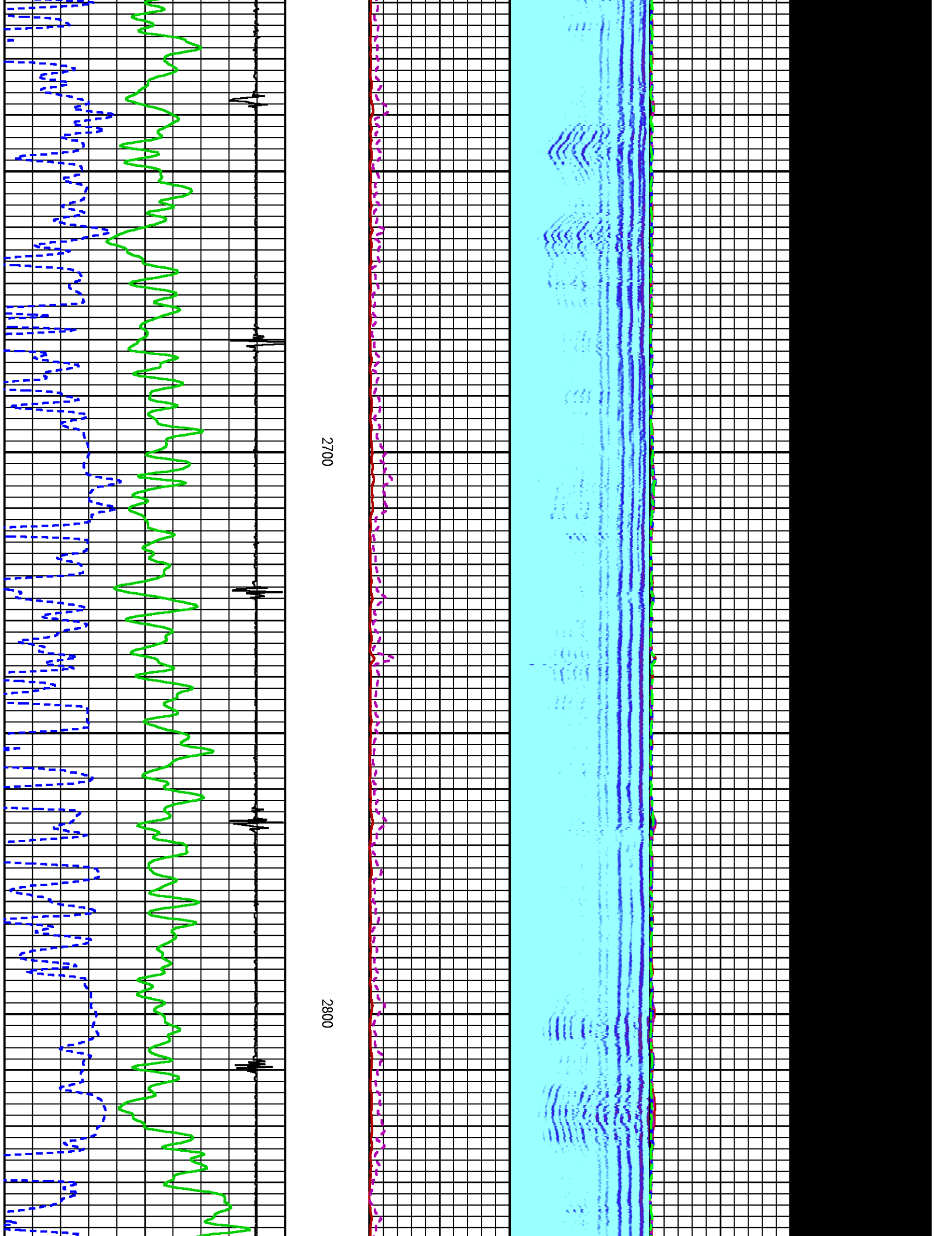
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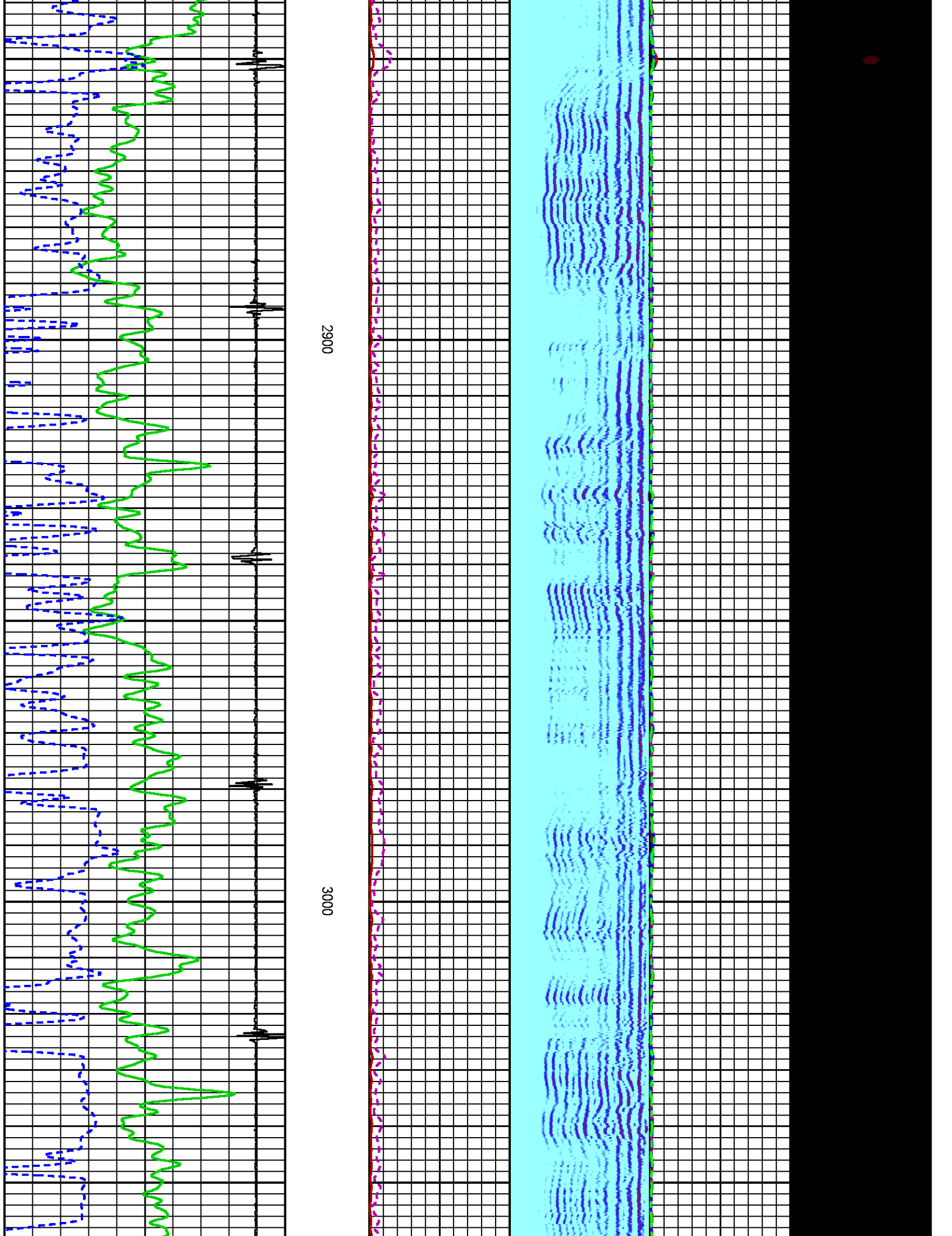
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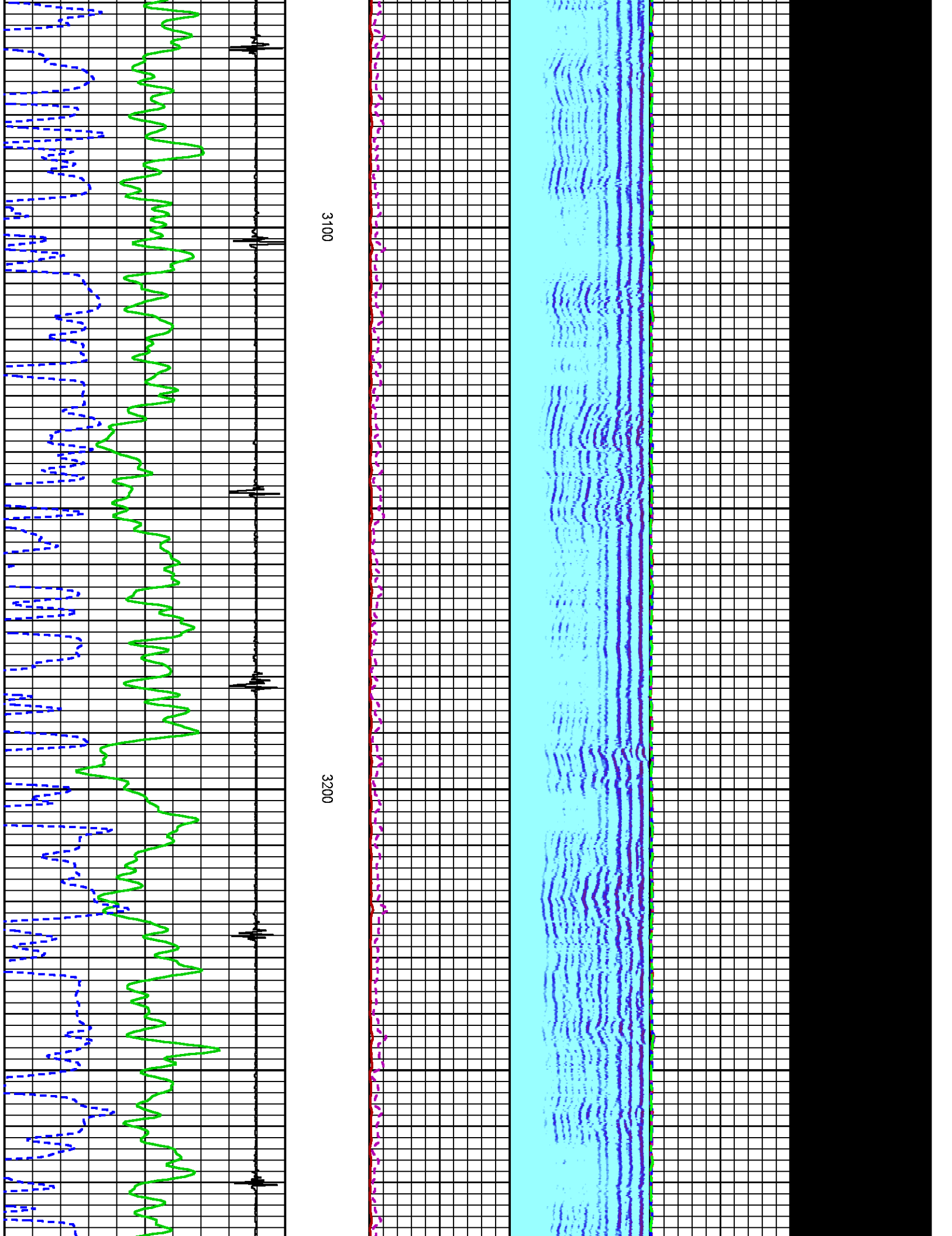
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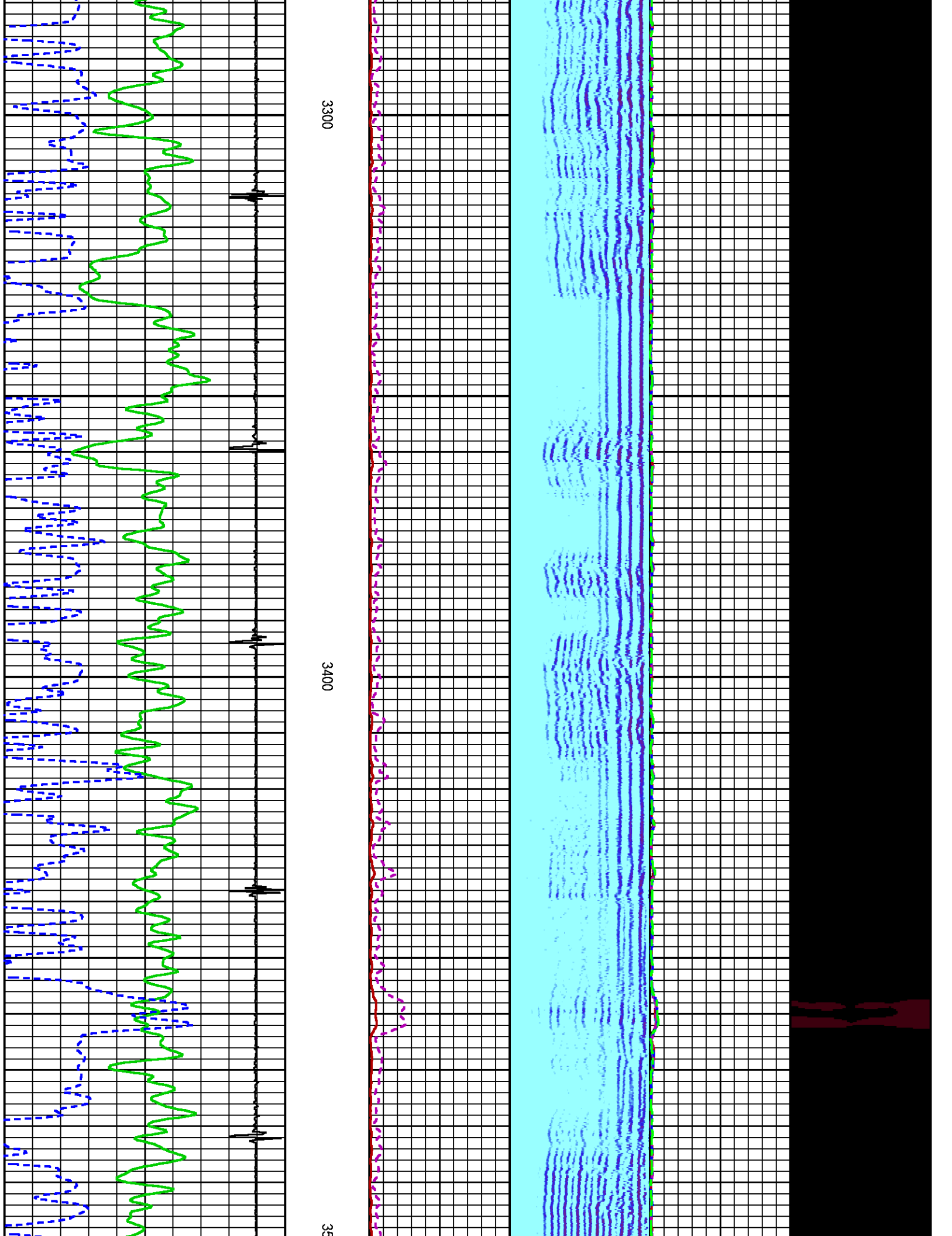


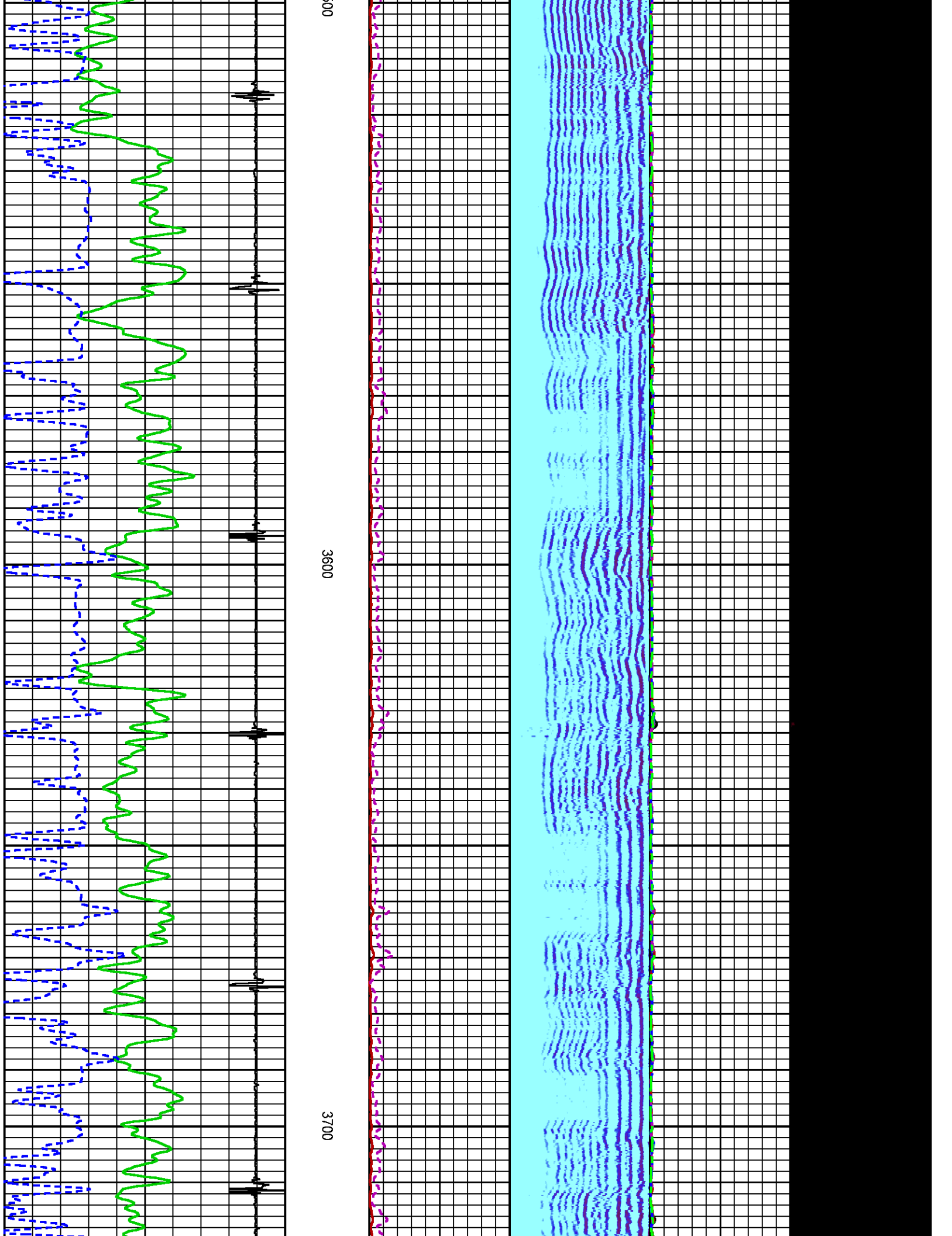


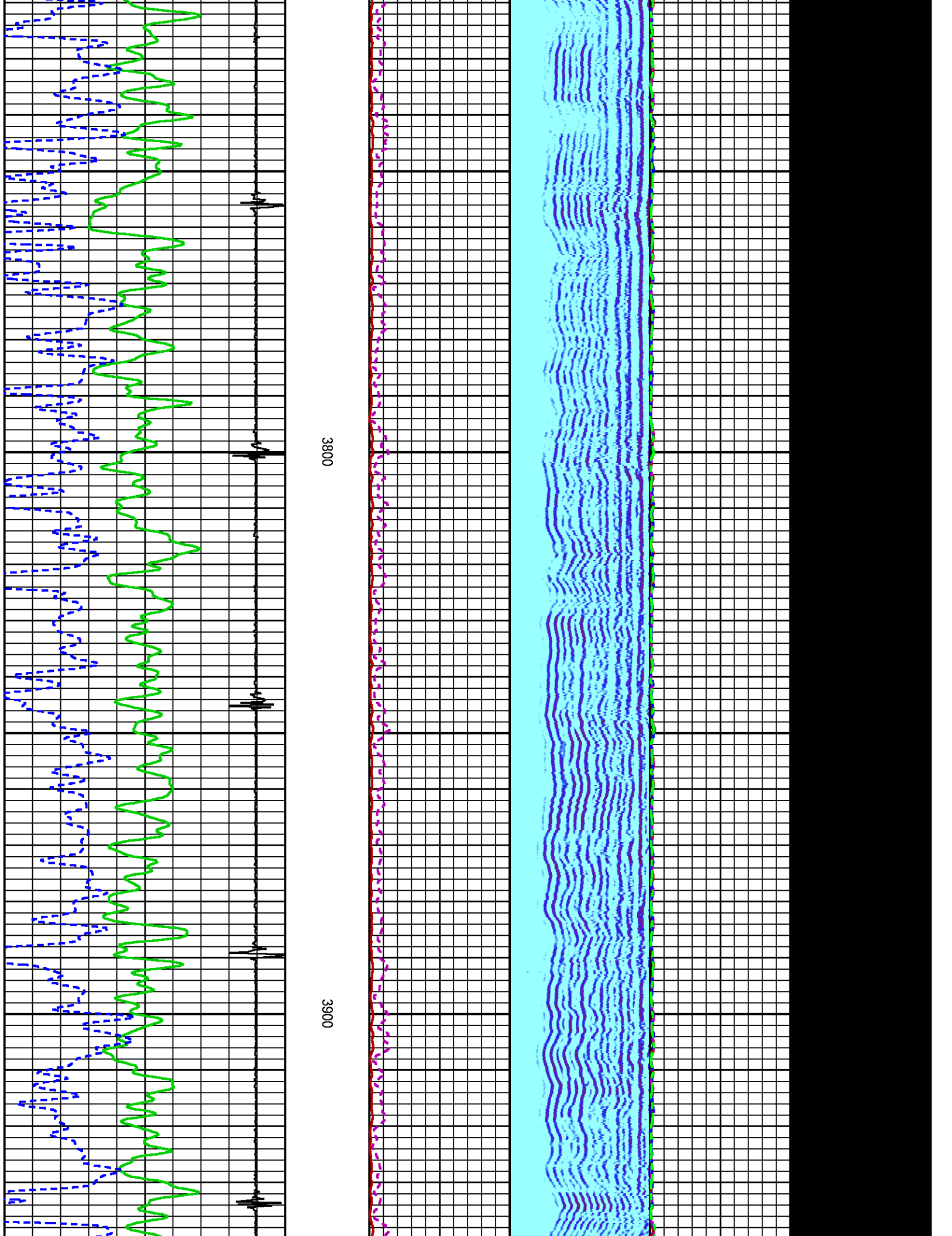


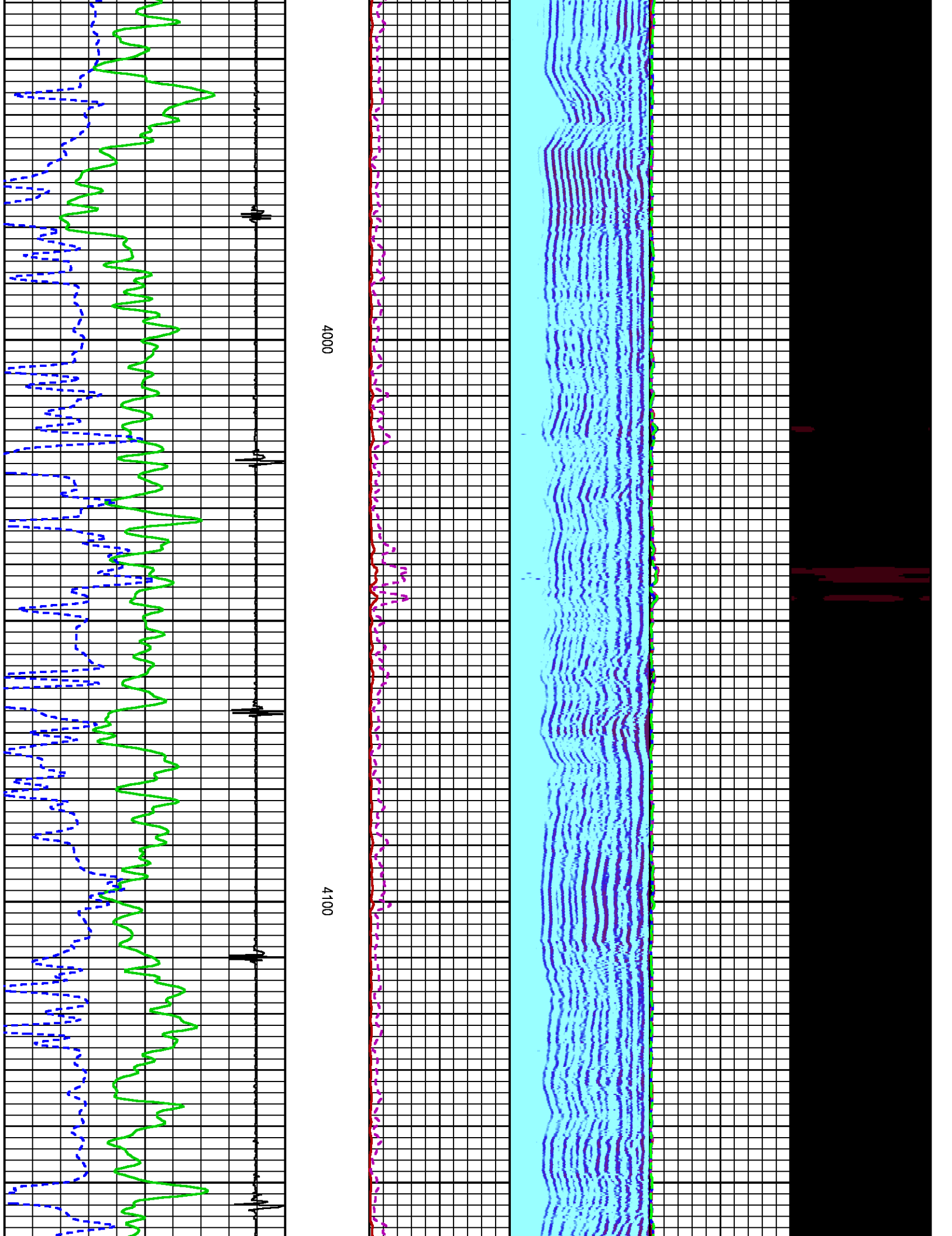


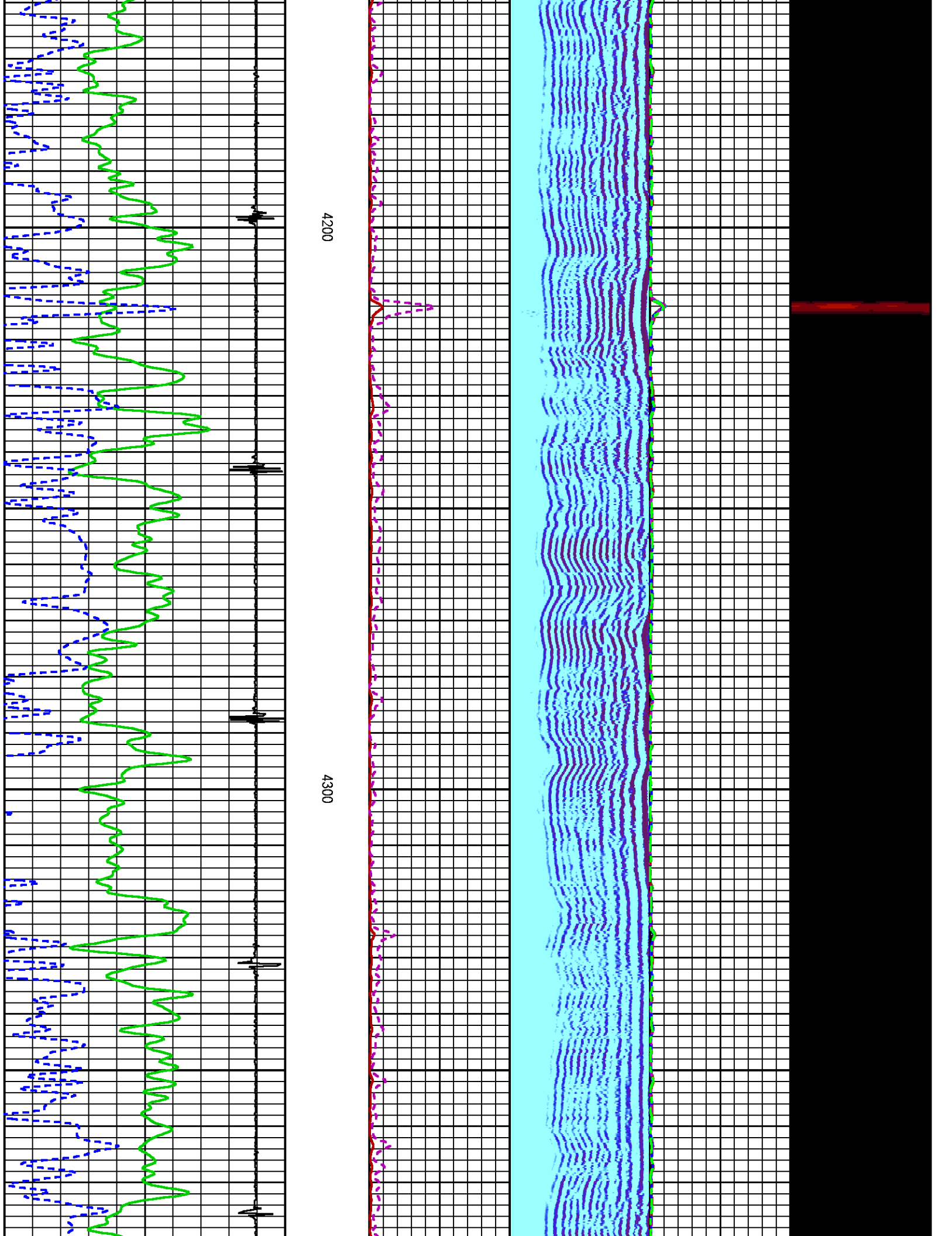


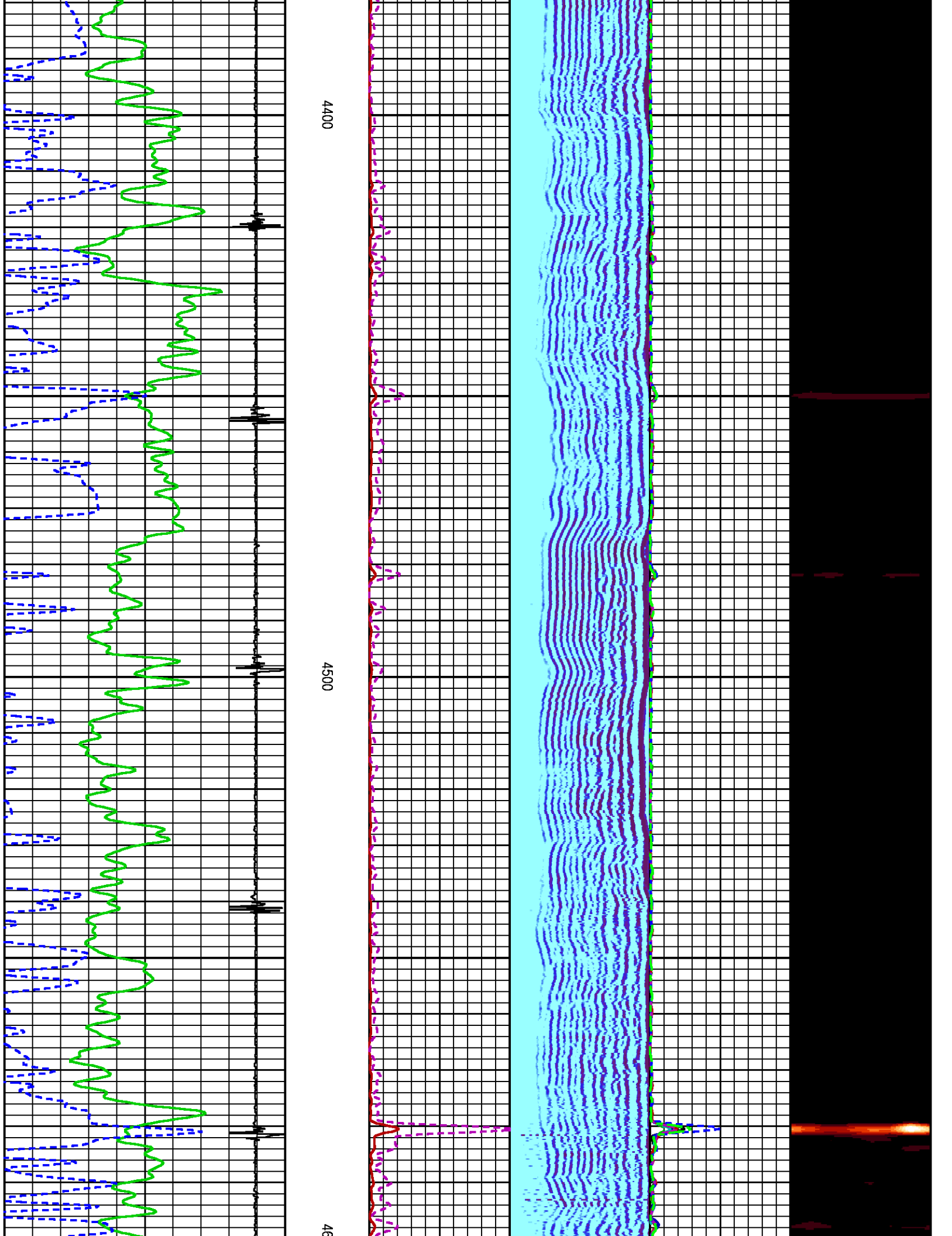


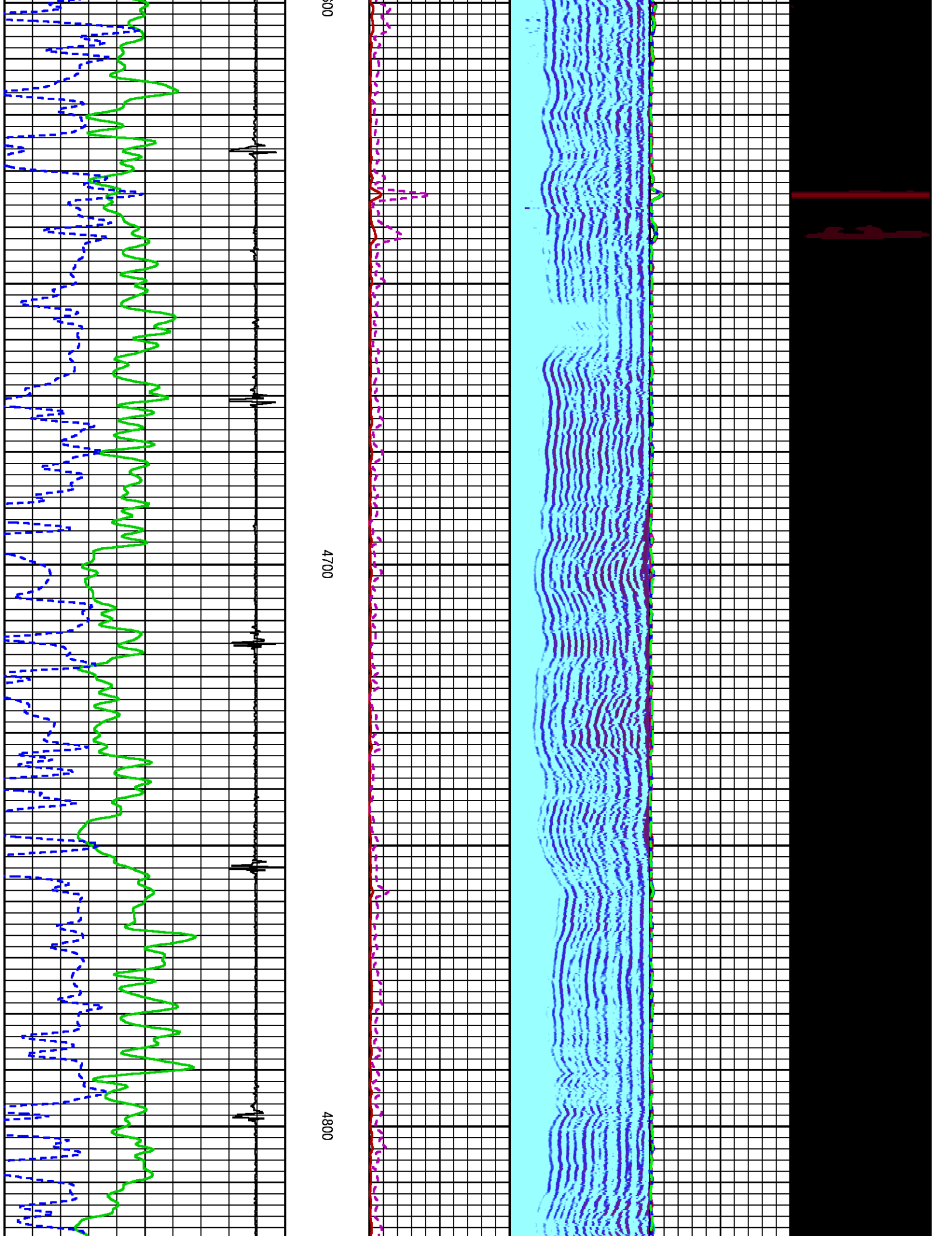


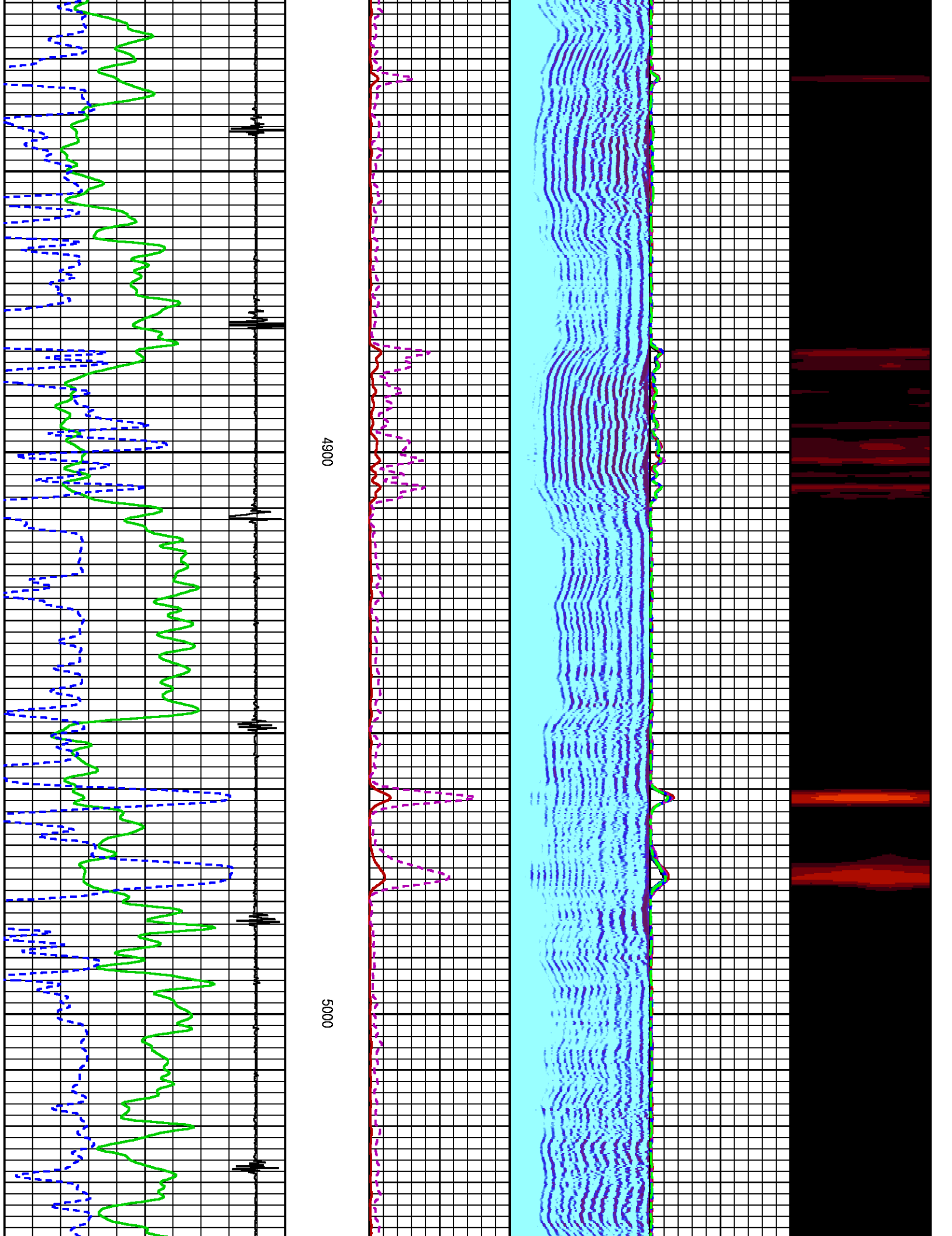


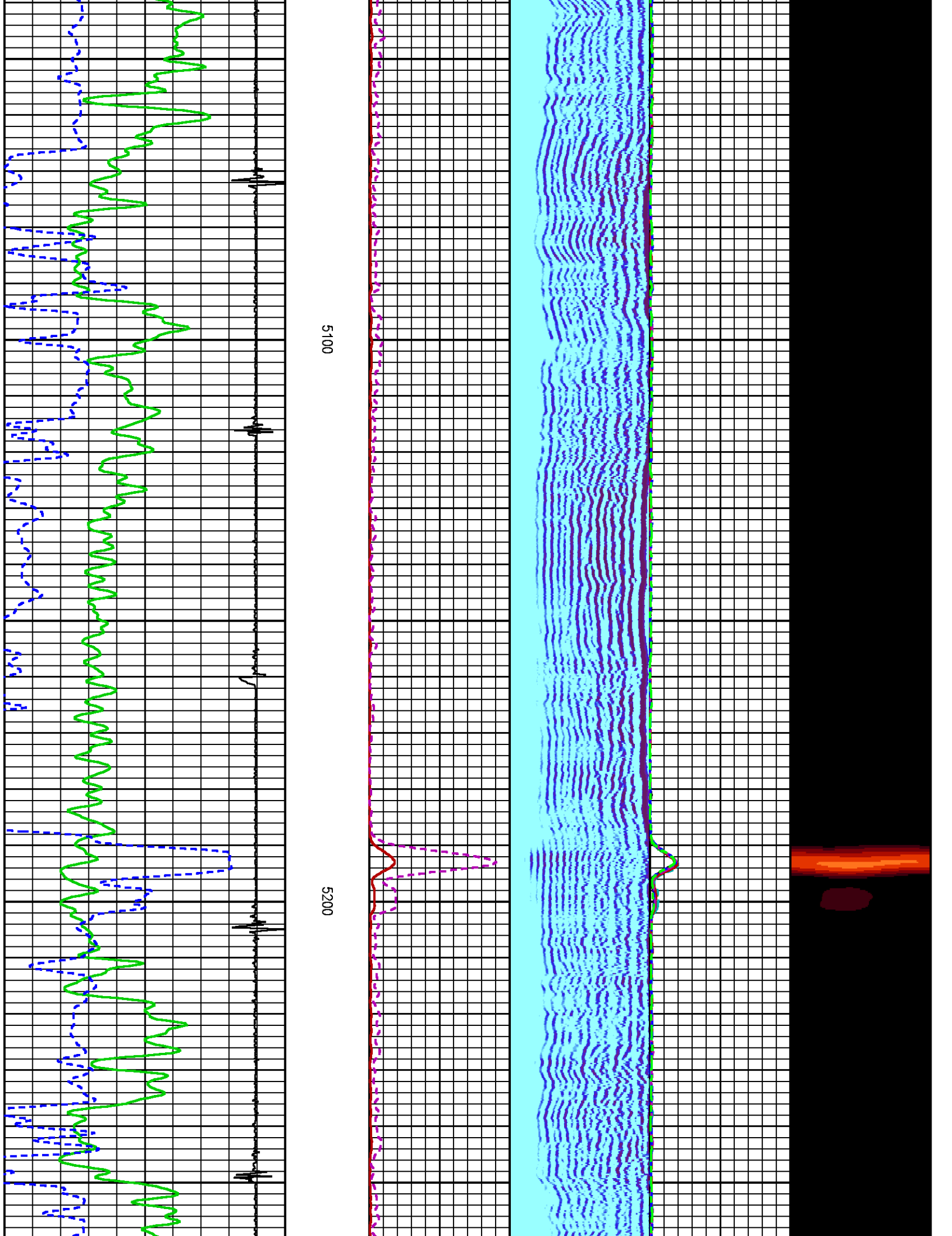


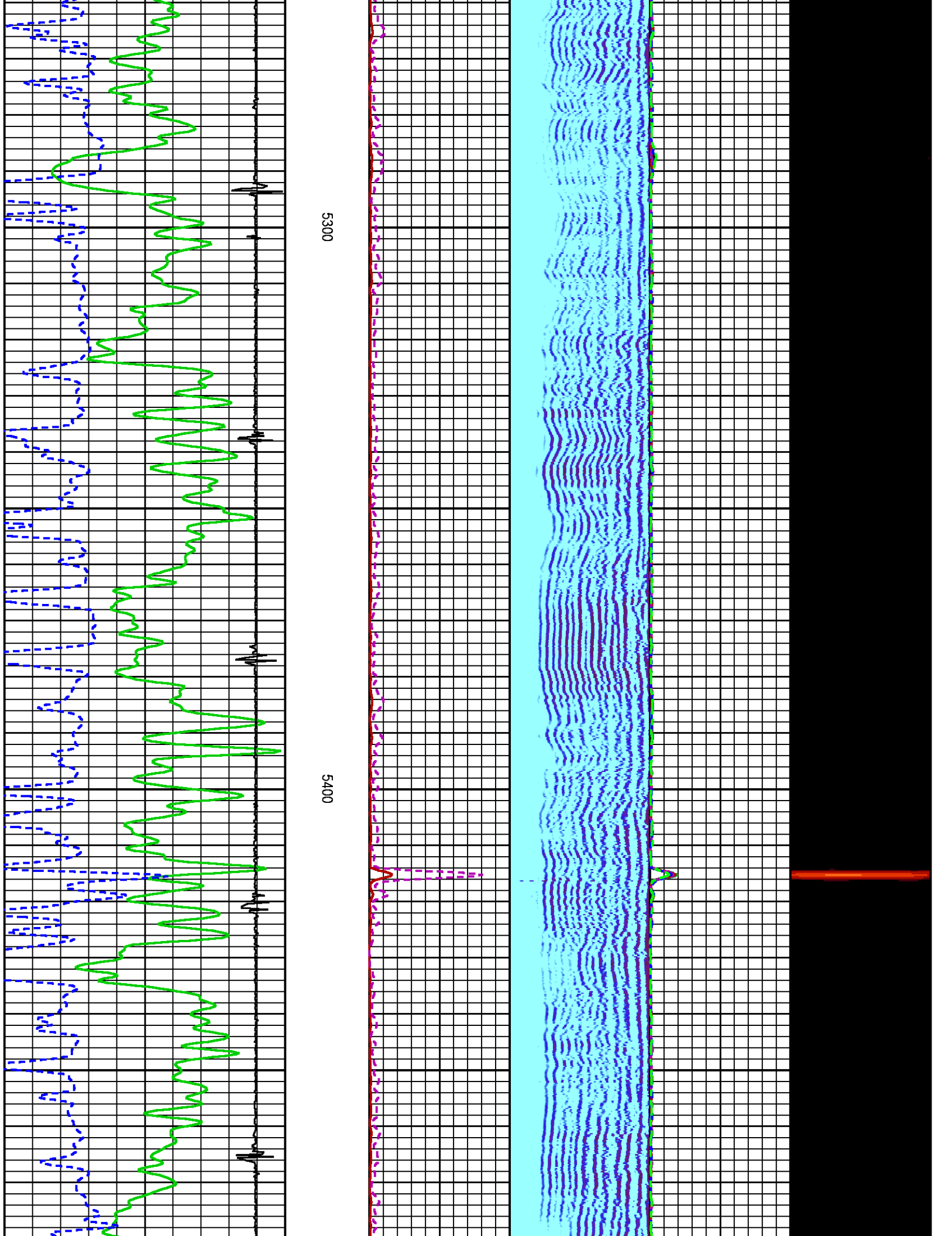


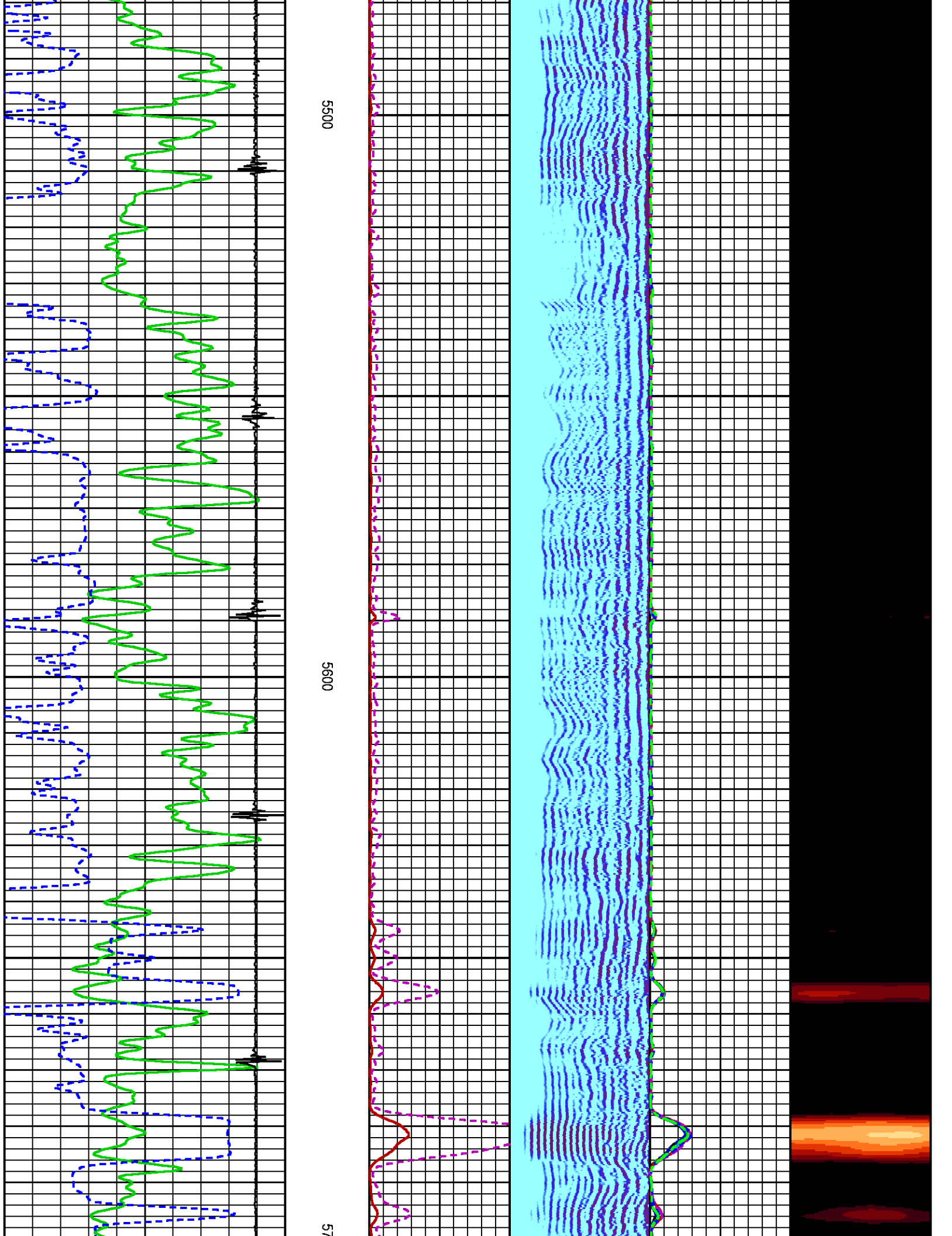


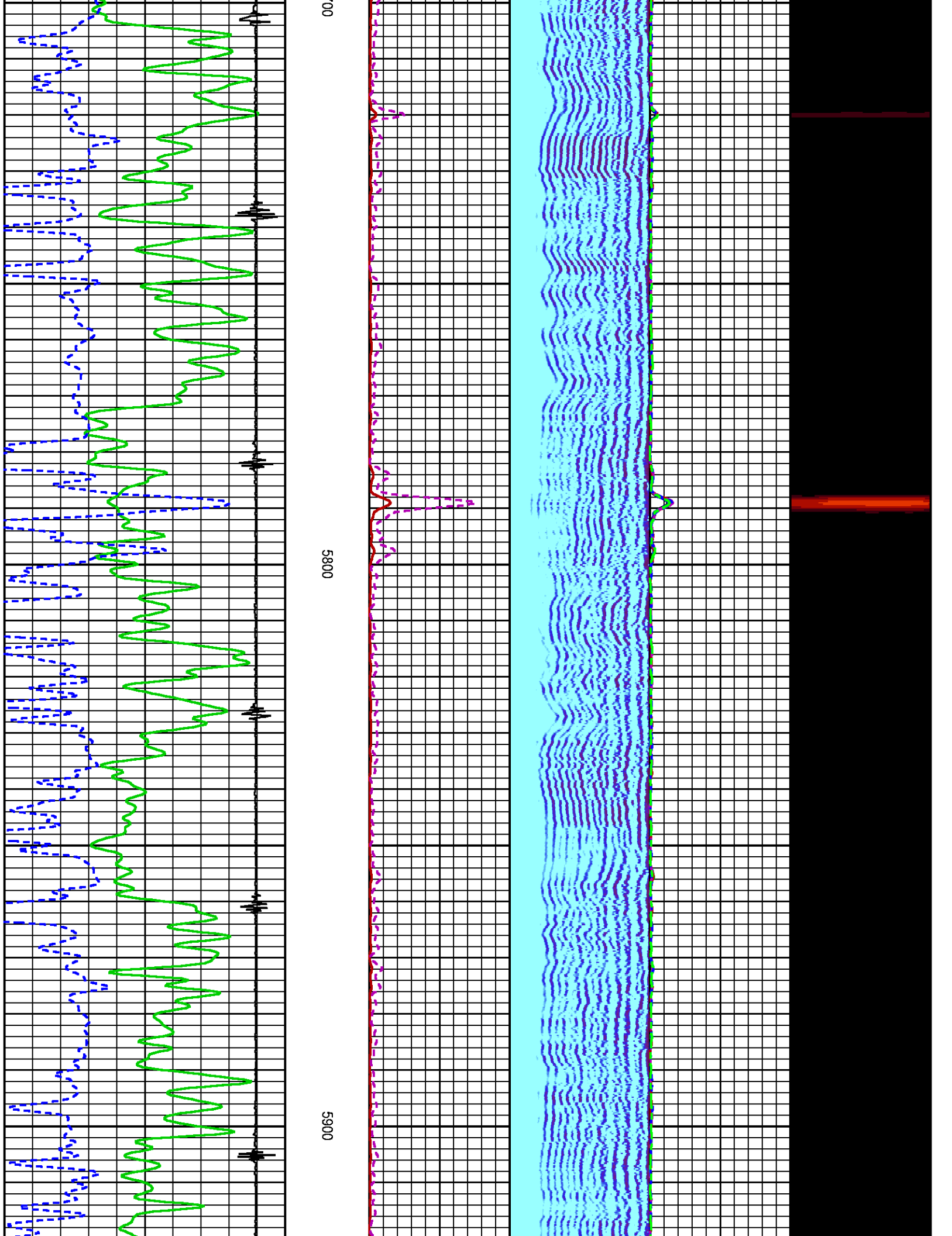


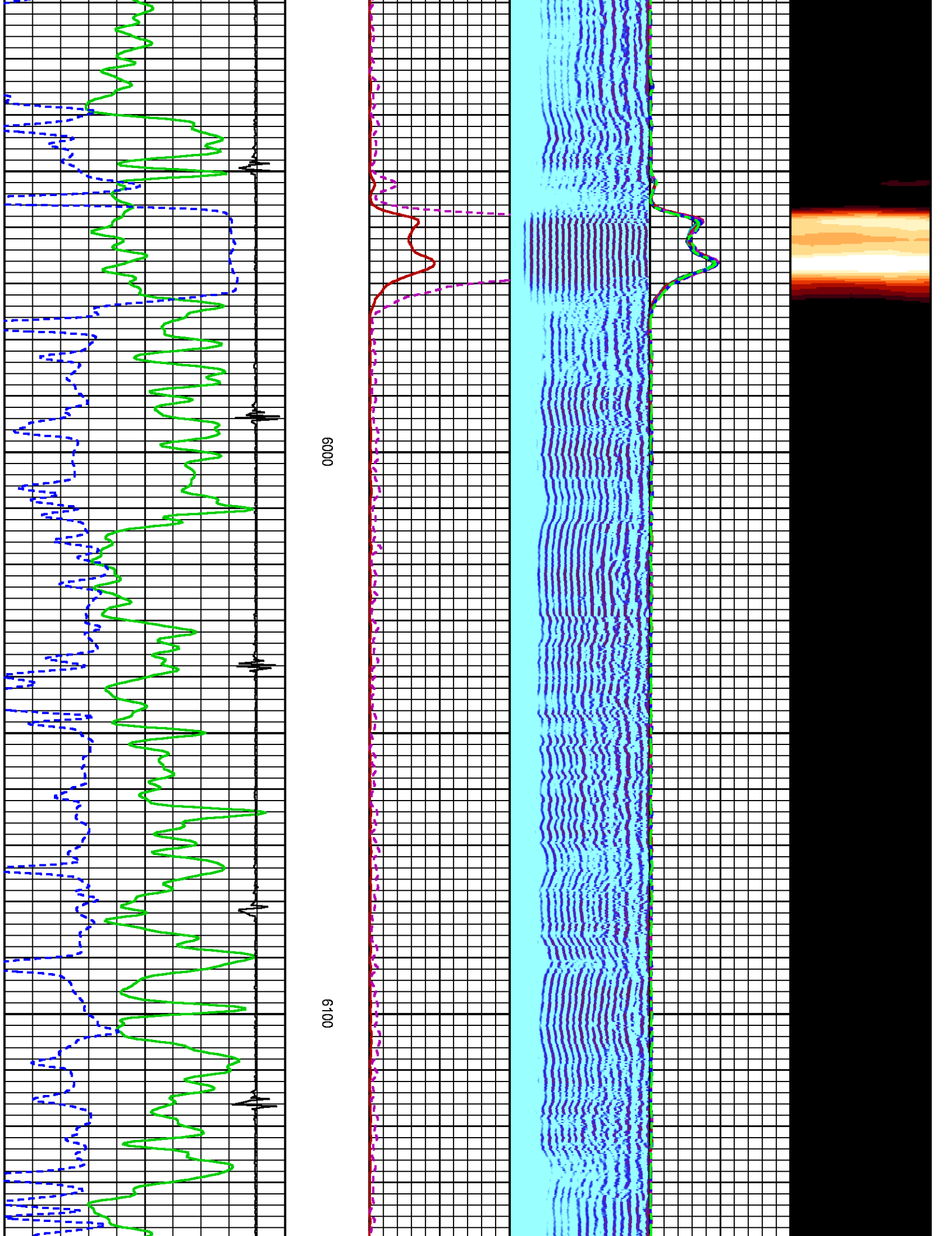


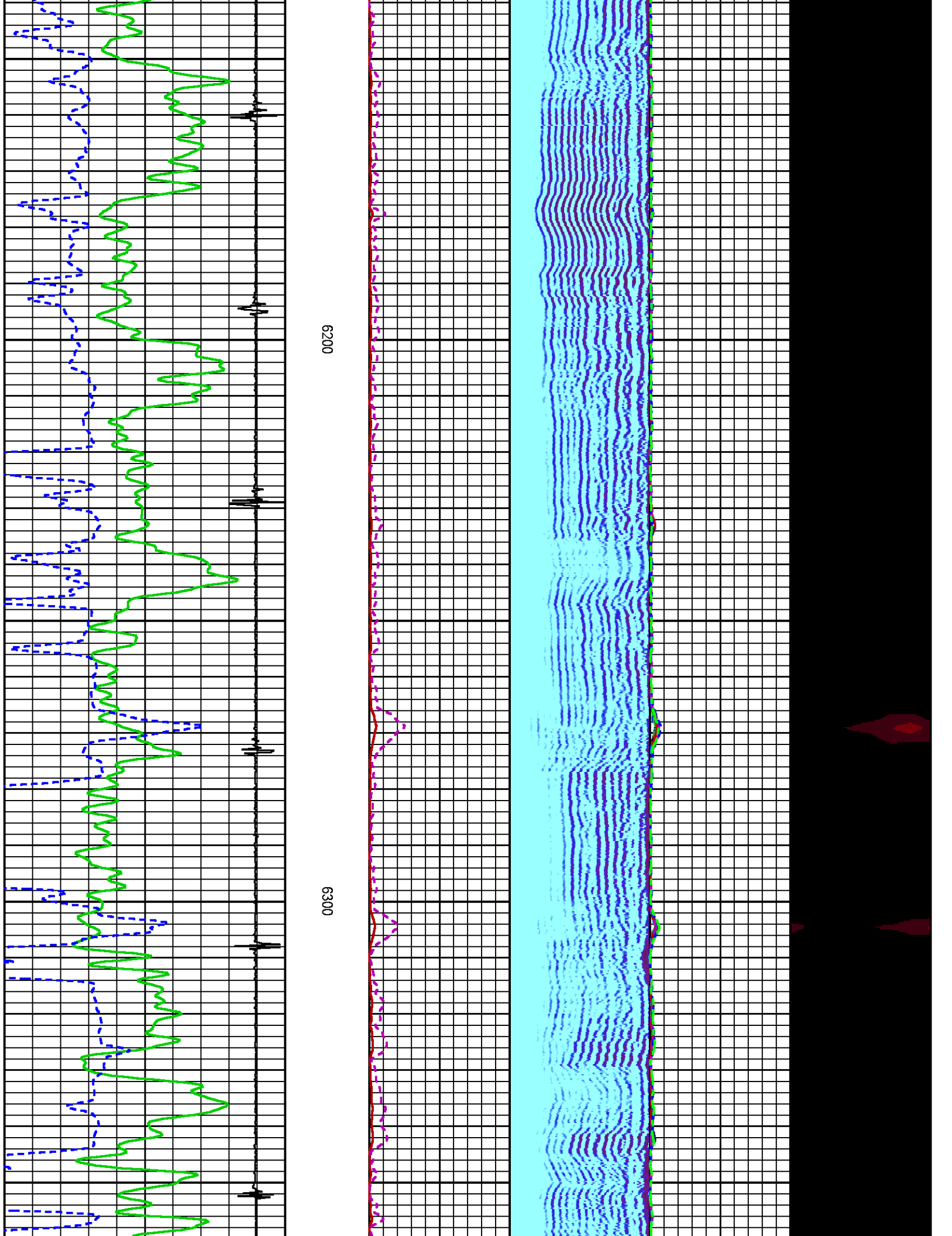


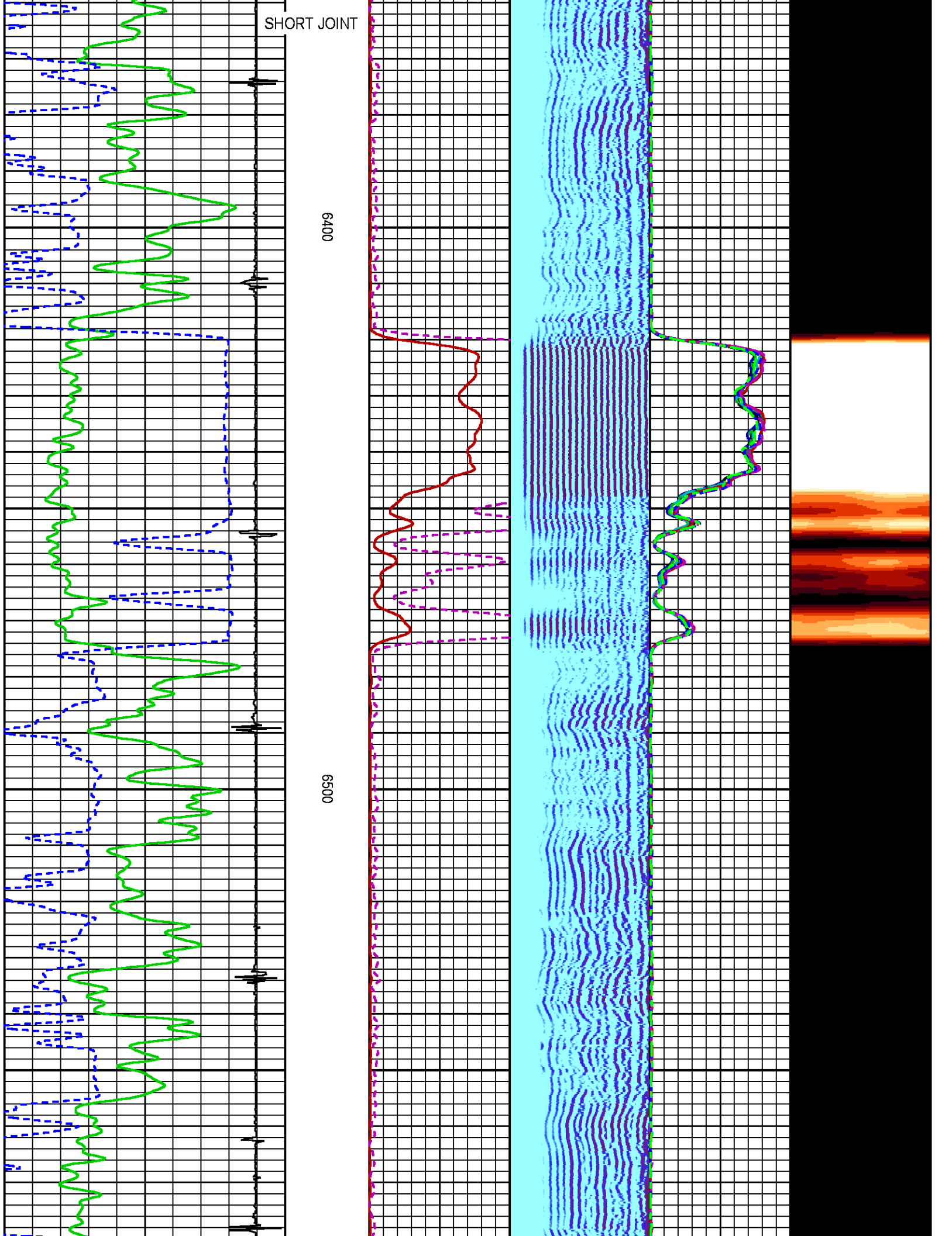


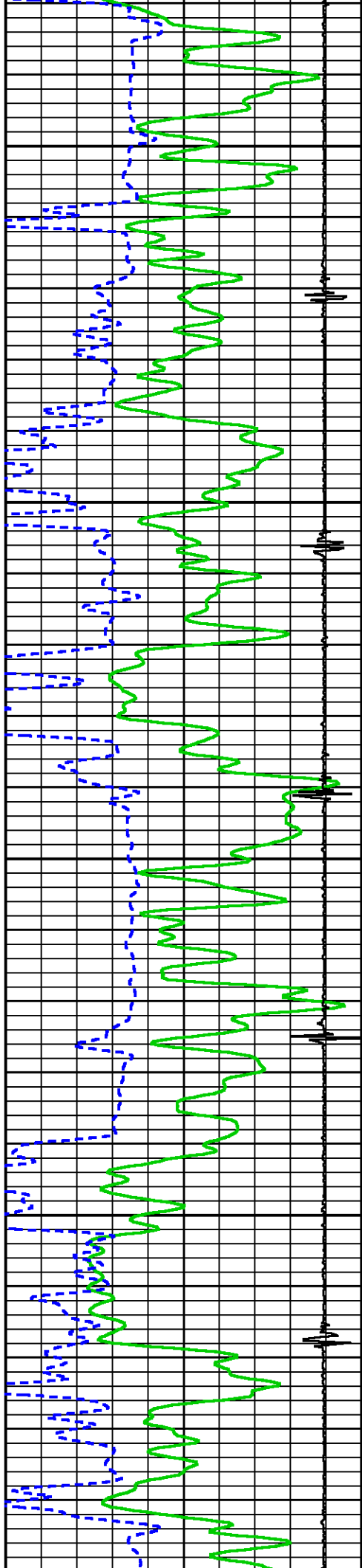








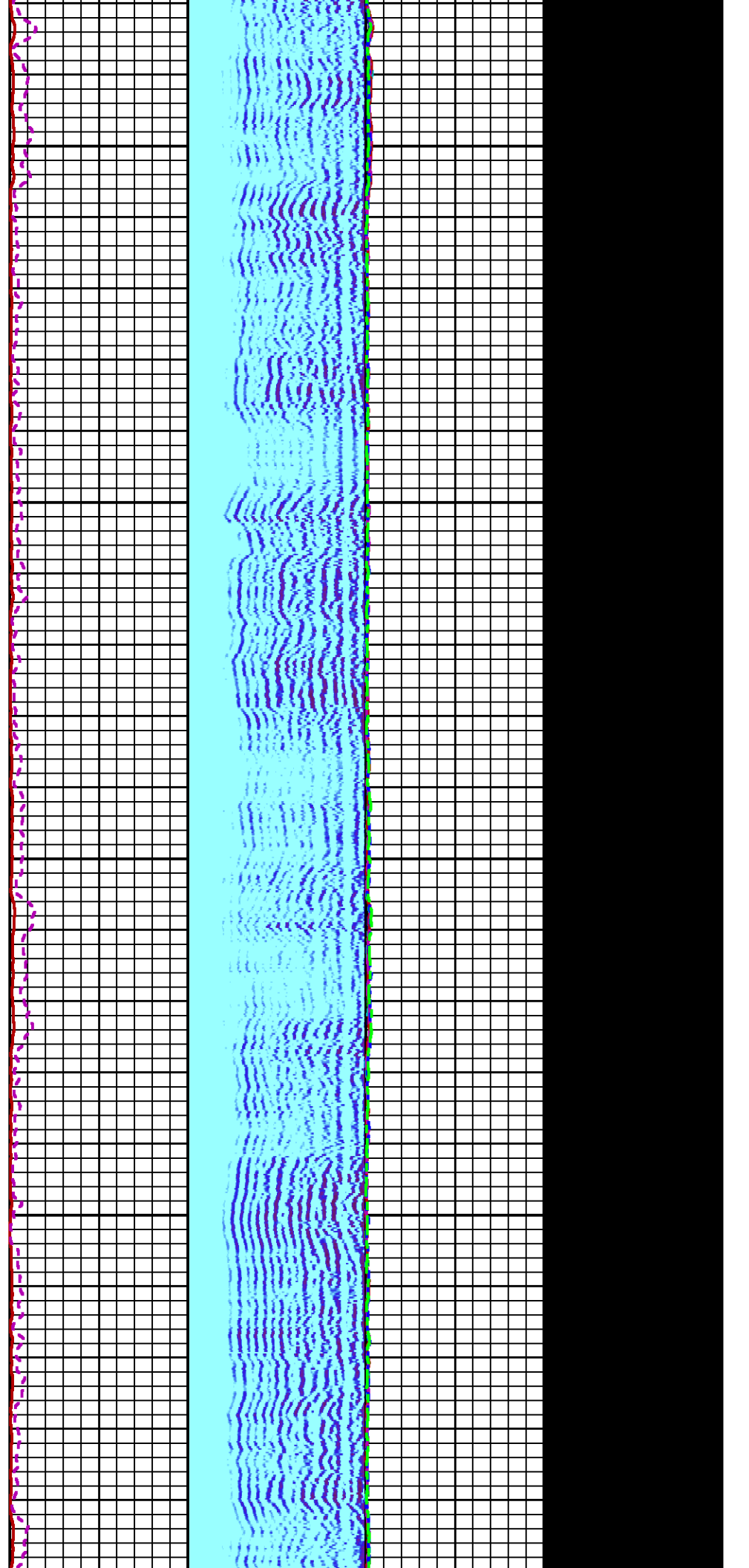


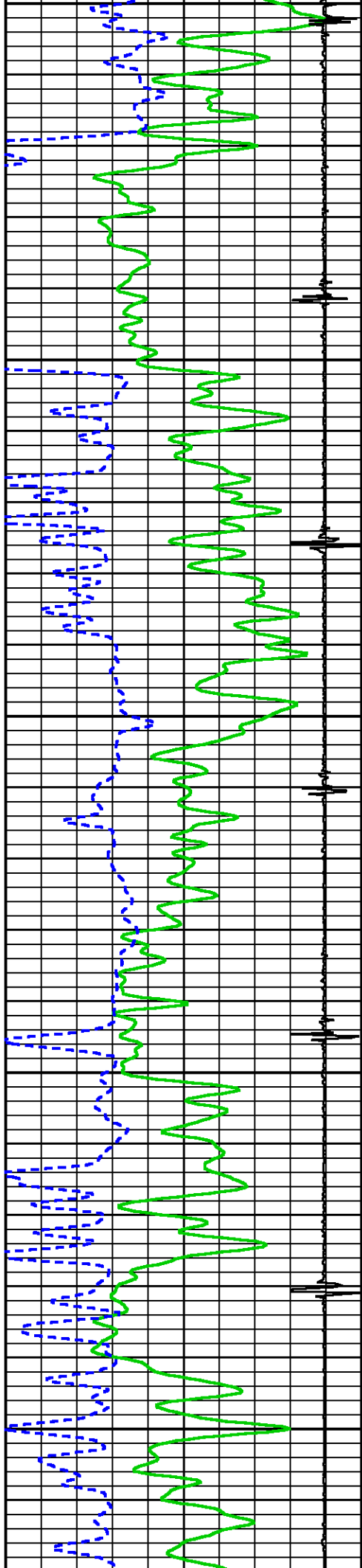


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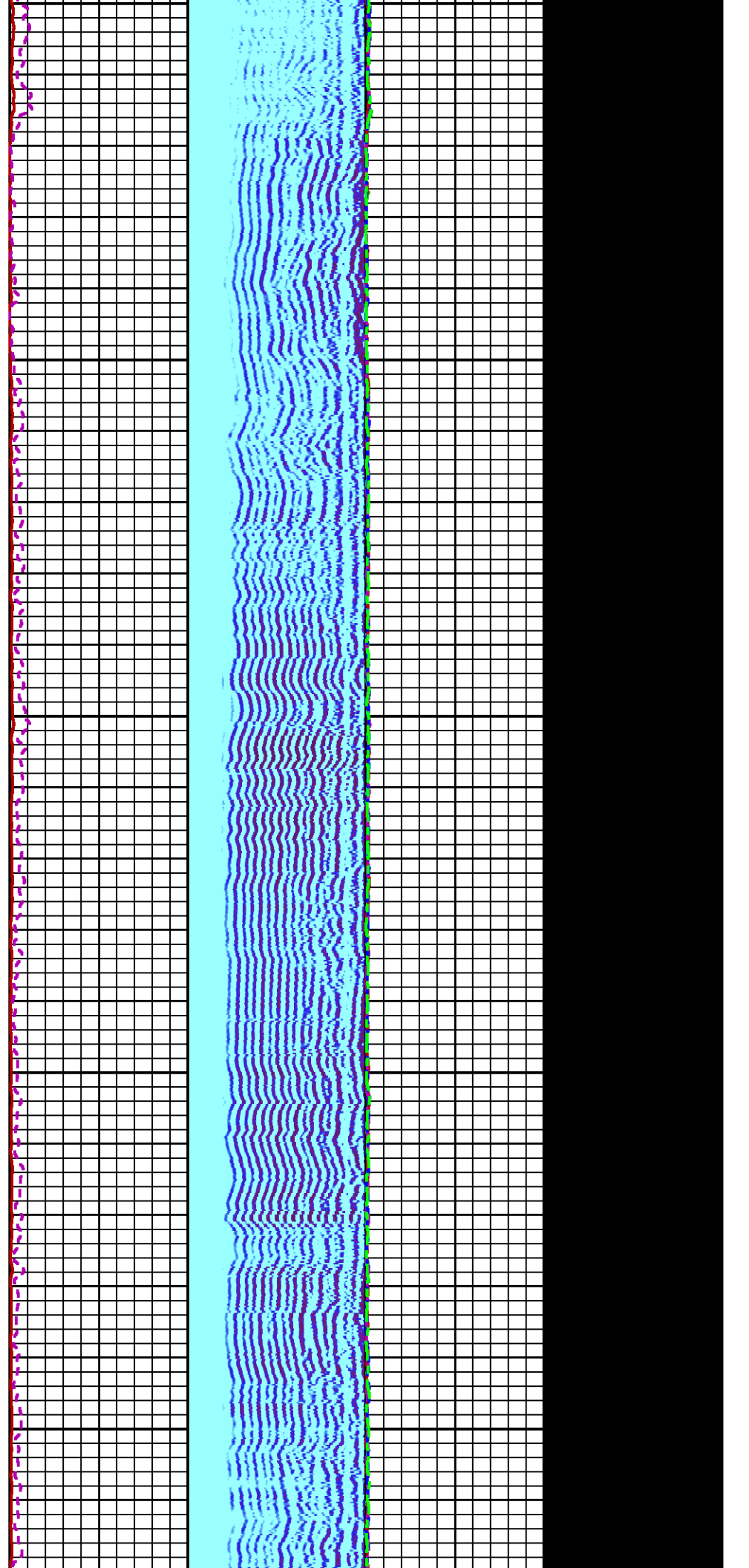


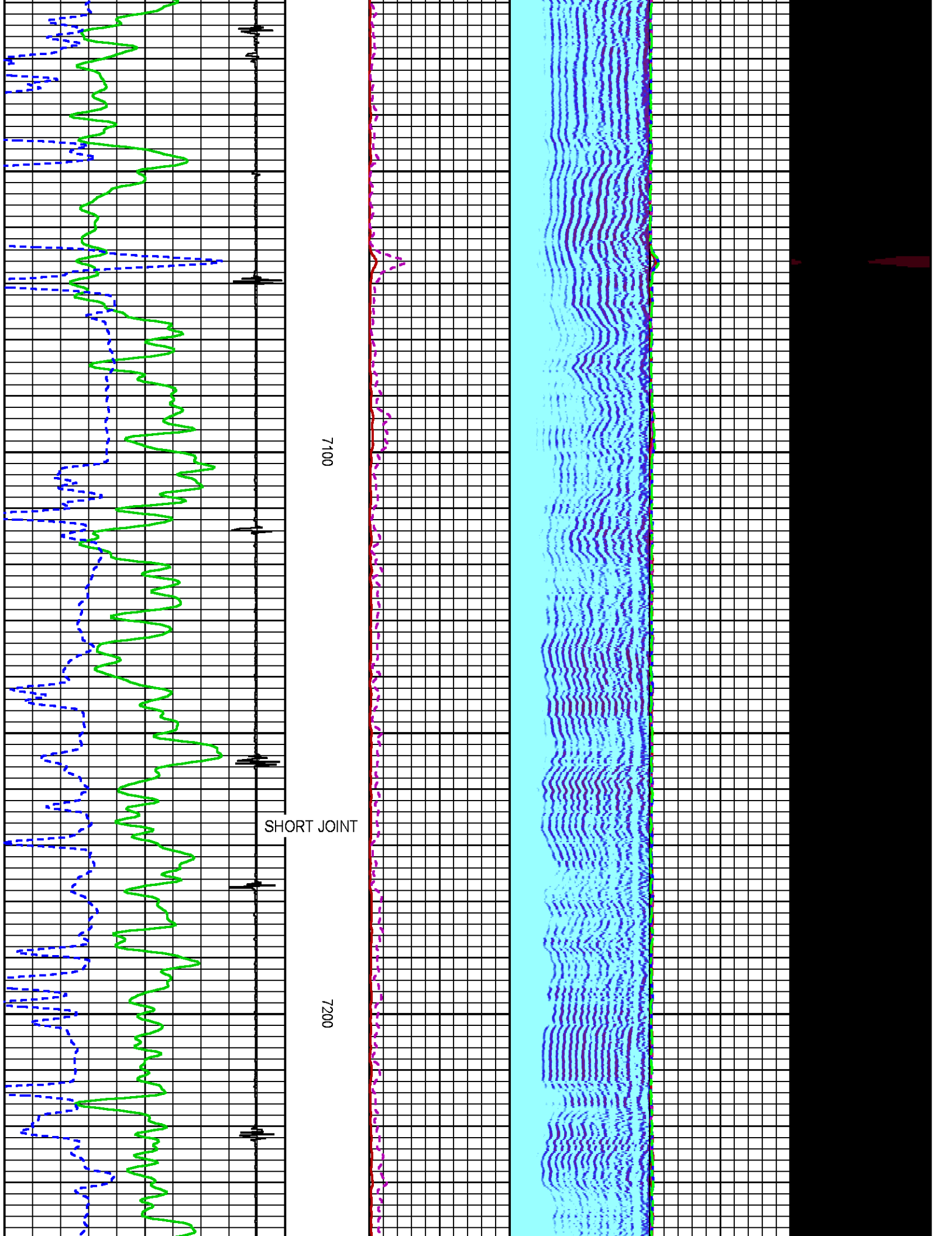


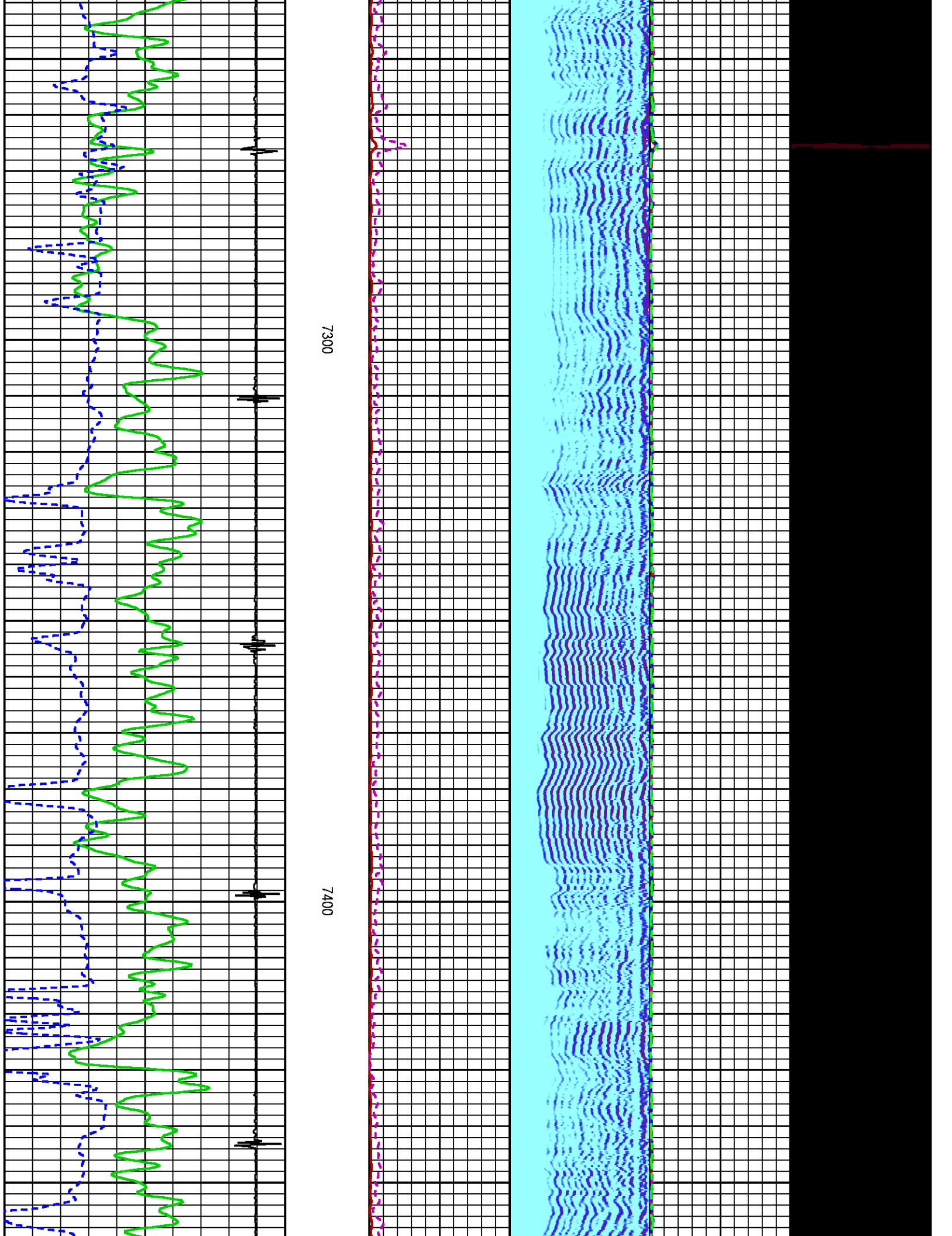
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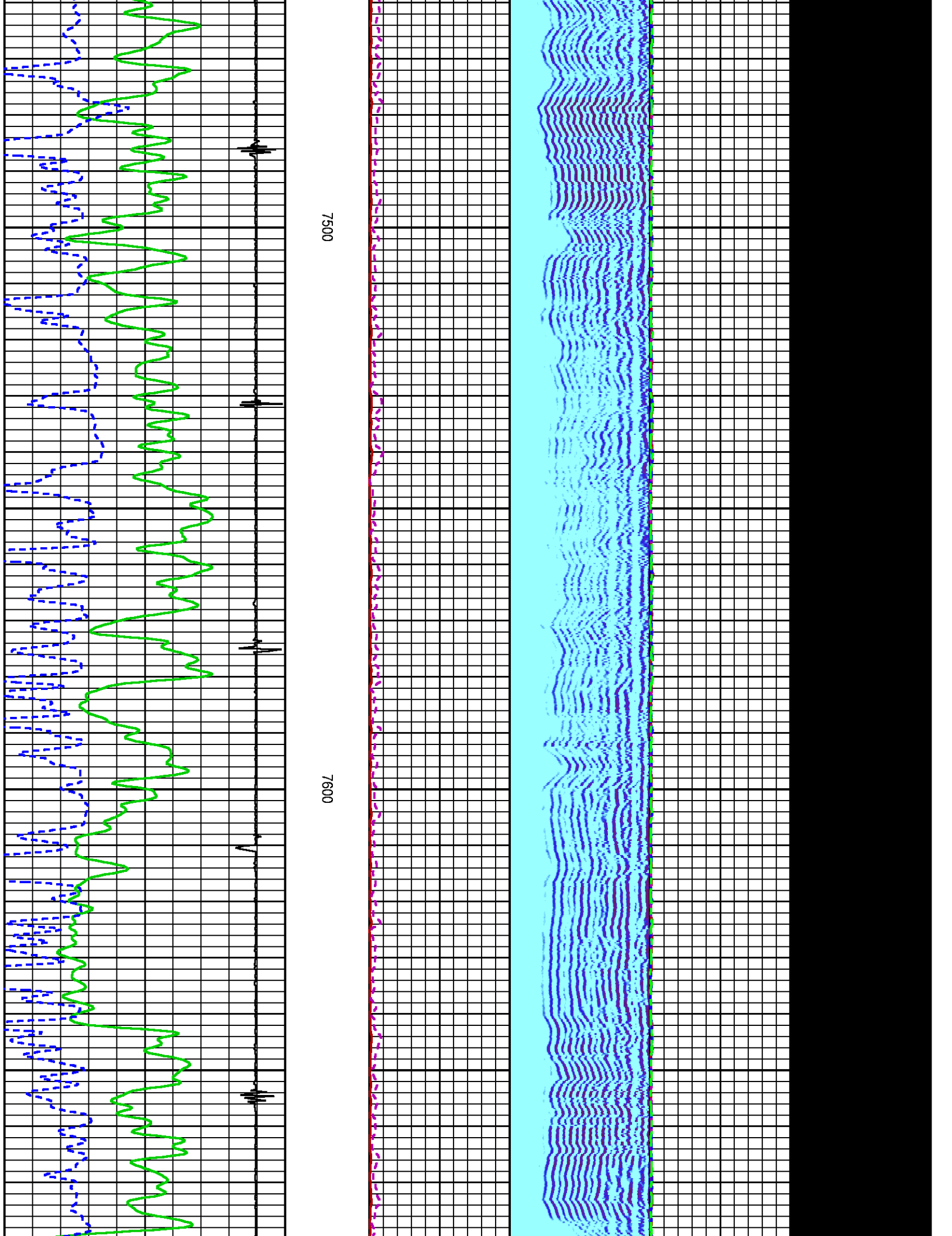
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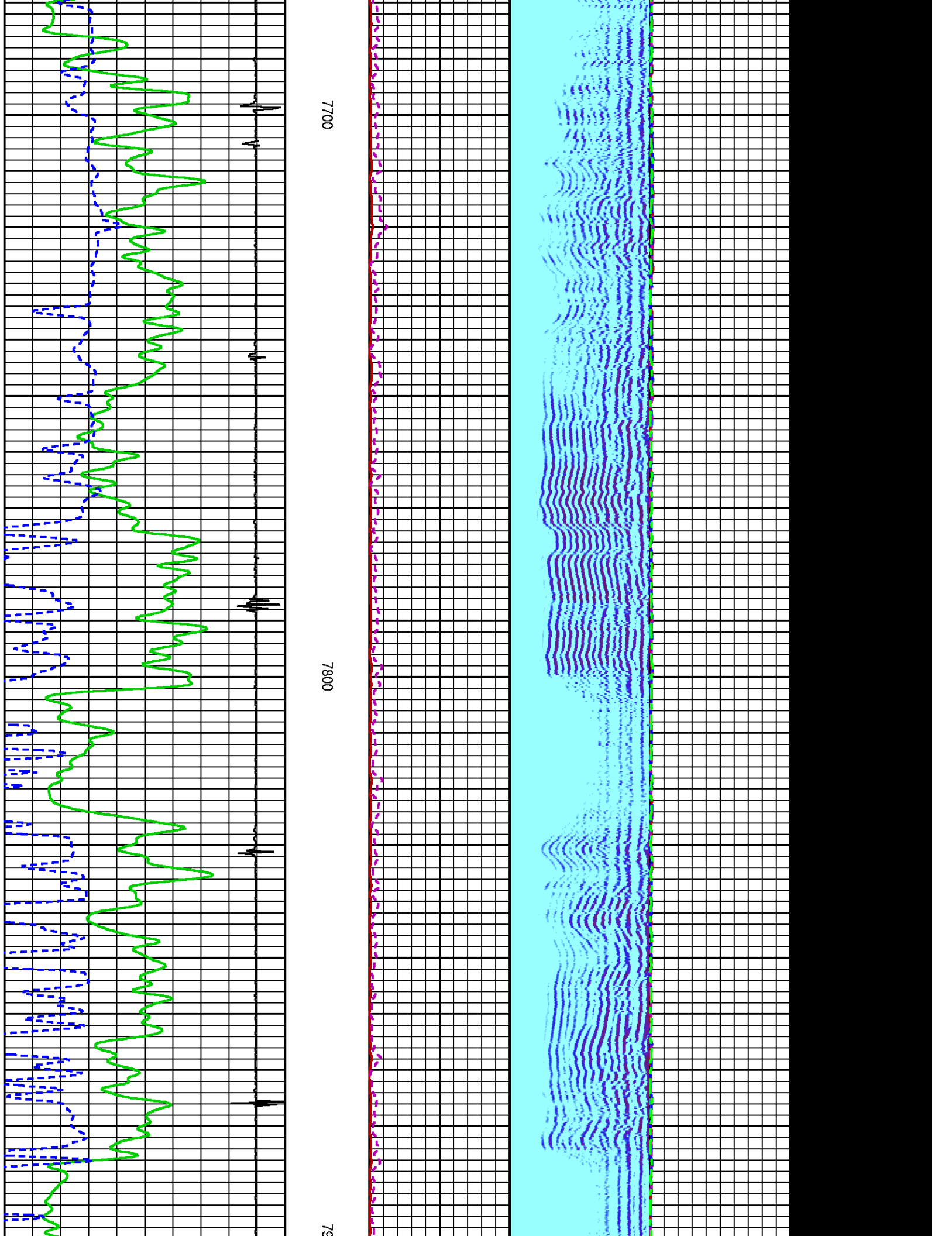
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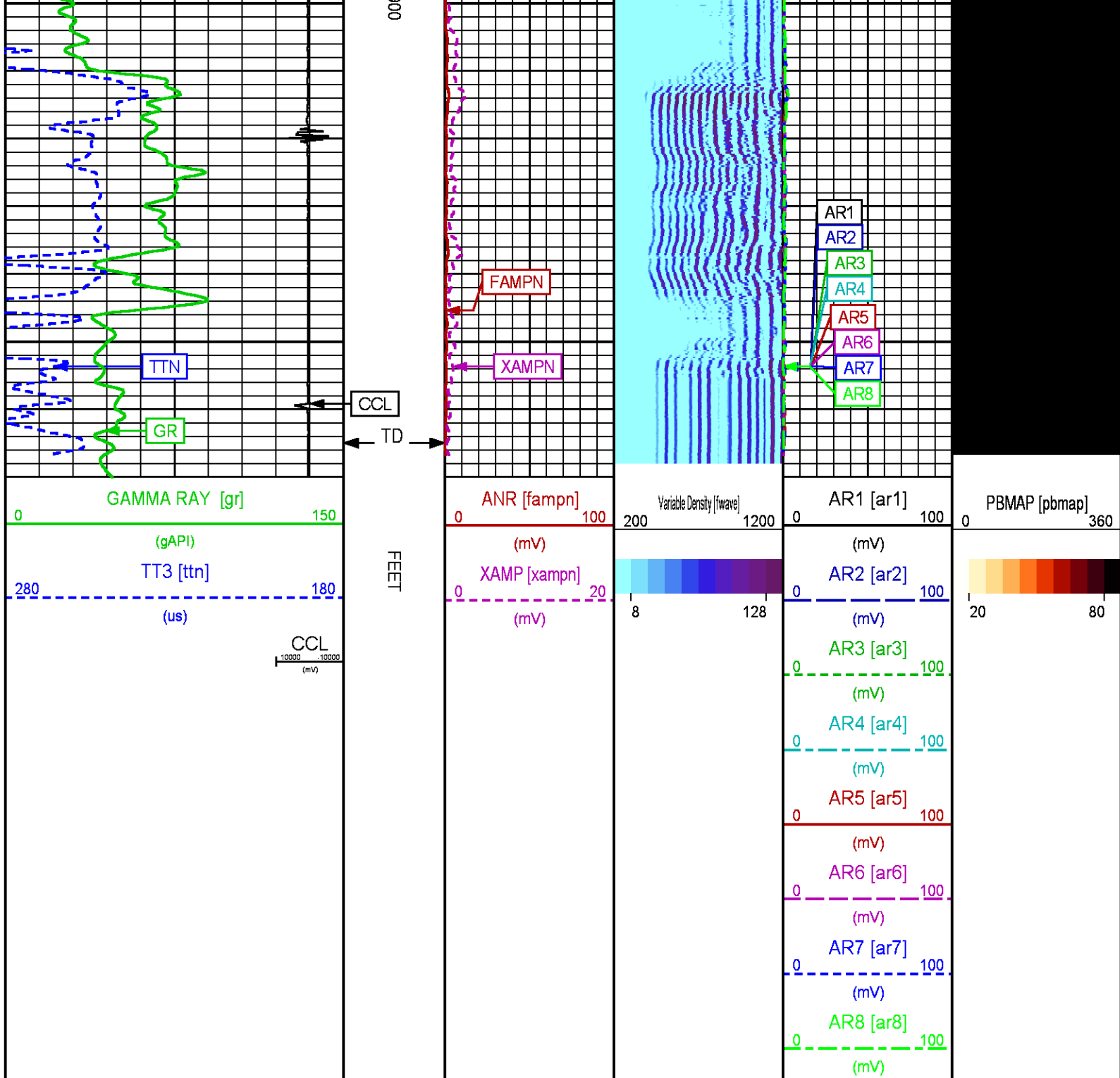












REPEAT PRESENTATION 0 PSI

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

Plotted: Fri Oct 23 08:48:25 2015

PARAMETER AND FILTER SUMMARY REPORT

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*)	185	us	TOP	BOTTOM
	AMP WINDOW START (fgp2*)	185	us	"	"
	AMP WINDOW START (fgp3*)	185	us	"	"
	AMP WINDOW START (fgp4*)	185	us	"	"
	AMP WINDOW START (fgp5*)	185	us	"	"
	AMP WINDOW START (fgp6*)	185	us	"	"
	AMP WINDOW START (fgp7*)	185	us	"	"
	AMP WINDOW START (fgp8*)	185	us	"	"
	AMP WINDOW START (fgpn*)	185	us	"	"
	AMP WINDOW LENGTH	30	us	"	"
TRAVEL TIME WINDOW (NEAR)	TT WINDOW START (ttn*)	172	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*)	-71	us	"	"
	TOOL DELAY (str2*)	-71	us	"	"
	TOOL DELAY (str3*)	-71	us	"	"
	TOOL DELAY (str4*)	-71	us	"	"
	TOOL DELAY (str5*)	-71	us	"	"
	TOOL DELAY (str6*)	-71	us	"	"
	TOOL DELAY (str7*)	-71	us	"	"
	TOOL DELAY (str8*)	-71	us	"	"
	TOOL DELAY (strn*)	-71	us	"	"
BASELINE NOISE (NEAR)	NOISE WINDOW START	125	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 23 08:17:18 2015	FIXED GATE AMPLITUDE T-R1
F1:AR2	Oct 23 08:17:18 2015	FIXED GATE AMPLITUDE T-R2
F1:AR3	Oct 23 08:17:18 2015	FIXED GATE AMPLITUDE T-R3
F1:AR4	Oct 23 08:17:18 2015	FIXED GATE AMPLITUDE T-R4
F1:AR5	Oct 23 08:17:18 2015	FIXED GATE AMPLITUDE T-R5
F1:AR6	Oct 23 08:17:18 2015	FIXED GATE AMPLITUDE T-R6

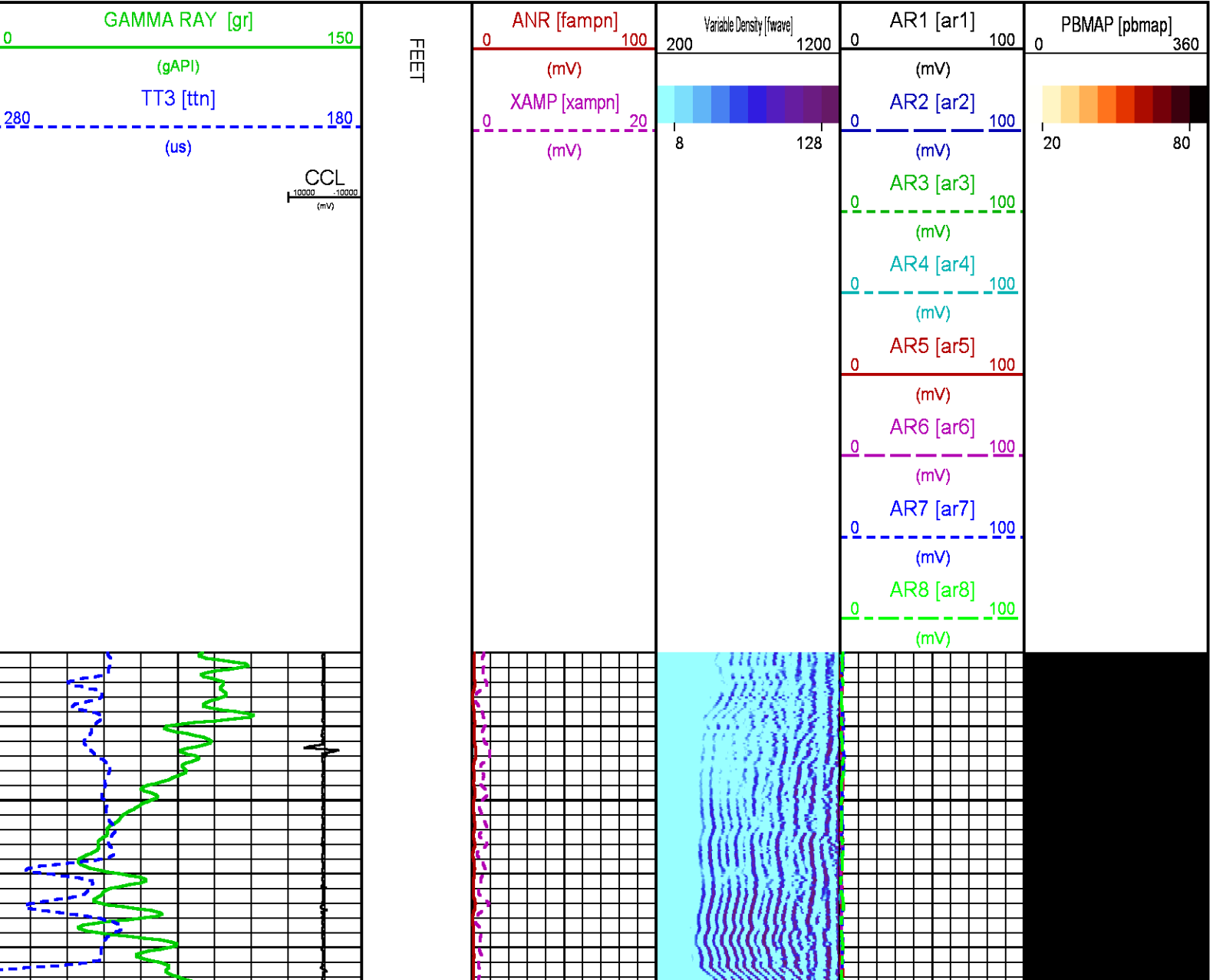
F1:AR7	Oct 23 08:17:18 2015	FIXED GATE AMPLITUDE T-R7
F1:AR8	Oct 23 08:17:18 2015	FIXED GATE AMPLITUDE T-R8
F1:CCL	Oct 23 08:17:18 2015	CASING COLLAR LOCATOR
F1:FAMPN	Oct 23 08:17:18 2015	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Oct 23 08:17:18 2015	FAR WAVE FORM
F1:GR	Oct 23 08:17:18 2015	GAMMA RAY
F1:PBMAP	Oct 23 08:17:18 2015	PERCENT BOND CEMENT MAP
F1:TTN	Oct 23 08:17:18 2015	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Oct 23 08:17:18 2015	FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE

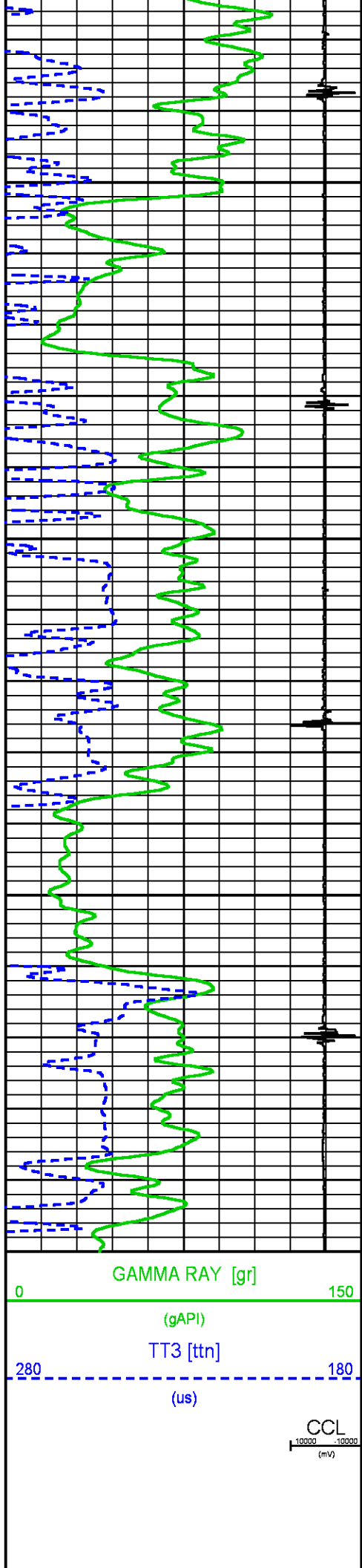
CURVE MEASURE POINT OFFSET

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 : HL6670:/dat1a/CH100243/5M_CBL_REPEAT.fvpdf [5"/100' Scale]
Plot Interval : 7730 - 7950 Feet

Data File 1 : F1 : HL6670:/dat1a/CH100243/n012g01REPEAT5M.xtf
Created On : Oct 23 08:17:18 2015
Company : LARAMIE ENERGY
Well : PICEANCE FEDERAL 28-5M
Field : VEGA
File Interval : 7695 - 7966 Feet
OCT : n012g

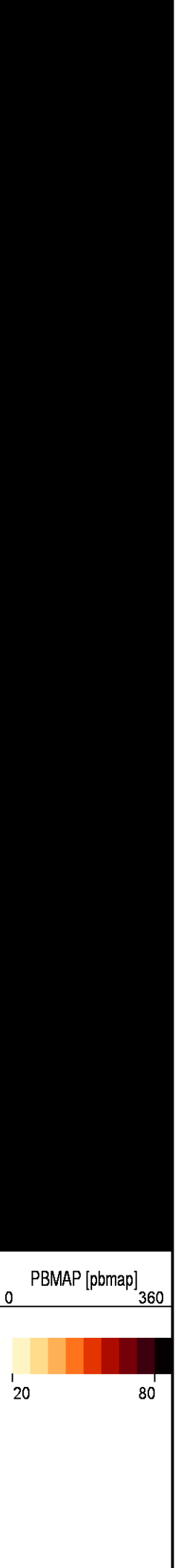
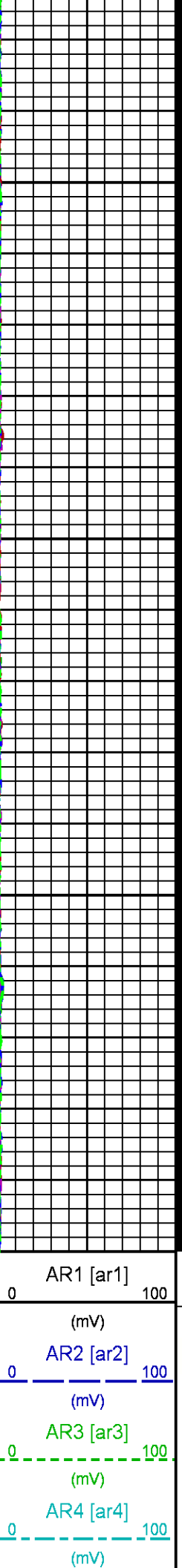
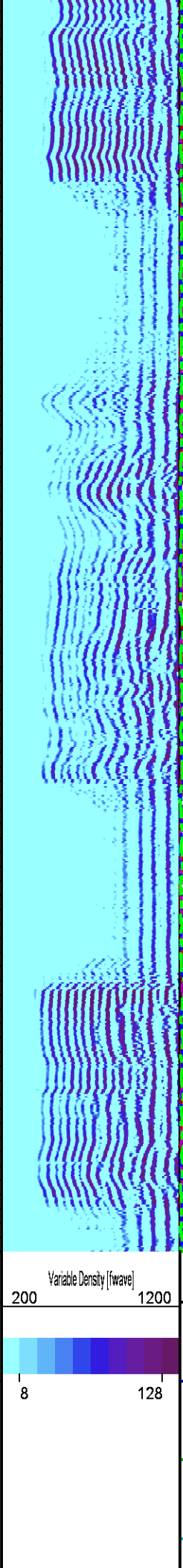
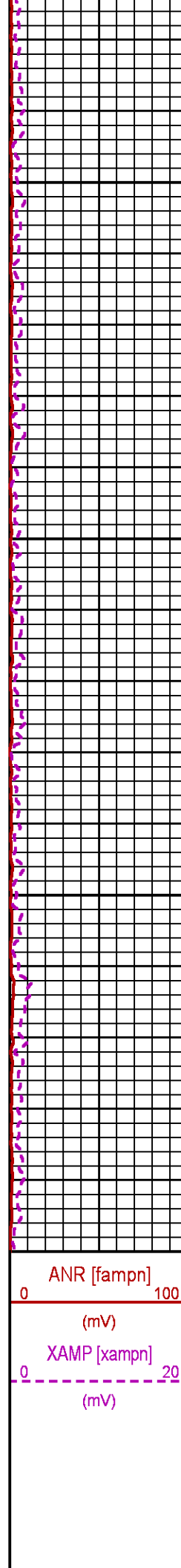


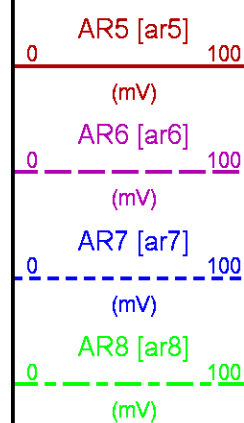


7800

7900

FEET





CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/CH100243/n012g.tp1

RAL PRIMARY CALIBRATION SUMMARY

TOOL #: 1426XA 10124106

DATE/TIME PERFORMED: Thu Oct 22 08:21:45 2015

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)	-0.11	0.01	0.09	0.02	-0.05	0.00	-0.05	-0.08	-0.13	-0.85	0.06
AMP FLUID (mV)	103	103	102	103	103	102	103	103	103	133	101
TT (us)	217	217	217	217	217	216	216	216	218	324	218
M FACTOR	0.97	0.98	0.98	0.97	0.97	0.98	0.98	0.97	0.97	1.12	0.99

RAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1426XA 10124106

DATE/TIME PERFORMED: Fri Oct 23 07:53:49 2015

DAYS SINCE CAL: 0

UNIT #: 3880TA HL6670

CABLE #: 6670SM SMALL1

	NEAR (mV)	R1 (mV)	R2 (mV)	R3 (mV)	R4 (mV)	R5 (mV)	R6 (mV)	R7 (mV)	R8 (mV)	FAR (mV)	CAL (mV)
ZERO	0.03	0.01	0.08	0.17	-0.02	-0.08	-0.08	-0.03	-0.04	-0.10	0.00
AMP AIR	0.13	-0.56	-0.04	-0.30	-0.33	0.05	0.17	0.38	0.15	-0.19	100.61

SHOP M FACTOR	SHOP A FACTOR	WIRELINE FACTOR
0.99	0.00	0.99

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 1355XA 11871510

DATE/TIME PERFORMED: Fri Oct 9 09:14:59 2015

UNIT #: 3880TA HL6670

CALB JIG #: 4702NK WA-612

	BACKGROUND (cts)	CALBRTR ON (cts)	CR DIFF (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	CALBRTR (gAPI)
GR	65.78	249.56	183.8	0.816	53.69	203.69	150

GR PRIMARY VERIFICATION SUMMARY

TOOL #: 1355XA 11871510 DATE/TIME PERFORMED: Fri Oct 9 09:16:42 2015

UNIT #: 3880TA HL6670 VERI JIG #: 4702NK WA-612

	BACKGROUND (cts)	CALBRTR ON (cts)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	66.93	242.00	0.816	54.63	197.52	142.89
						140.00 160.00

TEMP PRIMARY CALIBRATION SUMMARY

TOOL #: 1355XA 11871510 DATE/TIME PERFORMED: Tue Oct 20 08:42:42 2015

UNIT #: 3880TA HL6670

	T(0)	T(1)	T(2)	T(3)
Corr Coeff for Temp	0.000000E+00	1.000000E-01	0.000000E+00	0.000000E+00

INSTRUMENT CONFIGURATION

Source File: /dat1a/CH100243/CBL-tdg

CABLEHEAD

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

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 <u>LARAMIE ENERGY</u>		FILE NO: <u>CH100243</u>
	WELL <u>PICEANCE FEDERAL 28-05M</u>		API NO: <u>05077102420000</u>
	FIELD <u>VEGA</u>	COUNTY <u>MESA</u> STATE <u>COLORADO</u>	
	LOCATION: SHL: LAT 39.251022 LONG -107.779514 BHL: LAT 39.252211 LONG -107.774500		ELEVATIONS: KB 7578 FT DF GL 7556 FT
SEC <u>28</u> TWP <u>9S</u> RGE <u>93W</u>		DATE <u>23-Oct-2015</u>	