



FILE NO: CH100248	COMPANY WELL FIELD COUNTY	LARAMIE ENERGY PICEANCE 28-07M VEGA MESA	STATE COLORADO
API NO: 05077102400000	LOCATION: SHL: LAT 39.250975 LONG -107.779419 BHL: LAT 39.250839 LONG -107.774667 SEC 28 TWP 9S RGE 93W		
Ver. 4.01 28 9S 93W 28-05 PAD PATTERSON 306	OTHER SERVICES RPM		ELEVATIONS: KB 7600 FT DF GL 7678 FT
PERMANENT DATUM LOG MEASURED FROM DRILL. MEAS. FROM	GL KB ELEVATION 22 FT ABOVE P.D.		

DATE		19-OCT-2015			
RUN	TRIP	1	1		
SERVICE ORDER		US100248			
DEPTH DRILLER		8083 FT			
DEPTH LOGGER		7966 FT			
BOTTOM LOGGED INTERVAL		7956 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		48 FT			
LOGGED CEMENT TOP		SEE LOG			
WELLHEAD PRESSURE		0 PSI			
MAXIMUM HOLE DEVIATION		NA			
NOMINAL LOGGING SPEED		100 F/MIN			
MAX. RECORDED TEMP.		232 DEGF			
REFERENCE LOG		NONE			
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	8083 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
4.5 IN	11.6 LB/F		22 FT	8083 FT

REMARKS
RUN 1 TRIP 1: This is the fist log on this well
Logged with zero PSI at wellhead.
BHT = 232 degF
SJ = 6370' - 6392'
SJ = 7197' - 7219'
THANK YOU FOR CHOOSING BAKER HUGHES ... THE BEST CHOICE!

EQUIPMENT DATA				
RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.
1	1	CD	1102011	12121102
				CD

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: Mon Oct 19 10:40:20 2015

### PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH100248/n012g02.prm  
 LOGGING MODE: DEPTH DIRECTION: UP  
 TOP DEPTH: 8.750 ft BOTTOM DEPTH: 7962.250 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*)	175	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*)	-73	us	"	"
	TOOL DELAY (str2*)	-73	us	"	"
	TOOL DELAY (str3*)	-73	us	"	"
	TOOL DELAY (str4*)	-73	us	"	"
	TOOL DELAY (str5*)	-73	us	"	"
	TOOL DELAY (str6*)	-73	us	"	"
	TOOL DELAY (str7*)	-73	us	"	"
	TOOL DELAY (str8*)	-73	us	"	"
	TOOL DELAY (strn*)	-73	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

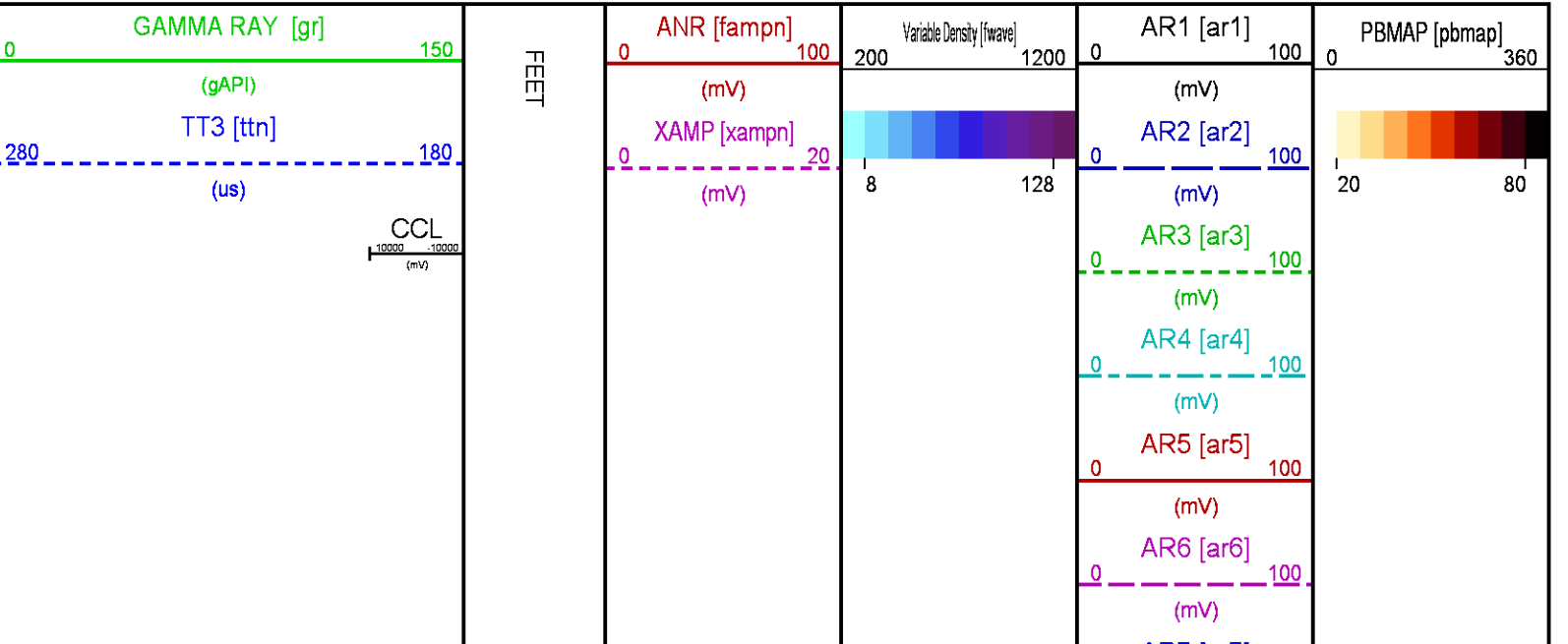
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:AR1	Oct 19 08:40:58 2015	FIXED GATE AMPLITUDE T-R1
F1:AR2	Oct 19 08:40:58 2015	FIXED GATE AMPLITUDE T-R2
F1:AR3	Oct 19 08:40:58 2015	FIXED GATE AMPLITUDE T-R3
F1:AR4	Oct 19 08:40:58 2015	FIXED GATE AMPLITUDE T-R4
F1:AR5	Oct 19 08:40:58 2015	FIXED GATE AMPLITUDE T-R5
F1:AR6	Oct 19 08:40:58 2015	FIXED GATE AMPLITUDE T-R6
F1:AR7	Oct 19 08:40:58 2015	FIXED GATE AMPLITUDE T-R7
F1:AR8	Oct 19 08:40:58 2015	FIXED GATE AMPLITUDE T-R8
F1:CCL	Oct 19 08:40:58 2015	CASING COLLAR LOCATOR
F1:FAMPN	Oct 19 08:40:58 2015	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Oct 19 08:40:58 2015	FAR WAVE FORM
F1:GR	Oct 19 08:40:58 2015	GAMMA RAY
F1:PBMAP	Oct 19 08:40:58 2015	PERCENT BOND CEMENT MAP
F1:TTN	Oct 19 08:40:58 2015	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Oct 19 08:40:58 2015	FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE

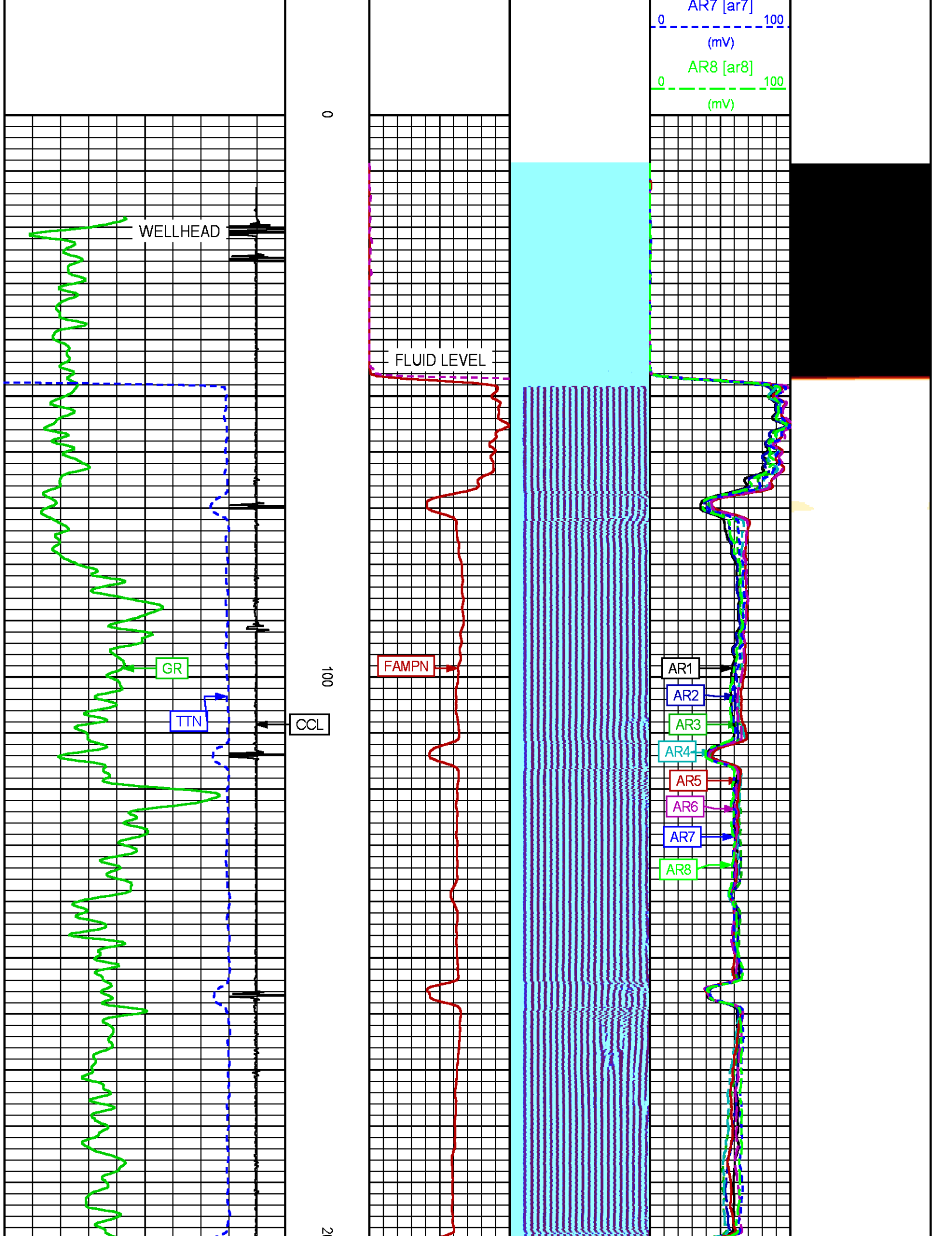
### CURVE MEASURE POINT OFFSET

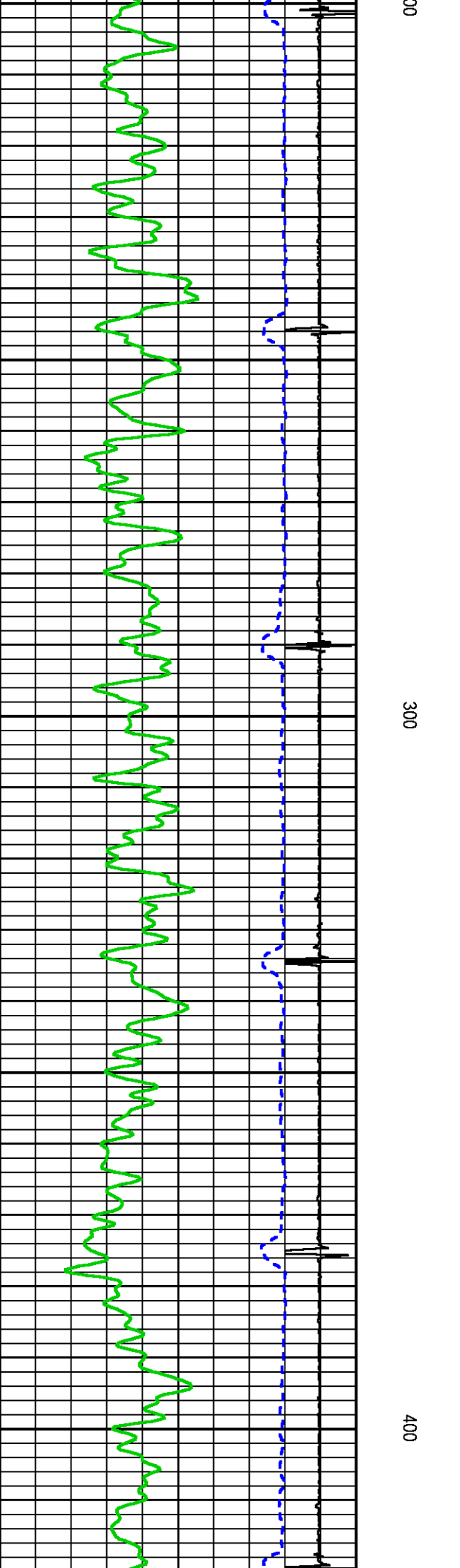
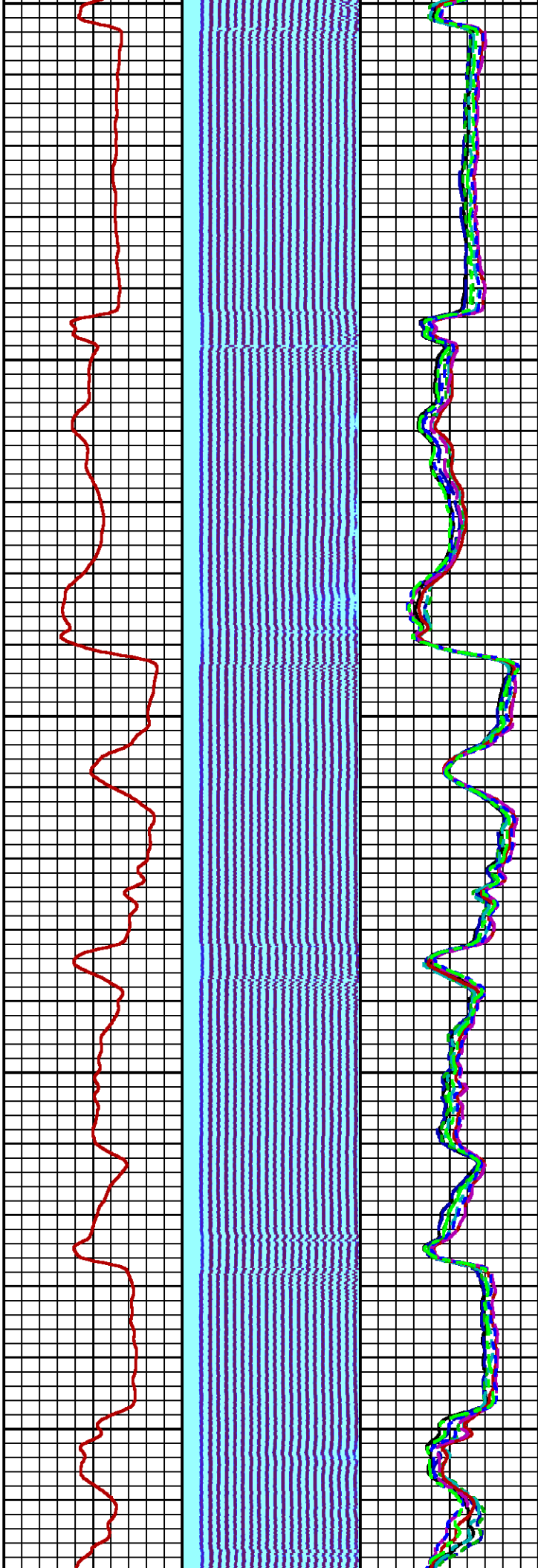
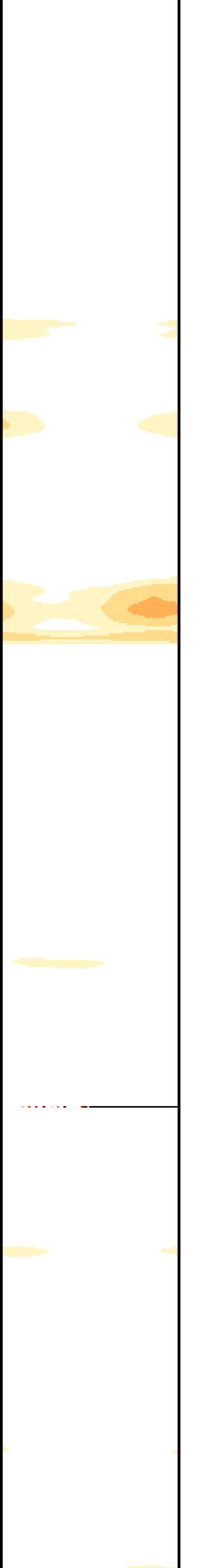
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
AR1	11.25	AR5	11.25	CCL	5.75	XAMPN	11.25
AR2	11.25	AR6	11.25	FAMPN	11.25		
AR3	11.25	AR7	11.25	GR	1.75		
AR4	11.25	AR8	11.25	TTN	11.25		

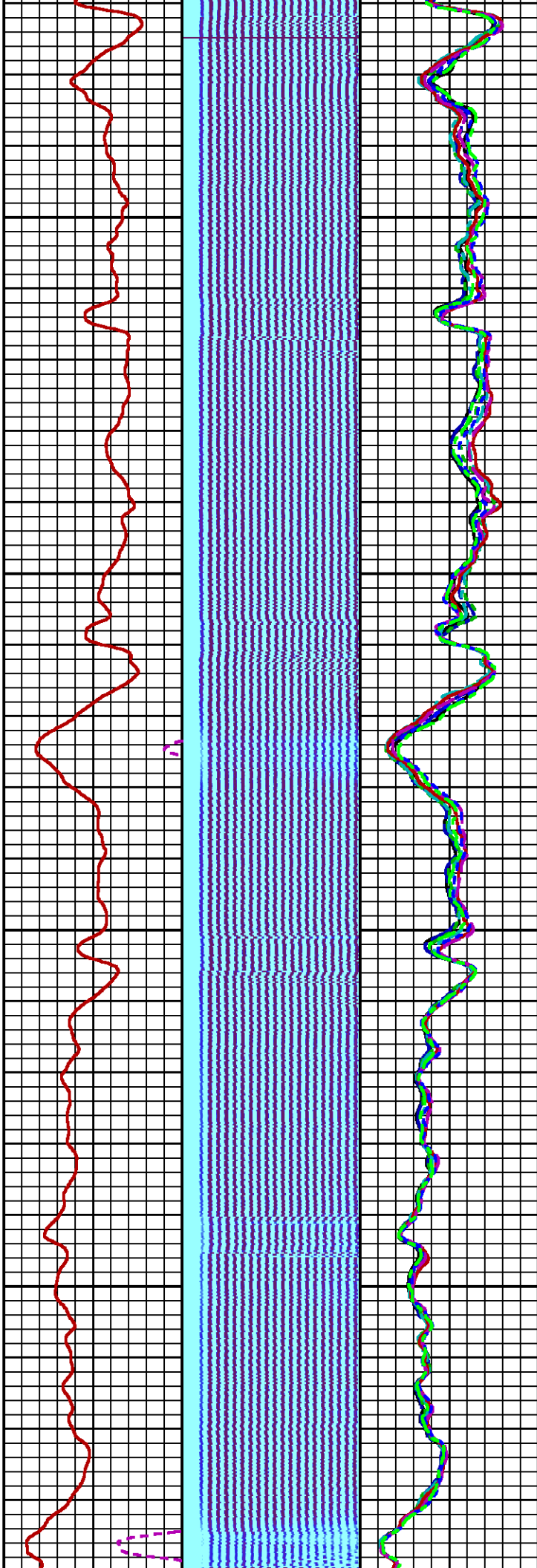
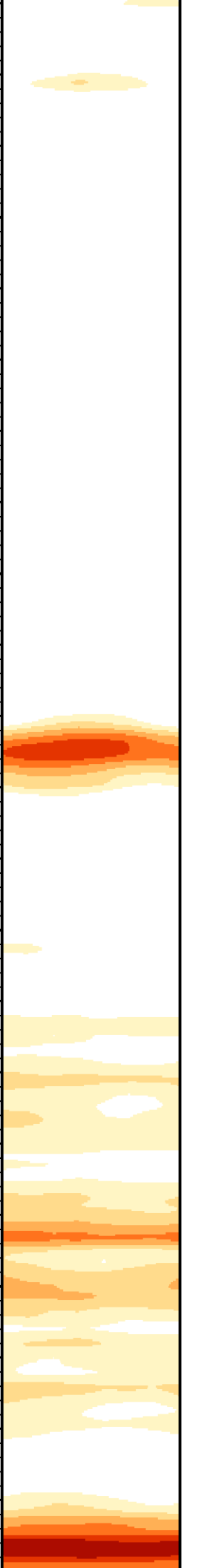
Presentation : HL6670:/dat1a/CH100248/7M\_CBL\_MAIN.fvpdf [5"/100' Scale]  
Plot Interval : 0 - 7971 Feet

Data File 1 : F1 : HL6670:/dat1a/CH100248/n012g02MAIN7M.xtf  
Created On : Oct 19 08:40:58 2015  
Company : LARAMIE ENERGY  
Well : PICEANCE 28-07M  
Field : VEGA  
File Interval : 7.5 - 7972.5 Feet  
OCT : n012g



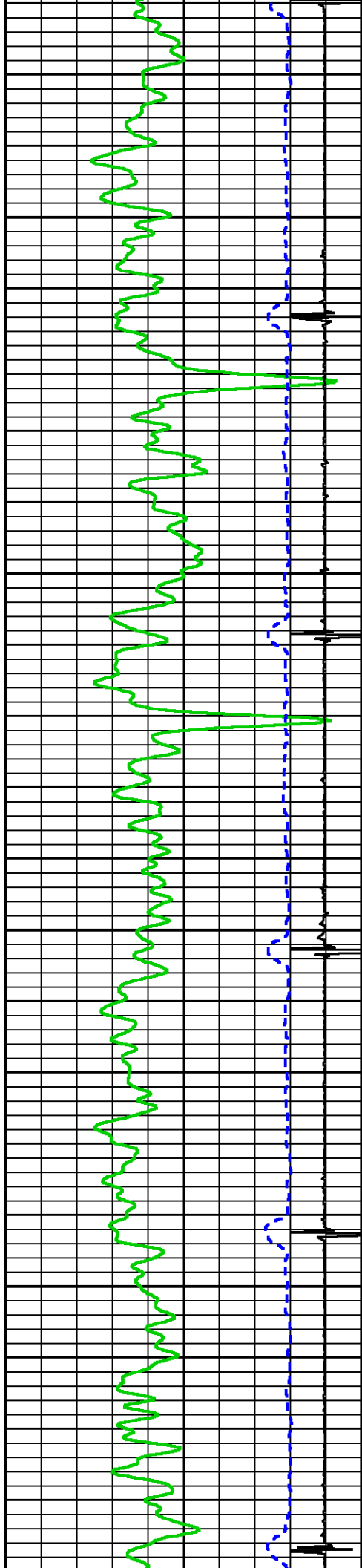




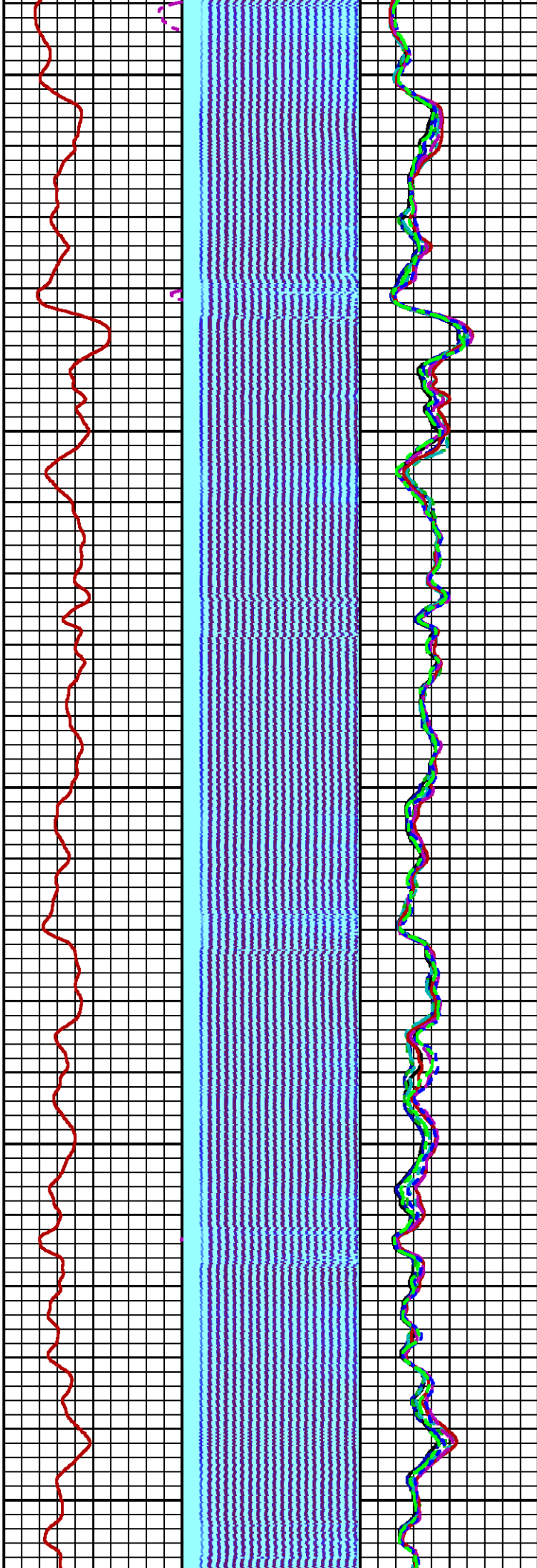
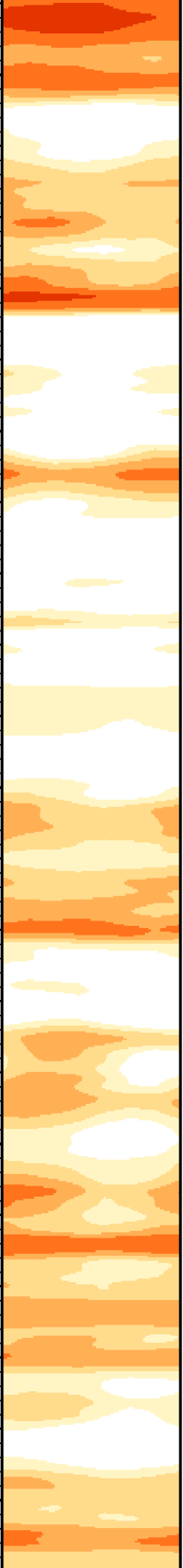


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600

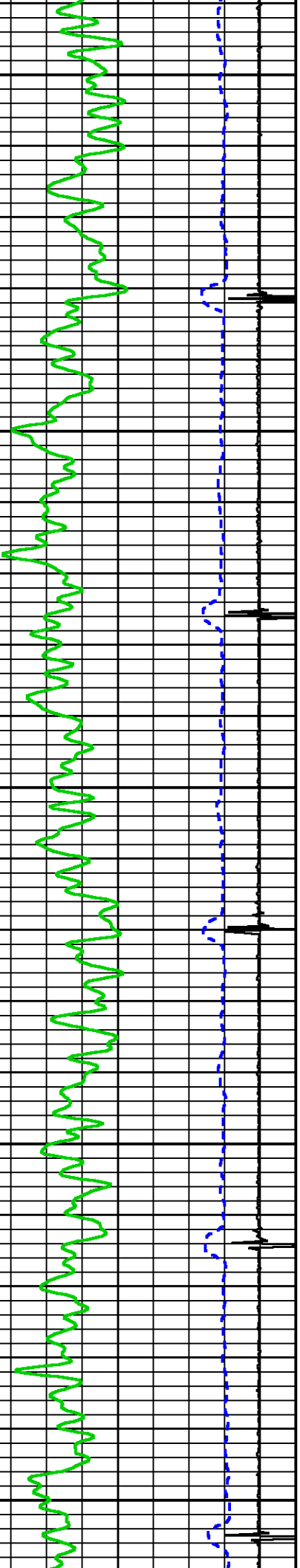


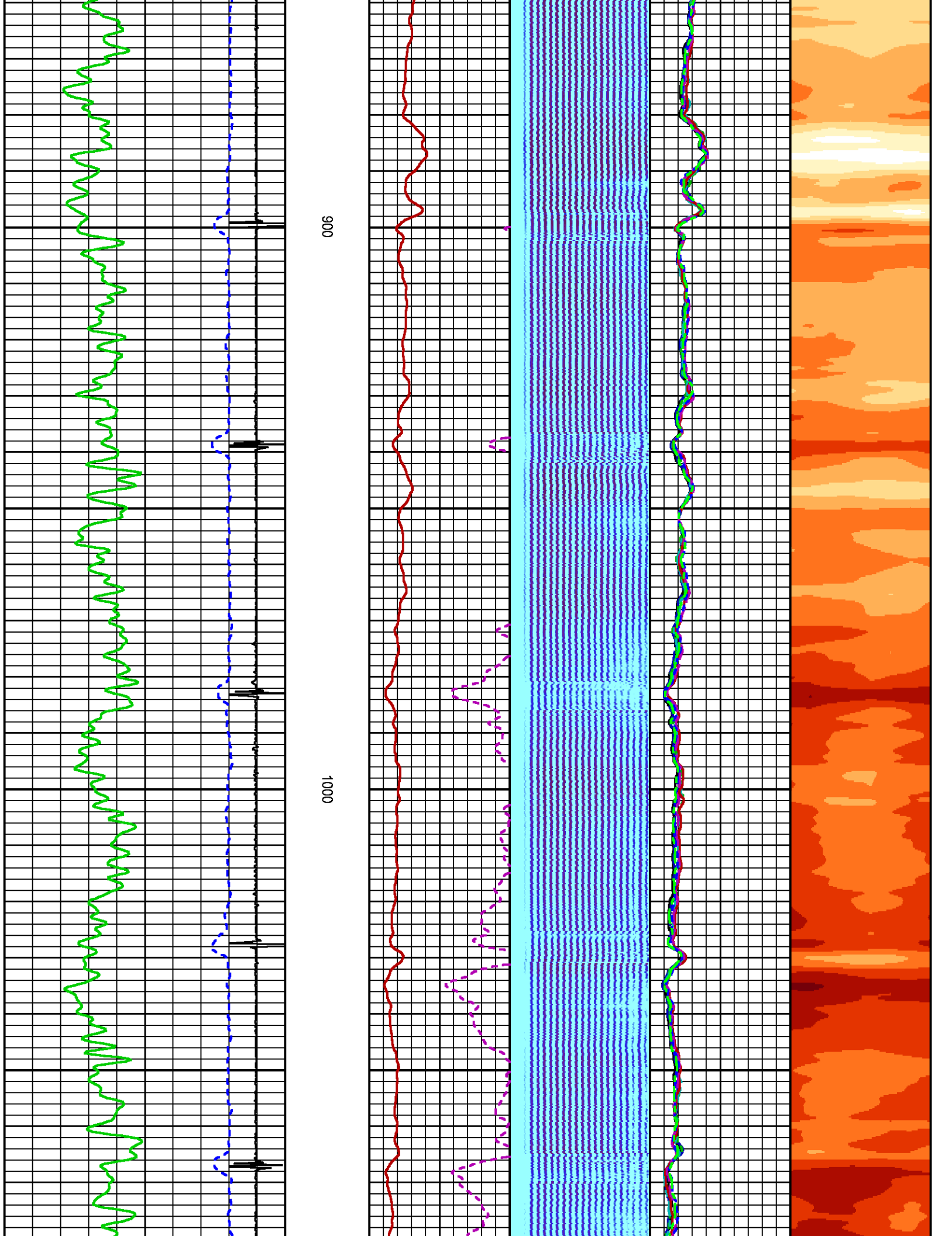




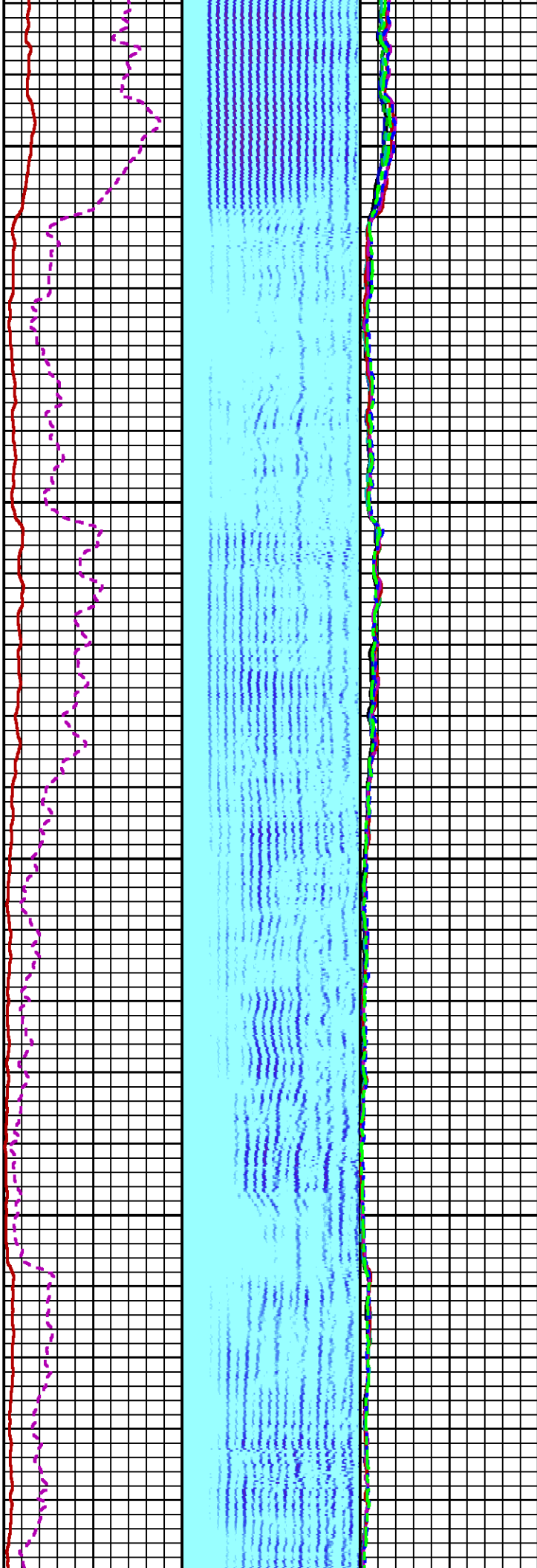
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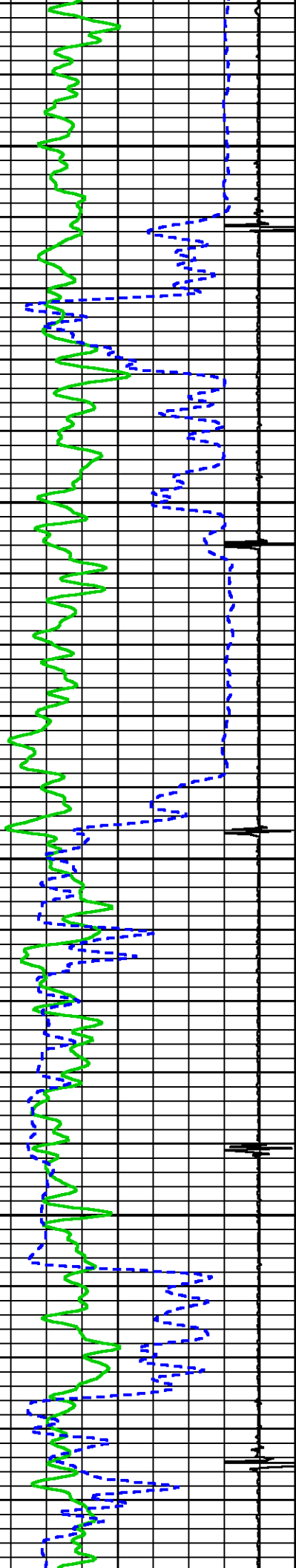


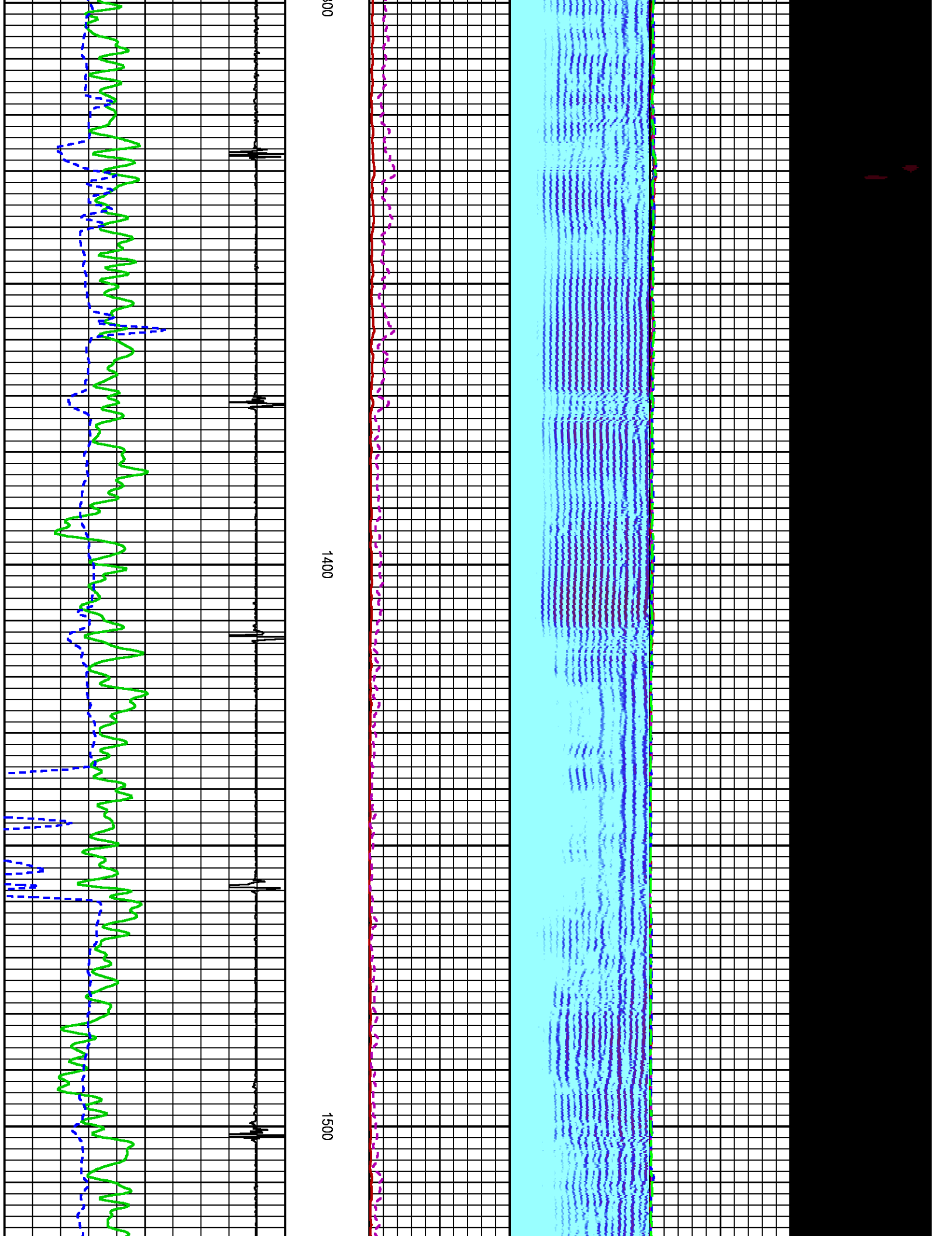


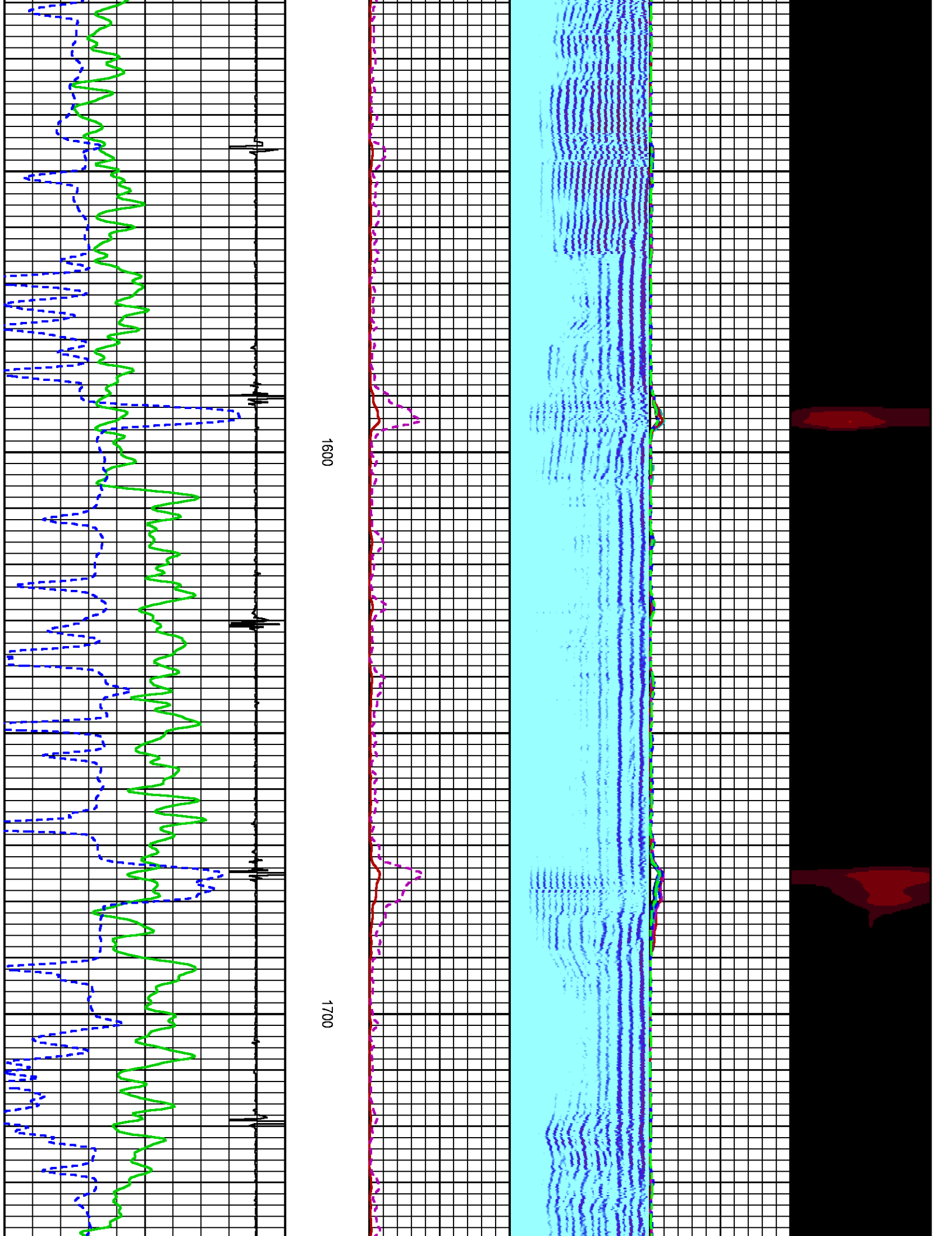
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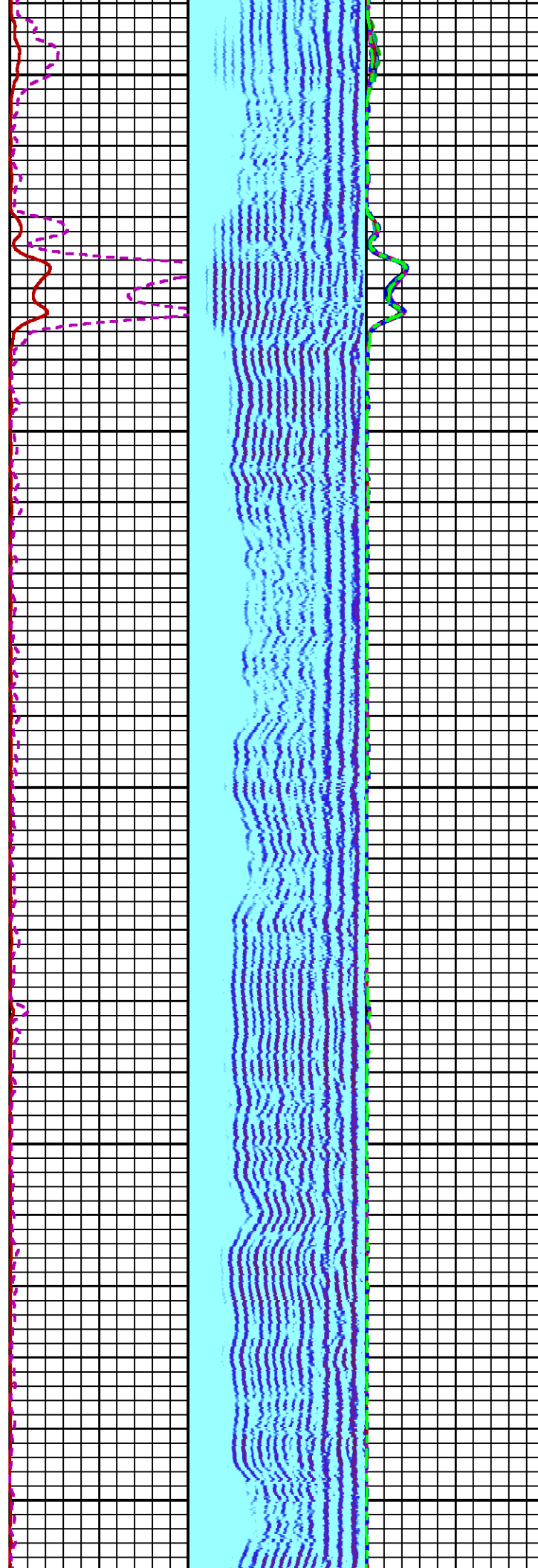
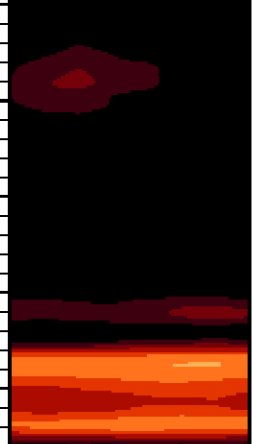
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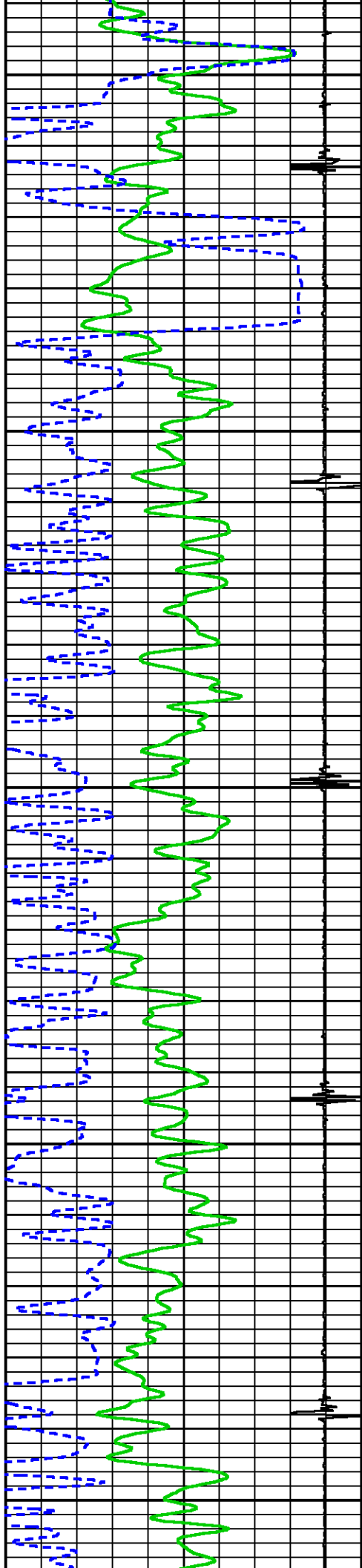


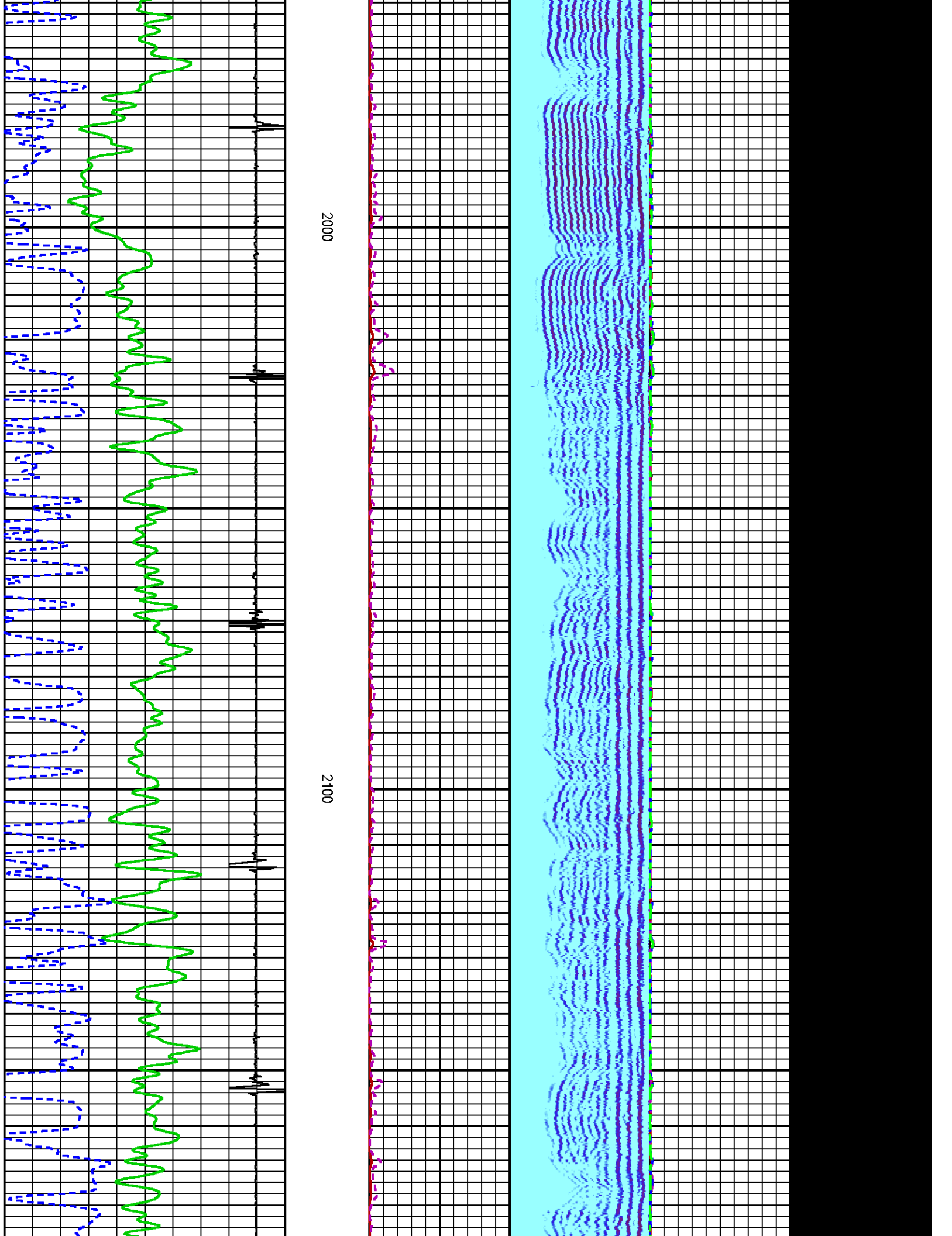




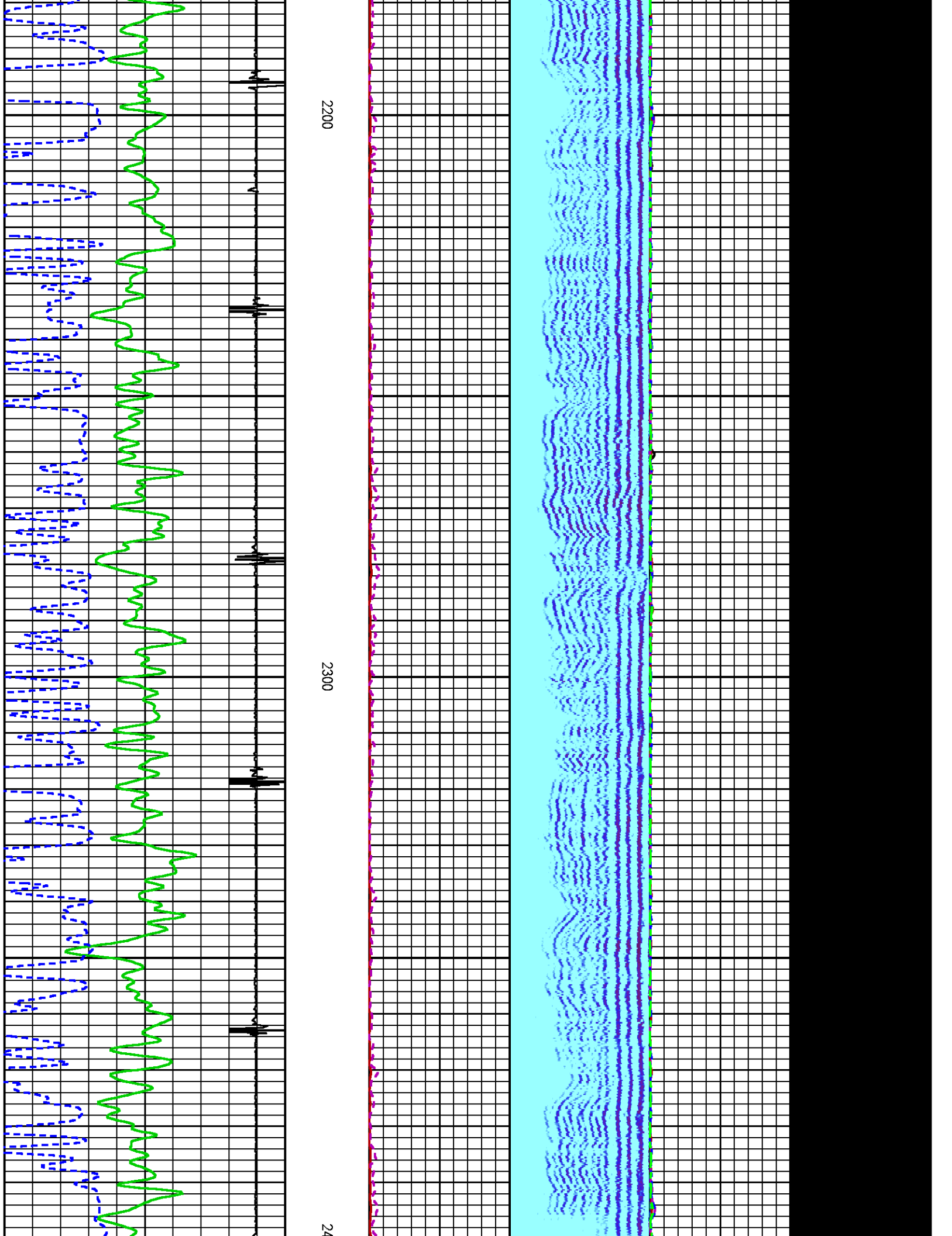
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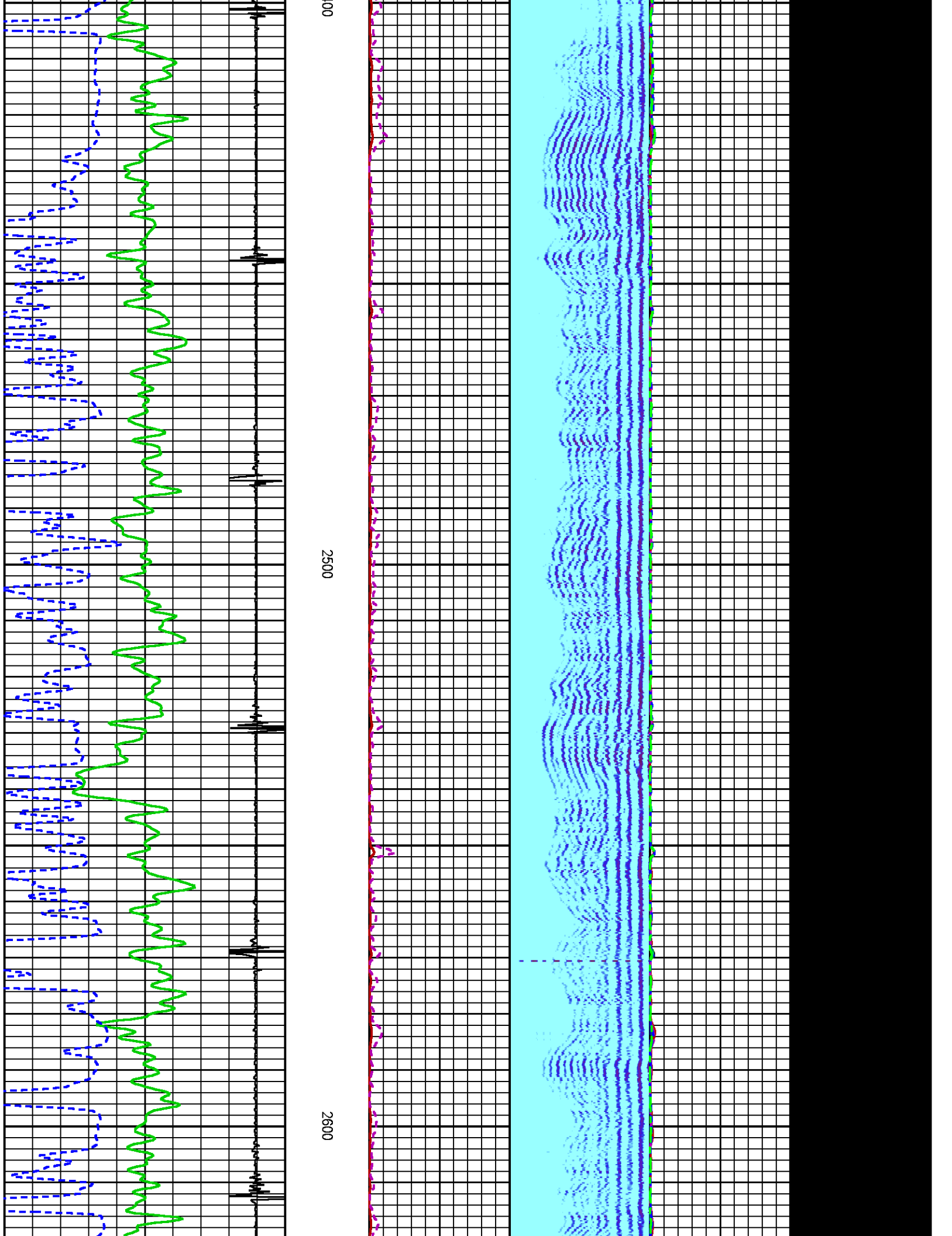
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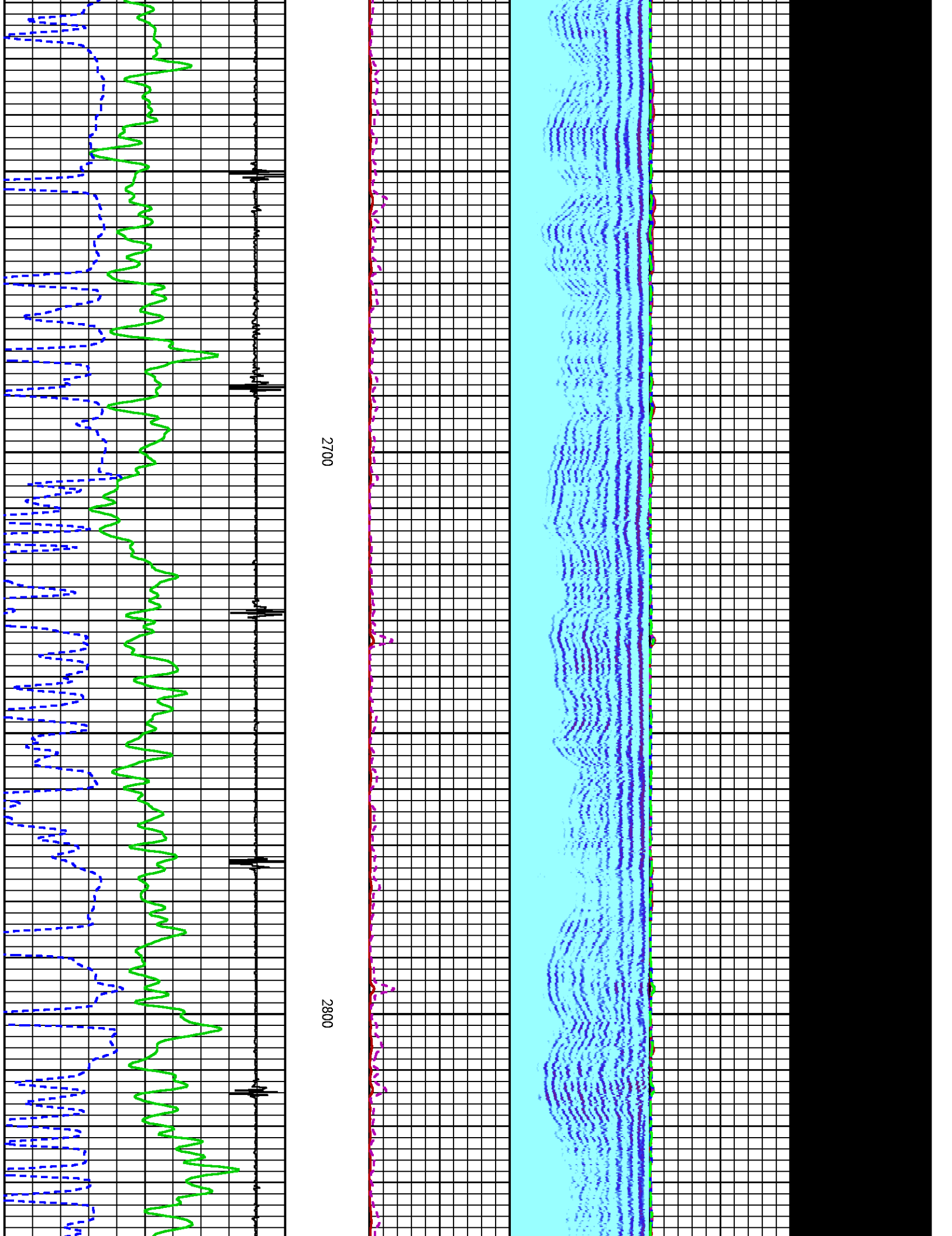


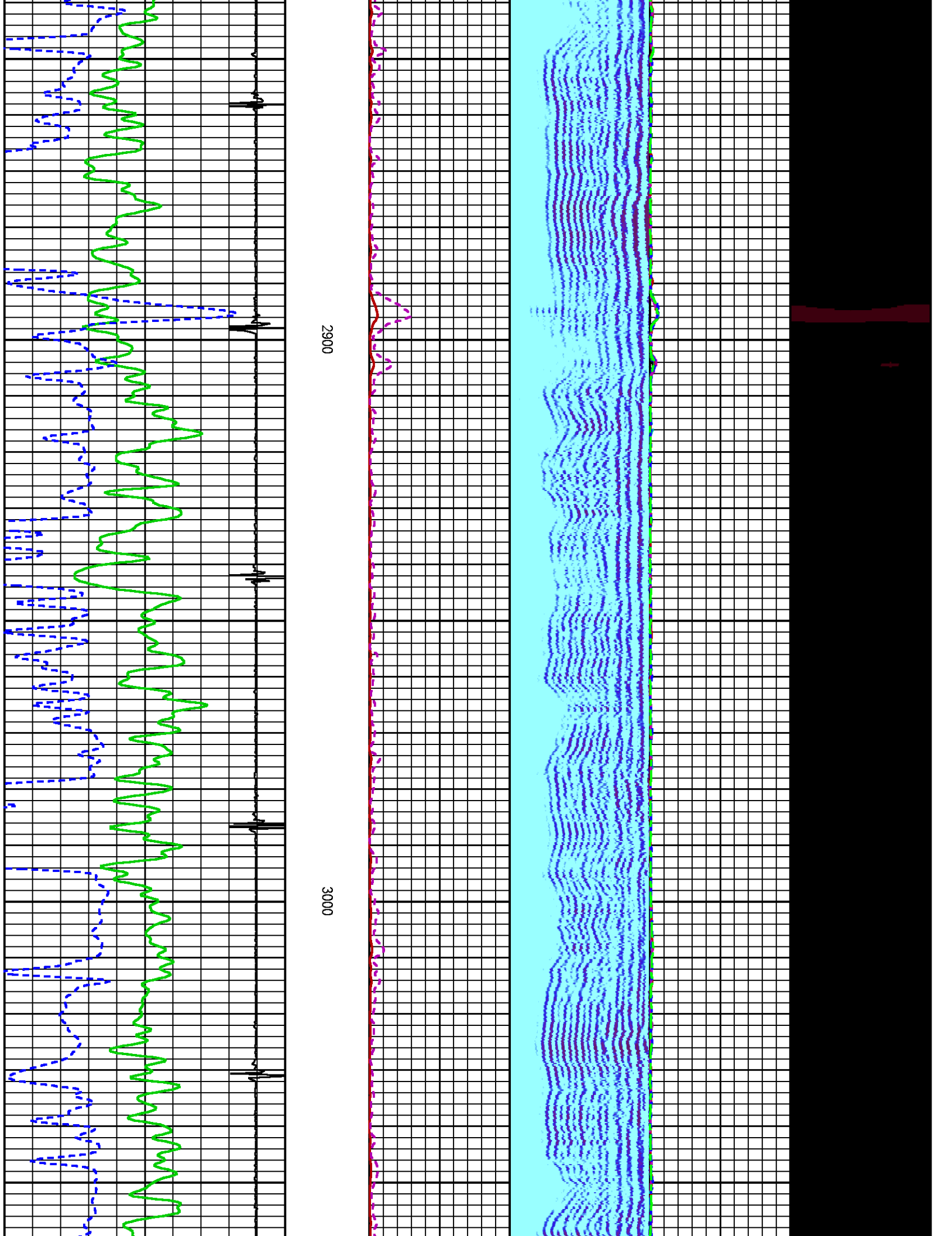


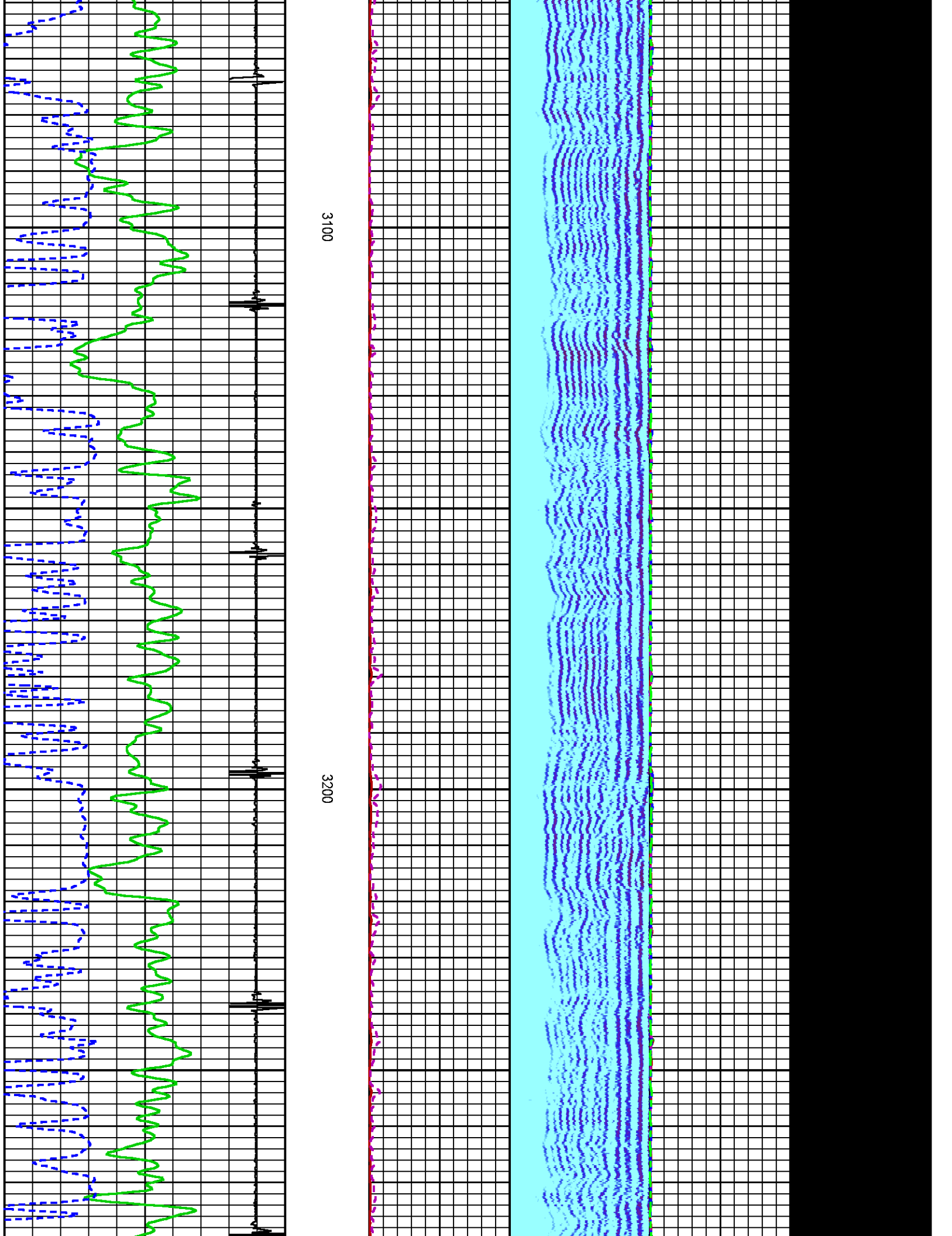




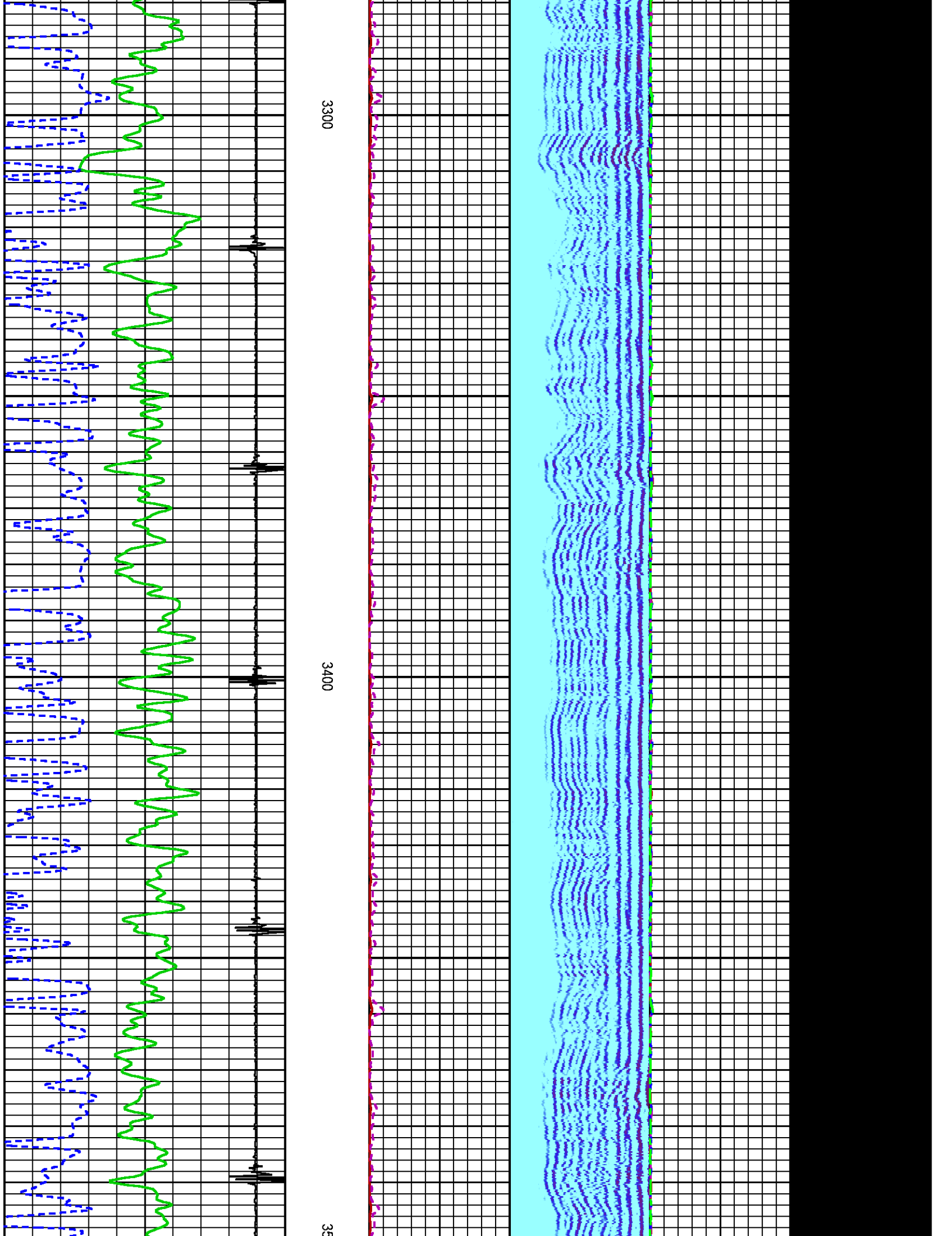


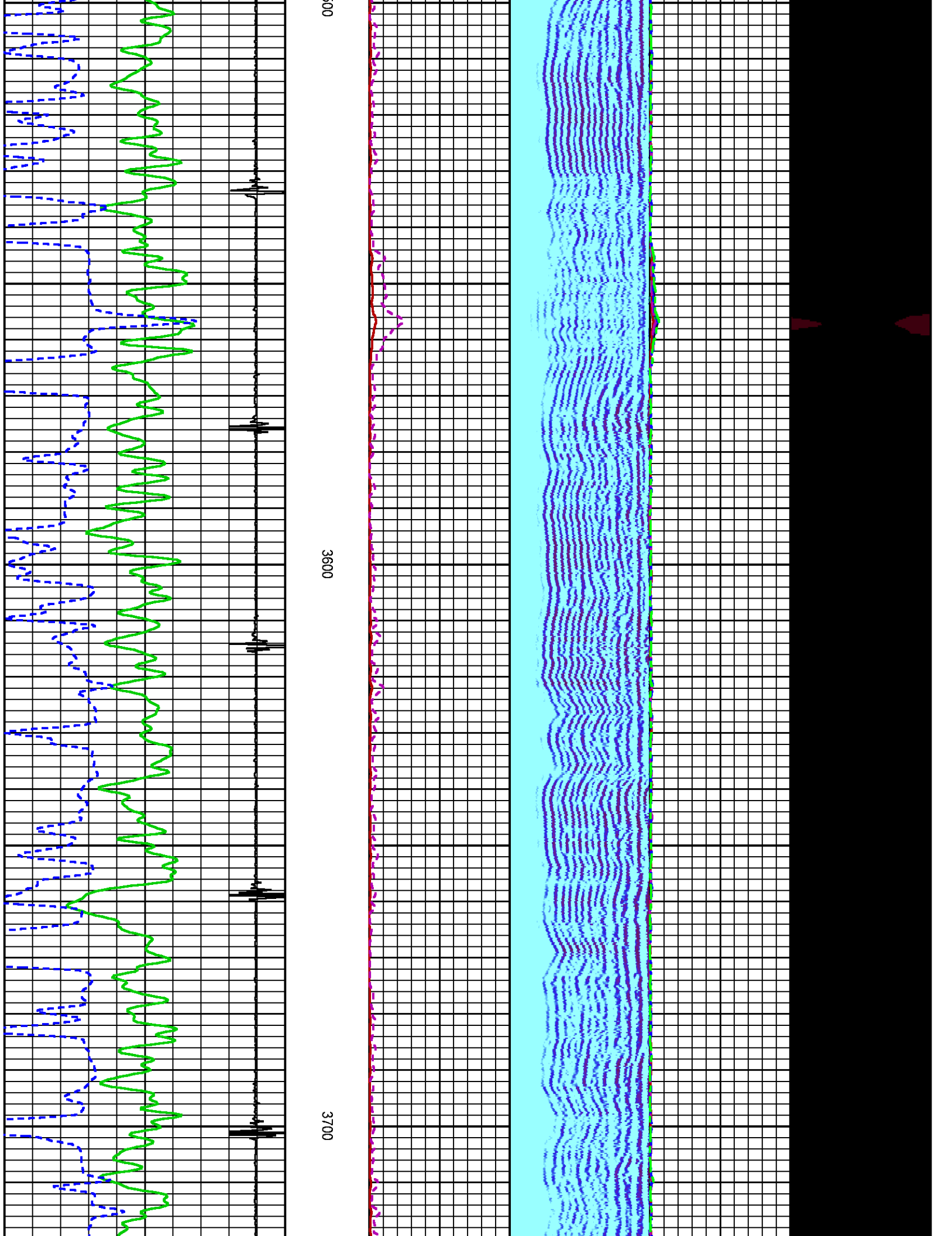


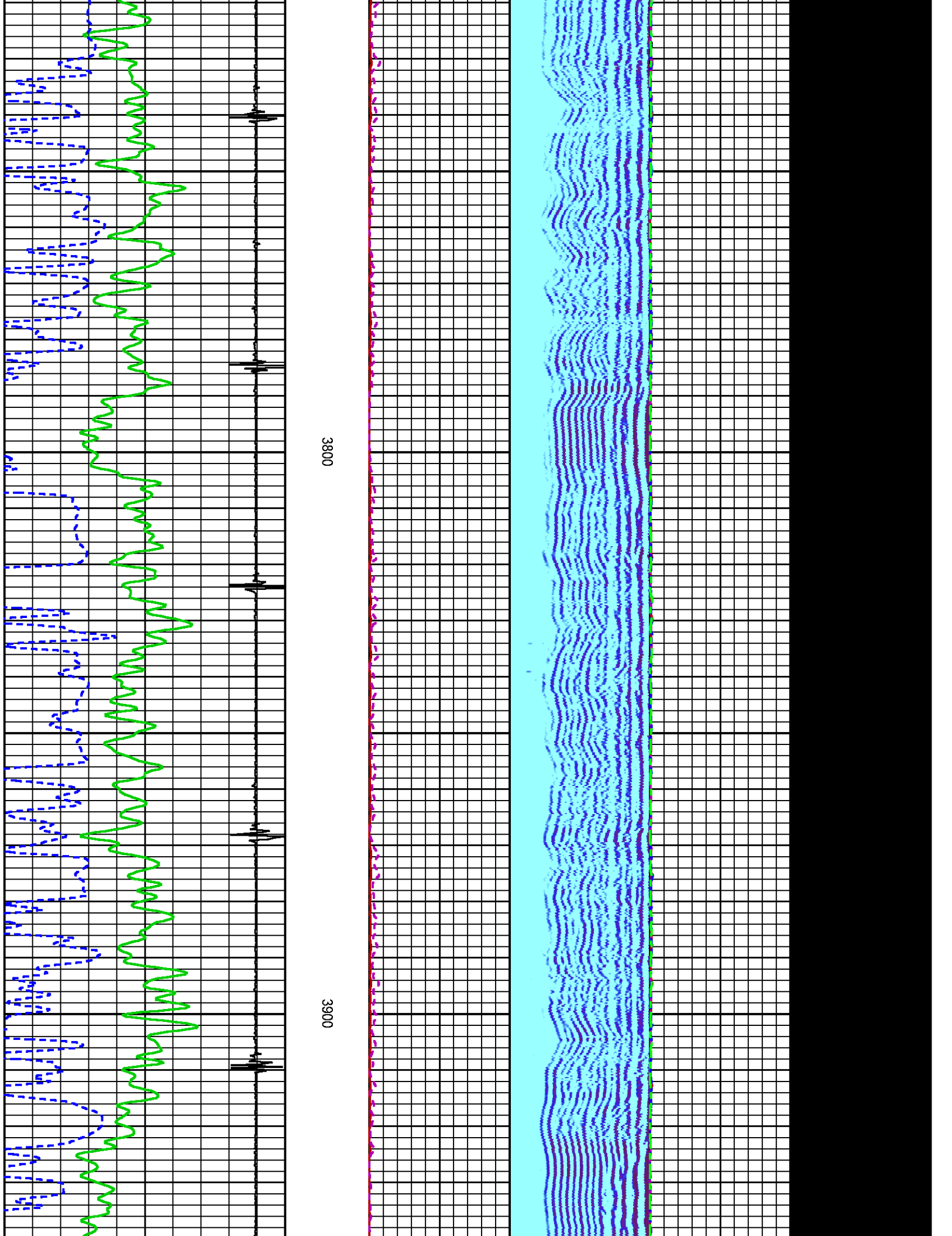


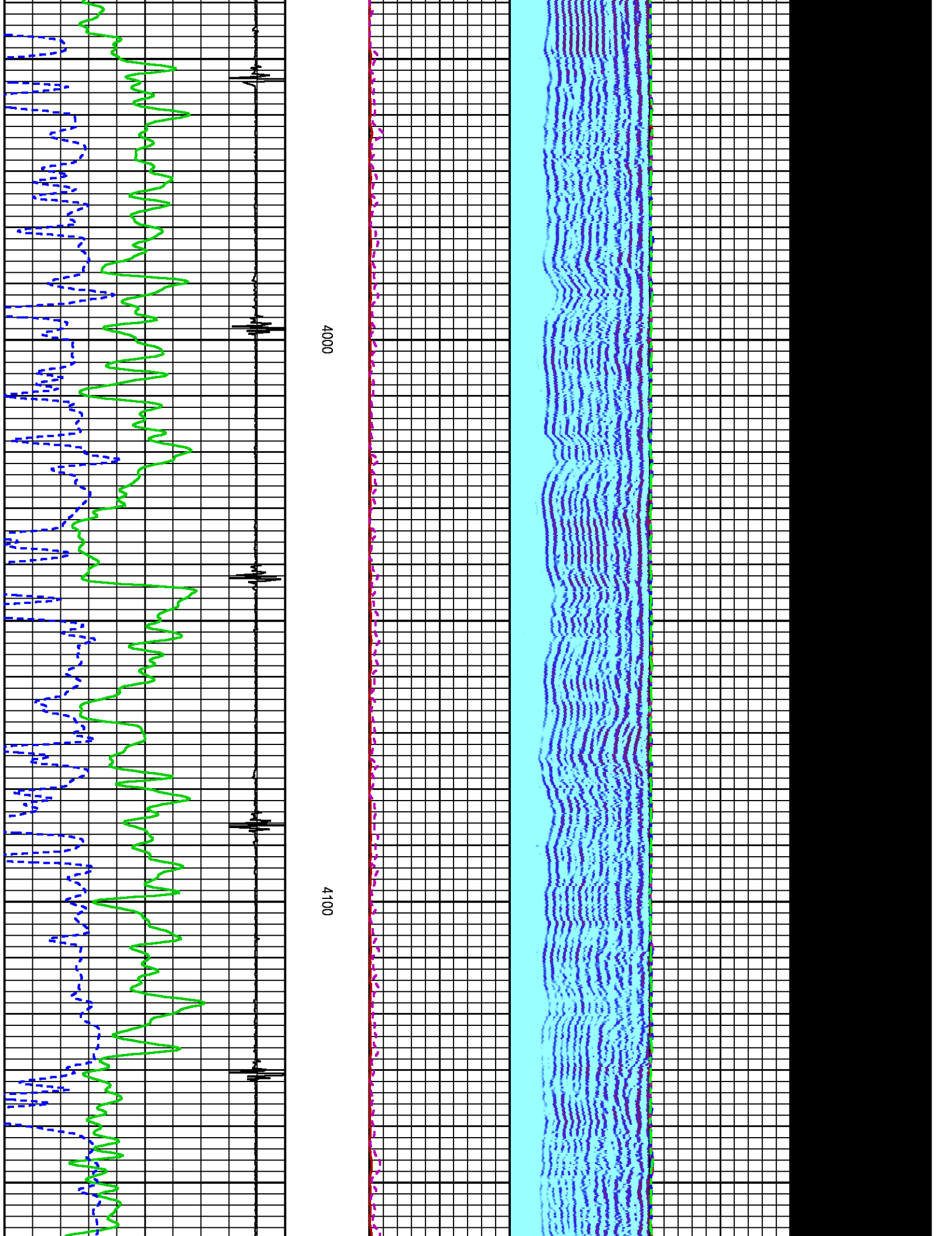


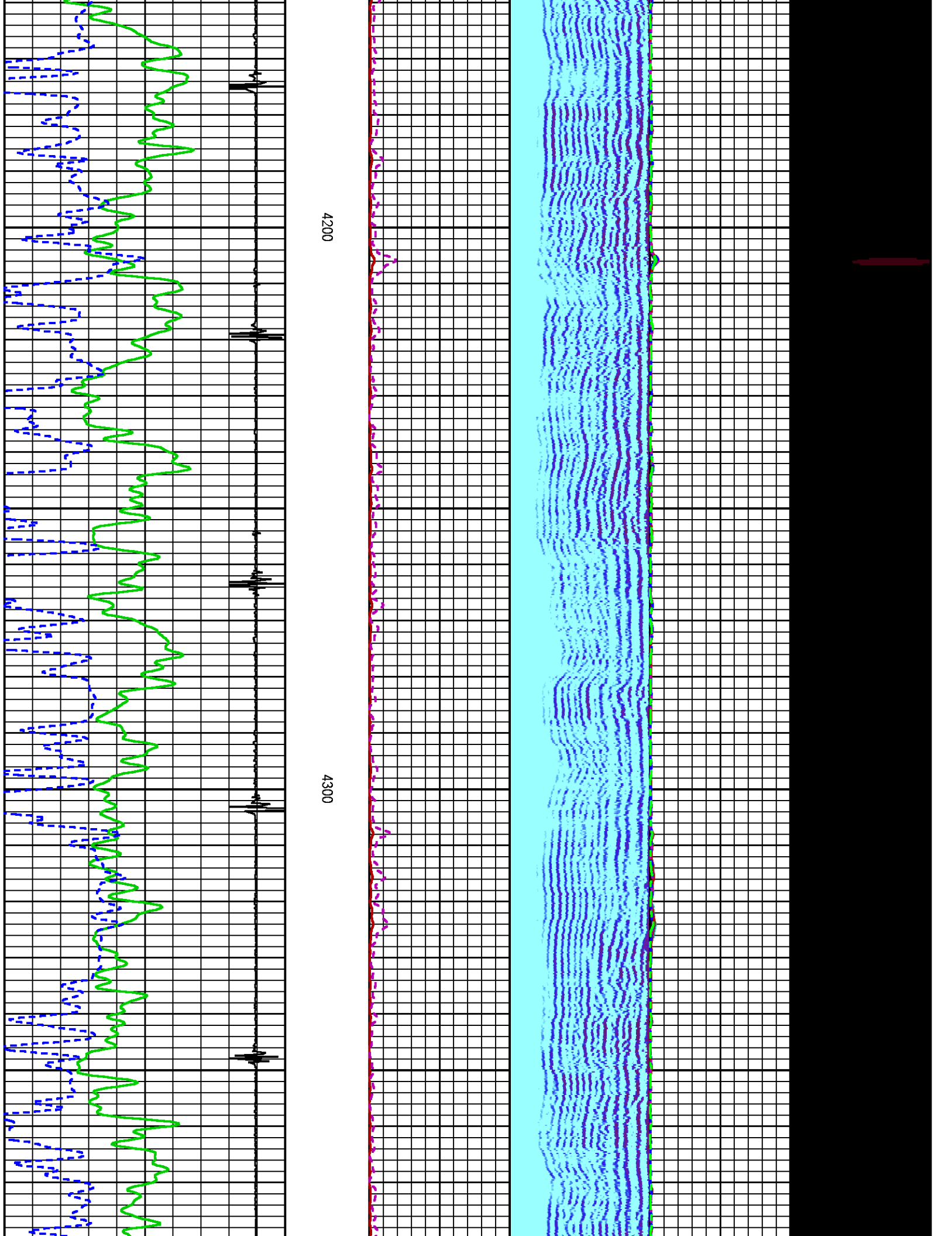




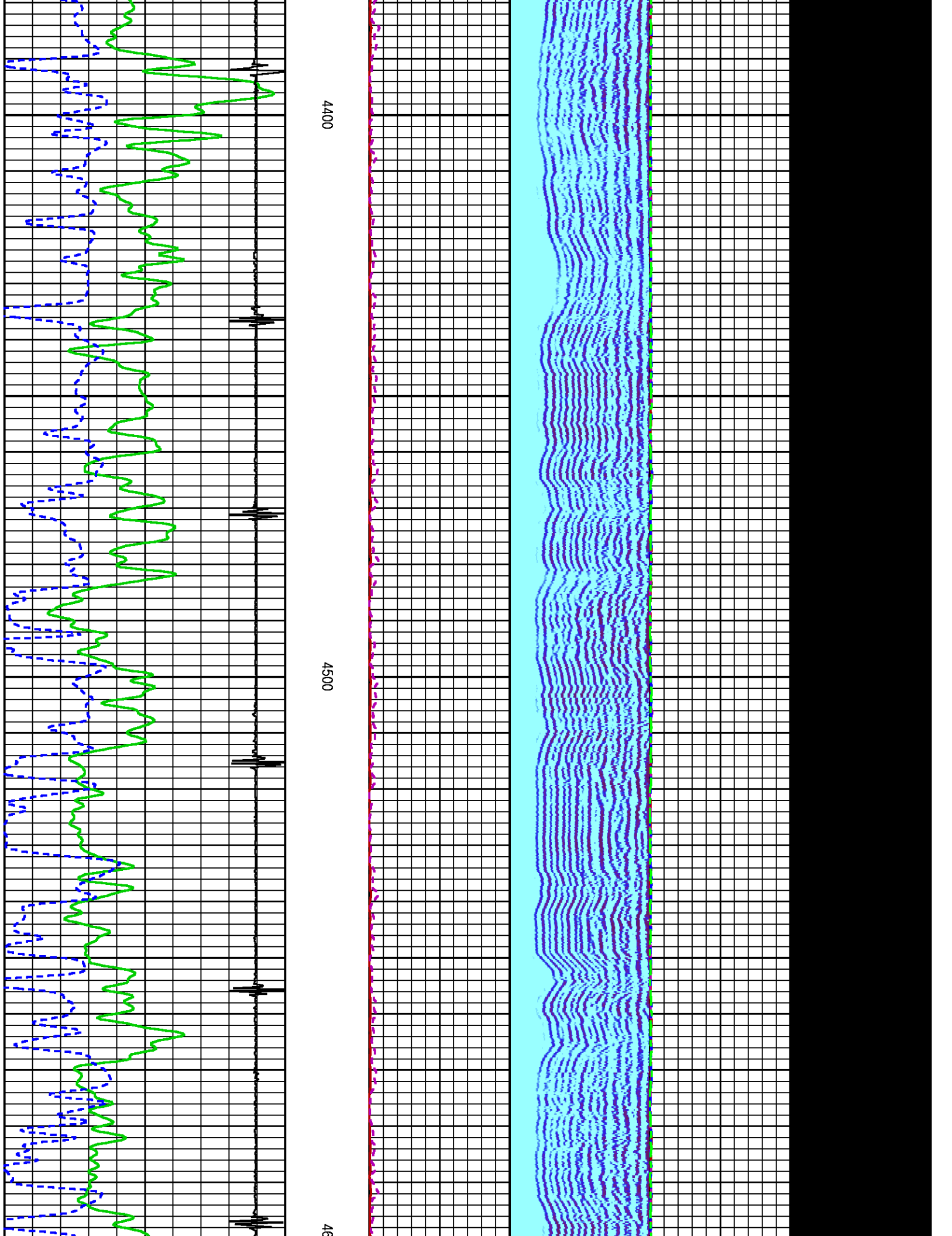


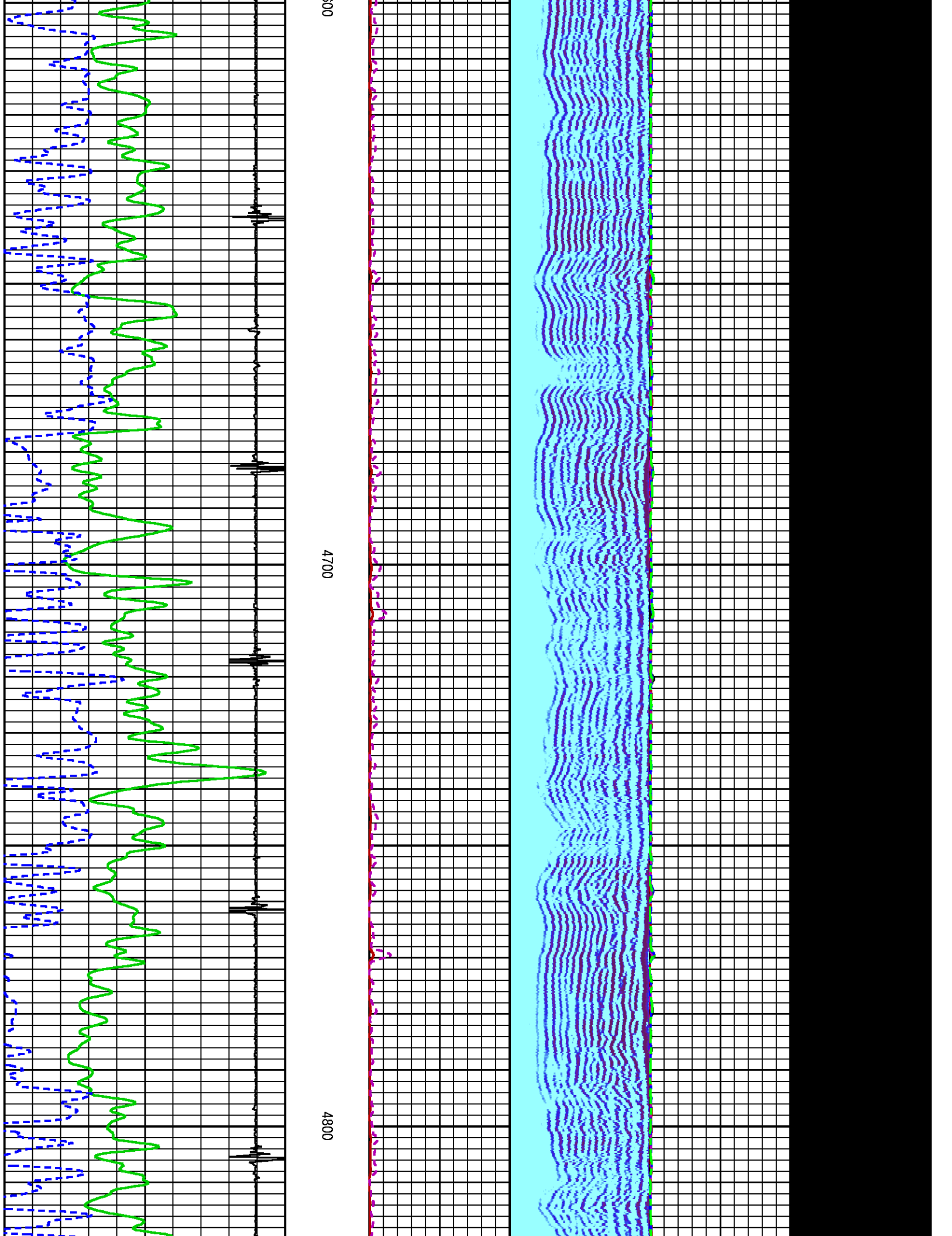


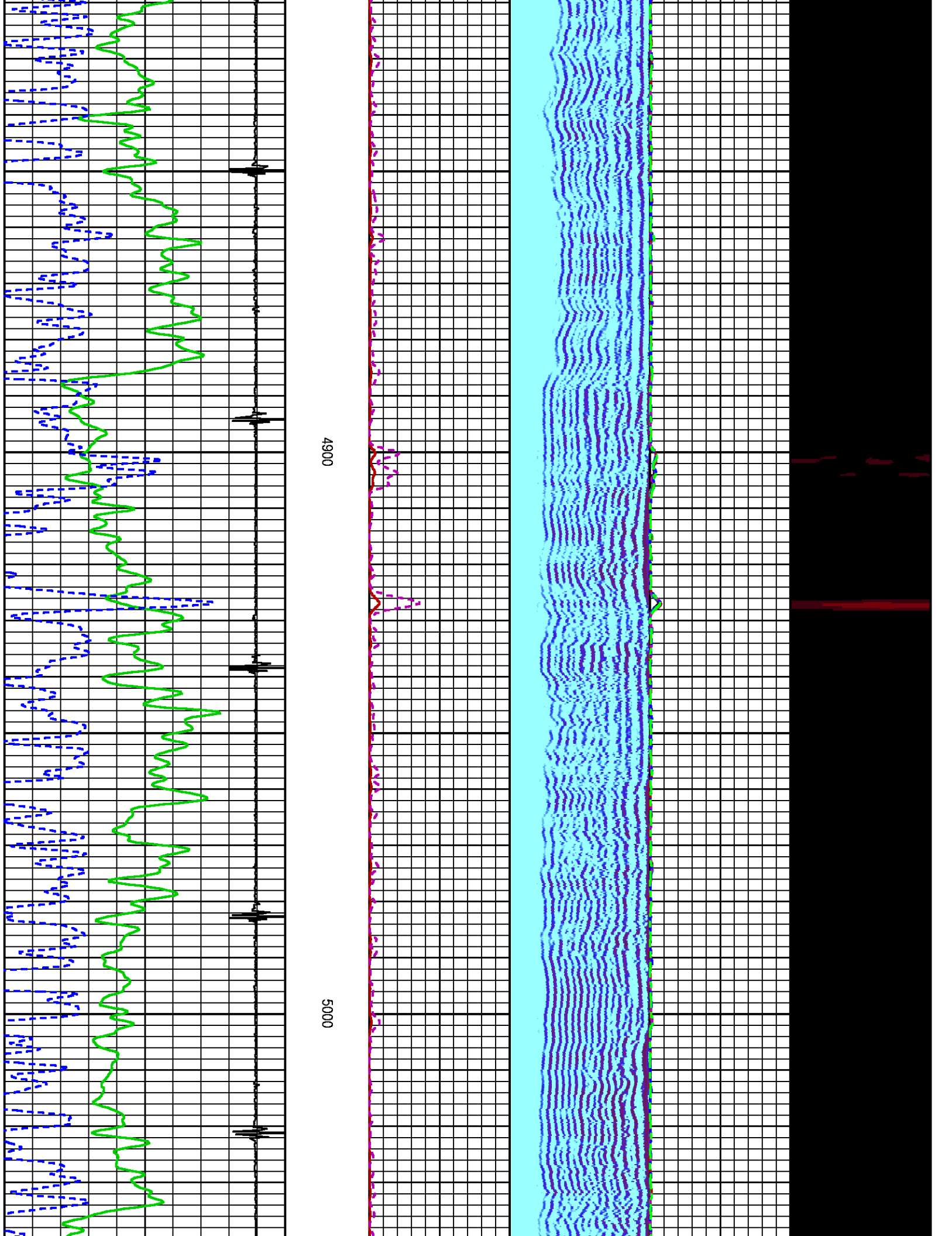


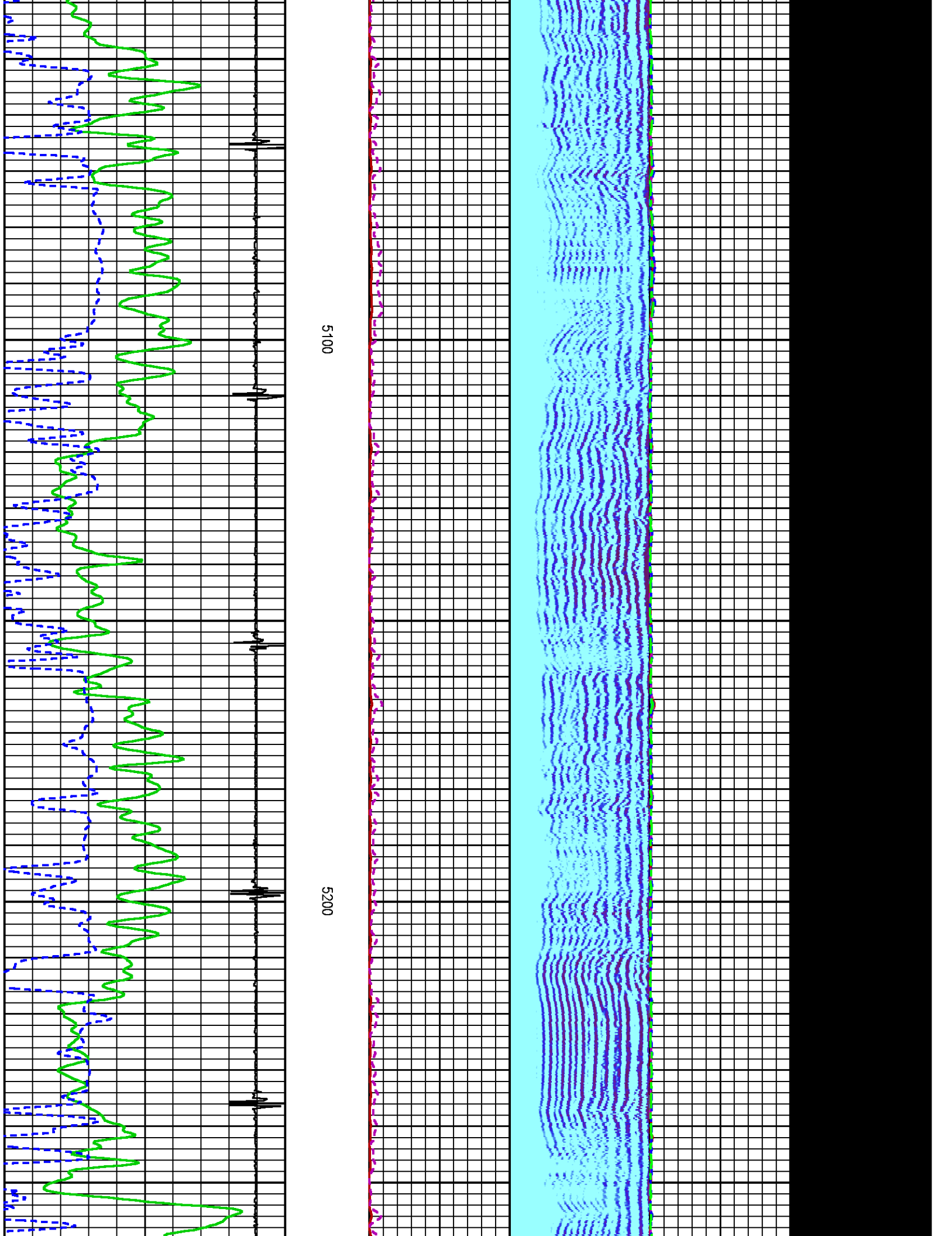


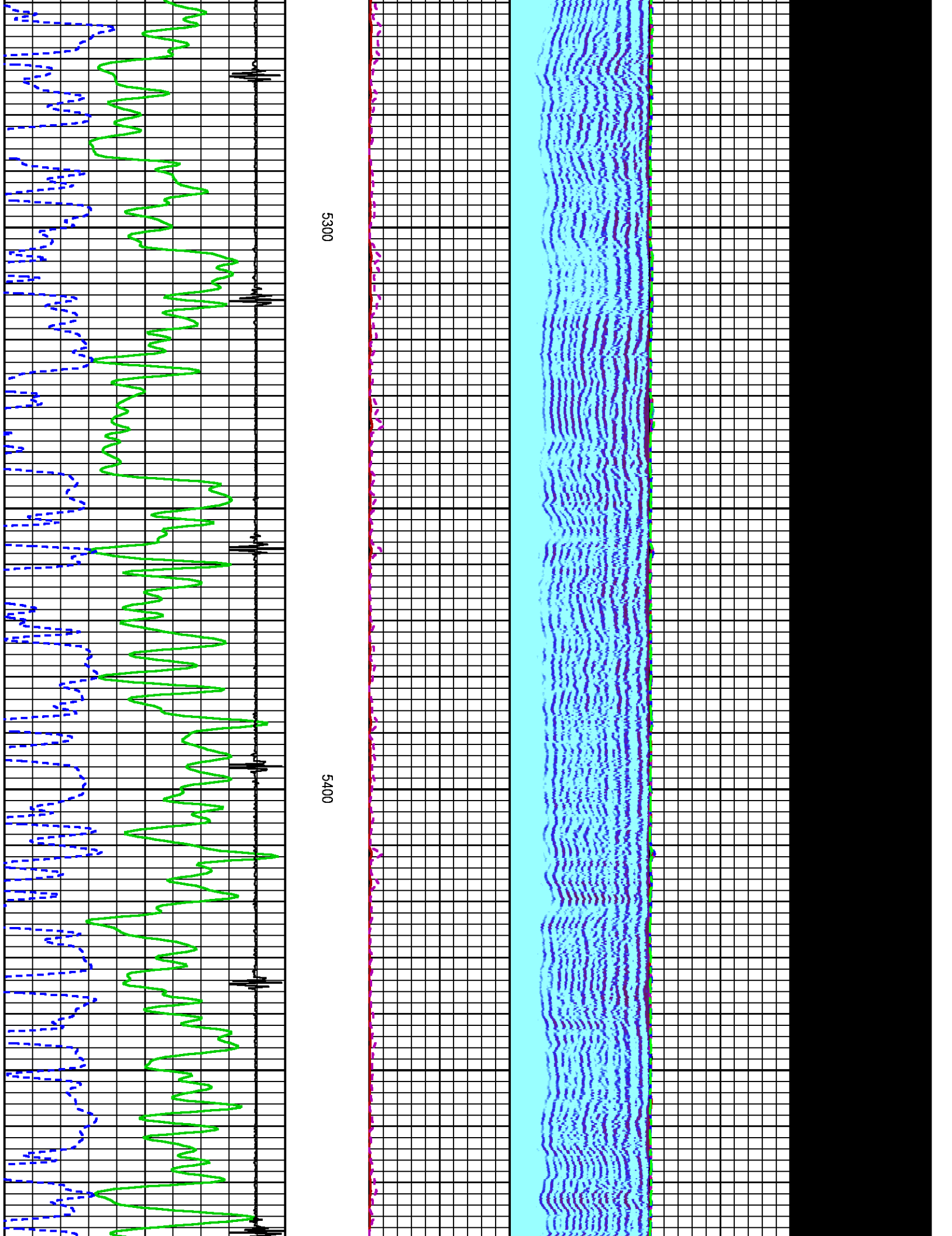




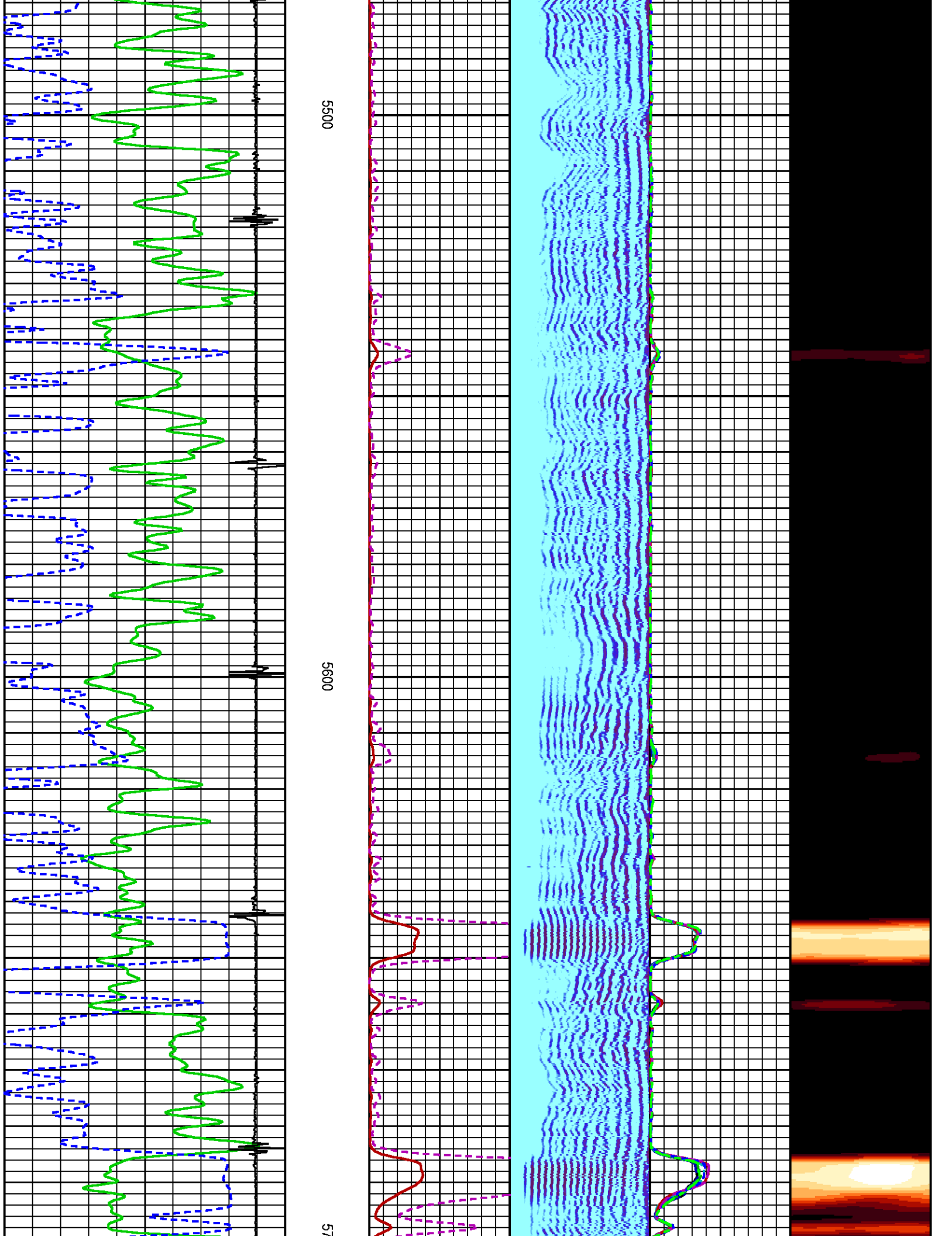


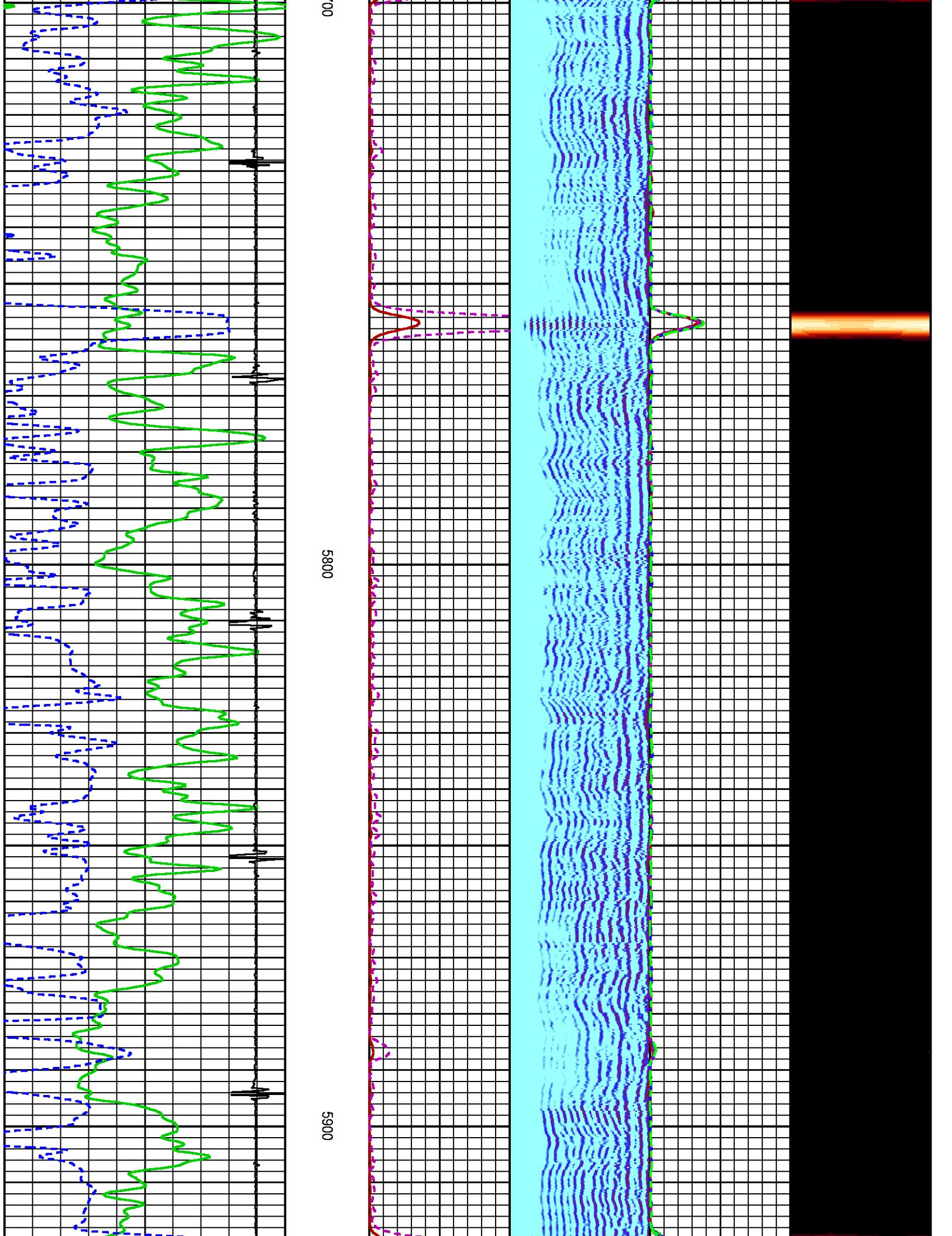


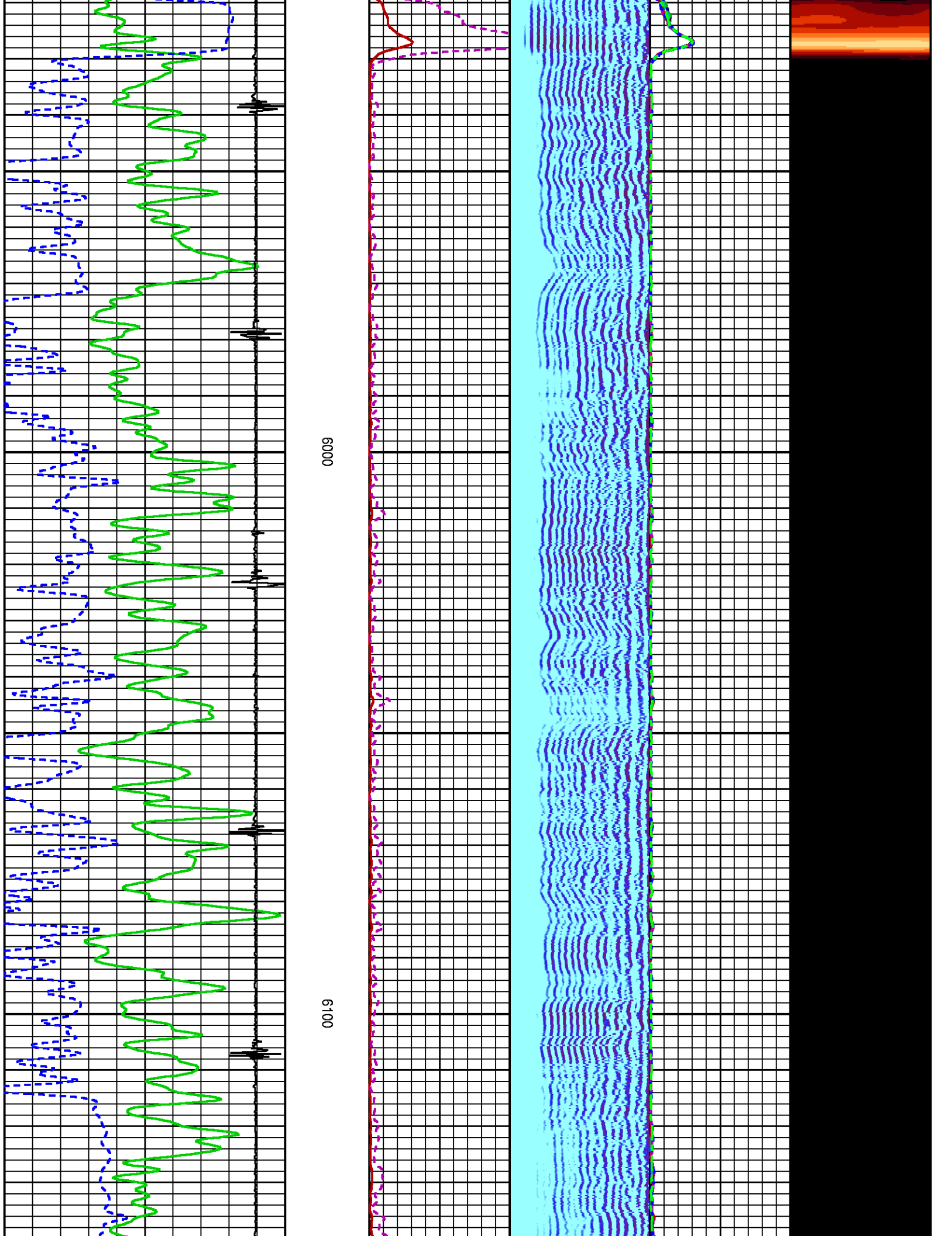


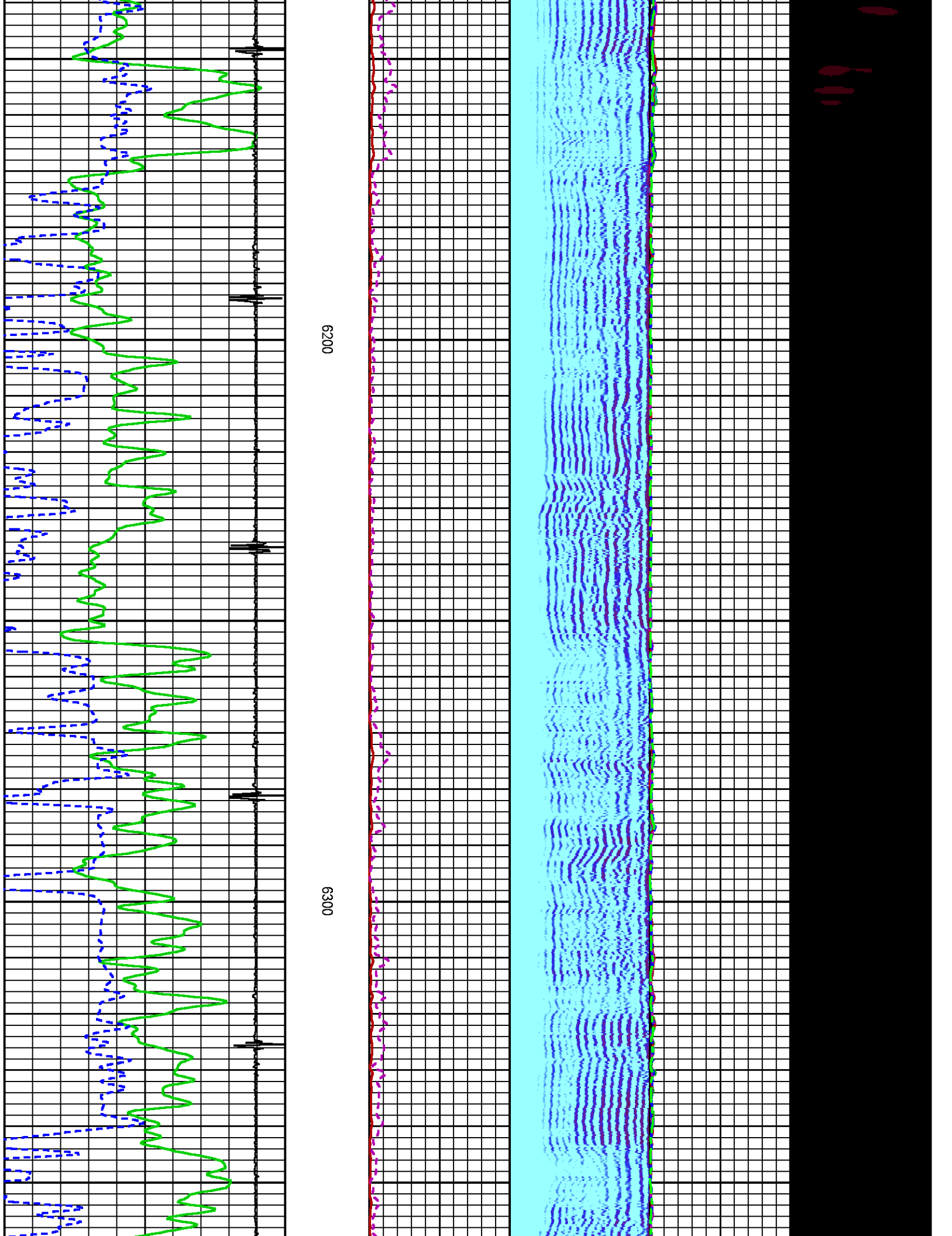


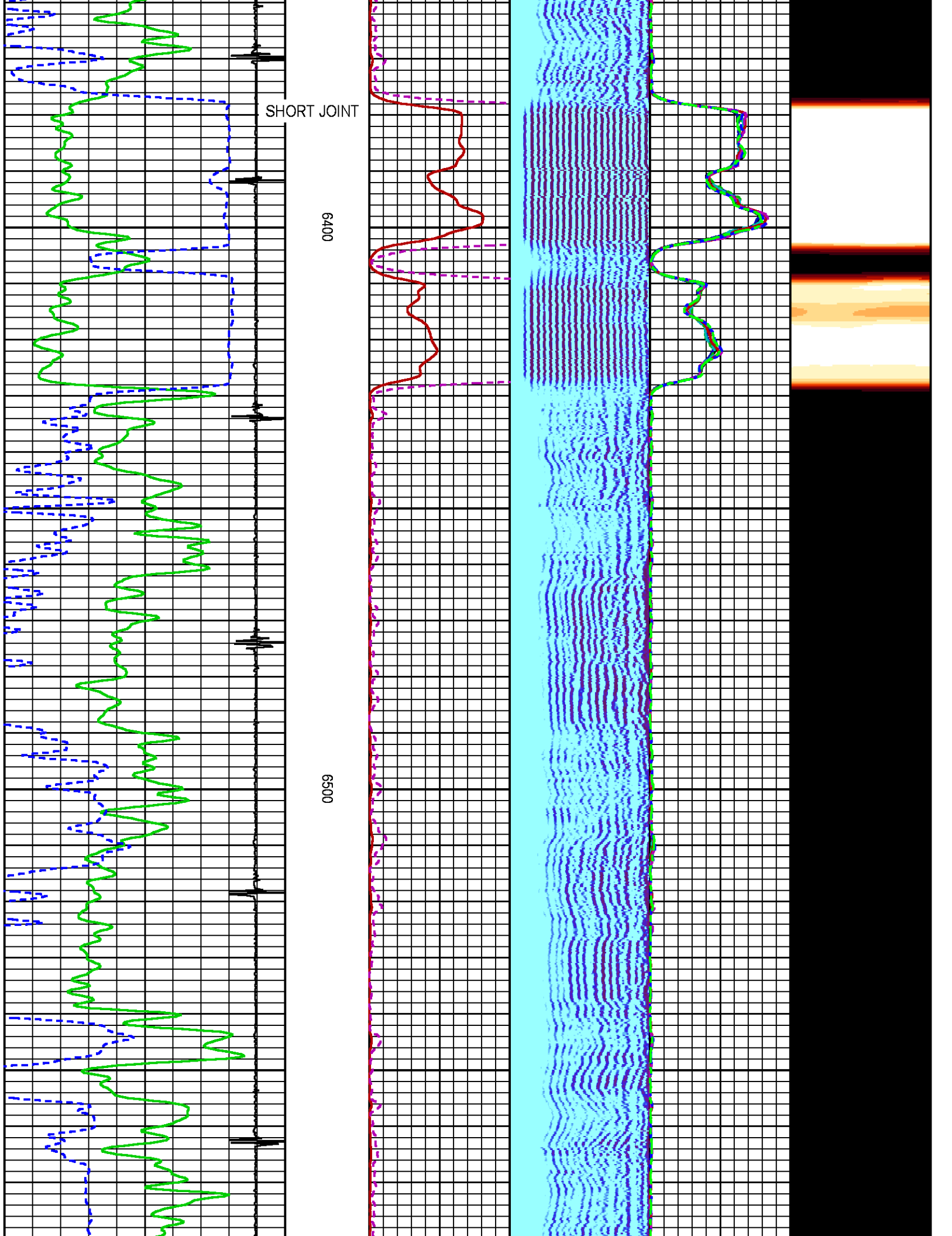




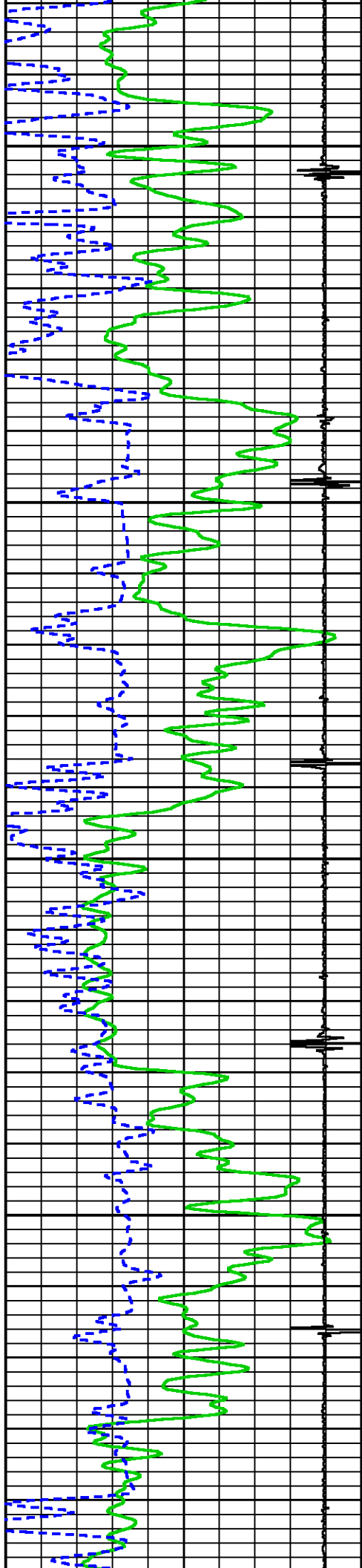








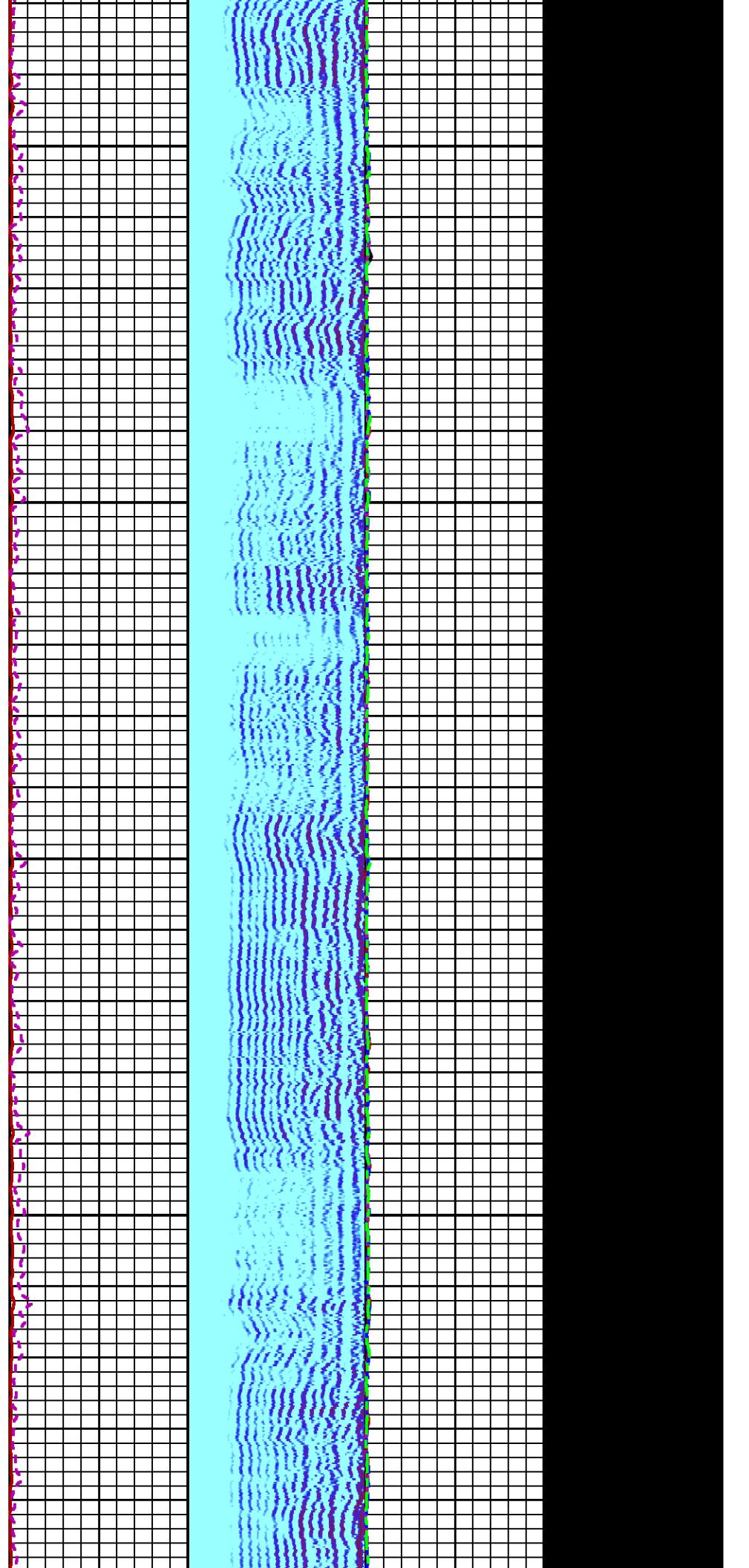


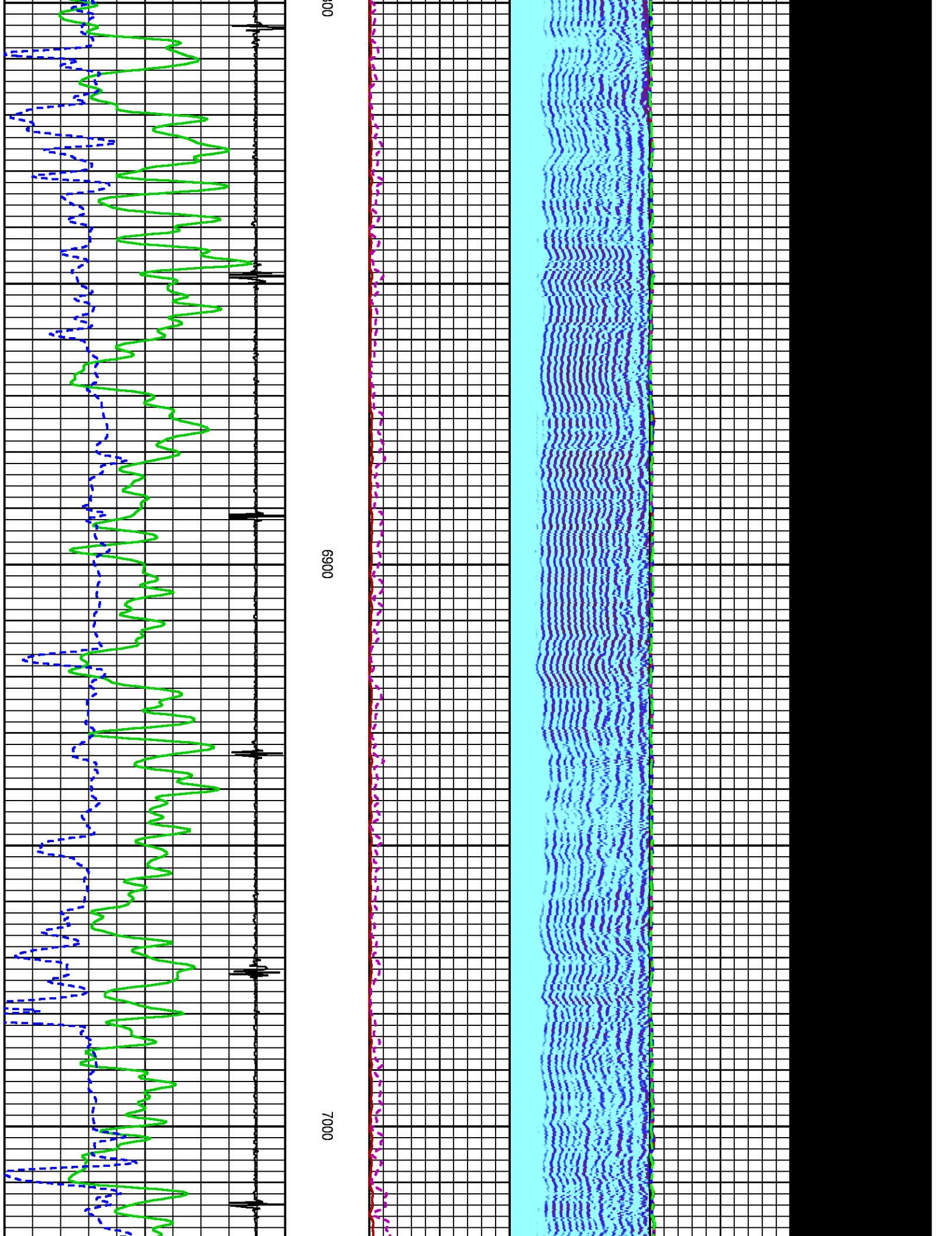


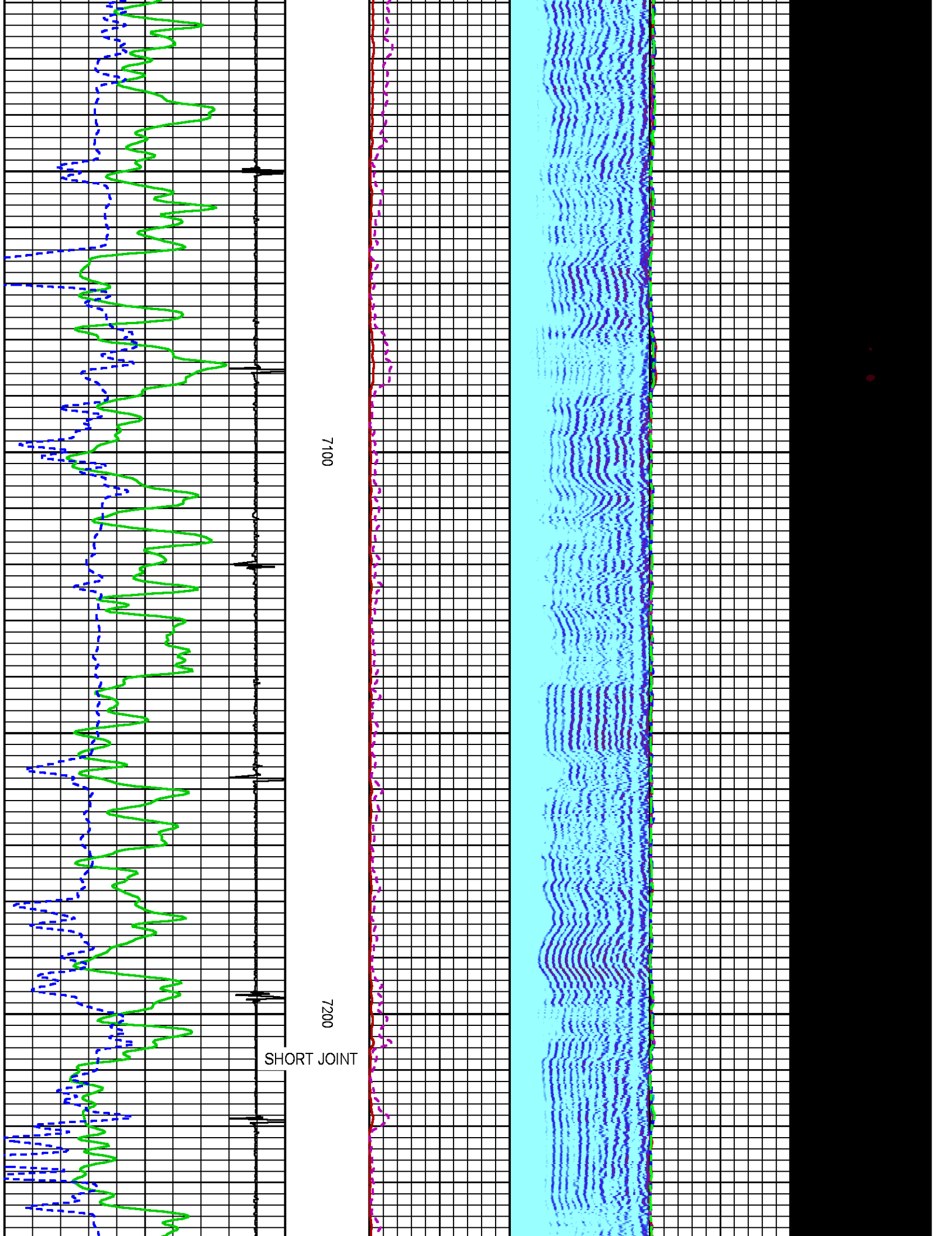
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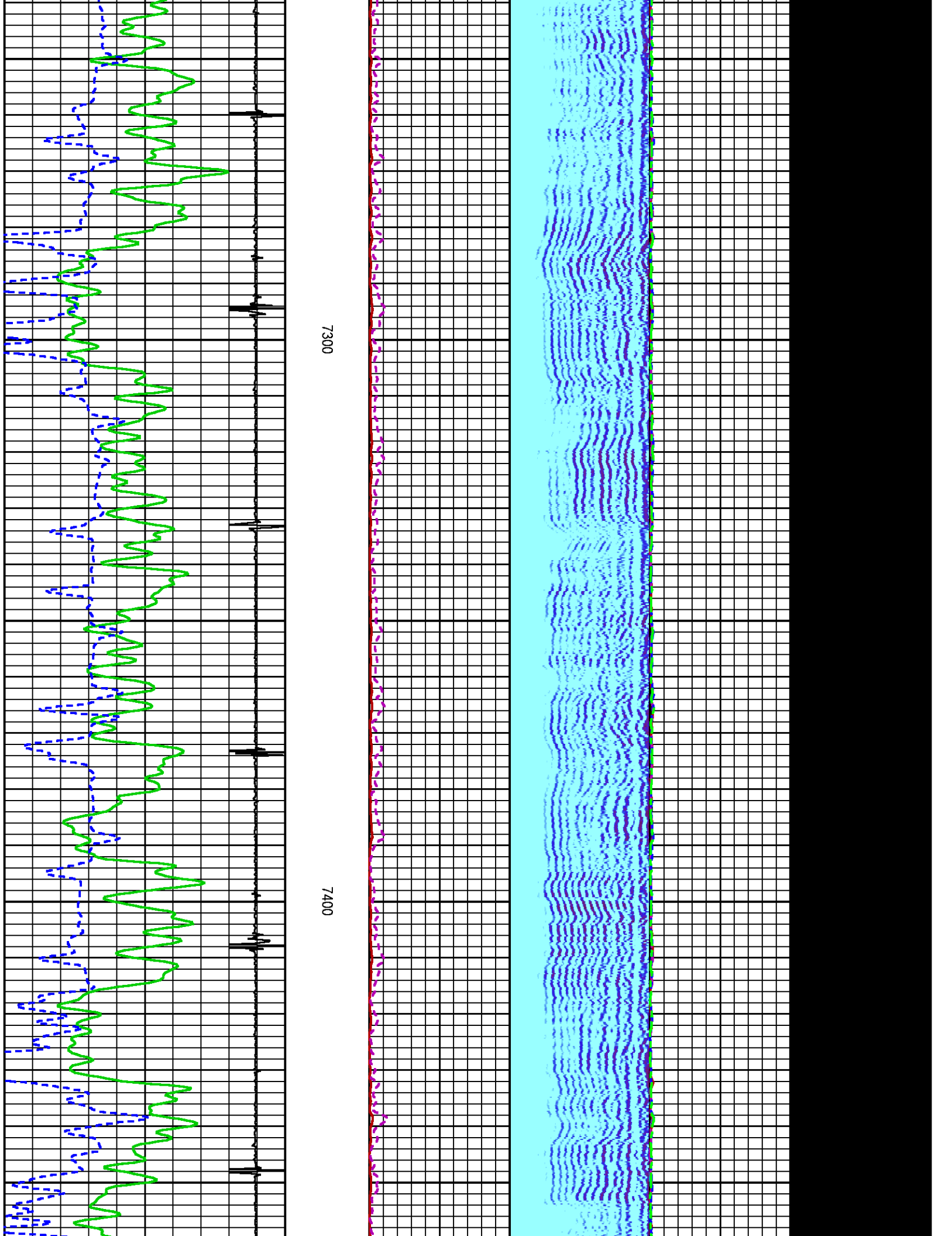
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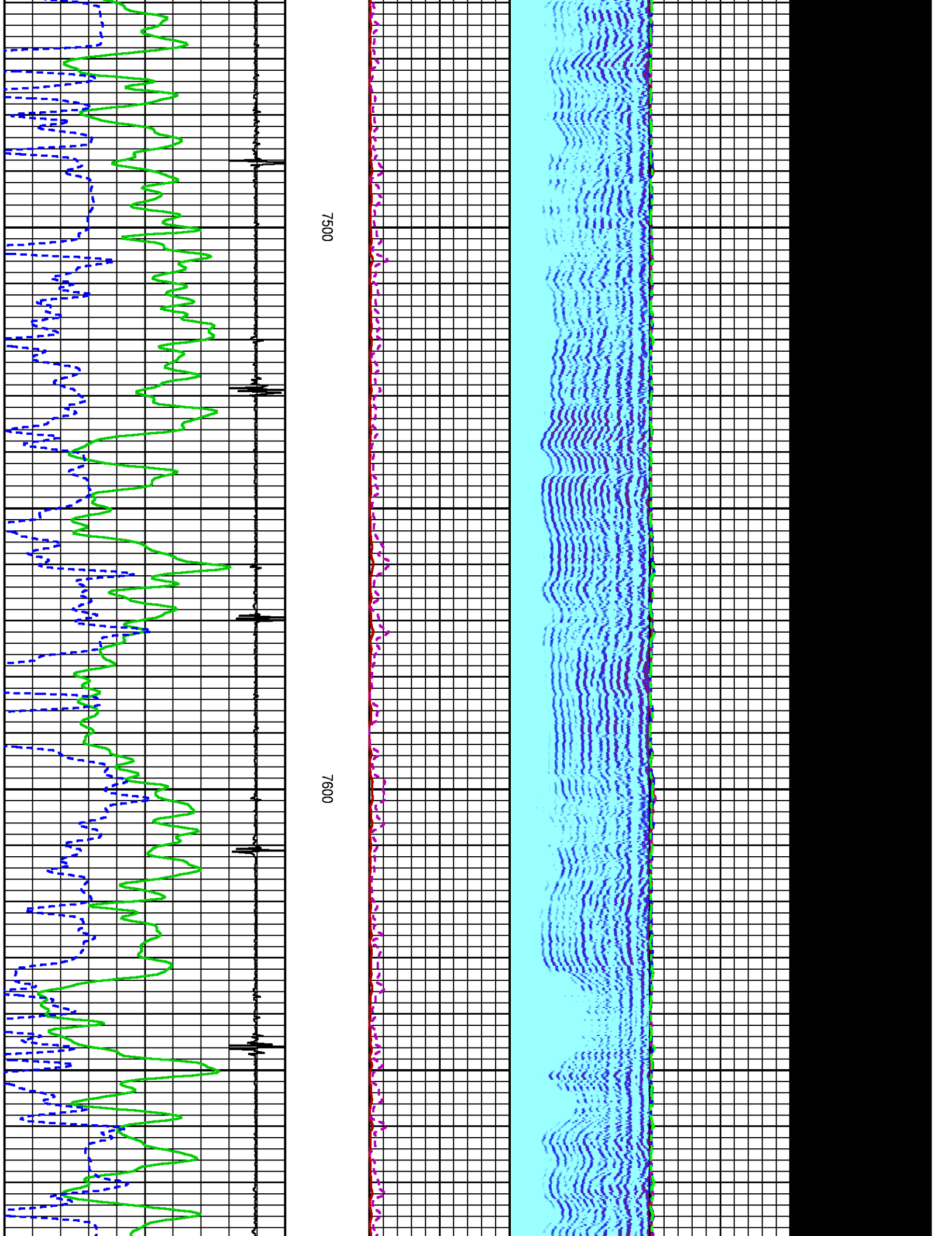
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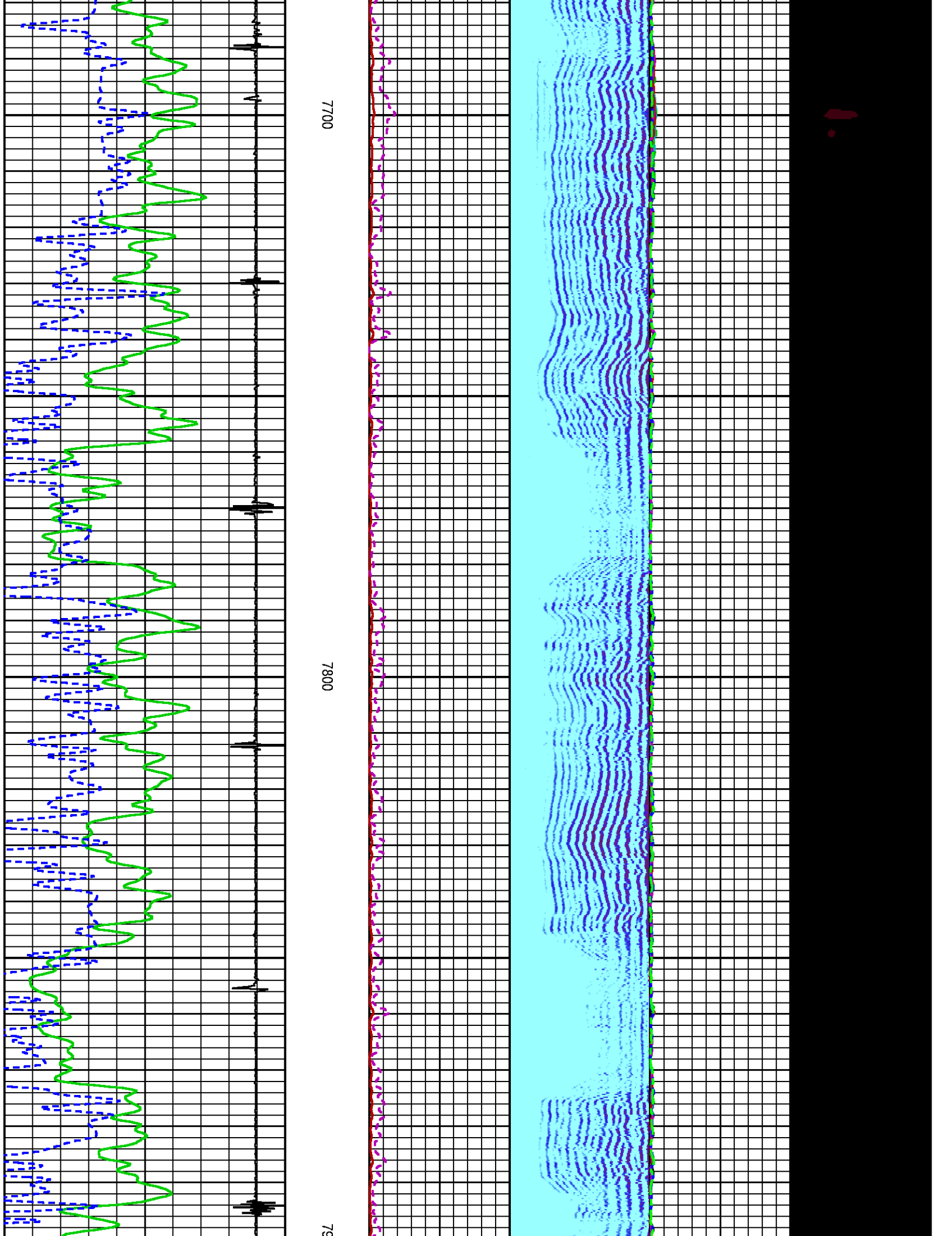


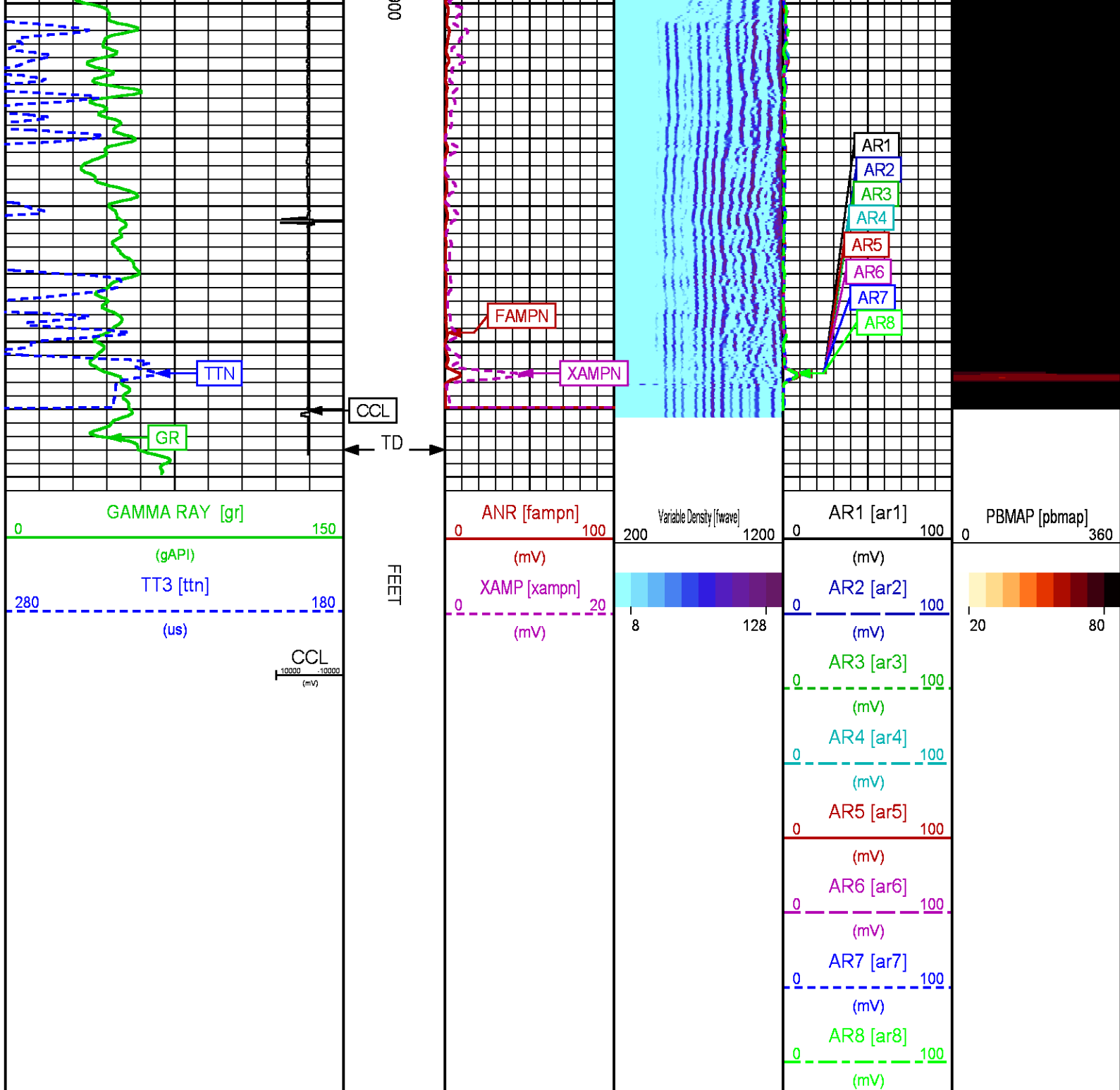












REPEAT PRESENTATION 0 PSI

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

Plotted: Mon Oct 19 08:48:12 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*)	175	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*)	-73	us	"	"
	TOOL DELAY (str2*)	-73	us	"	"
	TOOL DELAY (str3*)	-73	us	"	"
	TOOL DELAY (str4*)	-73	us	"	"
	TOOL DELAY (str5*)	-73	us	"	"
	TOOL DELAY (str6*)	-73	us	"	"
	TOOL DELAY (str7*)	-73	us	"	"
	TOOL DELAY (str8*)	-73	us	"	"
BASELINE NOISE (NEAR)	TOOL DELAY (strn*)	-73	us	"	"
	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	"	"

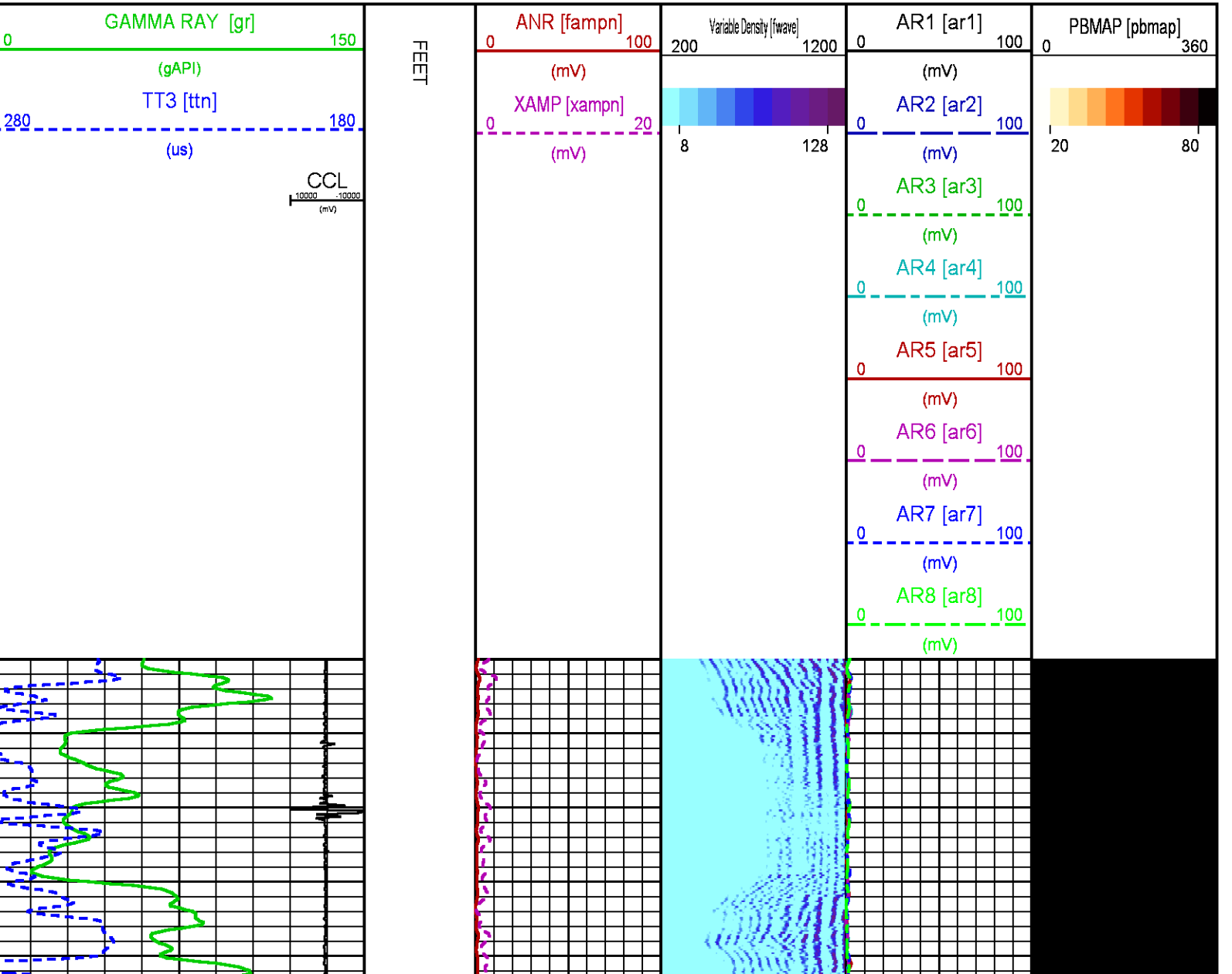
CURVE DESCRIPTION REPORT		
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:AR1	Oct 19 08:34:54 2015	FIXED GATE AMPLITUDE T-R1
F1:AR2	Oct 19 08:34:54 2015	FIXED GATE AMPLITUDE T-R2
F1:AR3	Oct 19 08:34:54 2015	FIXED GATE AMPLITUDE T-R3
F1:AR4	Oct 19 08:34:54 2015	FIXED GATE AMPLITUDE T-R4
F1:AR5	Oct 19 08:34:54 2015	FIXED GATE AMPLITUDE T-R5

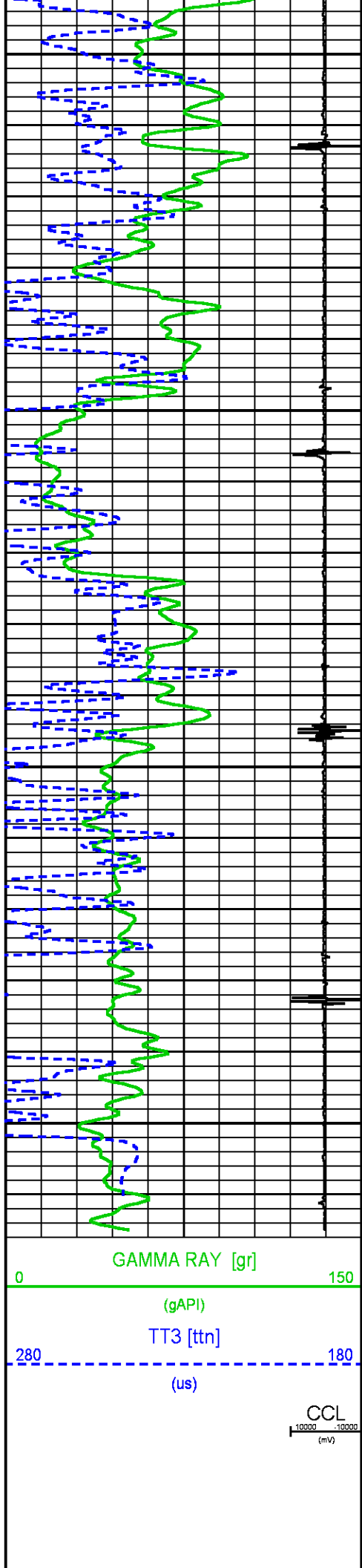
F1:AR6	Oct 19 08:34:54 2015	FIXED GATE AMPLITUDE T-R6
F1:AR7	Oct 19 08:34:54 2015	FIXED GATE AMPLITUDE T-R7
F1:AR8	Oct 19 08:34:54 2015	FIXED GATE AMPLITUDE T-R8
F1:CCL	Oct 19 08:34:54 2015	CASING COLLAR LOCATOR
F1:FAMPN	Oct 19 08:34:54 2015	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Oct 19 08:34:54 2015	FAR WAVE FORM
F1:GR	Oct 19 08:34:54 2015	GAMMA RAY
F1:PBMAP	Oct 19 08:34:54 2015	PERCENT BOND CEMENT MAP
F1:TTN	Oct 19 08:34:54 2015	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Oct 19 08:34:54 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/CH100248/7M\_CBL\_REPEAT.fvpdf [5"/100' Scale]  
**Plot Interval** : 7750 - 7965 Feet  
  
**Data File 1** : F1 : HL6670:/dat1a/CH100248/n012g01REPEAT7M.xtf  
**Created On** : Oct 19 08:34:54 2015  
**Company** : LARAMIE ENERGY  
**Well** : PICEANCE 28-07M  
**Field** : VEGA  
**File Interval** : 7686.75 - 7962.5 Feet  
**OCT** : n012g

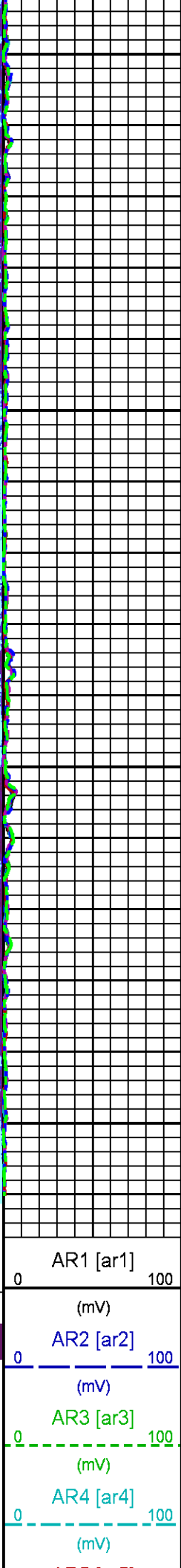
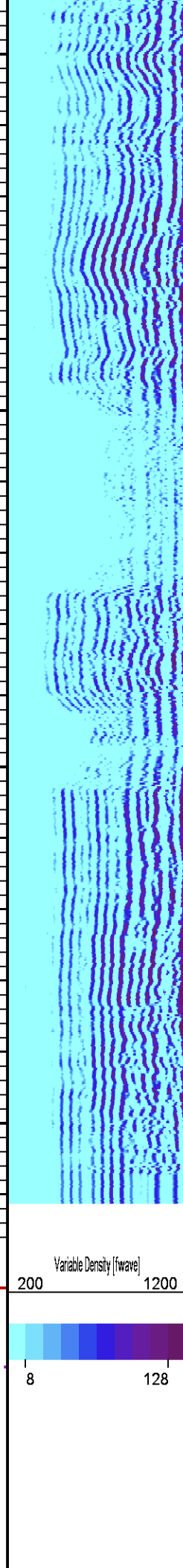
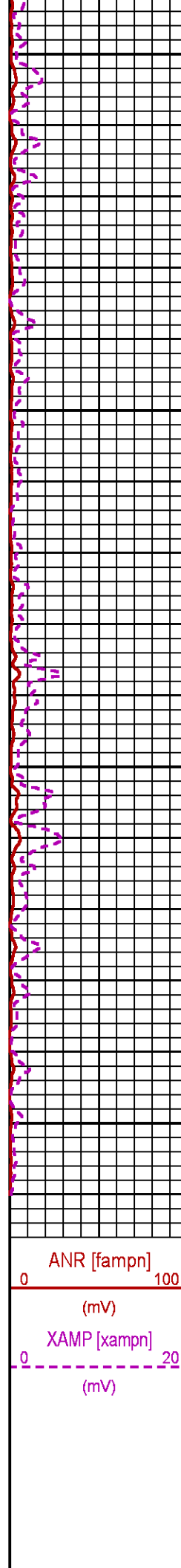




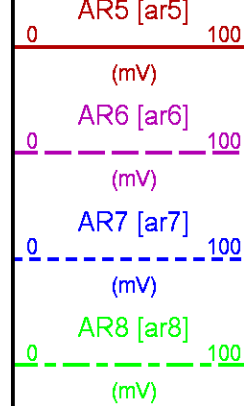
7800

7900

FEET







## CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/CH100248/n012g.tp1

### RAL PRIMARY CALIBRATION SUMMARY

TOOL #: 1426XA 10124106

DATE/TIME PERFORMED: Sat Oct 17 07:51:18 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)	-0.15	-0.09	0.02	0.10	-0.03	0.03	-0.05	-0.19	-0.15	-0.45	-0.11
AMP FLUID (mV)	103	103	102	103	103	103	103	103	104	138	102
TT (us)	218	218	218	217	217	217	216	216	218	325	218
M FACTOR	0.97	0.97	0.98	0.97	0.97	0.97	0.97	0.97	0.96	1.08	0.98

### RAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1426XA 10124106

DATE/TIME PERFORMED: Mon Oct 19 08:02:57 2015

DAYS SINCE CAL: 2

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	-0.09	-0.20	-0.17	-0.16	-0.12	-0.06	-0.05	-0.05	-0.04	-0.30	-0.04
AMP AIR	-0.34	-0.79	-0.81	-0.75	-0.90	-0.75	-0.63	-0.36	-0.60	-0.97	100.24

SHOP M FACTOR	SHOP A FACTOR	WIREFINE FACTOR
0.98	0.00	1.00

### 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 CALIBRATION GR DIFF MULT BACKGROUND CALIBRATION CALIBRATION

	BACKGROUND (cts)	CALBRTR ON (cts)	GR 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

## INSTRUMENT CONFIGURATION

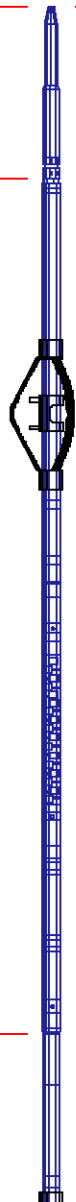
Source File: /dat1a/CH100248/CBL-tdg

### 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'

CCL 5.79'


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



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>CH100248</u>
	WELL	<u>PICEANCE 28-07M</u>		API NO:	<u>05077102400000</u>
	FIELD	<u>VEGA</u>			
	COUNTY	<u>MESA</u>	STATE	<u>COLORADO</u>	
LOCATION:			ELEVATIONS:	28 9S 93W	
SHL: LAT 39.250975 LONG -107.779419			KB 7600 FT	28-05 PAD	
BHL: LAT 39.250839 LONG -107.774667			DF	PATTERSON 306	
GL 7578 FT					
SEC <u>28</u> TWP <u>9S</u> RGE <u>93W</u>			DATE	<u>19-OCT-2015</u>	