



RADIAL CEMENT BOND LOG

| | |
|---------------------------|---|
| FILE NO: CH136897 | COMPANY LARAMIE ENERGY LLC |
| API NO: 05077105330000 | WELL GUNDERSON 0994-14-12E |
| | FIELD VEGA |
| | COUNTY MESA STATE COLORADO |

| | | |
|-----------|--|-----------------------|
| Ver. 4.10 | LOCATION: LAT: 39.273858 N LONG: 107.834945 W SEC 14 TWP 9 S RGE 94 W | OTHER SERVICES RPM |
|-----------|--|-----------------------|

| | | |
|---|--|---|
| PERMANENT DATUM LOG MEASURED FROM DRILL. MEAS. FROM | GL ELEVATION 7272 FT KB 30 FT ABOVE P.D. KKB | ELEVATIONS: KB 7302 FT DF GL 7272 FT |
|---|--|---|

| DATE | TRIP | 14-Jun-2018 | 1 |
|------------------------|----------|-------------|---|
| RUN | 1 | | |
| SERVICE ORDER | US136897 | | |
| DEPTH DRILLER | 8238 FT | | |
| DEPTH LOGGER | 8200 FT | | |
| BOTTOM LOGGED INTERVAL | 8200 FT | | |
| TOP LOGGED INTERVAL | 30 FT | | |
| TIME STARTED | 18:00 | | |
| TIME FINISHED | 20:00 | | |
| OPERATOR RIG TIME | 2.0 HRS | | |
| TYPE OF FLUID IN HOLE | WATER | | |
| FLUID DENSITY | NA | | |
| FLUID SALINITY | NA | | |
| FLUID LEVEL | 56 FT | | |
| LOGGED CEMENT TOP | 650 FT | | |
| WELLHEAD PRESSURE | 0 PSI | | |
| MAXIMUM HOLE DEVIATION | NA | | |
| NOMINAL LOGGING SPEED | 95 FMIN | | |
| MAX. RECORDED TEMP. | 226 DEGF | | |
| REFERENCE LOG | NA | | |
| REFERENCE LOG DATE | NA | | |
| EQUIP. NO. | ML-4291 | GRAND JCT. | |
| RECORDED BY | M. BAUKA | | |
| WITNESSED BY | NA | | |

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 WELLBORE*

OPERATION 1: RAL/GR/CCL RUN CENTRALIZED

LOGGED WITH 0 PSI ON WELLHEAD

SJ: 6458' - 6478'
SJ: 7672' - 7692'

EQUIPMENT DATA

| RUN | TRIP | TOOL | SERIES NO. | SERIAL NO. | POSITION |
|-----|------|--------|------------|------------|-------------|
| 1 | 1 | RAL | 1426XA | 11871500 | CENTRALIZED |
| 1 | 1 | GR/CCL | 1355XA | 12670180 | CENTRALIZED |

MAIN PASS 0 PSI

ECLIPS 7.0i ECLIPS General Release Rel 7.0i Thu Jun 08 20:36:10 CDT 2017
Patches: 4

Plotted: Thu Jun 14 21:29:01 2018

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/LARAMIE_GUNDERSON_0994-14-12E/p012g02.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 18.250 ft BOTTOM DEPTH: 8205.500 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 | 0.00 | | 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 | 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 | 200.465 | us | " | " |
| RAL TOOL DELAY | TOOL DELAY (str1*) | -65 | us | " | " |
| | TOOL DELAY (str2*) | -65 | us | " | " |
| | TOOL DELAY (str3*) | -65 | us | " | " |
| | TOOL DELAY (str4*) | -65 | us | " | " |
| | TOOL DELAY (str5*) | -65 | us | " | " |
| | TOOL DELAY (str6*) | -65 | us | " | " |
| | TOOL DELAY (str7*) | -65 | us | " | " |
| | TOOL DELAY (str8*) | -65 | us | " | " |
| | TOOL DELAY (strn*) | -65 | us | " | " |
| 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 | " | " |

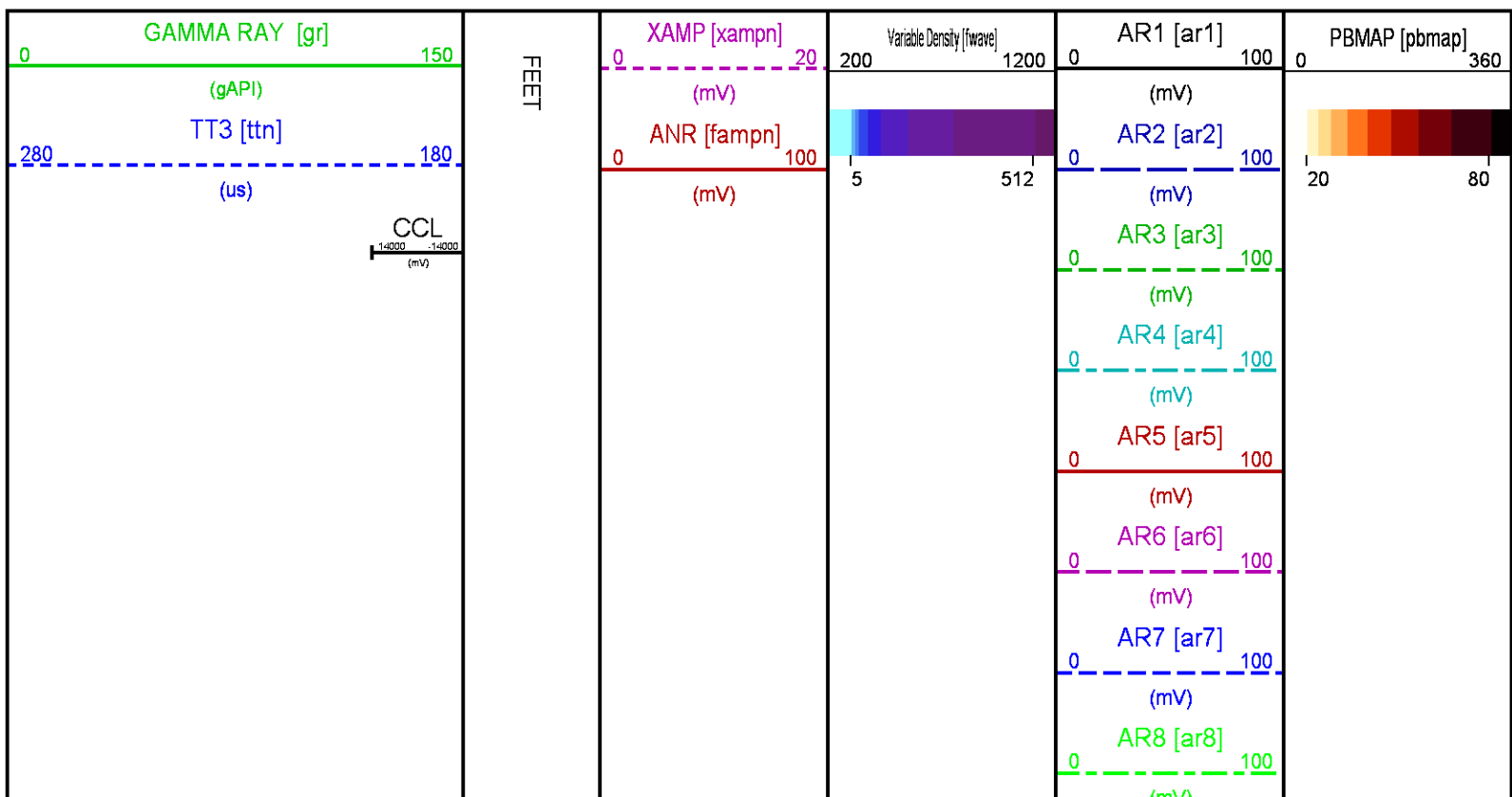
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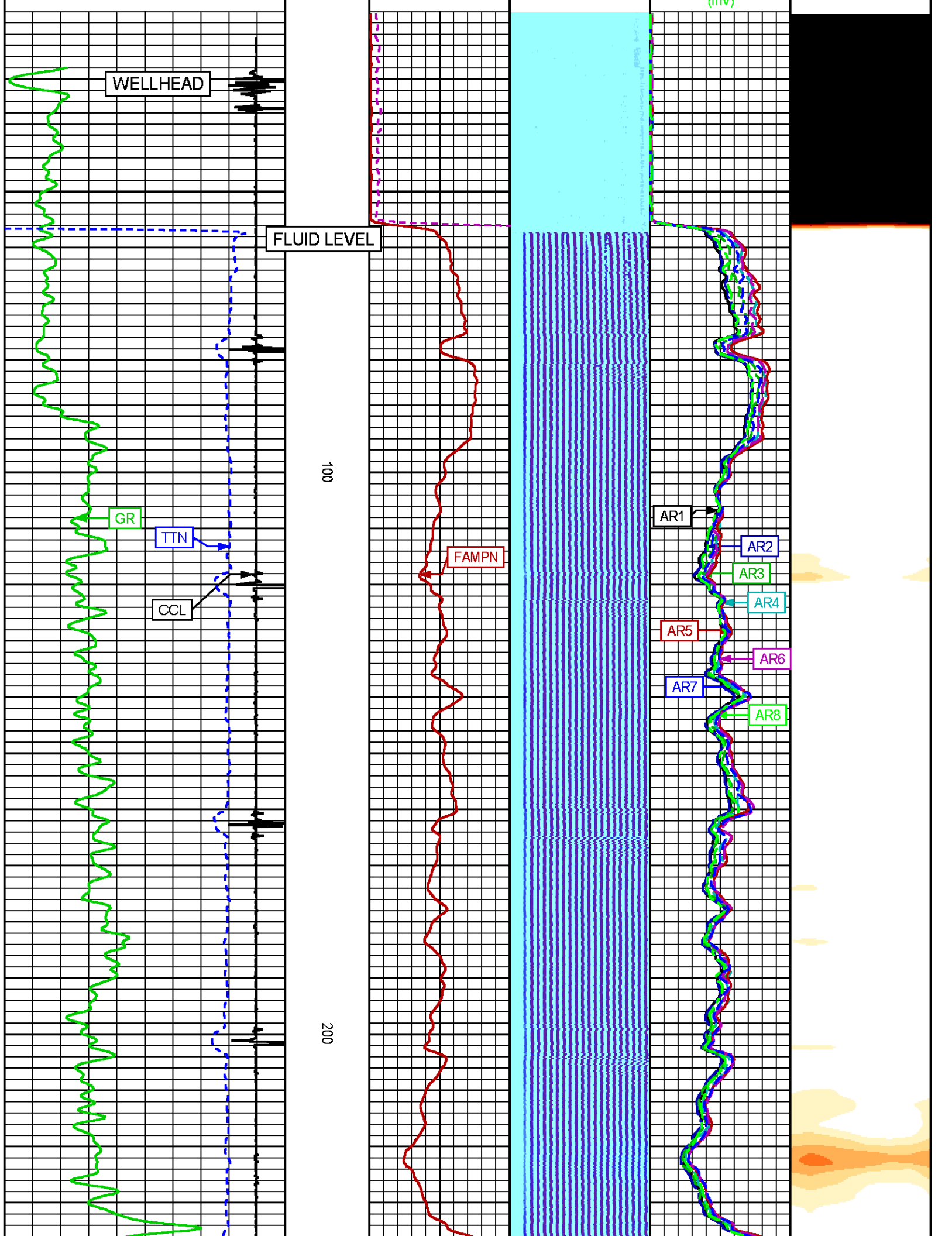
| CURVE NAME | CREATION DATE | CURVE DESCRIPTION |
|------------|---------------|---|
| F1:AR1 | N/A | FIXED GATE AMPLITUDE T-R1 |
| F1:AR2 | N/A | FIXED GATE AMPLITUDE T-R2 |
| F1:AR3 | N/A | FIXED GATE AMPLITUDE T-R3 |
| F1:AR4 | N/A | FIXED GATE AMPLITUDE T-R4 |
| F1:AR5 | N/A | FIXED GATE AMPLITUDE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

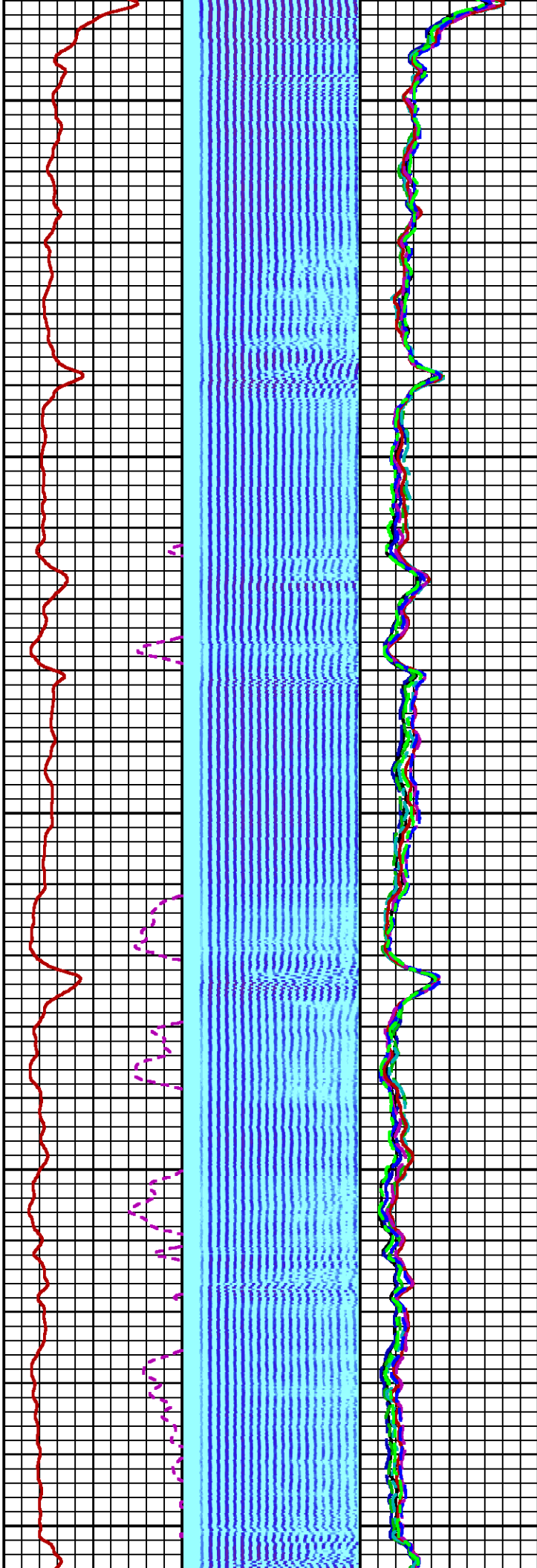
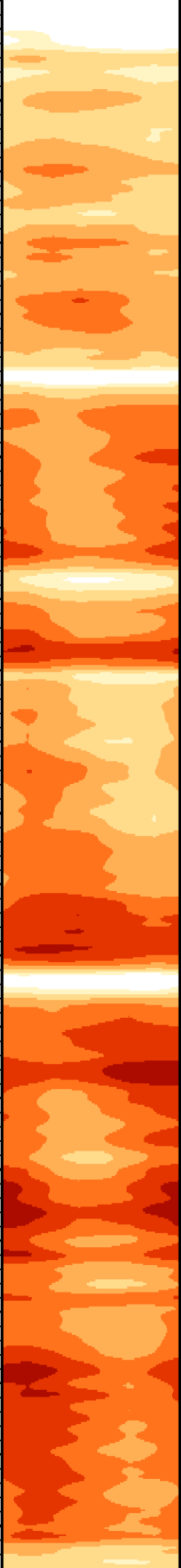
CURVE MEASURE POINT OFFSET

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

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|----------------------|--|
| Presentation | : SysA:/dat1a/LARAMIE_GUNDERSON_0994-14-12E/0994-14-12E_RAL_MAIN.fvpdf [5"/100' Scale] |
| Plot Interval | : 18.25 - 8214.5 Feet |
| Data File 1 | : F1 : SysA:/dat1a/LARAMIE_GUNDERSON_0994-14-12E/0994-14-12E_RAL_MAIN.xtf |
| Created On | : N/A |
| Company | : LARAMIE ENERGY LLC |
| Well | : GUNDERSON 0994-014-12E |
| Field | : VEGA |
| File Interval | : 17.25 - 8215.75 Feet |
| OCT | : p012g |

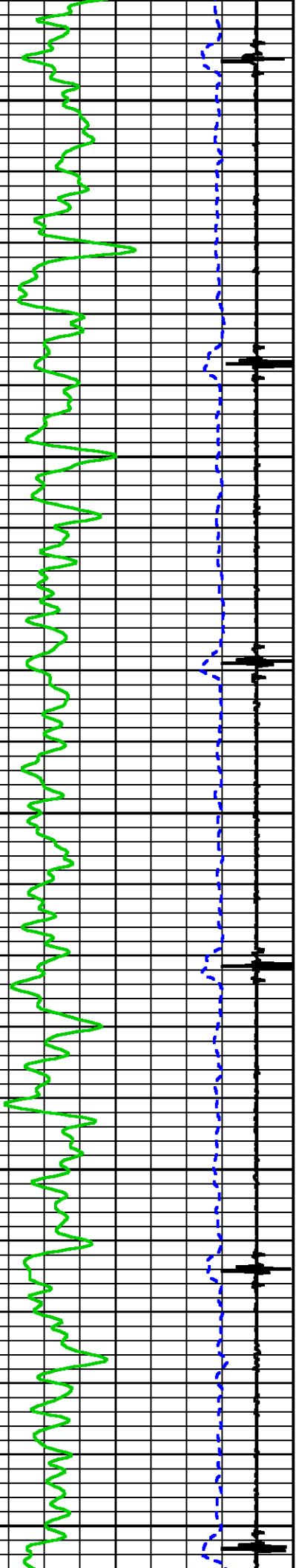


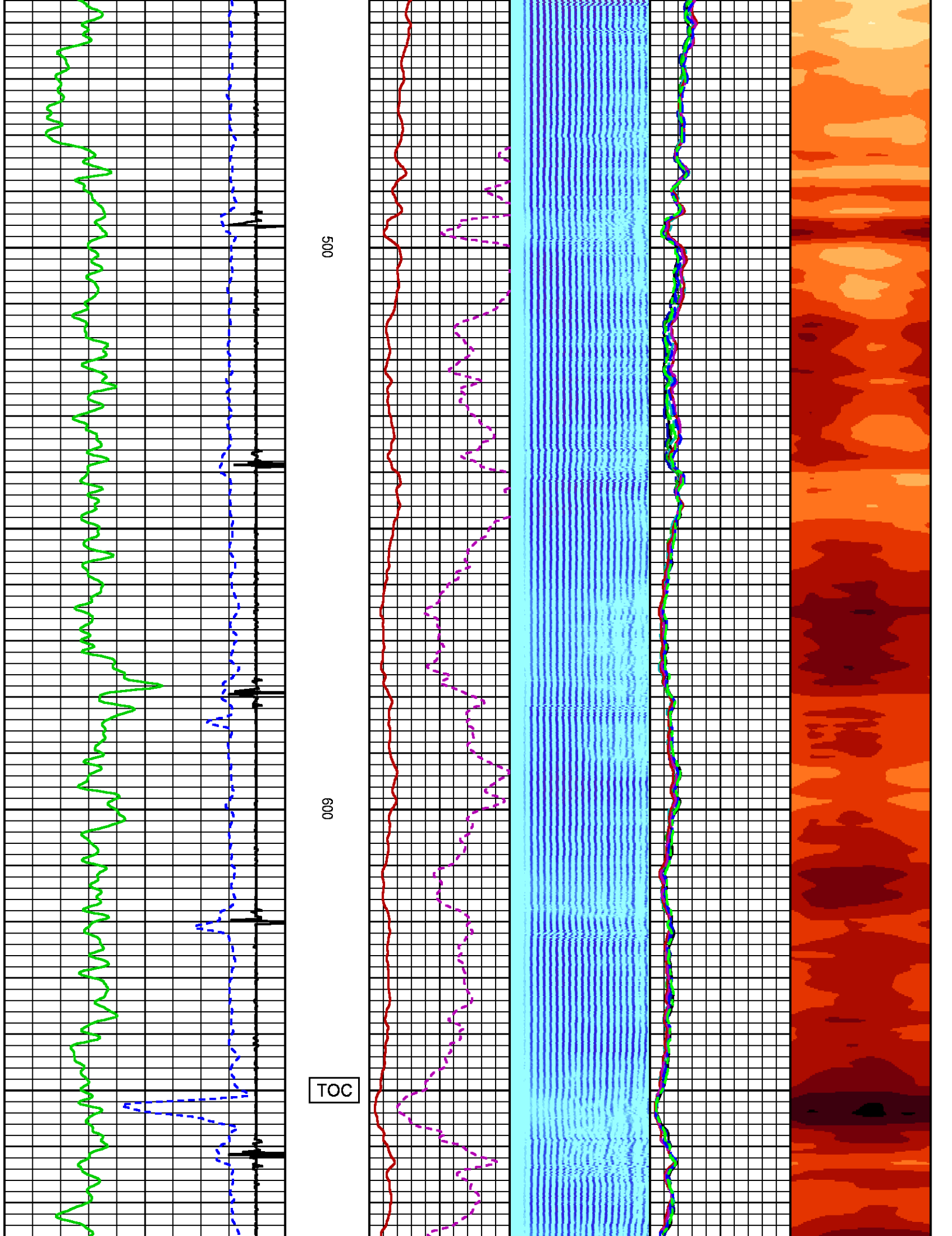


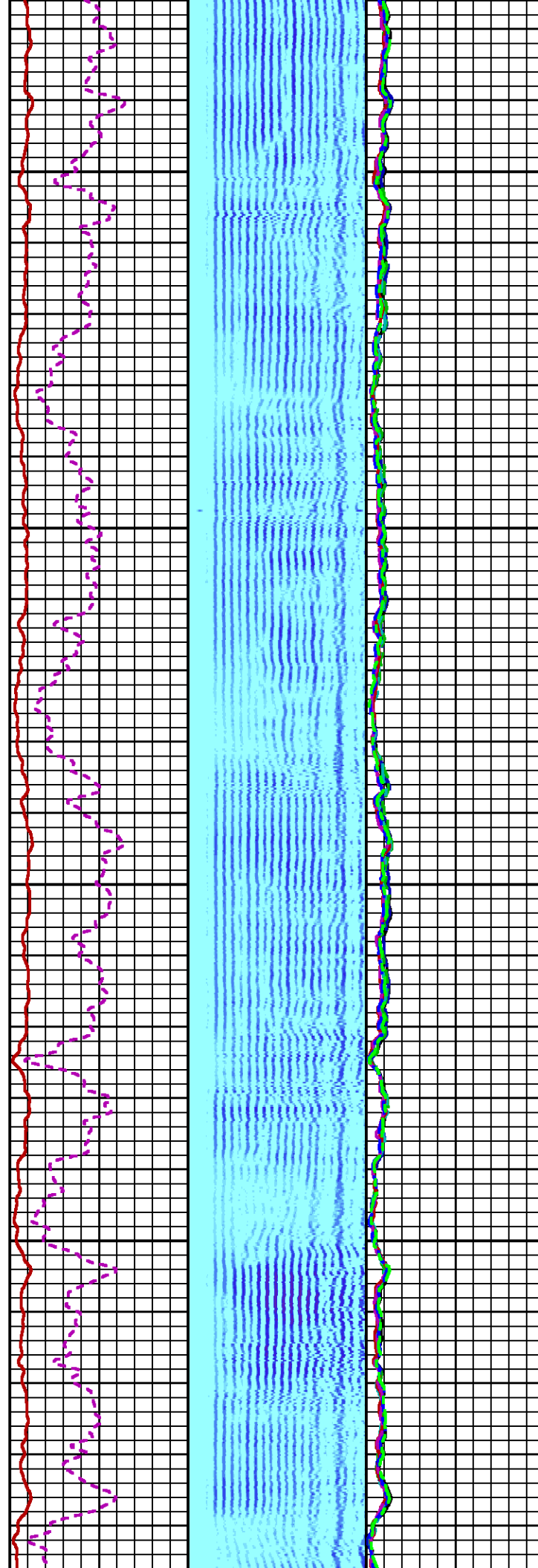
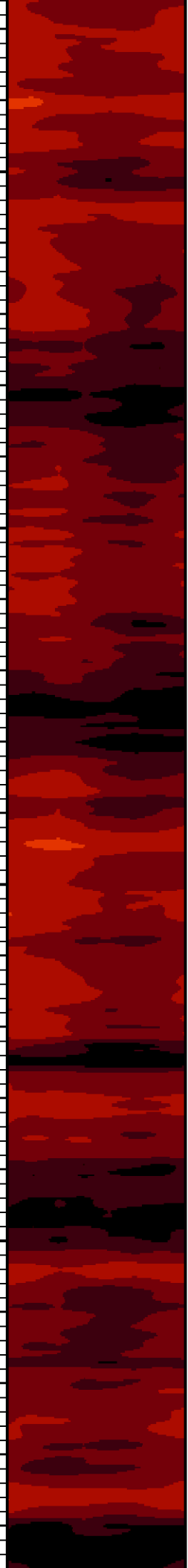


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400

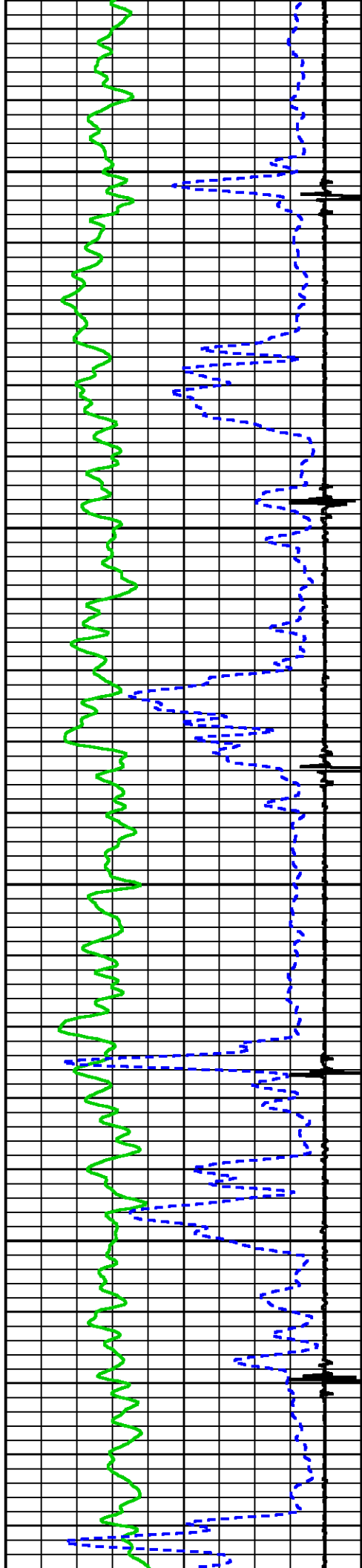


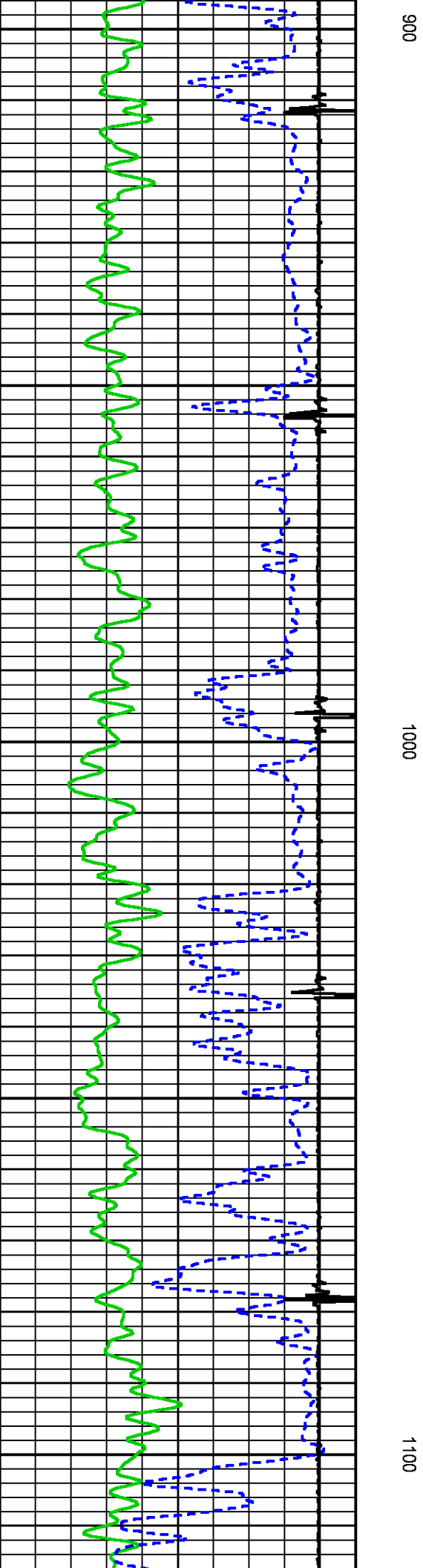
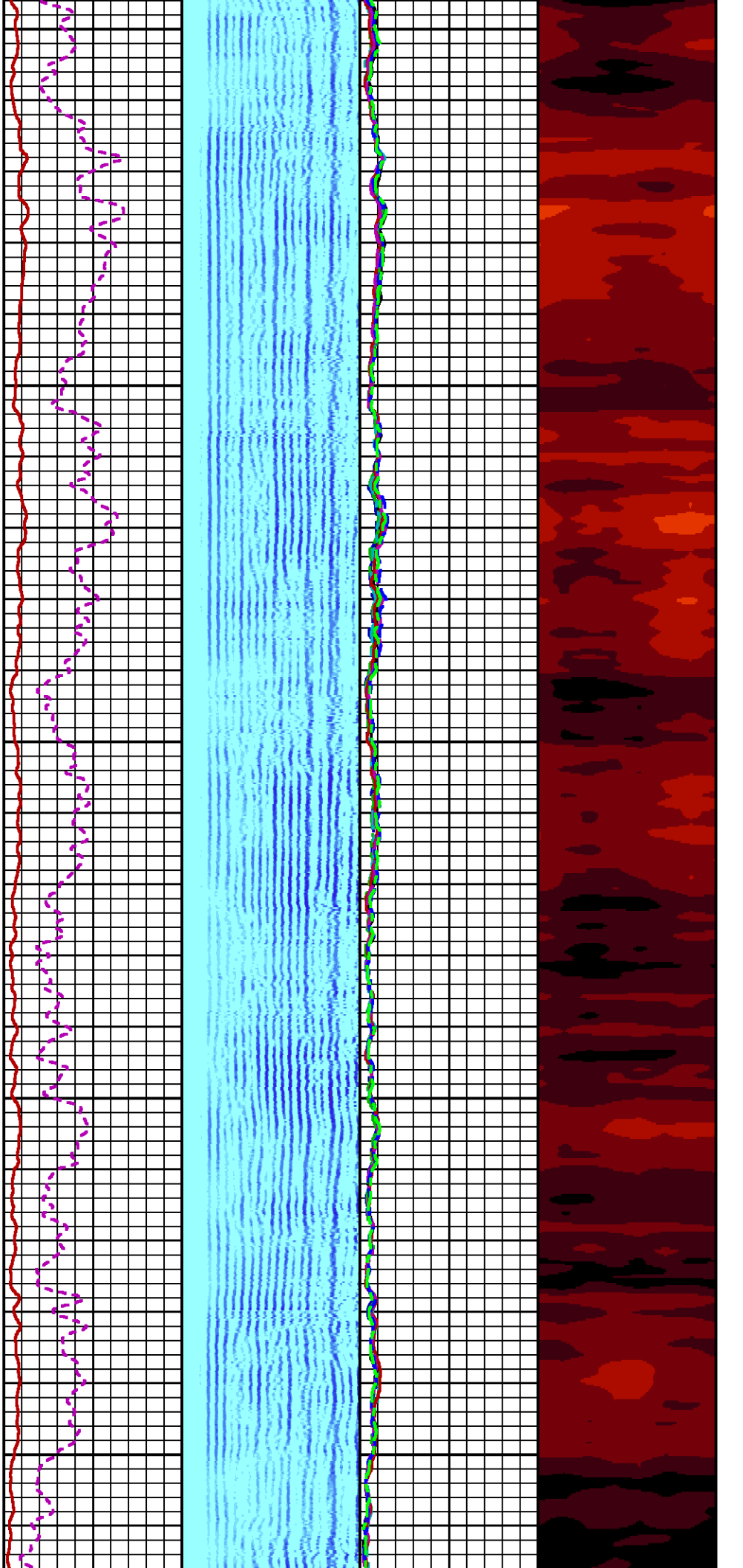


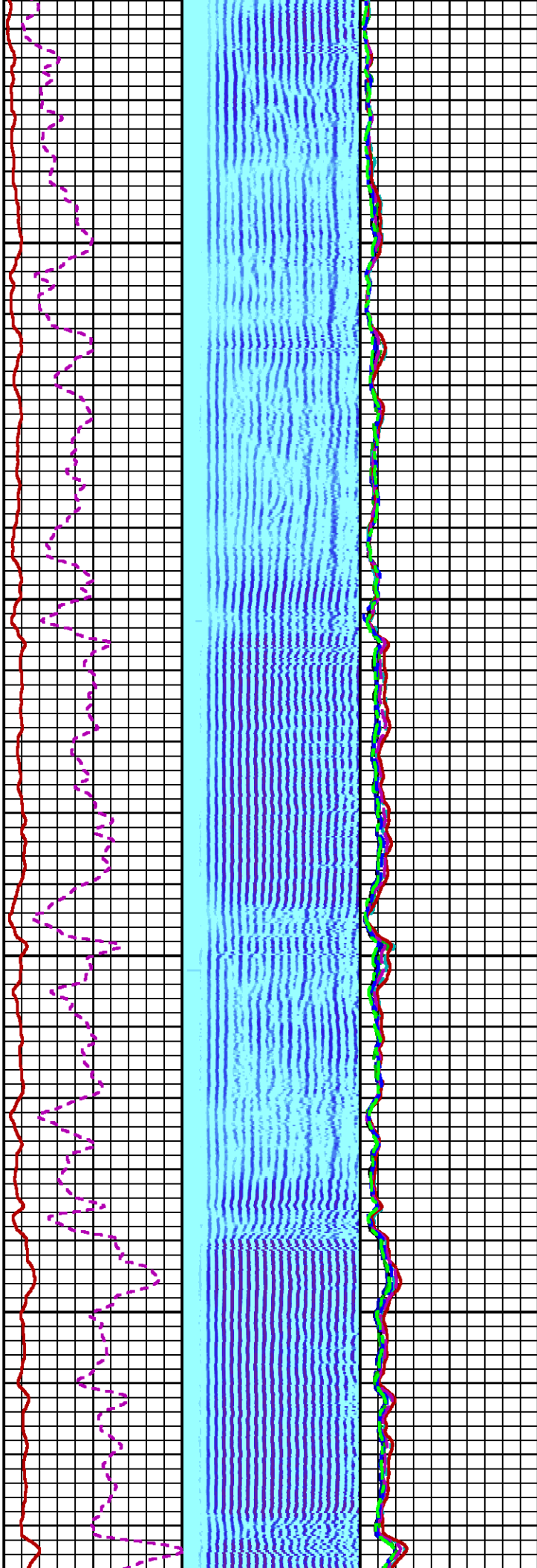


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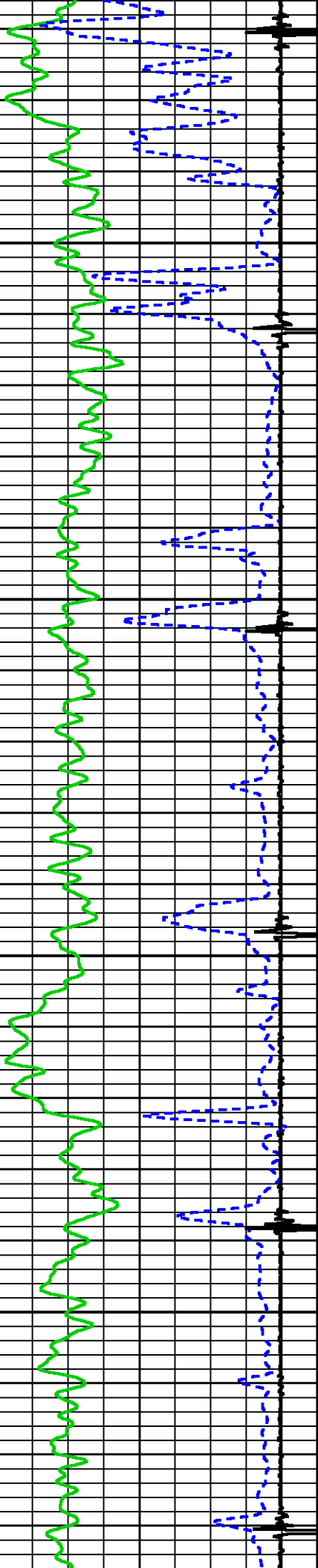


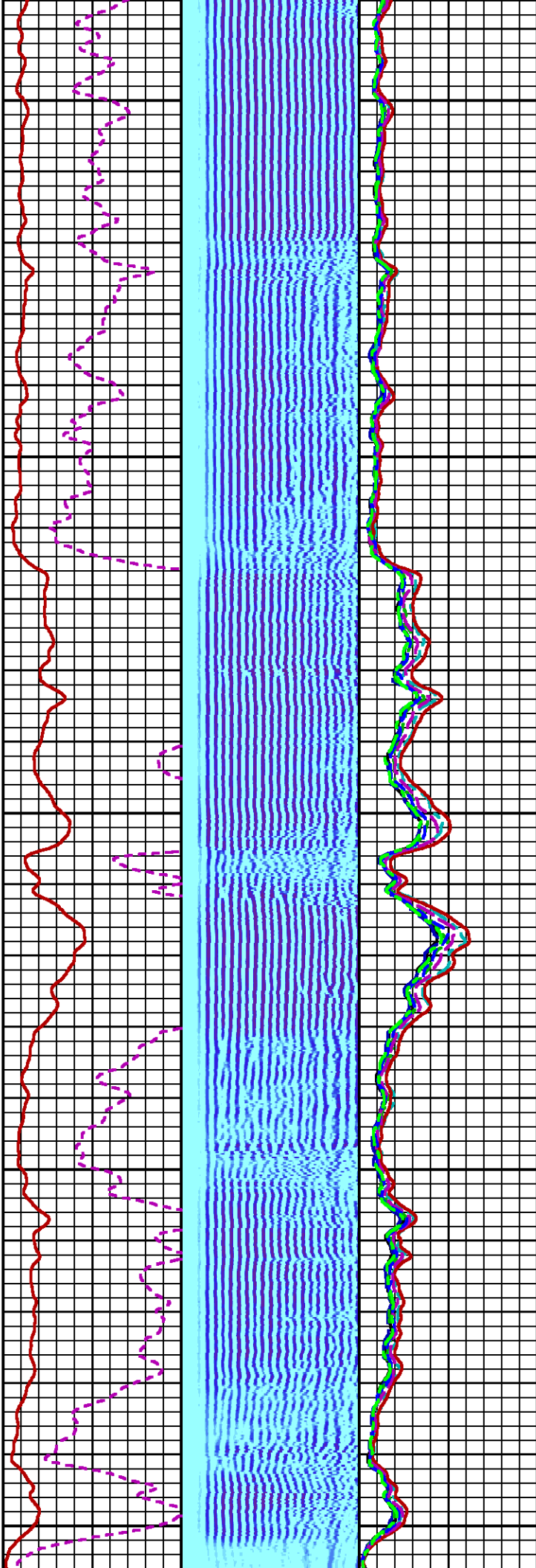
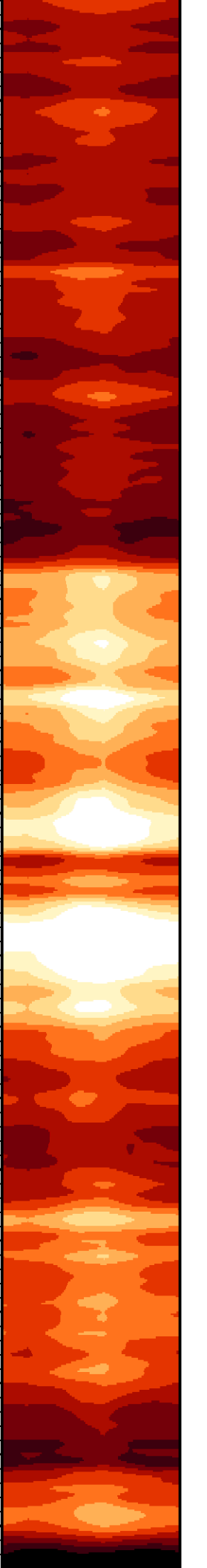




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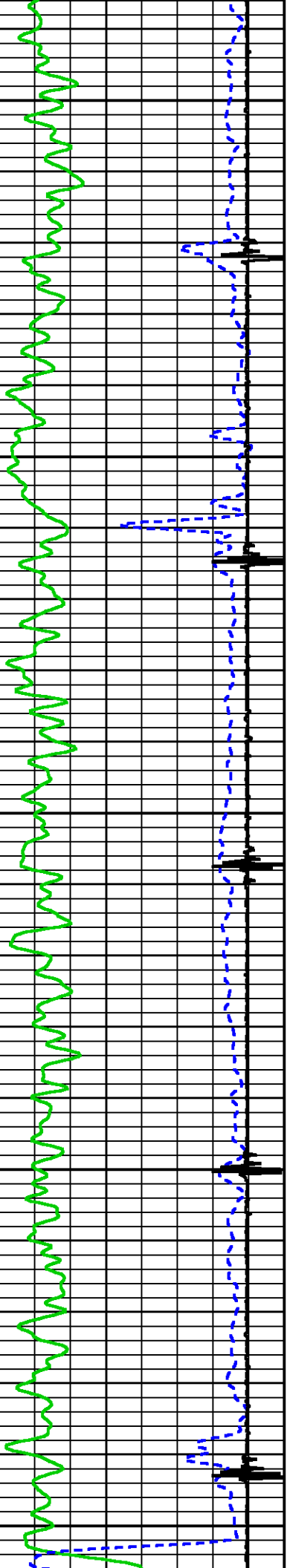
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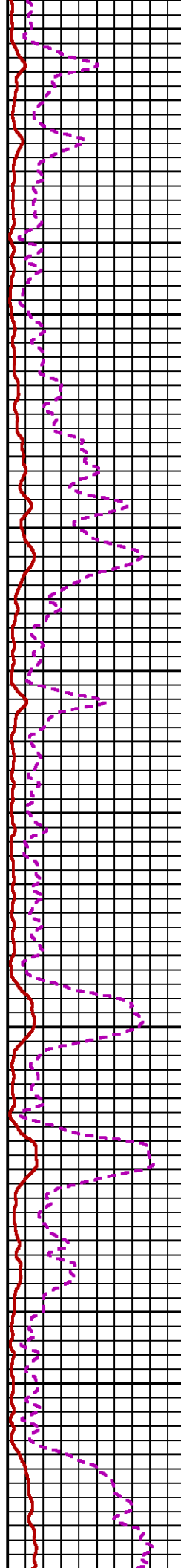
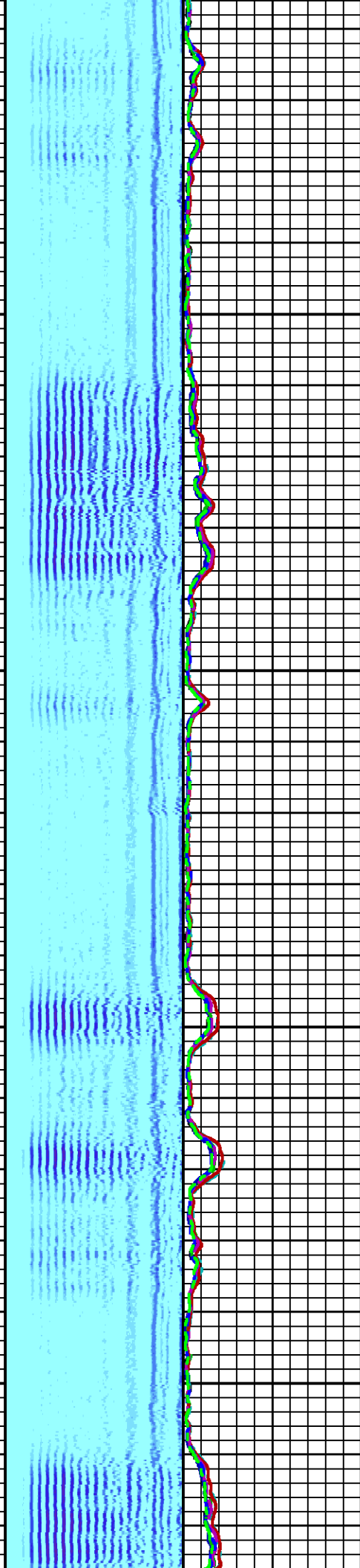
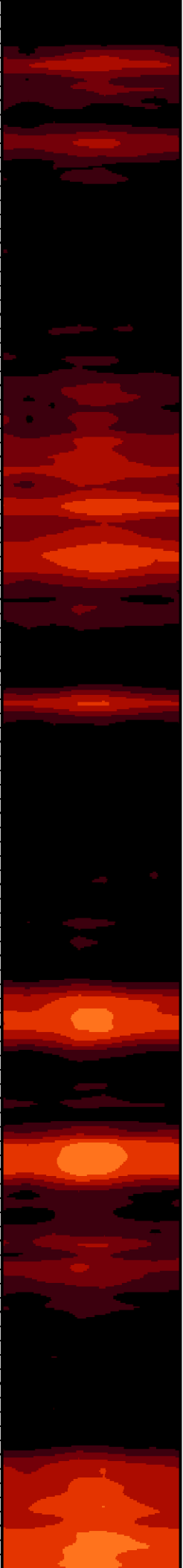




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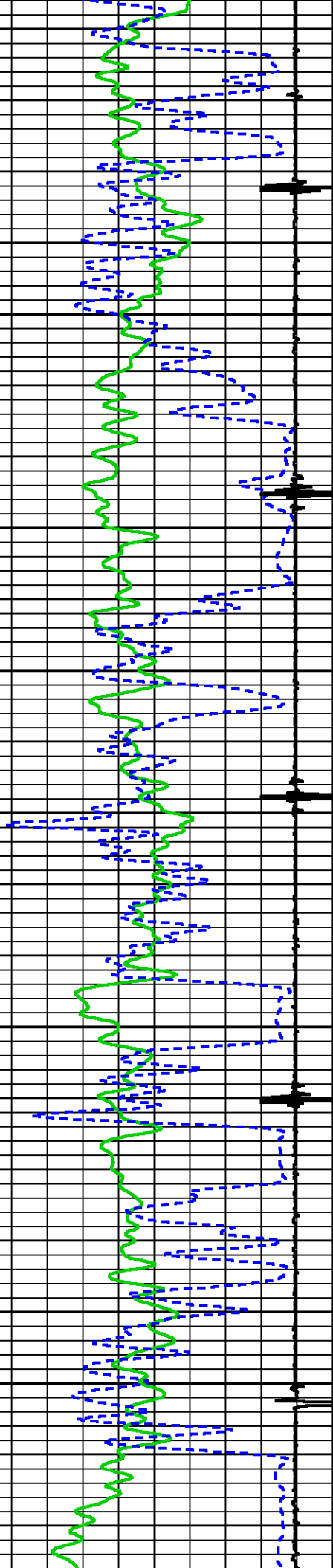
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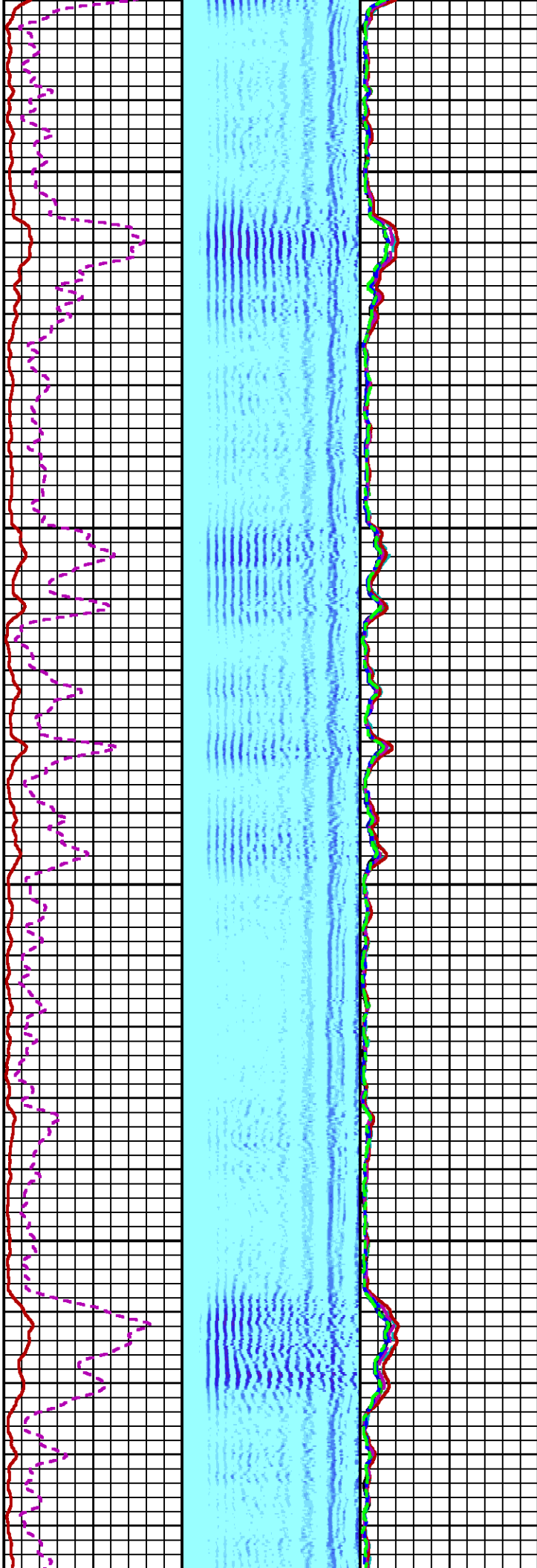
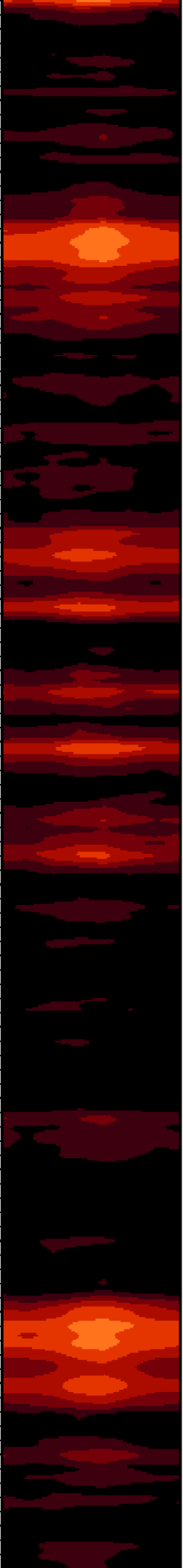




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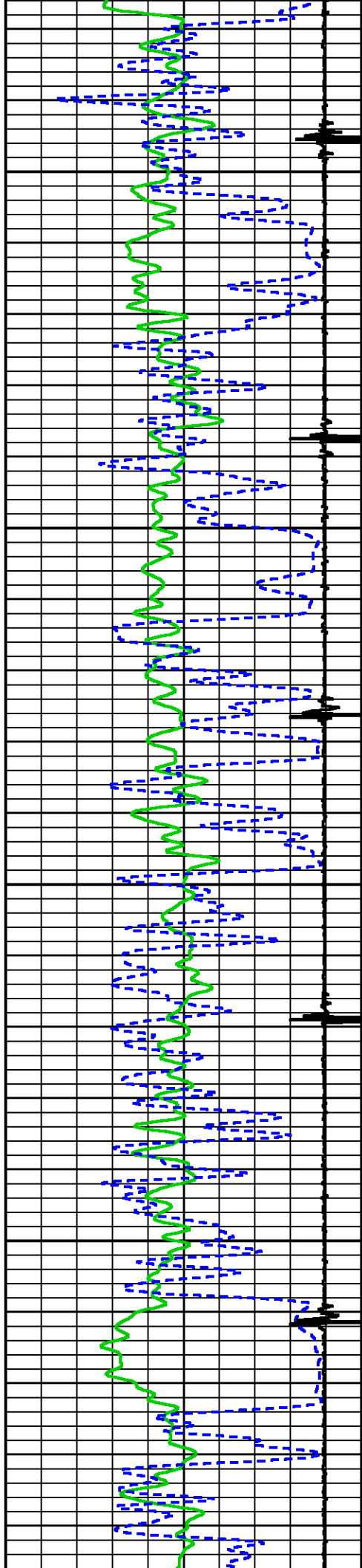
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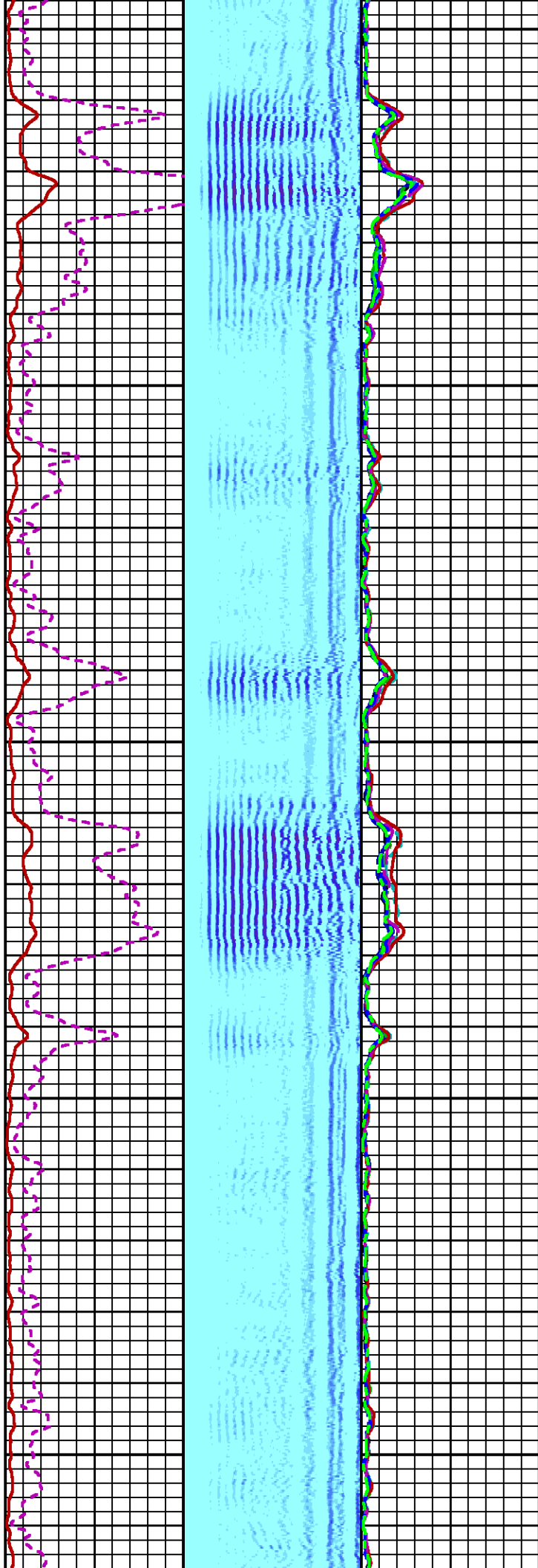
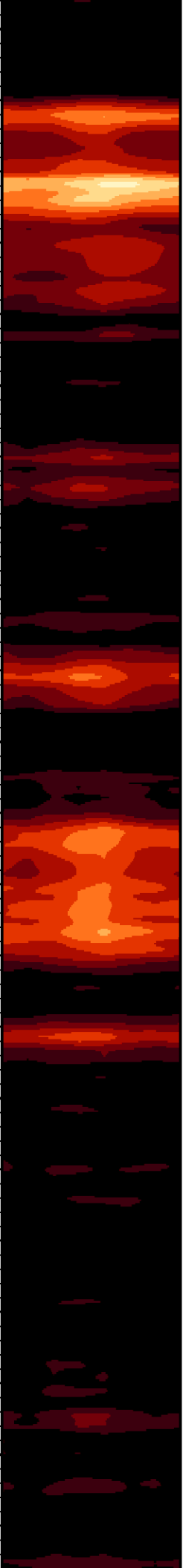




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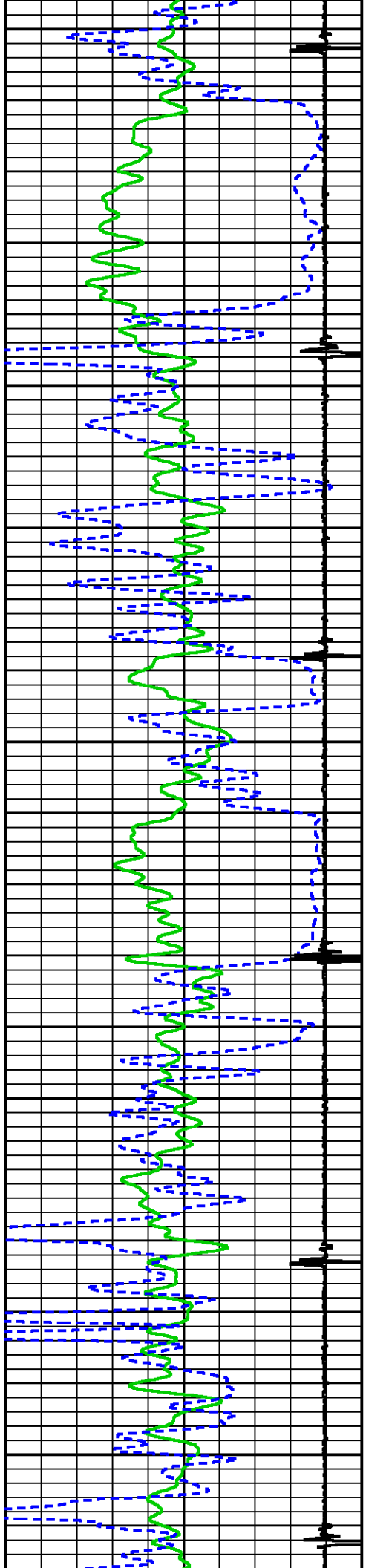


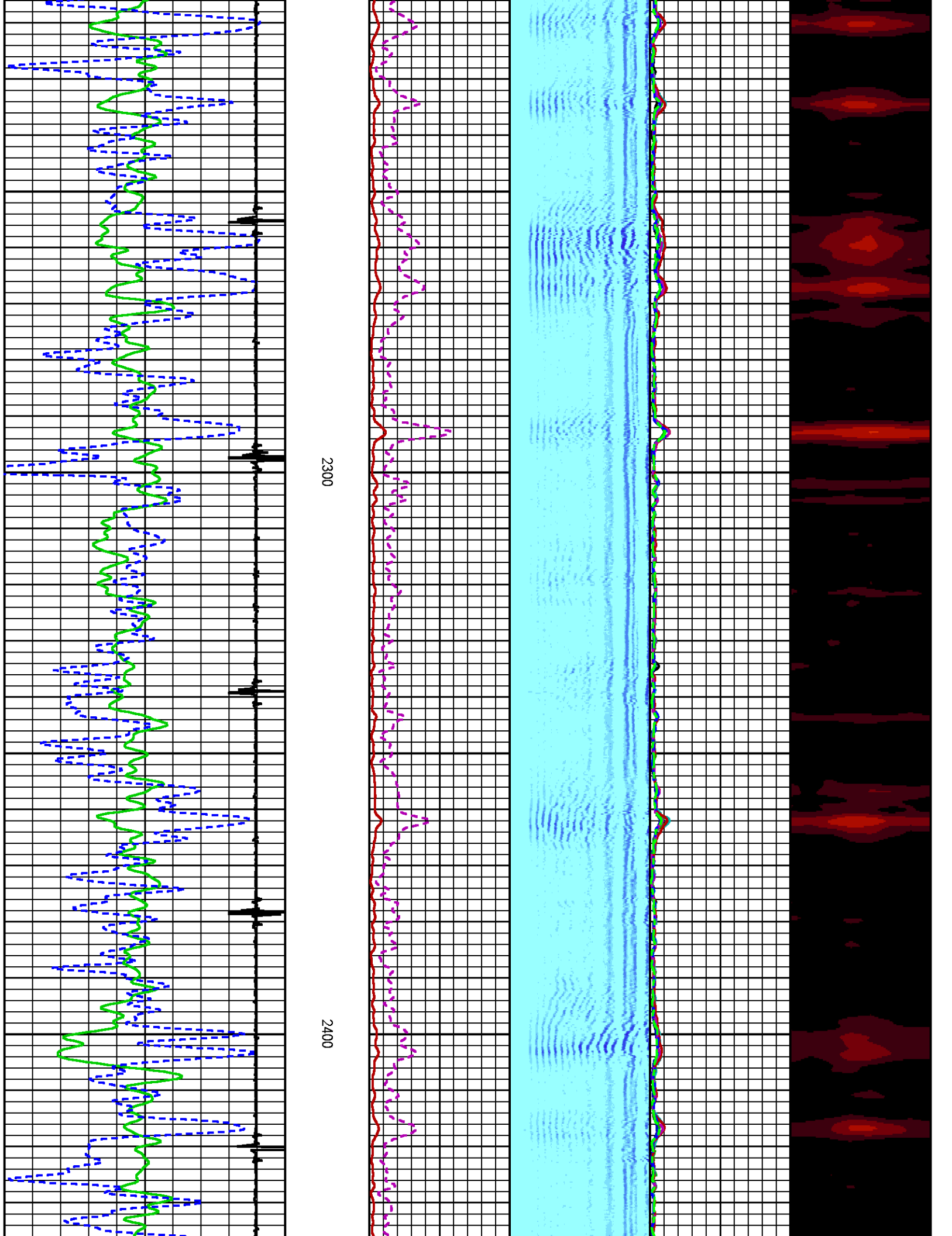


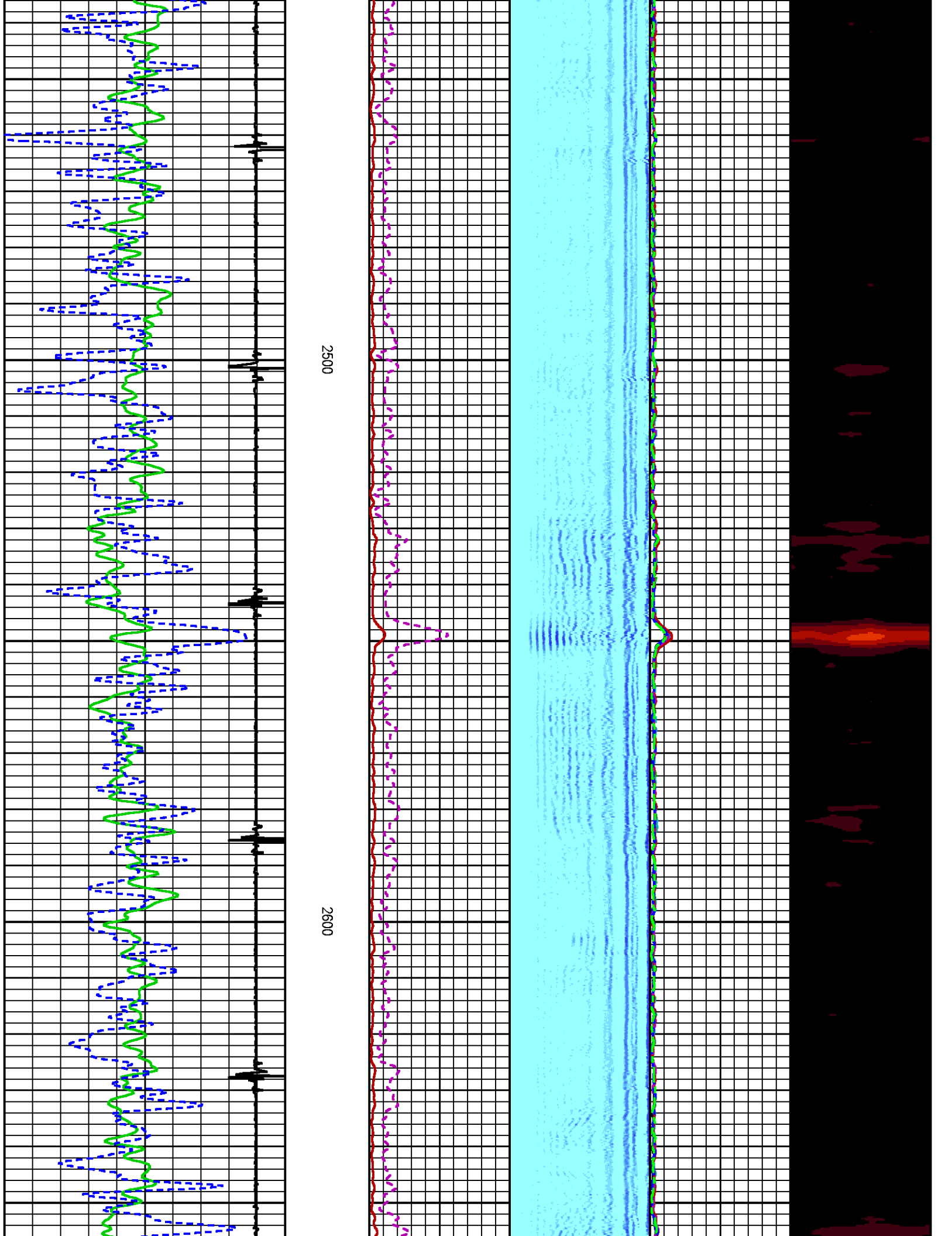
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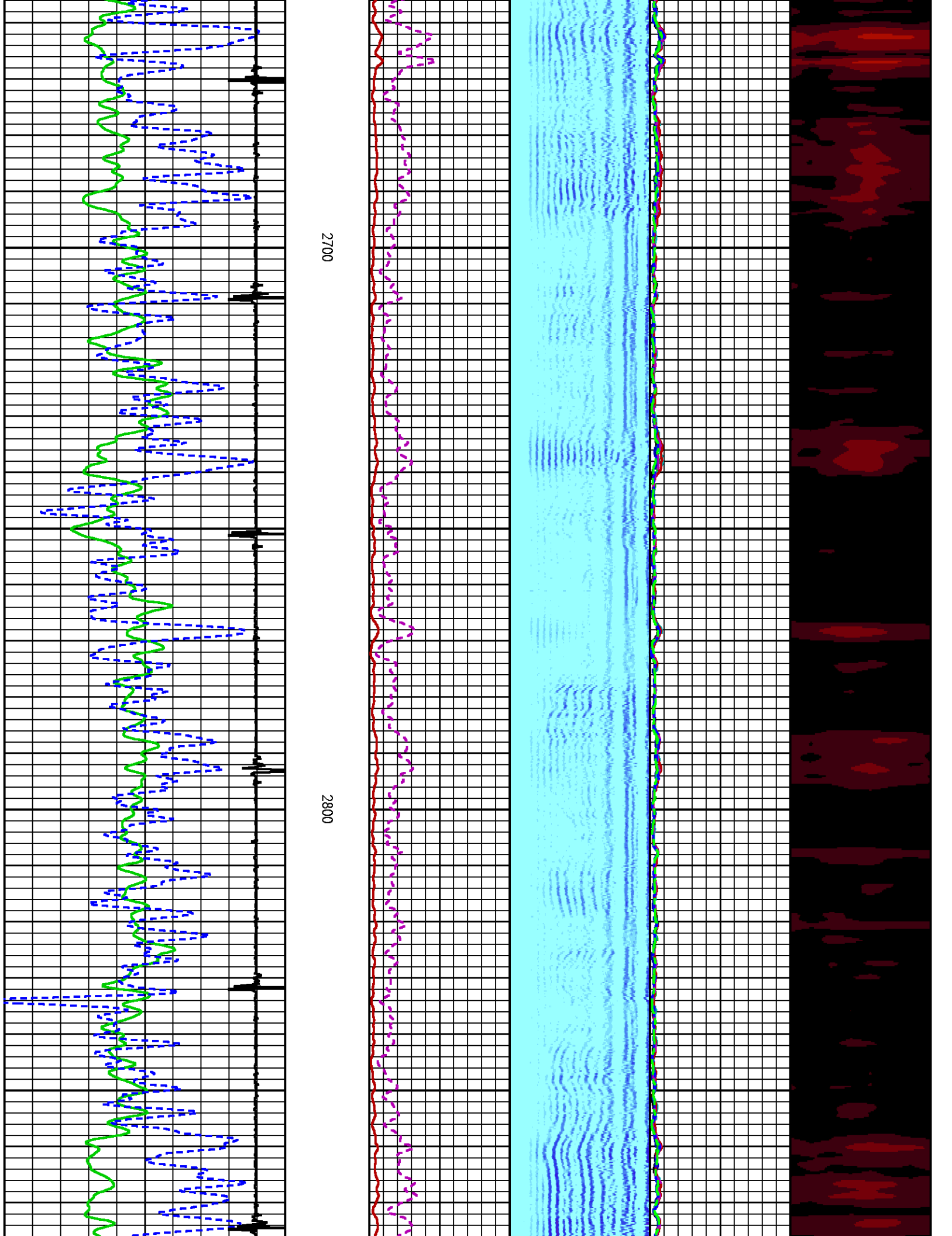
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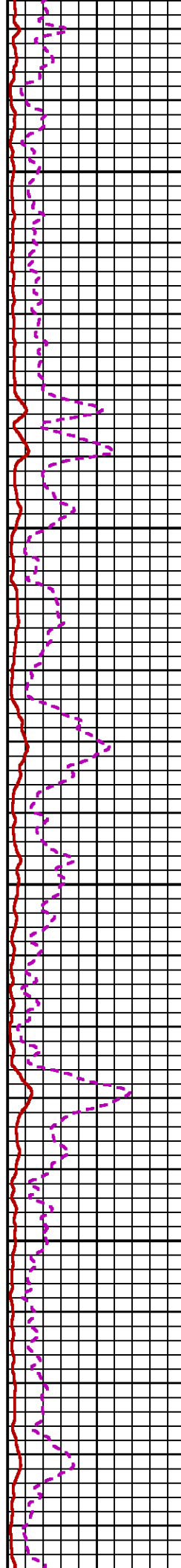
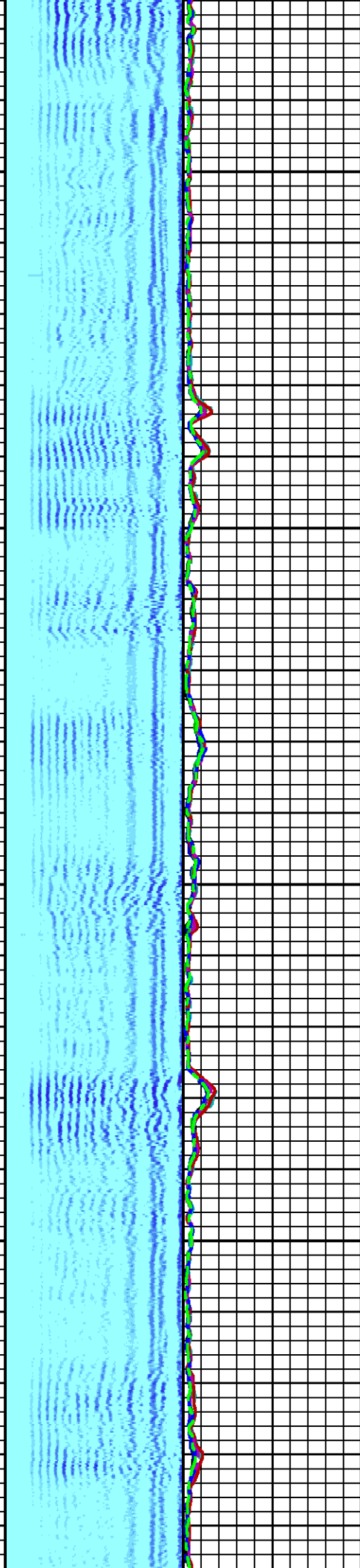
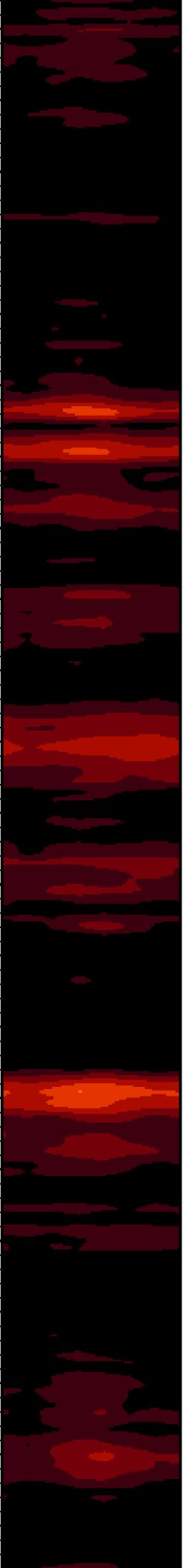
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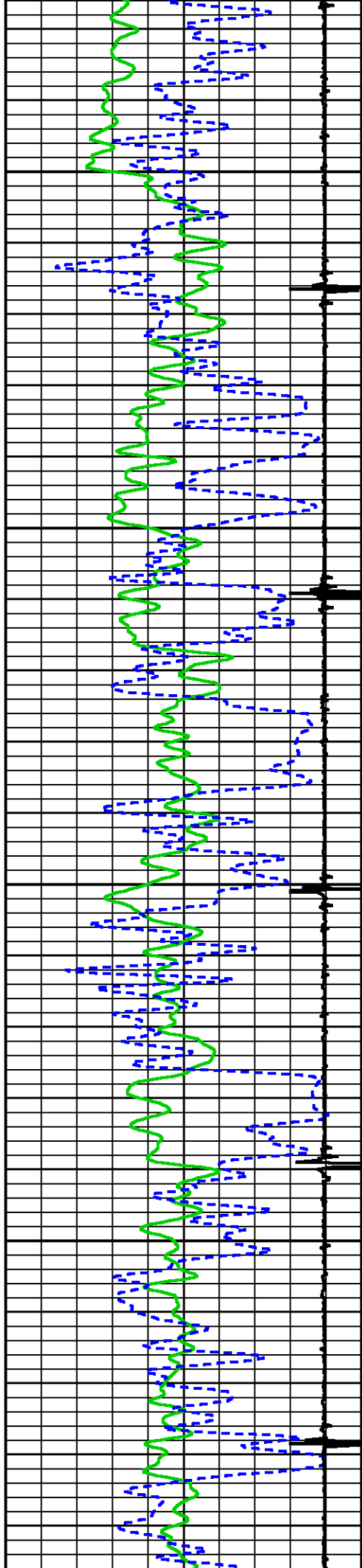


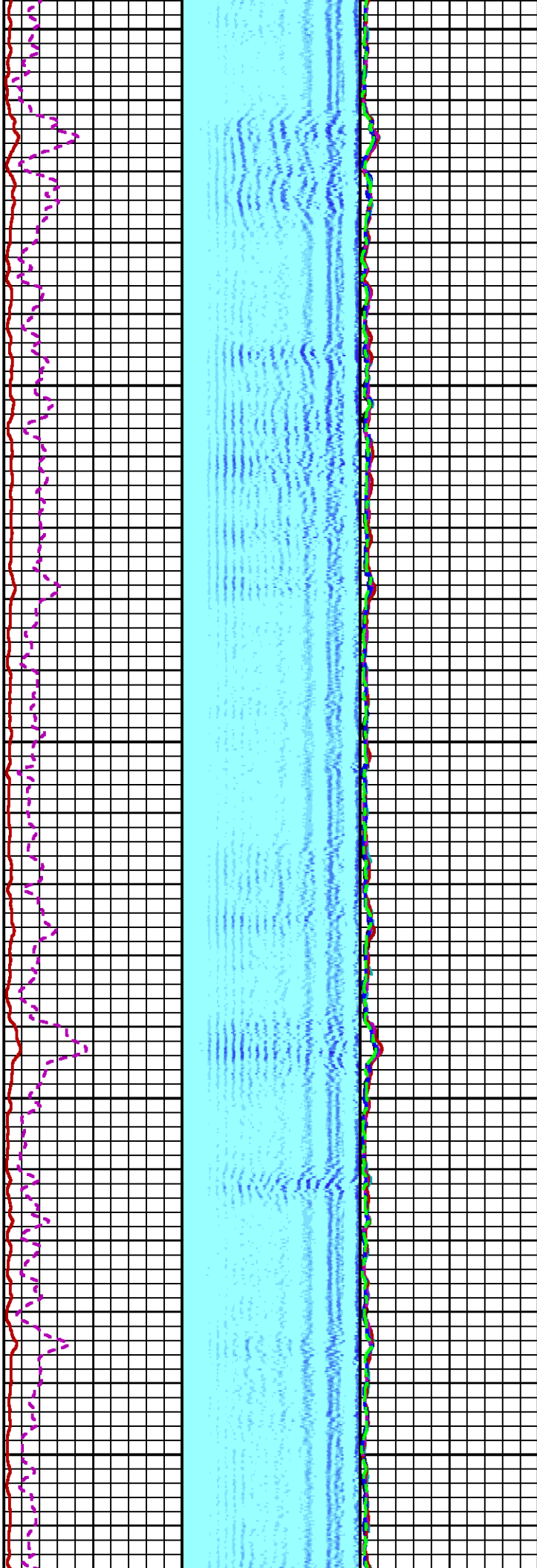




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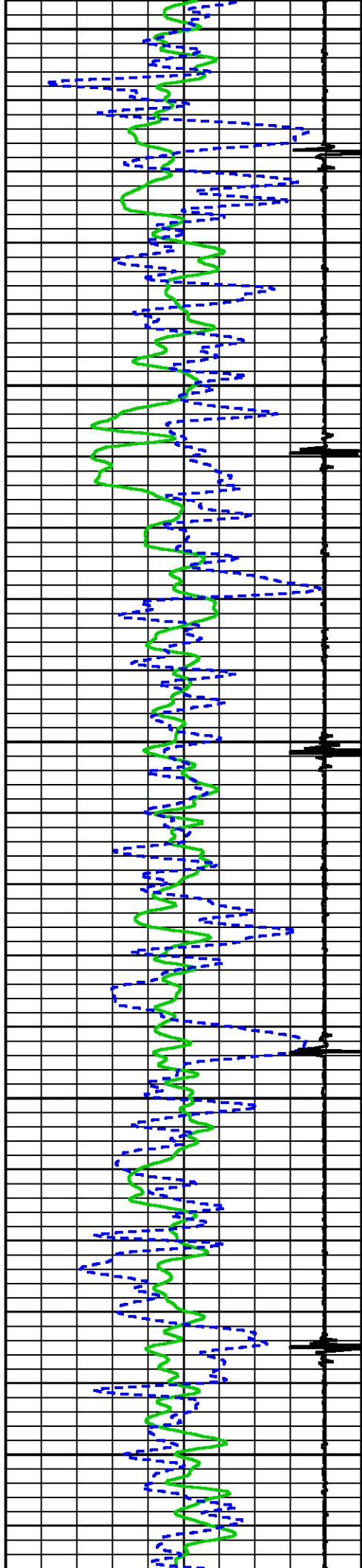


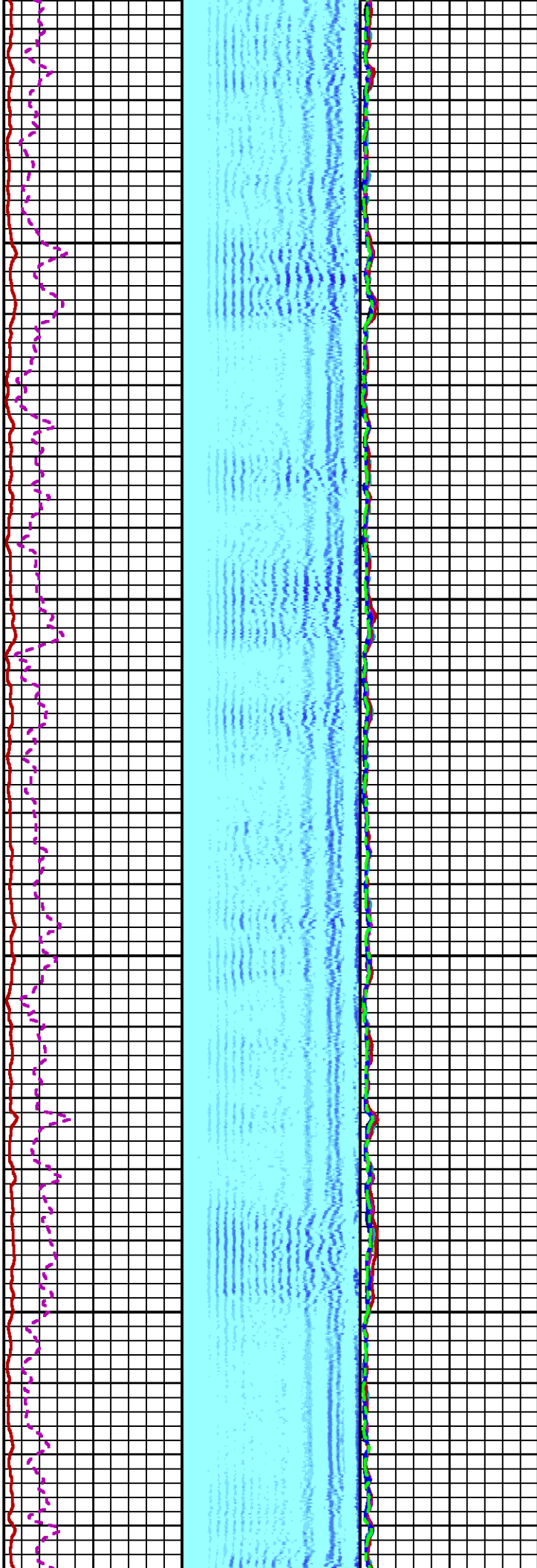


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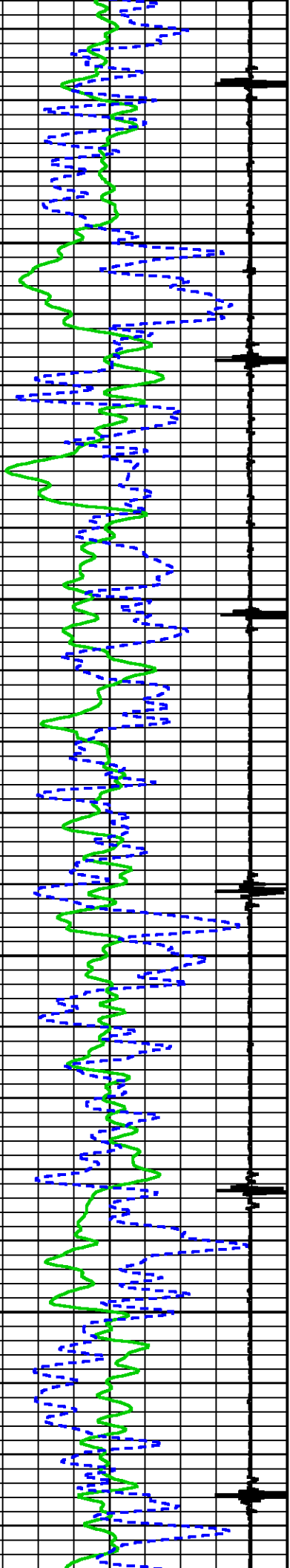
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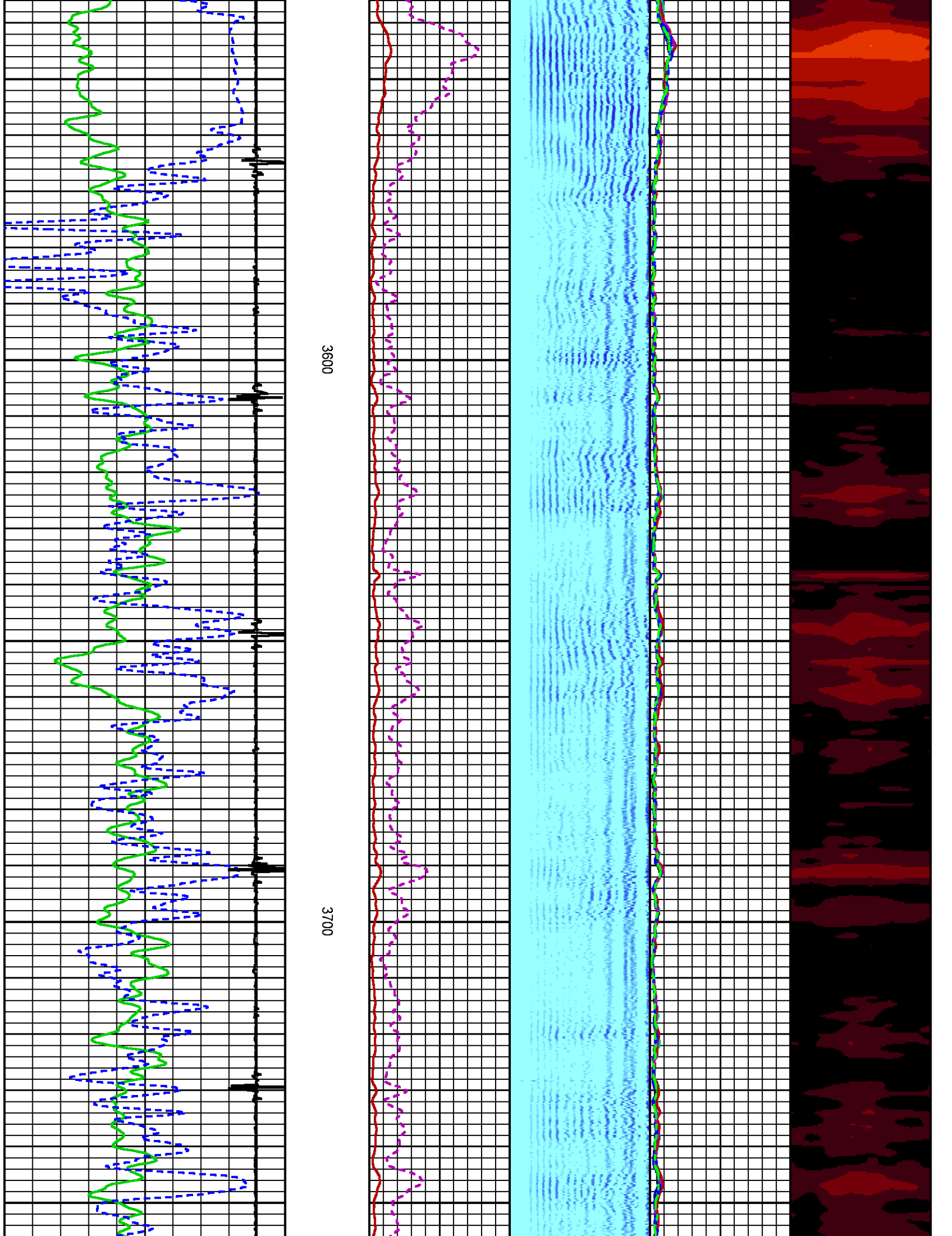


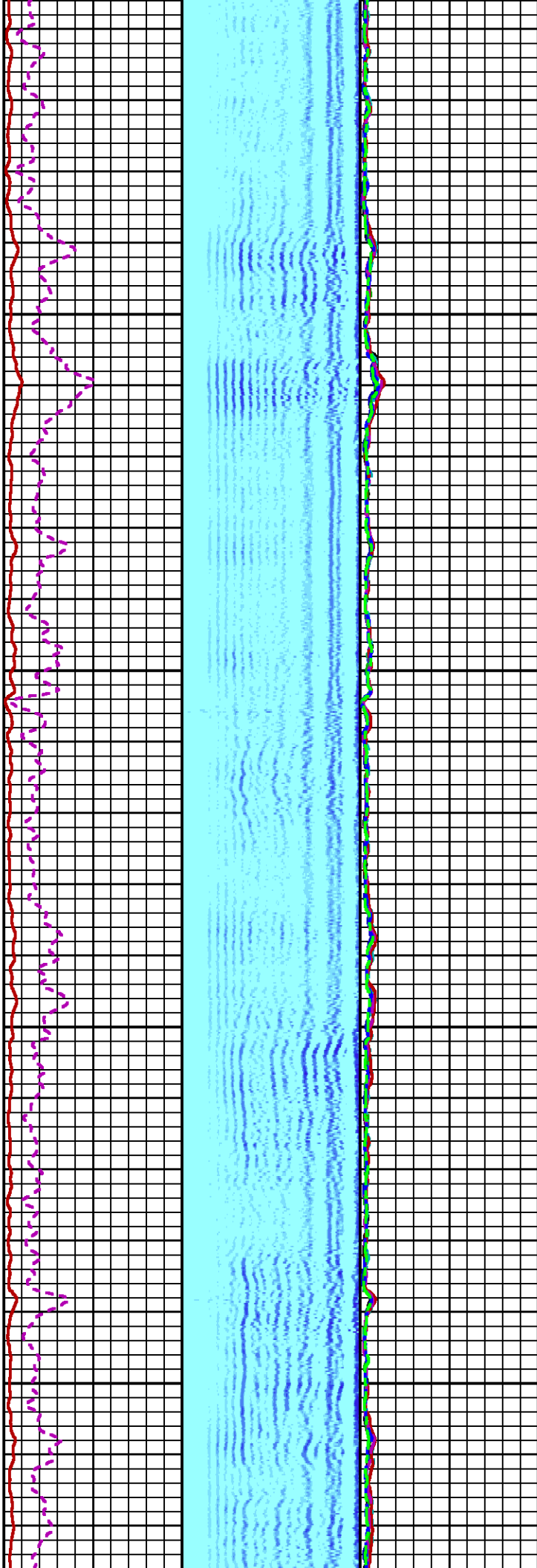


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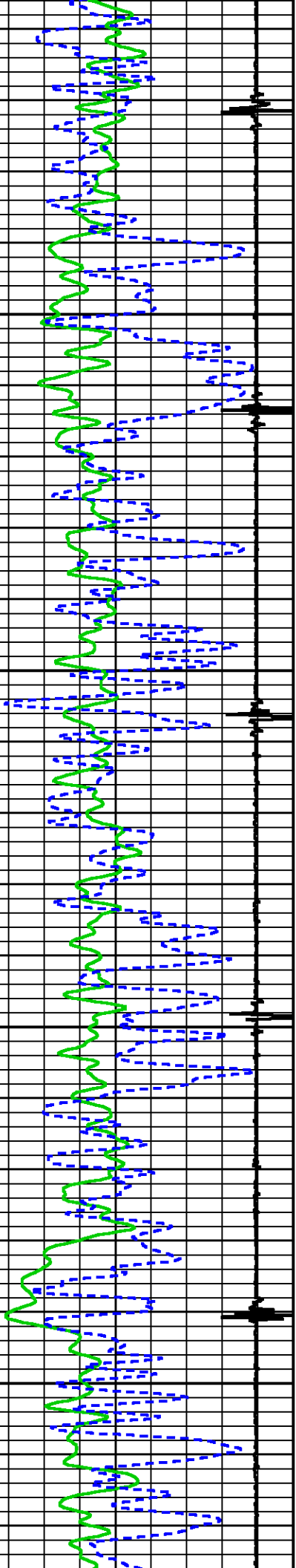


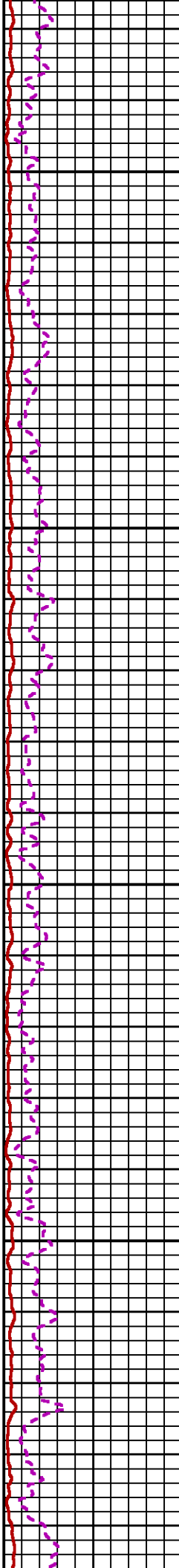
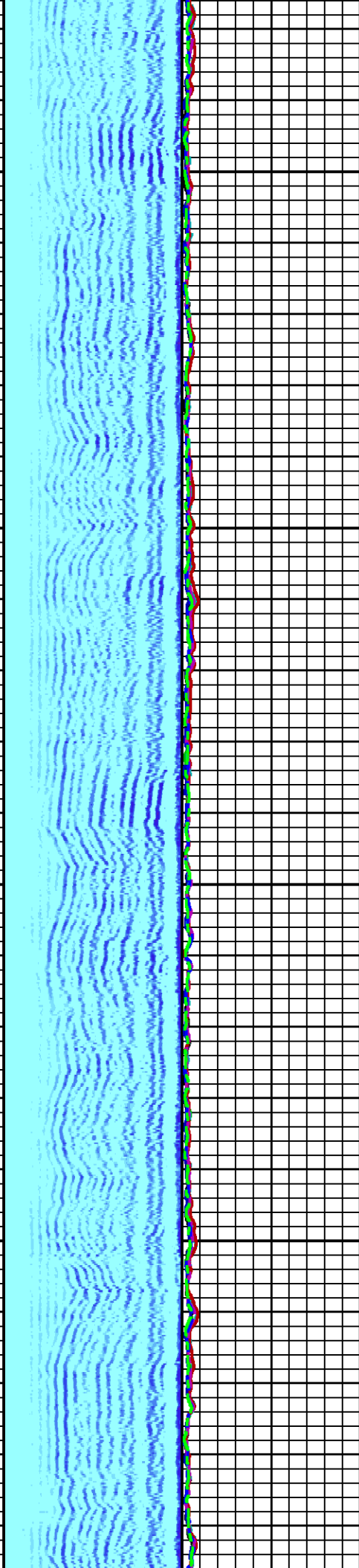




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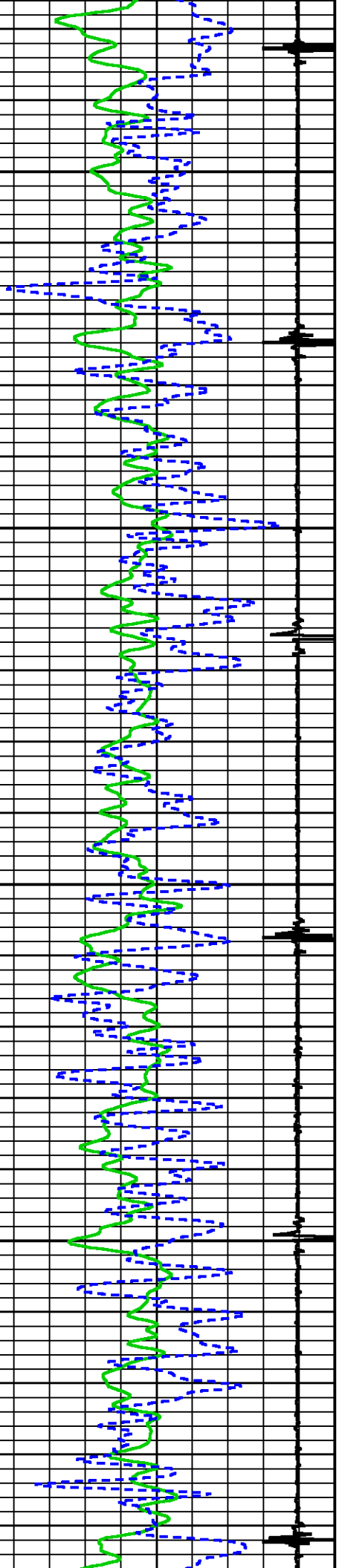
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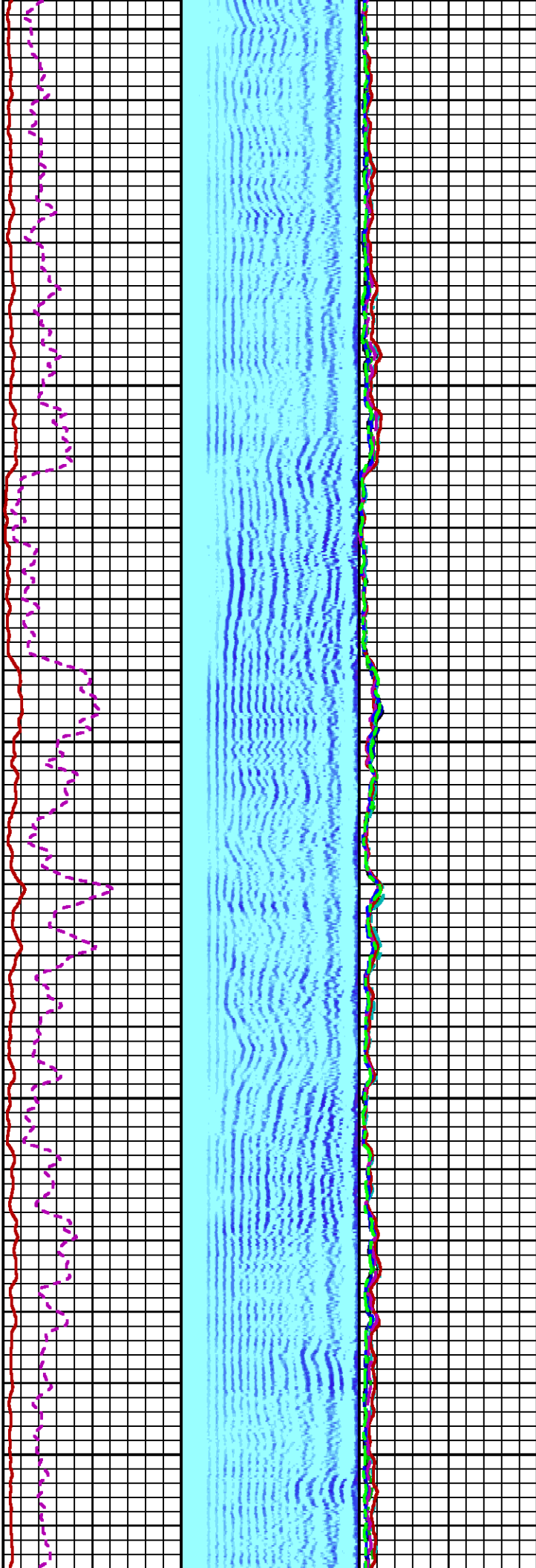




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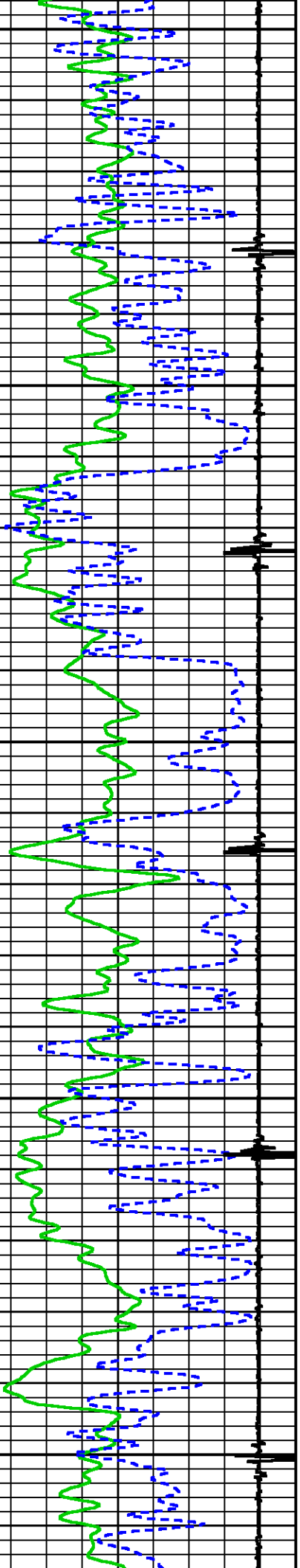


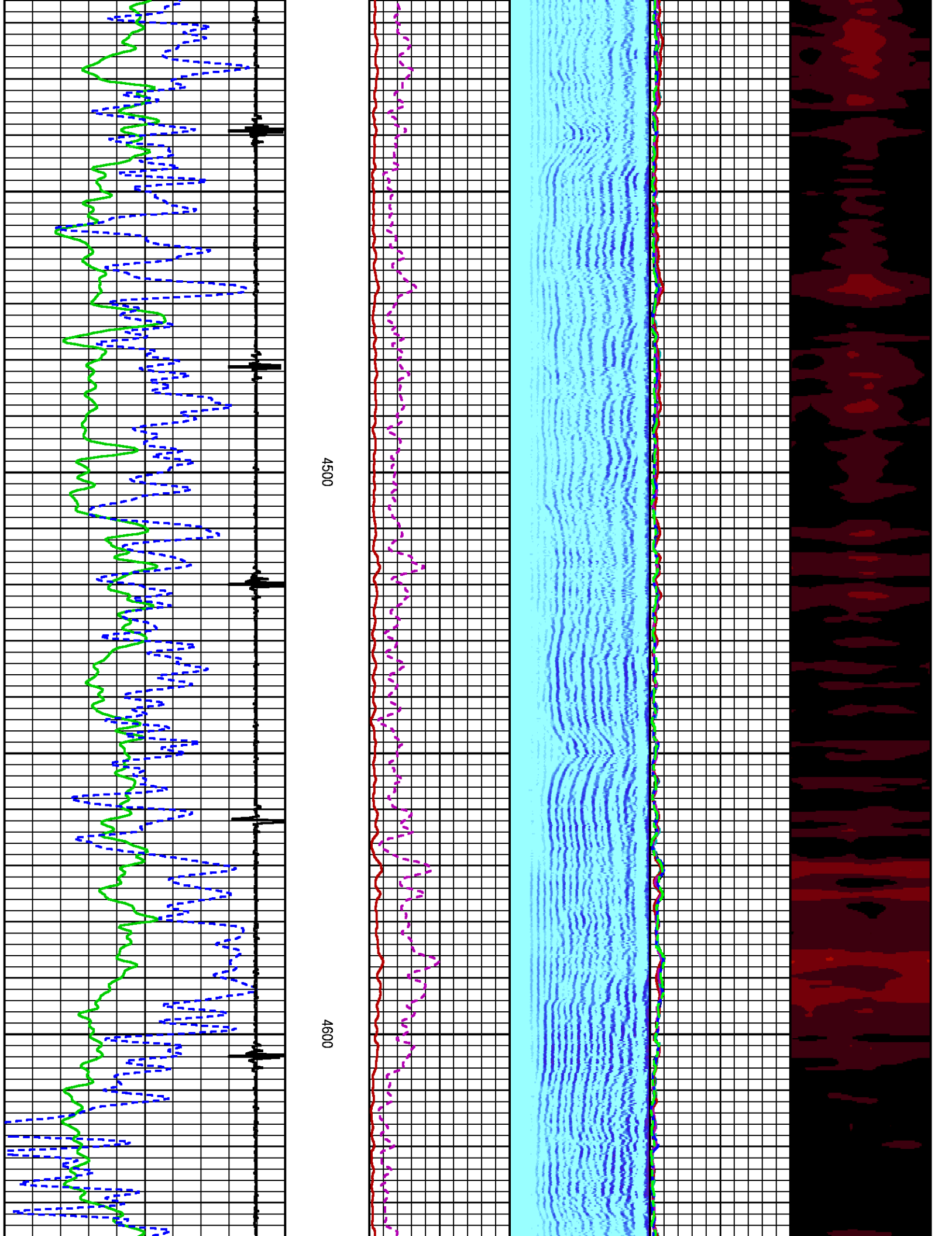


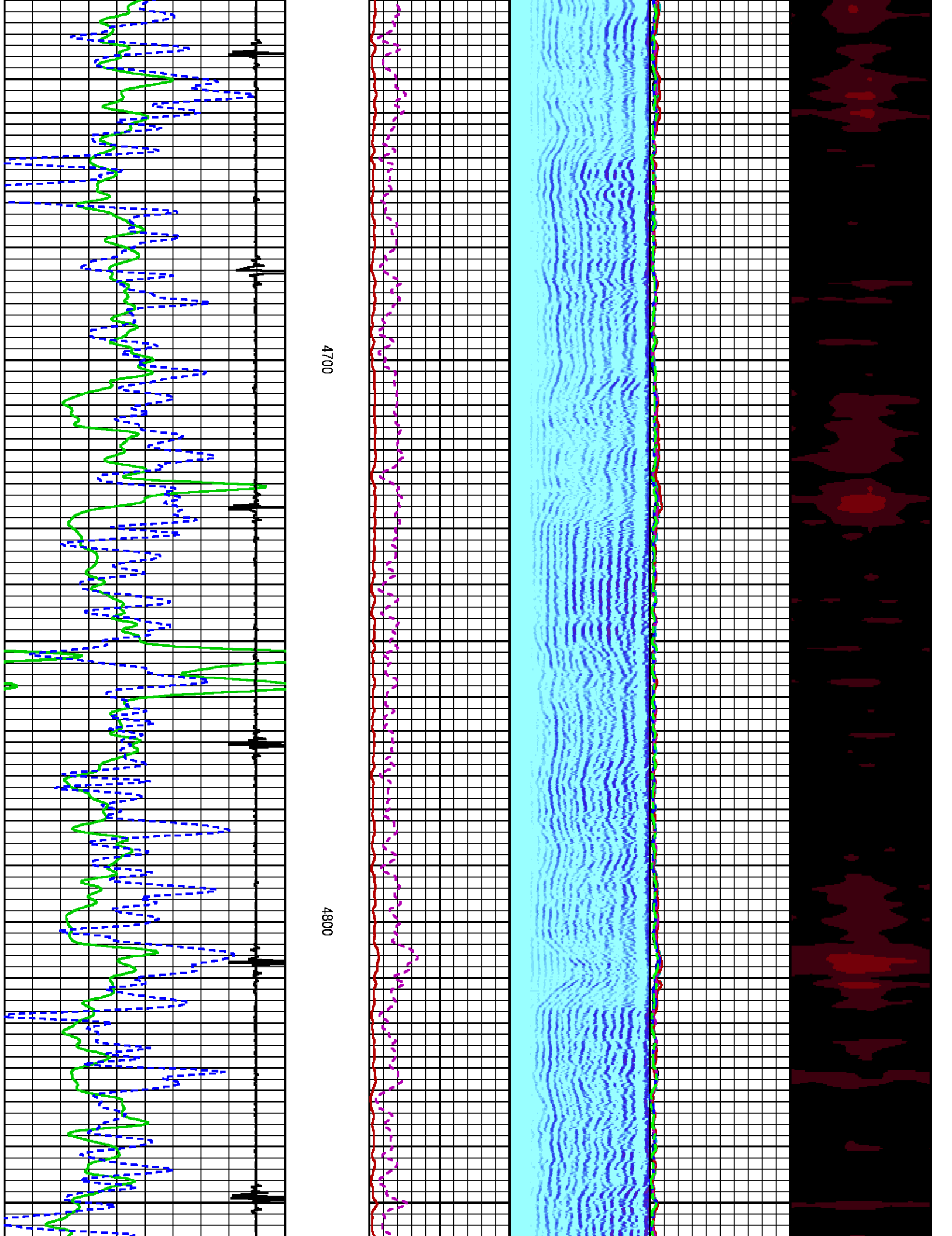
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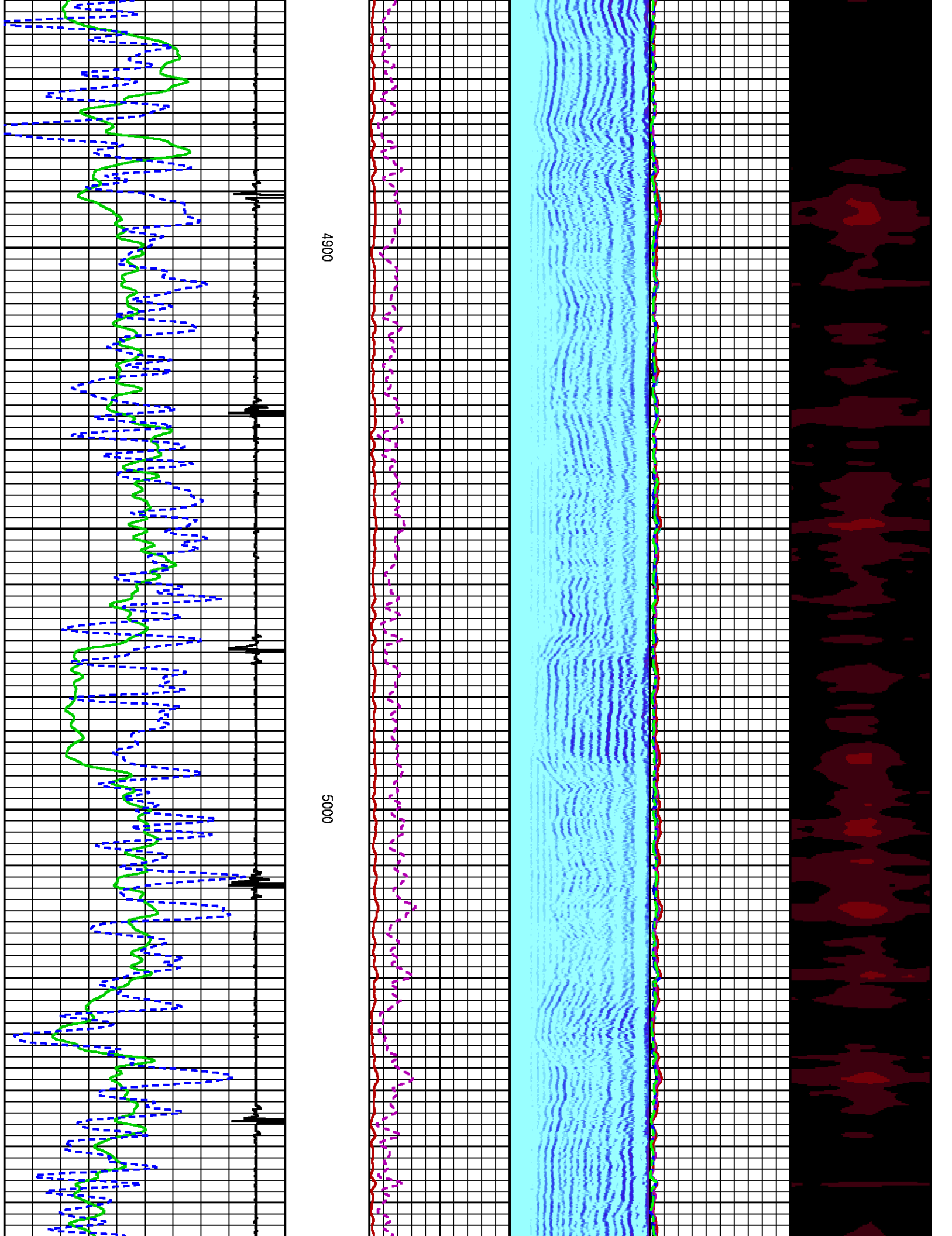
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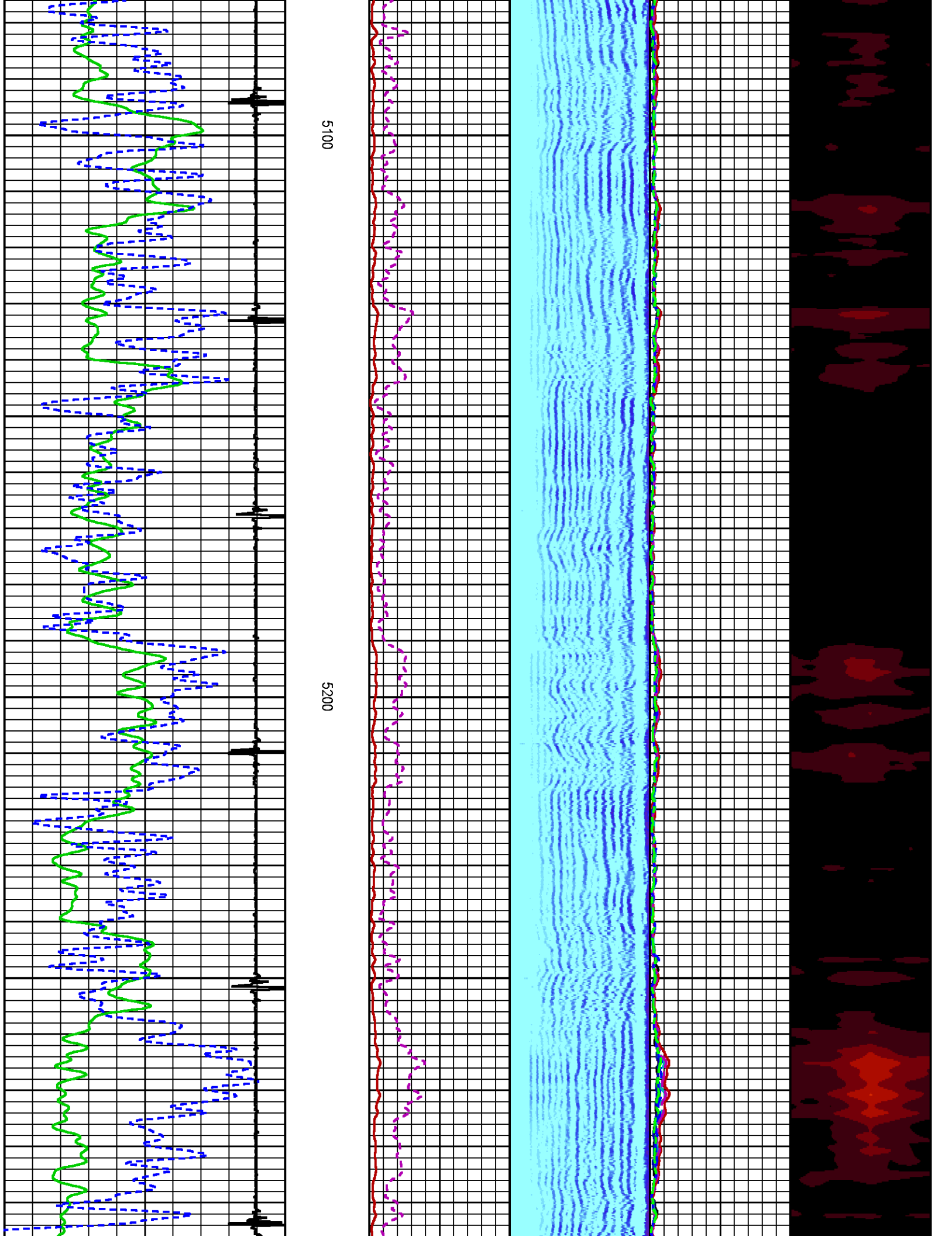
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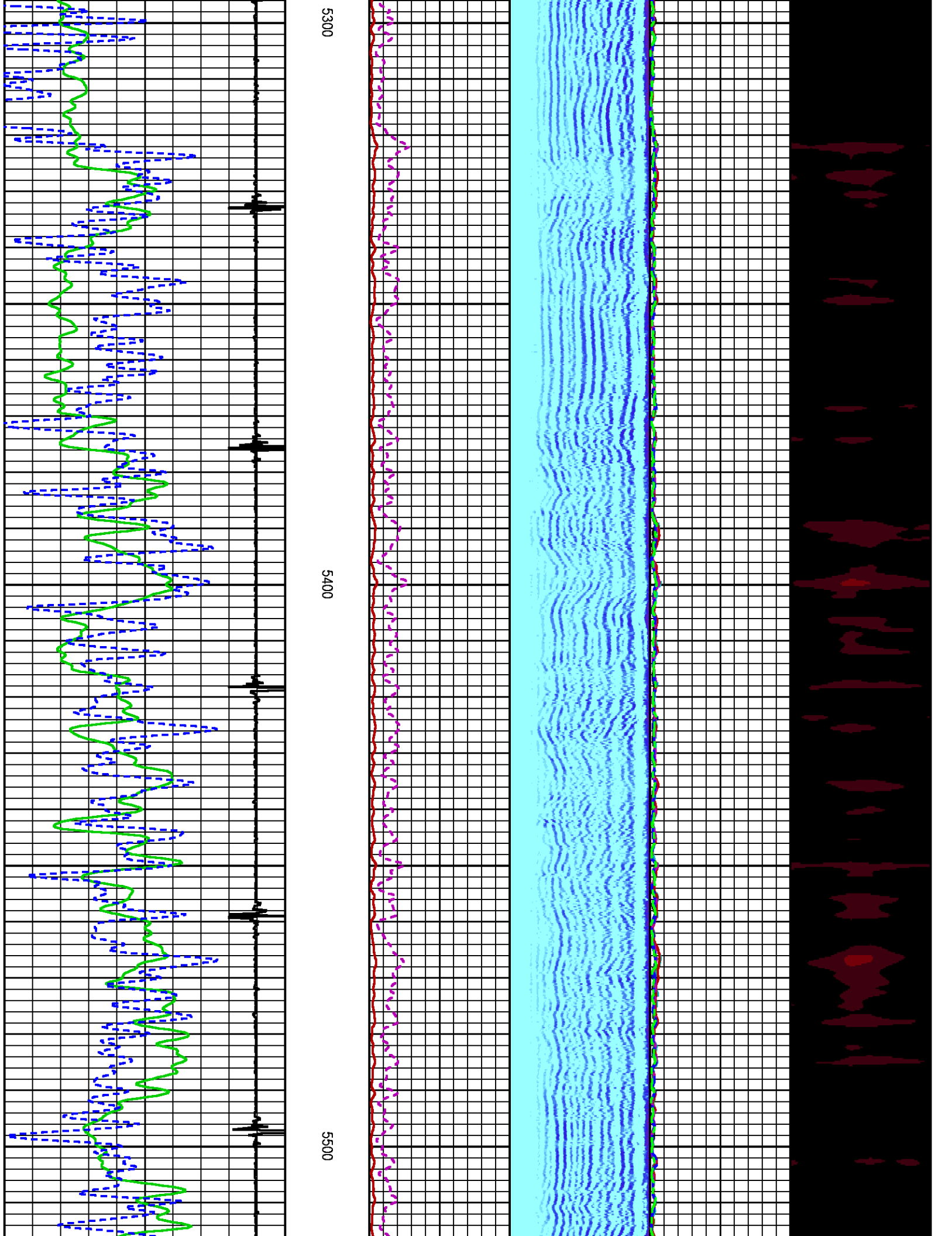


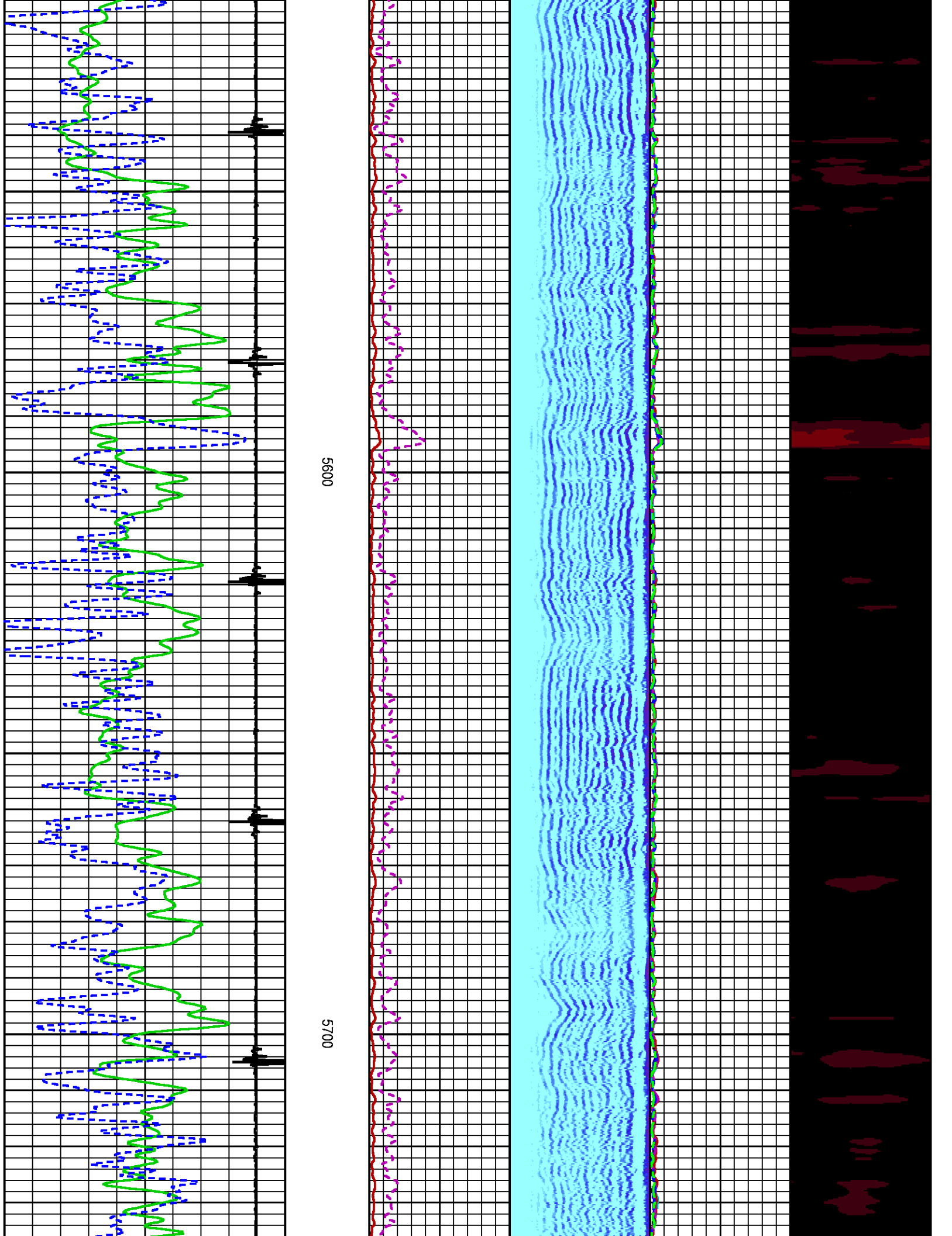


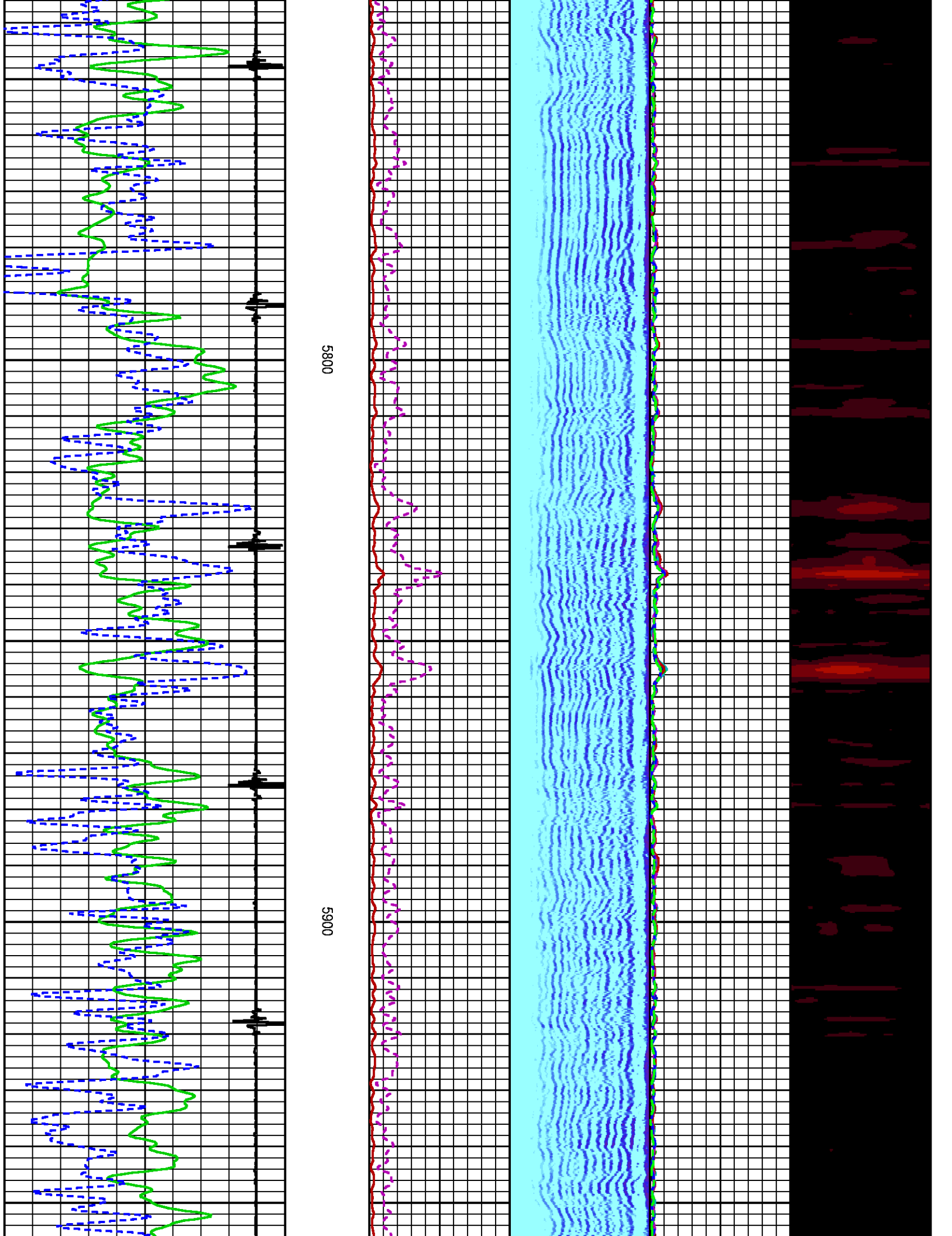


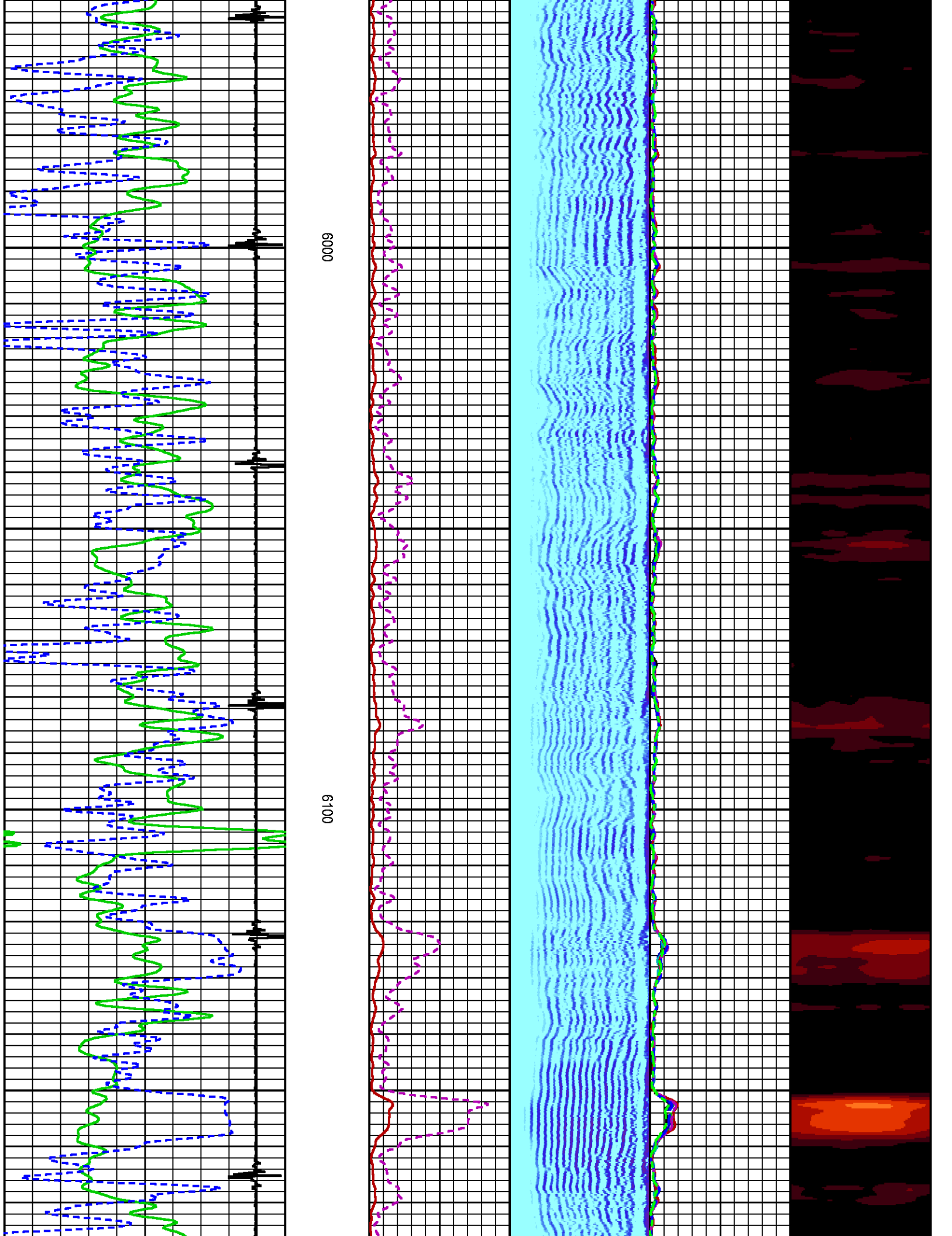


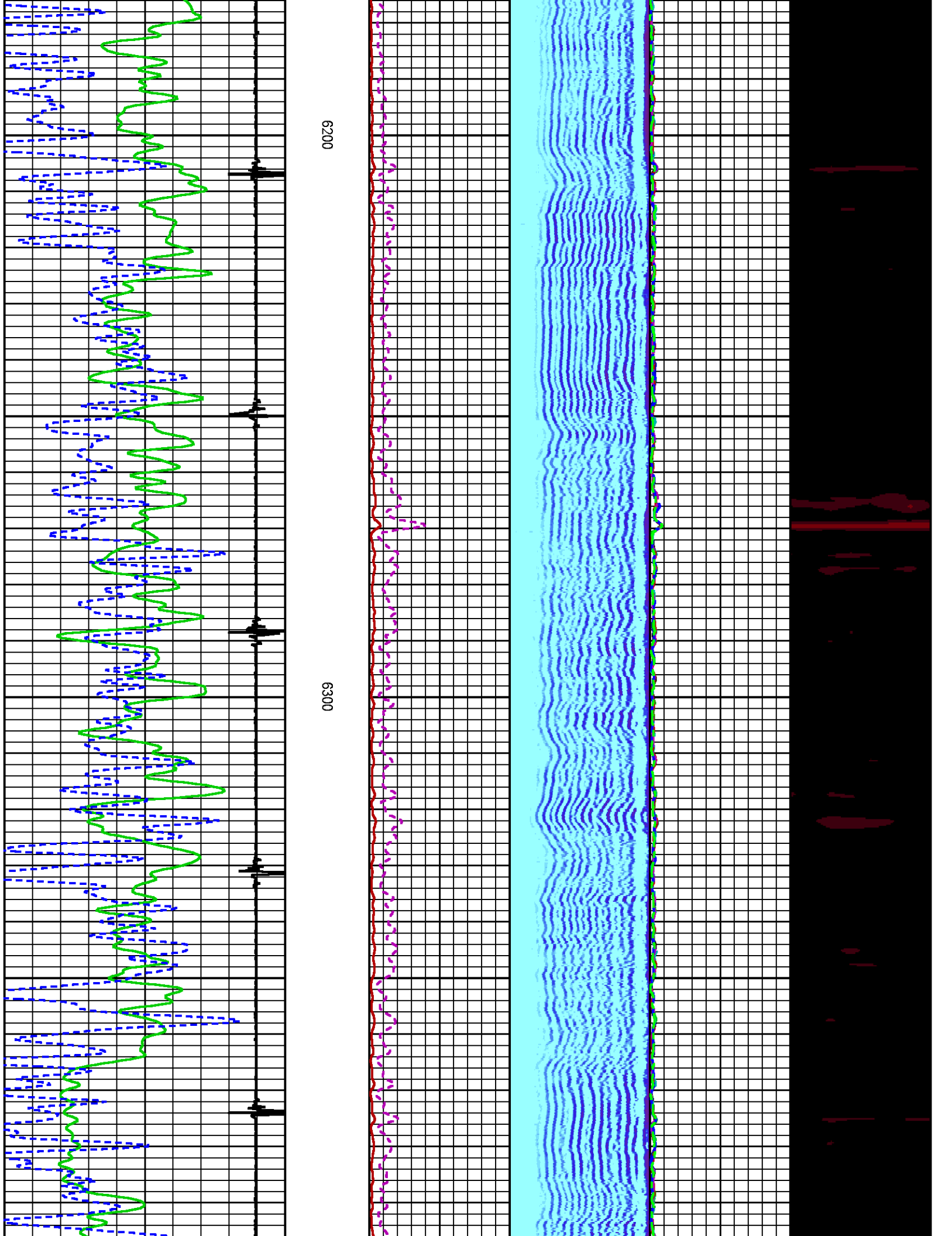


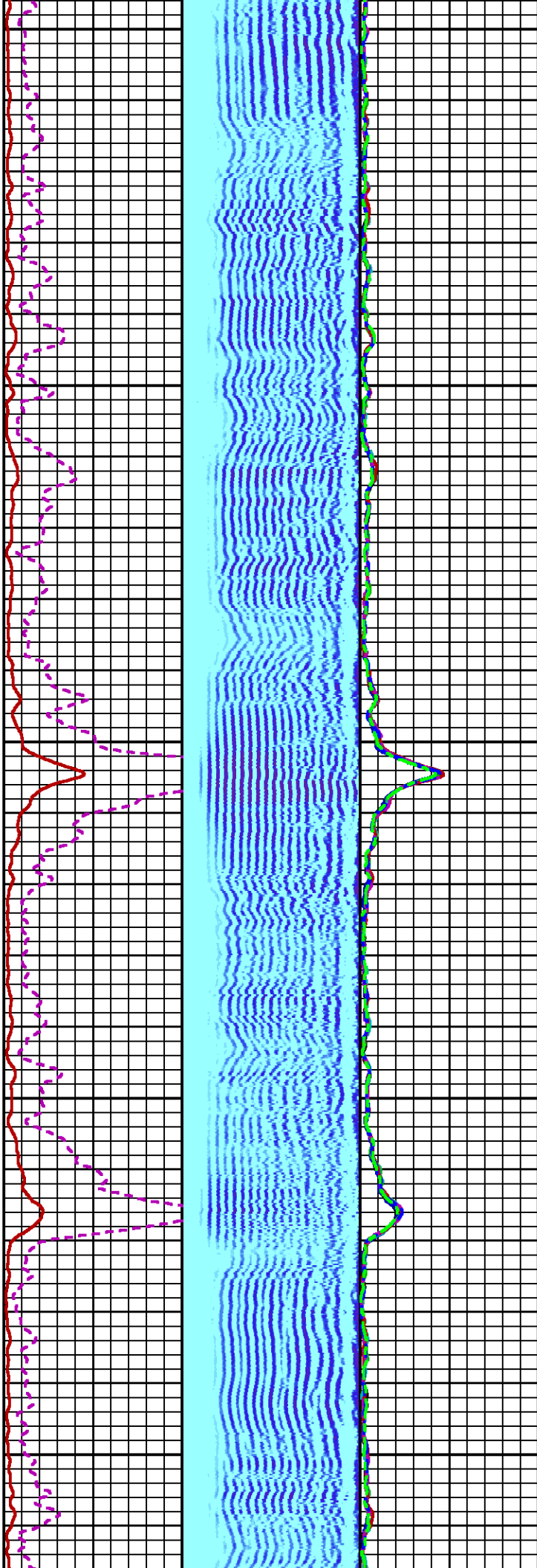










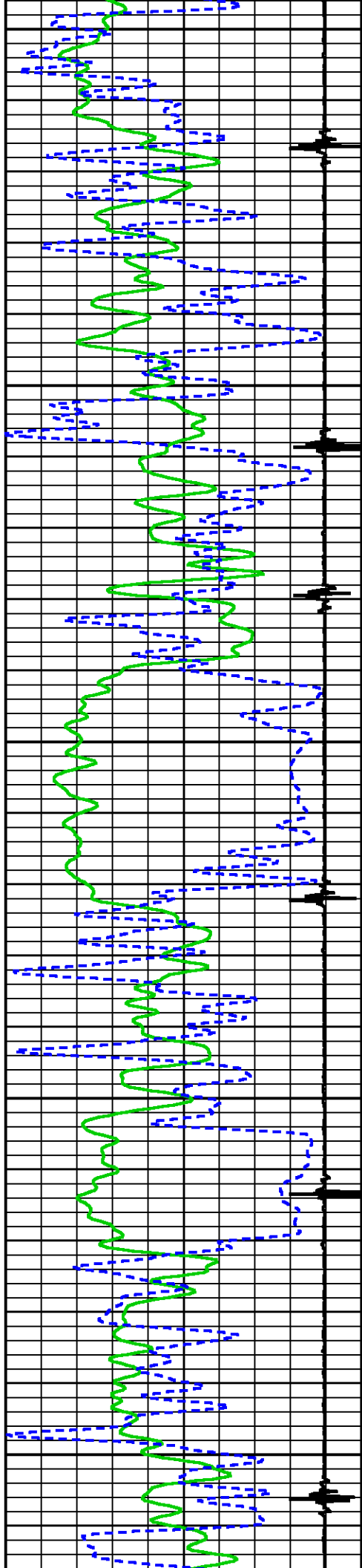


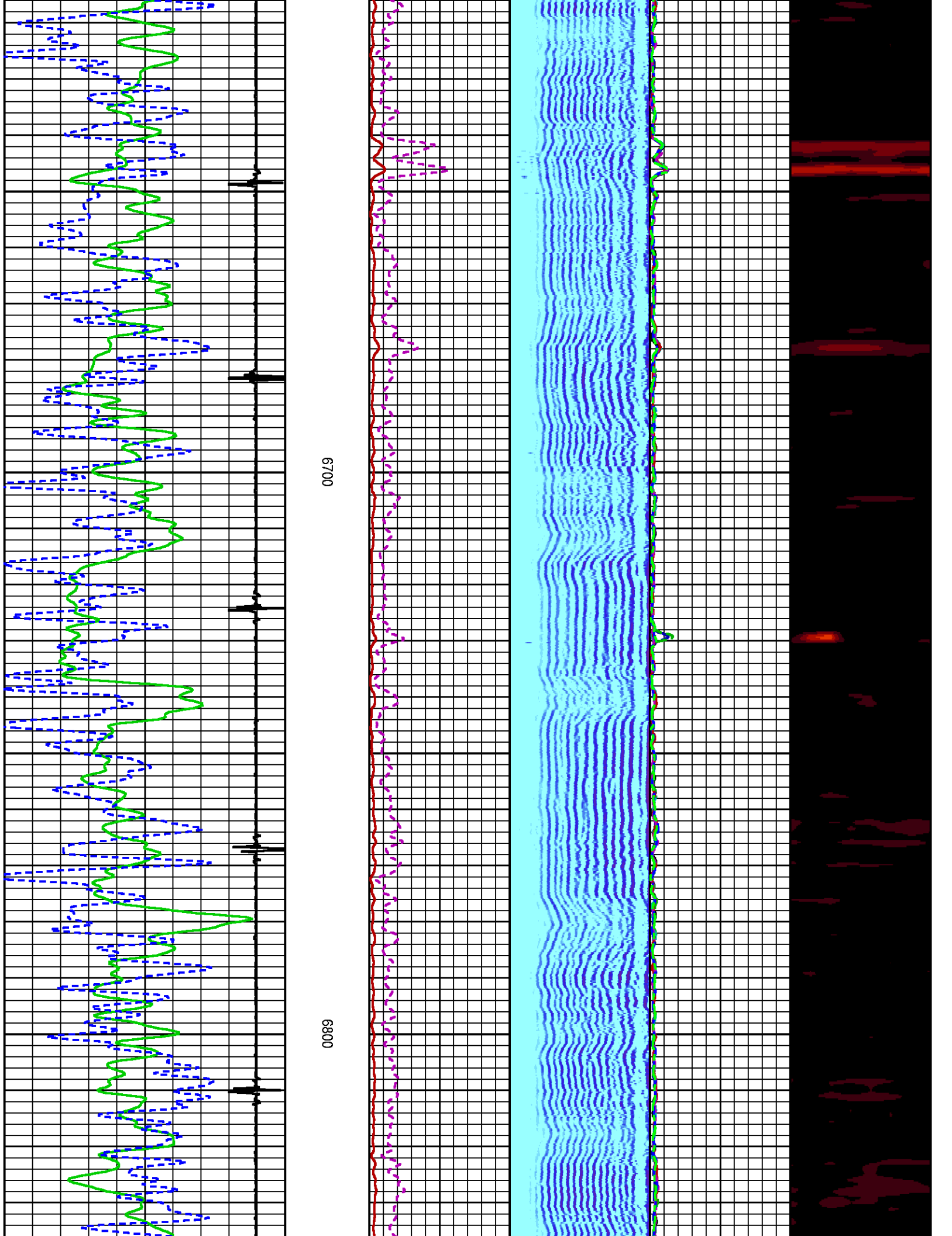
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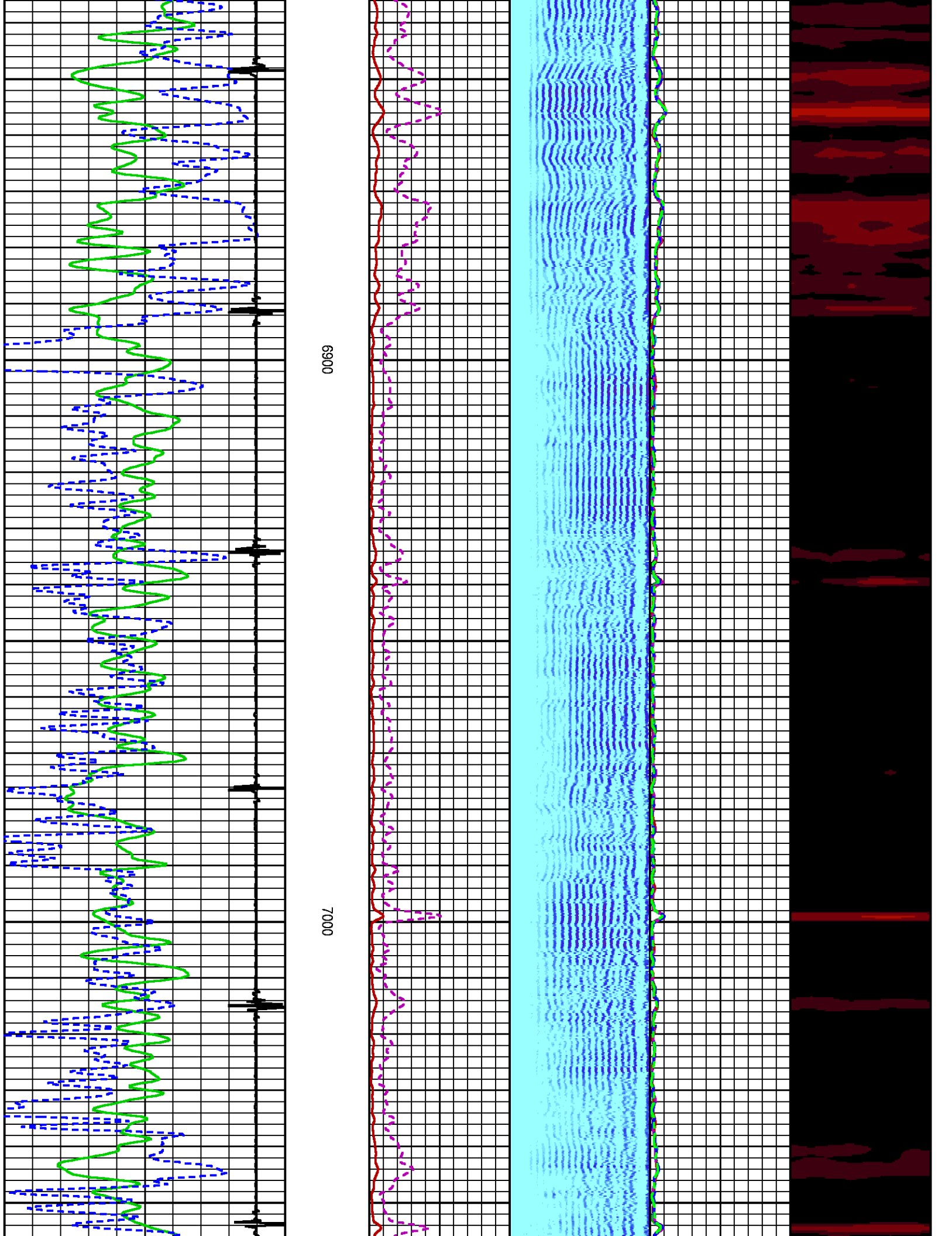
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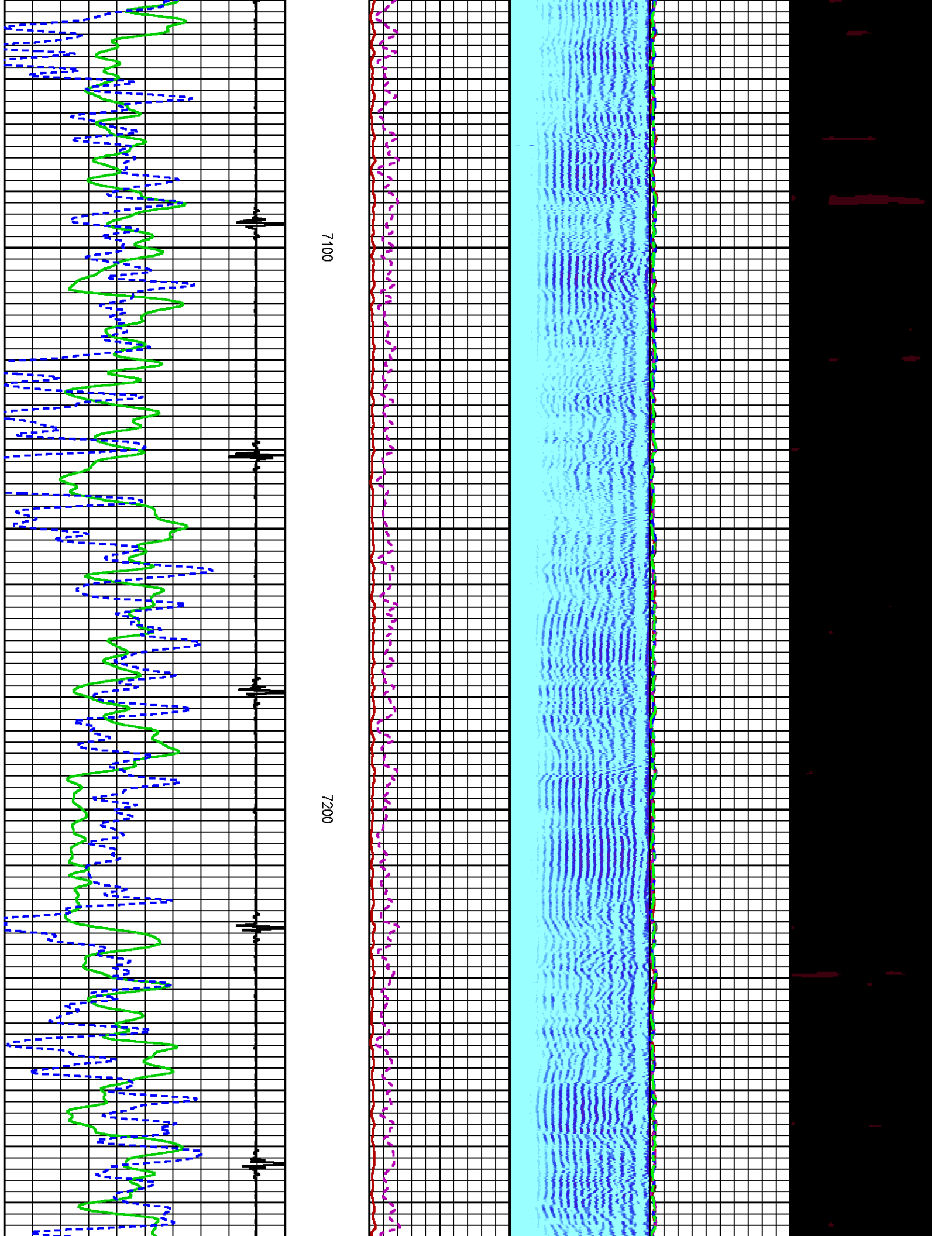
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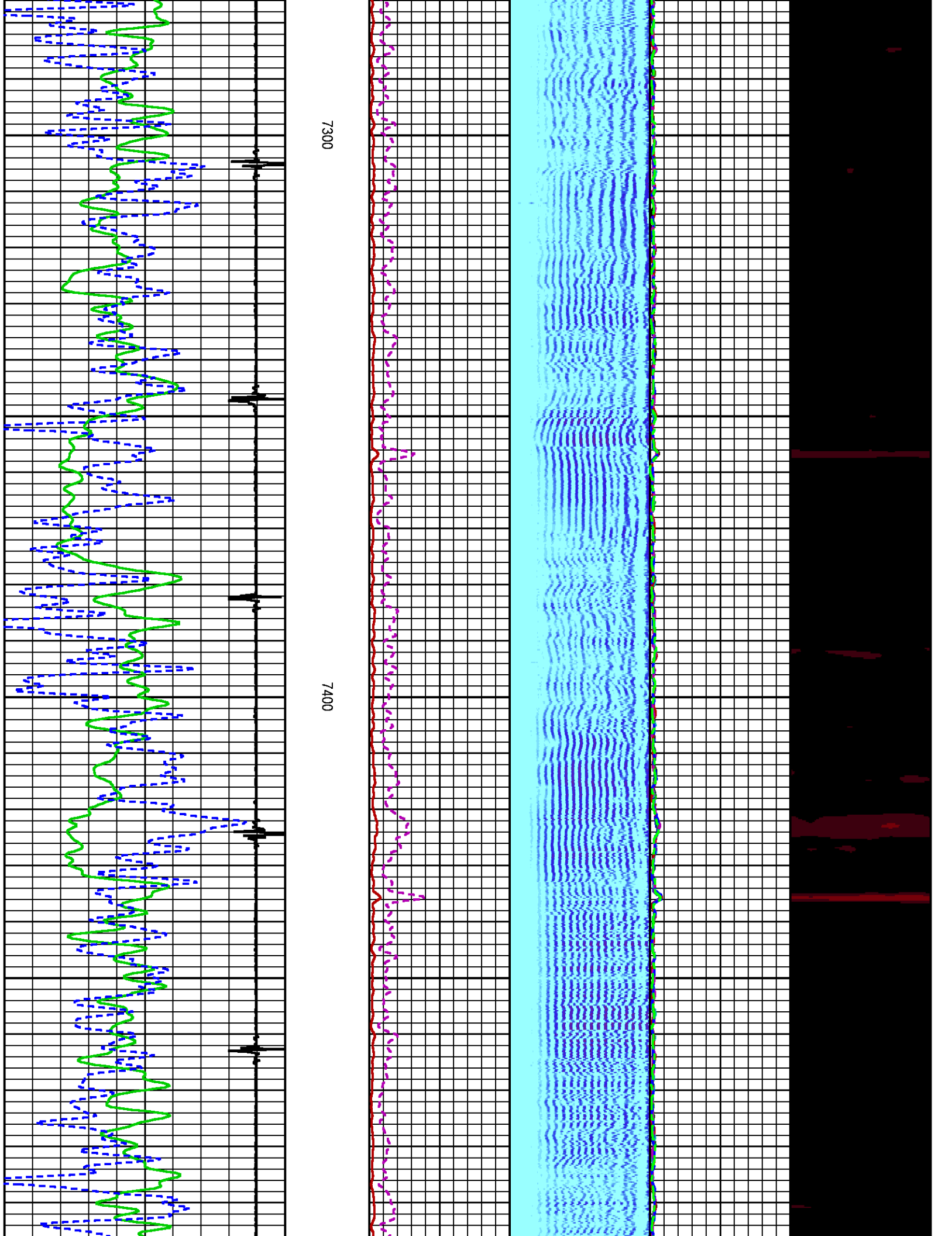
SJ

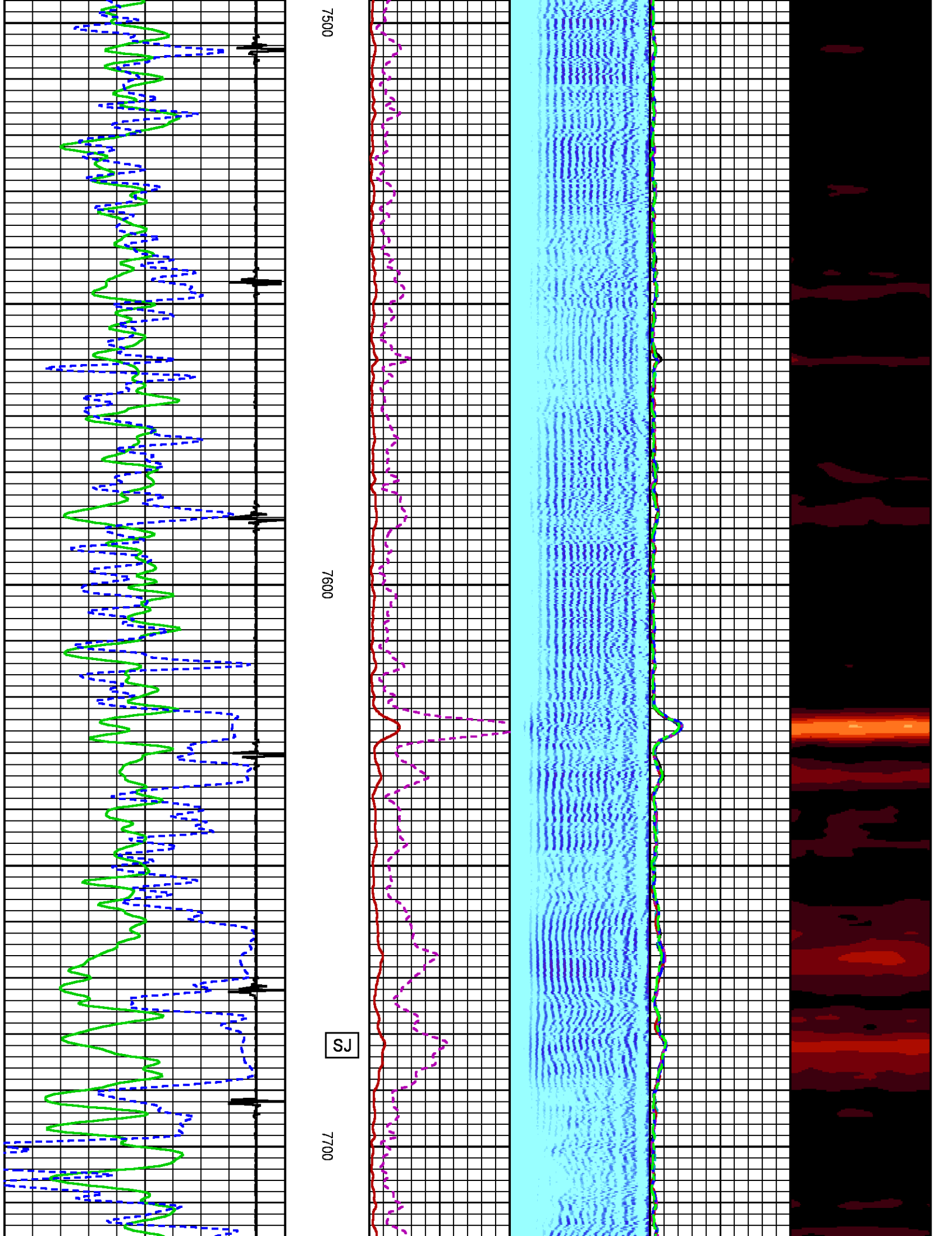


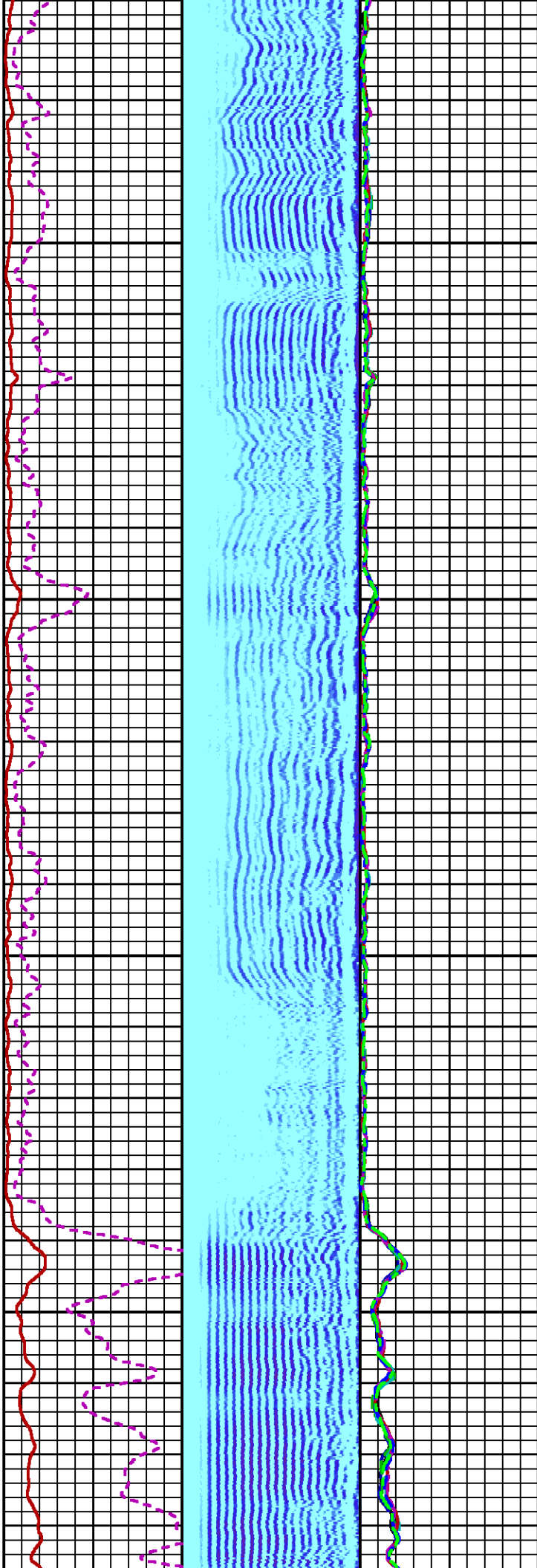






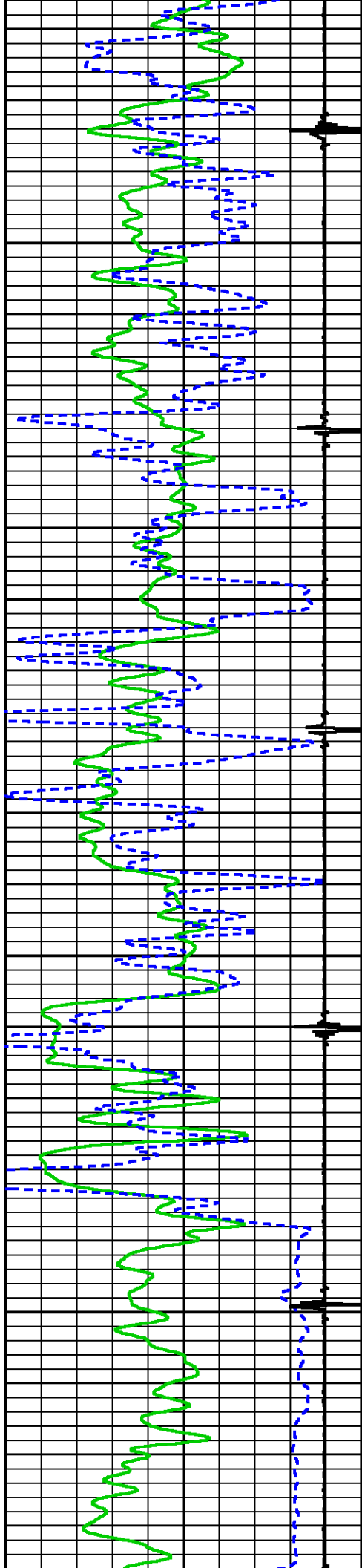


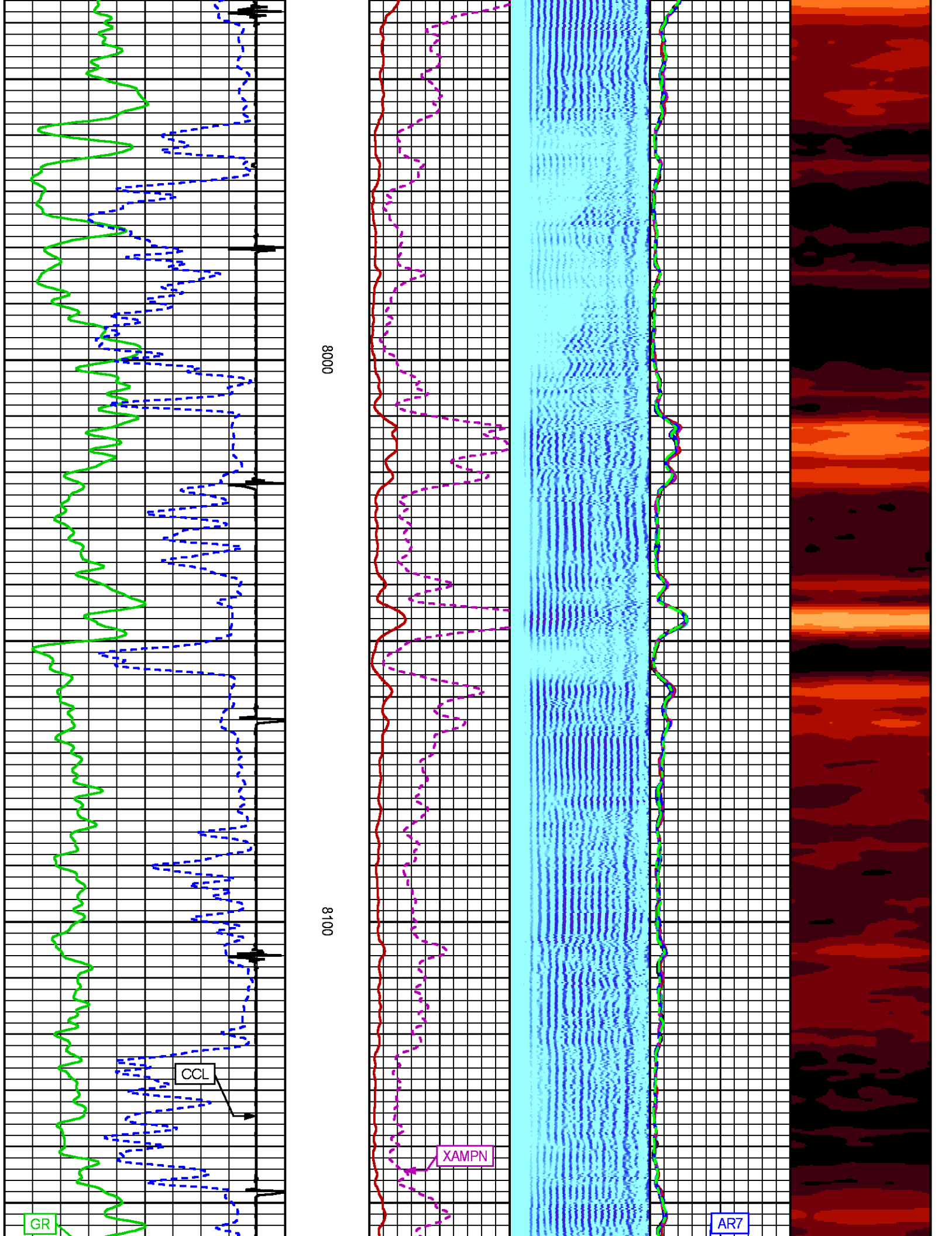


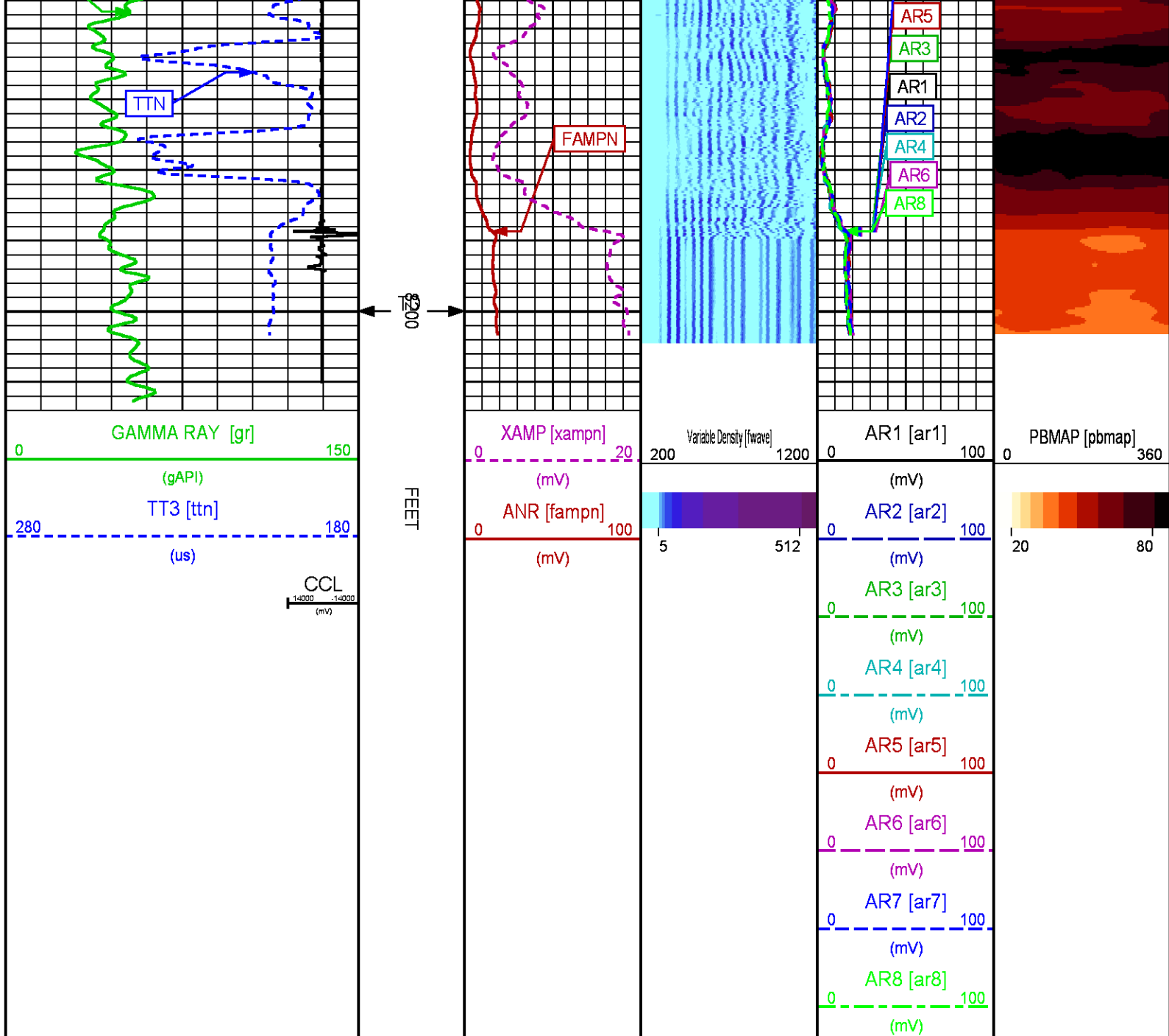


7800

7900







REPEAT PASS 0 PSI

ECLIPS 7.0i ECLIPS General Release Rel 7.0i Thu Jun 08 20:36:10 CDT 2017
Patches: 4

Plotted: Thu Jun 14 21:30:54 2018

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/LARAMIE_GUNDERSON_0994-14-12E/p012g01.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 7967.500 ft BOTTOM DEPTH: 8205.500 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 | 0.00 | | 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 | 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 | 200.465 | us | " | " |
| RAL TOOL DELAY | TOOL DELAY (str1*) | -65 | us | " | " |
| | TOOL DELAY (str2*) | -65 | us | " | " |
| | TOOL DELAY (str3*) | -65 | us | " | " |
| | TOOL DELAY (str4*) | -65 | us | " | " |
| | TOOL DELAY (str5*) | -65 | us | " | " |
| | TOOL DELAY (str6*) | -65 | us | " | " |
| | TOOL DELAY (str7*) | -65 | us | " | " |
| | TOOL DELAY (str8*) | -65 | us | " | " |
| | TOOL DELAY (strn*) | -65 | us | " | " |
| 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 | N/A | FIXED GATE AMPLITUDE T-R1 |
| F1:AR2 | N/A | FIXED GATE AMPLITUDE T-R2 |
| F1:AR3 | N/A | FIXED GATE AMPLITUDE T-R3 |
| F1:AR4 | N/A | FIXED GATE AMPLITUDE T-R4 |
| F1:AR5 | N/A | FIXED GATE AMPLITUDE T-R5 |
| F1:AR6 | N/A | FIXED GATE AMPLITUDE T-R6 |
| F1:AR7 | N/A | FIXED GATE AMPLITUDE T-R7 |
| F1:AR8 | N/A | FIXED GATE AMPLITUDE T-R8 |
| F1:CCL | N/A | CASING COLLAR LOCATOR |
| F1:FAMPN | N/A | FIXED GATE AMPLITUDE NEAR RECEIVER |
| F1:FAMPN | N/A | FIXED GATE AMPLITUDE NEAR RECEIVER |

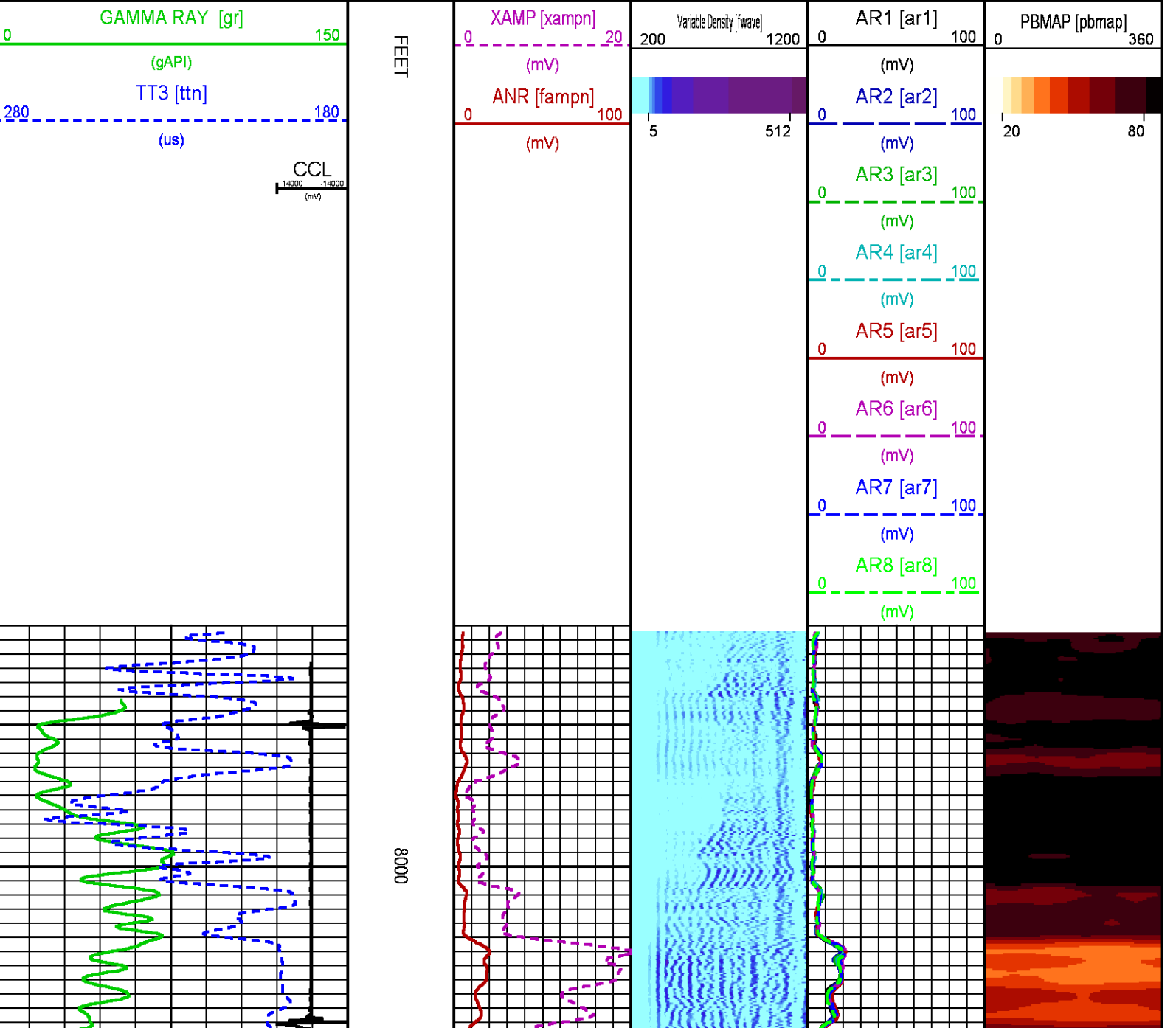
| | | |
|----------|-----|---|
| F1:FWAVE | N/A | FAR WAVE FORM |
| F1:GR | N/A | GAMMA RAY |
| F1:PBMAP | N/A | PERCENT BOND CEMENT MAP |
| F1:TTN | N/A | TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER |
| F1:XAMPN | N/A | FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE |

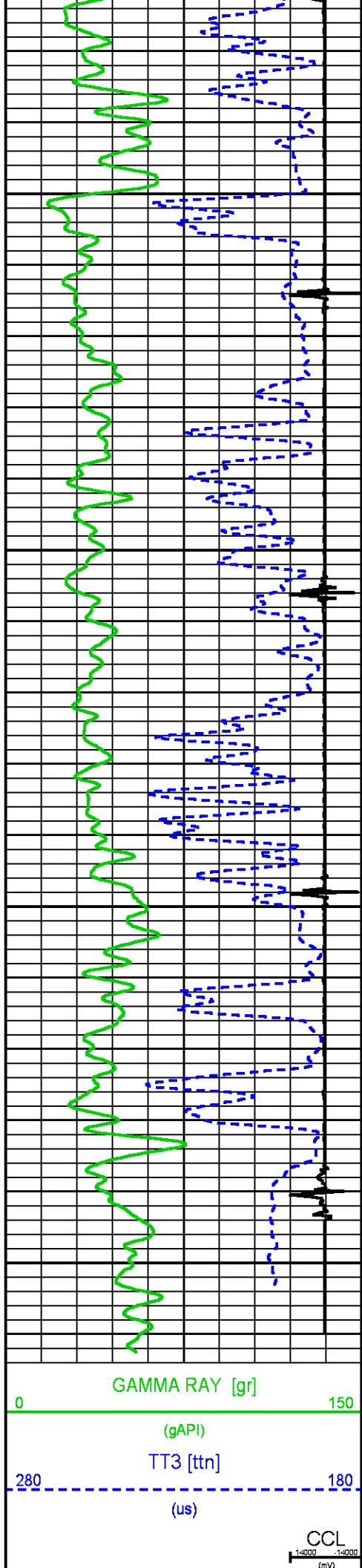
CURVE MEASURE POINT OFFSET

| 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 : SysA:/dat1a/LARAMIE_GUNDERSON_0994-14-12E/0994-14-12E_RAL_REPEAT.fvpdf [5"/100' Scale]
Plot Interval : 7966.75 - 8214.25 Feet

Data File 1 : F1 : SysA:/dat1a/LARAMIE_GUNDERSON_0994-14-12E/0994-14-12E_RAL_REPEAT.xtf
Created On : N/A
Company : LARAMIE ENERGY LLC
Well : GUNDERSON 0994-014-12E
Field : VEGA
File Interval : 7965.75 - 8215.5 Feet
OCT : p012g

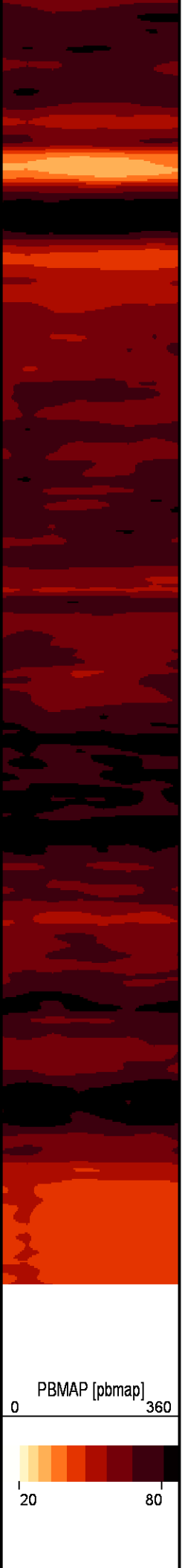
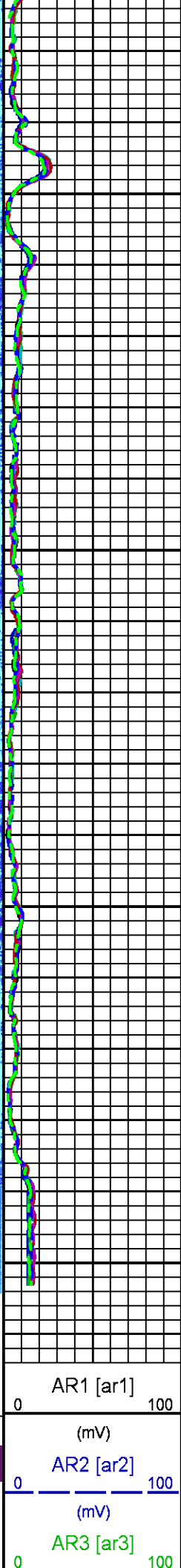
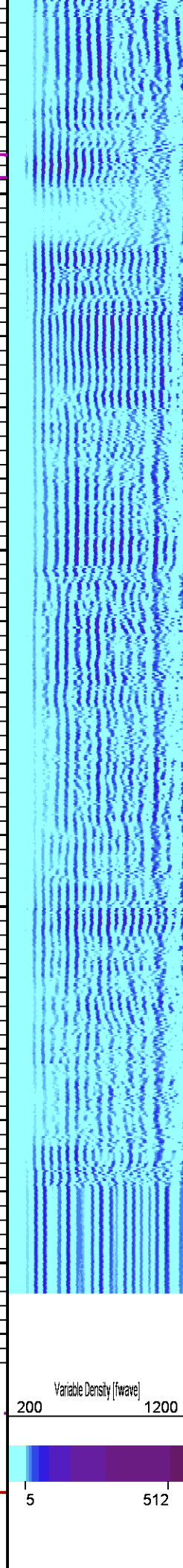
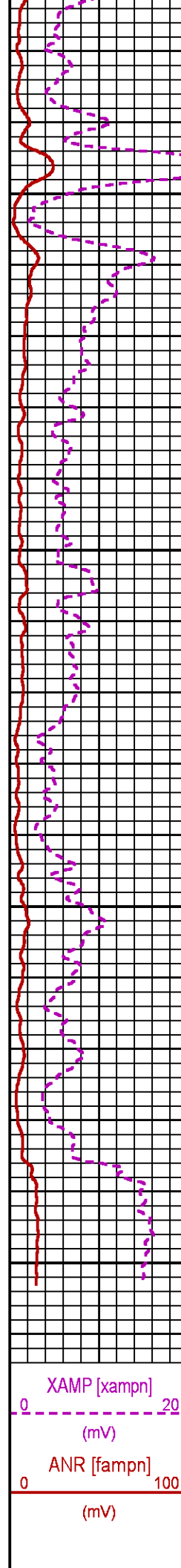


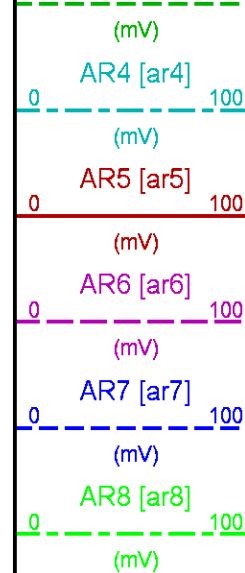


8100

8200

FEET





CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/LARAMIE_GUNDERSON_0994-14-12E/p012g.tp1

RAL PRIMARY CALIBRATION SUMMARY

TOOL #: 1426XA 11871500

DATE/TIME PERFORMED: Thu Jun 14 16:59:30 2018

UNIT #: 5753XD 111111

| | 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) | -0.23 | -0.13 | -0.02 | -0.21 | -0.11 | -0.08 | -0.09 | 0.30 | -0.00 | -0.49 | 0.00 |
| AMP FLUID (mV) | 40 | 39 | 39 | 39 | 40 | 40 | 40 | 39 | 39 | 54 | 38 |
| TT (us) | 217 | 218 | 217 | 217 | 217 | 216 | 216 | 216 | 218 | 324 | 218 |
| M FACTOR | 2.49 | 2.55 | 2.55 | 2.52 | 2.50 | 2.50 | 2.49 | 2.58 | 2.56 | 2.77 | 2.61 |

RAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1426XA 11871500

DATE/TIME PERFORMED: Thu Jun 14 19:09:50 2018

DAYS SINCE CAL: 0

UNIT #: 5753XD 111111

CABLE #: ML4291 SMALL1

| | NEAR (mV) | R1 (mV) | R2 (mV) | R3 (mV) | R4 (mV) | R5 (mV) | R6 (mV) | R7 (mV) | R8 (mV) | FAR (mV) | CAL (mV) |
|---------|--------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|
| ZERO | -1.03 | -1.25 | -0.60 | -1.63 | -1.36 | -0.69 | -0.80 | -0.28 | -0.40 | -2.60 | -0.04 |
| AMP AIR | 1.04 | 1.25 | 0.60 | 1.63 | 1.36 | 0.69 | 0.80 | 0.29 | 0.40 | 2.86 | 100.43 |

| SHOP M FACTOR | SHOP A FACTOR | WIRELINE FACTOR |
|------------------|------------------|--------------------|
| 2.61 | 0.00 | 1.00 |

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 1355XA 12670180

DATE/TIME PERFORMED: Thu Mar 29 16:39:27 2018

UNIT #: 4352 ML4352

CALB JIG #: 4702NK DA_228

| | BACKGROUND (cts) | CALBRTR ON (cts) | CR DIFF (cts/s) | MULT | BACKGROUND (gAPI) | CALBRTR ON (gAPI) | CALBRTR (gAPI) |
|----|---------------------|---------------------|--------------------|-------|----------------------|----------------------|-------------------|
| GR | 41.51 | 221.16 | 179.6 | 0.557 | 23.11 | 123.11 | 100 |

GR PRIMARY VERIFICATION SUMMARY

TOOL #: 1355XA 12670180

DATE/TIME PERFORMED: Thu Mar 29 16:50:56 2018

UNIT #: 4352 ML4352

VERI JIG #: 4702NK DA_228

| | BACKGROUND (cts) | CALBRTR ON (cts) | MULT | BACKGROUND (gAPI) | CALBRTR ON (gAPI) | DIFF. (gAPI) |
|----|---------------------|---------------------|-------|----------------------|----------------------|-----------------|
| GR | 40.09 | 214.13 | 0.557 | 22.32 | 119.20 | 96.88 |
| | | | | | | 90.00 110.00 |

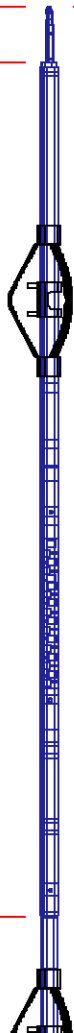
INSTRUMENT CONFIGURATION

Source File: /dat1a/LARAMIE_GUNDERSON_0994-14-12E/p012g~RAL-tdg

A3 CABLEHEAD
Diameter : 1.37"

RADIAL BOND TOOL

Diameter : 2.75"
Length : 11.17'
Weight : 126 lbs
Series : 1426XA
Mnemonic : RAL
Measure Point: 5.75': XMTR
Measure Point: 4.21': NEAR MP
Measure Point: 3.25': FAR MP
Measure Point: 2.67': NEAR RCVR
Measure Point: 0.75': FAR RCVR



18.85'

XMTR 12.71'

NEAR MP 11.17'

FAR MP 10.21'

NEAR RCVR 9.62'

FAR RCVR 7.71'

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: 18.85'
 TOTAL WEIGHT: 227 lbs
 MAX DIAMETER: 0'4.00"



COMPANY

LARAMIE ENERGY LLC

WELL

GUNDERSON 0994-14-12E

FIELD

VEGA

COUNTY

MESA

STATE **COLORADO**

FILE NO:

CH136897

API NO:

05077105330000

LOCATION:

LAT: 39.273858 N

LONG: 107.834945 W

ELEVATIONS:

KB 7302 FT

DF

GL 7272 FT

SEC **14** TWP **9 S** RGE **94 W**

DATE **14-Jun-2018**