



| | | | |
|---------------------------------------|--------------|---|------------|
| FILE NO: CH101523 | | COMPANY LARAMIE ENERGY | |
| API NO: 05077102580000 | | WELL PICEANCE FEDERAL 28-18E | |
| Ver. 4.01 | | FIELD VEGA | |
| 28-9S 93W | | COUNTY MESA | |
| 28-10 PAD | | STATE CO | |
| PATTERSON 306 | | LOCATION: SHL: 2030' FSL & 2497' FWL BHL: 863' FSL & 880' FEL SEC 28 TWP 9S RGE 93W | |
| PERMANENT DATUM GL ELEVATION 7682 FT | | OTHER SERVICES RPM | |
| LOG MEASURED FROM KB 22 FT ABOVE P.D. | | KB 7704 FT DF GL 7682 FT | |
| DRILL. MEAS. FROM KB | | | |
| DATE | 26-JAN-2016 | | |
| RUN | TRIP | 1 | 1 |
| SERVICE ORDER | US101523 | | |
| DEPTH DRILLER | 8351 FT | | |
| DEPTH LOGGER | 8274 FT | | |
| BOTTOM LOGGED INTERVAL | 8264 FT | | |
| TOP LOGGED INTERVAL | 22 FT | | |
| TIME STARTED | 7:30 | | |
| TIME FINISHED | 10:30 | | |
| OPERATOR RIG TIME | 3 HOURS | | |
| TYPE OF FLUID IN HOLE | WATER | | |
| FLUID DENSITY | NA | | |
| FLUID SALINITY | NA | | |
| FLUID LEVEL | 32 FT | | |
| LOGGED CEMENT TOP | NA | | |
| WELLHEAD PRESSURE | 0 PSI | | |
| MAXIMUM HOLE DEVIATION | NA | | |
| NOMINAL LOGGING SPEED | 100 F/MN | | |
| MAX. RECORDED TEMP. | 236 DEGF | | |
| REFERENCE LOG | NA | | |
| REFERENCE LOG DATE | NA | | |
| EQUIP. NO. | LOCATION | HL-6670 | GRAND JCT. |
| RECORDED BY | T. NEWELL | | |
| 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 |
| | | |

| CASING RECORD | | | | |
|---------------|-----------|-------|-------|---------|
| SIZE | WEIGHT | GRADE | FROM | TO |
| 4.5 IN | 11.6 LB/F | | 22 FT | 8437 FT |

| |
|--|
| REMARKS |
| RUN 1 TRIP 1: THIS IS THE FIRST LOG ON THIS WELL. |
| LOGGED WITH 0 PSI AT WELLHEAD. |
| BHT = 236 DEGF |
| SJ = 6401' - 6422' |
| SJ = 7512' - 7534' |
| THANK YOU FOR CHOOSING BAKER HUGHES ... THE BEST CHOICE! |

| EQUIPMENT DATA | | | | |
|----------------|------|------|------------|------------|
| RUN | TRIP | TOOL | SERIES NO. | SERIAL NO. |
| 1 | 1 | CD | 1122X1 | 12121122 |
| | | | | |

| | | | | | |
|---|---|--------|--------|----------|-------------|
| 1 | 1 | CBL | 1426XA | 10124106 | CENTRALIZED |
| 1 | 1 | GR/CCL | 1355XA | 11871506 | 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: Tue Jan 26 15:00:59 2016

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH101523/n012g03.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 5.750 ft BOTTOM DEPTH: 8281.916 ft

SYMMETRIC FILTER

| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | INTERVAL (ft) | |
|------------------|-----------|------------|-------|---------------|--------|
| GR | FILTER () | medium (1) | | TOP | BOTTOM |
| AMPLITUDE | FILTER () | medium (1) | | " | " |
| TRAVEL TIME | FILTER () | medium (1) | | " | " |

RAL CCL PROCESSING

| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | INTERVAL (ft) | |
|------------------|-----------|-------|-------|---------------|--------|
| CCL FLOOR | CCL FLOOR | 0 | | TOP | BOTTOM |

ANALOG RAL PROCESSING

| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | INTERVAL (ft) | |
|---------------------------|----------------------------|---------|-------|---------------|--------|
| AMPLITUDE WINDOW (NEAR) | AMP WINDOW START (fgp1*) | 187 | us | TOP | BOTTOM |
| | AMP WINDOW START (fgp2*) | 187 | us | " | " |
| | AMP WINDOW START (fgp3*) | 187 | us | " | " |
| | AMP WINDOW START (fgp4*) | 187 | us | " | " |
| | AMP WINDOW START (fgp5*) | 187 | us | " | " |
| | AMP WINDOW START (fgp6*) | 187 | us | " | " |
| | AMP WINDOW START (fgp7*) | 187 | us | " | " |
| | AMP WINDOW START (fgp8*) | 187 | us | " | " |
| | AMP WINDOW START (fgpn*) | 187 | us | " | " |
| TRAVEL TIME WINDOW (NEAR) | AMP WINDOW LENGTH | 25 | us | " | " |
| | TT WINDOW START (ttn*) | 177 | 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 | 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 | " | " |

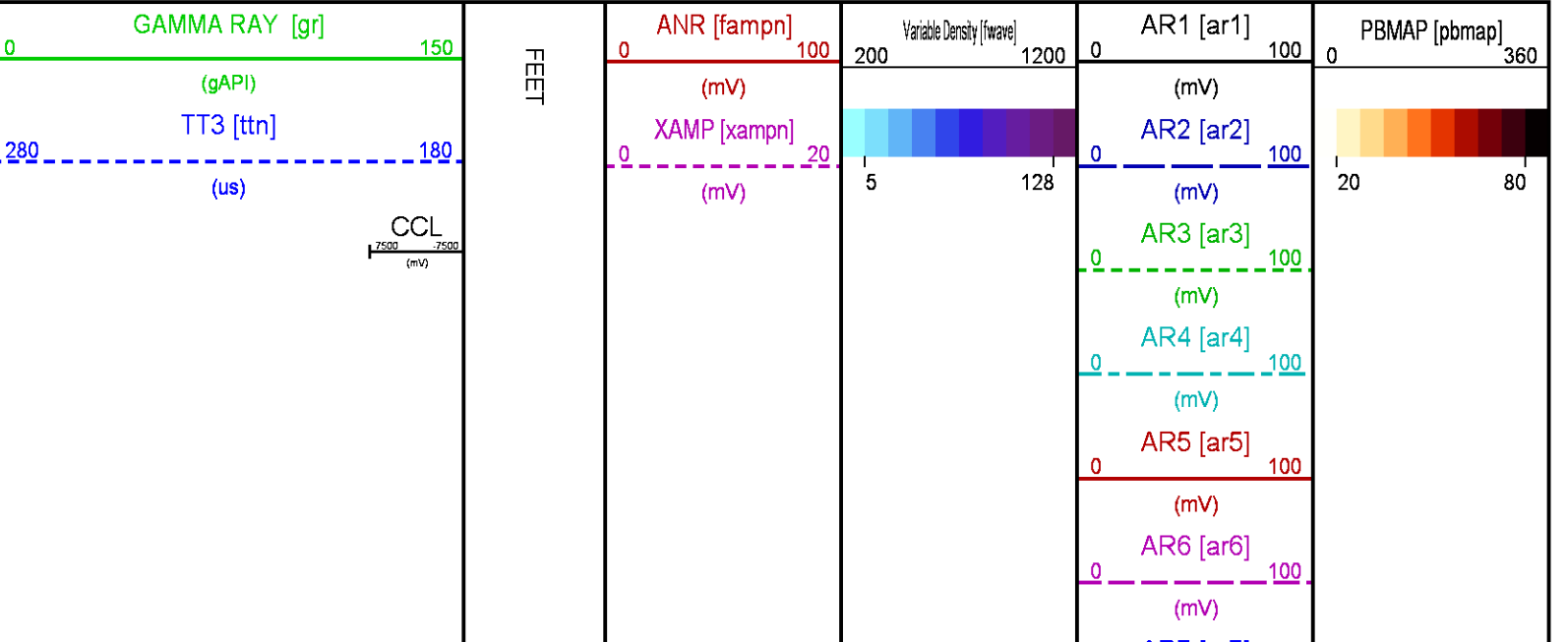
CURVE DESCRIPTION REPORT

| CURVE NAME | CREATION DATE | CURVE DESCRIPTION |
|------------|----------------------|---|
| F1:AR1 | Jan 26 08:41:20 2016 | FIXED GATE AMPLITUDE T-R1 |
| F1:AR2 | Jan 26 08:41:20 2016 | FIXED GATE AMPLITUDE T-R2 |
| F1:AR3 | Jan 26 08:41:20 2016 | FIXED GATE AMPLITUDE T-R3 |
| F1:AR4 | Jan 26 08:41:20 2016 | FIXED GATE AMPLITUDE T-R4 |
| F1:AR5 | Jan 26 08:41:20 2016 | FIXED GATE AMPLITUDE T-R5 |
| F1:AR6 | Jan 26 08:41:20 2016 | FIXED GATE AMPLITUDE T-R6 |
| F1:AR7 | Jan 26 08:41:20 2016 | FIXED GATE AMPLITUDE T-R7 |
| F1:AR8 | Jan 26 08:41:20 2016 | FIXED GATE AMPLITUDE T-R8 |
| F1:CCL | Jan 26 08:41:20 2016 | CASING COLLAR LOCATOR |
| F1:FAMPN | Jan 26 08:41:20 2016 | FIXED GATE AMPLITUDE NEAR RECEIVER |
| F1:FWAVE | Jan 26 08:41:20 2016 | FAR WAVE FORM |
| F1:GR | Jan 26 08:41:20 2016 | GAMMA RAY |
| F1:PBMAP | Jan 26 08:41:20 2016 | PERCENT BOND CEMENT MAP |
| F1:TTN | Jan 26 08:41:20 2016 | TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER |
| F1:XAMPN | Jan 26 08:41:20 2016 | FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE |

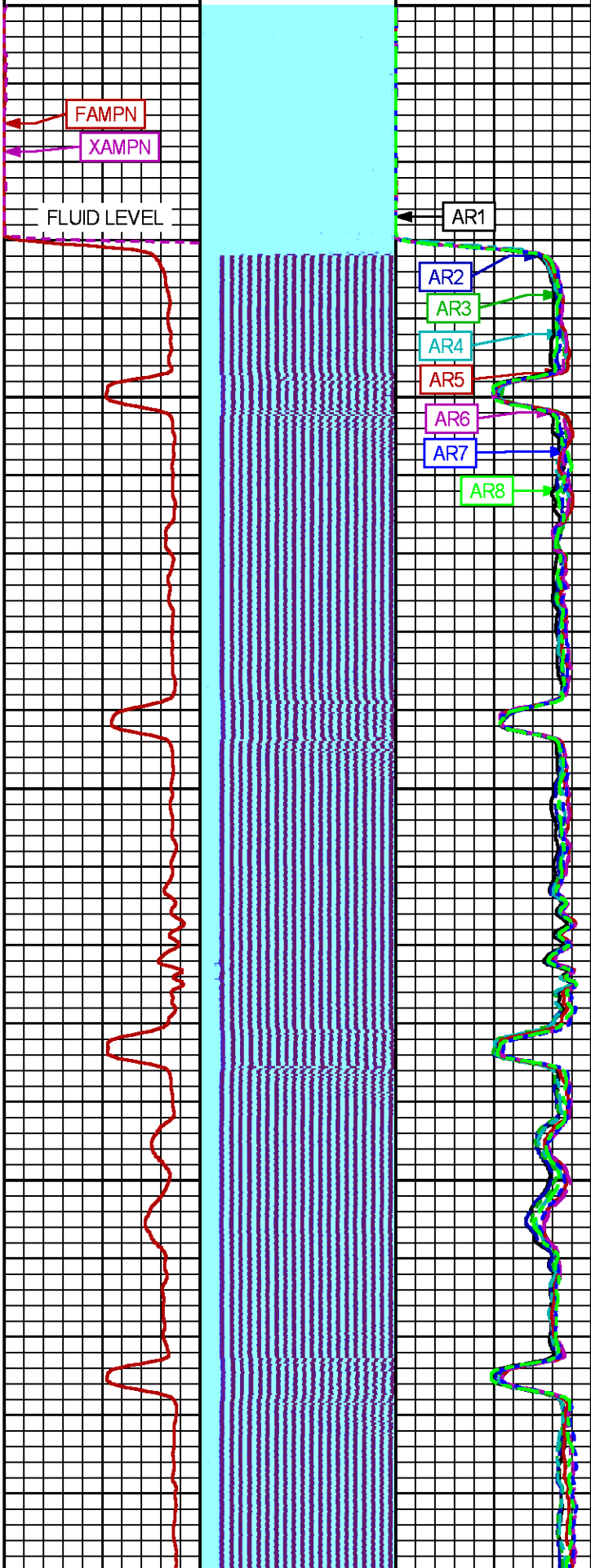
CURVE MEASURE POINT OFFSET

| 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/CH101523/18E_CBL_MAIN.fvpdf [5"/100' Scale] |
| Plot Interval | : 0 - 8285 Feet |
| Data File 1 | : F1 : HL6670:/dat1a/CH101523/18E_CBL_MAIN.xtf |
| Created On | : Jan 26 08:41:20 2016 |
| Company | : LARAMIE ENERGY |
| Well | : PICEANCE FEDERAL 28-18E |
| Field | : VEGA |
| File Interval | : -2.75 - 8283.5 Feet |
| OCT | : n012g |



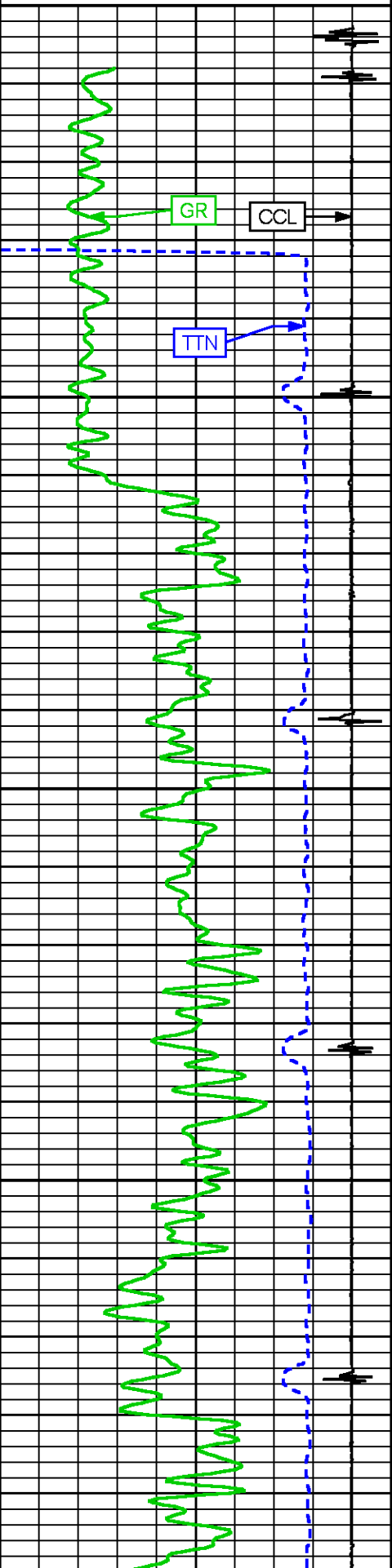
AR7 [ar7]
(mV)
0 100
AR8 [ar8]
(mV)
0 100

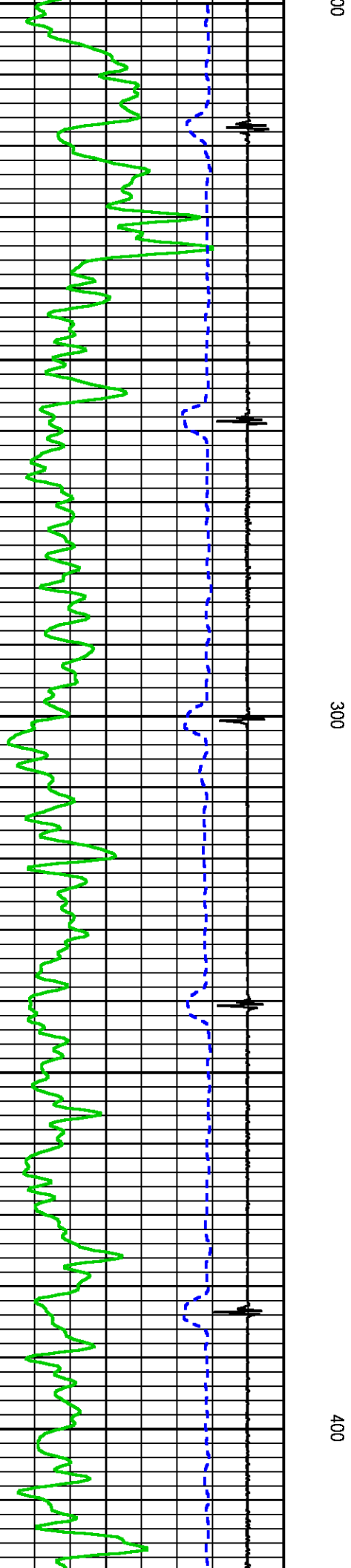
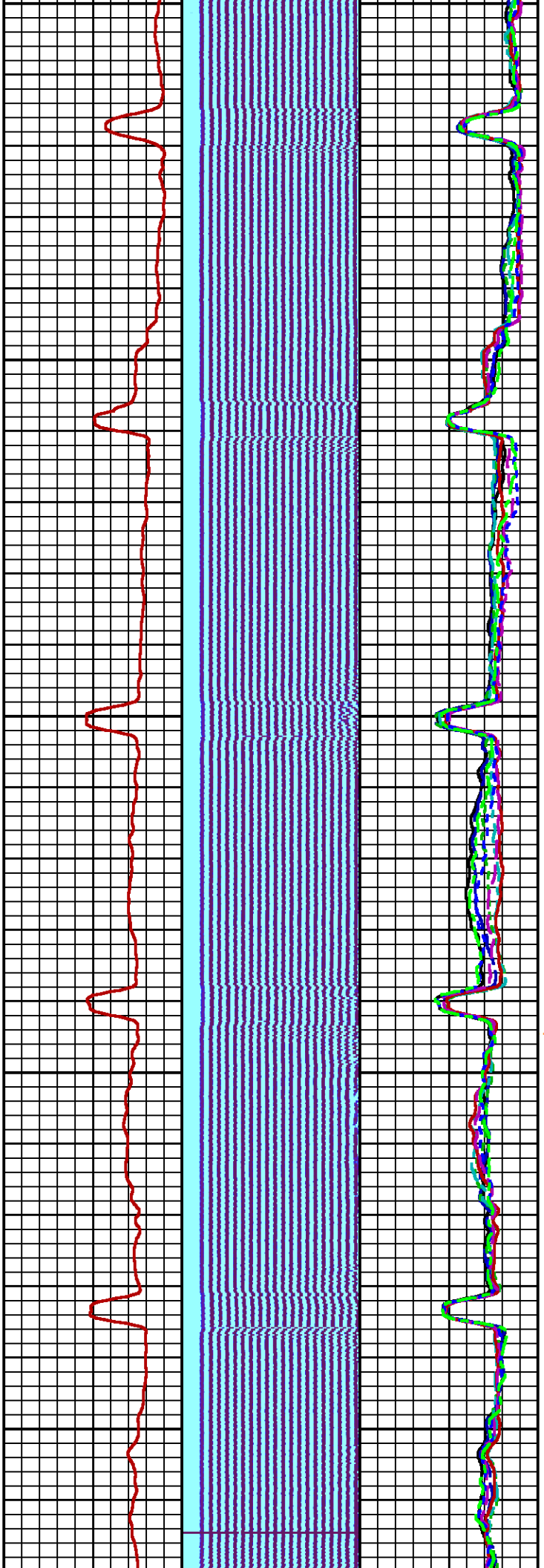


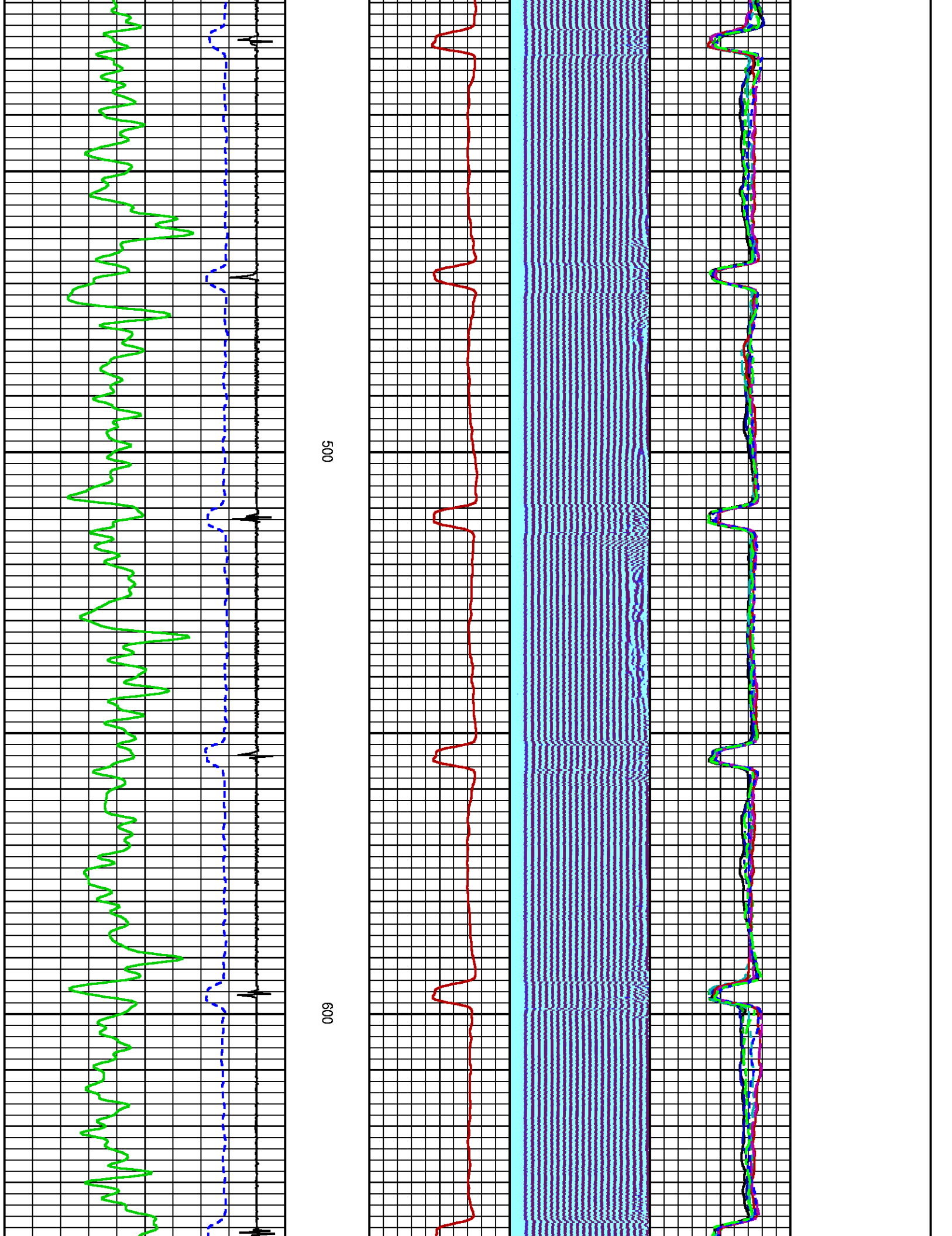
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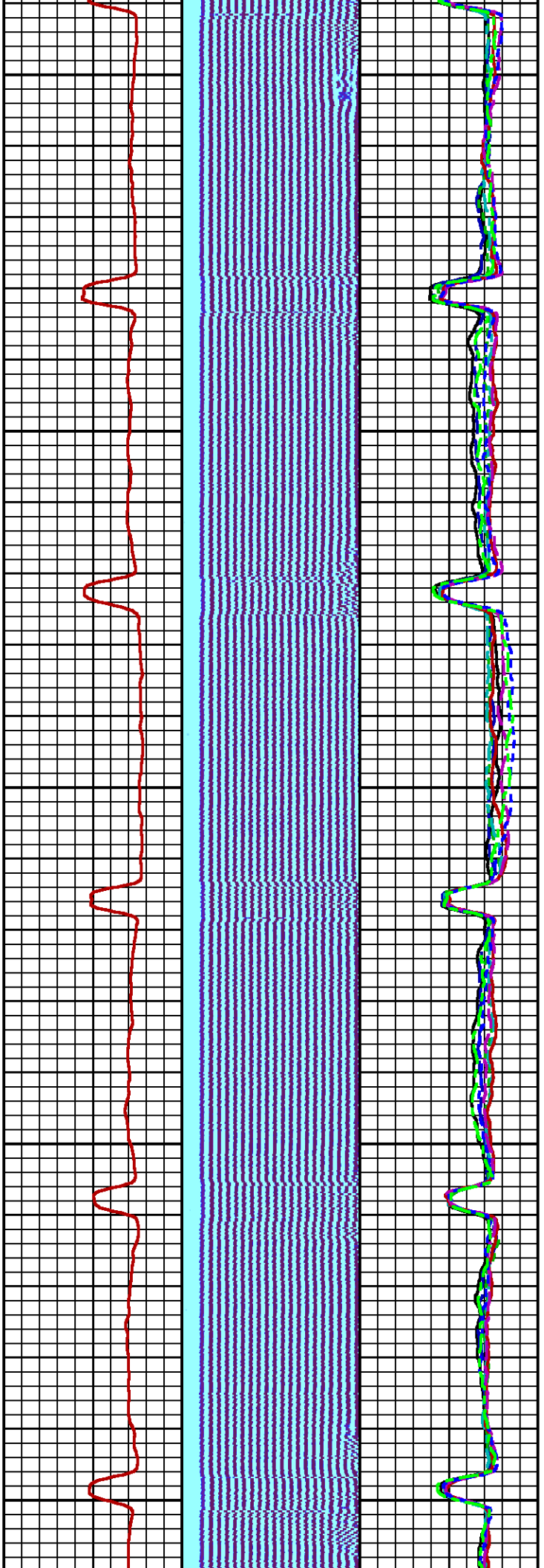
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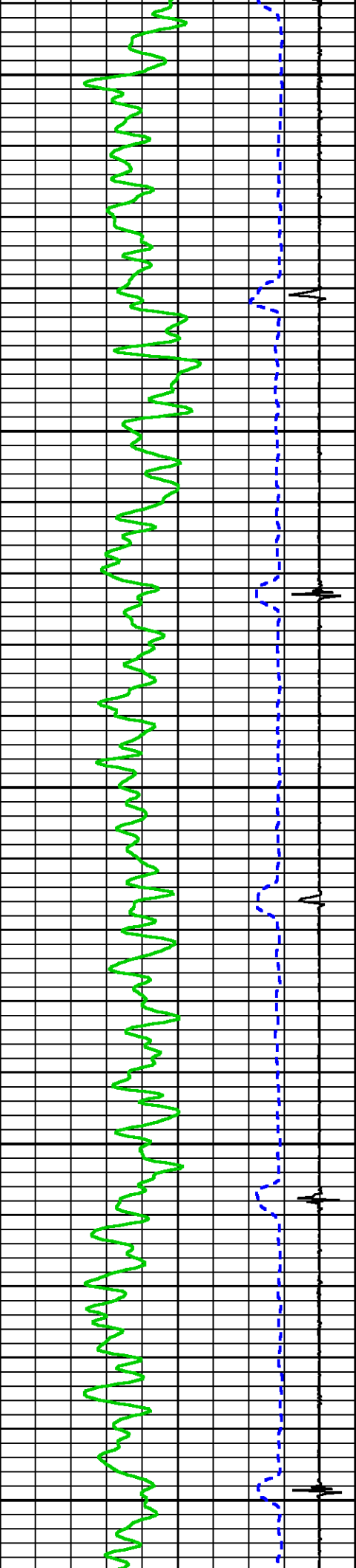


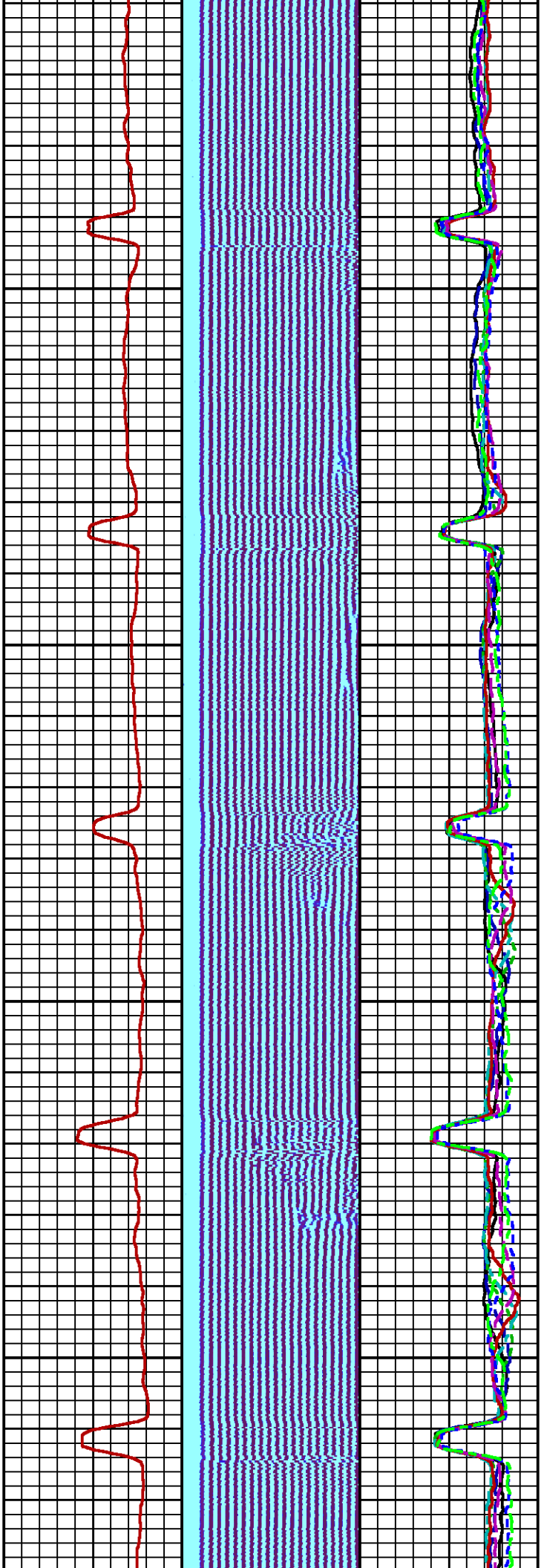




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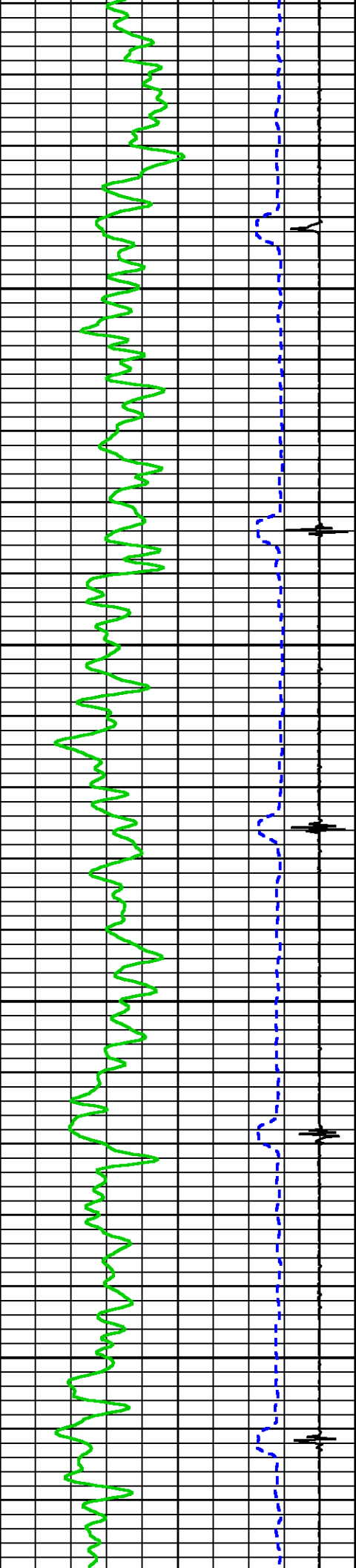
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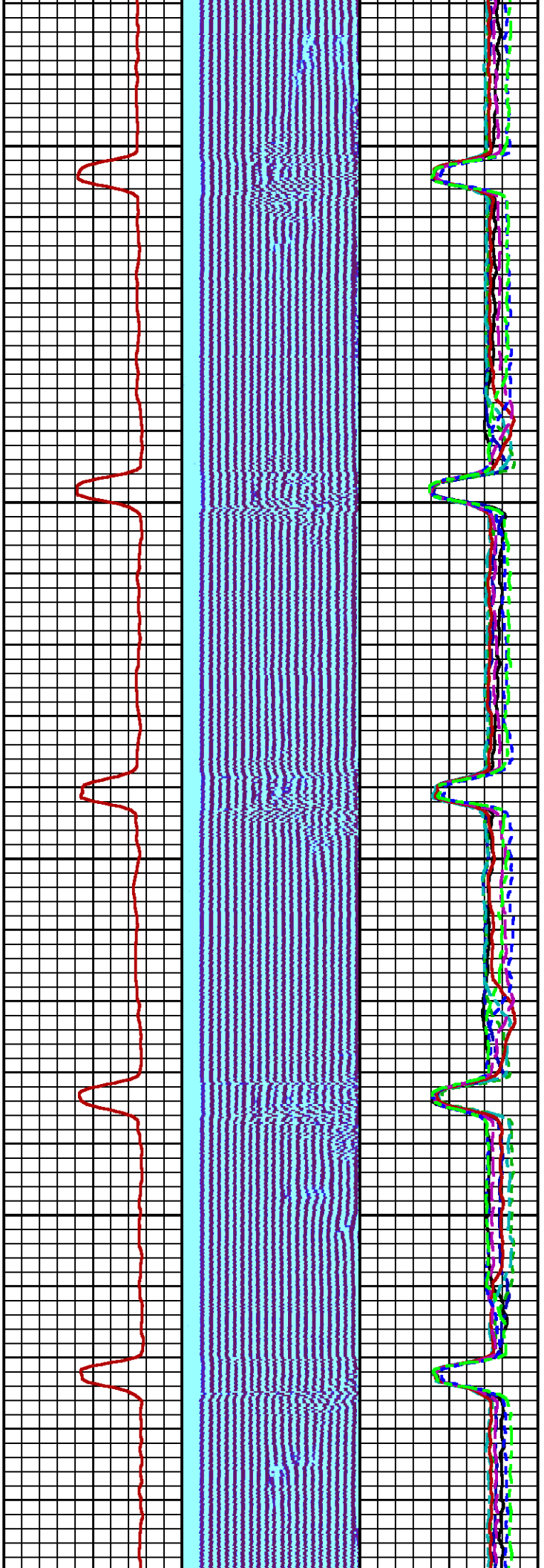




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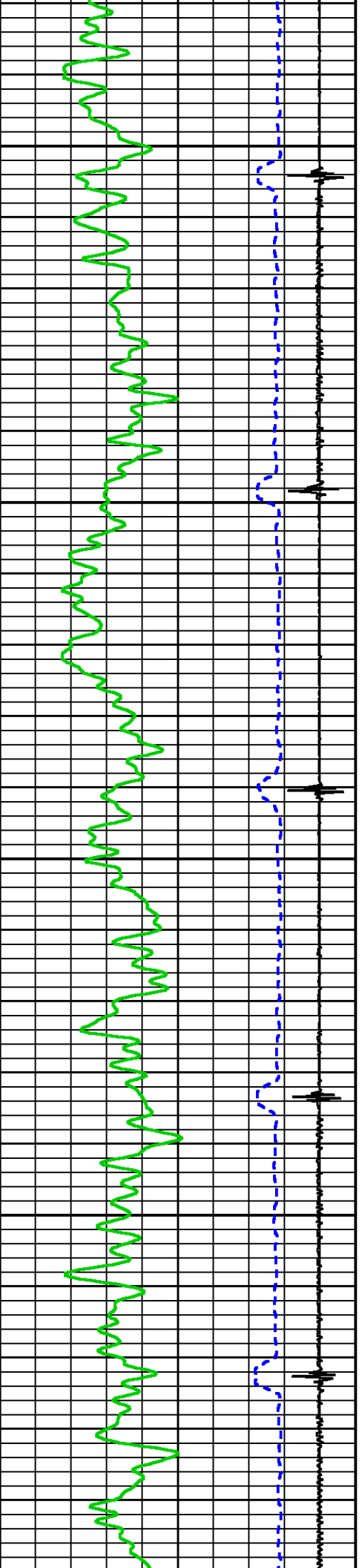


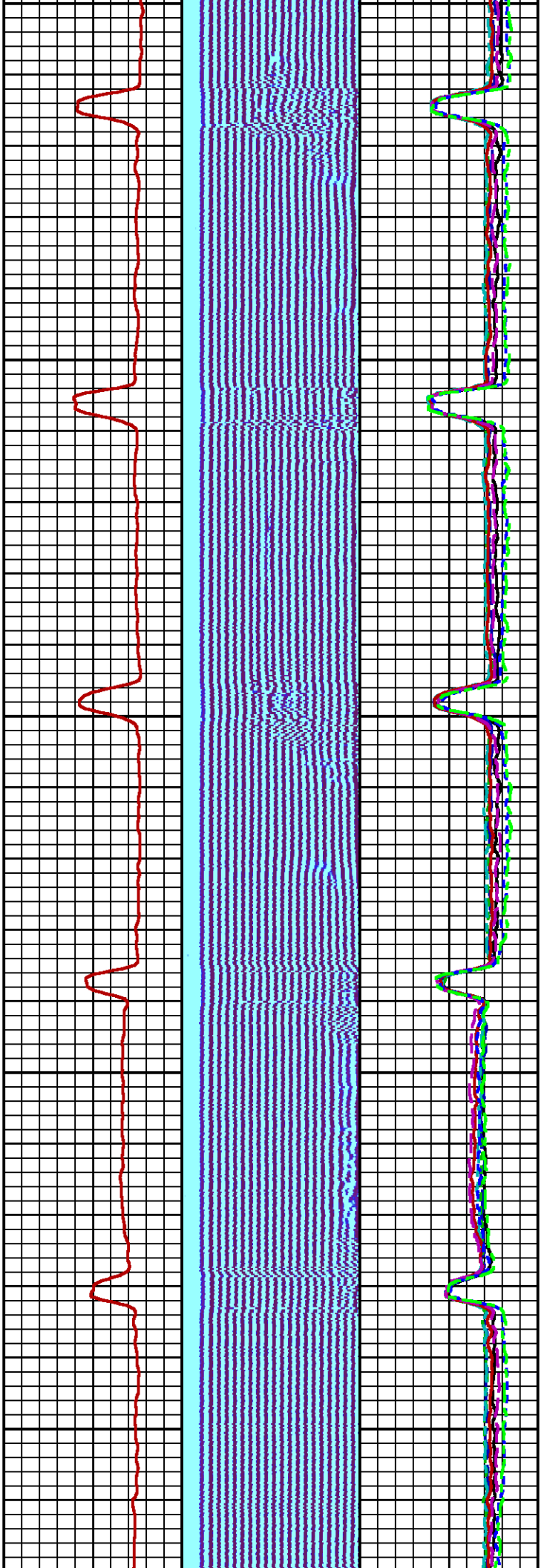


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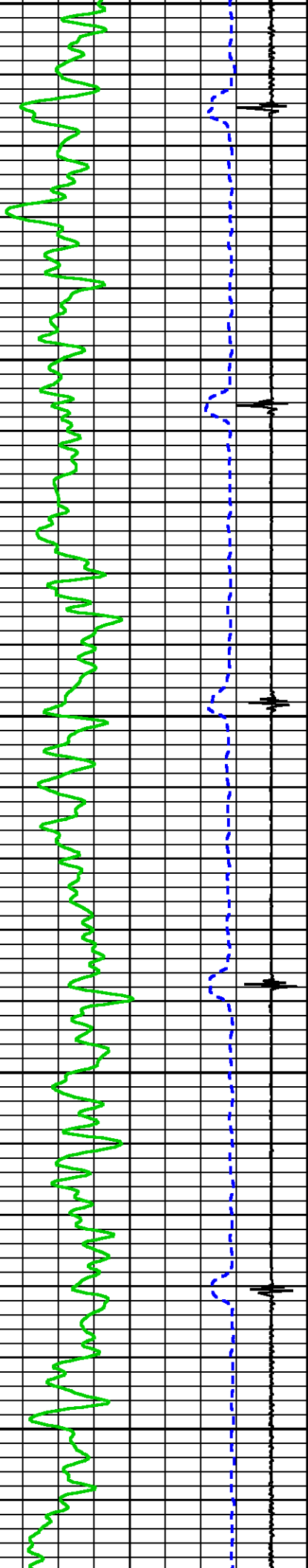


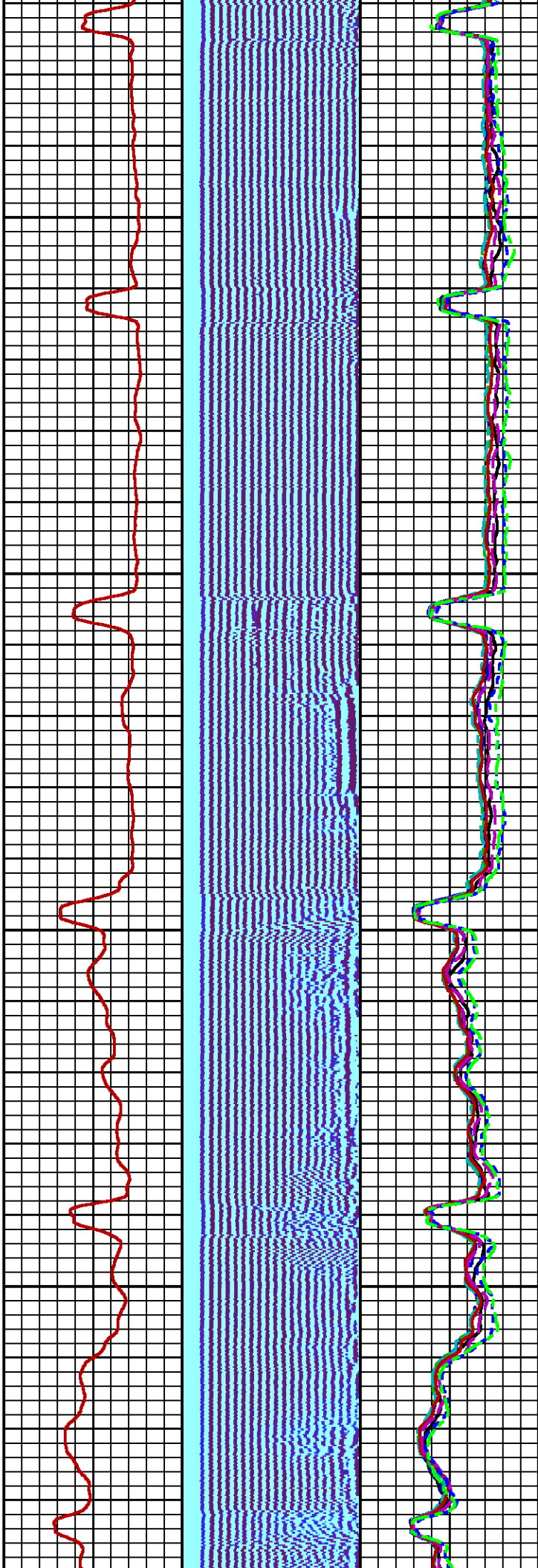
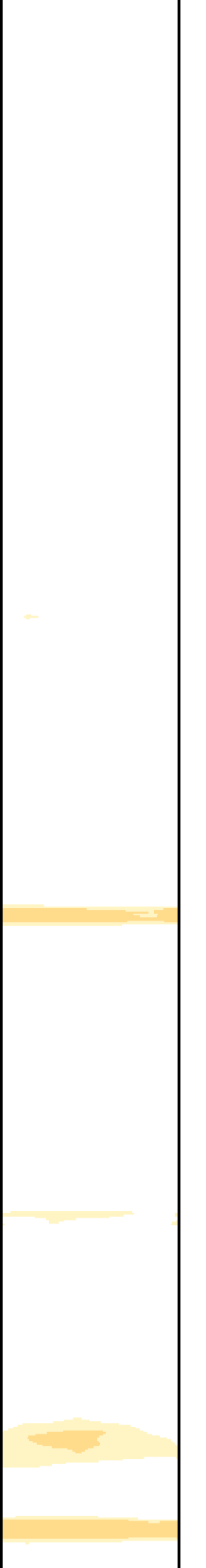


100

1400

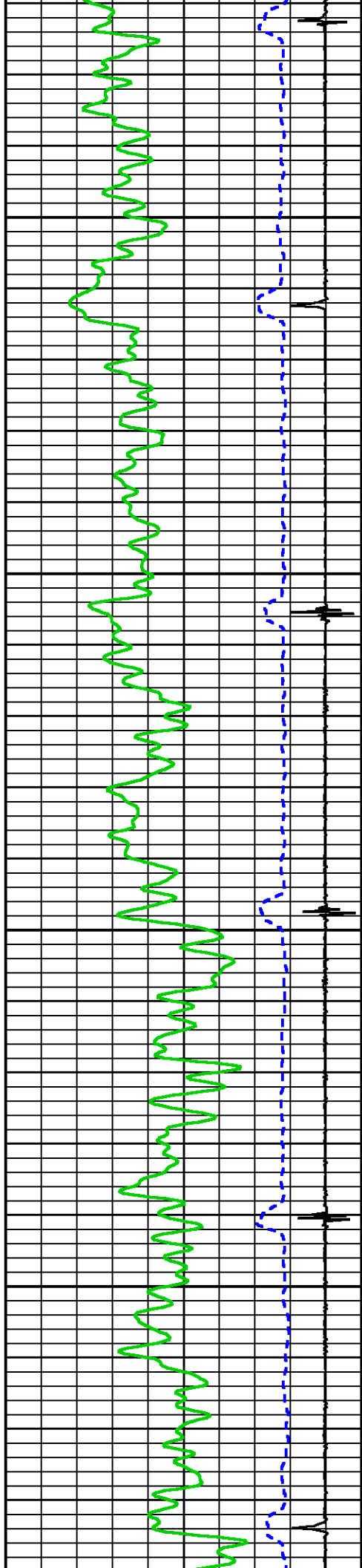
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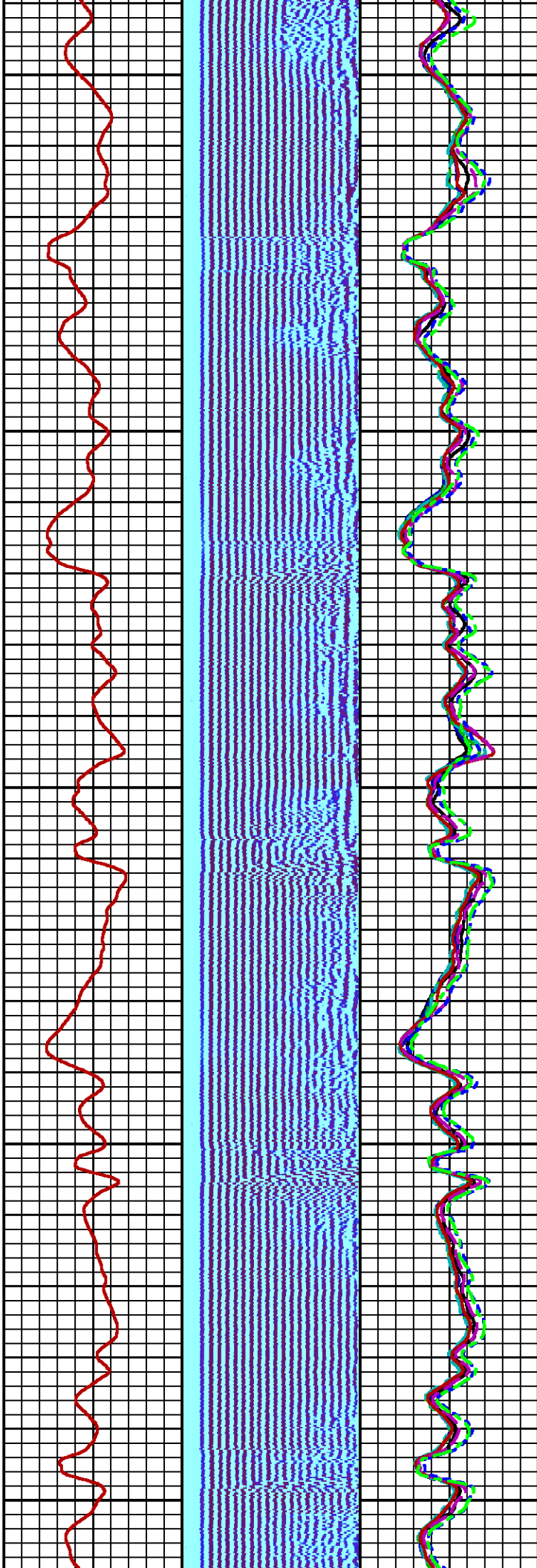
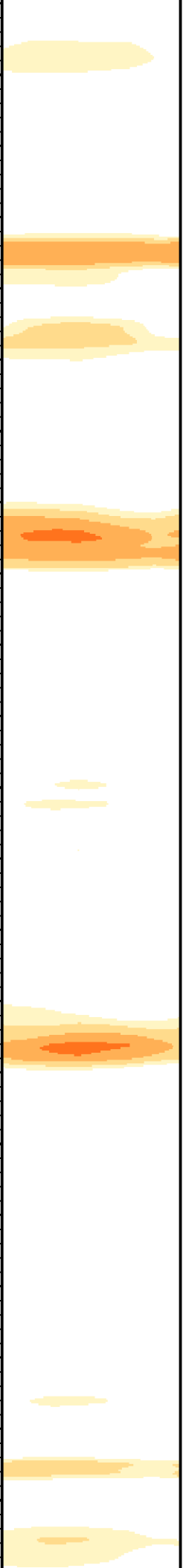




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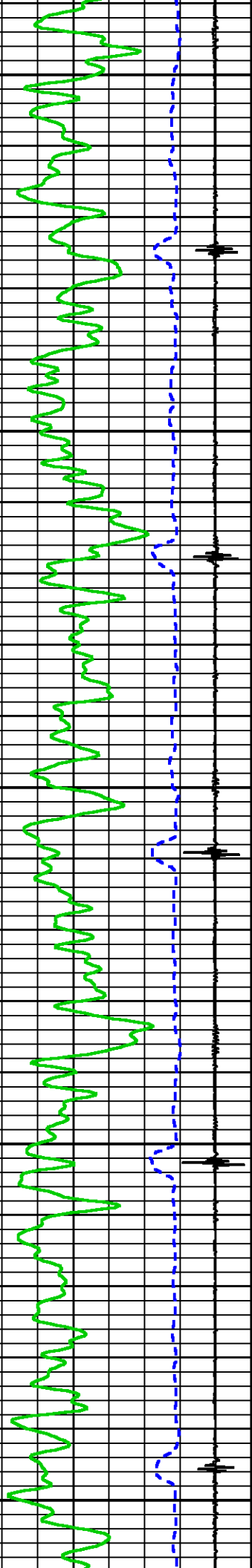
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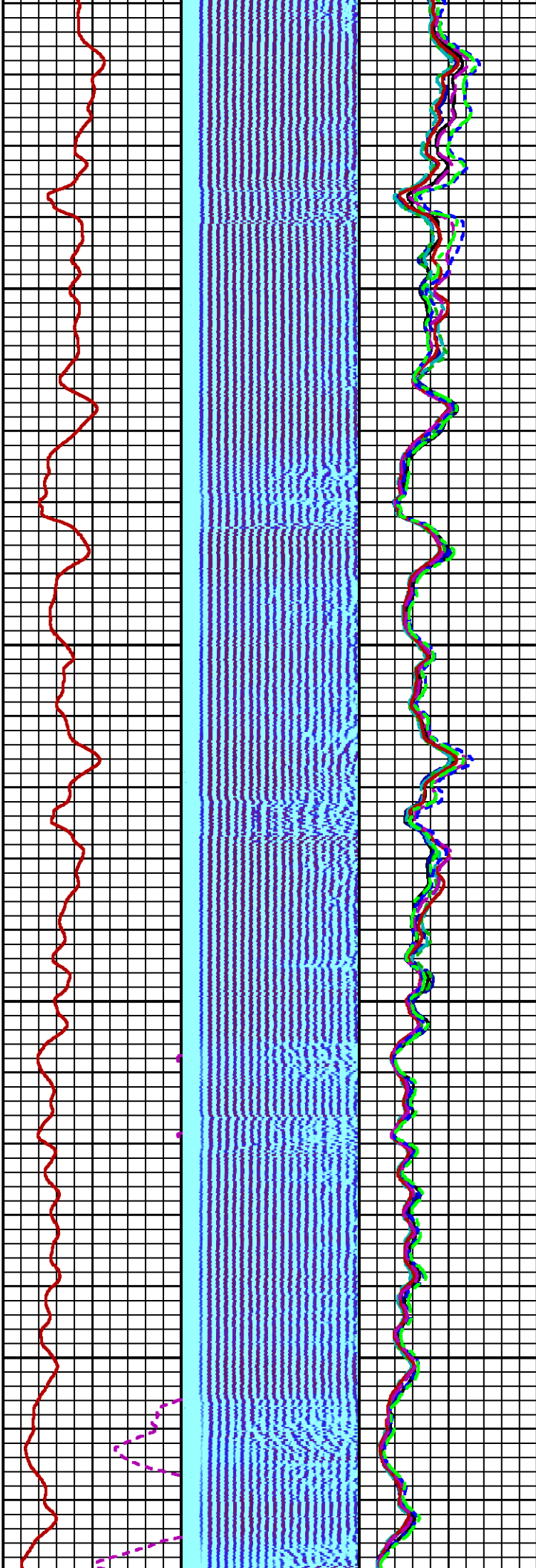
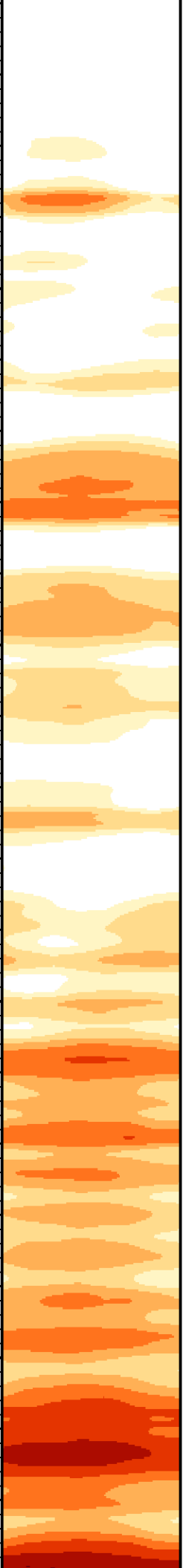




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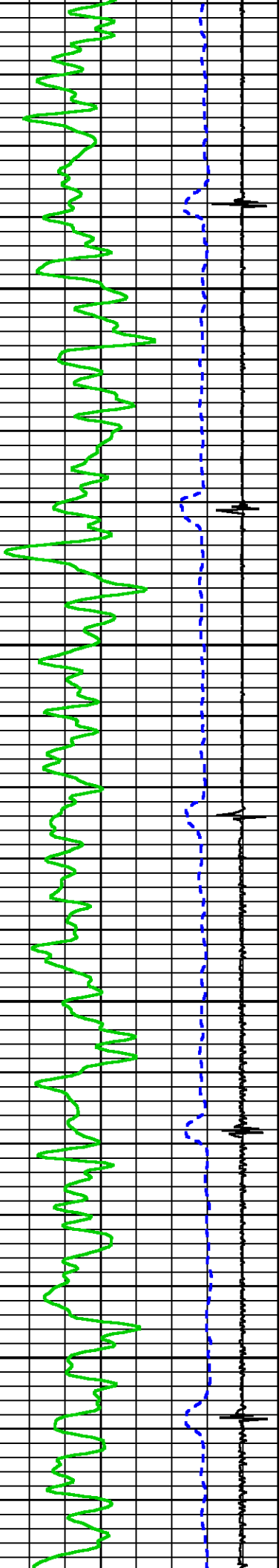
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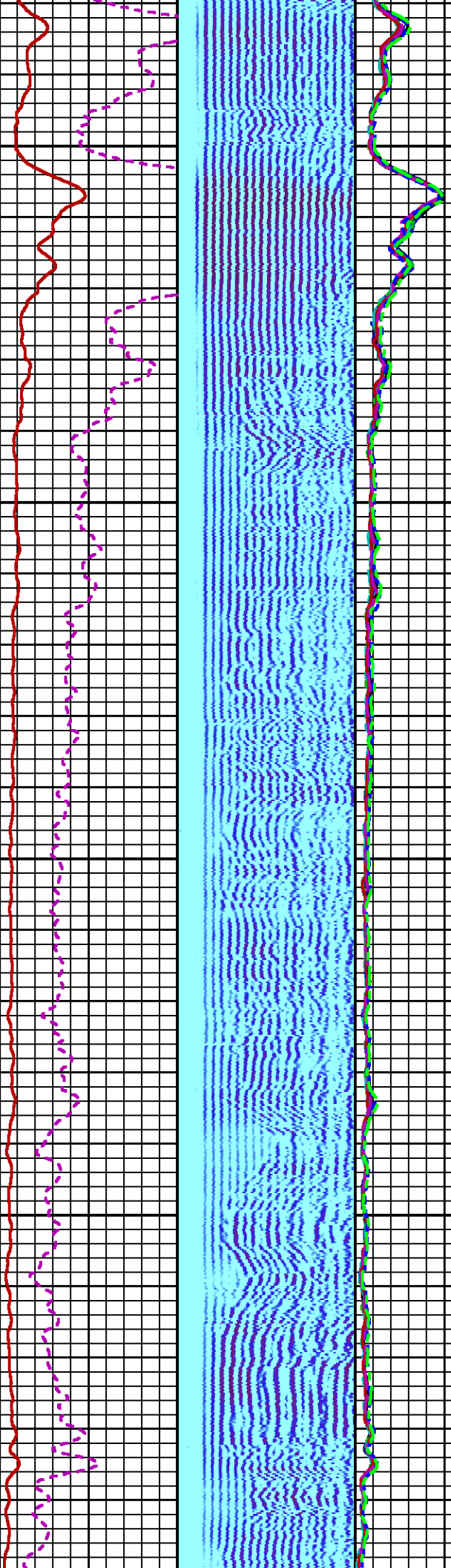




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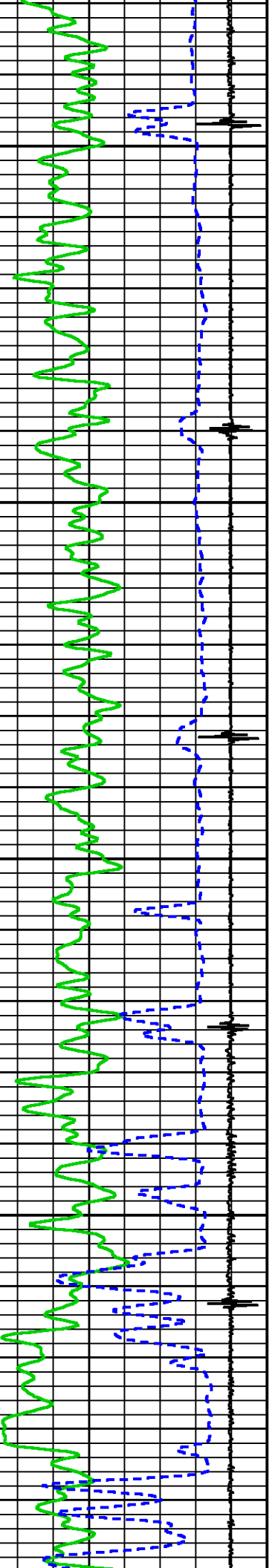


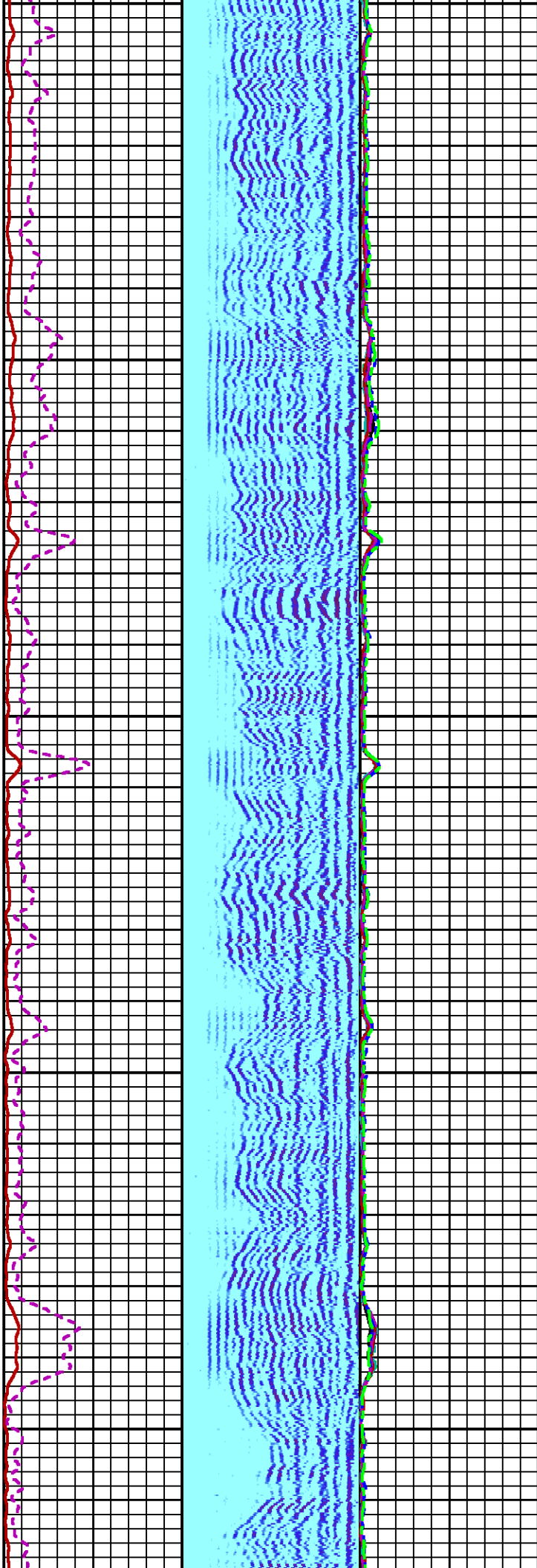
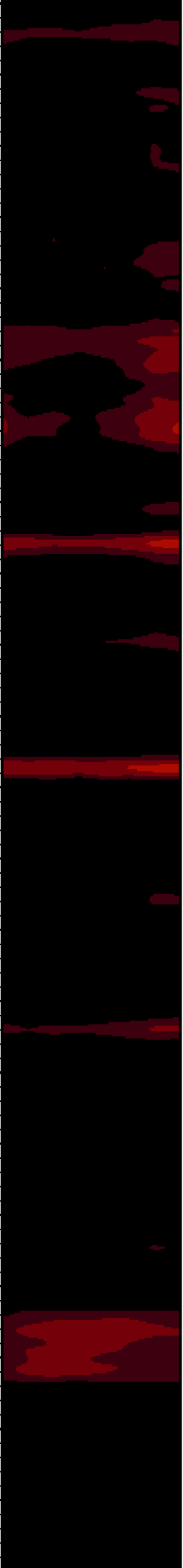


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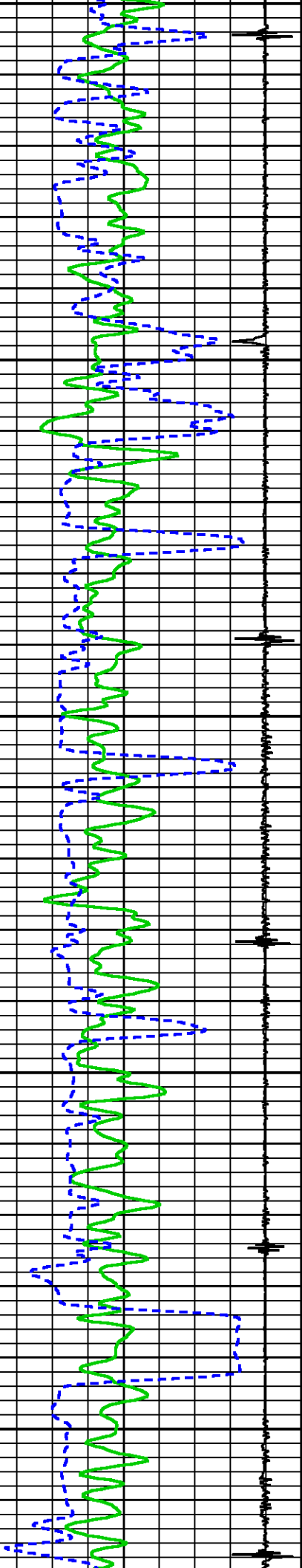


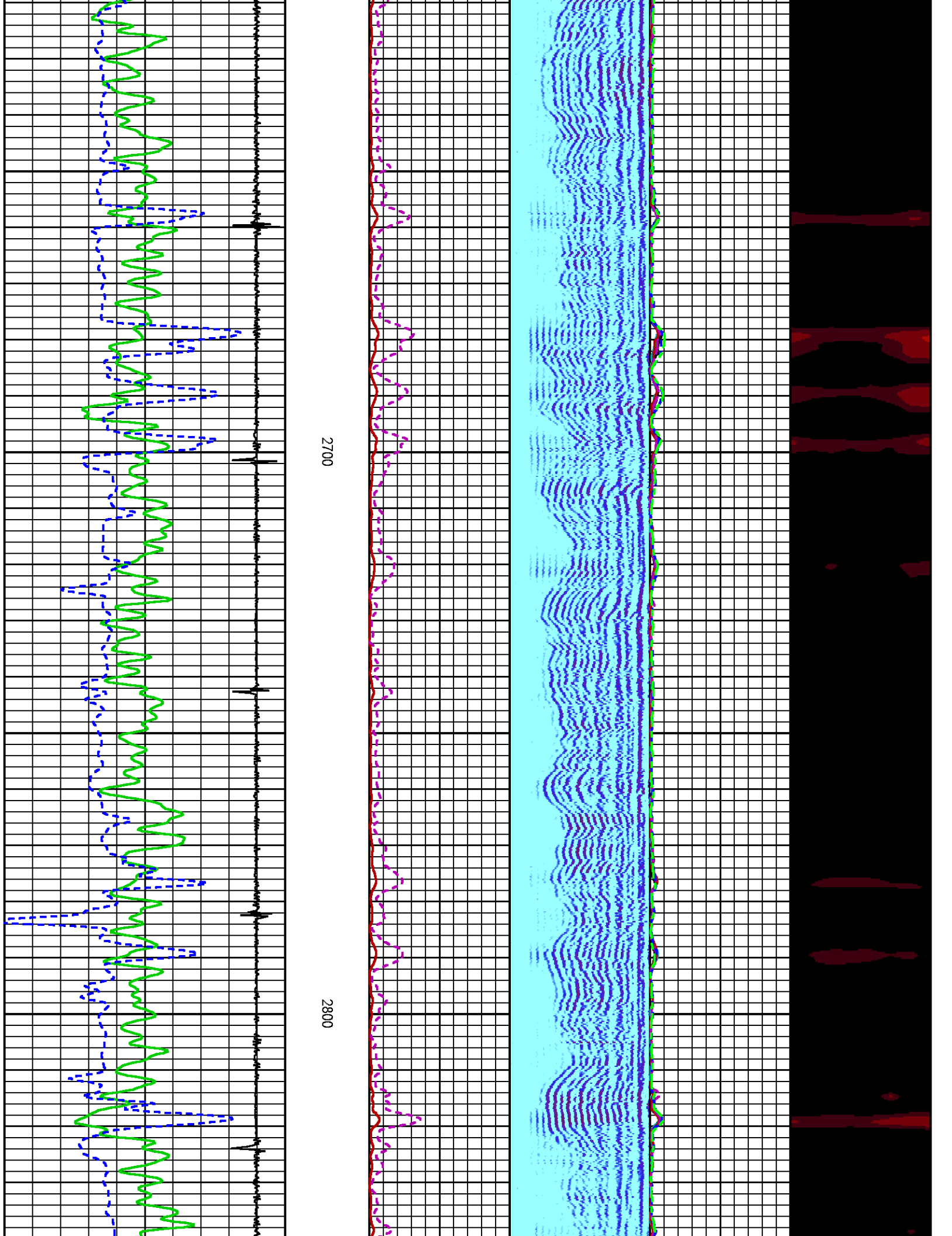


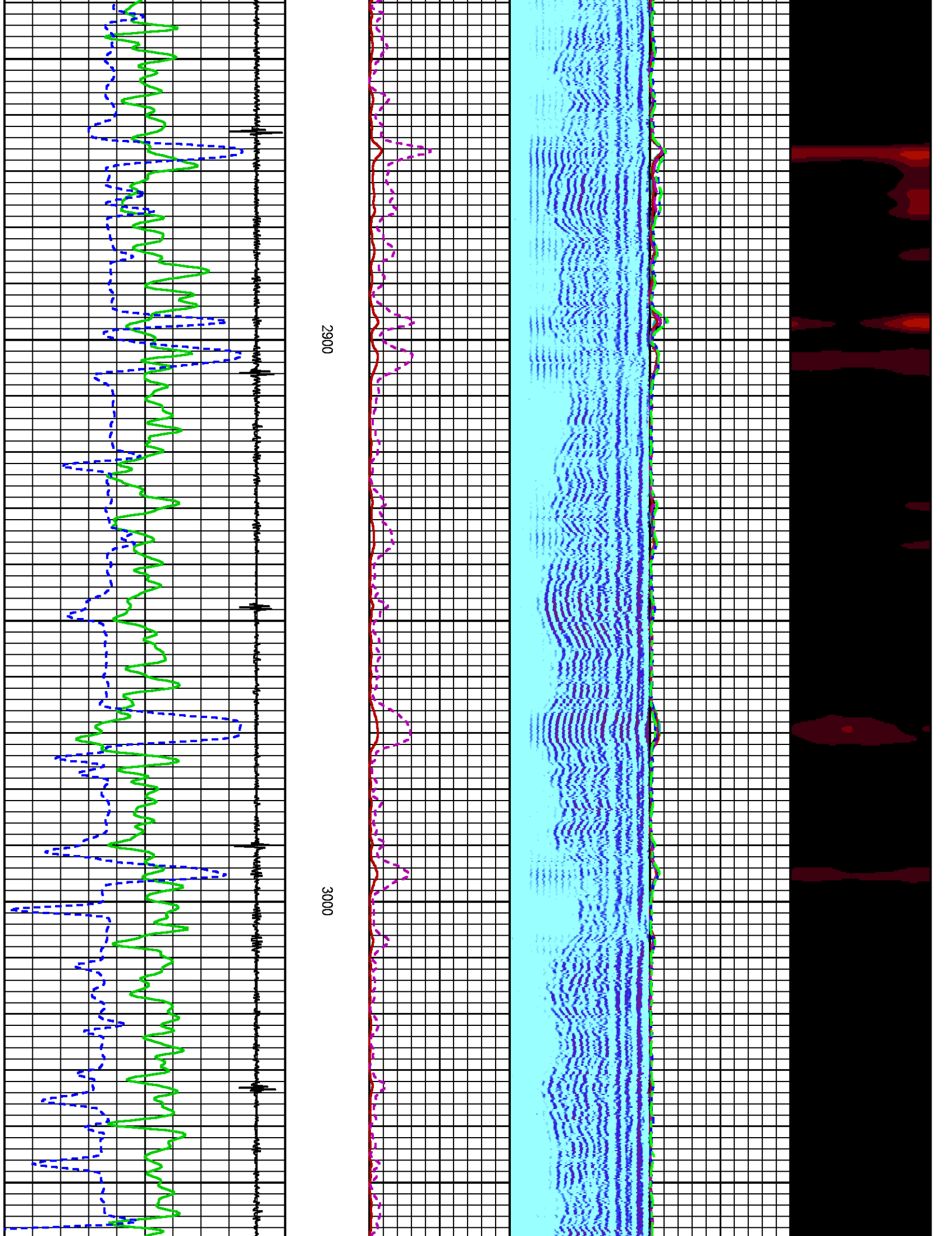
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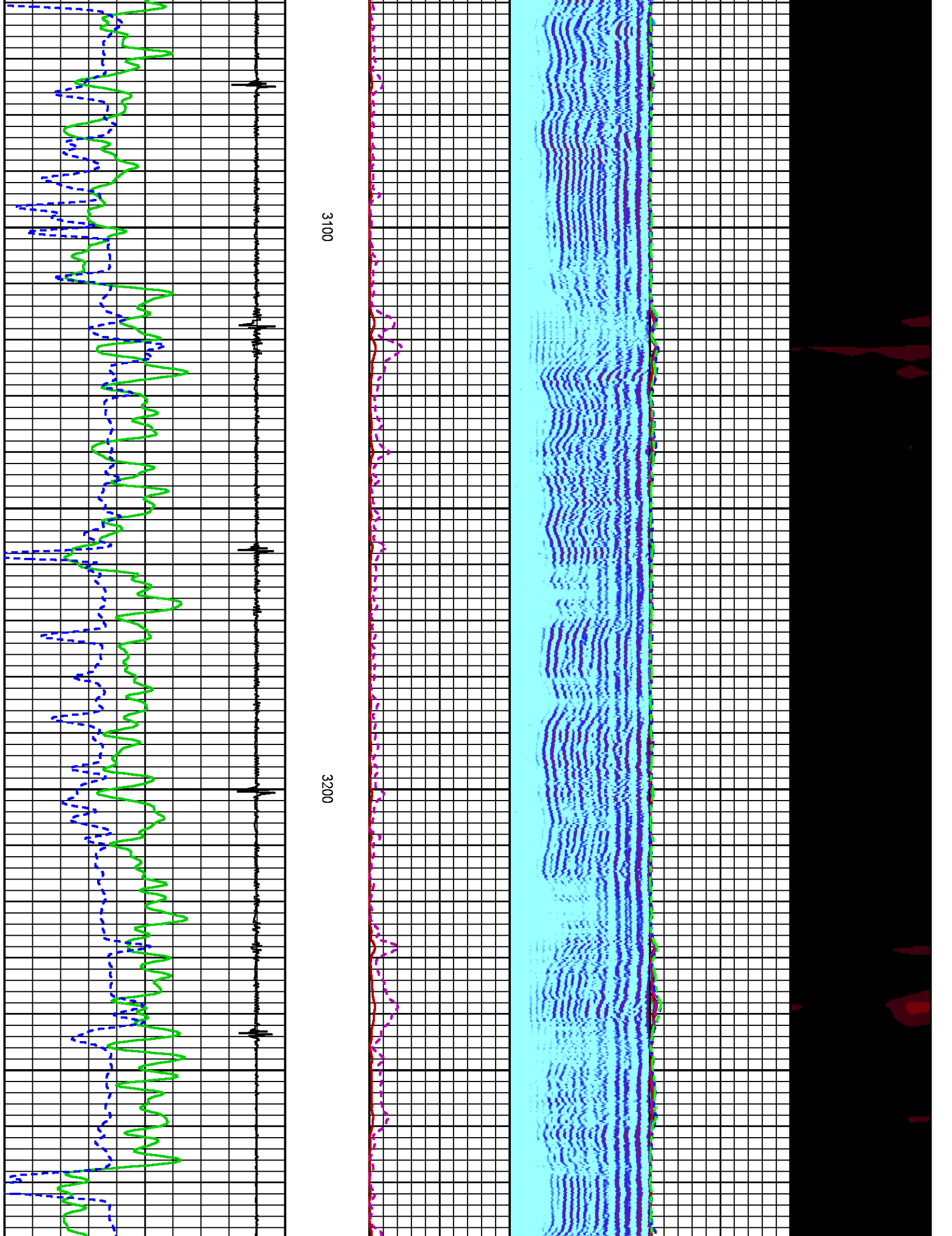
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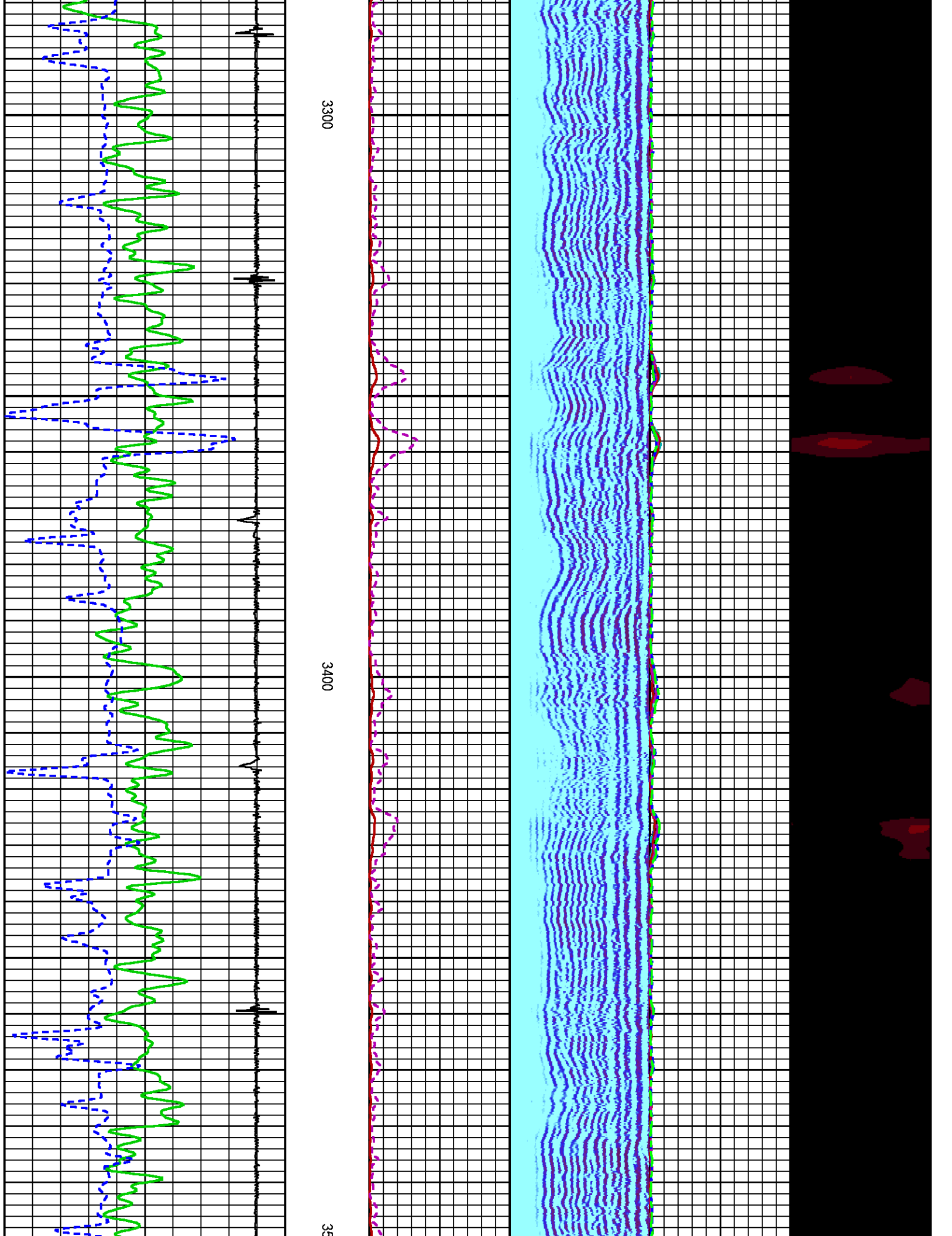
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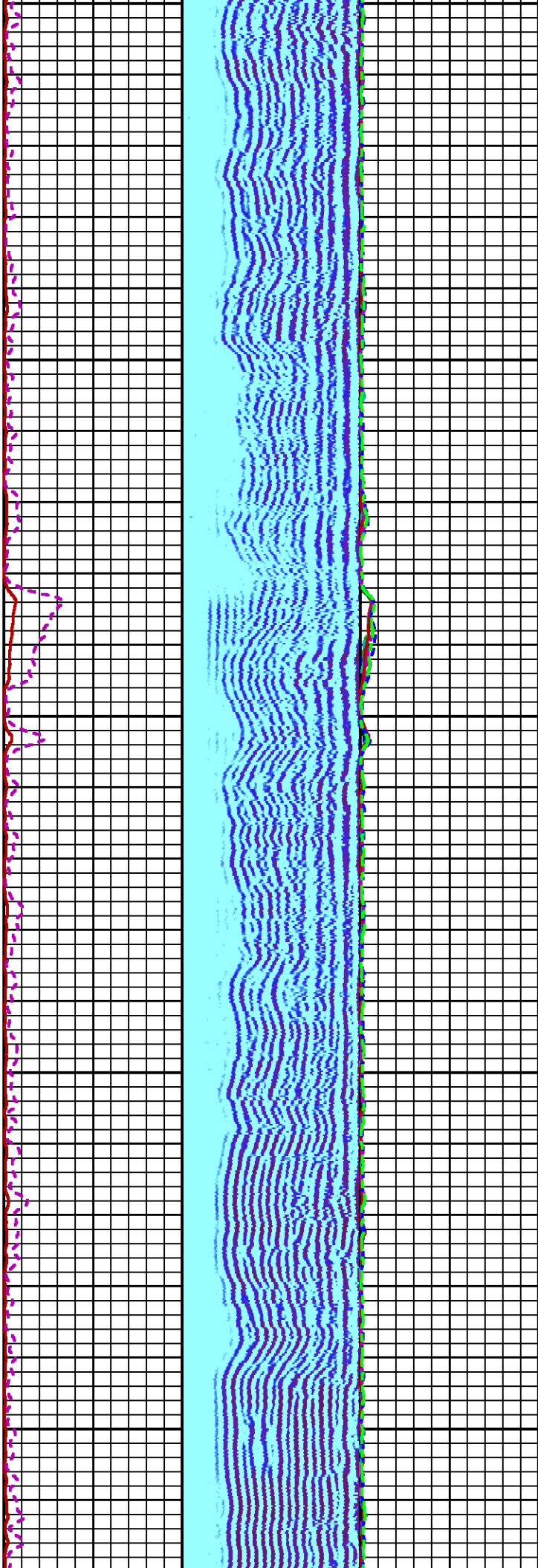








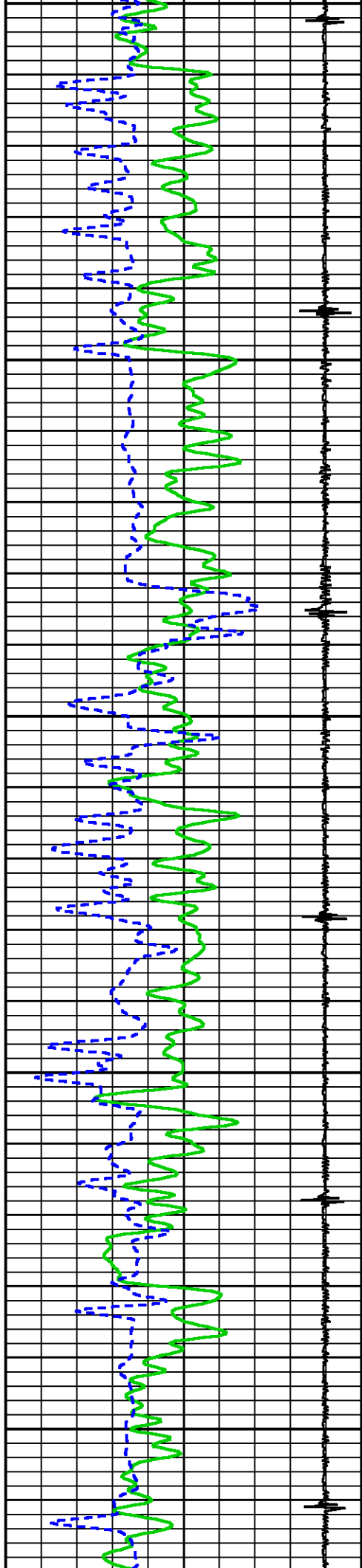


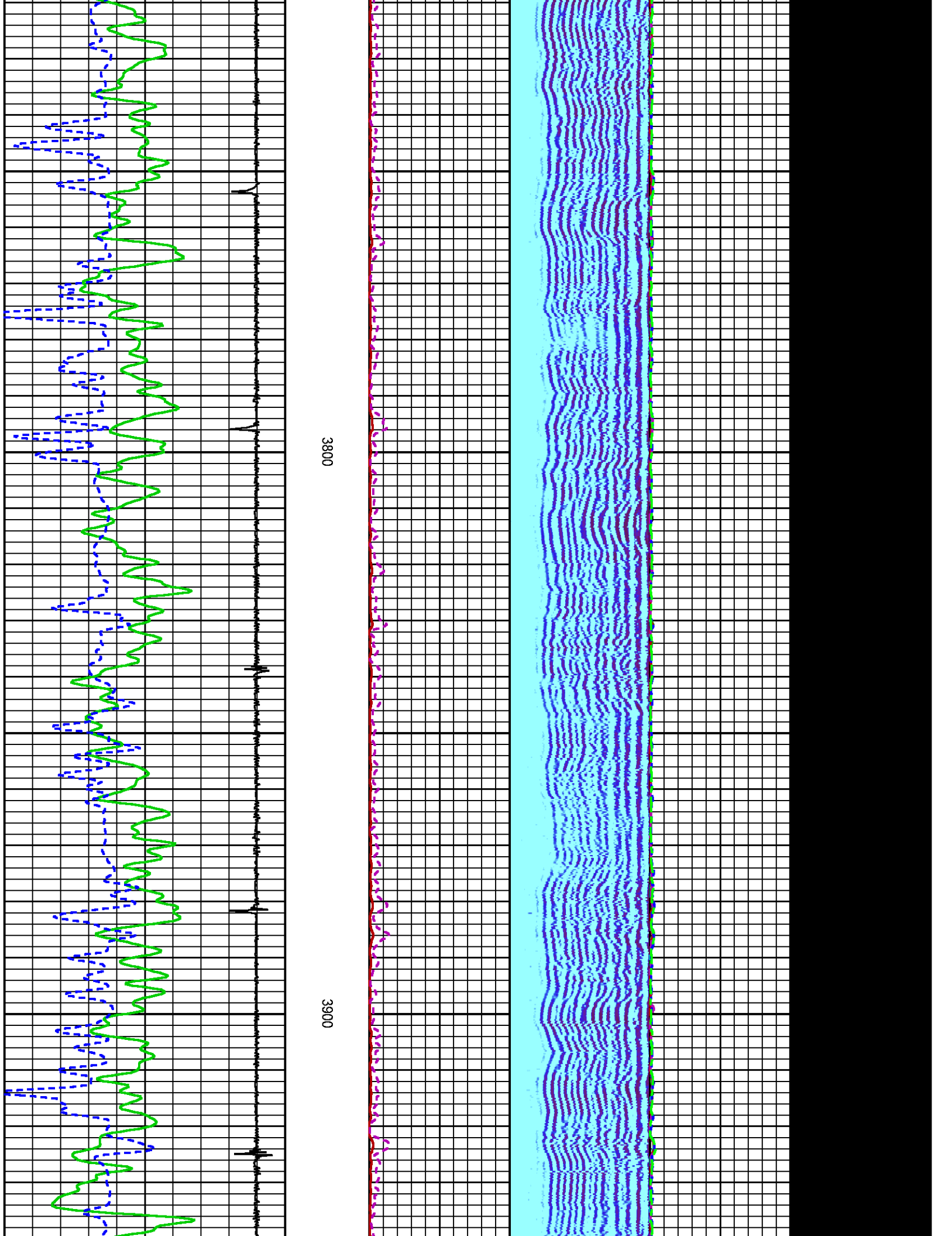


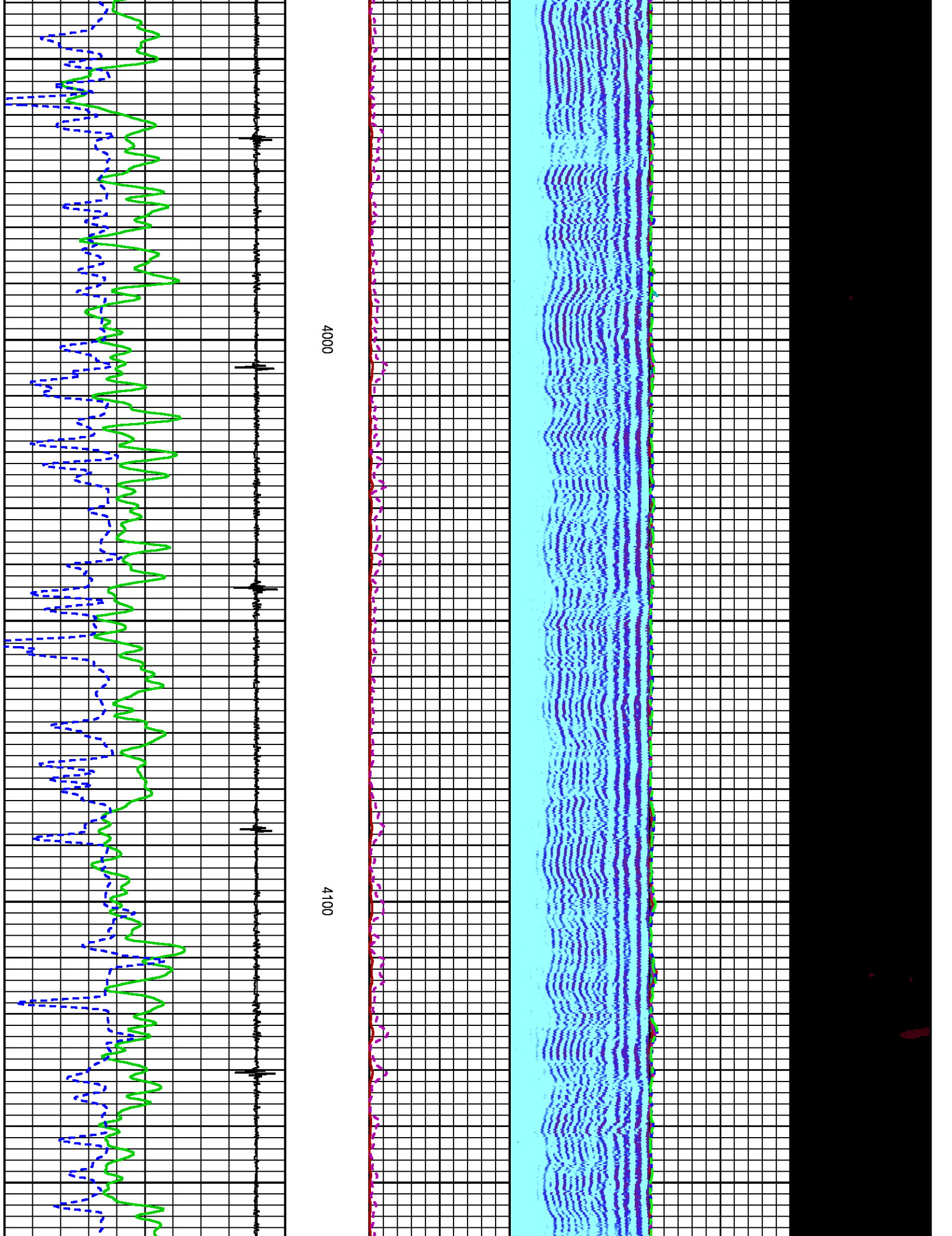
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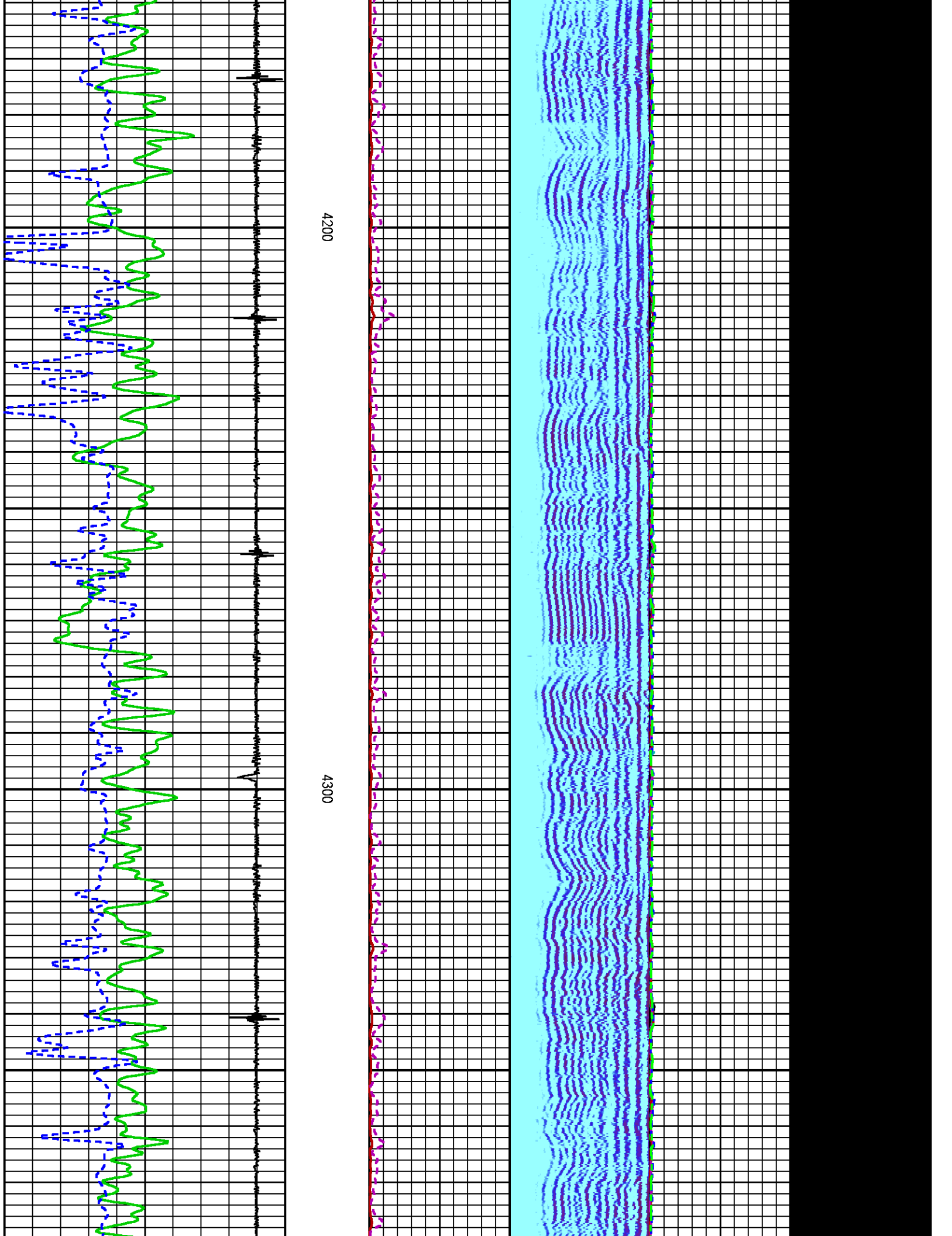
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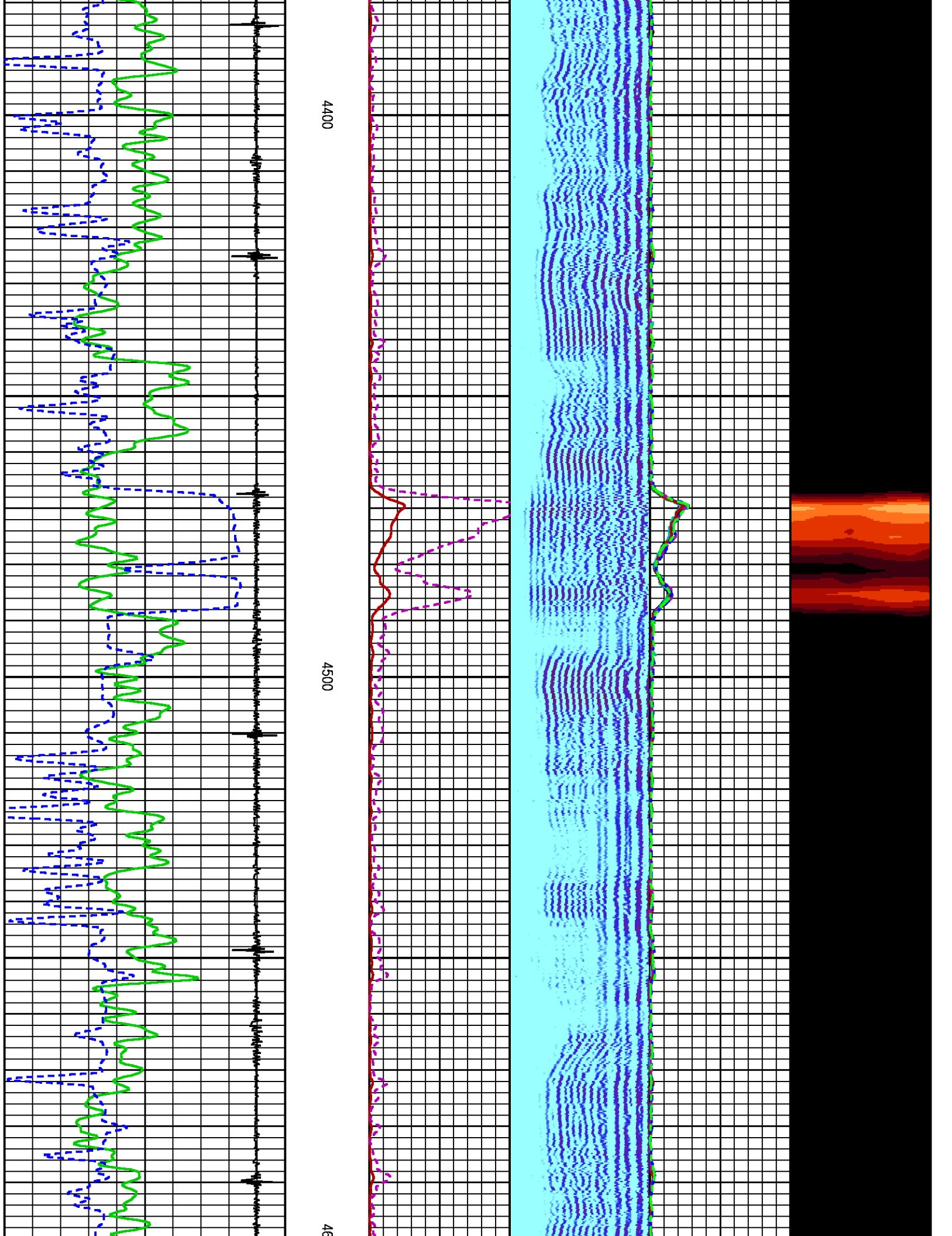
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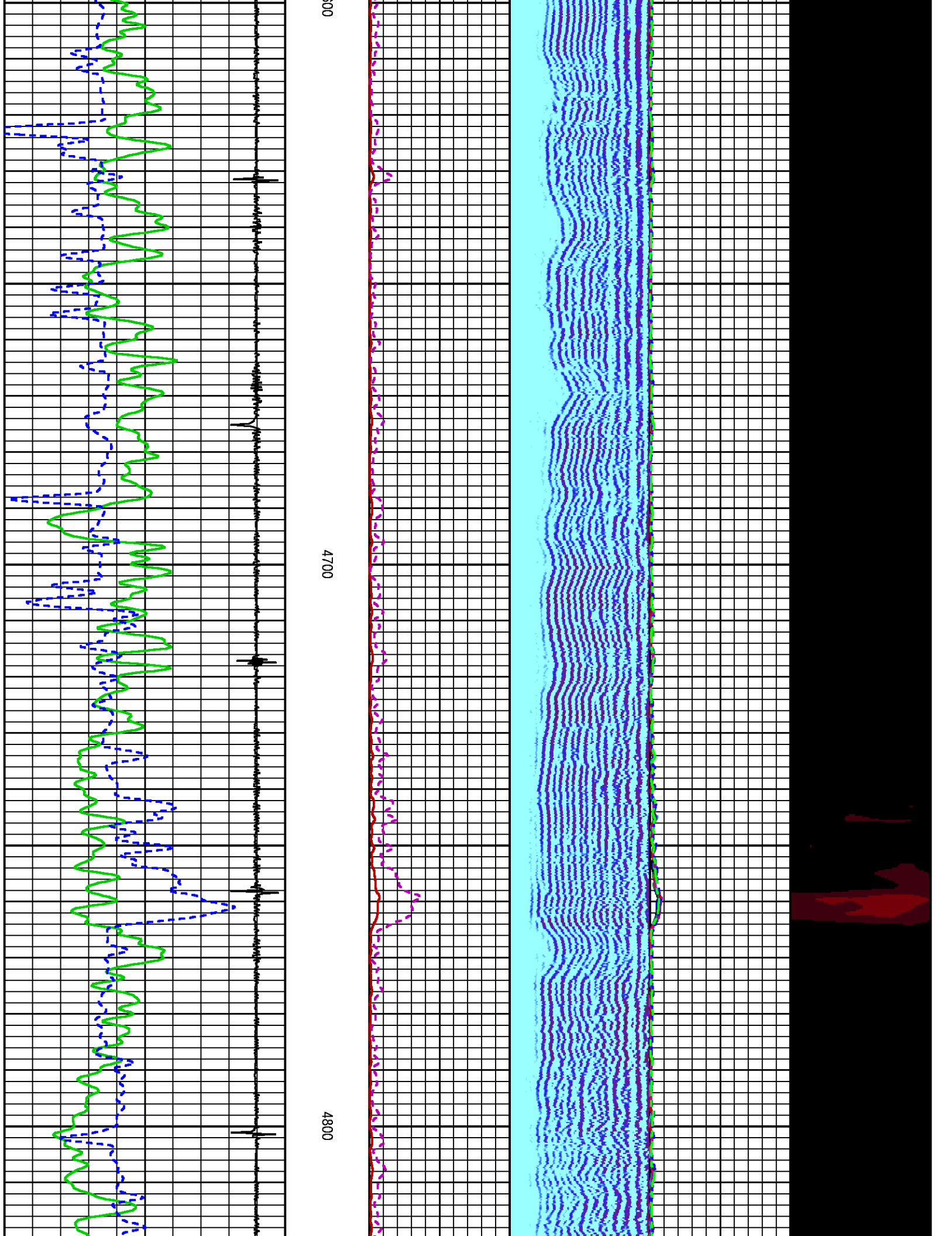


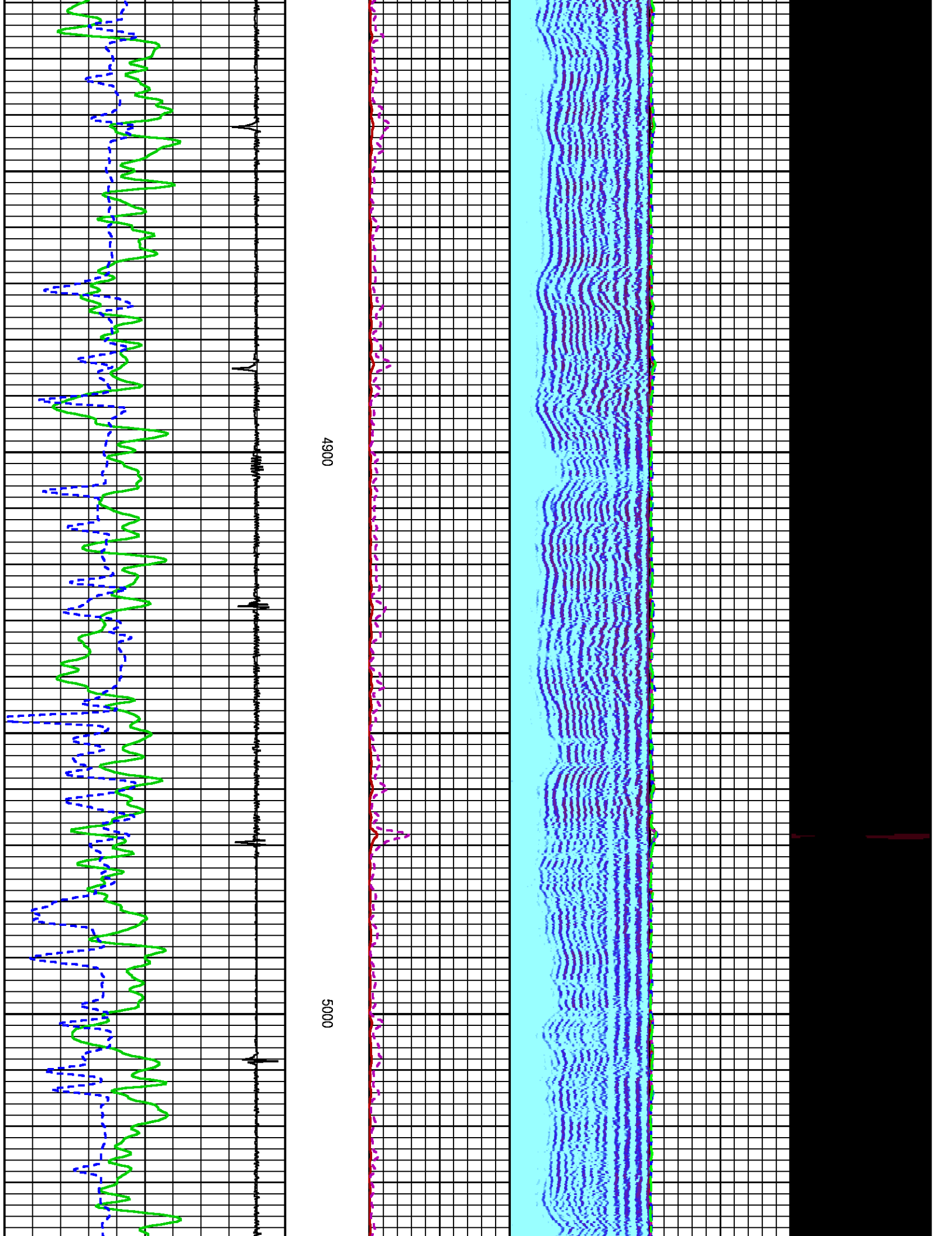


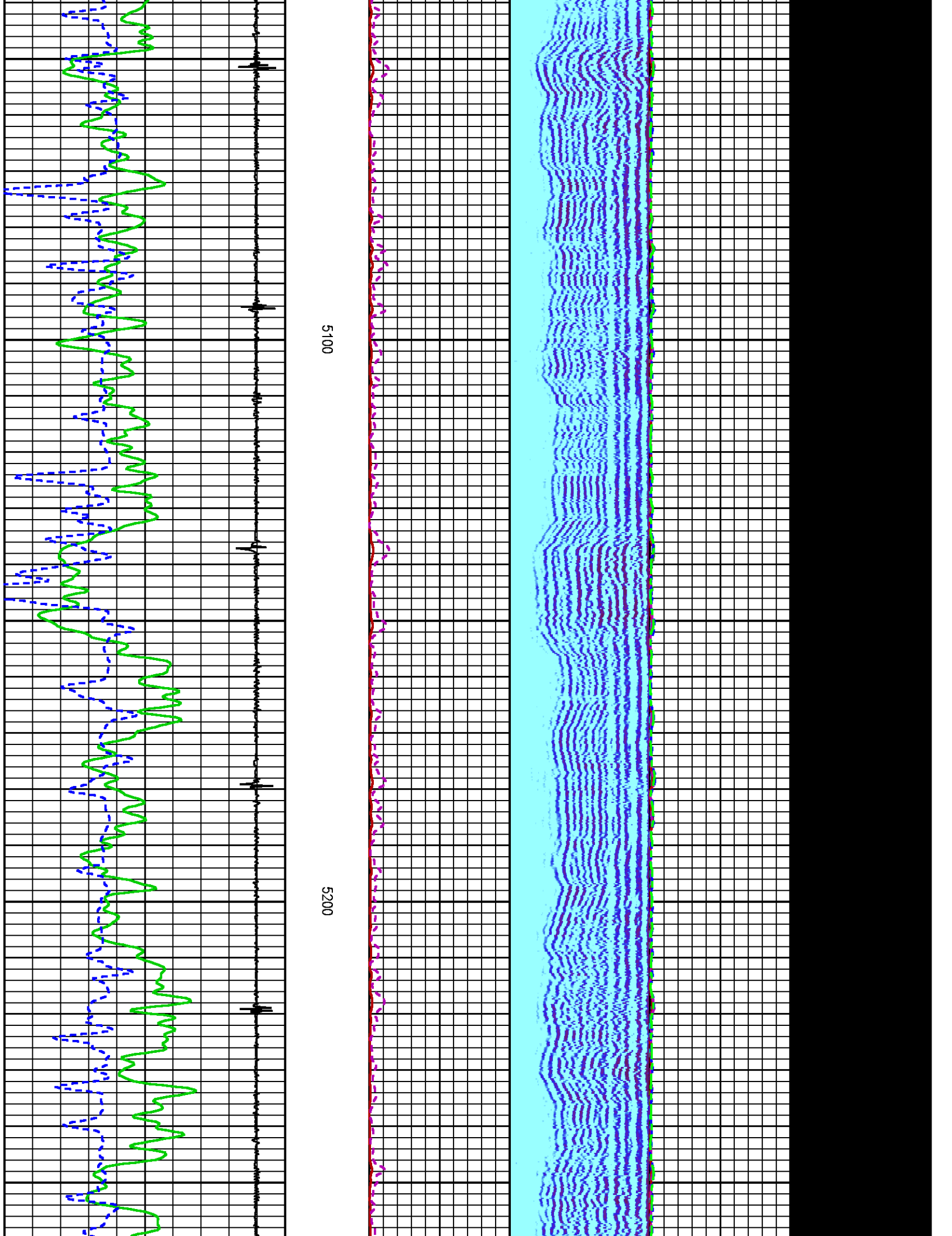


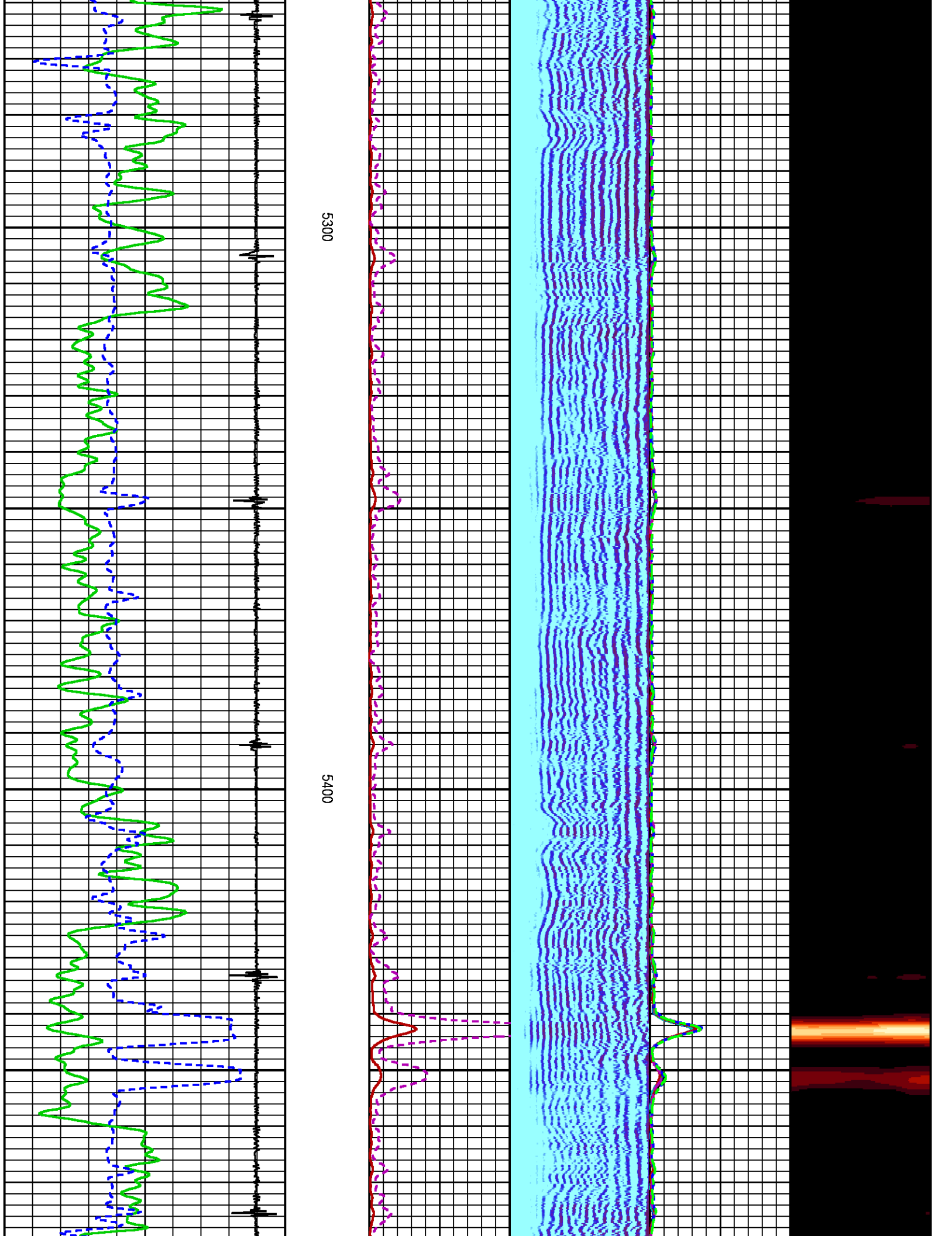


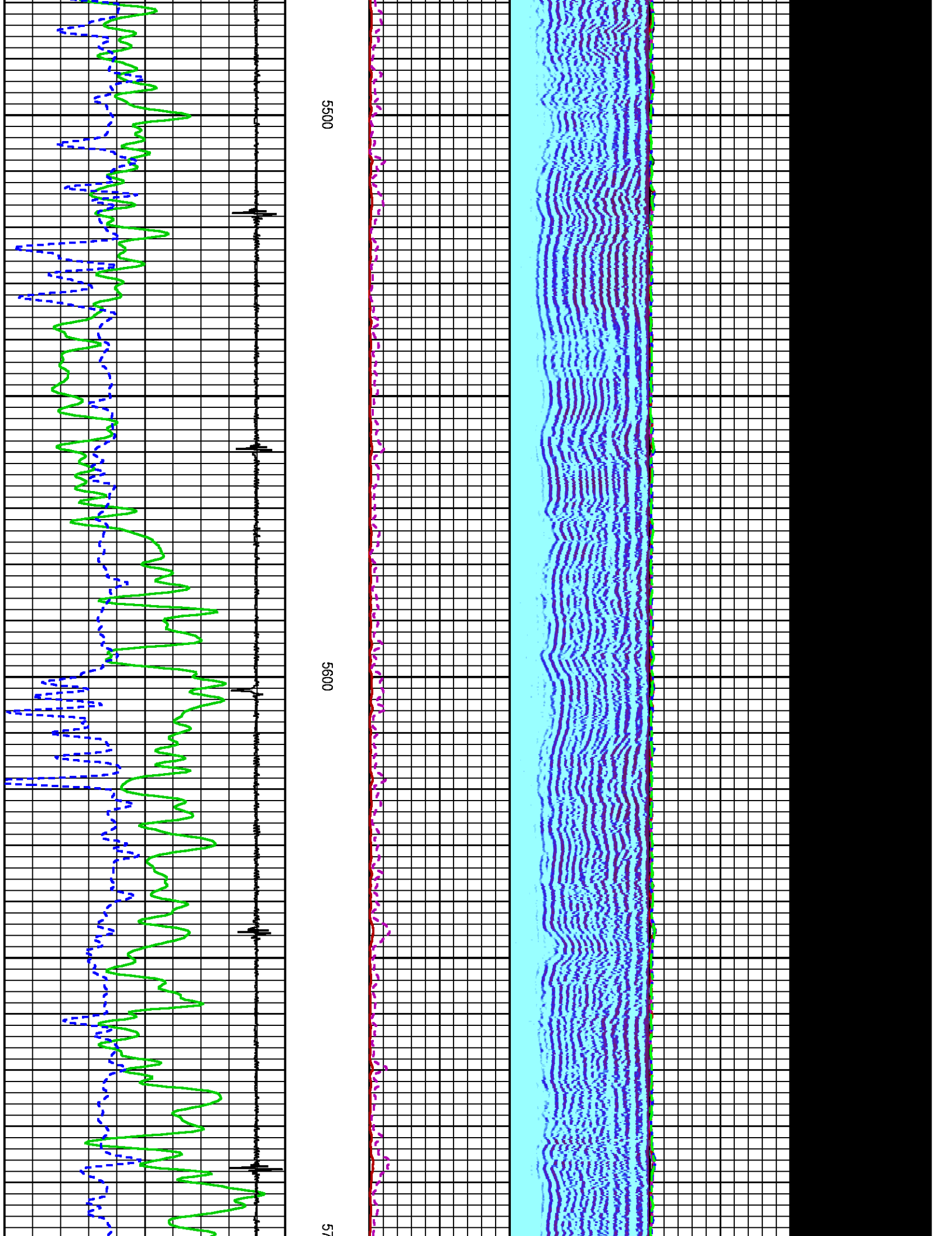


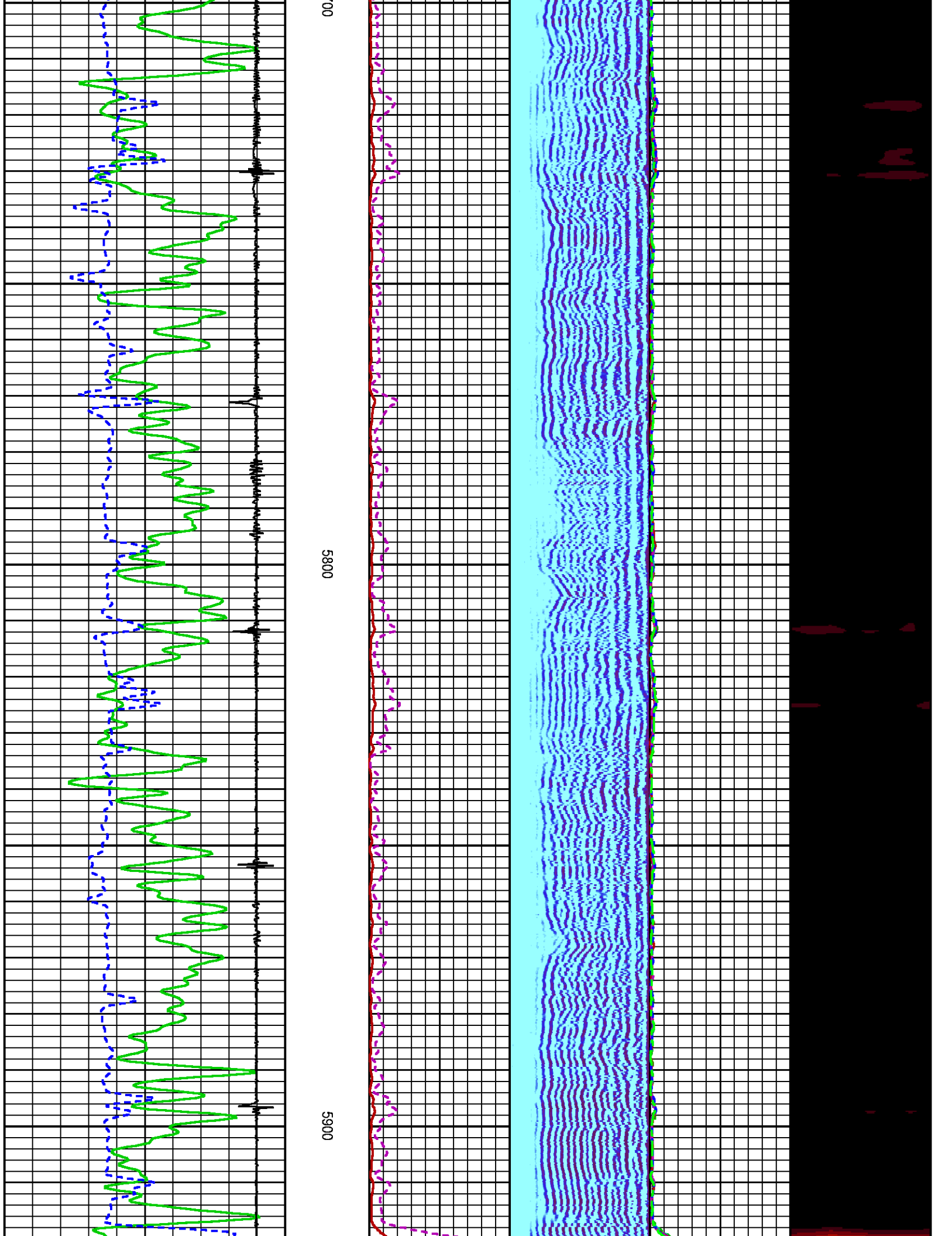


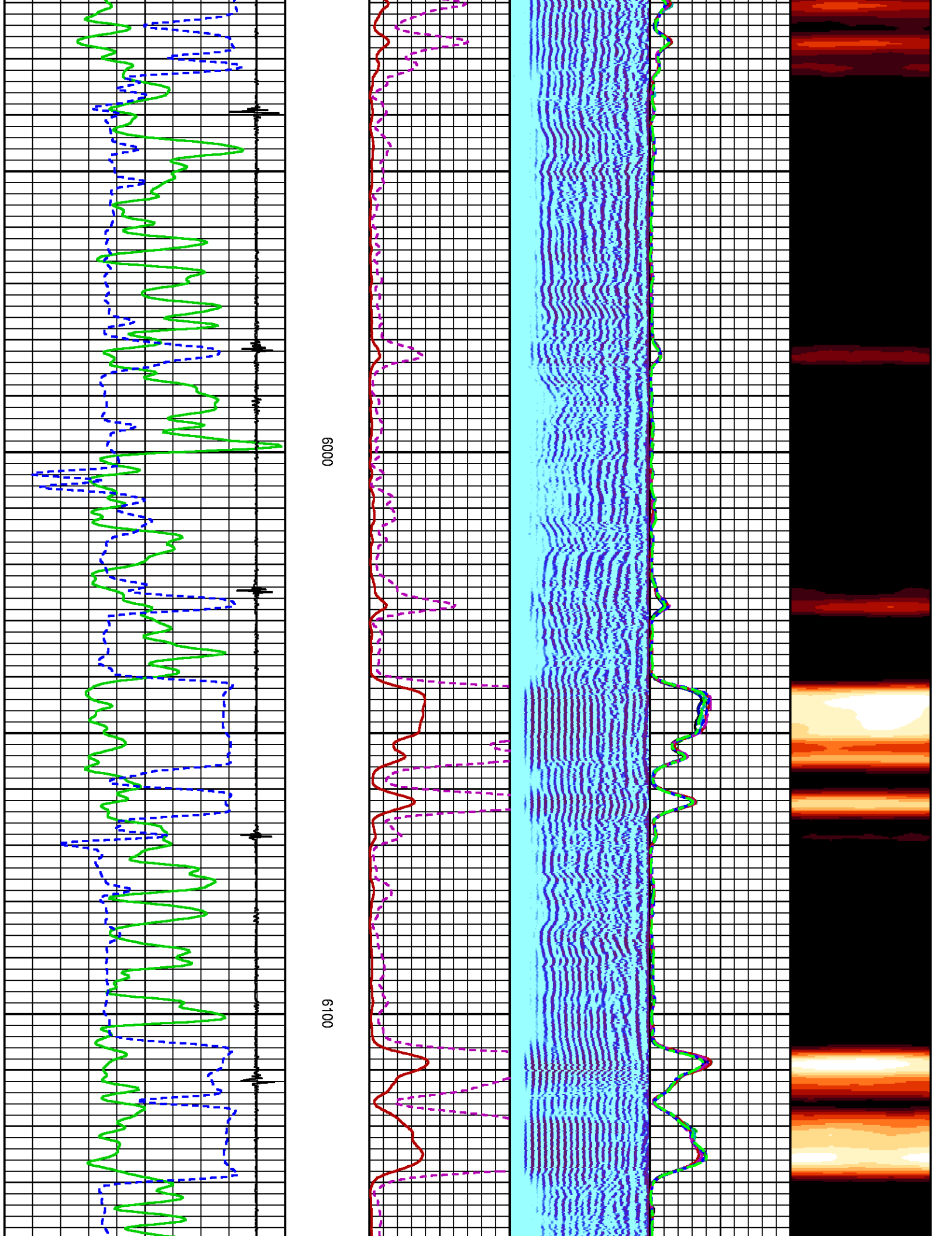


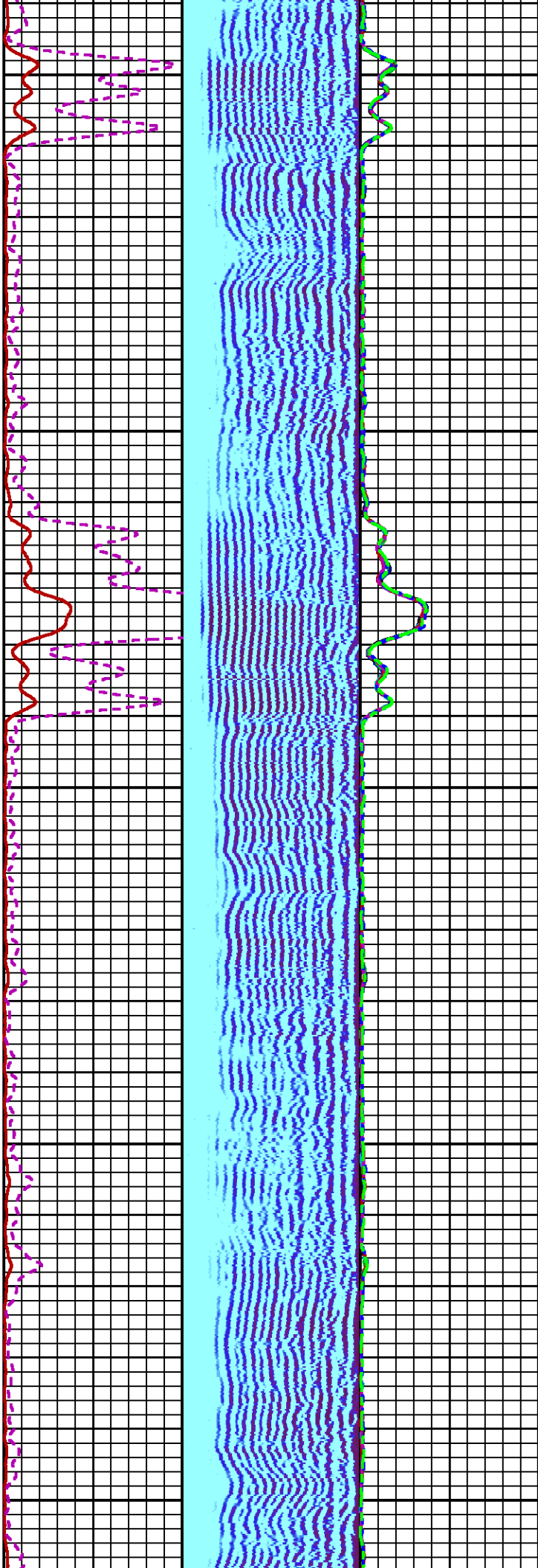






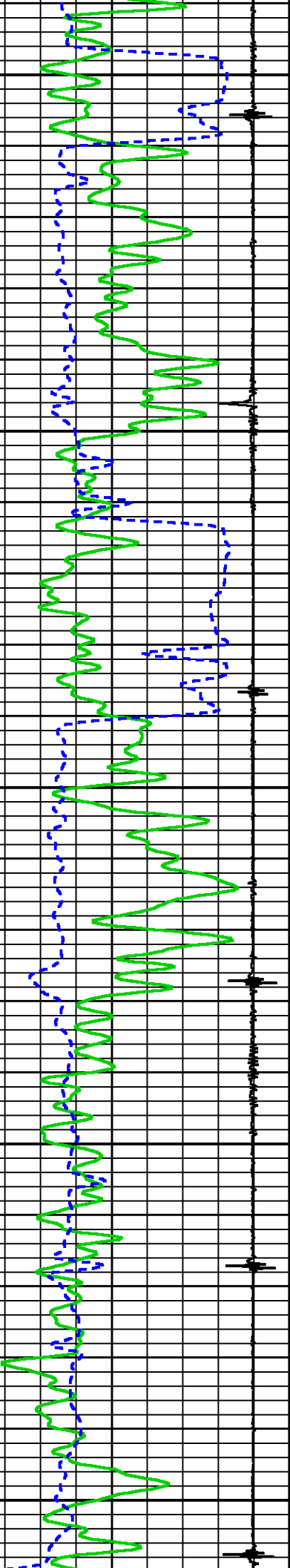


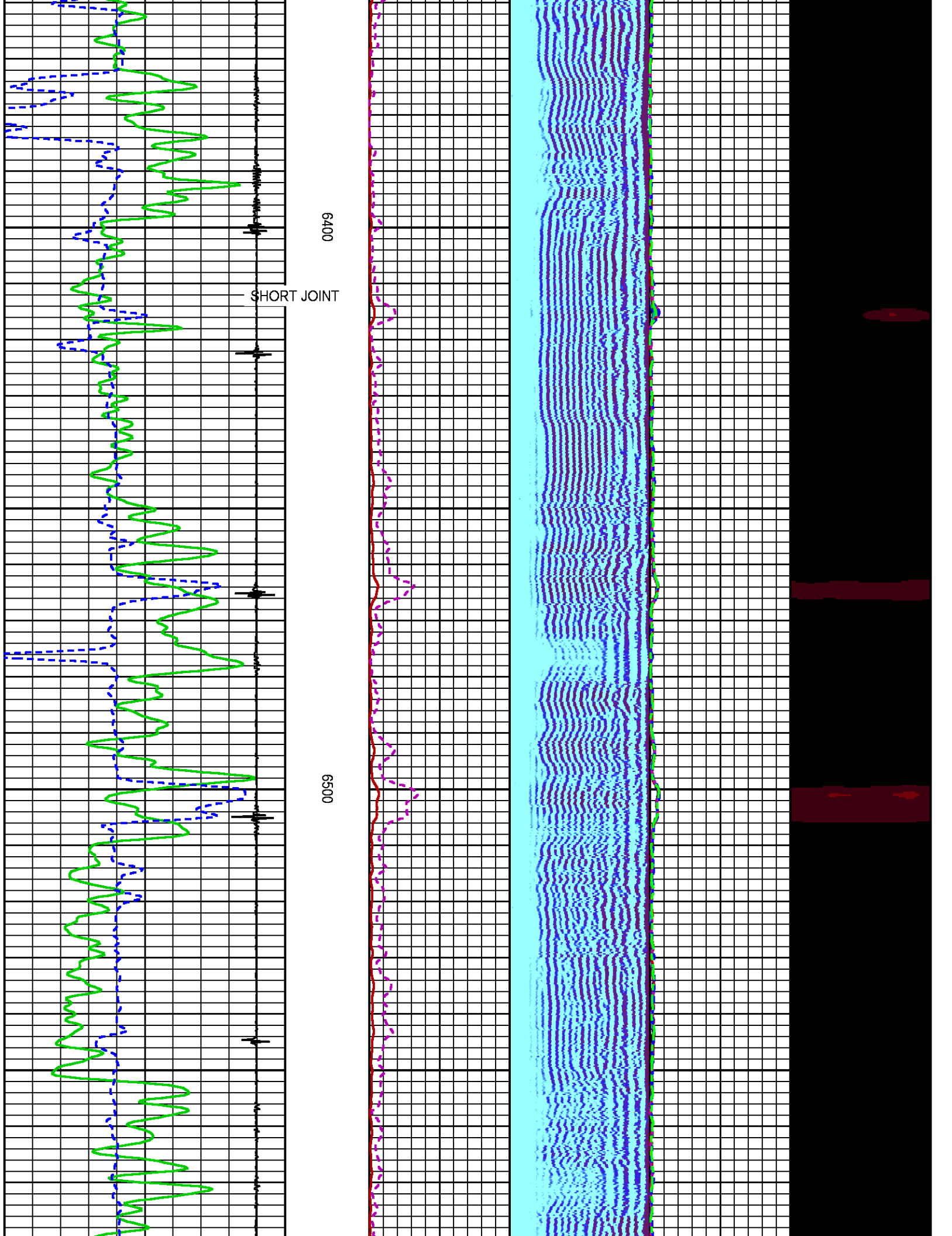


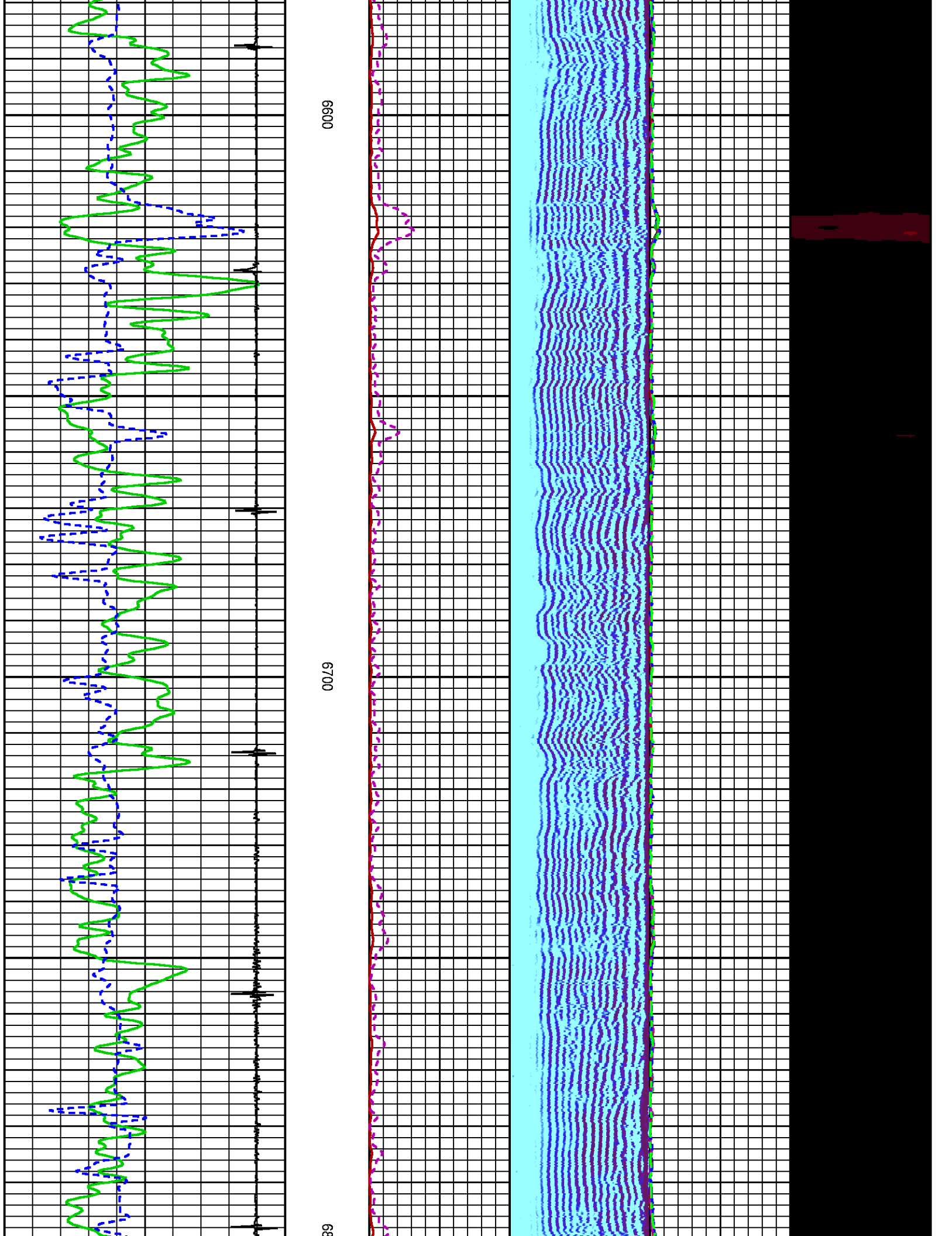


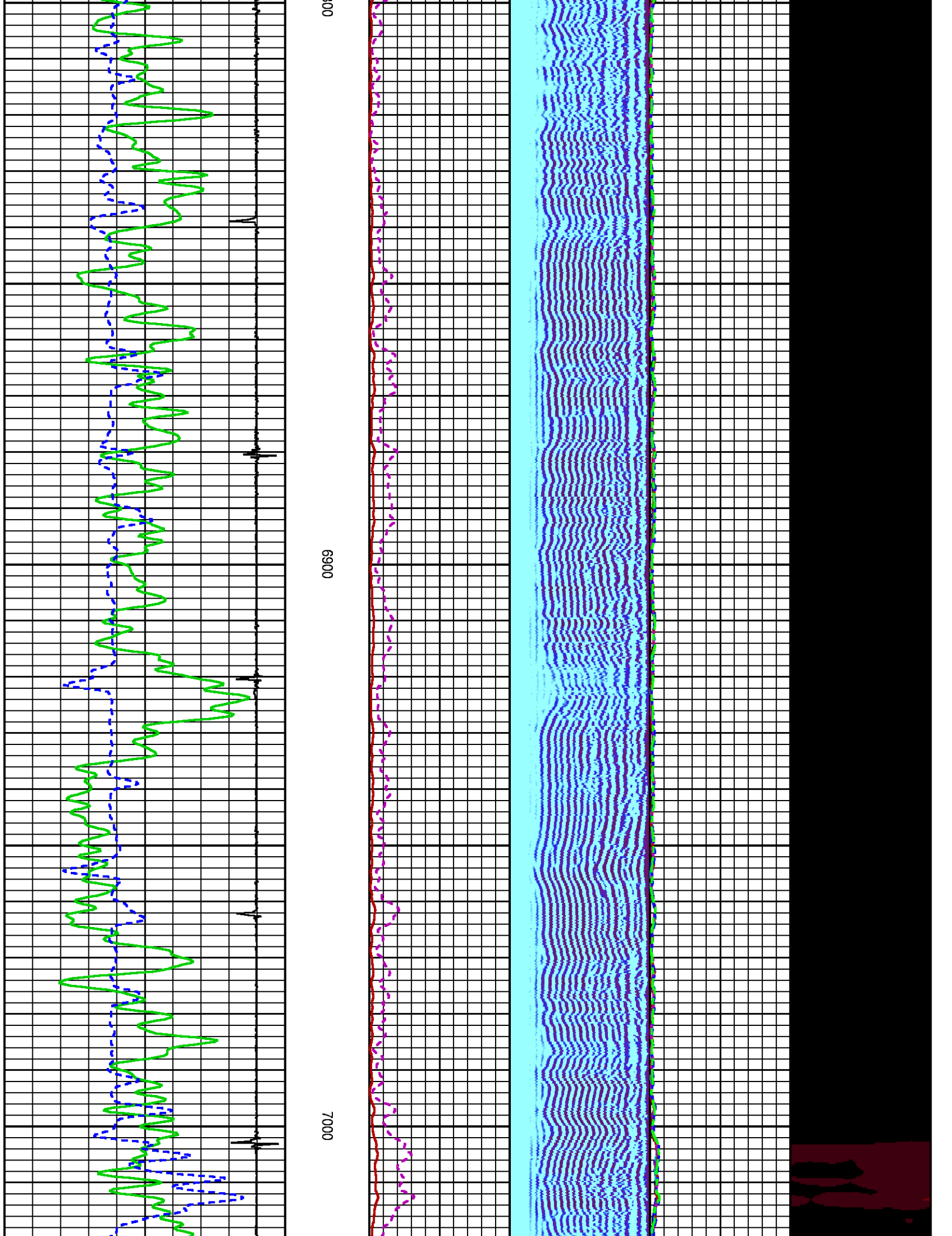
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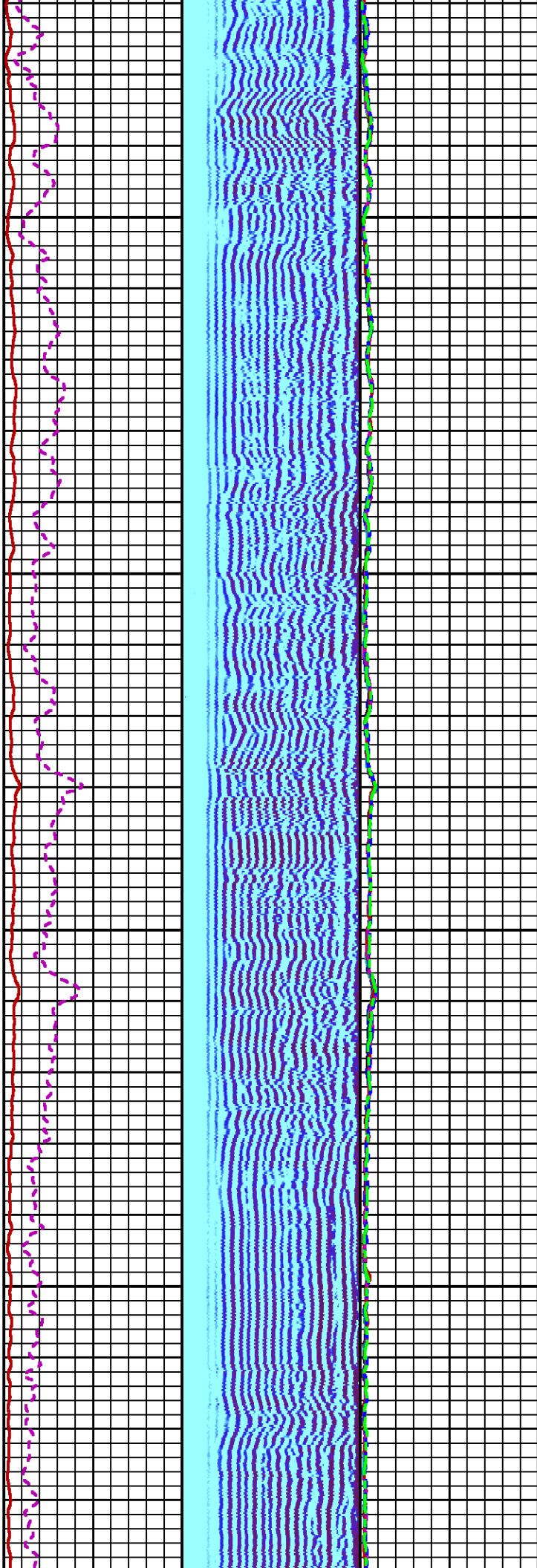
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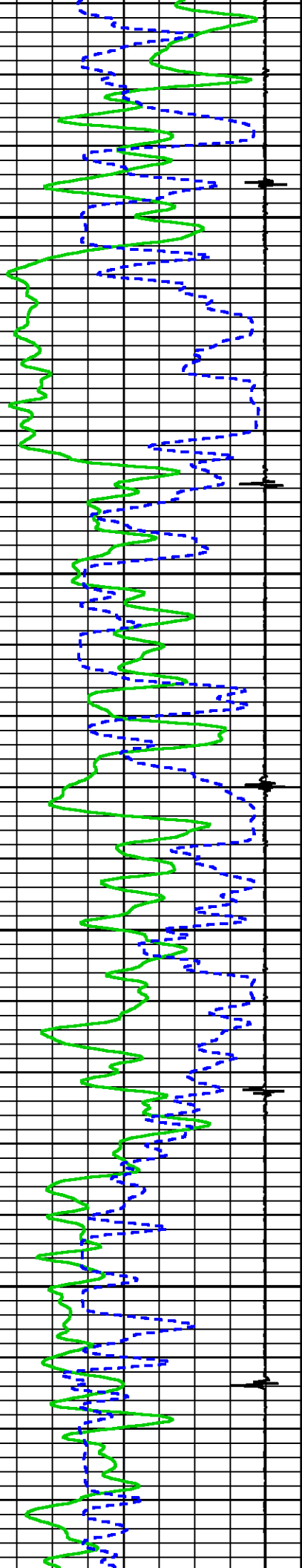


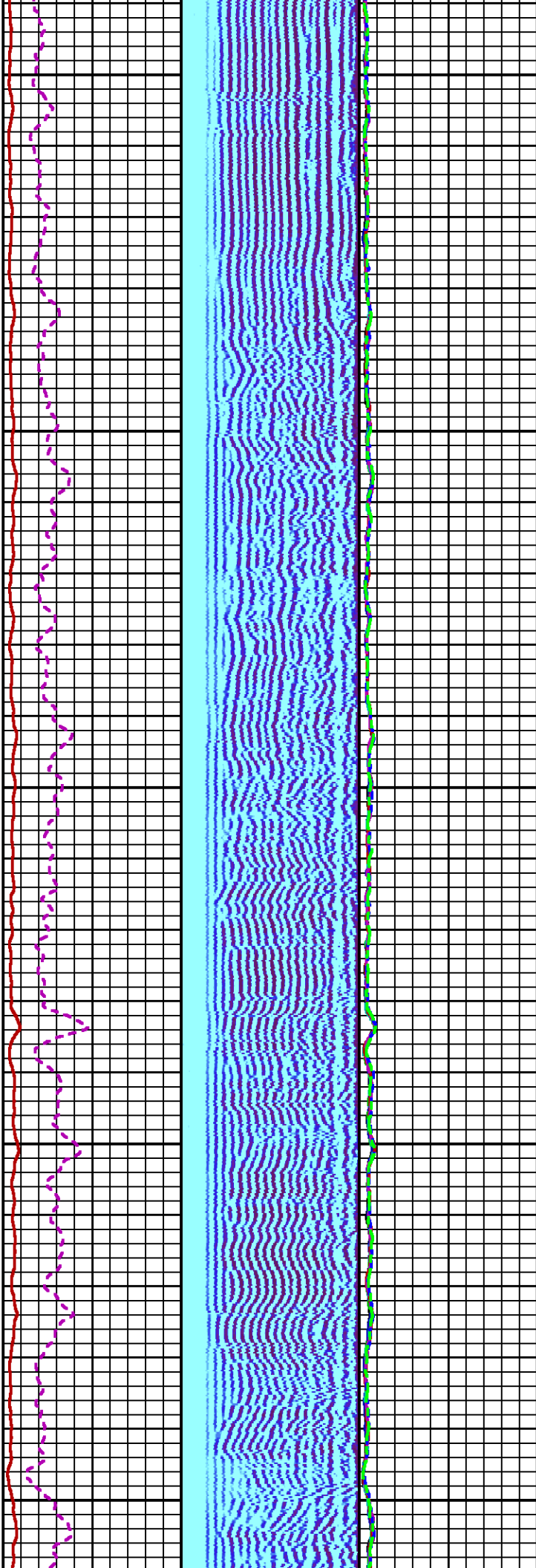




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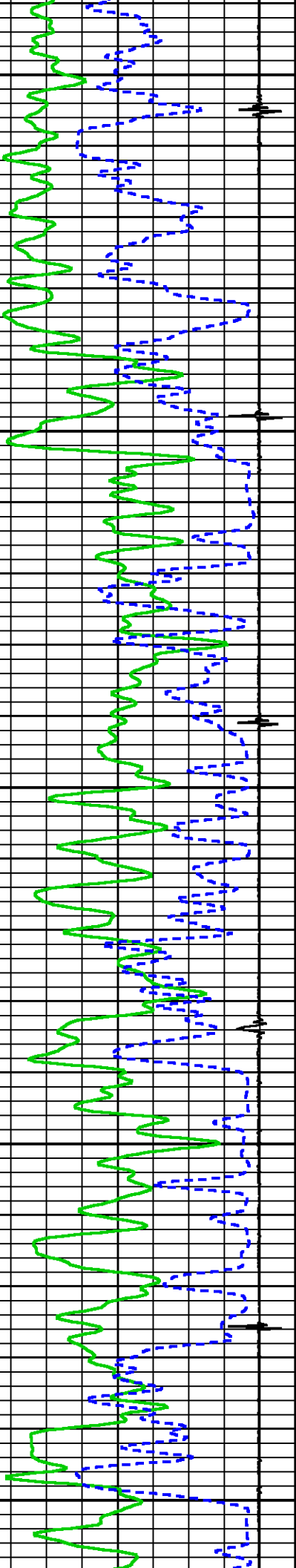
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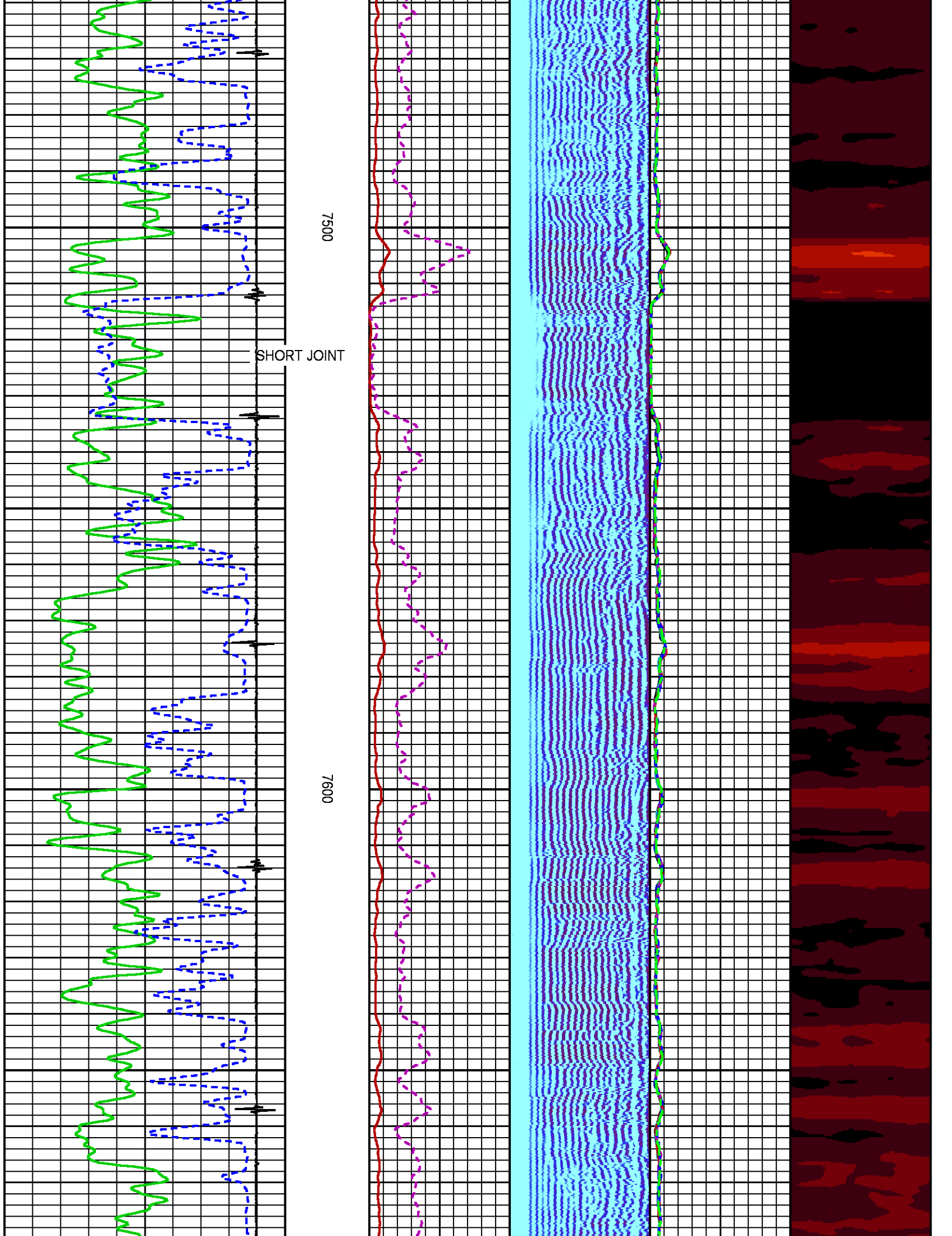


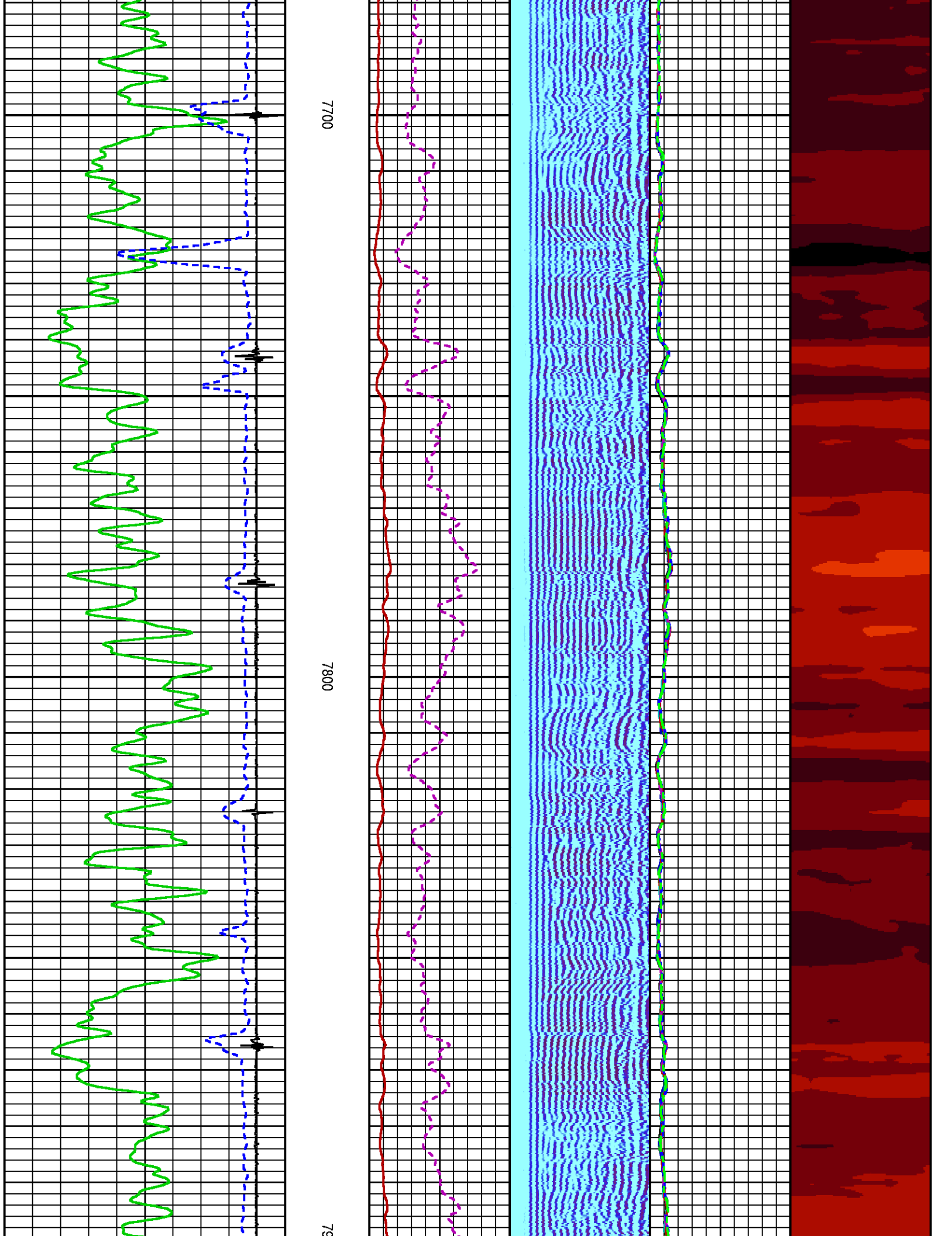


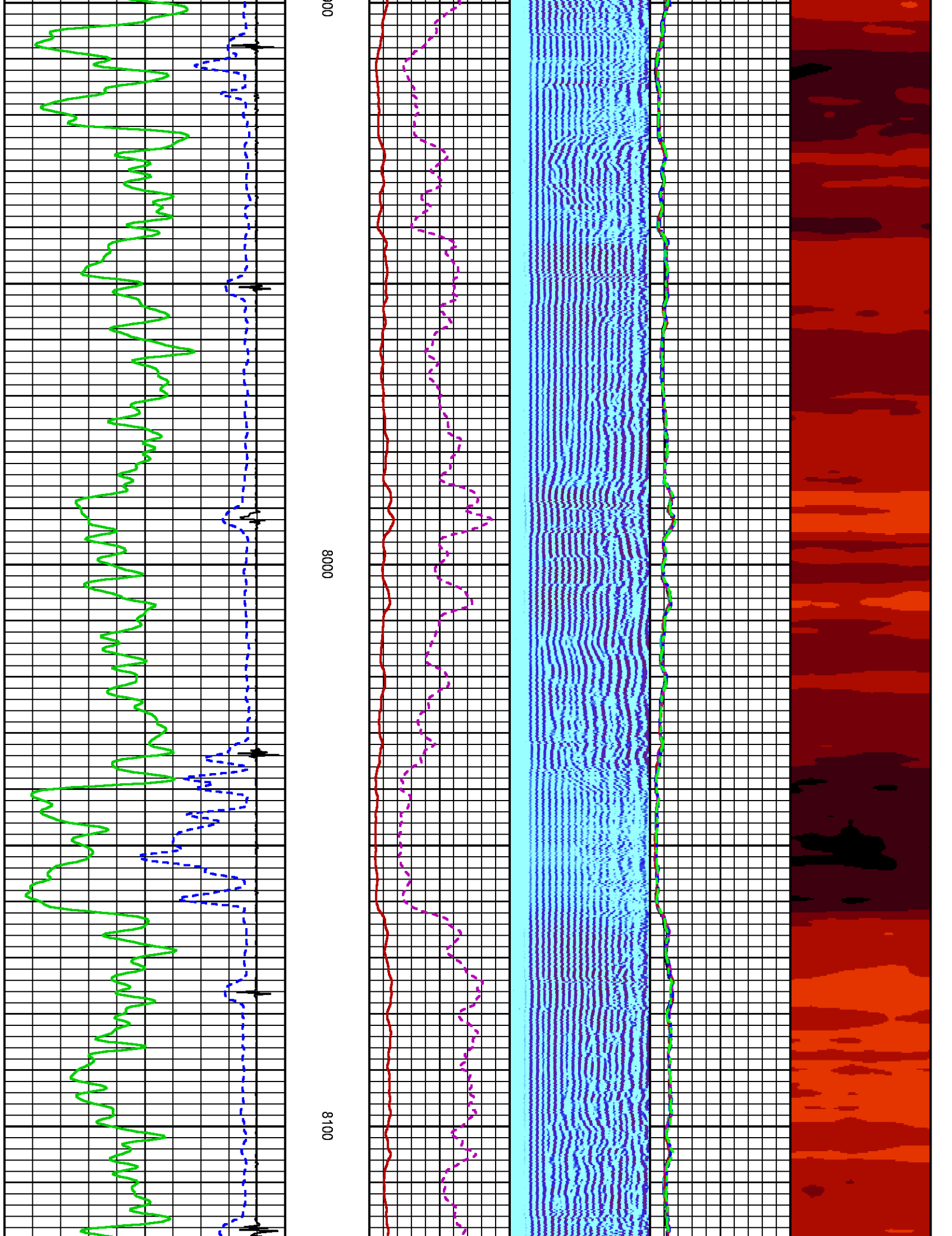
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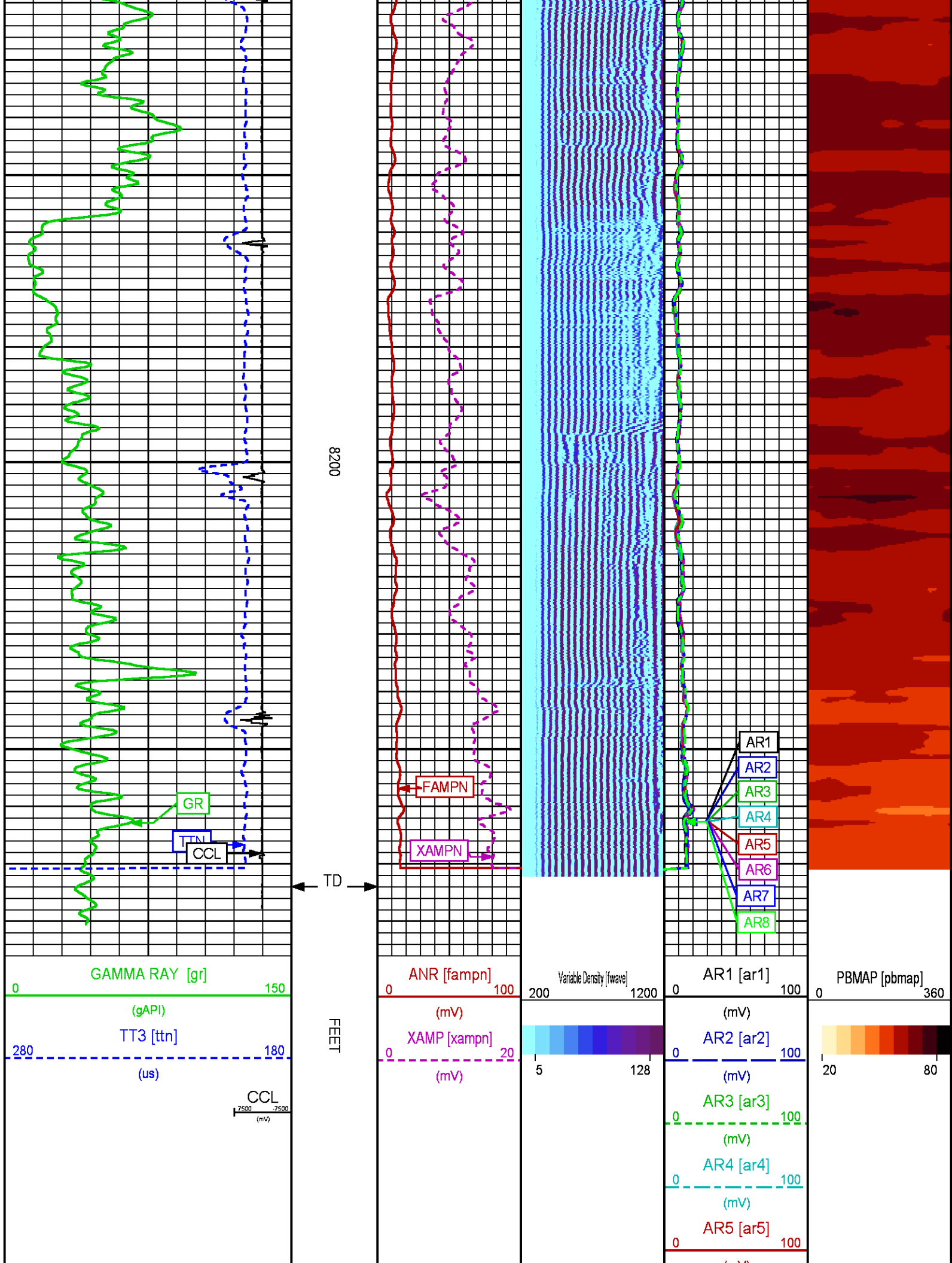
7400

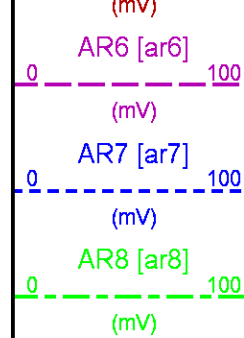












REPEAT PRESENTATION 0 PSI

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

Updates: 1 Patches: 6

Plotted: Tue Jan 26 15:01:44 2016

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH101523/n012g01.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 8039.500 ft BOTTOM DEPTH: 8315.337 ft

SYMMETRIC FILTER

| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | INTERVAL (ft) | |
|------------------|-----------|------------|-------|---------------|--------|
| GR | FILTER () | medium (1) | | TOP | BOTTOM |
| AMPLITUDE | FILTER () | medium (1) | | " | " |
| TRAVEL TIME | FILTER () | medium (1) | | " | " |

RAL CCL PROCESSING

| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | INTERVAL (ft) | |
|------------------|-----------|-------|-------|---------------|--------|
| CCL FLOOR | CCL FLOOR | 0 | | TOP | BOTTOM |

ANALOG RAL PROCESSING

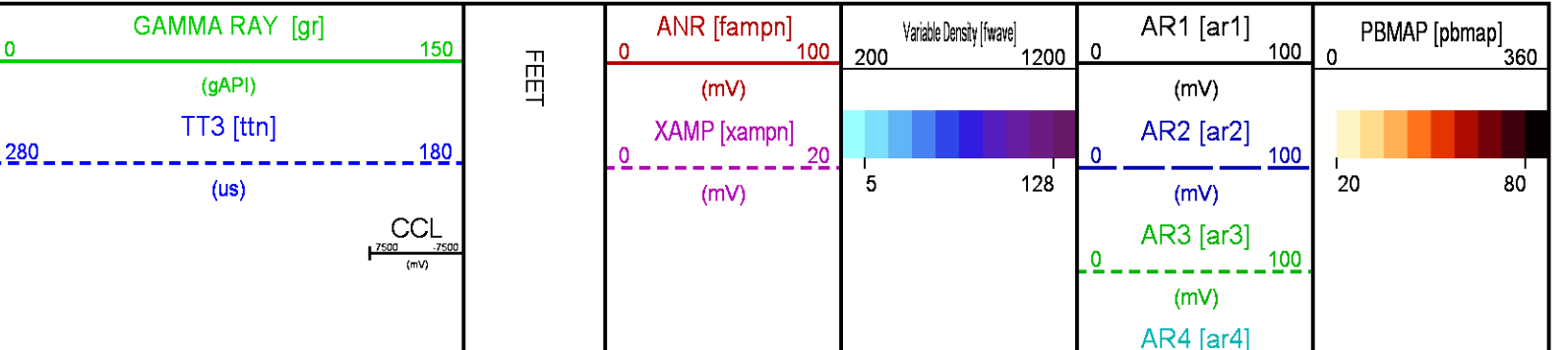
| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | INTERVAL (ft) | |
|---------------------------|----------------------------|---------|-------|---------------|--------|
| AMPLITUDE WINDOW (NEAR) | AMP WINDOW START (fgp1*) | 187 | us | TOP | BOTTOM |
| | AMP WINDOW START (fgp2*) | 187 | us | " | " |
| | AMP WINDOW START (fgp3*) | 187 | us | " | " |
| | AMP WINDOW START (fgp4*) | 187 | us | " | " |
| | AMP WINDOW START (fgp5*) | 187 | us | " | " |
| | AMP WINDOW START (fgp6*) | 187 | us | " | " |
| | AMP WINDOW START (fgp7*) | 187 | us | " | " |
| | AMP WINDOW START (fgp8*) | 187 | us | " | " |
| | AMP WINDOW START (fgpn*) | 187 | us | " | " |
| | AMP WINDOW LENGTH | 25 | us | " | " |
| TRAVEL TIME WINDOW (NEAR) | TT WINDOW START (ttn*) | 177 | 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 | " | " |

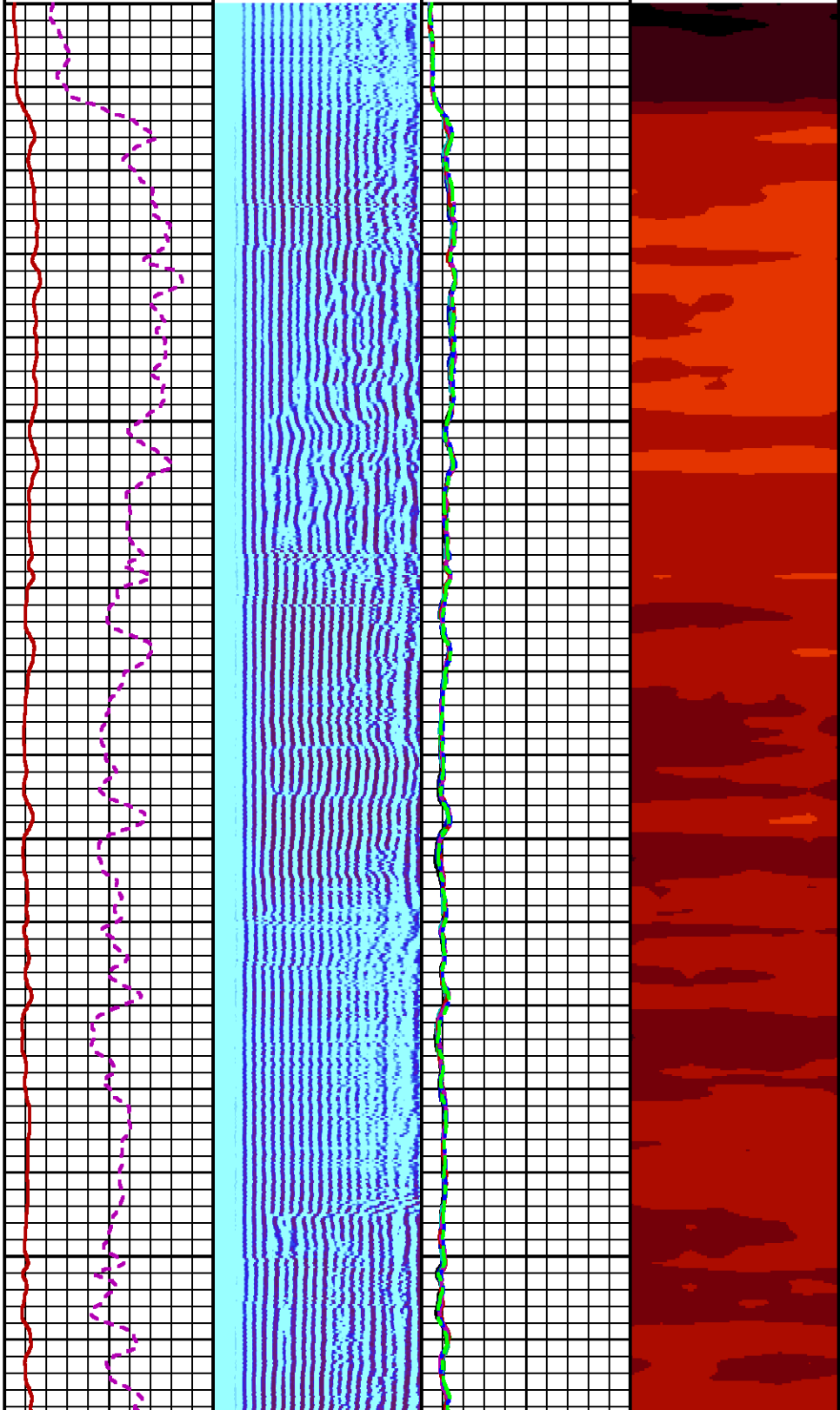
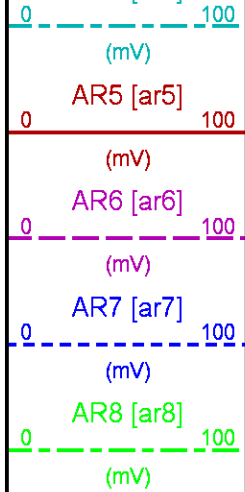
| | | | | | |
|-------------------------|---------------------|-------|-------|---------------|--------|
| BASELINE NOISE (NEAR) | NOISE WINDOW START | 125 | us | " | " |
| | NOISE WINDOW LENGTH | 25 | us | " | " |
| PERCENT BOND CEMENT MAP | | | | | |
| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | 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 | Jan 26 08:09:02 2016 | FIXED GATE AMPLITUDE T-R1 |
| F1:AR2 | Jan 26 08:09:02 2016 | FIXED GATE AMPLITUDE T-R2 |
| F1:AR3 | Jan 26 08:09:02 2016 | FIXED GATE AMPLITUDE T-R3 |
| F1:AR4 | Jan 26 08:09:02 2016 | FIXED GATE AMPLITUDE T-R4 |
| F1:AR5 | Jan 26 08:09:02 2016 | FIXED GATE AMPLITUDE T-R5 |
| F1:AR6 | Jan 26 08:09:02 2016 | FIXED GATE AMPLITUDE T-R6 |
| F1:AR7 | Jan 26 08:09:02 2016 | FIXED GATE AMPLITUDE T-R7 |
| F1:AR8 | Jan 26 08:09:02 2016 | FIXED GATE AMPLITUDE T-R8 |
| F1:CCL | Jan 26 08:09:02 2016 | CASING COLLAR LOCATOR |
| F1:FAMPN | Jan 26 08:09:02 2016 | FIXED GATE AMPLITUDE NEAR RECEIVER |
| F1:FWAVE | Jan 26 08:09:02 2016 | FAR WAVE FORM |
| F1:GR | Jan 26 08:09:02 2016 | GAMMA RAY |
| F1:PBMAP | Jan 26 08:09:02 2016 | PERCENT BOND CEMENT MAP |
| F1:TTN | Jan 26 08:09:02 2016 | TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER |
| F1:XAMPN | Jan 26 08:09:02 2016 | 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 | | |

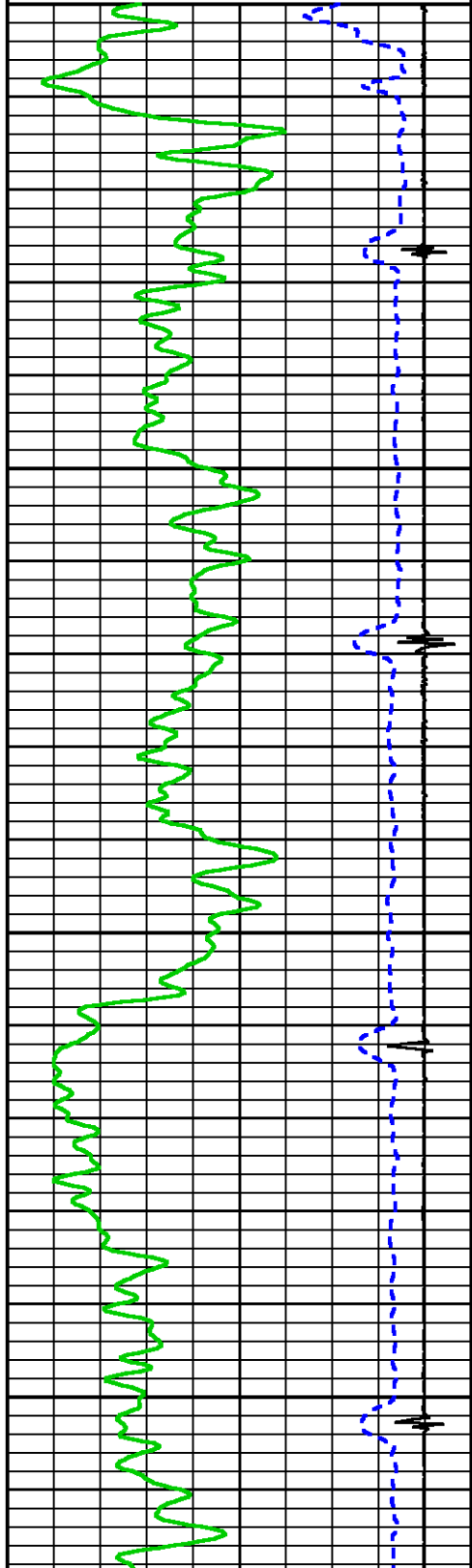
| | |
|---------------|---|
| Presentation | : HL6670:/dat1a/CH101523/18E_CBL_REPEAT.fvpdf [5"/100' Scale] |
| Plot Interval | : 8050 - 8285 Feet |
| Data File 1 | : F1 : HL6670:/dat1a/CH101523/18E_CBL_REPEAT.xtf |
| Created On | : Jan 26 08:09:02 2016 |
| Company | : LARAMIE ENERGY |
| Well | : PICEANCE FEDERAL 28-18E |
| Field | : VEGA |
| File Interval | : 8028.25 - 8315.25 Feet |
| OCT | : n012g |

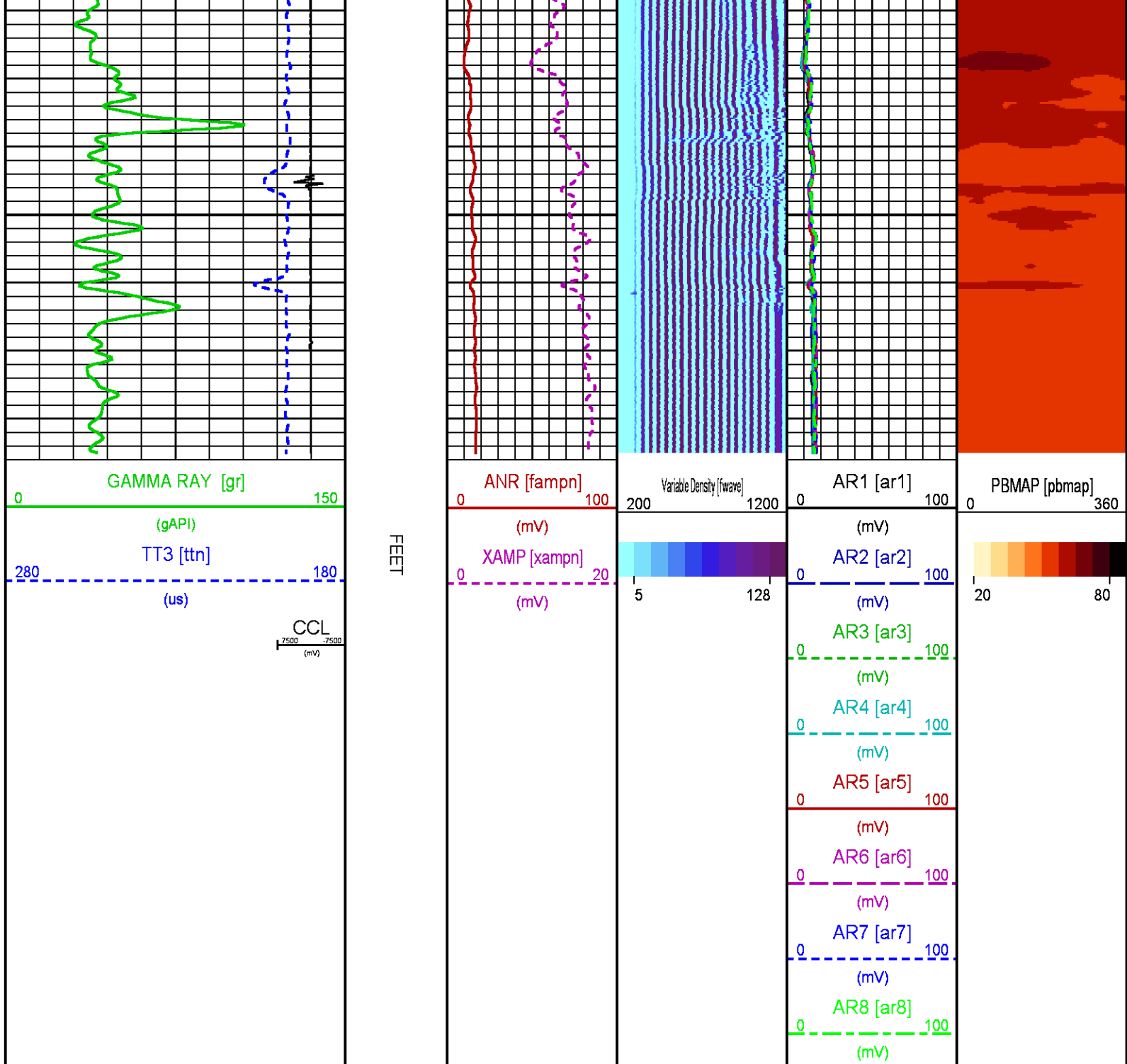




8100

8200





CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/CH101523/n012g.tp1

RAL PRIMARY CALIBRATION SUMMARY

TOOL #: 1426XA 10124106

DATE/TIME PERFORMED: Tue Jan 26 07:42:24 2016

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) | -0.02 | -0.50 | -0.01 | 0.05 | -0.08 | 0.01 | 0.04 | -0.07 | 0.06 | -1.14 | -0.44 |
| AMP FLUID (mV) | 80 | 81 | 80 | 80 | 81 | 80 | 81 | 81 | 81 | 102 | 79 |
| TT (us) | 217 | 217 | 217 | 216 | 216 | 216 | 216 | 216 | 217 | 324 | 217 |
| M FACTOR | 1.24 | 1.23 | 1.25 | 1.25 | 1.24 | 1.24 | 1.24 | 1.23 | 1.24 | 1.45 | 1.26 |

RAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1426XA 10124106 DATE/TIME PERFORMED: Tue Jan 26 07:44:38 2016 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 | -0.01 | 0.16 | 0.01 | 0.02 | -0.01 | 0.05 | 0.01 | -0.02 | 0.10 | -0.73 | 0.02 |
| AMP AIR | -0.76 | -1.47 | -0.71 | -0.73 | -0.90 | -0.71 | -0.73 | -0.76 | -0.70 | -0.51 | 102.95 |

| SHOP M FACTOR | SHOP A FACTOR | WIRELINE FACTOR |
|------------------|------------------|--------------------|
| 1.26 | 0.00 | 0.97 |

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 1355XA 11871506 DATE/TIME PERFORMED: Thu Jan 14 08:45:06 2016

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 | 34.13 | 202.49 | 168.4 | 0.891 | 30.41 | 180.41 | 150 |

GR PRIMARY VERIFICATION SUMMARY

TOOL #: 1355XA 11871506 DATE/TIME PERFORMED: Thu Jan 14 08:46:09 2016

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

| | BACKGROUND (cts) | CALBRTR ON (cts) | MULT | BACKGROUND (gAPI) | CALBRTR ON (gAPI) | DIFF. (gAPI) |
|----|---------------------|---------------------|-------|----------------------|----------------------|------------------|
| GR | 34.18 | 205.20 | 0.891 | 30.45 | 182.83 | 152.38 |
| | | | | | | 140.00 160.00 |

INSTRUMENT CONFIGURATION

Source File: /dat1a/CH101523/CBL-tdg

A3 CABLEHEAD
Diameter : 1.37"

18.85'



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

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



COMPANY
WELL
FIELD
COUNTY

LARAMIE ENERGY
PICEANCE FEDERAL 28-18E
VEGA
MESA STATE CO

FILE NO:
CH101523
 API NO:
05077102580000

LOCATION:

SHL: 2030' FSL & 2497' FWL
 BHL: 863' FSL & 880' FEL

ELEVATIONS:

KB 7704 FT
 DF
 GL 7682 FT

28 9S 93W
 28-10 PAD
 PATTERSON 306

SEC 28 TWP 9S RGE 93W

DATE 26-JAN-2016