



RADIAL ANALYSIS BOND LOG

Baker Atlas

| | | | |
|---|--|---|--|
| File No: GH081546 | Company Well Field County | WPX ENERGY WPX ENERGY RWF 523-4 RULISON GARFIELD | State COLORADO |
| API No: 06046220910000 | Location SHL: 464' FNL X 1717' FEL BHL: 2668' FSL X 2017' FWL (NESW) SEC 4 TWP 7S RGE 94W | | Other Services RPM |
| 4 7S 94W RMV 108-4 PAD NABORS 674 | | | |
| Permanent Datum Log Measured From Drill Measured From | OL KB KELLY BUSHING | Elevation 5794 ft 26 ft Above P. D. | Elevations KB 6820 ft DF GL 5794 ft |

| | | |
|------------------------------|--------------|-----------|
| Date | 15/JAN/14 | |
| Run | ONE | |
| Service Order | US626087 | |
| Depth Driller | 8857 ft | |
| Depth Logger | 8821 ft | |
| Bottom Logged Interval | 8811 ft | |
| Top Logged Interval | 26 ft | |
| Time Started | 0700 | |
| Time Finished | 1100 | |
| Operator Rig Time | 4 HRS | |
| Type of Fluid in Hole | WATER | |
| Fluid Density | NA | |
| Salinity | NA | |
| Fluid Level | 67 ft | |
| Logged Cement Top | NA | |
| Wellhead Pressure | 0 psi | |
| Maximum Hole Deviation | NA | |
| Nominal Logging Speed | 65 fpm | |
| Maximum Recorded Temperature | 247 degF | |
| Reference Log | NONE | |
| Reference Log Date | NA | |
| Equipment No. | 4271 | GRAND JCT |
| Recorded By | FLOYD RENEAU | |
| Witnessed By | CHRIS TILLER | |

- FOLD HERE

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 |
| 13.5 in | 0 ft | 2604 ft |
| 8.75 in | 2604 ft | 8857 ft |

| Casing Record | | | | |
|---------------|-------------|-------|------|---------|
| Size | Weight | Grade | From | To |
| 9.625 in | | | 0 ft | 2604 ft |
| 4.5 in | 11.6 lbm/ft | I-80 | 0 ft | 8857 ft |

| |
|--|
| Remarks |
| All data on this log is shifted using the CCL curve to put the wellhead (top CCL mark) on depth with ground level elevation at the client's request. |
| Top ccl mark is 8' above ground level (height of flange on production tree). |
| The amount of linear shift is 8 feet. |
| Logged with zero PSI at wellhead. |
| BHT = 247°F |

| Equipment Data | | | | | |
|----------------|------|--------|---------------|---------------|----------|
| Run | Trip | Tool | Series Number | Serial Number | Position |
| 1 | 1 | VDL | 1426XA | 10218496 | CENT |
| 1 | 1 | GRICCL | 2459XA | 10124121 | CENT |

PRIMARY PRESENTATION

0 PSI

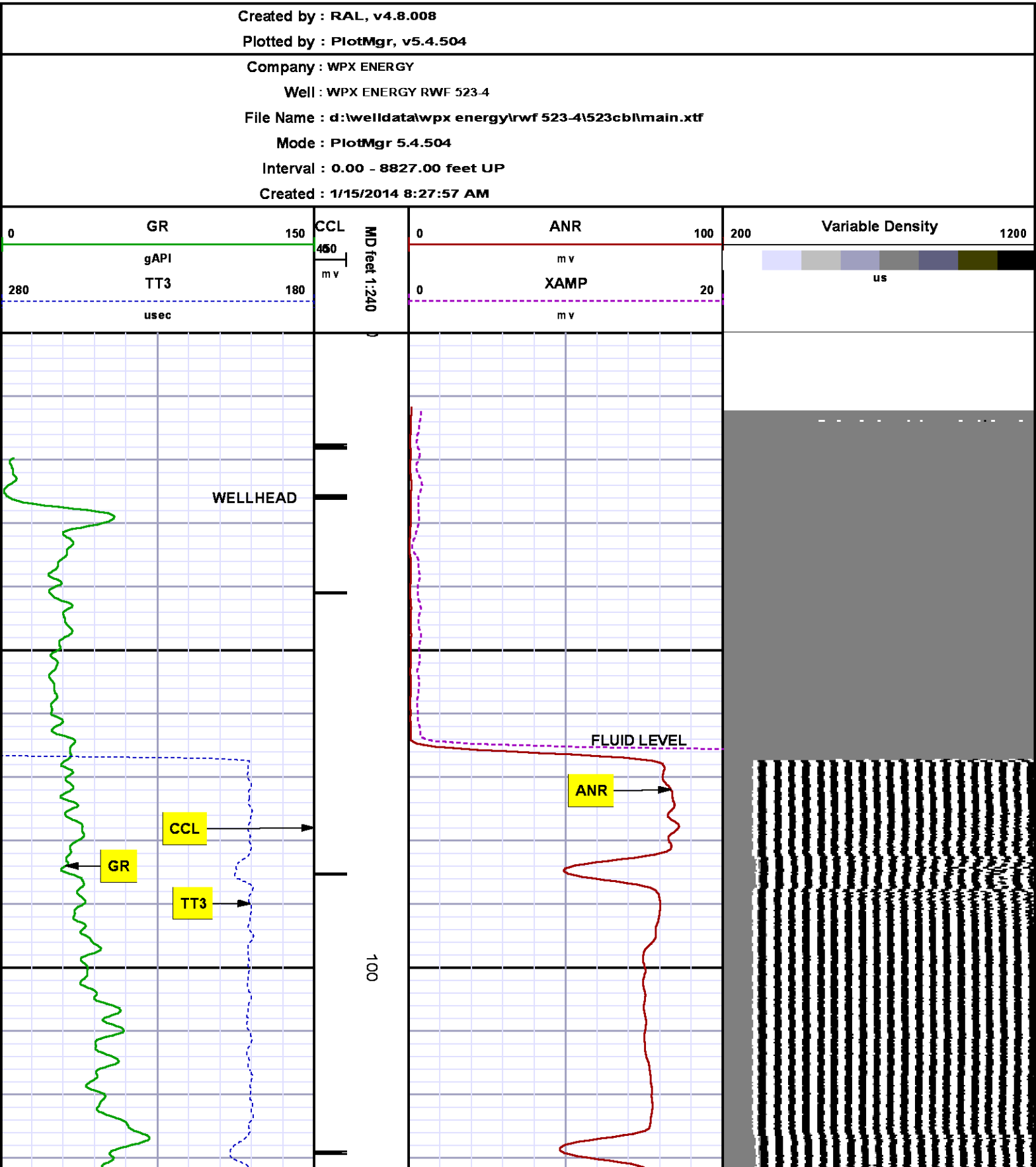
| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | TOP | BOTTOM |
|------------------|-----------------------|---------|---------|--------|----------|
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| RAL | Amp Gate Start Near | 195.000 | usec | 27.905 | 8848.000 |
| RAL | Amp Gate Start Radial | 195.000 | usec | 27.905 | 8848.000 |
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| RAL | Fluid Travel Time | 200.000 | usec/ft | 27.905 | 8847.905 |

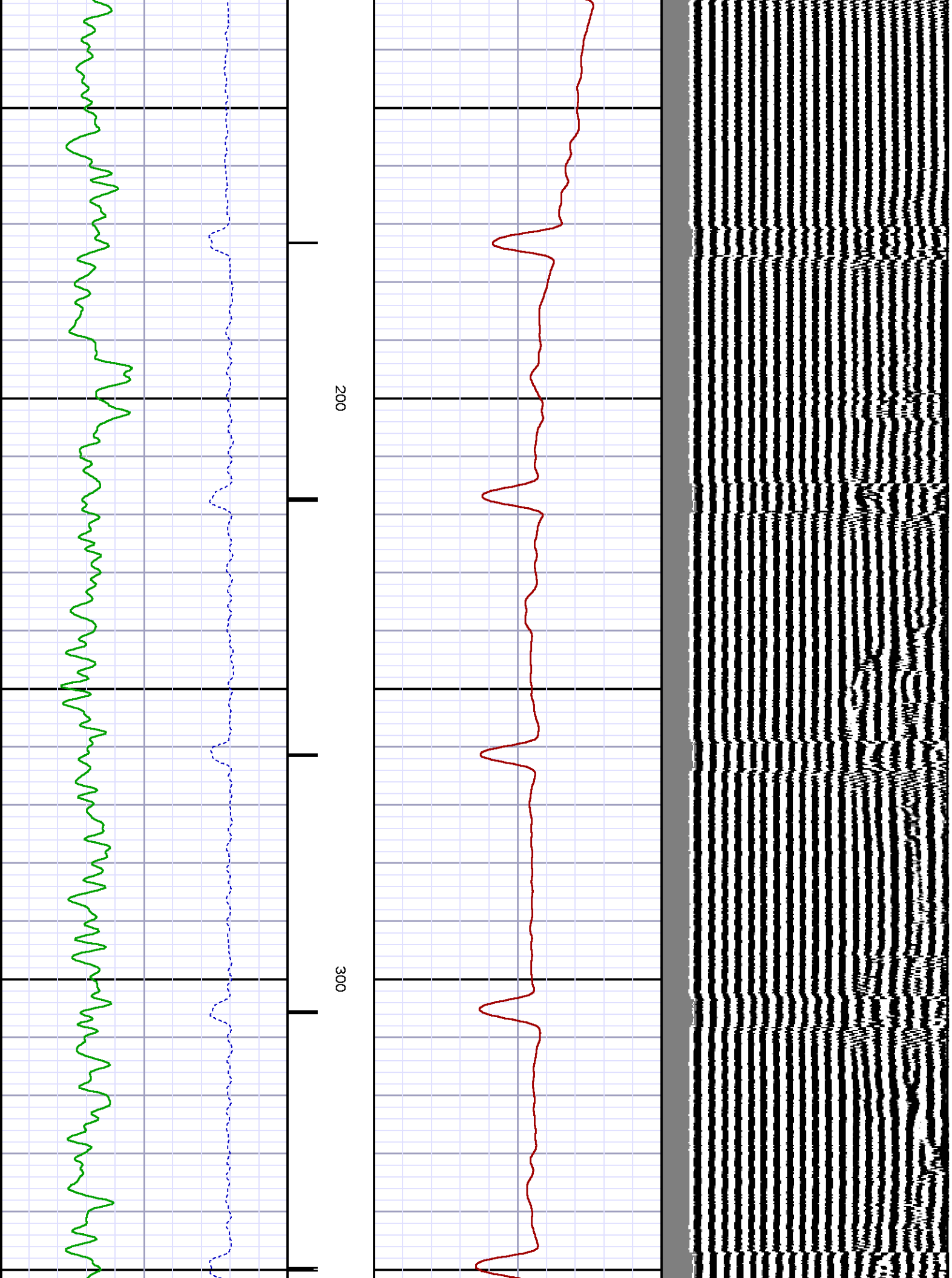
DEPTH OFFSETS

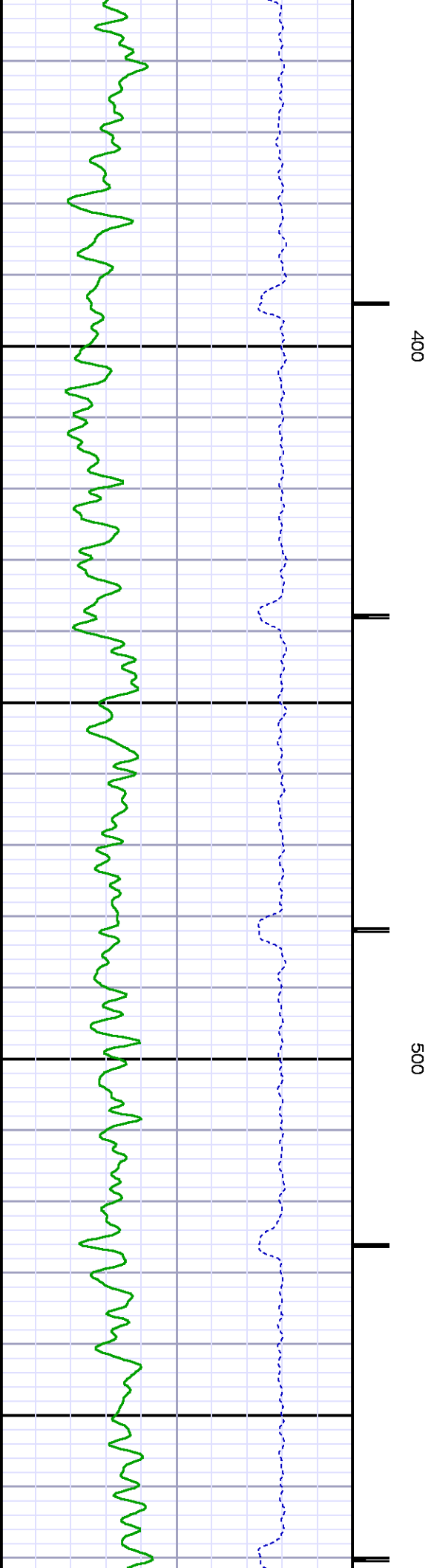
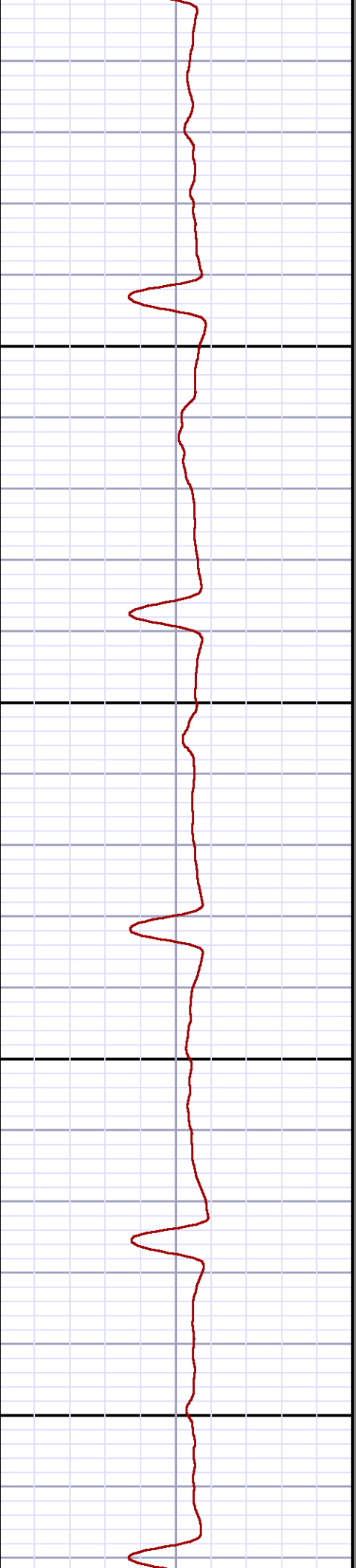
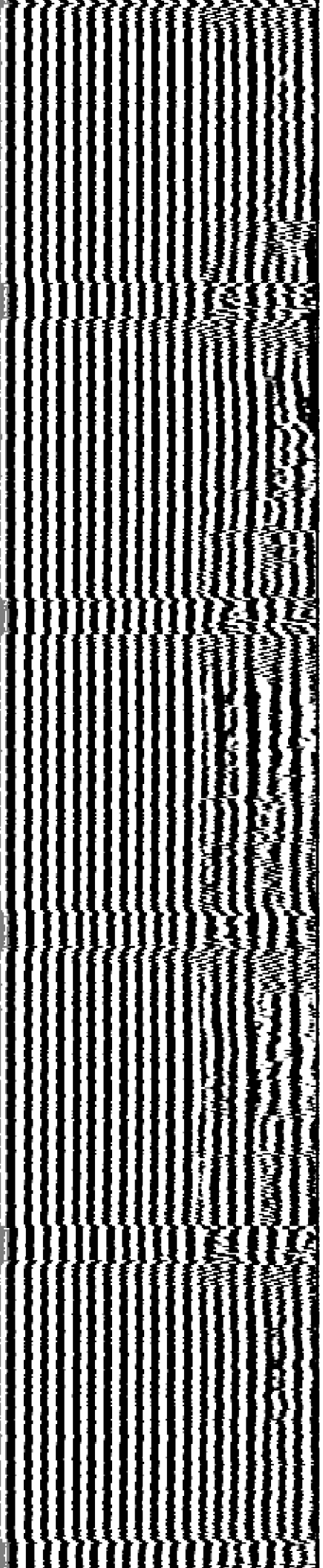
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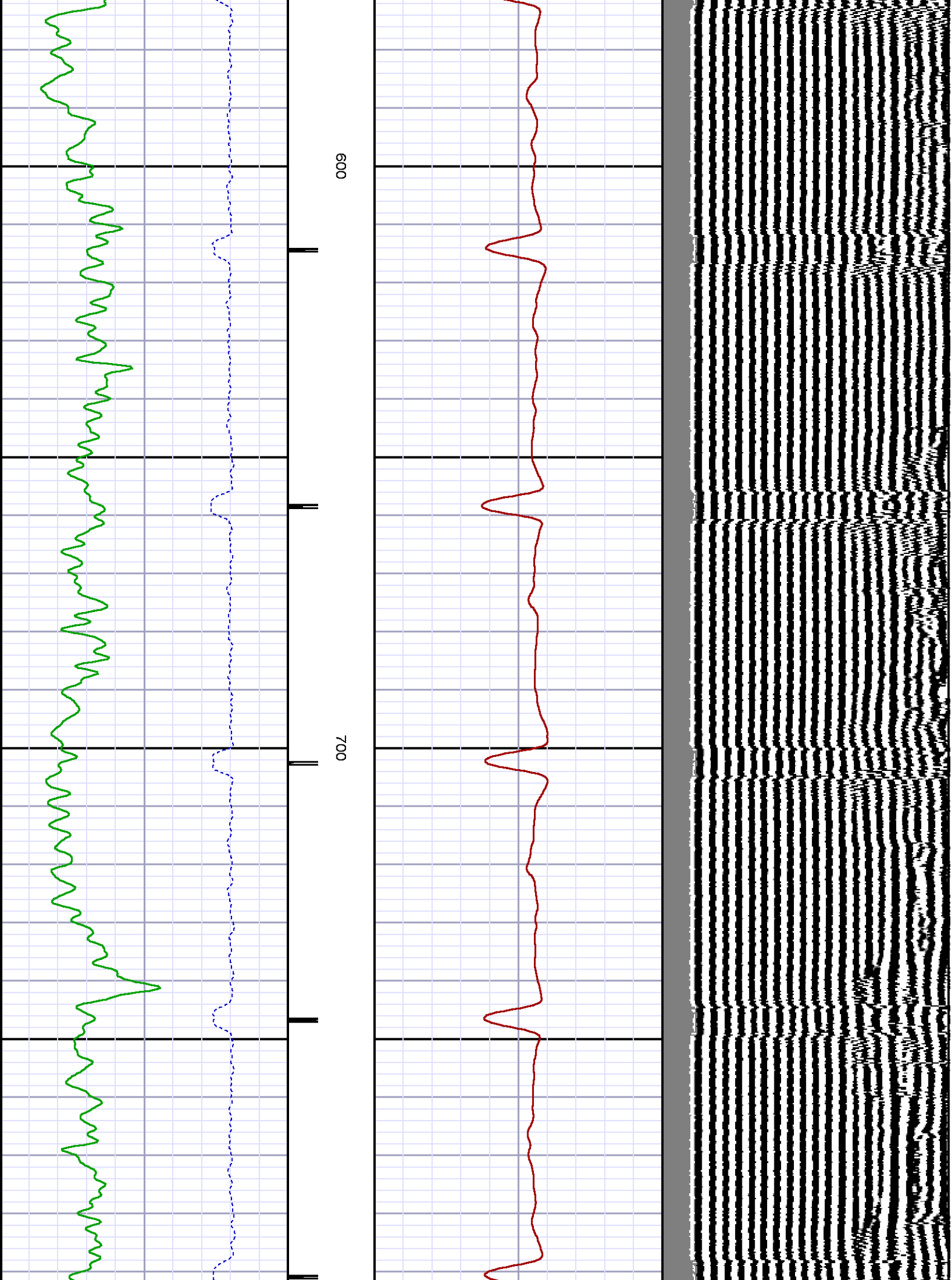
| SERIES | DEPTH OFFSET | ACQUIRED CURVES | | | | | |
|--------|--------------|-----------------|-----|-----|-----|-----|------|
| 1426XA | -16.750 | ACAL | ANR | AR1 | AR2 | AR3 | AR4 |
| | | AR5 | AR6 | AR7 | AR8 | CHV | FPR2 |

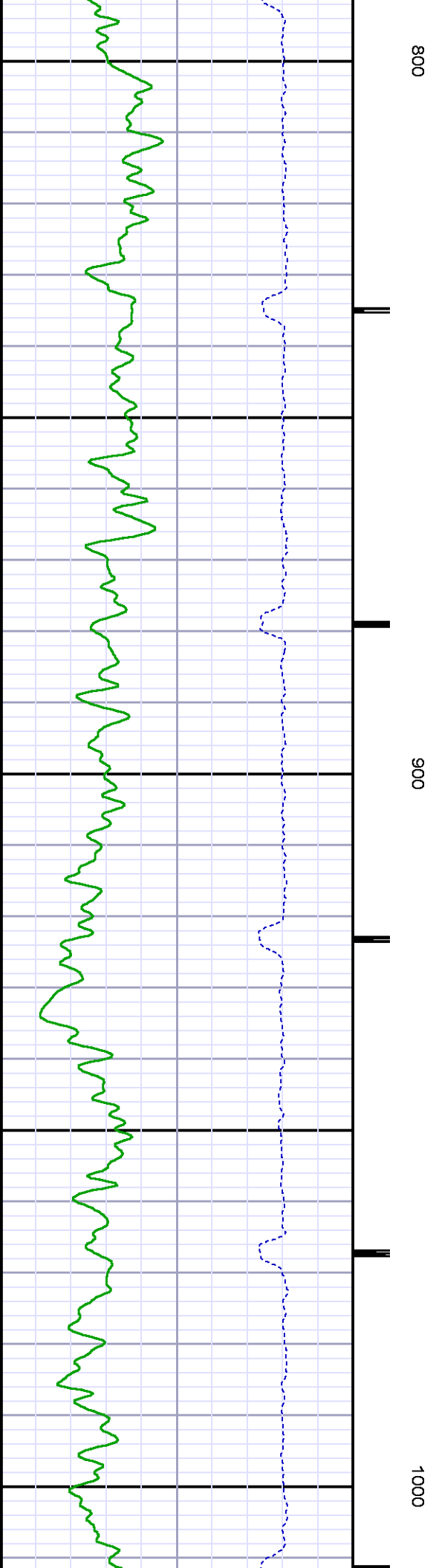
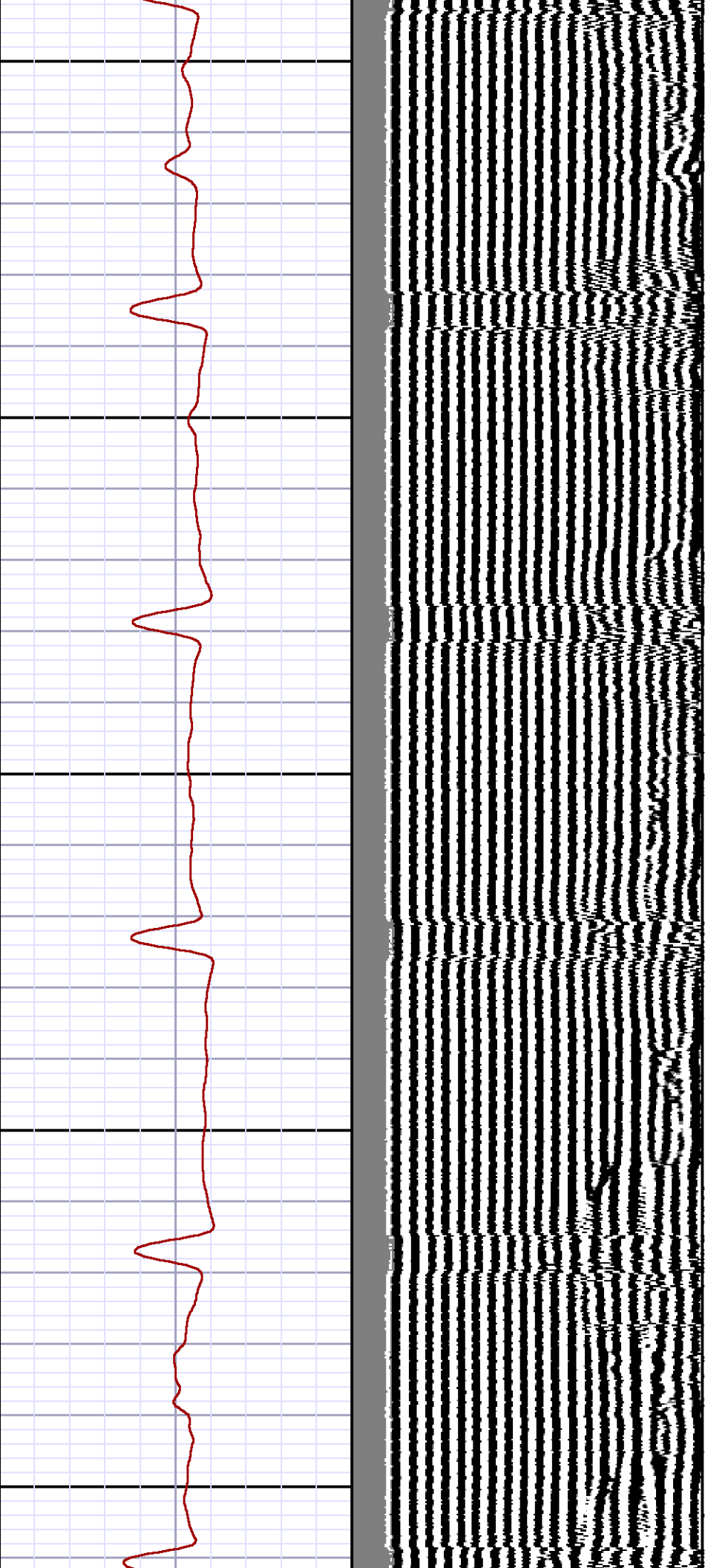
| | | | | | | | |
|--------|---------|------|------|------|------|------|------|
| | | FPR3 | FPR5 | TT3 | TTR1 | TTR2 | TTR3 |
| | | TTR4 | TTR5 | TTR6 | TTR7 | TTR8 | XAMP |
| 1426XA | -15.750 | AFAR | SIG | TT5 | | | |
| 2459XA | -11.340 | CCL | | | | | |
| 2459XA | -9.490 | GR | | | | | |
| 2459XA | -4.090 | NEU | | | | | |

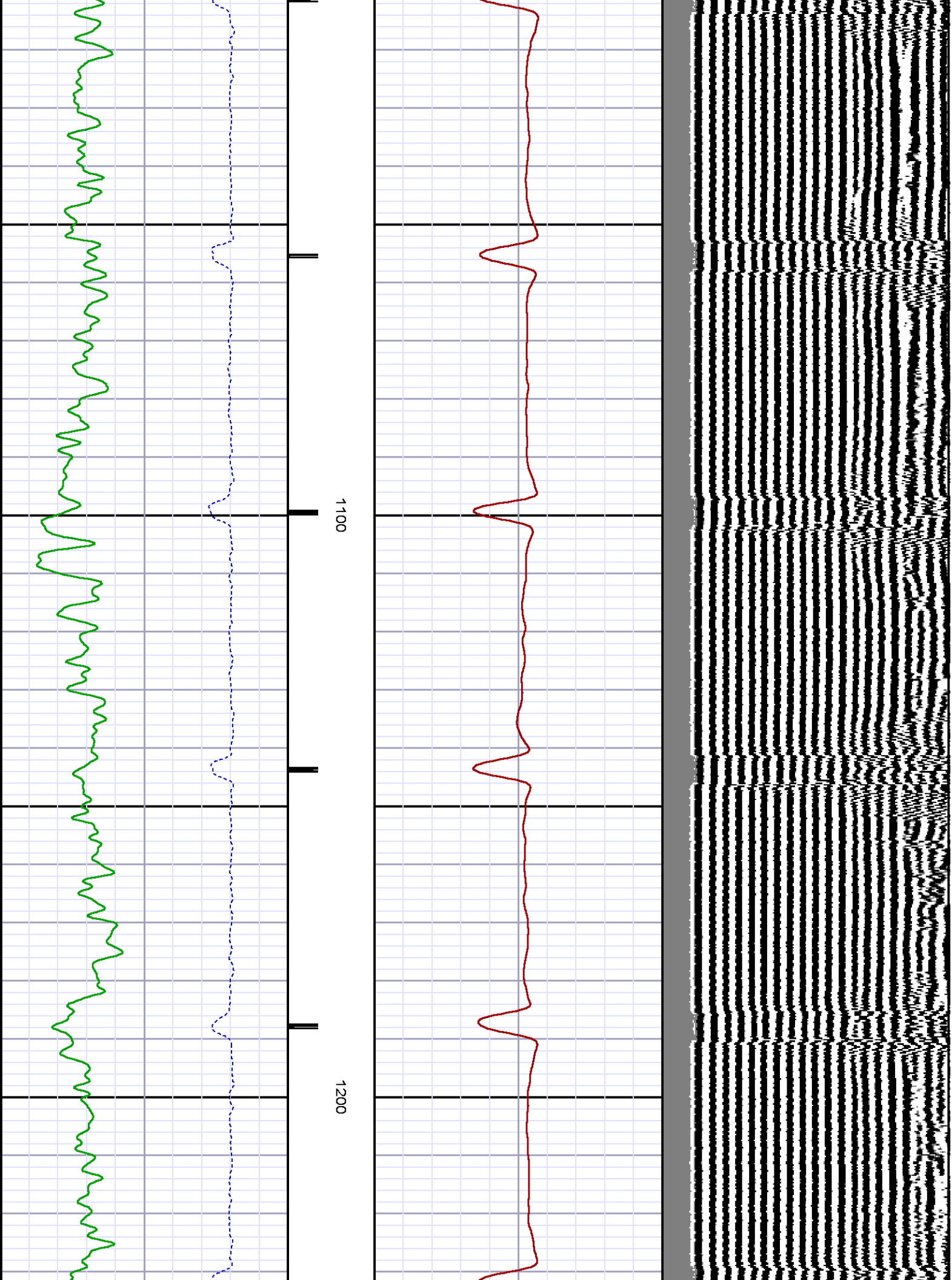


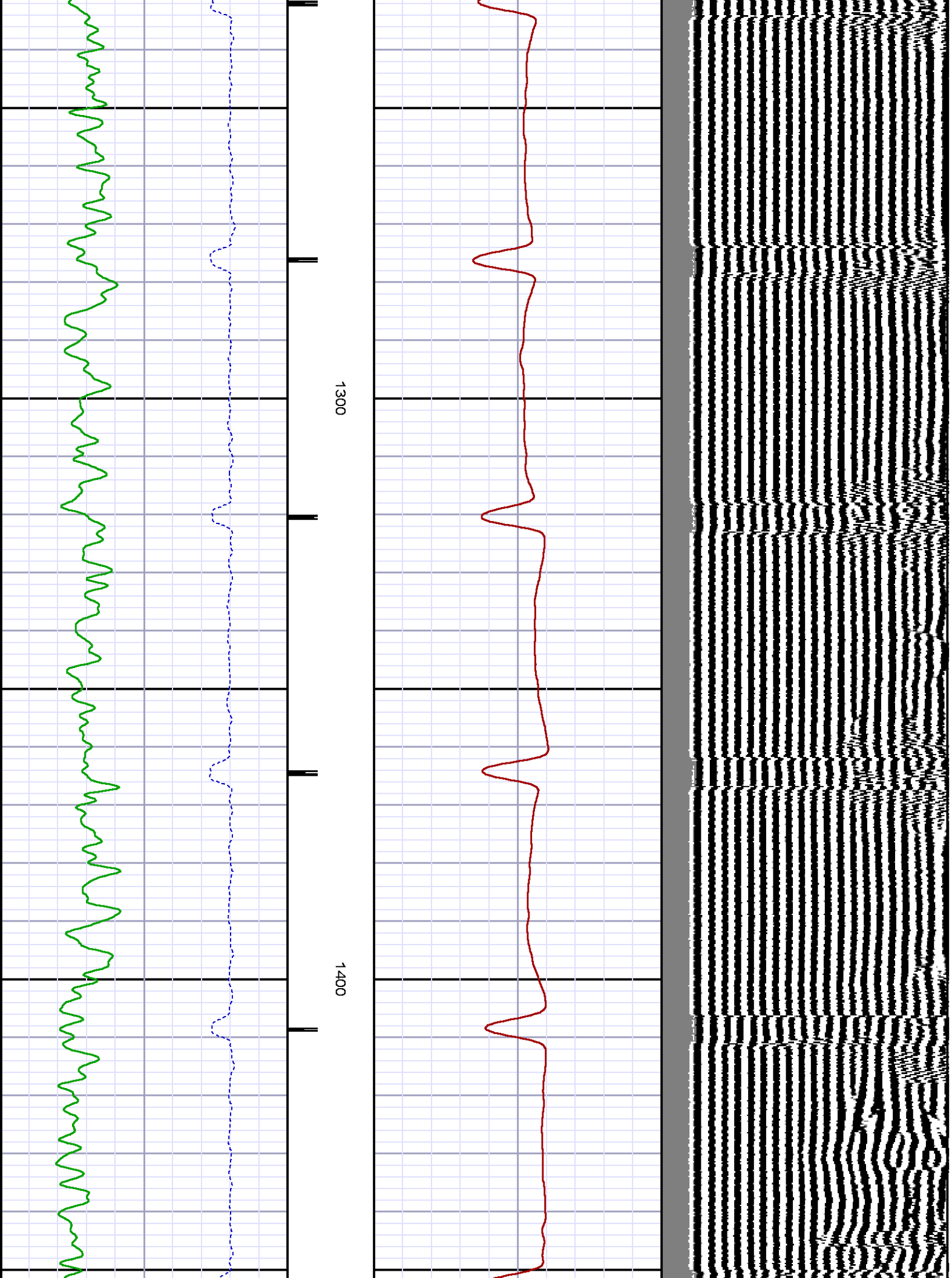


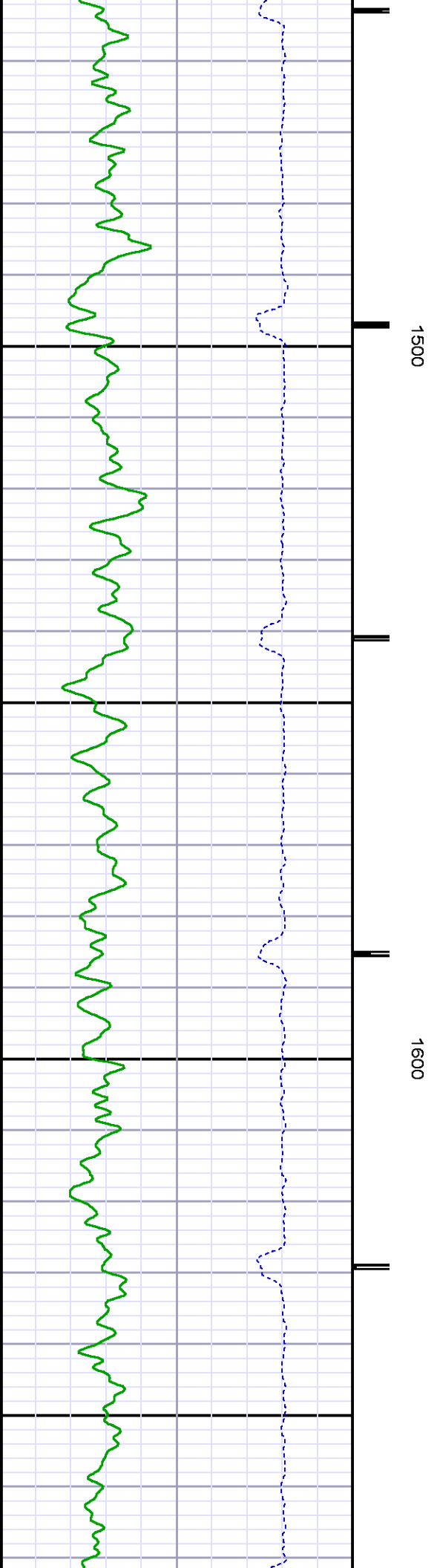
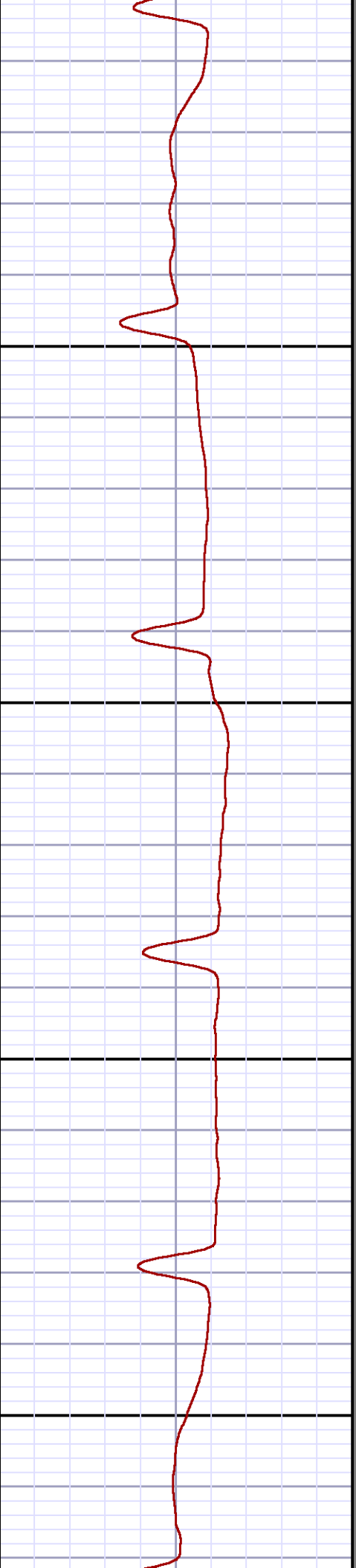
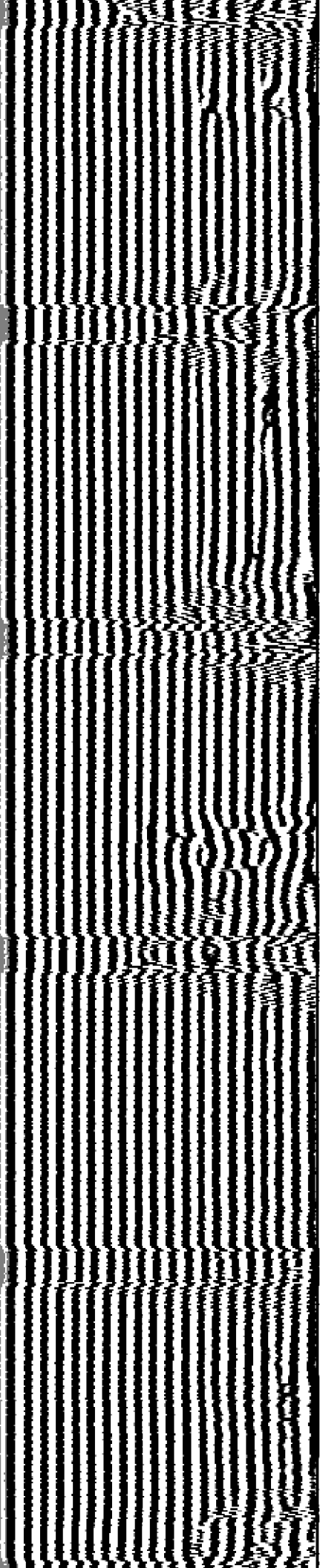


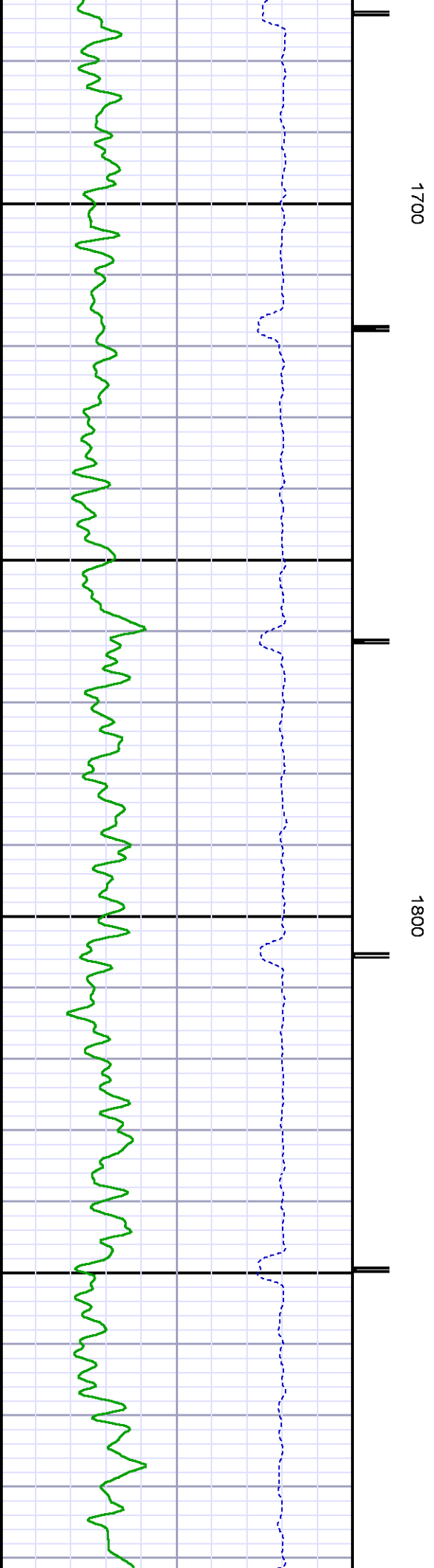
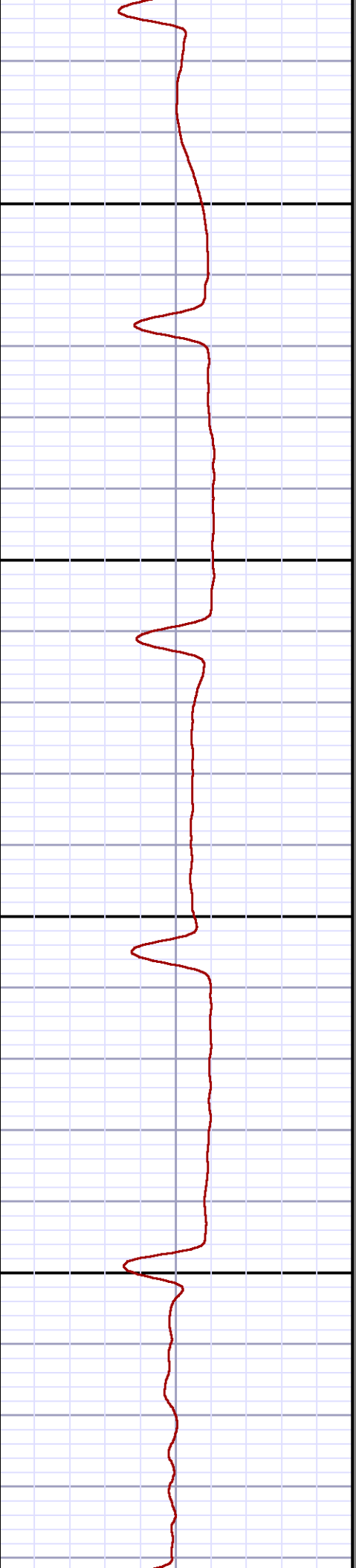
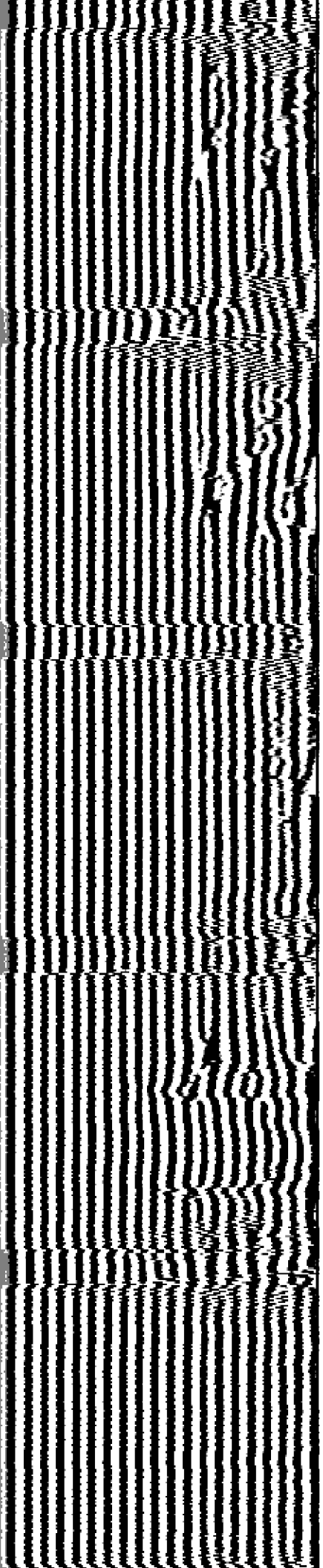


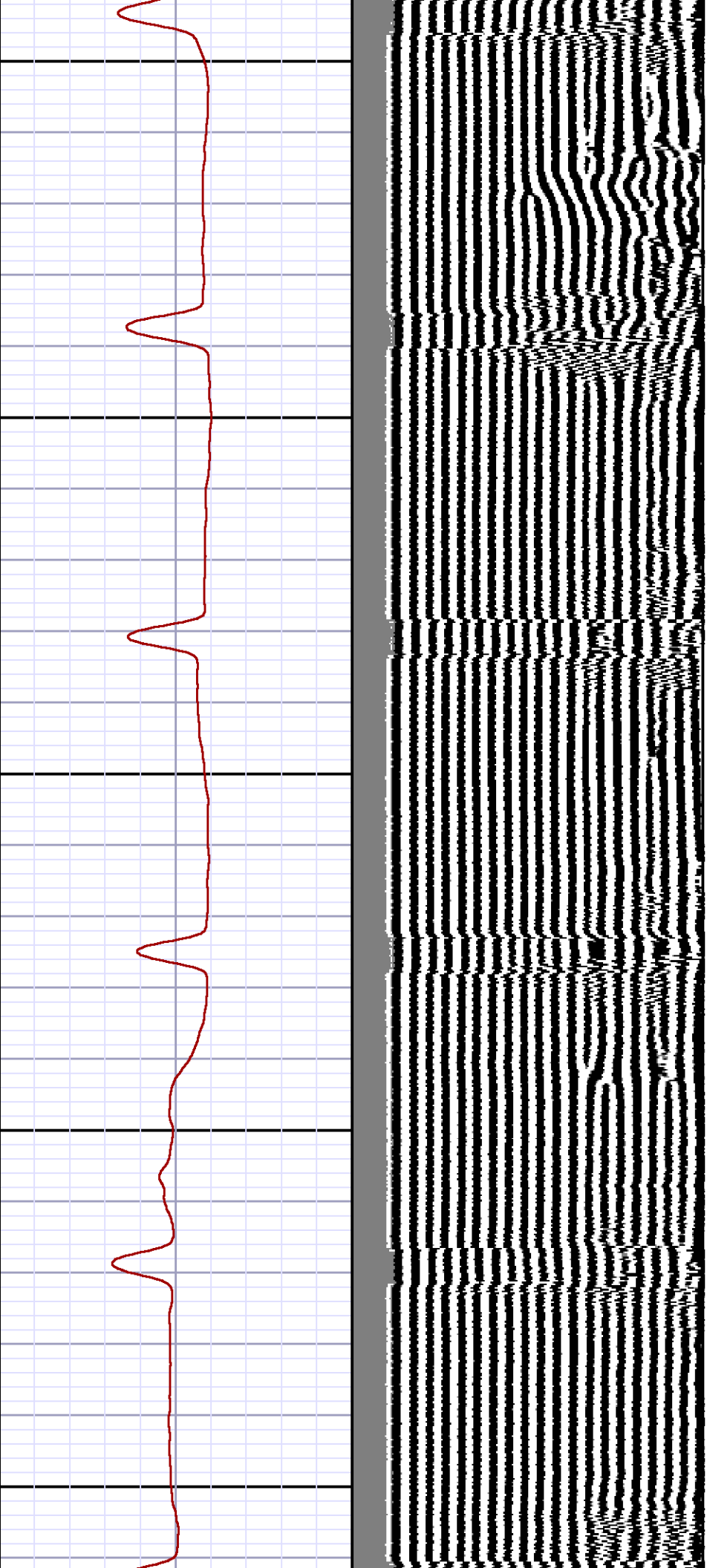








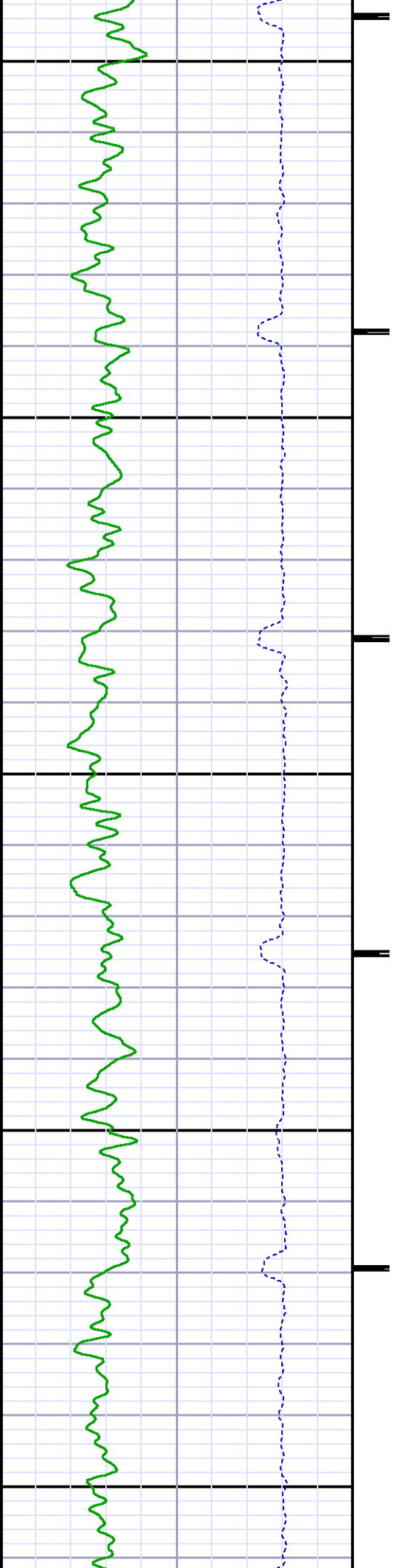


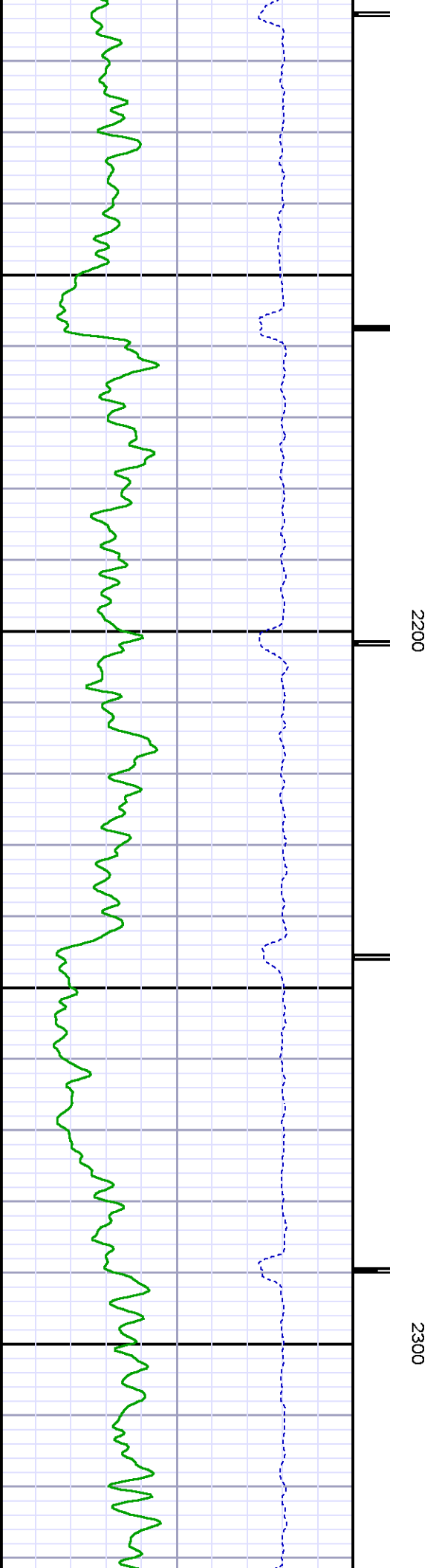
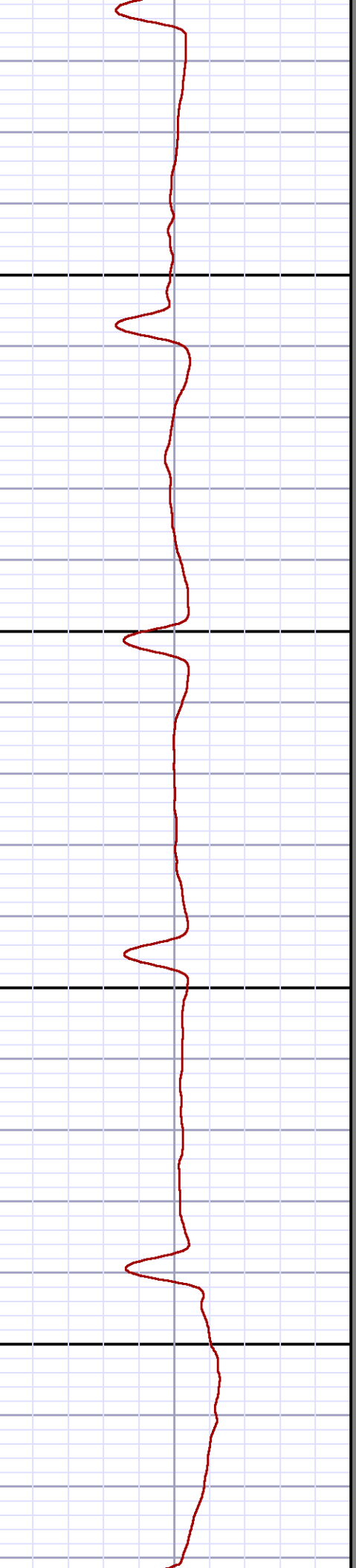
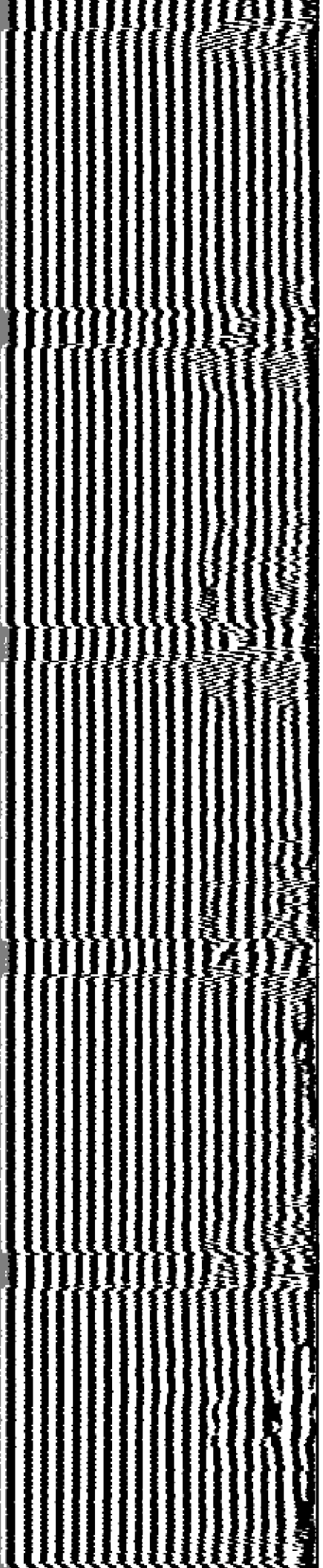


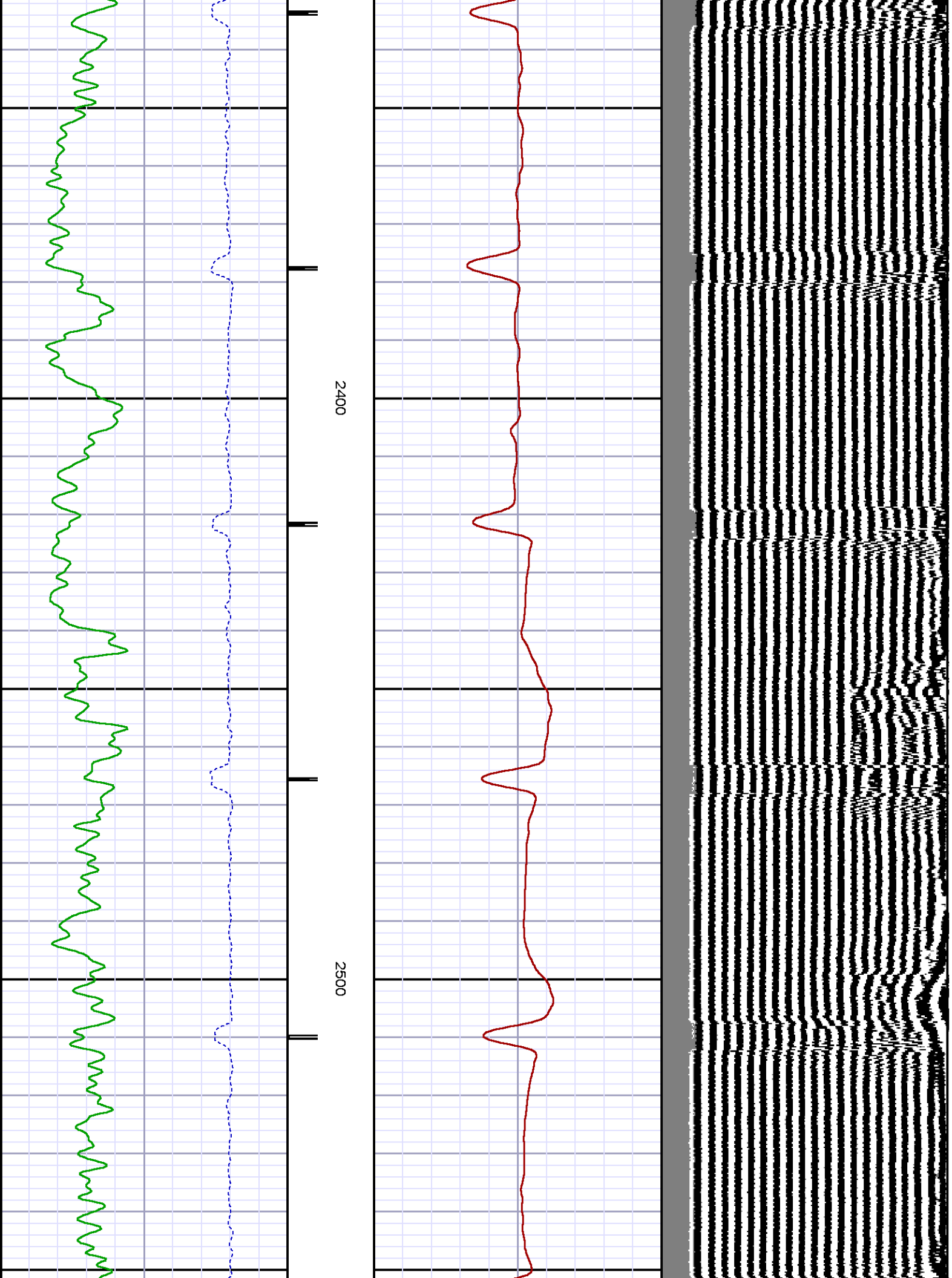
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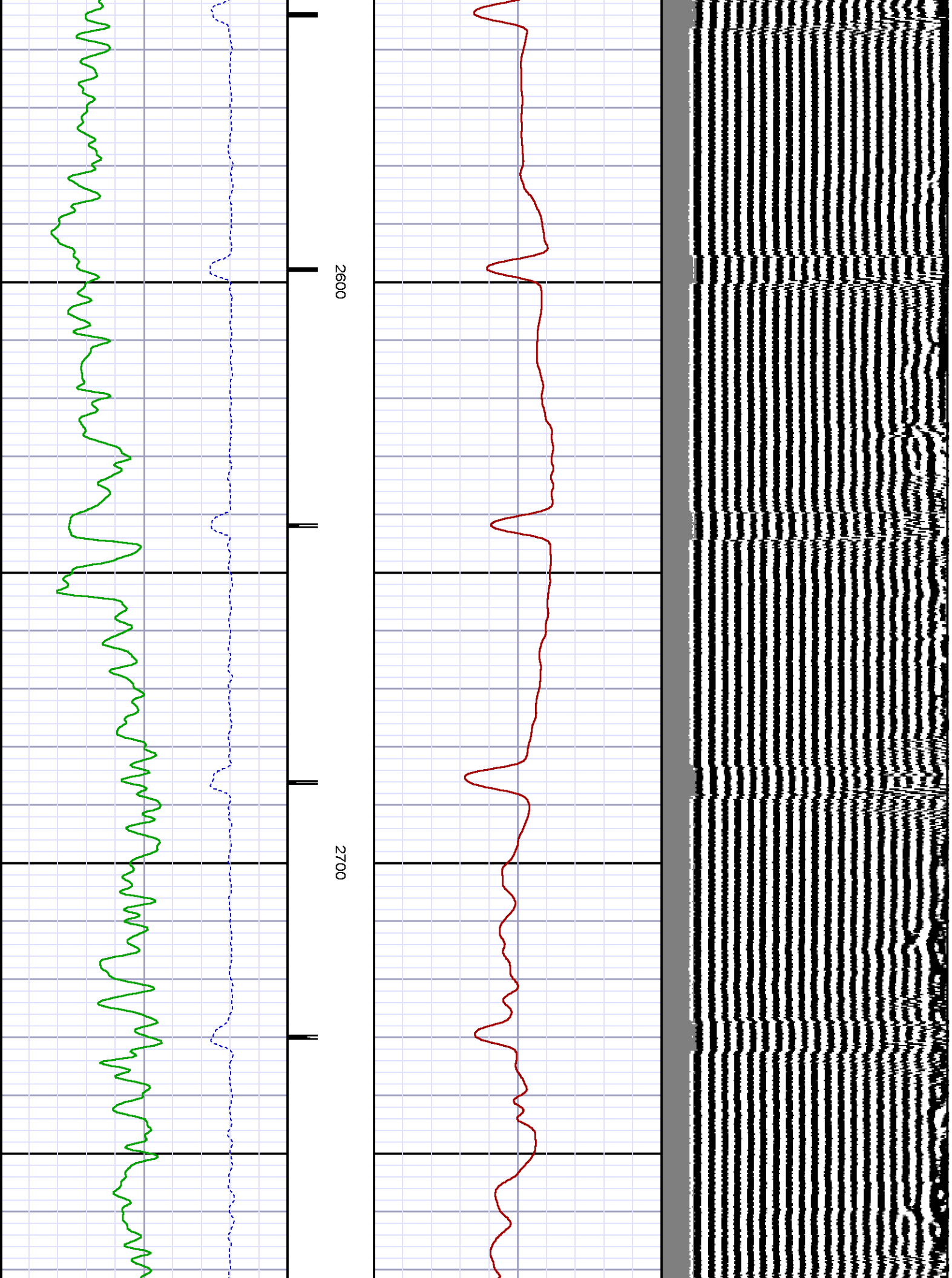
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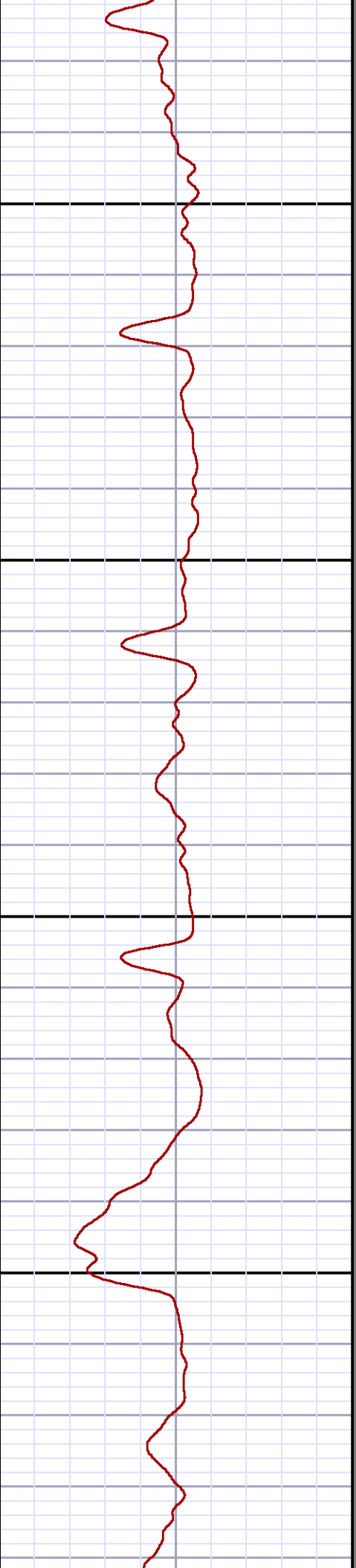
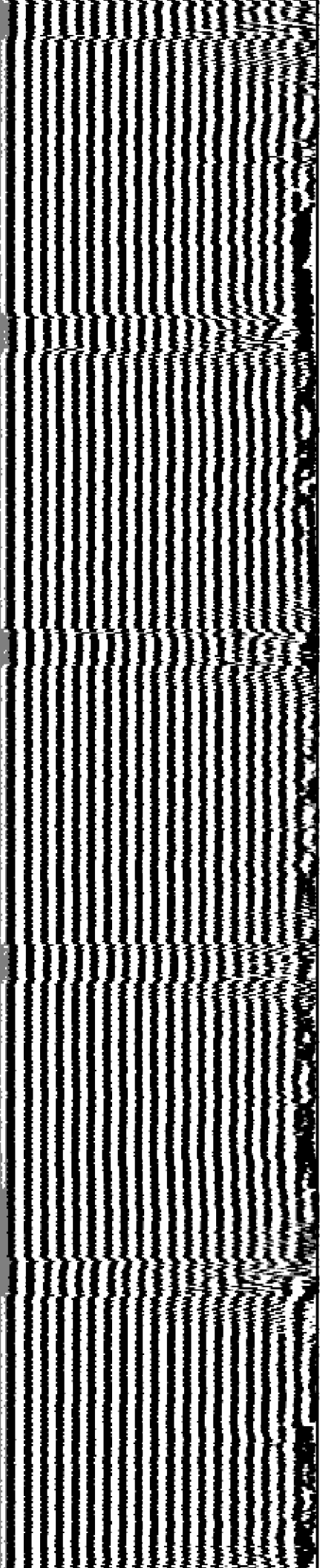
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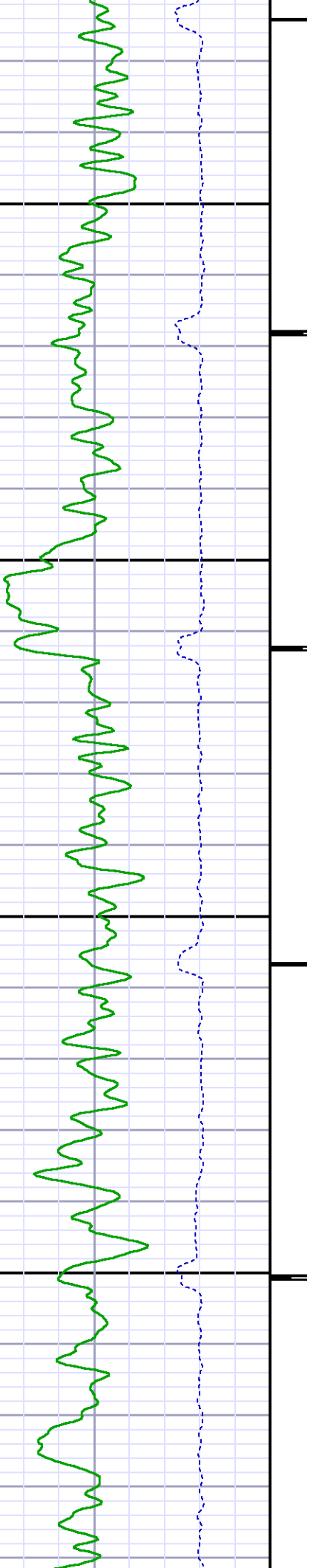


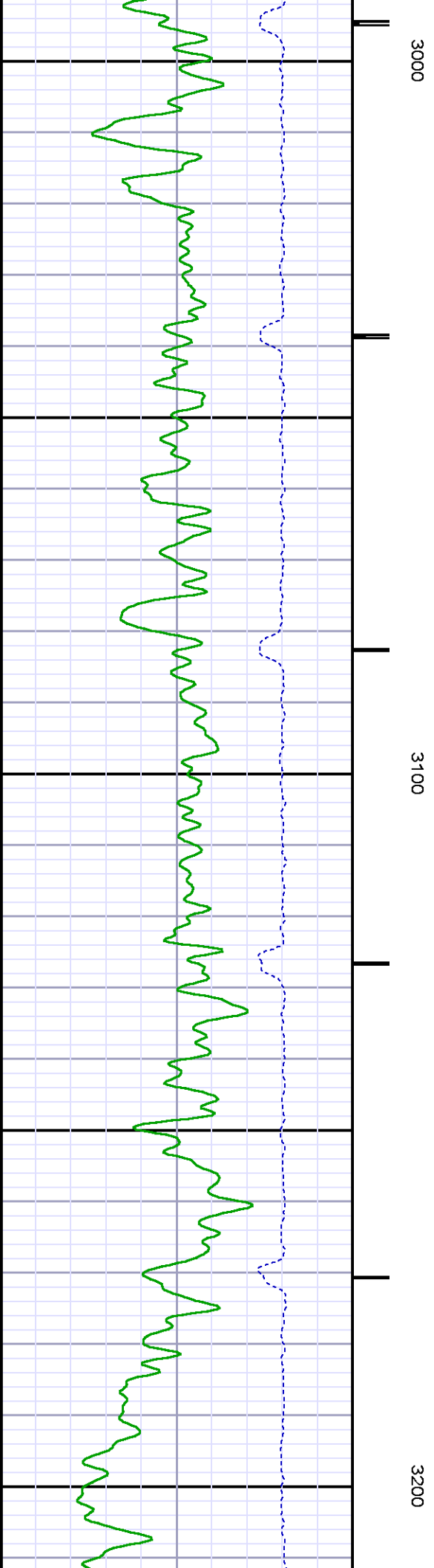
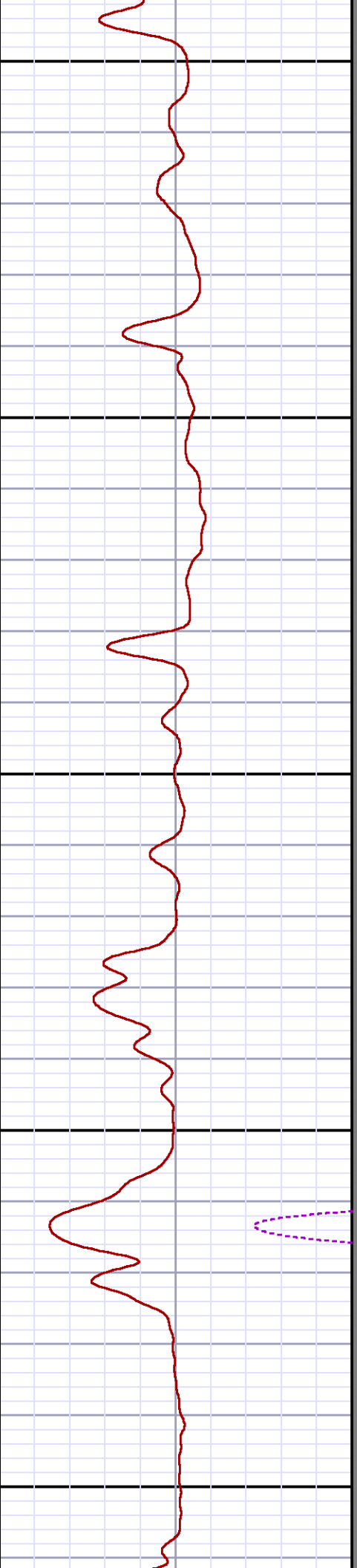
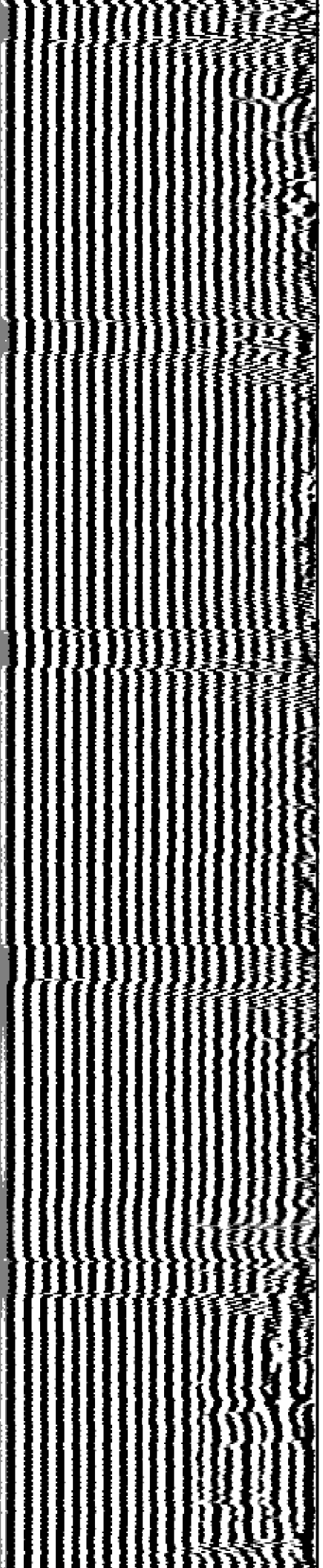


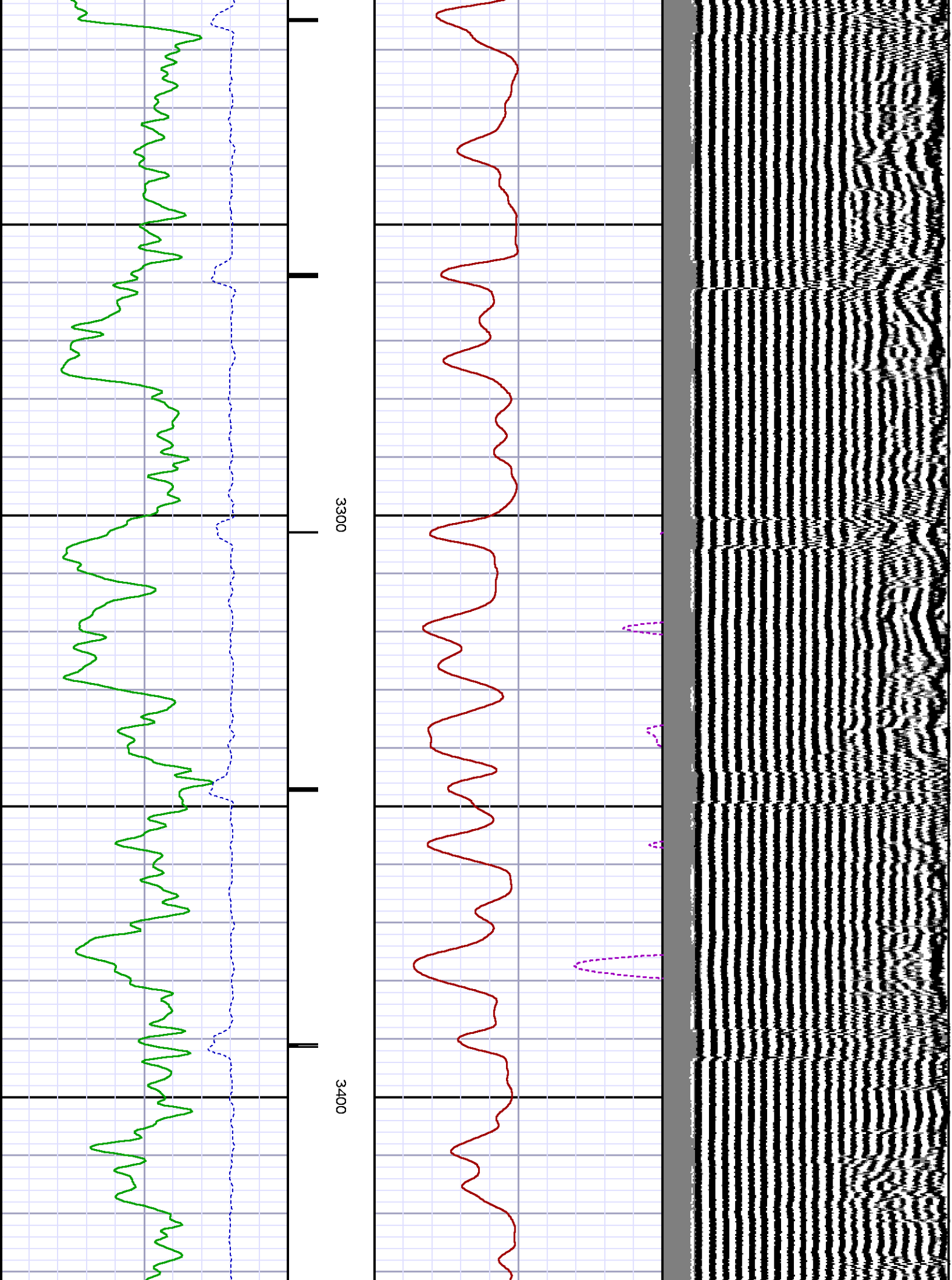


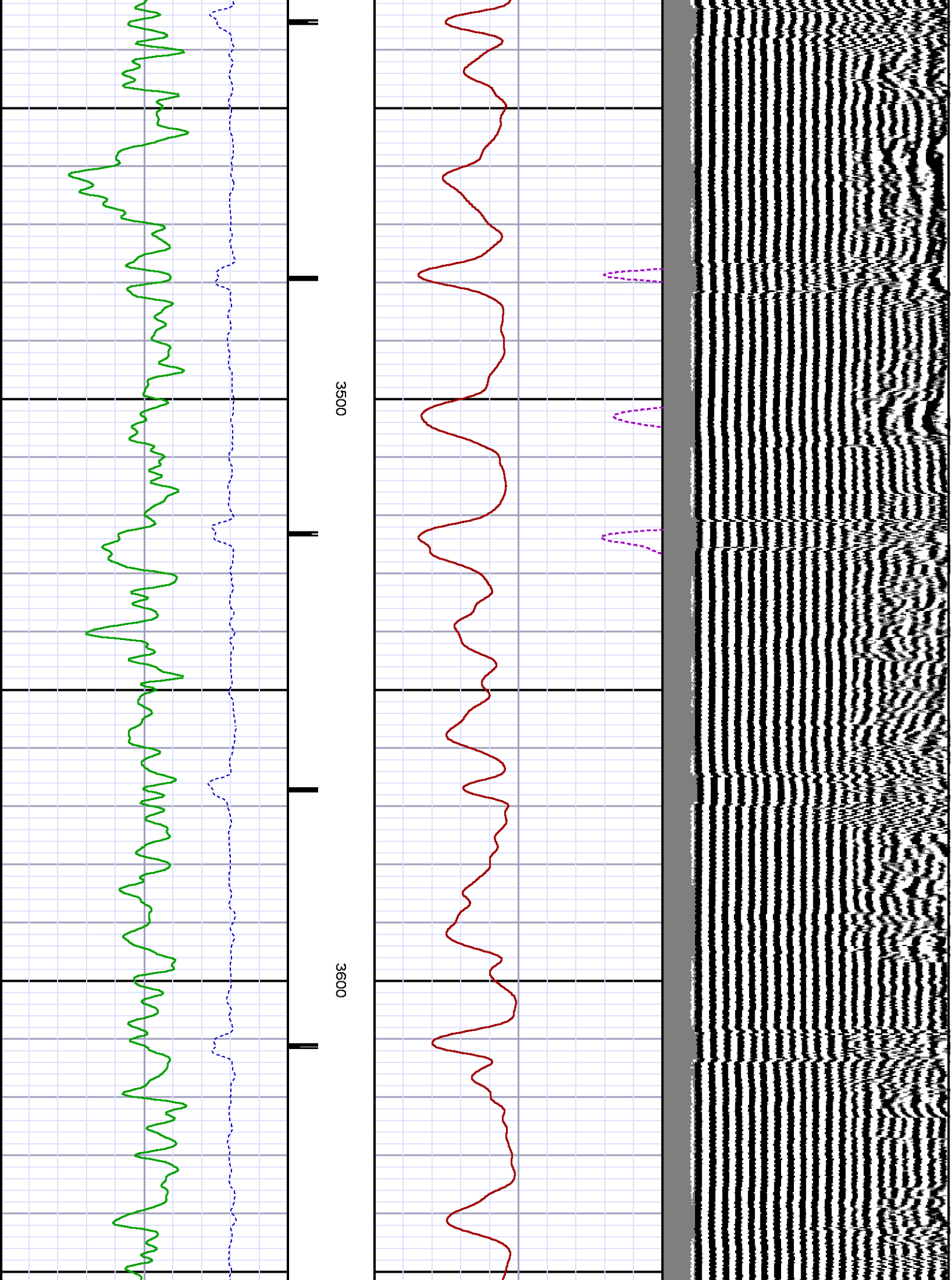
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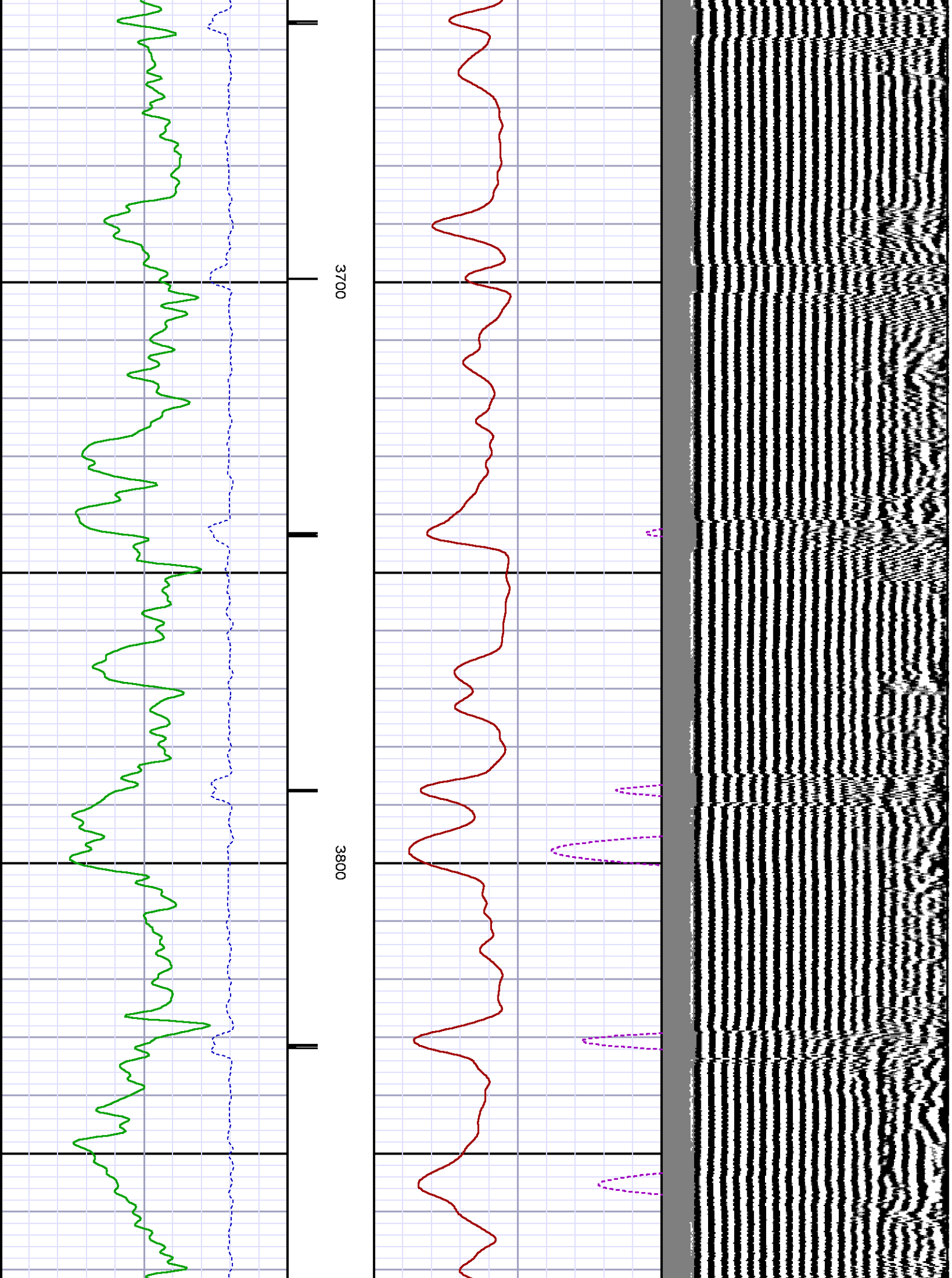
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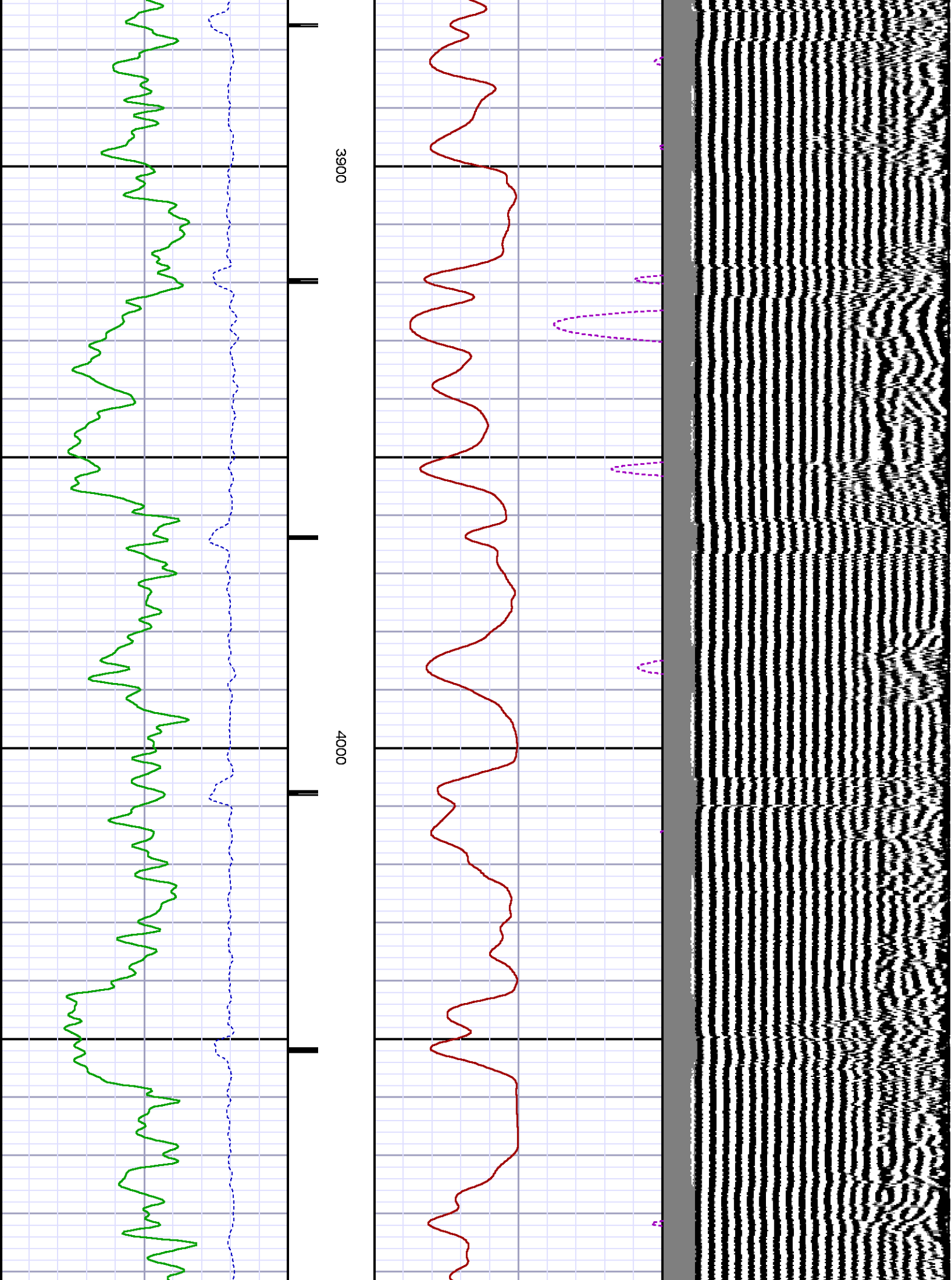


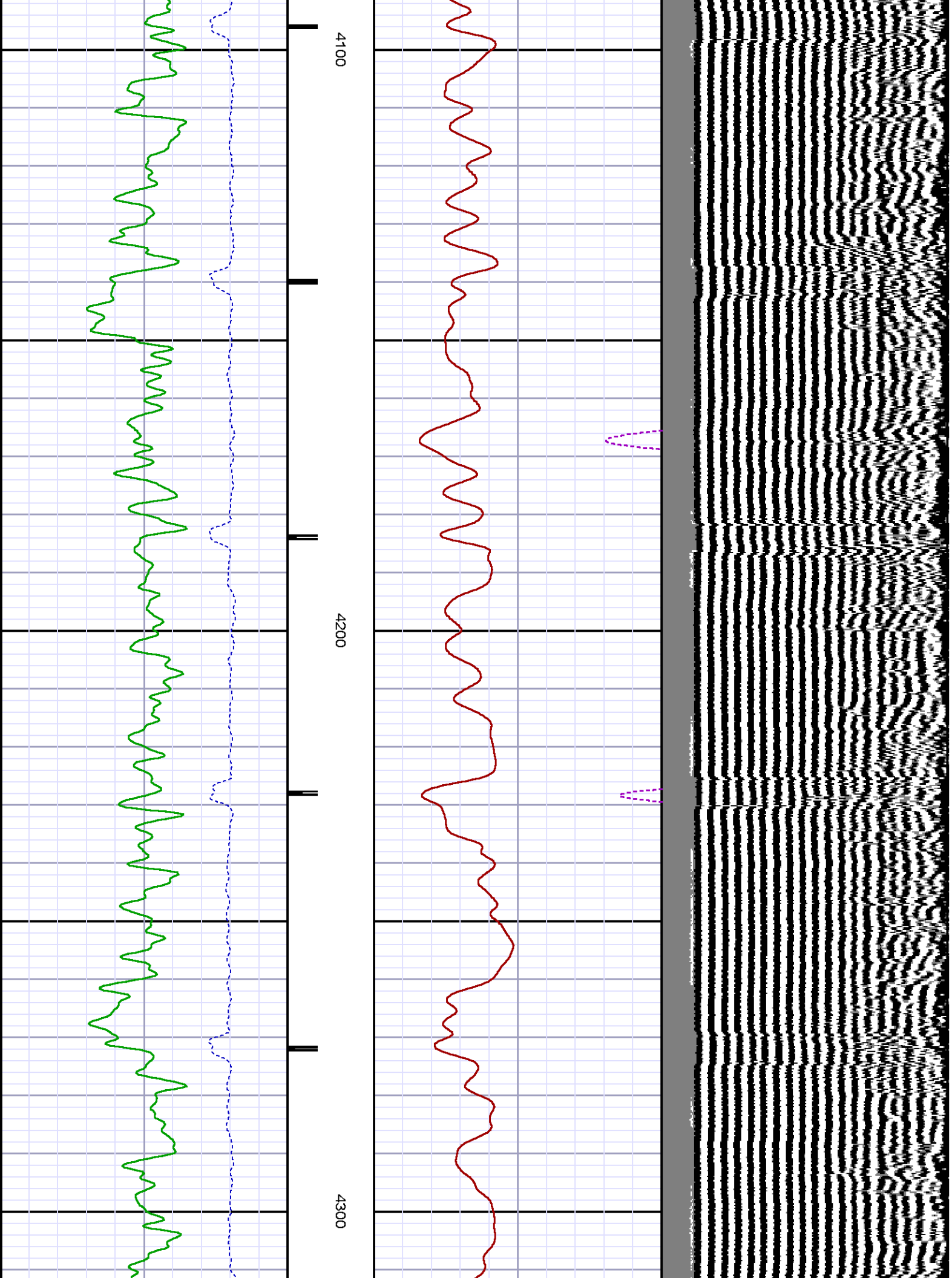


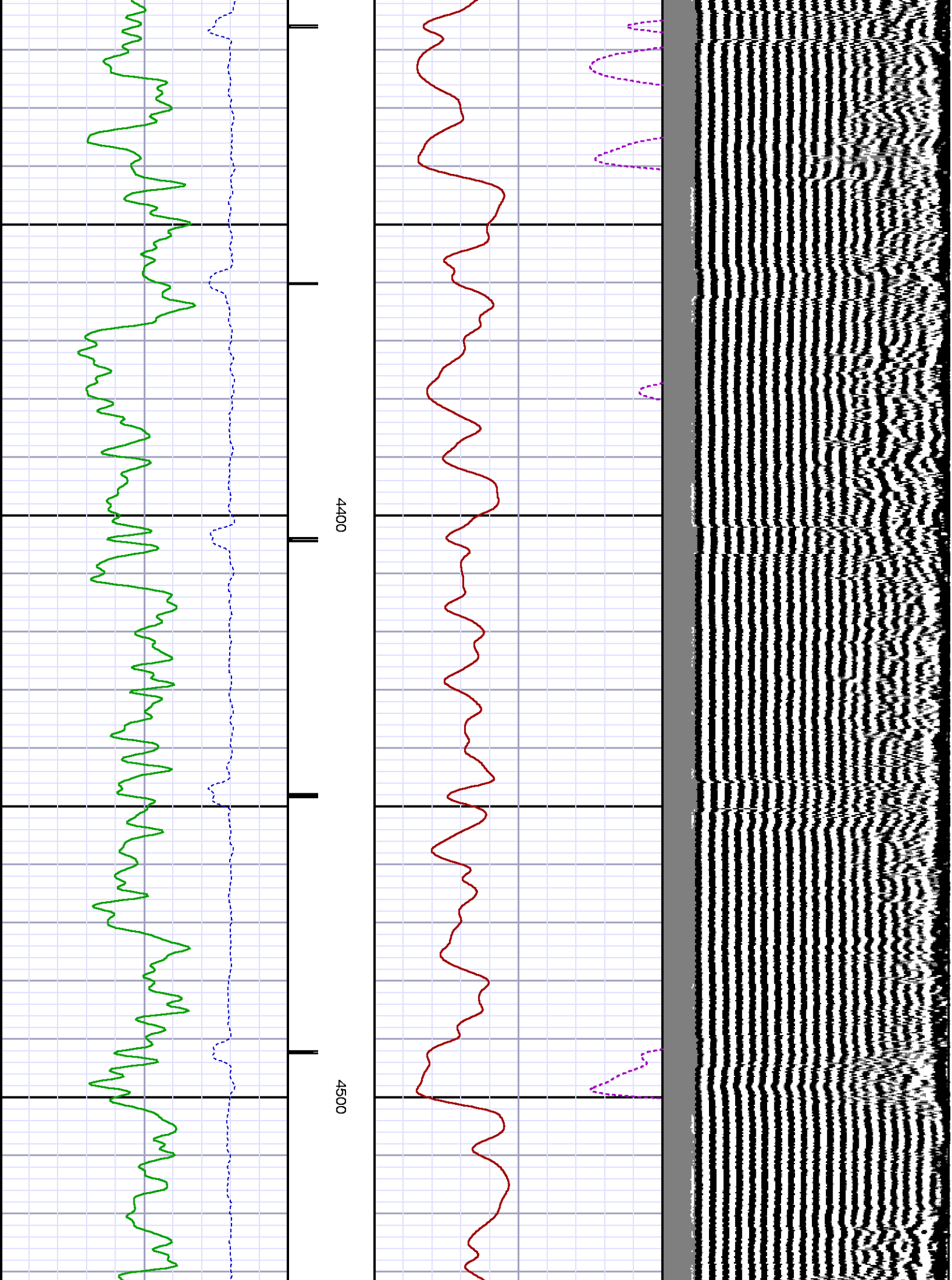


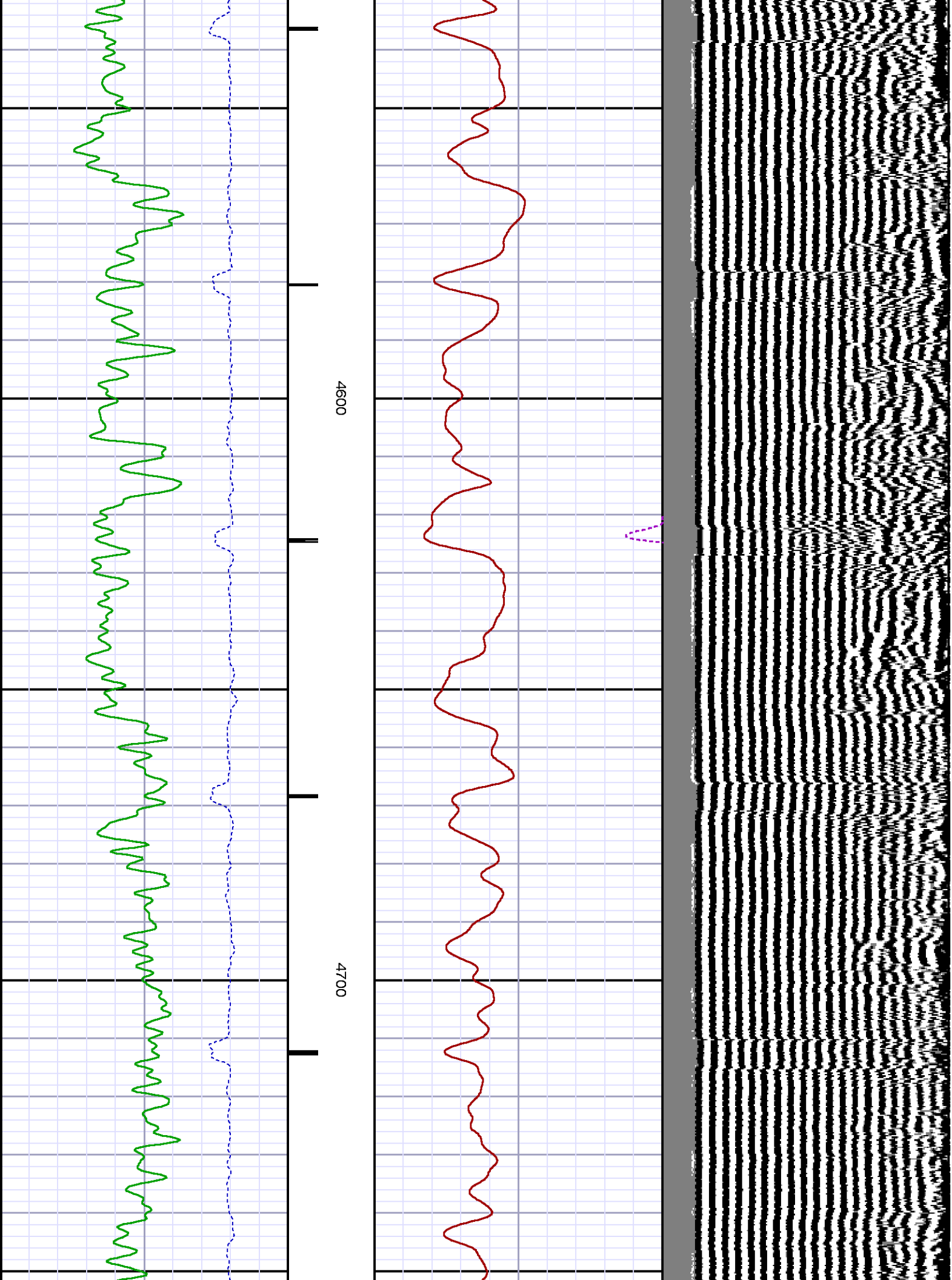


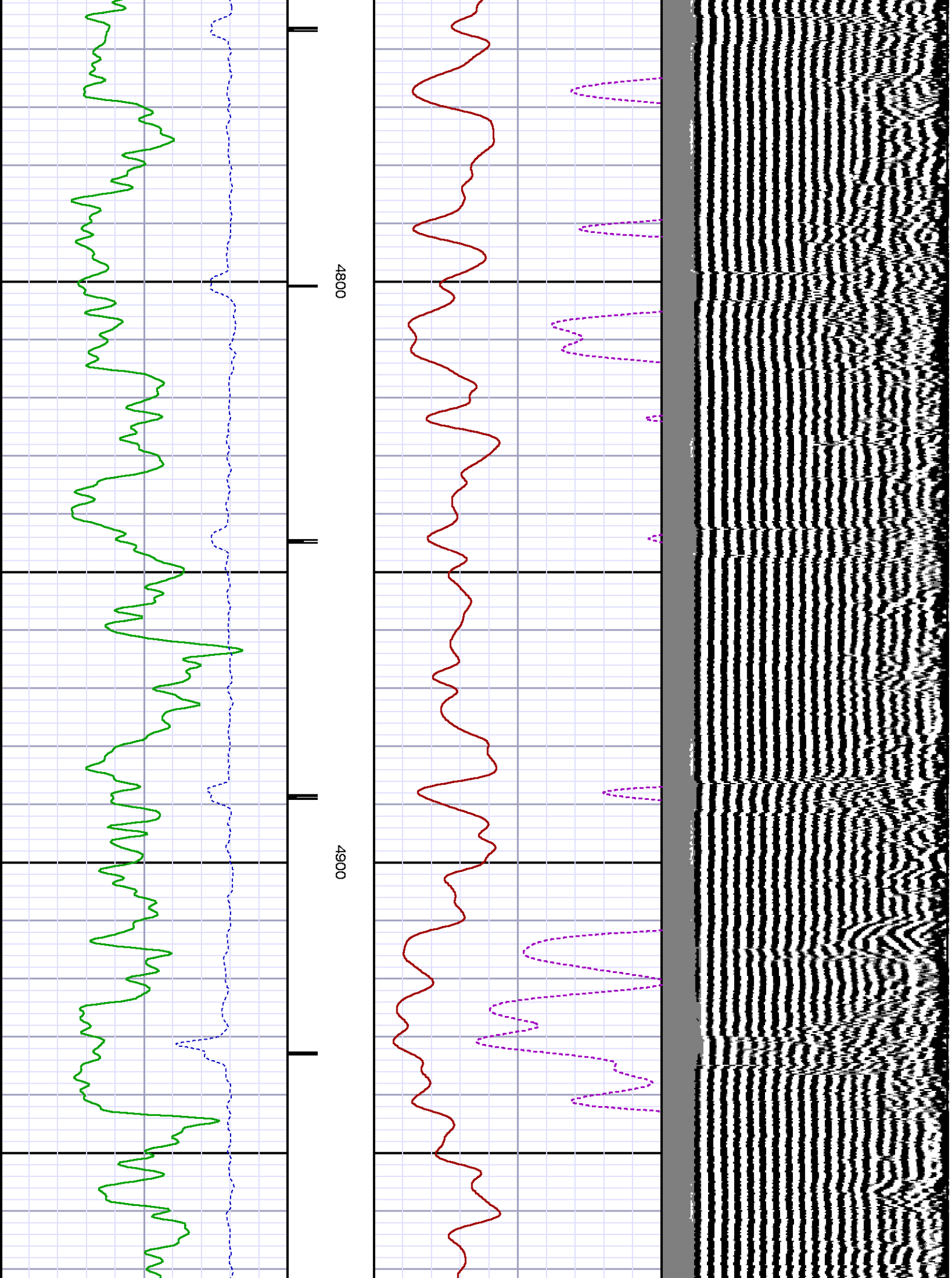


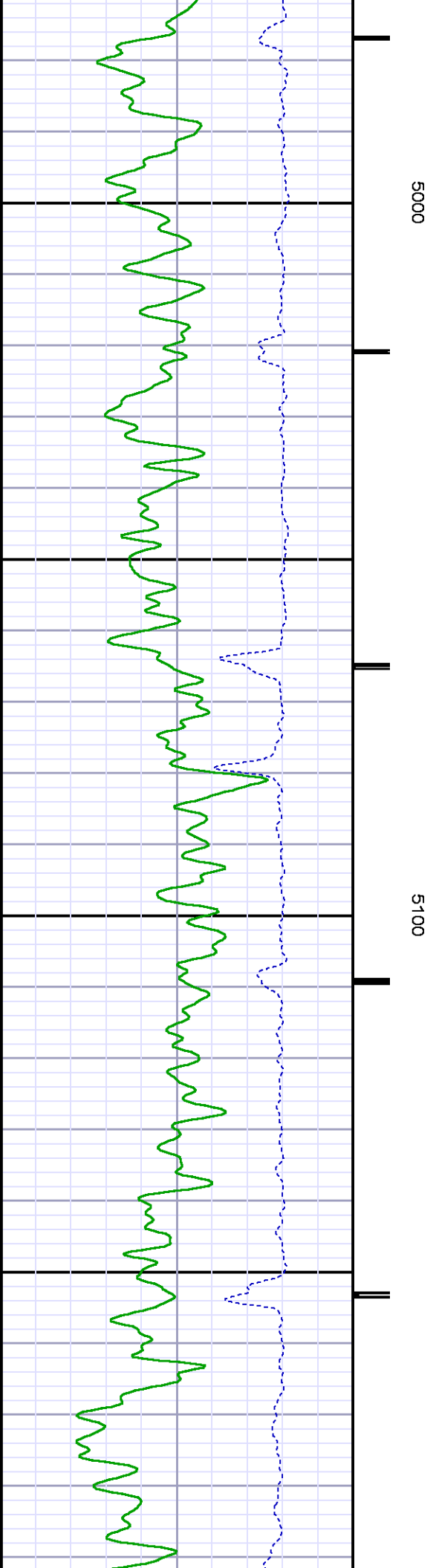
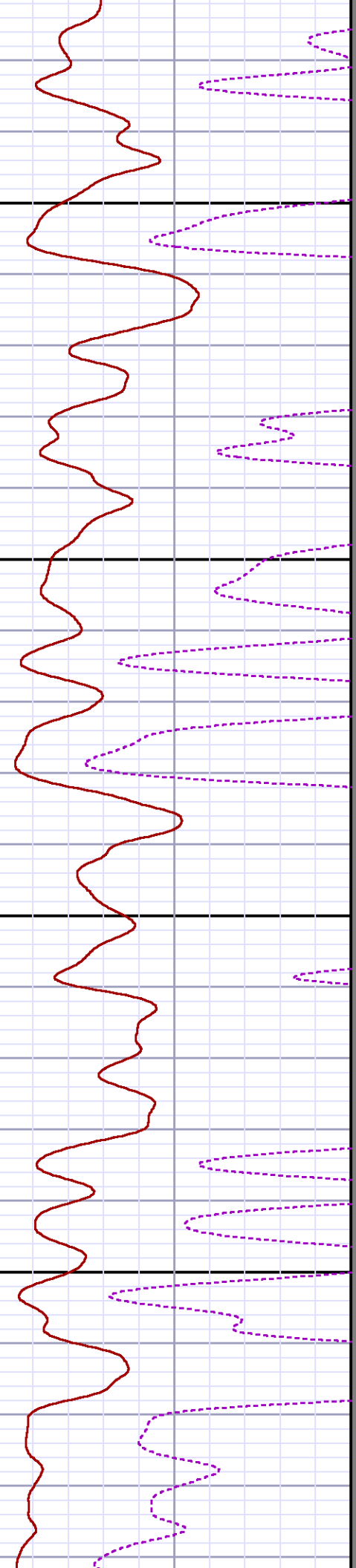
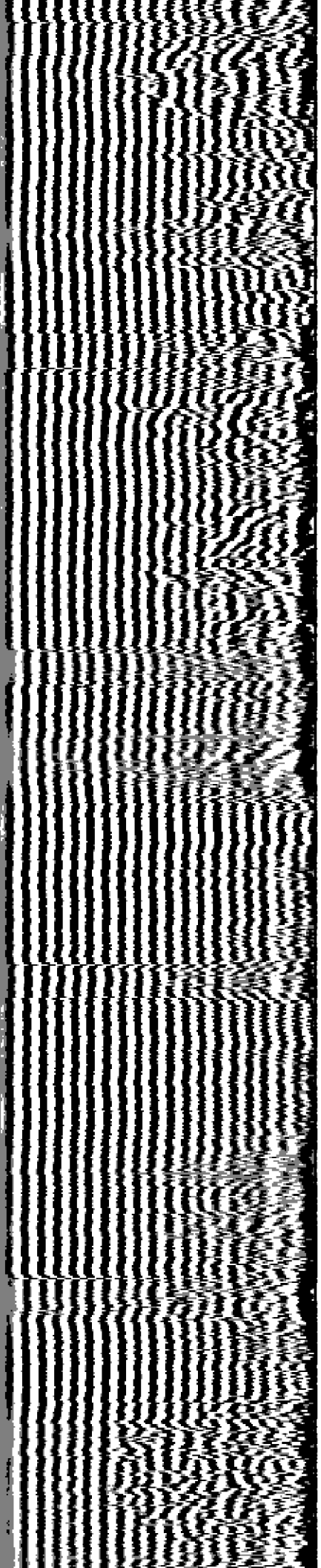


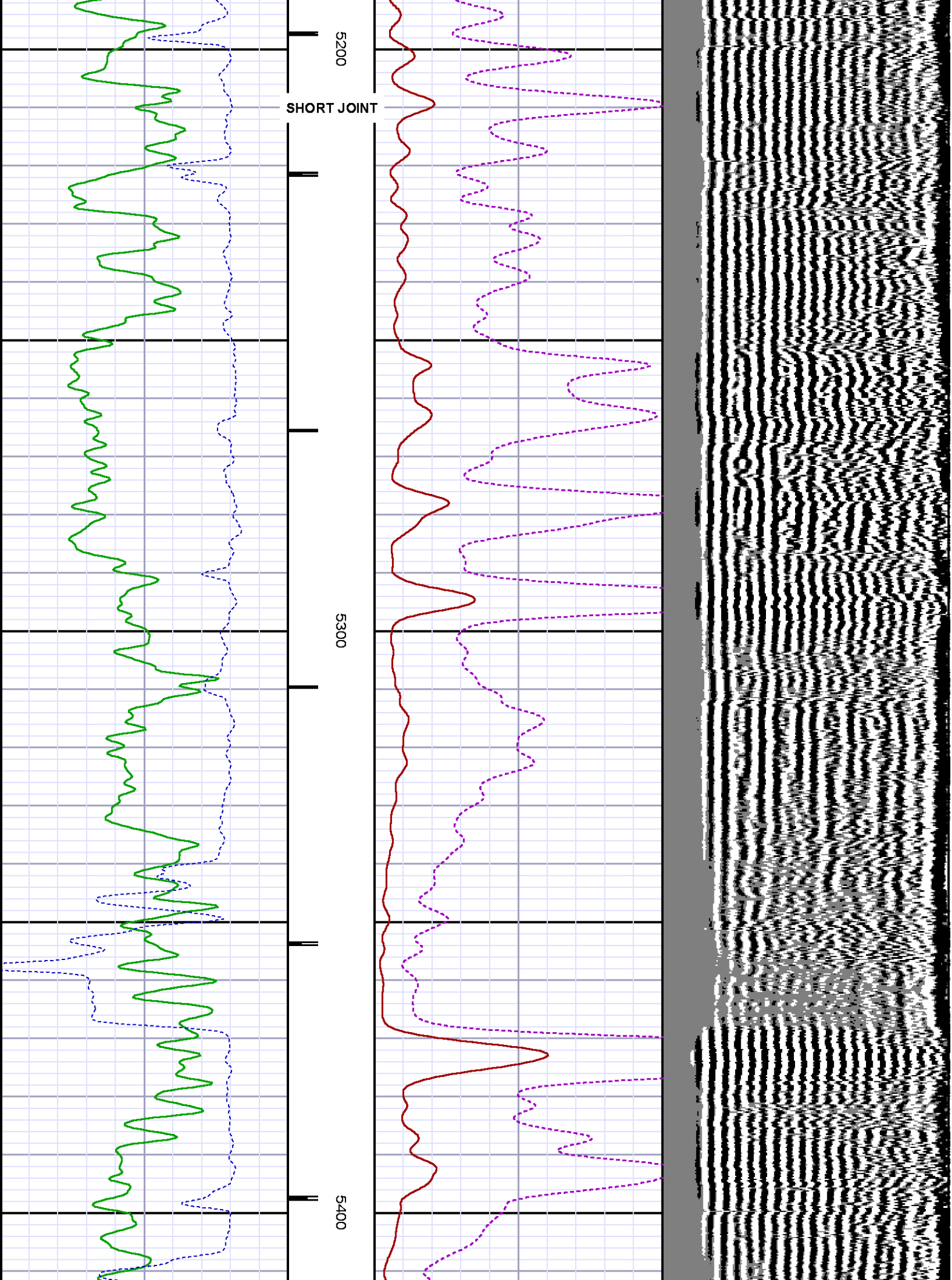


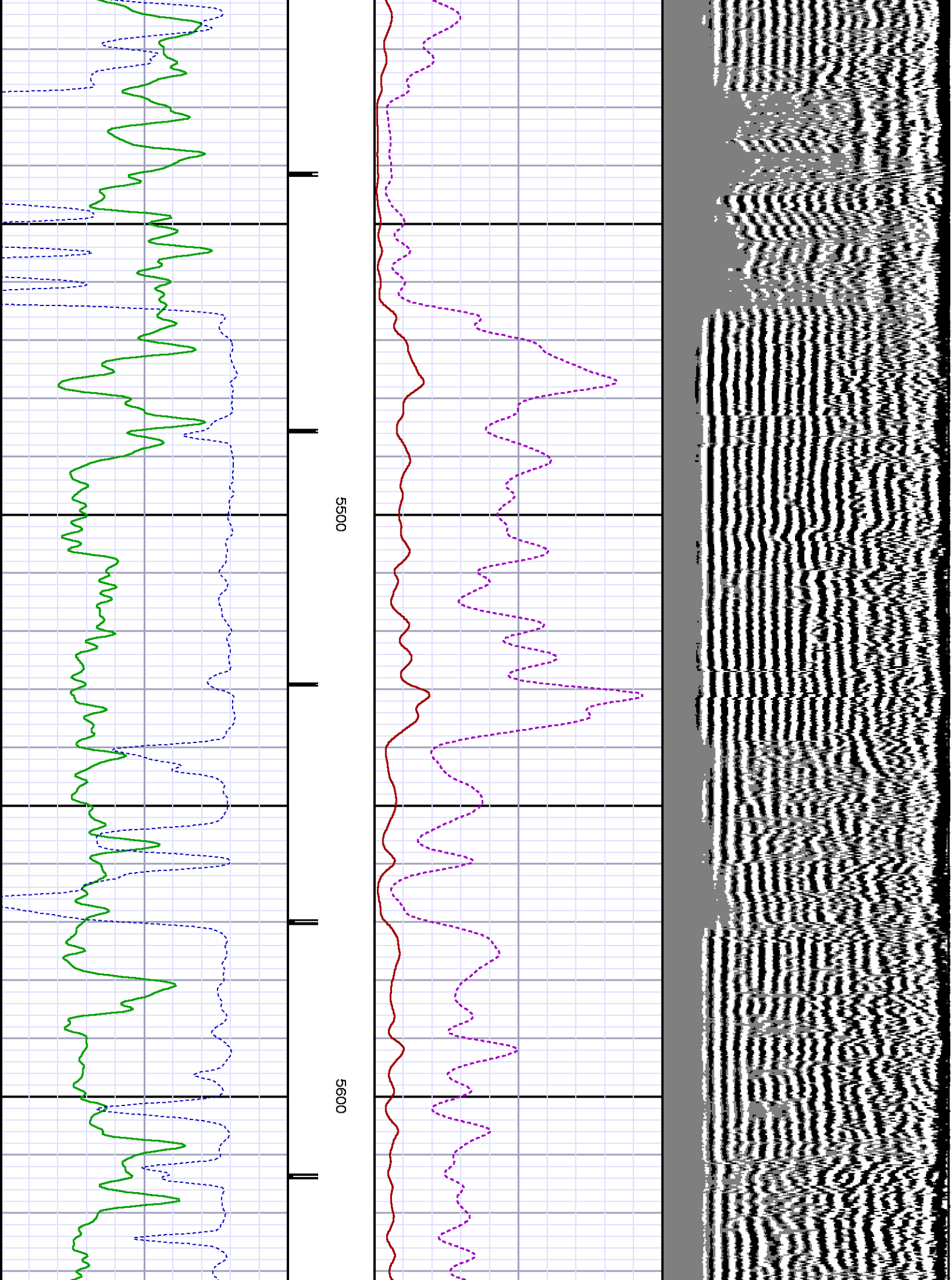


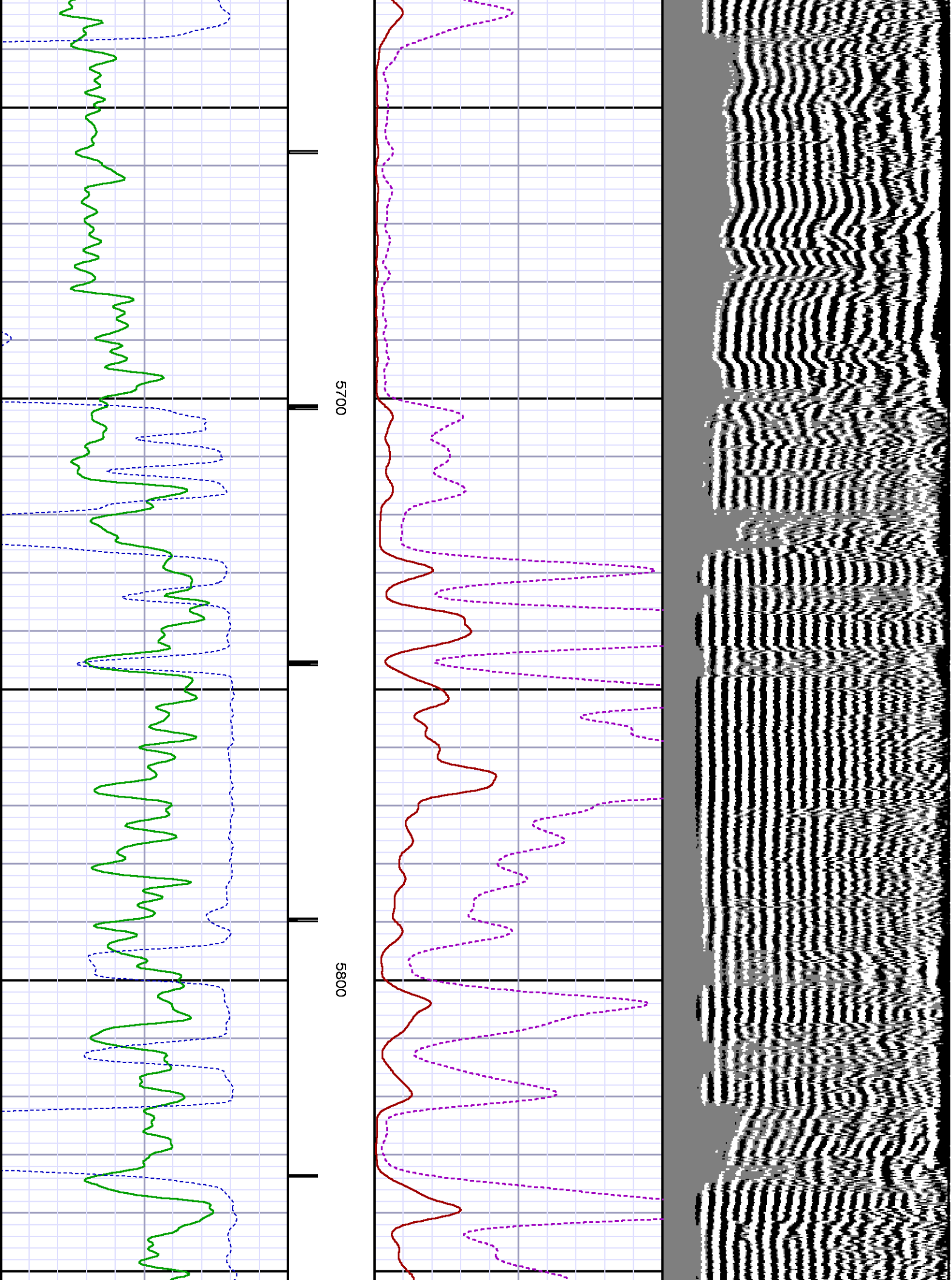


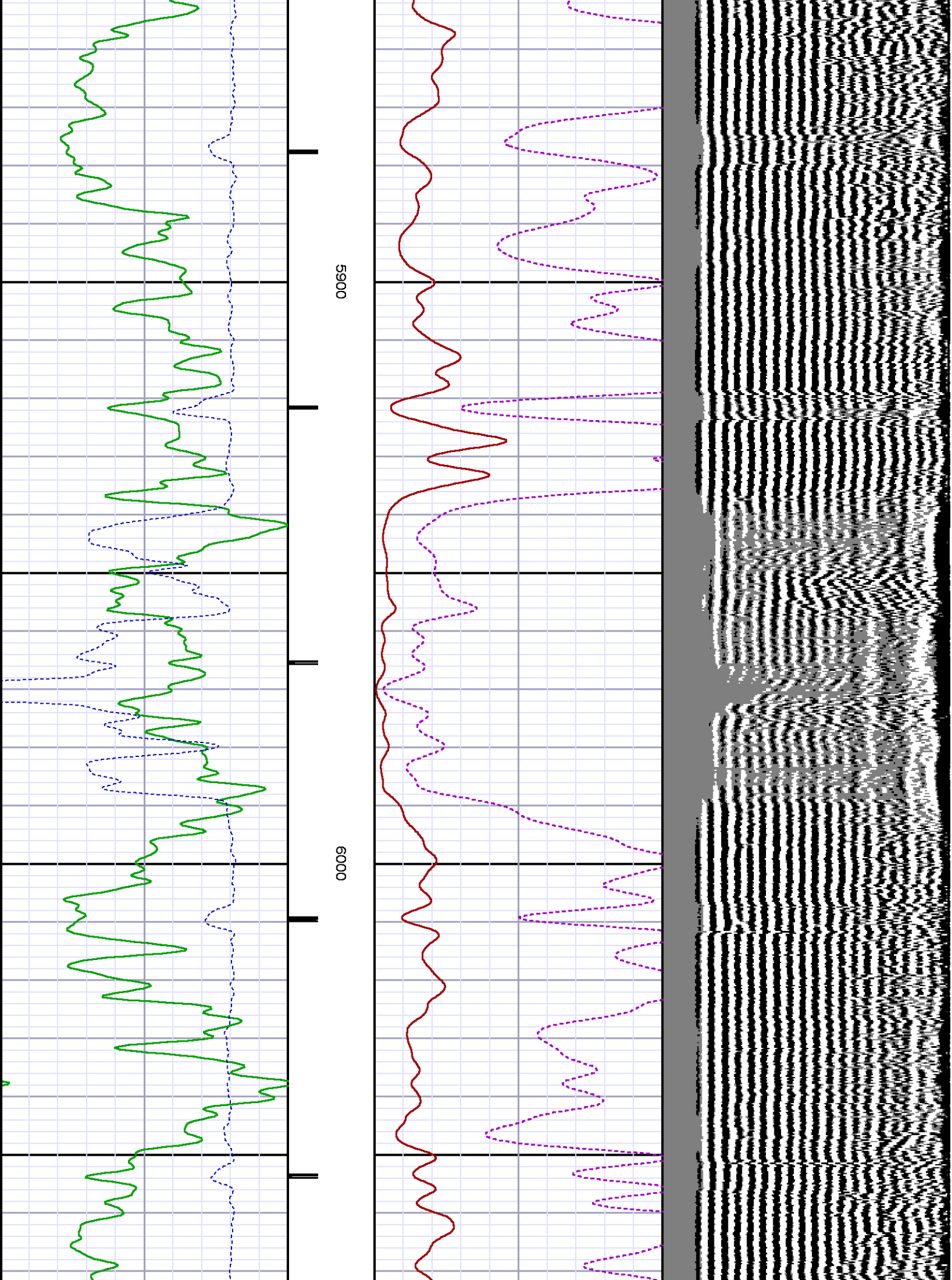


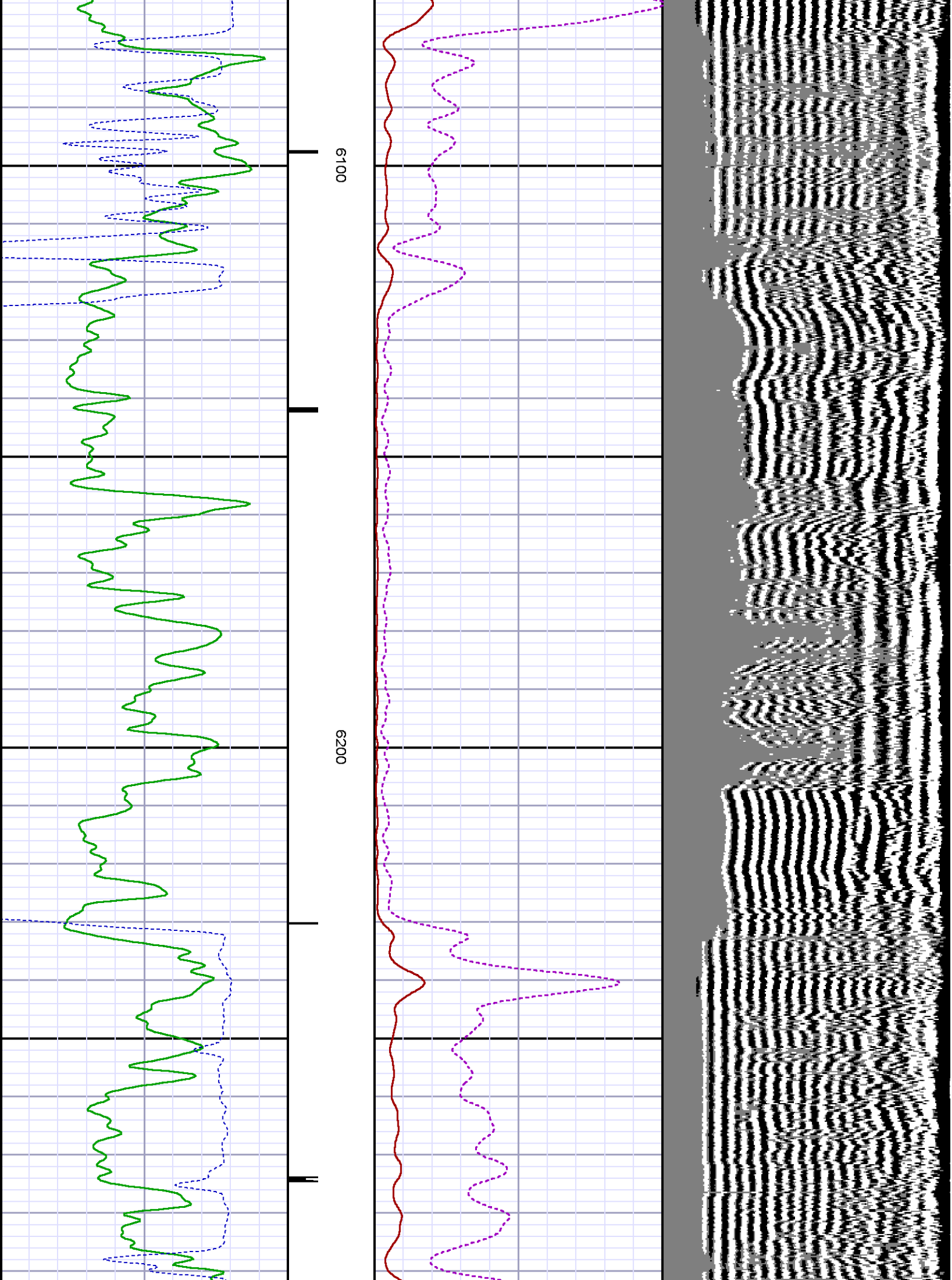


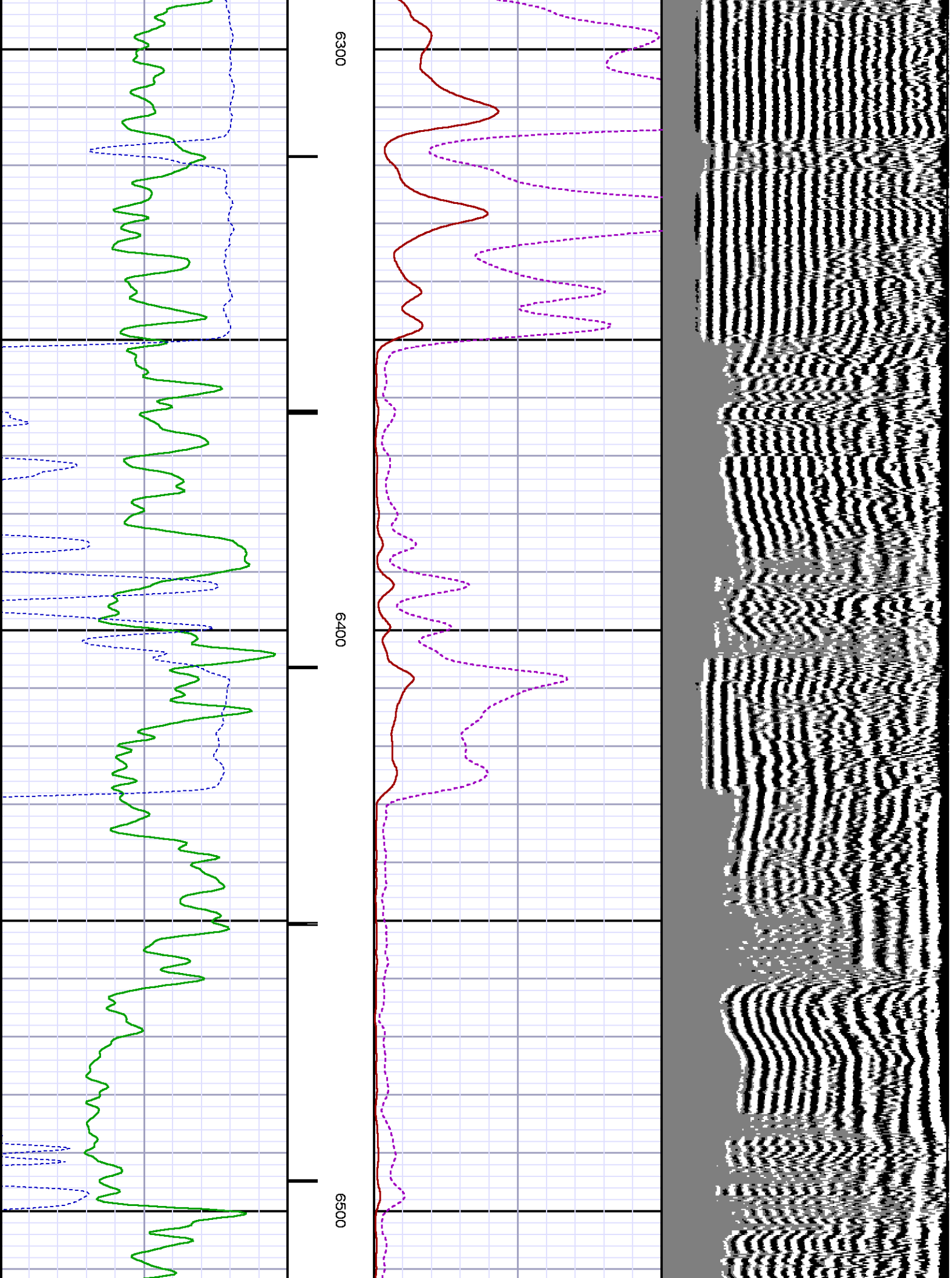


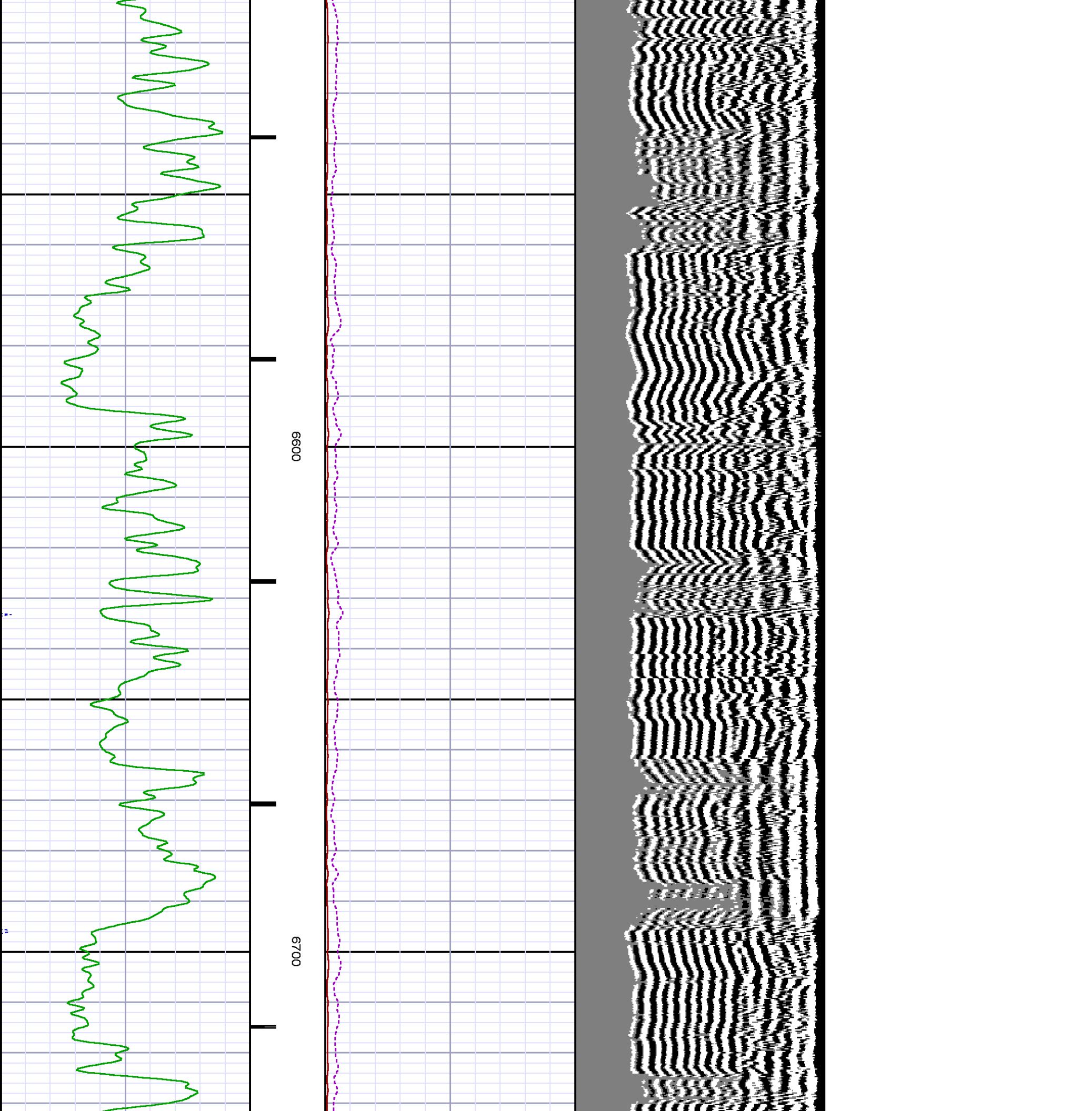


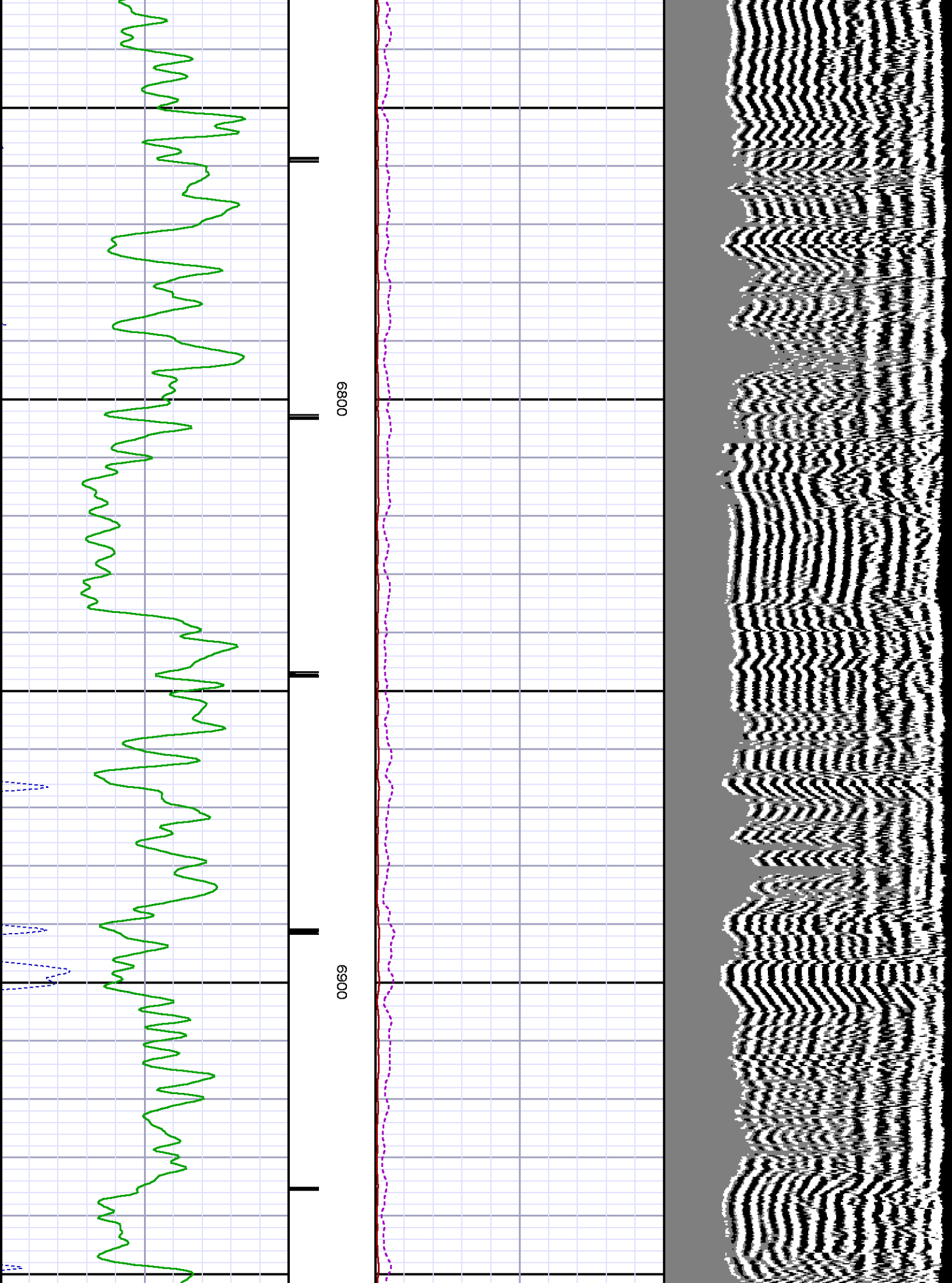


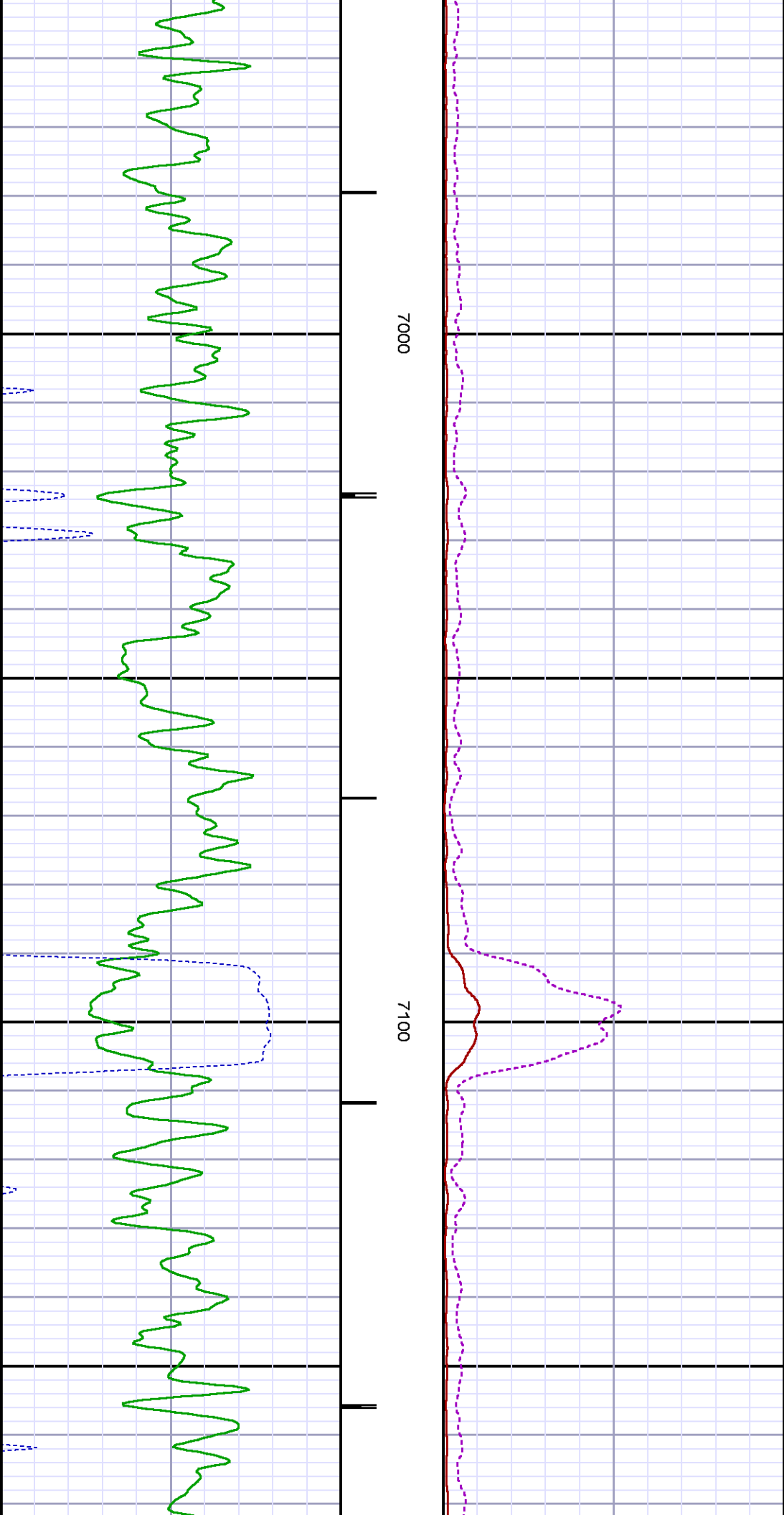
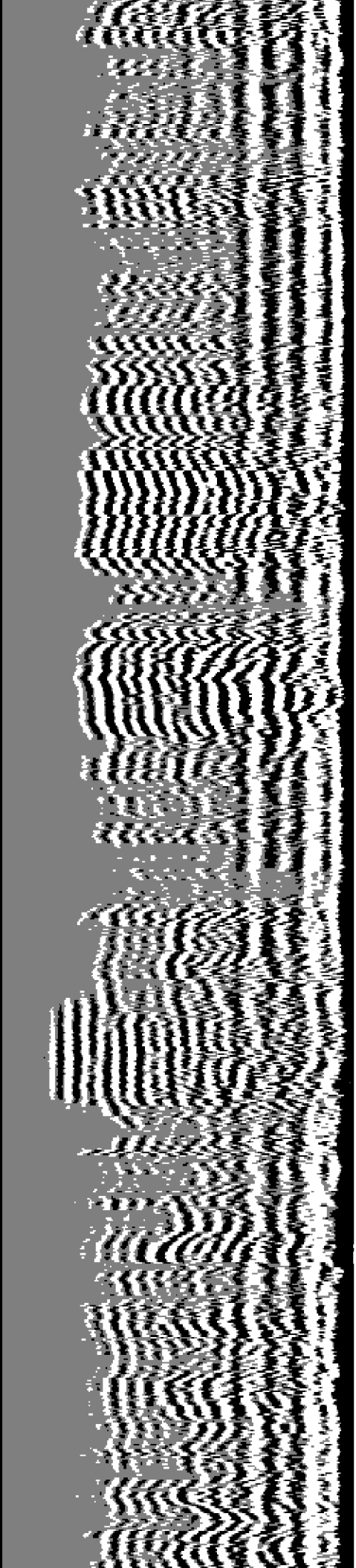


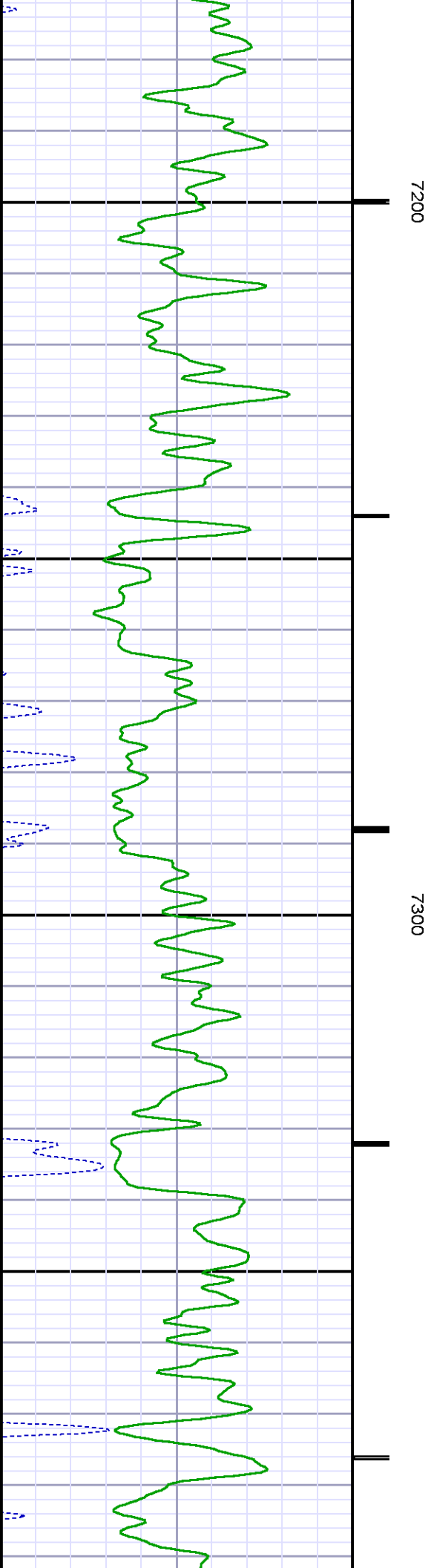
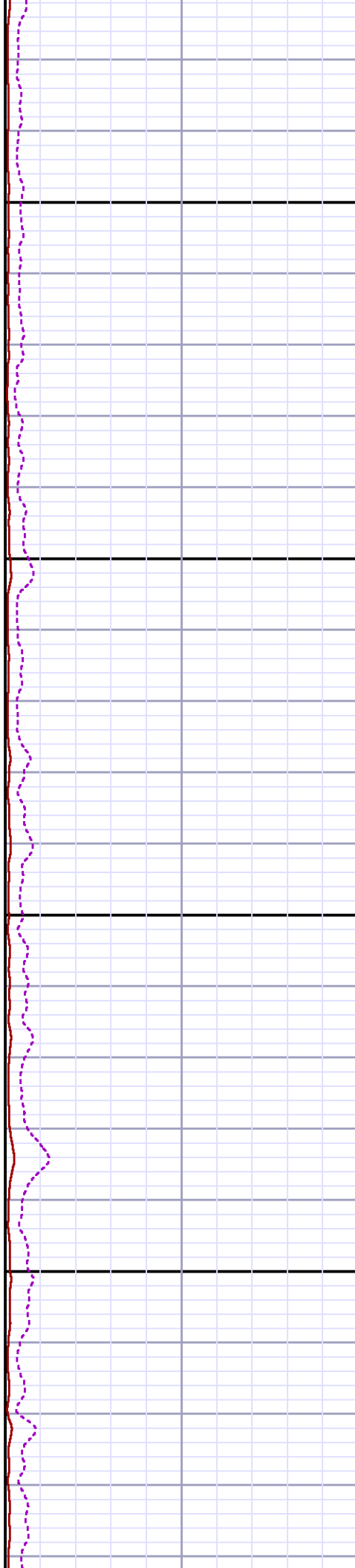
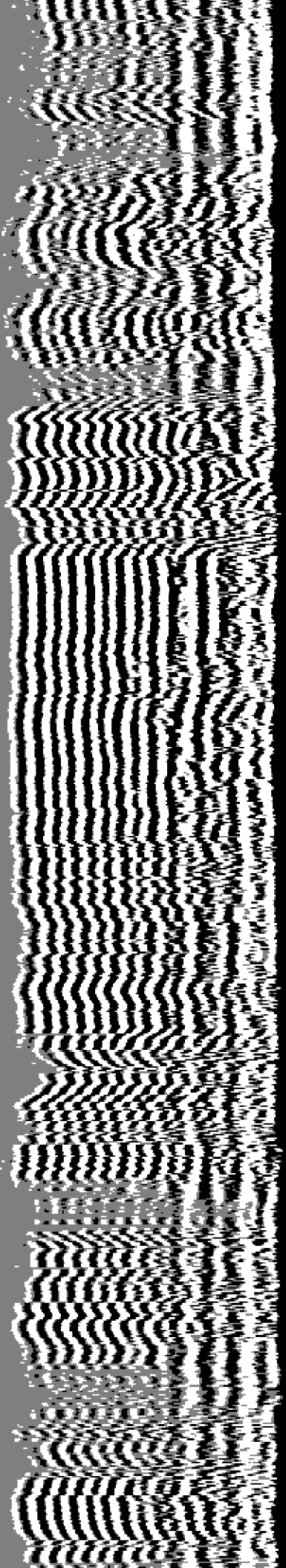


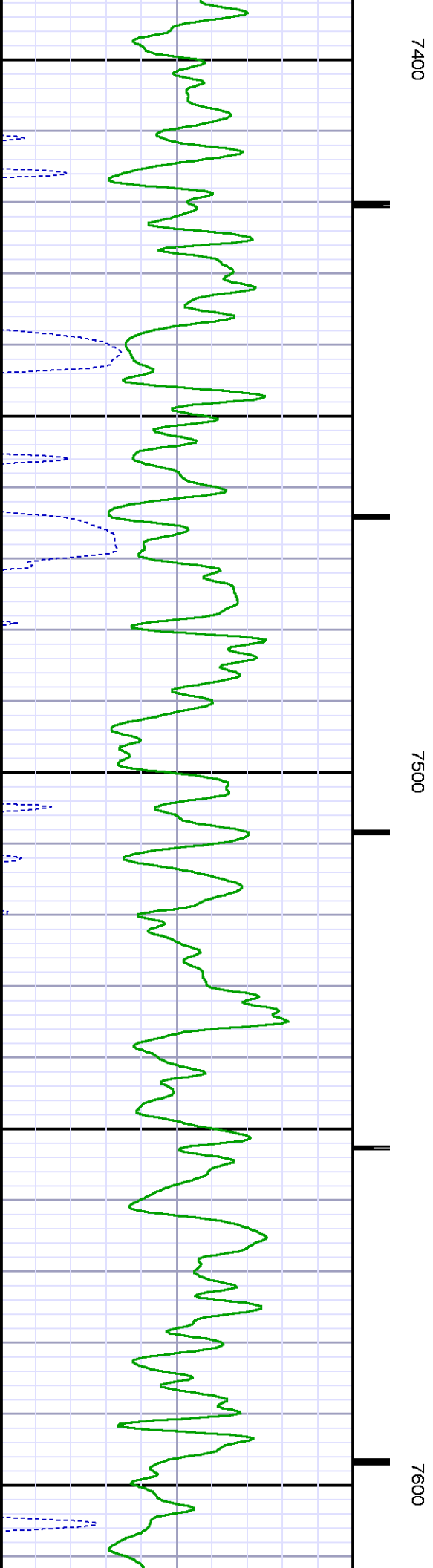
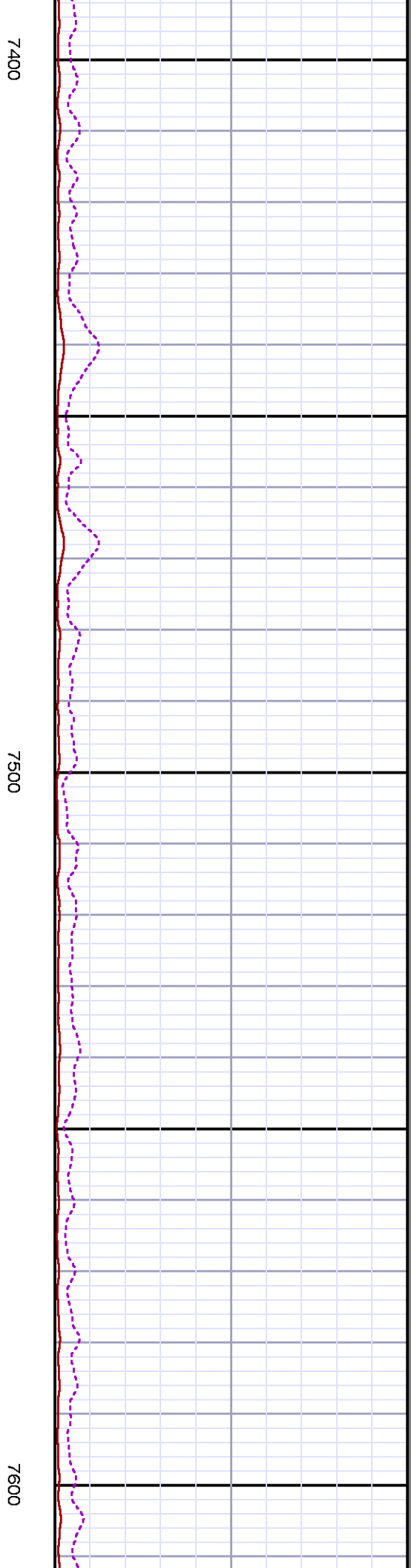
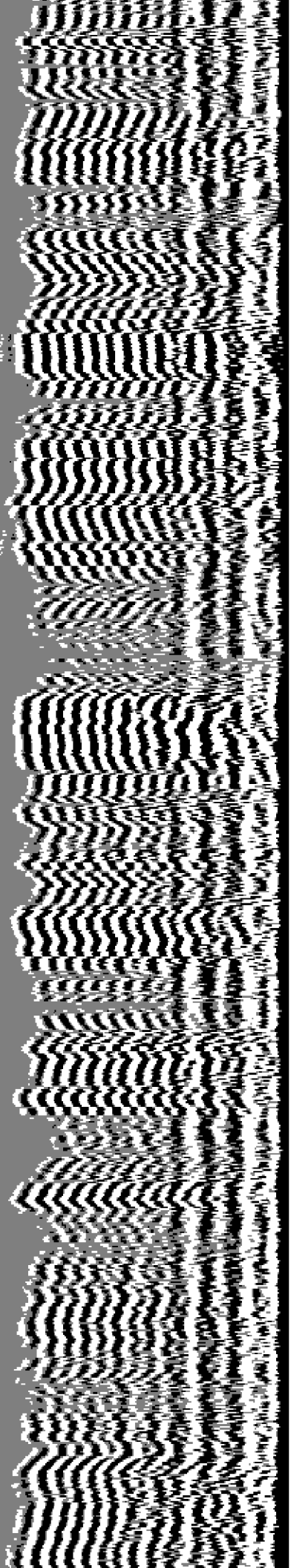


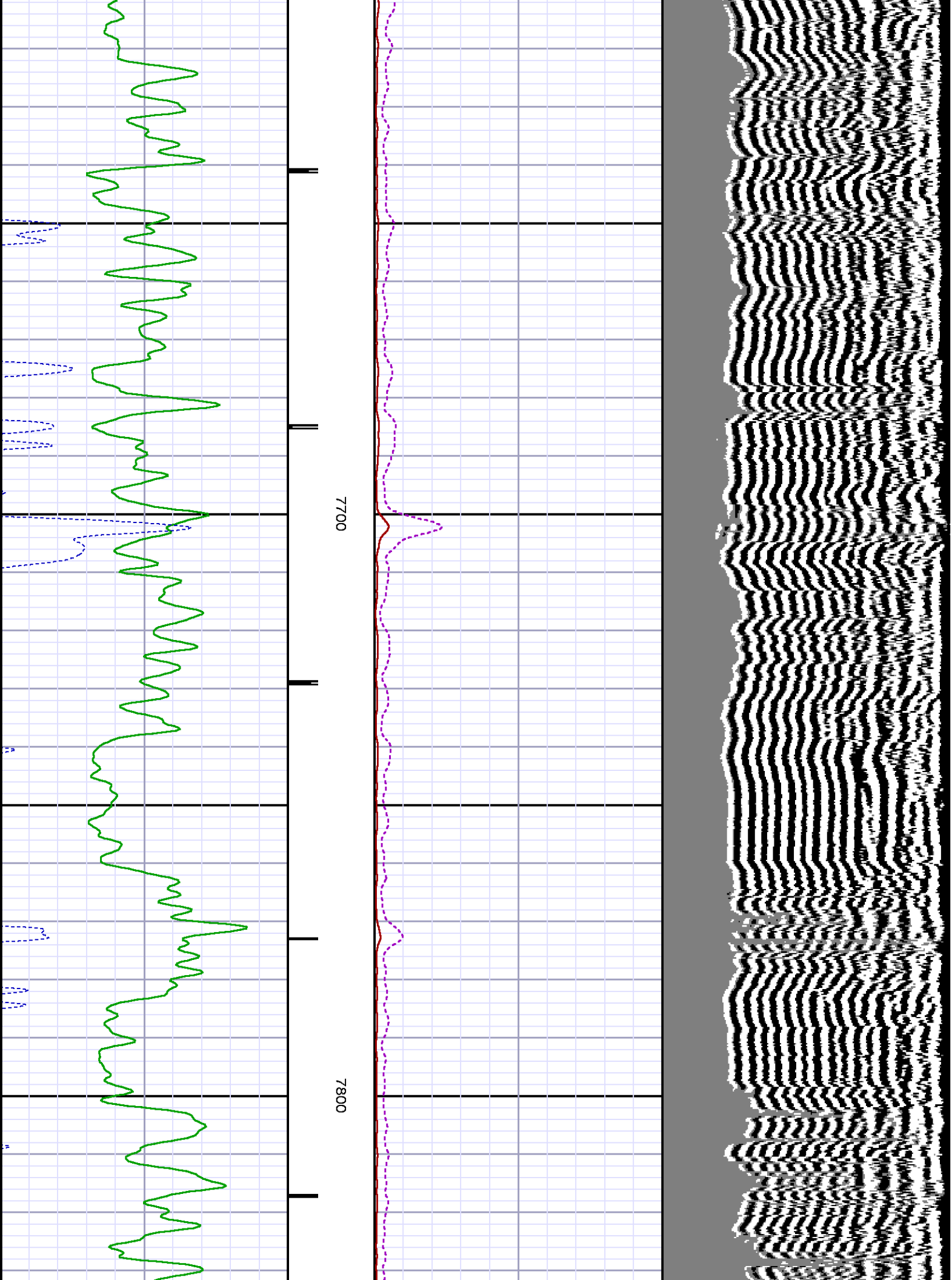


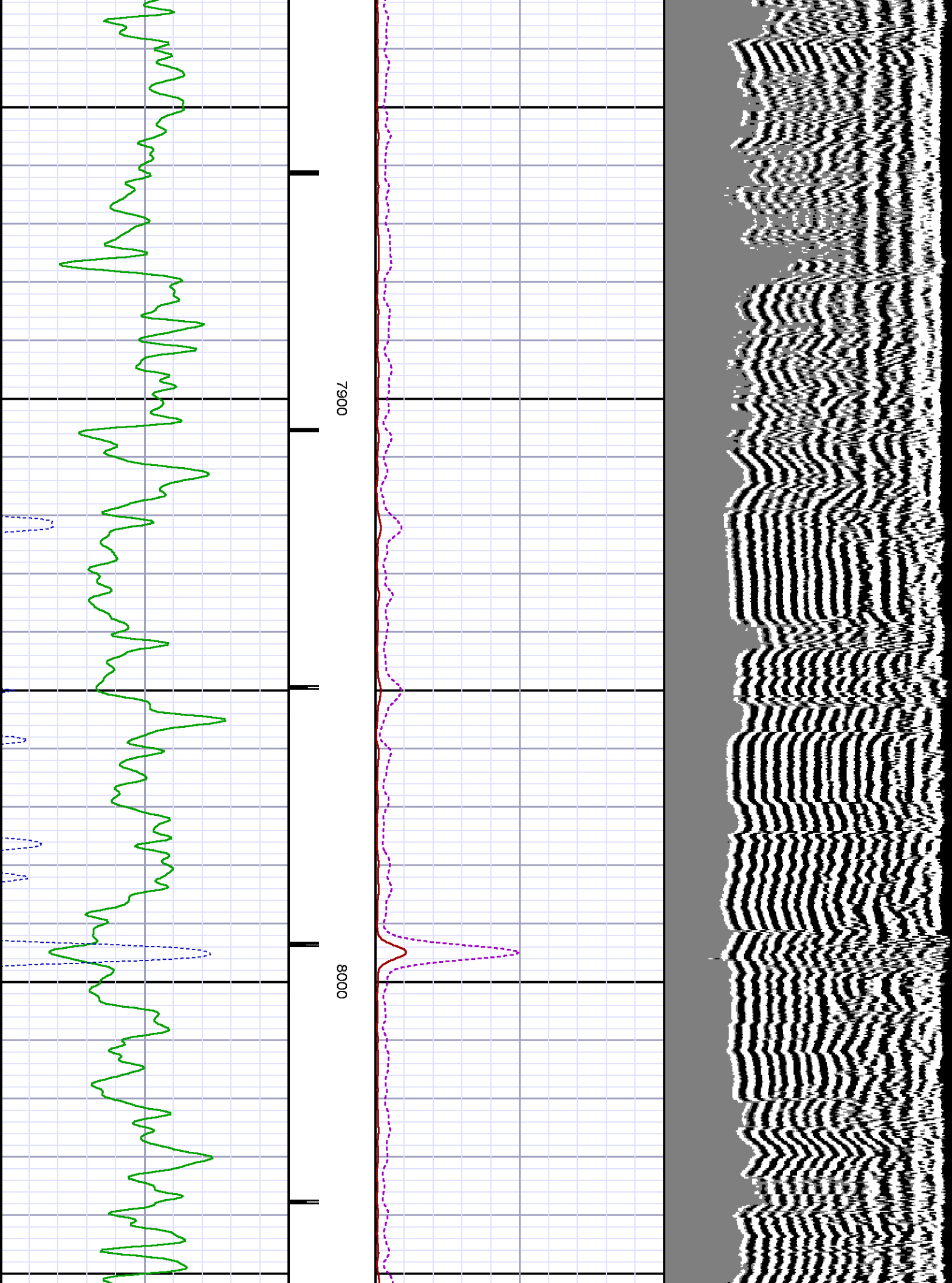


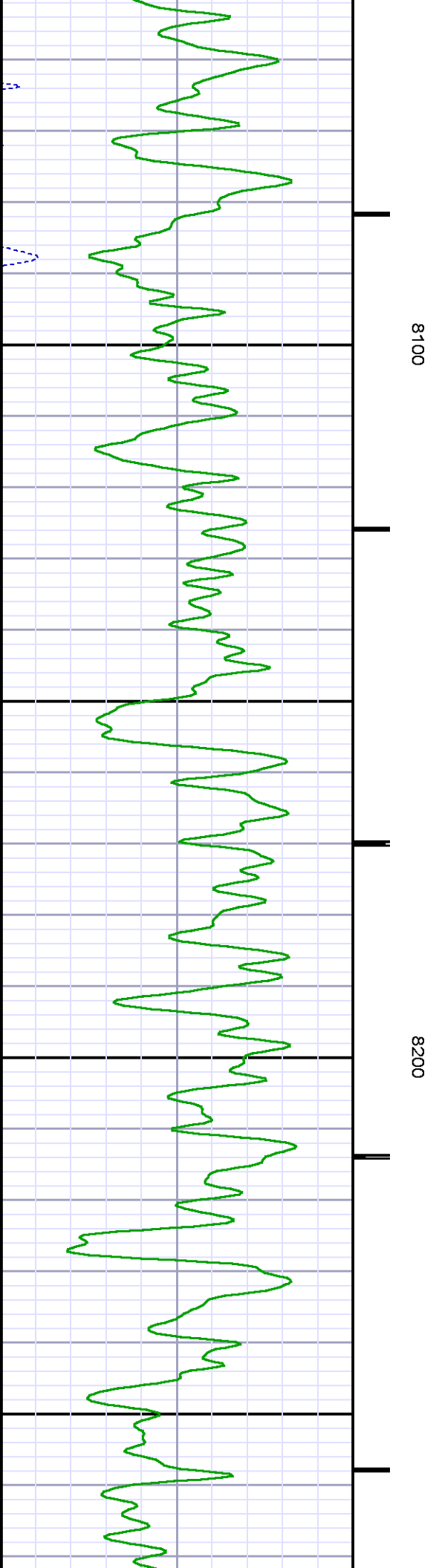
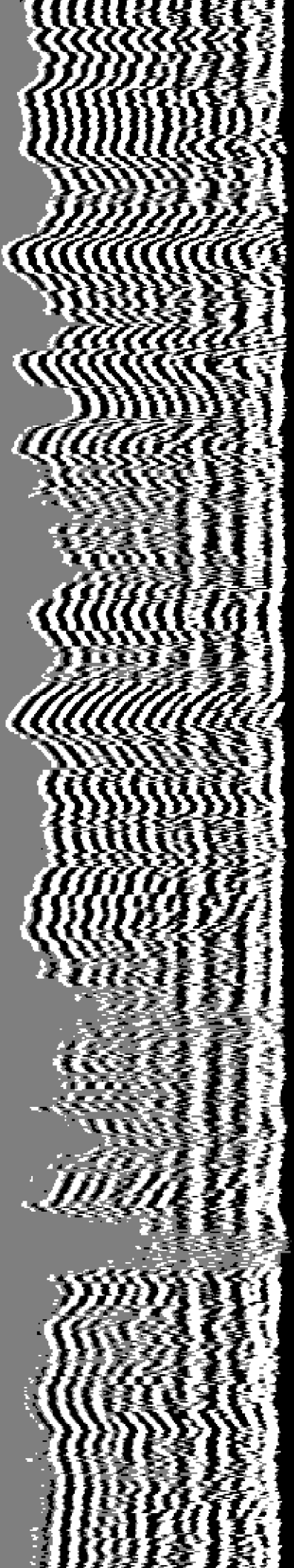


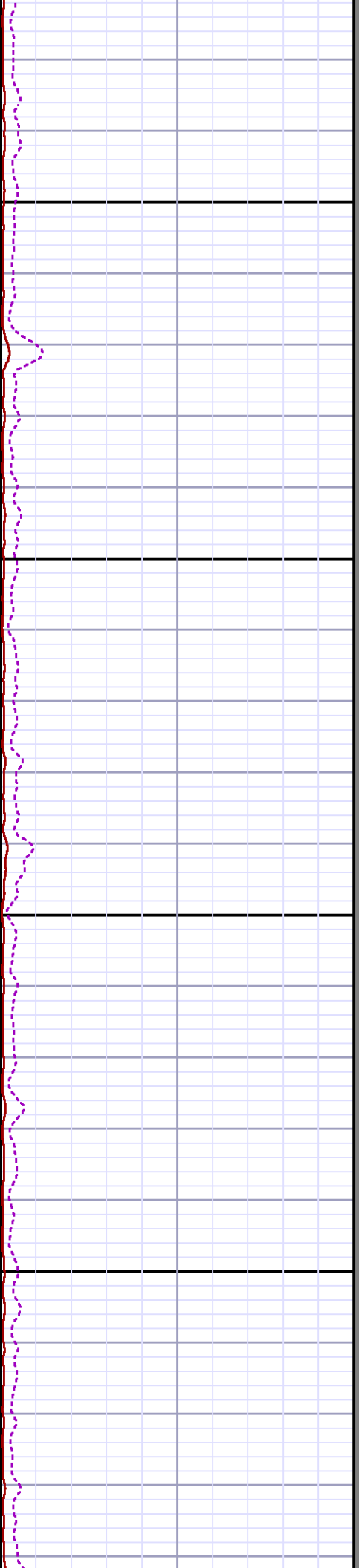
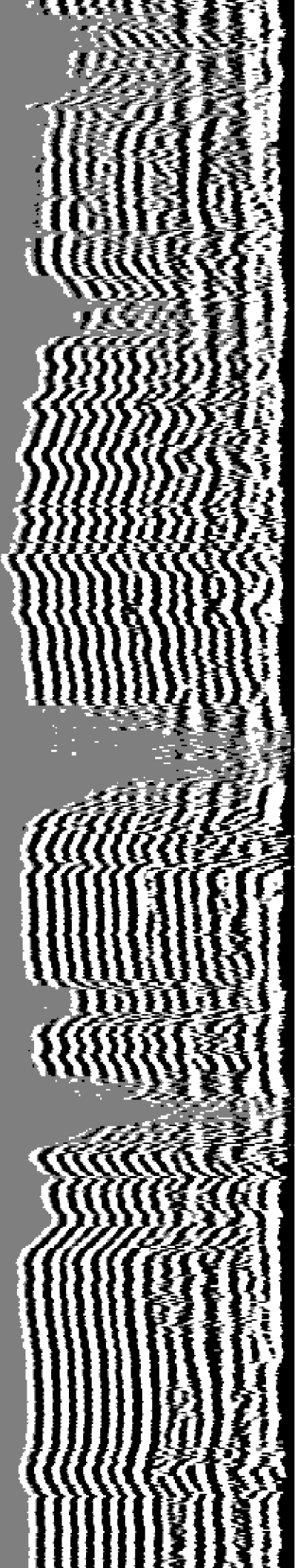






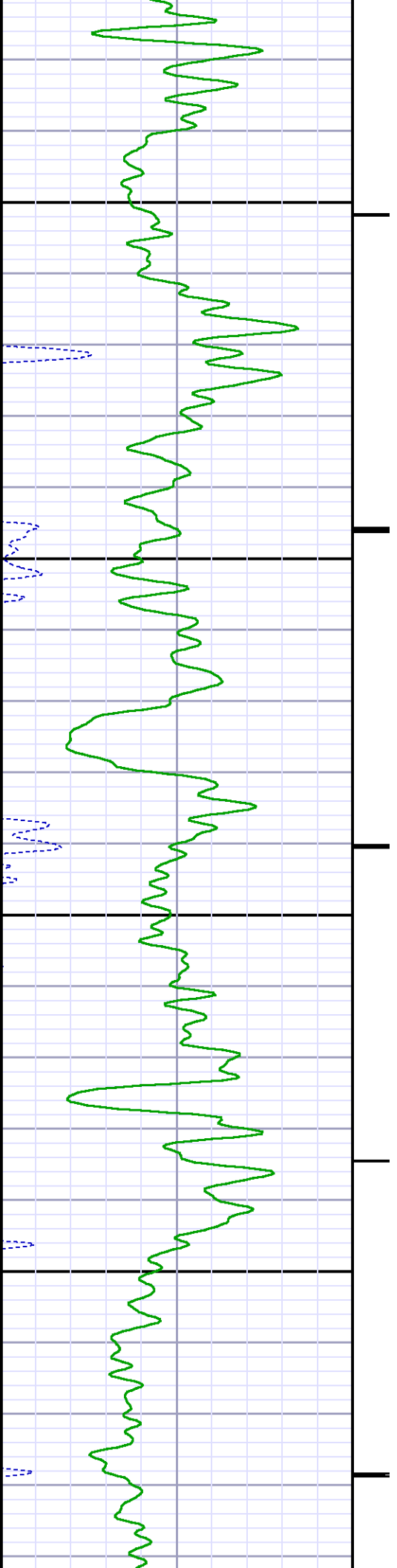


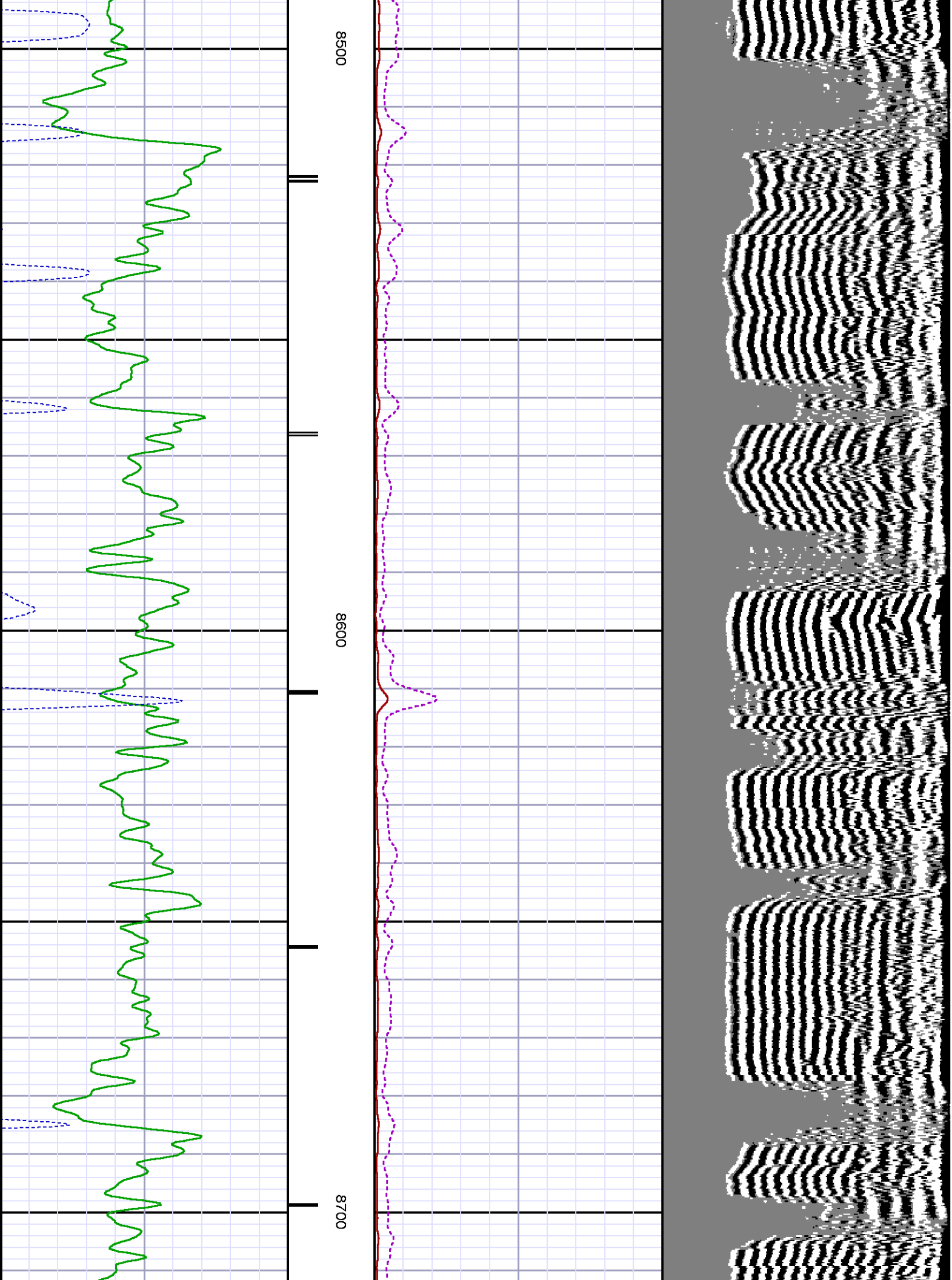


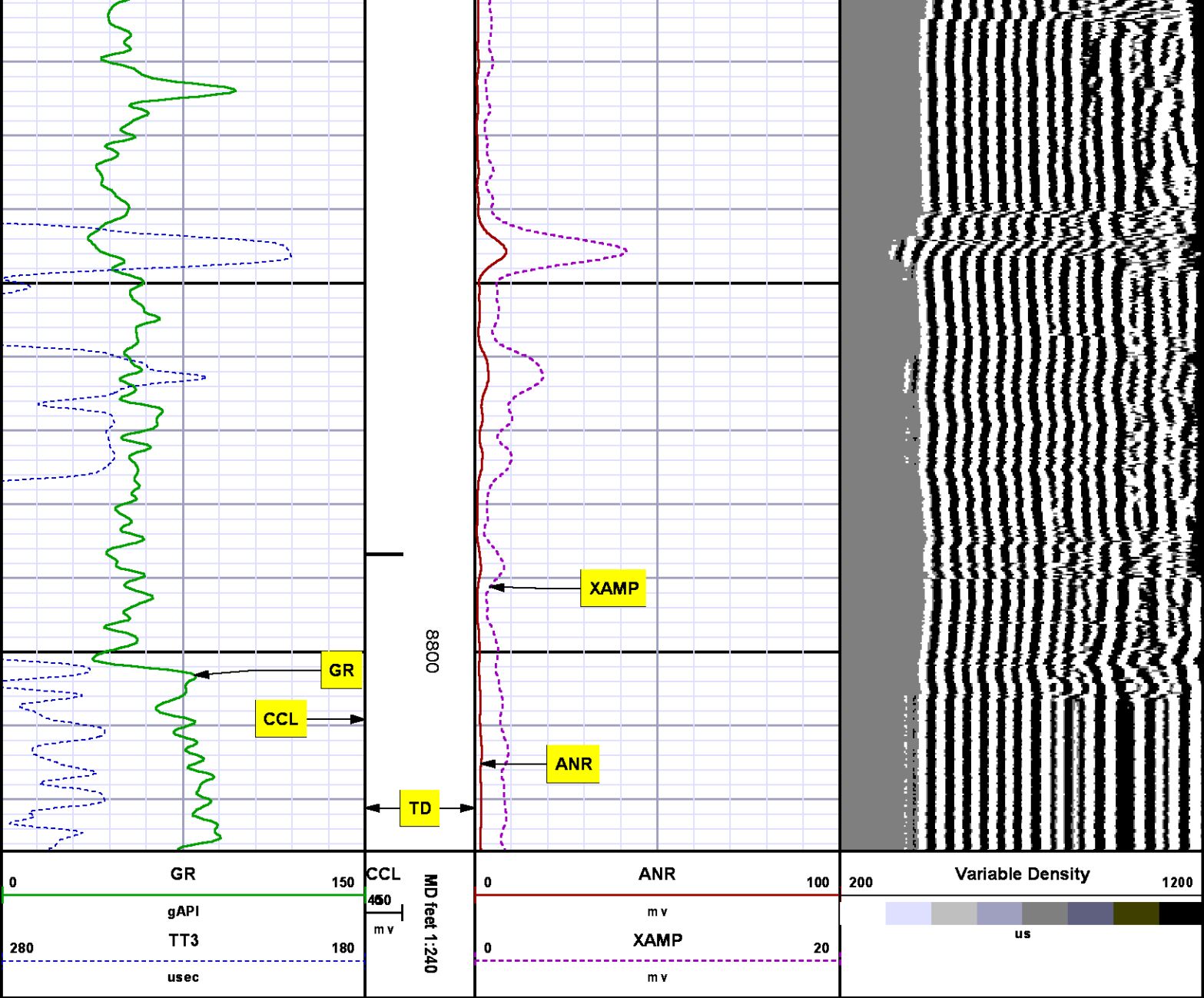


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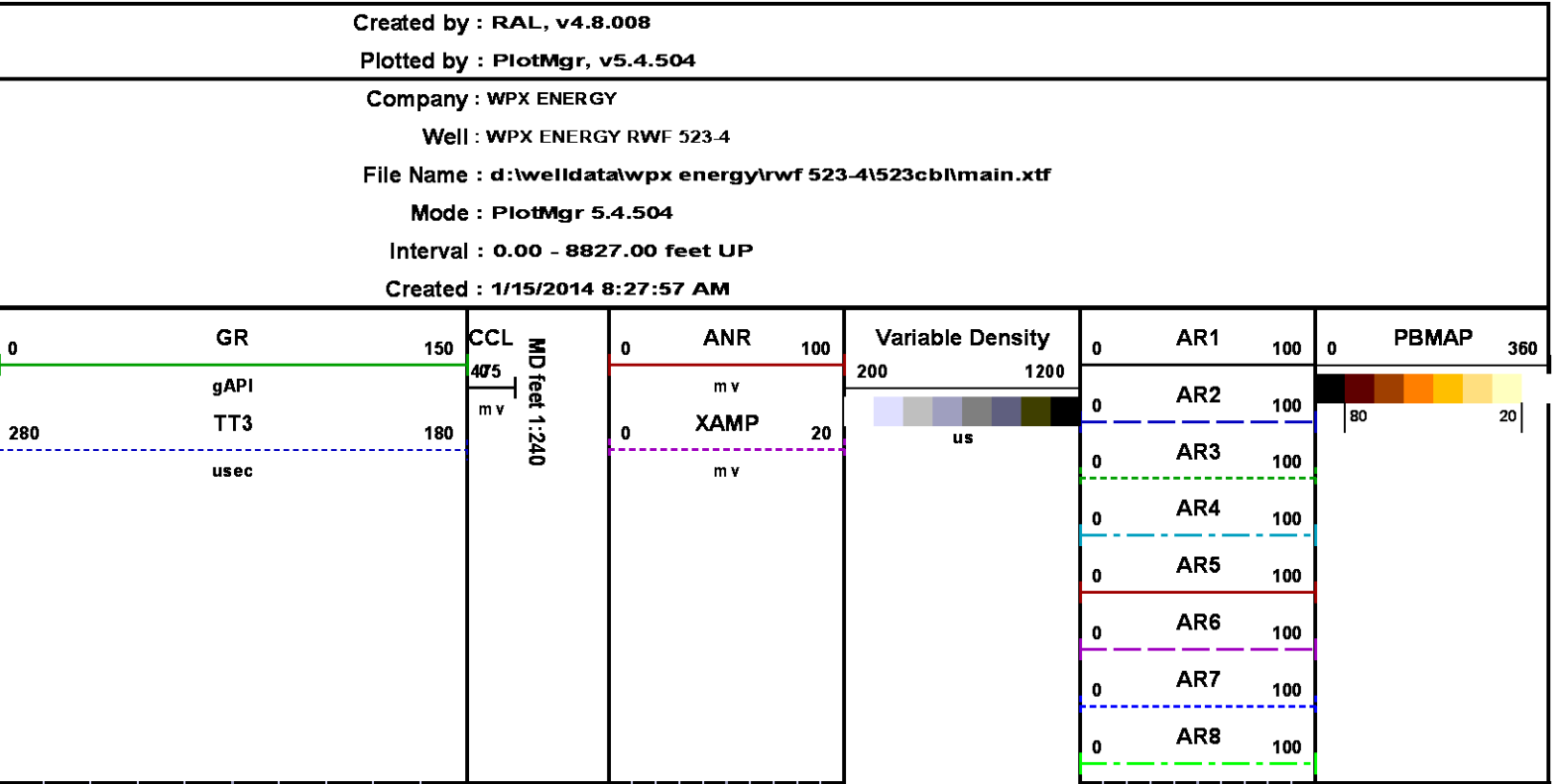
SECONDARY PRESENTATION
0 PSI

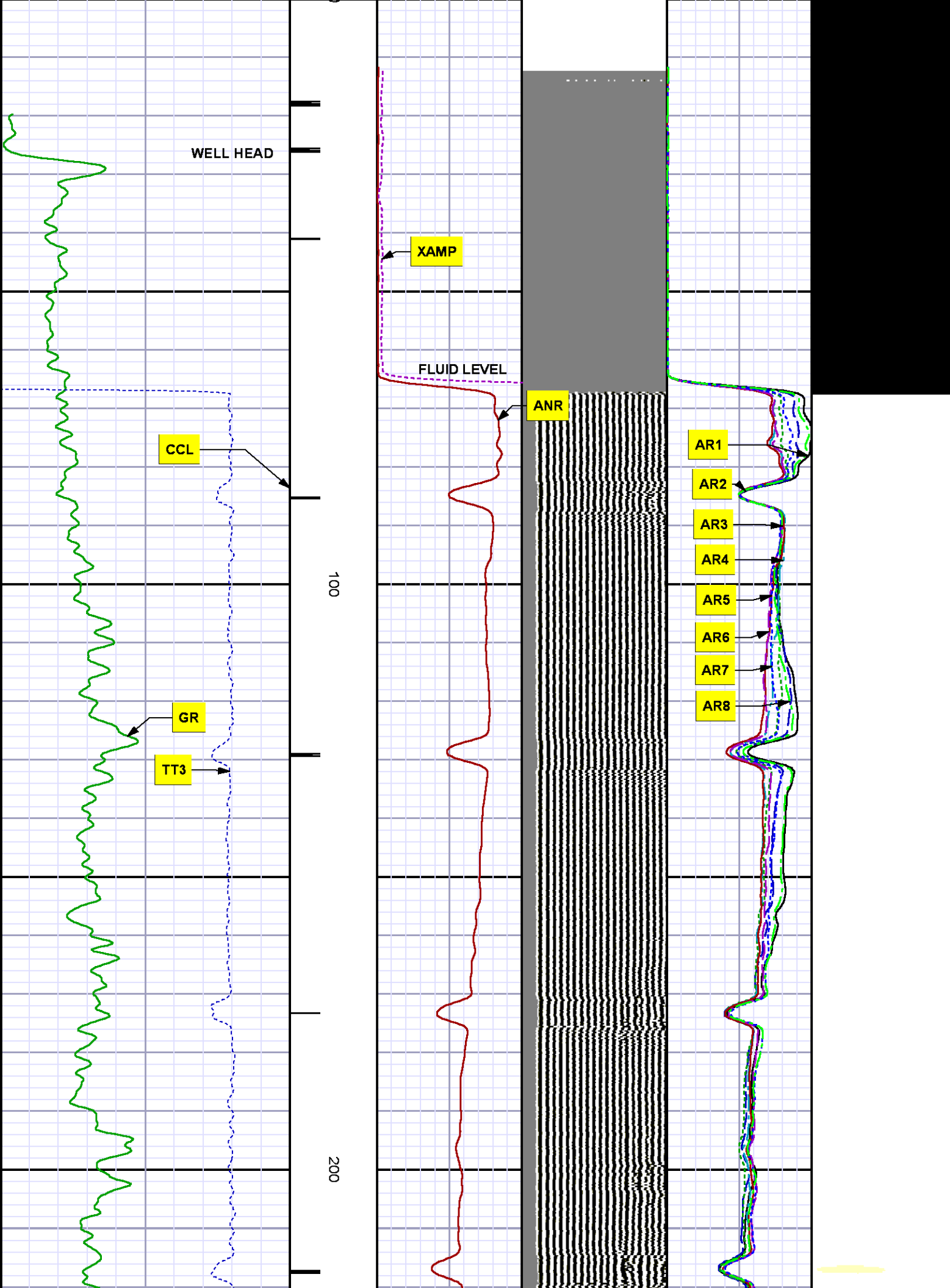
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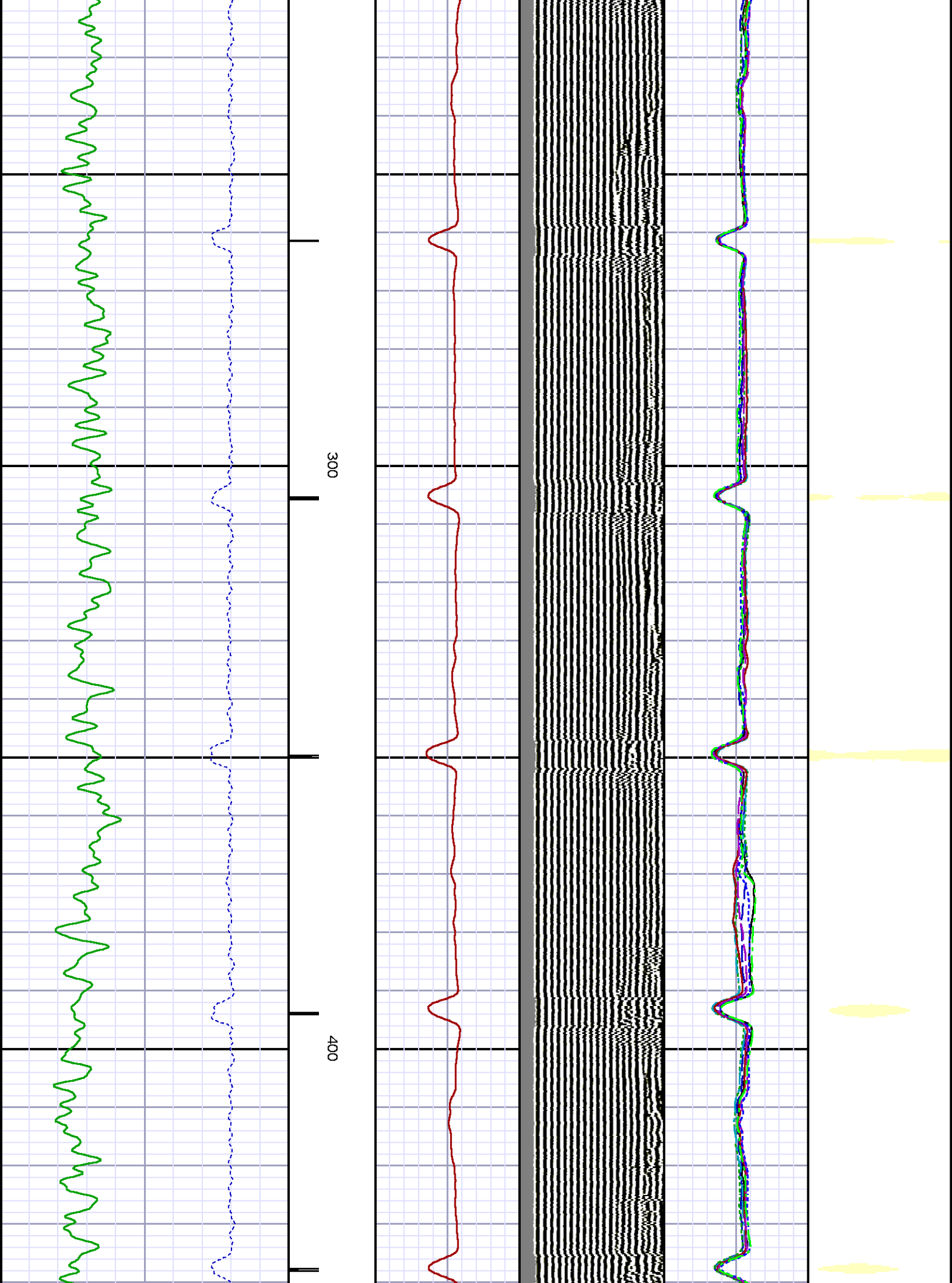
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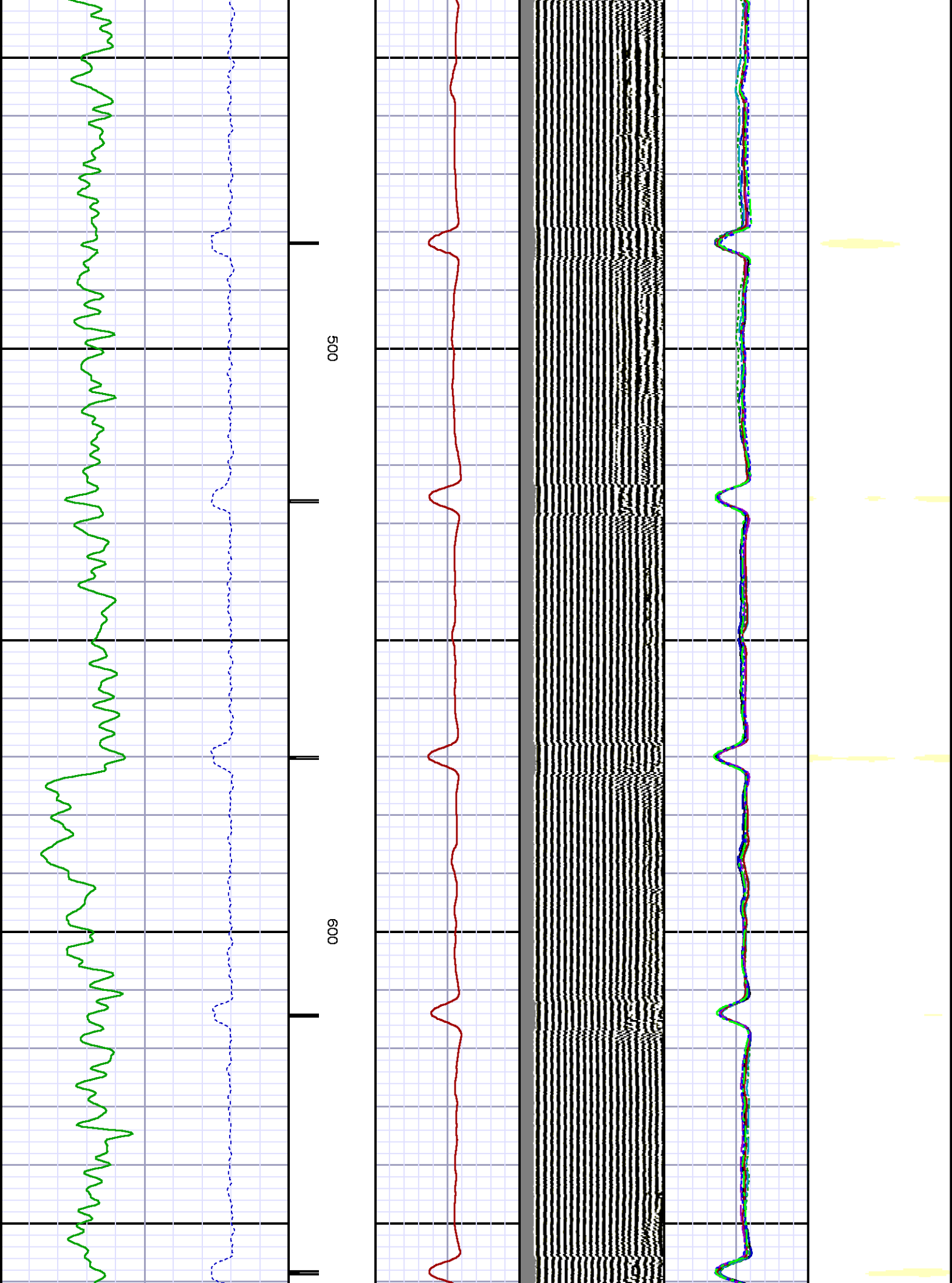
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(for Acquired Curves)

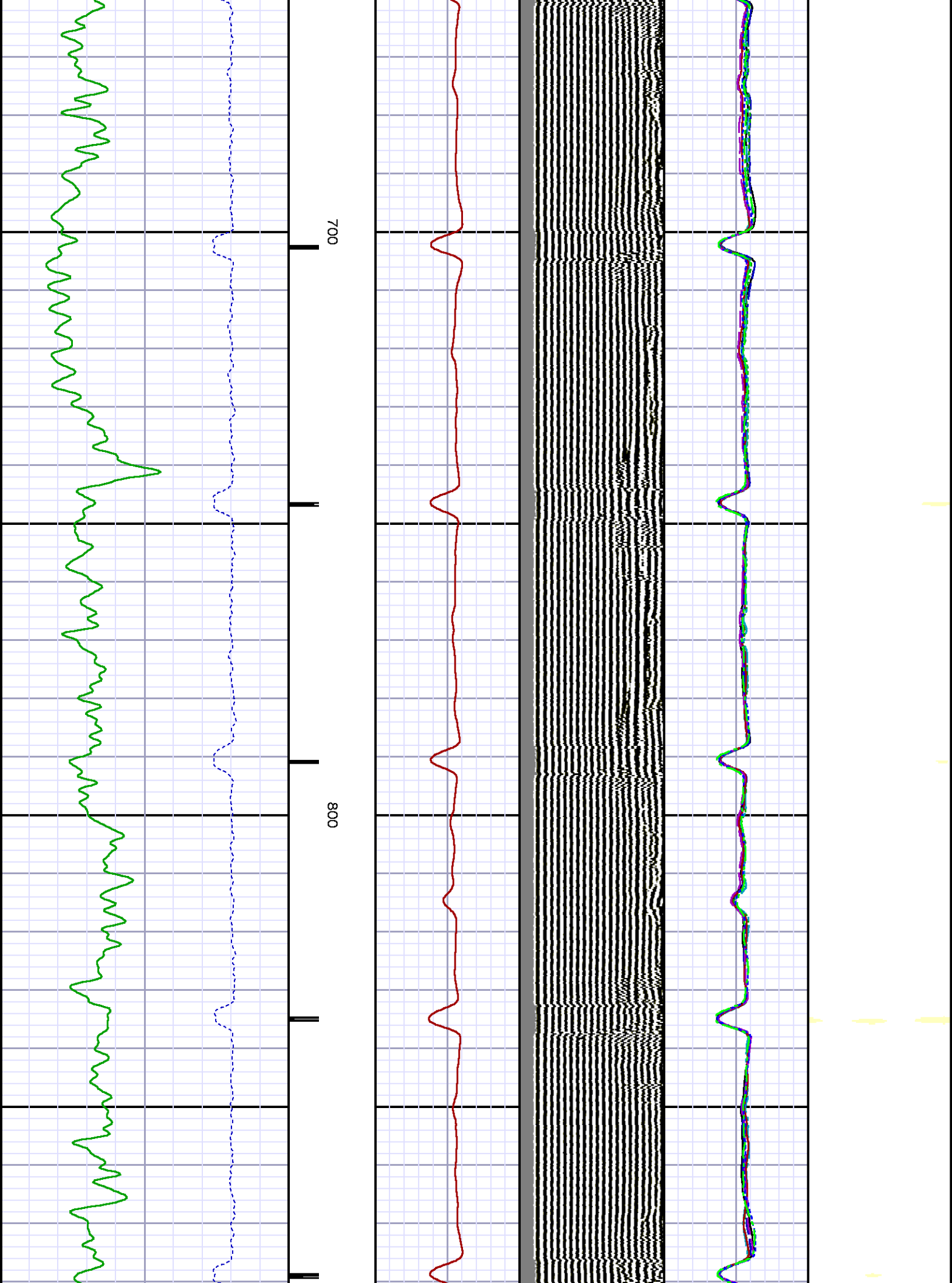
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|--------|--------------|---|
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| 2459XA | -4.090 | NEU |

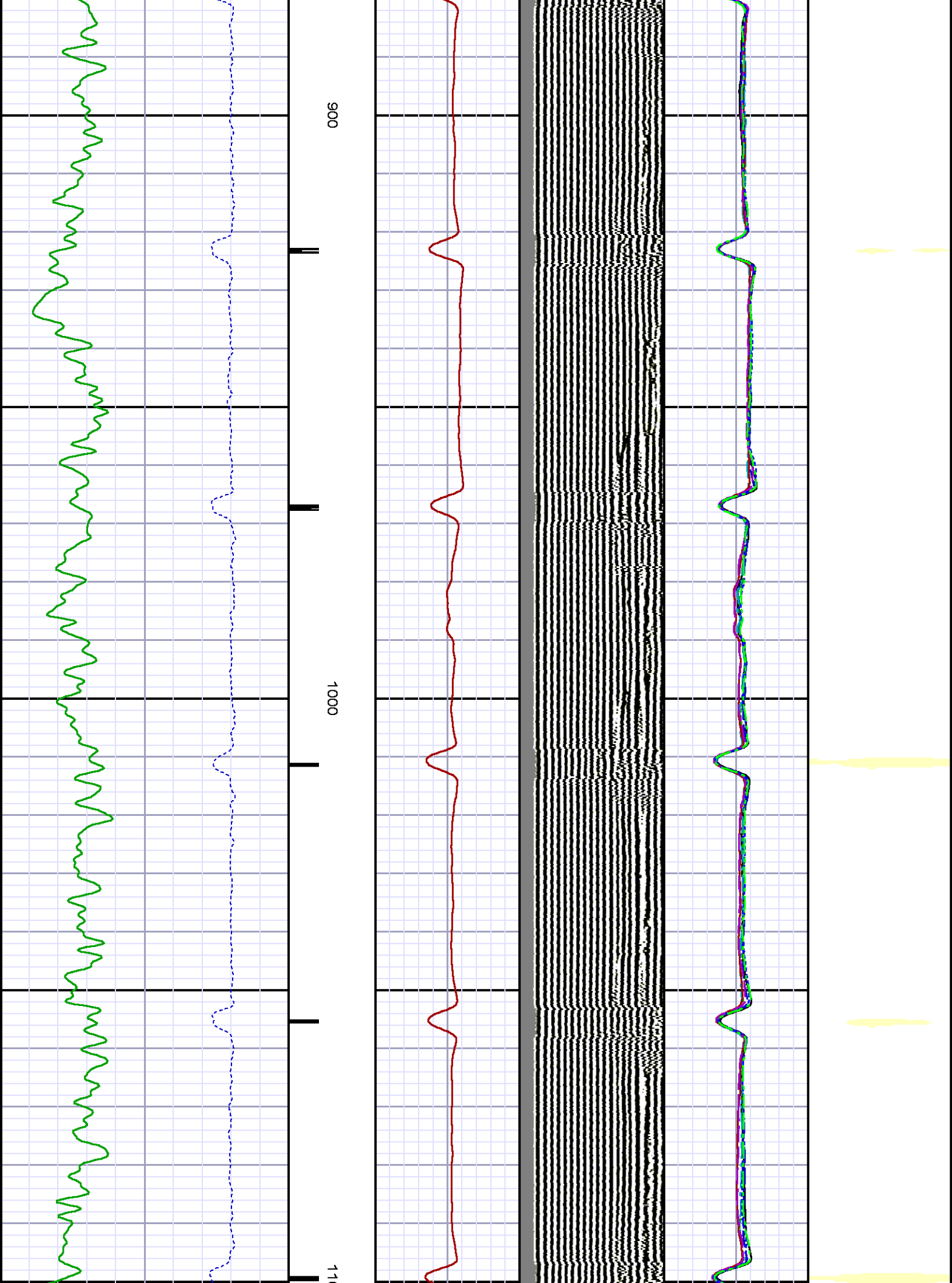


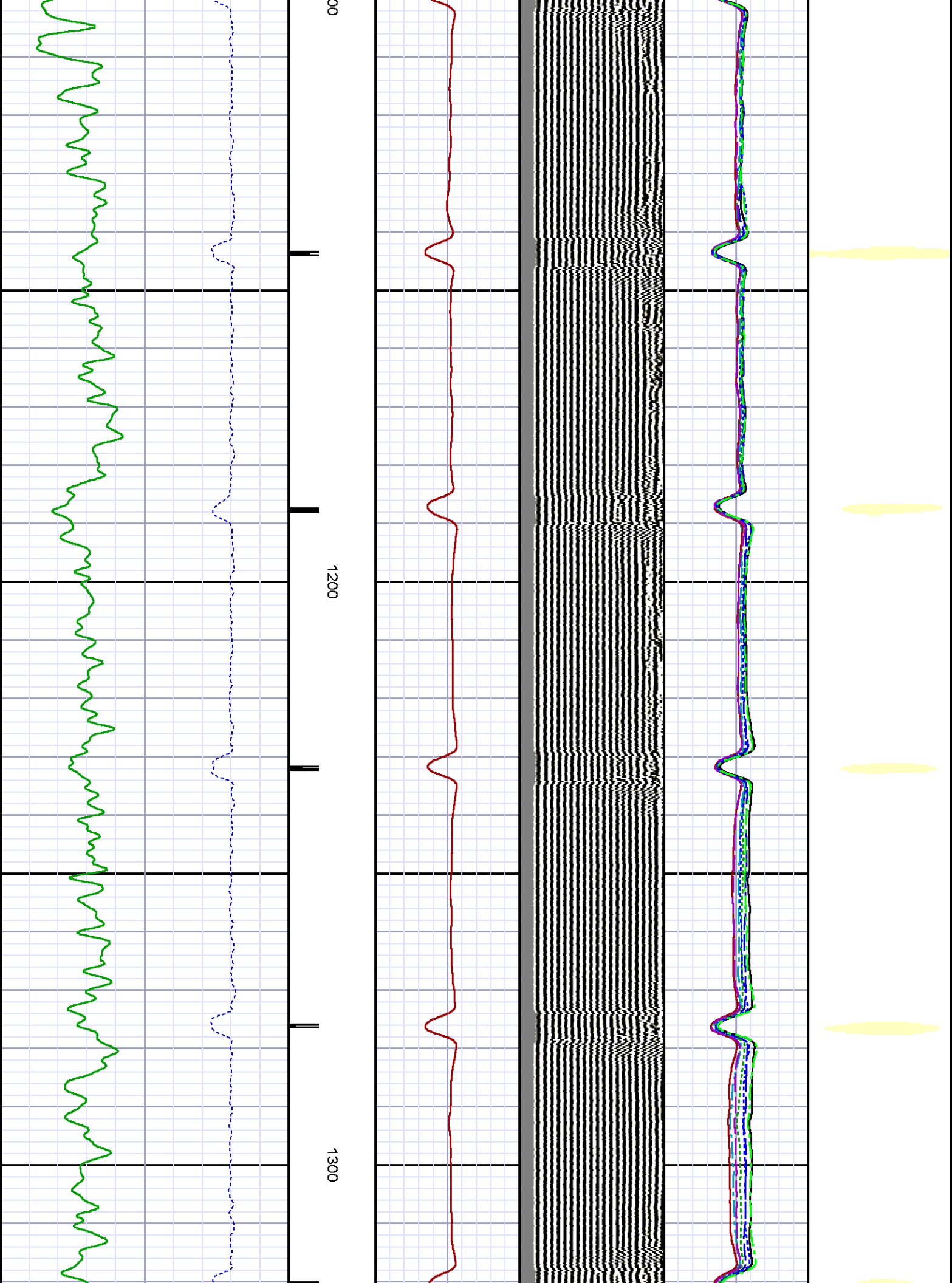


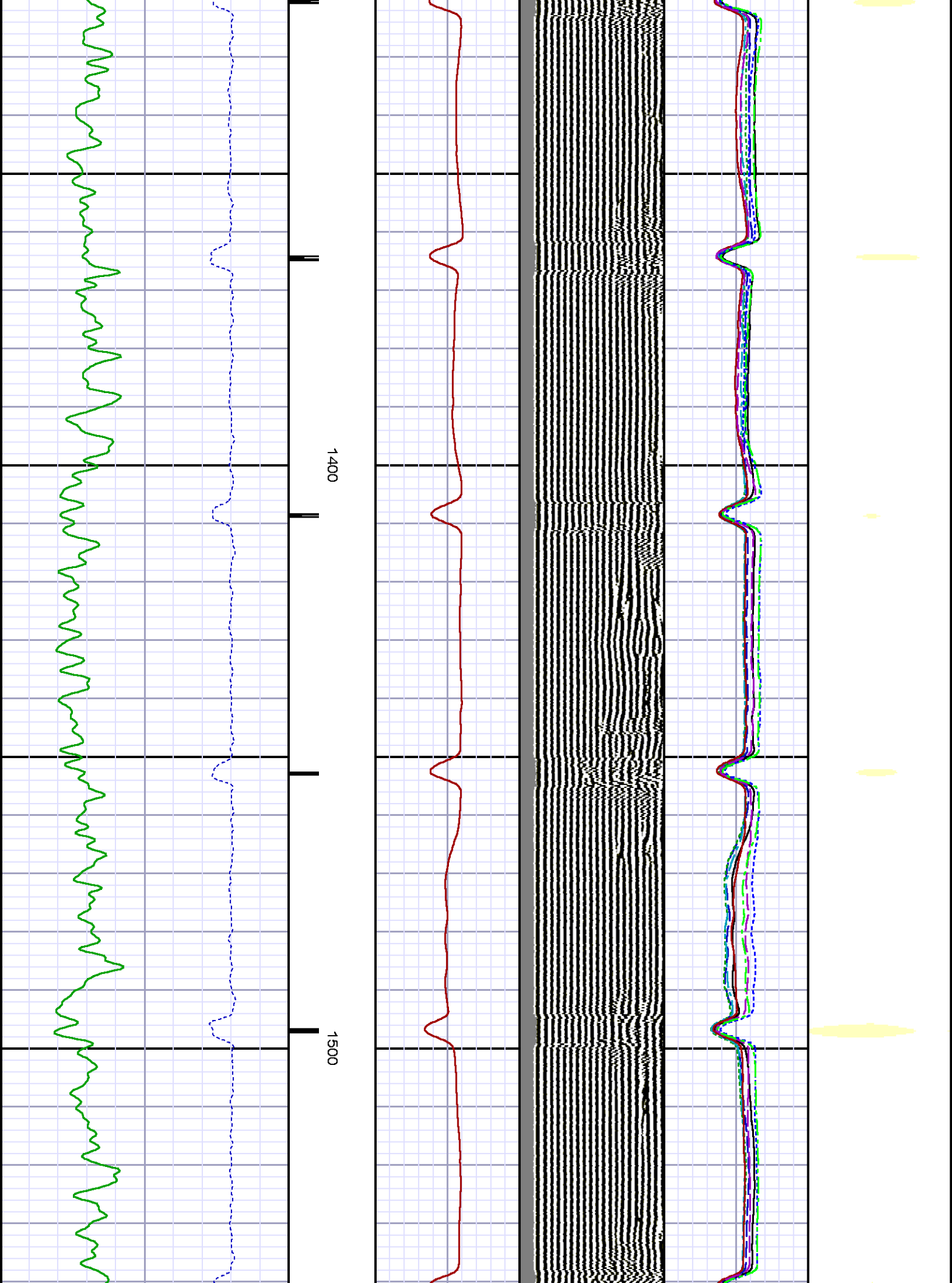


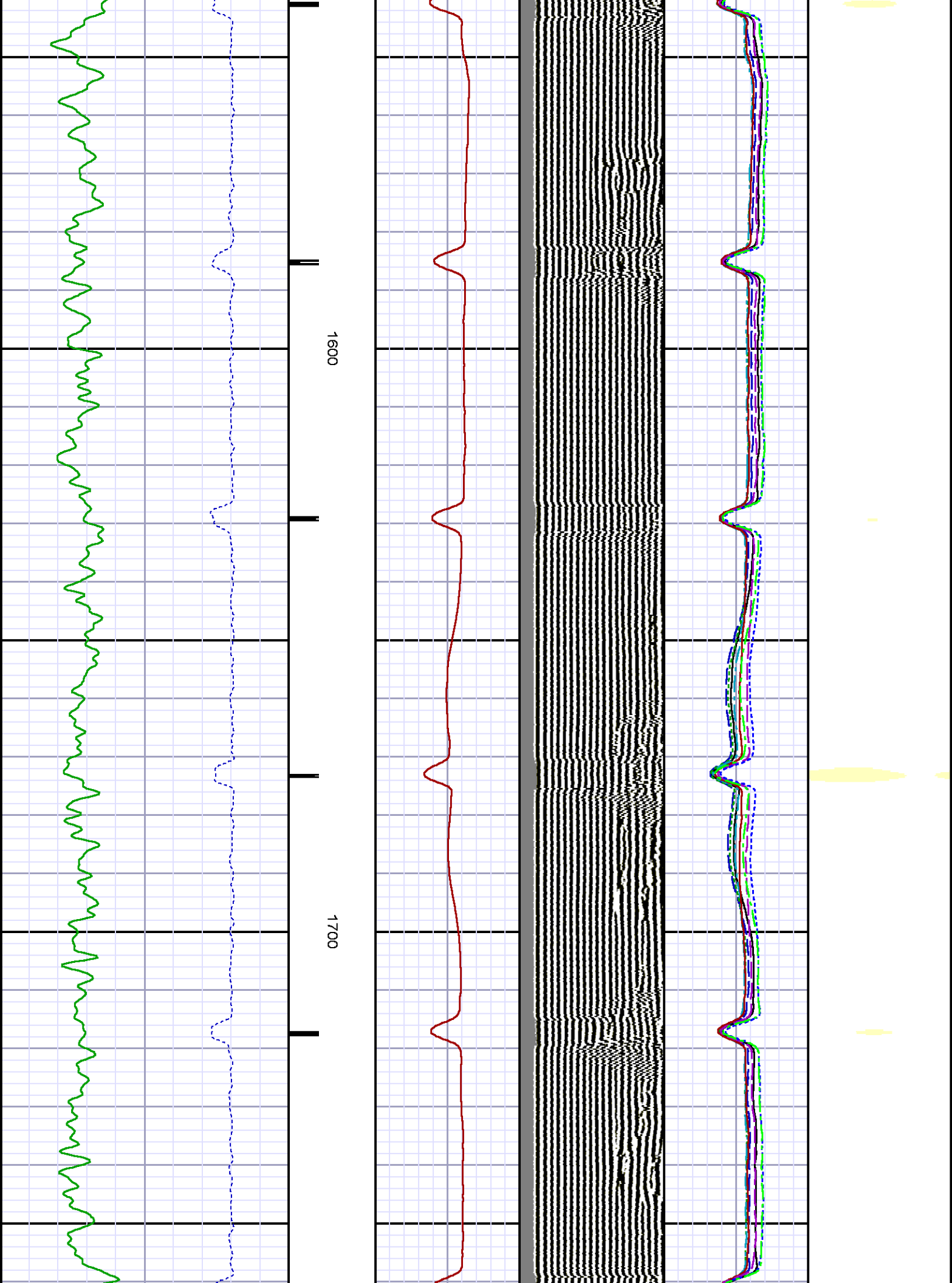


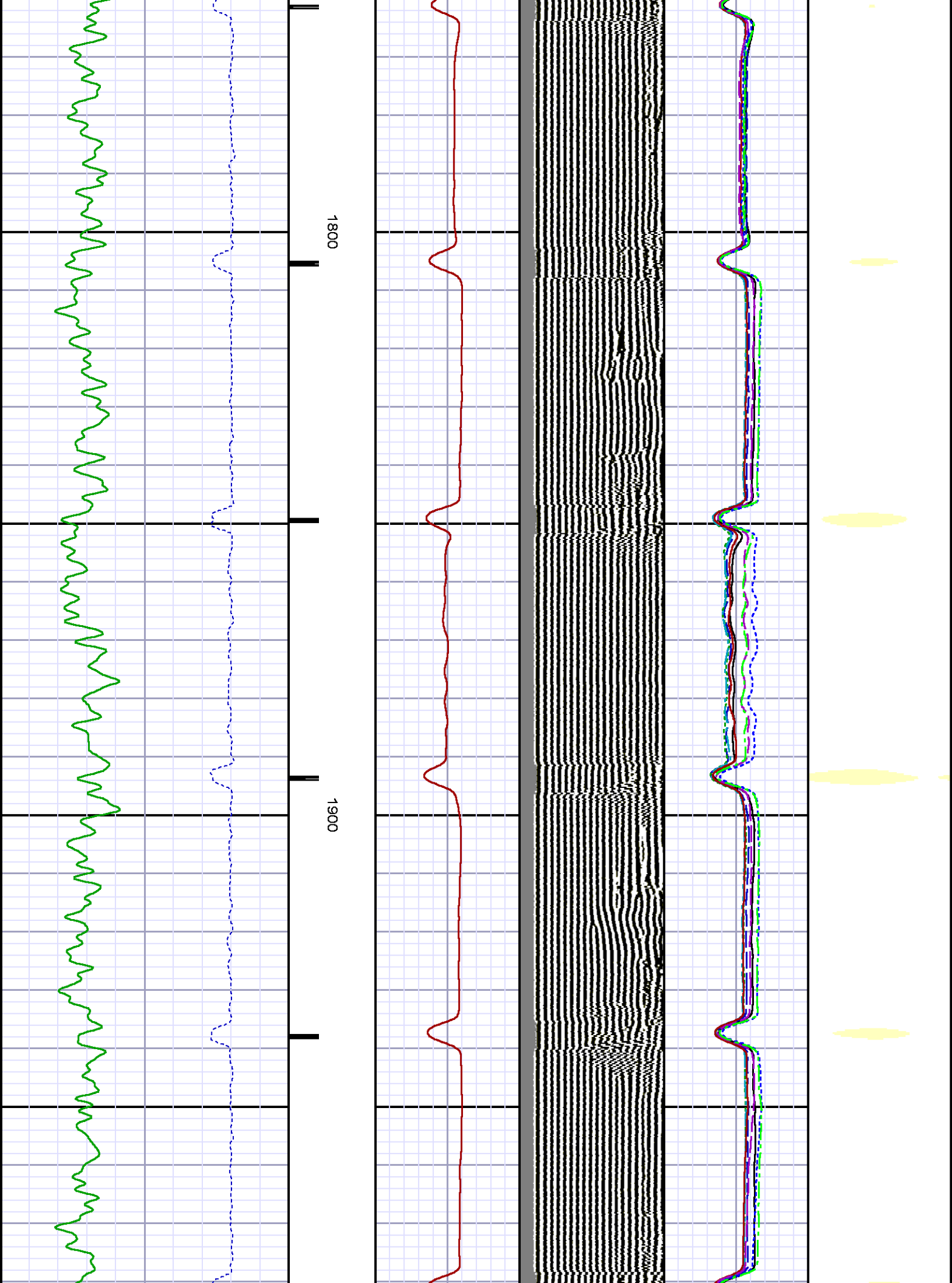


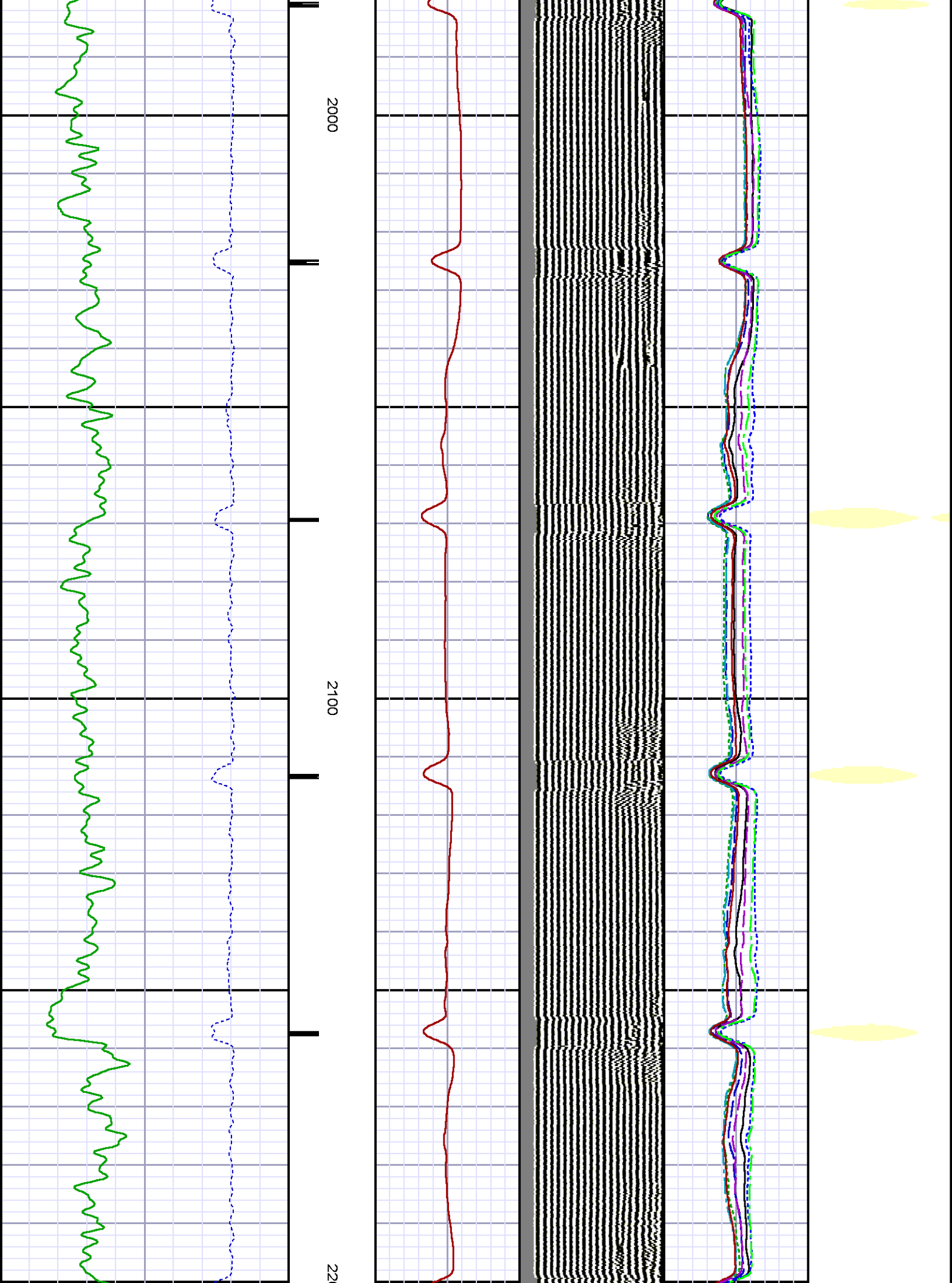


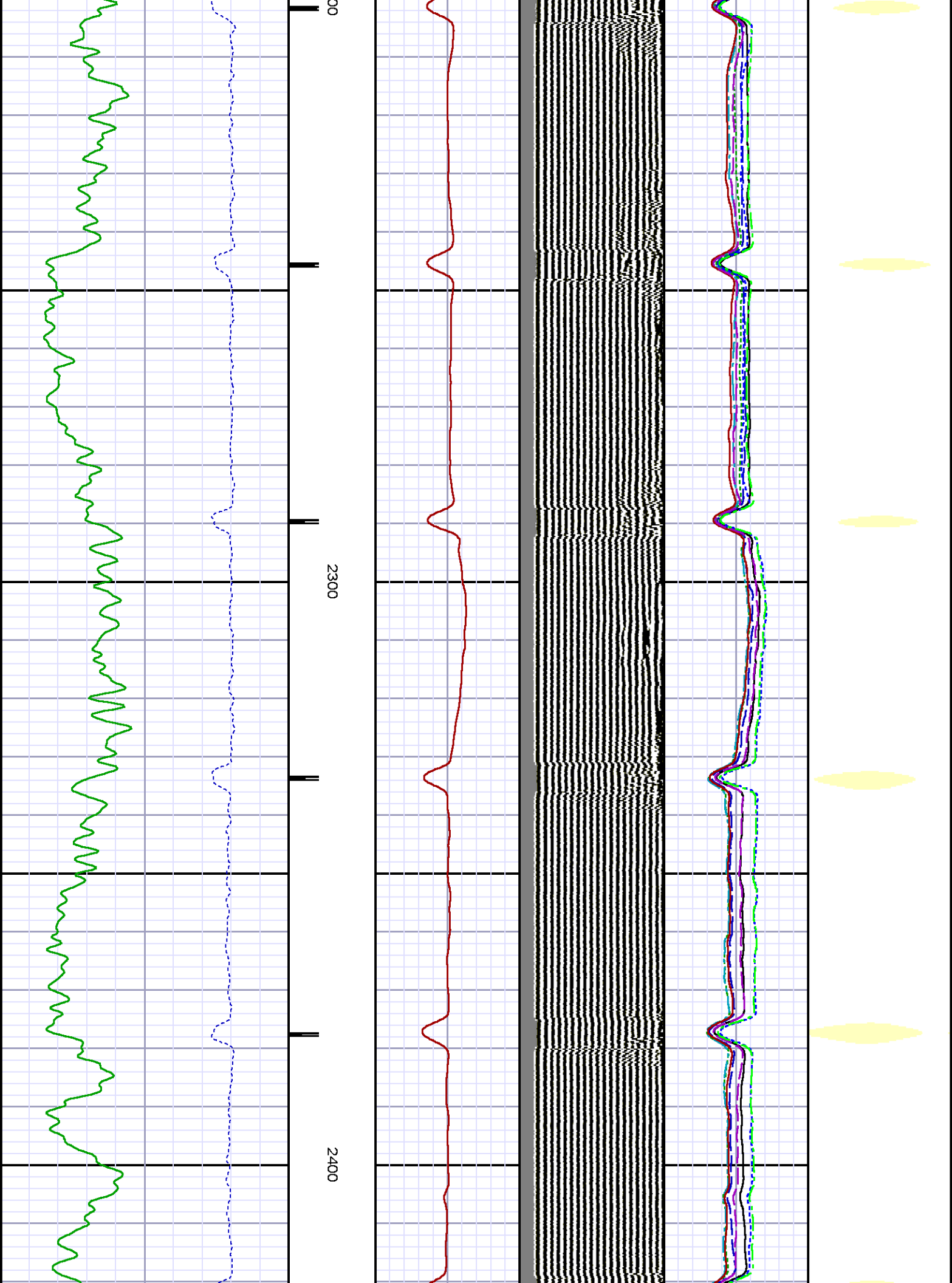


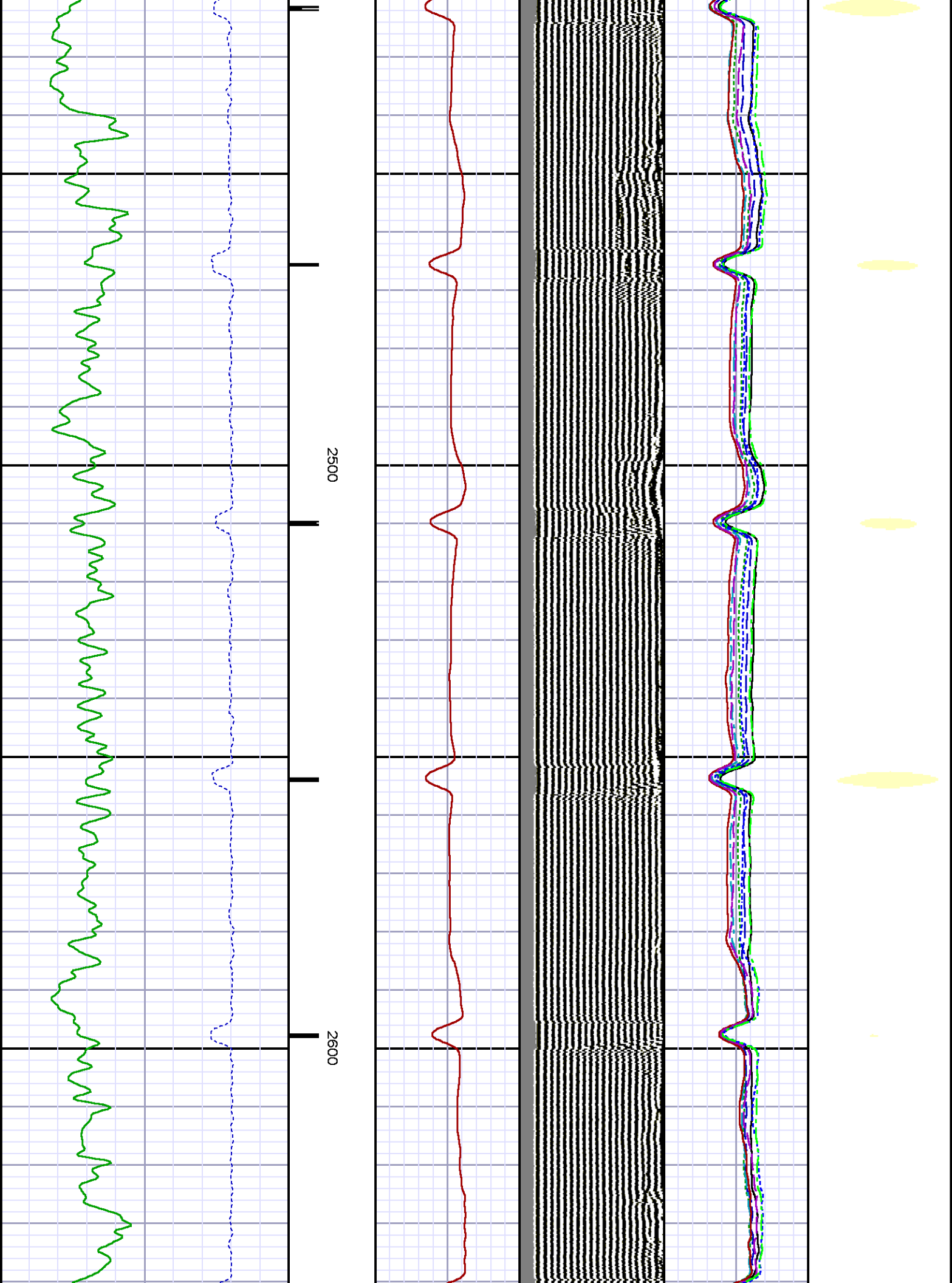


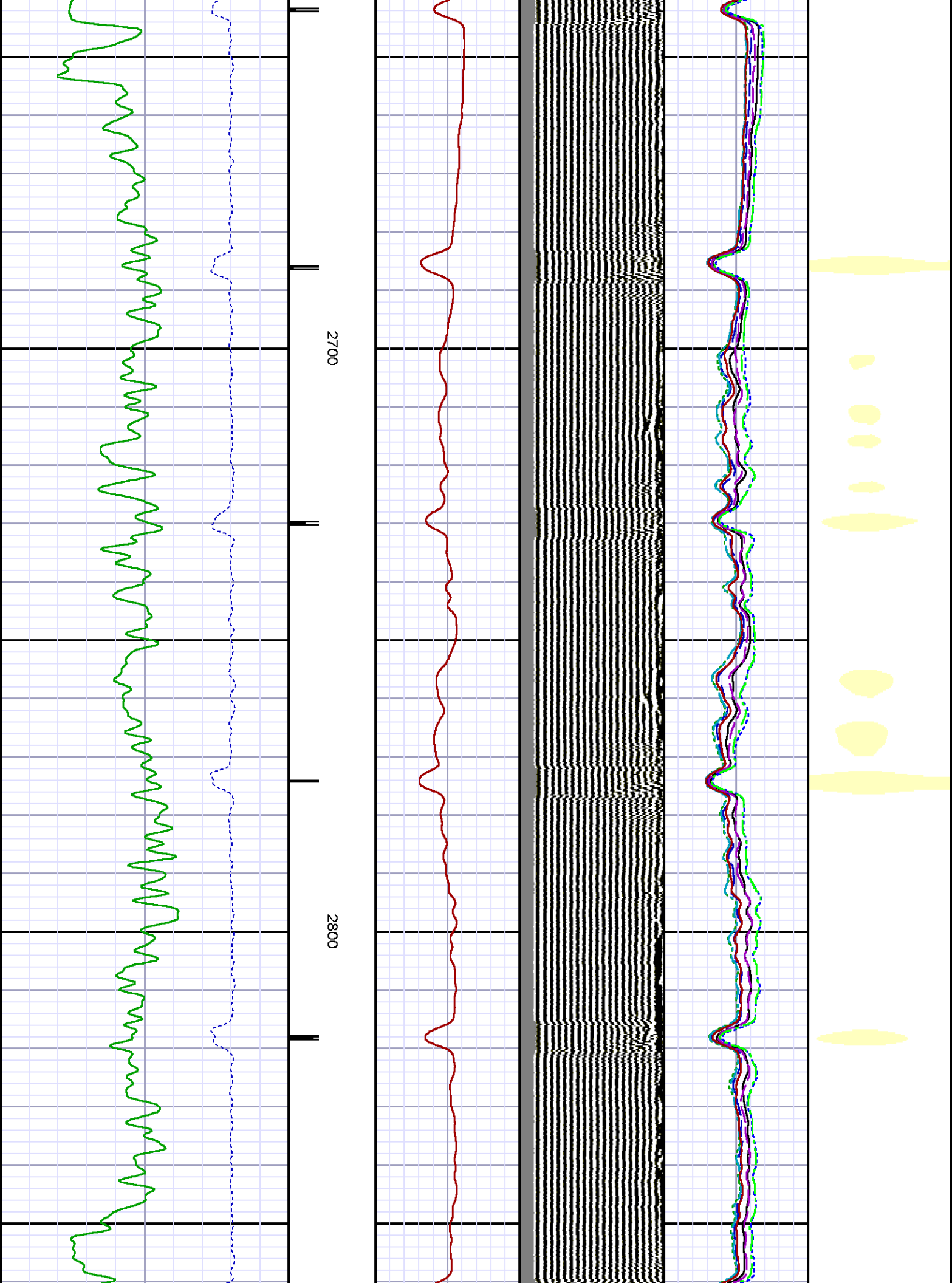


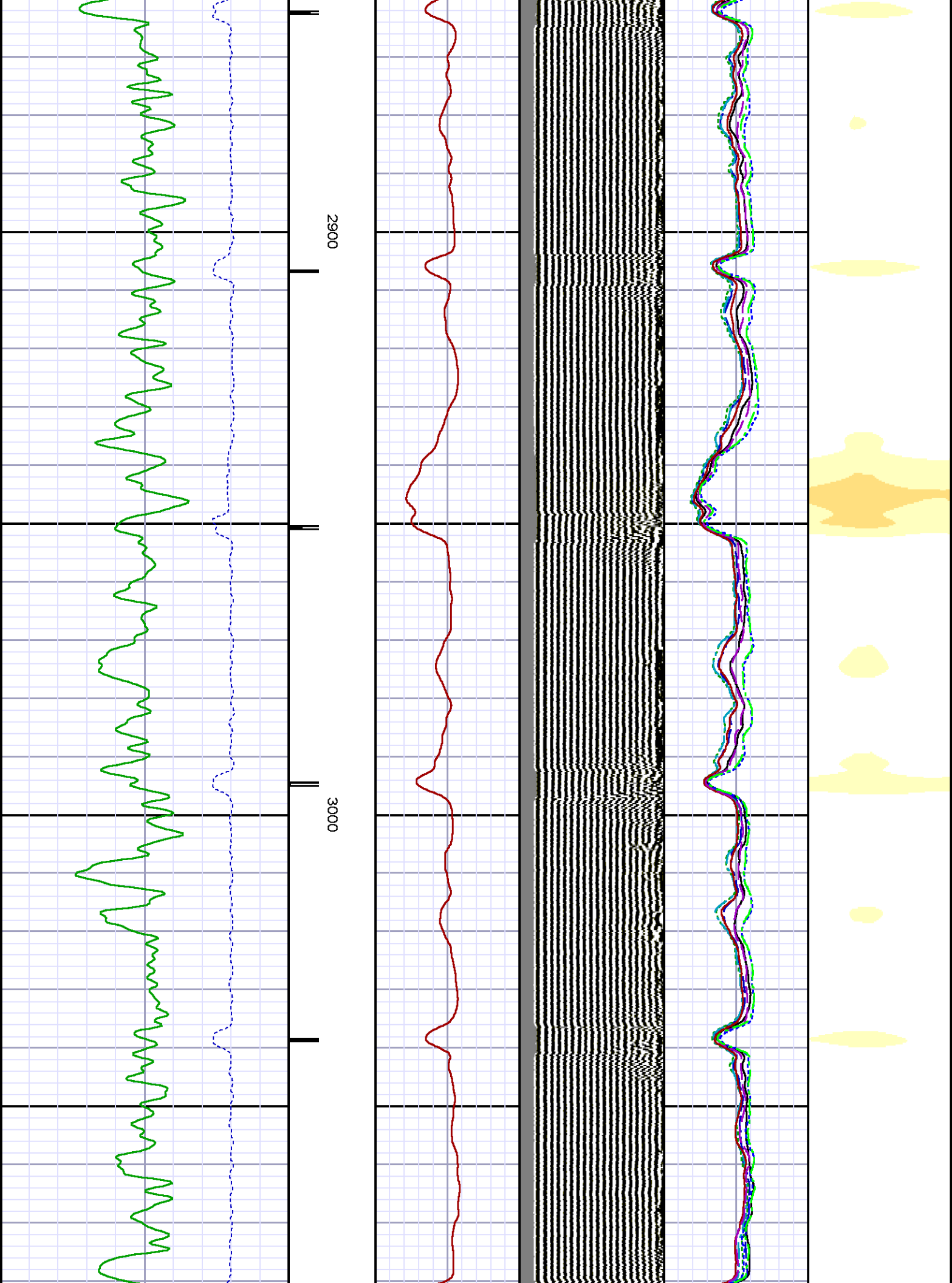


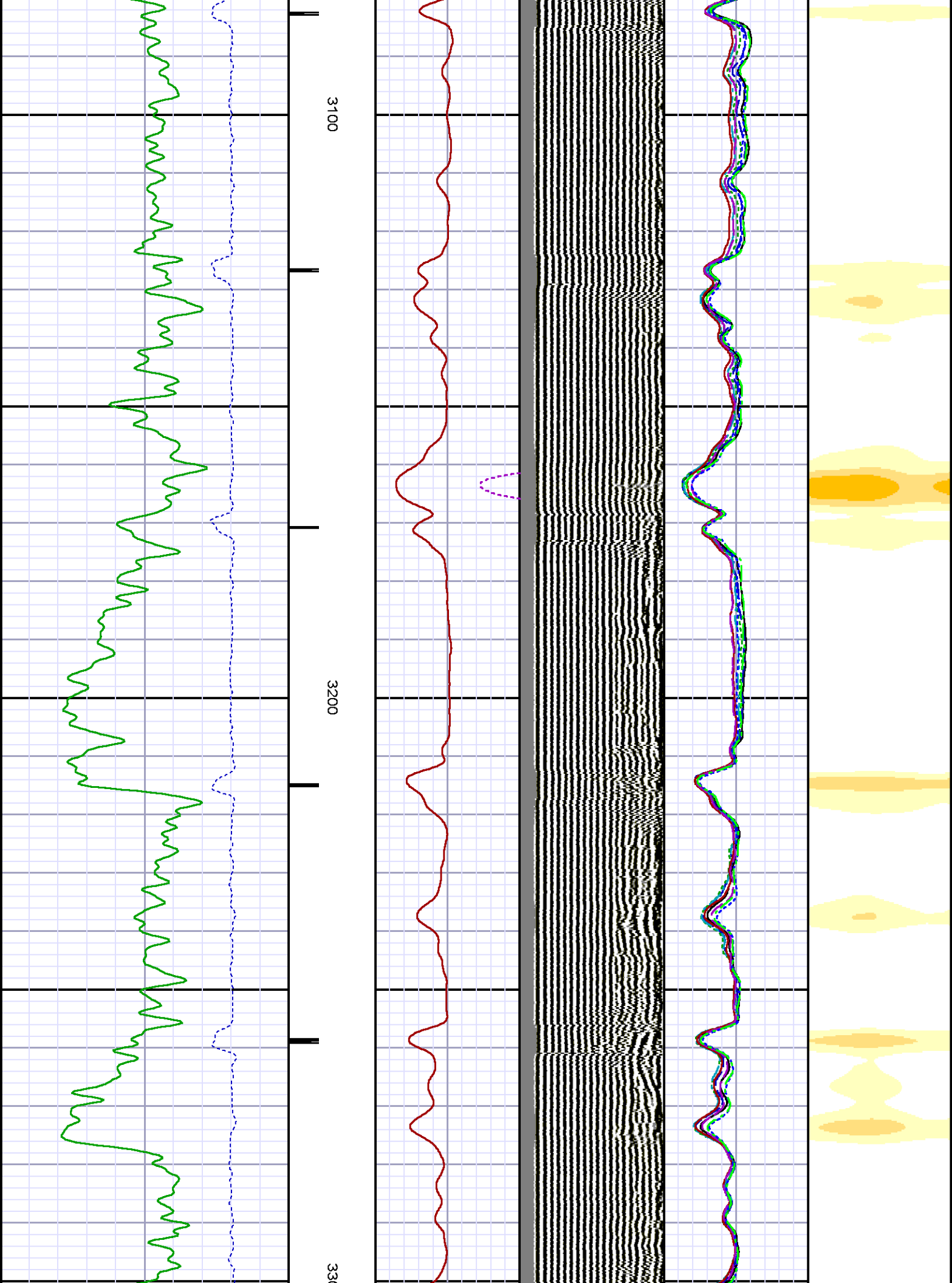


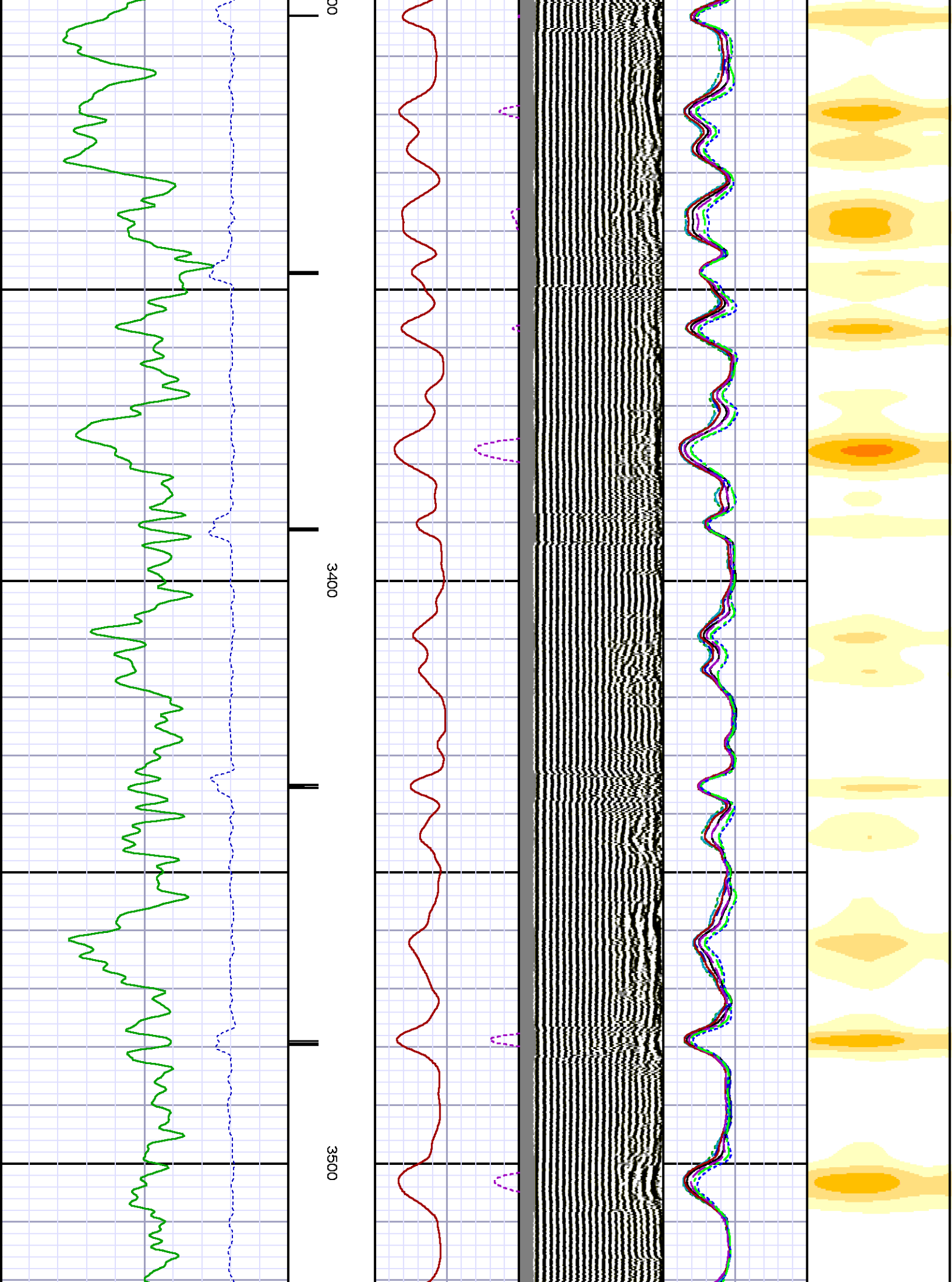


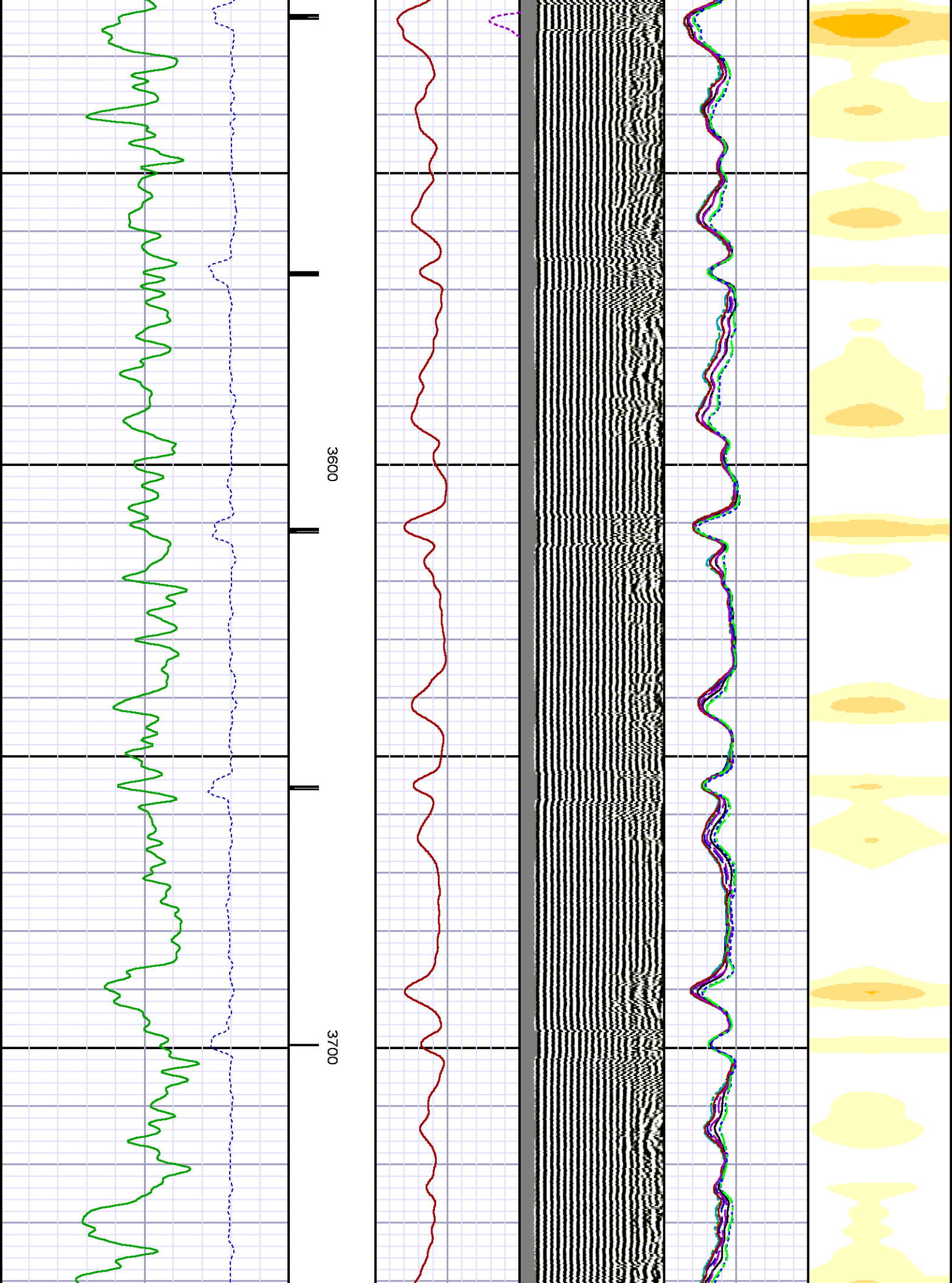


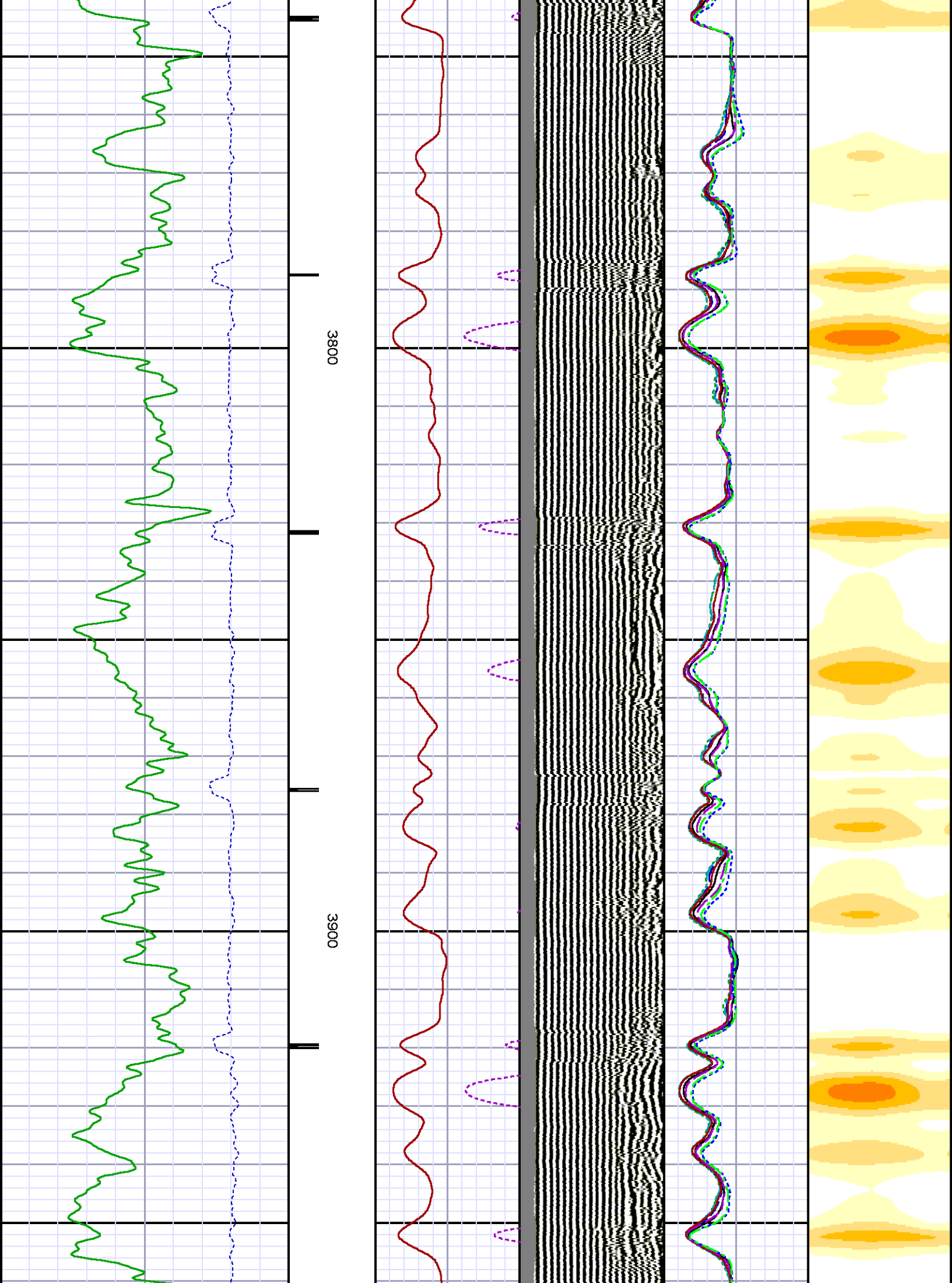


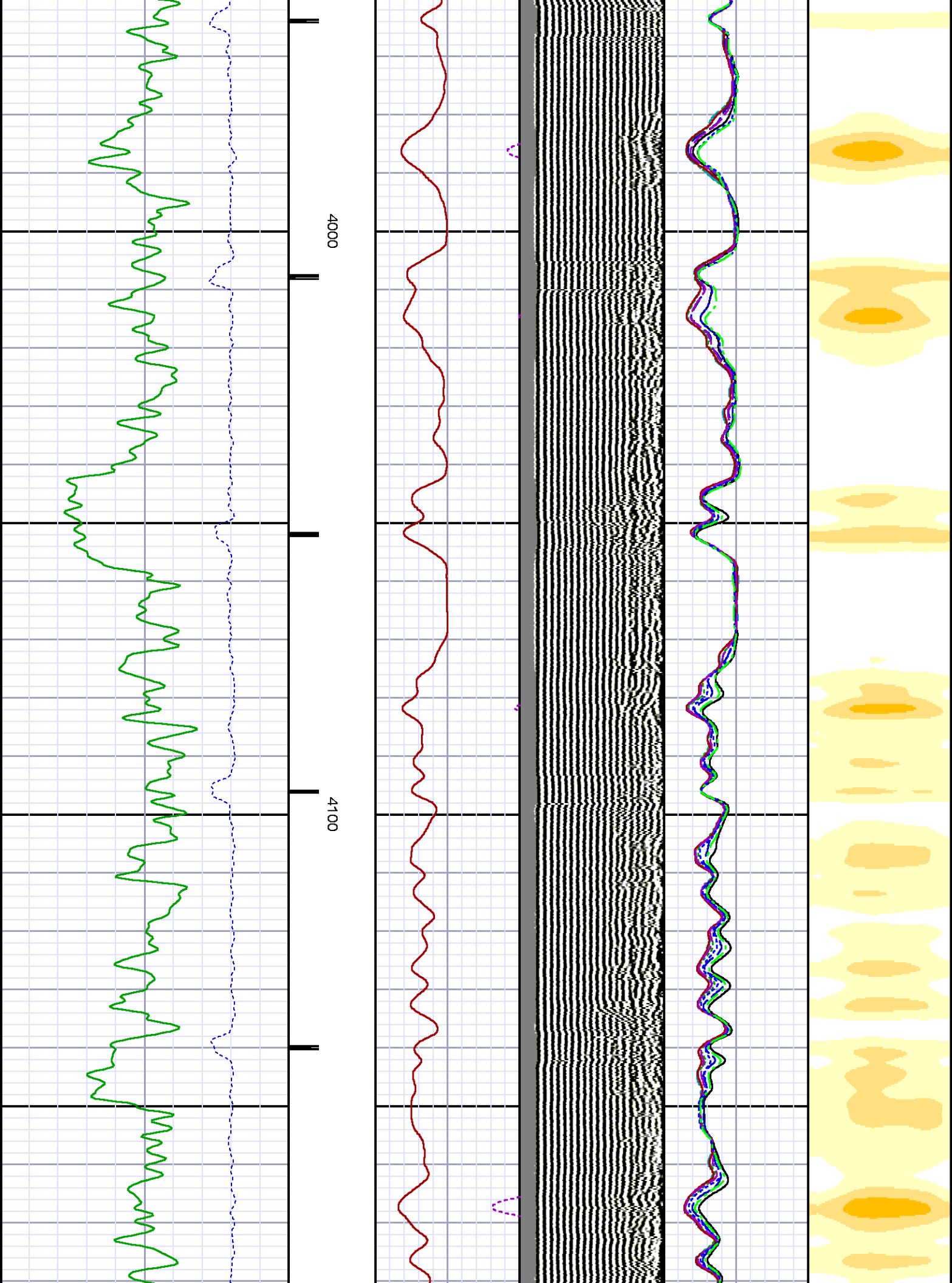


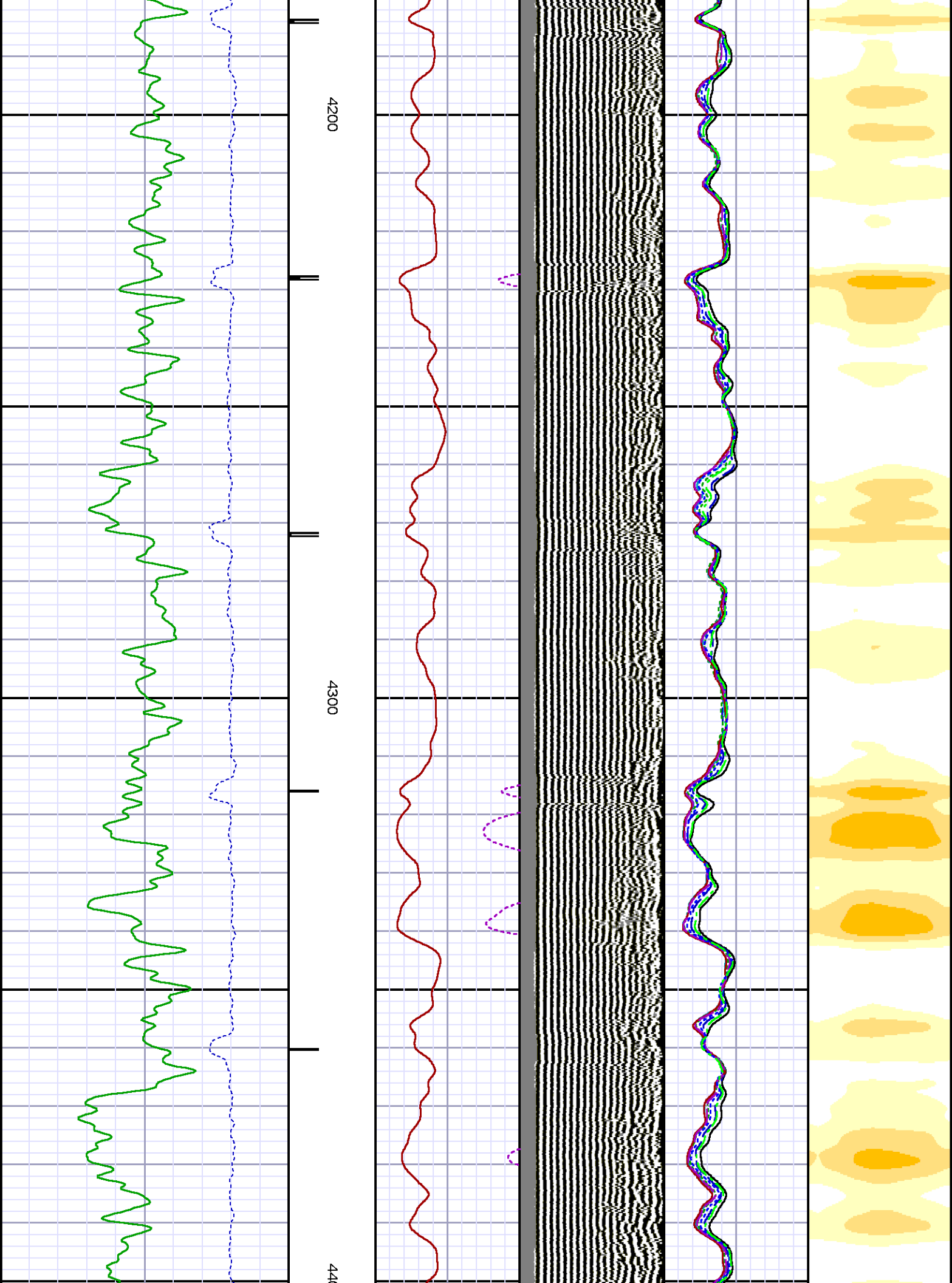


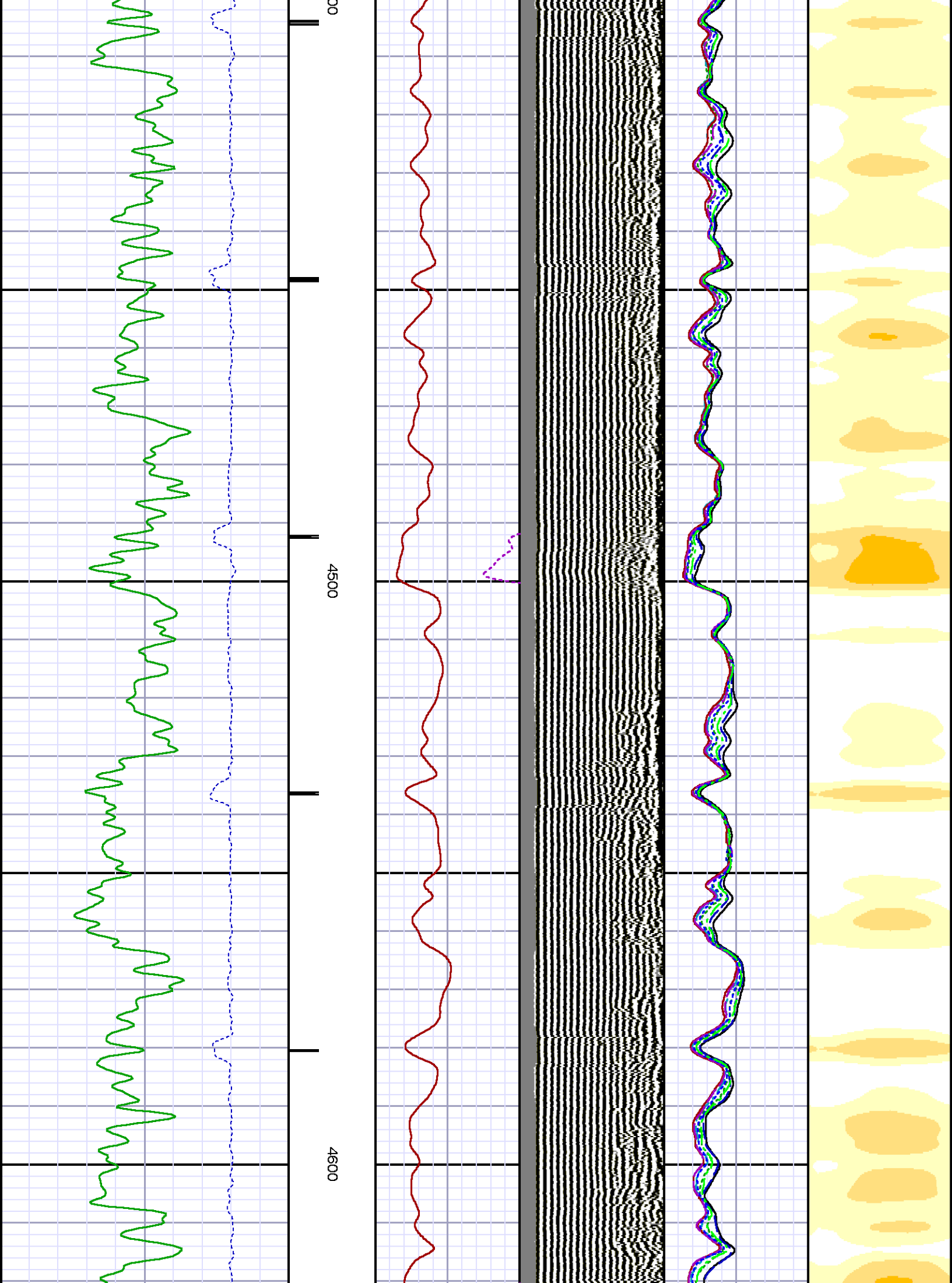


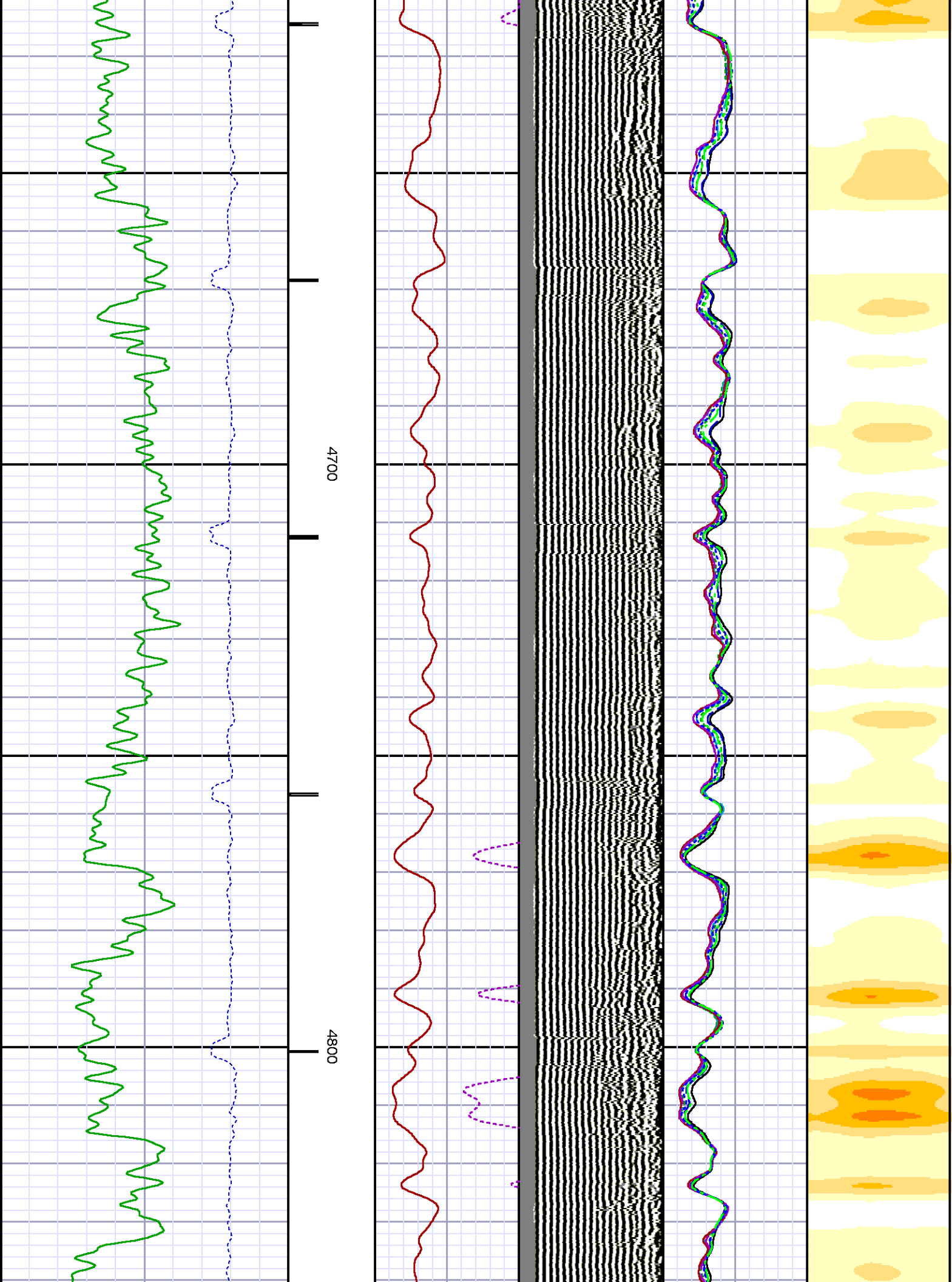


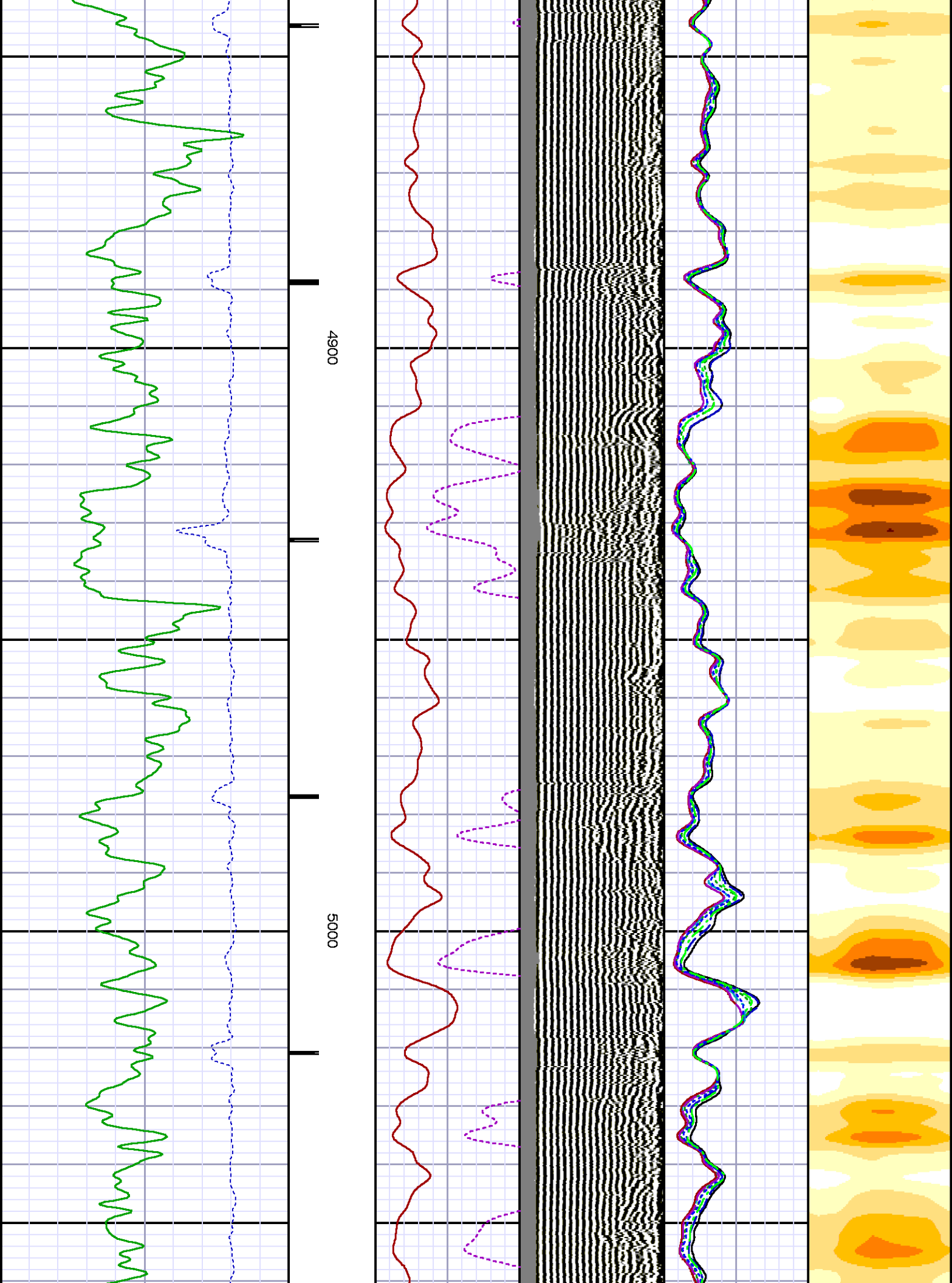


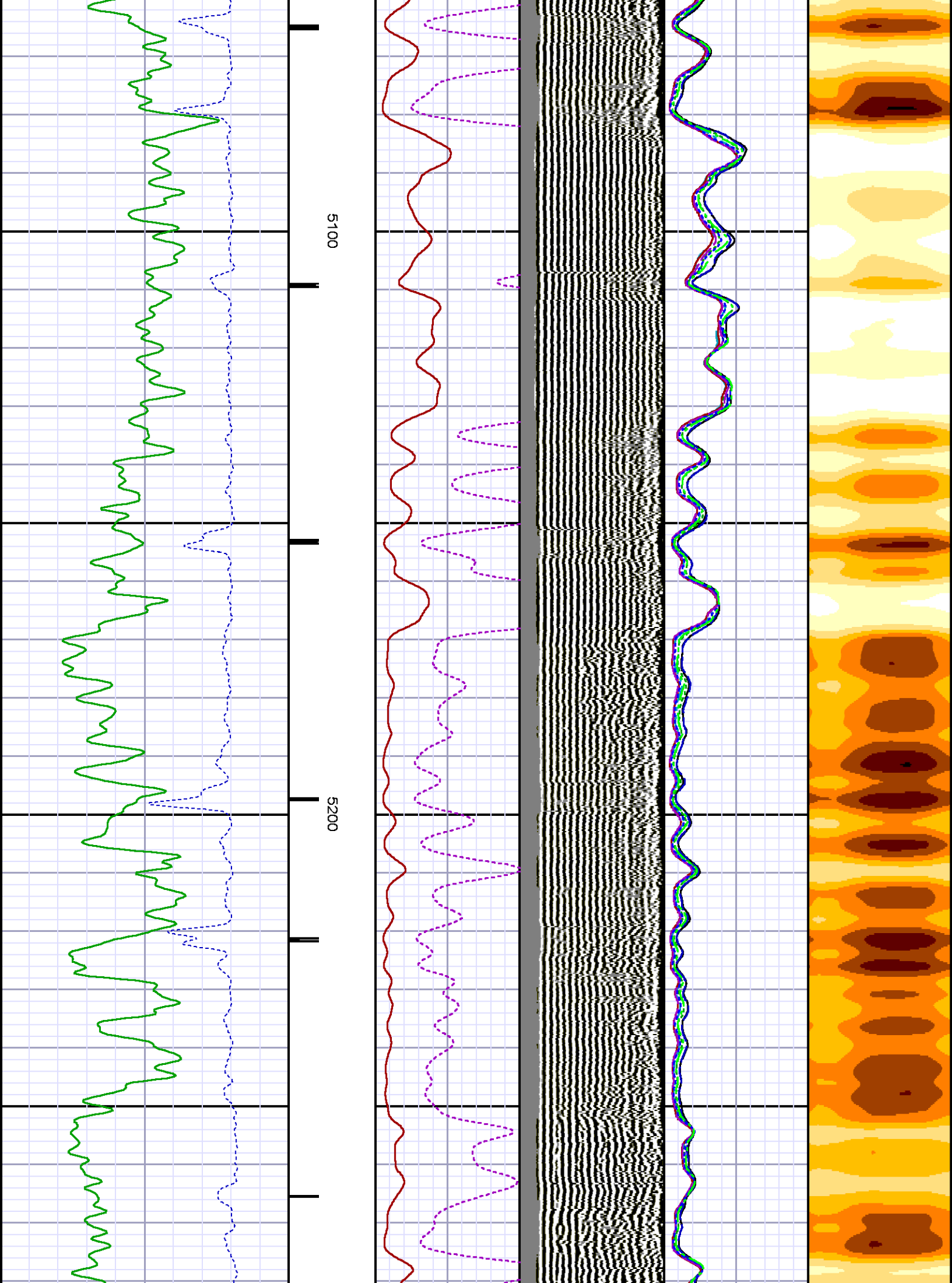


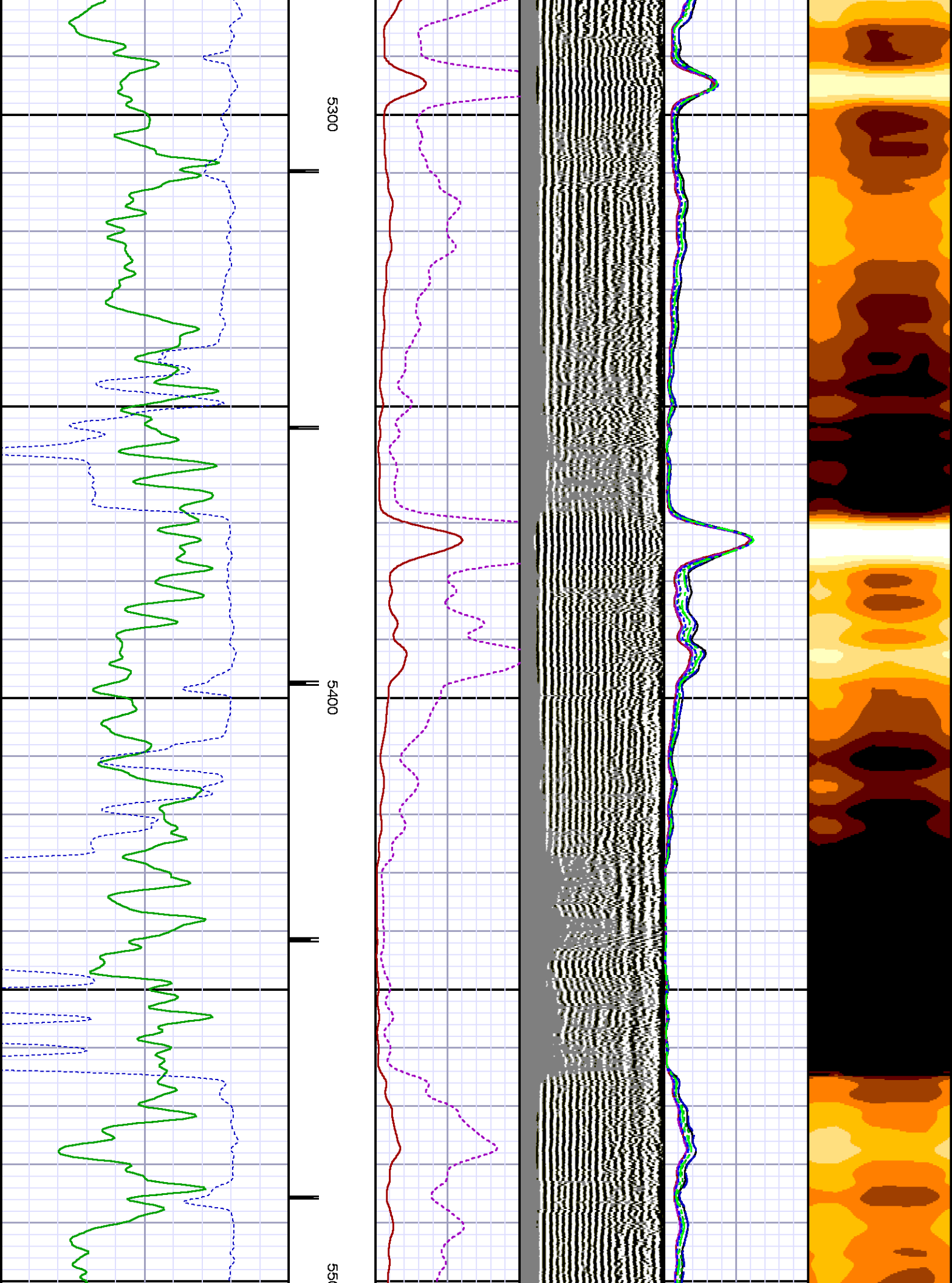


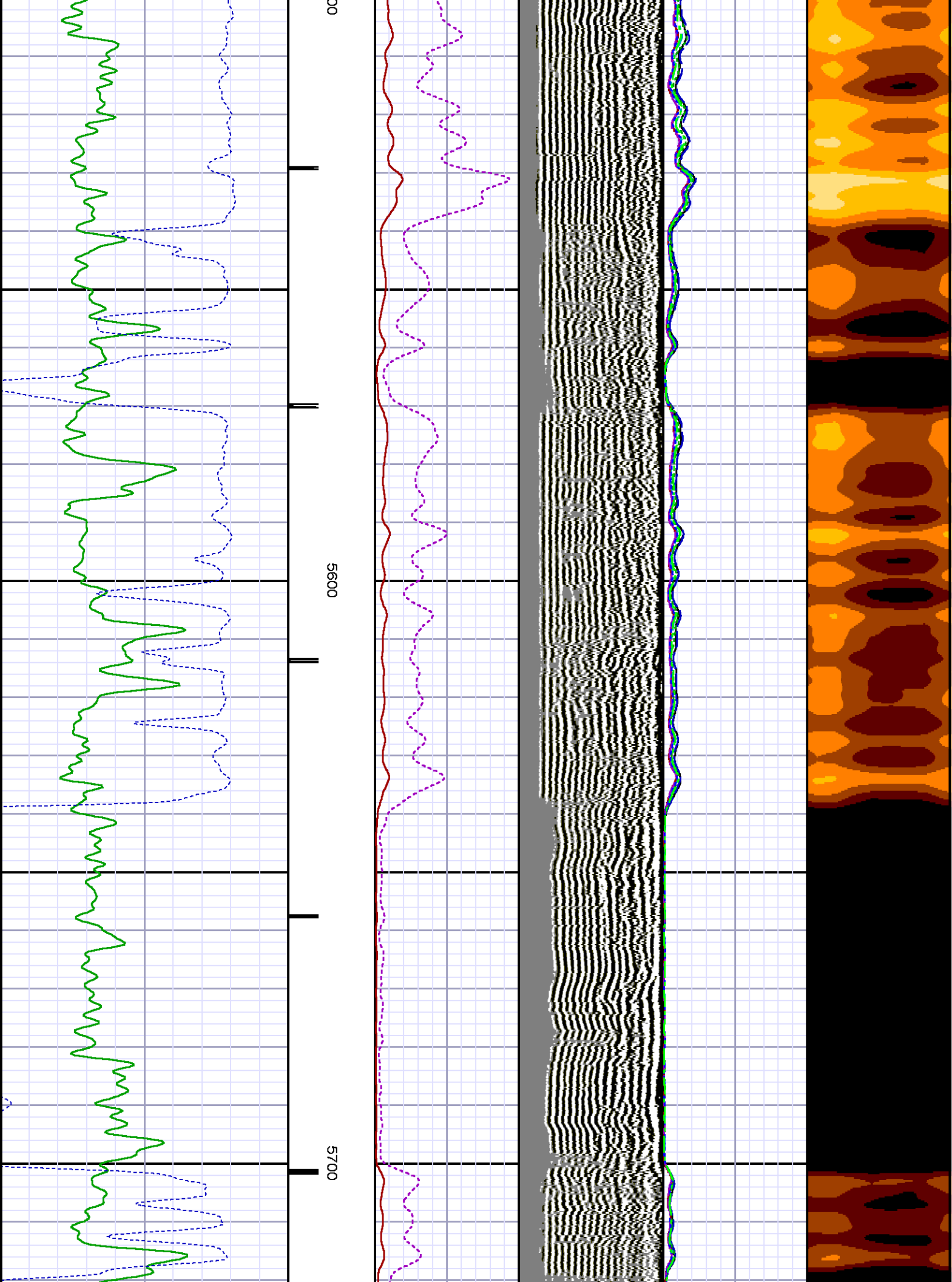


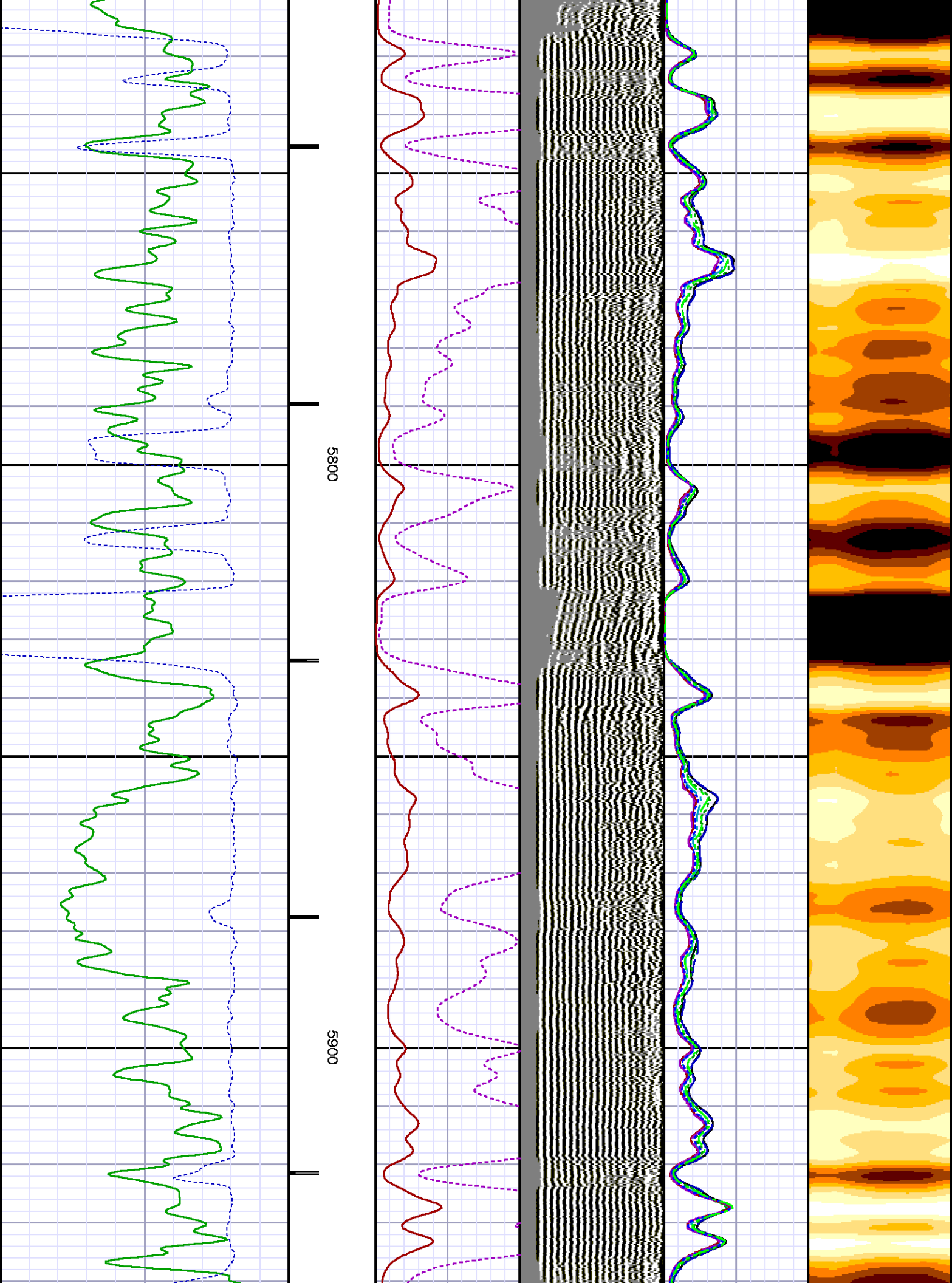


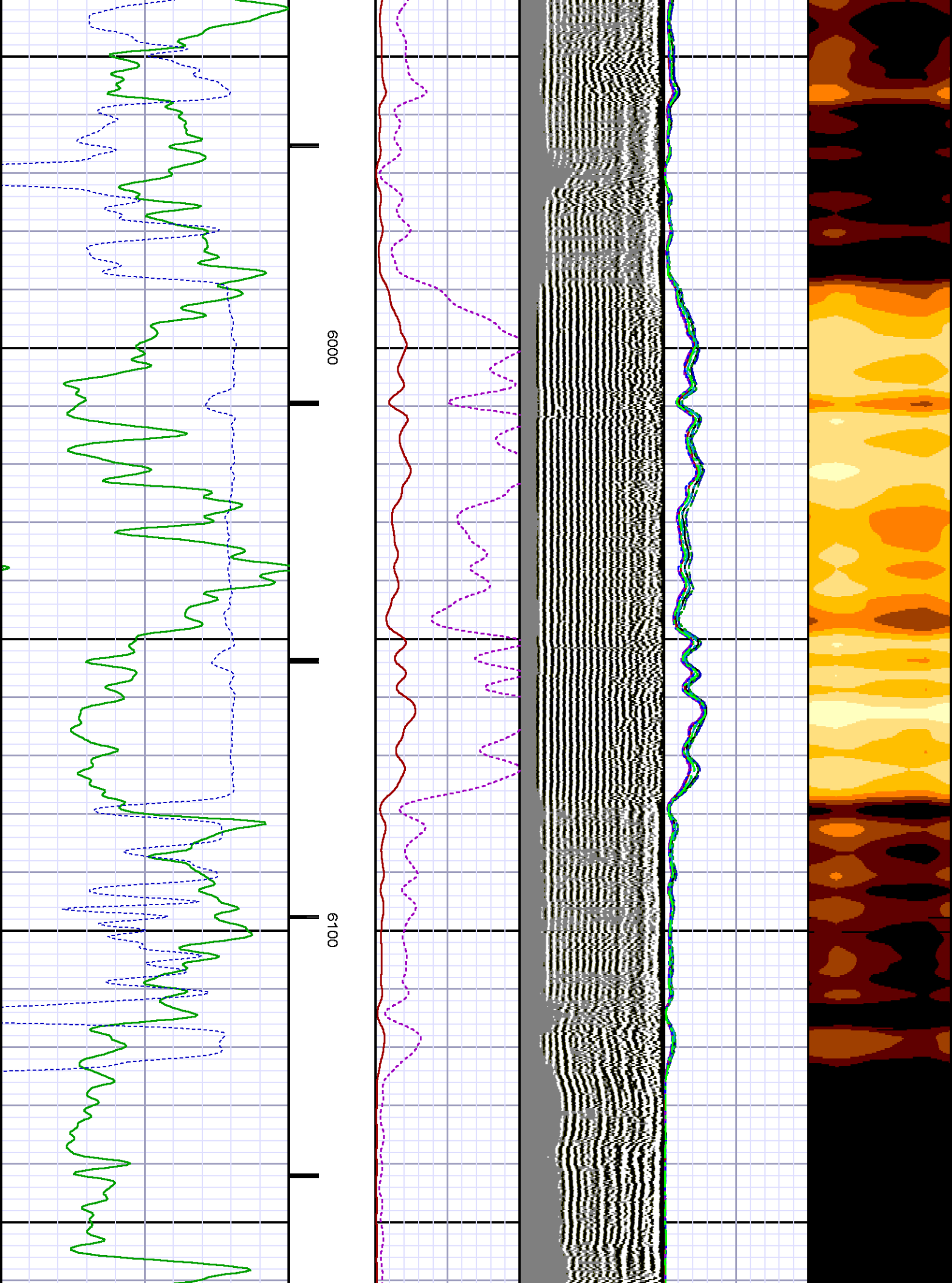


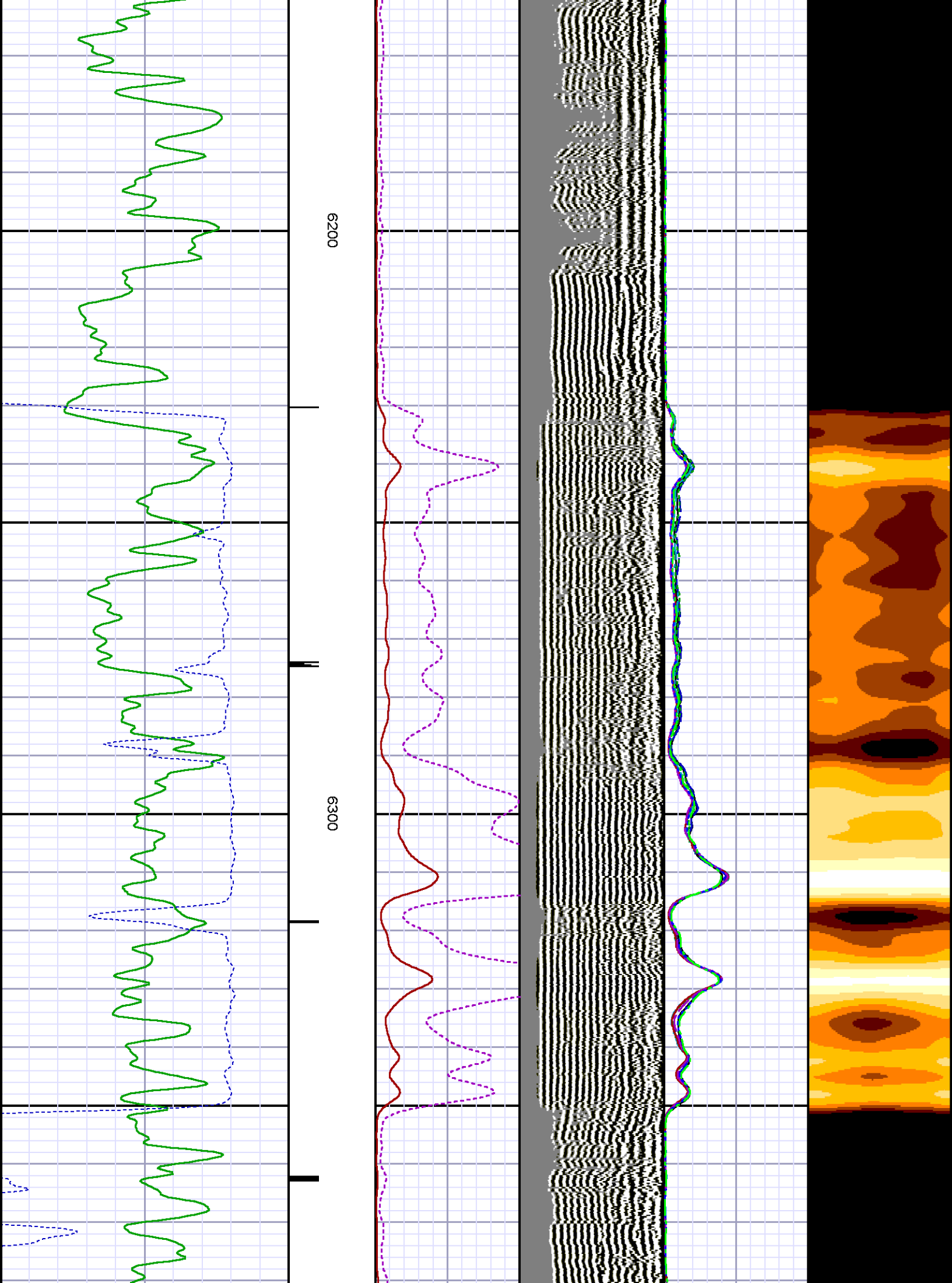


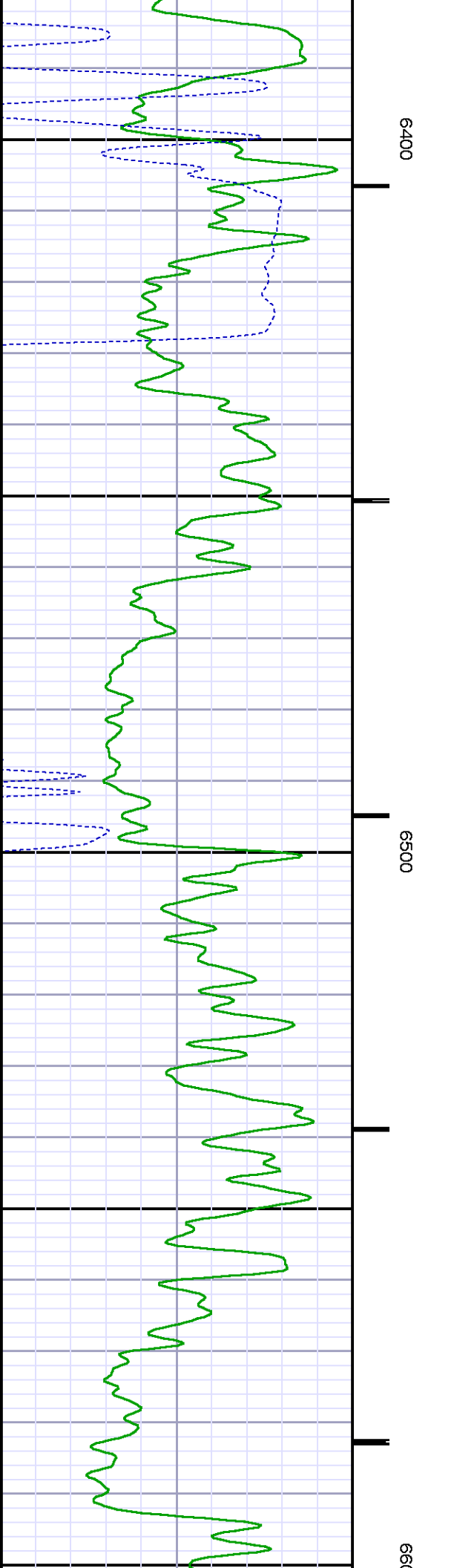
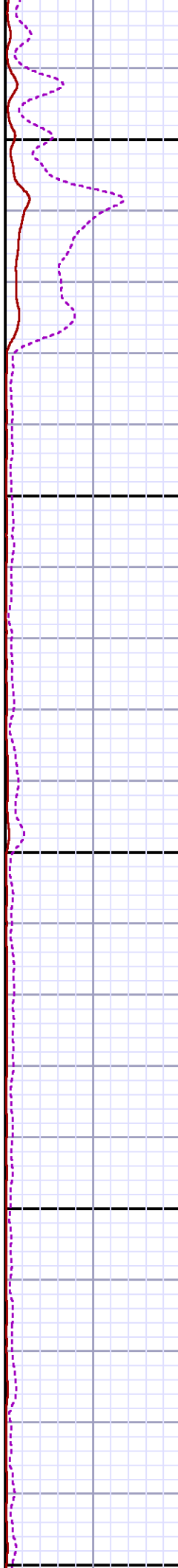
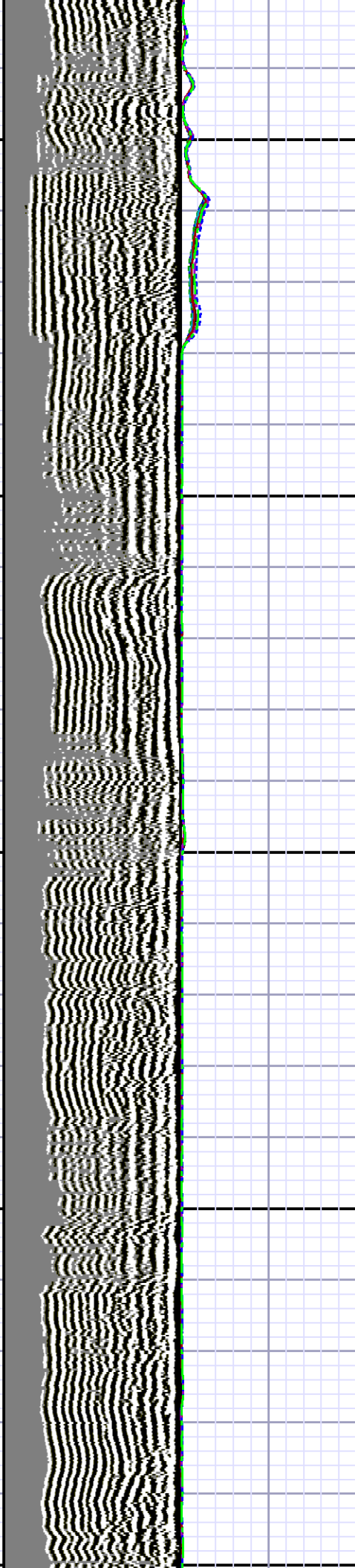


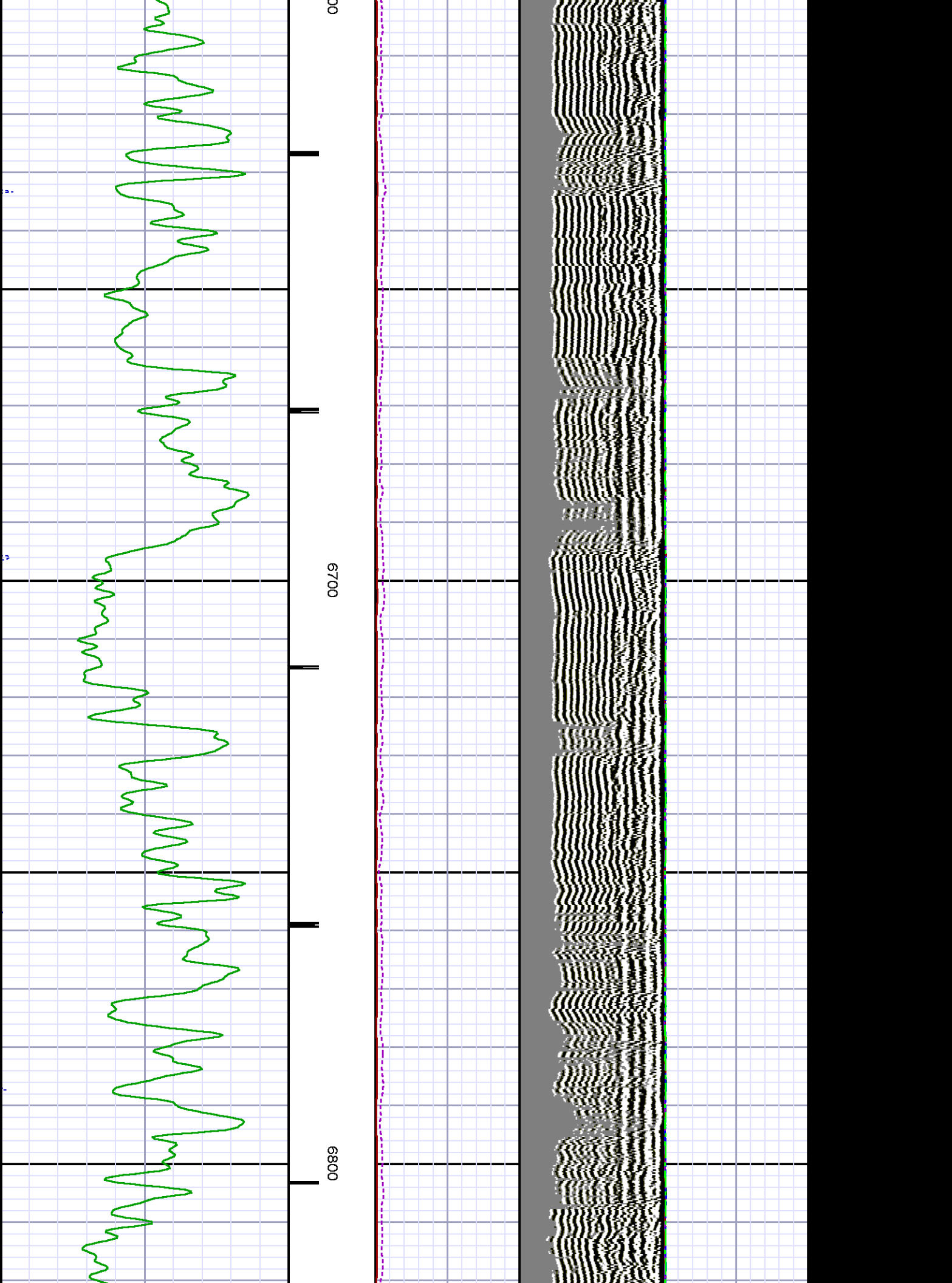


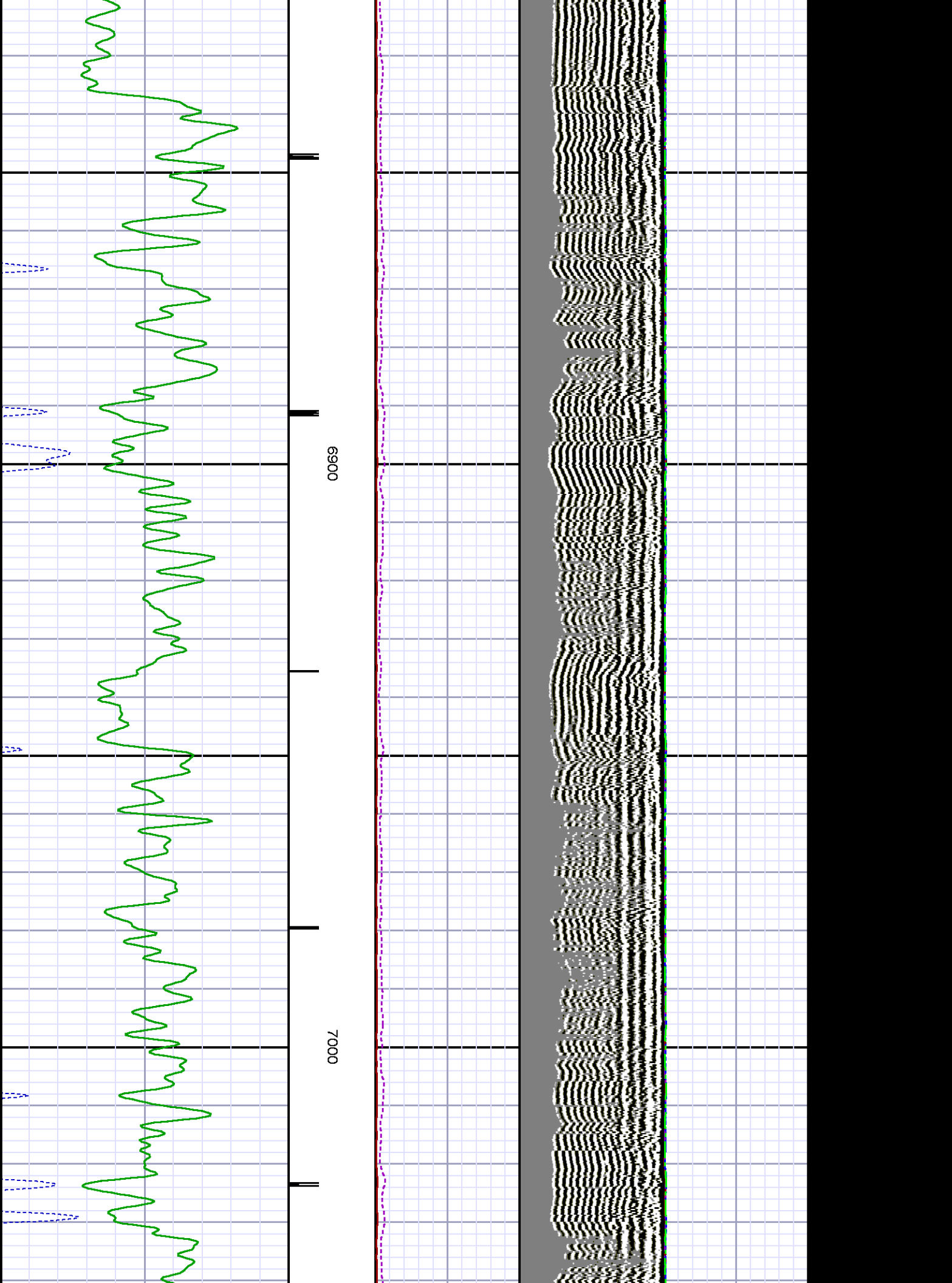


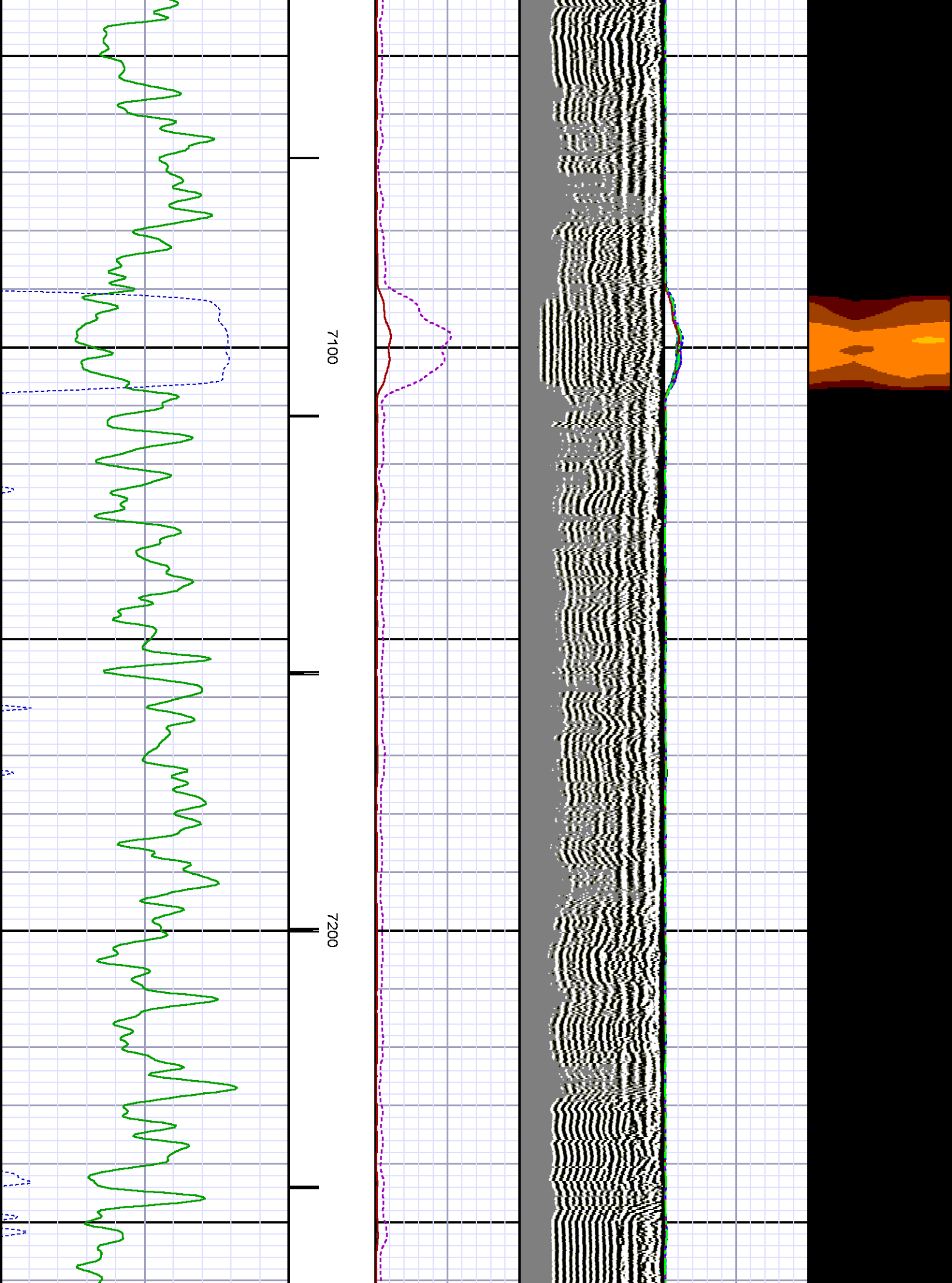


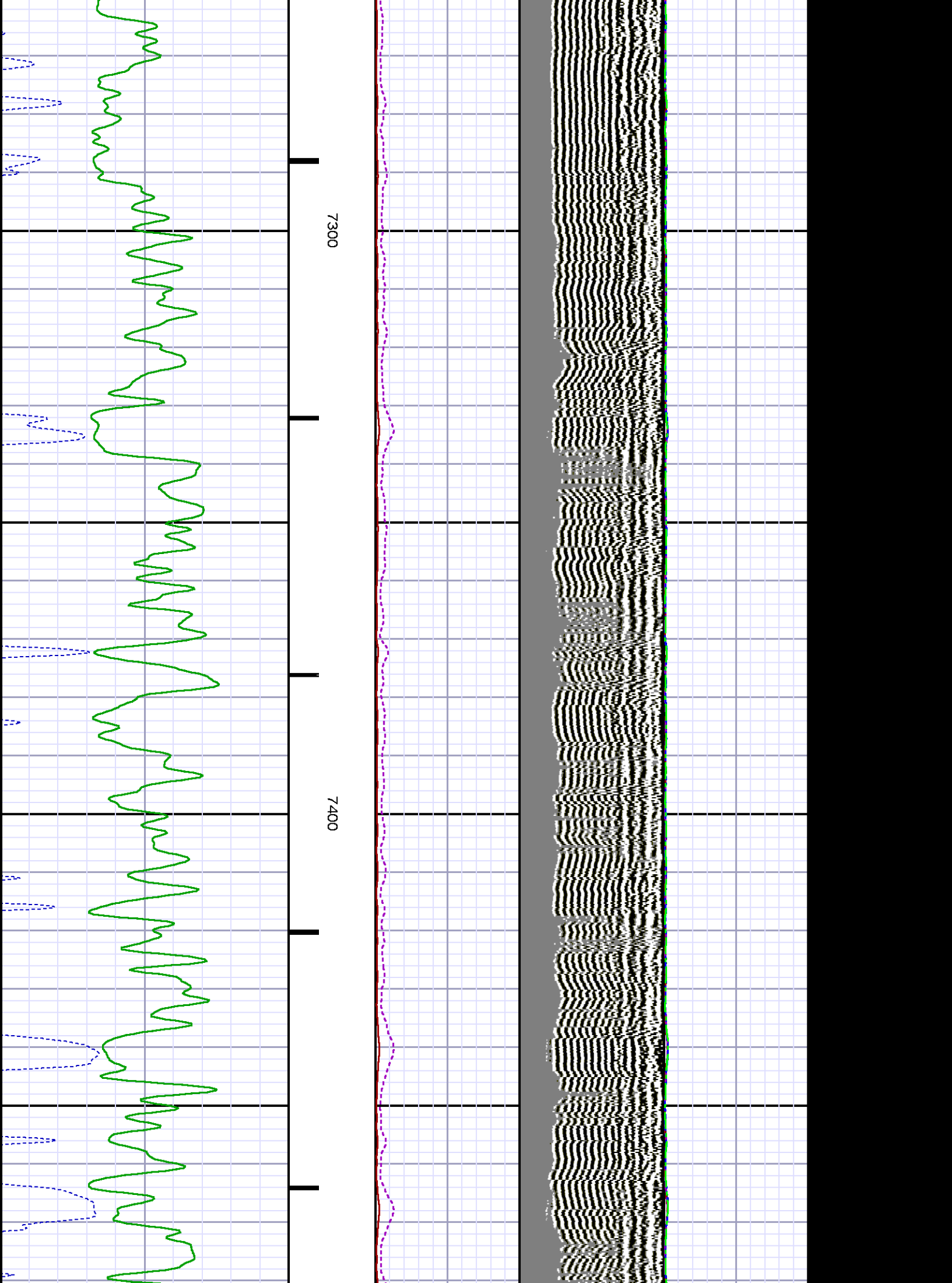


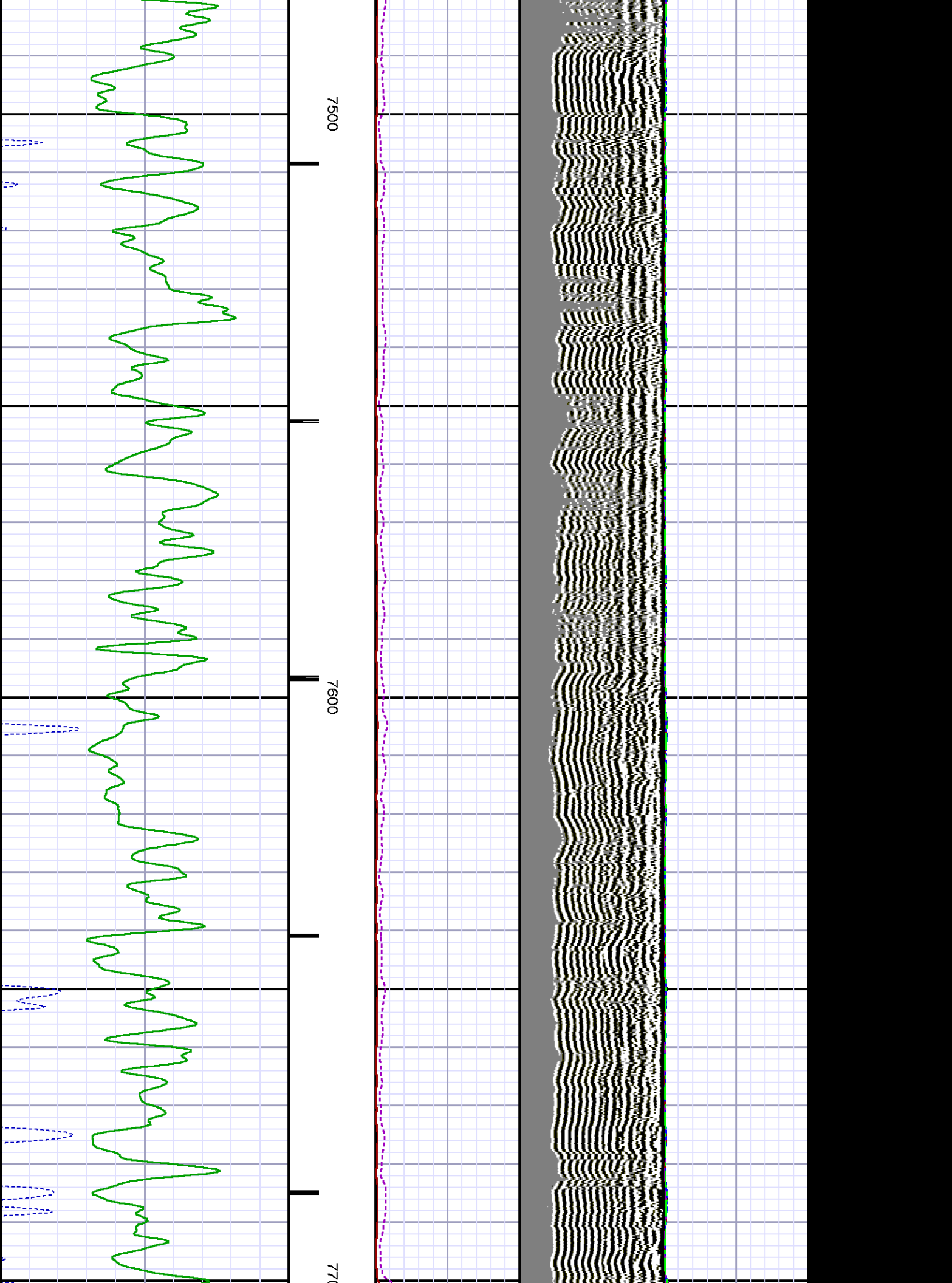


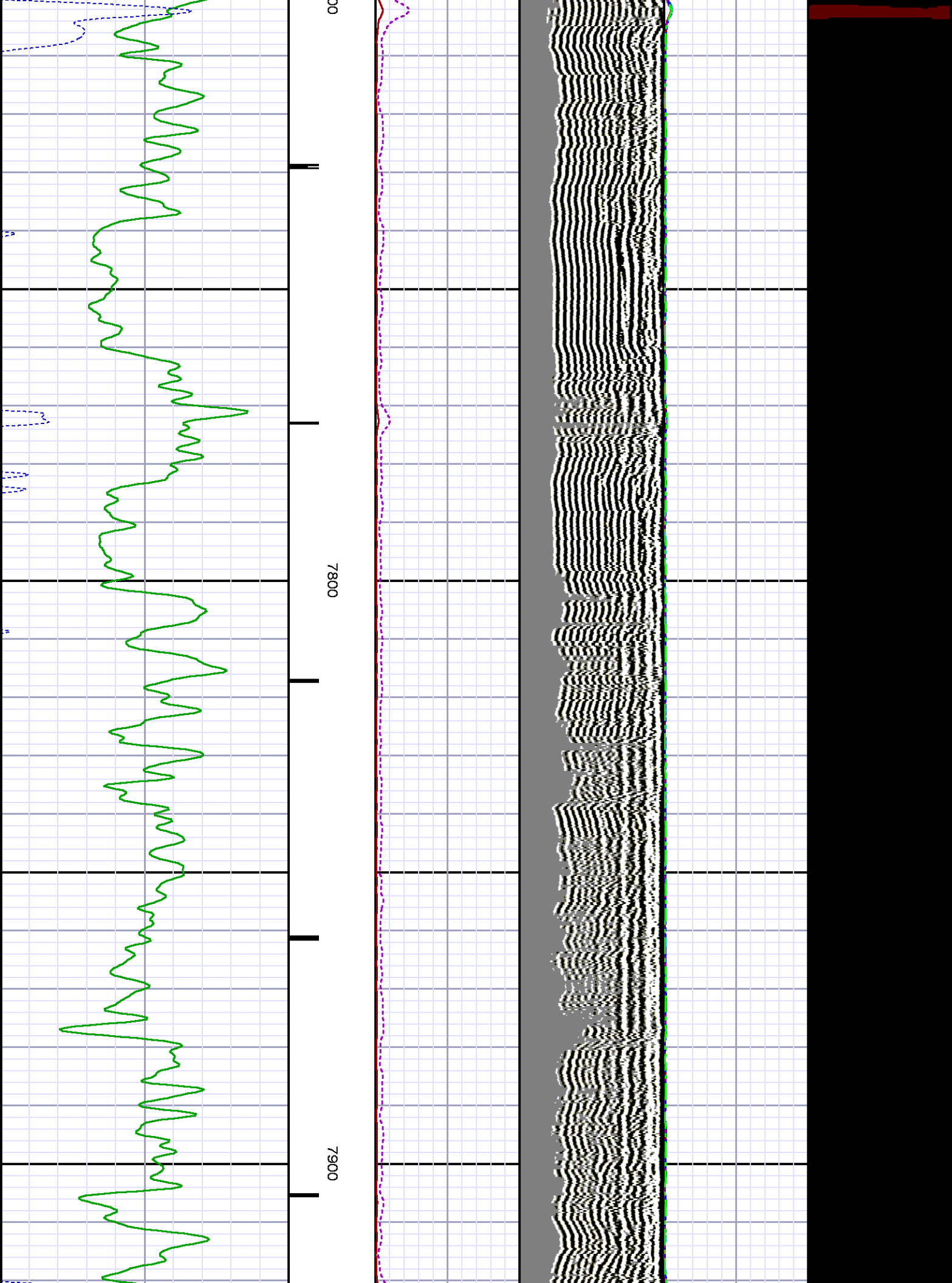


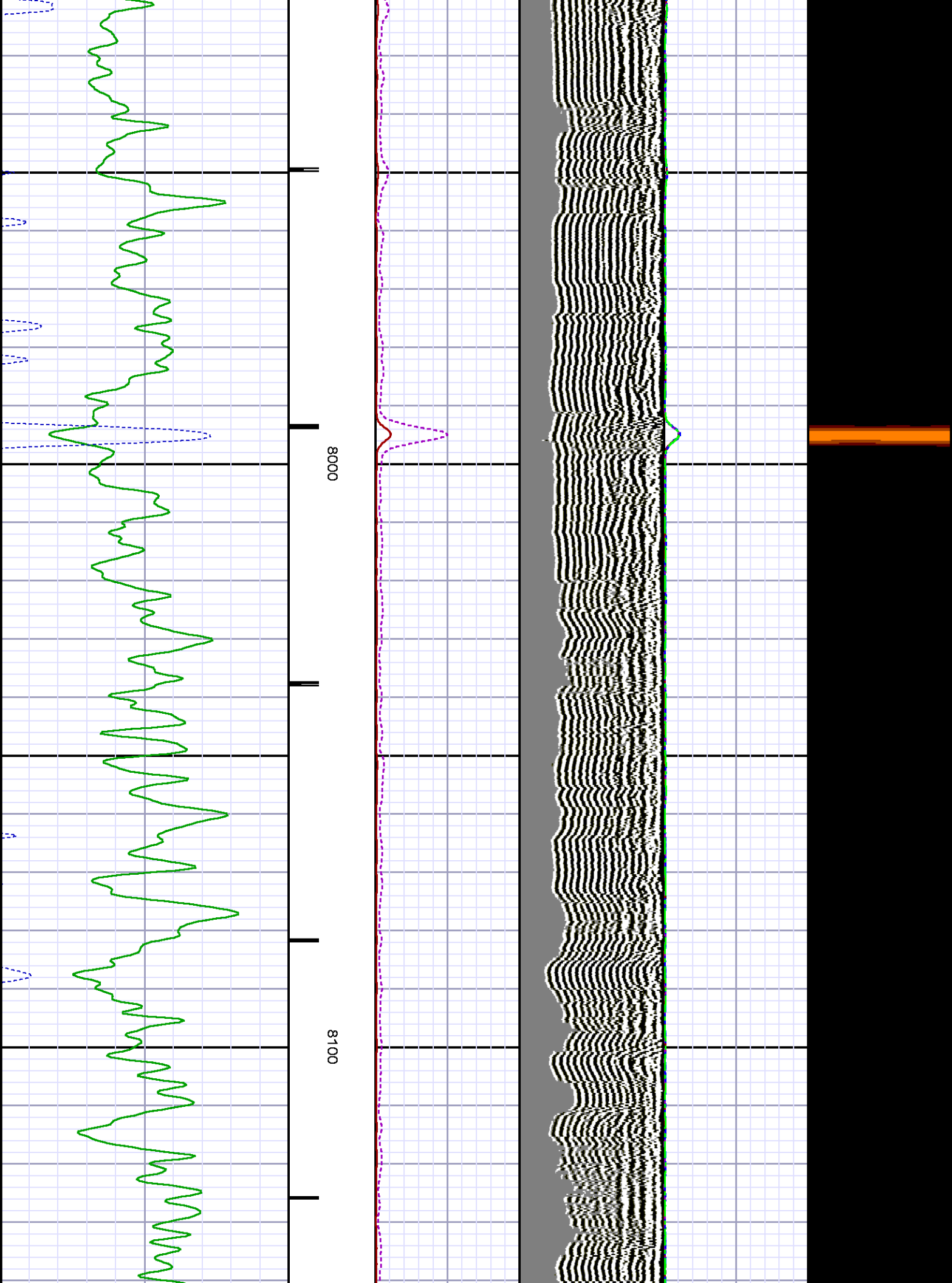


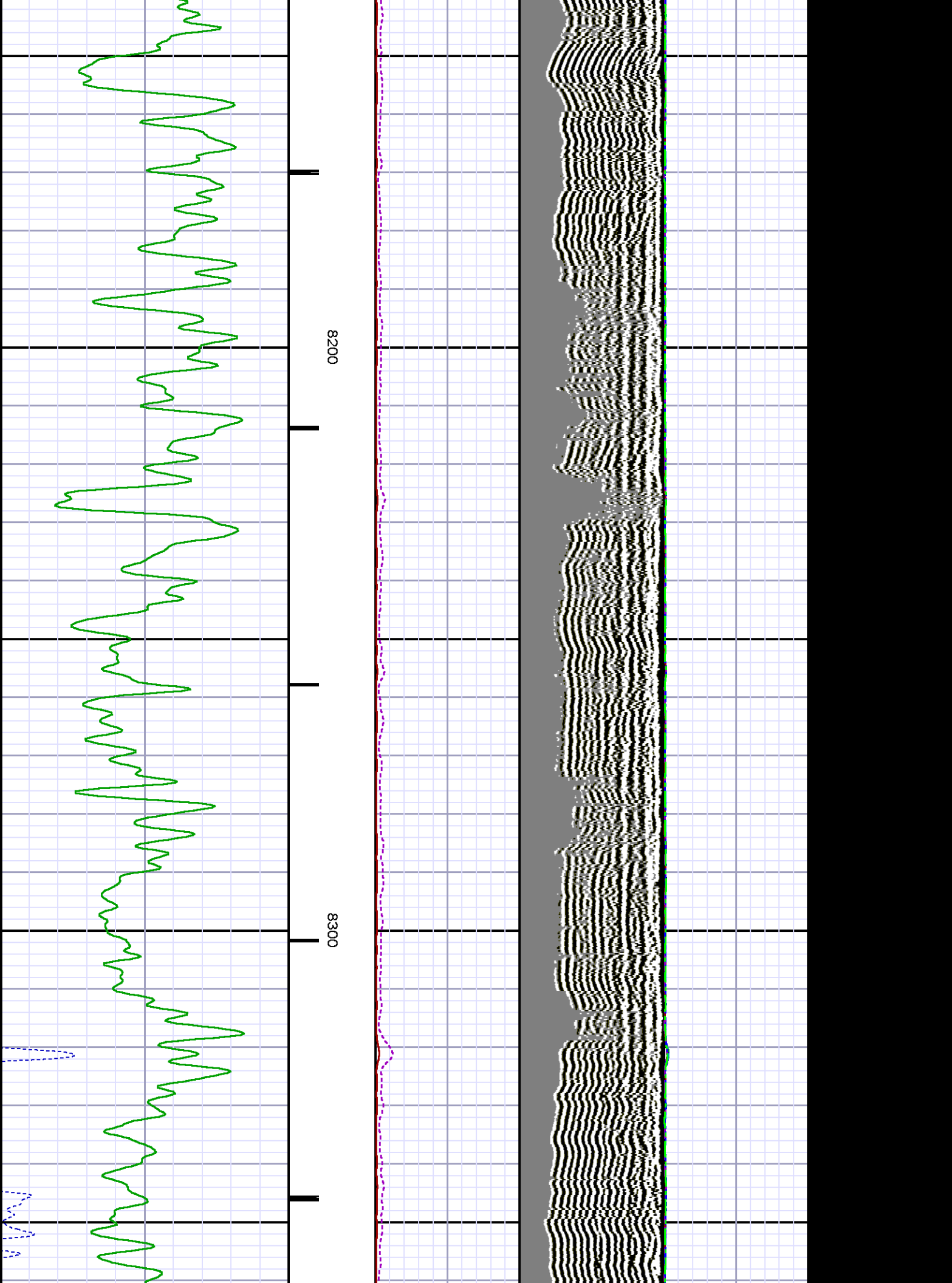


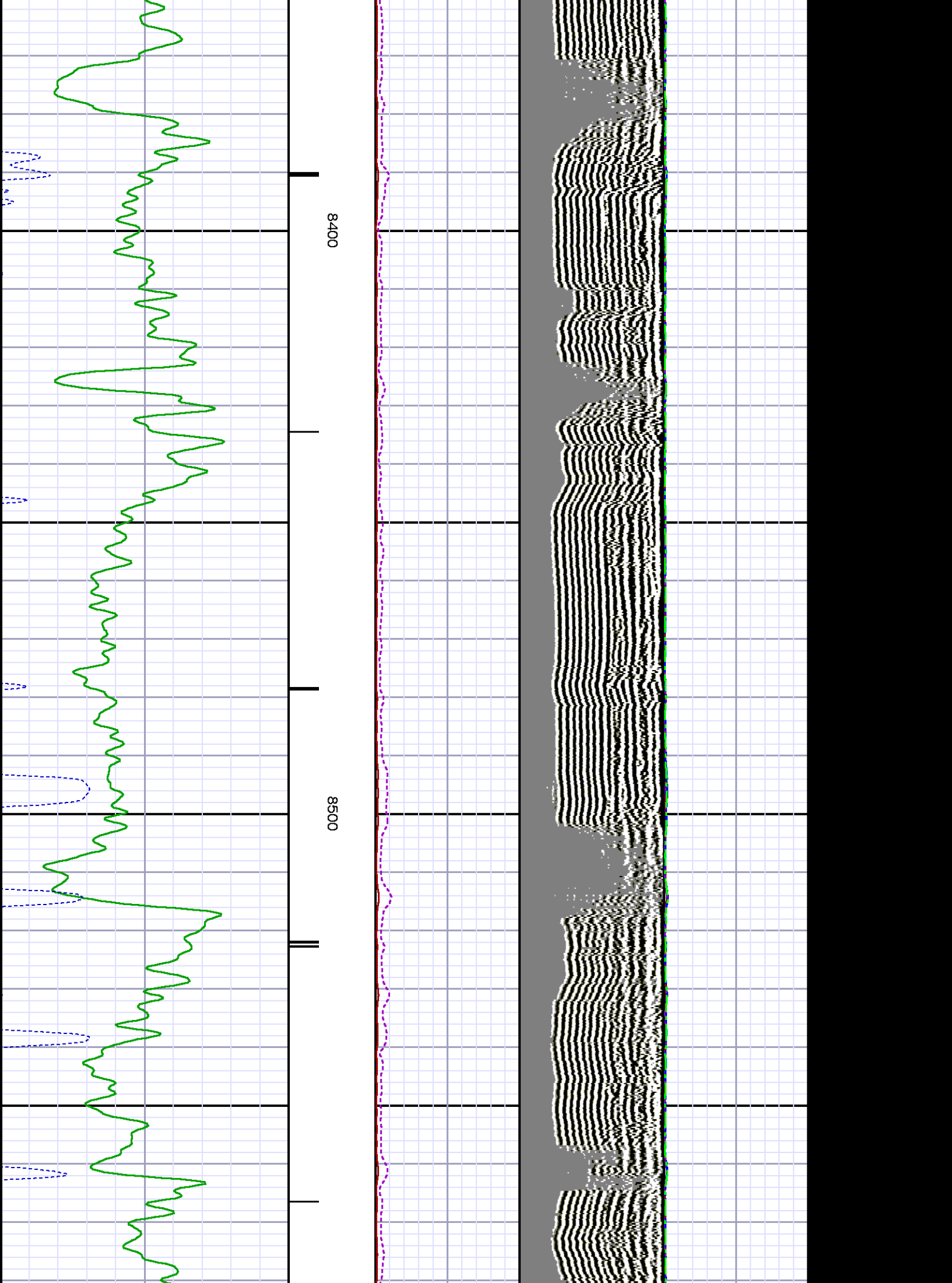


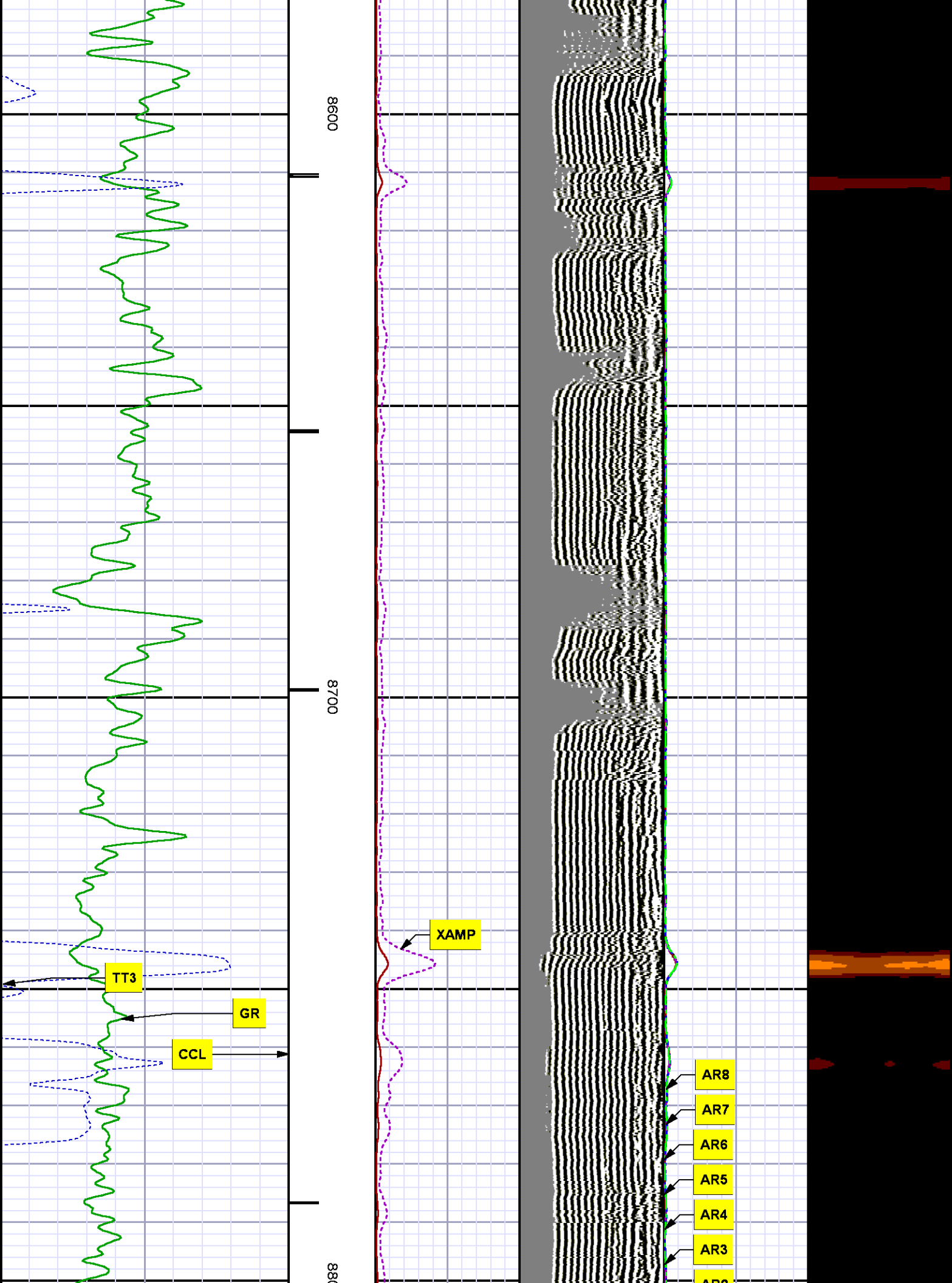


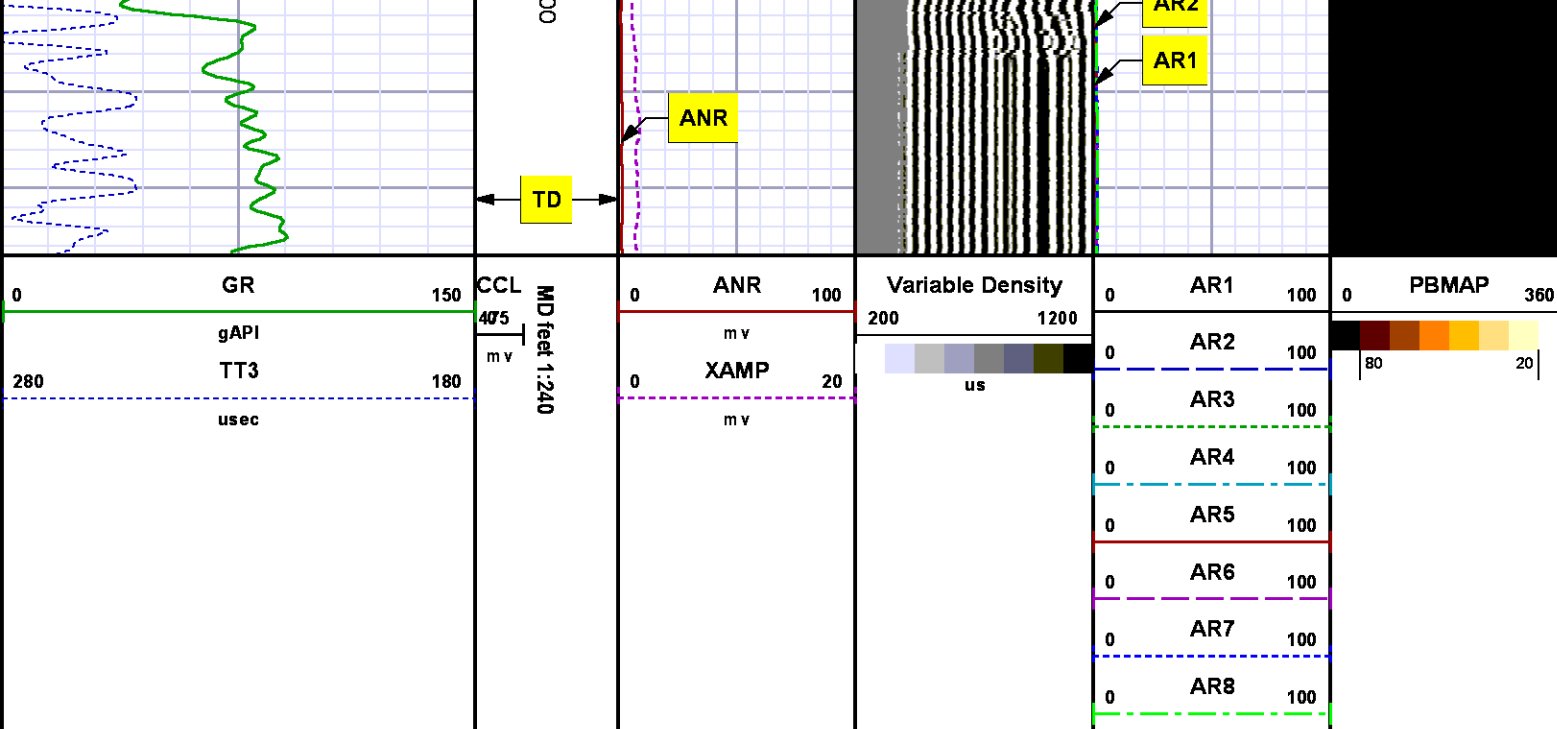












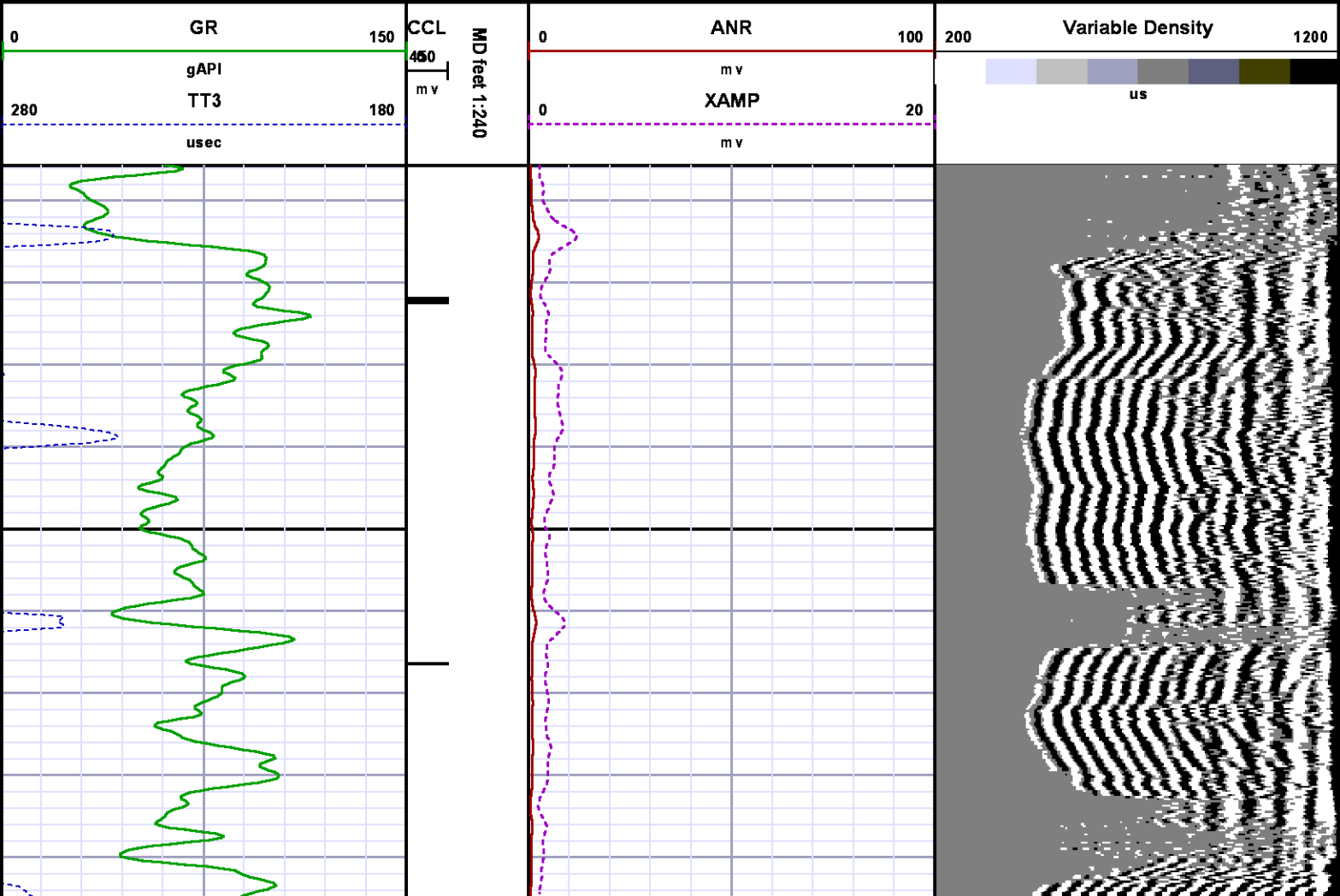
REPEAT SECTION
0 PSI

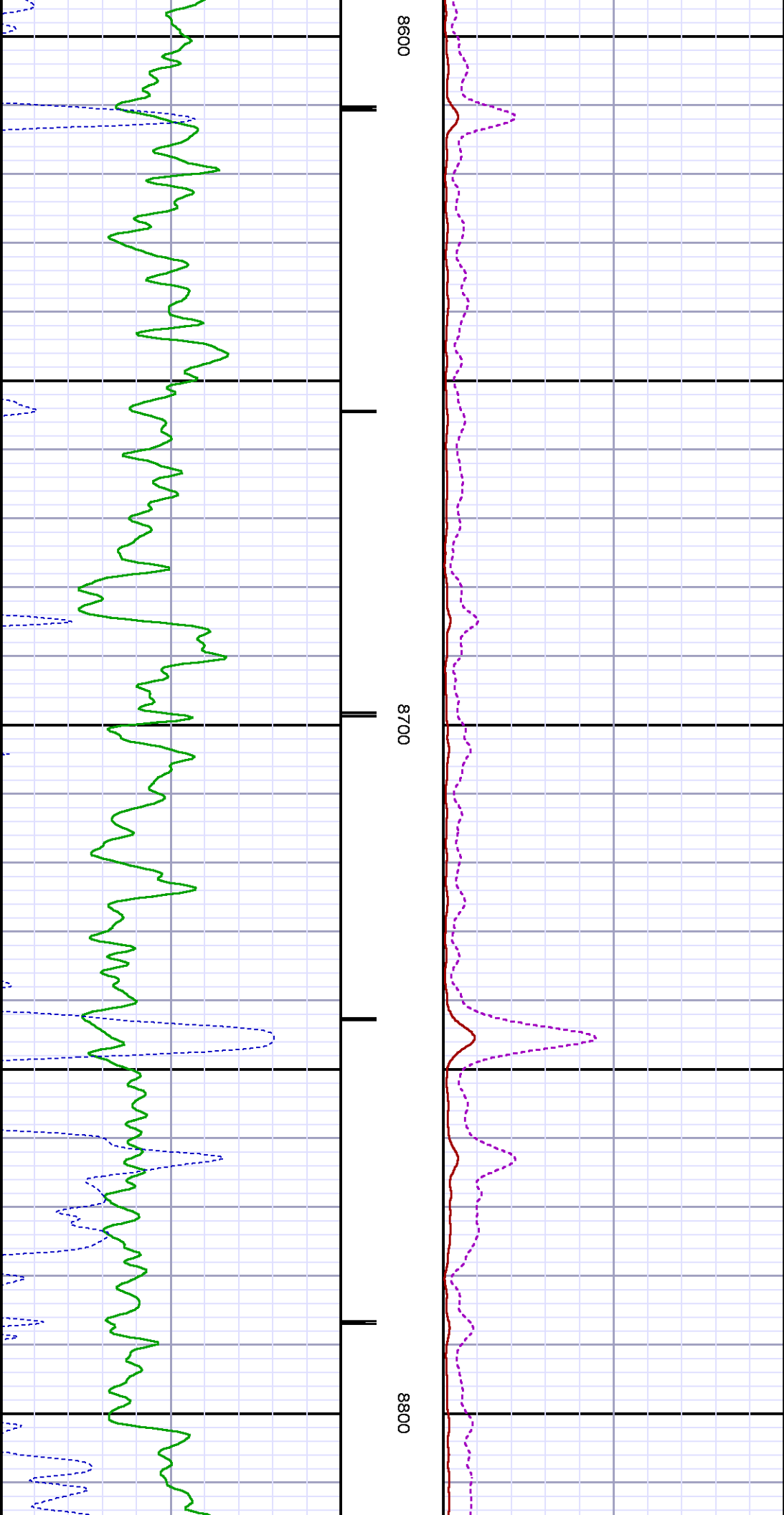
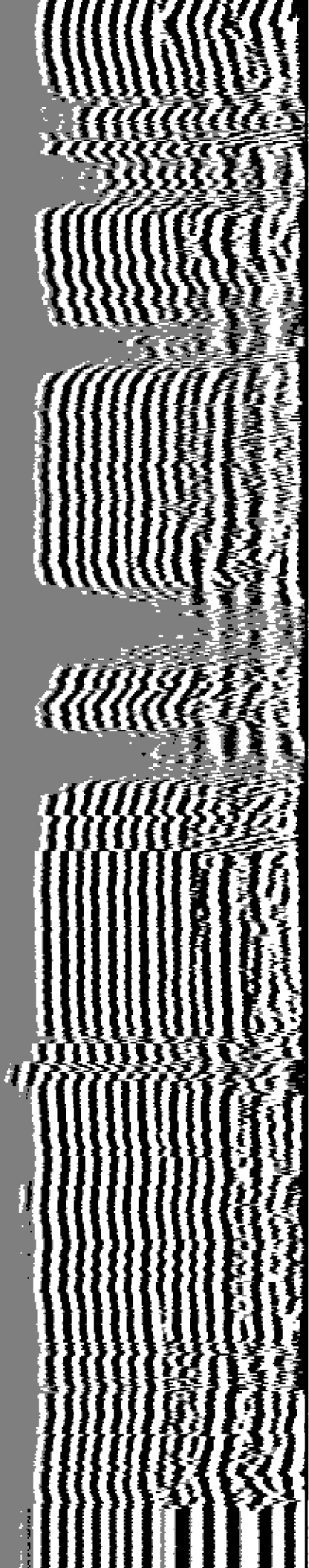
| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | TOP | BOTTOM |
|------------------|-----------------------|---------|----------|----------|----------|
| RAL | Amp Gate Start Far | 305.000 | u sec | 8505.500 | 8846.720 |
| RAL | Amp Gate Start Near | 195.000 | u sec | 8505.500 | 8846.720 |
| RAL | Amp Gate Start Radial | 195.000 | u sec | 8505.500 | 8846.720 |
| RAL | Amp Gate Width Far | 25.000 | u sec | 8505.500 | 8846.720 |
| RAL | Amp Gate Width Near | 25.000 | u sec | 8505.500 | 8846.720 |
| RAL | Amp Gate Width Radial | 25.000 | u sec | 8505.500 | 8846.720 |
| RAL | casing od | 4.500 | inches | 8505.500 | 8846.720 |
| RAL | casing wt | 11.600 | lbm/ft | 8505.500 | 8846.720 |
| RAL | FB Start Far | 291.900 | u sec | 8505.500 | 8846.720 |
| RAL | FB Start Near | 175.391 | u sec | 8505.500 | 8846.720 |
| RAL | FB Start Radial | 175.391 | u sec | 8505.500 | 8846.720 |
| RAL | FB Thresh Far | 10.000 | mv | 8505.500 | 8846.720 |
| RAL | FB Thresh Near | 4.000 | mv | 8505.500 | 8846.720 |
| RAL | FB Thresh Radial | 4.000 | mv | 8505.500 | 8846.720 |
| RAL | Fluid Travel Time | 200.000 | u sec/ft | 8505.500 | 8846.313 |

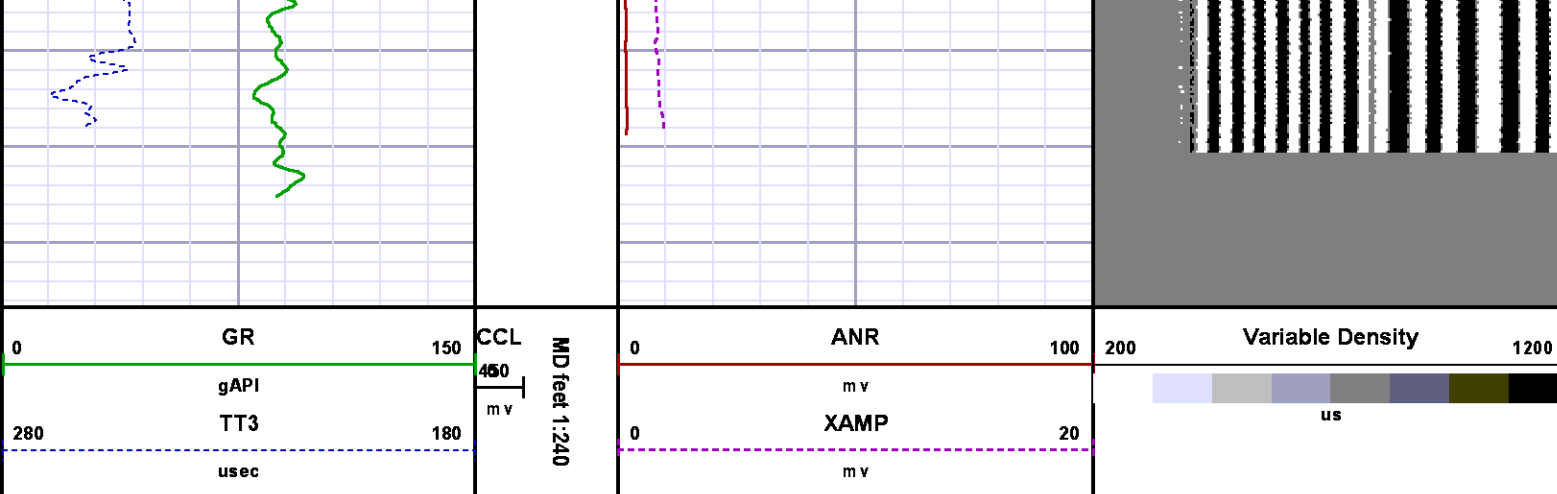
DEPTH OFFSETS
(for Acquired Curves)

| SERIES | DEPTH OFFSET | ACQUIRED CURVES | | | | | |
|--------|--------------|-----------------|------|------|------|------|------|
| 1426XA | -16.750 | ACAL | ANR | AR1 | AR2 | AR3 | AR4 |
| | | AR5 | AR6 | AR7 | AR8 | CHV | FPR2 |
| | | FPR3 | FPR5 | TT3 | TTR1 | TTR2 | TTR3 |
| | | TTR4 | TTR5 | TTR6 | TTR7 | TTR8 | XAMP |
| 1426XA | -15.750 | AFAR | SIG | TT5 | | | |
| 2459XA | -11.340 | CCL | | | | | |
| 2459XA | -9.490 | GR | | | | | |
| 2459XA | -4.090 | NEU | | | | | |

Created by : RAL, v4.8.008
Plotted by : PlotMgr, v5.4.504
Company : WPX ENERGY
Well : WPX ENERGY RWF 523-4
File Name : d:\welldata\wpx energy\rwf 523-4\523cblrepeat.xtf
Mode : PlotMgr 5.4.504
Interval : 8505.72 - 8846.72 feet UP
Created : 1/15/2014 8:03:03 AM







CALIBRATION SUMMARY

RALSHP

Shop Calibration: C:\case\calver\RALSHP\496J14_shp.cal

SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Tue Jan 14 13:44:11 2014 TOOL SERIES: 1426XA ASSET: 496 SEQ: J14

Tool Delay [usec] -55.00 Tank OD in 5.50 Tank Wt lbm/ft 15.50 Tank ID in 4.95

| RECEIVER | Travel Time [usec] | Amp. Gate Start [usec] | Amp. Gate Width [usec] | Zero Gate Start [usec] | Zero Gate Width [usec] | Zero Amp. [mV] | Amp Ref. [mV] | Shop Factor |
|----------------|--------------------|------------------------|------------------------|------------------------|------------------------|----------------|---------------|-------------|
| CAL Pulse | 218 | 216 | 30 | 166 | 25 | -0.057 | 100.00 | 0.17 |
| 3 Ft. Receiver | 217 | 216 | 30 | 151 | 22 | -0.242 | 100.00 | 0.16 |
| 5 Ft. Receiver | 326 | 324 | 30 | 241 | 25 | 0.258 | 150.00 | 0.18 |
| Radial #1 | 217 | 216 | 30 | 151 | 25 | 0.096 | 100.00 | 0.16 |
| Radial #2 | 217 | 216 | 30 | 151 | 25 | -0.251 | 100.00 | 0.16 |
| Radial #3 | 218 | 216 | 30 | 151 | 25 | -0.193 | 100.00 | 0.16 |
| Radial #4 | 217 | 216 | 30 | 151 | 25 | -0.255 | 100.00 | 0.16 |
| Radial #5 | 217 | 216 | 30 | 151 | 25 | -0.326 | 100.00 | 0.16 |
| Radial #6 | 216 | 216 | 30 | 151 | 25 | -0.201 | 100.00 | 0.16 |
| Radial #7 | 216 | 216 | 30 | 151 | 25 | -0.216 | 100.00 | 0.16 |
| Radial #8 | 217 | 216 | 30 | 151 | 25 | -0.141 | 100.00 | 0.16 |

RALFLD

Wellsite Calibration: C:\case\calver\RALFLD\496J14_fid.cal

WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Tue Jan 14 13:47:08 2014 TOOL SERIES: 1426XA ASSET: 496 SEQ: J14

Tool Delay [usec] -55.00 Casing OD in 4.50 Casing Wt lbm/ft 11.60 Casing ID in 4.00

| RECEIVER | Zero Gate Start [usec] | Zero Gate Width [usec] | Zero Amp. [mV] | Full Amp. [mV] | Wellsite Factor | Amp. Ref [mV] |
|----------------|------------------------|------------------------|----------------|----------------|-----------------|---------------|
| CAL Pulse | 166 | 25 | 0.048 | 0.000 | 1.00 | 100.000 |
| 3 Ft. Receiver | 200 | 25 | 1.704 | | | |
| 5 Ft. Receiver | 315 | 15 | 1.917 | | | |
| Radial #1 | 200 | 25 | 1.257 | | | |
| Radial #2 | 200 | 25 | 1.299 | | | |
| Radial #3 | 200 | 25 | 1.388 | | | |
| Radial #4 | 200 | 25 | 1.358 | | | |
| Radial #5 | 200 | 25 | 1.574 | | | |
| Radial #6 | 200 | 25 | 1.656 | | | |
| Radial #7 | 200 | 25 | 1.337 | | | |
| Radial #8 | 200 | 25 | 1.338 | | | |

GAMMA RAY

Calibration File: C:\case\calver\GR\121D7.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Thu Dec 19 13:07:05 2013 TOOL SERIES: 2459XA ASSET: 121 SEQ: D7

| Calibrator # | Background [cps] | Calibrator On [cps] | Multiplicative | Background [api] | Calibrator On [api] | Differential [api] |
|--------------|------------------|---------------------|----------------|------------------|---------------------|--------------------|
| S2K WA612 | 72.18 | 324.27 | 0.734 | 52.97 | 237.97 | 185.00 |

Verification File: C:\case\calver\GR\121D7.VP

PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED: Thu Dec 19 13:08:40 2013 TOOL SERIES: 2459XA ASSET: 121 SEQ: D7

| Calibrator # | Background [cps] | Calibrator On [cps] | Multiplicative | Background [api] | Calibrator On [api] | Differential [api] |
|--------------|------------------|---------------------|----------------|------------------|---------------------|--------------------|
| S2K WA612 | 78.40 | 322.22 | 0.734 | 57.54 | 236.47 | 178.93 |

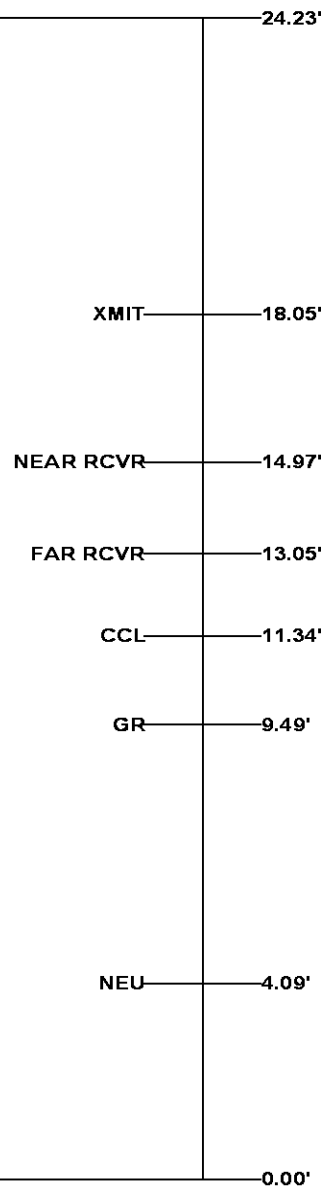
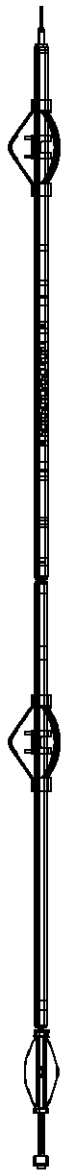
TOOL DIAGRAM

OTA SHORT CABLE HEAD



| PROBE 2 3/4 DUAL RECEIVER RADII | |
|---------------------------------|-----------------|
| Series | 1426XA |
| Mnemonic | PROB |
| Diameter | 2.75" |
| Length | 11.17' |
| Measure Point | 0.75' FAR RCVR |
| Measure Point | 2.67' NEAR RCVR |
| Measure Point | 5.75' XMIT |
| Temp Rating | 350.00 °F |
| Press Rating | 18000.00 PSI |

| Probe GR/CCL/NEU | |
|------------------|-----------|
| Series | 2459XA |
| Mnemonic | PROB |
| Diameter | 2.75" |
| Length | 9.42' |
| Measure Point | 1.21' NEU |
| Measure Point | 6.60' GR |
| Measure Point | 8.46' CCL |

| CENTRALIZER | |
|-------------|----------|
| Series | RALCENT |
| Mnemonic | CENT |
| Diameter | 3.12" |
| Weight | 20.00 lb |



Total Length: 24.23'
Total Weight: Not Available
Max Diameter: 0' 3.12"

| | | | | | |
|---|---------|----------|----------------------|----------|----------------|
| <div></div> <div>Baker Atlas</div> <div></div> | Company | | WPX ENERGY | File No: | |
| | Well | | WPX ENERGY RWF 523-4 | CH081546 | |
| | Field | | RULISON | API No: | |
| | County | GARFIELD | State | COLORADO | 05045220910000 |
| Location | | | Elevations | | |
| SHL: 454' FNL X 1717' FEL | | | KB | 5820 ft | 4 7S 94W |
| BHL: 2568' FSL X 2017' FWL (NESW) | | | DF | | RMV 108-4 PAD |
| | | | GL | 5794 ft | NABORS 574 |
| SEC 4 TWP 7S RGE 94W | | | | | |