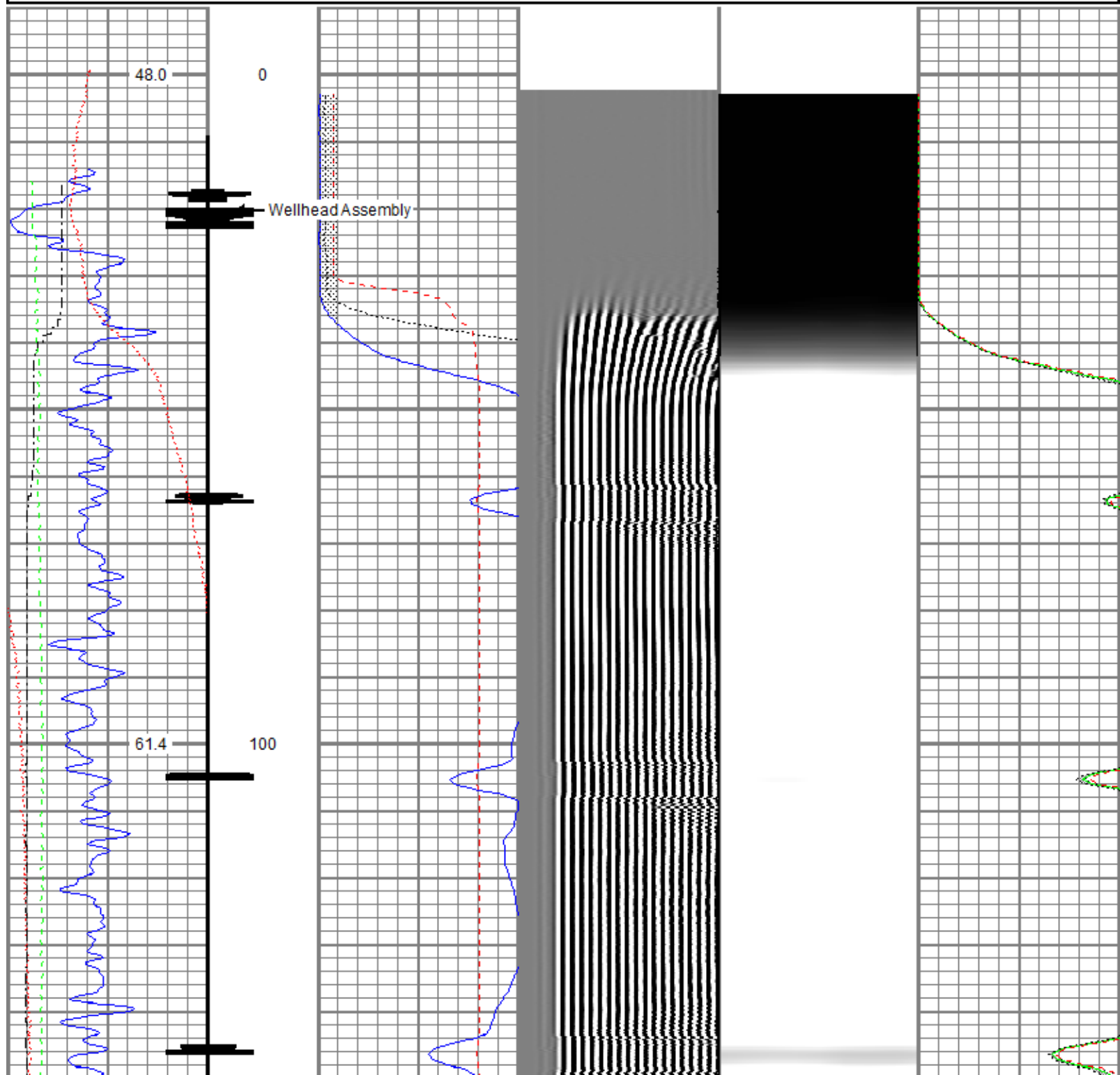


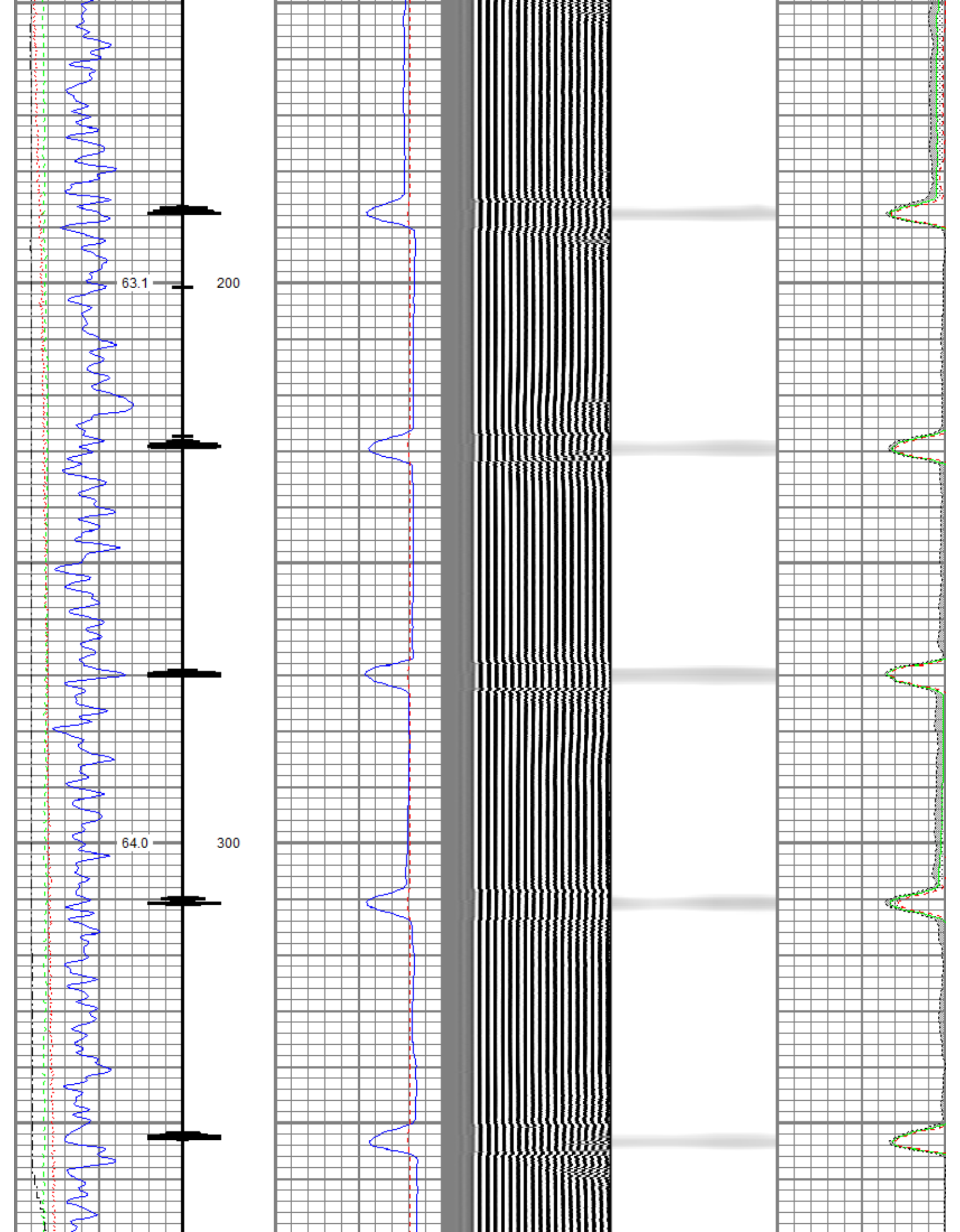


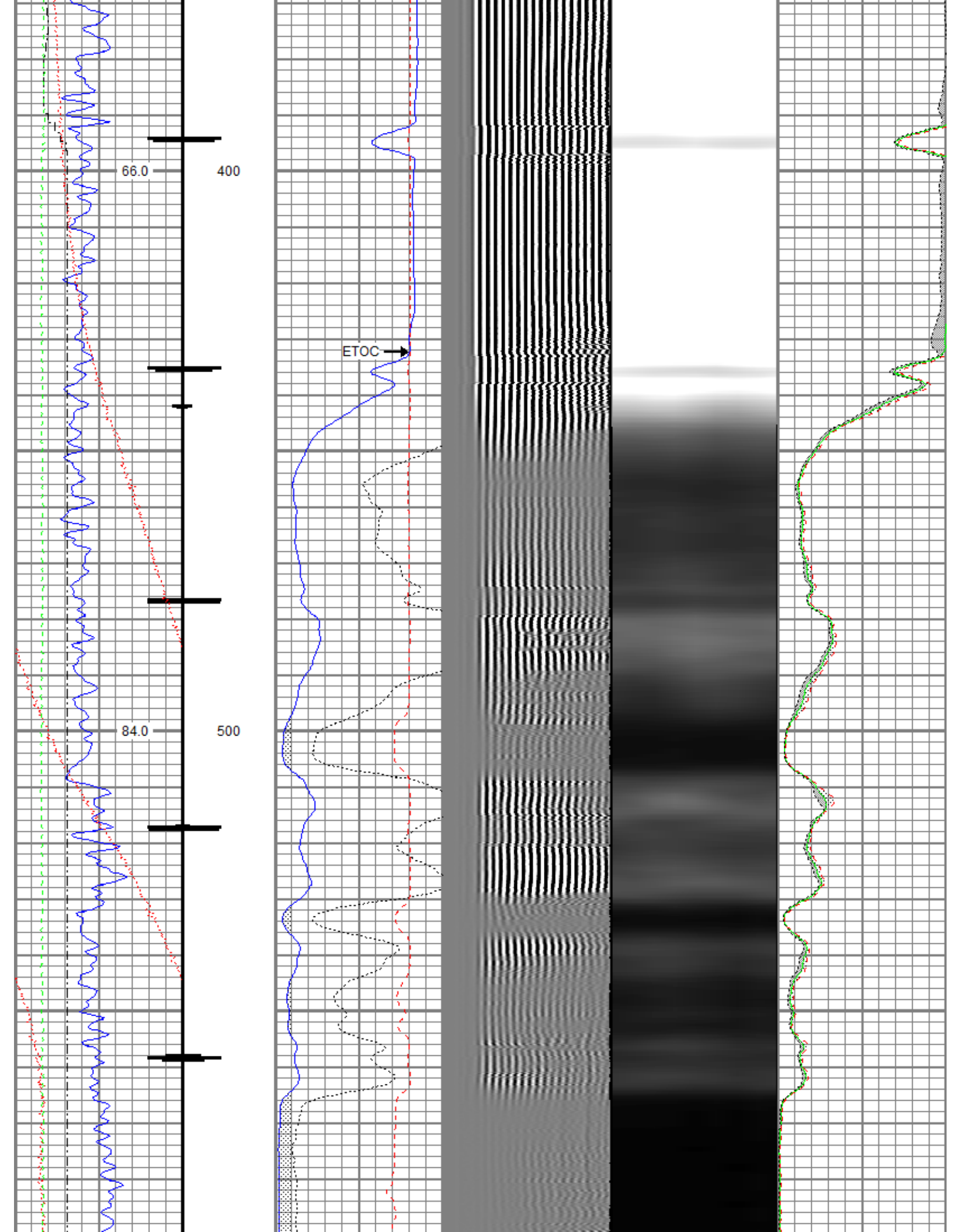
|  |
|--|
| <<< Fold Here >>>  |
| All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule. |
| Comments   |
| <p>Log ran as per customer request.<br/>Logged Ran from 6276 FT to Surface.<br/>Recorded with 0 PSI surface induced pressure.<br/>Logging tools were clean and free of debris upon completion of operations.</p> <p>Thank you for choosing FMC Technologies Completion Services, Inc.!!</p>  |

|                      |  |
|----------------------|--|
| Database File:       | anadarko_ft_st_vrain_17_rcbl.db        |
| Dataset Pathname:    | main                                   |
| Presentation Format: | radii                                  |
| Dataset Creation:    | Thu Nov 05 09:15:15 2015 by Log 7.0 B1 |
| Charted by:          | Depth in Feet scaled 1:240             |

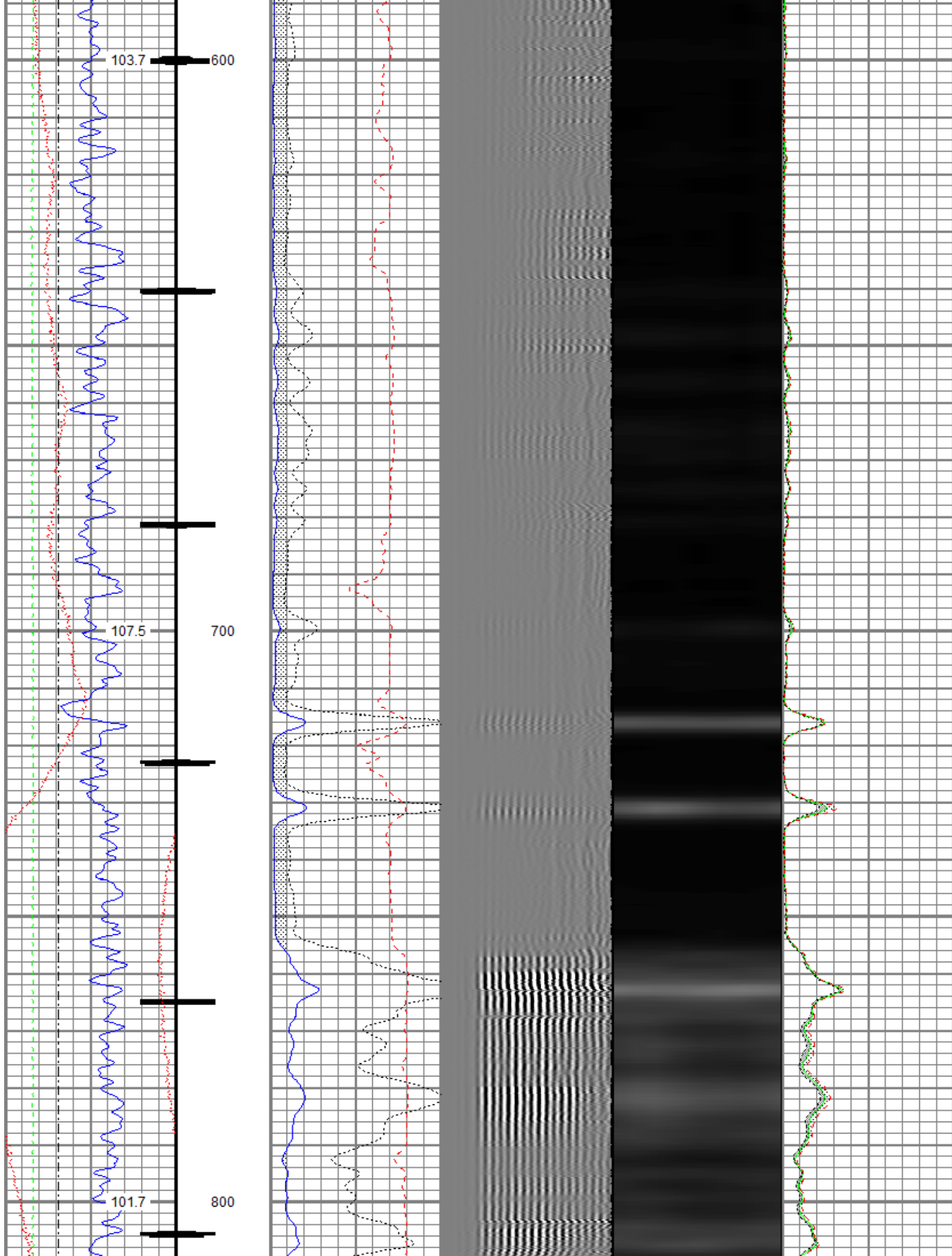
|                            |                              |                                     |            |                         |
|----------------------------|------------------------------|-------------------------------------|------------|-------------------------|
| Gamma Ray<br>(GAPI) 120    | 0 3' Amplitude (mV) 100      | 5' Variable Density Log<br>200 1200 | Sector Map | 0 Average Amplitude 100 |
| Casing Collar Locator      | 3' Amplitude x 5<br>(mV) 20  |                                     |            | Minimum Amplitude       |
| 0 Temperature (degF) 20    | 3' Travel Time<br>(usec) 150 |                                     |            | Maximum Amplitude       |
| Line Speed<br>(ft/min) 150 |                              |                                     |            |                         |
| 0 Line Tension (lb) 2000   |                              |                                     |            |                         |

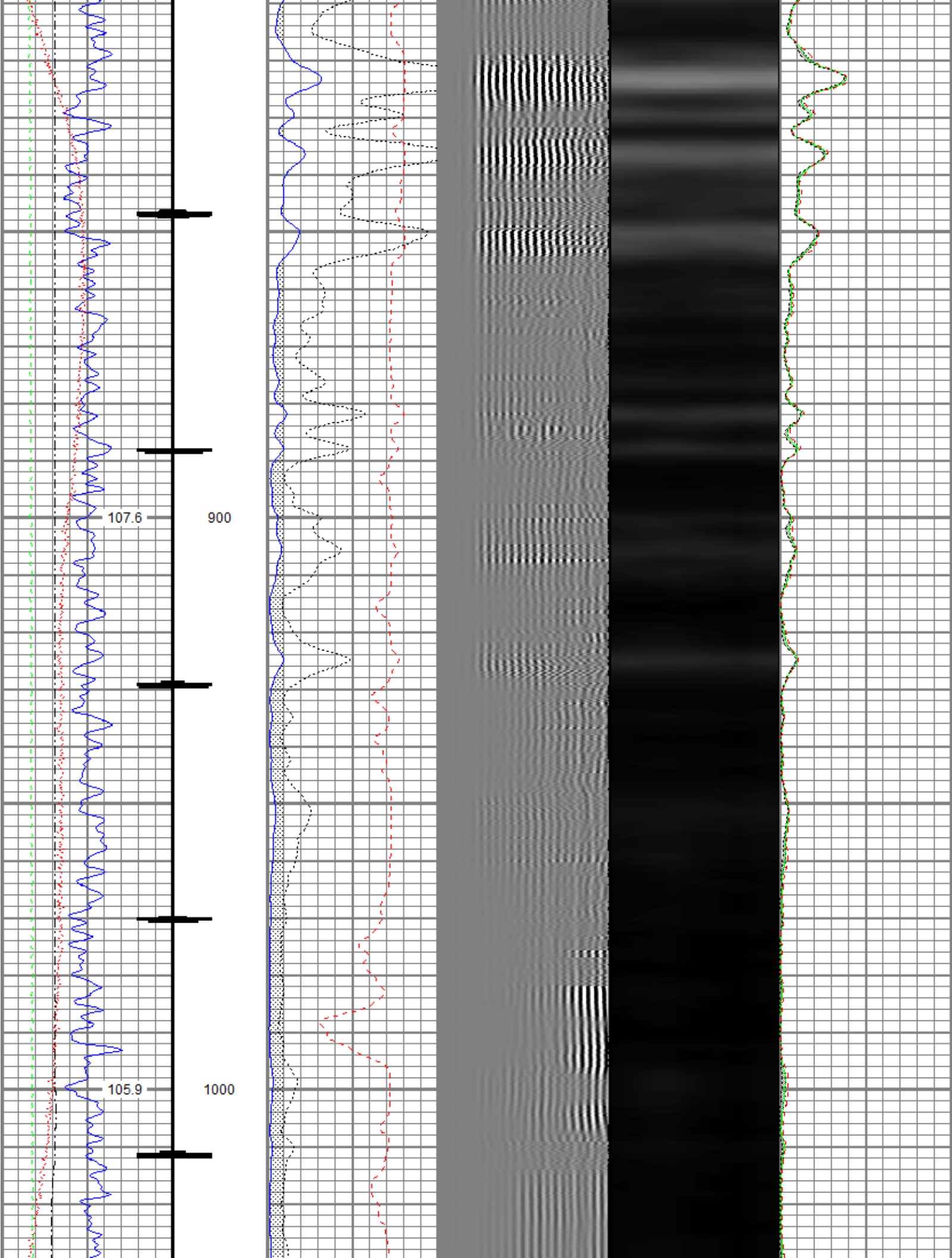


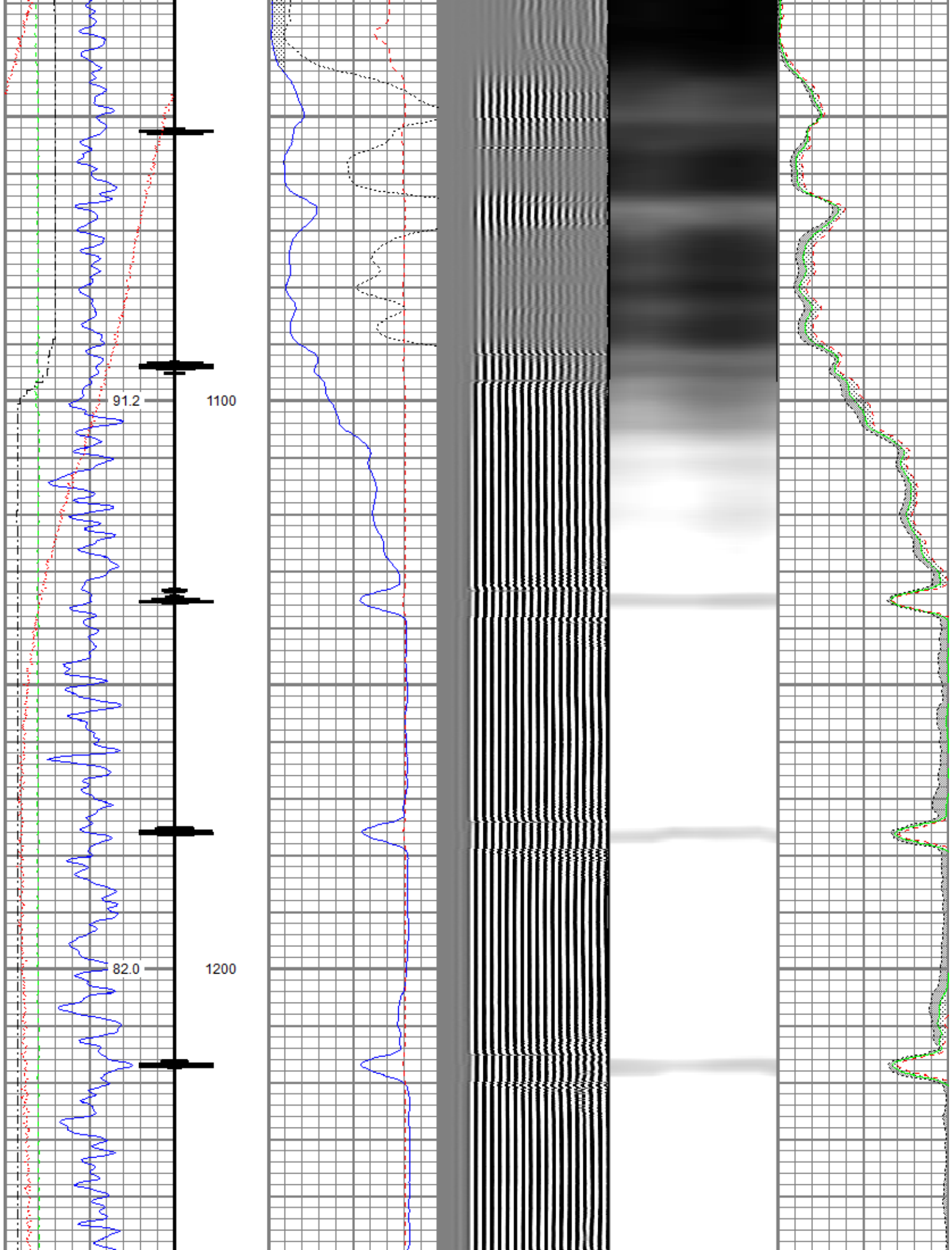


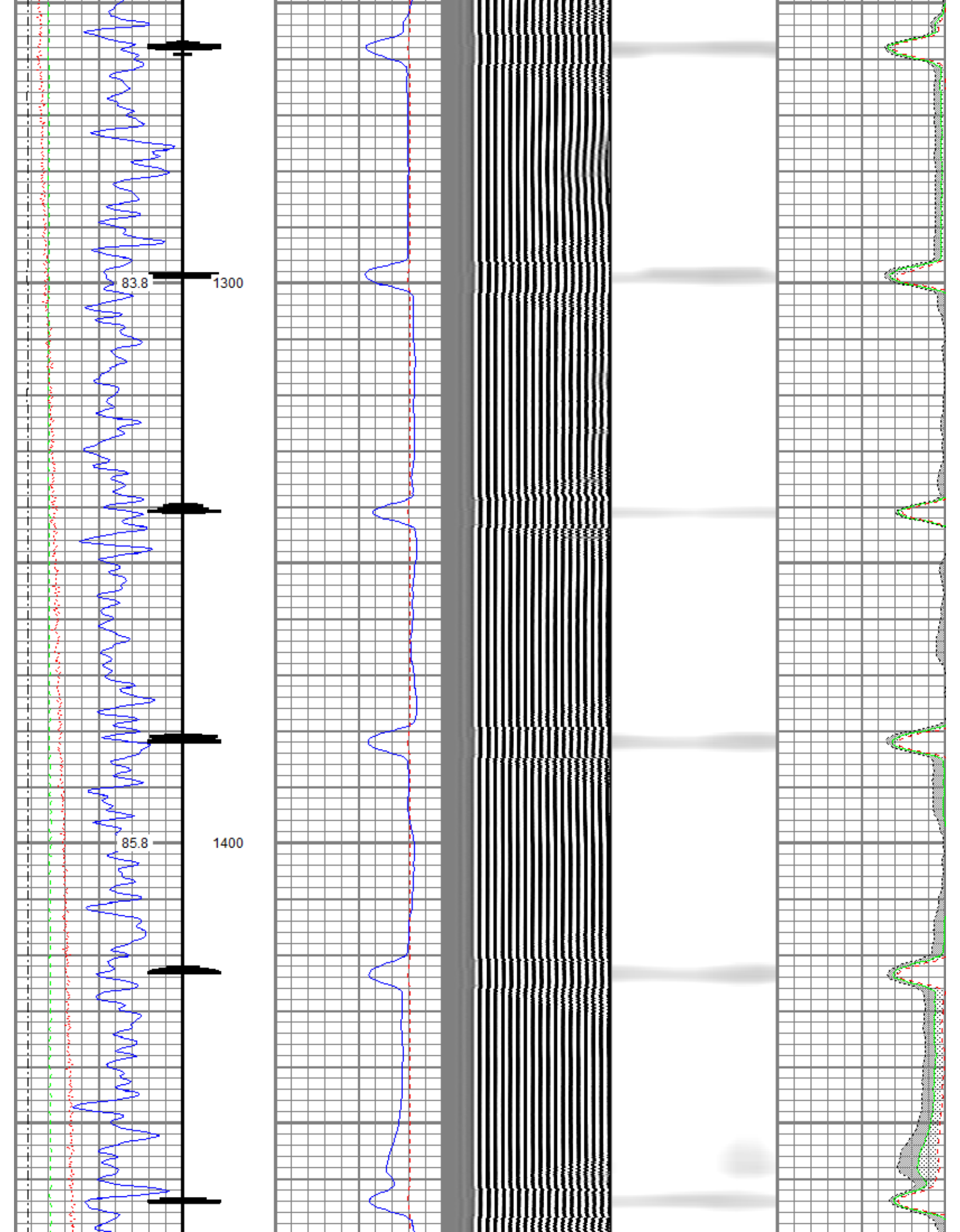




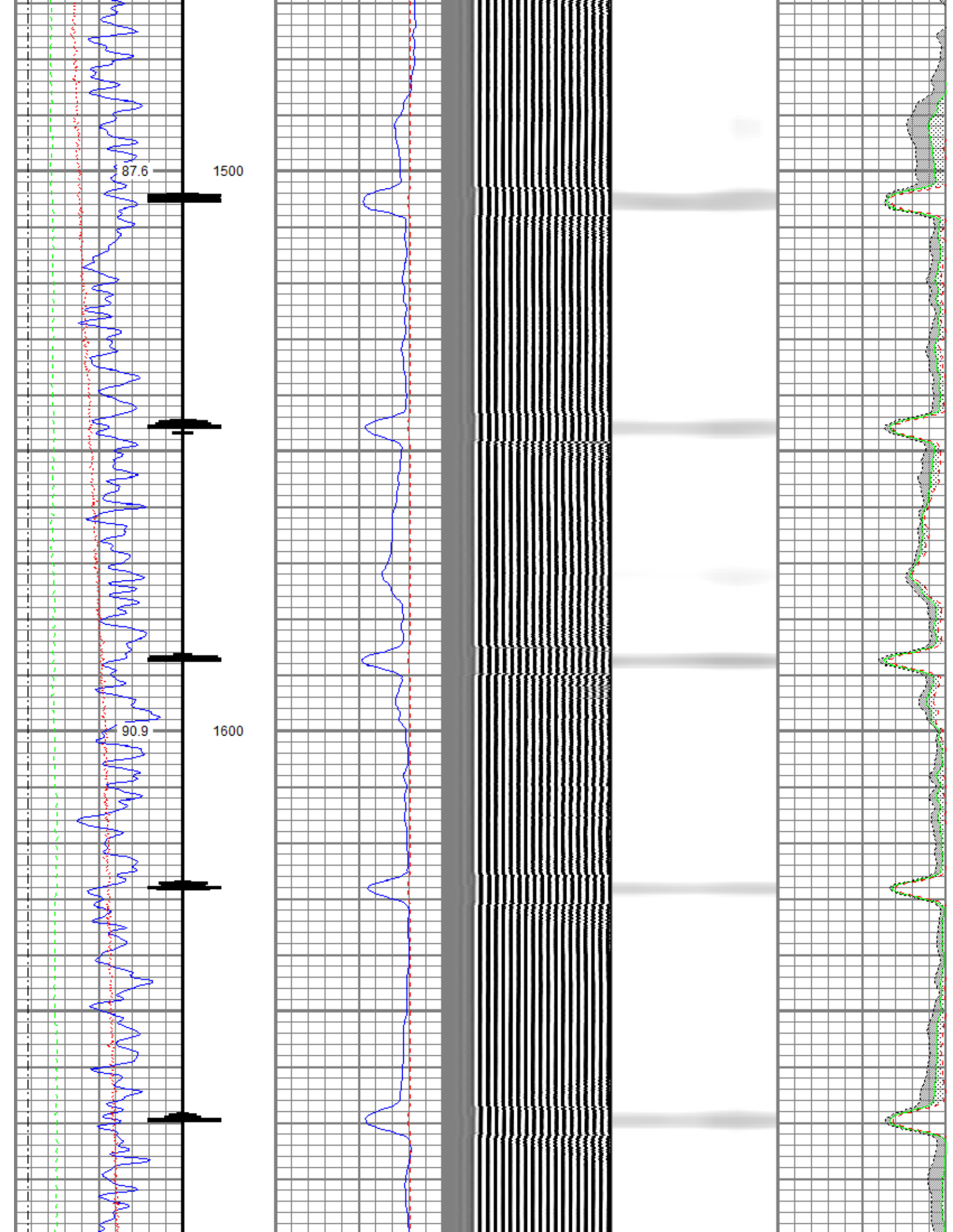


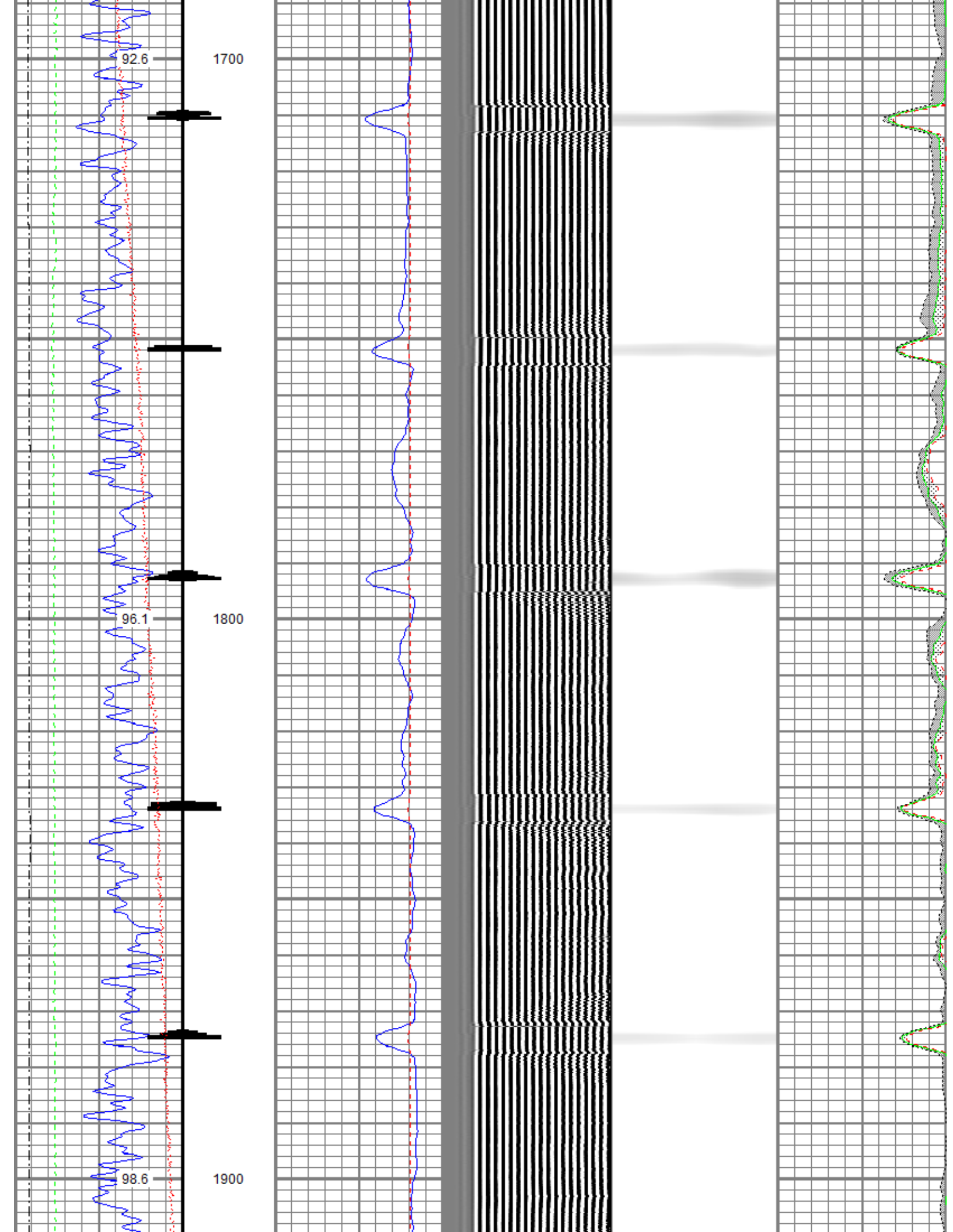


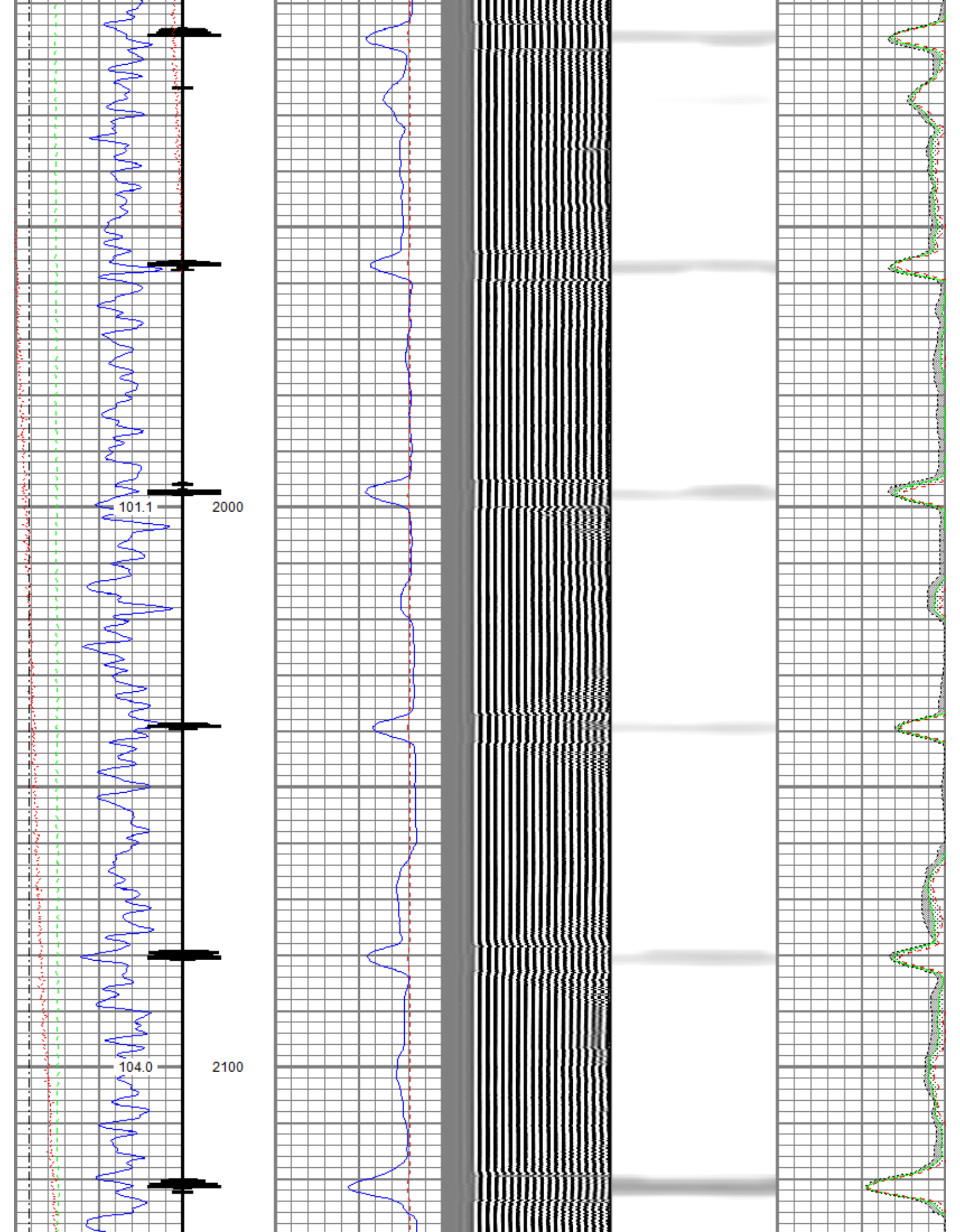


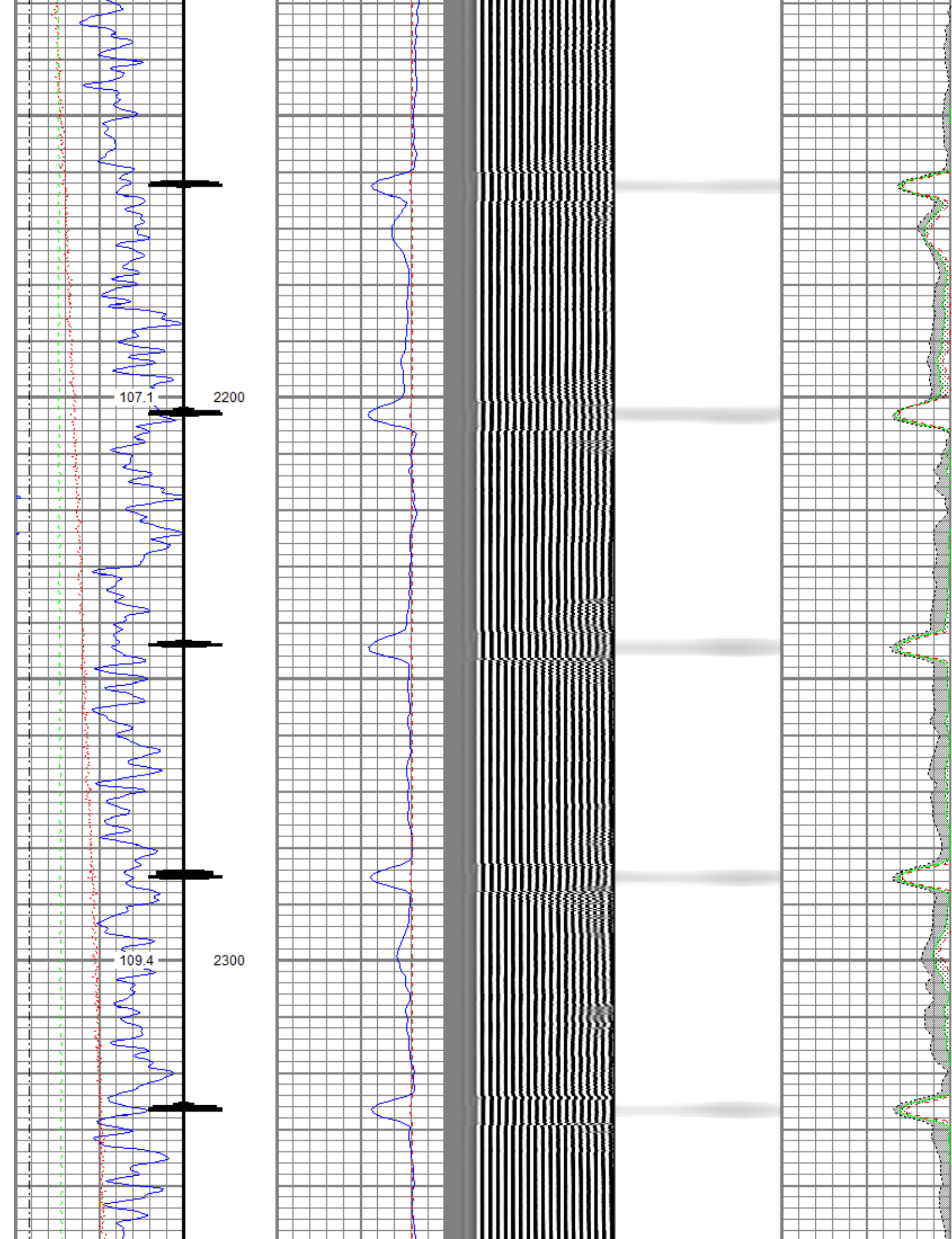




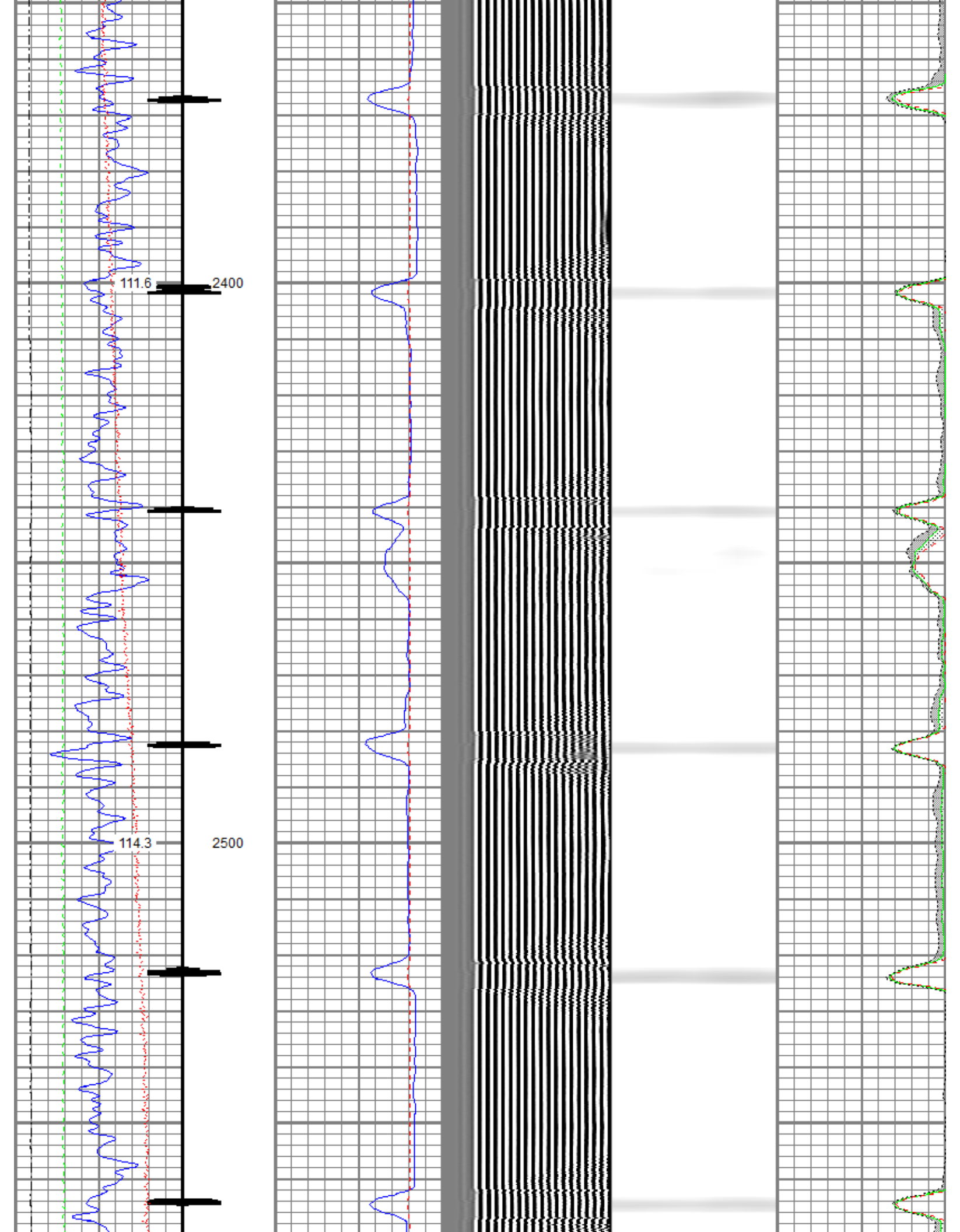


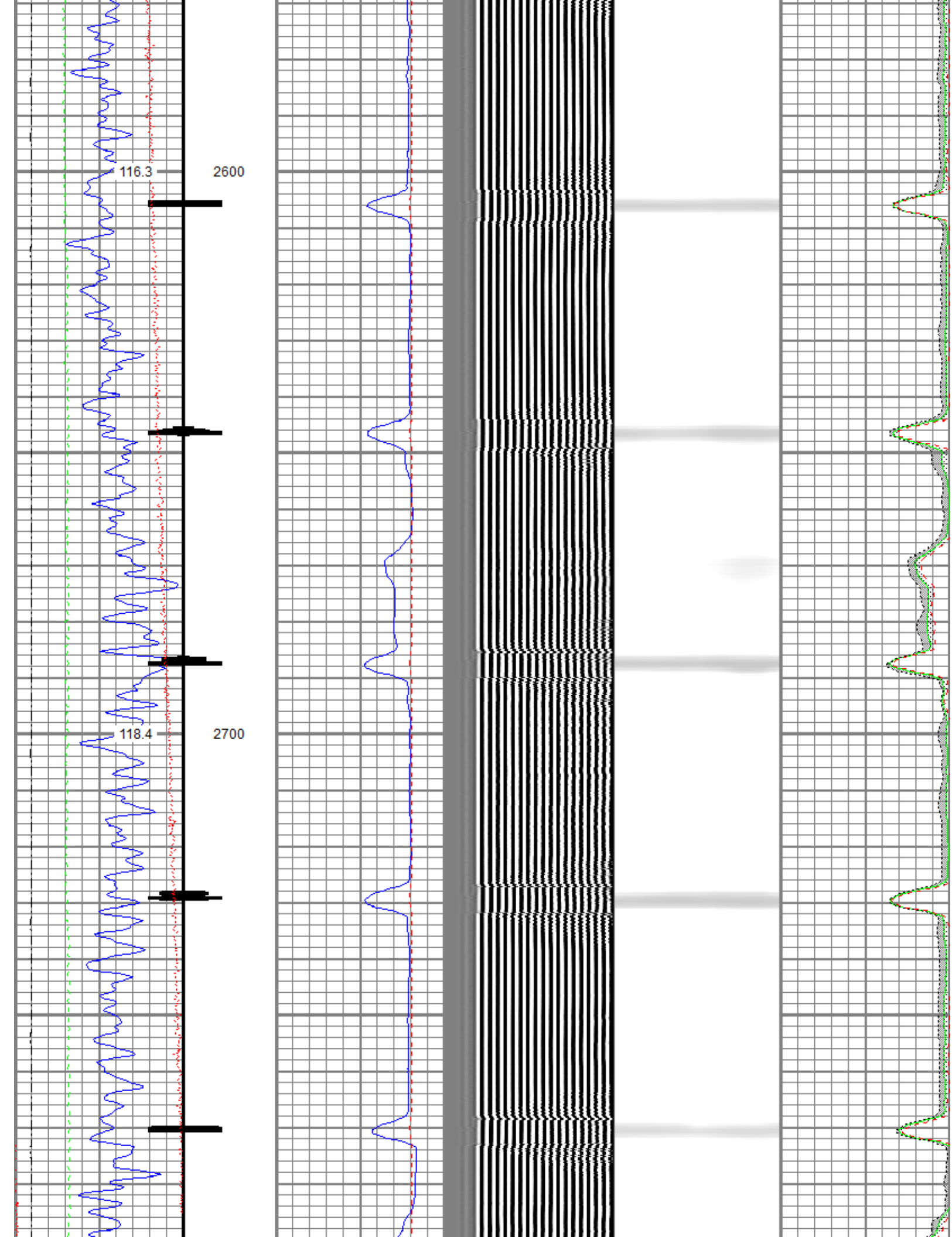


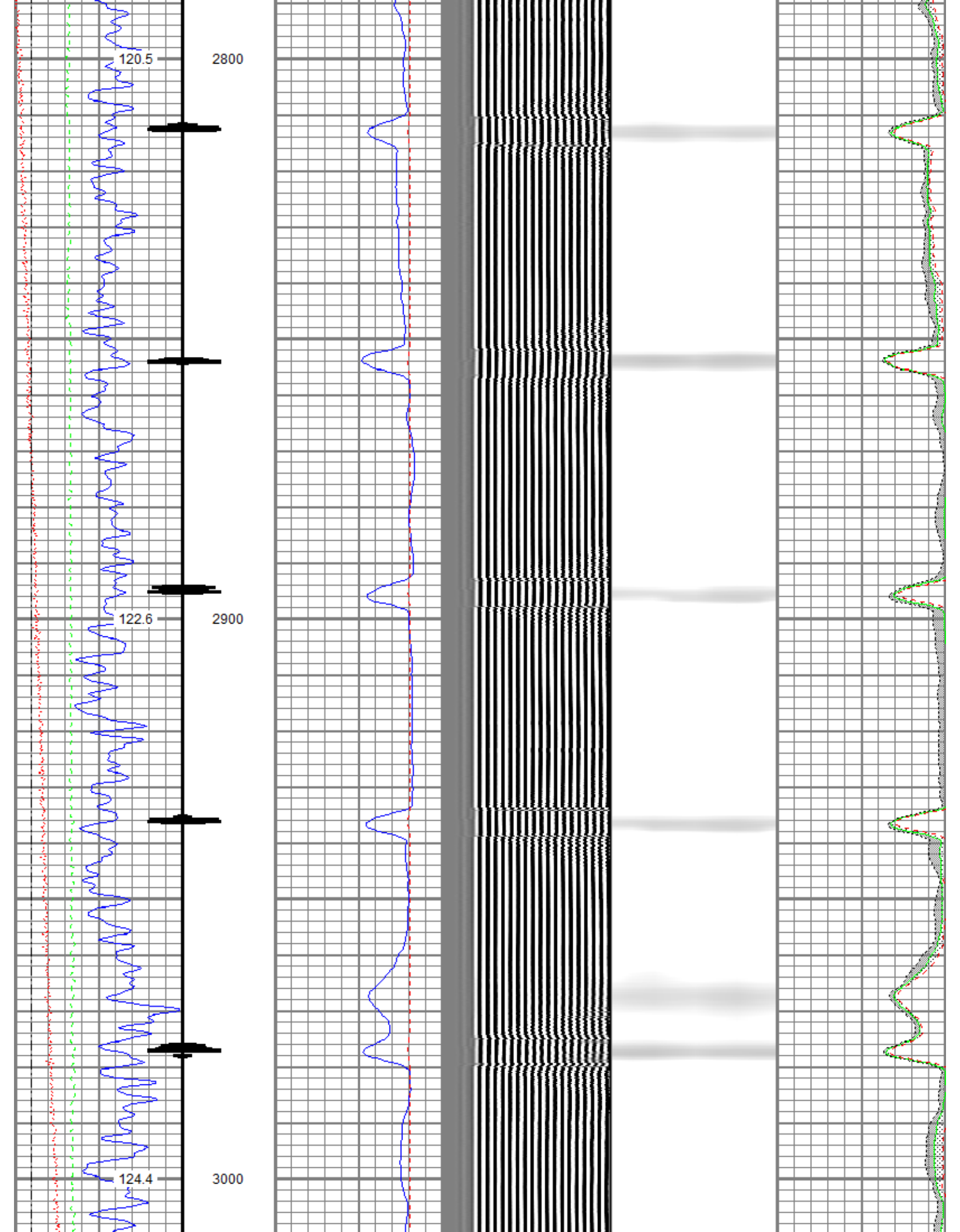


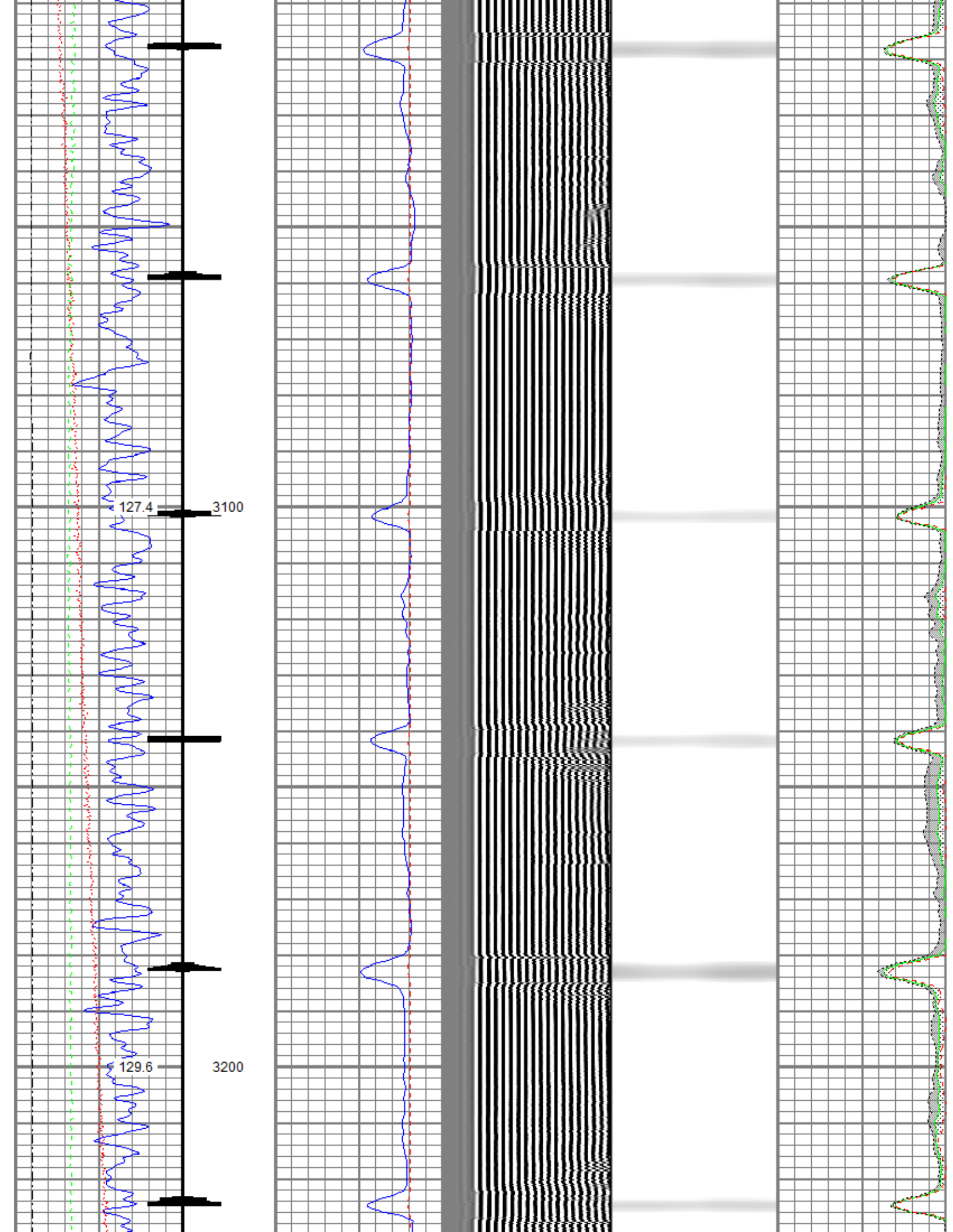




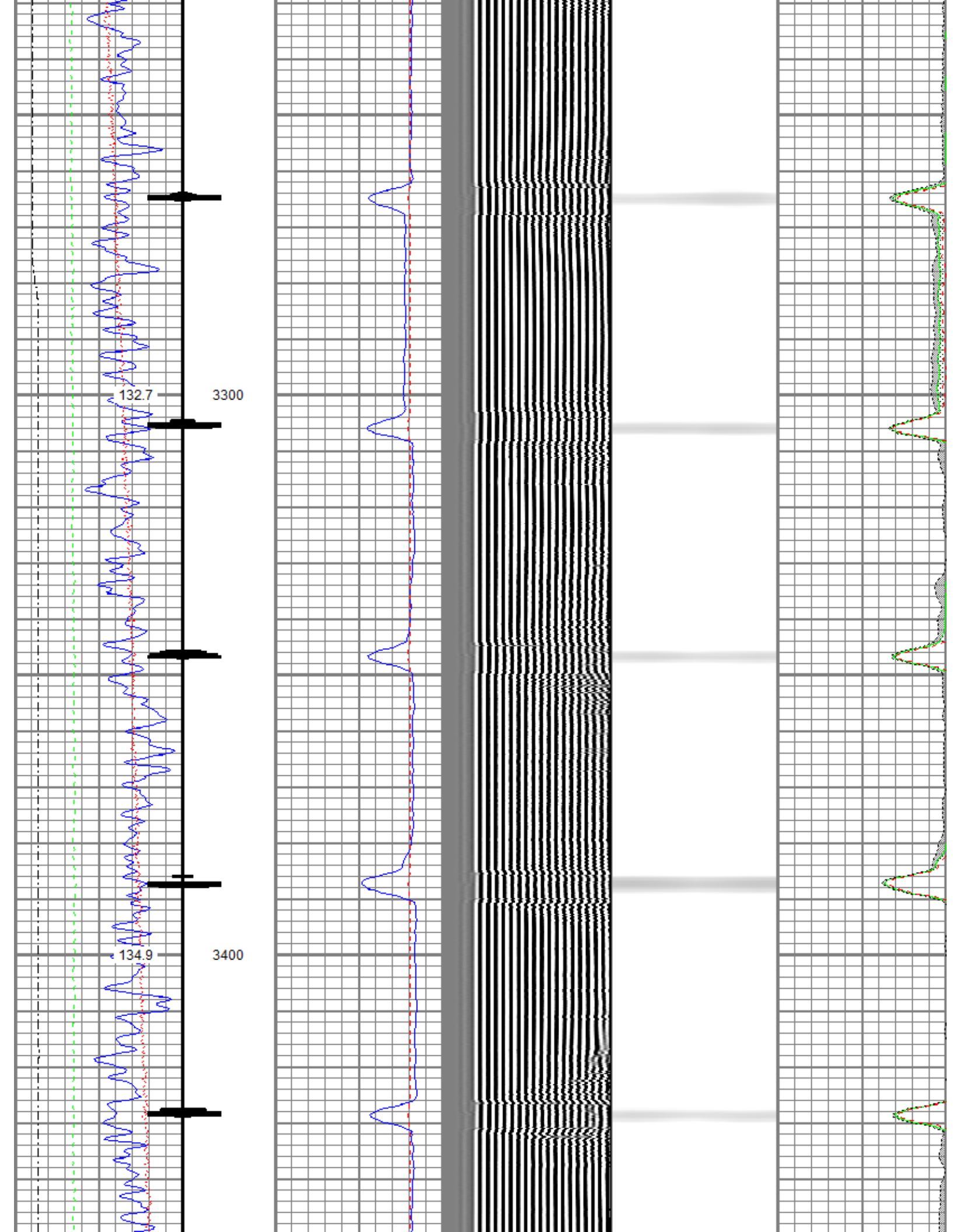


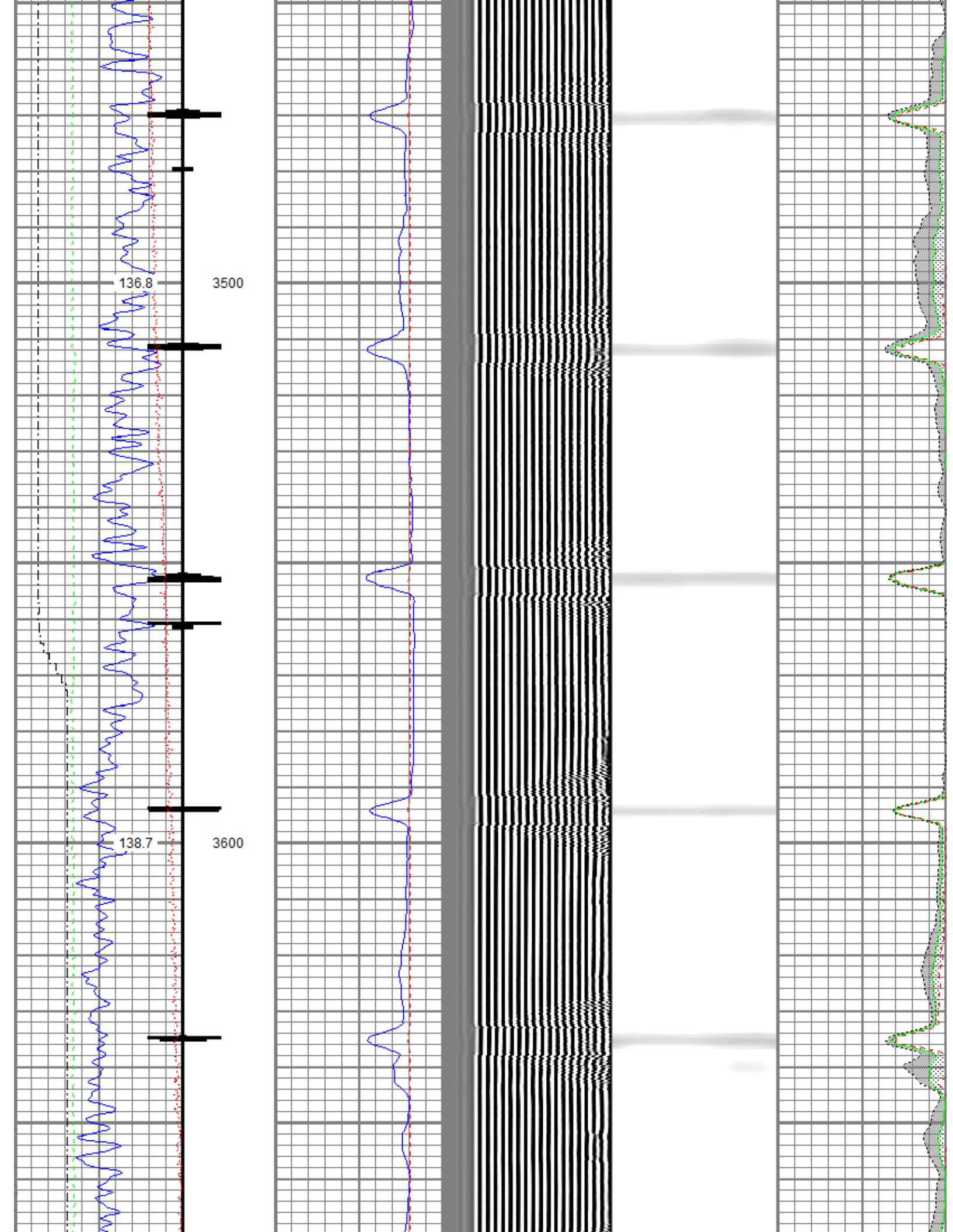


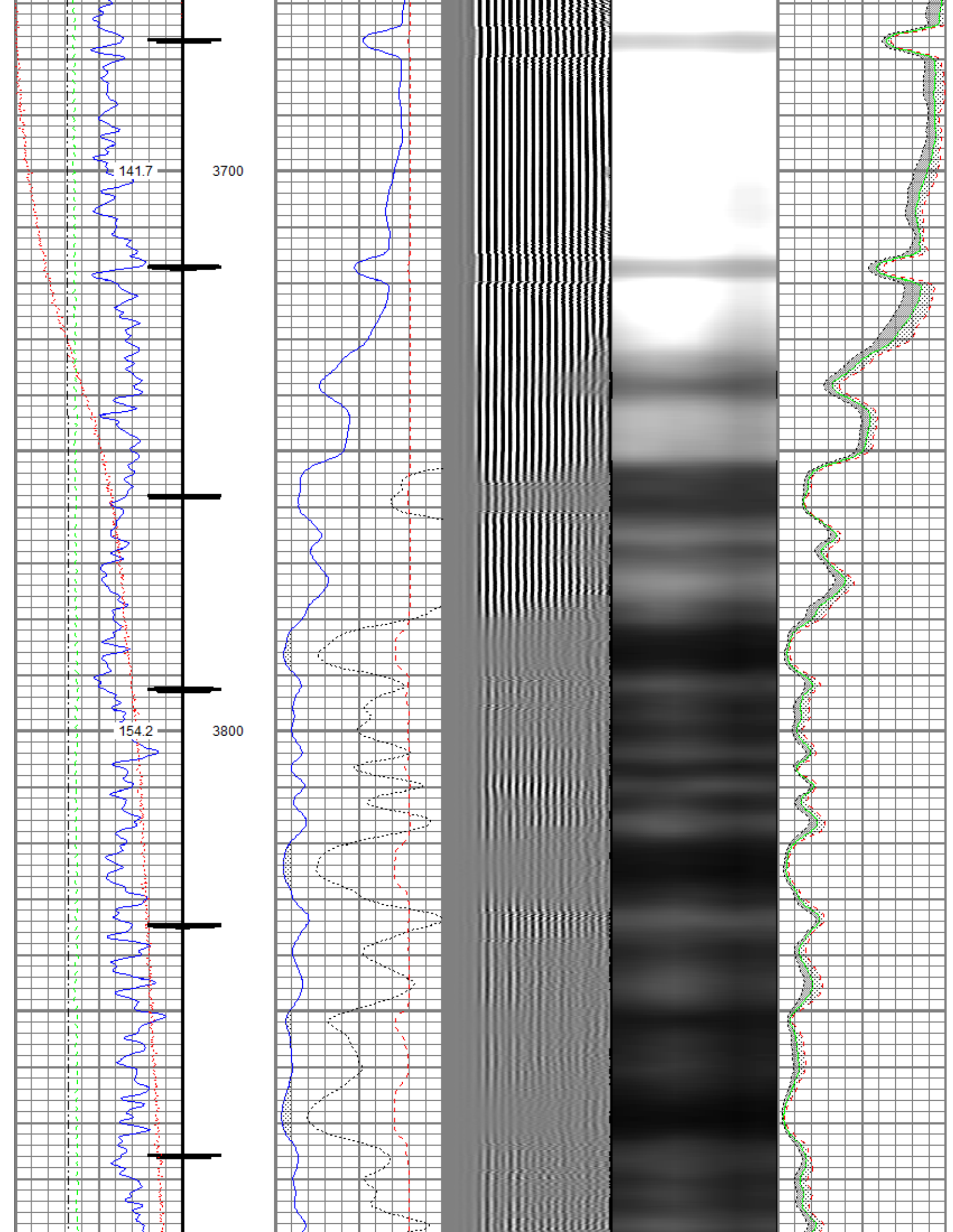


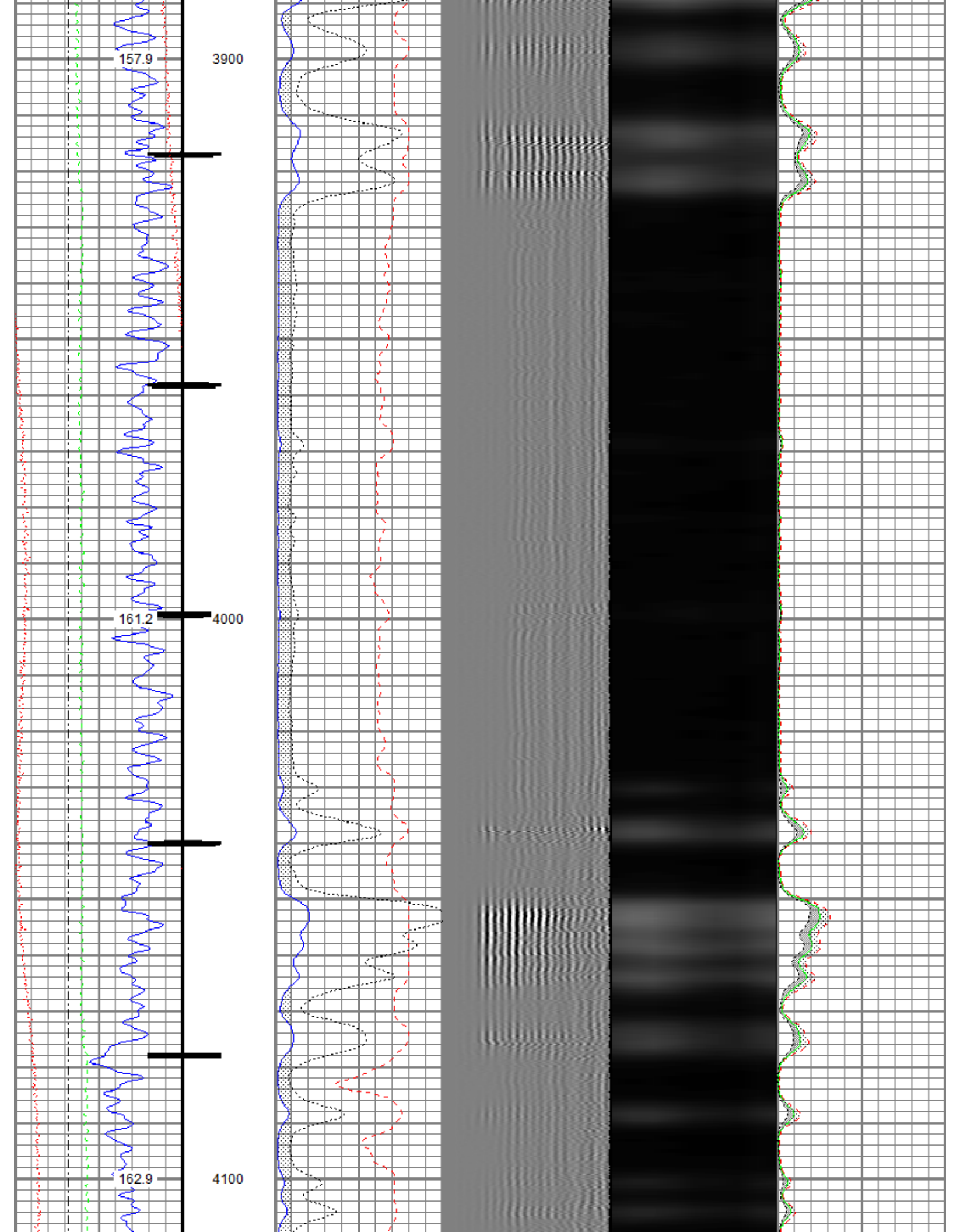




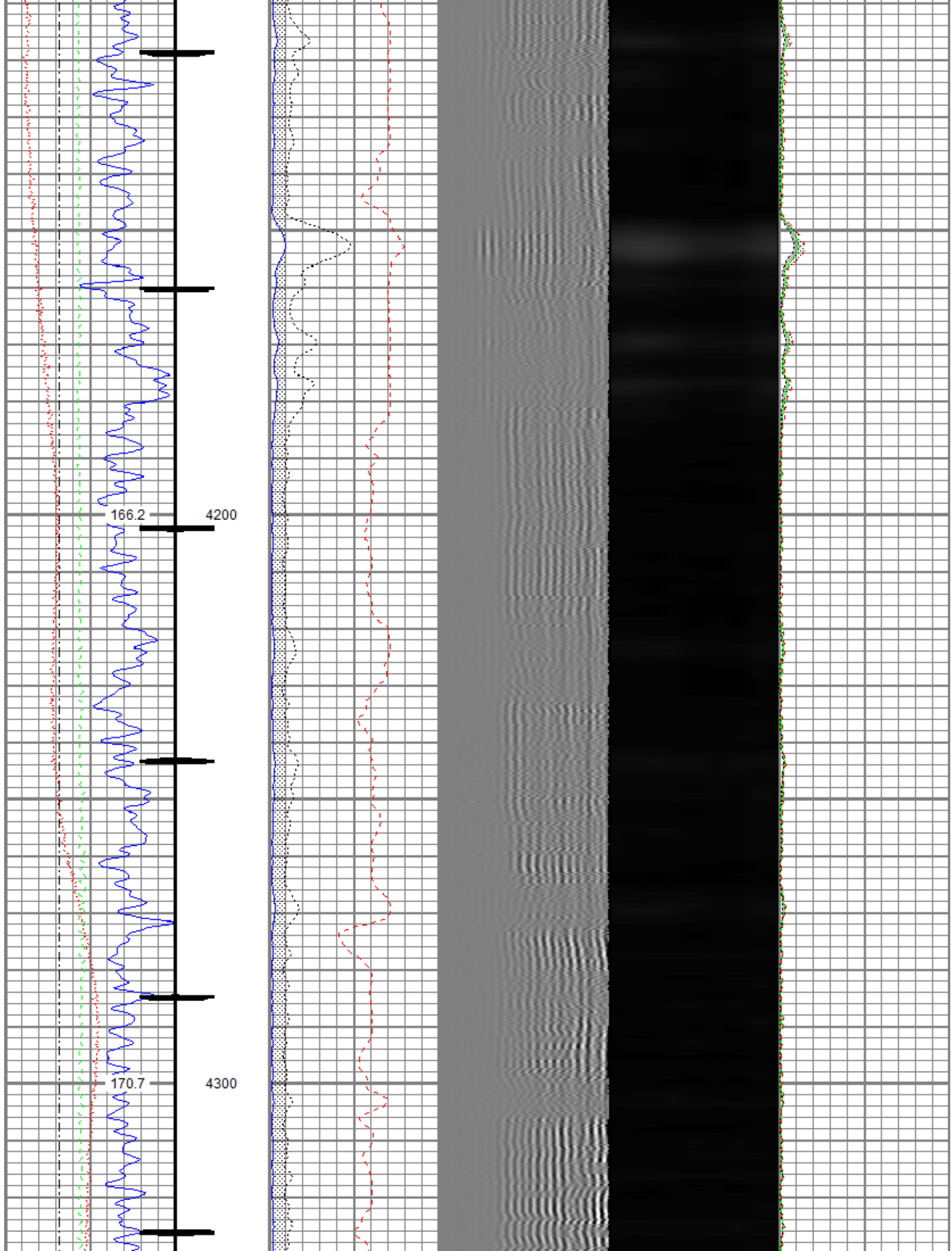


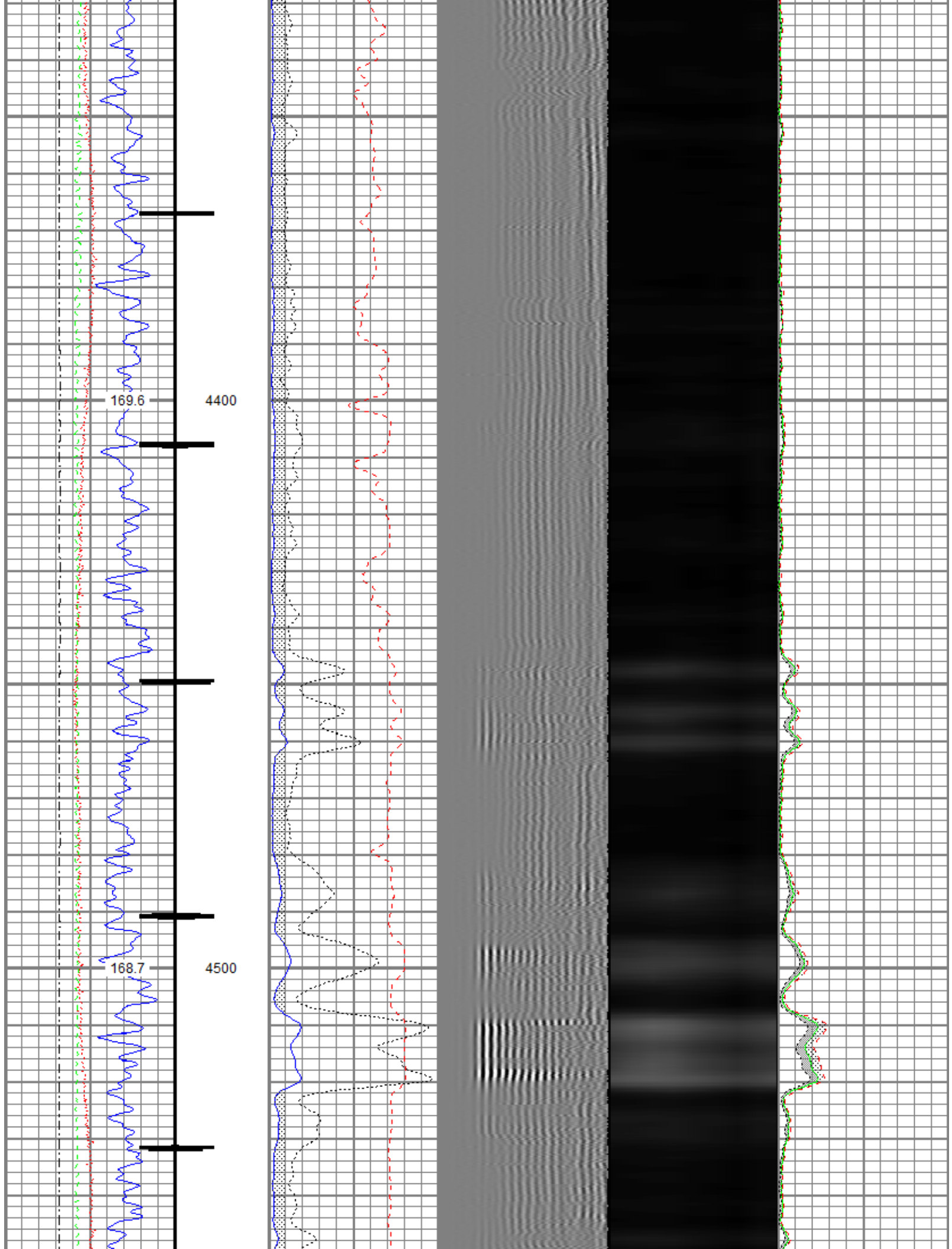


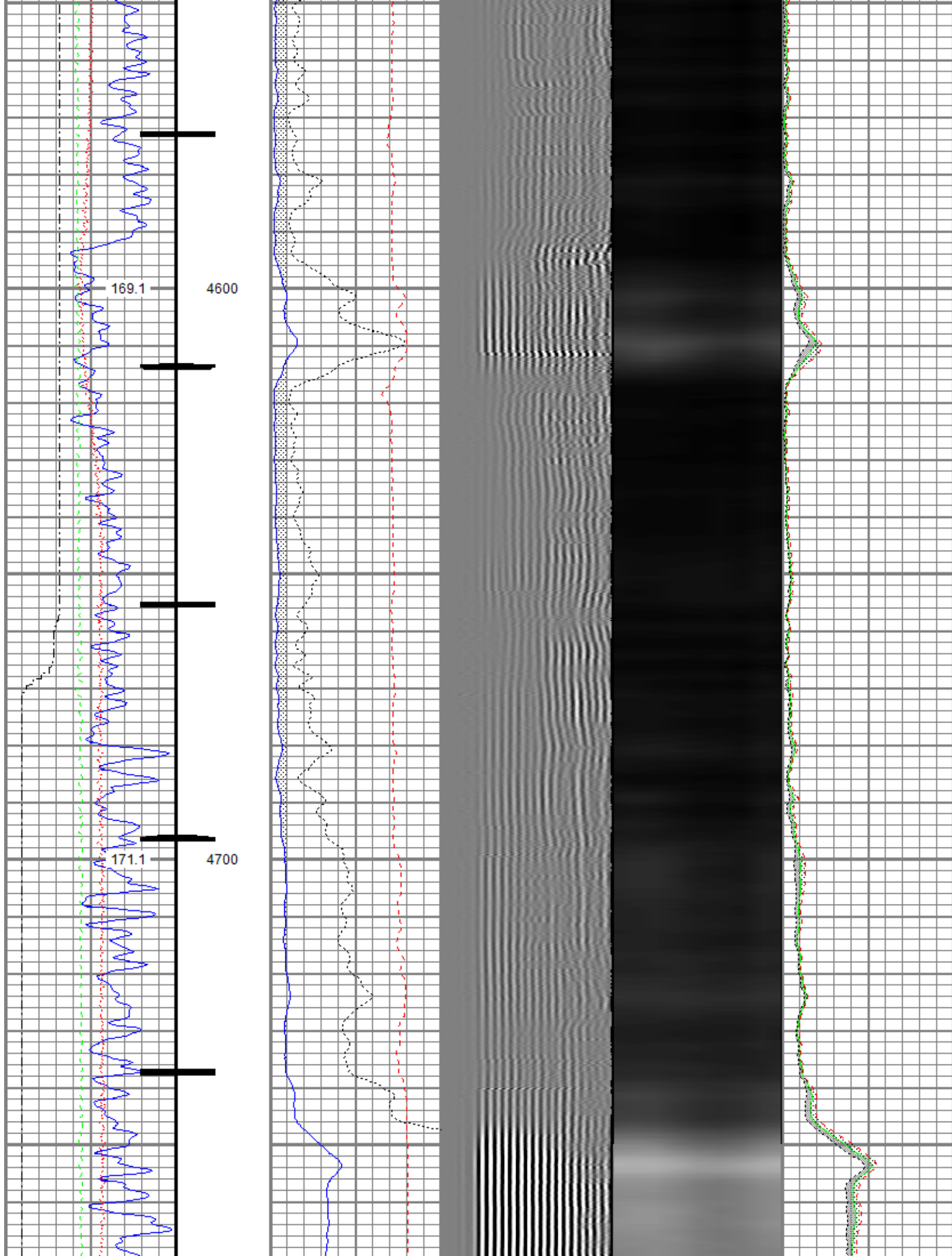


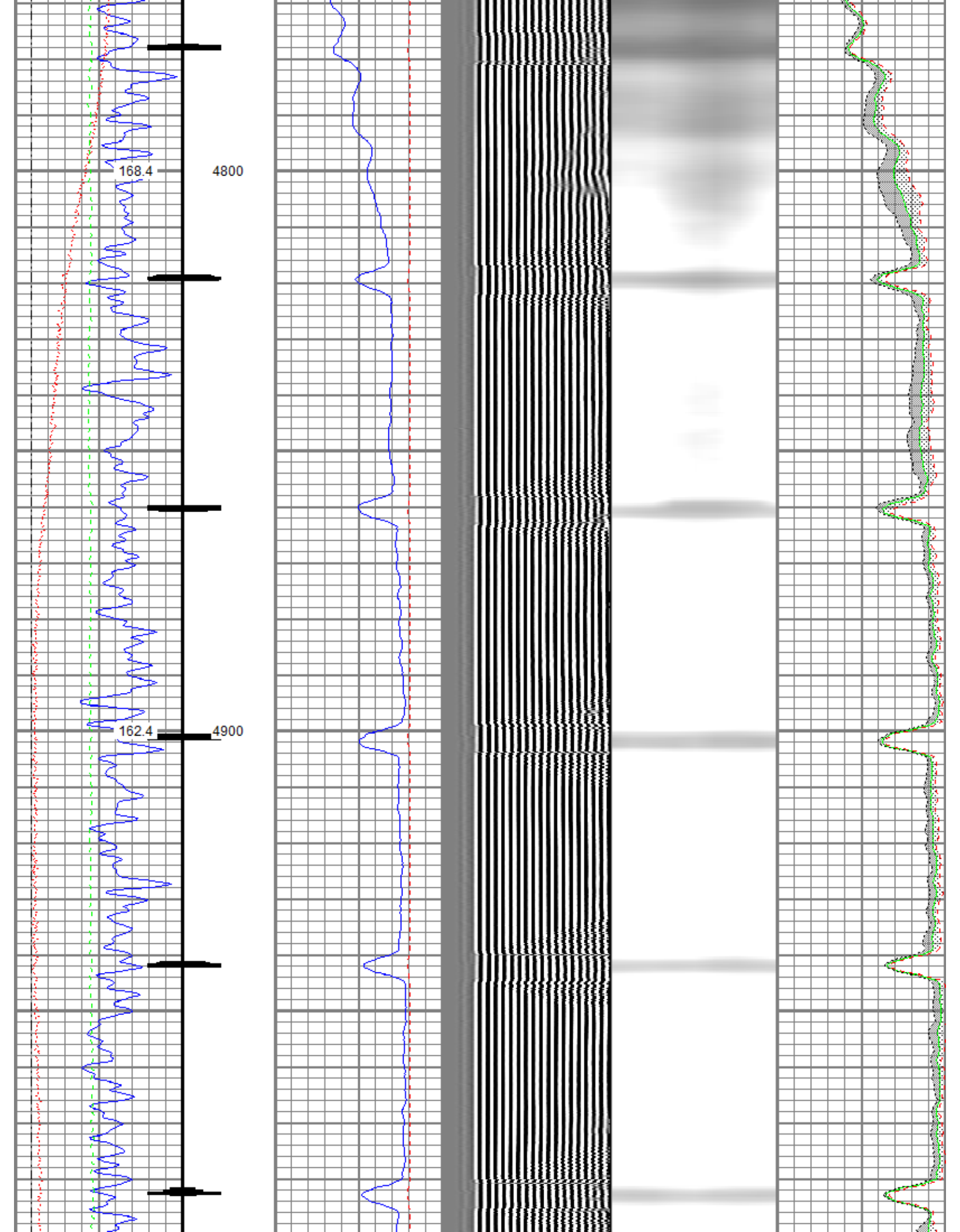




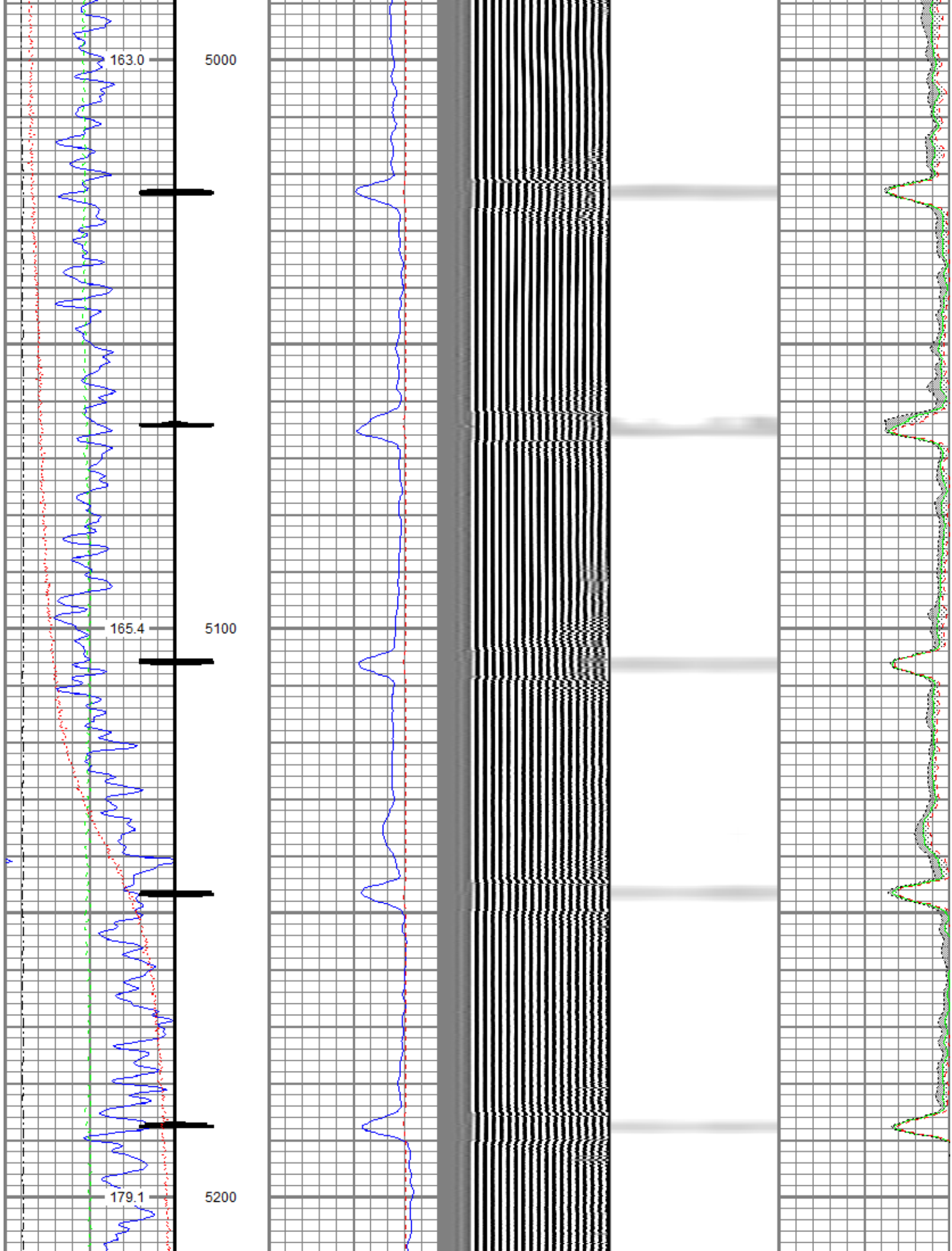


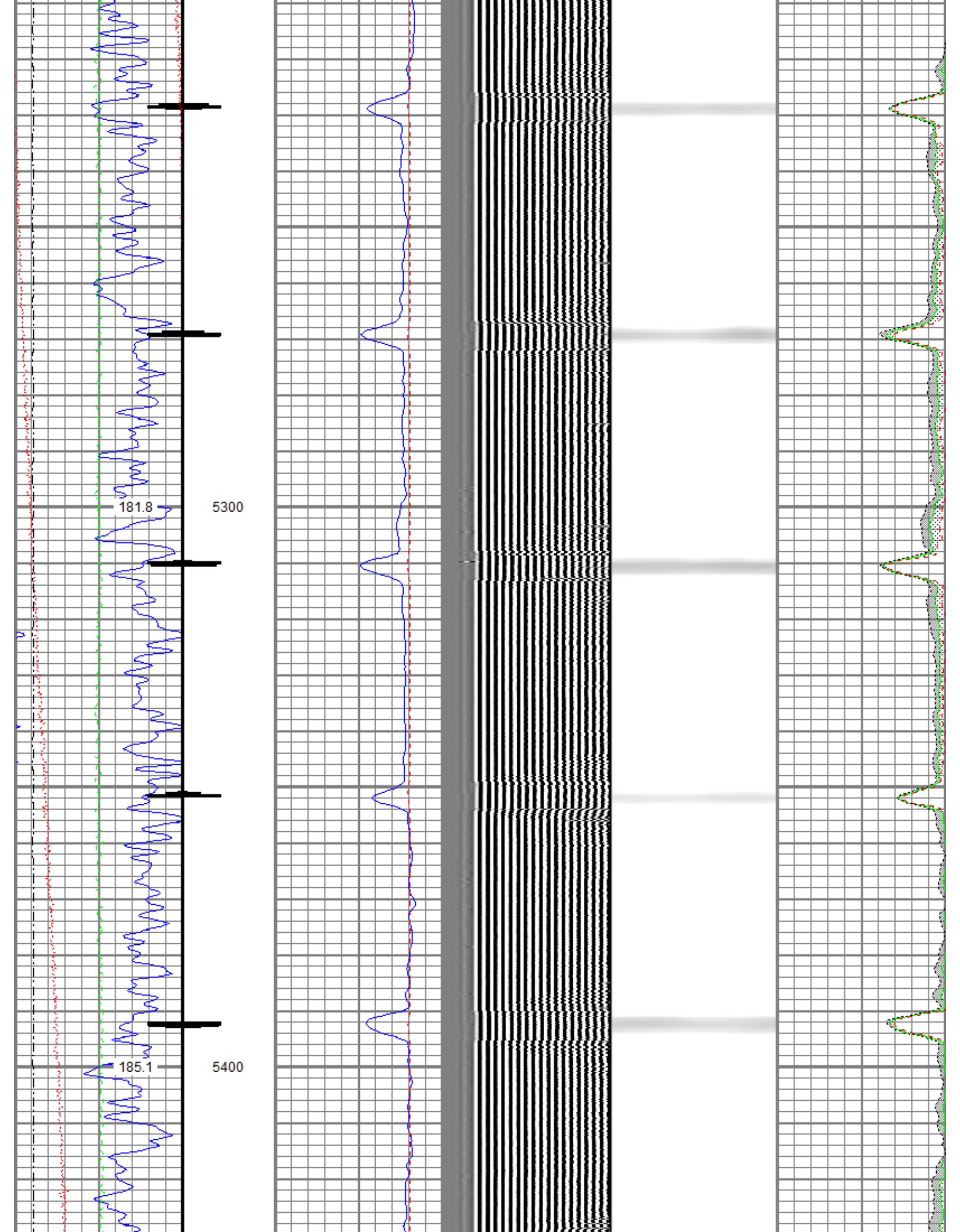


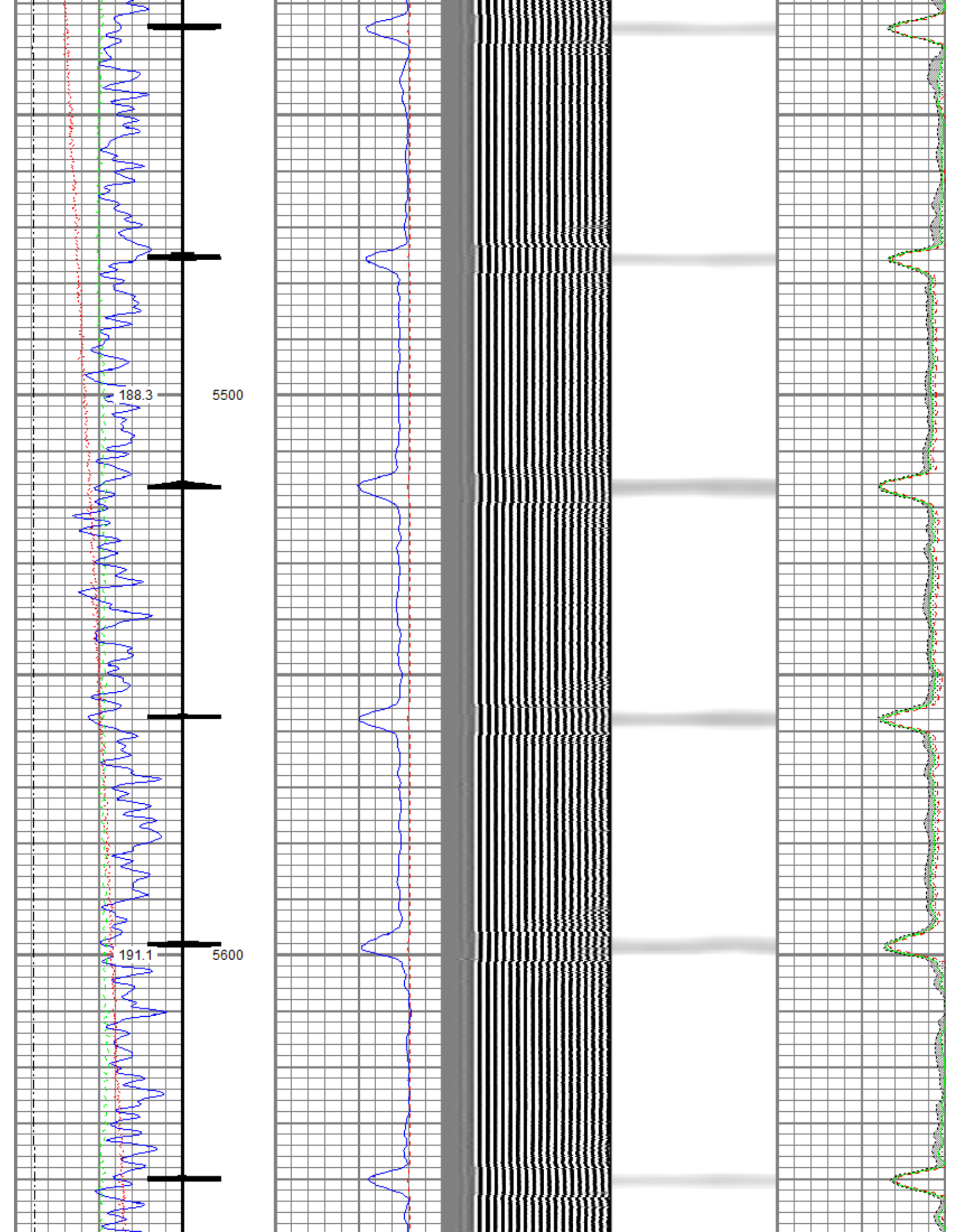


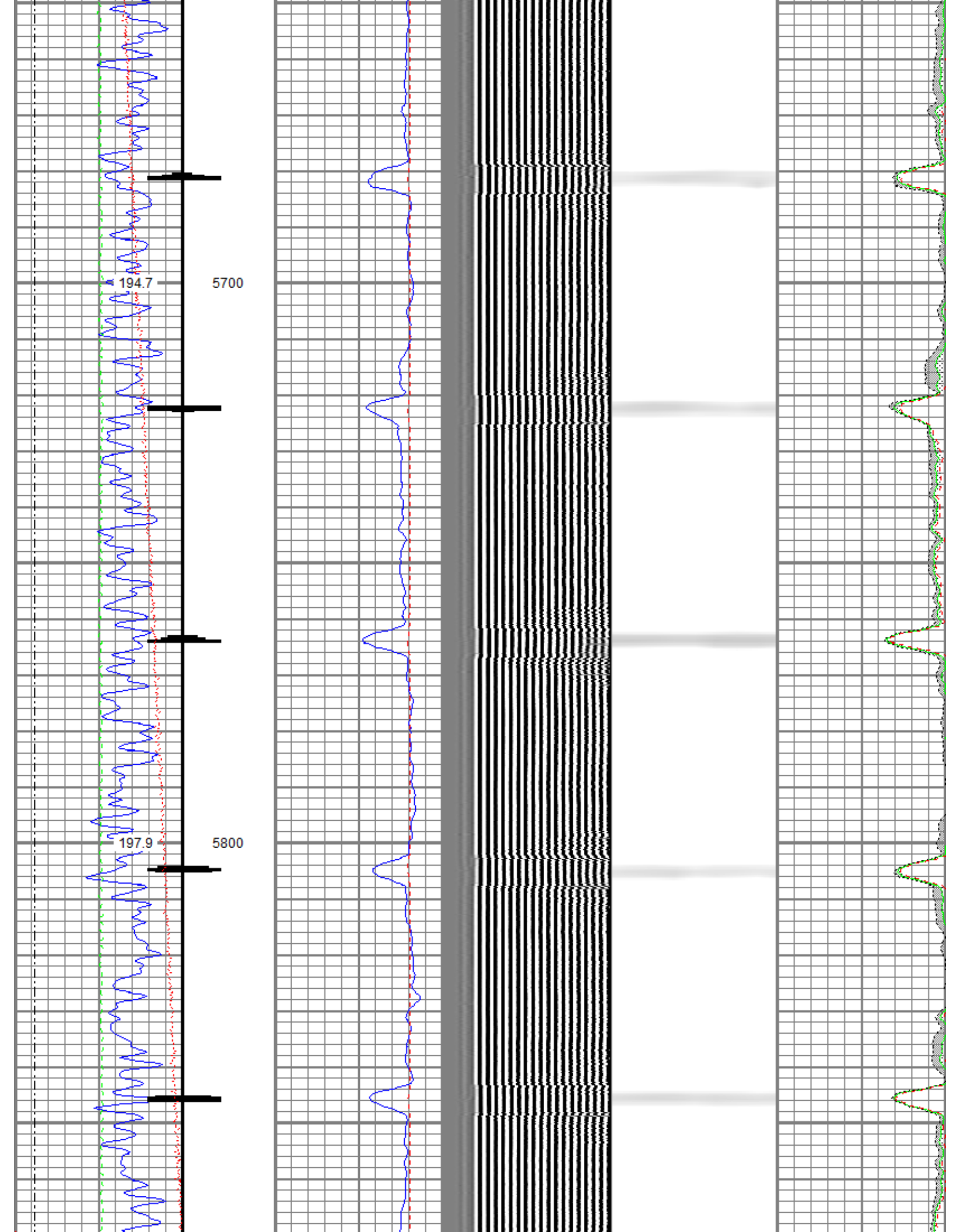




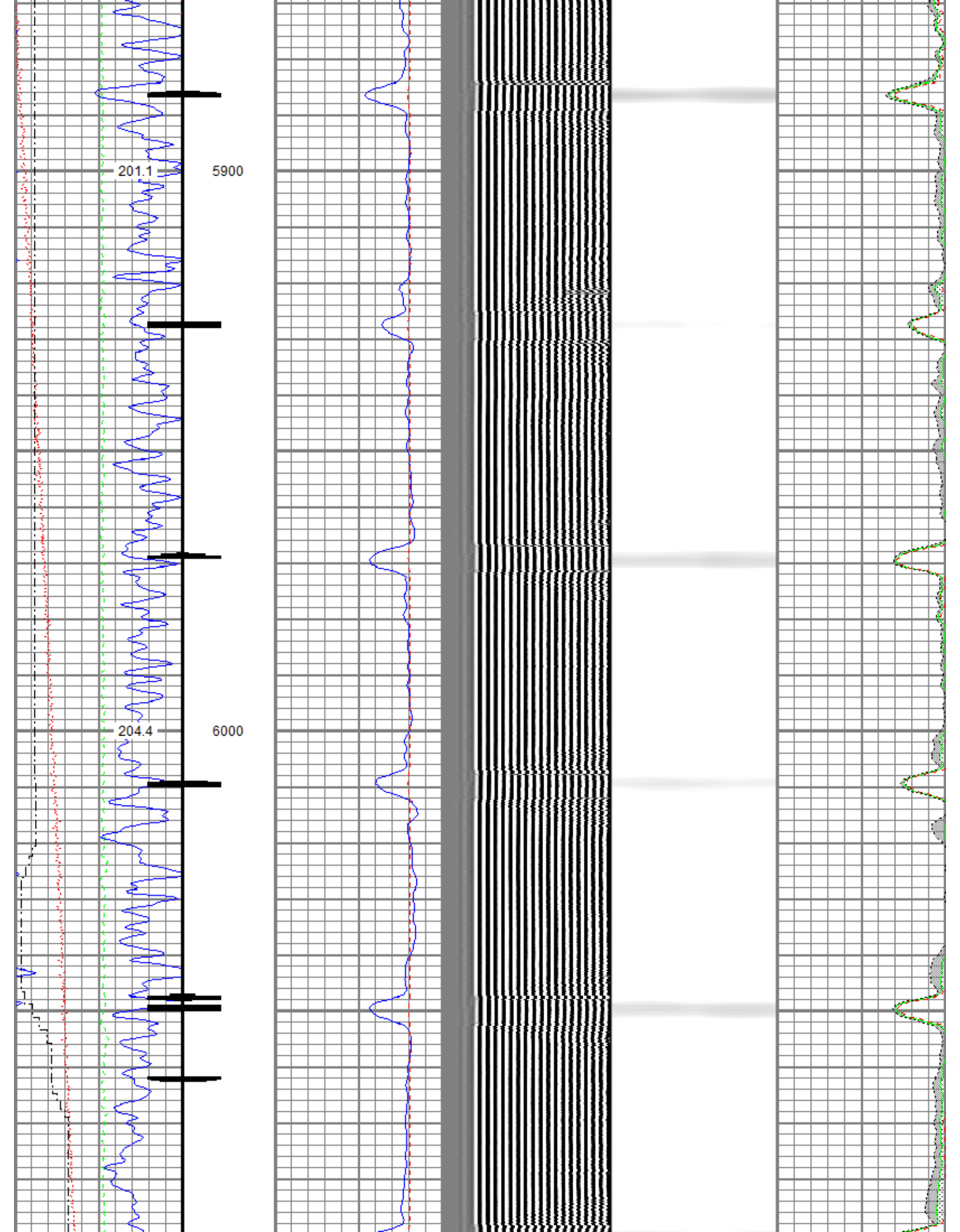


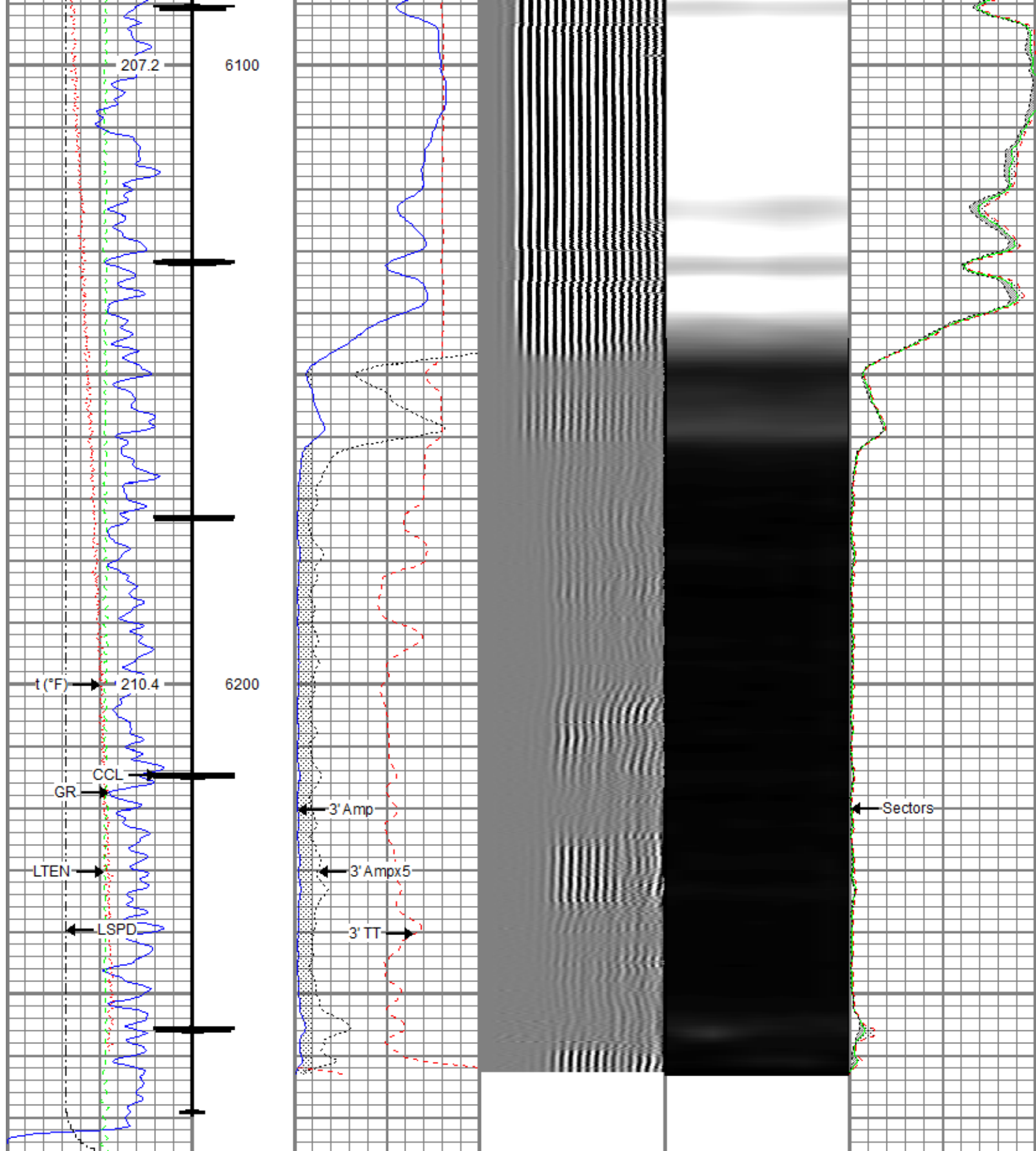












|                          |      |      |
|--------------------------|------|------|
| Gamma Ray<br>(GAPI)      | 0    | 120  |
| Casing Collar Locator    | 0    | 20   |
| Temperature (degF)       | 20   | 200  |
| Line Speed<br>(ft/min)   | -150 | 150  |
| Line Tension (lb)        | 0    | 2000 |
| 3' Amplitude (mV)        | 0    | 100  |
| 3' Amplitude x 5<br>(mV) | 0    | 20   |
| 3' Travel Time<br>(usec) | 650  | 150  |
| 5' Variable Density Log  | 200  | 1200 |
| Sector Map               |      |      |
| Average Amplitude        | 0    | 100  |
| Minimum Amplitude        | 0    | 100  |
| Maximum Amplitude        | 0    | 100  |

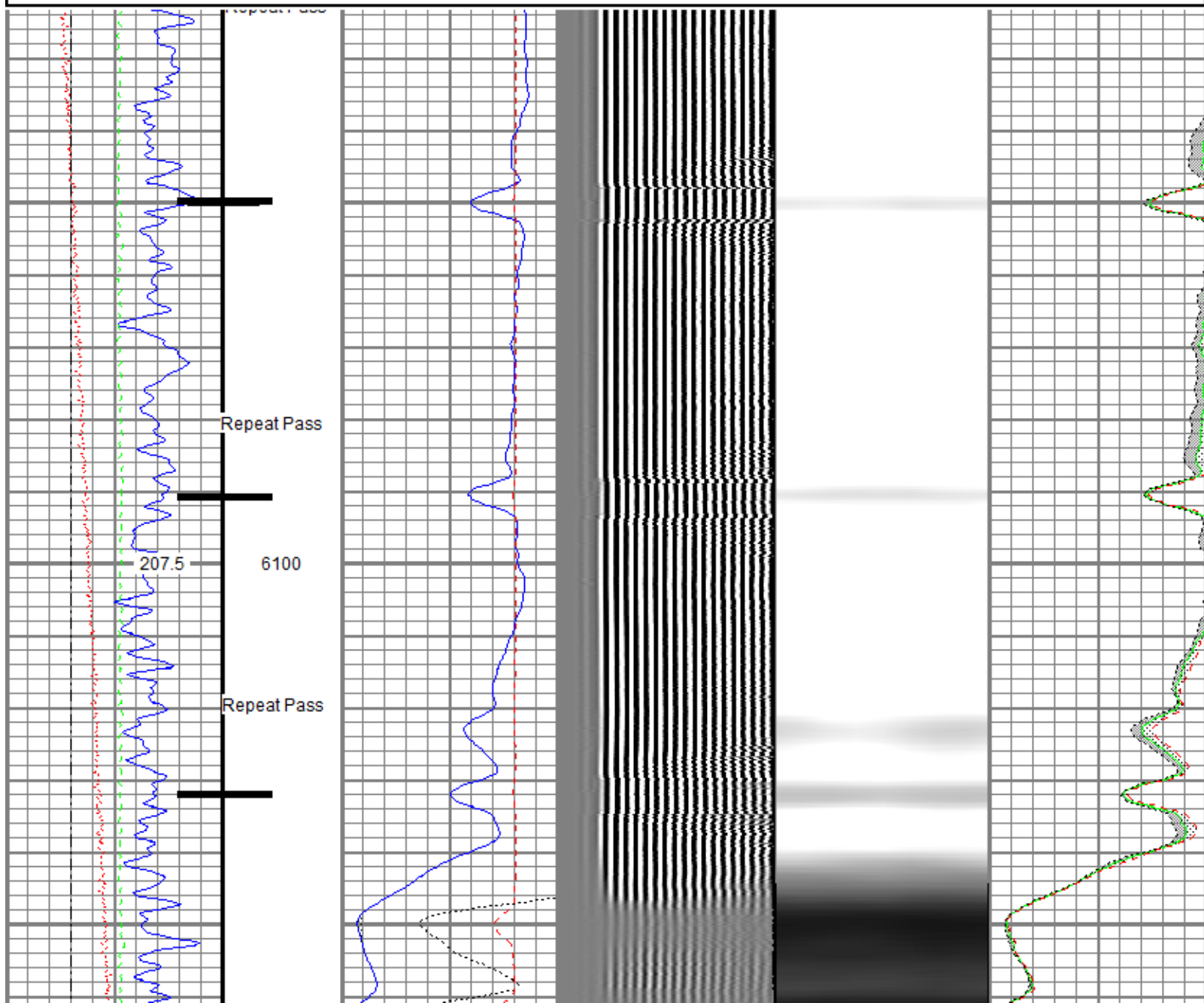


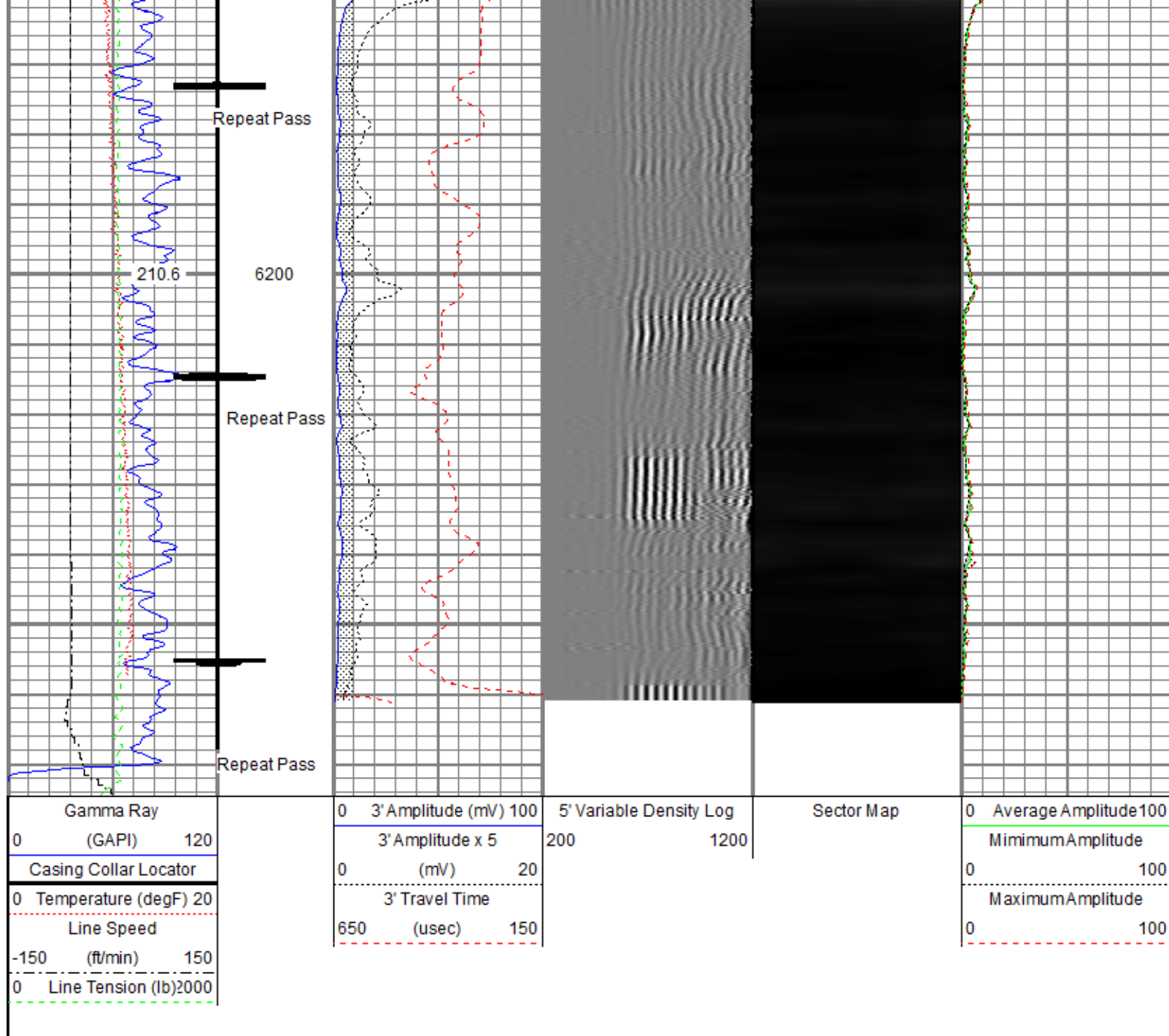
# Repeat Pass

Recorded with 0 PSI Surface Induced Pressure

Database File: anadarko\_ft\_st\_vrain\_17\_rcbl.db  
 Dataset Pathname: repeat  
 Presentation Format: radii  
 Dataset Creation: Thu Nov 05 09:00:43 2015 by Log 7.0 B1  
 Charted by: Depth in Feet scaled 1:240


|                          |                             |                         |            |                         |
|--------------------------|-----------------------------|-------------------------|------------|-------------------------|
| Gamma Ray<br>(GAPI) 120  | 0 3' Amplitude (mV) 100     | 5' Variable Density Log | Sector Map | 0 Average Amplitude 100 |
| Casing Collar Locator    | 3' Amplitude x 5<br>(mV) 20 | 200 1200                |            | Minimum Amplitude       |
| 0 Temperature (degF) 20  | 3' Travel Time              |                         |            | Maximum Amplitude       |
| Line Speed               | 650 (usec) 150              |                         |            |                         |
| -150 (ft/min) 150        |                             |                         |            |                         |
| 0 Line Tension (lb) 2000 |                             |                         |            |                         |





| Sensor   | Offset (ft) | Schematic | Description  | Len (ft) | OD (in) | Wt (lb) |
|----------|-------------|-----------|--|----------|---------|---------|
| HeadVolt | 19.49       |           | T_CH14375_1_GO<br>Titan 1-7/16" Assembled Electric Cable Head with 1" Fishing Neck | 1.03     | 1.44    | 4.00    |
| Temp     | 16.72       |           | Probe_IL_BS_Cent<br>Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer    | 2.88     | 2.75    | 10.00   |



|   |       |   |   |      |       |        |
|---|-------|---|---|------|-------|--------|
| WVF3FT  | 14.55 |         | Probe_RADII-C-2-3/4" (FW1305-098)<br>Probe 2-3/4" Sector Cement Bond Tool with<br>Temperature Probe | 9.19 | 2.75  | 105.00 |
| WVFCAL  | 14.55 |   |   |      |       |        |
| WVFS1   | 14.55 |   |   |      |       |        |
| WVFS2   | 14.55 |   |   |      |       |        |
| WVFS3   | 14.55 |   |   |      |       |        |
| WVFS4   | 14.55 |   |   |      |       |        |
| WVFS5   | 14.55 |   |   |      |       |        |
| WVFS6   | 14.55 |   |   |      |       |        |
| WVFS7   | 14.55 |   |   |      |       |        |
| WVFS8   | 14.55 |   |   |      |       |        |
| WVF5FT  | 13.55 |   |   |      |       |        |
|   |       | Probe_IL_BS_Cent<br>Probe 2-3/4" Inline Electrical Inline Bowspring<br>Centralizer      | 2.88  | 2.75 | 10.00 |        |
| CCL   | 6.51  |   |   |      |       |        |
| DCCL  | 6.51  |   |   |      |       |        |
|   |       | Probe_CCL_GR-2.75"Digital (FW1211-081)<br>Probe 2-3/4" Digital CCL / Gamma Ray Combined | 4.54  | 2.75 | 55.00 |        |
| GR  | 3.77  |   |   |      |       |        |
|   |       | Probe_IL_BS_Cent<br>Probe 2-3/4" Inline Electrical Inline Bowspring<br>Centralizer      | 2.88  | 2.75 | 10.00 |        |
| Dataset: anadarko_ft_st_vrain_17_rcbl.db: field/well/run1/main<br>Total Length: 23.40 ft<br>Total Weight: 194.00 lb<br>O.D. 2.75 in |       |   |   |      |       |        |

|  |  |          |
|--|--|----------|
| Calibration Report                           |  |          |
| Database File:                               | anadarko_ft_st_vrain_17_rcbl.db        |          |
| Dataset Pathname:                            | main                                   |          |
| Dataset Creation:                            | Thu Nov 05 10:15:15 2015 by Log 7.0 B1 |          |
| Gamma Ray Calibration Report                 |  |          |
| Serial Number:                               | FW1211-081                             |          |
| Tool Model:                                  | 2.75"Digital                           |          |
| Performed:                                   | Tue Oct 27 08:03:11 2015               |          |
| Calibrator Value:                            | 1.0                                    | GAPI     |
| Background Reading:                          | 0.0                                    | cps      |
| Calibrator Reading:                          | 1.0                                    | cps      |
| Sensitivity:                                 | 0.6300                                 | GAPI/cps |
| Segmented Cement Bond Log Calibration Report |  |          |

Serial Number: FW1305-098  
Tool Model: 2-3/4"

Calibration Casing Diameter: 4.500 in  
Calibration Depth: 5861.518 ft

Master Calibration, performed Thu Nov 05 08:56:54 2015:

|     | Raw (v) |       | Calibrated (mv) |         | Results |        |
|-----|---------|-------|-----------------|---------|---------|--------|
|     | Zero    | Cal   | Zero            | Cal     | Gain    | Offset |
| 3'  | -0.001  | 0.576 | 0.800           | 81.196  | 139.396 | 0.940  |
| CAL | 0.848   | 0.825 |                 |         |         |        |
| 5'  | 0.002   | 0.343 | 0.800           | 81.196  | 235.806 | 0.351  |
| SUM |         |       |                 |         |         |        |
| S1  | -0.003  | 0.564 | 0.000           | 100.000 | 176.384 | 0.549  |
| S2  | -0.000  | 0.579 | 0.000           | 100.000 | 172.558 | 0.059  |
| S3  | -0.000  | 0.599 | 0.000           | 100.000 | 166.898 | 0.065  |
| S4  | -0.001  | 0.615 | 0.000           | 100.000 | 162.395 | 0.133  |
| S5  | -0.001  | 0.615 | 0.000           | 100.000 | 162.520 | 0.081  |
| S6  | -0.001  | 0.602 | 0.000           | 100.000 | 165.843 | 0.097  |
| S7  | -0.001  | 0.580 | 0.000           | 100.000 | 172.065 | 0.172  |
| S8  | -0.001  | 0.566 | 0.000           | 100.000 | 176.571 | 0.144  |

Internal Reference Calibration, performed Wed Dec 31 17:00:00 1969:

|     | Raw (v) |       | Calibrated (v) |       | Results |        |
|-----|---------|-------|----------------|-------|---------|--------|
|     | Zero    | Cal   | Zero           | Cal   | Gain    | Offset |
| CAL | 0.000   | 0.000 | 0.848          | 0.825 | 1.000   | 0.000  |

Air Zero Calibration, performed Thu Nov 05 08:13:35 2015:

|     | Raw (v) |  | Calibrated (v) |  | Results |  |
|-----|---------|--|----------------|--|---------|--|
|     | Zero    |  | Zero           |  | Offset  |  |
| 3'  | 0.000   |  | 0.000          |  | 0.000   |  |
| 5'  | 0.000   |  | 0.000          |  | 0.000   |  |
| SUM |         |  |                |  |         |  |
| S1  | 0.000   |  | 0.000          |  | 0.000   |  |
| S2  | 0.000   |  | 0.000          |  | 0.000   |  |
| S3  | 0.000   |  | 0.000          |  | 0.000   |  |
| S4  | 0.000   |  | 0.000          |  | 0.000   |  |
| S5  | 0.000   |  | 0.000          |  | 0.000   |  |
| S6  | 0.000   |  | 0.000          |  | 0.000   |  |
| S7  | 0.000   |  | 0.000          |  | 0.000   |  |
| S8  | 0.000   |  | 0.000          |  | 0.000   |  |



**Company** Kerr-McGee Oil & Gas Onshore, L.P.  
**Well** Fort ST. Vrain 17  
**Field** Wattenberg  
**County** Weld  
**State** Colorado