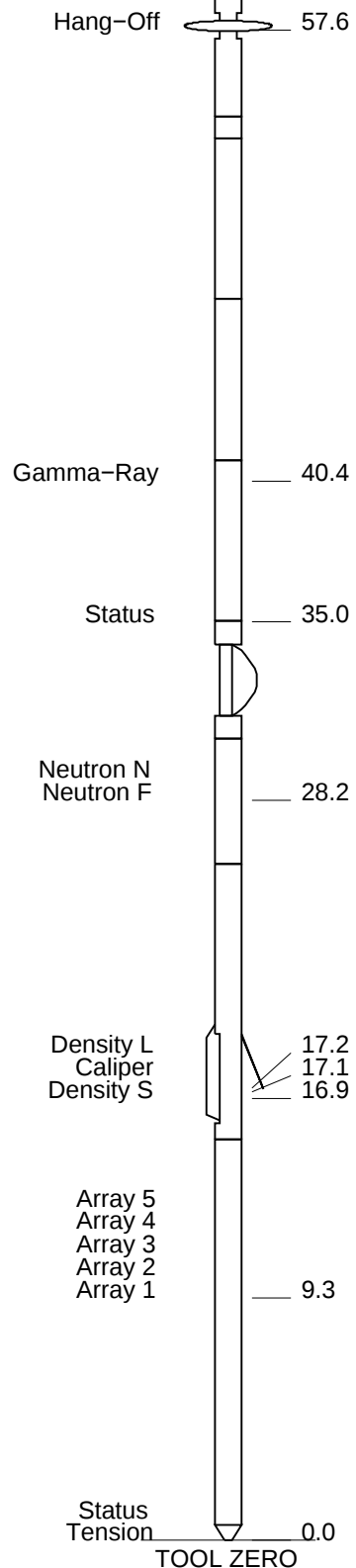




THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

67.1

TMG-A 27  
TILE-A  
TBN-A 27  
NNLS-EWA 4484  
TBD-A 43  
GGLS-FZ 3216  
TBI-A 48



MAXIMUM STRING DIAMETER 2.13 IN  
MEASUREMENTS RELATIVE TO TOOL ZERO  
ALL LENGTHS IN FEET



MAIN PASS

MAXIS Field Log

Company: SANDRIDGE ENERGY Well: BARBARA 3404 1-4H

| Input DLIS Files |      |                   |           |           |
|------------------|------|-------------------|-----------|-----------|
| ThruBit_006PUP   | FN:5 | 28-May-2014 22:03 | 8695.2 FT | 2398.0 FT |

| OP System Version: 19C2-270 |                     |
|-----------------------------|---------------------|
| TBT                         | SRPC-5298-ThruBit_b |

| Relative Bearing (RB) |       |     |
|-----------------------|-------|-----|
| 0                     | (DEG) | 940 |

gr wrap4  
From LHT1 to GR4

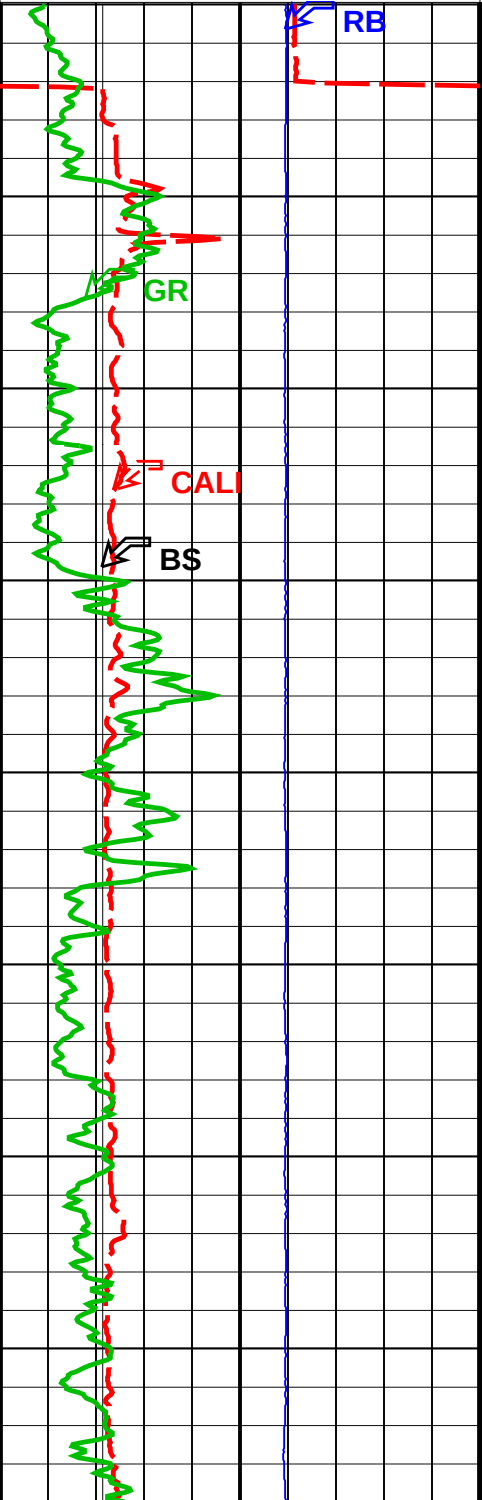
gr wrap3  
From LHT1 to GR3

gr wrap2  
From LHT1 to GR2

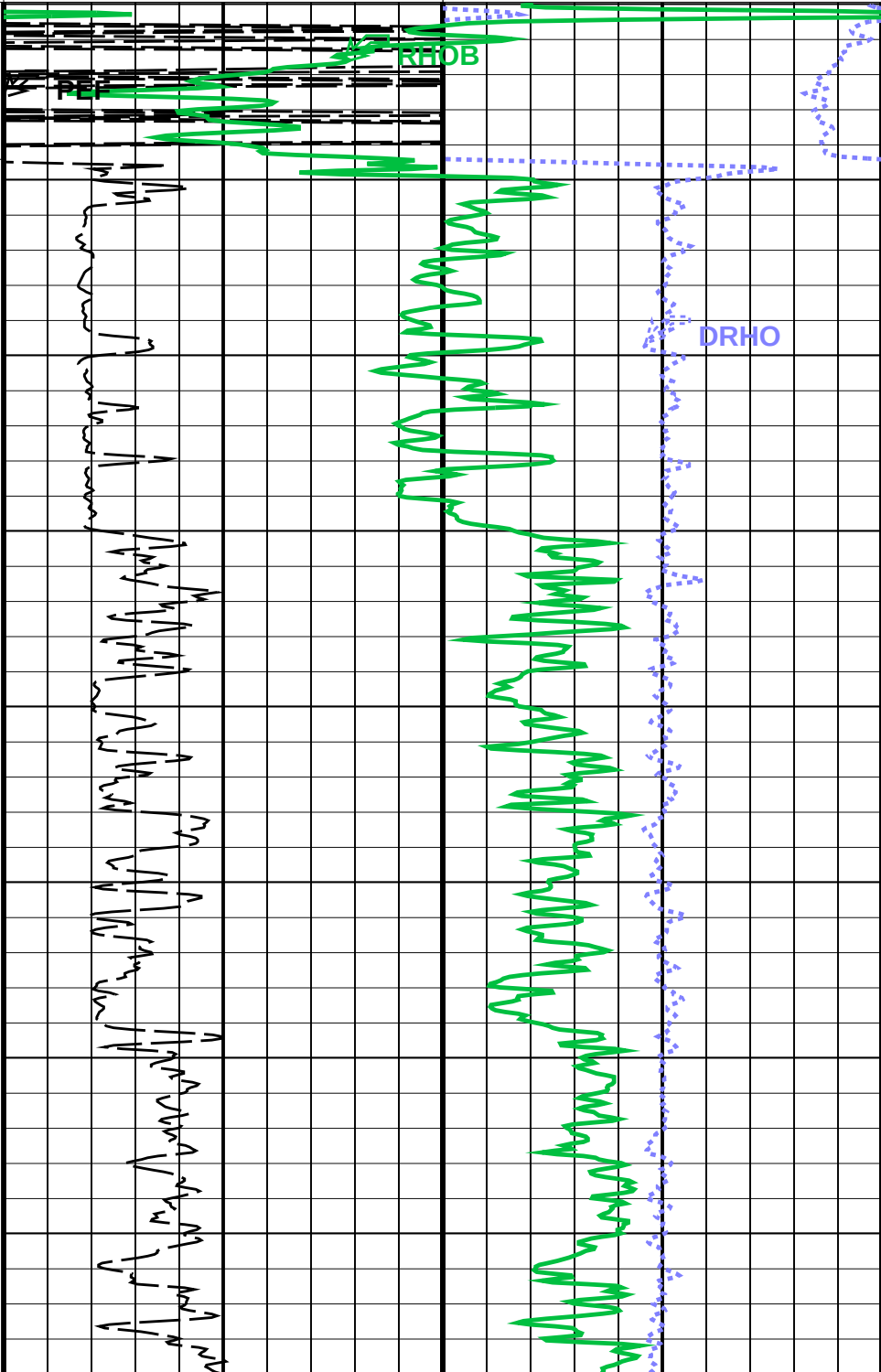
gr wrap1  
From LHT1 to GR1

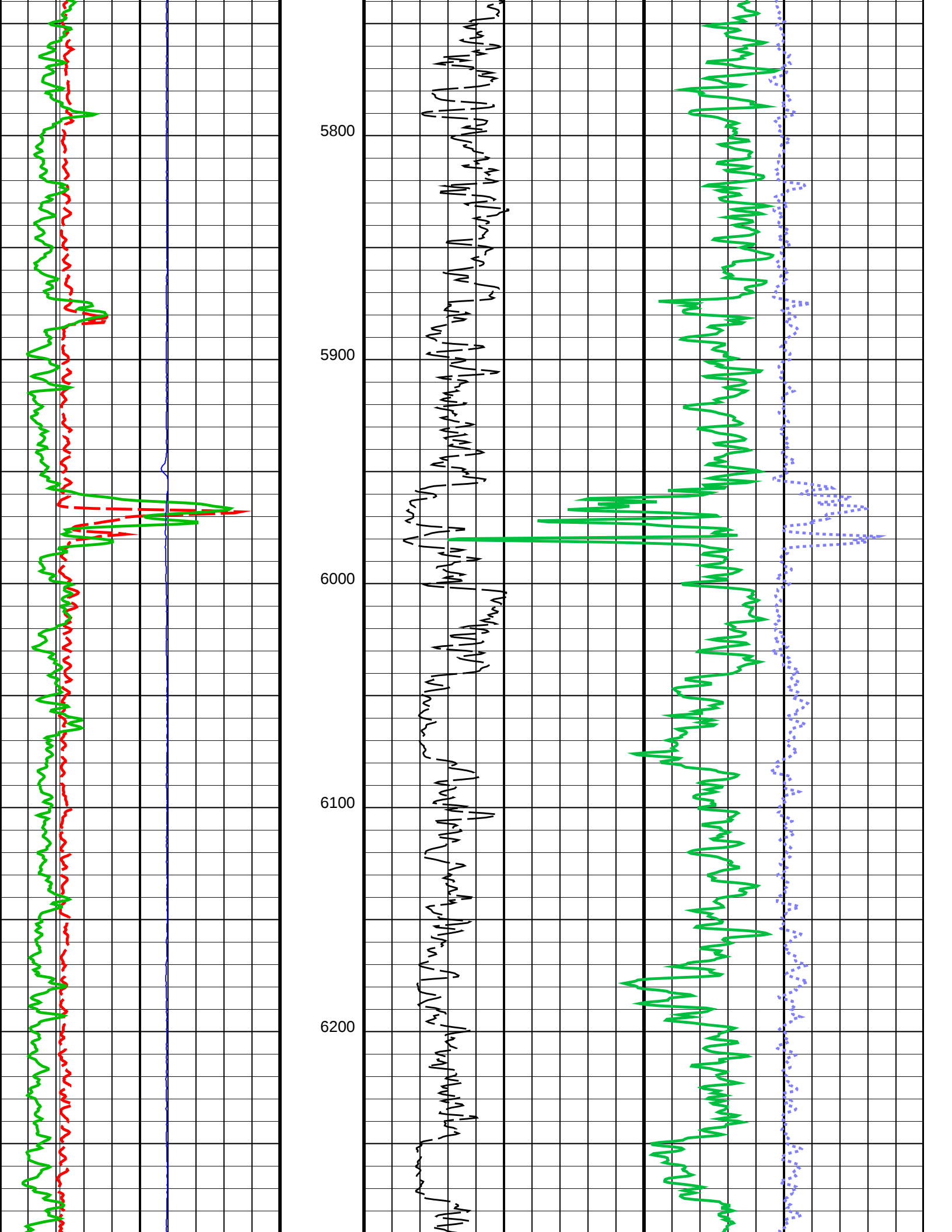
Gamma Ray (GR)

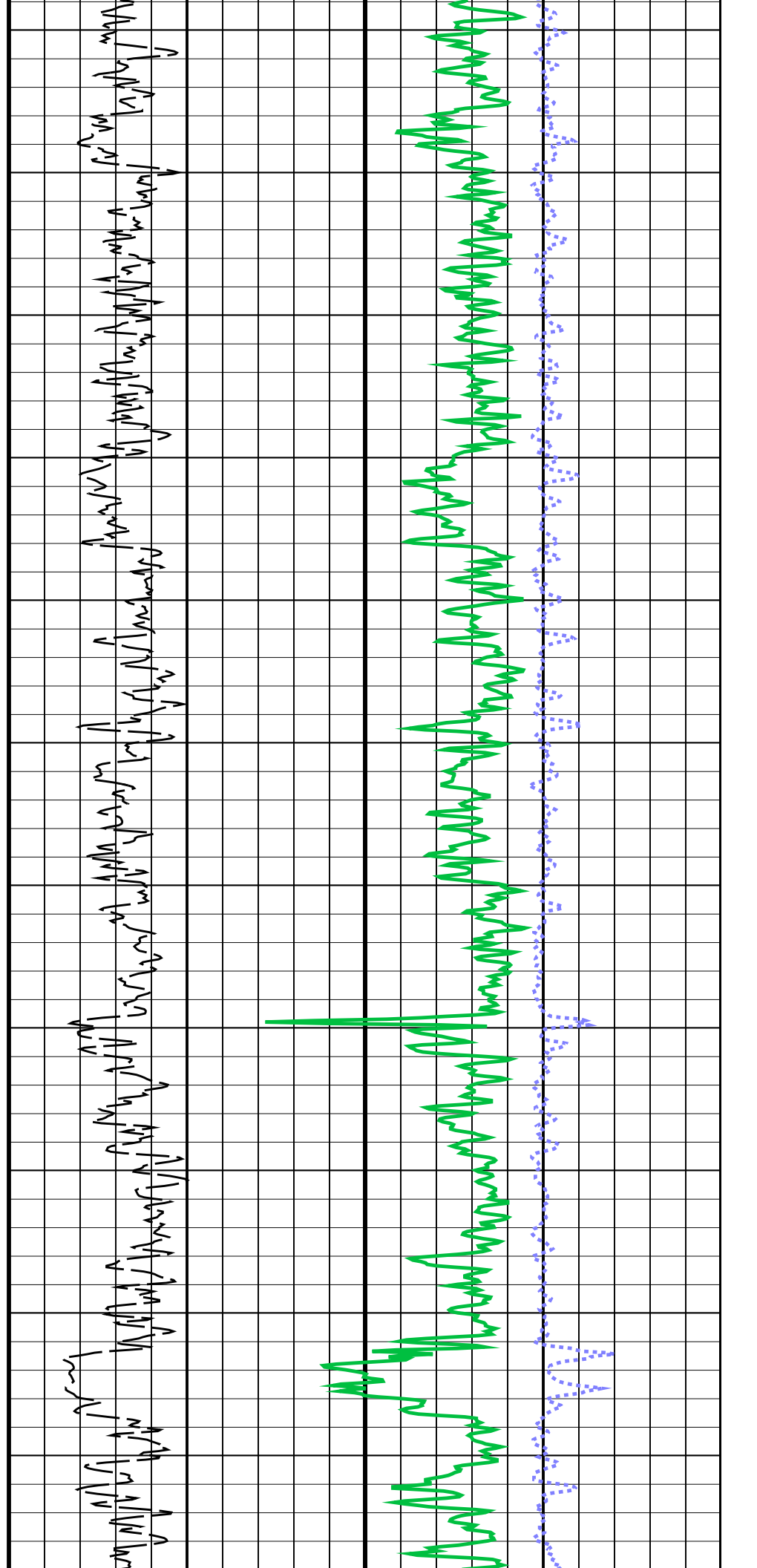
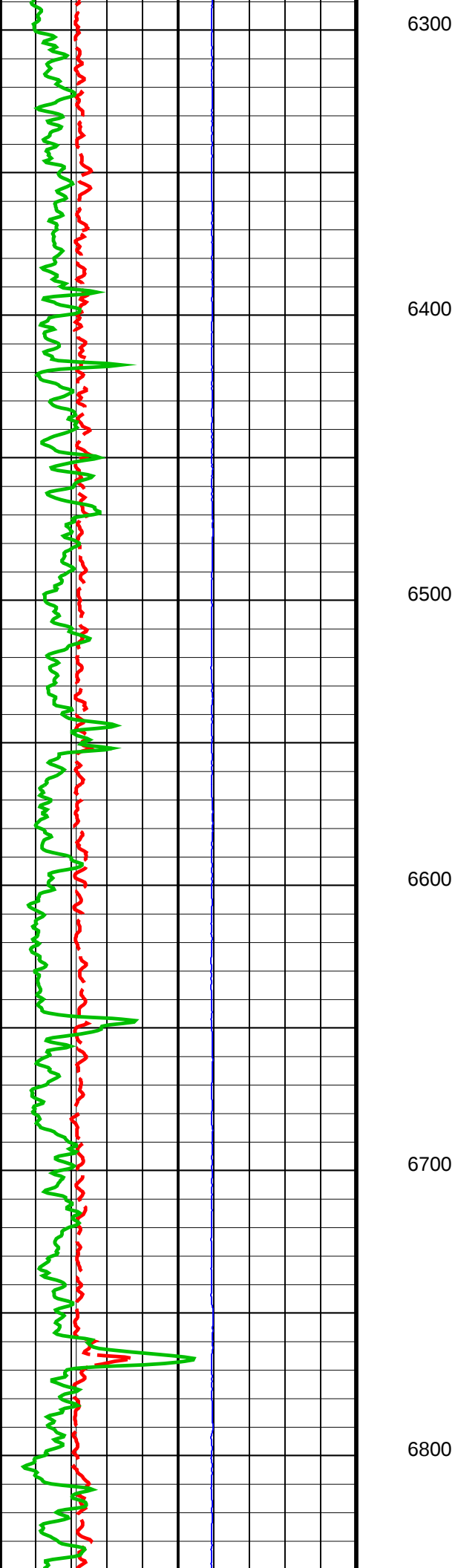
|                  |        |     |
|------------------|--------|-----|
| Gamma Ray (GR)   |        |     |
| 0                | (GAPI) | 150 |
| Caliper (CALI)   |        |     |
| 4                | (IN)   | 14  |
| Gamma Ray 4 (GR) |        |     |
| 600              | (GAPI) | 750 |
| Gamma Ray 3 (GR) |        |     |
| 450              | (GAPI) | 600 |
| Gamma Ray 2 (GR) |        |     |
| 300              | (GAPI) | 450 |
| Gamma Ray 1 (GR) |        |     |
| 150              | (GAPI) | 300 |
| Bit Size (BS)    |        |     |
| 4                | (IN)   | 14  |

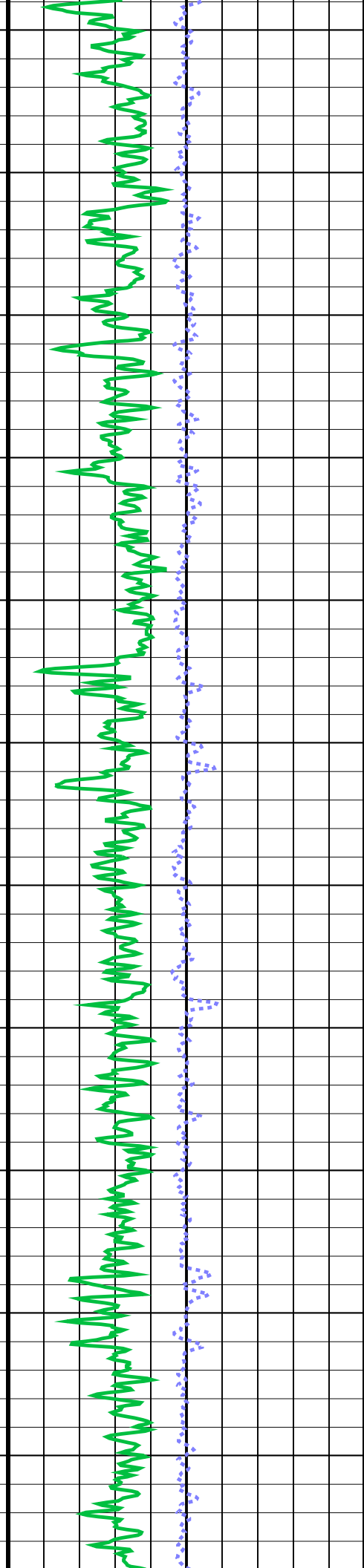
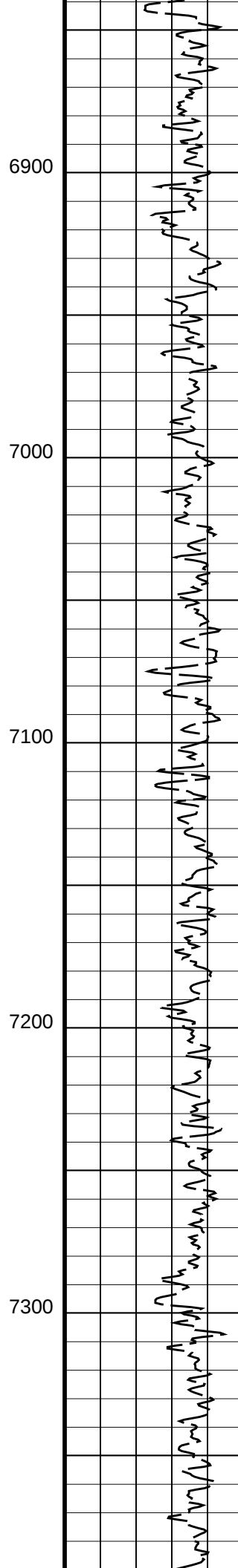
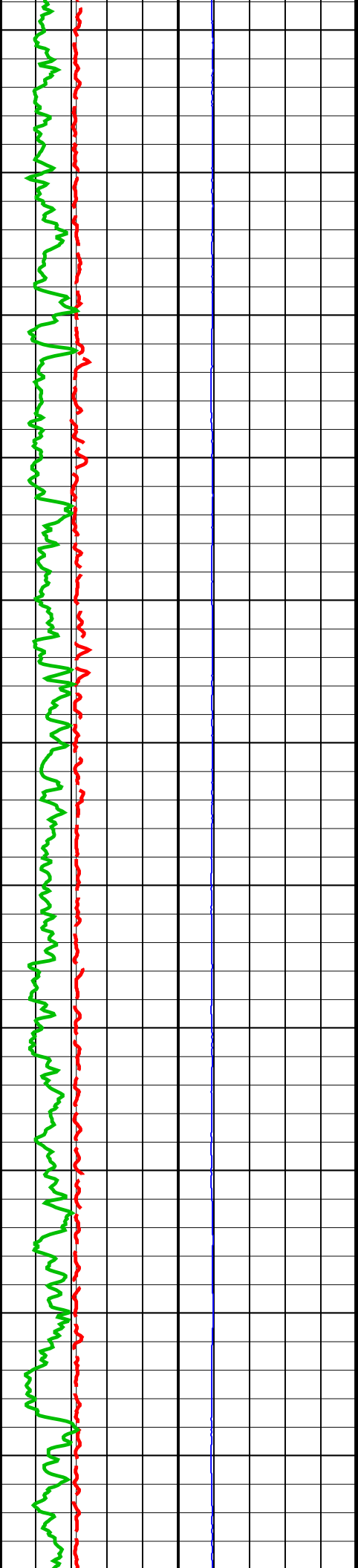


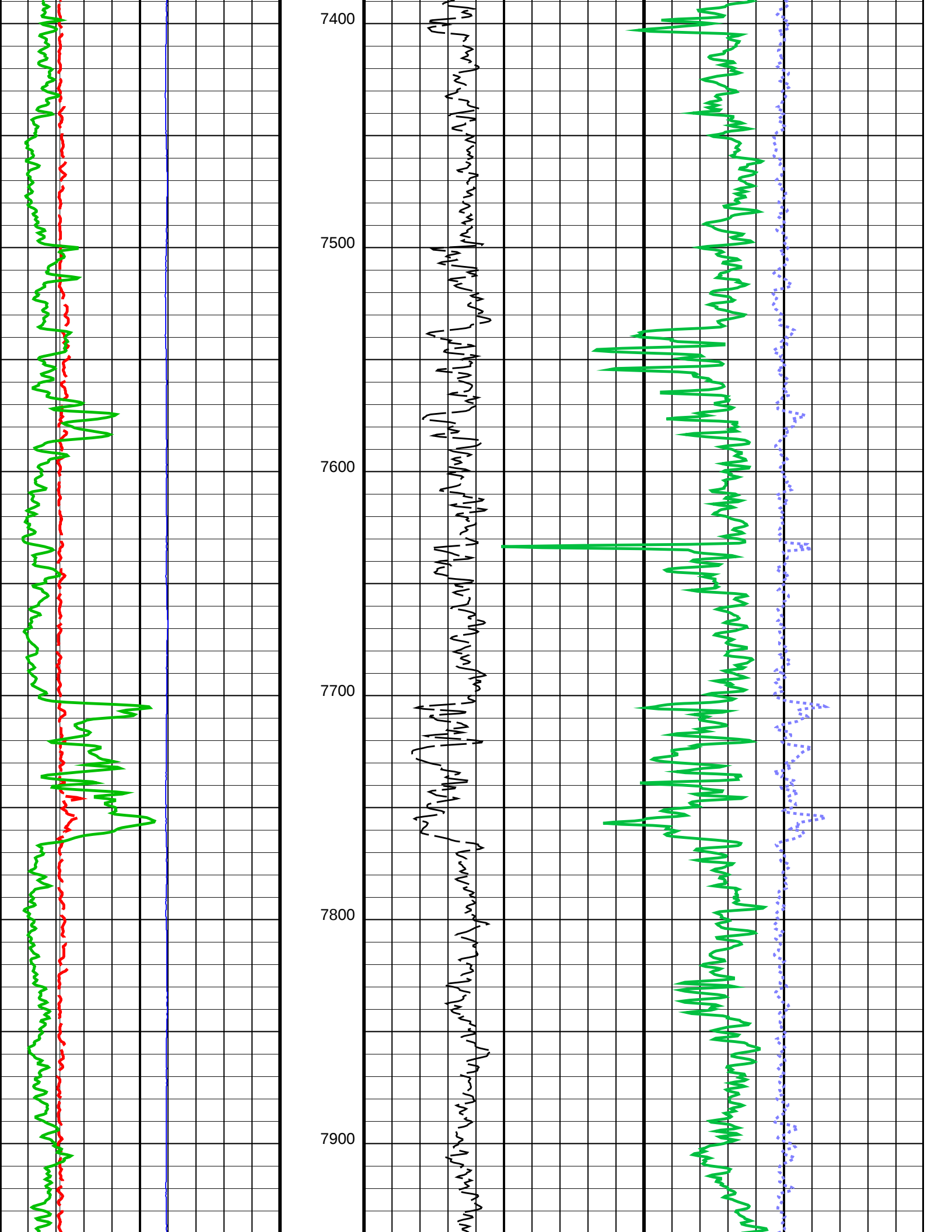
|             |        |     |
|-------------|--------|-----|
| RHOB (RHOB) |        |     |
| 2           | (G/C3) | 3   |
| PEF (PEF)   |        |     |
| 0           | (----  | 10  |
| DRHO (DRHO) |        |     |
| -0.5        | (G/C3) | 0.5 |

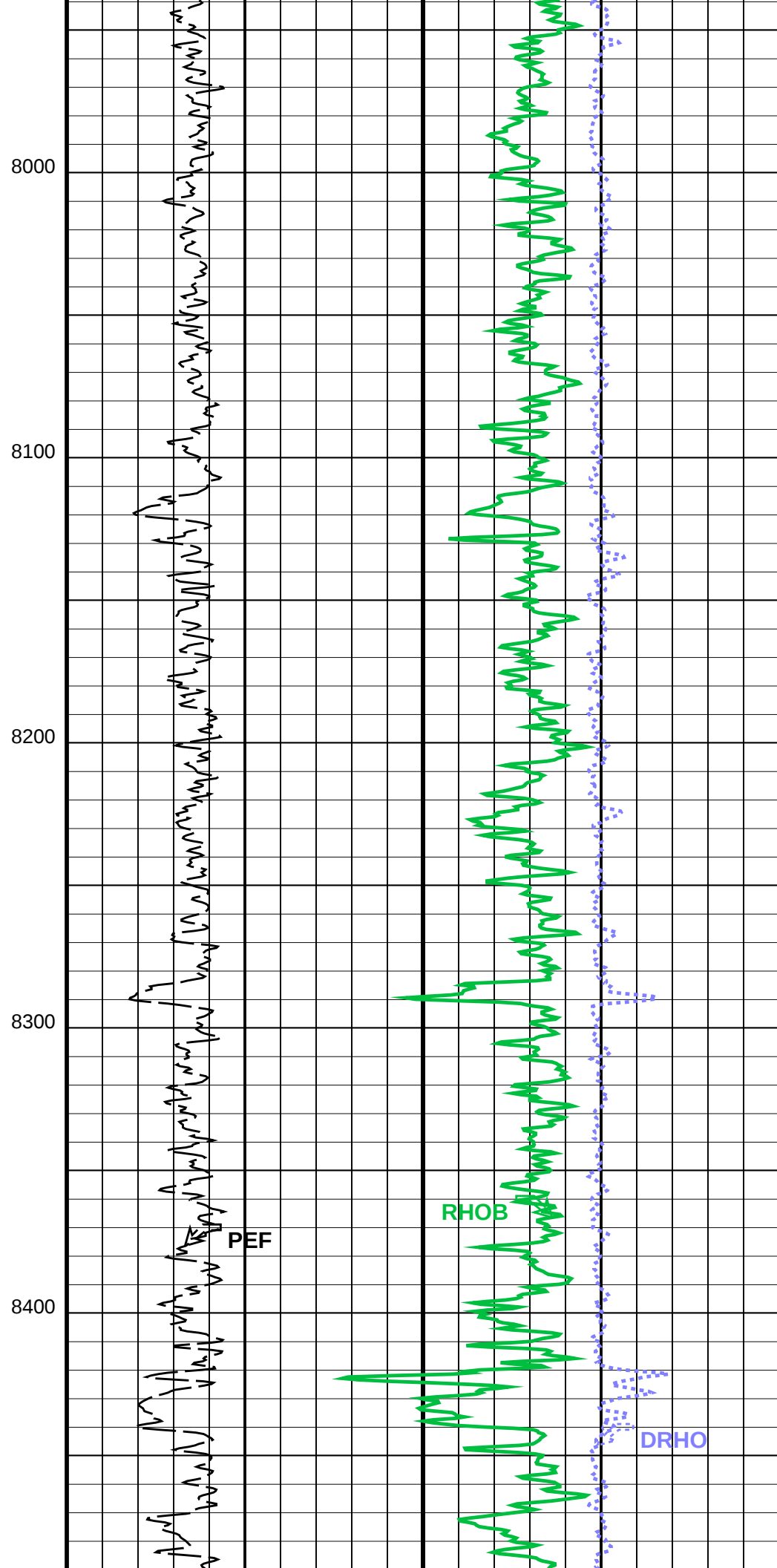
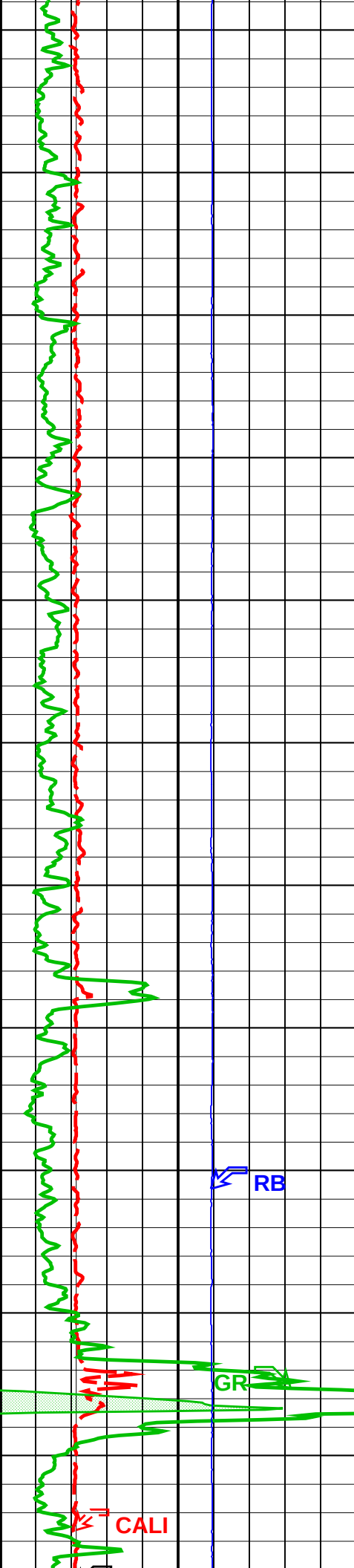


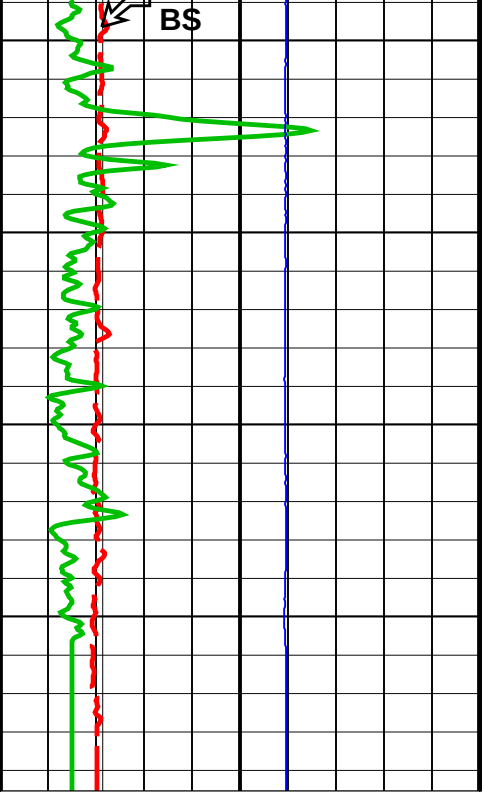




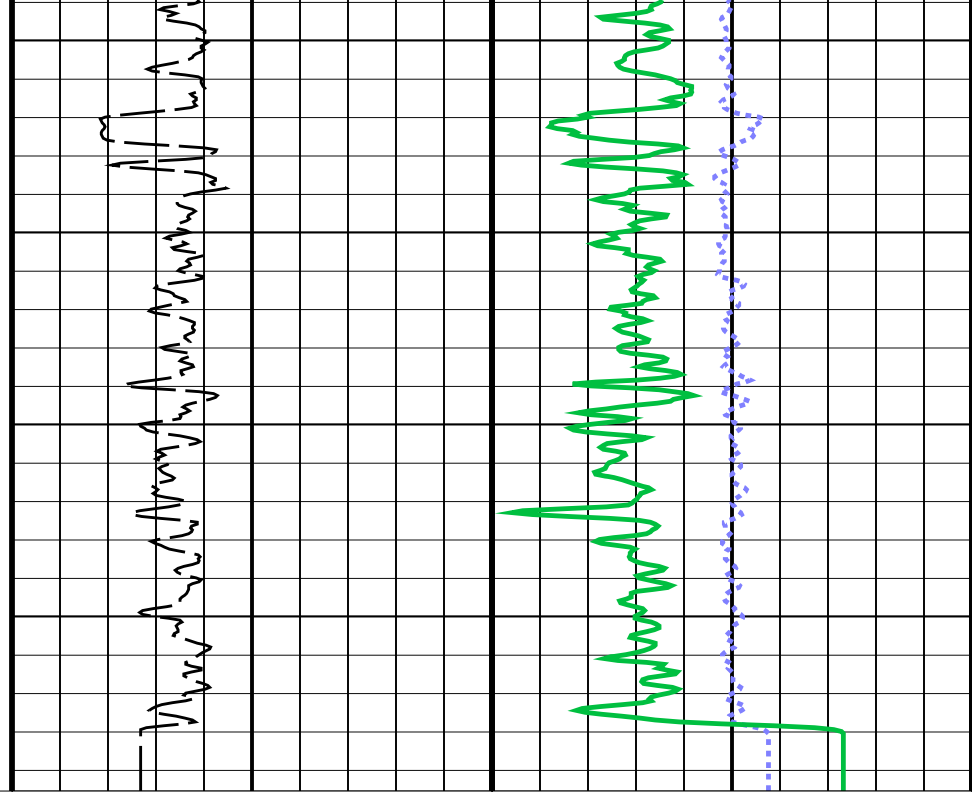








|                  |       |     |
|------------------|-------|-----|
| Bit Size (BS)    |       |     |
| (IN)             |       |     |
| 4                |       | 14  |
| Gamma Ray 1 (GR) |       |     |
| (GAPI)           |       |     |
| 150              |       | 300 |
| Gamma Ray 2 (GR) |       |     |
| (GAPI)           |       |     |
| 300              |       | 450 |
| Gamma Ray 3 (GR) |       |     |
| (GAPI)           |       |     |
| 450              |       | 600 |
| Gamma Ray 4 (GR) |       |     |
| (GAPI)           |       |     |
| 600              |       | 750 |
| Caliper (CALI)   |       |     |
| (IN)             |       |     |
| 4                |       | 14  |
| Gamma Ray (GR)   |       |     |
| (GAPI)           |       |     |
| 0                |       | 150 |
| gr wrap1         |       |     |
| From LHT1 to GR1 |       |     |
| gr wrap2         |       |     |
| From LHT1 to GR2 |       |     |
| gr wrap3         |       |     |
| From LHT1 to GR3 |       |     |
| gr wrap4         |       |     |
| From LHT1 to GR4 |       |     |
| Relative Bearing |       |     |
| (RB)             |       |     |
| 0                | (DEG) | 940 |



|             |    |             |     |
|-------------|----|-------------|-----|
| PEF (PEF)   |    | DRHO (DRHO) |     |
| (----       |    | (G/C3)      |     |
| 0           | 10 | -0.5        | 0.5 |
| RHOB (RHOB) |    |             |     |
| (G/C3)      |    |             |     |
| 2           |    |             | 3   |

| Parameters            |                         |         |
|-----------------------|-------------------------|---------|
| DLIS Name             | Description             | Value   |
| TBT-A: ThruBit String |                         |         |
| DHC                   | Density Hole Correction | CALIPER |

|                          |                                                      |         |         |
|--------------------------|------------------------------------------------------|---------|---------|
| RB_OFFSET                | Additional RB offset (degrees)                       | 0.000   | deg     |
| TBD_CAL_BLOCK            | TBD Calibration Block Type                           | THRUBIT |         |
| TBD_SPIKE_REJECT         | TBD Spike Detection Option                           | DETECT  |         |
| TBD_SPIKE_THRESHOLD      | TBD Attenuation Change Threshold for Spike Detection | 5.000   | %       |
| WMUD                     | Mud Weight                                           | 8.400   | lbm/gal |
| System and Miscellaneous |                                                      |         |         |
| BS                       | Bit Size                                             | 6.125   | in      |

Format: TB\_2INCH\_NUCLEAR

Vertical Scale: 2" per 100'

Graphics File Created: 28-May-2014 22:09

OP System Version: 19C2-270

TBT

SRPC-5298-ThruBit\_b

| Input DLIS Files |      |                   |           |           |
|------------------|------|-------------------|-----------|-----------|
| ThruBit_006PUP   | FN:5 | 28-May-2014 22:03 | 8695.2 FT | 2398.0 FT |

Schlumberger

MAIN PASS

MAXIS Field Log

Company: SANDRIDGE ENERGY

Well: BARBARA 3404 1-4H

| Input DLIS Files |      |                   |           |           |
|------------------|------|-------------------|-----------|-----------|
| ThruBit_006PUP   | FN:5 | 28-May-2014 22:03 | 8695.2 FT | 2398.0 FT |

OP System Version: 19C2-270

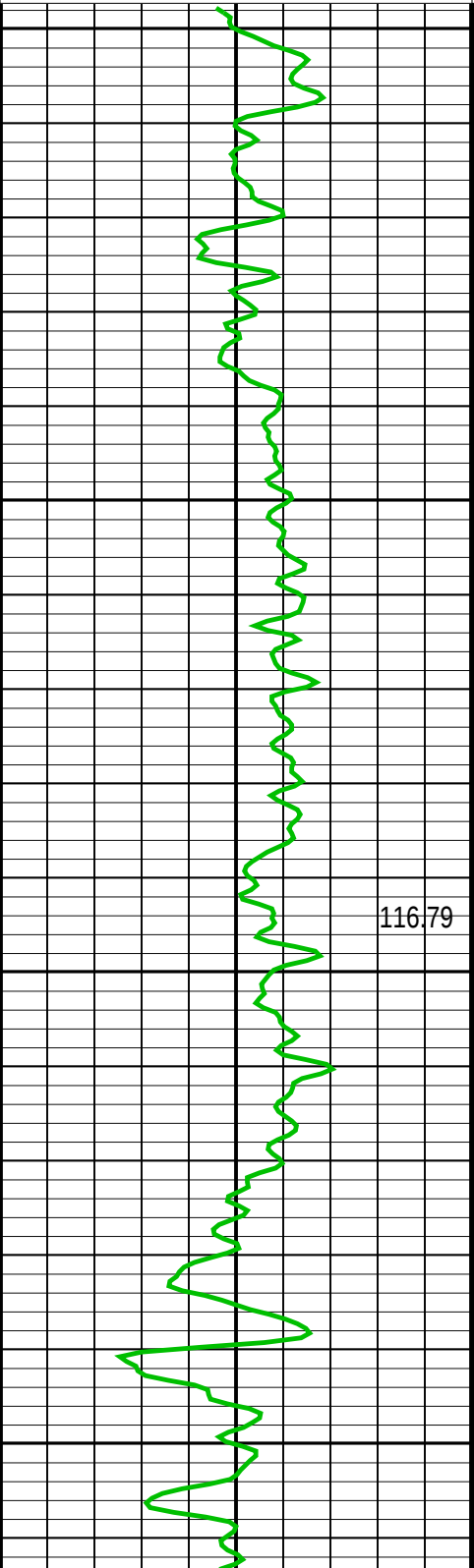
TBT

SRPC-5298-ThruBit\_b

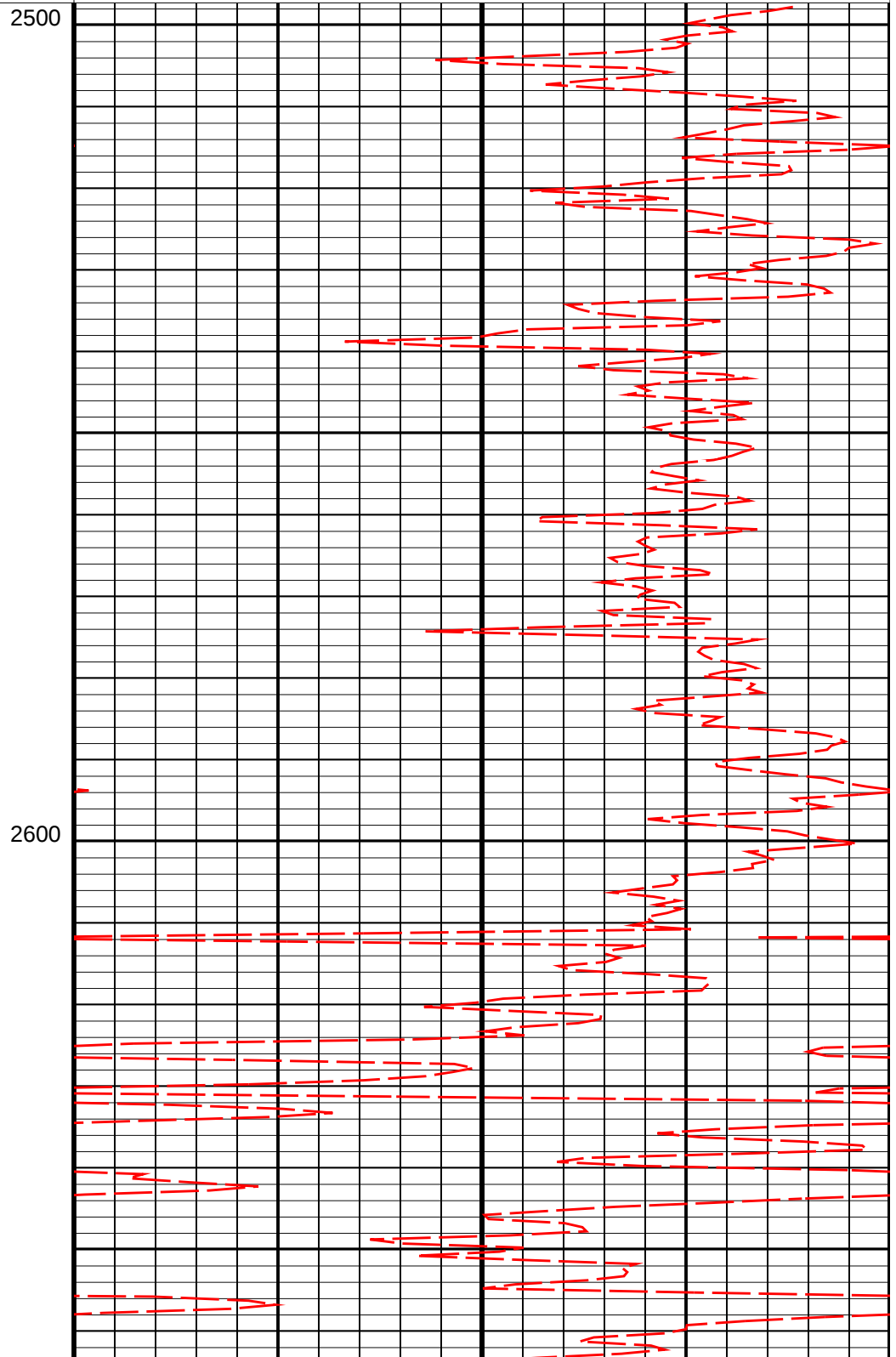
| PIP SUMMARY                                       |  |
|---------------------------------------------------|--|
| └ Integrated Cement Volume Major Pip Every 100 F3 |  |
| └ Integrated Cement Volume Minor Pip Every 10 F3  |  |
| └ Integrated Hole Volume Major Pip Every 100 F3   |  |
| └ Integrated Hole Volume Minor Pip Every 10 F3    |  |

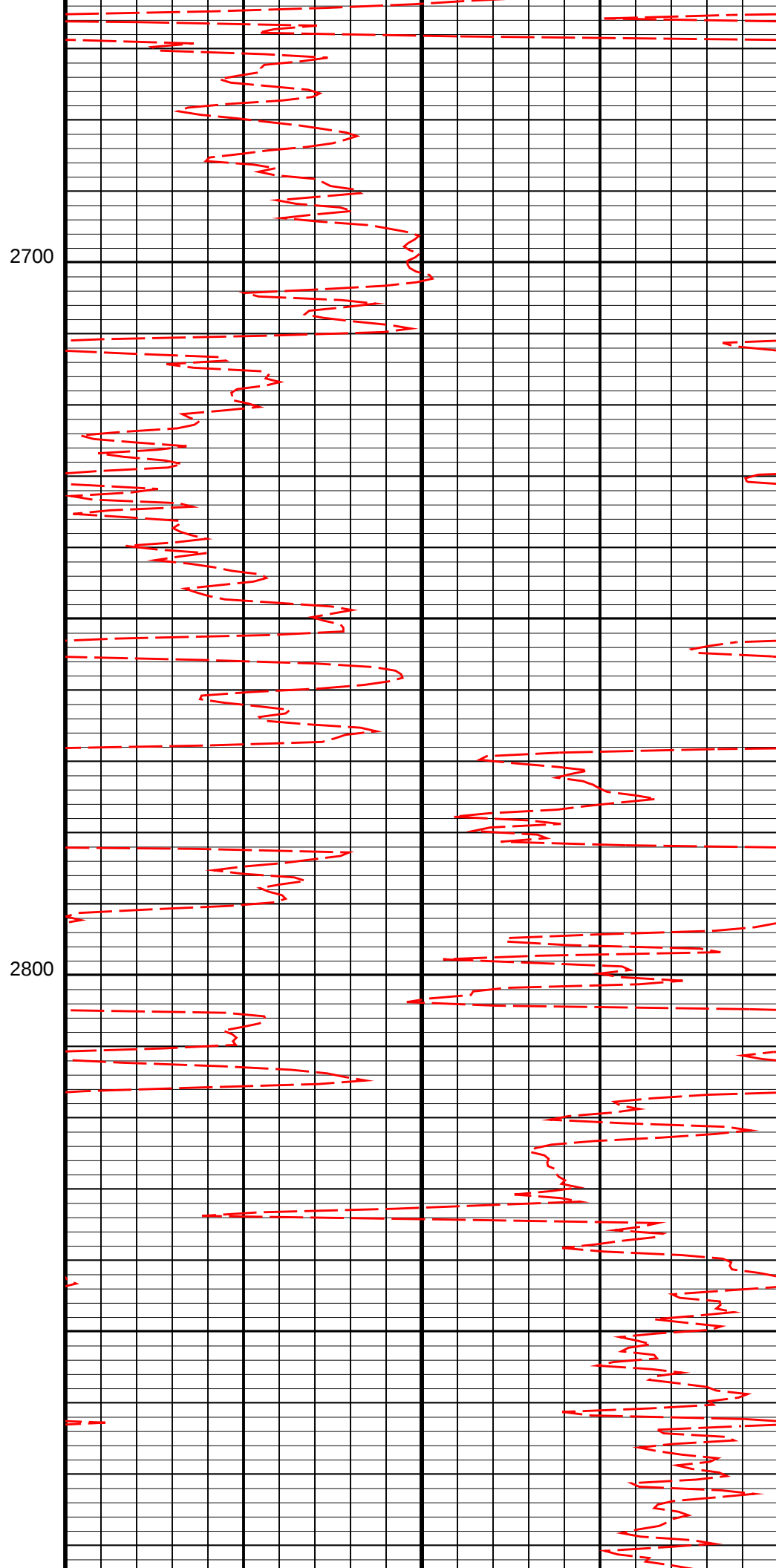
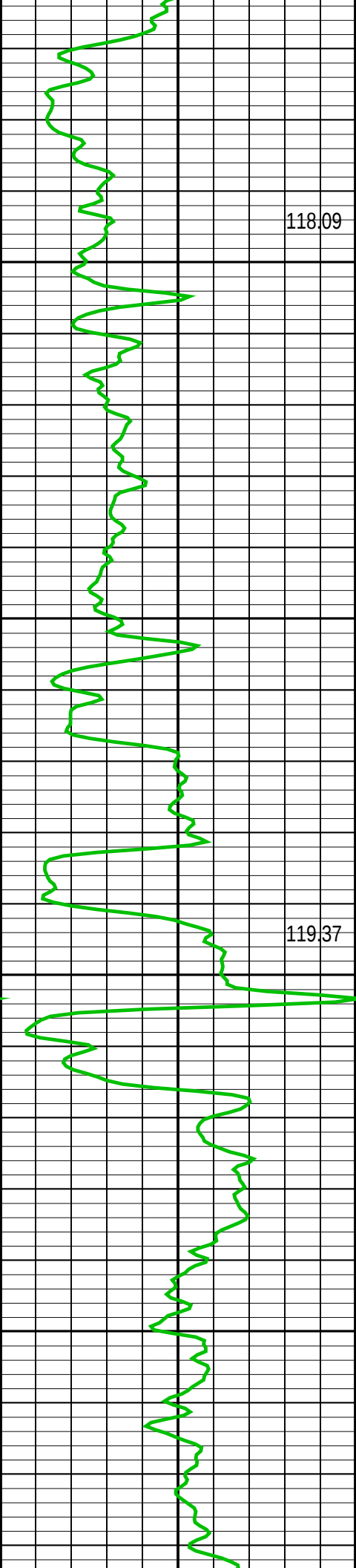
| Relative Bearing (RB)        |            |
|------------------------------|------------|
| 0                            | 940 (DEG)  |
| gr wrap4<br>From LHT1 to GR4 |            |
| gr wrap3<br>From LHT1 to GR3 |            |
| gr wrap2<br>From LHT1 to GR2 |            |
| gr wrap1<br>From LHT1 to GR1 |            |
| Gamma Ray (GR)               |            |
| 0                            | 150 (GAPI) |
| Caliper (CALI)               |            |
| 4                            | 14 (IN)    |
| Gamma Ray 4 (GR)             |            |

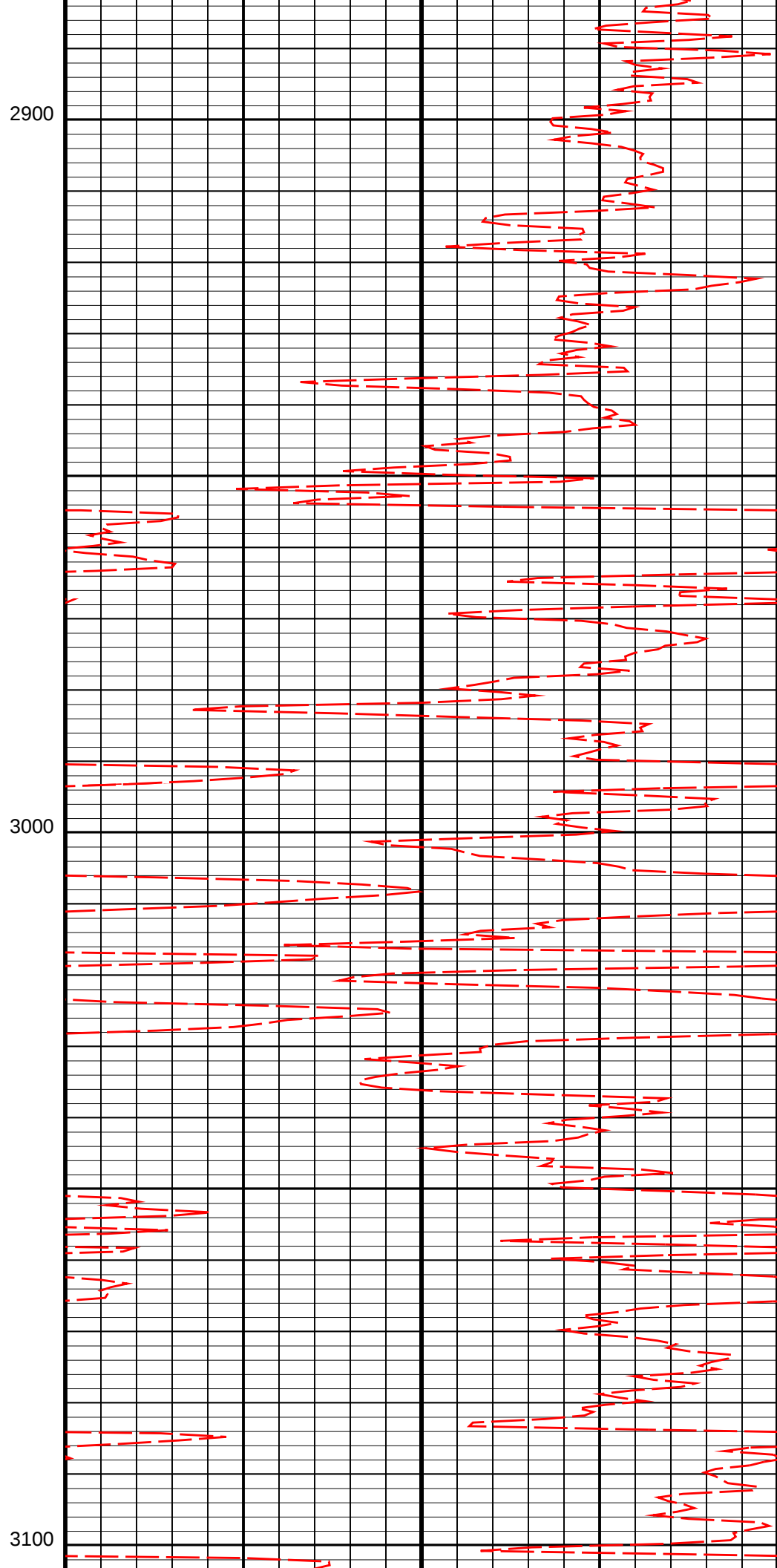
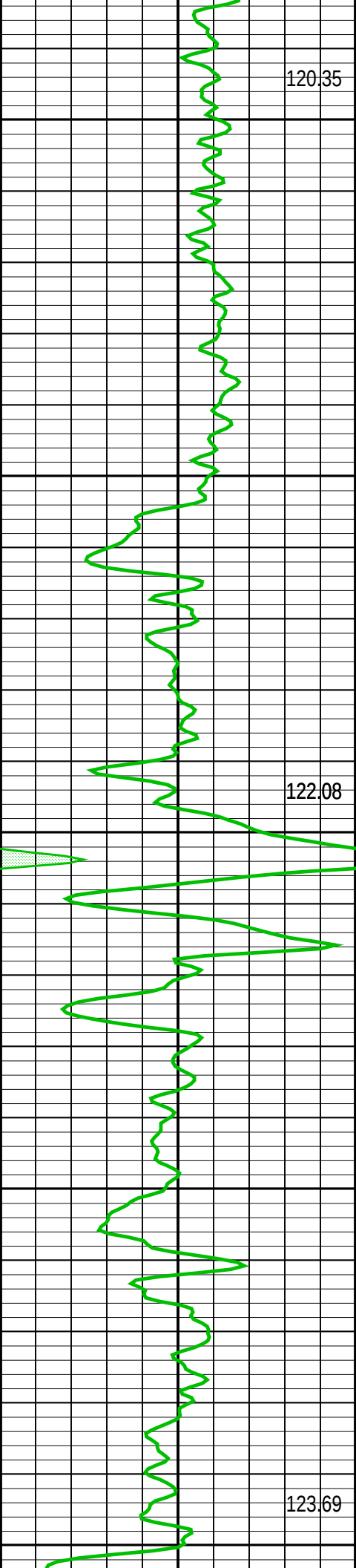
|                          |                            |     |
|--------------------------|----------------------------|-----|
| 600                      | Gamma Ray 4 (GR)<br>(GAPI) | 750 |
| Gamma Ray 3 (GR)         |                            |     |
| 450                      | (GAPI)                     | 600 |
| Gamma Ray 2 (GR)         |                            |     |
| 300                      | (GAPI)                     | 450 |
| Gamma Ray 1 (GR)         |                            |     |
| 150                      | (GAPI)                     | 300 |
| Bit Size (BS)            |                            |     |
| 4                        | (IN)                       | 14  |
| GR Temp (WTEP)<br>(DEGF) |                            |     |

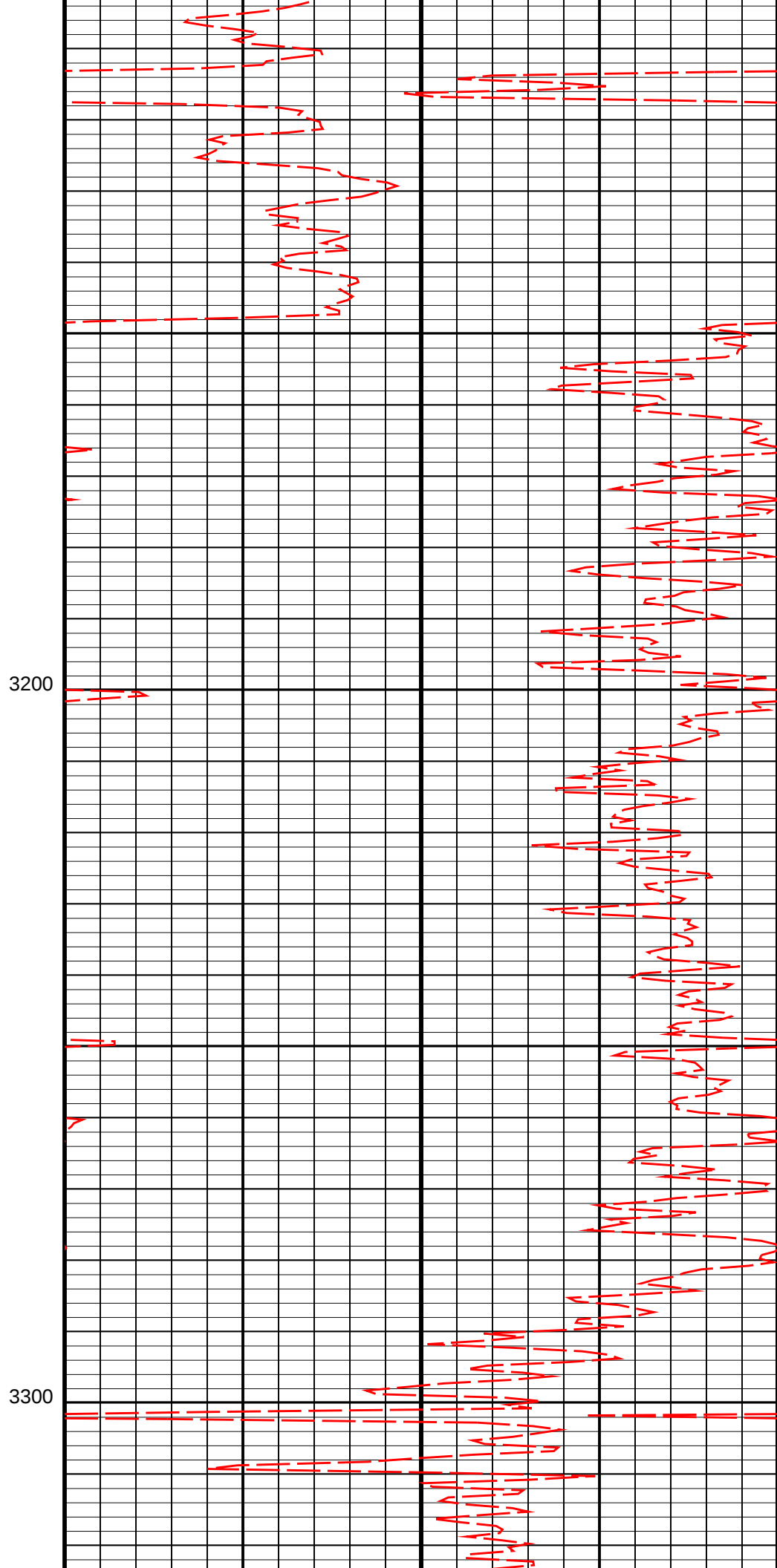
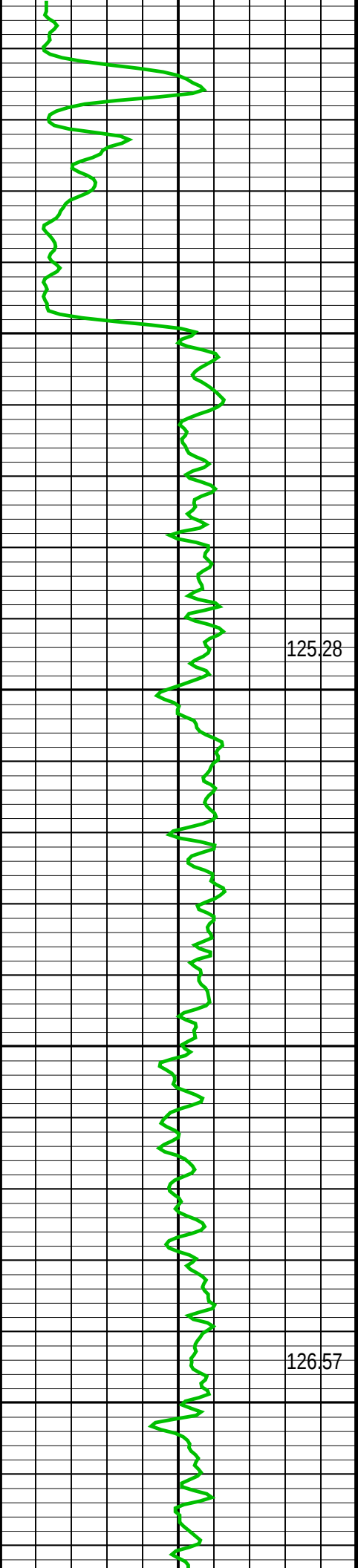


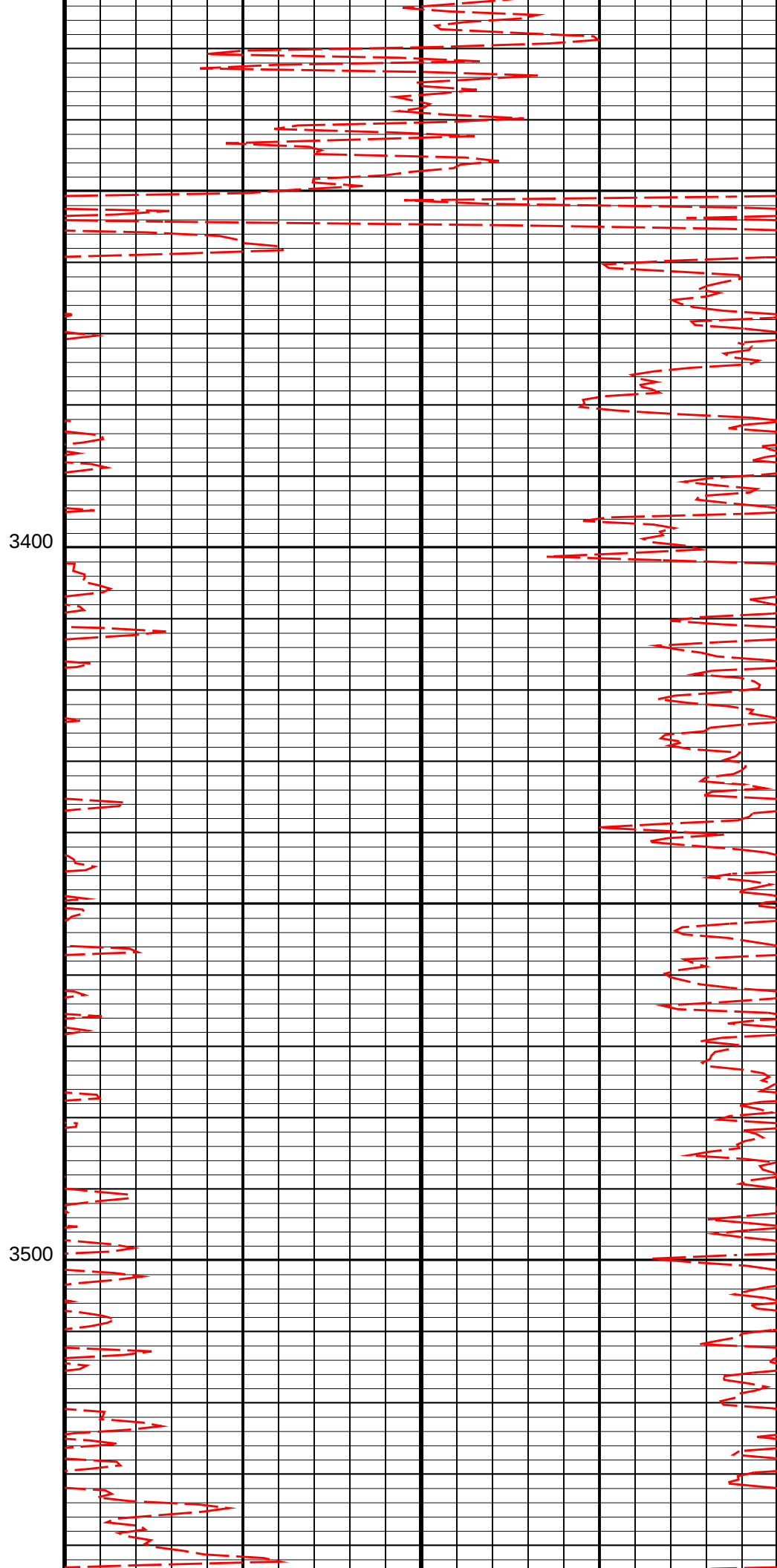
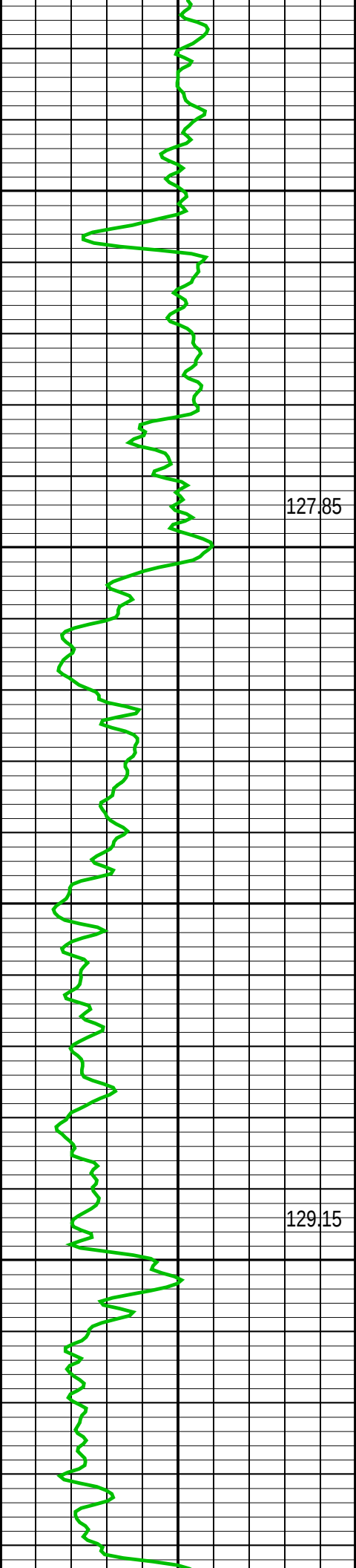
|             |       |             |
|-------------|-------|-------------|
| TNPH (TNPH) |       |             |
| 30          | (%)   | -10         |
| PEF (PEF)   |       | DRHO (DRHO) |
| 0           | (---- | 10          |
|             |       | -0.5        |
|             |       | (G/C3)      |
|             |       | 0.5         |
| DPHI (DPHI) |       |             |
| 30          | (PU)  | -10         |

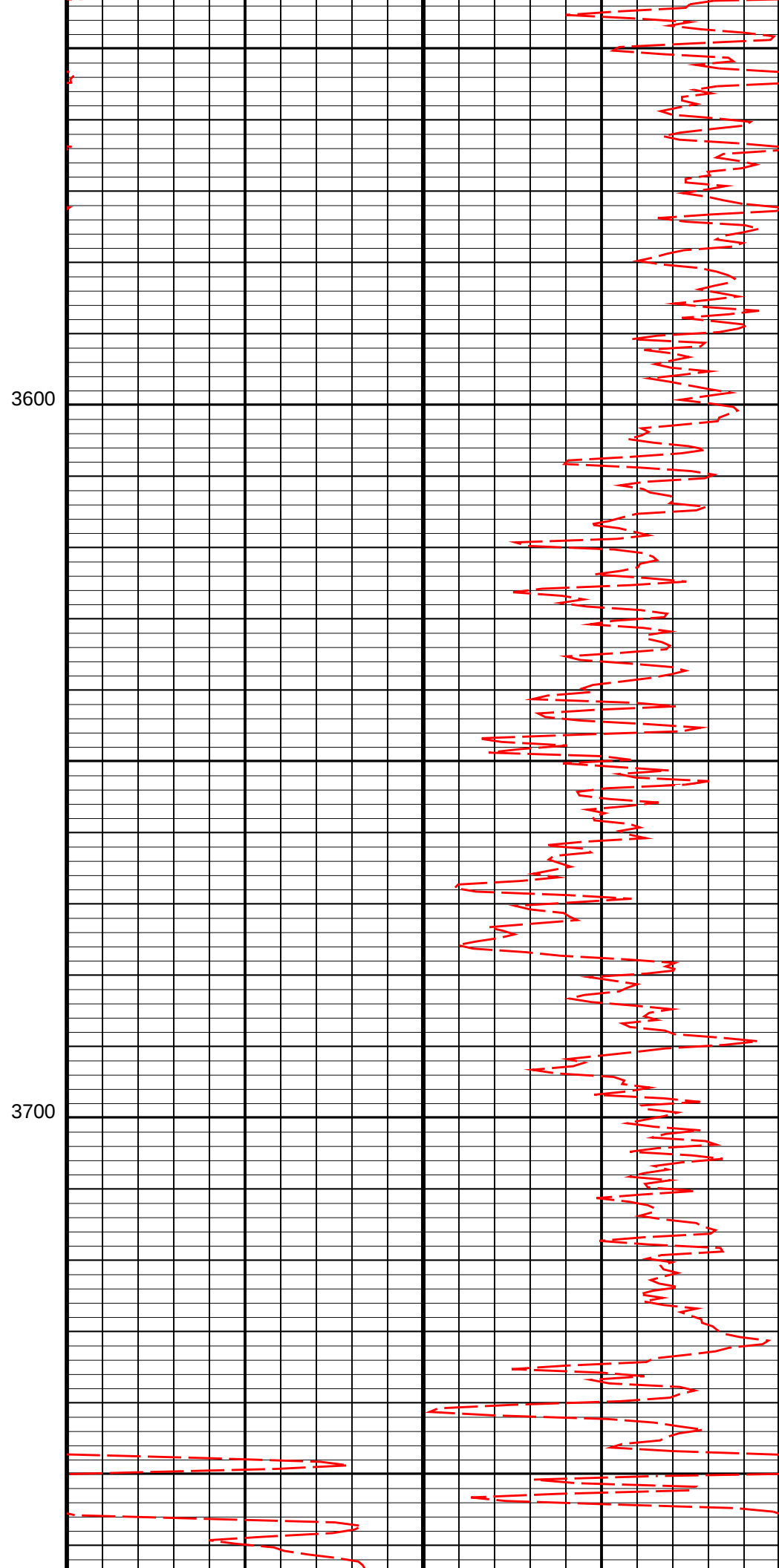
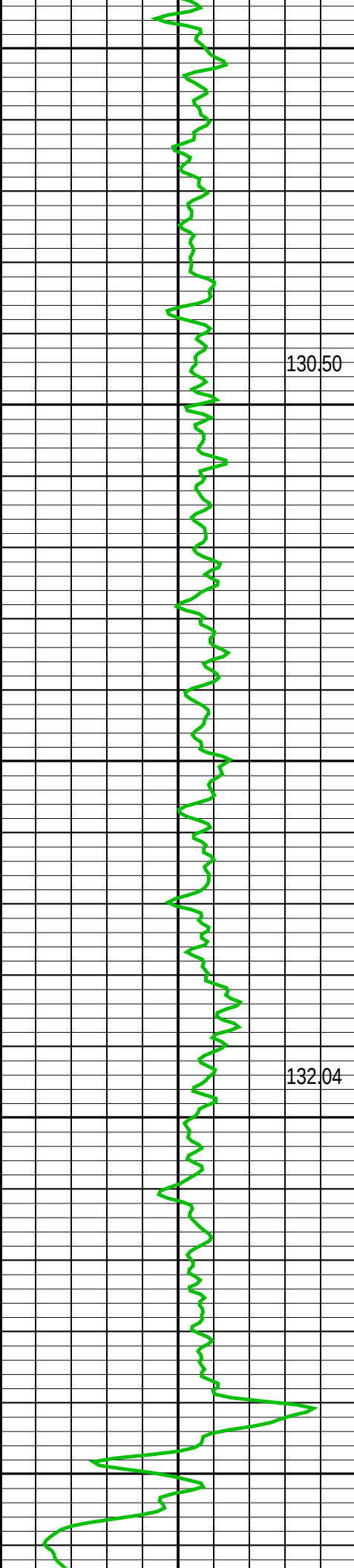


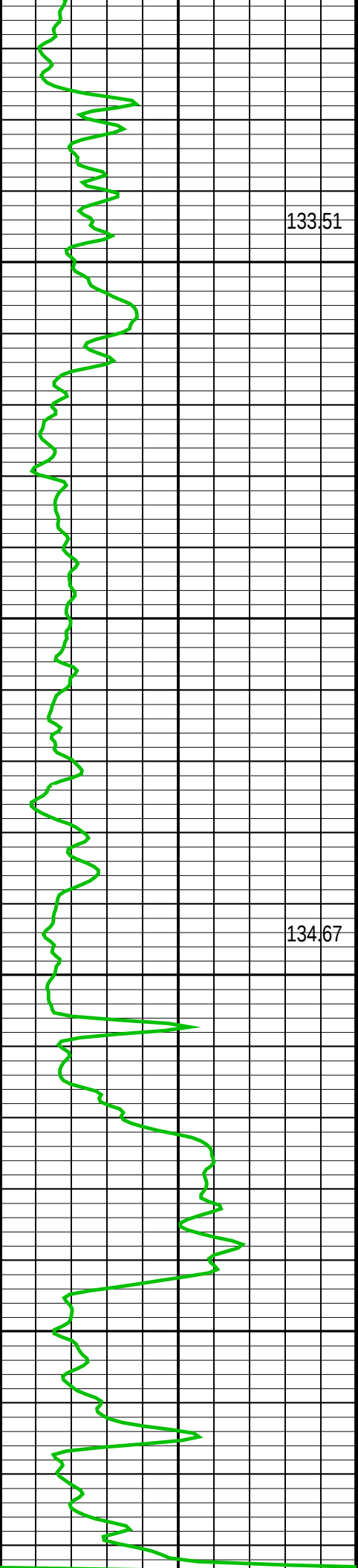






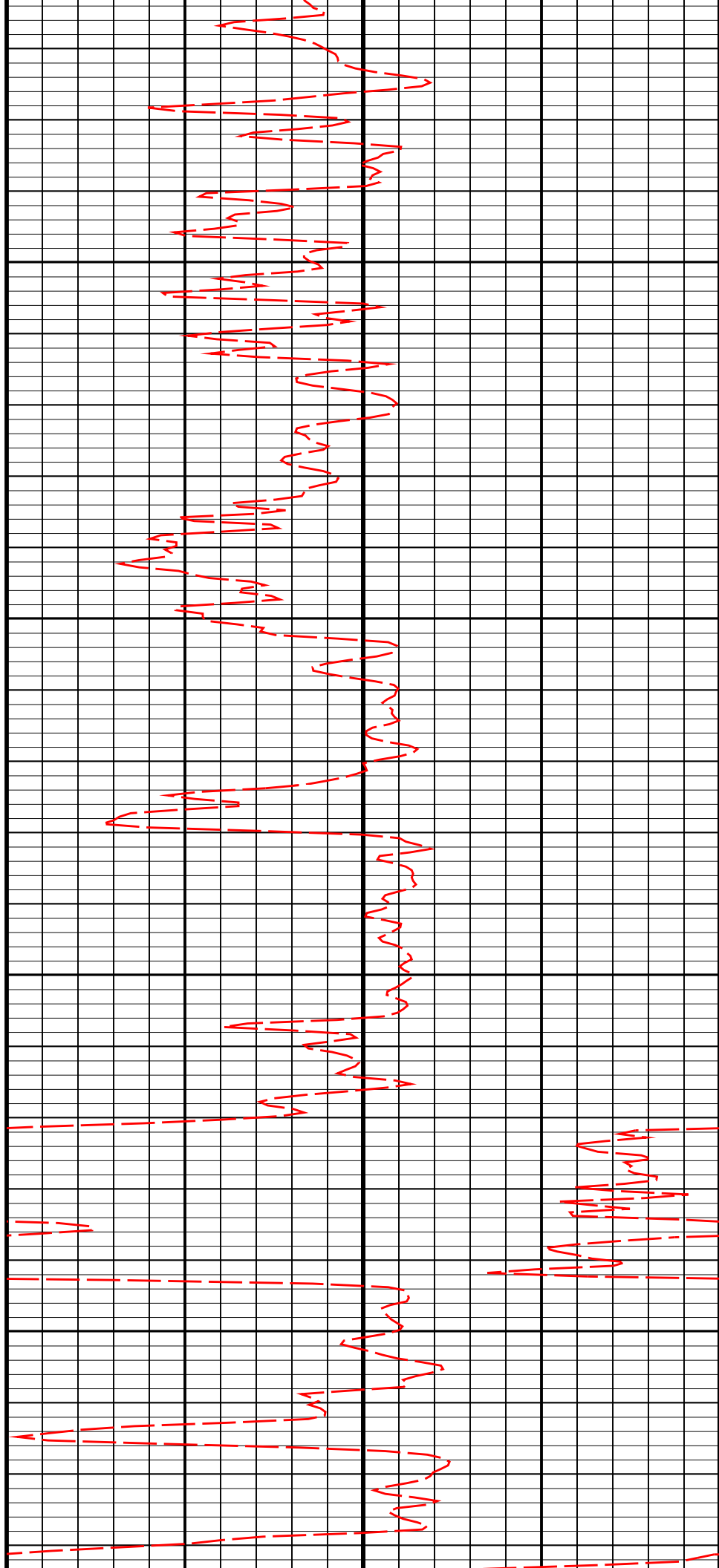


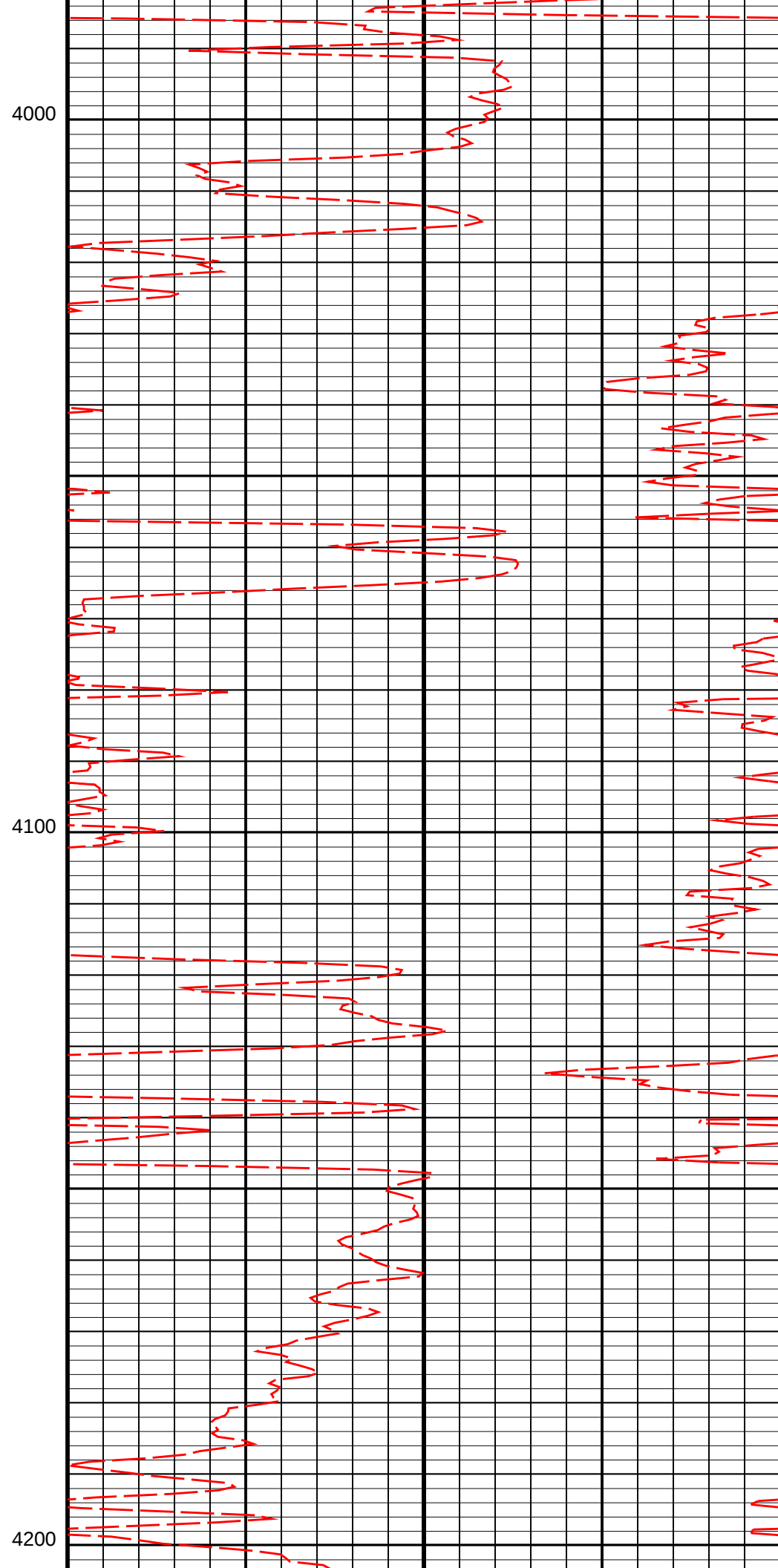
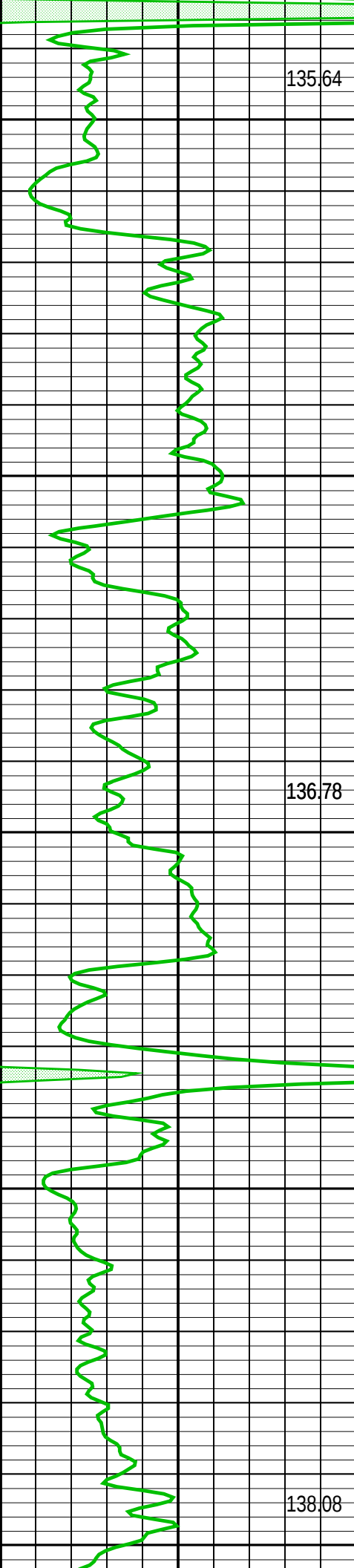


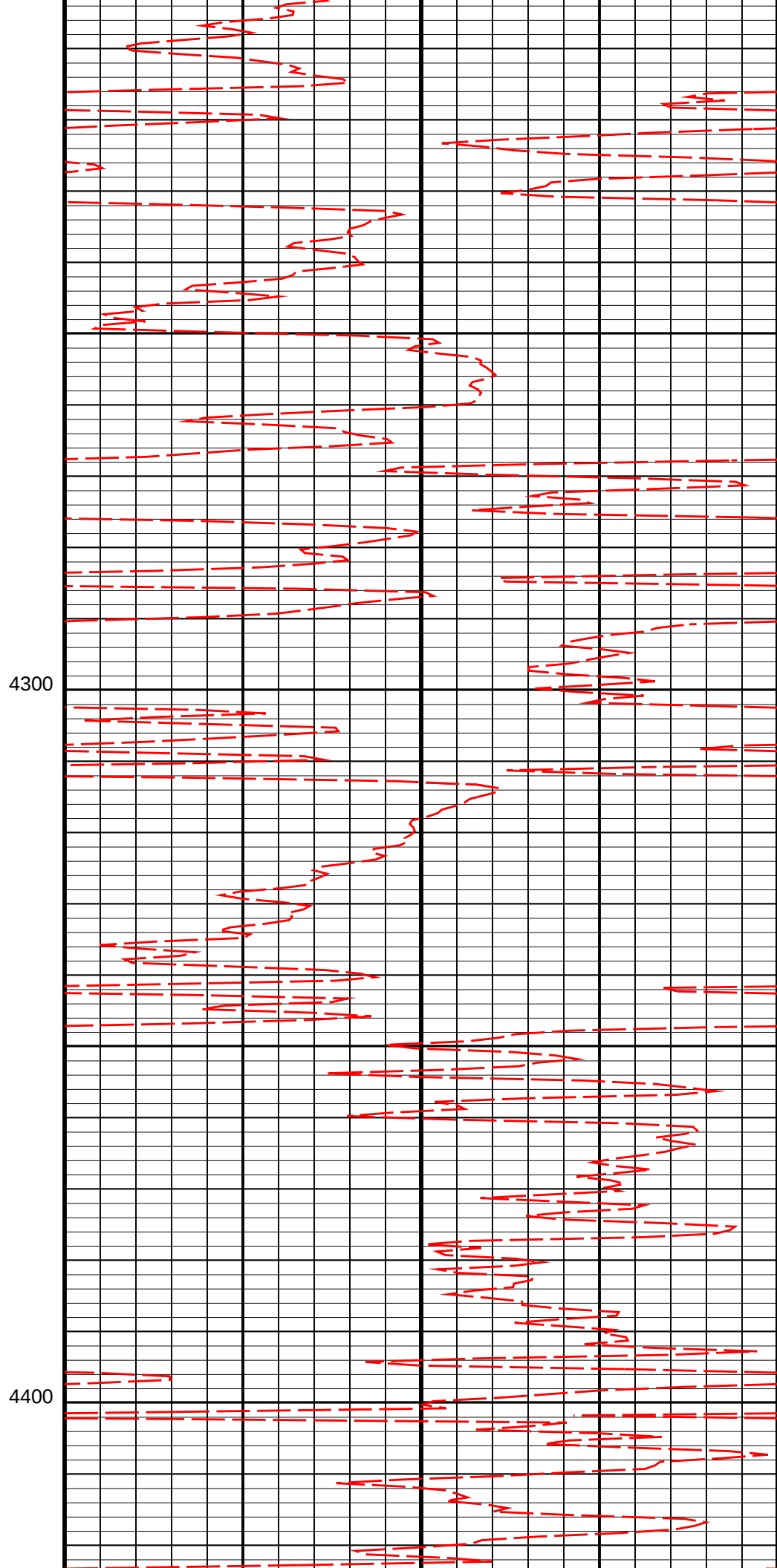
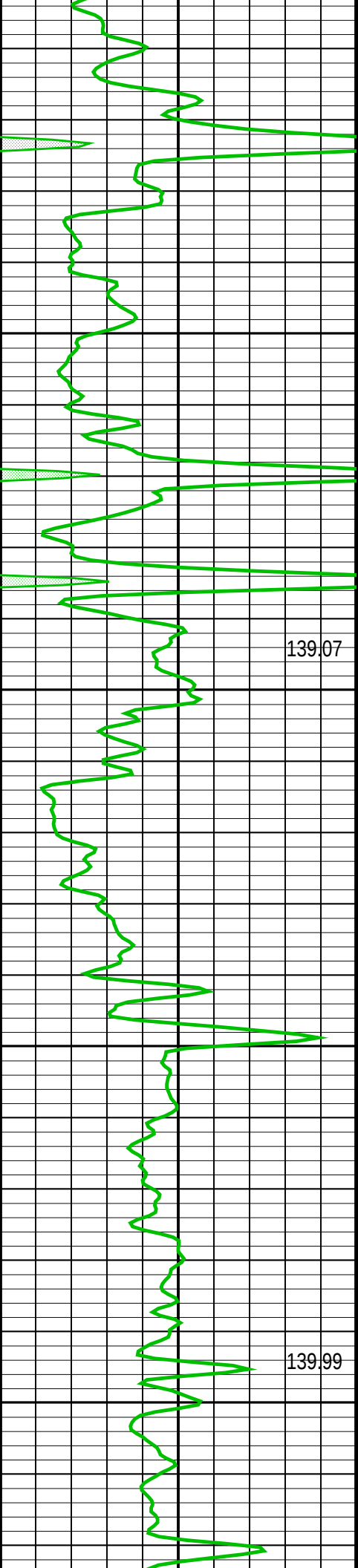


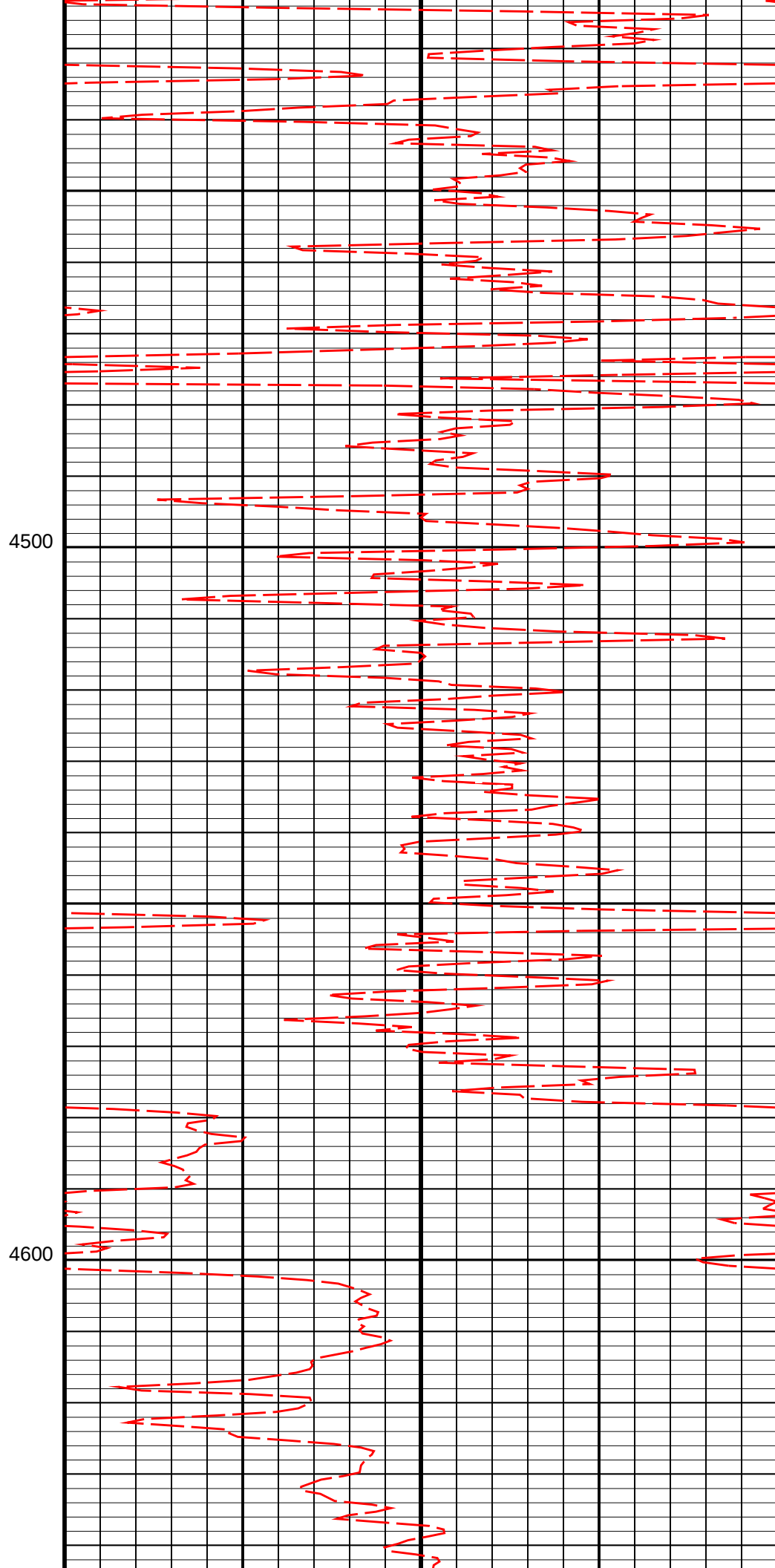
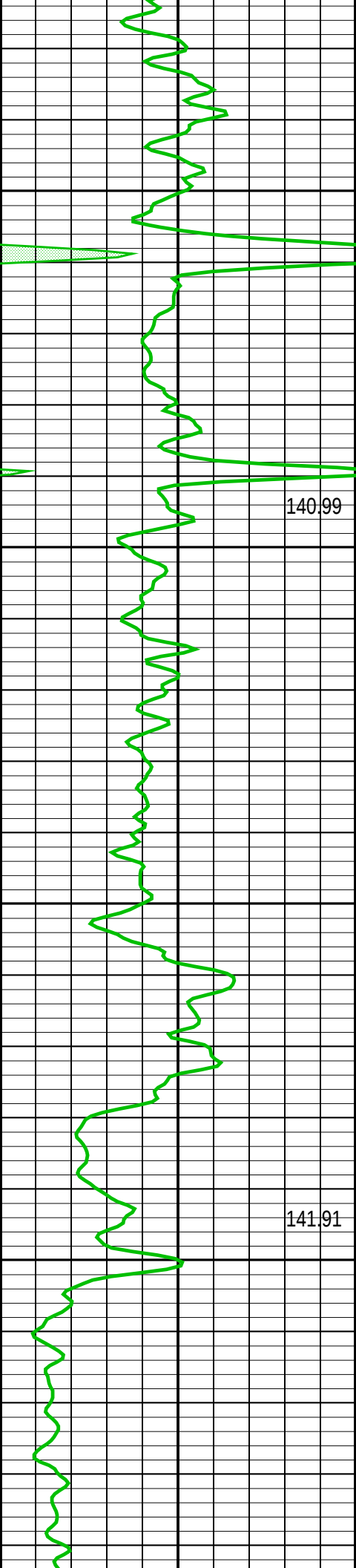
3800

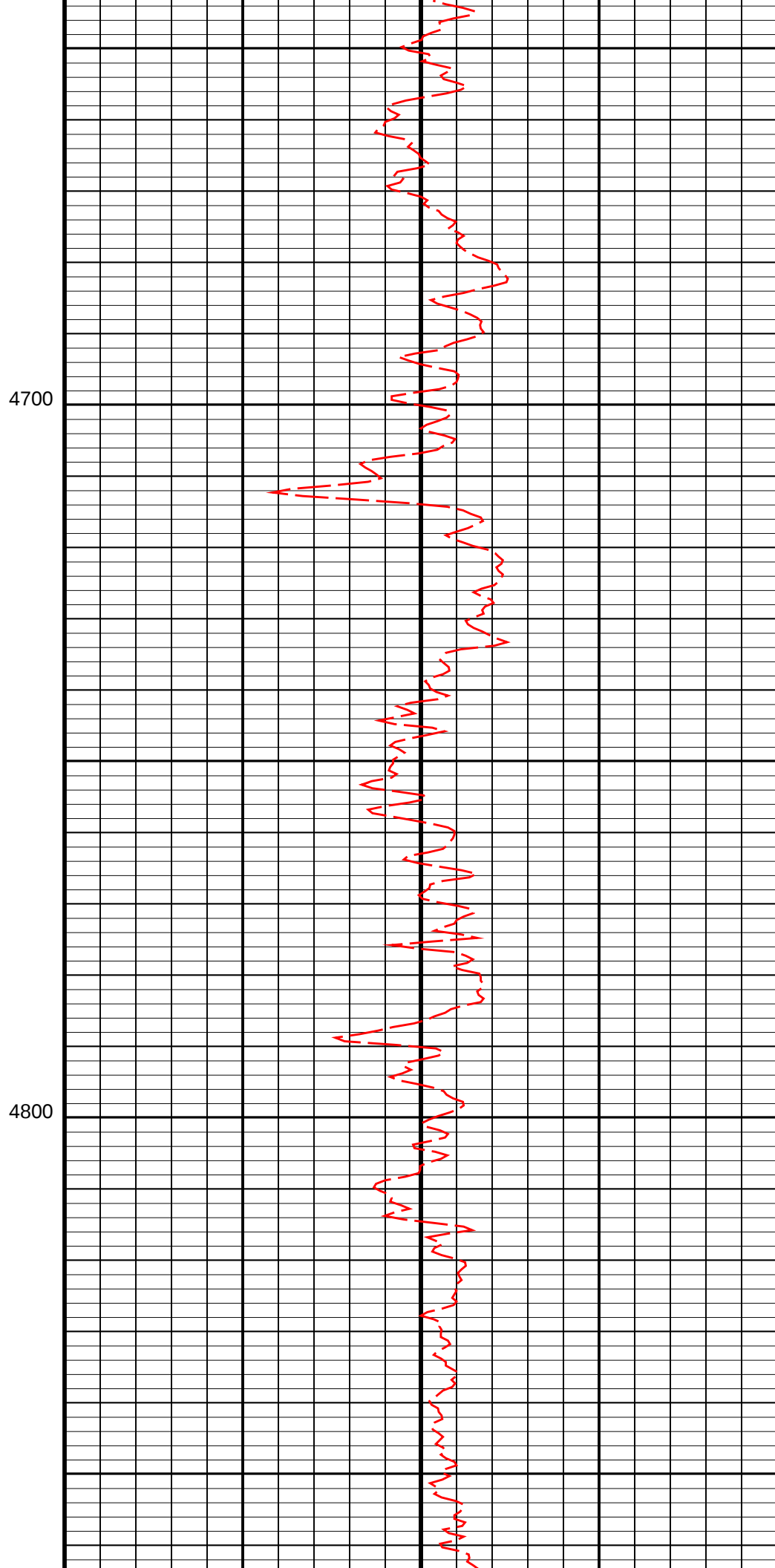
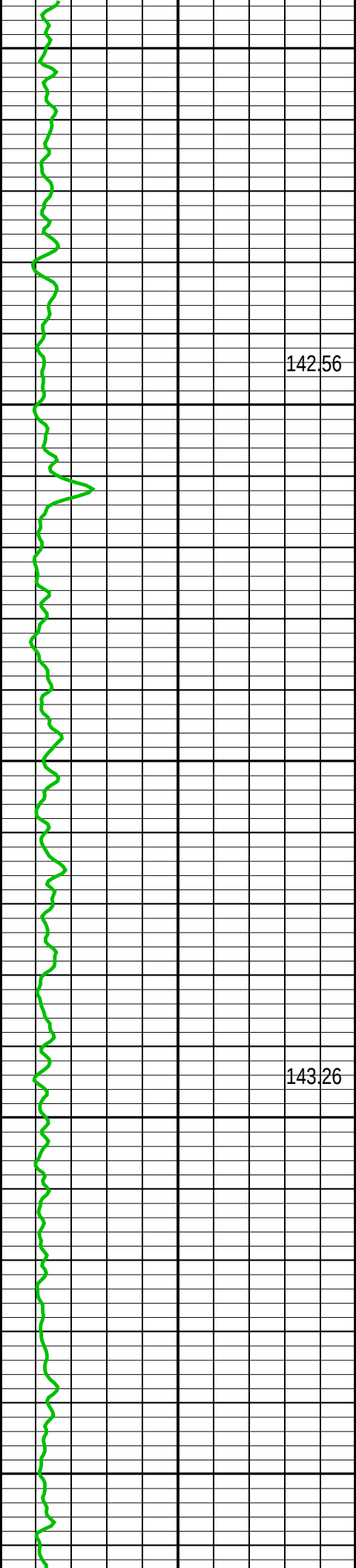
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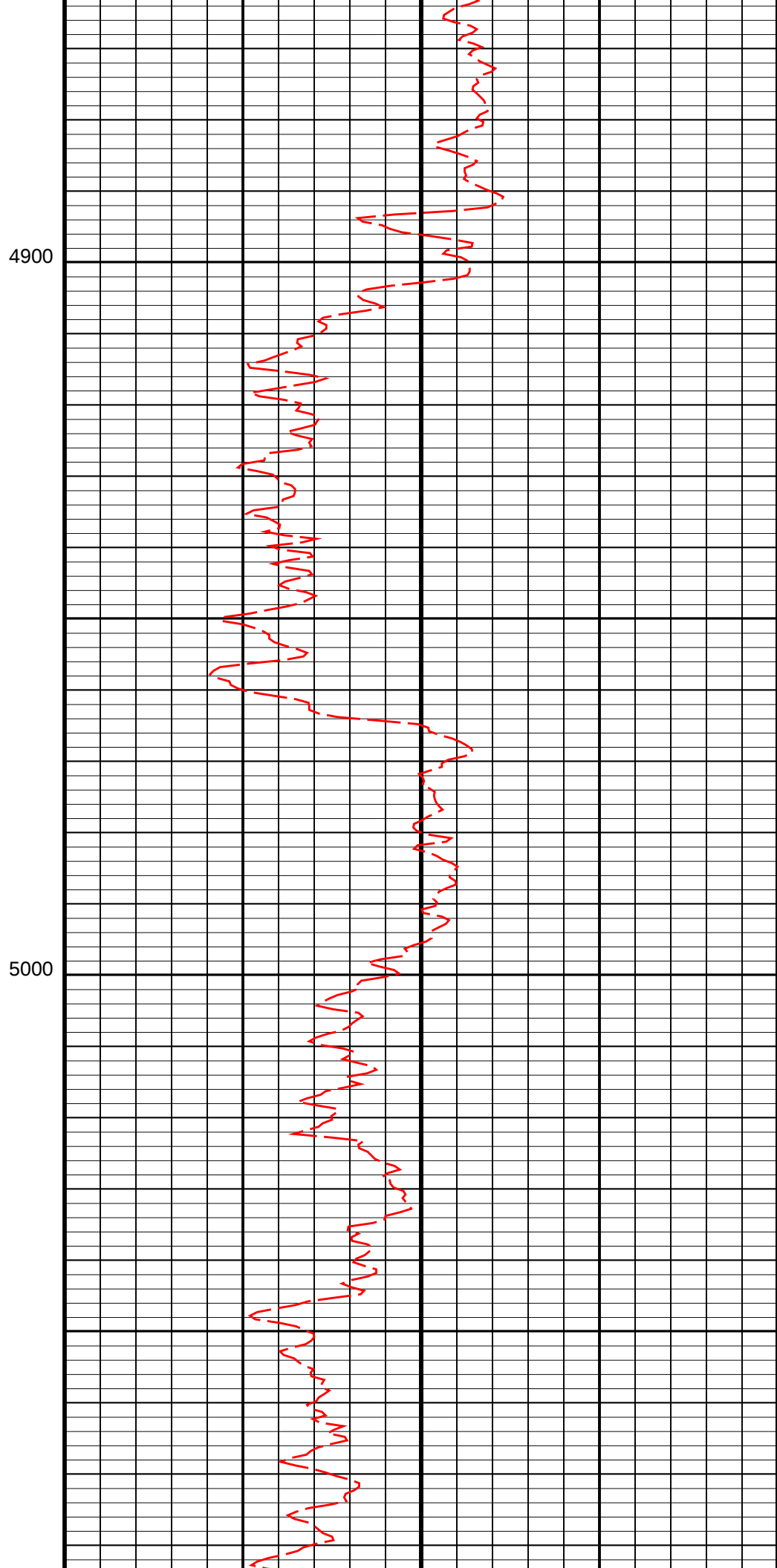
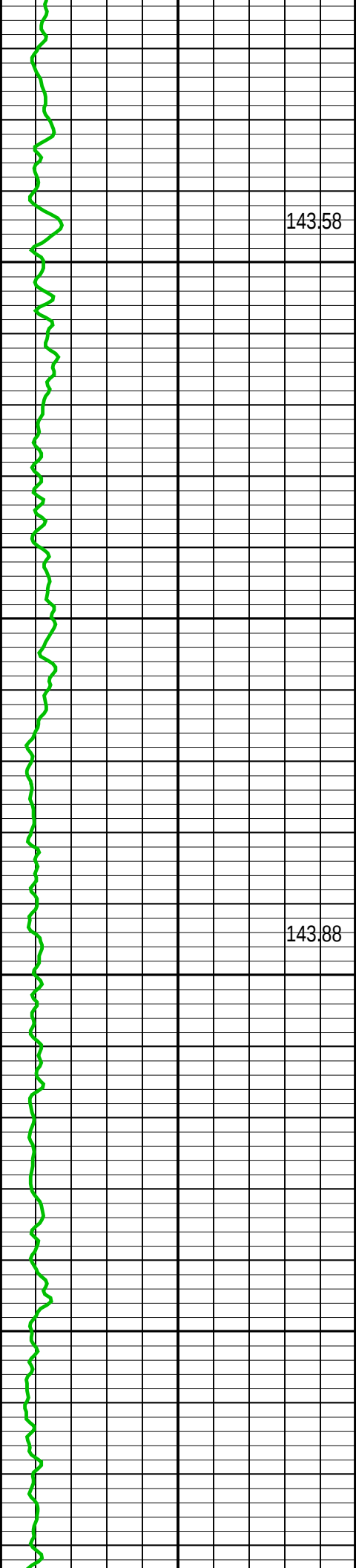


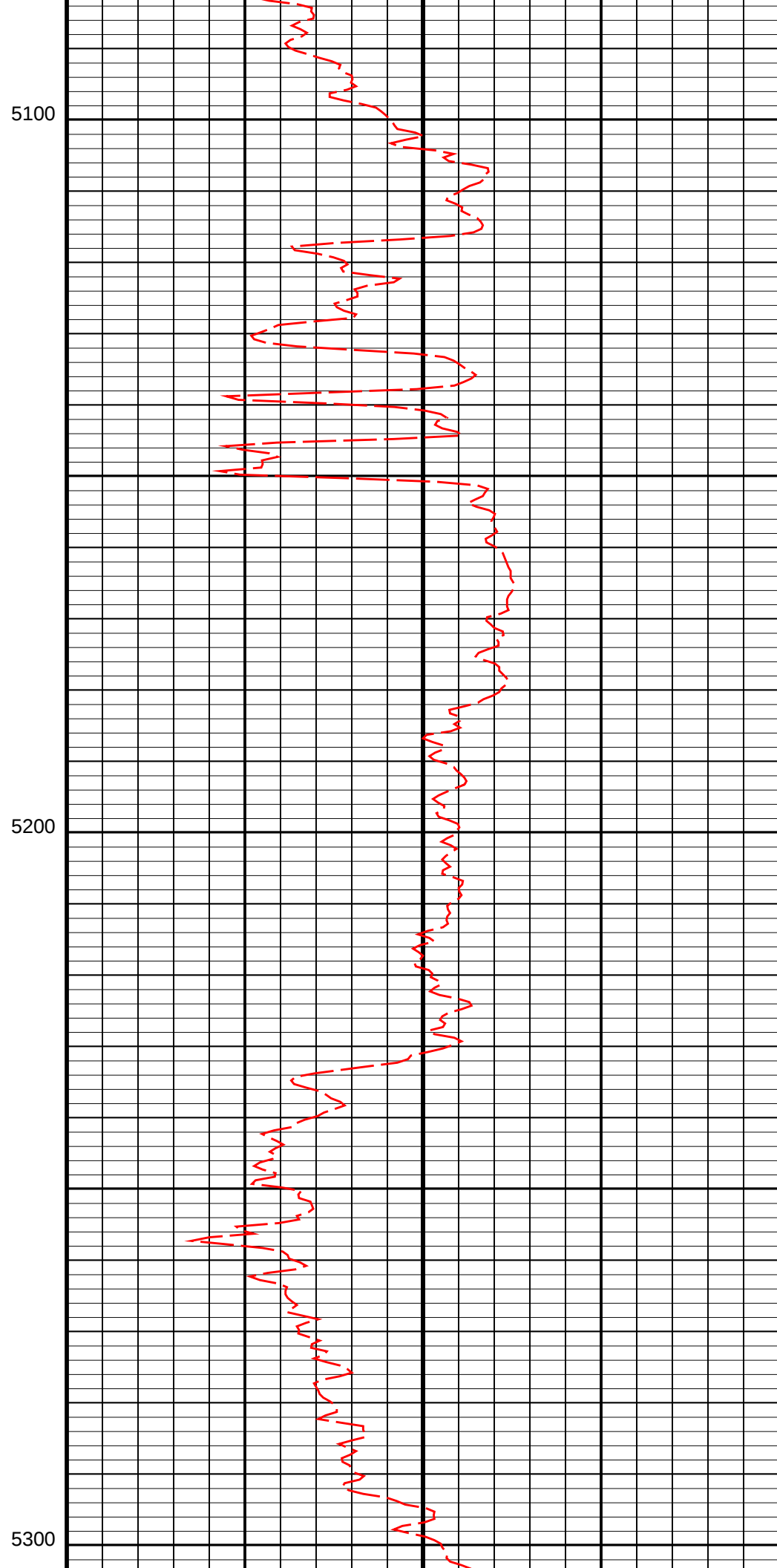
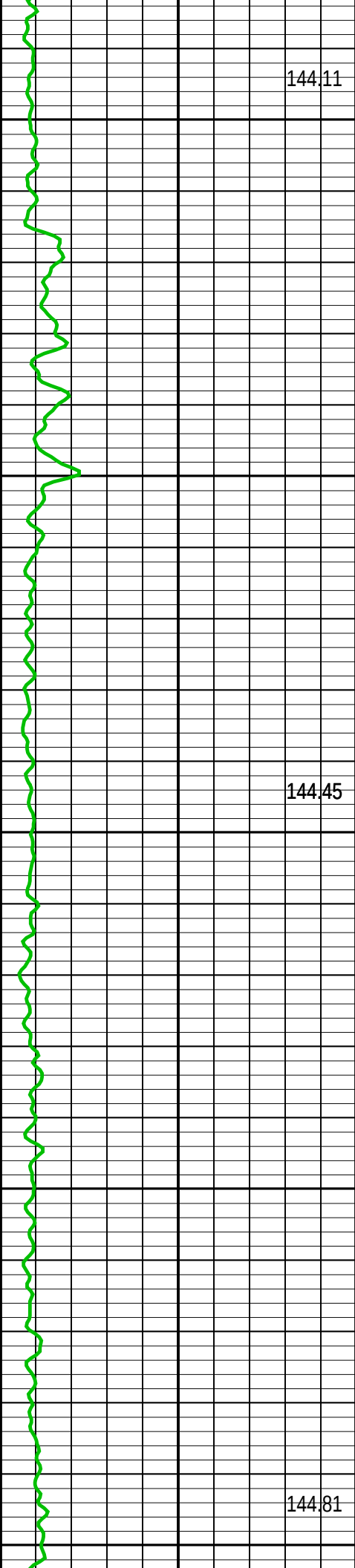


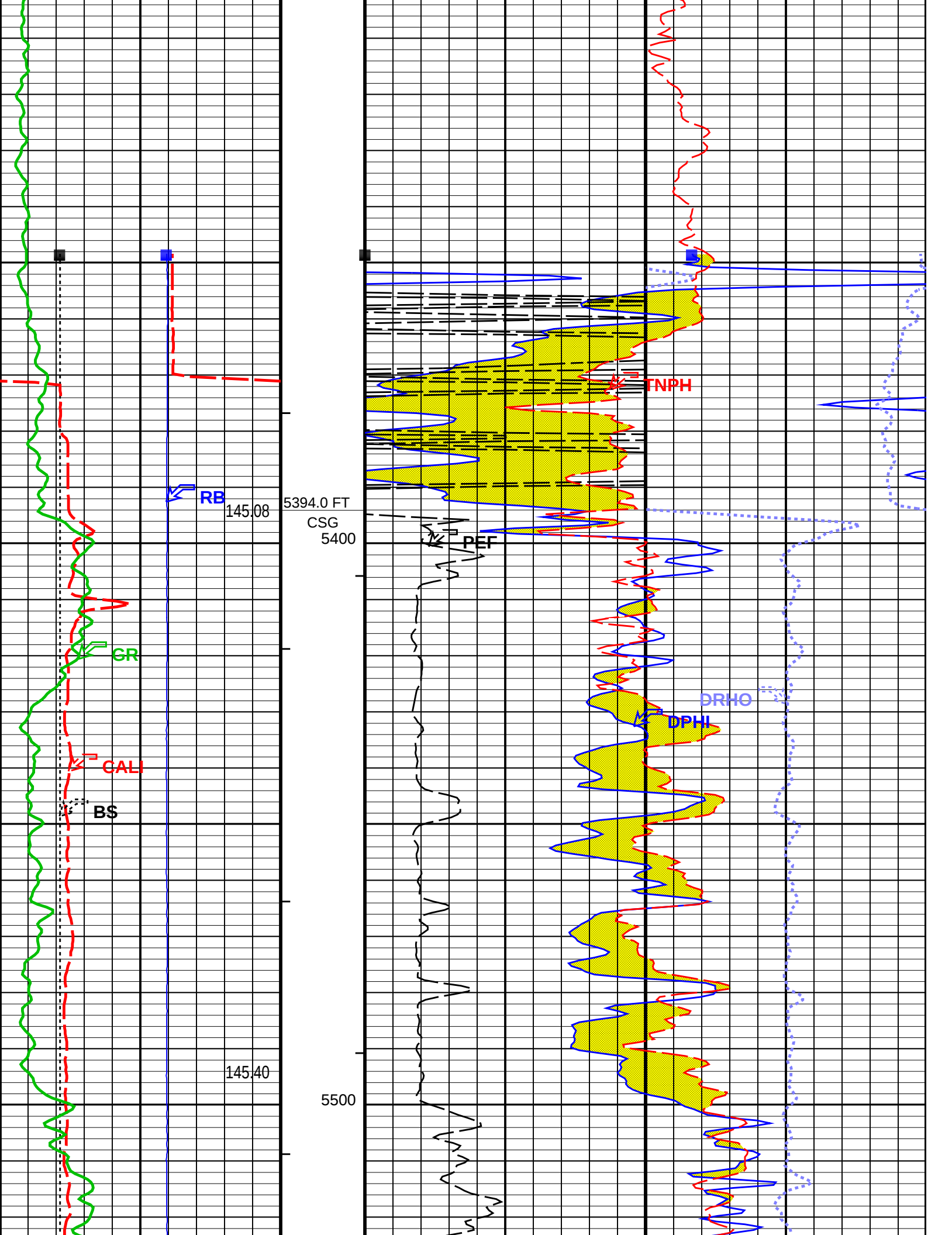


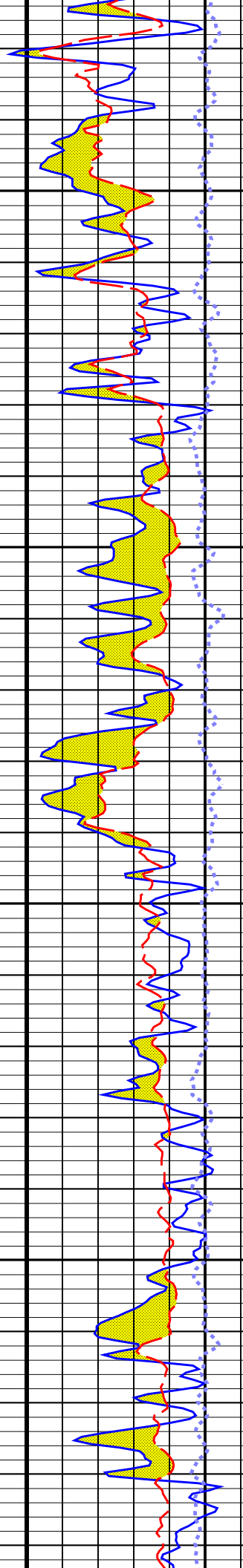
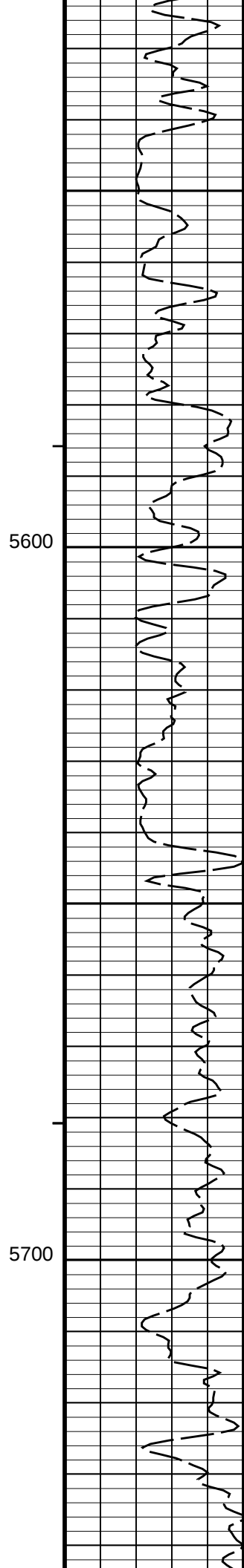
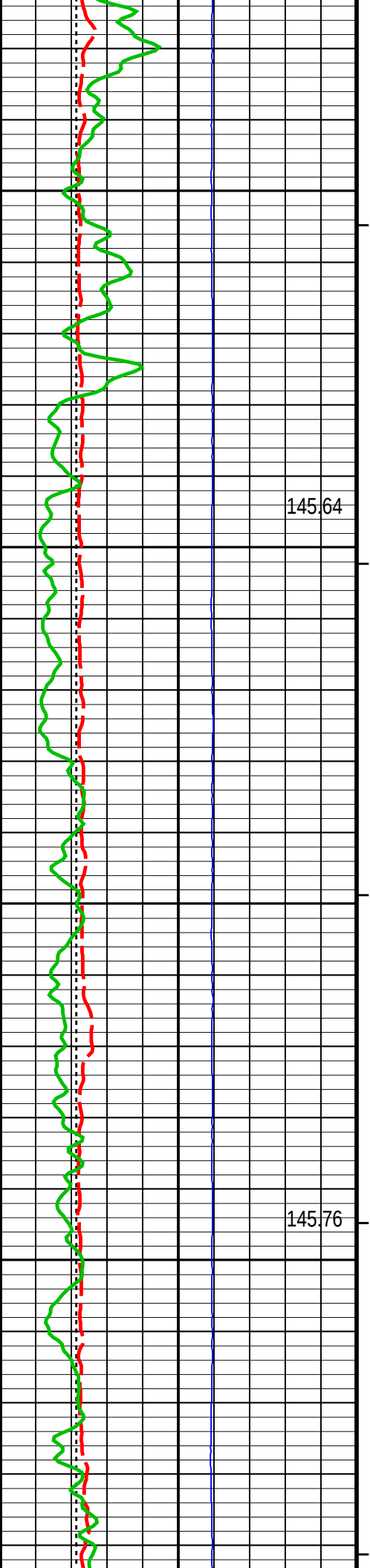


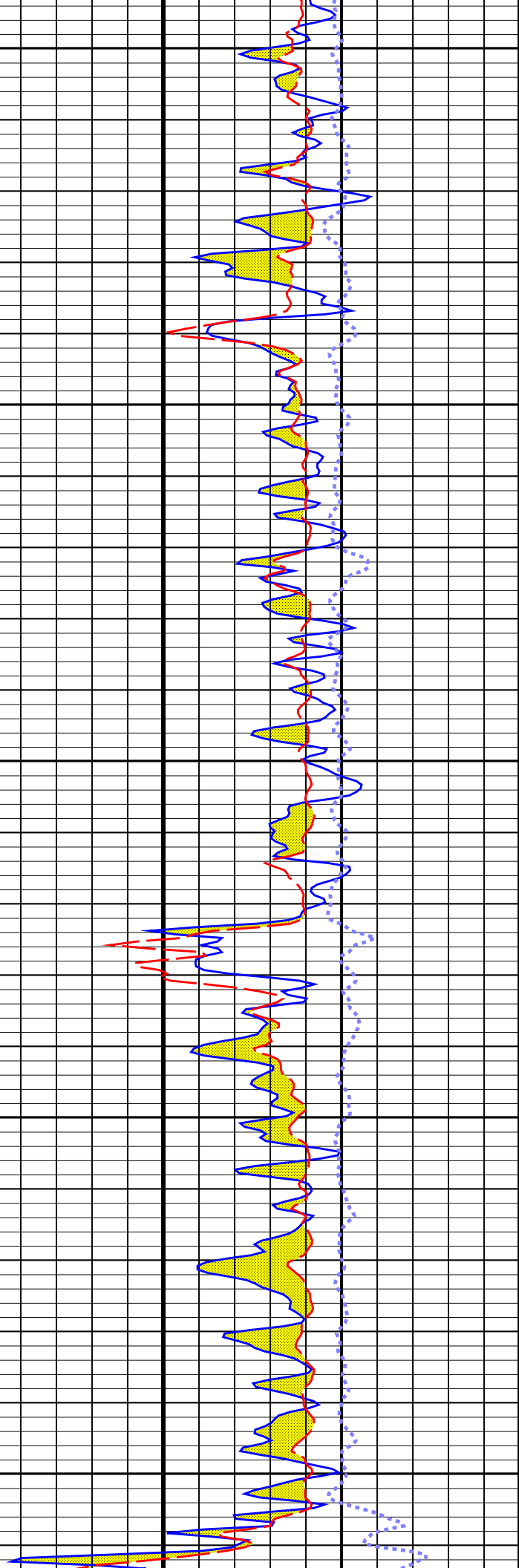
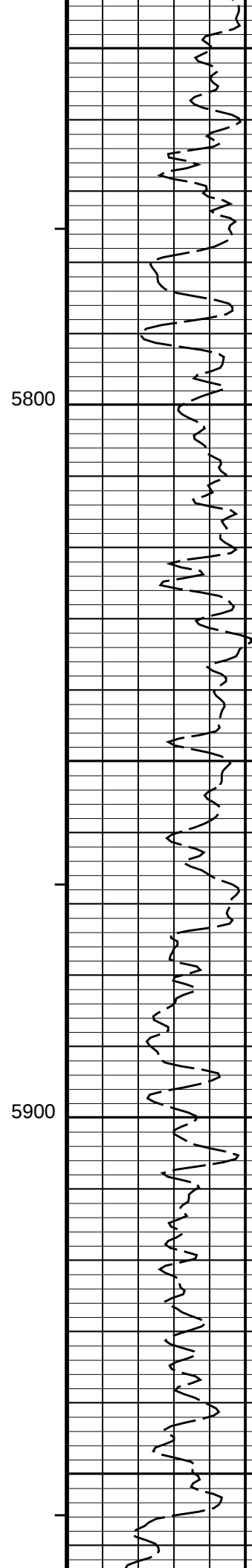
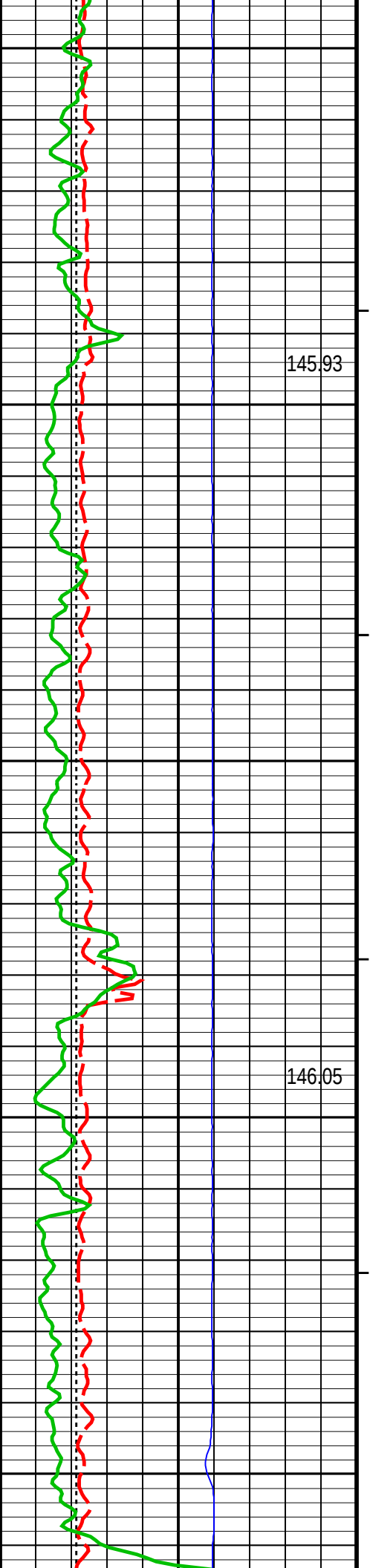


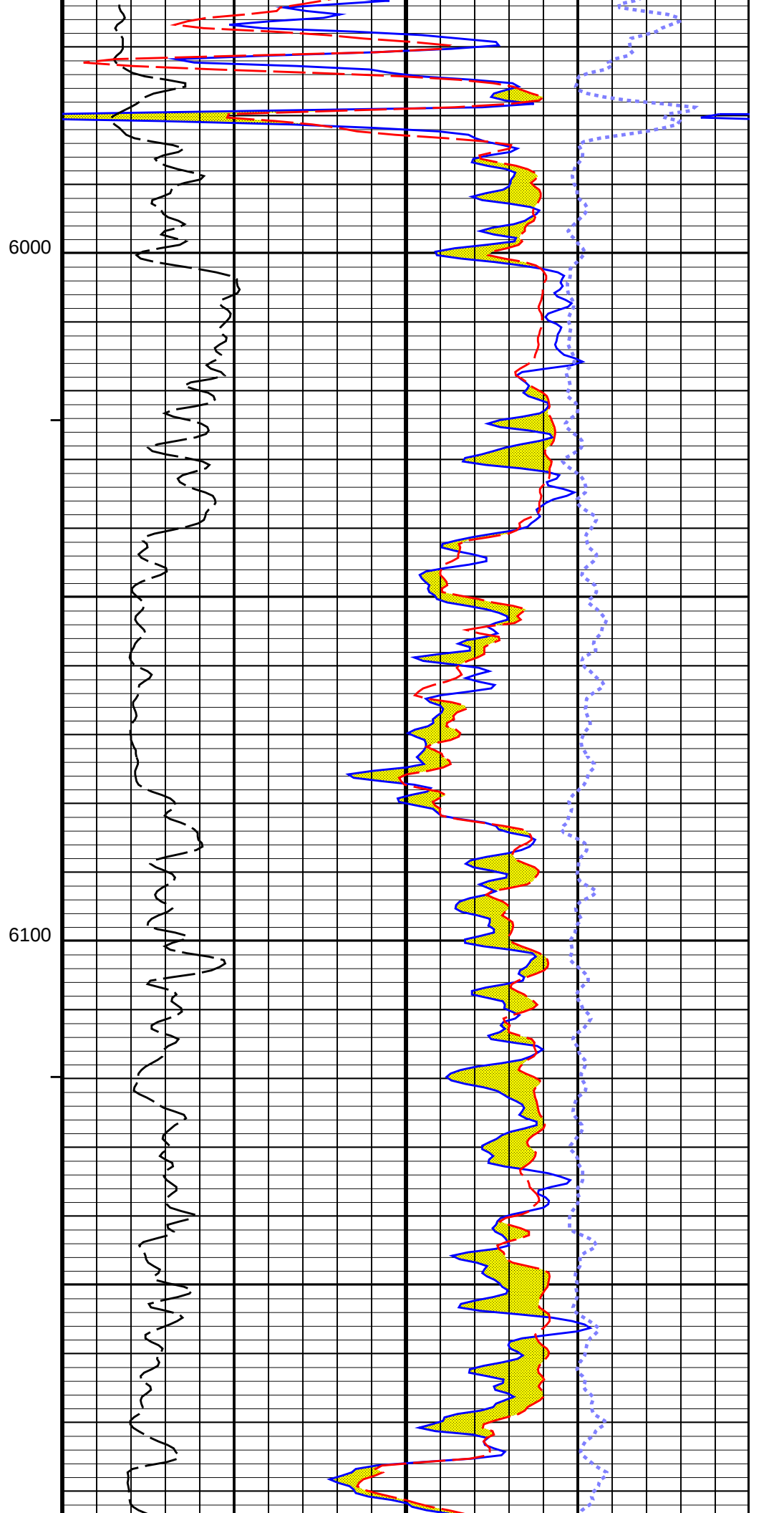
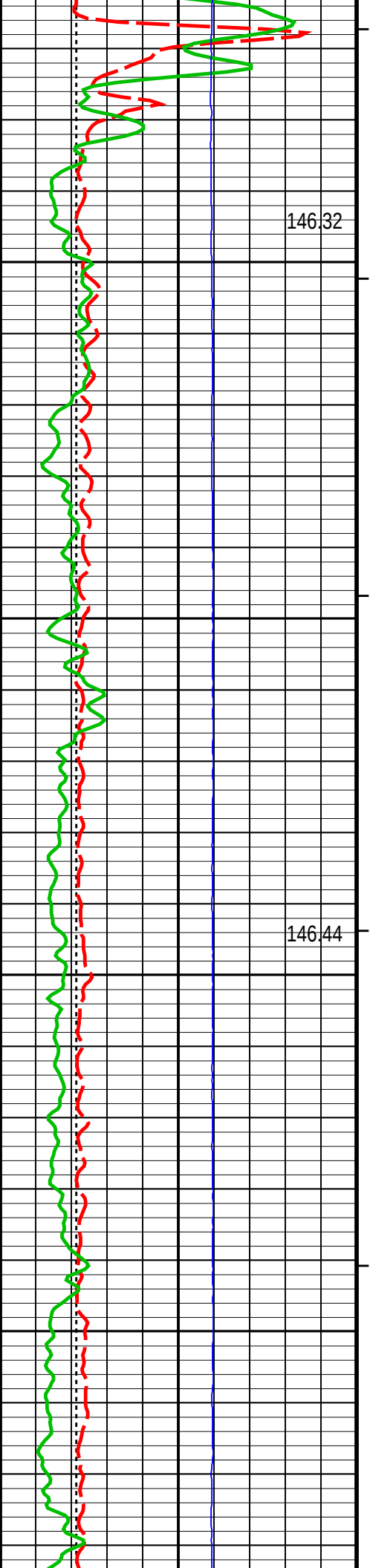


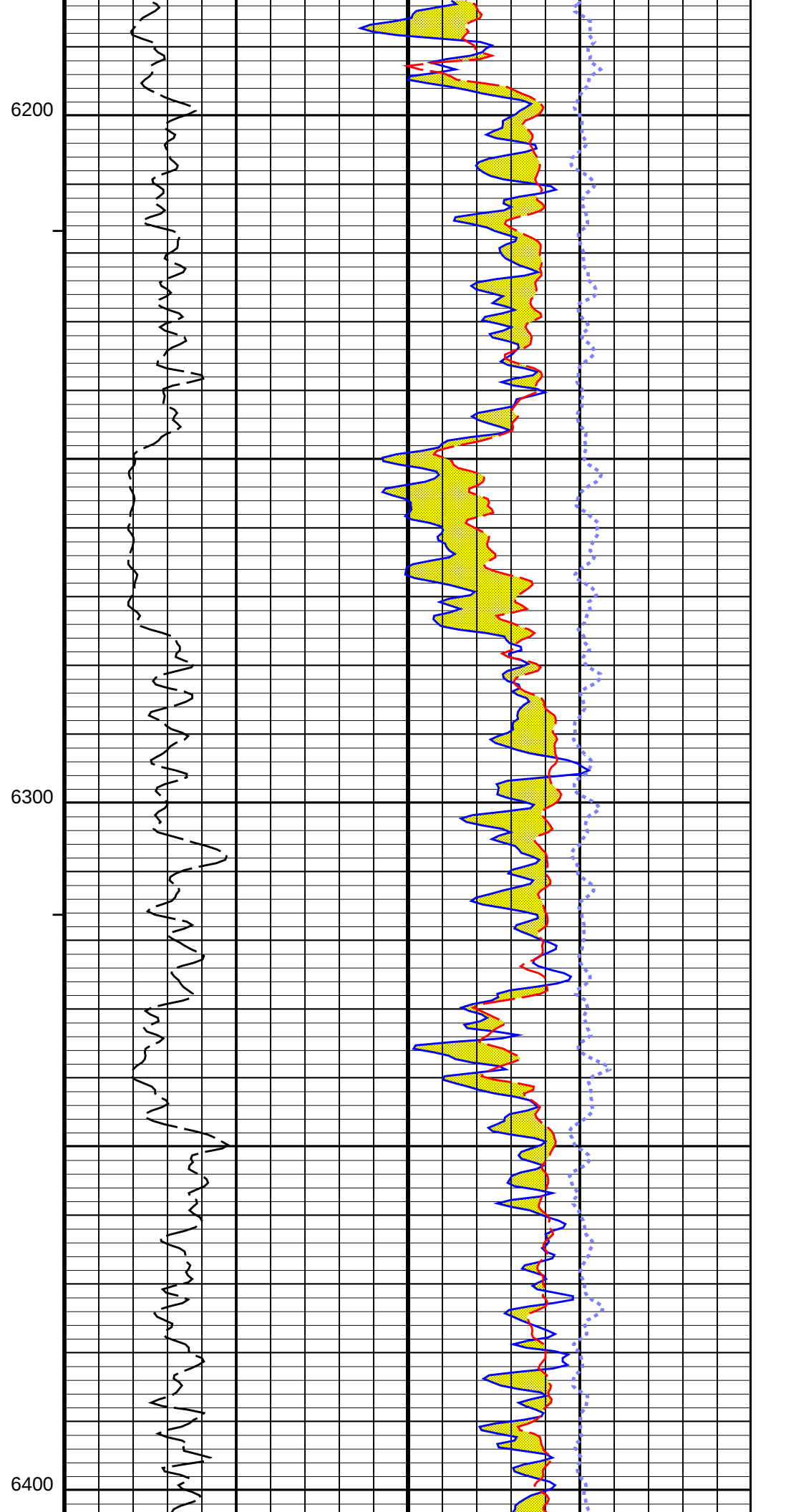
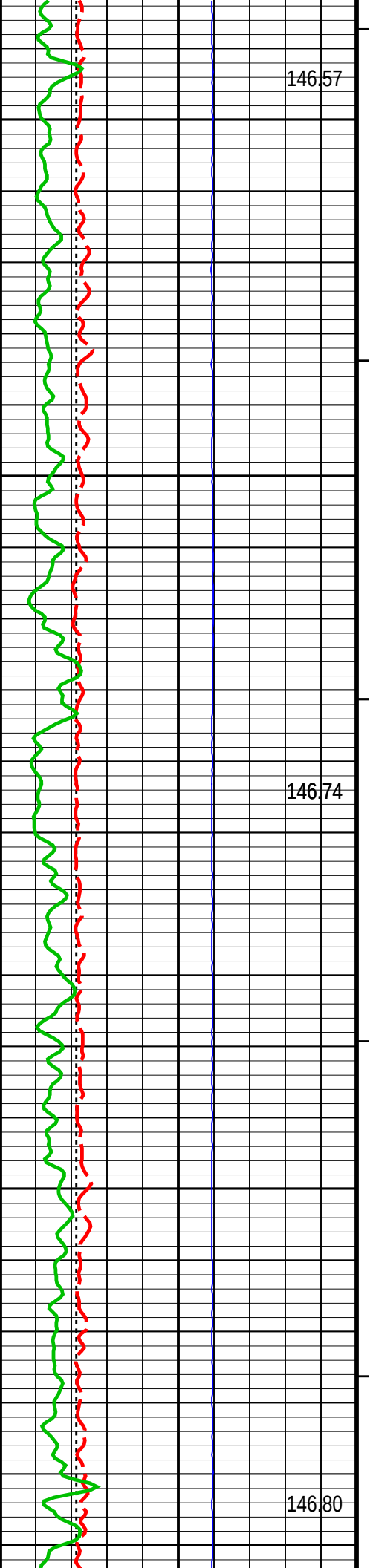


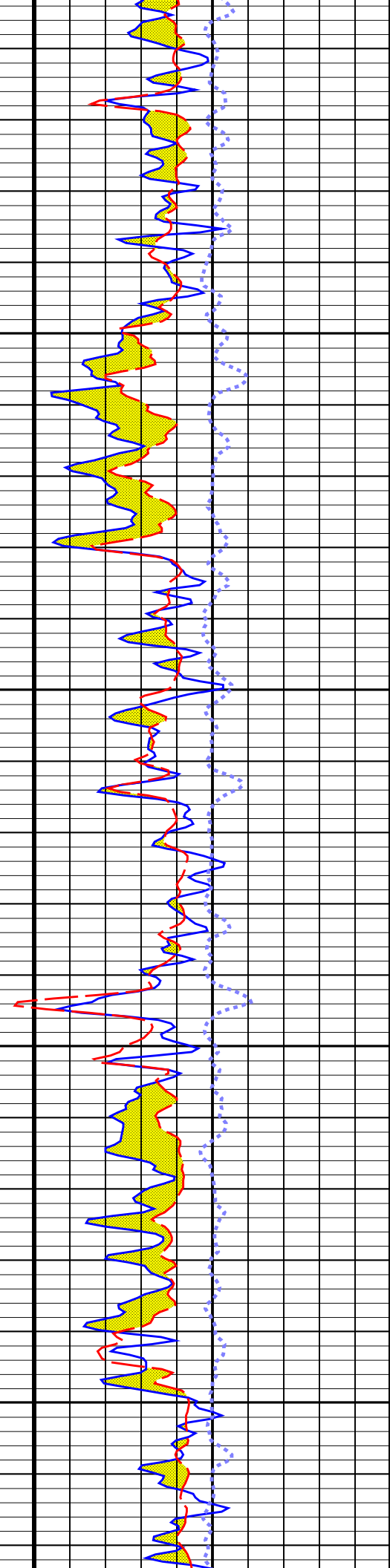
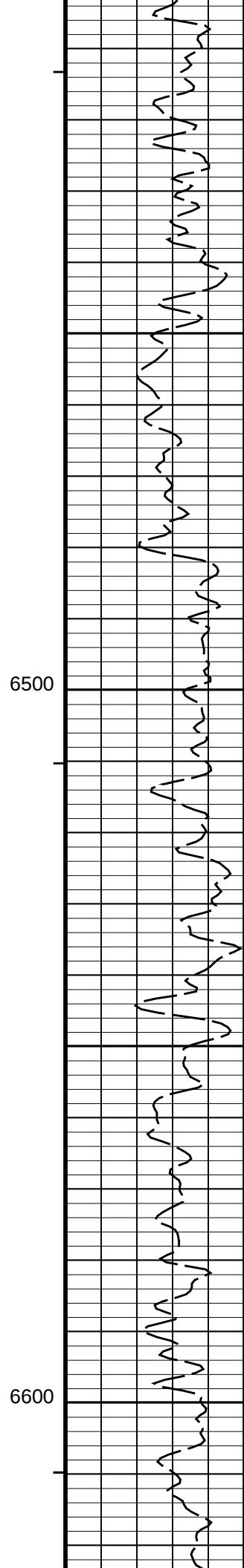
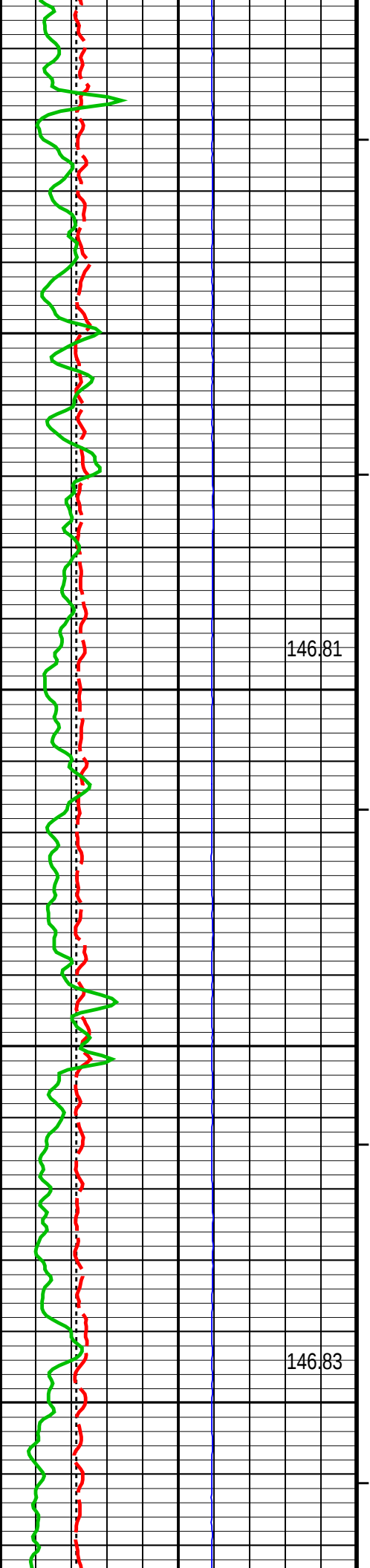


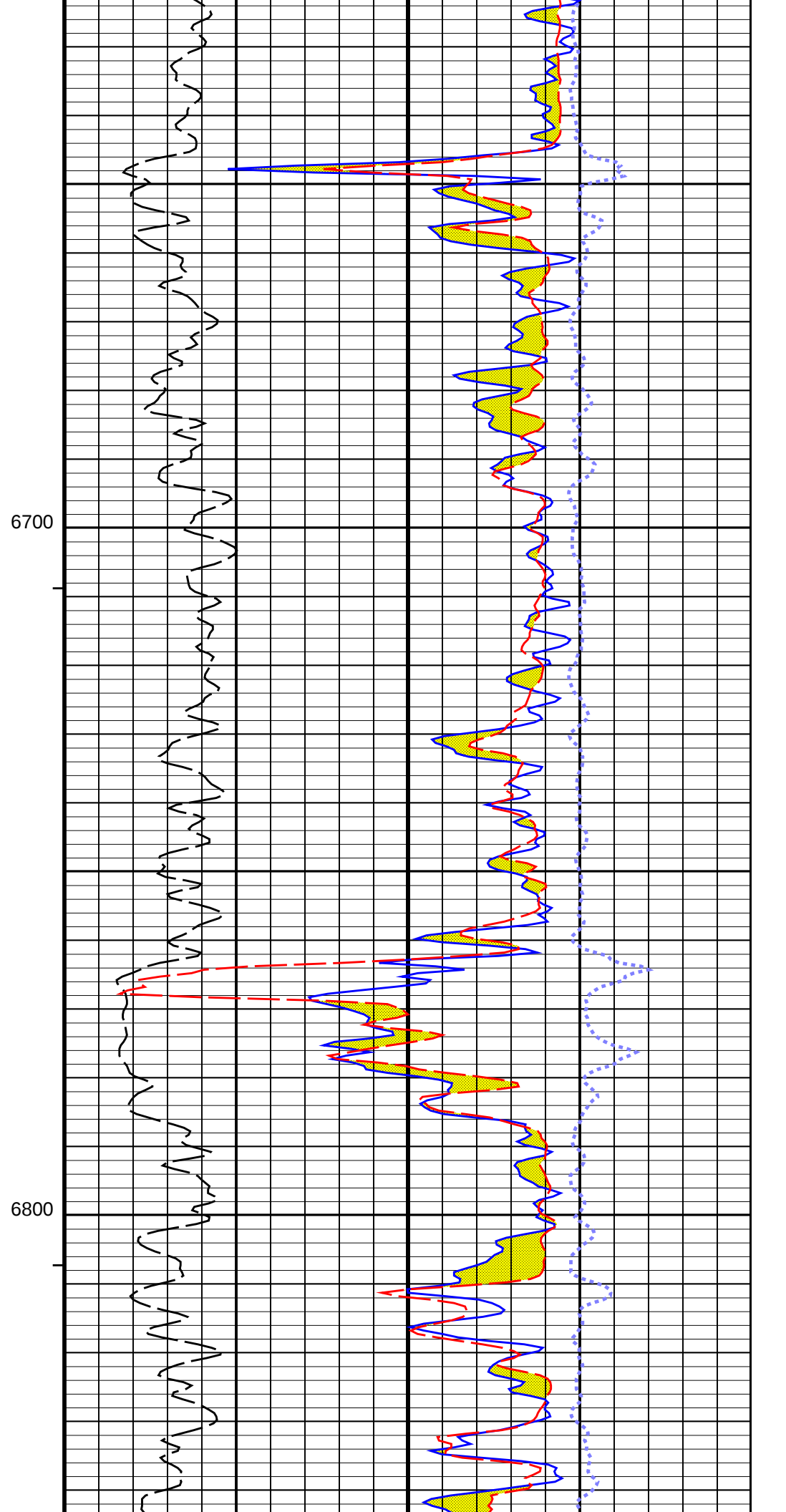
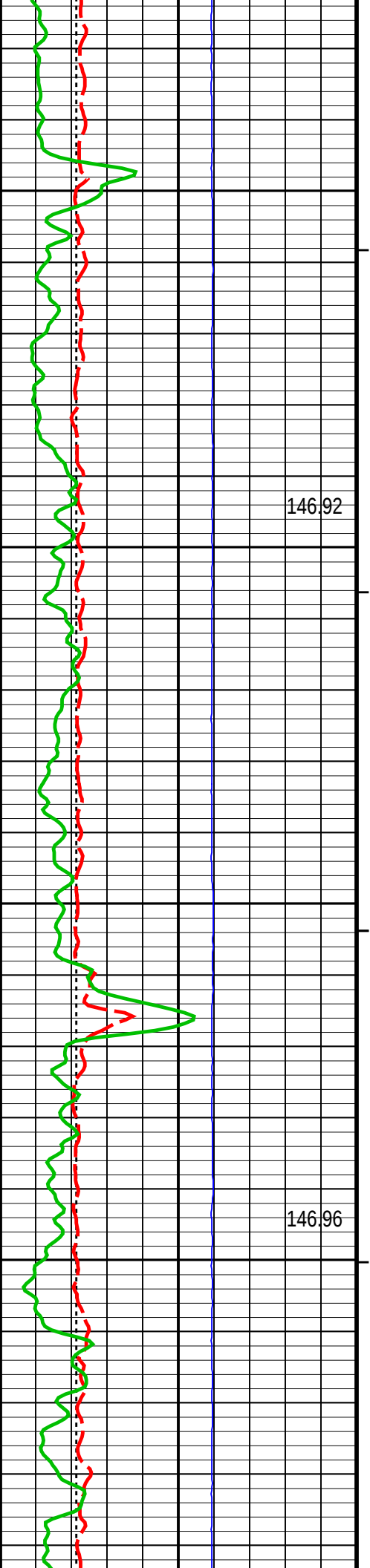


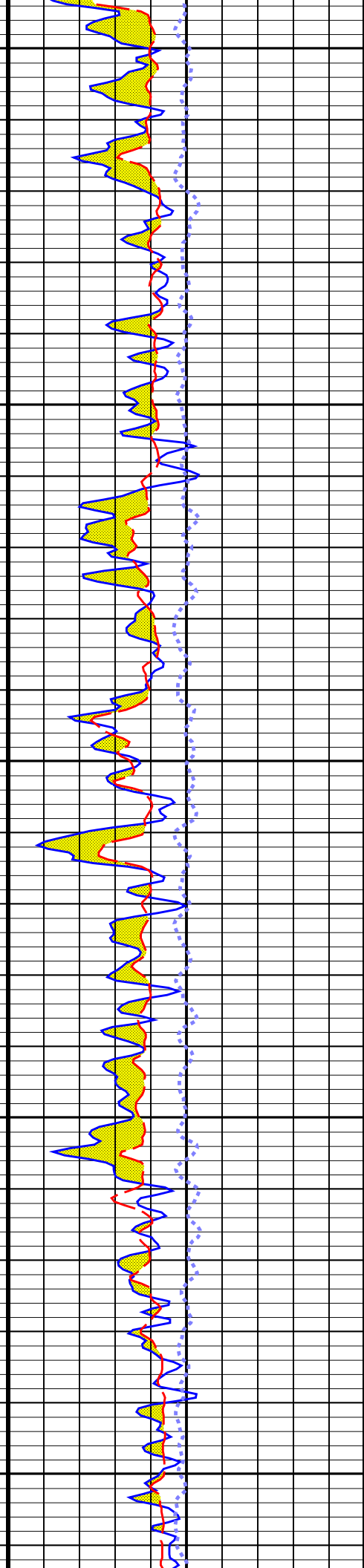
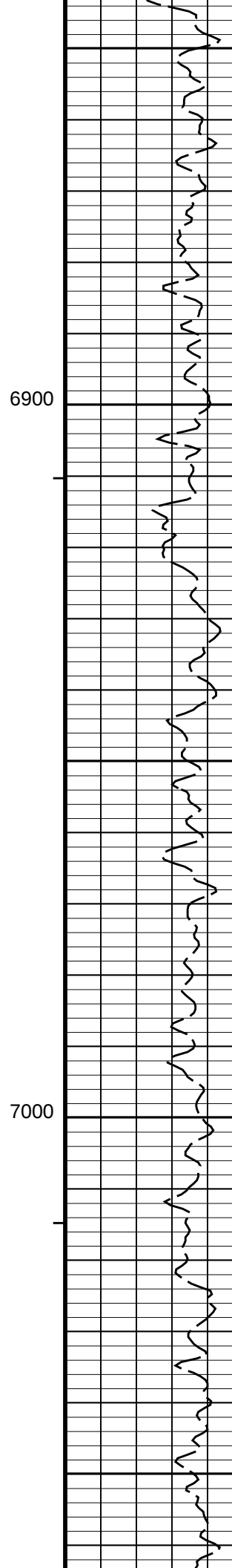
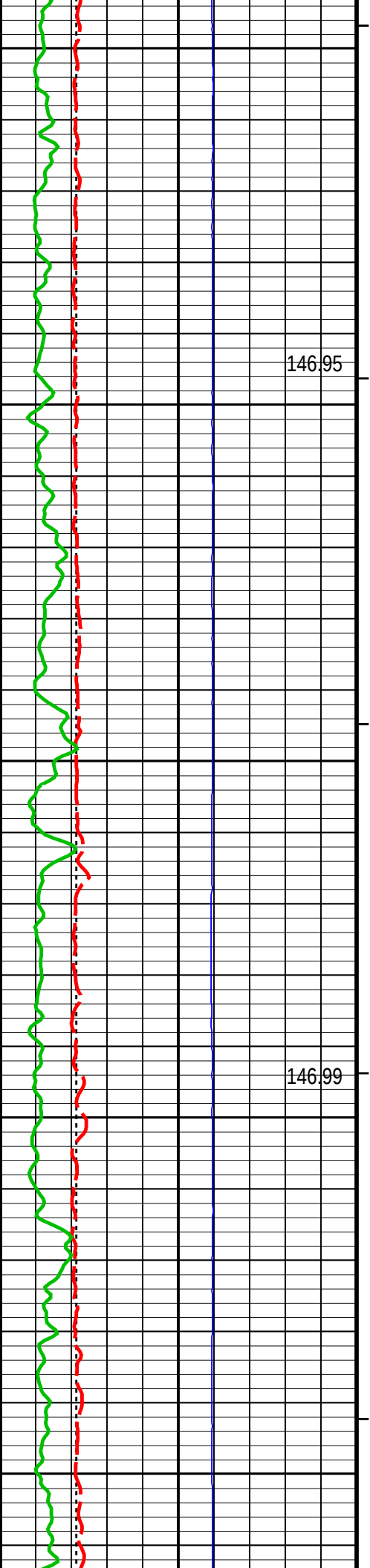


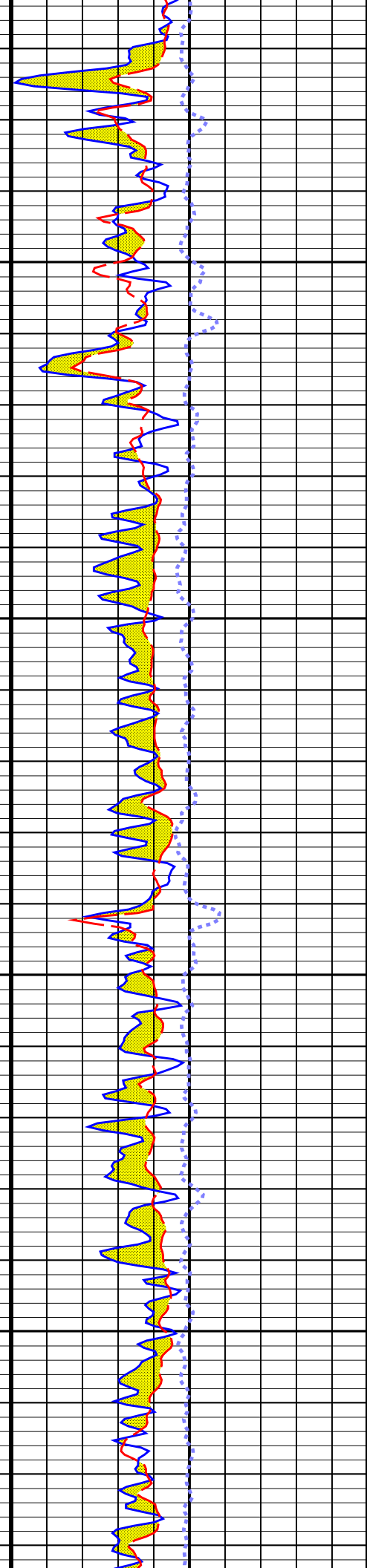
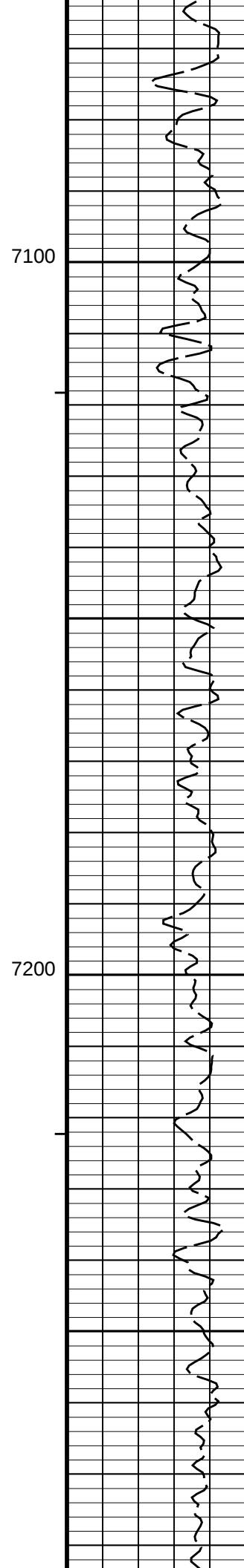
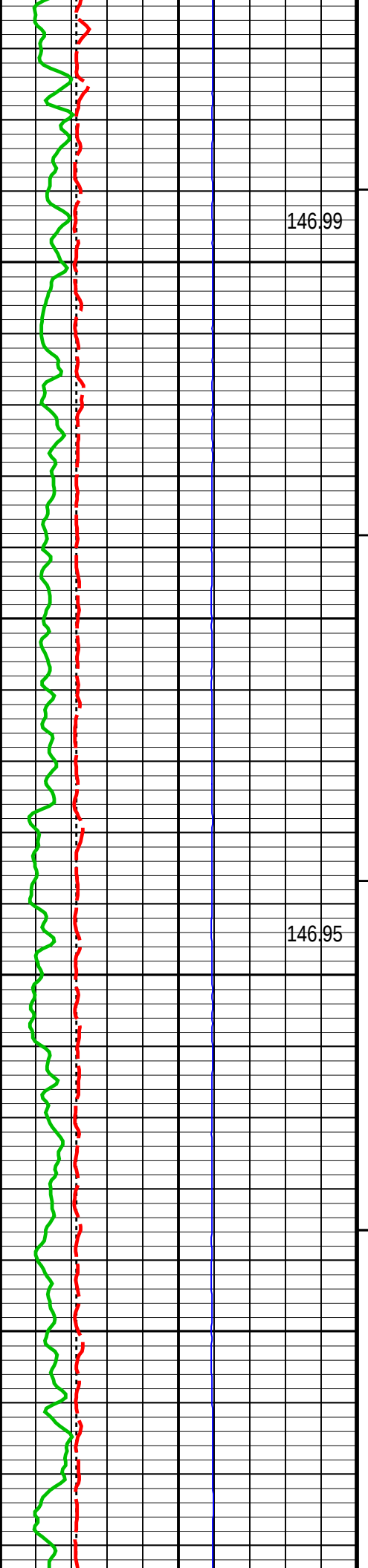


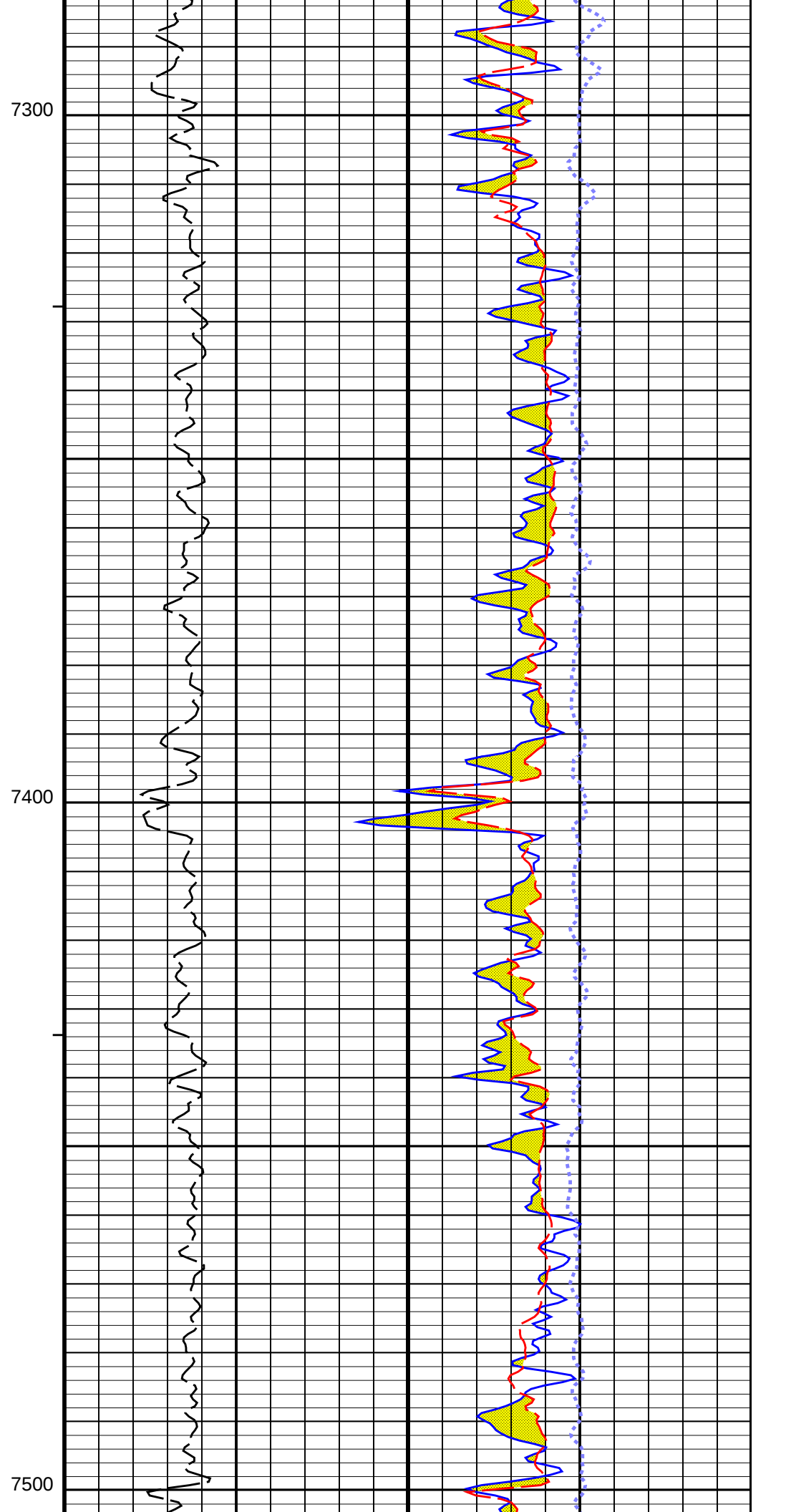
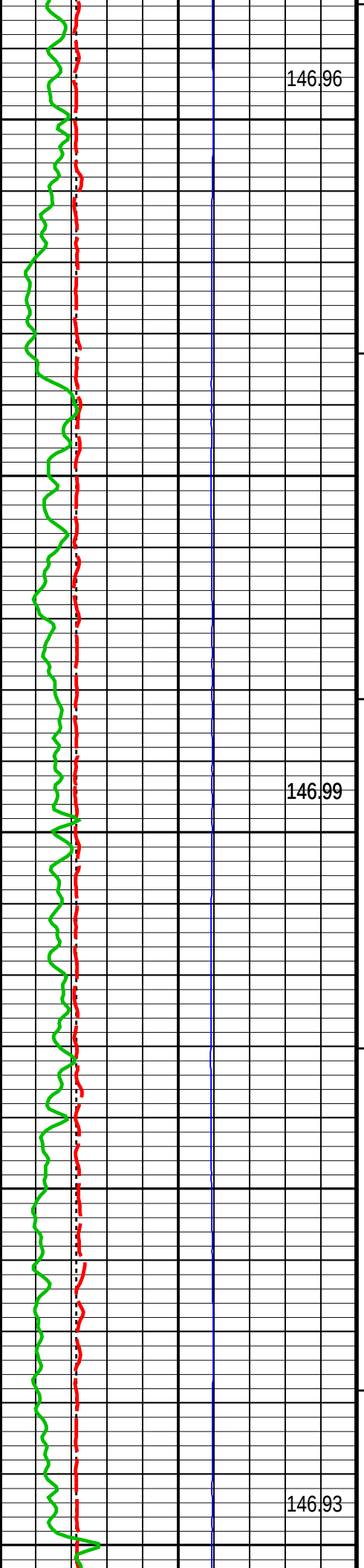


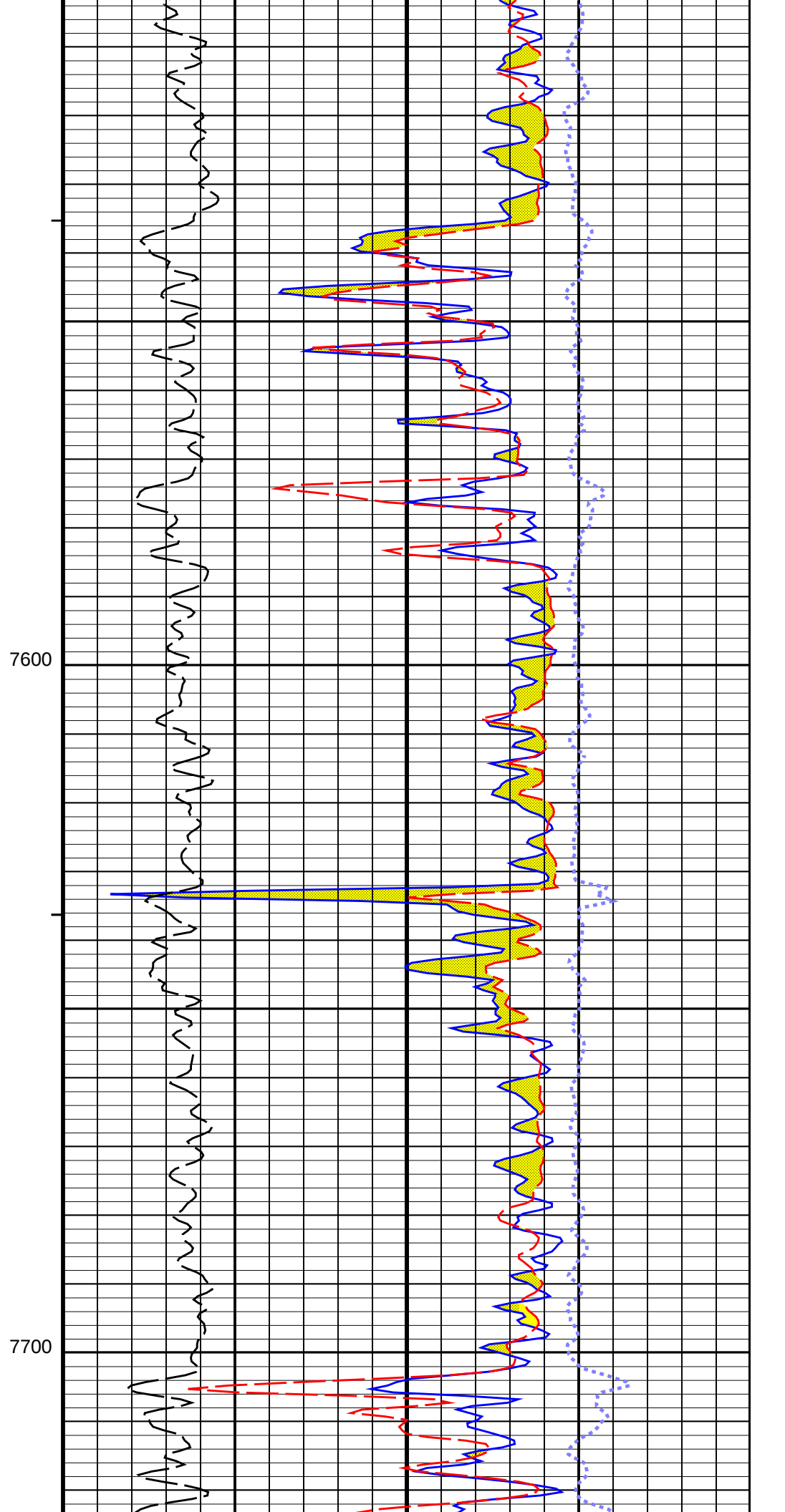
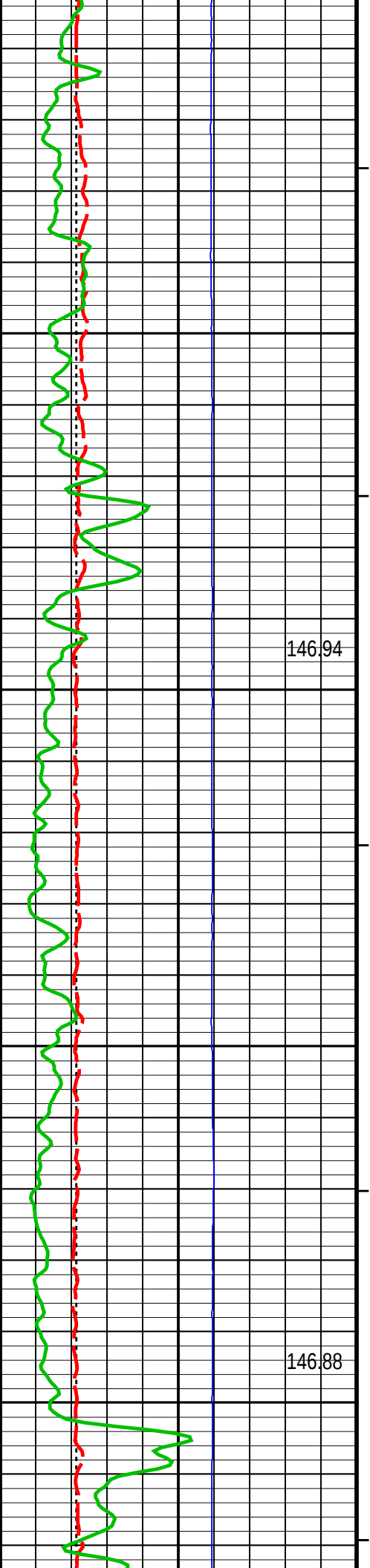


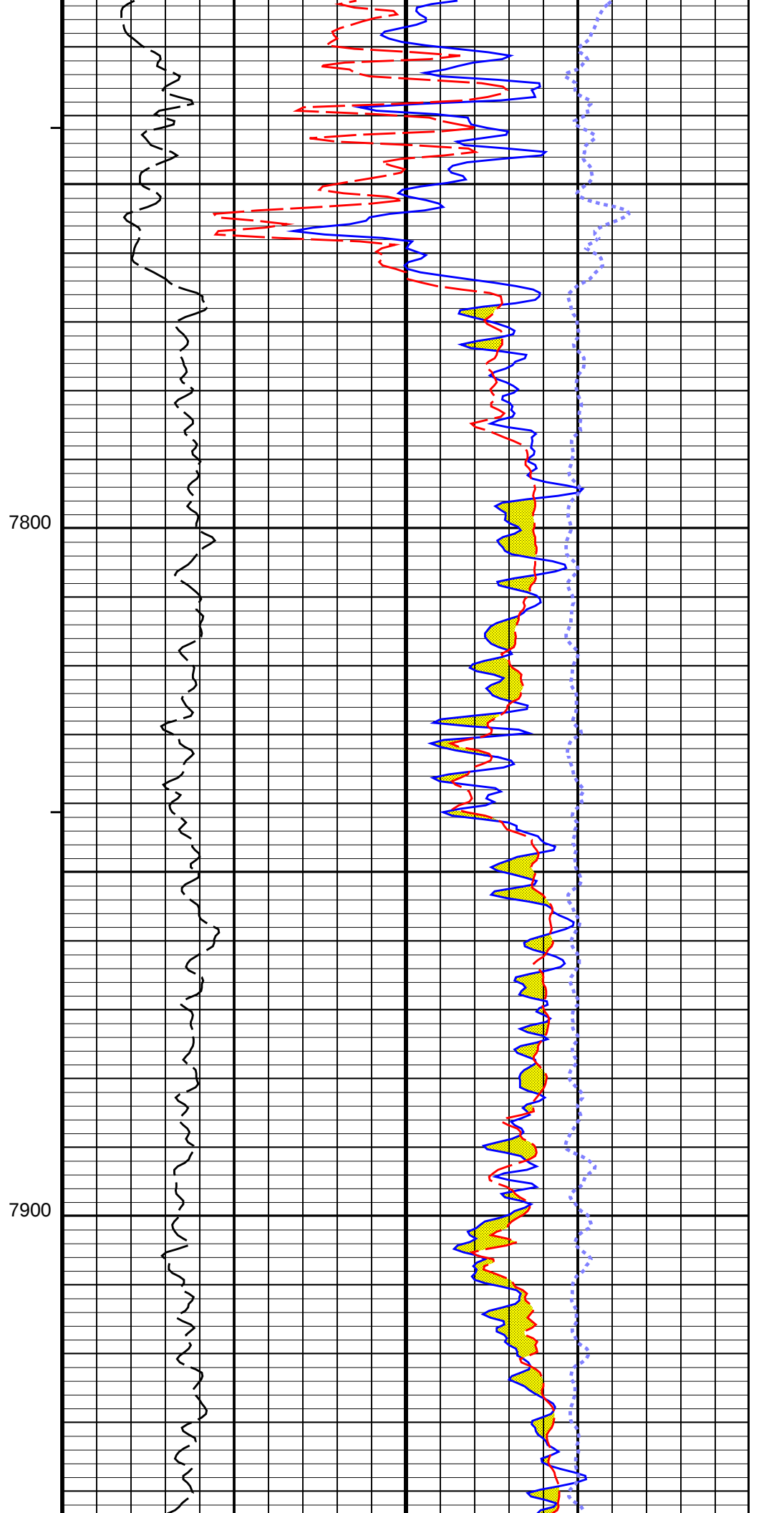
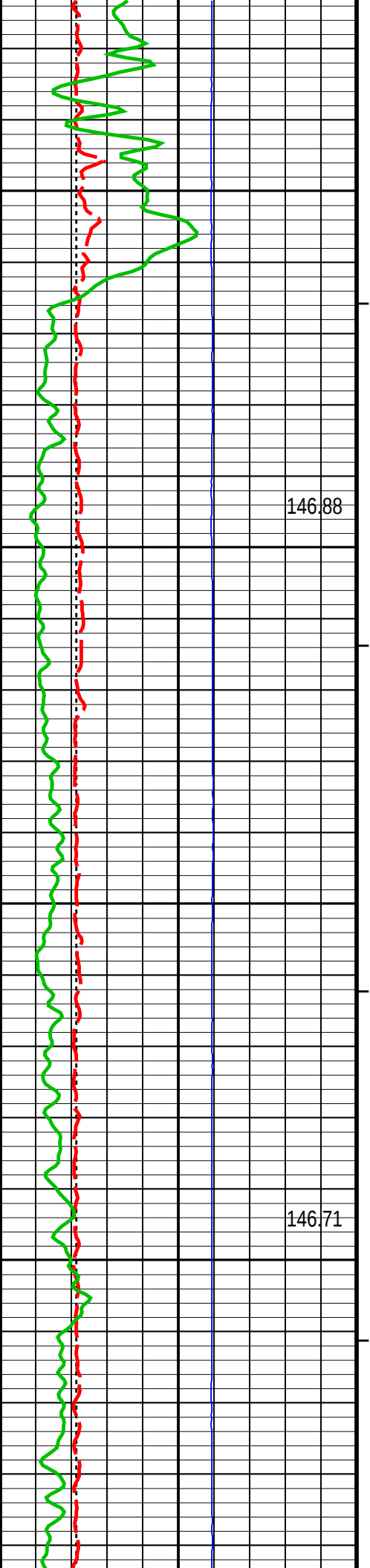


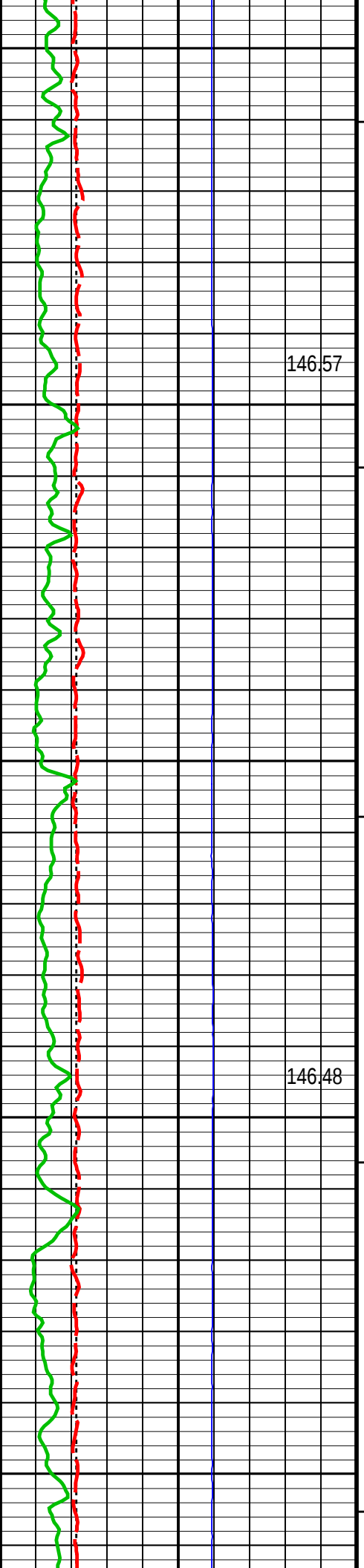










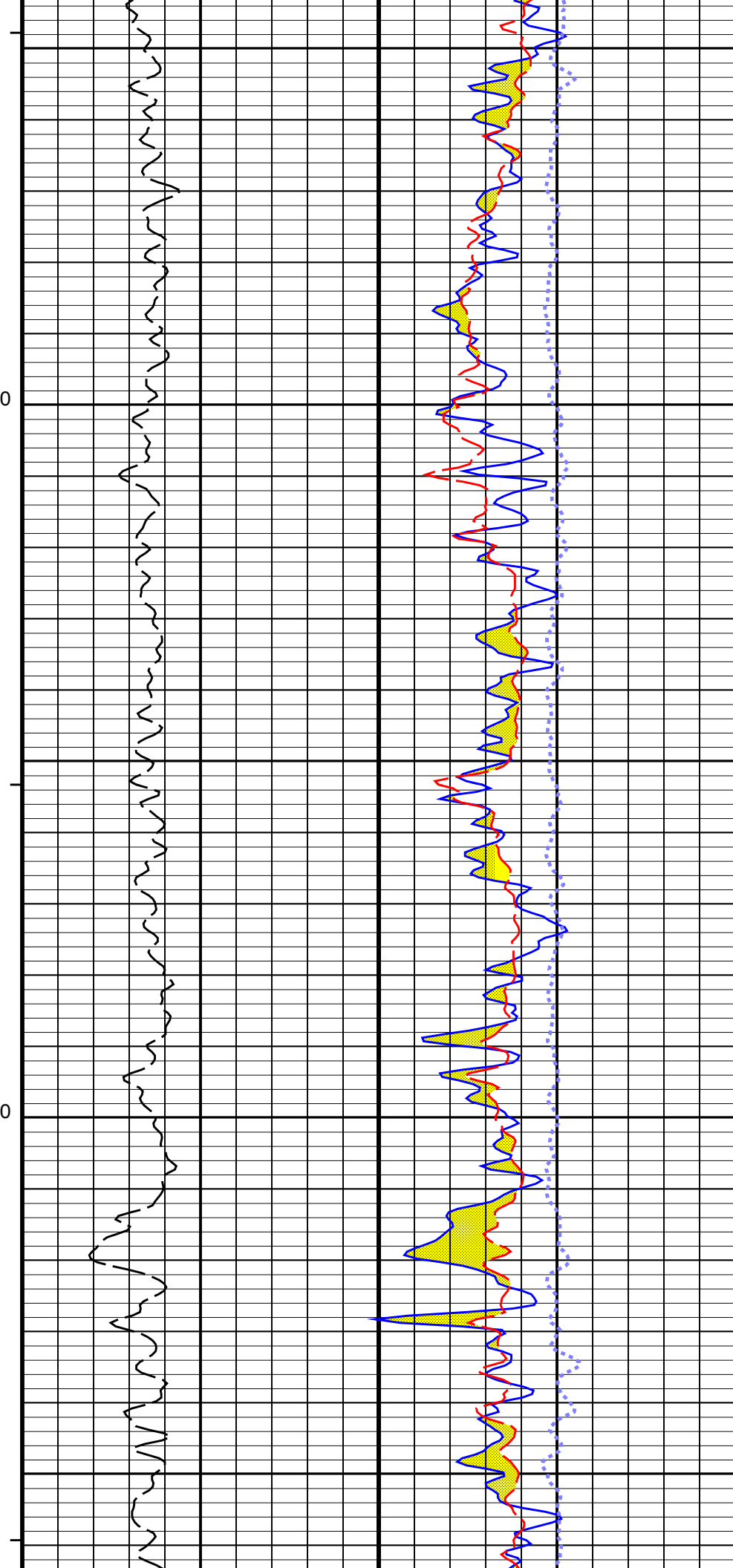


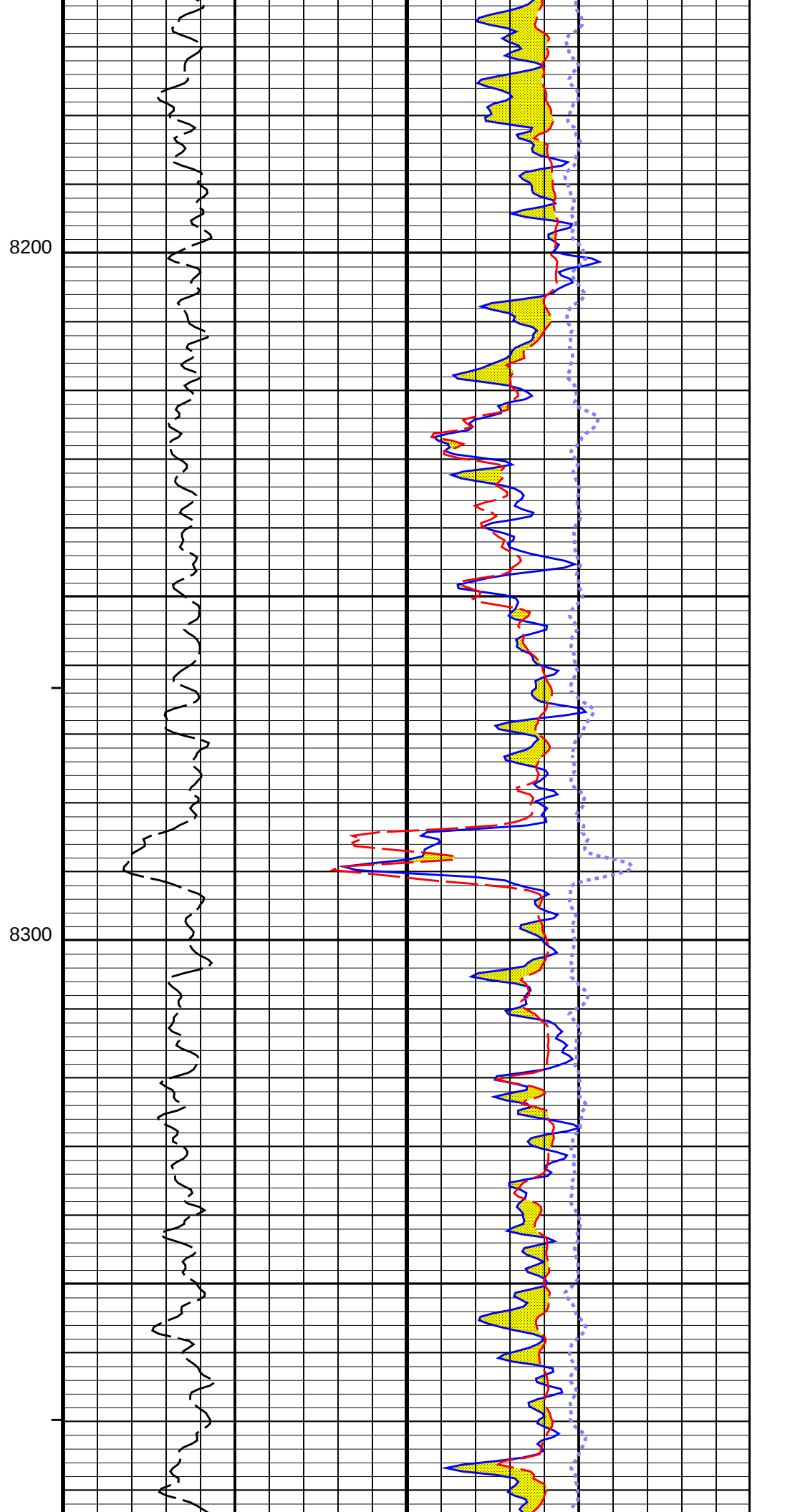
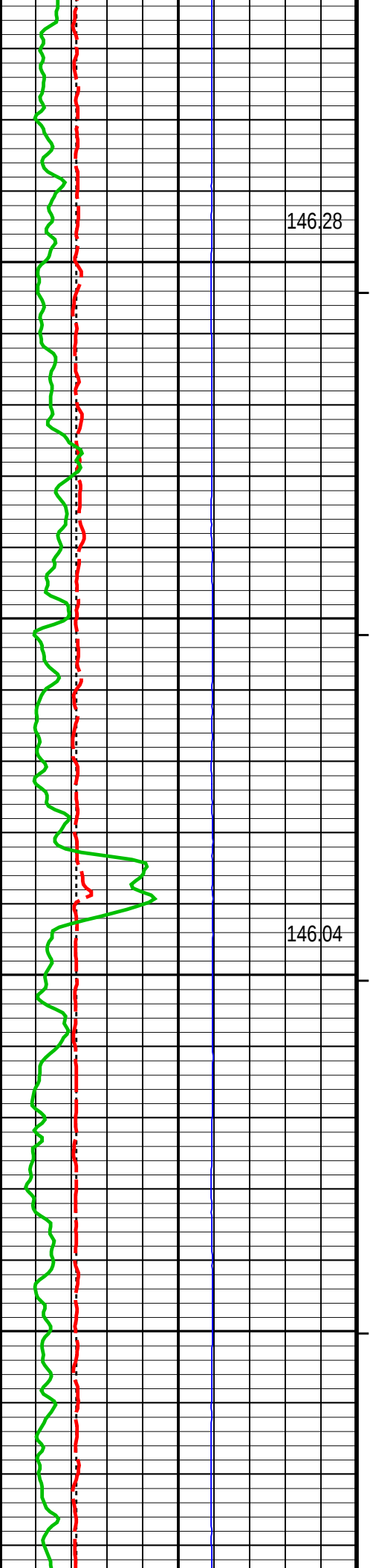
146.57

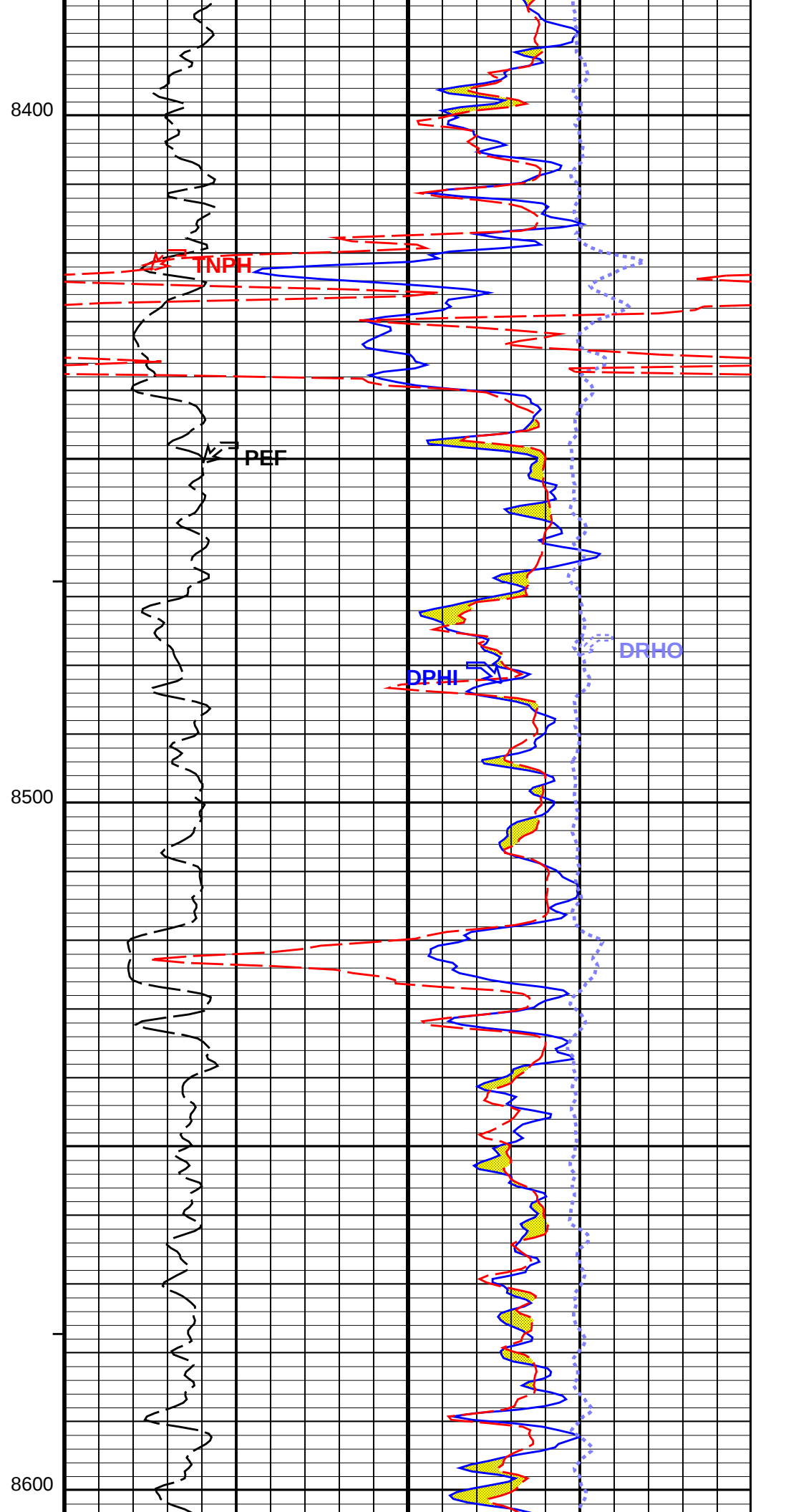
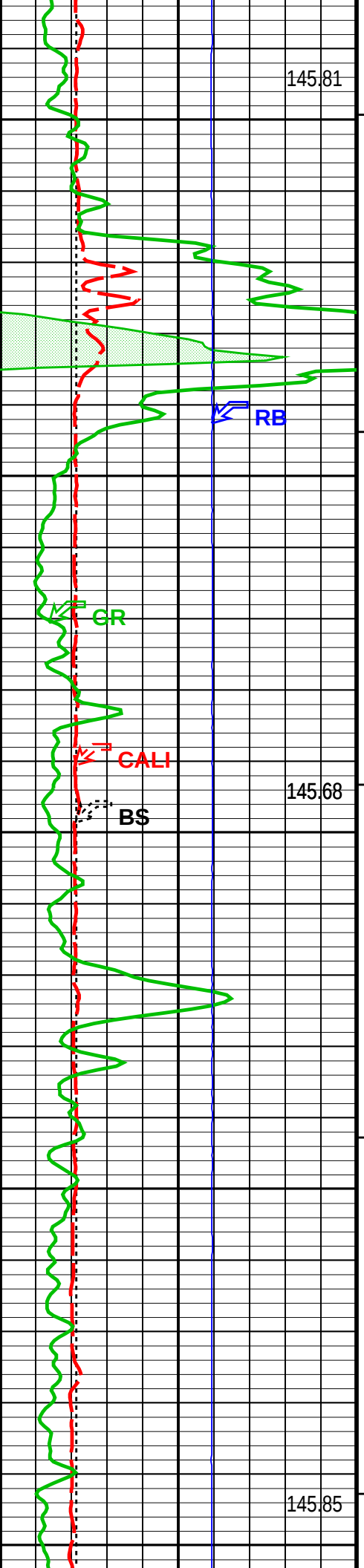
146.48

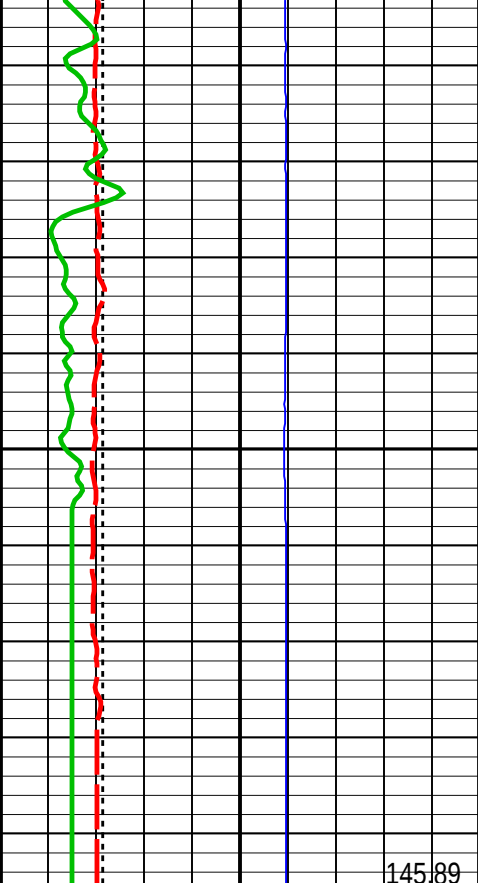
8000

8100



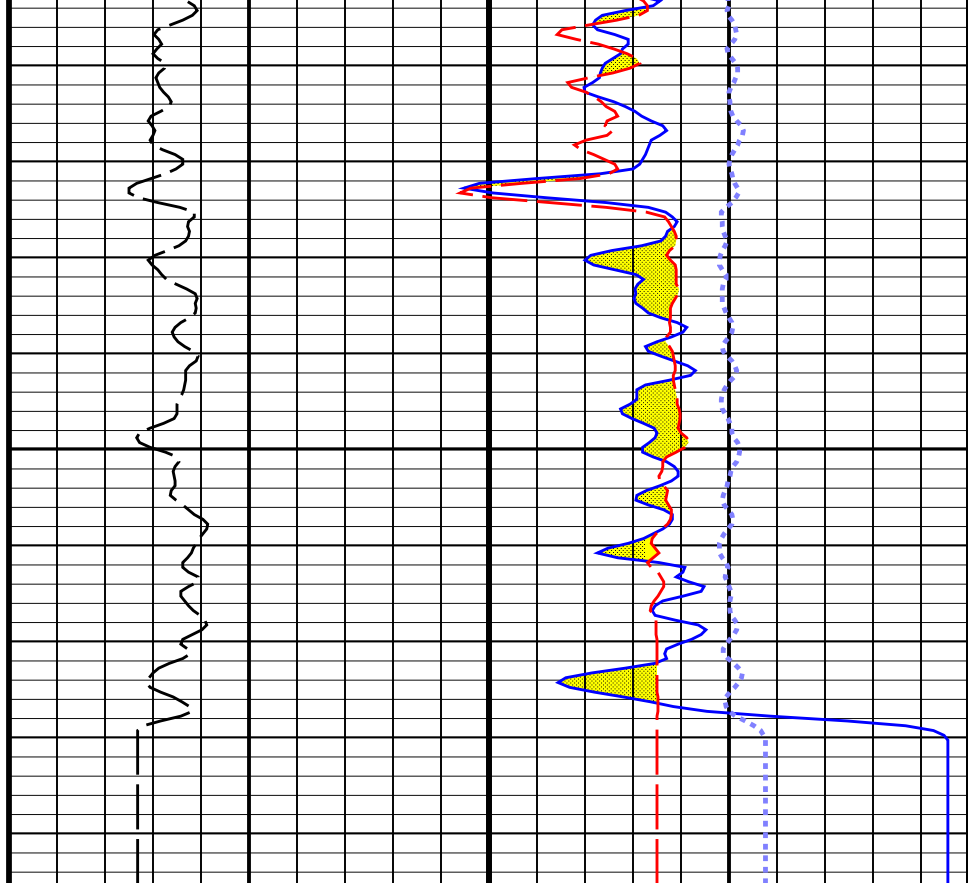






145.89

|                              |  |     |
|------------------------------|--|-----|
| GR Temp (WTEP)<br>(DEGF)     |  |     |
| Bit Size (BS)<br>(IN)        |  |     |
| 4                            |  | 14  |
| Gamma Ray 1 (GR)<br>(GAPI)   |  |     |
| 150                          |  | 300 |
| Gamma Ray 2 (GR)<br>(GAPI)   |  |     |
| 300                          |  | 450 |
| Gamma Ray 3 (GR)<br>(GAPI)   |  |     |
| 450                          |  | 600 |
| Gamma Ray 4 (GR)<br>(GAPI)   |  |     |
| 600                          |  | 750 |
| Caliper (CALI)<br>(IN)       |  |     |
| 4                            |  | 14  |
| Gamma Ray (GR)<br>(GAPI)     |  |     |
| 0                            |  | 150 |
| gr wrap1<br>From LHT1 to GR1 |  |     |
| gr wrap2<br>From LHT1 to GR2 |  |     |
| gr wrap3<br>From LHT1 to GR3 |  |     |
| gr wrap4<br>From LHT1 to GR4 |  |     |
| Relative Bearing<br>(RB)     |  |     |
| 0                            |  | 940 |
| (DEG)                        |  |     |



|                       |  |     |
|-----------------------|--|-----|
| DPHI (DPHI)<br>(PU)   |  |     |
| 30                    |  | -10 |
| PEF (PEF)<br>(----    |  |     |
| 0                     |  | 10  |
| DRHO (DRHO)<br>(G/C3) |  |     |
| -0.5                  |  | 0.5 |
| TNPH (TNPH)<br>(%)    |  |     |
| 30                    |  | -10 |

# PIP SUMMARY

- Integrated Cement Volume Major Pip Every 100 F3
- Integrated Cement Volume Minor Pip Every 10 F3
- Integrated Hole Volume Major Pip Every 100 F3
- Integrated Hole Volume Minor Pip Every 10 F3

## Parameters

| DLIS Name                            | Description                                          | Value         |
|--------------------------------------|------------------------------------------------------|---------------|
| TBT-A: ThruBit String                |                                                      |               |
| BHS                                  | Borehole Status                                      | OPEN          |
| CSAL                                 | Cement Salinity                                      | 0.000 ppm     |
| CSID                                 | Casing Size I.D.                                     | 6.500 in      |
| DHC                                  | Density Hole Correction                              | CALIPER       |
| FD                                   | Fluid Density                                        | 1.000 g/cm3   |
| FSAL                                 | Formation Salinity                                   | 0.000 ppm     |
| FSCO                                 | Formation Salinity Correction Enabled? (for TBN)     | NO            |
| MATR                                 | Rock Matrix for Neutron Porosity Corrections         | LIME          |
| MDEN                                 | Matrix Density                                       | 2.710 g/cm3   |
| MT                                   | Mud Type (for TBN and TBI correction)                | WBM           |
| MWCO                                 | Mud-Weight Correction Enabled? (for TBN)             | NO            |
| RB_OFFSET                            | Additional RB offset (degrees)                       | 0.000 deg     |
| SOCO                                 | Stand-Off Correction Enabled? (for TBN)              | NO            |
| SOFF                                 | TBN Standoff                                         | 0.000 in      |
| TBD_CAL_BLOCK                        | TBD Calibration Block Type                           | THRUBIT       |
| TBD_SPIKE_REJECT                     | TBD Spike Detection Option                           | DETECT        |
| TBD_SPIKE_THRESHOLD                  | TBD Attenuation Change Threshold for Spike Detection | 5.000 %       |
| TBN_BHC_OP                           | Borehole Correction Option (for TBN)                 | CALIPER       |
| TBN_CAL_TANK                         | TBN Calibration Tank Type                            | THRUBIT       |
| TBN_PRES_OP                          | Pressure Correction Enabled? (for TBN)               | NO            |
| TBN_TEMP_OP                          | Temperature Correction Enabled? (for TBN)            | NO            |
| TBN_WPRE                             | Well Pressure (for TBN)                              | 14.696 psi    |
| WMUD                                 | Mud Weight                                           | 8.400 lbm/gal |
| HOLEV: Integrated Hole/Cement Volume |                                                      |               |
| BHS                                  | Borehole Status                                      | OPEN          |
| MATR                                 | Rock Matrix for Neutron Porosity Corrections         | LIME          |
| System and Miscellaneous             |                                                      |               |
| BS                                   | Bit Size                                             | 6.125 in      |
| BSAL                                 | Borehole Salinity                                    | 4500.0 ppm    |
| CSIZ                                 | Current Casing Size                                  | 7.000 in      |

Format: TB\_5INCH\_NUCLEAR      Vertical Scale: 5" per 100'      Graphics File Created: 28-May-2014 22:10

## OP System Version: 19C2-270

TBT      SRPC-5298-ThruBit\_b

## Input DLIS Files

ThruBit\_006PUP      FN:5      28-May-2014 22:03      8695.2 FT      2398.0 FT

**Schlumberger**

## CALIBRATIONS

MAXIS Field Log

### ThruBit String / Equipment Identification

|                          |            |      |
|--------------------------|------------|------|
| Primary Equipment:       |            |      |
| Induction Resistivity    | TBI - A    | 48   |
| Density                  | TBD - A    | 43   |
| Gamma-Ray Logging Source | GGLS - FZ  | 3216 |
| Thermal Neutron          | TBN - A    | 27   |
| Neutron Logging Source   | NNLS - EWA | 4484 |
| Telemetry Memory GP      | TMG - A    | 27   |

Telemetry Memory OK

Battery  
Battery

TMC - A

TBAT -

27

35

13

Auxiliary Equipment:

| ThruBit String Master Calibration                                                   |                       |          |                                                                                     |                      |          |
|-------------------------------------------------------------------------------------|-----------------------|----------|-------------------------------------------------------------------------------------|----------------------|----------|
| TBI Master Calibration Sonde Errors                                                 |                       |          |                                                                                     |                      |          |
| Freq 1, A1, R                                                                       | Value                 | Nominal  | Freq 1, A1, X                                                                       | Value                | Nominal  |
|    | -475.662              | -457.000 |    | -20.0744             | 300.000  |
| -536.000<br>(Minimum)                                                               | -387.000<br>(Maximum) |          | -500.000<br>(Minimum)                                                               | 1100.00<br>(Maximum) |          |
| (Nominal)                                                                           |                       |          | (Nominal)                                                                           |                      |          |
| Freq 1, A2, R                                                                       | Value                 | Nominal  | Freq 1, A2, X                                                                       | Value                | Nominal  |
|    | -148.883              | -141.000 |    | 17.2923              | 320.000  |
| -162.000<br>(Minimum)                                                               | -120.000<br>(Maximum) |          | -75.0000<br>(Minimum)                                                               | 700.000<br>(Maximum) |          |
| (Nominal)                                                                           |                       |          | (Nominal)                                                                           |                      |          |
| Freq 1, A3, R                                                                       | Value                 | Nominal  | Freq 1, A3, X                                                                       | Value                | Nominal  |
|    | -30.2273              | -28.0000 |    | -45.4175             | 50.0000  |
| -38.0000<br>(Minimum)                                                               | -18.0000<br>(Maximum) |          | -375.000<br>(Minimum)                                                               | 475.000<br>(Maximum) |          |
| (Nominal)                                                                           |                       |          | (Nominal)                                                                           |                      |          |
| Freq 1, A4, R                                                                       | Value                 | Nominal  | Freq 1, A4, X                                                                       | Value                | Nominal  |
|    | -16.8583              | -16.0000 |    | 224.452              | 300.000  |
| -24.0000<br>(Minimum)                                                               | -8.00000<br>(Maximum) |          | 25.0000<br>(Minimum)                                                                | 575.000<br>(Maximum) |          |
| (Nominal)                                                                           |                       |          | (Nominal)                                                                           |                      |          |
| Freq 1, A5, R                                                                       | Value                 | Nominal  | Freq 1, A5, X                                                                       | Value                | Nominal  |
|    | -14.8593              | -14.0000 |    | 109.636              | 150.000  |
| -21.0000<br>(Minimum)                                                               | -7.00000<br>(Maximum) |          | 25.0000<br>(Minimum)                                                                | 275.000<br>(Maximum) |          |
| (Nominal)                                                                           |                       |          | (Nominal)                                                                           |                      |          |
| Freq 2, A1, R                                                                       | Value                 | Nominal  | Freq 2, A1, X                                                                       | Value                | Nominal  |
|    | -246.838              | -237.000 |    | -47.1666             | 150.000  |
| -293.000<br>(Minimum)                                                               | -186.000<br>(Maximum) |          | -375.000<br>(Minimum)                                                               | 675.000<br>(Maximum) |          |
| (Nominal)                                                                           |                       |          | (Nominal)                                                                           |                      |          |
| Freq 2, A2, R                                                                       | Value                 | Nominal  | Freq 2, A2, X                                                                       | Value                | Nominal  |
|  | -96.6990              | -92.0000 |  | -16.8976             | 160.000  |
| -106.000<br>(Minimum)                                                               | -76.0000<br>(Maximum) |          | -100.000<br>(Minimum)                                                               | 425.000<br>(Maximum) |          |
| (Nominal)                                                                           |                       |          | (Nominal)                                                                           |                      |          |
| Freq 2, A3, R                                                                       | Value                 | Nominal  | Freq 2, A3, X                                                                       | Value                | Nominal  |
|  | -21.8469              | -21.0000 |  | -82.2379             | -20.0000 |
| -28.0000<br>(Minimum)                                                               | -13.0000<br>(Maximum) |          | -325.000<br>(Minimum)                                                               | 250.000<br>(Maximum) |          |
| (Nominal)                                                                           |                       |          | (Nominal)                                                                           |                      |          |
| Freq 2, A4, R                                                                       | Value                 | Nominal  | Freq 2, A4, X                                                                       | Value                | Nominal  |
|  | -19.8901              | -20.0000 |  | 57.4657              | 100.000  |
| -28.0000<br>(Minimum)                                                               | -10.0000<br>(Maximum) |          | -75.0000<br>(Minimum)                                                               | 275.000<br>(Maximum) |          |
| (Nominal)                                                                           |                       |          | (Nominal)                                                                           |                      |          |
| Freq 2, A5, R                                                                       | Value                 | Nominal  | Freq 2, A5, X                                                                       | Value                | Nominal  |
|  | -19.6387              | -20.0000 |  | -27.9072             | -25.0000 |
| -27.0000<br>(Minimum)                                                               | -10.0000<br>(Maximum) |          | -125.000<br>(Minimum)                                                               | 75.0000<br>(Maximum) |          |
| (Nominal)                                                                           |                       |          | (Nominal)                                                                           |                      |          |
| Freq 3, A1, R                                                                       | Value                 | Nominal  | Freq 3, A1, X                                                                       | Value                | Nominal  |
|  | -156.728              | -149.000 |  | -106.926             | 25.0000  |
| -193.000<br>(Minimum)                                                               | -108.000<br>(Maximum) |          | -375.000<br>(Minimum)                                                               | 425.000<br>(Maximum) |          |
| (Nominal)                                                                           |                       |          | (Nominal)                                                                           |                      |          |
| Freq 3, A2, R                                                                       | Value                 | Nominal  | Freq 3, A2, X                                                                       | Value                | Nominal  |
|  | -73.8182              | -70.0000 |  | -53.9371             | 70.0000  |
| -81.0000<br>(Minimum)                                                               | -57.0000<br>(Maximum) |          | -125.000<br>(Minimum)                                                               | 250.000<br>(Maximum) |          |
| (Nominal)                                                                           |                       |          | (Nominal)                                                                           |                      |          |
| Freq 3, A3, R                                                                       | Value                 | Nominal  | Freq 3, A3, X                                                                       | Value                | Nominal  |
|  | -17.9160              | -17.0000 |  | -119.884             | -90.0000 |
| -23.0000<br>(Minimum)                                                               | -11.0000<br>(Maximum) |          | -300.000<br>(Minimum)                                                               | 125.000<br>(Maximum) |          |
| (Nominal)                                                                           |                       |          | (Nominal)                                                                           |                      |          |
| Freq 3, A4, R                                                                       | Value                 | Nominal  | Freq 3, A4, X                                                                       | Value                | Nominal  |
|  | -21.5775              | -22.0000 |  | -55.4654             | -50.0000 |
| -31.0000<br>(Minimum)                                                               | -11.0000<br>(Maximum) |          | -200.000<br>(Minimum)                                                               | 100.000<br>(Maximum) |          |
| (Nominal)                                                                           |                       |          | (Nominal)                                                                           |                      |          |
| Freq 3, A5, R                                                                       | Value                 | Nominal  | Freq 3, A5, X                                                                       | Value                | Nominal  |

|                           |           |                       |          |                       |           |                       |          |
|---------------------------|-----------|-----------------------|----------|-----------------------|-----------|-----------------------|----------|
|                           |           | -22.3506              | -22.0000 |                       |           | -130.465              | -110.000 |
| -32.0000<br>(Minimum)     | (Nominal) | -11.0000<br>(Maximum) |          | -250.000<br>(Minimum) | (Nominal) | -25.0000<br>(Maximum) |          |
| Freq 4, A1, R             |           | Value                 | Nominal  | Freq 4, A1, X         |           | Value                 | Nominal  |
|                           |           | -86.0029              | -80.0000 |                       |           | -232.020              | -190.000 |
| -108.000<br>(Minimum)     | (Nominal) | -54.0000<br>(Maximum) |          | -450.000<br>(Minimum) | (Nominal) | 75.0000<br>(Maximum)  |          |
| Freq 4, A2, R             |           | Value                 | Nominal  | Freq 4, A2, X         |           | Value                 | Nominal  |
|                           |           | -53.0604              | -50.0000 |                       |           | -120.146              | -75.0000 |
| -60.0000<br>(Minimum)     | (Nominal) | -41.0000<br>(Maximum) |          | -200.000<br>(Minimum) | (Nominal) | 50.0000<br>(Maximum)  |          |
| Freq 4, A3, R             |           | Value                 | Nominal  | Freq 4, A3, X         |           | Value                 | Nominal  |
|                           |           | -14.2016              | -14.0000 |                       |           | -189.359              | -190.000 |
| -19.0000<br>(Minimum)     | (Nominal) | -8.00000<br>(Maximum) |          | -350.000<br>(Minimum) | (Nominal) | -25.0000<br>(Maximum) |          |
| Freq 4, A4, R             |           | Value                 | Nominal  | Freq 4, A4, X         |           | Value                 | Nominal  |
|                           |           | -24.7660              | -25.0000 |                       |           | -225.323              | -235.000 |
| -37.0000<br>(Minimum)     | (Nominal) | -11.0000<br>(Maximum) |          | -400.000<br>(Minimum) | (Nominal) | -75.0000<br>(Maximum) |          |
| Freq 4, A5, R             |           | Value                 | Nominal  | Freq 4, A5, X         |           | Value                 | Nominal  |
|                           |           | -28.0152              | -28.0000 |                       |           | -306.098              | -300.000 |
| -43.0000<br>(Minimum)     | (Nominal) | -12.0000<br>(Maximum) |          | -475.000<br>(Minimum) | (Nominal) | -125.000<br>(Maximum) |          |
| Master: 11-Mar-2014 11:48 |           |                       |          |                       |           |                       |          |

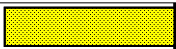
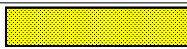
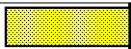
| ThruBit String Master Calibration    |           |                    |         |                       |           |                      |         |
|--------------------------------------|-----------|--------------------|---------|-----------------------|-----------|----------------------|---------|
| TBI Master Calibration COMPLEX GAINS |           |                    |         |                       |           |                      |         |
| Freq 1, R                            |           | Value              | Nominal | Freq 1, X             |           | Value                | Nominal |
|                                      |           | 0.9931             | 1.000   |                       |           | -0.003803            | 0       |
|                                      |           | 0.9901             | 1.000   |                       |           | 0.0002989            | 0       |
|                                      |           | 0.9938             | 1.000   |                       |           | -0.006371            | 0       |
|                                      |           | 0.9947             | 1.000   |                       |           | 0.001656             | 0       |
|                                      |           | 0.9990             | 1.000   |                       |           | 0.001395             | 0       |
| 0.9500<br>(Minimum)                  | (Nominal) | 1.050<br>(Maximum) |         | -0.05000<br>(Minimum) | (Nominal) | 0.05000<br>(Maximum) |         |
| Freq 2, R                            |           | Value              | Nominal | Freq 2, X             |           | Value                | Nominal |
|                                      |           | 0.9886             | 1.000   |                       |           | -0.009418            | 0       |
|                                      |           | 0.9847             | 1.000   |                       |           | -0.005867            | 0       |
|                                      |           | 0.9828             | 1.000   |                       |           | -0.005264            | 0       |
|                                      |           | 0.9903             | 1.000   |                       |           | -0.004911            | 0       |
|                                      |           | 0.9954             | 1.000   |                       |           | -0.005778            | 0       |
| 0.9500<br>(Minimum)                  | (Nominal) | 1.050<br>(Maximum) |         | -0.05000<br>(Minimum) | (Nominal) | 0.05000<br>(Maximum) |         |
| Freq 3, R                            |           | Value              | Nominal | Freq 3, X             |           | Value                | Nominal |
|                                      |           | 0.9894             | 1.000   |                       |           | -0.006061            | 0       |
|                                      |           | 0.9858             | 1.000   |                       |           | -0.002992            | 0       |
|                                      |           | 0.9836             | 1.000   |                       |           | -0.002560            | 0       |
|                                      |           | 0.9902             | 1.000   |                       |           | -0.002742            | 0       |
|                                      |           | 0.9972             | 1.000   |                       |           | -0.002038            | 0       |
| 0.9500<br>(Minimum)                  | (Nominal) | 1.050<br>(Maximum) |         | -0.05000<br>(Minimum) | (Nominal) | 0.05000<br>(Maximum) |         |
| Freq 4, R                            |           | Value              | Nominal | Freq 4, X             |           | Value                | Nominal |
|                                      |           | 0.9918             | 1.000   |                       |           | -0.008870            | 0       |
|                                      |           | 0.9876             | 1.000   |                       |           | -0.006815            | 0       |
|                                      |           | 0.9875             | 1.000   |                       |           | -0.008579            | 0       |
|                                      |           | 0.9922             | 1.000   |                       |           | -0.007446            | 0       |
|                                      |           | 1.006              | 1.000   |                       |           | -0.006792            | 0       |

|                           |                    |                    |  |                       |                      |                      |  |
|---------------------------|--------------------|--------------------|--|-----------------------|----------------------|----------------------|--|
| 0.9300<br>(Minimum)       | 1.070<br>(Nominal) | 1.070<br>(Maximum) |  | -0.05000<br>(Minimum) | 0.05000<br>(Nominal) | 0.05000<br>(Maximum) |  |
| Master: 11-Mar-2014 11:48 |                    |                    |  |                       |                      |                      |  |

| ThruBit String Master Calibration                                                 |                     |         |                                                                                   |                     |         |                                                                                     |                     |         |
|-----------------------------------------------------------------------------------|---------------------|---------|-----------------------------------------------------------------------------------|---------------------|---------|-------------------------------------------------------------------------------------|---------------------|---------|
| TBD Caliper Master Calibration                                                    |                     |         |                                                                                   |                     |         |                                                                                     |                     |         |
| Caliper 12in Ring IN                                                              | Value               | Nominal | Caliper 9in Ring IN                                                               | Value               | Nominal | Caliper 6in Ring IN                                                                 | Value               | Nominal |
|  | 1918.4              | 1949.8  |  | 2046.2              | 2096.7  |  | 2176.2              | 2285.7  |
| 1799.8<br>(Minimum)                                                               | 2099.8<br>(Maximum) |         | 1946.7<br>(Minimum)                                                               | 2246.7<br>(Maximum) |         | 2135.7<br>(Minimum)                                                                 | 2435.7<br>(Maximum) |         |
| Master: 9-May-2014 11:01                                                          |                     |         |                                                                                   |                     |         |                                                                                     |                     |         |

| ThruBit String Master Calibration                                                   |  |                      |         |                                                                                    |  |
|-------------------------------------------------------------------------------------|--|----------------------|---------|------------------------------------------------------------------------------------|--|
| TBD Density Master Calibration. PEEK Window, ThruBit blocks                         |  |                      |         |                                                                                    |  |
| Aluminium Density G/C3                                                              |  | Value                | Nominal | Magnesium Density G/C3                                                             |  |
|    |  | 2.607                | 2.607   |  |  |
| 2.557<br>(Minimum)                                                                  |  | 2.657<br>(Maximum)   |         | 1.702<br>(Minimum)                                                                 |  |
| (Nominal)                                                                           |  |                      |         | 1.802<br>(Maximum)                                                                 |  |
| LS1 Background CPS                                                                  |  | Value                | Nominal | SS1 Background CPS                                                                 |  |
|    |  | 144.74               | 140.00  |   |  |
| 100.00<br>(Minimum)                                                                 |  | 187.00<br>(Maximum)  |         | 100.00<br>(Minimum)                                                                |  |
| (Nominal)                                                                           |  |                      |         | 185.00<br>(Maximum)                                                                |  |
| LS4 Background CPS                                                                  |  | Value                | Nominal | SS1 Aluminium CPS                                                                  |  |
|    |  | 29.27                | 29.00   |   |  |
| 20.00<br>(Minimum)                                                                  |  | 38.00<br>(Maximum)   |         | 4076.00<br>(Minimum)                                                               |  |
| (Nominal)                                                                           |  |                      |         | 5613.00<br>(Maximum)                                                               |  |
| LS1 Aluminium CPS                                                                   |  | Value                | Nominal | SS1 Magnesium CPS                                                                  |  |
|    |  | 915.65               | 870.00  |   |  |
| 750.00<br>(Minimum)                                                                 |  | 982.00<br>(Maximum)  |         | 6695.00<br>(Minimum)                                                               |  |
| (Nominal)                                                                           |  |                      |         | 9269.00<br>(Maximum)                                                               |  |
| LS4 Aluminium CPS                                                                   |  | Value                | Nominal |                                                                                    |  |
|   |  | 969.92               | 955.00  |                                                                                    |  |
| 796.00<br>(Minimum)                                                                 |  | 1169.0<br>(Maximum)  |         |                                                                                    |  |
| LS1 Al + Sleeve CPS                                                                 |  | Value                | Nominal |                                                                                    |  |
|  |  | 821.92               | 725.00  |                                                                                    |  |
| 650.00<br>(Minimum)                                                                 |  | 838.00<br>(Maximum)  |         |                                                                                    |  |
| (Nominal)                                                                           |  |                      |         |                                                                                    |  |
| LS4 Al + Sleeve CPS                                                                 |  | Value                | Nominal |                                                                                    |  |
|  |  | 460.44               | 426.50  |                                                                                    |  |
| 382.00<br>(Minimum)                                                                 |  | 638.00<br>(Maximum)  |         |                                                                                    |  |
| (Nominal)                                                                           |  |                      |         |                                                                                    |  |
| LS1 Magnesium CPS                                                                   |  | Value                | Nominal |                                                                                    |  |
|  |  | 5880.64              | 5800.00 |                                                                                    |  |
| 5158.00<br>(Minimum)                                                                |  | 6486.00<br>(Maximum) |         |                                                                                    |  |
| (Nominal)                                                                           |  |                      |         |                                                                                    |  |
| SS Slope                                                                            |  | Value                | Nominal |                                                                                    |  |
|  |  | 1.678                | 1.645   |                                                                                    |  |
| 1.520<br>(Minimum)                                                                  |  | 1.770<br>(Maximum)   |         |                                                                                    |  |
| (Nominal)                                                                           |  |                      |         |                                                                                    |  |
| LS Slope                                                                            |  | Value                | Nominal |                                                                                    |  |
|  |  | 0.4228               | 0.4150  |                                                                                    |  |
| 0.3800<br>(Minimum)                                                                 |  | 0.4500<br>(Maximum)  |         |                                                                                    |  |
| (Nominal)                                                                           |  |                      |         |                                                                                    |  |
| Pef K Factor                                                                        |  | Value                | Nominal |                                                                                    |  |
|  |  | 4.696                | 4.840   |                                                                                    |  |
| 3.510<br>(Minimum)                                                                  |  | 6.170<br>(Maximum)   |         |                                                                                    |  |
| (Nominal)                                                                           |  |                      |         |                                                                                    |  |
| Pef B Factor                                                                        |  | Value                | Nominal |                                                                                    |  |
|  |  | -0.5209              | -0.5550 |                                                                                    |  |
| -0.7000<br>(Minimum)                                                                |  | -0.4100<br>(Maximum) |         |                                                                                    |  |
| (Nominal)                                                                           |  |                      |         |                                                                                    |  |
| Master: 9-May-2014 10:53                                                            |  |                      |         |                                                                                    |  |

| ThruBit String Master Calibration |
|-----------------------------------|
|-----------------------------------|

| ThruBit String Master Calibration                                                 |           |                     |                                                                                    |           |                      |
|-----------------------------------------------------------------------------------|-----------|---------------------|------------------------------------------------------------------------------------|-----------|----------------------|
| TNF, Background CPS                                                               | Value     | Nominal             | TNN, Background CPS                                                                | Value     | Nominal              |
|   | 0.15      | 1.0                 |    | 0.083     | 1.0                  |
| 0<br>(Minimum)                                                                    | (Nominal) | 2.0<br>(Maximum)    | 0<br>(Minimum)                                                                     | (Nominal) | 2.0<br>(Maximum)     |
| TNF, Tank CPS                                                                     | Value     | Nominal             | TNN, Tank CPS                                                                      | Value     | Nominal              |
|  | 93.21     | 96.00               |   | 2714.7    | 2860.0               |
| 25.00<br>(Minimum)                                                                | (Nominal) | 200.0<br>(Maximum)  | 750.00<br>(Minimum)                                                                | (Nominal) | 5700.0<br>(Maximum)  |
| TNF, Tank + AI Sleeve CPS                                                         | Value     | Nominal             | TNN, Tank + AI Sleeve CPS                                                          | Value     | Nominal              |
|  | 3064.3    | 3040.0              |   | 31464.2   | 32350.0              |
| 727.00<br>(Minimum)                                                               | (Nominal) | 6080.0<br>(Maximum) | 8000.00<br>(Minimum)                                                               | (Nominal) | 64700.0<br>(Maximum) |
| Tank + AI Sleeve Ratio                                                            | Value     | Nominal             | Tank + AI Sleeve Porosity PU                                                       | Value     | Nominal              |
|  | 10.915    | 10.797              |   | 14.46     | 14.40                |
| 10.300<br>(Minimum)                                                               | (Nominal) | 11.300<br>(Maximum) | 13.40<br>(Minimum)                                                                 | (Nominal) | 15.40<br>(Maximum)   |
| Tank, Ratio                                                                       | Value     | Nominal             | Tank, Temperature DEGF                                                             | Value     | Nominal              |
|  | 29.124    | 30.958              |  | 77.8      | 70.0                 |
| 28.000<br>(Minimum)                                                               | (Nominal) | 34.000<br>(Maximum) | 20.0<br>(Minimum)                                                                  | (Nominal) | 120<br>(Maximum)     |
| Master: 7-May-2014 9:47                                                           |           |                     |                                                                                    |           |                      |

| ThruBit String Master Calibration |  |           |                     |                     |  |           |                    |
|-----------------------------------|--|-----------|---------------------|---------------------|--|-----------|--------------------|
| TMG Accelerometer Calibration     |  |           |                     |                     |  |           |                    |
| Minimum Ax, m/s2                  |  | Value     | Nominal             | Maximum Ax, m/s2    |  | Value     | Nominal            |
| <div>NOT DONE</div>               |  | N/A       | -9.810              | <div>NOT DONE</div> |  | N/A       | 9.810              |
| -10.81<br>(Minimum)               |  | (Nominal) | -8.810<br>(Maximum) | 8.810<br>(Minimum)  |  | (Nominal) | 10.81<br>(Maximum) |
| Minimum Ay, m/s2                  |  | Value     | Nominal             | Maximum Ay, m/s2    |  | Value     | Nominal            |
| <div>NOT DONE</div>               |  | N/A       | -9.810              | <div>NOT DONE</div> |  | N/A       | 9.810              |
| -10.81<br>(Minimum)               |  | (Nominal) | -8.810<br>(Maximum) | 8.810<br>(Minimum)  |  | (Nominal) | 10.81<br>(Maximum) |
| Minimum Az, m/s2                  |  | Value     | Nominal             | Maximum Az, m/s2    |  | Value     | Nominal            |
| <div>NOT DONE</div>               |  | N/A       | 0                   | <div>NOT DONE</div> |  | N/A       | 9.810              |
| -1.000<br>(Minimum)               |  | (Nominal) | 1.000<br>(Maximum)  | 8.810<br>(Minimum)  |  | (Nominal) | 10.81<br>(Maximum) |
| RB Offset, degrees                |  | Value     | Nominal             |                     |  |           |                    |
| <div></div>                       |  | -17.00    | 0                   |                     |  |           |                    |
| -360.0<br>(Minimum)               |  | (Nominal) | 360.0<br>(Maximum)  |                     |  |           |                    |
| Master: Calibration not done      |  |           |                     |                     |  |           |                    |

| ThruBit String Master Calibration                                                   |           |                    |                                                                                     |           |                    |
|-------------------------------------------------------------------------------------|-----------|--------------------|-------------------------------------------------------------------------------------|-----------|--------------------|
| TMG Gamma-Ray Calibration                                                           |           |                    |                                                                                     |           |                    |
| GR Background GAPI                                                                  | Value     | Nominal            | GR Jig-Background GAPI                                                              | Value     | Nominal            |
|  | 28.95     | 30.00              |  | 161.3     | 170.8              |
| 0<br>(Minimum)                                                                      | (Nominal) | 120.0<br>(Maximum) | 136.6<br>(Minimum)                                                                  | (Nominal) | 205.0<br>(Maximum) |
| Master: Calibration out of date 15-Oct-2013 12:57                                   |           |                    |                                                                                     |           |                    |

Company: SANDRIDGE ENERGY

Schlumberger

Well: BARBARA 3404 1-4H

Field: BLUE

Field: **DESH**  
County: **SUMNER**  
State: **KANSAS**

SPECTRAL DENSITY  
DUAL SPACED NEUTRON  
MEMORY LOG