



**ThruBit**  
A Schlumberger Company

# ARRAY INDUCTION GAMMA RAY MEMORY LOG

Company SANDRIDGE ENERGY, INC.  
Well JENNIFER 3408 3-34H  
Field EASTHAM  
County HARPER  
State KANSAS

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County HARPER State KANSAS

Location: API 15-077-218970000  
225' FSL & 2220' FWL  
SEC 34 TWP 34S RGE 8W  
Permanent Datum G.L. Elevation 1263'  
Log Measured From K.B. @ 17.5' ABOVE PERM DAT  
Drilling Measured From K.B.  
Other Services  
THRUBIT  
PORTAL  
BIT  
Elevation  
K.B. 1280.5'  
D.F. 1279.5'  
G.L. 1263'

|                              |                    |  |  |
|------------------------------|--------------------|--|--|
| Date                         | 16-DEC-2012        |  |  |
| Run Number                   | ONE                |  |  |
| Depth Driller                | 9109'              |  |  |
| Depth Logger                 | 9085'              |  |  |
| Bottom Logged Interval       | 9074'              |  |  |
| Top Log Interval             | 2500'              |  |  |
| Casing Driller               | 5274'              |  |  |
| Casing Logger                | 5268'              |  |  |
| Bit Size                     | 6.125"             |  |  |
| Type Fluid in Hole           | WBM                |  |  |
| Density / Viscosity          | 8.35 / 27          |  |  |
| pH / Fluid Loss              | 8.0 / 60           |  |  |
| Source of Sample             | FLOW LINE          |  |  |
| Rm @ Meas. Temp              | 2.790 @ 63.4 DEGF  |  |  |
| Rmf @ Meas. Temp             | 2.093 @ 63.4 DEGF  |  |  |
| Rmc @ Meas. Temp             | 4.185 @ 63.4 DEGF  |  |  |
| Source of Rmf / Rmc          | CALCULATED         |  |  |
| Rm @ BHT                     | 1.469 @ 139.2 DEGF |  |  |
| Time Circulation Stopped     | 13:39 16-DEC-2012  |  |  |
| Time Logger on Bottom        | 15:22 16-DEC-2012  |  |  |
| Maximum Recorded Temperature | 139.2 DEGF         |  |  |
| Equipment Number             | T006               |  |  |
| Location                     | TYLER, TX          |  |  |
| Recorded By                  | MARC MATHIAS       |  |  |
| Witnessed By                 | TAMMY ALCORN       |  |  |

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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 ThruBit LLC 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

## Comments

HORIZONTAL PUMP DOWN MEMORY; BIT DEPTH: 9024' LOG TO: 2500'  
ALL SCALES AND PRESENTATIONS PER CLIENT REQUEST  
LIMESTONE MATRIX. 2.71g/cc USED FOR POROSITY MEASUREMENTS  
TOOLSTRING RAN WITH DECENTRALIZER, KNUCKLES AND CENTRALIZERS  
TBHV REPRESENTS TOTAL BOREHOLE VOLUME, ft<sup>3</sup>  
ABHV REPRESENTS ANNULAR HOLE VOLUME, CALCULATED FOR 4.5" CSG ft<sup>3</sup>  
DEPTH REFERENCE: MWD GAMMA RAY

RIG: UNIT 310

CREW: M. MATHIAS, J. REAZIN, B. ADAMS, D. MURPHY

Service Ticket No. 1641

API No. 15-077-218970000

PGM Ver WARRIOR 7.0

The Well Name, Location, Borehole Description, and / or Cementing Data Furnished by Client

EQUIPMENT DATA

| GAMMA RAY               |           | NEUTRON    |           | DENSITY    |                      | INDUCTION  |           |            |
|-------------------------|-----------|------------|-----------|------------|----------------------|------------|-----------|------------|
| Run No.                 | ONE       | Run No.    | ONE       | Run No.    | ONE                  | Run No.    | ONE       |            |
| Serial No.              | PS39T     | Serial No. | PS21N     | Serial No. | PS53D                | Serial No. | PS26R     |            |
| Model No.               | PS        | Model No.  | PS        | Model No.  | PS                   | Model No.  | PS        |            |
| Diameter                | 2.125"    | Diameter   | 2.125"    | Diameter   | 2.125"               | Diameter   | 2.125"    |            |
| LOGGING DATA            |           |            |           |            |                      |            |           |            |
| General Data            |           |            |           |            |                      |            |           |            |
| Pass                    | Depths    |            | Well Head | Speed      | Logging Run Comments |            |           |            |
| No.                     | From      | To         | Pressure  | Ft/Min     |                      |            |           |            |
| MERGE2                  | 9085'     | 2500'      |           | 30         |                      |            |           |            |
|                         |           |            |           |            |                      |            |           |            |
|                         | GAMMA RAY |            | NEUTRON   |            | DENSITY              |            | INDUCTION |            |
| Pass                    | Scale     |            | Scale     |            | Scale                |            | Scale     |            |
| No.                     | L         | R          | L         | R          | L                    | R          | L         | L          |
| ONE                     | 0 API     | 150 API    | 30%       | -10%       | 30%                  | -10%       | 0.2 OHM-M | 2000 OHM-M |
|                         |           |            |           |            |                      |            |           |            |
| DIRECTIONAL INFORMATION |           |            |           |            |                      |            |           |            |
| Maximum Deviation       |           | 91.91      | deg. @    | 5317'      | KOP                  | 3870'      |           |            |
|                         |           |            |           |            |                      |            |           |            |
|                         |           |            |           |            |                      |            |           |            |



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MAIN PASS

Database File:

Dataset Pathname:

Presentation Format:

Dataset Creation:

Charted by:

sandridge\_jennifer3408\_3\_34h\_mem.db

proc1/merge2

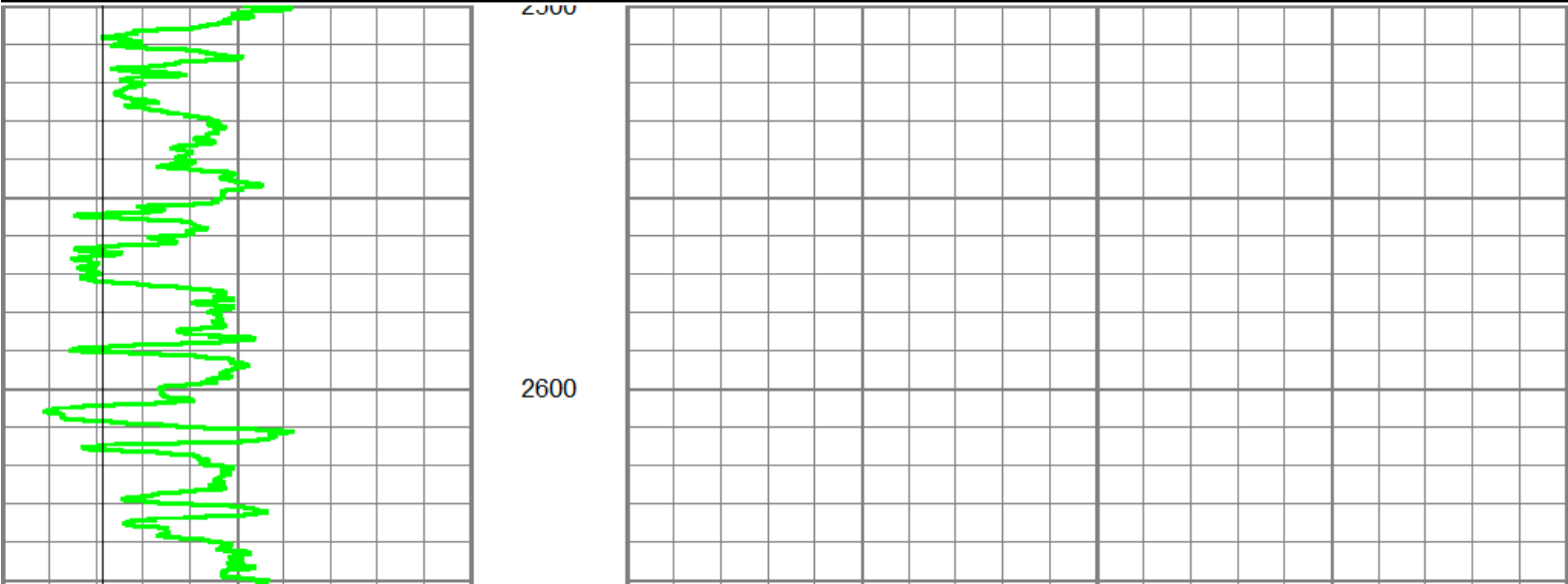
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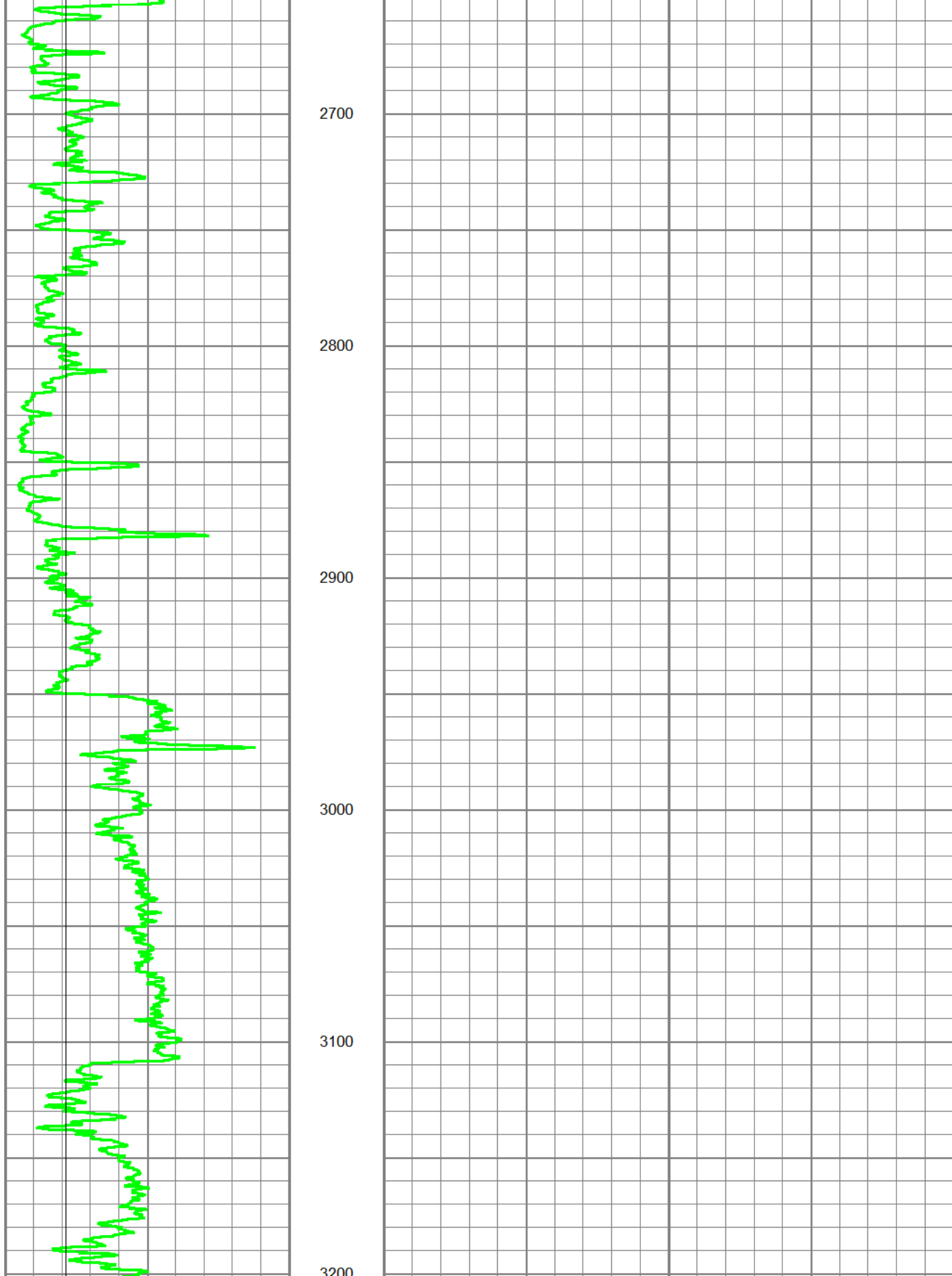
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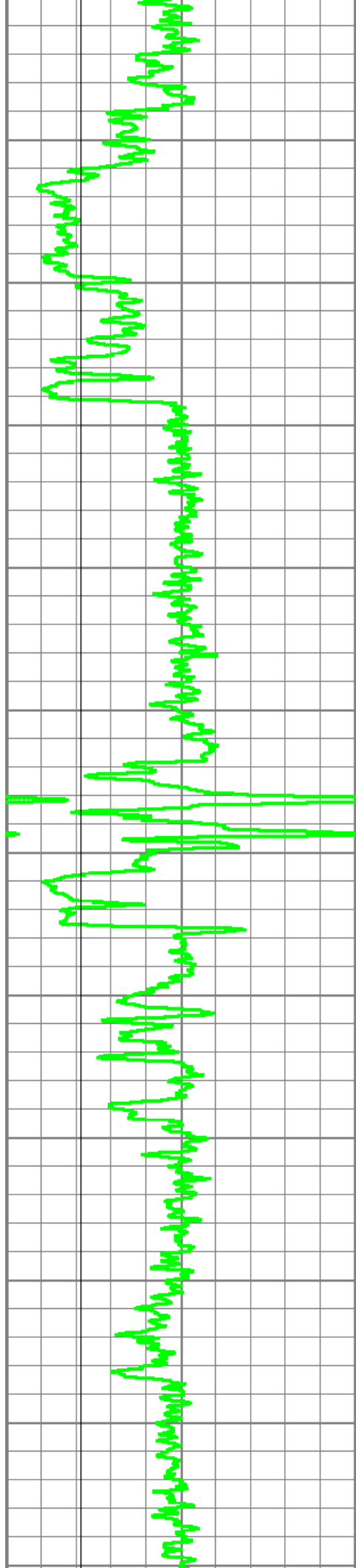
Depth in Feet scaled 1:600

|        |             |     |
|--------|-------------|-----|
| 0      | GR (GAPI)   | 150 |
| 4      | DCAL (in)   | 14  |
| -5     | ACCY        | 5   |
| 4      | BOREID (in) | 14  |
| GRTEMP |             |     |
| (degF) |             |     |

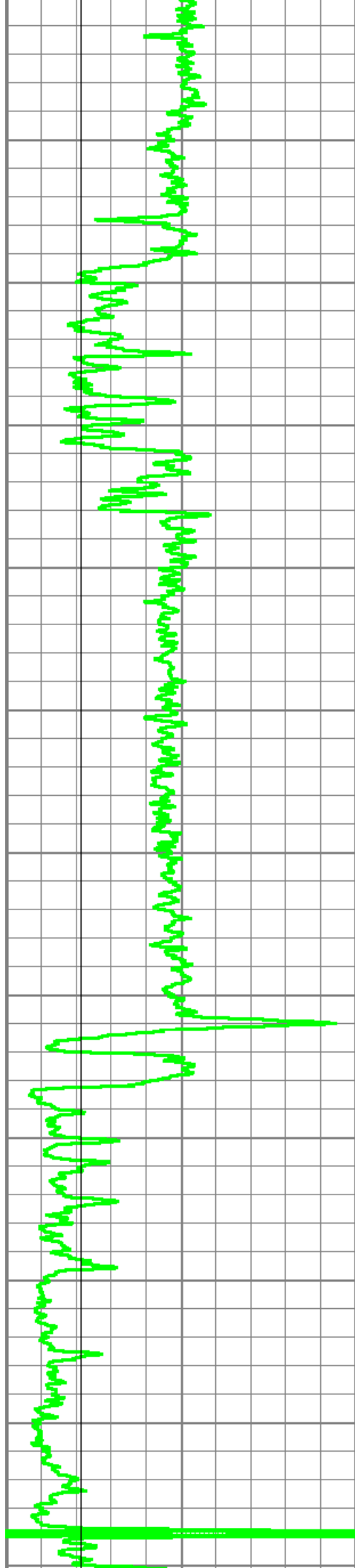
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|------|----------------------|-----|
| 50   | 20in 2ft Res (Ohm-m) | 500 |
| 50   | 90in 2ft Res (Ohm-m) | 500 |
| 1000 | DEEP COND (mmho/m)   |     |
| 0    | 20in 2ft Res (Ohm-m) | 50  |
| 0    | 90in 2ft Res (Ohm-m) | 50  |







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3300  
3400  
3500  
3600  
3700



3800

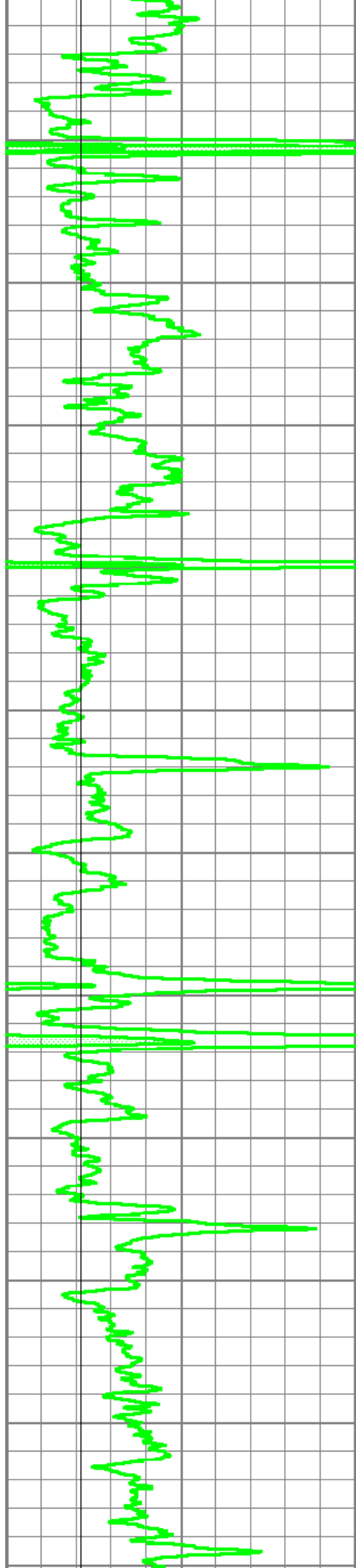
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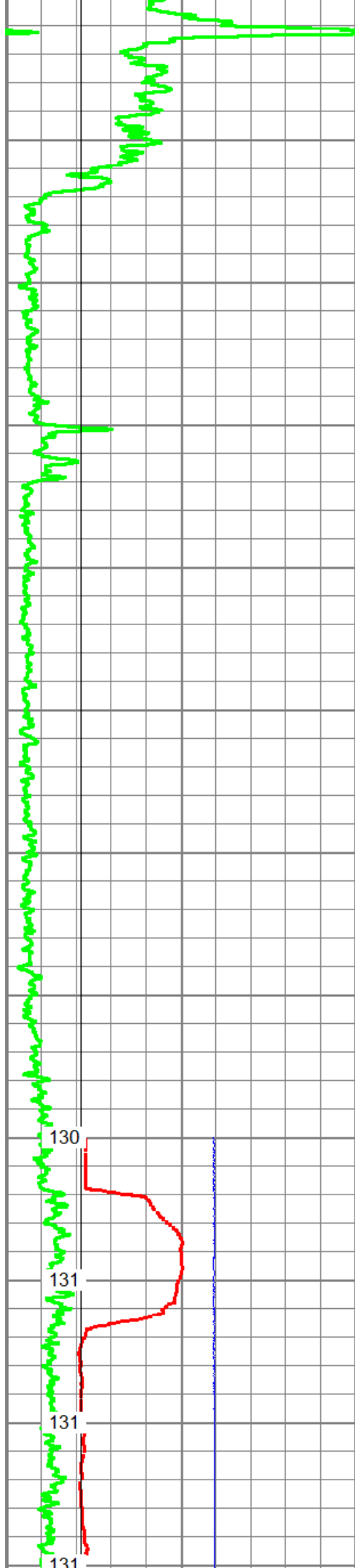
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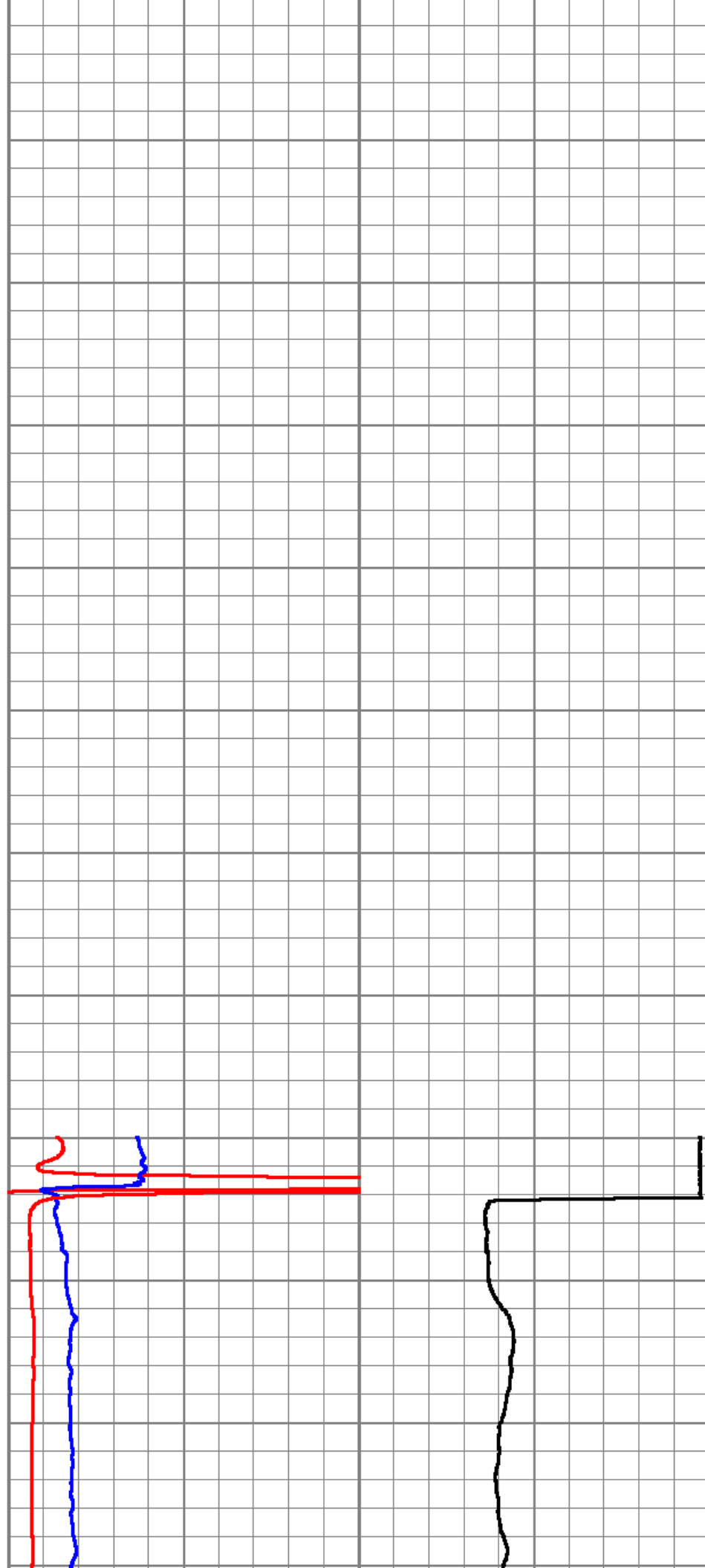
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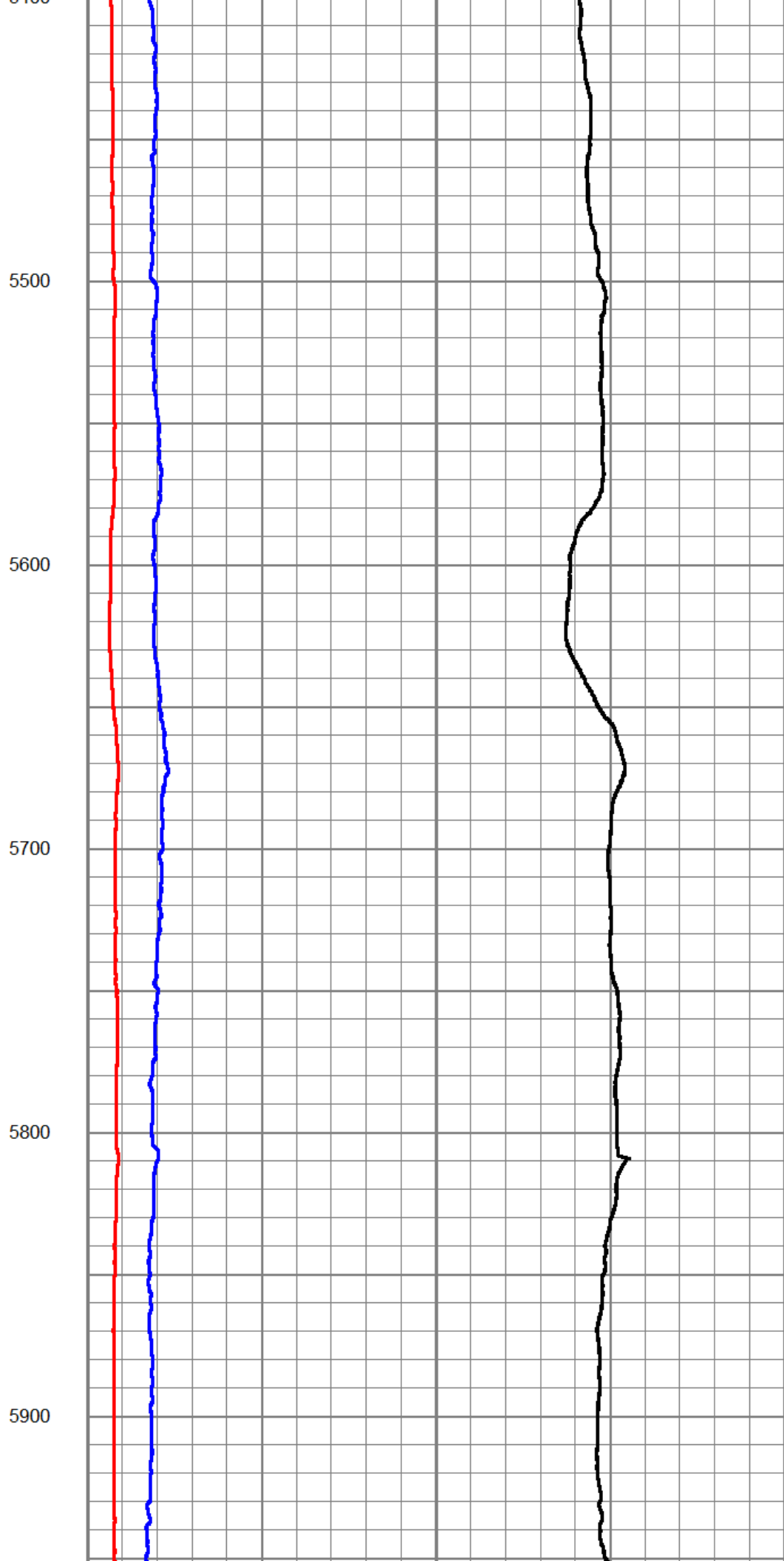
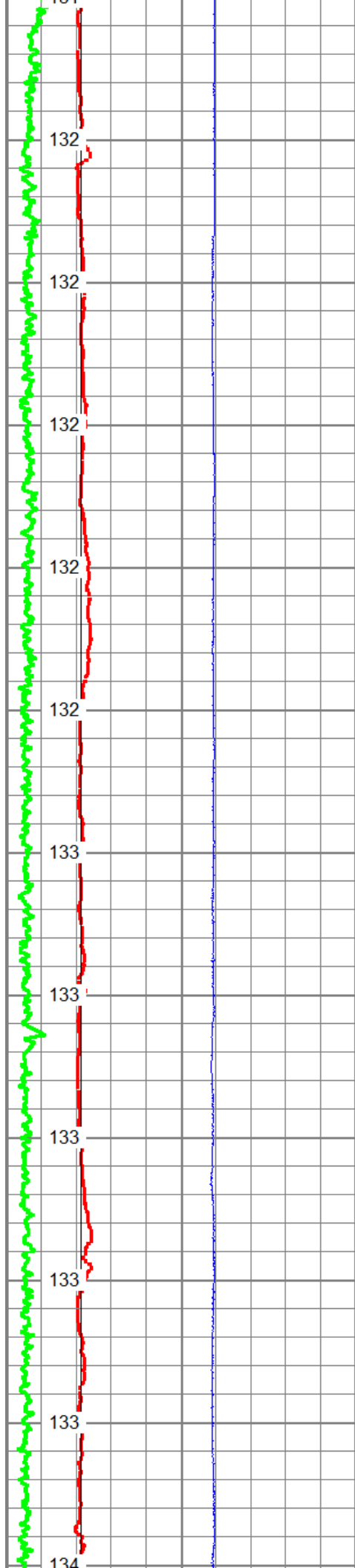
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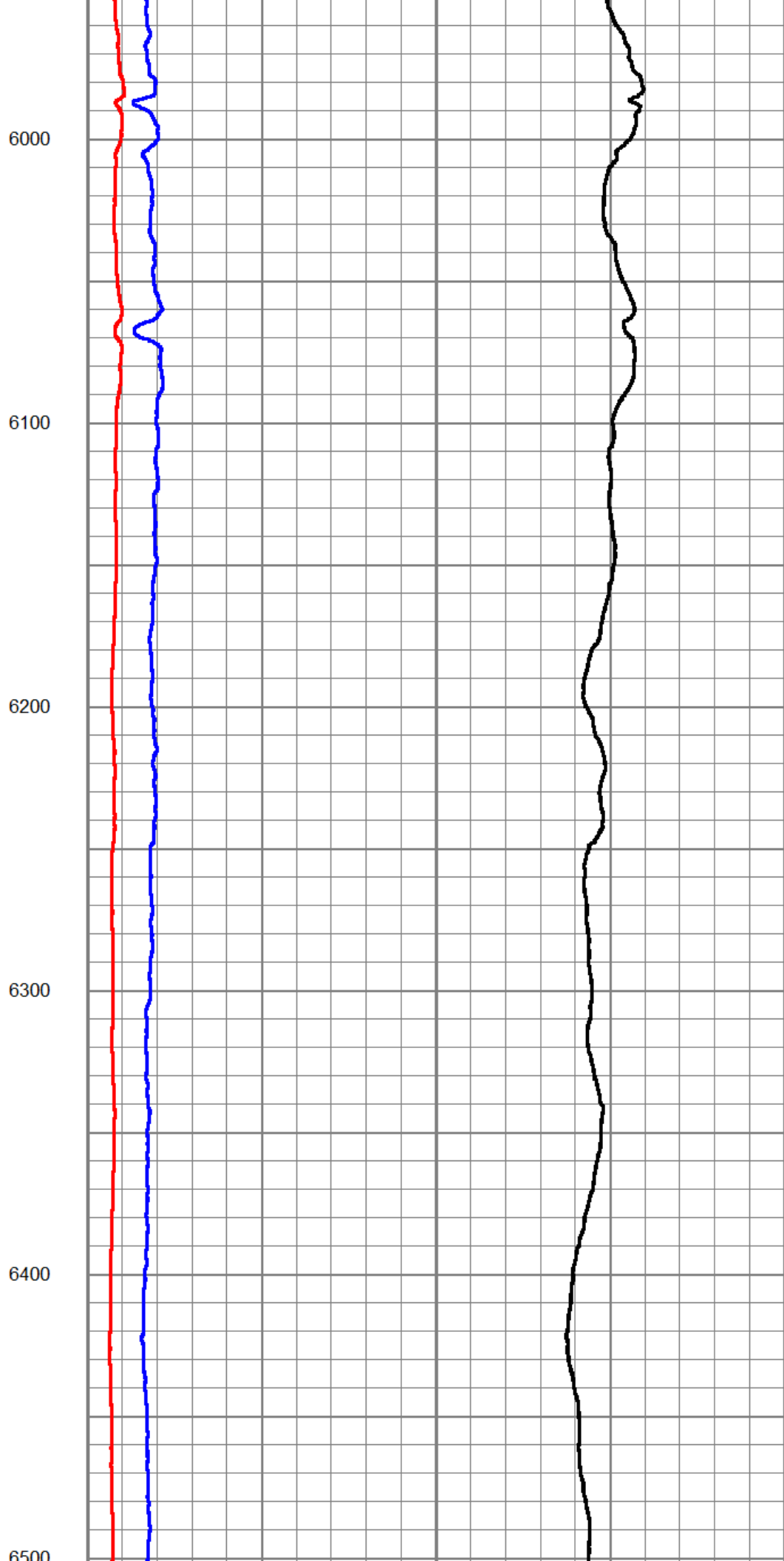
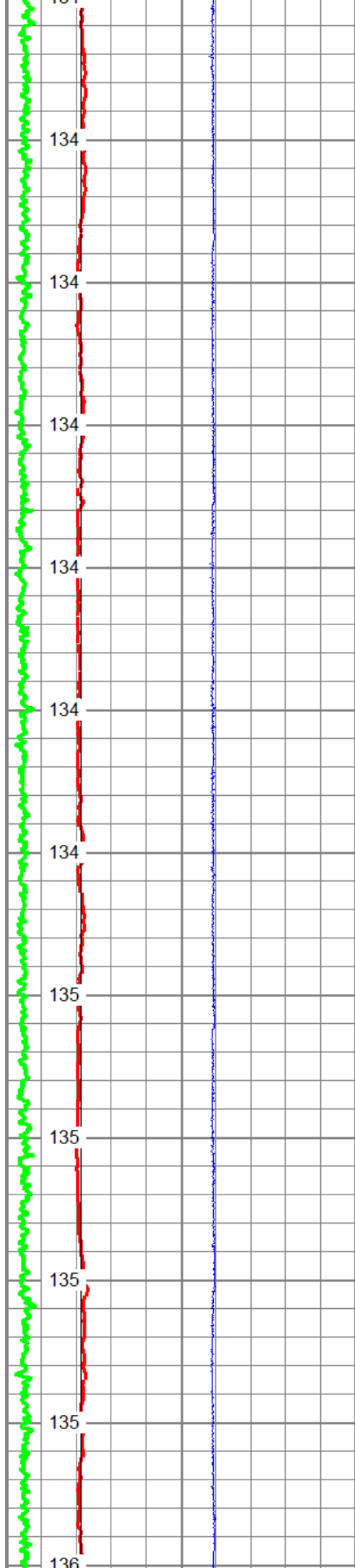
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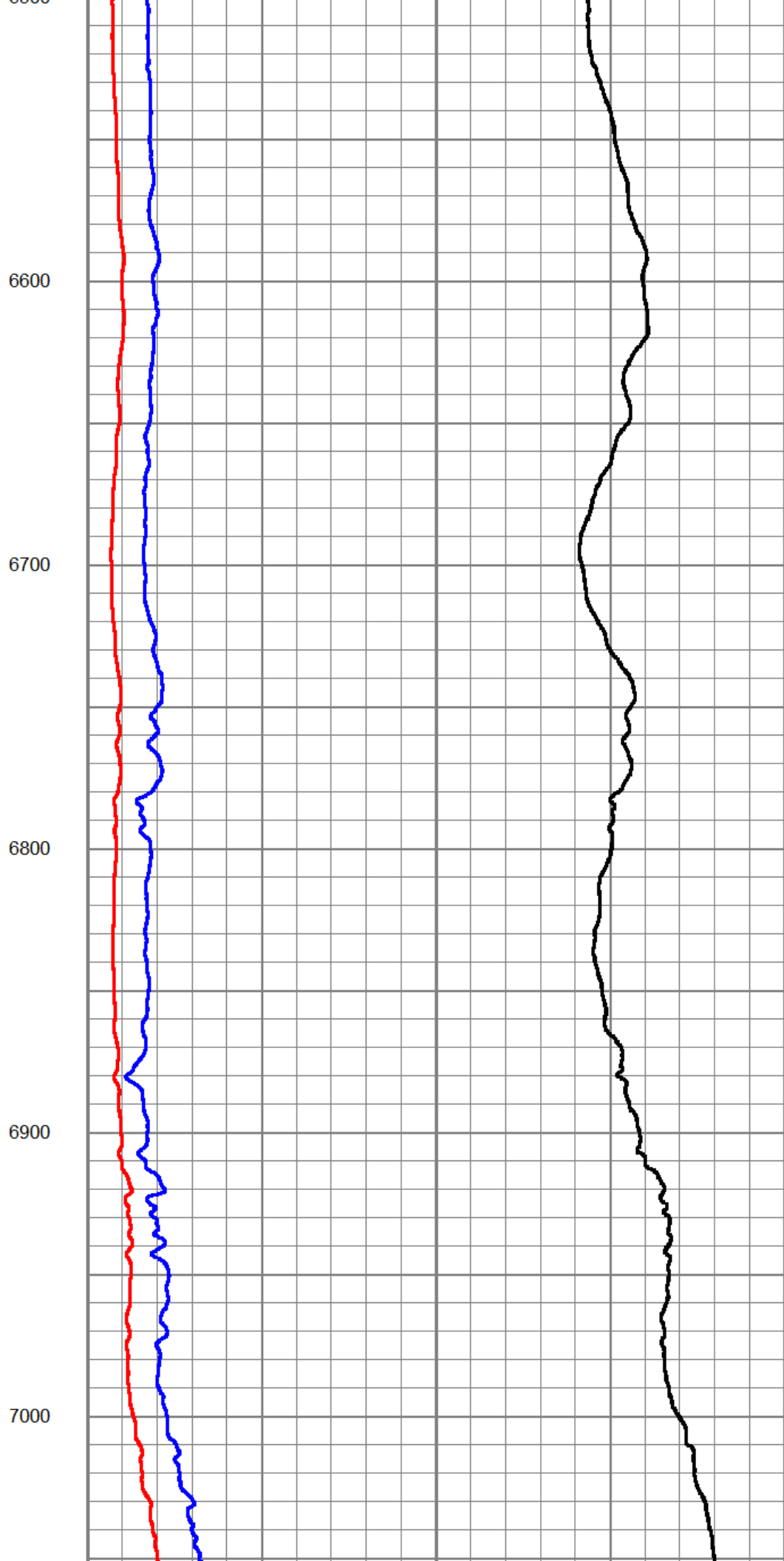
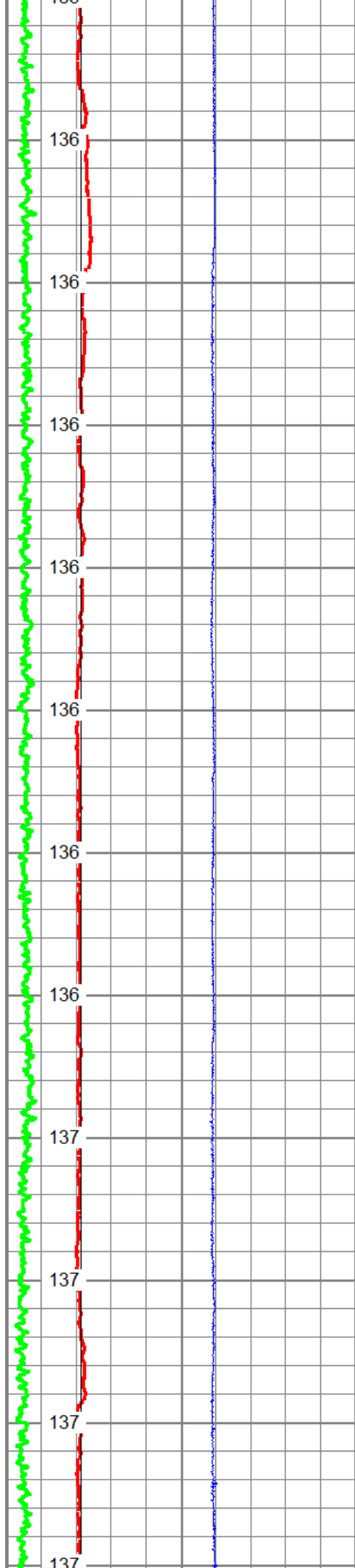
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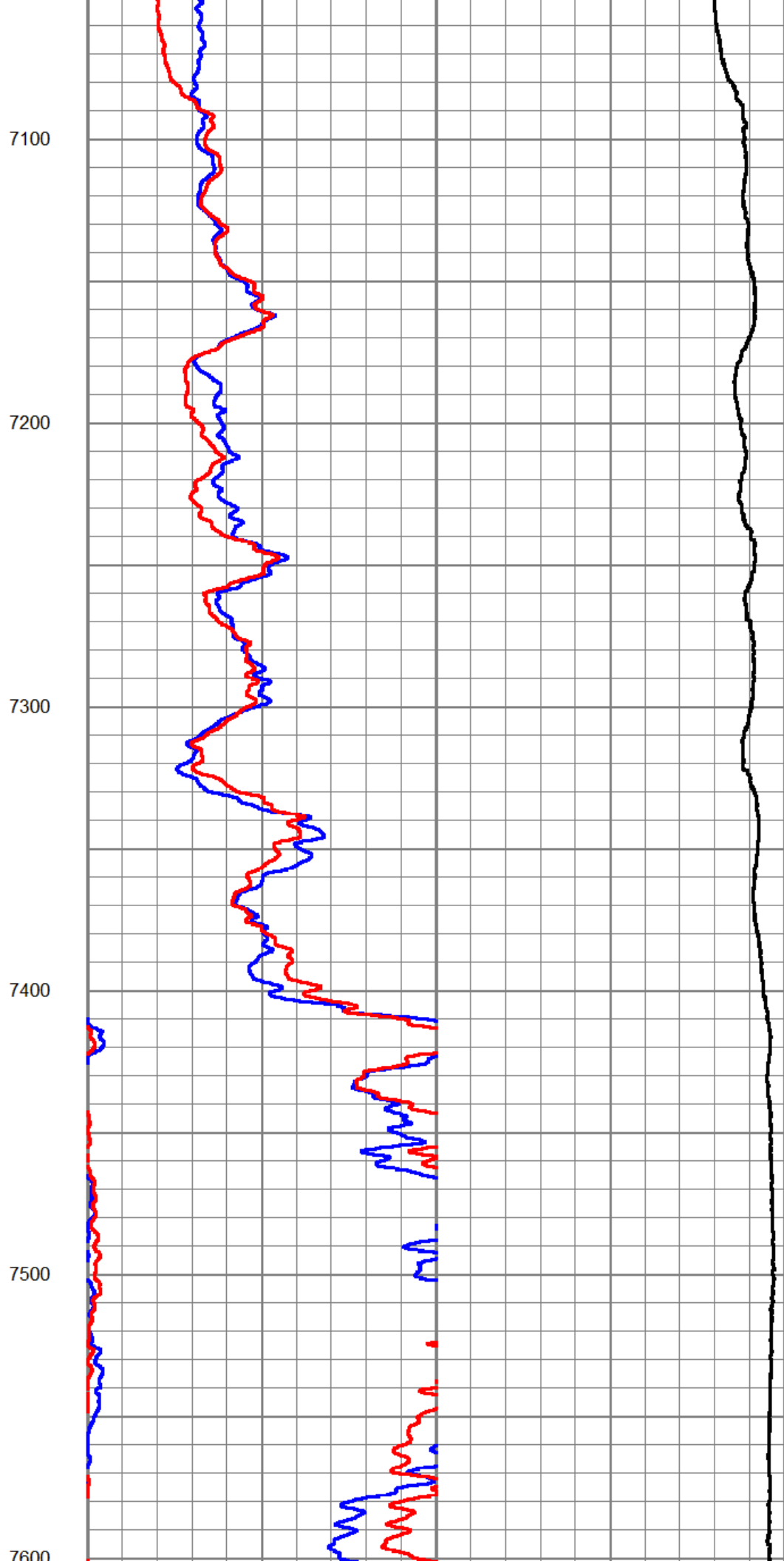
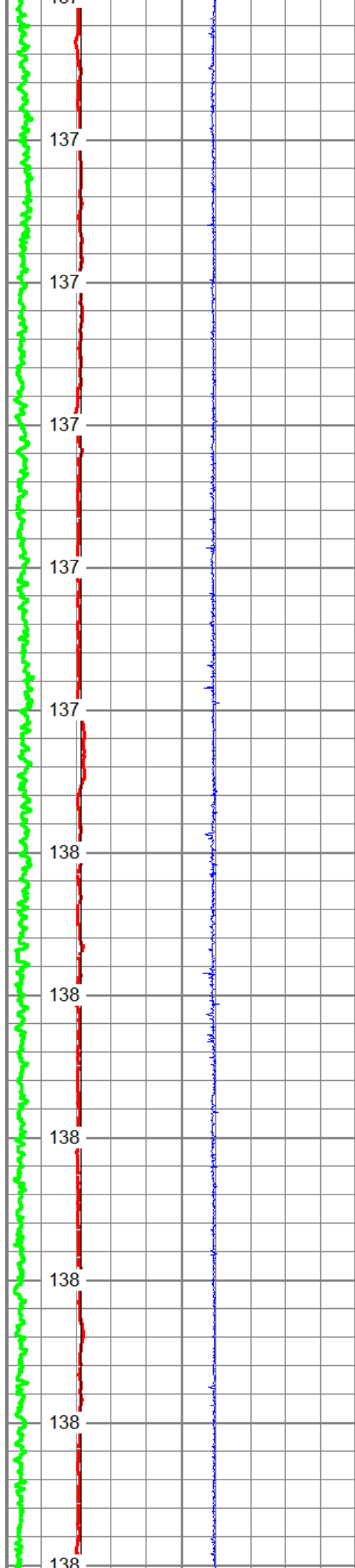


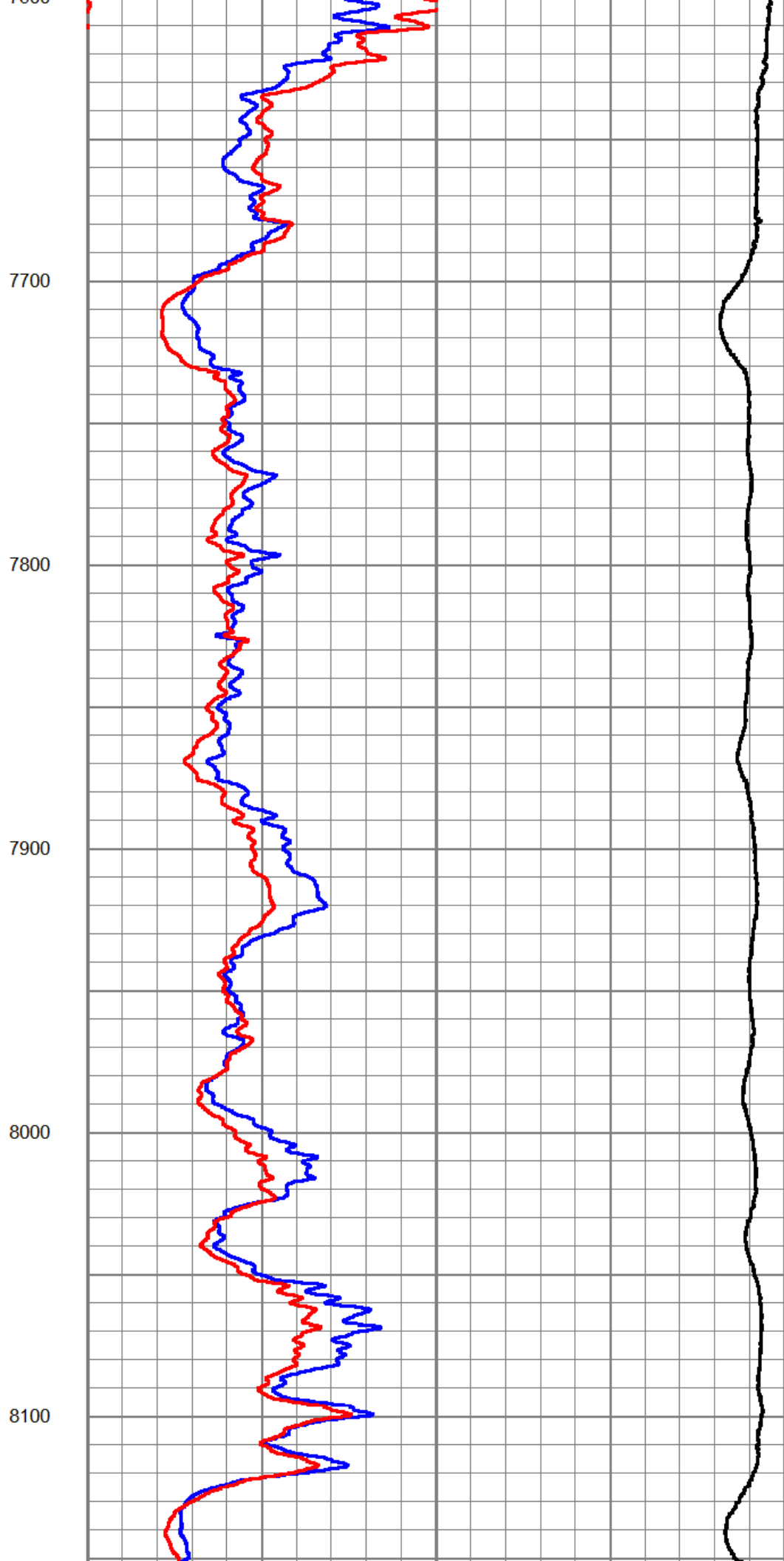
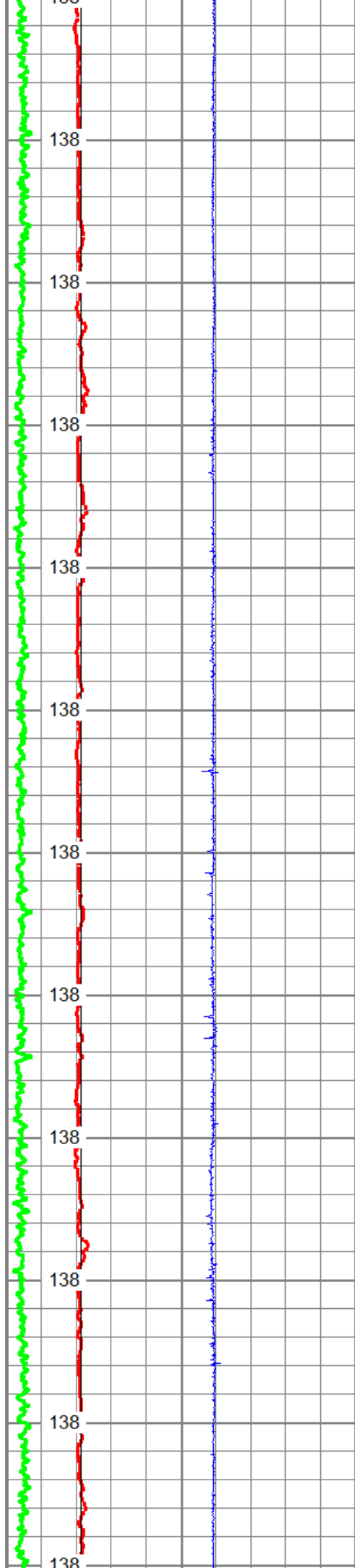


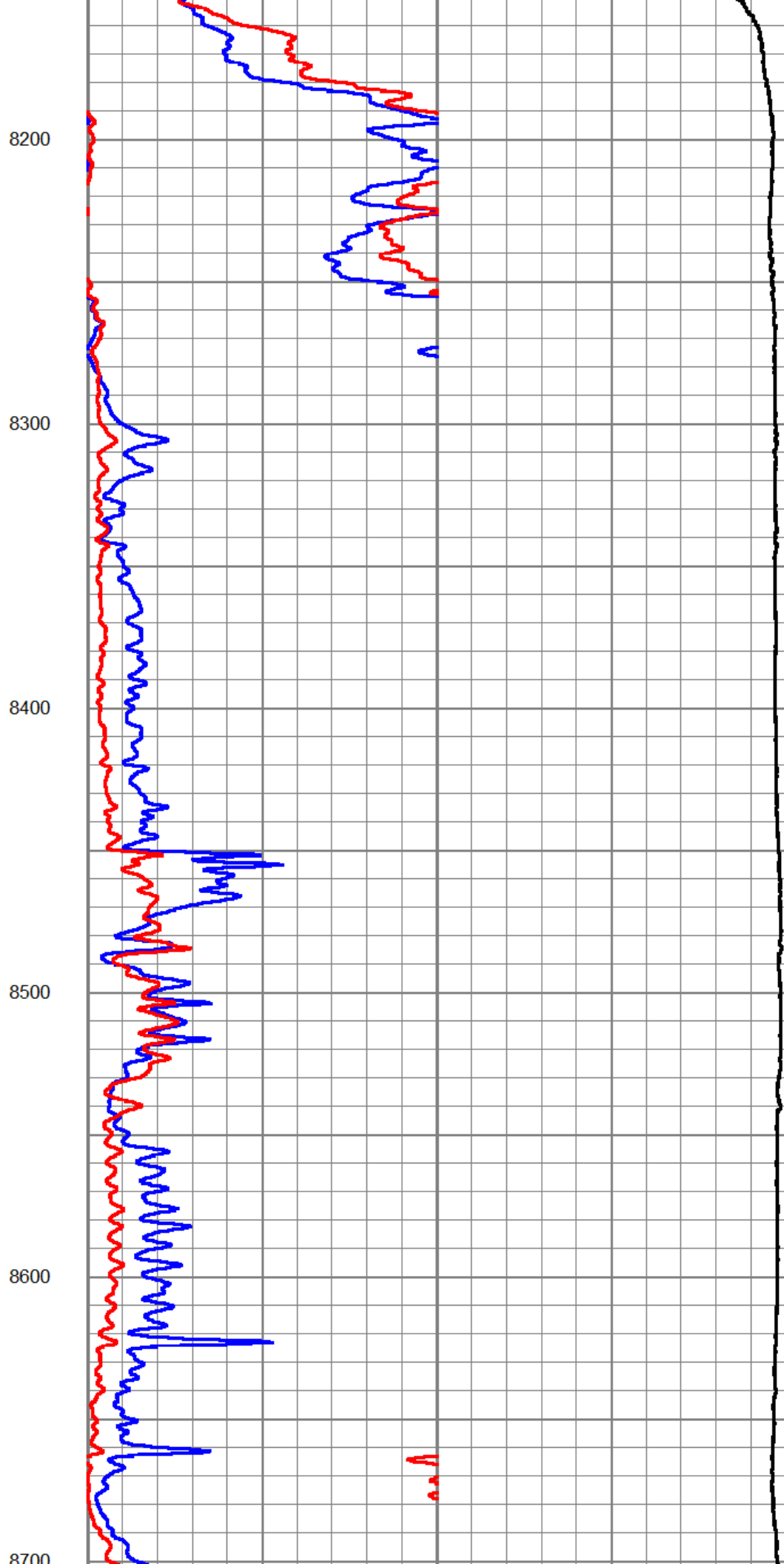
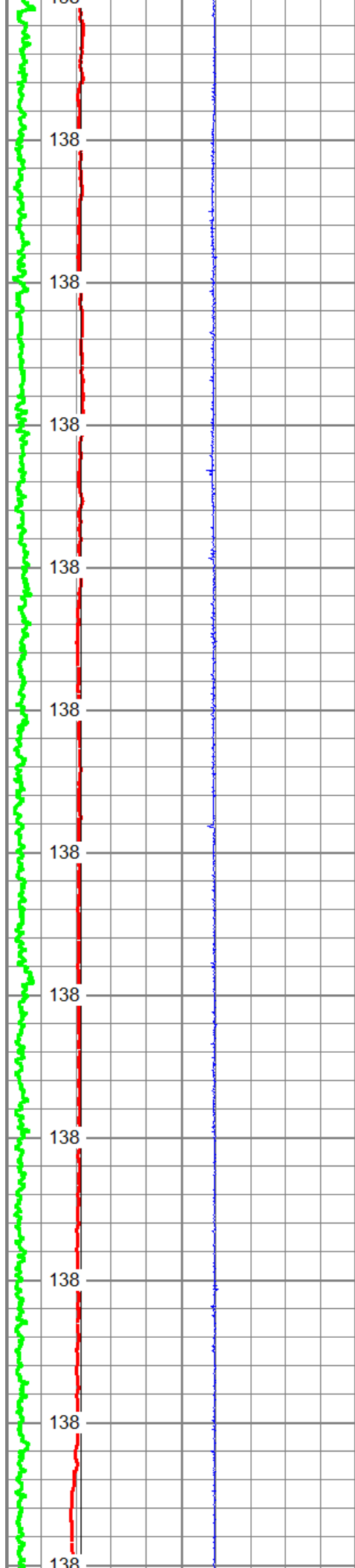


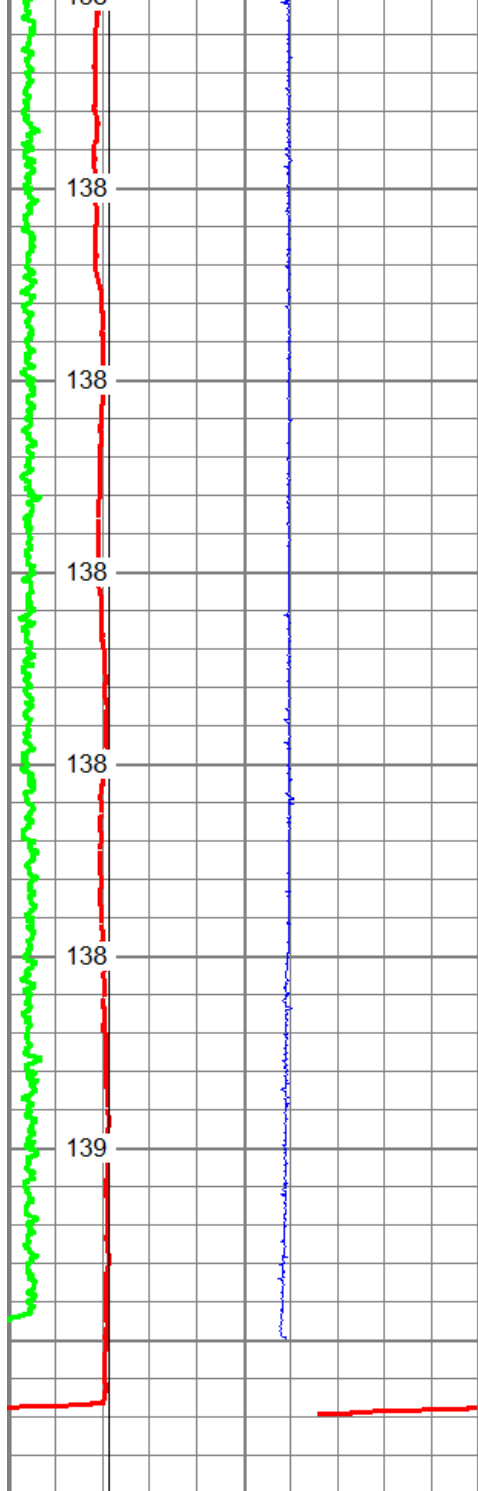




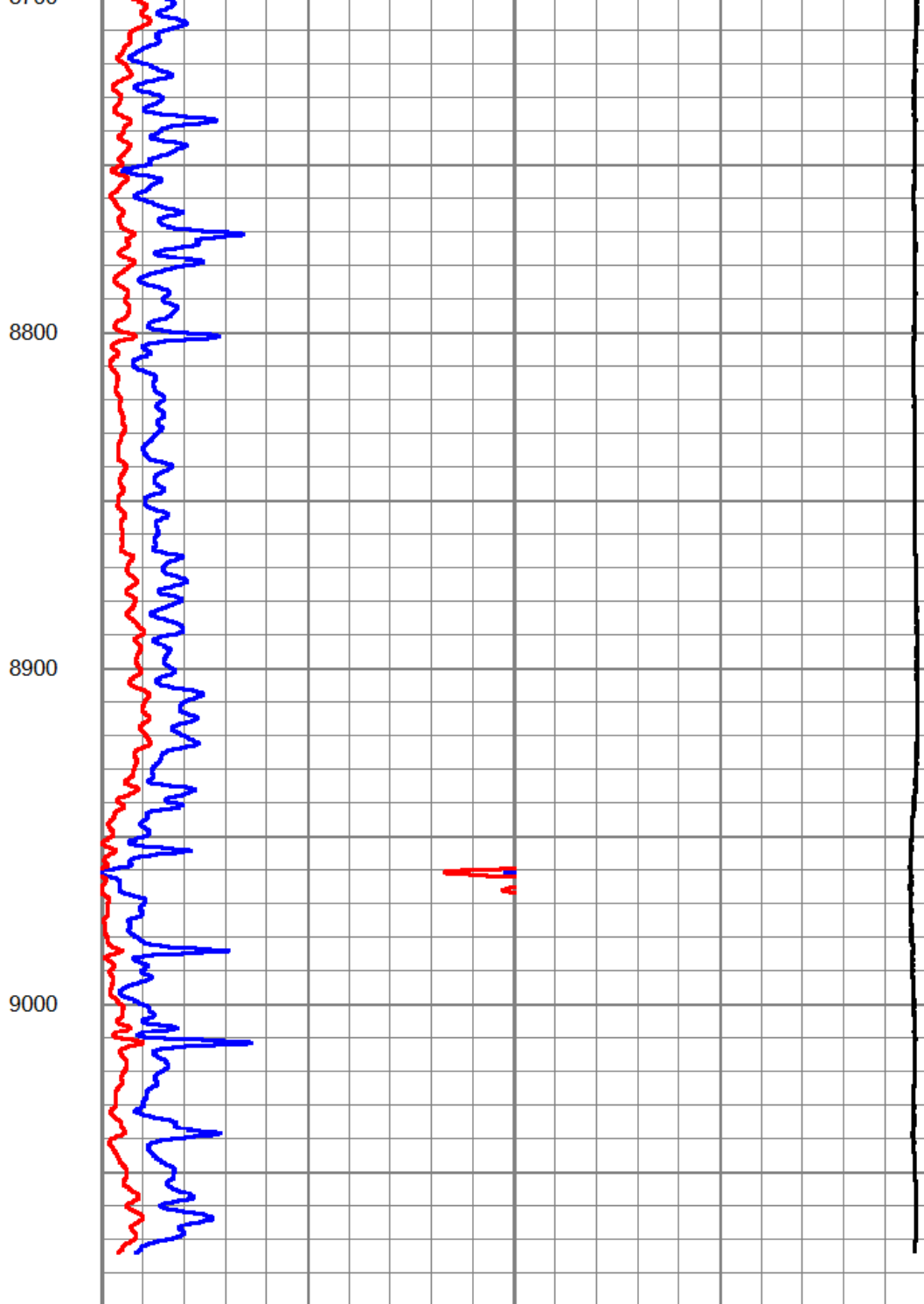








|               |             |     |
|---------------|-------------|-----|
| 0             | GR (GAPI)   | 150 |
| 4             | DCAL (in)   | 14  |
| -5            | ACCY        | 5   |
| 4             | BOREID (in) | 14  |
| GRTEMP (degF) |             |     |



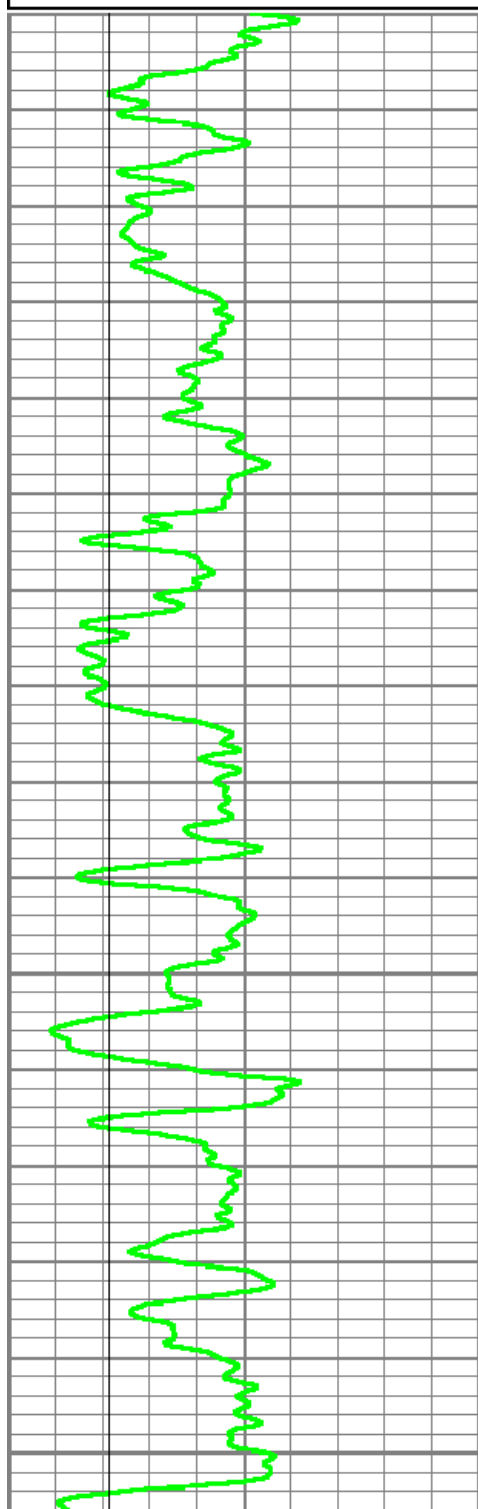
|      |                      |     |
|------|----------------------|-----|
| 50   | 20in 2ft Res (Ohm-m) | 500 |
| 50   | 90in 2ft Res (Ohm-m) | 500 |
| 1000 | DEEP COND (mmho/m)   | 0   |
| 0    | 20in 2ft Res (Ohm-m) | 50  |
| 0    | 90in 2ft Res (Ohm-m) | 50  |

Database File: sandridge\_jennifer3408\_3\_34h\_mem.db  
Dataset Pathname: proc1/merge2  
Presentation Format: sand5r  
Dataset Creation: Sun Dec 16 23:49:58 2012  
Charted by: Depth in Feet scaled 1:240

|    |             |     |
|----|-------------|-----|
| 0  | GR (GAPI)   | 150 |
| 4  | DCAL (in)   | 14  |
| 4  | BOREID (in) | 14  |
| -5 | ACCY        | 5   |

|     |                    |      |
|-----|--------------------|------|
| 0.2 | 20inRadial (Ohm-m) | 2000 |
| 0.2 | 30inRadial (Ohm-m) | 2000 |
| 0.2 | 60inRadial (Ohm-m) | 2000 |
| 0.2 | 90inRadial (Ohm-m) | 2000 |
| 0.2 | 10inRadial (Ohm-m) | 2000 |

GRTEMP  
(degF)

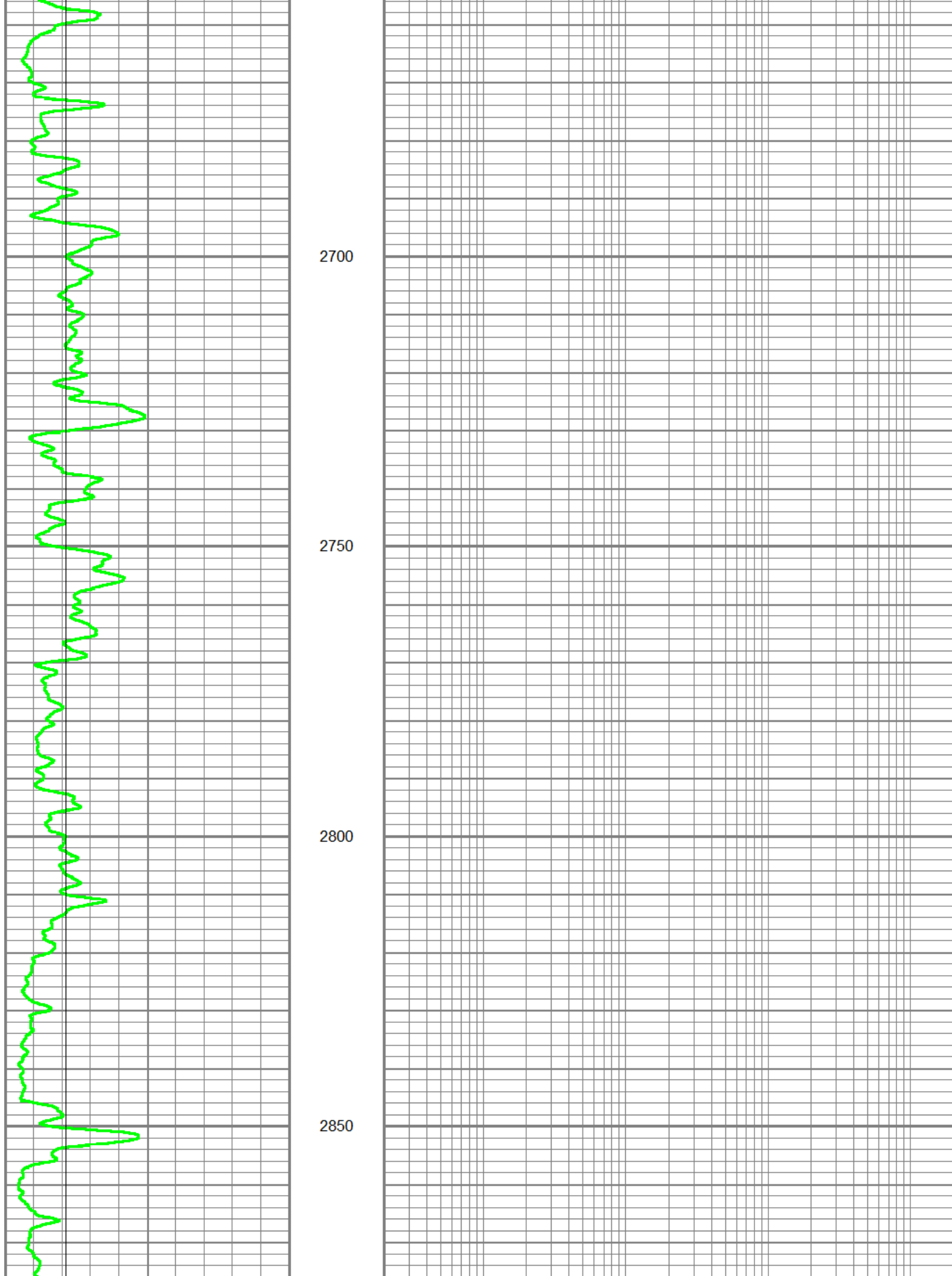


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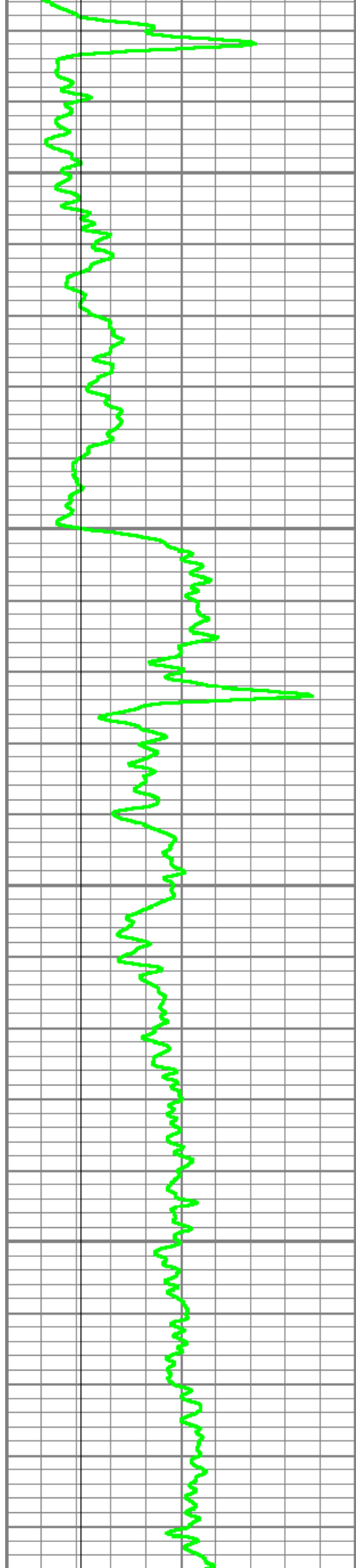
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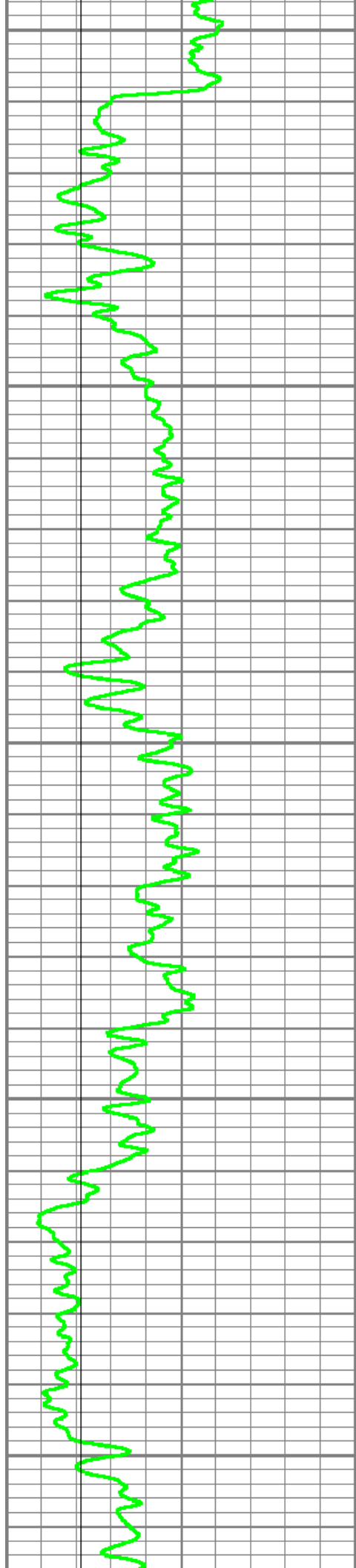


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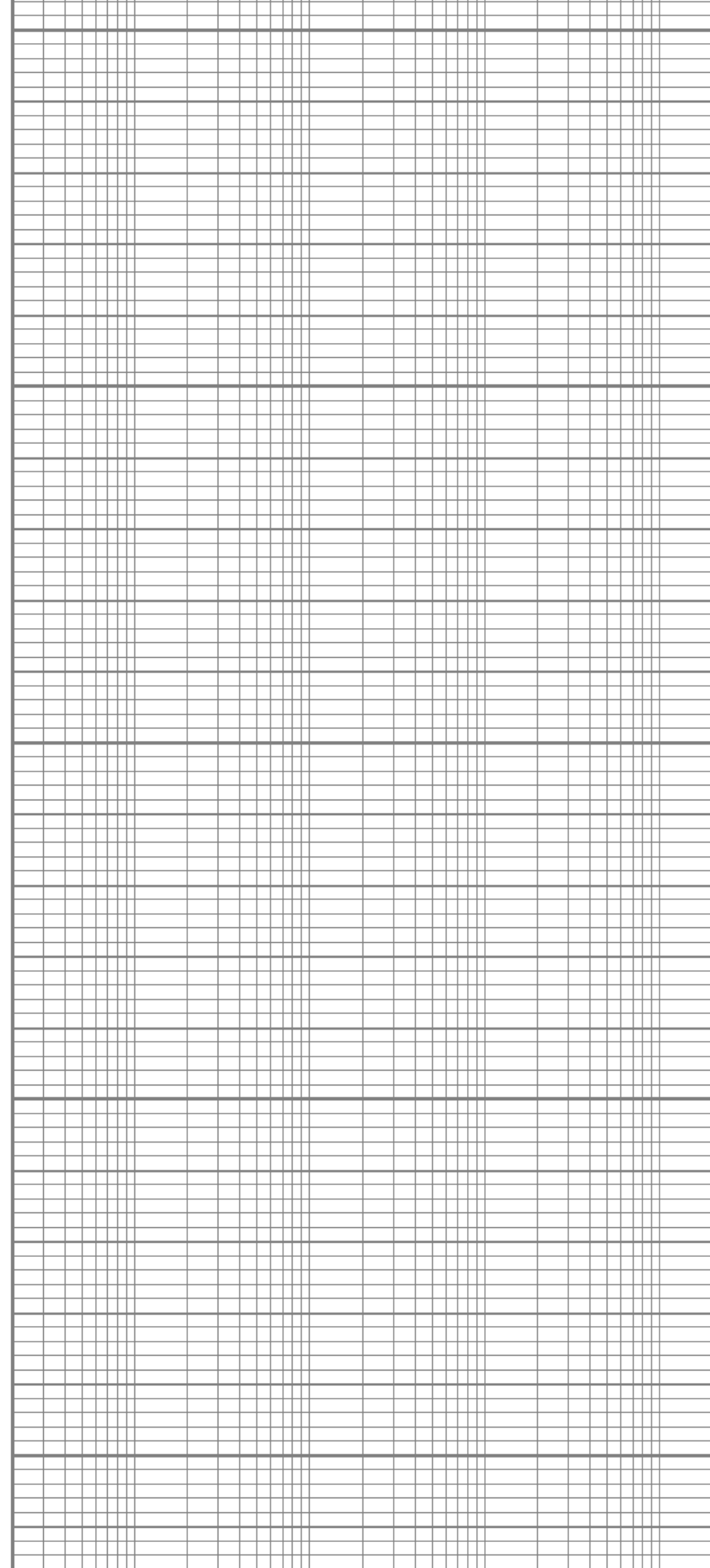
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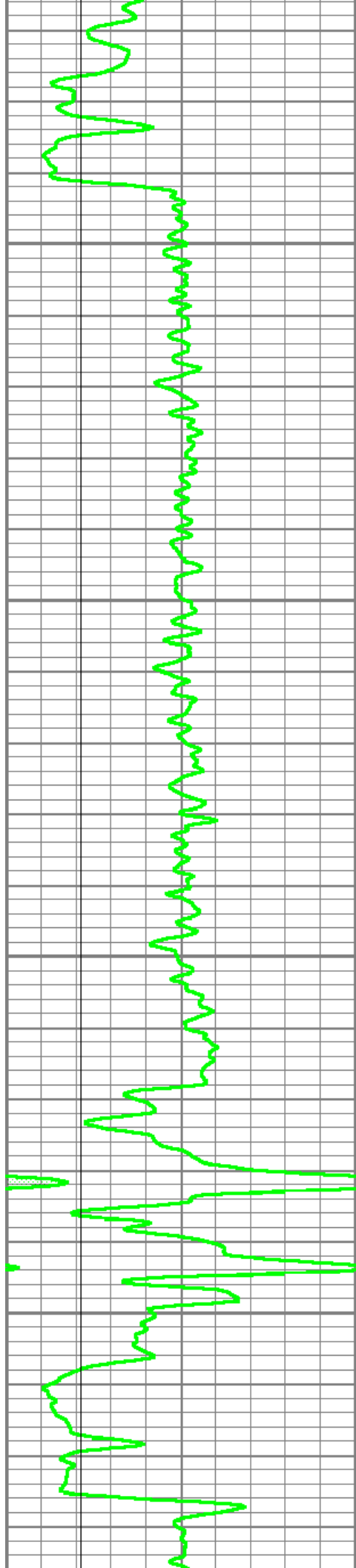
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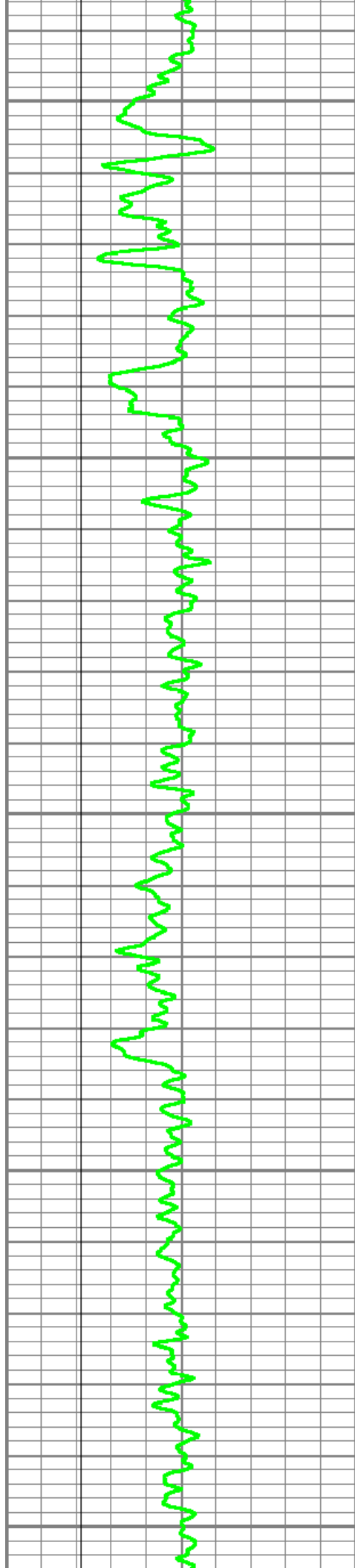


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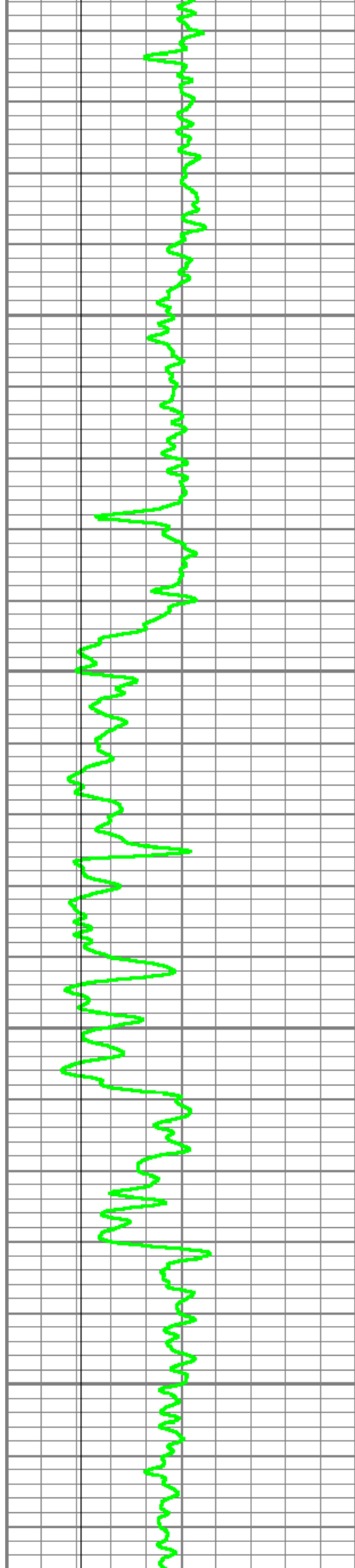
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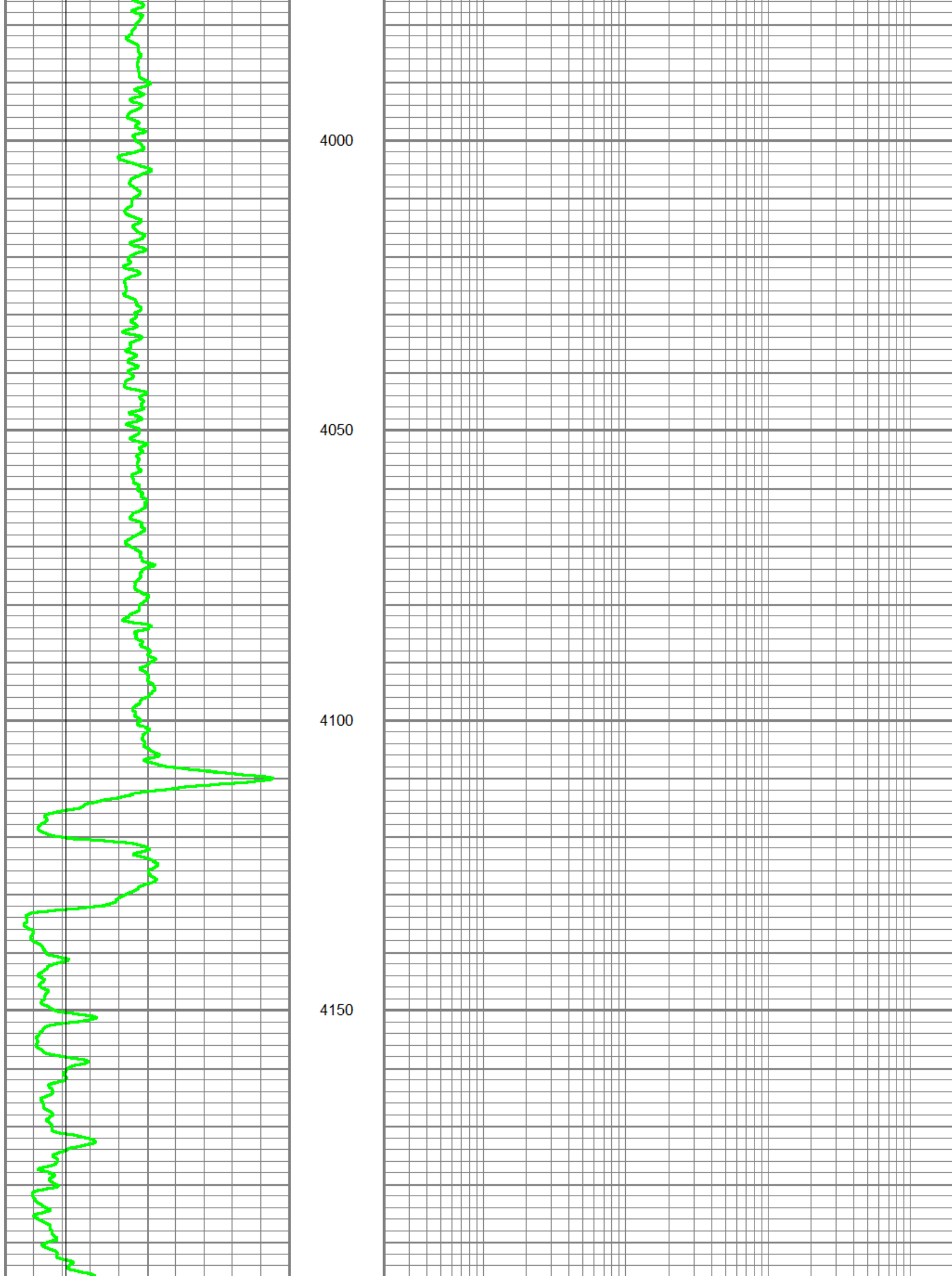


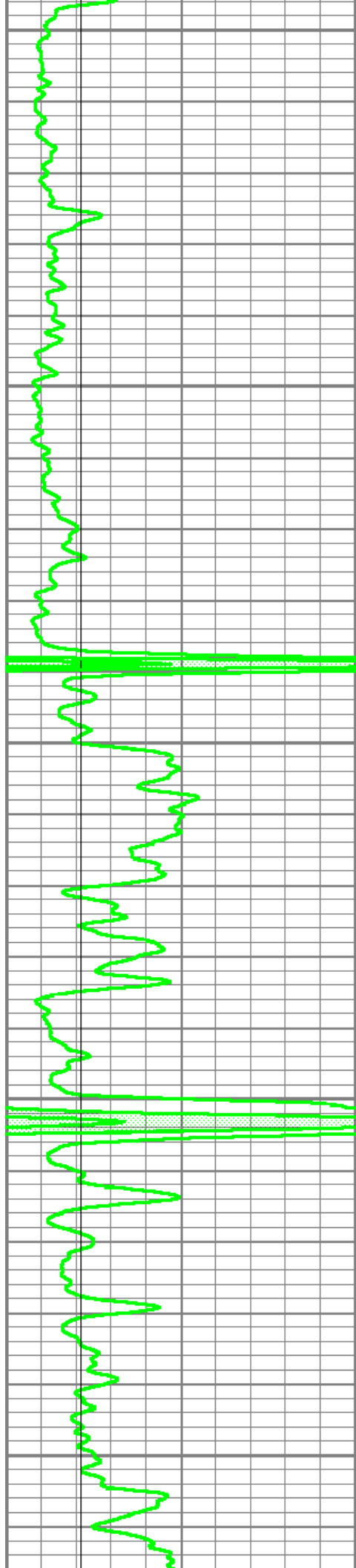
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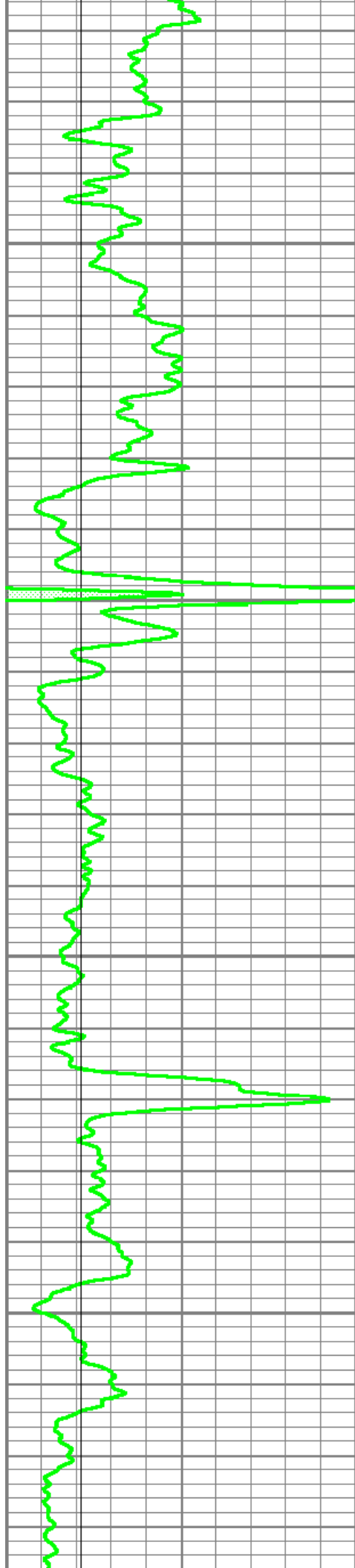
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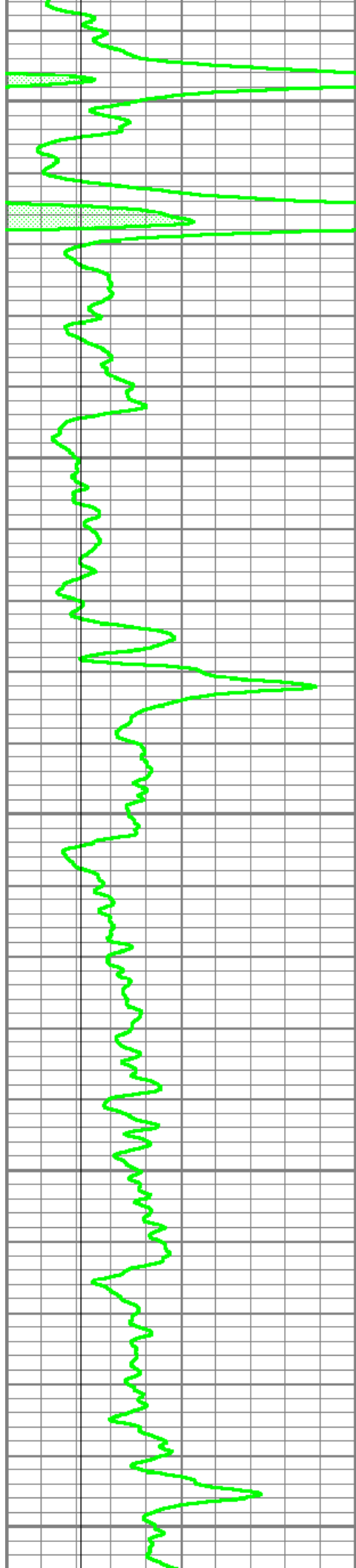
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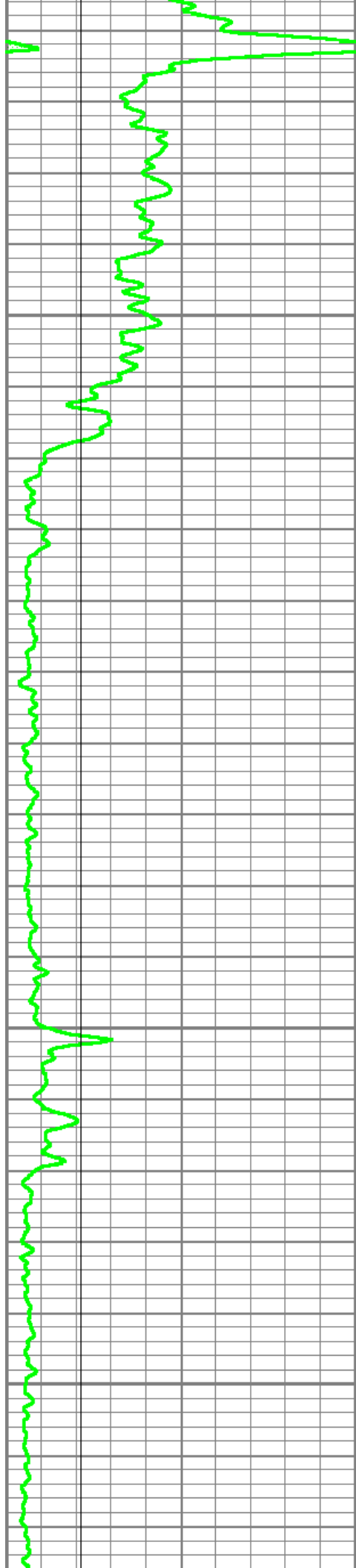
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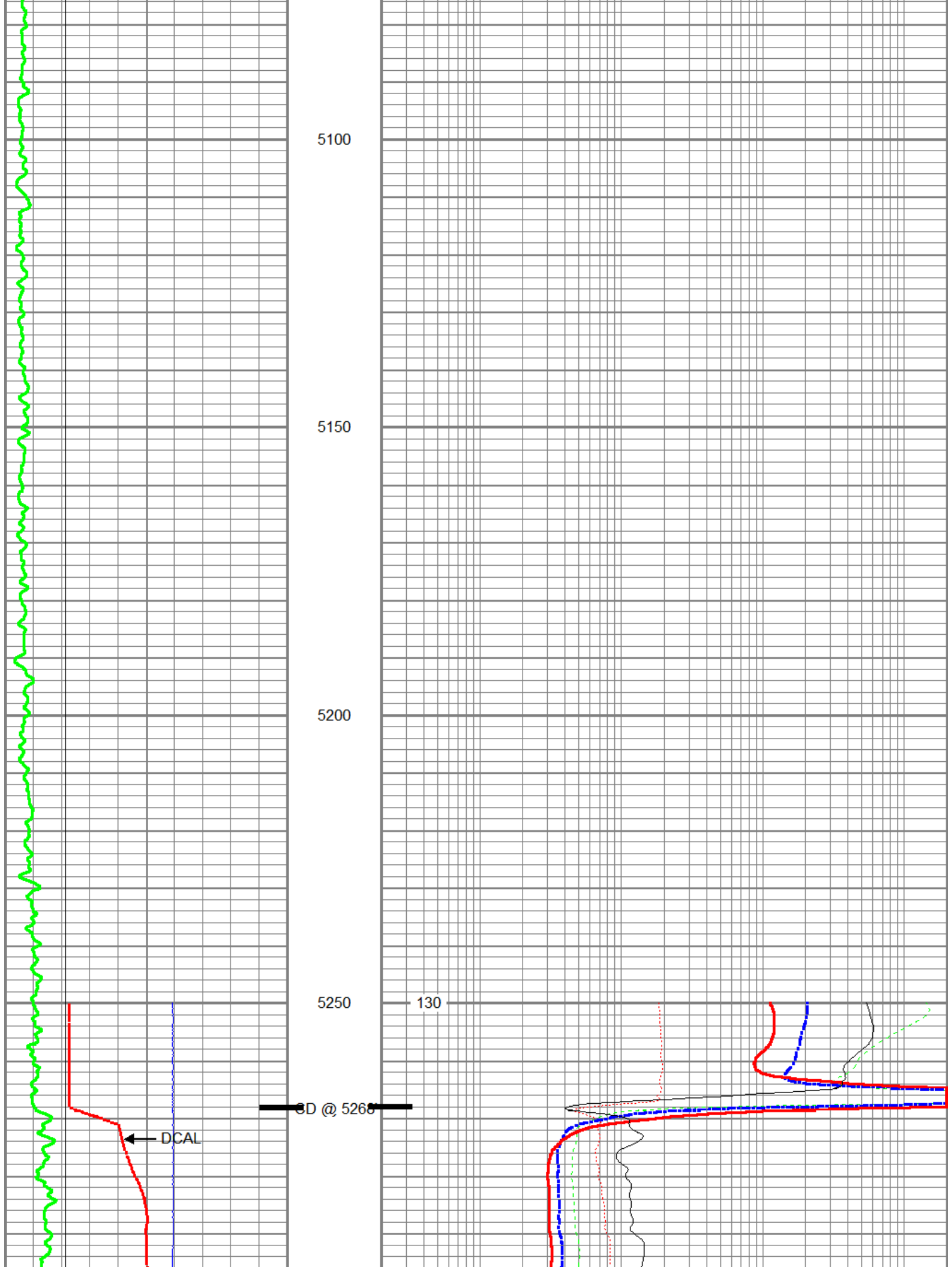


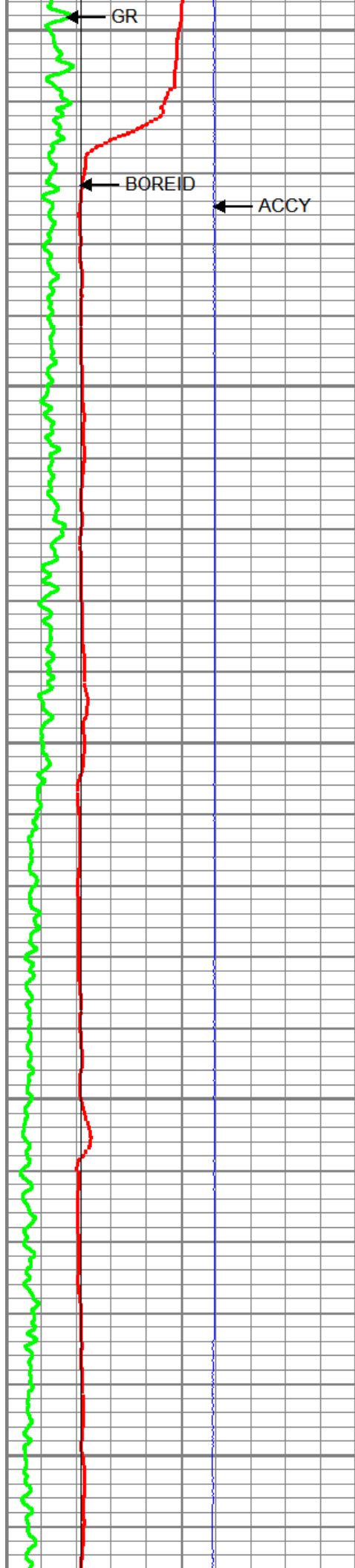
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5500

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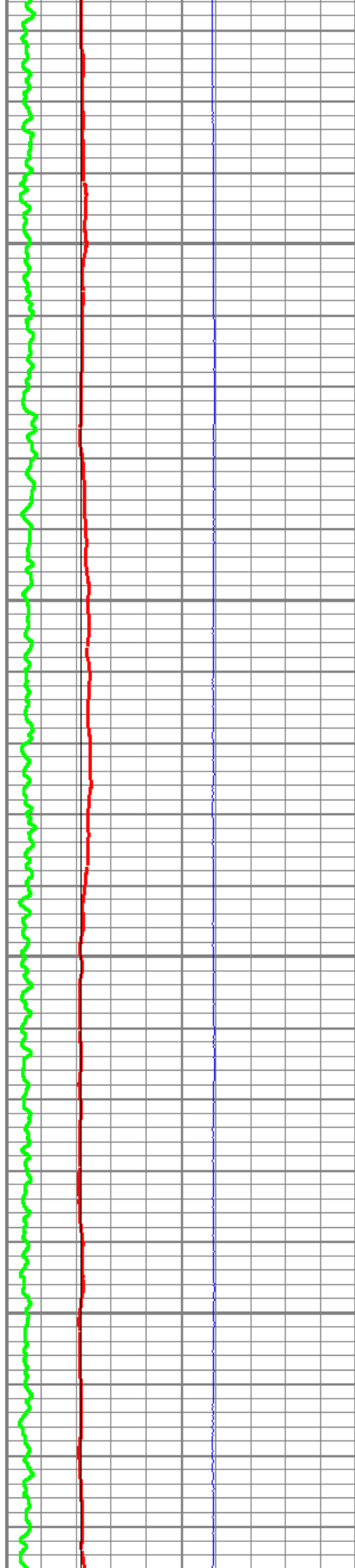
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90inRadial  
60inRadial  
30inRadial  
20inRadial  
10inRadial



5550

5600

5650

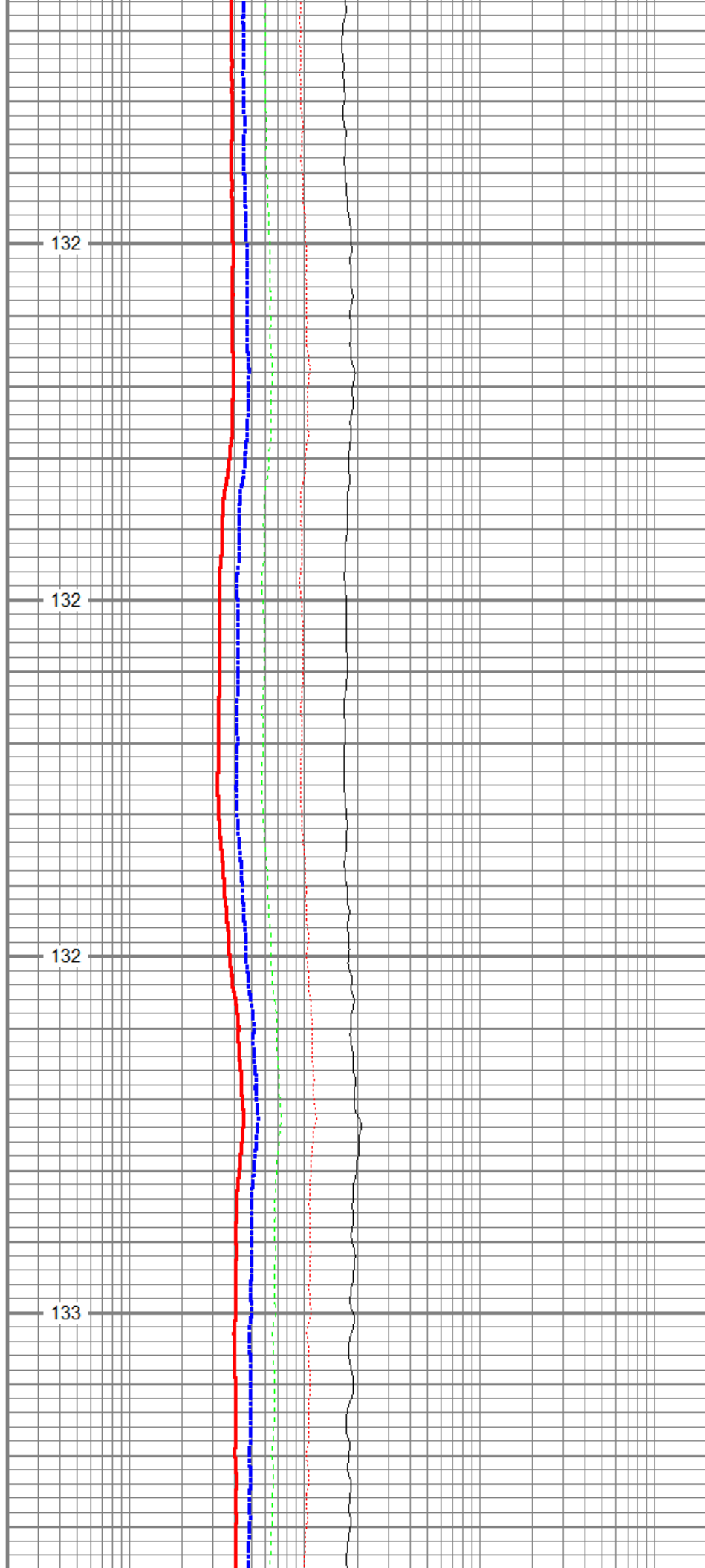
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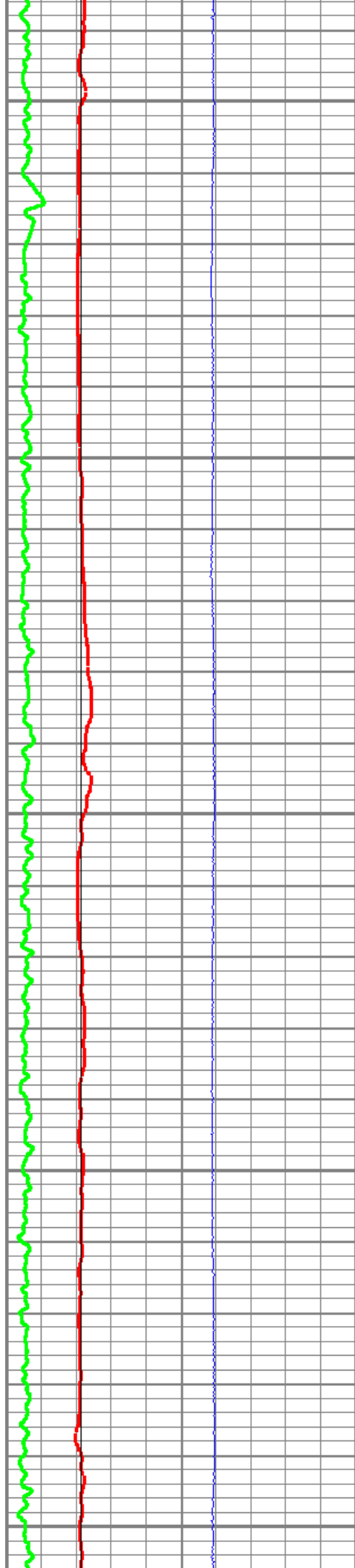
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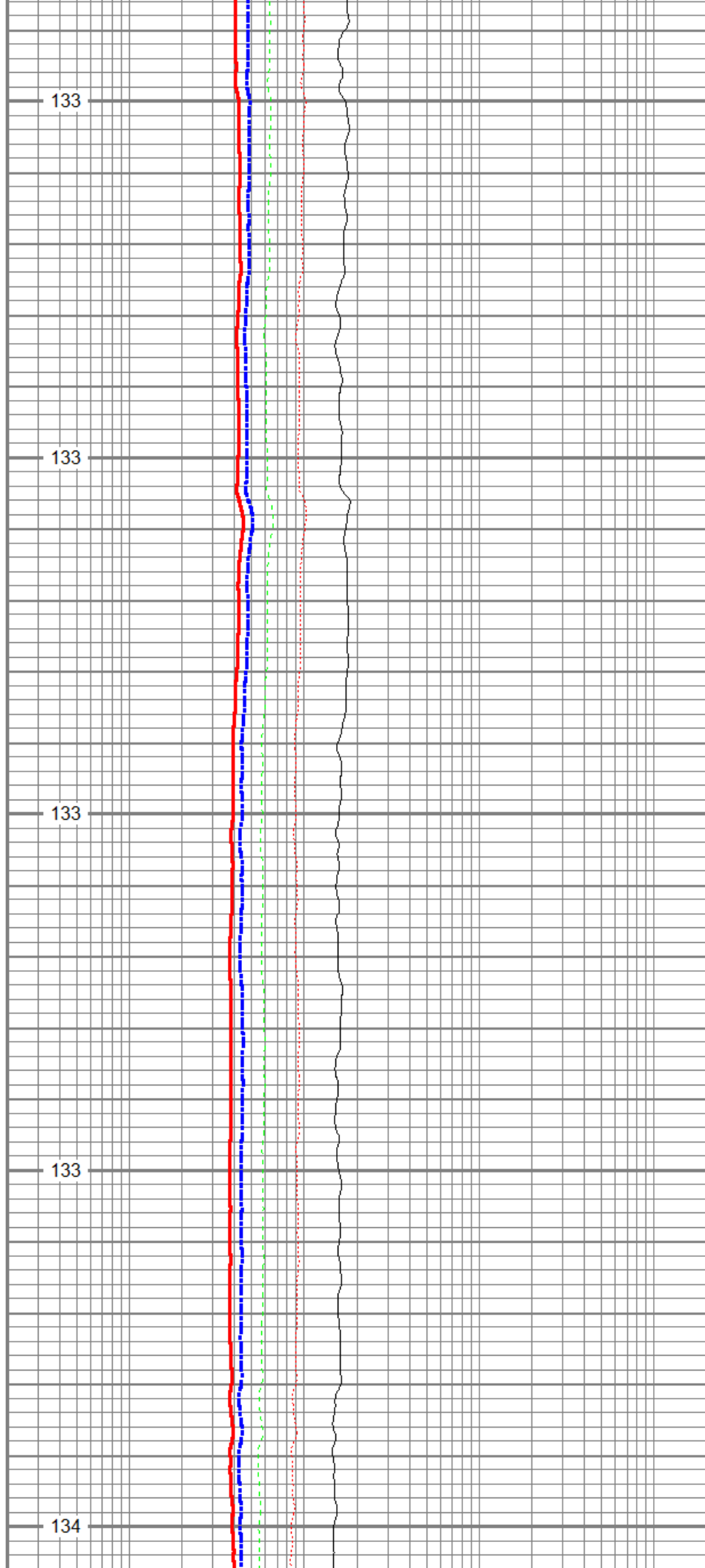
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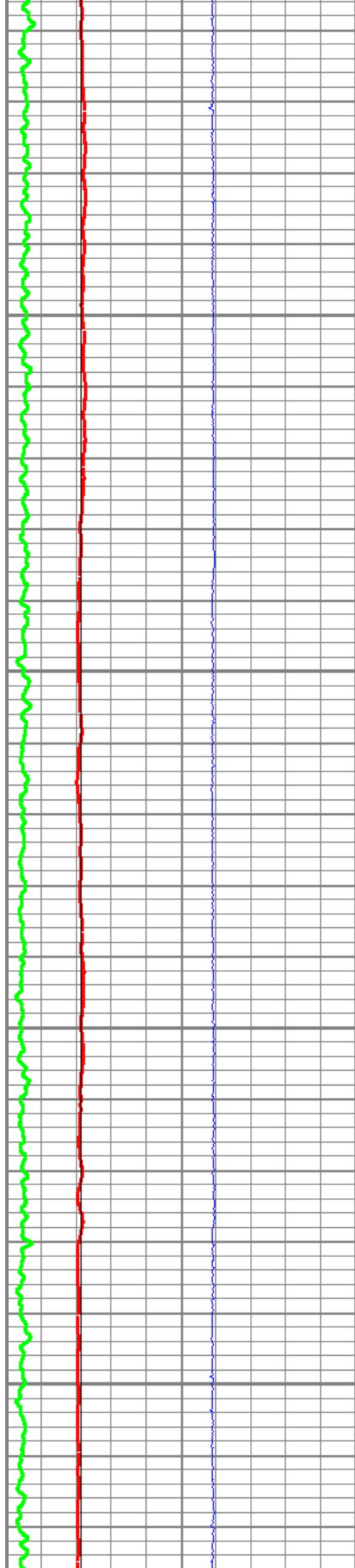
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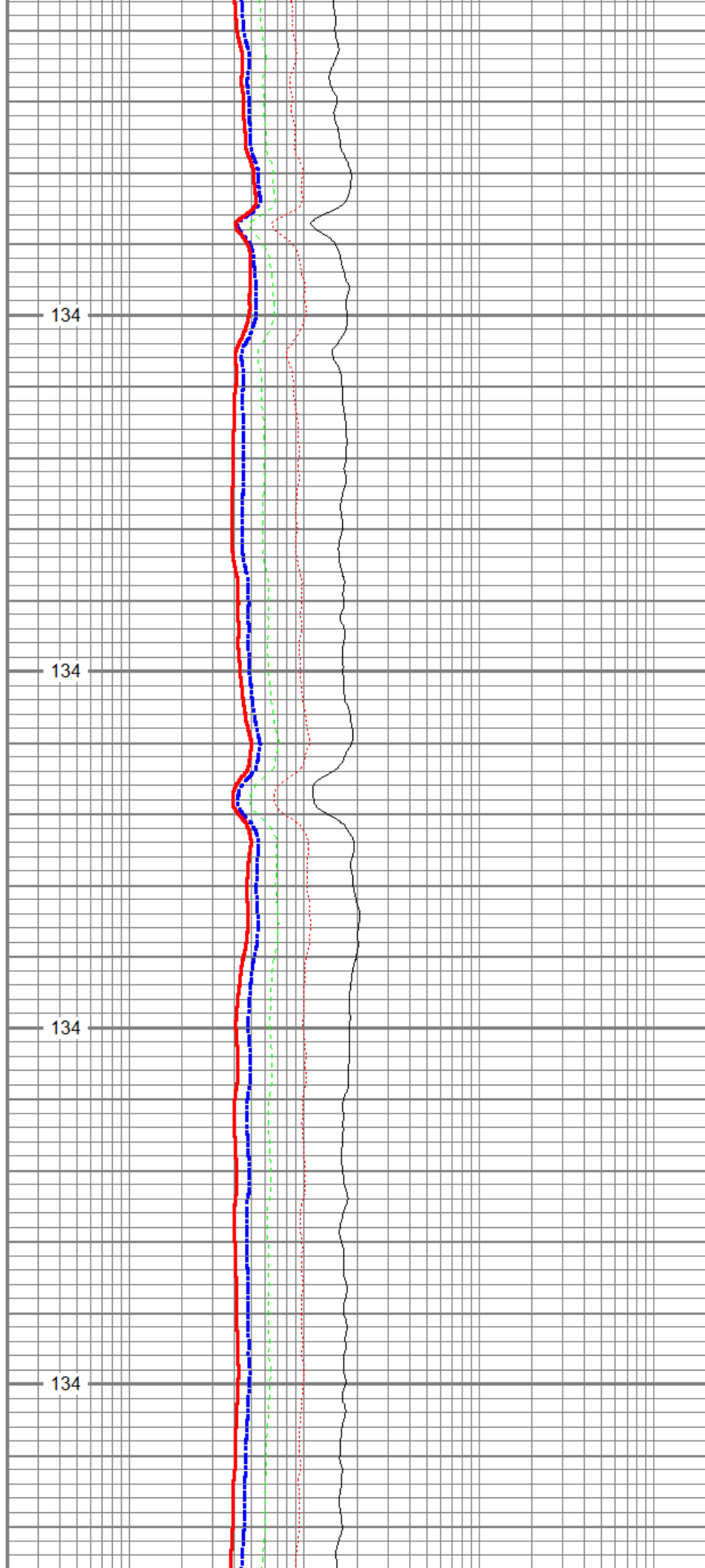
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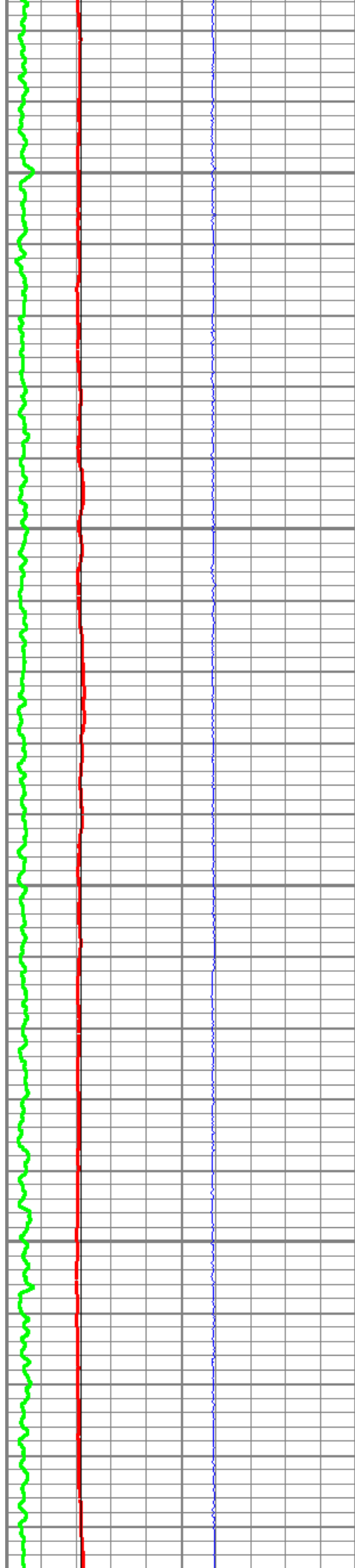
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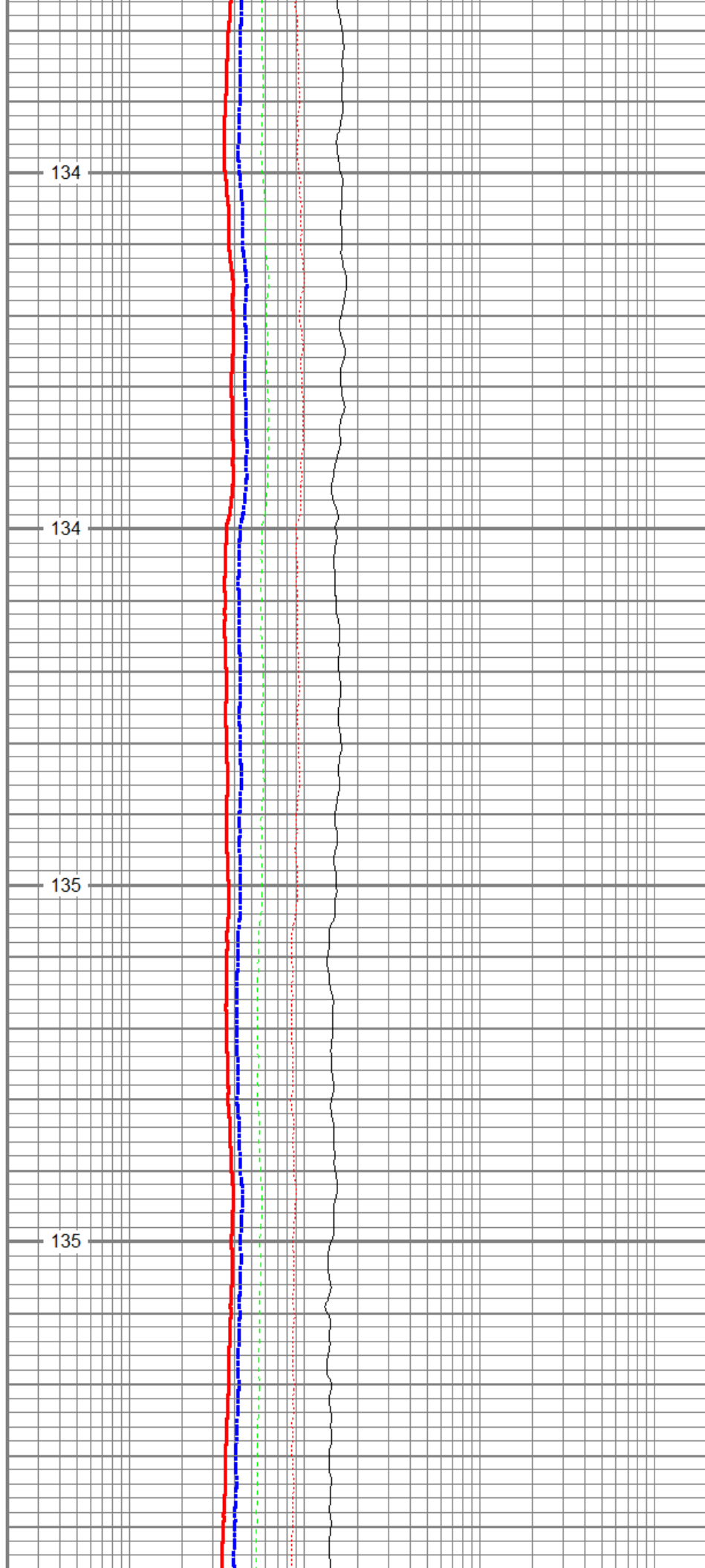
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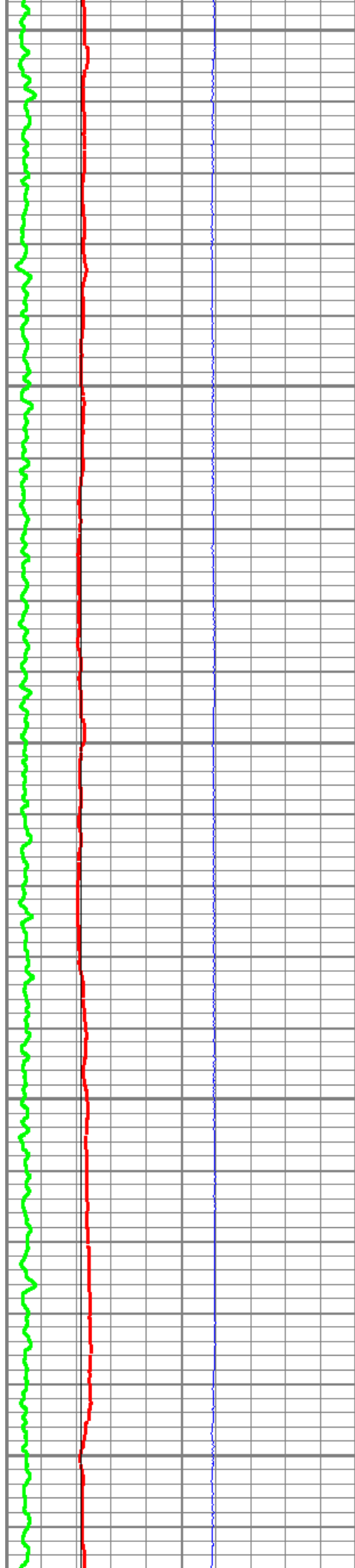
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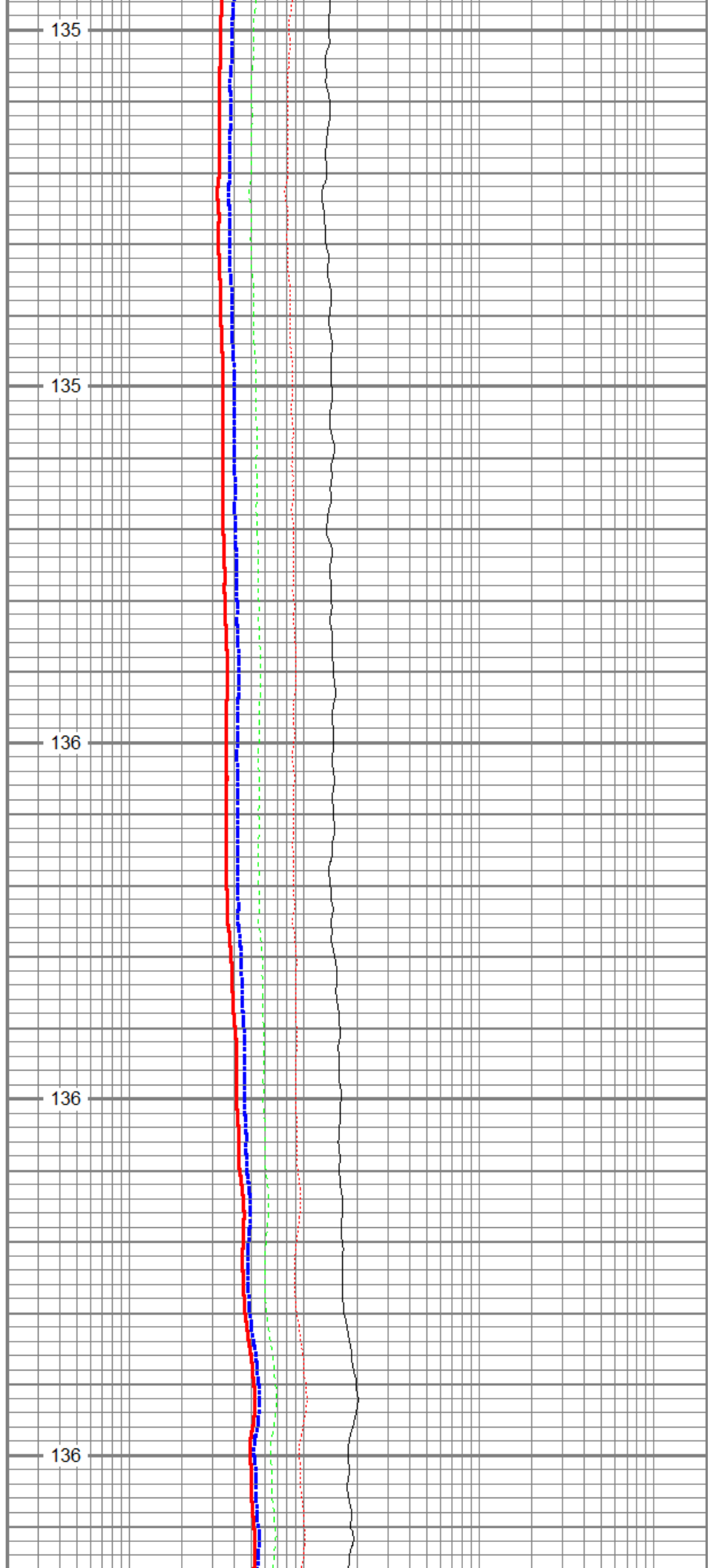
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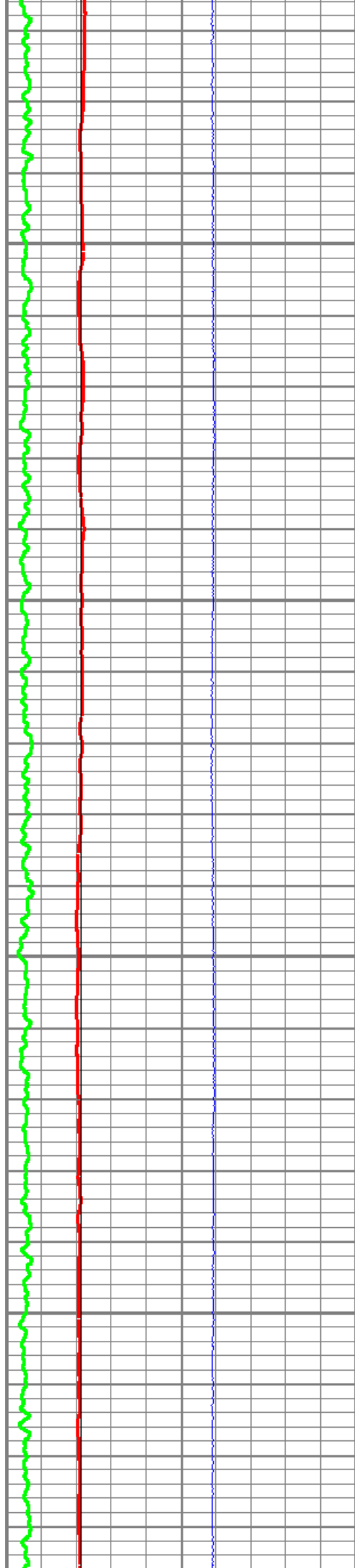
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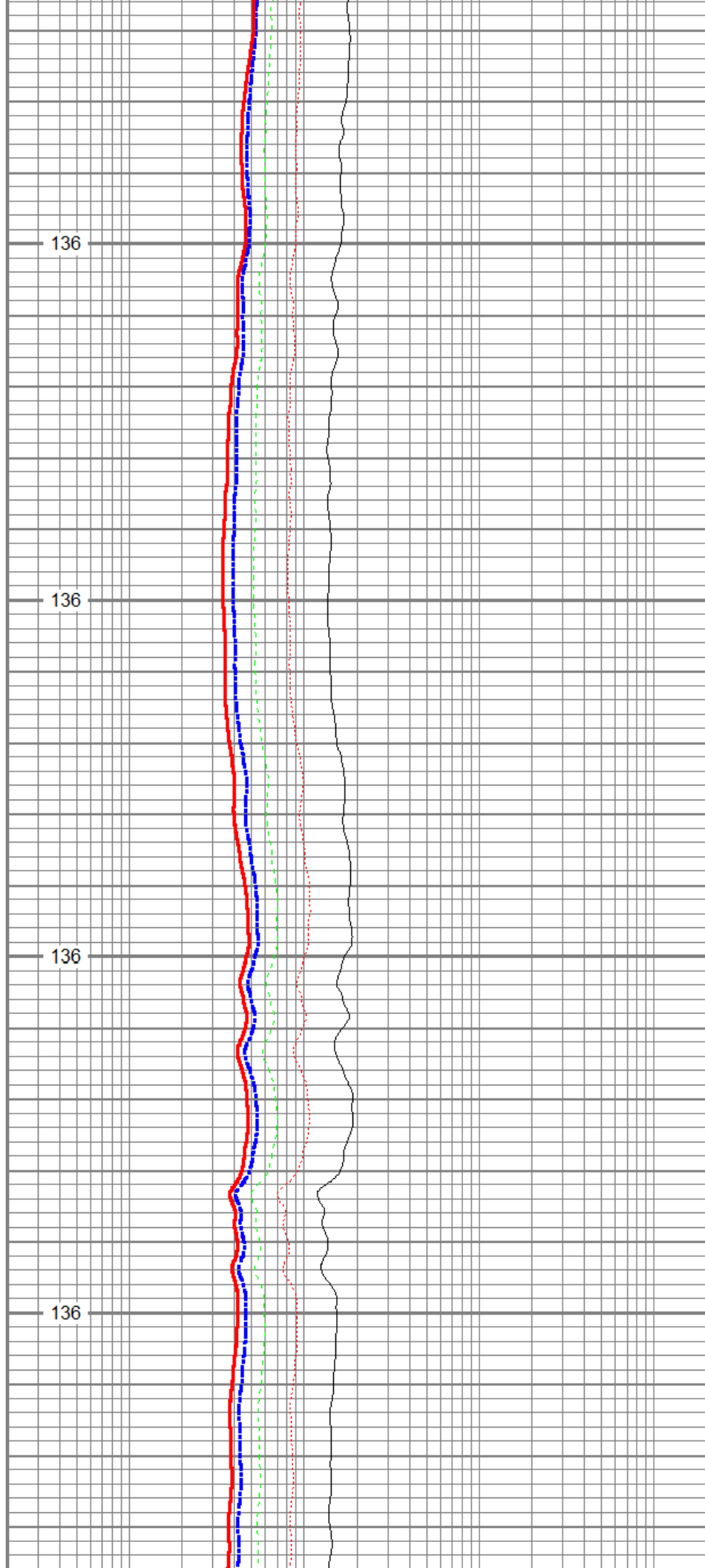
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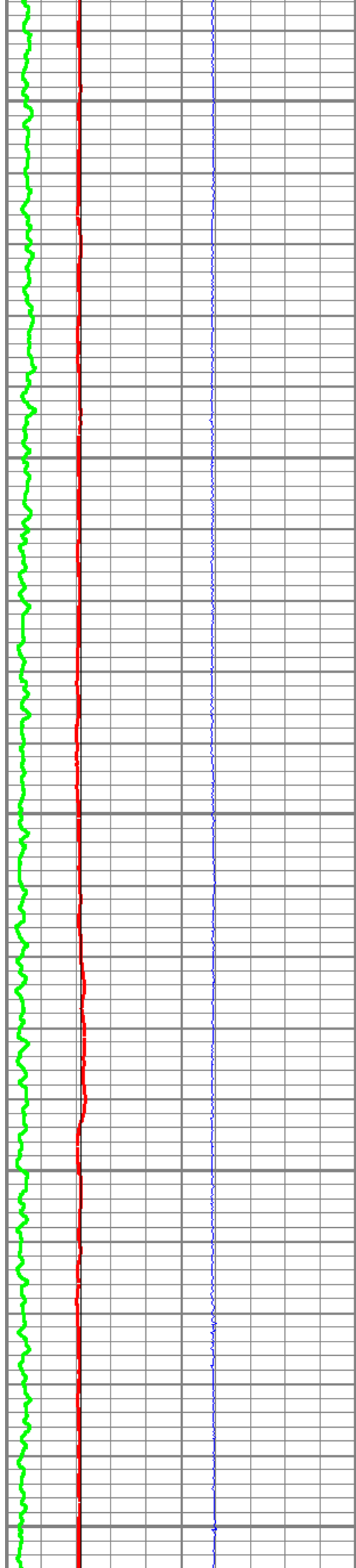
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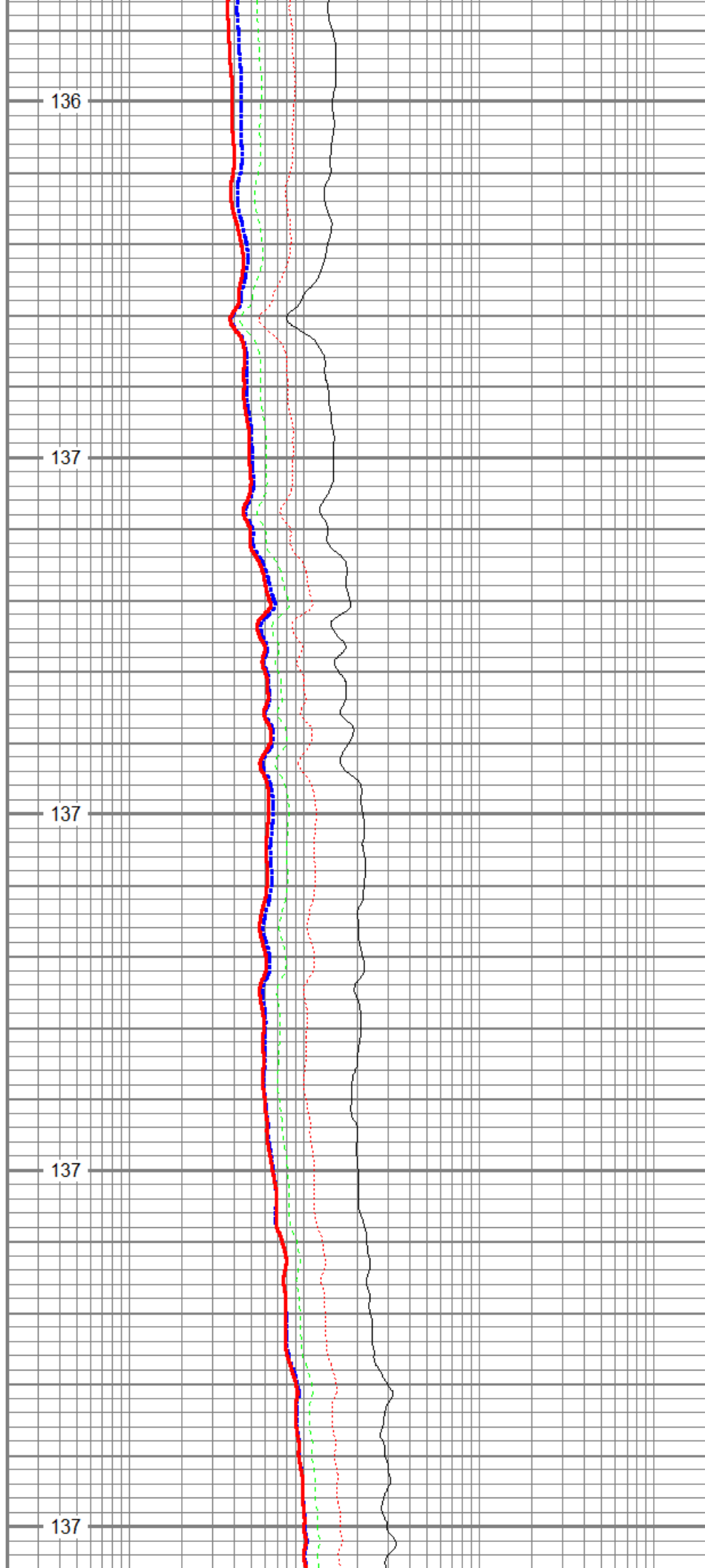
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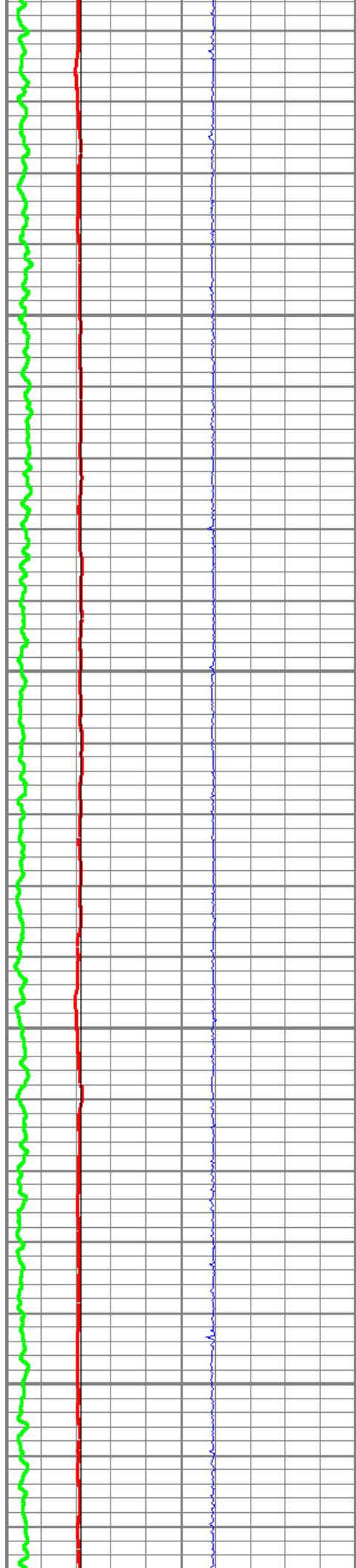
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7100

137

7150

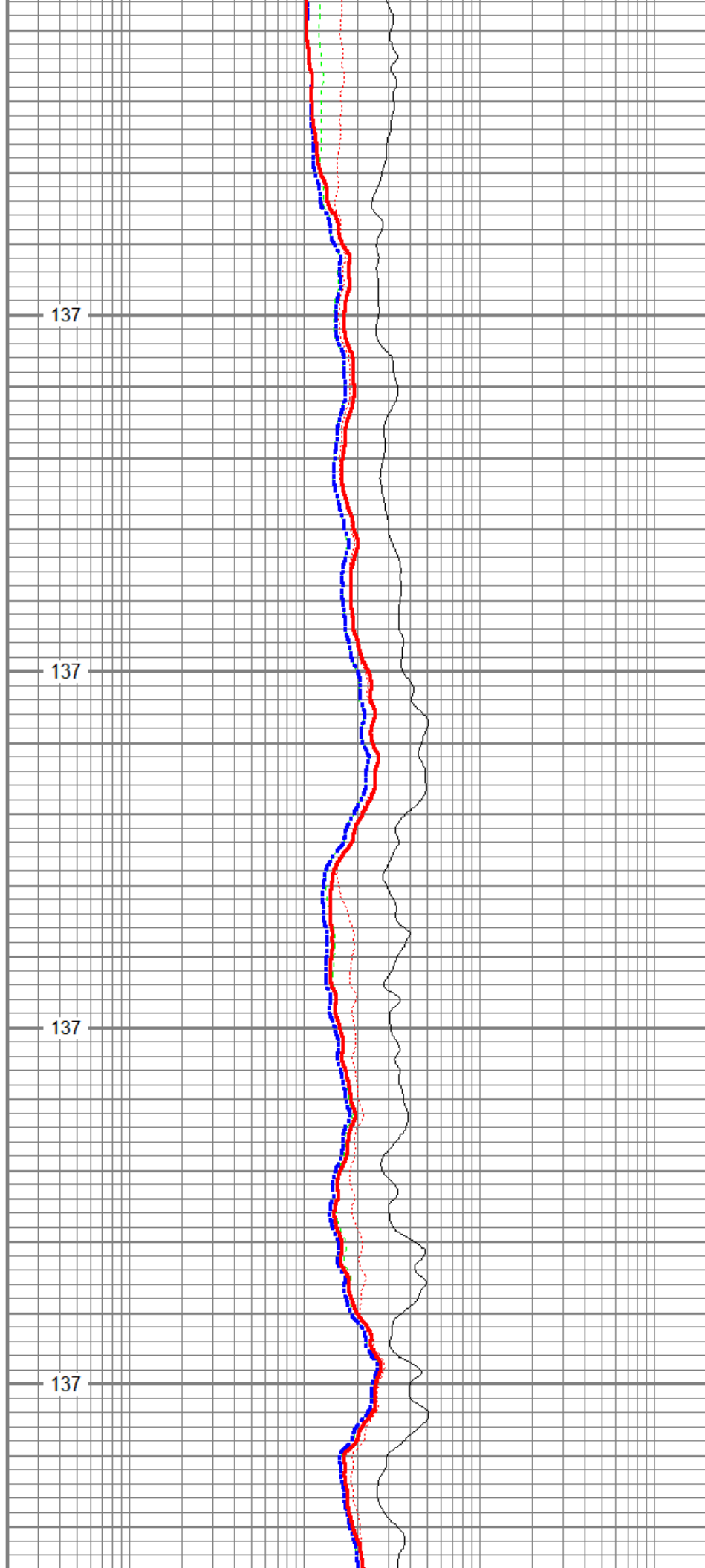
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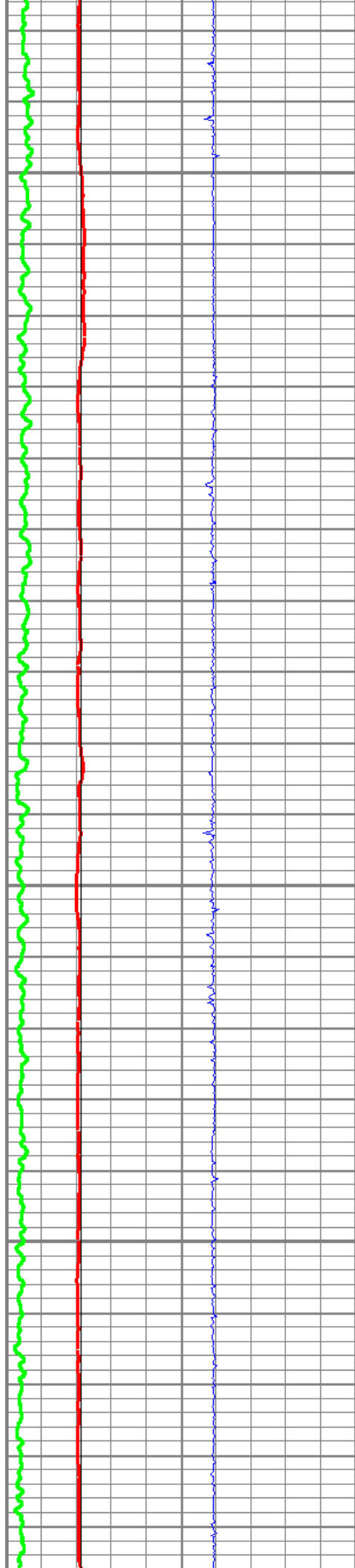
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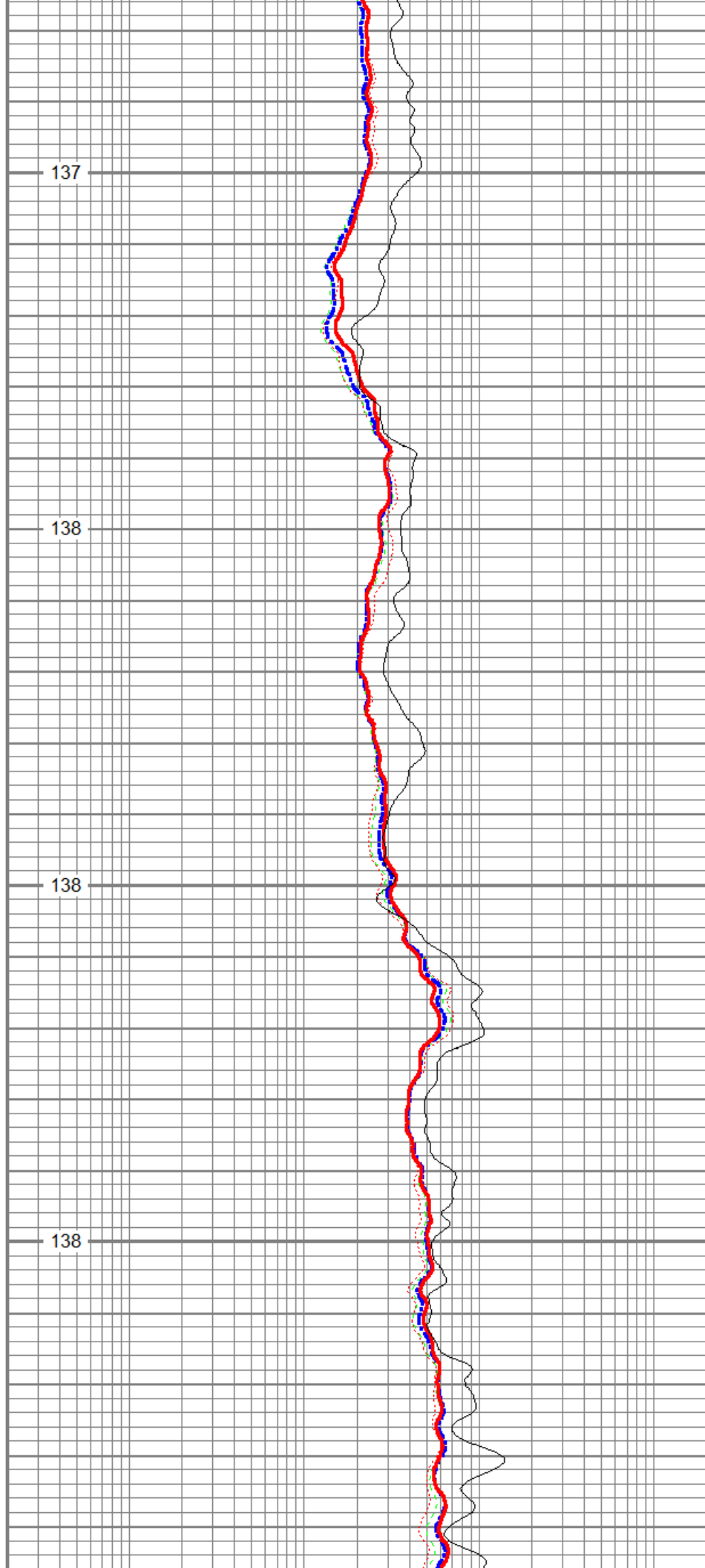
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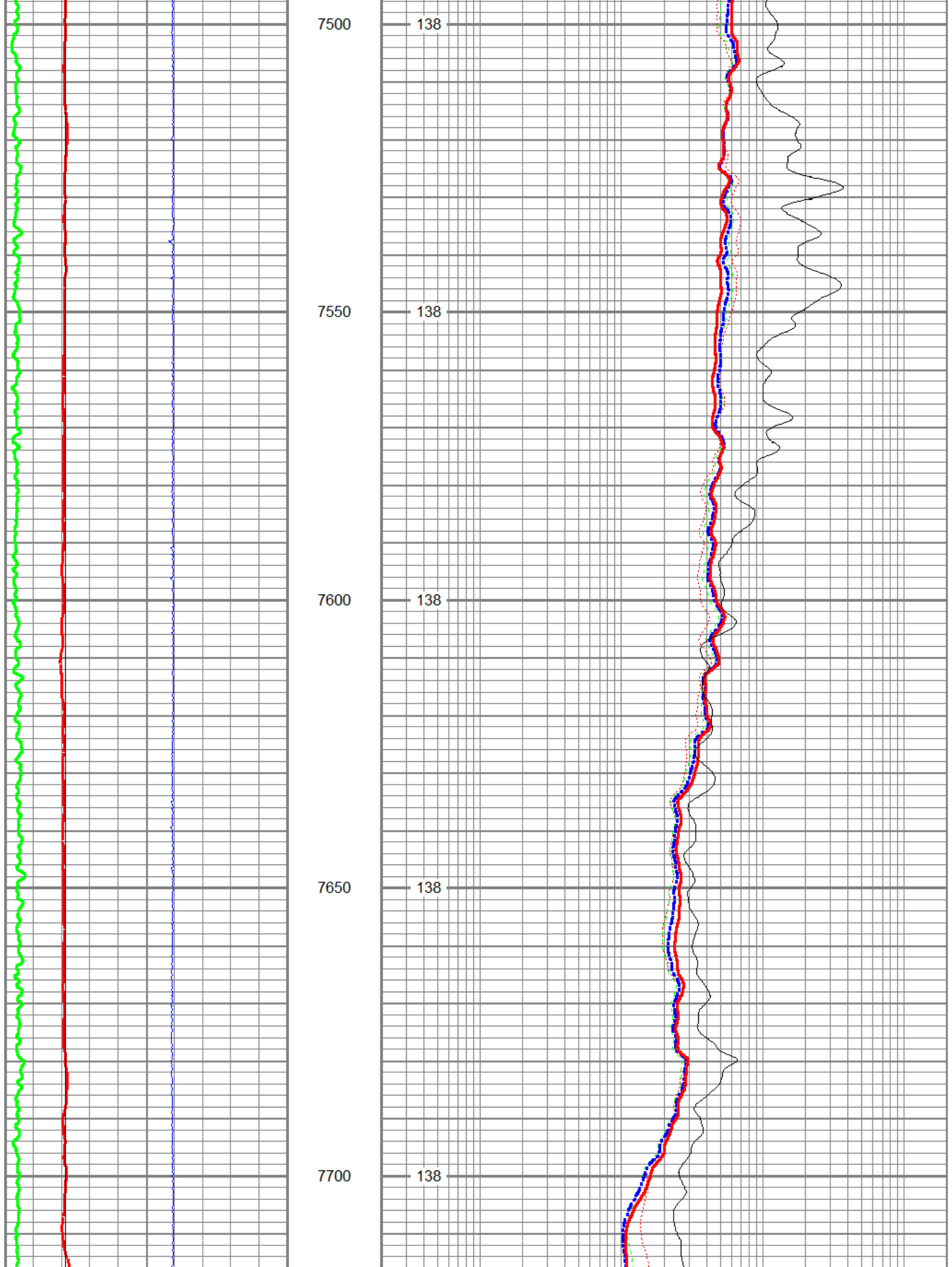
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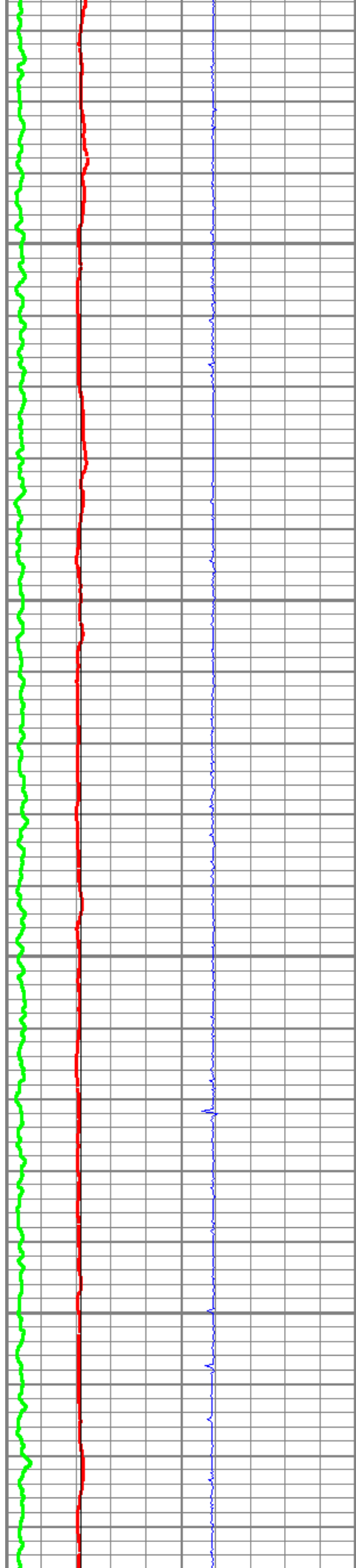
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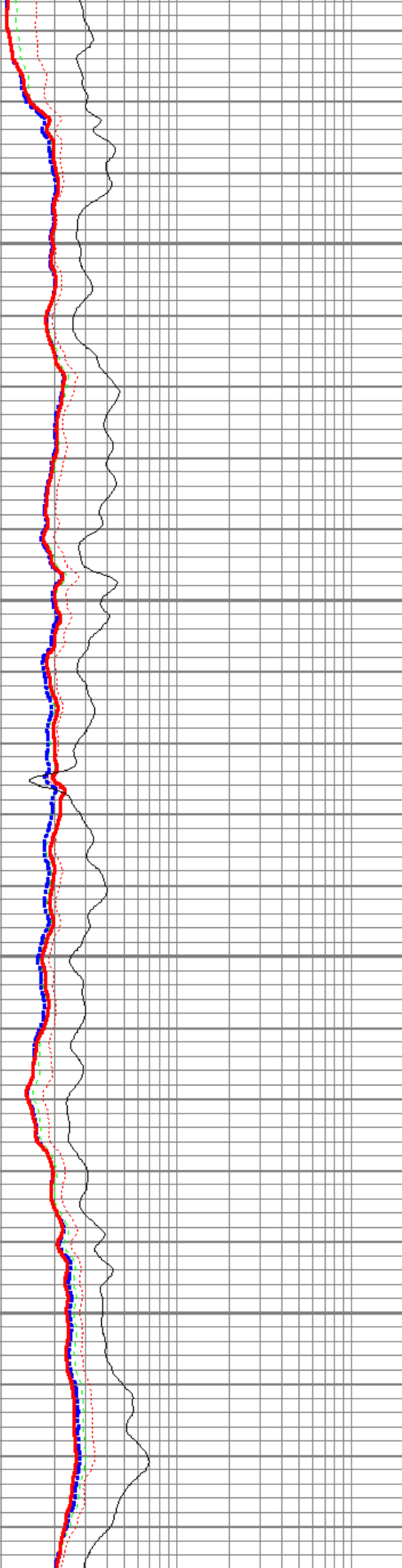
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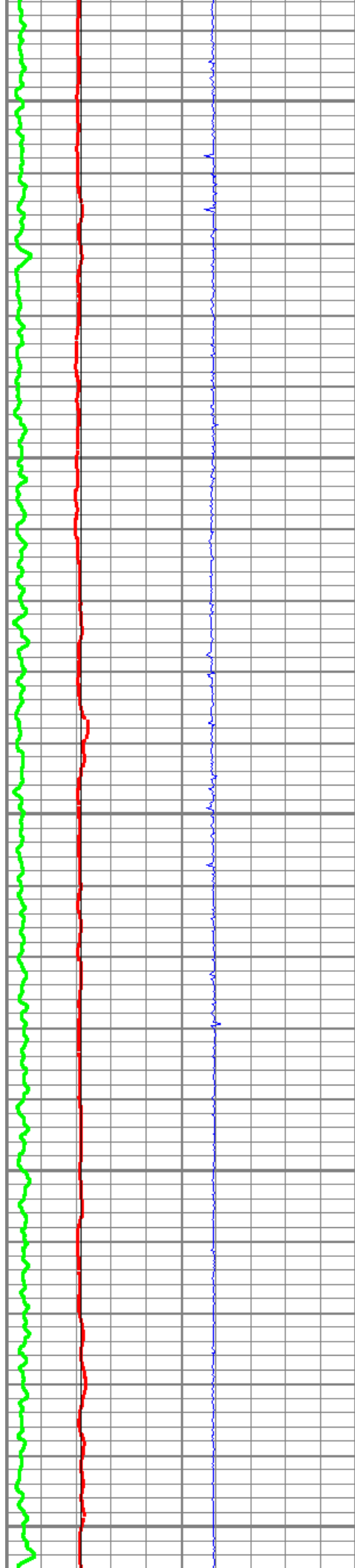
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7950

8000

8050

8100

8150

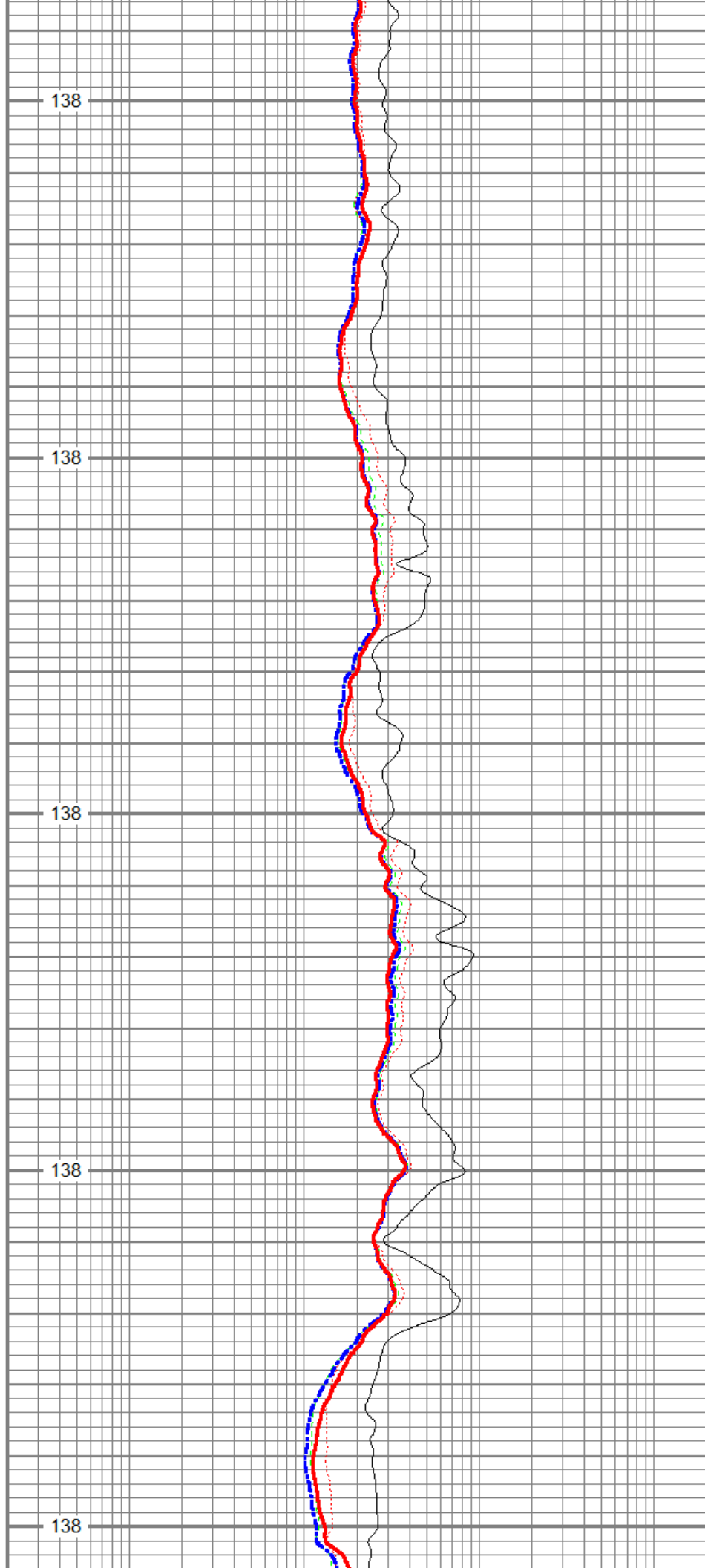
138

138

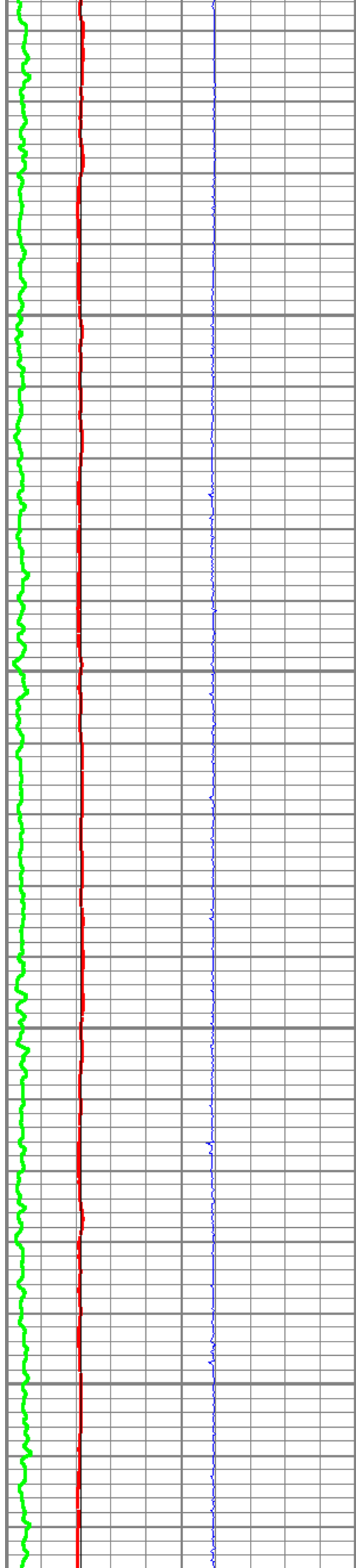
138

138

138







8200

138

8250

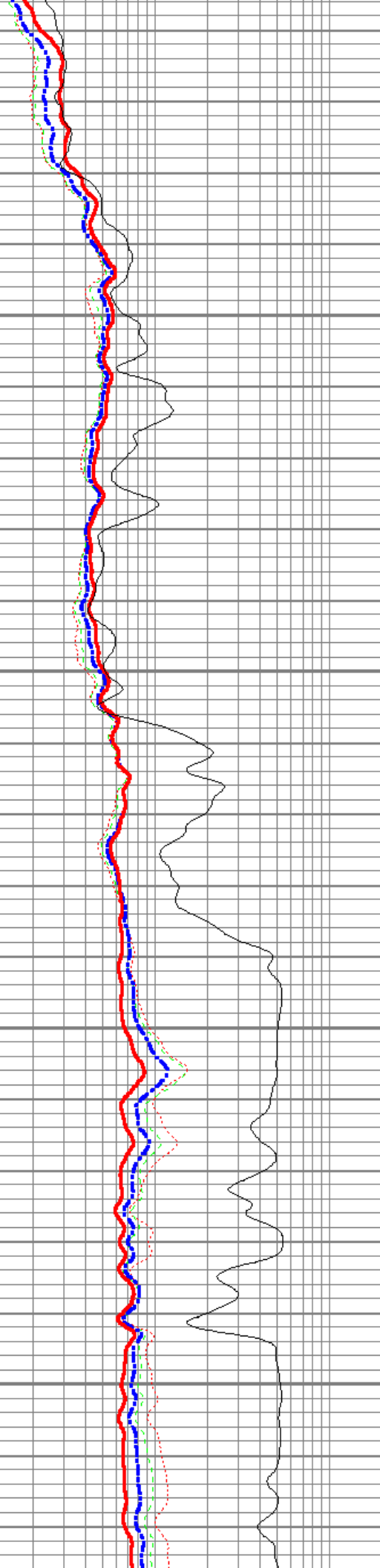
138

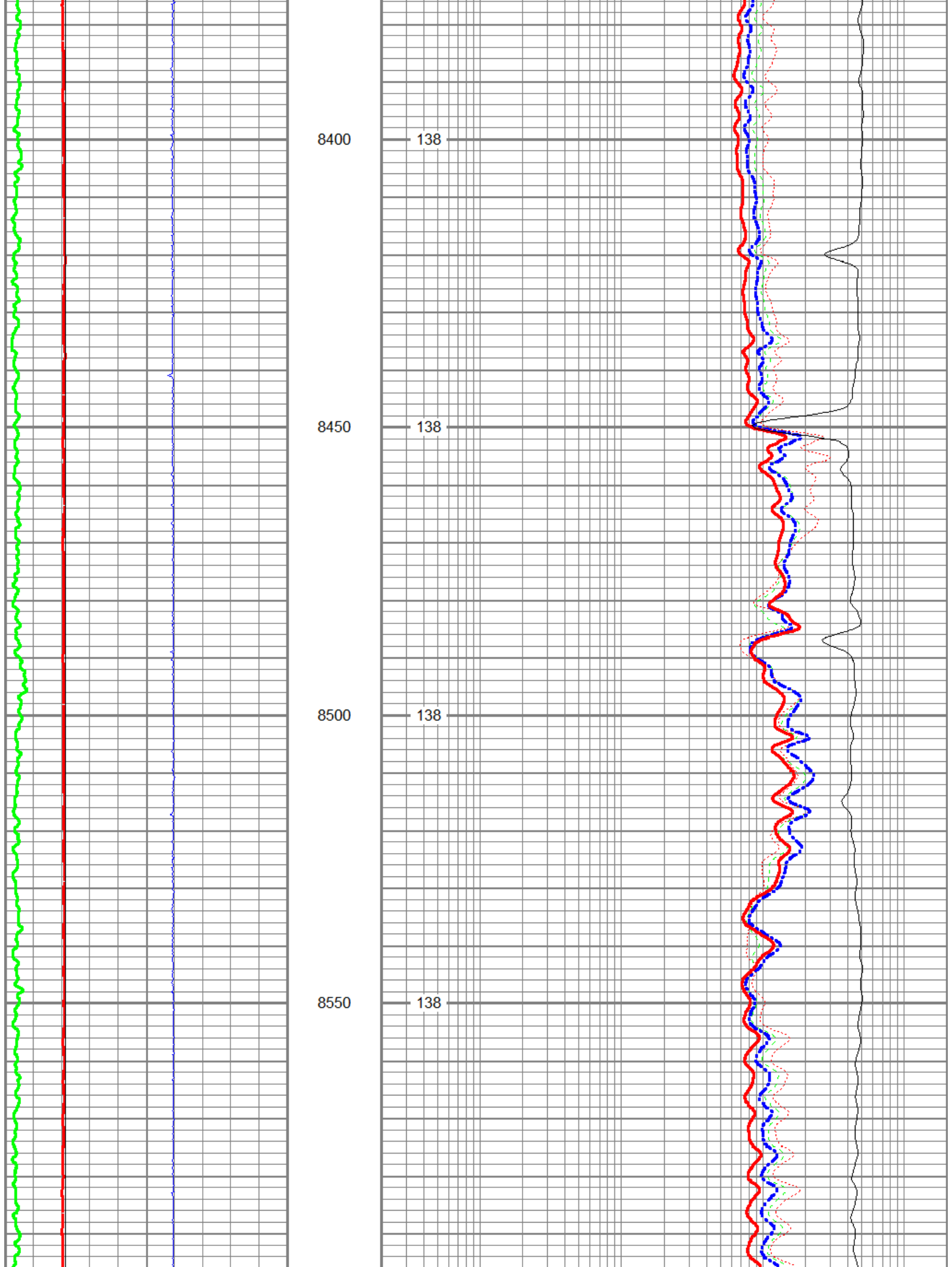
8300

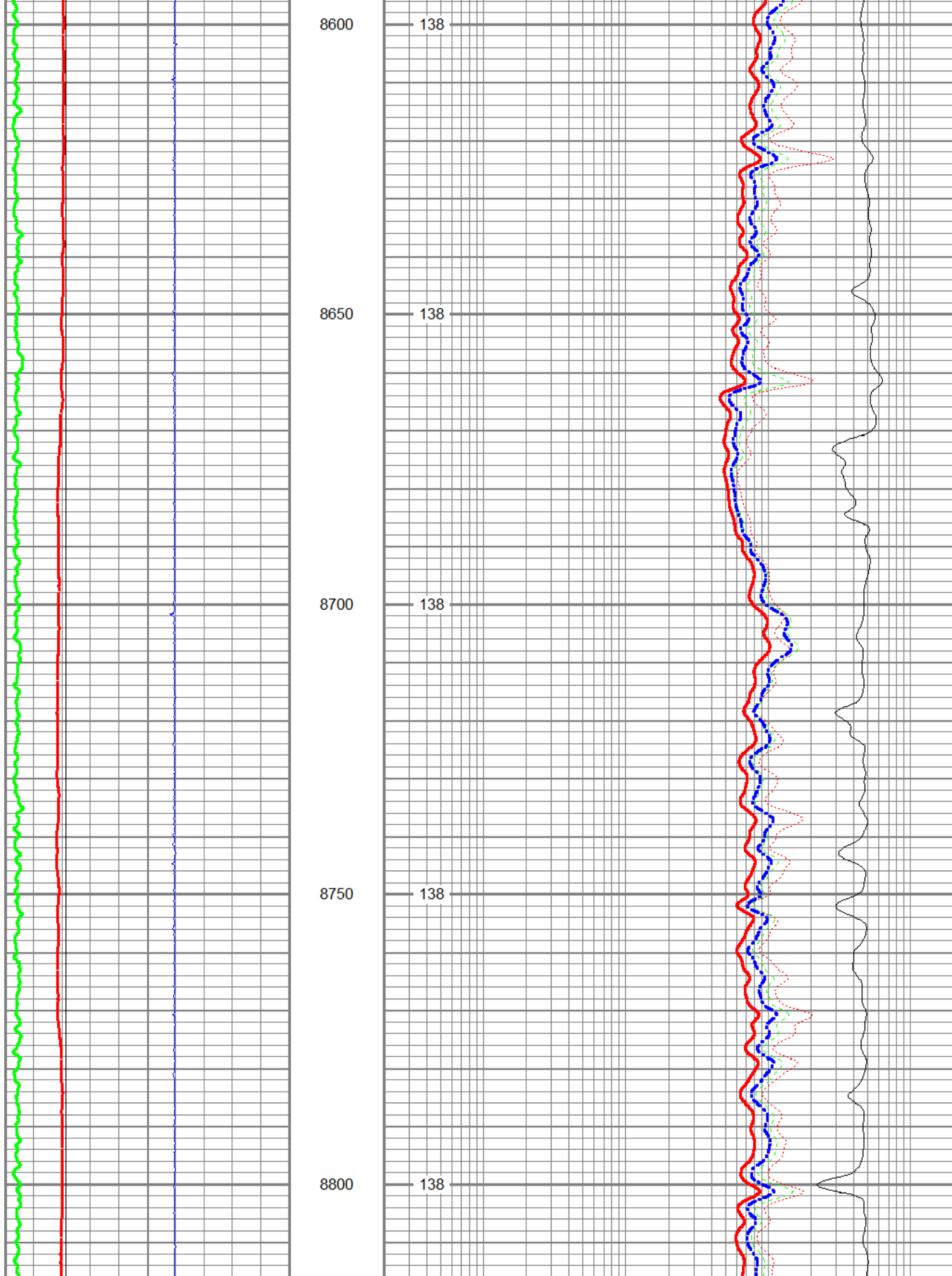
138

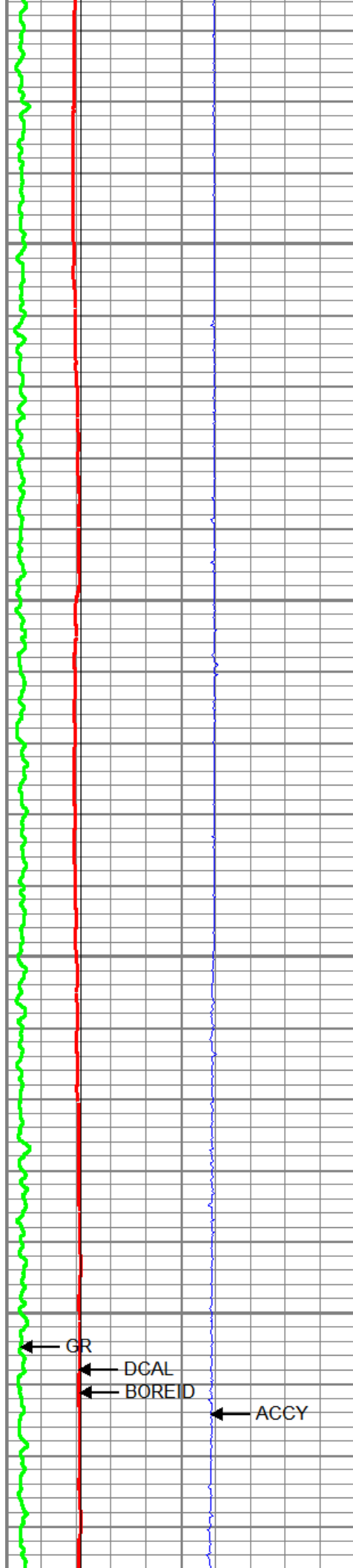
8350

138









8850

8900

8950

9000

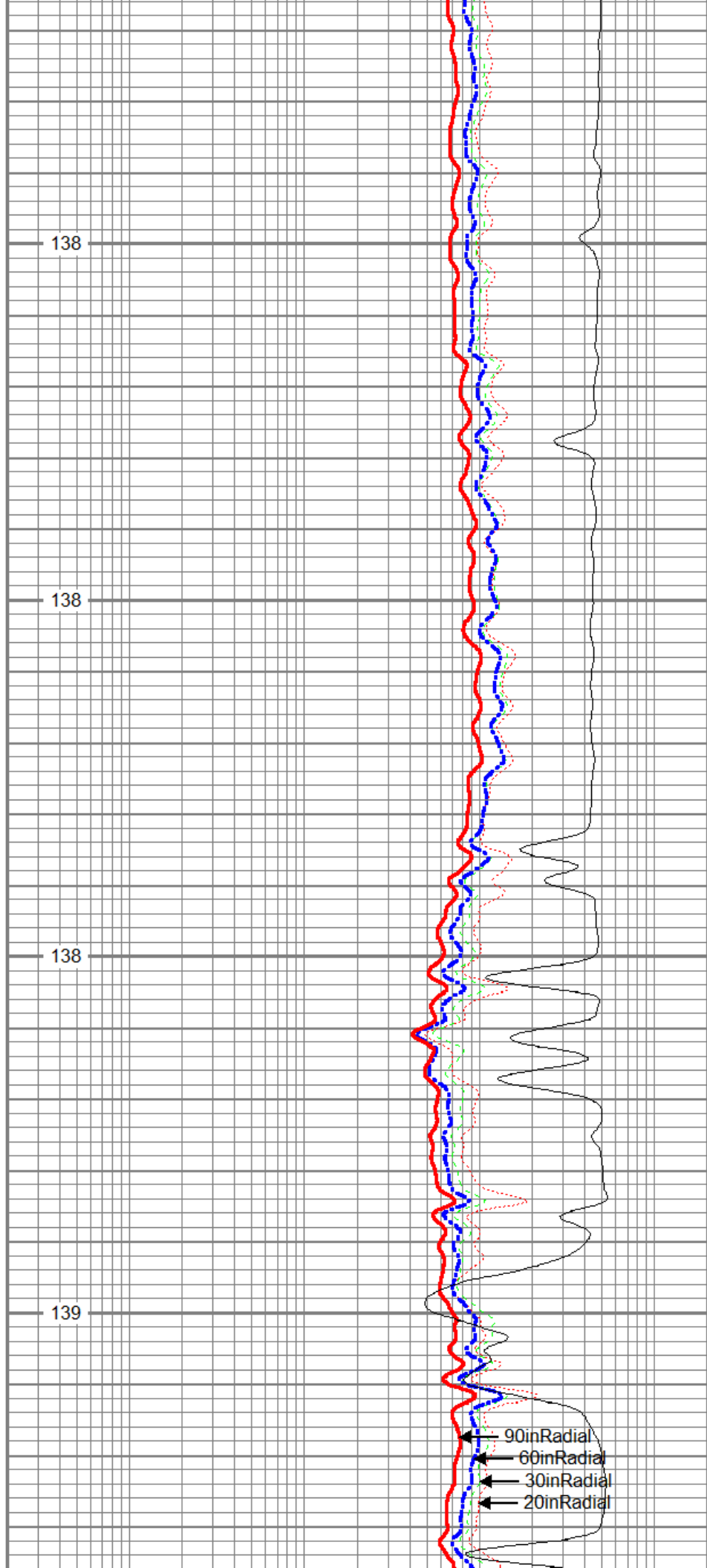
GR  
DCAL  
BOREID  
ACCY

138

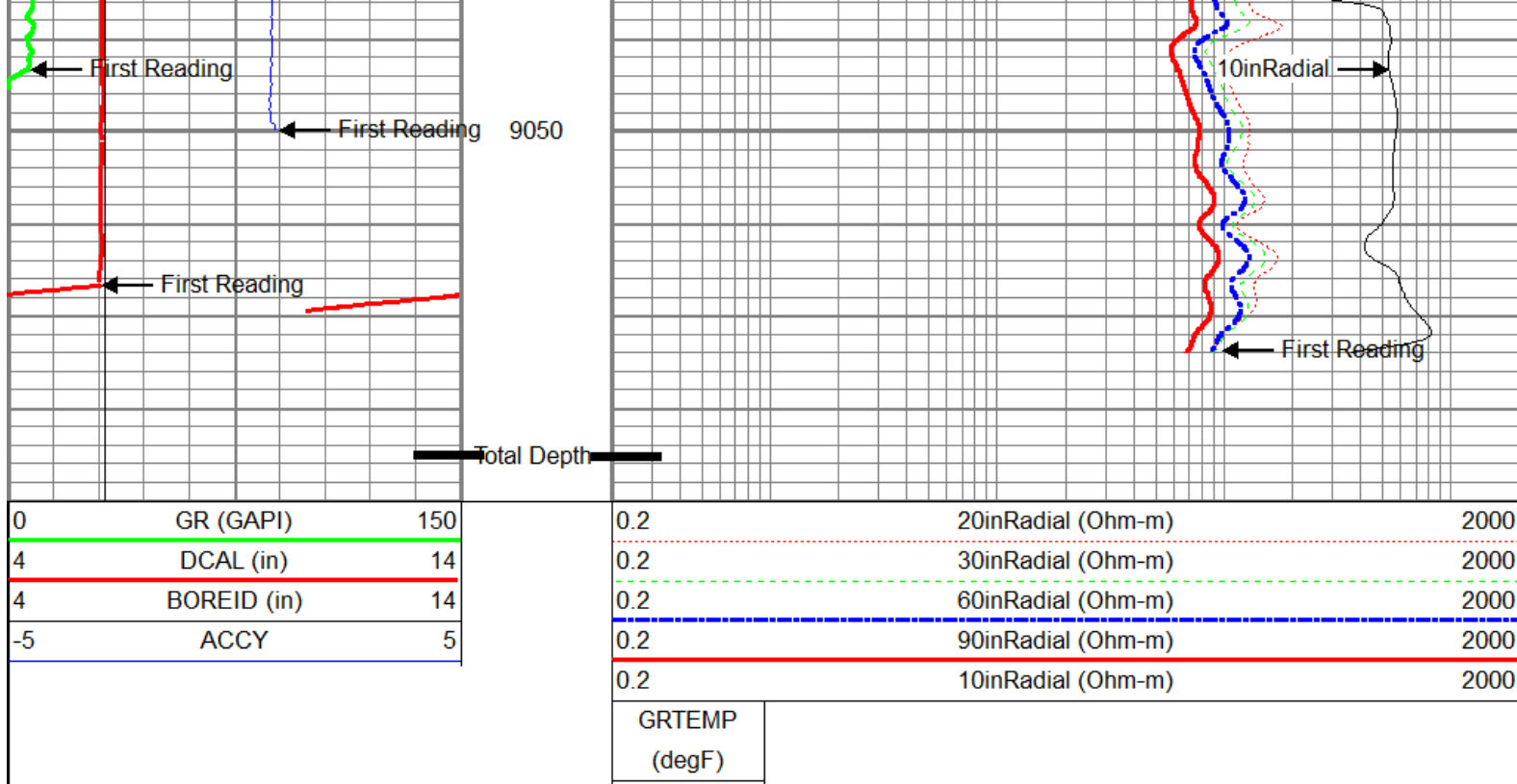
138

138

139



90inRadial  
60inRadial  
30inRadial  
20inRadial



# MAIN PASS

## Log Variables

Database: C:\Warrior\Data\sandridge\_jennifer3408\_3\_34h\_mem.db  
Dataset: field/well/proc1/merge2

### Top - Bottom

|                          |                       |                       |                        |                         |                          |                         |
|--------------------------|-----------------------|-----------------------|------------------------|-------------------------|--------------------------|-------------------------|
| A                        | BHCOR                 | BHFL_TYPE             | BHFLRES<br>Ohm-m       | BHFLRESSRC              | BHIDSRC                  | BOREID<br>in            |
| 1                        | On                    | WBM                   | 1                      | MUDCELL                 | CURVE                    | 6.125                   |
| BOTTEMP<br>degF<br>139.2 | CASED?<br>No          | CASEOD<br>in<br>4.5   | CASETHCK<br>in<br>0    | CEMWATERSA<br>kppm<br>0 | CMNTTHCK<br>in<br>0      | DNBHC?<br>NO            |
| DPOSEL<br>RHOB           | FLUIDDEN<br>g/cc<br>1 | FRMSALIN<br>kppm<br>0 | LATNOR<br>Off          | M<br>2                  | MATRXDEN<br>g/cc<br>2.71 | MUDSALIN<br>kppm<br>0.7 |
| MudWgt<br>lb/gal<br>8.35 | NPOSEL<br>Limestone   | PEBHC?<br>YES         | PERFS<br>0             | RESTMPSRC<br>INTERNAL   | SO<br>in<br>0.5          | SRFTEMP<br>degF<br>68   |
| SZCOR<br>On              | TDEPTH<br>ft<br>9085  | TMPCOR<br>On          | TOOLPOS<br>Ec-centered |                         |                          |                         |

### Calibration Report

Database File: sandridge\_jennifer3408\_3\_34h\_mem.db  
Dataset Pathname: proc1/merge2  
Dataset Creation: Sun Dec 16 23:49:58 2012

Tool Model-Serial Number:

PS-PS26R

Shop Calibration Performed:

Sat Oct 20 10:32:35 2012

## BASELINE

|        | R         | Expected           | X         | Expected          |
|--------|-----------|--------------------|-----------|-------------------|
| Freq 1 |           |                    |           |                   |
| A1     | -455.2300 | [-500.00, -400.00] | 16.9302   | [-500.00, 500.00] |
| A2     | -141.2090 | [-180.00, -100.00] | 256.1410  | [-500.00, 500.00] |
| A3     | -27.0516  | [-50.00, -10.00]   | 190.9480  | [-500.00, 500.00] |
| A4     | -16.2520  | [-30.00, -10.00]   | 277.0580  | [-500.00, 500.00] |
| A5     | -14.0912  | [-30.00, -10.00]   | 123.7860  | [-500.00, 500.00] |
| Freq 2 |           |                    |           |                   |
| A1     | -233.1060 | [-280.00, -180.00] | -27.5735  | [-500.00, 500.00] |
| A2     | -92.3268  | [-130.00, -50.00]  | 136.6490  | [-500.00, 500.00] |
| A3     | -21.2252  | [-50.00, -10.00]   | 74.2362   | [-500.00, 500.00] |
| A4     | -19.6877  | [-30.00, -10.00]   | 96.1708   | [-500.00, 500.00] |
| A5     | -19.3154  | [-30.00, -10.00]   | -12.5810  | [-500.00, 500.00] |
| Freq 3 |           |                    |           |                   |
| A1     | -145.8530 | [-180.00, -80.00]  | -100.1720 | [-500.00, 500.00] |
| A2     | -70.9469  | [-130.00, -30.00]  | 57.6288   | [-500.00, 500.00] |
| A3     | -17.3844  | [-50.00, -10.00]   | -1.1321   | [-500.00, 500.00] |
| A4     | -21.1404  | [-30.00, -10.00]   | -21.5033  | [-500.00, 500.00] |
| A5     | -21.7564  | [-30.00, -10.00]   | -111.7210 | [-500.00, 500.00] |
| Freq 4 |           |                    |           |                   |
| A1     | -79.2369  | [-120.00, -40.00]  | -232.2400 | [-500.00, 500.00] |
| A2     | -52.7903  | [-110.00, -10.00]  | -50.7404  | [-500.00, 500.00] |
| A3     | -14.2617  | [-50.00, -10.00]   | -106.8500 | [-500.00, 500.00] |
| A4     | -24.7855  | [-30.00, -10.00]   | -191.9090 | [-500.00, 500.00] |
| A5     | -28.0145  | [-30.00, -10.00]   | -276.8720 | [-500.00, 500.00] |

## CALIBRATION COEFFICIENTS

|        | R      | Expected     | X       | Expected      |
|--------|--------|--------------|---------|---------------|
| Freq 1 |        |              |         |               |
| A1     | 1.0025 | [0.95, 1.05] | -0.0011 | [-0.05, 0.05] |
| A2     | 1.0070 | [0.95, 1.05] | -0.0003 | [-0.05, 0.05] |
| A3     | 1.0102 | [0.95, 1.05] | -0.0085 | [-0.05, 0.05] |
| A4     | 1.0005 | [0.95, 1.05] | 0.0012  | [-0.05, 0.05] |
| A5     | 1.0059 | [0.95, 1.05] | -0.0005 | [-0.05, 0.05] |
| Freq 2 |        |              |         |               |
| A1     | 0.9947 | [0.95, 1.05] | -0.0115 | [-0.05, 0.05] |
| A2     | 0.9990 | [0.95, 1.05] | -0.0109 | [-0.05, 0.05] |
| A3     | 0.9964 | [0.95, 1.05] | -0.0116 | [-0.05, 0.05] |
| A4     | 0.9924 | [0.95, 1.05] | -0.0094 | [-0.05, 0.05] |
| A5     | 1.0007 | [0.95, 1.05] | -0.0113 | [-0.05, 0.05] |
| Freq 3 |        |              |         |               |
| A1     | 1.0031 | [0.95, 1.05] | -0.0153 | [-0.05, 0.05] |
| A2     | 1.0079 | [0.95, 1.05] | -0.0145 | [-0.05, 0.05] |
| A3     | 1.0050 | [0.95, 1.05] | -0.0154 | [-0.05, 0.05] |
| A4     | 0.9988 | [0.95, 1.05] | -0.0131 | [-0.05, 0.05] |
| A5     | 1.0111 | [0.95, 1.05] | -0.0142 | [-0.05, 0.05] |
| Freq 4 |        |              |         |               |
| A1     | 0.9980 | [0.95, 1.05] | -0.0046 | [-0.05, 0.05] |
| A2     | 1.0033 | [0.95, 1.05] | -0.0037 | [-0.05, 0.05] |
| A3     | 1.0027 | [0.95, 1.05] | -0.0066 | [-0.05, 0.05] |
| A4     | 0.9902 | [0.95, 1.05] | -0.0021 | [-0.05, 0.05] |
| A5     | 1.0191 | [0.95, 1.05] | -0.0054 | [-0.05, 0.05] |

Temperature 24.1668 degC

ThruBit Density Calibration Report

Tool Model-Serial Number: PS-PS53D

Source Number:

Shop Calibration Performed: Sat Dec 15 16:27:40 2012

REFERENCE

|           | Density | Units |
|-----------|---------|-------|
| Aluminium | 2.607   | g/cc  |
| Magnesium | 1.752   | g/cc  |

READINGS

| Outputs        | Counts  | Units | Expected           |
|----------------|---------|-------|--------------------|
| SS1 Background | 138.67  | cps   | [130.00, 170.00]   |
| LS1 Background | 135.33  | cps   | [130.00, 170.00]   |
| LS4 Background | 28.20   | cps   | [27.00, 35.00]     |
| SS1 Aluminium  | 4781.17 | cps   | [4500.00, 5500.00] |
| LS1 Aluminium  | 854.47  | cps   | [750.00, 950.00]   |
| LS4 Aluminium  | 914.00  | cps   | [843.00, 1068.00]  |
| SS1 Magnesium  | 8067.99 | cps   | [7000.00, 9000.00] |
| LS1 Magnesium  | 5896.39 | cps   | [5250.00, 6250.00] |
| LS1 Al + Fe    | 758.35  | cps   | [650.00, 800.00]   |
| LS4 Al + Fe    | 448.74  | cps   | [382.00, 471.00]   |

RESULTS

|              |        |                  |
|--------------|--------|------------------|
| SS Slope     | 1.60   | [1.52, 1.77]     |
| LS Slope     | 0.41   | [0.38, 0.45]     |
| PEF K Factor | 4.464  | [3.510, 6.170]   |
| PEF B Factor | -0.618 | [-0.700, -0.410] |

Caliper Shop Calibration performed: Sat Dec 15 16:27:40 2012

RESULTS

| Reference | Reading | Units |
|-----------|---------|-------|
| 12.00     | 1850.28 | in    |
| 9.00      | 2013.93 | in    |
| 6.00      | 2177.49 | in    |

DENSITY PRE-SURVEY CHECK Performed: Sun Dec 16 10:08:36 2012

| Outputs        | Counts | Units | Expected         |
|----------------|--------|-------|------------------|
| SS1 Background | 139.91 | cps   | [134.51, 142.83] |
| LS1 Background | 136.16 | cps   | [131.27, 139.39] |
| LS4 Background | 28.65  | cps   | [26.51, 29.89]   |

CALIPER PRE-SURVEY CHECK Performed: Sat Dec 15 16:34:00 2012

| Reference | Readings | Units | Expected     |
|-----------|----------|-------|--------------|
| 6.00      | 6.07     | in    | [5.80, 6.20] |

## Compensated Neutron Calibration Report

Tool Model-Serial Number:  
Source Number:

PS-PS21N

Calibration Tank Temperature:  
Shop Calibration Performed:

61.6 degF  
Tue Dec 11 10:04:10 2012

## BACKGROUND MEASUREMENT

| Outputs   | Measured | Units | Expected |
|-----------|----------|-------|----------|
| SS Counts | 0.0      | cps   | <10      |
| LS Counts | 0.0      | cps   | <4       |

## WATER TANK REFERENCE

| Outputs         | Measured | Units | Expected     |
|-----------------|----------|-------|--------------|
| SS Counts       | 2961.4   | cps   |              |
| LS Counts       | 101.3    | cps   |              |
| Tank Ratio Ref  | 30.9580  | SS/LS |              |
| Tank Ratio      | 29.2334  | SS/LS |              |
| Tank Ratio Gain | 1.0590   |       | [0.85, 1.15] |

## ALUMINUM SLEEVE REFERENCE

| Outputs         | Measured | Units | Expected     |
|-----------------|----------|-------|--------------|
| SS Counts       | 33699.4  | cps   |              |
| LS Counts       | 3261.2   | cps   |              |
| AI Ratio Ref    | 10.797   | SS/LS |              |
| AI Ratio        | 10.943   | SS/LS |              |
| AI Ratio Gain   | 0.99     |       | [0.90, 1.10] |
| Sleeve Porosity | 14.46    | pu    |              |

PRE-SURVEY BACKGROUND CHECK Performed:

Sun Dec 16 10:13:39 2012

| Outputs   | Measured | Units | Expected |
|-----------|----------|-------|----------|
| SS Counts | 1.7      | cps   | <10      |
| LS Counts | 3.3      | cps   | <4       |

## Gamma Ray Calibration Report

Tool Model-Serial Number:

PS-PS39T

Performed:

Tue Dec 11 09:00:29 2012

Calibrator Value:

152.0

GAPI

Background Reading:

65.5

cps

Calibrator Reading:

478.2

cps

Sensitivity:

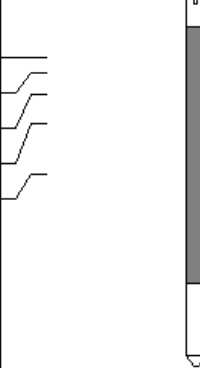
0.3750

GAPI/cps



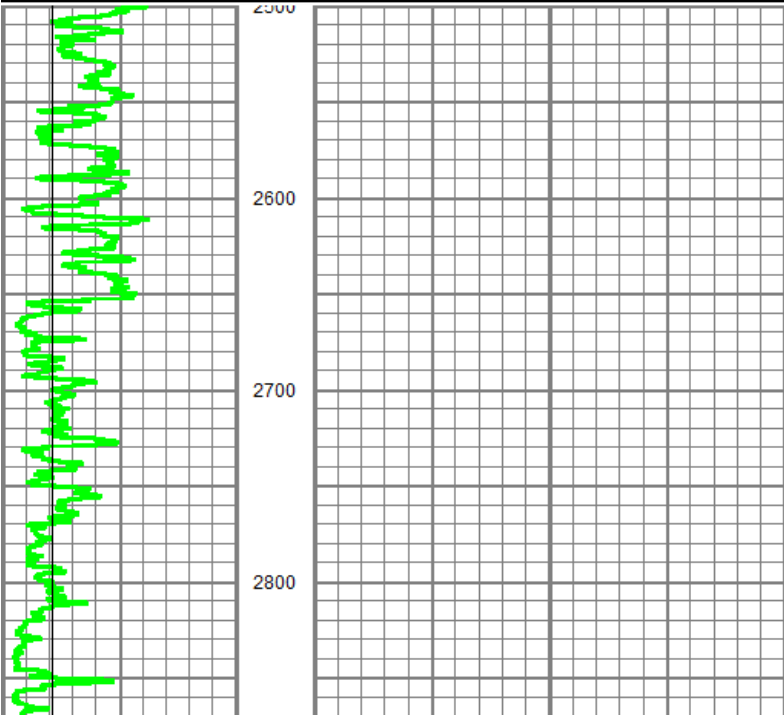
| Inclinometer Calibration Report |                          |            |          |           |     |
|---------------------------------|--------------------------|------------|----------|-----------|-----|
| Performed:                      | Sun Jun 13 13:33:21 1993 |            |          |           |     |
|                                 | Low Read.                | High Read. | Low Ref. | High Ref. |     |
| X Accelerometer                 | 0.00                     | 1.00       | 0.00     | 1.00      | gee |
| Y Accelerometer                 | 0.00                     | 1.00       | 0.00     | 1.00      | gee |
| Z Accelerometer                 | 0.00                     | 1.00       | 0.00     | 1.00      | gee |

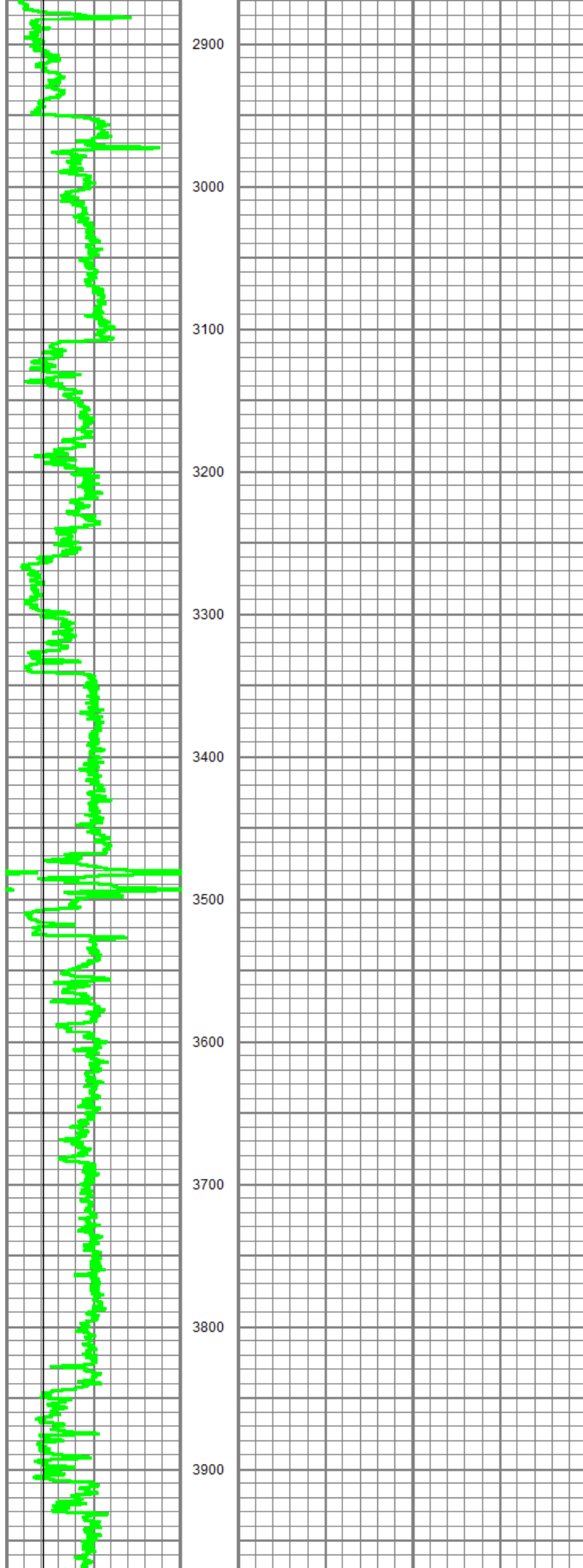
| Sensor       | Offset (ft)    | Schematic | Description                                   | Len (ft) | OD (in) | Wt (lb) |
|--------------|----------------|-----------|-----------------------------------------------|----------|---------|---------|
| Thrubit      | 65.33          |           | Cablehead-S<br>Solid Weakpoint                | 2.31     | 2.13    | 5.00    |
| Thrubit      | 63.02          |           | PSBDOT                                        | 3.87     | 2.25    | 35.00   |
| Thrubit      | 59.16          |           | HangOff_Tool                                  | 5.00     | 2.38    | 60.00   |
| Thrubit      | 54.16          |           | 10-1                                          | 0.75     | 2.13    | 3.95    |
| TBBAT        | 53.41          |           | TBBAT-A (PS32B)<br>Thrubit Battery            | 6.13     | 2.13    | 38.20   |
| TBBAT2       | 47.28          |           | TBBAT2-A (PS31B)<br>Thrubit Battery           | 6.13     | 2.13    | 40.00   |
| TMG<br>GR    | 41.16<br>41.03 |           | TMG-PS (PS39T)<br>ThruBit Telemetry Gamma Ray | 6.13     | 2.13    | 45.00   |
| GRTEMP       | 40.20          |           |                                               |          |         |         |
| Thrubit      | 35.03          |           | Decentralizer<br>Decentralizer (Small)        | 4.50     | 2.13    | 70.00   |
| CNLSC        | 28.59          |           | TBN-PS (PS21N)<br>ThruBit Neutron             | 4.77     | 2.13    | 63.00   |
| LSW1<br>DCAL | 18.04<br>17.13 |           | TBD-PS (PS53D)<br>Thrubit Density             | 10.47    | 2.13    | 91.00   |

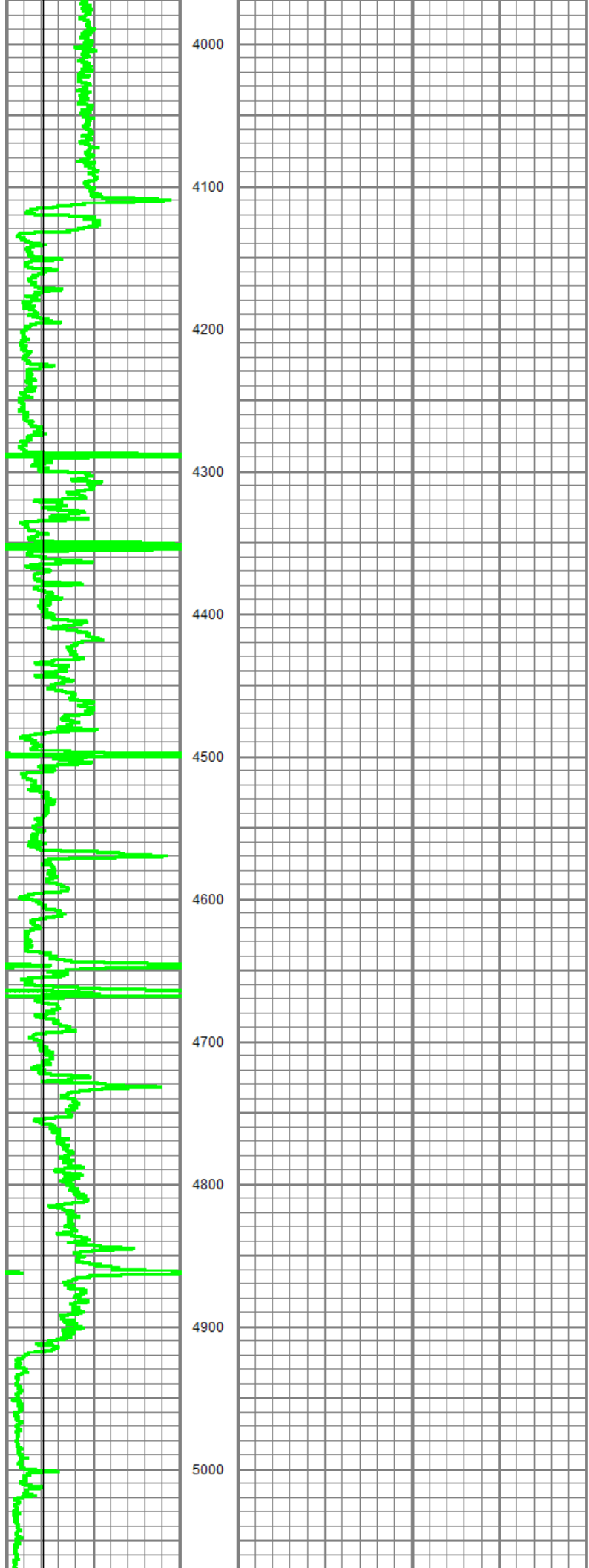
|                                                                                                                                            |       |                                                                                 |                                     |       |      |       |
|--------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------------------------------------------------------------------------|-------------------------------------|-------|------|-------|
| A1_P                                                                                                                                       | 10.60 |  | TBI-PS (PS26R)<br>ThruBit Induction | 15.29 | 2.13 | 94.00 |
| A2_P                                                                                                                                       | 10.10 |                                                                                 |                                     |       |      |       |
| A3_P                                                                                                                                       | 9.35  |                                                                                 |                                     |       |      |       |
| A4_P                                                                                                                                       | 8.35  |                                                                                 |                                     |       |      |       |
| A5_P                                                                                                                                       | 6.60  |                                                                                 |                                     |       |      |       |
| Dataset: sandridge_jennifer3408_3_34h_mem.db: field/well/proc1/merge2<br>Total Length: 65.33 ft<br>Total Weight: 545.15 lb<br>O.D. 2.38 in |       |                                                                                 |                                     |       |      |       |

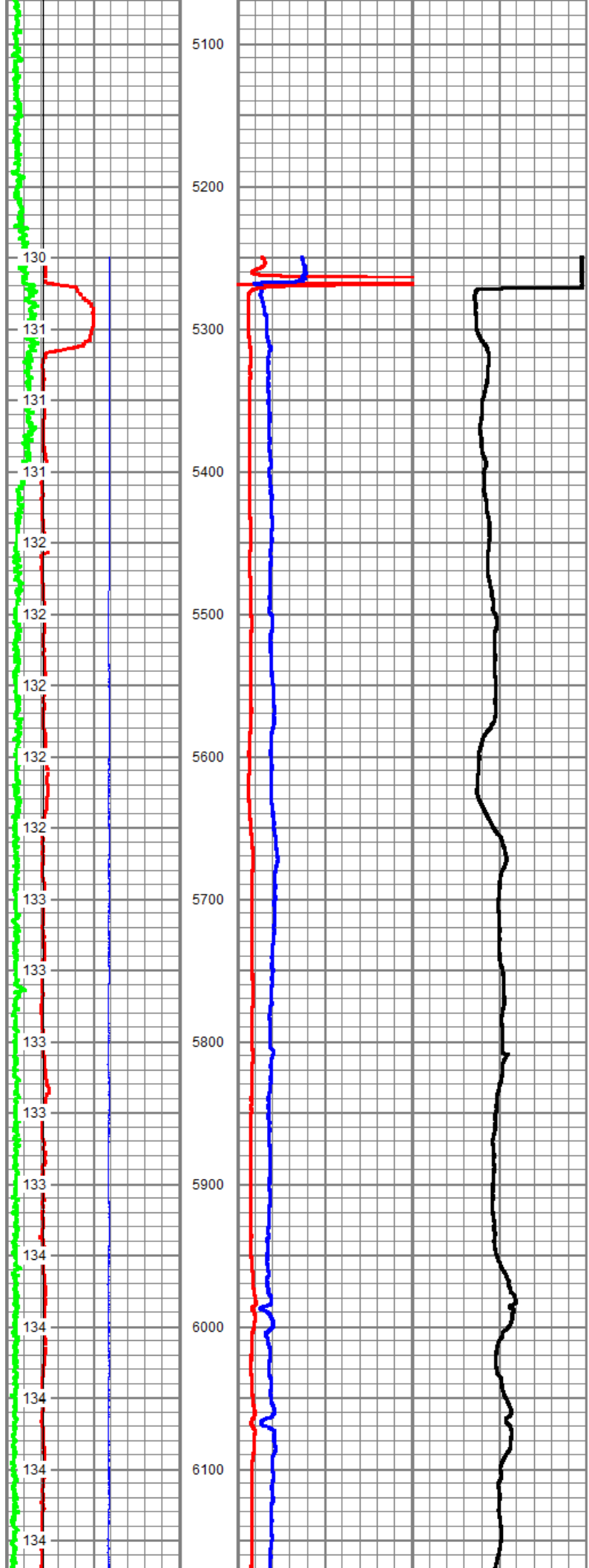
|                                                                                  |         |                        |
|----------------------------------------------------------------------------------|---------|------------------------|
|  | Company | SANDRIDGE ENERGY, INC. |
|                                                                                  | Well    | JENNIFER 3408 3-34H    |
|                                                                                  | Field   | EASTHAM                |
|                                                                                  | County  | HARPER                 |
|                                                                                  | State   | KANSAS                 |

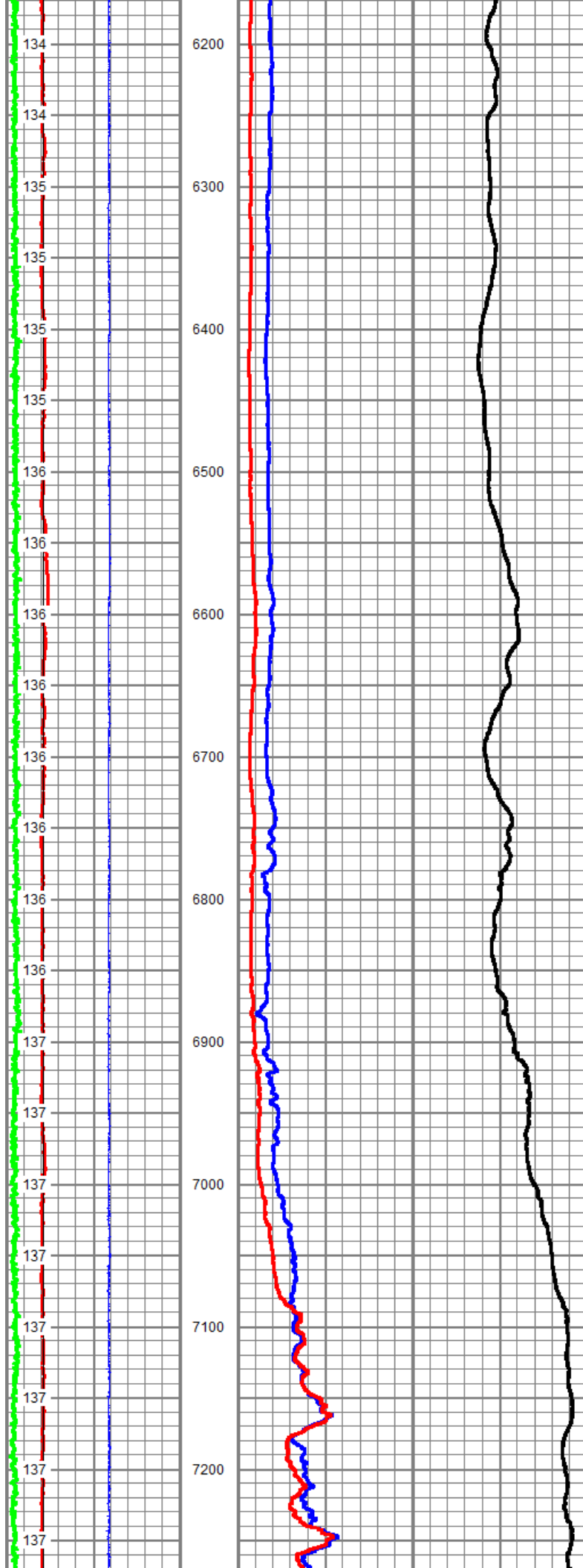
|                                                                                                                                                                                                              |             |           |                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------|---------------------------|
|                                                                                                                              |             | MAIN PASS |                           |
| Database File: sandridge_jennifer3408_3_34h_mem.db<br>Dataset Pathname: proc1/merge2<br>Presentation Format: sand2r<br>Dataset Creation: Sun Dec 16 23:49:58 2012<br>Charted by: Depth in Feet scaled 1:1200 |             |           |                           |
| 0                                                                                                                                                                                                            | GR (GAPI)   | 150       | 20in 2ft Res              |
| 4                                                                                                                                                                                                            | DCAL (in)   | 14        | 50 (Ohm-m) 500            |
| -5                                                                                                                                                                                                           | ACCY        | 5         | 90in 2ft Res              |
| 4                                                                                                                                                                                                            | BOREID (in) | 14        | 50 (Ohm-m) 500            |
| GRTEMP                                                                                                                                                                                                       |             |           | 1000 DEEP COND (mmho/m) 0 |
| (degF)                                                                                                                                                                                                       |             |           | 0 20in 2ft Res (Ohm-m) 50 |
|                                                                                                                                                                                                              |             |           | 0 90in 2ft Res (Ohm-m) 50 |

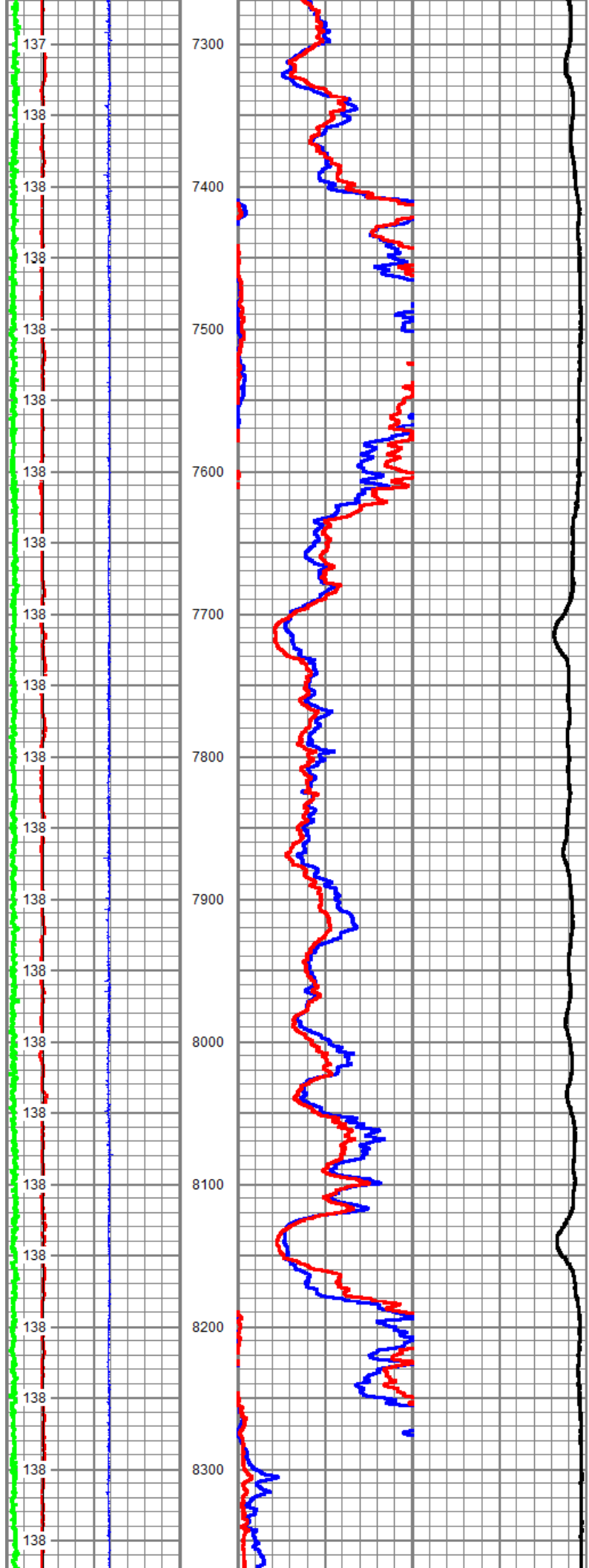


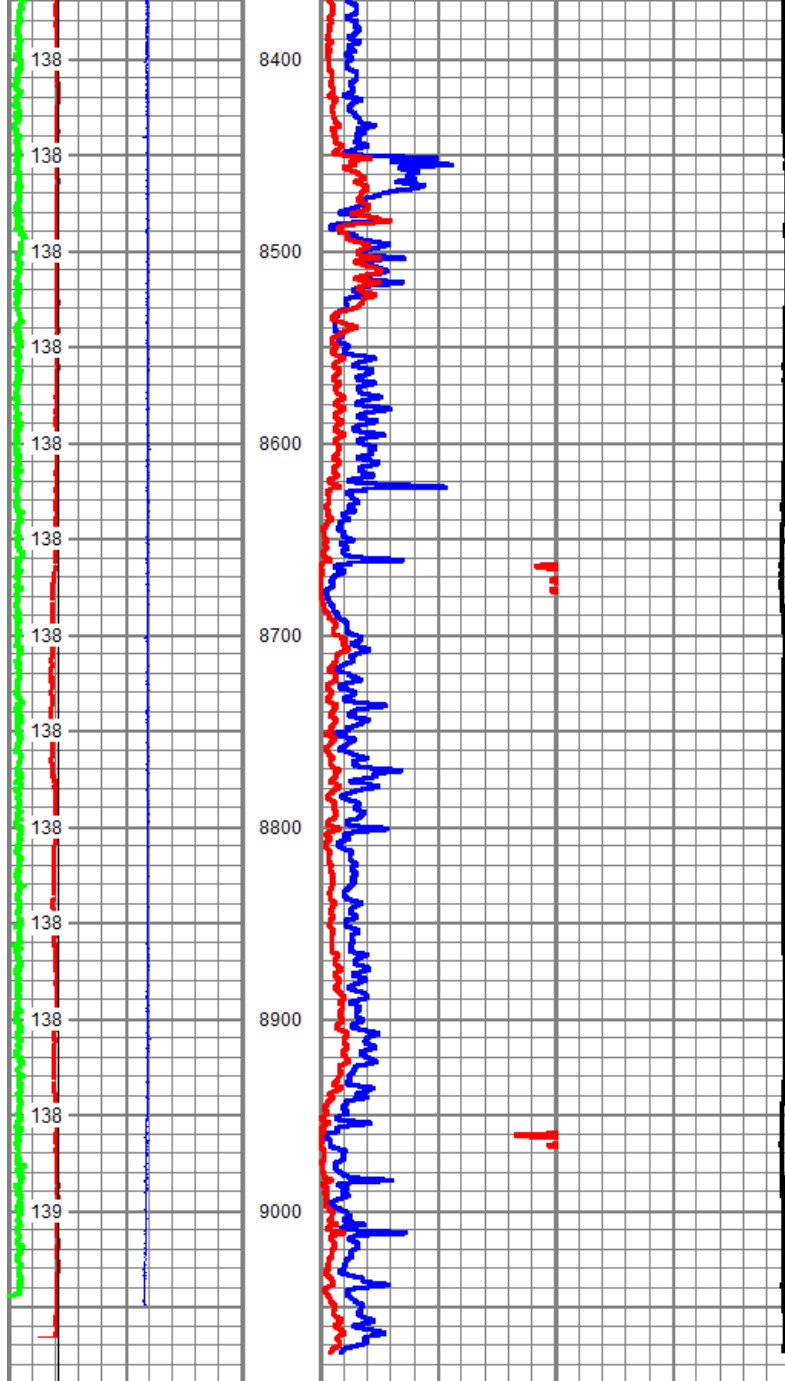












|        |             |     |              |                      |
|--------|-------------|-----|--------------|----------------------|
| 0      | GR (GAPI)   | 150 | 20in 2ft Res |                      |
| 4      | DCAL (in)   | 14  | 50 (Ohm-m)   | 500                  |
| -5     | ACCY        | 5   | 90in 2ft Res |                      |
| 4      | BOREID (in) | 14  | 50 (Ohm-m)   | 500                  |
| GRTEMP |             |     | 1000         | DEEP COND (mmho/m)   |
| (degF) |             |     | 0            | 0                    |
|        |             |     | 0            | 20in 2ft Res (Ohm-m) |
|        |             |     | 0            | 90in 2ft Res (Ohm-m) |