



Weatherford®

6 3/4 in. & 4 3/4 in.
WeatherfordM/LWD™
Gamma Ray & Resistivity
1 in. & 5 in. MEASURED DEPTH
RECORDED DATA

Company: Anadarko Petroleum
Well: Cannon 13N-10HZ
Field: Wattenberg
Rig: Xtreme 23
County: Weld

COMPANY Anadarko Petroleum
WELL Cannon 13N-10HZ
FIELD Wattenberg
RIG Xtreme 23
COUNTY Weld STATE Colorado
API # 05-123-36688

| Location | |
|--|------------------|
| Latitude: 40.15885° N | x = 3,204,425 ft |
| Longitude: 104.76860° W | y = 1,301,554 ft |
| Other Services: Spectral Azimuthal Gamma, Directional, and Temperature | |

Mag Decl: 8.65°
Mag Dip: 66.76°

Permanent Datum: Mean Sea Level
Log Measured From: Drill Floor Elev: 4965.0 ft above perm. datum
Depth Reference: Drillers Tally Total Depth: 11605 ft
Depth Logged: 6719 ft to 11605 ft Runs: 3
Date Logged: 6-May-13 to 10-May-13 Spud Date: 4-May-13

| Elevation | |
|-----------|-----------|
| K.B. | Top Drive |
| G.L. | 4949.0 ft |
| D.F. | 4965.0 ft |
| W.D. | Onshore |

| Borehole Record | | | Casing Record | | |
|-----------------|---------|----------|---------------|------------|-----------------|
| Hole Size | From | To | Size | Weight | From To |
| 8.750 in. | 876 ft | 7668 ft | 7.000 in. | 26.0 lb/ft | Surface 7668 ft |
| 6.125 in. | 7668 ft | 11605 ft | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| Borehole Deviation Record | | | Mud Record | | |
|---------------------------|-----------|-----------|------------|----------------------|-----------------|
| Hole Size | Min. Inc. | Max. Inc. | Type | Weight | From To |
| 8.750 in. | 0.78° | 86.02° | WBM | 9.40 ppg - 10.10 ppg | 876 ft 11605 ft |
| 6.125 in. | 85.87° | 93.46° | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

All interpretations of log data are opinions based on inferences from electrical or other measurements. Weatherford International does not guarantee the accuracy or correctness of any interpretation or recommendation and we shall not be liable or responsible for any loss, cost, damages or expenses incurred or sustained by anyone resulting from any interpretation or recommendation made by any of our employees or agents.

| RUN SUMMARY | | | | | | | |
|-------------------------|---------------|--------------|--------------|--------------|--|--|--|
| M/LWD Run Number | | 1 | 2 | 3 | | | |
| Bit Size | in. | 8.750 | 8.750 | 6.125 | | | |
| Bit Type | | PDC | PDC | PDC | | | |
| Bit TFA | sq.in. | 1.240 | 1.535 | 1.535 | | | |
| Bit Start Depth | ft | 876 | 6760 | 7668 | | | |
| Bit End Depth | ft | 6760 | 7668 | 11605 | | | |
| Top Log Interval | ft | na | 6719 | 7590 | | | |
| Bottom Log Interval | ft | na | 7668 | 11605 | | | |
| Begin Log Time | hrs | na | 15:42 | 17:31 | | | |
| Begin Log Date | DD-MMM-YY | na | 6-May-13 | 8-May-13 | | | |
| End Log Time | hrs | na | 7:26 | 7:52 | | | |
| End Log Date | DD-MMM-YY | na | 7-May-13 | 10-May-13 | | | |
| Drill or Wipe | | Drill | Drill | Drill | | | |
| Flow Rate | gal/min | 550 | 570 | 297 | | | |
| Max AV / CV @ MWD | ft/min | 435 / 389 | 450 / 385 | 487 / 363 | | | |
| Min Inc @ Depth | deg @ ft | 0.78 @ 1054 | 0.97 @ 6700 | 85.87 @ 8433 | | | |
| Max Inc @ Depth | deg @ ft | 12.77 @ 2912 | 86.02 @ 7608 | 93.46 @ 8091 | | | |
| MUD DATA | | | | | | | |
| Depth | ft | 6760 | 7668 | 11605 | | | |
| Fluid Type | | WBM | WBM | WBM | | | |
| Mud Weight | ppg | 9.60 | 10.10 | 9.50 | | | |
| Plastic Viscosity | cP | 15 | 16 | 12 | | | |
| Solids / Sand | % | 8.60 / 0.25 | 8.70 / 0.25 | 6.70 / 0.25 | | | |
| NaCl Equiv. Chlorides | ppm | 3122 | 3135 | 3300 | | | |
| pH | | 9.3 | 9.2 | 9.8 | | | |
| Oil:Water Ratio | % Vol | 12.0 : 88.0 | 12.0 : 88.0 | 3.5 : 96.5 | | | |
| Rm @ Temperature | ohm-m @ deg F | na | na | 1.30 @ 70°F | | | |
| Rmc @ Temperature | ohm-m @ deg F | na | na | 1.14 @ 70°F | | | |
| Rmf @ Temperature | ohm-m @ deg F | na | na | 1.12 @ 70°F | | | |
| KCl | % Vol | 0 | 0 | 0 | | | |
| Client Representative | | R. McPeters | R. McPeters | R. McPeters | | | |
| WeatherfordLWD Engineer | | T. Daily | T. Daily | T. Daily | | | |

EQUIPMENT SUMMARY

| M/LWD Run Number | 1 | 2 | 3 | | |
|--|---------------|---------------|-------------------|------------|--|
| BTR / CDS Serial Number | 44702 / 44736 | 44702 / 44736 | na | | |
| Battery Serial Number | 403467910 | 403467910 | na | | |
| Gamma Ray Serial Number | na | 2978 | na | | |
| CMS Serial Number | 1592 | 1592 | na | | |
| Pulser Serial Number | 18705 | 18705 | na | | |
| HEL Serial Number | na | na | NW131110PDSBI4.75 | | |
| MFR Serial Number | na | na | NW131107RBBK4.75 | | |
| SAGR Serial Number | na | na | NW131109JB4.75 | | |
| Sensor to Bit Offsets / Acquisition Rates | | | | | |
| Directional | ft / sec | 57.25 / RT | 57.29 / RT | 51.73 / RT | |
| Gamma Ray | ft / sec | na | 42.99 / 16 | 37.12 / 5 | |
| Resistivity | ft / sec | na | na | 80.08 / 5 | |
| Other Information | | | | | |
| Total BHA Length | ft | 115.42 | 116.06 | 96.79 | |
| BHA Assembly Type | | Steerable | Steerable | Steerable | |
| Stabilizer Location | ft | na | na | 29.24 | |
| Run Circulating Time | hr | 24.23 | 20.49 | 39.01 | |
| Run Drilling Time | hr | 15.01 | 10.05 | 17.95 | |

MUD SUMMARY

| Date and Time | Run | Bit Depth | Mud Weight | % K | Rm @ Temp | Rmf @ Temp | Rmc @ Temp | BHCT |
|-------------------|-----|-----------|------------|-----|-------------------|-------------------|-------------------|--------|
| 06 May 13 @ 08:00 | 01 | 6760 ft | 9.60 ppg | 0 | na | na | na | 163° F |
| 07 May 13 @ 11:32 | 02 | 7668 ft | 10.10 ppg | 0 | na | na | na | 174° F |
| 10 May 13 @ 17:18 | 03 | 11605 ft | 9.50 ppg | 0 | 1.30 ohm-m @ 70°F | 1.12 ohm-m @ 70°F | 1.14 ohm-m @ 70°F | 219° F |

M/LWD RUN REMARKS

Run Number: 2 :: RECORDED DATA LOG

WFT Services Provided:

Recorded and Real Time Logging: Gamma Ray and Temperature.

Directional Services: On demand Inclination and Azimuth.

Borehole and Environmental Correction:

Hole Size: 8.750 in.

Gamma Ray: Hole size, mudweight, Collar O.D., Collar I.D. and K1 factor.

Mud Weight: 10.10 ppg

Collar O.D.: 6.750 in.

K1 Factor: 3.179

Collar I.D.: 3.250 in.

Run Number: 3 :: RECORDED DATA LOG

WFT Services Provided:

Recorded and Real Time Logging: Spectral Azimuthal Gamma Ray, Deep and Shallow Resistivity, and Temperature.

Directional Services: On demand Inclination and Azimuth.

Borehole and Environmental Correction:

Hole Size: 6.125 in.

Gamma Ray: Corrected for mud weight, hole size and KCl concentration.

Mud Weight: 9.50 ppg

Resistivities: Corrected for borehole temperature, hole size, drilling fluid resistivity and dielectric correction.

Borehole Temperature: 219° F

Drilling Fluid Resistivity: 0.497 ohm-m @ 219° F

KCl Concentration: 0%

M/LWD LOG COMMENTS

Comment No. 1-1

MWD Drilling Run 01

Start of MWD Drilling Run 01

Weatherford International provided 6 3/4 in. Directional services for Run 01. No Logging Performed.

Run 01 ended formation drilling May 6, 2013 at 4:15 at 6760 MD / 6672 TVD.

Comment No. 2-1

RECORDED DATA LOG

Start of MWD Drilling Run 02

Weatherford International provided 6 3/4 in. Directional, Gamma Ray, and Temperature for Run 02.

Run 02 started formation drilling May 6, 2013 at 15:42 at 6760 MD / 6672 TVD. Weatherford International logged the 8.750 in. borehole.

The WBM at the start of drilling was 10.05 ppg.

Comment No. 2-2

End of MWD Drilling Run 02

Run 02 ended drilling formation May 7, 2013 at 7:26 at 7668 MD / 7258 TVD.

The WBM at the end of drilling was 10.10 ppg.

Comment No. 3-1

RECORDED DATA LOG

Start of LWD Drilling Run 03

Weatherford International provided 4 3/4 in. Directional, Resistivity, Azimuthal Gamma Ray, and Temperature for Run 03.

Run 03 started formation drilling May 8, 2013 at 17:31 at 7668 MD / 7258 TVD. Weatherford International logged the 6.125 in. borehole.

The WBM at the start of drilling was 9.40 ppg.

Comment No. 3-2

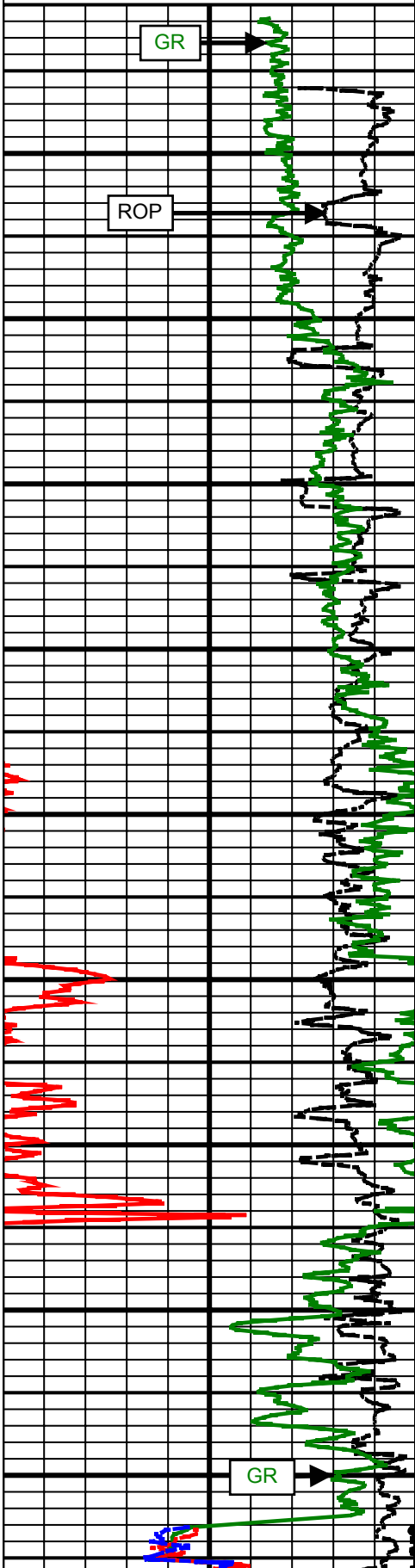
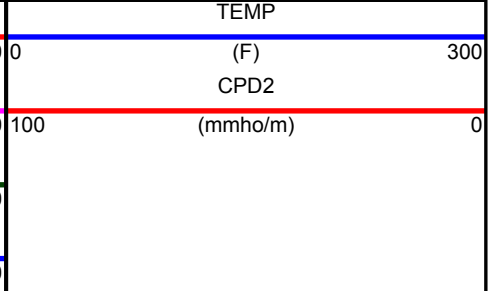
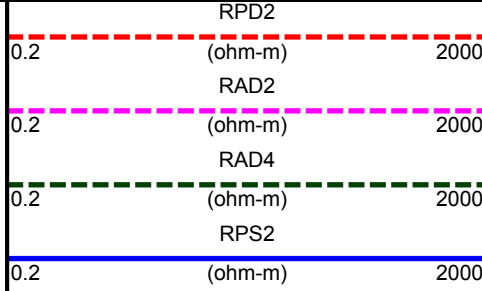
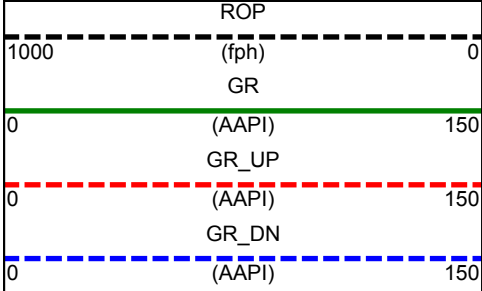
End of LWD Drilling Run 03

Run 03 ended drilling formation May 10, 2013 at 7:52 at 11605 MD / 7226 TVD.

The WBM at the end of drilling was 9.50 ppg.

| CURVE SPECIFICATIONS | | | | |
|------------------------------|----------|----------------|--|-----------------------|
| CURVE TYPE | MNEMONIC | UNITS | COMMENTS | CORRECTIONS |
| Rate of Penetration | ROP | fph | Rate of Penetration 3.0 ft window 0.5 ft Exponential Smoothing | None |
| Gamma Ray | GR | AAPI | Gamma Ray 3.0 ft window 0.5 ft Exponential Smoothing | See M/LWD Run Remarks |
| Gamma Ray Up | GR UP | AAPI | Recorded Azimuthal Gamma Ray 3.0 ft window 0.5 ft Exponential Smoothing | |
| Gamma Ray Down | GR DN | AAPI | Recorded Azimuthal Gamma Ray 3.0 ft window 0.5 ft Exponential Smoothing | |
| Deep Phase Resistivity | RPD2 | ohm-m | 2 MHz Deep Phase Resistivity 3.0 ft window 0.5 ft Exponential Smoothing | |
| Deep Attenuation Resistivity | RAD2 | ohm-m | 2 MHz Deep Attenuation Resistivity 3.0 ft window 0.5 ft Exponential Smoothing | |
| Deep Attenuation Resistivity | RAD4 | ohm-m | 400 KHz Deep Attenuation Resistivity 3.0 ft window 0.5 ft Exponential Smoothing | |
| Shallow Phase Resistivity | RPS2 | ohm-m | 2 MHz Shallow Phase Resistivity 3.0 ft window 0.5 ft Exponential Smoothing | |
| Deep Phase Conductivity | CPD2 | mmho/m | 2 MHz Deep Phase Conductivity 3.0 ft window 0.5 ft Exponential Smoothing | None |
| Temperature | TEMP | deg Fahrenheit | Recorded Bore hole Tmperature 3.0 ft window 0.5 ft Exponential Smoothing | |

1 Inch - Measured Depth



MD

6800 MD

6900 MD

7000 MD

7100 MD

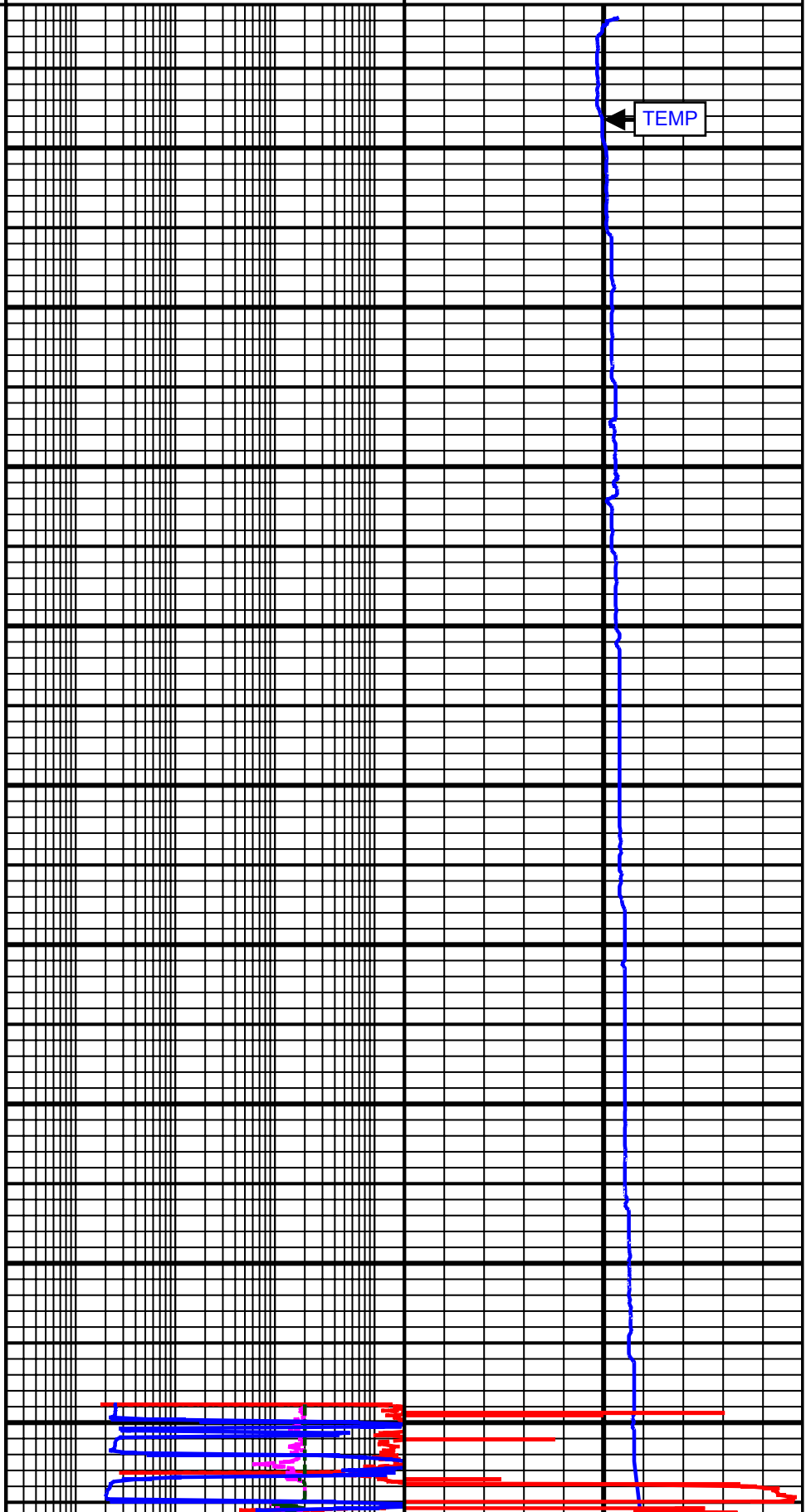
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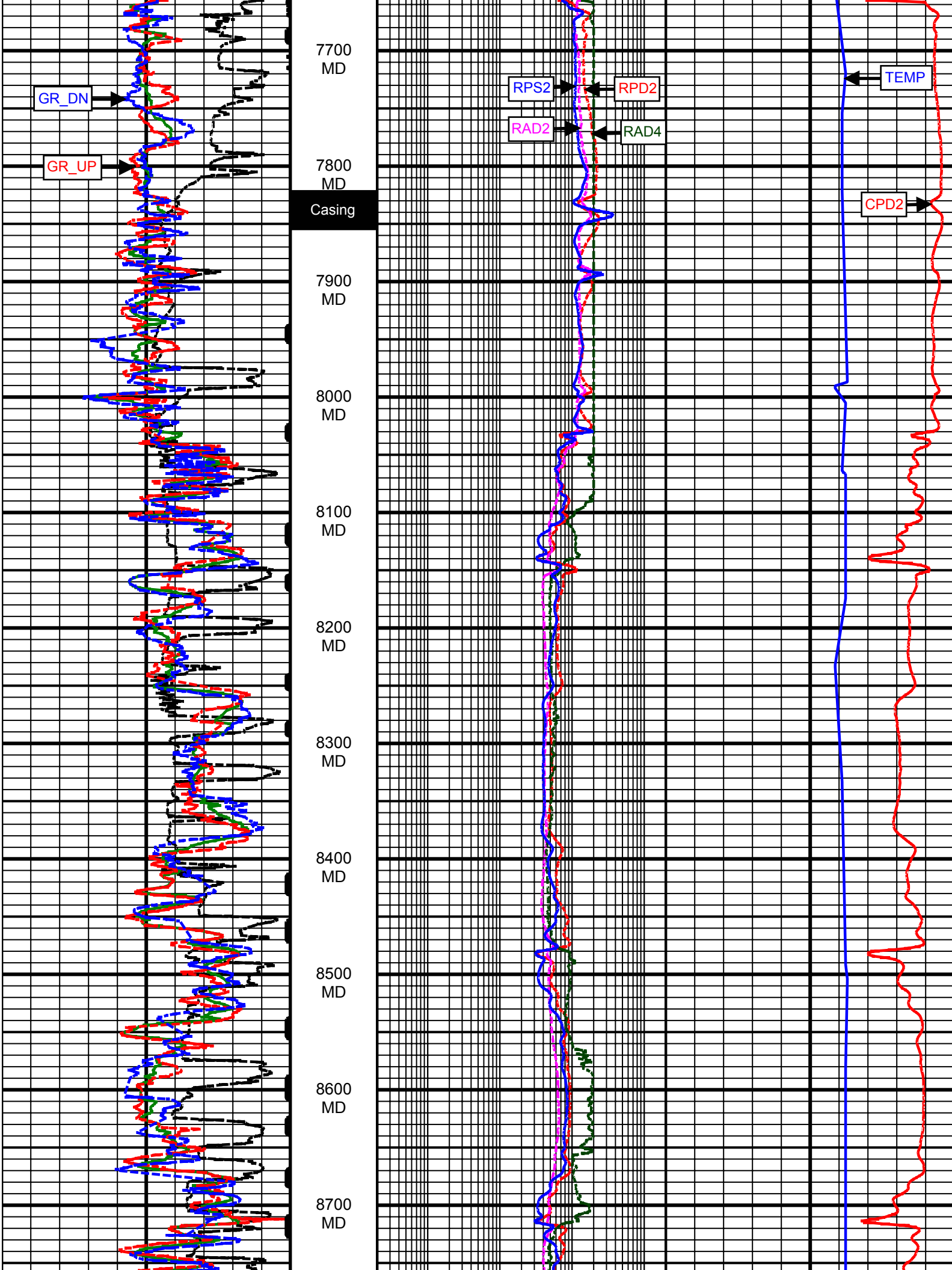
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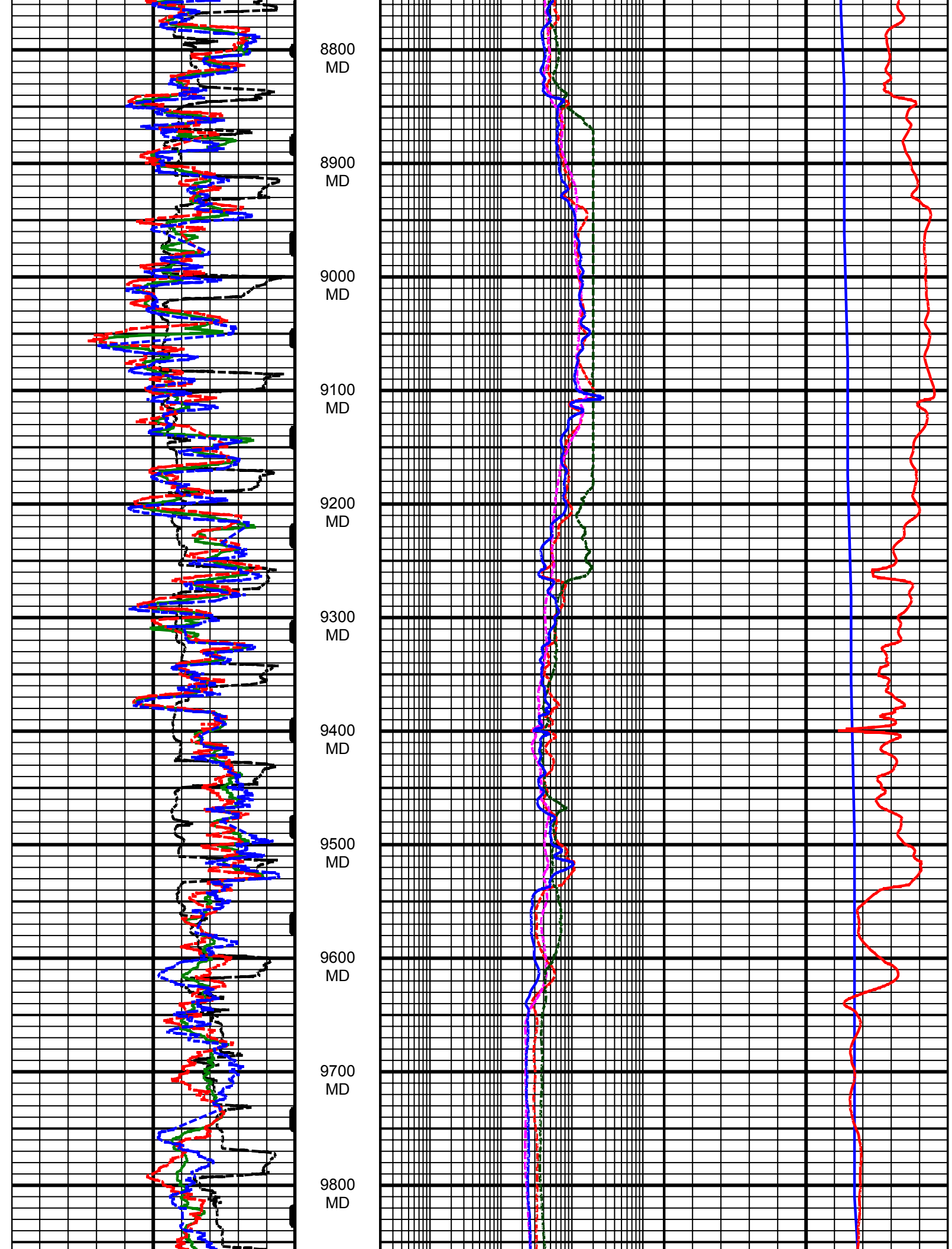
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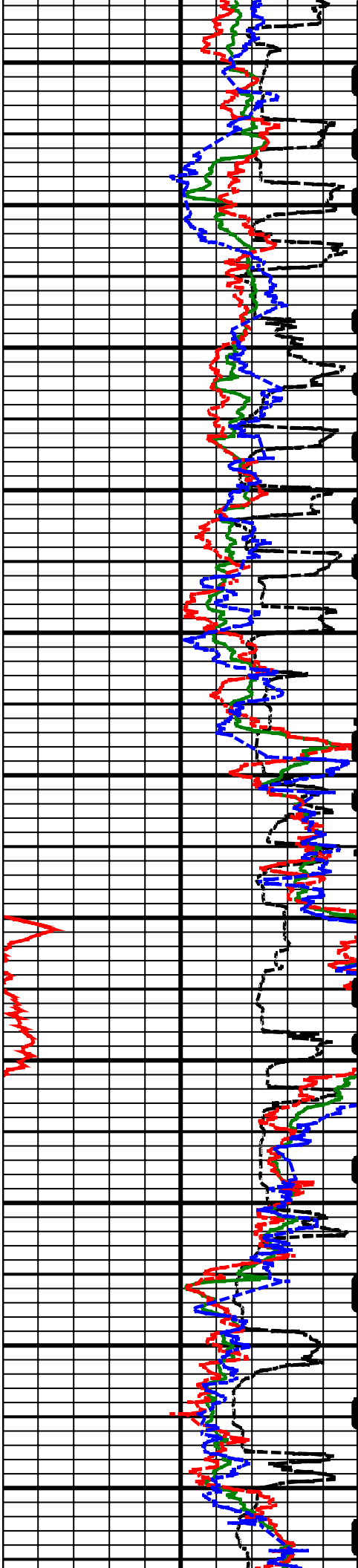
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7600 MD

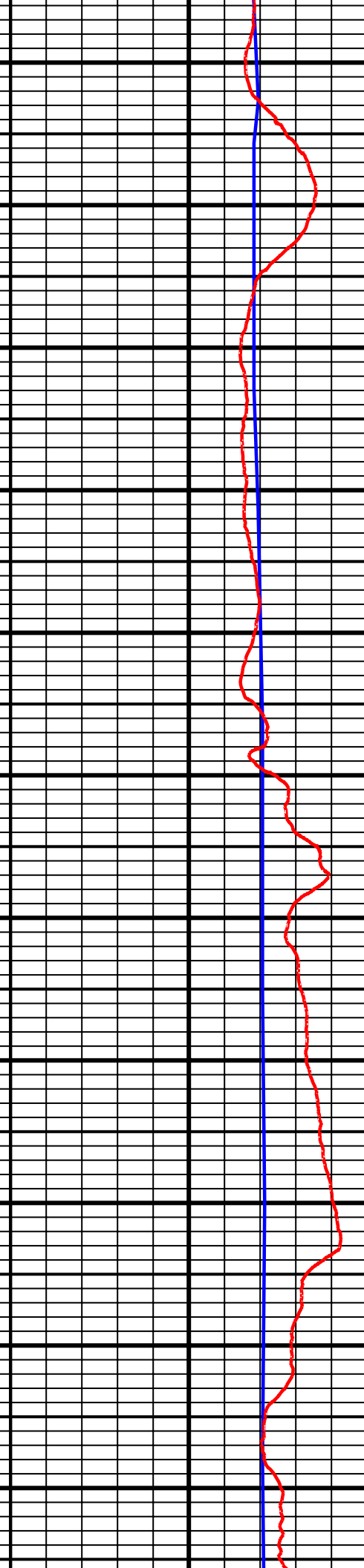
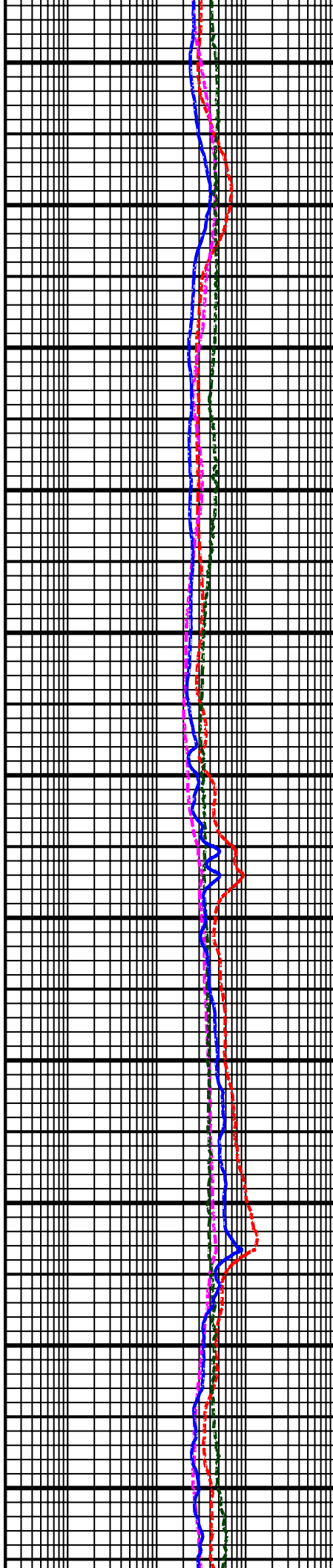


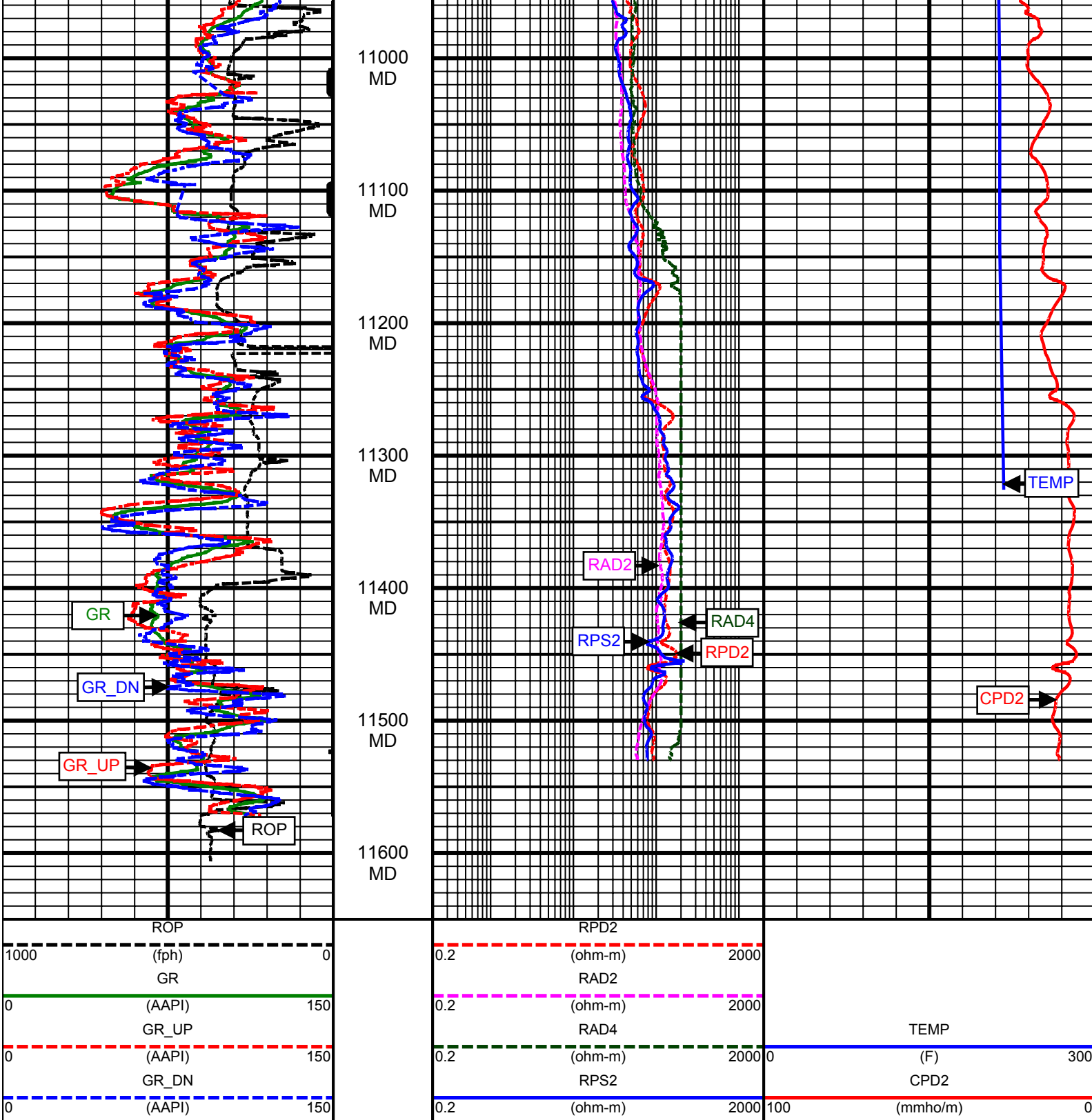




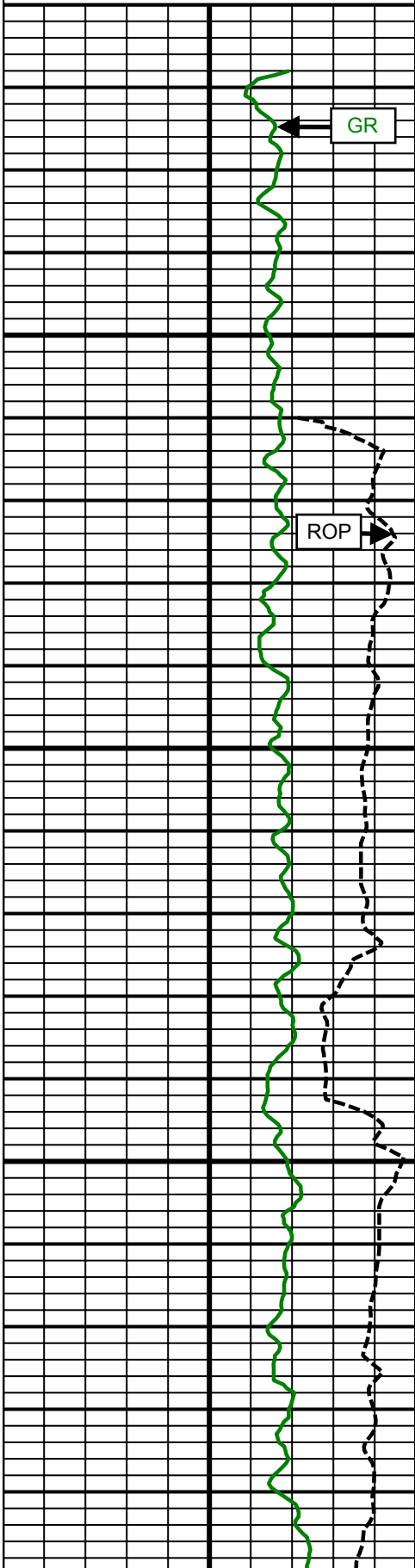
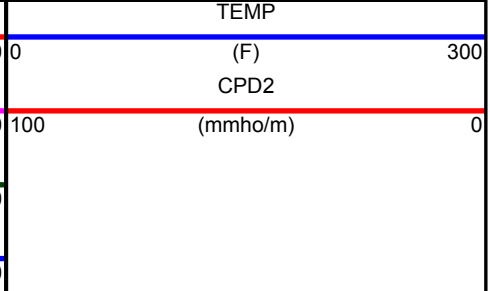
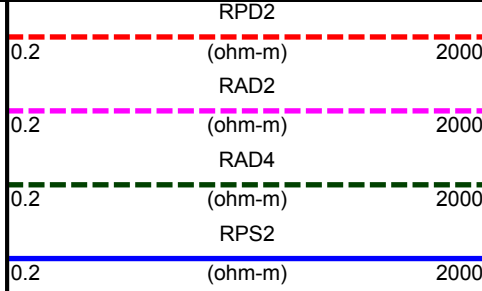
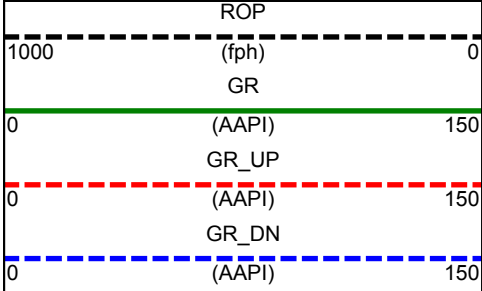


9900 MD
10000 MD
10100 MD
10200 MD
10300 MD
10400 MD
10500 MD
10600 MD
10700 MD
10800 MD
10900 MD





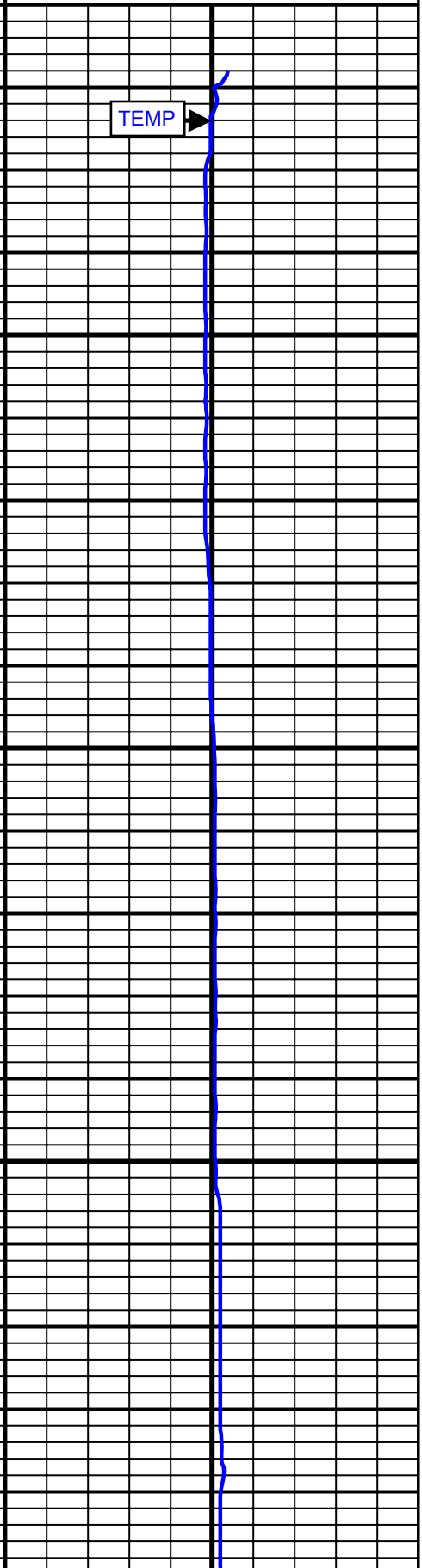
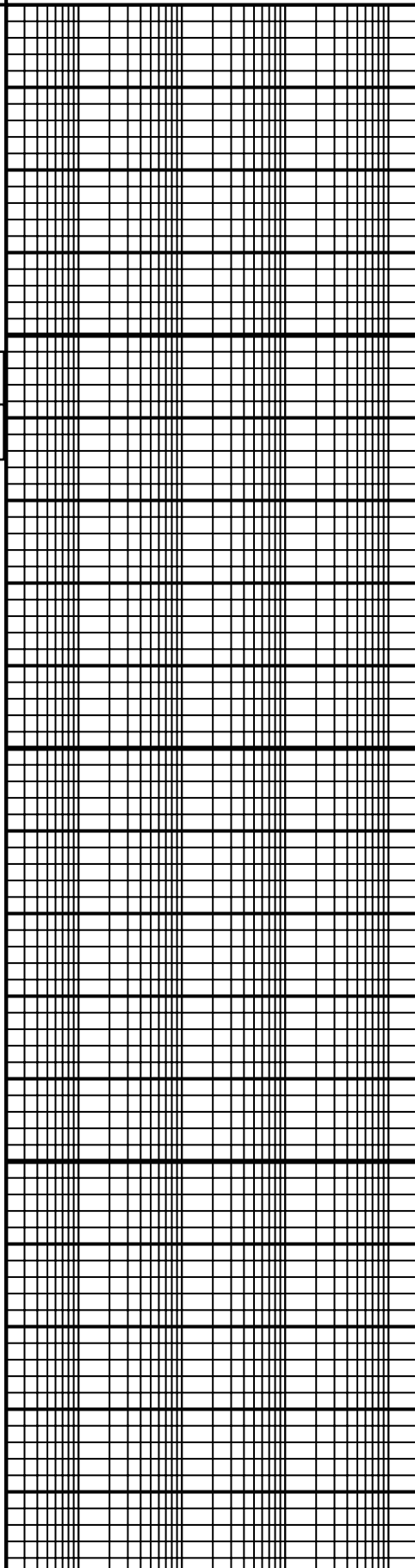
5 Inch - Measured Depth

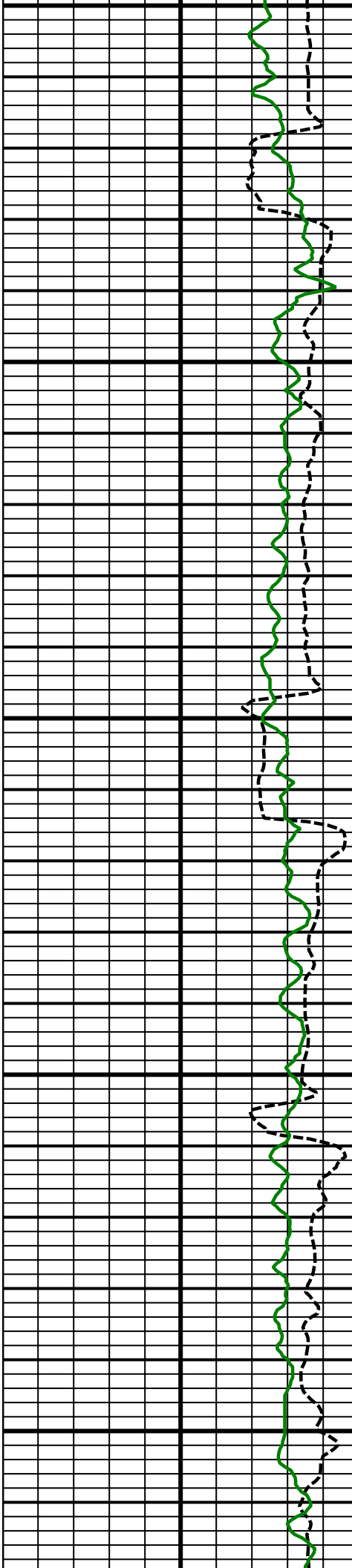


Comment No. 1-1

Comment No. 2-1

6800 MD

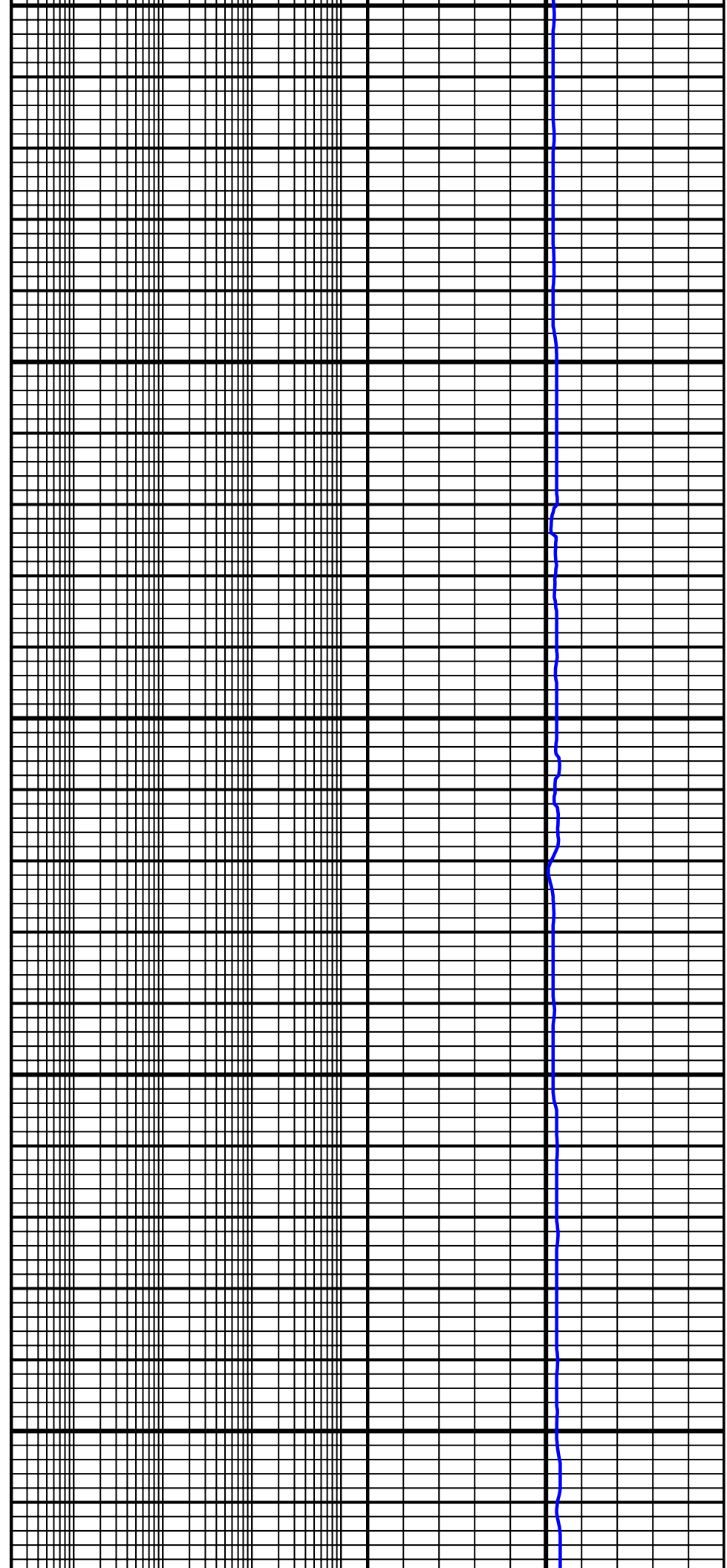


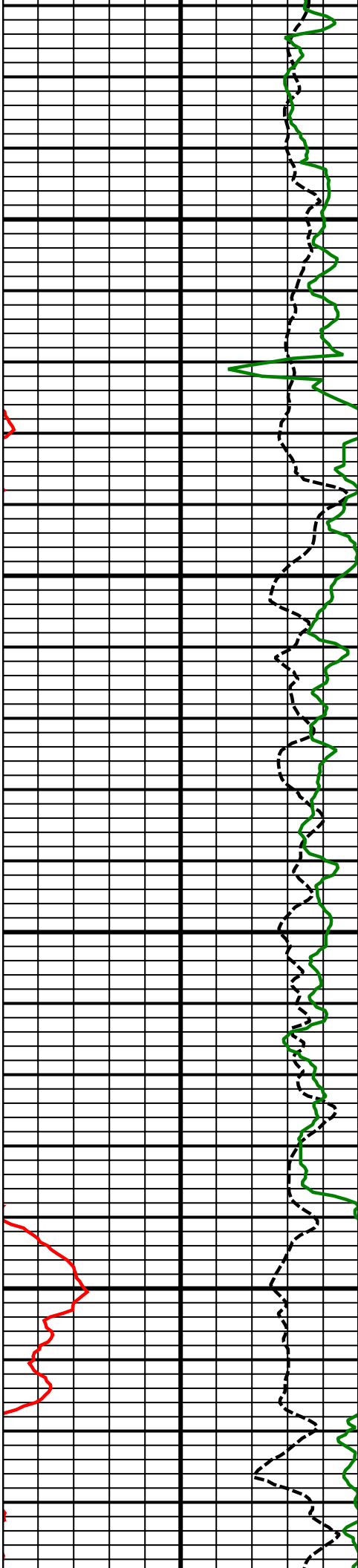


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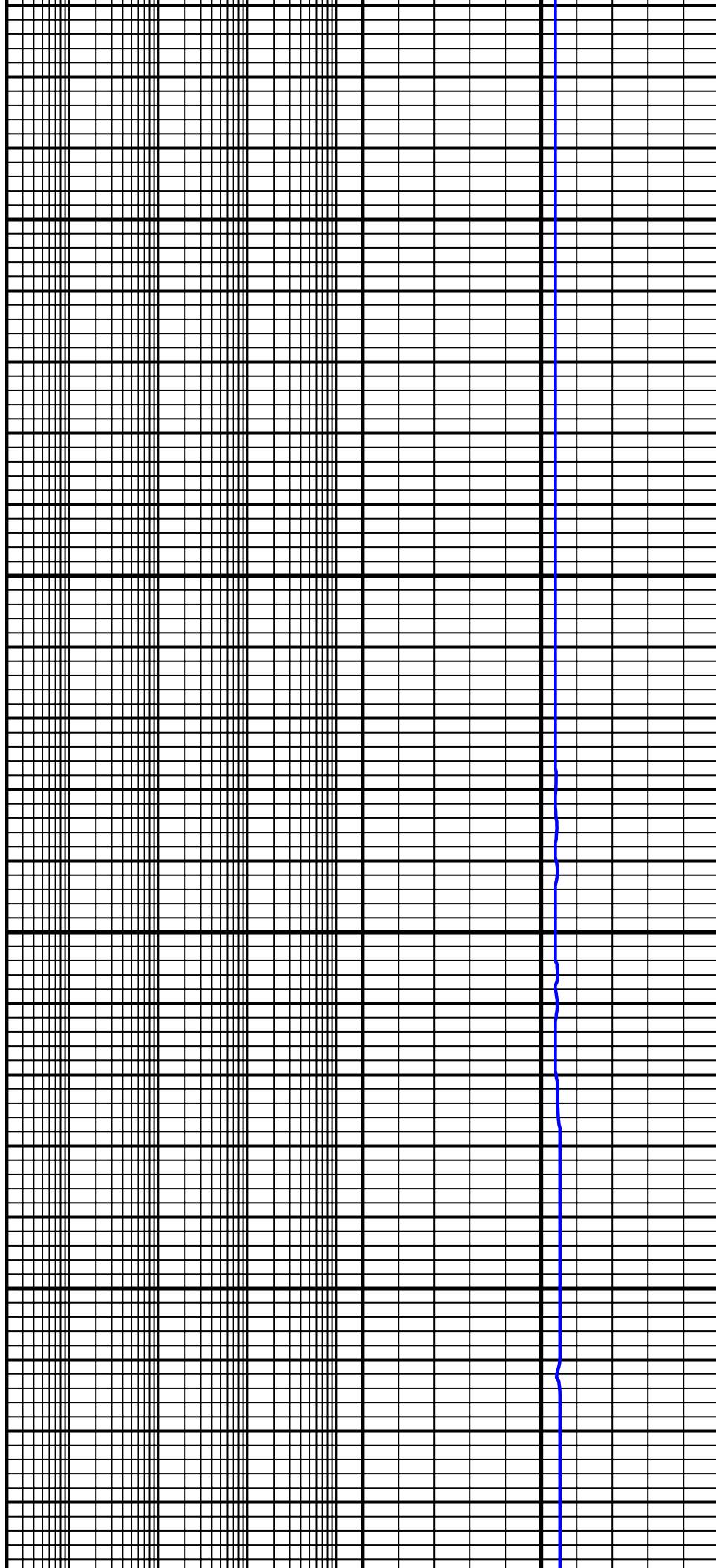
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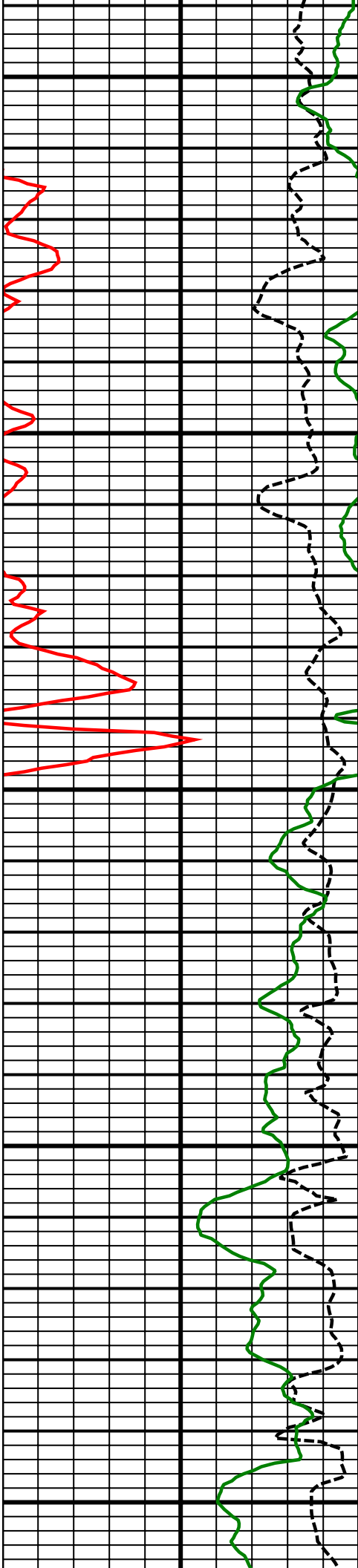




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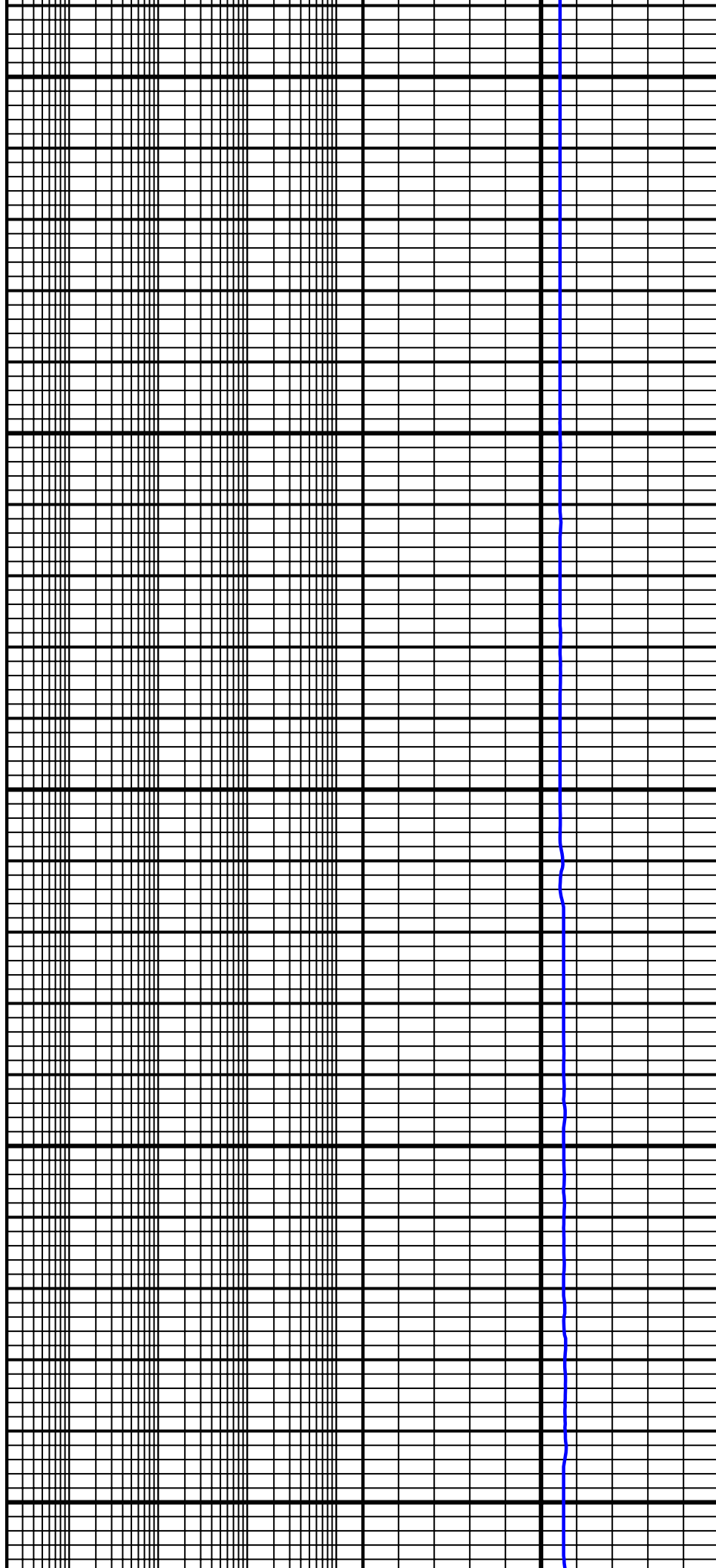
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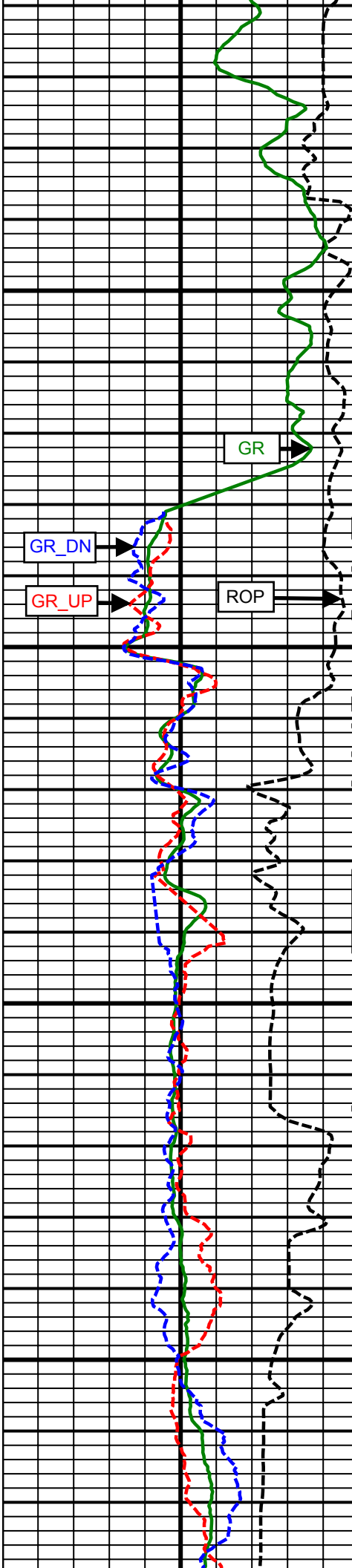




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7500
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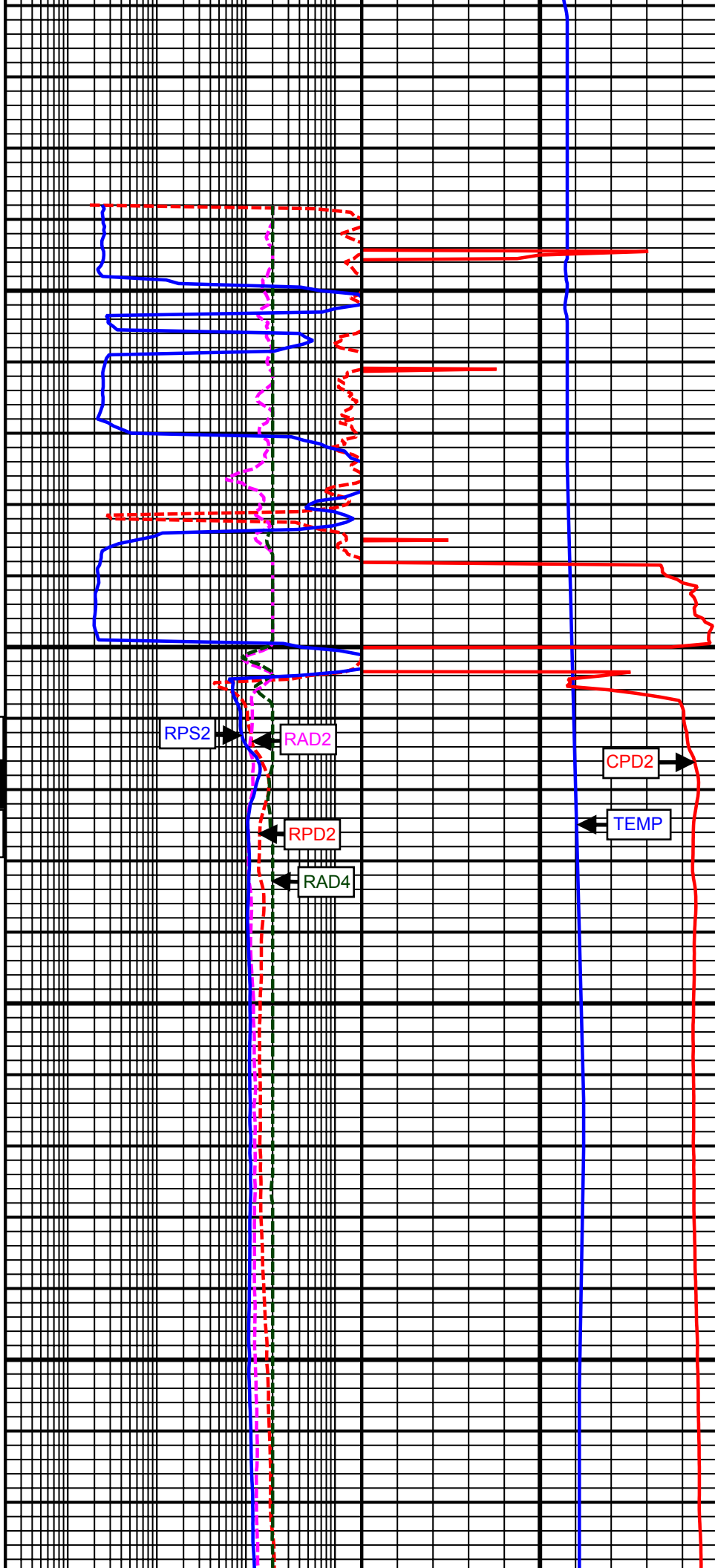
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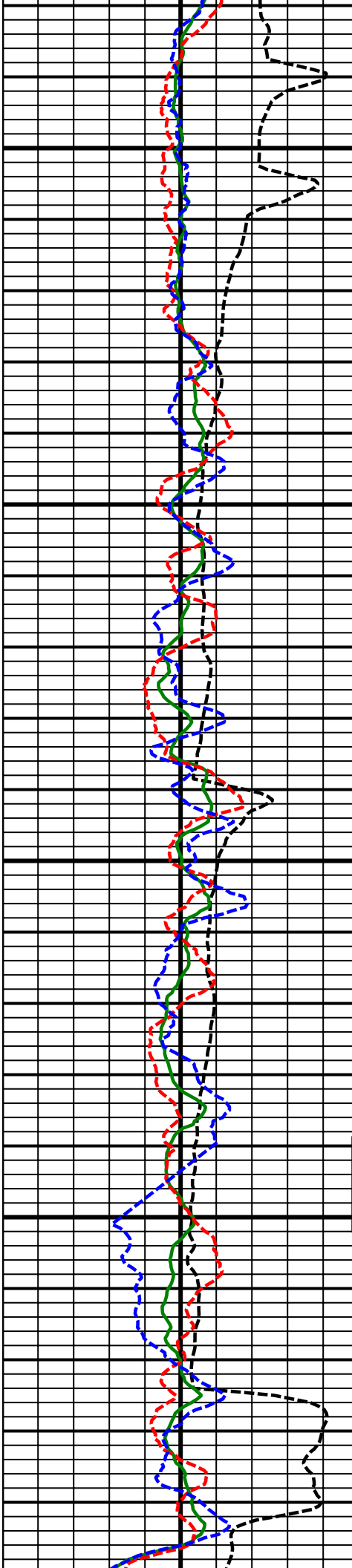
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No. 2-2

Casing

Comment
No. 3-1

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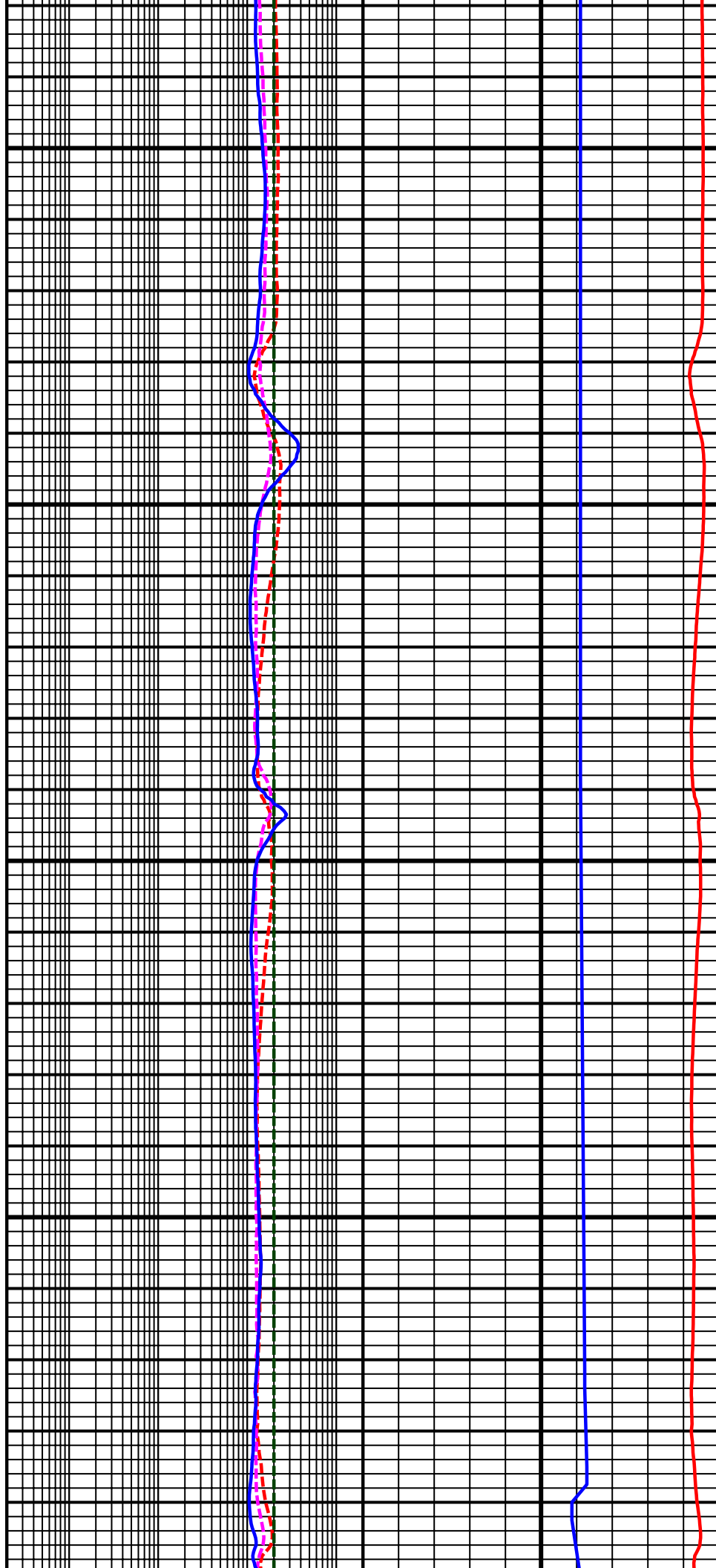


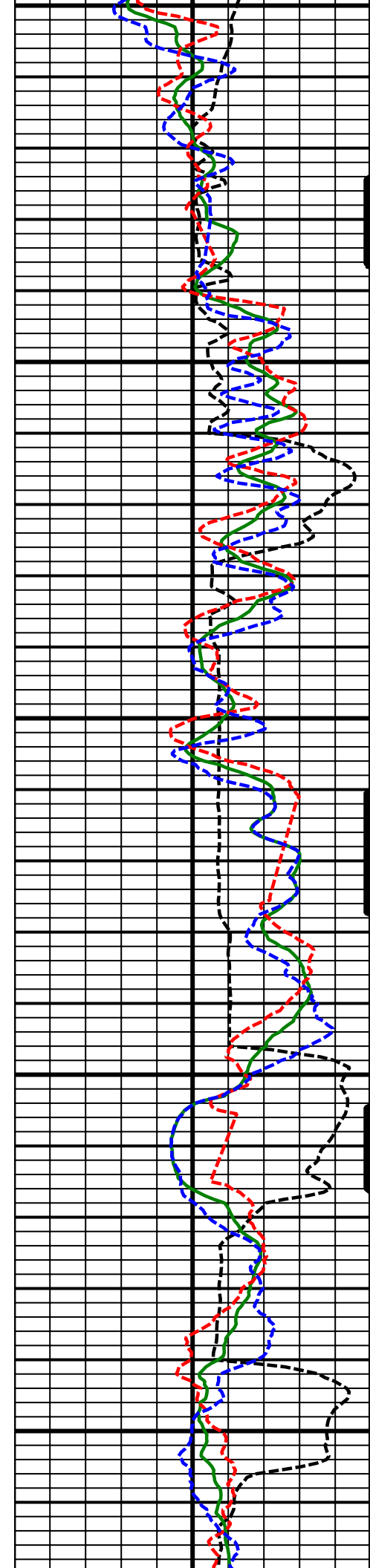


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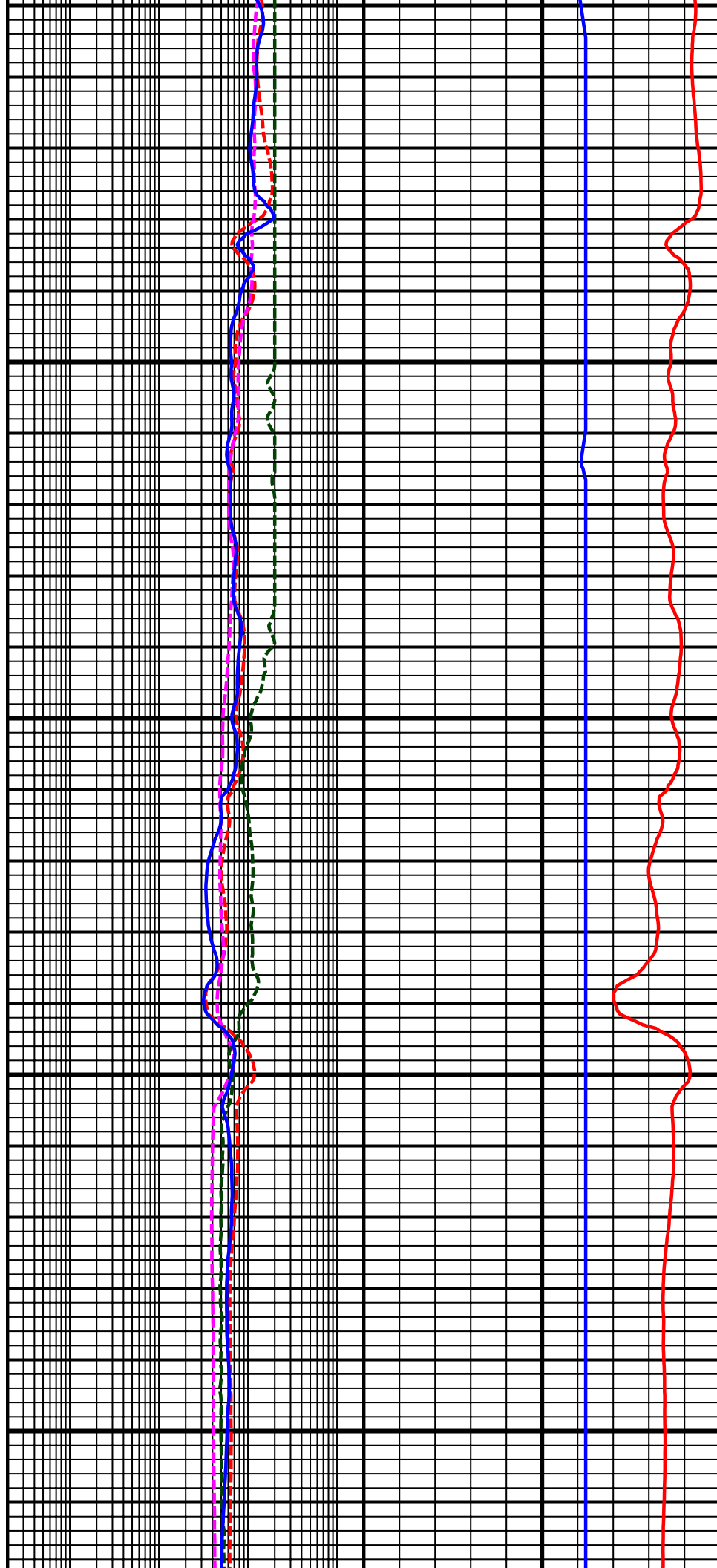


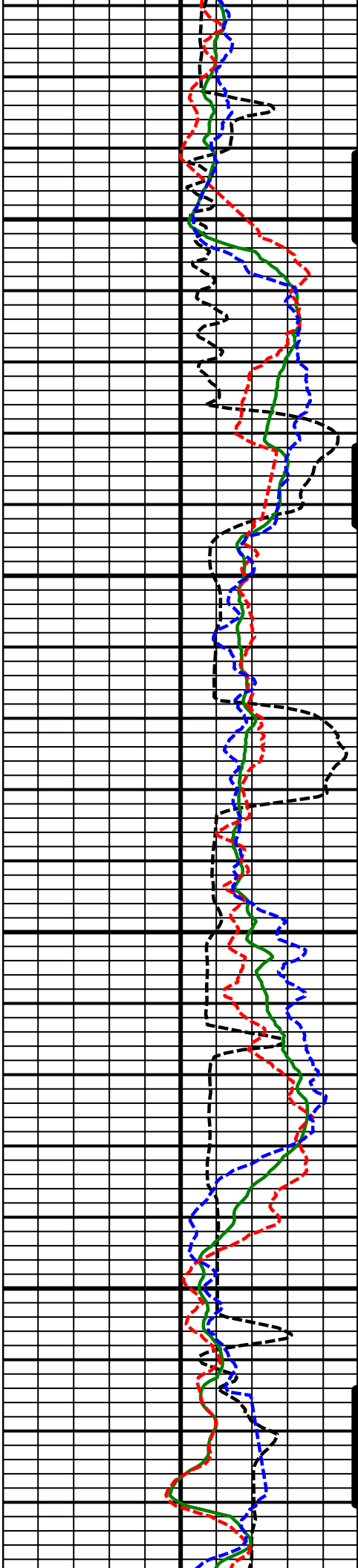


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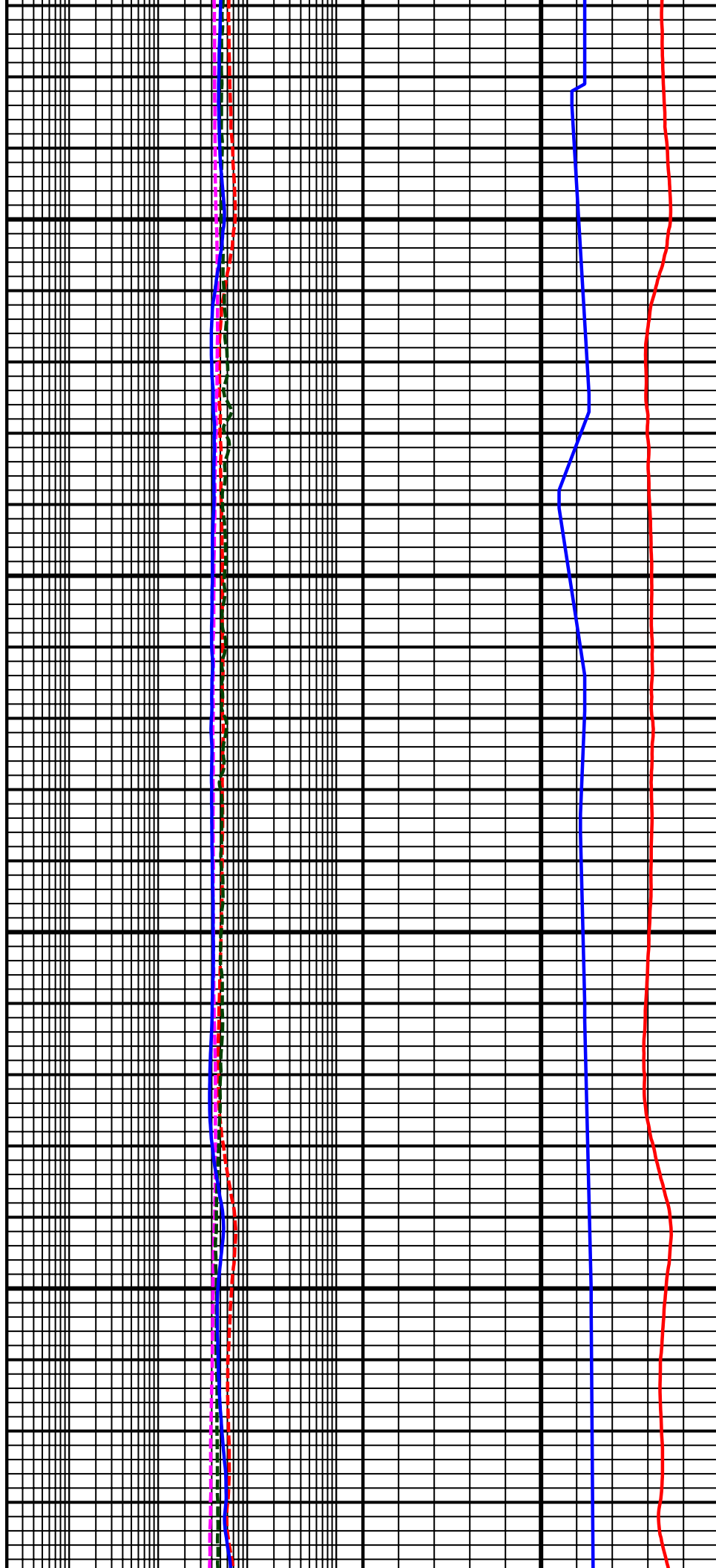
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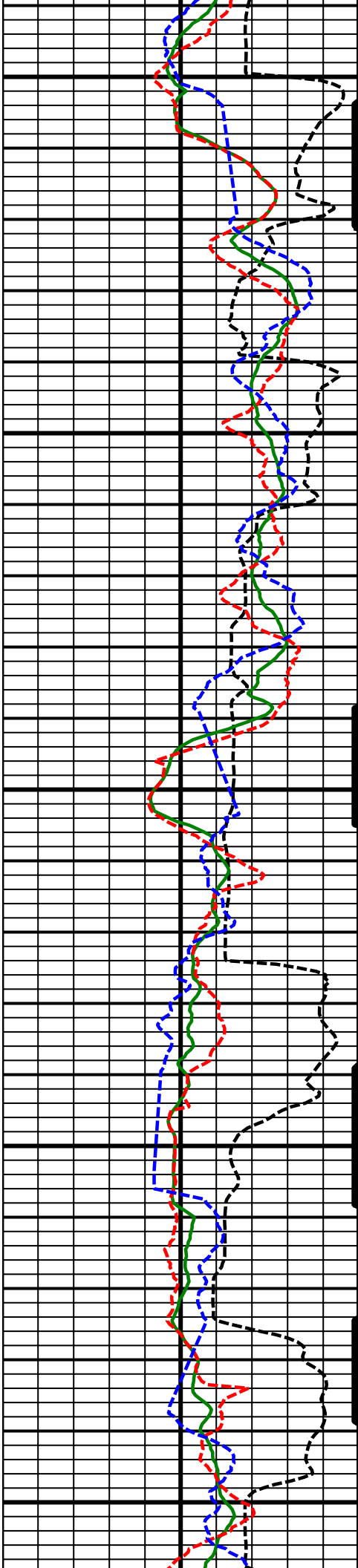




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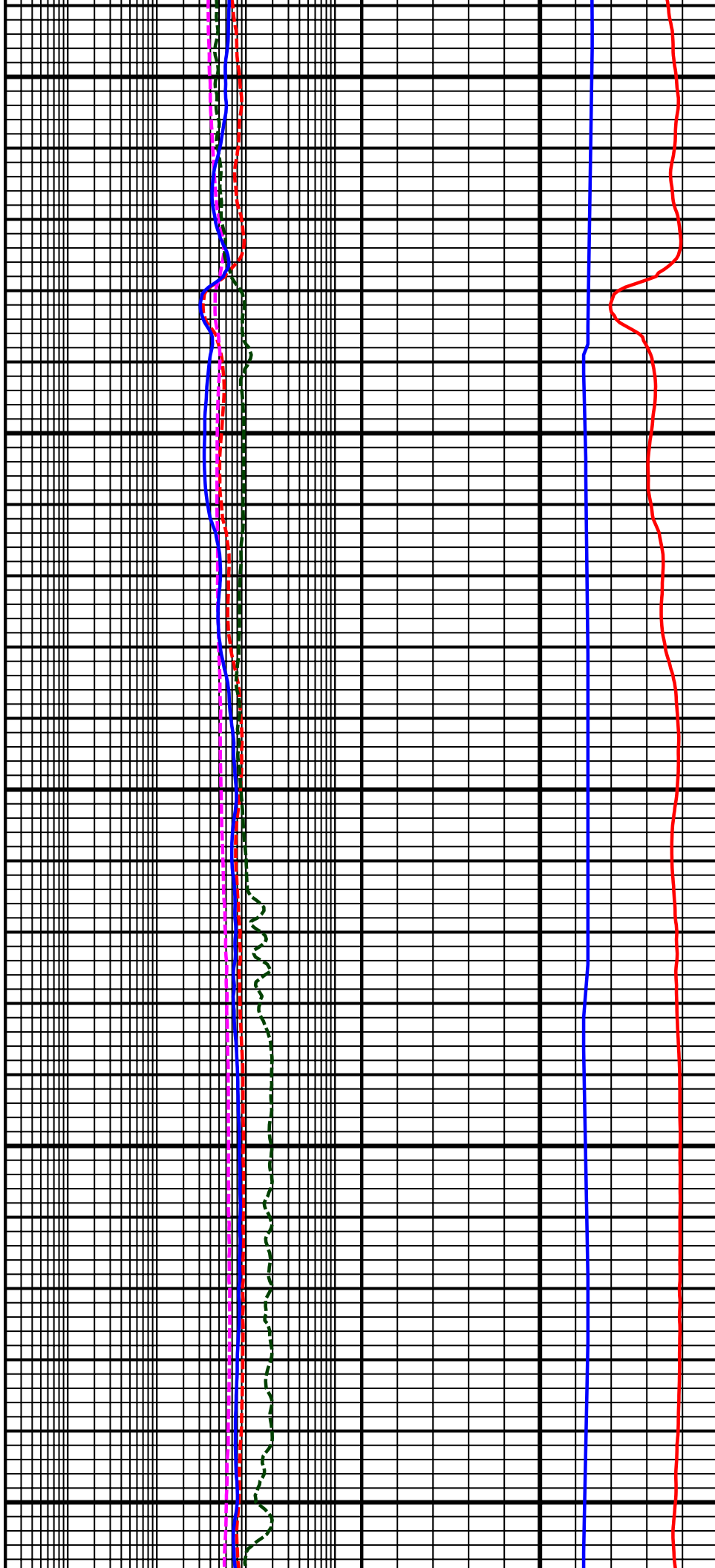
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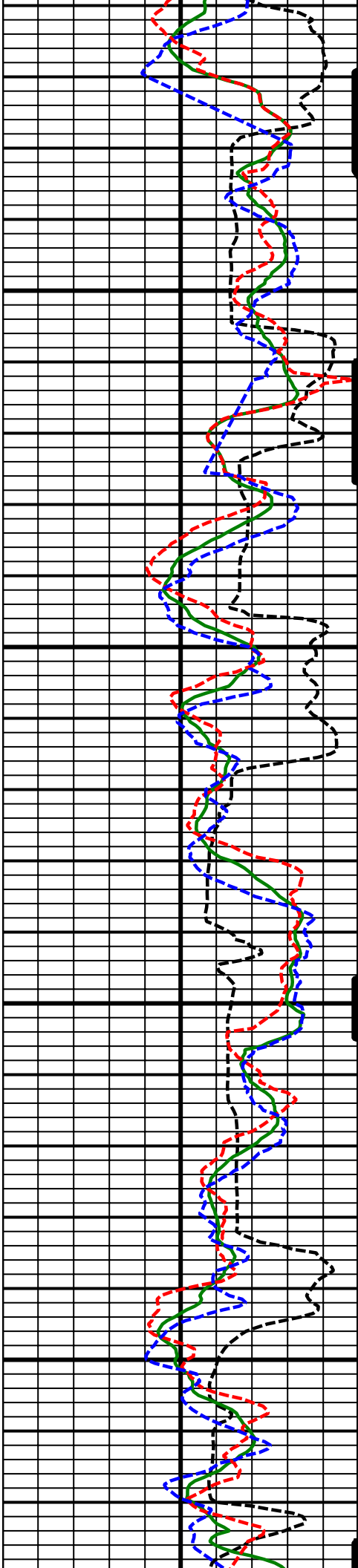




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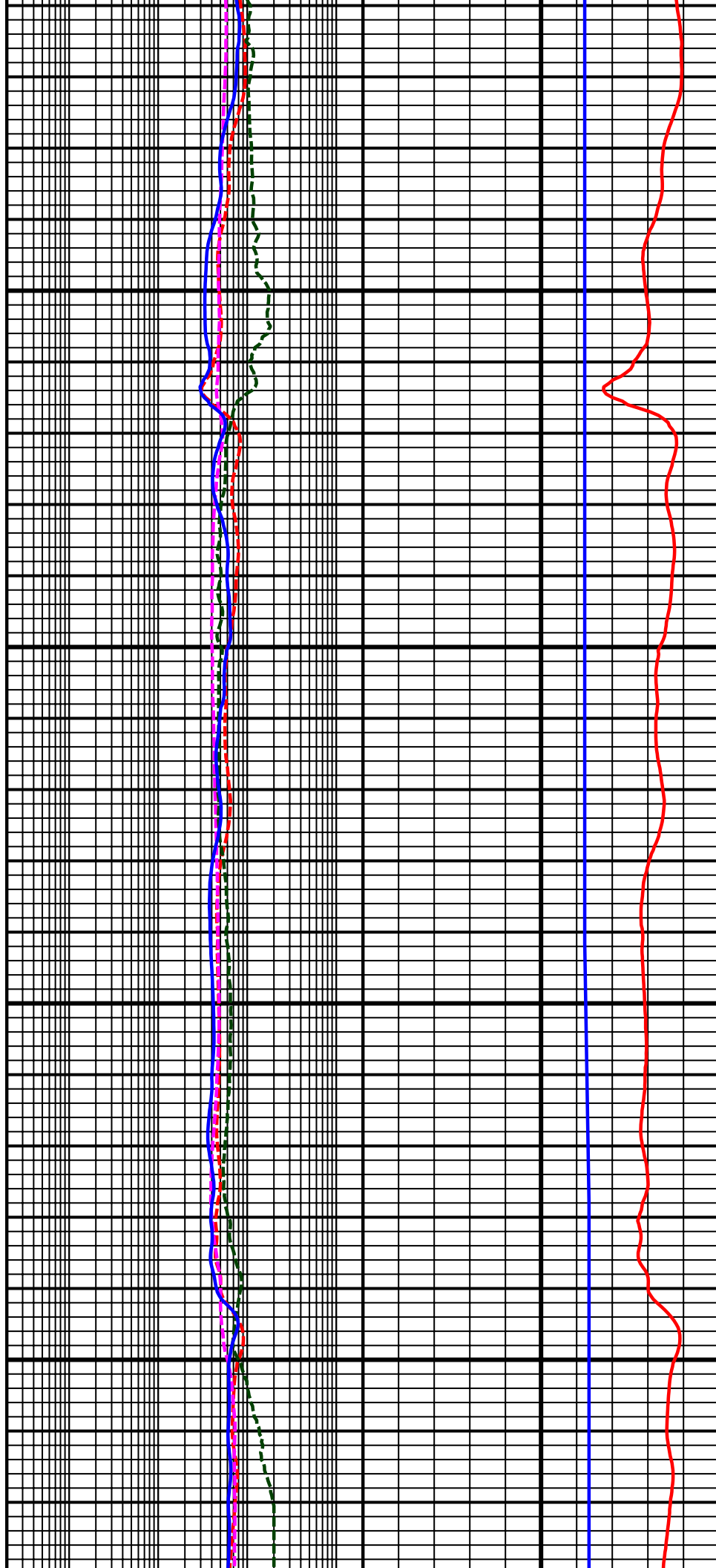
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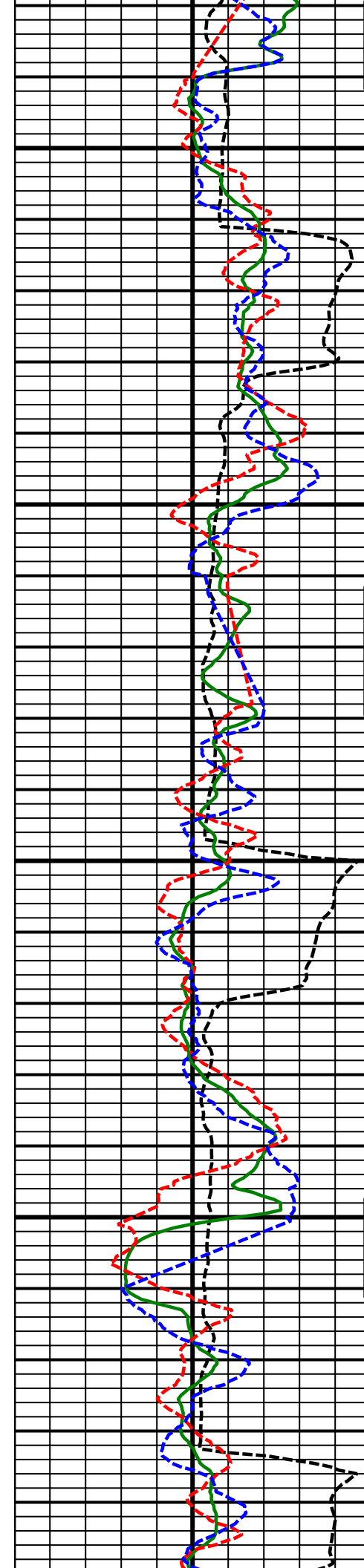




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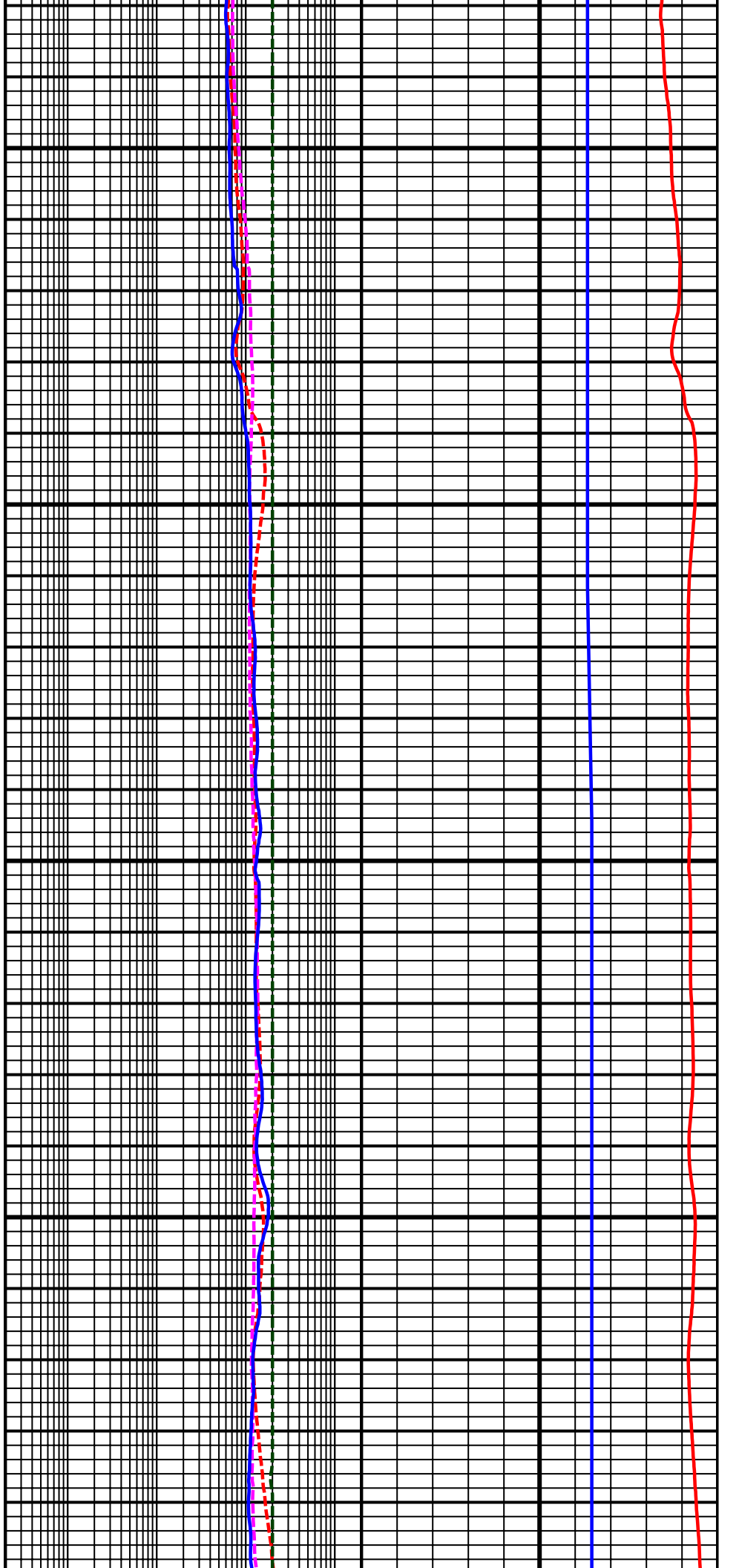


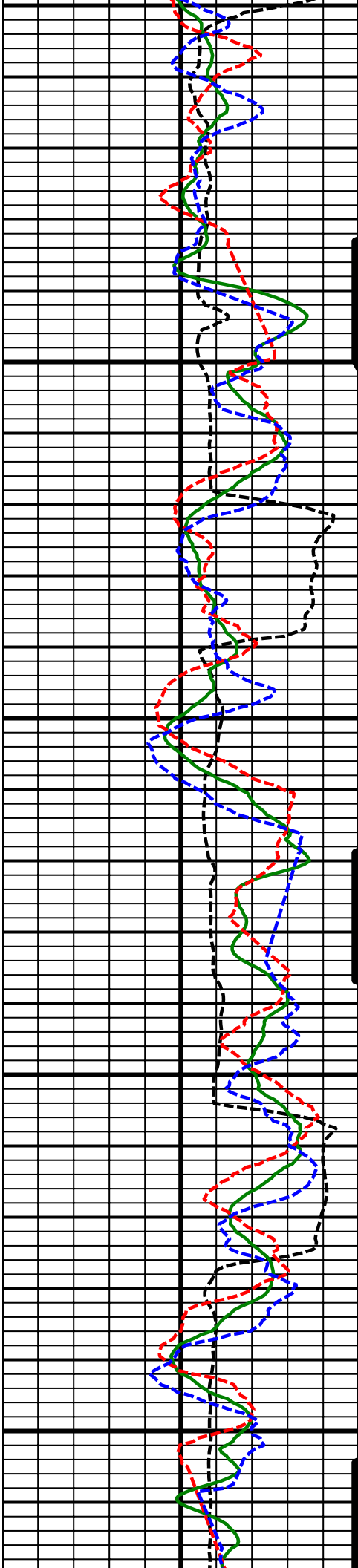


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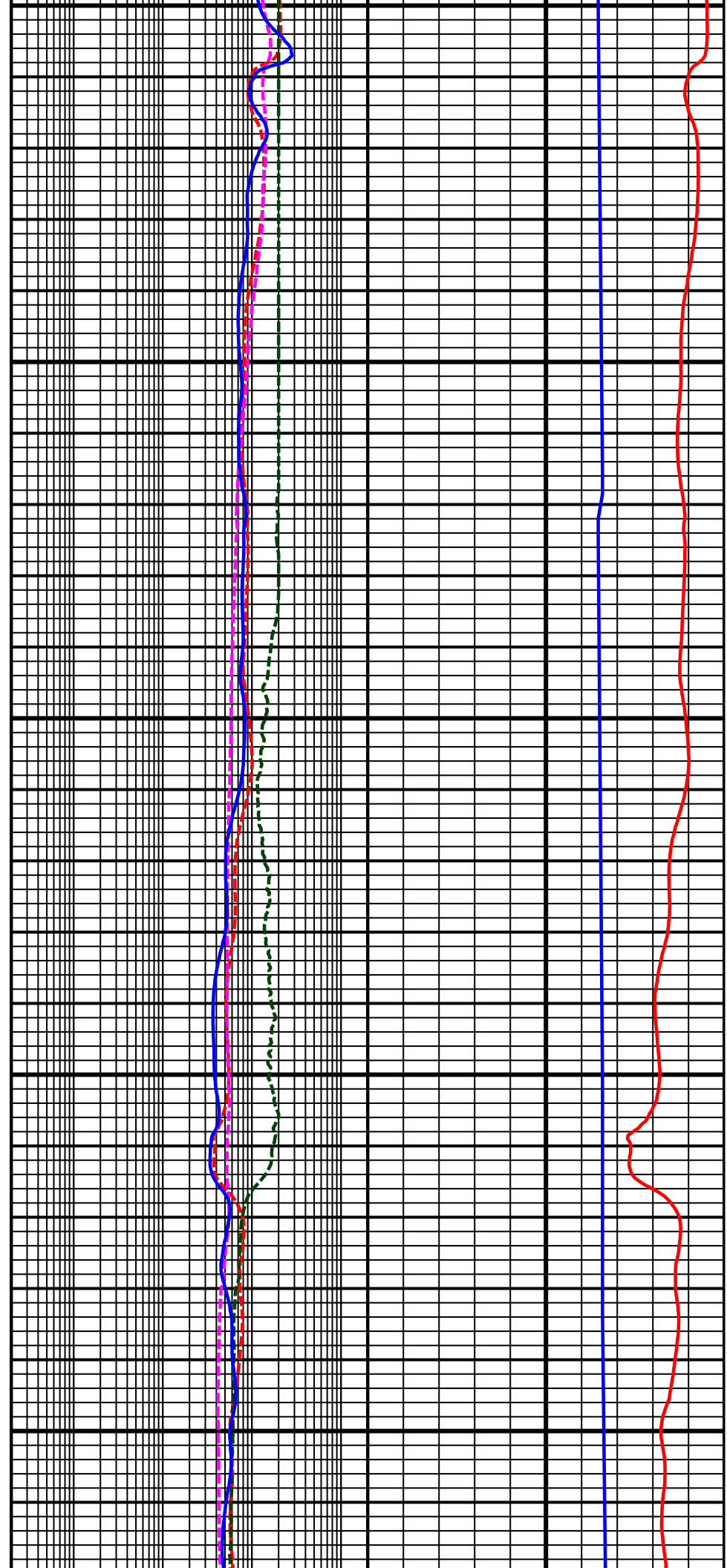


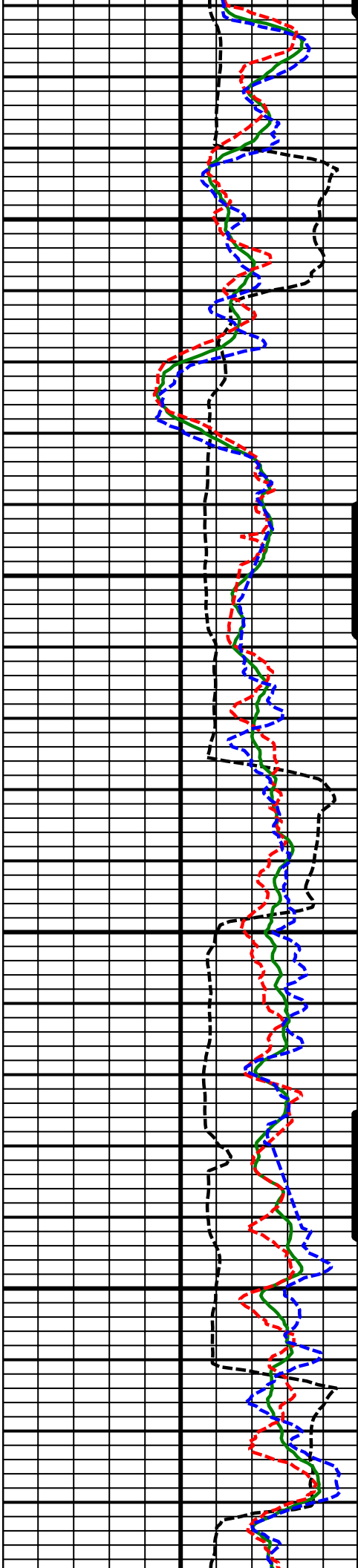


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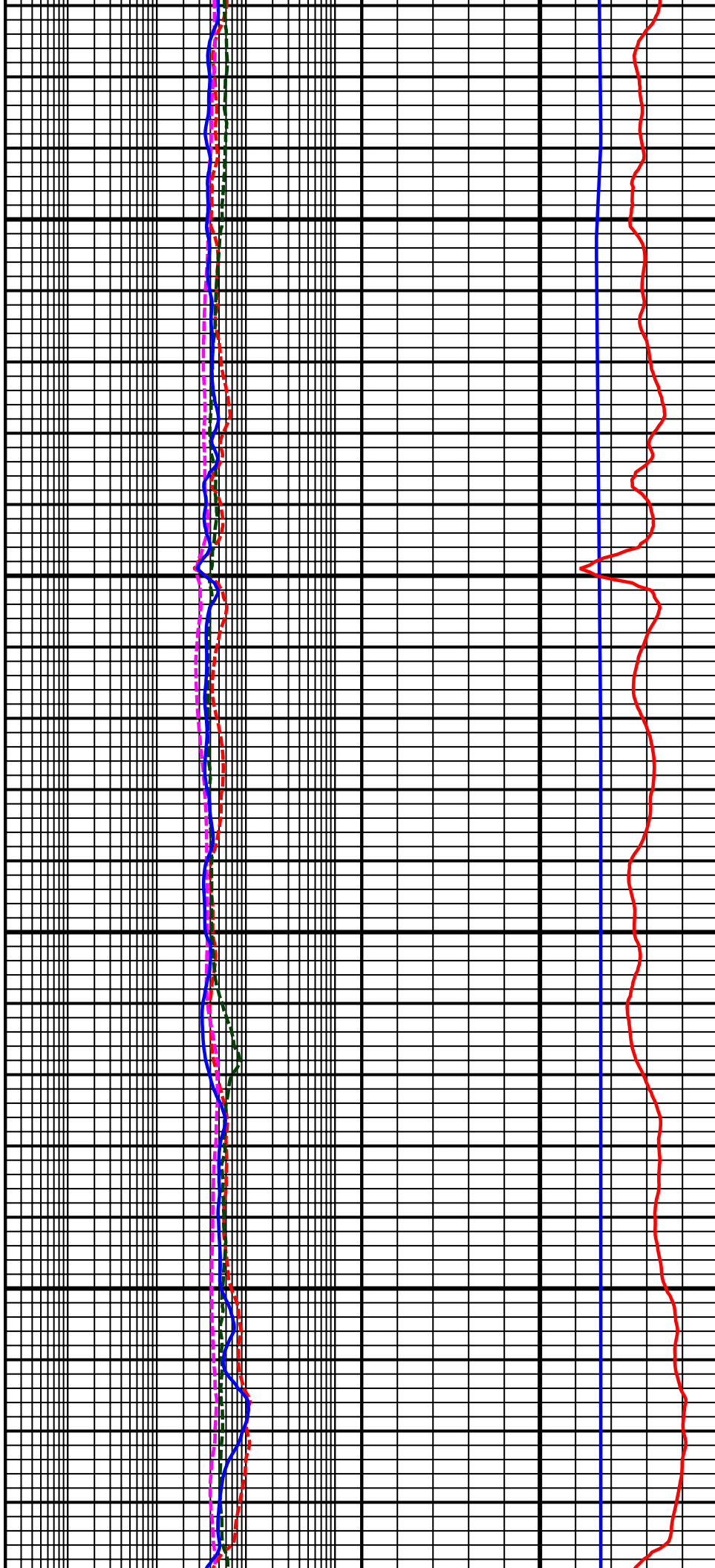
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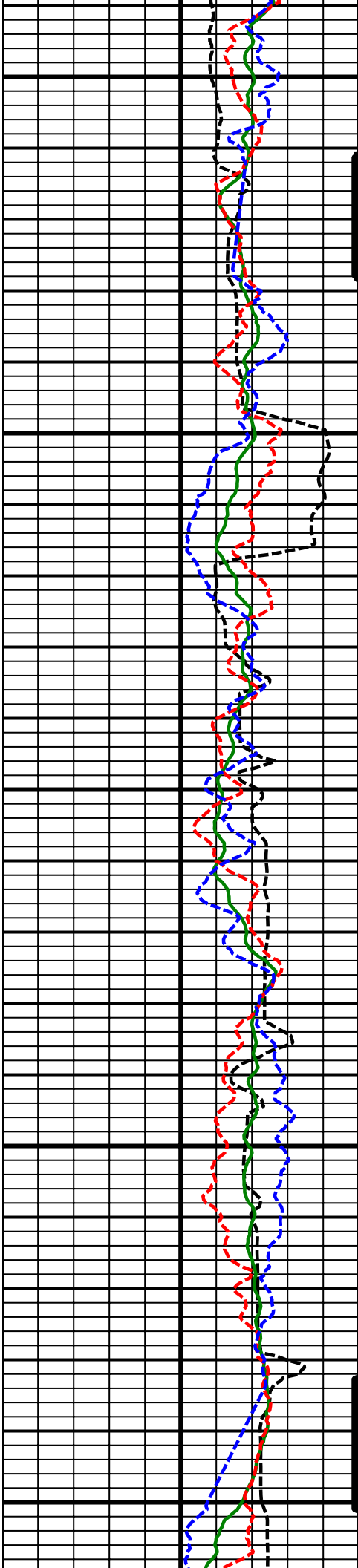




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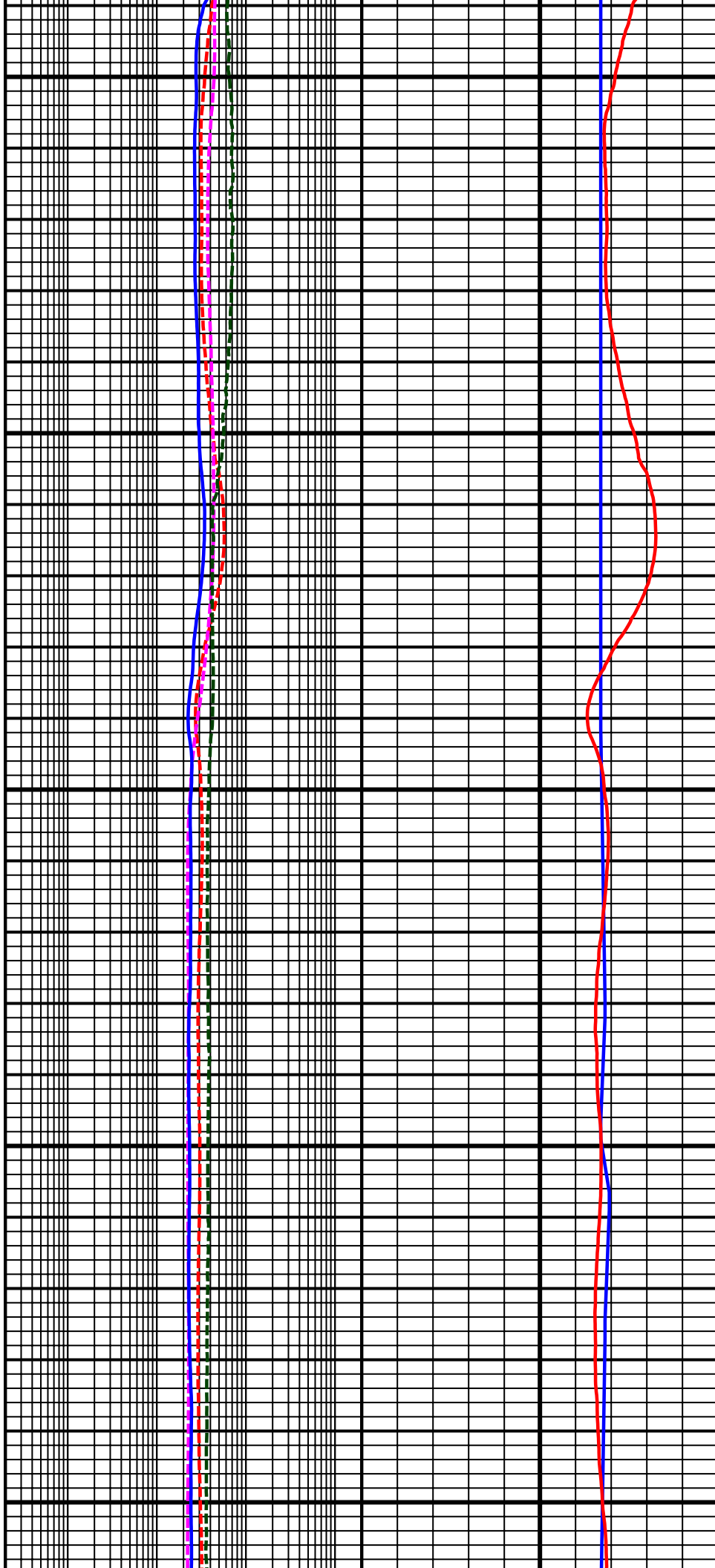
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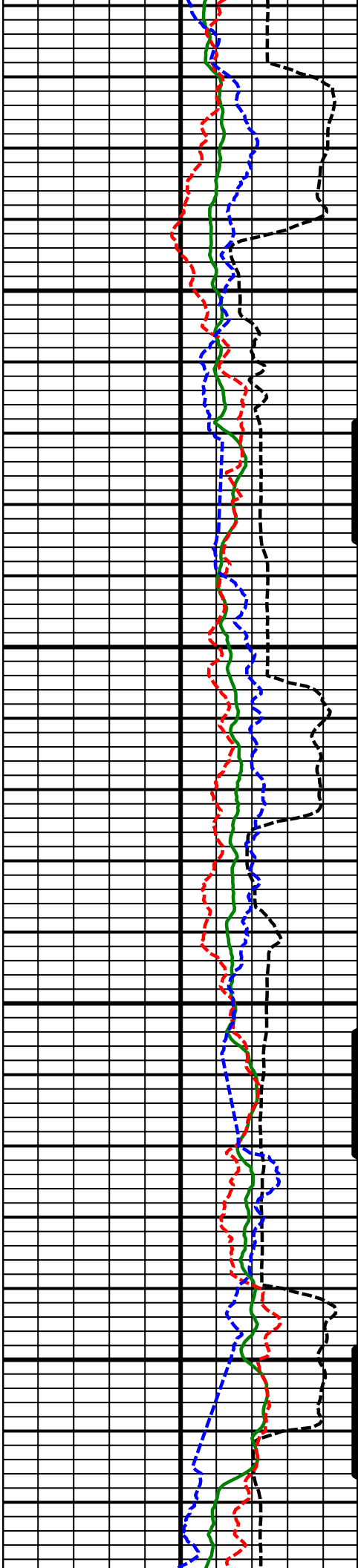




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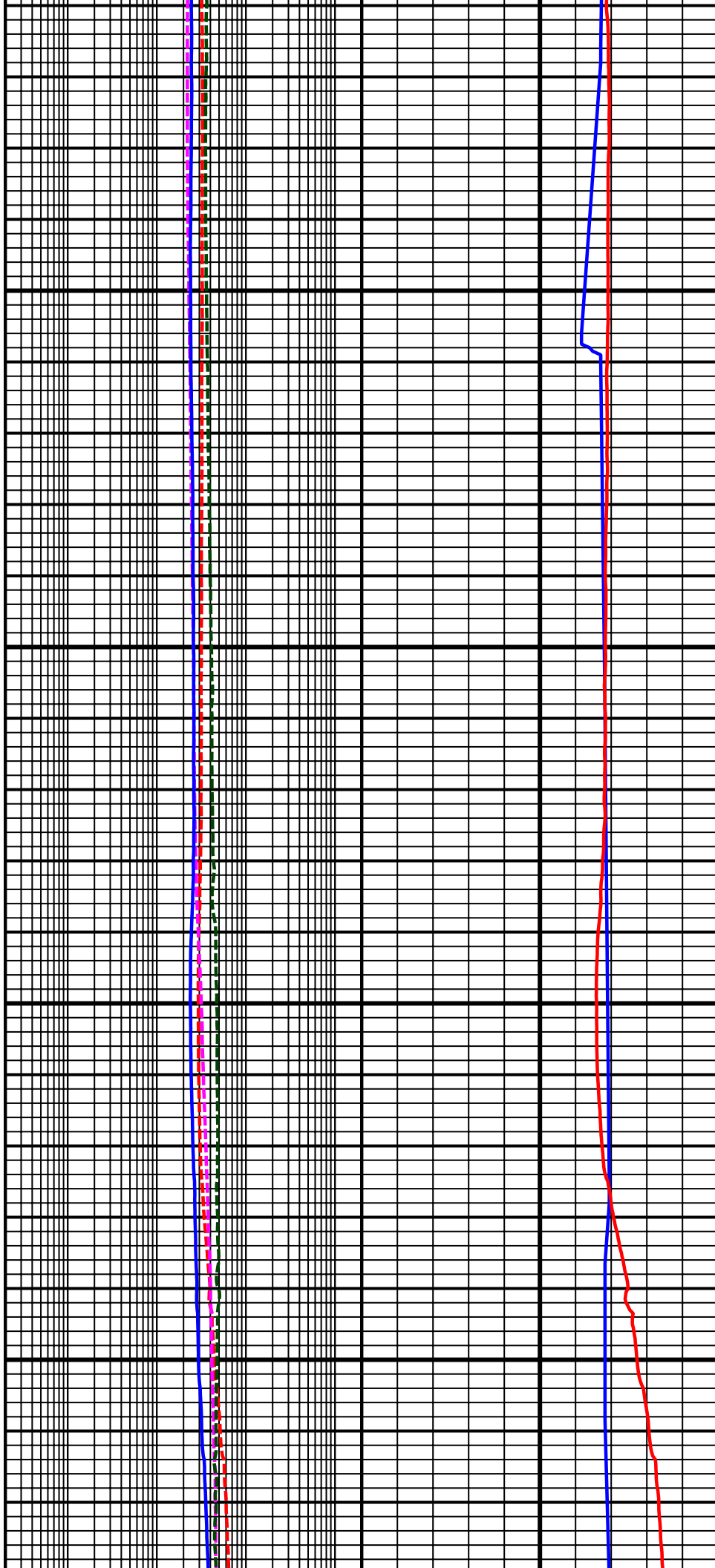
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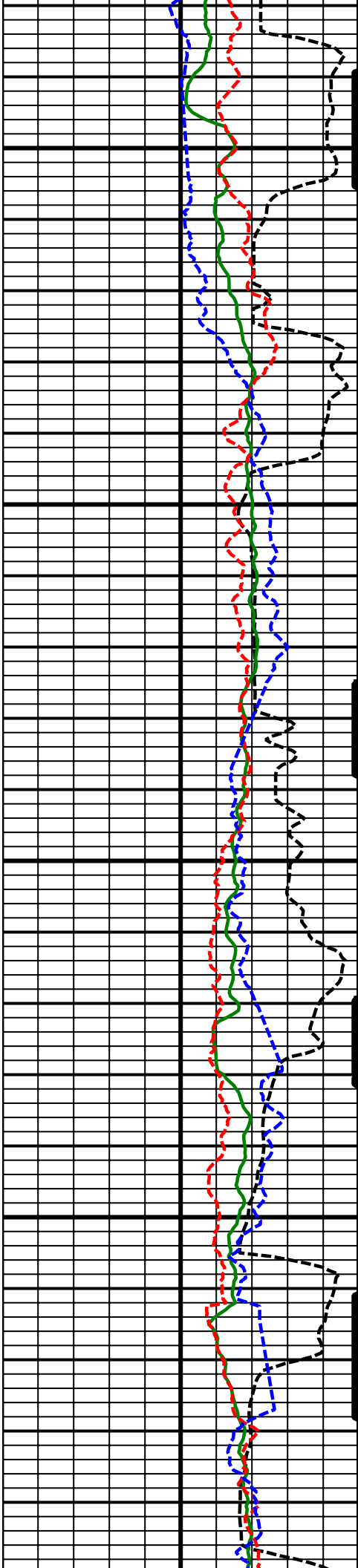




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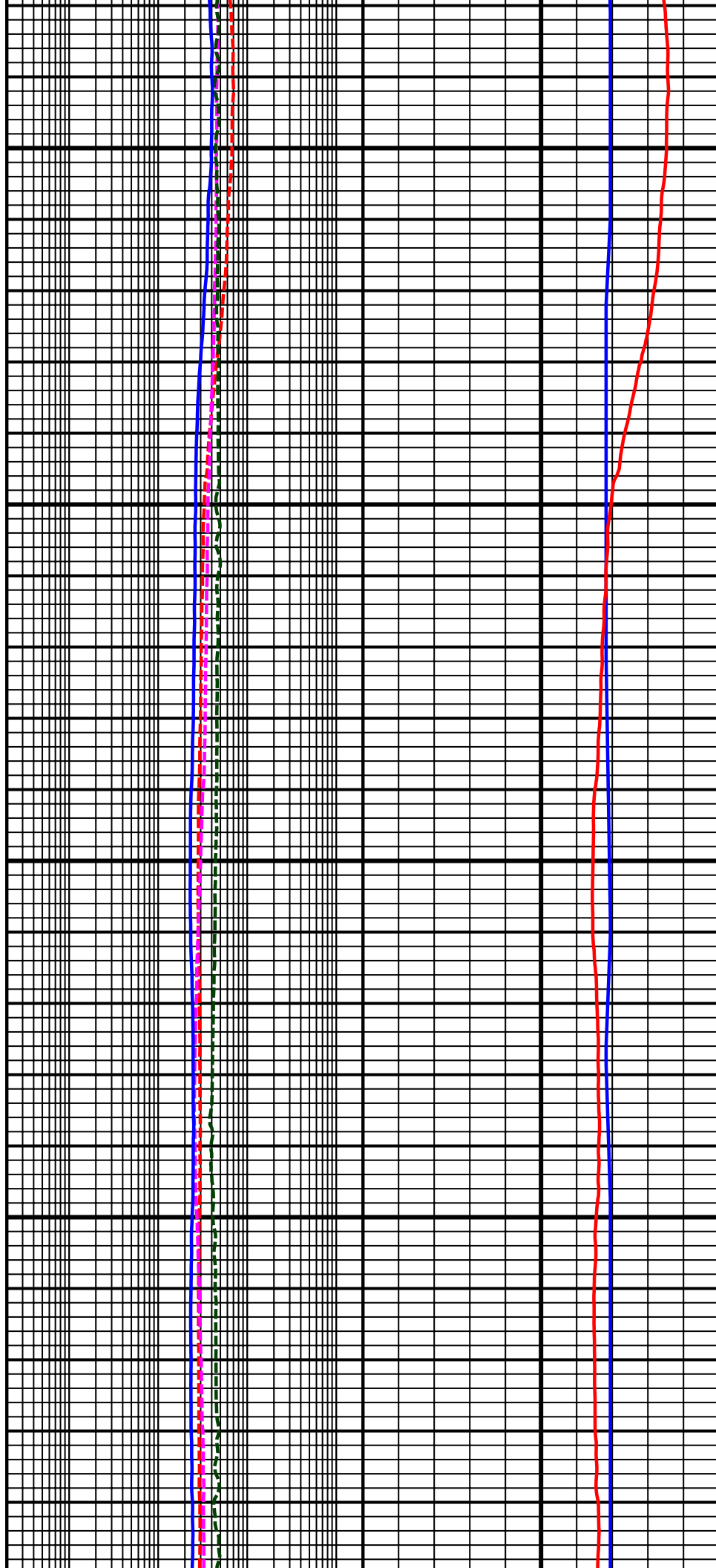




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MD

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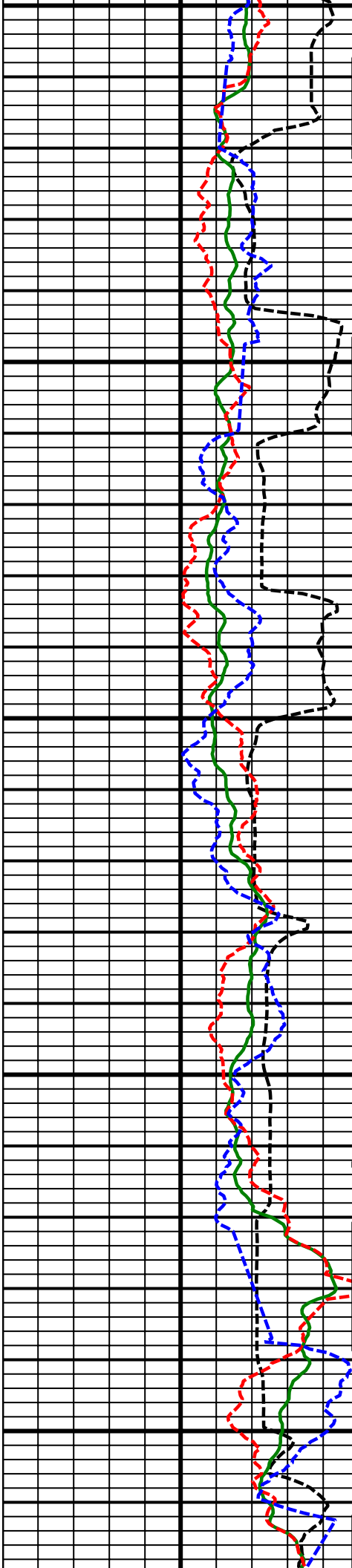
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MD



10000
MD

10100
MD

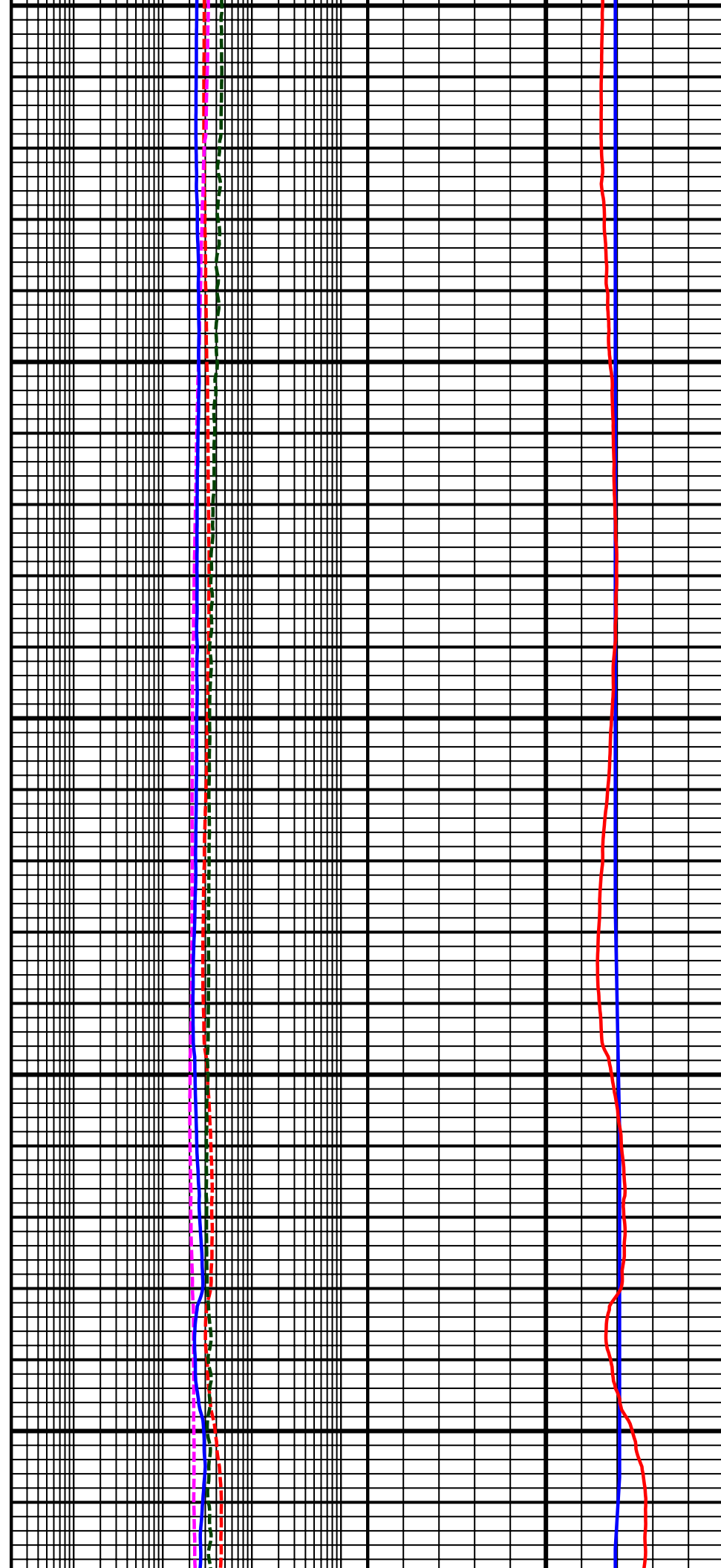
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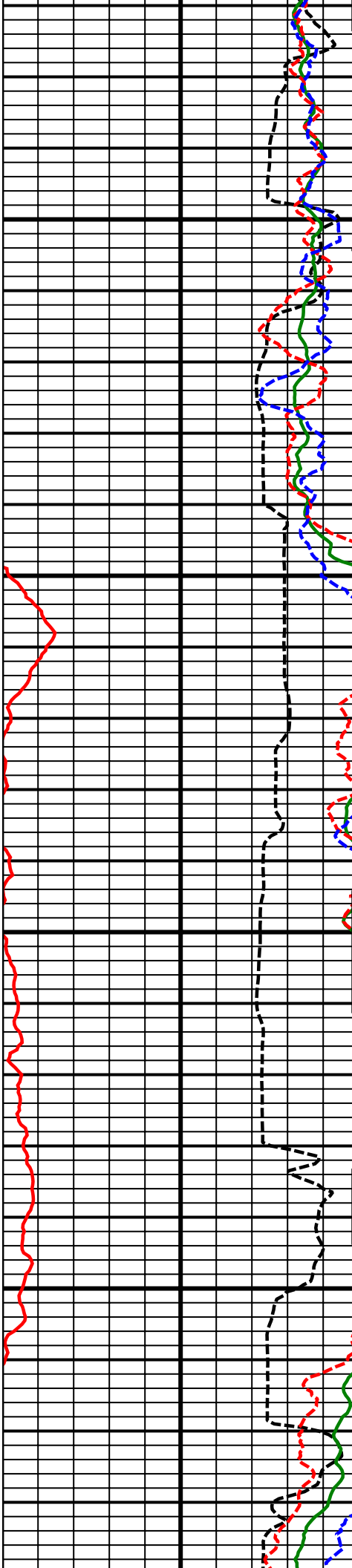


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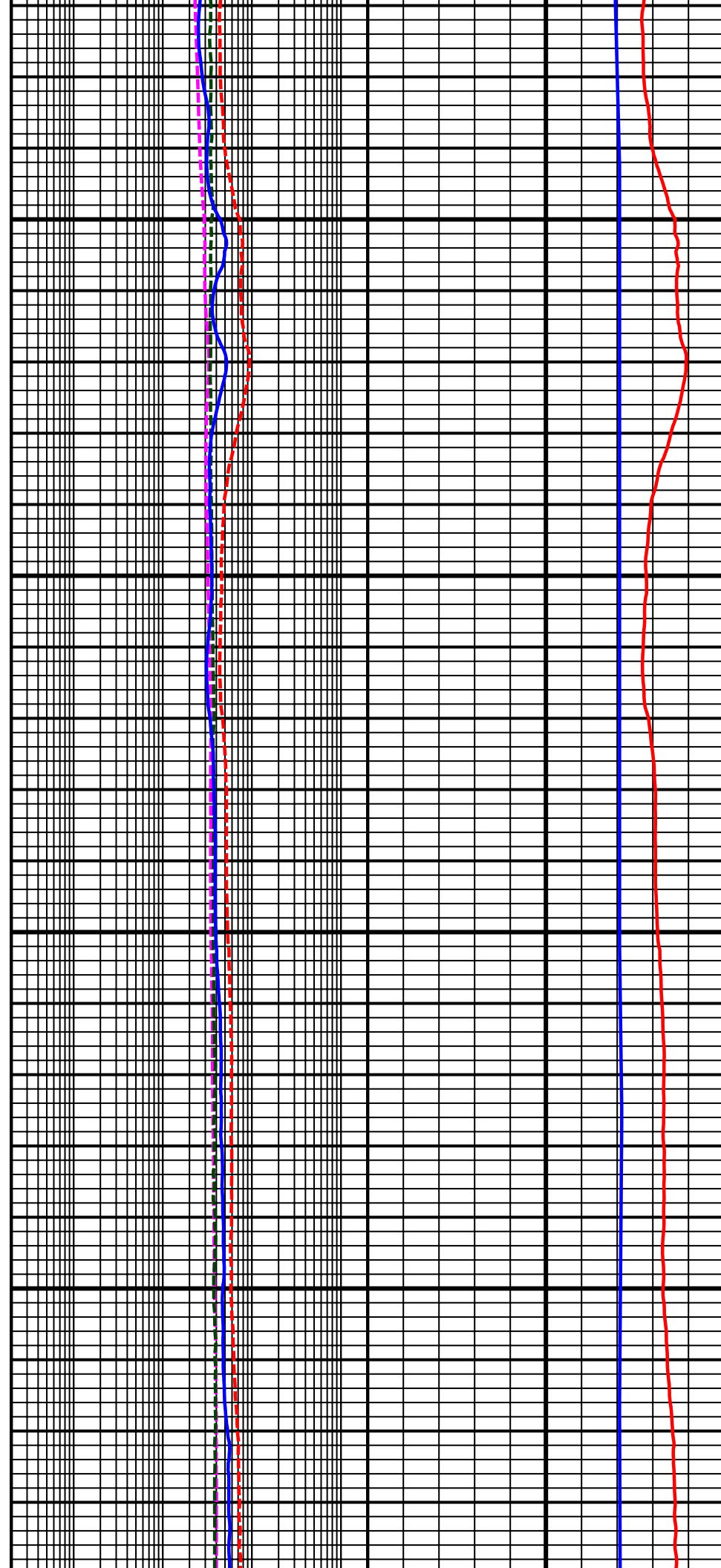
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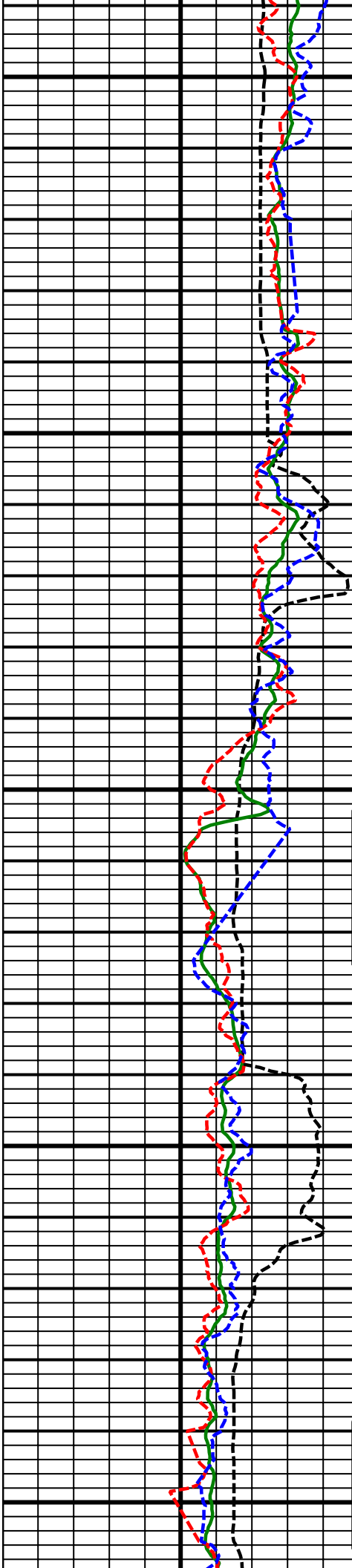




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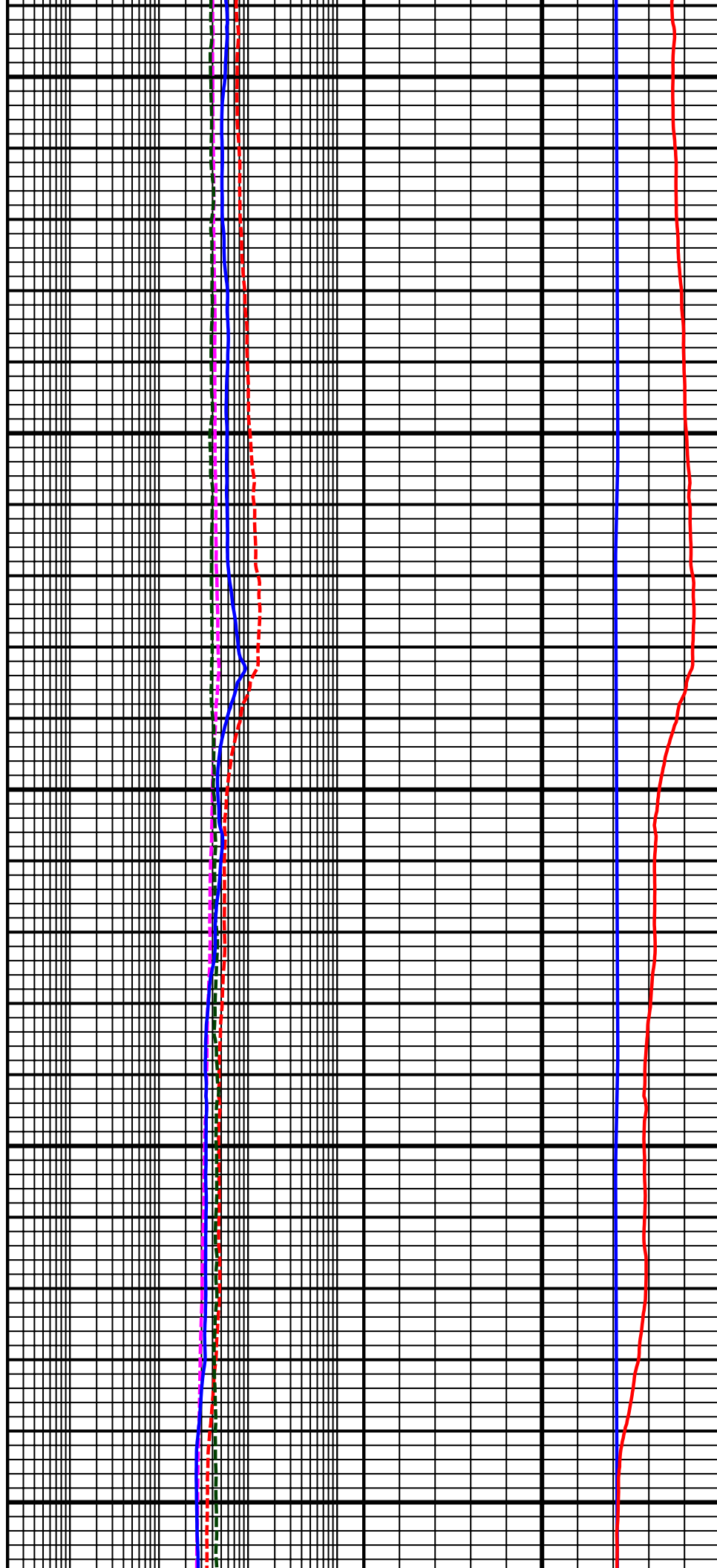
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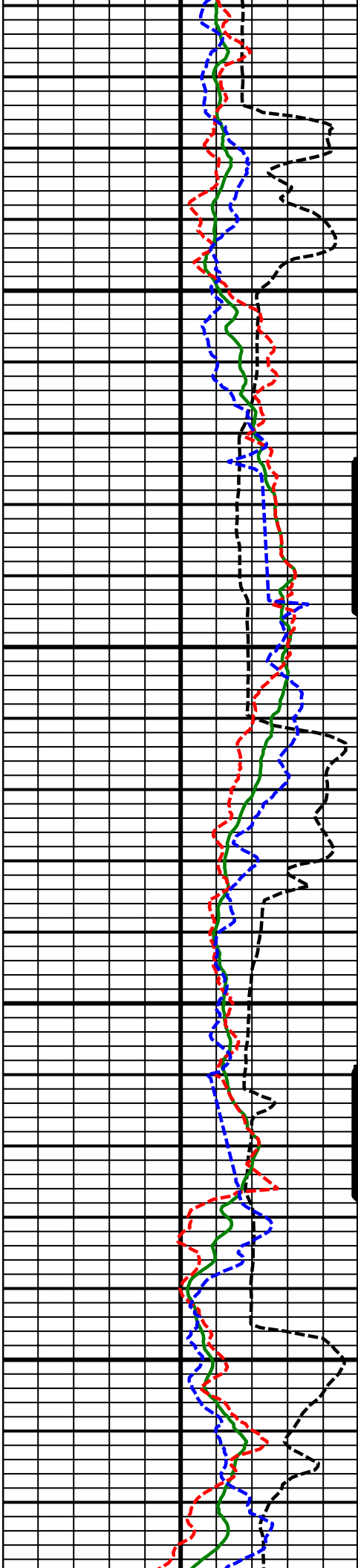




10700
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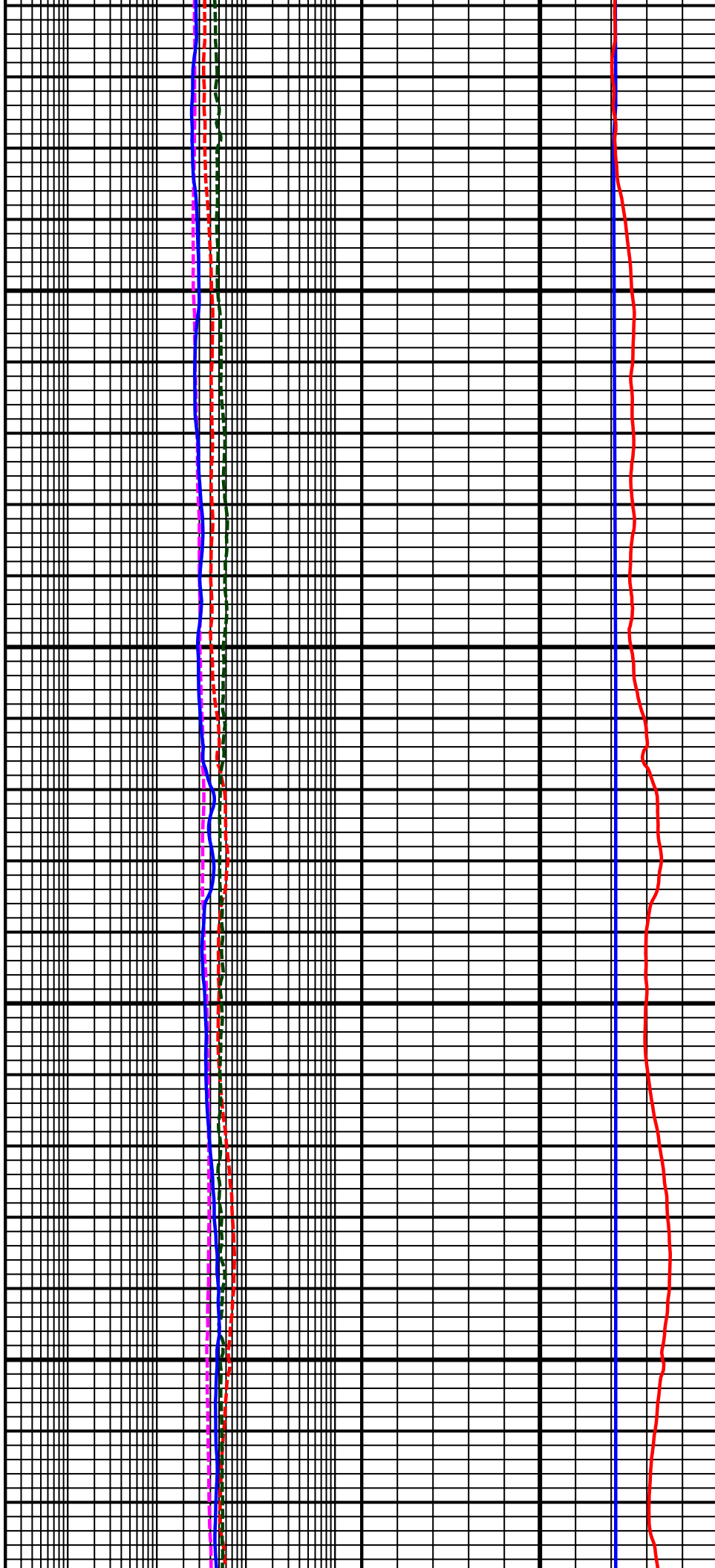
10800
MD

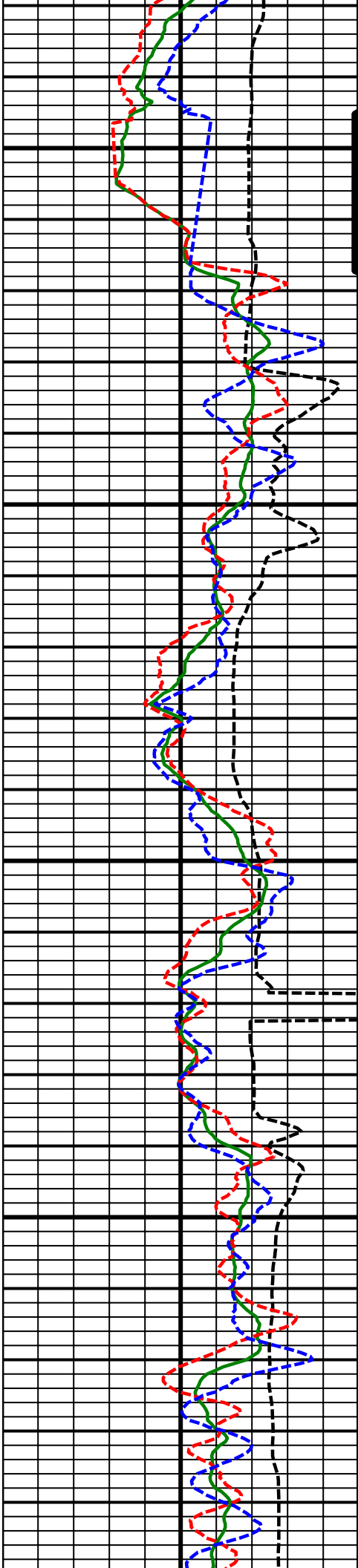




10900
MD

11000
MD

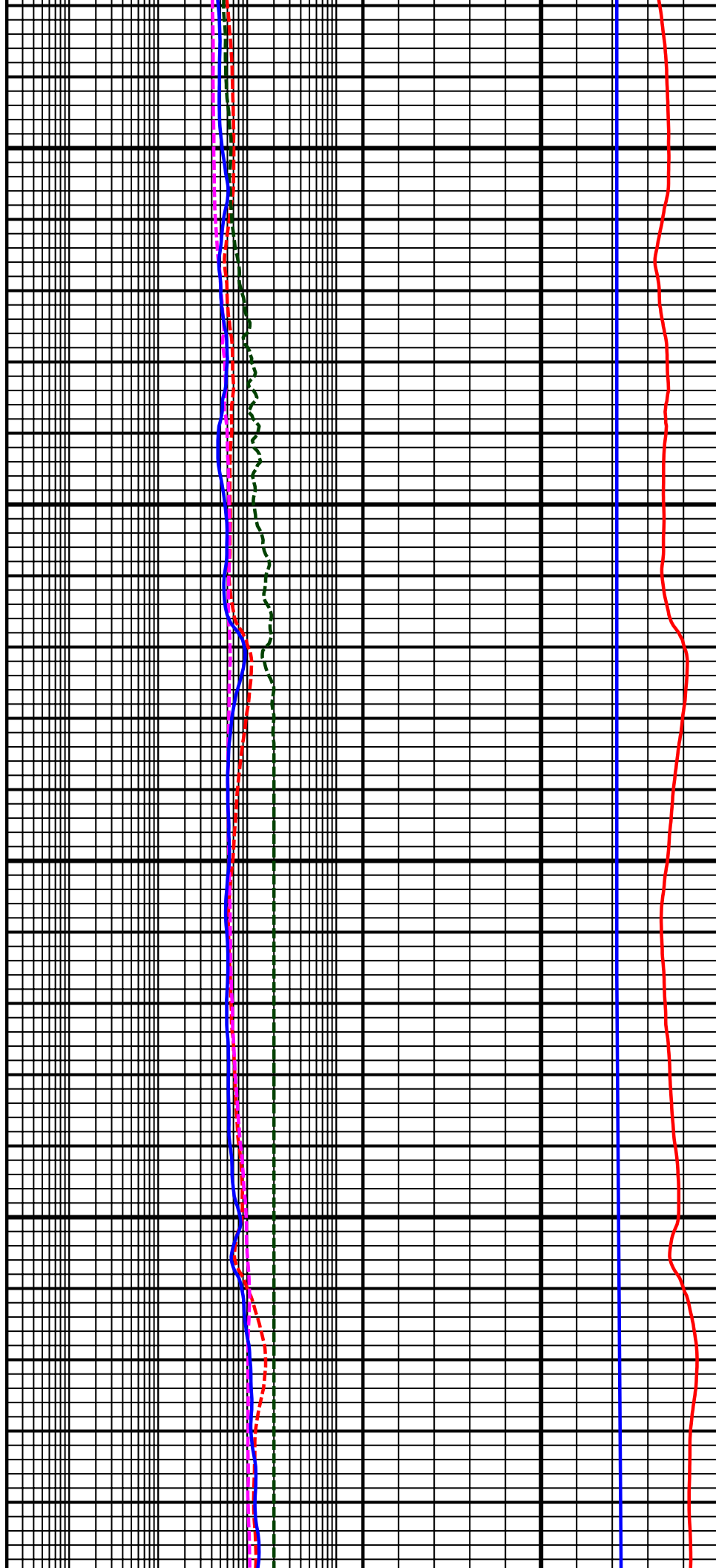


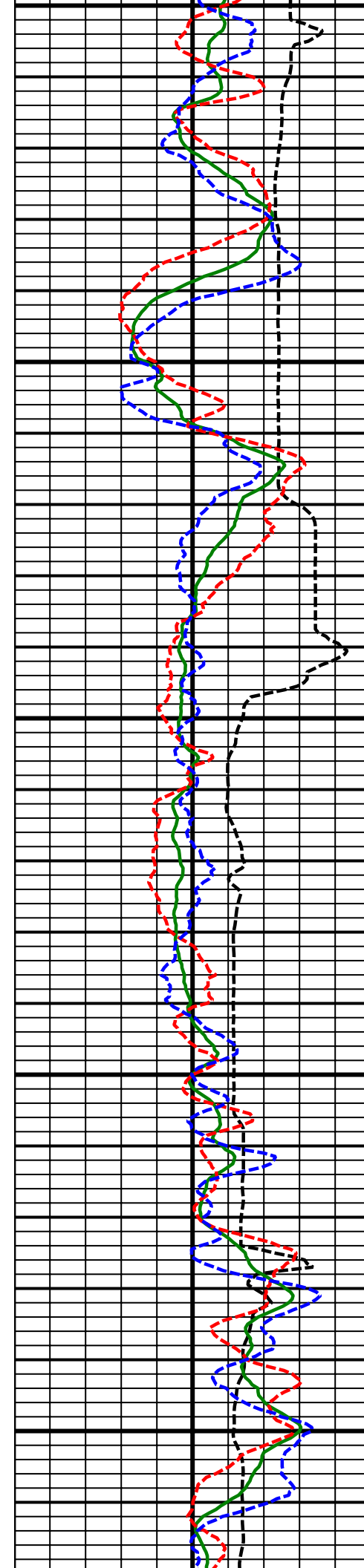


11100
MD

11200
MD

11300
MD

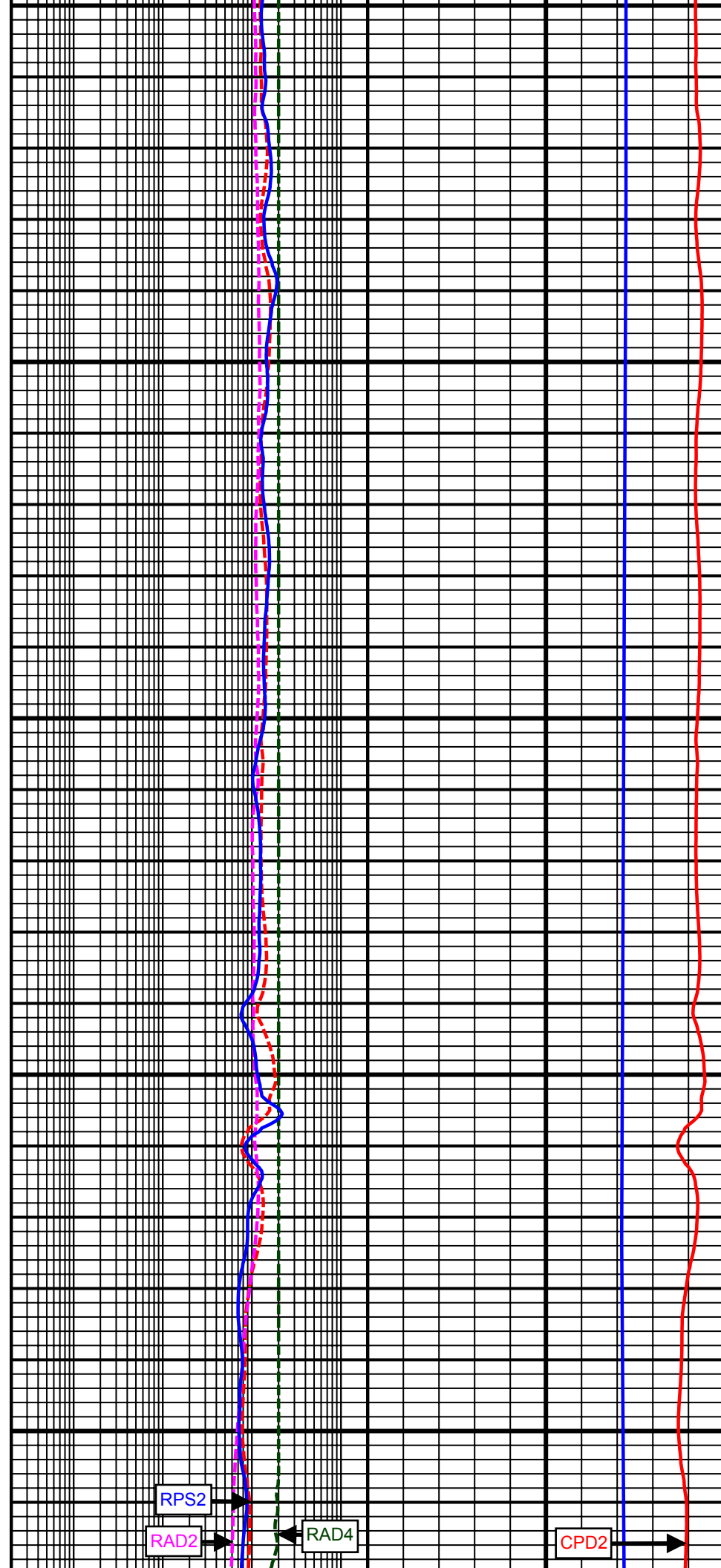




11300
MD

11400
MD

11500
MD

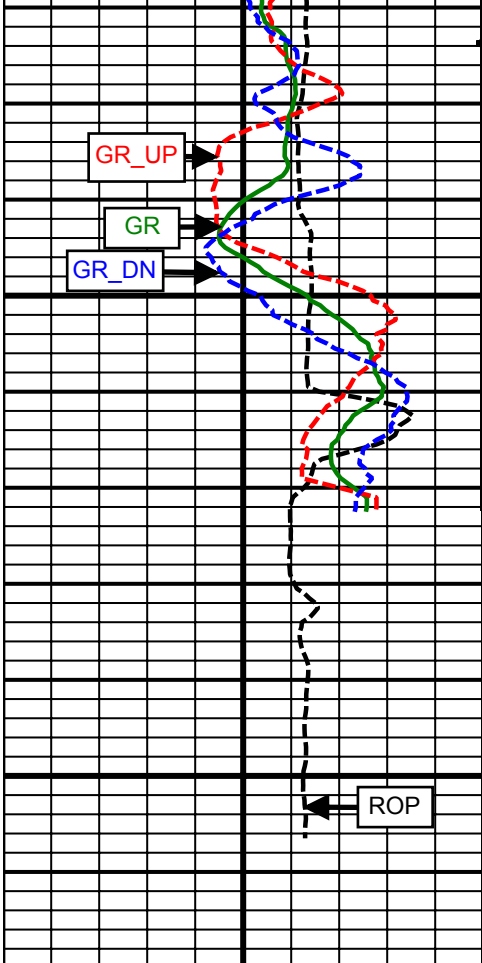


RPS2

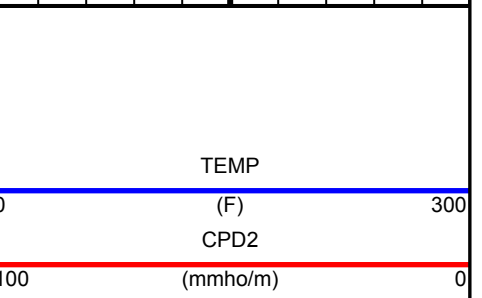
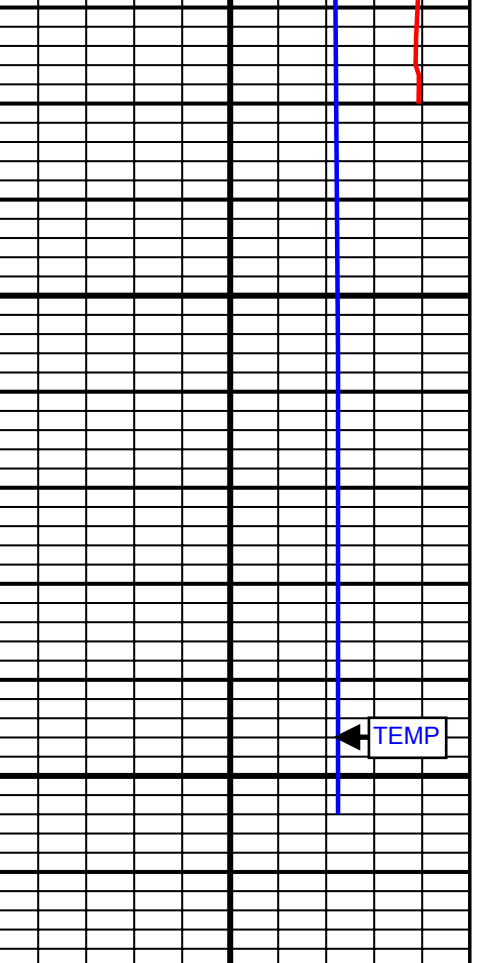
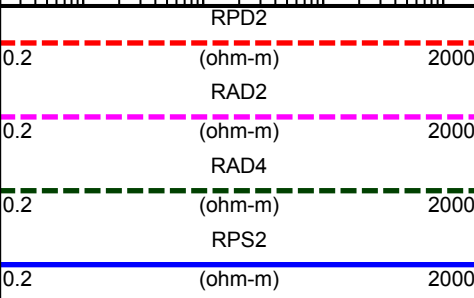
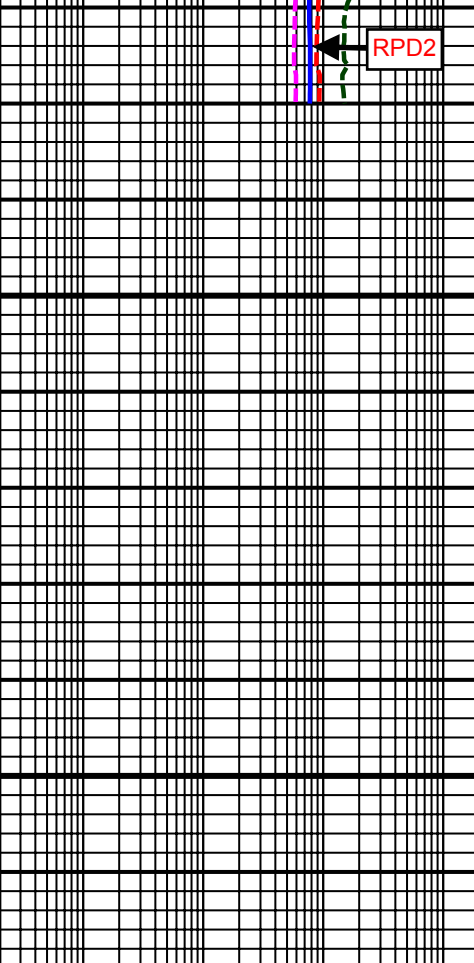
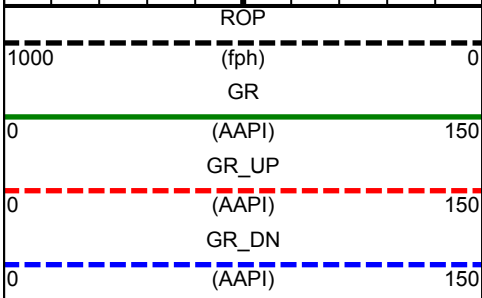
RAD2

RAD4

CPD2



11600
MD
Comment
No. 3-2



| SURVEY | | | | | | |
|---|-------------------|----------------------|--------------------|----------------------|------------------|------------------|
| Survey Calculation Method: Minimum Curvature | | | | | | |
| Magnetic Reference | Target Direction | Total Magnetic Field | Magnetic Dip Angle | Magnetic Declination | Grid Convergence | Total Correction |
| True North | 179.65 deg | 52710 nT | 66.76 deg | 8.65 deg | 0.00 deg | 8.65 deg |
| Survey Tie-On | Depth | INC | AZ | TVD | NS | EW |
| | 896.00 ft | 0.42 deg | 6.25 deg | 895.96 ft | 5.50 ft | -4.40 ft |

| Depth (ft) | Inc (deg) | Azm (deg) | TVD (ft) | Well Head | | VSect (ft) | Dogleg (deg/100ft) |
|---------------|--------------|--------------|-------------|------------|------------|---------------|-----------------------|
| | | | | NS (ft) | EW (ft) | | |
| 1054.00 | 0.78 | 305.20 | 1053.95 | 6.70 | -5.22 | -6.73 | 0.43 |
| 1145.00 | 1.75 | 284.82 | 1144.93 | 7.41 | -7.07 | -7.45 | 1.16 |
| 1236.00 | 2.75 | 306.10 | 1235.86 | 9.05 | -10.17 | -9.11 | 1.41 |
| 1327.00 | 4.87 | 307.77 | 1326.65 | 12.70 | -14.99 | -12.79 | 2.33 |
| 1418.00 | 6.73 | 306.33 | 1417.18 | 18.23 | -22.34 | -18.36 | 2.05 |
| 1515.00 | 7.55 | 302.24 | 1513.43 | 24.99 | -32.31 | -25.19 | 0.99 |
| 1607.00 | 8.59 | 291.83 | 1604.52 | 30.77 | -43.80 | -31.04 | 1.95 |
| 1699.00 | 9.83 | 290.61 | 1695.34 | 36.09 | -57.53 | -36.44 | 1.36 |
| 1791.00 | 10.93 | 286.35 | 1785.83 | 41.31 | -73.25 | -41.76 | 1.46 |
| 1885.00 | 11.69 | 286.86 | 1878.00 | 46.58 | -90.92 | -47.14 | 0.82 |
| 1978.00 | 11.24 | 285.69 | 1969.15 | 51.77 | -108.66 | -52.43 | 0.54 |
| 2072.00 | 11.36 | 290.74 | 2061.33 | 57.52 | -126.14 | -58.29 | 1.06 |
| 2165.00 | 12.11 | 292.67 | 2152.38 | 64.53 | -143.70 | -65.40 | 0.91 |
| 2258.00 | 10.74 | 291.74 | 2243.54 | 71.50 | -160.76 | -72.48 | 1.49 |
| 2352.00 | 9.83 | 290.00 | 2336.03 | 77.49 | -176.43 | -78.56 | 1.02 |
| 2445.00 | 9.27 | 294.04 | 2427.74 | 83.25 | -190.73 | -84.42 | 0.94 |
| 2538.00 | 11.08 | 291.53 | 2519.27 | 89.58 | -205.89 | -90.84 | 2.00 |
| 2632.00 | 11.87 | 287.85 | 2611.40 | 95.86 | -223.49 | -97.23 | 1.15 |
| 2725.00 | 12.71 | 289.01 | 2702.26 | 102.13 | -242.27 | -103.61 | 0.94 |
| 2819.00 | 12.29 | 284.93 | 2794.04 | 108.07 | -261.71 | -109.67 | 1.04 |
| 2912.00 | 12.77 | 285.45 | 2884.82 | 113.36 | -281.18 | -115.08 | 0.53 |
| 3005.00 | 11.67 | 286.75 | 2975.71 | 118.81 | -300.10 | -120.64 | 1.22 |
| 3099.00 | 12.77 | 292.86 | 3067.59 | 125.59 | -318.78 | -127.53 | 1.80 |
| 3192.00 | 11.83 | 293.32 | 3158.45 | 133.35 | -337.00 | -135.41 | 1.02 |
| 3286.00 | 10.78 | 284.78 | 3250.63 | 139.41 | -354.35 | -141.57 | 2.10 |
| 3371.00 | 11.93 | 289.95 | 3333.97 | 144.44 | -370.30 | -146.70 | 1.81 |
| 3456.00 | 9.65 | 291.40 | 3417.46 | 150.03 | -385.19 | -152.38 | 2.70 |
| 3542.00 | 9.76 | 288.41 | 3502.23 | 154.97 | -398.82 | -157.40 | 0.60 |
| 3627.00 | 11.23 | 288.99 | 3585.81 | 159.94 | -413.48 | -162.46 | 1.73 |
| 3712.00 | 10.82 | 284.19 | 3669.24 | 164.59 | -429.04 | -167.20 | 1.18 |
| 3798.00 | 10.89 | 286.35 | 3753.70 | 168.85 | -444.66 | -171.56 | 0.48 |
| 3883.00 | 10.73 | 292.78 | 3837.20 | 174.17 | -459.66 | -176.98 | 1.43 |
| 3968.00 | 11.28 | 292.27 | 3920.63 | 180.39 | -474.65 | -183.29 | 0.66 |
| 4054.00 | 12.11 | 300.01 | 4004.85 | 188.09 | -490.25 | -191.08 | 2.06 |
| 4139.00 | 11.65 | 297.08 | 4088.03 | 196.46 | -505.61 | -199.54 | 0.89 |
| 4224.00 | 12.50 | 293.42 | 4171.15 | 204.02 | -521.69 | -207.20 | 1.35 |
| 4310.00 | 12.45 | 295.04 | 4255.12 | 211.64 | -538.63 | -214.93 | 0.41 |
| 4395.00 | 11.13 | 292.37 | 4338.33 | 218.64 | -554.52 | -222.03 | 1.68 |
| 4481.00 | 10.53 | 288.38 | 4422.80 | 224.28 | -569.66 | -227.76 | 1.12 |
| 4566.00 | 11.43 | 278.60 | 4506.25 | 227.99 | -585.36 | -231.56 | 2.43 |
| 4651.00 | 10.43 | 273.34 | 4589.70 | 229.70 | -601.37 | -233.37 | 1.66 |
| 4737.00 | 11.15 | 280.91 | 4674.19 | 231.72 | -617.30 | -235.49 | 1.85 |

| | | | | | | | |
|---------|-------|--------|---------|----------|---------|---------|-------|
| 4822.00 | 12.68 | 289.01 | 4757.36 | 236.32 | -634.19 | -240.19 | 2.66 |
| 4908.00 | 11.09 | 285.04 | 4841.52 | 241.54 | -651.11 | -245.51 | 2.08 |
| 4993.00 | 9.99 | 283.08 | 4925.08 | 245.33 | -666.18 | -249.39 | 1.36 |
| 5078.00 | 10.40 | 283.26 | 5008.74 | 248.76 | -680.83 | -252.91 | 0.48 |
| 5163.00 | 11.16 | 289.34 | 5092.24 | 253.24 | -696.06 | -257.49 | 1.61 |
| 5249.00 | 12.42 | 290.01 | 5176.42 | 259.16 | -712.61 | -263.51 | 1.47 |
| 5334.00 | 12.51 | 288.20 | 5259.42 | 265.17 | -729.94 | -269.62 | 0.47 |
| 5420.00 | 9.01 | 284.87 | 5343.90 | 269.81 | -745.30 | -274.35 | 4.13 |
| 5505.00 | 9.05 | 287.89 | 5427.84 | 273.57 | -758.10 | -278.19 | 0.56 |
| 5591.00 | 12.06 | 286.70 | 5512.38 | 278.23 | -773.14 | -282.95 | 3.51 |
| 5676.00 | 11.65 | 284.47 | 5595.57 | 282.92 | -789.96 | -287.74 | 0.72 |
| 5761.00 | 9.00 | 288.18 | 5679.18 | 287.14 | -804.59 | -292.05 | 3.21 |
| 5847.00 | 9.96 | 289.77 | 5764.01 | 291.76 | -817.98 | -296.75 | 1.16 |
| 5932.00 | 10.48 | 291.73 | 5847.66 | 297.11 | -832.08 | -302.18 | 0.74 |
| 6018.00 | 7.02 | 285.47 | 5932.65 | 301.41 | -844.41 | -306.56 | 4.17 |
| 6102.00 | 6.28 | 293.24 | 6016.08 | 304.59 | -853.58 | -309.80 | 1.39 |
| 6188.00 | 5.34 | 292.32 | 6101.64 | 307.96 | -861.60 | -313.22 | 1.10 |
| 6273.00 | 4.37 | 292.07 | 6186.33 | 310.68 | -868.27 | -315.98 | 1.14 |
| 6359.00 | 3.64 | 283.92 | 6272.12 | 312.57 | -873.95 | -317.90 | 1.07 |
| 6444.00 | 2.51 | 279.26 | 6357.00 | 313.52 | -878.41 | -318.88 | 1.36 |
| 6530.00 | 1.82 | 276.80 | 6442.94 | 313.98 | -881.62 | -319.36 | 0.81 |
| 6615.00 | 1.41 | 274.23 | 6527.90 | 314.22 | -884.01 | -319.61 | 0.49 |
| 6700.00 | 0.97 | 233.60 | 6612.89 | 313.87 | -885.63 | -319.27 | 1.09 |
| 6786.00 | 2.32 | 174.21 | 6698.86 | 311.71 | -886.04 | -317.11 | 2.33 |
| 6872.00 | 10.79 | 165.18 | 6784.22 | 302.17 | -883.80 | -307.57 | 9.89 |
| 6957.00 | 19.18 | 170.55 | 6866.26 | 280.67 | -879.46 | -286.04 | 9.99 |
| 7000.00 | 22.59 | 171.03 | 6906.43 | 265.54 | -877.02 | -270.89 | 7.94 |
| 7043.00 | 26.11 | 172.54 | 6945.59 | 247.99 | -874.50 | -253.33 | 8.31 |
| 7085.00 | 29.61 | 175.27 | 6982.72 | 228.48 | -872.44 | -233.81 | 8.87 |
| 7128.00 | 33.50 | 180.24 | 7019.36 | 206.02 | -871.62 | -211.34 | 10.88 |
| 7171.00 | 38.09 | 183.06 | 7054.23 | 180.89 | -872.37 | -186.22 | 11.34 |
| 7213.00 | 42.55 | 183.13 | 7086.25 | 153.76 | -873.84 | -159.10 | 10.62 |
| 7256.00 | 47.67 | 184.68 | 7116.59 | 123.38 | -875.93 | -128.73 | 12.18 |
| 7298.00 | 52.39 | 184.89 | 7143.56 | 91.32 | -878.62 | -96.68 | 11.24 |
| 7341.00 | 55.68 | 184.15 | 7168.81 | 56.63 | -881.36 | -62.01 | 7.78 |
| 7384.00 | 60.20 | 182.84 | 7191.63 | 20.26 | -883.57 | -25.66 | 10.82 |
| 7427.00 | 64.98 | 182.70 | 7211.42 | -17.86 | -885.41 | 12.45 | 11.12 |
| 7469.00 | 70.33 | 179.75 | 7227.38 | -56.67 | -886.22 | 51.26 | 14.30 |
| 7512.00 | 76.24 | 178.09 | 7239.75 | -97.83 | -885.44 | 92.42 | 14.23 |
| 7554.00 | 81.02 | 177.16 | 7248.02 | -138.96 | -883.73 | 133.56 | 11.59 |
| 7608.00 | 86.02 | 177.39 | 7254.12 | -192.54 | -881.18 | 187.15 | 9.27 |
| 7750.00 | 91.05 | 181.42 | 7257.75 | -334.41 | -879.71 | 329.03 | 4.54 |
| 7835.00 | 90.86 | 181.85 | 7256.33 | -419.36 | -882.14 | 413.96 | 0.55 |
| 7920.00 | 89.57 | 181.94 | 7256.01 | -504.31 | -884.95 | 498.90 | 1.52 |
| 8006.00 | 91.48 | 181.49 | 7255.22 | -590.26 | -887.52 | 584.83 | 2.28 |
| 8091.00 | 93.46 | 181.15 | 7251.56 | -675.16 | -889.48 | 669.71 | 2.36 |
| 8177.00 | 92.47 | 179.94 | 7247.11 | -761.04 | -890.29 | 755.58 | 1.82 |
| 8262.00 | 91.36 | 178.82 | 7244.27 | -845.98 | -889.37 | 840.53 | 1.85 |
| 8348.00 | 87.16 | 178.04 | 7245.38 | -931.92 | -887.02 | 926.49 | 4.97 |
| 8433.00 | 85.87 | 177.47 | 7250.55 | -1016.70 | -883.70 | 1011.28 | 1.66 |
| 8519.00 | 87.66 | 178.19 | 7255.40 | -1102.50 | -880.44 | 1097.10 | 2.24 |
| 8603.00 | 87.84 | 177.41 | 7258.70 | -1186.37 | -877.22 | 1180.99 | 0.95 |
| 8689.00 | 90.31 | 177.80 | 7260.09 | -1272.27 | -873.63 | 1266.91 | 2.91 |
| 8774.00 | 92.10 | 178.98 | 7258.30 | -1357.22 | -871.24 | 1351.87 | 2.52 |
| 8860.00 | 91.79 | 179.15 | 7255.38 | -1443.16 | -869.84 | 1437.82 | 0.41 |
| 8945.00 | 90.86 | 178.92 | 7253.42 | -1528.12 | -868.41 | 1522.79 | 1.13 |
| 9030.00 | 90.62 | 179.88 | 7252.32 | -1613.11 | -867.52 | 1607.78 | 1.16 |
| 9116.00 | 90.86 | 180.18 | 7251.21 | -1699.10 | -867.56 | 1693.77 | 0.45 |
| 9201.00 | 90.37 | 179.56 | 7250.30 | -1784.09 | -867.37 | 1778.76 | 0.93 |
| 9287.00 | 90.19 | 180.40 | 7249.87 | -1870.09 | -867.34 | 1864.76 | 1.00 |
| 9372.00 | 89.94 | 180.16 | 7249.78 | -1955.09 | -867.76 | 1949.75 | 0.41 |

| | | | | | | | |
|----------|-------|--------|---------|----------|---------|---------|------|
| 9458.00 | 89.08 | 179.90 | 7250.51 | -2041.09 | -867.80 | 2035.75 | 1.04 |
| 9543.00 | 88.52 | 180.70 | 7252.29 | -2126.07 | -868.25 | 2120.72 | 1.15 |
| 9628.00 | 90.43 | 181.48 | 7253.07 | -2211.04 | -869.86 | 2205.69 | 2.43 |
| 9714.00 | 88.58 | 180.25 | 7253.82 | -2297.02 | -871.16 | 2291.66 | 2.58 |
| 9799.00 | 88.40 | 181.11 | 7256.06 | -2381.99 | -872.17 | 2376.62 | 1.03 |
| 9885.00 | 88.03 | 180.16 | 7258.73 | -2467.94 | -873.12 | 2462.56 | 1.18 |
| 9970.00 | 88.58 | 180.34 | 7261.25 | -2552.90 | -873.49 | 2547.52 | 0.68 |
| 10055.00 | 89.63 | 180.99 | 7262.58 | -2637.88 | -874.48 | 2632.49 | 1.45 |
| 10141.00 | 88.27 | 180.38 | 7264.15 | -2723.86 | -875.51 | 2718.46 | 1.73 |
| 10226.00 | 90.06 | 181.26 | 7265.39 | -2808.84 | -876.72 | 2803.43 | 2.35 |
| 10312.00 | 90.92 | 180.22 | 7264.66 | -2894.83 | -877.83 | 2889.41 | 1.57 |
| 10397.00 | 90.31 | 179.98 | 7263.74 | -2979.82 | -877.98 | 2974.40 | 0.77 |
| 10483.00 | 91.23 | 179.31 | 7262.59 | -3065.81 | -877.45 | 3060.39 | 1.32 |
| 10568.00 | 90.49 | 178.58 | 7261.31 | -3150.79 | -875.88 | 3145.38 | 1.22 |
| 10653.00 | 91.17 | 178.86 | 7260.08 | -3235.75 | -873.99 | 3230.36 | 0.87 |
| 10739.00 | 91.60 | 178.92 | 7258.00 | -3321.71 | -872.32 | 3316.32 | 0.50 |
| 10824.00 | 91.79 | 179.37 | 7255.49 | -3406.67 | -871.05 | 3401.28 | 0.57 |
| 10910.00 | 91.36 | 178.44 | 7253.12 | -3492.62 | -869.41 | 3487.24 | 1.19 |
| 10995.00 | 91.54 | 179.11 | 7250.97 | -3577.57 | -867.59 | 3572.20 | 0.82 |
| 11080.00 | 91.79 | 178.85 | 7248.50 | -3662.52 | -866.08 | 3657.16 | 0.42 |
| 11166.00 | 92.28 | 179.42 | 7245.45 | -3748.46 | -864.78 | 3743.10 | 0.87 |
| 11251.00 | 92.47 | 178.91 | 7241.93 | -3833.37 | -863.55 | 3828.03 | 0.64 |
| 11337.00 | 92.65 | 178.79 | 7238.09 | -3919.27 | -861.82 | 3913.93 | 0.25 |
| 11422.00 | 92.10 | 178.63 | 7234.56 | -4004.18 | -859.91 | 3998.85 | 0.67 |
| 11507.00 | 92.77 | 178.20 | 7230.95 | -4089.07 | -857.56 | 4083.75 | 0.94 |
| 11551.00 | 92.83 | 177.93 | 7228.80 | -4132.99 | -856.08 | 4127.68 | 0.63 |
| 11605.00 | 92.83 | 177.93 | 7226.14 | -4186.89 | -854.13 | 4181.59 | 0.00 |

Weatherford Surveys from 1054 ft MD to 11551 ft MD.

TD at 11605 ft MD.

The total correction is 8.65 deg relative to True North.



Weatherford®

Final Print

| | | | |
|---------|---------------------------|--------|-------------|
| COMPANY | <u>Anadarko Petroleum</u> | | |
| WELL | <u>Cannon 13N-10HZ</u> | | |
| FIELD | <u>Wattenberg</u> | | |
| RIG | <u>Xtreme 23</u> | | |
| LOC. | <u>Colorado</u> | COUNTY | <u>Weld</u> |