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|--|--|------------------|--|--|--|--|--|
|  |  |                  |  | LWD MEMORY LOG   |  |  |  |
| <div> <div>Scale:</div> <div>1:240</div> </div>                                    |  |                  |  | Gamma Ray  |  |  |  |
| Measured Depth   |  |                  |  | <div>Company: Noble Energy</div> <div>Well: Gutersen YY06-785</div> <div>Field: Wattenberg</div>                   |  |  |  |
| Depth Reference:   |  |                  |  | <div>County: Weld</div> <div>Country: United States</div>  |  |  |  |
| Driller's Depth  |  |                  |  | State: Colorado  |  |  |  |
| Status:  |  |                  |  | Other Services:  |  |  |  |
| Final Print  |  |                  |  | <div>Latitude: 40° 11' 26.875" N</div> <div>Longitude: 104° 28' 53.034" W</div> <div>Directional</div>             |  |  |  |
| API No: 05-123-48640-00  |  |                  |  | <div>SEC: 30</div> <div>TWN: 3N</div> <div>RGE: 63W</div>  |  |  |  |
| Job ID: 110462690  |  |                  |  | <div>Elevation: 0.00 ft</div> <div>Elev. KB: 4821.00 ft</div> <div>Elev. DF: 4791.00 ft</div> <div>Elev. GL:</div> |  |  |  |
| Permanent Datum (P.D.): Mean Sea Level   |  |                  |  | <div>Above P.D.: 4821.00 ft</div>  |  |  |  |
| Log Measured From: Rig Floor   |  |                  |  | <div>Elev. KB: 4821.00 ft</div> <div>Elev. DF: 4791.00 ft</div>  |  |  |  |
| Dates  |  | Interval         |  | Magnetic Field Reference   |  |  |  |
| From: 2020-07-26   |  | Drilled (ft)     |  | Logged (ft)  |  | Azi Reference North:                     |  |
| To: 2020-07-28   |  | Top: 1945.00     |  | Top: 1945.00   |  | Grid Dip Angle: (deg)                    |  |
| Spud: 2020-07-10   |  | Bottom: 17514.00 |  | Bottom: 17500.00   |  | Total Magnetic Field Strength: (nT)      |  |
|  |  |                  |  |  |  | Mag to Reference North Correction: (deg) |  |
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|---|--------------------|----------|-------------------|-------|-------|-------|-------|
| 2 | AutoTrak Curve MWD | 14371850 | Gamma (single)    | 2.75  | 13.03 | 7.000 | 3.250 |
| 2 | AutoTrak Curve MWD | 14371850 | Directional (mag) | 12.27 | 22.55 | 7.000 | 3.250 |

Service and Tool Mnemonics

| Mnemonic | Name                | Description                   |
|----------|---------------------|-------------------------------|
| ATC SU   | AutoTrak Curve SU   | Auto Trak Curve Steering Unit |
| ATC MWD  | AutoTrak Curve MWD  | Auto Trak Curve MWD           |
| ATC LCPM | AutoTrak Curve LCPM | Auto Trak Curve LCPM          |

Comments

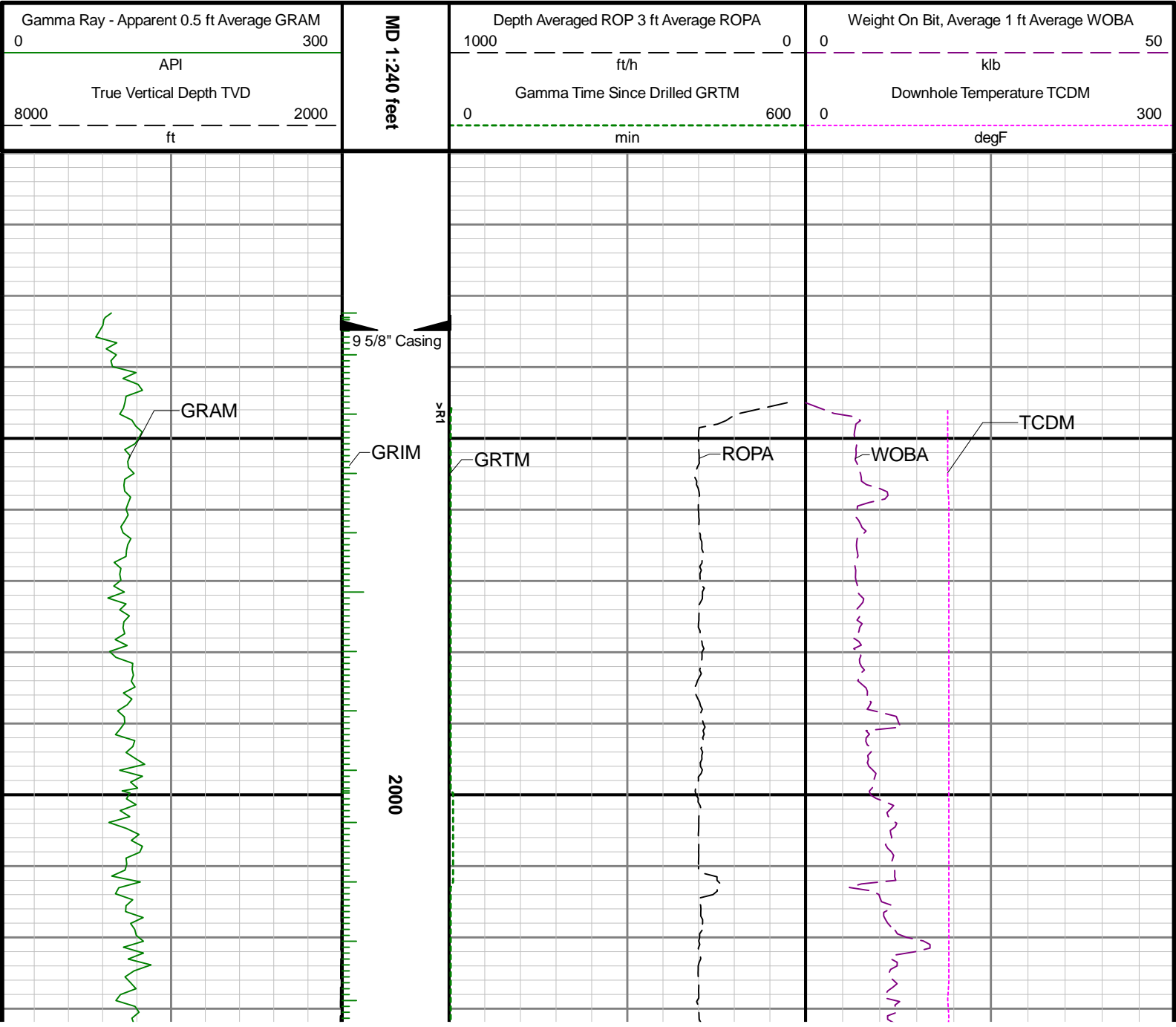
|   |   |
|---|---|
| 1 | Depth measurements were obtained from a depth control system not supplied or operated by Baker Hughes. Due to lack of control by Baker Hughes logging engineers, depth calibrations and measurements could not be independently verified. |
| 2 | Baker Hughes LWD Run 1 and 2 utilized 6 ¾ inch NaviGamma service (Gamma Ray and Directional) behind an 8 1/2 inch bit and rotary steerable assembly from 1945 to 17514 feet MD (1945 to 6668 feet TVD).                                   |
| 3 | The Gamma Ray Apparent (GRAM) data is presented 0 to 300 API, per the customer's request.   |

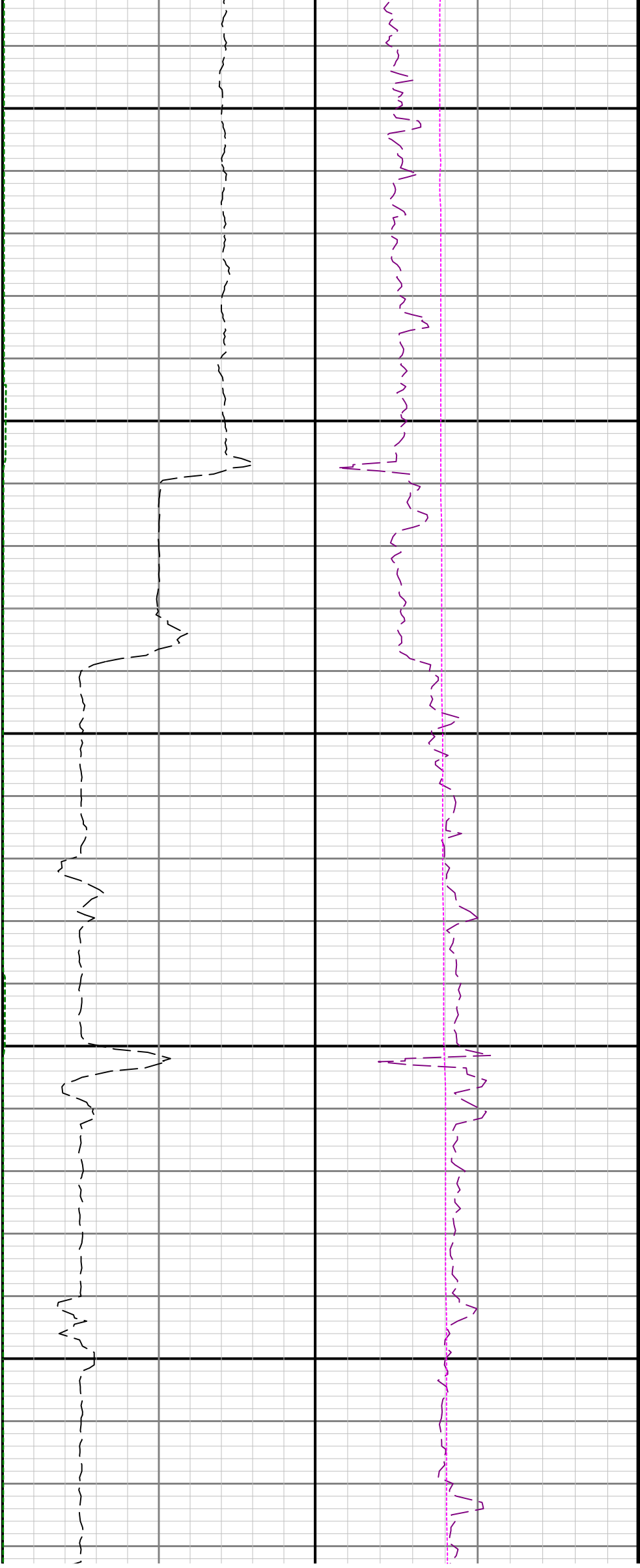
Remarks

| Number | Depth<br>(ft) | Hole<br>Section<br>(in) | Run<br>No. | Remark   |
|--------|---------------|-------------------------|------------|--|
| 1      | 6003.00       | 8.500                   | 1          | The interval from 6003 to 6030 feet MD (5634 to 5658 feet TVD) has gaps in Gamma Ray data due to tool power loss.  |
| 2      | 12590.00      | 8.500                   | 1          | The interval from to 12590 to 12601 feet MD (6703 feet TVD) was logged up to 12.2 hours after being drilled due to a trip out of hole to change out ATC and Bit. |
| 3      | 17500.00      | 8.500                   | 2          | The interval from 17500 to 17514 feet MD (6668 feet TVD) was not logged due to sensor to bit offset at well TD.  |

Curve Mnemonics

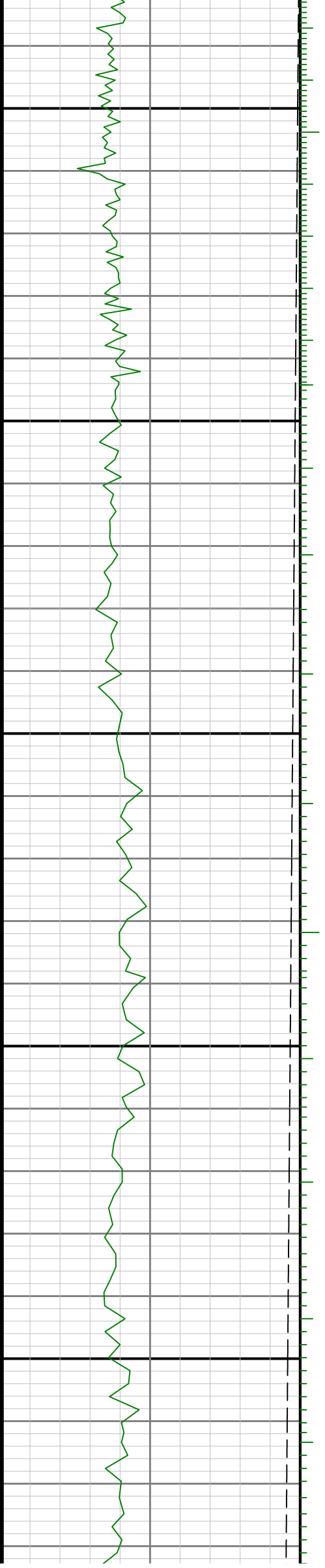
| Presented Curves | Description                                  | Units    |
|------------------|--|----------|
| ROPA             | Depth Averaged ROP 3 ft Average              | ft/h     |
| TVD              | TVD  | ft       |
| WOBA             | Weight On Bit 1 ft Average                   | klb      |
| GRAM             | Gamma Ray - Apparent - Memory 0.5 ft Average | API      |
| GRIM             | Gamma Ray - Data Point Indicator - Memory    | unitless |
| GRTM             | Gamma Ray - Time Since Drilled - Memory      | min      |
| TCDM             | Directional Real-Time Survey Temperature     | degF     |

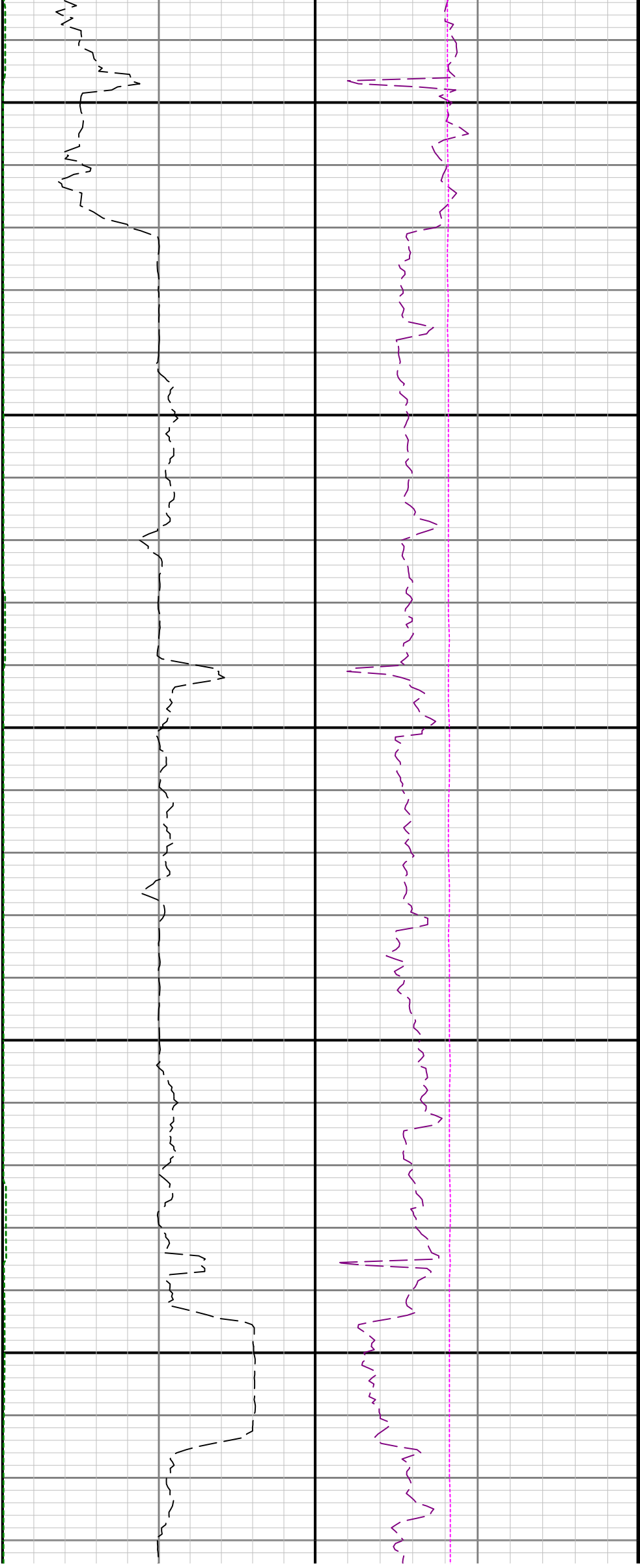




2100

2200

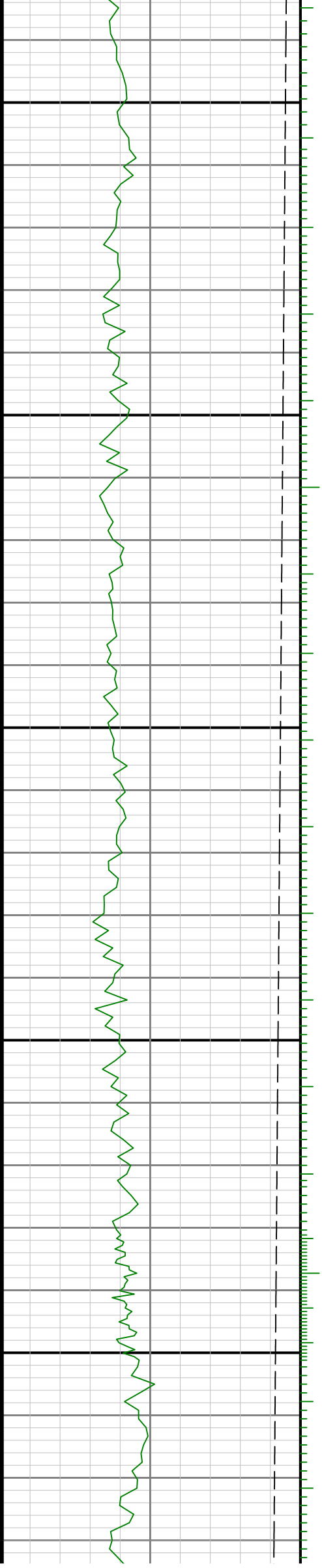


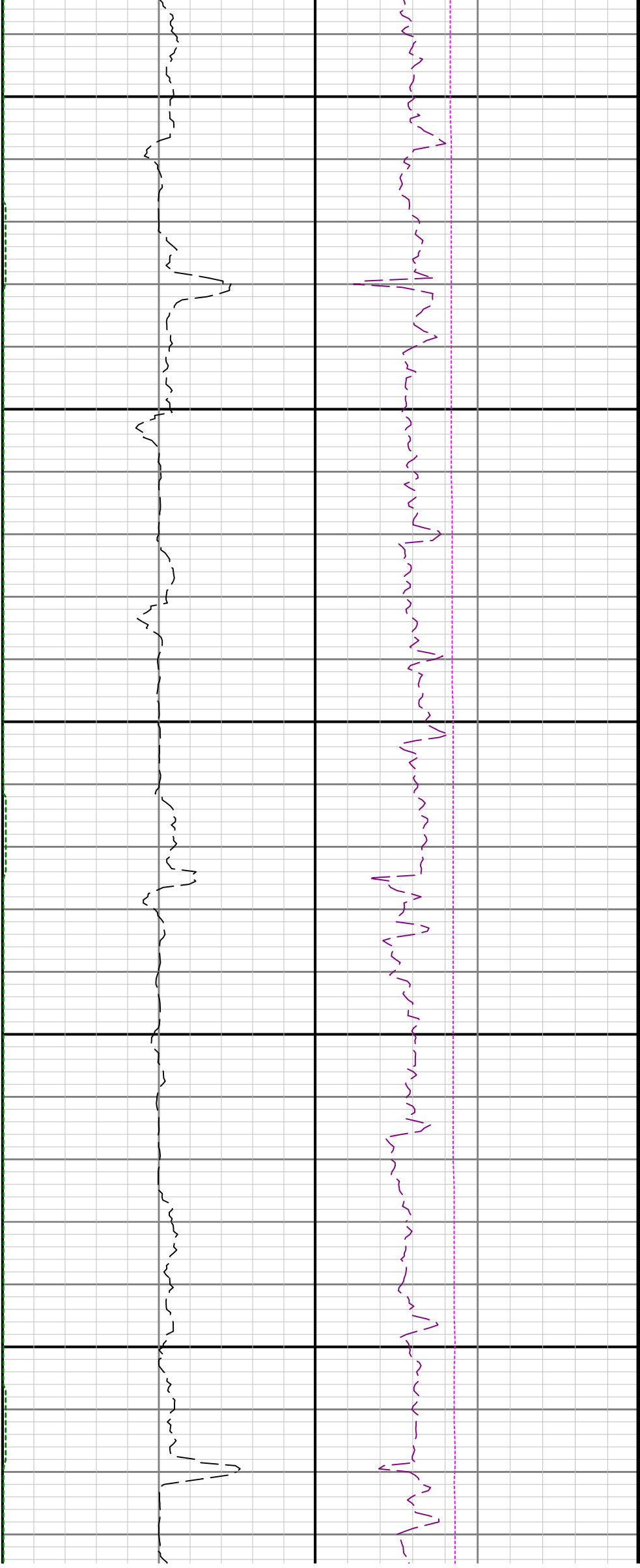


2300

2400

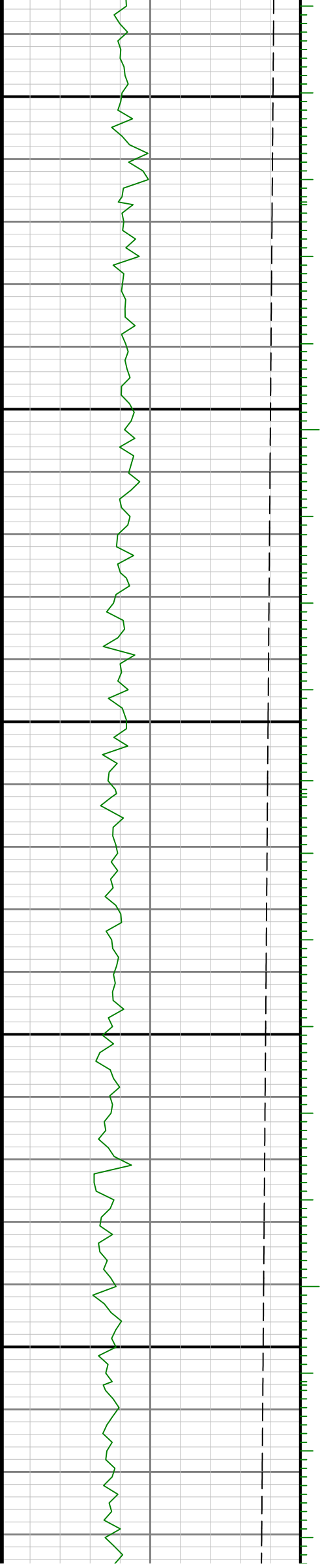
2500

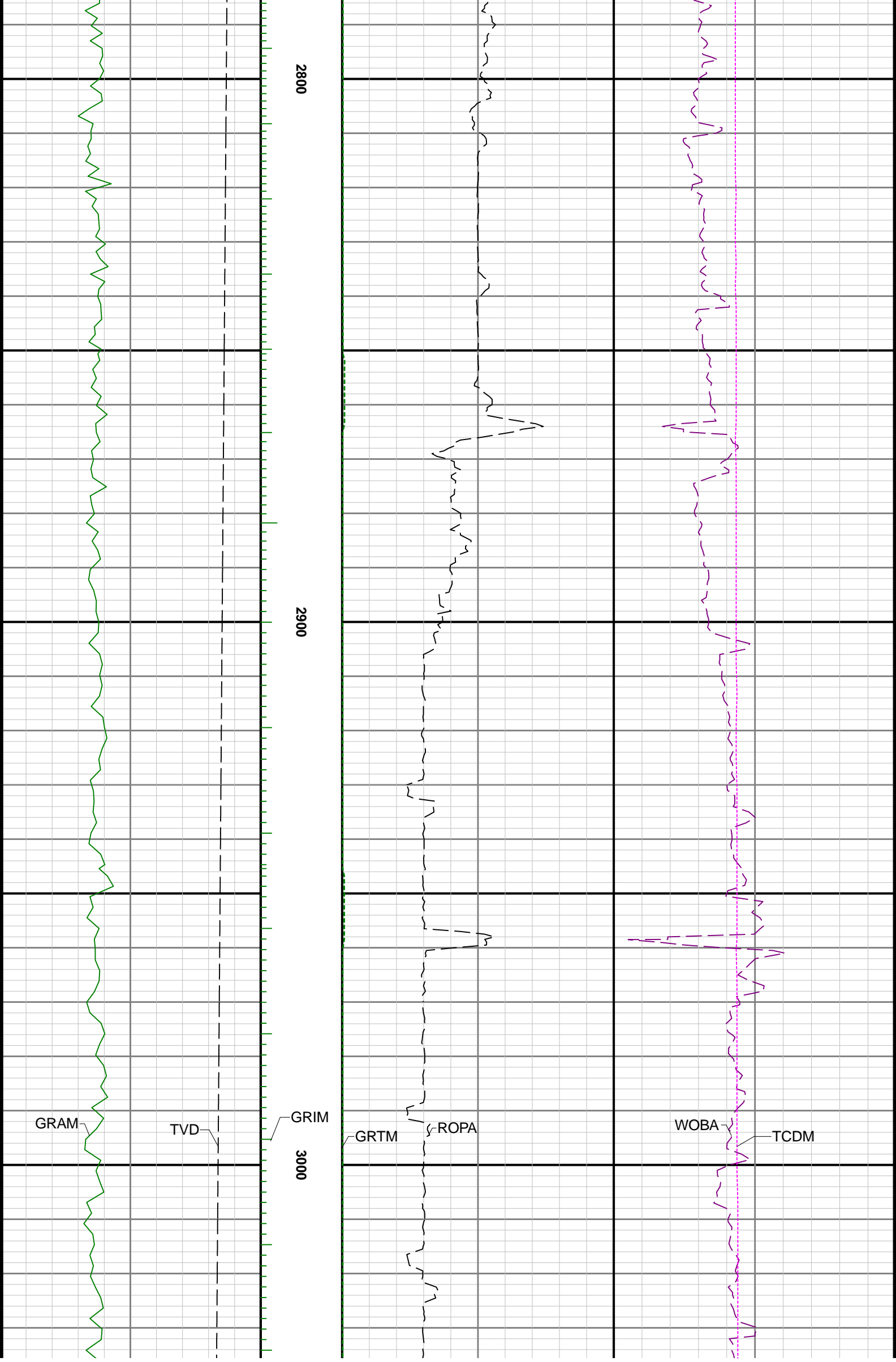


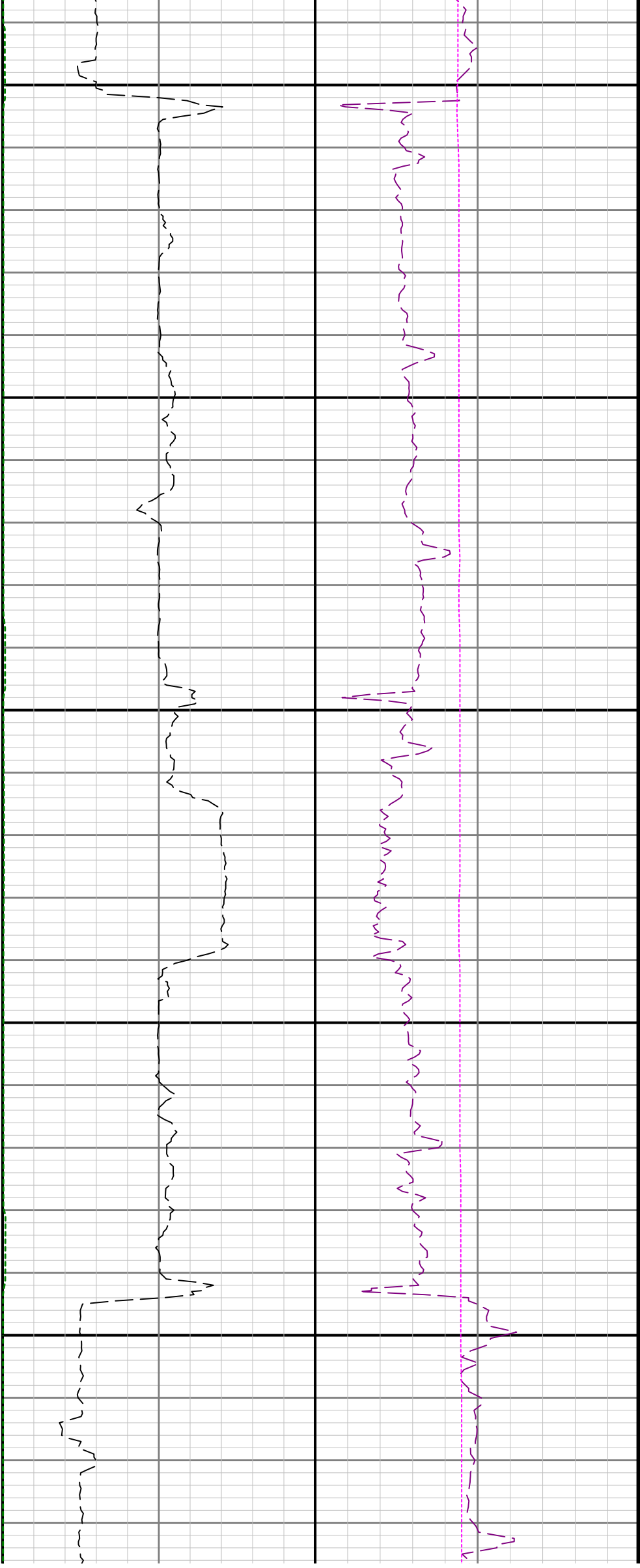


2600

2700

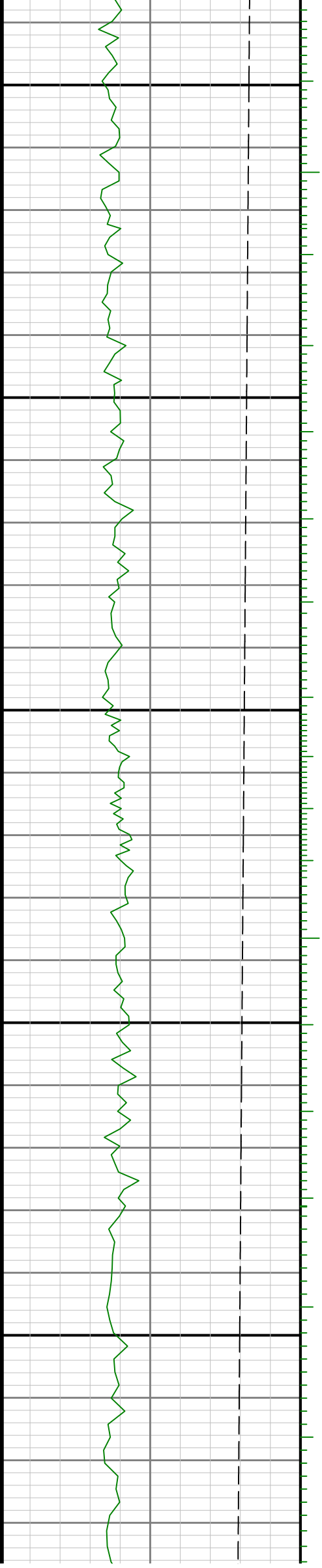


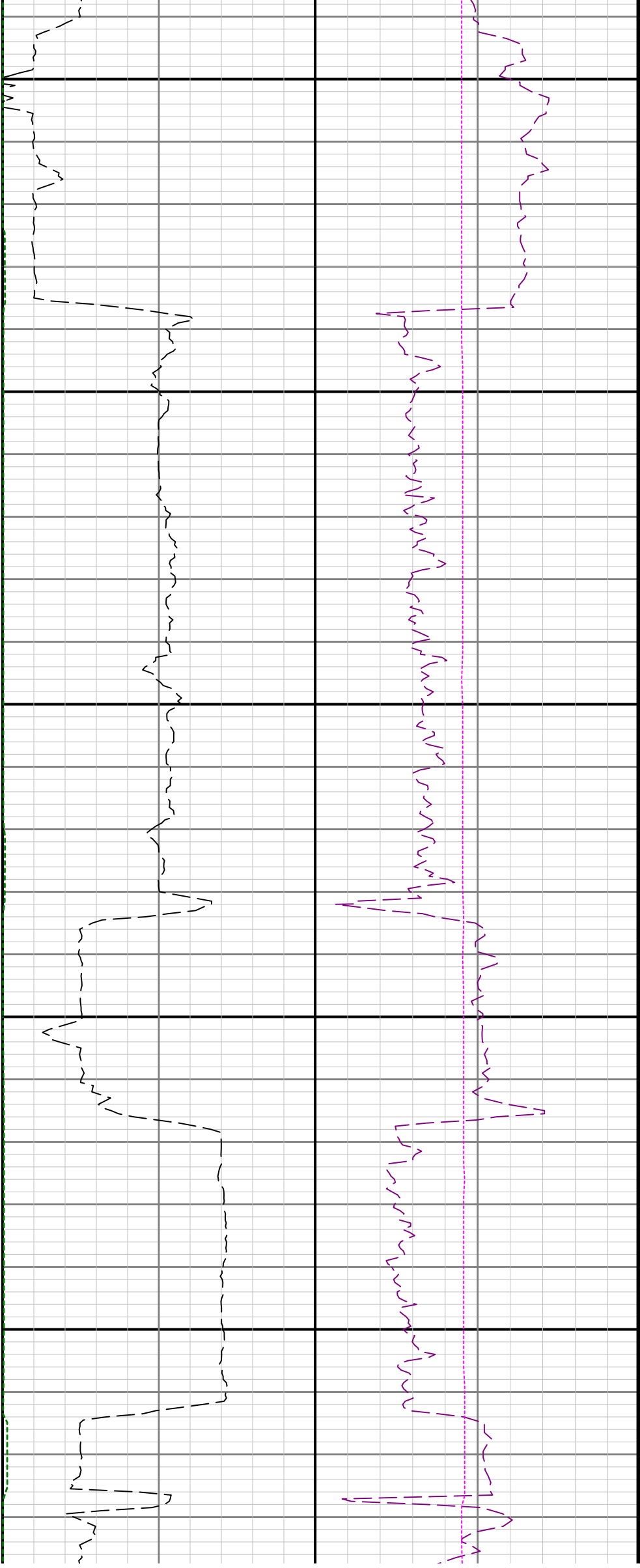




3100

3200

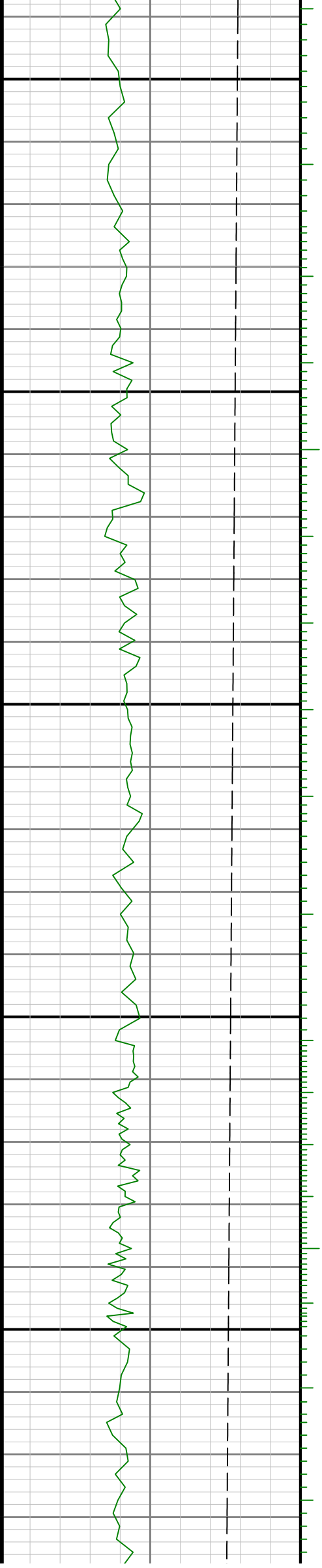




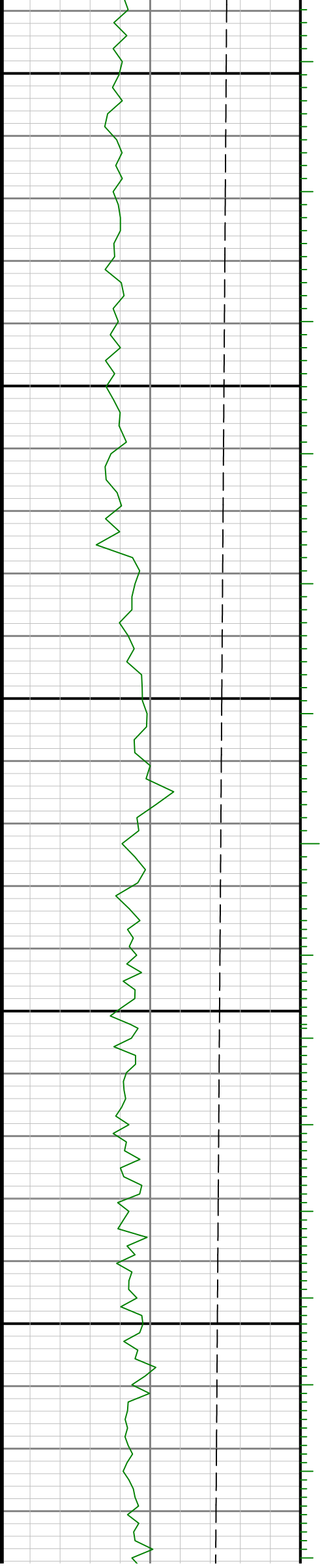
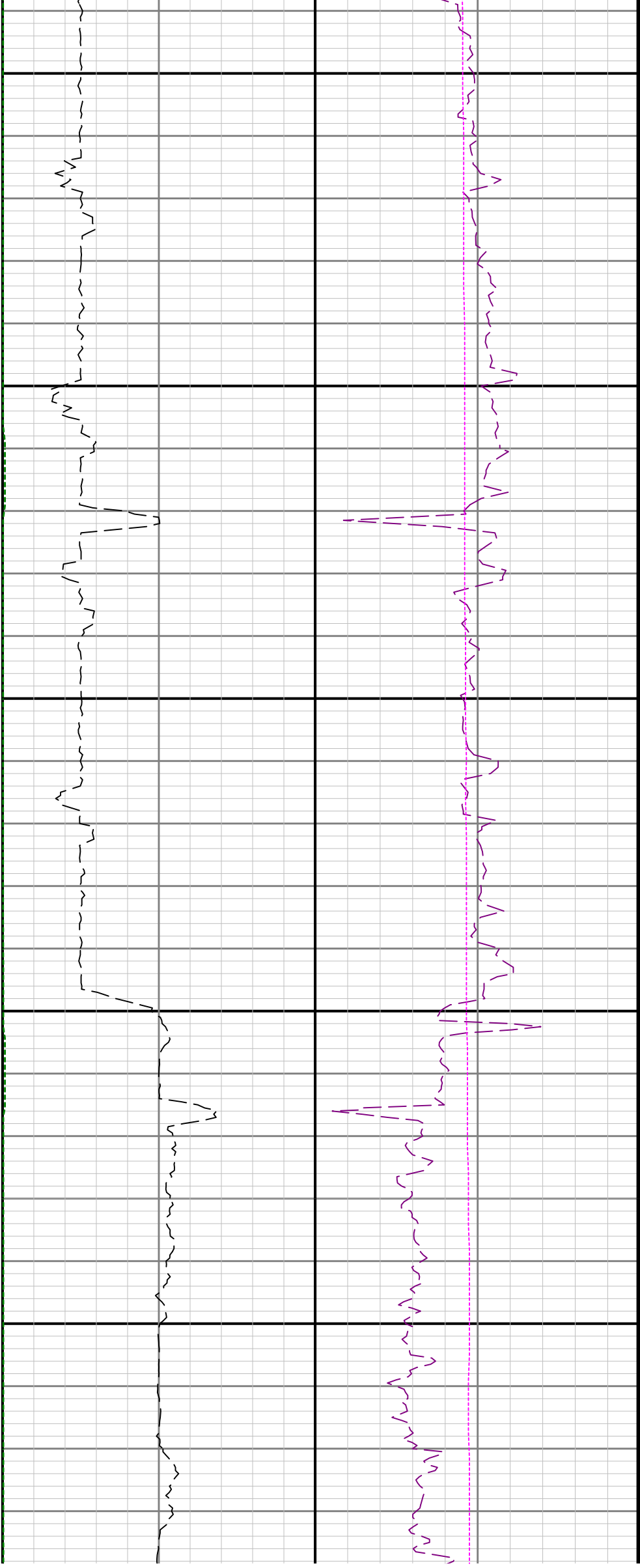
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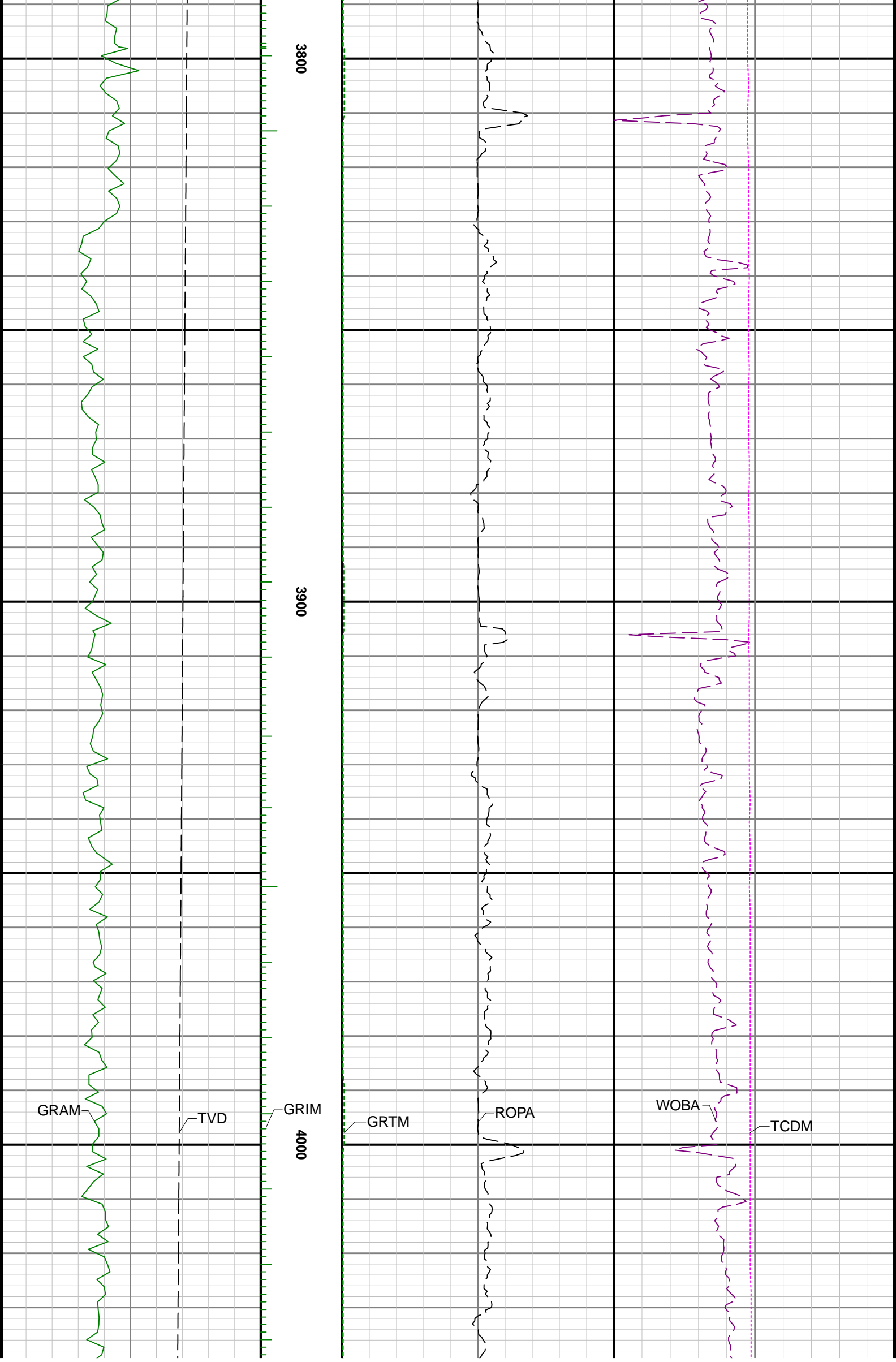
3400

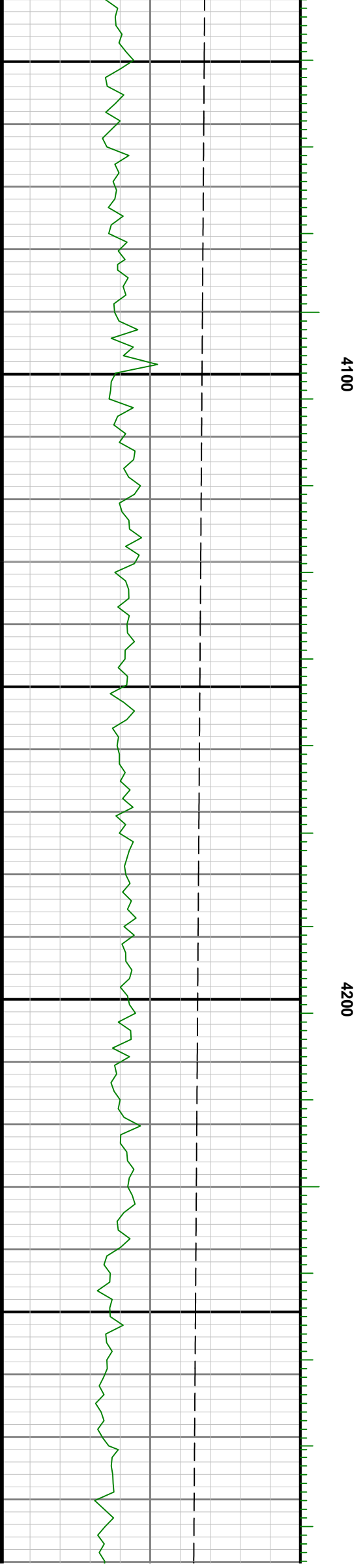
3500

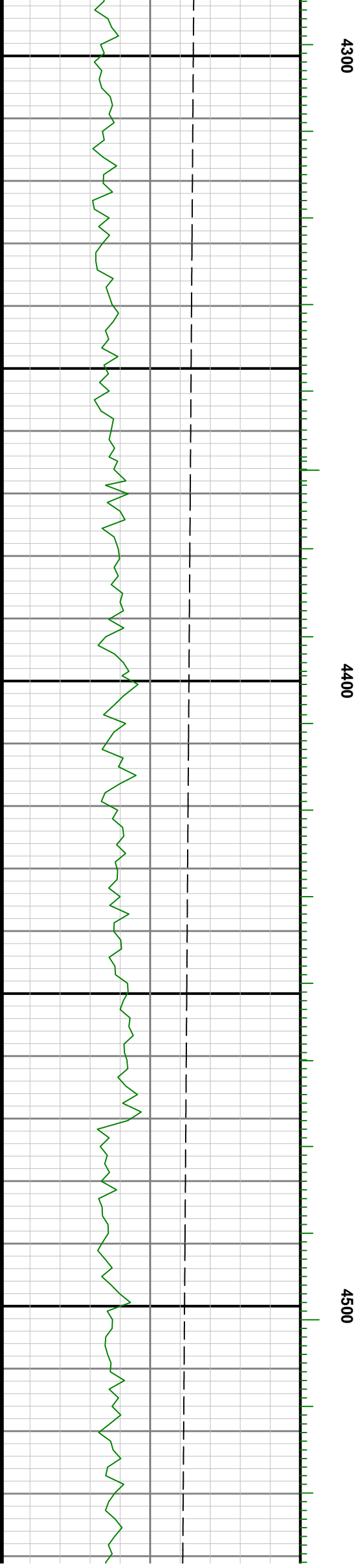


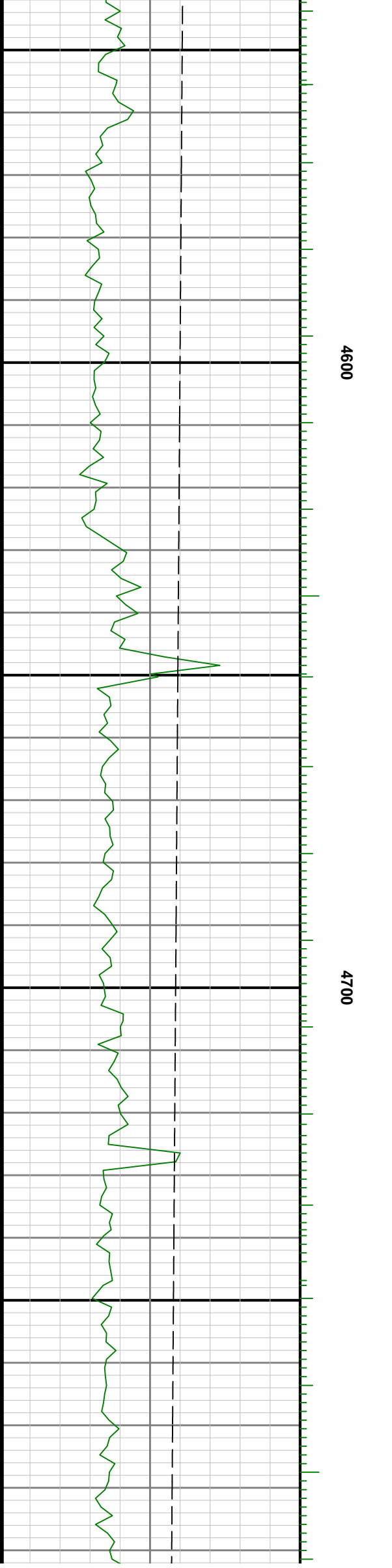
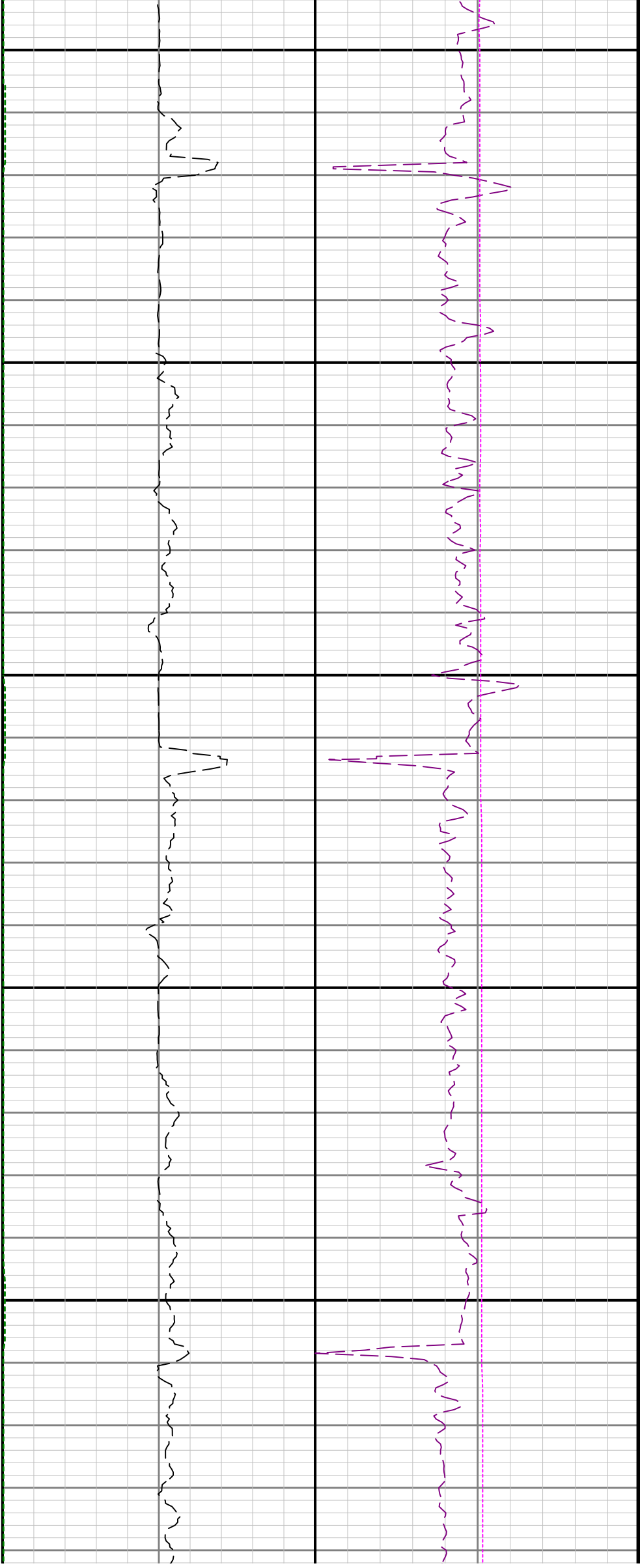


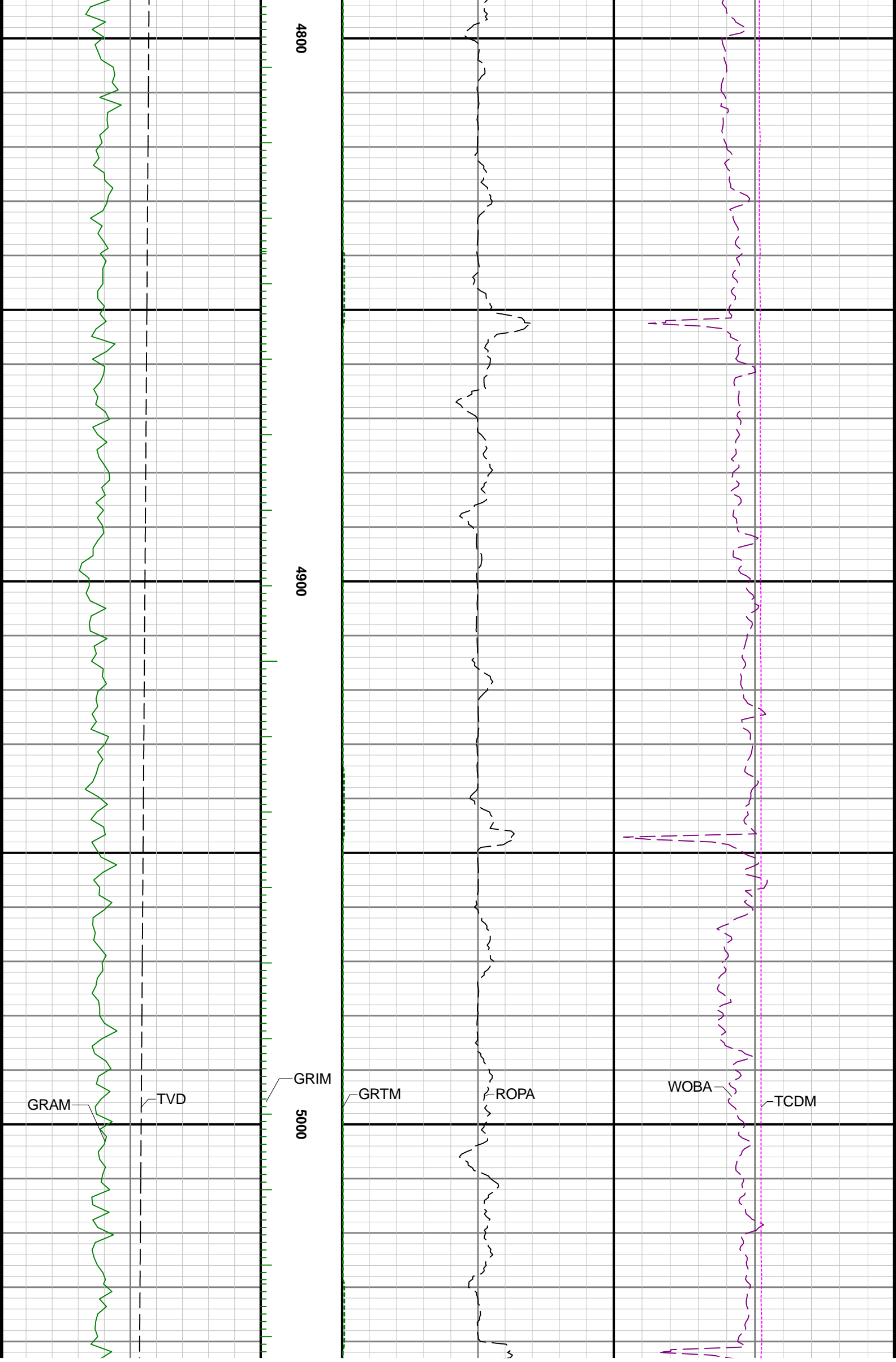








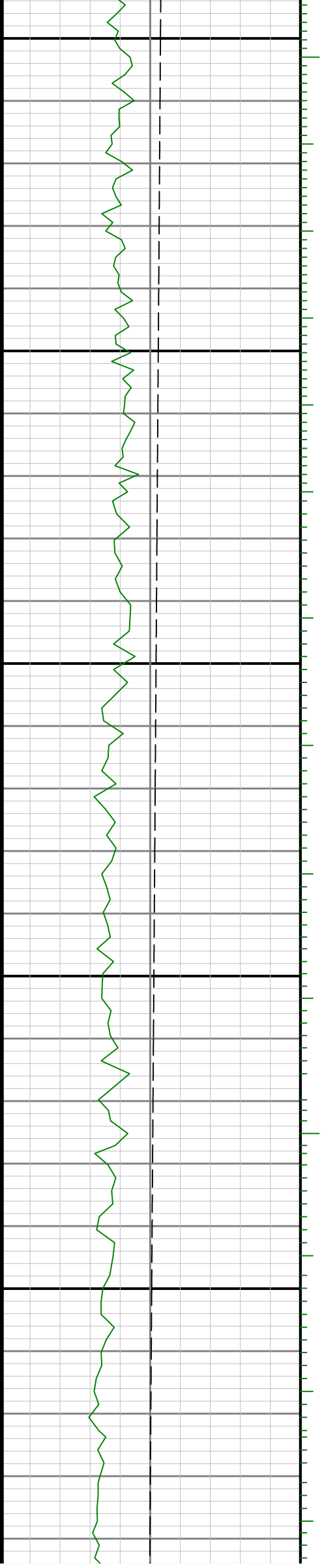


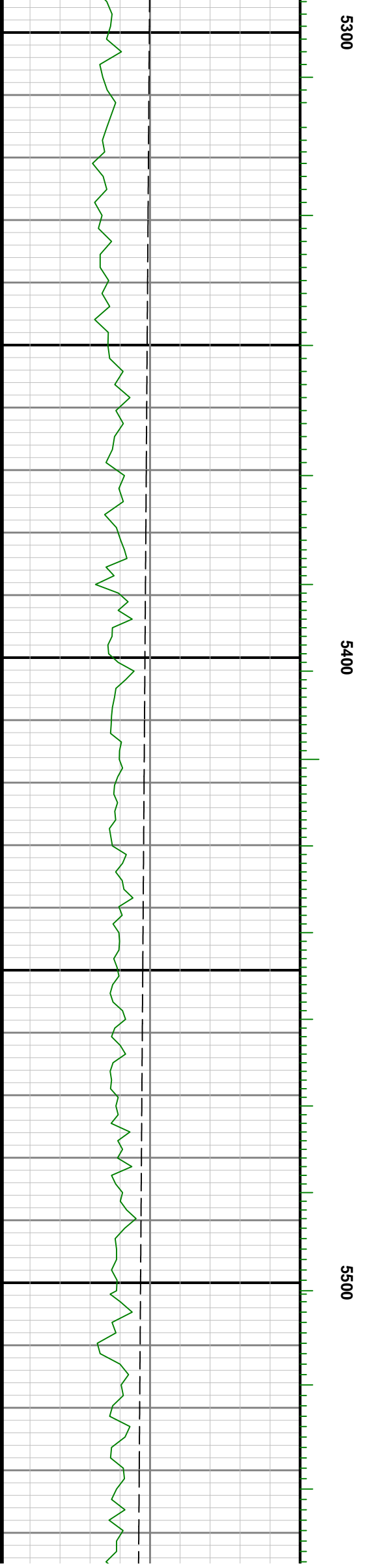
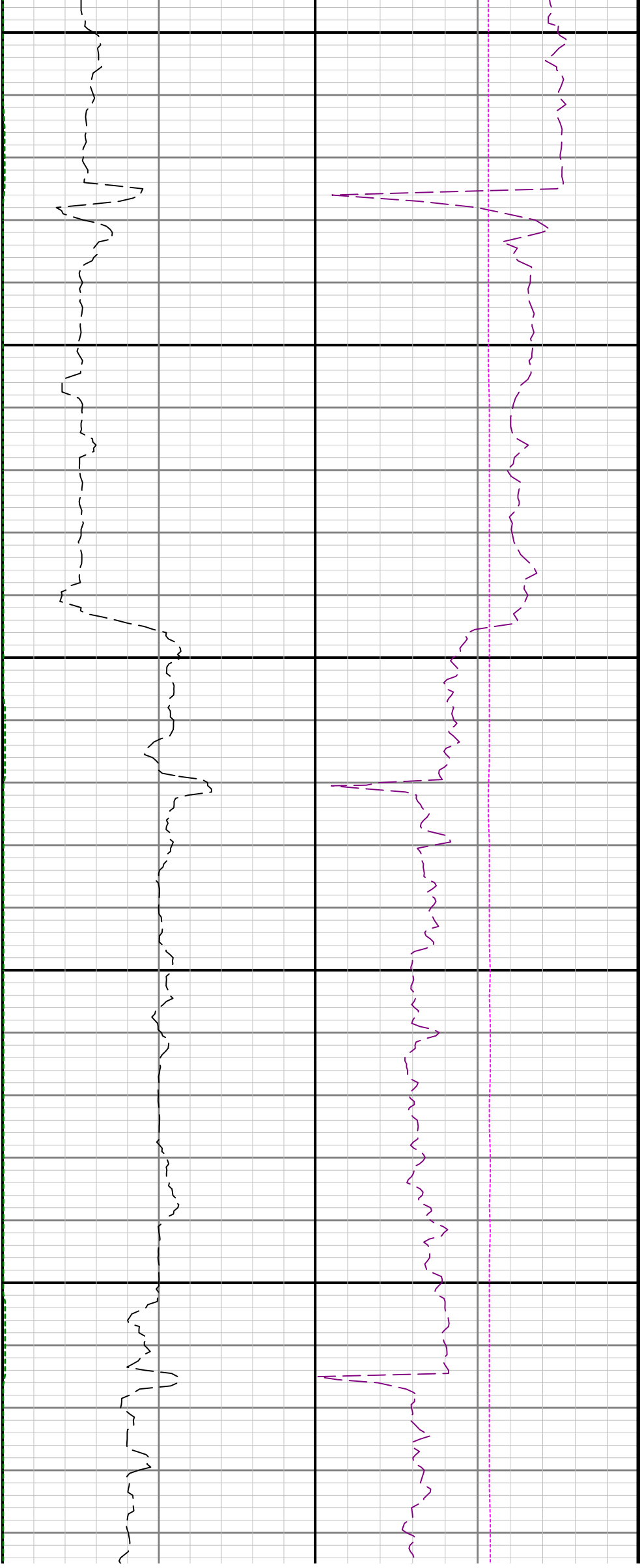




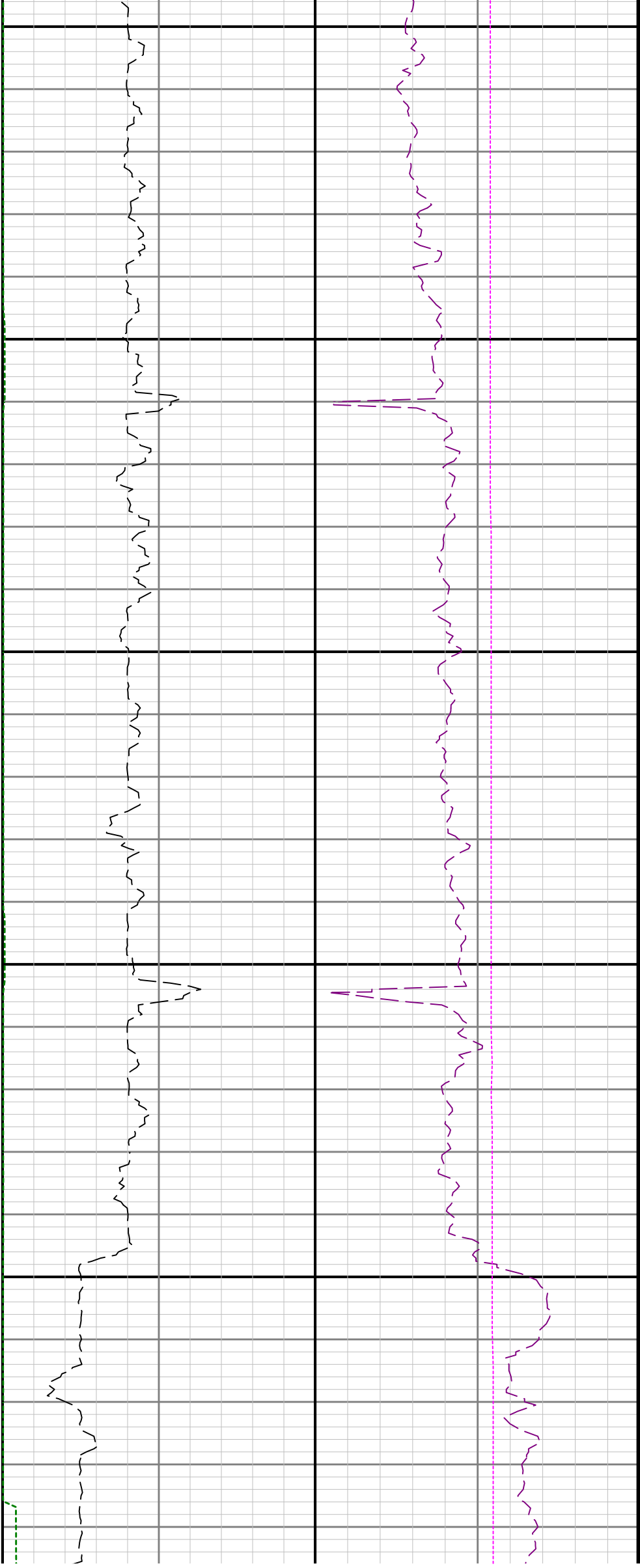
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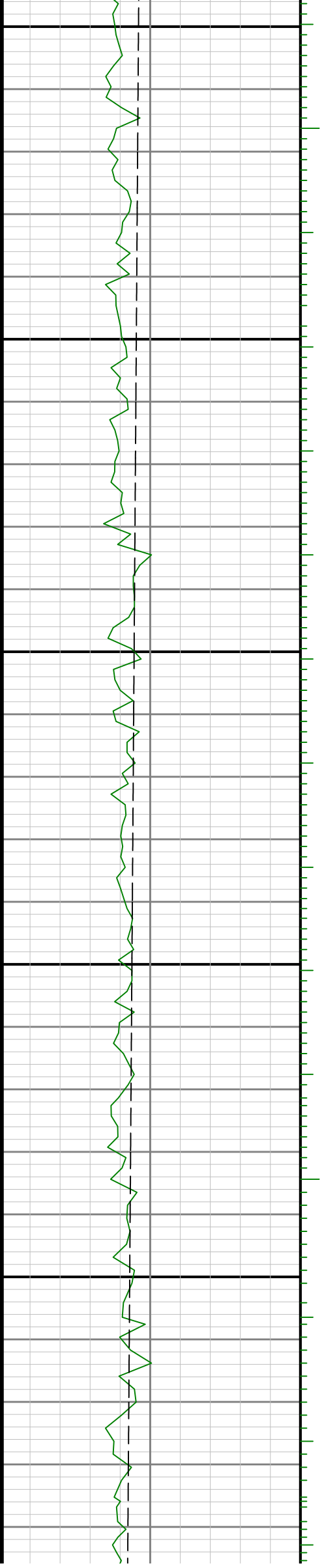


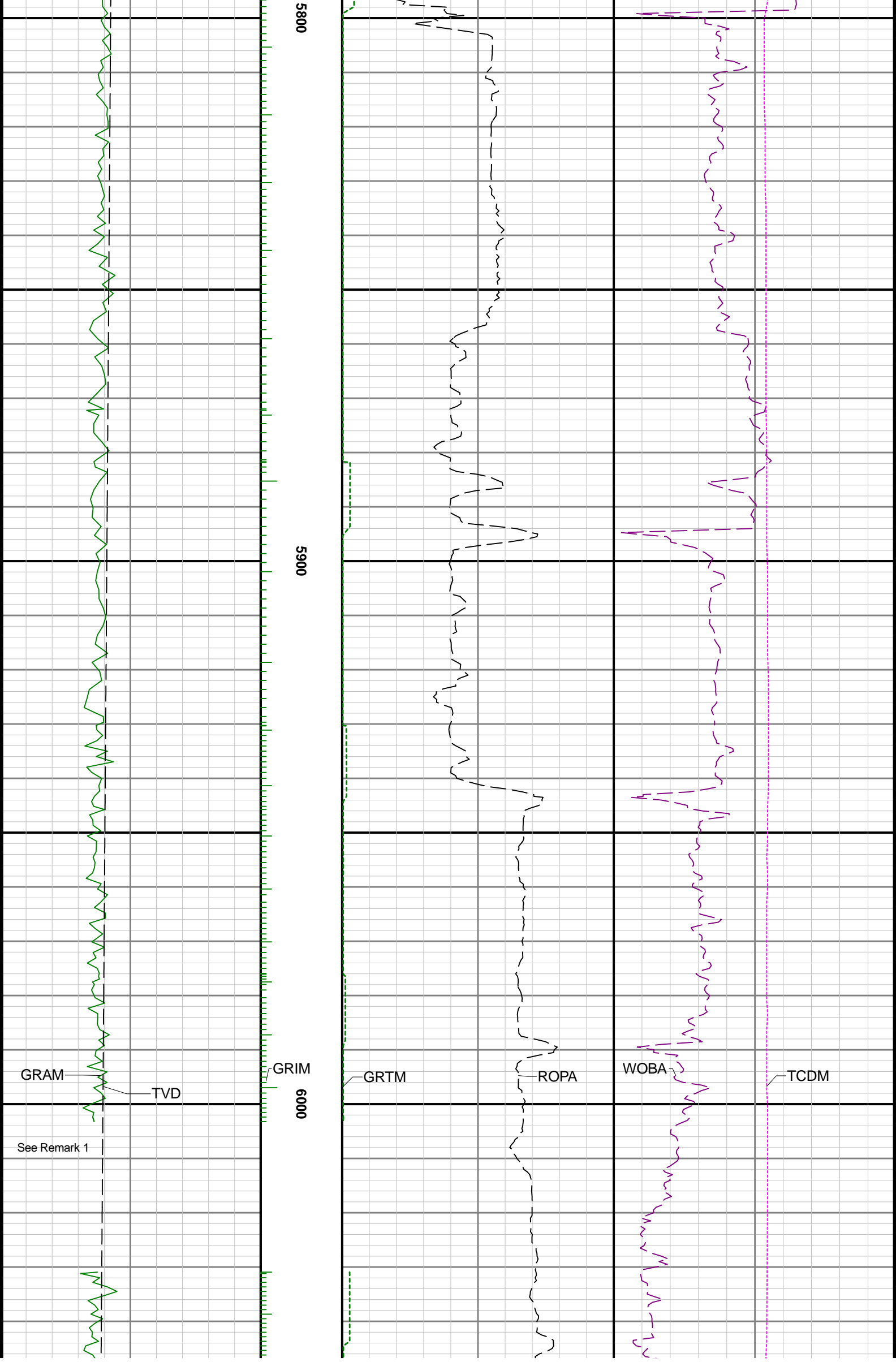


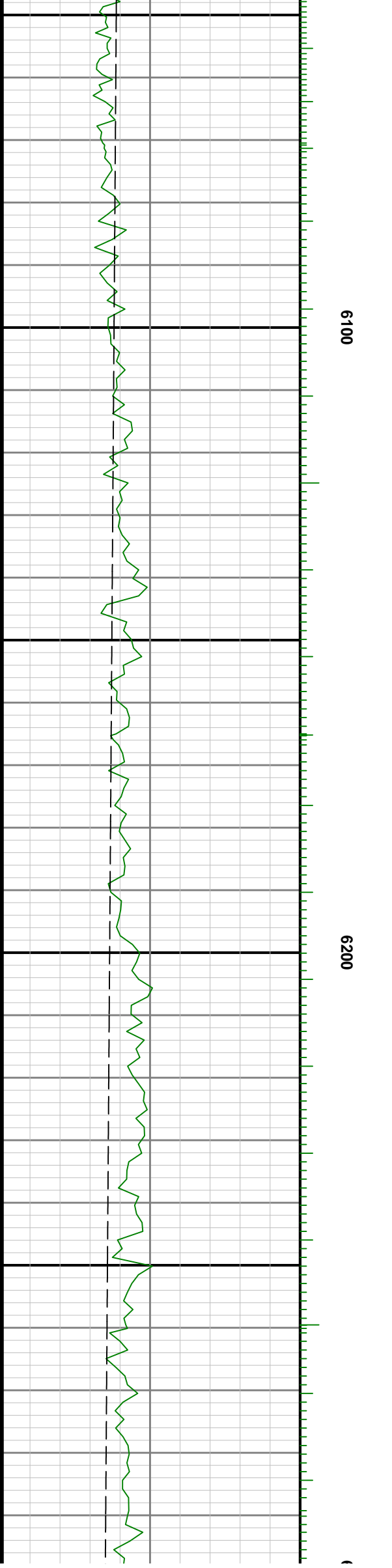
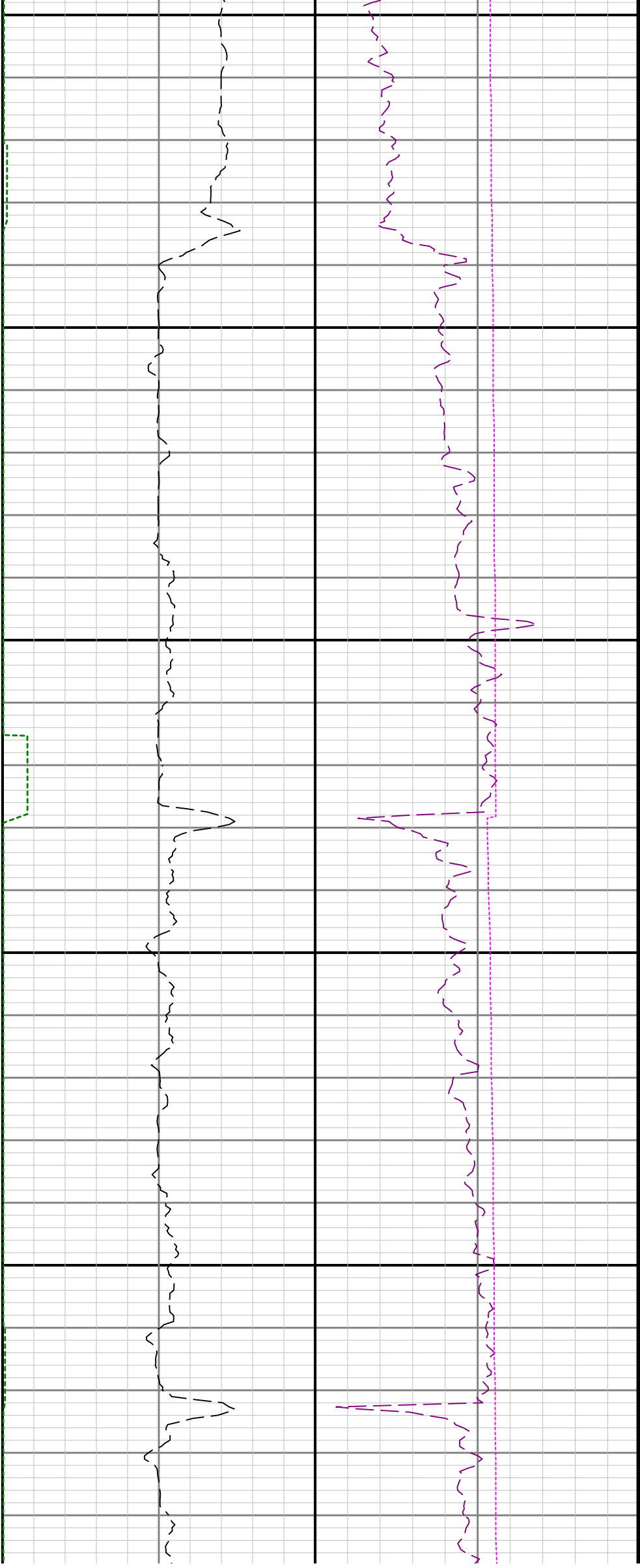


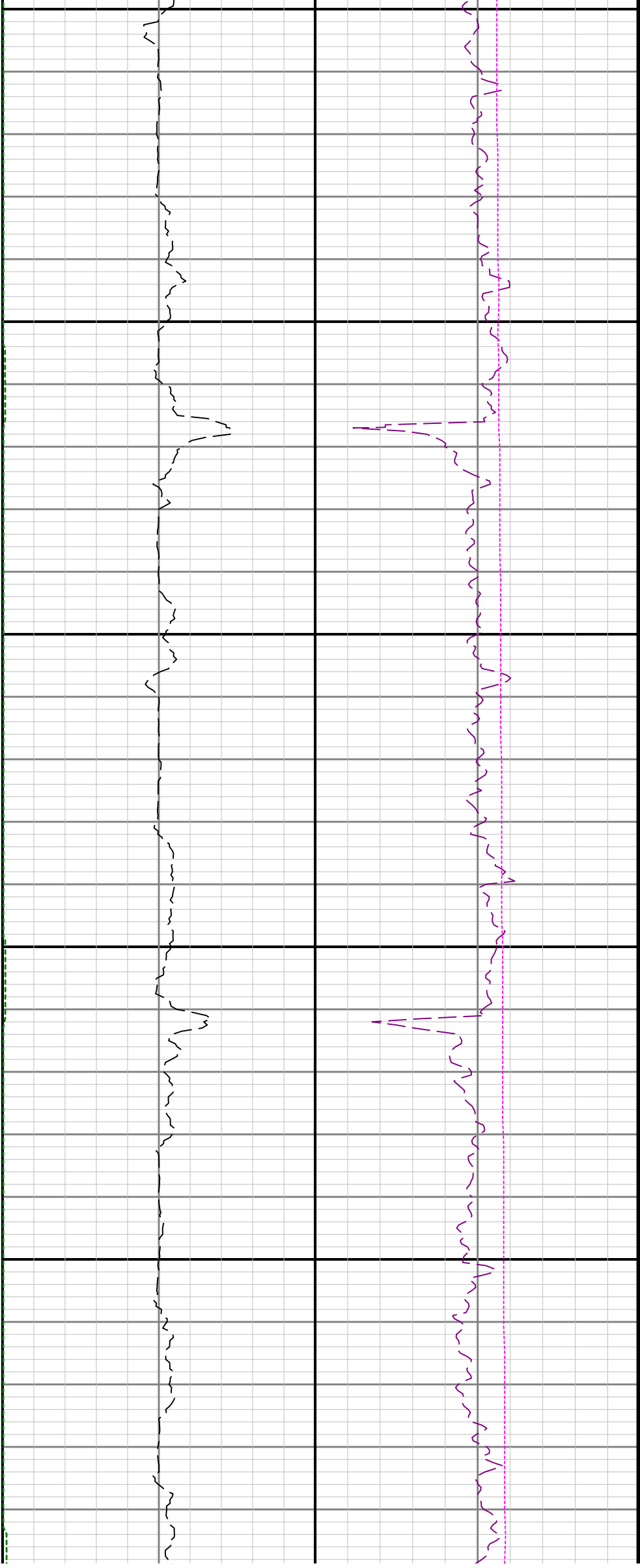
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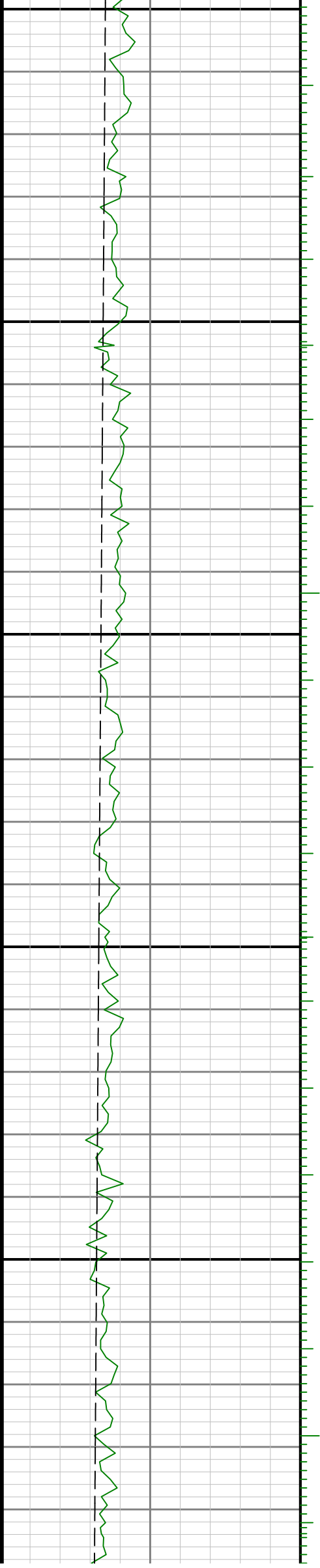


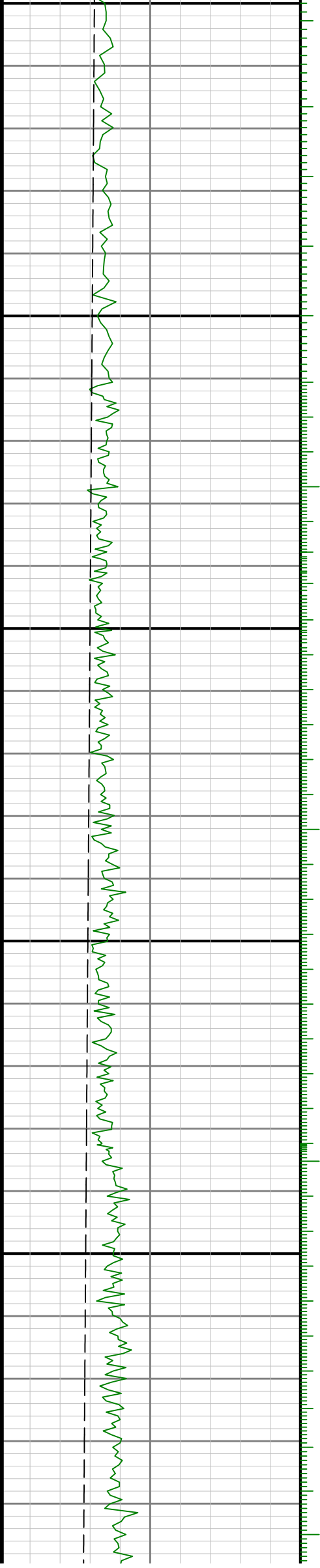


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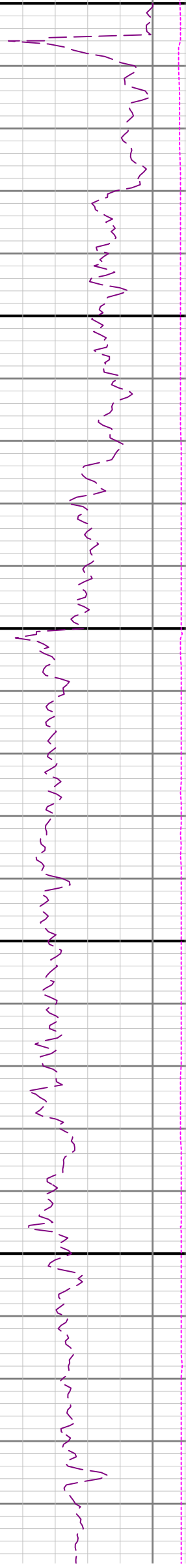
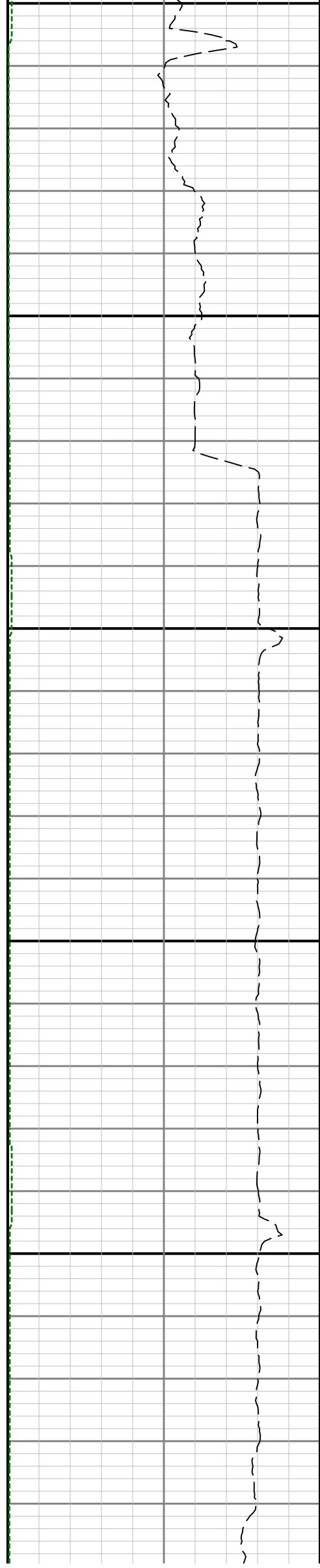


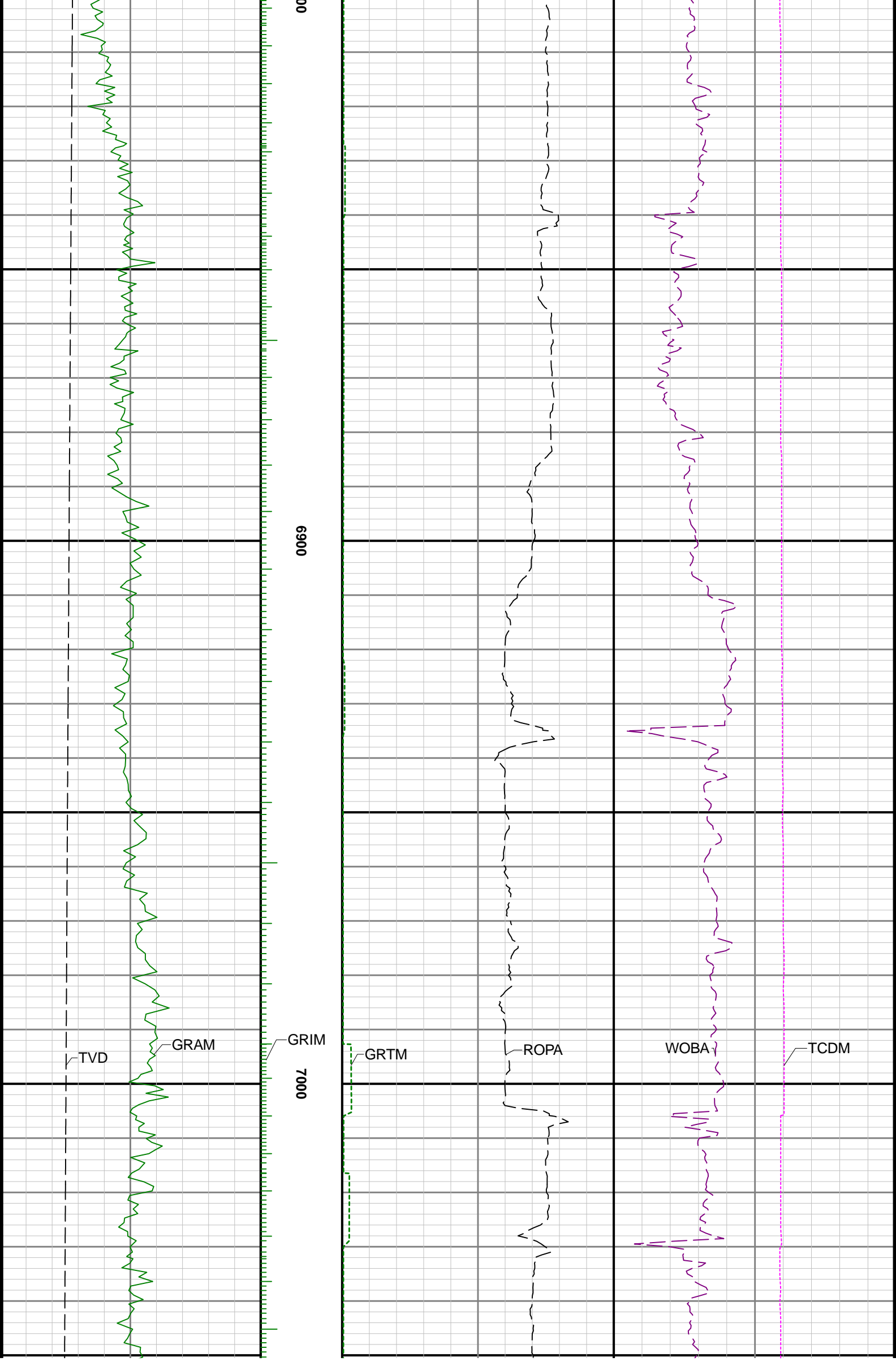


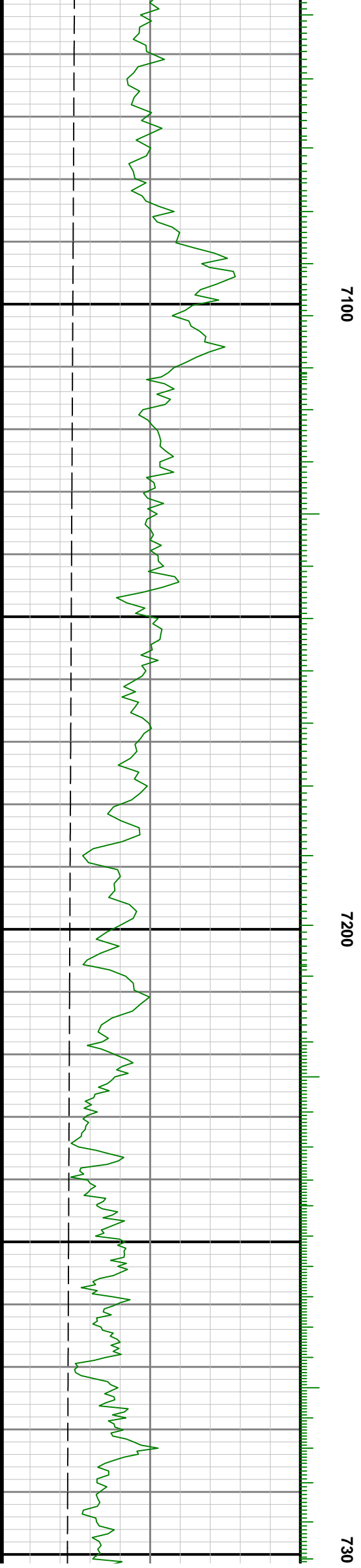
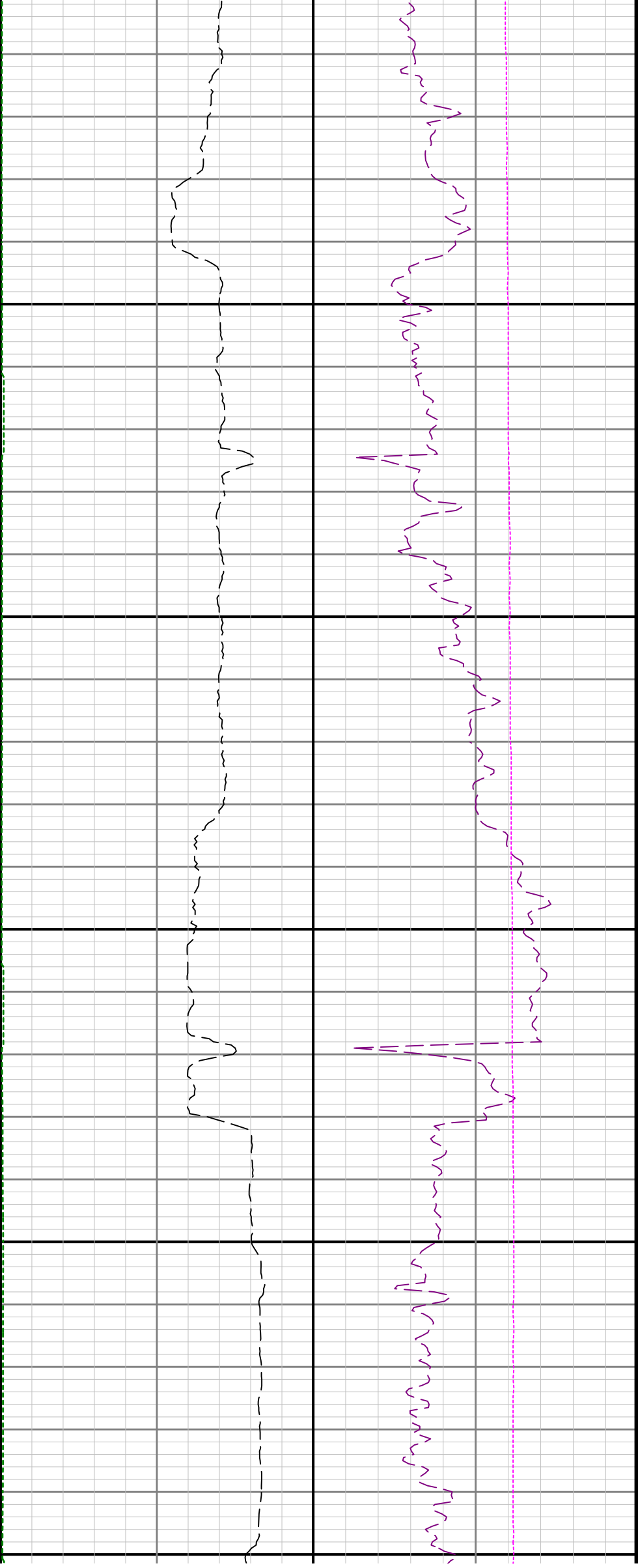
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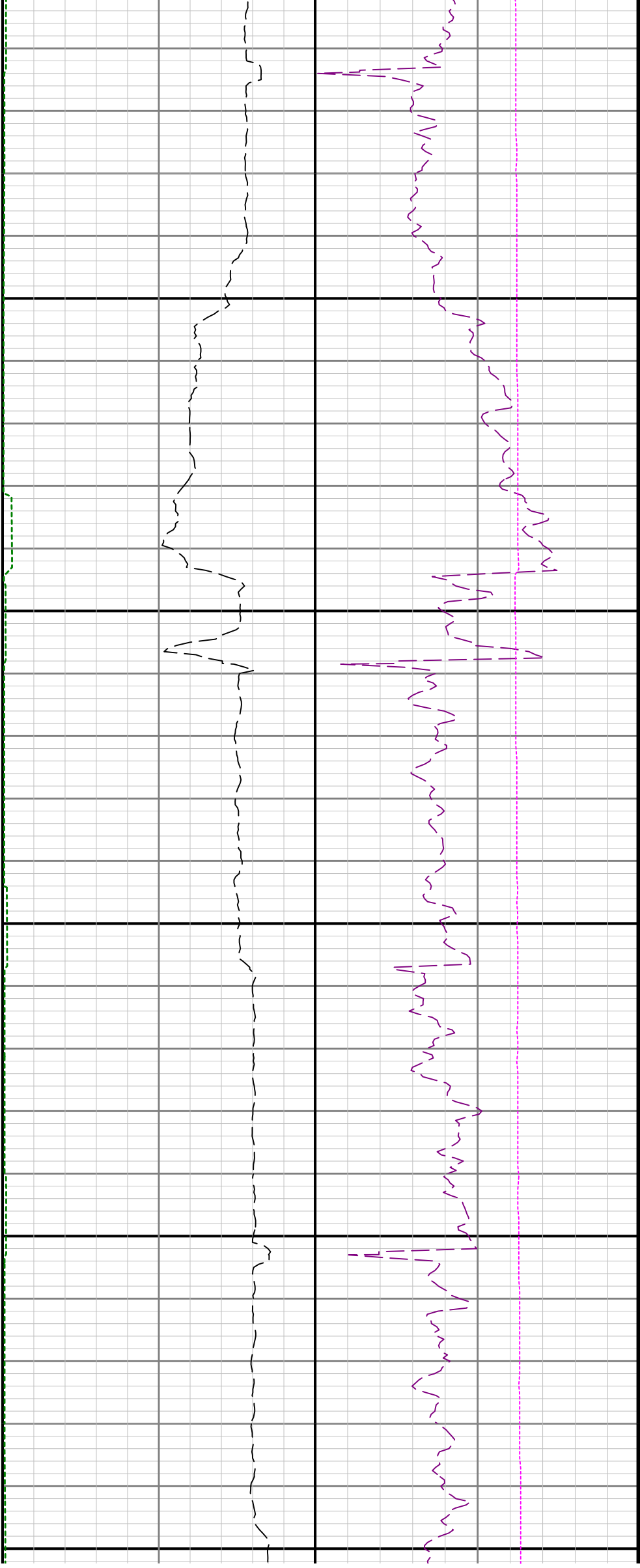
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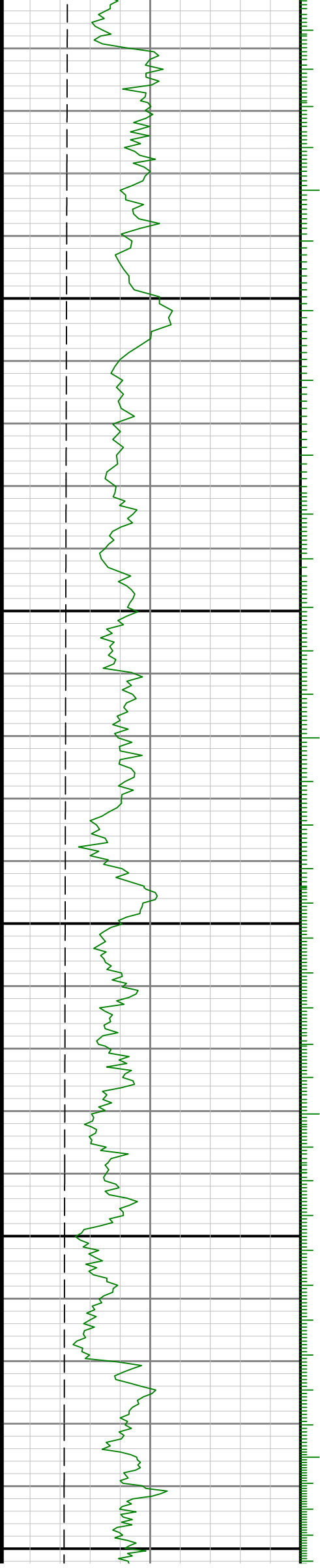




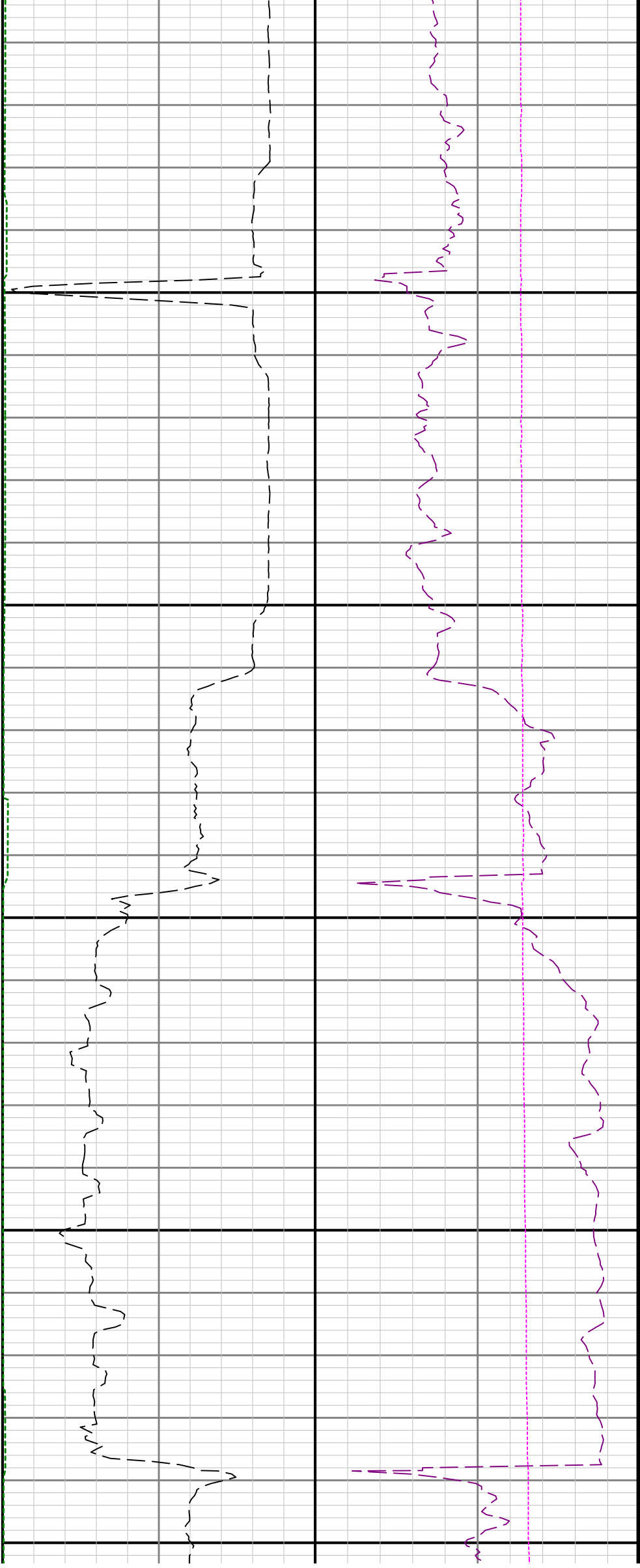


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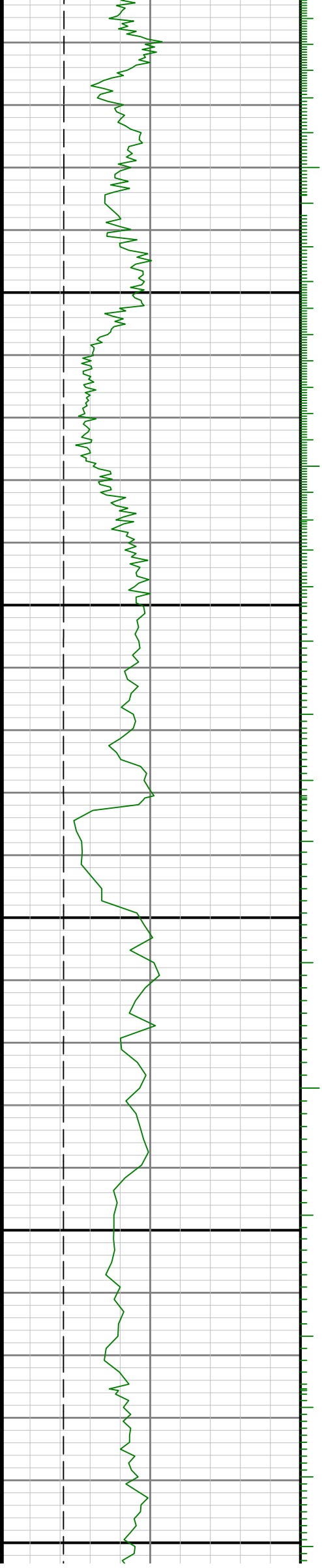


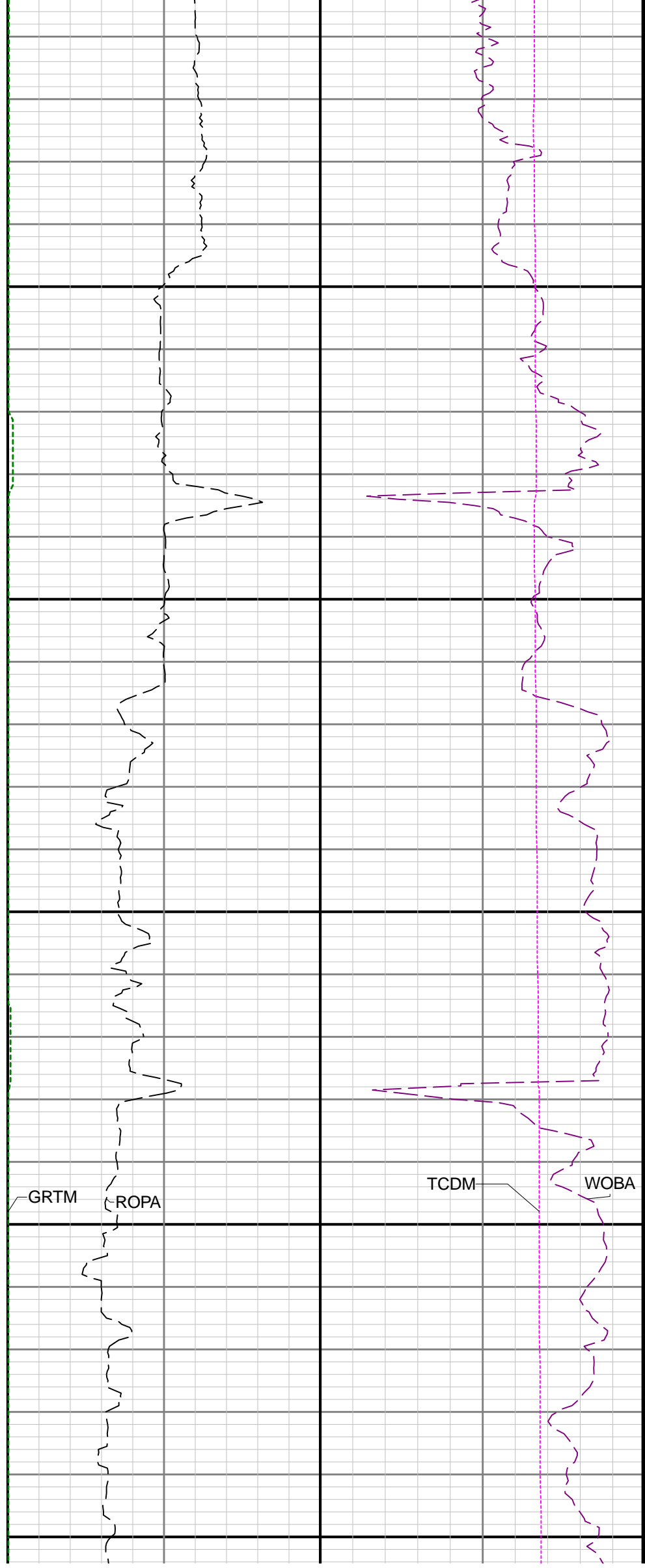
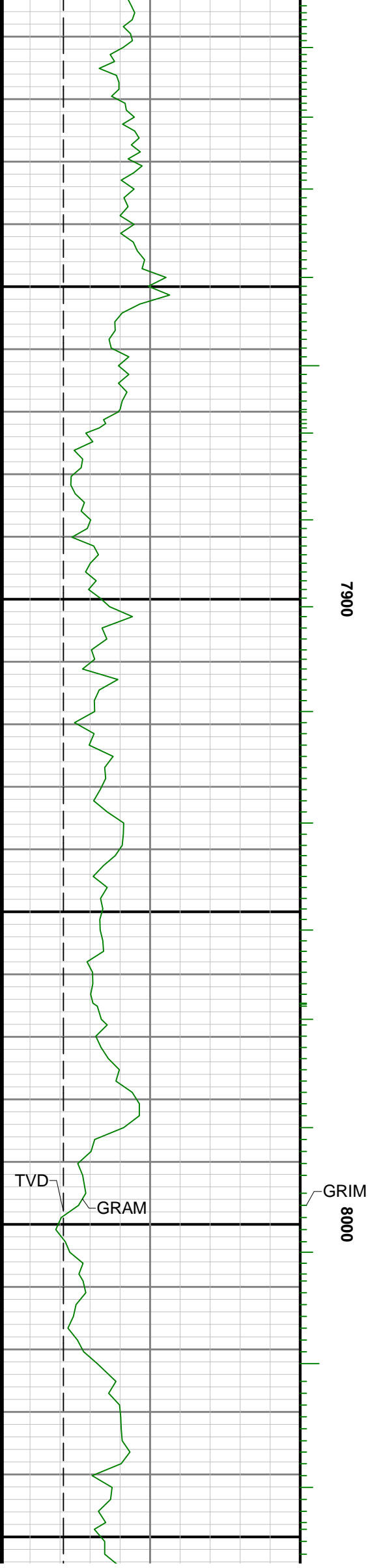


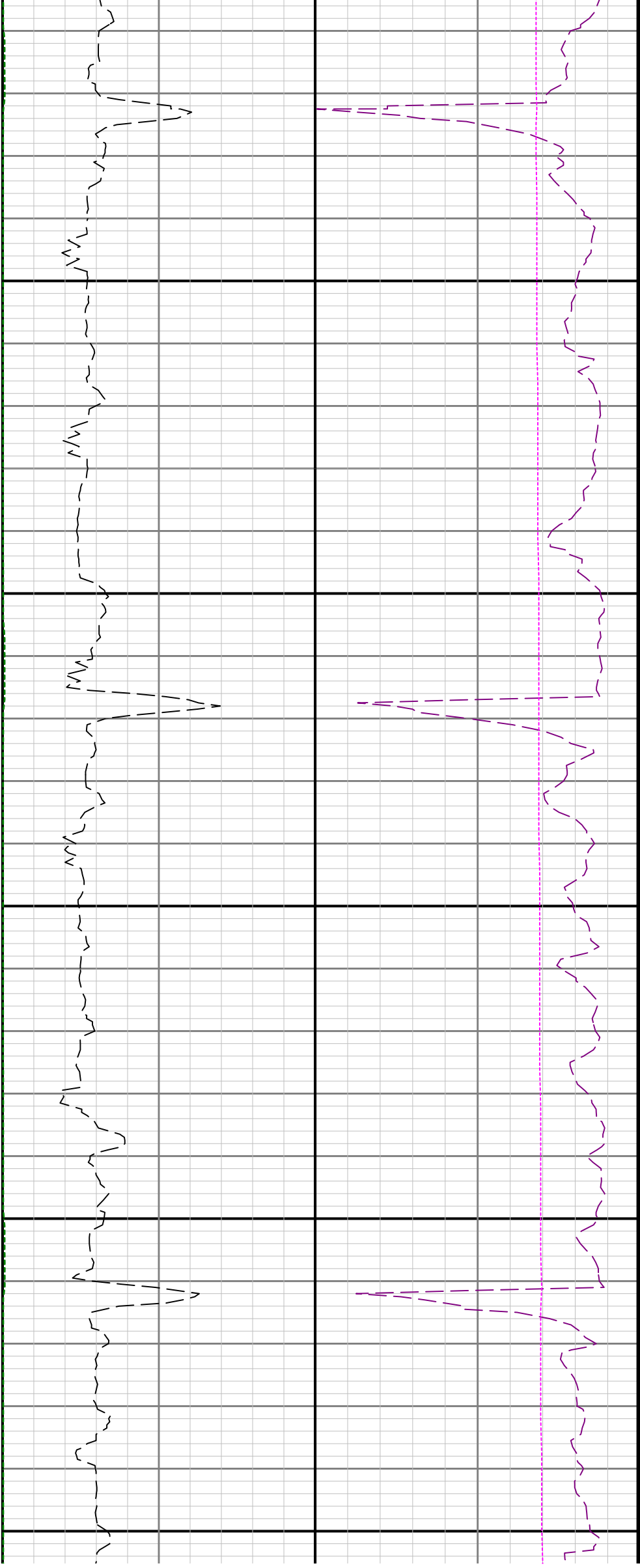
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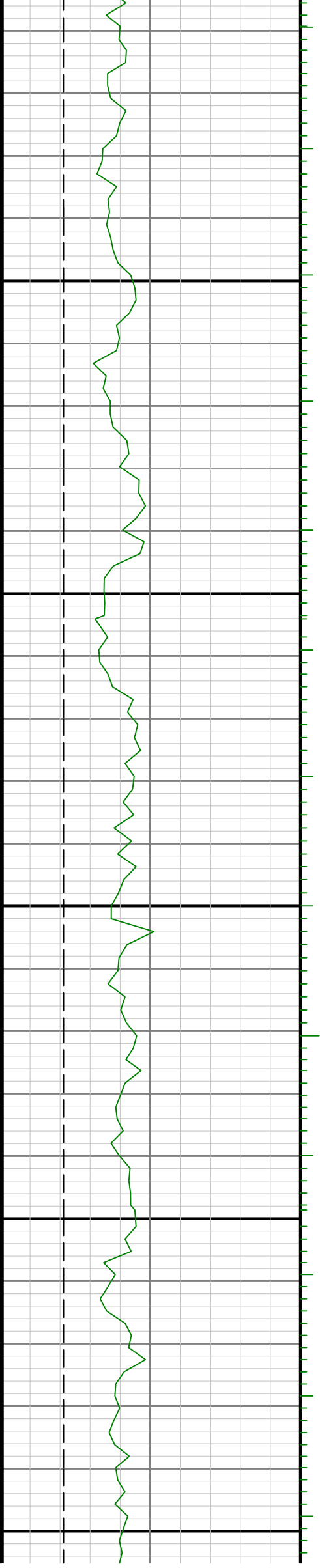


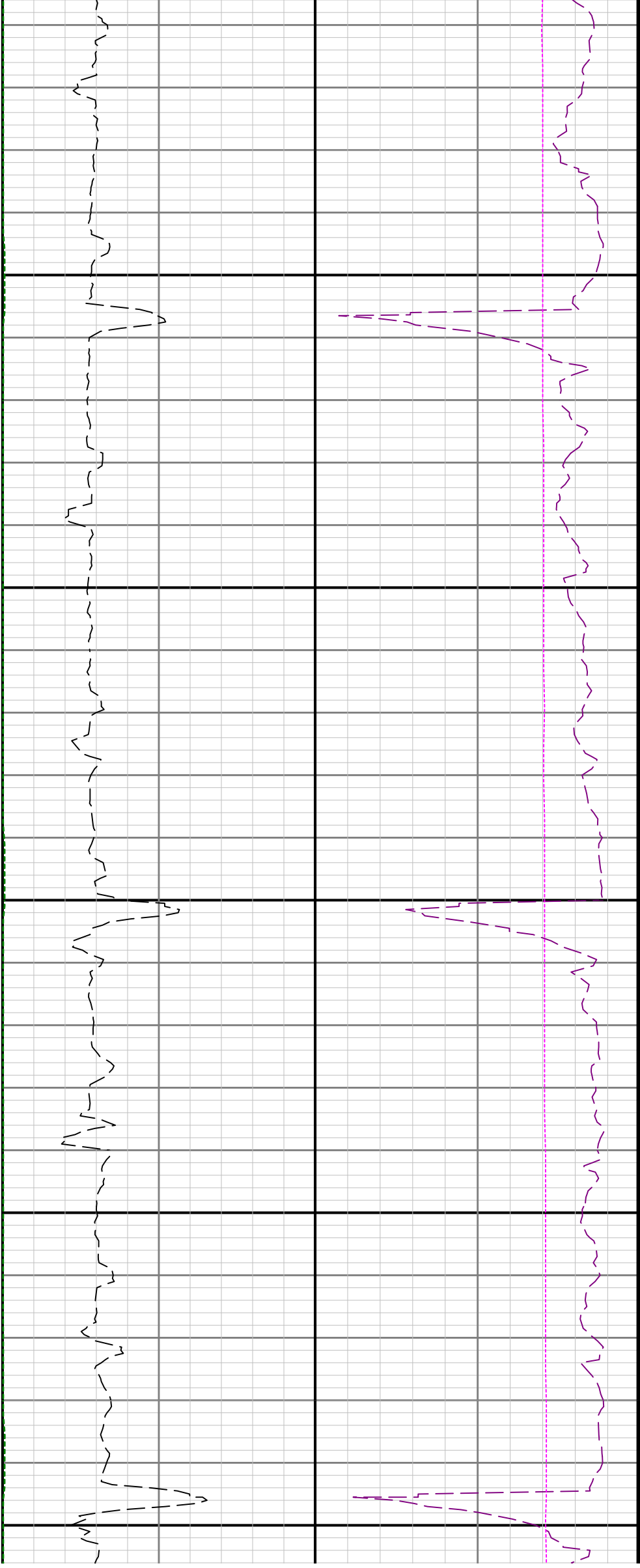


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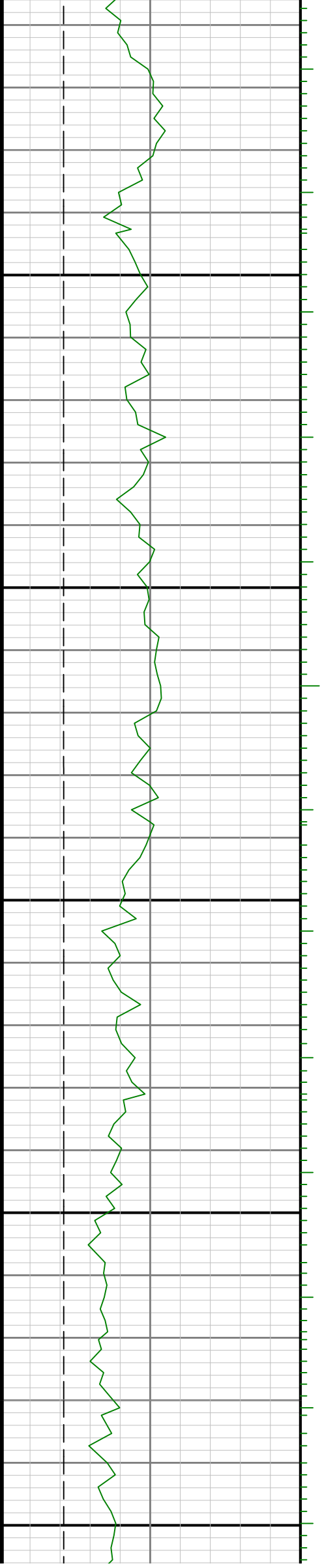
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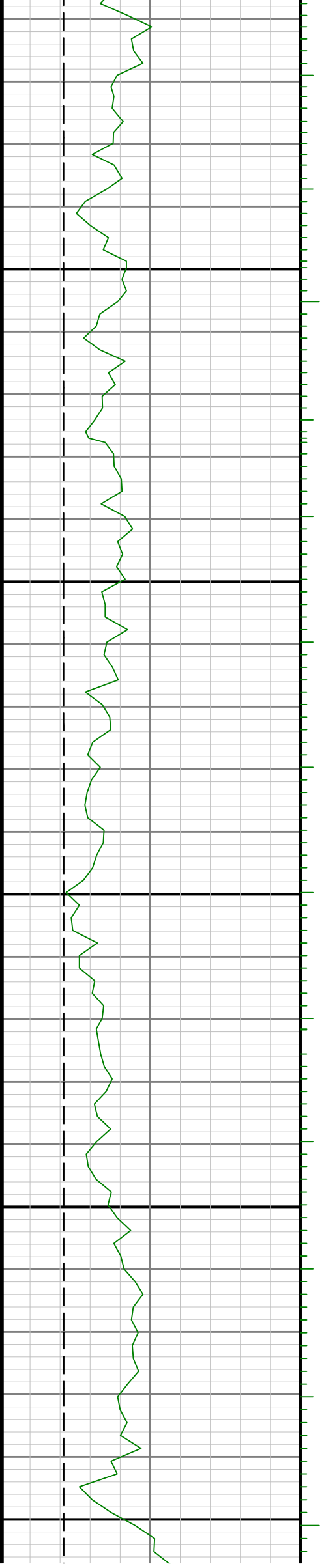




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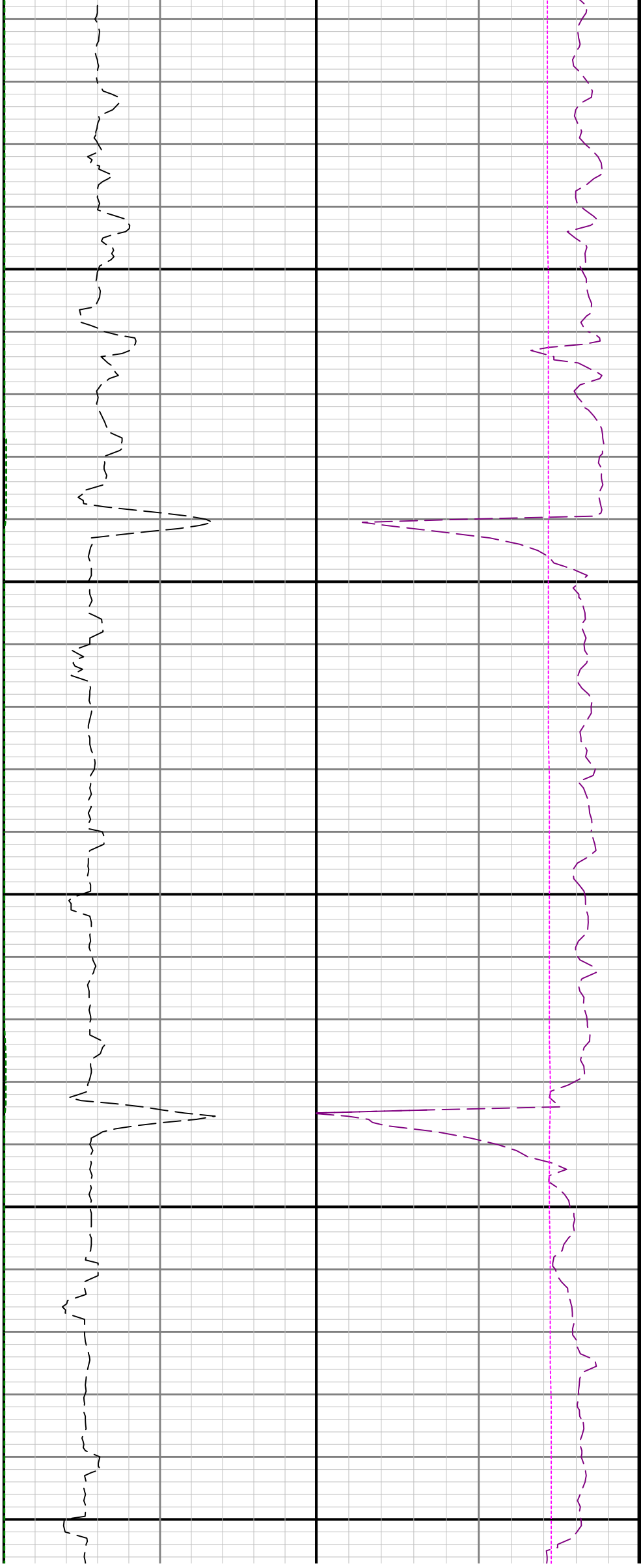


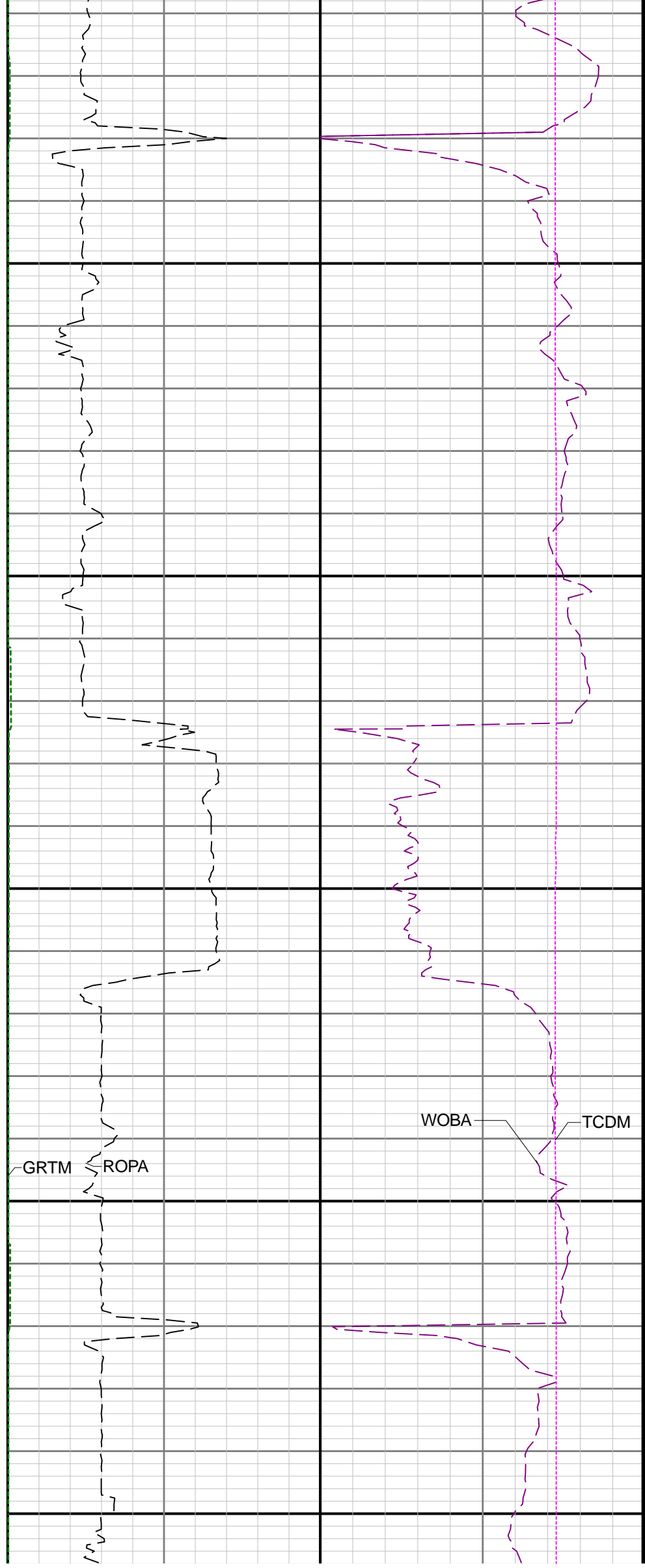
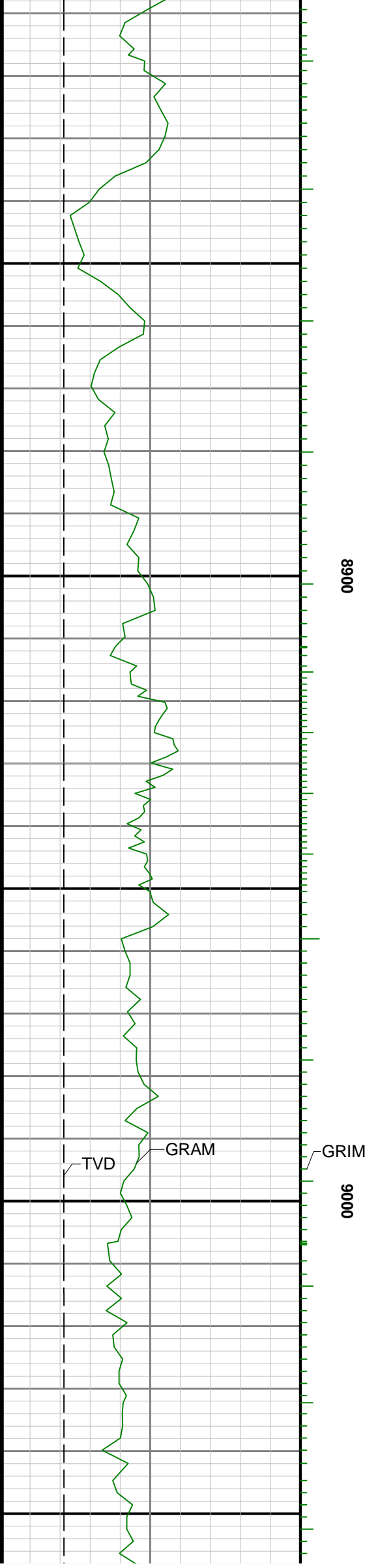


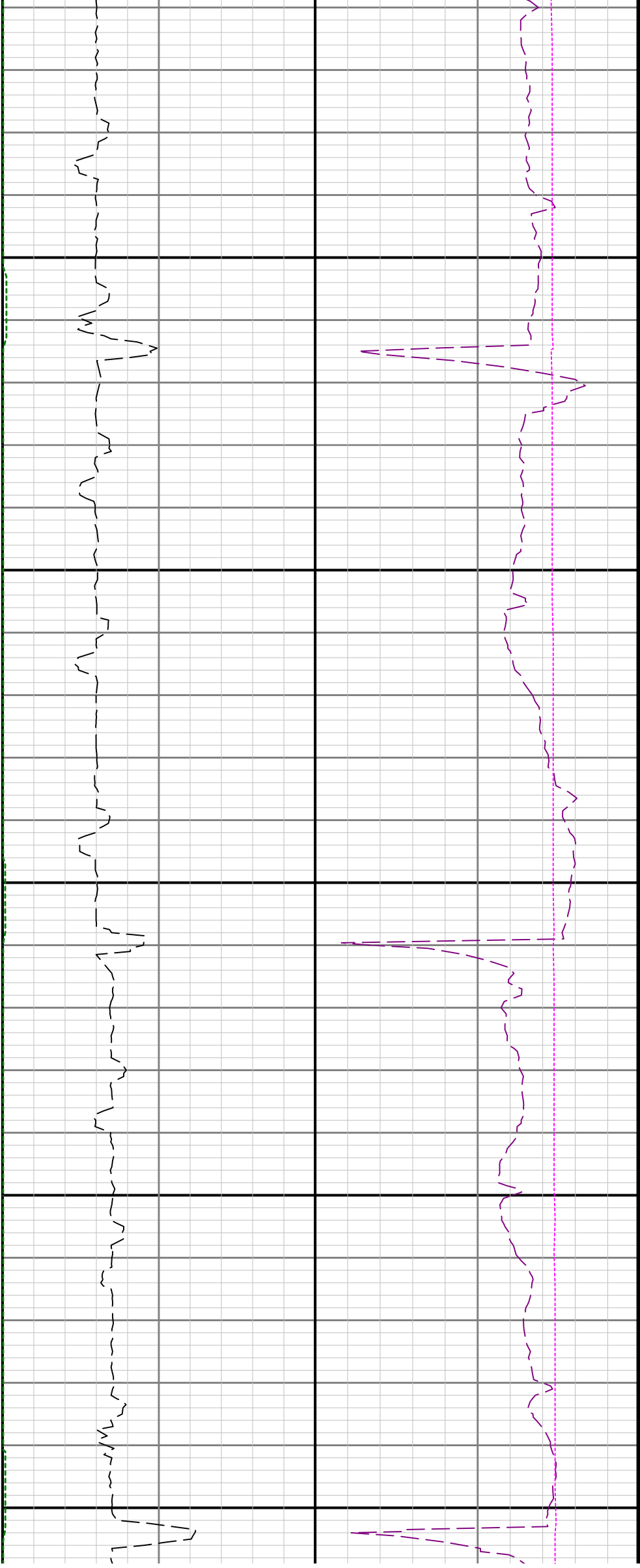
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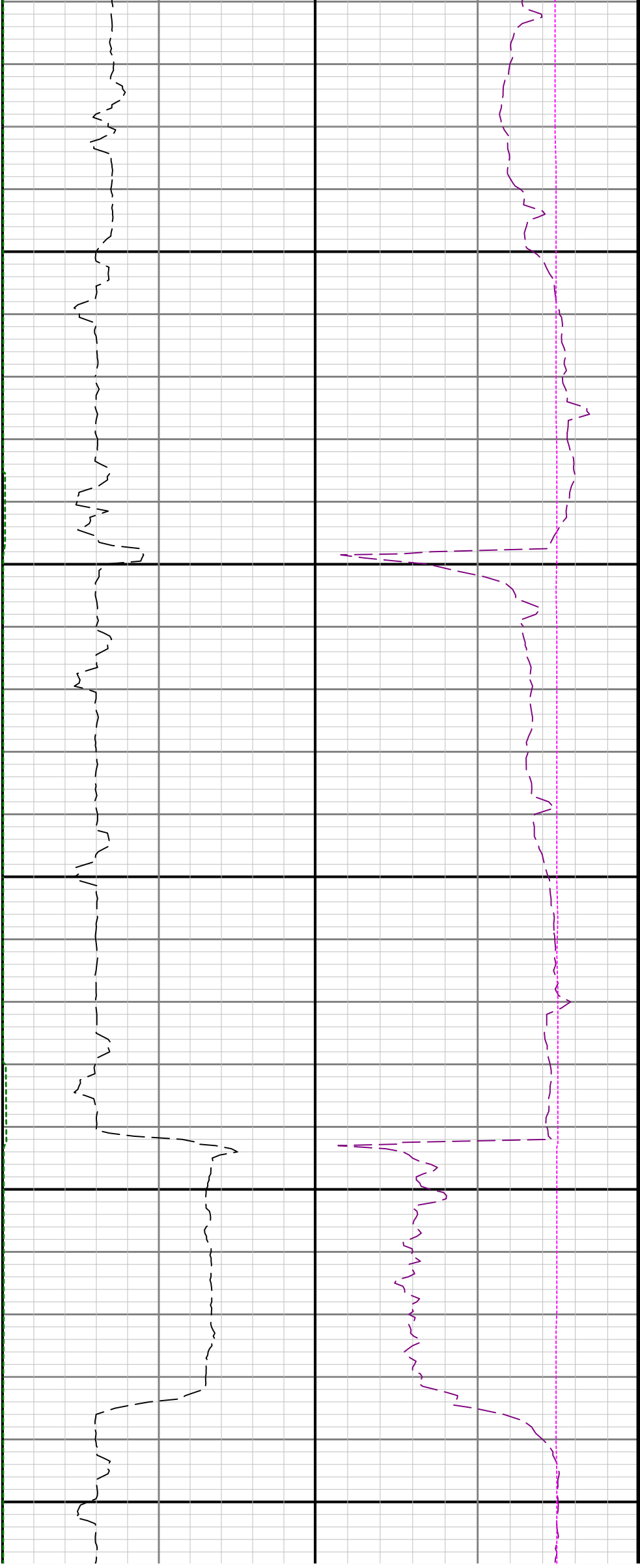


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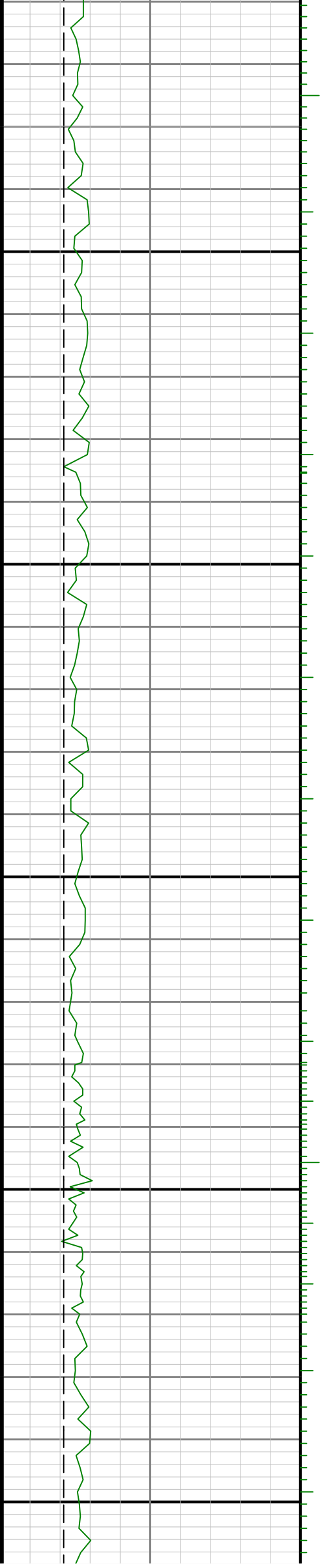
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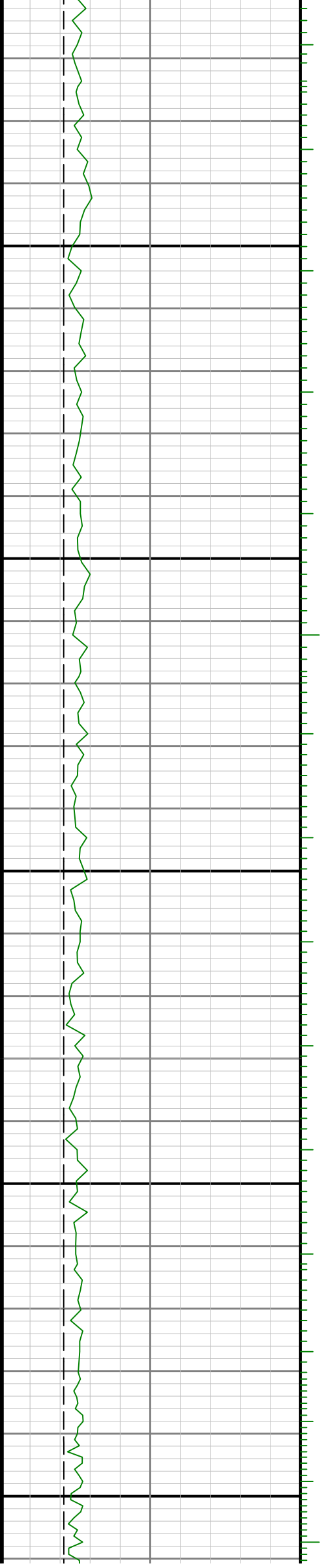


9400

9500



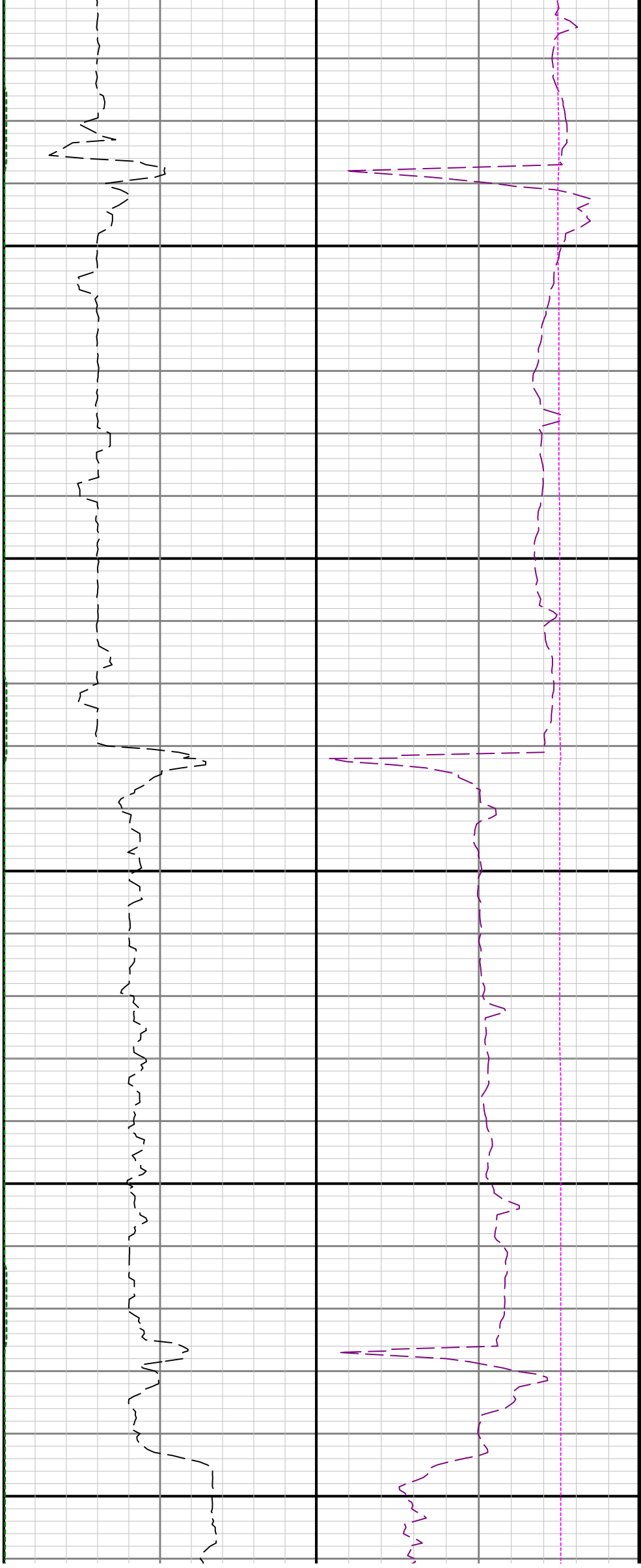


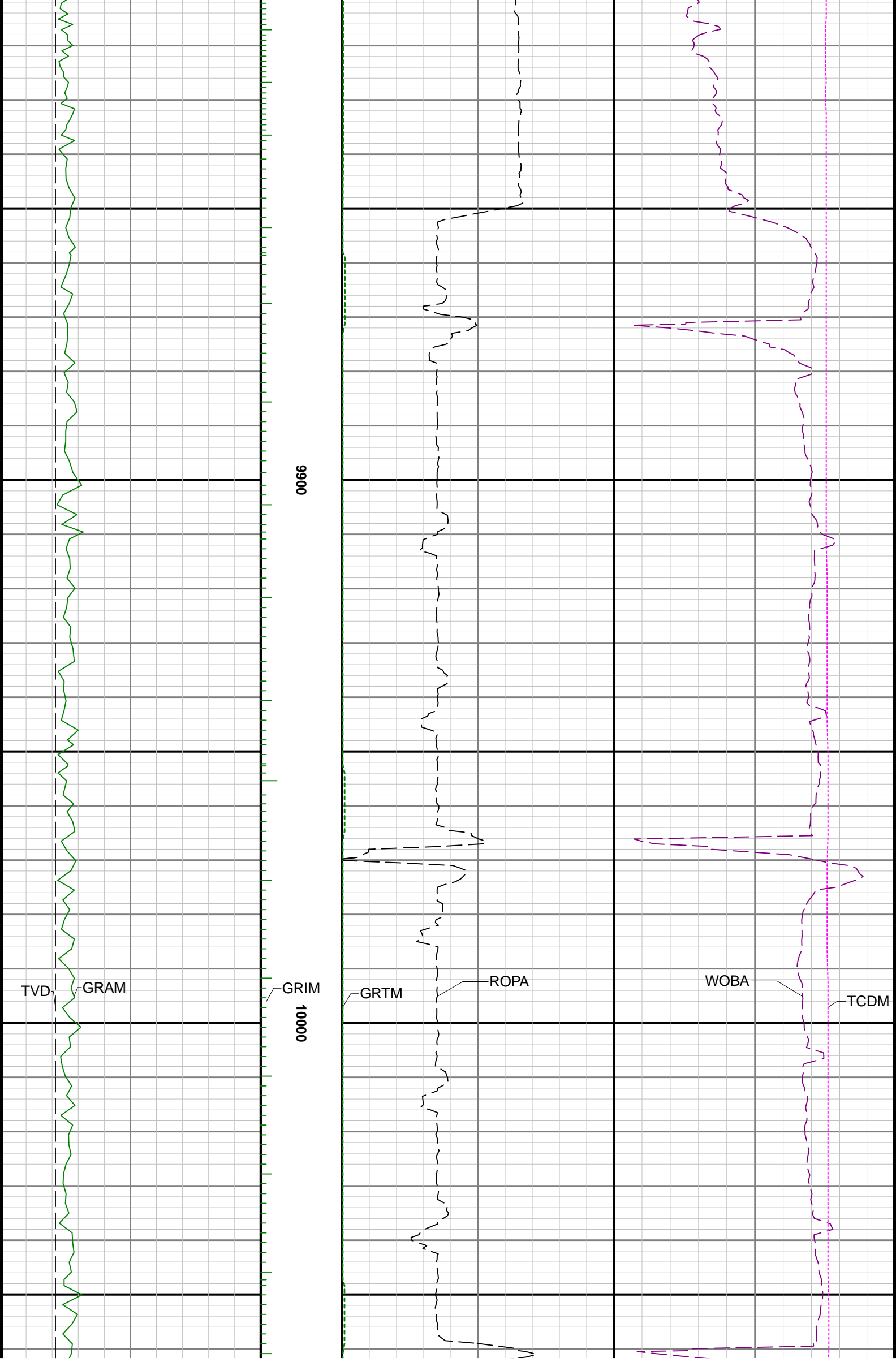


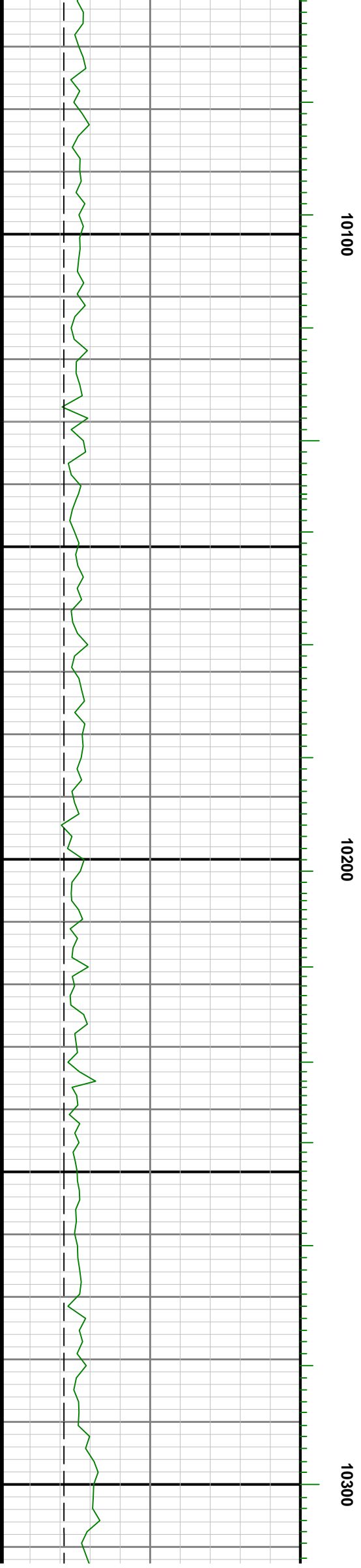
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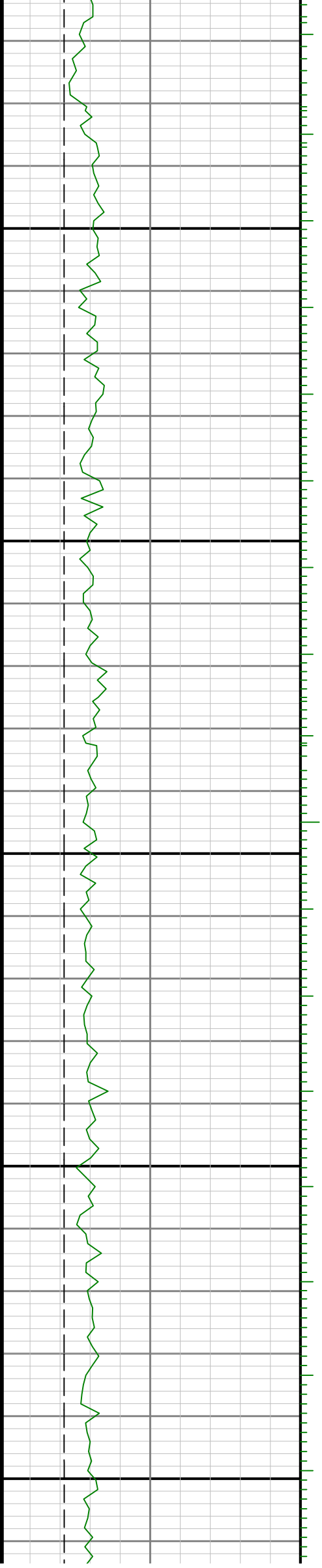


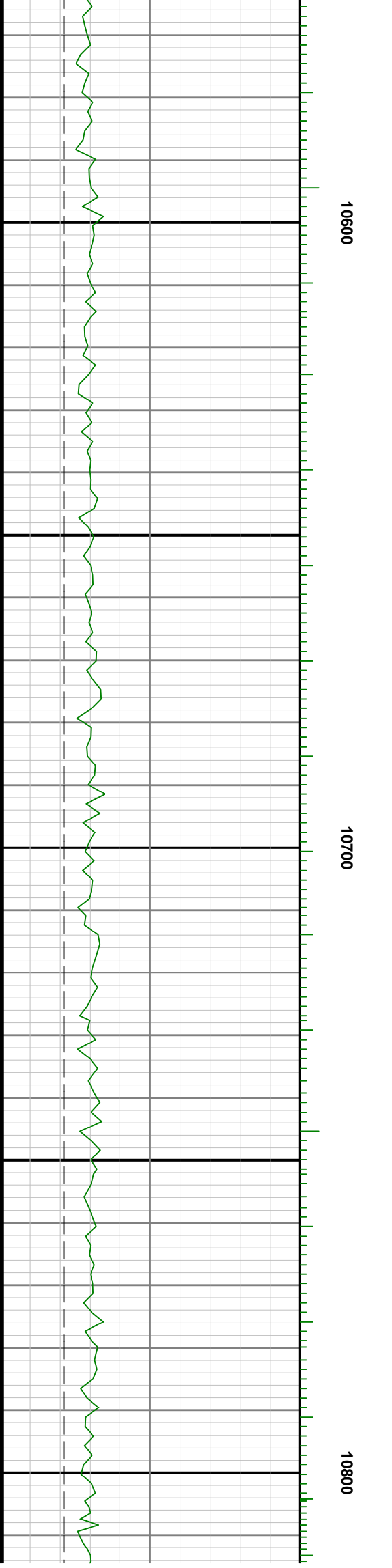
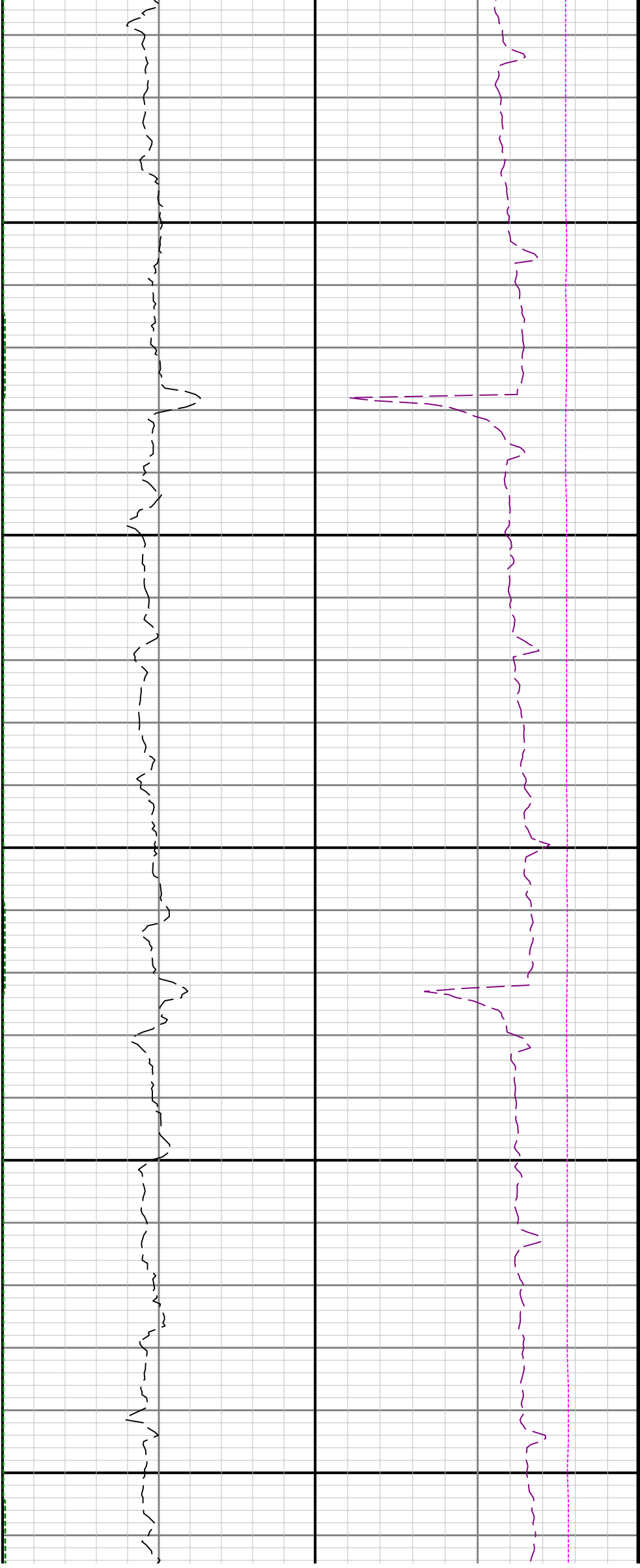


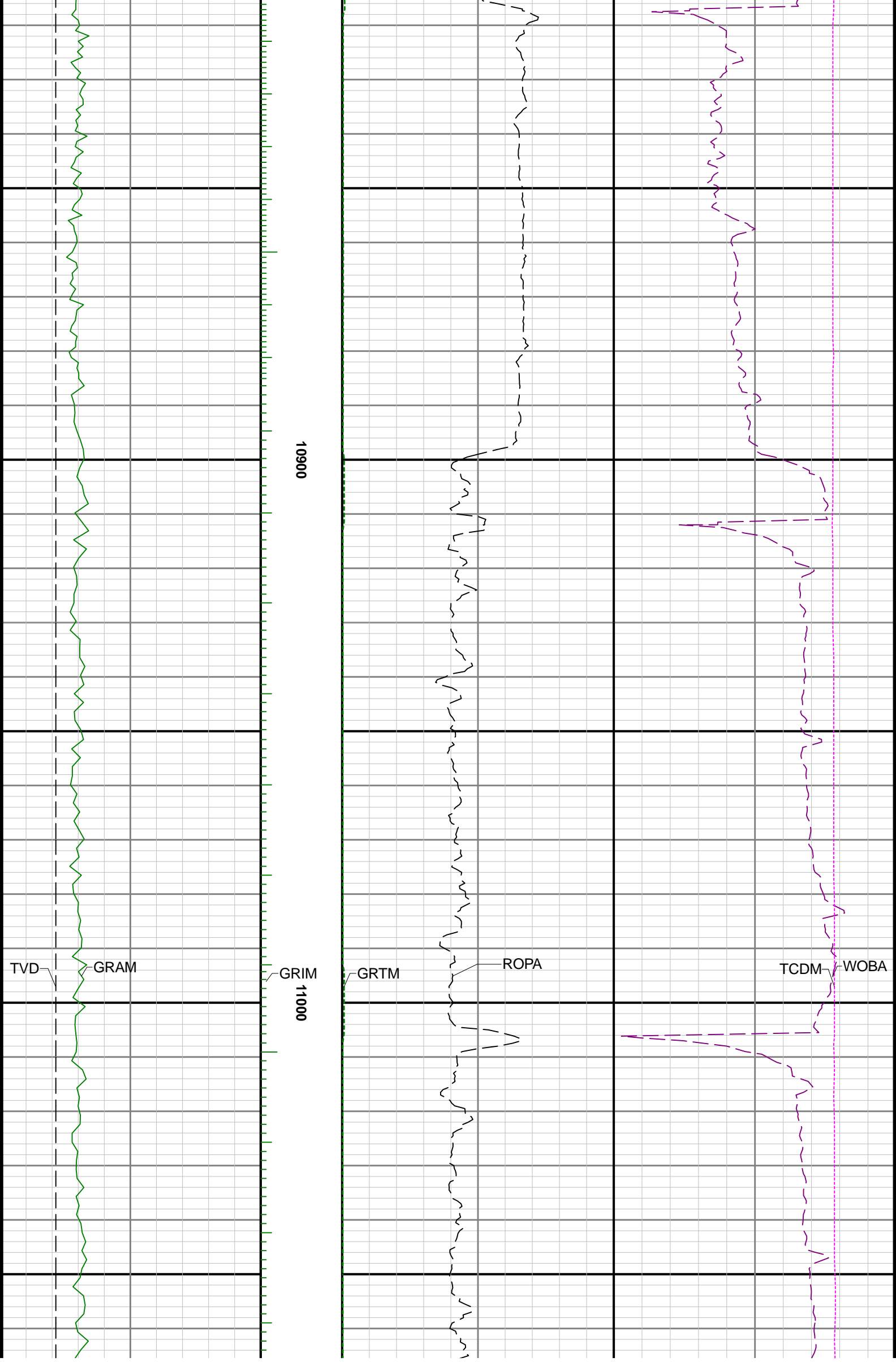


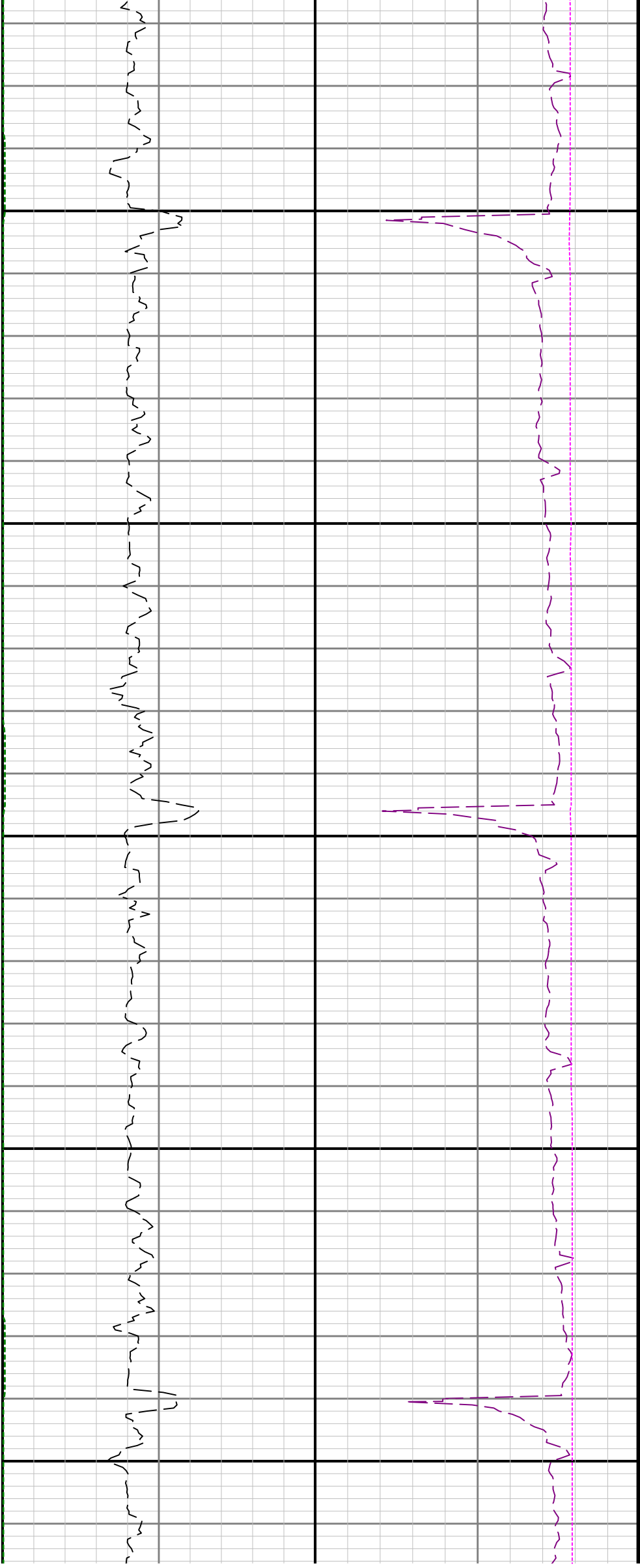
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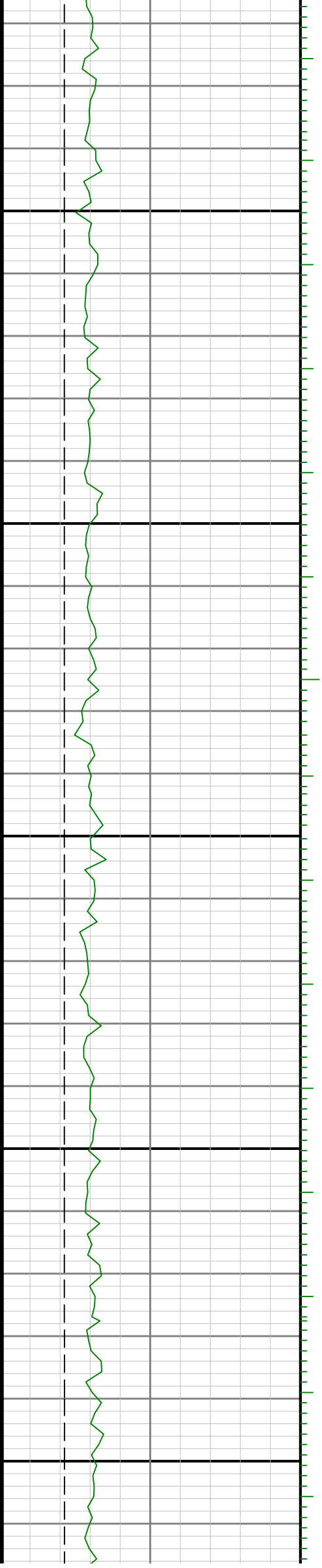




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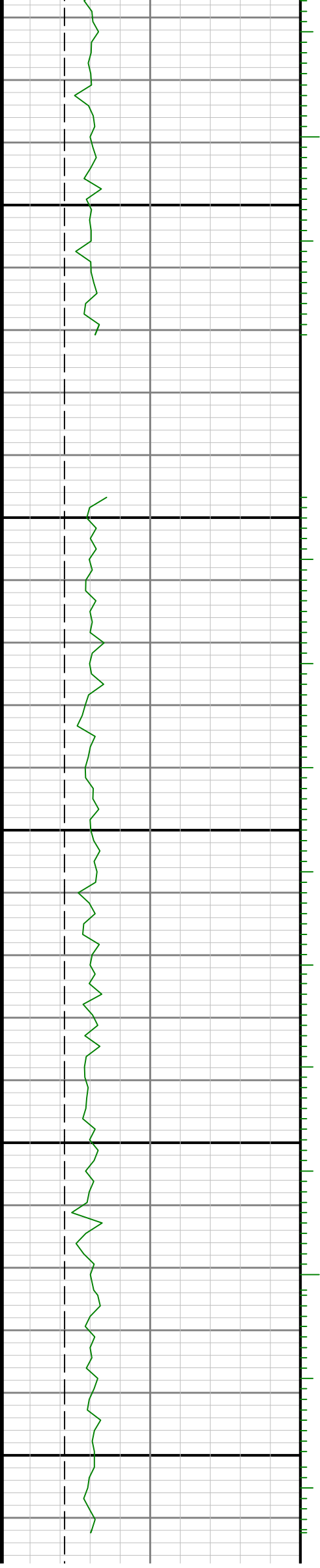
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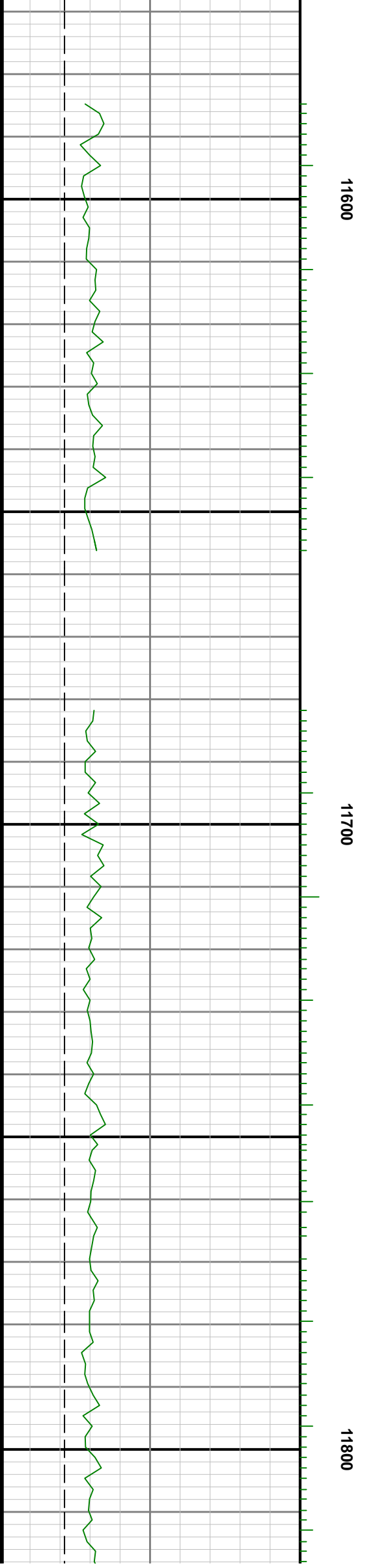


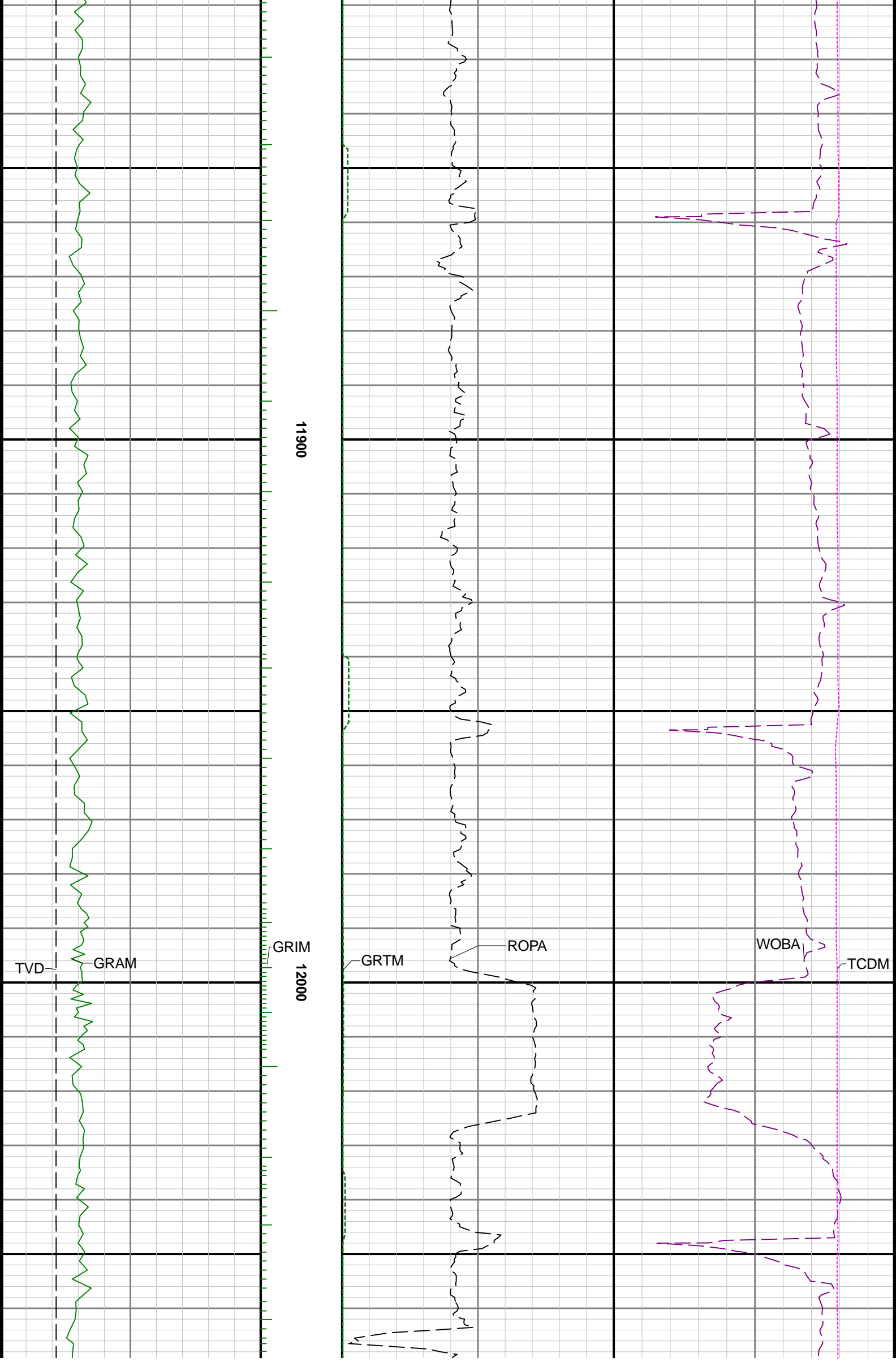
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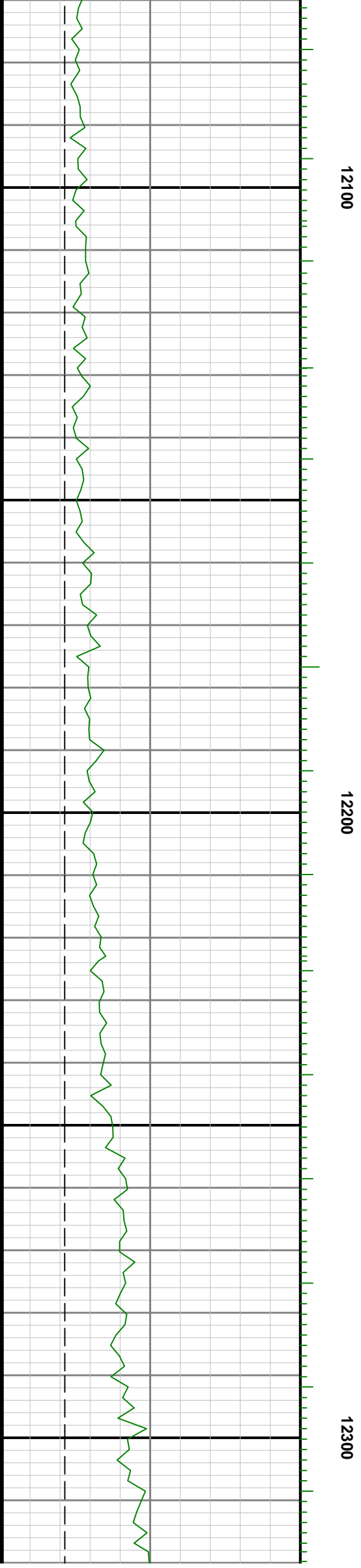
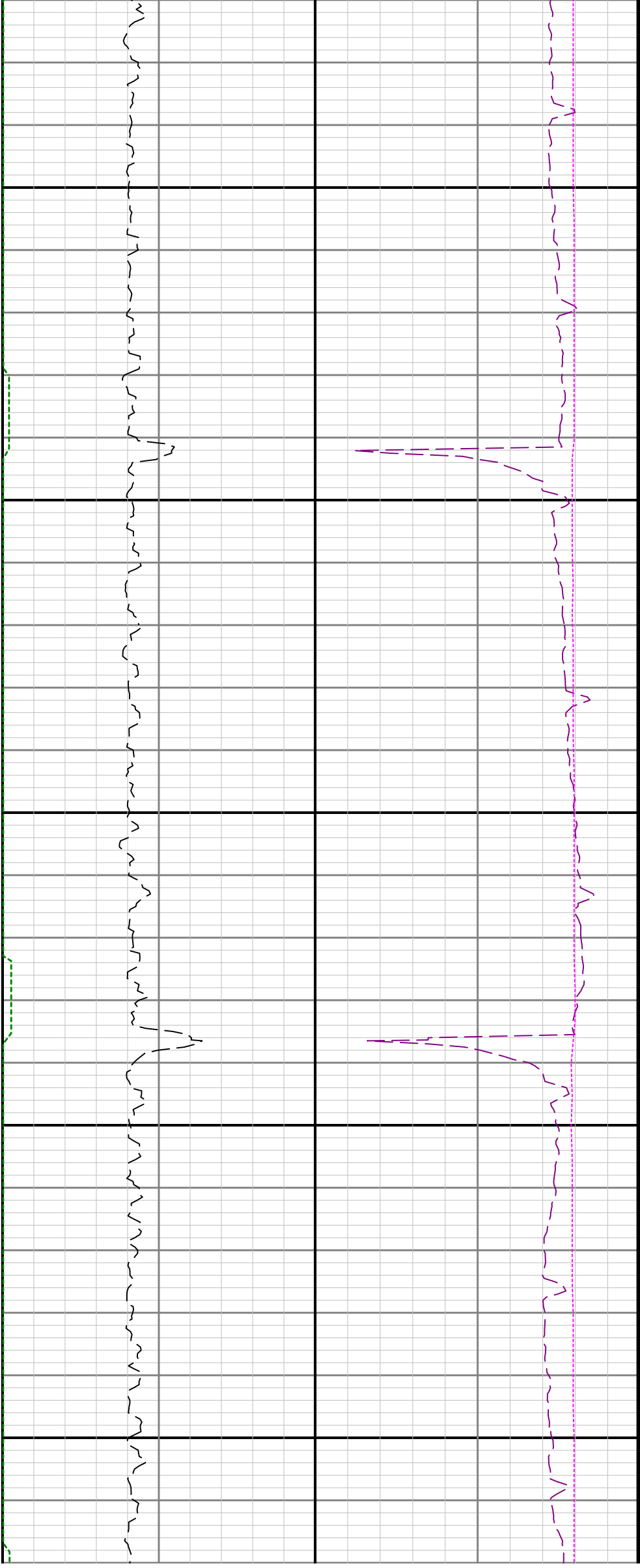
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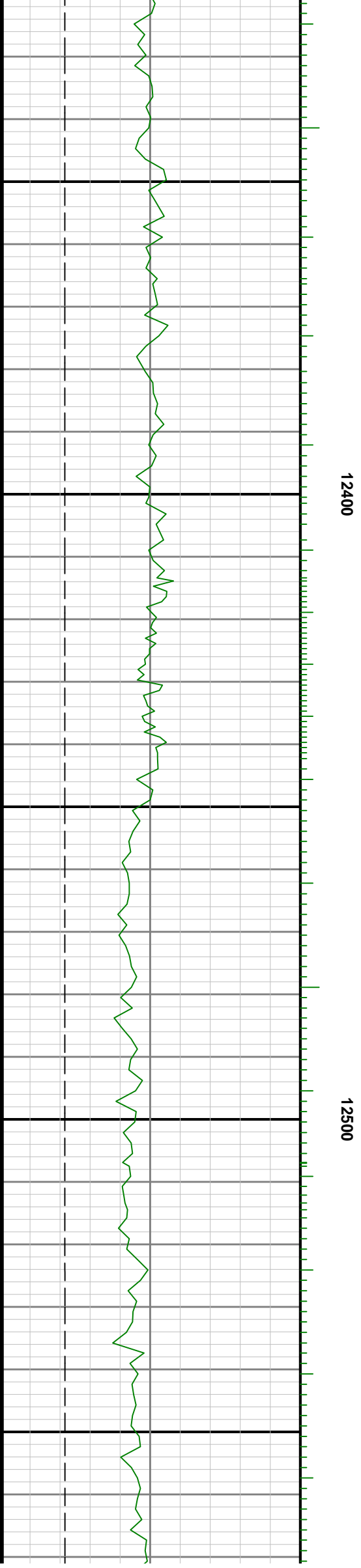
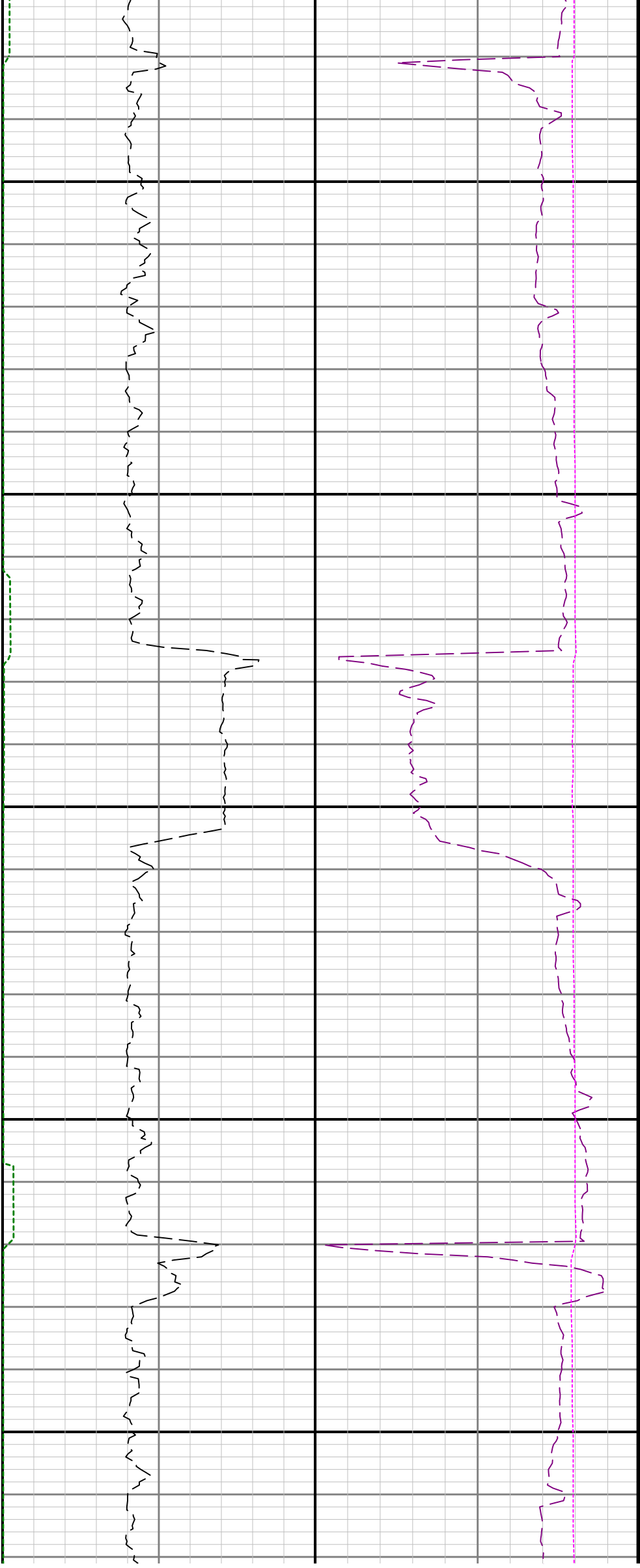


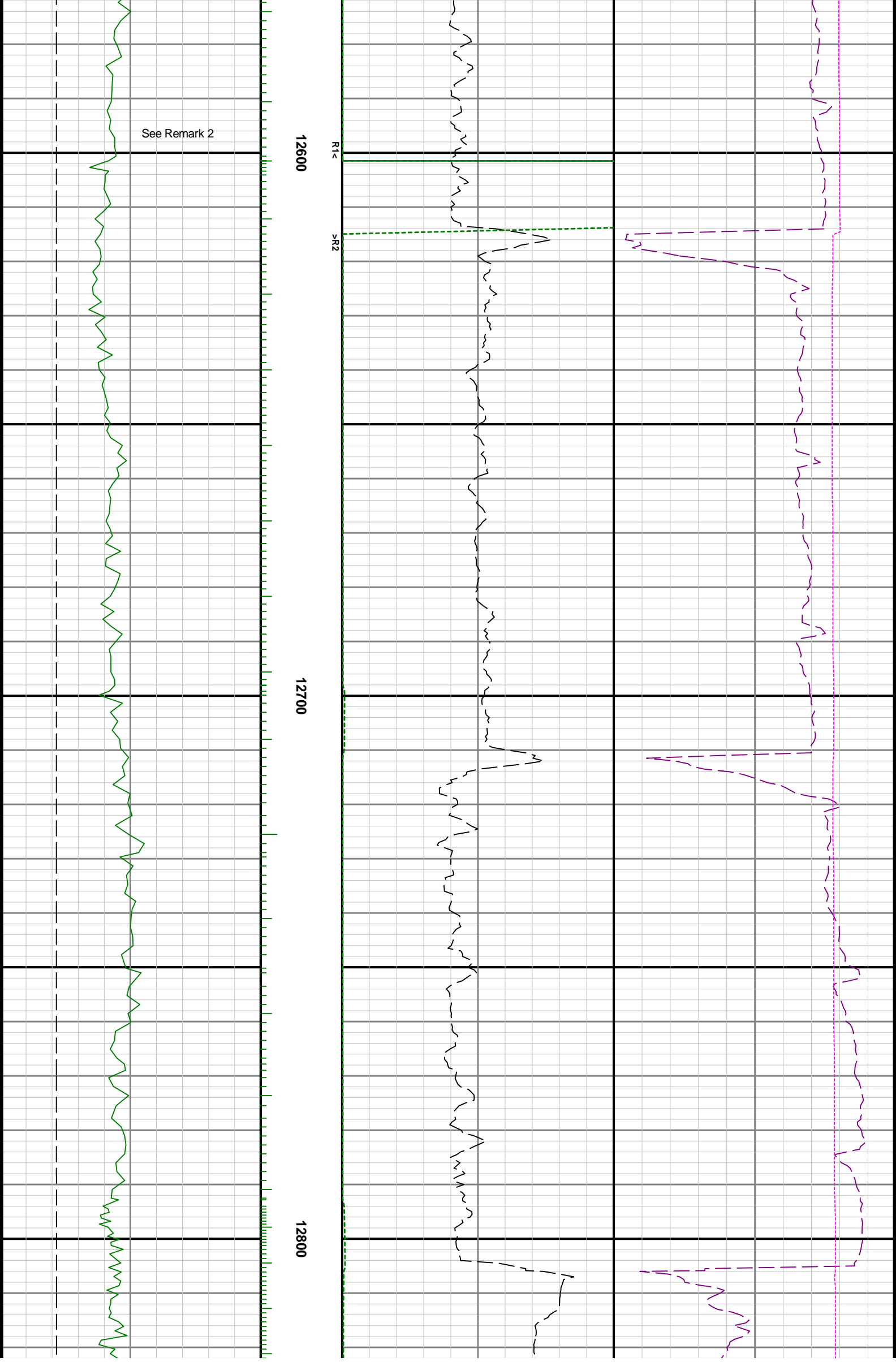


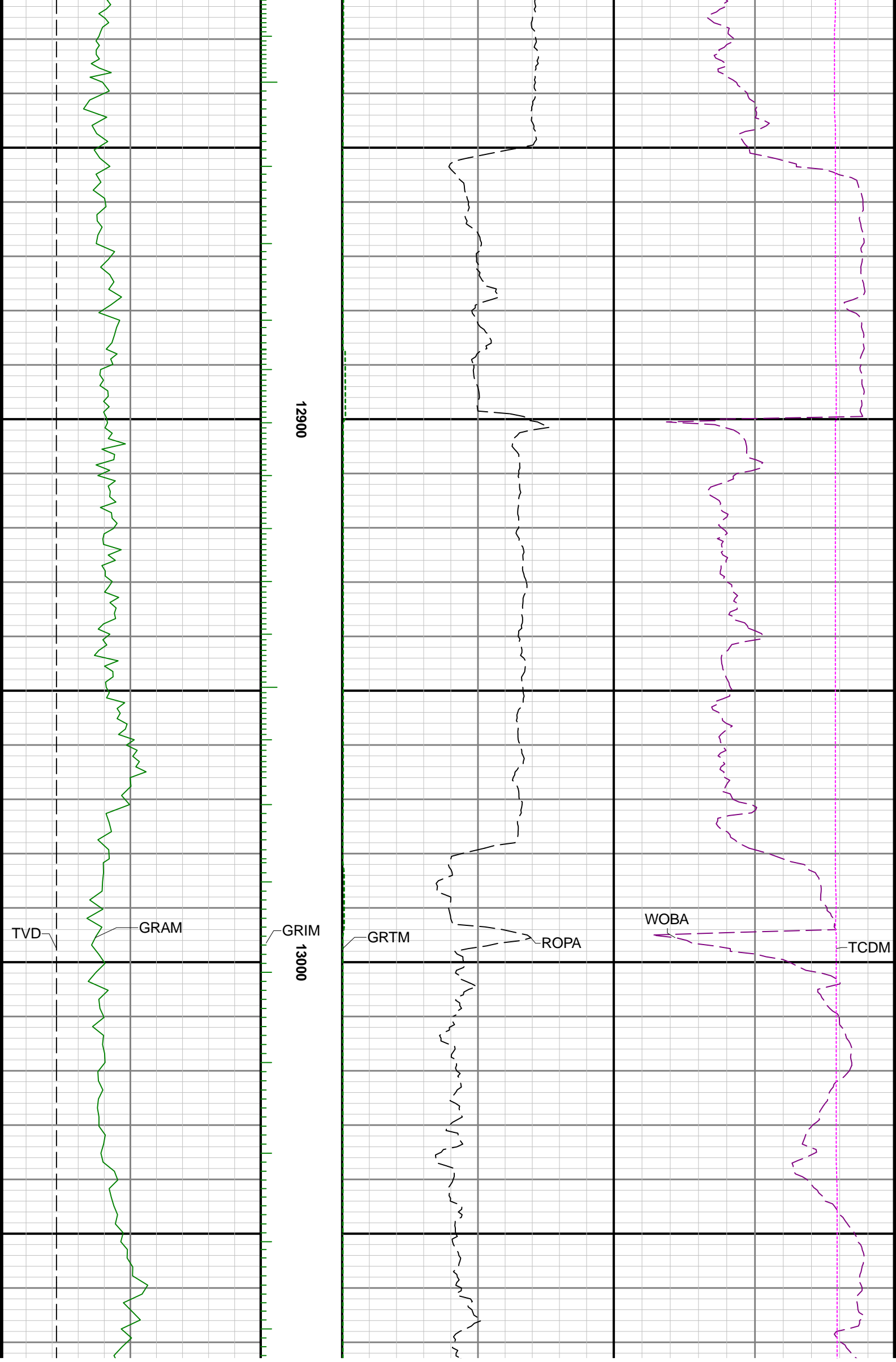


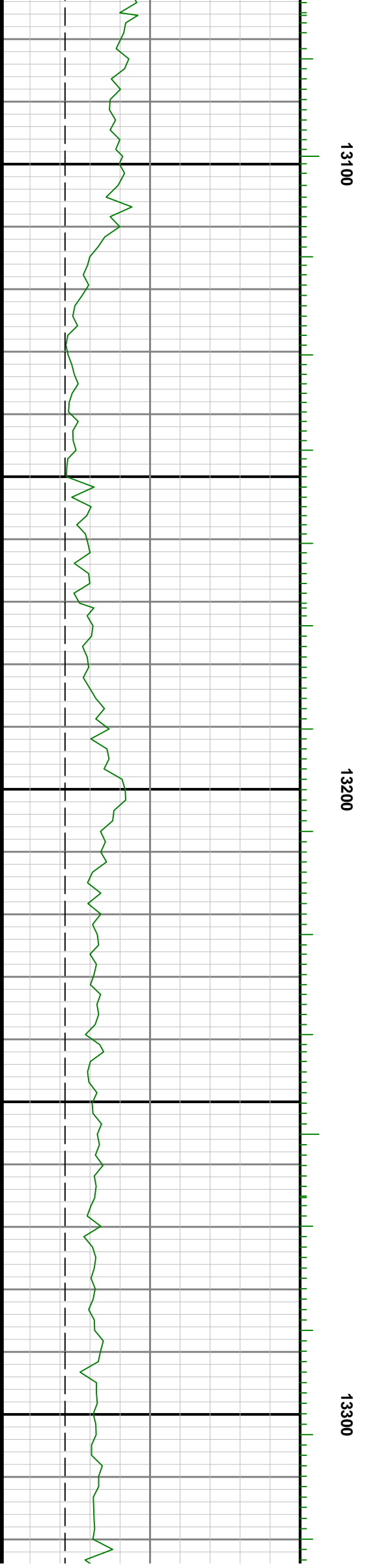
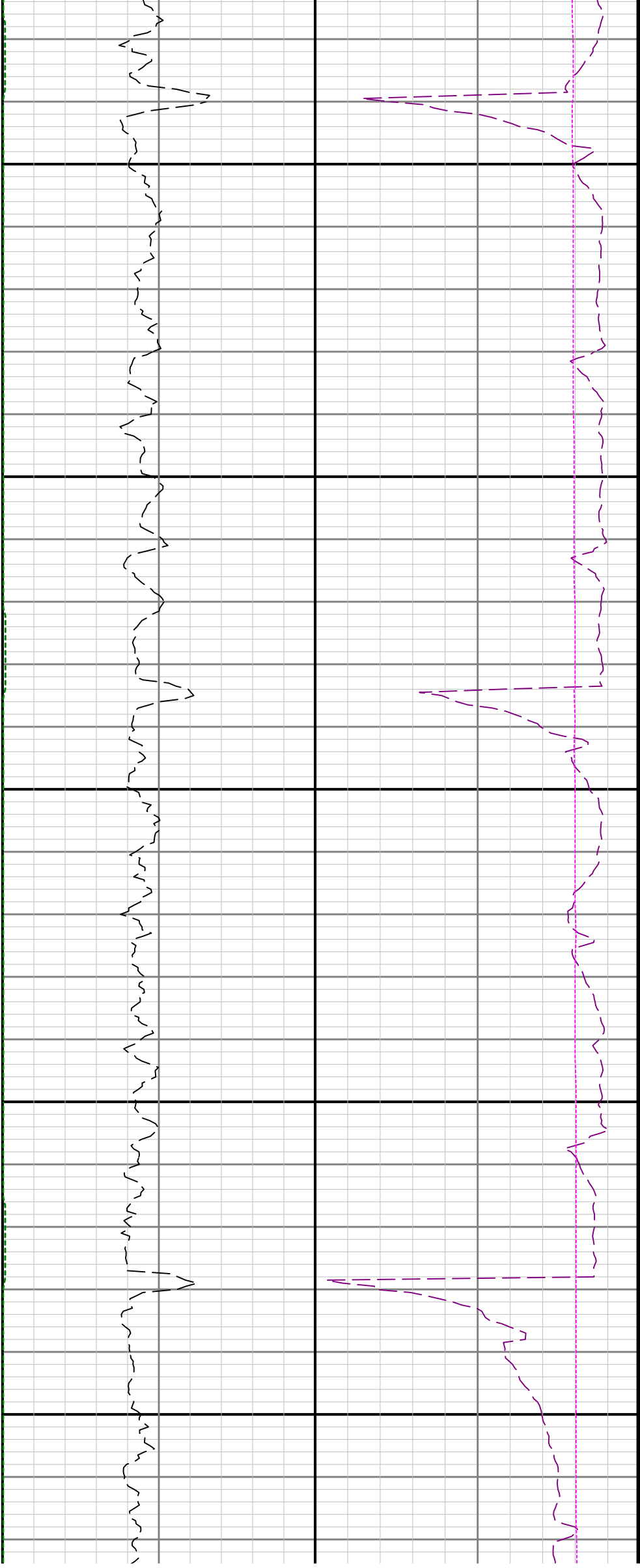


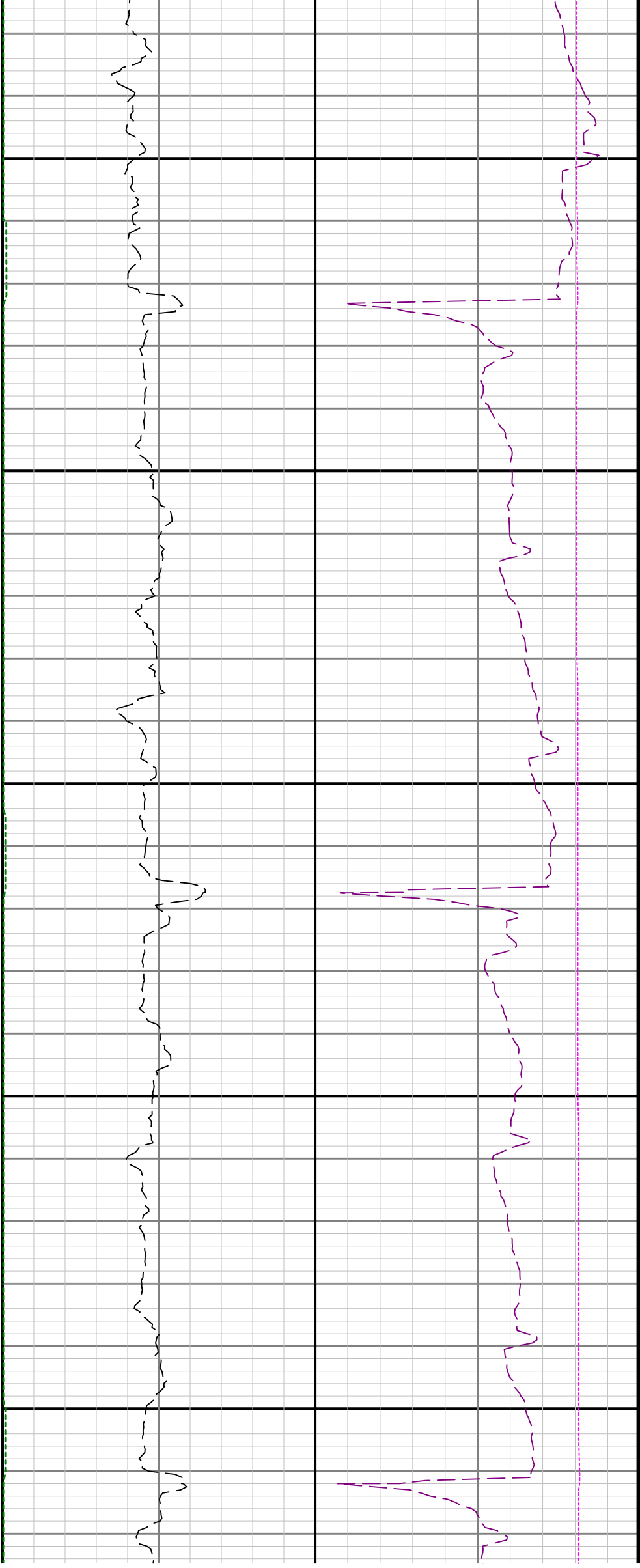






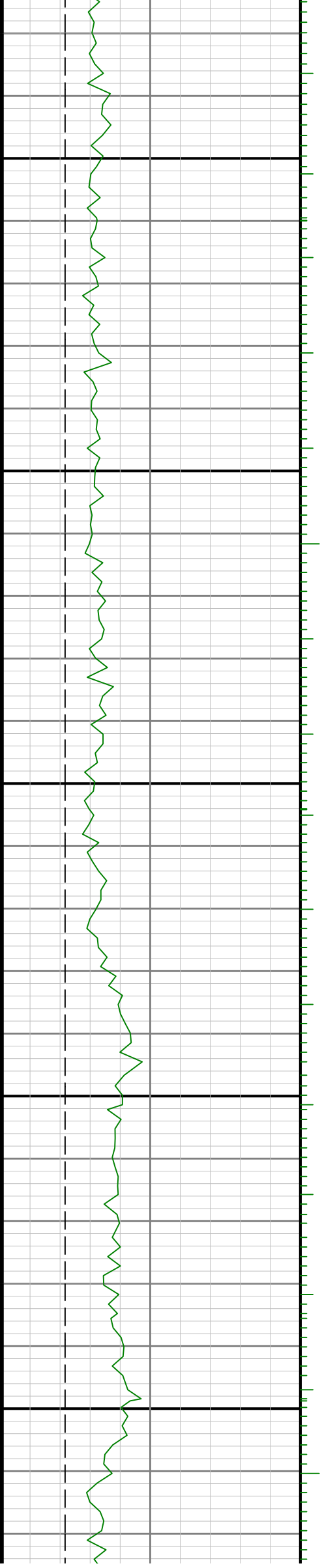




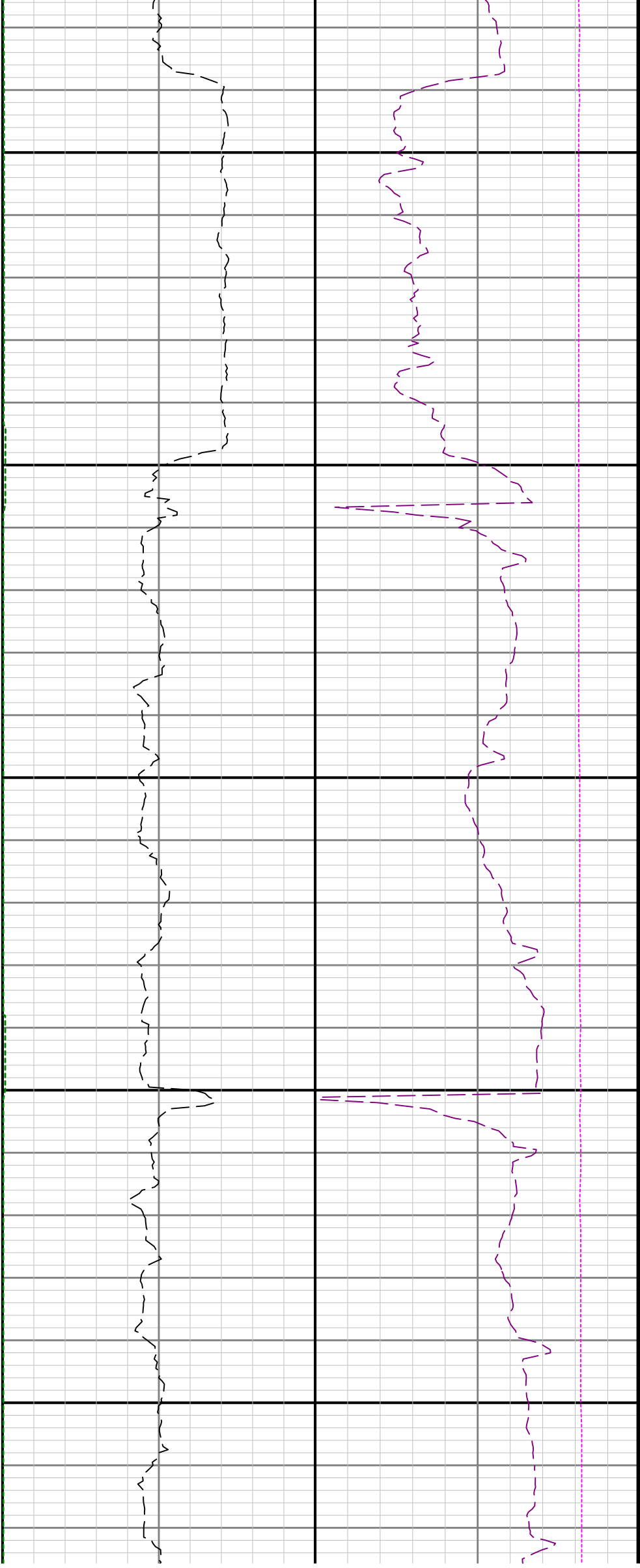


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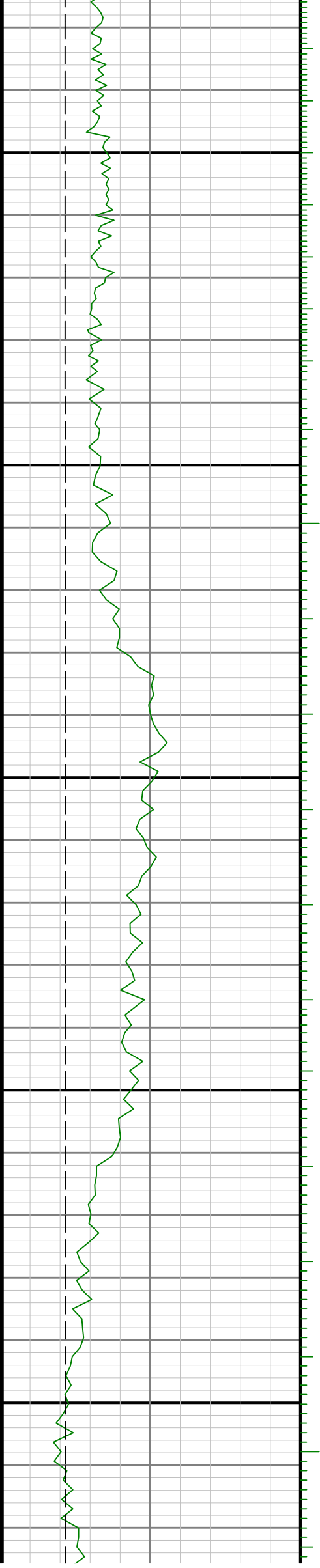


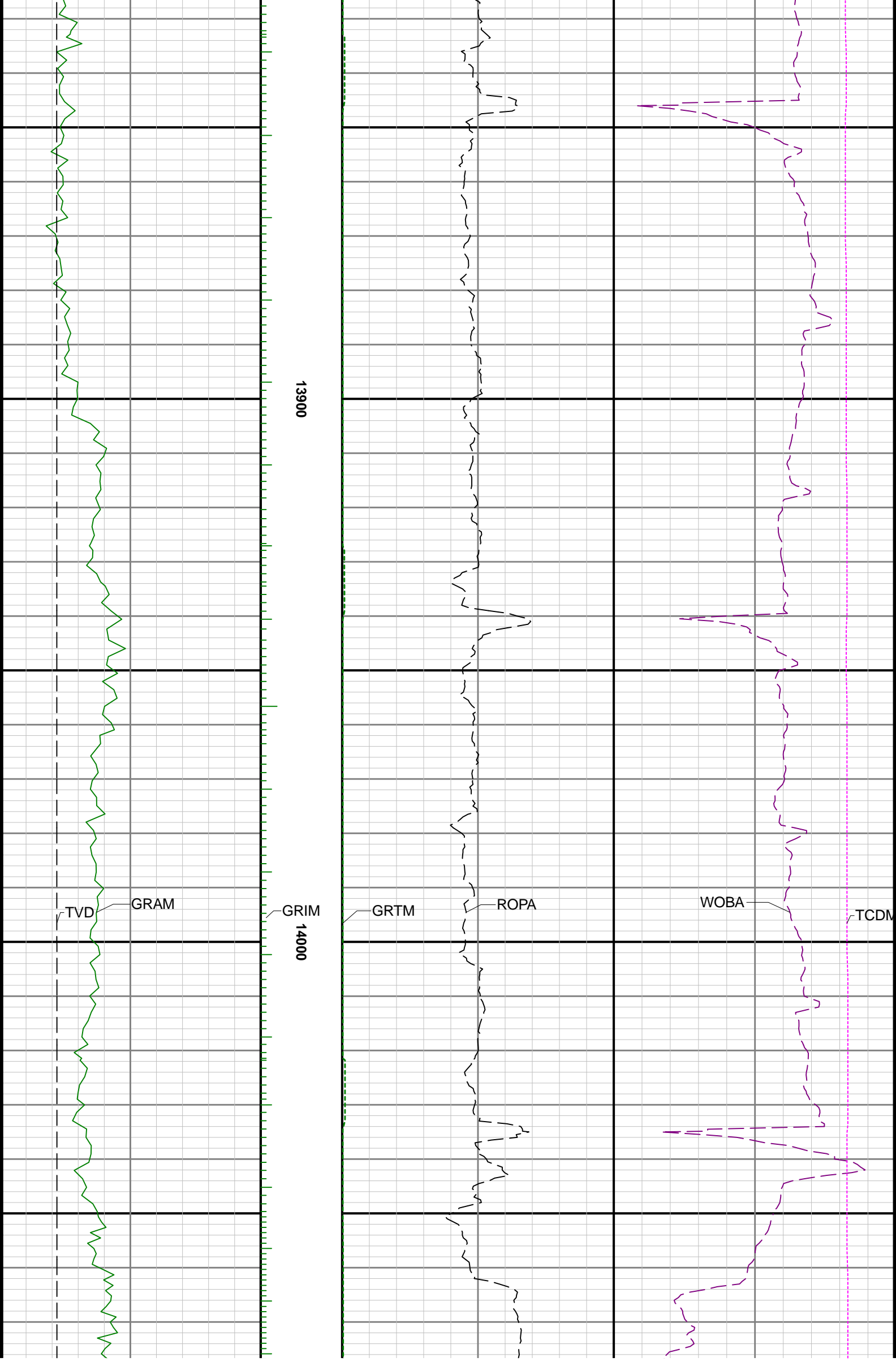


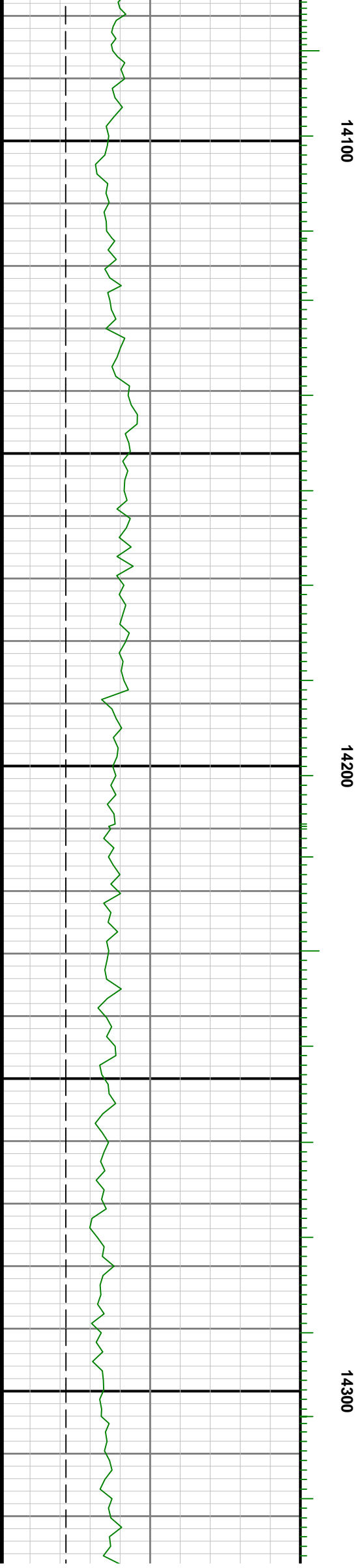
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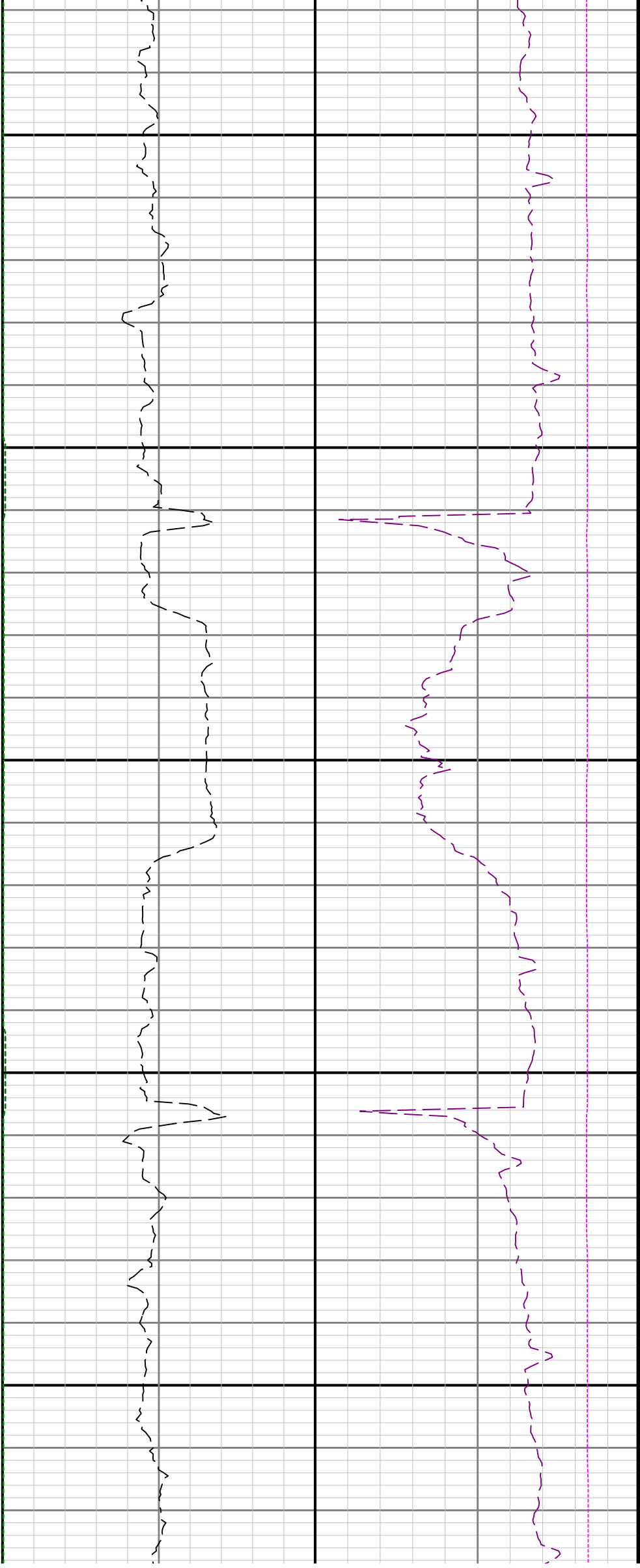
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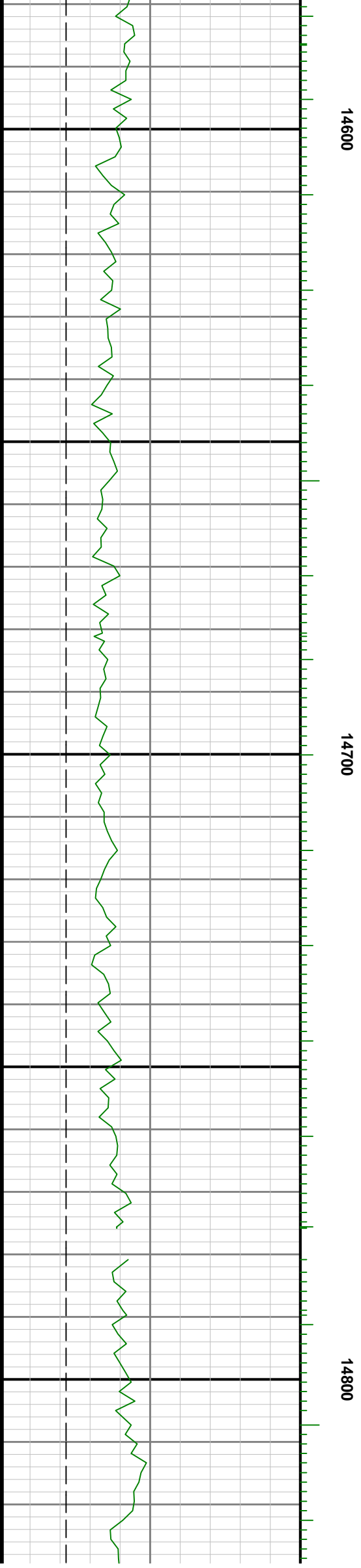


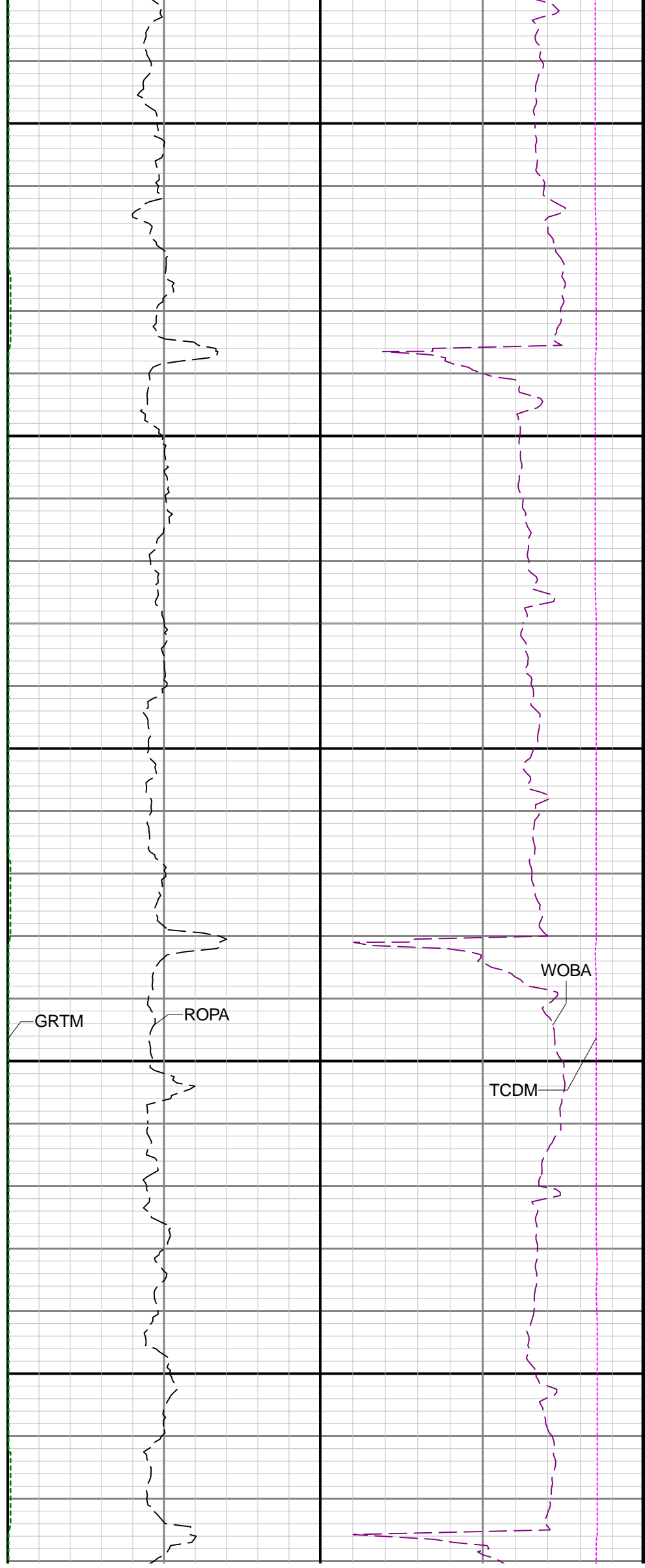
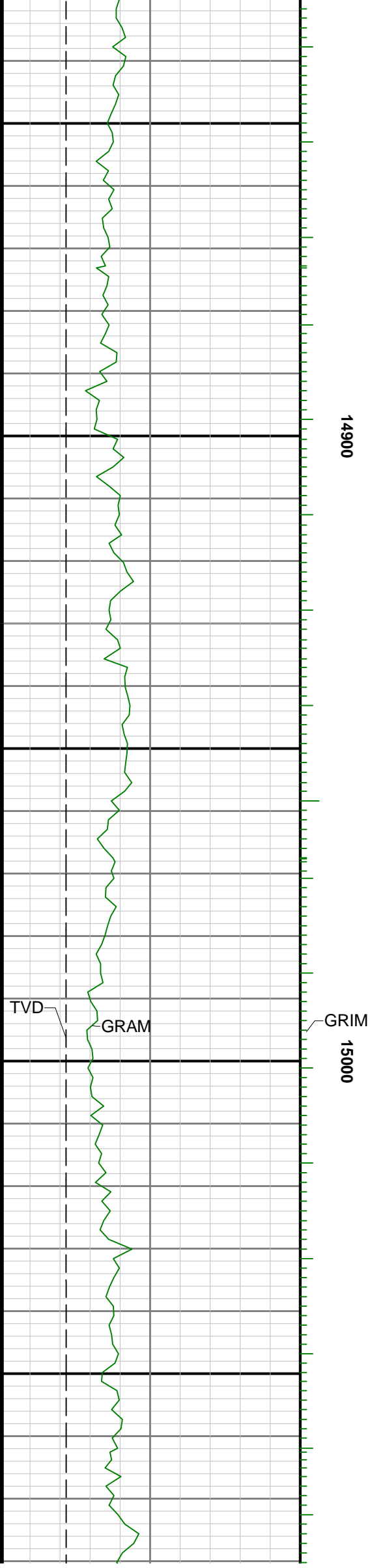


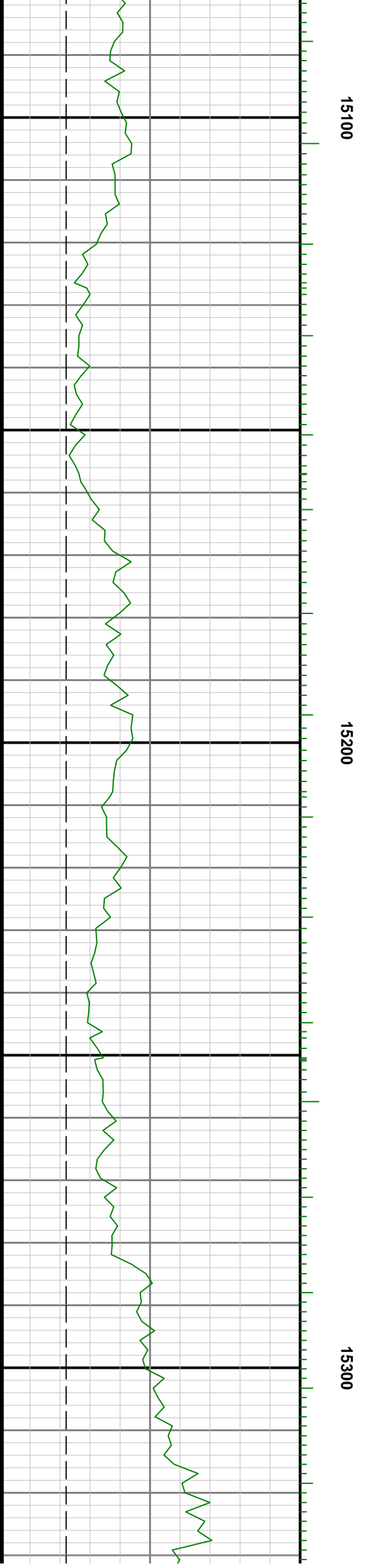
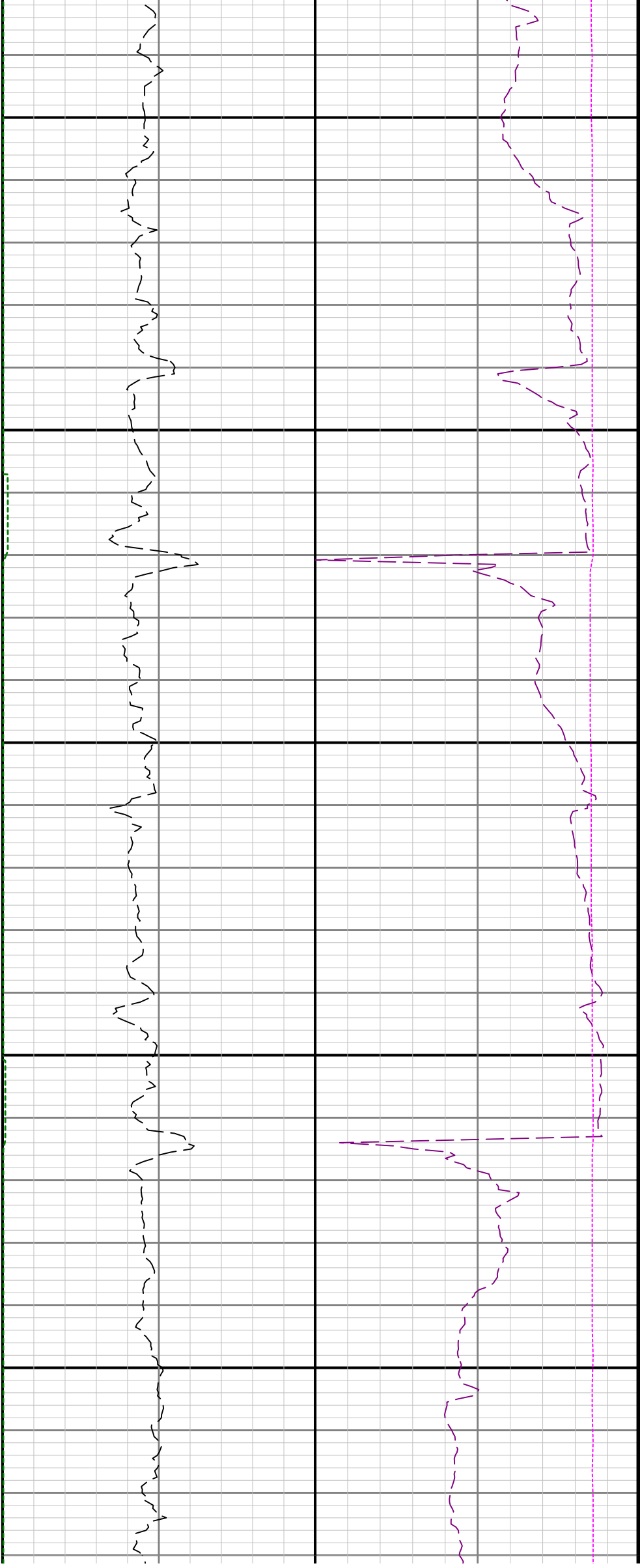


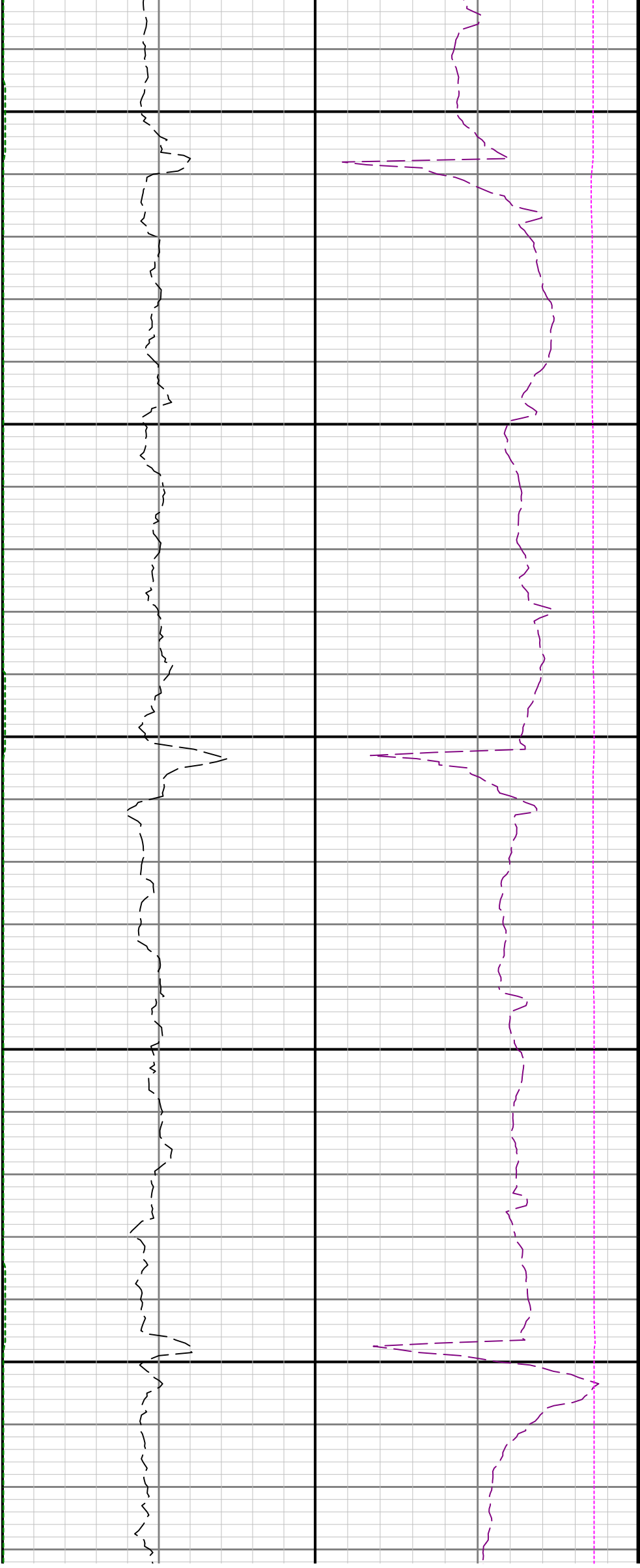
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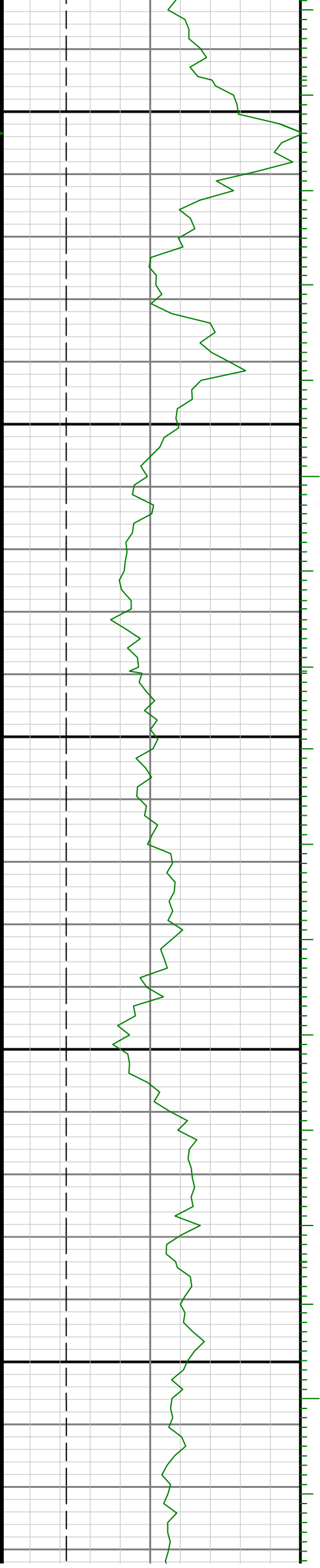




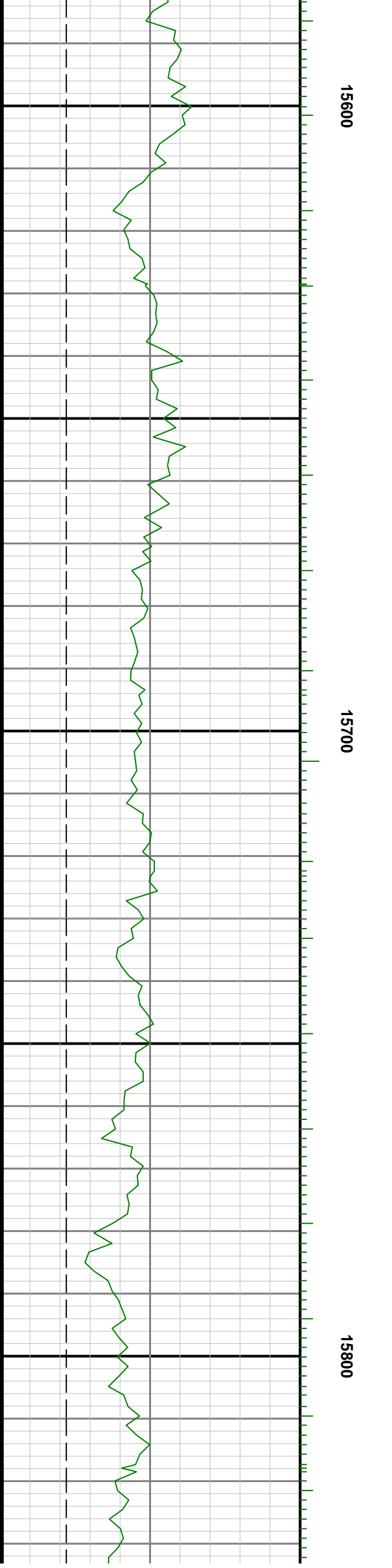
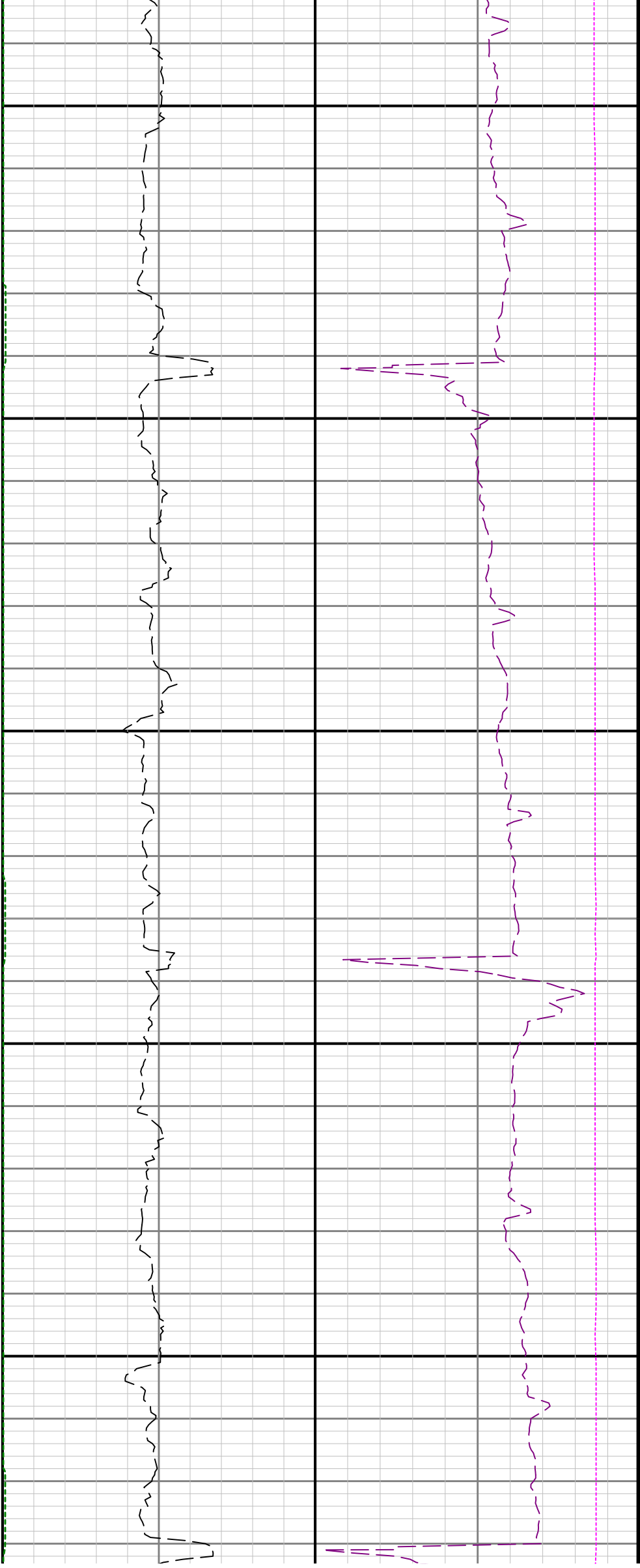


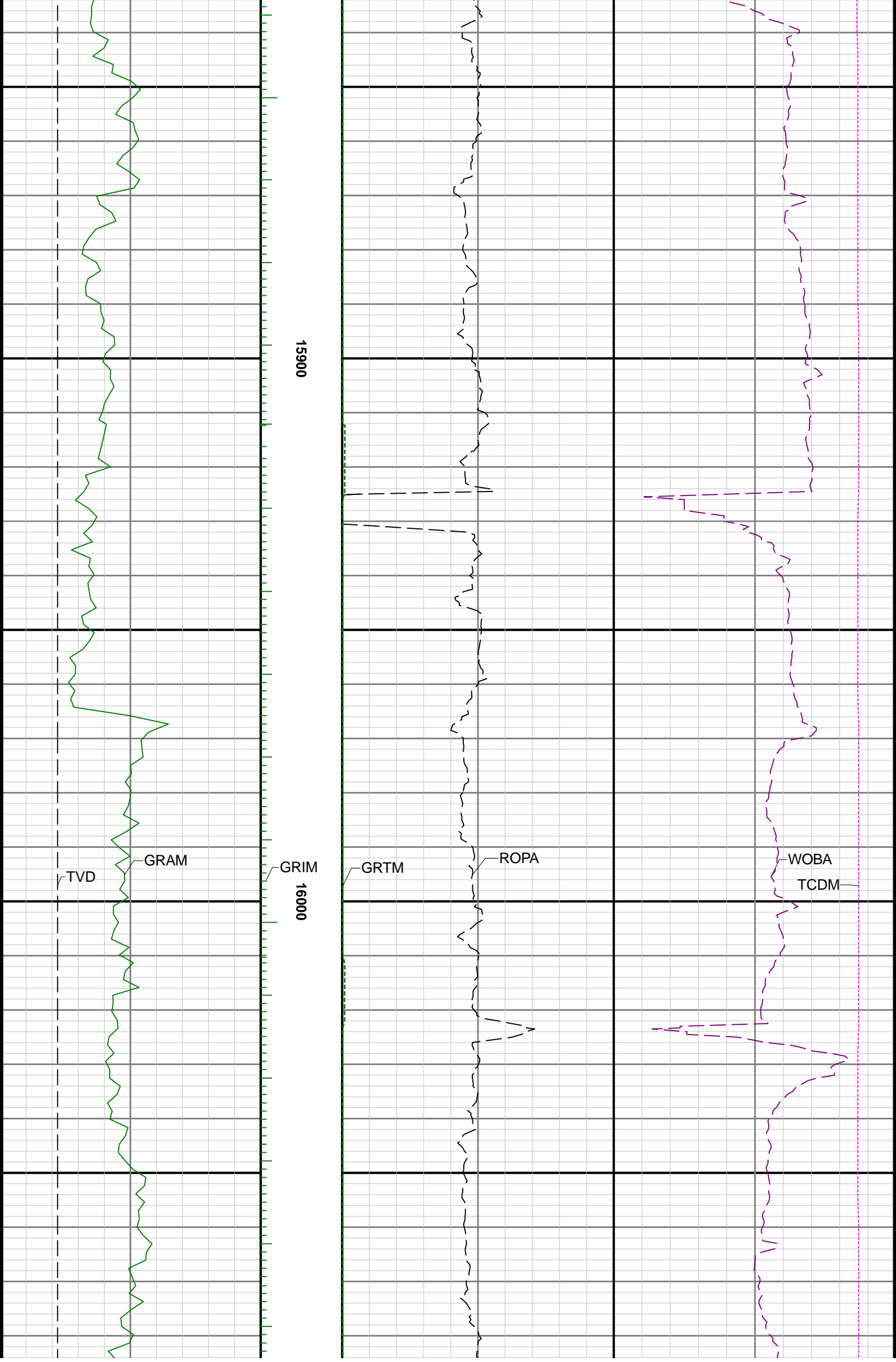
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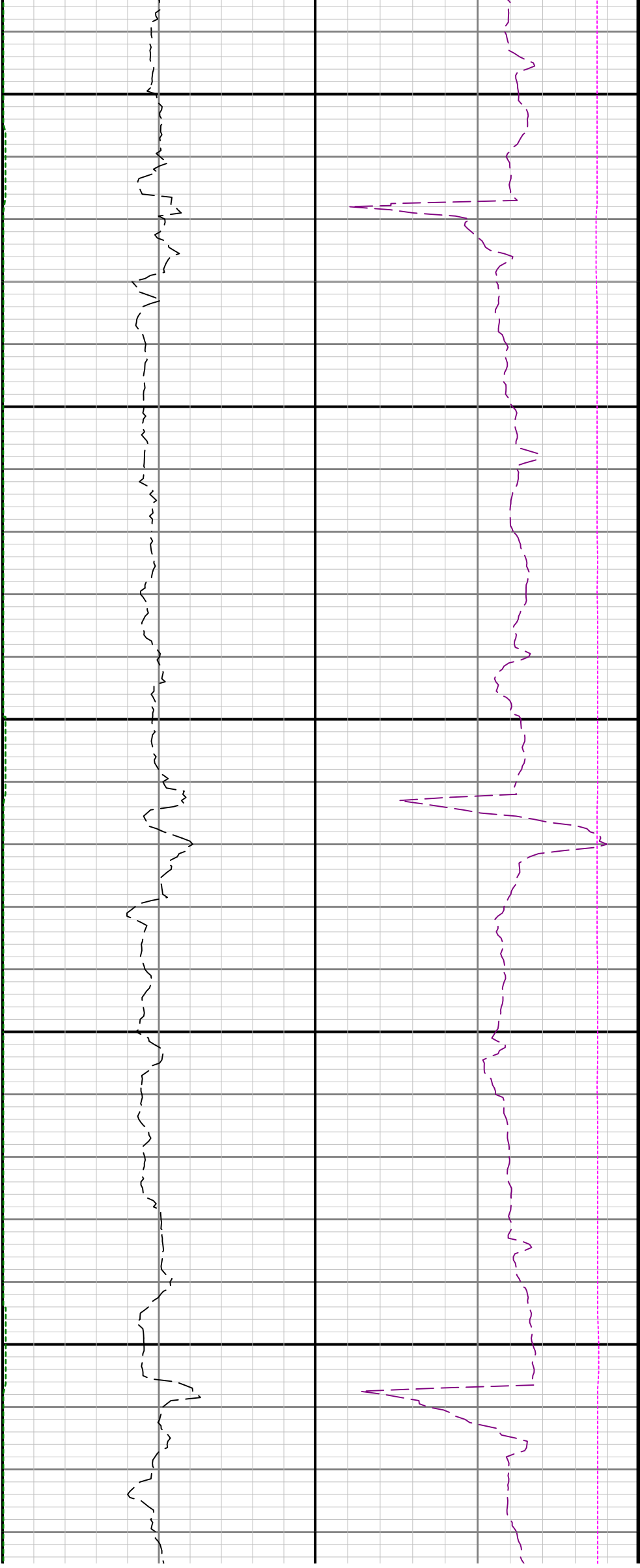
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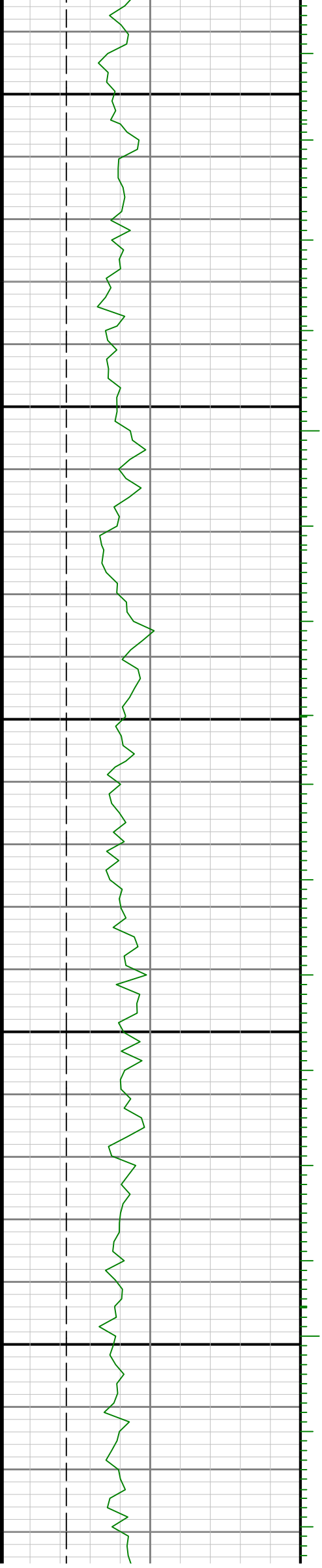


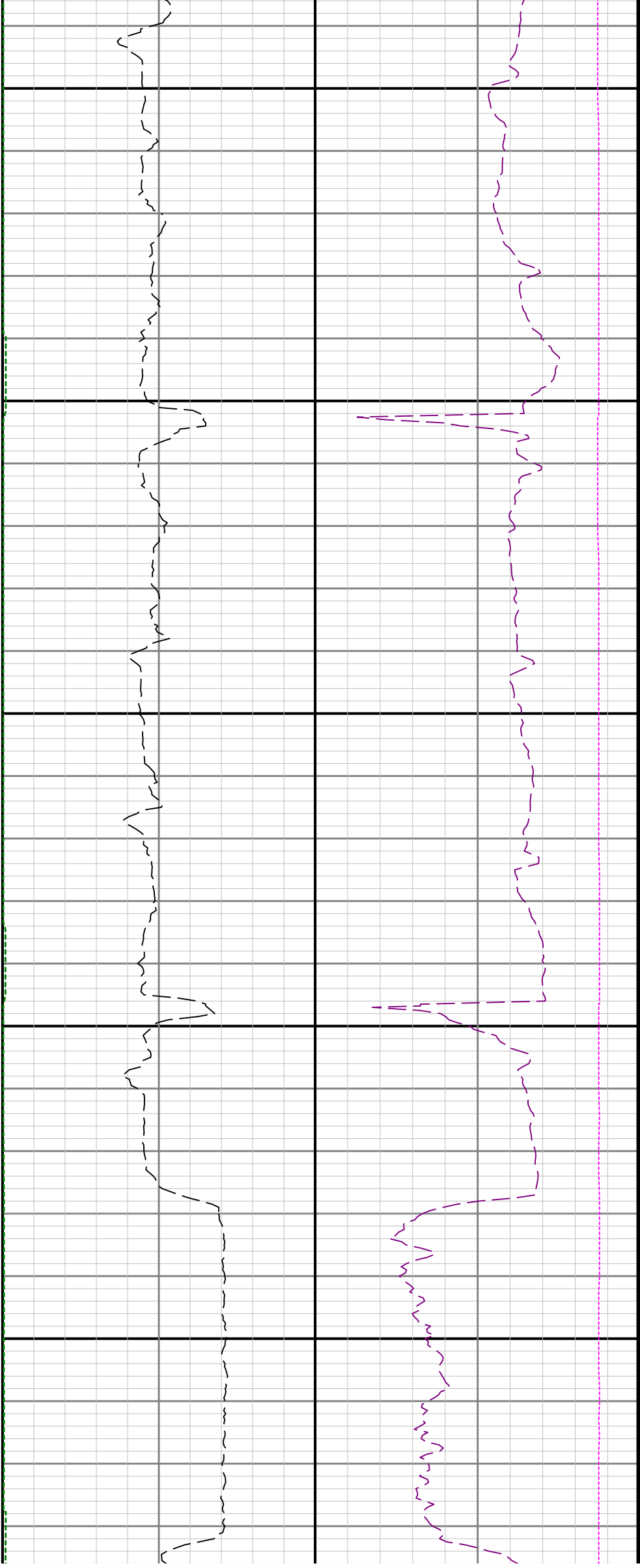


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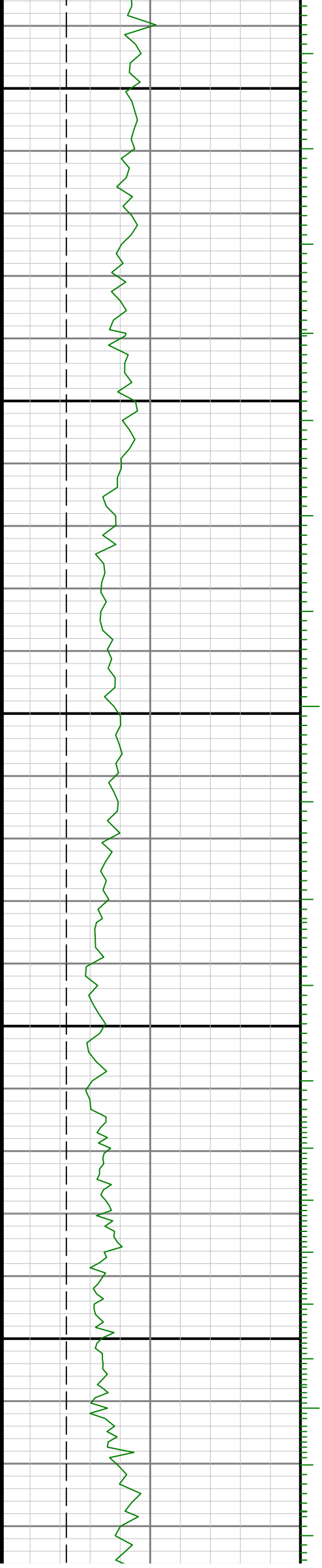
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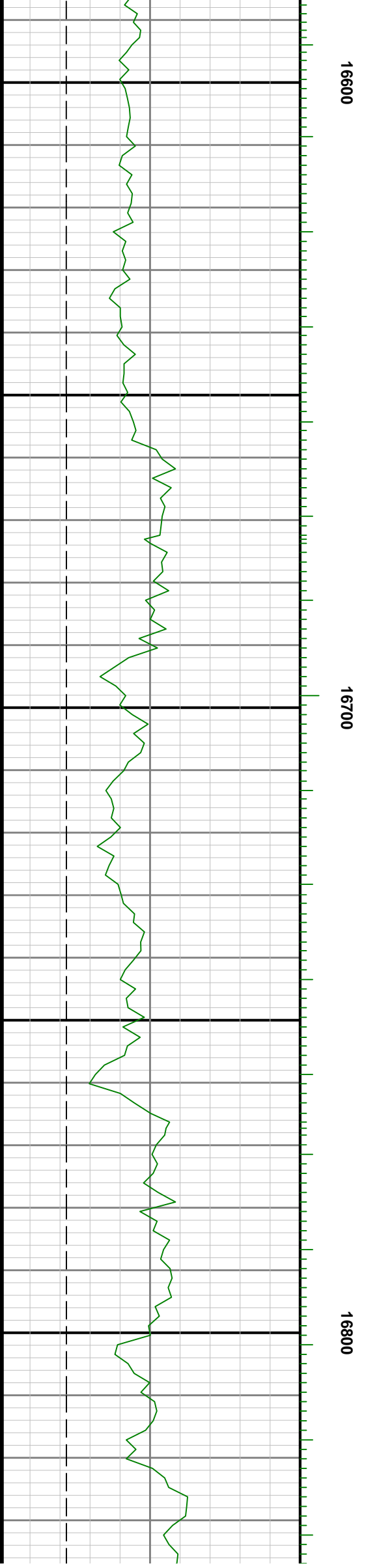
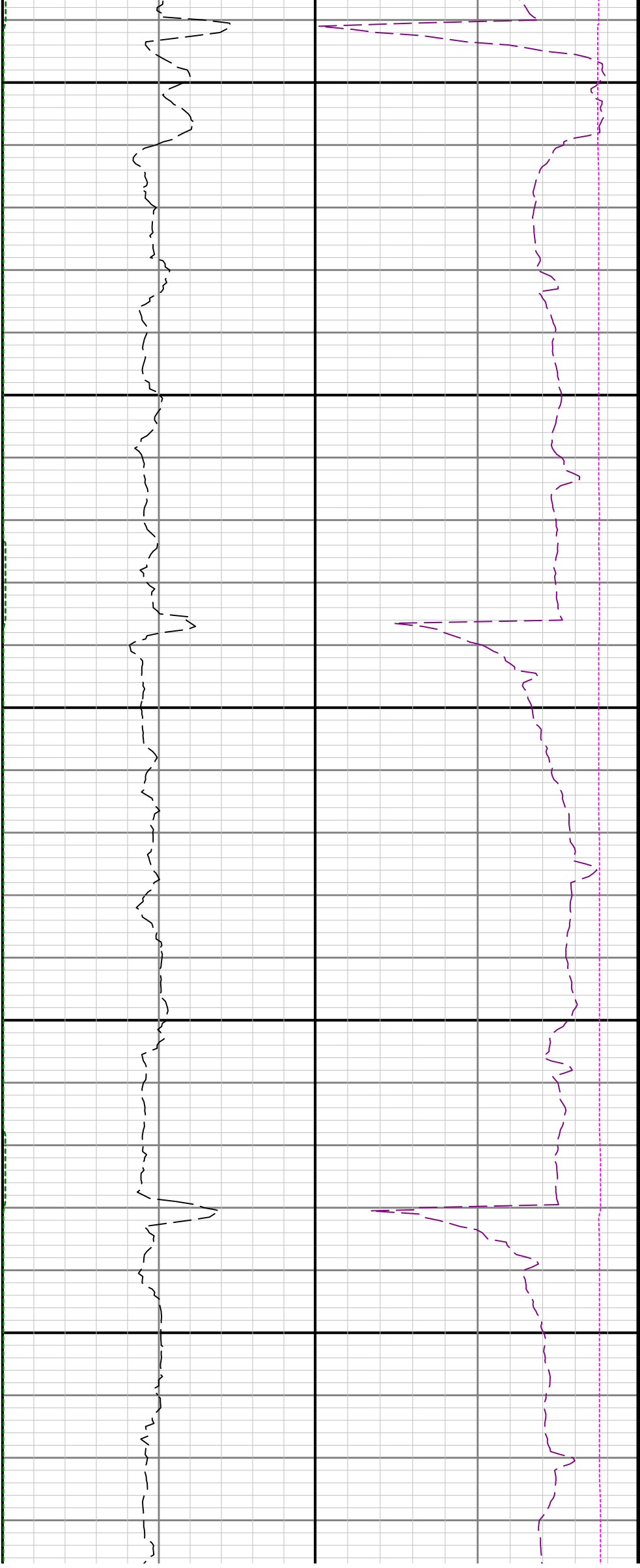


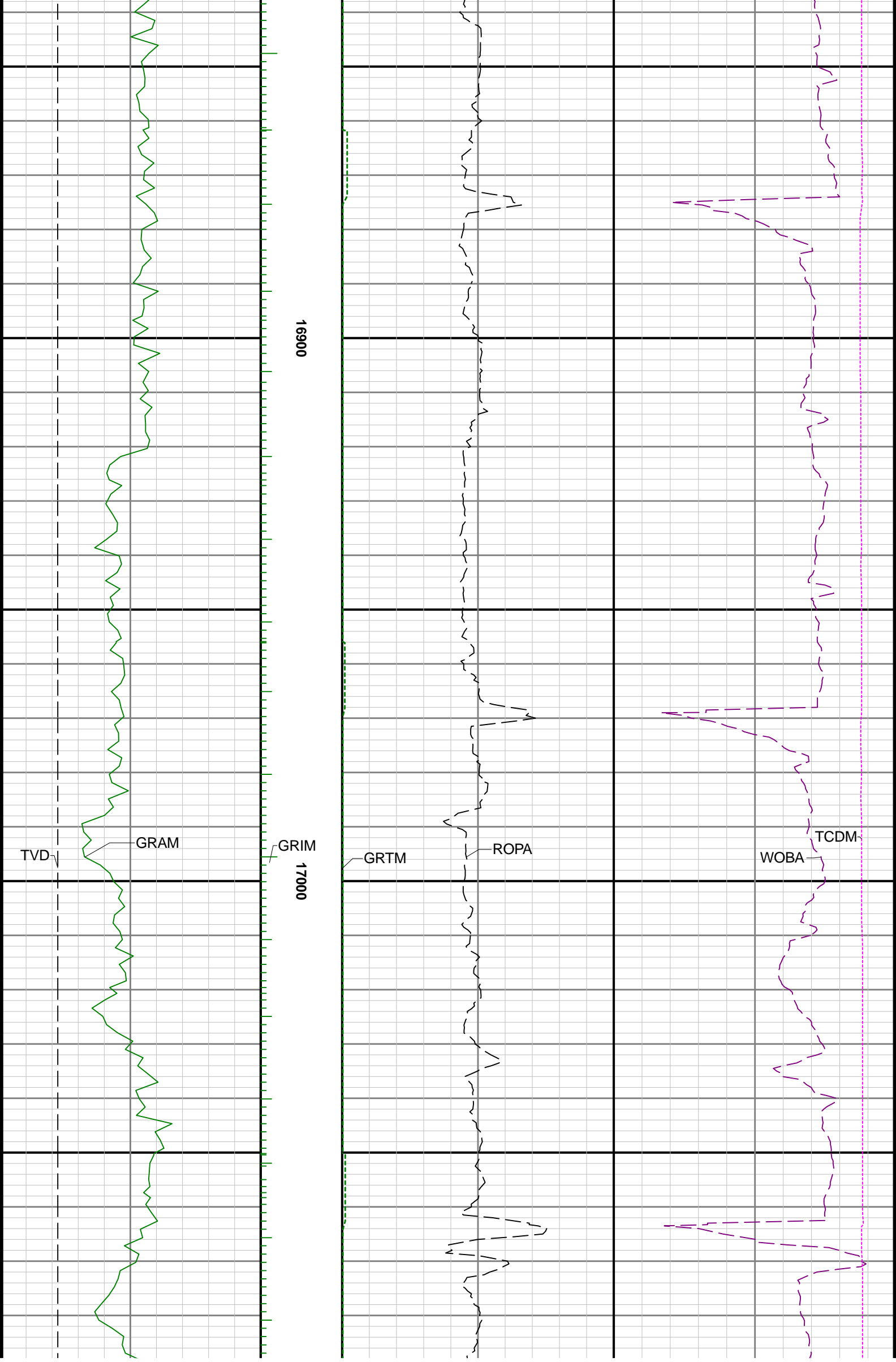


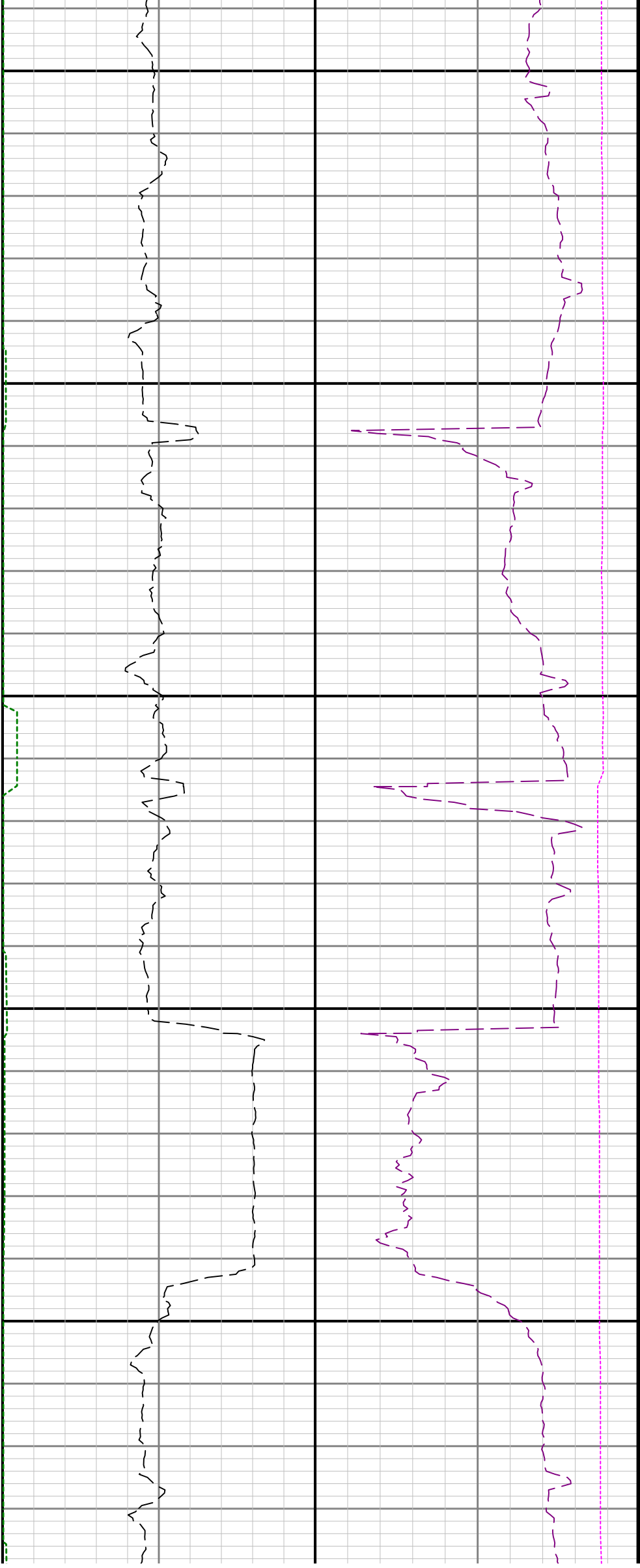
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17100

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17300

