



Baker Atlas

# RESERVOIR PERFORMANCE MONITOR

|   |   |  |  |
|---|---|--|--|
| File No:<br>CH069875  | Company<br>Well<br>Field<br>County  | WPX ENERGY<br>YOUBERG RMF 33-23<br>RULISON<br>GARFIELD | State<br>COLORADO                                |
| API No:<br>05045182400000                                   |   |  |  |
| 23 GS 94W<br>RMF 33-23 PAD<br>NABORS 577                    | Location<br>SHL: 1399' FSL, 2323' FEL<br>BHL: 1974' FSL, 1829' FEL<br>SEC 23 TWP 6S RGE 94W | Other Services<br>BOND LOG                             |  |
| Permanent Datum<br>Log Measured From<br>Drill Measured From | GL<br>KB<br>KELLY BUSHING   | Elevation<br>26 ft<br>Above P. D.                      | Elevations<br>KB 5527.5 ft<br>DF<br>GL 5501.5 ft |

|                              |                             |           |
|------------------------------|-----------------------------|-----------|
| Date                         | 22/APR/15                   |           |
| Run                          | ONE                         |           |
| Service Order                | 575107                      |           |
| Depth Driller                | 8180 ft                     |           |
| Depth Logger                 | 8124 ft                     |           |
| Bottom Logged Interval       | 8114 ft                     |           |
| Top Logged Interval          | 26 ft                       |           |
| Time Started                 | 1100                        |           |
| Time Finished                | 1730                        |           |
| Operator Rig Time            | 6.5 HRS                     |           |
| Type of Fluid in Hole        | WATER                       |           |
| Fluid Density                | NA                          |           |
| Salinity                     | NA                          |           |
| Fluid Level                  | 68 ft                       |           |
| Logged Cement Top            | NA                          |           |
| Wellhead Pressure            | 0 psi                       |           |
| Maximum Hole Deviation       | NA                          |           |
| Nominal Logging Speed        | 10 fpm                      |           |
| Maximum Recorded Temperature | 235 degF                    |           |
| Reference Log                | Baker Hughes HDIL/ZDL/CN/GR |           |
| Reference Log Date           | 1/MAR/2013                  |           |
| Equipment No.                | 4271                        | GRAND JCT |
| Recorded By                  | FLOYD RENEAU                |           |
| Witnessed By                 | JEFF DUCY                   |           |

- FOLD HERE

In making interpretations of logs, our employees will give the customer the benefit of their best judgement. But since all interpretations are opinions based on inferences from electrical or other measurements, we cannot, and we do not guarantee the accuracy or correctness of any interpretation. We shall not be liable or responsible for any loss, cost, damages, or expenses whatsoever incurred or sustained by the customer resulting from any interpretation made by any of our employees.

| Borehole Record |         |         |
|-----------------|---------|---------|
| Bit Size        | From    | To      |
| 13.5 In         | 0 ft    | 1107 ft |
| 8.75 In         | 1107 ft | 8180 ft |

| Casing Record |             |       |      |         |
|---------------|-------------|-------|------|---------|
| Size          | Weight      | Grade | From | To      |
| 9.625 In      |             |       | 0 ft | 1107 ft |
| 4.6 In        | 11.6 lbm/ft | I-80  | 0 ft | 8180 ft |

| Remarks   |
|---|
| All data on this log is shifted and depth matched using the Gamma Ray curve to the Baker Hughes HDIL/ZDL/CN/GR open hole log dated 3/1/2013 at the clients request.<br>The amount of linear shift is -10 feet.<br>Logged in PNC-3D mode.<br>The depth matching process creates potential for collar lengths to vary from those recorded on other cased hole wireline units without a Gamma Ray reference. |

BHT = 233°F

SJ = 4933' - 4954'

| Equipment Data |      |         |               |               |          |
|----------------|------|---------|---------------|---------------|----------|
| Run            | Trip | Tool    | Series Number | Serial Number | Position |
| 1              | 1    | RPM     | 8281FA        | 10423689      | FREE     |
| 1              | 1    | RPM     | 8281PA        | 10414345      | FREE     |
| 1              | 1    | RPM     | 8281EA        | 10294755      | FREE     |
| 1              | 1    | GR      | 8262XA        | Z151217       | FREE     |
| 1              | 1    | TEL/CCL | 8248ED        | 10298408      | FREE     |
| 1              | 1    | PCM     | 8250EA        | 10397894      | FREE     |

*MAIN SECTION*

*PNC 3-D MODE*

| SPL PROCESSING   |               |                |       |          |          |
|------------------|---------------|----------------|-------|----------|----------|
| MEASUREMENT TYPE | PARAMETER     | VALUE          | UNITS | TOP      | BOTTOM   |
| PNC Porosity     | Borehole      | Cased          |       | 3989.843 | 8144.875 |
| PNC Porosity     | Borehole Size | 8.750          | inch  | 3989.843 | 8144.875 |
| PNC Porosity     | Casing Size   | 4.500          | inch  | 3989.843 | 8144.875 |
| PNC Porosity     | Gas Filled    | Non Gas Filled |       | 3989.843 | 8144.875 |
| PNC Porosity     | Matrix        | Sandstone      |       | 3989.843 | 8144.875 |

| DEPTH OFFSETS         |              |                 |      |      |      |     |     |  |
|-----------------------|--------------|-----------------|------|------|------|-----|-----|--|
| (for Acquired Curves) |              |                 |      |      |      |     |     |  |
| SERIES                | DEPTH OFFSET | ACQUIRED CURVES |      |      |      |     |     |  |
| 8248ED                | -15.320      | FLTM            |      |      |      |     |     |  |
| 8248ED                | -13.320      | CCL             | CHV  |      |      |     |     |  |
| 8262XA                | -10.189      | GR              |      |      |      |     |     |  |
| 8281XA                | -0.662       | HVC3Q0          | SEQ3 | AMA3 | AML3 | BKX | CXS |  |

8281XA

-0.250

|        |        |        |        |      |        |
|--------|--------|--------|--------|------|--------|
| CPT3Q0 | CPT3Q2 | CPT3Q3 | CPT3Q4 | ET3  | TXS    |
| MCS3   | MCS3Q0 | QCAL3  | RGN3   | RIXC | SDA3   |
| SDL3   | SGA3   | SGL3   | STA3   | XS   | ASPEC3 |
| AMB3   | AMF3   | CHF3   | IXSC   | IXSN | RAT023 |
| RICXC  | RIN13C | RIN23  | RIN23C | SD3D | SG3D   |
| SGB3   | SGF3   | WDTH3  | CXSR   | IXSR | XSR    |
| RICXR  |        |        |        |      |        |

|        |        |      |        |        |        |
|--------|--------|------|--------|--------|--------|
| HVC2Q0 | SEQ2   | AMA2 | AMB2   | AMF2   | AML2   |
| BKL    | CHF2   | CLS  | CPT2Q0 | CPT2Q2 | CPT2Q3 |
| CPT2Q4 | ET2    | ILS  | LS     | MCS2   | MCS2Q0 |
| QCAL2  | RGN2   | RICL | RONE23 | RTW023 | SDA2   |
| SDL2   | SGA2   | SGB2 | SGF2   | SGK2   | SGL2   |
| STA2   | ASPEC2 | ILSC | ILSN   | WDTH2  | RICLC  |
| CLSR   | ILSR   | LSR  | RICLR  |        |        |

8281XA

0.000

|         |         |        |        |        |         |
|---------|---------|--------|--------|--------|---------|
| CPRS    | HVC1Q0  | MV     | SEQ    | SEQ1   | AMA1    |
| AMB1    | AME1    | AMF1   | AML1   | BKS    | CHF1    |
| CSS     | CORB    | CORF   | CPT1Q0 | CPT1Q2 | CPT1Q2A |
| CPT1Q2B | CPT1Q2C | CPT1Q3 | CPT1Q4 | CPT1Q5 | ET1     |
| G1      | G2      | GE1S   | GE2S   | ISS    | MCS1    |
| MCS1Q0  | QA1     | QCAL1  | QM1    | RAT0   | RAT013  |
| RBOR    | RGN1    | RICS   | RIN    | RONE   | RPOR    |
| RTW0    | RIN13   | RONE13 | RTW013 | SALB   | SC1     |
| SDA1    | SDL1    | SGA1   | SGB1   | SGBC   | SGE1    |
| SGF1    | SGFC    | SGK1   | SGL1   | SS     | SS2     |
| STA1    | PD1S    | PD2S   | PD3S   | MD1S   | MD2S    |
| MD3S    | DG1S    | DG2S   | DG3S   | PD1M   | PD2M    |
| PD3M    | MD1M    | MD2M   | MD3M   | DG1M   | DG2M    |
| DG3M    | MVS     | MA     | MVM    | FILV   | IAM     |
| TA      | PVM     | PVS    | IAS    | SSTAT  | QPD1    |
| QPD2    | QPD3    | QMD1   | QMD2   | QMD3   | QDG1    |
| QDG2    | QDG3    | QMA    | QTA    | QFILV  | QMV     |
| QPV     | QIA     | DERR   | DCNT   | QPK1   | QSA1    |
| PKS1    | ASPEC1  | HOC    | FE2XC  | ISSC   | RINC    |
| ISSN    | RDEN    | WDTH1  | RICSC  | CSSR   | G1R     |
| G2R     | ISSR    | SSR    | SS2R   | RATOR  | RAT013R |
| RBORR   | RICSR   | RINR   | RIN13R | RONER  | RPORR   |

SYSTEM

0.000

TEN TTEN

Created by : RPM9, v5.3.1.0

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

Well : YOUNBERG RWF 33-23

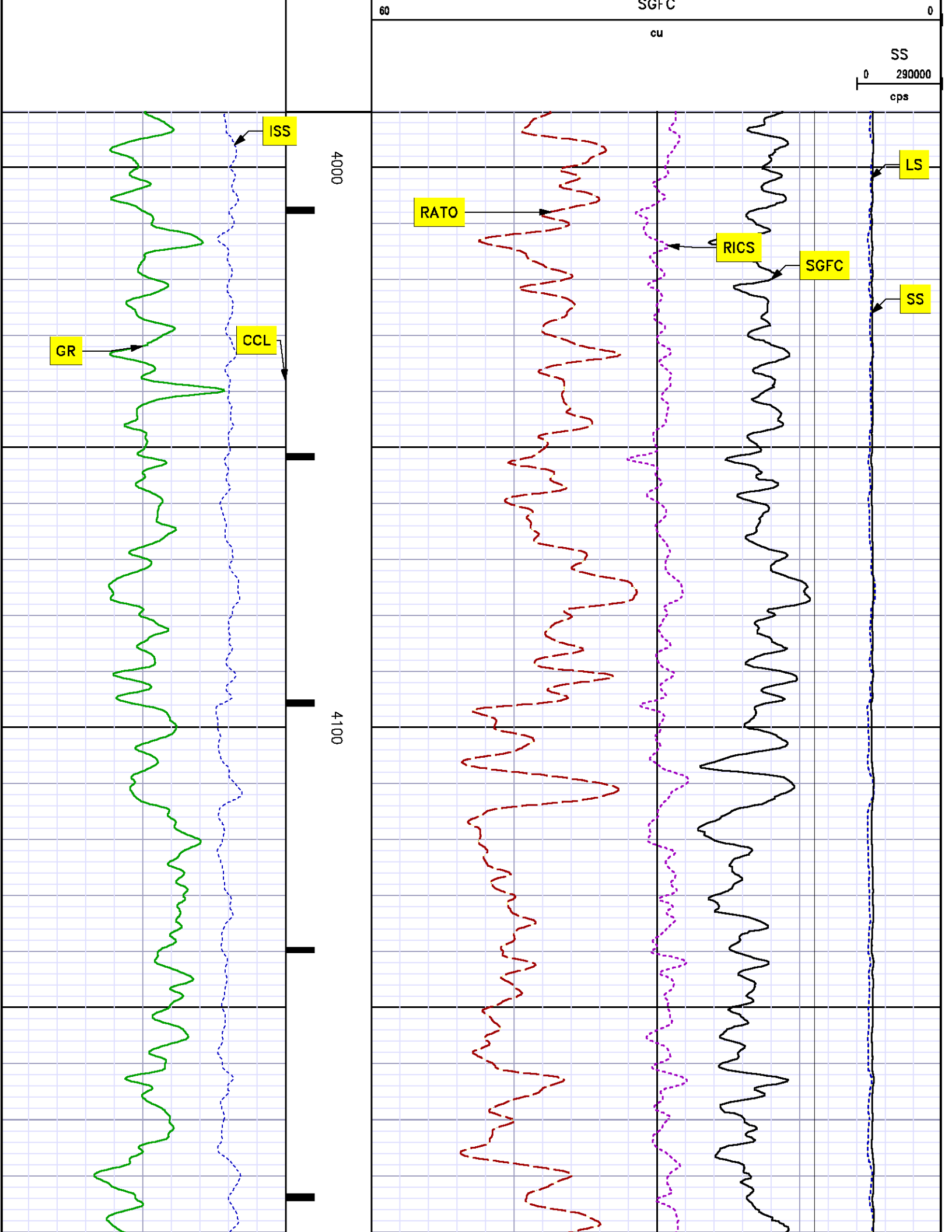
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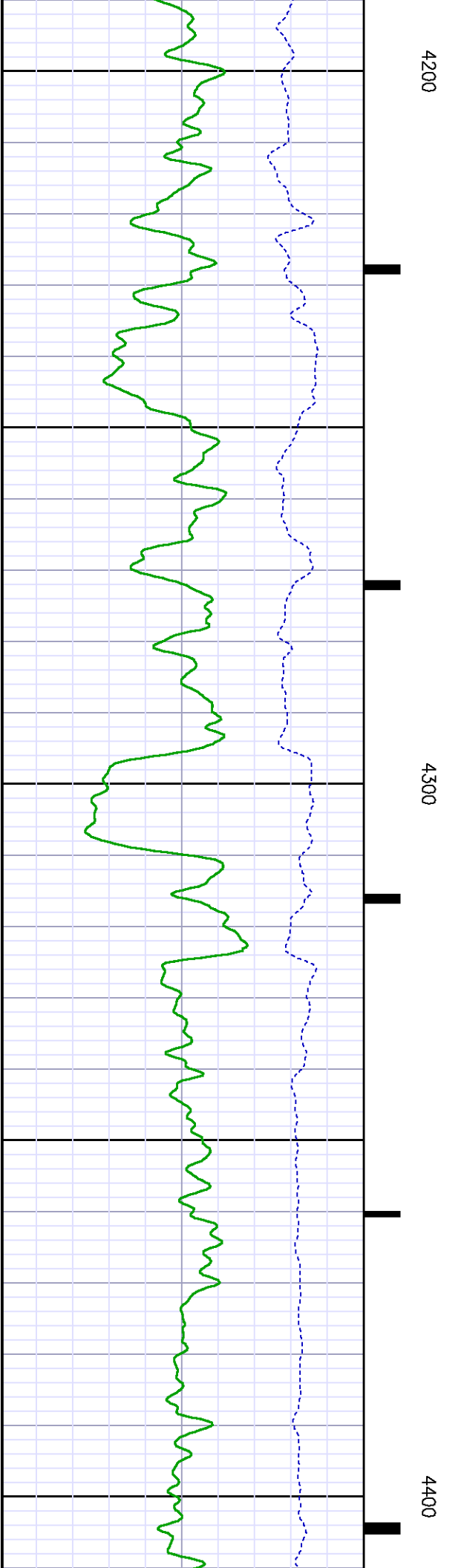
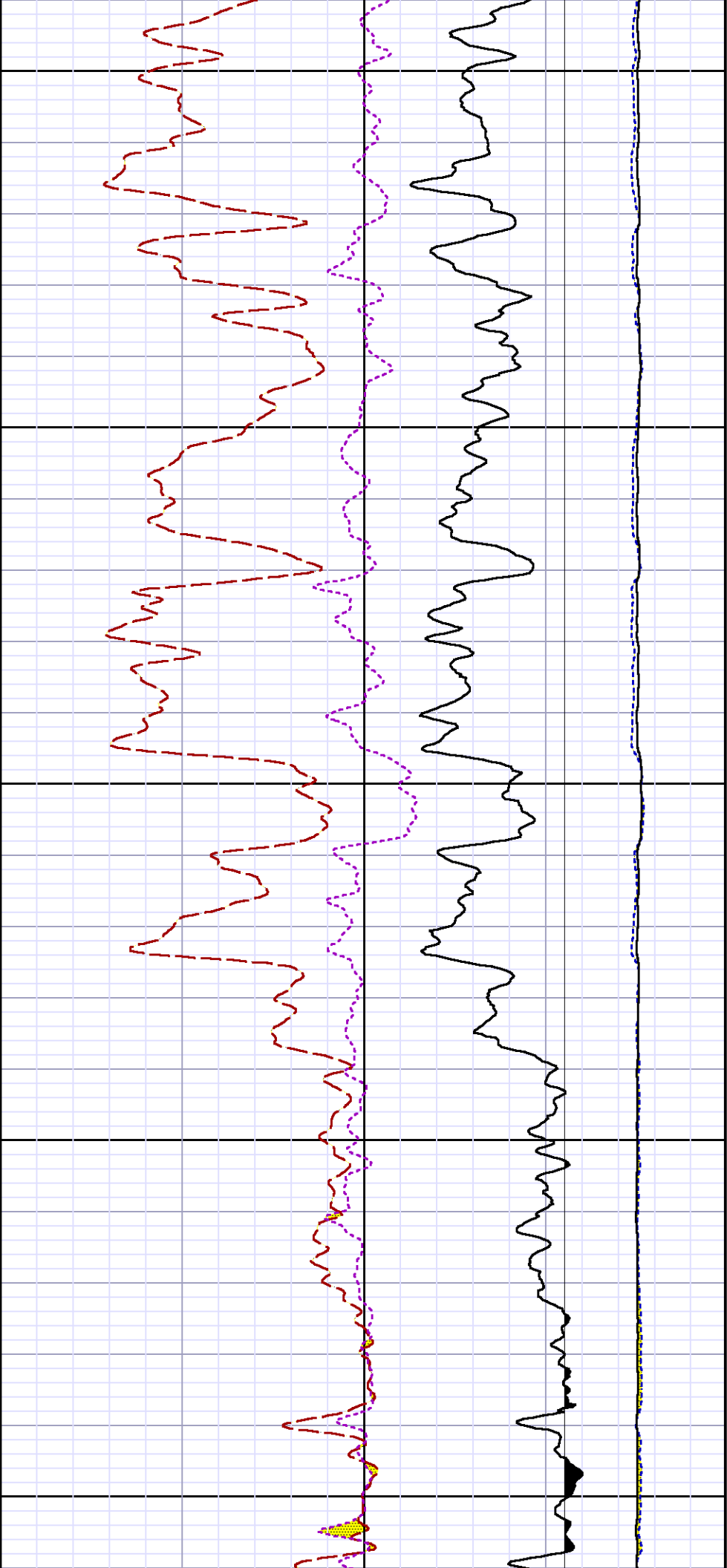
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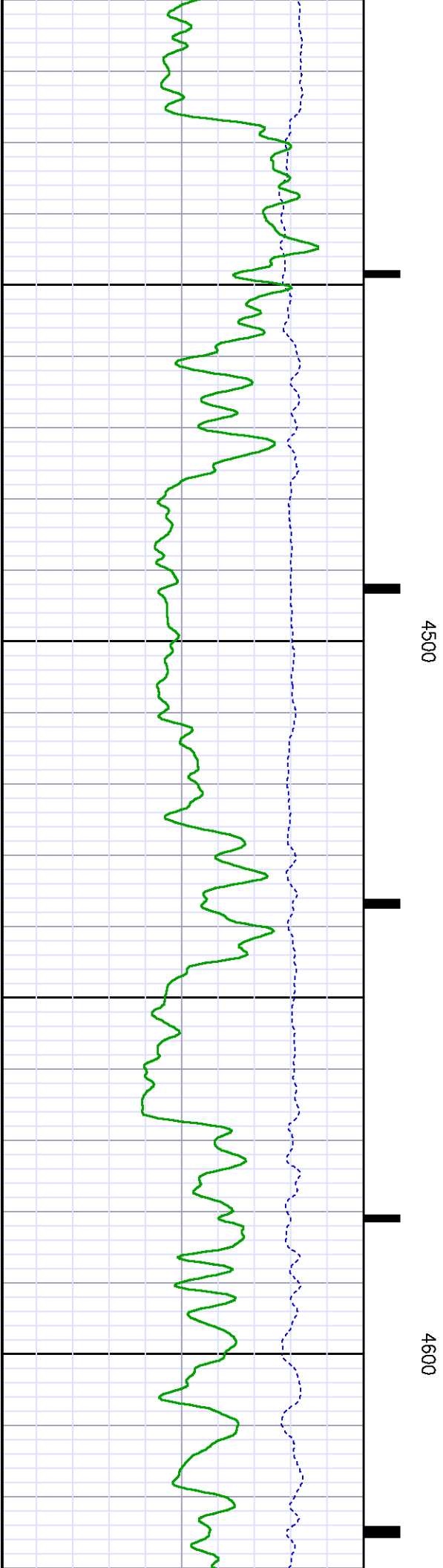
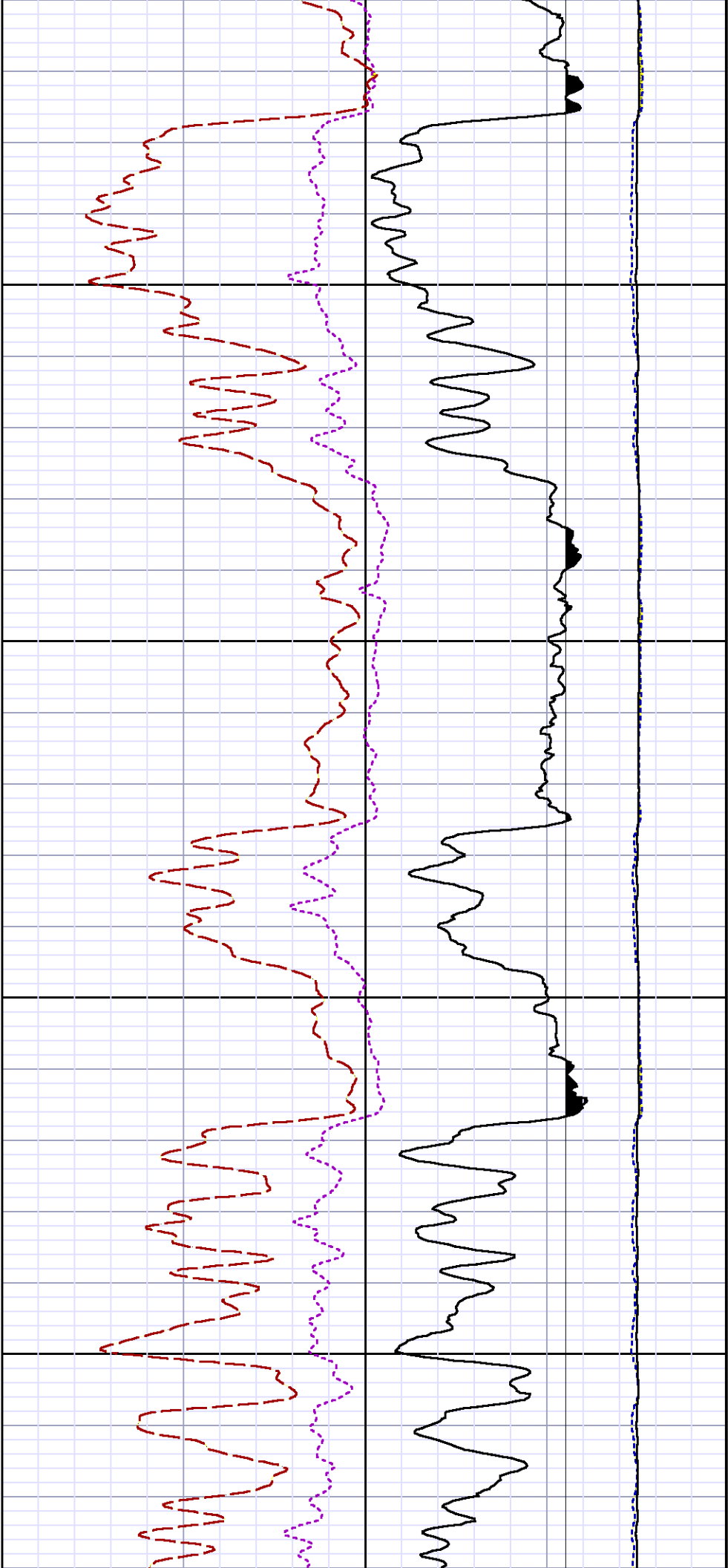
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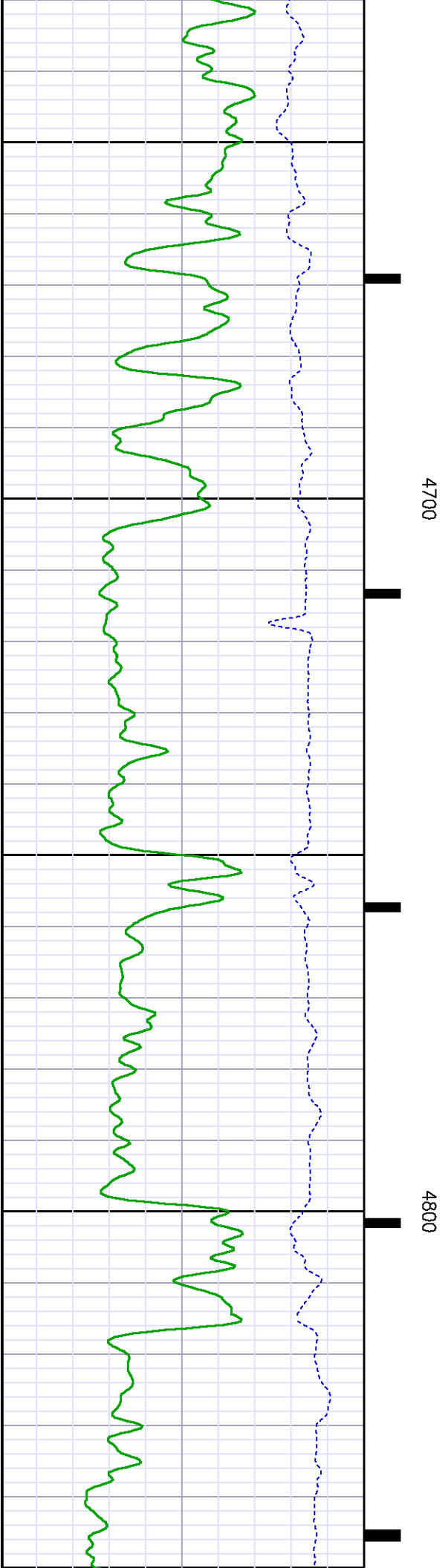
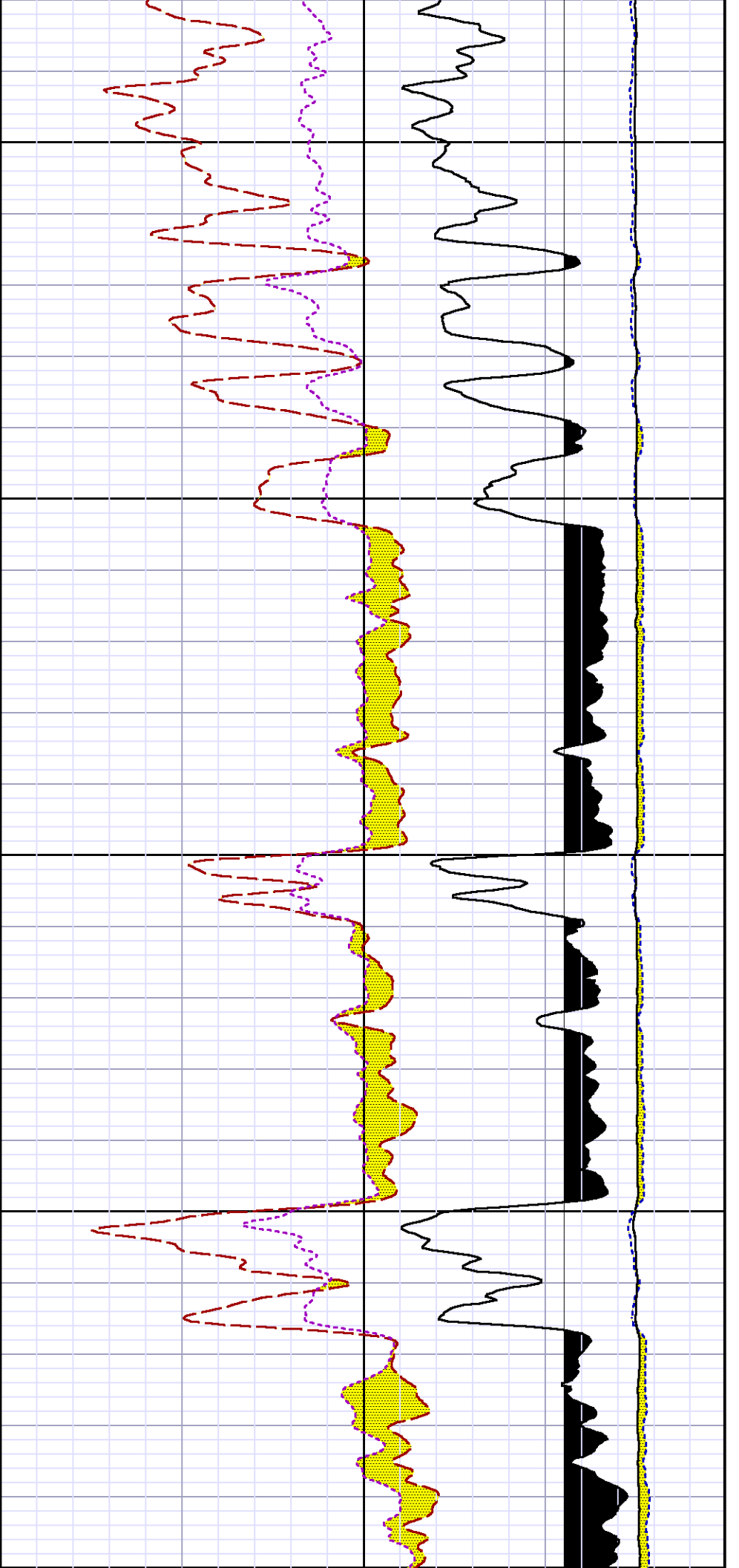
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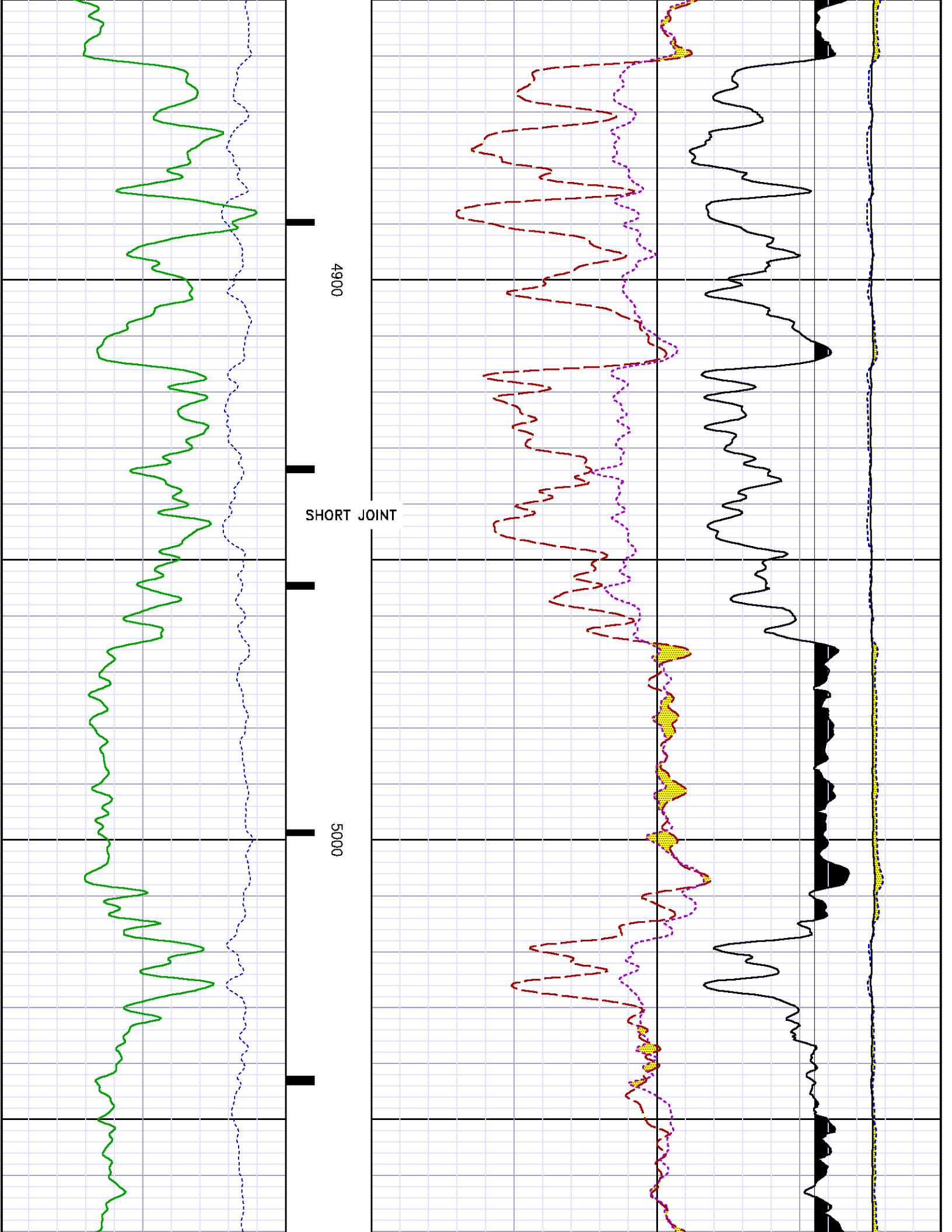




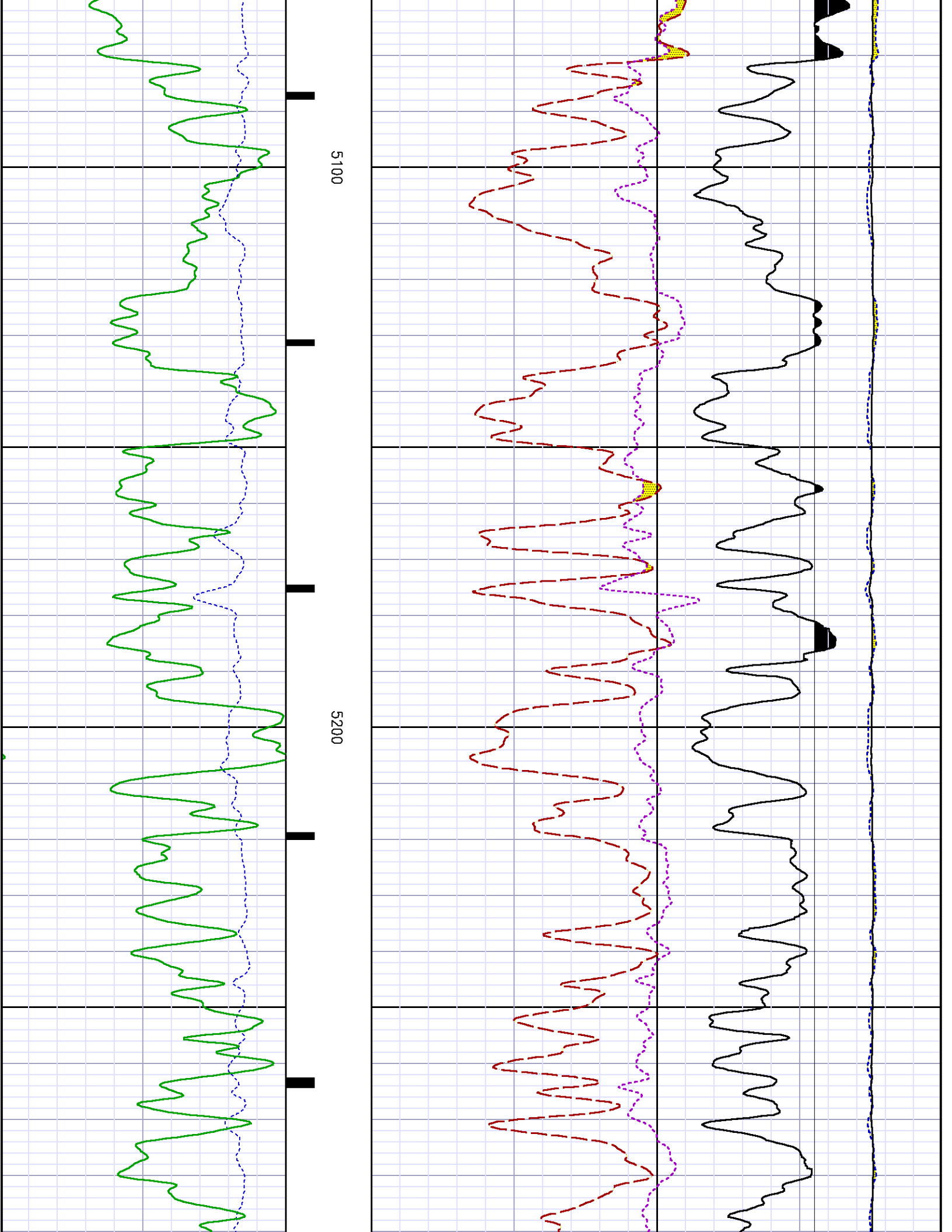


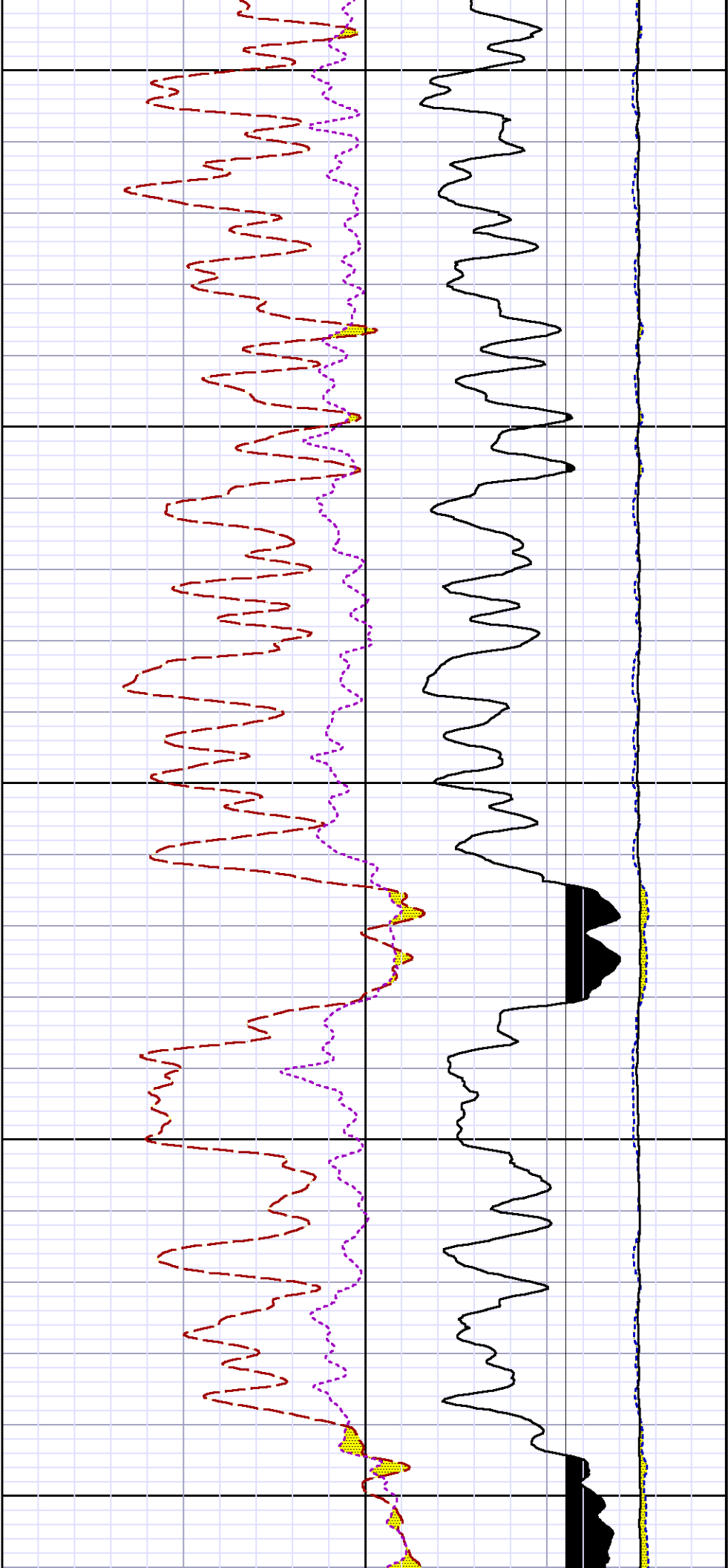








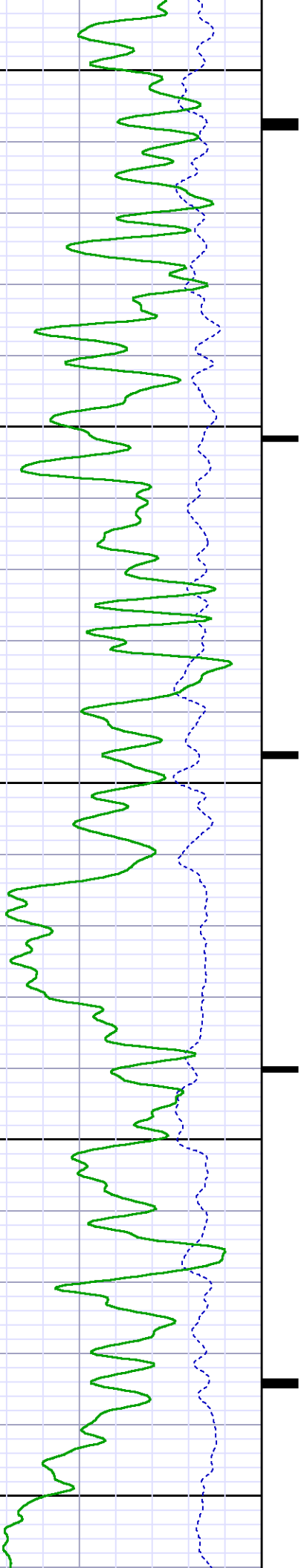


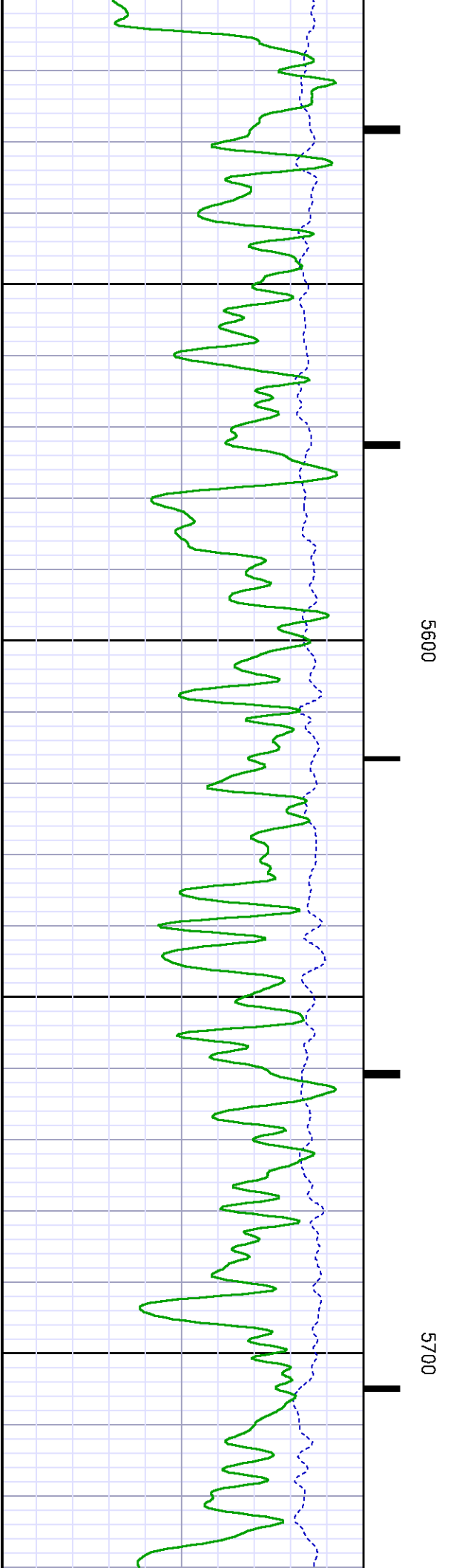
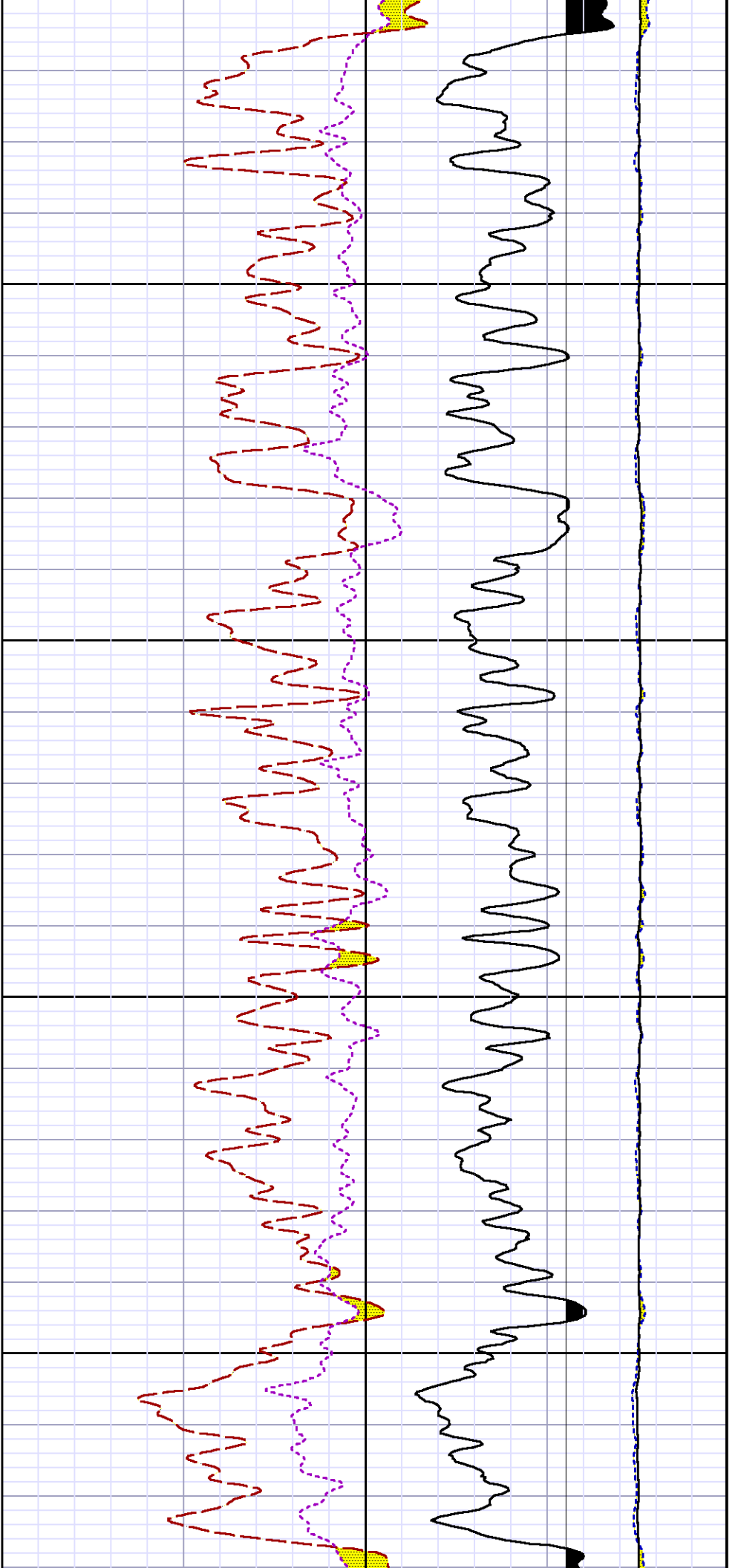


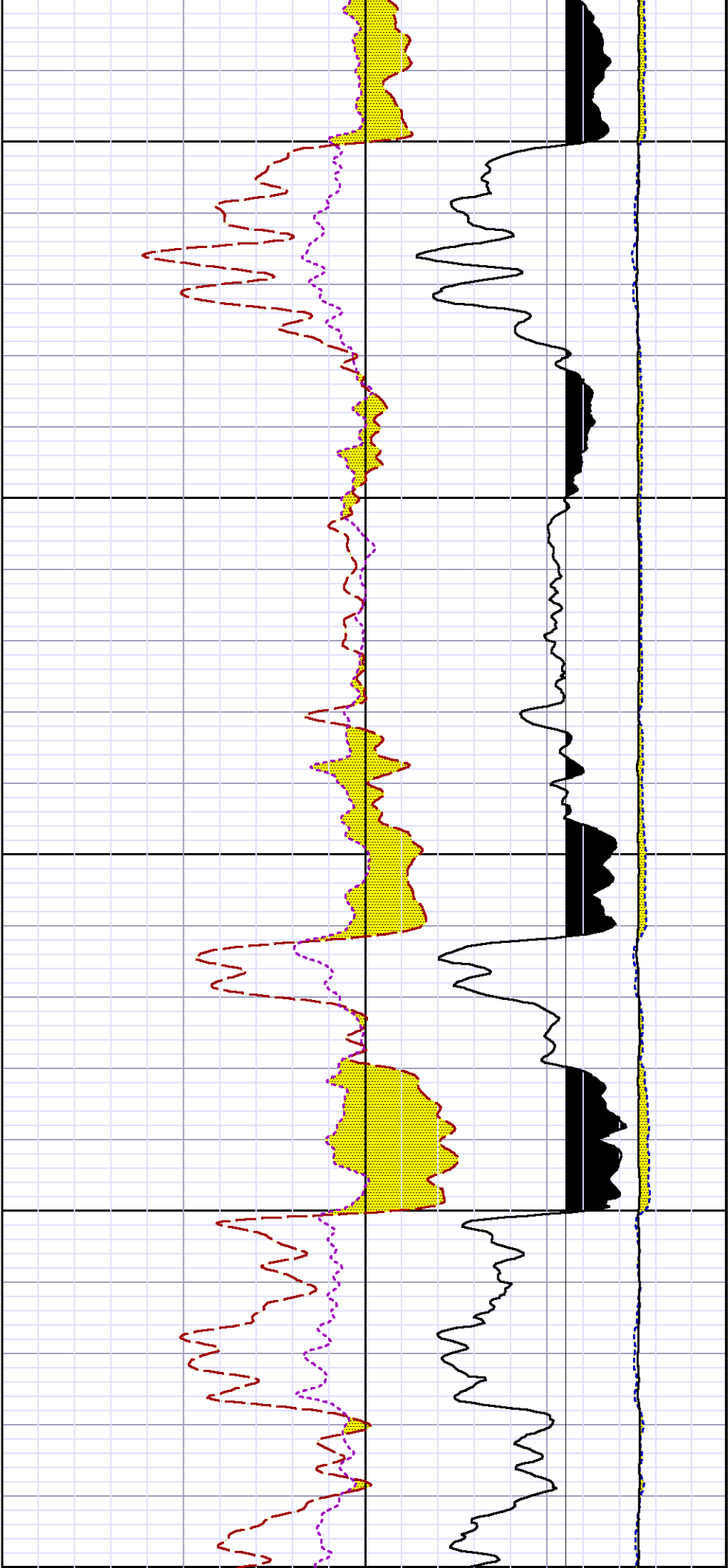
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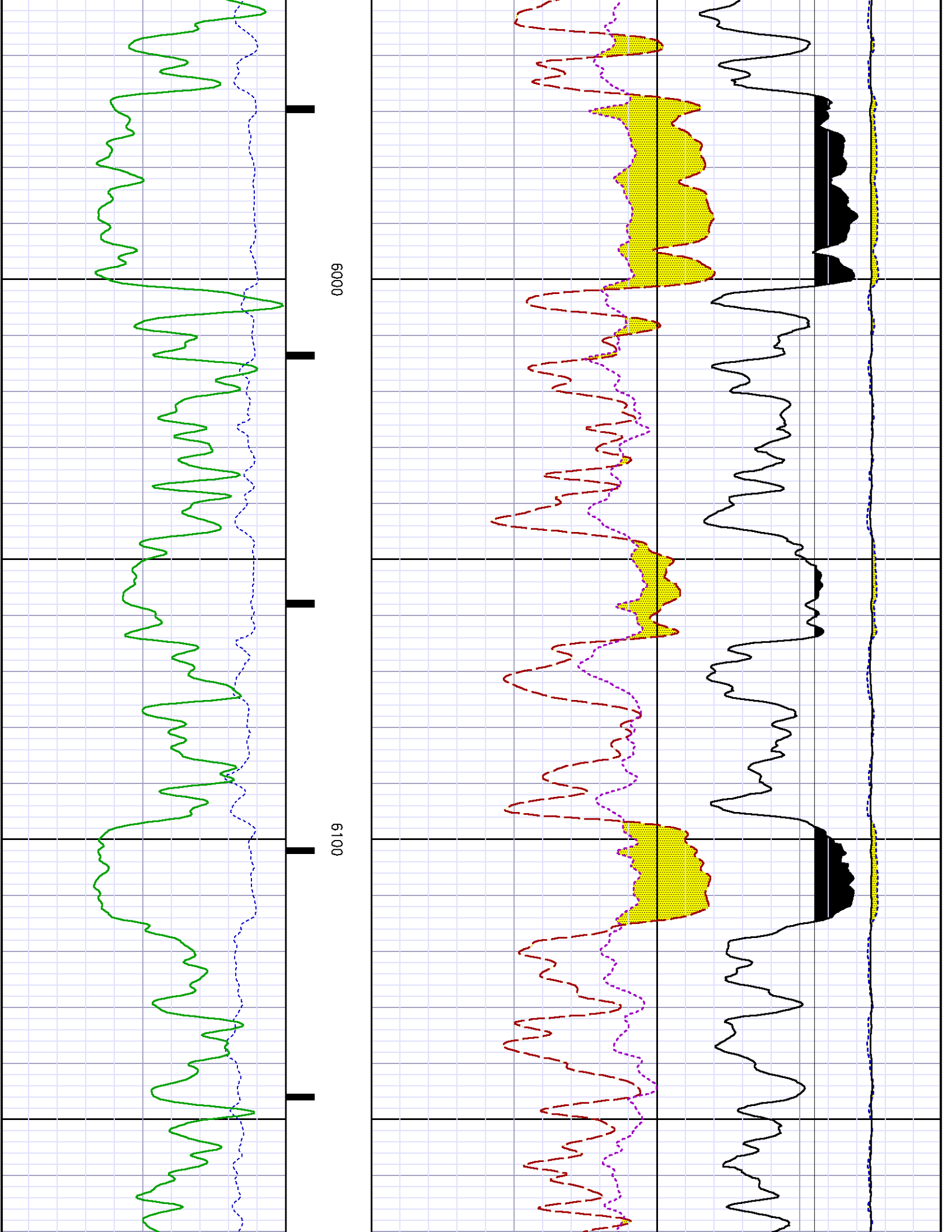
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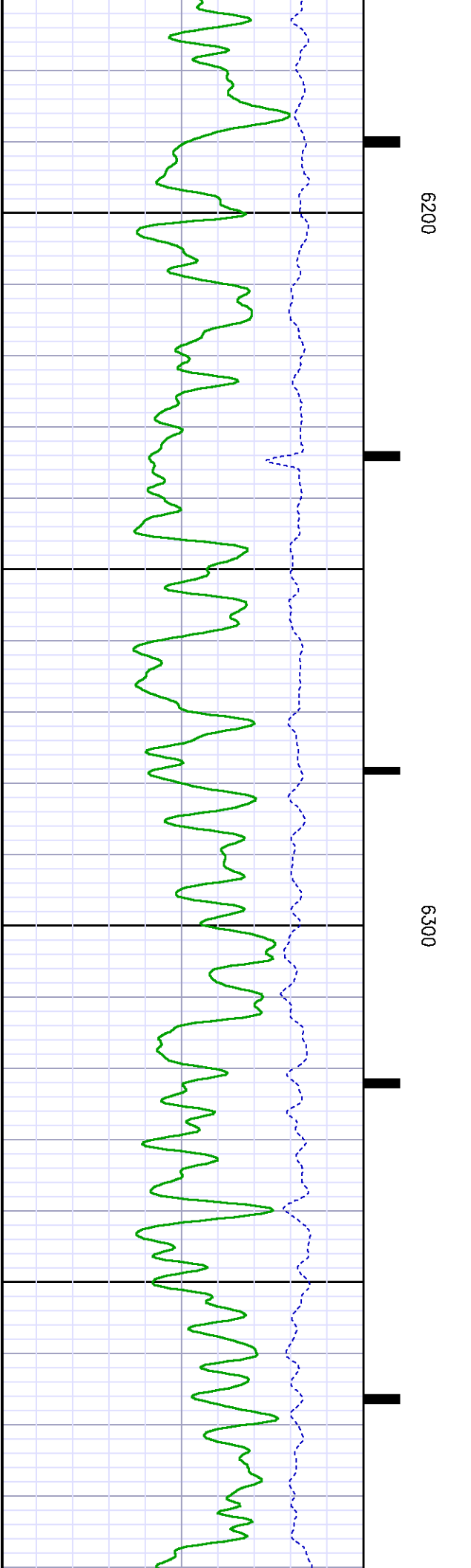
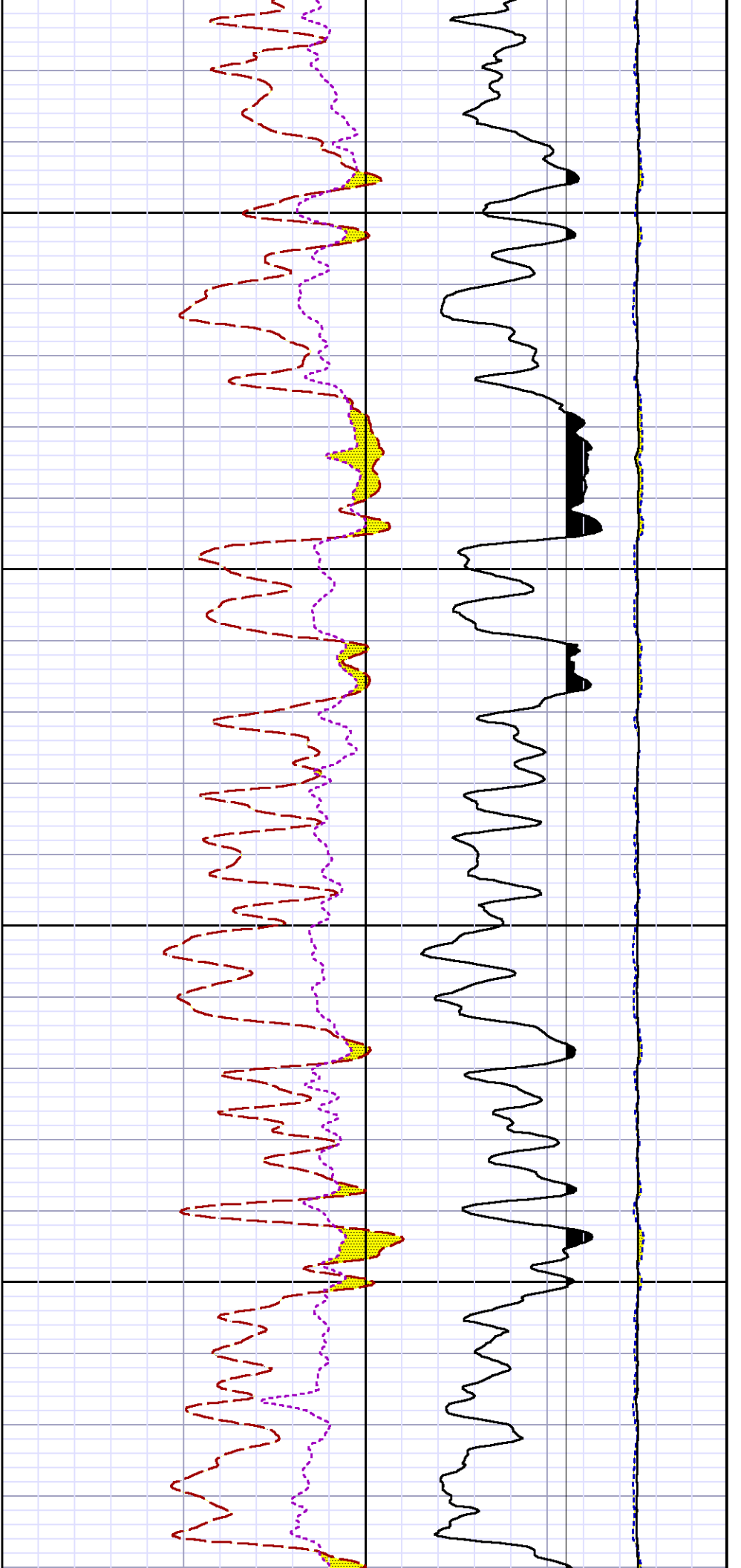
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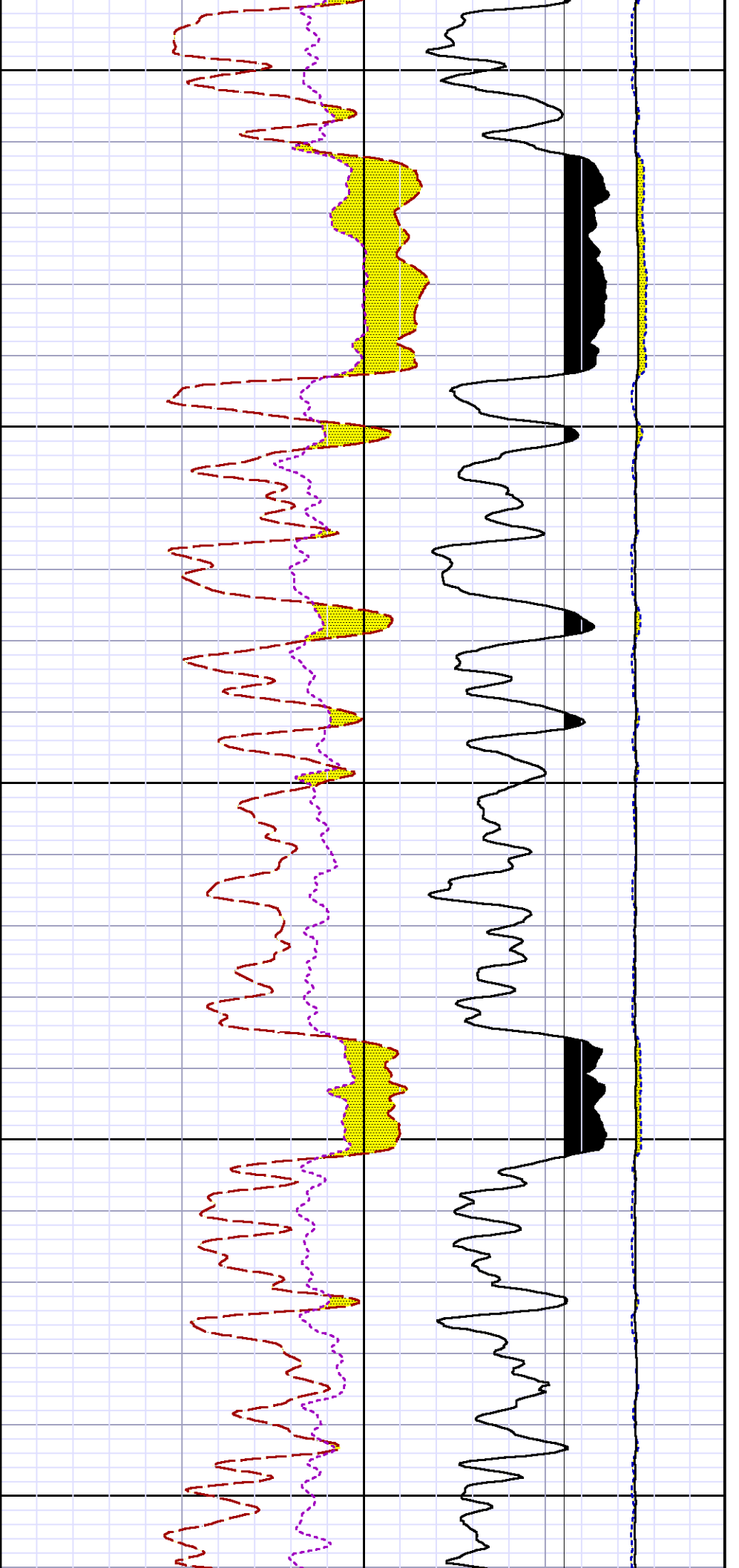








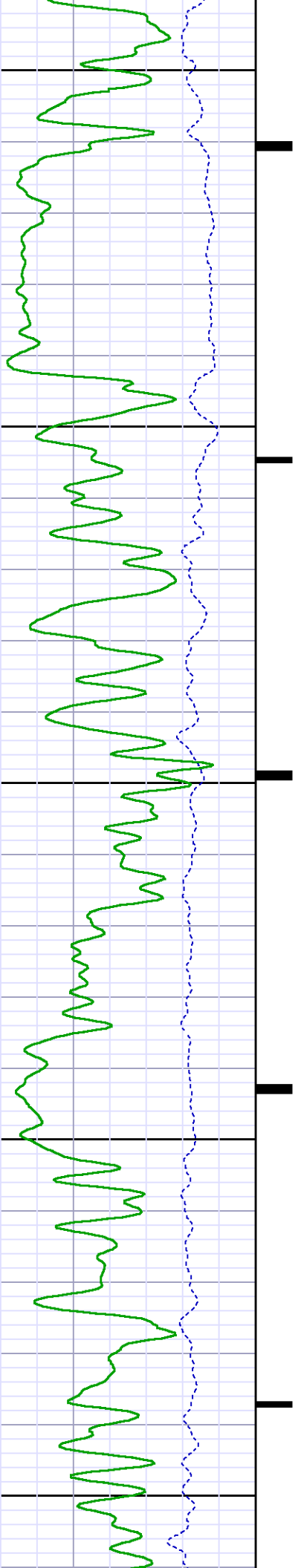


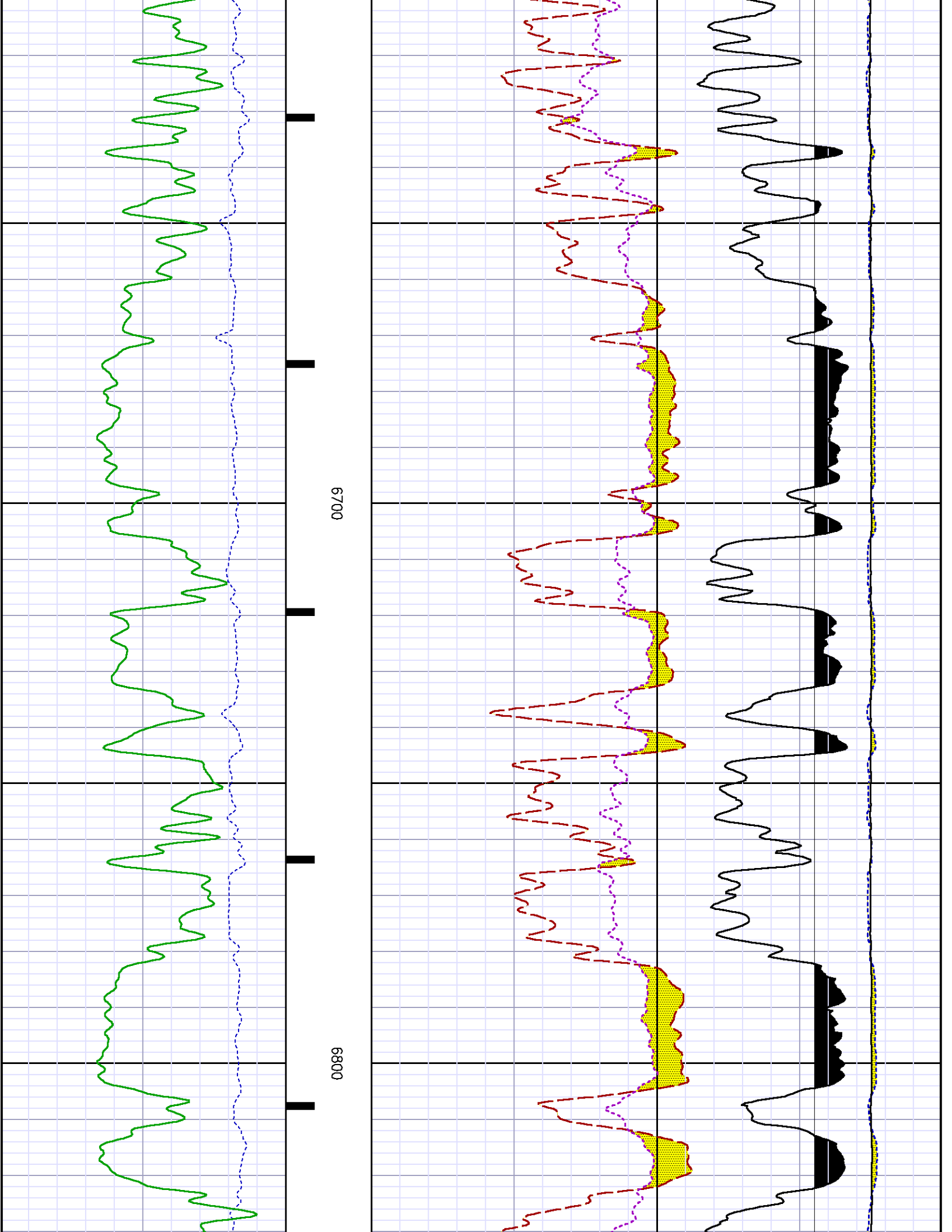


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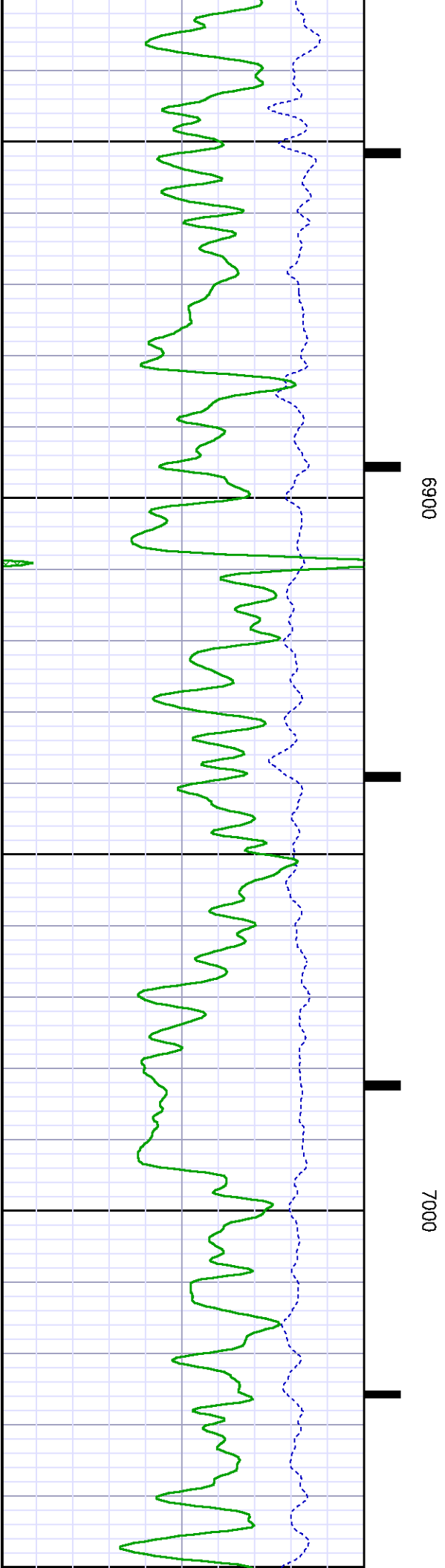
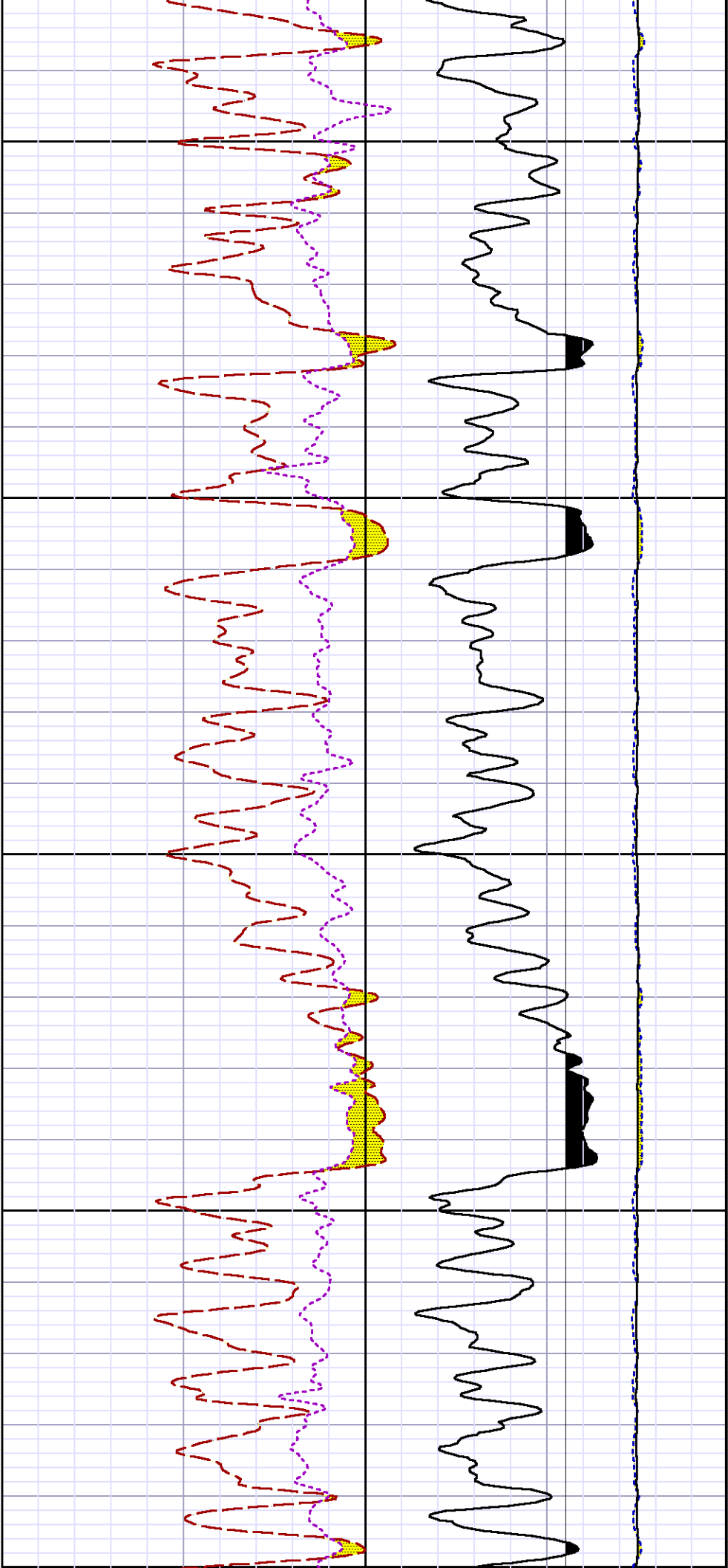
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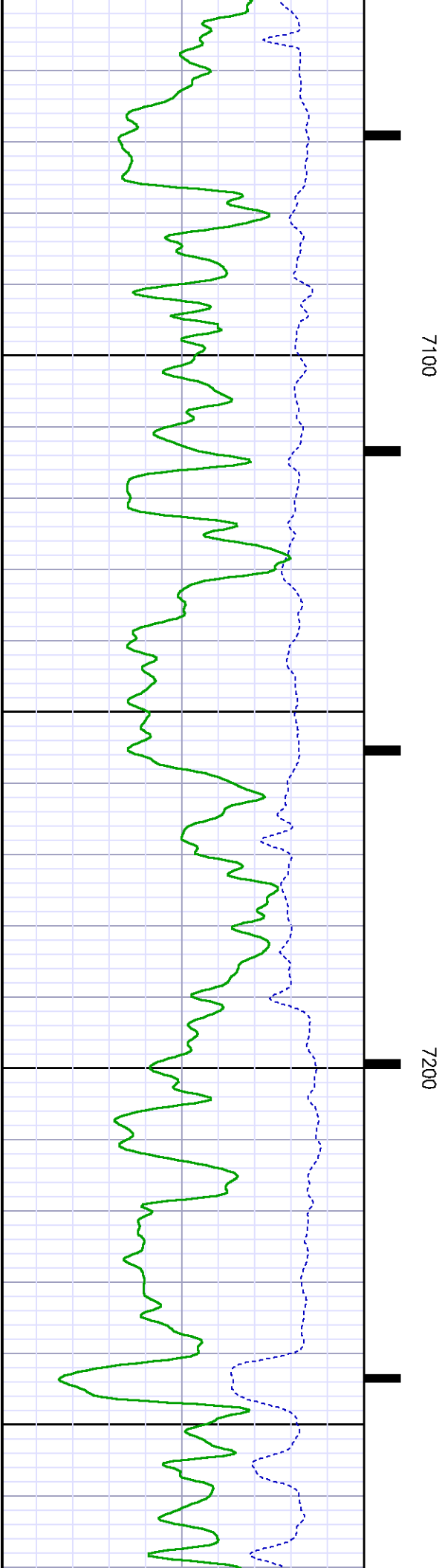
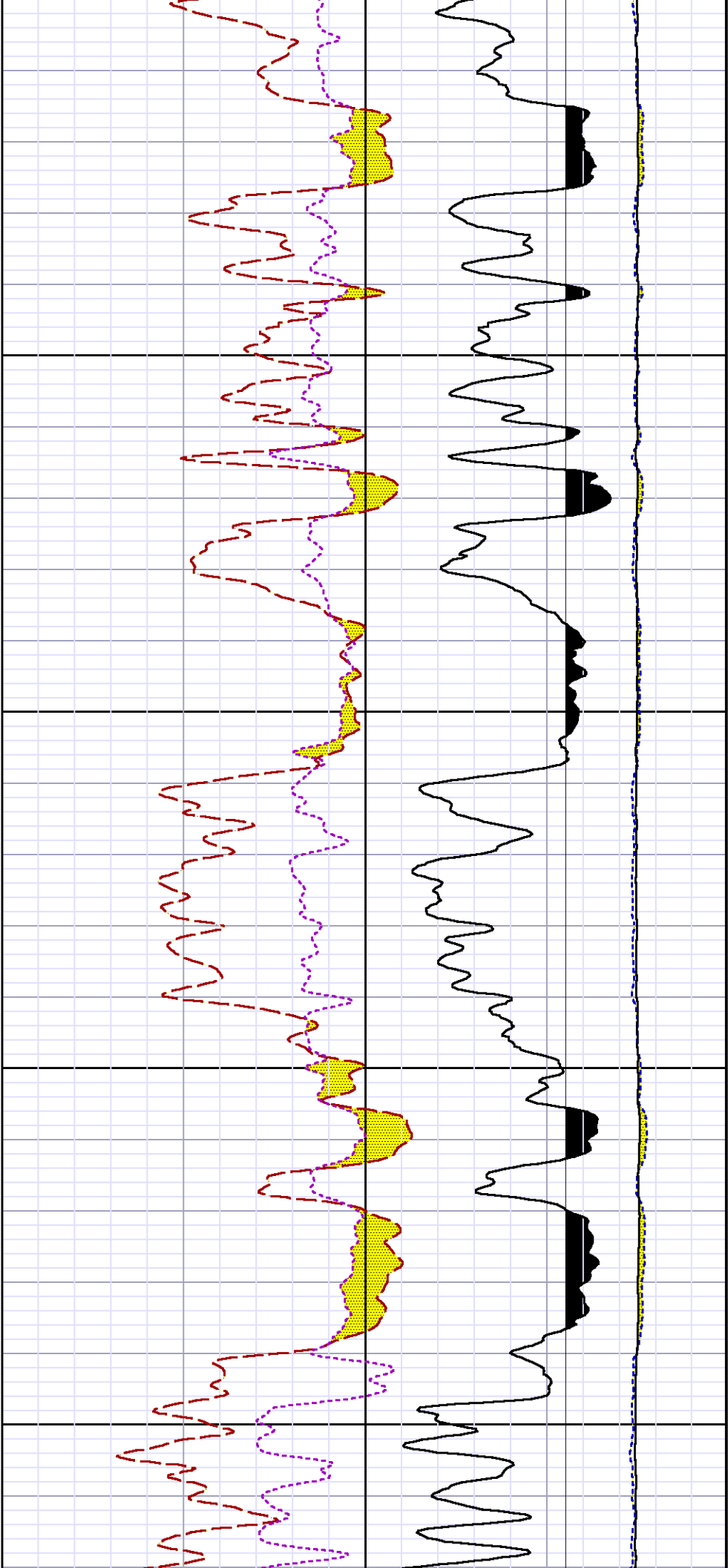
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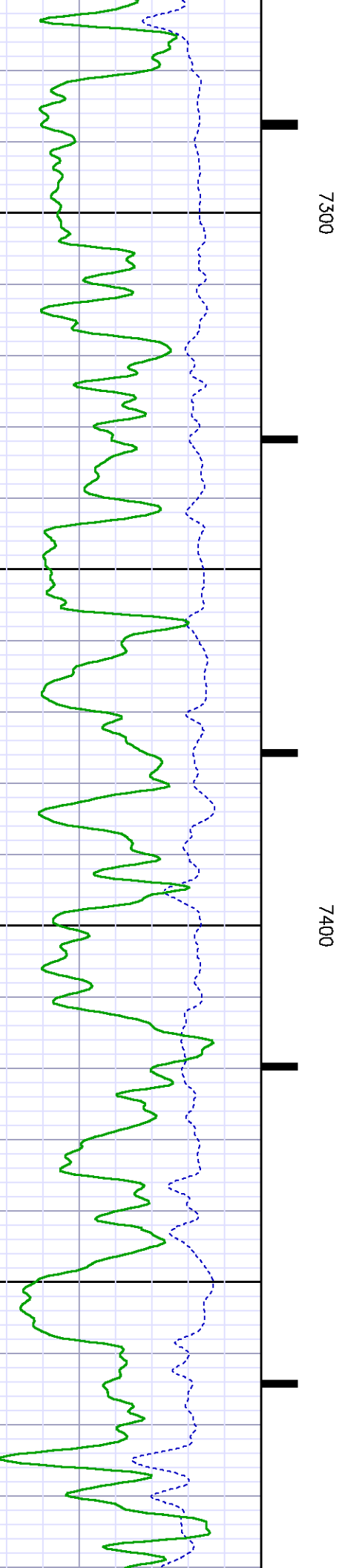
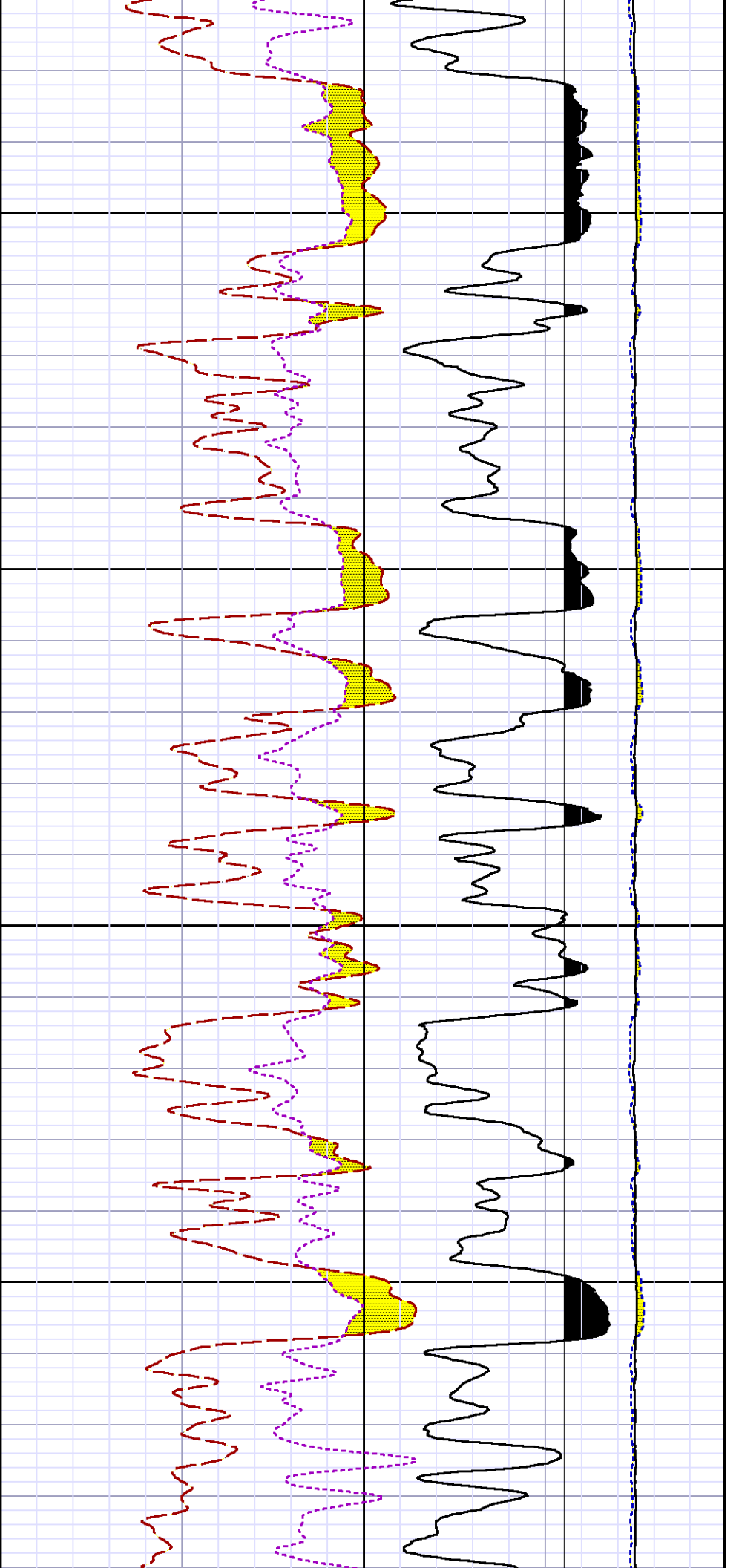


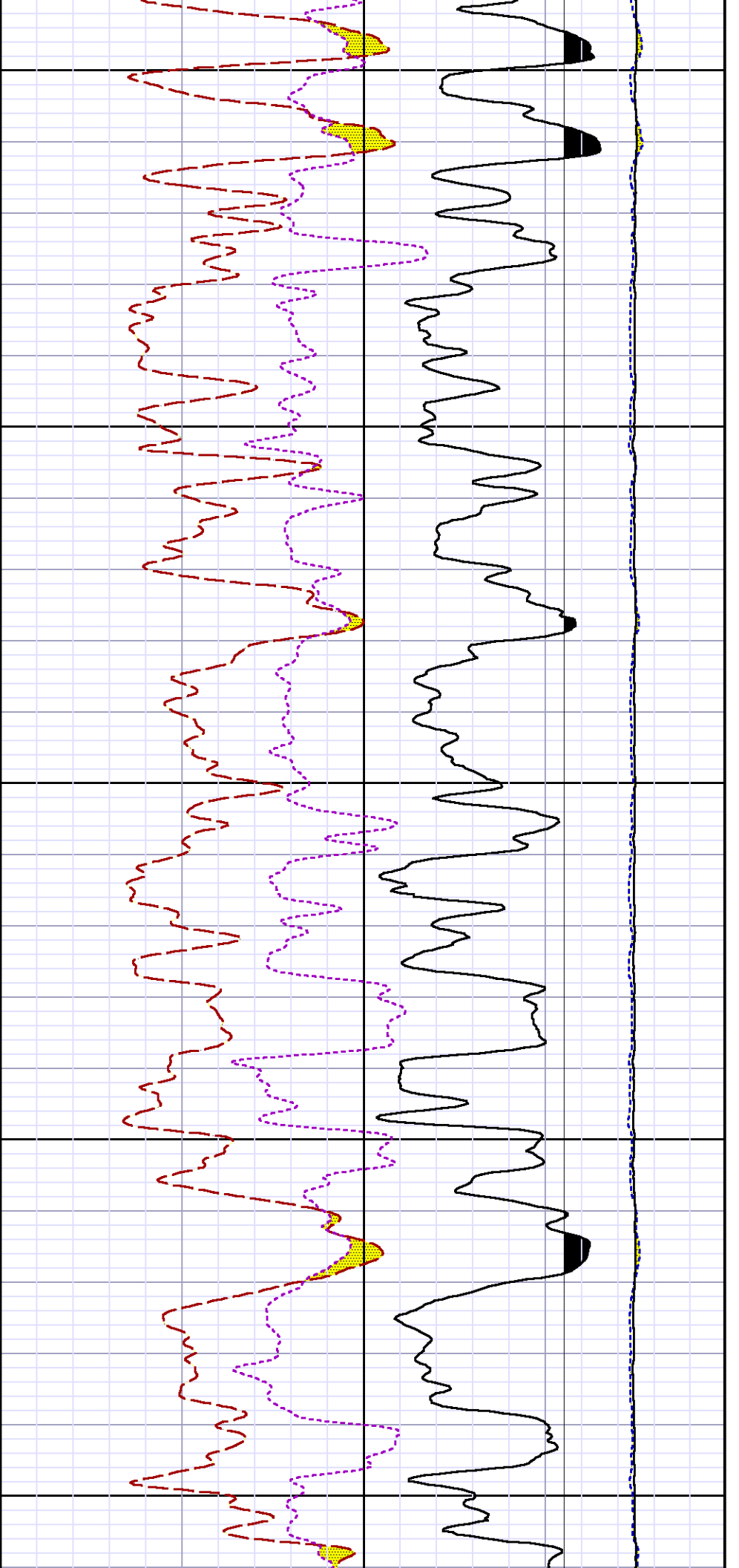








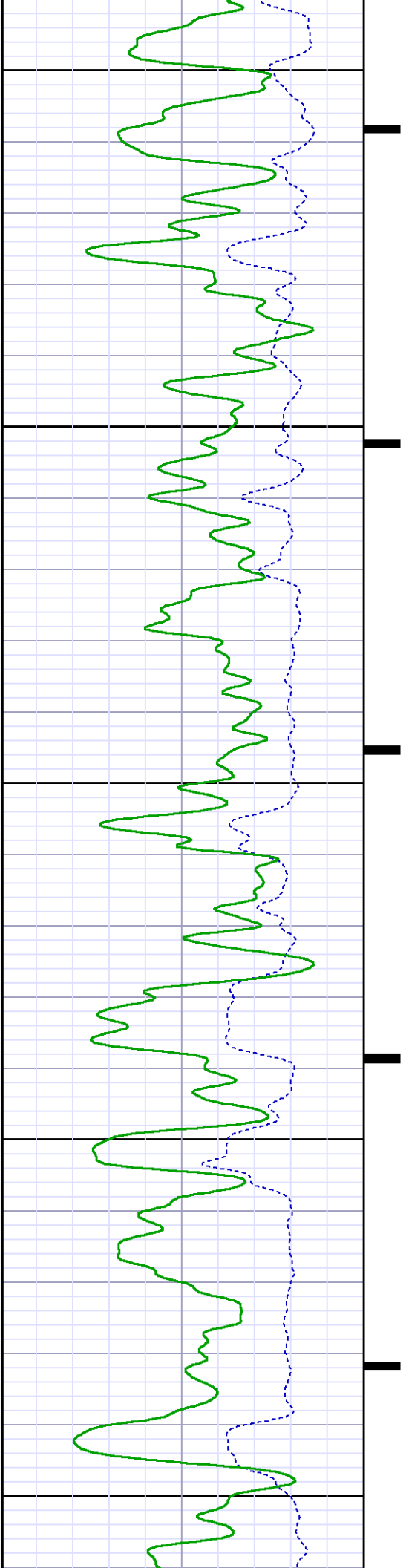


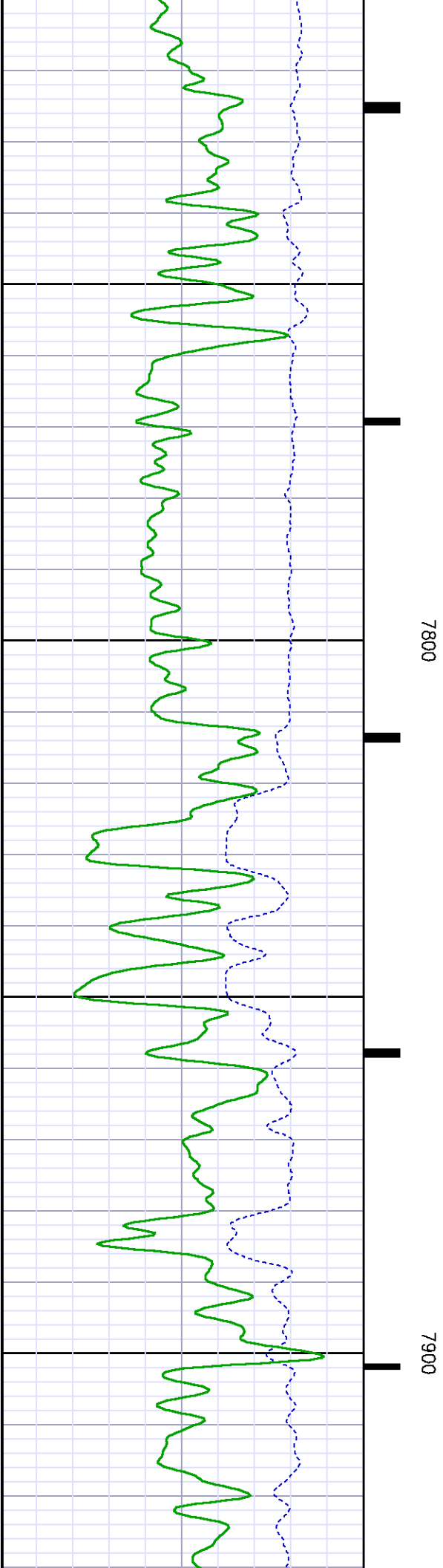
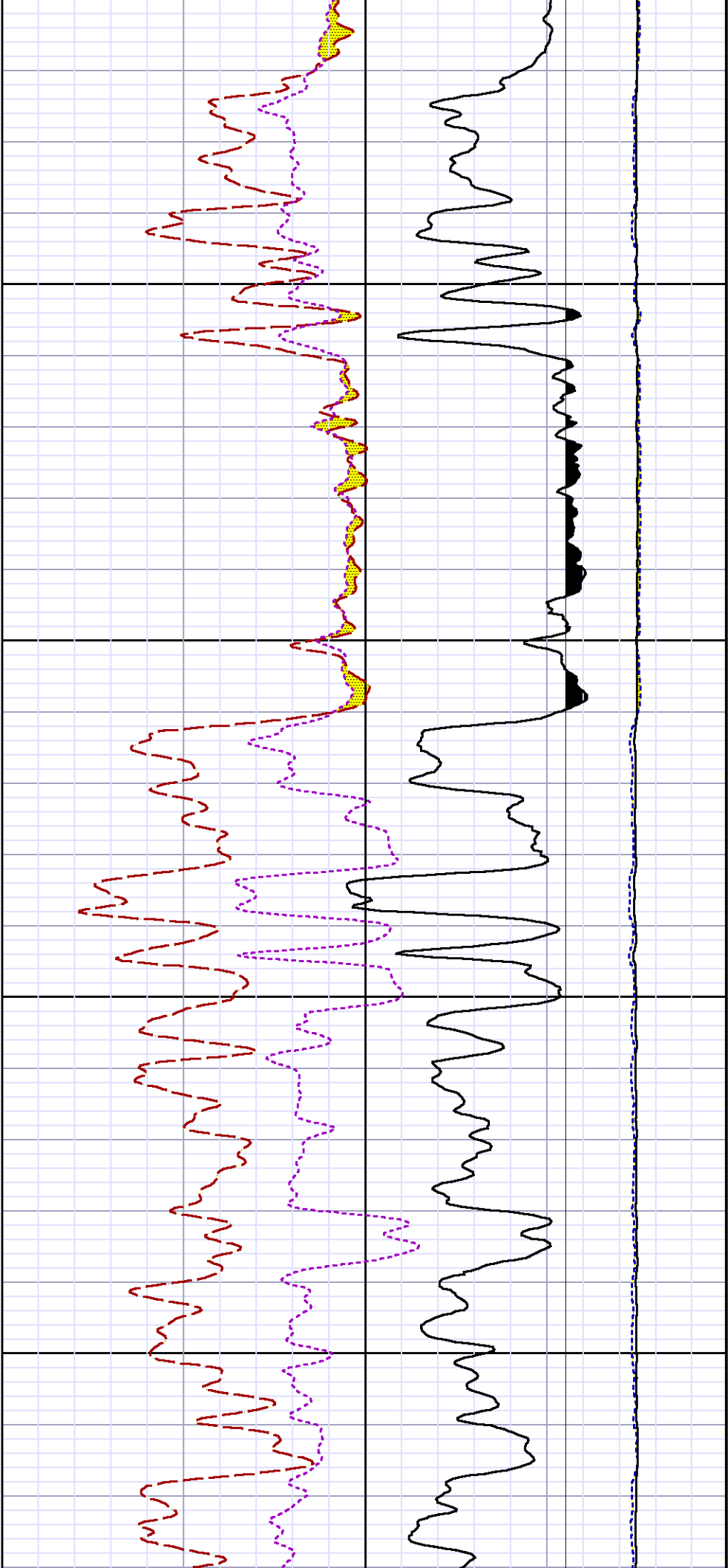


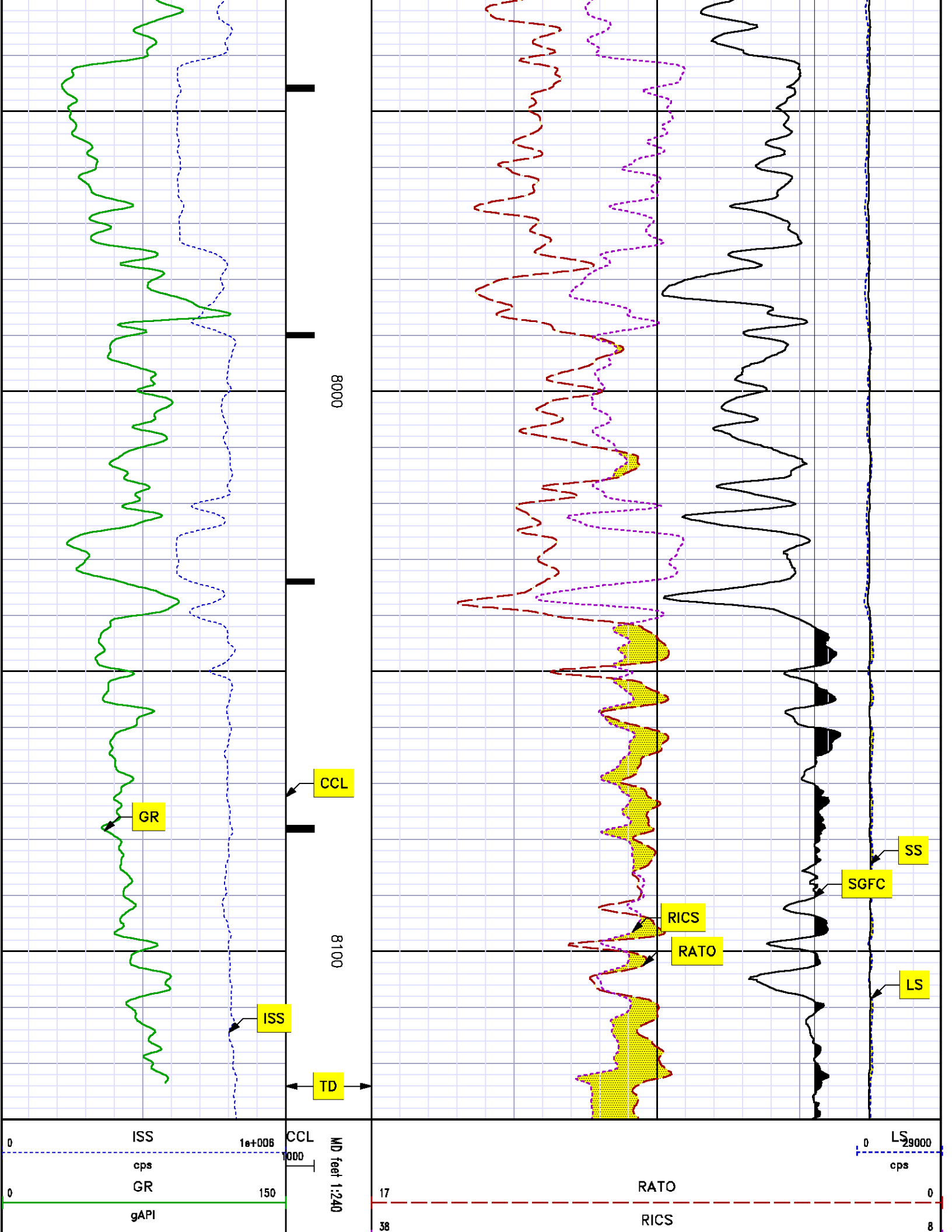
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7600

7700







***REPEAT SECTION***  
***PNC 3-D MODE***

## SPL PROCESSING

| MEASUREMENT TYPE | PARAMETER     | VALUE          | UNITS | TOP      | BOTTOM   |
|------------------|---------------|----------------|-------|----------|----------|
| PNC Porosity     | Borehole      | Cased          |       | 7276.320 | 7581.070 |
| PNC Porosity     | Borehole Size | 8.750          | inch  | 7276.320 | 7581.070 |
| PNC Porosity     | Casing Size   | 4.500          | inch  | 7276.320 | 7581.070 |
| PNC Porosity     | Gas Filled    | Non Gas Filled |       | 7276.320 | 7581.070 |
| PNC Porosity     | Matrix        | Sandstone      |       | 7276.320 | 7581.070 |

## DEPTH OFFSETS

(for Acquired Curves)

| SERIES | DEPTH OFFSET | ACQUIRED CURVES |        |        |        |        |        |        |        |
|--------|--------------|-----------------|--------|--------|--------|--------|--------|--------|--------|
| 8248ED | -15.320      | FLTM            |        |        |        |        |        |        |        |
| 8248ED | -13.320      | CCL             | CHV    |        |        |        |        |        |        |
| 8262XA | -10.189      | GR              |        |        |        |        |        |        |        |
| 8281XA | -0.662       | HVC3Q0          | SEQ3   | AMA3   | AML3   | BKX    | CXS    |        |        |
|        |              | CPT3Q0          | CPT3Q2 | CPT3Q3 | CPT3Q4 | ET3    | IXS    |        |        |
|        |              | MCS3            | MCS3Q0 | QCAL3  | RGN3   | RICX   | SDA3   |        |        |
|        |              | SDL3            | SGA3   | SGL3   | STA3   | XS     | ASPEC3 |        |        |
|        |              | AMB3            | AMF3   | CHF3   | IXSC   | IXSN   | RAT023 |        |        |
|        |              | RICXC           | RIN13C | RIN23  | RIN23C | SD3D   | SG3D   |        |        |
|        |              | SGB3            | SGF3   | WDTH3  | CXSR   | IXSR   | XSR    |        |        |
|        |              | RICXR           |        |        |        |        |        |        |        |
|        |              | 8281XA          | -0.250 | HVC2Q0 | SEQ2   | AMA2   | AMB2   | AMF2   | AML2   |
|        |              |                 |        | BKL    | CHF2   | CLS    | CPT2Q0 | CPT2Q2 | CPT2Q3 |
| CPT2Q4 | ET2          |                 |        | ILS    | LS     | MCS2   | MCS2Q0 |        |        |
| QCAL2  | RGN2         |                 |        | RICL   | RONE23 | RTW023 | SDA2   |        |        |

8281XA

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|         |         |        |        |        |         |
|---------|---------|--------|--------|--------|---------|
| SDL2    | SGA2    | SGB2   | SGF2   | SGK2   | SGL2    |
| STA2    | ASPEC2  | ILSC   | ILSN   | WDTH2  | RICLC   |
| CLSR    | ILSR    | LSR    | RICLR  |        |         |
| CPRS    | HVC1Q0  | MV     | SEQ    | SEQ1   | AMA1    |
| AMB1    | AME1    | AMF1   | AML1   | BKS    | CHF1    |
| CSS     | CORB    | CORF   | CPT1Q0 | CPT1Q2 | CPT1Q2A |
| CPT1Q2B | CPT1Q2C | CPT1Q3 | CPT1Q4 | CPT1Q5 | ET1     |
| G1      | G2      | GE1S   | GE2S   | ISS    | MCS1    |
| MCS1Q0  | QA1     | QCAL1  | QM1    | RAT0   | RAT013  |
| RB0R    | RGN1    | RICS   | RIN    | RONE   | RPOR    |
| RTW0    | RIN13   | RONE13 | RTW013 | SALB   | SC1     |
| SDA1    | SDL1    | SGA1   | SGB1   | SGBC   | SGE1    |
| SGF1    | SGFC    | SGK1   | SGL1   | SS     | SS2     |
| STA1    | PD1S    | PD2S   | PD3S   | MD1S   | MD2S    |
| MD3S    | DG1S    | DG2S   | DG3S   | PD1M   | PD2M    |
| PD3M    | MD1M    | MD2M   | MD3M   | DG1M   | DG2M    |
| DG3M    | MVS     | MA     | MVM    | FILV   | IAM     |
| TA      | PVM     | PVS    | IAS    | SSTAT  | QPD1    |
| QPD2    | QPD3    | QMD1   | QMD2   | QMD3   | QDG1    |
| QDG2    | QDG3    | QMA    | QTA    | QFILV  | QMV     |
| QPV     | QIA     | DERR   | DCNT   | QPK1   | QSA1    |
| PKS1    | ASPEC1  | HOC    | FE2XC  | ISSC   | RINC    |
| ISSN    | RDEN    | WDTH1  | RICSC  | CSSR   | G1R     |
| G2R     | ISSR    | SSR    | SS2R   | RAT0R  | RAT013R |
| RB0RR   | RICSR   | RINR   | RIN13R | RONER  | RPORR   |
| RTWOR   |         |        |        |        |         |
| SYSTEM  | 0.000   | TEN    | TEN    |        |         |

Created by : RPM9, v5.3.1.0

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

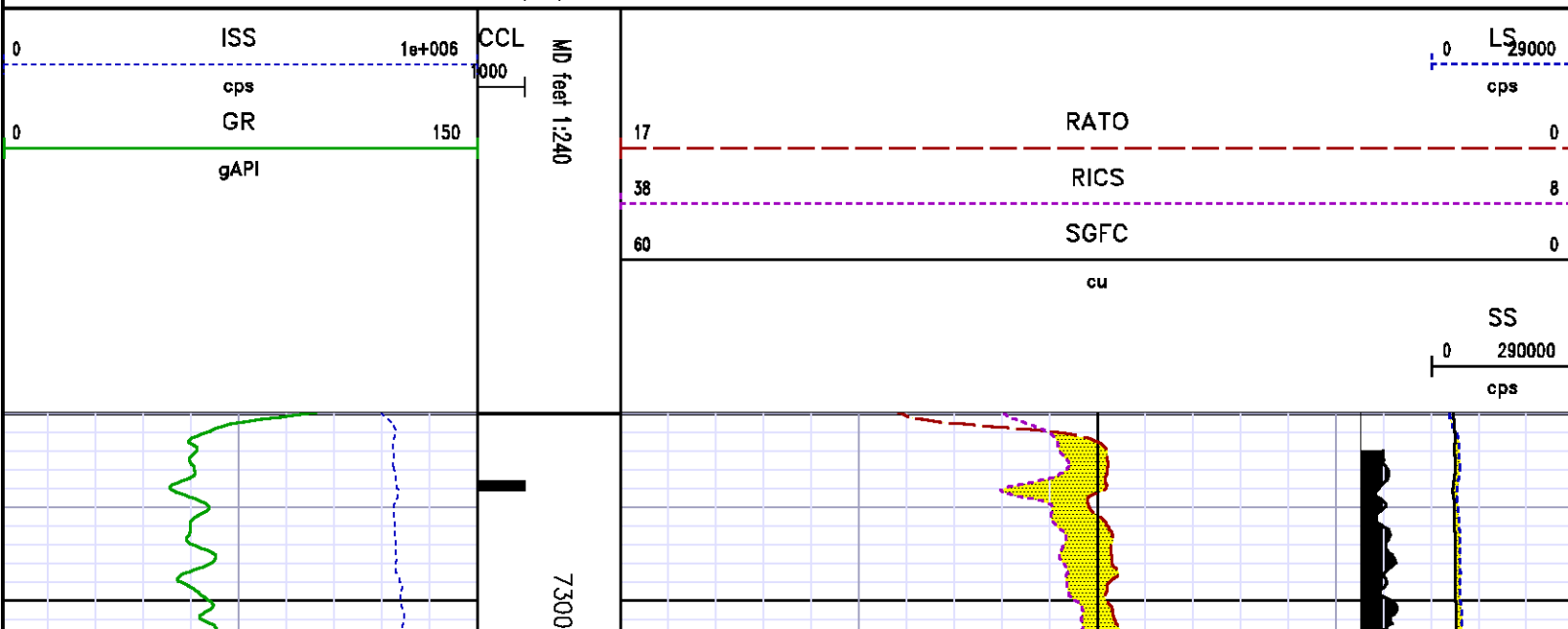
Well : YUBERG RWF 33-23

File Name : d:\welldata\wpx energy\rwf 33-23\rpm33\repeat.xtf

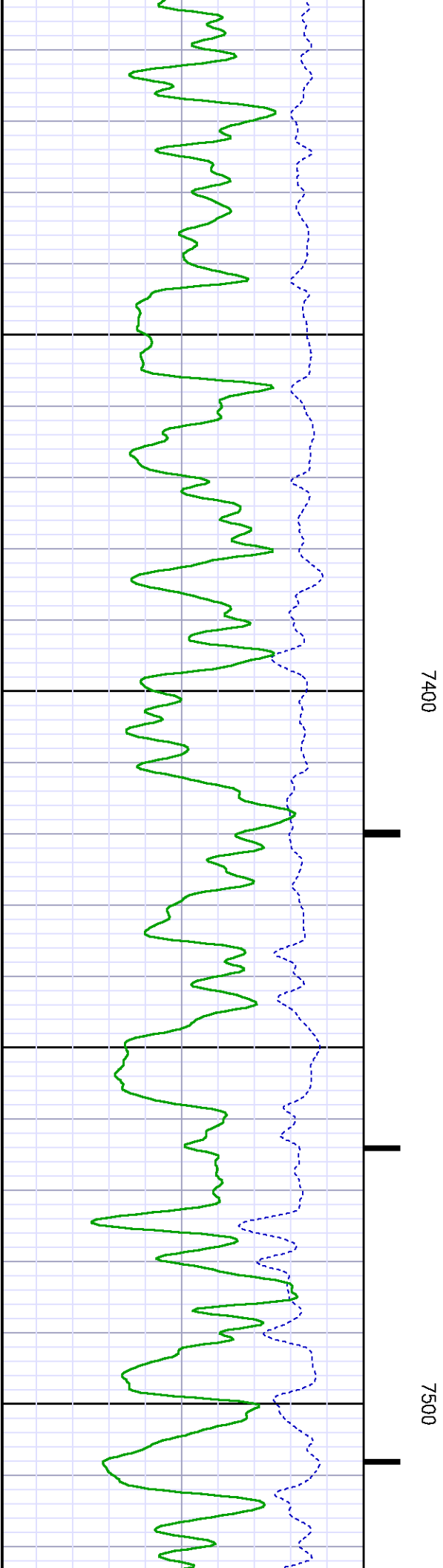
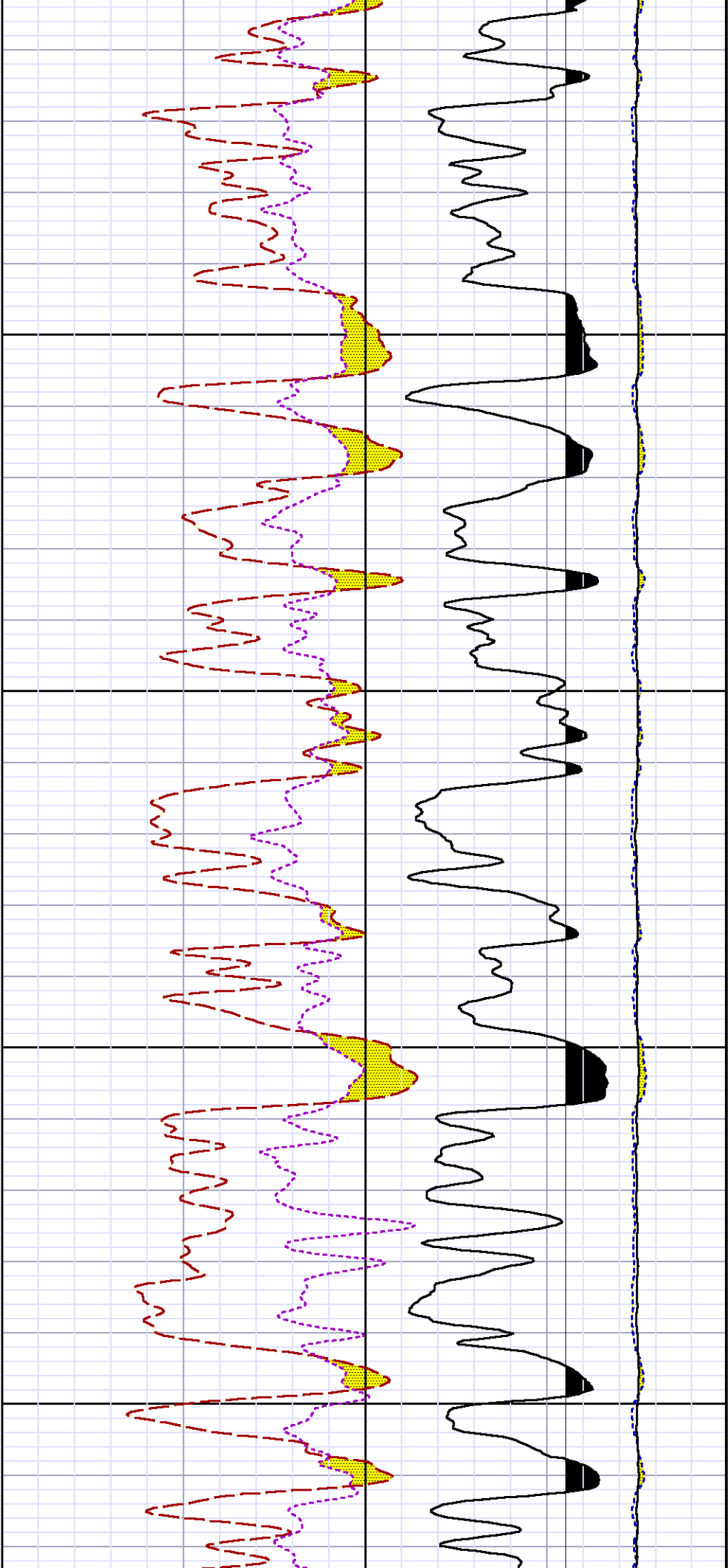
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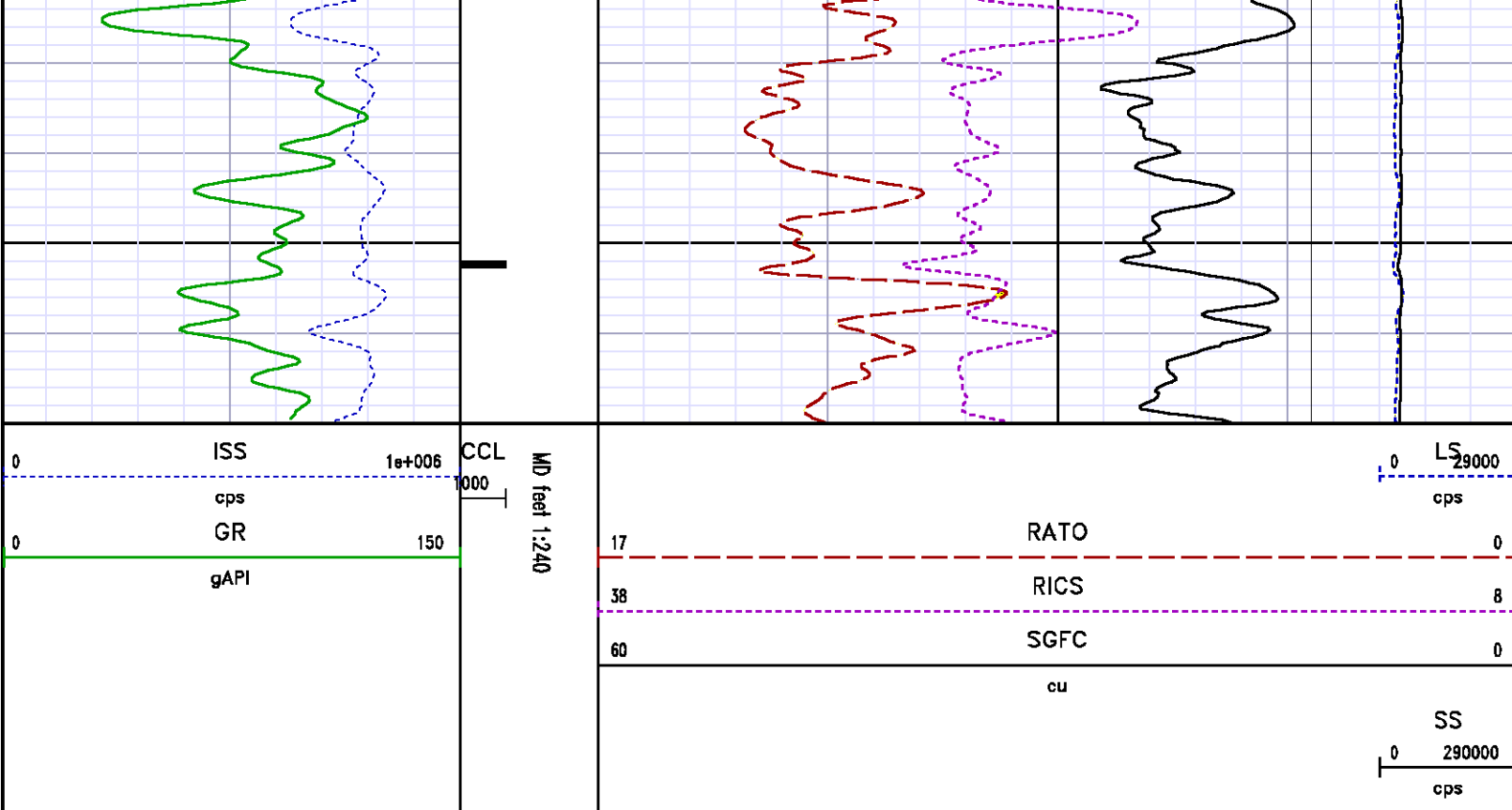
Interval : 7280.00 - 7570.00 feet UP

Created : 4/22/2013 12:19:42 PM









## CALIBRATION SUMMARY

### GAMMA RAY #2

Calibration File: C:\case\calver\GR\217M2.cal

#### CALIBRATION SUMMARY

DATE/TIME PERFORMED: Fri Mar 22 14:41:53 2013 TOOL SERIES: 8262XA ASSET: 217 SEQ: M2

| Calibrator # | Background [cps] | Calibrator On [cps] | Multiplicative | Background [api] | Calibrator On [api] | Differential [api] |
|--------------|------------------|---------------------|----------------|------------------|---------------------|--------------------|
| SHOP JIG     | 100.22           | 431.33              | 0.544          | 54.48            | 234.48              | 180.00             |

Verification File: C:\case\calver\GR\217M2.VP

#### PRIMARY VERIFICATION

DATE/TIME PERFORMED: Fri Mar 22 14:45:20 2013 TOOL SERIES: 8262XA ASSET: 217 SEQ: M2

| Calibrator # | Background [cps] | Calibrator On [cps] | Multiplicative | Background [api] | Calibrator On [api] | Differential [api] |
|--------------|------------------|---------------------|----------------|------------------|---------------------|--------------------|
| SHOP JIG     | 102.13           | 435.82              | 0.544          | 55.52            | 236.92              | 181.40             |

# PNC

Calibration File: C:\case\calver\PNC\345A1.cal

## PNC 3D CALIBRATION SUMMARY

DATE/TIME PERFORMED: Thu Apr 11 13:13:27 2013 TOOL SERIES: 8281XA ASSET: 345 SEQ: A1

Calibrator #

GJ SHOP

Source #

8281AA 10148476

|              | ISS     | Mtr VIts<br>(V) | SS Gain | LS Gain | XLS Gain | EA Temp<br>(degF) | Sync Delay<br>(usec) | RCAL   |
|--------------|---------|-----------------|---------|---------|----------|-------------------|----------------------|--------|
| Raw Data     | 819781  | 120.00          | 2266.00 | 2256.00 | 2263.00  | 104.57            | 7.00                 | 1.0020 |
| Interpolated | 1300000 | 139.82          | 2252.58 | 2250.54 | 2259.49  |                   |                      |        |

|          | ISS    | BKS     | BKL     | BKX    | SGA1        | SDA1      | SGA2        | SDA2      |
|----------|--------|---------|---------|--------|-------------|-----------|-------------|-----------|
| Raw Data | 819781 | 6413.62 | 1027.31 | 151.47 | 25.81       | 0.14      | 24.20       | 0.27      |
|          |        |         |         |        | 25.35 26.40 | 0.00 0.20 | 23.60 24.80 | 0.00 0.40 |

|               | ISS    | ILS       | IXS      | SS       | SS2      | LS      | CSS      | CLS      |
|---------------|--------|-----------|----------|----------|----------|---------|----------|----------|
| Raw Data      | 819781 | 177449.06 | 27584.03 | 91479.44 | 32556.03 | 8662.85 | 55318.64 | 13870.90 |
| Fit Quality % |        | 0.39      | 0.29     | 0.47     | 0.44     | 0.44    | 0.43     | 0.48     |

|               | ISS     | RBOR      | RIN<br>ISS/ILS | RIN13<br>ISS/IXS | RICS<br>ISS/CSS | RATO<br>SS/LS | RTWO<br>SS2/LS | RONE<br>CSS/CLS |
|---------------|---------|-----------|----------------|------------------|-----------------|---------------|----------------|-----------------|
| Raw Data      | 819781  | 1.43      | 4.62           | 29.72            | 14.82           | 10.56         | 3.76           | 3.99            |
|               |         | 1.42 1.45 | 3.55 5.52      | 22.20 32.70      | 10.99 16.34     | 10.06 11.10   | 3.57 3.95      | 3.76 4.22       |
| Fit Quality % |         | 0.02      | 0.51           | 0.50             | 0.48            | 0.16          | 0.15           | 0.14            |
| Reduced       | 1405428 | 1.43      | 4.65           | 29.85            | 14.91           | 10.55         | 3.75           | 3.99            |
|               |         | 1.42 1.45 | 4.33 5.52      | 27.60 32.70      | 13.70 16.34     | 10.06 11.10   | 3.57 3.95      | 3.76 4.22       |

## TOOL DIAGRAM

OTA SHORT CABLE HEAD

PCM POWER SUPPLY

34.35'

|                         |           |
|-------------------------|-----------|
| <b>PCM POWER SUPPLY</b> |           |
| Series                  | 8250EA    |
| Mnemonic                | PCM       |
| Diameter                | 1.70"     |
| Weight                  | 18.00 lb  |
| Length                  | 3.86'     |
| Temp Rating             | 350.00 °F |

|                        |              |
|------------------------|--------------|
| <b>TELEMETRY / CCL</b> |              |
| Series                 | 8248EA       |
| Mnemonic               | PCM          |
| Diameter               | 1.70"        |
| Weight                 | 20.00 lb     |
| Length                 | 4.46'        |
| Measure Point          | 1.00' CCL MP |
| Temp Rating            | 350.00 °F    |
| Press Rating           | 15000.00 PSI |

|                  |          |
|------------------|----------|
| <b>GAMMA RAY</b> |          |
| Series           | 8262XA   |
| Mnemonic         | GR       |
| Diameter         | 1.70"    |
| Weight           | 15.00 lb |
| Length           | 3.17'    |

|                                      |                     |
|--------------------------------------|---------------------|
| <b>RESERVOIR PERFORMANCE MONITOR</b> |                     |
| Series                               | 8281XA              |
| Mnemonic                             | RPM                 |
| Diameter                             | 1.70"               |
| Weight                               | 75.00 lb            |
| Length                               | 18.58'              |
| Measure Point                        | 9.49' SS DETECTOR   |
| Measure Point                        | 9.72' LS DETECTOR   |
| Measure Point                        | 12.69' XLS DETECTOR |
| Temp Rating                          | 350.00 °F           |
| Press Rating                         | 20000.00 PSI        |

|                               |          |
|-------------------------------|----------|
| <b>TEMPERATURE / PRESSURE</b> |          |
| Series                        | 8255XA   |
| Mnemonic                      | SRPL     |
| Diameter                      | 1.70"    |
| Weight                        | 13.00 lb |
| Length                        | 3.30'    |

CCL MP ————— 26.26'

GR MP ————— 22.72'

XLS DETECTOR ————— 16.20'

LS DETECTOR ————— 13.23'  
SS DETECTOR ————— 13.00'

PRES MP ————— 1.65'

0.00'

Total Length: 34.35'  
Total Weight: Not Available  
Max Diameter: 0' 1.70"



Company  
Well  
Field  
County

WPX ENERGY  
YOUBERG RWF 33-23  
RULISON  
GARFIELD

State

COLORADO

Location

Elevations

File No:

CH069875

API No:

05045182400000

Baker Atlas

|             |                           |  |        |  |         |    |           |               |
|-------------|---------------------------|--|--------|--|---------|----|-----------|---------------|
| <i>CASE</i> | SHL: 1399' FSL, 2323' FEL |  |        |  |         | KB | 5527.5 ft | 23 6S 94W     |
|             | BHL: 1974' FSL, 1829' FEL |  |        |  |         | DF |           | RWF 33-23 PAD |
|             |                           |  |        |  |         | GL | 5501.5 ft | NABORS 577    |
|             | SEC 23                    |  | TWP 6S |  | RGE 94W |    |           |               |