



Baker Atlas

# RESERVOIR PERFORMANCE MONITOR

|   |  |  |
|---|--|--|
| File No: CH00982  | Company Well   | WPX ENERGY<br>FEDERAL PA 342-21              |
| API No: 05045220310000                                      | Field County   | PARACHUTE<br>GARFIELD                        |
|   | State CO   |  |
| 21 GS 95W<br>PA 22-21 PAD<br>MABORS 573                     | Location<br>SHL: 2610' FNL & 1471' FNL<br>BHL: 1931' FNL & 220' FEL<br>SEC 21 TWP 6S RGE 9SW | Other Services<br>BOND LOG                   |
| Permanent Datum<br>Log Measured From<br>Drill Measured From | GL<br>KB<br>KB   | Elevations<br>KB 6056 ft<br>DF<br>GL 6030 ft |

|                              |                       |            |
|------------------------------|-----------------------|------------|
| Date                         | 27/DEC/13             |            |
| Run                          | ONE                   |            |
| Service Order                | US625050              |            |
| Depth Driller                | 9834 ft               |            |
| Depth Logger                 | 9805 ft               |            |
| Bottom Logged Interval       | 9795 ft               |            |
| Top Logged Interval          | 8060 ft               |            |
| Time Started                 | 8:30                  |            |
| Time Finished                | 14:00                 |            |
| Operator Rig Time            | 5.5 HOURS             |            |
| Type of Fluid in Hole        | WATER                 |            |
| Fluid Density                | NA                    |            |
| Salinity                     | NA                    |            |
| Fluid Level                  | 76 ft                 |            |
| Logged Cement Top            | NA                    |            |
| Wellhead Pressure            | 0 psi                 |            |
| Maximum Hole Deviation       | NA                    |            |
| Nominal Logging Speed        | 10 fpm                |            |
| Maximum Recorded Temperature | 241 degF              |            |
| Reference Log                | BAKER HUGHES BOND LOG |            |
| Reference Log Date           | 26/DEC/13             |            |
| Equipment No.                | 4271                  | GRAND JCT. |
| Recorded By                  | NEWELL                |            |
| Witnessed By                 | GRAN JACOBS           |            |

- 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    | 1544 ft |
| 8.75 in         | 1544 ft | 9915 ft |

| Casing Record |             |       |      |         |
|---------------|-------------|-------|------|---------|
| Size          | Weight      | Grade | From | To      |
| 9.625 in      |             |       | 0 ft | 1544 ft |
| 4.5 in        | 11.6 lbm/ft |       | 0 ft | 9915 ft |

|  |
|--|
| Remarks  |
| All data on this log is shifted and depth matched using the Gamma Ray curve to the Baker Hughes bond log dated 12/26/2013 at the client's request. |
| The amount of linear shift is 12 feet.   |
| Logged in PNC-3D mode.   |
| BHT = 241 °F   |

| Equipment Data |      |         |               |               |          |
|----------------|------|---------|---------------|---------------|----------|
| Run            | Trip | Tool    | Series Number | Serial Number | Position |
| 2              | 1    | PCM     | 8250EA        | 10408796      | FREE     |
| 2              | 1    | TEL/CCL | 8248ED        | 10590814      | FREE     |
| 2              | 1    | GR      | 2812LA        | 10274385      | FREE     |
| 2              | 1    | RPM     | 8281EA        | 10190984      | FREE     |
| 2              | 1    | RPM     | 8283PA        | 10466231      | FREE     |
| 2              | 1    | RPM     | 8281FA        | 10460082      | FREE     |

*MAIN SECTION*  
*PNC 3-D MODE*

SPL PROCESSING

| MEASUREMENT TYPE | PARAMETER     | VALUE          | UNITS | TOP      | BOTTOM   |
|------------------|---------------|----------------|-------|----------|----------|
| PNC Porosity     | Borehole      | Cased          |       | 6039.750 | 9808.750 |
| PNC Porosity     | Borehole Size | 8.750          | inch  | 6039.750 | 9808.750 |
| PNC Porosity     | Casing Size   | 4.500          | inch  | 6039.750 | 9808.750 |
| PNC Porosity     | Gas Filled    | Non Gas Filled |       | 6039.750 | 9808.750 |
| PNC Porosity     | Matrix        | Sandstone      |       | 6039.750 | 9808.750 |

DEPTH OFFSETS  
(for Acquired Curves)

| SERIES | DEPTH OFFSET | ACQUIRED CURVES |        |        |        |      |        |
|--------|--------------|-----------------|--------|--------|--------|------|--------|
| 8248ED | -14.478      | FLTM            |        |        |        |      |        |
| 8248ED | -12.478      | CCL CHV         |        |        |        |      |        |
| 2812LA | -9.928       | 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 |
|        |              | DLOYO           | DUN3Q  | DUN03  | DUN03Q | GR3D | SO3D   |

8281XA

-0.250

|        |        |       |        |        |        |
|--------|--------|-------|--------|--------|--------|
| RTXC   | RTN13C | RTN23 | RTN23C | 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     | MM     | 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 |
| RBORR   | RICSR   | RINR   | RIN13R | RONER  | RPORR   |

SYSTEM

0.000

|       |     |      |
|-------|-----|------|
| RTWOR | TEN | TTEN |
|-------|-----|------|

Created by : RPM9, v5.3.1.0

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

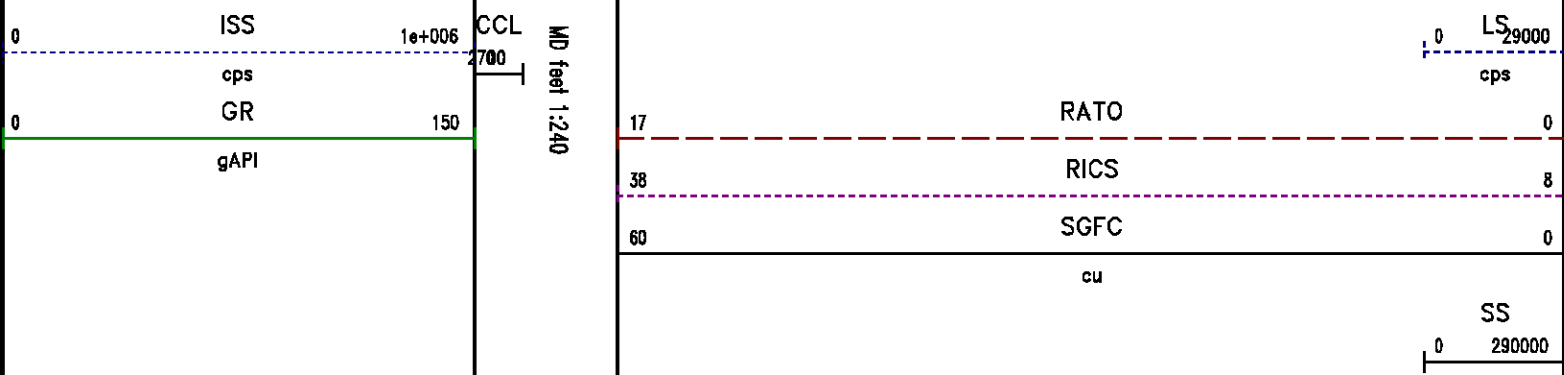
Well : FEDERAL PA 342-21

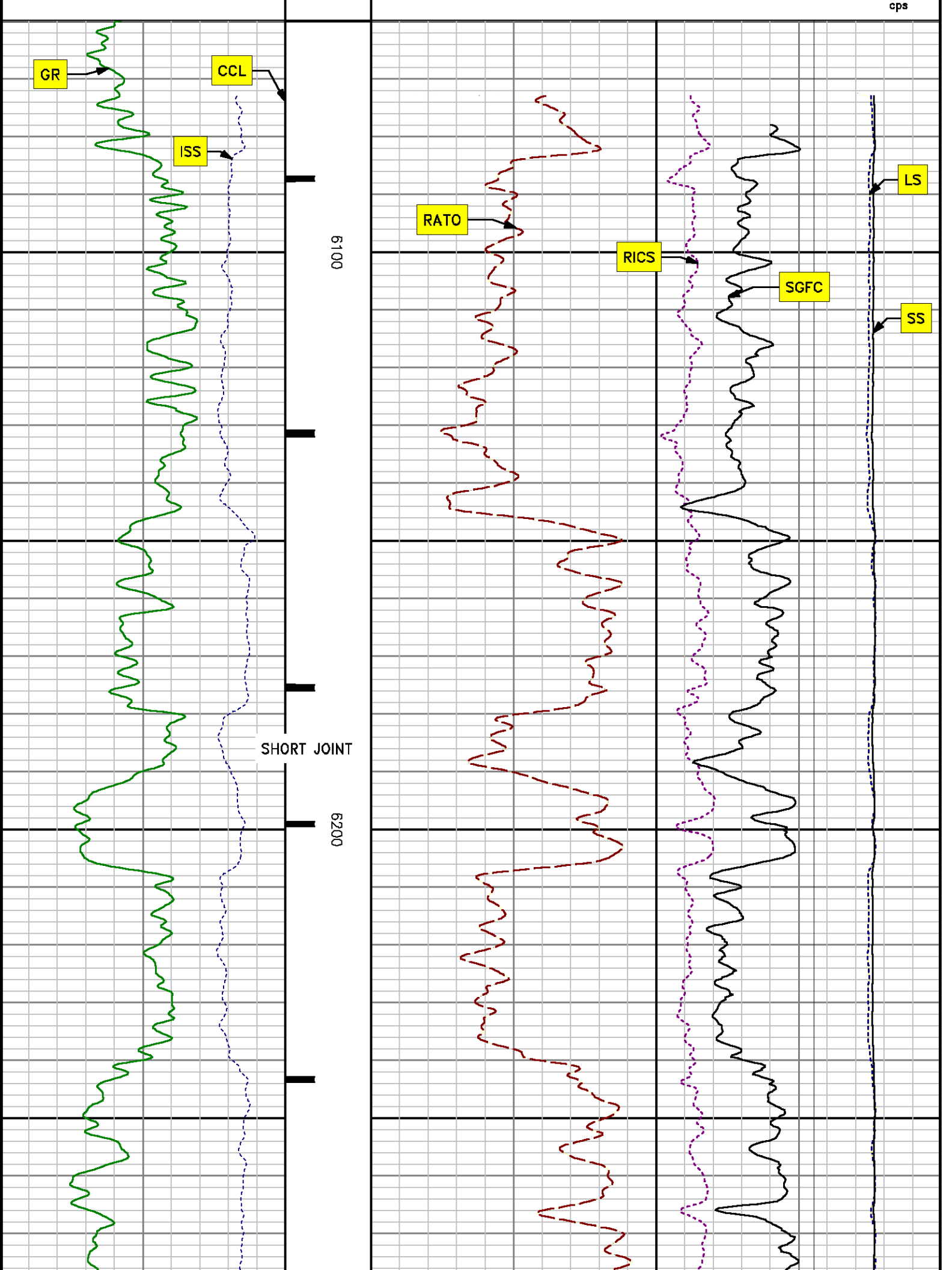
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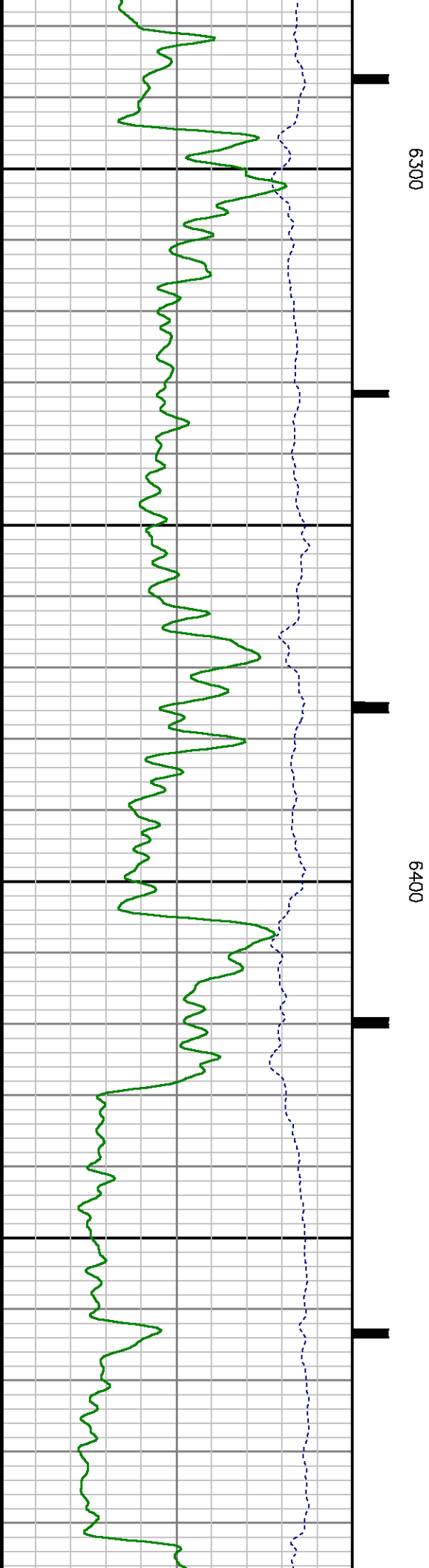
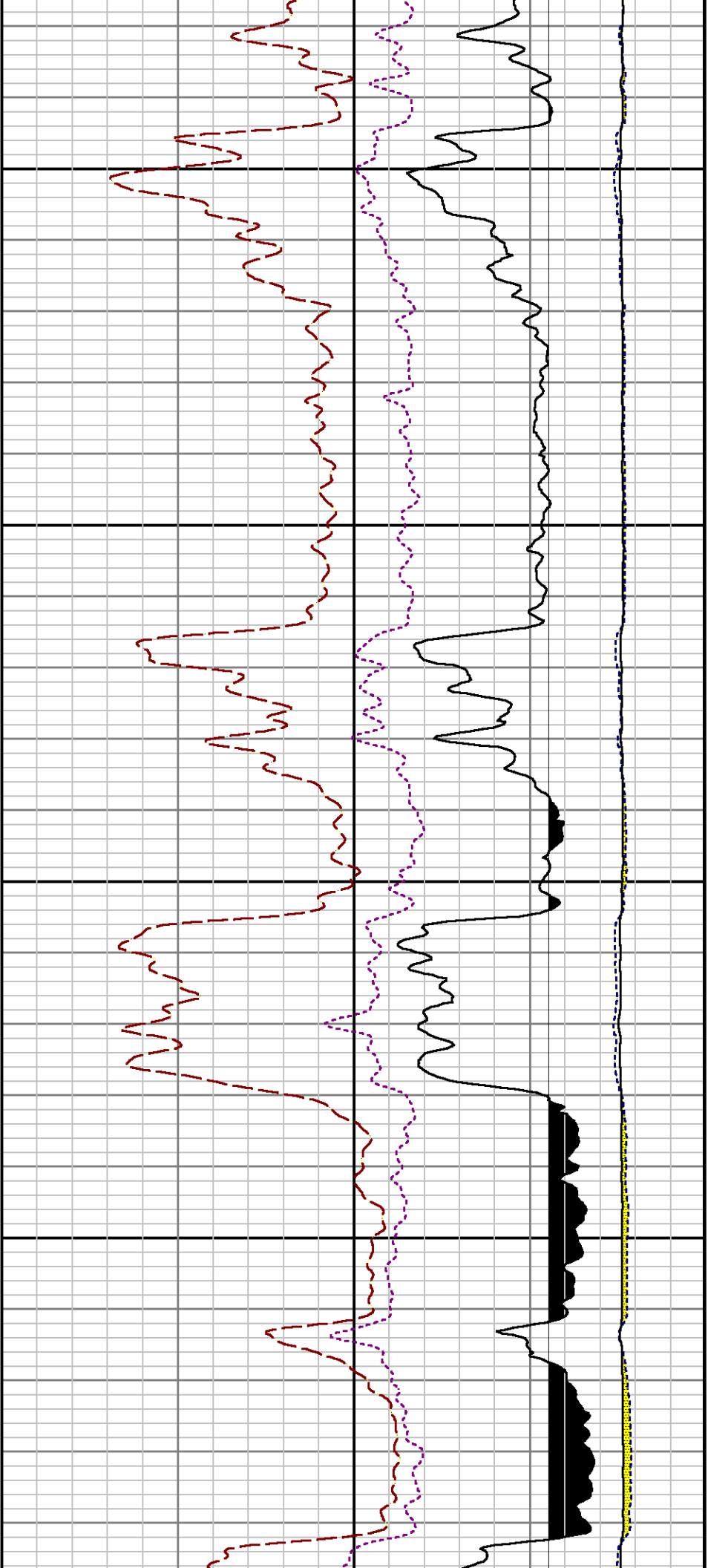
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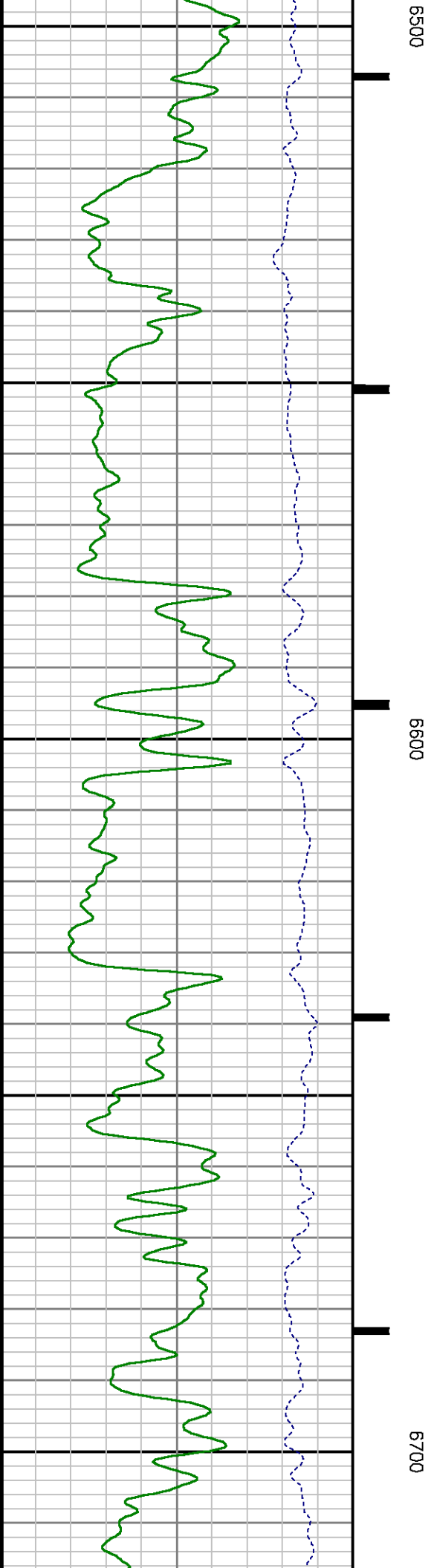
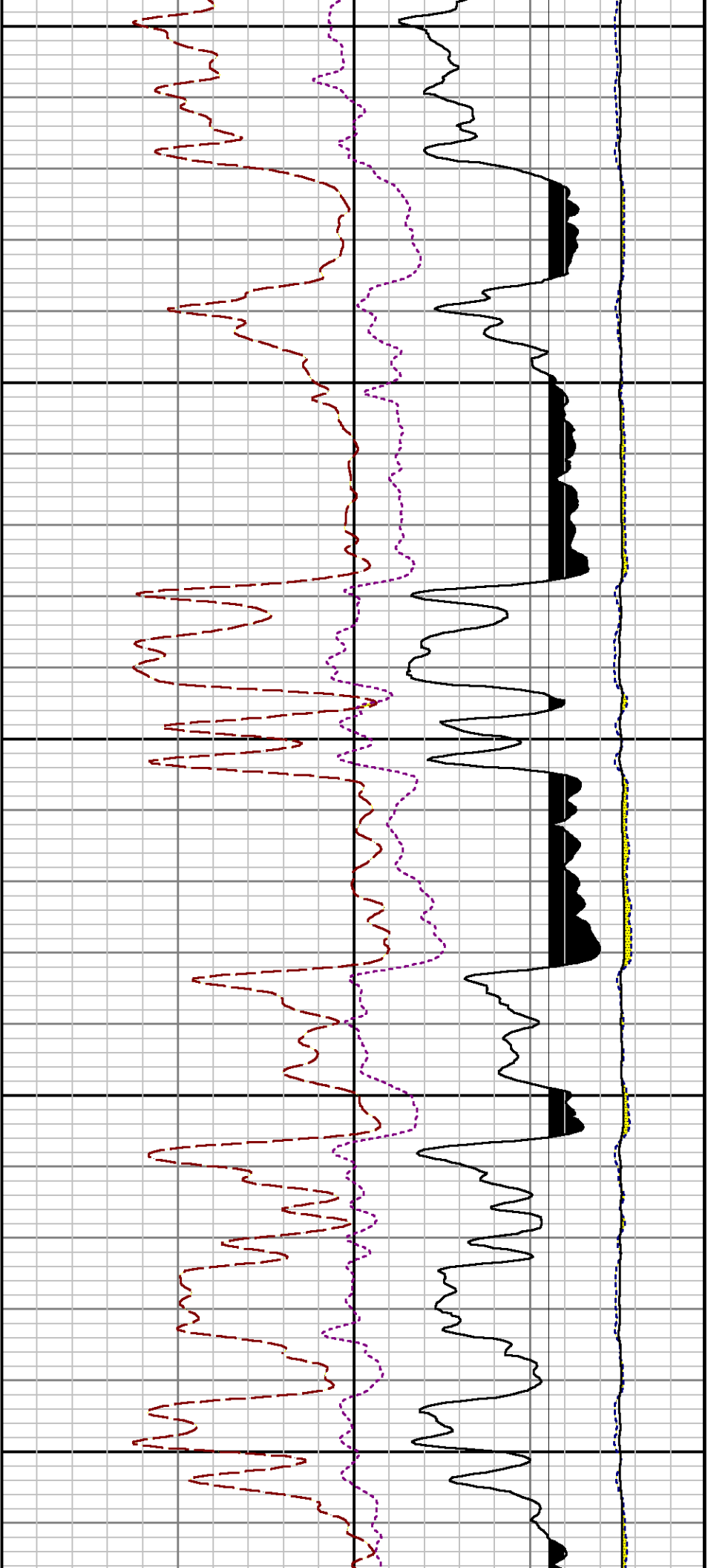
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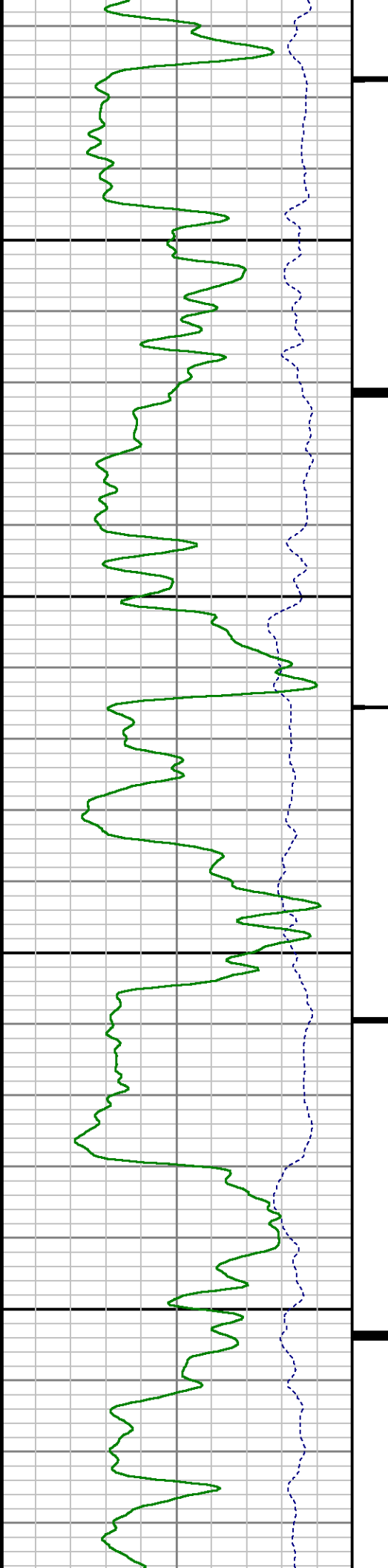
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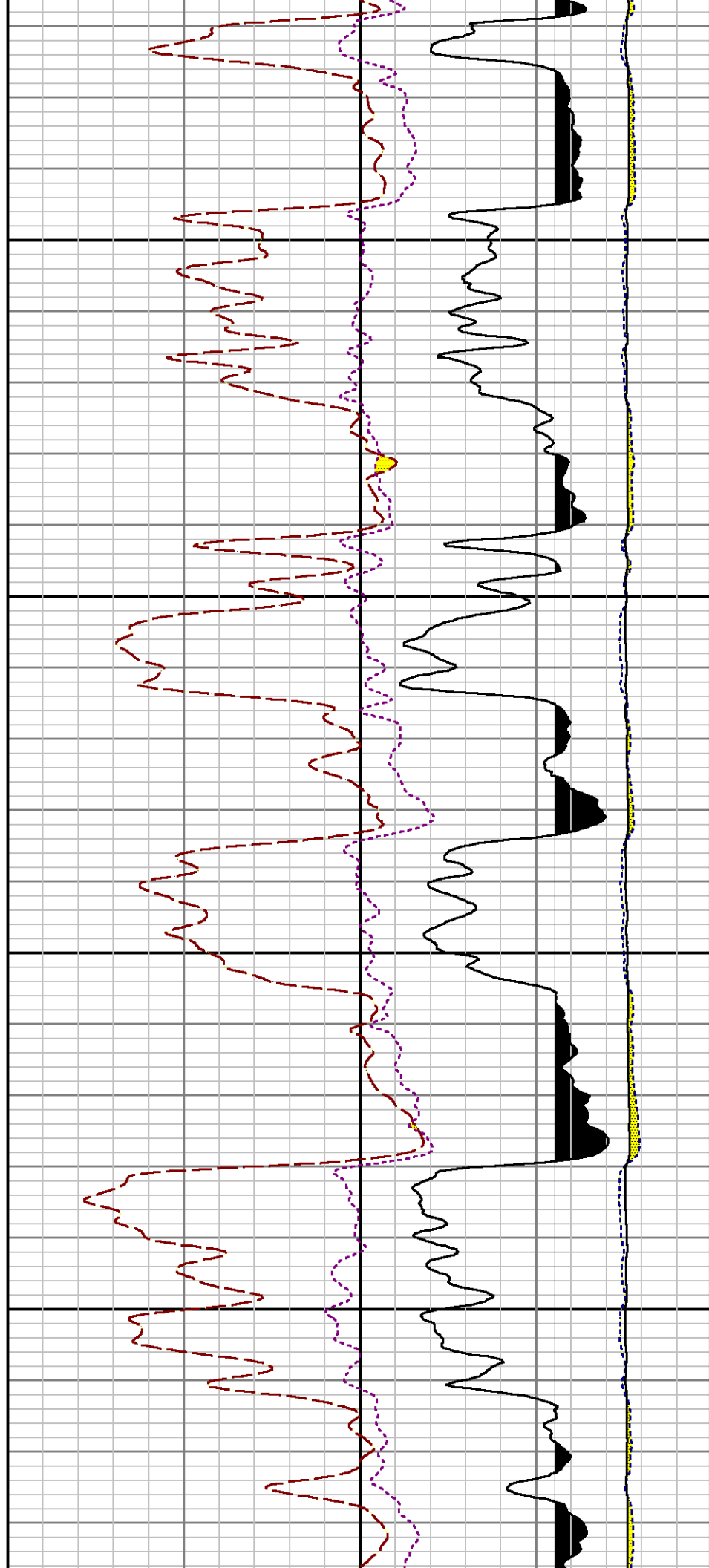


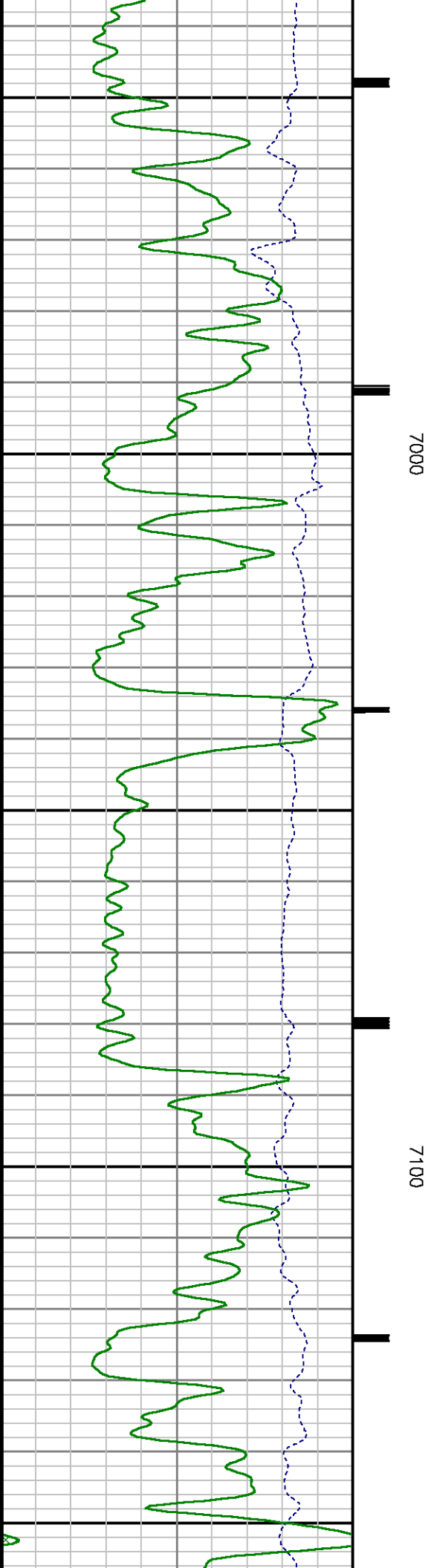
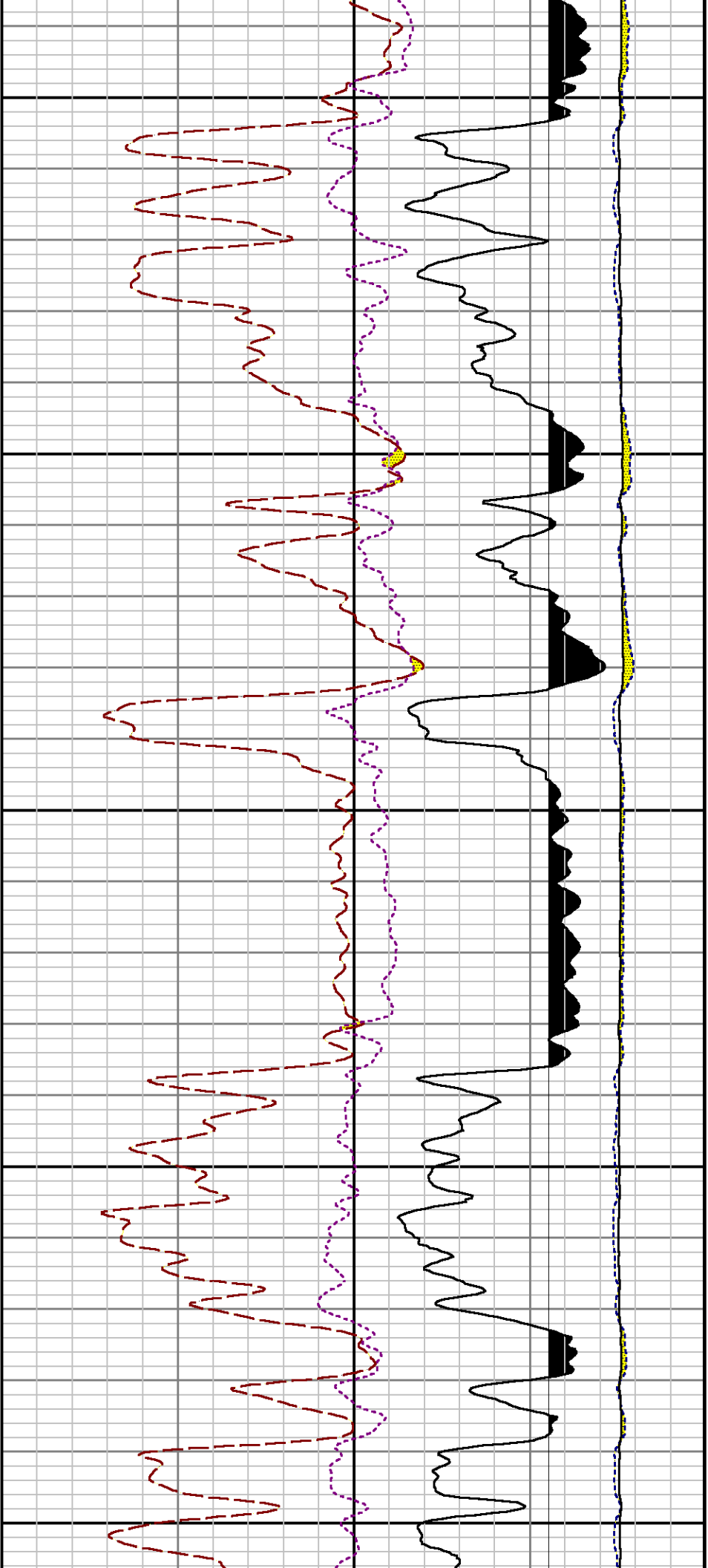




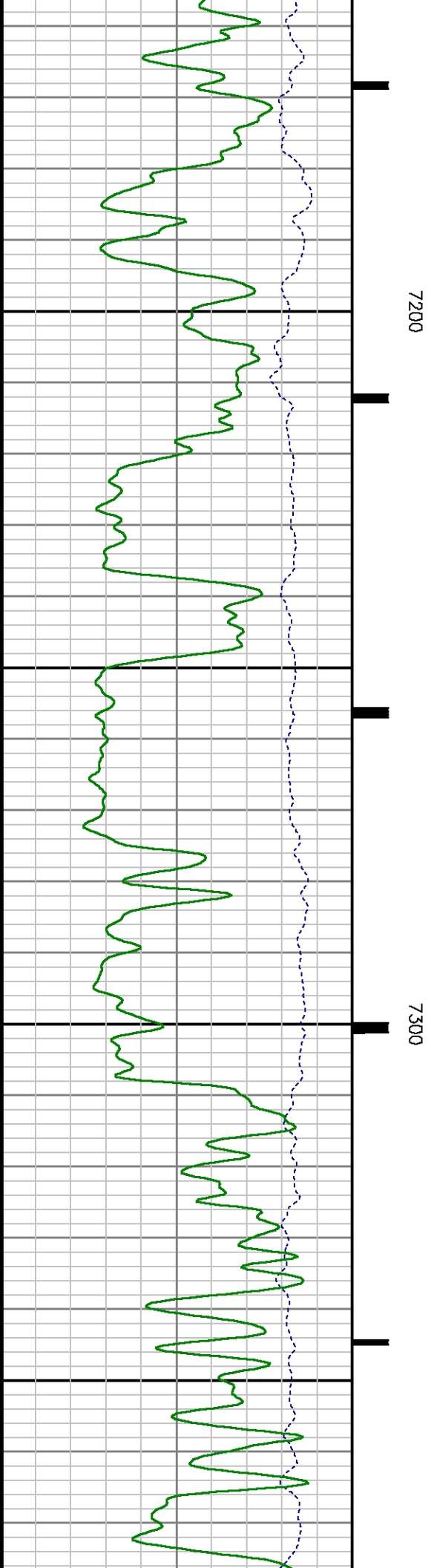
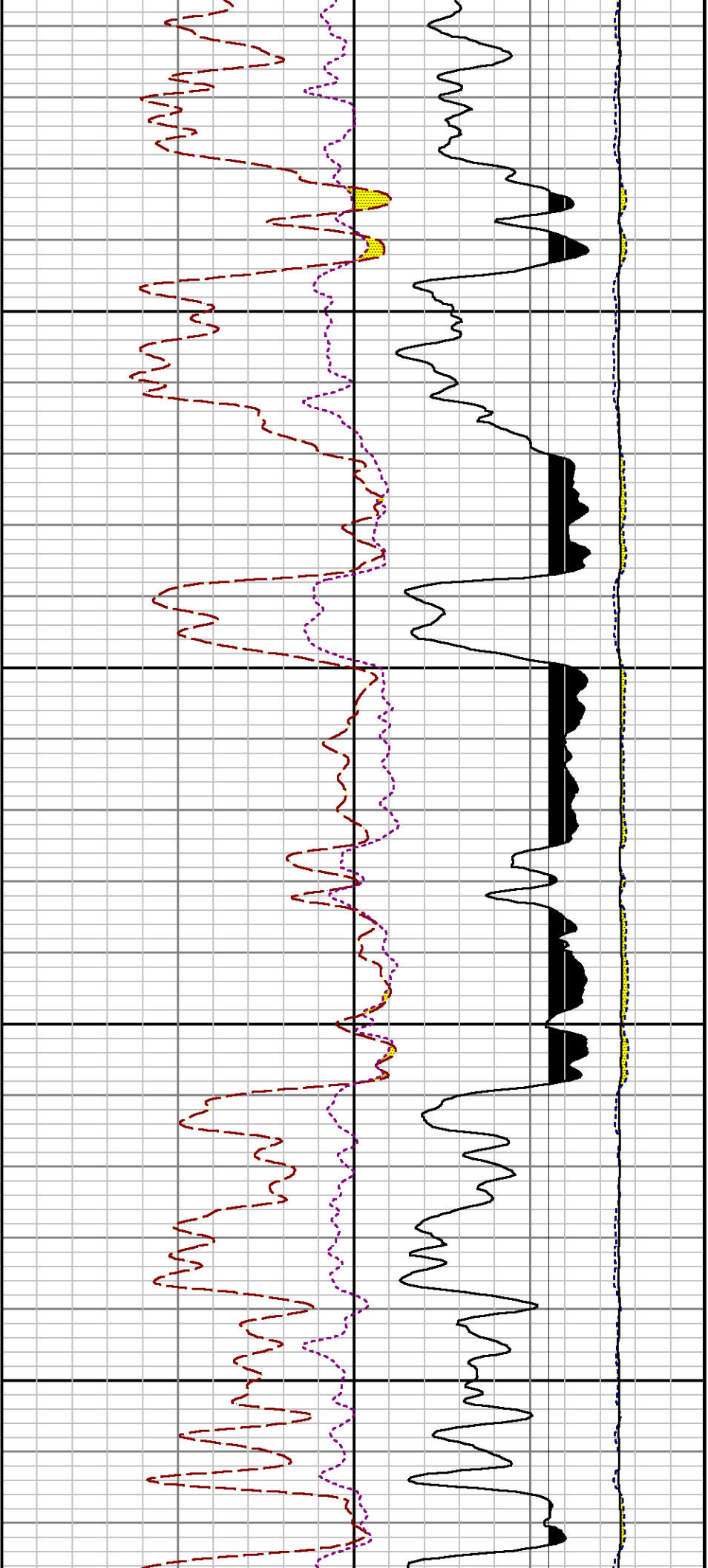
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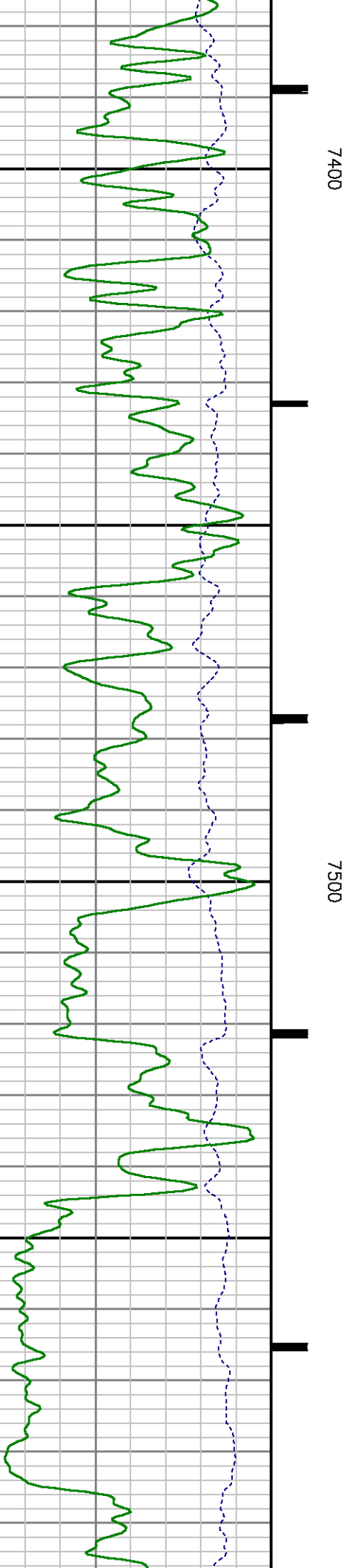
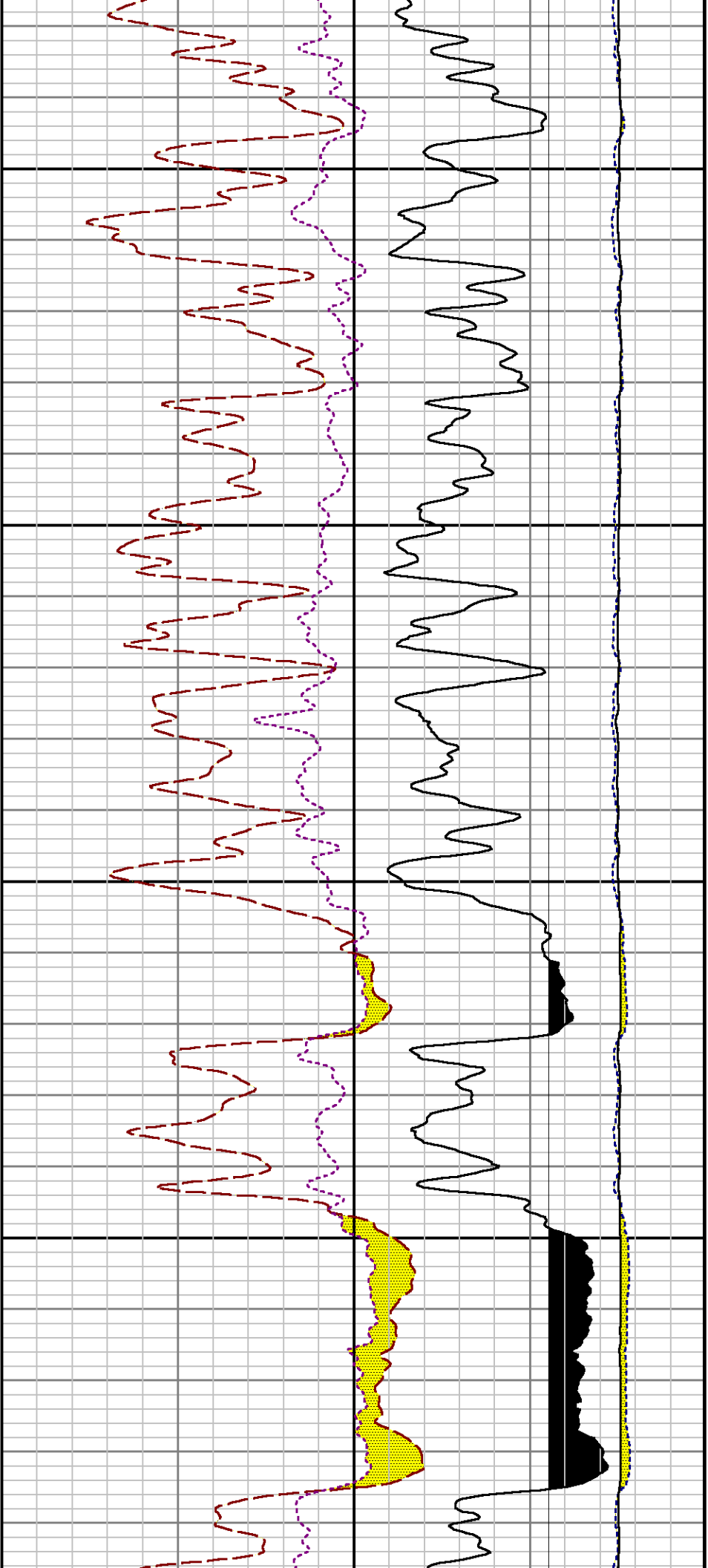
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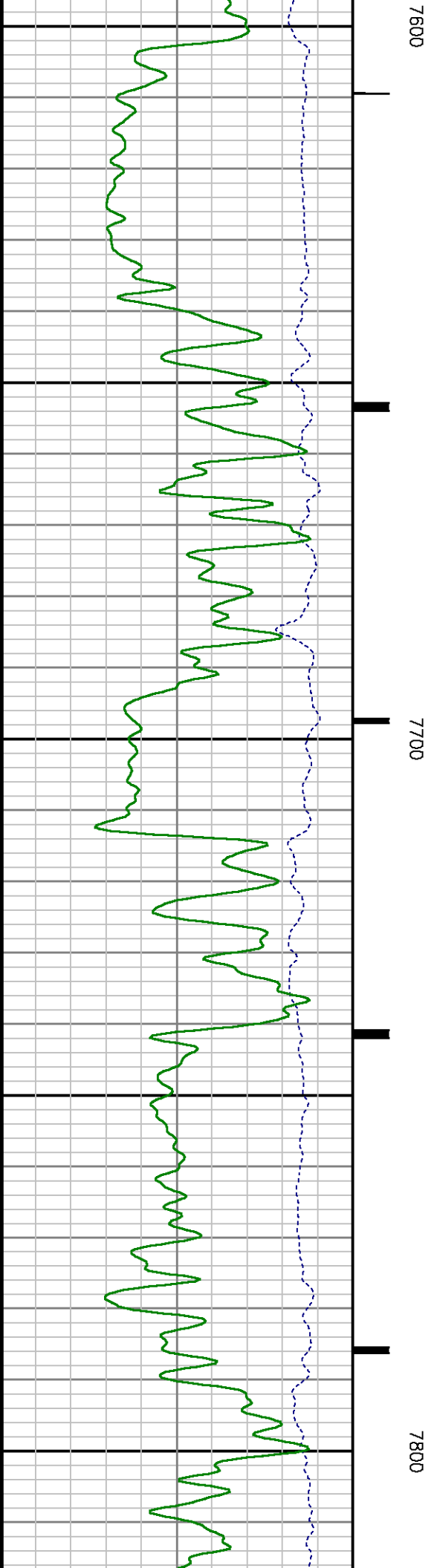
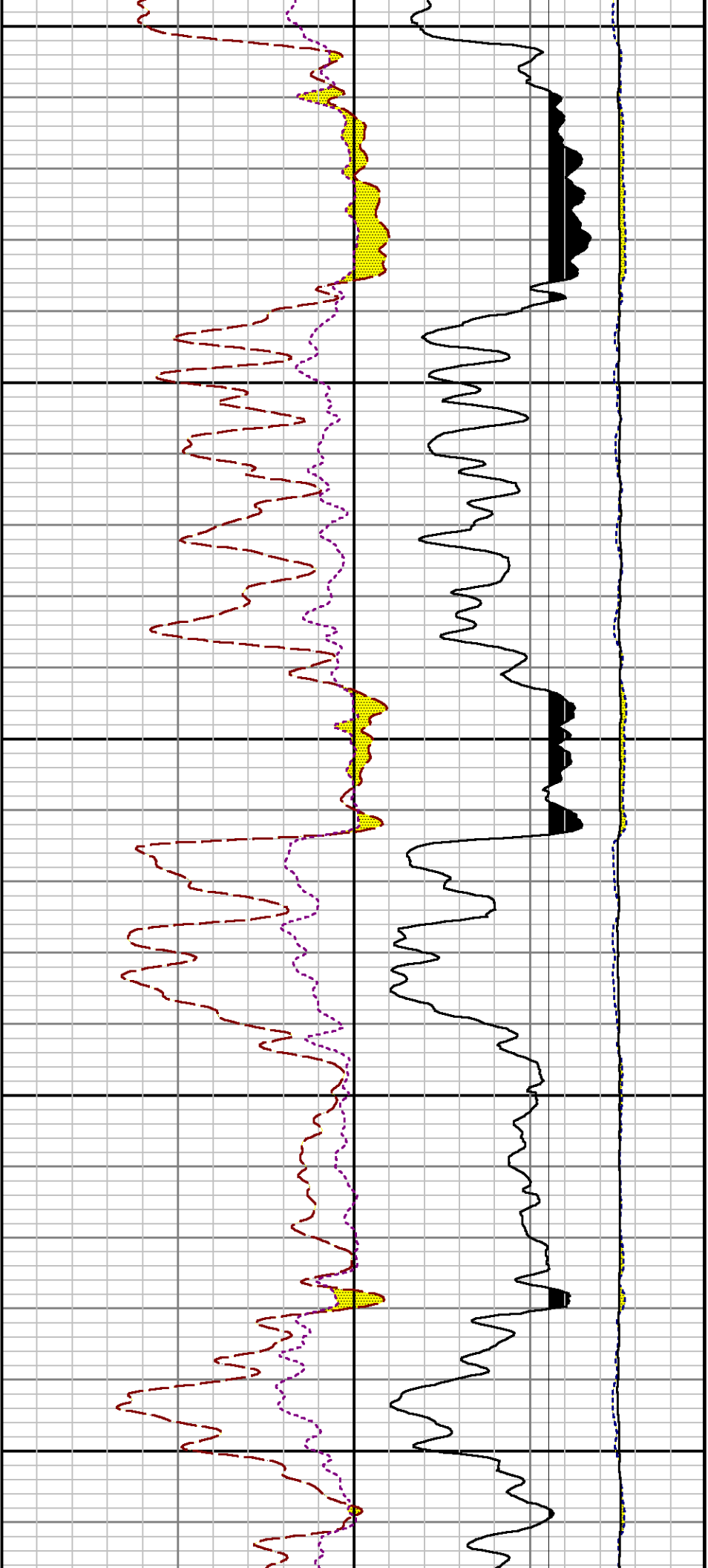


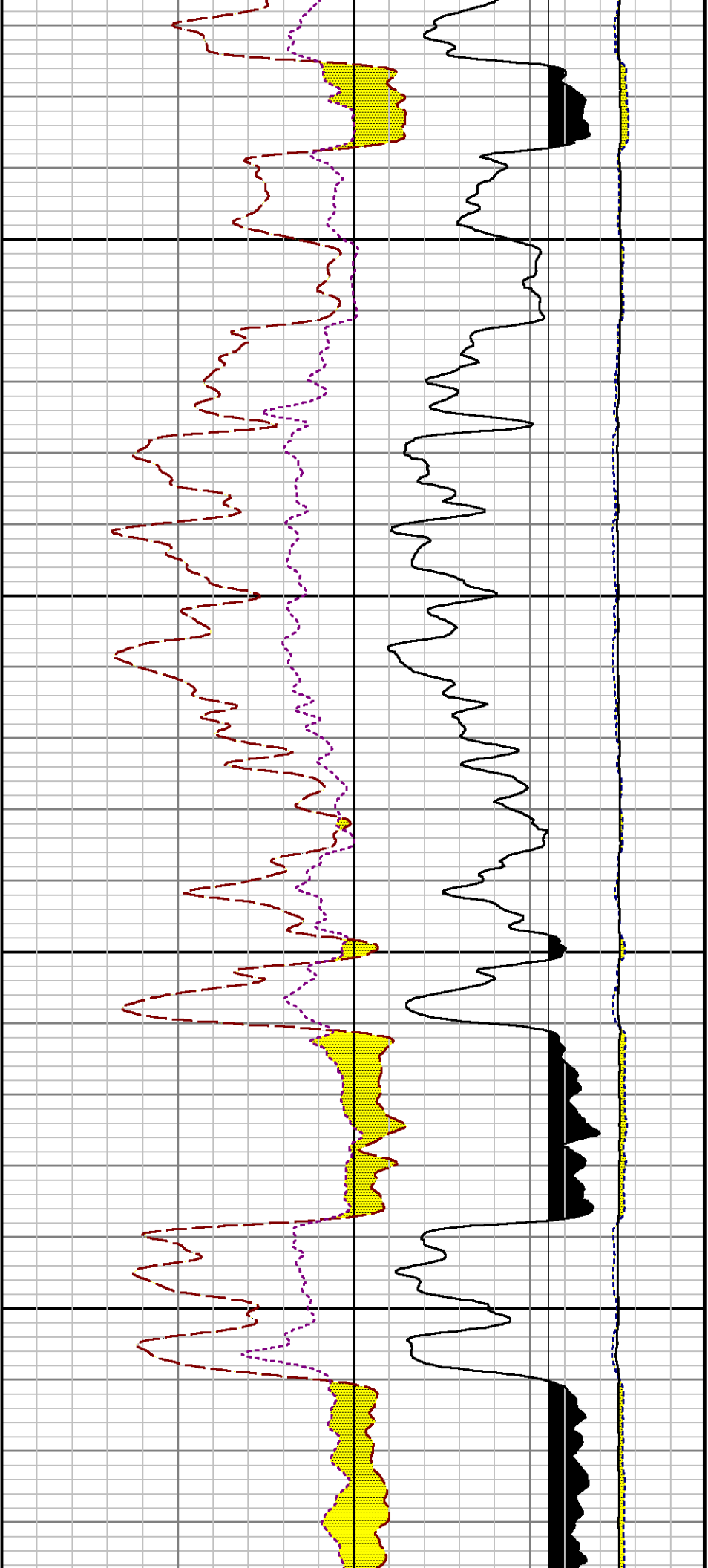






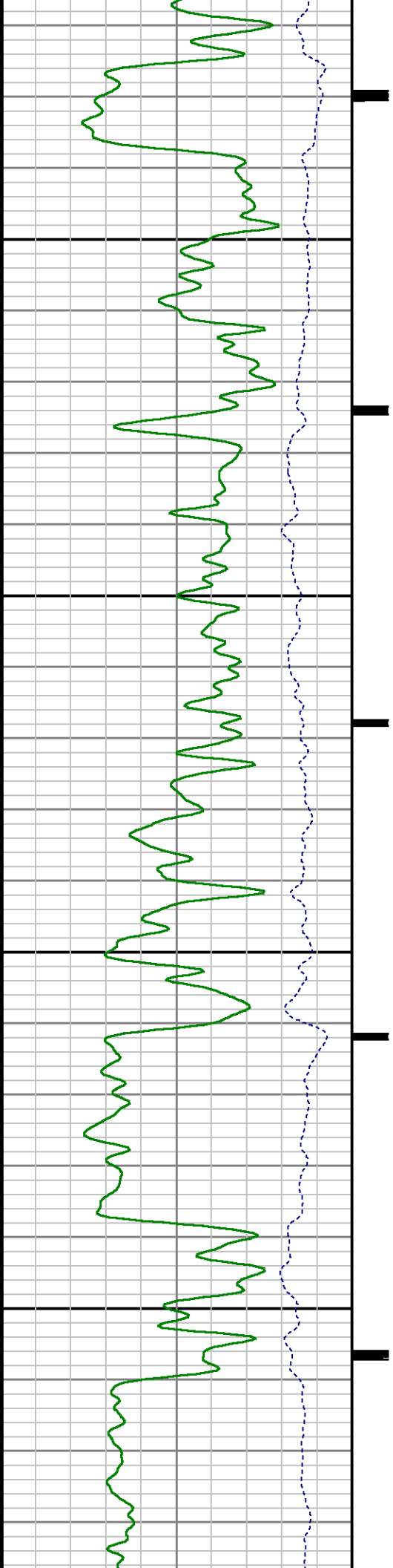


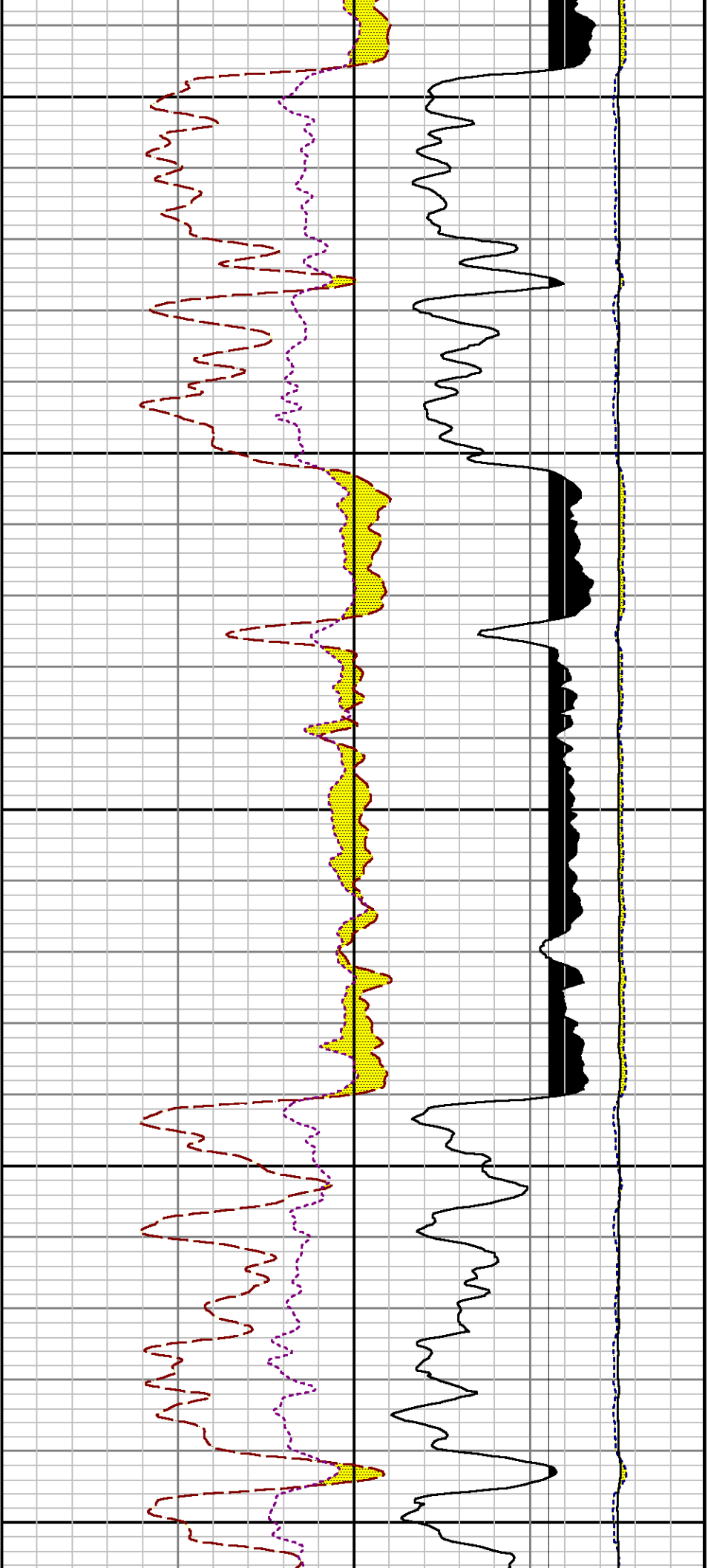




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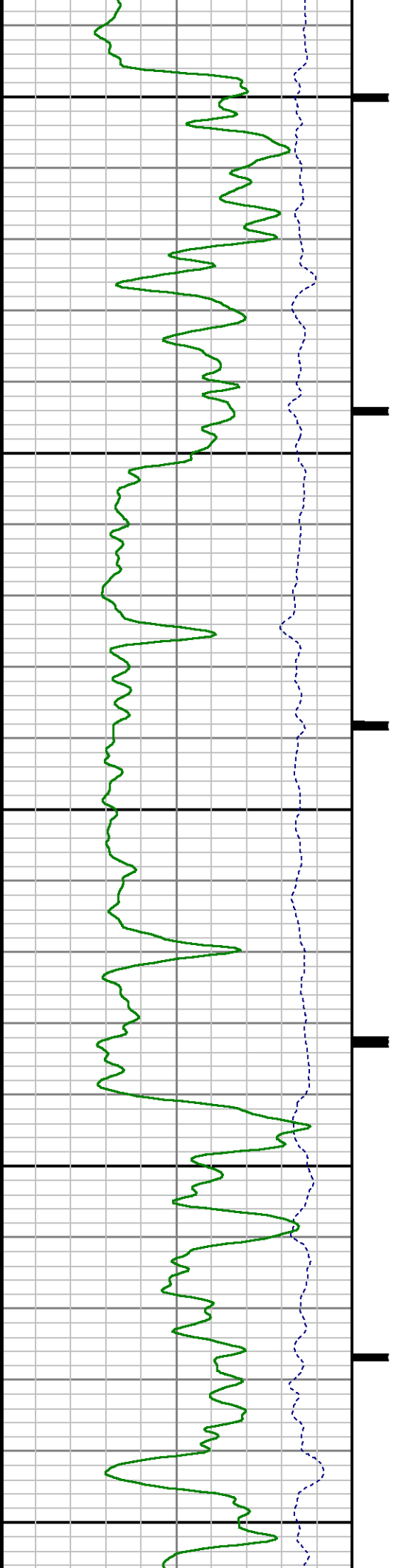
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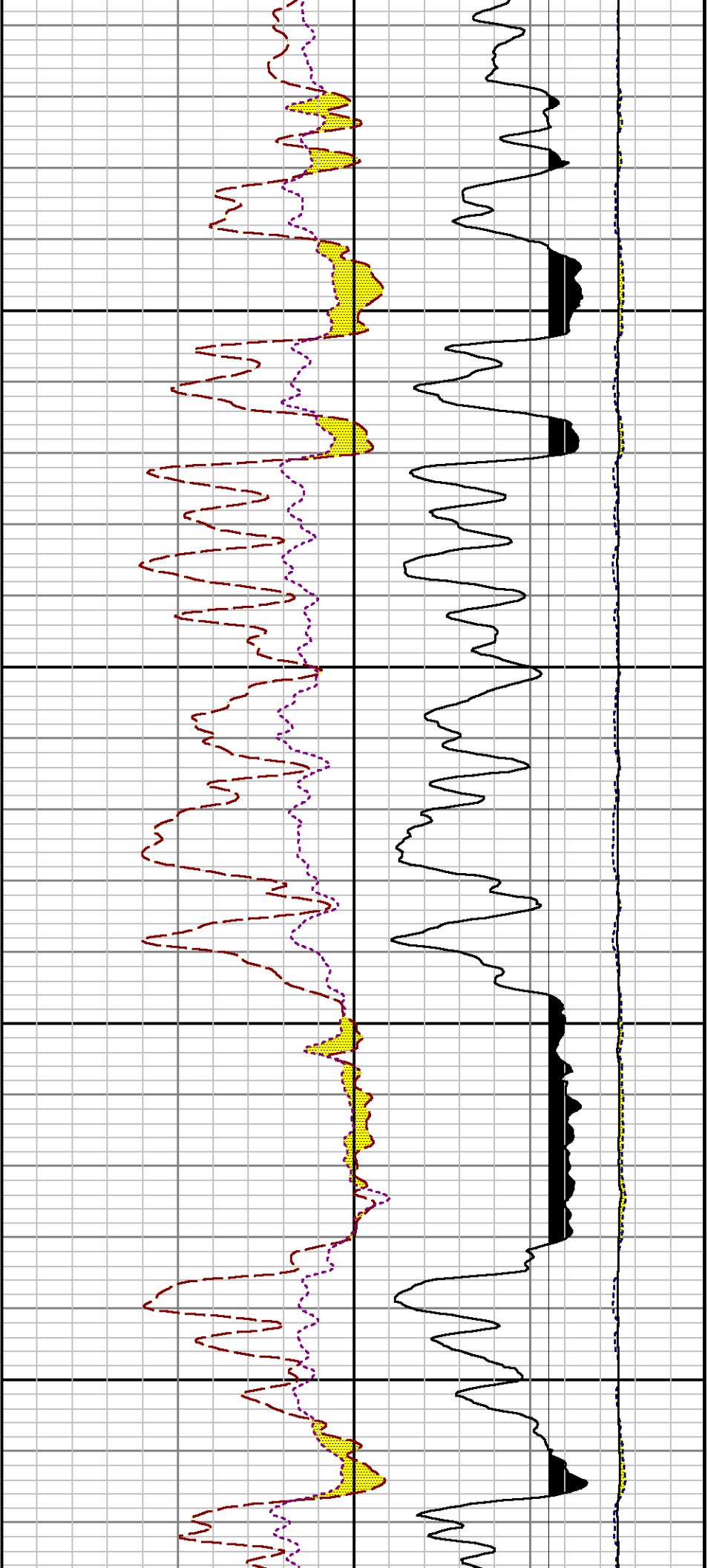




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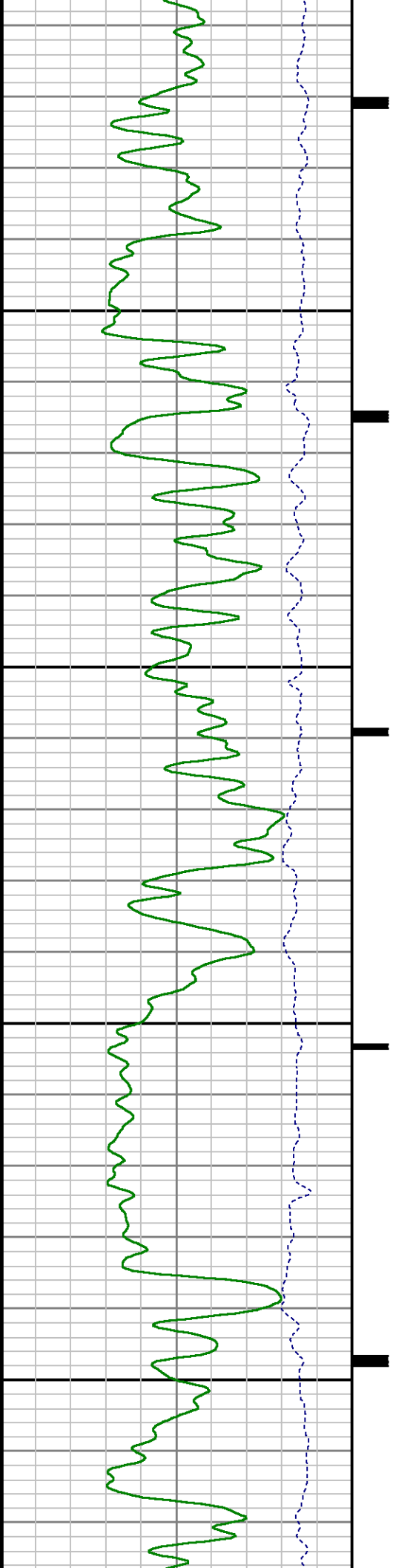
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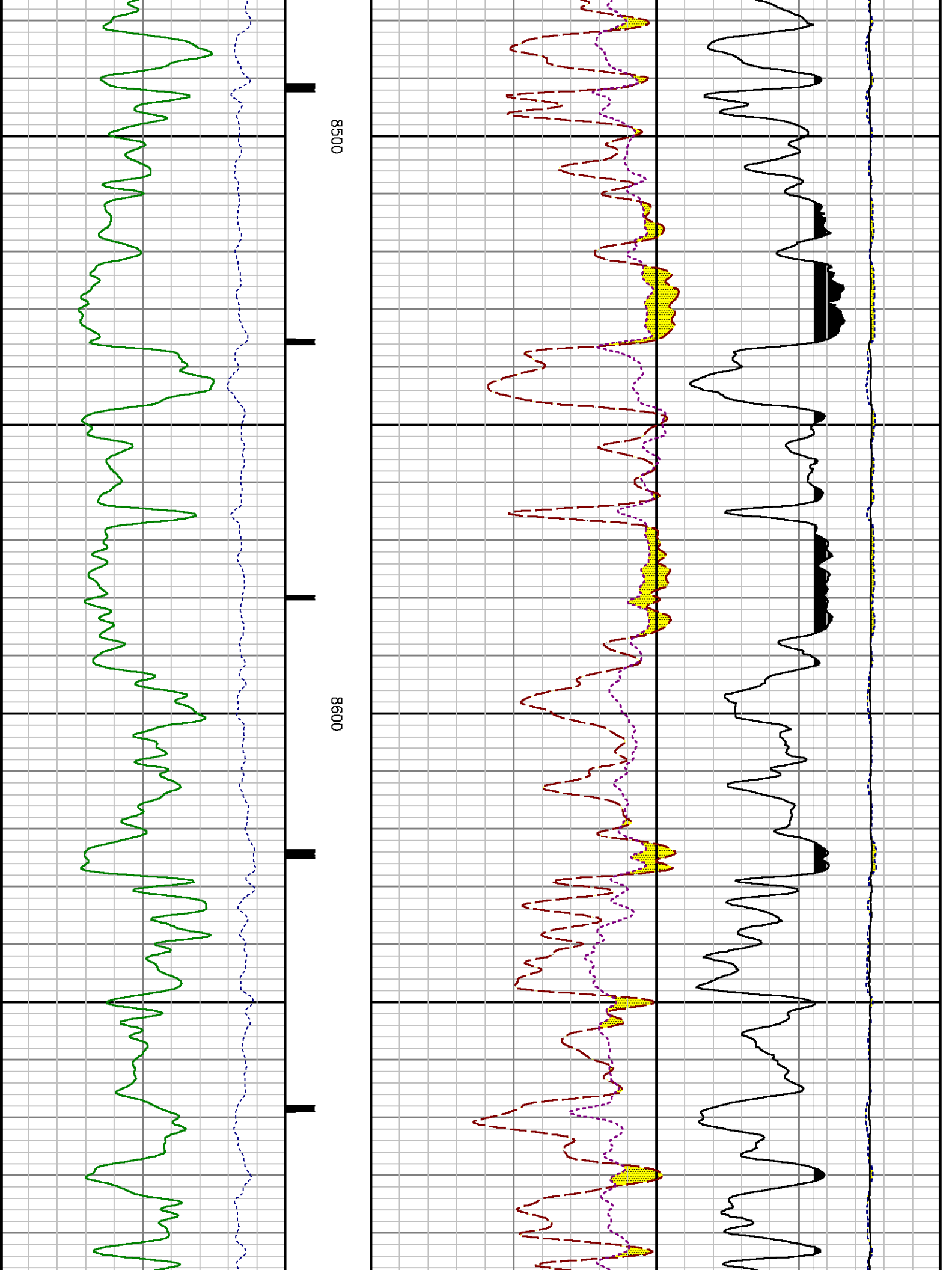


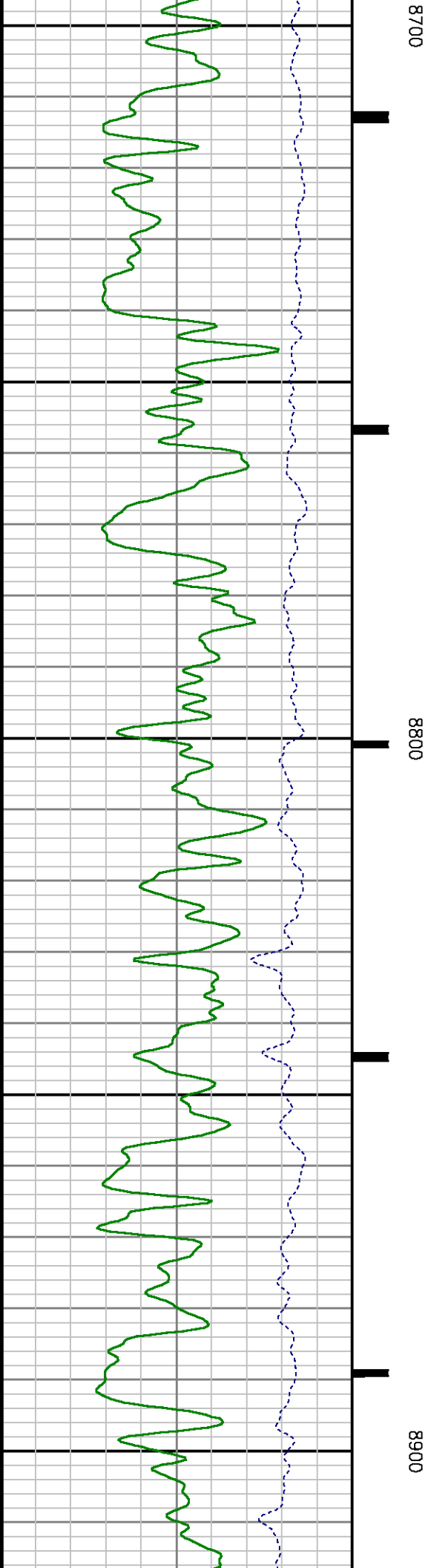
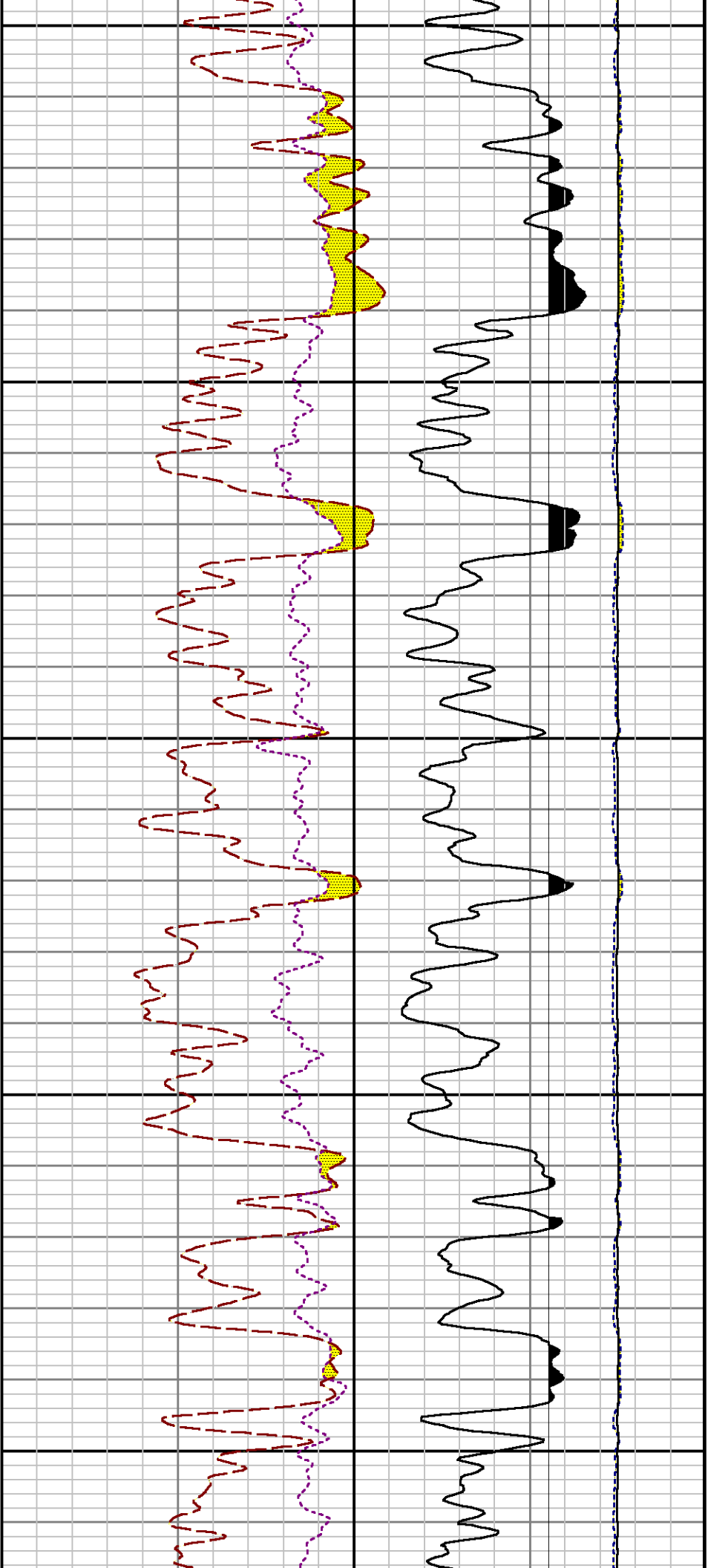


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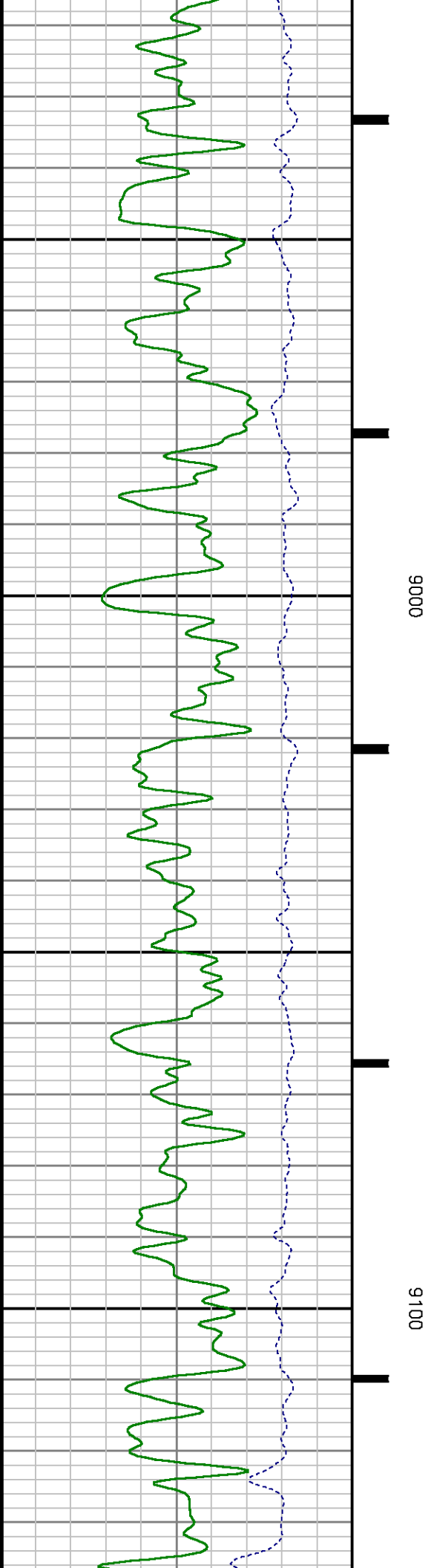
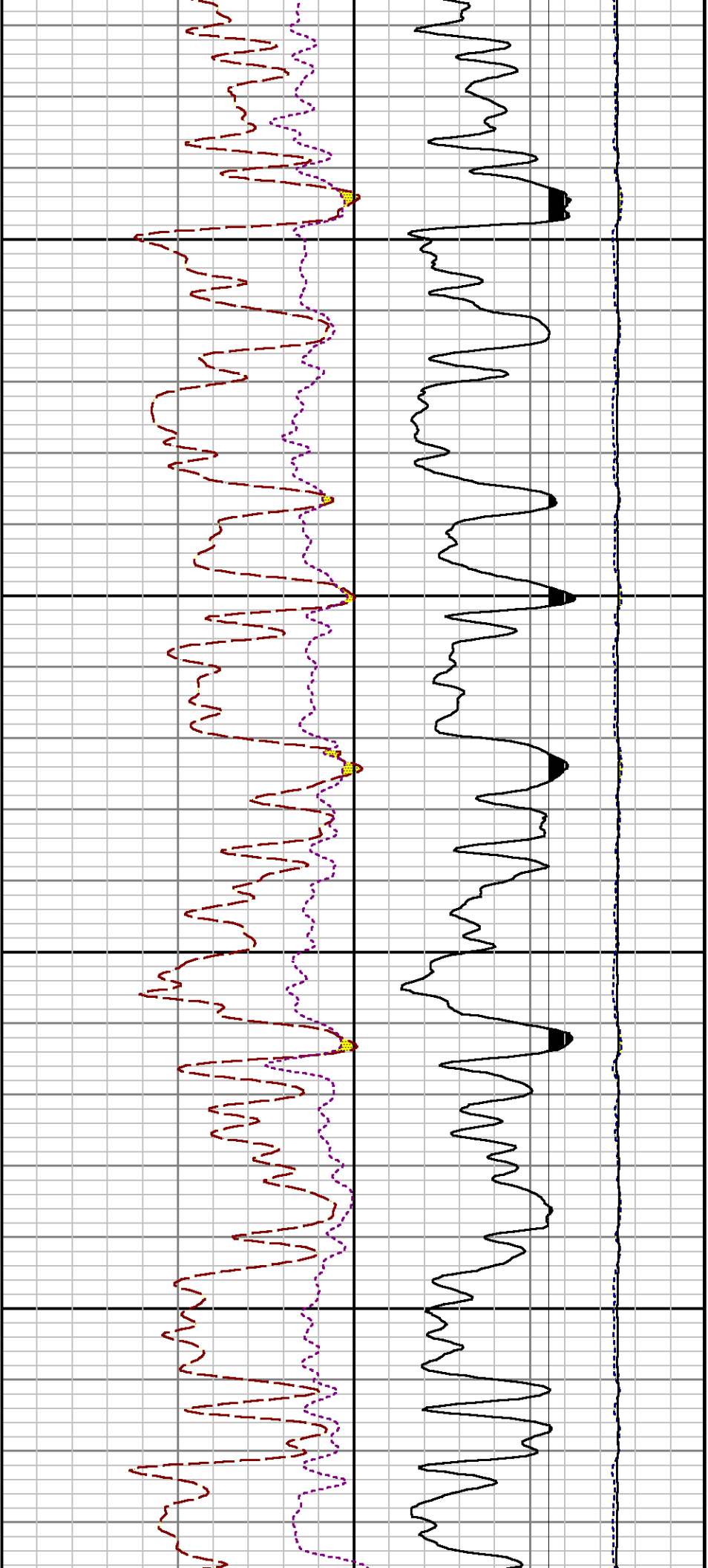
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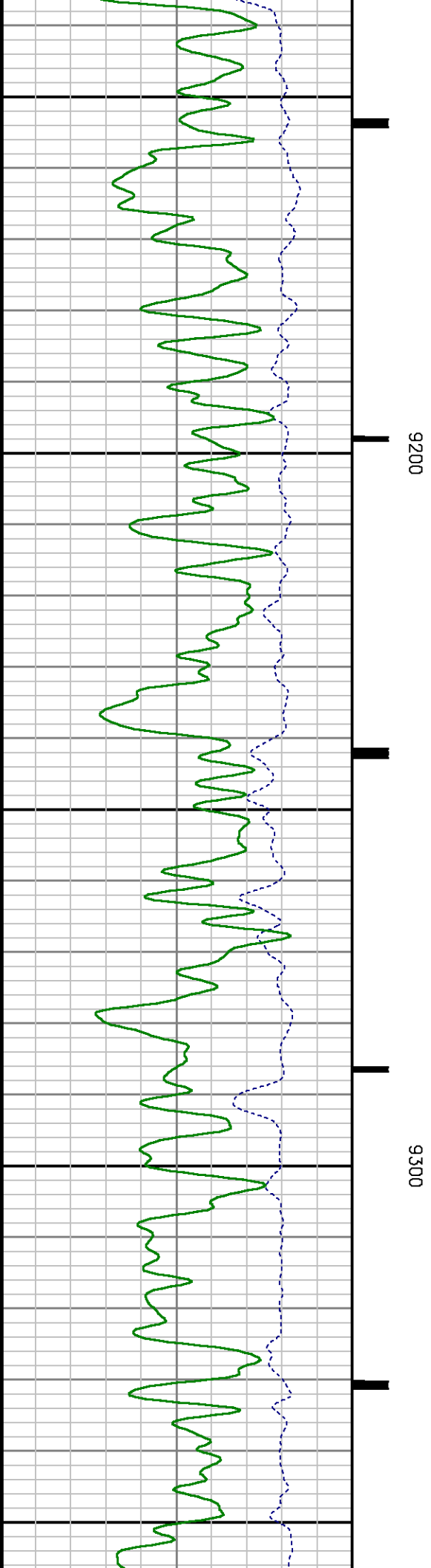
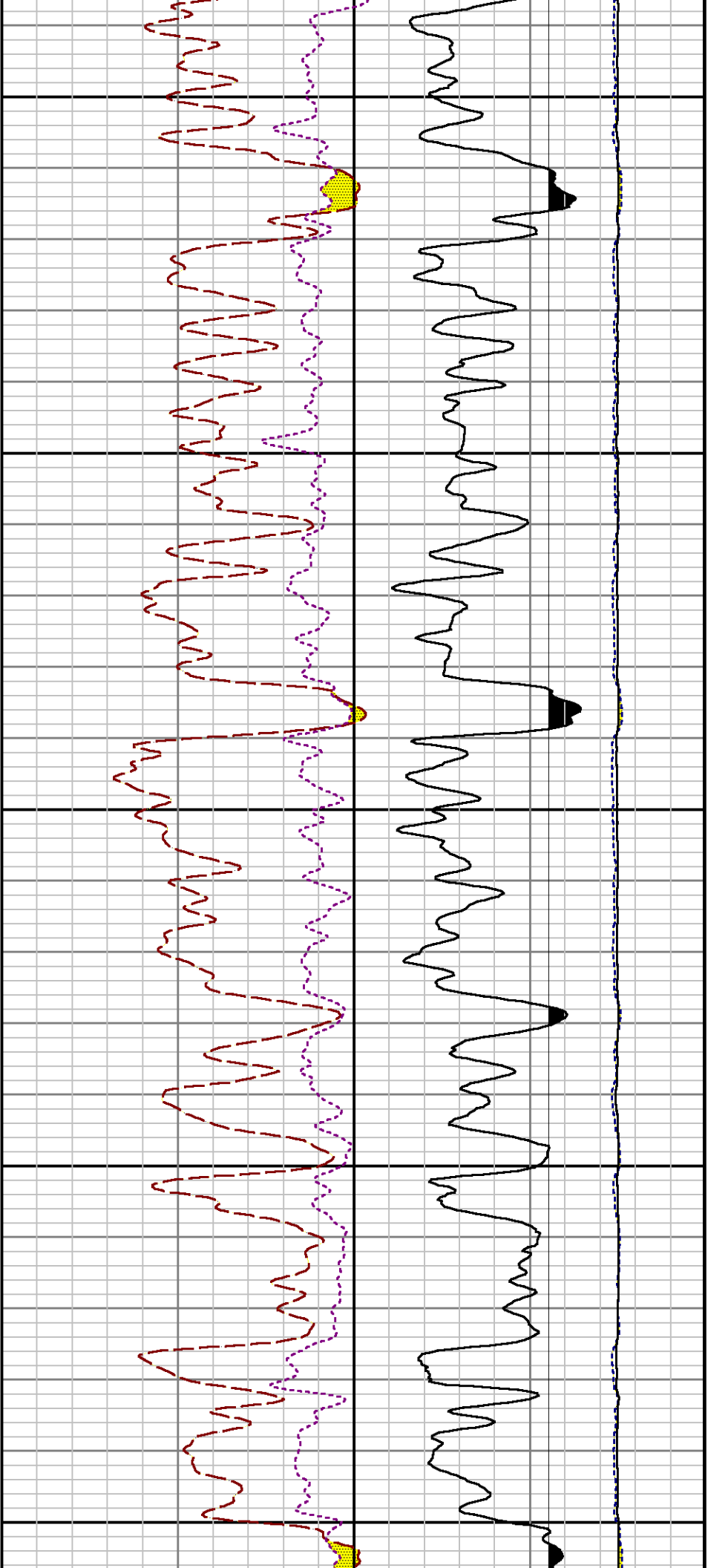


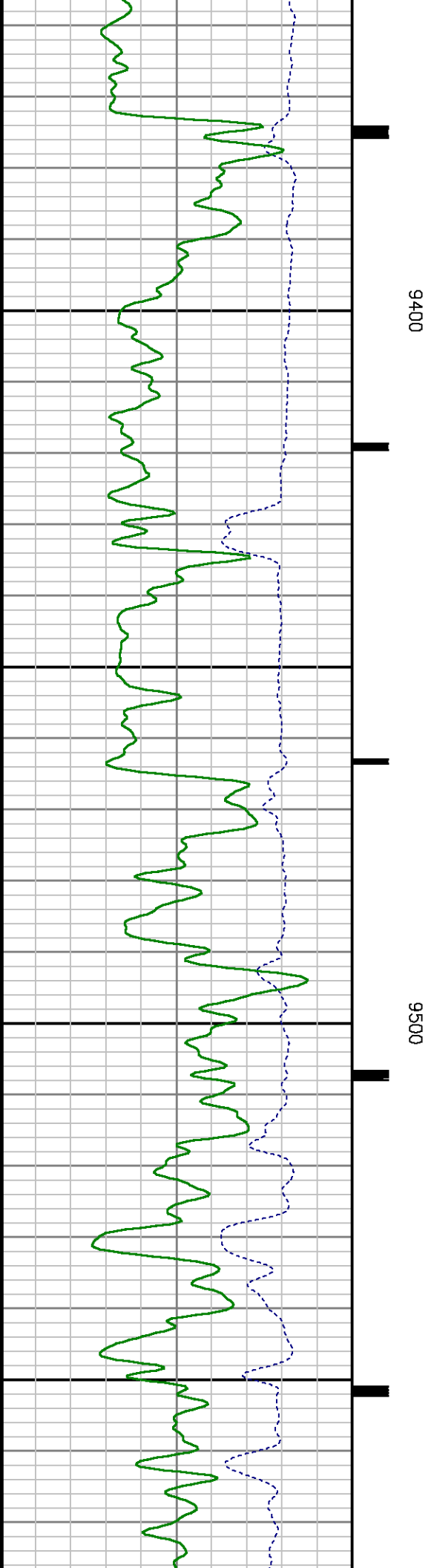
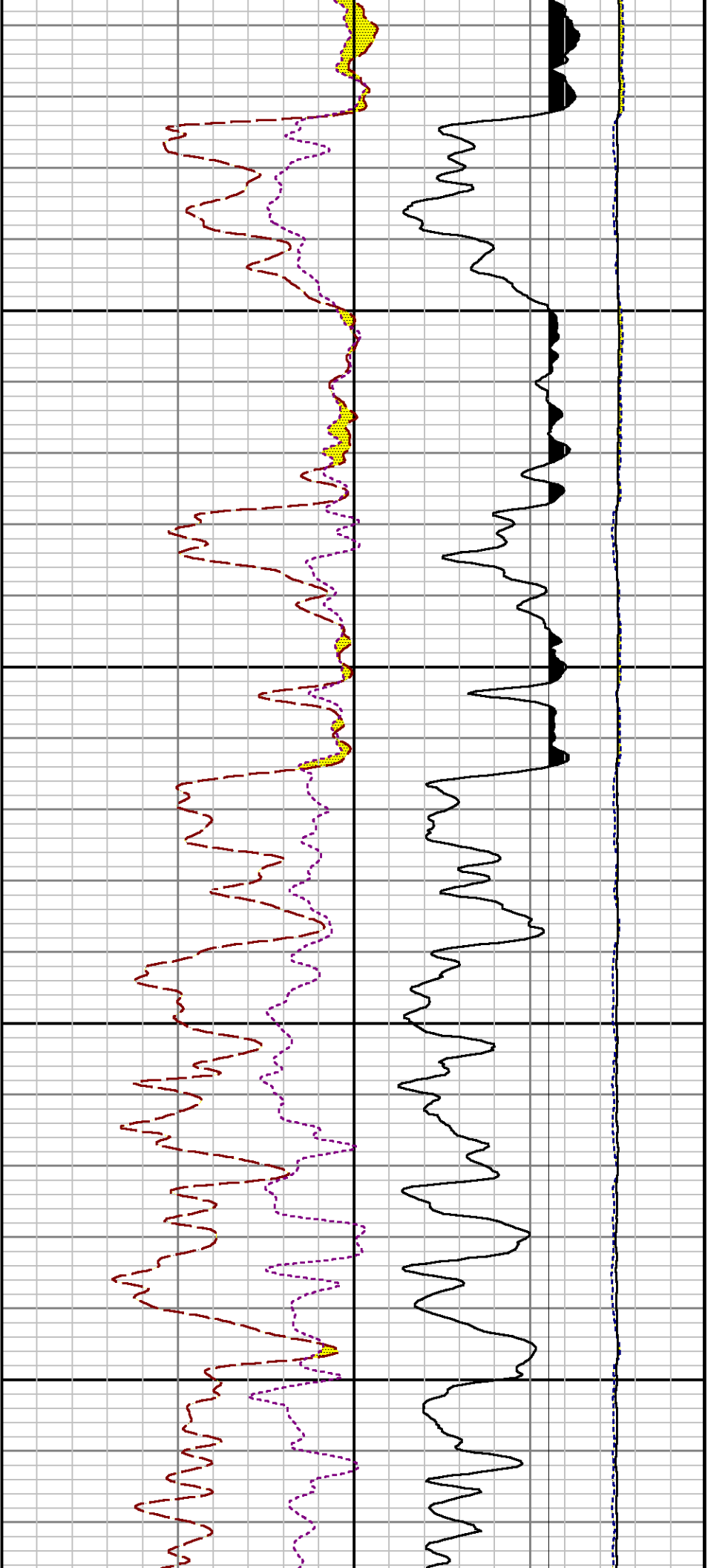


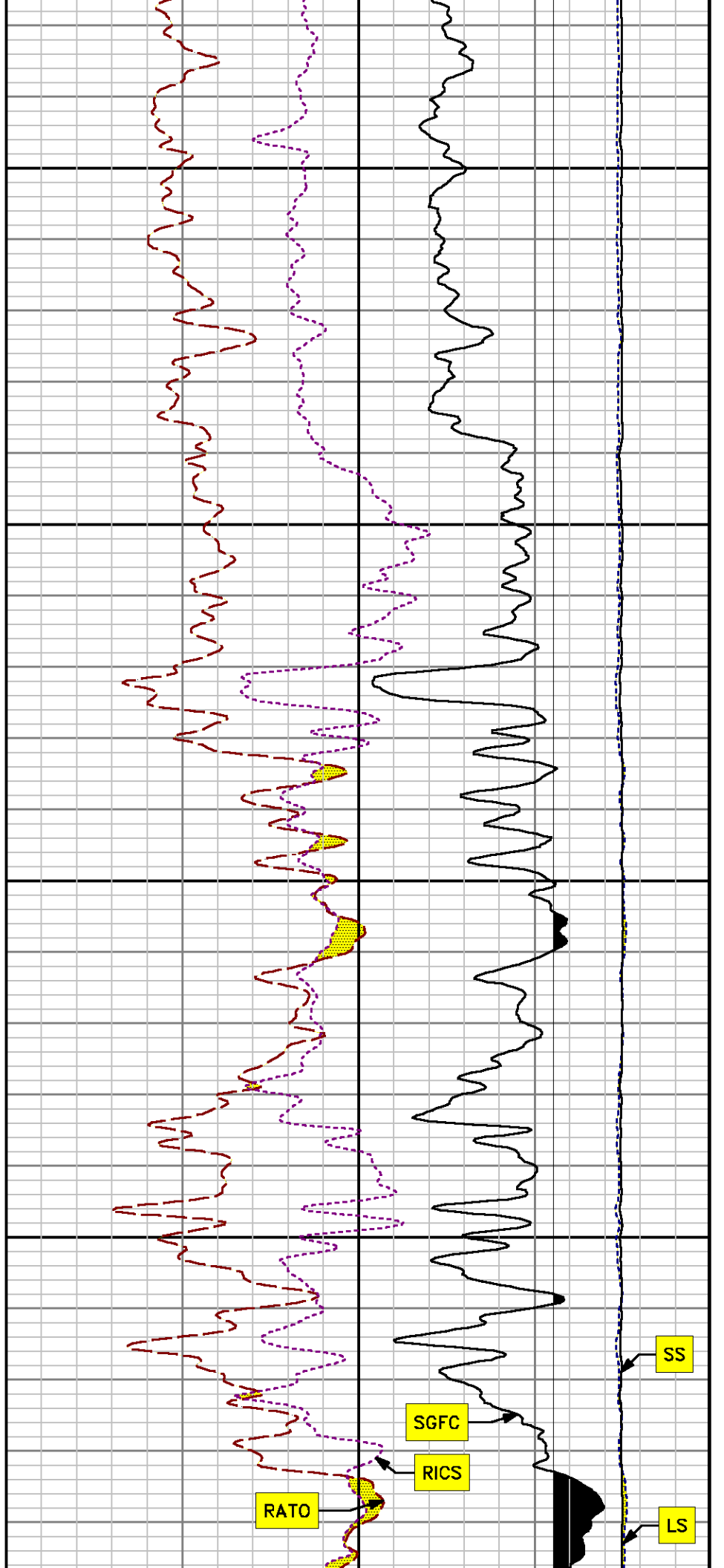
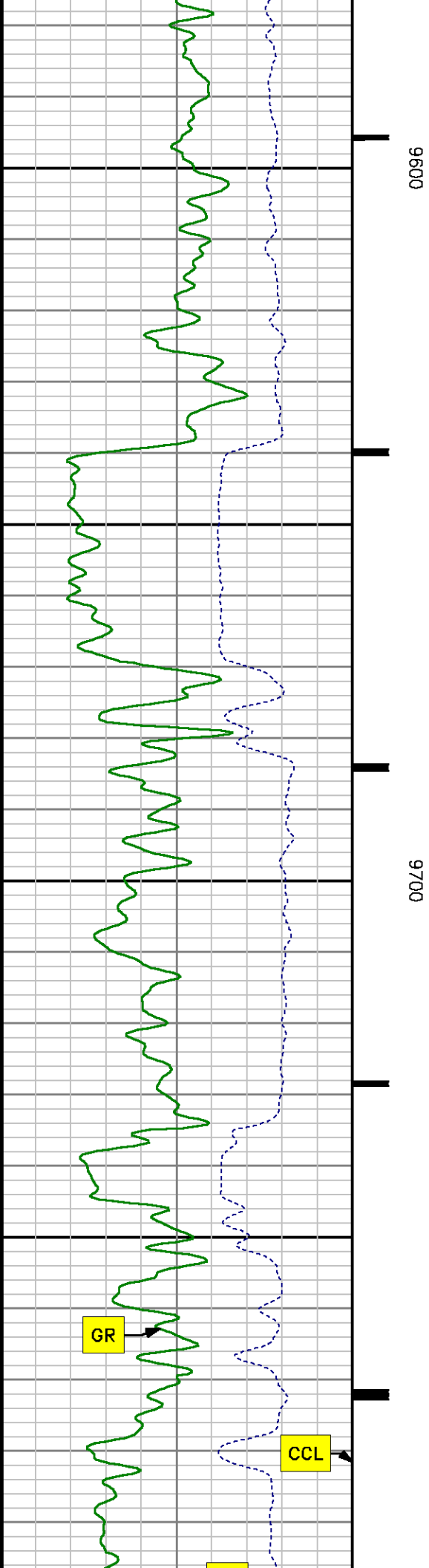


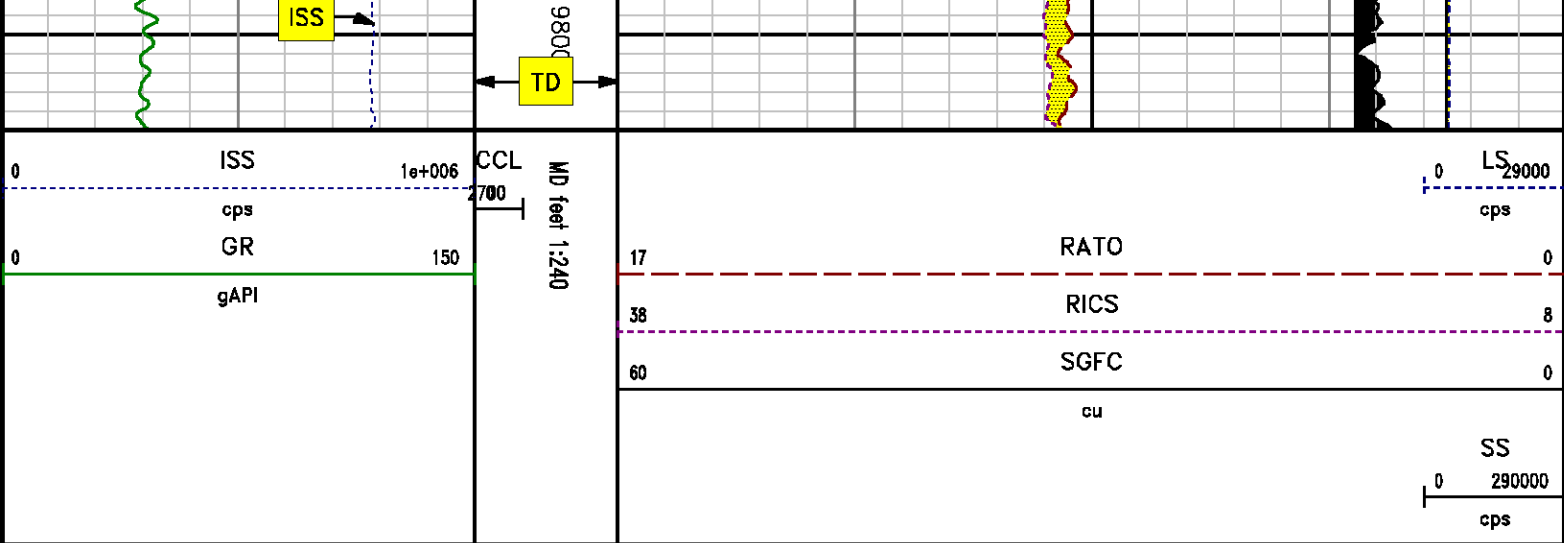












## *REPEAT SECTION PNC 3-D MODE*

### SPL PROCESSING

| MEASUREMENT TYPE | PARAMETER     | VALUE          | UNITS | TOP      | BOTTOM   |
|------------------|---------------|----------------|-------|----------|----------|
| PNC Porosity     | Borehole      | Cased          |       | 8928.348 | 9249.000 |
| PNC Porosity     | Borehole Size | 8.750          | inch  | 8928.348 | 9249.000 |
| PNC Porosity     | Casing Size   | 4.500          | inch  | 8928.348 | 9249.000 |
| PNC Porosity     | Gas Filled    | Non Gas Filled |       | 8928.348 | 9249.000 |
| PNC Porosity     | Matrix        | Sandstone      |       | 8928.348 | 9249.000 |

### DEPTH OFFSETS (for Acquired Curves)

| SERIES | DEPTH OFFSET | ACQUIRED CURVES |        |        |        |      |        |
|--------|--------------|-----------------|--------|--------|--------|------|--------|
| 8248ED | -14.478      | FLTM            |        |        |        |      |        |
| 8248ED | -12.478      | CCL             | CHV    |        |        |      |        |
| 2812LA | -9.928       | 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  |
|        |        | R1CX    | R1N13C  | R1N23  | R1N23C | SD3D   | SG3D    |
|        |        | SGB3    | SGF3    | WDTH3  | CXSR   | IXSR   | XSR     |
|        |        | R1CXR   |         |        |        |        |         |
| 8281XA | -0.250 | HVC2Q0  | SEQ2    | AMA2   | AMB2   | AMF2   | AML2    |
|        |        | BKL     | CHF2    | CLS    | CPT2Q0 | CPT2Q2 | CPT2Q3  |
|        |        | CPT2Q4  | ET2     | ILS    | LS     | MCS2   | MCS2Q0  |
|        |        | QCAL2   | RGN2    | R1CL   | RONE23 | RTW023 | SDA2    |
|        |        | SDL2    | SGA2    | SGB2   | SGF2   | SGK2   | SGL2    |
|        |        | STA2    | ASPEC2  | ILSC   | ILSN   | WDTH2  | R1CLC   |
|        |        | CLSR    | ILSR    | LSR    | R1CLR  |        |         |
| 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    | R1CS   | R1N    | RONE   | RPOR    |
|        |        | RTW0    | R1N13   | 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     | Q1A     | DERR   | DCNT   | QPK1   | QSA1    |
|        |        | PKS1    | ASPEC1  | HOC    | FE2XC  | ISSC   | RINC    |
|        |        | ISSN    | RDEN    | WDTH1  | R1CSC  | CSSR   | G1R     |
|        |        | G2R     | ISSR    | SSR    | SS2R   | RATOR  | RAT013R |
|        |        | RBORR   | R1CSR   | R1NR   | R1N13R | RONER  | RPORR   |
|        |        | RTWOR   |         |        |        |        |         |
| SYSTEM | 0.000  | TEN     | TTEN    |        |        |        |         |

Created by : RPM9, v5.3.1.0

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

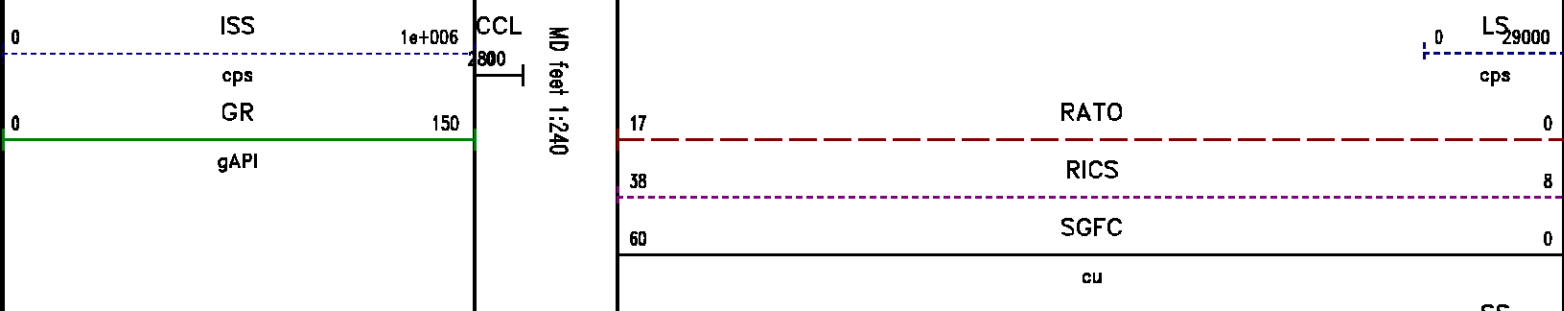
Well : FEDERAL PA 342-21

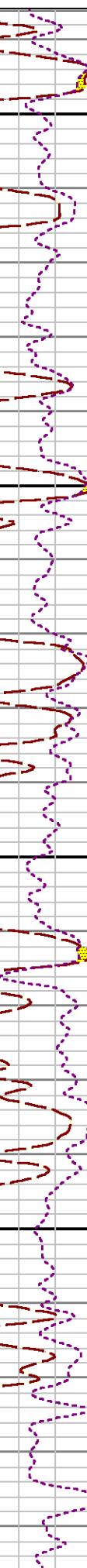
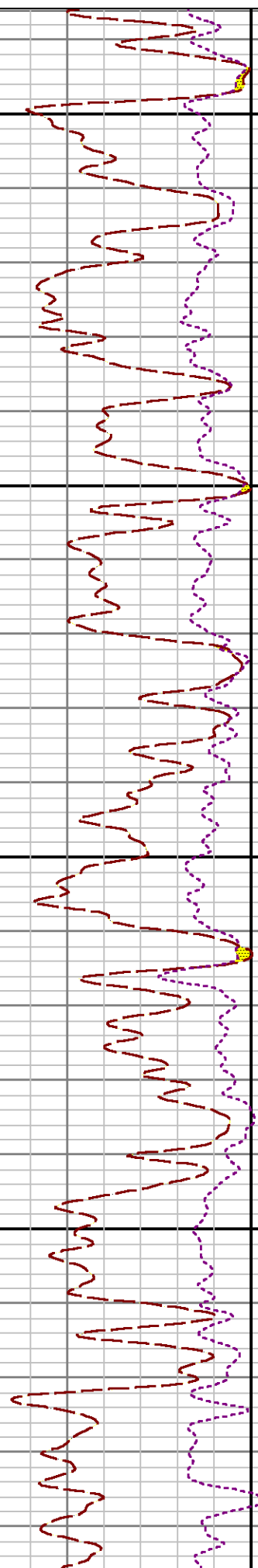
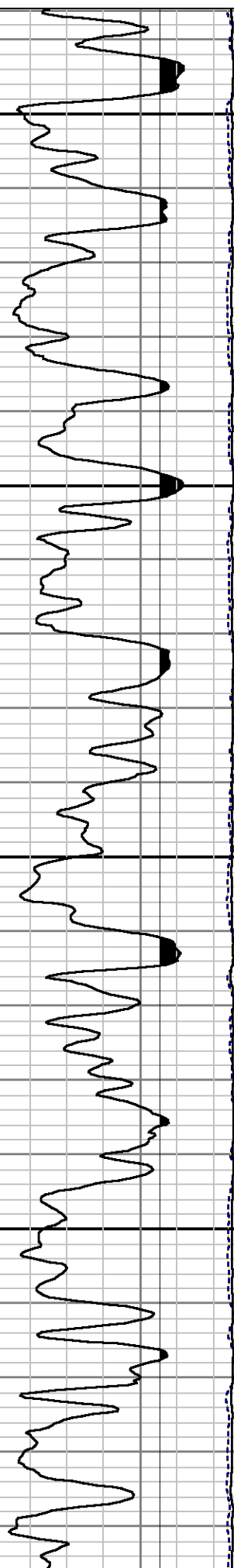
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Mode : PlotMgr 5.4.504

Interval : 8936.00 - 9240.00 feet UP

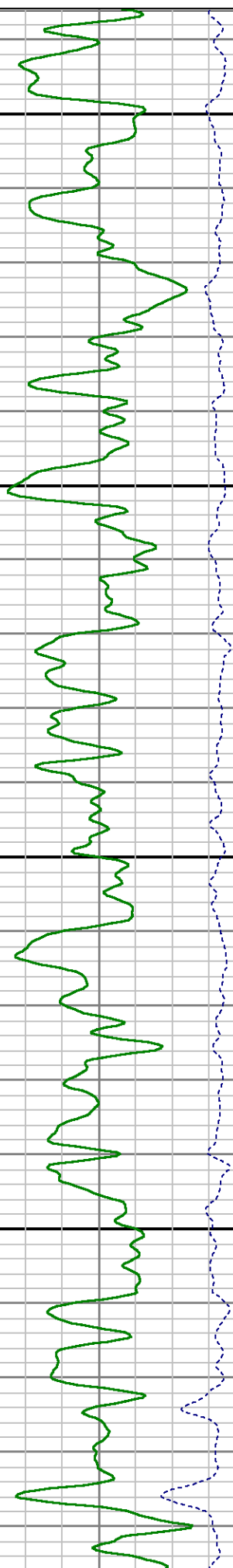
Created : 12/27/2013 9:32:06 AM

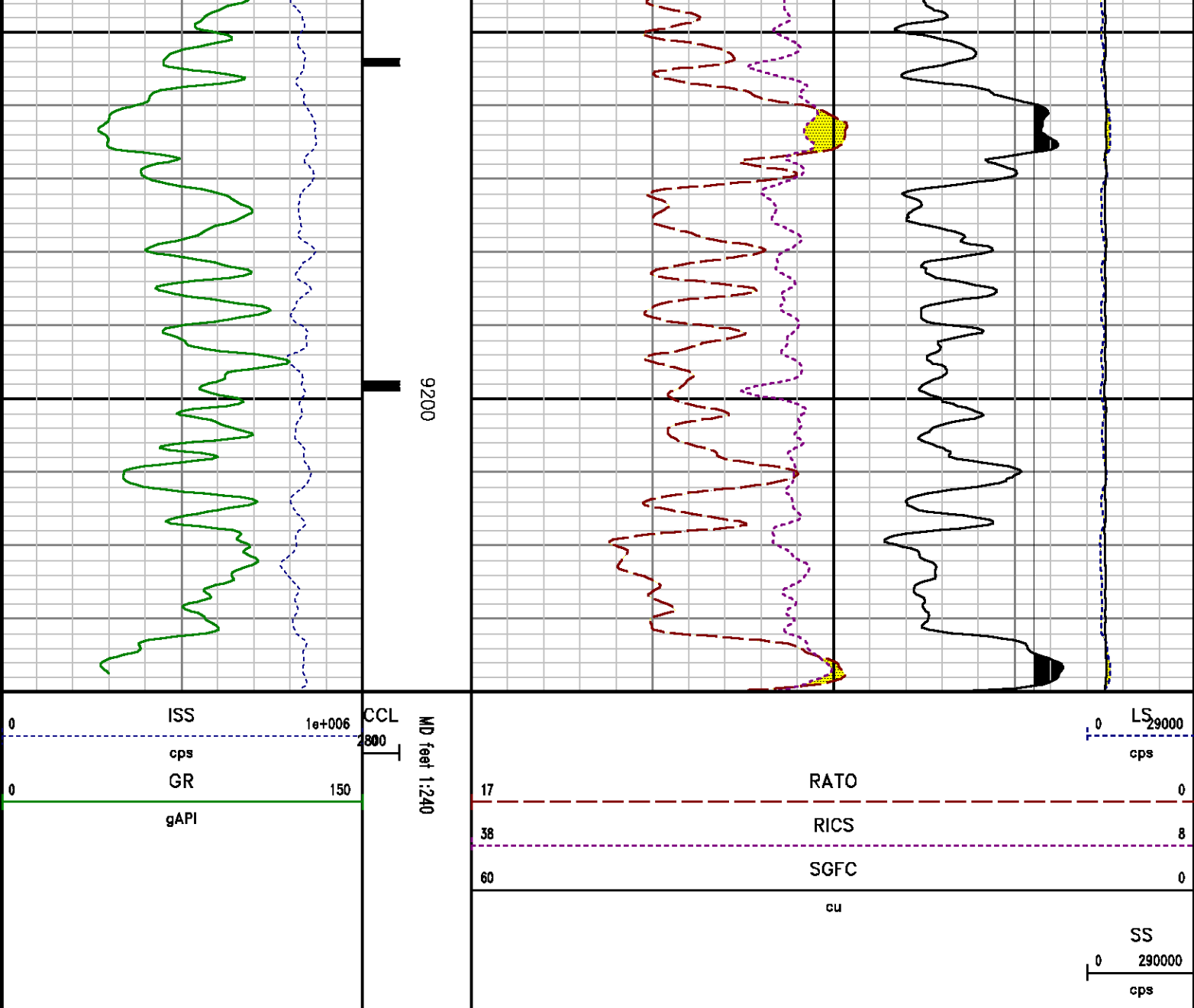




9000

9100





## CALIBRATION SUMMARY

## GAMMA RAY

Calibration File: C:\case\calver\GR\38512.cal

### CALIBRATION SUMMARY

DATE/TIME PERFORMED: Thu Dec 12 11:59:28 2013 TOOL SERIES: 2812LA ASSET: 385 SEQ: 12

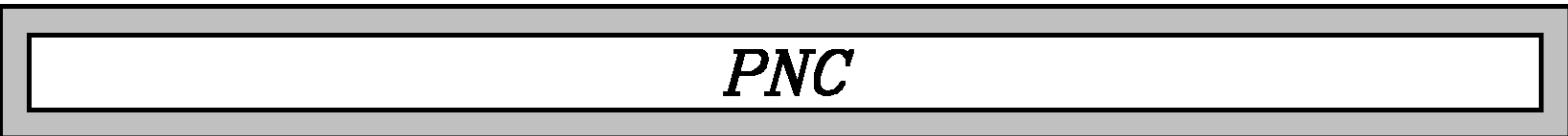
| Calibrator # | Background | Calibrator On | Multiplicative | Background | Calibrator On | Differential |
|--------------|------------|---------------|----------------|------------|---------------|--------------|
|--------------|------------|---------------|----------------|------------|---------------|--------------|



|     |        |       |        |       |       |        |        |       |  |       |
|-----|--------|-------|--------|-------|-------|--------|--------|-------|--|-------|
|     |        | [cps] |        | [cps] |       | [api]  |        | [api] |  | [api] |
| S2K | WA-612 | 64.62 | 298.40 | 0.898 | 58.05 | 268.05 | 210.00 |       |  |       |

|                    |                            |
|--------------------|----------------------------|
| Verification File: | C:\case\calver\GR\38512.VP |
|--------------------|----------------------------|

| PRIMARY VERIFICATION                          |            |               |                     |            |               |              |
|---|------------|---------------|---------------------|------------|---------------|--------------|
| DATE/TIME PERFORMED: Thu Dec 12 12:07:31 2013 |            |               | TOOL SERIES: 2812LA |            | ASSET: 385    |              |
|   |            |               |                     |            | SEQ: 12       |              |
| Calibrator #                                  | Background | Calibrator On | Multiplicative      | Background | Calibrator On | Differential |
|   | [cps]      | [cps]         |                     | [api]      | [api]         | [api]        |
| S2K WA-612                                    | 64.02      | 300.02        | 0.898               | 57.51      | 269.51        | 212.00       |



|                   |                              |
|-------------------|------------------------------|
| Calibration File: | C:\case\calver\PNC\23112.cal |
|-------------------|------------------------------|

PNC 3D CALIBRATION SUMMARY

DATE/TIME PERFORMED: Thu Dec 12 10:41:14 2013

TOOL SERIES: 8281XA

ASSET: 231

SEQ: 12

Calibrator #  
2437XB 112674

Source #  
8281AA 11724361

|              |         |                |         |         |          |                   |                      |        |
|--------------|---------|----------------|---------|---------|----------|-------------------|----------------------|--------|
|              | ISS     | Mtr Vlt<br>(V) | SS Gain | LS Gain | XLS Gain | EA Temp<br>(degF) | Sync Delay<br>(usec) | RCAL   |
| Raw Data     | 811900  | 120.00         | 2267.00 | 2286.00 | 2288.00  | 99.68             | 7.00                 | 0.9602 |
| Interpolated | 1300000 | 142.37         | 2244.93 | 2279.67 | 2285.27  |                   |                      |        |

|          |        |         |         |        |             |           |             |           |
|----------|--------|---------|---------|--------|-------------|-----------|-------------|-----------|
|          | ISS    | BKS     | BKL     | BKX    | SGA1        | SDA1      | SGA2        | SDA2      |
| Raw Data | 811900 | 7055.65 | 1066.31 | 144.49 | 25.87       | 0.14      | 24.13       | 0.28      |
|          |        |         |         |        | 25.35 26.40 | 0.00 0.20 | 23.60 24.80 | 0.00 0.40 |

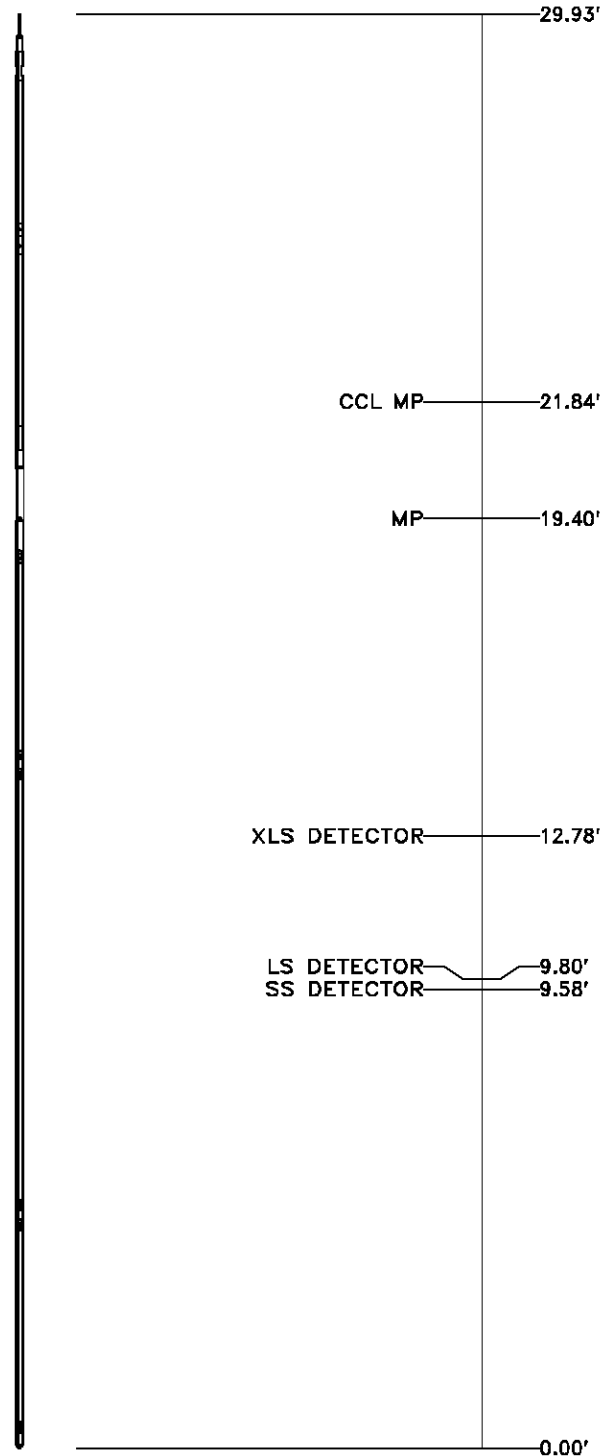
|               |        |           |          |          |          |         |          |          |
|---------------|--------|-----------|----------|----------|----------|---------|----------|----------|
|               | ISS    | ILS       | IXS      | SS       | SS2      | LS      | CSS      | CLS      |
| Raw Data      | 811900 | 172191.48 | 26448.88 | 91491.49 | 32544.21 | 8342.89 | 55348.96 | 13362.00 |
| Fit Quality % |        | 1.37      | 1.57     | 1.11     | 1.12     | 1.50    | 0.98     | 1.52     |

|               |         |           |                |                  |                 |               |                |                 |
|---------------|---------|-----------|----------------|------------------|-----------------|---------------|----------------|-----------------|
|               | 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      | 811900  | 1.43      | 4.72           | 30.70            | 14.67           | 10.97         | 3.90           | 4.14            |
|               |         | 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 % |         | 0.00      | 0.03           | 0.11             | 0.19            | 0.26          | 0.26           | 0.28            |
| Reduced       | 1392104 | 1.43      | 4.73           | 30.86            | 14.73           | 10.98         | 3.90           | 4.14            |
|               |         | 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     |              |
| Series               | 8250EA       |
| Mnemonic             | PCM          |
| Diameter             | 1.70"        |
| Weight               | 18.00 lb     |
| Length               | 3.86'        |
| Temp Rating          | 350.00 °F    |
| TELEMETRY / CCL      |              |
| 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 |
| SONDEX GAMMA RAY     |              |
| Series               | 2812LA       |
| Mnemonic             | SNDX         |
| Diameter             | 1.69"        |

| RESERVOIR PERFORMANCE MONITOR |                     |
|-------------------------------|---------------------|
| 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        |



Total Length: 29.93'  
 Total Weight: Not Available  
 Max Diameter: 0' 1.70"



Baker Atlas

CASE

|         |                   |       |    |
|---------|-------------------|-------|----|
| Company | WPX ENERGY        |       |    |
| Well    | FEDERAL PA 342-21 |       |    |
| Field   | PARACHUTE         |       |    |
| County  | GARFIELD          | State | CO |

|                |
|----------------|
| File No:       |
| CH80982        |
| API No:        |
| 05045220310000 |

Location

SHL: 2610' FNL & 1471' FWL  
BHL: 1931' FNL & 220' FEL

Elevations

KB 6056 ft  
DF  
GL 6030 ft

SEC 21 TWP 6S RGE 95W

21 6S 95W  
PA 22-21 PAD  
NABORS 573