



RESERVOIR PERFORMANCE MONITOR

Baker Atlas

File No: **CH069876** Company **WPX ENERGY**
 Well **YOUBERG RWF 533-23**
 API No: **RULISON**
 County **GARFIELD** State **COLORADO**
 05045182460000

Location
 23 65 94W SHL: 1402' FSL, 2313' FEL
 RWF: 33-23 PAD BHL: 2265' FSL, 1815' FEL
 NABORS 577 SEC 23 TWP 65 RGE 94W

Permanent Datum **GL** Elevation **5501.5 ft**
 Log Measured From **KB** **26 ft** Above P. D.
 Drill Measured From **KELLY BUSHING**
 Other Services
BOND LOG
 Elevations
KB 5527.5 ft
DF
GL 5501.5 ft

| | |
|------------------------------|-----------------------|
| Date | 23/APR/15 |
| Run | ONE |
| Service Order | 575109 |
| Depth Driller | 8206 ft |
| Depth Logger | 8161 ft |
| Bottom Logged Interval | 8151 ft |
| Top Logged Interval | 4038 ft |
| Time Started | 1800 |
| Time Finished | 1200 |
| Operator Rig Time | 6 HRS |
| Type of Fluid in Hole | WATER |
| Fluid Density | NA |
| Salinity | NA |
| Fluid Level | 82 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 BOND LOG |
| Reference Log Date | 23/APR/15 |
| Equipment No. | 4271 |
| Location | 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.

| Bit Size | From | To |
|----------|---------|---------|
| 13.5 In | 0 ft | 1111 ft |
| 8.75 In | 1111 ft | 8206 ft |

| Size | Weight | Grade | From | To |
|----------|-------------|-------|------|---------|
| 9.625 In | | | 0 ft | 1111 ft |
| 4.6 In | 11.6 lbm/ft | I-80 | 0 ft | 8206 ft |

Remarks

All data on this log is shifted and depth matched using the Gamma Ray curve to the Baker Hughes bond log dated 4/23/2013 at the client's request.

The amount of linear shift is -9 feet.

Logged In PNC-3D mode.

BHT = 235°F

SJ = 4805'-4825'

Equipment Data

| Run | Trip | Tool | Series Number | Serial Number | Position |
|-----|------|---------|---------------|---------------|----------|
| 1 | 1 | RPM | 8281FA | 10507727 | FREE |
| 1 | 1 | RPM | 8281PA | 10203151 | FREE |
| 1 | 1 | RPM | 8281EA | 10503640 | FREE |
| 1 | 1 | GR | 8262XA | 10076055 | FREE |
| 1 | 1 | TEL/CCL | 8248ED | 10296408 | 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 | | 4027.750 | 8182.968 |
| PNC Porosity | Borehole Size | 7.875 | inch | 4027.750 | 8182.968 |
| PNC Porosity | Casing Size | 4.500 | inch | 4027.750 | 8182.968 |
| PNC Porosity | Gas Filled | Non Gas Filled | | 4027.750 | 8182.968 |
| PNC Porosity | Matrix | Sandstone | | 4027.750 | 8182.968 |

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 R1CX SDA3 SDL3 SGA3 SGL3 STA3 XS ASPEC3 AMB3 AMF3 CHF3 IXSC IXSN RAT023 |

| | | | | | | | |
|--------|--------|---------|---------|--------|--------|--------|---------|
| | | RICXC | RTN13C | 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 |
| | | 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 | RATO | RATO13 |
| | | 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 | RATO13R |
| | | RBORR | RICSR | RINR | RIN13R | RONER | RPORR |
| | | RTWOR | | | | | |
| SYSTEM | 0.000 | TEN | TTEN | | | | |

Created by : RPM9, v5.3.1.0

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

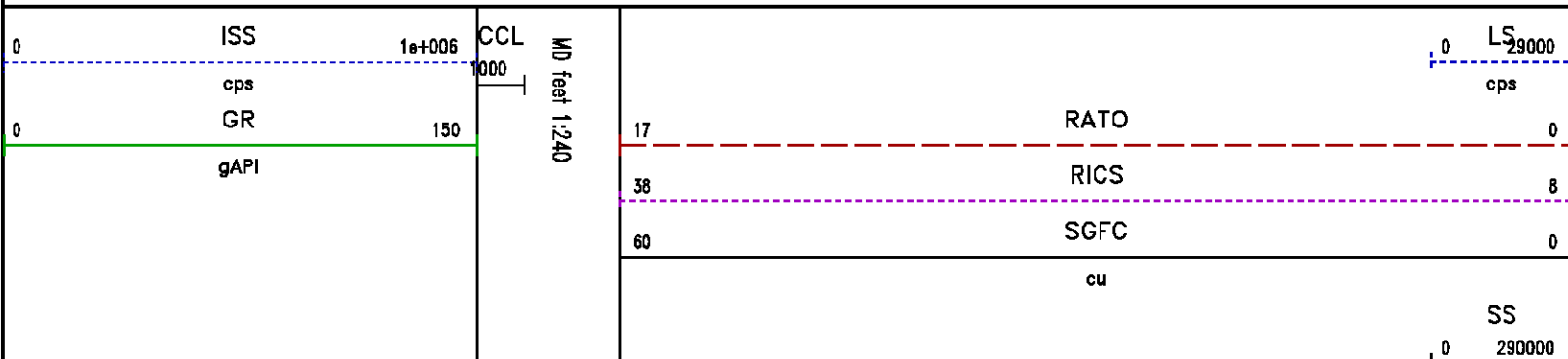
Well : YOUBERG RWF 533-23

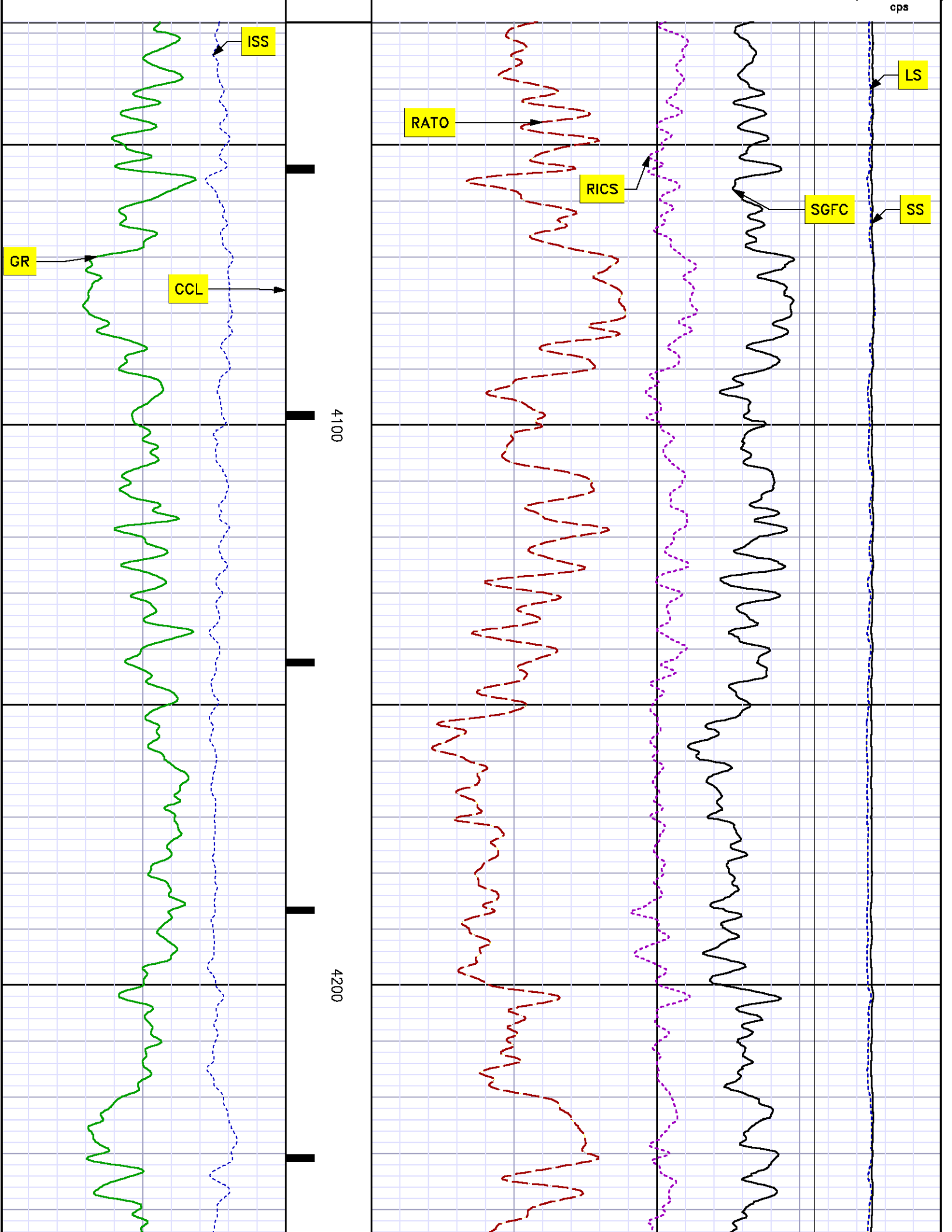
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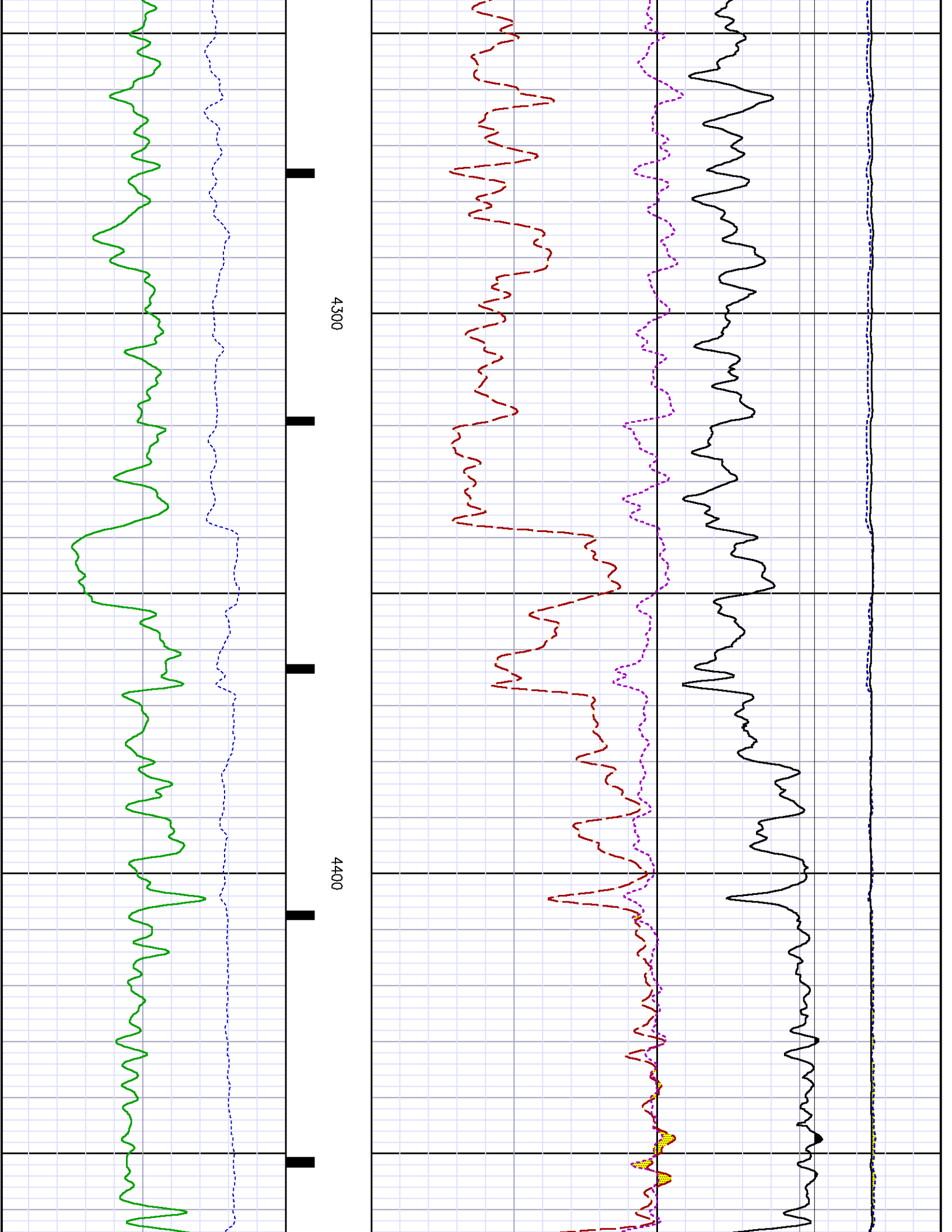
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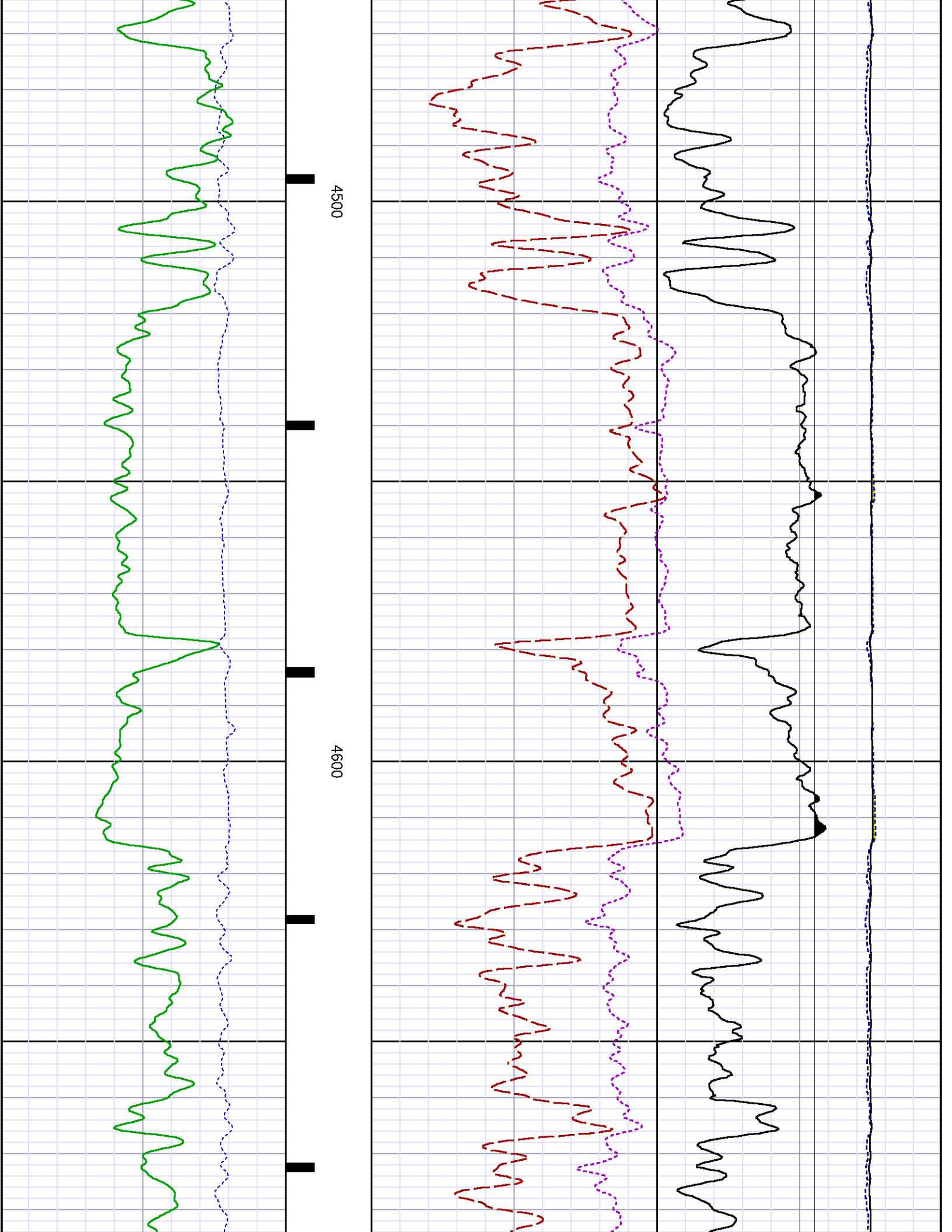
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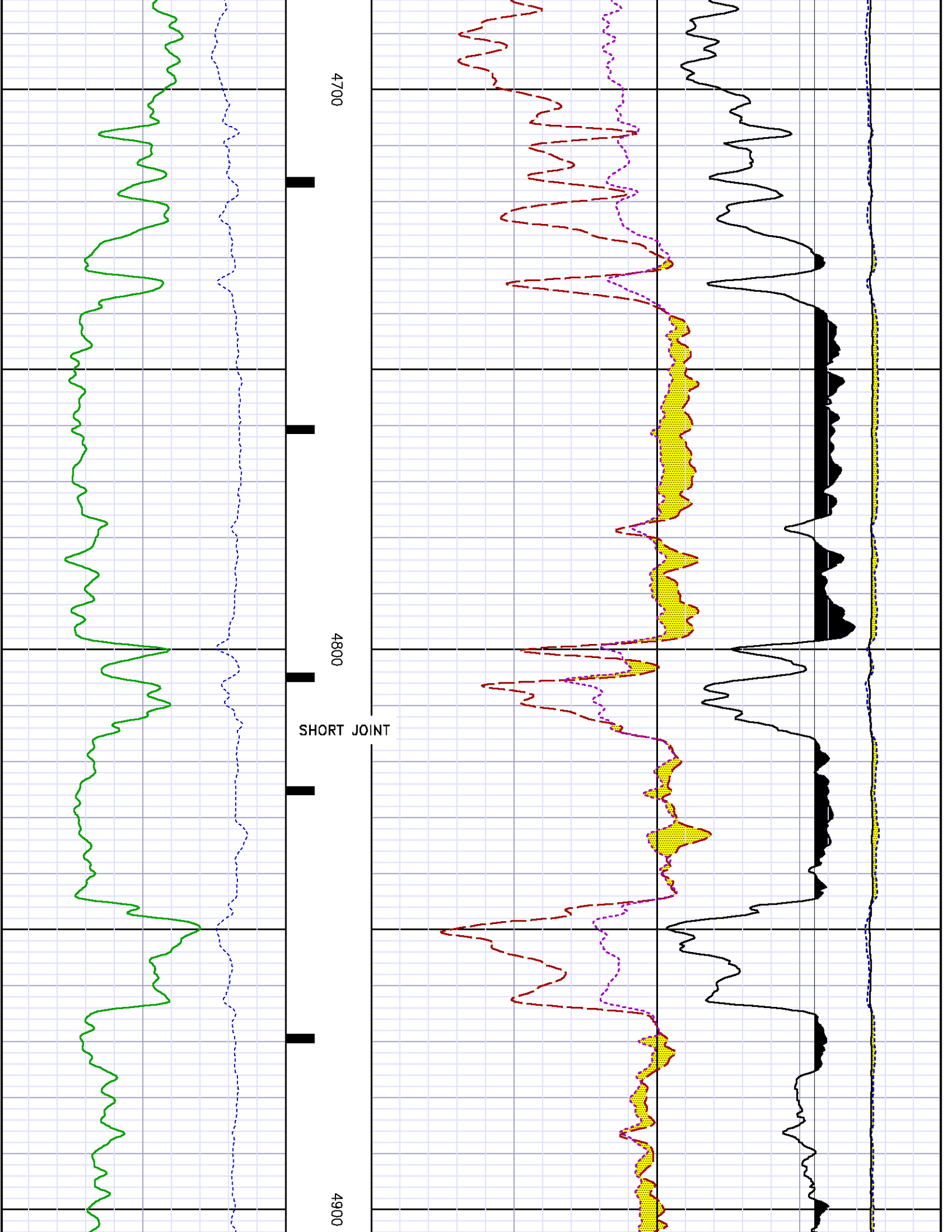
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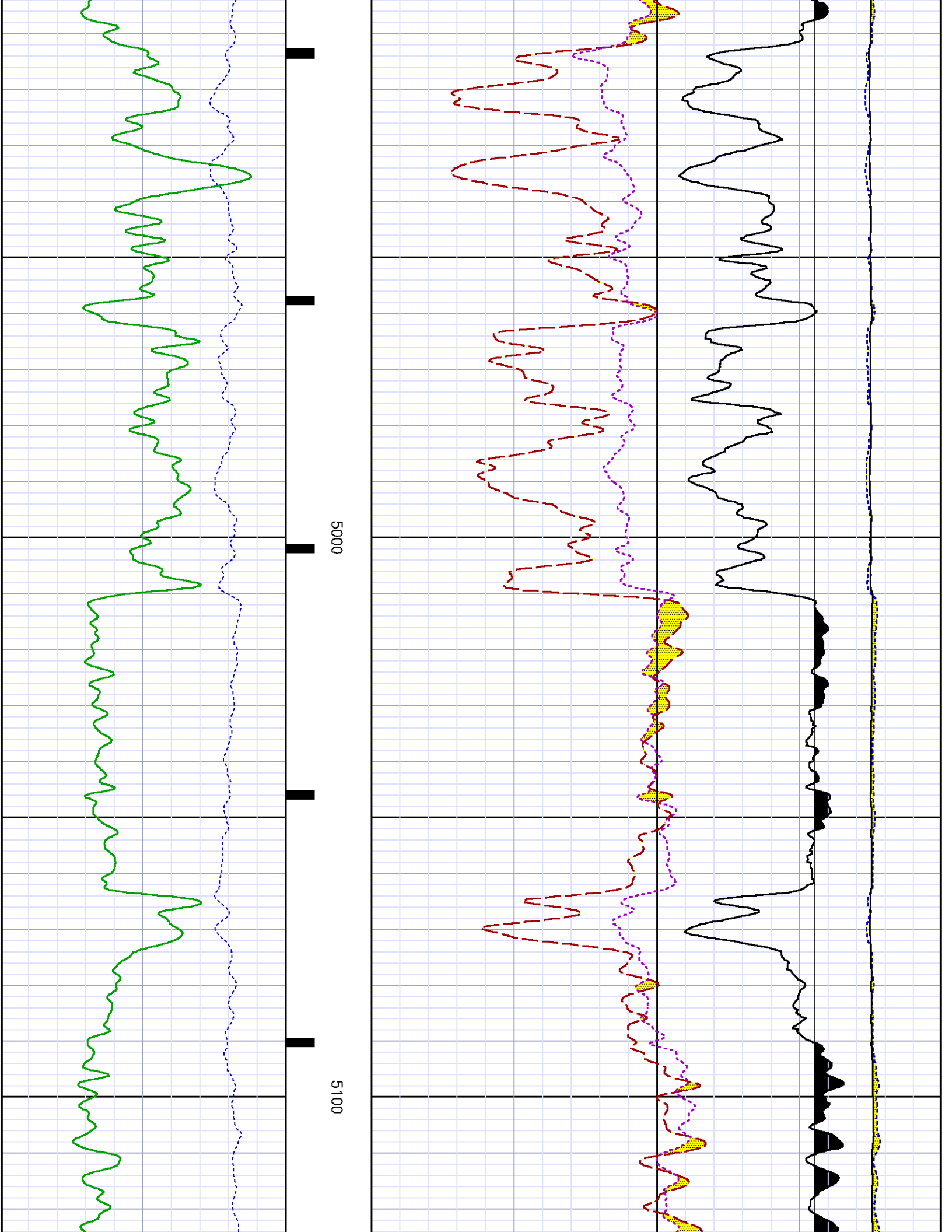


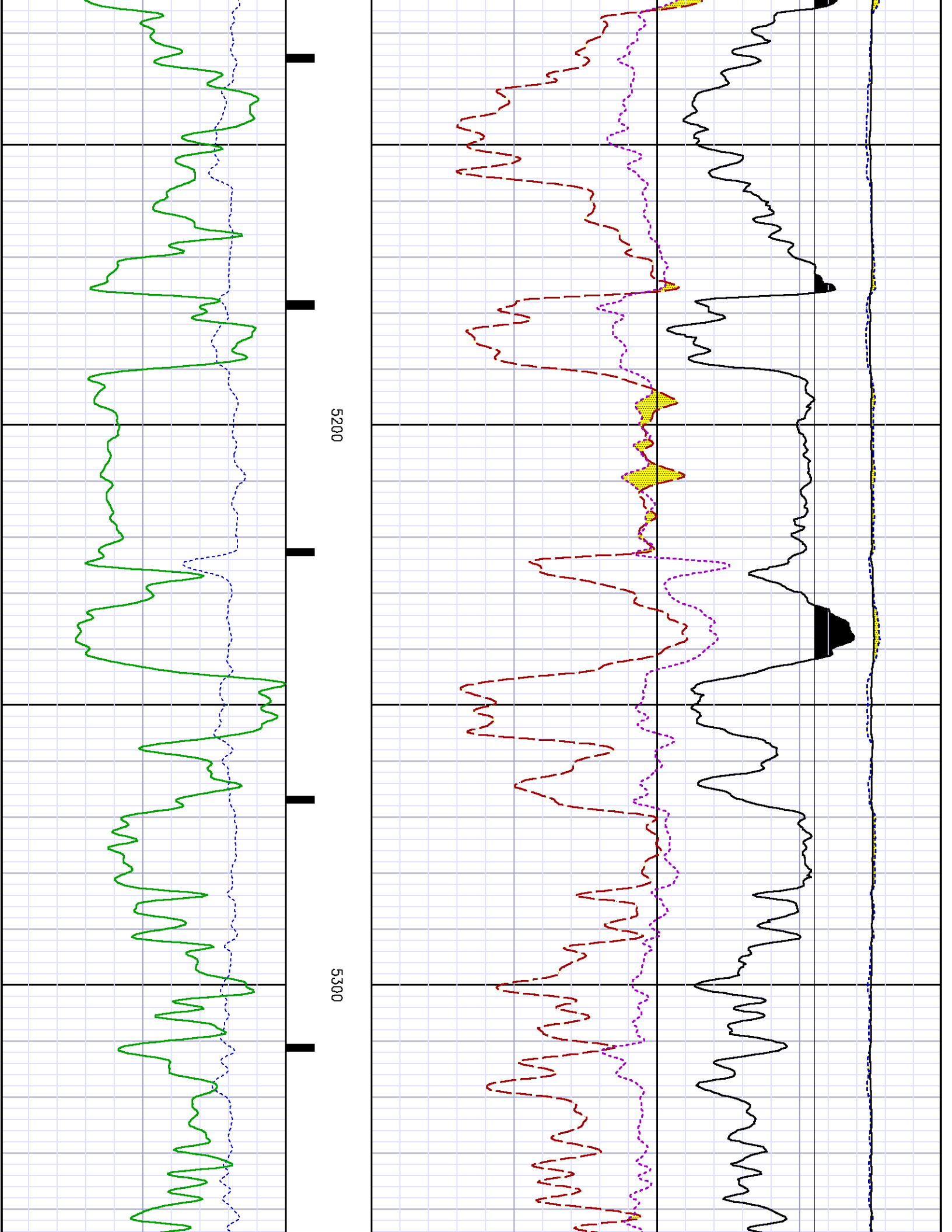


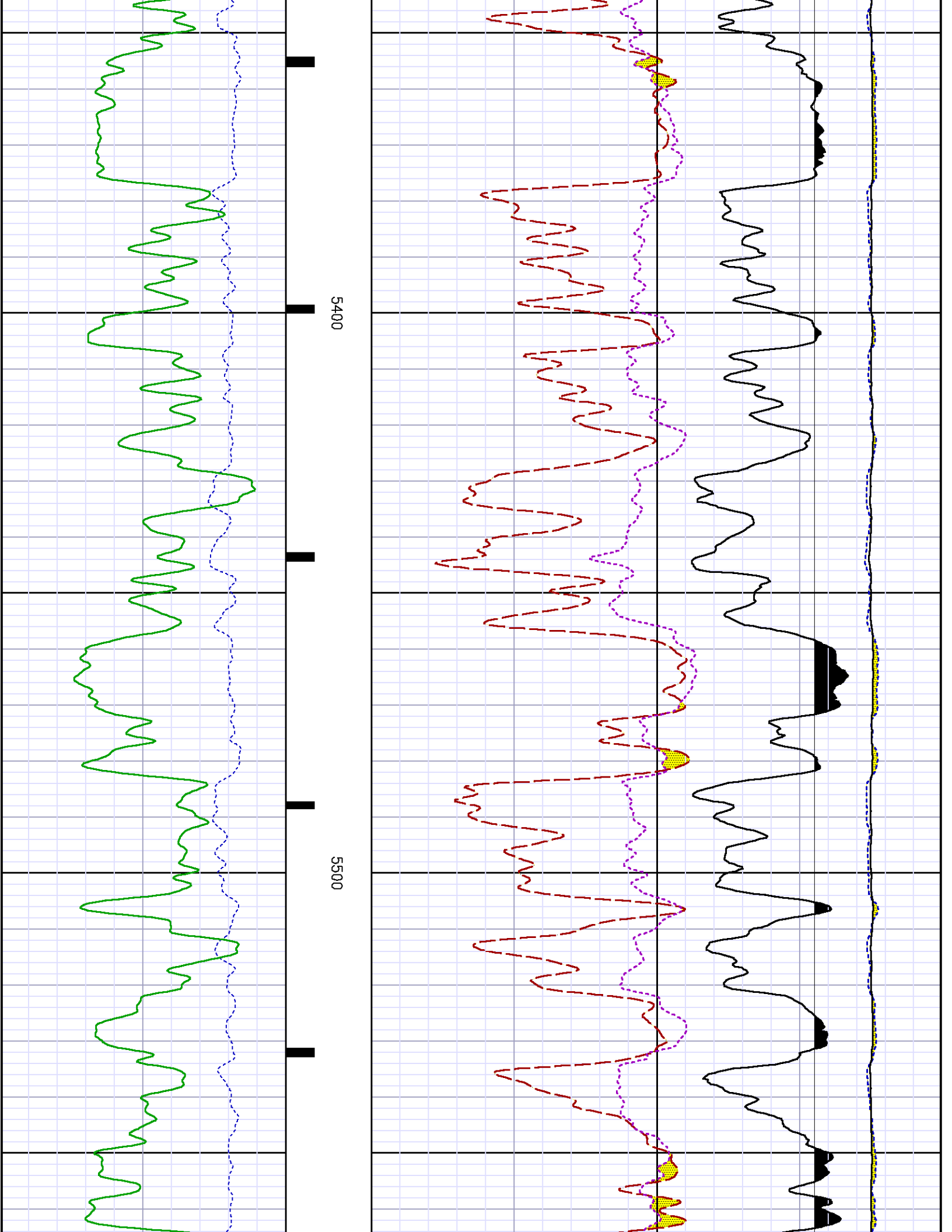


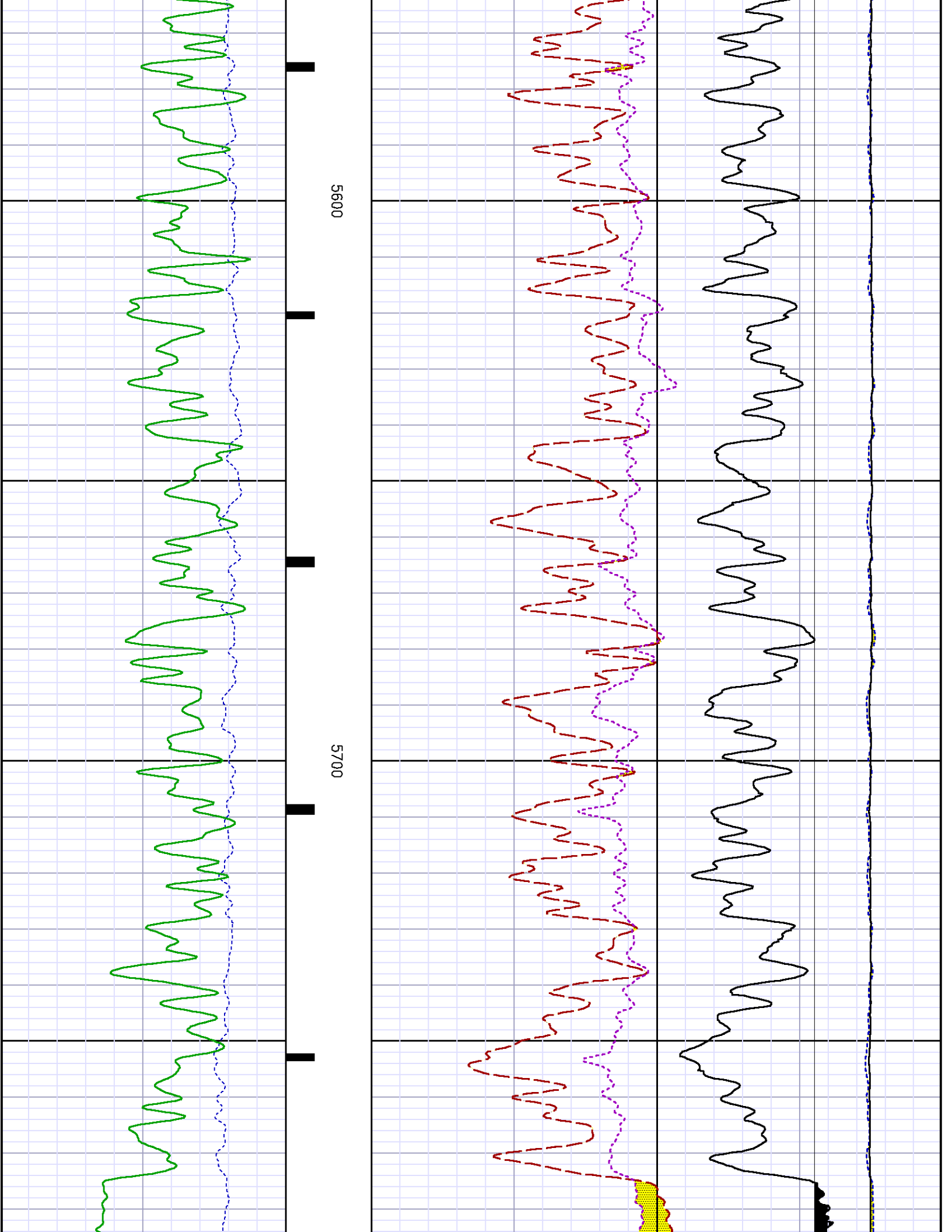


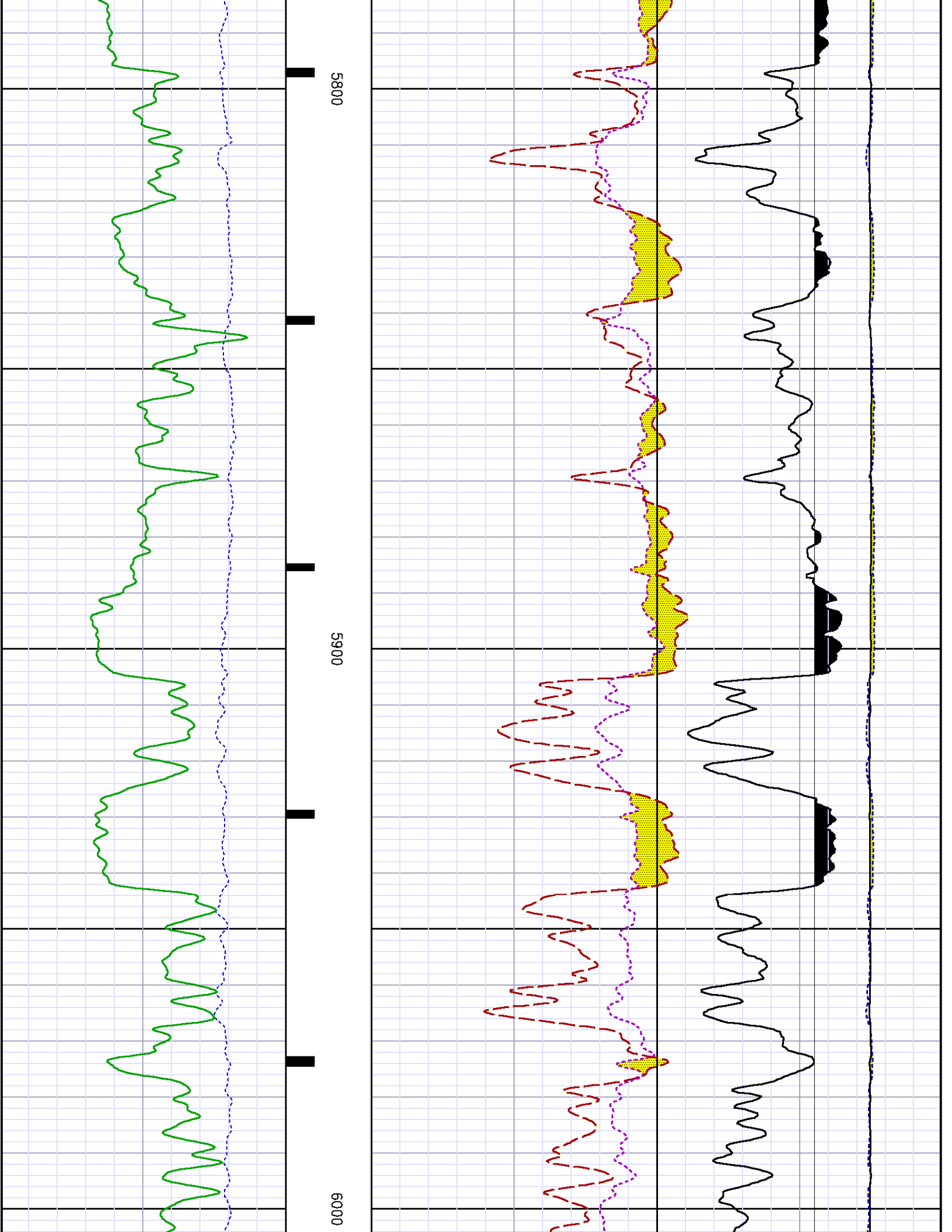


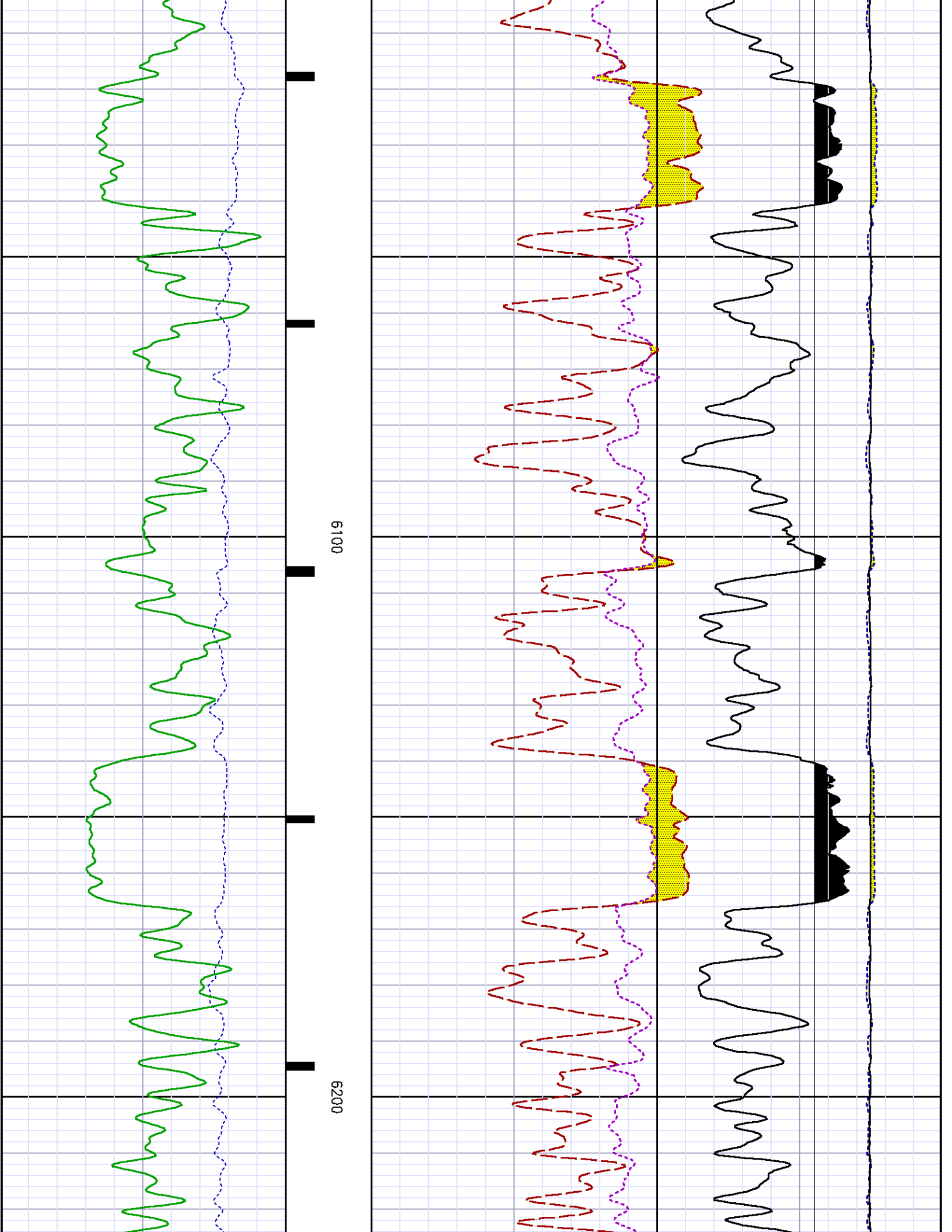


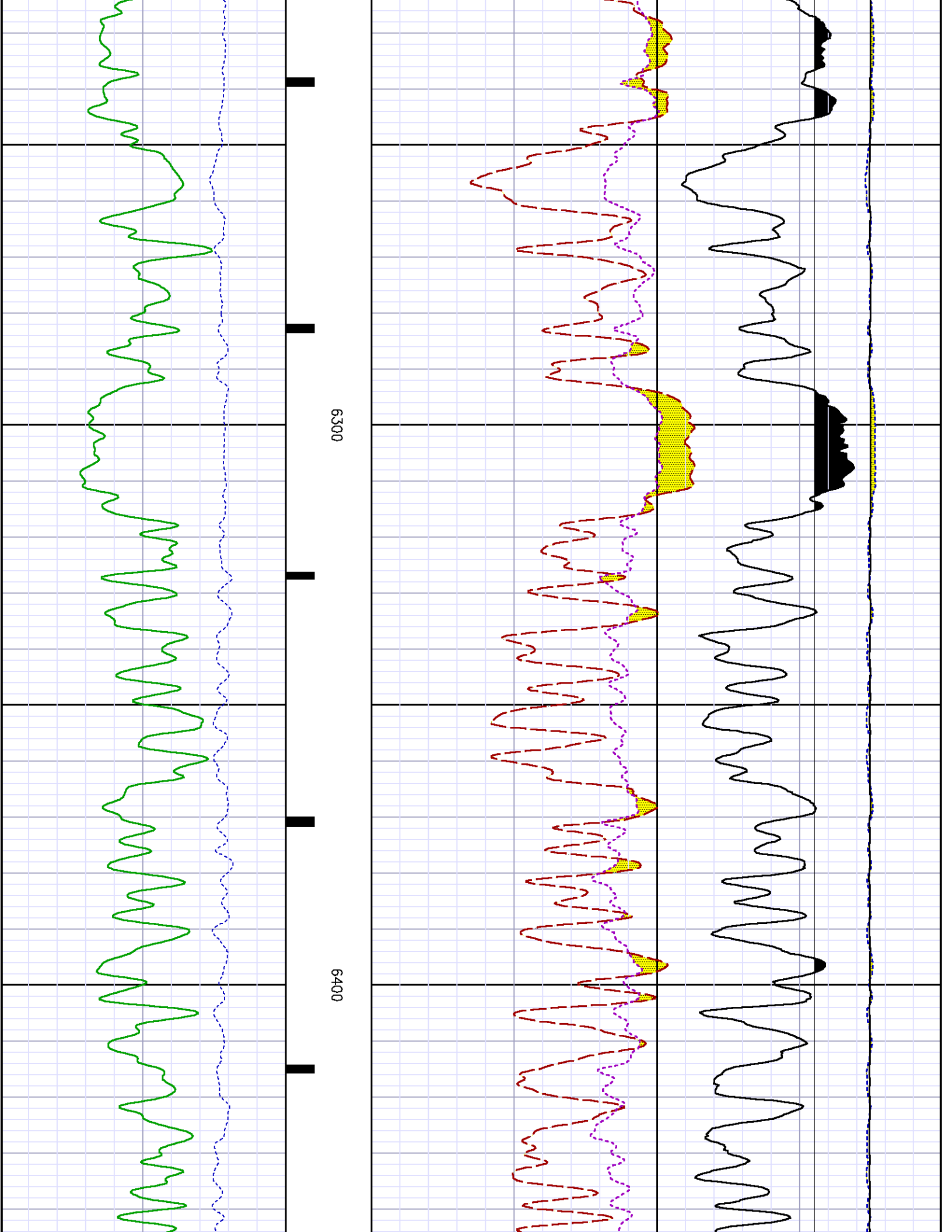


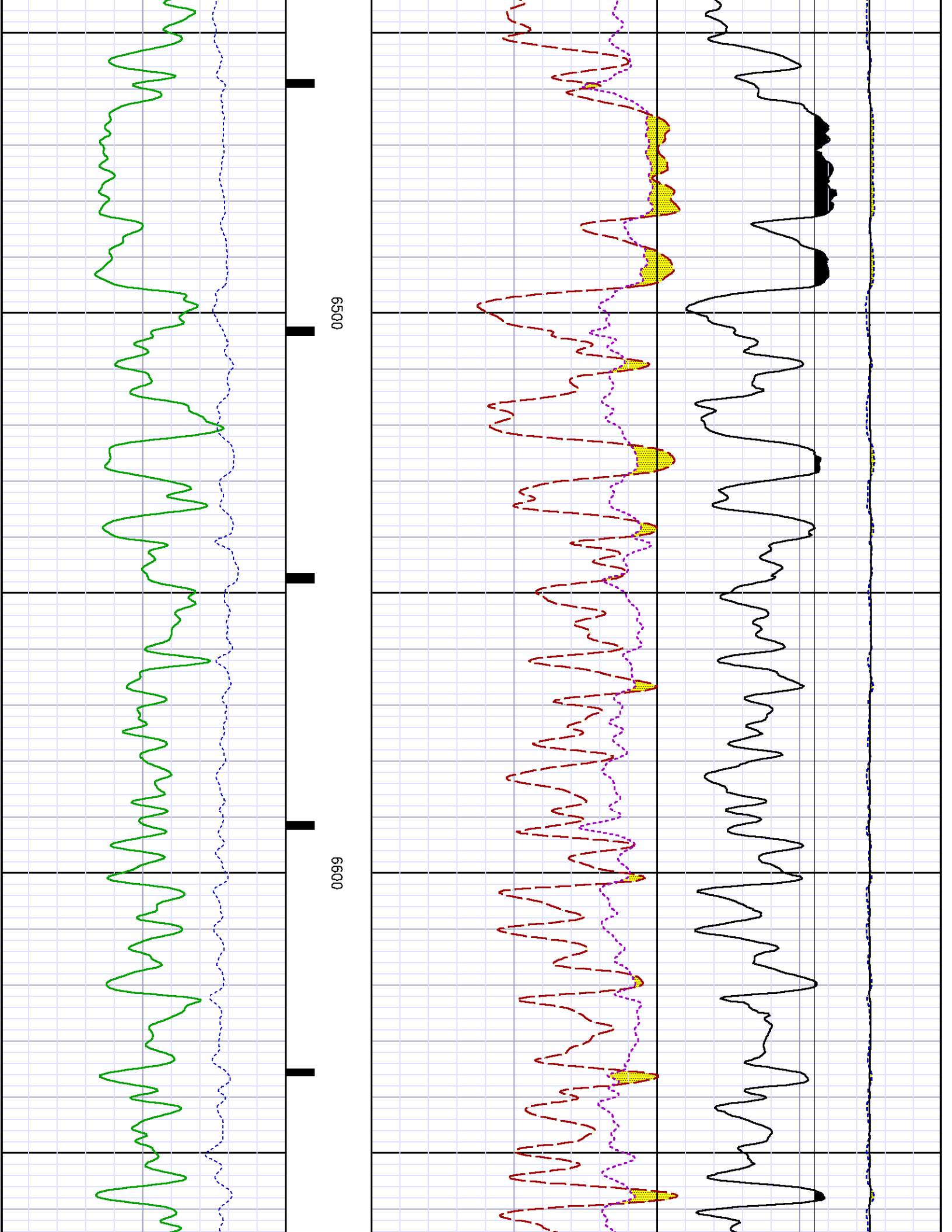


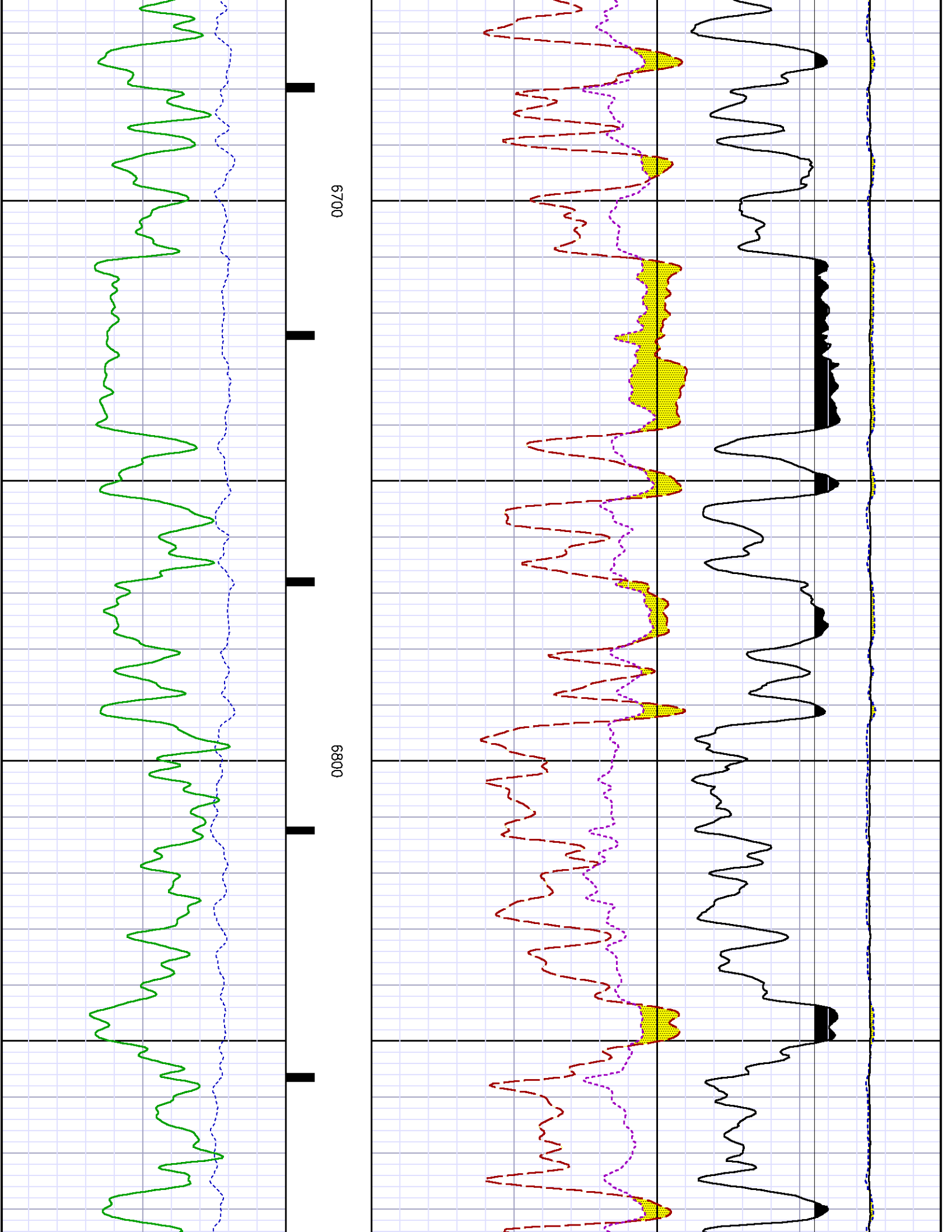


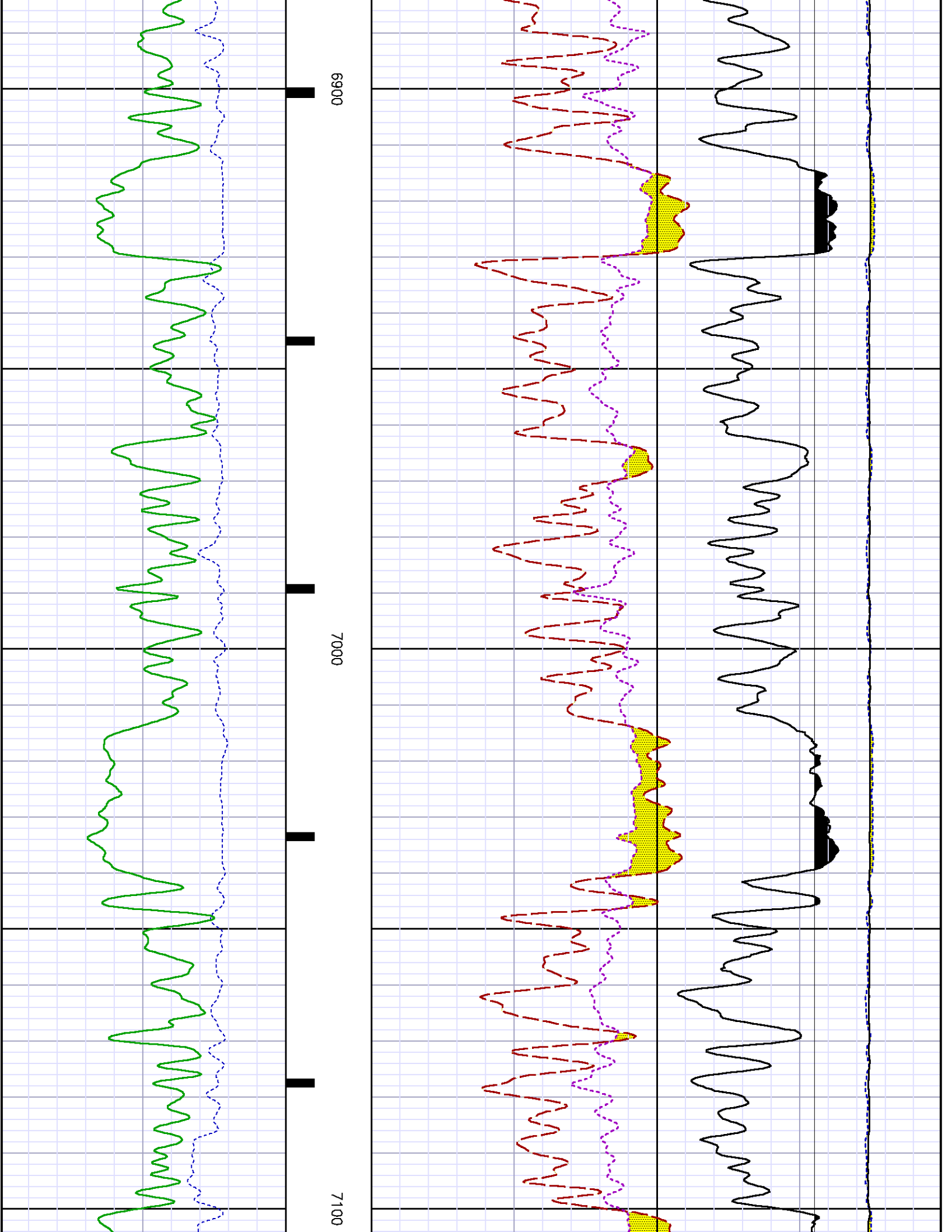


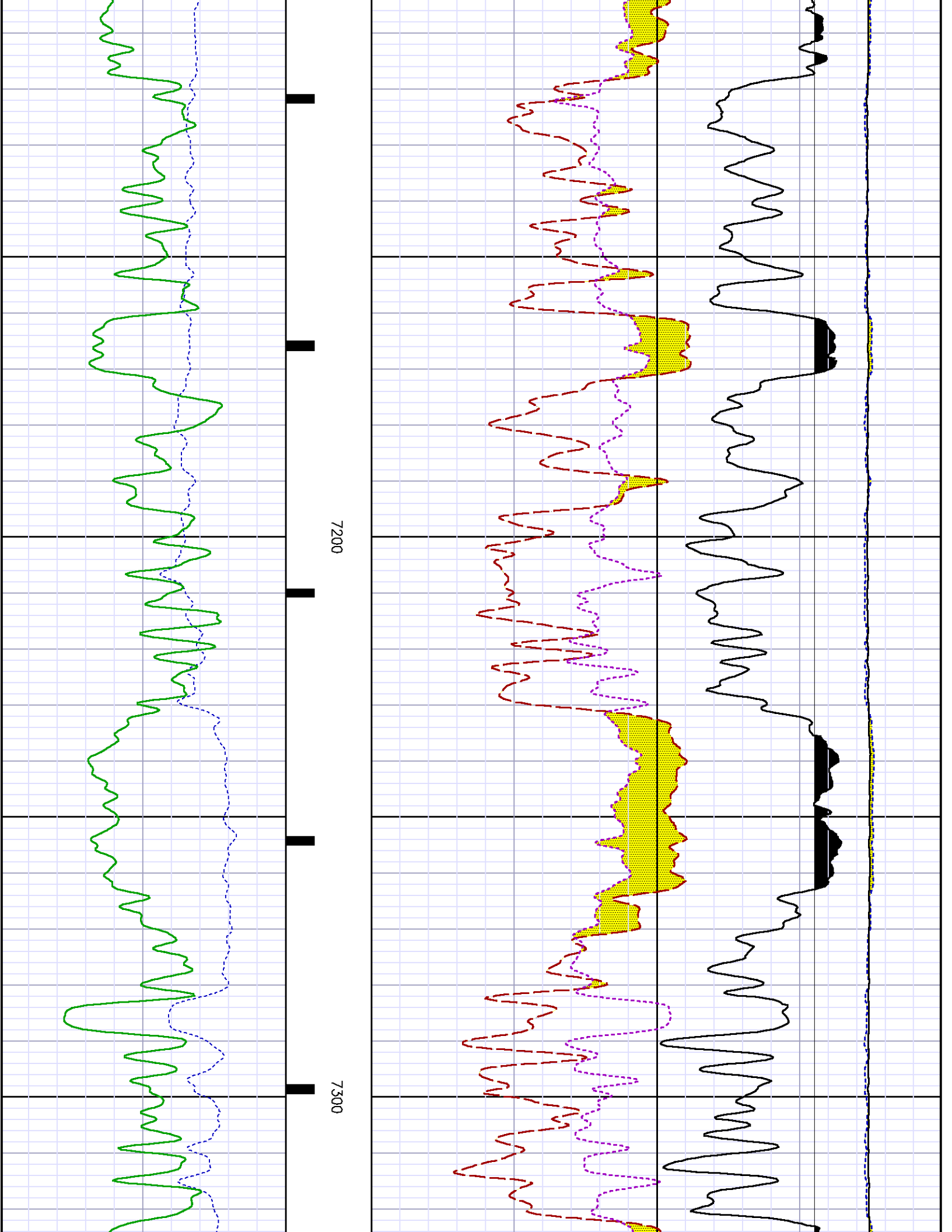


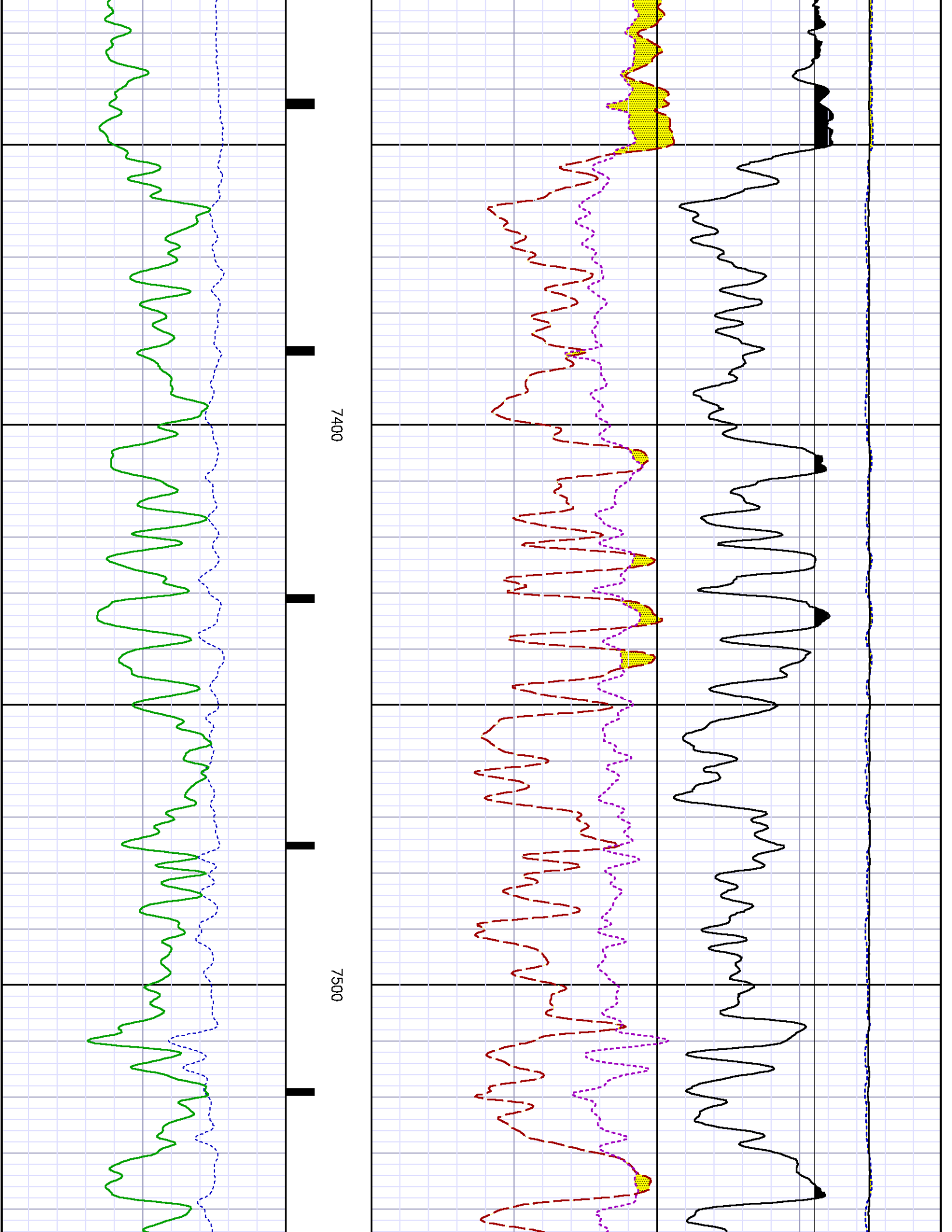


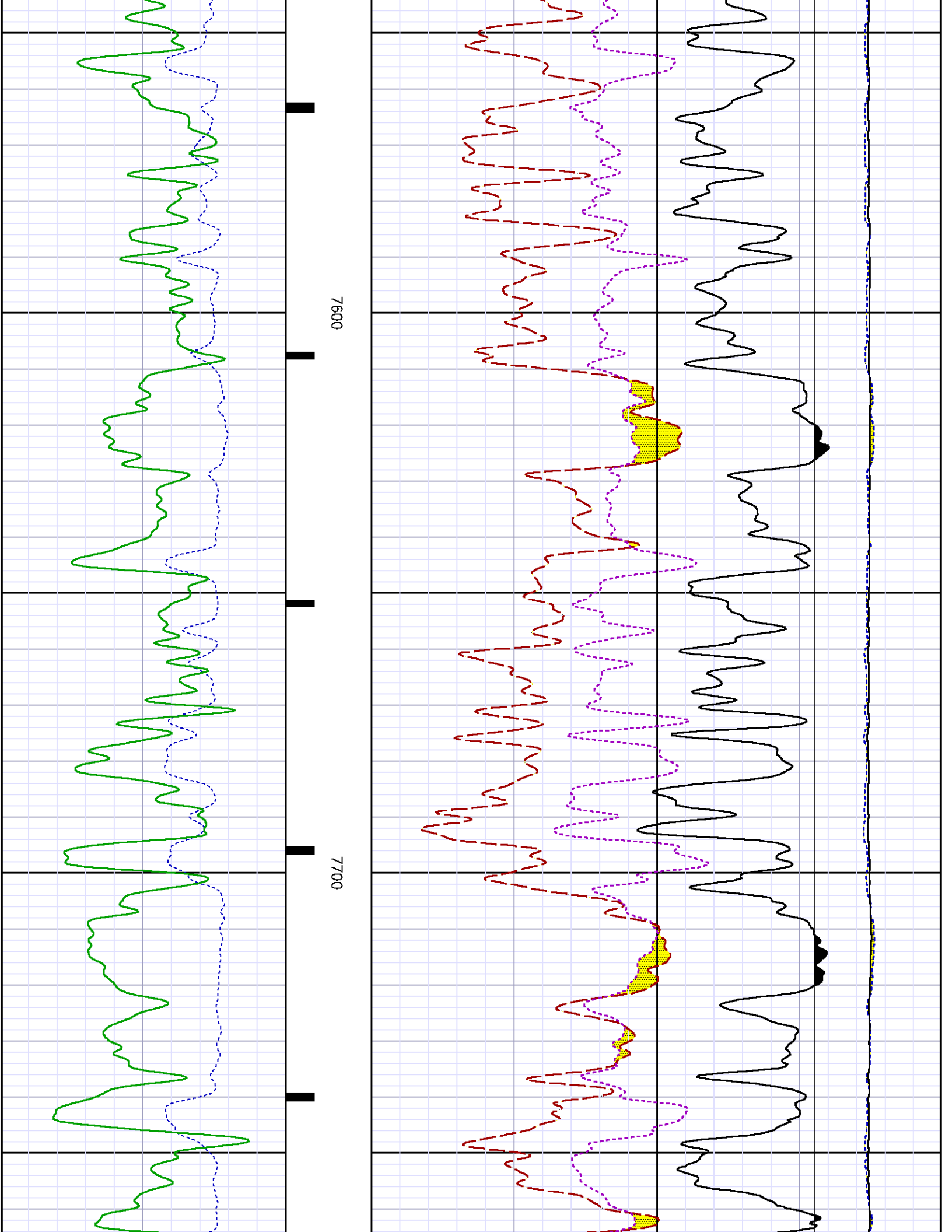


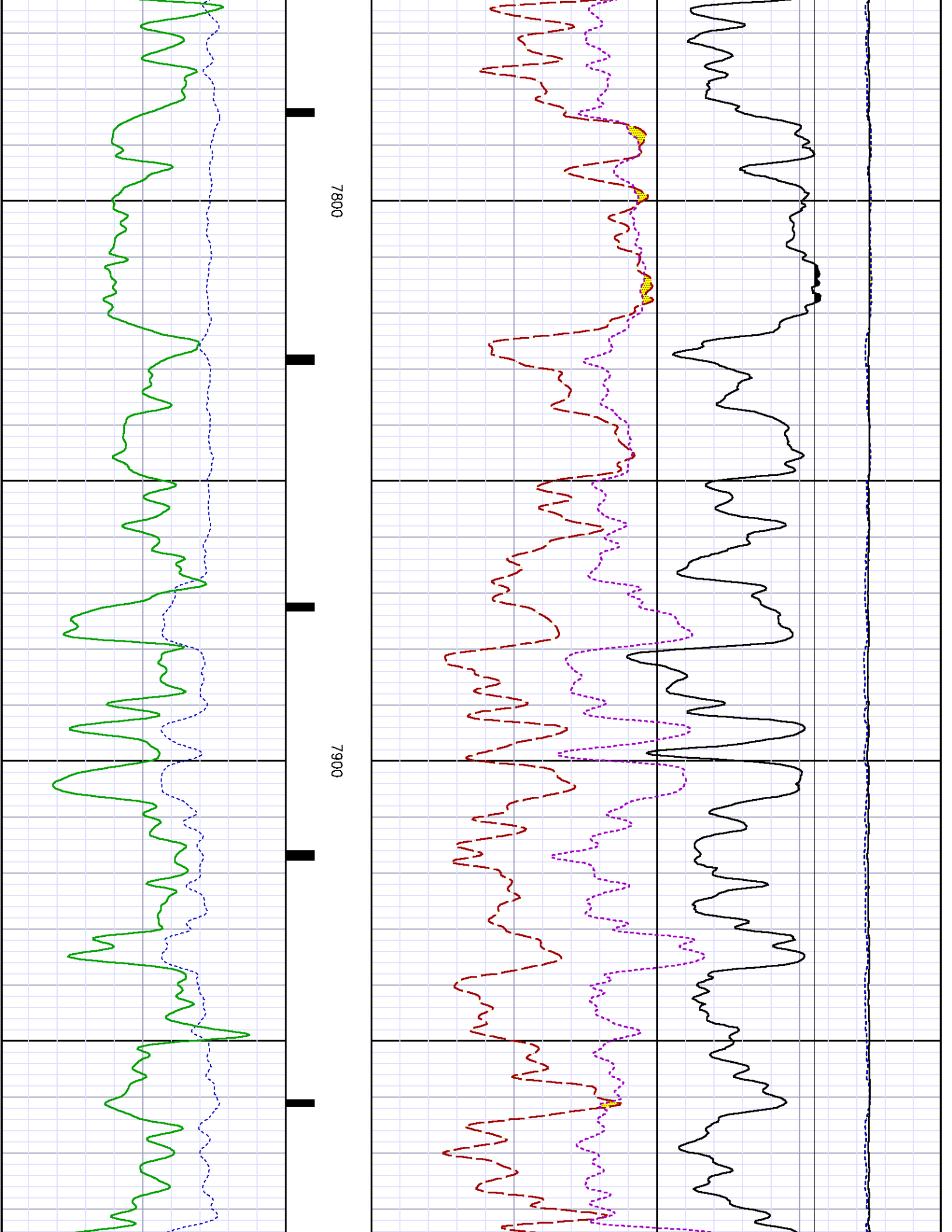


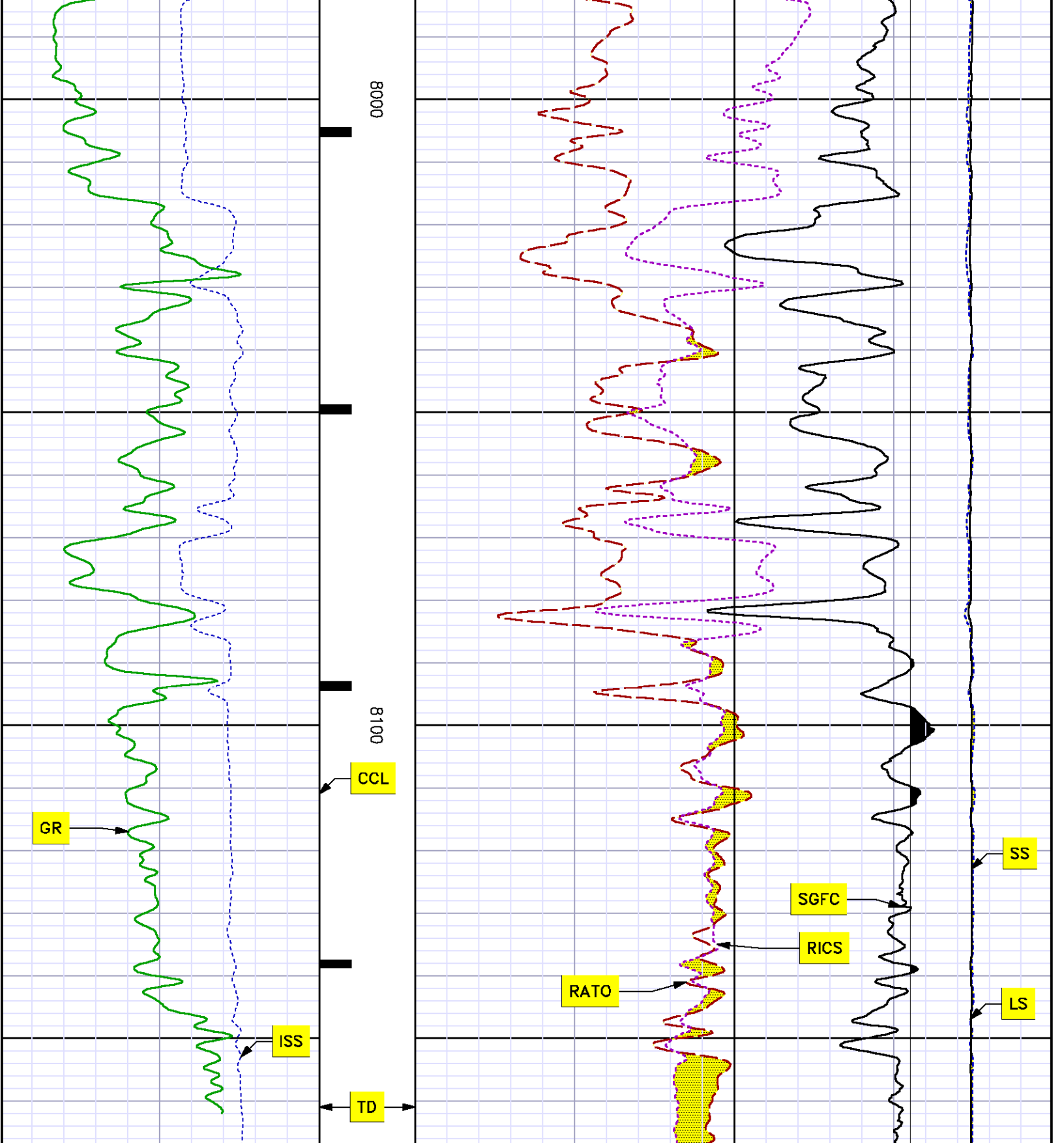












| | | | | | | | |
|---|------|--------|------|---------------|----|------|--------|
| 0 | ISS | 1e+006 | CCL | MD feet 1:240 | 0 | LS | 29000 |
| | cps | | 1000 | | | cps | |
| 0 | GR | 150 | | | 17 | RATO | 0 |
| | gAPI | | | | 38 | RICS | 8 |
| | | | | | 60 | SGFC | 0 |
| | | | | | | cu | |
| | | | | | | | SS |
| | | | | | | | 290000 |

REPEAT SECTION

PNC 3-D MODE

SPL PROCESSING

| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | TOP | BOTTOM |
|------------------|---------------|----------------|-------|----------|----------|
| PNC Porosity | Borehole | Cased | | 7331.340 | 7644.340 |
| PNC Porosity | Borehole Size | 7.875 | inch | 7331.340 | 7644.340 |
| PNC Porosity | Casing Size | 4.500 | inch | 7331.340 | 7644.340 |
| PNC Porosity | Gas Filled | Non Gas Filled | | 7331.340 | 7644.340 |
| PNC Porosity | Matrix | Sandstone | | 7331.340 | 7644.340 |

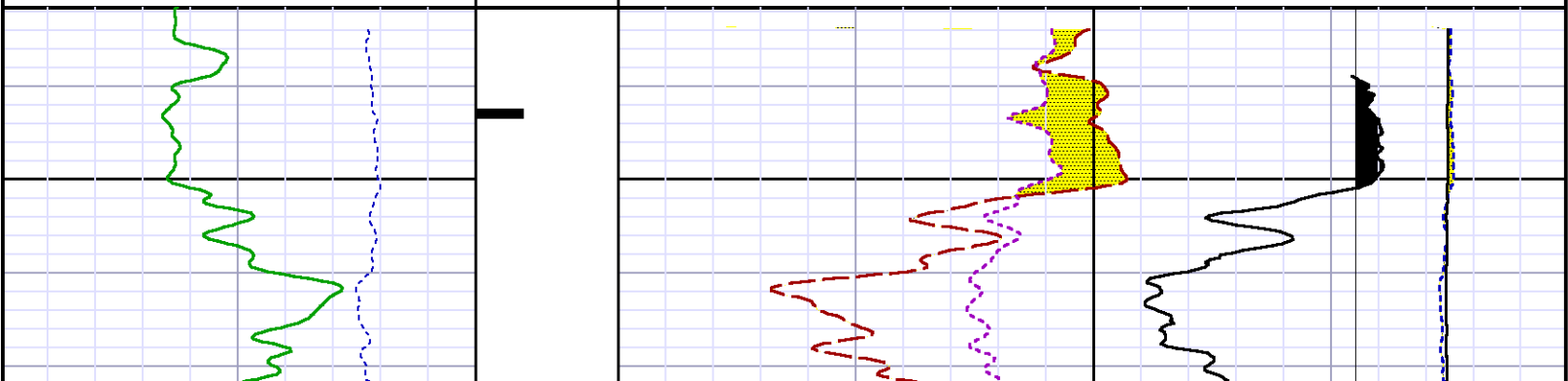
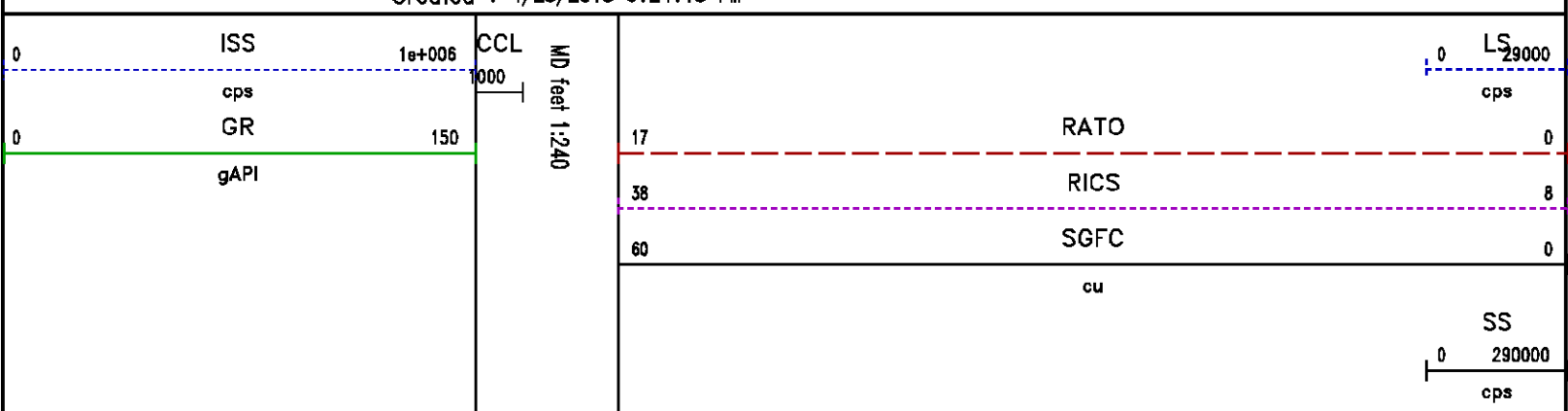
DEPTH OFFSETS

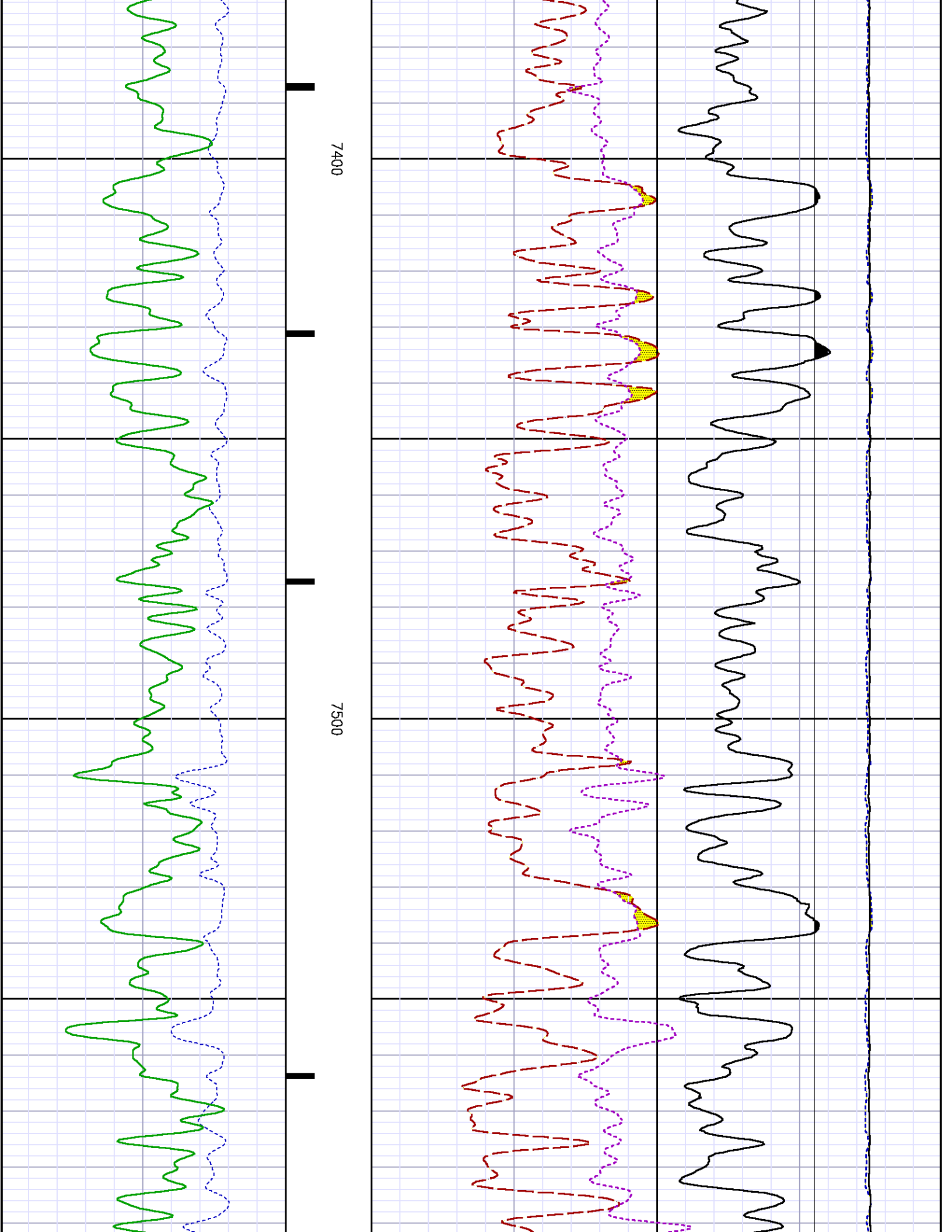
(for Acquired Curves)

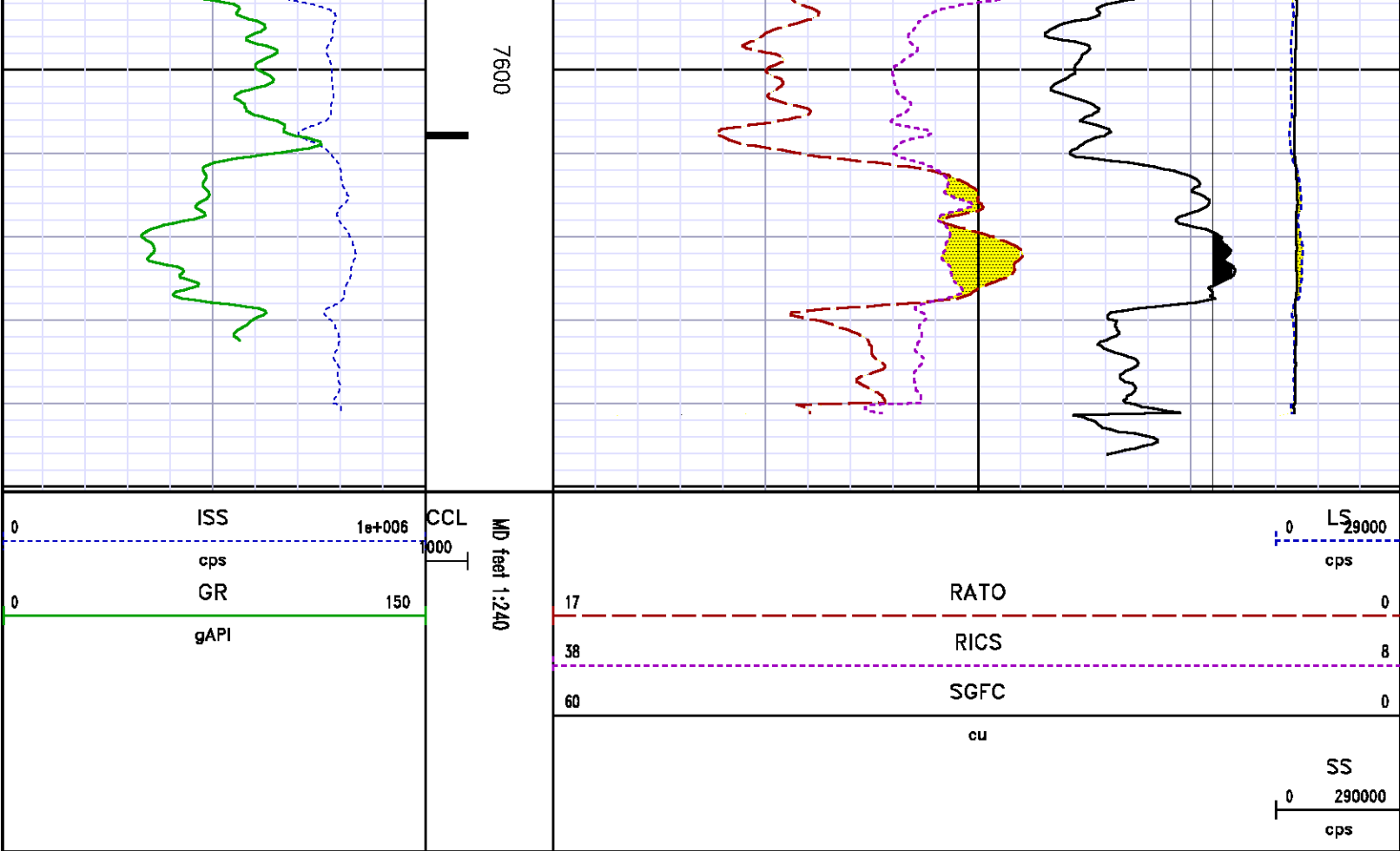
| SERIES | DEPTH OFFSET | ACQUIRED CURVES | | | | | |
|--------|--------------|-----------------|--------|--------|--------|--------|--------|
| 8248ED | -15.320 | FLTM | | | | | |
| 8248ED | -13.320 | CCL CHV | | | | | |
| 8262XA | -10.189 | GR | | | | | |
| 8281XA | -0.662 | HVC3Q0 | SEQ3 | AMA3 | AML3 | BKX | CXS |
| | | CPT3Q0 | CPT3Q2 | CPT3Q3 | CPT3Q4 | ET3 | IXS |
| | | MCS3 | MCS3Q0 | QCAL3 | RGN3 | RIX | 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 |
| | | SDL2 | SGA2 | SGB2 | SGF2 | SGK2 | SGL2 |
| | | STA2 | ASPEC2 | ILSC | ILSN | WDTH2 | RICL2 |
| | | CLSR | ILSR | LSR | RICLR | | |
| 8281XA | 0.000 | CPRS | HVC1Q0 | MV | SEQ | SEQ1 | AMA1 |
| | | AMB1 | AMF1 | CHF1 | AML1 | IXS | IXS1 |

| | | | | | |
|---------|---------|--------|--------|--------|---------|
| 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 |
| RTWOR | | | | | |
| SYSTEM | 0.000 | TEN | TTEN | | |

Created by : RPM9, v5.3.1.0
 Plotted by : PlotMgr, v5.4.504
 Company : WPX ENERGY
 Well : YOUBERG RWF 533-23
 File Name : d:\welldata\wpx energy\rwf 533-23\533rpm\repeat.xtf
 Mode : PlotMgr 5.4.504
 Interval : 7331.59 - 7650.59 feet UP
 Created : 4/23/2013 6:24:15 PM







CALIBRATION SUMMARY

GAMMA RAY

Calibration File: C:\case\calver\GR\055A2.cal

CALIBRATION SUMMARY

| | | | | | | | |
|----------------------|--------------------------|---------------------|----------------|------------------|---------------------|--------------------|----|
| DATE/TIME PERFORMED: | Tue Apr 23 13:10:16 2013 | TOOL SERIES: | 8262XA | ASSET: | 055 | SEQ: | A2 |
| Calibrator # | Background [cps] | Calibrator On [cps] | Multiplicative | Background [api] | Calibrator On [api] | Differential [api] | |
| S2K WA612 | 80.31 | 374.84 | 0.611 | 49.08 | 229.08 | 180.00 | |

Verification File: C:\case\calver\GR\055A2.VP

PRIMARY VERIFICATION

| | | | | | | | |
|----------------------|--------------------------|---------------------|----------------|------------------|---------------------|--------------------|----|
| DATE/TIME PERFORMED: | Tue Apr 23 13:12:19 2013 | TOOL SERIES: | 8262XA | ASSET: | 055 | SEQ: | A2 |
| Calibrator # | Background [cps] | Calibrator On [cps] | Multiplicative | Background [api] | Calibrator On [api] | Differential [api] | |

[cps]

[cps]

[api]

[api]

[api]

S2K WA612

80.38

363.24

0.611

49.12

221.99

172.87

PNC

Calibration File: C:\case\calver\PNC\151A5.cal

PNC 3D CALIBRATION SUMMARY

DATE/TIME PERFORMED: Mon Apr 15 14:56:54 2013 TOOL SERIES: 8281XA ASSET: 151 SEQ: A5

Calibrator #

SHOP BARREL

Source #

8281AA 11765055

| | ISS | Mtr Vlt (V) | SS Gain | LS Gain | XLS Gain | EA Temp (degF) | Sync Delay (usec) | RCAL |
|--------------|---------|----------------|---------|---------|----------|-------------------|----------------------|--------|
| Raw Data | 817644 | 131.00 | 2260.00 | 2361.00 | 2439.00 | 105.74 | 8.00 | 0.9649 |
| Interpolated | 1300000 | 154.27 | 2246.64 | 2357.92 | 2425.40 | | | |

| | ISS | BKS | BKL | BKX | SGA1 | SDA1 | SGA2 | SDA2 |
|----------|--------|---------|---------|--------|-------------|-----------|-------------|-----------|
| Raw Data | 817644 | 6800.04 | 1052.78 | 145.31 | 25.86 | 0.14 | 24.24 | 0.28 |
| | | | | | 25.35 26.40 | 0.00 0.20 | 23.60 24.80 | 0.00 0.40 |

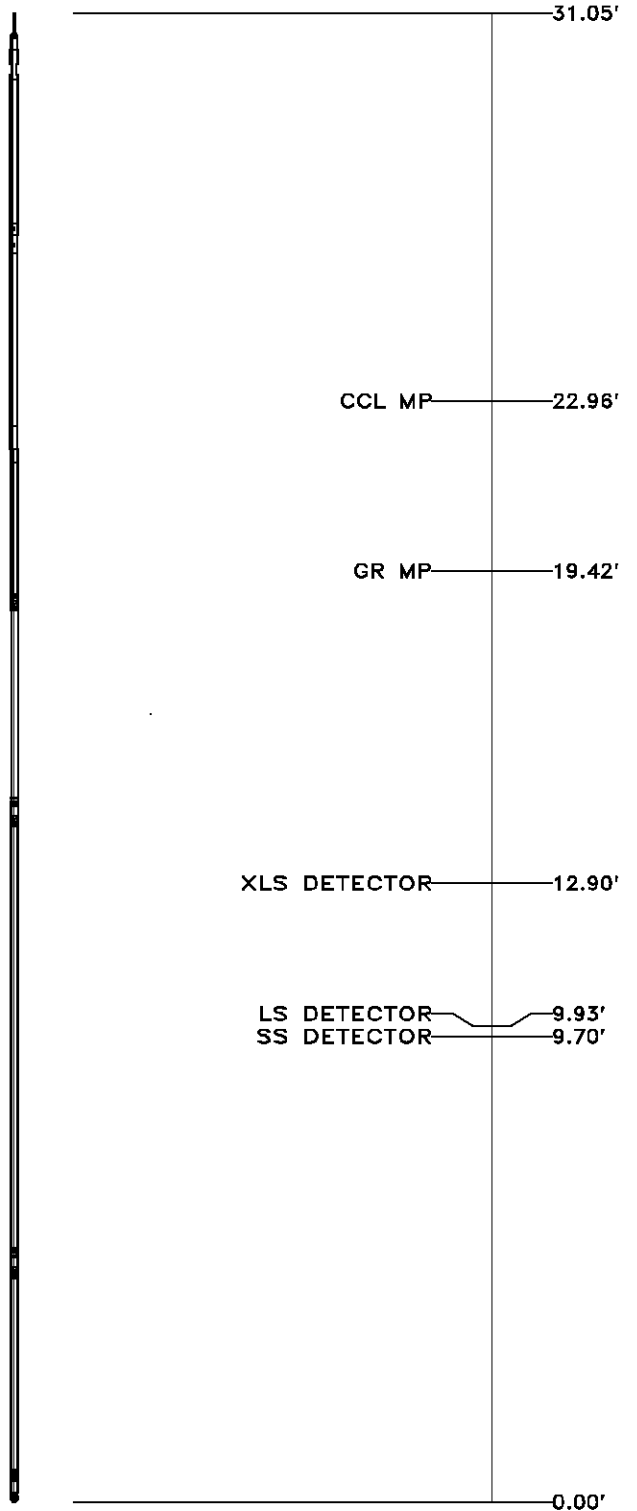
| | ISS | ILS | IXS | SS | SS2 | LS | CSS | CLS |
|---------------|--------|-----------|----------|----------|----------|---------|----------|----------|
| Raw Data | 817644 | 168063.84 | 26013.26 | 90652.30 | 32248.90 | 8276.82 | 54856.68 | 13245.76 |
| Fit Quality % | | 0.92 | 0.89 | 1.08 | 1.06 | 0.97 | 0.98 | 0.94 |

| | ISS | RBOR | RIN ISS/ILS | RIN13 ISS/IXS | RICS ISS/CSS | RATO SS/LS | RTWO SS2/LS | RONE CSS/CLS |
|---------------|---------|-----------|----------------|------------------|-----------------|---------------|----------------|-----------------|
| Raw Data | 817644 | 1.43 | 4.87 | 31.43 | 14.91 | 10.95 | 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 % | | 0.05 | 0.19 | 0.20 | 0.10 | 0.10 | 0.11 | 0.09 |
| Reduced | 1413216 | 1.43 | 4.87 | 31.48 | 14.95 | 10.94 | 3.89 | 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 | 3.88' |
| Temp Rating | 350.00 °F |
| TELEMETRY / CCL | |
| Series | 8248EA |
| Mnemonic | PCM |
| Diameter | 1.70" |
| Weight | 20.00 lb |
| Length | 4.48' |
| Measure Point | 1.00' CCL MP |
| Temp Rating | 350.00 °F |
| Press Rating | 15000.00 PSI |
| GAMMA RAY | |
| Series | 8262XA |
| Mnemonic | GR |
| Diameter | 1.70" |
| Weight | 15.00 lb |
| Length | 3.17' |

| | |
|--------------------------------------|---------------------|
| 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: 31.05'
 Total Weight: Not Available
 Max Diameter: 0' 1.70"



Baker Atlas

| | | |
|---------|--------------------|----------------|
| Company | WPX ENERGY | |
| Well | YOUBERG RWF 533-23 | |
| Field | RULISON | |
| County | GARFIELD | State COLORADO |

| | |
|----------|----------------|
| File No: | CH069876 |
| API No: | 05045182460000 |

| | |
|---------------------------|--------------|
| Location | Elevations |
| SHL: 1402' FSL, 2313' FEL | KB 5527.5 ft |

| |
|-----------|
| 23 6S 94W |
|-----------|

CASE

BHL: 2265' FSL, 1815' FEL

DF

RWF 33-23 PAD

GL 5501.5 ft

NABORS 577

SEC 23

TWP 6S

RGE 94W