



**SECTOR CEMENT BOND
GAMMA RAY
CCL LOG**

Comp. OCCIDENTAL PETROLEUM CORP.
Well MORTON 16-1
Field WATTENBURG
Co. WELD
State CO

Company **OCCIDENTAL PETROLEUM CORP.**
Well **MORTON 16-1**
Field **WATTENBURG**
County **WELD** State **CO**

Location: API #: 05-123-34065
1371' FSL & 923' FEL
SEC 1N TWP 67W RGE 6

Other Services
PERF

Permanent Datum GL Elevation 4898'
Log Measured From KB 15' Above Perm. Datum
Drilling Measured From KB G.L. 4898'

Date of Service 26-JULY-2024
Run Number ONE
Depth Driller or PBTID 8149'
Depth Logger 5000'
Bottom Log Interval 5000'
Top Log Interval SURFACE
Open Hole Size 7-7/8"
Type Fluid H2O
Fluid Level SURFACE
Fluid Density 8.33 LB/GAL
Max. Recorded Temperature NA
Max. Wellhead Pressure ZERO
Wellhead Connection 5K
Estimated Cement Top 875'
Unit Number 1010'
Wireline Size 1/4"
Location BRIGHTON
Recorded By C. SHEPPARD
Witnessed By FIDEL GONZALEZ

| | | | | |
|-------------------|--------|-------|---------|-------|
| Surface Casing | 8-5/8" | 24# | SURFACE | 877' |
| Production Casing | 4-1/2" | 11.6# | SURFACE | 8139' |
| Liner Casing | | | | |
| Tubing Record | | | | |

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All interpretations are opinions based on inferences from electrical or other measurements and Ranger Energy Services cannot and does not guarantee the accuracy or correctness of any interpretation, and Ranger Energy Services will not be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.
LOG CORRELATED TO KB

ZERO PRESSURE APPLIED @ SURFACE

THANK YOU FOR USING RANGER ENERGY SERVICES!!

THANK YOU FOR USING RANGER ENERGY SERVICES! FIELD TICKET #

| | | |
|--|----------------------|---------------|
| Your Ranger Energy Services Crew | Tool Data - Services | Serial Number |
| Engineer: C. SHEPPARD Operator: E. CARRANZA Operator: J. STROUT Operator: | | |

| | | | | | | |
|----------|-------------|-----------|-------------|-------------|-----------|-------------|
| Operator | Offset (ft) | Substrate | Description | Length (ft) | O.D. (in) | Weight (lb) |
|----------|-------------|-----------|-------------|-------------|-----------|-------------|

| Sensor | Offset (ft) | Schematic | Description | Length (ft) | O.D. (in) | Weight (lb) | |
|---------|-------------|-----------|---|--|-----------|-------------|-------|
| ErrCt | 14.60 | | Cable_Head-1_7/16 Titan 1 7/16" Cable Head | 1.02 | 1.44 | 3.31 | |
| IntTemp | 12.34 | | | | | | |
| WVFS8 | 9.09 | | | RBT-Probe (070150) Probe Radii Bond Tool with Digital Telemetry | 8.75 | 2.75 | 90.00 |
| WVFS7 | 9.09 | | | | | | |
| WVFS6 | 9.09 | | | | | | |
| WVFS5 | 9.09 | | | | | | |
| WVFS4 | 9.09 | | | | | | |
| WVFS3 | 9.09 | | | | | | |
| WVFS2 | 9.09 | | | | | | |
| WVFS1 | 9.09 | | | | | | |
| WVFCAL | 9.09 | | | | | | |
| WV3FT | 9.09 | | | | | | |
| WV5FT | 8.09 | | | | | | |
| CCL | 3.89 | | | | | | |
| GR | 2.65 | | GR_analog-GR275B (071129) 275 Gamma-CCL (Pulse) Top Detector | 4.57 | 2.75 | 55.00 | |
| | | | Bull_Plug-1_7/16_GO Titan 1 7/16" Female Bull Plug | 0.27 | 1.44 | 1.00 | |

Dataset: 692108_occidental_morton16-1_0512334065_20240726_scbl.db: field/well/run1/pass4
 Total length: 14.60 ft
 Total weight: 149.31 lb
 O.D.: 2.75 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\692108_occidental_morton16-1_0512334065_20240726
Dataset field/well/run1/pass4/_vars_

Top - Bottom

| | | | | | | | |
|----------------------|------------------------|-----------------------|------------------------|---------------------------|-----------------------|----------------------|------------------------|
| BOREID in 8.75 | BOTTEMP degF 100 | CASEOD in 4.5 | CASETHCK in 0.25 | CASEWGHT lb/ft 11.6 | MAXAMPL mV 81.2 | MINAMPL mV 0.7 | MINATTN db/ft 13 |
| PERFS No | PPT usec 249 | SRFTEMP degF 99 | TDEPTH ft 5000 | | | | |

Variable Description

BOREID : Borehole I.D.
BOTTEMP : Bottom Hole Temperature
CASEOD : Casing O.D.
CASETHCK : Casing Thickness

CASEWGHT : Casing Weight
MAXAMPL : Maximum Amplitude
MINAMPL : Minimum Amplitude
MINATTN : Minimum Attenuation

PERFS : Perforation Flag
PPT : Predicted Pipe Time
SRFTEMP : Surface Temperature
TDEPTH : Total Depth

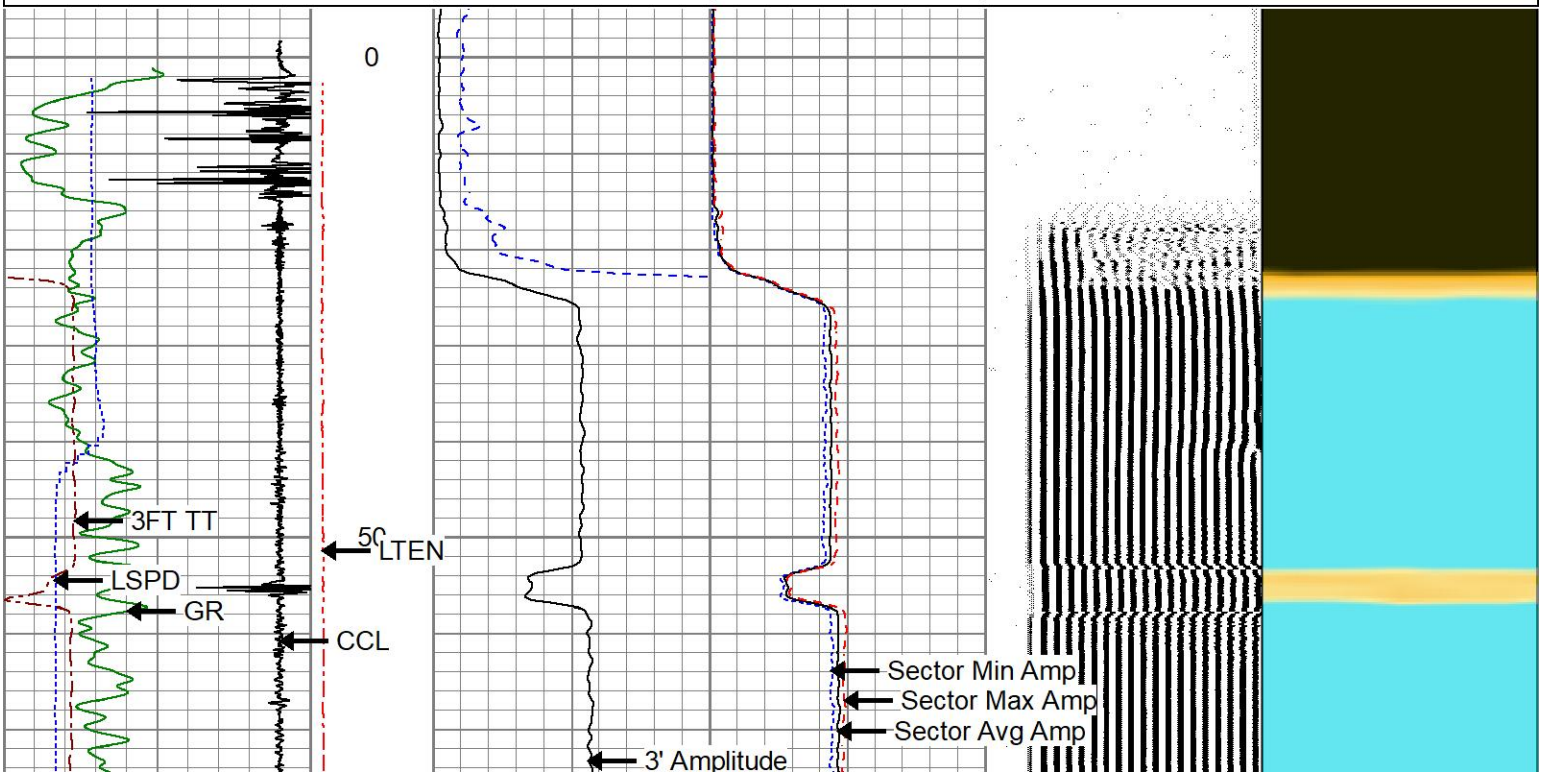


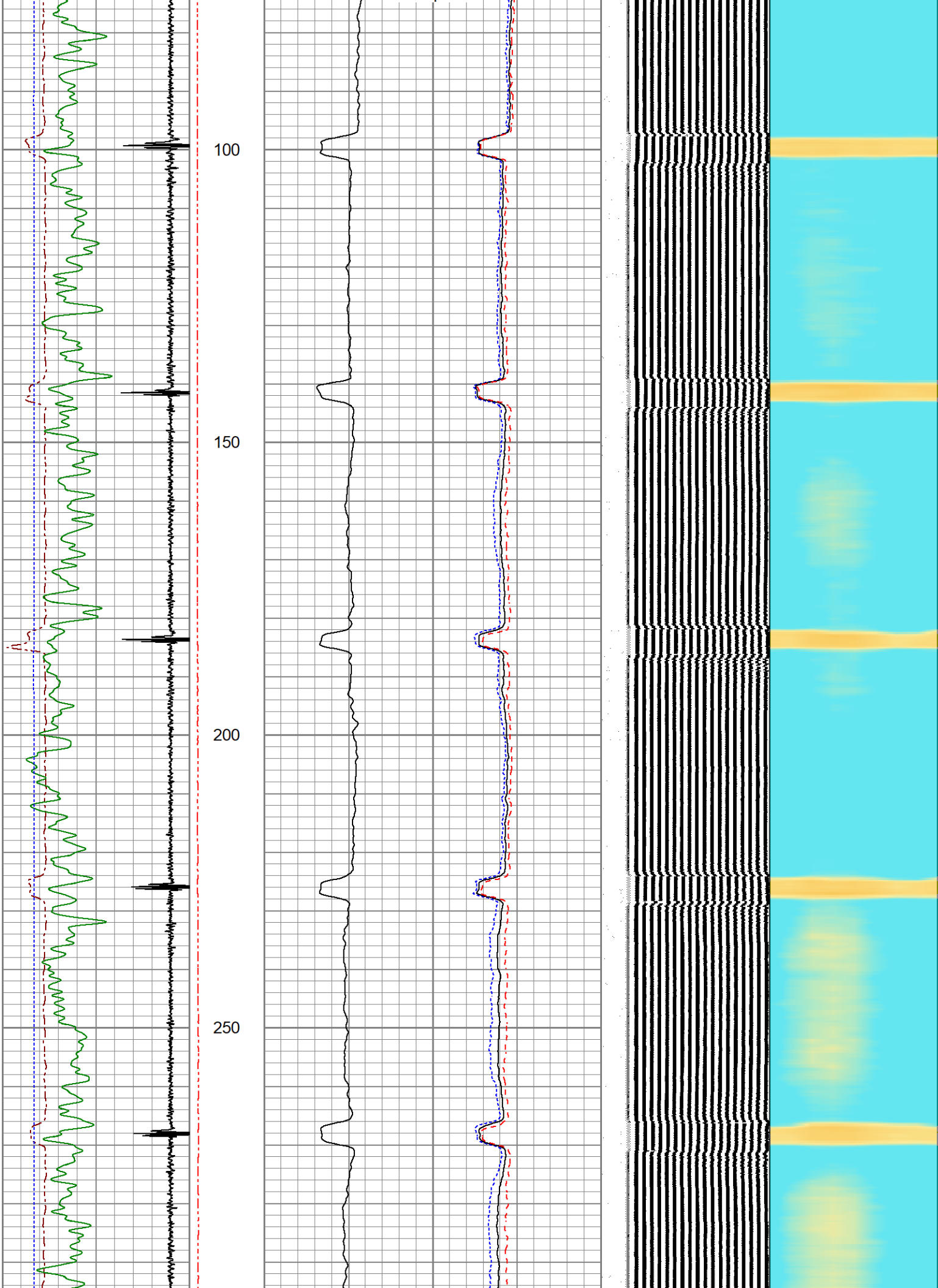
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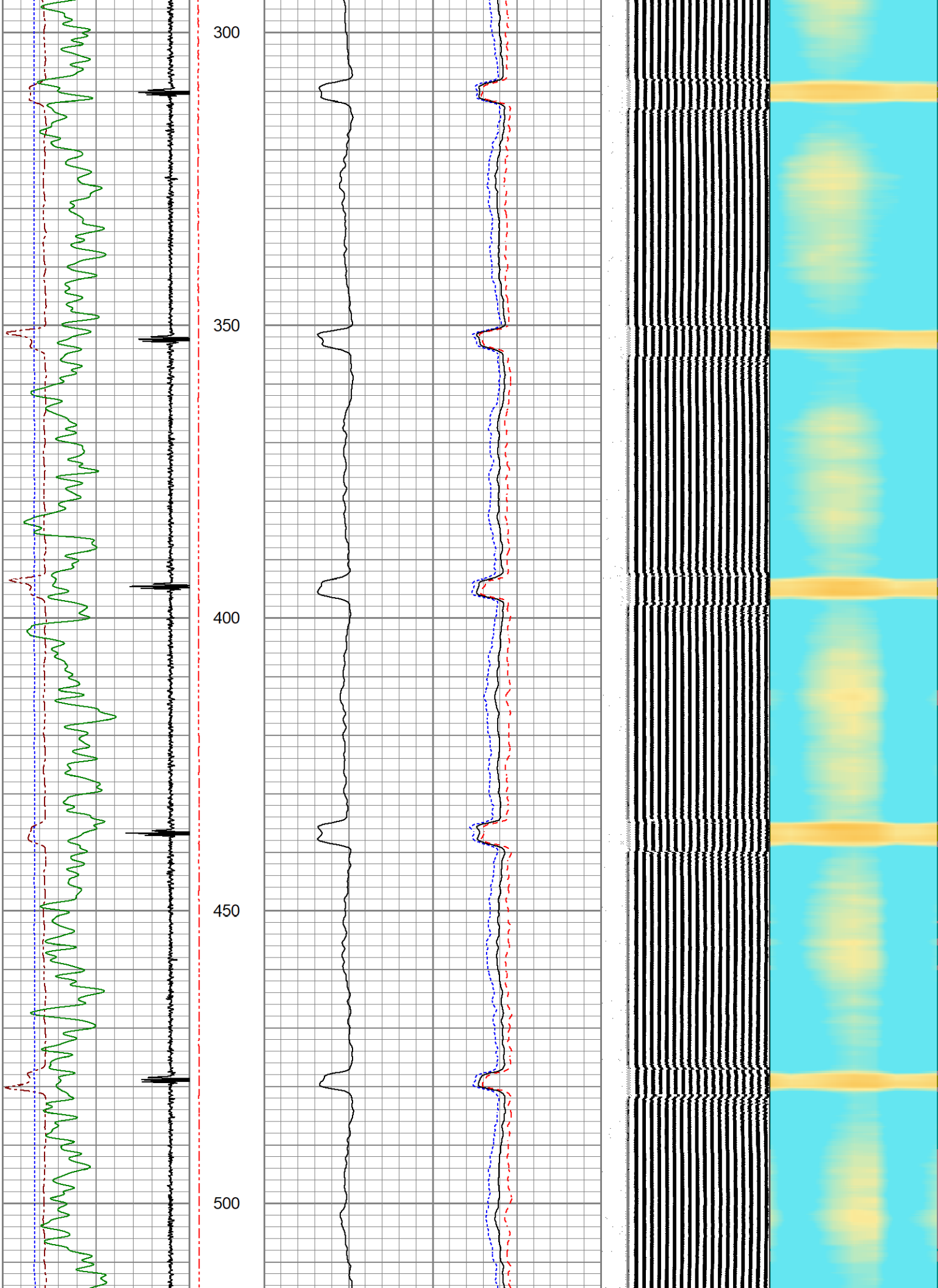
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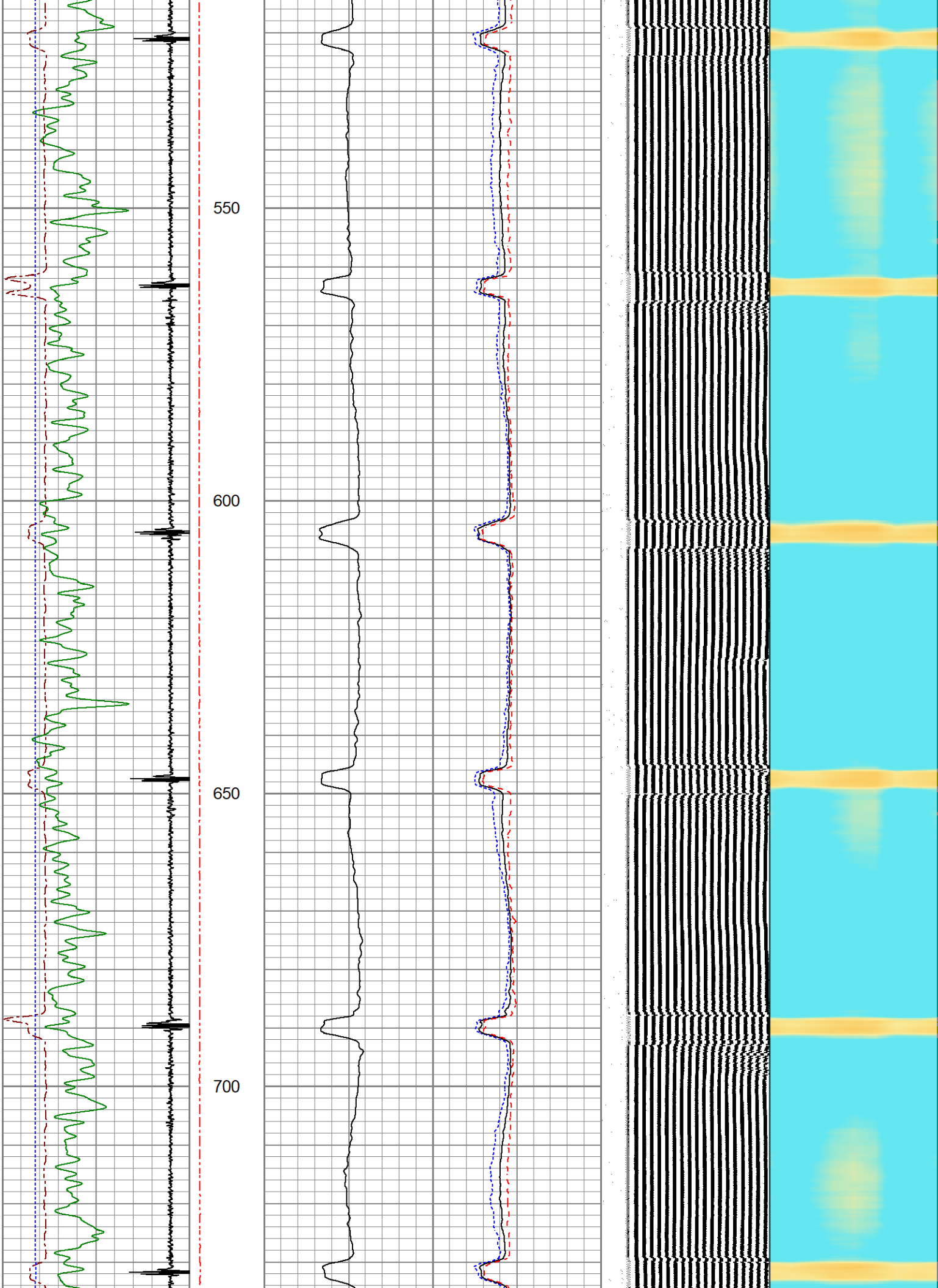
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Dataset Pathname pass4
Presentation Format res_scbl 8sec
Dataset Creation Fri Jul 26 13:47:46 2024
Charted by Depth in Feet scaled 1:240

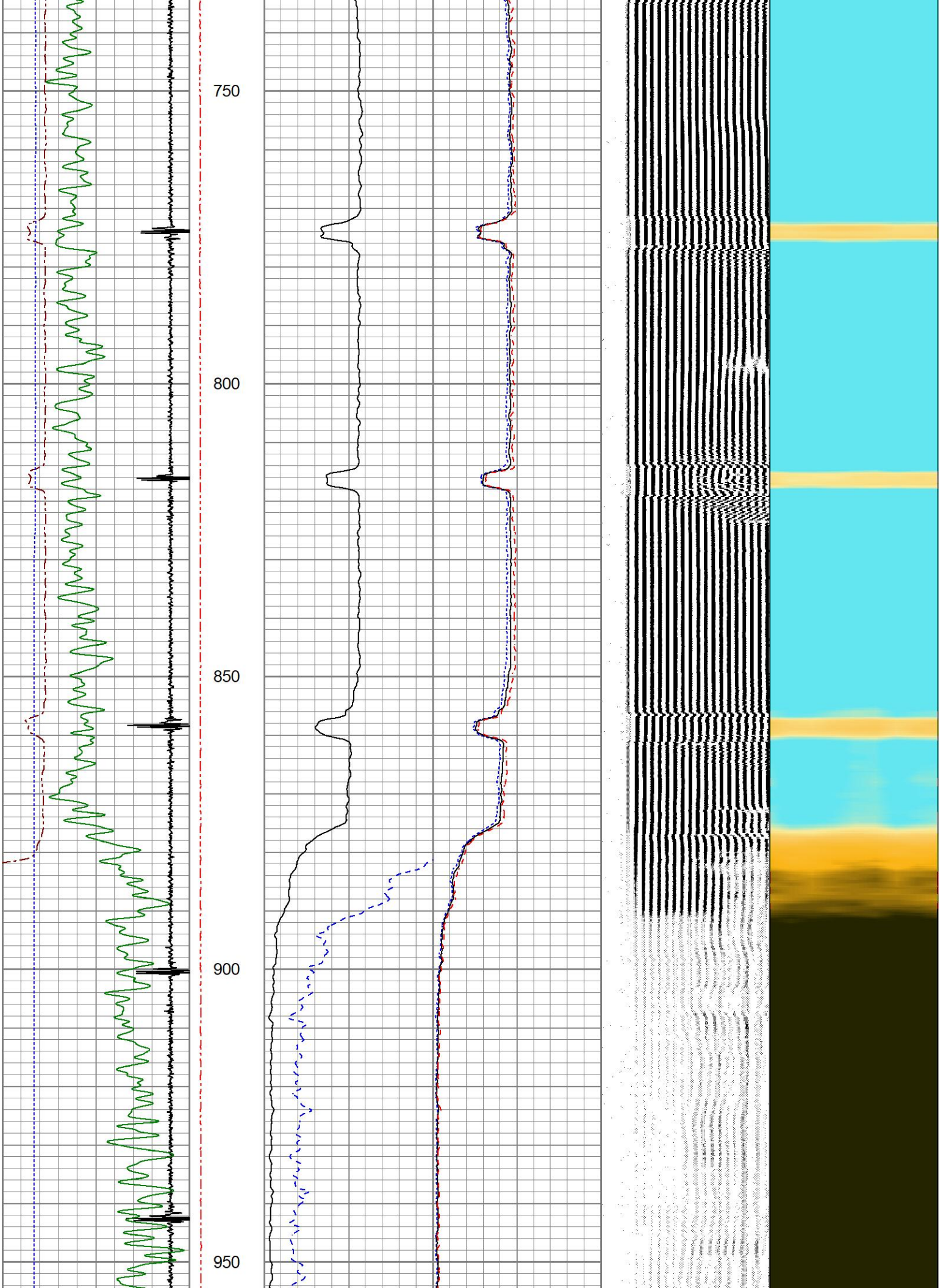
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|------------------------|--------|---------------|----------------------|---------------------|----------------|
| 260 3FT TT (usec) 160 | LTEN | 3' Amplitude | 0 Sector Min Amp 150 | 200 VDL (usec) 1200 | 1 Sector Map 8 |
| -9 CCL 1 | (lb) | (mV) 100 | Sector Avg Amp | | |
| 0 GR (GAPI) 150 | 0 2000 | 3' Amplified | 0 150 | | |
| -150 LSPD (ft/min) 150 | | Amplitude X 5 | Sector Max Amp | | |
| | | (mV) 20 | 0 150 | | |











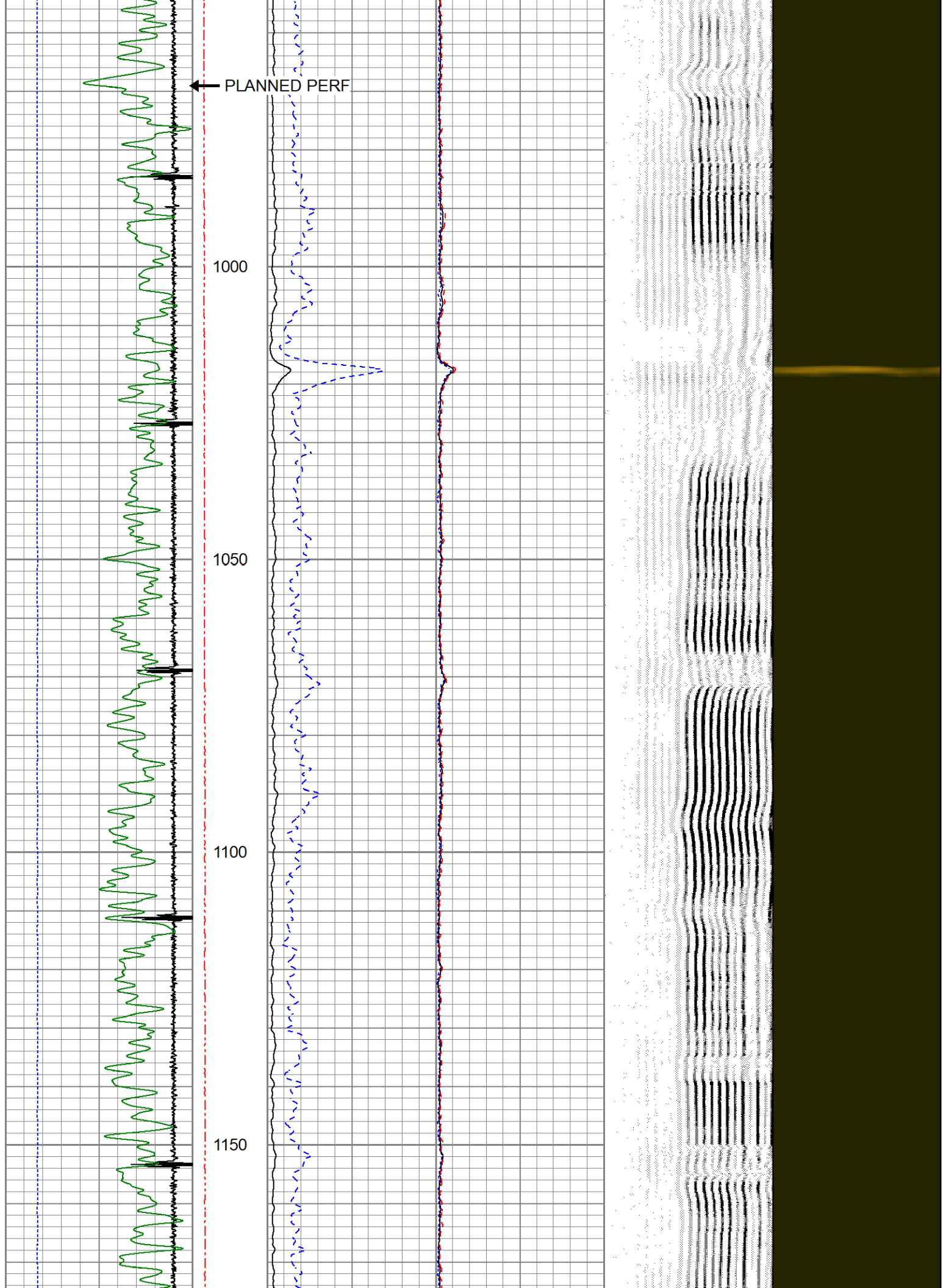
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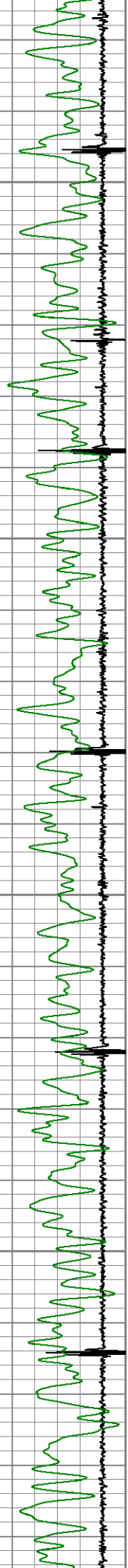
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1050

1100

1150



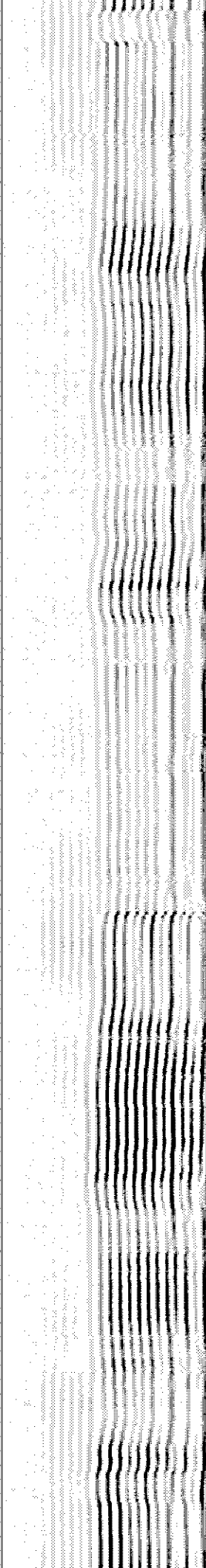
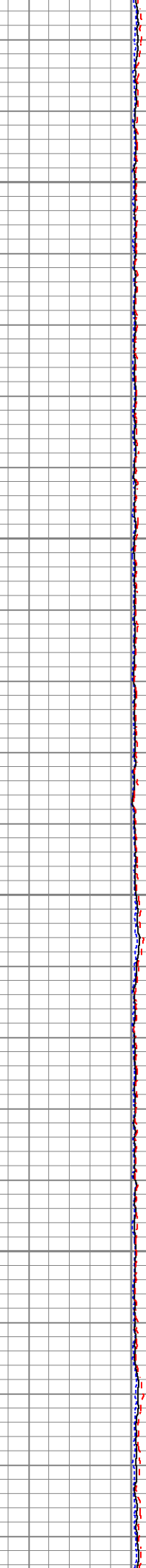
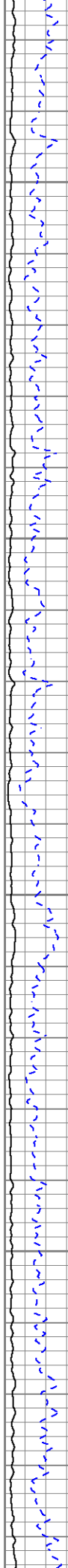


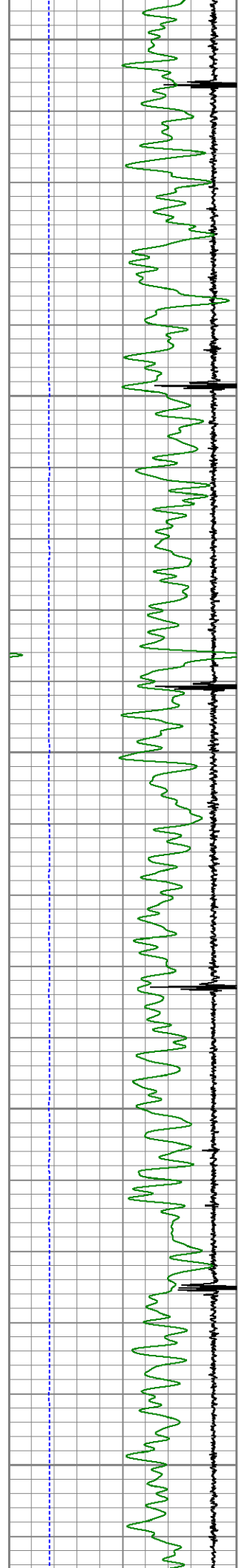
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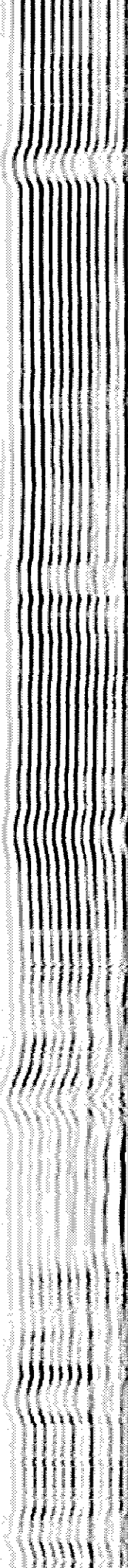
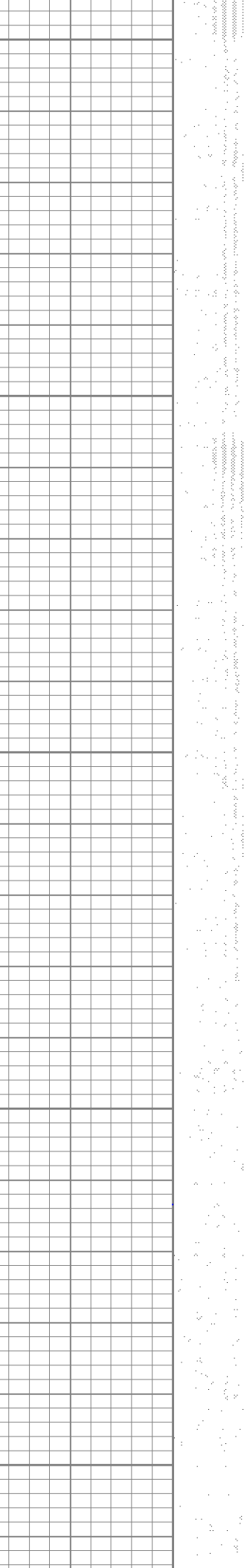
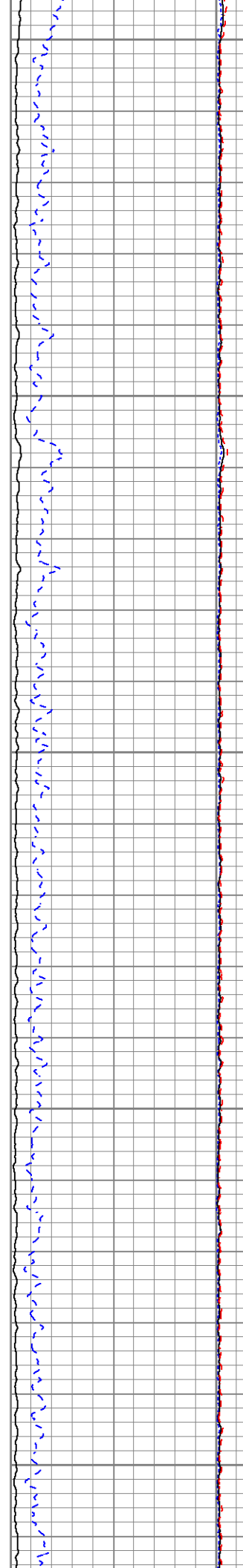
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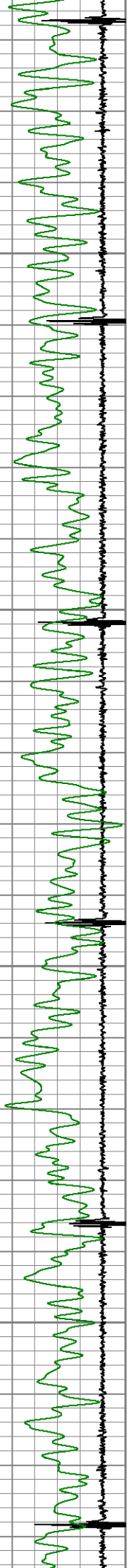
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1600



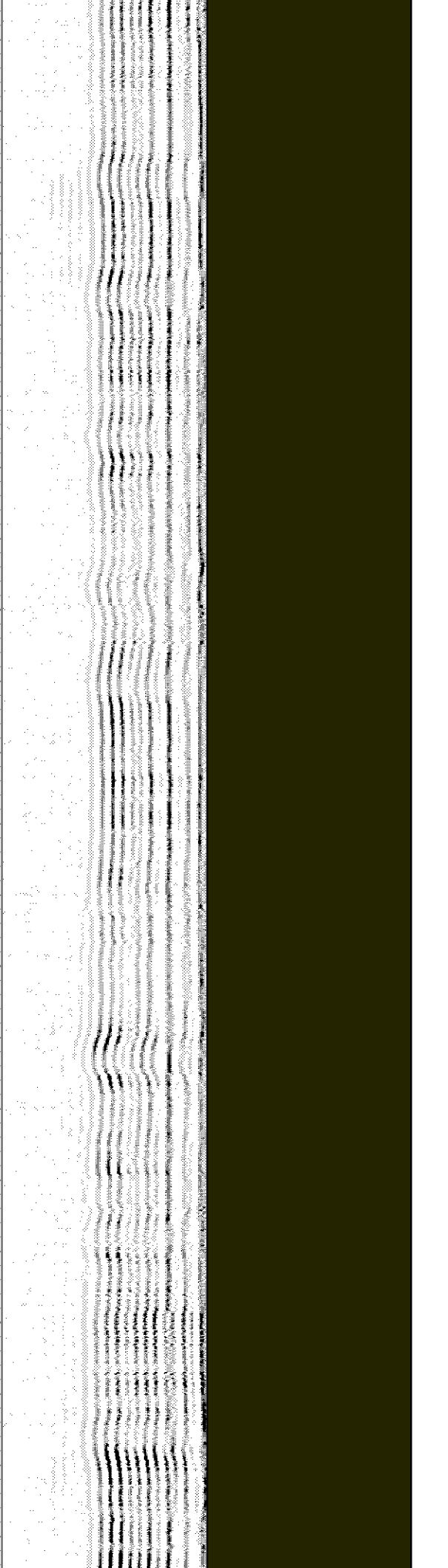
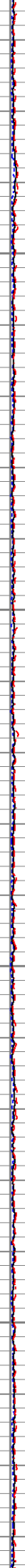
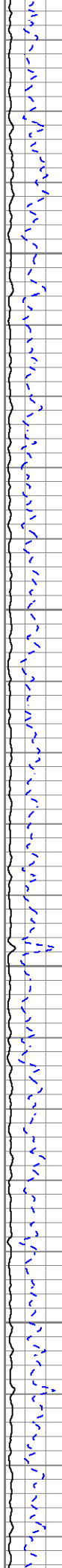


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1700

1750

1800



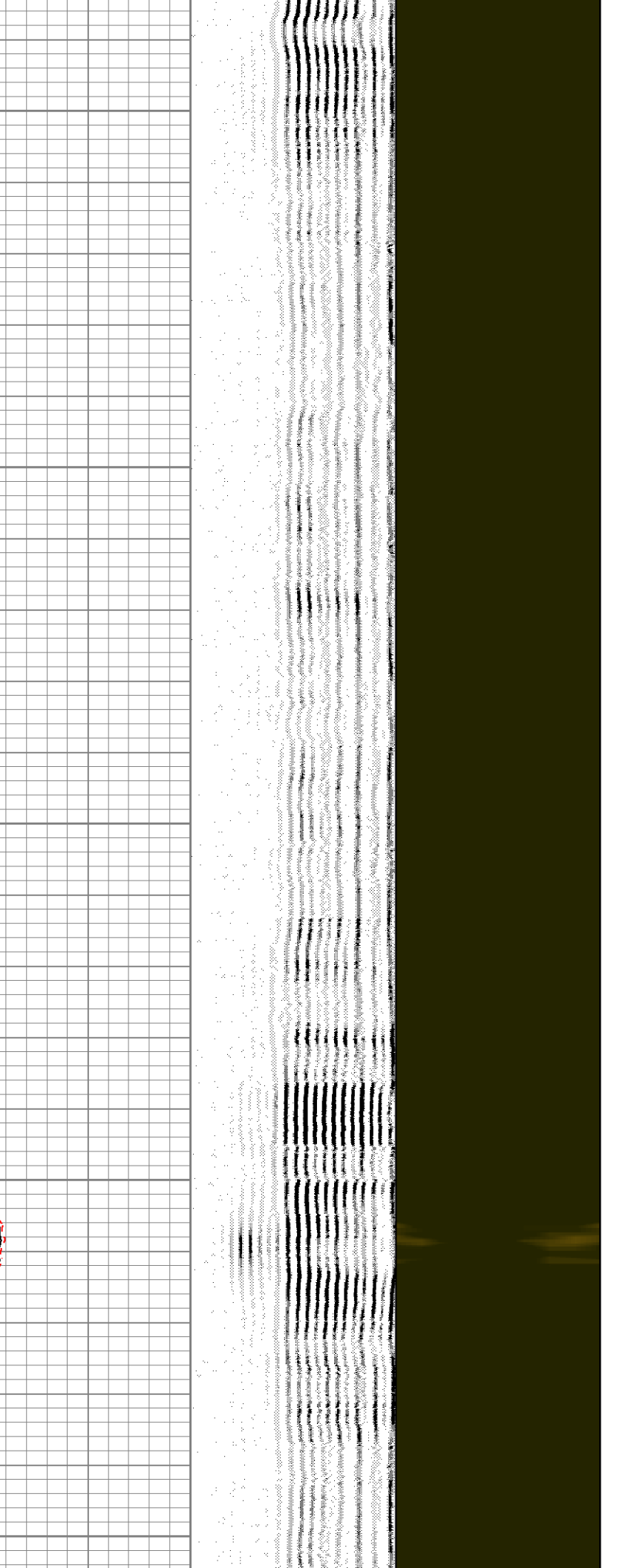
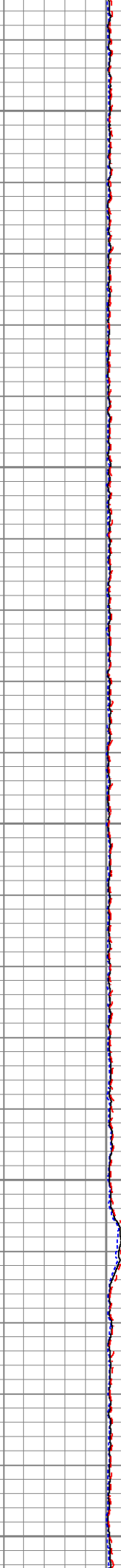
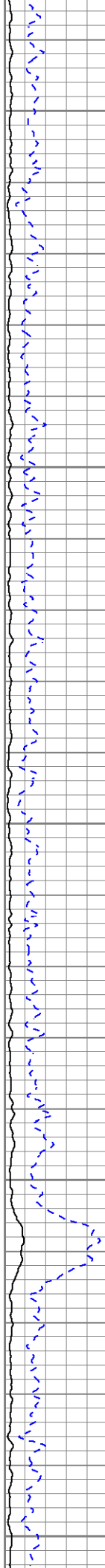
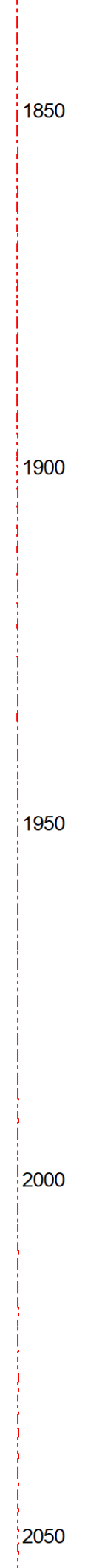
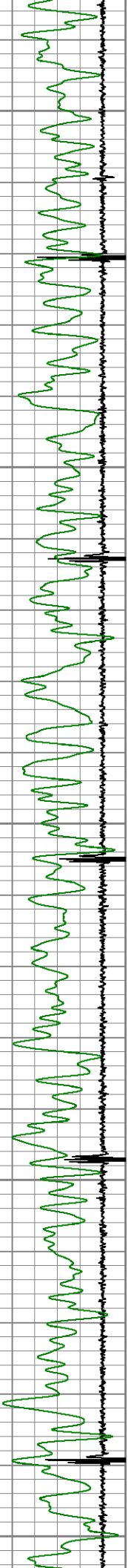
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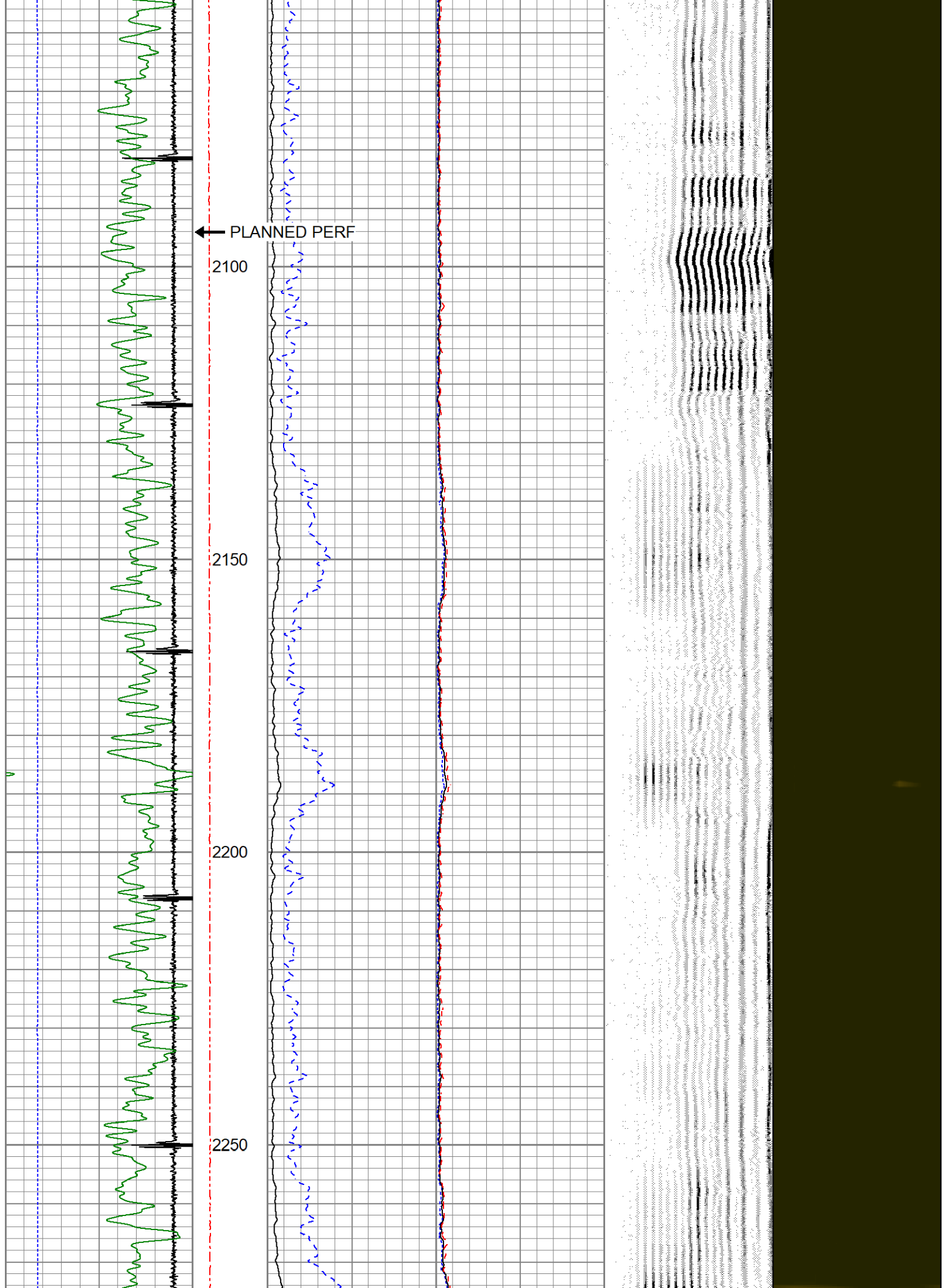
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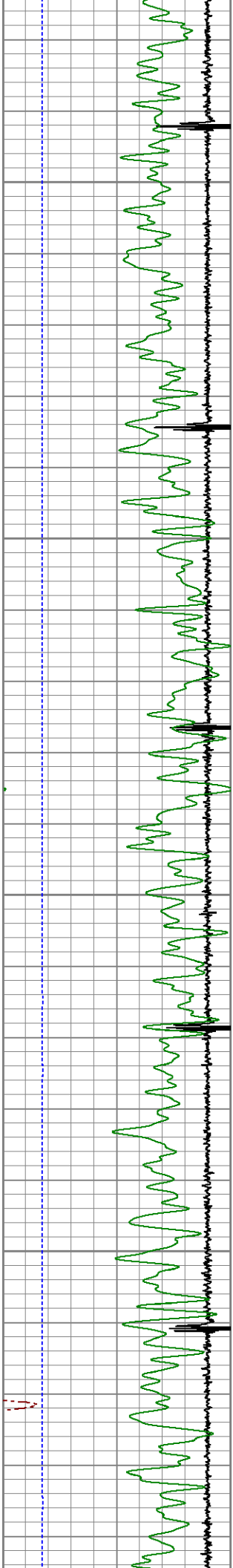
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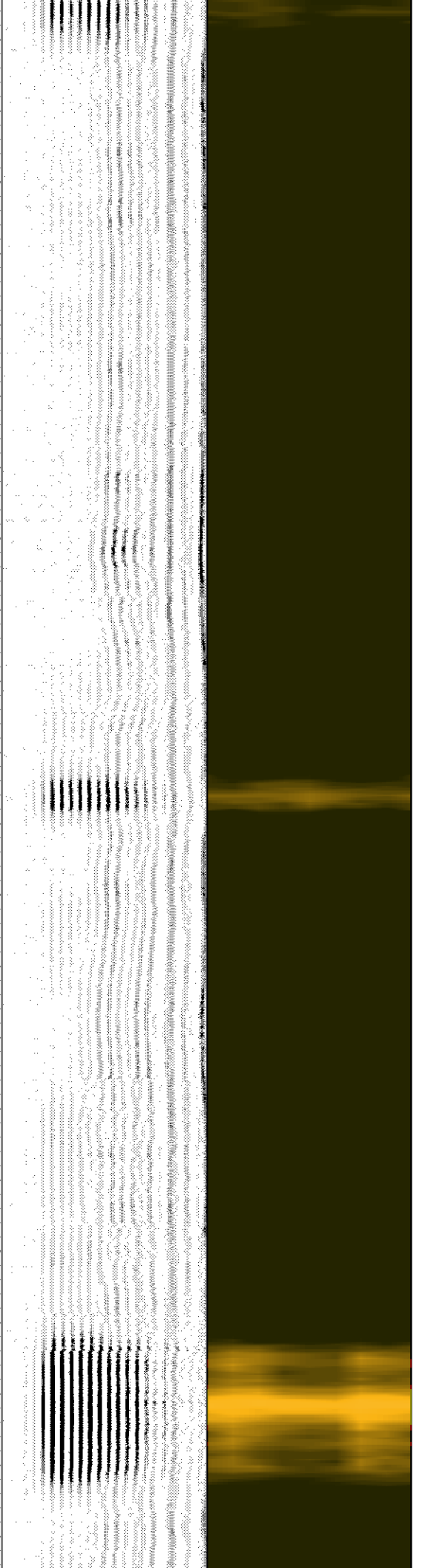
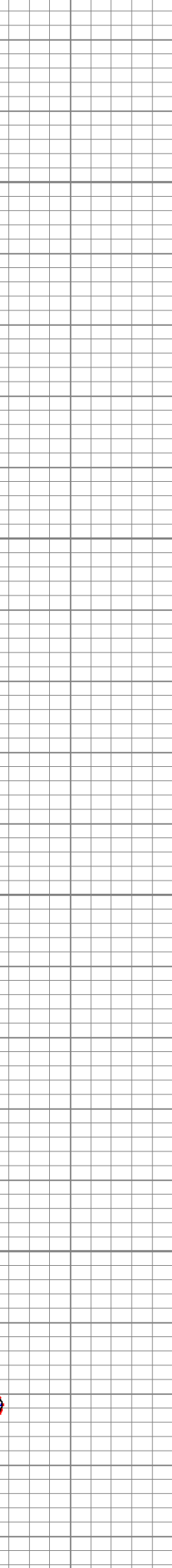
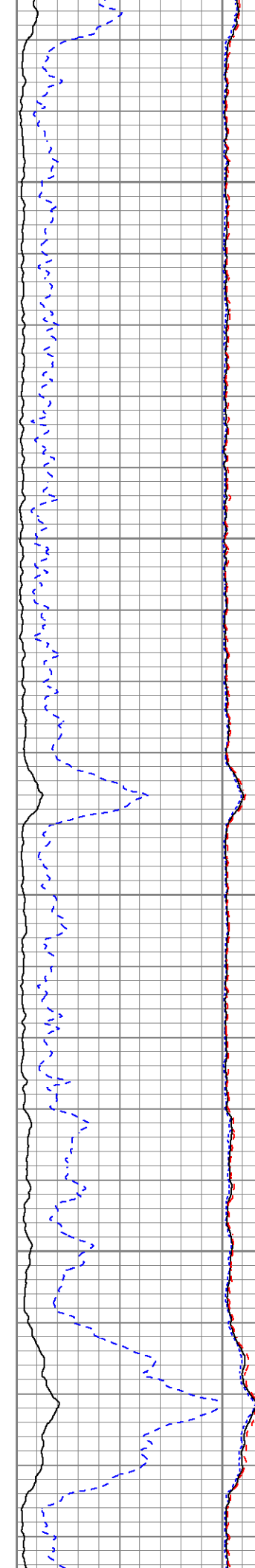
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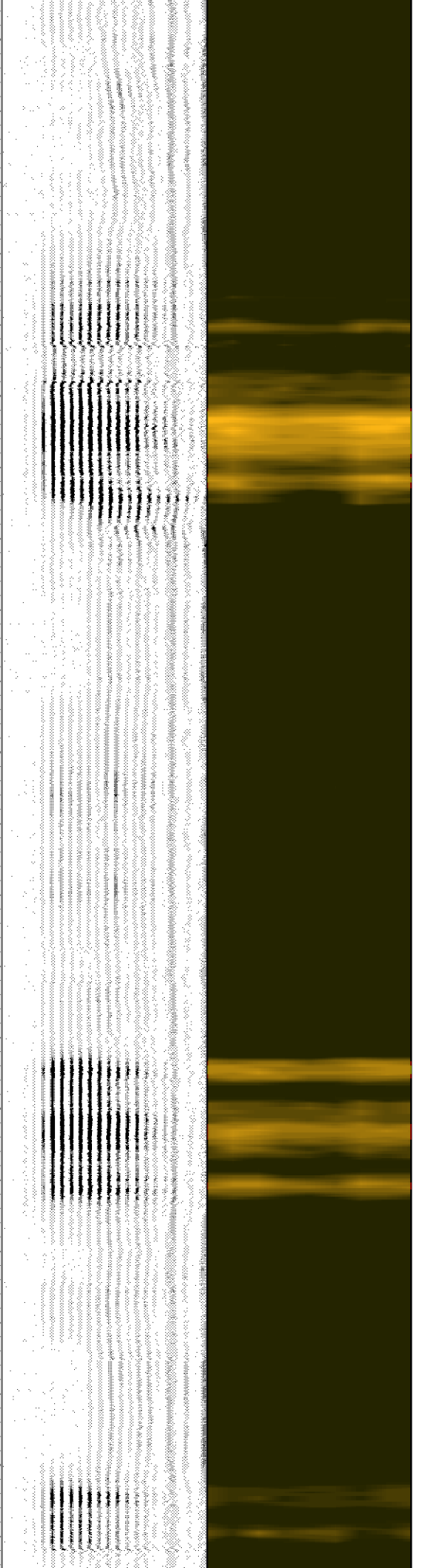
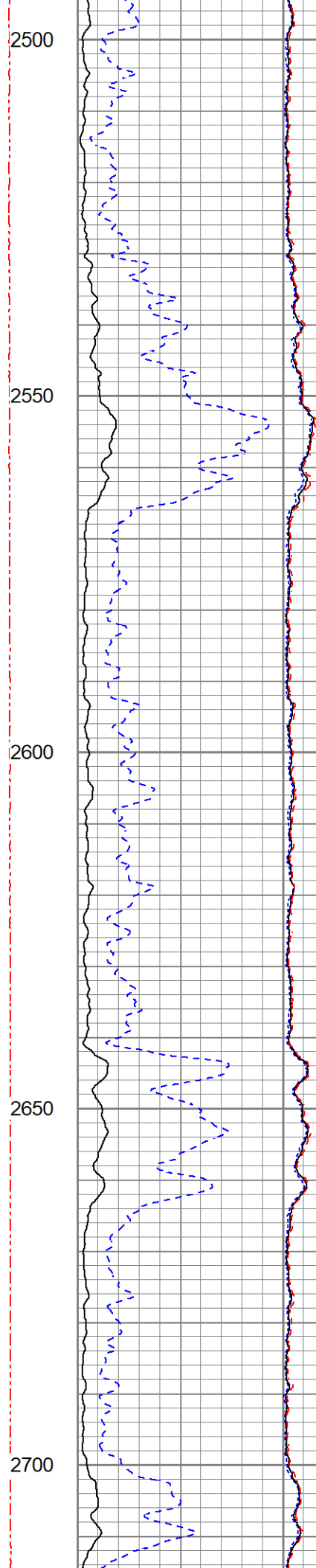
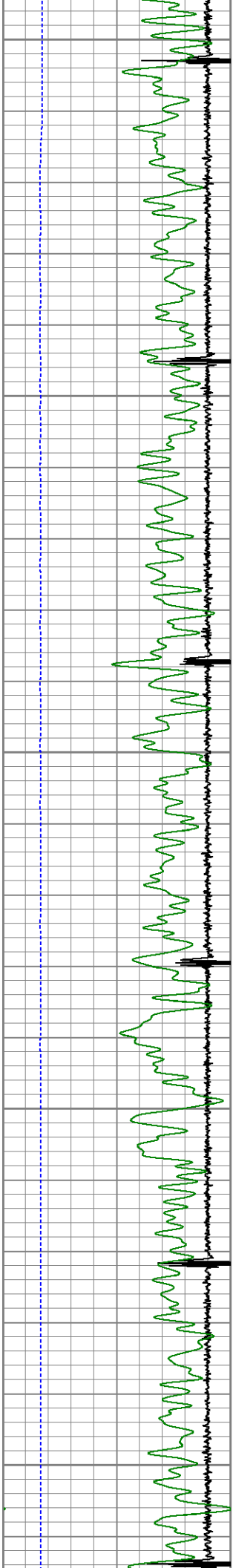
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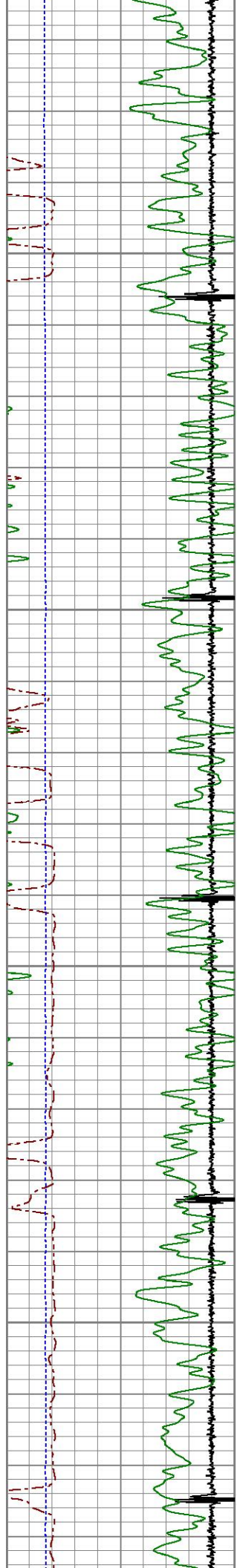




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2450





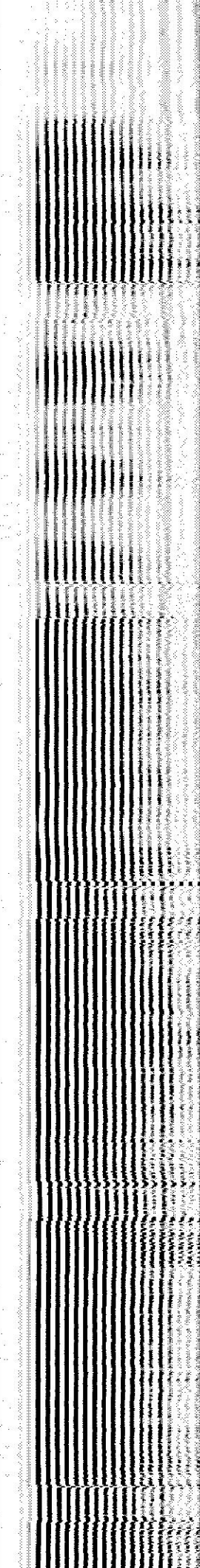
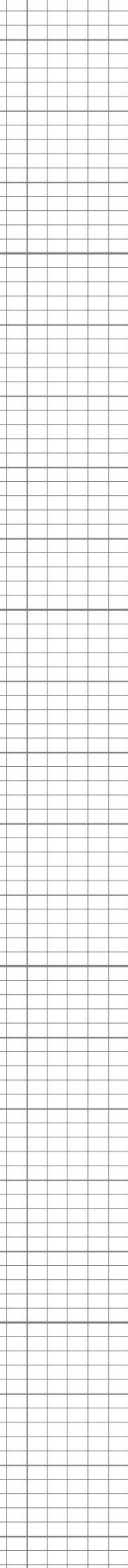
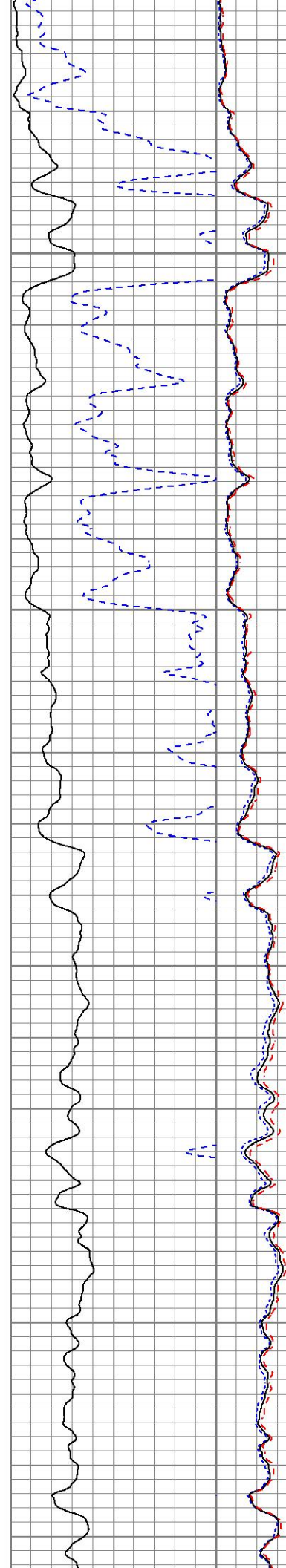


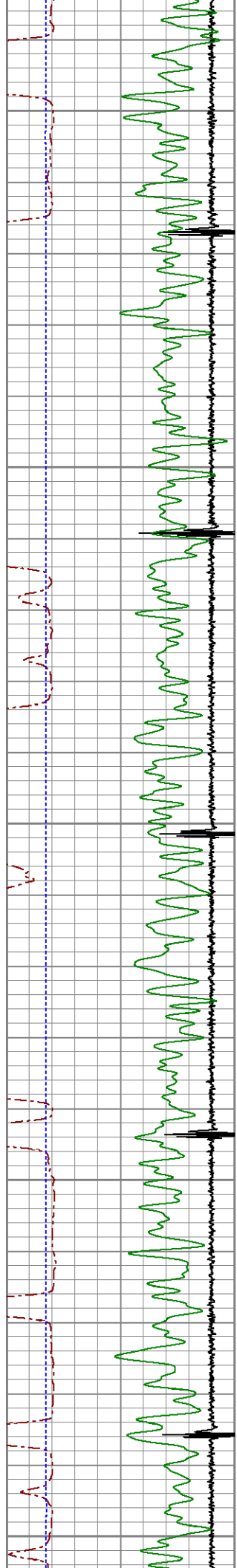
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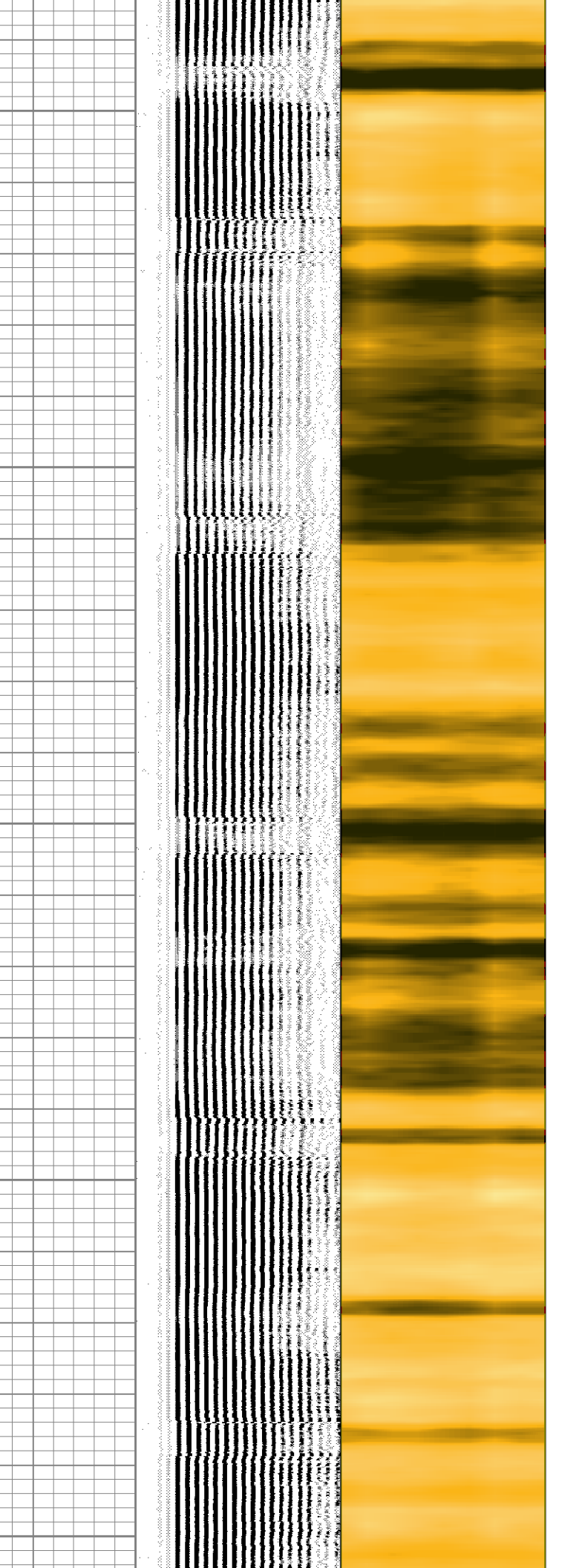
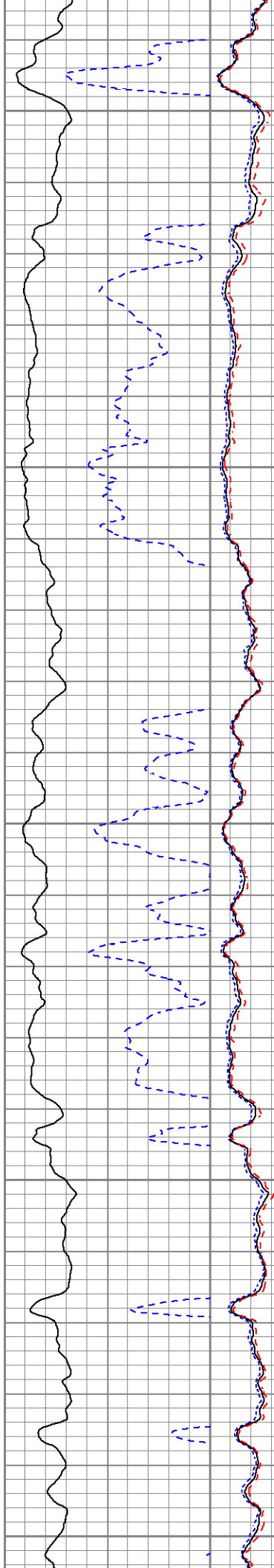
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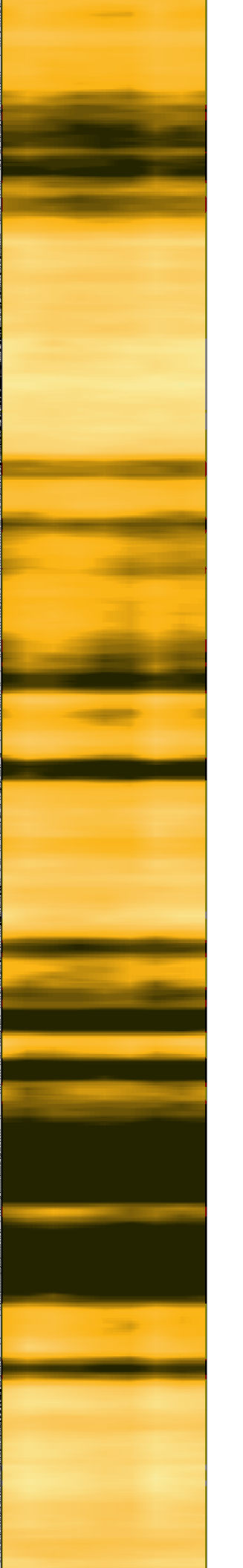
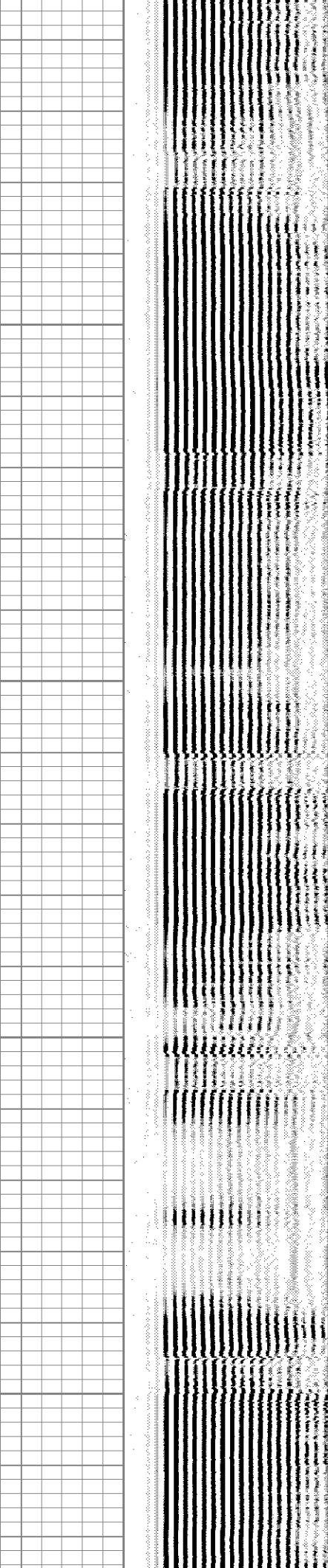
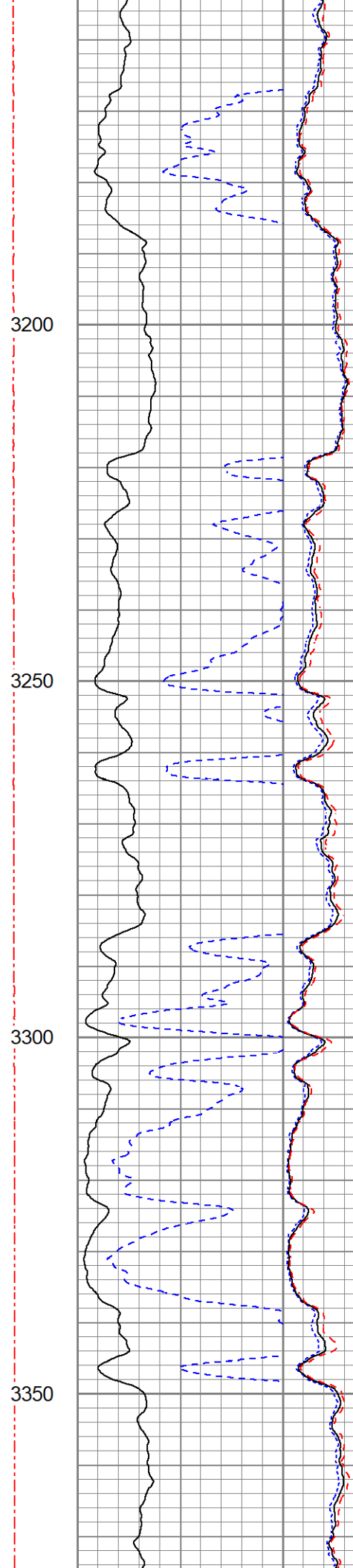
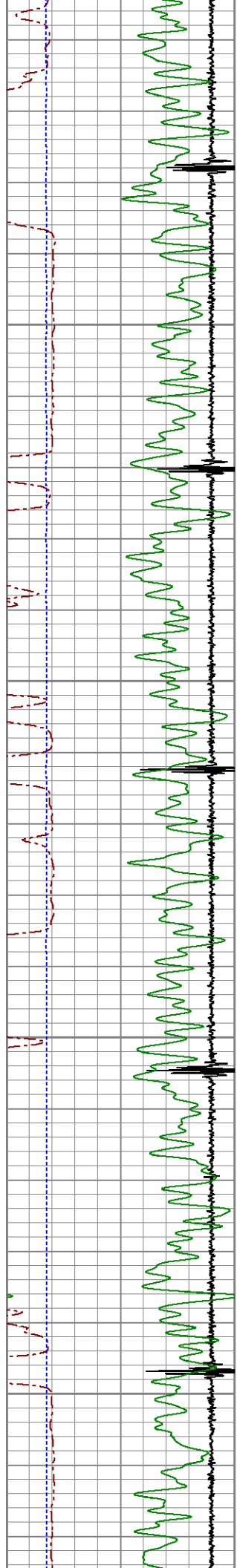
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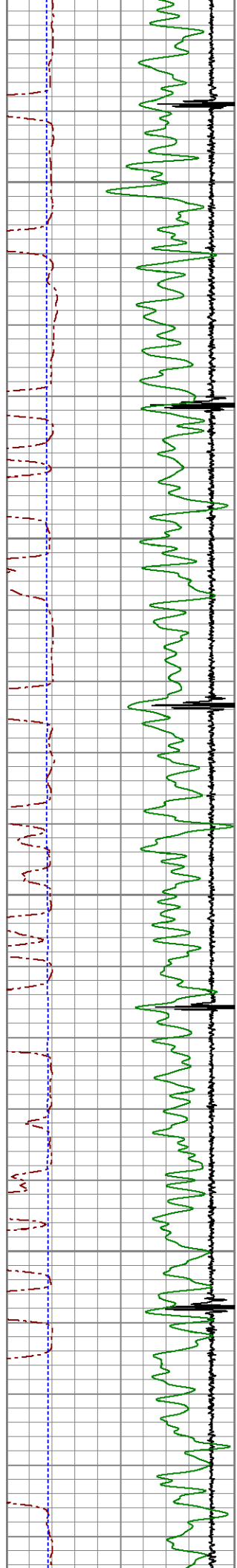




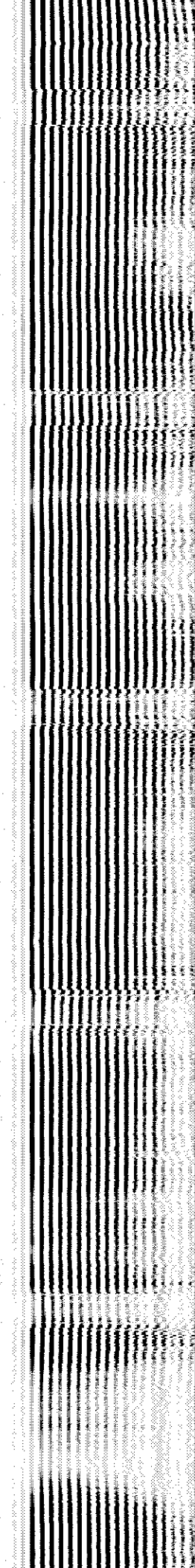
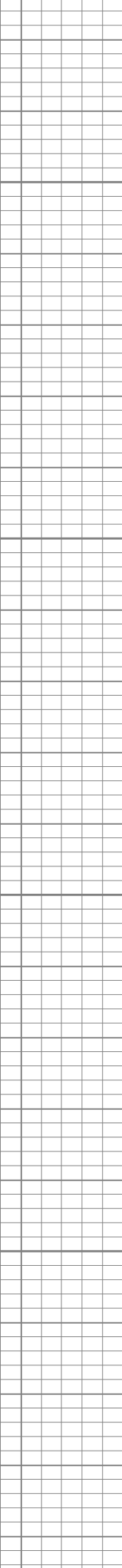
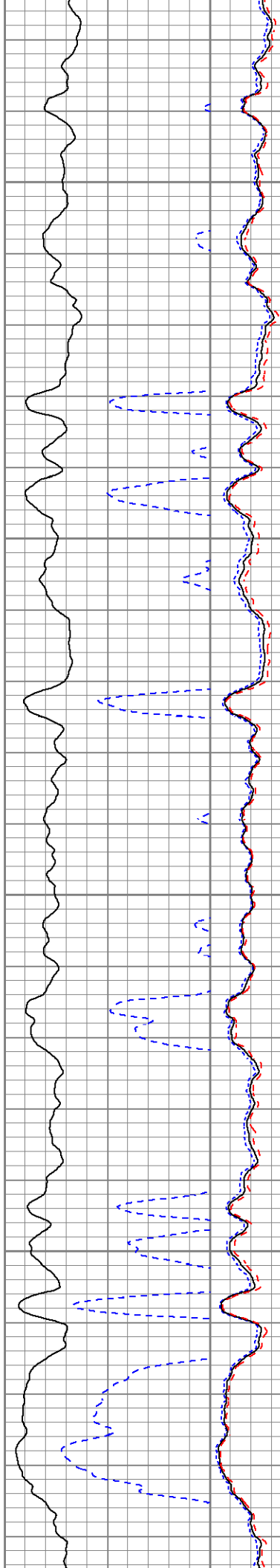
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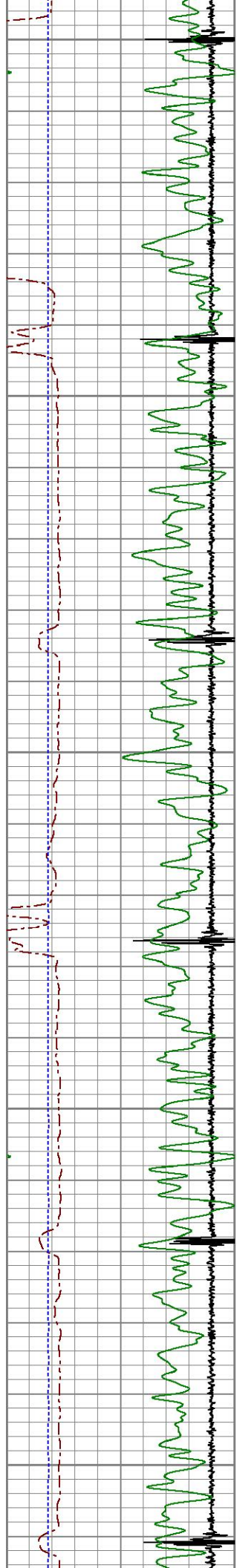




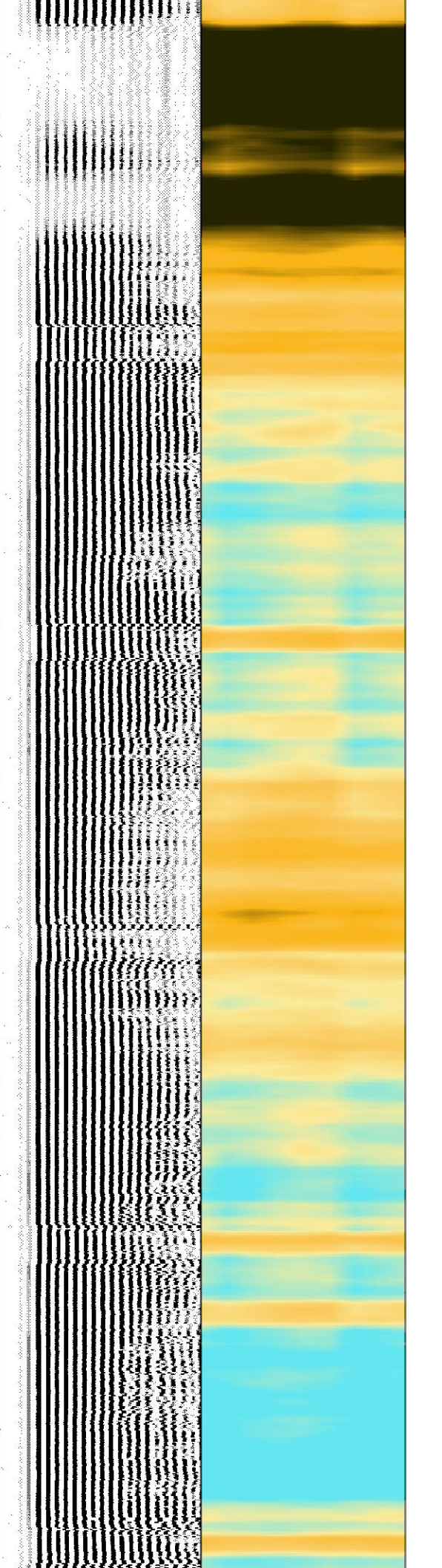
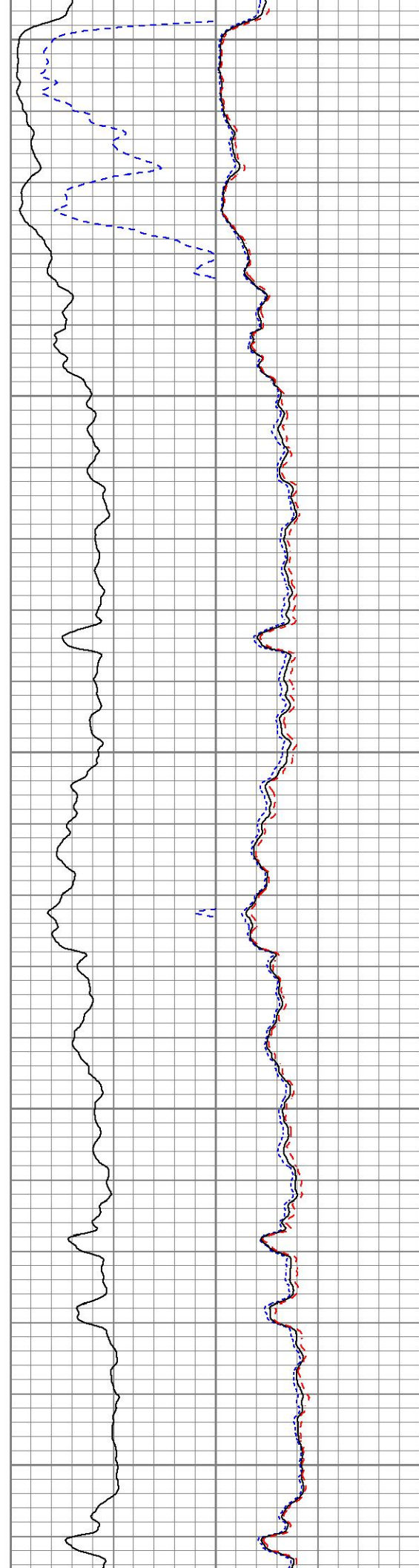


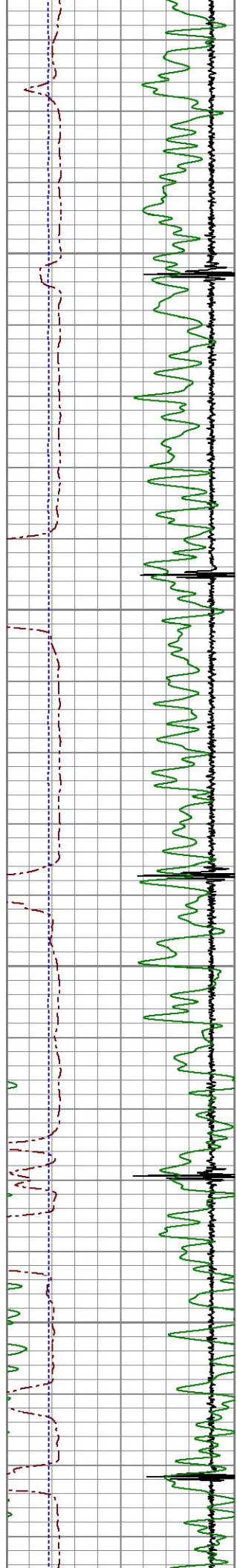
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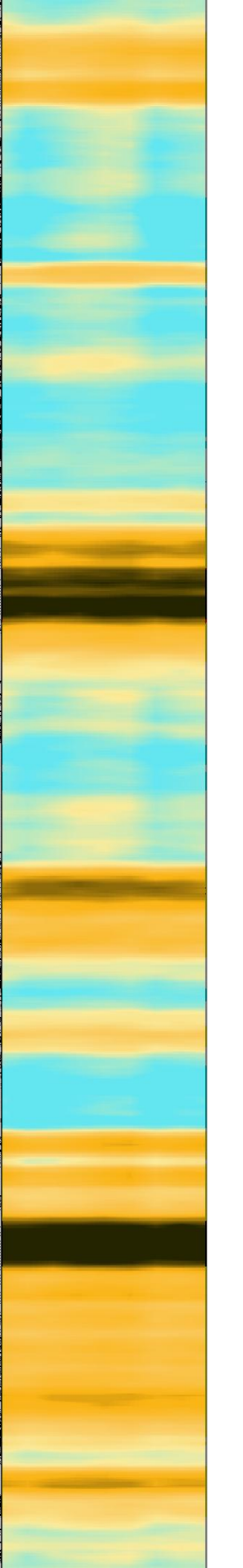
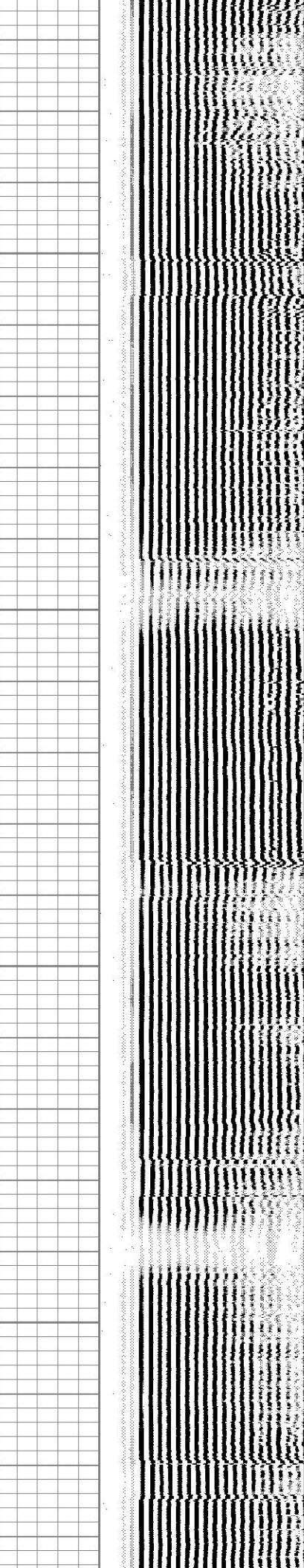
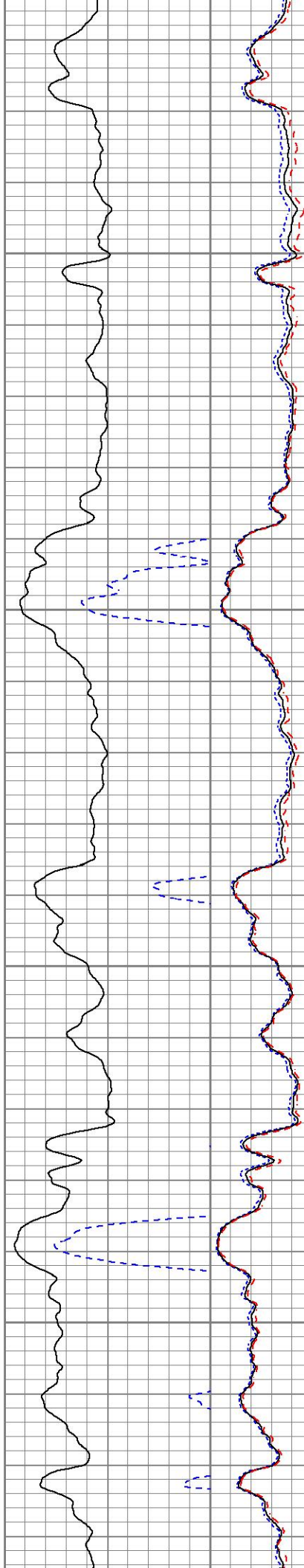


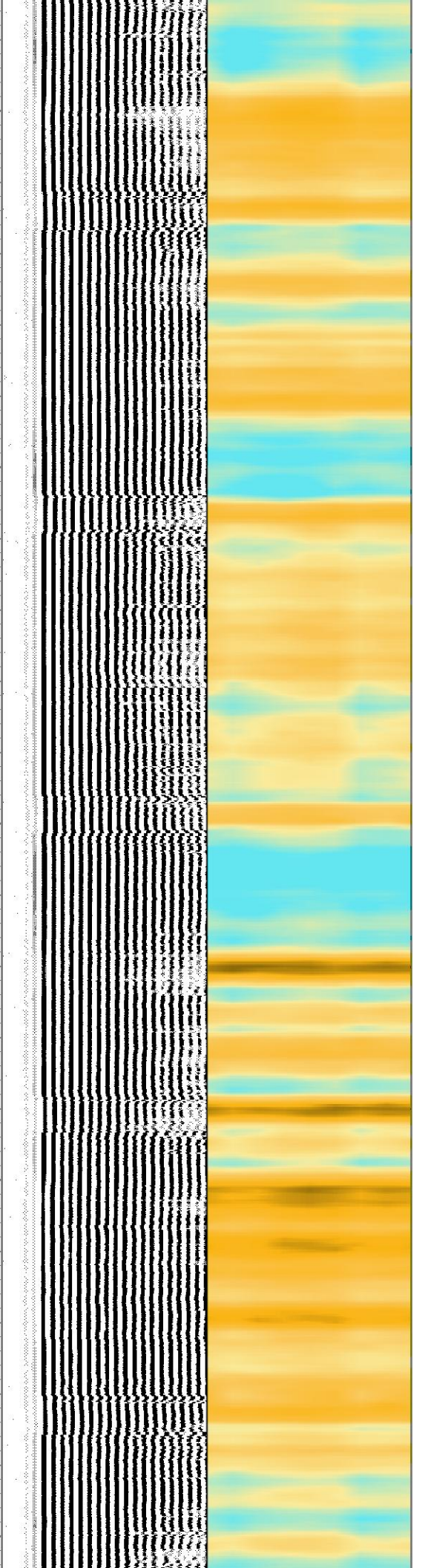
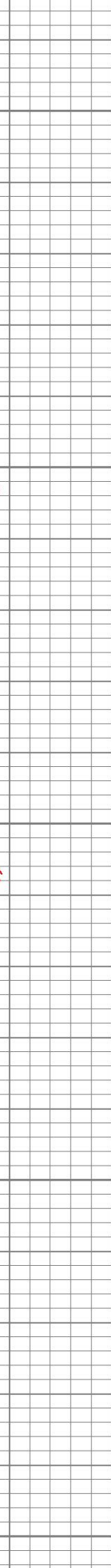
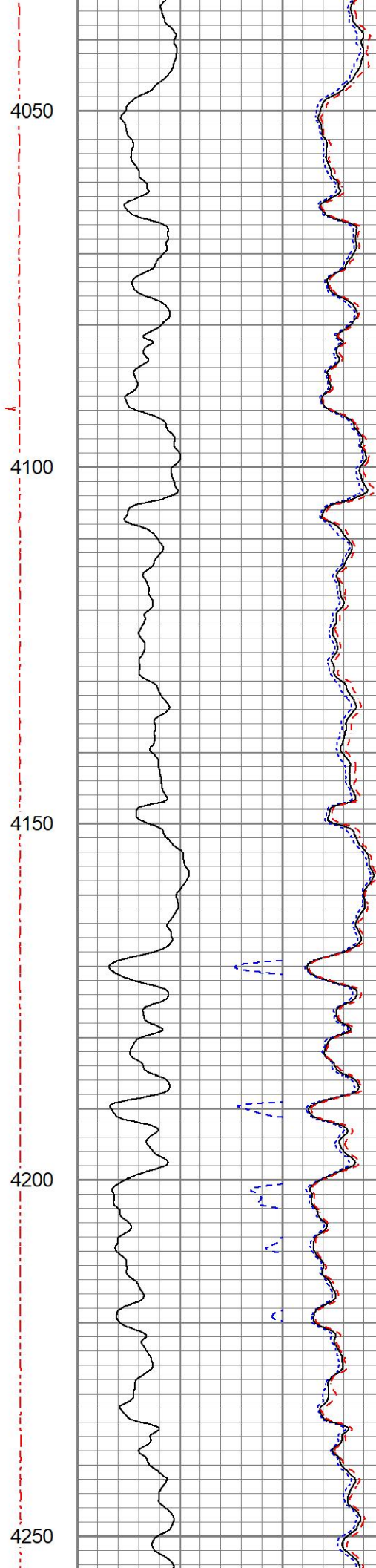
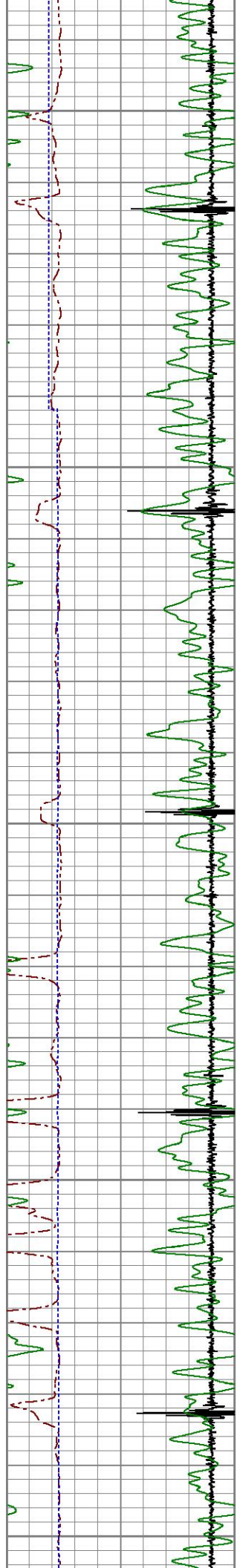
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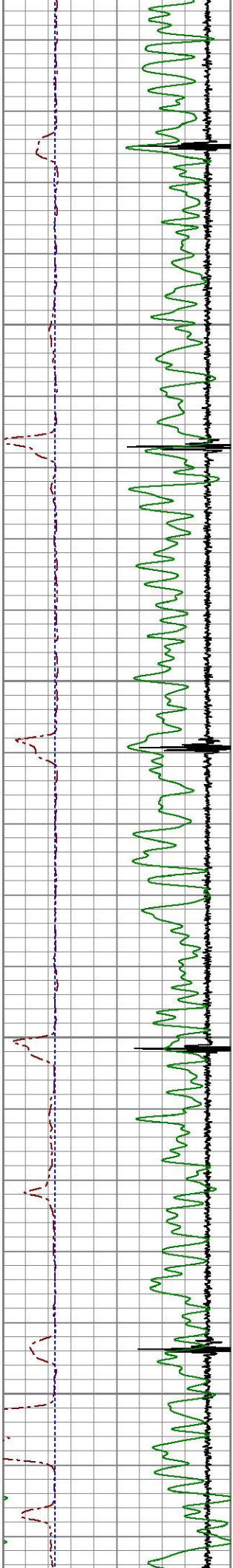




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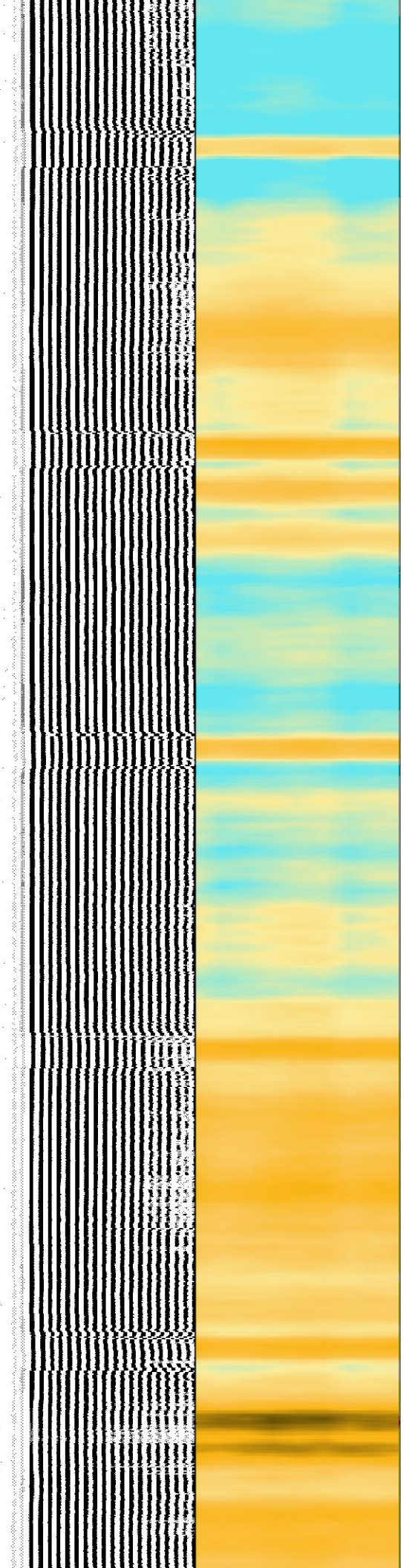
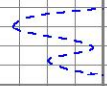
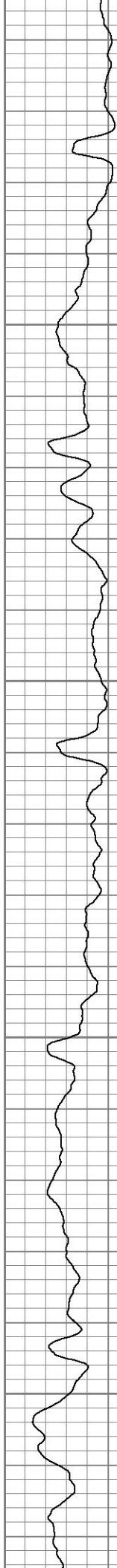


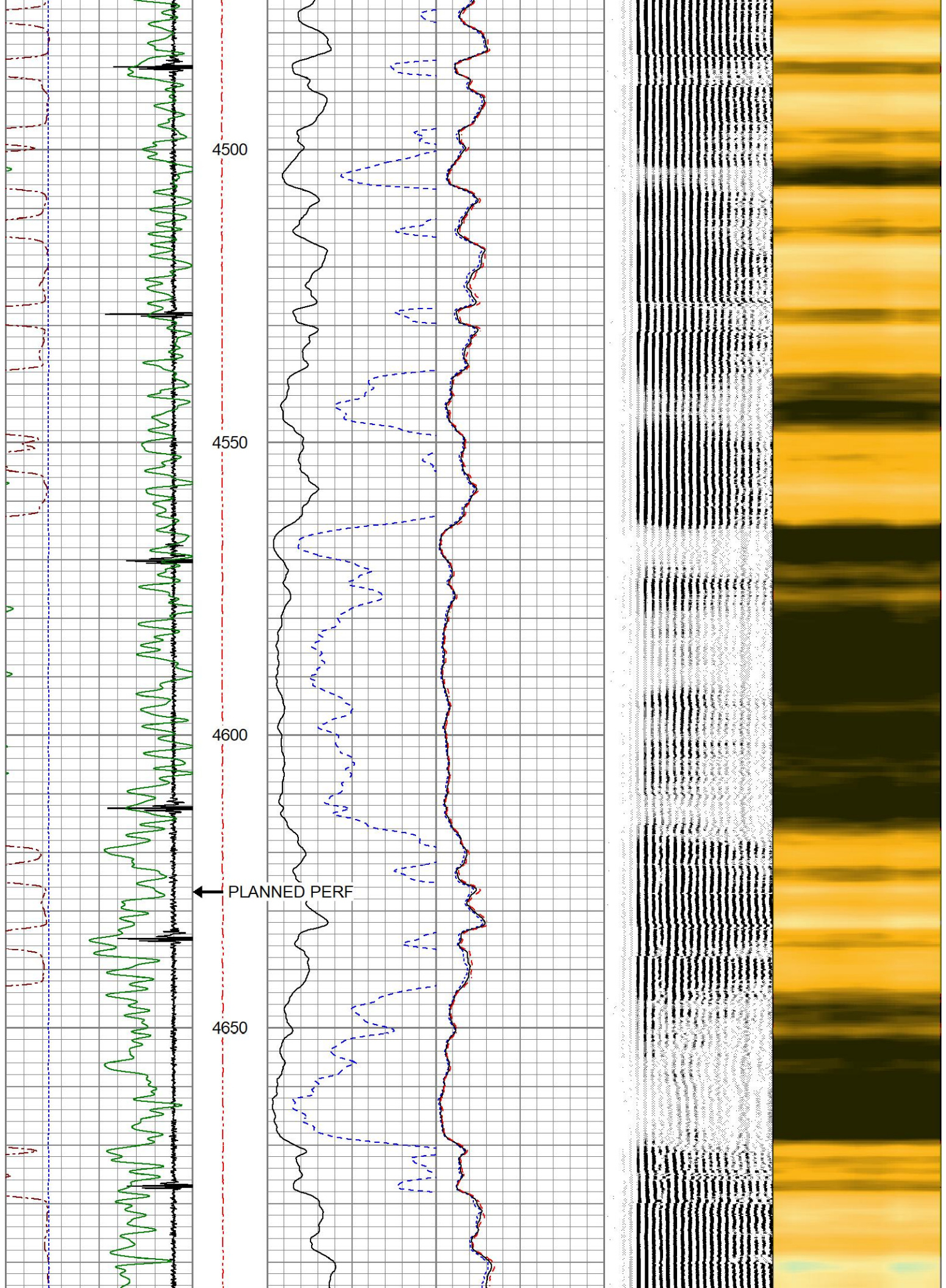
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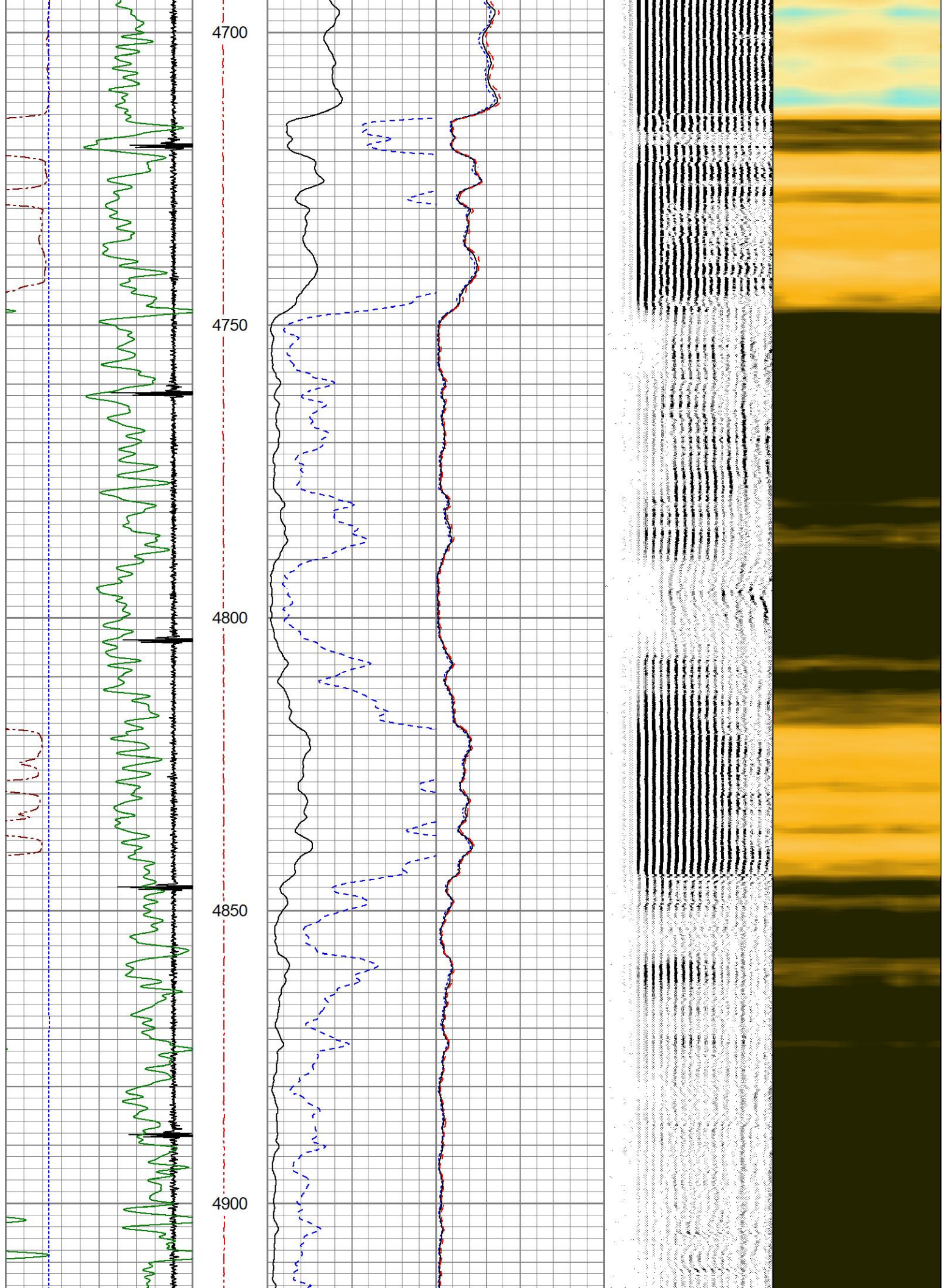
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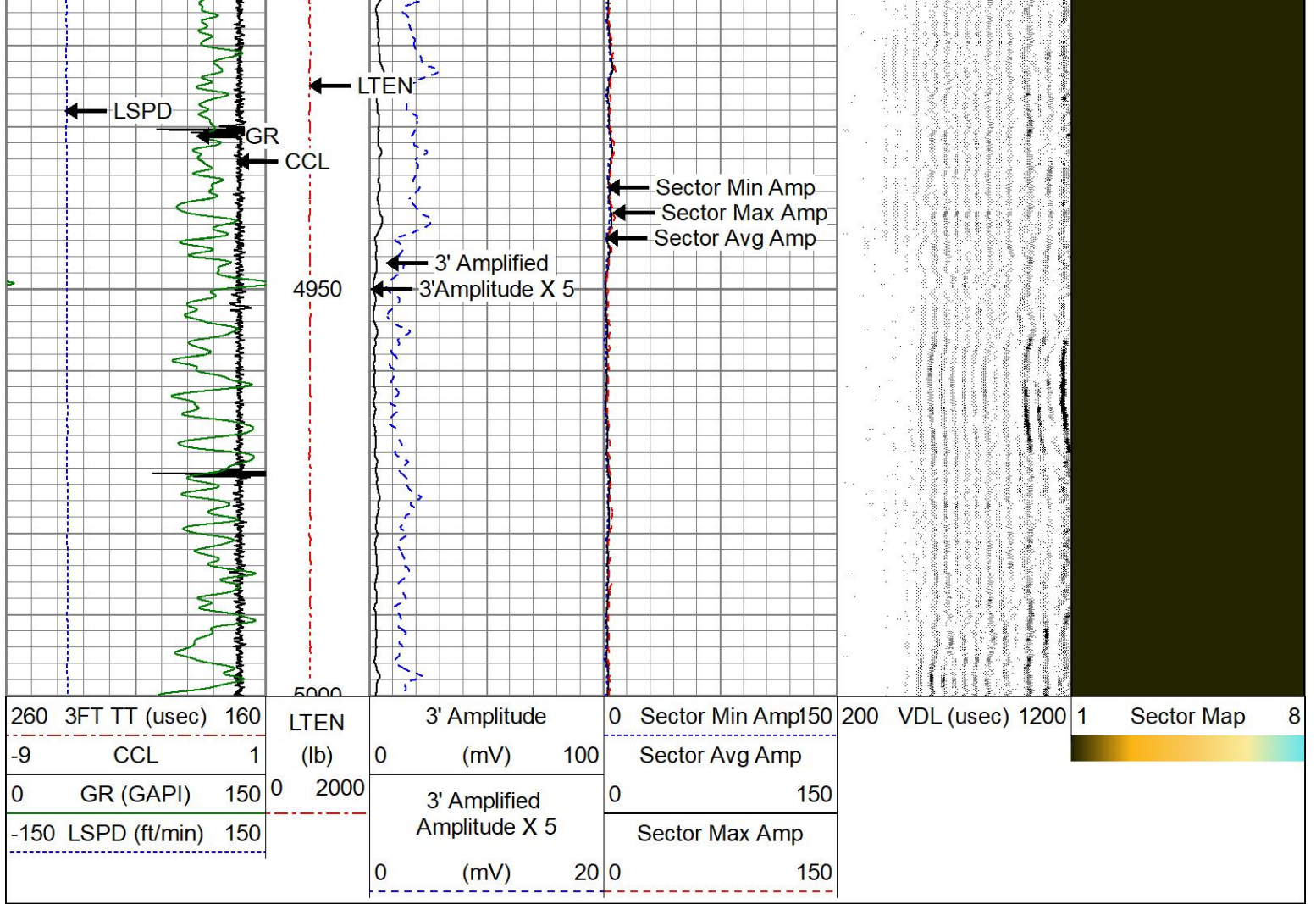
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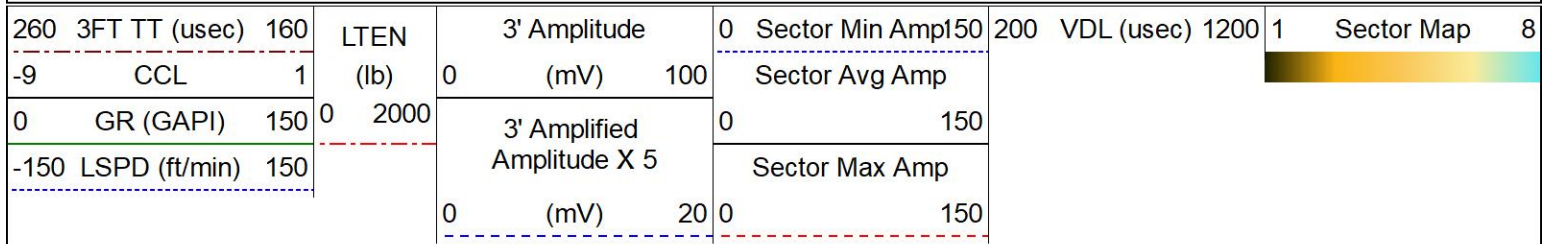


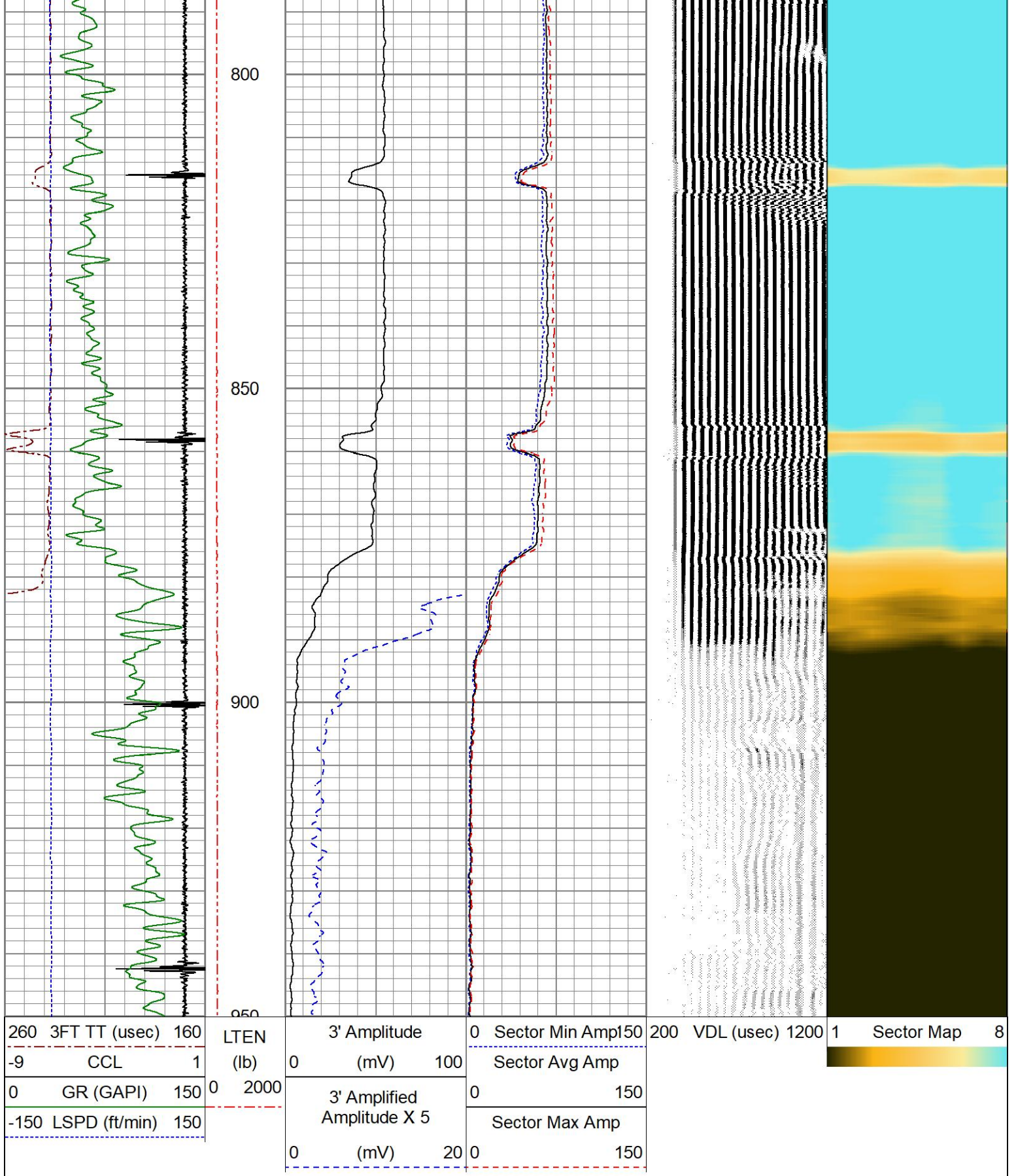


REPEAT PASS

0 PSI APPLIED AT SURFACE

Database File 692108_occidental_morton16-1_0512334065_20240726_scbl.db
 Dataset Pathname pass2
 Presentation Format res_scbl 8sec
 Dataset Creation Fri Jul 26 13:27:33 2024
 Charted by Depth in Feet scaled 1:240





Calibration Report

Database File 692108_occidental_morton16-1_0512334065_20240726_scbl.db
 Dataset Pathname pass4
 Dataset Creation Fri Jul 26 13:47:46 2024

Gamma Ray Calibration Report

Serial Number: 071129

Tool Model: GR275B
 Performed: Mon Jun 17 10:53:54 2024
 Calibrator Value: 250.0 GAPI
 Background Reading: 34.9 cps
 Calibrator Reading: 302.3 cps
 Sensitivity: 0.9349 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: 070150
 Tool Model: Probe
 Calibration Casing Diameter: 4.500 in
 Calibration Depth: -2659.487 ft

Master Calibration, performed Fri Jun 28 13:44:40 2024:

| | Raw (v) | | Calibrated (mv) | | Results | |
|-----|---------|-------|-----------------|---------|---------|--------|
| | Zero | Cal | Zero | Cal | Gain | Offset |
| 3' | -0.007 | 1.217 | 0.700 | 81.196 | 65.772 | 1.172 |
| CAL | -0.007 | 0.998 | | | | |
| 5' | -0.007 | 0.955 | 0.700 | 81.196 | 83.701 | 1.290 |
| SUM | | | | | | |
| S1 | -0.007 | 1.210 | 0.000 | 100.000 | 82.143 | 0.595 |
| S2 | -0.007 | 1.108 | 0.000 | 100.000 | 89.663 | 0.635 |
| S3 | -0.007 | 1.198 | 0.000 | 100.000 | 82.960 | 0.596 |
| S4 | -0.007 | 1.288 | 0.000 | 100.000 | 77.218 | 0.552 |
| S5 | -0.007 | 1.317 | 0.000 | 100.000 | 75.543 | 0.539 |
| S6 | -0.007 | 1.285 | 0.000 | 100.000 | 77.379 | 0.550 |
| S7 | -0.007 | 1.091 | 0.000 | 100.000 | 91.037 | 0.641 |
| S8 | -0.007 | 1.145 | 0.000 | 100.000 | 86.827 | 0.621 |

Internal Reference Calibration, performed (Not Performed):

| | Raw (v) | | Calibrated (v) | | Results | |
|-----|---------|-------|----------------|-------|---------|--------|
| | Zero | Cal | Zero | Cal | Gain | Offset |
| CAL | 0.000 | 0.000 | -0.007 | 0.998 | 1.000 | 0.000 |

Air Zero Calibration, performed Wed Jun 05 06:12:56 2024:

| | Raw (v) | | Calibrated (v) | | Results | |
|-----|---------|--|----------------|--|---------|-------|
| | Zero | | Zero | | Offset | |
| 3' | 0.000 | | 0.000 | | | 0.000 |
| 5' | 0.000 | | 0.000 | | | 0.000 |
| SUM | | | | | | |
| S1 | 0.000 | | 0.000 | | | 0.000 |
| S2 | 0.000 | | 0.000 | | | 0.000 |
| S3 | 0.000 | | 0.000 | | | 0.000 |
| S4 | 0.000 | | 0.000 | | | 0.000 |
| S5 | 0.000 | | 0.000 | | | 0.000 |
| S6 | 0.000 | | 0.000 | | | 0.000 |
| S7 | 0.000 | | 0.000 | | | 0.000 |
| S8 | 0.000 | | 0.000 | | | 0.000 |



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