MIDWEST WIRELINE

# DUAL INDUCTION LOG

Company Meridian Energy, Inc.
Well Stadelman #1
Field Stadelman Northeast
County Ellis State Kansas
Location: 845' FSL & 1730' FWL SEC 2 TWP 14S RGE 19W
API # : 15-051-26994-00-00

Other Services: CNL/CDL, MEL

Elevation: K.B. 2220', D.F. N/A, G.L. 2212'

Permanent Datum: Ground Level — Elevation 2212'
Log Measured From: Kelly Bushing
Drilling Measured From: Kelly Bushing

| | | | |
|---|---|---|---|
| Company | Meridian Energy, Inc. | | |
| Well | Stadelman #1 | | |
| Field | Stadelman Northeast | | |
| County | Ellis | | |
| State | Kansas | | |
| Date | 11/17/2020 | | |
| Run Number | One | | |
| Depth Driller | 3883' | | |
| Depth Logger | 3881' | | |
| Bottom Logged Interval | 3880' | | |
| Top Log Interval | 200' | | |
| Casing Driller | 8.625" @ 216' | | |
| Casing Logger | 213' | | |
| Bit Size | 7.875" | | |
| Type Fluid in Hole | Chemical | | |
| Salinity,ppm CL | 10,000 | | |
| Density / Viscosity | 9.4 / 59 | | |
| pH / Fluid Loss | 10.0 / 6.8 | | |
| Source of Sample | FLOWLINE | | |
| Rm @ Meas. Temp | .3 @ 67 | | |
| Rmf @ Meas. Temp | .23 @ 67 | | |
| Rmc @ Meas. Temp | .41 @ 67 | | |
| Source of Rmf / Rmc | CHARTS | | |
| Rm @ BHT | .18 @ 115 | | |
| Operating Rig Time | 4 Hours | | |
| Max Rec. Temp. F | 115 Deg/F | | |
| Equipment Number | P-108 | | |
| Location | HAYS | | |
| Recorded By | J. Henrickson | | |
| Witnessed By | Maxwell Lafon | | |

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Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

Hays Kansas
3 West on Golf Course Road, North Into

Log Measured From: Kelly Bushing 8 Ft. Above Permanent Datum

THANK YOU FOR USING MIDWEST WIRELINE LLC
785-625-3858

| Your Midwest Wireline Crew | This Log Record Was Witnessed By |
|---|---|
| Engineer: J. Henrickson | Primary Witness: Maxwell Lafon |
| Operator: T. Martin | Secondary Witness: |
| Operator: | Secondary Witness: |
| Operator: | Secondary Witness: |

| Sensor | Offset (ft) | Schematic | Description | Length (ft) | O.D. (in) | Weight (lb |
|---|---|---|---|---|---|---|

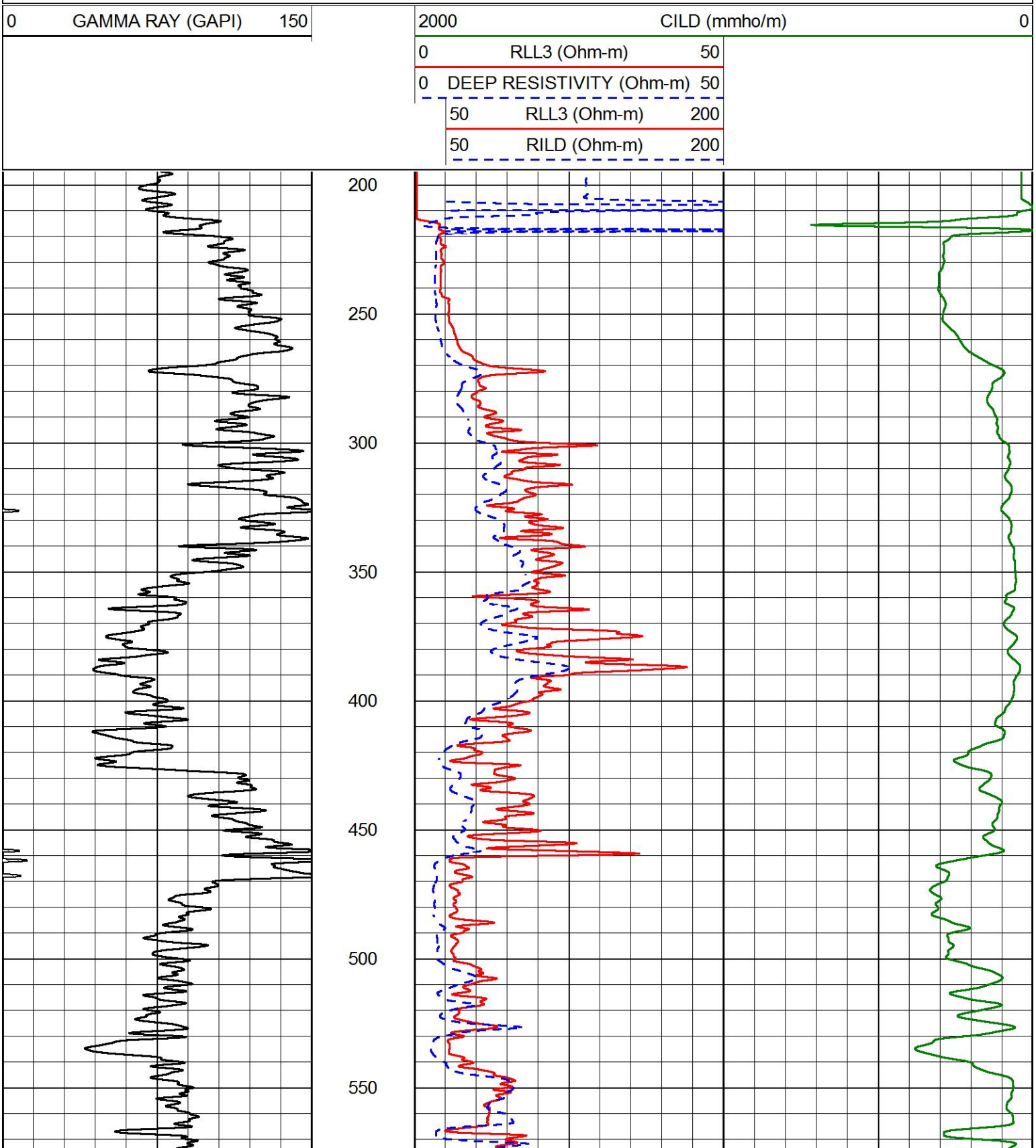
| Sensor | Offset (ft) | Schematic | Description | Length (ft) | O.D. (in) | Weight (lb |
|---|---|---|---|---|---|---|
| | | | GR-M&W (89-M&W) | 3.00 | 3.50 | 50.00 |
| GR | 44.50 | | | | | |
| CNLSC | 41.40 | | CNT-M&W (tk10-MW) | 5.50 | 3.50 | 100.00 |
| CNSSC | 40.65 | | | | | |
| | | | CDL-M&W (915-956) | 8.50 | 4.00 | 250.00 |
| LSD | 32.35 | | | | | |
| DCAL | 32.33 | | | | | |
| SSD | 31.85 | | | | | |
| | | | ML-PSI UDM ML (UDM-01)<br>Stackable Microlog Tools | 11.50 | 4.00 | 215.00 |
| MCAL | 20.87 | | | | | |
| MI | 20.87 | | | | | |
| MN | 20.87 | | | | | |
| RLL3 | 15.80 | | | | | |
| RLL3F | 15.79 | | | | | |
| | | | DIL-M&W (55-222) | 18.50 | 3.50 | 220.00 |
| CILD | 8.00 | | | | | |
| CILM | 4.70 | | | | | |
| SP | 0.20 | | | | | |

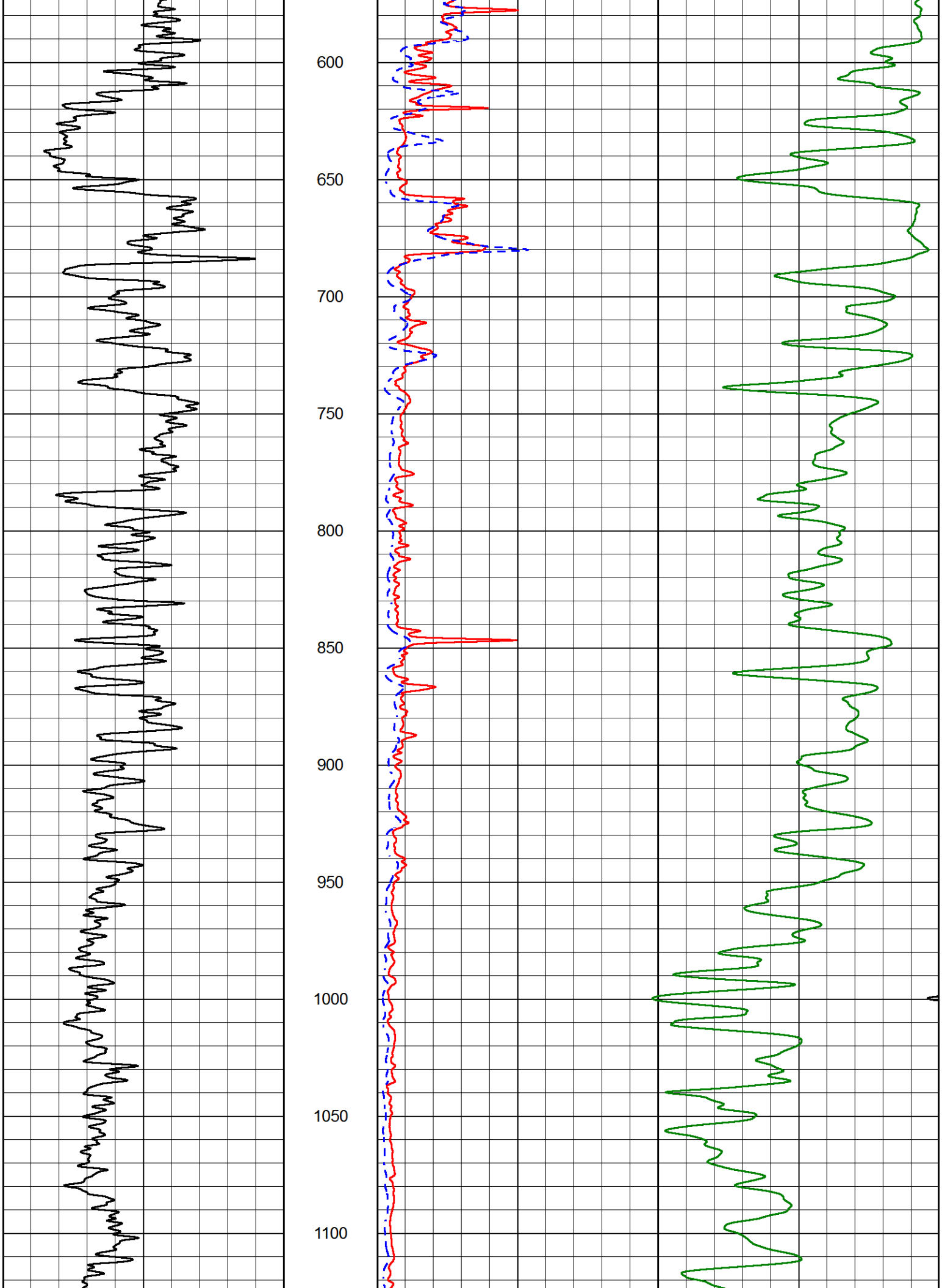
Dataset: meridian_stadelman_1.db: field/well/stackml/pass3.1
Total length: 47.00 ft
Total weight: 835.00 lb
O.D.: 4.00 in

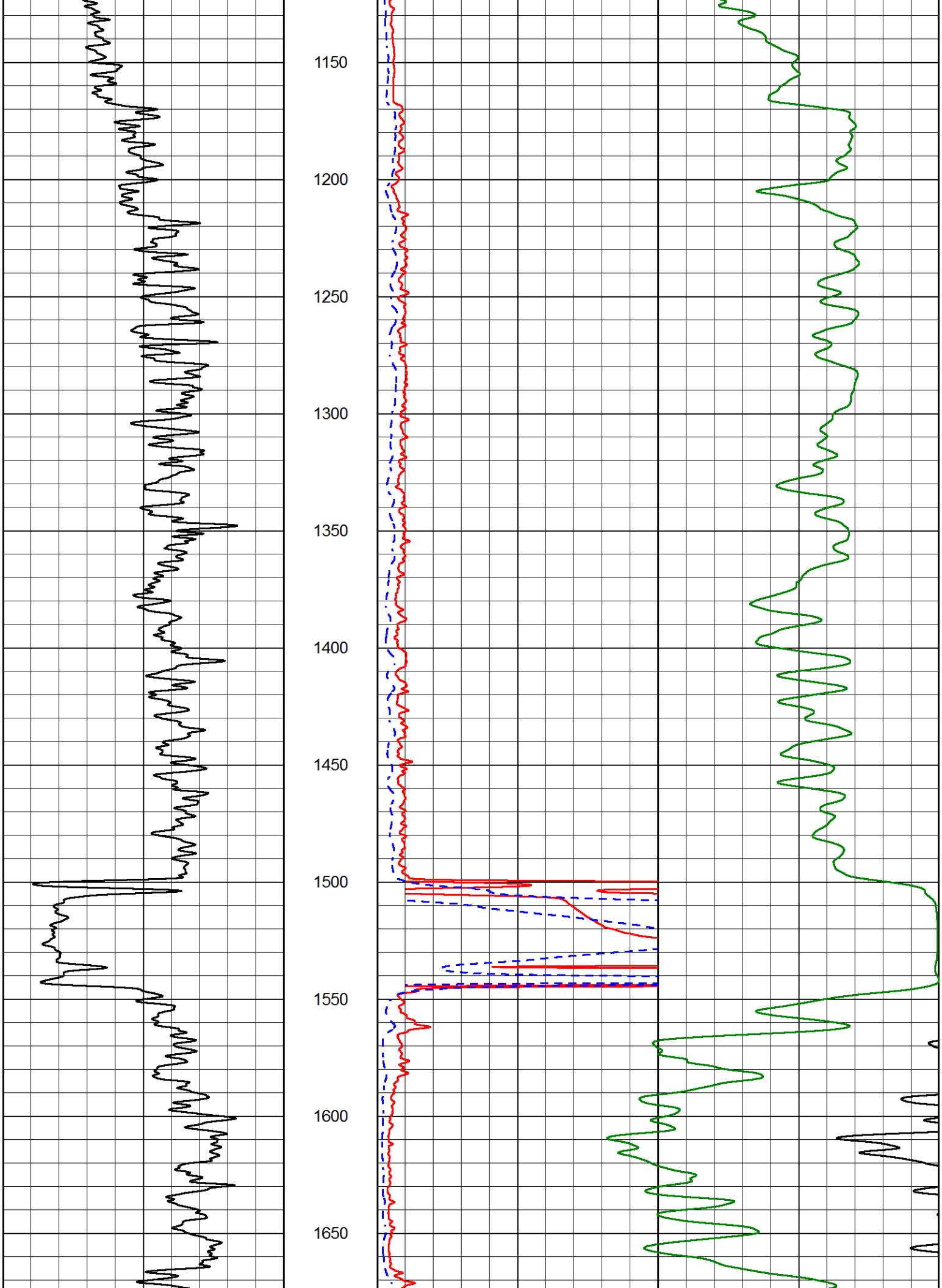
MIDWEST WIRELINE

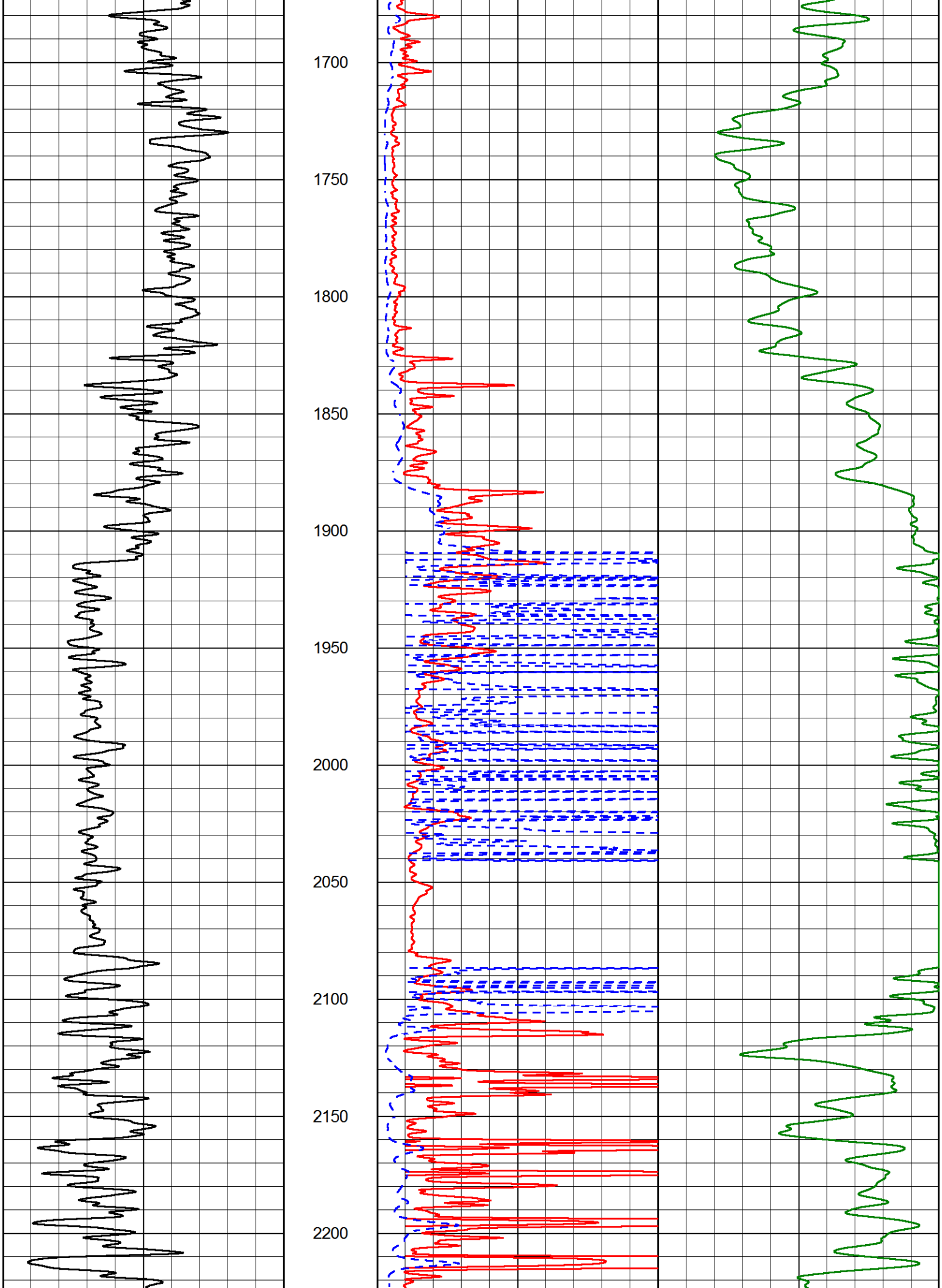
# Main Pass

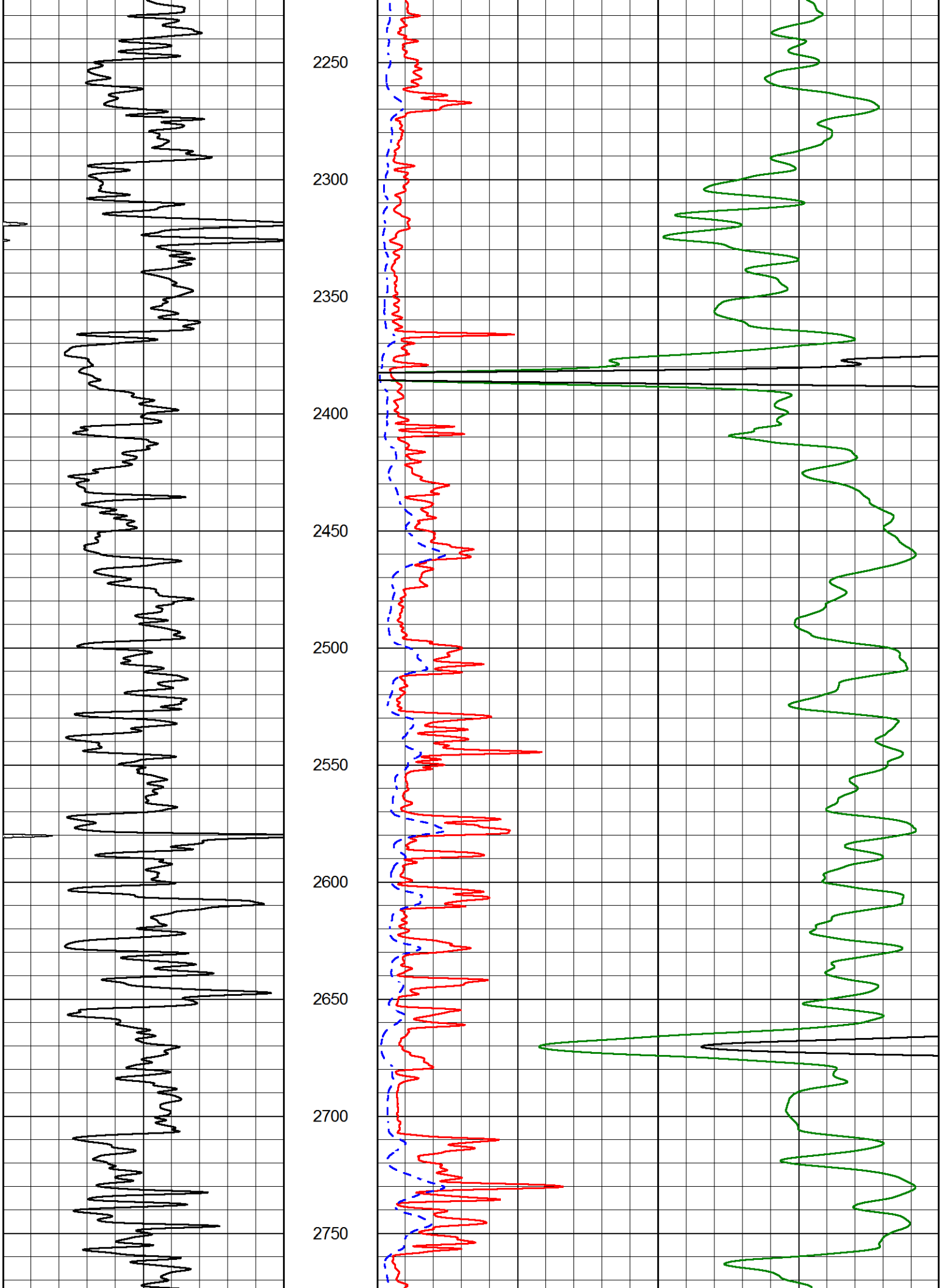
| | |
|---|---|
| Database File | meridian_stadelman_1.db |
| Dataset Pathname | stackml/pass3.1 |
| Presentation Format | dil2in |
| Dataset Creation | Tue Nov 17 07:23:50 2020 |
| Charted by | Depth in Feet scaled 1:600 |

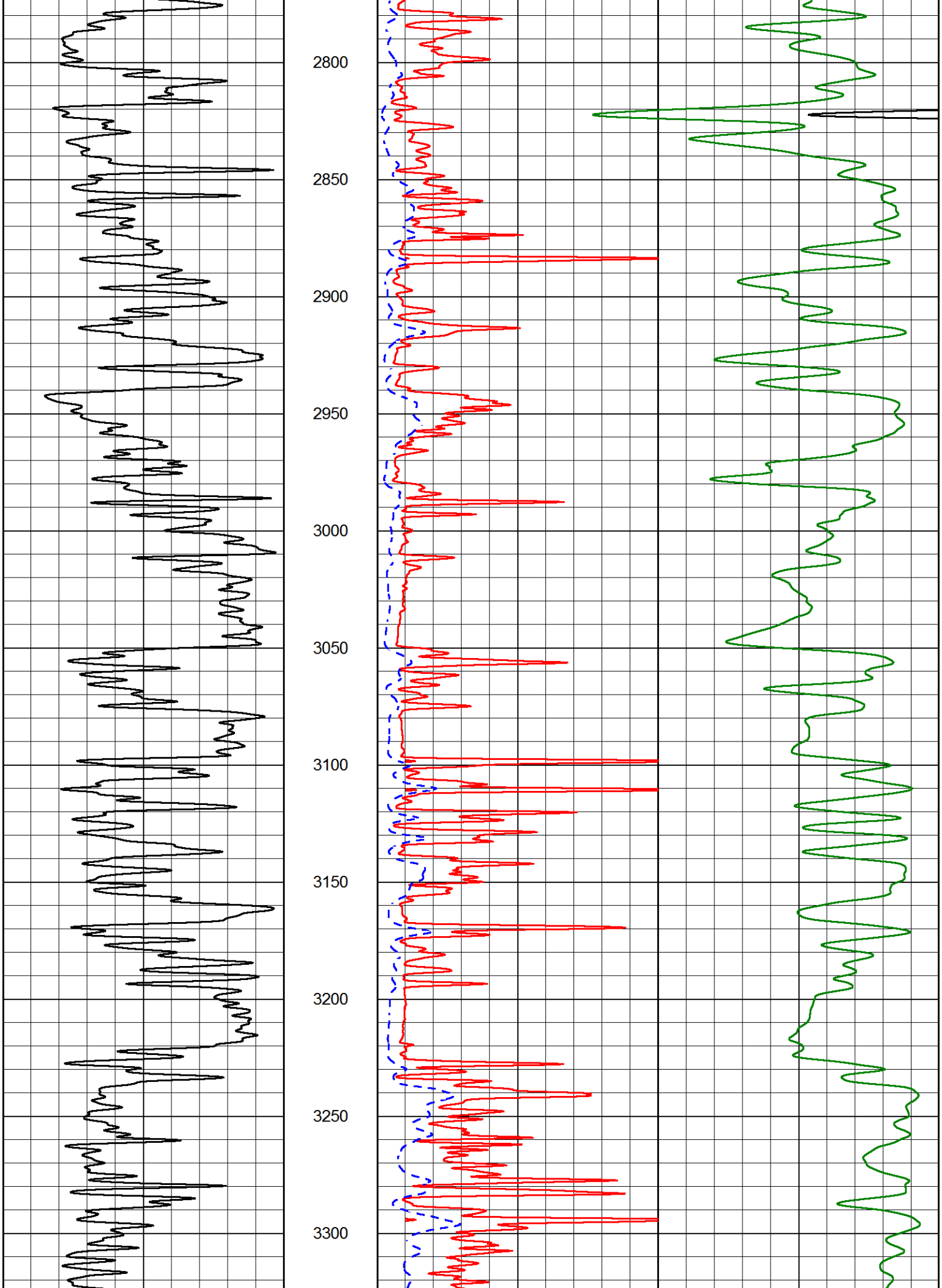


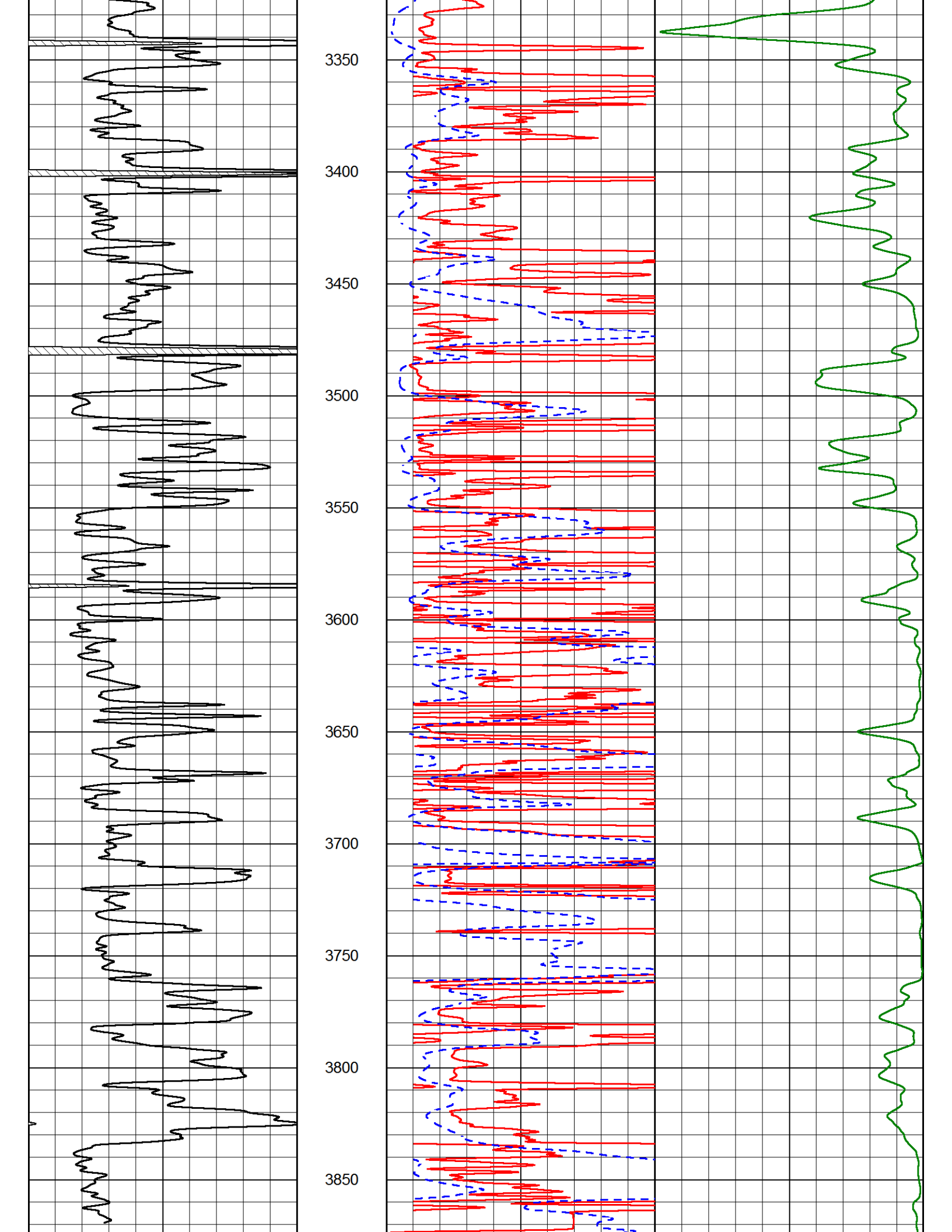

600
650
700
750
800
850
900
950
1000
1050
1100


1150
1200
1250
1300
1350
1400
1450
1500
1550
1600
1650


1700
1750
1800
1850
1900
1950
2000
2050
2100
2150
2200


2250
2300
2350
2400
2450
2500
2550
2600
2650
2700
2750


2800
2850
2900
2950
3000
3050
3100
3150
3200
3250
3300


3350
3400
3450
3500
3550
3600
3650
3700
3750
3800
3850

| 0 | GAMMA RAY (GAPI) | 150 |
|---|---|---|

| 2000 | CILD (mmho/m) | 0 |
|---|---|---|
| 0 | RLL3 (Ohm-m) | 50 |
| 0 | DEEP RESISTIVITY (Ohm-m) | 50 |
| 50 | RLL3 (Ohm-m) | 200 |
| 50 | RILD (Ohm-m) | 200 |

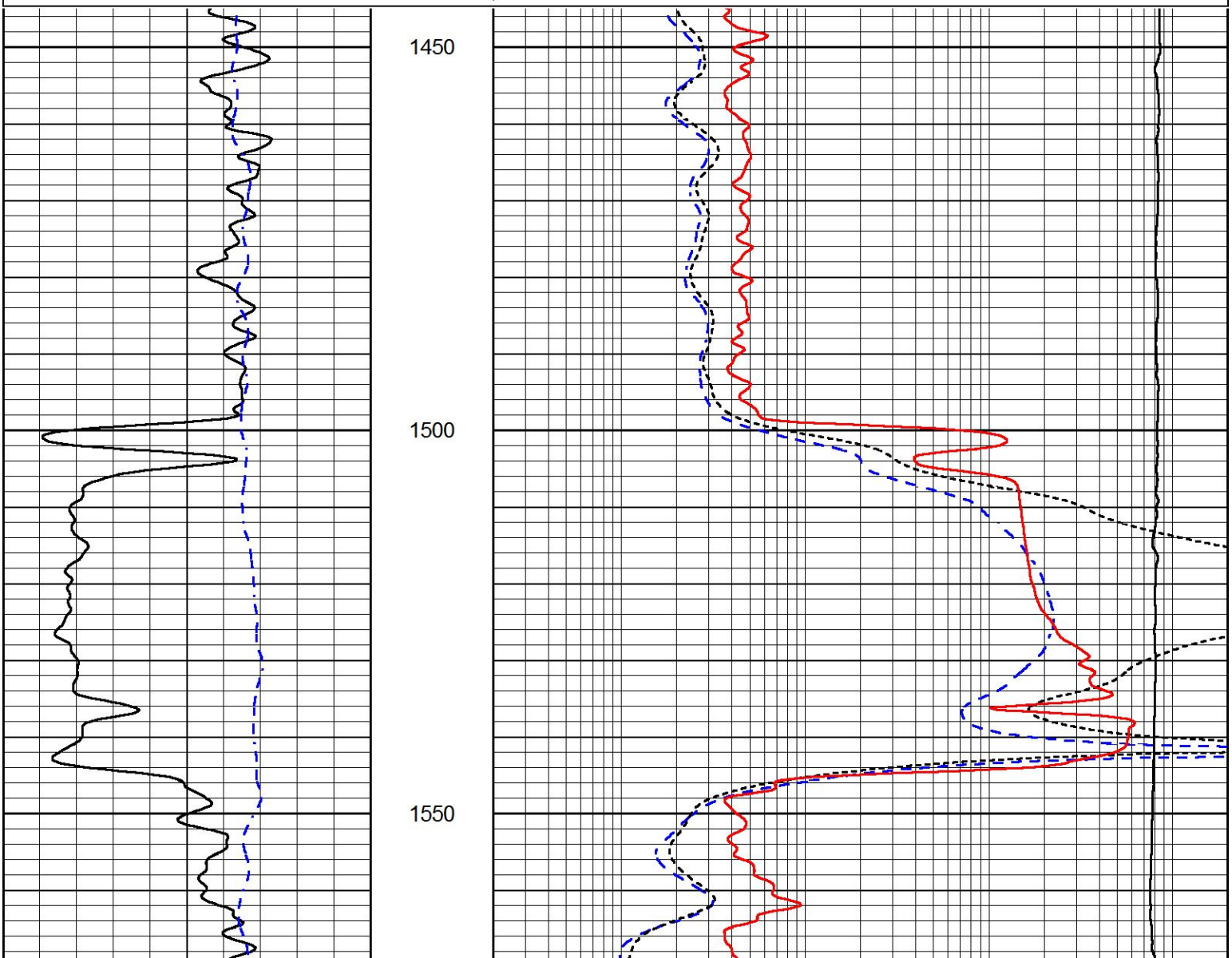
MIDWEST WIRELINE

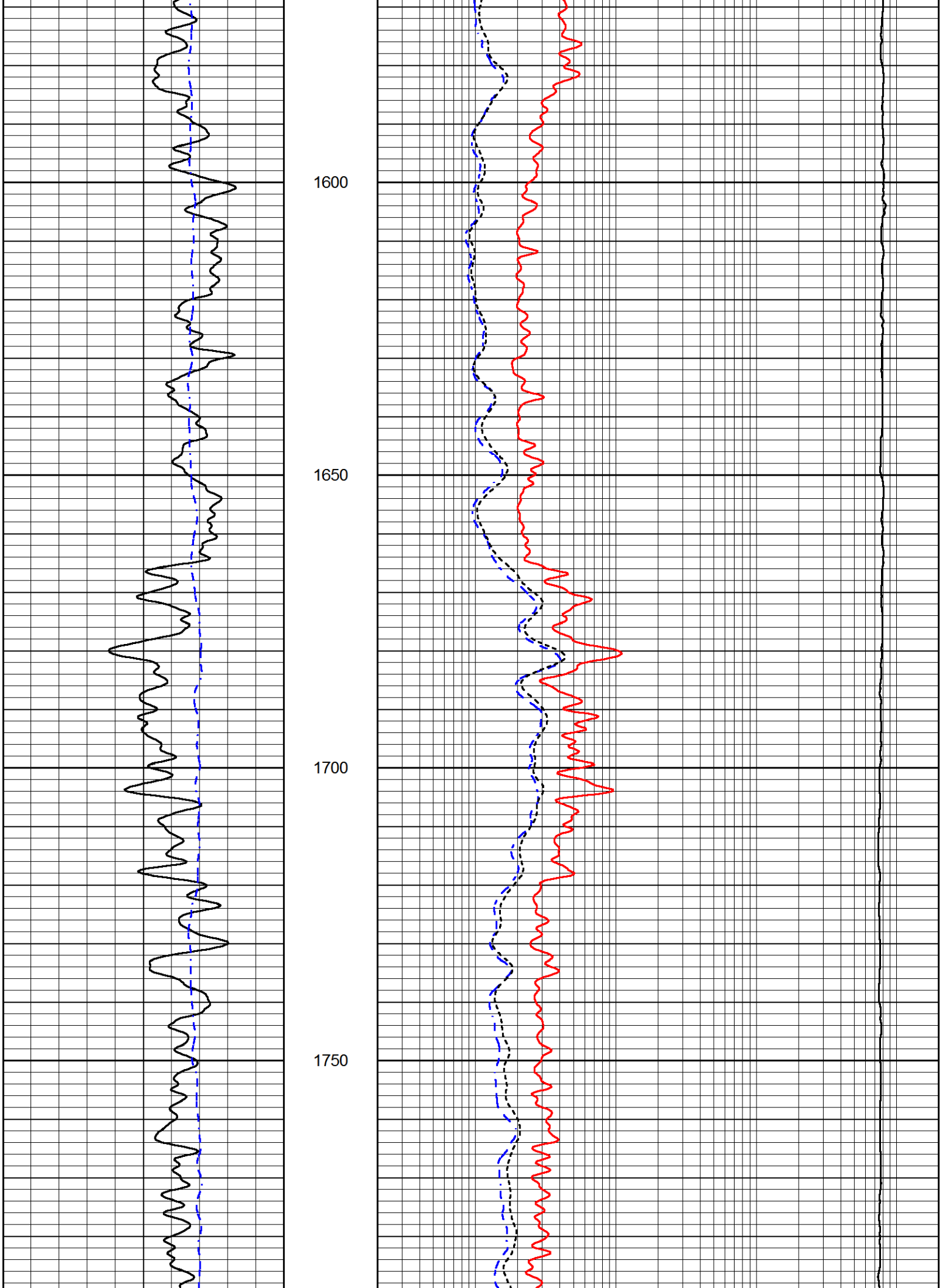
# Main Pass

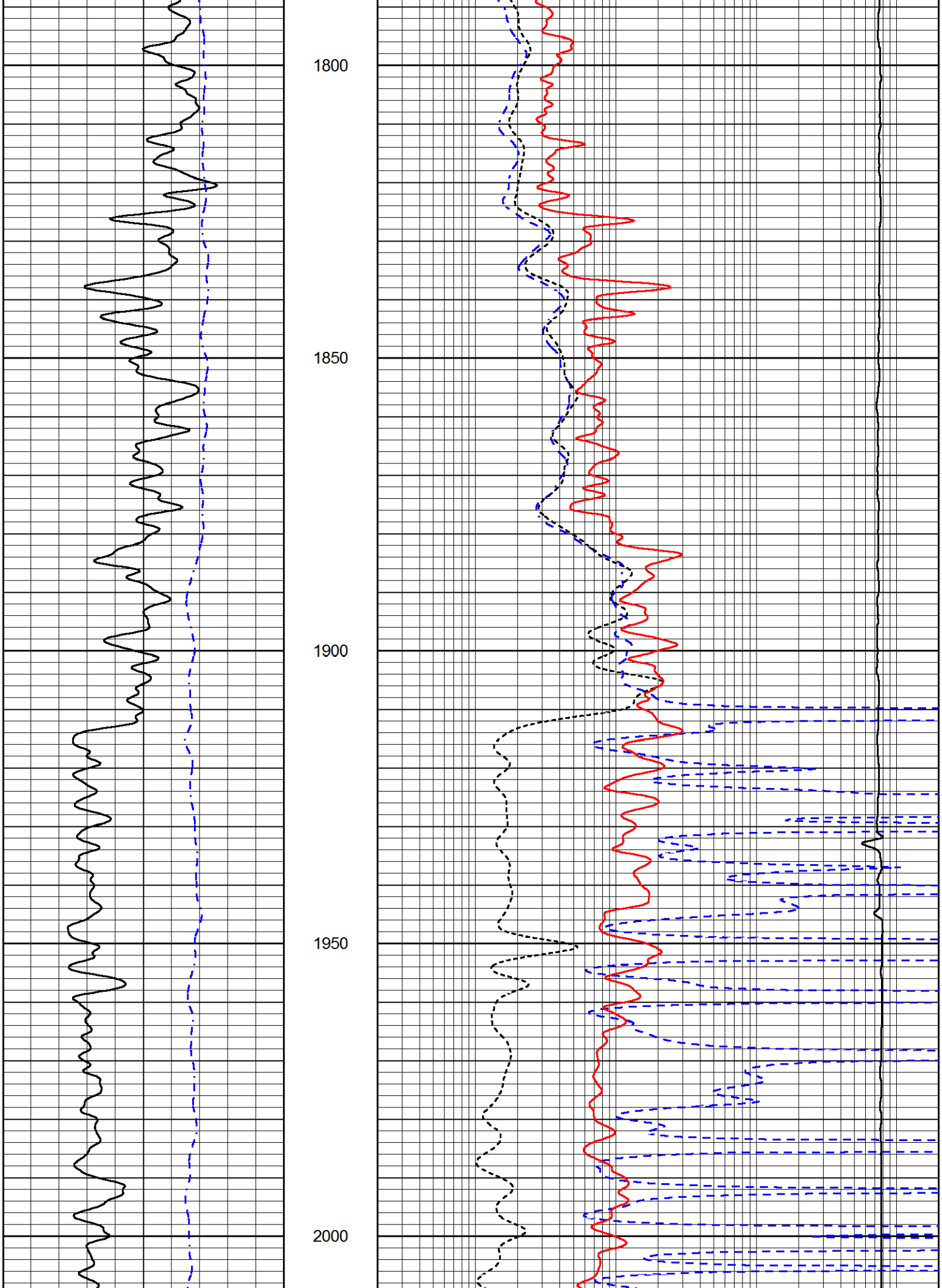
| | |
|---|---|
| Database File | meridian_stadelman_1.db |
| Dataset Pathname | stackml/pass3.1 |
| Presentation Format | dil |
| Dataset Creation | Tue Nov 17 07:23:50 2020 |
| Charted by | Depth in Feet scaled 1:240 |

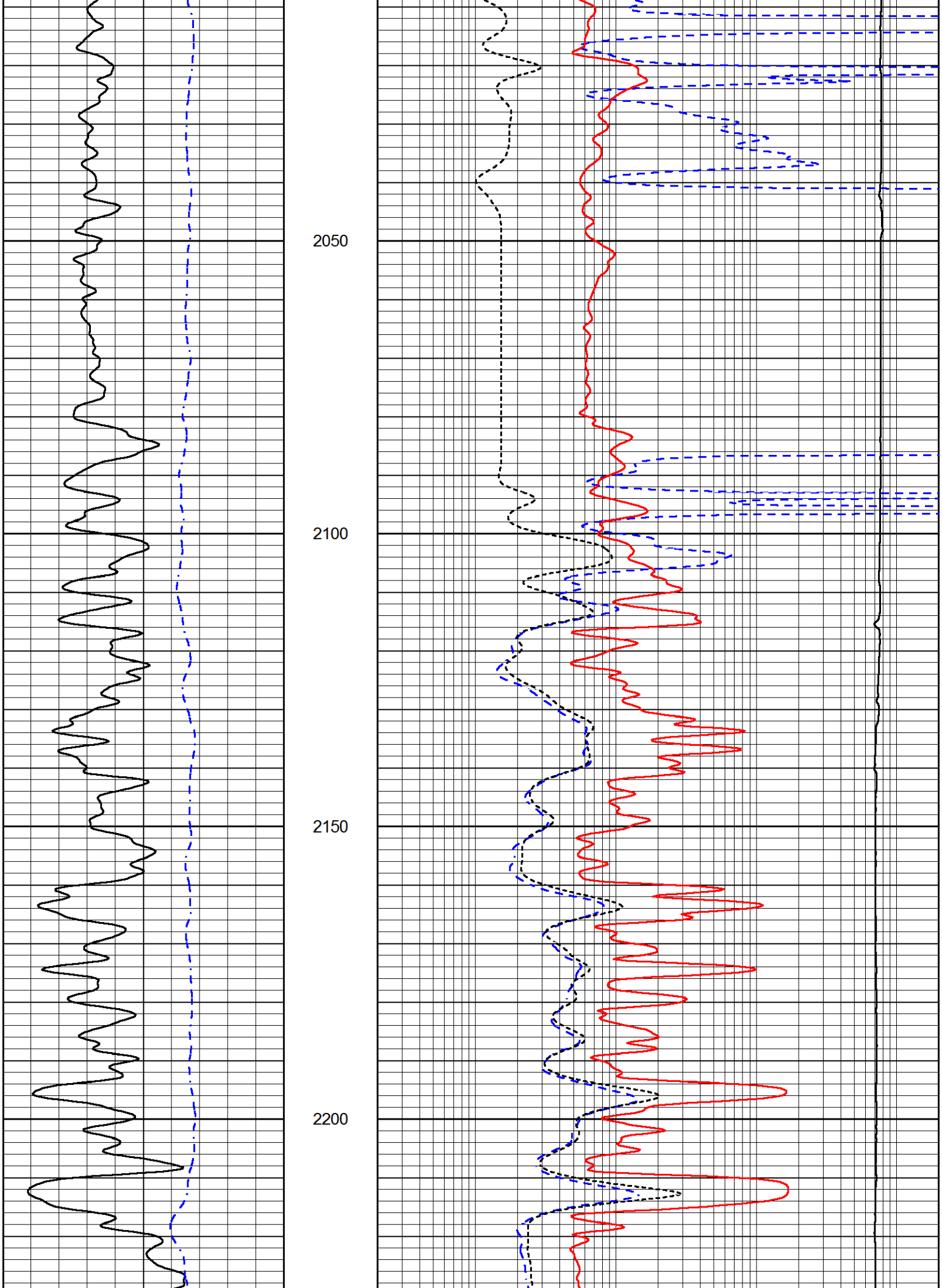
| 0 | GAMMA RAY (GAPI) | 150 |
|---|---|---|
| -200 | SP (mV) | 0 |

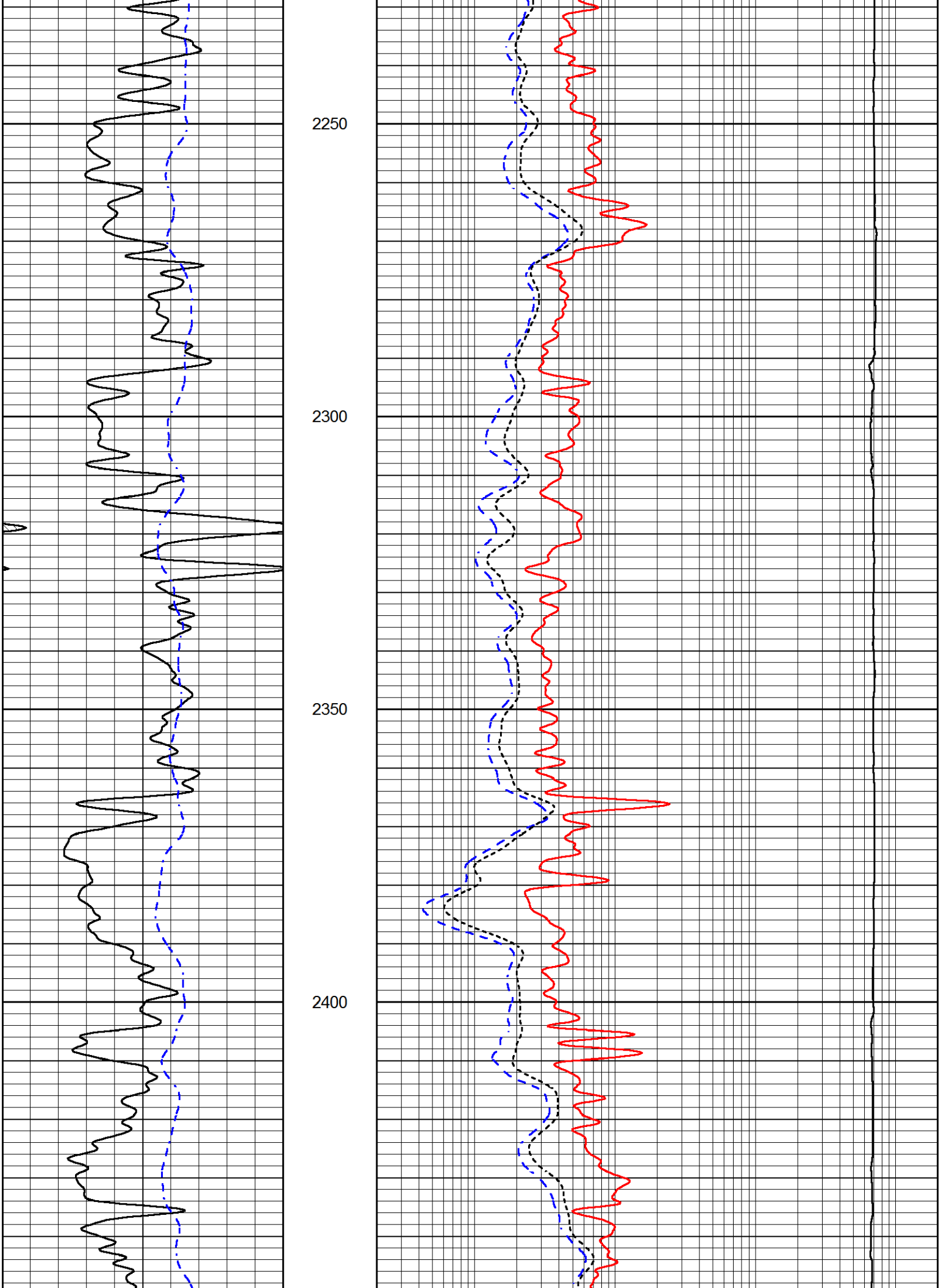
| 0.2 | DEEP RESISTIVITY (Ohm-m) | 2000 |
|---|---|---|
| 0.2 | MEDIUM RESISTIVITY (Ohm-m) | 2000 |
| 0.2 | RLL3 (Ohm-m) | 2000 |
| 15000 | LINE TENSION (lb) | 0 |

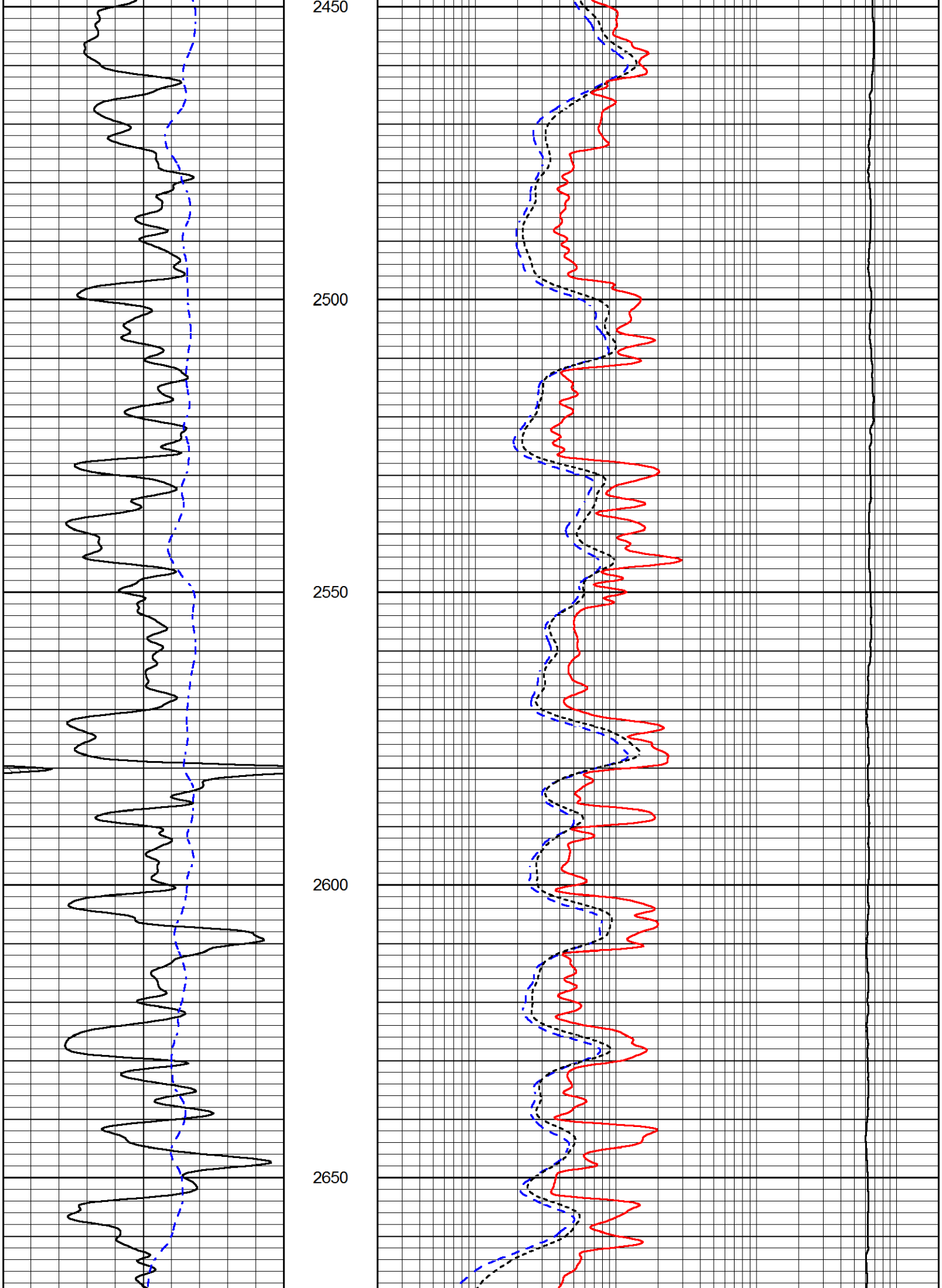


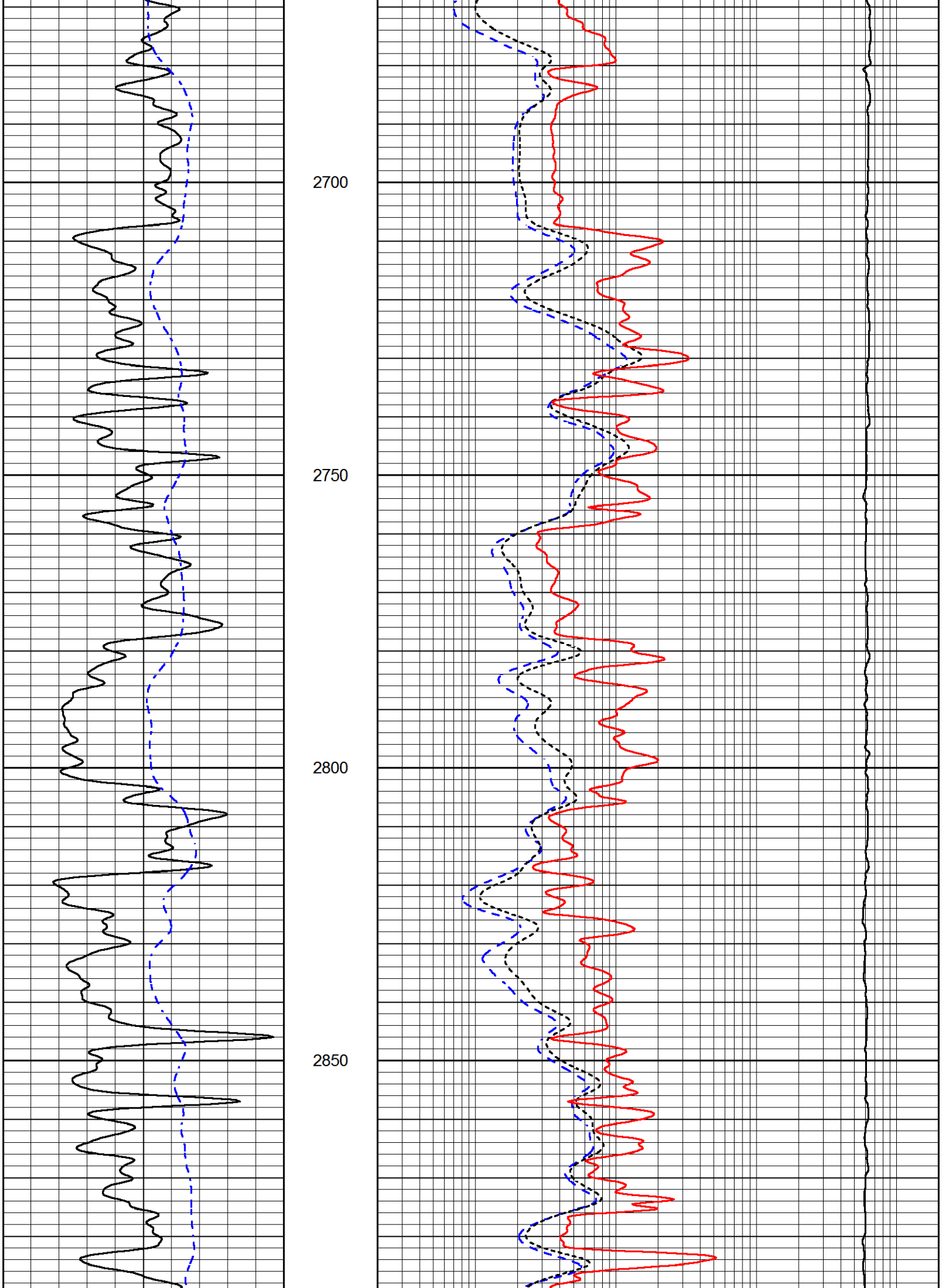

1600
1650
1700
1750

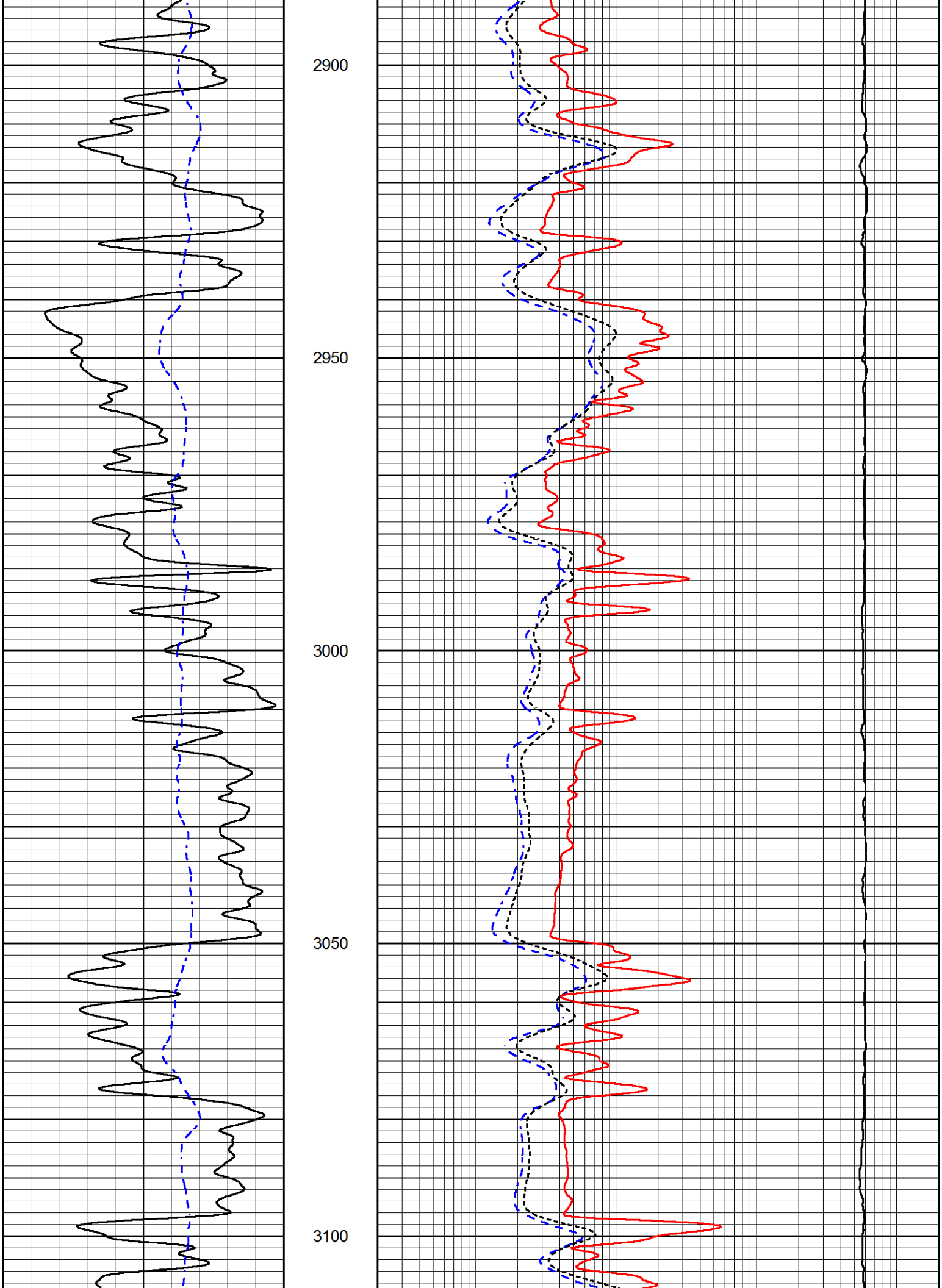

1800
1850
1900
1950
2000

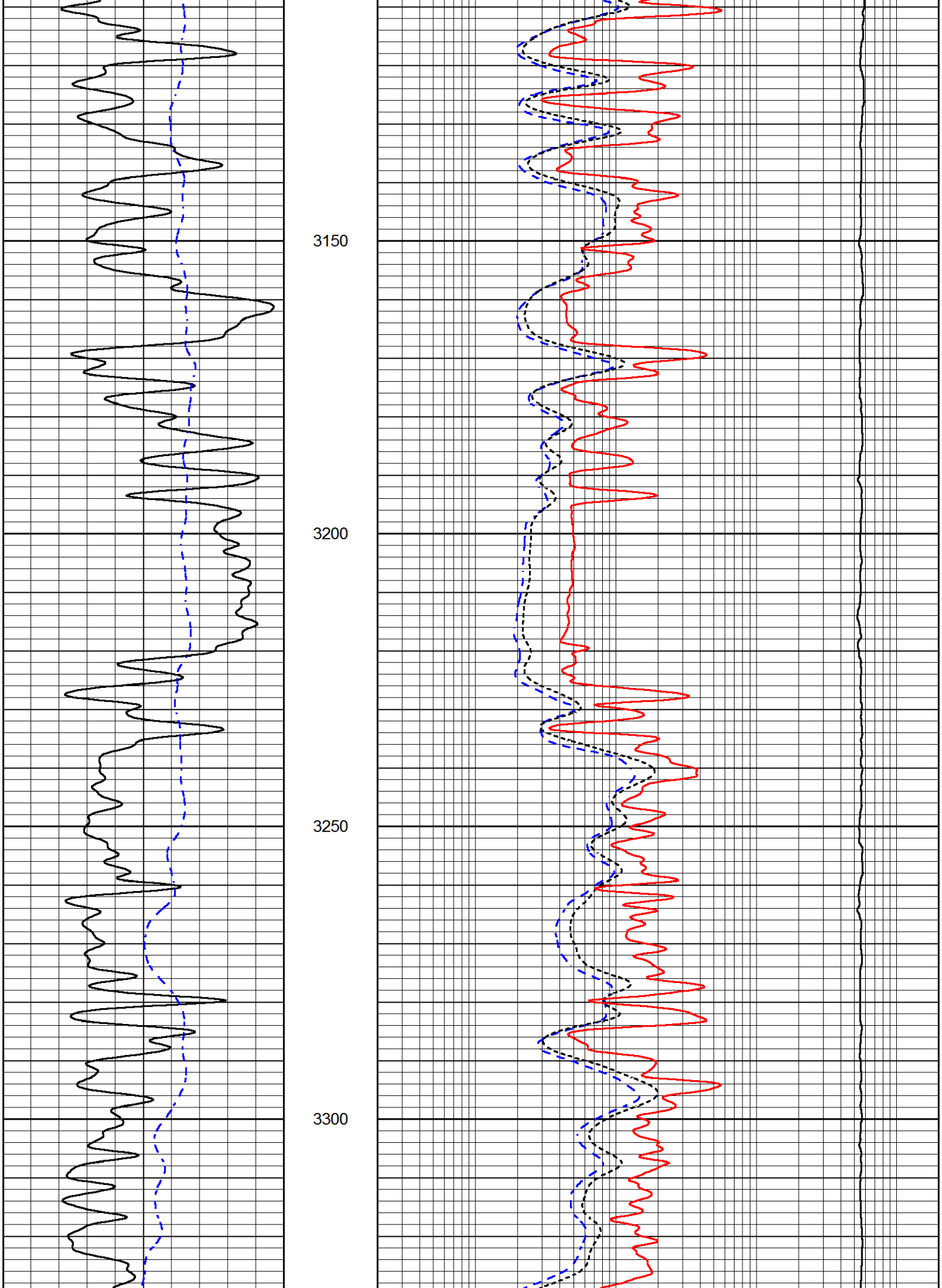

2050
2100
2150
2200

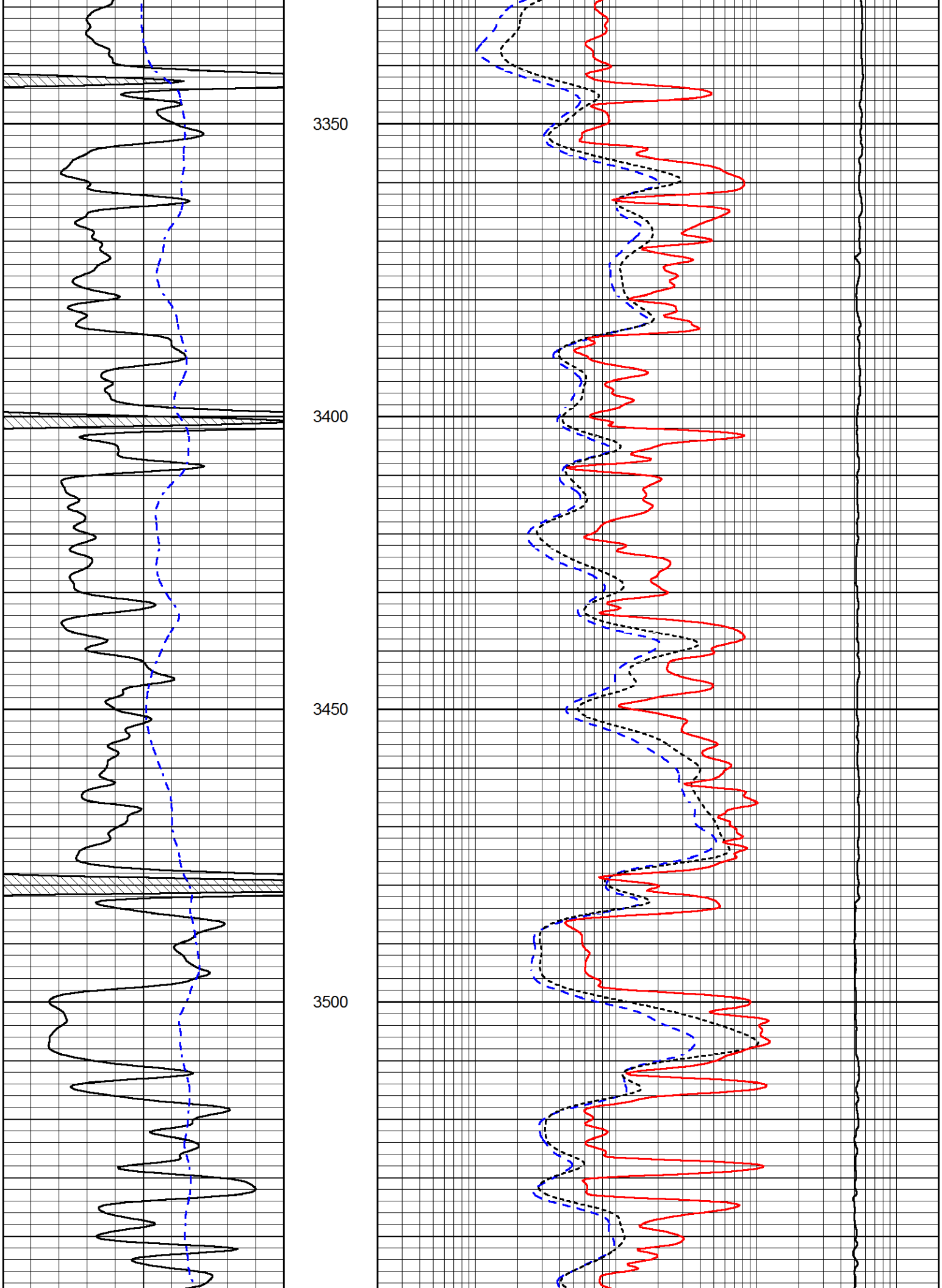

2250
2300
2350
2400

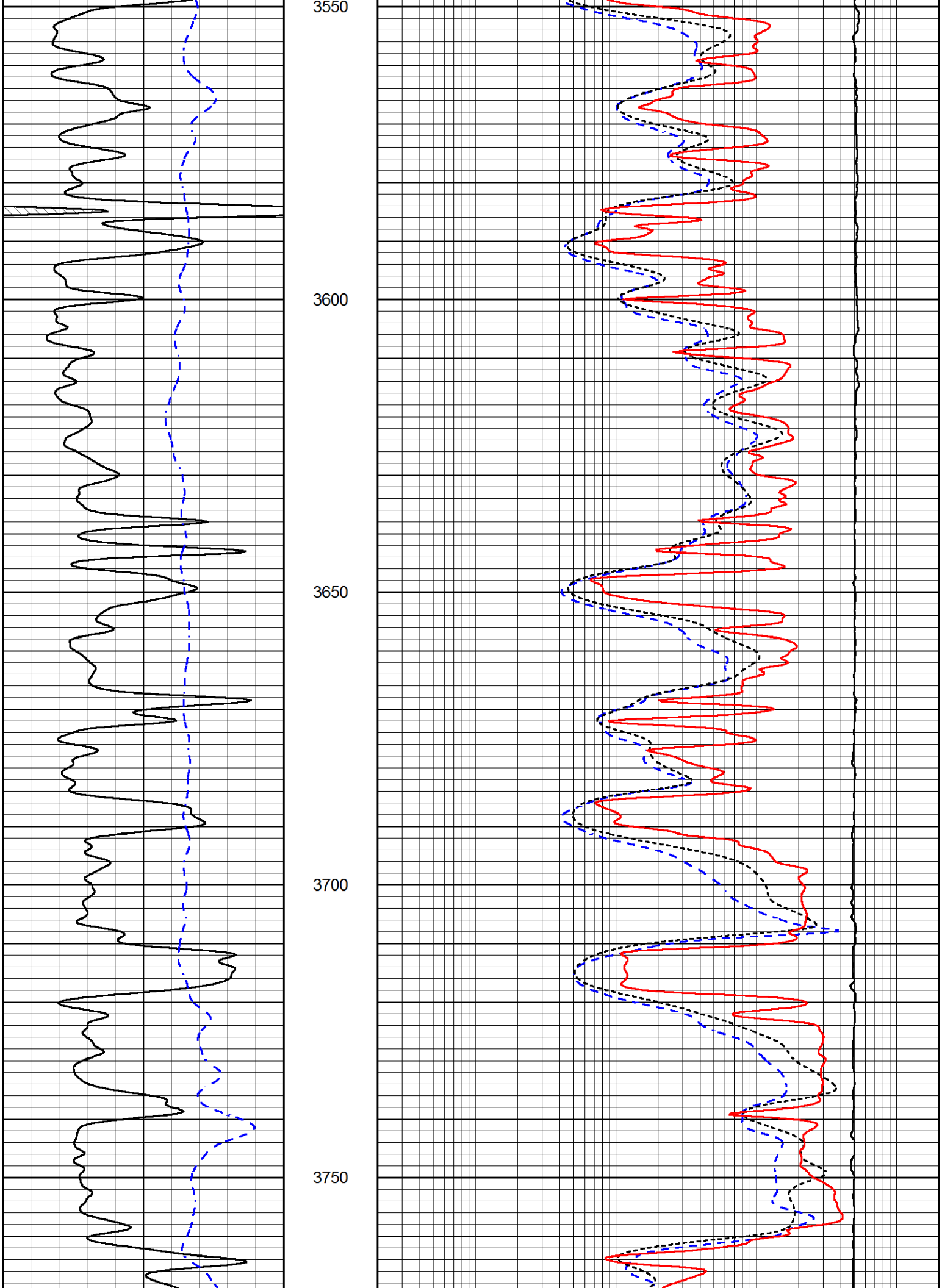

2450
2500
2550
2600
2650


2700
2750
2800
2850


2900
2950
3000
3050
3100


3150
3200
3250
3300


3350
3400
3450
3500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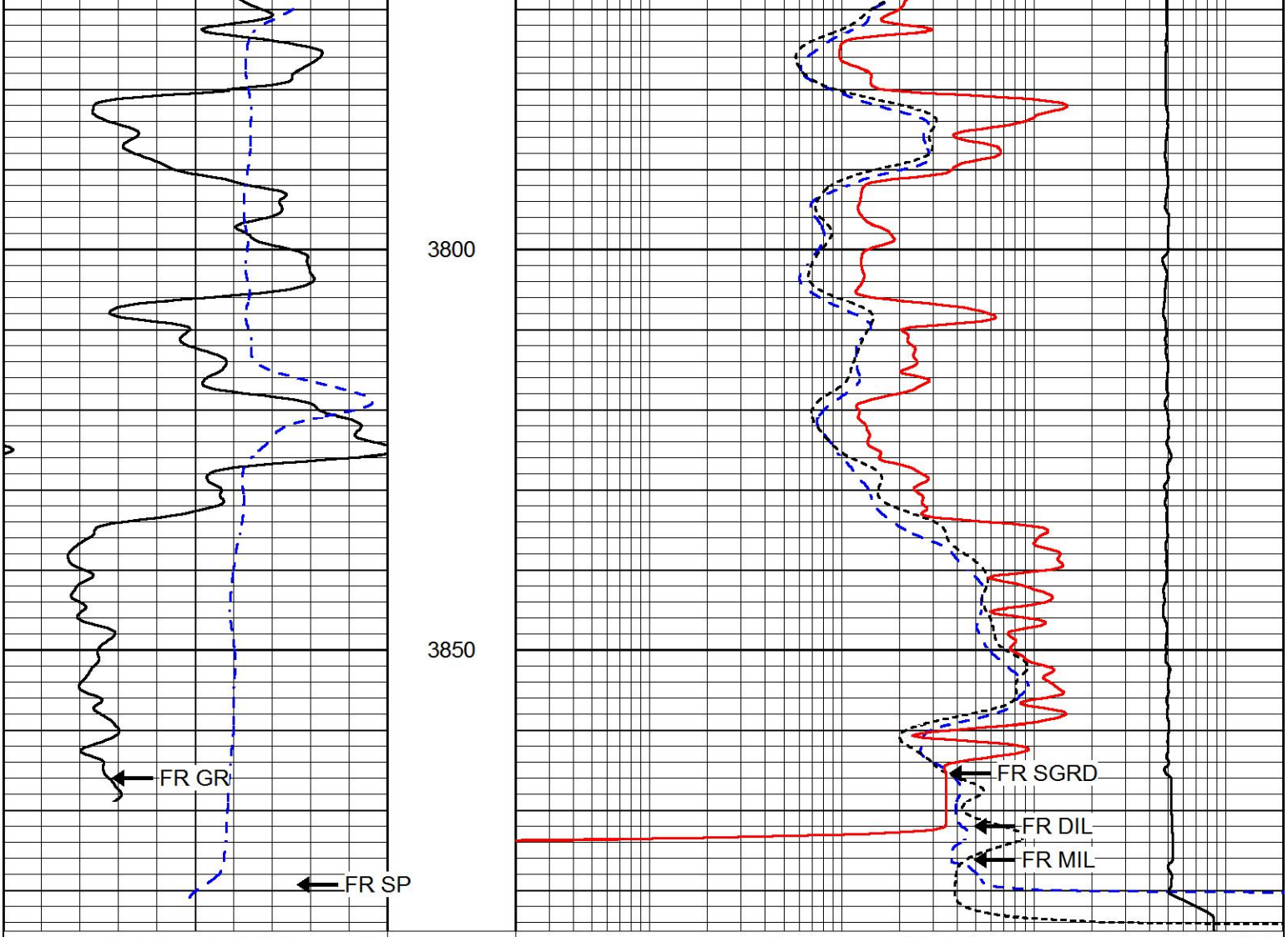
3600
3650
3700
3750




| | | |
|---|---|---|
| 0 | GAMMA RAY (GAPI) | 150 |
| -200 | SP (mV) | 0 |

| | | |
|---|---|---|
| 0.2 | DEEP RESISTIVITY (Ohm-m) | 2000 |
| 0.2 | MEDIUM RESISTIVITY (Ohm-m) | 2000 |
| 0.2 | RLL3 (Ohm-m) | 2000 |
| 15000 | LINE TENSION (lb) | 0 |

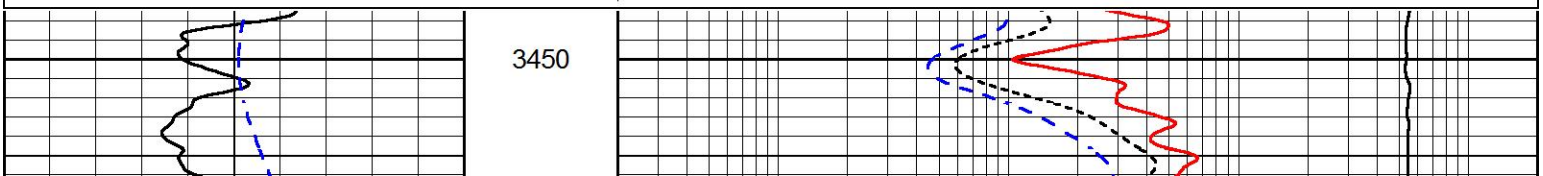
MIDWEST WIRELINE

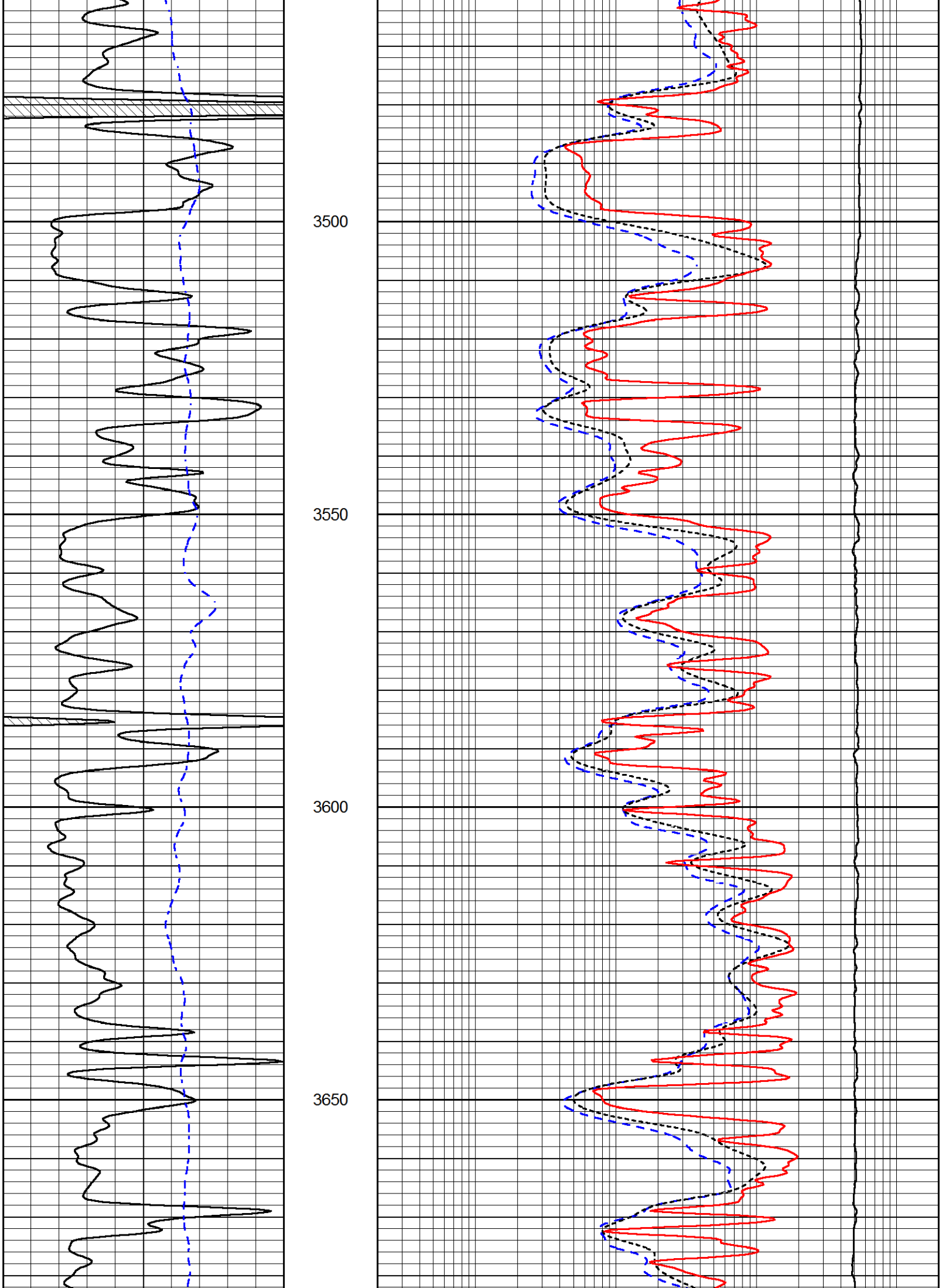
# Repeat Section

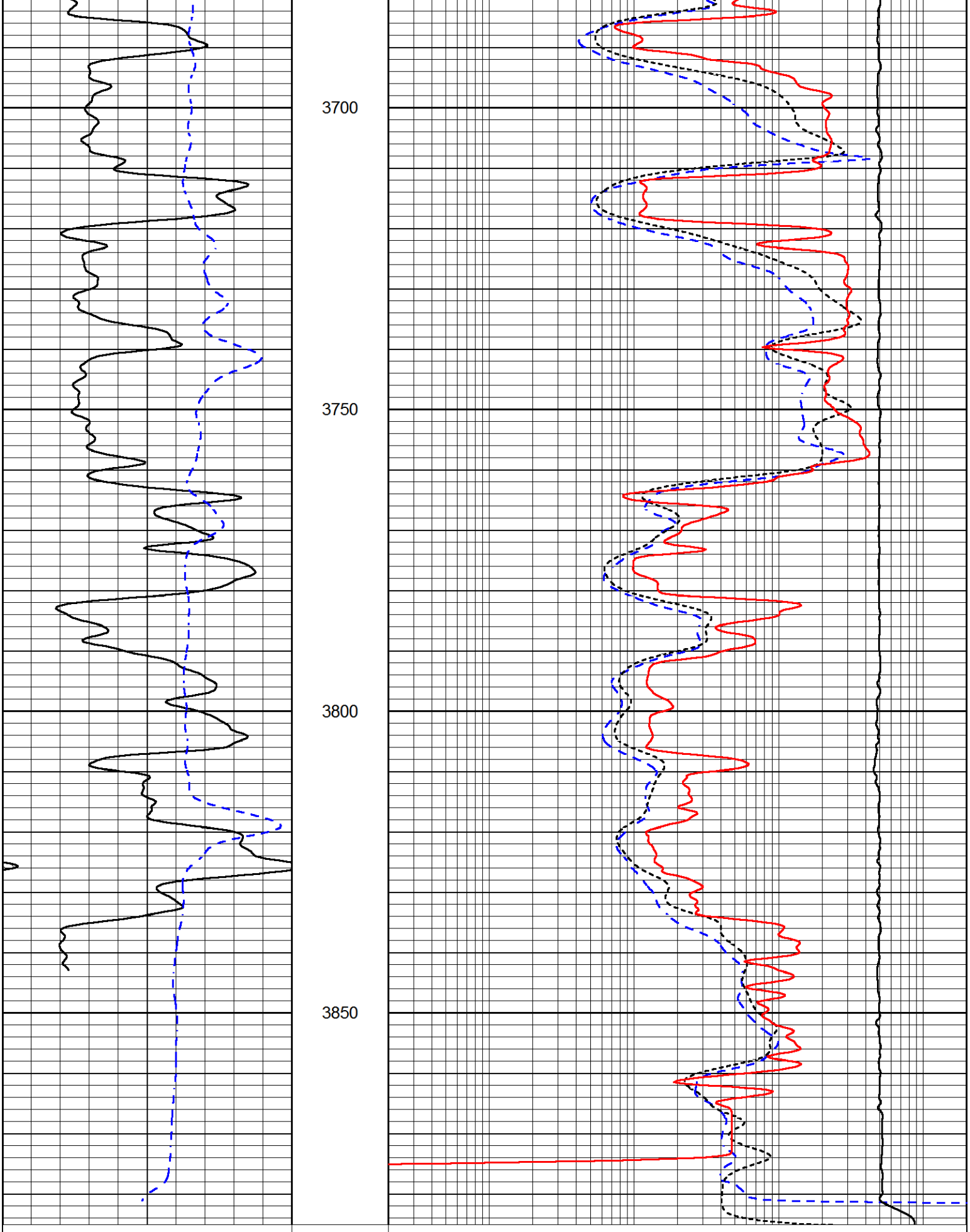
| | |
|---|---|
| Database File | meridian_stadelman_1.db |
| Dataset Pathname | stackml/pass2.1 |
| Presentation Format | dil |
| Dataset Creation | Tue Nov 17 06:58:19 2020 |
| Charted by | Depth in Feet scaled 1:240 |

| | | |
|---|---|---|
| 0 | GAMMA RAY (GAPI) | 150 |
| -200 | SP (mV) | 0 |

| | | |
|---|---|---|
| 0.2 | DEEP RESISTIVITY (Ohm-m) | 2000 |
| 0.2 | MEDIUM RESISTIVITY (Ohm-m) | 2000 |
| 0.2 | RLL3 (Ohm-m) | 2000 |
| 15000 | LINE TENSION (lb) | 0 |




3500
3550
3600
3650


3700
3750
3800
3850
0 GAMMA RAY (GAPI) 150
-200 SP (mV) 0
0.2 DEEP RESISTIVITY (Ohm-m) 2000
0.2 MEDIUM RESISTIVITY (Ohm-m) 2000
0.2 RLL3 (Ohm-m) 2000
15000 LINE TENSION (lb) 0

| | | |
|---|---|---|
| 15000 | LINE TENSION (lb) | 0 |

## Calibration Report

Database File meridian_stadelman_1.db
Dataset Pathname stackml/pass3.1
Dataset Creation Tue Nov 17 07:23:50 2020

## Dual Induction Calibration Report

Serial-Model: 55-222-M&W
Calibration Performed: Tue Dec 10 05:11:10 2019

| | Readings | | References | | | Results | |
|---|---|---|---|---|---|---|---|
| Loop: | Air | Loop | Air | Loop | | Gain | Offset |
| Deep | 167.000 | 835.000 | 0.000 | 255.800 | mmho/m | 0.600 | -41.000 |
| Medium | 0.000 | 1348.000 | 142.000 | 255.800 | mmho/m | 0.440 | -15.000 |

## Microlog Calibration Report

Serial-Model: UDM-01-PSI UDM ML
Performed: Fri May 31 06:10:42 2019

| | Readings | | References | | | Results | |
|---|---|---|---|---|---|---|---|
| | Zero | Cal | Zero | Cal | | m | b |
| Normal | 0.0000 | 1.0000 | 0.0000 | 1.0000 | Ohm-m | 25000.0000 | 0.0000 |
| Inverse | 0.0000 | 1.0000 | 0.0000 | 1.0000 | Ohm-m | 25000.0000 | 0.0000 |
| Caliper | 1.3766 | 1.0818 | 8.0000 | 22.0000 | in | -47.4839 | 69.4000 |

## Compensated Density Calibration Report

Serial-Model: 915-956-M&W
Source / Verifier: /
Master Calibration Performed: Thu Mar 19 09:21:34 2020

### Master Calibration

| | Density | | Far Detector | Near Detector | |
|---|---|---|---|---|---|
| Magnesium | 1.755 | g/cc | 3668.53 | 4669.61 | cps |
| Aluminum | 2.675 | g/cc | 710.88 | 3056.05 | cps |

Spine Angle = 75.51 Density/Spine Ratio = 0.543

| | Size | | Reading |
|---|---|---|---|
| Small Ring | 4.00 | in | 1.17 |
| Large Ring | 14.00 | in | 1.05 |

## Compensated Neutron Calibration Report

Serial Number: tk10-MW
Tool Model: M&W
Calibration Performed: Wed Nov 16 11:21:36 2016

| Detector | Readings | Target | Normalization |
|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Short Space | 6240.00 | cps | 1000.00 | cps | 1.6025 |
| Long Space | 460.00 | cps | 1000.00 | cps | 1.9500 |

## Gamma Ray Calibration Report

| | | |
|---|---|---|
| Serial Number: | 89-M&W | |
| Tool Model: | M&W | |
| Calibration Performed: | Tue Dec 10 05:11:34 2019 | |
| Calibrator Value: | 1000.0 | GAPI |
| Background Reading: | 0.0 | cps |
| Calibrator Reading: | 6.2 | cps |
| Sensitivity: | 0.5200 | GAPI/cps |

MIDWEST WIRELINE

| | |
|---|---|
| Company | Meridian Energy, Inc. |
| Well | Stadelman #1 |
| Field | Stadelman Northeast |
| County | Ellis |
| State | Kansas |