# DUAL INDUCTION LOG

Company SHAKESPEARE OIL COMPANY, INC.
Well WGM COMM #1-22
Field UNNAMED
County WICHITA State KANSAS

Location: API # : 15-203-20381-0000
1970' FSL & 2614' FWL
NE - SE - NE - SW

SEC 22 TWP 16S RGE 35W

Other Services
CDL/CNL/PE
MEL

Elevation
K.B. 3205
D.F. 3203
G.L. 3195

Permanent Datum GROUND LEVEL Elevation 3195
Log Measured From KELLY BUSHING 10' A.G.L.
Drilling Measured From KELLY BUSHING

Company SHAKESPEARE OIL COMPANY, INC.
Well WGM COMM #1-22
Field UNNAMED
County WICHITA
State KANSAS

| | | | |
|---|---|---|---|
| Date | 4/7/23 | | |
| Run Number | ONE | | |
| Depth Driller | 4825 | | |
| Depth Logger | 4826 | | |
| Bottom Logged Interval | 4824 | | |
| Top Log Interval | 00 | | |
| Casing Driller | 8 5/8"@228' | | |
| Casing Logger | 228 | | |
| Bit Size | 7 7/8" | | |
| Type Fluid in Hole | CHEMICAL MUD | CHLORIDES 5,500 PPM | |
| Density / Viscosity | 9.4/56 | | |
| pH / Fluid Loss | 11.0/8.0 | | |
| Source of Sample | FLOWLINE | | |
| Rm @ Meas. Temp | .600@64F | | |
| Rmf @ Meas. Temp | .450@64F | | |
| Rmc @ Meas. Temp | .720@64F | | |
| Source of Rmf / Rmc | MEASUREMENT | | |
| Rm @ BHT | .312@123F | | |
| Time Circulation Stopped | 2.5 HOURS | | |
| Time Logger on Bottom | 11:15 A.M. | | |
| Maximum Recorded Temperature | 123F | | |
| Equipment Number | 922339 | | |
| Location | HAYS, KANSAS | | |
| Recorded By | JEFF LUEBBERS | | |
| Witnessed By | VERN SCHRAG | | |

<<< Fold Here >>>



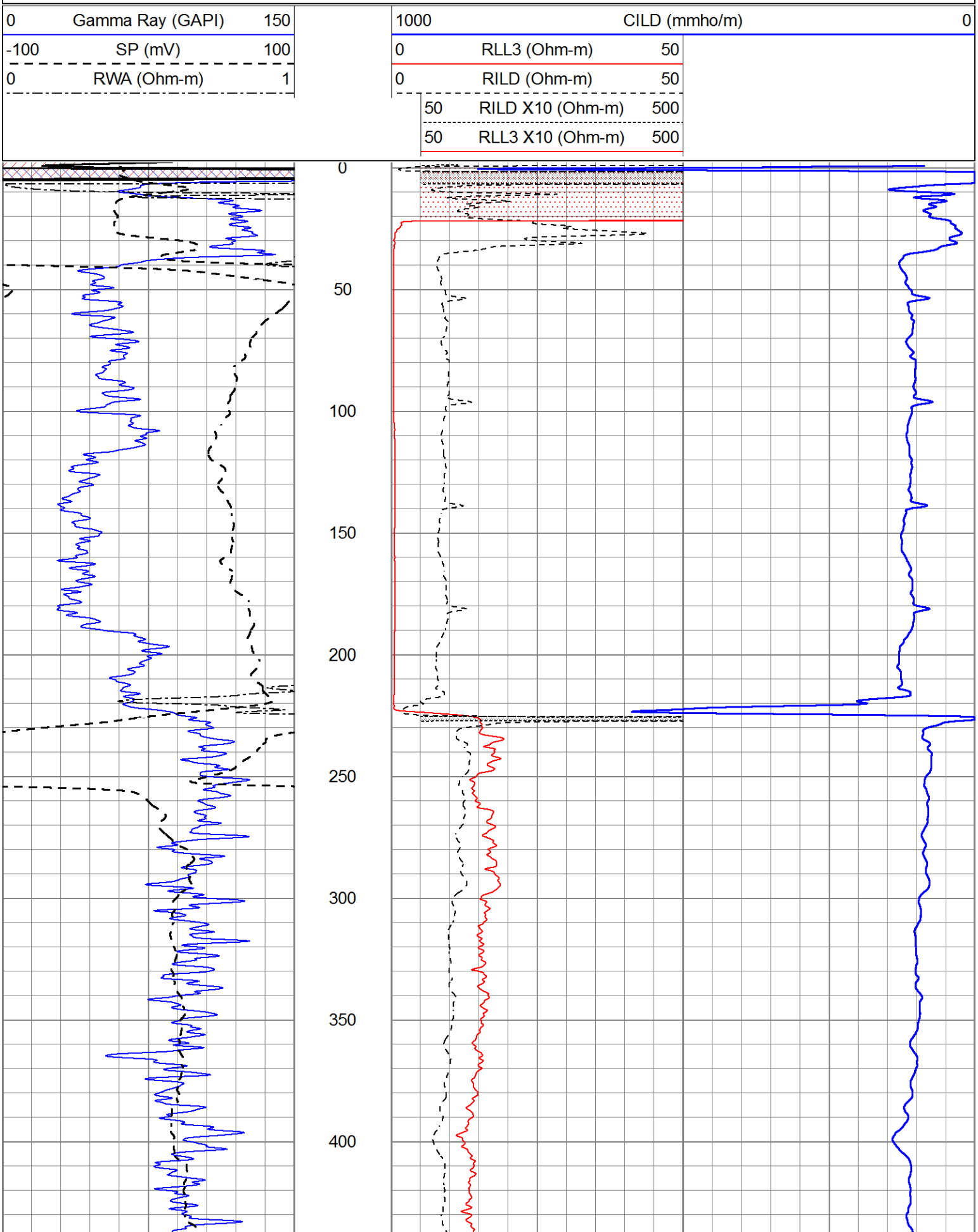
Comments

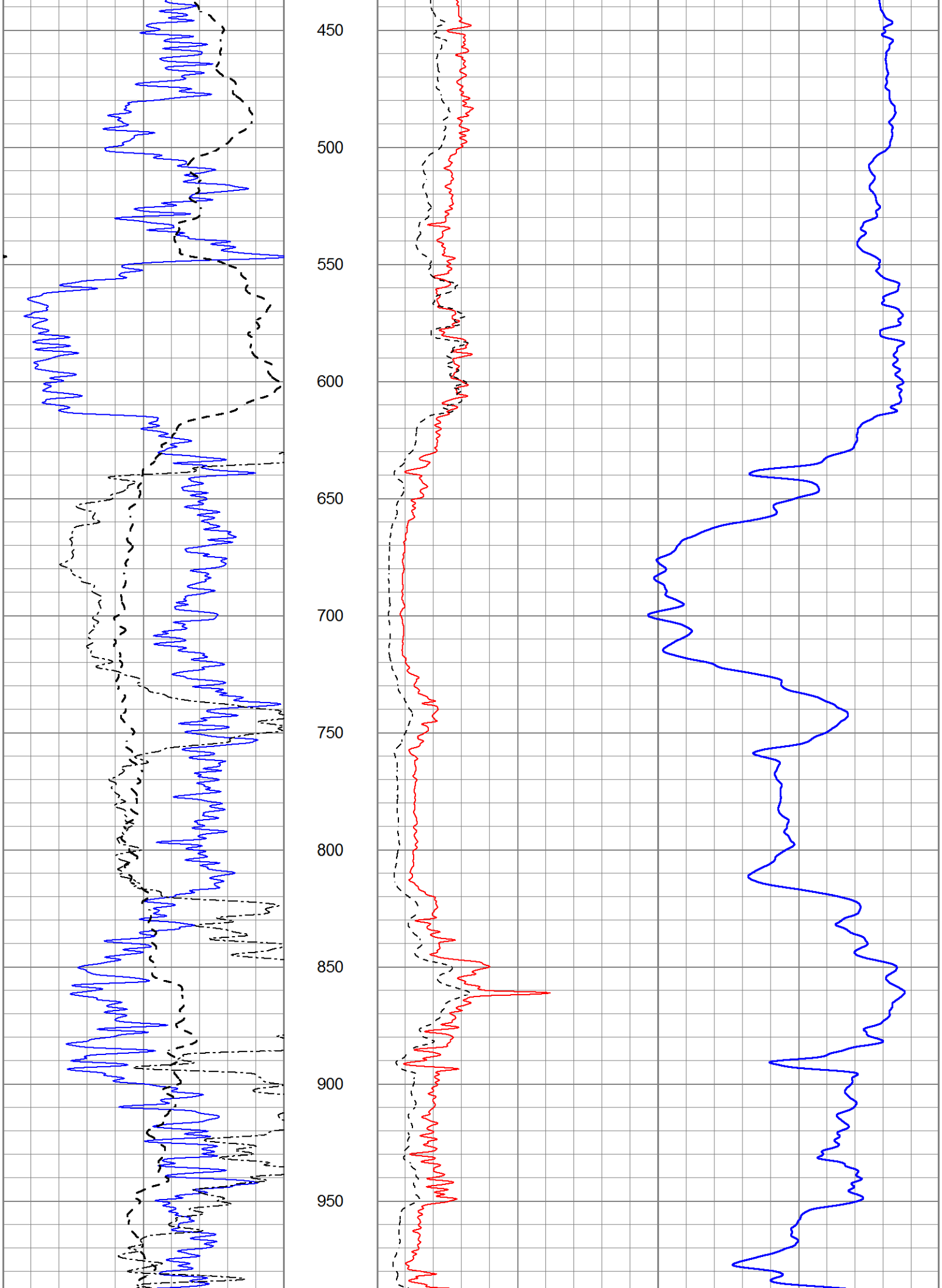
15-203-20381-0000

THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS
MARIENTHAL, KS. & HWY 96, 11N. ON "RD. 20" TO "RD. E", 2 1/2E., N. INTO

MAIN SECTION

| | |
|---|---|
| Database File | 7268pe.db |
| Dataset Pathname | pass3.1M |
| Presentation Format | _dil2 |
| Dataset Creation | Fri Apr 07 13:17:02 2023 |
| Charted by | Depth in Feet scaled 1:600 |

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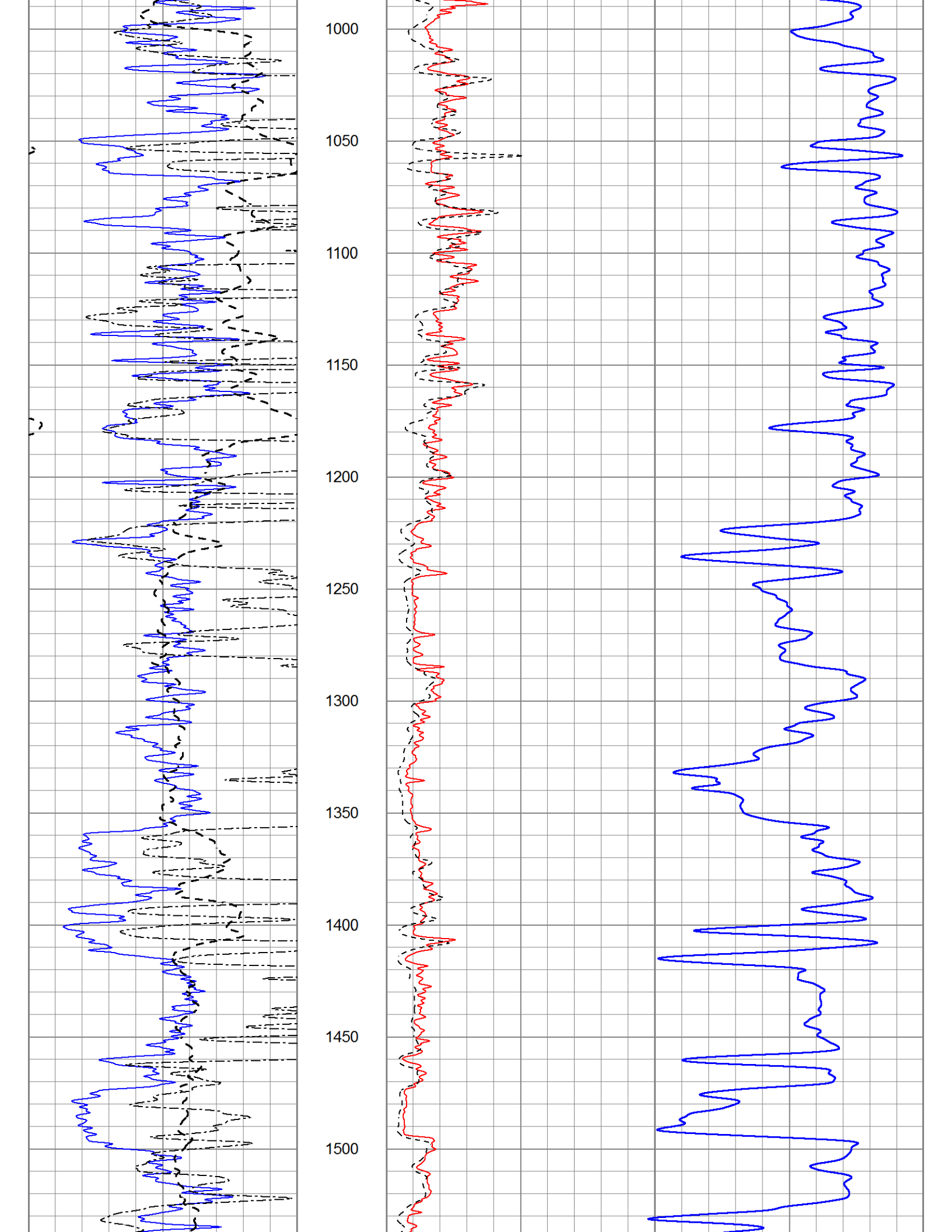
500
550
600
650
700
750
800
850
900
950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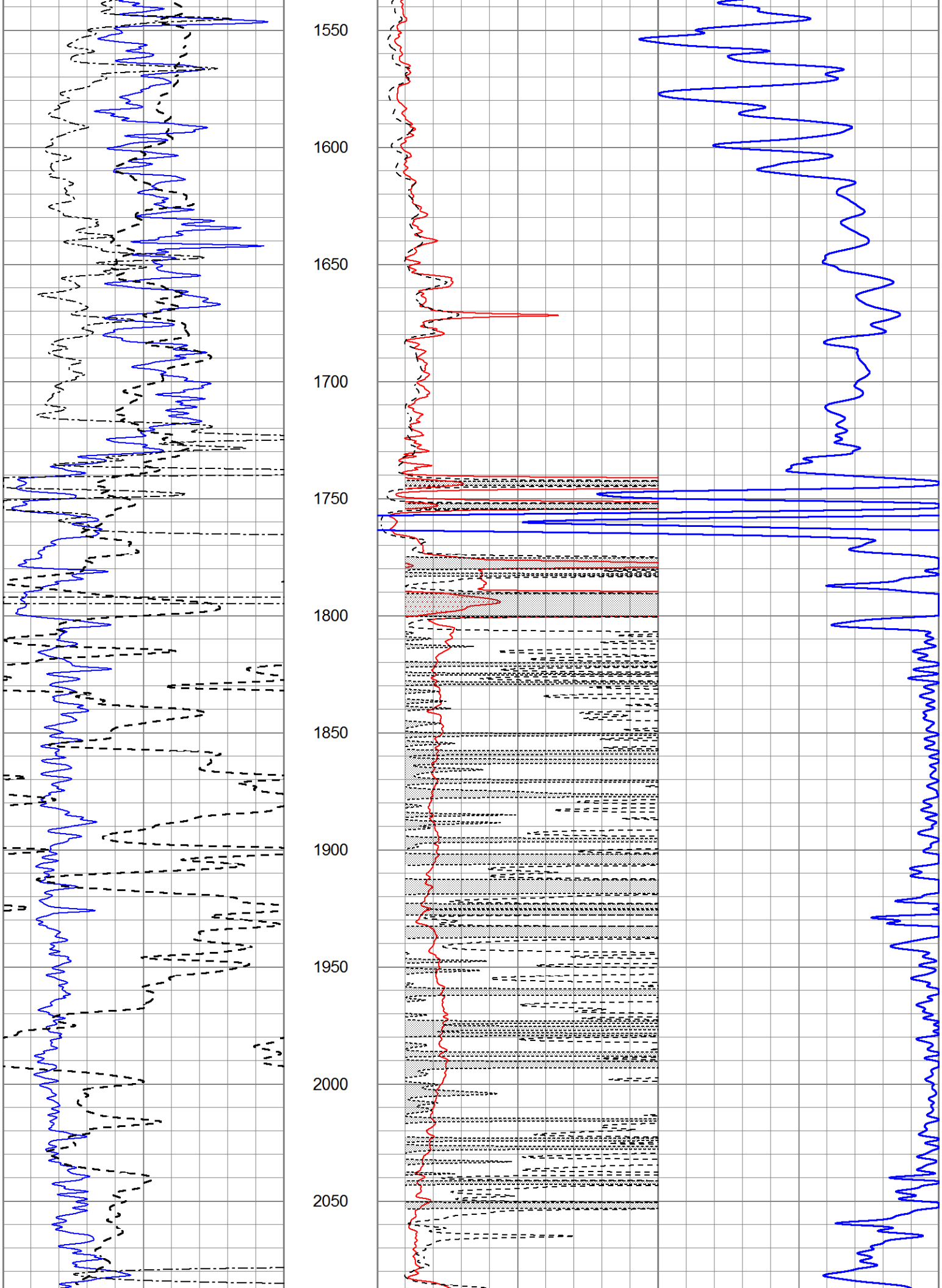
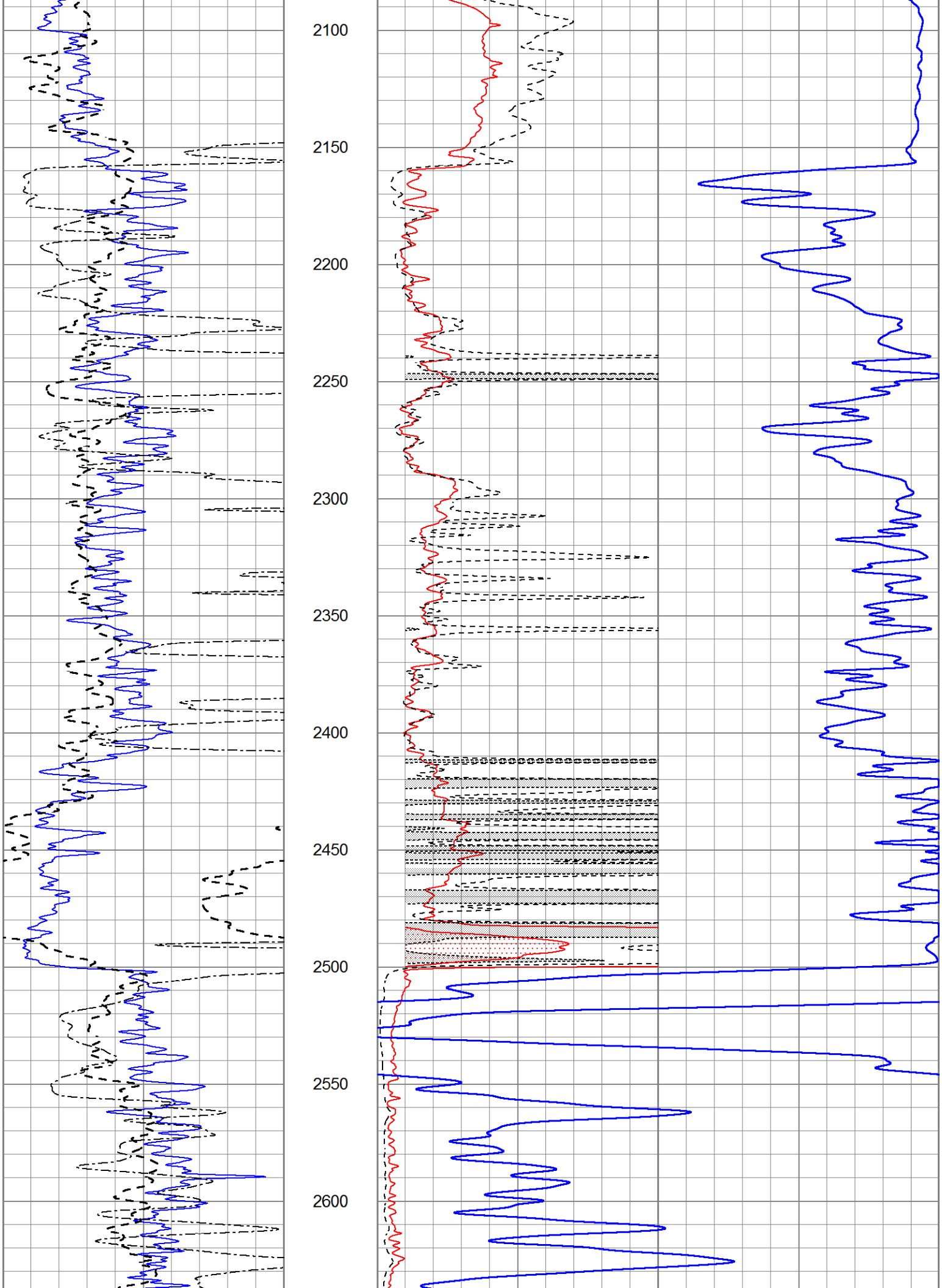
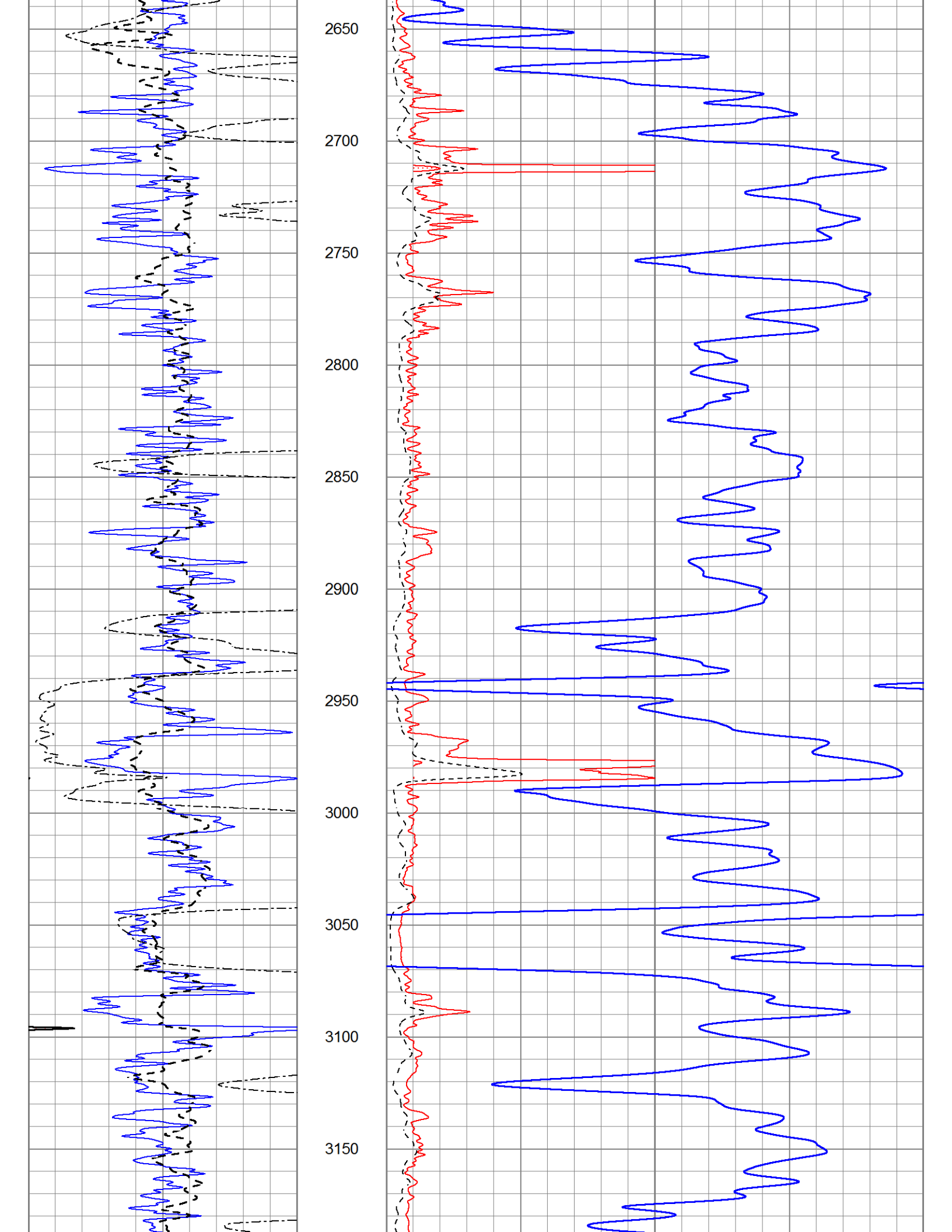
1050
1100
1150
1200
1250
1300
1350
1400
1450
1500


1550
1600
1650
1700
1750
1800
1850
1900
1950
2000
2050


2100
2150
2200
2250
2300
2350
2400
2450
2500
2550
2600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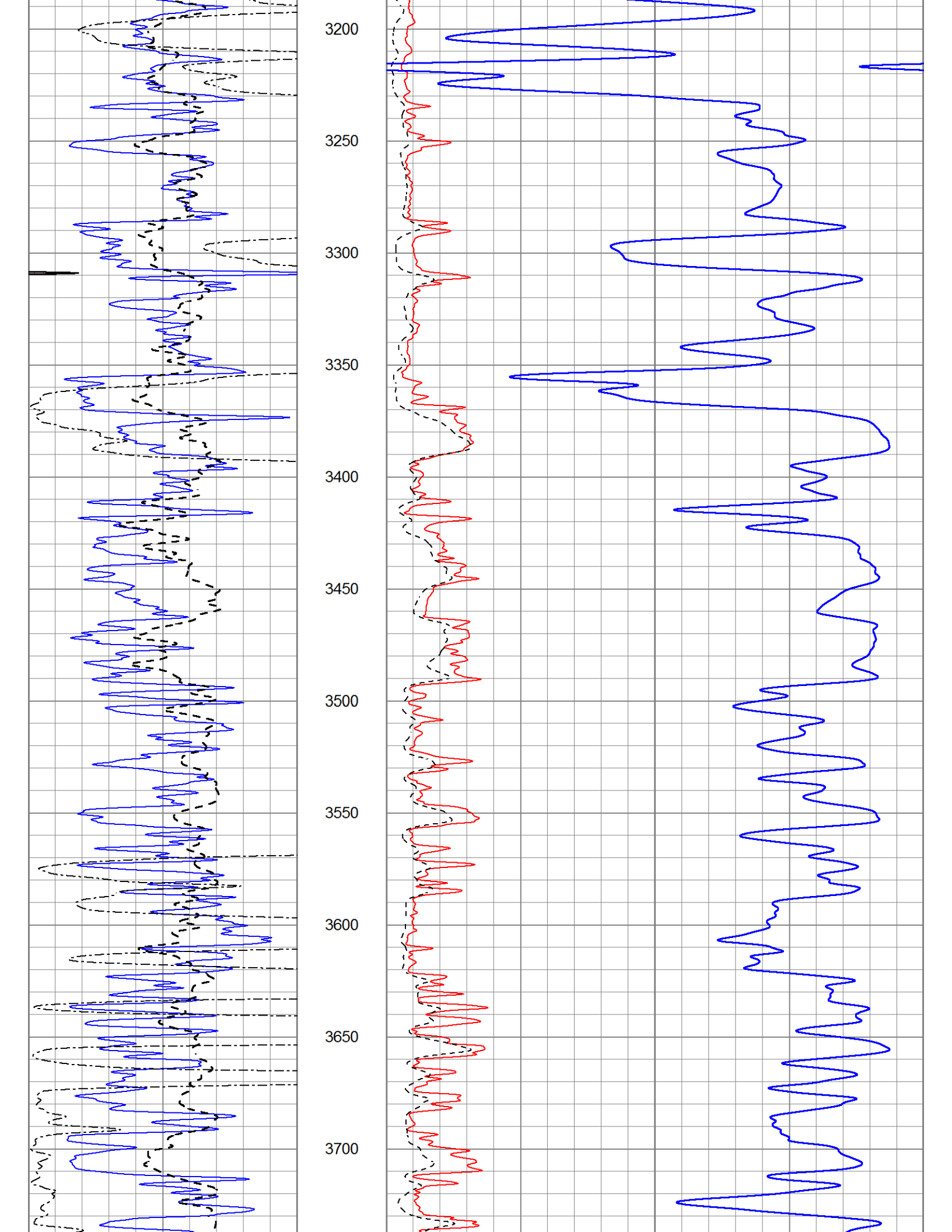
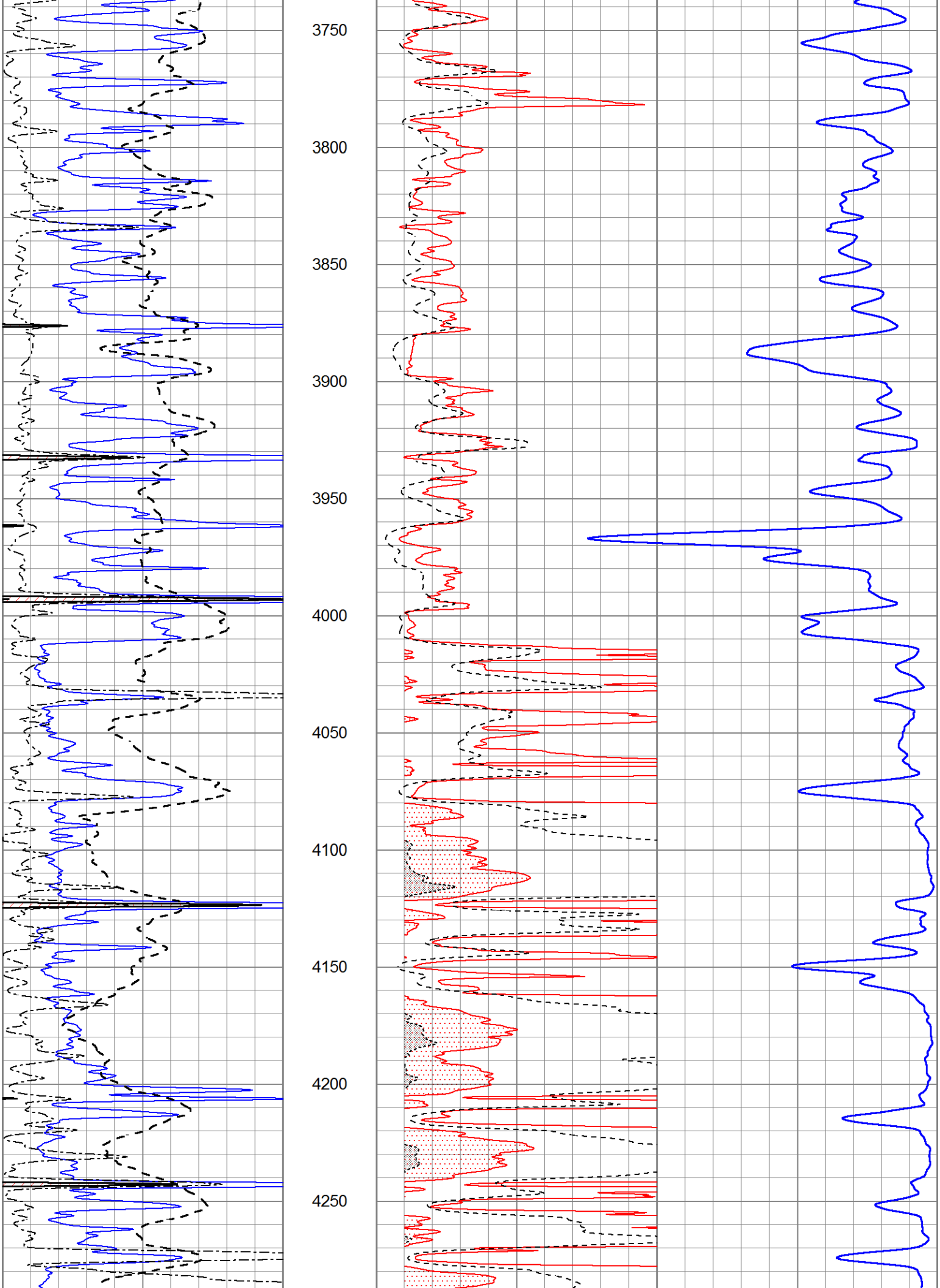
2700
2750
2800
2850
2900
2950
3000
3050
3100
3150


3200
3250
3300
3350
3400
3450
3500
3550
3600
3650
3700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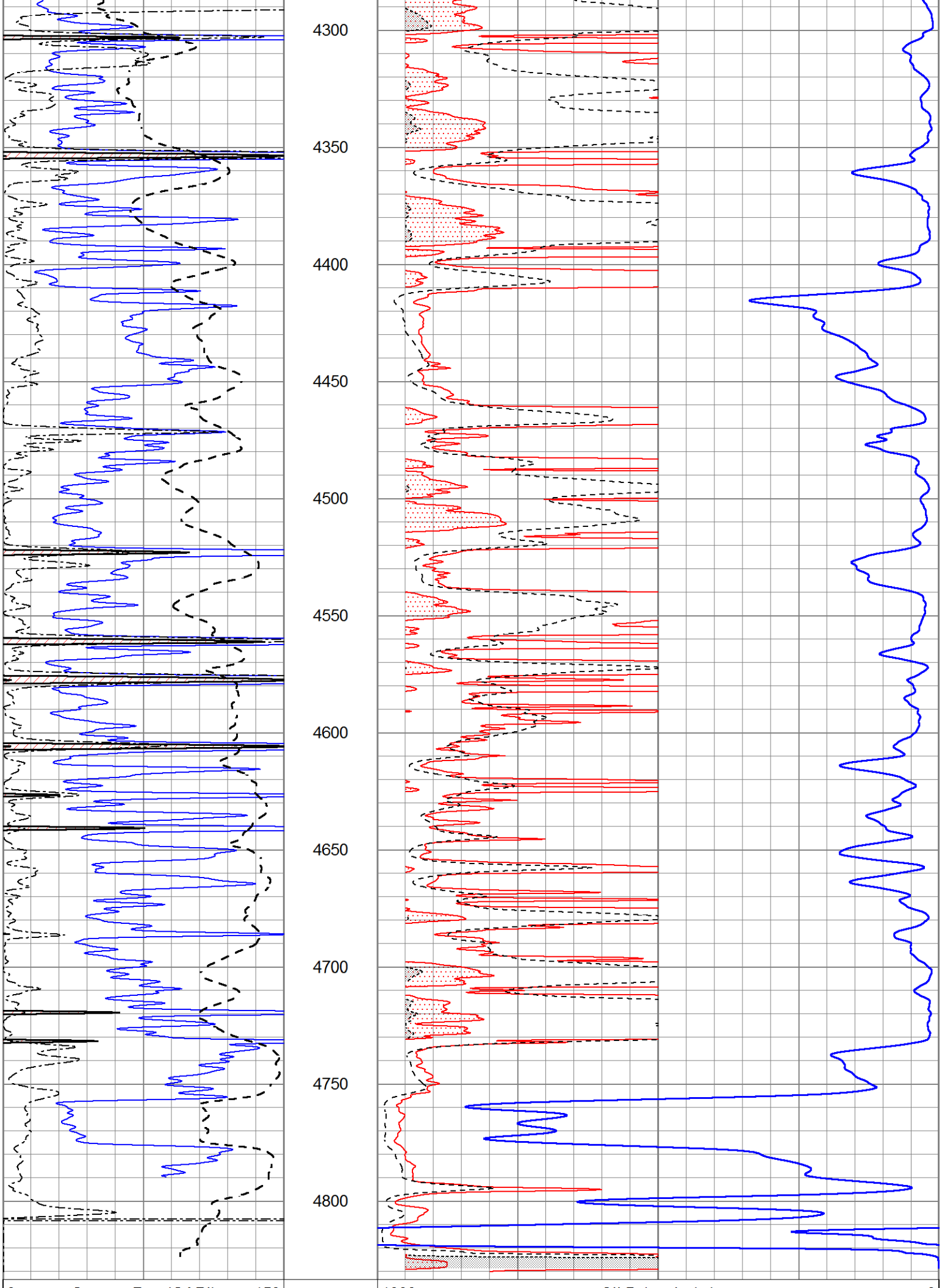
3800
3850
3900
3950
4000
4050
4100
4150
4200
4250


4300
4350
4400
4450
4500
4550
4600
4650
4700
4750
4800

| | | |
|---|---|---|
| 0 | Gamma Ray (GAPI) | 150 |
| -100 | SP (mV) | 100 |
| 0 | RWA (Ohm-m) | 1 |

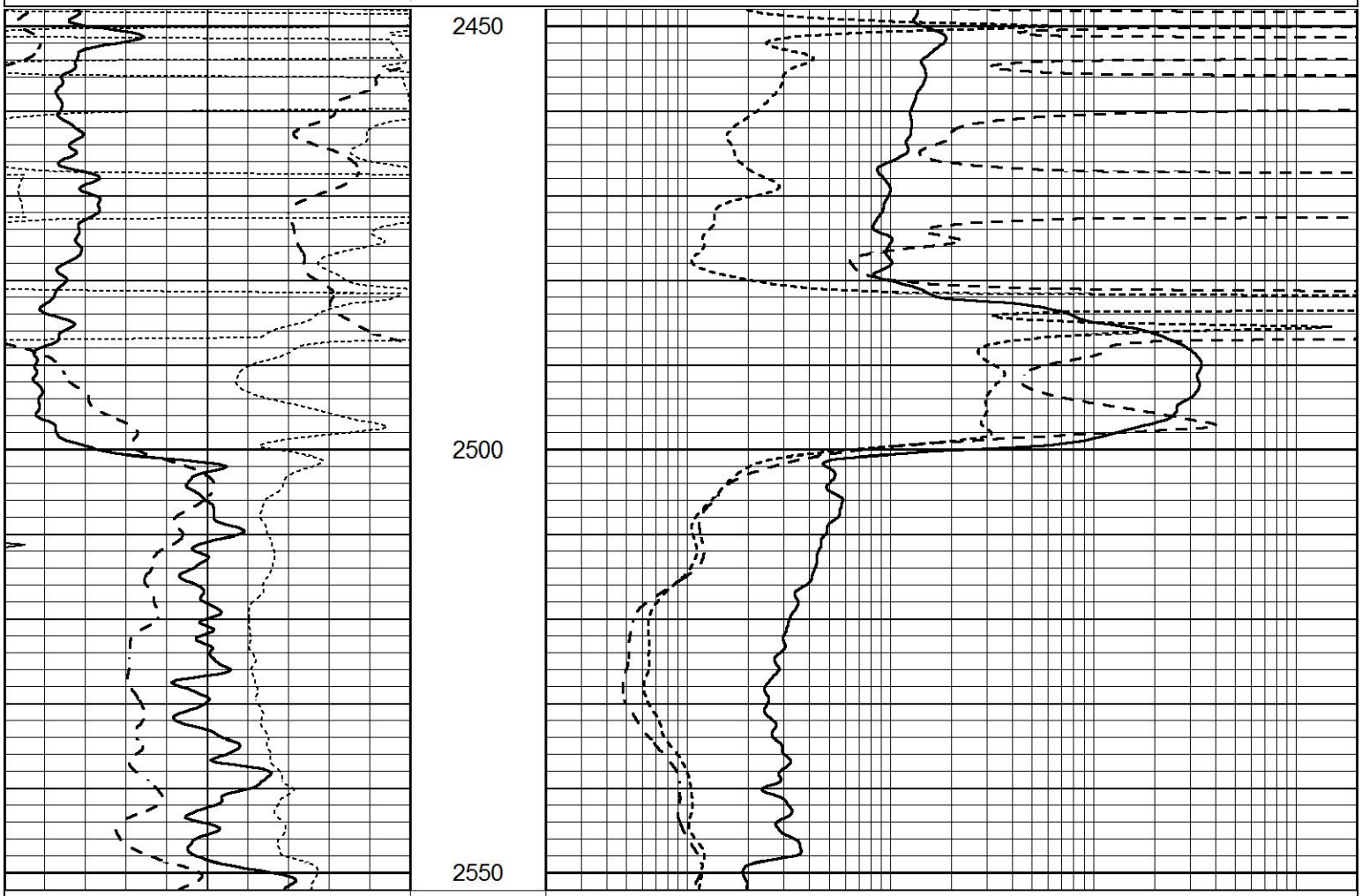
| | | |
|---|---|---|
| 1000 | CILD (mmho/m) | 0 |
| 0 | RLL3 (Ohm-m) | 50 |
| 0 | RILD (Ohm-m) | 50 |
| 50 | RILD X10 (Ohm-m) | 500 |
| 50 | RLL3 X10 (Ohm-m) | 500 |

# ANHYDRITE

| | |
|---|---|
| Database File | 7268pe.db |
| Dataset Pathname | pass3.1A |
| Presentation Format | _dil |
| Dataset Creation | Fri Apr 07 13:20:12 2023 |
| Charted by | Depth in Feet scaled 1:240 |

| | | |
|---|---|---|
| 0 | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV) | 100 |
| -250 | Rxo/Rt | 50 |
| 0 | MINMK | 20 |

| | | |
|---|---|---|
| 0.2 | SHALLOW GUARD (Ohm-m) | 2000 |
| 0.2 | DEEP INDUCTION (Ohm-m) | 2000 |
| 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |





| | | |
|---|---|---|
| 0 | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV) | 100 |
| -250 | Rxo/Rt | 50 |
| 0 | MINMK | 20 |

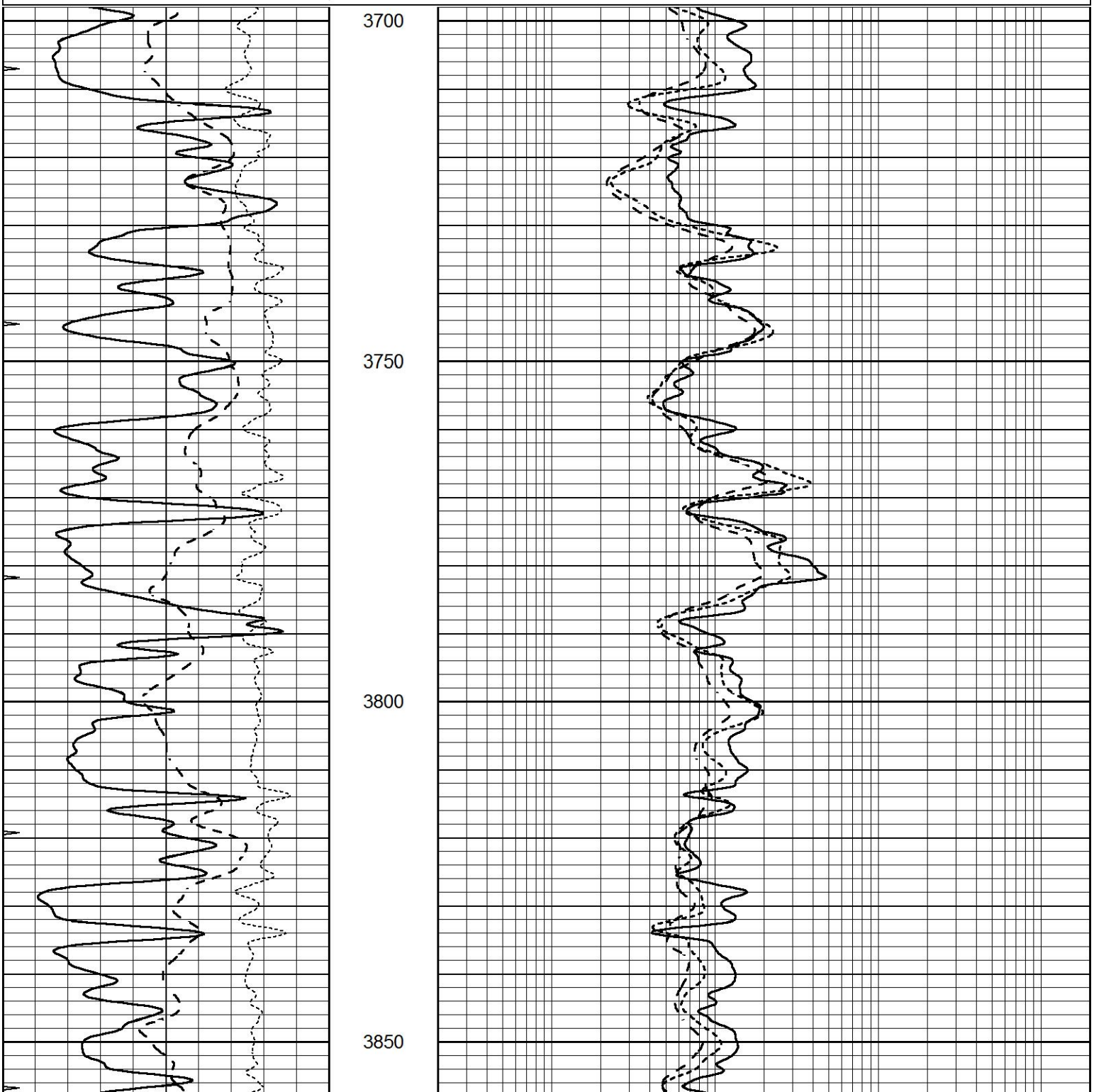
| | | |
|---|---|---|
| 0.2 | SHALLOW GUARD (Ohm-m) | 2000 |
| 0.2 | DEEP INDUCTION (Ohm-m) | 2000 |
| 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |

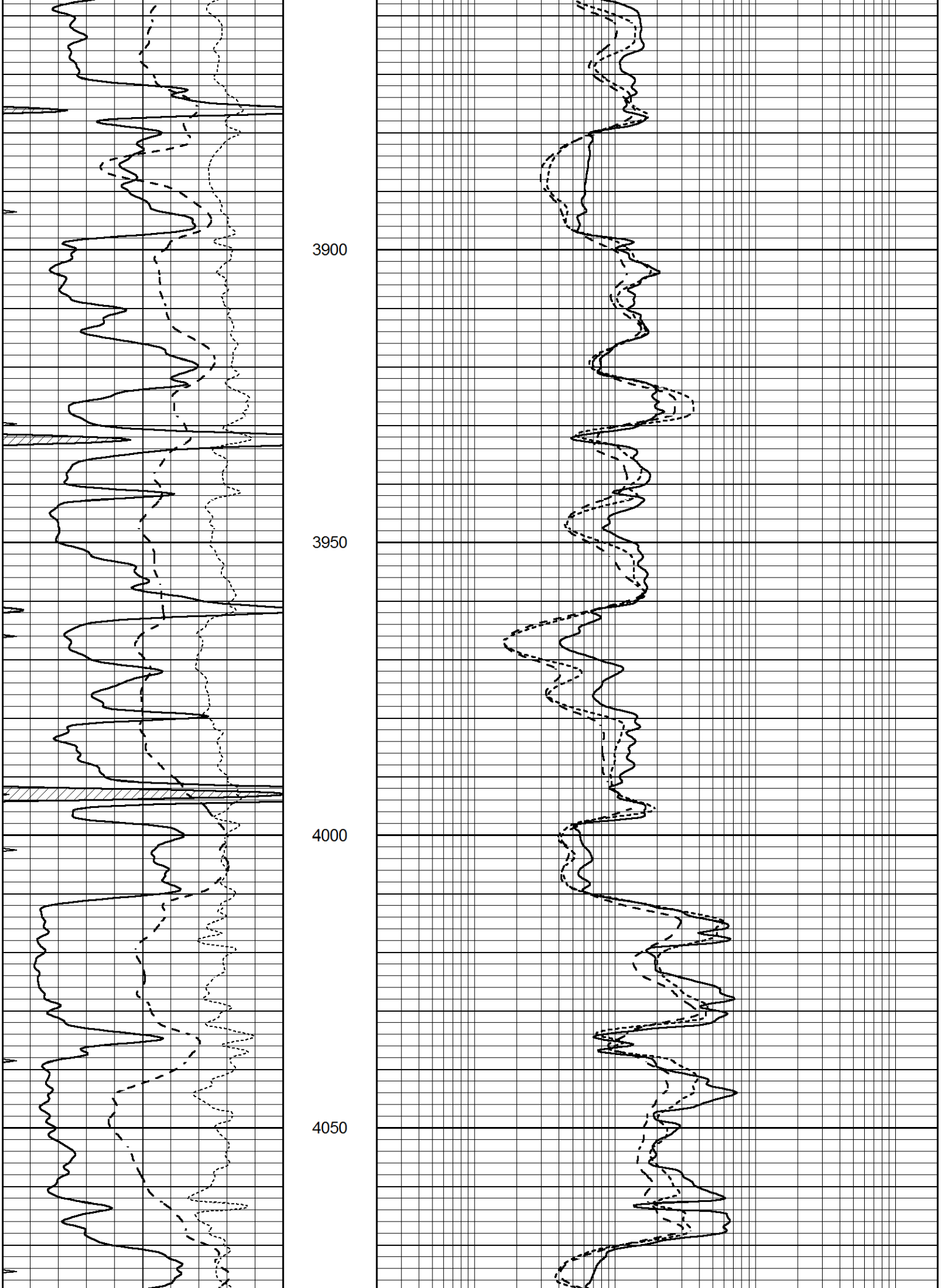
# MAIN SECTION

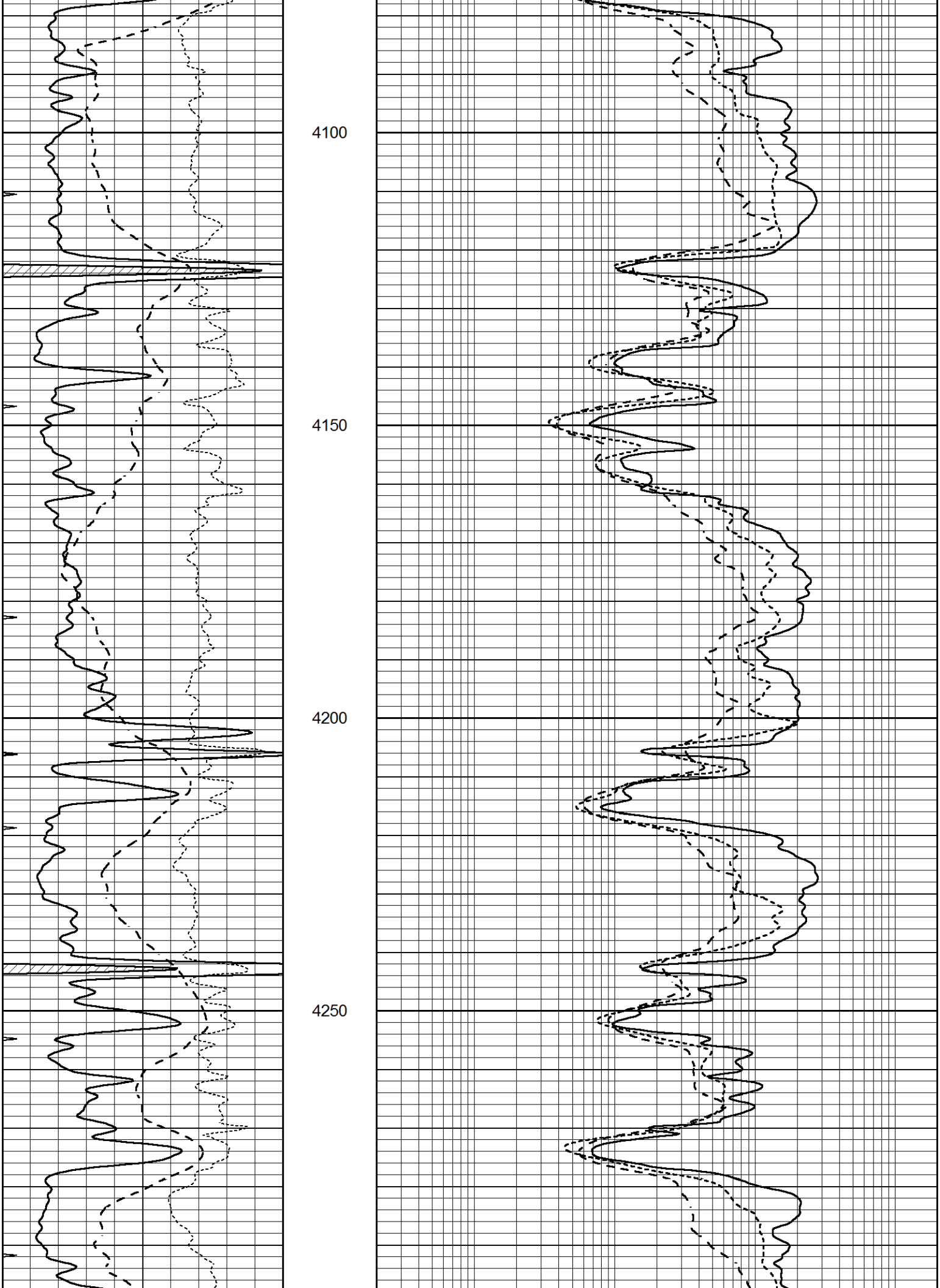
| | |
|---|---|
| Database File | 7268pe.db |
| Dataset Pathname | pass3.1M |
| Presentation Format | _dil |
| Dataset Creation | Fri Apr 07 13:17:02 2023 |
| Charted by | Depth in Feet scaled 1:240 |

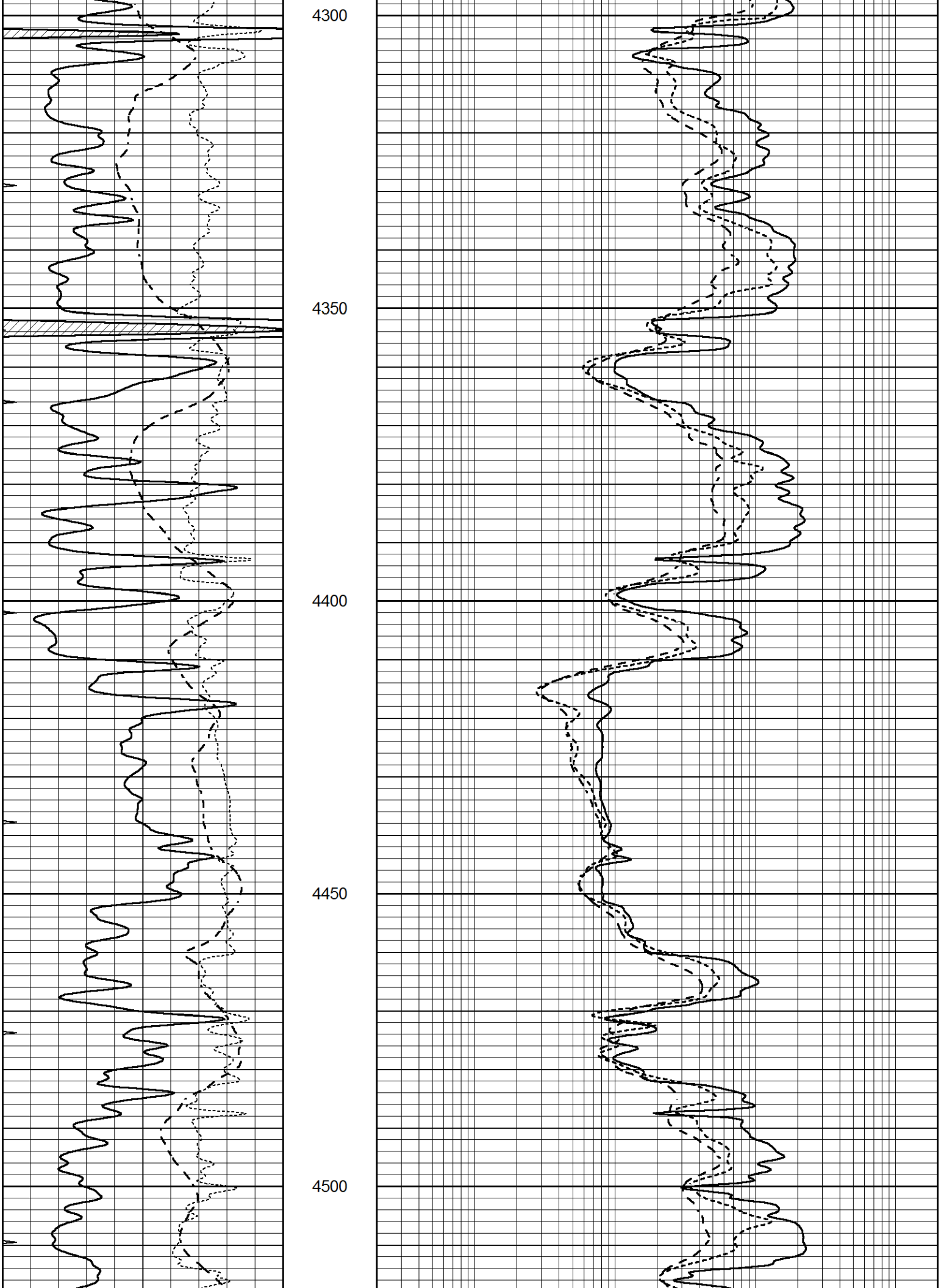
| | | |
|---|---|---|
| 0 | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV) | 100 |
| -250 | Rxo/Rt | 50 |
| 0 | MINMK | 20 |

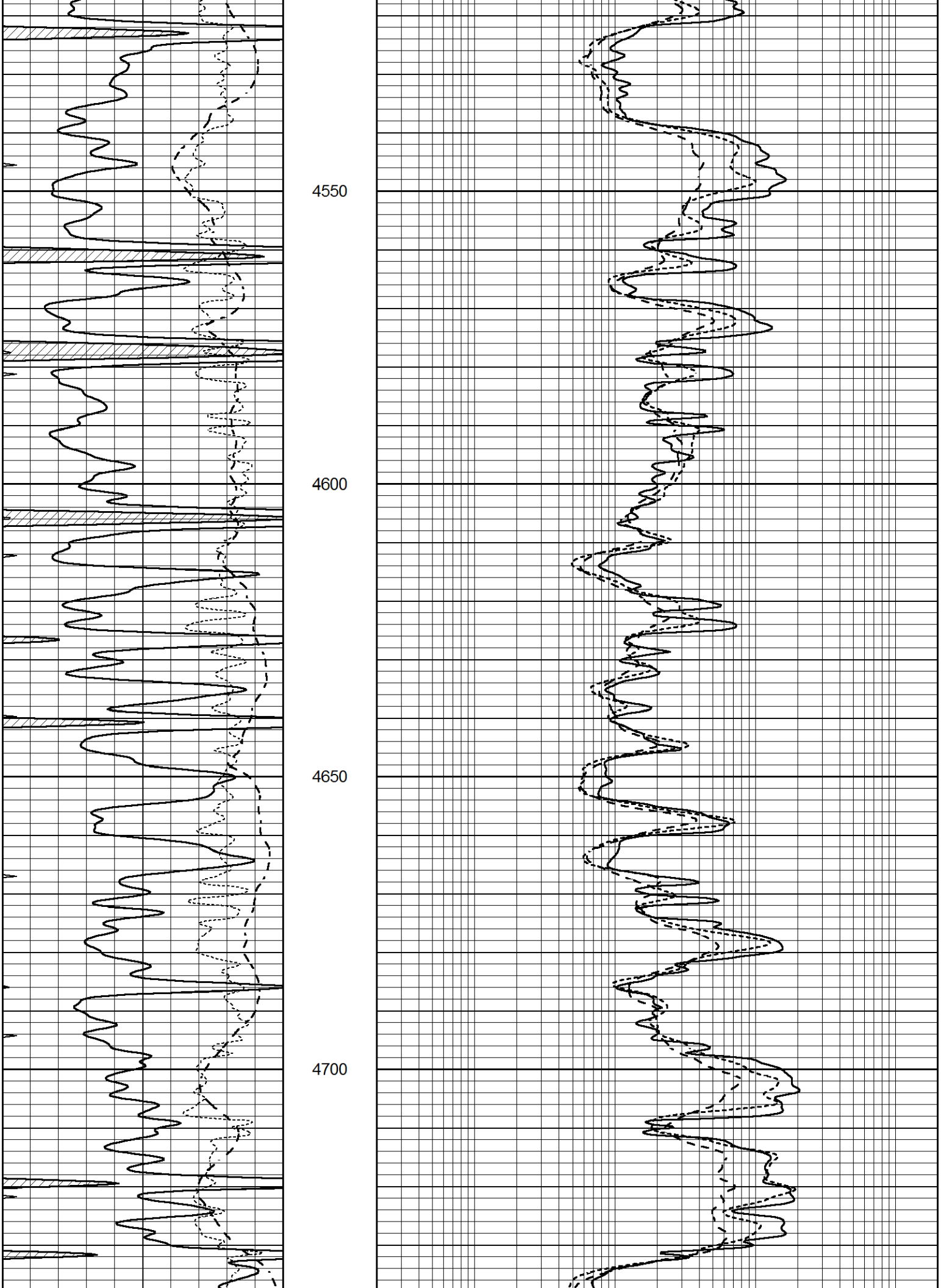
| | | |
|---|---|---|
| 0.2 | SHALLOW GUARD (Ohm-m) | 2000 |
| 0.2 | DEEP INDUCTION (Ohm-m) | 2000 |
| 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |

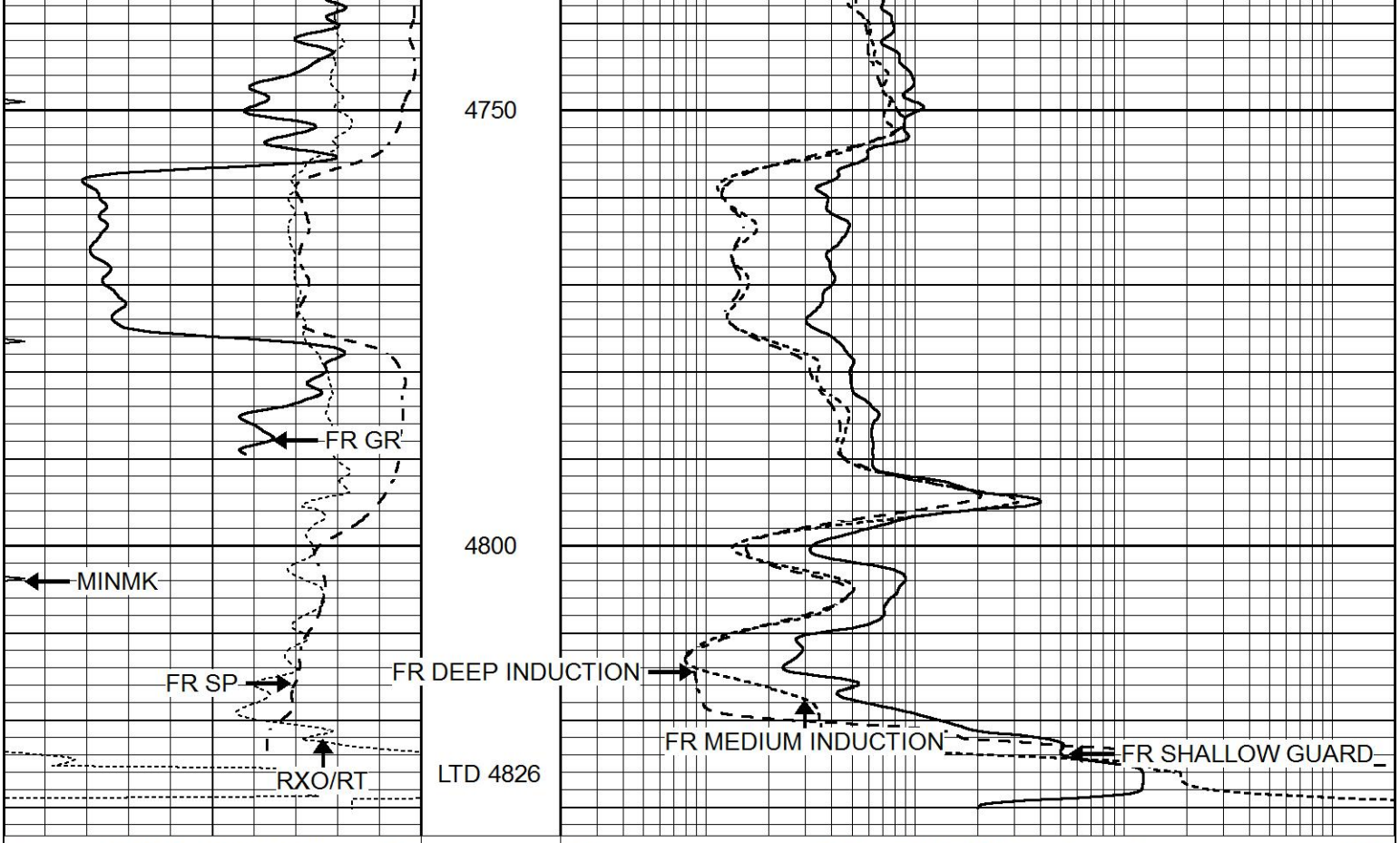



3900
3950
4000
4050


4100
4150
4200
4250


4300
4350
4400
4450
4500


4550
4600
4650
4700




| | | |
|---|---|---|
| 0 | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV) | 100 |
| -250 | Rxo/Rt | 50 |
| 0 | MINMK | 20 |

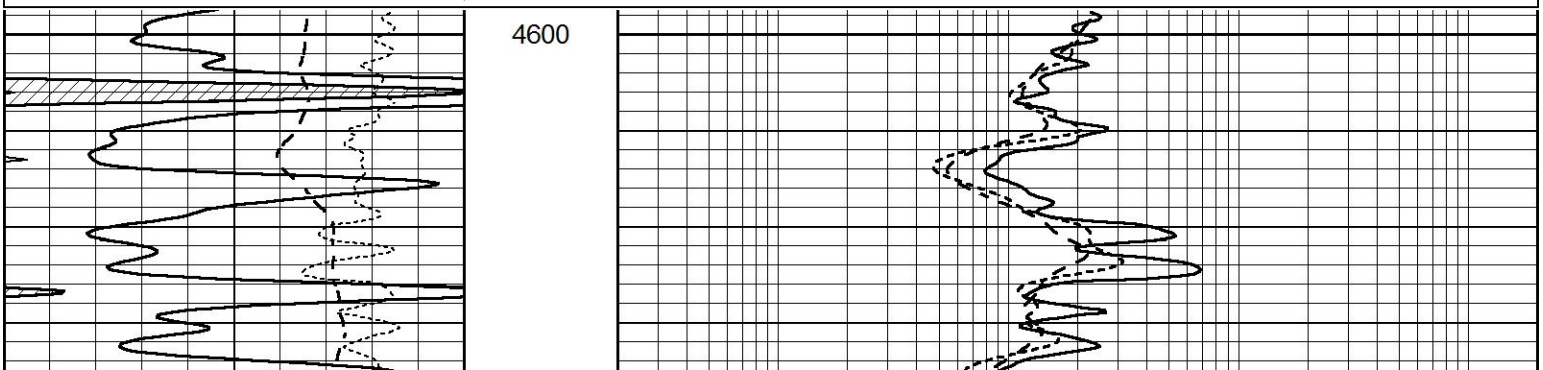
| | | |
|---|---|---|
| 0.2 | SHALLOW GUARD (Ohm-m) | 2000 |
| 0.2 | DEEP INDUCTION (Ohm-m) | 2000 |
| 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |

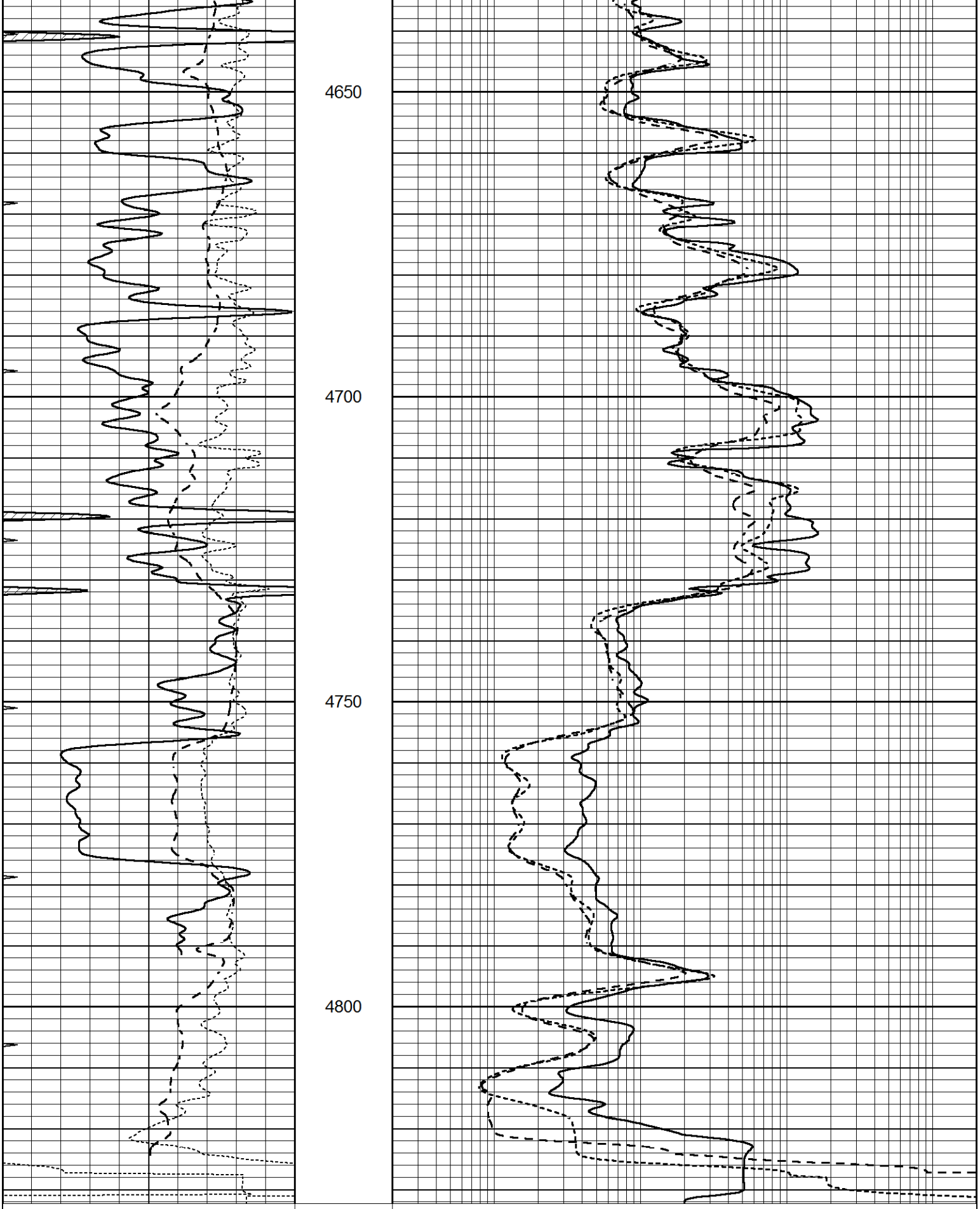
# REPEAT SECTION

| | |
|---|---|
| Database File | 7268pe.db |
| Dataset Pathname | pass2.1R |
| Presentation Format | _dil |
| Dataset Creation | Fri Apr 07 13:30:29 2023 |
| Charted by | Depth in Feet scaled 1:240 |

| | | |
|---|---|---|
| 0 | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV) | 100 |
| -250 | Rxo/Rt | 50 |
| 0 | MINMK | 20 |

| | | |
|---|---|---|
| 0.2 | SHALLOW GUARD (Ohm-m) | 2000 |
| 0.2 | DEEP INDUCTION (Ohm-m) | 2000 |
| 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |






| | | |
|---|---|---|
| 0 | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV) | 100 |
| -250 | Rxo/Rt | 50 |
| 0 | MINMK | 20 |

| | | |
|---|---|---|
| 0.2 | SHALLOW GUARD (Ohm-m) | 2000 |
| 0.2 | DEEP INDUCTION (Ohm-m) | 2000 |
| 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |

# Calibration Report

Database File 7268pe.db
Dataset Pathname pass3.1M
Dataset Creation Fri Apr 07 13:17:02 2023

## Dual Induction Calibration Report

| | |
|---|---|
| Serial-Model: | PROBE8-DILG |
| Surface Cal Performed: | Fri Apr 07 11:58:49 2023 |
| Downhole Cal Performed: | Mon Jul 28 11:08:27 2008 |
| After Survey Verification Performed: | Mon Jul 28 11:08:27 2008 |

### Surface Calibration

| | Readings | | | References | | | Results | |
|---|---|---|---|---|---|---|---|---|
| Loop: | Air | Loop | | Air | Loop | | m | b |
| Deep | 0.015 | 0.648 | V | 0.000 | 400.000 | mmho/m | 640.000 | 18.000 |
| Medium | 0.029 | 0.796 | V | 0.000 | 464.000 | mmho/m | 625.000 | 2.000 |
| Internal: | Zero | Cal | | Zero | Cal | | m | b |
| Deep | 0.017 | 0.657 | V | 0.000 | 400.000 | mmho/m | 625.153 | -10.619 |
| Medium | 0.016 | 0.757 | V | 0.000 | 464.000 | mmho/m | 625.992 | -9.739 |

### Downhole Calibration

| | Readings | | | References | | | Results | |
|---|---|---|---|---|---|---|---|---|
| | Zero | Cal | | Zero | Cal | | m' | b' |
| Deep | 0.000 | 0.000 | mmho/m | 2.011 | 405.777 | mmho/m | 1.000 | 0.000 |
| Medium | 0.000 | 0.000 | mmho/m | 7.590 | 503.393 | mmho/m | 1.000 | 0.000 |
| LL3 | | 7.500 | V | | 1500.000 | Ohm-m | | |
| | | 0.000 | V | | 20.000 | Ohm-m | | |
| | | -7.200 | V | | 3800.000 | mmho-m | | |

### After Survey Verification

| | Readings | | | Targets | | | Results | |
|---|---|---|---|---|---|---|---|---|
| | Zero | Cal | | Zero | Cal | | m' | b' |
| Deep | 0.000 | 0.000 | mmho/m | 0.000 | 0.000 | mmho/m | 0.000 | 0.000 |
| Medium | 0.000 | 0.000 | mmho/m | 0.000 | 0.000 | mmho/m | 0.000 | 0.000 |
| LL3 | | 1.000 | Ohm-m | | 1.000 | Ohm-m | | |
| | | 0.000 | Ohm-m | | 0.000 | Ohm-m | | |
| | | 1.000 | mmho-m | | 1.000 | mmho-m | | |

## Litho Density Calibration Report

Serial: 004 Model: PRB

### Master Calibration

Performed Tue Aug 02 11:29:35 2022

| | Background | Magnesium | Aluminum | Aluminum+Fe | |
|---|---|---|---|---|---|
| Window 1 | 1154.2 | 10019.5 | 3137.9 | 2795.6 | cps |
| Window 2 | 1054.4 | 8597.6 | 2733.4 | 2469.5 | cps |
| Window 3 | 902.3 | 5241.4 | 1832.1 | 1719.3 | cps |
| Window 4 | 251.9 | 261.1 | 255.8 | 252.9 | cps |
| Long Space | 0.0 | 7543.2 | 1679.0 | 1415.0 | cps |
| Short Space | 4.4 | 2049.3 | 1321.7 | 1116.8 | cps |
| Rho | | 1.7100 | 2.5900 | 0.0000 | g/cc |
| Pe | | 2.0000 | 2.7500 | 5.7900 | |

| | | | | | |
|---|---|---|---|---|---|
| Rib Angle | : 43.7 | Rib Slope | : 0.957 | Density/Spine Ratio | : 0.562 |
| Spine Angle | : 73.7 | Spine Slope | : 3.426 | Spine Intercept | : -17.2 |

Before Survey Verification — Performed Wed Dec 31 18:00:00 1969

| | | | | | |
|---|---|---|---|---|---|
| Window 1 | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Window 2 | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Window 3 | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Window 4 | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Long Space | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Short Space | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Measured Rho | | 0.0000 | 0.0000 | 0.0000 | g/cc |
| Measured Correction | | 0.0000 | 0.0000 | 0.0000 | g/cc |
| Measured Pe | | | 0.0000 | 0.0000 | |

After Survey Verification — Performed Wed Dec 31 18:00:00 1969

| | | | | | |
|---|---|---|---|---|---|
| Window 1 | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Window 2 | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Window 3 | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Window 4 | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Long Space | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Short Space | 0.0 | 0.0 | 0.0 | 0.0 | cps |
| Measured Rho | | 0.0000 | 0.0000 | 0.0000 | g/cc |
| Measured Correction | | 0.0000 | 0.0000 | 0.0000 | g/cc |
| Measured Pe | | | 0.0000 | 0.0000 | |

## Compensated Neutron Calibration Report

Serial Number: 070808PMC
Tool Model: NABORS

PRE-SURVEY VERIFICATION

| Detector | Readings | Measured | Target |
|---|---|---|---|
| Short Space | cps | | |
| Long Space | cps | pu | pu |

POST-SURVEY VERIFICATION

| Detector | Readings | Measured | Target |
|---|---|---|---|
| Short Space | cps | | |
| Long Space | cps | pu | pu |

## Gamma Ray Calibration Report

Serial Number: 070558
Tool Model: OPEN_GR
Performed: Fri Apr 07 09:33:04 2023

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.2800 GAPI/cps