NABORS COMPLETION & PRODUCTION SERVICES CO.

# DUAL INDUCTION LOG

| | |
|---|---|
| Company | WOOLSEY OPERATING COMPANY, LLC. |
| Well | STEWART TRUST "B" #2 |
| Field | TRAFFAS |
| County | BARBER |
| State | KANSAS |

Company WOOLSEY OPERATING COMPANY, LLC.

Well STEWART TRUST "B" #2

Field TRAFFAS

County BARBER State KANSAS

Location: API # : 15-007-24026-0000
2480' FNL & 330' FWL
S/2 SW SW NW
SEC 21 TWP 33S RGE 10W

Other Services
CDL/CNL/PE

Permanent Datum GROUND LEVEL Elevation 1489
Log Measured From KELLY BUSHING 12' A.G.L.
Drilling Measured From KELLY BUSHING

Elevation
K.B. 1501
D.F. 1499
G.L. 1489

| | | | |
|---|---|---|---|
| Date | 6/14/12 | | |
| Run Number | ONE | | |
| Depth Driller | 5087 | | |
| Depth Logger | 5090 | | |
| Bottom Logged Interval | 5088 | | |
| Top Log Interval | 00 | | |
| Casing Driller | 10 3/4" @ 221 | | |
| Casing Logger | 219 | | |
| Bit Size | 7 7/8 | | |
| Type Fluid in Hole | CHEMICAL MUD | | |
| Density / Viscosity | 9.1/57 | CHLORIDES 4500 PPM | |
| pH / Fluid Loss | 9.5/8.0 | | |
| Source of Sample | FLOWLINE | | |
| Rm @ Meas. Temp | .55 @ 103F | | |
| Rmf @ Meas. Temp | .41 @ 103F | | |
| Rmc @ Meas. Temp | .66 @ 103F | | |
| Source of Rmf / Rmc | MEASURED | | |
| Rm @ BHT | .44 @ 126F | | |
| Time Circulation Stopped | 2 HOURS | | |
| Time Logger on Bottom | | | |
| Maximum Recorded Temperature | 126F | | |
| Equipment Number | 680 | | |
| Location | HAYS, KS. | | |
| Recorded By | JASON CAPPELLUCCI | | |
| Witnessed By | SCOTT ALBERG | | |

<<< Fold Here >>>



Comments

THANK YOU FOR USING NABORS COMPLETION & PRODUCTION SVCS. (785) 628-6395

DIRECTIONS:
SHARON, KS. - 5 S. ON TRI CITY BLKTOP - 1 W. - 1/4 S. - E. & S. INTO

NABORS COMPLETION & PRODUCTION

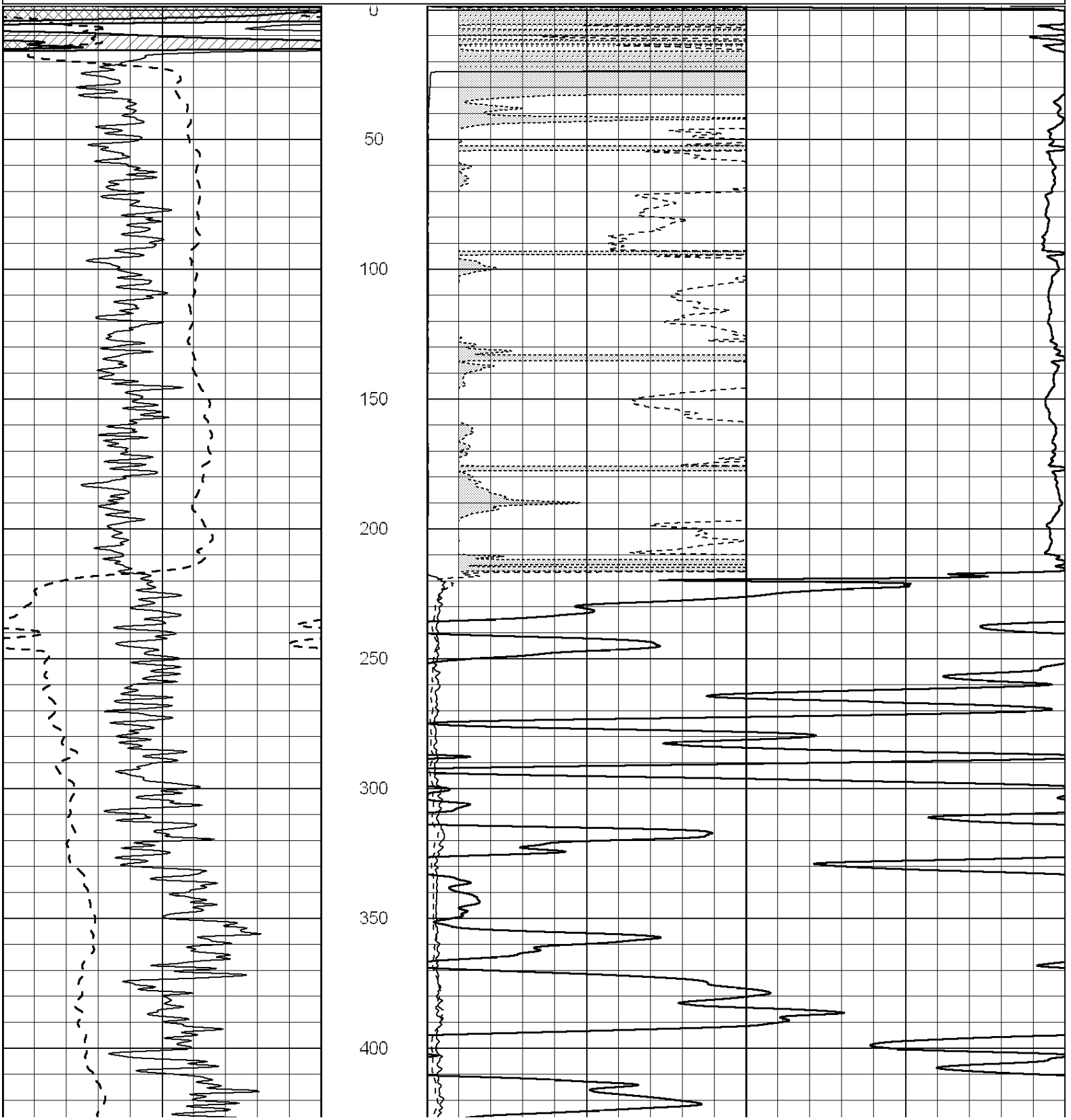
# MAIN SECTION

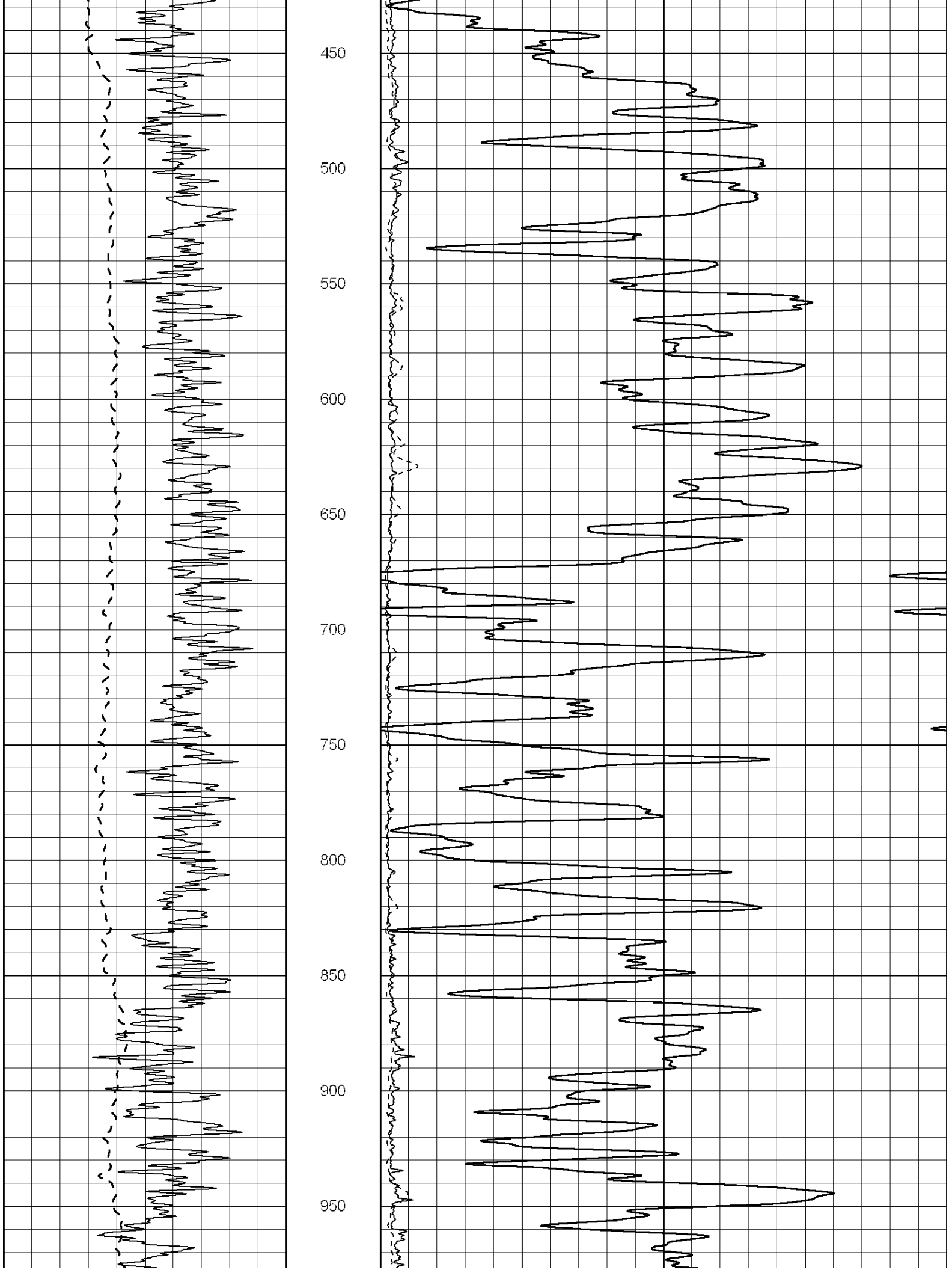
SERVICES CO.

Database File: 011255pe.db
Dataset Pathname: pass3.2
Presentation Format: _dil2
Dataset Creation: Fri Jun 14 19:05:12 2013 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:600

| | | |
|---|---|---|
| 0 | Gamma Ray (GAPI) | 150 |
| -100 | SP (mV) | 100 |

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

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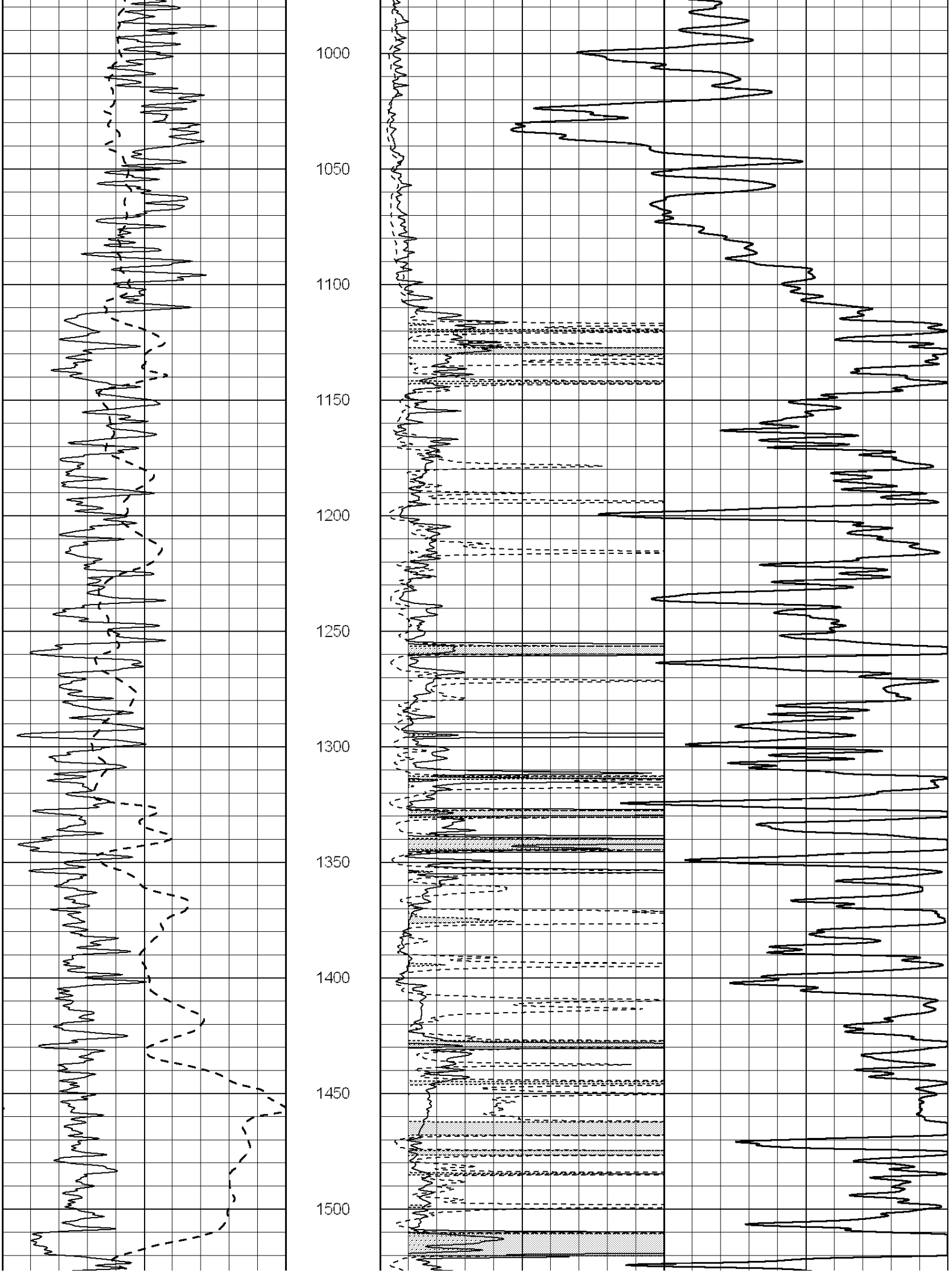
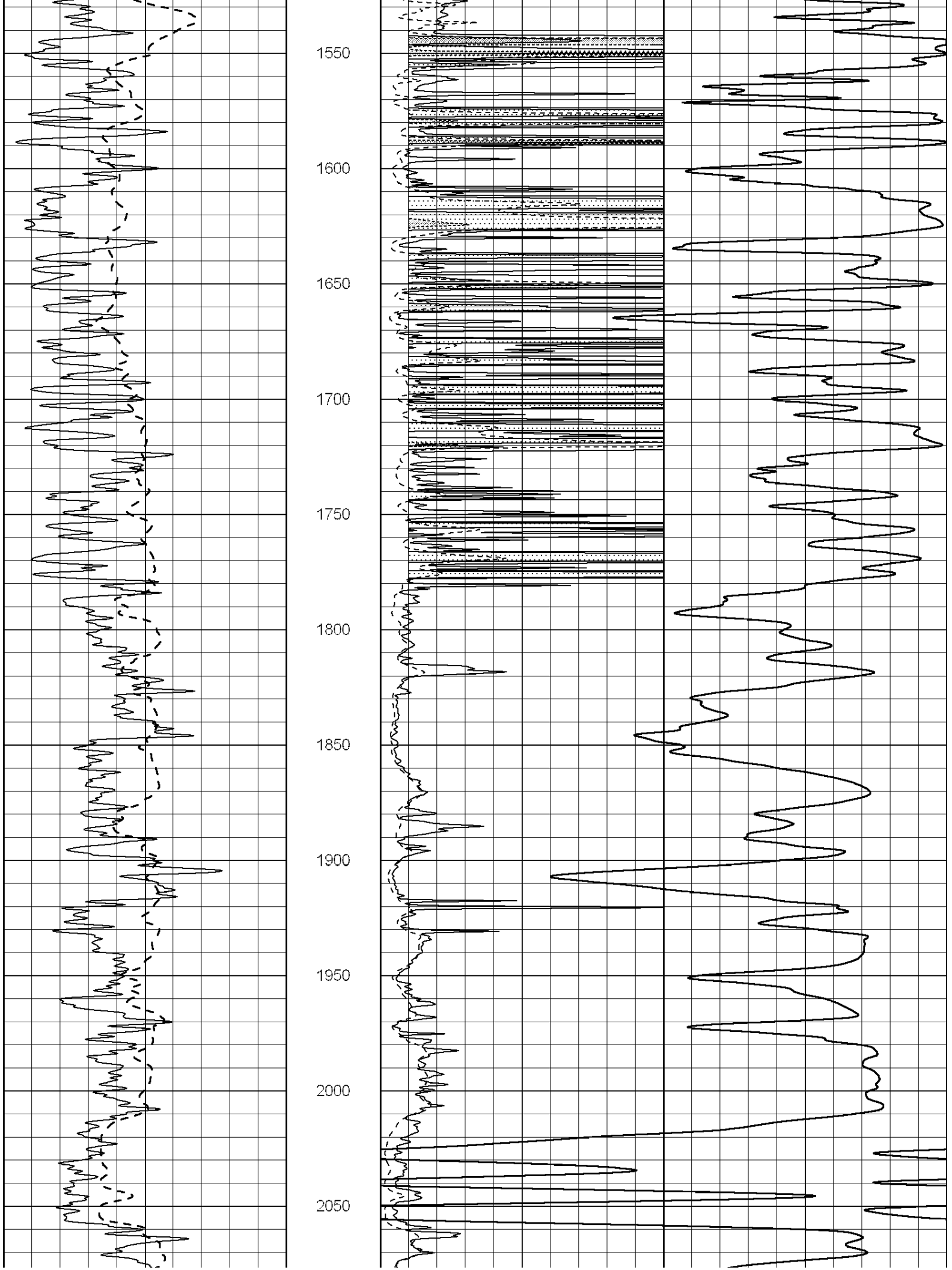
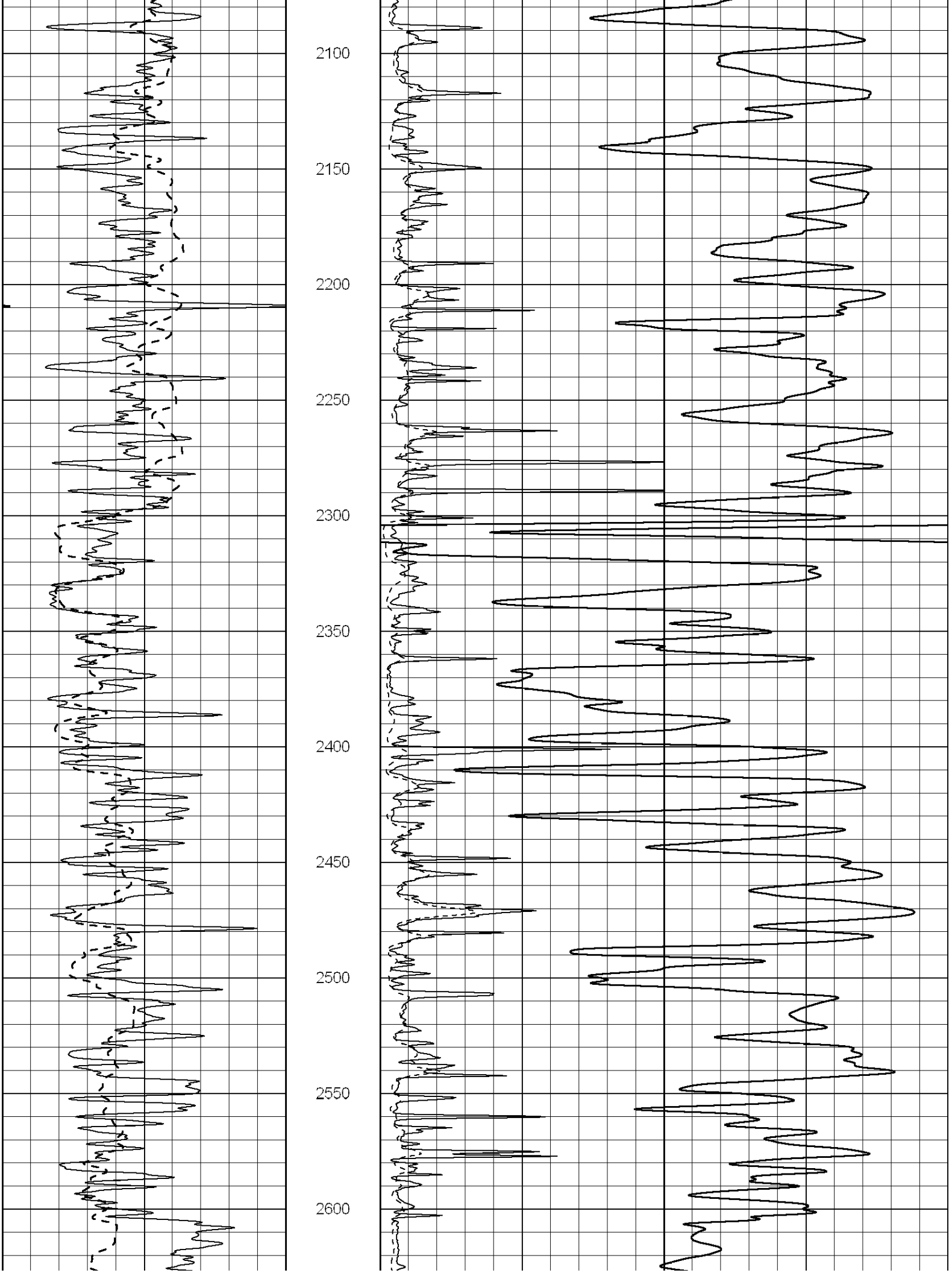
500
550
600
650
700
750
800
850
900
950


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
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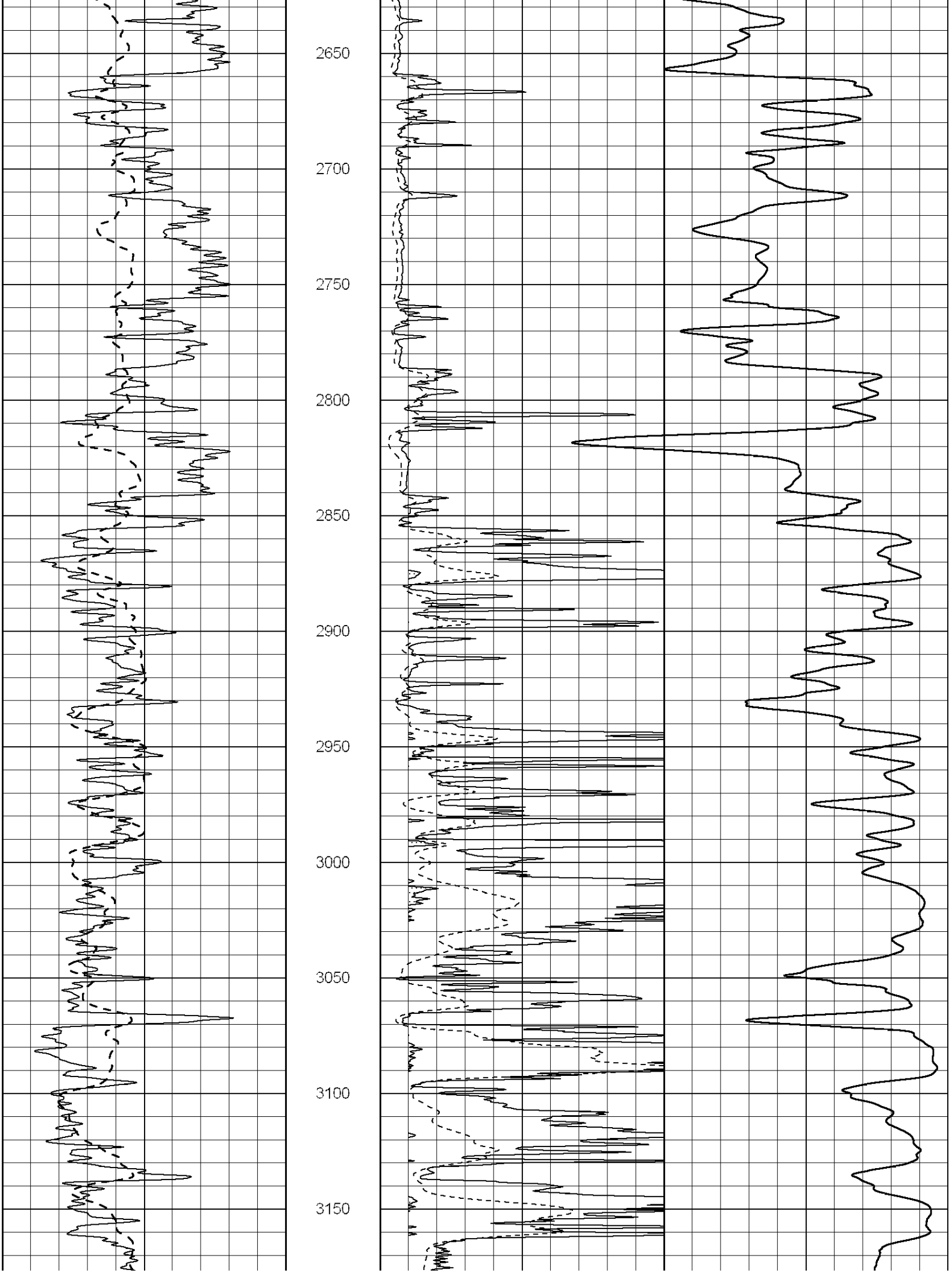
2300
2350
2400
2450
2500
2550
2600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2700
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2800
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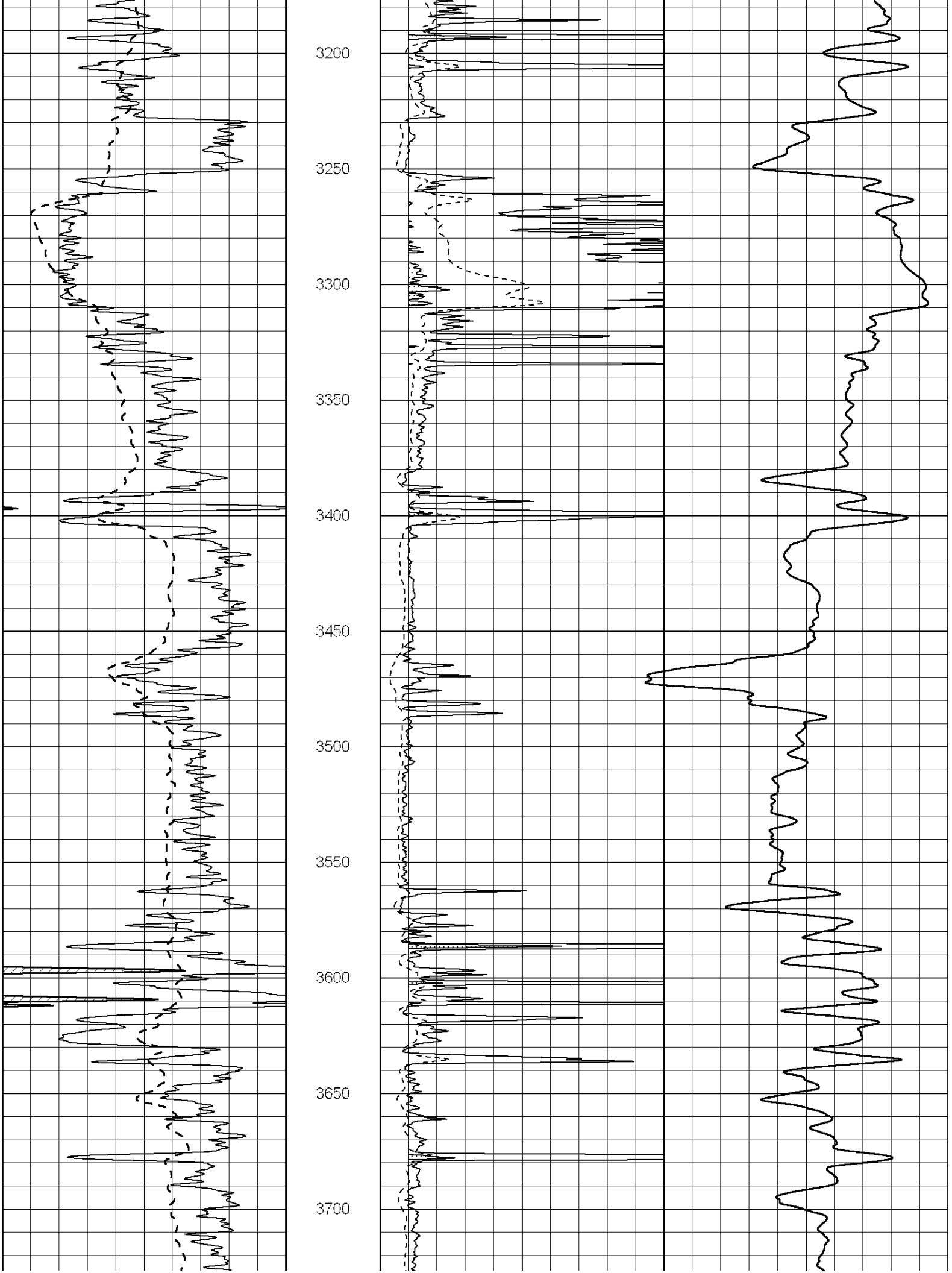
2900
2950
3000
3050
3100
3150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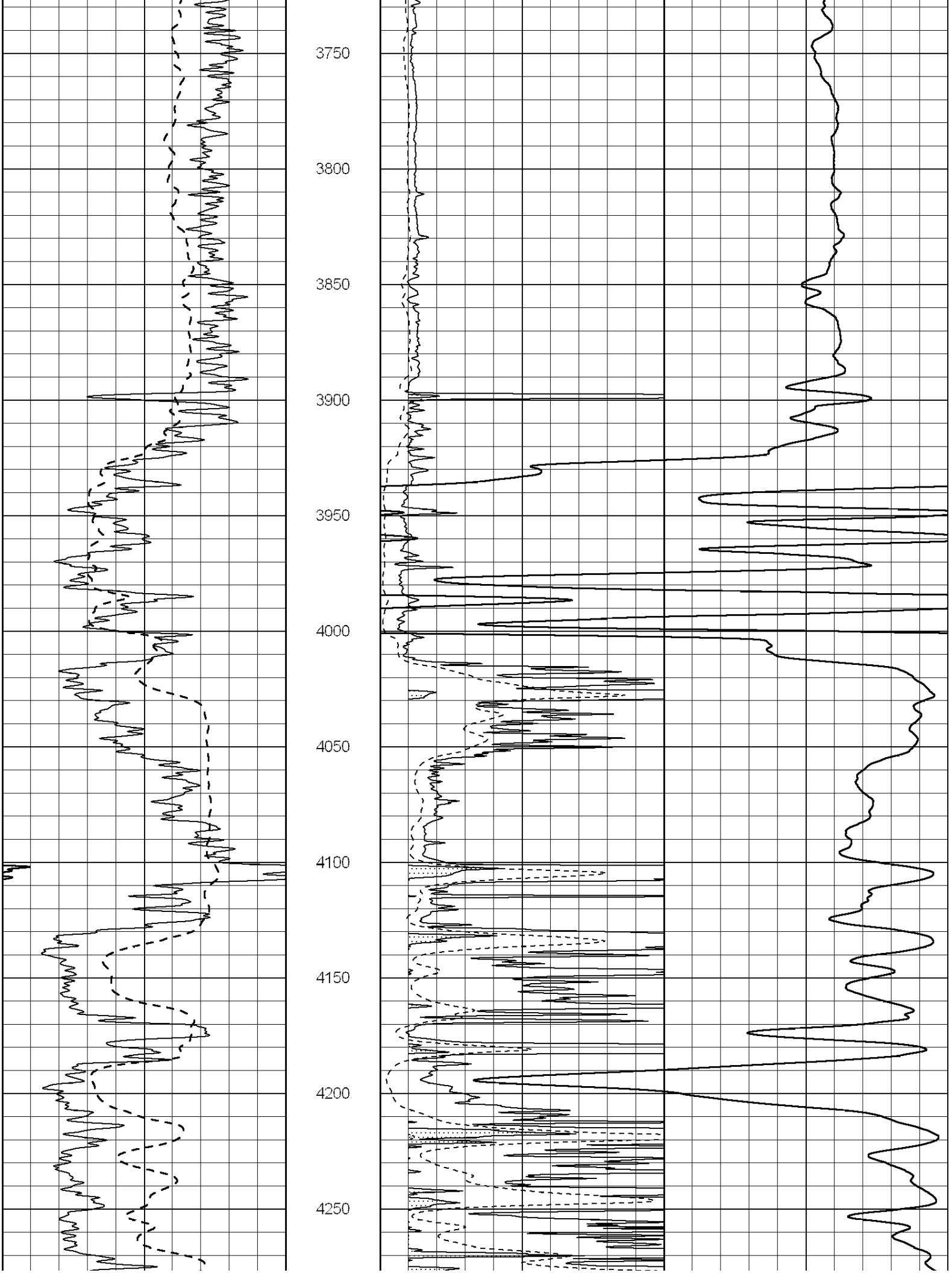
3400
3450
3500
3550
3600
3650
3700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3800
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3900
3950
4000
4050
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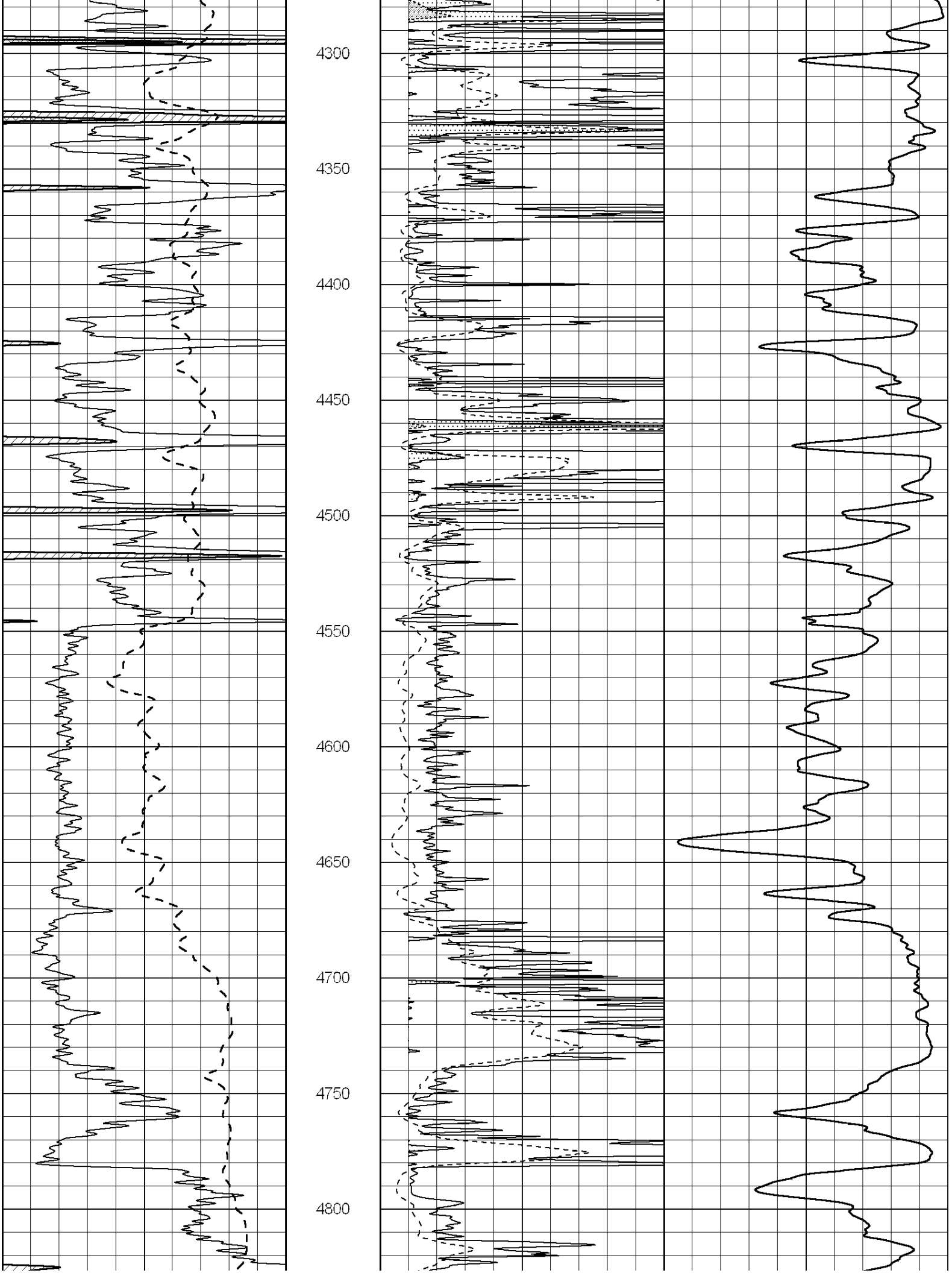
4150
4200
4250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4350
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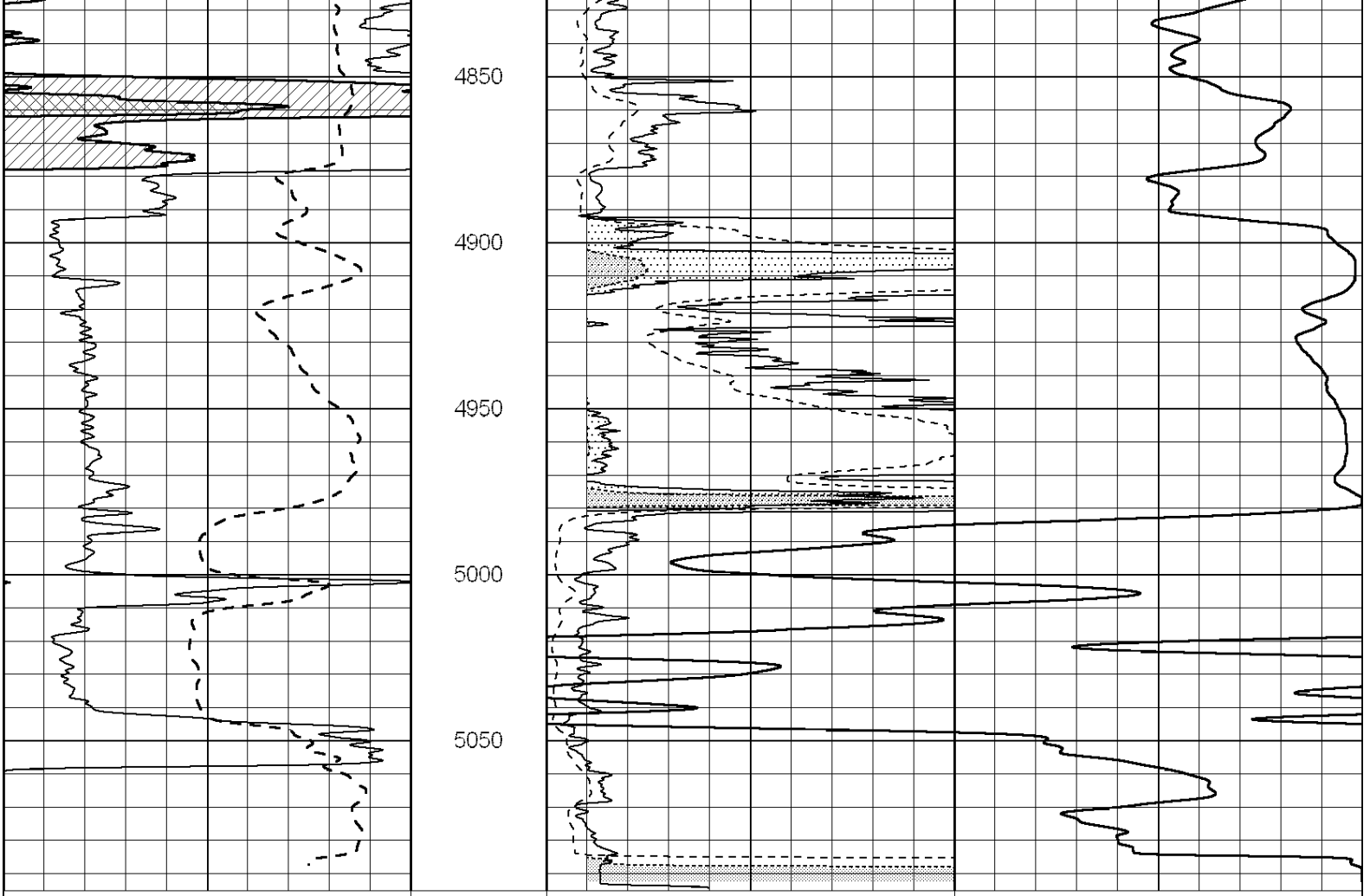
4450
4500
4550
4600
4650
4700
4750
4800




| | | |
|---|---|---|
| 0 | Gamma Ray (GAPI) | 150 |
| -100 | SP (mV) | 100 |

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

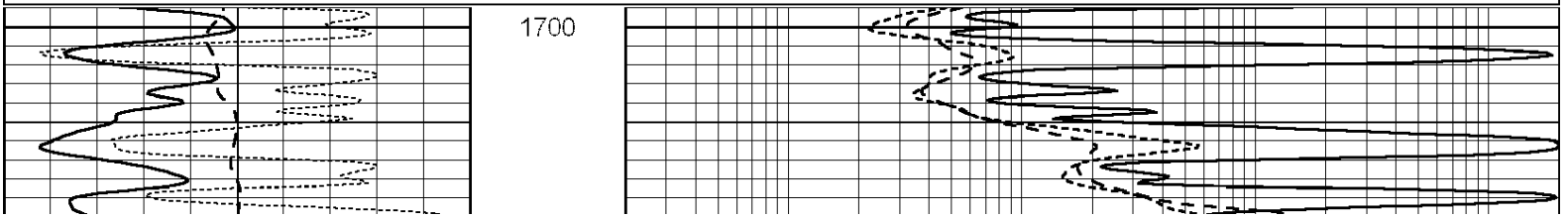
**NABORS**
COMPLETION & PRODUCTION SERVICES CO.

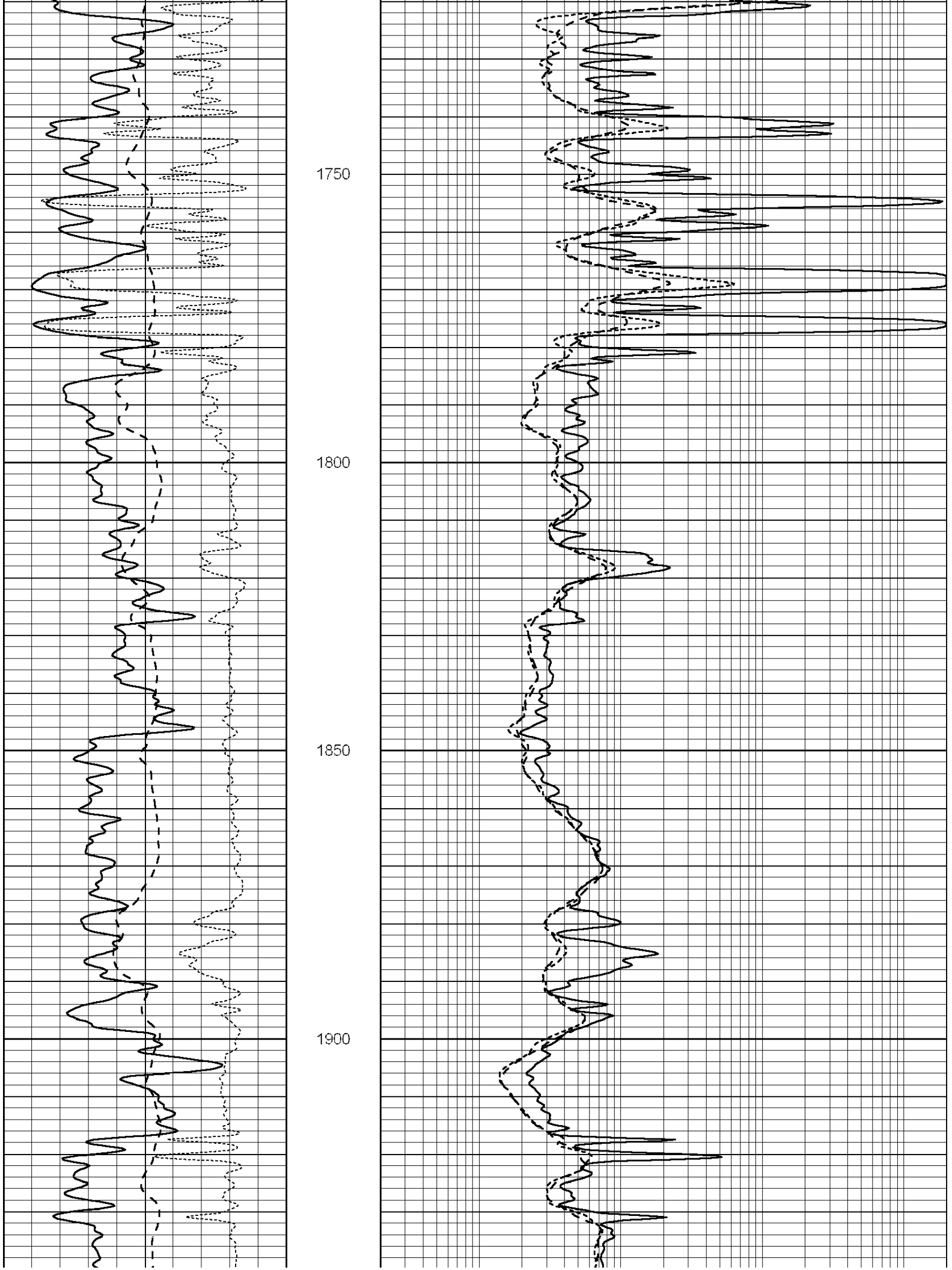
# MAIN SECTION

| | |
|---|---|
| Database File: | 011255pe.db |
| Dataset Pathname: | pass3.1 |
| Presentation Format: | _dil |
| Dataset Creation: | Fri Jun 14 18:35:04 2013 by Calc Open-Cased 090629 |
| Charted by: | Depth in Feet scaled 1:240 |

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

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

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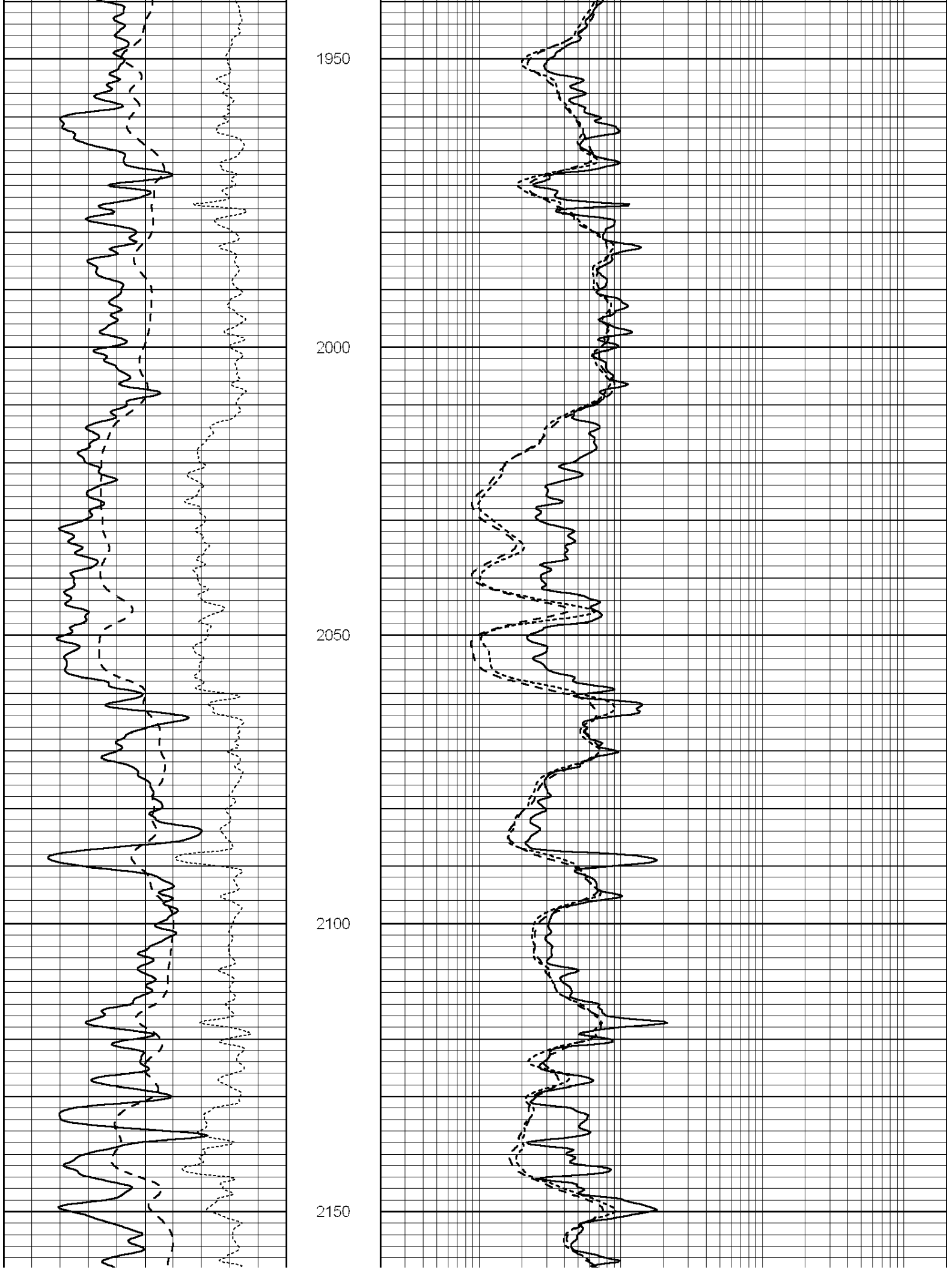
1800
1850
1900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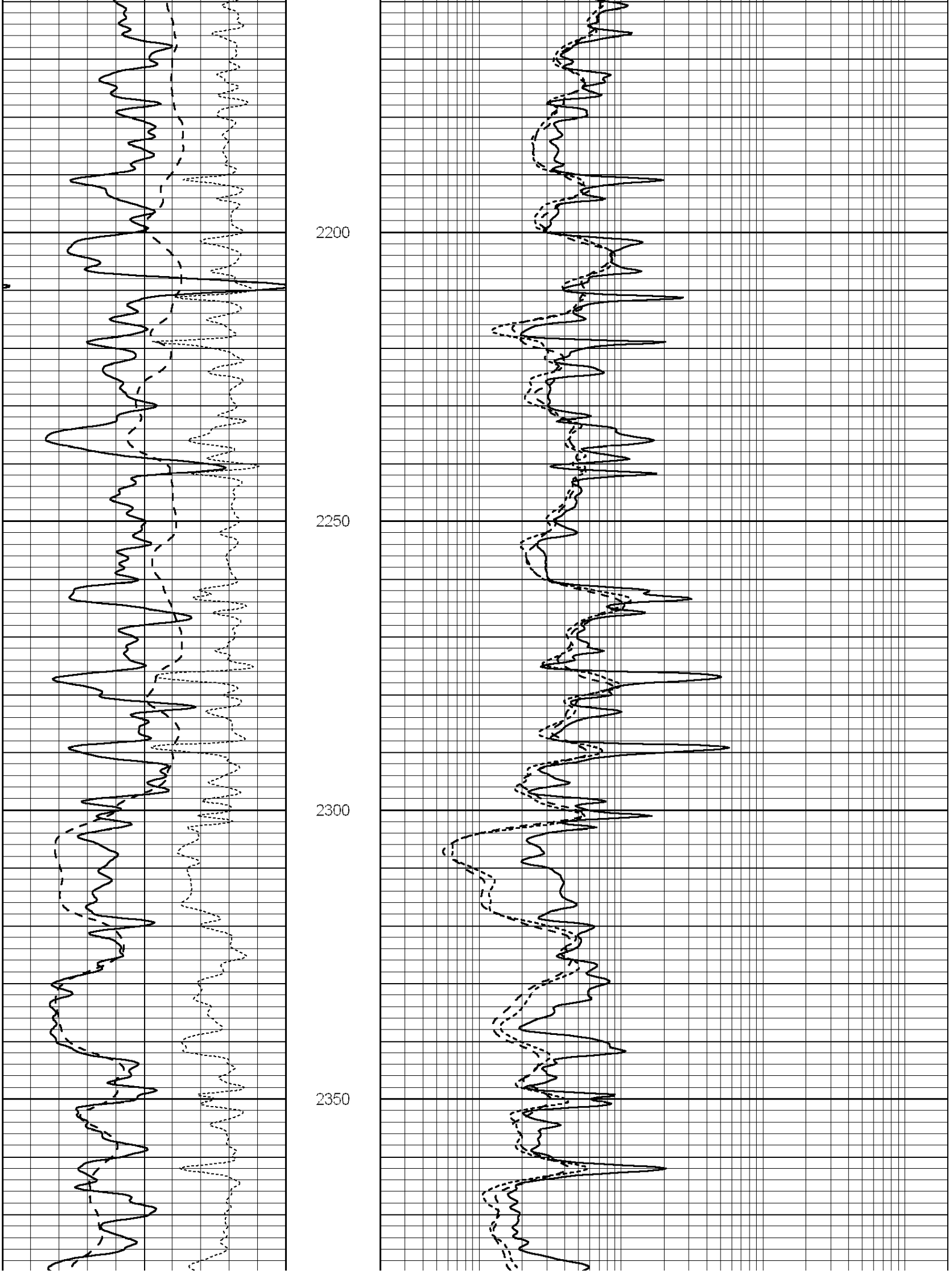
2000
2050
2100
2150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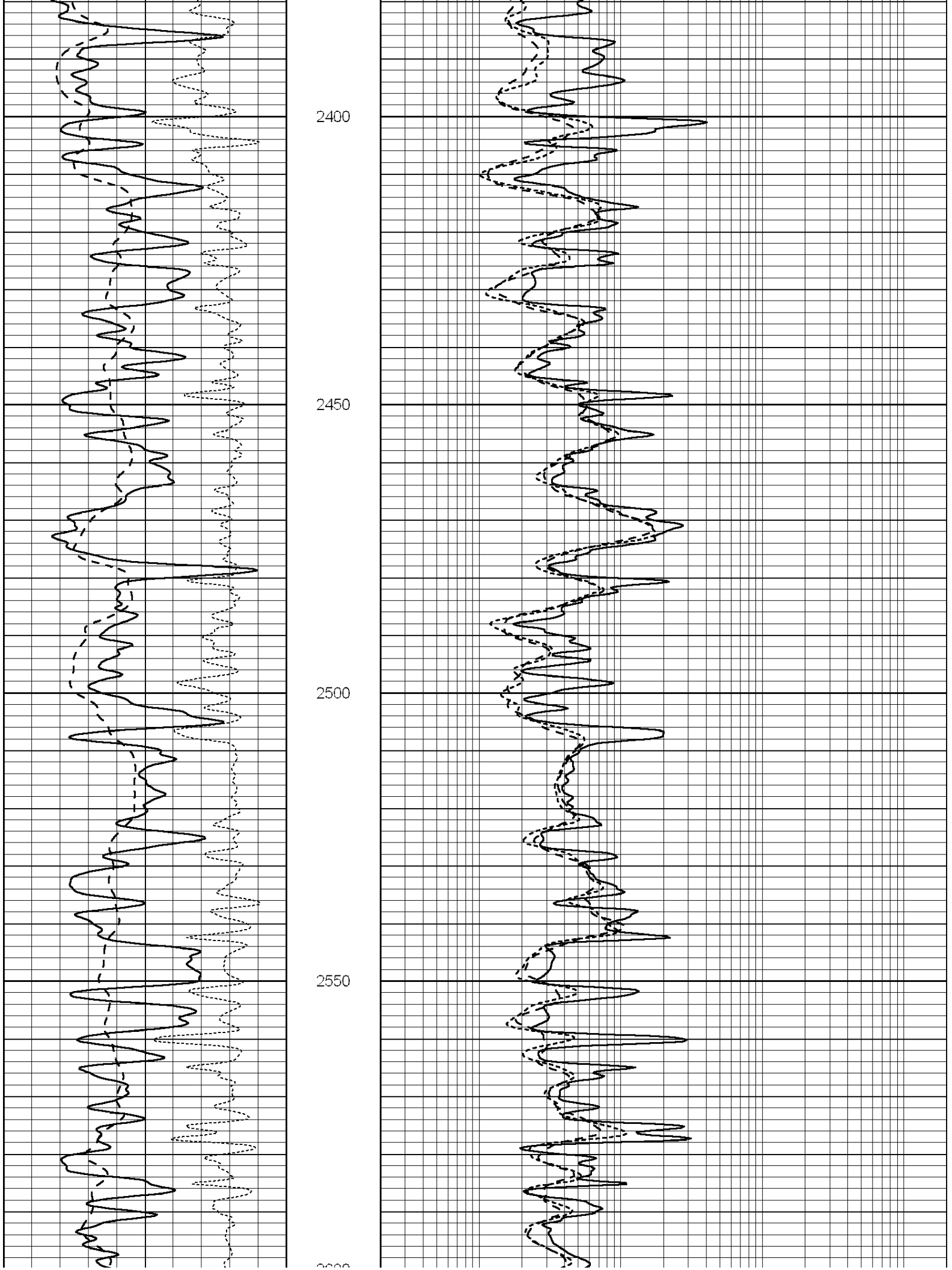
2250
2300
2350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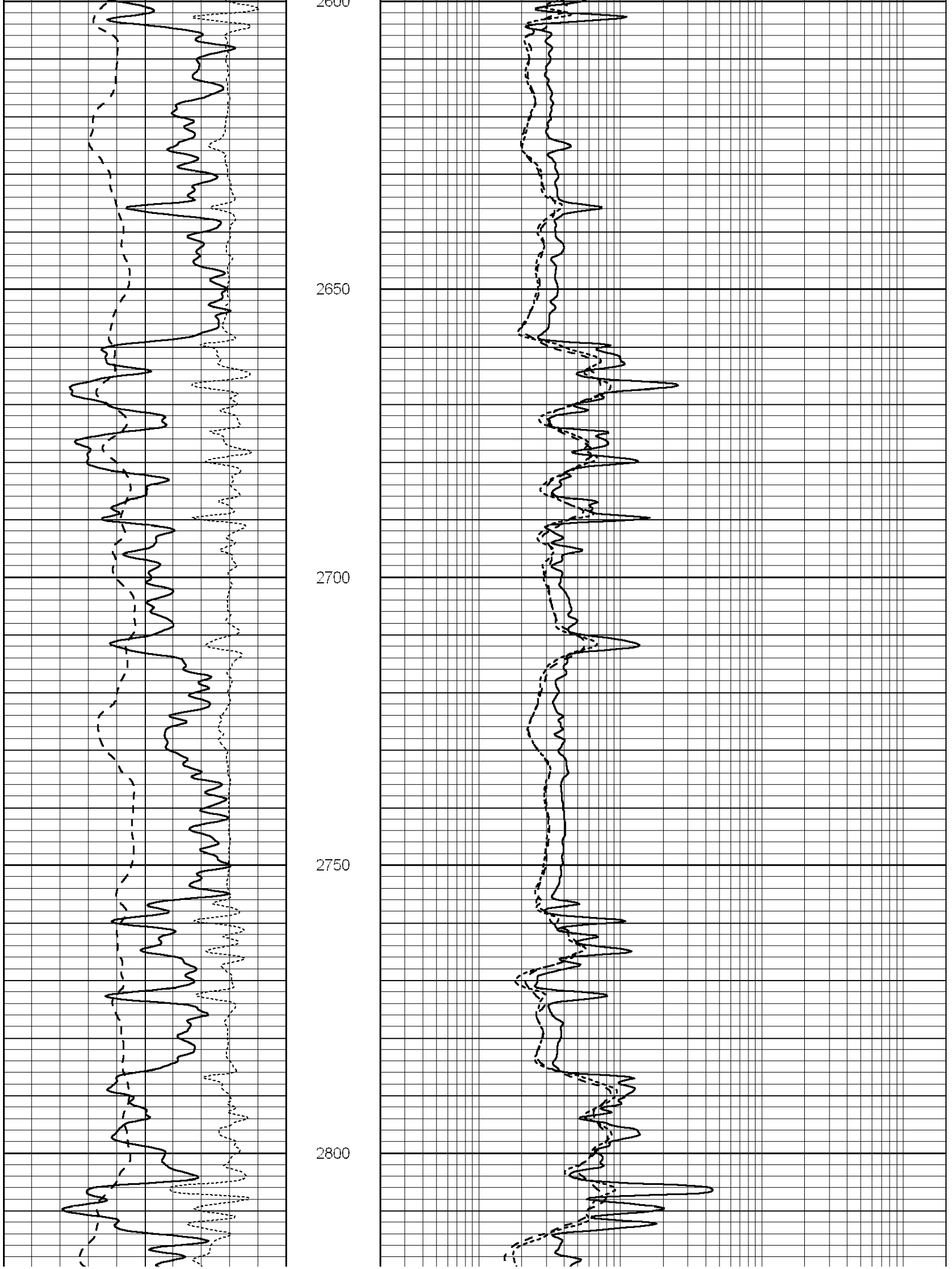
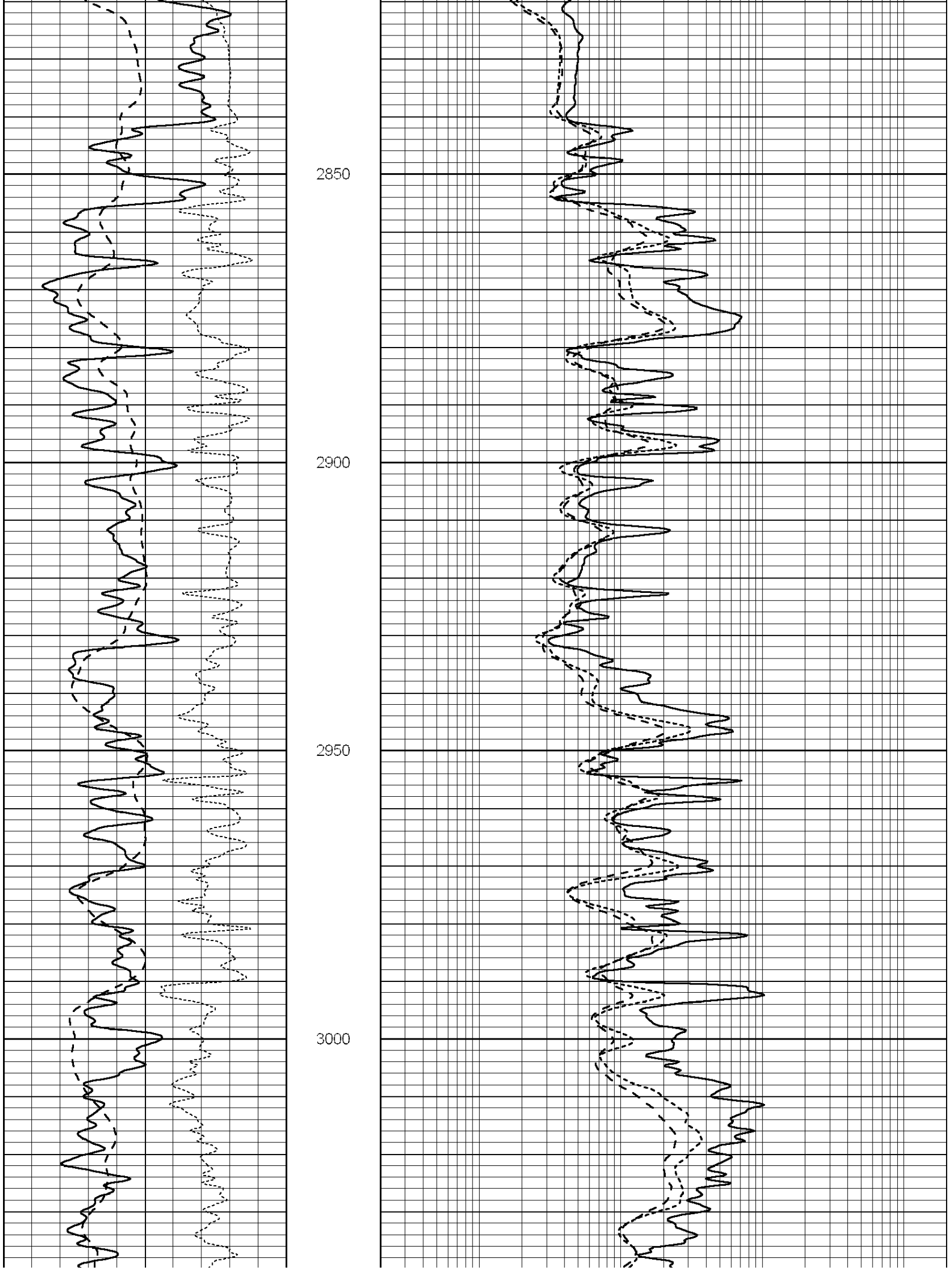
2450
2500
2550


2600
2650
2700
2750
2800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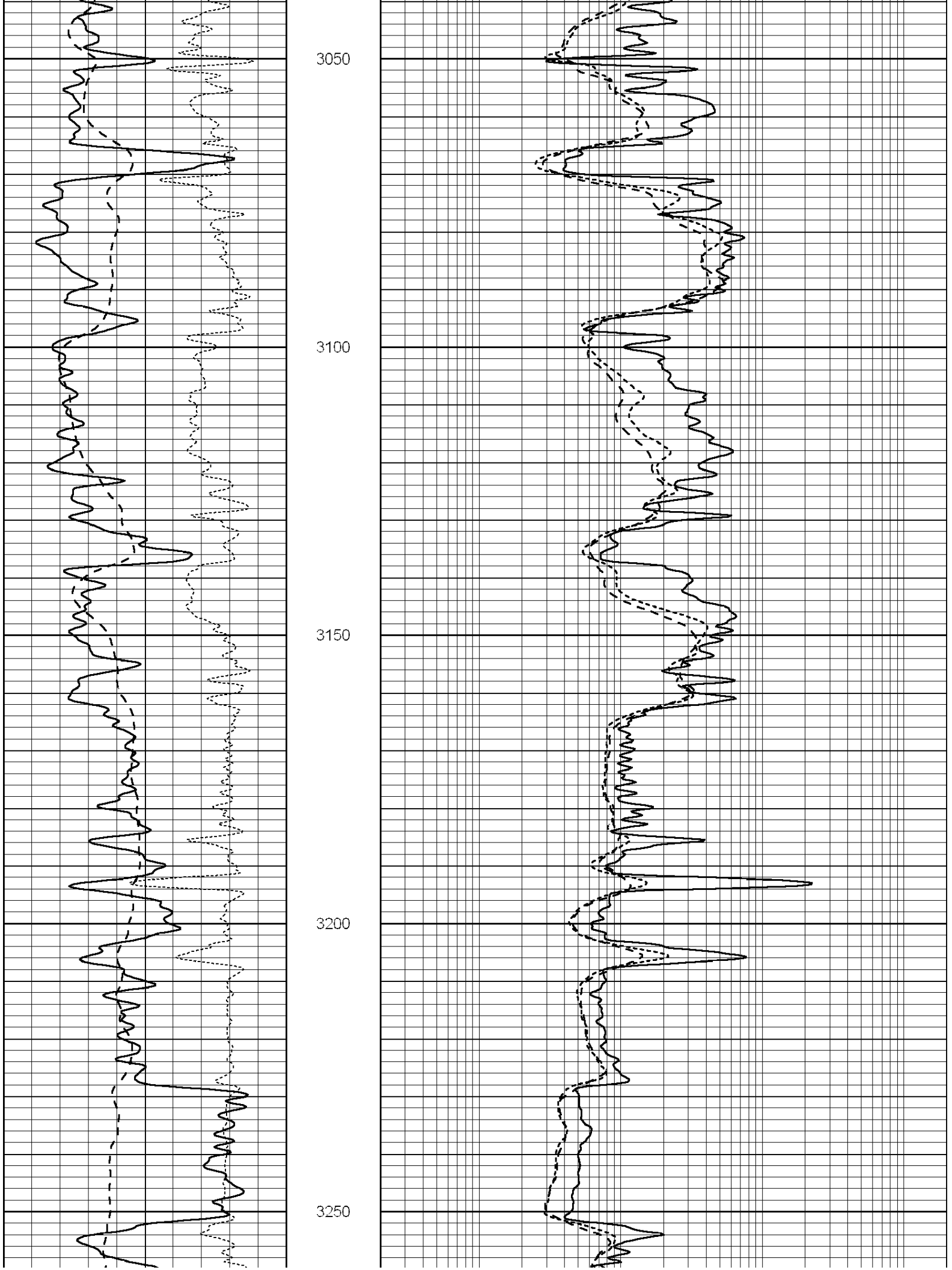
2900
2950
3000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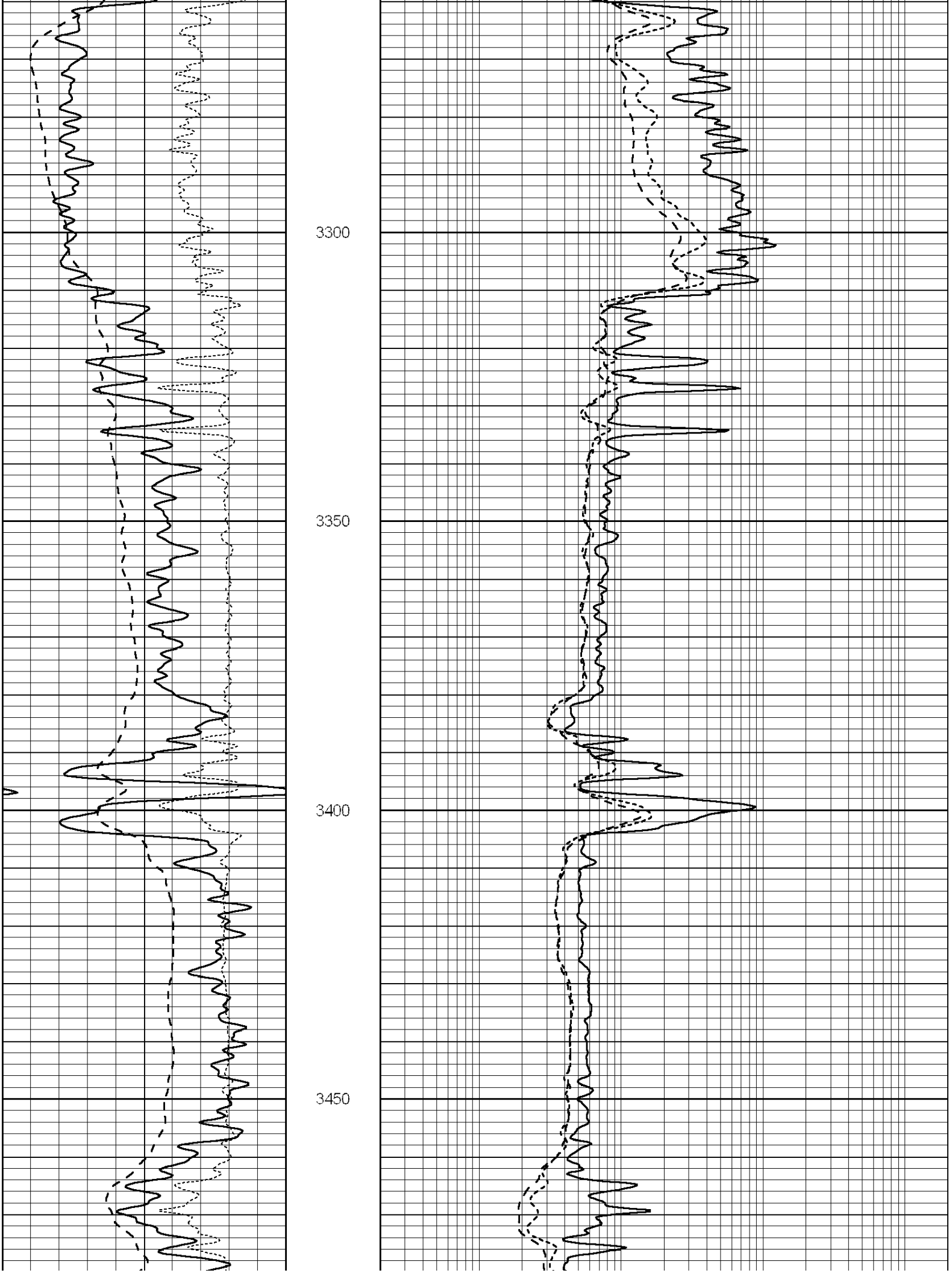
3100
3150
3200
3250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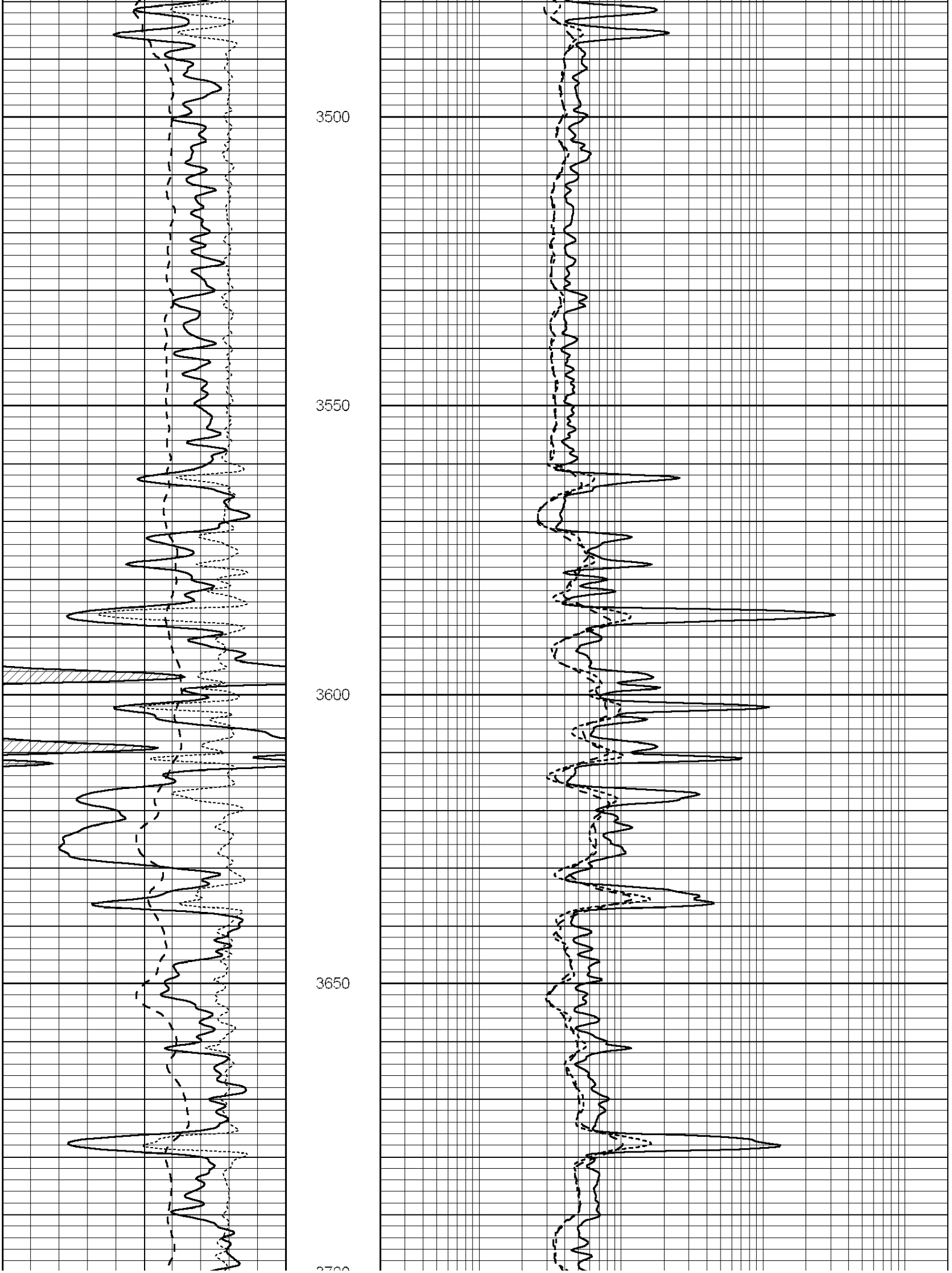
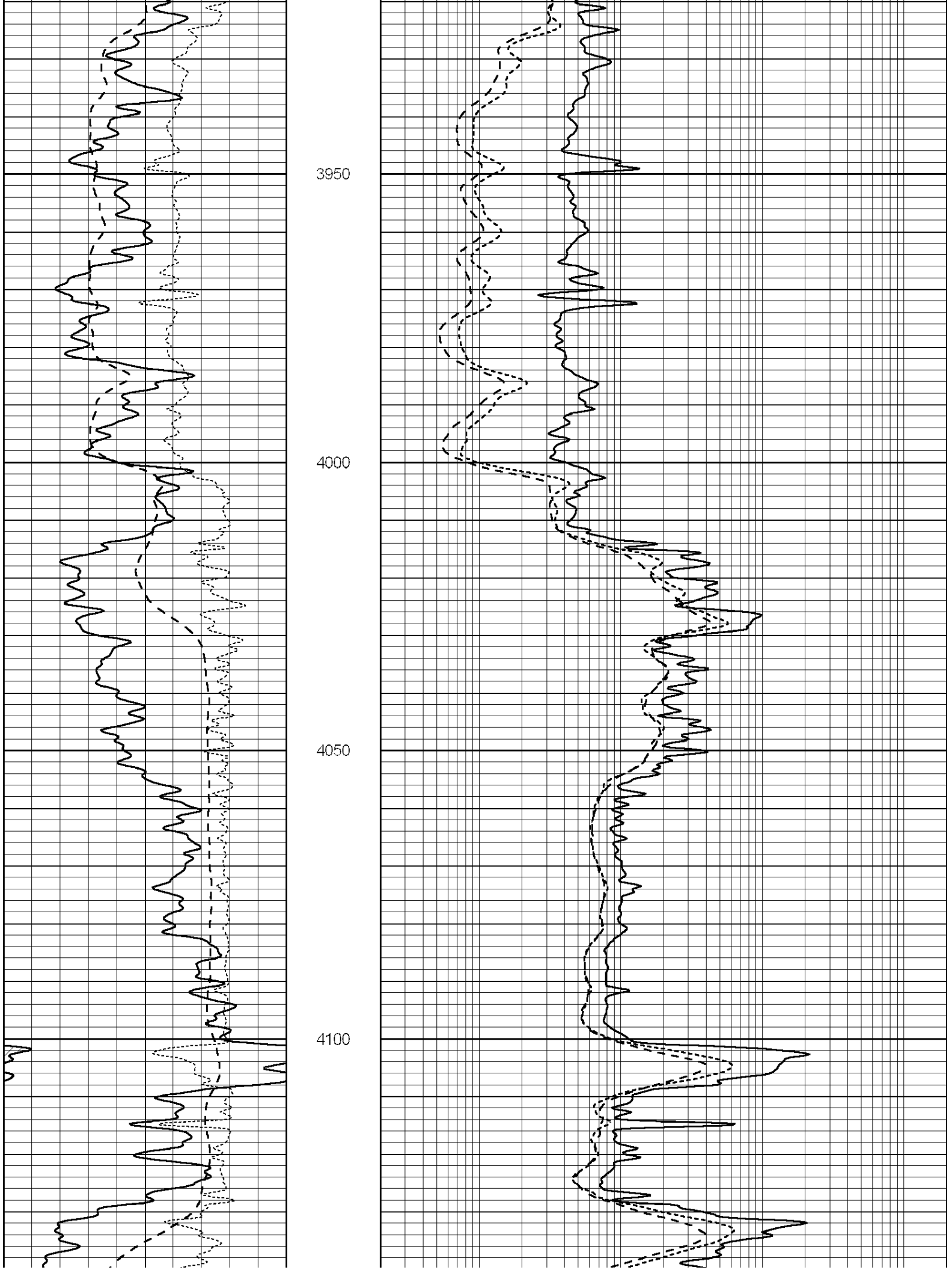
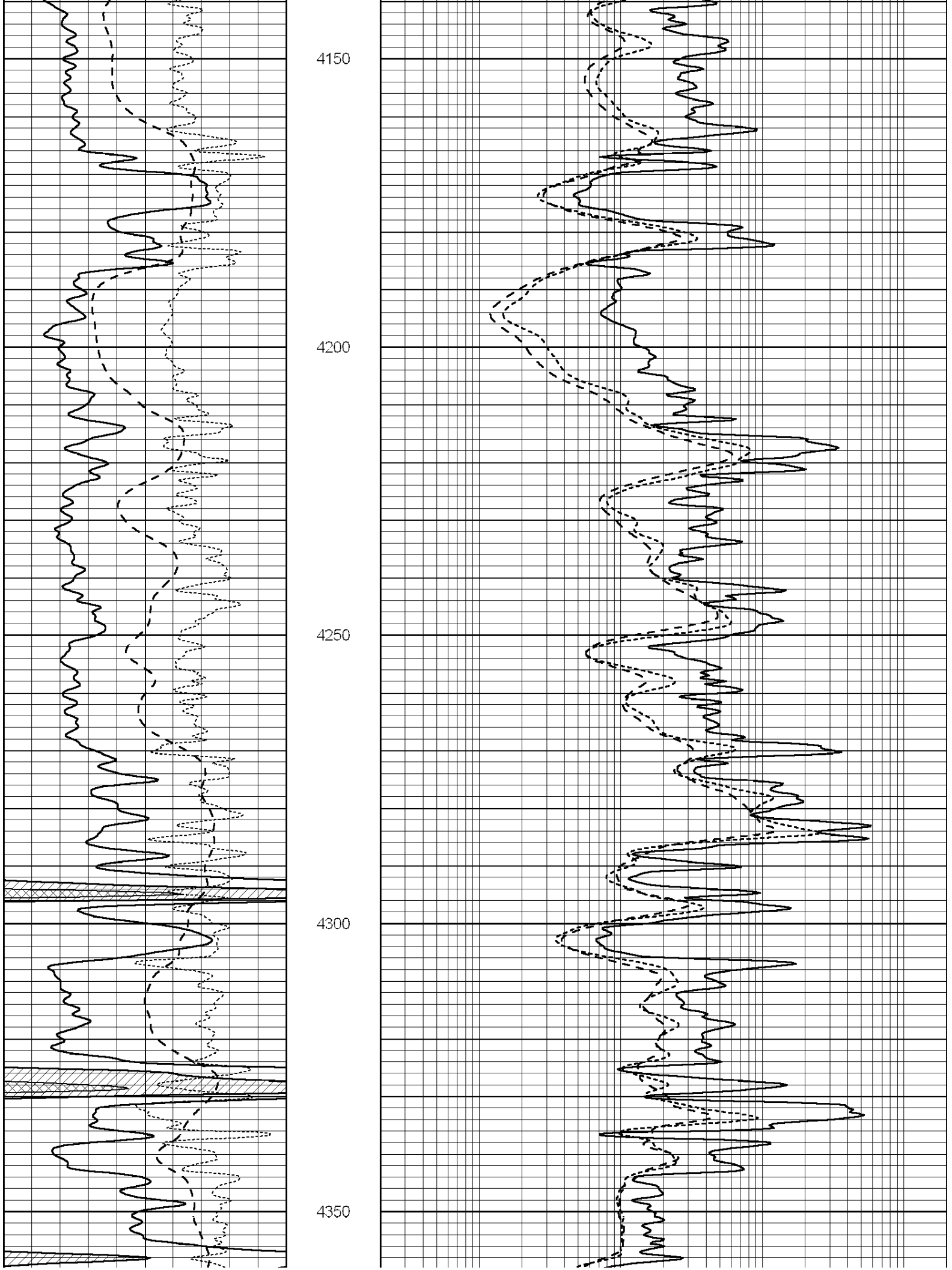
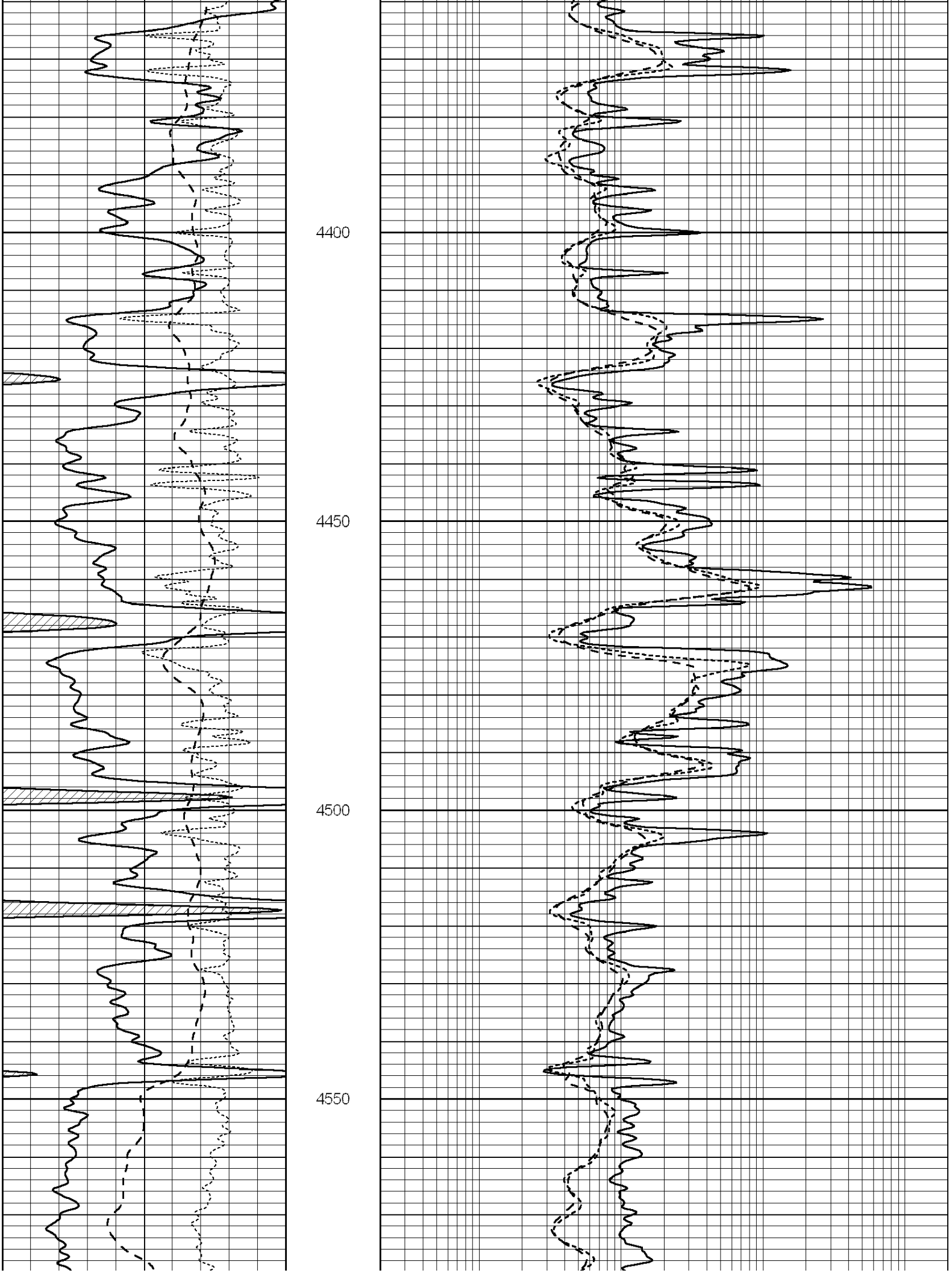
3350
3400
3450

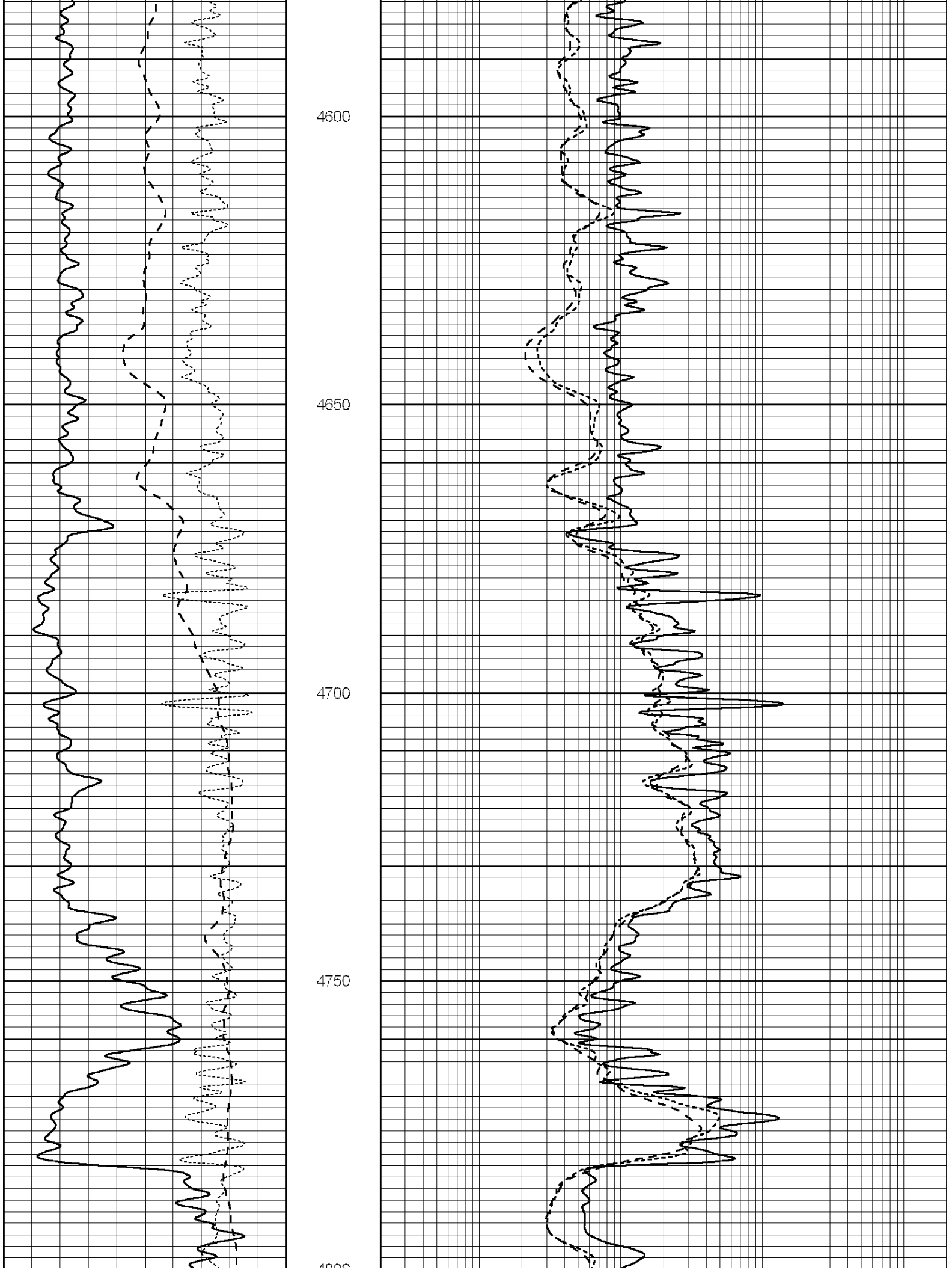

3500
3550
3600
3650

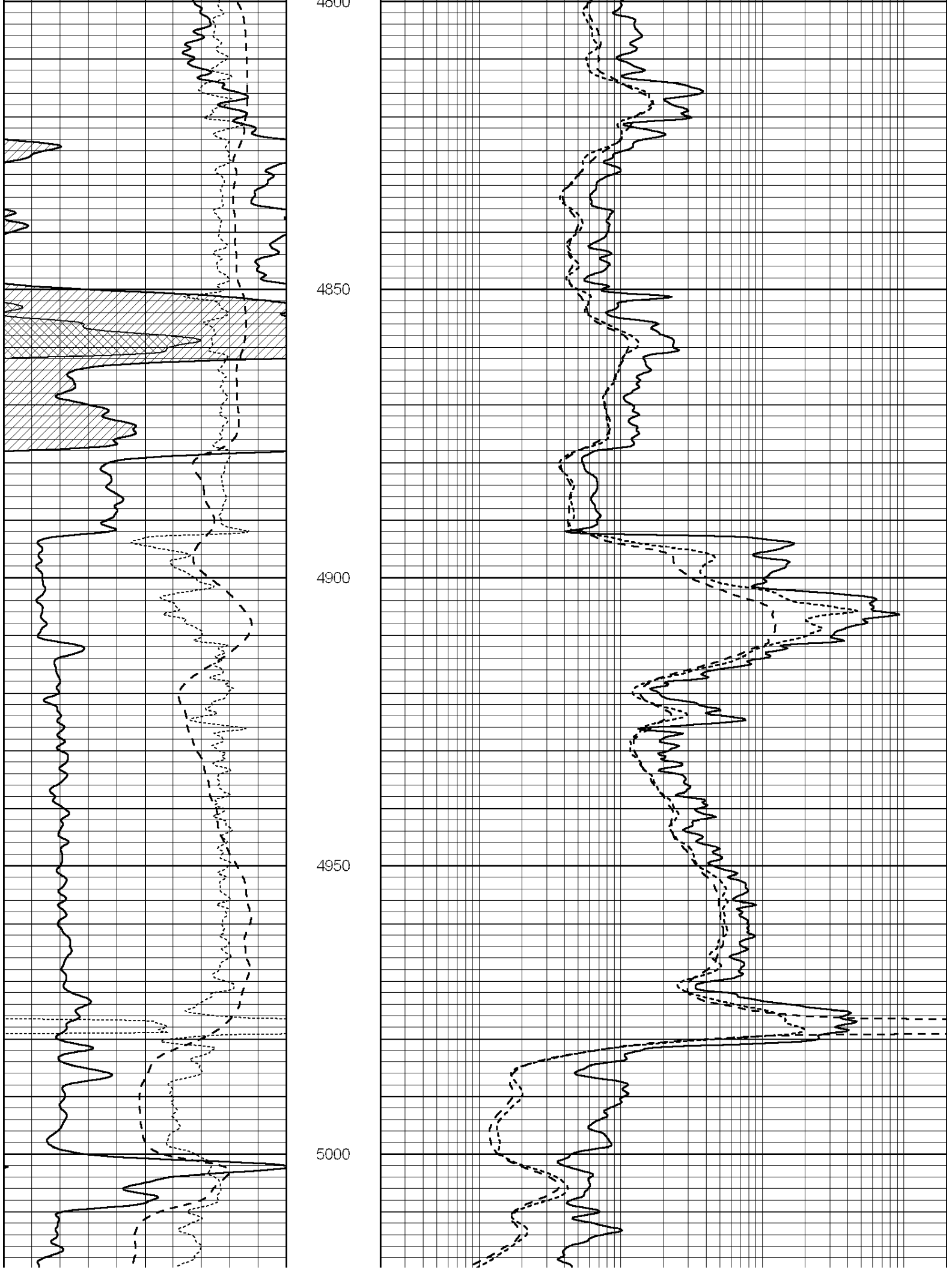

3700
3750
3800
3850
3900


3950
4000
4050
4100


4150
4200
4250
4300
4350


4400
4450
4500
4550


4600
4650
4700
4750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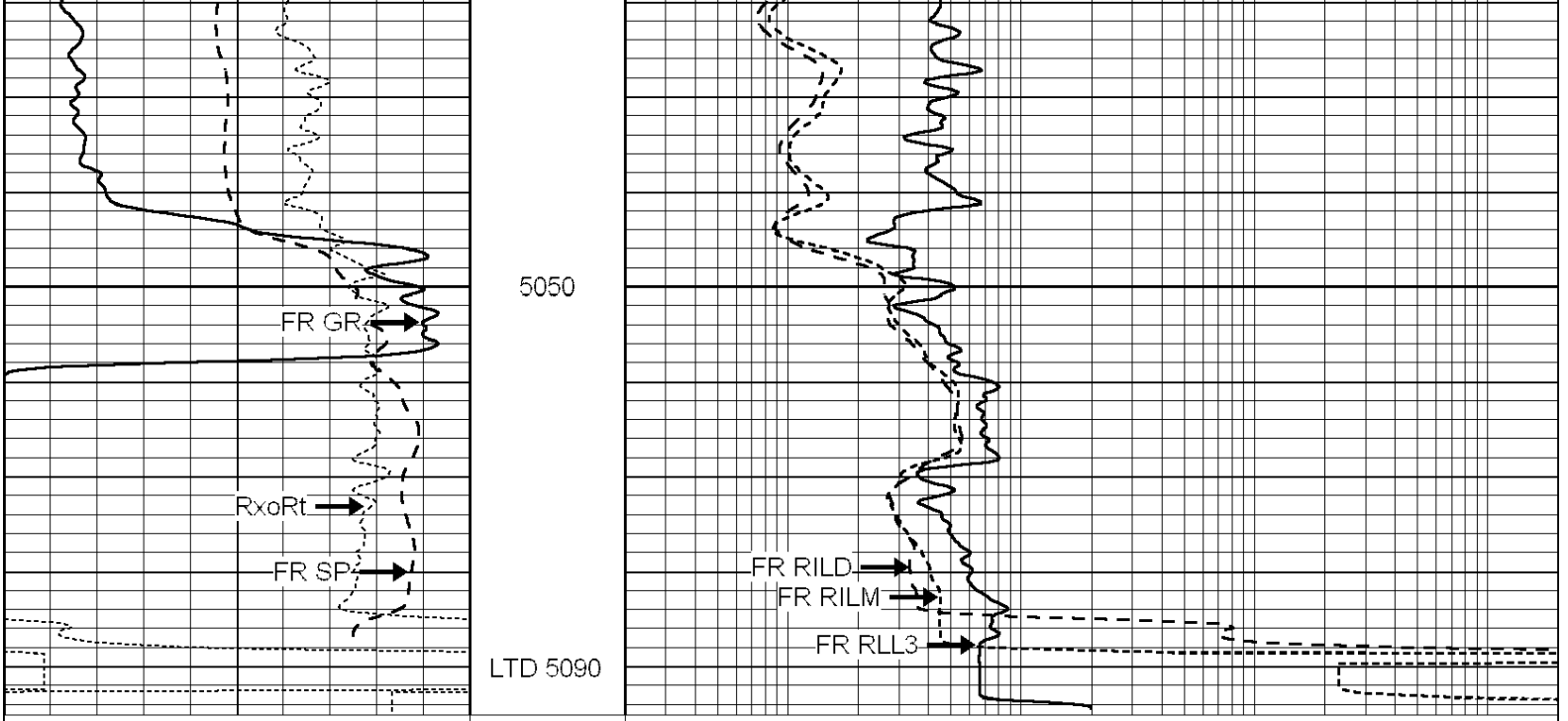
4850
4900
4950
5000




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

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

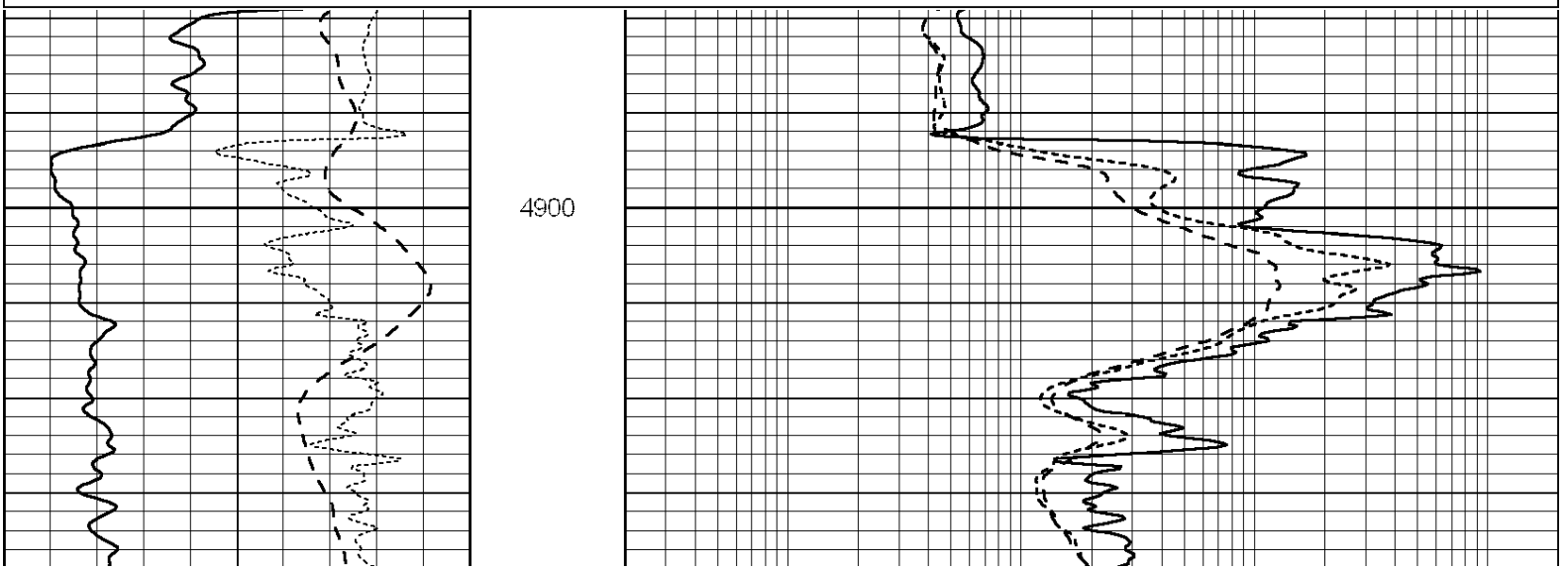
**NABORS**
COMPLETION & PRODUCTION SERVICES CO.

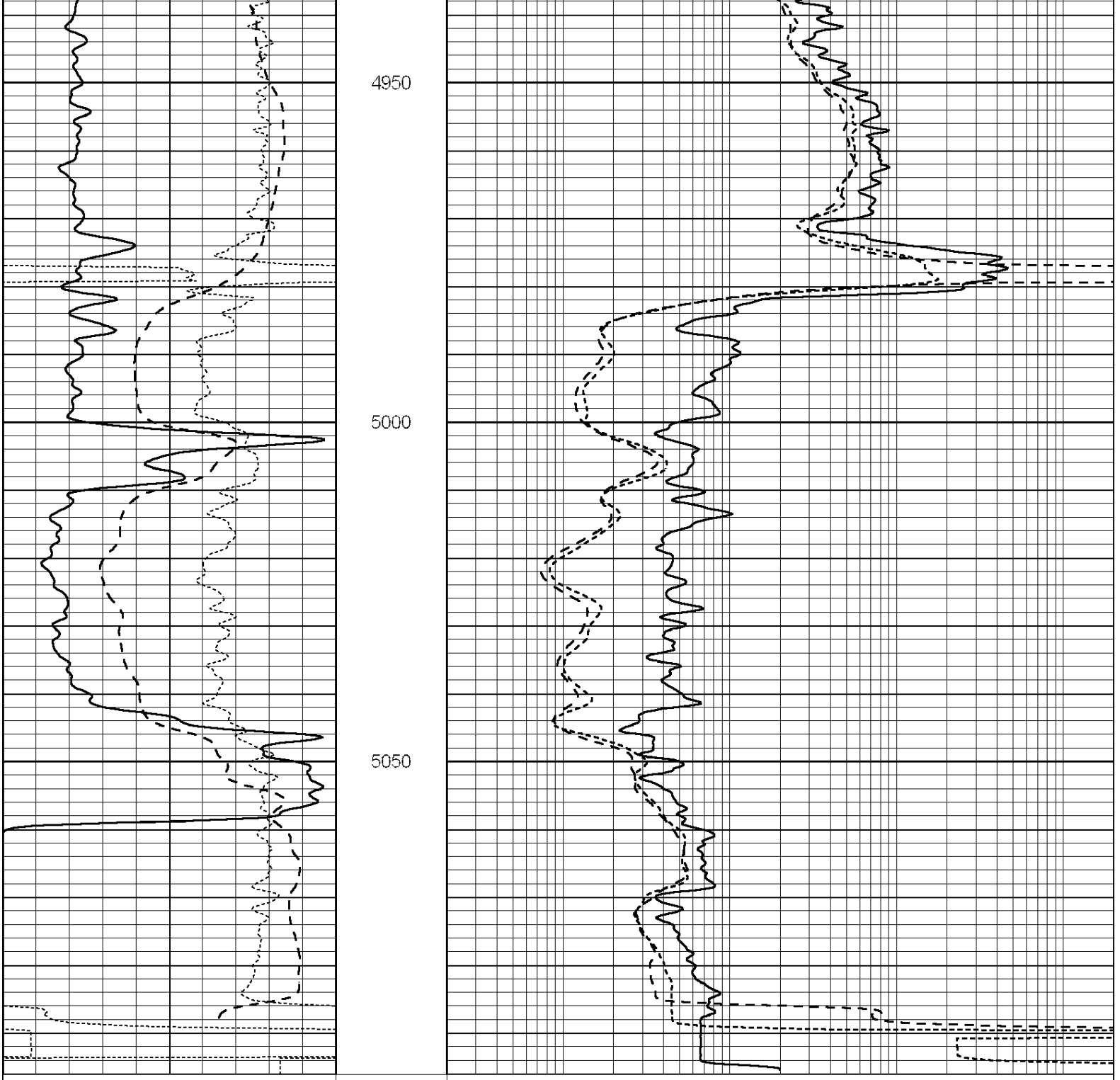
# REPEAT SECTION

Database File: 011255pe.db
Dataset Pathname: pass2.1
Presentation Format: _dil
Dataset Creation: Fri Jun 14 17:47:27 2013 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

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

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






Calibration Report

| | |
|---|---|
| Database File: | 011255pe.db |
| Dataset Pathname: | pass2.1 |
| Dataset Creation: | Fri Jun 14 17:47:27 2013 by Calc Open-Cased 090629 |

Dual Induction Calibration Report

| | |
|---|---|
| Serial-Model: | PROBE8-DILG |
| Surface Cal Performed: | Fri Aug 01 06:33:19 2008 |
| 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 | 632.616 | -9.730 |
| Medium | 0.029 | 0.796 | V | 0.000 | 464.000 | mmho/m | 605.049 | -17.680 |
| 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: 001 Model: PRB
Performed Thu Sep 17 09:57:21 2009

Litho Density Calibration

| | Background | Magnesium | Aluminum | Sandstone | |
|---|---|---|---|---|---|
| Window 1 | 2056.0 | 9796.8 | 3673.1 | 10821.3 | cps |
| Window 2 | 1920.0 | 8541.1 | 3303.5 | 9307.2 | cps |
| Window 3 | 1563.1 | 4735.7 | 2212.8 | 5017.5 | cps |
| Window 4 | 466.0 | 466.1 | 465.6 | 471.5 | cps |
| Long Space | 0.0 | 6621.1 | 1383.5 | 7387.2 | cps |
| Short Space | 2.5 | 2361.7 | 1523.2 | 2534.0 | cps |
| Rho | | 1.7100 | 2.5900 | 1.3800 | g/cc |
| Pe | | | 2.5700 | 1.5500 | |

| | | | | | |
|---|---|---|---|---|---|
| Rib Angle | : 44.4 | Rib Slope | : 0.978 | Density/Spine Ratio | : 0.541 |
| Spine Angle | : 74.4 | Spine Slope | : 3.570 | Spine Intercept | : -18.9 |

Caliper

| | Readings | Reference | |
|---|---|---|---|
| Low Ref | 3.1 | 8.4 | |
| High Ref | 4.3 | 14.3 | |
| | Gain: 4.6 | | Offset: -7.3 |

## Compensated Neutron Calibration Report

Serial Number: 6I
Tool Model: G

CALIBRATION

| Detector | Readings | | Target | | Normalization |
|---|---|---|---|---|---|
| Short Space | 1.00 | cps | 1.00 | cps | 1.0000 |
| Long Space | 1.00 | cps | 1.00 | cps | 1.0000 |

## Gamma Ray Calibration Report

| | | |
|---|---|---|
| Serial Number: | #8 | |
| Tool Model: | OPEN | |
| Performed: | Mon Jun 13 16:56:43 2011 | |
| Calibrator Value: | 150.0 | GAPI |
| Background Reading: | 0.0 | cps |
| Calibrator Reading: | 175.0 | cps |
| Sensitivity: | 0.8371 | GAPI/cps |