



SUPERIOR
Hays,
Kansas

SONIC
LOG

Company DOWNING-NELSON OIL COMPANY, INC.
Well WARD #1-31
Field POHO
County RUSH
State KANSAS

Company DOWNING-NELSON OIL COMPANY, INC.
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Field POHO
County RUSH State KANSAS

Location: API # : 15-165-21991-00-00
1800' FNL & 350' FWL
SE - NW - SW - NW
SEC 31 TWP 18S RGE 17W
Permanent Datum GROUND LEVEL Elevation 2002
Log Measured From KELLY BUSHING & A.G.L.
Drilling Measured From KELLY BUSHING
Elevation
K.B. 2010
D.F. 2008
G.L. 2002

| | |
|------------------------------|----------------|
| Date | 9/21/12 |
| Run Number | TWO |
| Depth Driller | 3851 |
| Depth Logger | 3852 |
| Bottom Logged Interval | 3842 |
| Top Log Interval | 1100 |
| Casing Driller | 8 5/8" @ 1130' |
| Casing Logger | 1130 |
| Bit Size | 7 7/8 |
| Type Fluid in Hole | CHEMICAL MUD |
| Density / Viscosity | 9.3/6.0 |
| pH / Fluid Loss | 9.5/10.4 |
| Source of Sample | FLOWLINE |
| Rin @ Meas. Temp | 0.65 @ 85F |
| Rmf @ Meas. Temp | 0.49 @ 85F |
| Rmc @ Meas. Temp | 0.78 @ 85F |
| Source of Rmf / Rmc | MEASURED |
| Rin @ BHT | 0.48 @ 115F |
| Time Circulation Stopped | 2 HOURS |
| Time Logger on Bottom | |
| Maximum Recorded Temperature | 115F |
| Equipment Number | 680 |
| Location | HAYS, KS. |
| Recorded By | IAN MABB |
| Witnessed By | AL DOWNING |
| | JEFF GRONEMEG |

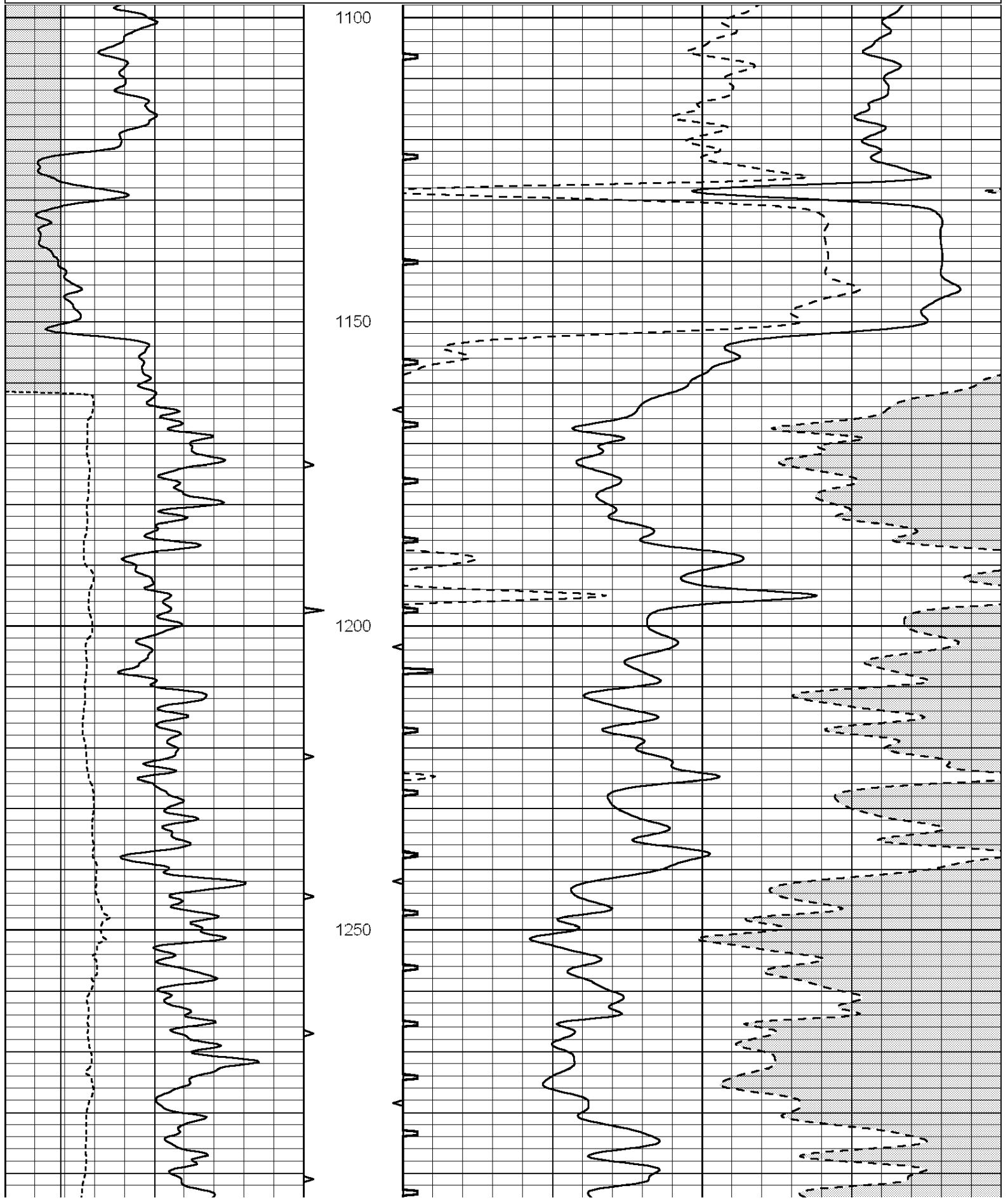
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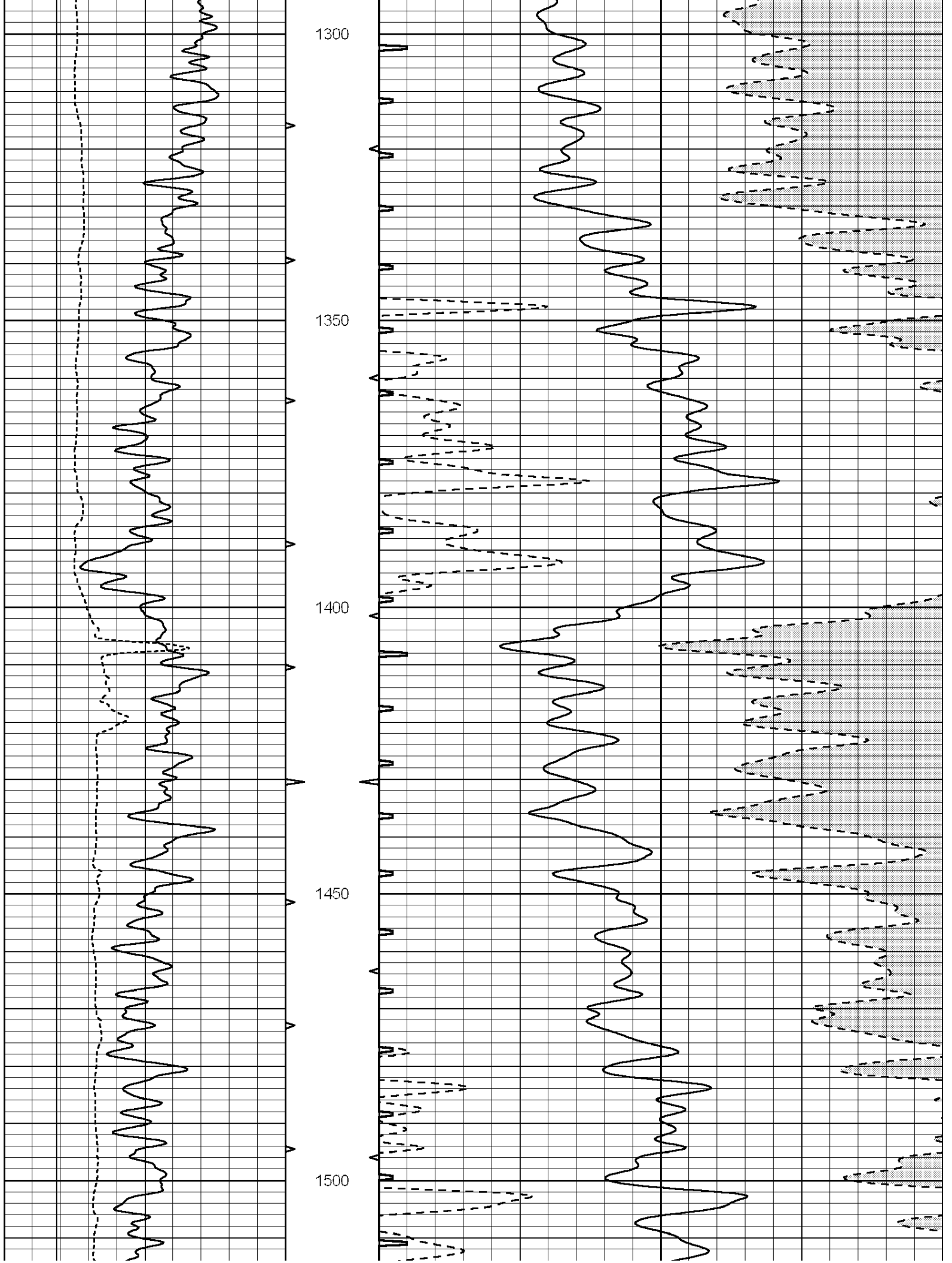
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

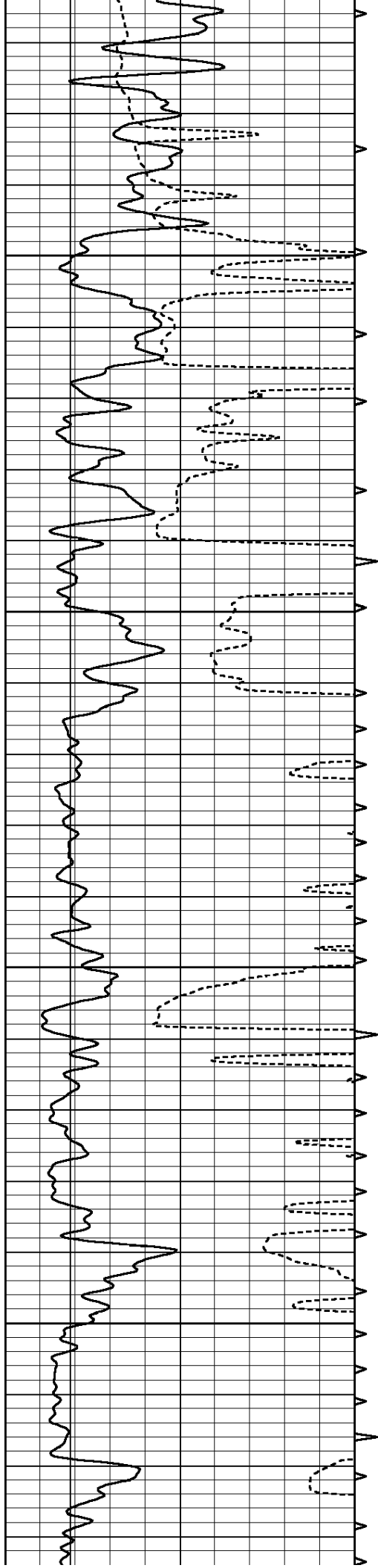
Comments

THANK YOU FOR USING SUPERIOR WELL SERVICE (785) 628-6395
DIRECTIONS
RUSH CENTER, KS. 3 MILES EAST TO RD, 280, SOUTH 1.5 EAST INTO

| | | | | | | |
|---|------------------|-----|------------|-----|----------------------|-----|
| 0 | GAMMA RAY (GAPI) | 150 | ABHV | 140 | DELTA TIME (usec/ft) | 40 |
| 6 | CALIPER (in) | 16 | 10 (ft3) 0 | 30 | SONIC POROSITY (pu) | -10 |
| | | | TBHV | 0 | ITT (msec) | 20 |
| | | | 0 (ft3) 10 | | | |





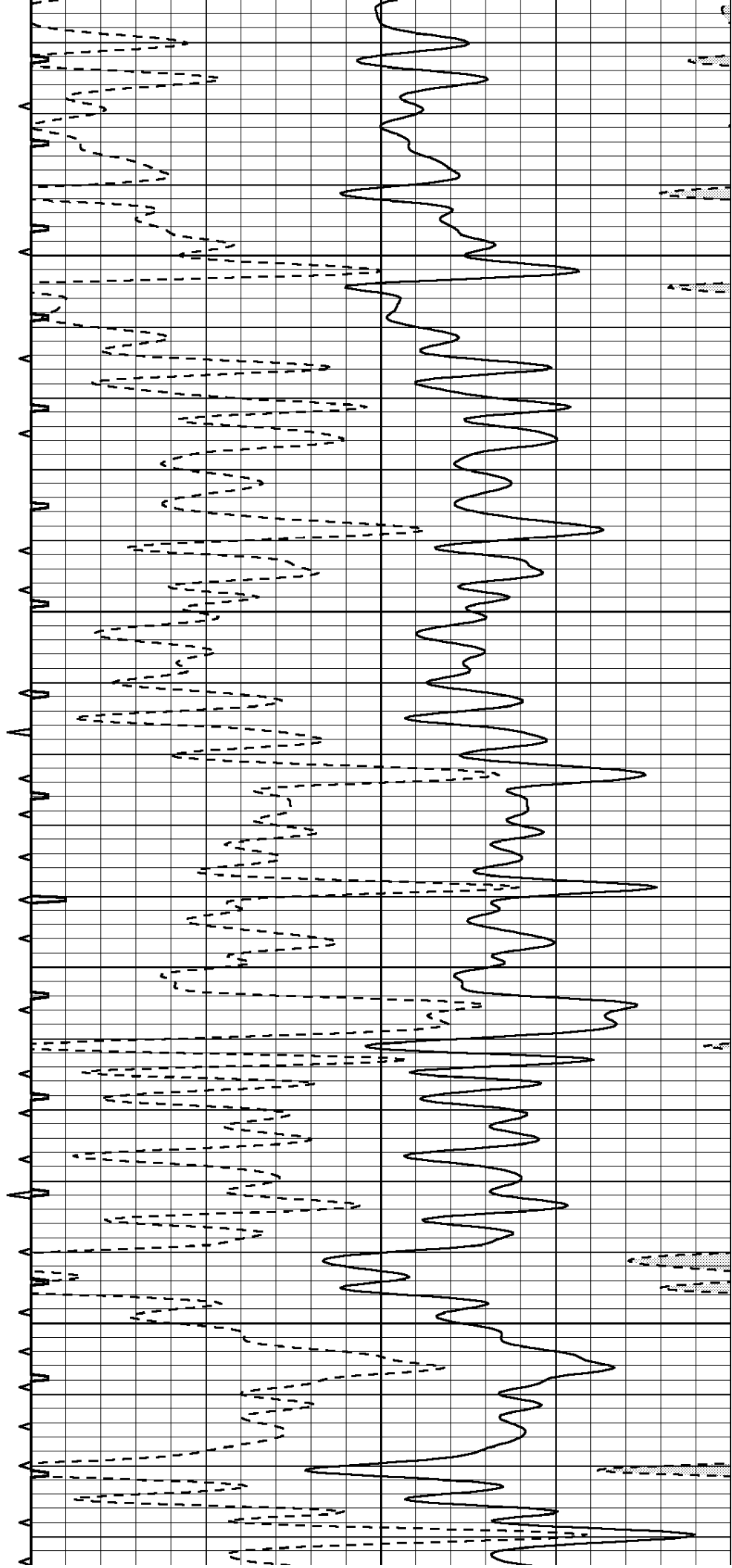


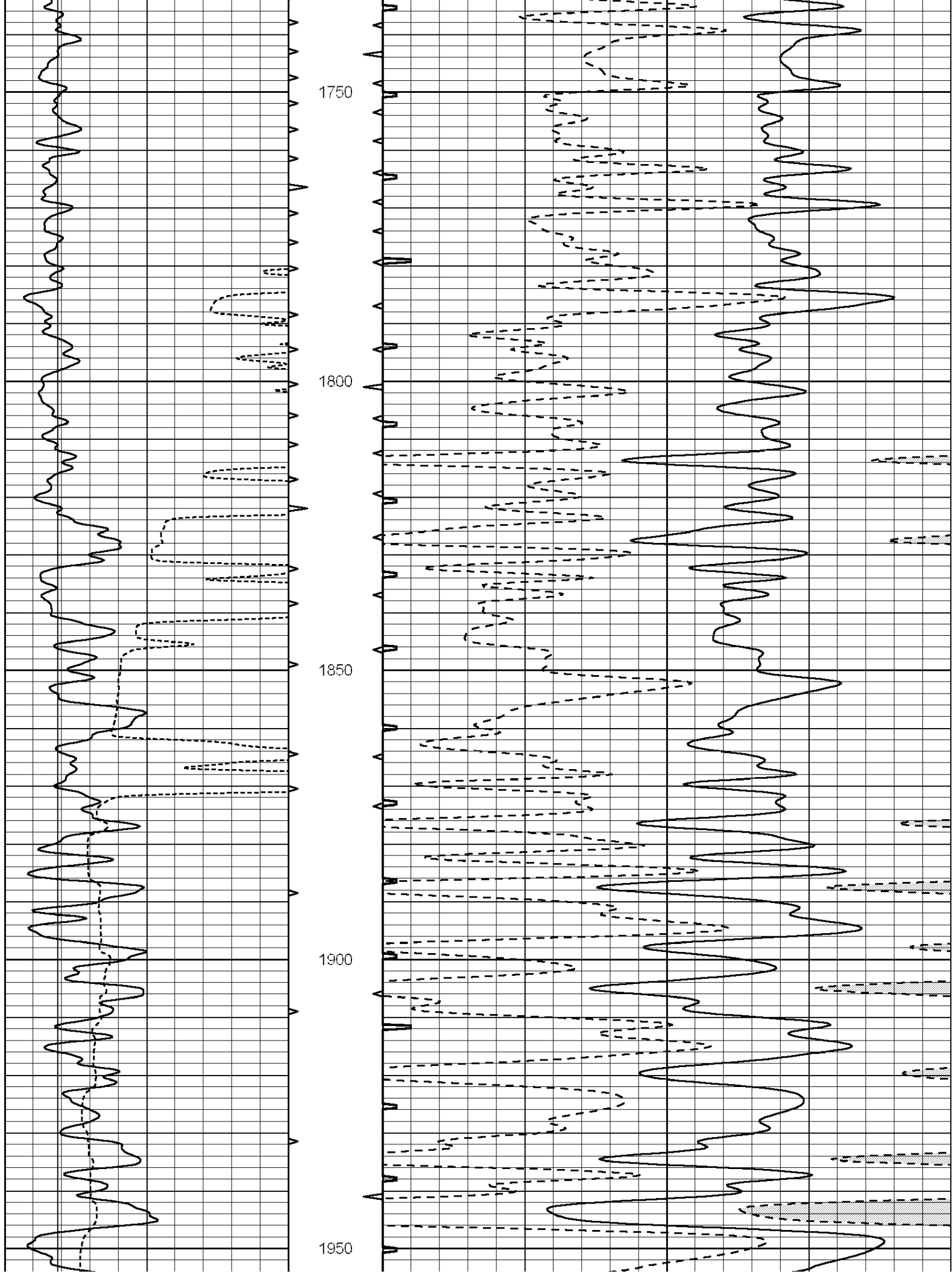
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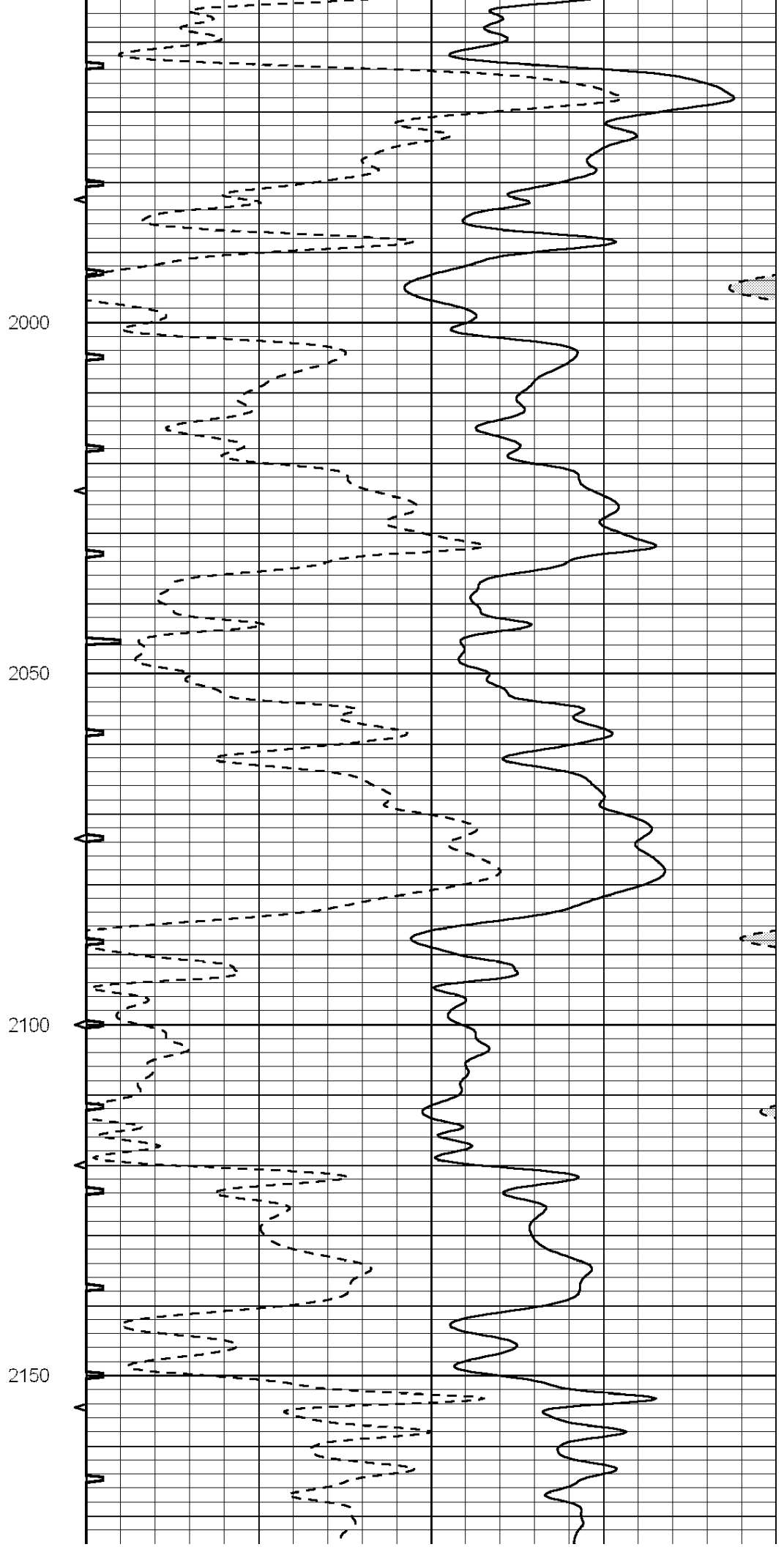
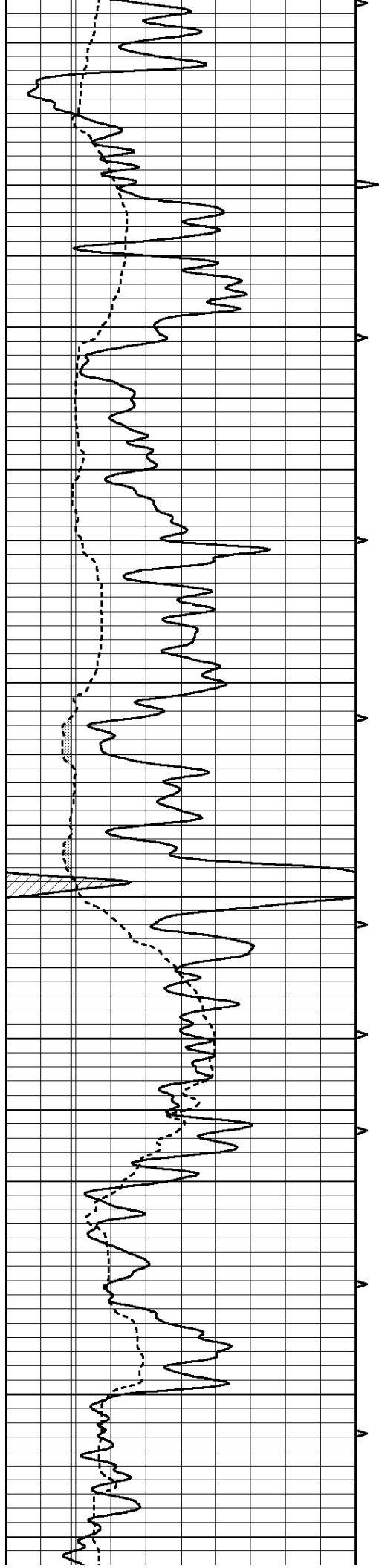
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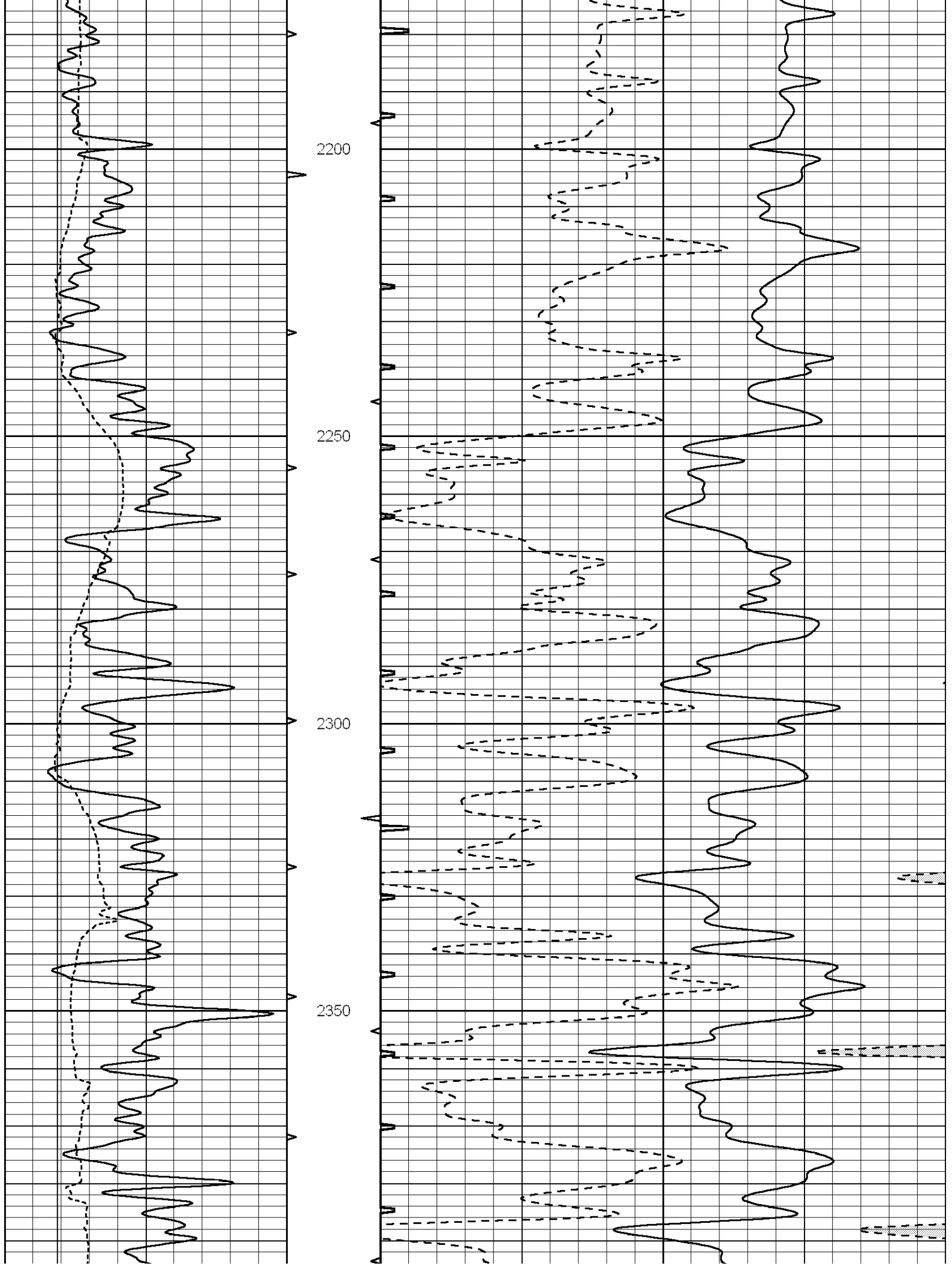
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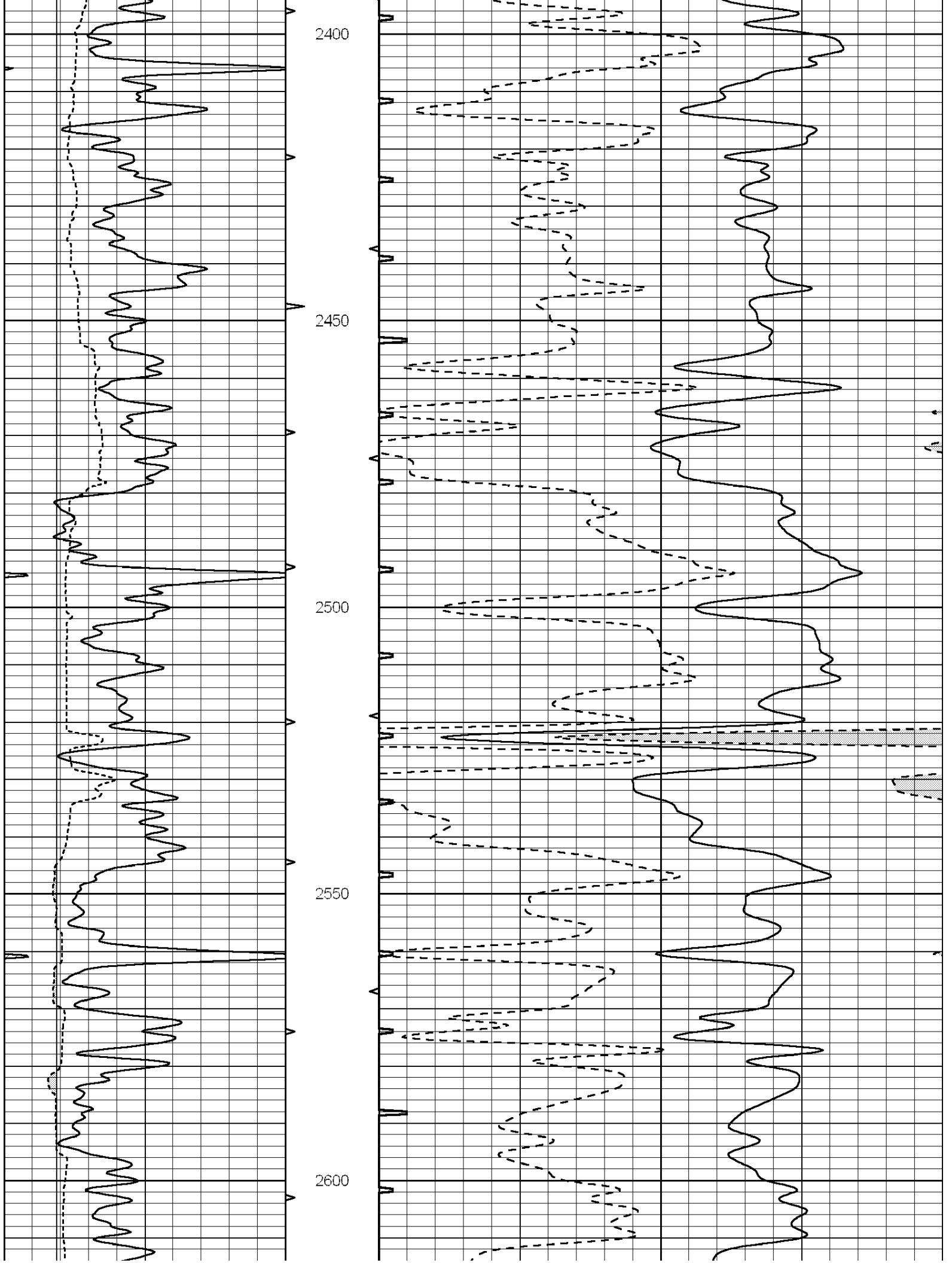
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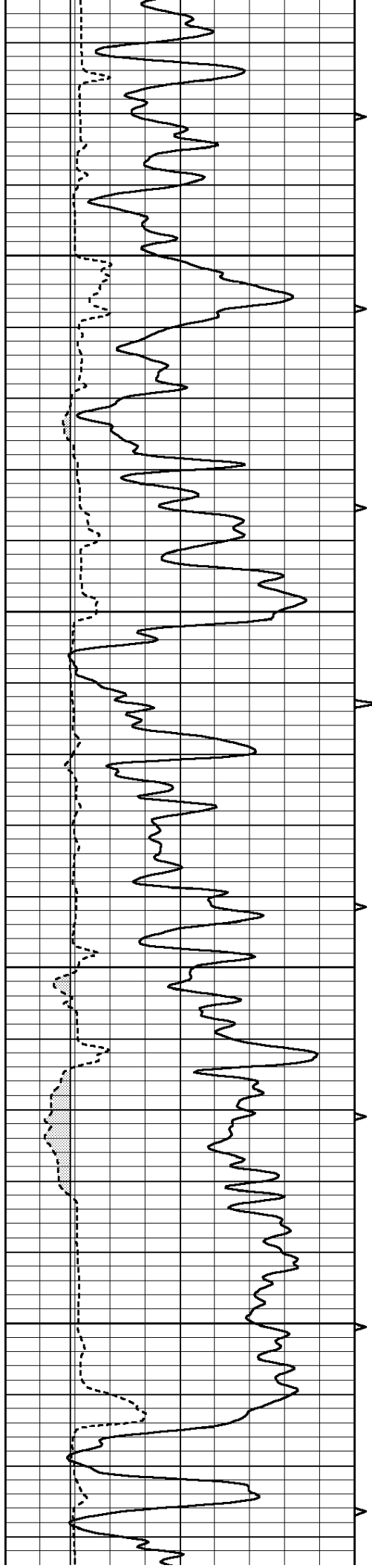










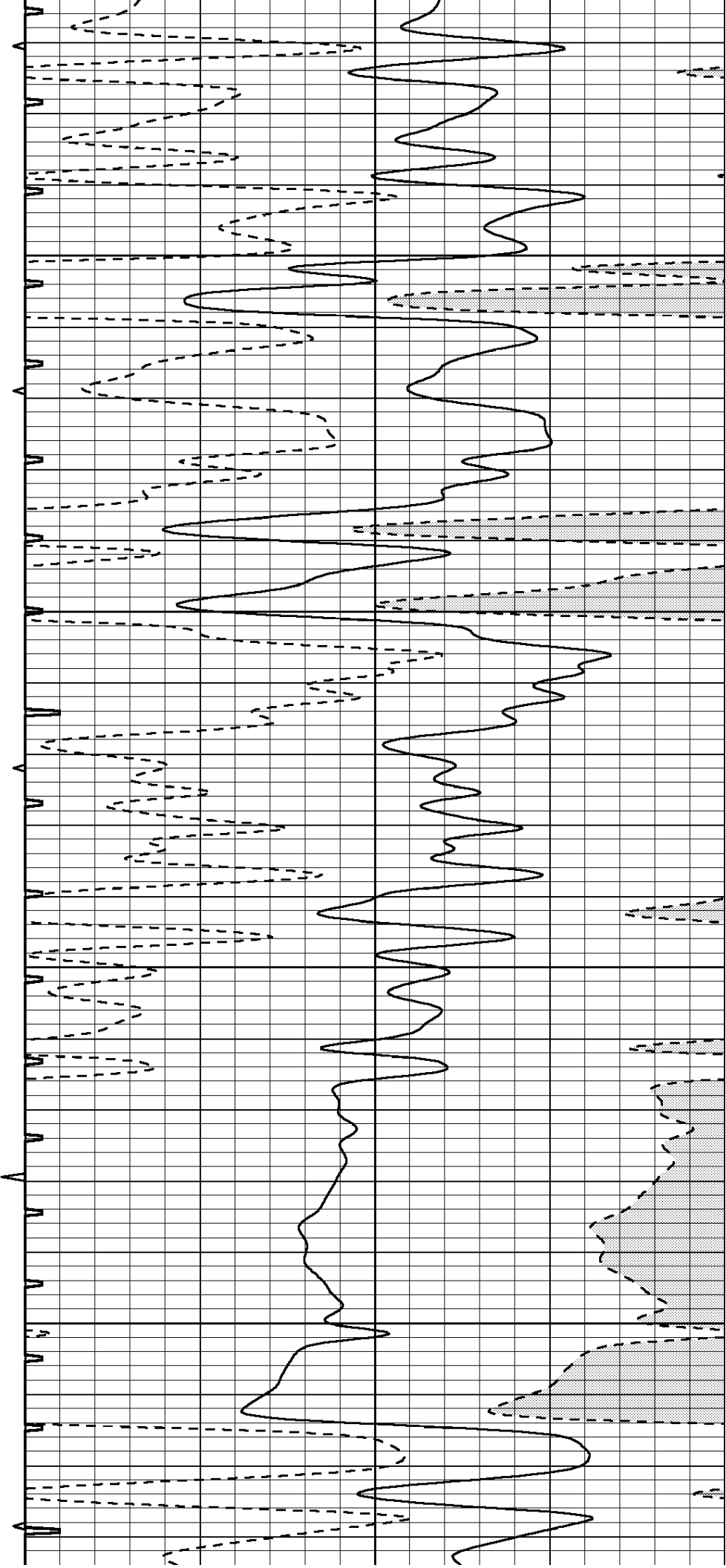


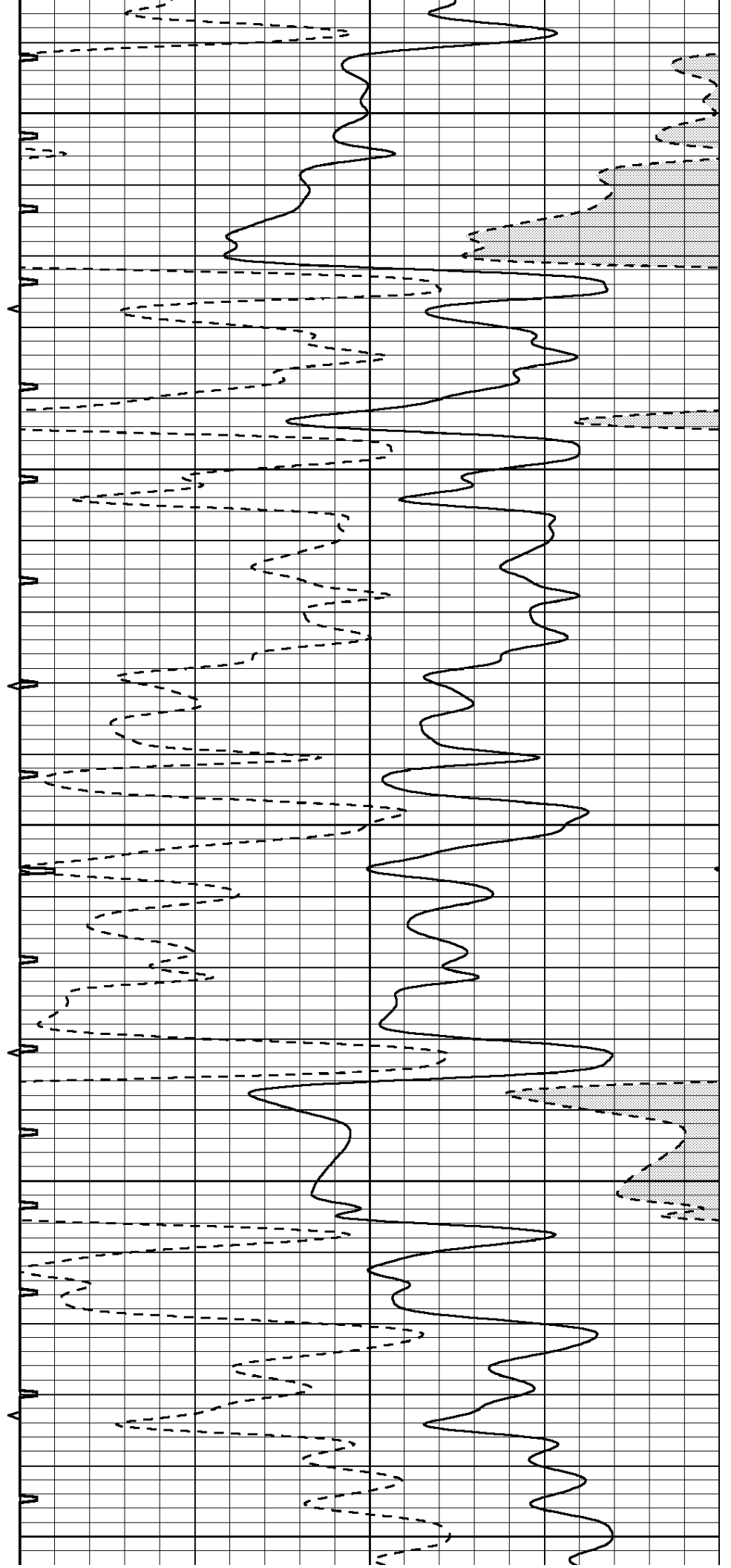
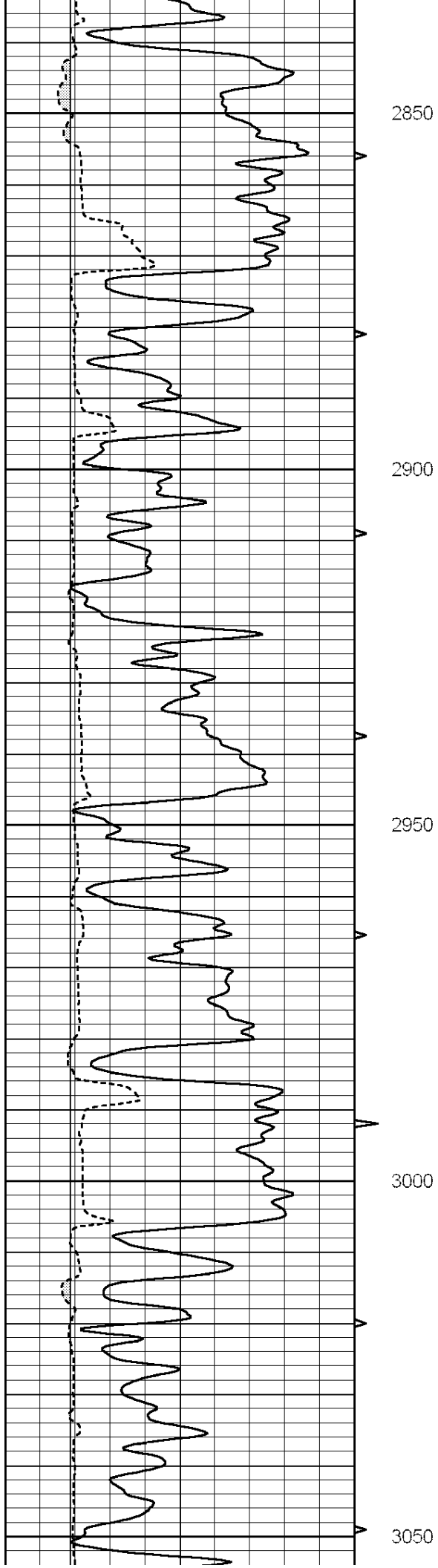
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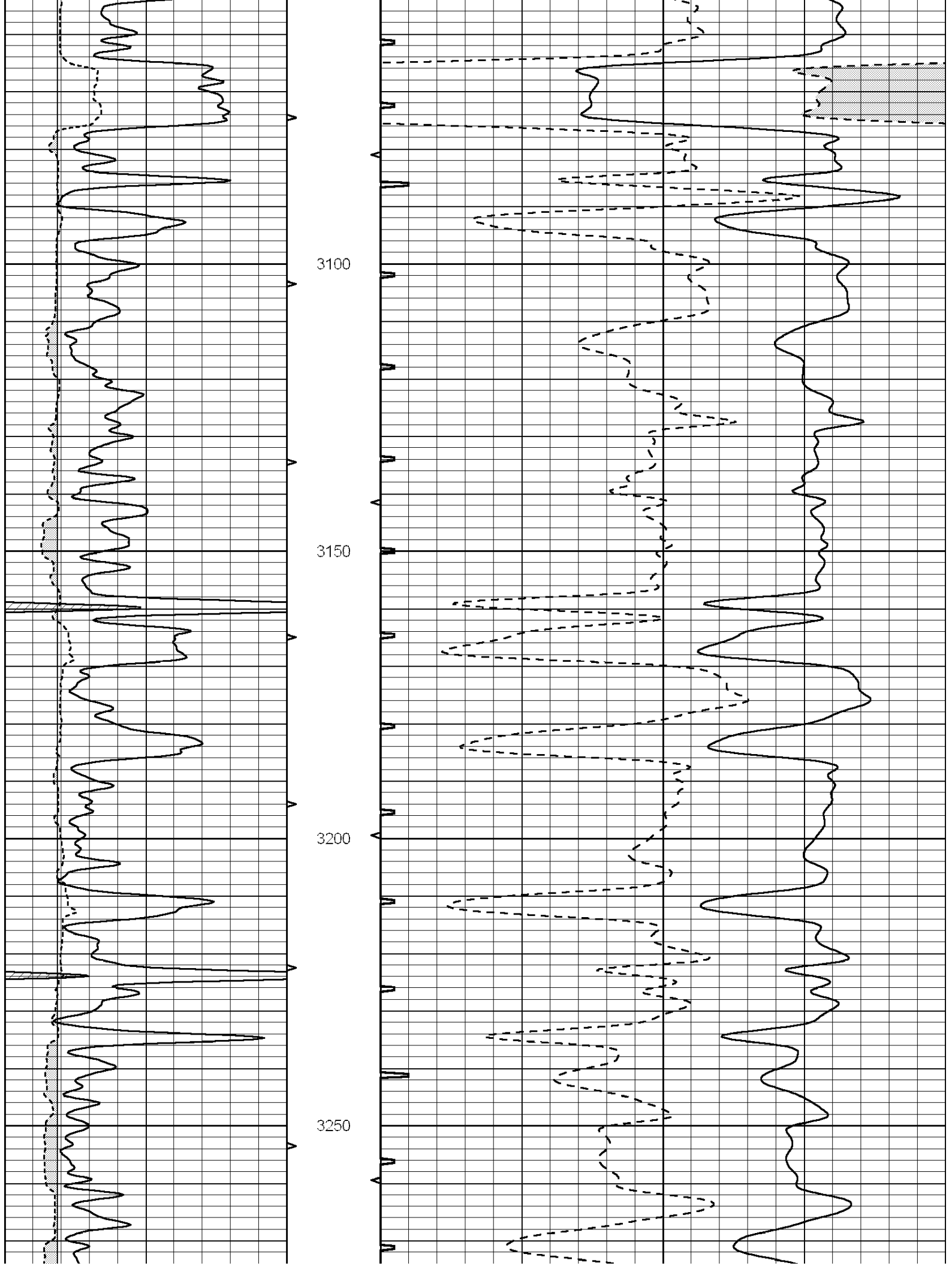
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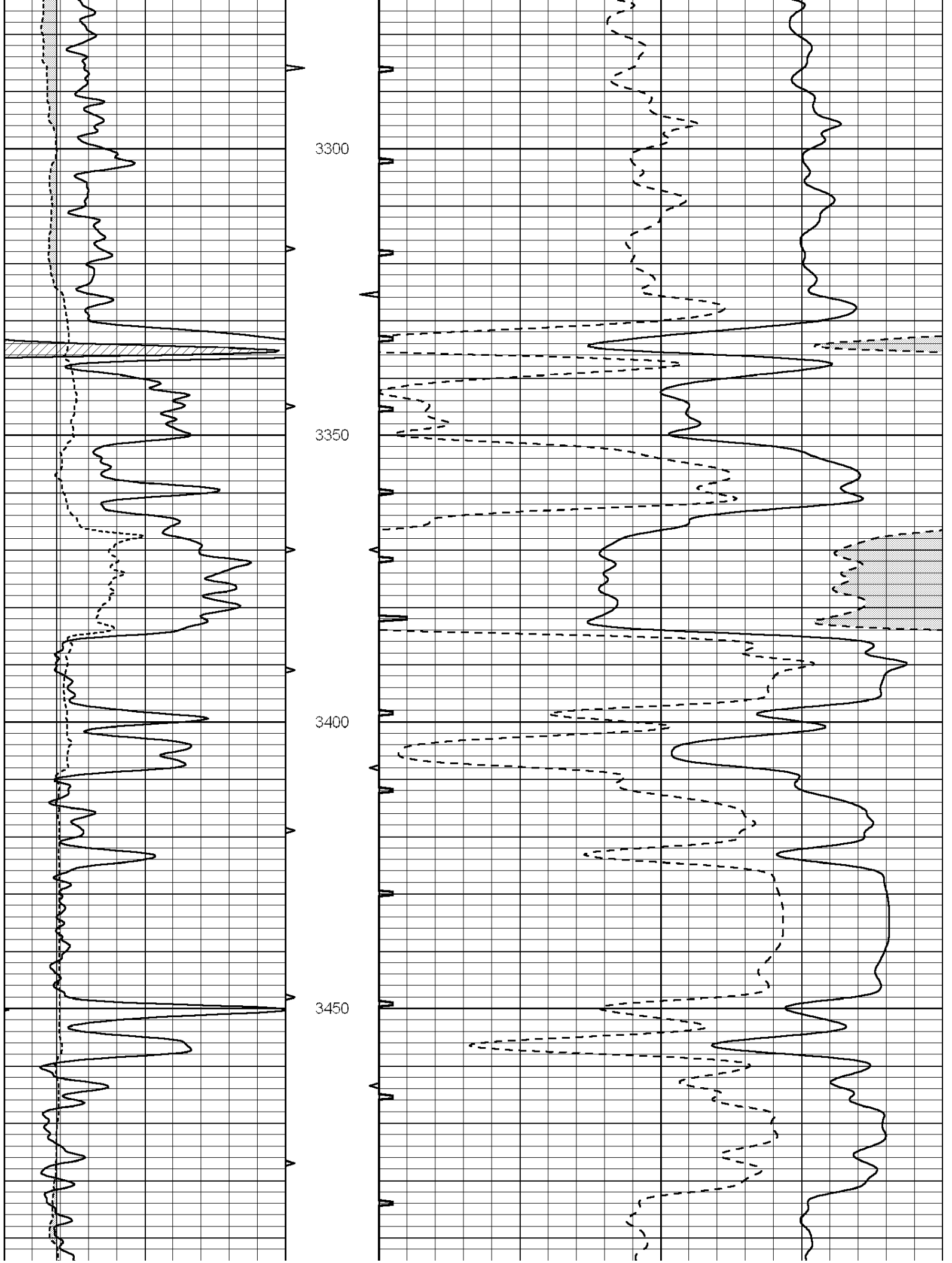
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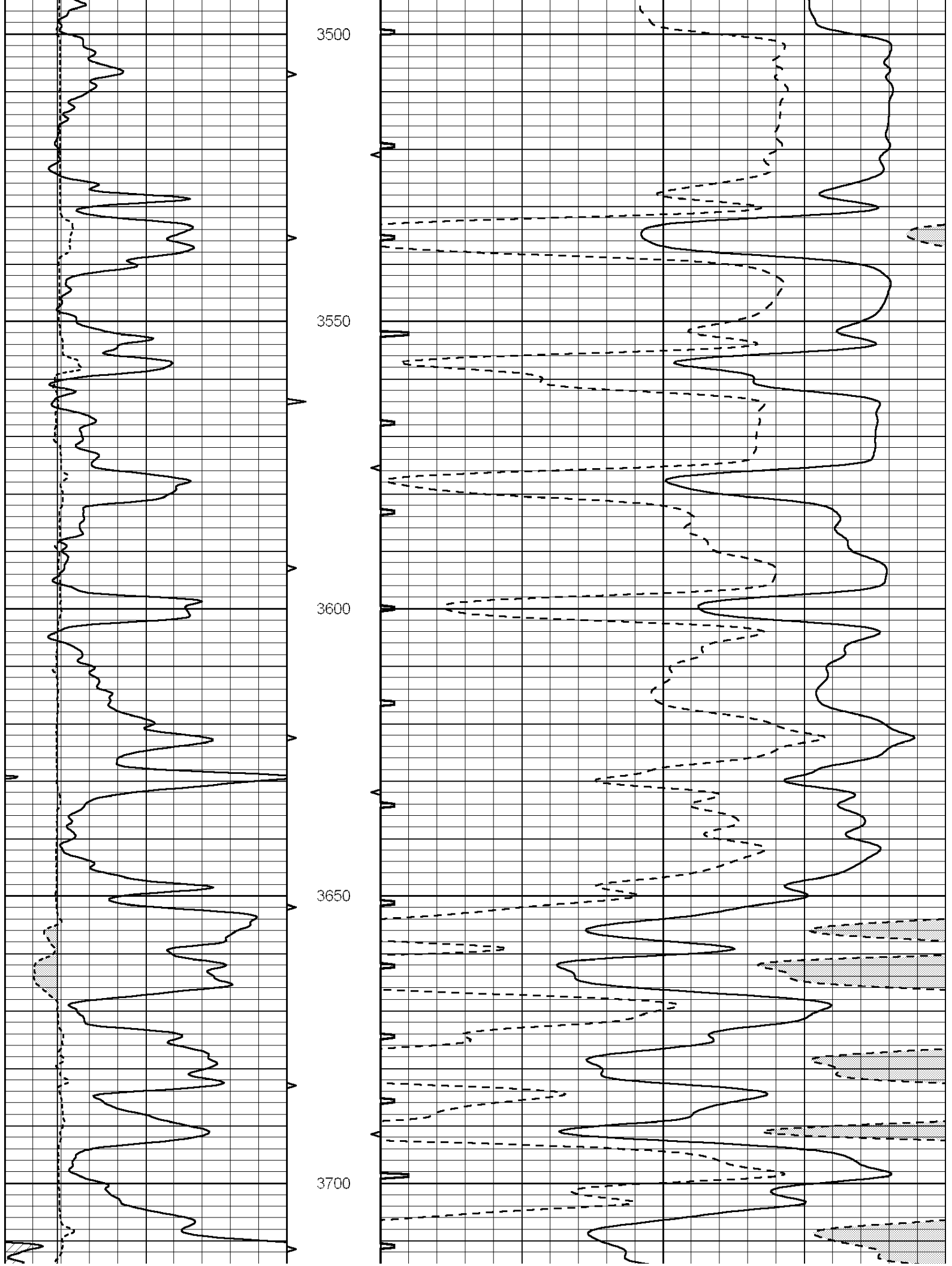
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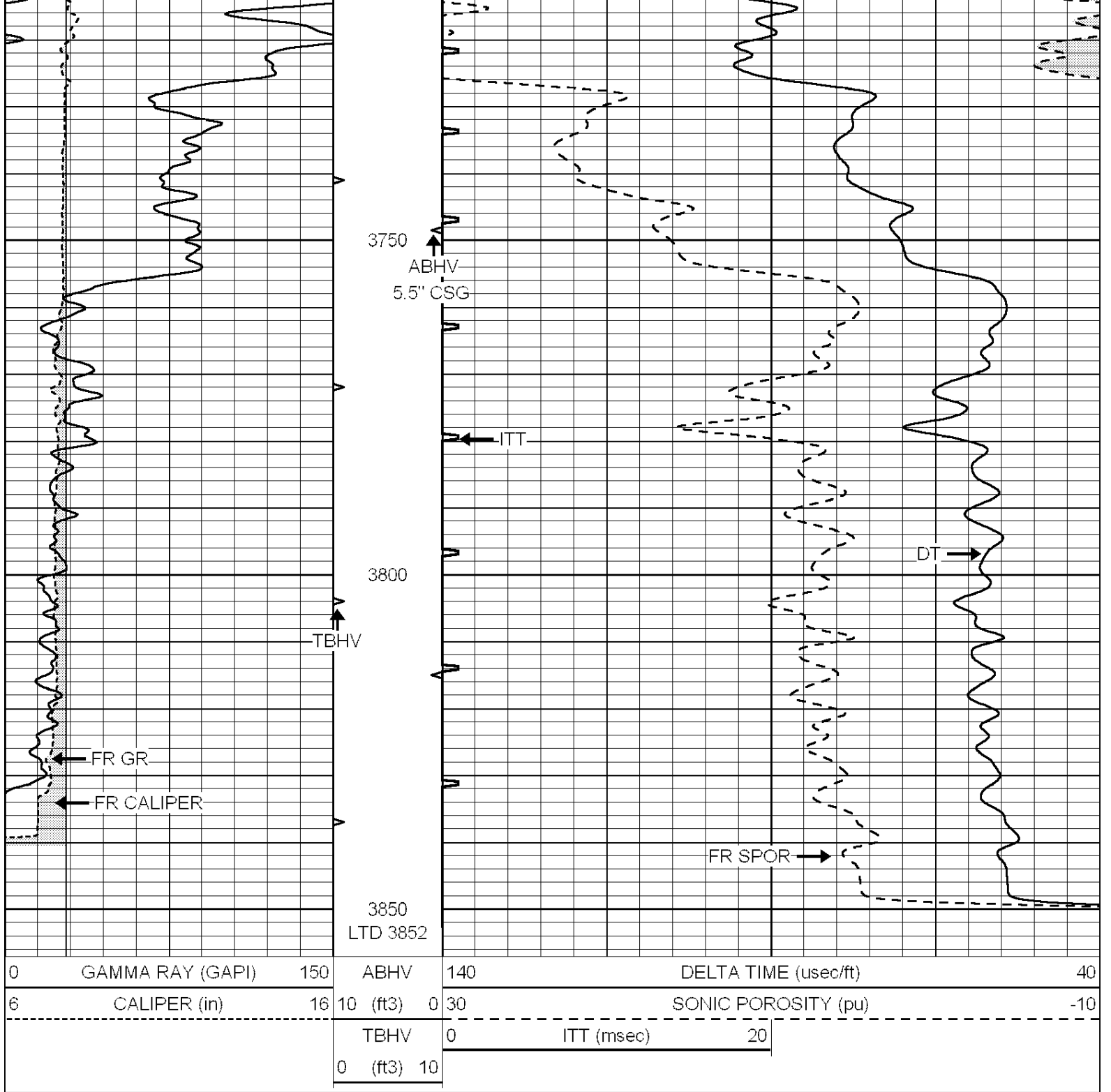












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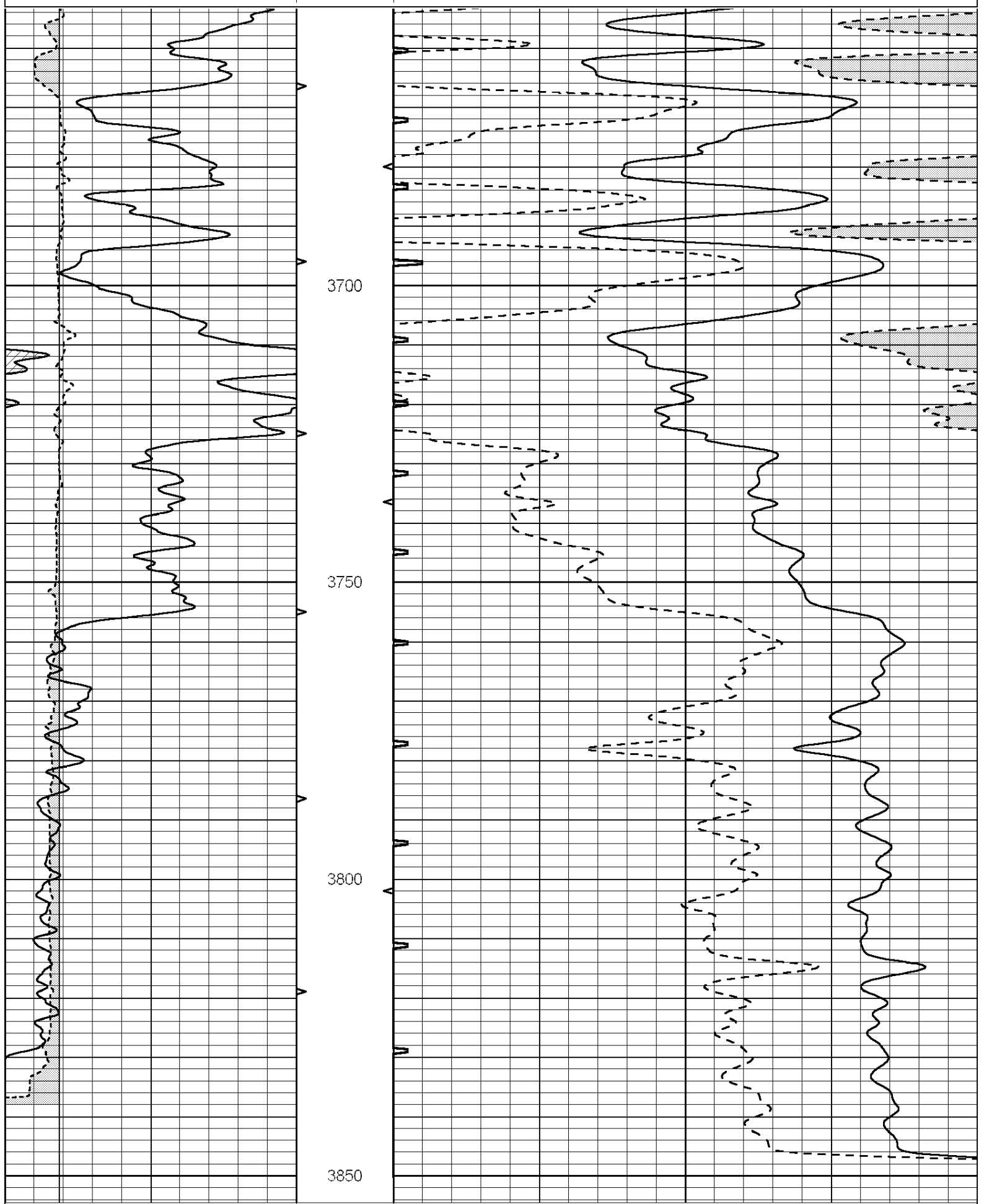
REPEAT SECTION

Database File: 009735ddn.db
 Dataset Pathname: pass6
 Presentation Format: _slt
 Dataset Creation: Sat Sep 22 01:13:48 2012 by Log Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

| | | | | | | | |
|---|------------------|-----|----------|-----|----------------------|---------------------|-----|
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| | | | TBHV | 0 | ITT (msec) | 20 | |
| | | | 0 (ft3) | 10 | | | |

ABHV 0 20
TTT (msec) 0 20

0 (ft3) 10



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6 CALIPER (in) 16 10 (ft3) 0 30 SONIC POROSITY (pu) -10

| | | | |
|---------|----|------------|----|
| TBHV | 0 | ITT (msec) | 20 |
| 0 (ft3) | 10 | | |