



**COMPLETION
& PRODUCTION
SERVICES CO.**

**SONIC
LOG**

Company DOWNING-NELSON OIL COMPANY, INC.
Well GROVE #1-32
Field LACROSSE NORTHWEST
County RUSH
State KANSAS

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County RUSH State KANSAS

Location: API # : 15-165-22045-0000
820' FSL & 1355' FEL
SE - NE - SW - SE
Permanent Datum GROUND LEVEL Elevation 2086
Log Measured From KELLY BUSHING & A.G.L.
Drilling Measured From KELLY BUSHING
Elevation
K.B. 2094
D.F. 2092
G.L. 2086

Date	11/15/13
Run Number	TWO
Depth Driller	3917
Depth Logger	3920
Bottom Logged Interval	3910
Top Log Interval	1250
Casing Driller	8 5/8" @ 1269
Casing Logger	1268
Bit Size	7 7/8
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.0 / 65
pH / Fluid Loss	10.5 / 8.4
Source of Sample	FLOWLINE
Rin @ Meas. Temp	0.90 @ 84F
Rmf @ Meas. Temp	0.68 @ 64F
Rmc @ Meas. Temp	1.08 @ 84F
Source of Rmf / Rmc	MEASURED
Rin @ BHT	0.66 @ 115F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	
Maximum Recorded Temperature	115F
Equipment Number	680
Location	HAYS, KS.
Recorded By	JEFF GRONEMEG
Witnessed By	AL DOWNING

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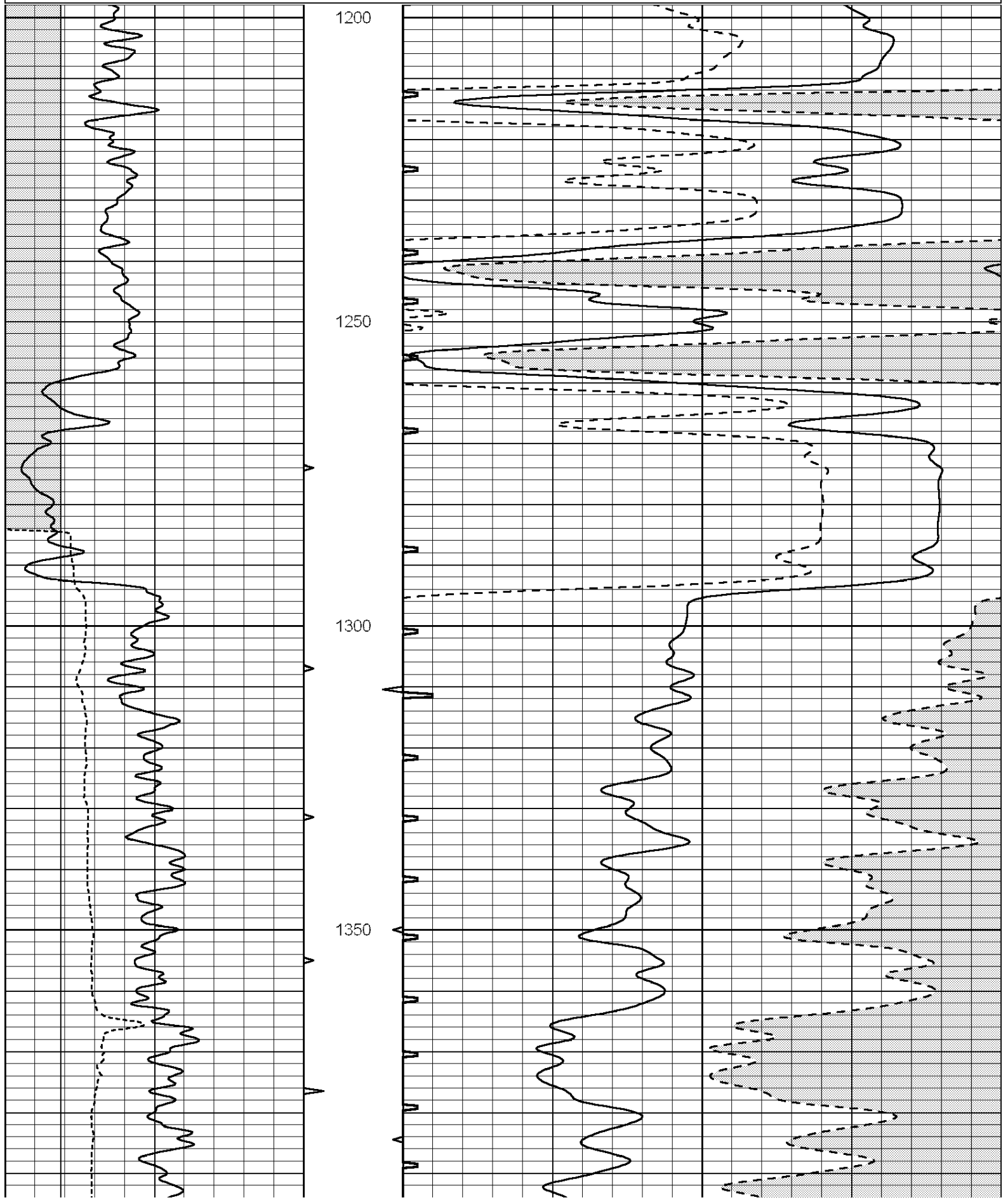
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

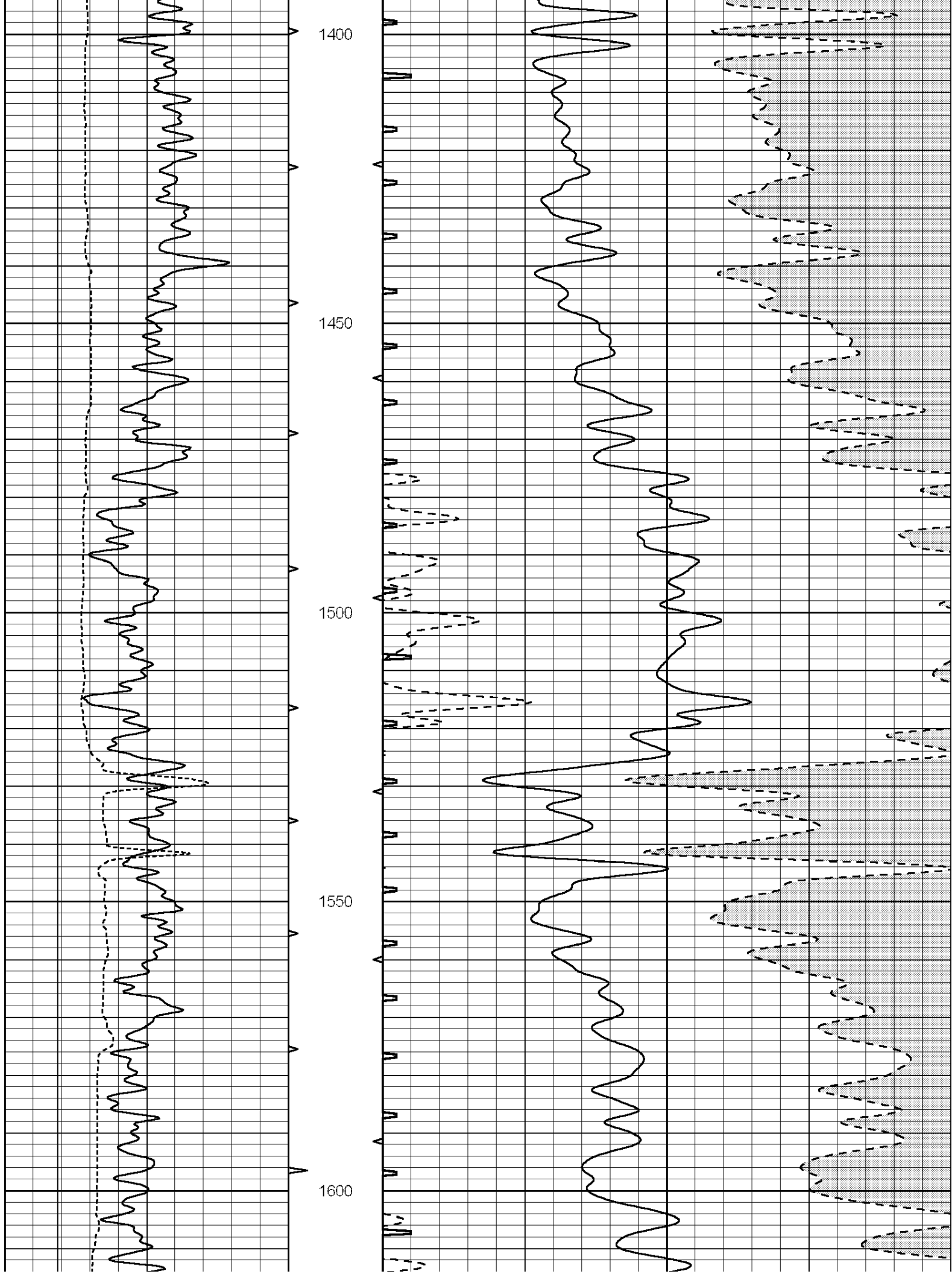
Comments

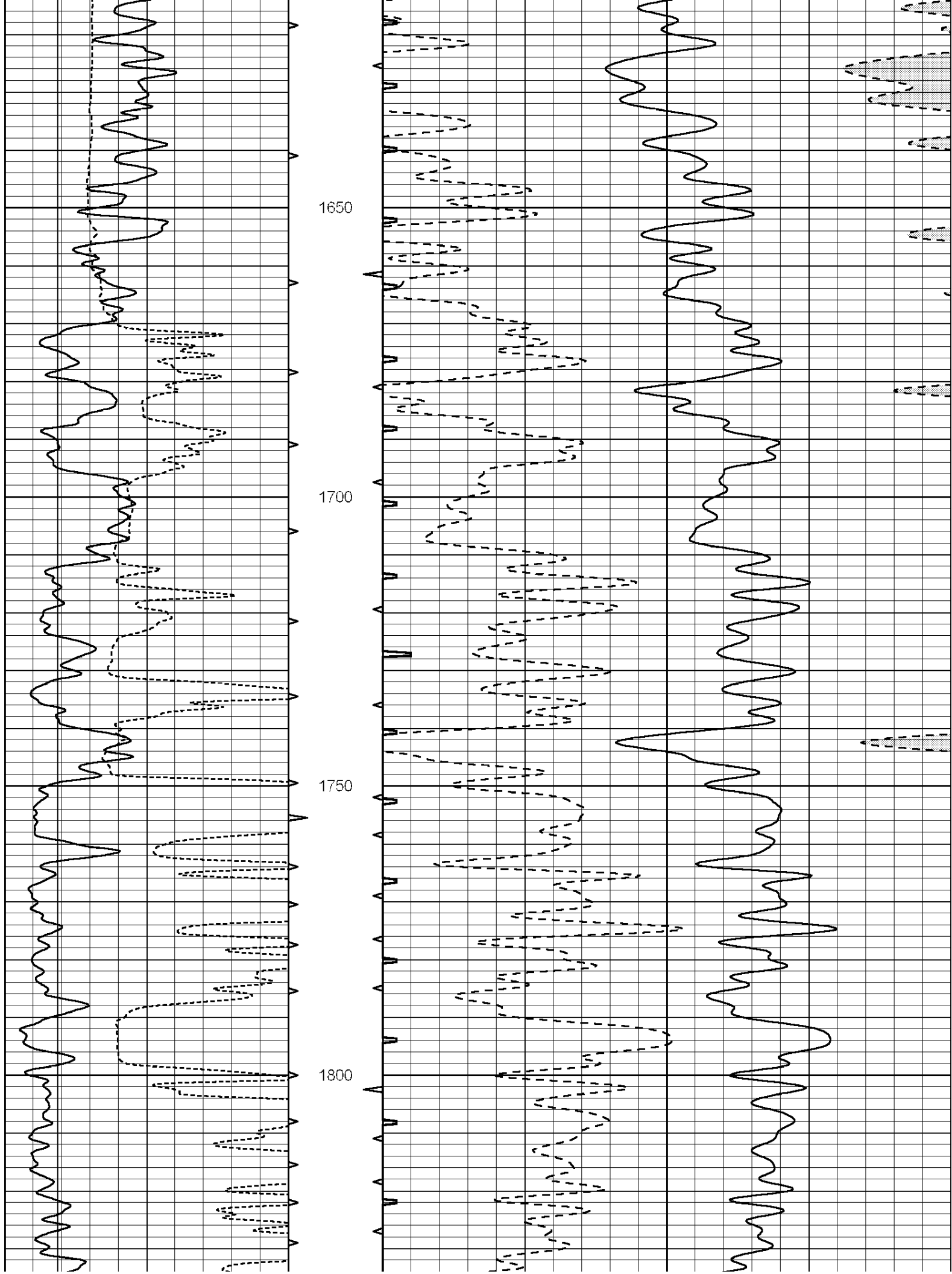
THANK YOU FOR USING NABORS COMPLETION & PRODUCTION SVCS. (785) 628-6395

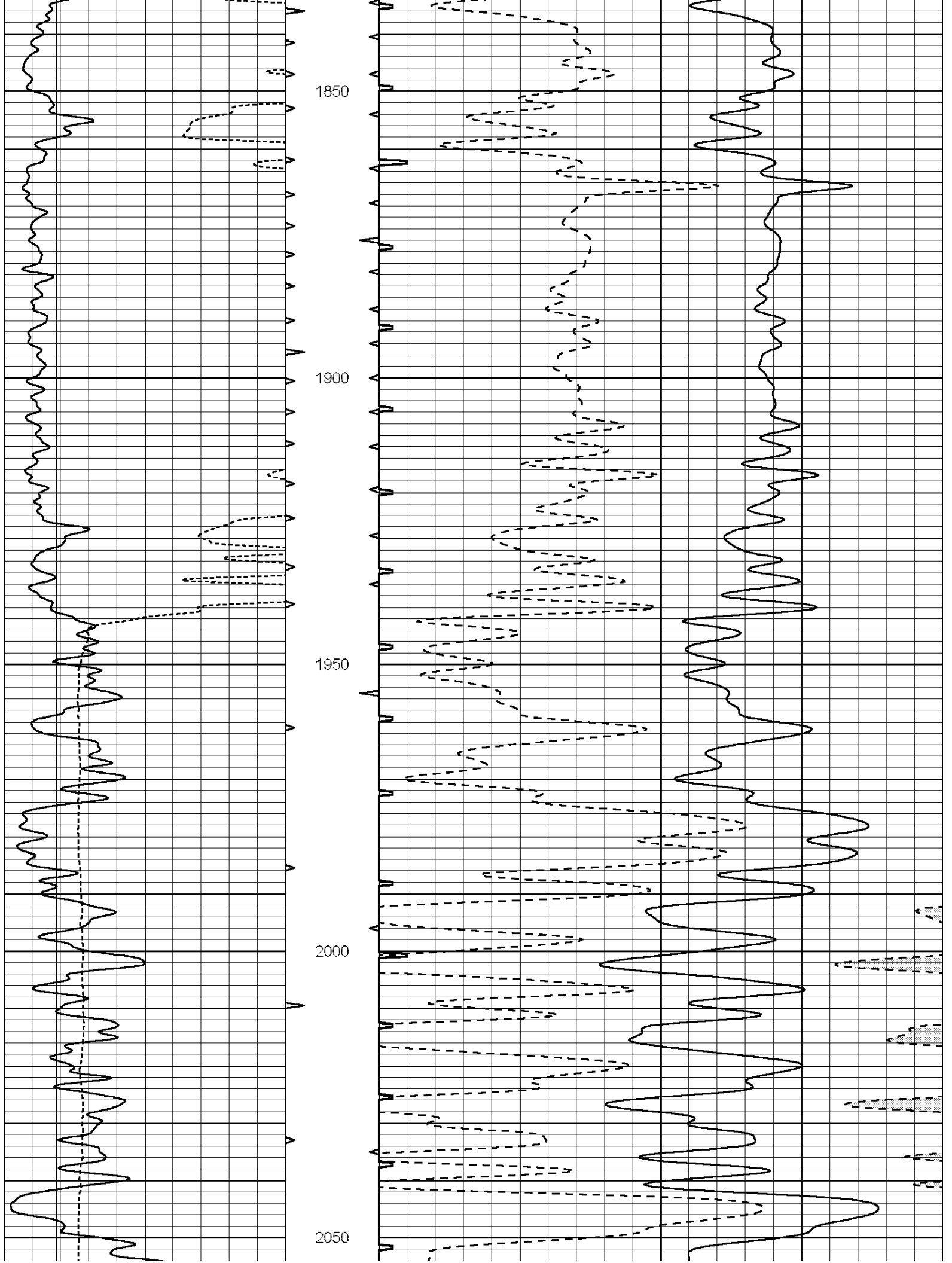
DIRECTIONS:
LACROSSE, KS - 1 MILE WEST TO CR 240 - 1 MILE SOUTH TO RD M
1/4 MILE WEST - NORTH INTO

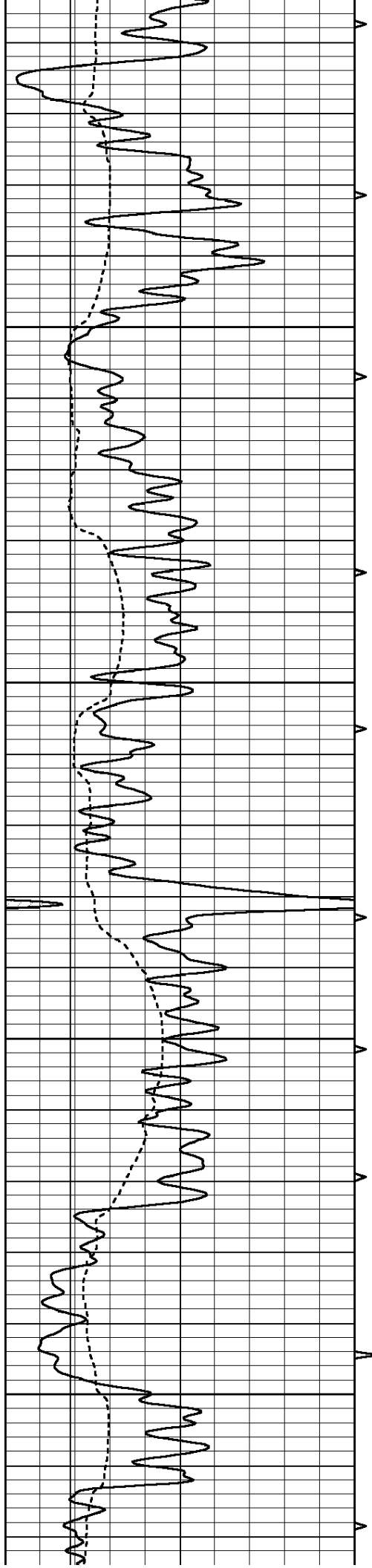
0	GAMMA RAY (GAPI)	150	ABHV	140	DELTA TIME (usec/ft)	40
6	CALIPER (in)	16	10 (ft3) 0	30	SONIC POROSITY (pu)	-10
-----			TBHV	0	ITT (msec)	20
-----			0 (ft3) 10			









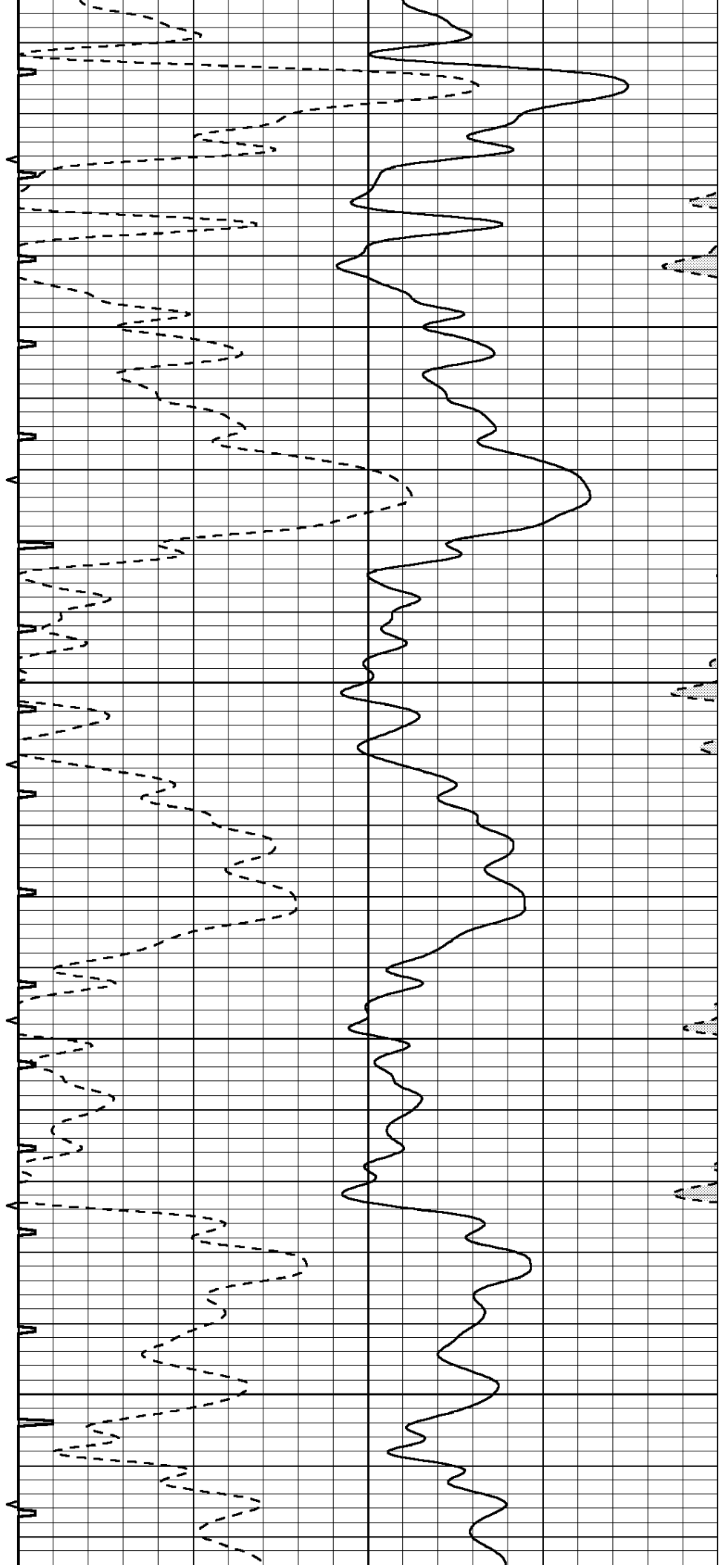


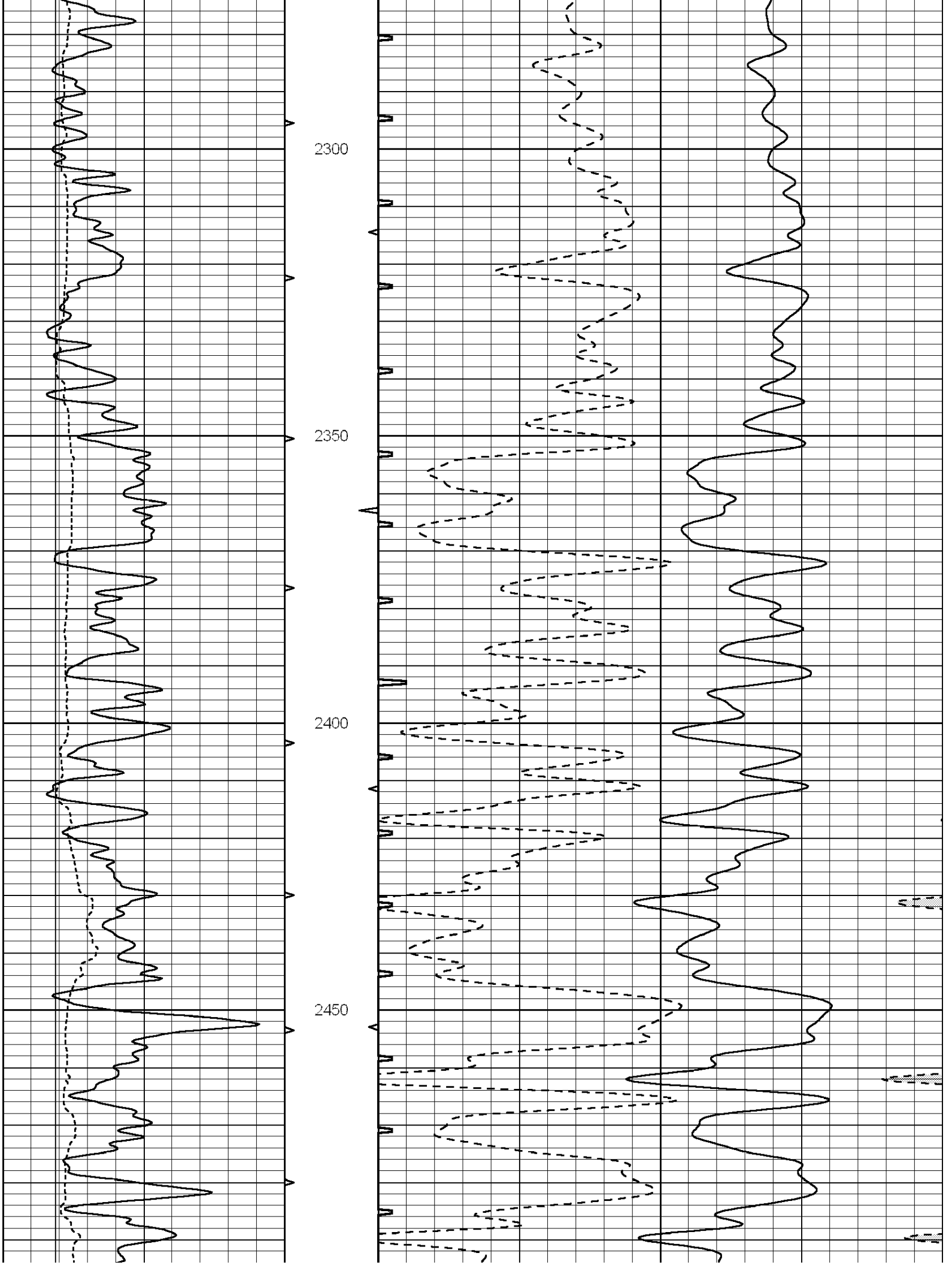
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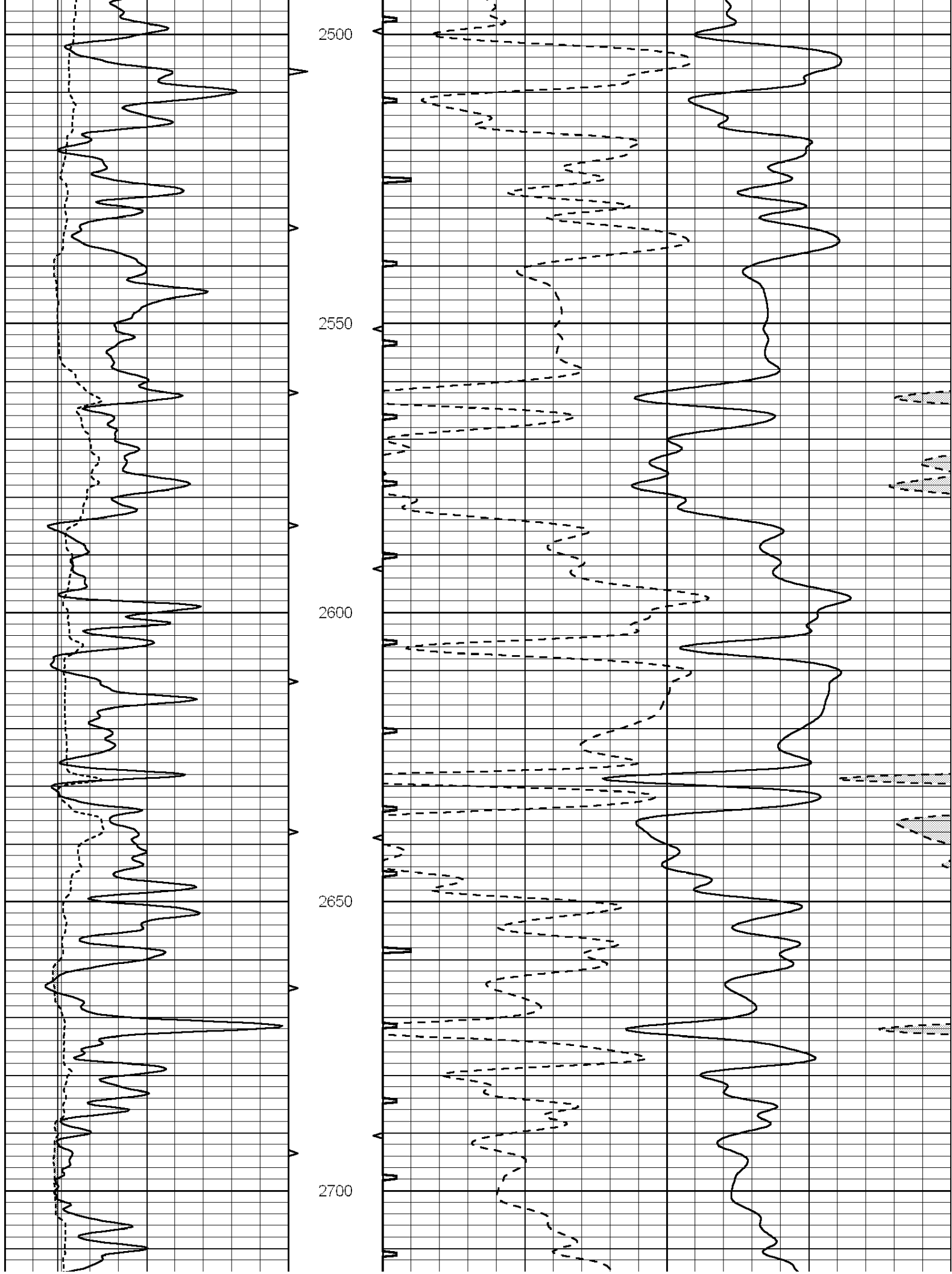
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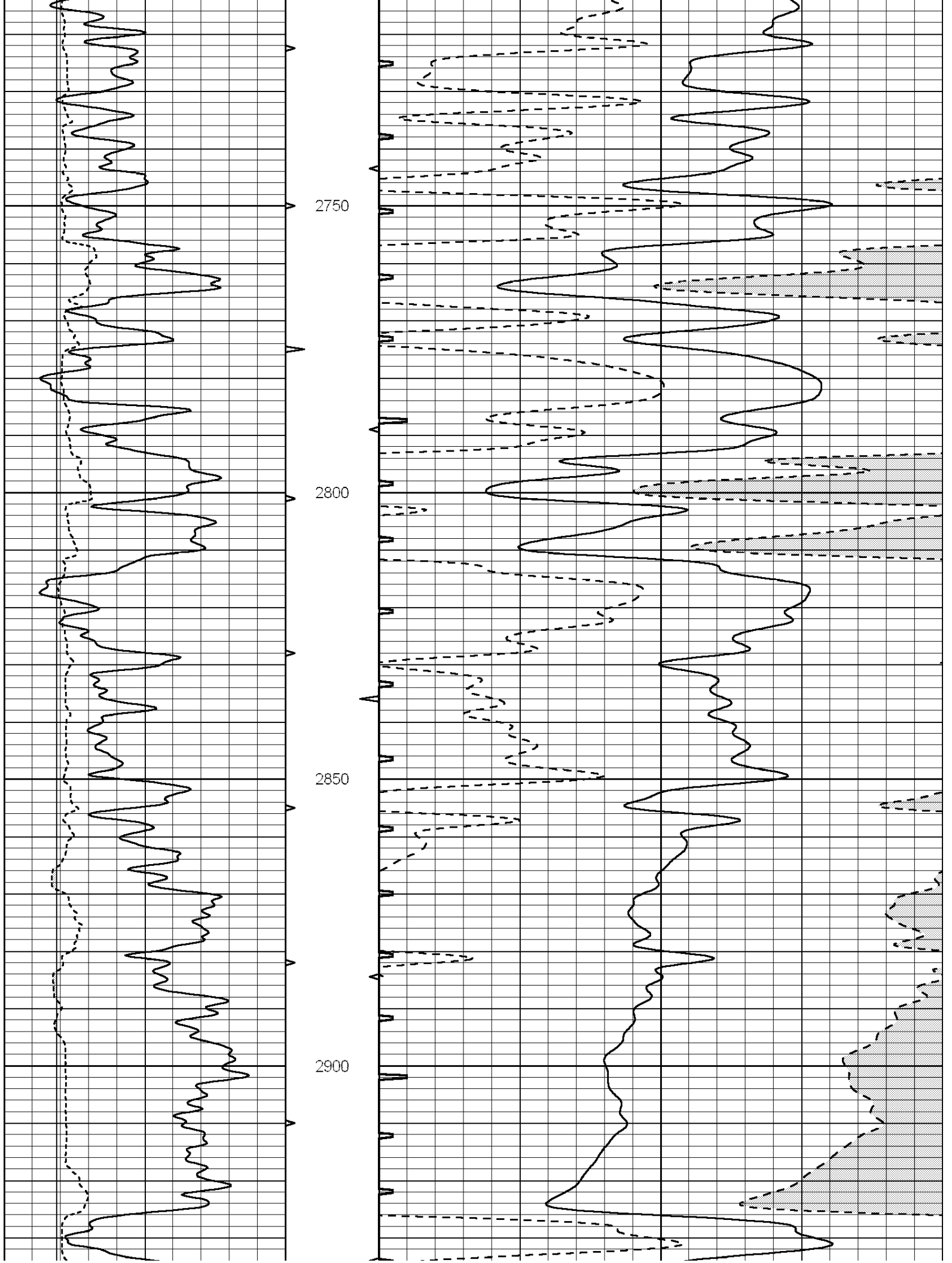
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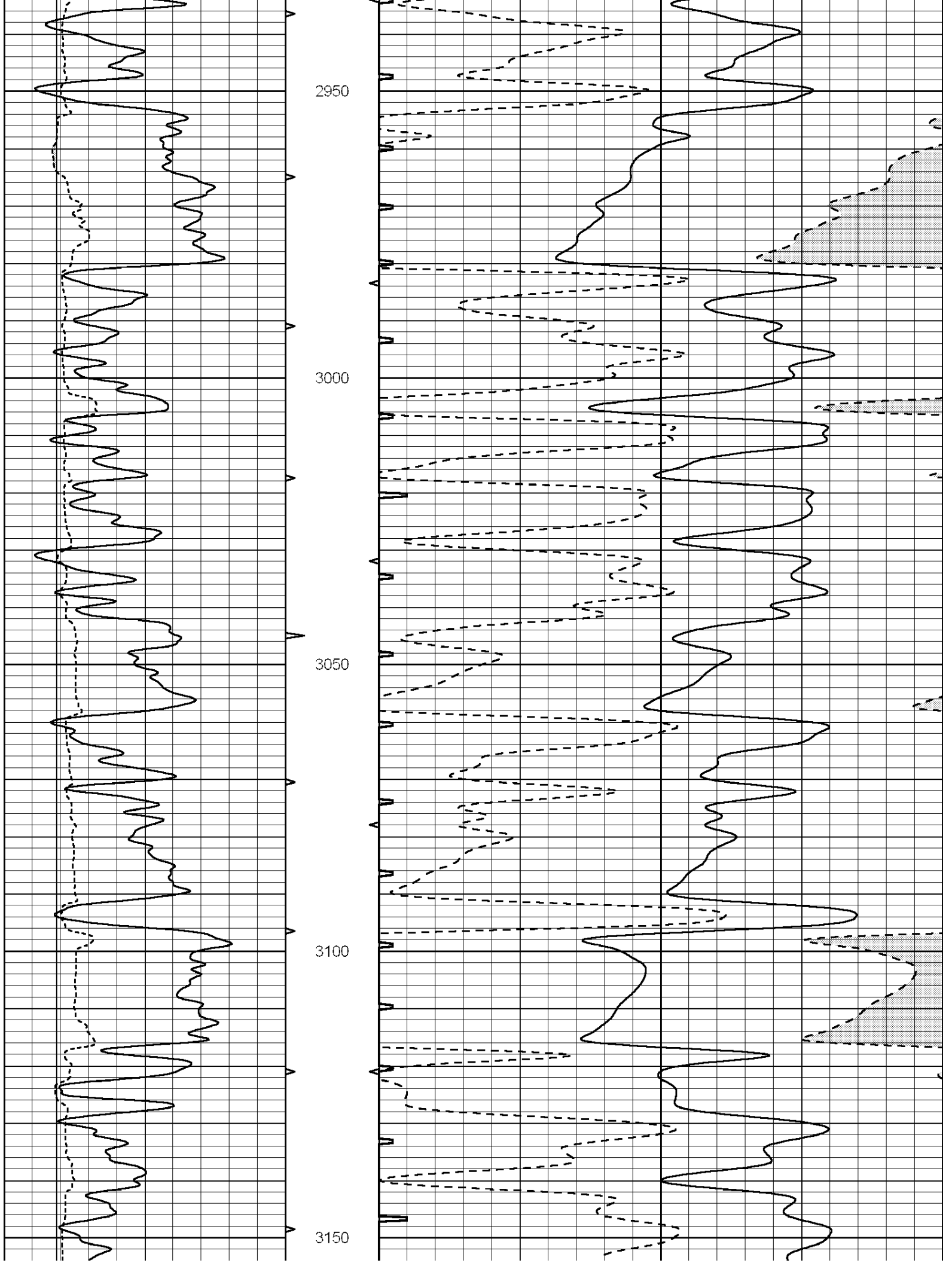
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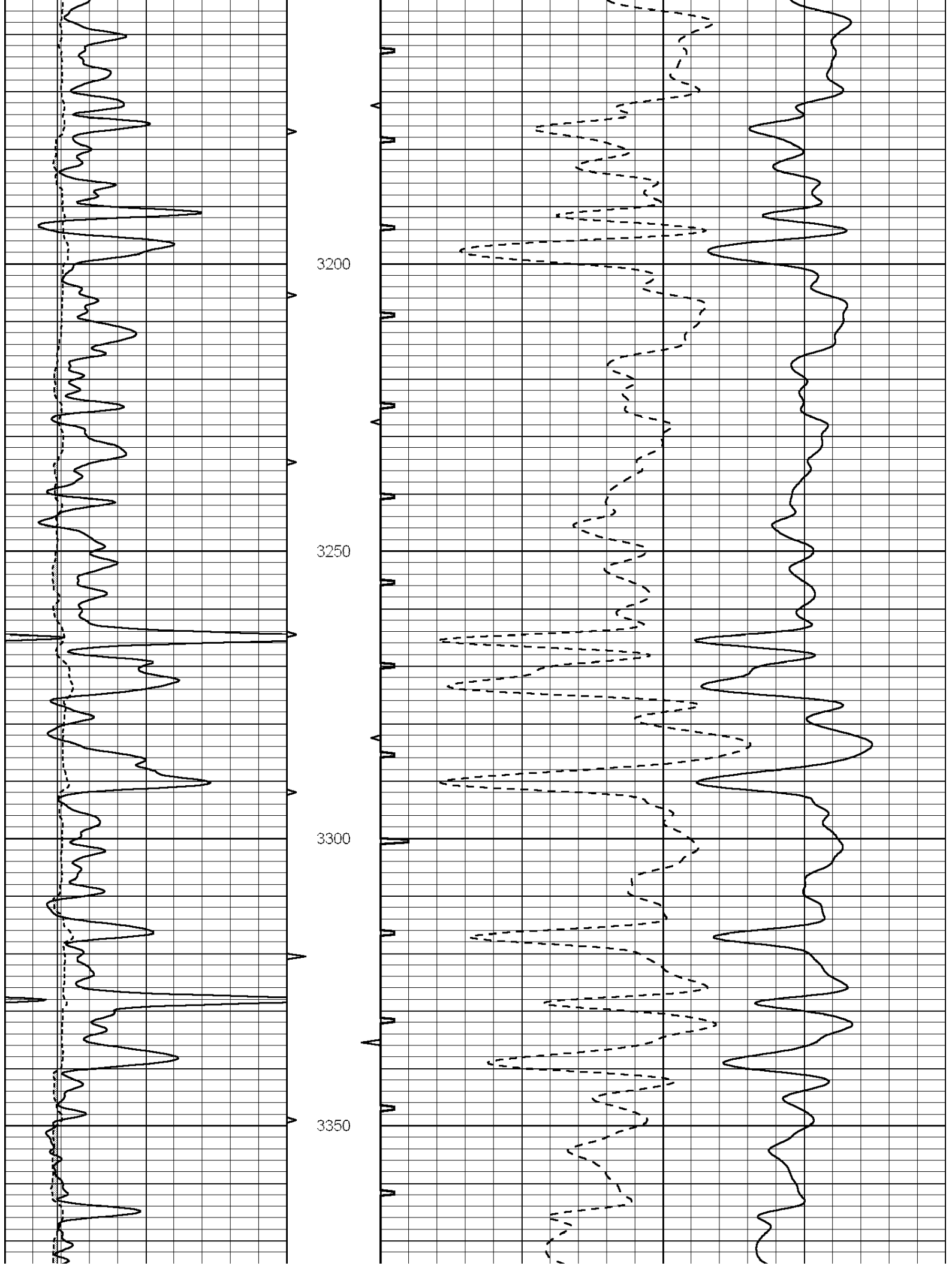


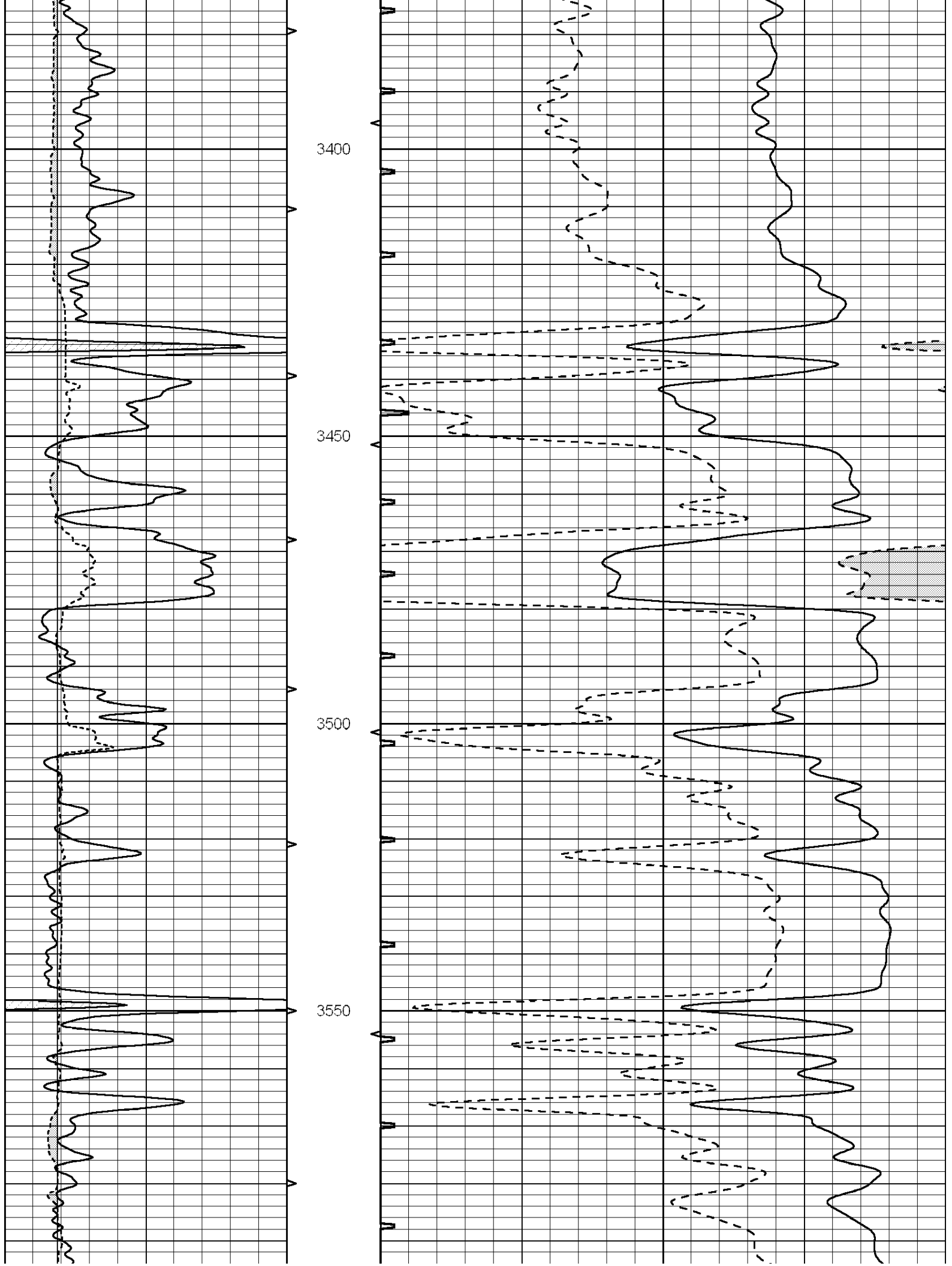


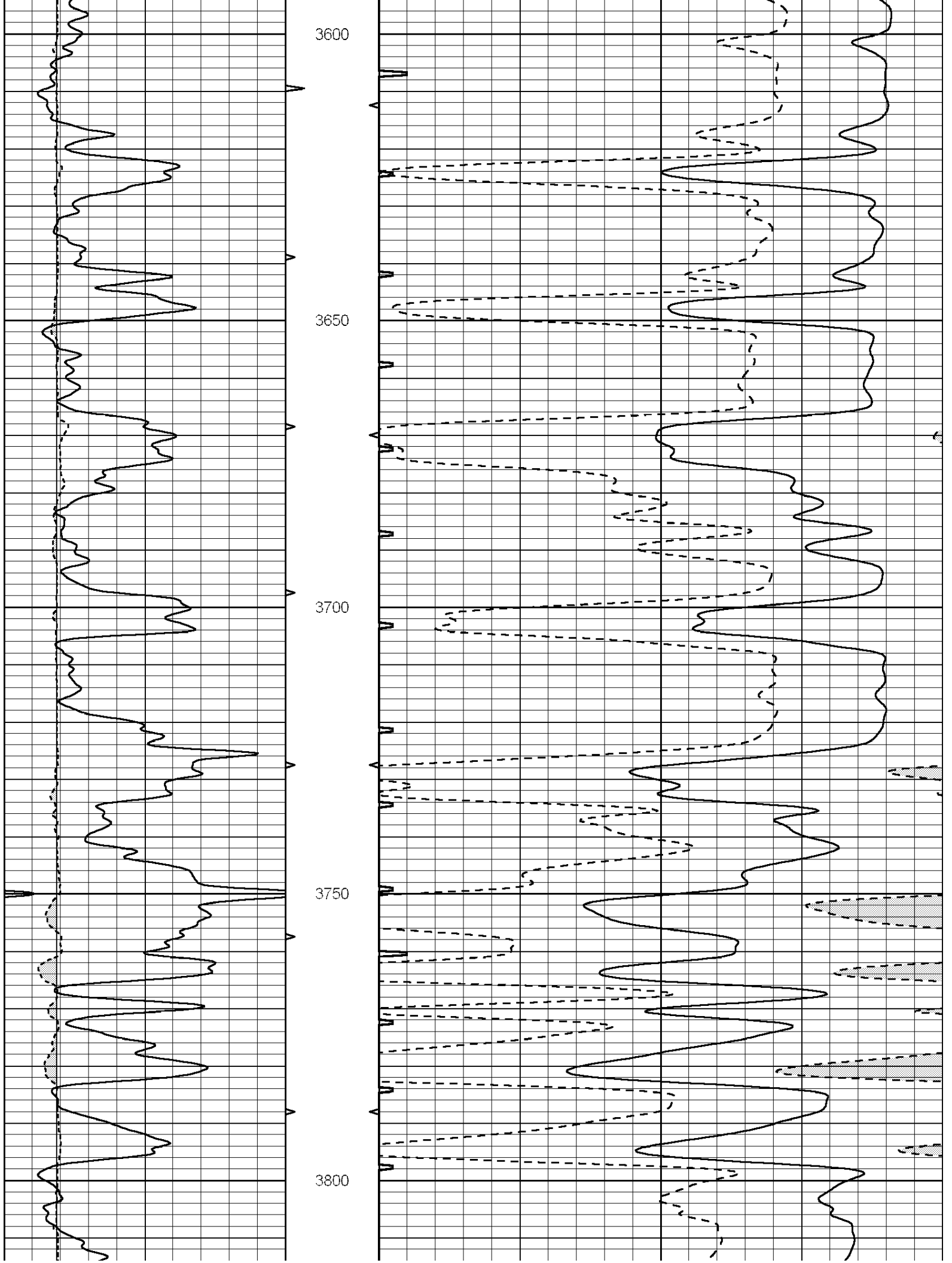


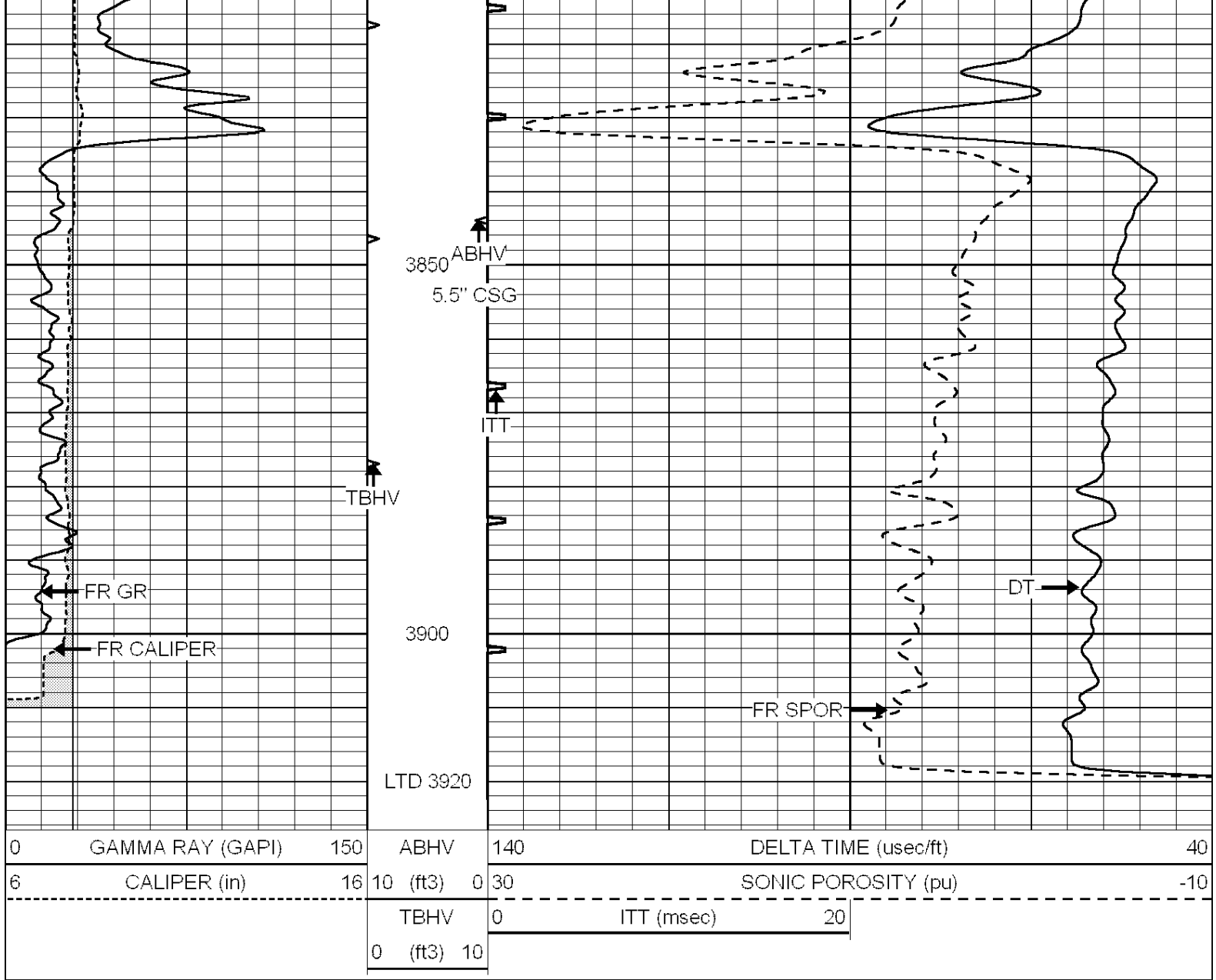








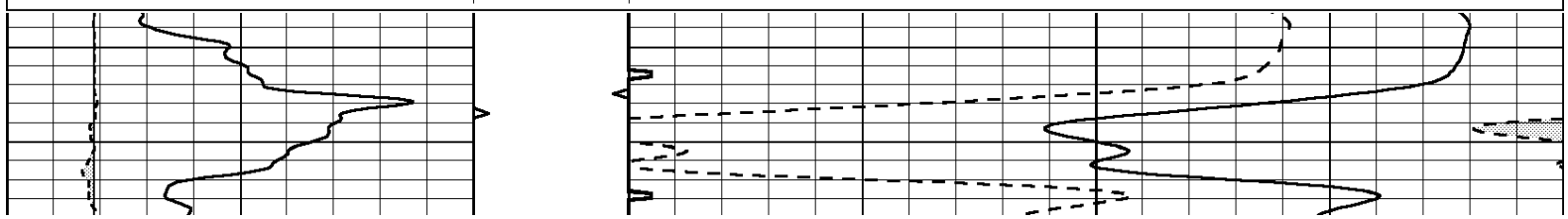


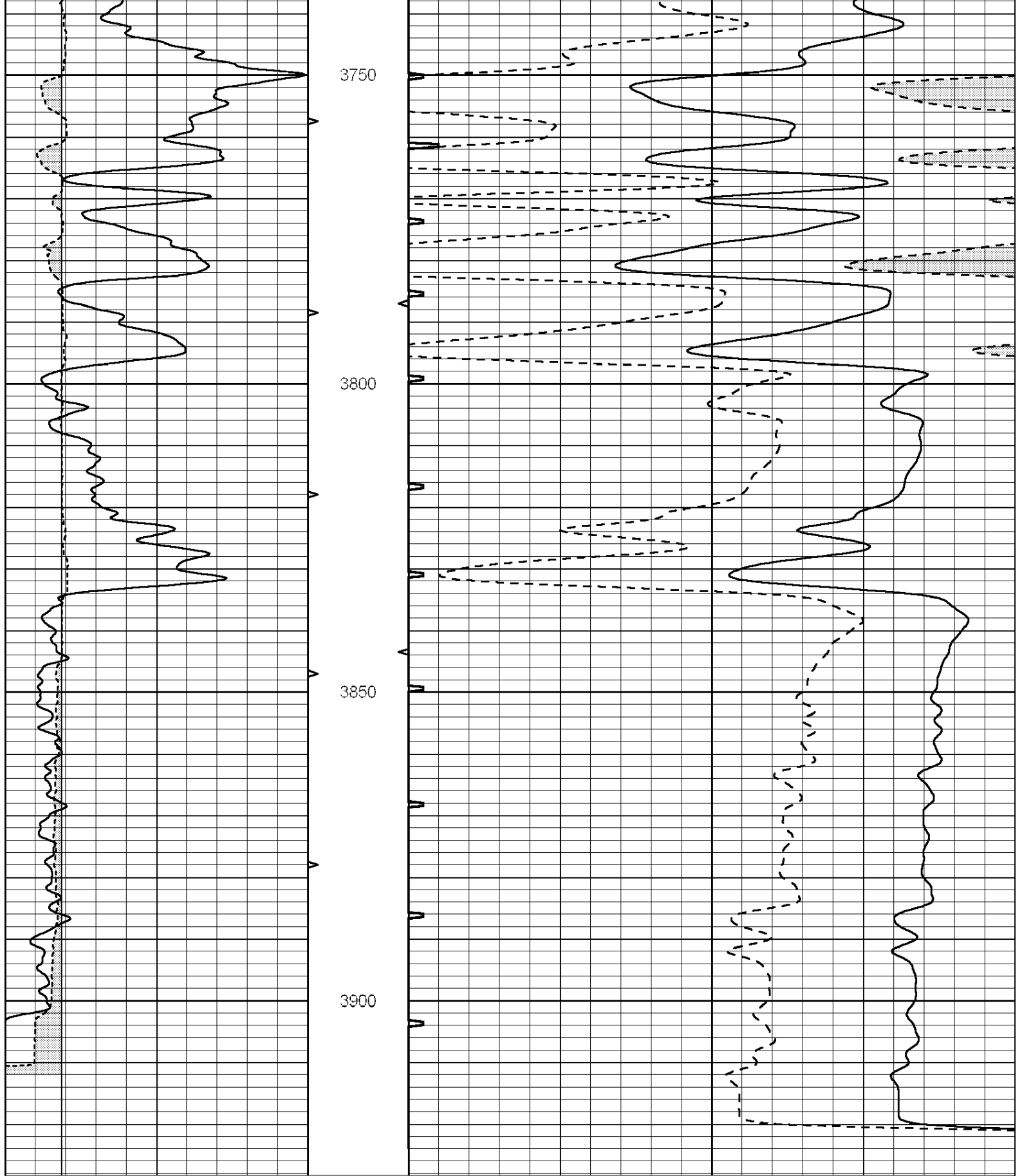


REPEAT SECTION

Database File: 012090ddn.db
 Dataset Pathname: pass5.2.1
 Presentation Format: _slt
 Dataset Creation: Fri Nov 15 03:05:58 2013 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	140	DELTA TIME (usec/ft)	40
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