



Well Services
E-LINE

RADIAL CEMENT BOND
GAMMA RAY
CCL LOG

Company NOBLE ENERGY
Well BERNHARDT PC J 31-31D
Field WATTENBERG
County WELD State CO

Location: API #: 05-123-32816
NW/1NW
LAT. 40.3609 LONG. -104.83059
SEC 31 TWP 5N RGE 66W
Permanent Datum GROUND LEVEL Elevation 4,900'
Log Measured From K.B. OF 12'
Drilling Measured From KELLY BUSHING
Other Services
Elevation
K.B. 4,912'
D.F. 4,911'
G.L. 4,900'

Date 8/19/2019
Run Number ONE
Depth Driller 7.635'
Depth Logger 7.086'
Bottom Logged Interval 7.082'
Top Log Interval SURFACE
Open Hole Size 7 7/8"
Type Fluid WATER
Density / Viscosity 1.0
Max. Recorded Temp. 193 DEGF
Estimated Cement Top 1,600'
Time Well Ready ON ARRIVAL
Time Logger on Bottom N/A
Equipment Number 3815
Location GREELEY
Recorded By A.KLARICH
Witnessed By R.POOLE

Borehole Record
Run Number Bit From To Size Weight From To
Tubing Record
Run Number Bit From To Size Weight From To

Casing Record
Surface String 8 5/8" 24# Wgt/Ft Top Bottom
SURFACE SURFACE 699'
Prot. String
Production String 4.5" 11.6# SURFACE SURFACE 7.625'
Liner

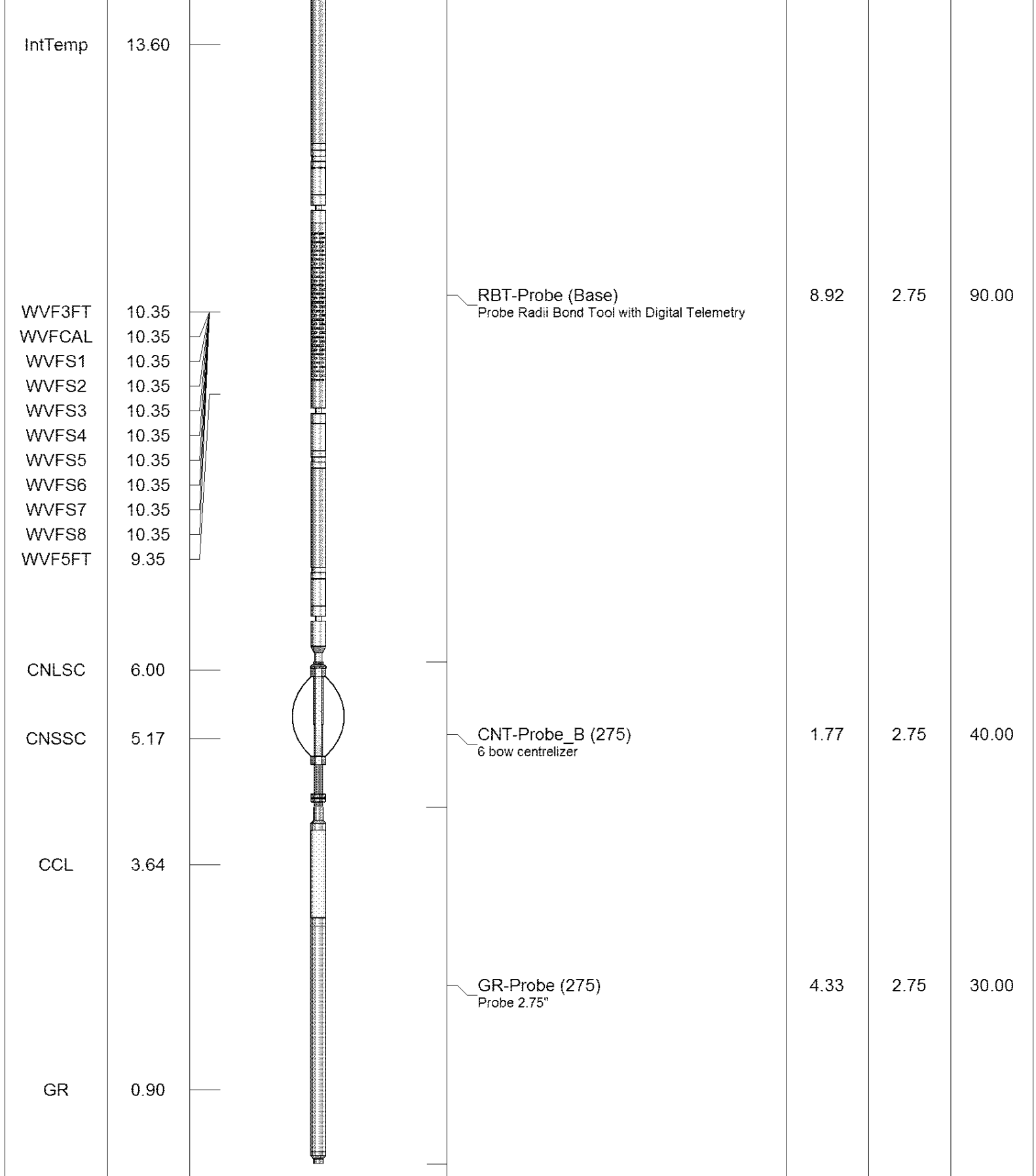
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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on 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

RAN RCBL TO VERIFY CEMENT COVERAGE
CORRELATED TO KB OF 12'

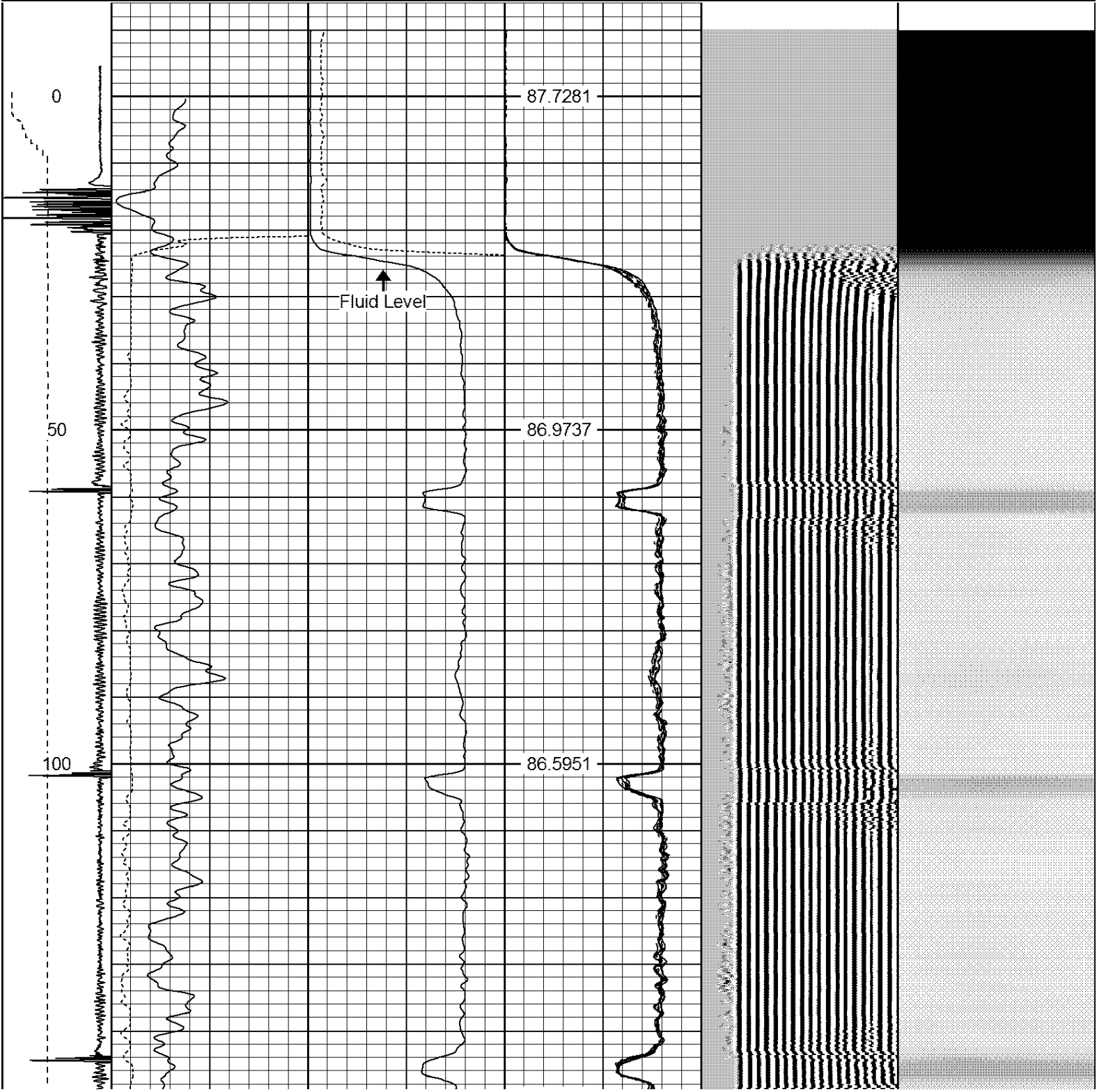
Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
HEADVOLT	15.02					



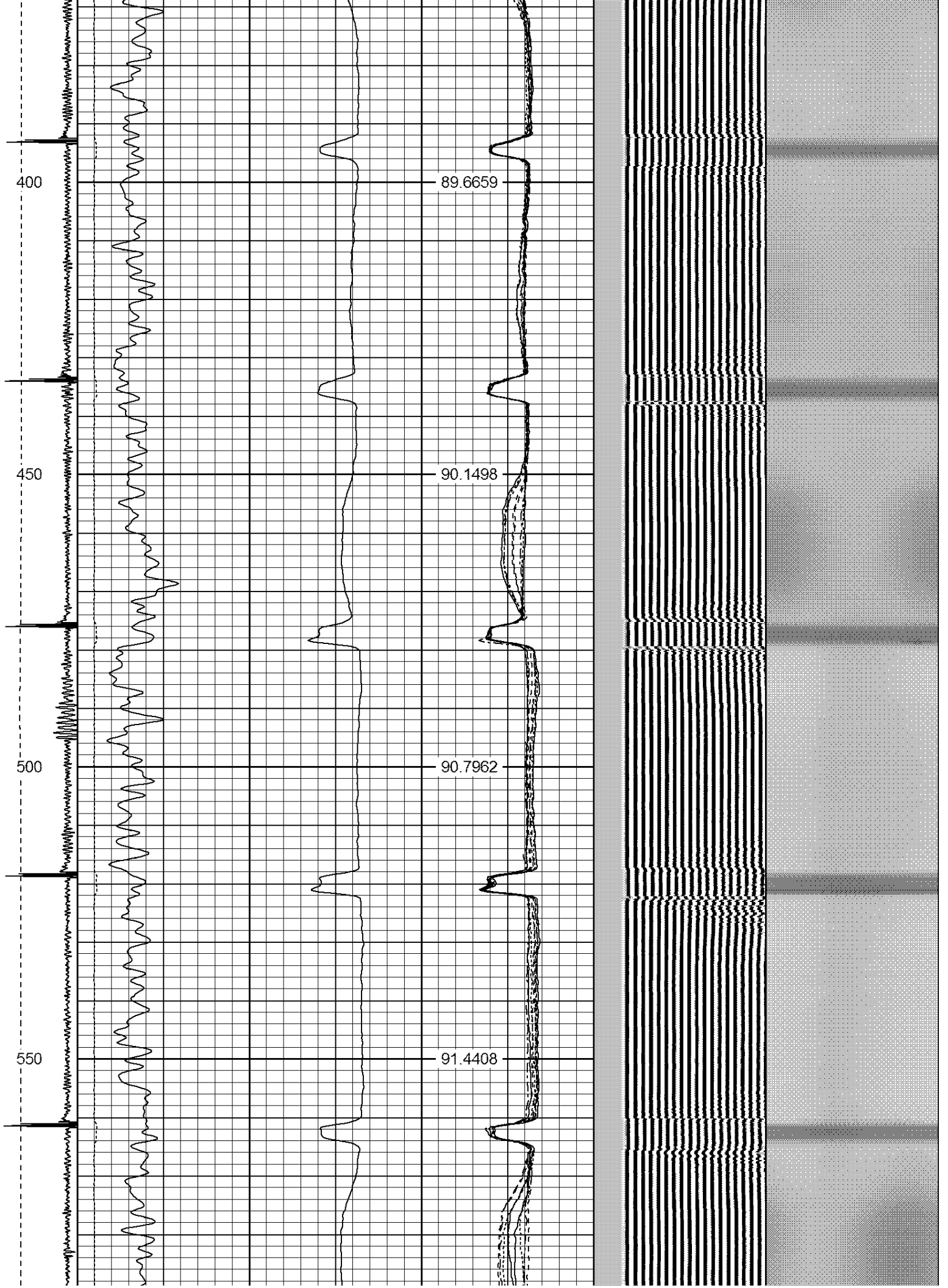
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 Total Length: 15.02 ft
 Total Weight: 160.00 lb
 O.D.: 2.75 in

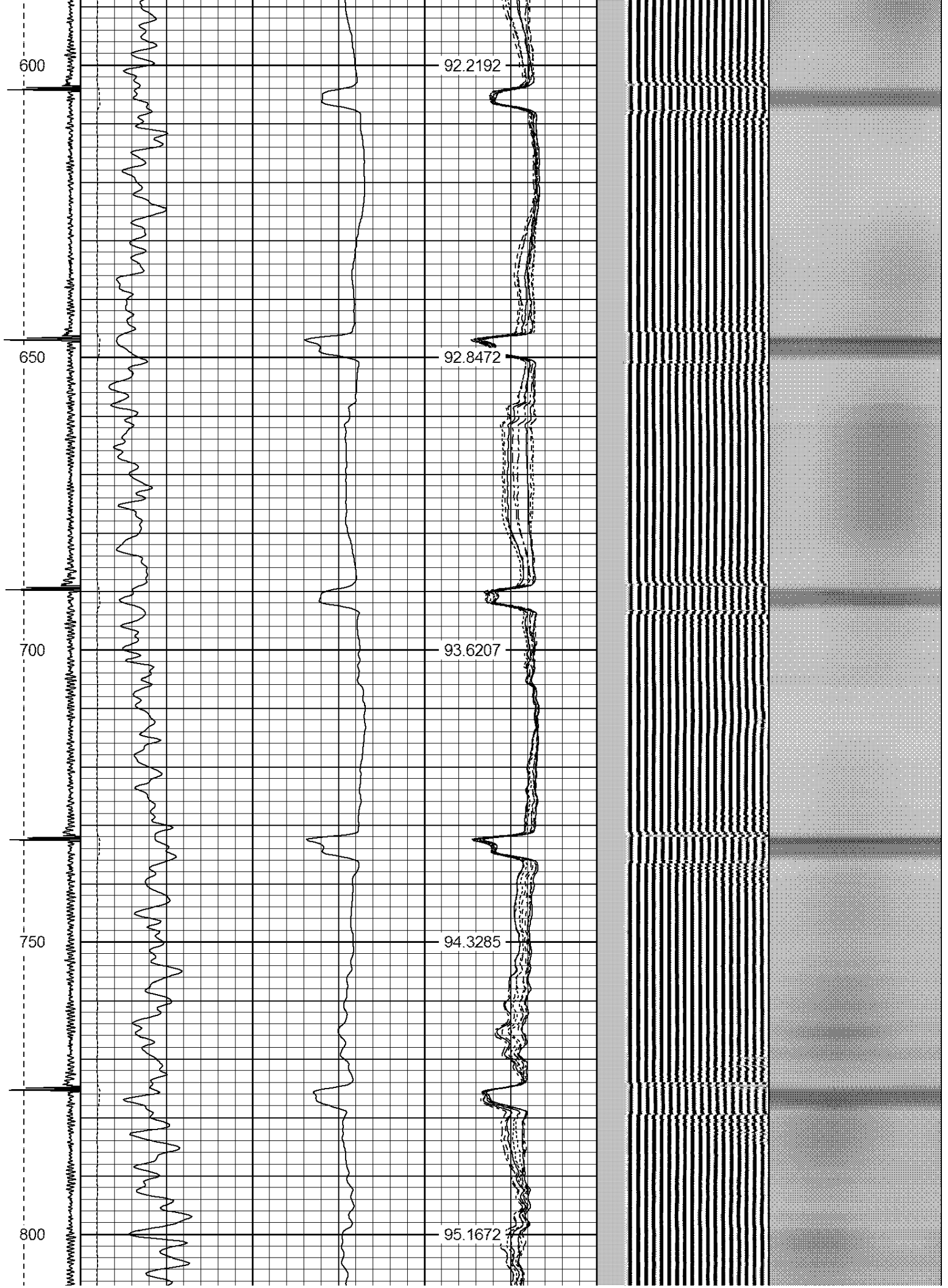
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 Dataset Pathname: pass36
 Presentation Format: ips_rbt

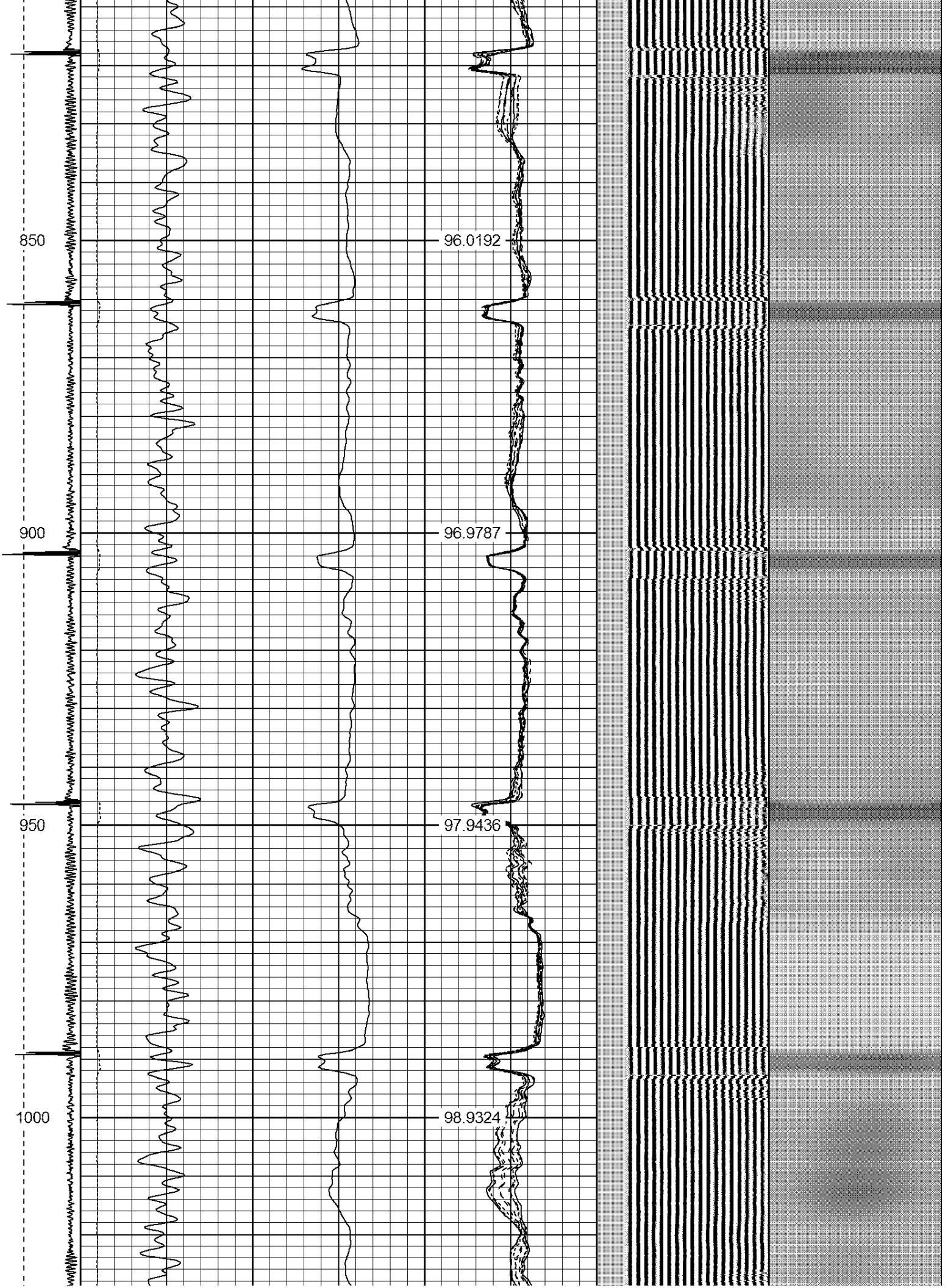
-9	CCL	1	200	TT (usec)	800	0	AMP (mV)	100	0	AMPS1	100	200	VDL	1200	1	Cement Map	8
	LSPD		0	GR (GAPI)	200	0	AMPx5 (mV)	20	0	AMPS2	100				100		1
	(ft/min)		200	GR (GAPI)	400					AMPS3	100						
0		250								AMPS4	100						
										AMPS5	100						
										AMPS6	100						
										AMPS7	100						
										AMPS8	100						
										IntTemp							
										(degF)							

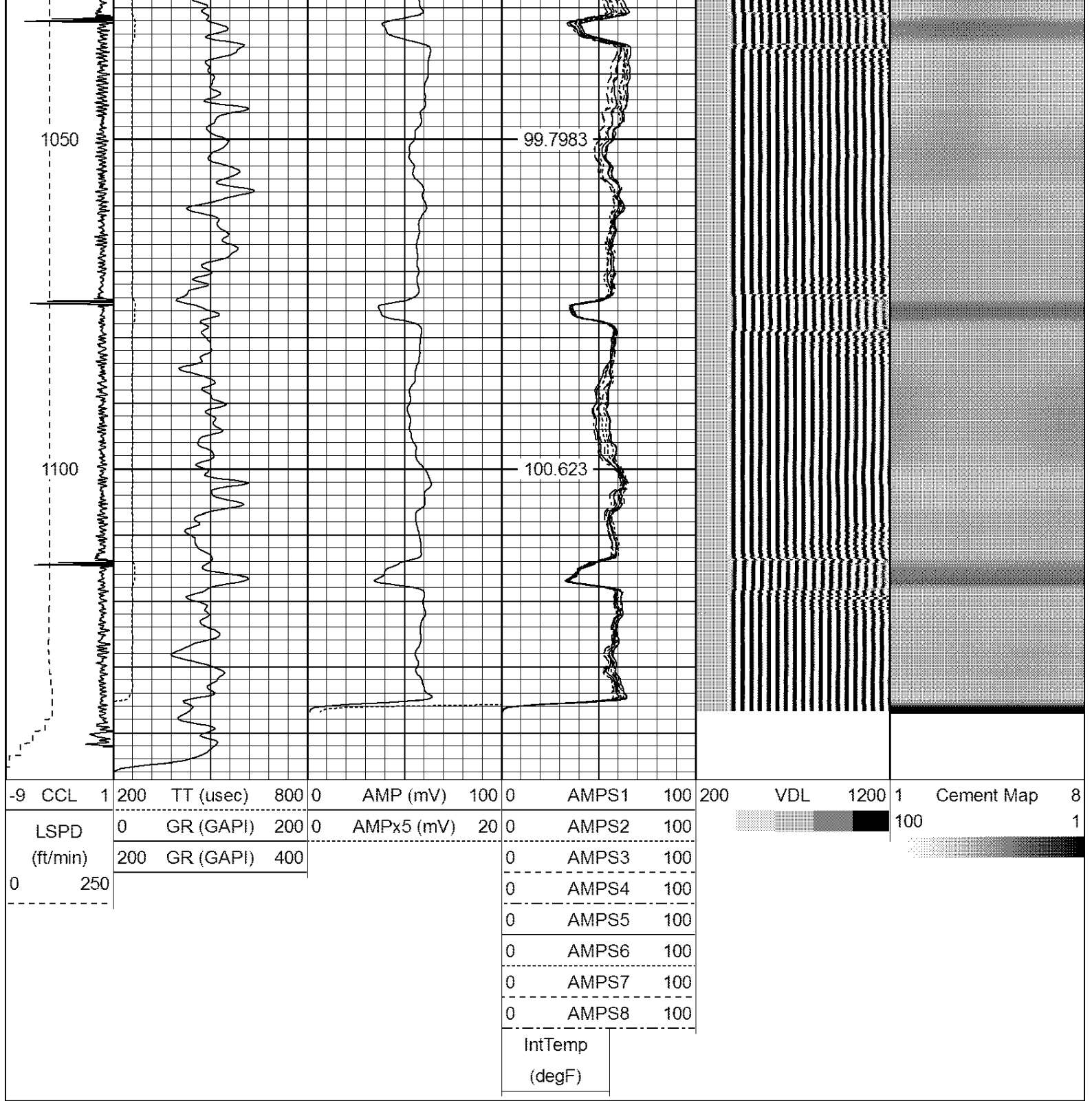




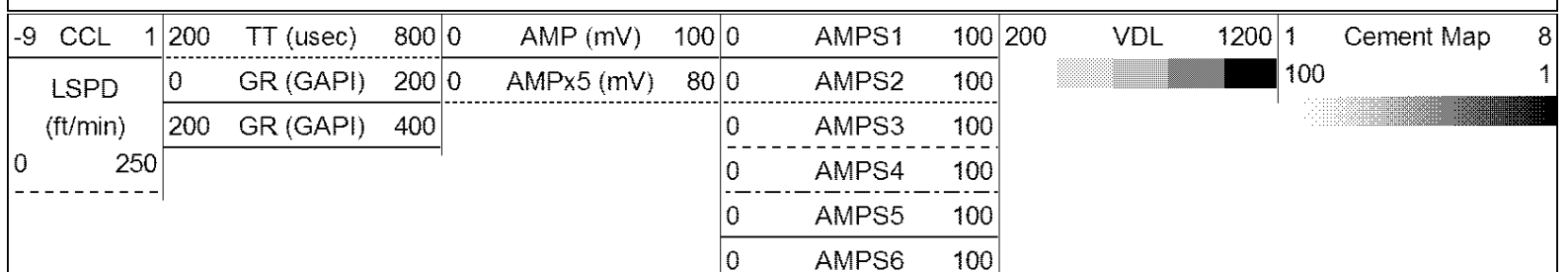








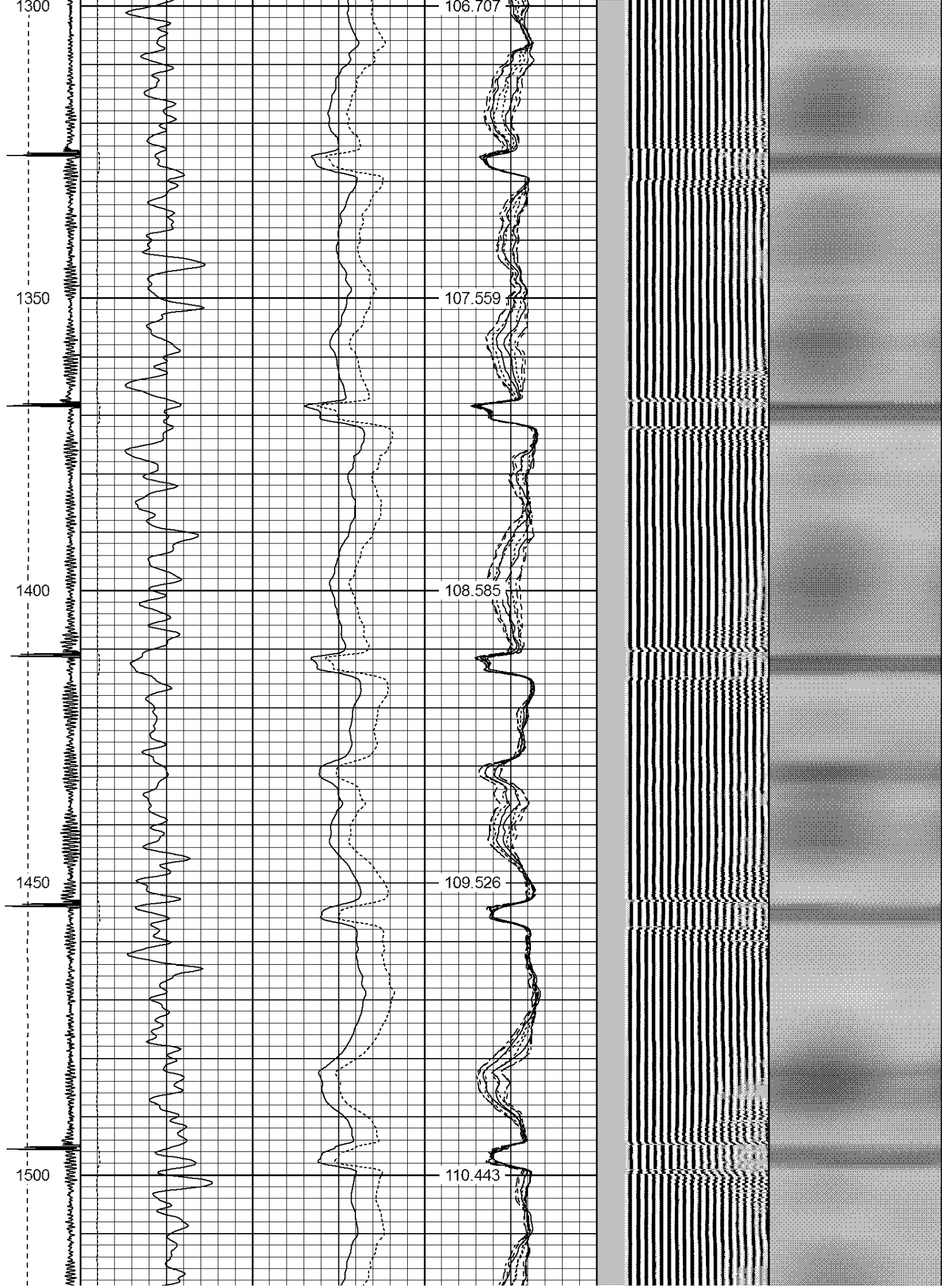
Database File: bernhardt pc j 31-31d.db
 Dataset Pathname: pass34
 Presentation Format: ips_rbt
 Dataset Creation: Mon Aug 19 13:28:18 2019 by Log SCH 120126
 Charted by: Depth in Feet scaled 1:240

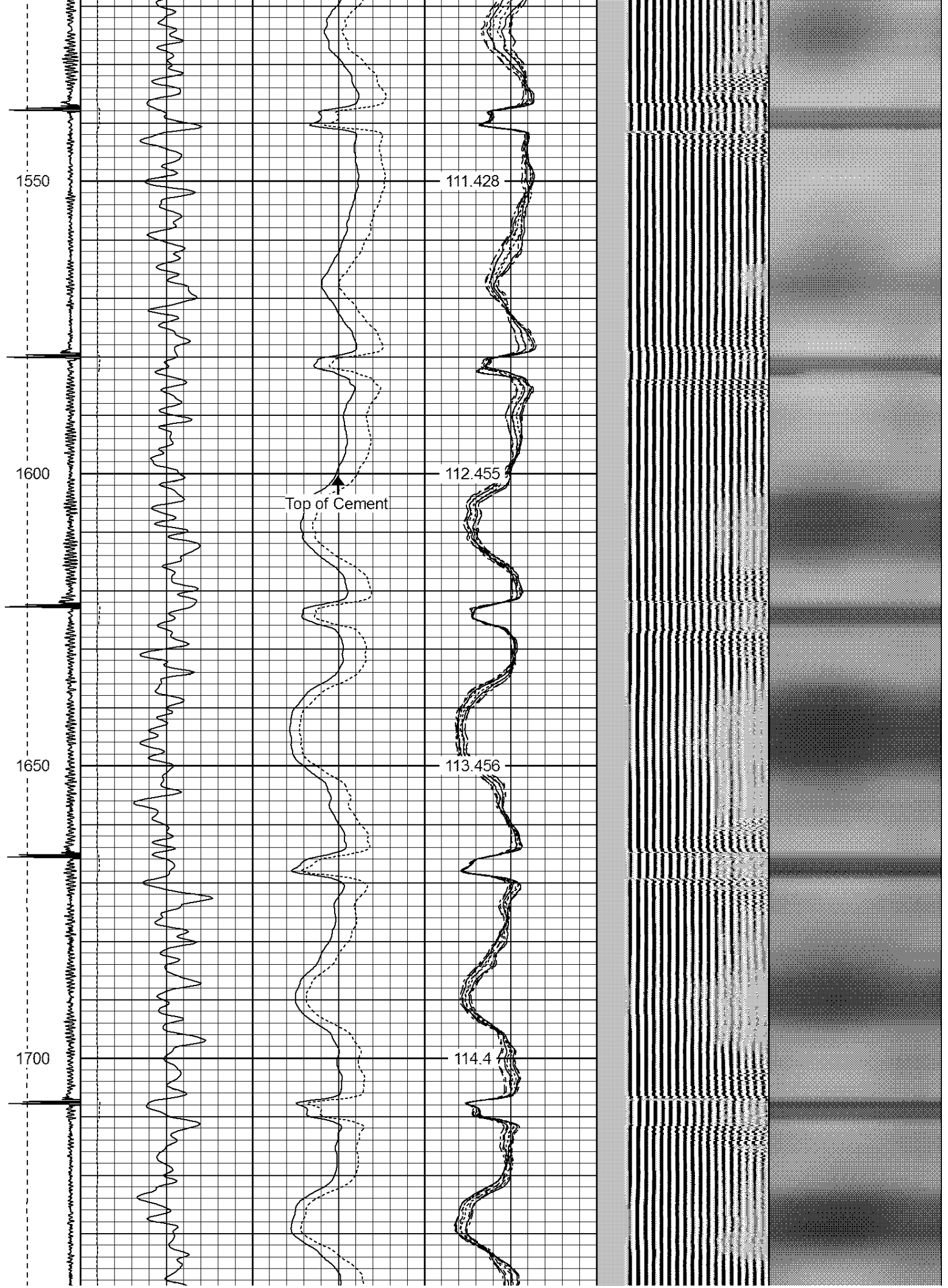


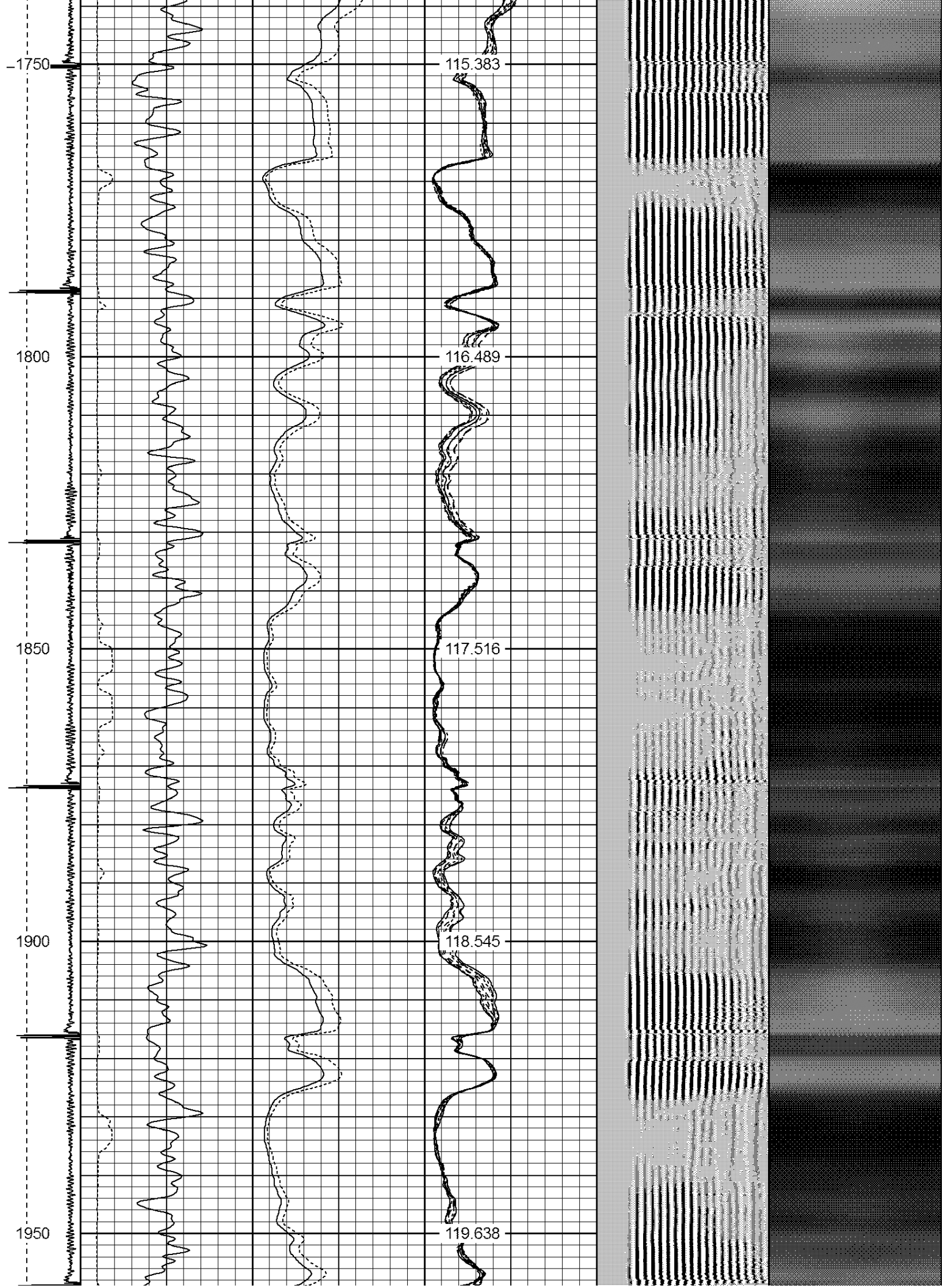
0 AMPS7 100
0 AMPS8 100

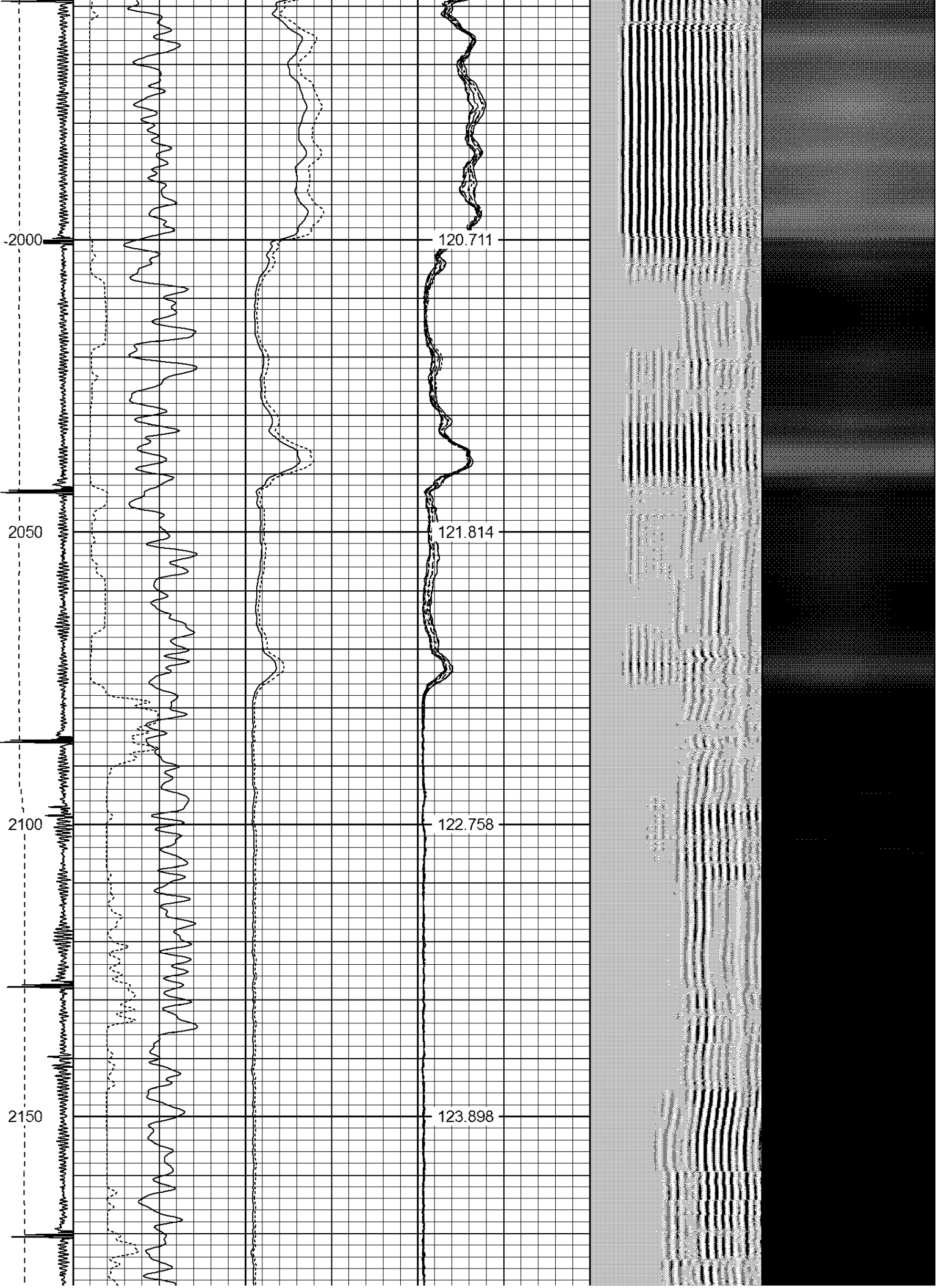
IntTemp
(degF)











2200

124.8

2250

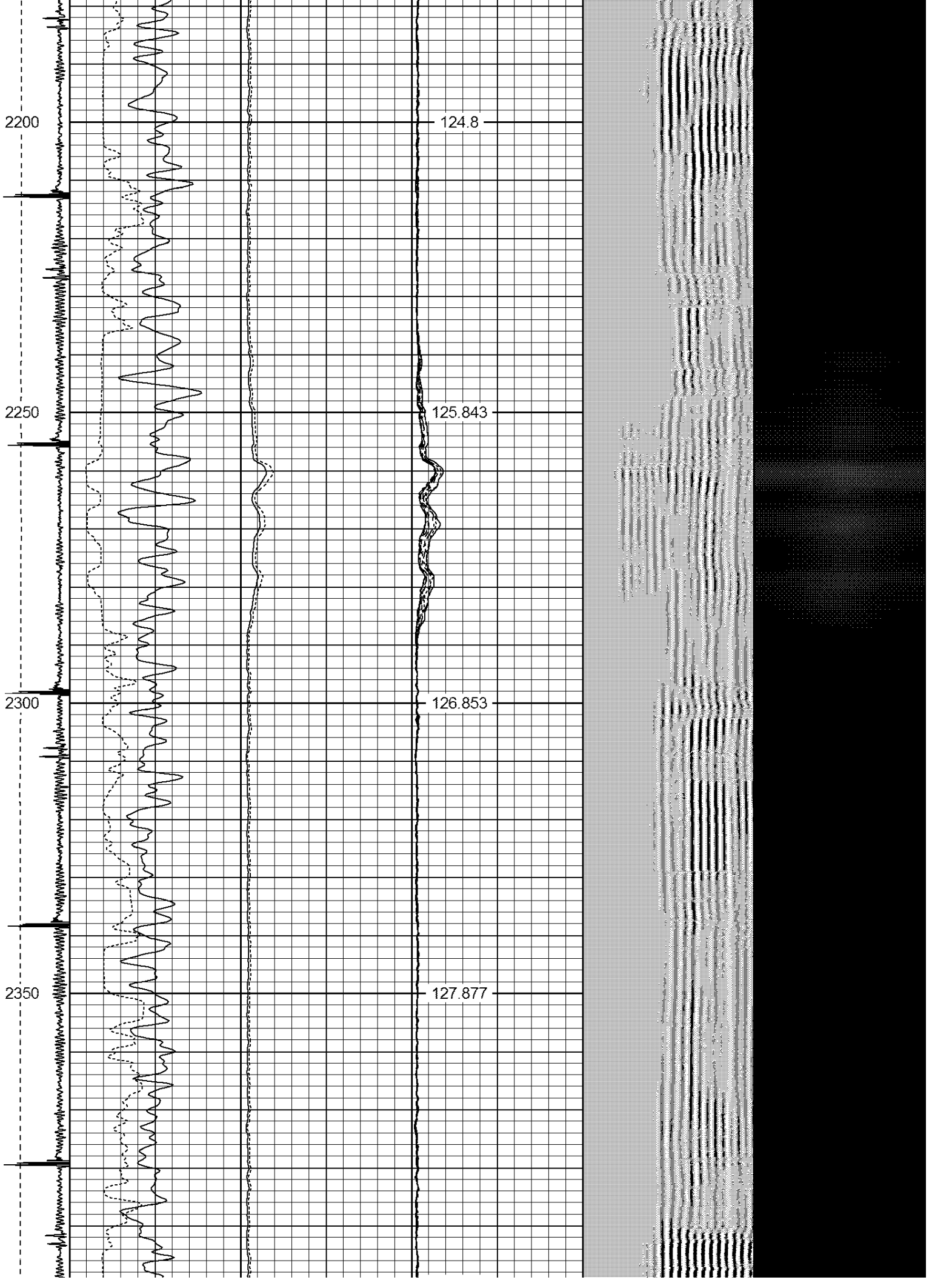
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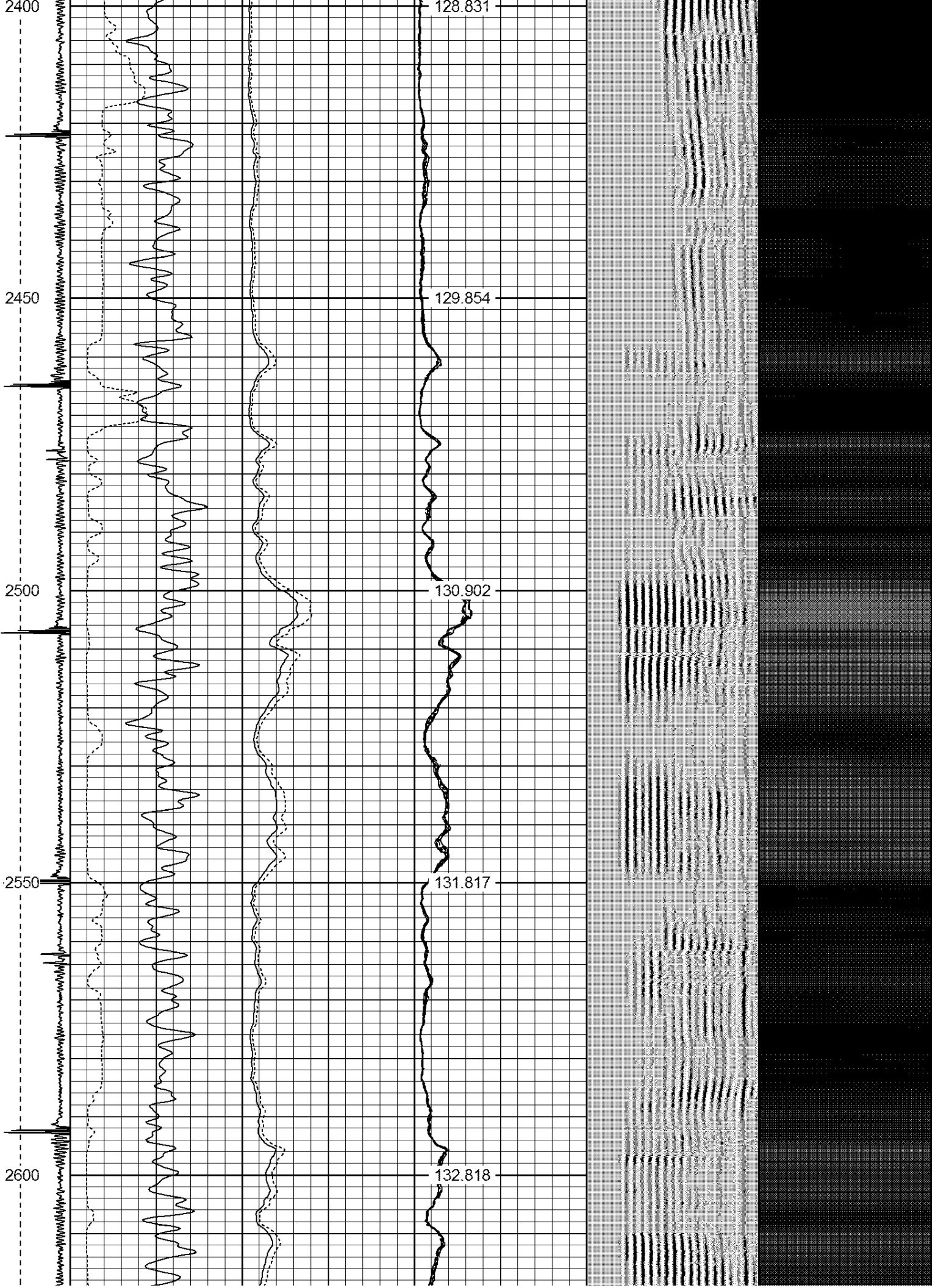
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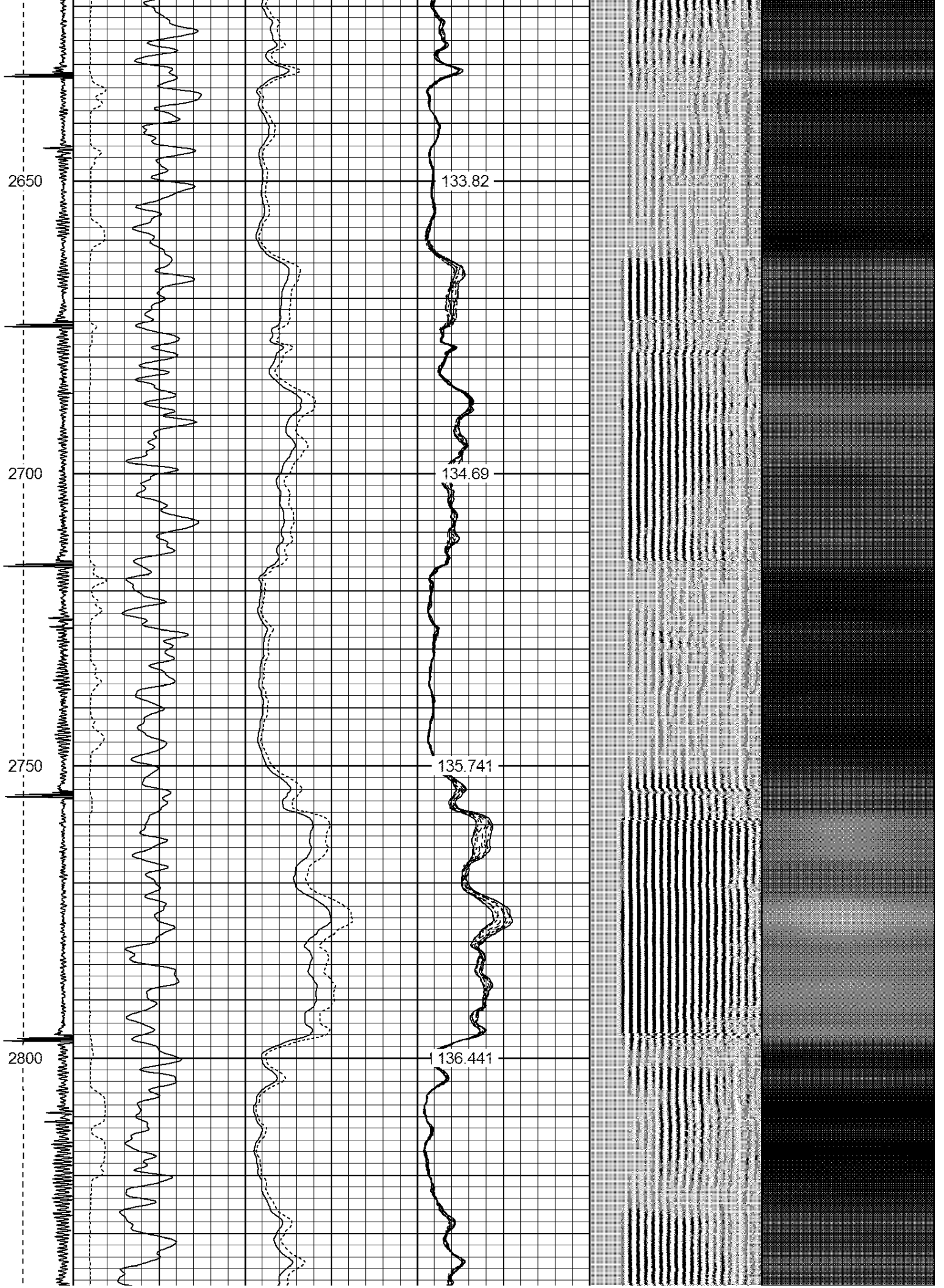
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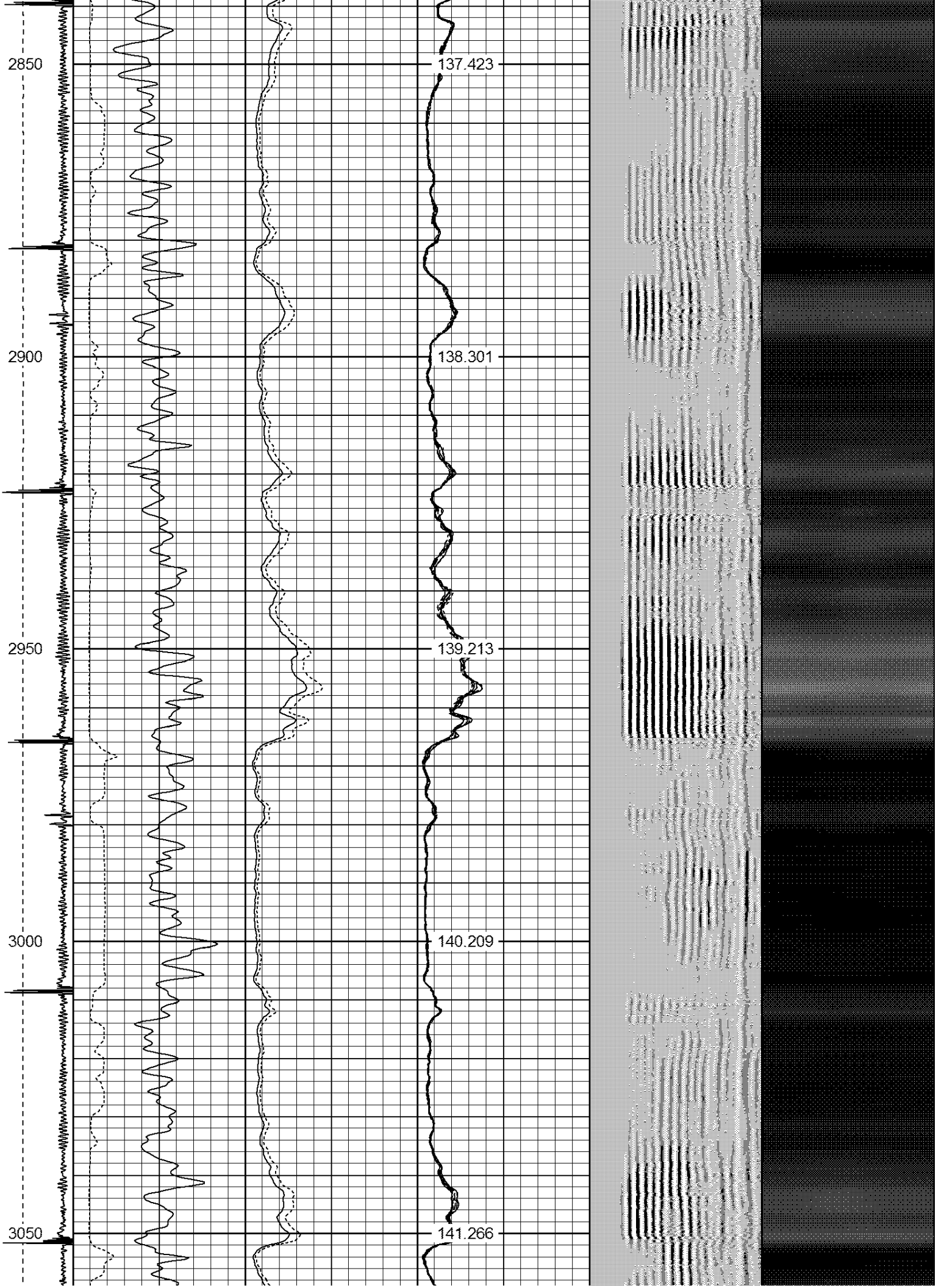
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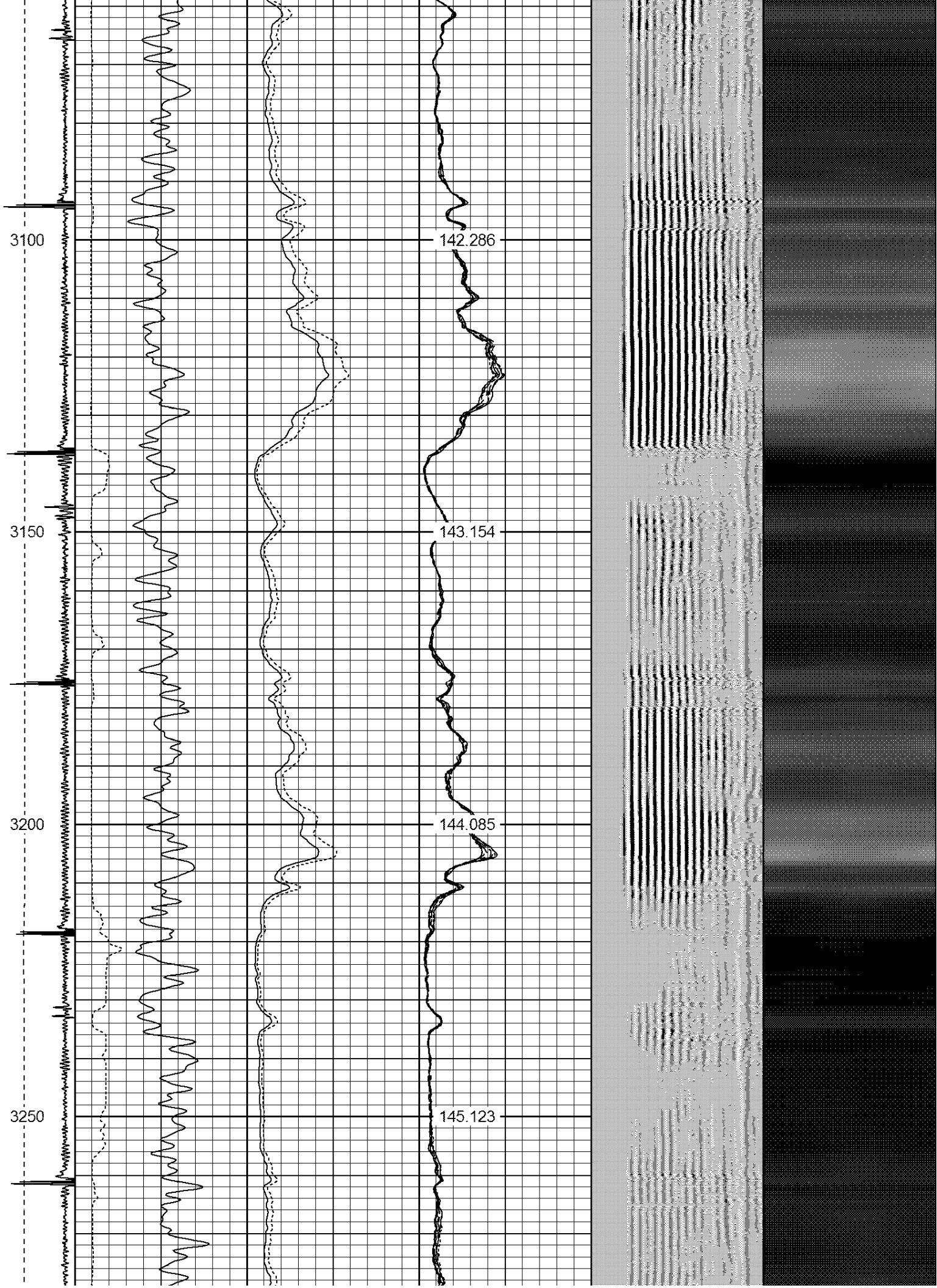
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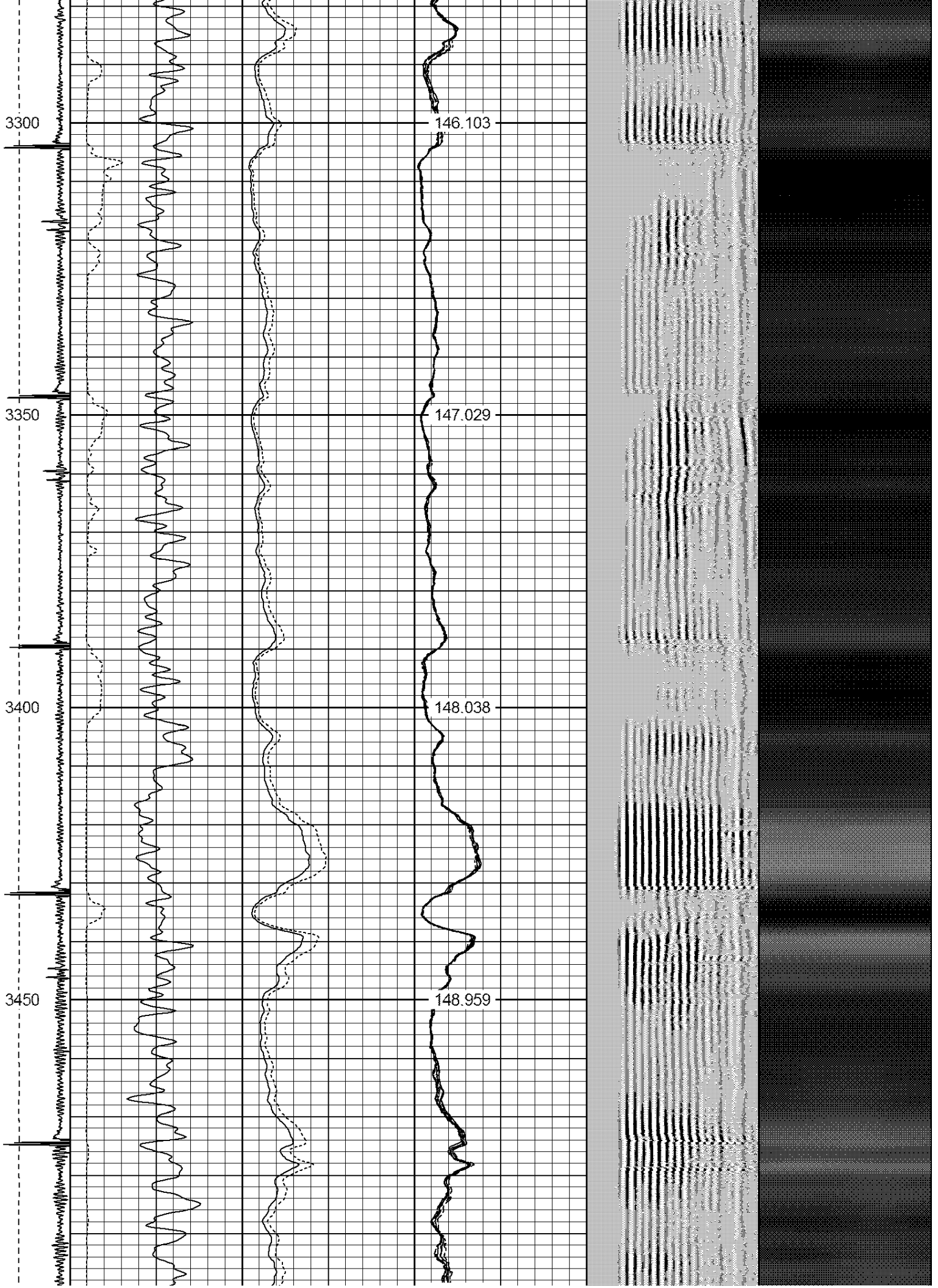


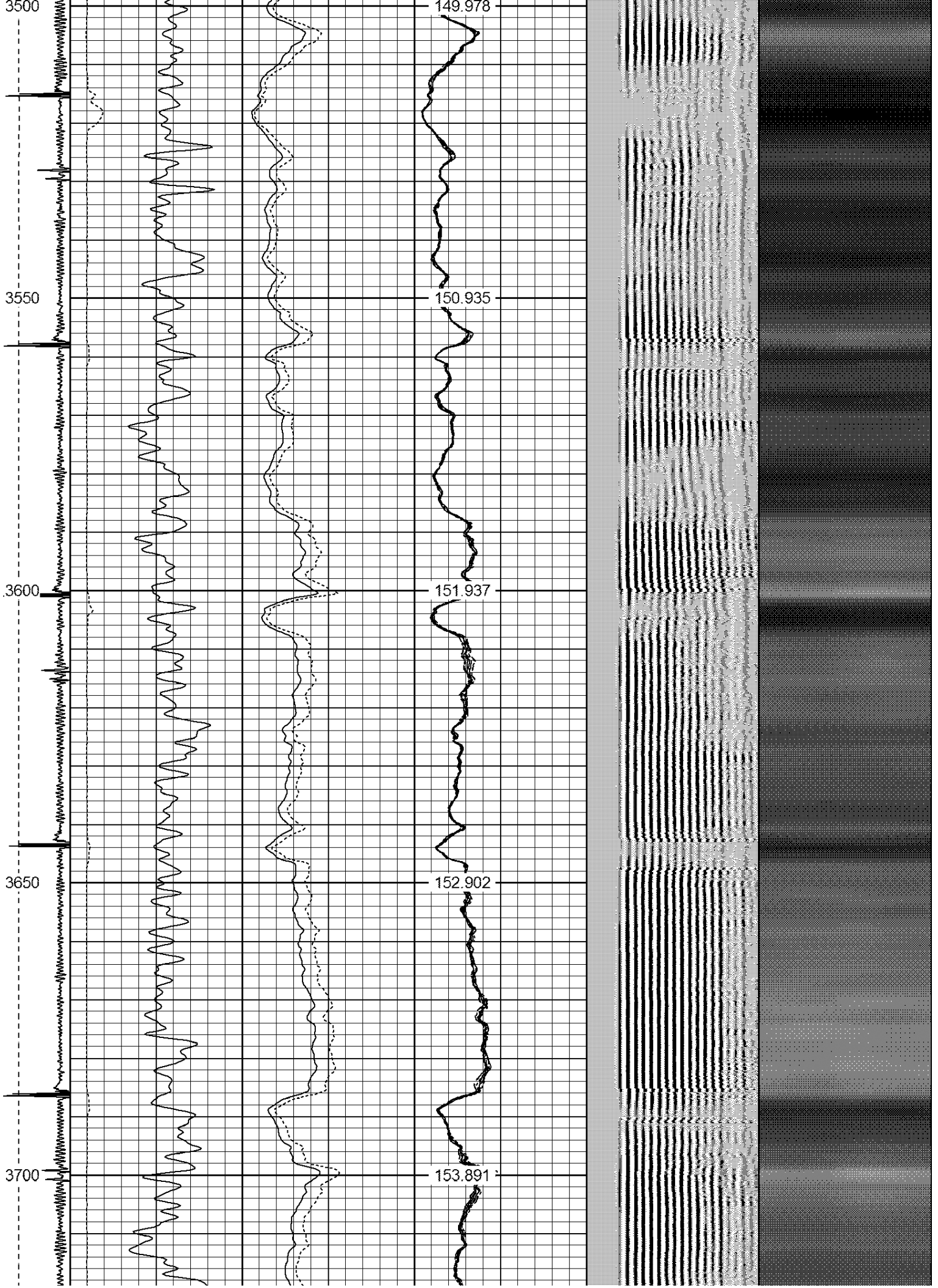












3750

154.932

3800

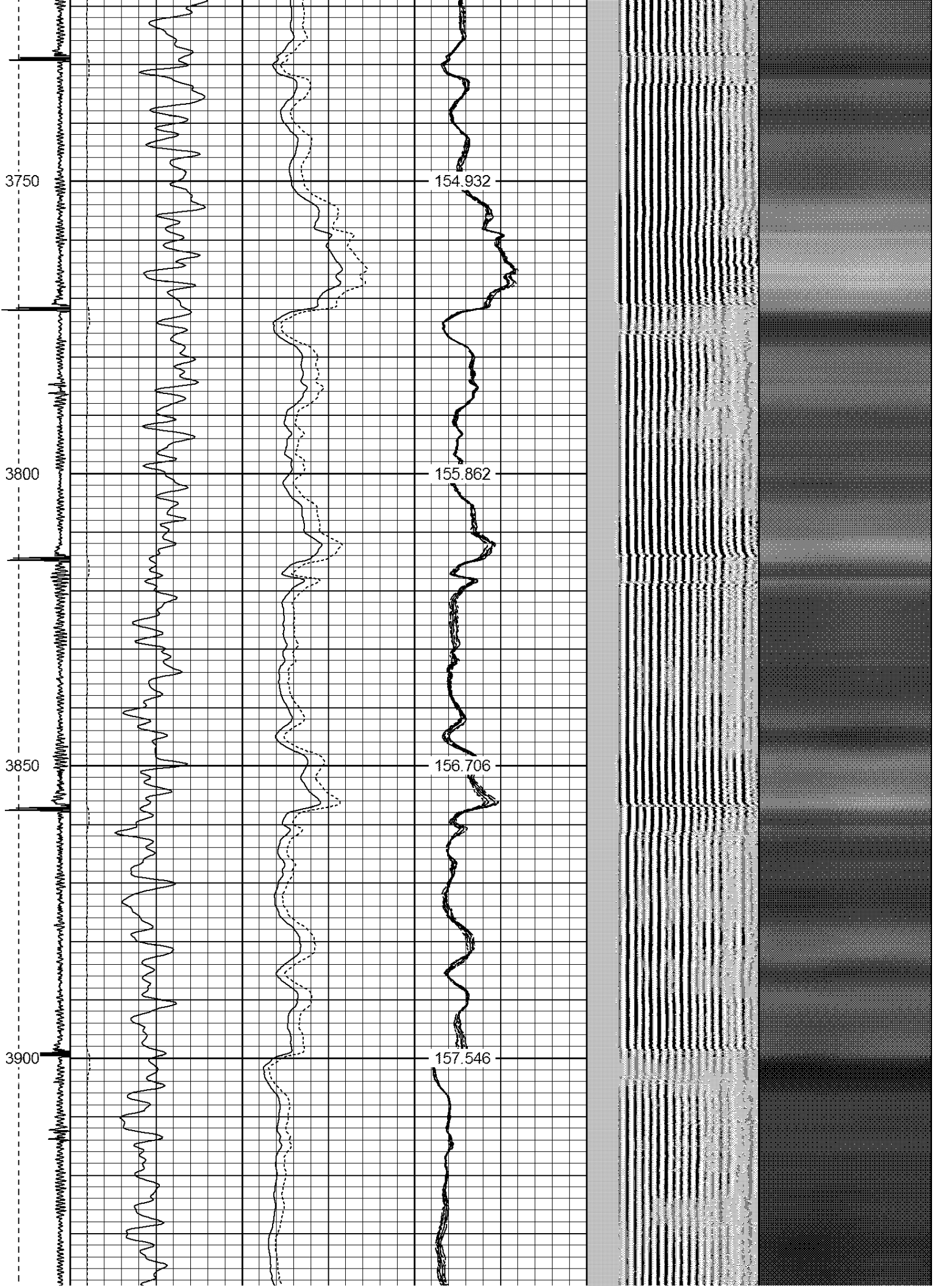
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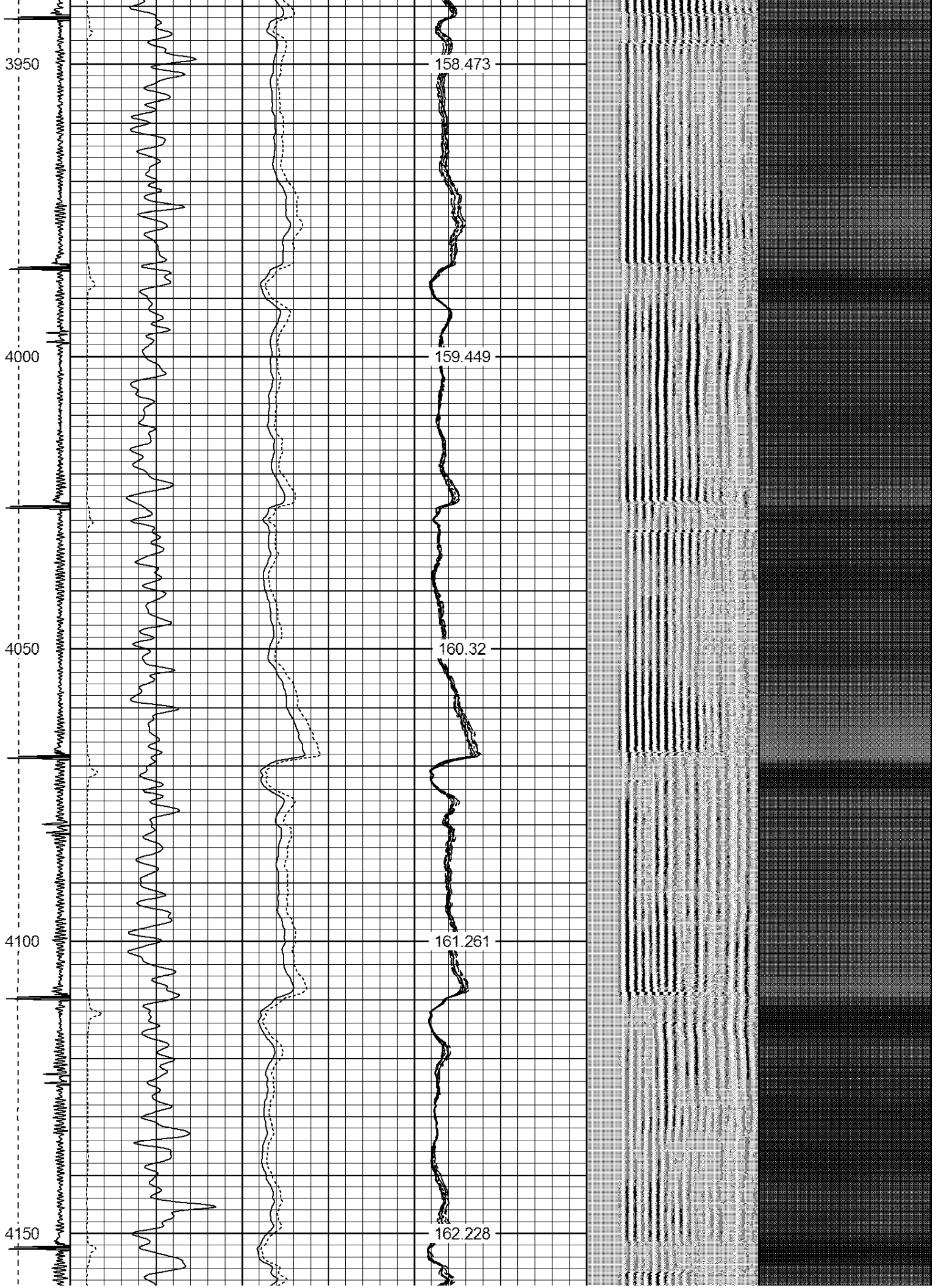
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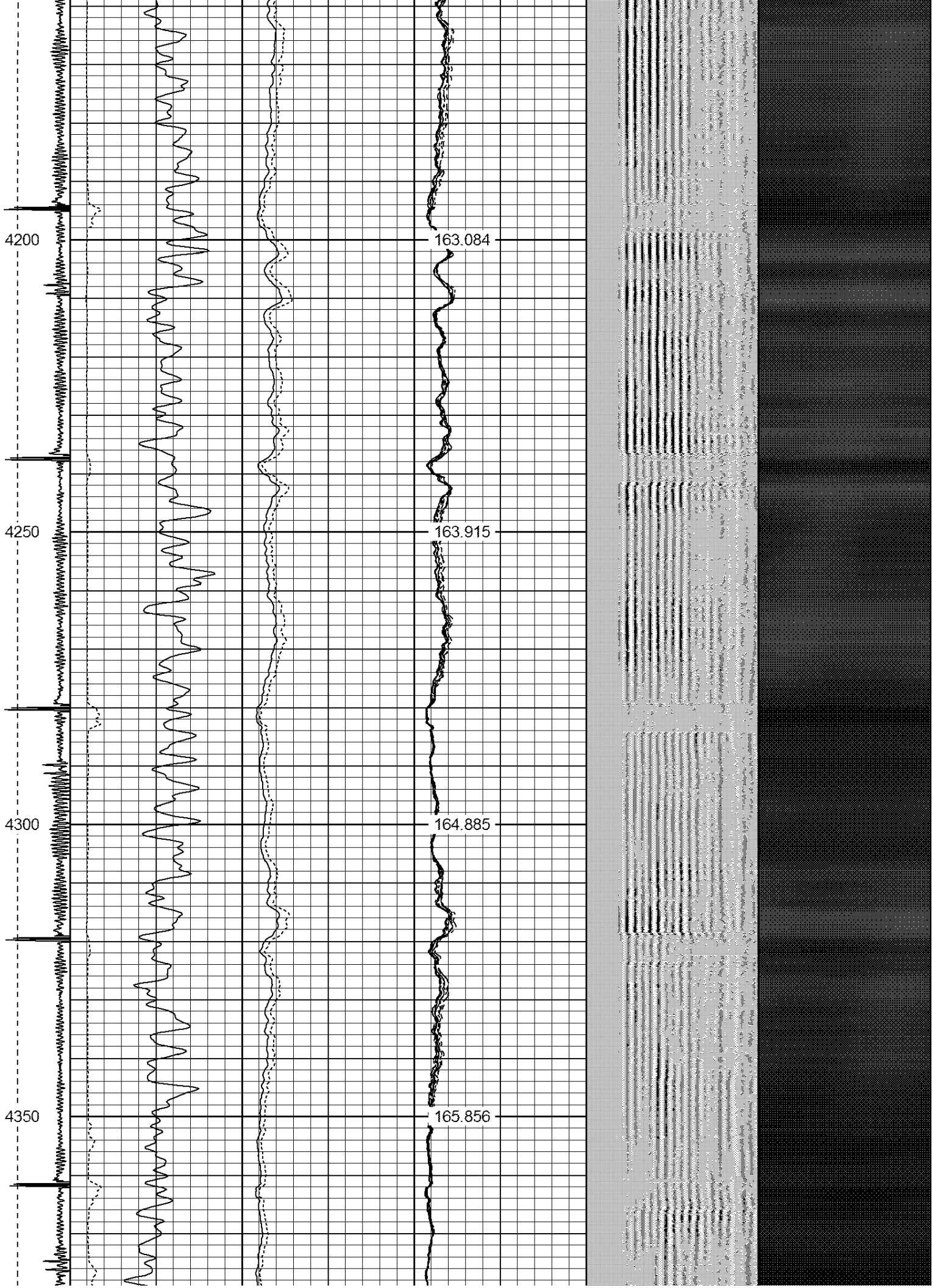
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3900

157.546







4400

166.581

4450

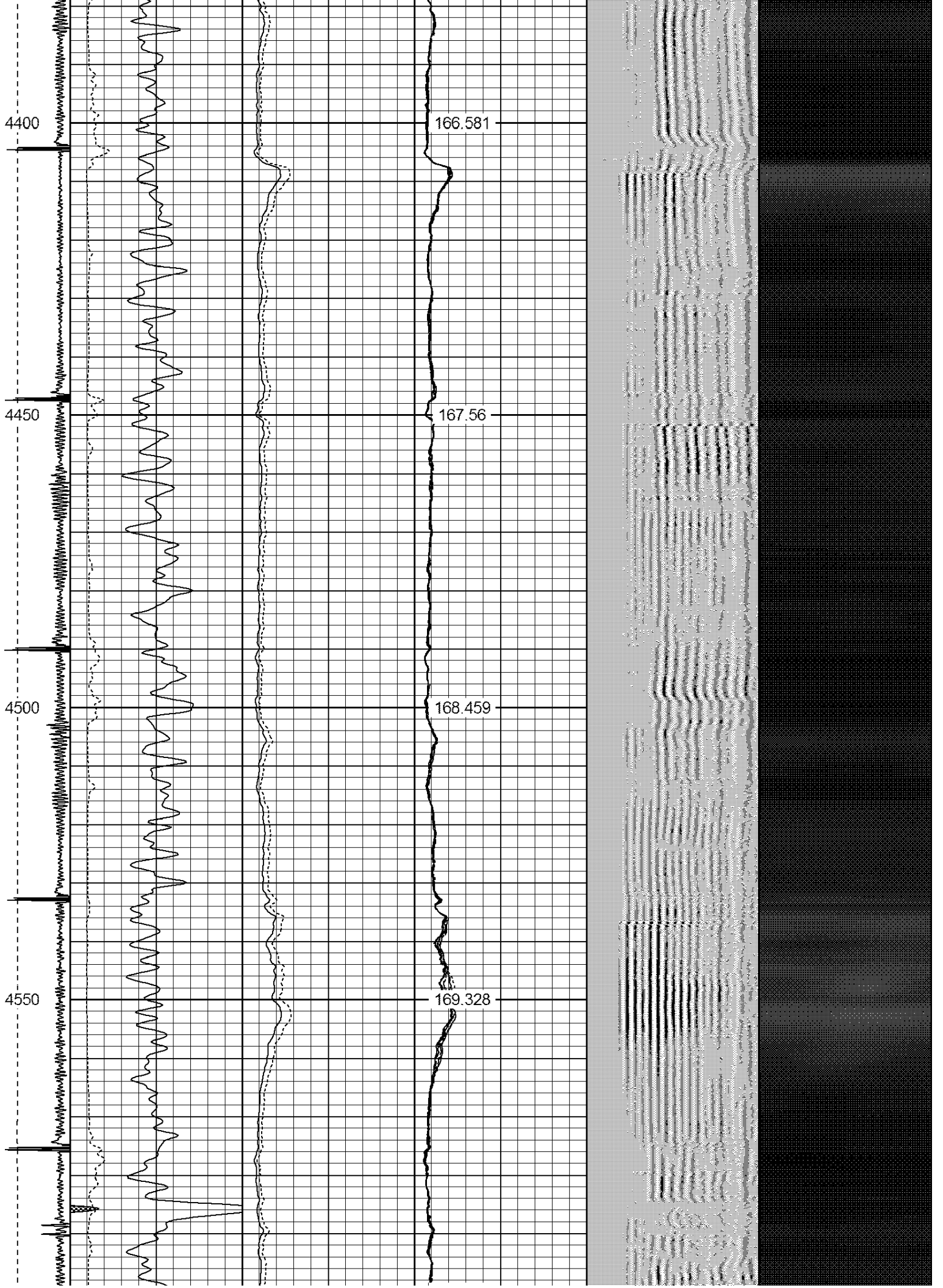
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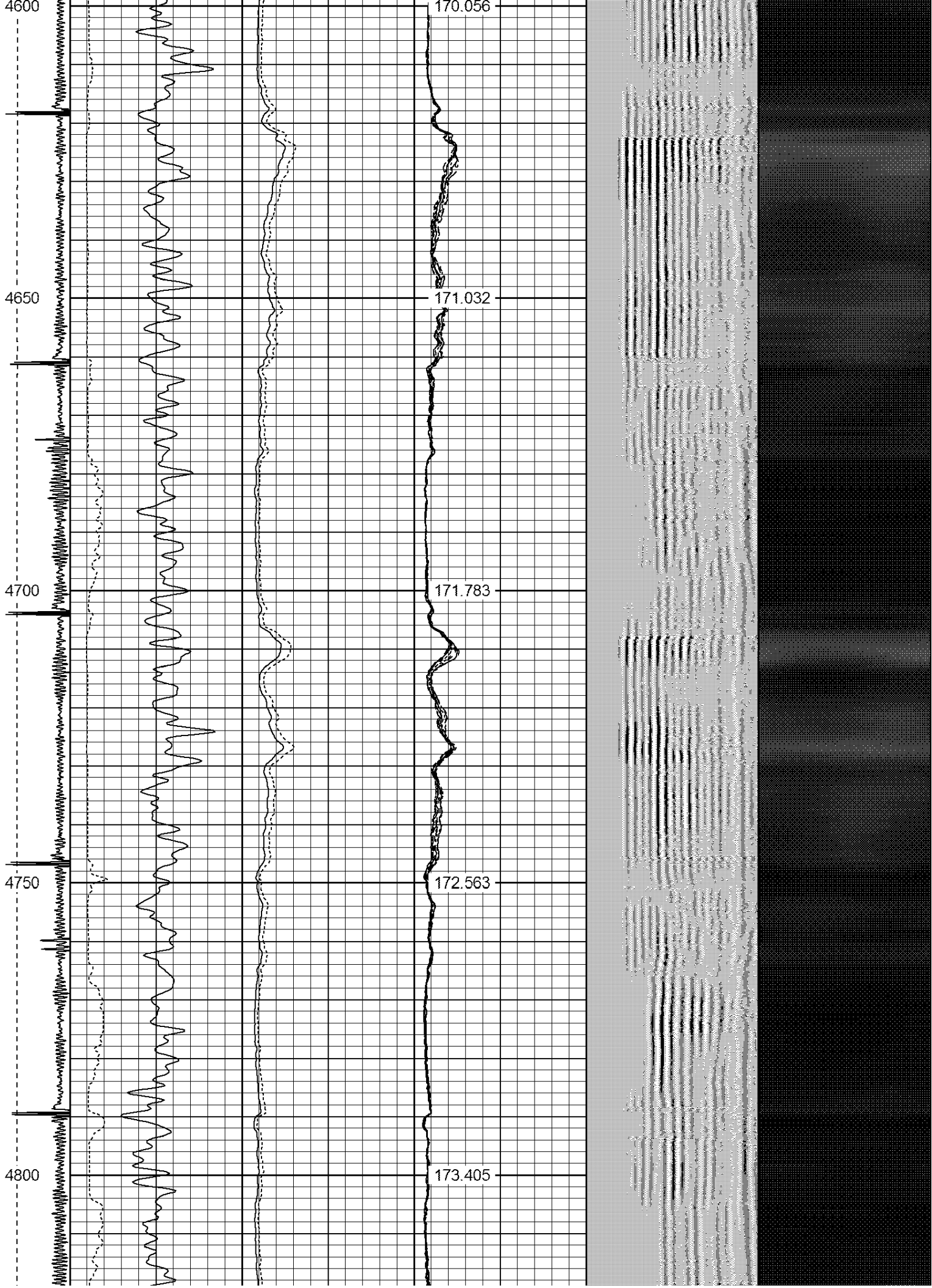
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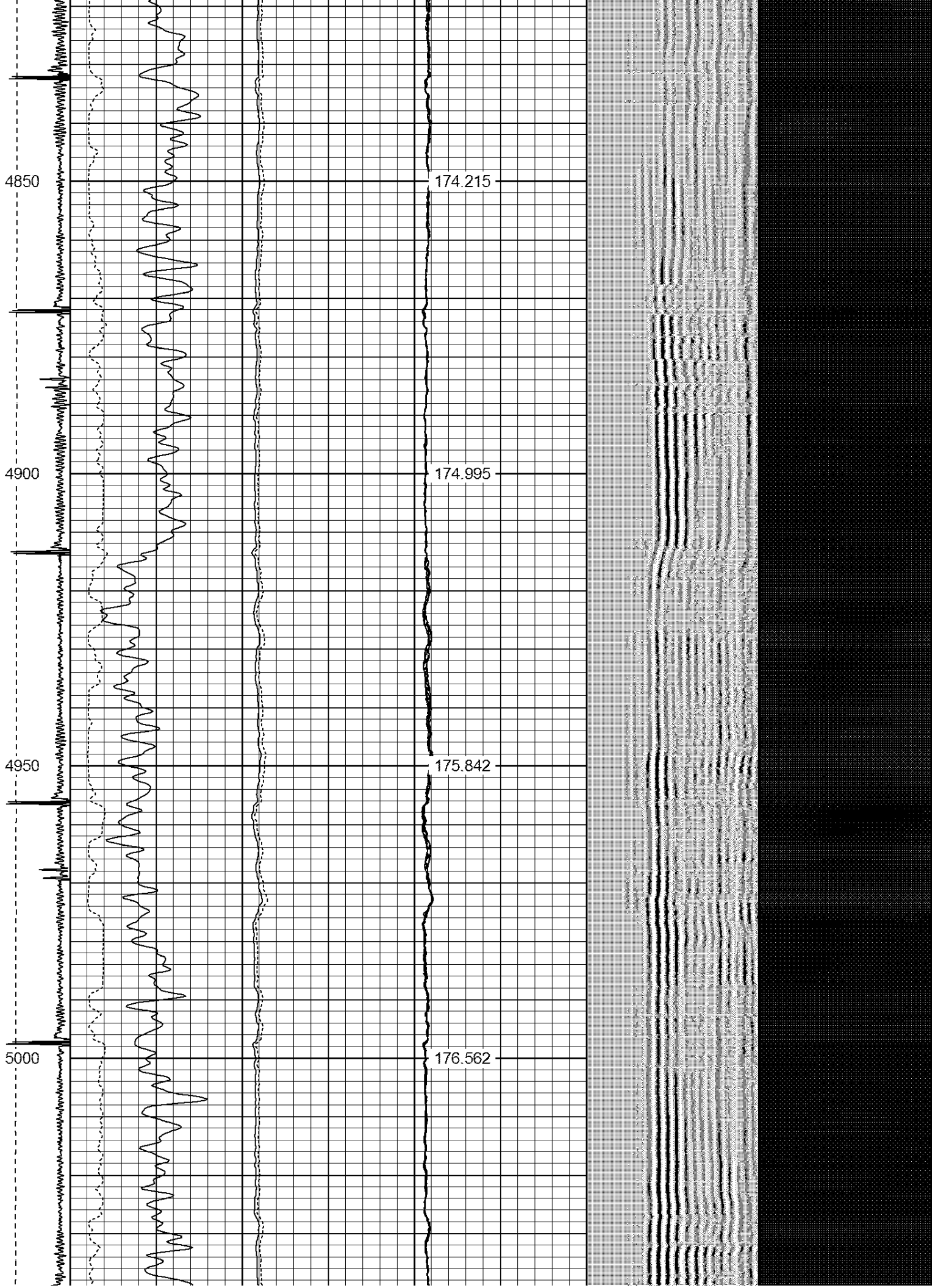
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4550

169.328









5500

184.718

5550

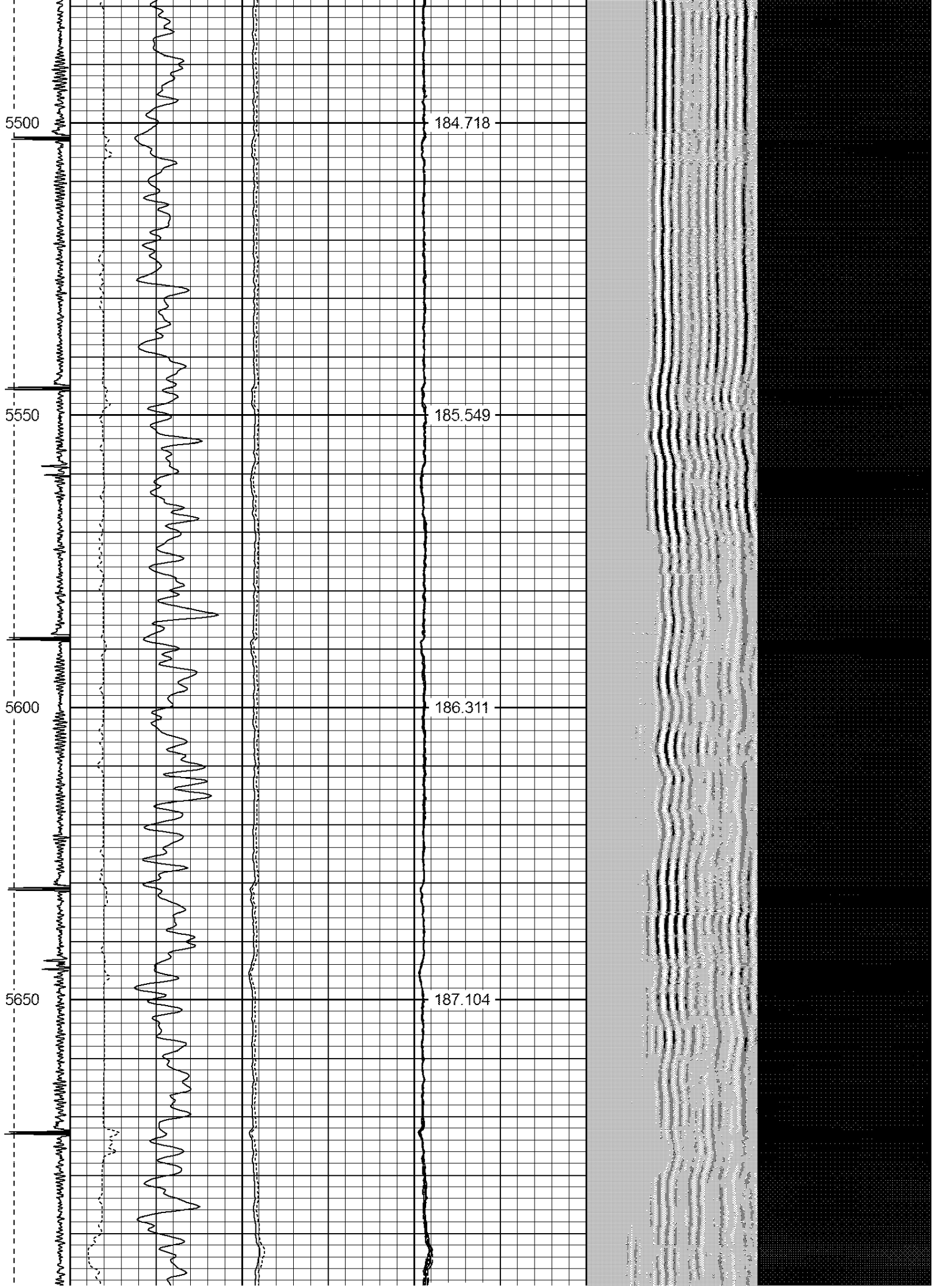
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5600

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5650

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5700

187.897

5750

188.595

5800

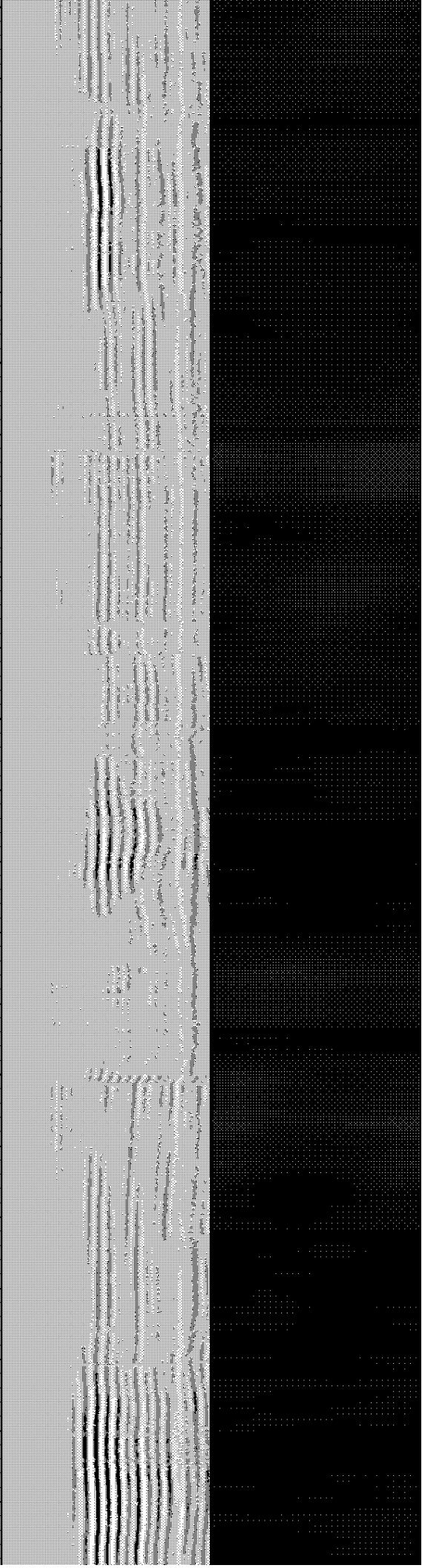
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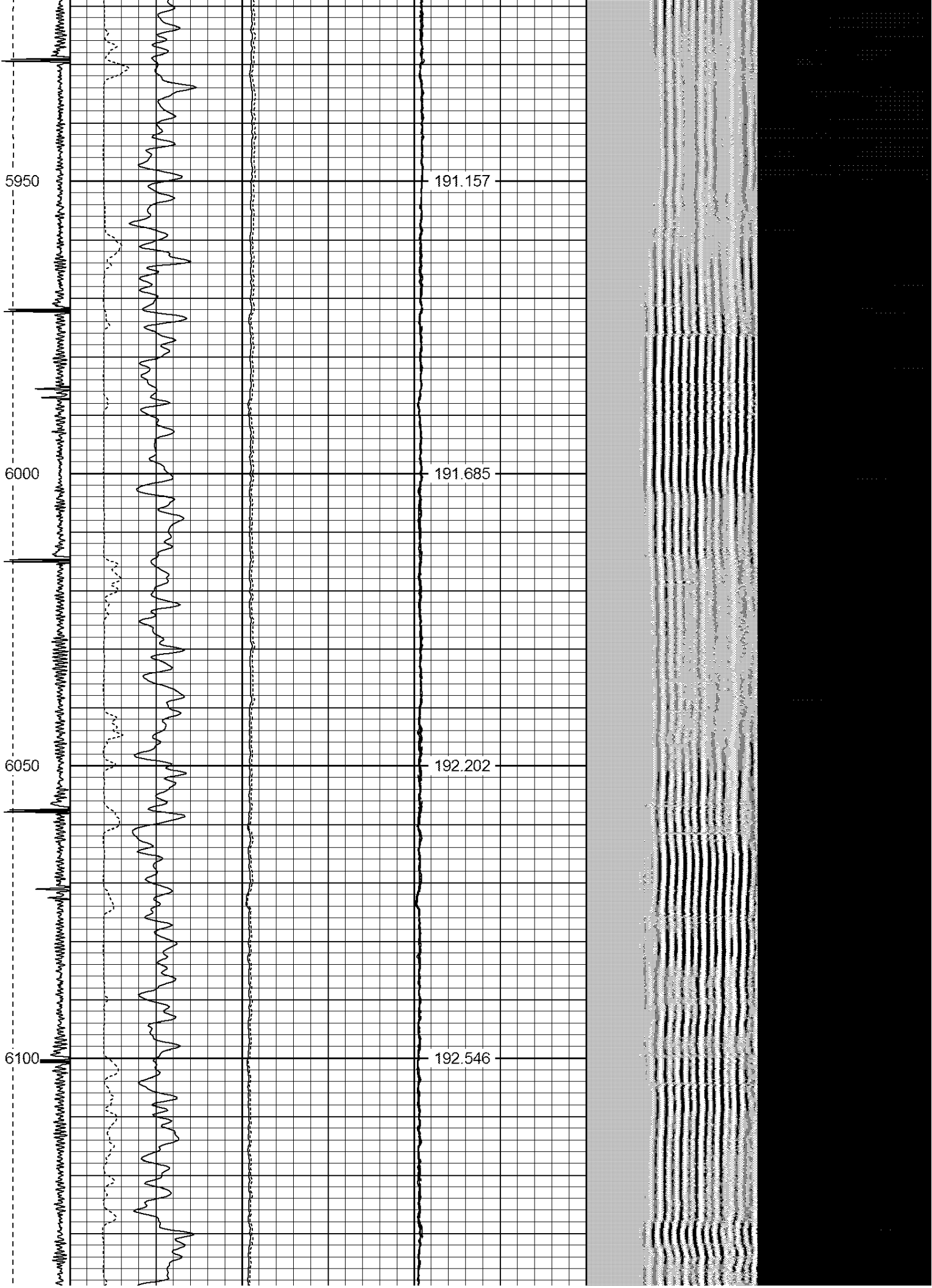
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5900

190.671





6150

192.878

6200

193.166

6250

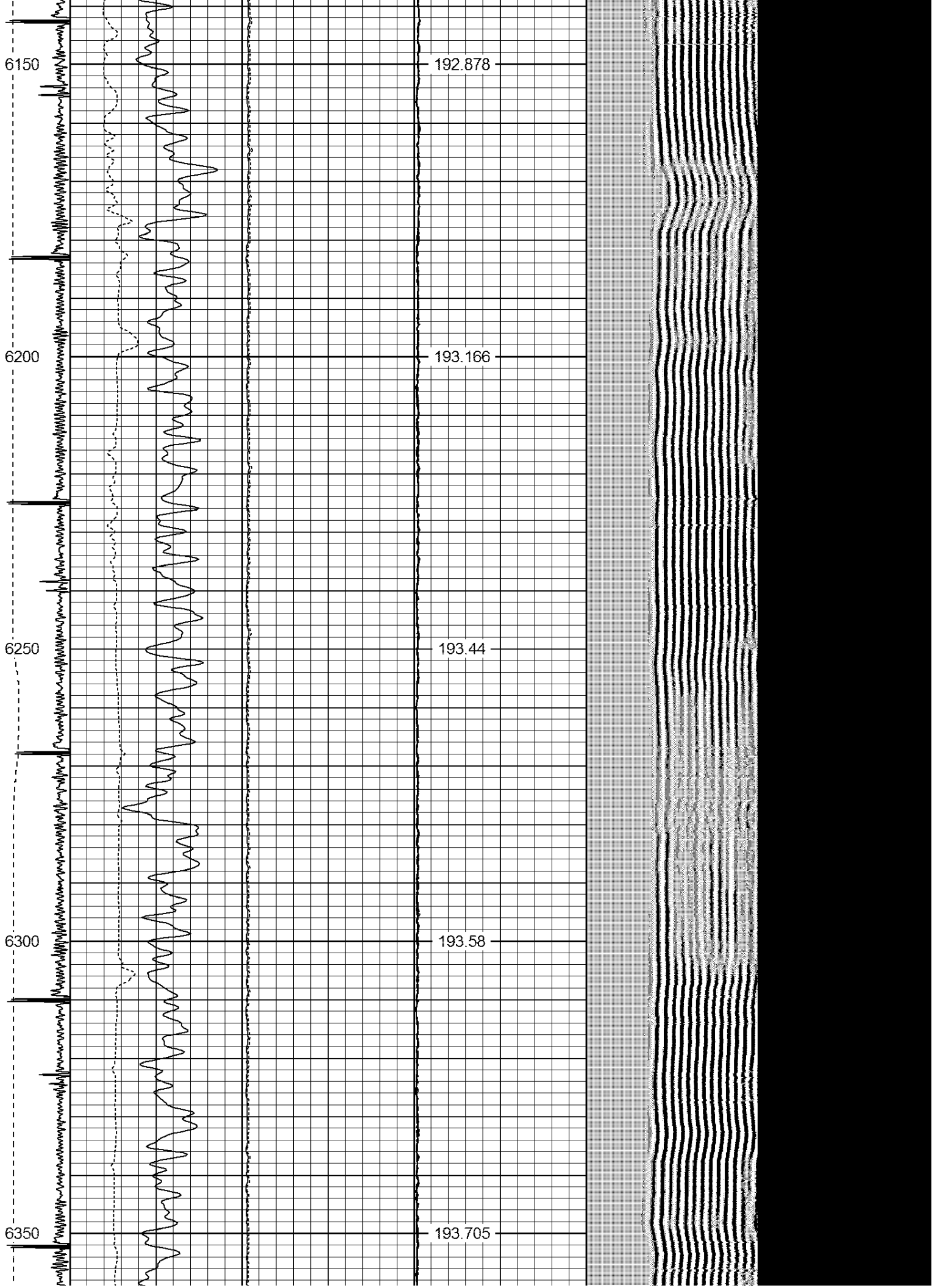
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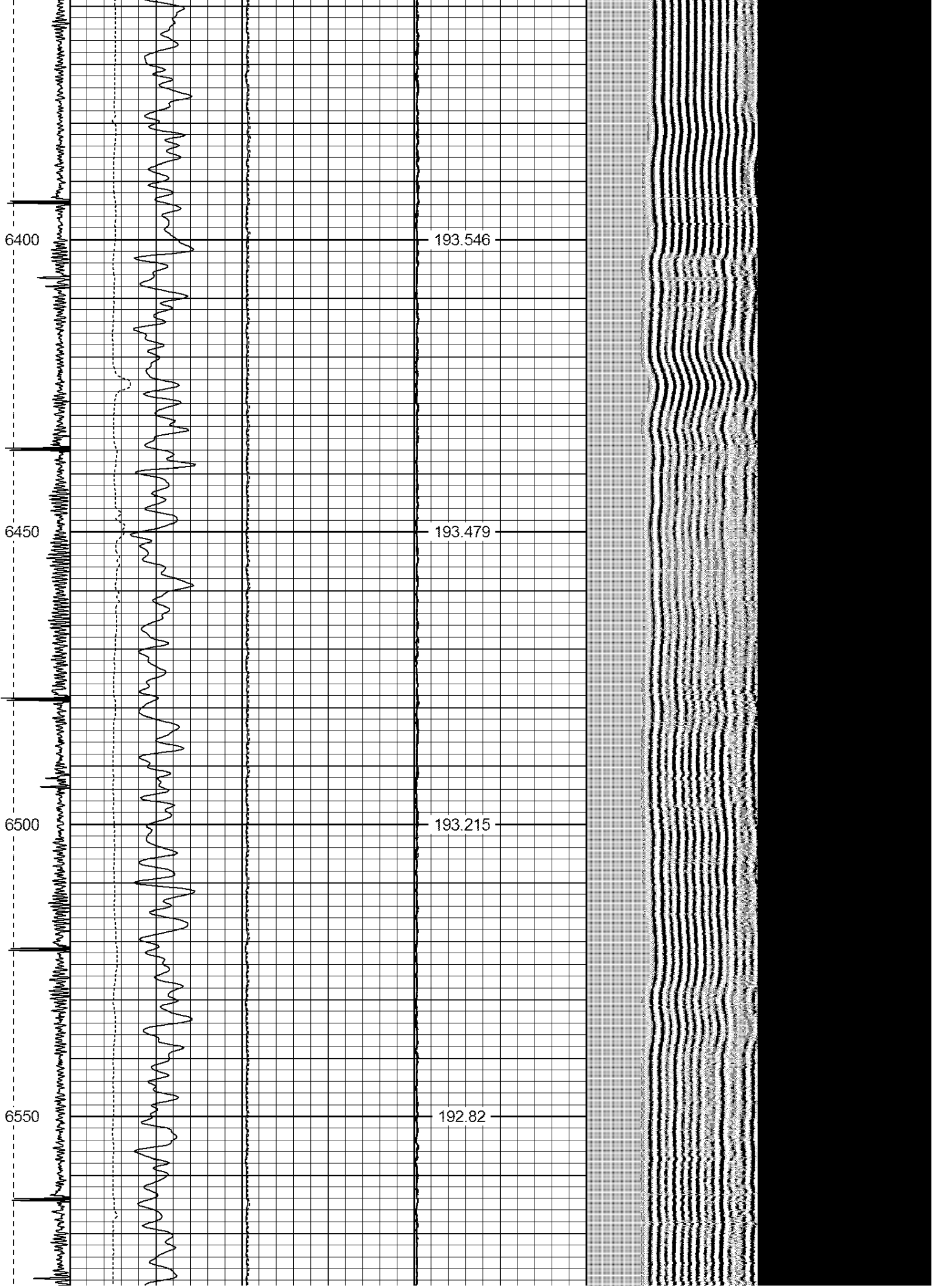
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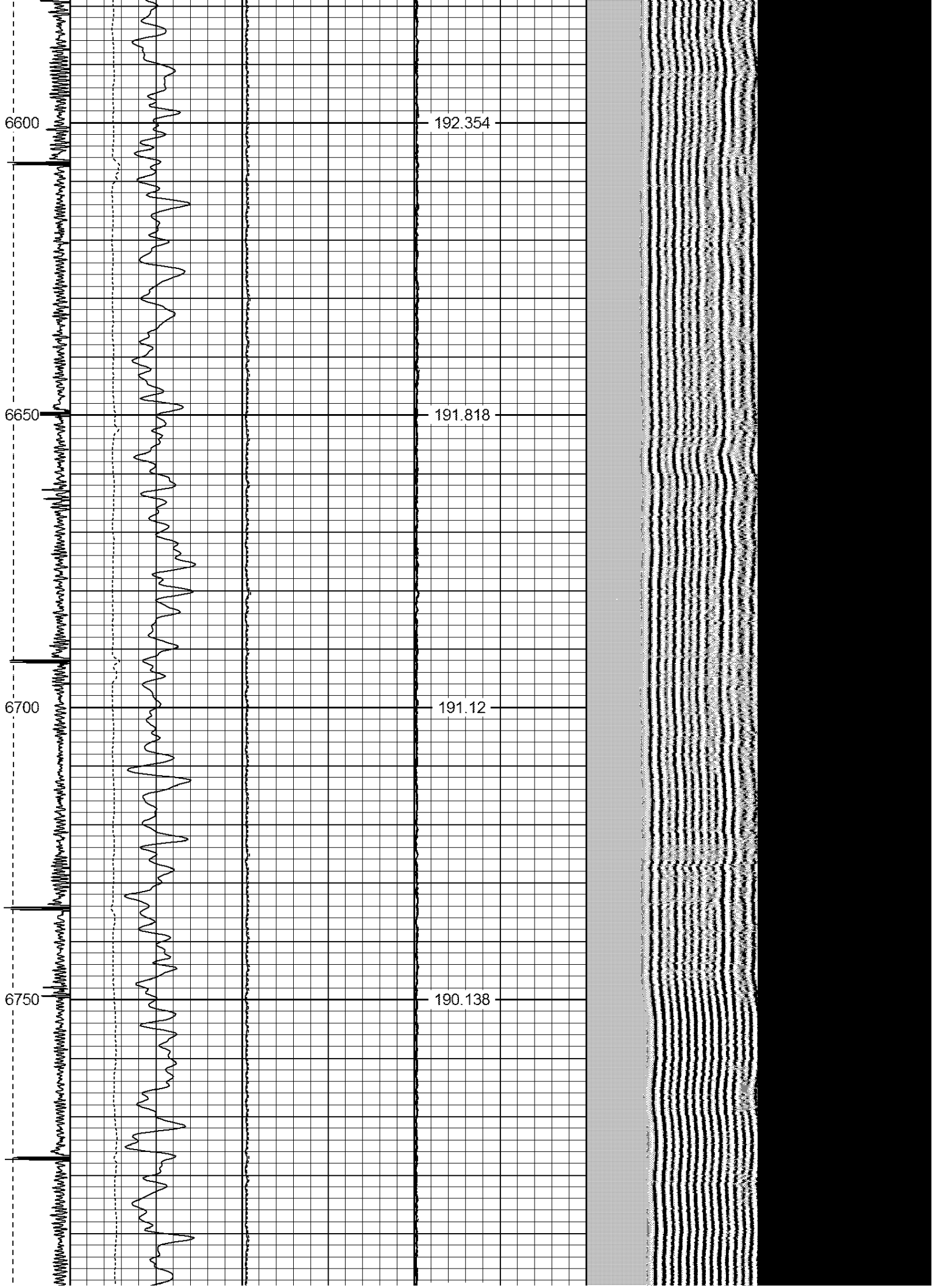
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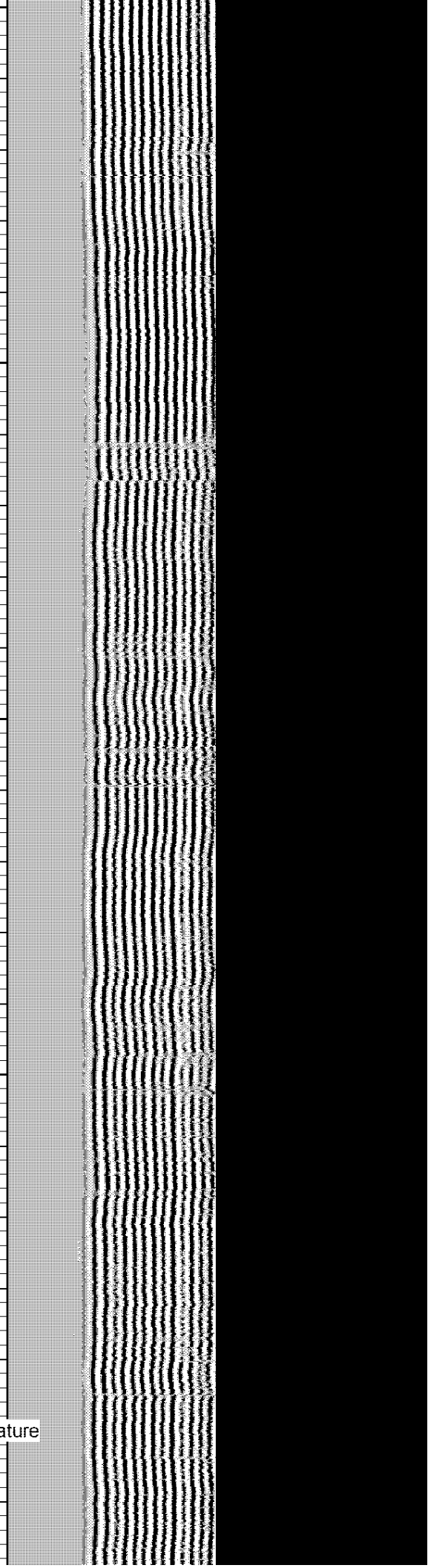
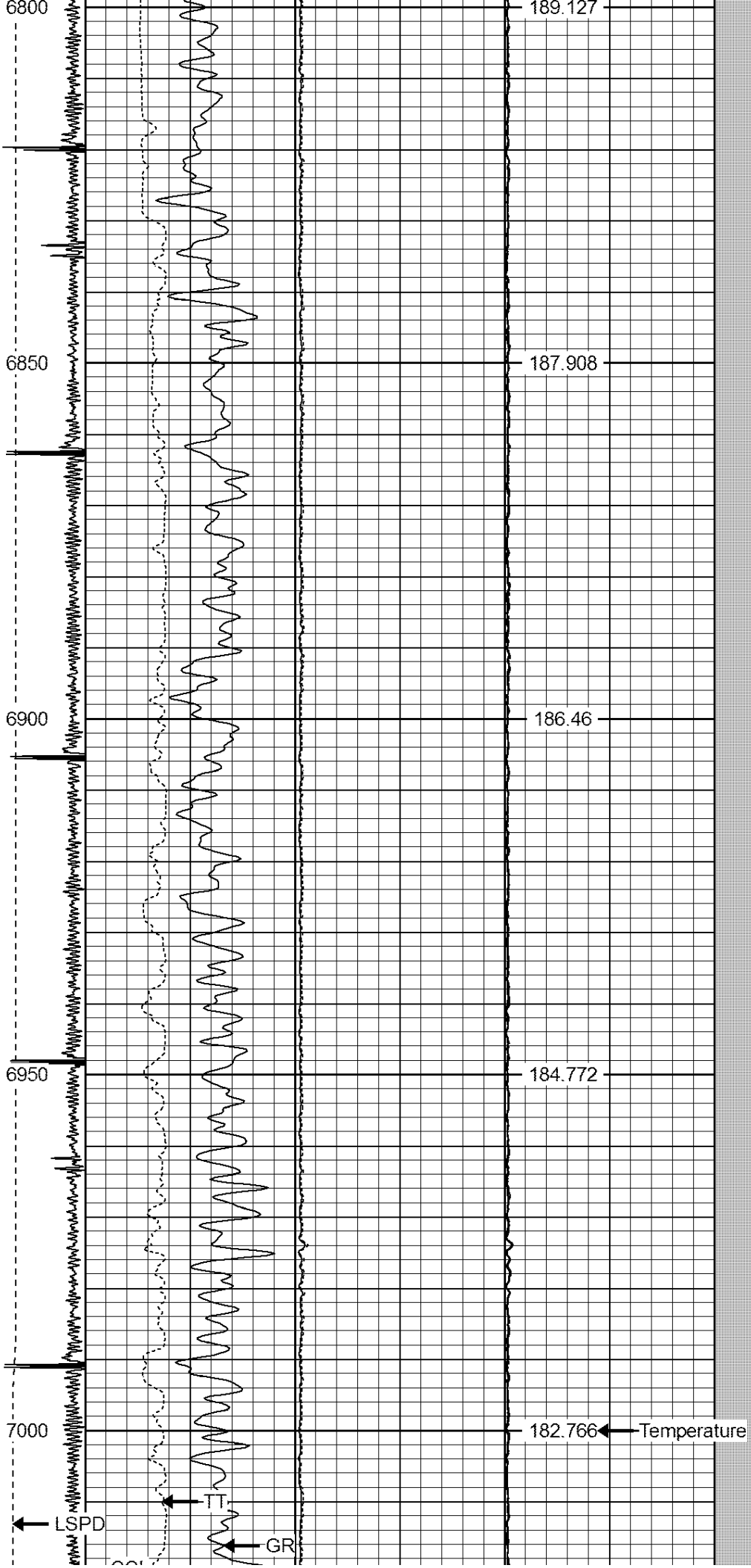
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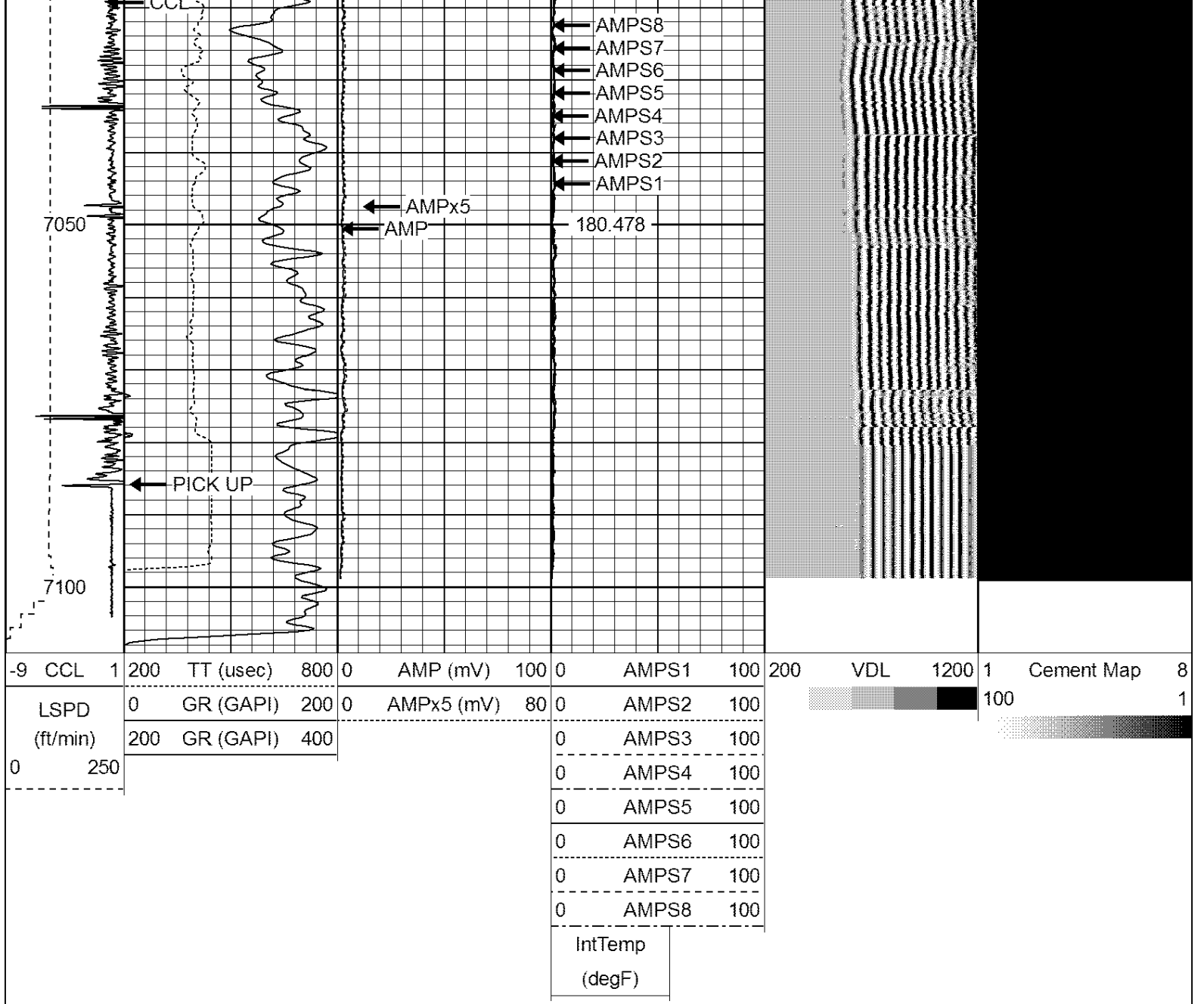
193.705











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