

RADIAL CEMENT BOND
GAMMA RAY
CCL

Company		ANADARKO PETROLEUM CORPORATION	
Well		HSR-WEST FARM 13-14A	
Field		WATTENBERG	
County		WELD	
State		CO	
Location:		APL # : 05-123-19742 SW/SW LAT:40.21940 & LONG: -104.86590 SEC 14 TWP 3N RGE 67W	
Permanent Datum		GL	Elevation
Log Measured From		KB 10'	4792'
Drilling Measured From		KB	Elevation KB. 4802' D.F. 4801' G.L. 4792'
Date	1-11-2015		
Run Number	ONE		
Depth Driller	7797		
Depth Logger	5034'		
Bottom Logged Interval	5025'		
Top Log Interval	SURFACE		
Open Hole Size	7.875		
Type Fluid	WATER		
Density / Viscosity	1.0		
Max. Recorded Temp.	159 DEG F		
Estimated Cement Top	111'		
Time Well Ready	N/A		
Time Logger on Bottom	N/A		
Equipment Number	4310		
Location	GREELEY		
Recorded By	N. BREHMER		
Witnessed By	S. SLOAN		
Borehole Record			
Run Number	Bit	From	To
		Size	Weight
		From	To
Casing Record	Size	Wgt/Ft	Top
Surface String	8.63	24#	SURFACE
Prot. String			
Production String	4.5	11.6#	SURFACE
Liner			7772'

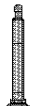
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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on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

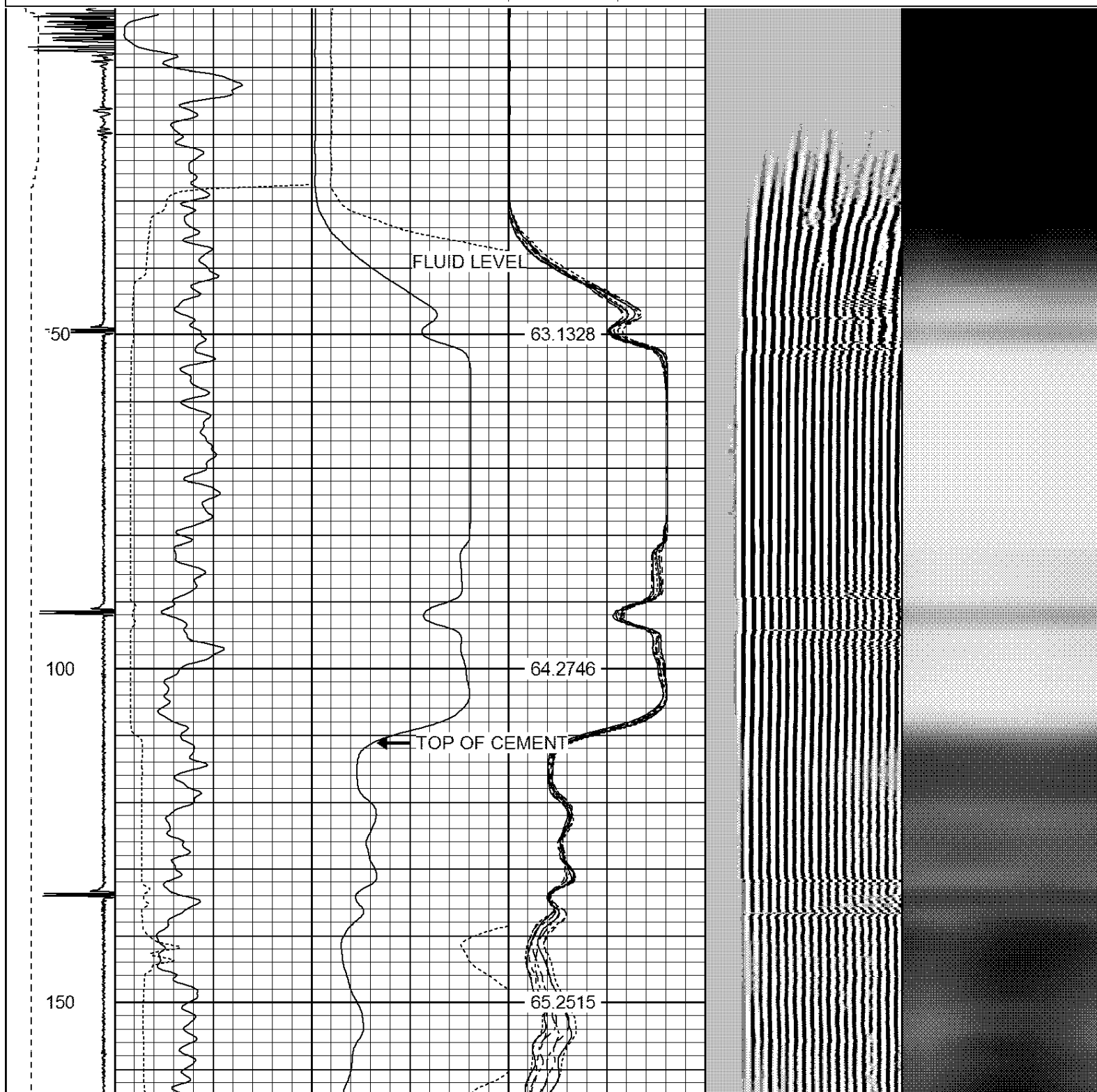
RAN CBL TO VERIFY CEMENT BOND
HOLE WAS LOADED THE NIGHT BEFORE, LOADED 600' TO SURFACE DURING LOG
LOG RAN OFF KB DEPTH 10'
CALIBRATED FREE PIPE @3360' 81mA IN 4.5"

THANK YOU FOR USING IPS !!!!!!!

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			1_4	1.00	1.36	5.00

Tool Joint	Tool Joint Length (ft)	Tool Joint Weight (lb)	Tool Joint O.D. (in)	Tool Joint Description	Tool Joint Length (ft)	Tool Joint Weight (lb)	Tool Joint O.D. (in)
HEADVOLT	16.13			PTS275	2.83	2.75	
IntTemp	14.71						
WVFS3FT	11.46			RBT-Probe (Base) Probe Radii Bond Tool with Digital Telemetry	8.92	2.75	90.00
WVFCAL	11.46						
WVFS1	11.46						
WVFS2	11.46						
WVFS3	11.46						
WVFS4	11.46						
WVFS5	11.46						
WVFS6	11.46						
WVFS7	11.46						
WVFS8	11.46						
WVF5FT	10.46						
CNLSC	6.00			CNT-Probe_B (275) 6 bow centralizer	2.88	2.75	40.00
CNSSC	5.17						
CCL	3.64						
GR	0.90			GR-Probe (275) Probe 2.75"	4.33	2.75	30.00
Dataset: hrs west farm 13-14a.db: field/well/run1/pass6 Total Length: 19.96 ft Total Weight: 165.00 lb O.D.: 2.75 in							

-9	CCL	1	200	TT (usec)	1000	0	AMP (mV)	100	0	AMPS1	100	200	VDL	1200	1	Cement Map	8
LSPD (ft/min)	0	250	0	GR (GAPI)	200	0	AMPx5 (mV)	20	0	AMPS2	100			100	1		
			200	GR (GAPI)	400		0	AMPS3	100								
						0	AMPS4	100									
						0	AMPS5	100									
						0	AMPS6	100									
						0	AMPS7	100									
						0	AMPS8	100									
						IntTemp (degF)											



200

66.1081

250

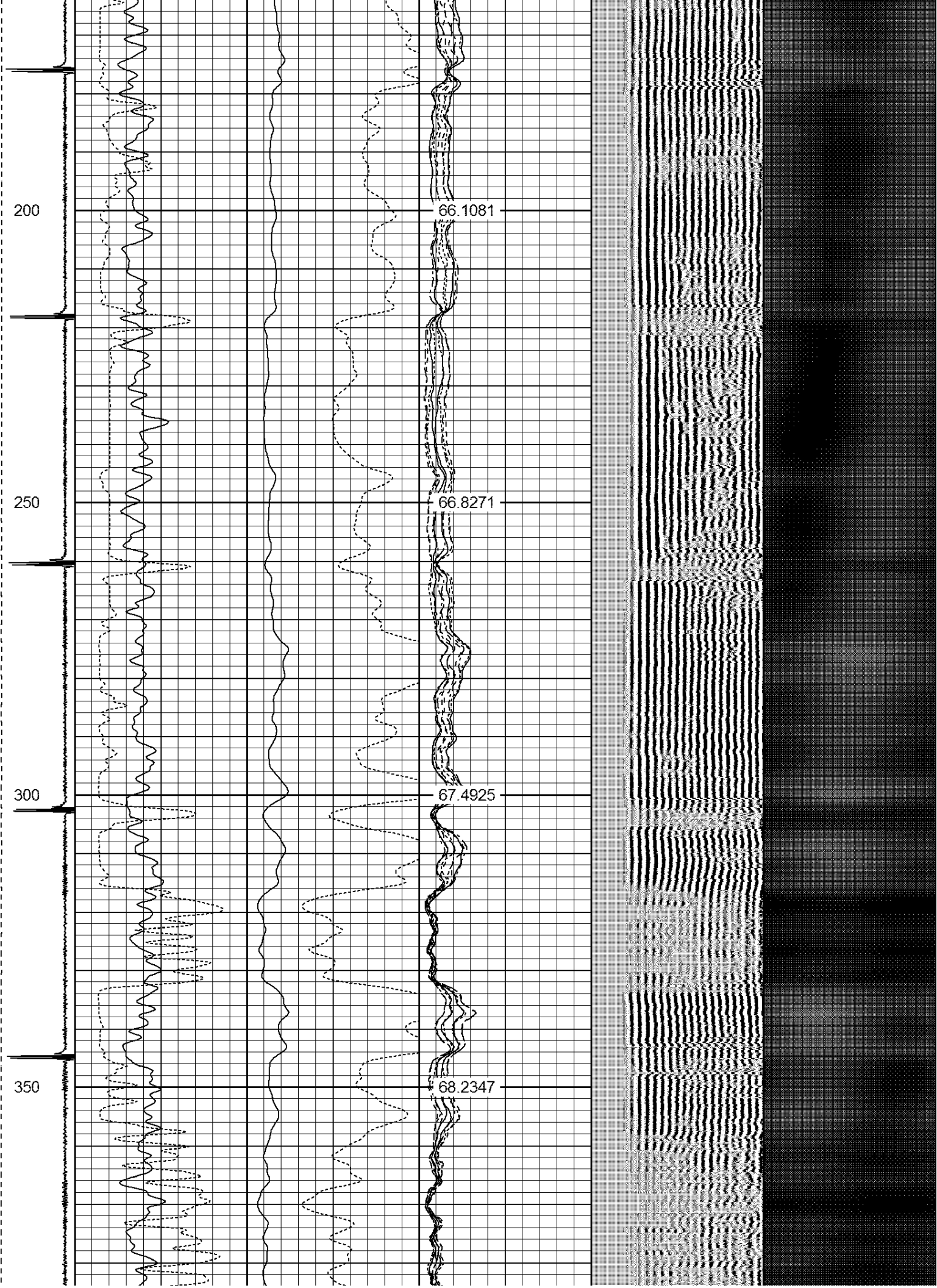
66.8271

300

67.4925

350

68.2347



400

68.6977

450

69.1624

500

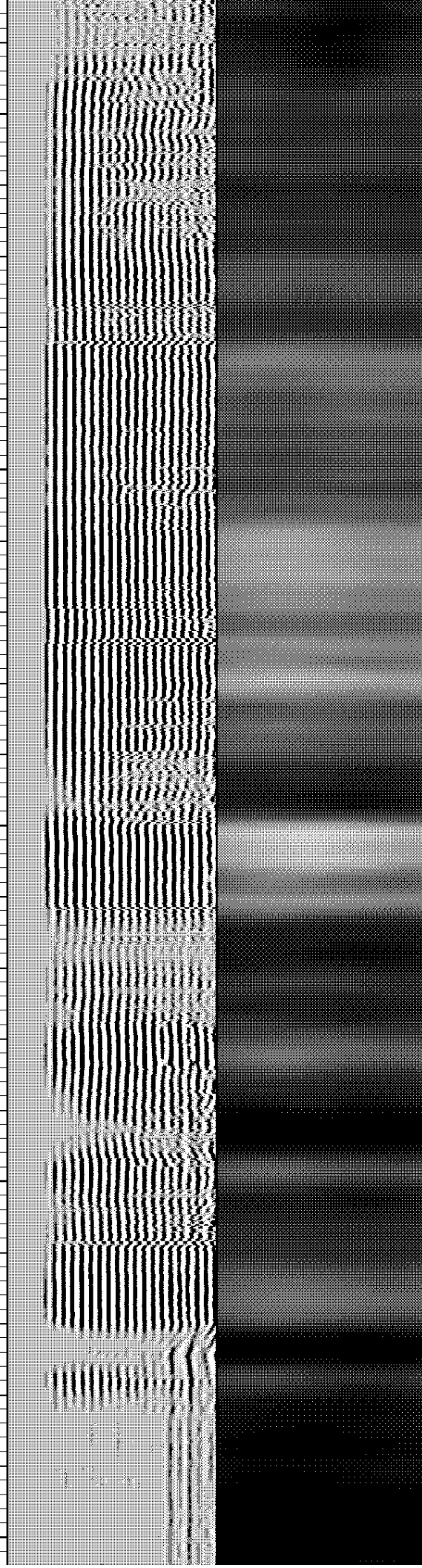
69.3734

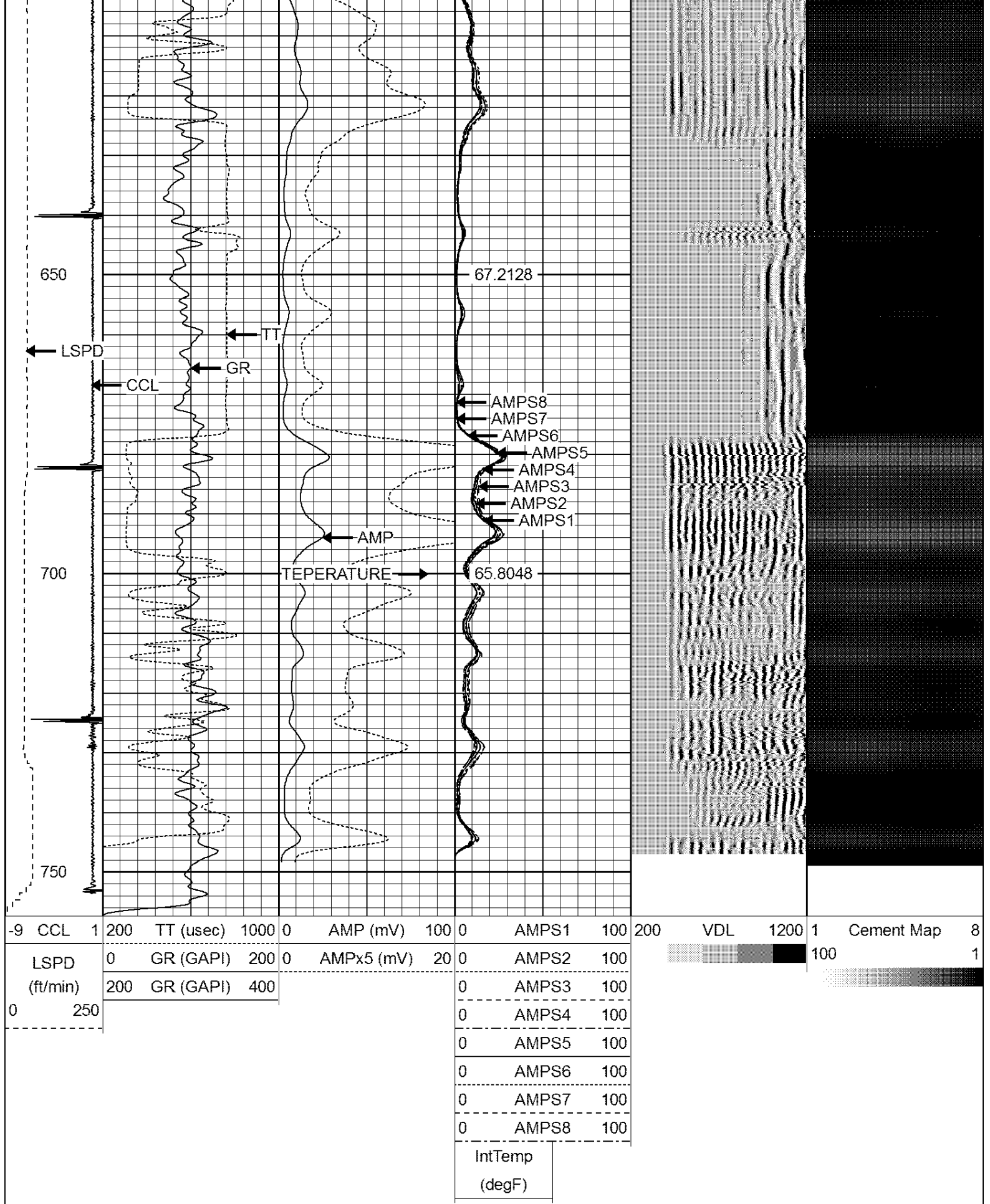
550

68.9953

600

68.2244





Depth in Feet scaled 1:240

-9	CCL	1	200	TT (usec)	1000	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				0	AMPS3	100						
0	250								0	AMPS4	100						
									0	AMPS5	100						
									0	AMPS6	100						
									0	AMPS7	100						
									0	AMPS8	100						
									IntTemp								
									(degF)								





1000

103.484

1050

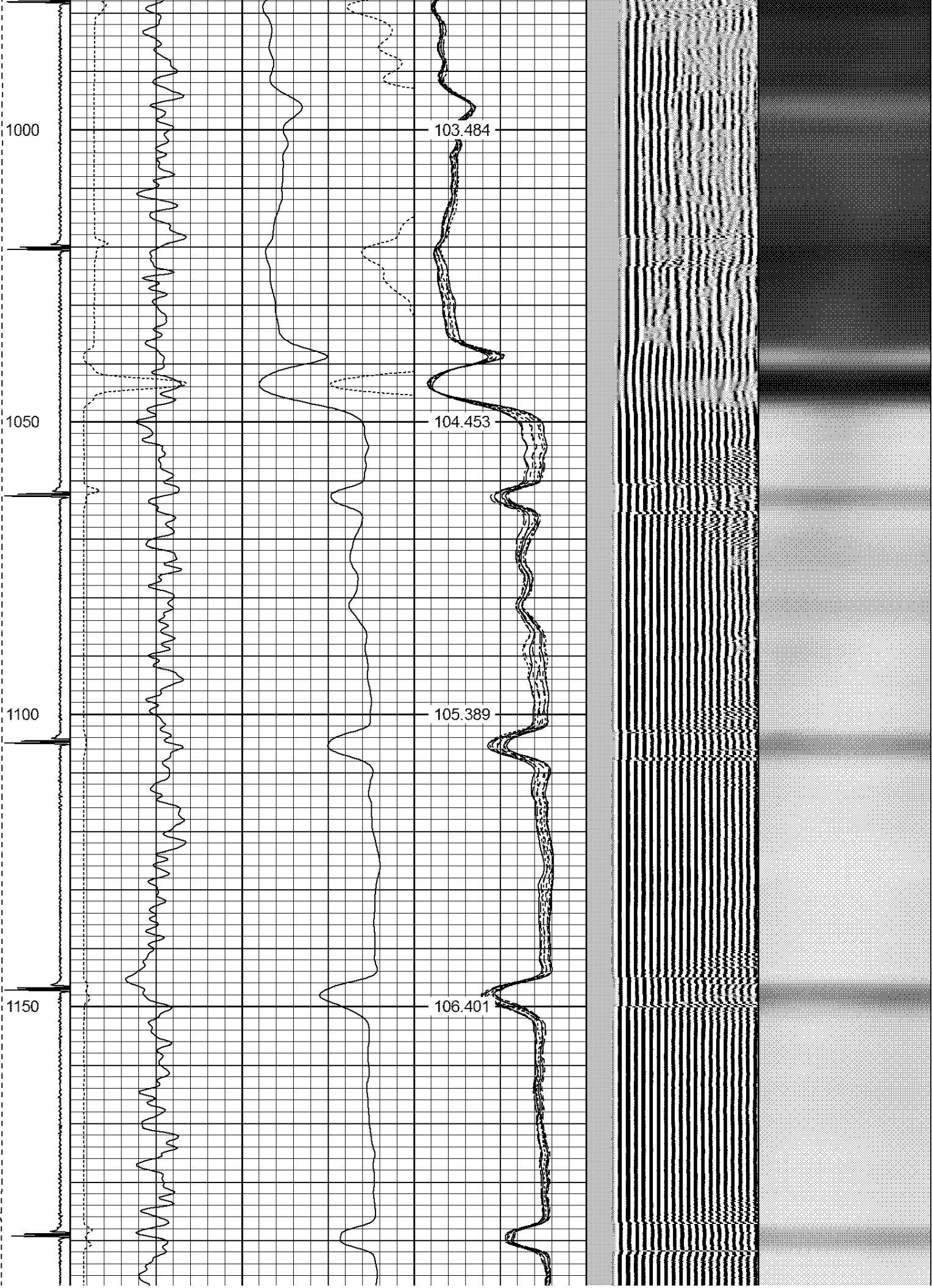
104.453

1100

105.389

1150

106.401



1200

107.396

1250

108.631

1300

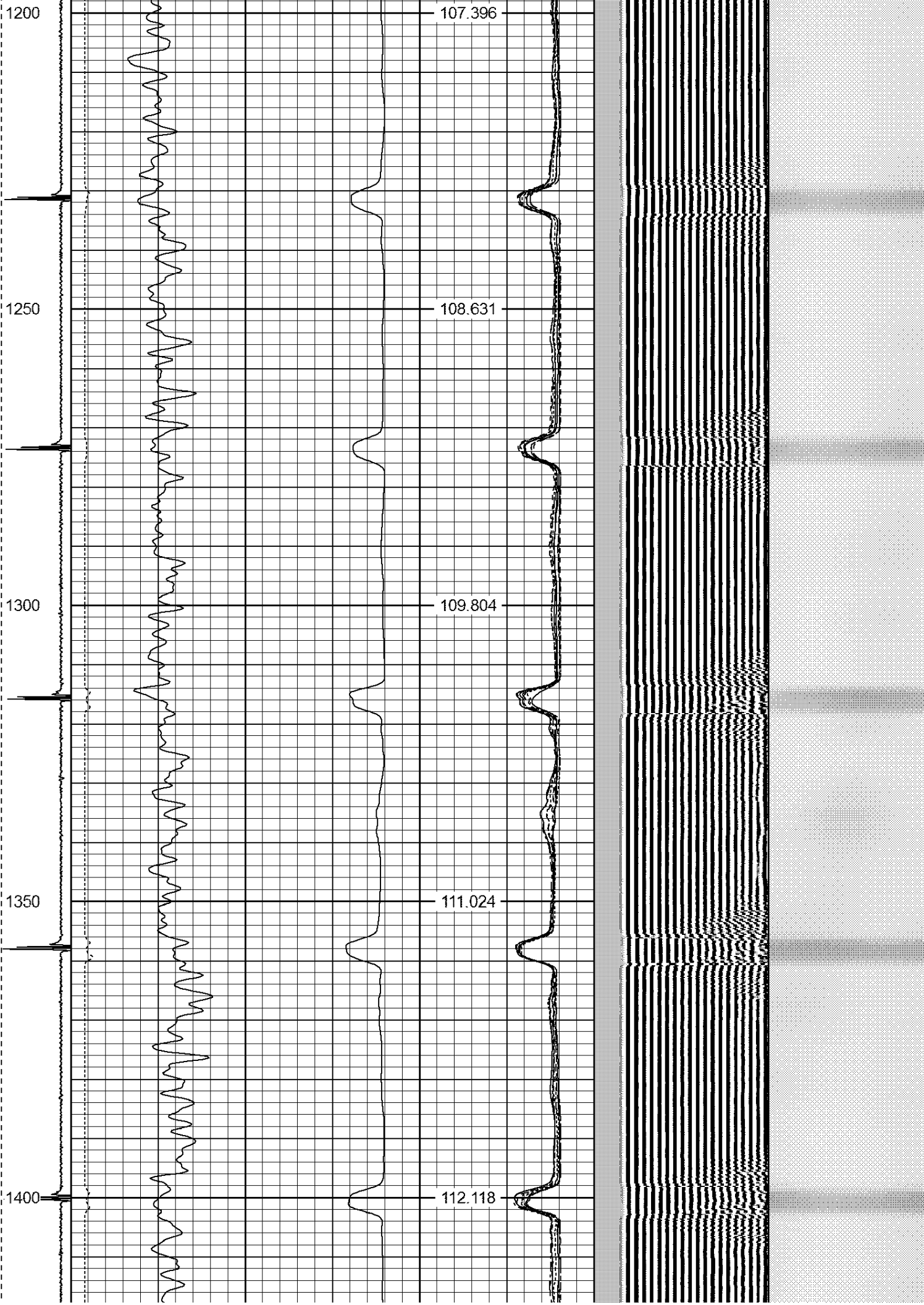
109.804

1350

111.024

1400

112.118



1450

113.343

1500

114.499

1550

115.727

1600

116.998



1650

118.169

1700

119.43

1750

120.538

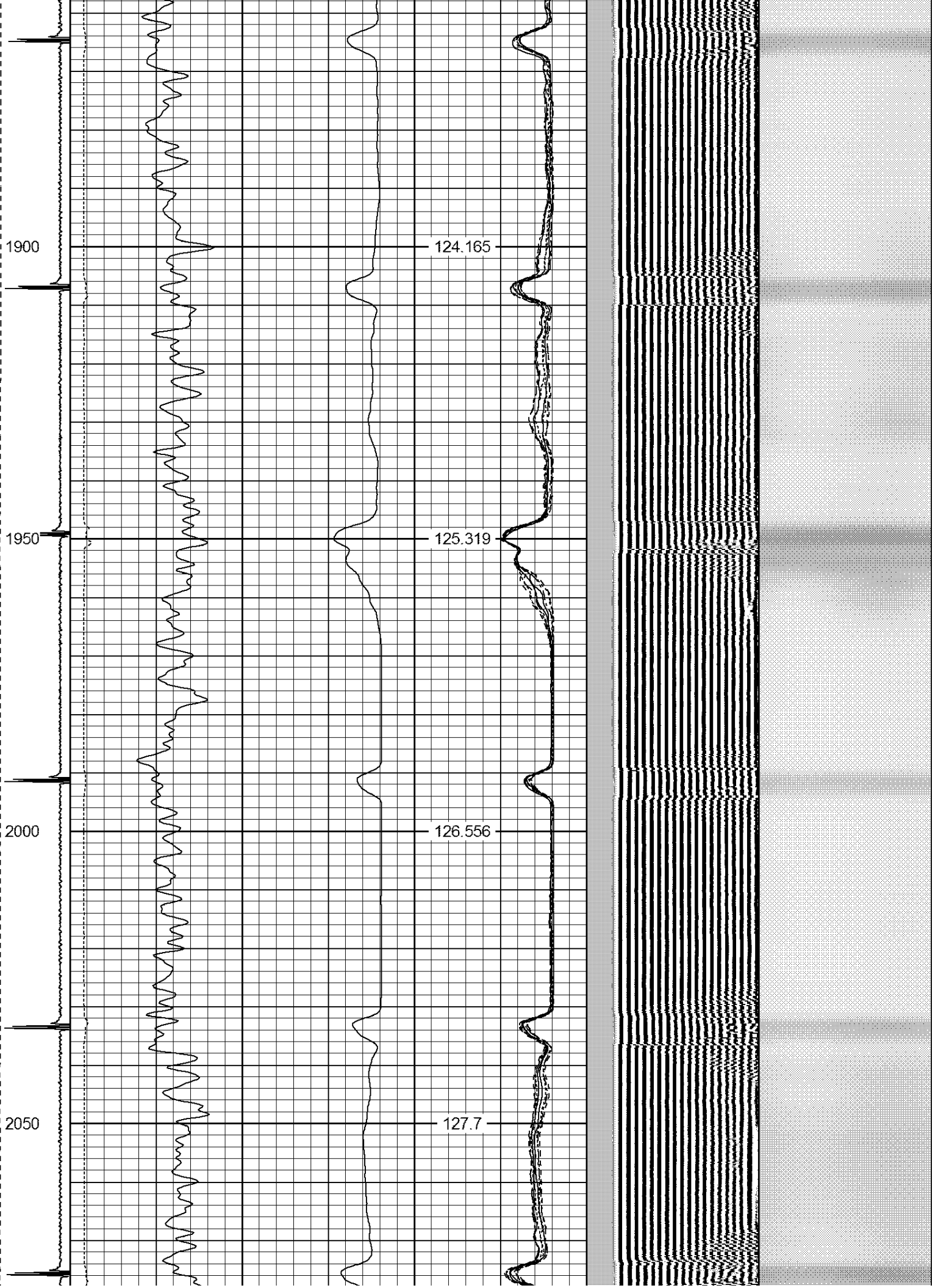
1800

121.824

1850

122.994





2100

128.797

2150

129.989

2200

131.12

2250

132.219



2300

133.252

2350

134.297

2400

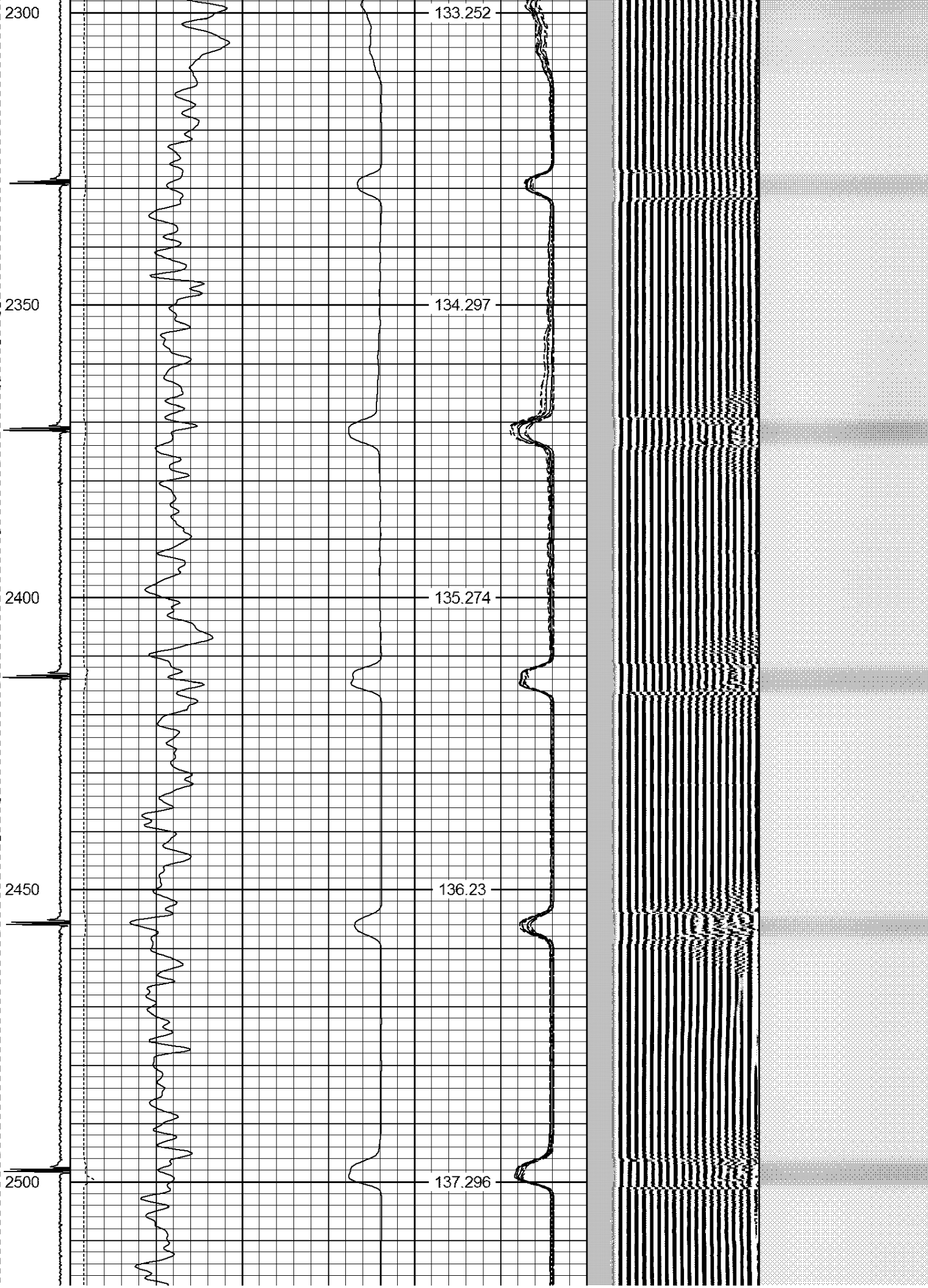
135.274

2450

136.23

2500

137.296



2550

138.323

2600

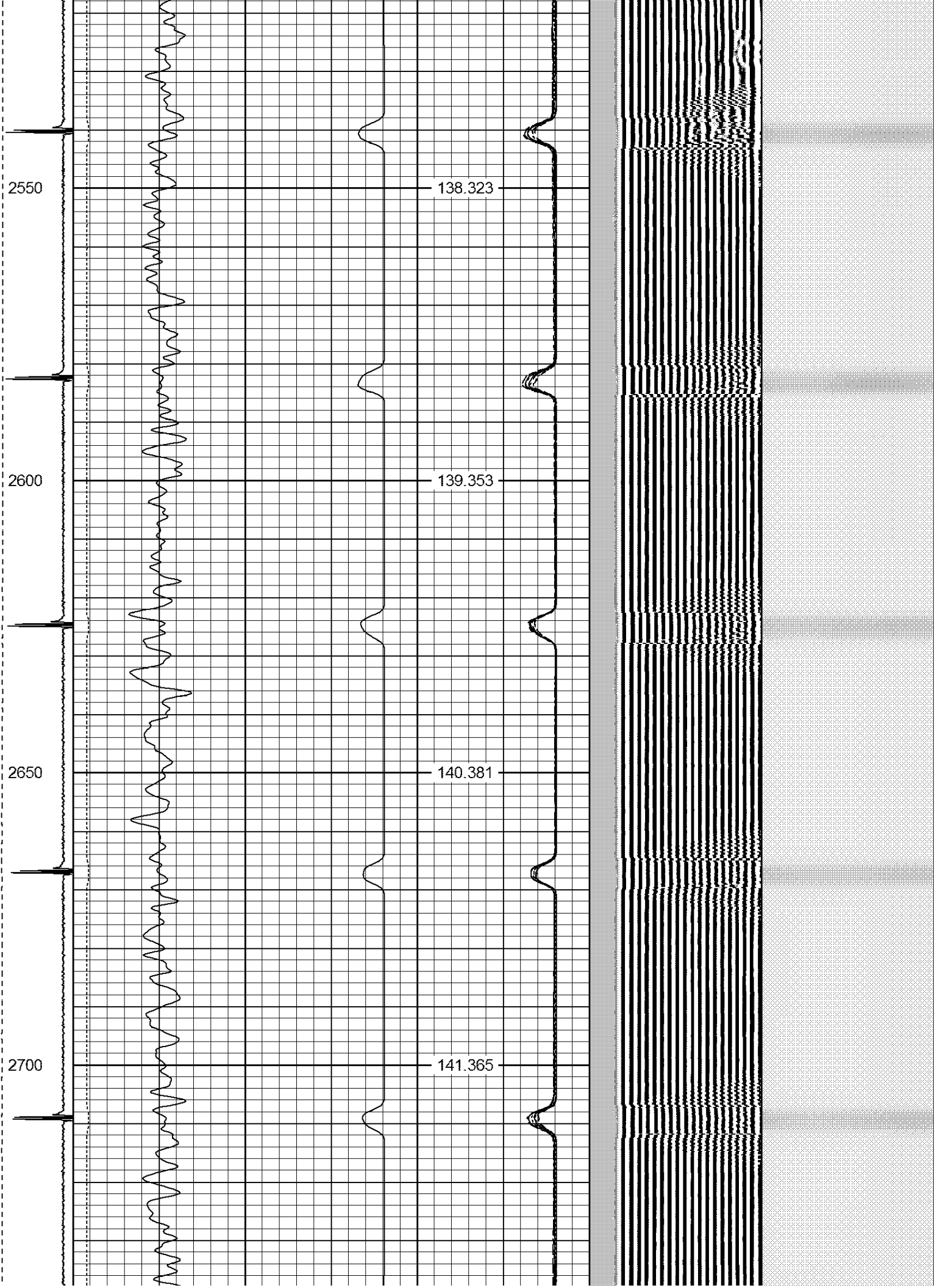
139.353

2650

140.381

2700

141.365



2750

142.483

2800

143.583

2850

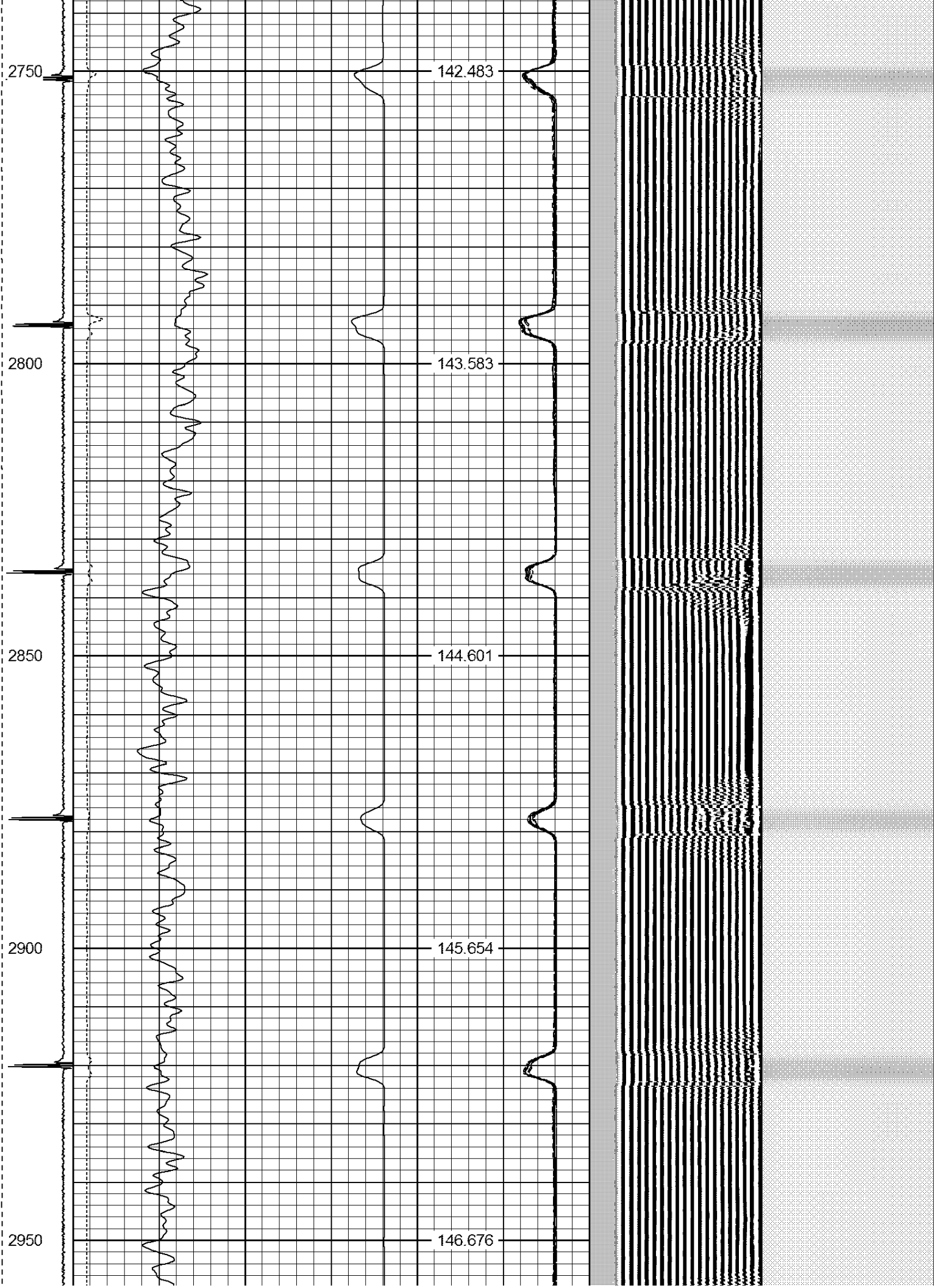
144.601

2900

145.654

2950

146.676



3000

147.773

3050

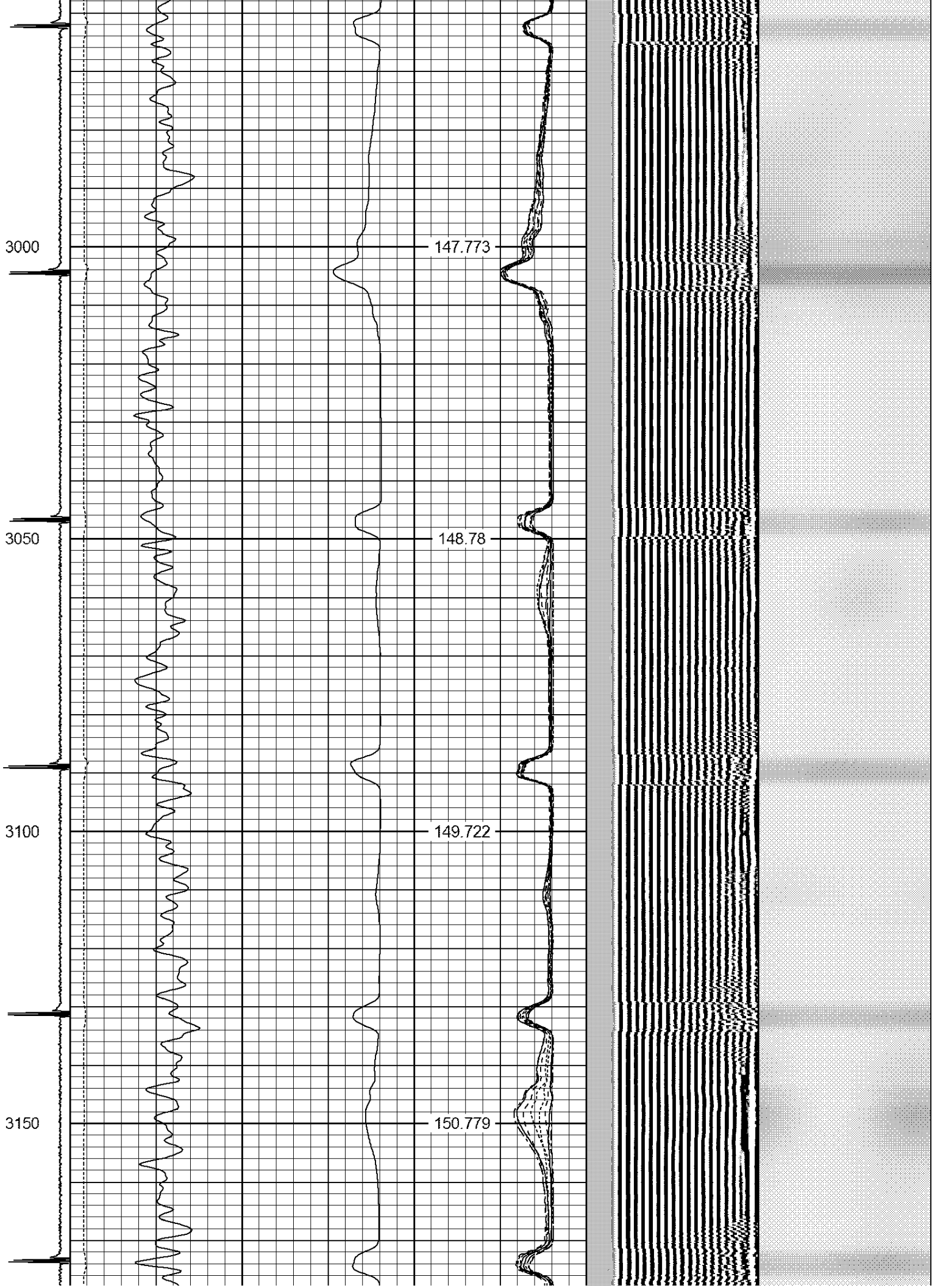
148.78

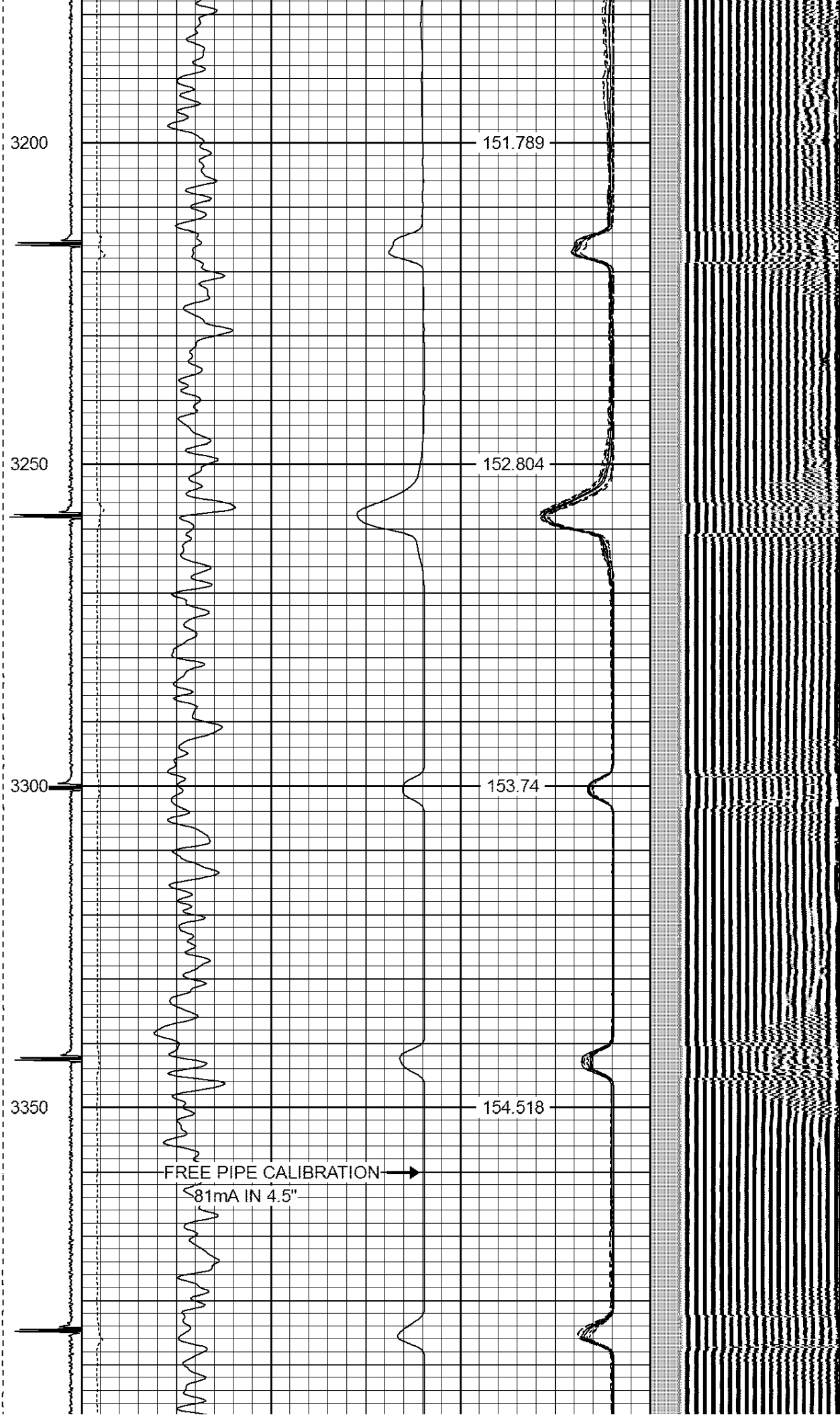
3100

149.722

3150

150.779





3400

155.402

3450

156.256

3500

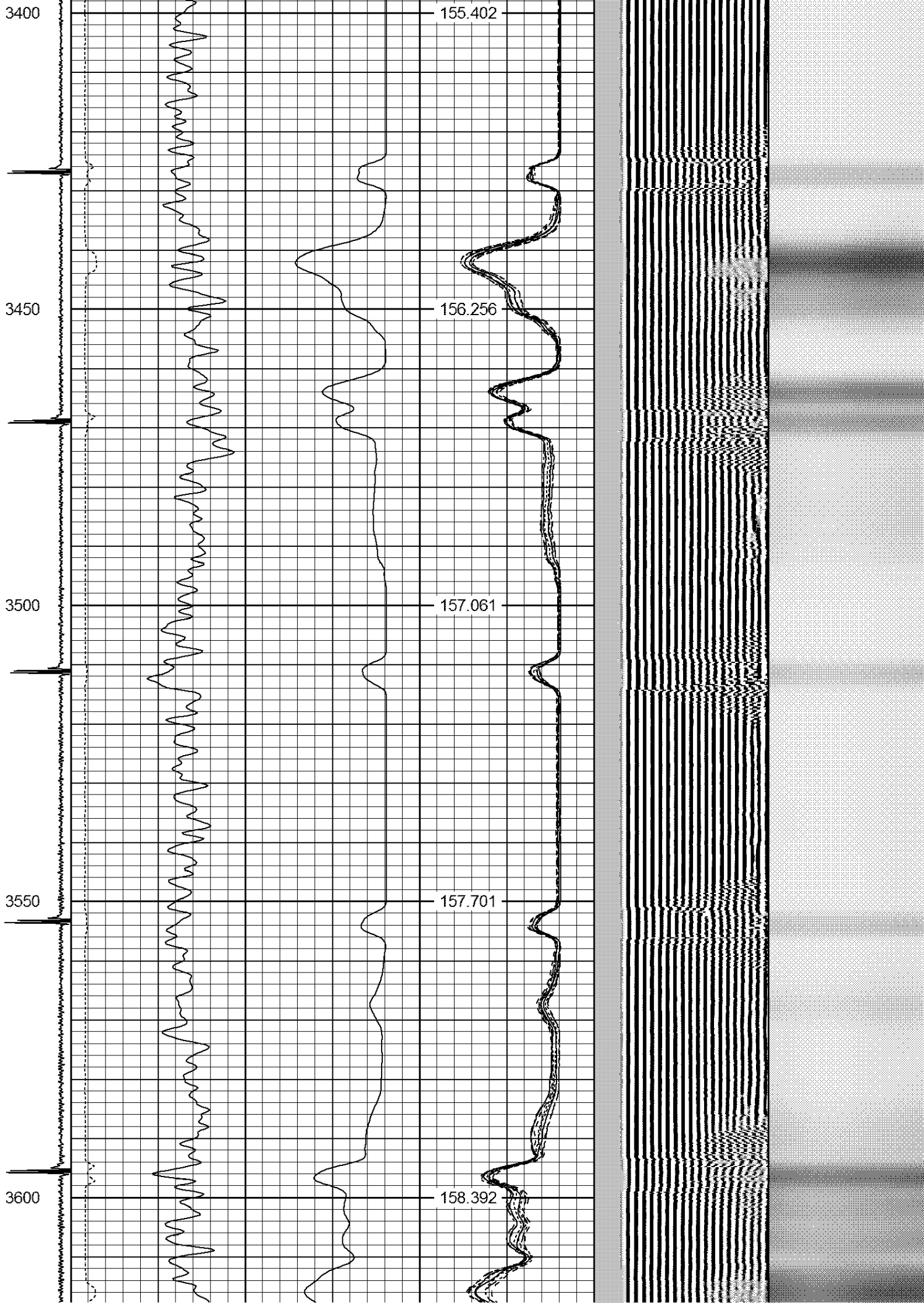
157.061

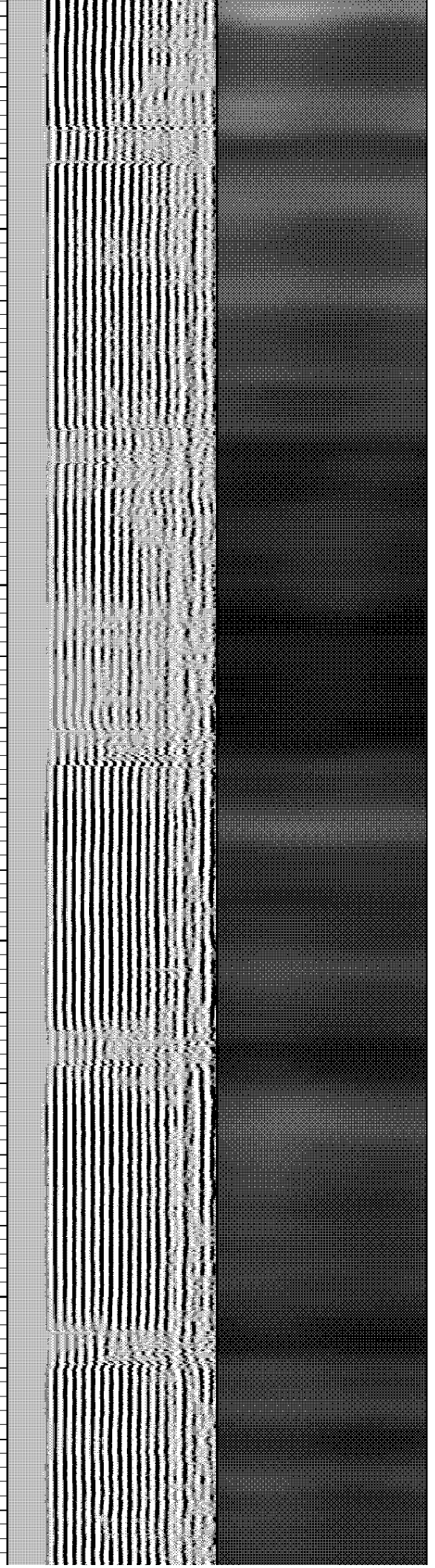
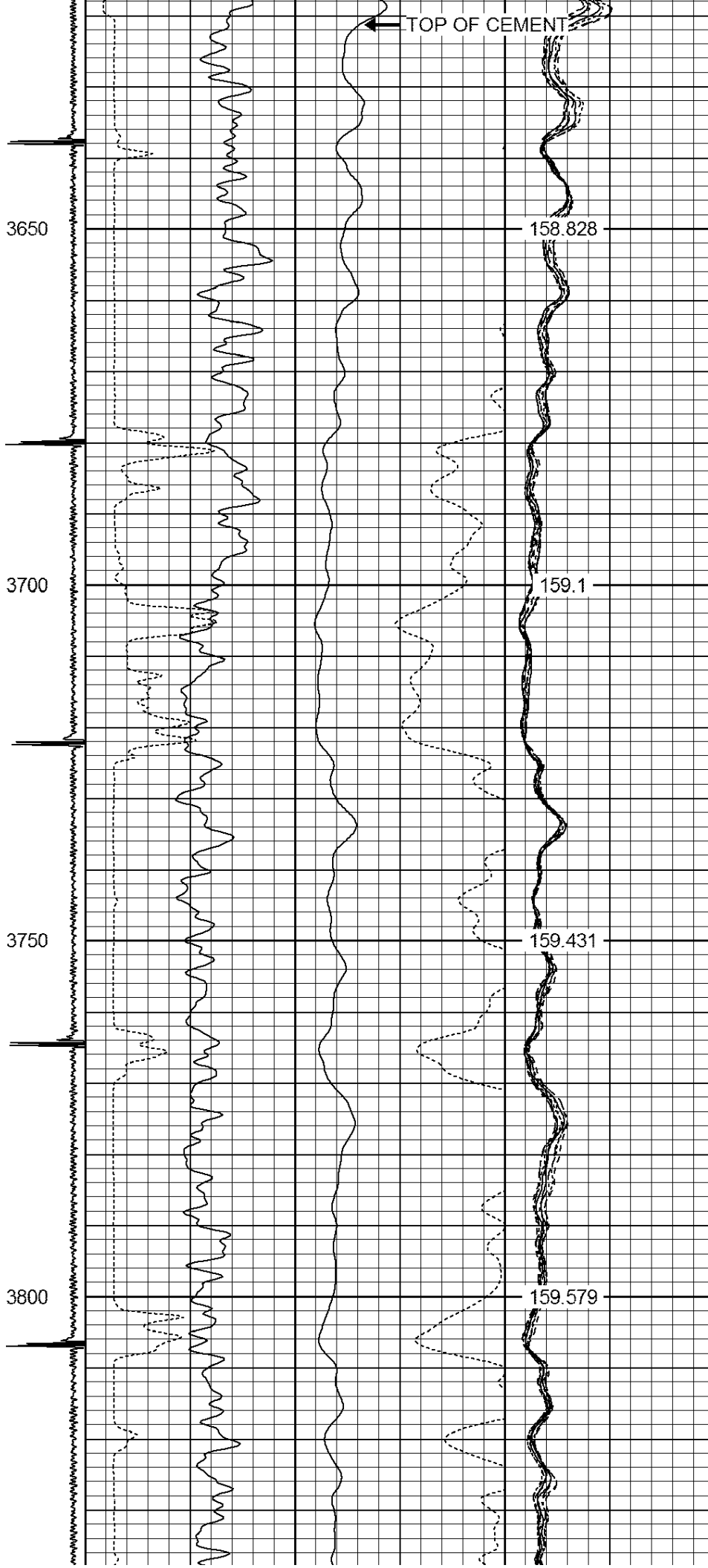
3550

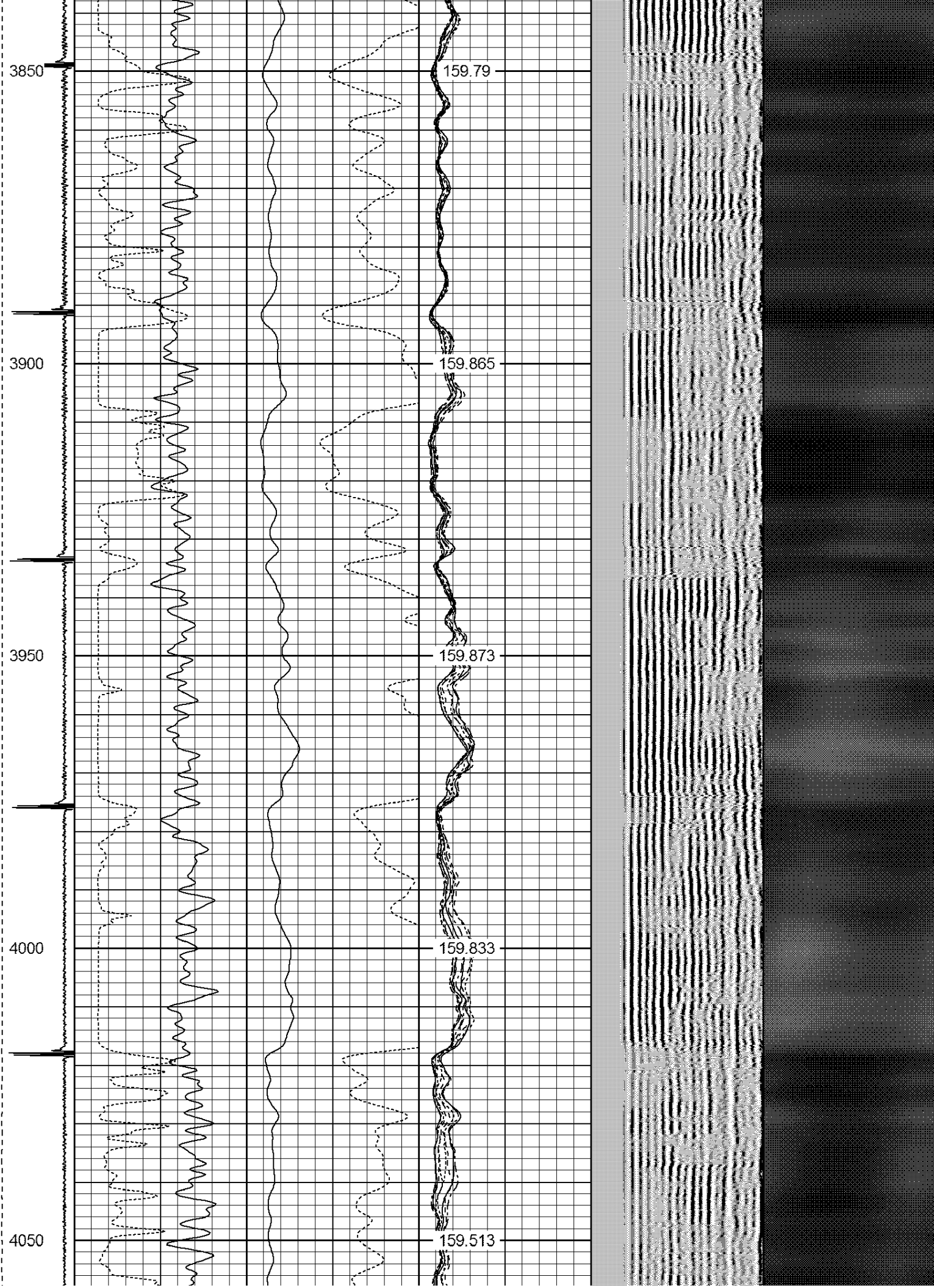
157.701

3600

158.392







4100

159.267

4150

158.783

4200

158.066

4250

157.393

11/11/10

4300

156.439

4350

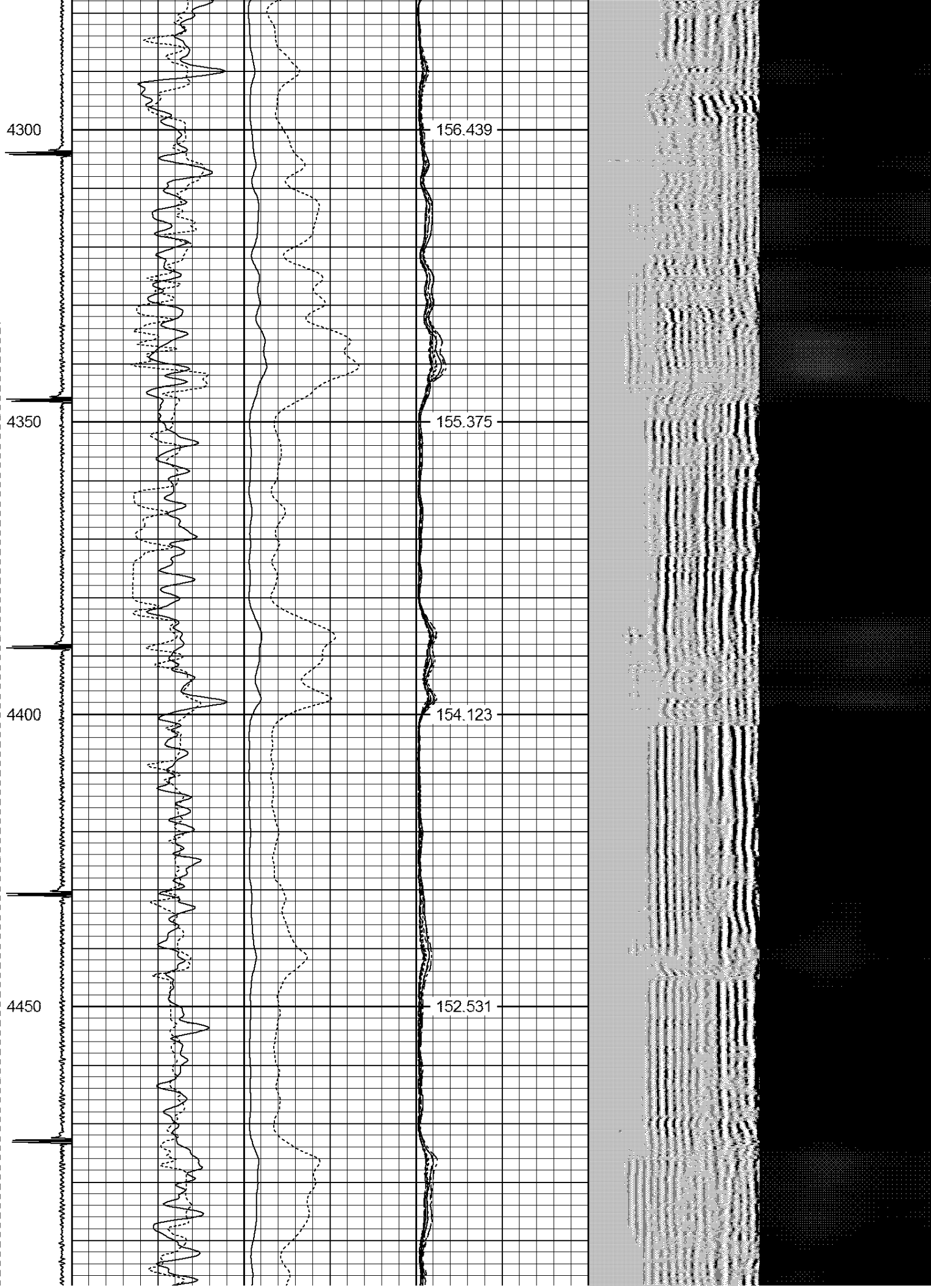
155.375

4400

154.123

4450

152.531



4500

150.752

4550

148.545

4600

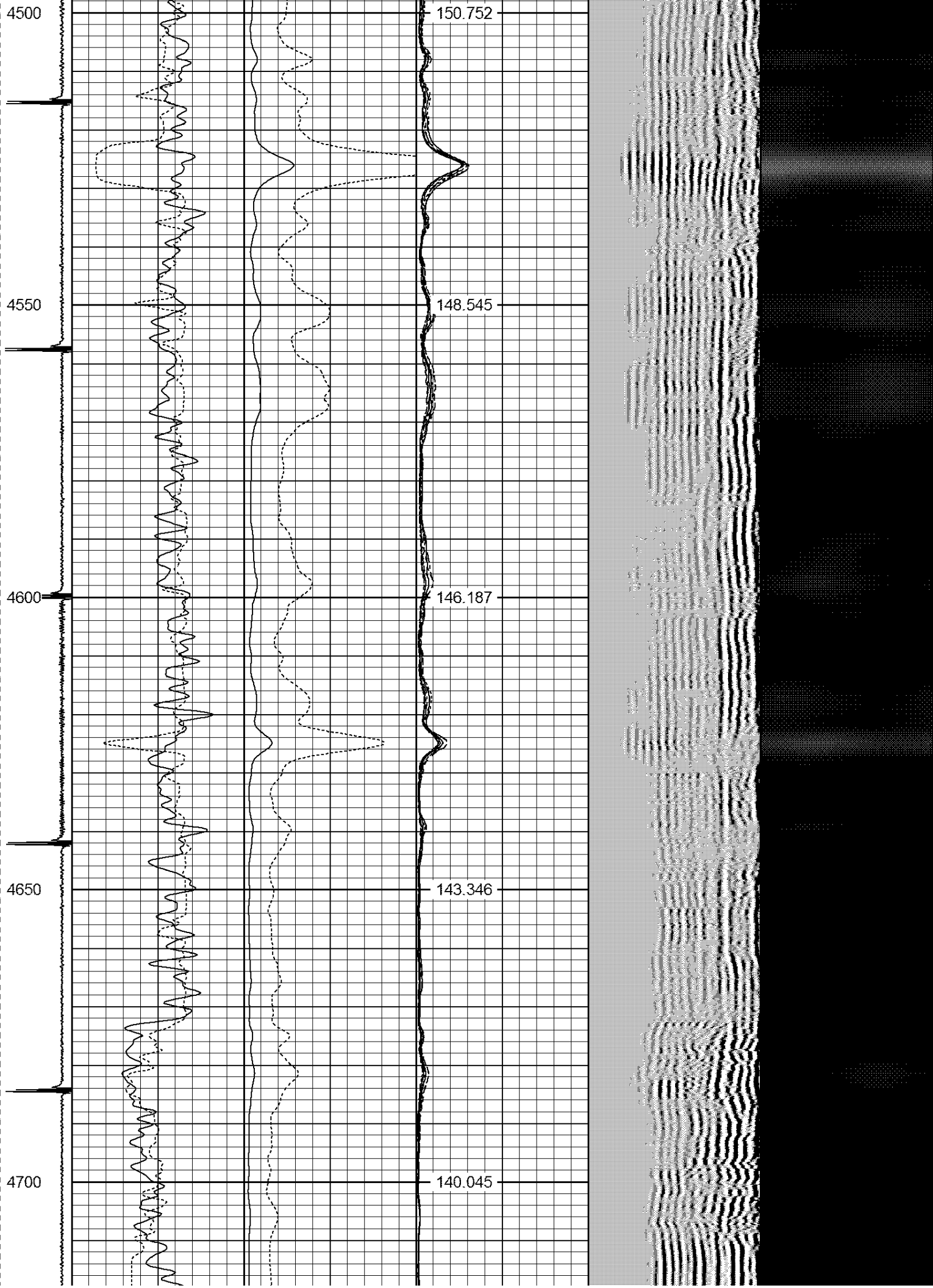
146.187

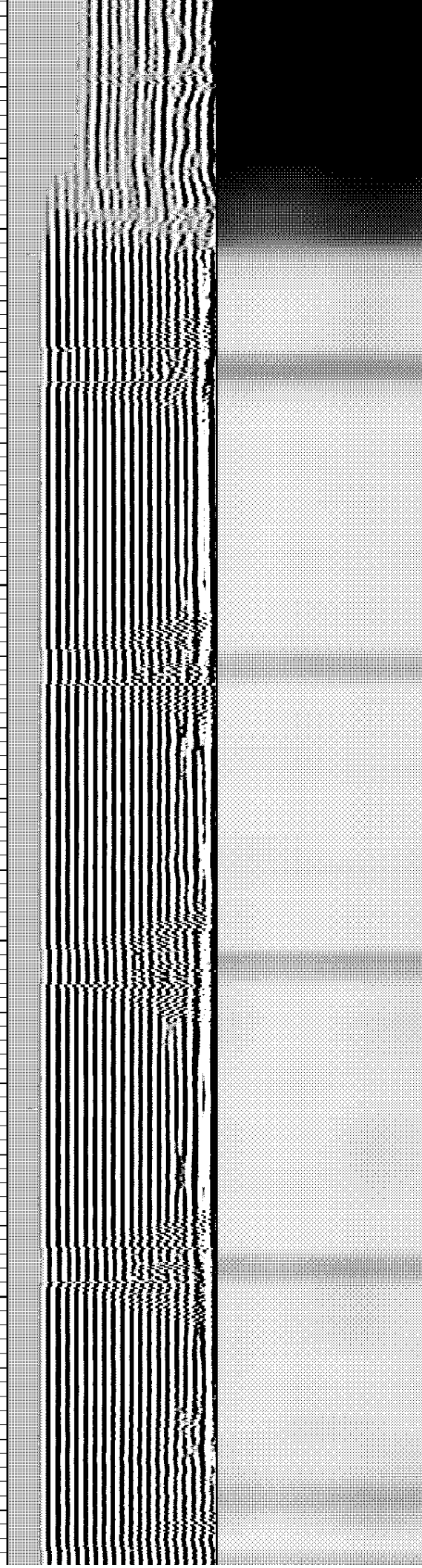
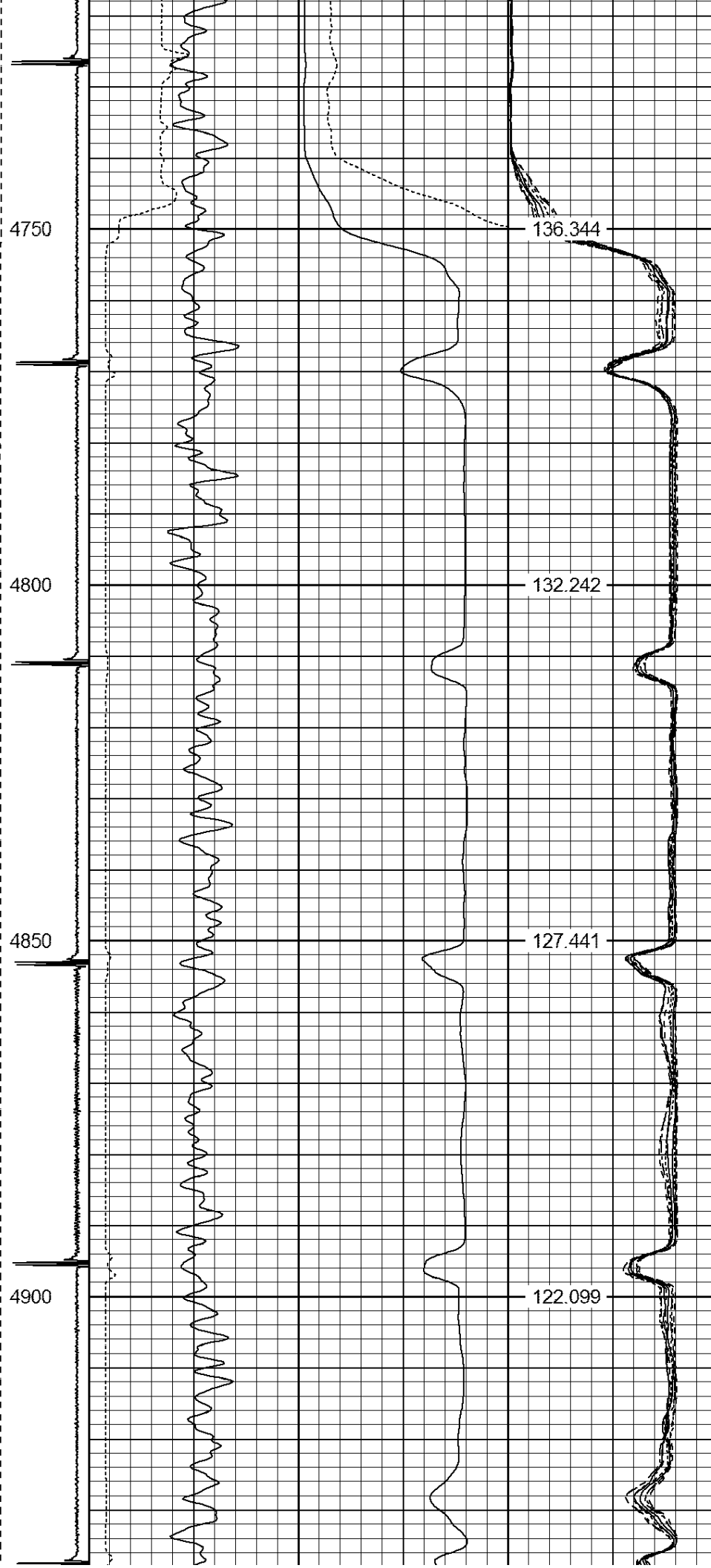
4650

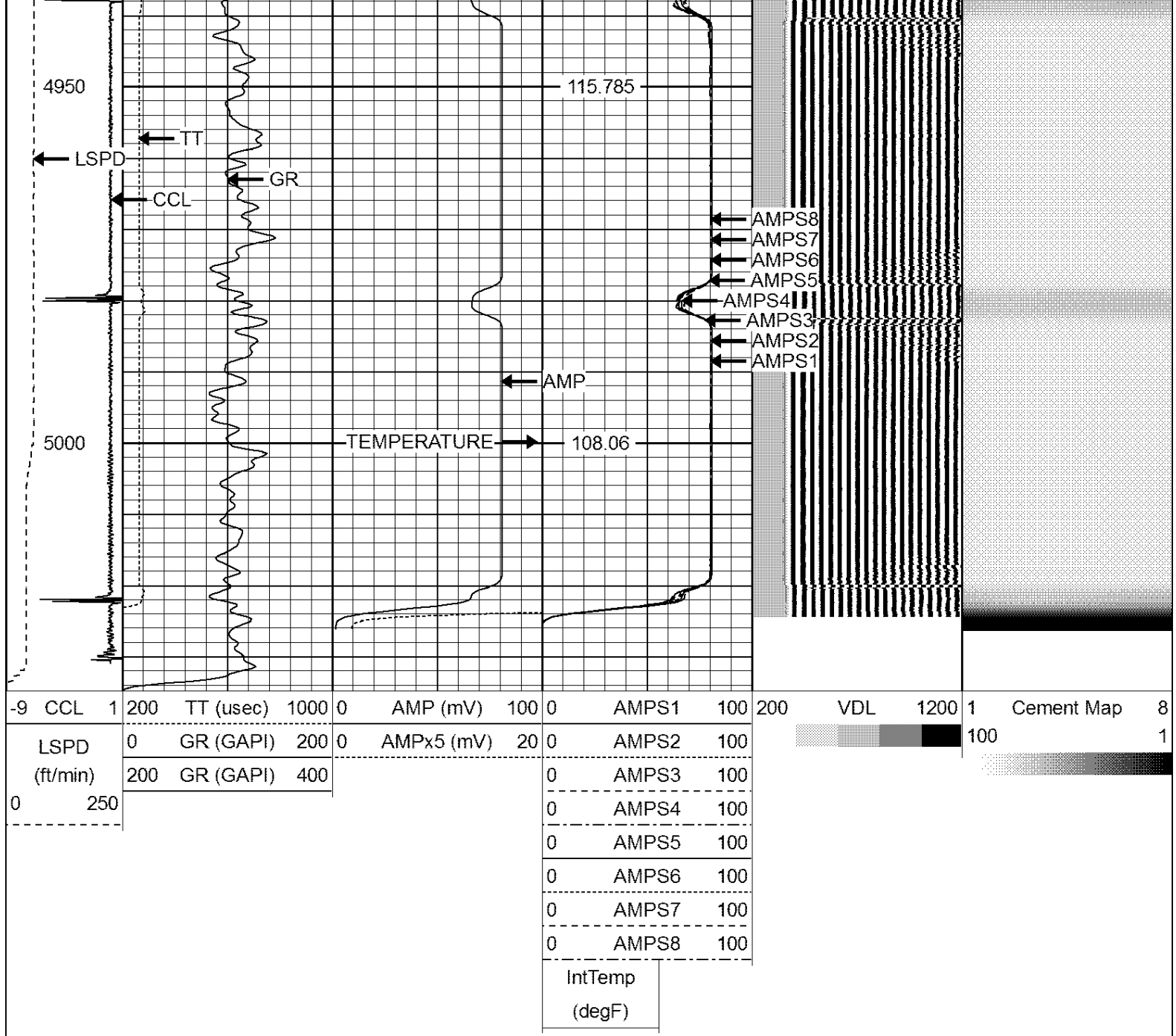
143.346

4700

140.045







Calibration Report

Database File: hrs west farm 13-14a.db
 Dataset Pathname: pass6
 Dataset Creation: Mon Jan 11 22:52:48 2016 by Log 7.0 B1

Gamma Ray Calibration Report

Serial Number: 275
 Tool Model: Probe
 Performed: Tue Sep 23 07:13:12 2014

Calibrator Value: 100.0 GAPI

Background Reading: 35.0 cps
 Calibrator Reading: 160.0 cps

Sensitivity: 1.0000 GAPI/cps

Compensated Neutron Calibration Report

Serial Number: 275

CALIBRATION

Wed Jul 30 08:47:19 2008

Detector	Readings		Target		Normalization
Short Space	5001.20	cps	0.00	cps	1.0000
Long Space	1029.31	cps	0.00	cps	1.0000

PRE-SURVEY VERIFICATION

	Detector	Readings	Measured	Target
1)	Short Space	cps		
	Long Space	cps	pu	pu
2)	Short Space	cps		
	Long Space	cps	pu	
3)	Short Space	cps		
	Long Space	cps	pu	

POST-SURVEY VERIFICATION

	Detector	Readings	Measured	Target
1)	Short Space	cps		
	Long Space	cps	pu	pu
2)	Short Space	cps		
	Long Space	cps	pu	pu
3)	Short Space	cps		
	Long Space	cps	pu	pu

Segmented Cement Bond Log Calibration Report

Serial Number: Base
Tool Model: Probe

Calibration Casing Diameter: 4.500 in
Calibration Depth: 1334.908 ft

Master Calibration, performed Mon Jan 11 20:51:27 2016:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.003	2.500	2.000	81.196	31.713	1.915
CAL	1.454	2.500				
5'	0.003	2.500	2.000	81.196	31.712	1.916
SUM						
S1	0.005	2.500	0.500	81.000	32.269	0.328
S2	0.004	2.500	0.500	81.000	32.246	0.385
S3	0.005	2.500	0.500	81.000	32.258	0.354
S4	0.004	2.500	0.500	81.000	32.251	0.372
S5	0.003	2.500	0.500	81.000	32.235	0.412
S6	0.004	2.500	0.500	81.000	32.256	0.359
S7	0.007	2.500	0.500	81.000	32.285	0.286
S8	0.005	2.500	0.500	81.000	32.267	0.331

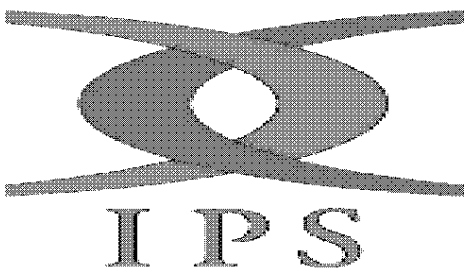
Internal Reference Calibration, performed Tue Jun 05 07:53:42 2012:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset

CAL	0.000	0.000	1.454	2.500	1.000	0.000
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Air Zero Calibration, performed Mon Jan 11 19:54:31 2016:

	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.000	0.000	0.000
5'	0.000	0.000	0.000
SUM			
S1	0.000	0.000	0.000
S2	0.000	0.000	0.000
S3	0.000	0.000	0.000
S4	0.000	0.000	0.000
S5	0.000	0.000	0.000
S6	0.000	0.000	0.000
S7	0.000	0.000	0.000
S8	0.000	0.000	0.000



Company	ANADARKO PETROLEUM CORPORATION
Well	HSR-WEST FARM 13-14A
Field	WATTENBERG
County	WELD
State	CO