



Well Services

RADIAL BOND TOOL
GAMMA RAY
CCL

Company NOBLE ENERGY
Well FRICK PC C #17-65HN
Field WATTENBERG
County WELD
State CO Country USA

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Location: API #: 05-123-33281
SE/NE
LAT. 40.313660 LONG. -104.585850
SEC 18 TWP 4N RGE 64W
Permanent Datum GL Elevation: 4758'
Log Measured From KB 13'
Drilling Measured From KB
Other Services
Elevation
K.B. 4771'
D.F. 4770'
G.L. 4758'

Date 4-28-2021
Run Number ONE
Depth Driller 11373'
Depth Logger 3006'
Bottom Logged Interval 3000'
Top Log Interval SURFACE
Open Hole Size 8.75"
Type Fluid WATER
Density / Viscosity NA
Max. Recorded Temp. 134.4° F
Estimated Cement Top SURFACE
Time Well Ready ON ARRIVAL
Time Logger on Bottom NA
Equipment Number 3813
Location GREELEY, CO
Recorded By J. KERR
Witnessed By P. BURNS

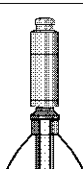
Run Number	Borehole Record		Tubing Record				
	Bit	From	To	Size	Weight	From	To
Casing Record							
Surface String		9.625"		Wgt/Ft	Top	Bottom	
Prot. String				36#	SURFACE	707'	
Production String		7"		26#	SURFACE	7242'	
Liner							

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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 CBL TO VERIFY CEMENT BOND
WELL LOADED UPON ARRIVAL

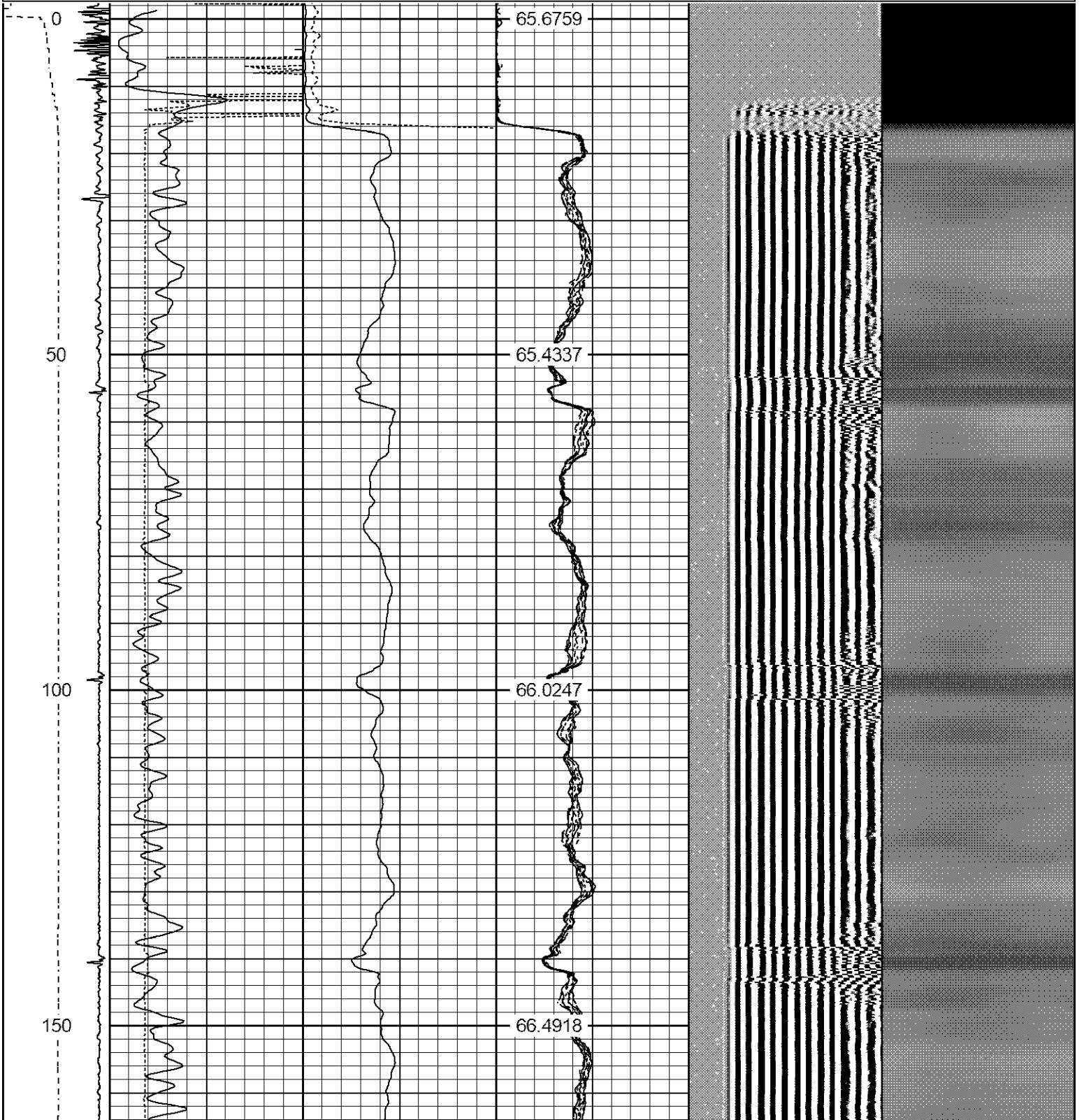
Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			CHD-1_11/16_Cablehead 1 11/16 Cablehead	1.00	1.68	5.00

			CENT-1.69variable 1.69" Centrilizer Variable Length	3.00	1.69	15.00
HEADVOLT	16.88					
Temp	14.02					
			RBT-27SBT10 (Greeley Ext Temp) Probe 2.75" Radial with Integral Temperature Sub	9.39	2.75	
WVFS8	11.79					
WVFS7	11.79					
WVFS6	11.79					
WVFS5	11.79					
WVFS4	11.79					
WVFS3	11.79					
WVFS2	11.79					
WVFS1	11.79					
WVF3FT	11.79					
WVF5FT	10.79					
WVFCAL	7.54					
HEADVOLT	7.54					
			CENT-1.69variable 1.69" Centrilizer Variable Length	3.00	1.69	15.00
CCL	3.63					
			GR-27GRL10 (27GRL10-XXXX) 2-3/4" Probe Gamma Ray	4.54	2.75	50.00
GR	0.89					

Dataset: frick pc c #17-65hn.db: field/well/run1/pass7
 Total length: 20.93 ft
 Total weight: 85.00 lb
 O.D.: 2.75 in

Database File frick pc c #17-65hn.db
 Dataset Pathname pass7
 Presentation Format ips_rbtcolor
 Dataset Creation Wed Apr 28 12:51:54 2021
 Charted by Depth in Feet scaled 1:240

-9 CCL 1	200 TT (usec) 600	0 AMP (mV) 100	0 AMPS1 100	200 VDL (usec) 1200	1 Cement Map	8
LSPD	0 GR (GAPI) 200	0 AMPx5 (mV) 20	0 AMPS2 100			
(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			
		TEMP				
		(degF)				



200

250

300

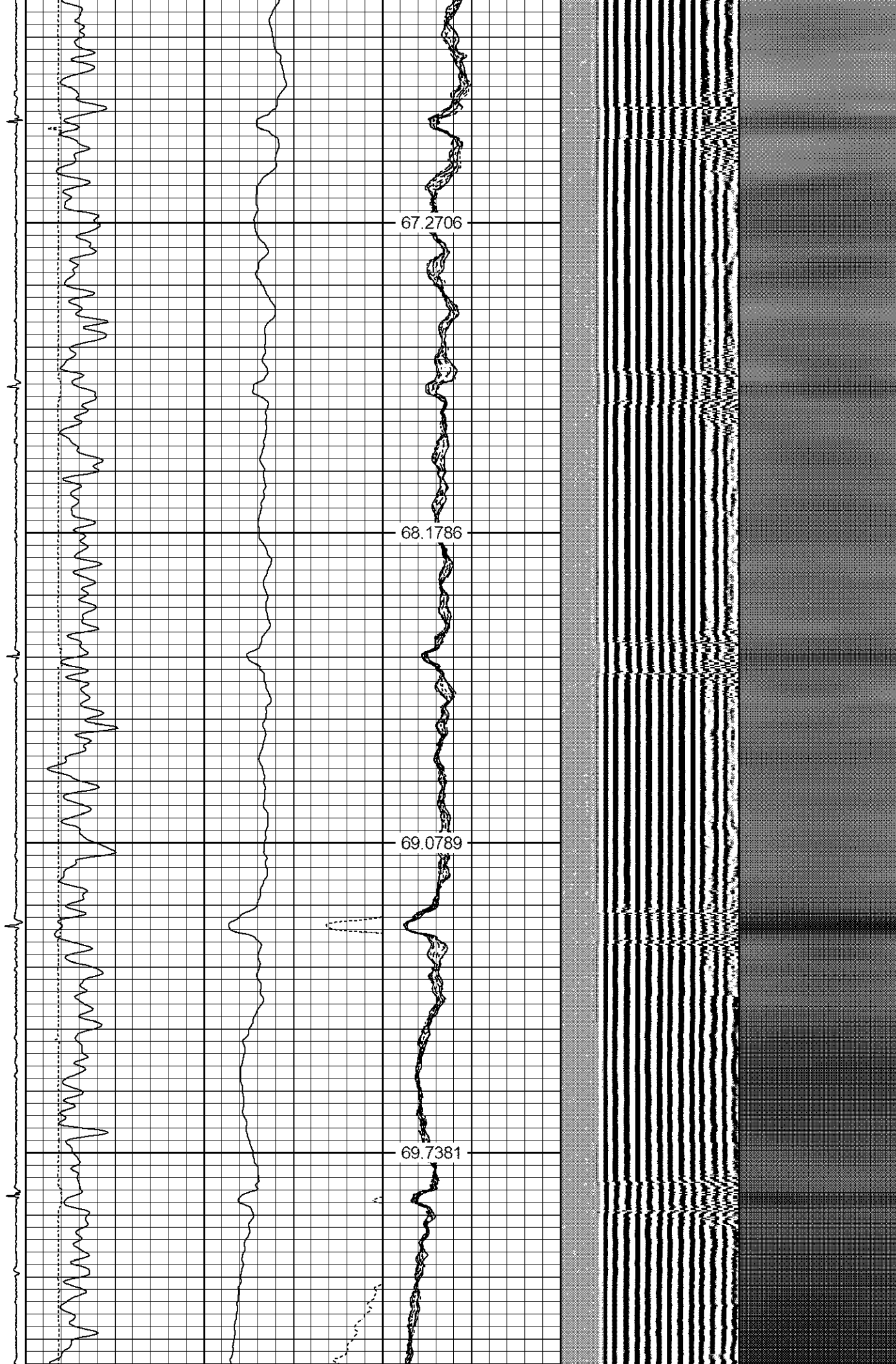
350

67.2706

68.1786

69.0789

69.7381



400

70.7163

450

71.3759

500

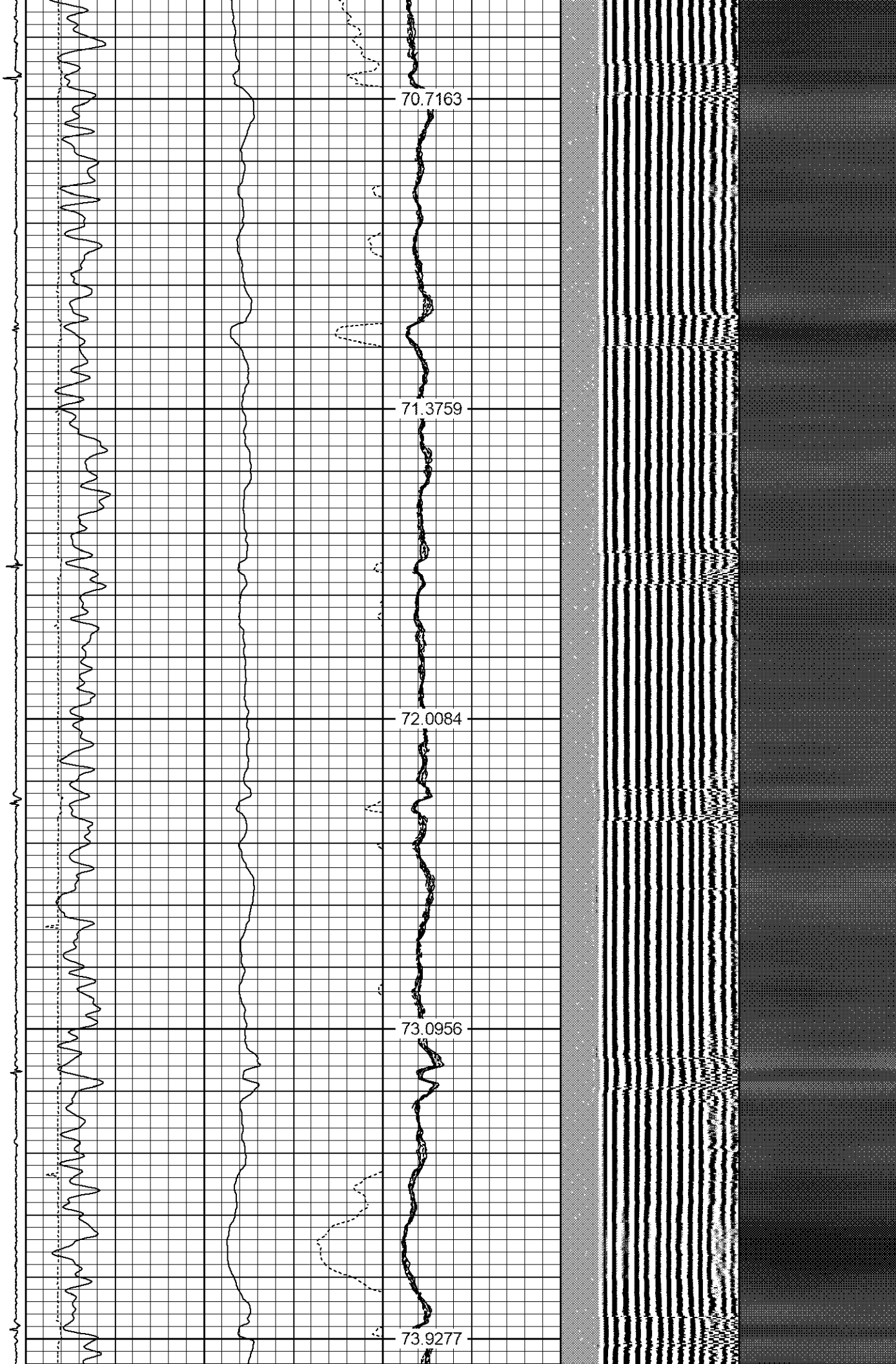
72.0084

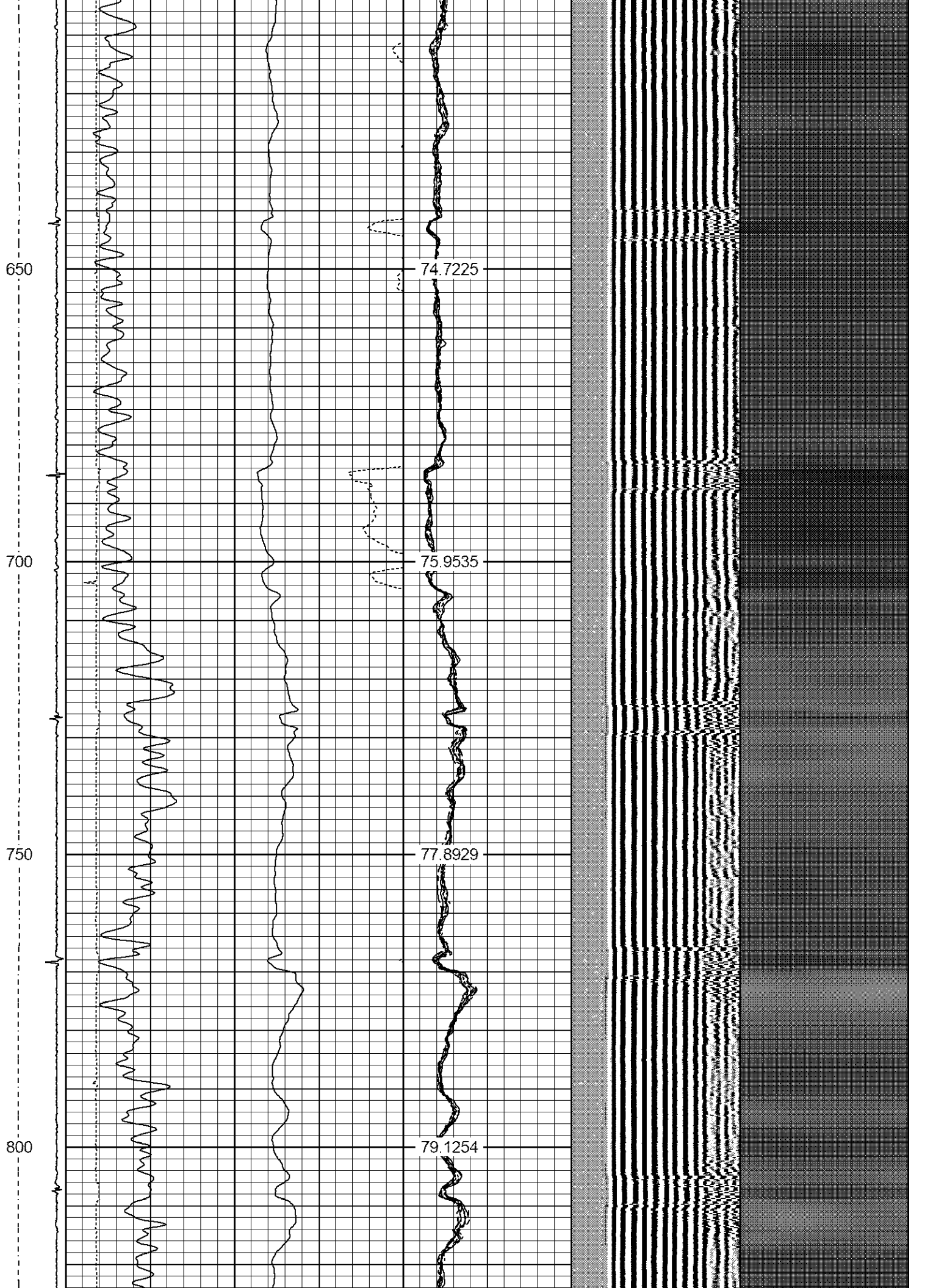
550

73.0956

600

73.9277





850

79.7248

900

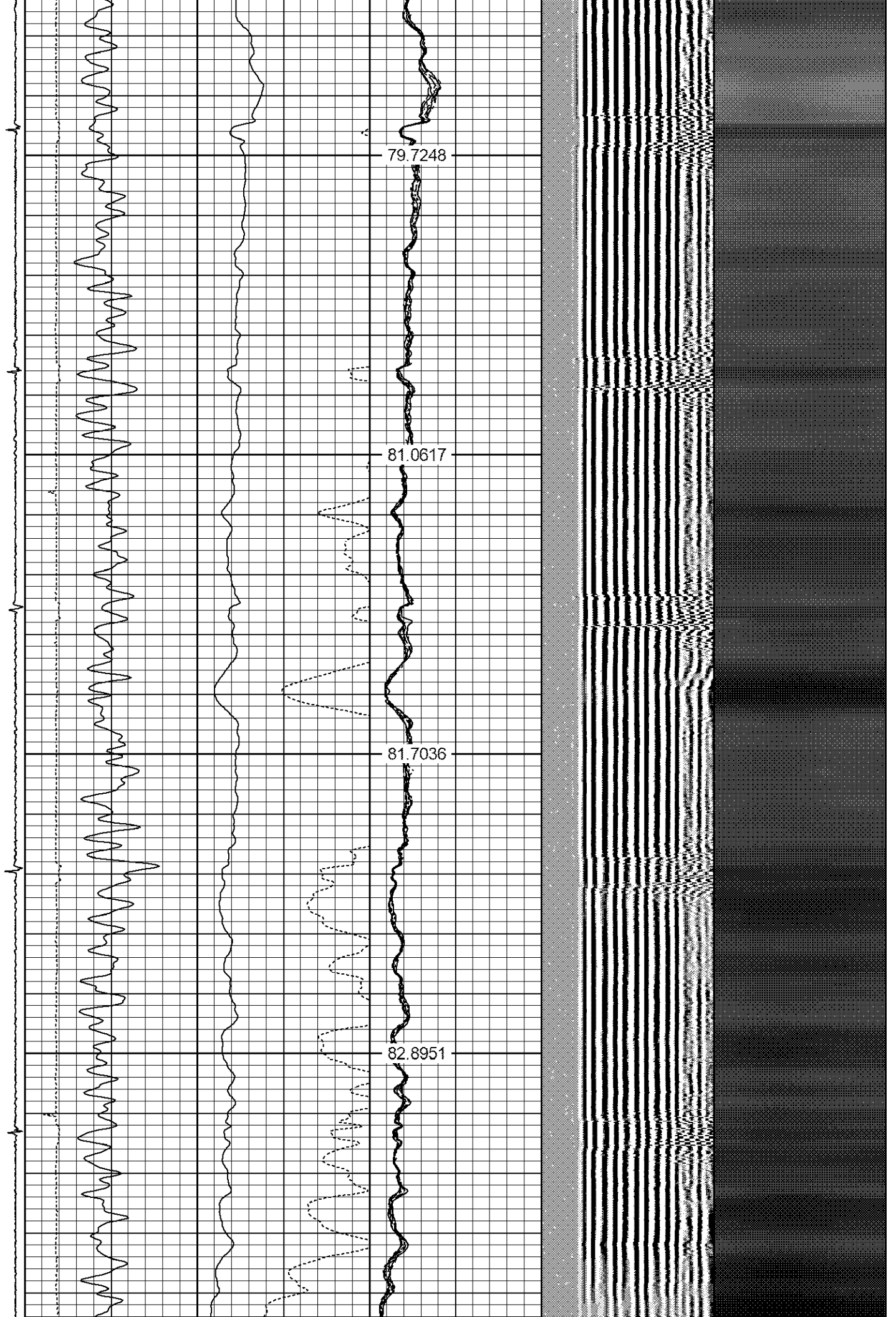
81.0617

950

81.7036

1000

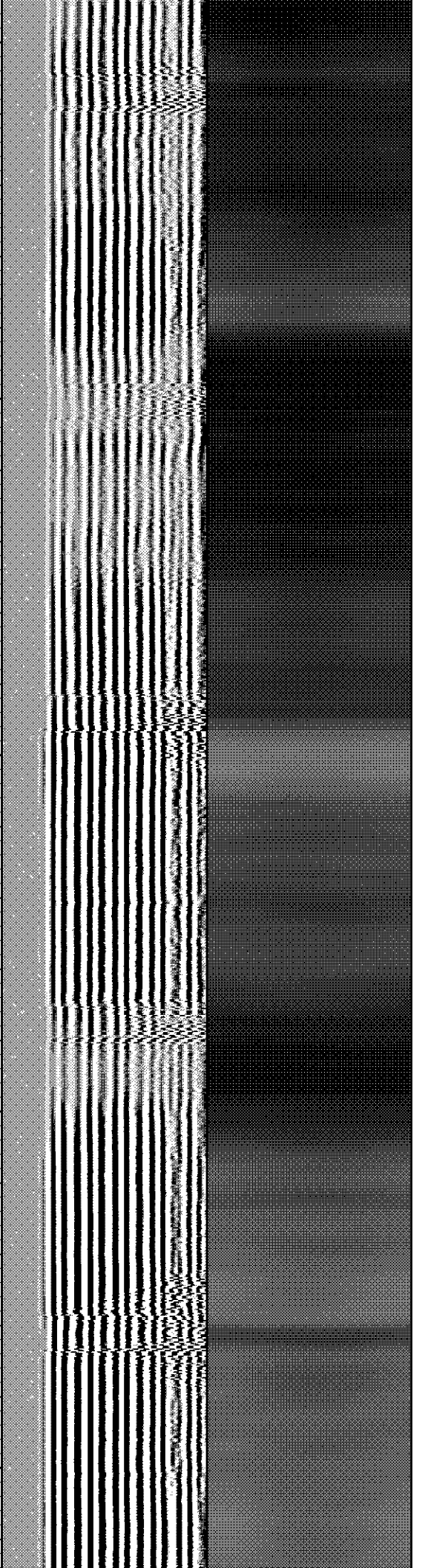
82.8951



1050
1100
1150
1200
1250



84.1331
84.7379
86.1482
87.4243
88.3862



1300

1350

1400

1450

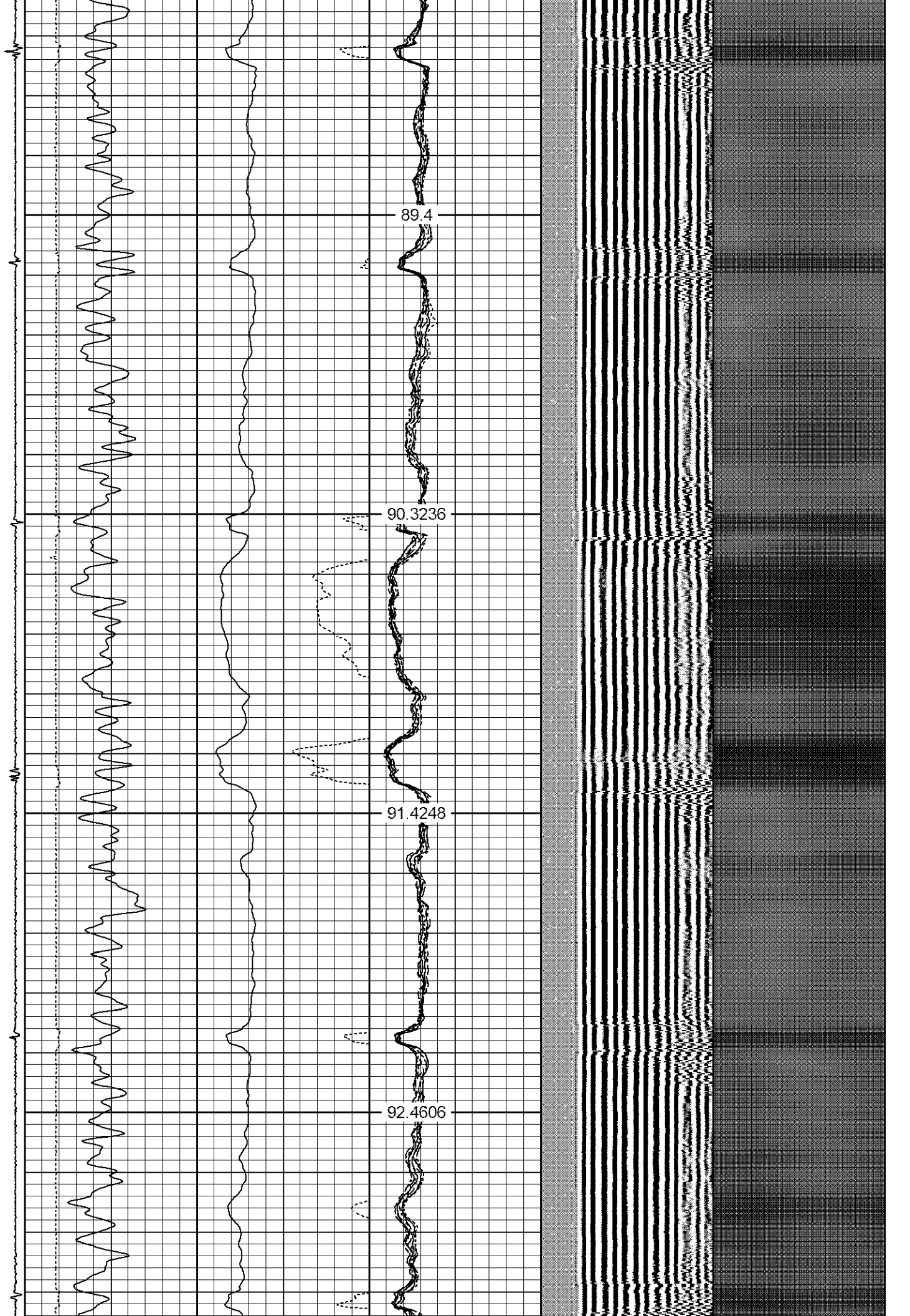
89.4

$\Delta\alpha$

90.3236

91.4248

92.4606



1500

1550

1600

1650

1700

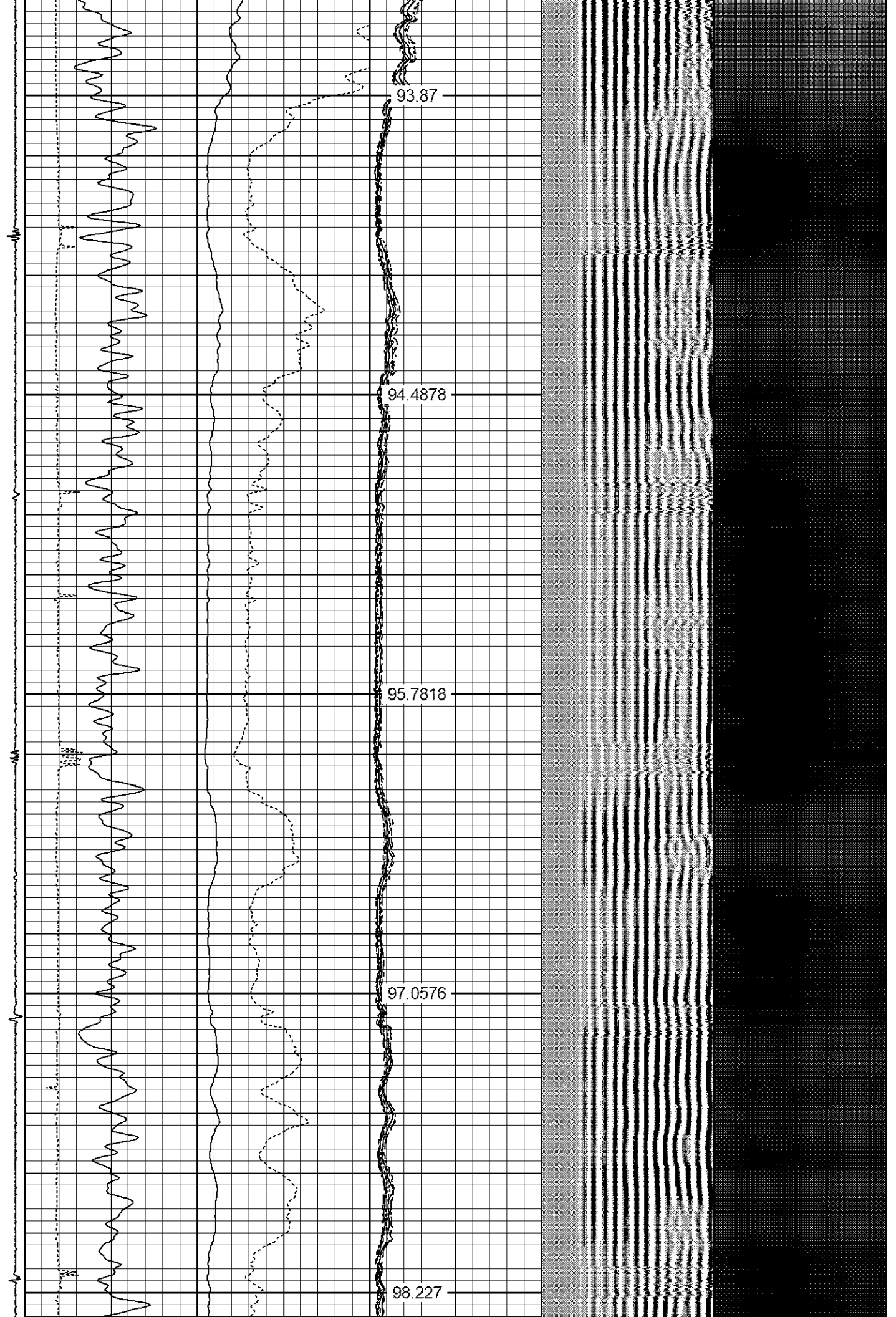
93.87

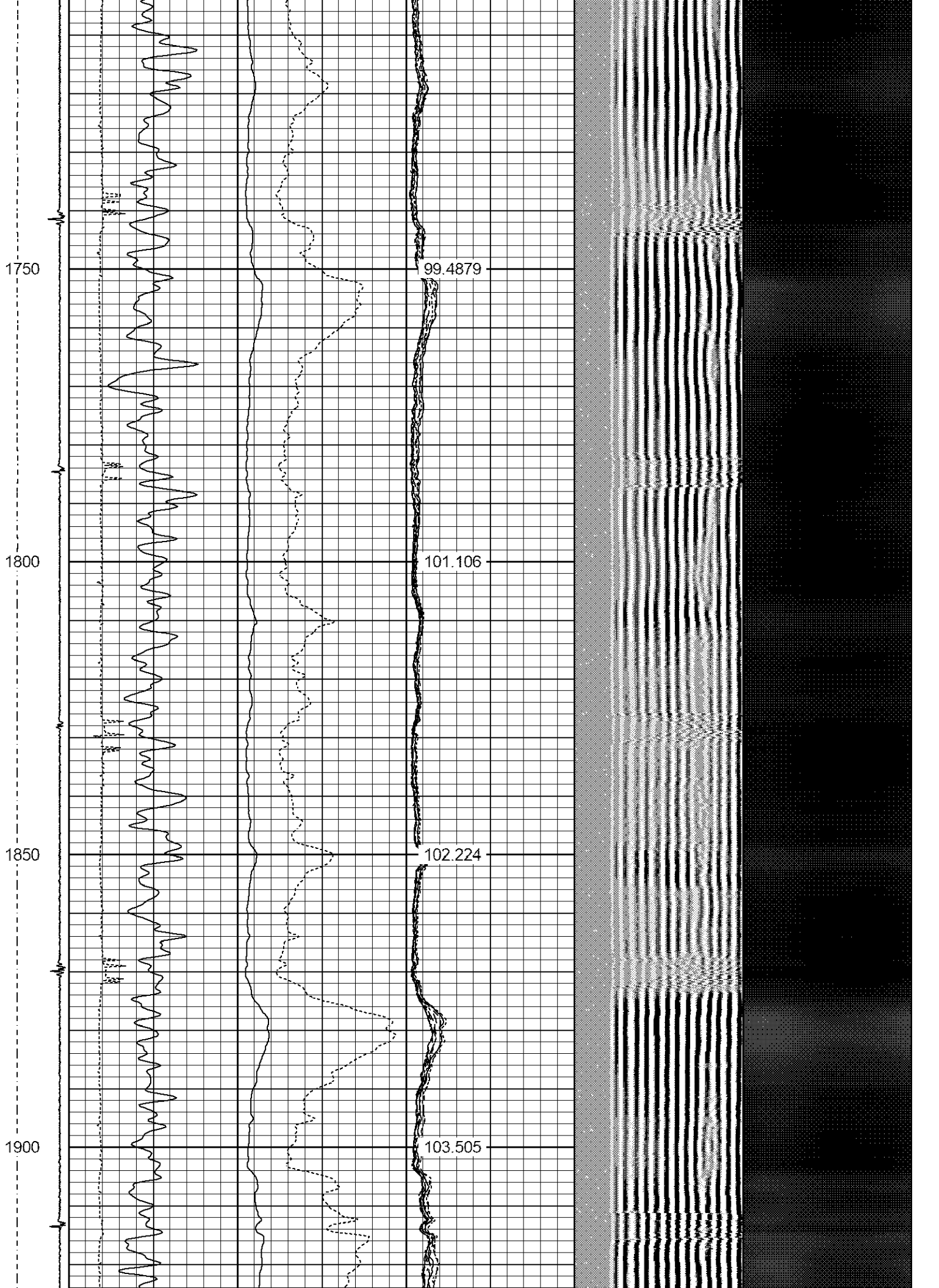
94.4878

95.7818

97.0576

98.227





1950

2000

2050

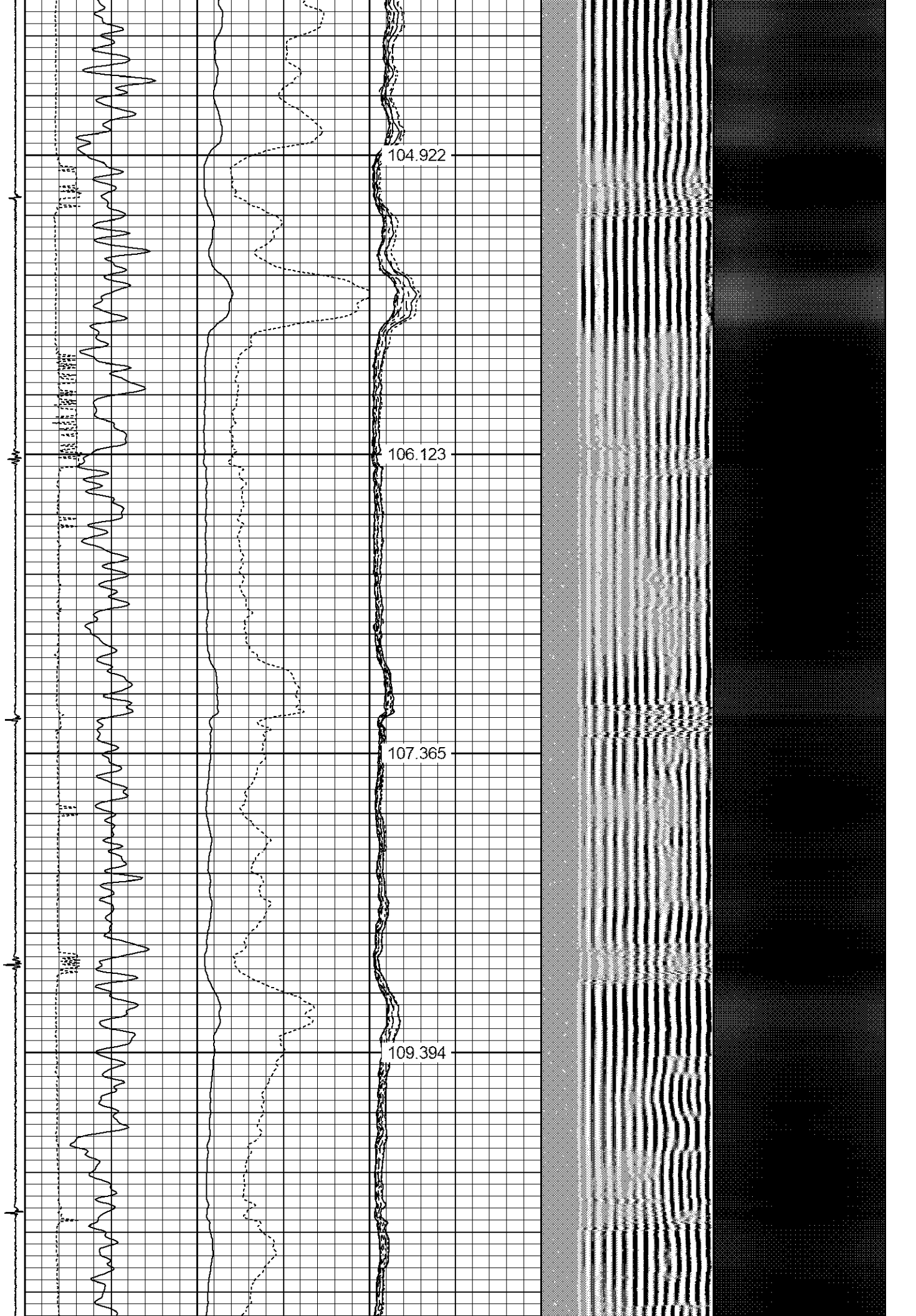
2100

104.922

106.123

107.365

109.394



2150

110.469

2200

111.597

2250

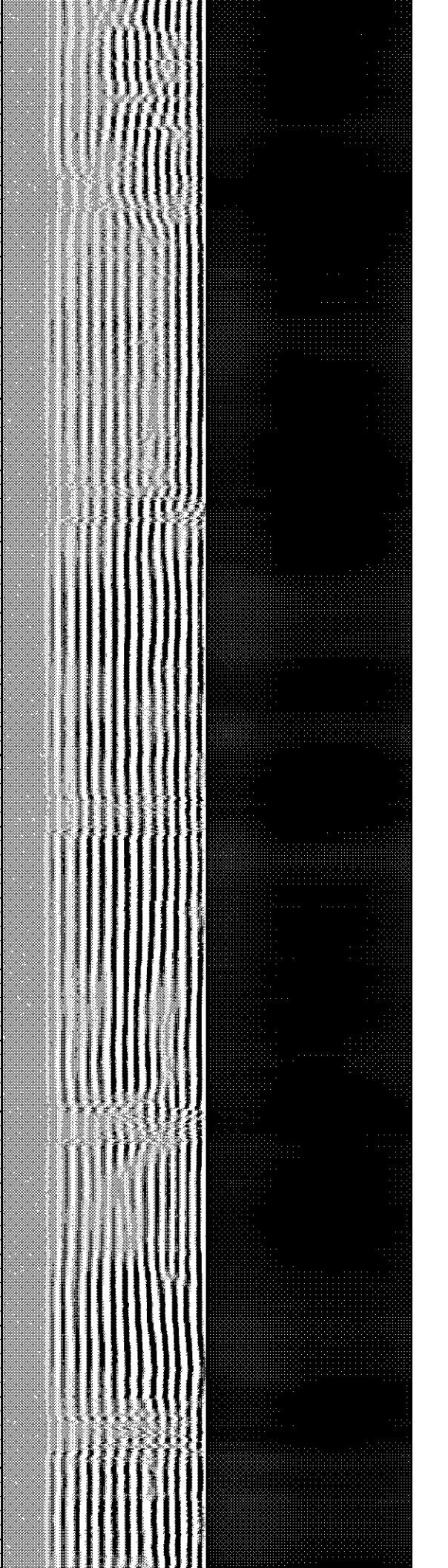
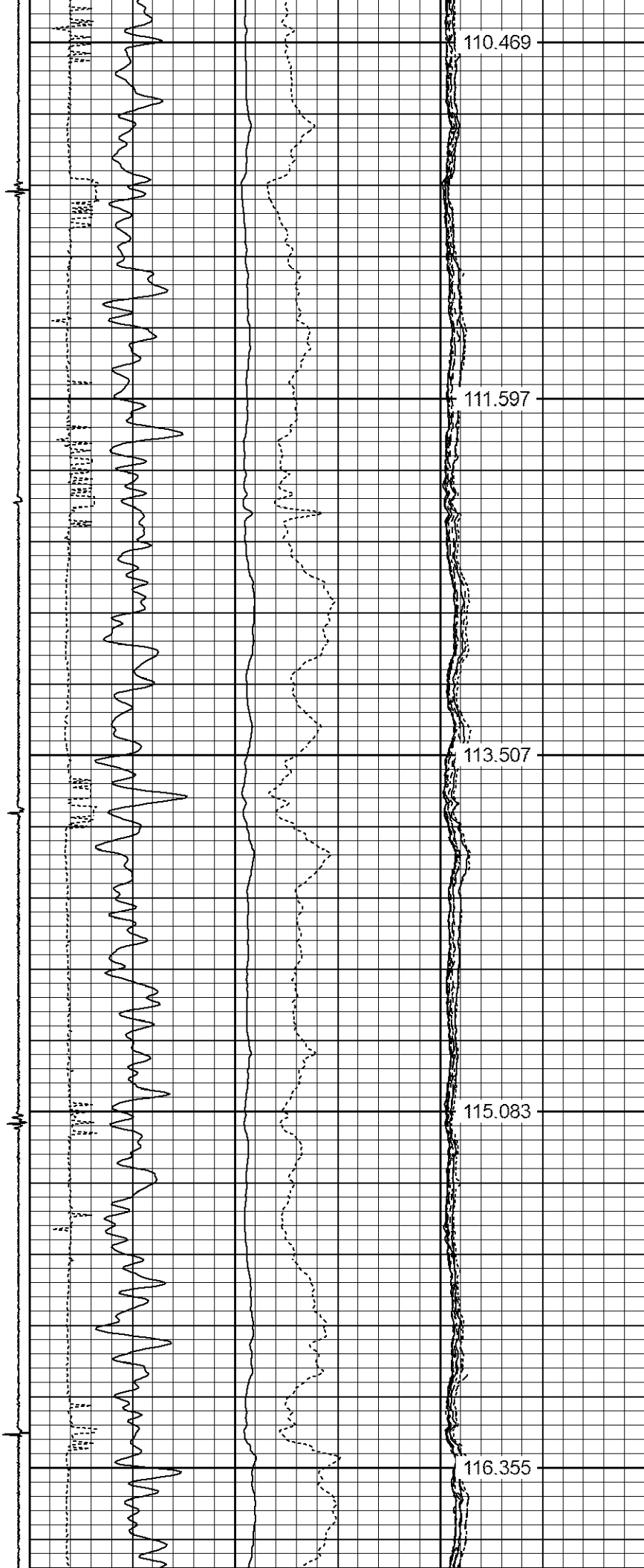
113.507

2300

115.083

2350

116.355



2400

2450

2500

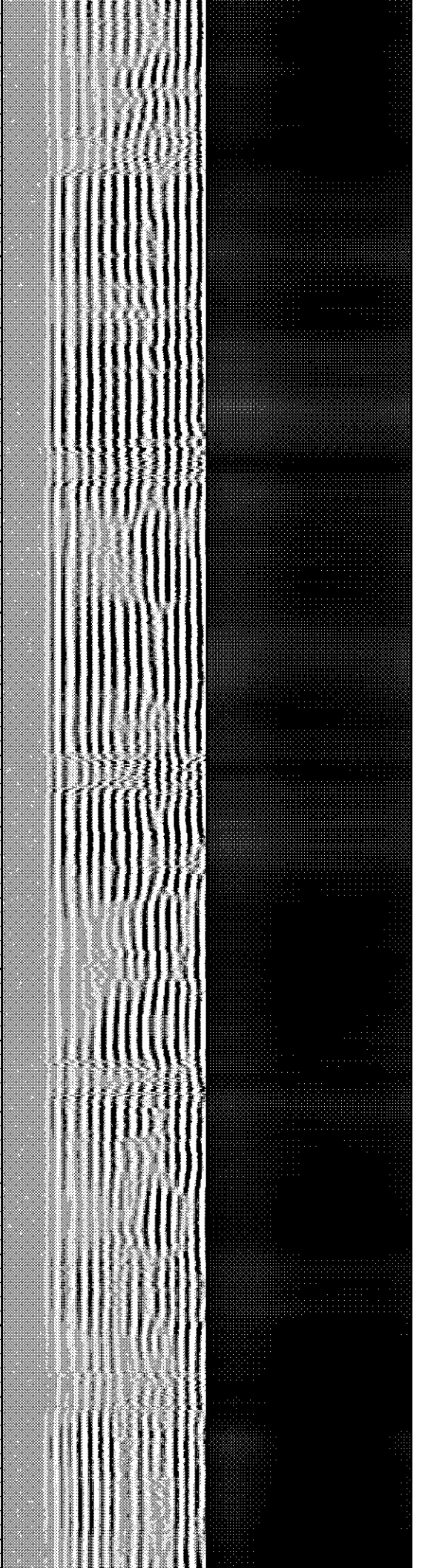
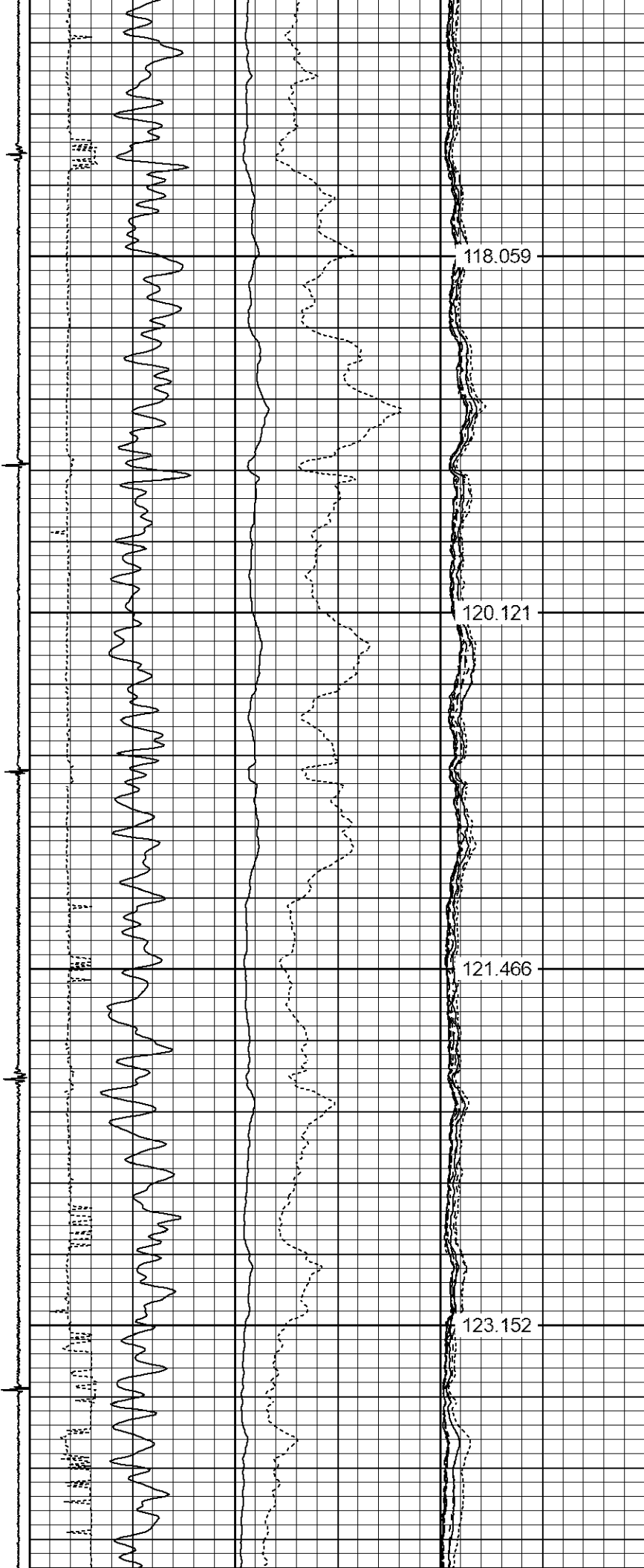
2550

118.059

120.121

121.466

123.152



2600

124.839

2650

126.301

2700

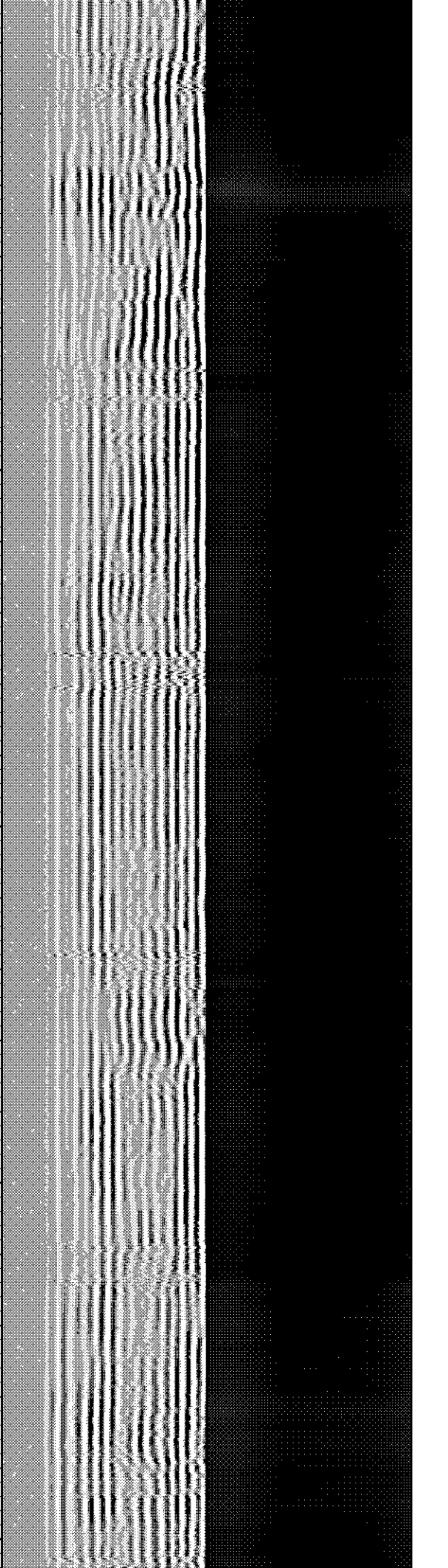
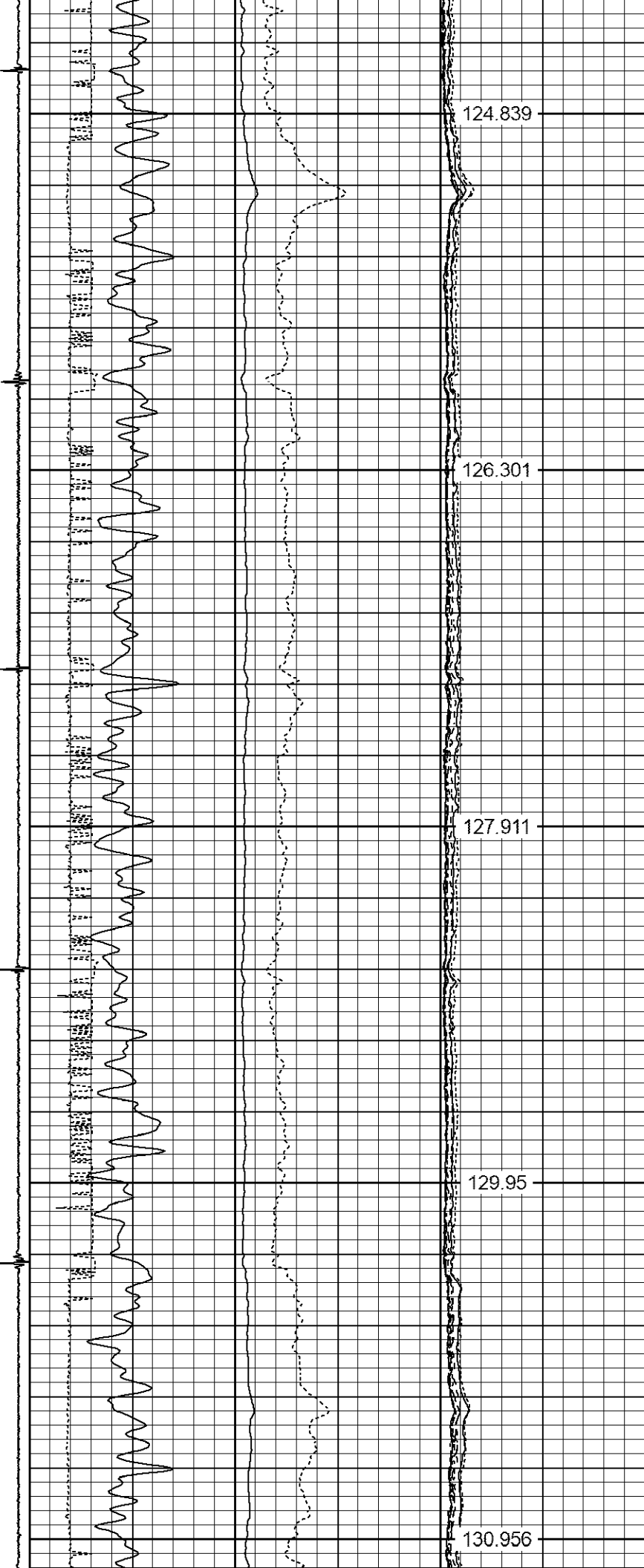
127.911

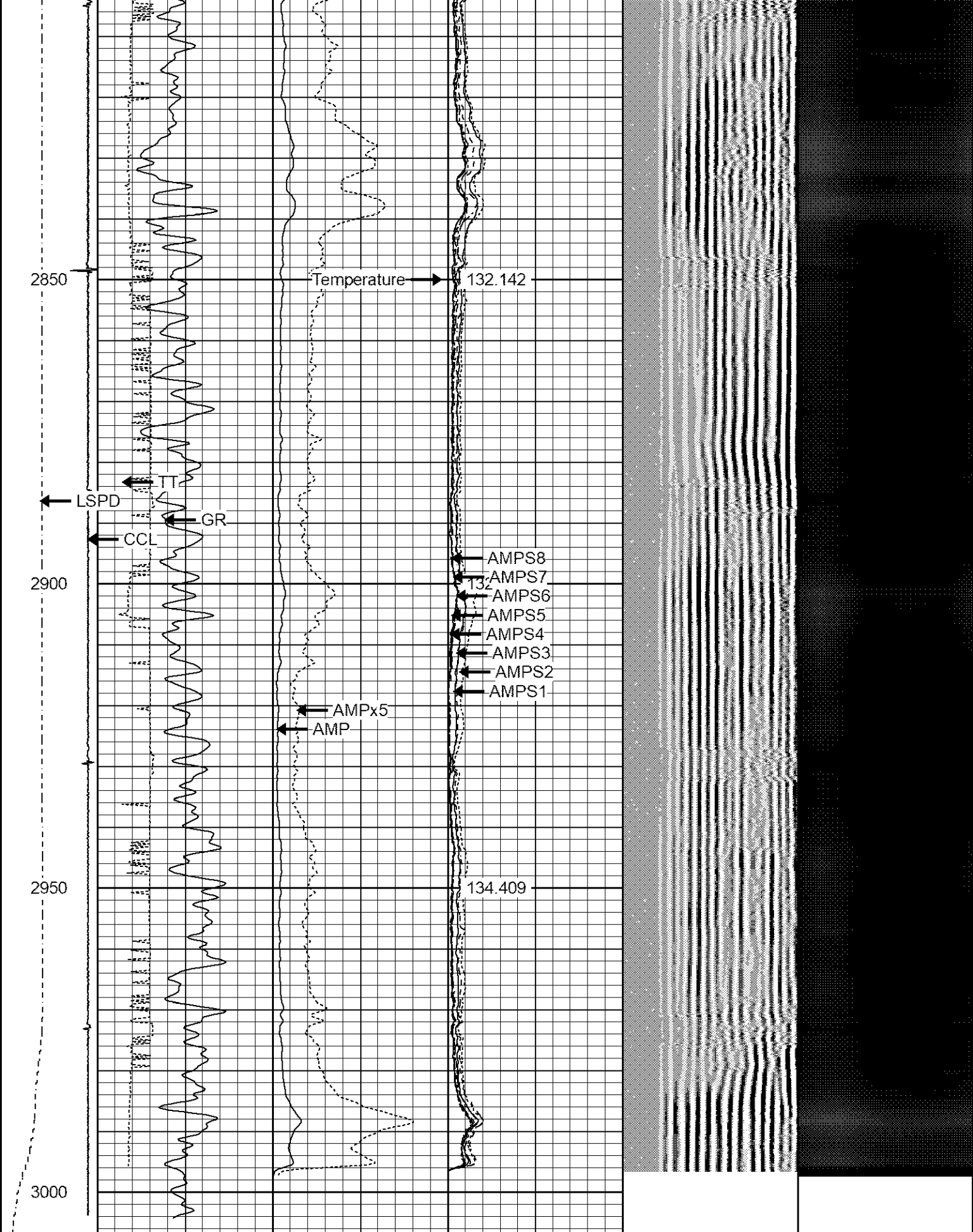
2750

129.95

2800

130.956





-9	CCL	1	200	TT (usec)	600	0	AMP (mV)	100	0	AMPS1	100	200	VDL (usec)	1200	1	Cement Map	8
	LSPD	0	GR (GAPI)	200	0	AMPx5 (mV)	20	0	AMPS2	100							
	(ft/min)	200	GR (GAPI)	400					AMPS3	100							
0	250								AMPS4	100							

0	AMPS4	100
0	AMPS5	100
0	AMPS6	100
0	AMPS7	100
0	AMPS8	100
TEMP		
(degF)		

Calibration Report

Database File frick pc c #17-65hn.db
Dataset Pathname pass7
Dataset Creation Wed Apr 28 12:51:54 2021

Gamma Ray Calibration Report

Serial Number: 27GRL10-XXXX
Tool Model: 27GRL10
Performed: (Not Performed)

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 1.0000 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: Greeley Ext Temp
Tool Model: 27SBT10

Calibration Casing Diameter: 7.000 in
Calibration Depth: 30.078 ft

Master Calibration, performed Wed Apr 28 12:32:37 2021:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.008	1.533	1.000	62.165	40.128	0.664
CAL	1.490	1.522				
5'	0.017	1.472	1.000	62.165	42.016	0.300
SUM						
S1	0.009	1.502	0.000	62.165	41.647	-0.378
S2	0.015	1.488	0.000	62.165	42.207	-0.619
S3	0.016	1.514	0.000	62.165	41.506	-0.679
S4	0.015	1.513	0.000	62.165	41.511	-0.633
S5	0.011	1.505	0.000	62.165	41.629	-0.479
S6	0.009	1.500	0.000	62.165	41.704	-0.380
S7	0.008	1.487	0.000	62.165	42.041	-0.339
S8	0.008	1.491	0.000	62.165	41.937	-0.349

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	1.490	1.522	1.000	0.000

	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



Well Services

E - L I N E

Company	NOBLE ENERGY	
Well	FRICK PC C #17-65HN	
Field	WATTENBERG	
County	WELD	
State	CO	Country USA