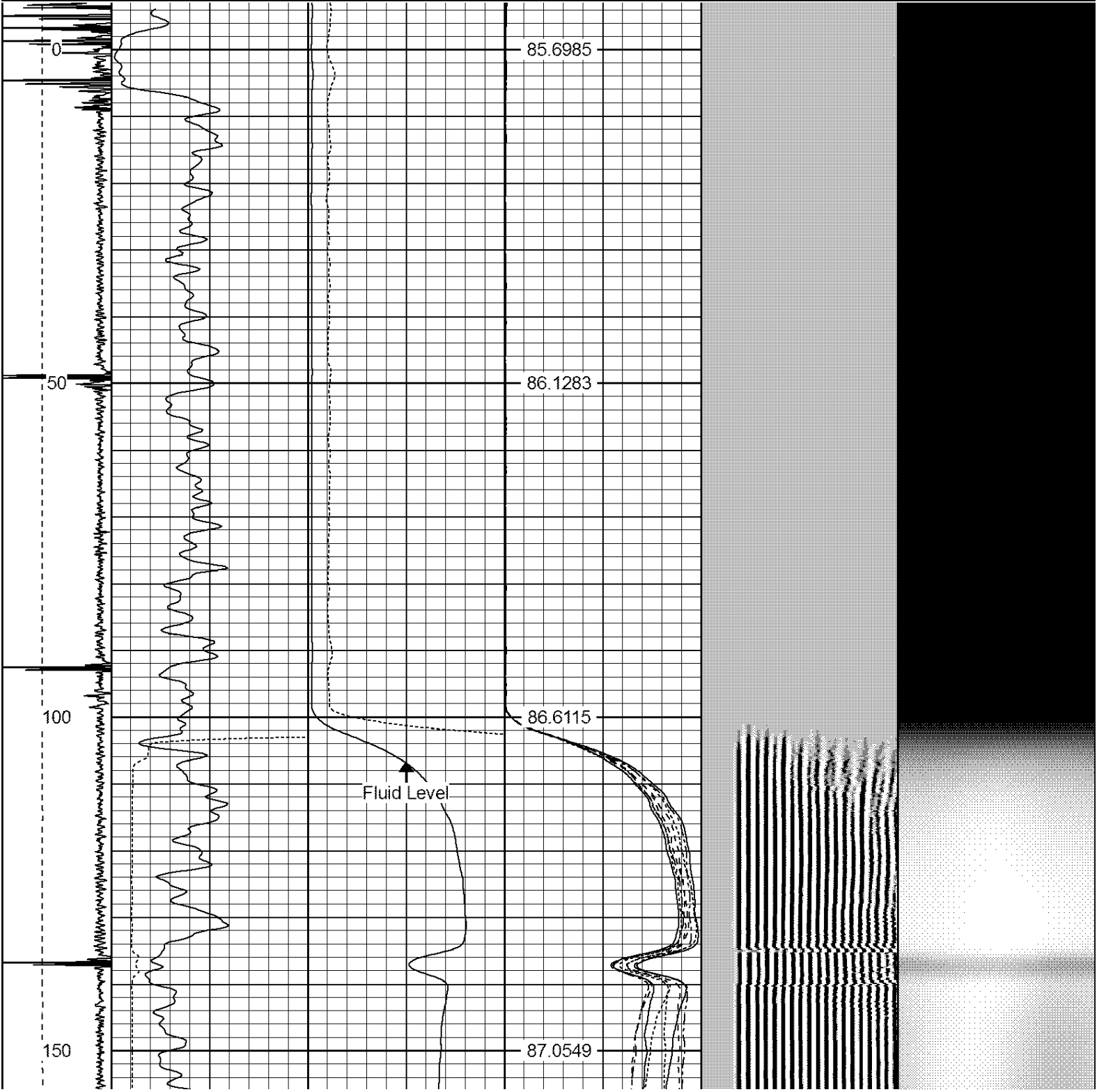
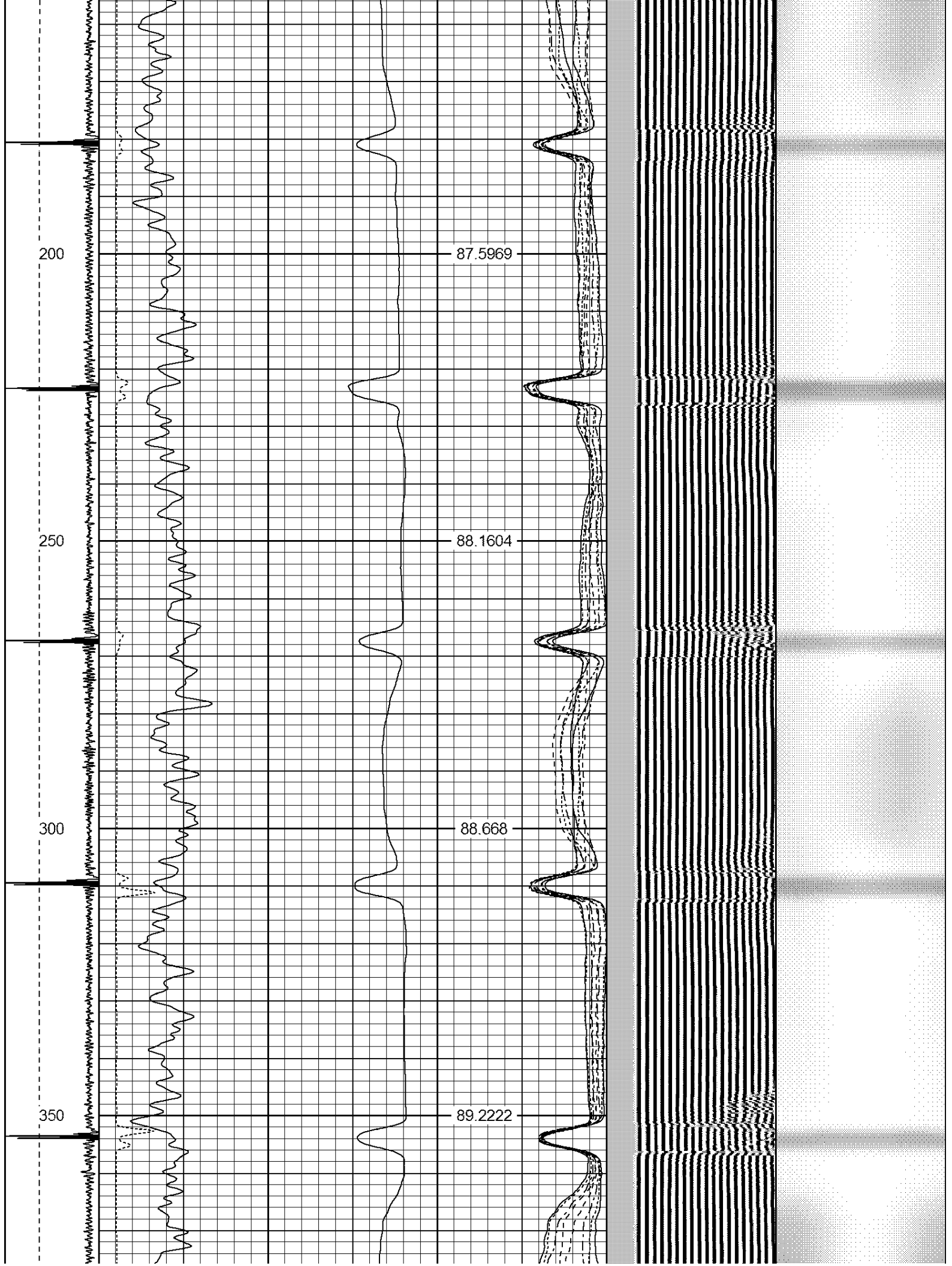
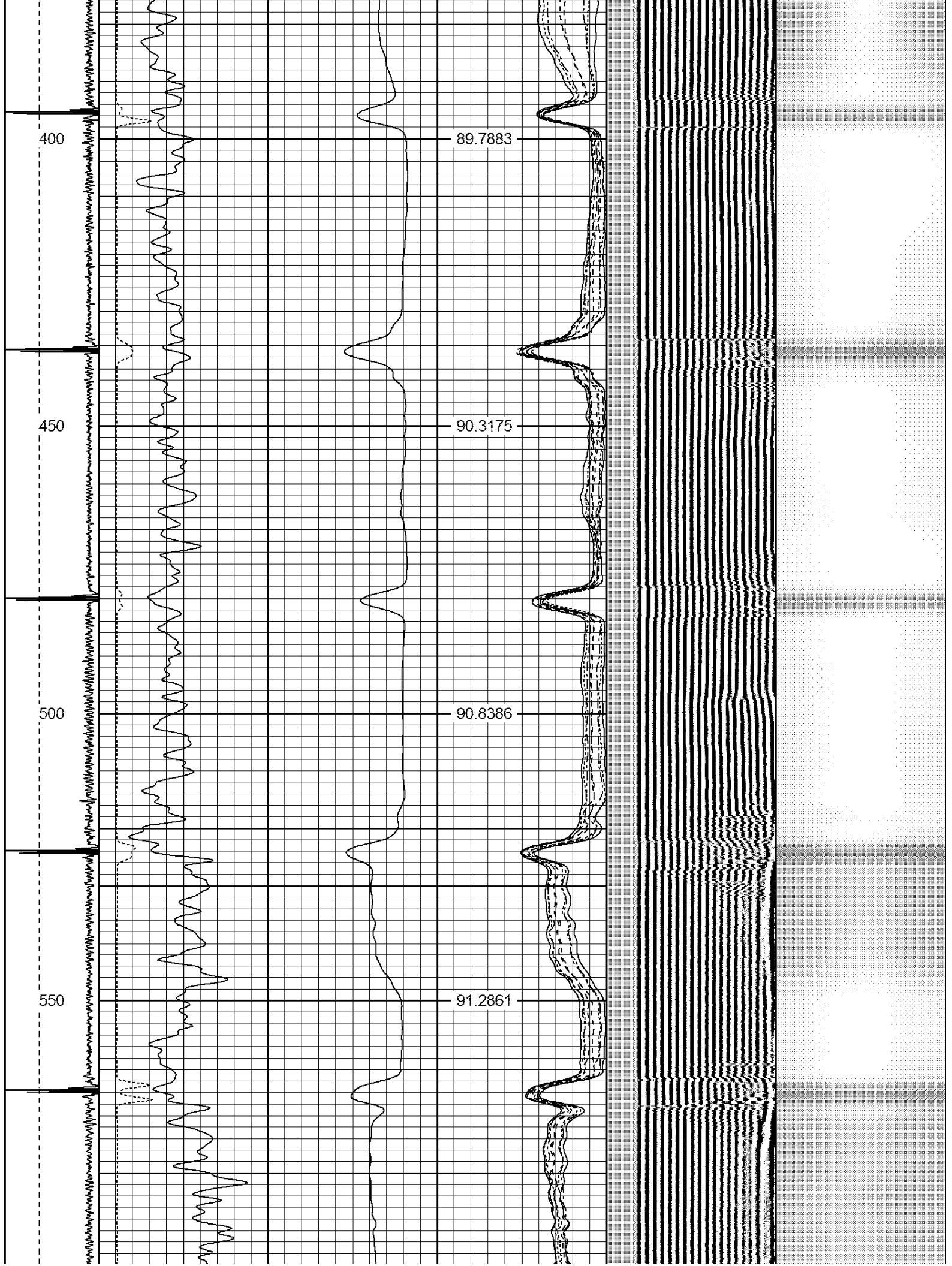


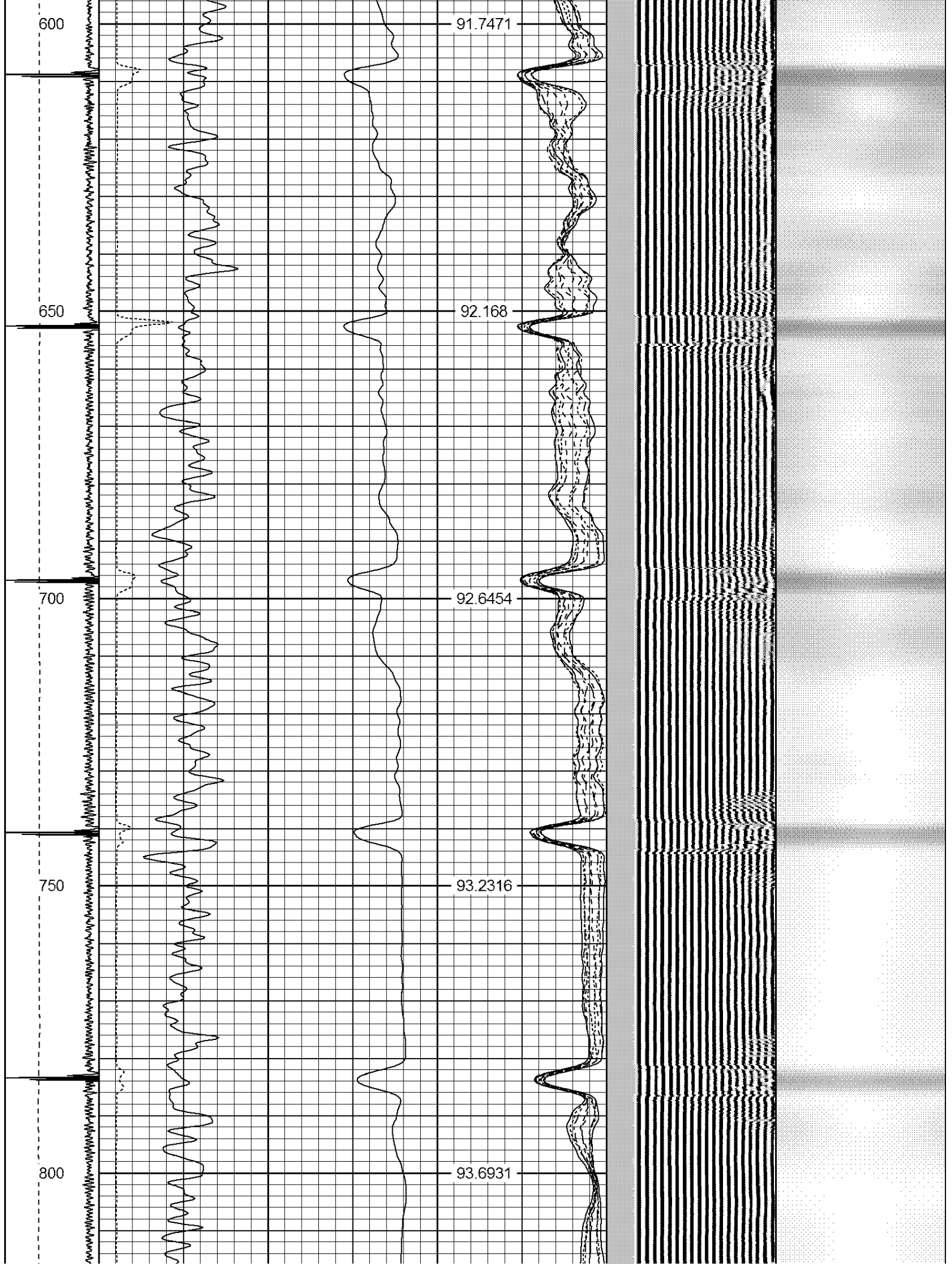
Dataset: hsr-marley 15-33.db: field/well/run1/pass2
 Total Length: 17.13 ft
 Total Weight: 165.00 lb
 O.D.: 2.75 in

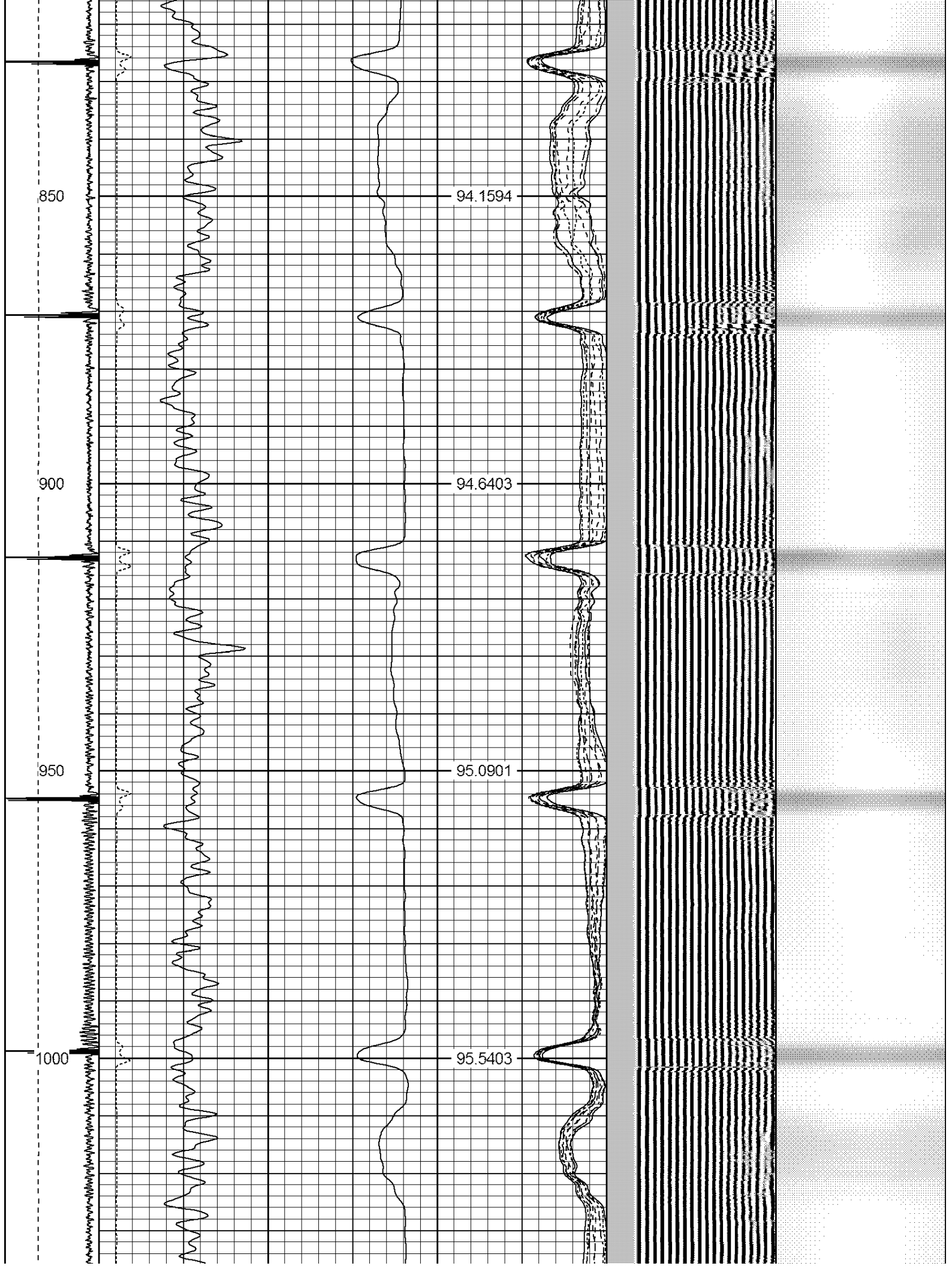
-9	CCL	1	200	TT (usec)	800	0	AMP (mV)	100	0	AMPS1	100	200	VDL	1200	1	Cement Map	8
	LSPD		0	GR (GAPI)	200	0	AMPx5 (mV)	20	0	AMPS2	100				100		1
	(ft/min)		200	GR (GAPI)	400					0	AMPS3	100					
0										0	AMPS4	100					
										0	AMPS5	100					
										0	AMPS6	100					
										0	AMPS7	100				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

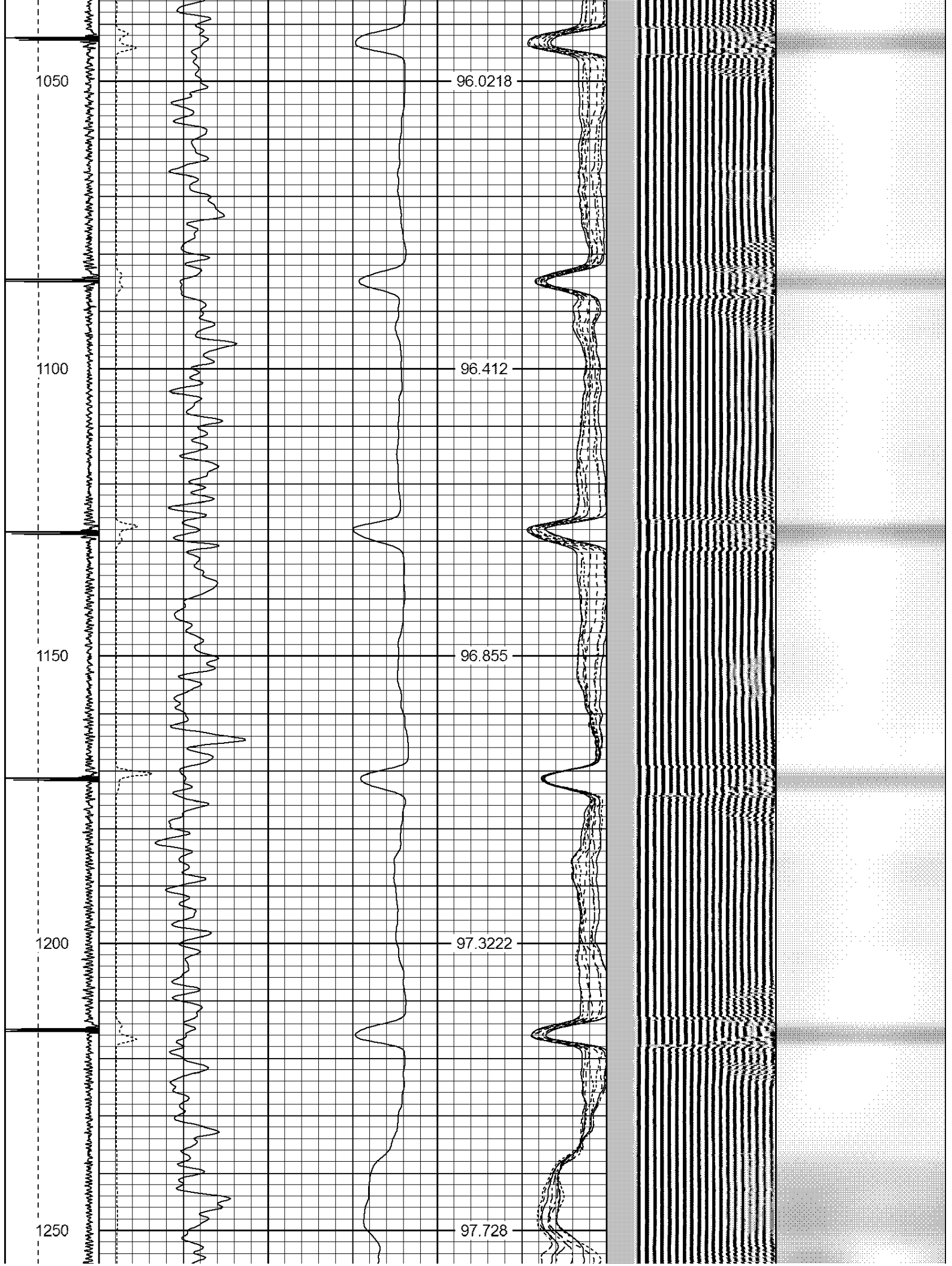


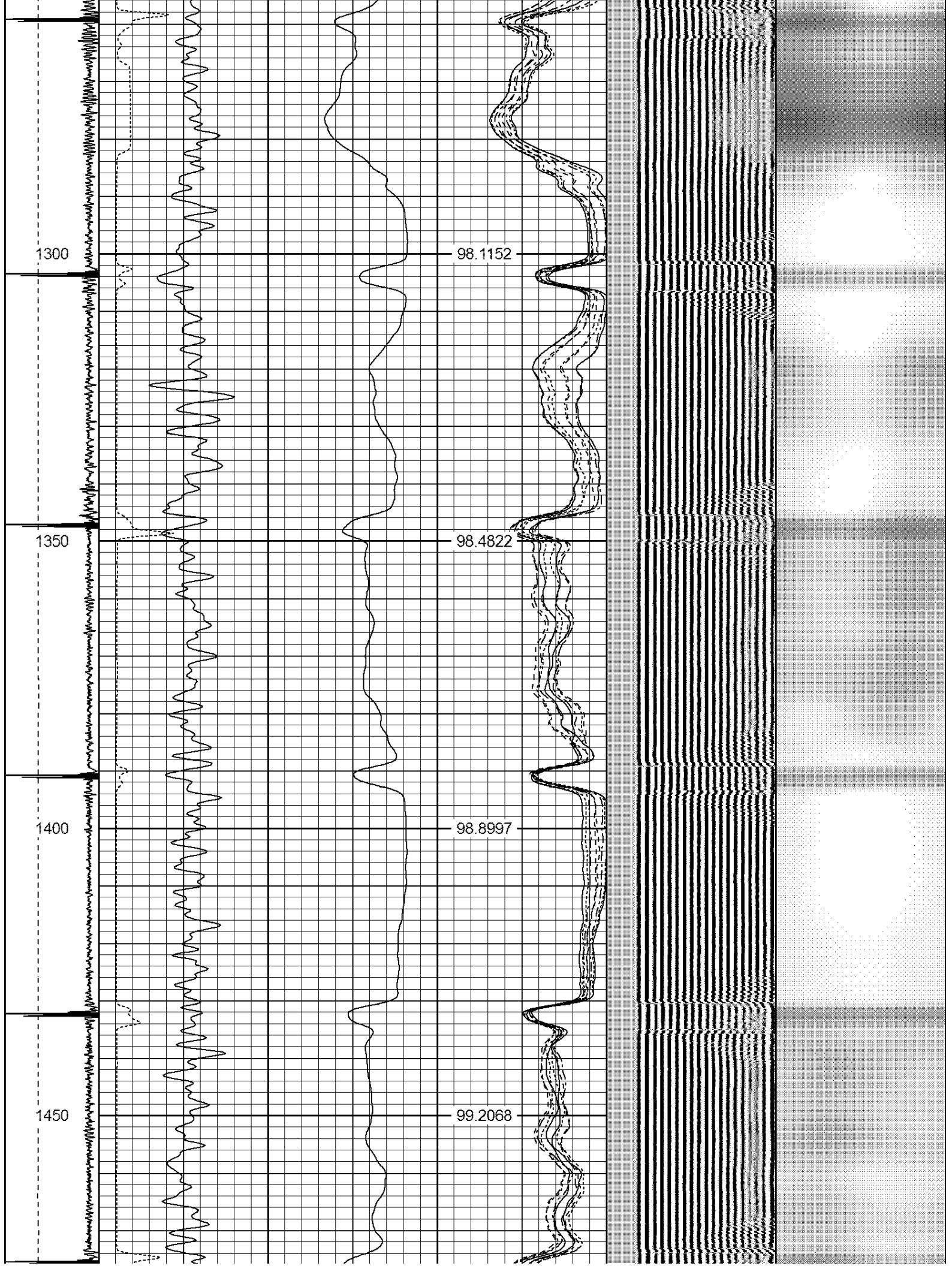


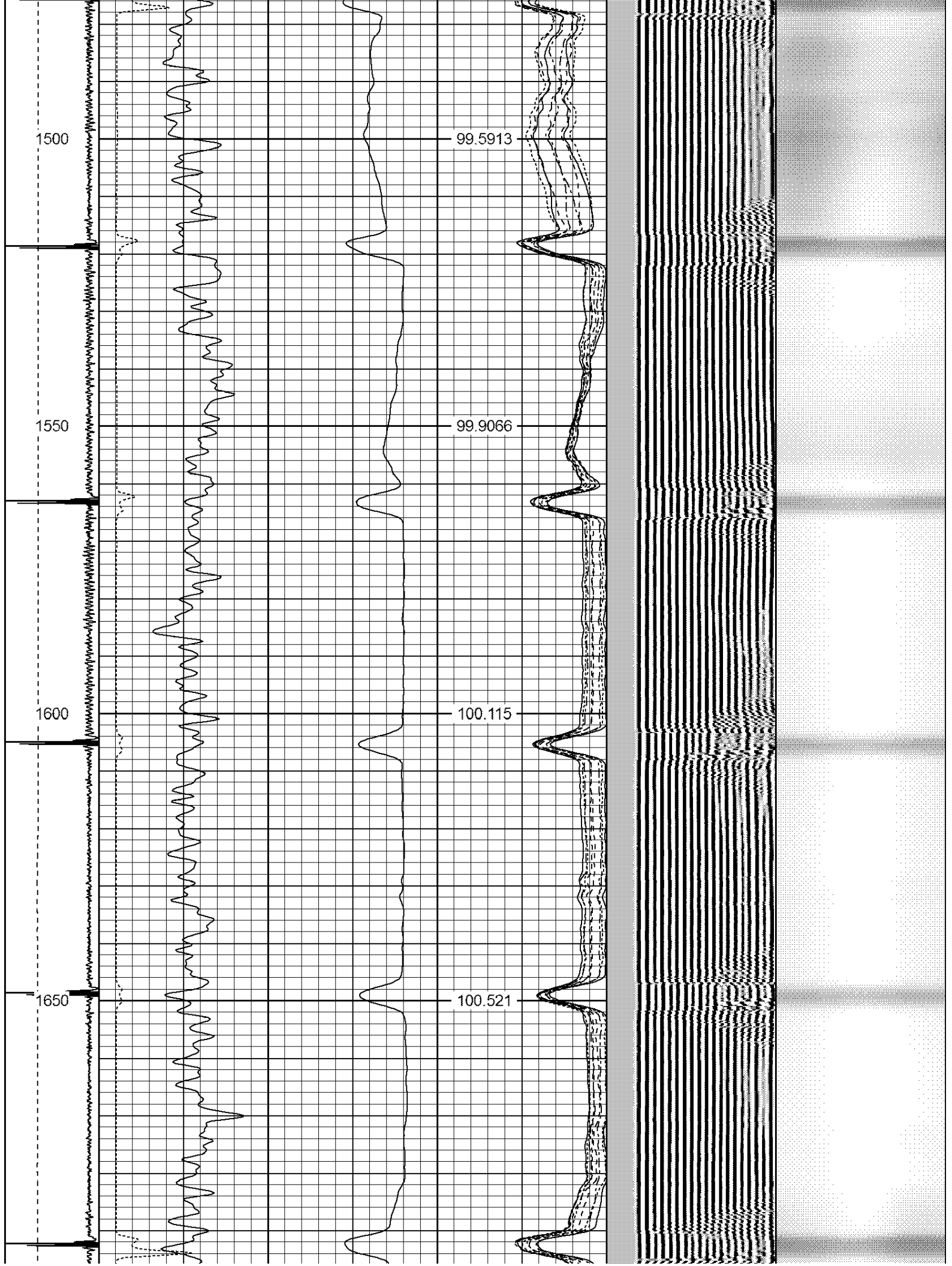


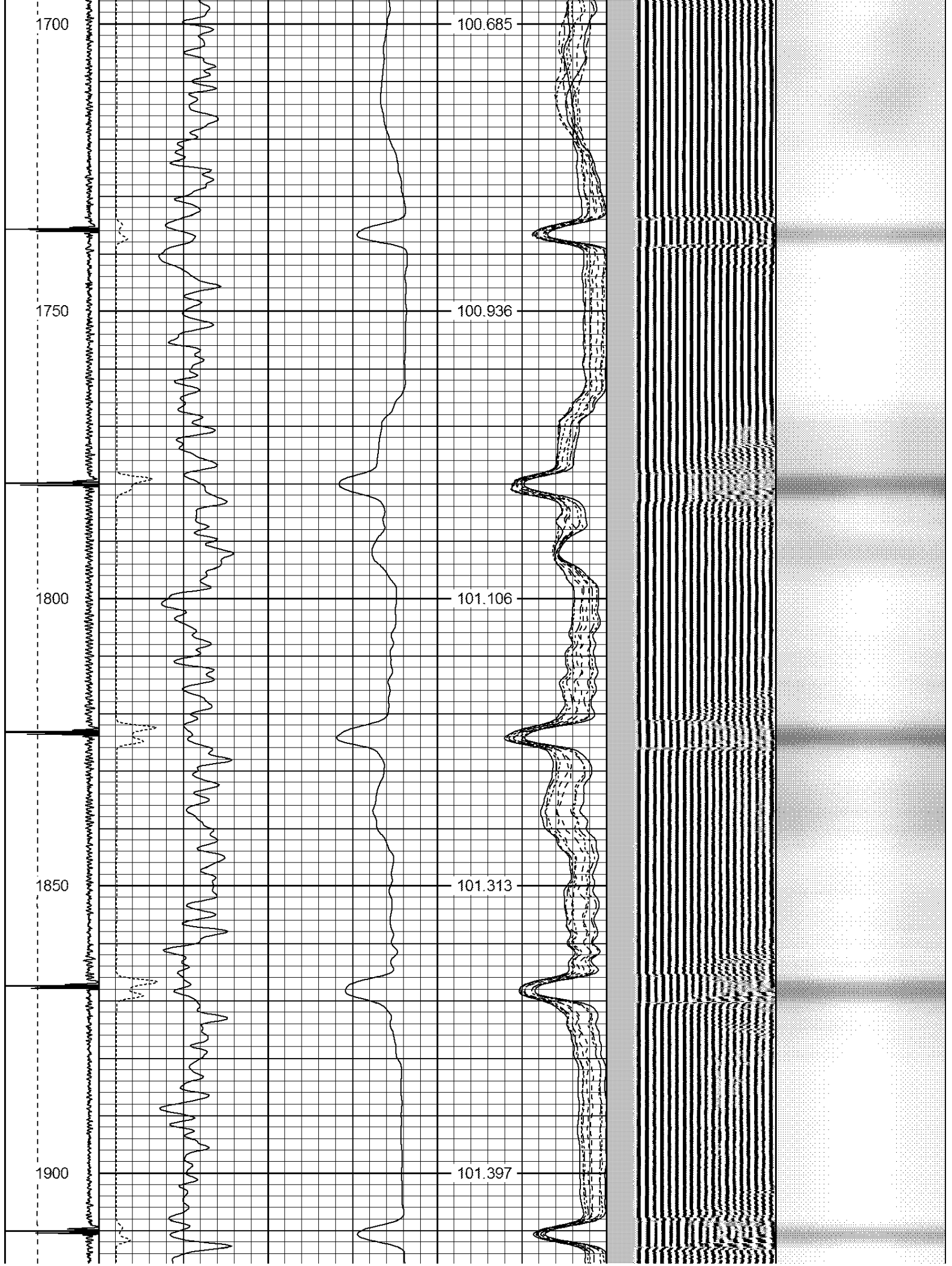


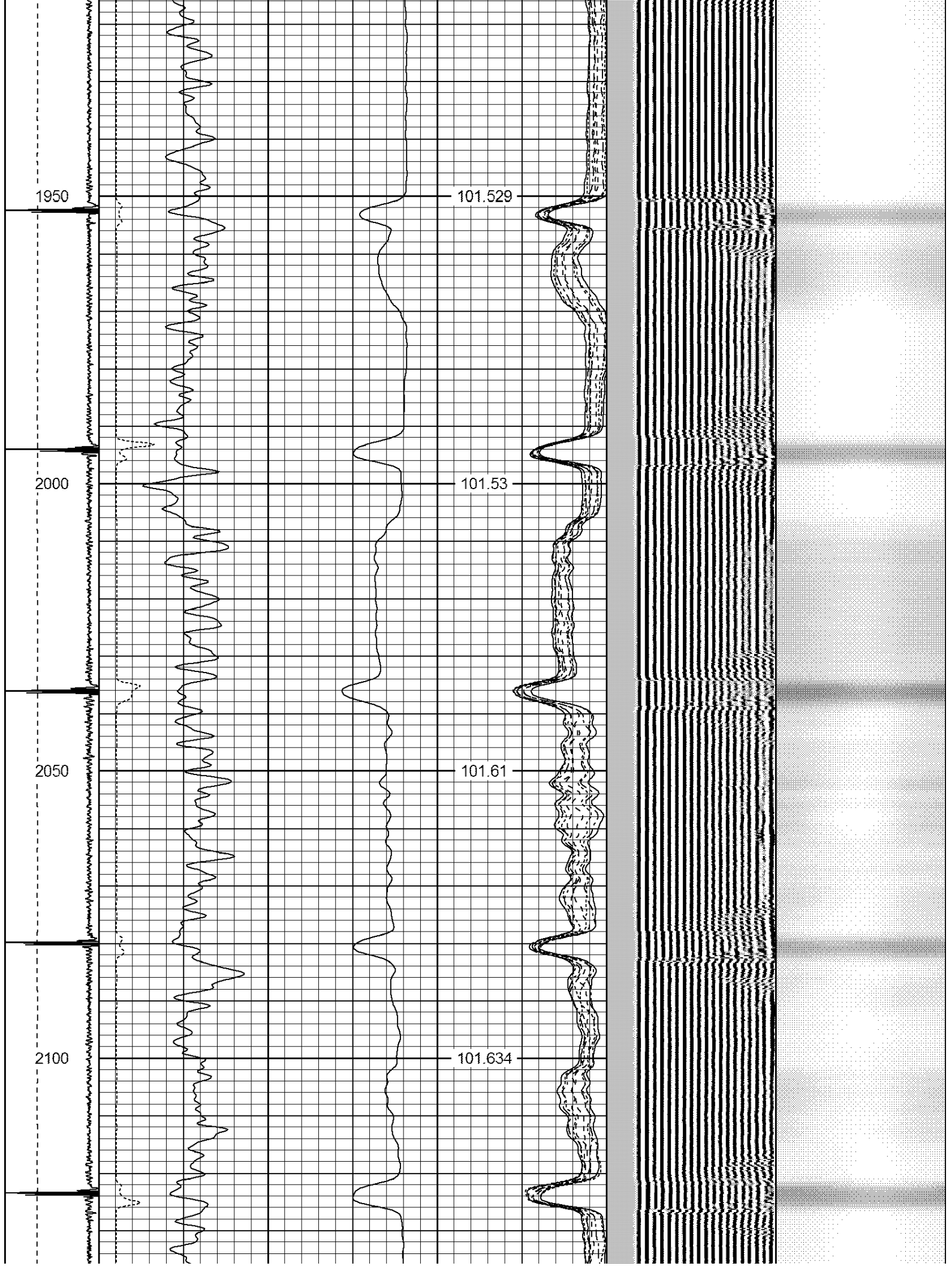


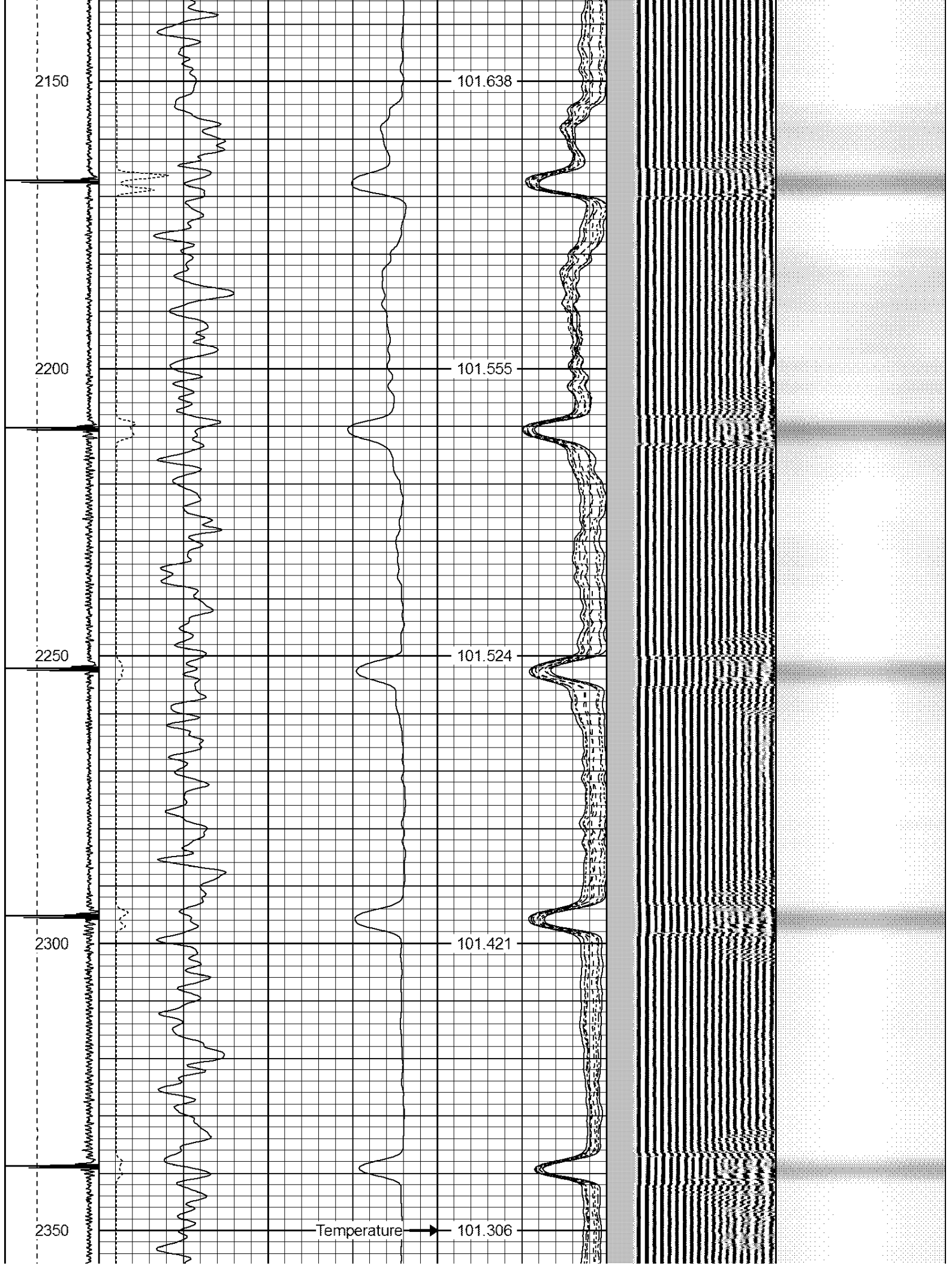


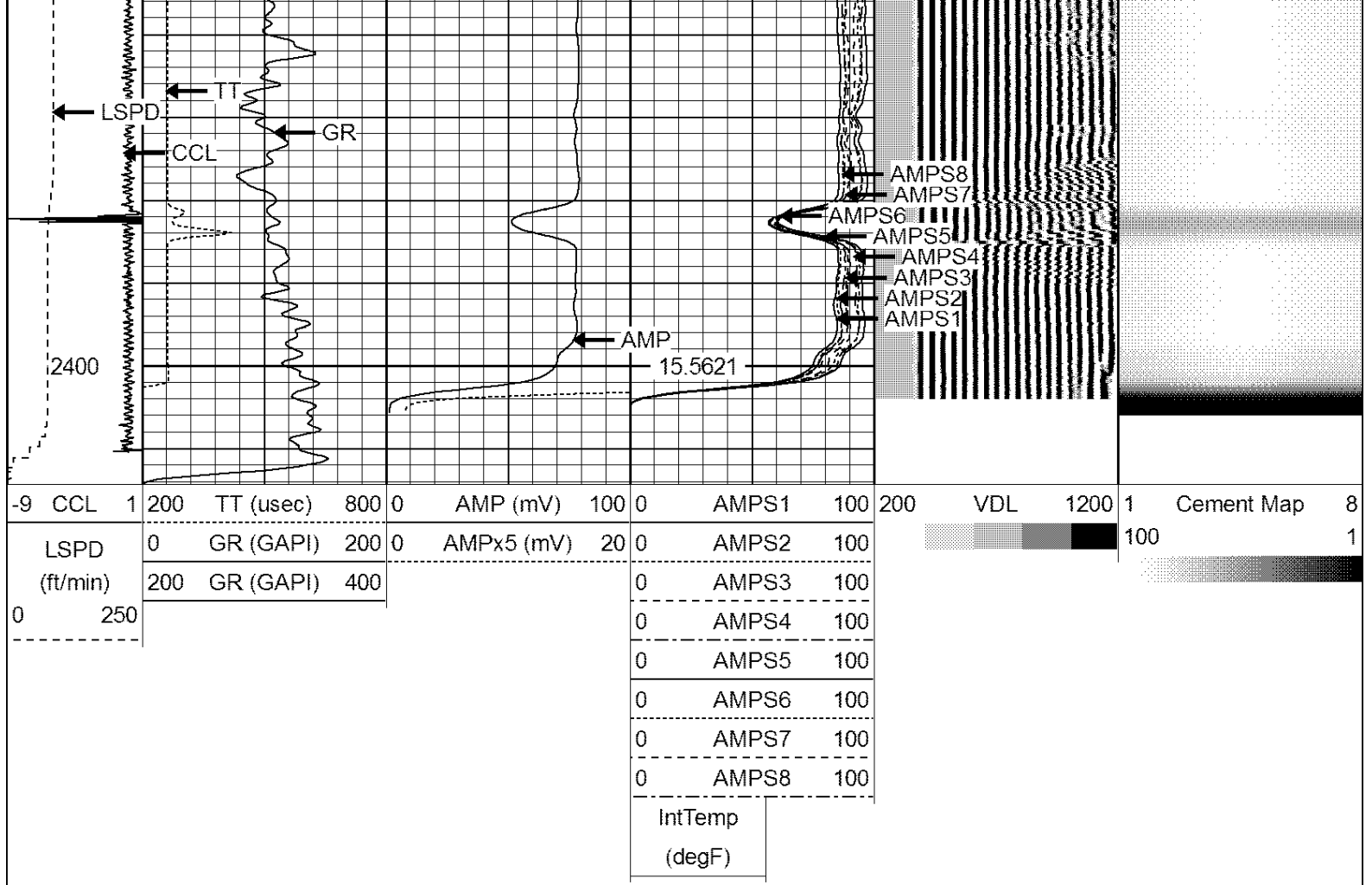












Calibration Report

Database File: hsr-marley 15-33.db
 Dataset Pathname: pass2
 Dataset Creation: Tue Sep 11 14:05:09 2018 by Log SCH 120126

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
 Tool Model: Probe_B

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: 3.500 in
Calibration Depth: 167.973 ft

Master Calibration, performed Tue Aug 21 10:53:12 2018:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.004	1.500	2.000	94.517	61.850	1.726
CAL	0.004	1.501				
5'	0.004	1.506	2.000	94.517	61.588	1.770
SUM						
S1	0.004	1.498	0.500	94.517	62.910	0.252
S2	0.005	1.474	0.500	94.517	63.986	0.202
S3	0.004	1.463	0.500	94.517	64.429	0.234
S4	0.004	1.494	0.500	94.517	63.105	0.237
S5	0.004	1.501	0.500	94.517	62.787	0.257
S6	0.004	1.540	0.500	94.517	61.220	0.259
S7	0.004	1.573	0.500	94.517	59.918	0.257
S8	0.004	1.528	0.500	94.517	61.683	0.267

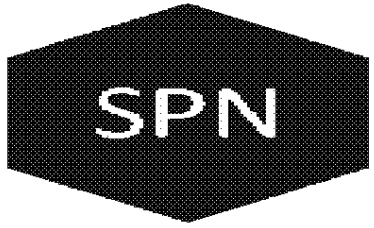
Internal Reference Calibration, performed Tue Jun 05 07:53:42 2012:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.004	1.501	1.000	0.000

Air Zero Calibration, performed Tue Sep 11 13:48:34 2018:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero			Offset
3'	0.006		0.000			-0.002
5'	0.007		0.000			-0.003
SUM						

S1	0.008	0.000	-0.005
S2	0.006	0.000	-0.002
S3	0.007	0.000	-0.003
S4	0.006	0.000	-0.002
S5	0.007	0.000	-0.003
S6	0.006	0.000	-0.003
S7	0.007	0.000	-0.003
S8	0.008	0.000	-0.004



Well Services
E-LINE

Company NOBLE ENERGY
Well HSR-MARLEY 15-33
Field WATTENBURG
County WELD
State CO