



**SECTOR CEMENT BOND
GAMMA RAY
CCL LOG**

Comp. OCCIDENTAL PETROLEUM
Well MORTON 24-1
Field WATTENBERG
Co. WELD
State COLORADO

Company **OCCIDENTAL PETROLEUM**
Well **MORTON 24-1**
Field **WATTENBERG**
County **WELD** State **COLORADO**

Location: API #: 05-123-34063 Other Services
SHL: 1371' FSL & 953' FEL NESE
SEC 1 TWP 1N RGE 67W
Permanent Datum GL Elevation 4898'
Log Measured From KB 15' Above Perm. Datum
Drilling Measured From KB
K.B. 4913'
D.F. 4912'
G.L. 4898'

Date of Service	05-AUGUST-2024				
Run Number	ONE				
Depth Driller or PBTD	8237'				
Depth Logger	5027'				
Bottom Log Interval	5000'				
Top Log Interval	SURFACE				
Open Hole Size	7.875"				
Type Fluid	WATER				
Fluid Level	FULL				
Fluid Density	N/A				
Max. Recorded Temperature	NA				
Max. Wellhead Pressure	0 PSI				
Wellhead Connection	7-1/16" 5K				
Estimated Cement Top	290'				
Unit Number	495094				
Wireline Size	.288"				
Location	BRIGHTON, CO				
Recorded By	SMITH				
Witnessed By	GONZALEZ				
Surface Casing	8.875"	Size	WFt	Top	Bottom
Production Casing	4.5"	24#	0	0	877'
Liner Casing	N/A	11.6#	N/A	N/A	8237'
Tubing Record	N/A	N/A	N/A	N/A	N/A

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Ranger Energy Services cannot and does not guarantee the accuracy or correctness of any interpretation, and Ranger Energy Services will not 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.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

THANK YOU FOR USING RANGER ENERGY SERVICES! FIELD TICKET #

Your Ranger Energy Services Crew	Tool Data - Services	Serial Number
Engineer: SMITH Operator: UNDERWOOD Operator: CARANZA Operator:		

Quantity	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
----------	-------------	-----------	-------------	-------------	-----------	-------------

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)	
ErrCt	14.60		Cable_Head-1_7/16 Titan 1 7/16" Cable Head	1.02	1.44	3.31	
IntTemp	12.34						
WVFS8	9.09			RBT-Probe (070150) Probe Radii Bond Tool with Digital Telemetry	8.75	2.75	90.00
WVFS7	9.09						
WVFS6	9.09						
WVFS5	9.09						
WVFS4	9.09						
WVFS3	9.09						
WVFS2	9.09						
WVFS1	9.09						
WVFCAL	9.09						
WV3FT	9.09						
WV5FT	8.09						
CCL	3.89						
GR	2.65		GR_analog-GR275B (071129) 275 Gamma-CCL (Pulse) Top Detector	4.57	2.75	55.00	
			Bull_Plug-1_7/16_GO Titan 1 7/16" Female Bull Plug	0.27	1.44	1.00	

Dataset: oxy_morton 24-1_05-123-34063_08-05-2024_scbl.db: field/well/run1/pass3
 Total length: 14.60 ft
 Total weight: 149.31 lb
 O.D.: 2.75 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\oxy_morton 24-1_05-123-34063_08-05-2024_scbl.db
 Dataset field/well/run1/pass3/_vars_

Top - Bottom

BOREID in 8.75	BOTTEMP degF 100	CASEOD in 4.5	CASETHCK in 0.408	CASEWGHT lb/ft 11.6	MAXAMPL mV 81.2	MINAMPL mV 0.7	MINATTN db/ft 0.8
PERFS No	PPT usec 249	SRFTEMP degF 98	TDEPTH ft 5000				

Variable Description

BOREID : Borehole I.D.
 BOTTEMP : Bottom Hole Temperature
 CASEOD : Casing O.D.
 CASETHCK : Casing Thickness

CASEWGHT : Casing Weight
 MAXAMPL : Maximum Amplitude
 MINAMPL : Minimum Amplitude
 MINATTN : Minimum Attenuation

PERFS : Perforation Flag
 PPT : Predicted Pipe Time
 SRFTEMP : Surface Temperature
 TDEPTH : Total Depth

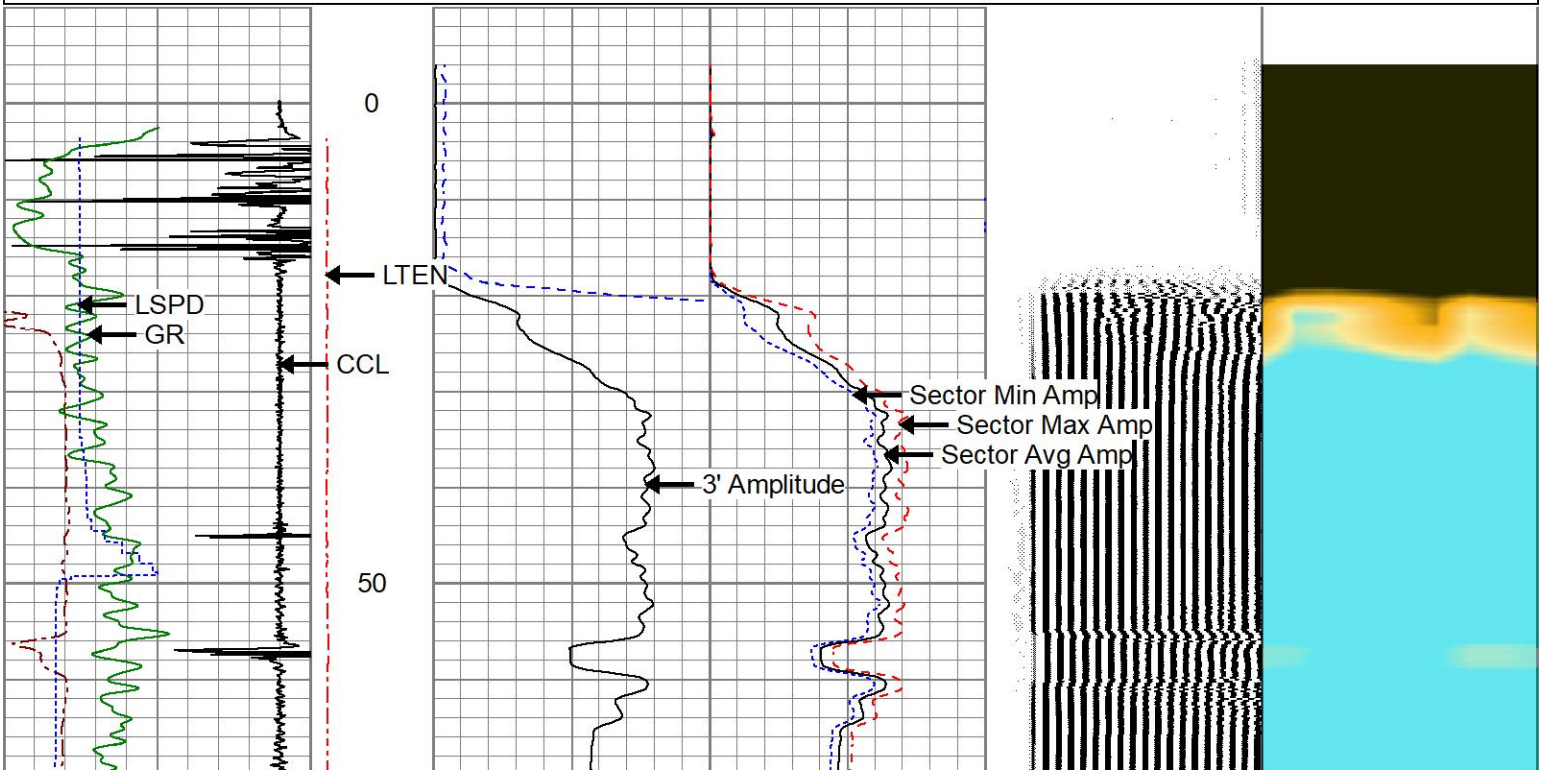


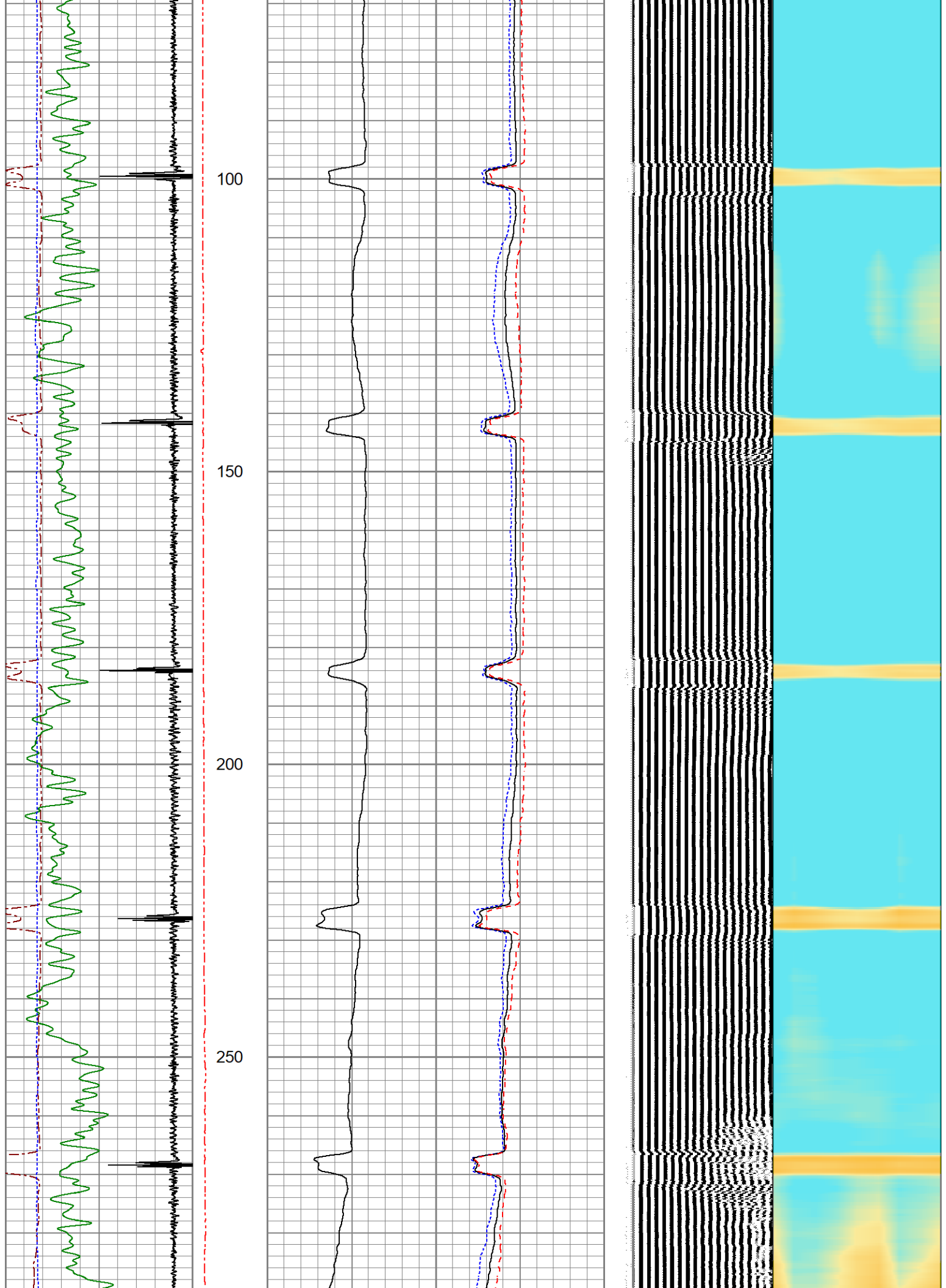
MAIN PASS

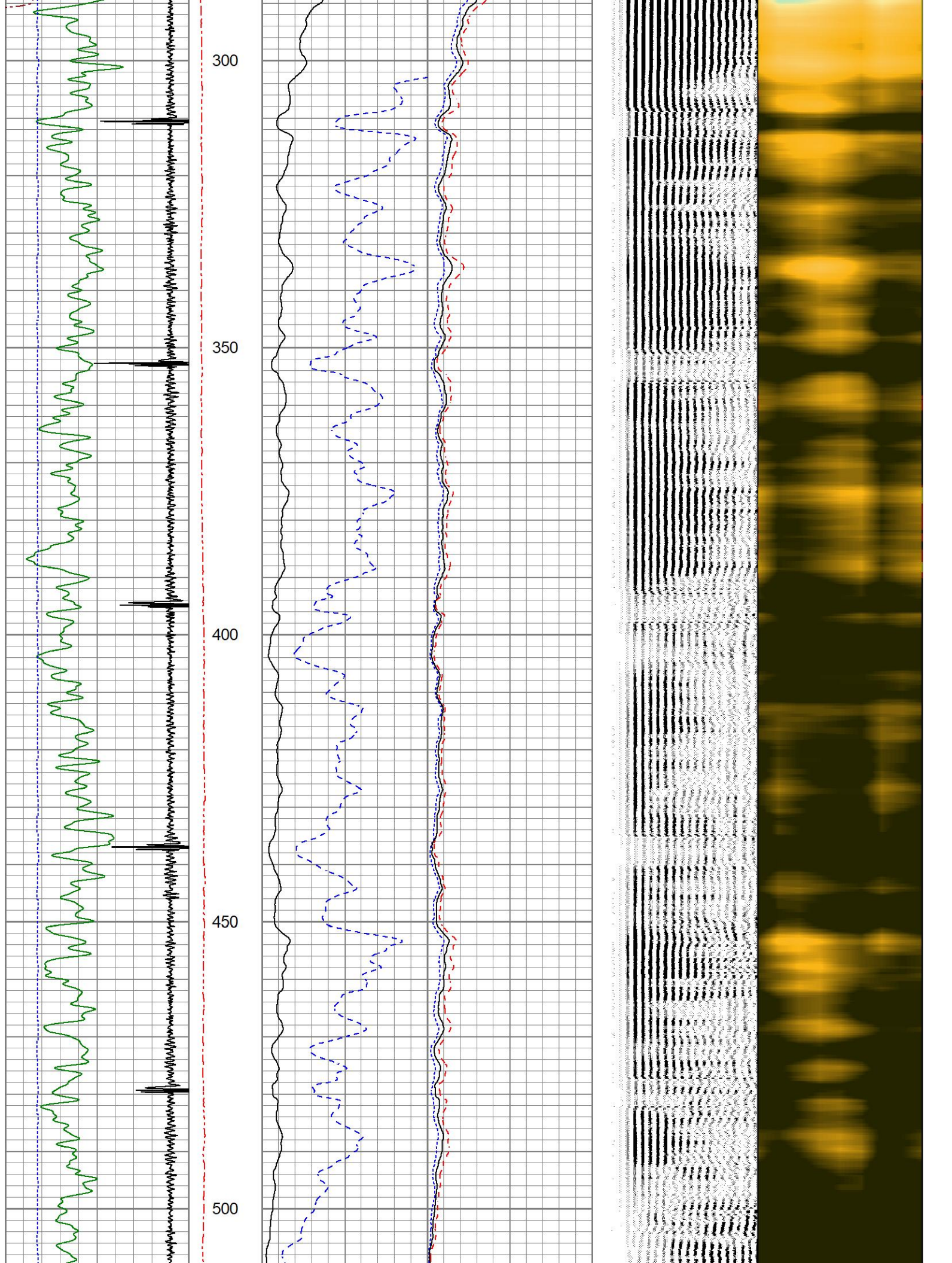
0 PSI APPLIED AT SURFACE

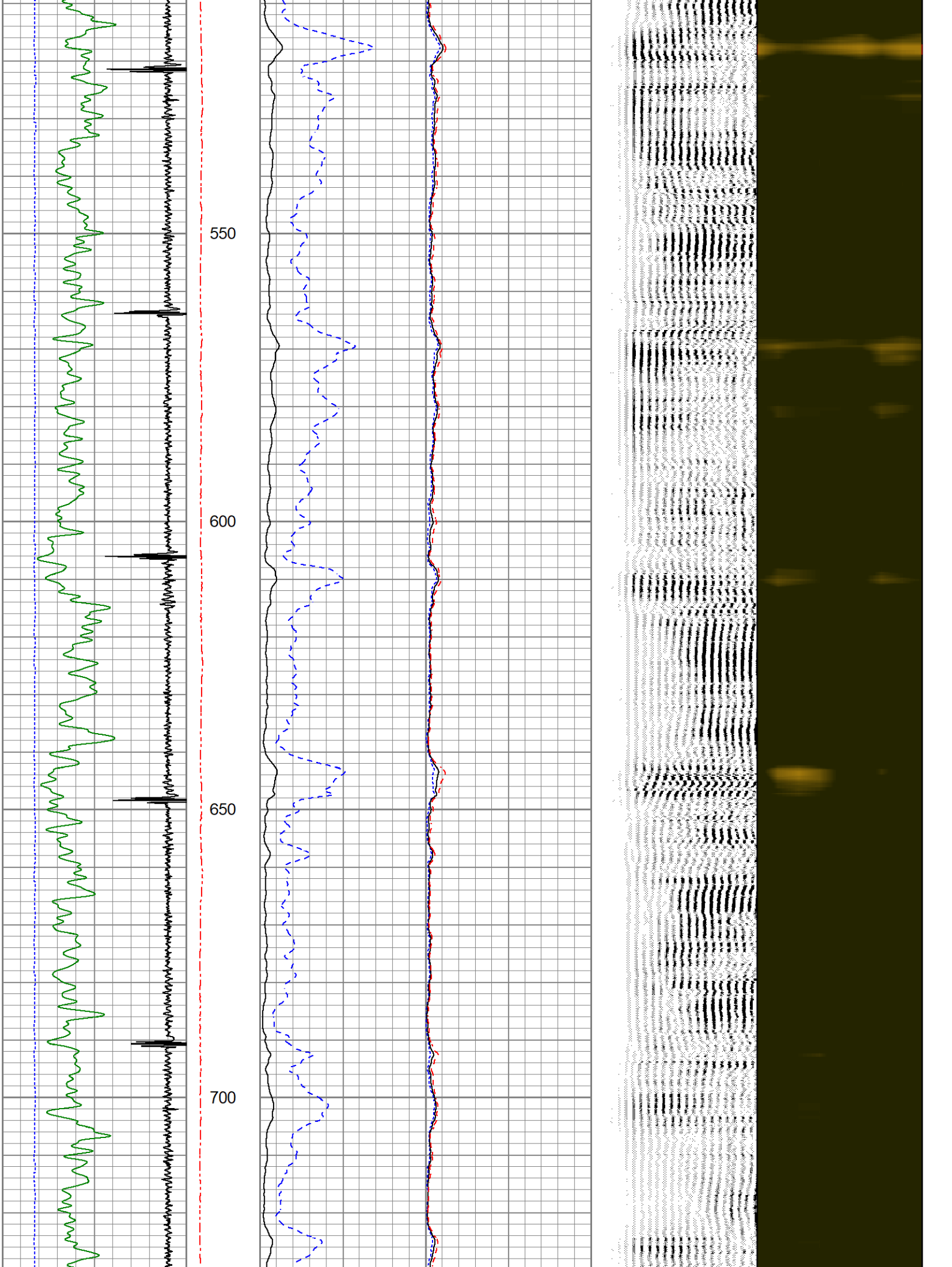
Database File oxy_morton 24-1_05-123-34063_08-05-2024_scbl.db
 Dataset Pathname pass3
 Presentation Format res_scbl 8sec
 Dataset Creation Mon Aug 05 13:39:03 2024
 Charted by Depth in Feet scaled 1:240

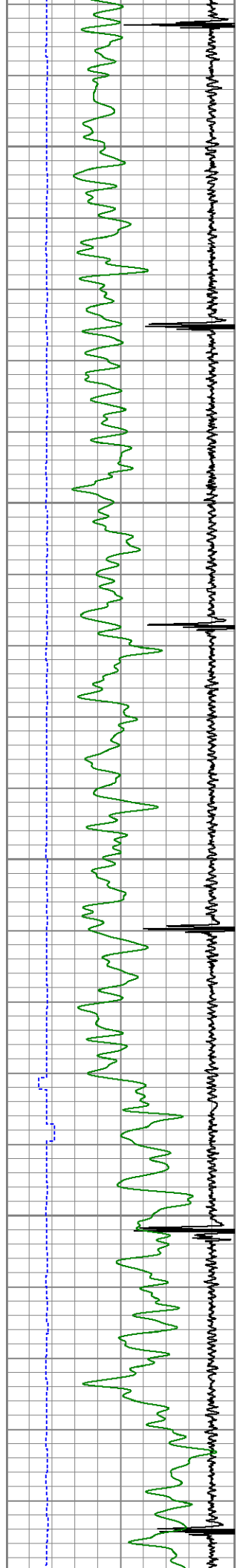
270 3FT TT (usec) 170	LTEN	3' Amplitude	0 Sector Min Amp 150	200 VDL (usec) 1200	1 Sector Map 8
-9 CCL 1	(lb)	(mV) 100	Sector Avg Amp		
0 GR (GAPI) 150	0 2000	3' Amplified	0 150		
-150 LSPD (ft/min) 150		Amplitude X 5	Sector Max Amp		
		(mV) 20	0 150		











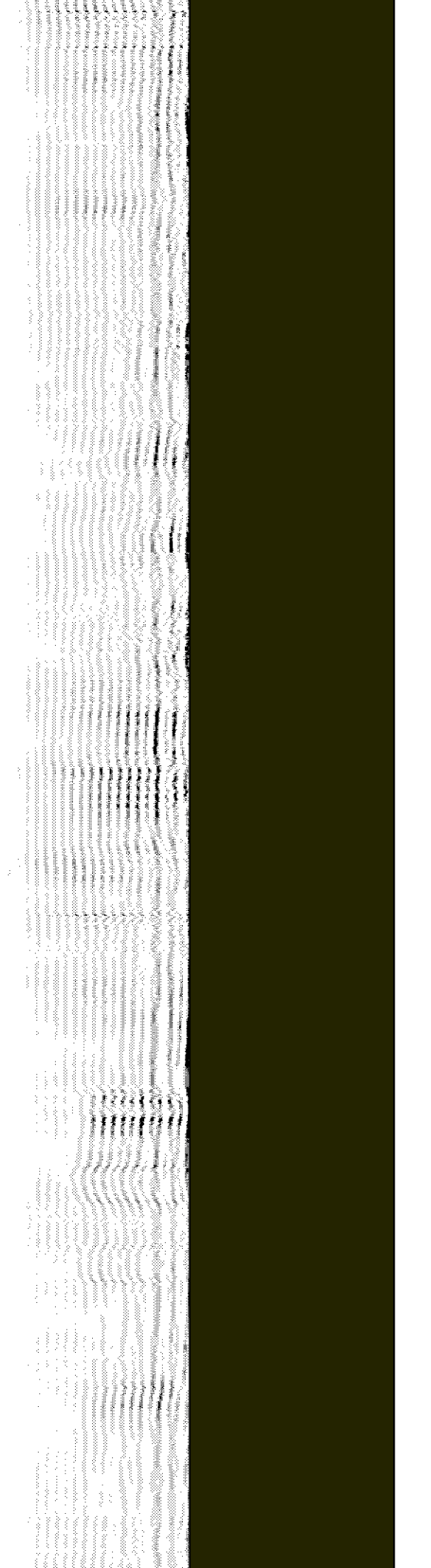
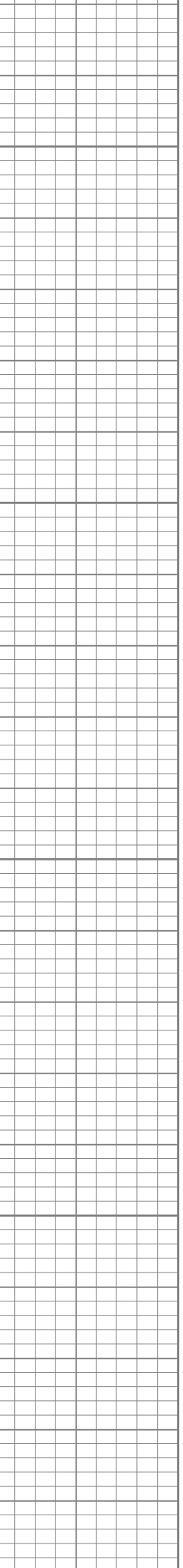
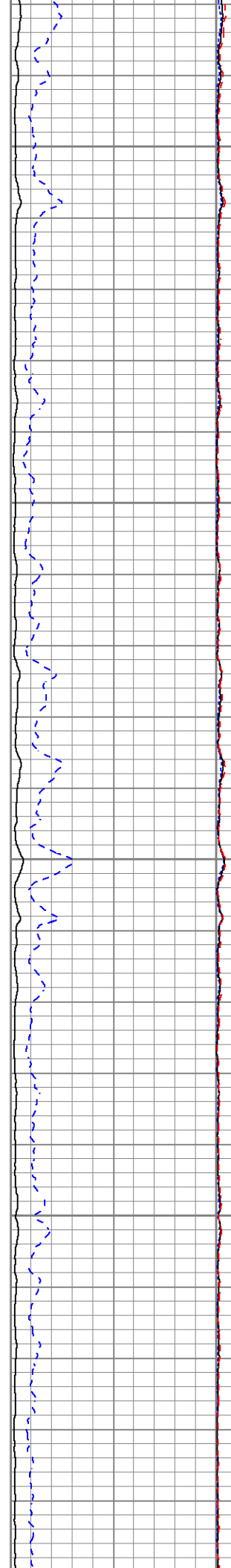
750

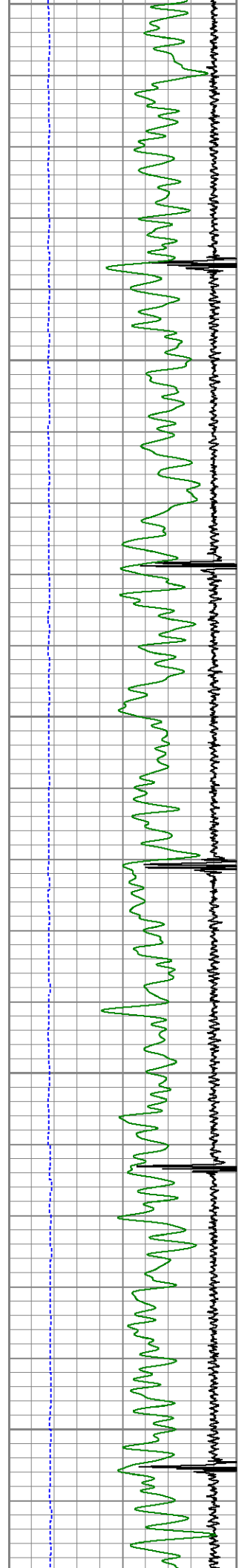
800

850

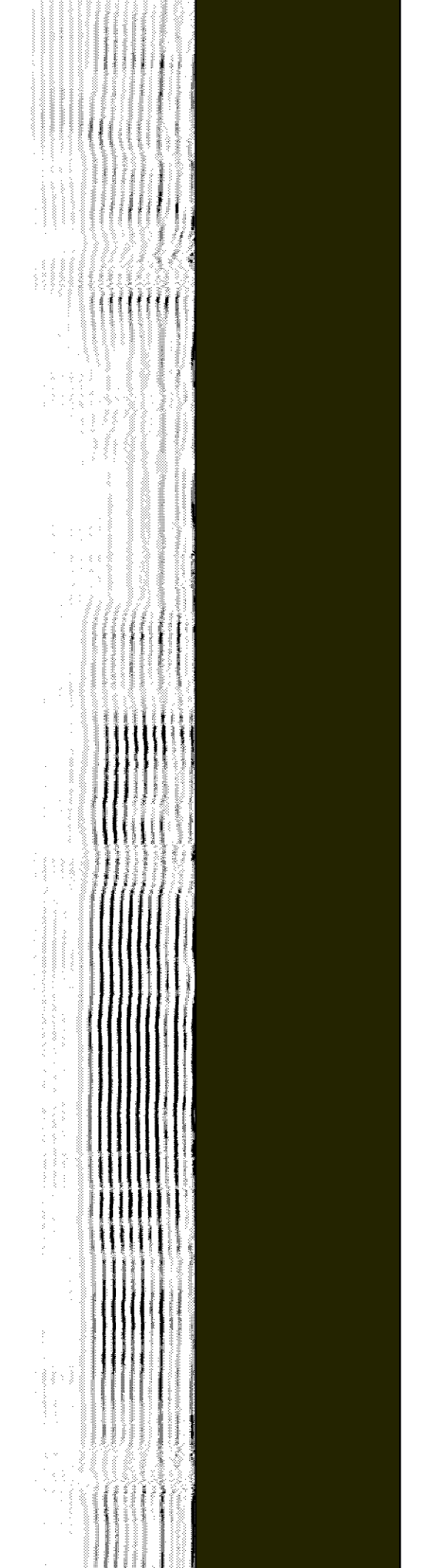
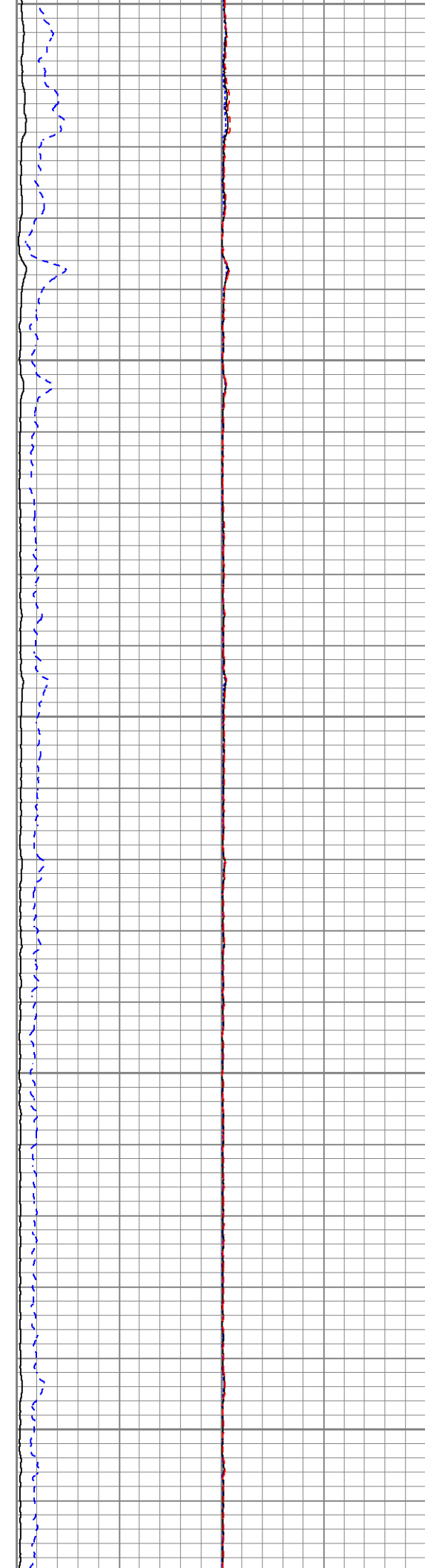
900

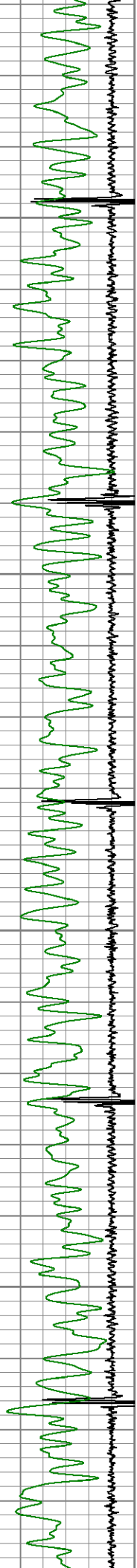
950





950
1000
1050
1100
1150



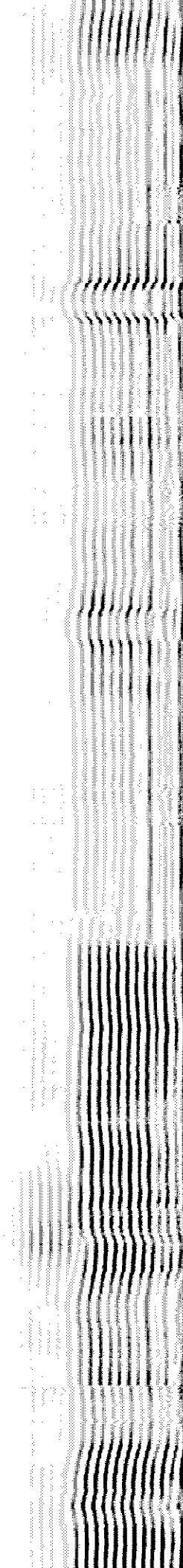


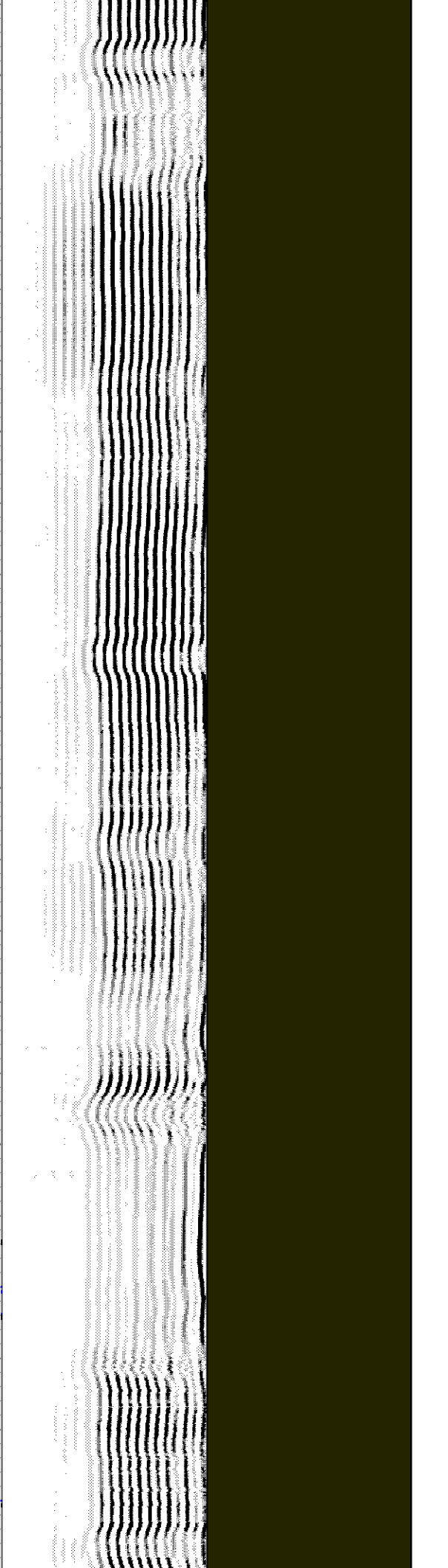
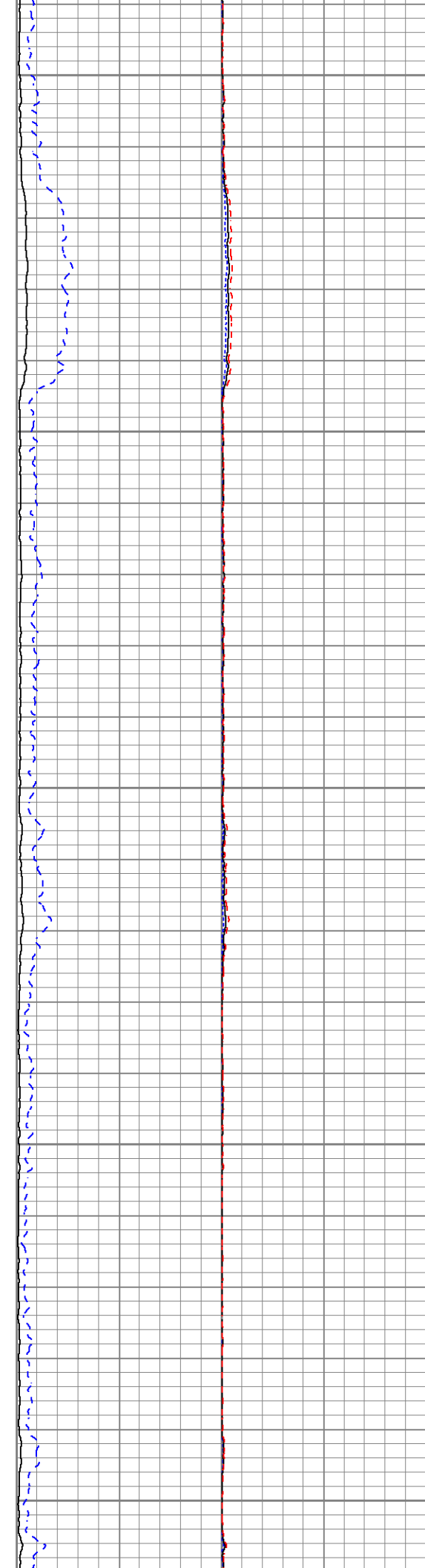
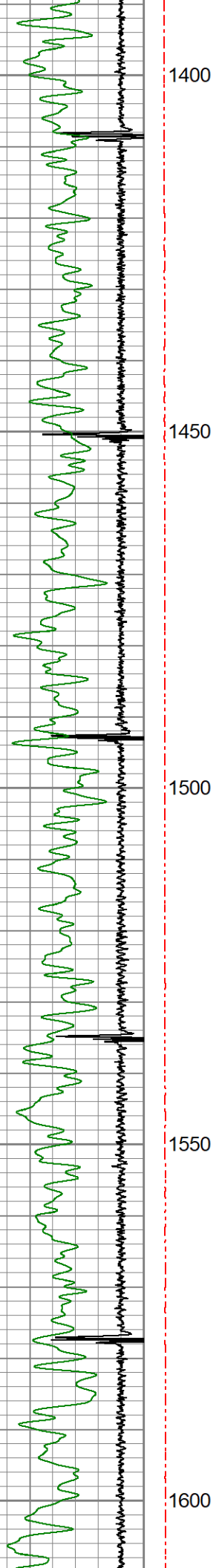
1200

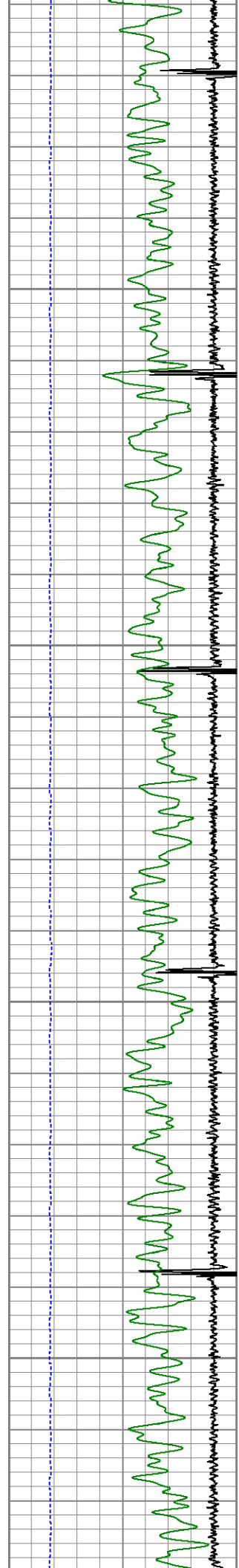
1250

1300

1350





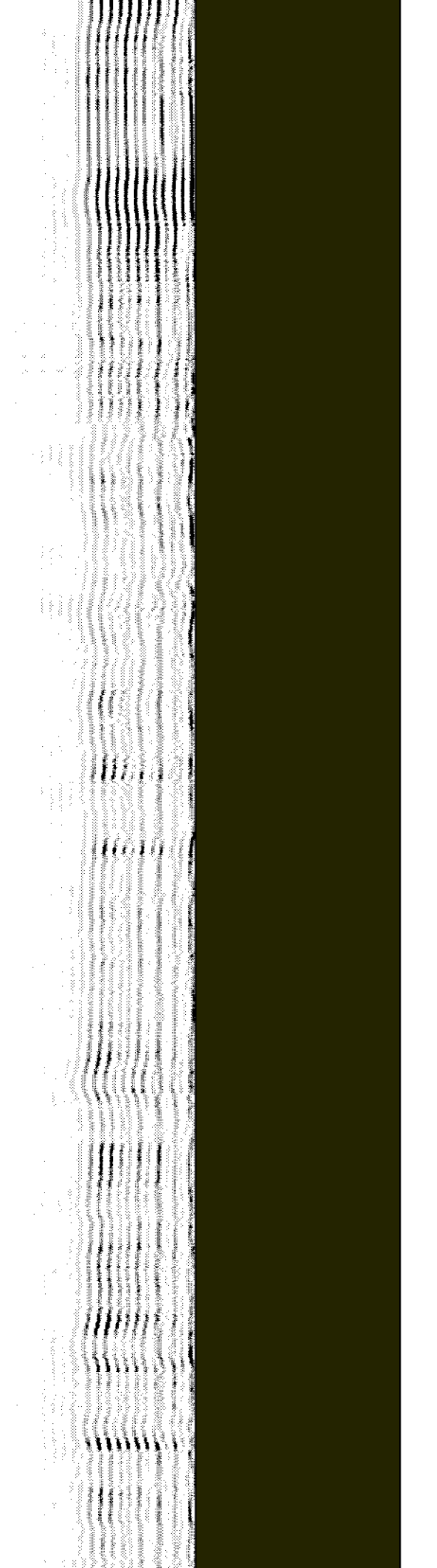
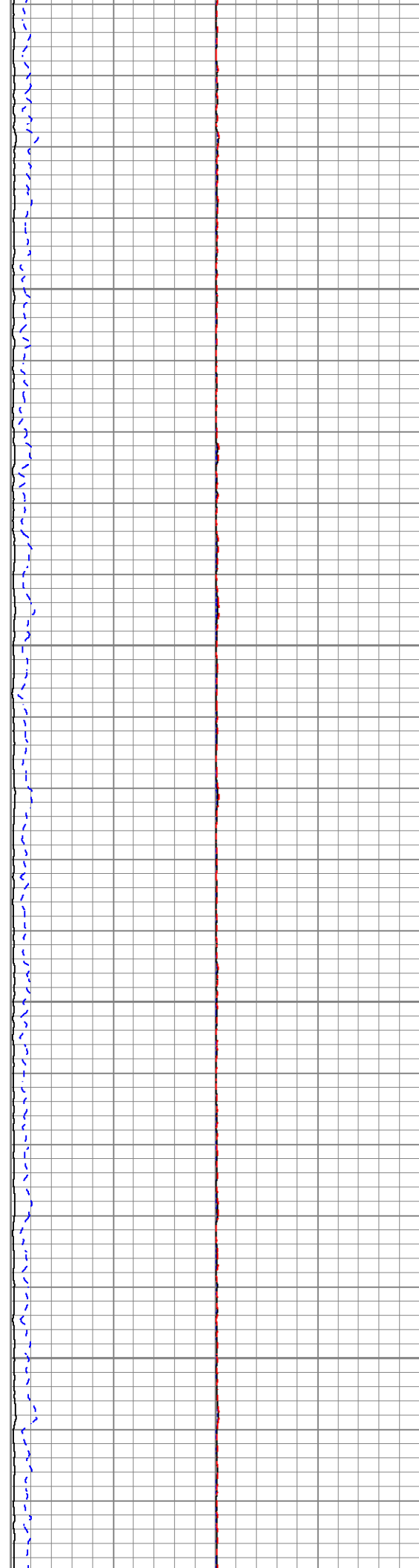


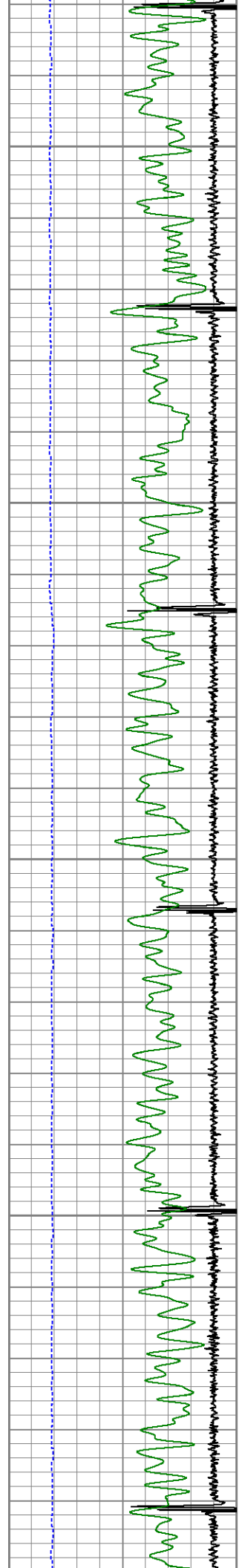
1650

1700

1750

1800





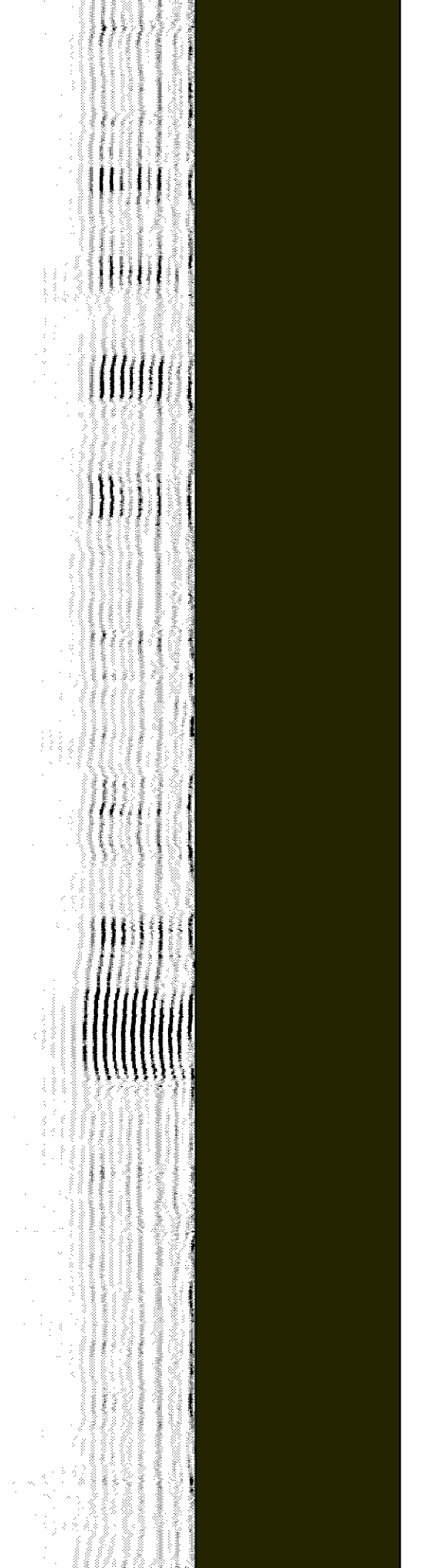
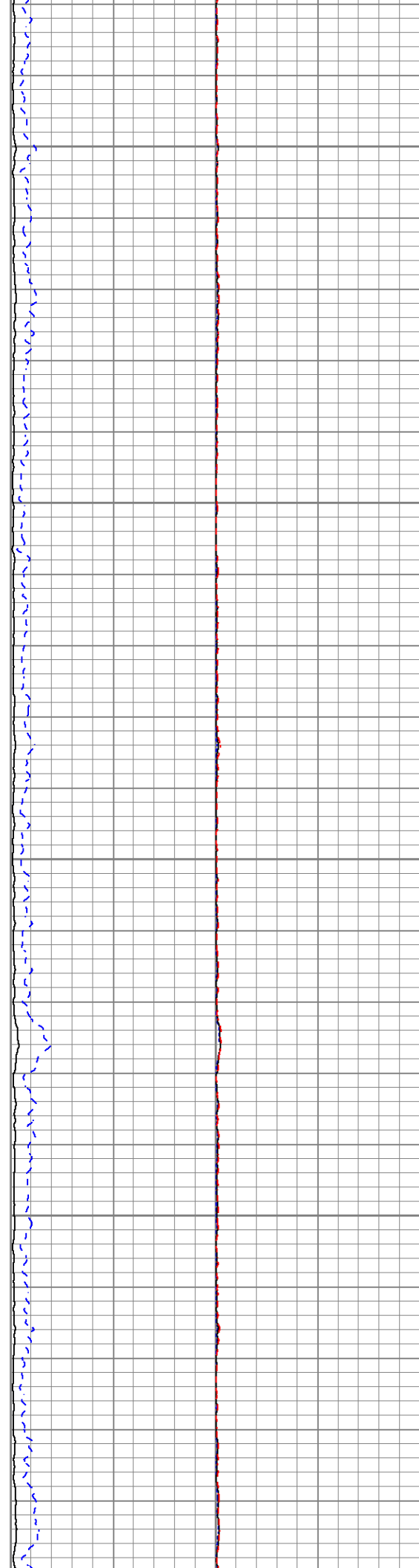
1850

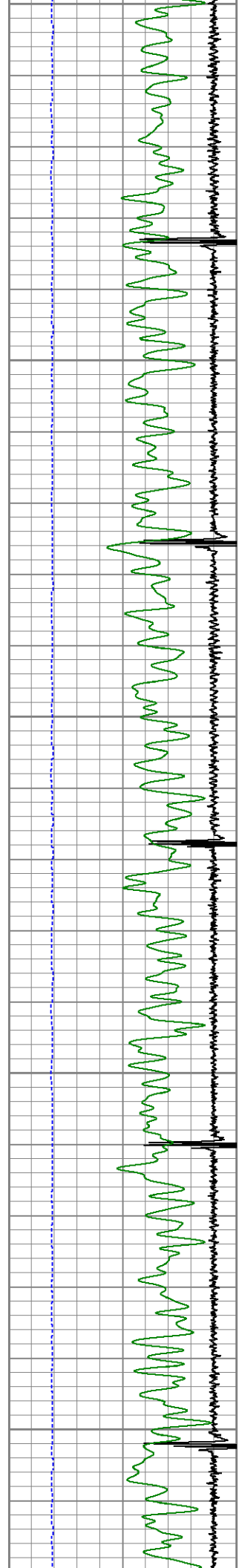
1900

1950

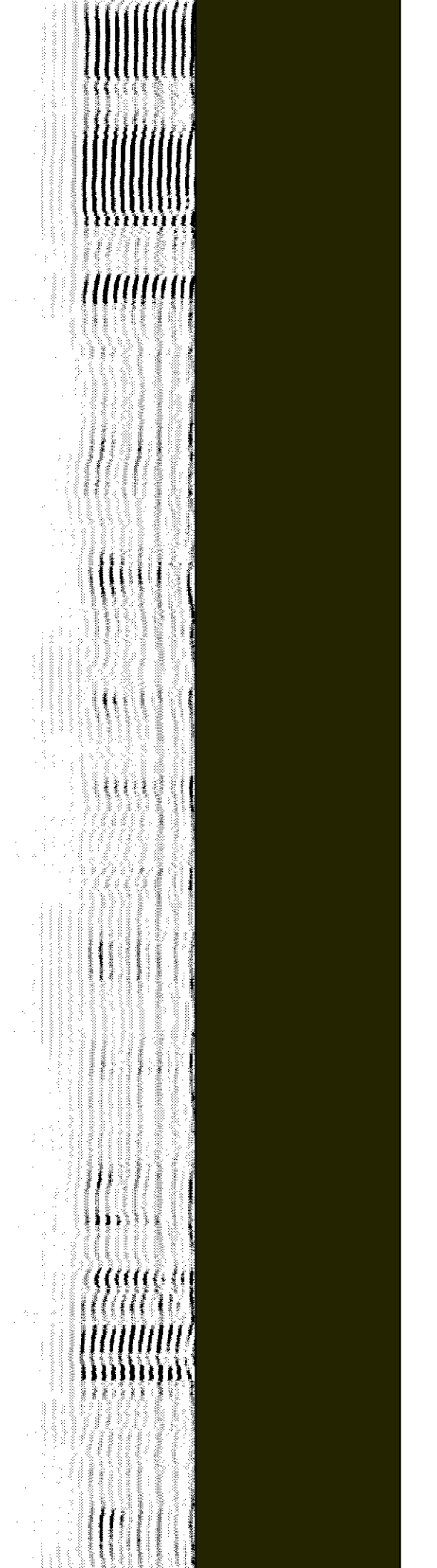
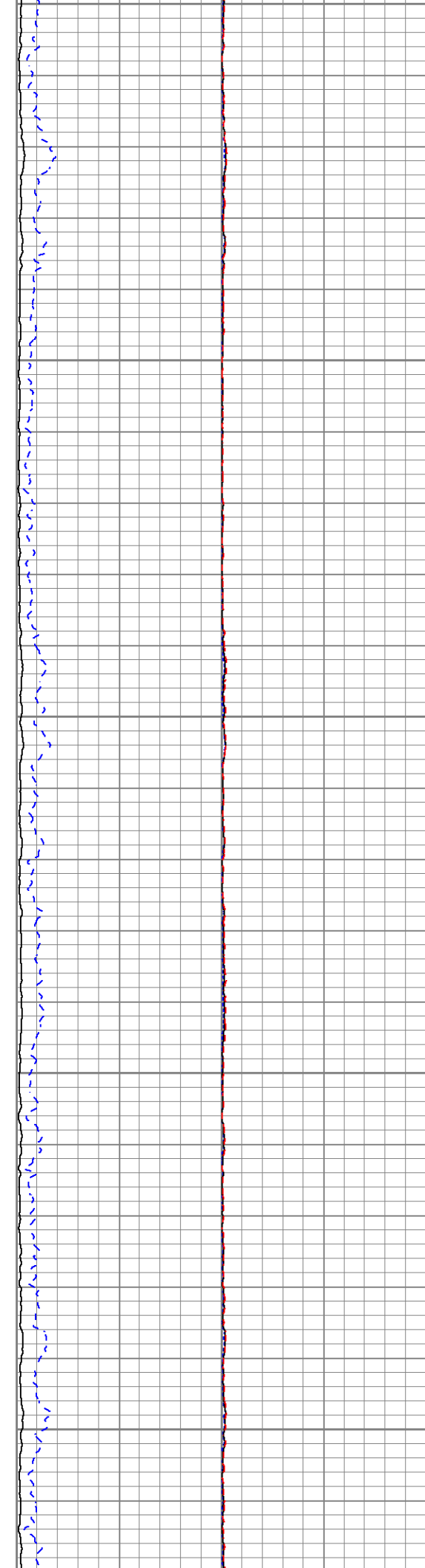
2000

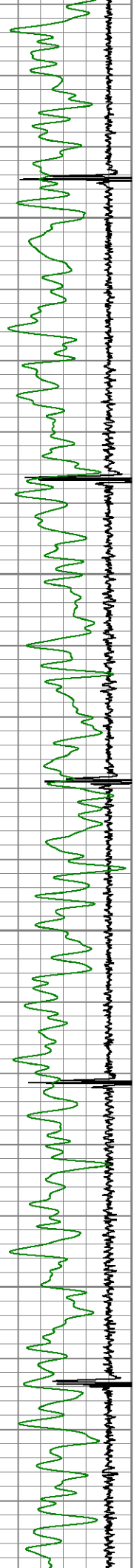
2050



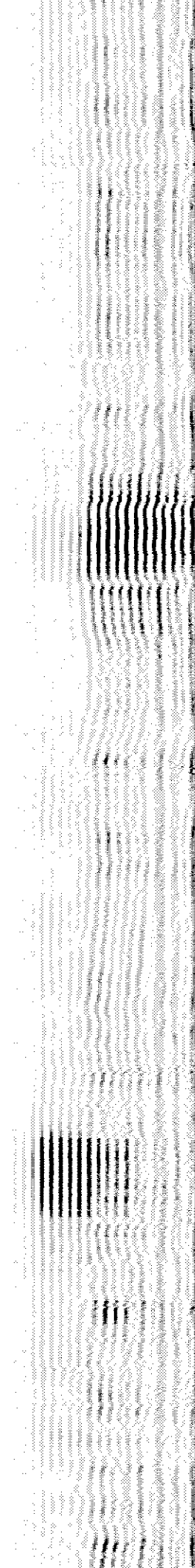
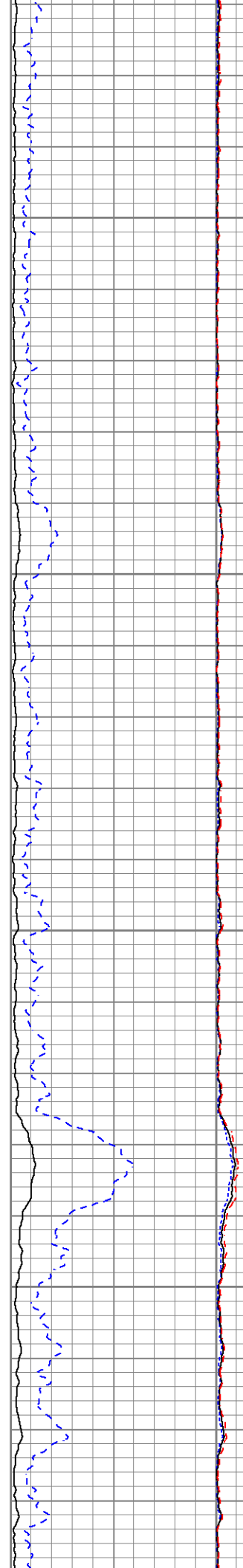


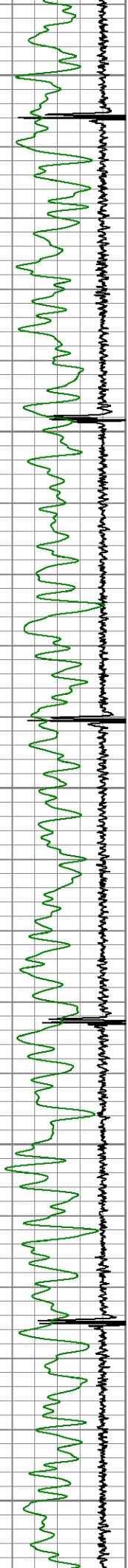
2050
2100
2150
2200
2250



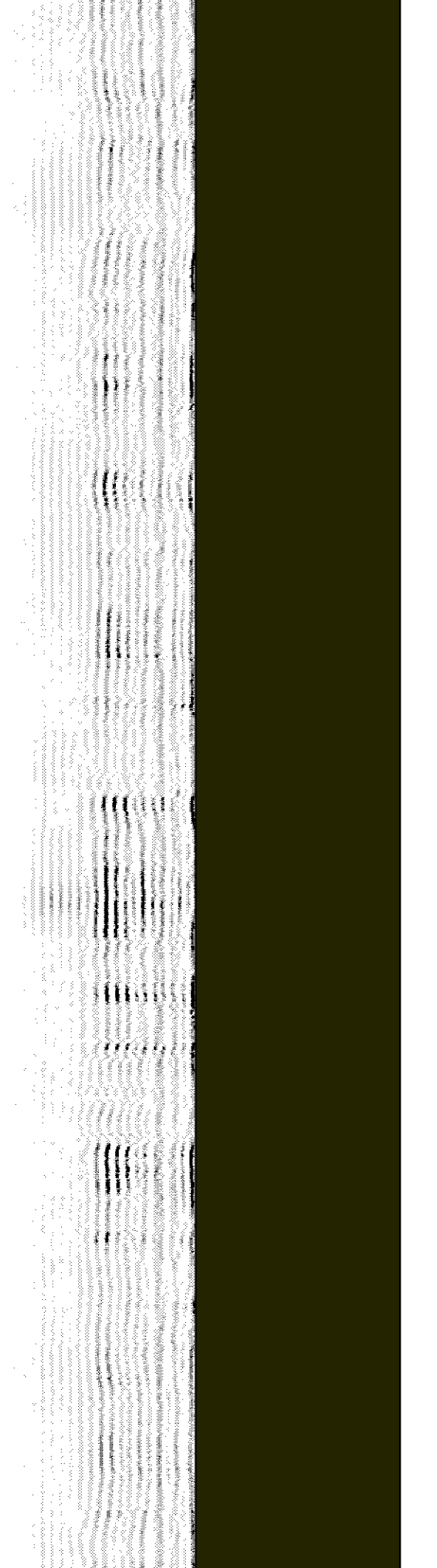
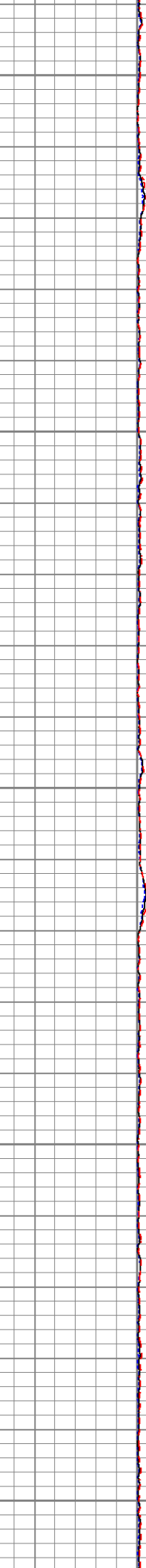
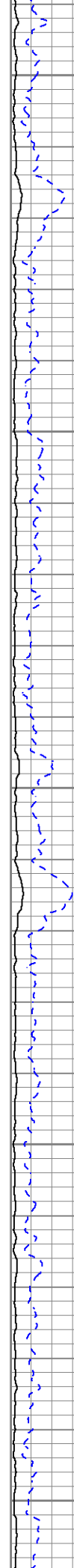


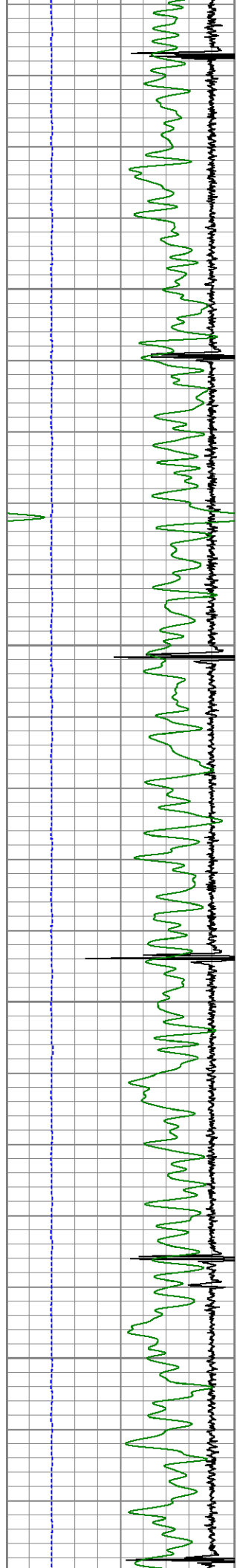
2300
2350
2400
2450





2500
2550
2600
2650
2700



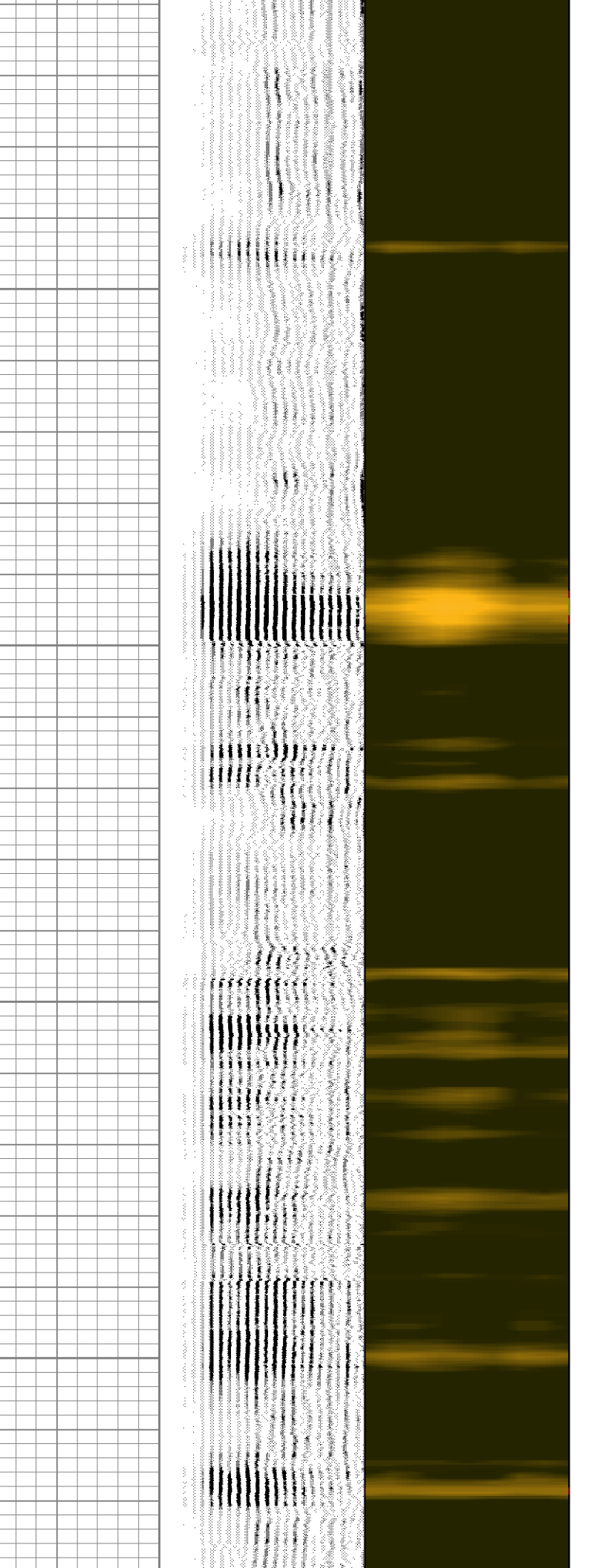
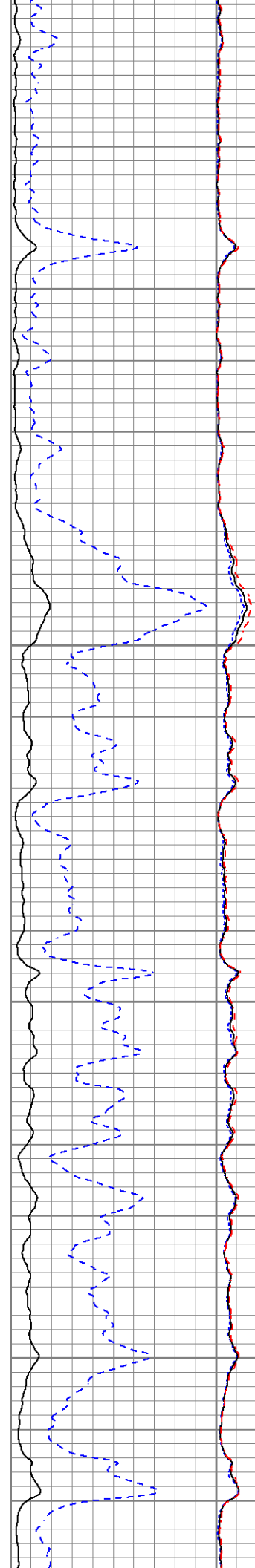


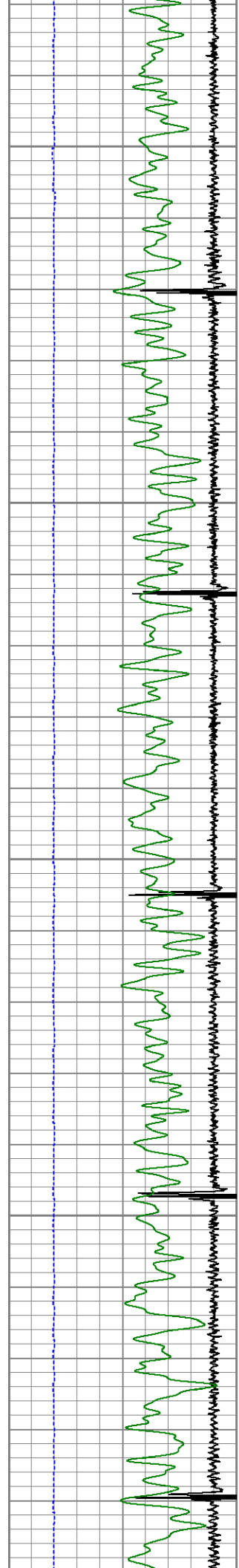
2750

2800

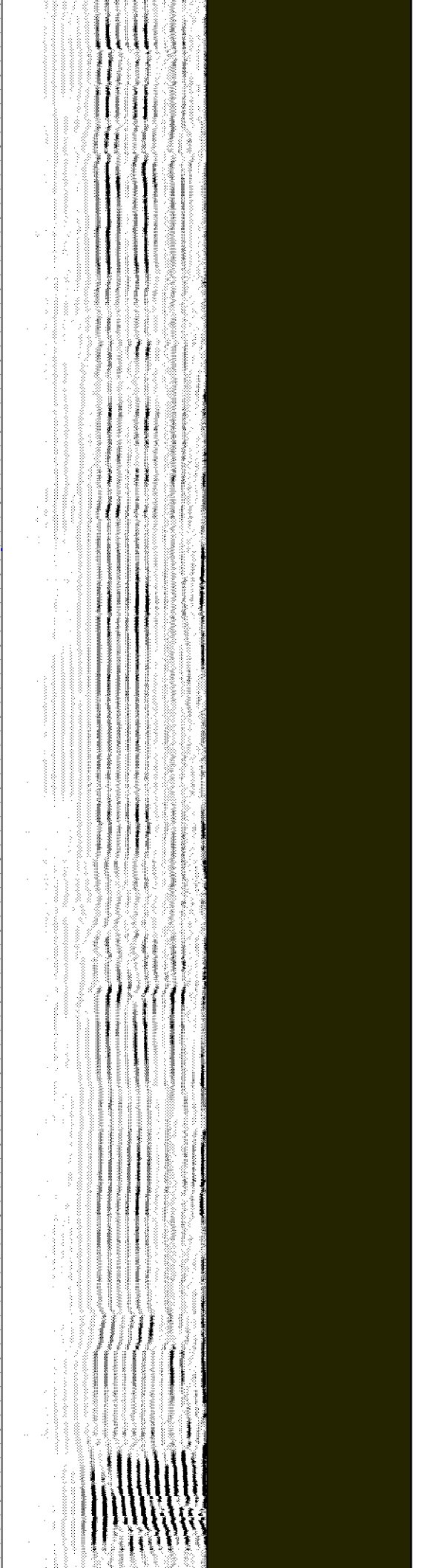
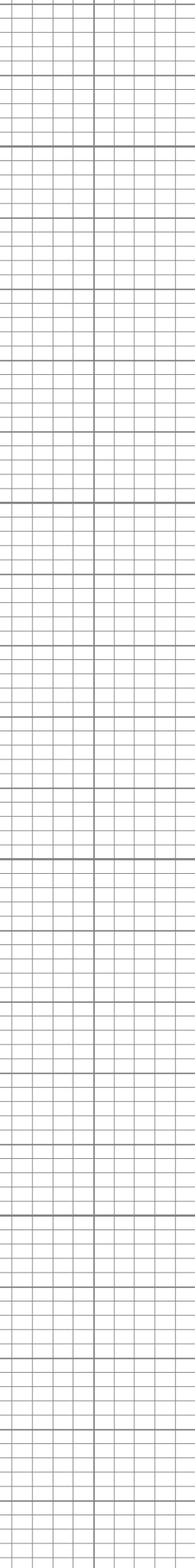
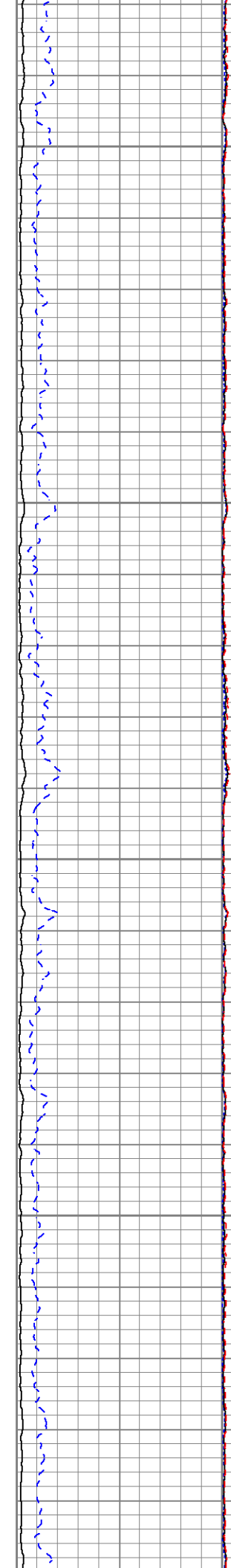
2850

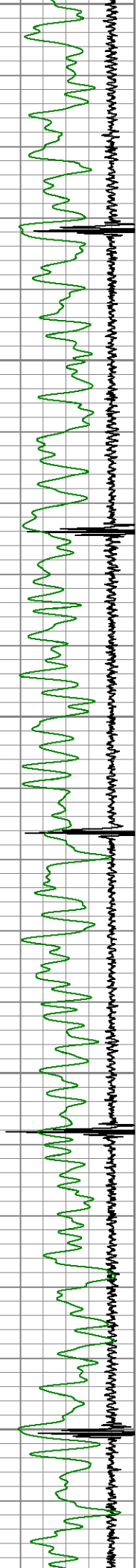
2900



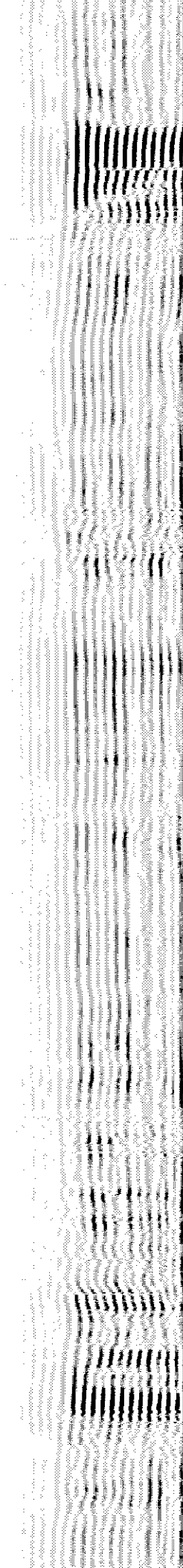
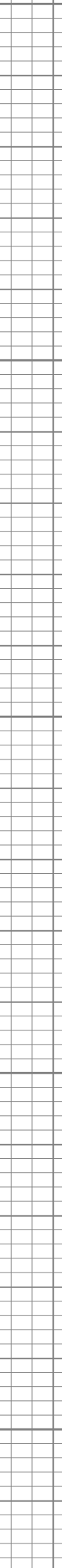
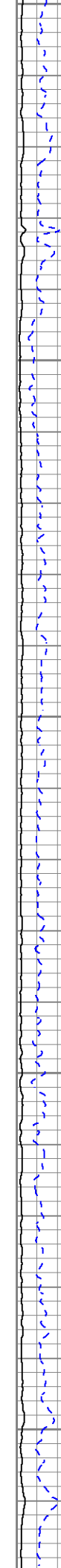


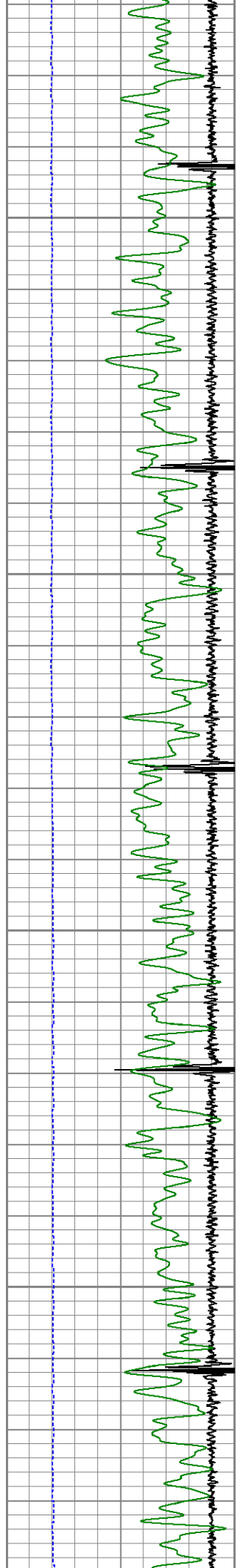
2950
3000
3050
3100
3150



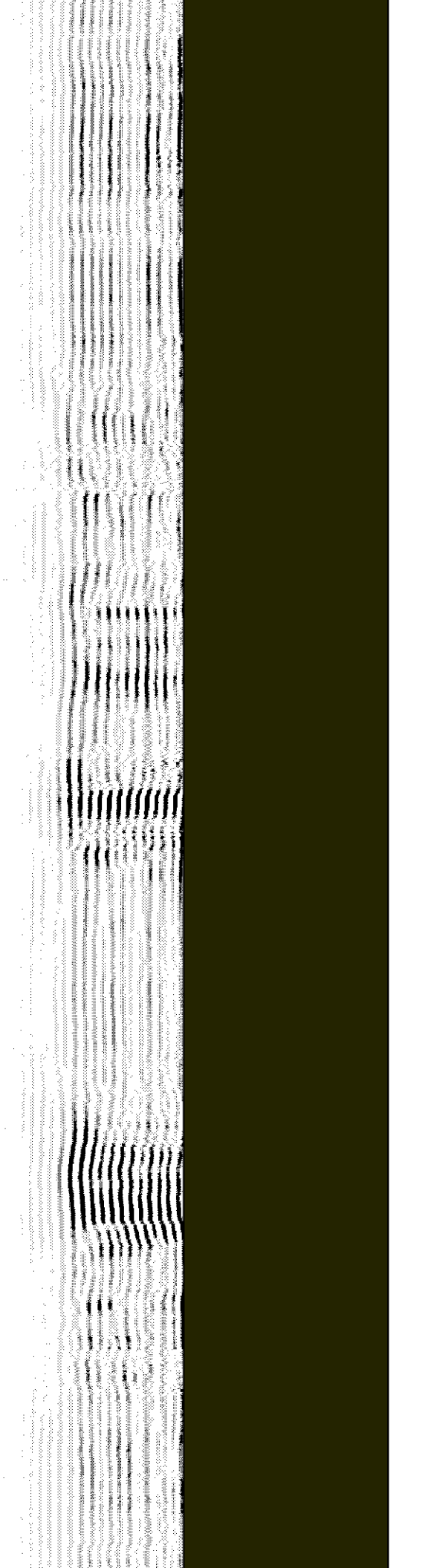
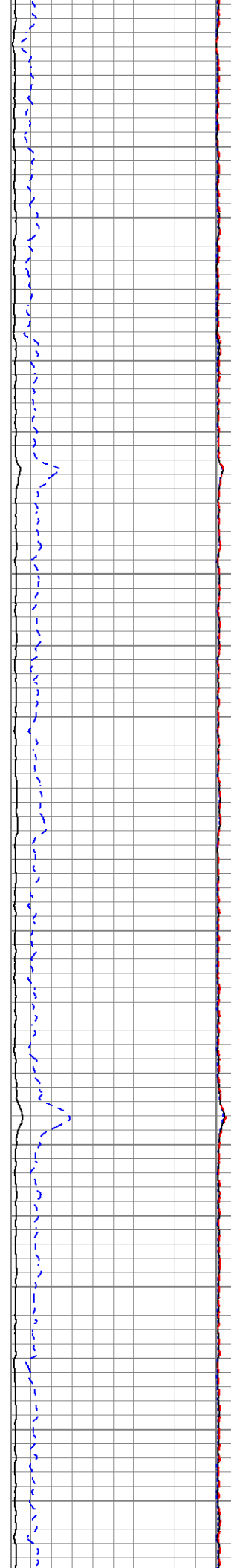


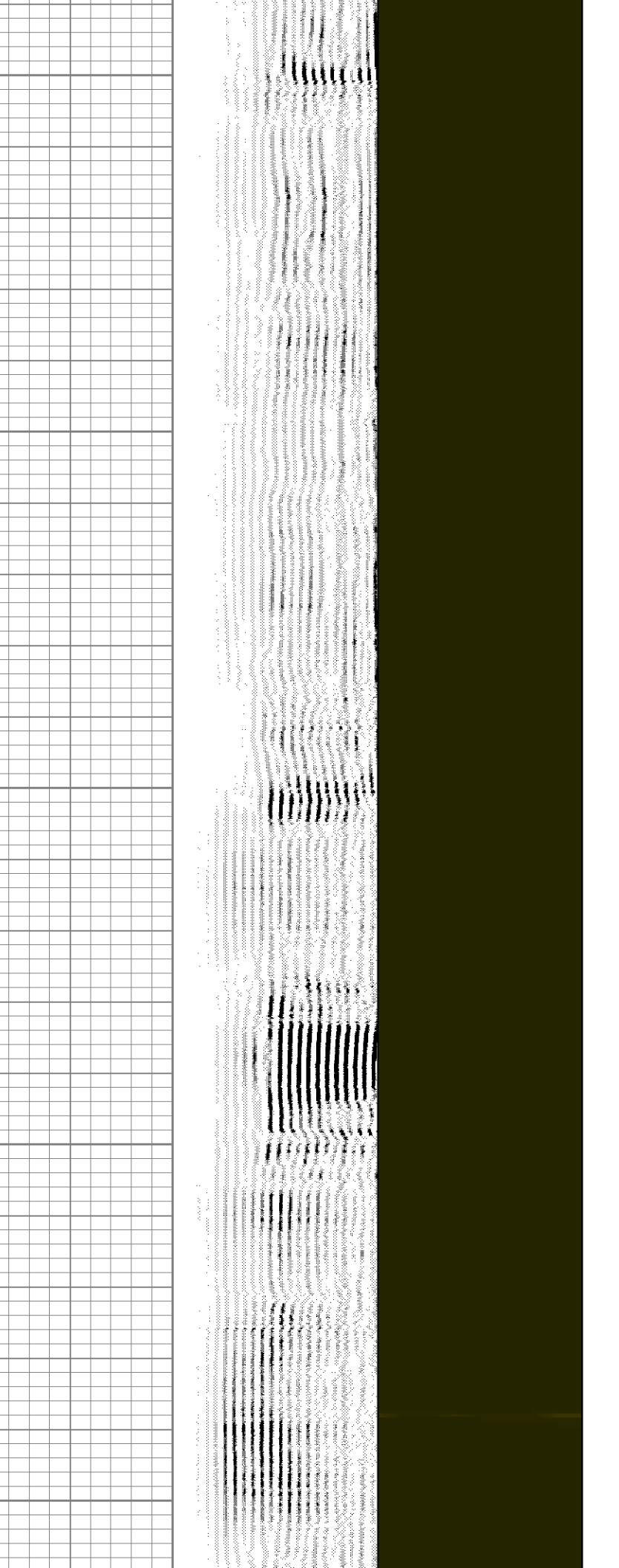
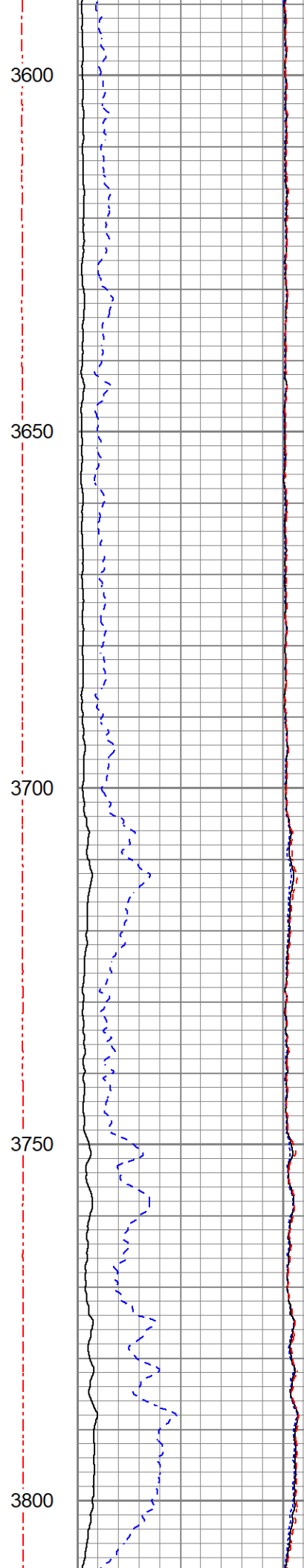
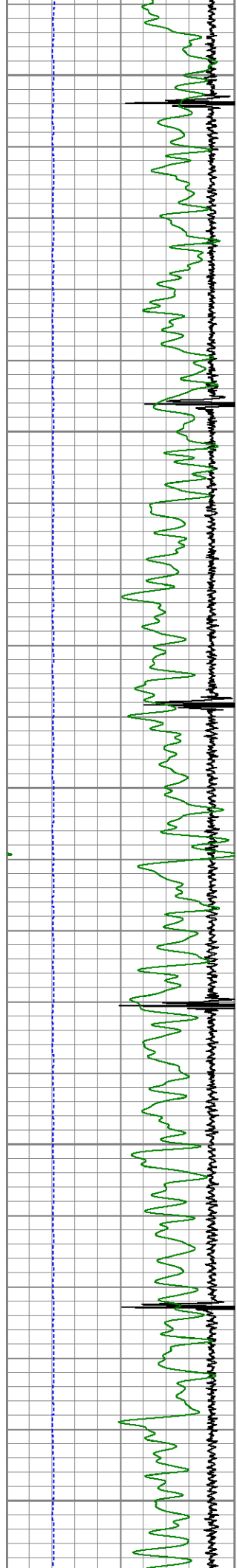
3150
3200
3250
3300
3350

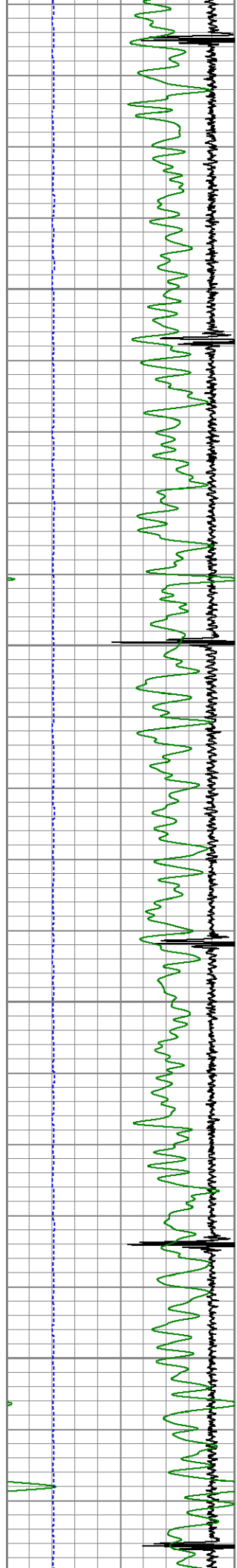




3400
3450
3500
3550





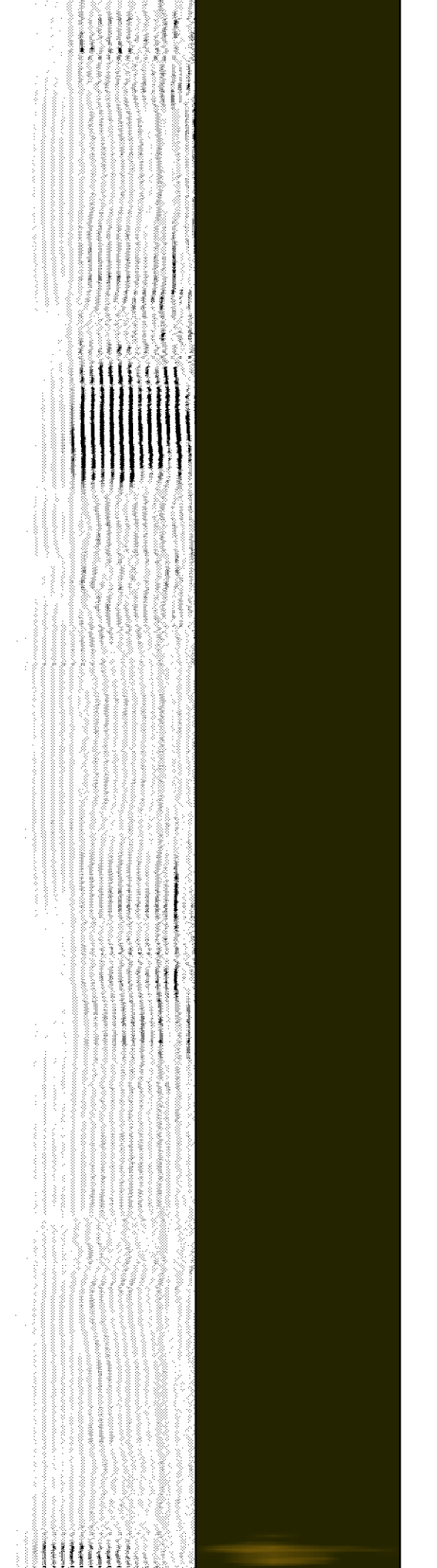
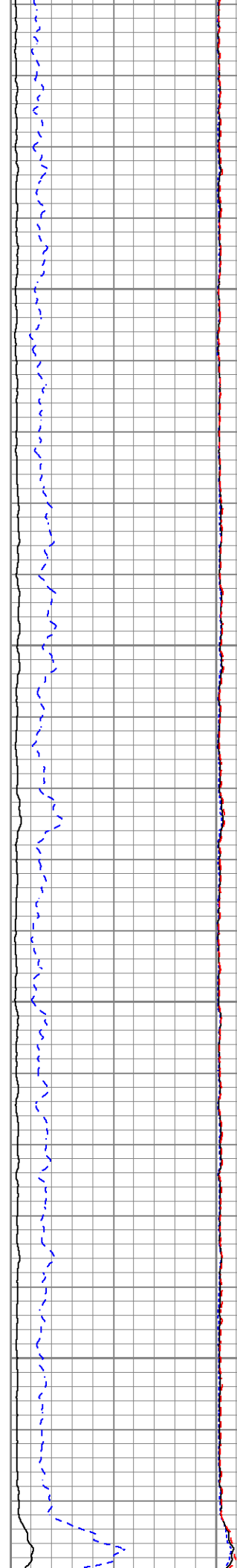


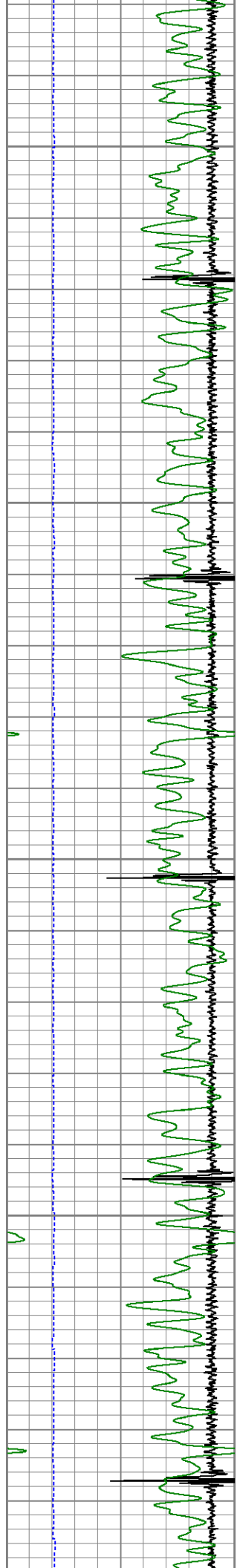
3850

3900

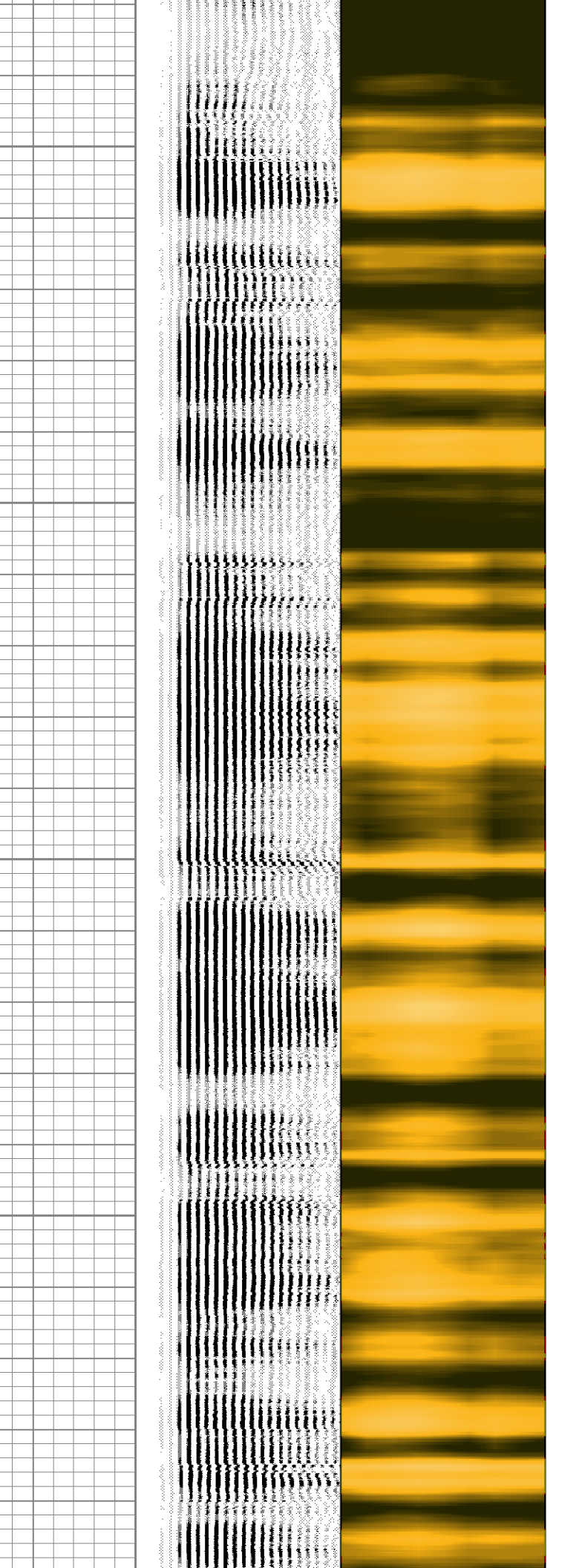
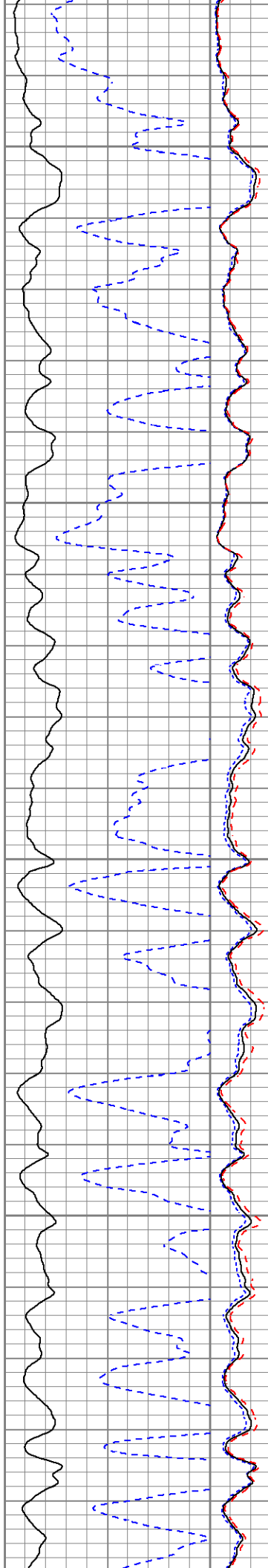
3950

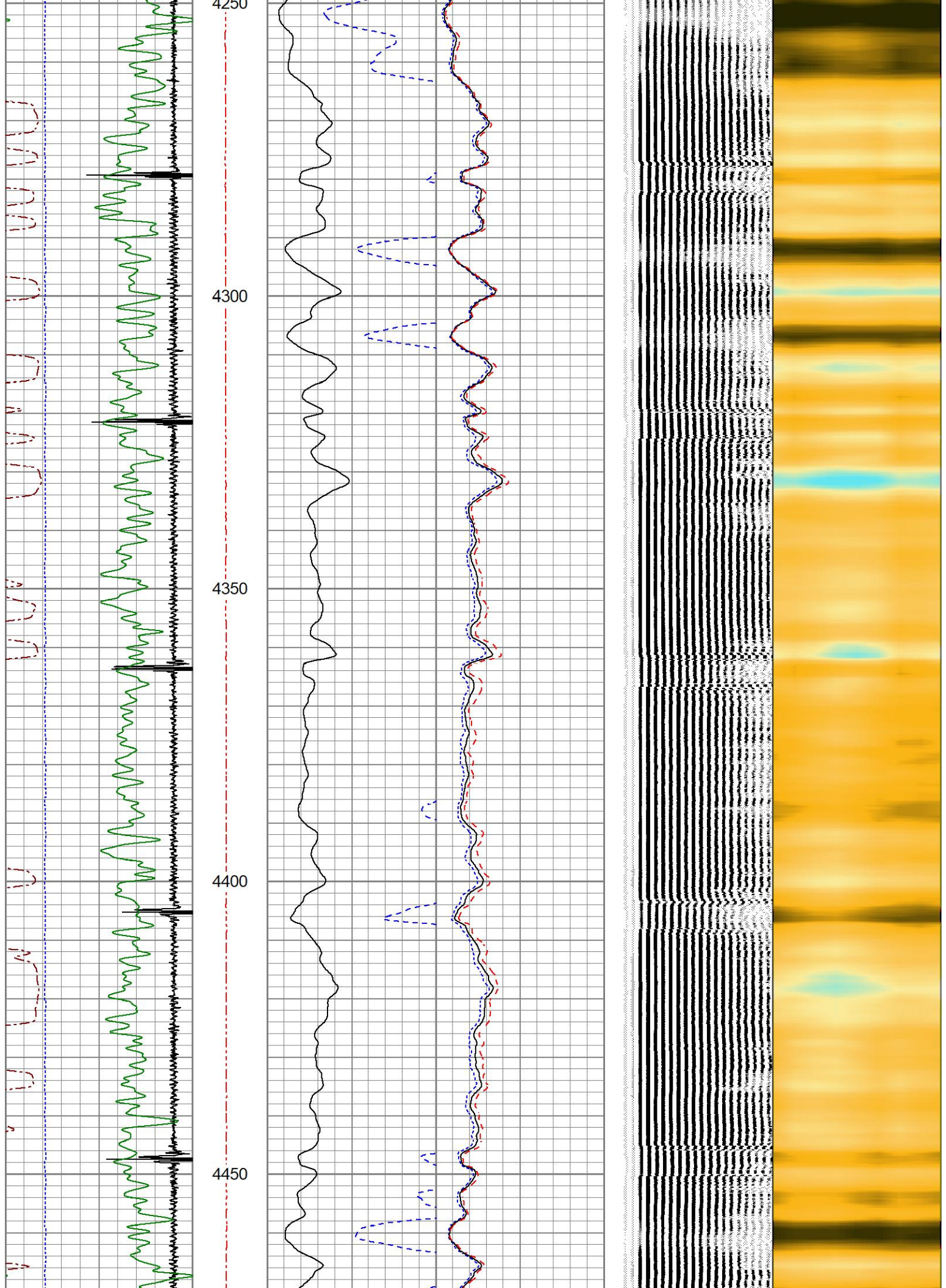
4000

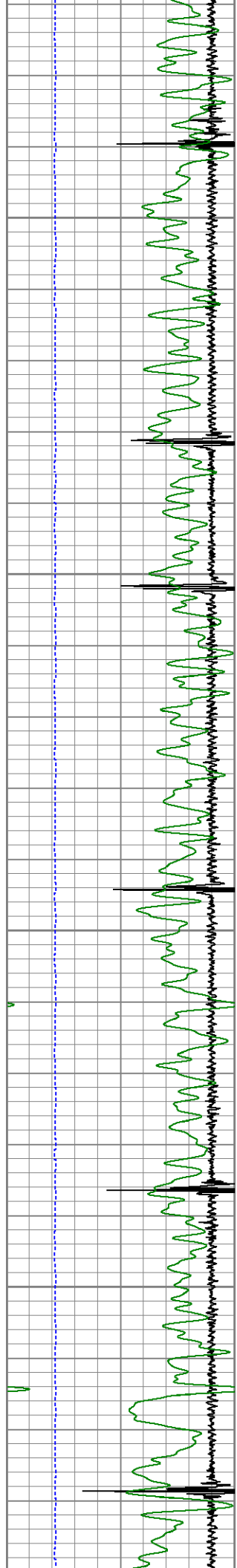




4050
4100
4150
4200
4250





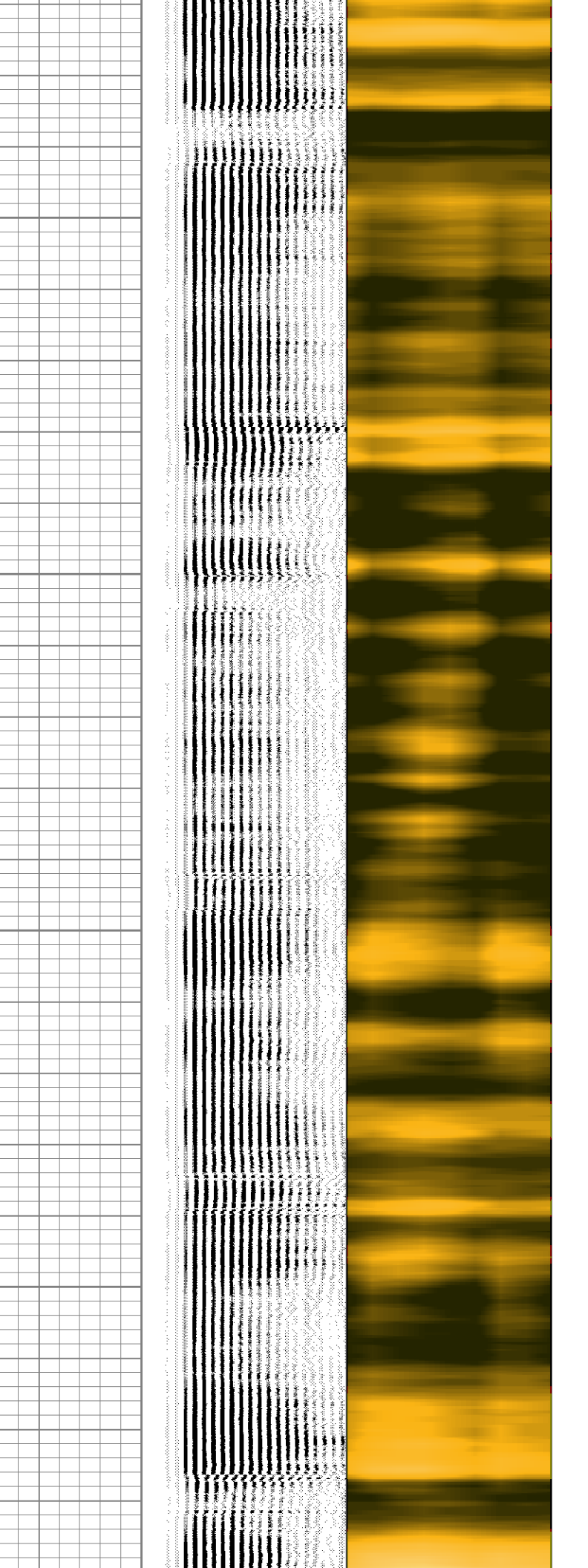
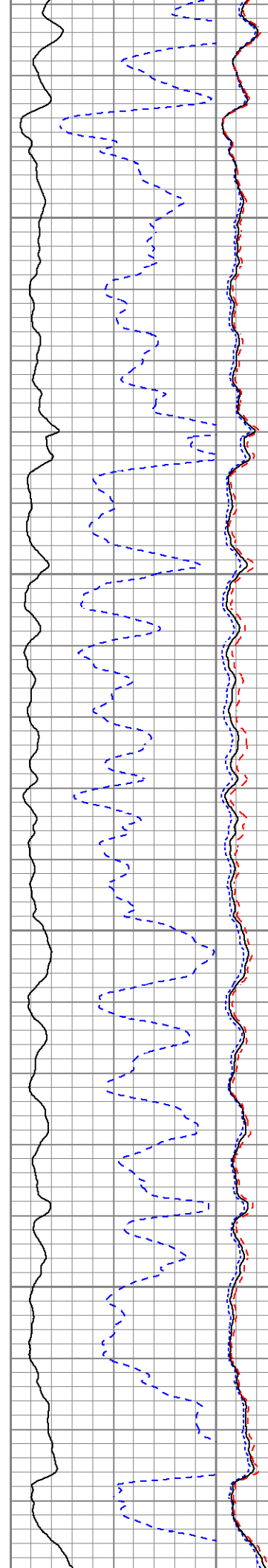


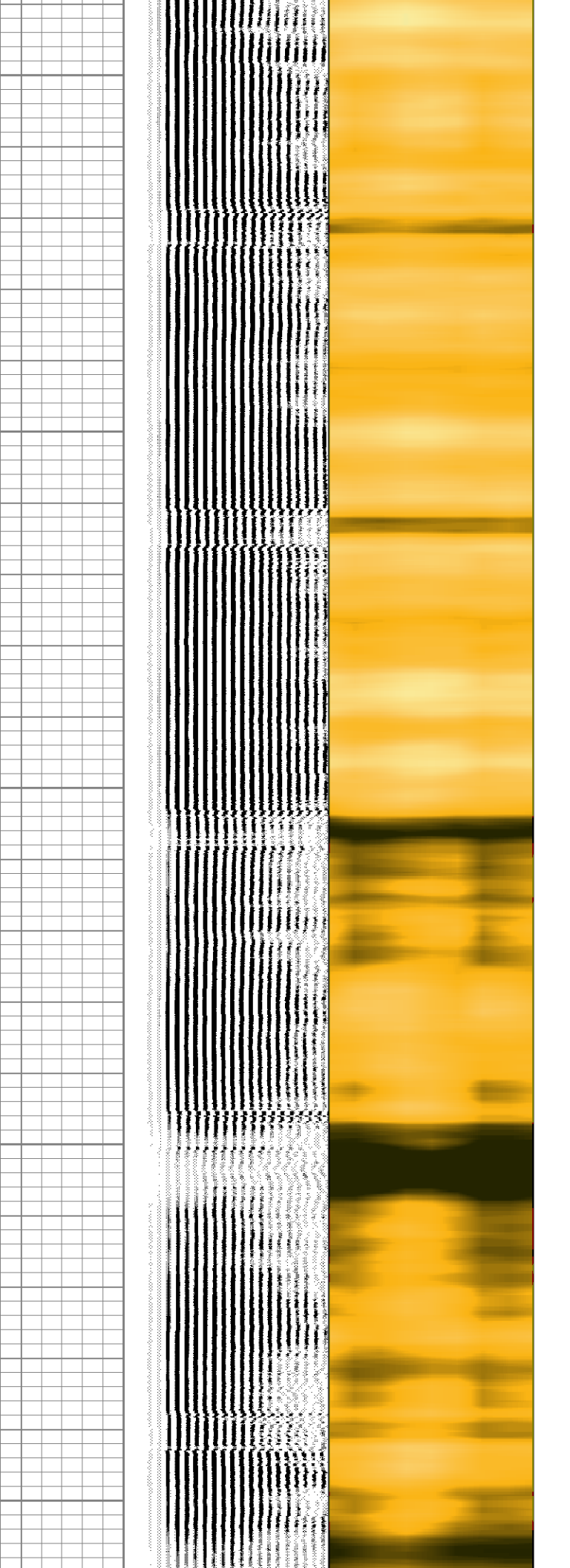
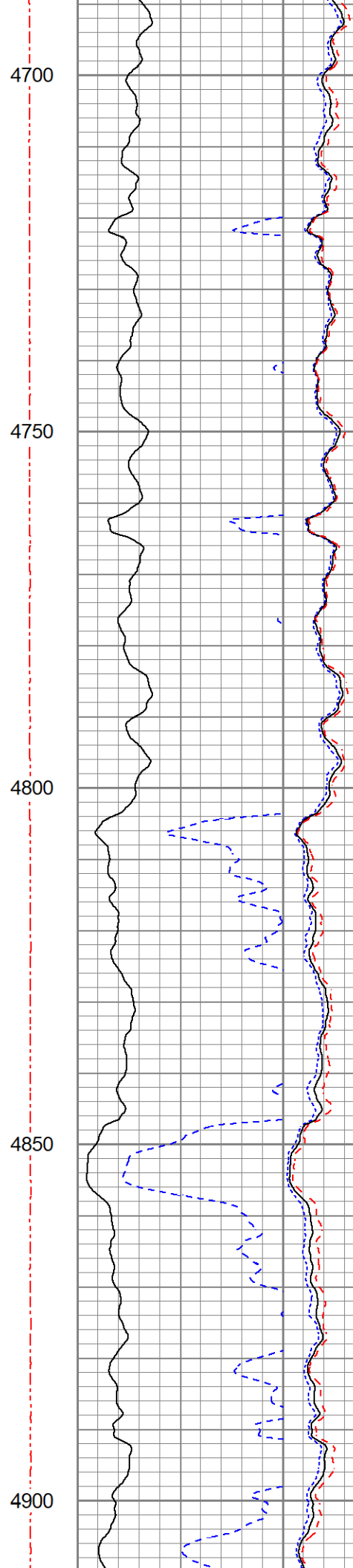
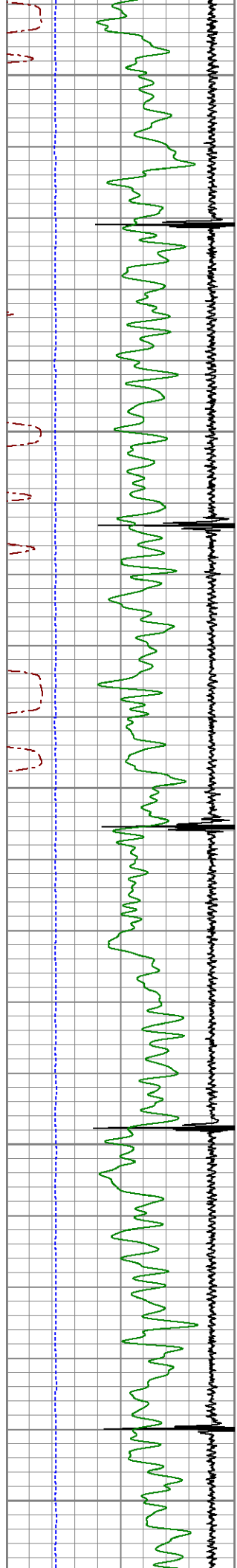
4500

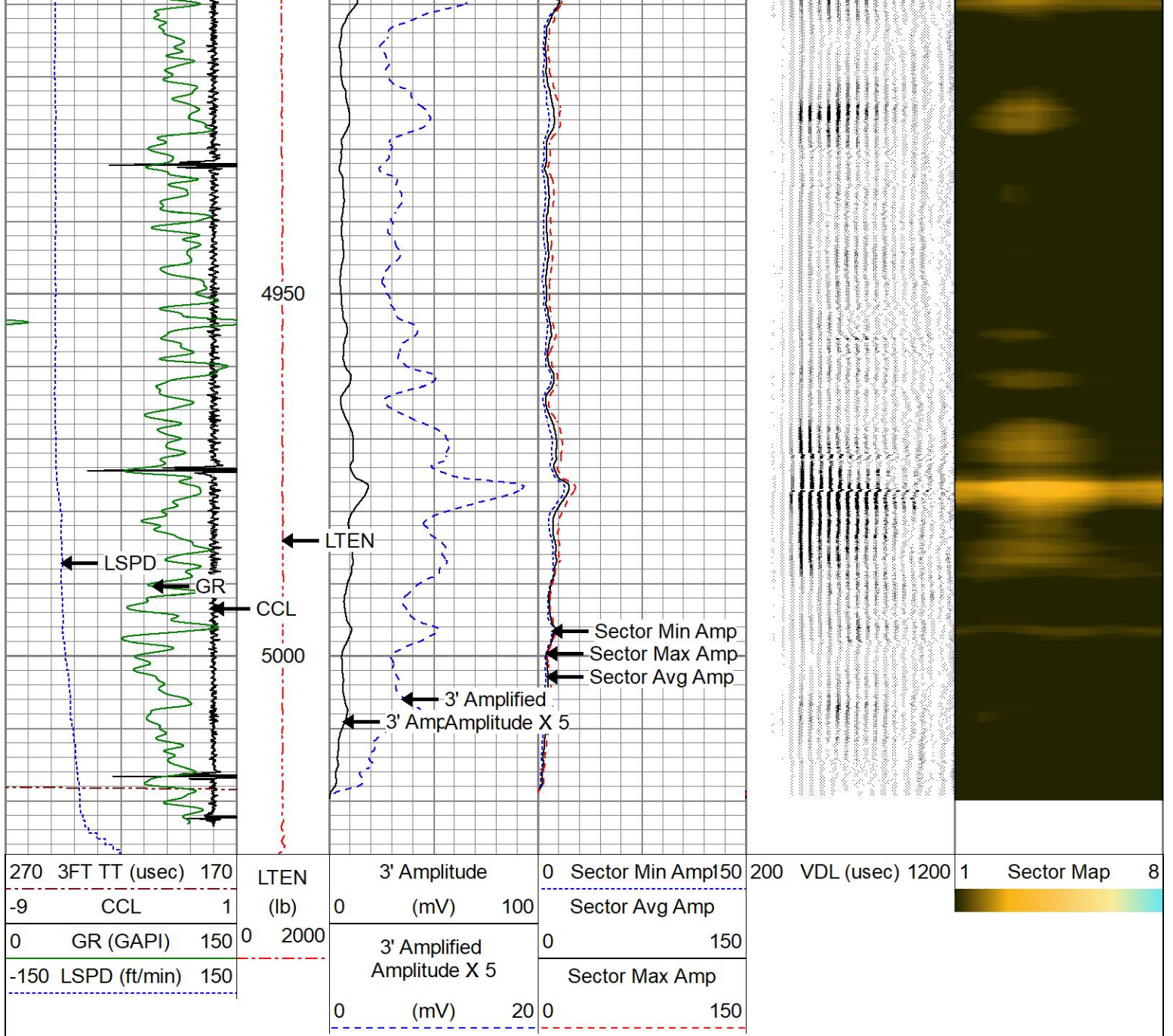
4550

4600

4650







MAIN PASS

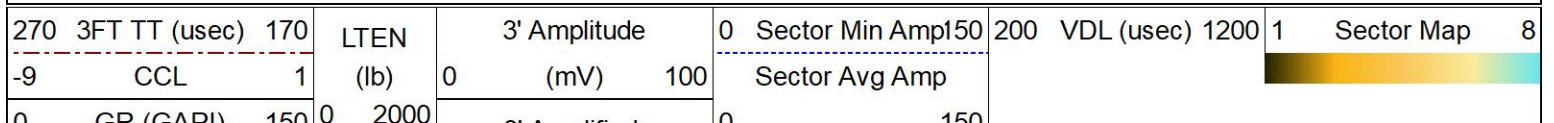
0 PSI APPLIED AT SURFACE



REPEAT PASS

0 PSI APPLIED AT SURFACE

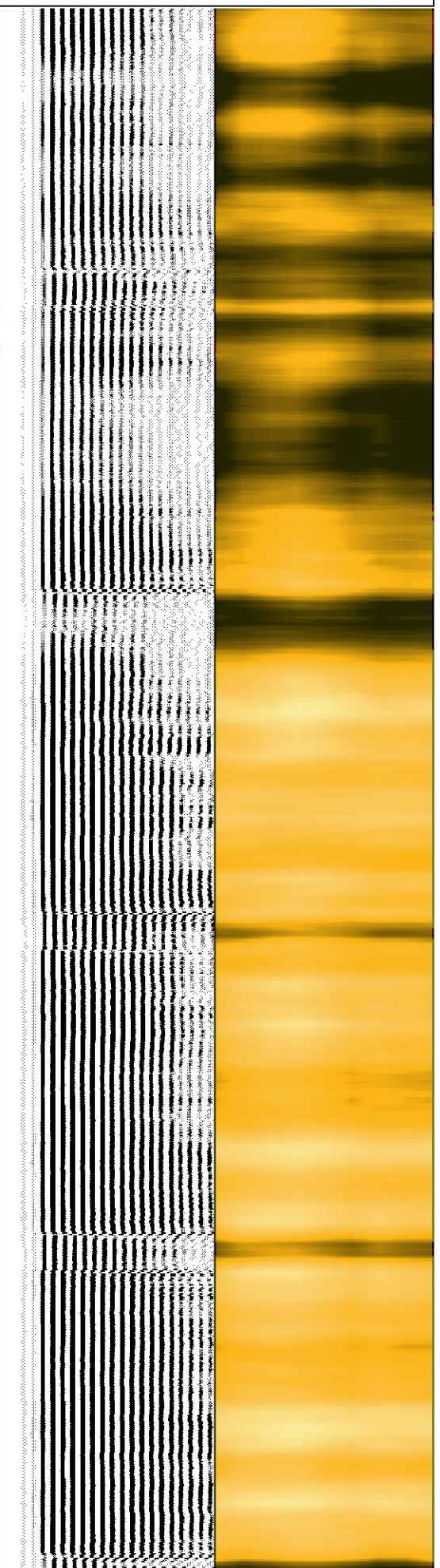
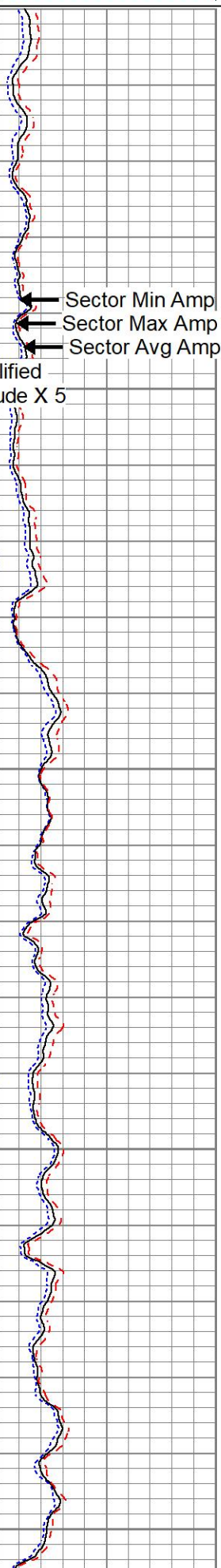
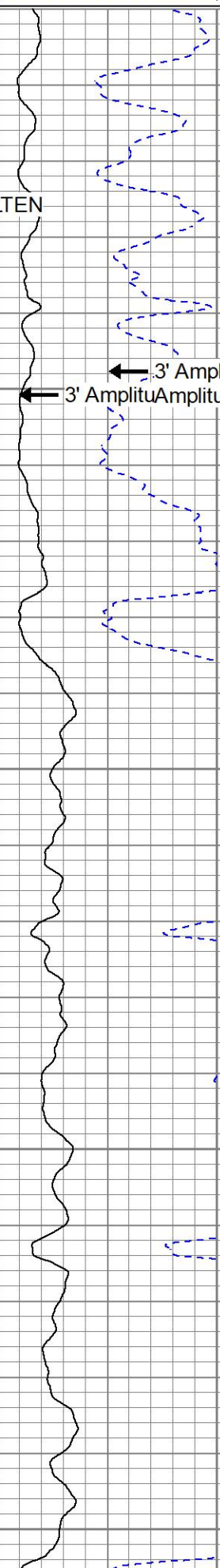
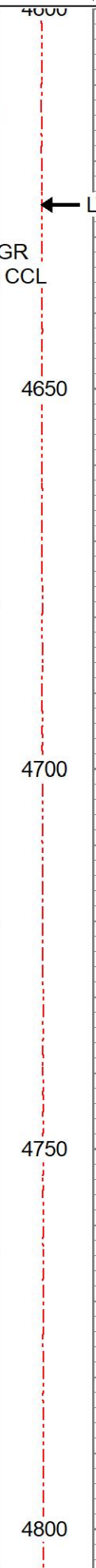
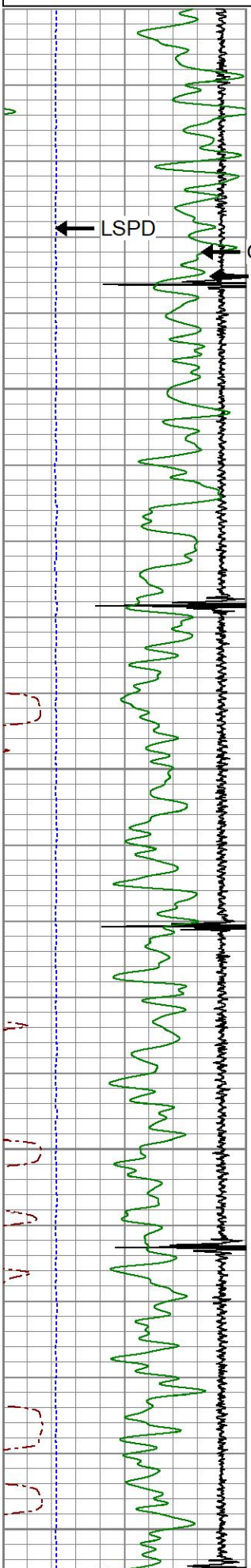
Database File oxy_morton 24-1_05-123-34063_08-05-2024_scbl.db
 Dataset Pathname pass2
 Presentation Format res_scbl 8sec
 Dataset Creation Mon Aug 05 13:30:33 2024
 Charted by Depth in Feet scaled 1:240

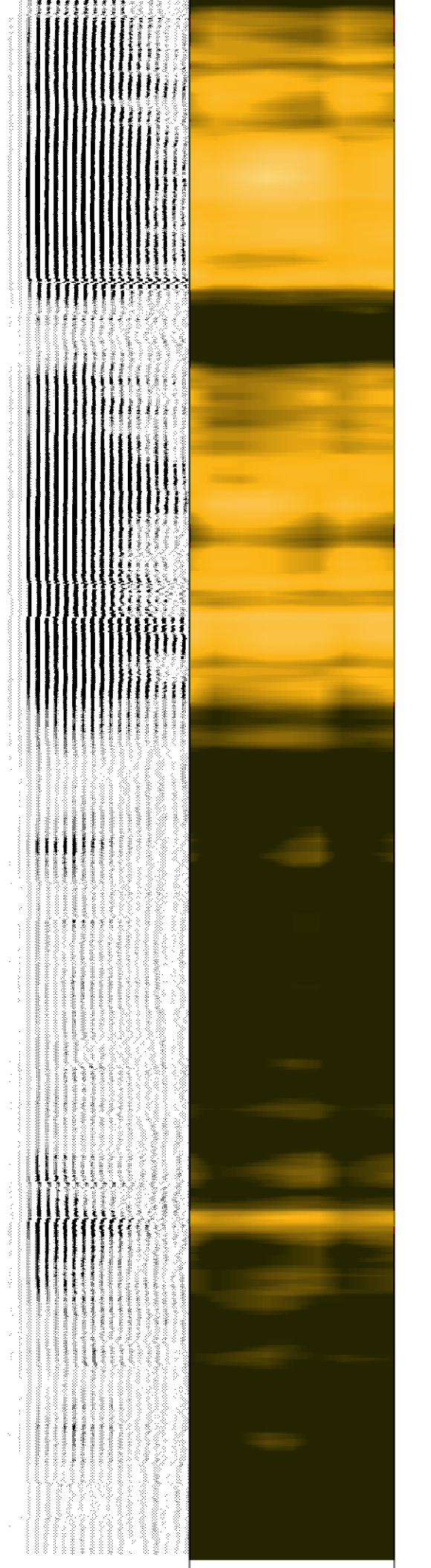
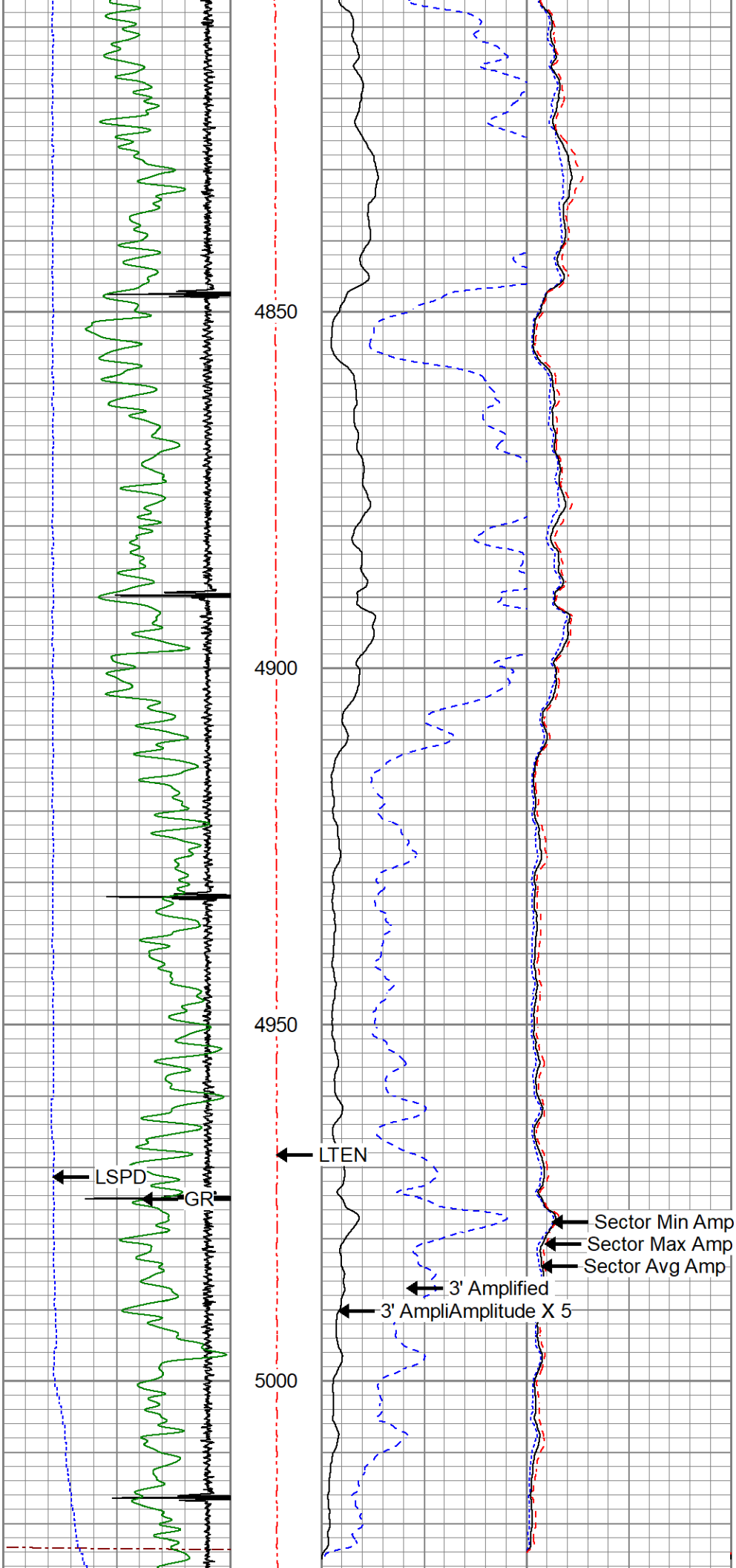


GR (GAPI) 150
-150 LSPD (ft/min) 150

3' Amplified
Amplitude X 5
0 (mV) 20

Sector Max Amp
0 150





270	3FT TT (usec)	170	LTEN	3' Amplitude	0	Sector Min Amp	150	200	VDL (usec)	1200	1	Sector Map	8
-9	CCL	1	(lb)	(mV)	100	Sector Avg Amp							
0	GR (GAPI)	150	0	3' Amplified Amplitude X 5			150						
-150	LSPD (ft/min)	150	2000	(mV)	20	Sector Max Amp							
							150						



REPEAT PASS

0 PSI APPLIED AT SURFACE

Calibration Report

Database File oxy_morton 24-1_05-123-34063_08-05-2024_scbl.db
 Dataset Pathname pass3
 Dataset Creation Mon Aug 05 13:39:03 2024

Gamma Ray Calibration Report

Serial Number: 071129
 Tool Model: GR275B
 Performed: Mon Jun 27 09:11:45 2022

Calibrator Value: 250.0 GAPI

Background Reading: 34.9 cps
 Calibrator Reading: 302.3 cps

Sensitivity: 0.8500 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: 070150
 Tool Model: Probe

Calibration Casing Diameter: 5.500 in
 Calibration Depth: 0.042 ft

Master Calibration, performed Fri Feb 16 08:33:10 2024:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.003	1.044	1.000	71.921	68.104	0.811
CAL	0.003	1.066				
5'	0.003	1.039	1.000	71.921	68.422	0.814
SUM						
S1	0.003	1.071	0.000	100.000	93.603	-0.265
S2	0.003	1.026	0.000	100.000	97.767	-0.276
S3	0.003	1.017	0.000	100.000	98.579	-0.288
S4	0.003	0.997	0.000	100.000	100.633	-0.287
S5	0.003	1.025	0.000	100.000	97.799	-0.291
S6	0.003	1.064	0.000	100.000	94.283	-0.277
S7	0.003	1.040	0.000	100.000	96.425	-0.275
S8	0.003	1.063	0.000	100.000	94.346	-0.271

Internal Reference Calibration, performed (Not Performed):

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

CAL

0.000

0.000

0.003

1.066

1.000

0.000

Air Zero Calibration, performed Fri Feb 16 08:33:43 2024:

	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.011	0.000	-0.008
5'	0.016	0.000	-0.014
SUM			
S1	0.010	0.000	-0.007
S2	0.011	0.000	-0.008
S3	0.011	0.000	-0.008
S4	0.011	0.000	-0.008
S5	0.010	0.000	-0.007
S6	0.010	0.000	-0.008
S7	0.010	0.000	-0.007
S8	0.010	0.000	-0.007



Company

OCCIDENTAL PETROLEUM

Well

MORTON 24-1

Field

WATTENBERG

County

WELD

State

COLORADO