



# RADIAL CEMENT BOND LOG

**Company** OCCIDENTAL PETROLEUM  
**Well** REI 21-17  
**Field** WATTENBERG  
**County** WELD **State** CO

**Location:** API #: 05-123-32825  
 LAT: 40.229731  
 LONG: -104.6836438  
 SEC 17 TWP 3N RGE 65W  
**Permanent Datum** G.L. Elevation 4898'  
**Log Measured From** G.L.  
**Drilling Measured From** K.B. Elevation 4913'  
 G.L. 4912'  
 G.L. 4898'

**Date** 3-18-2021  
**Run Number** ONE  
**Depth Driller** 8070'  
**Depth Logger** 3000'  
**Bottom Logged Interval** 2998'  
**Top Log Interval** SURFACE  
**Open Hole Size** NA  
**Type Fluid** H2O  
**Density / Viscosity** 8.3#  
**Max. Recorded Temp.** 123 DEG F  
**Estimated Cement Top** SEE LOG  
**Time Well Ready** ROA  
**Time Logger on Bottom** 1321  
**Equipment Number** 8050  
**location** GILCREST  
**Recorded By** W. SOTO  
**Witnessed By** RAY BISHOP

Run Number	Borehole Record		Tubing Record				
	Bit	From	To	Size	Weight	From	To
Casing Record							
Surface String				Size	Wgt/Ft	Top	Bottom
Prot. String				8.625"	24#	SURFACE	769'
Production String				4.5"	11.6 #	SURFACE	7963'
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

**LOG RAN WITH 500 PSI**  
  
**FREE PIPE CALIBRATION PERFORMED AT 315'**  
  
**LOG CORRELATED TO IPS RCBL LOG 7/06/2011**  
  
**THANK YOU FOR CHOOSING CUTTERS WIRELINE SERVICE**

### Calibration Report

Database File 0512332825\_rei21-17\_rcbl.db  
 Dataset Pathname pass8  
 Dataset Creation Thu Mar 18 13:18:57 2021

Serial Number: FW1304-53  
 Tool Model: Probe275  
 Performed: (Not Performed)

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps  
 Calibrator Reading: 1.0 cps

Sensitivity: 1.0000 GAPI/cps

Temperature Calibration Report

Serial Number: FW1304-53  
 Tool Model: Probe275  
 Performed: Sun Jan 05 18:47:35 2020

	Reference	Reading
Low Reference:	100.00 degF	6258.73
High Reference:	350.00 degF	26472.00
Gain:	0.01	
Offset:	22.59	
Delta Spacing	2	

Segmented Cement Bond Log Calibration Report

Serial Number: FW1905-150  
 Tool Model: RBTC3

Calibration Casing Diameter: 4.500 in  
 Calibration Depth: 313.600 ft

Master Calibration, performed Thu Mar 18 12:58:05 2021:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.002	0.780	1.000	81.000	102.898	0.751
CAL	0.002	0.982				
5'	0.002	0.628	1.000	81.000	127.863	0.700
SUM						
S1	0.002	0.765	0.000	81.000	106.214	-0.258
S2	0.002	0.832	0.000	81.000	97.702	-0.241
S3	0.002	0.840	0.000	81.000	96.670	-0.231
S4	0.002	0.784	0.000	81.000	103.591	-0.233
S5	0.002	0.729	0.000	81.000	111.519	-0.264
S6	0.002	0.691	0.000	81.000	117.666	-0.248
S7	0.002	0.673	0.000	81.000	120.773	-0.295
S8	0.003	0.732	0.000	81.000	111.094	-0.281

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.002	0.982	1.000	0.000

Air Zero Calibration, performed Thu Mar 18 12:23:12 2021:

	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

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)	
ErrCt	15.39		Cable_Head-Standard Standard Cable Head	1.00	1.69	1.00	
			RBT-RBTC3 (FW1905-150)	9.62	2.75	90.00	
WVFS8	9.02						
WVFS7	9.02						
WVFS6	9.02						
WVFS5	9.02						
WVFS4	9.02						
WVFS3	9.02						
WVFS2	9.02						
WVFS1	9.02						
WVFCAL	9.02						
WV3FT	9.02						
WV5FT	8.02						
WVFSYNC	4.77						
DCCL	3.92						
CCL	3.92						
TEMP	3.17						
CP	0.40						

GR

2.42

GCI-Probe275 (FW1304-53)  
Probe 2 3/4" Gamma Ray CCL w/Temperature

4.77

2.75

40.00

Dataset: 0512332825\_rei21-17\_rcbl.db: field/well/run1/pass8  
 Total length: 15.39 ft  
 Total weight: 131.00 lb  
 O.D.: 2.75 in

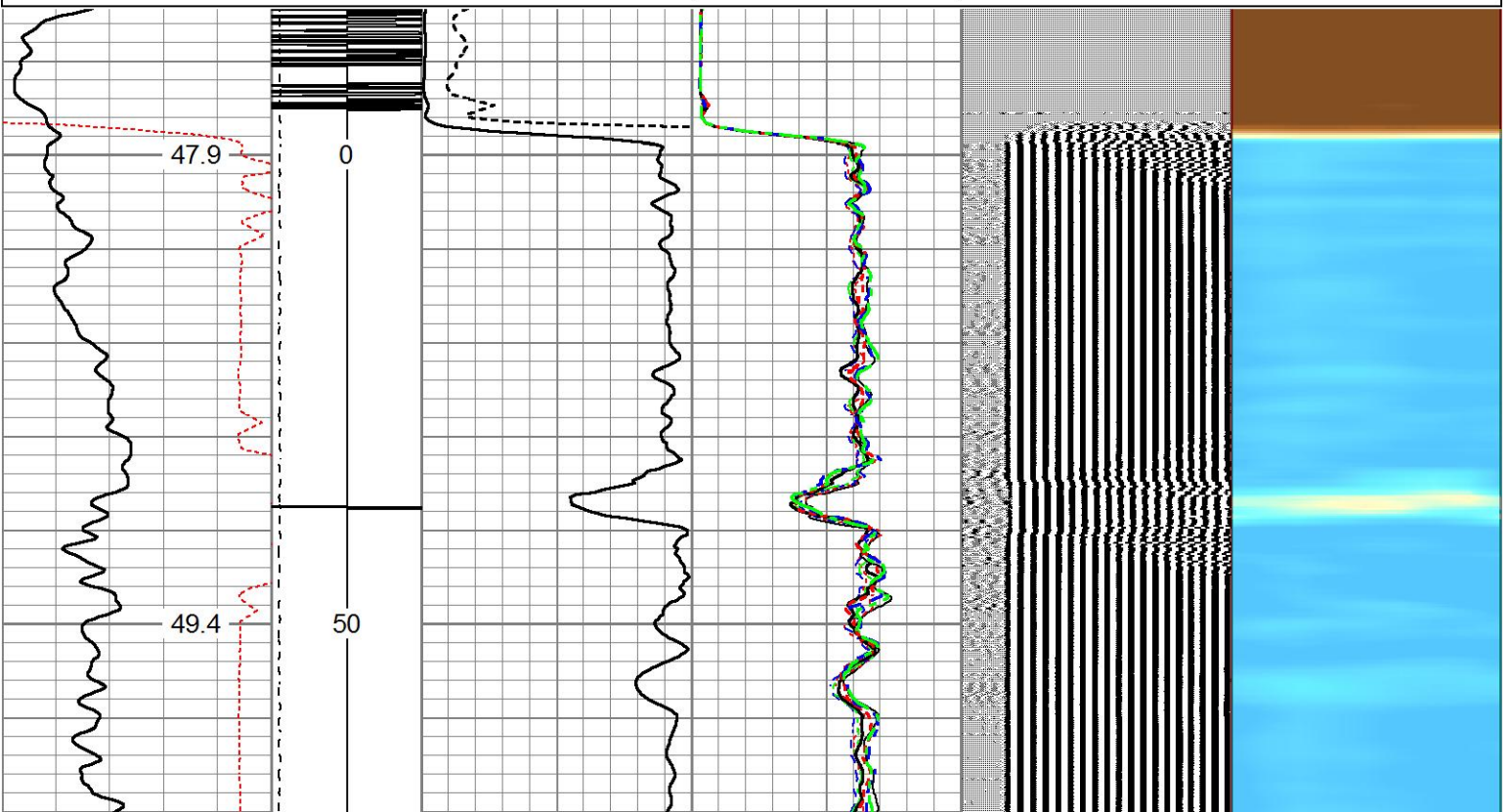


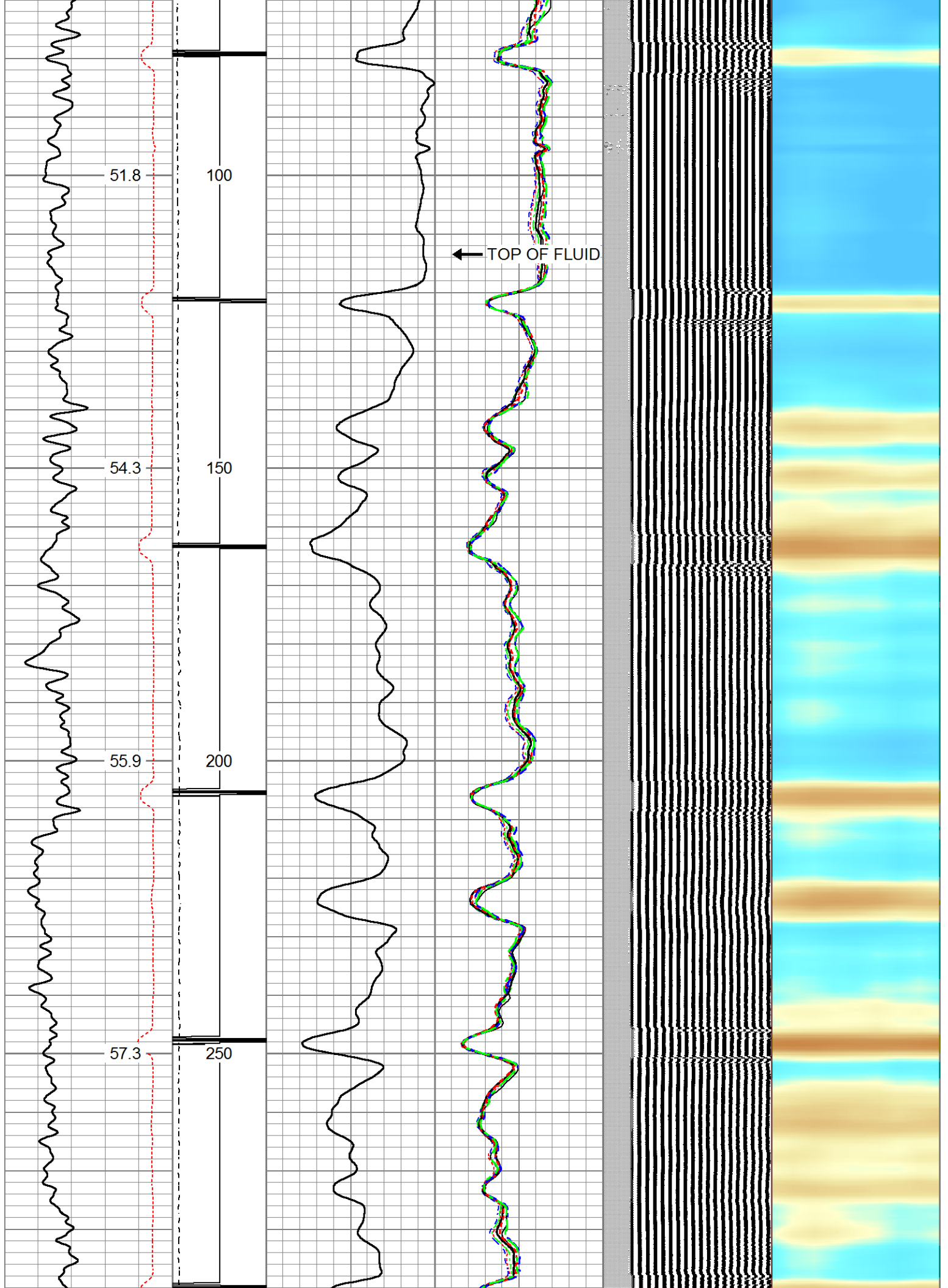
# MAIN PASS

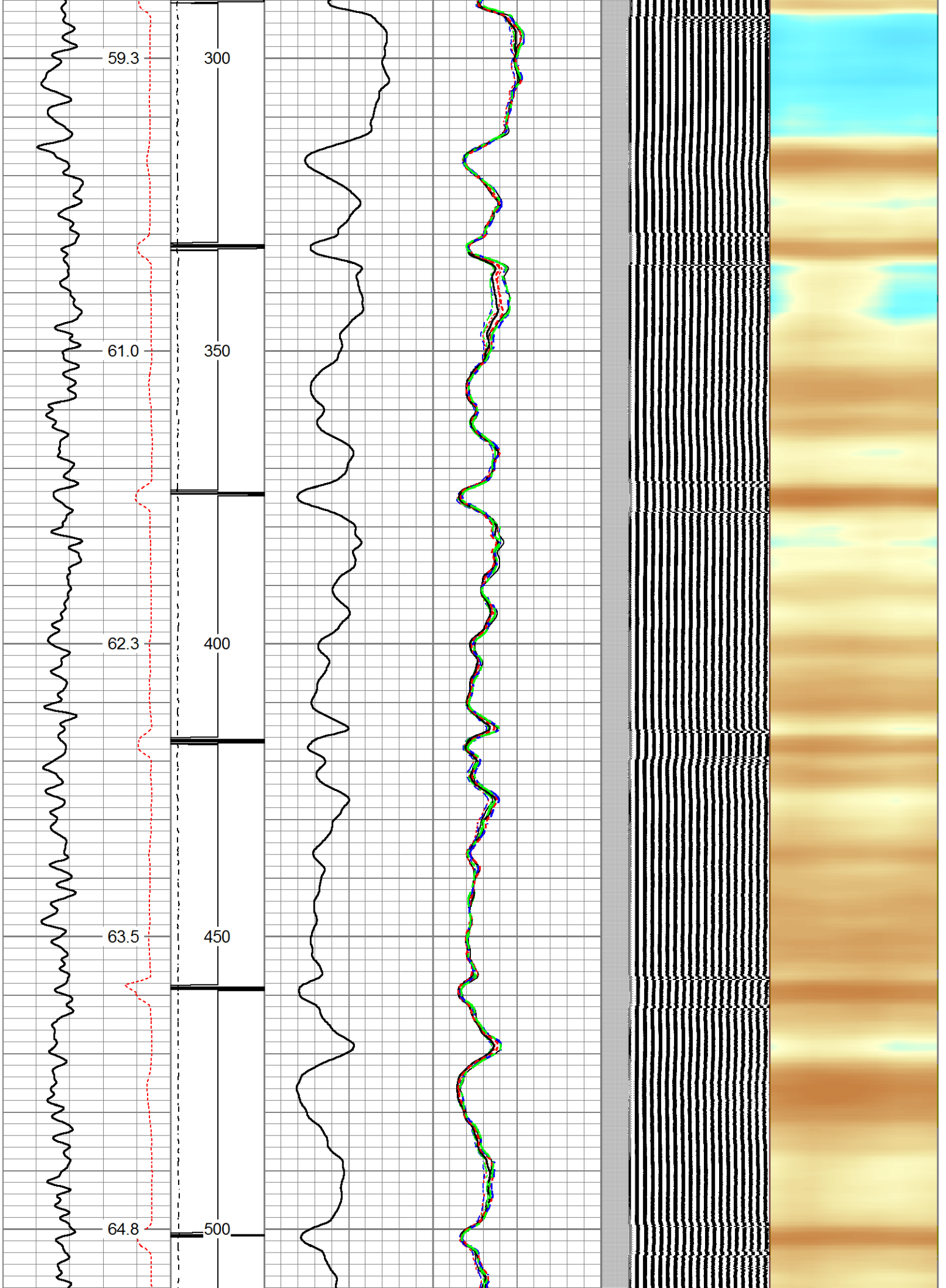
5" = 100'

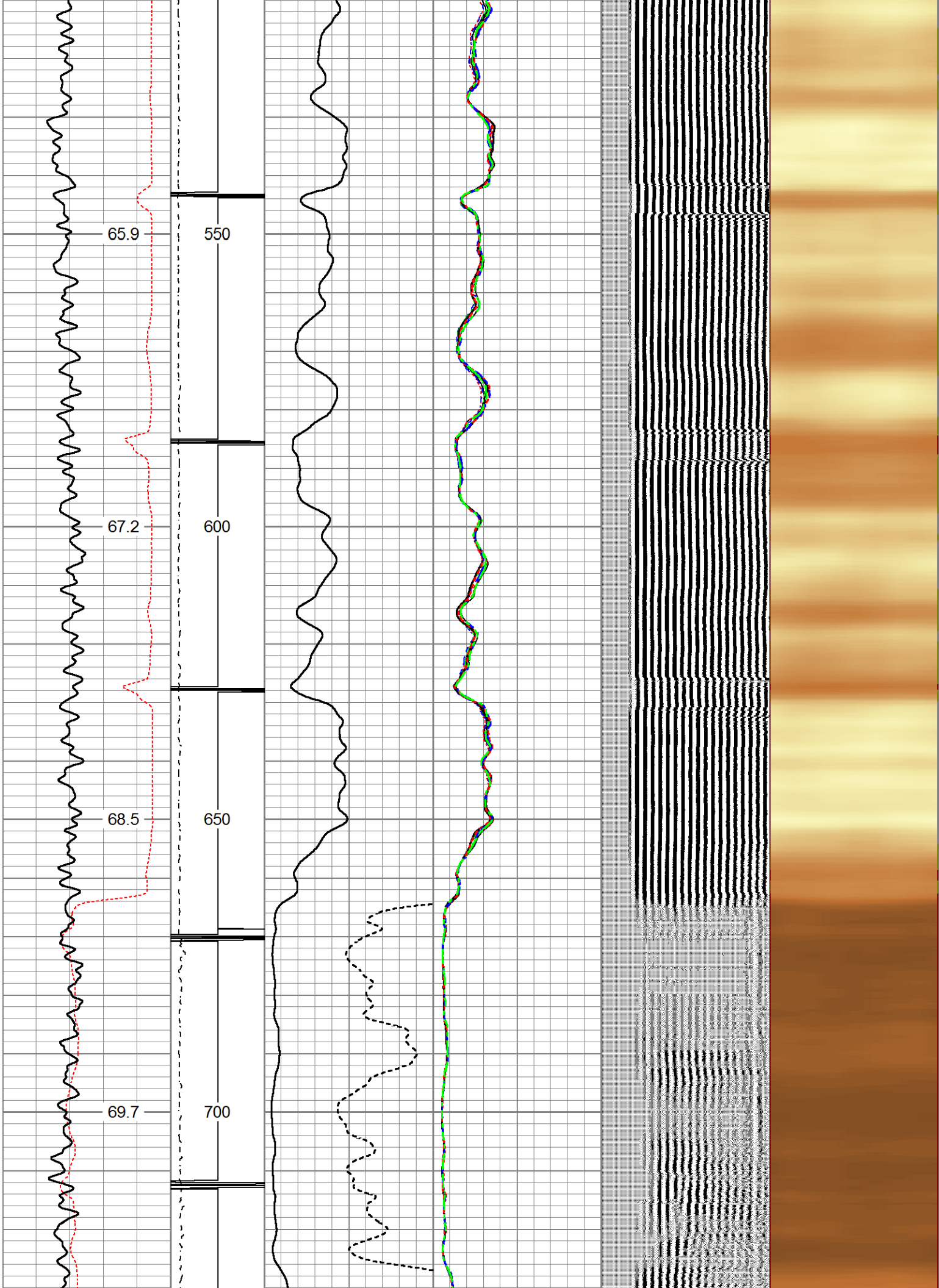
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 Dataset Pathname pass8  
 Presentation Format rbt-gct8acc  
 Dataset Creation Thu Mar 18 13:18:57 2021  
 Charted by Depth in Feet scaled 1:240

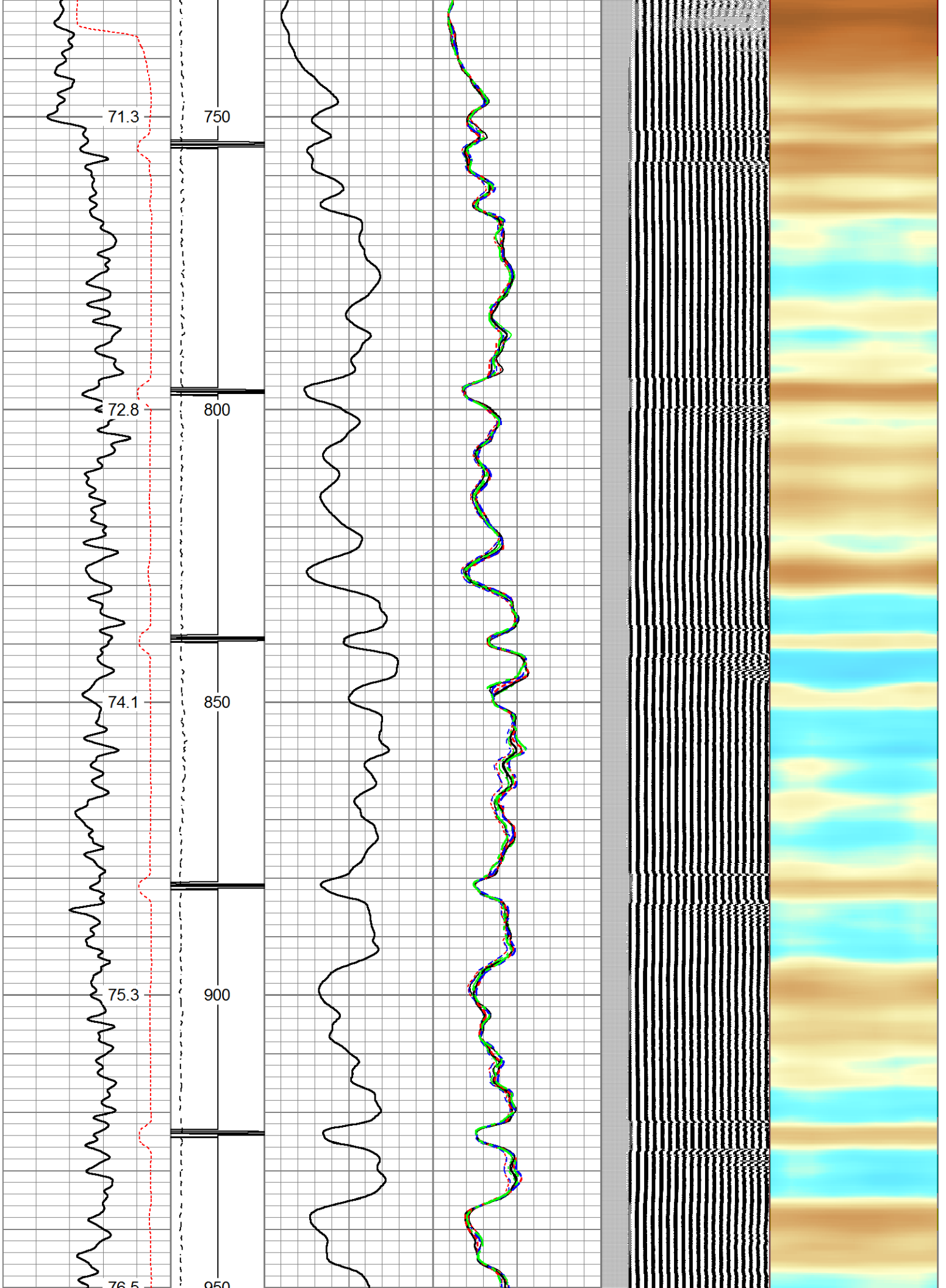
Travel Time	-1 CCL	1	0	AMP (mV)	100	-5	AMPS1	150	200	VDL (usec)	1200	1	Cement Map	8
343 (usec)	243	LTEN	0	AMPx10 (mV)	10	-5	AMPS2	150						
Gamma Ray	0	(lb/3000)				-5	AMPS3	150						
0 (GAPI)	200					-5	AMPS4	150						
TEMP						-5	AMPS5	150						
(degF)						-5	AMPS6	150						
						-5	AMPS7	150						
						-5	AMPS8	150						

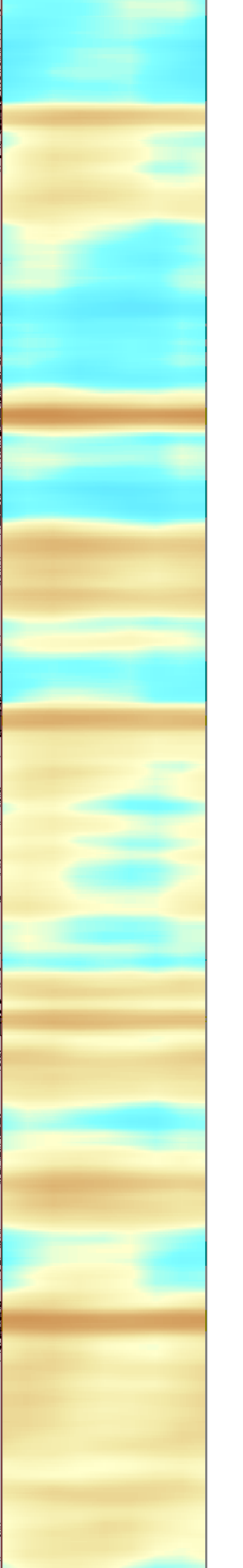
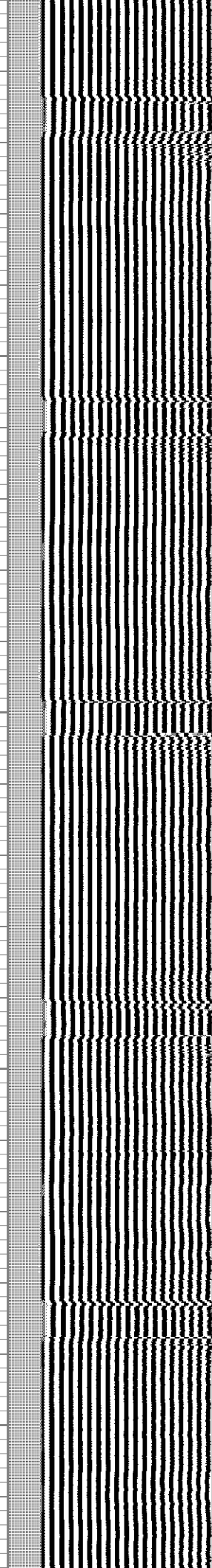
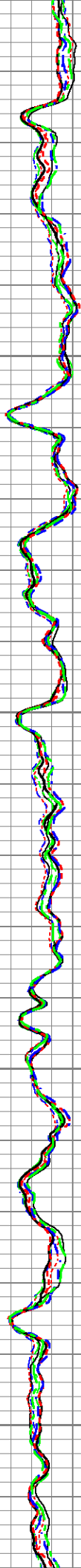
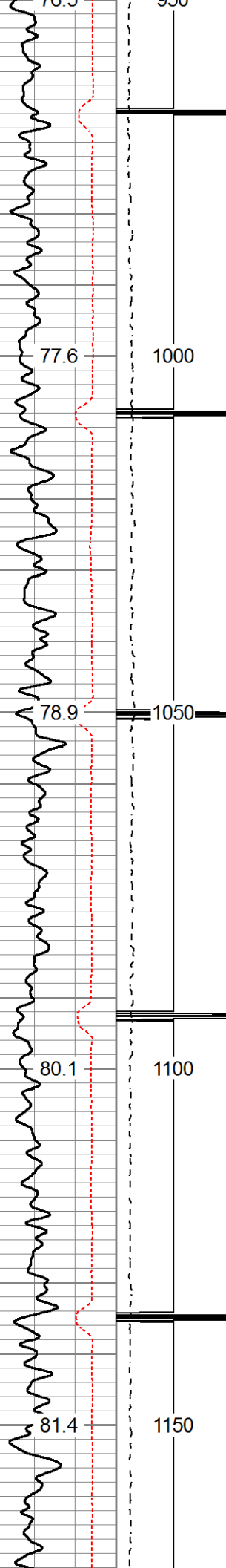


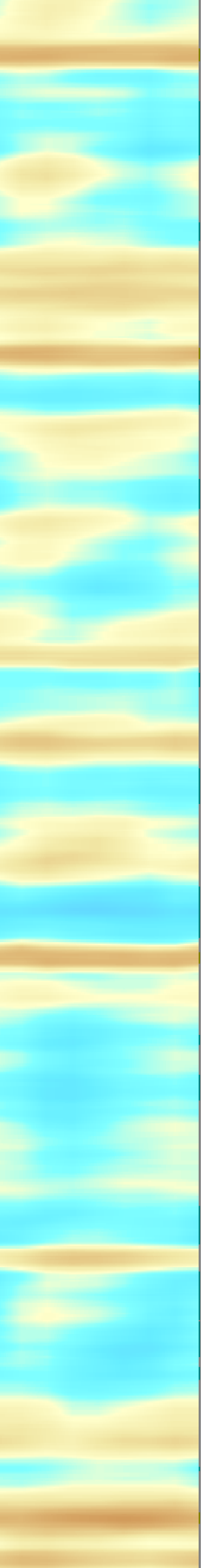
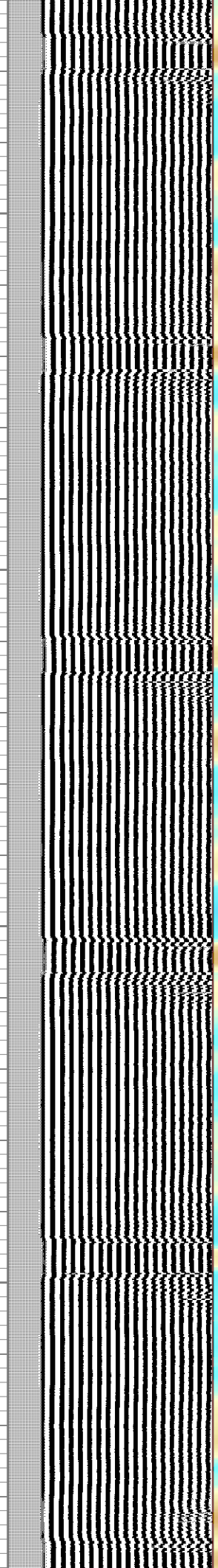
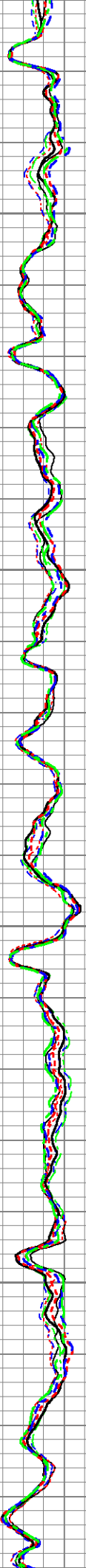
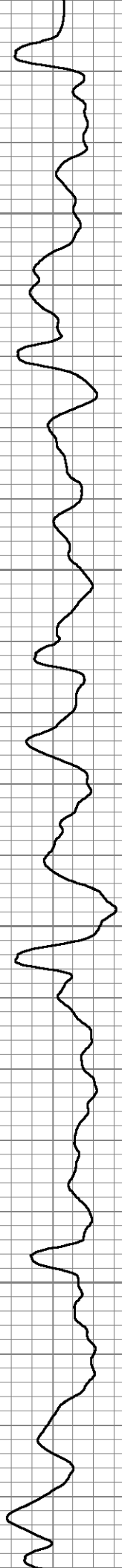
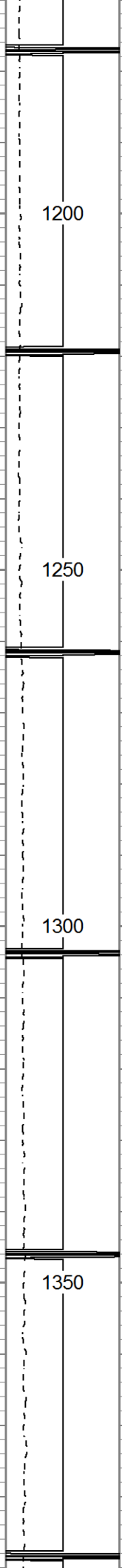
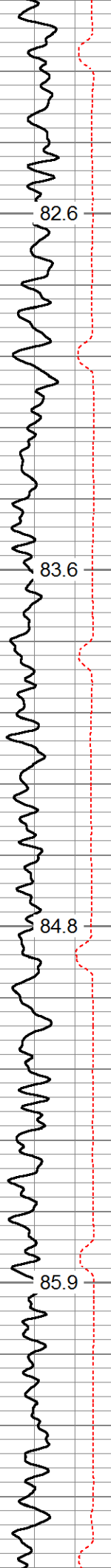


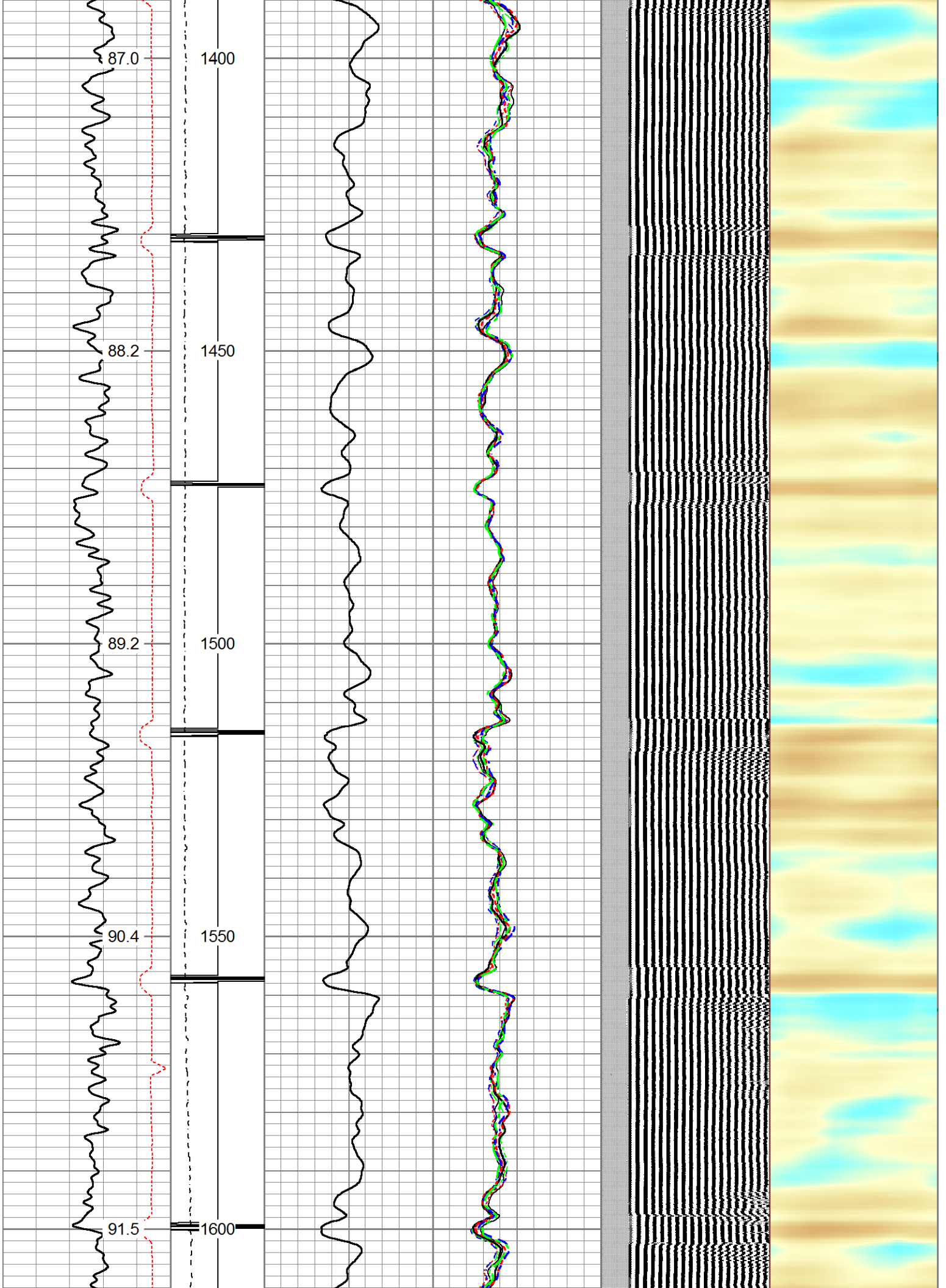


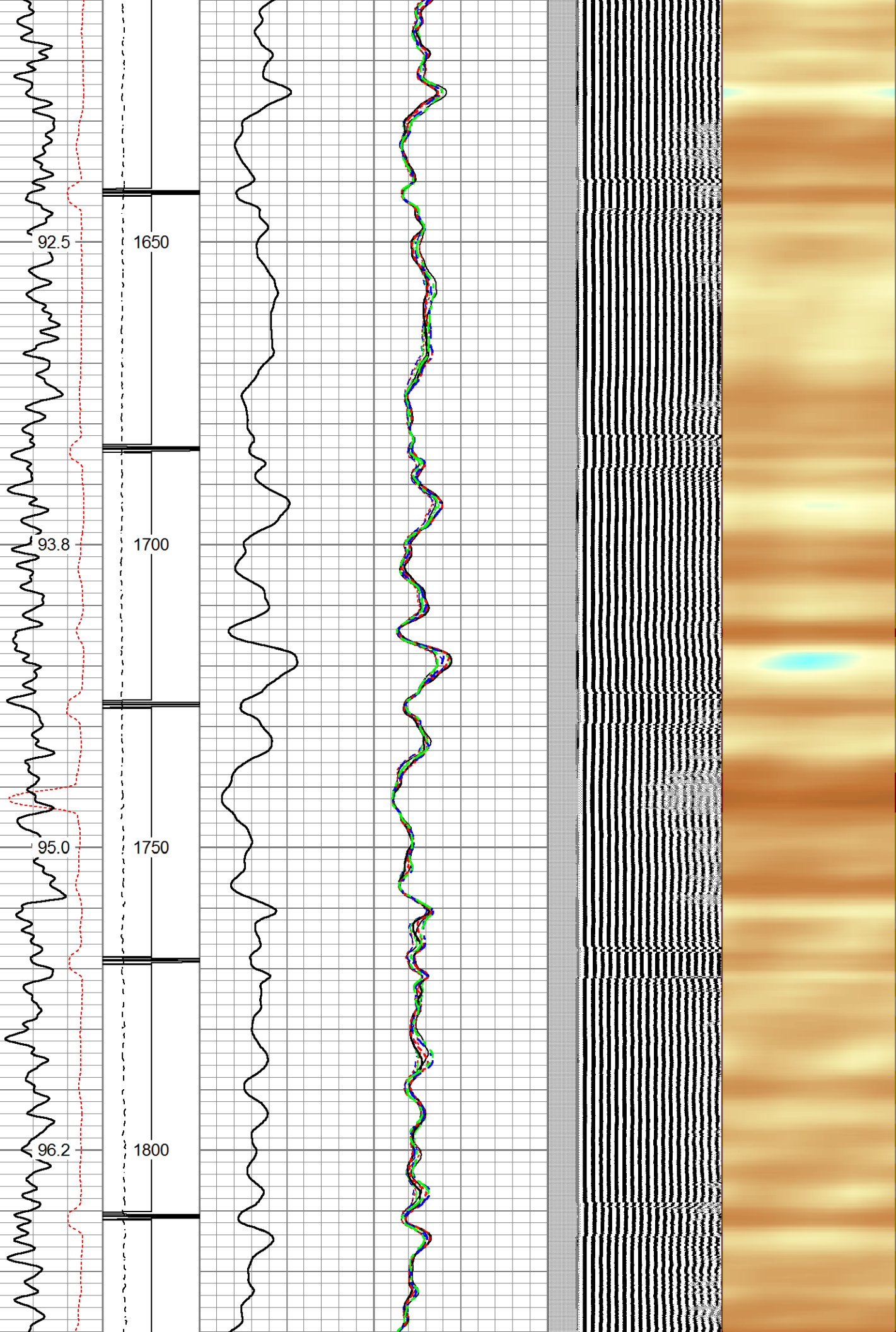


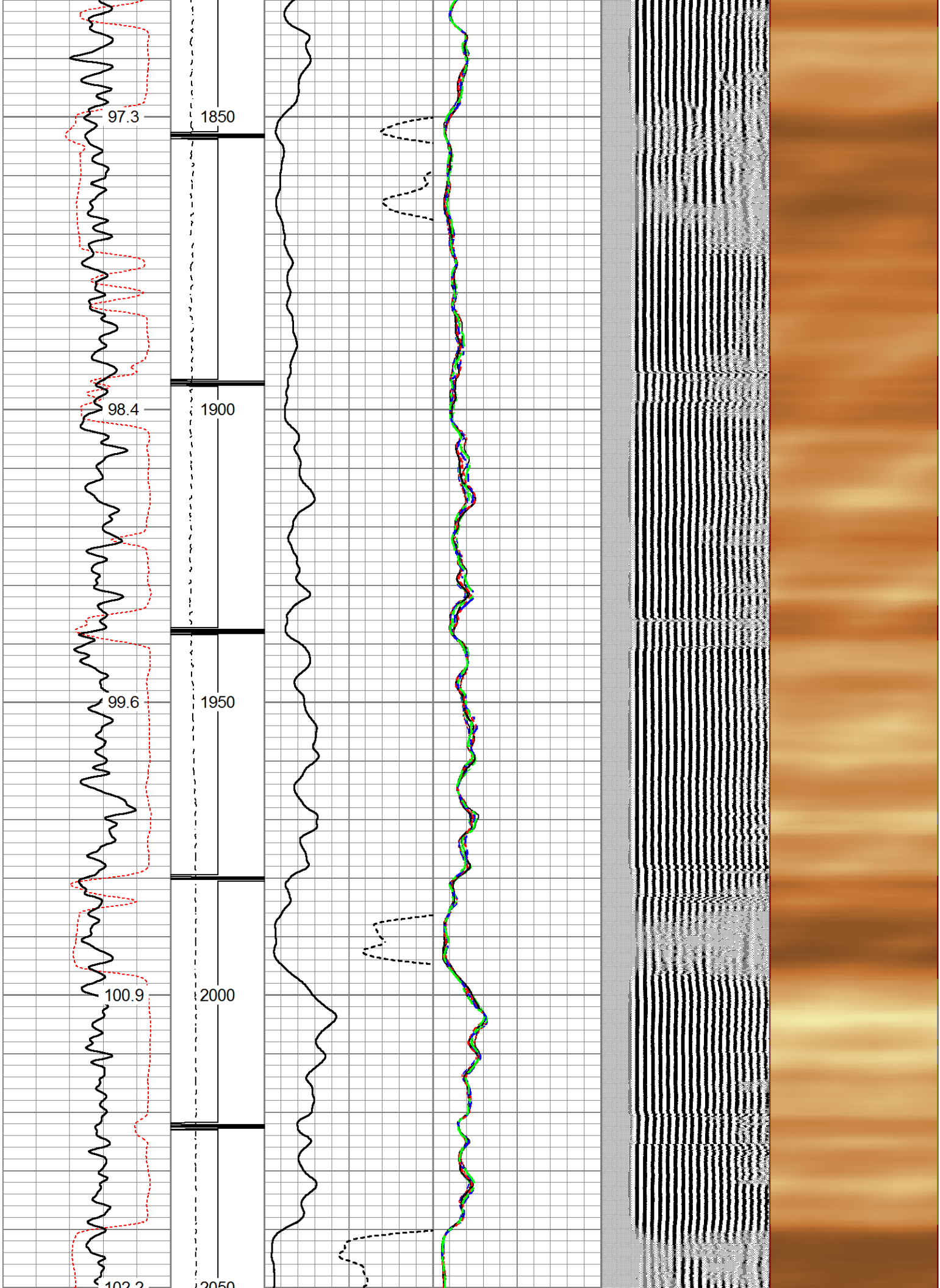


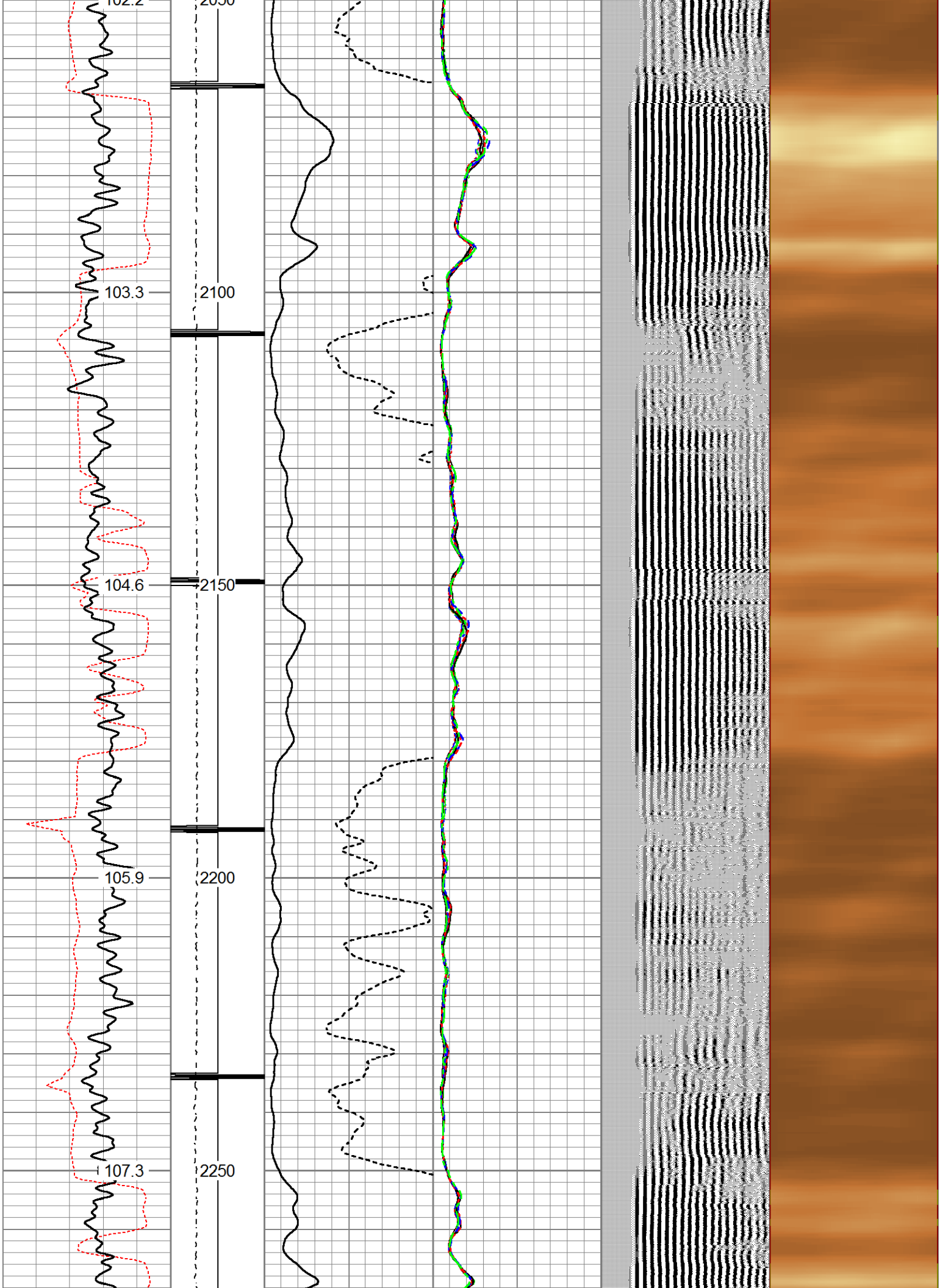


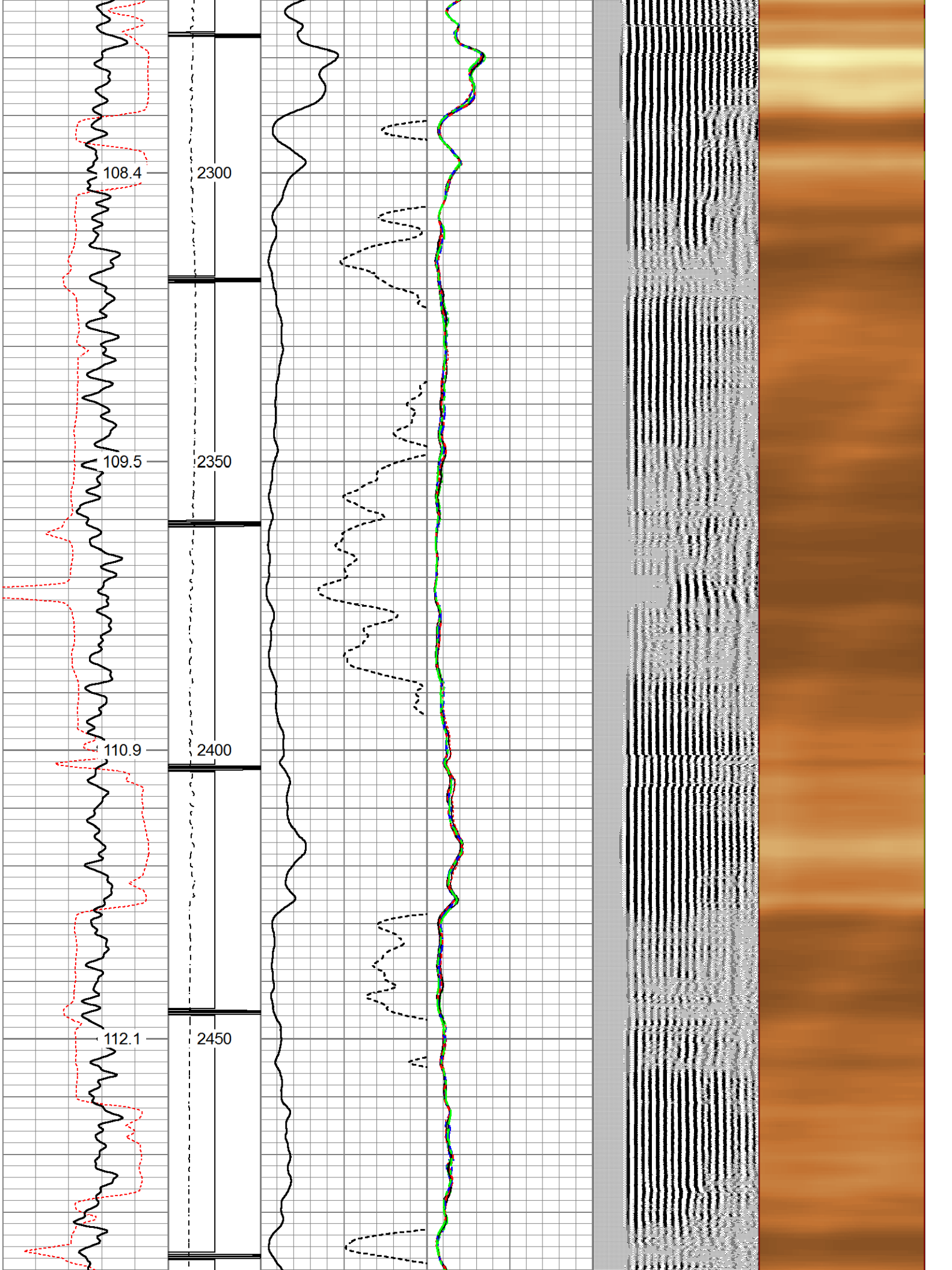


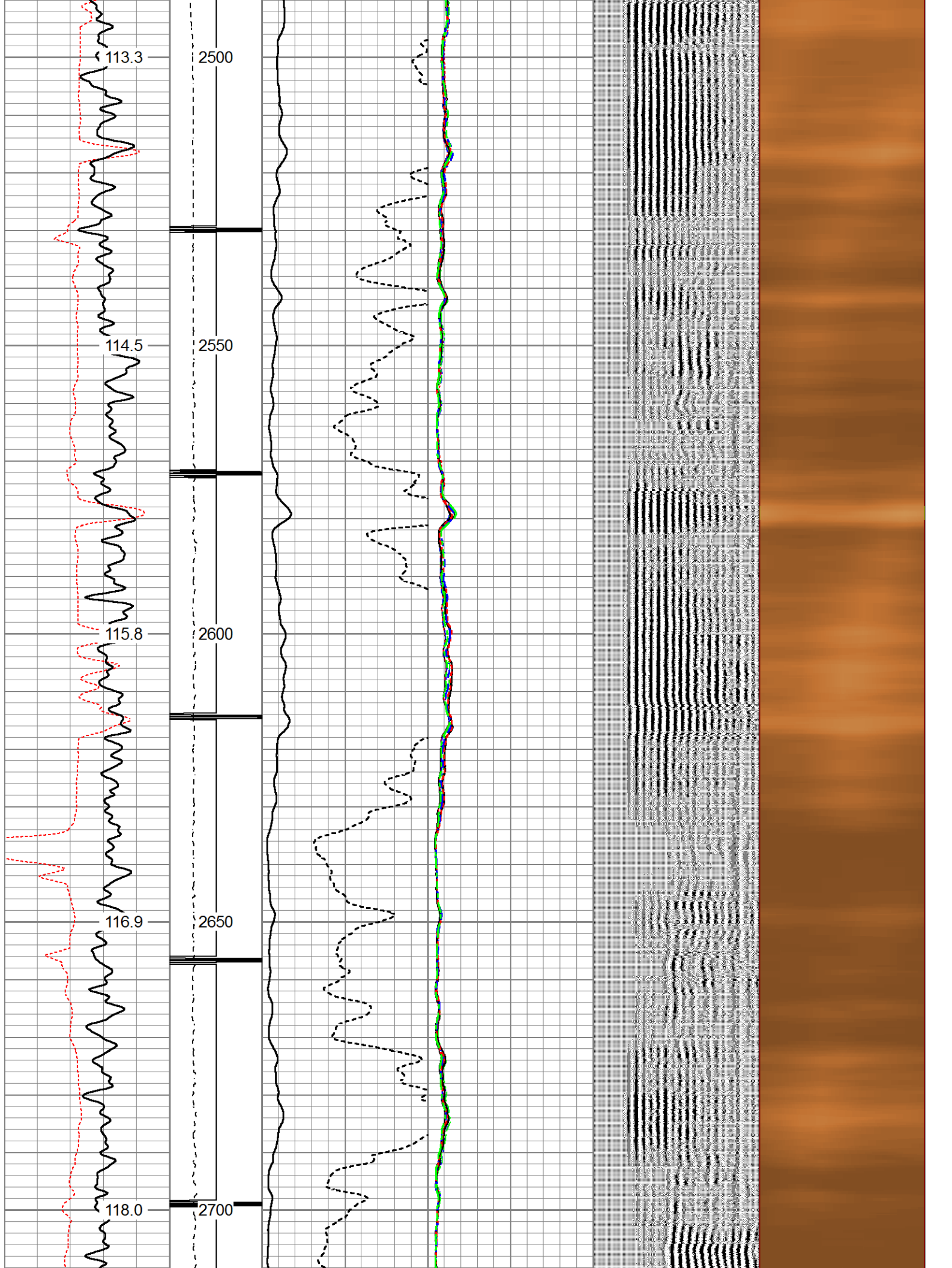


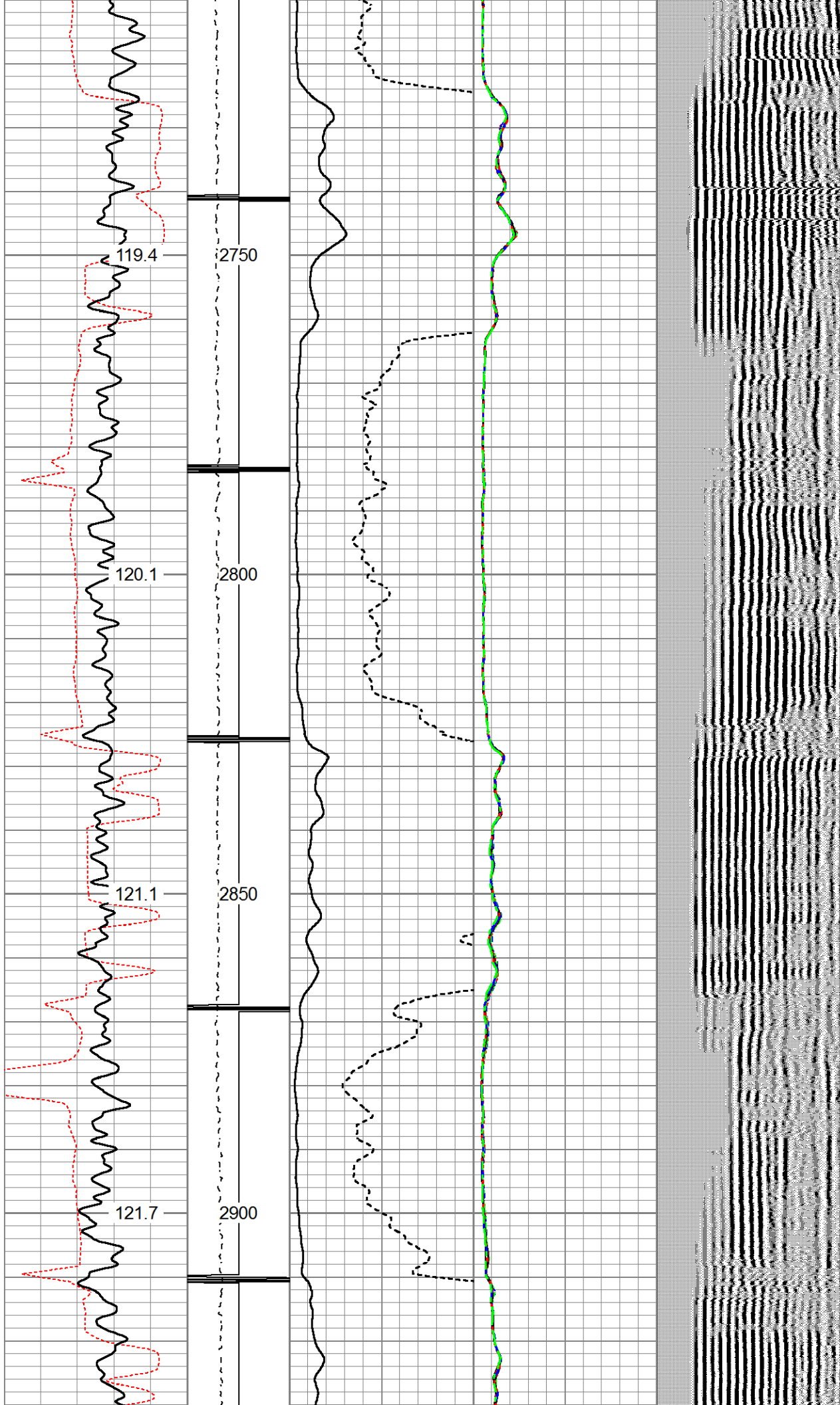


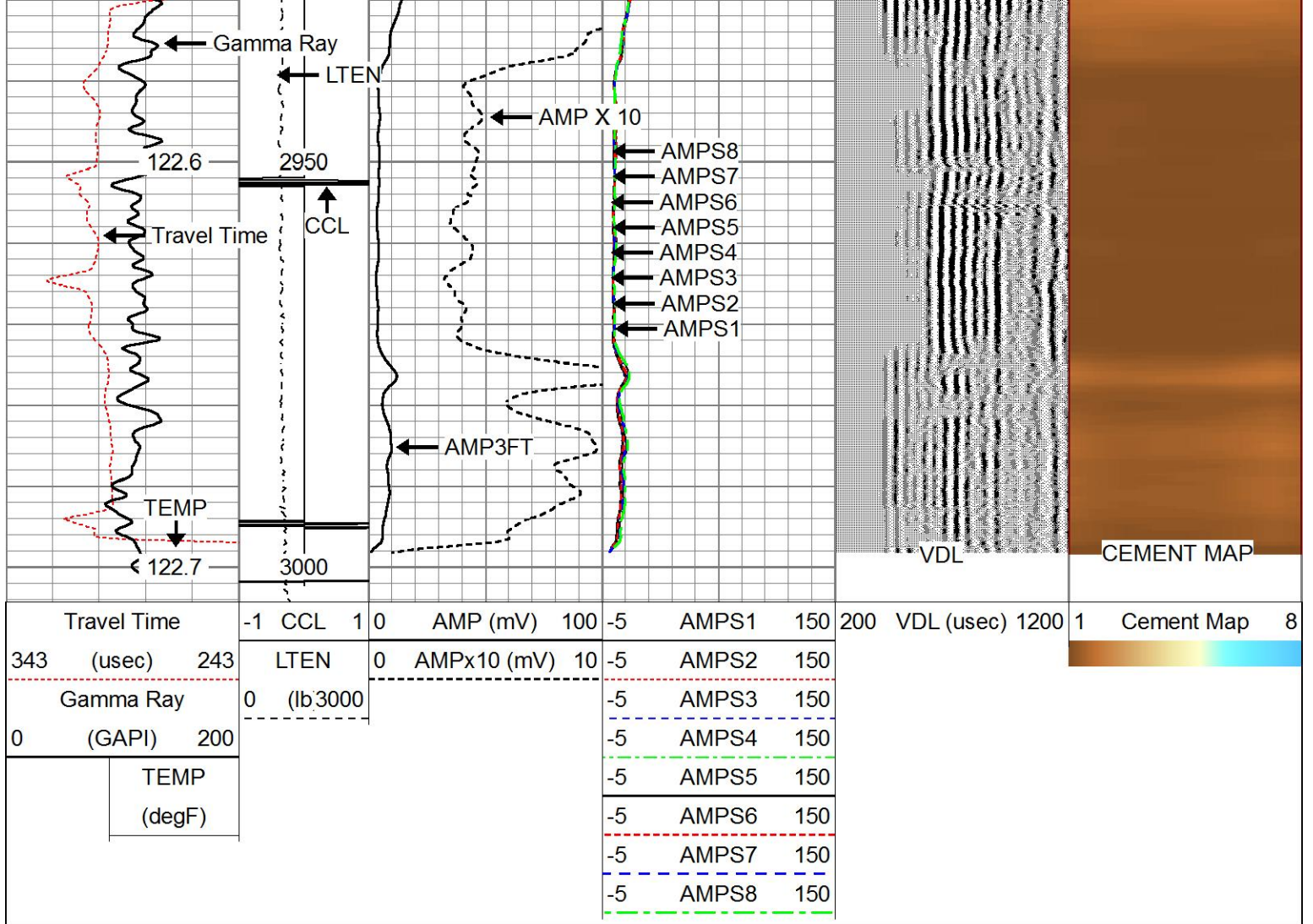












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**State** CO