



SECTOR CEMENT BOND
GAMMA RAY
CCL LOG

Comp. OCCIDENTAL PETROLEUM
Well BURCHFIELD 39-20
Field WATTENBERG
Co. WELD
State COLORADO

Company OCCIDENTAL PETROLEUM
Well BURCHFIELD 39-20
Field WATTENBERG
County WELD
Location: API # 05-123-26923
State COLORADO

Permanent Datum GN
Log Measured From KB 12' Elevation 4789'
Drilling Measured From KB Above Perm. Datum
SEC 20 TWP 3N RGE 67W
SHL: 859' FSL & 534' EWL SW/SW
BHL: 1571' FSL & 166' FEL SE/SE
N/A
K.B. 4801'
D.F. 4800'
G.L. 4789'

Date of Service OCTOBER 13, 2022

Run Number DNE

Depth Driller or PBTD 7360'

Depth Logger 5680'

Bottom Log Interval 5688'

Top Log Interval SURFACE

Open Hole Size N/A

Type Fluid WATER

Fluid Level SURFACE

Fluid Density 8.33 PPG

Max. Recorded Temperature 190 DEG. F.

Max. Wellhead Pressure 0

Wellhead Connection 7-1/16" 5K

Estimated Cement Top SEE LOG

Unit Number 1096

Wireline Size 9/32"

Location BRIGHTON, CO

Recorded By HARPER

Witnessed By

Size N/A

Surface Casing N/A

Production Casing 4.5"

Liner Casing N/A

Tubing Record N/A

WM Ft

N/A

11.6#

N/A

N/A

Top

N/A

SURFACE

N/A

N/A

Bottom

N/A

7360'

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.
LOG CORRELATED TO:
RANGER ENERGY SERVICES
SECTOR CEMENT BOND
GAMMA RAY
CCL LOG
DATED:05-OCT-2022

THANK YOU FOR USING RANGER ENERGY SERVICES! FIELD TICKET #

Your Ranger Energy Services Crew

Engineer: B.HARPER
Operator: B.HECHT
Operator: J.BAILEY
Operator:

Tool Data - Services

Serial Number

Operator	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
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Log Variables

DatabaseC:\ProgramData\Warrior\Data\oxy_burchfield 39-20_05-123-26823_10-13-2022.db
Dataset field/well/run1/merge1_D/_vars_

Top - -6.50 ft

BHTEMP_Src TEMP	BOREID in 0	BOTTEMP degF 0	CASEOD in 0	CASETHCK in 0	CASEWGHT lb/ft 0	MAXAMPL mV 0	MINAMPL mV 0
MINATTN db/ft 0	PERFS No	PPT usec 0	SRFTEMP degF 0	TDEPTH ft 0			

-6.50 ft - 3511.89 ft

BHTEMP_Src TEMP	BOREID in 8.75	BOTTEMP degF 100	CASEOD in 4.5	CASETHCK in 0.408	CASEWGHT lb/ft 11.6	MAXAMPL mV 81	MINAMPL mV 0.5
MINATTN db/ft 0.8	SRFTEMP degF 38						

3511.89 ft - 5766.50 ft

5766.50 ft - Bottom

BHTEMP_Src TEMP	BOREID in 0	BOTTEMP degF 0	CASEOD in 0	CASETHCK in 0	CASEWGHT lb/ft 0	MAXAMPL mV 0	MINAMPL mV 0
MINATTN db/ft 0	SRFTEMP degF 0						

Variable Description

BHTEMP_Src : BHTEMP Input Source Selector
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



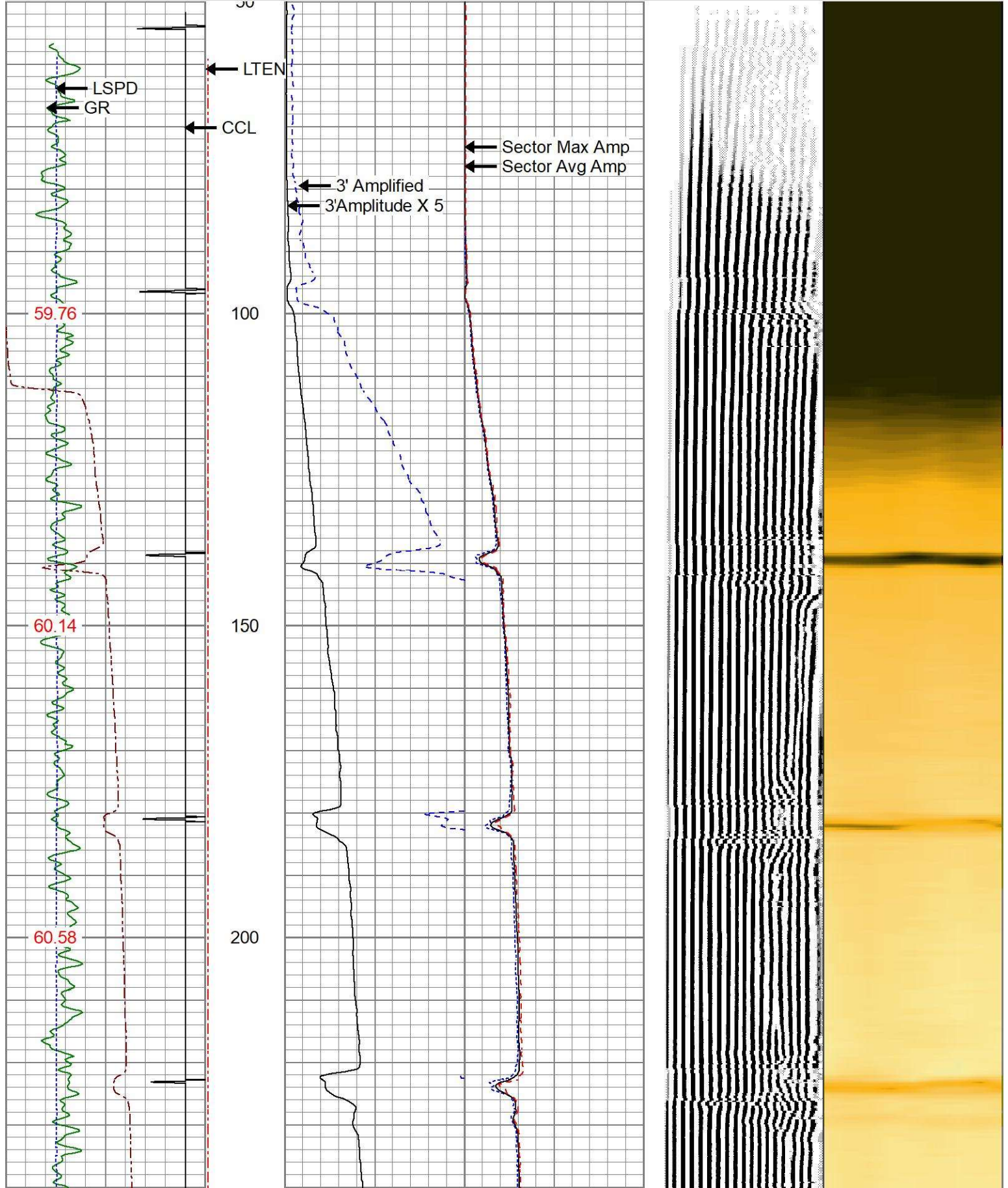
MAIN PASS

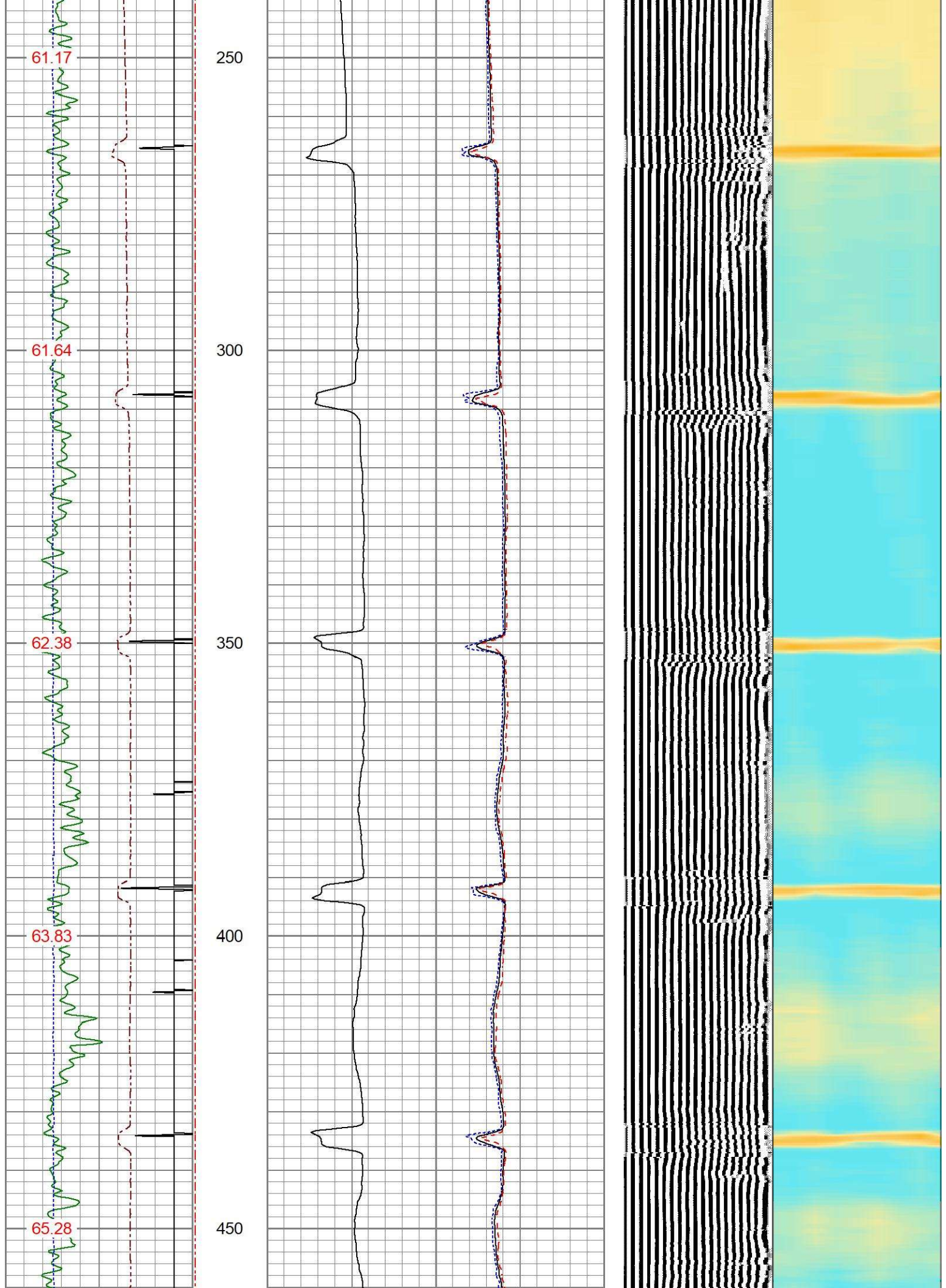
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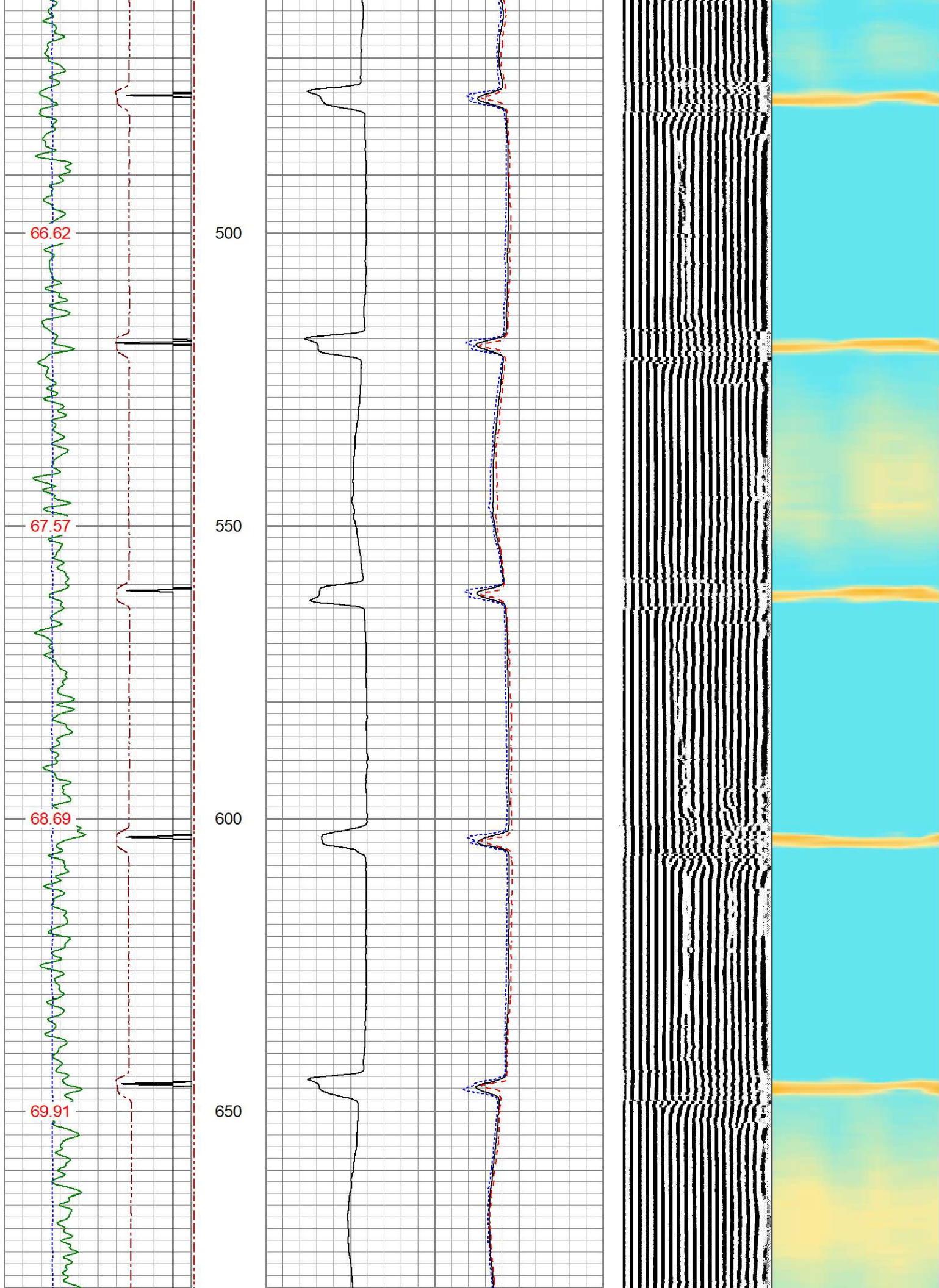
PSI APPLIED AT SURFACE

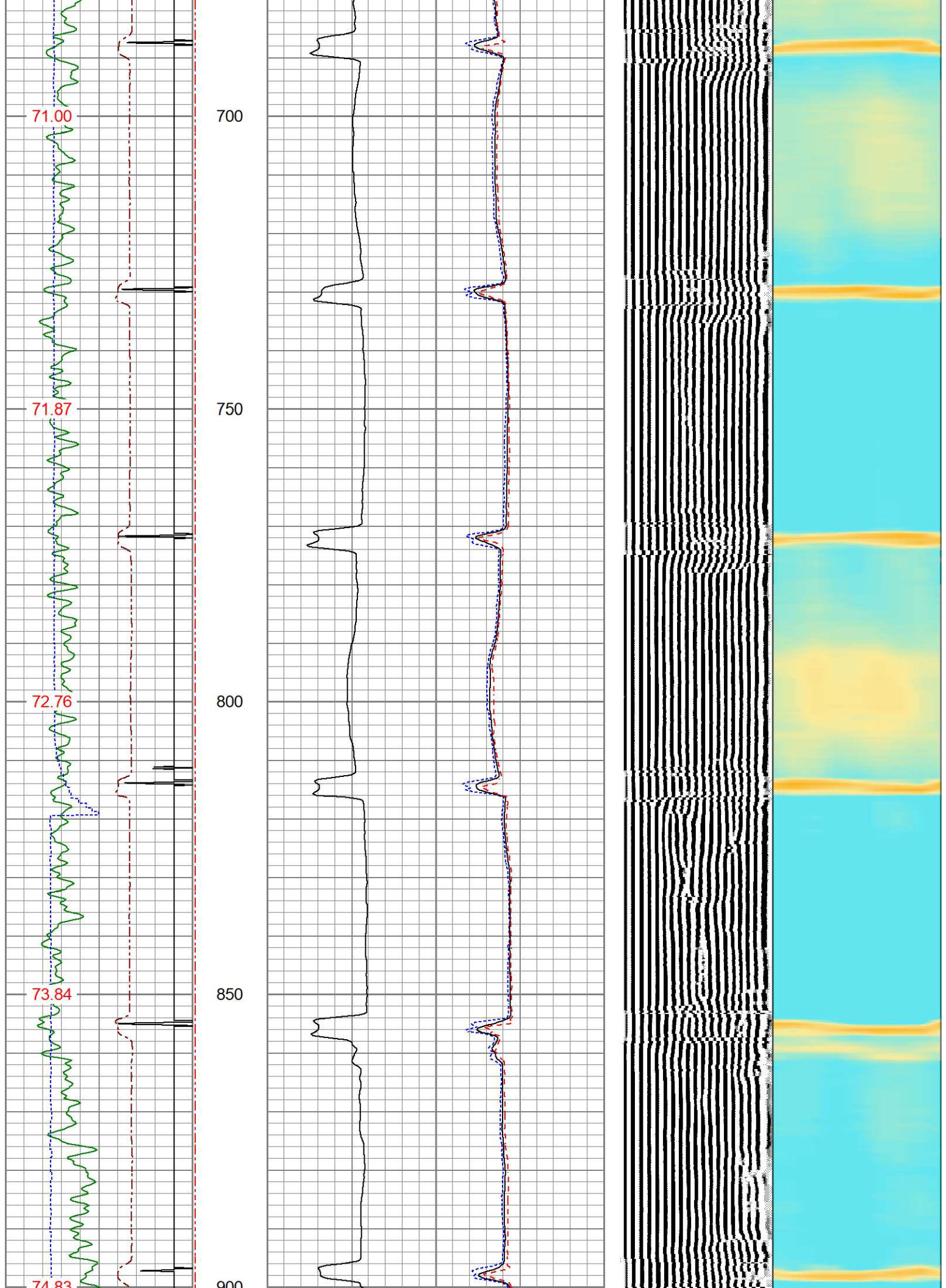
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Dataset Pathname merge1_D
Presentation Format res_scb1 8sec
Dataset Creation Thu Oct 13 10:39:47 2022
Charted by Depth in Feet scaled 1:240

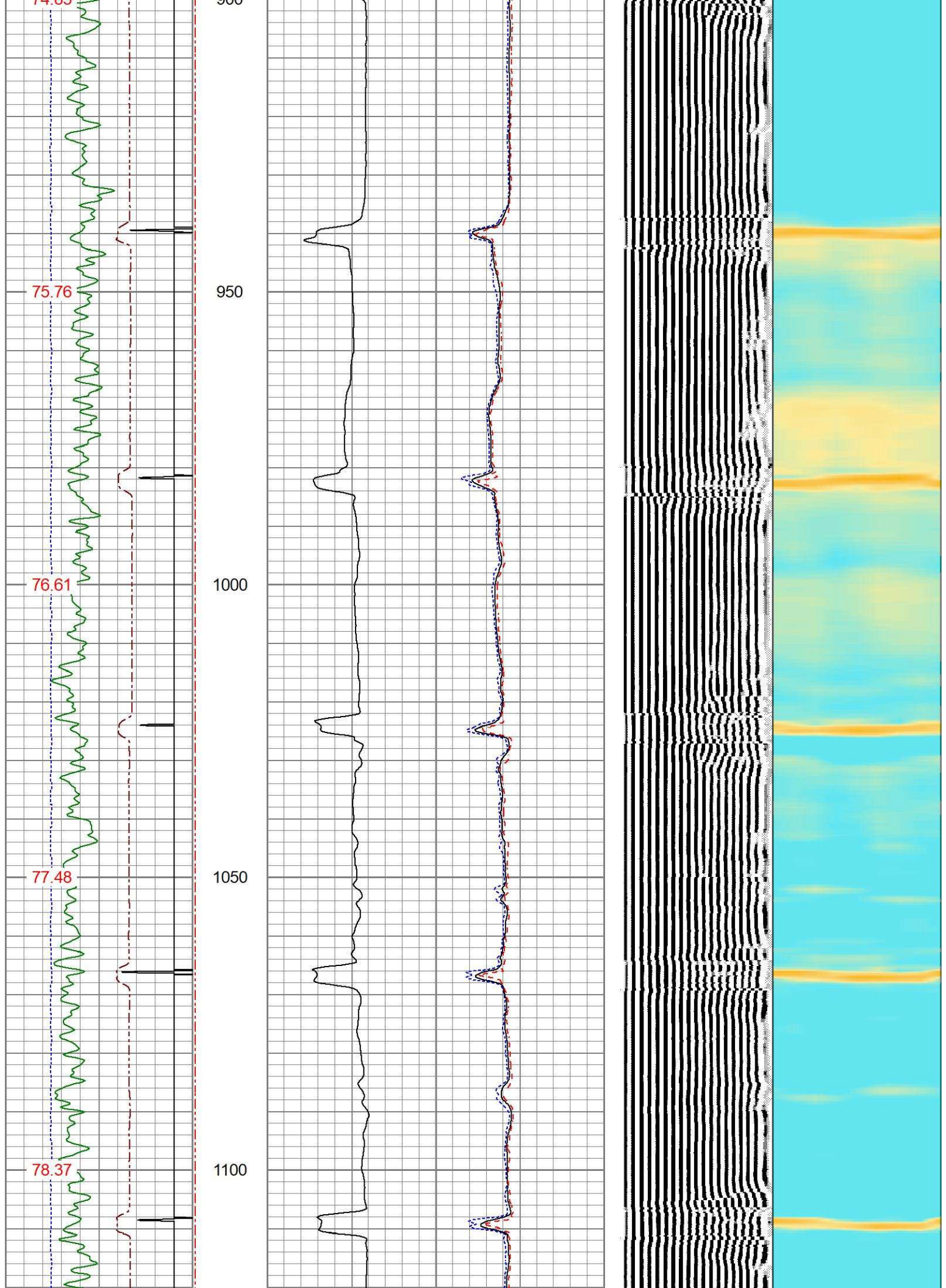
270	3FT TT (usec)	170	LTEN	3' Amplitude	0	Sector Min Amp	150	200	VDL (usec)	1200	1	Sector Map	8
-9	CCL	1	(lb)	(mV)	100	Sector Avg Amp							
0	GR	150	0 2000	3' Amplified	0	150							
-150	LSPD (ft/min)	150		Amplitude X 5									
TEMP				(mV)	20	0	150						
(degF)													

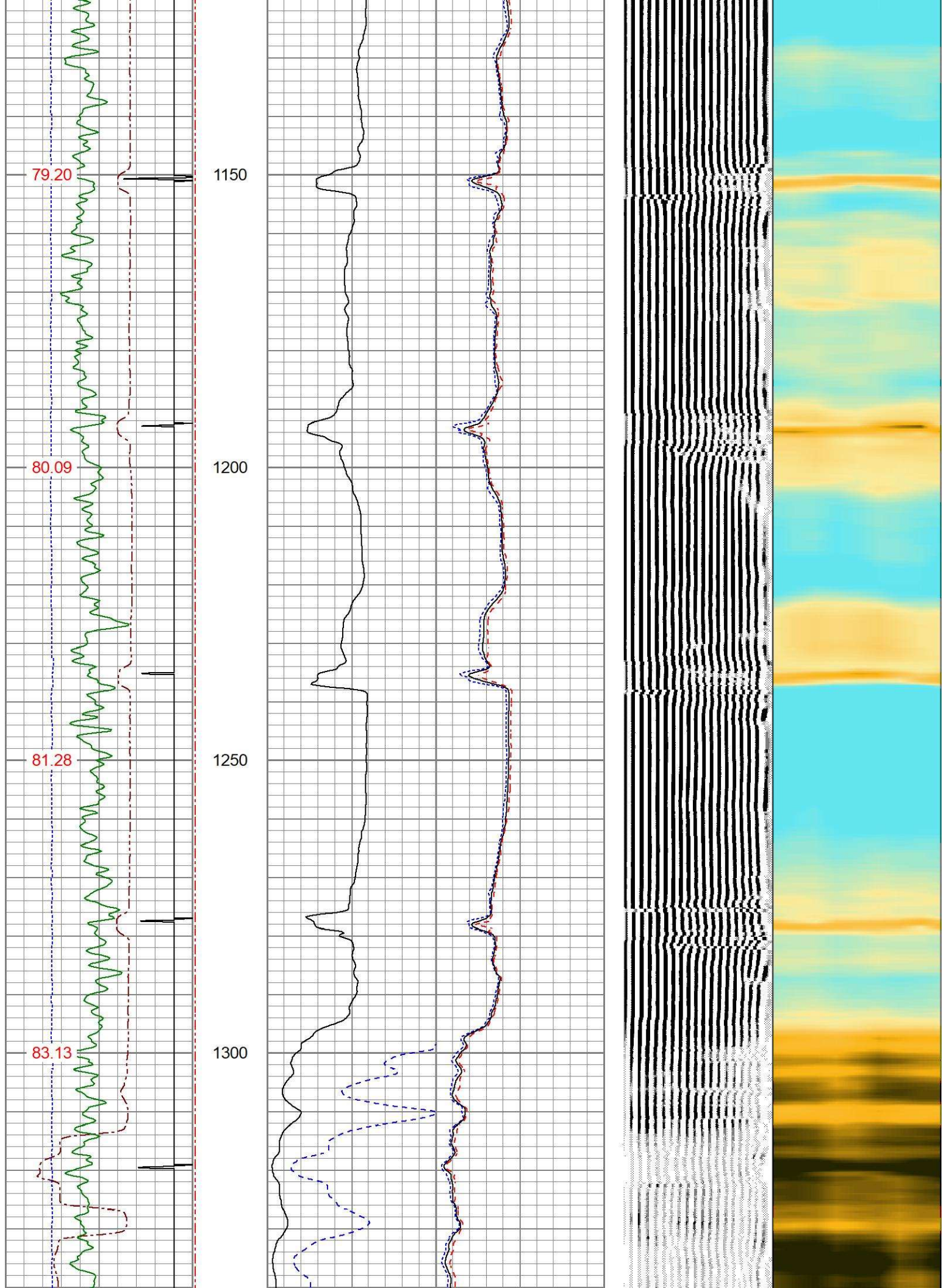


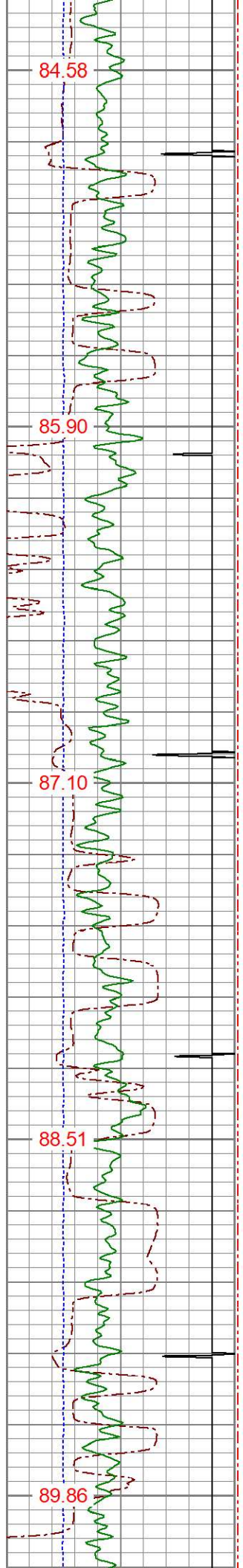












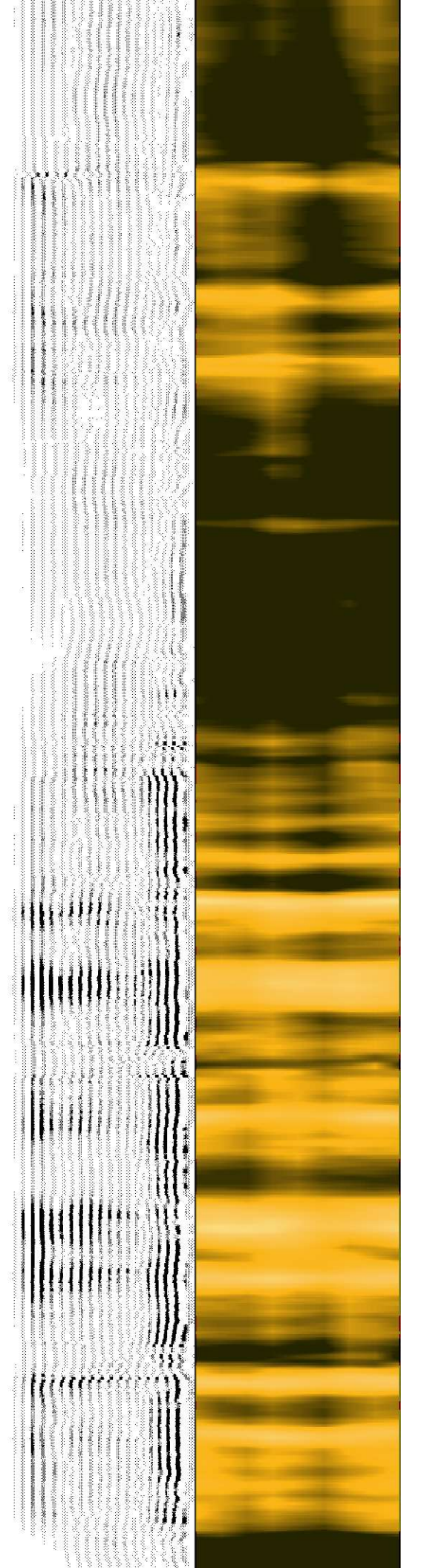
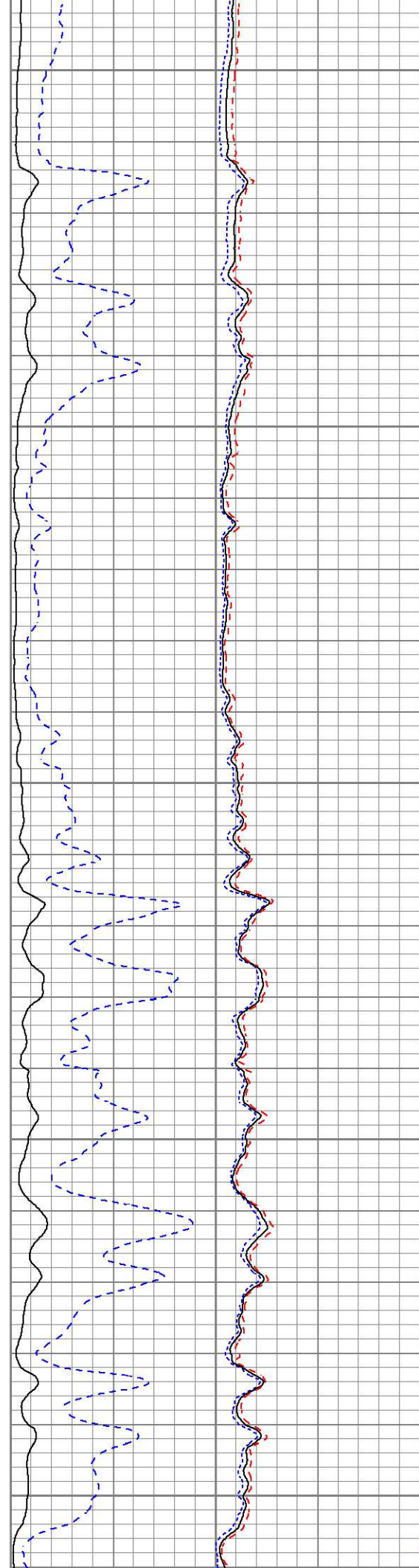
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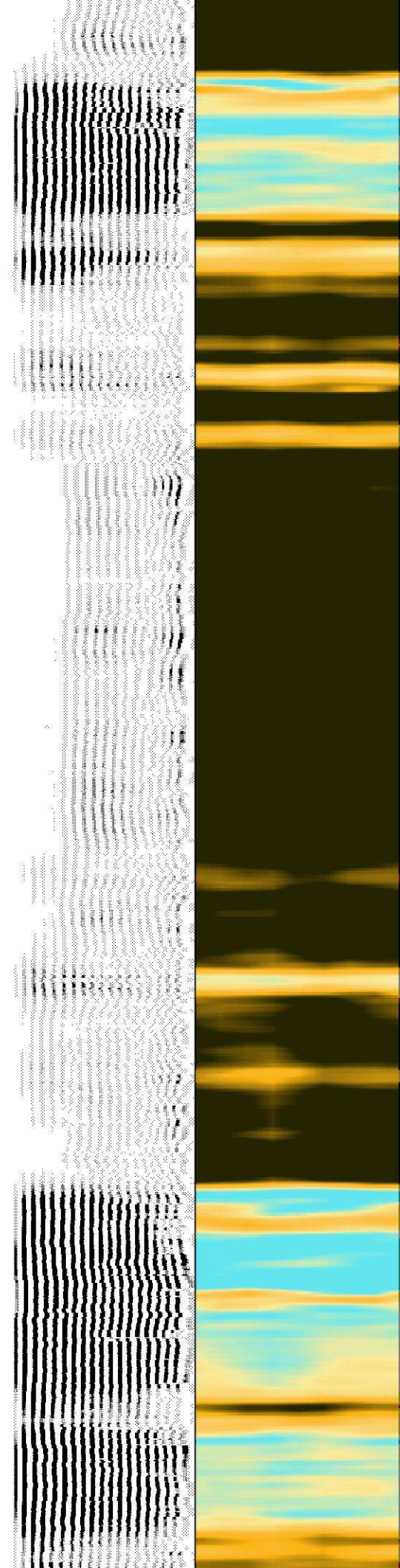
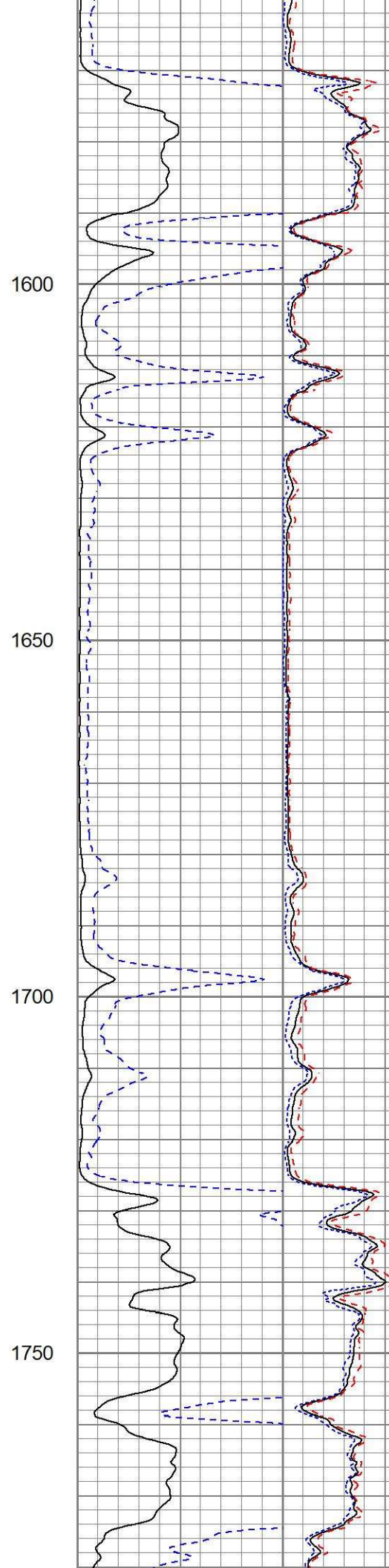
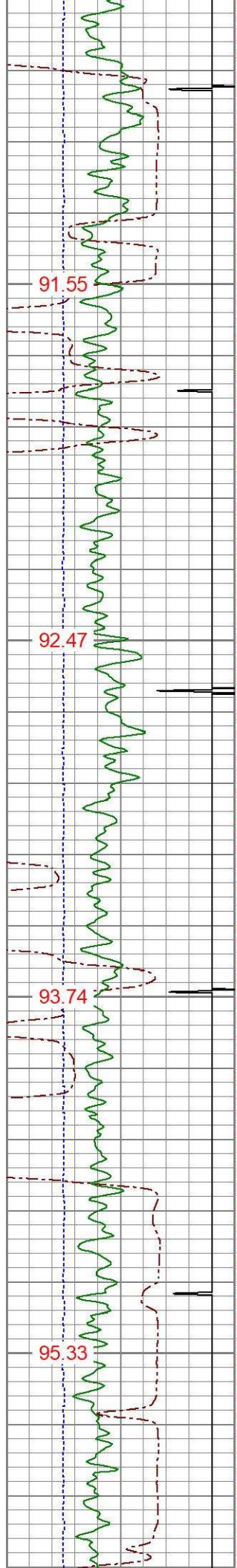
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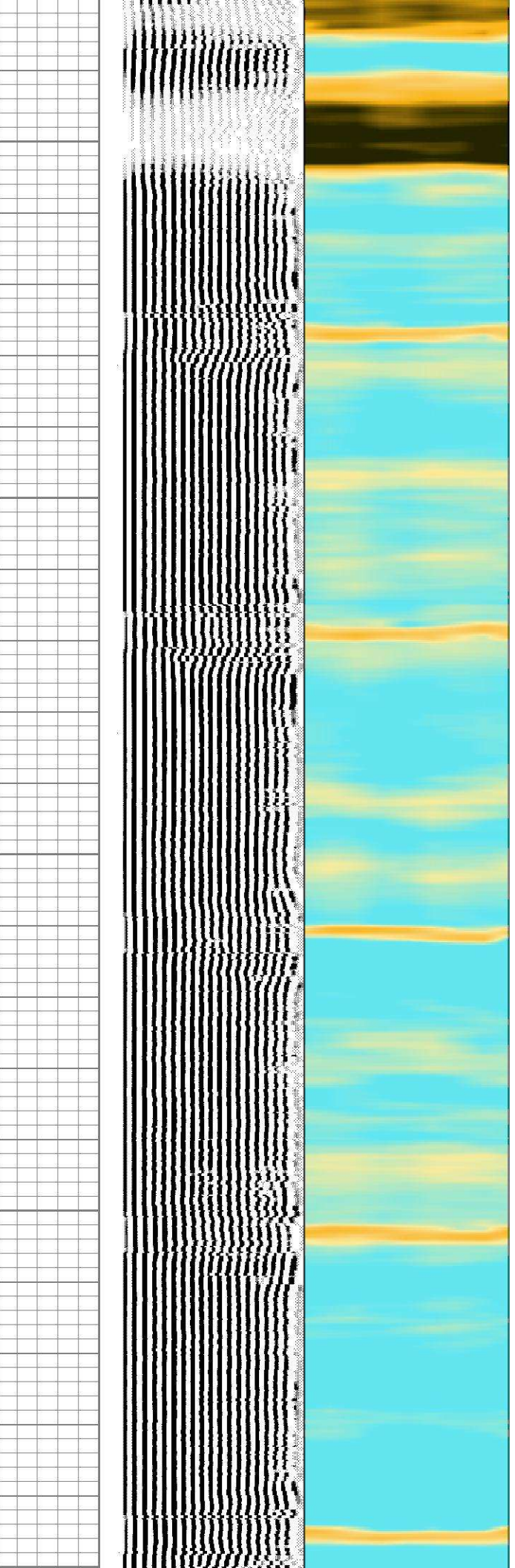
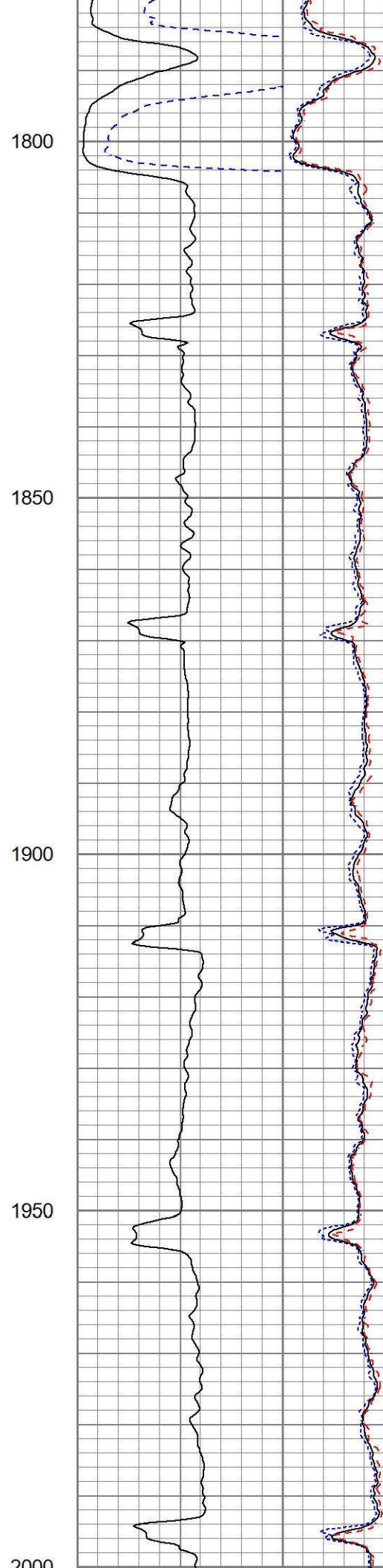
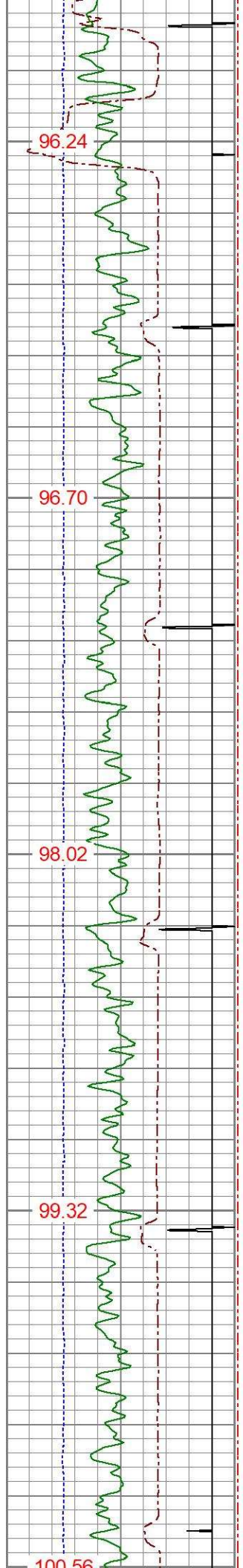
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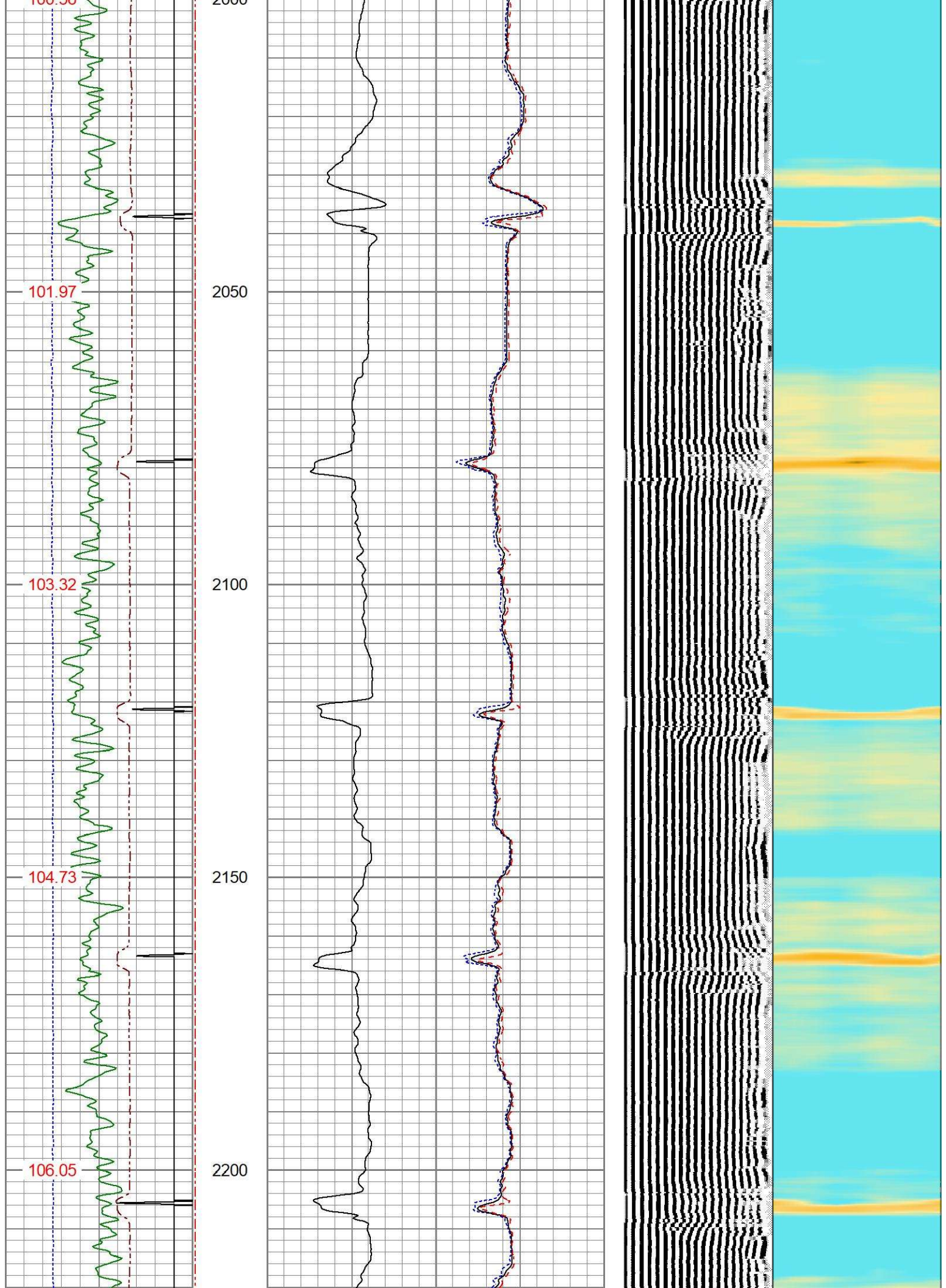
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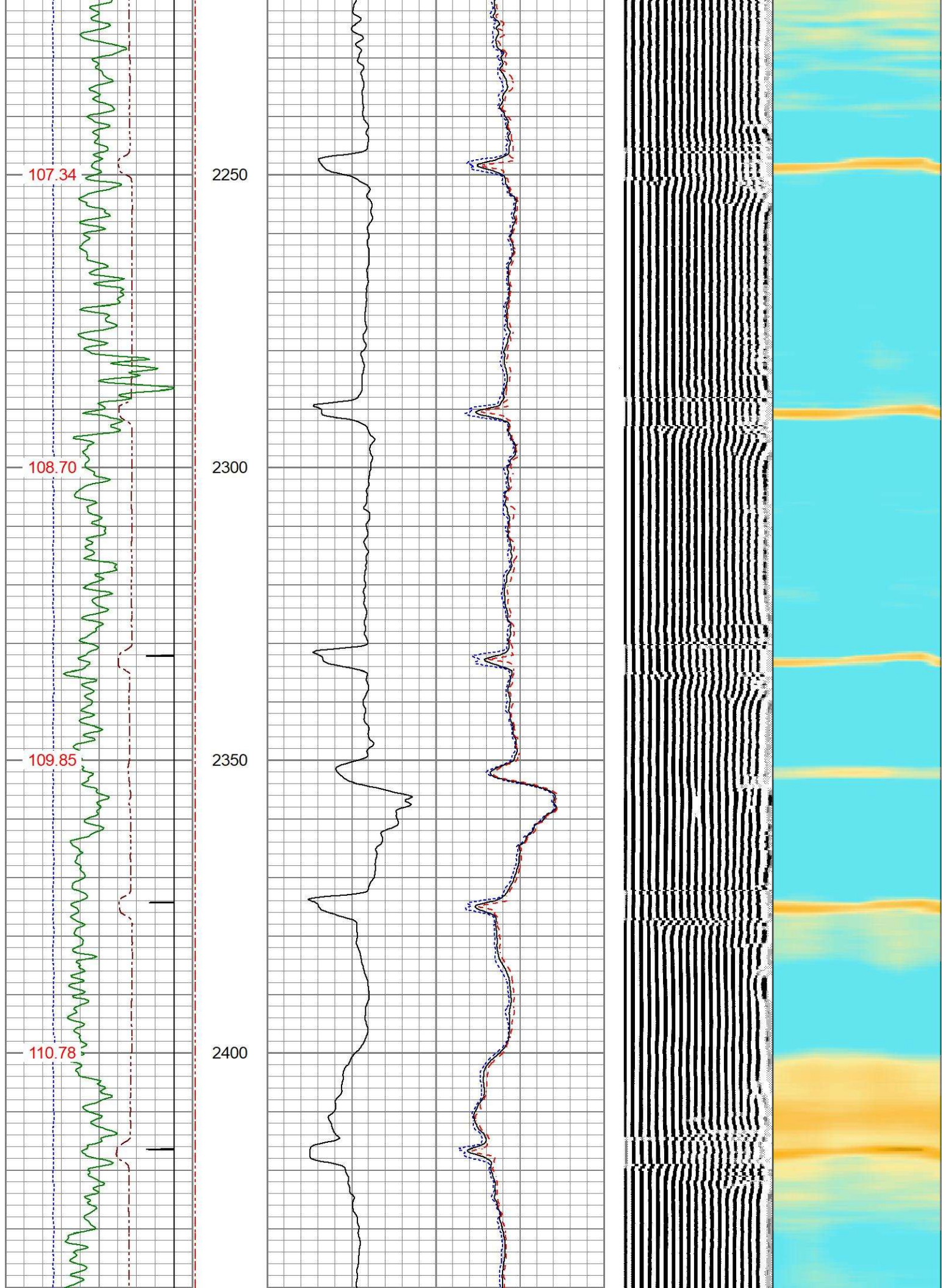
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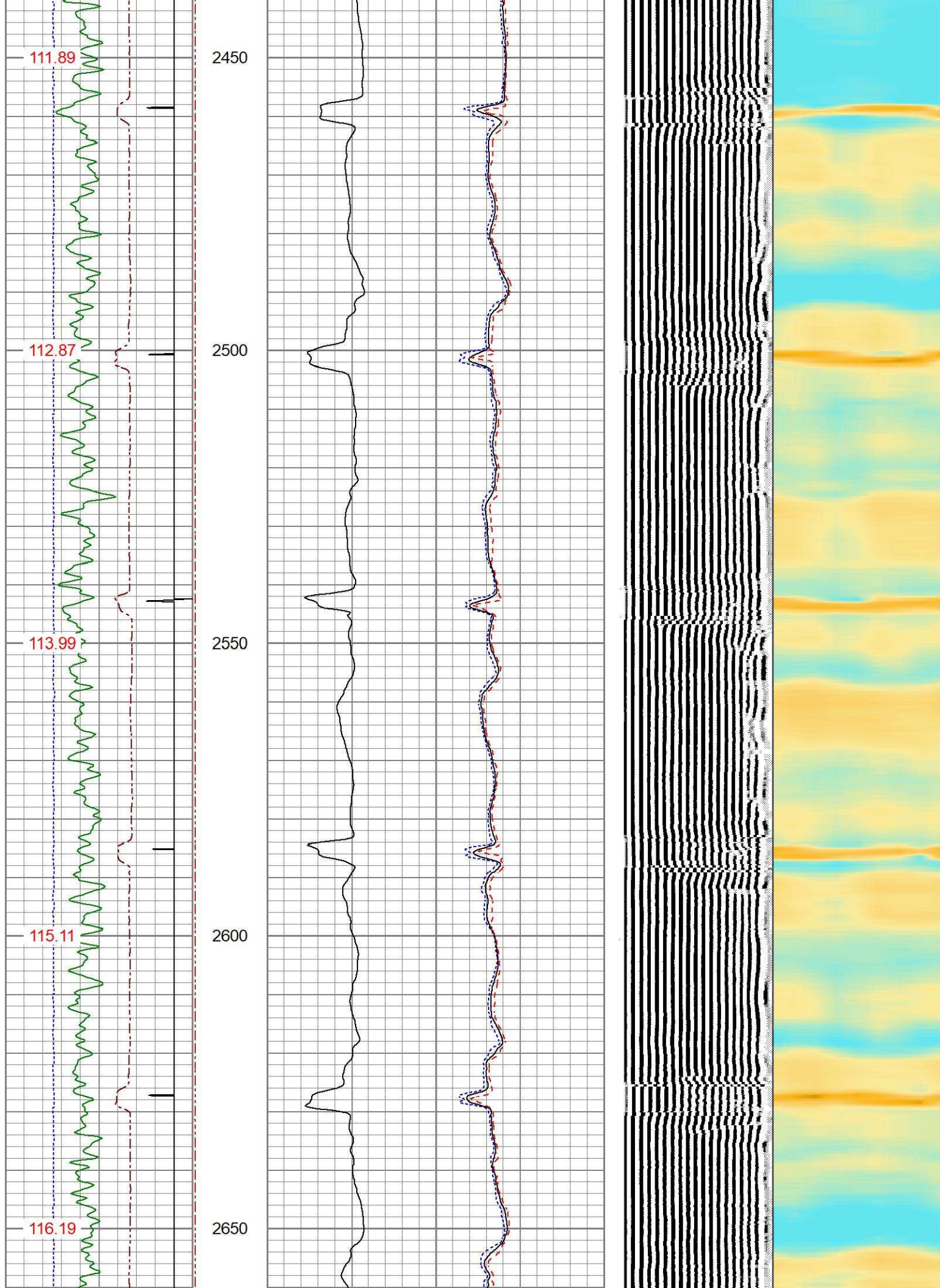


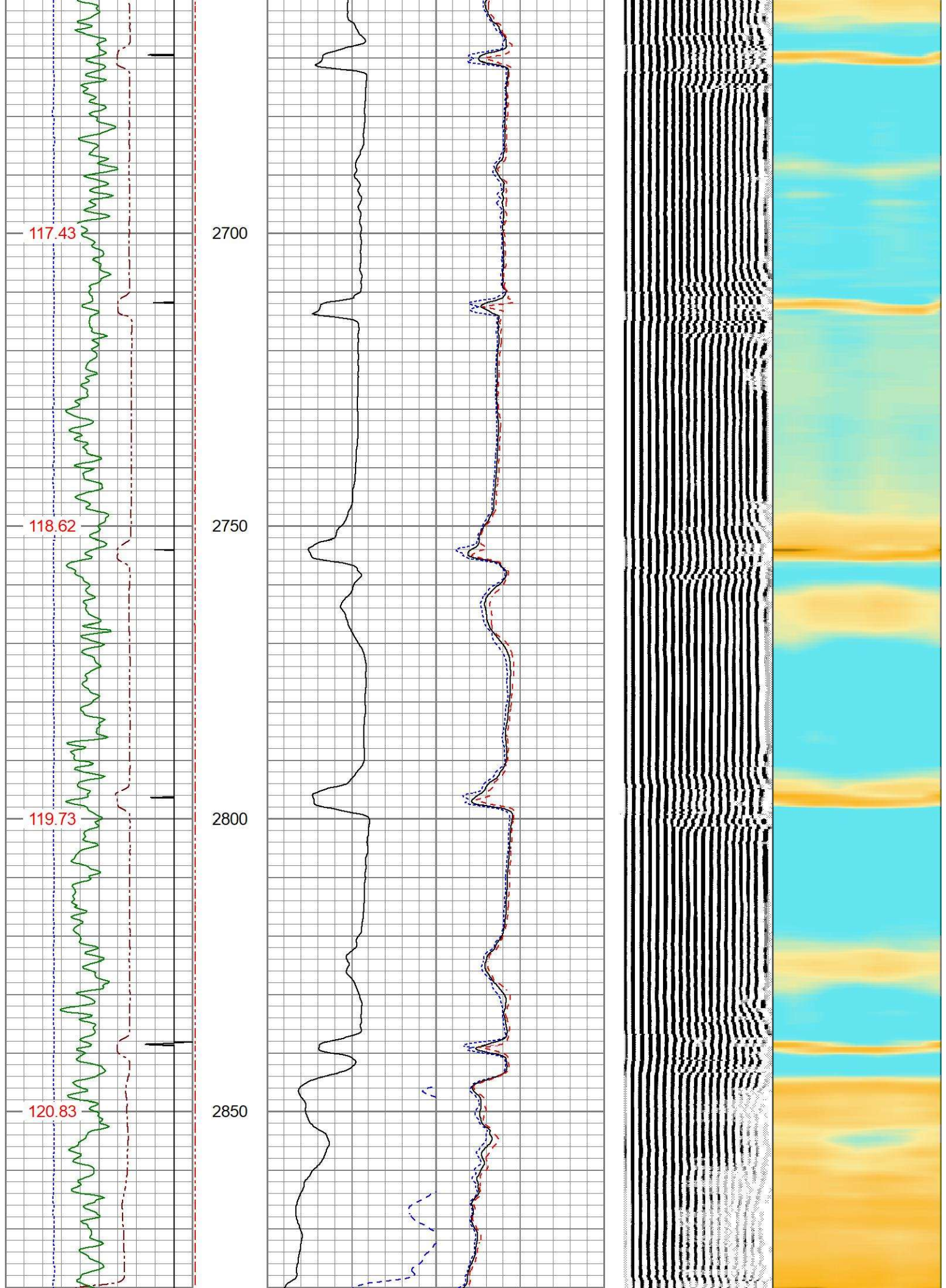


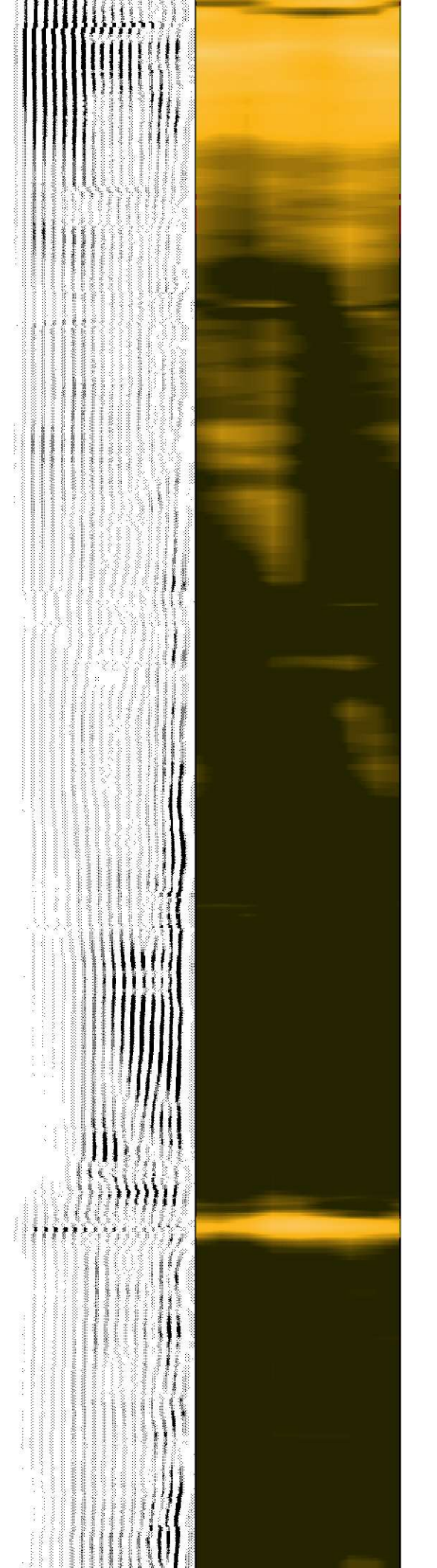
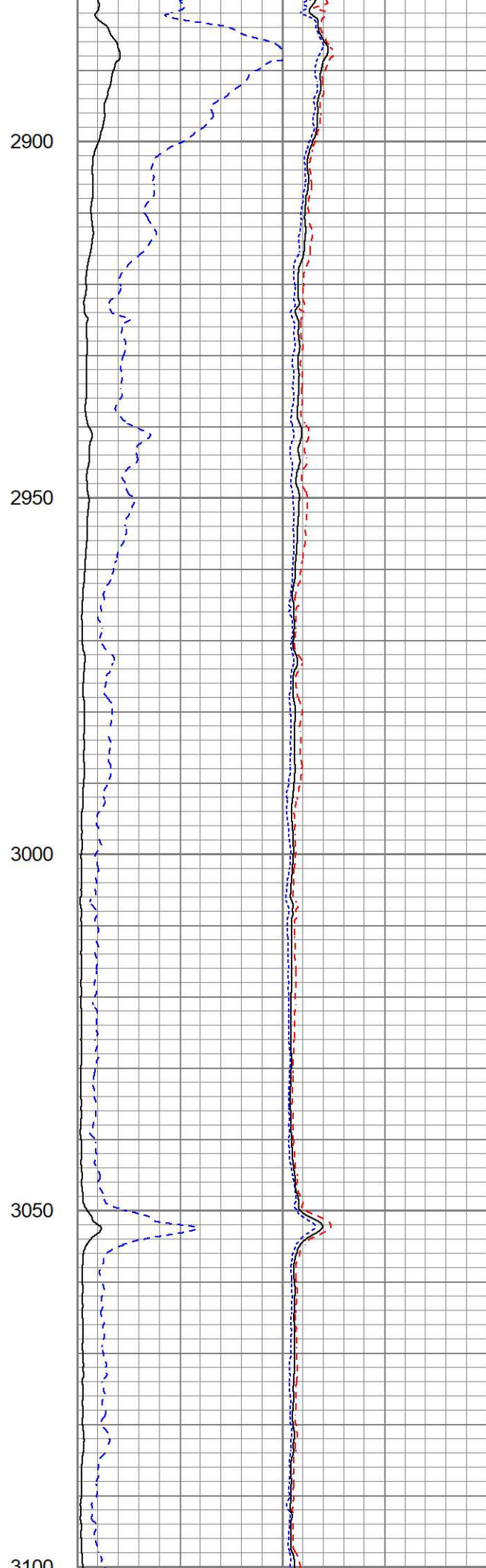
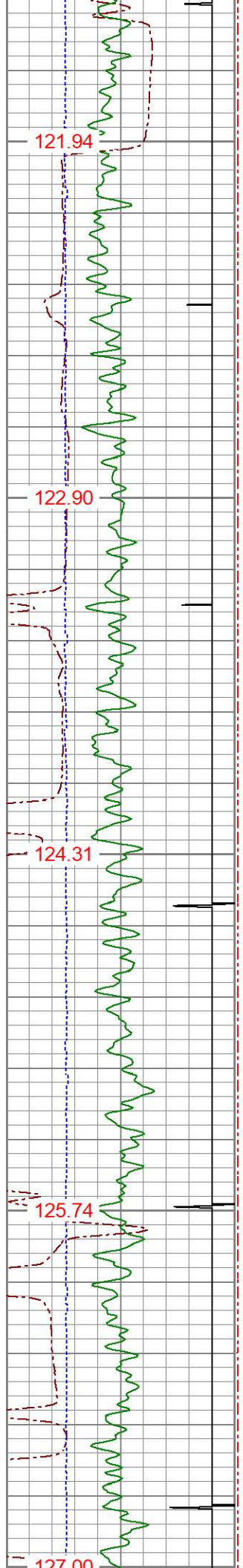


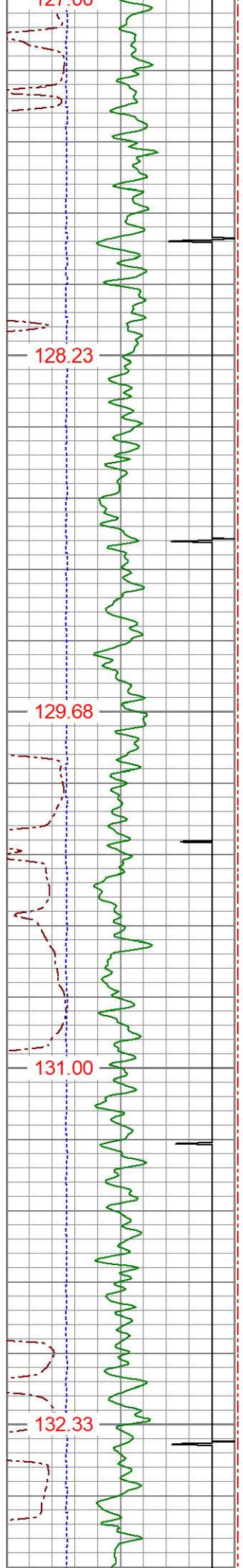




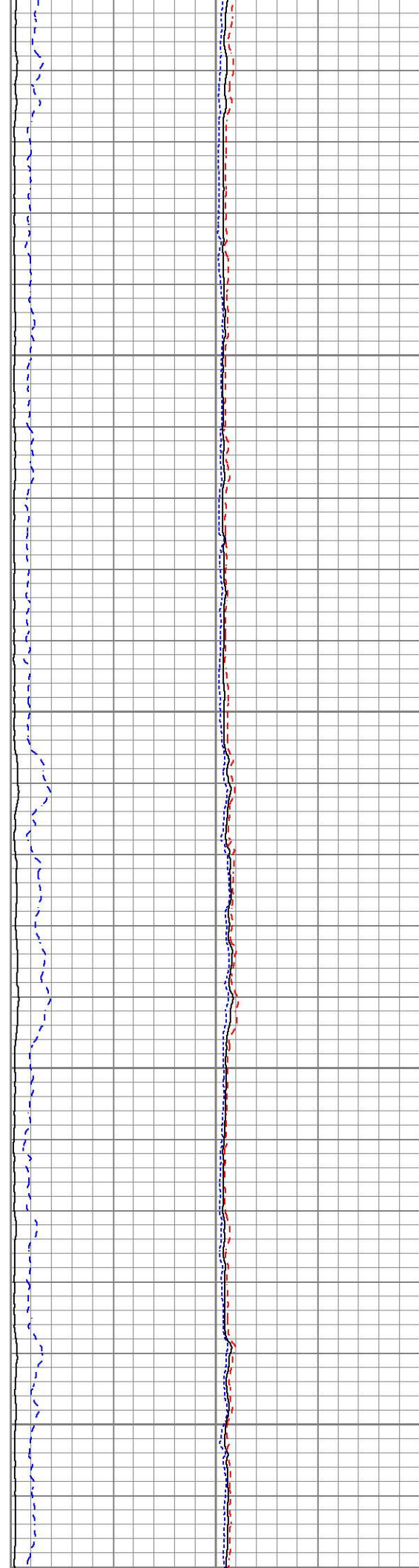


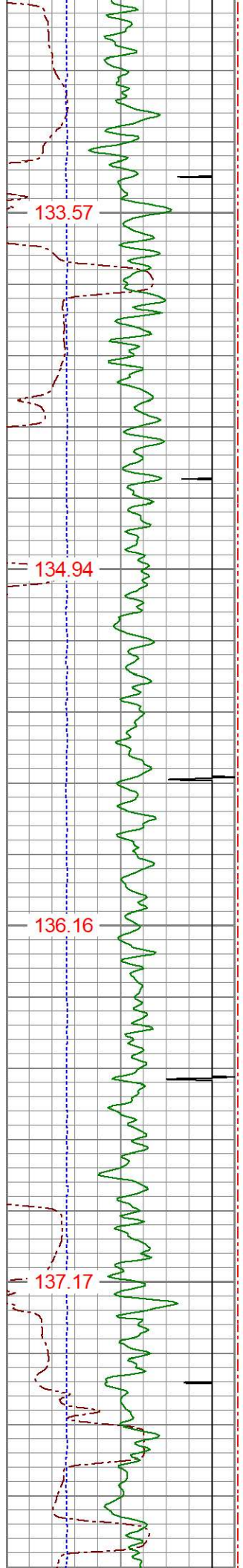






3100
3150
3200
3250
3300



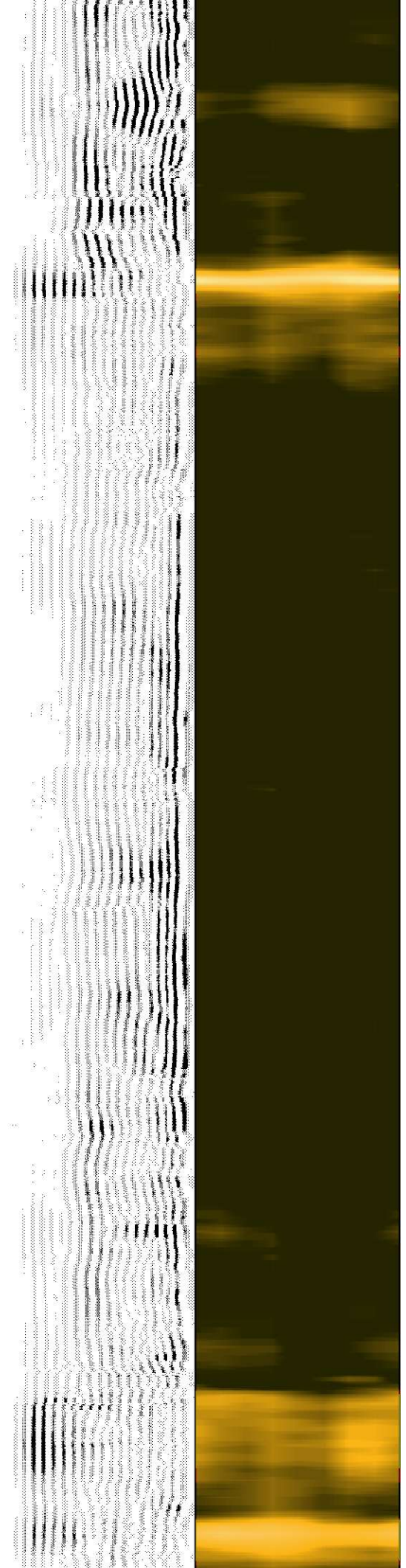
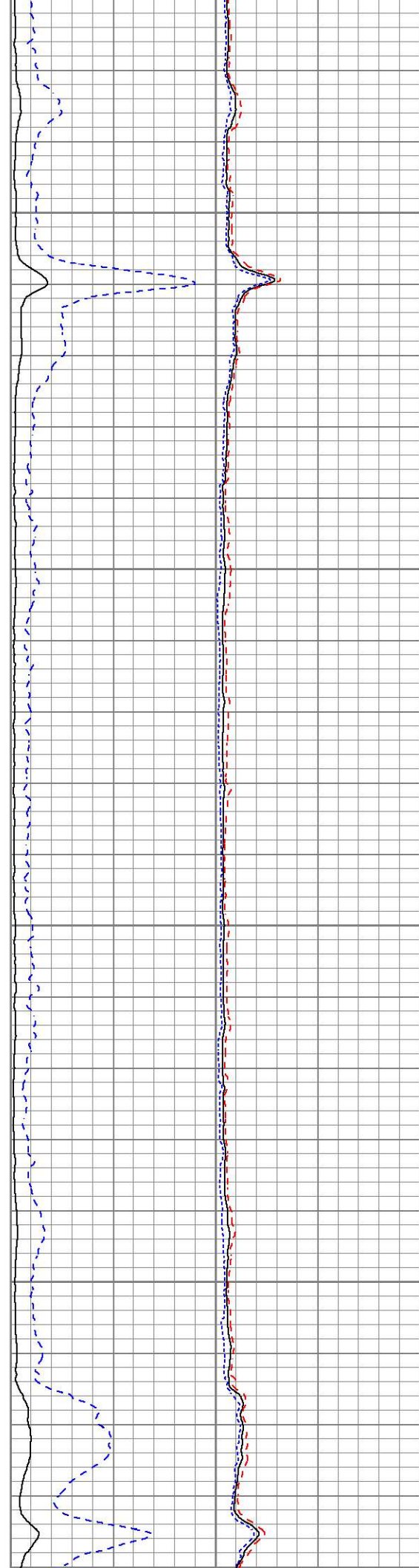


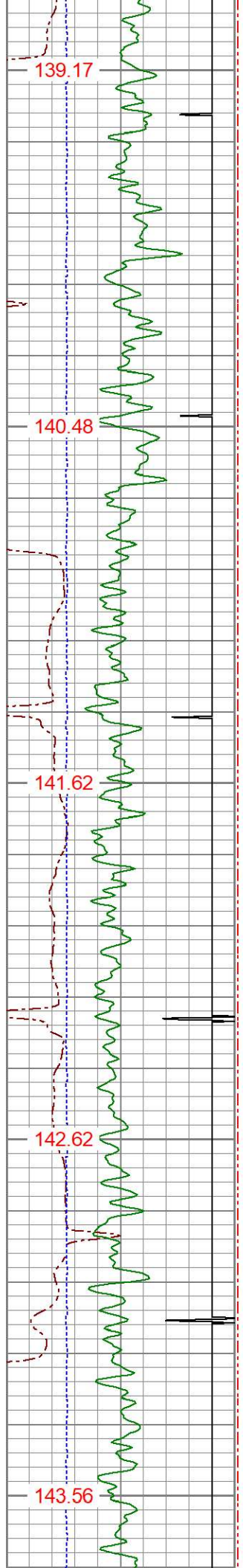
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3400

3450

3500





139.17

140.48

141.62

142.62

143.56

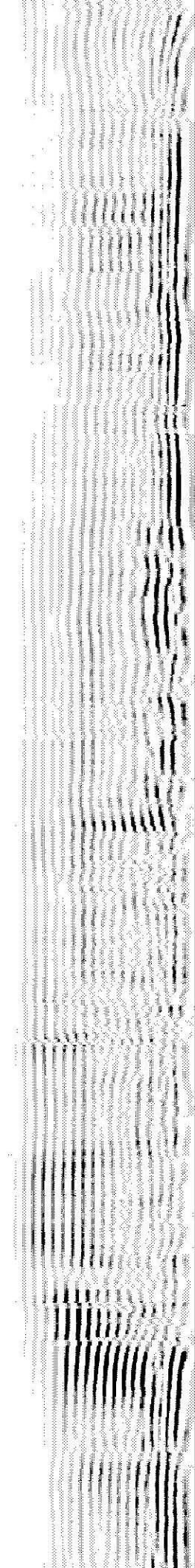
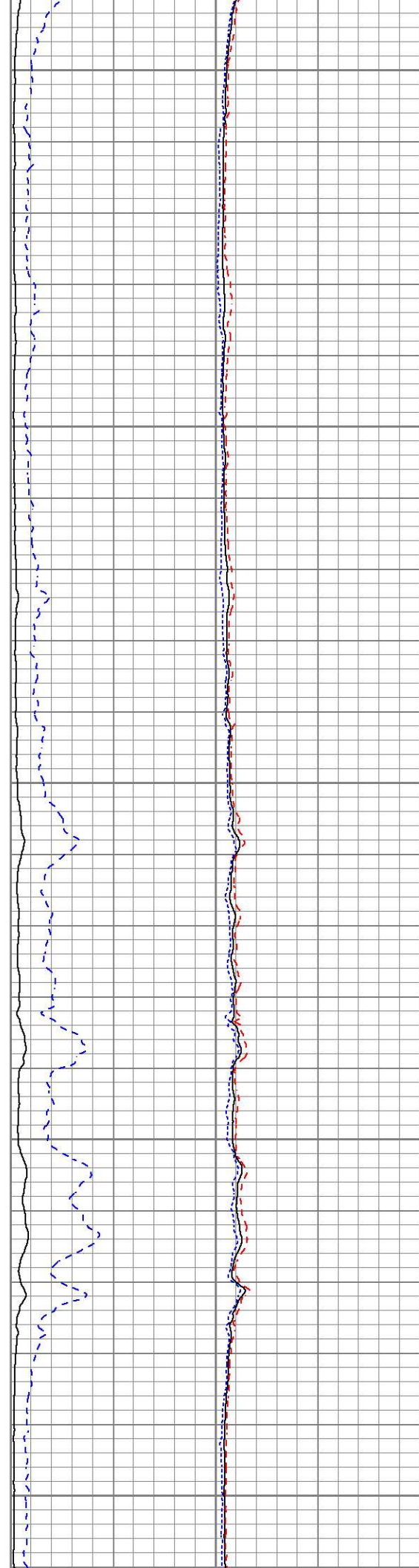
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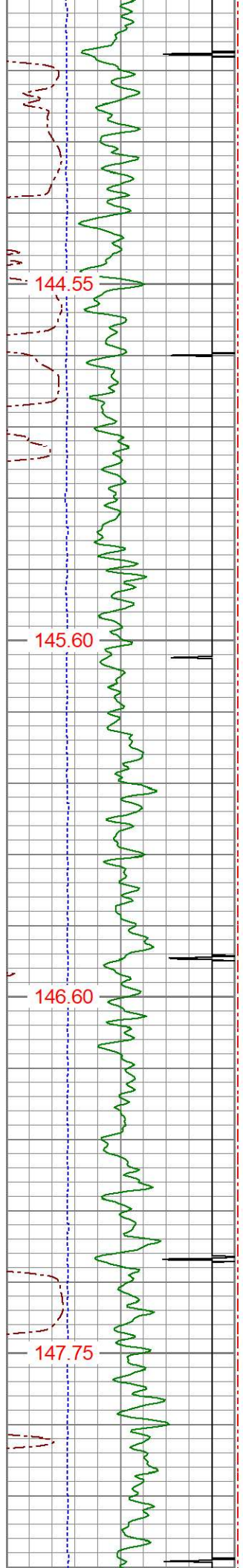
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3650

3700

3750



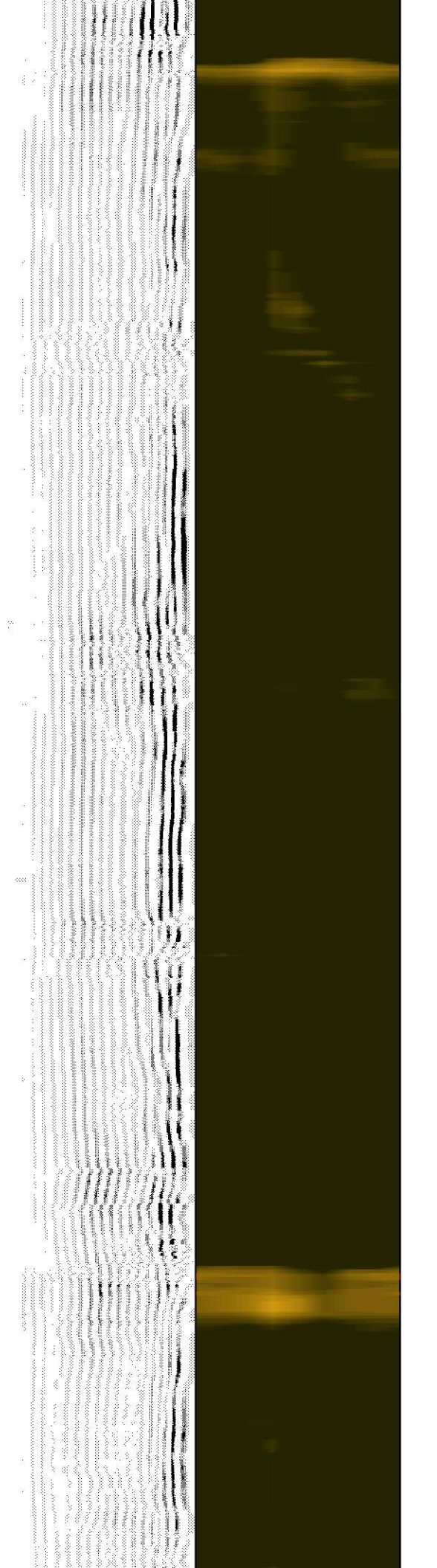
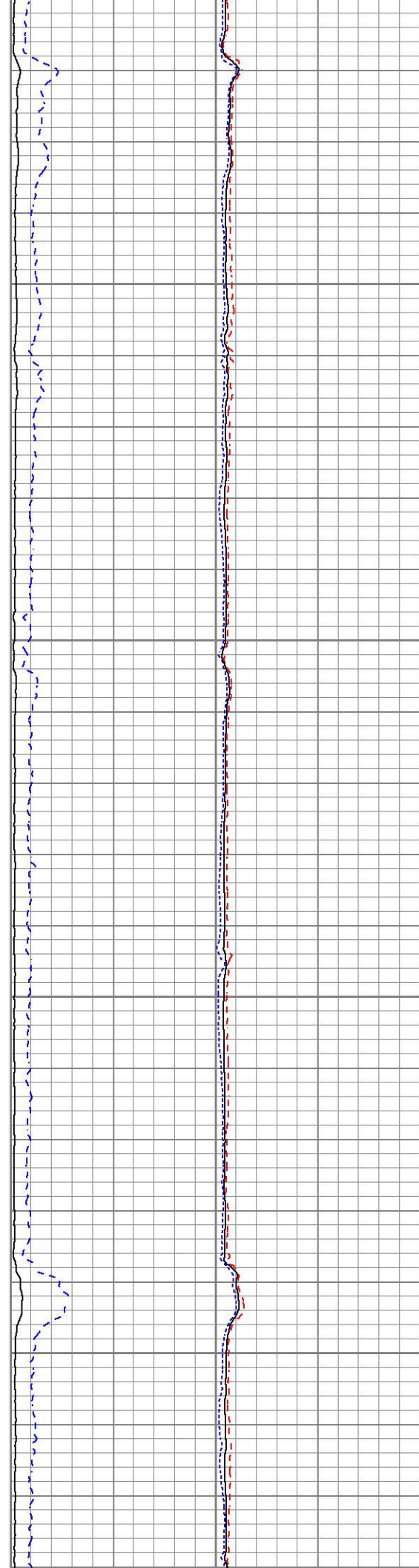


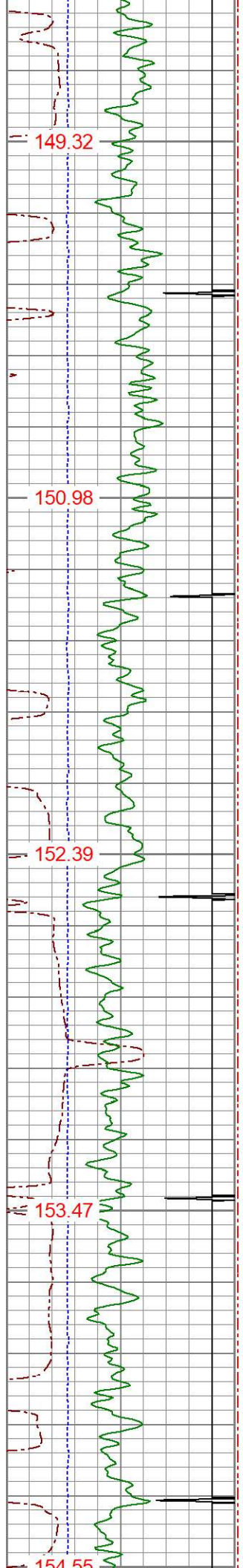
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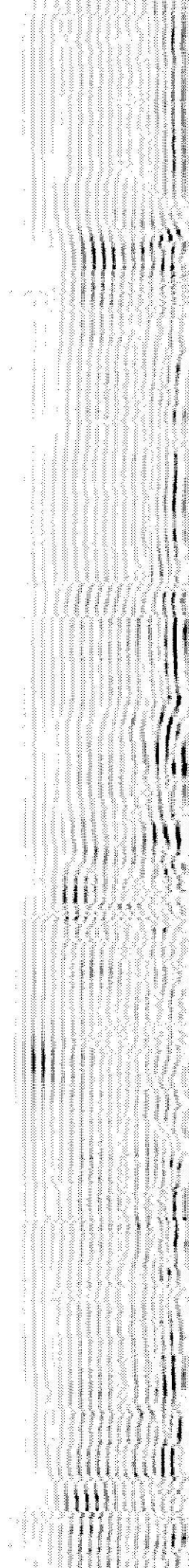
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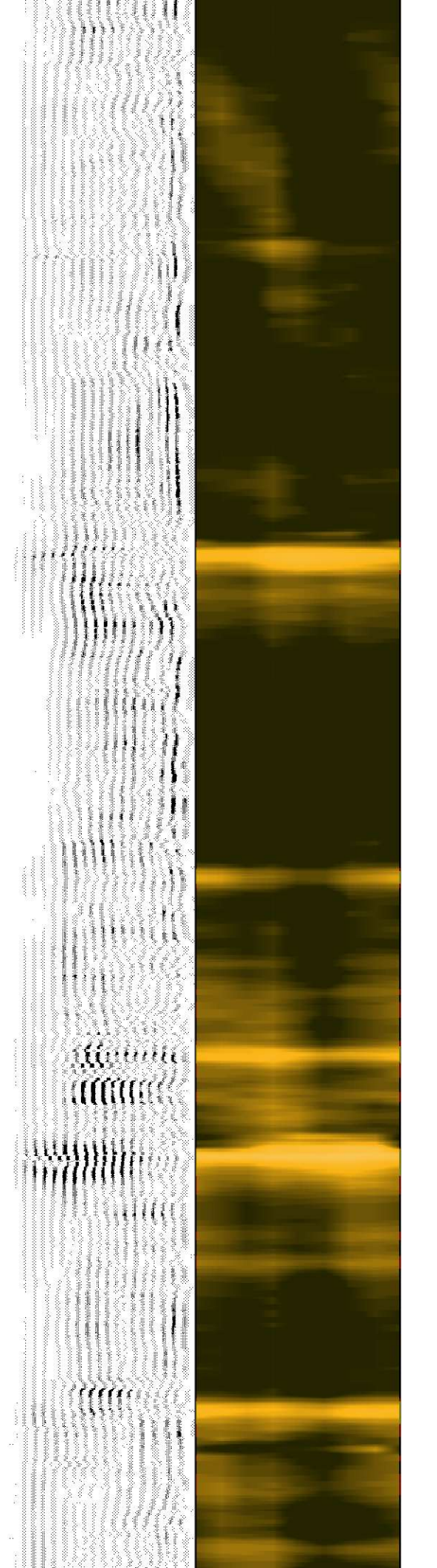
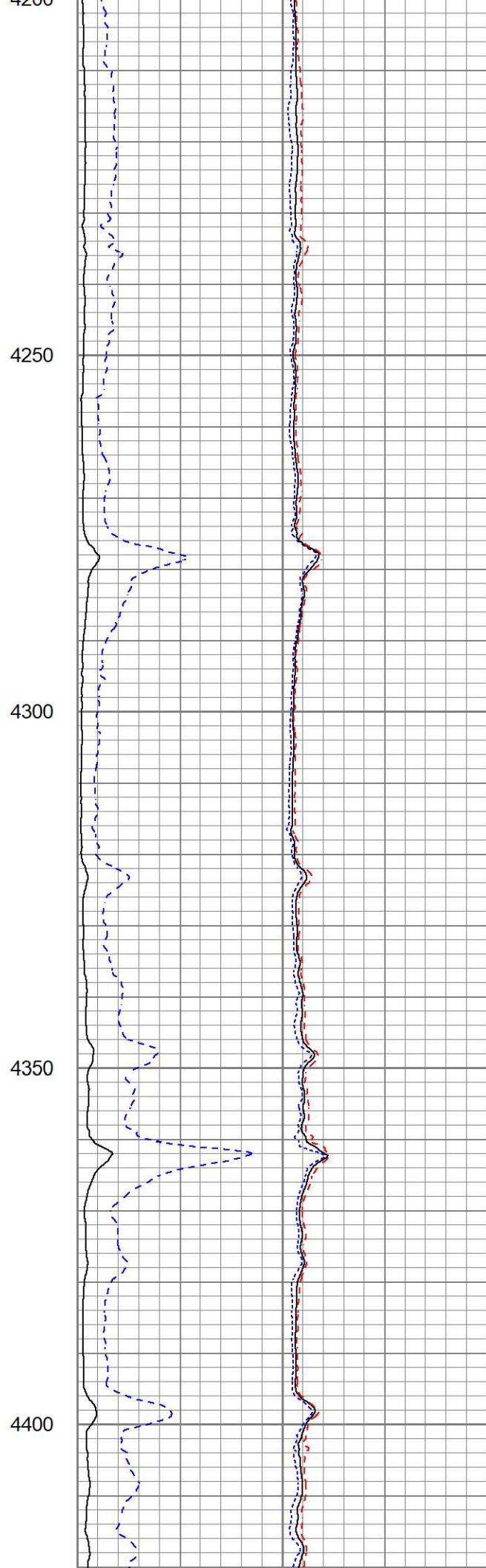
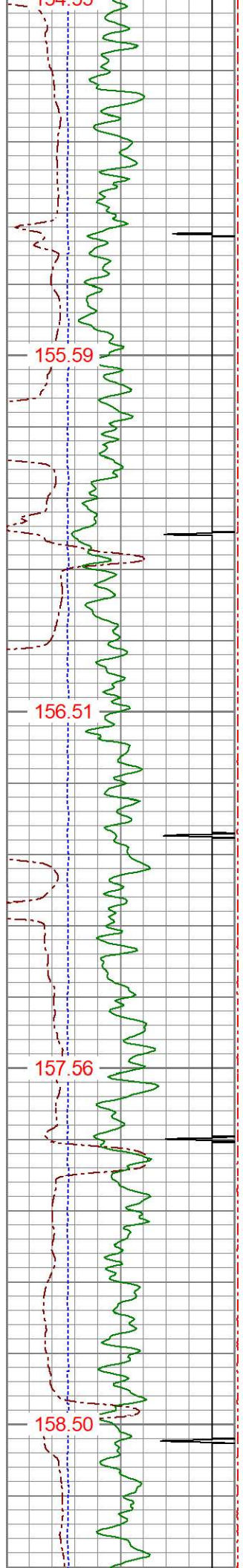
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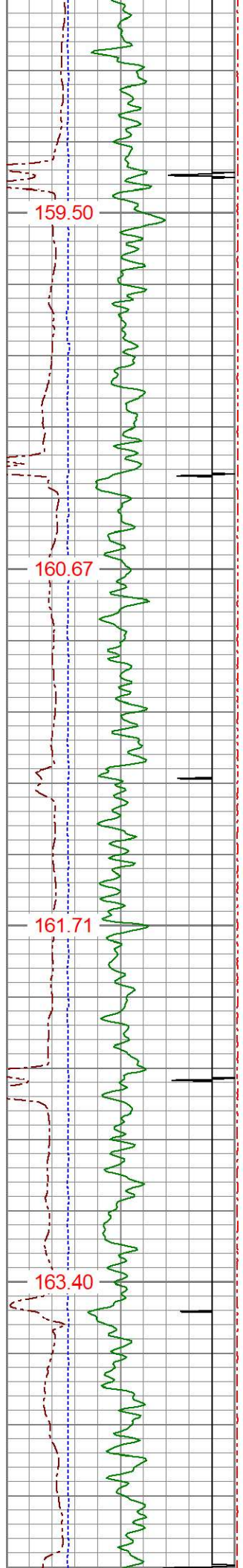




4000
4050
4100
4150
4200





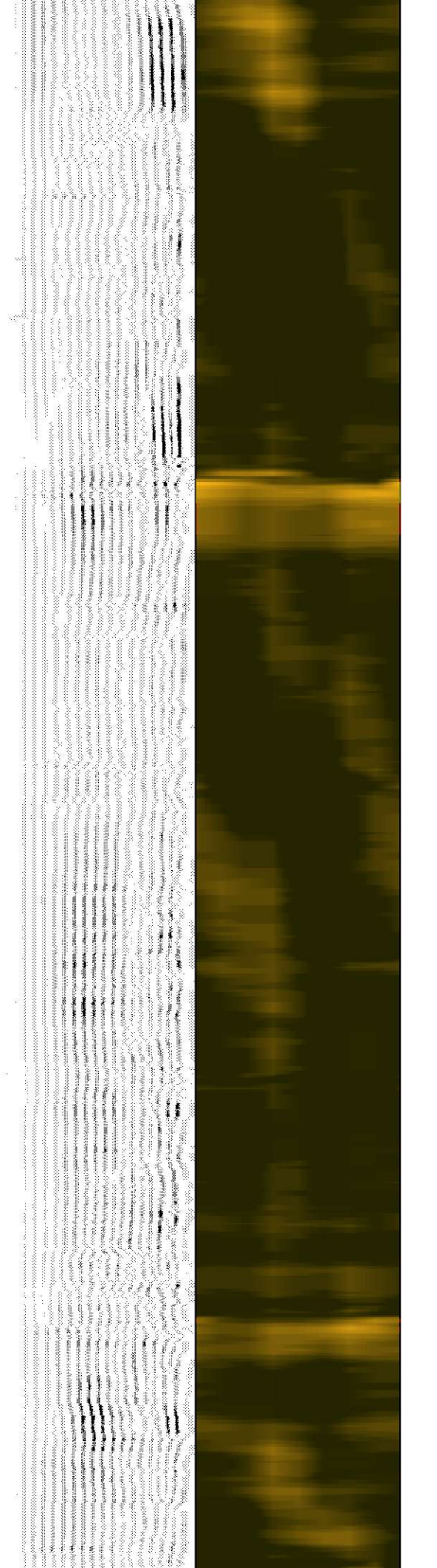
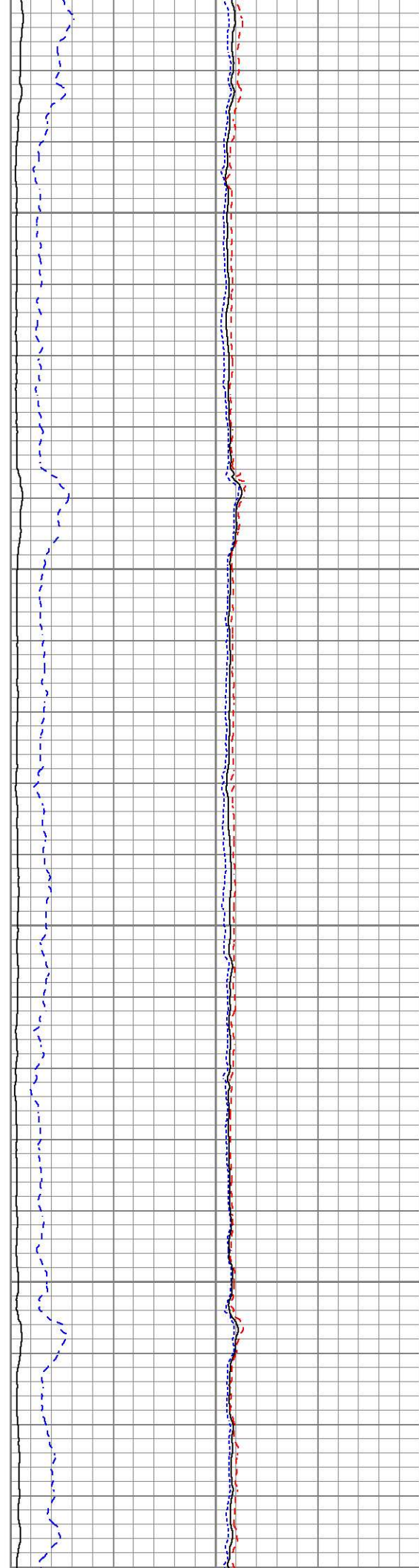


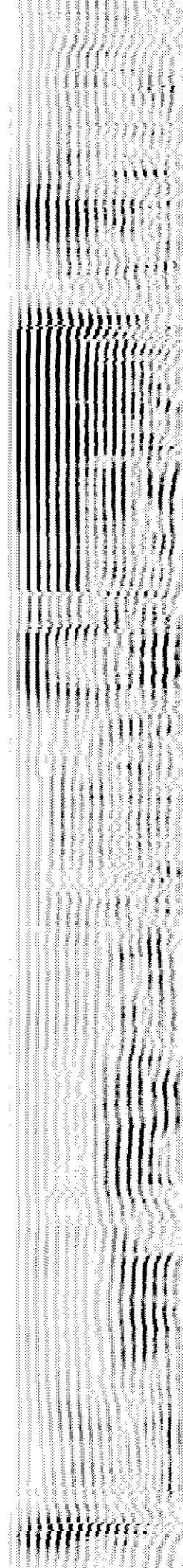
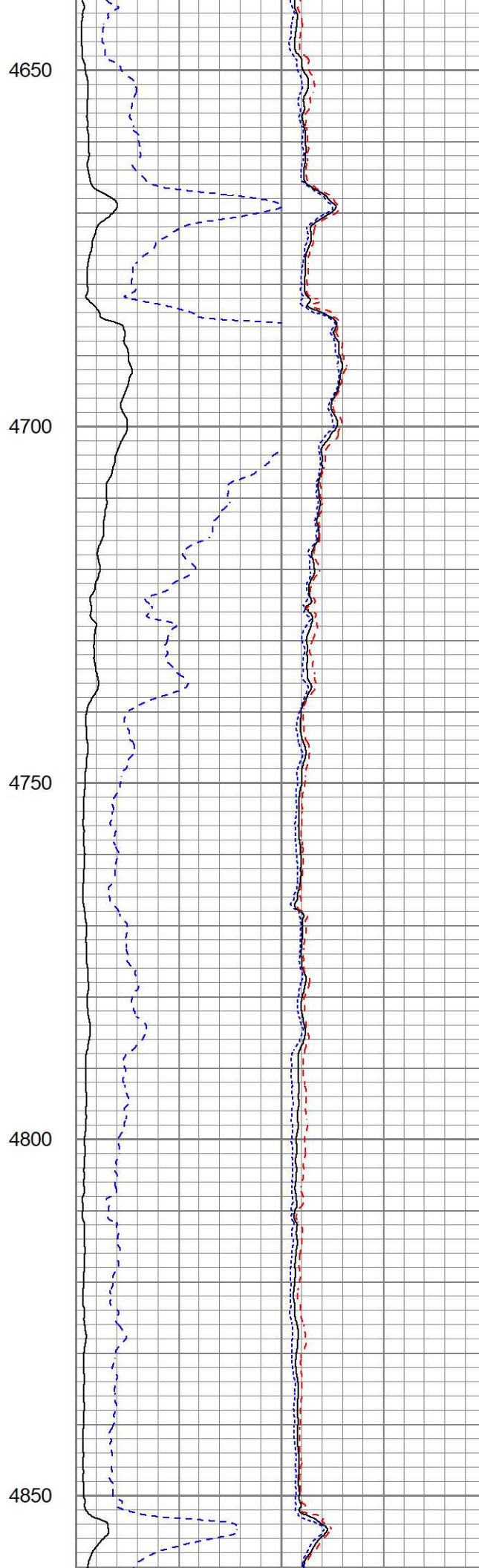
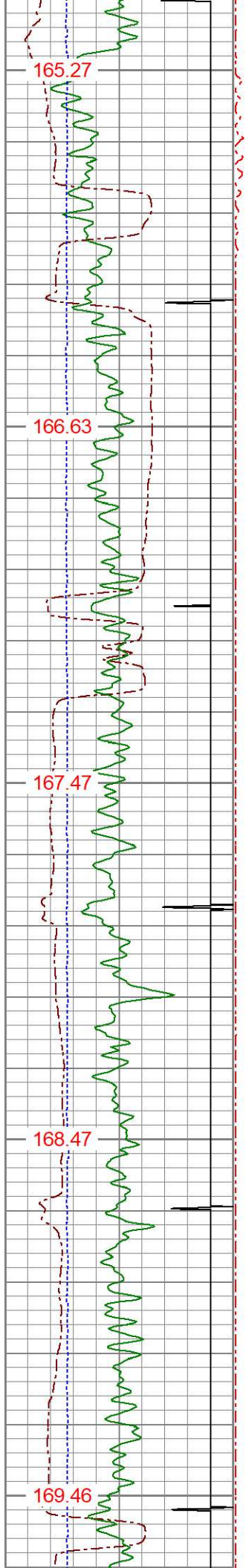
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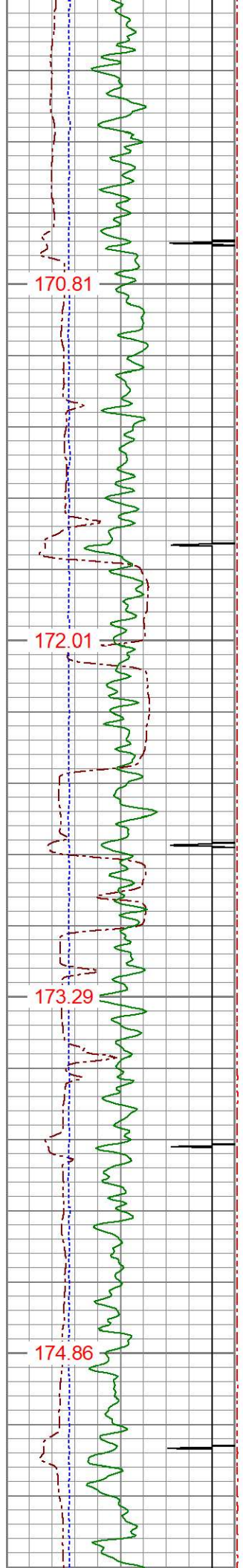
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4550

4600





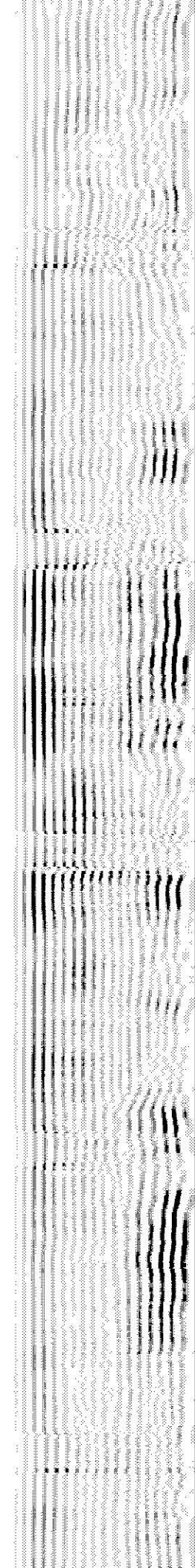
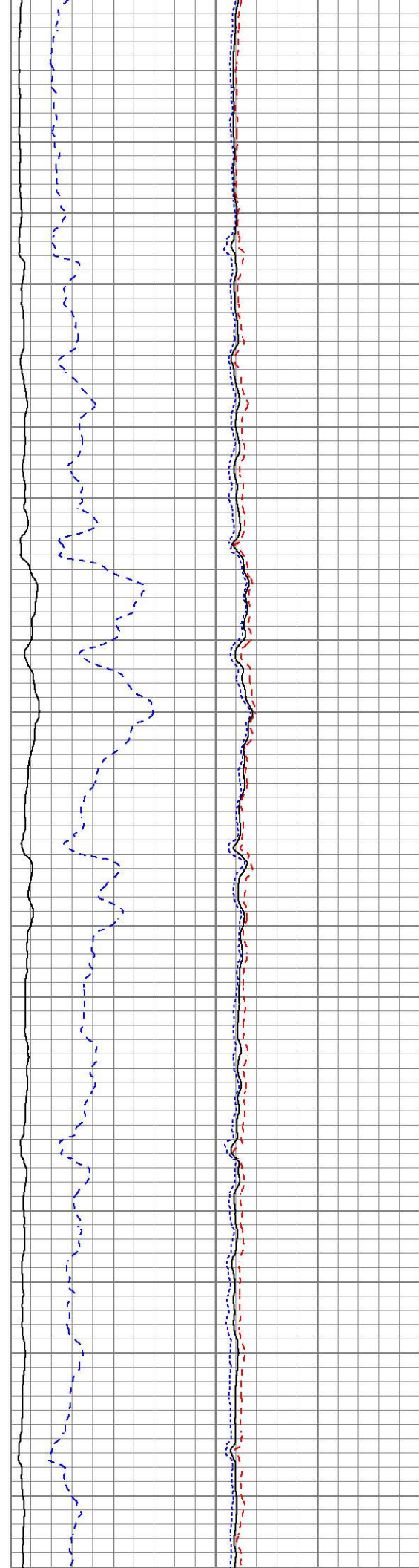


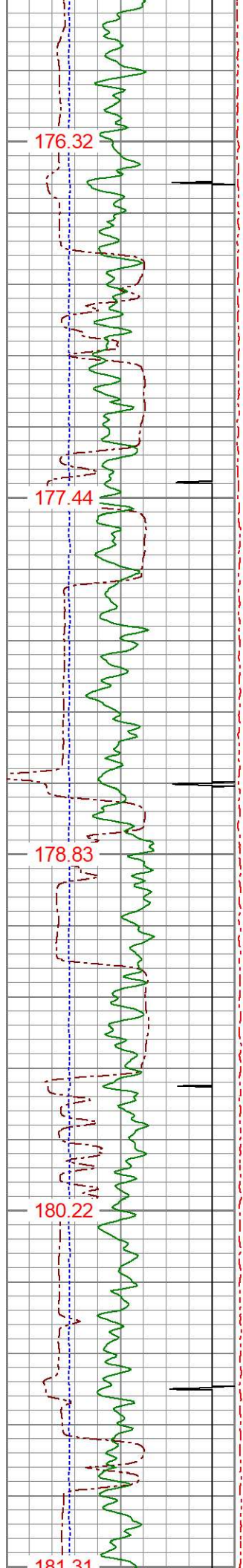
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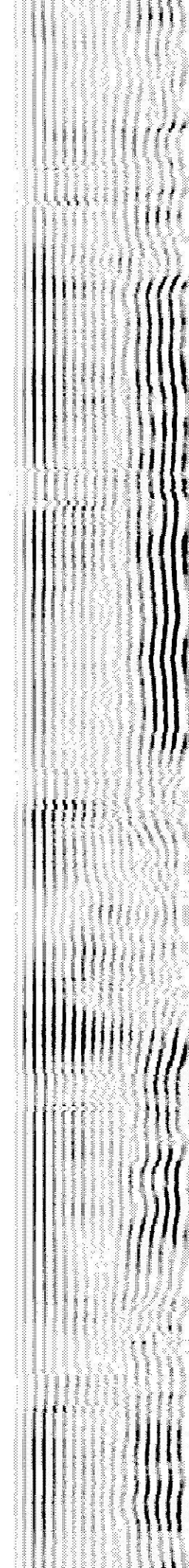
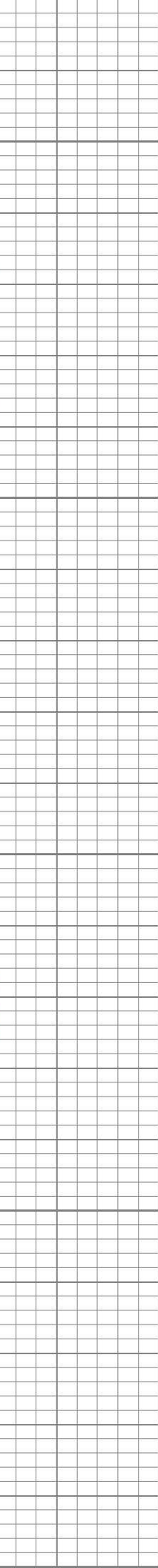
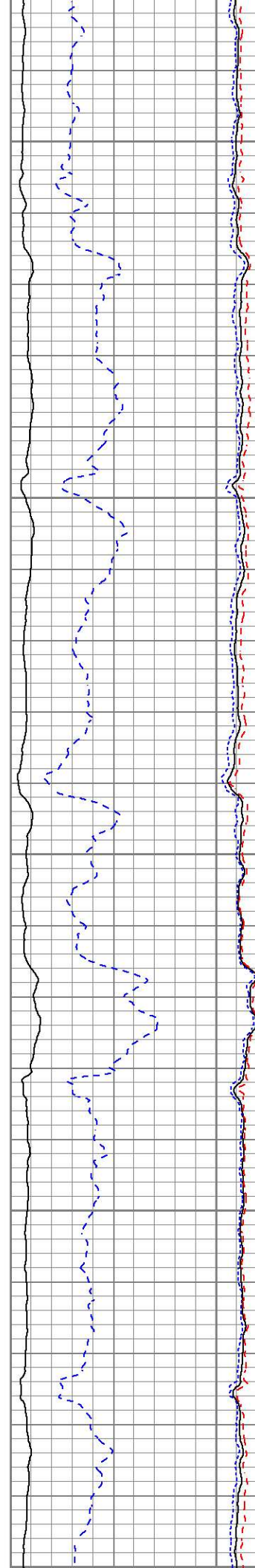
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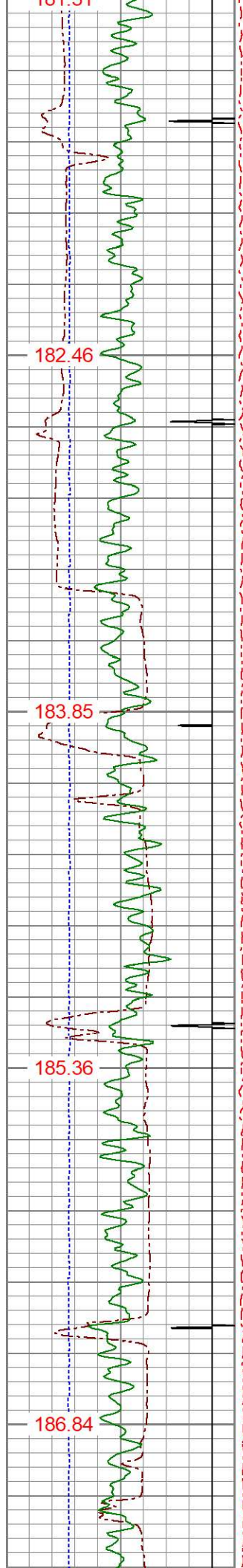
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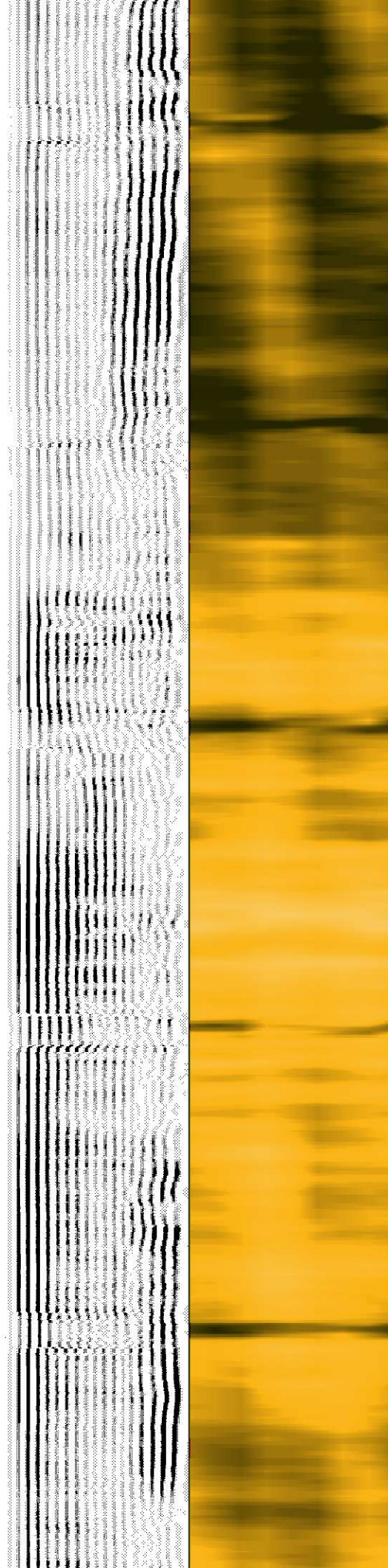
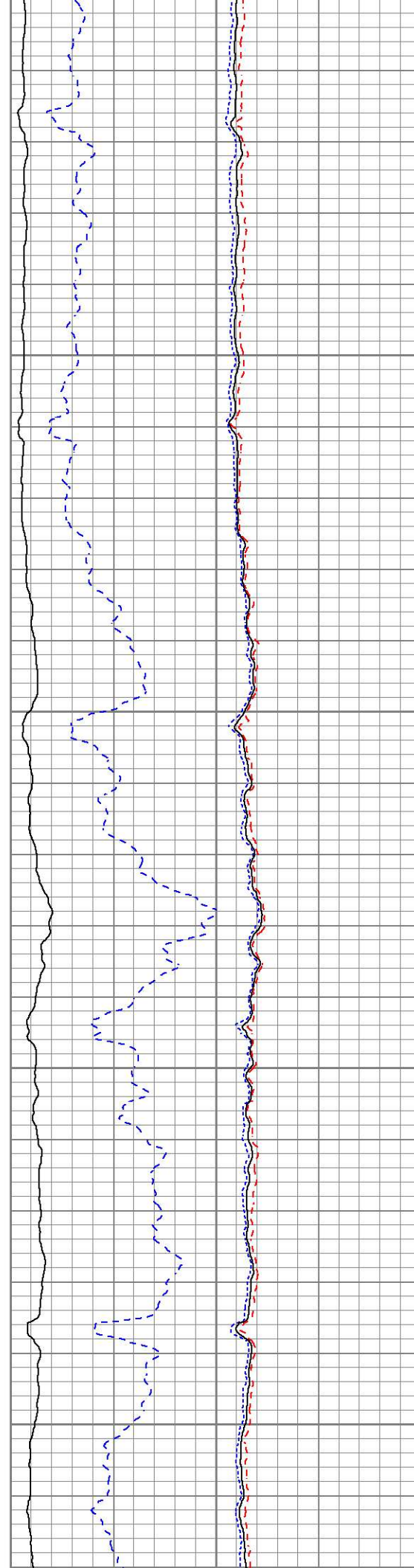


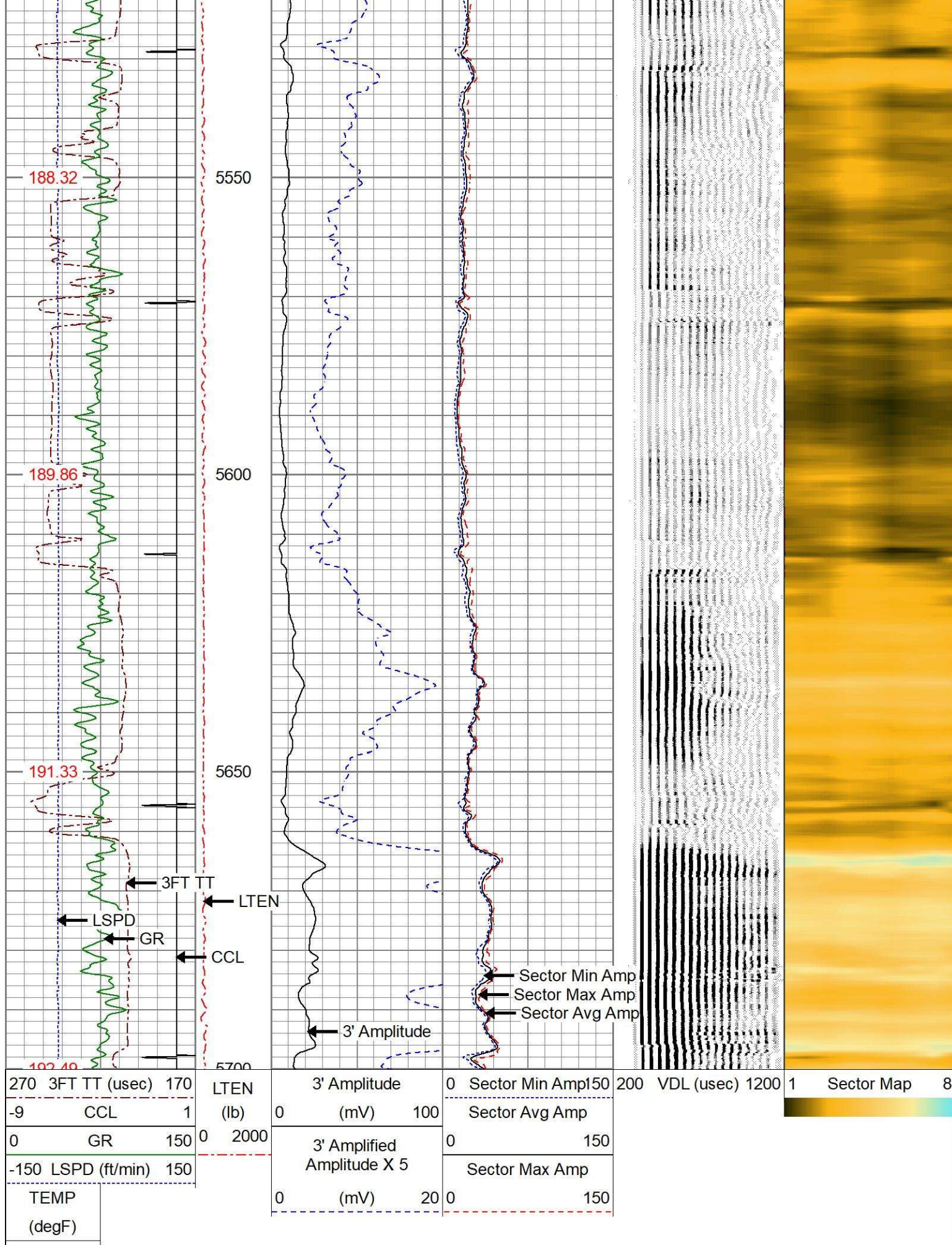
5100
5150
5200
5250
5300





5350
5350
5400
5400
5450
5450
5500
5500





MAIN PASS



0 PSI APPLIED AT SURFACE

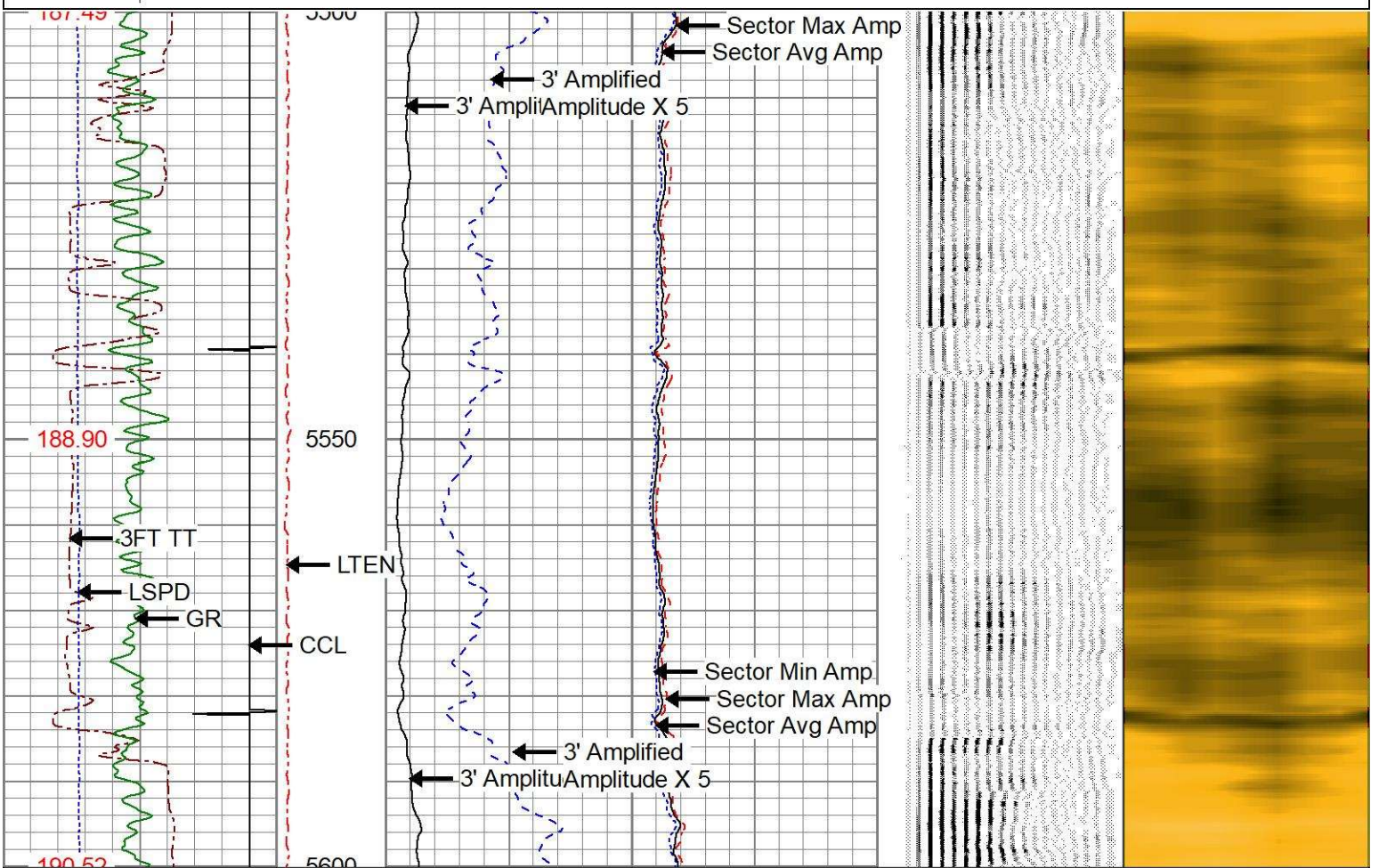


REPEAT PASS

0 PSI APPLIED AT SURFACE

Database File oxy_burchfield 39-20_05-123-26823_10-13-2022.db
Dataset Pathname pass6
Presentation Format res_scbl 8sec
Dataset Creation Thu Oct 13 08:34:13 2022
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	150	0	2000	3' Amplified Amplitude X 5	0	150						
-150	LSPD (ft/min)	150				Sector Max Amp							
TEMP													
(degF)													



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	150	0	2000	3' Amplified Amplitude X 5	0	150						
-150	LSPD (ft/min)	150				Sector Max Amp							
TEMP													
(degF)													

REPEAT PASS



0 PSI APPLIED AT SURFACE

Calibration Report

Database File oxy_burchfield 39-20_05-123-26823_10-13-2022.db
Dataset Pathname merge1_D
Dataset Creation Thu Oct 13 10:39:47 2022

Gamma Ray Calibration Report

Serial Number: 0111
Tool Model: Tek-Co 2 3/4
Performed: Thu Oct 13 08:15:27 2022

Calibrator Value: 1.0

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.6700 /cps

Segmented Cement Bond Log Calibration Report

Serial Number: 275001
Tool Model: 275 Temp JS

Calibration Casing Diameter: 4.500 in
Calibration Depth: 2366.507 ft

Master Calibration, performed Thu Oct 13 08:14:40 2022:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.003	1.459	0.600	81.196	55.362	0.441
CAL	0.003	1.015				
5'	0.003	2.216	0.600	81.196	36.410	0.502
SUM						
S1	0.003	1.680	0.000	100.000	59.625	-0.191
S2	0.003	1.705	0.000	100.000	58.769	-0.192
S3	0.003	1.642	0.000	100.000	61.025	-0.177
S4	0.003	1.533	0.000	100.000	65.369	-0.217
S5	0.003	1.477	0.000	100.000	67.835	-0.210
S6	0.003	1.476	0.000	100.000	67.918	-0.220
S7	0.003	1.601	0.000	100.000	62.601	-0.203
S8	0.003	1.626	0.000	100.000	61.626	-0.199

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.003	1.015	1.000	0.000

Air Zero Calibration, performed Mon Sep 19 09:55:20 2022:

	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

Temperature Calibration Report

Serial Number: 275001
 Tool Model: 275 Temp JS
 Performed: Thu Oct 13 08:15:31 2022

	Reference	Reading
Low Reference:	0.00 degF	0.00 usec
High Reference:	1.00 degF	1.00 usec

Gain: 0.33
 Offset: 0.00
 Delta Spacing 1



Company **OCCIDENTAL PETROLEUM**
 Well **BURCHFIELD 39-20**
 Field **WATTENBERG**
 County **WELD**
 State **COLORADO**