



**SECTOR CEMENT BOND
GAMMA RAY
CCL LOG**

Comp. OCCIDENTAL PETROLEUM CORP.
Well NORTHGLENN STATE 10-36
Field WATTENBERG
Co. WELD
State COLORADO

Company **OCCIDENTAL PETROLEUM CORP.**
Well **NORTHGLENN STATE 10-36**
Field **WATTENBERG**
County **WELD** State **COLORADO**

Location: API #: 05-123-34471 Other Services
SHL: 1379 FSL & 2491' FEL NWSE
BHL: 2005' FSL & 1968' FEL NWSE
SEC 36 TWP 1N RGE 68W
Permanent Datum G.L. Elevation 5121'
Log Measured From K.B. 15' Above Perm. Datum
Drilling Measured From K.B. G.L. Elevation 5136'
D.F. 5135'
G.L. 5121'

Date of Service	30-MARCH-2023		
Run Number	1		
Depth Driller or PBTD	8569'		
Depth Logger	4710'		
Bottom Log Interval	4705'		
Top Log Interval	SURFACE		
Open Hole Size	7.875"		
Type Fluid	WATTER		
Fluid Level	FULL		
Fluid Density	8.34 PPG		
Max. Recorded Temperature	NA		
Max. Wellhead Pressure	NA		
Wellhead Connection	7 1/16" 5K		
Estimated Cement Top	770'		
Unit Number	L-15		
Wireline Size	9/32"		
Location	BRIGHTON		
Recorded By	J SMITH		
Witnessed By	K. WIESER		
Size	WFt	Top	Bottom
Surface Casing	8.63	24#	SURFACE 1046'
Production Casing	4.5"	11.6#	SURFACE 8569'
Liner Casing			
Tubing Record			

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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 CORRALATED TO K.B. 15' AGL

THANK YOU FOR USING RANGER ENERGY SERVICES! FIELD TICKET #

Your Ranger Energy Services Crew	Tool Data - Services	Serial Number
Engineer: SMITH Operator: UNDERWOOD Operator: BOND Operator:	PROBE RADII BOND G.R/CCL	RBT_PROBE-070150 GR-ANALOG 071129

Operator	Offset (ft)	Substrate	Description	Length (ft)	C.D. (in)	Weight (lb)
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Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)	
ErrCt	17.33		Cable_Head-1_7/16 Titan 1 7/16" Cable Head	1.02	1.44	3.31	
IntTemp	15.07						
WVFS8	11.82		RBT-Probe (070150) Probe Radii Bond Tool with Digital Telemetry	8.75	2.75	90.00	
WVFS7	11.82						
WVFS6	11.82						
WVFS5	11.82						
WVFS4	11.82						
WVFS3	11.82						
WVFS2	11.82						
WVFS1	11.82						
WVFCAL	11.82						
WV3FT	11.82						
WV5FT	10.82						
CCL	6.62						
GR	5.38		GR_analog-GR275B (071129) 275 Gamma-CCL (Pulse) Top Detector	4.57	2.75	55.00	
		Centralizers-8071-275-200 Tekco 2 3/4" Adjustable Centralizer	2.73	2.75	25.00		
		Bull_Plug-1_7/16_GO Titan 1 7/16" Female Bull Plug	0.27	1.44	1.00		

535725_occidental_northglen_state_10-36_0512334471_20230330_scbl.db: field/535725_occidental_NORTHGLEN_STATE_10-17.33 ft
174.31 lb
2.75 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\535725_occidental_northglen_state_10-36_0512334471_2
 Dataset field/535725_occidental_NORTHGLEN_STATE_10-36/run1/pass9/_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	MINAMPL mV 1	MINATTN db/ft 0.8
PERFS No	PPT usec 249	SRFTEMP degF 0	TDEPTH ft 0				

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

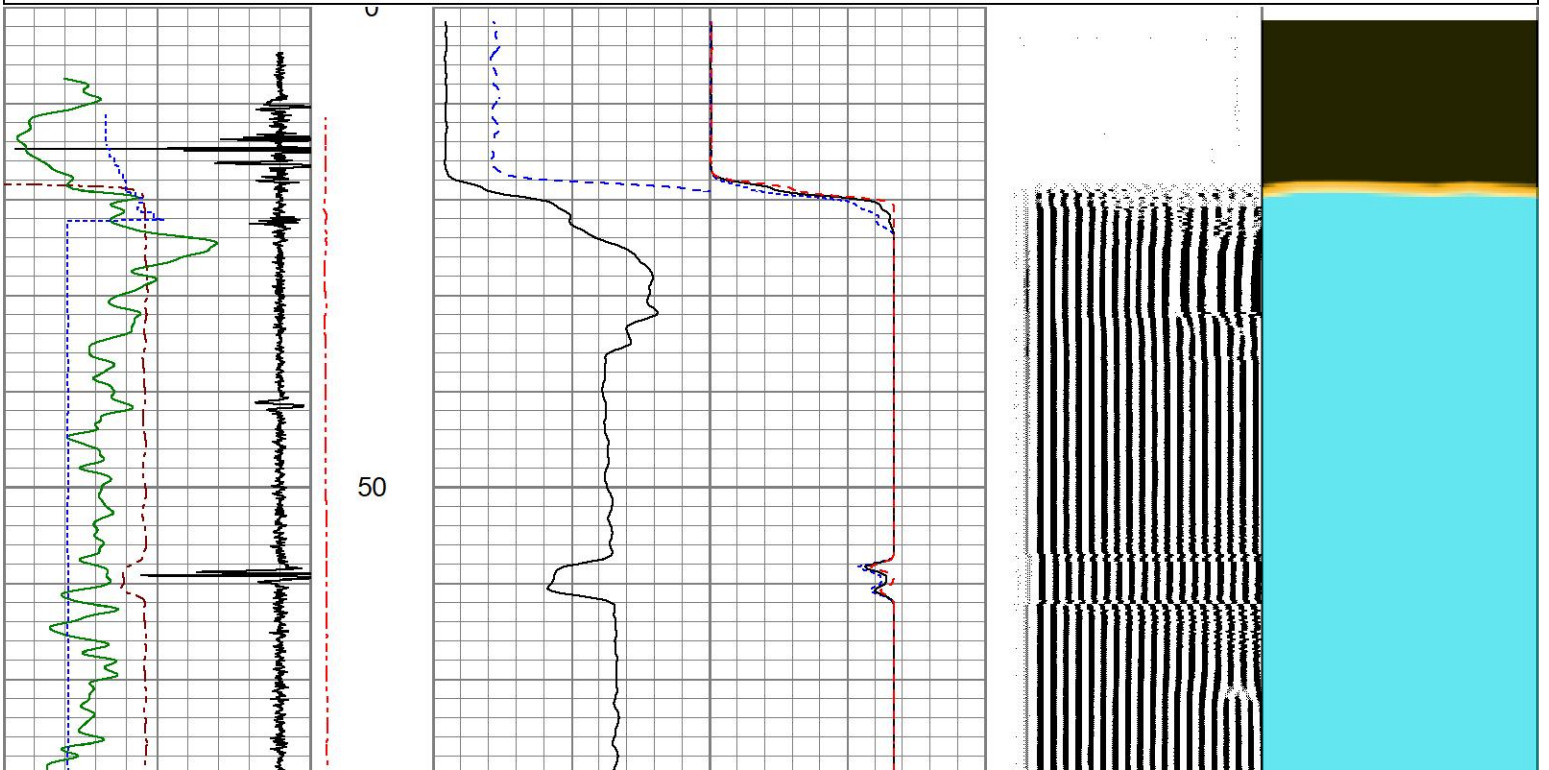


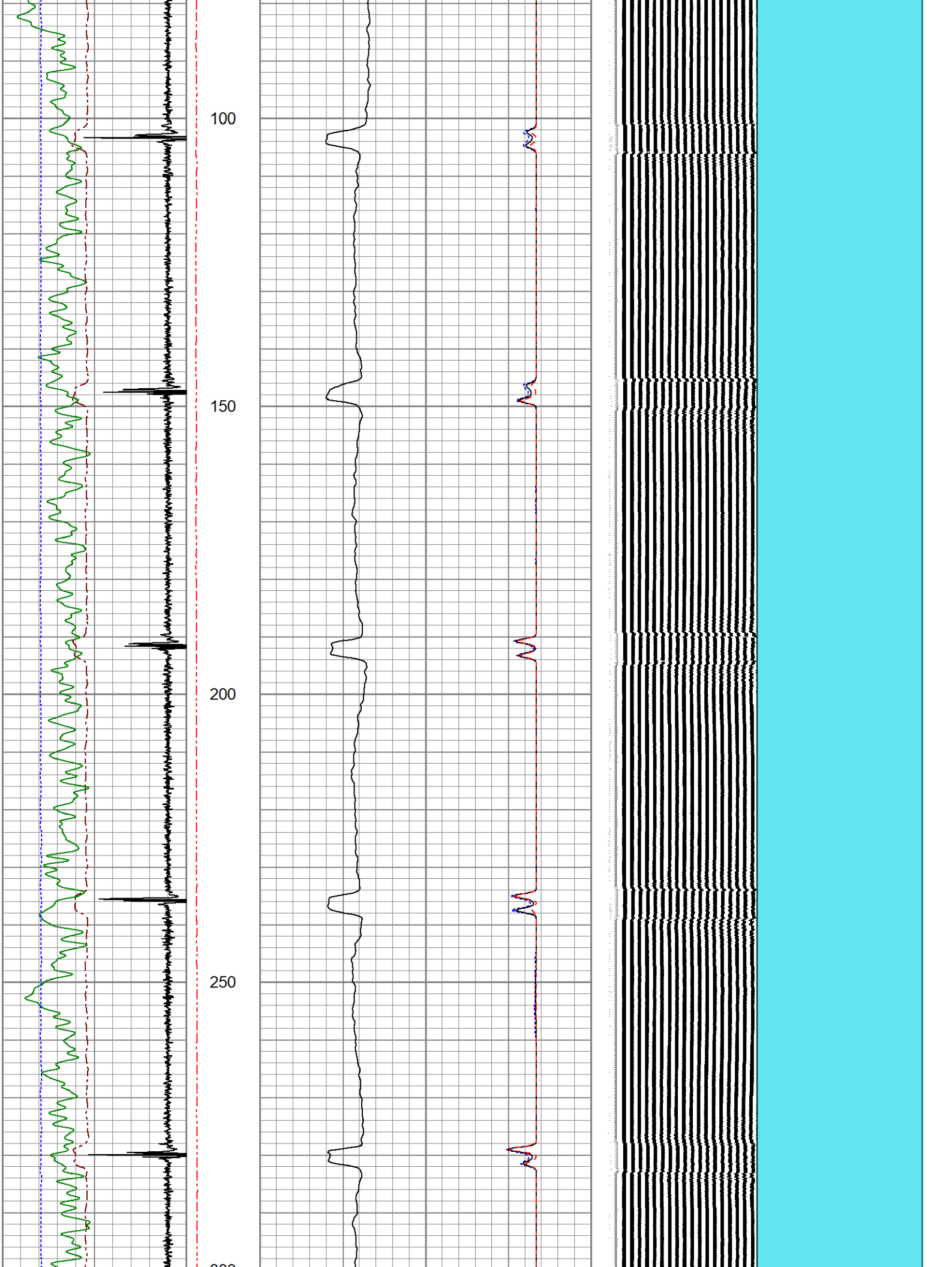
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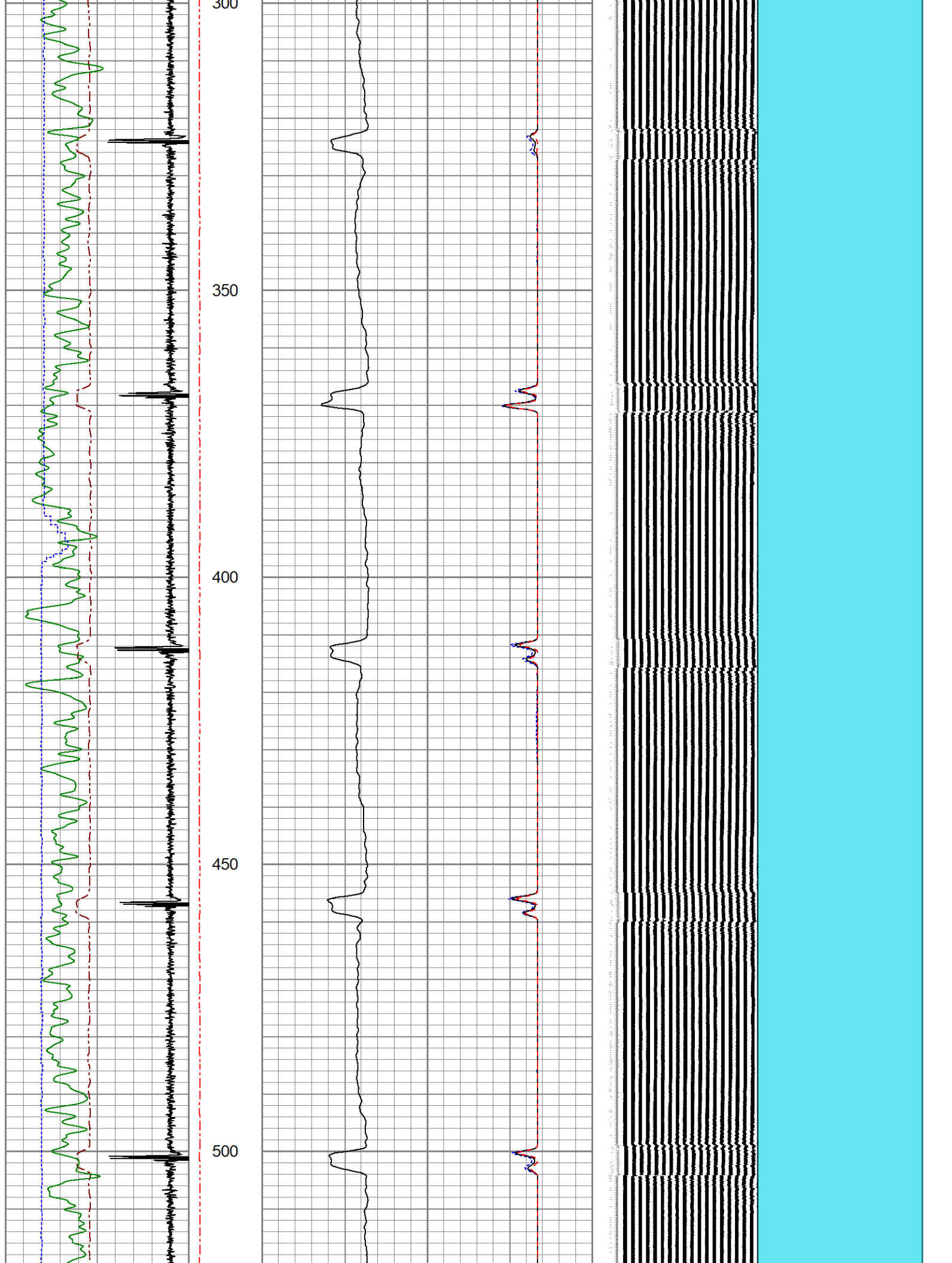
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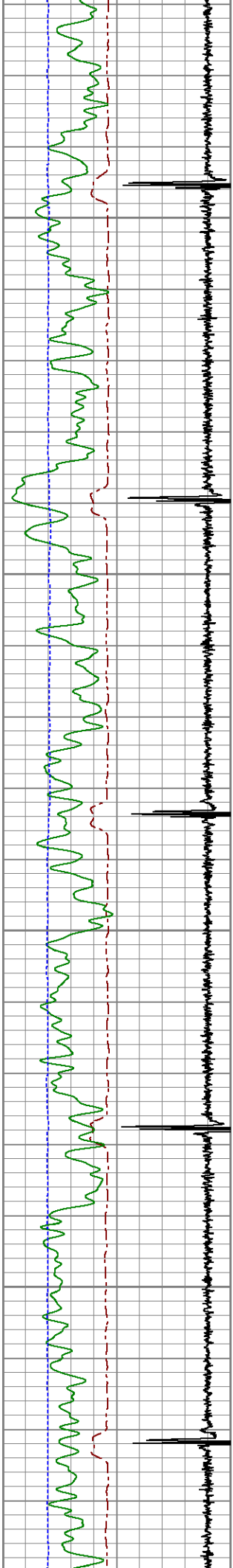
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 Presentation Format res_scbl 8sec
 Dataset Creation Thu Mar 30 17:34:41 2023
 Charted by Depth in Feet scaled 1:240

270 3FT TT (usec) 170	LTEN	3' Amplitude	0 Sector Min Amp150	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			







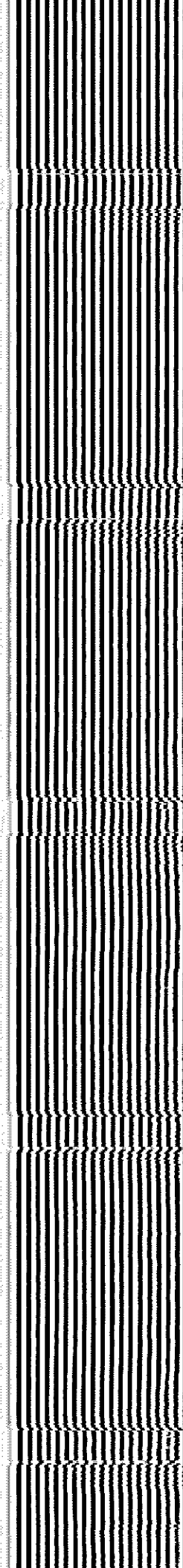
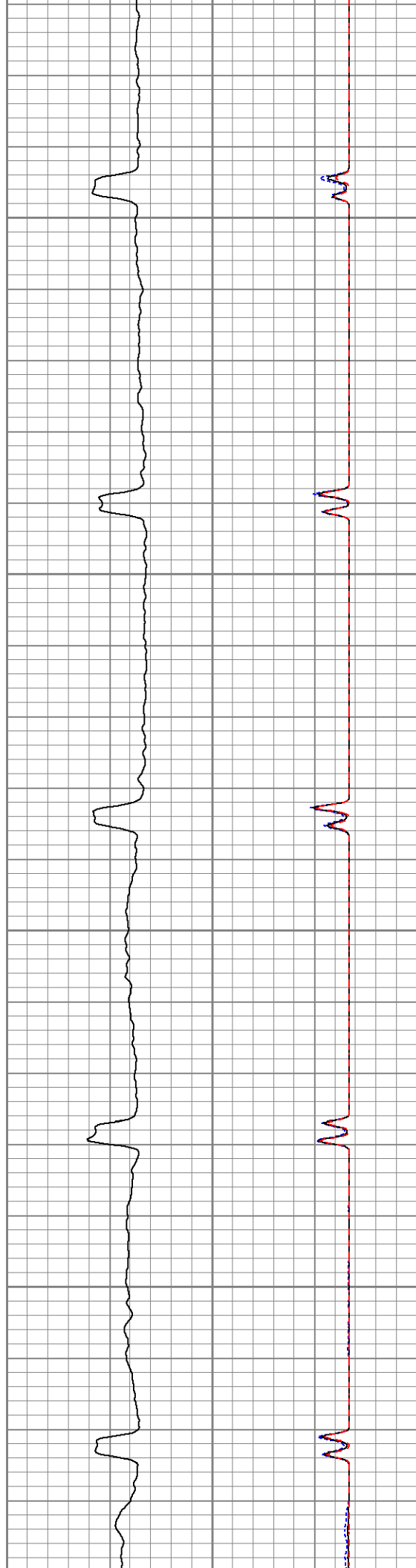


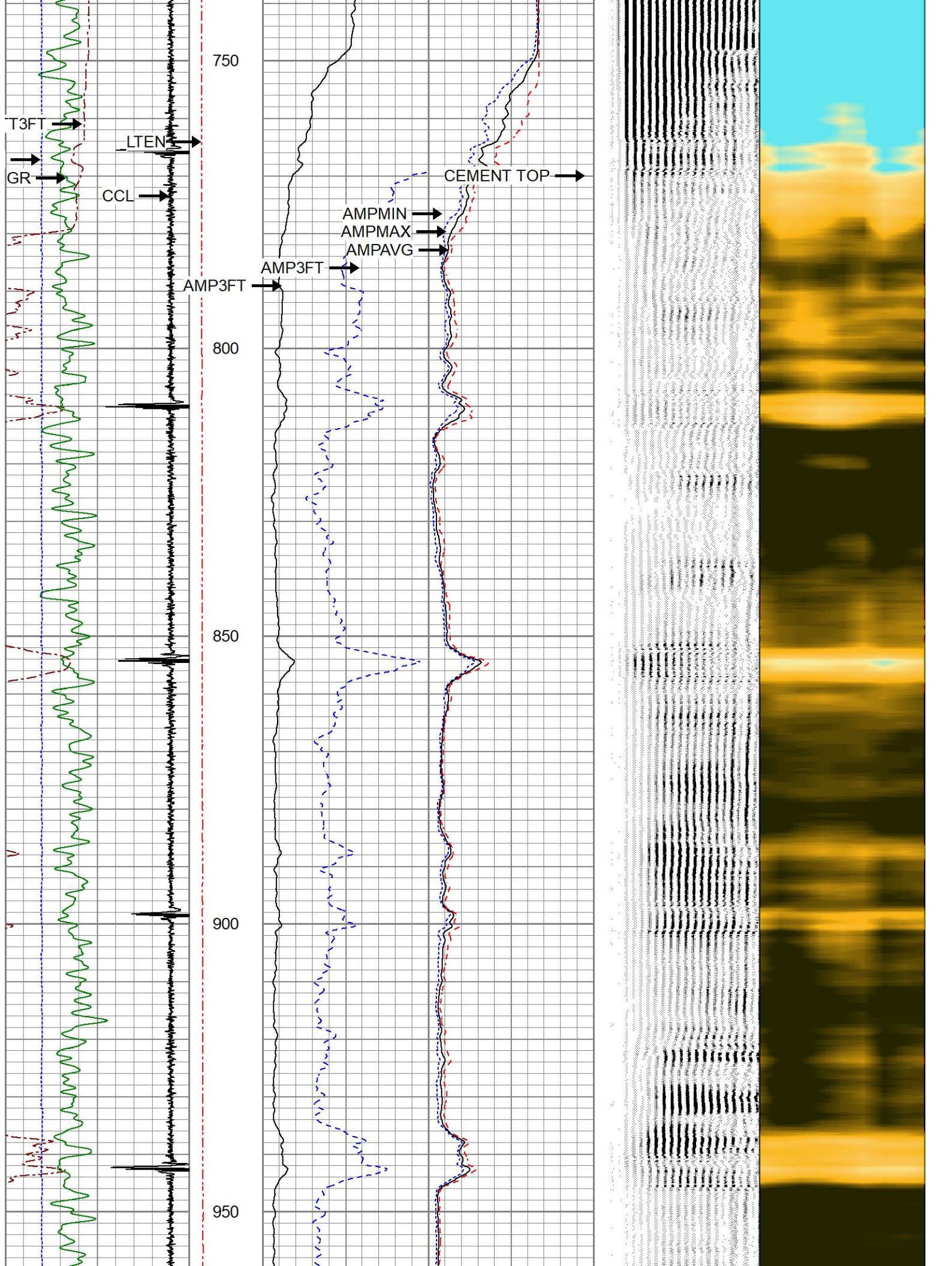
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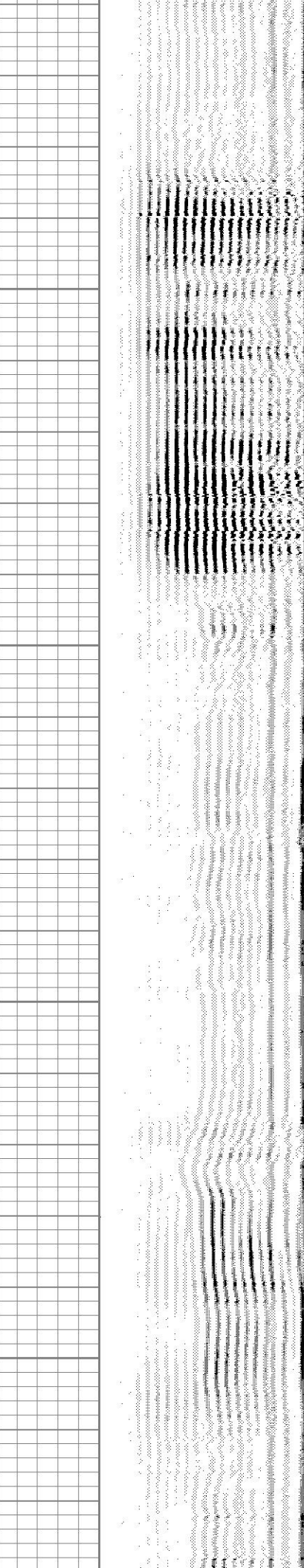
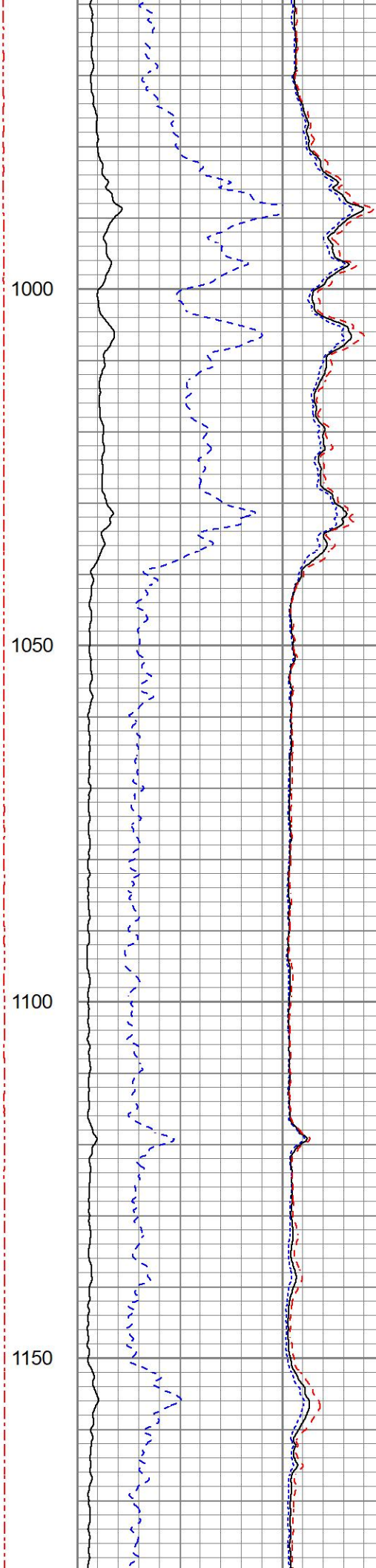
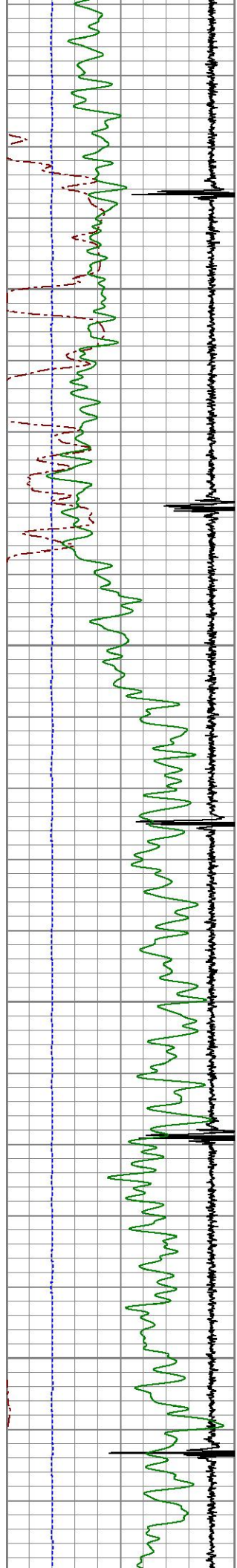
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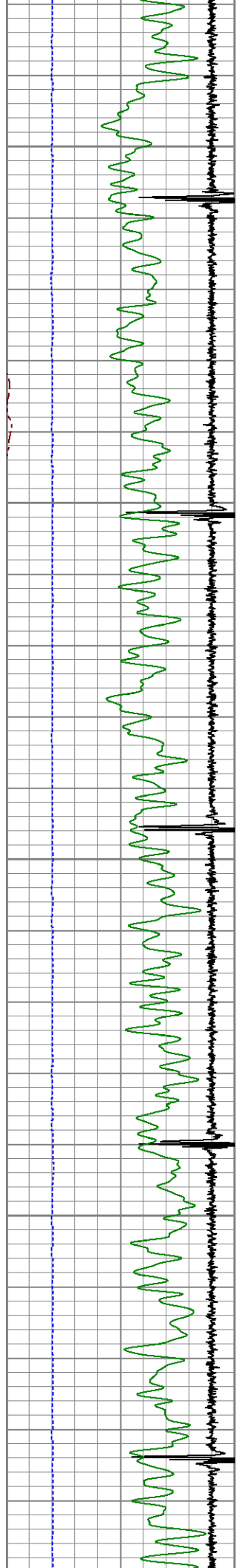
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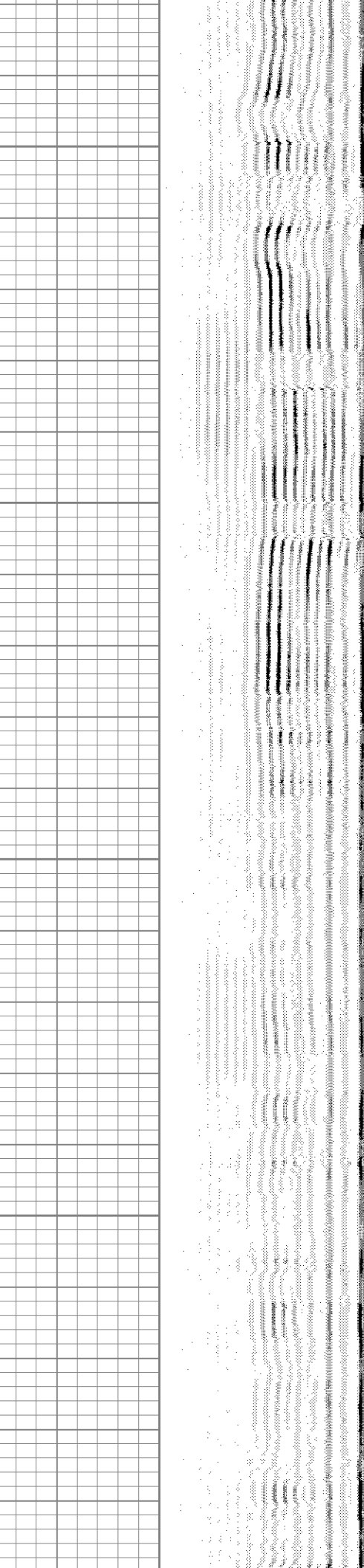
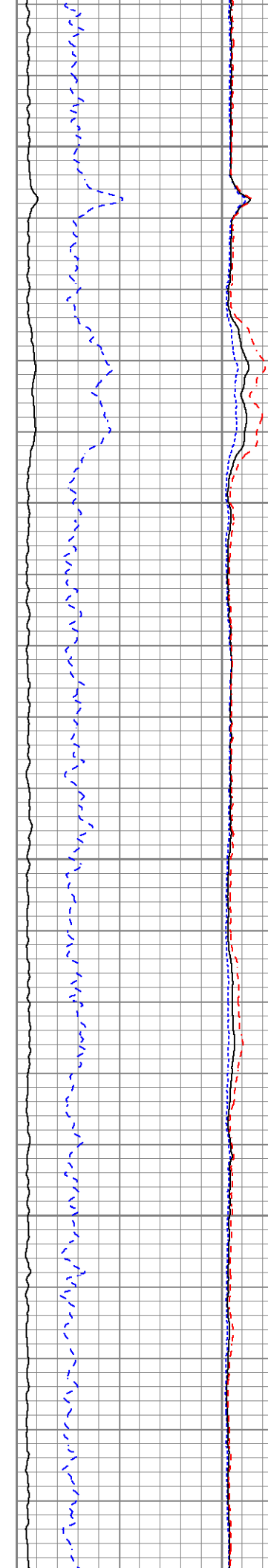
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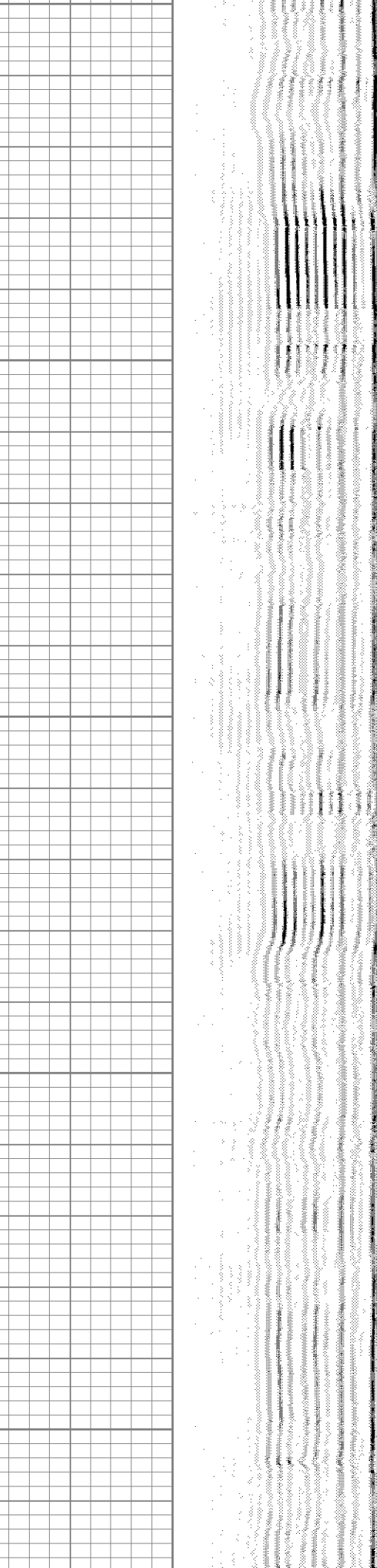
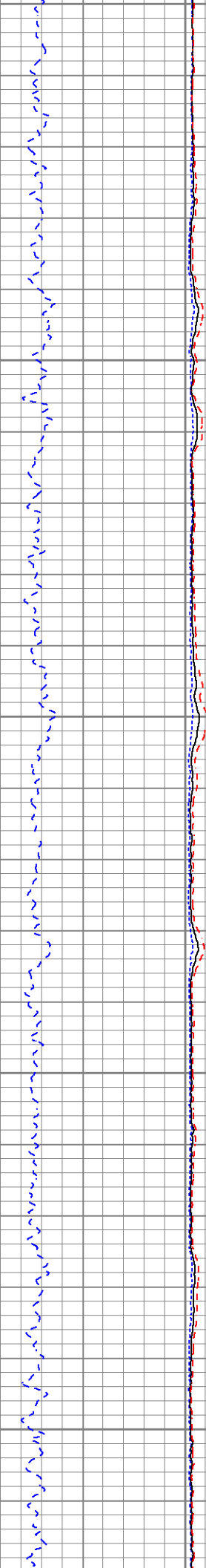
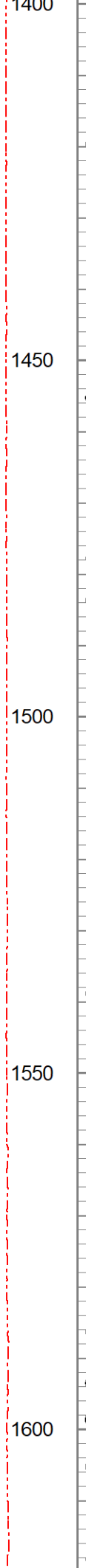
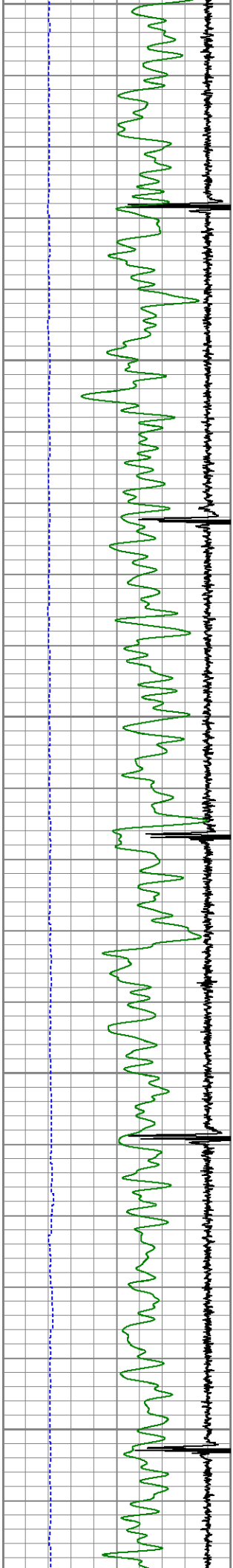
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1300

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1400





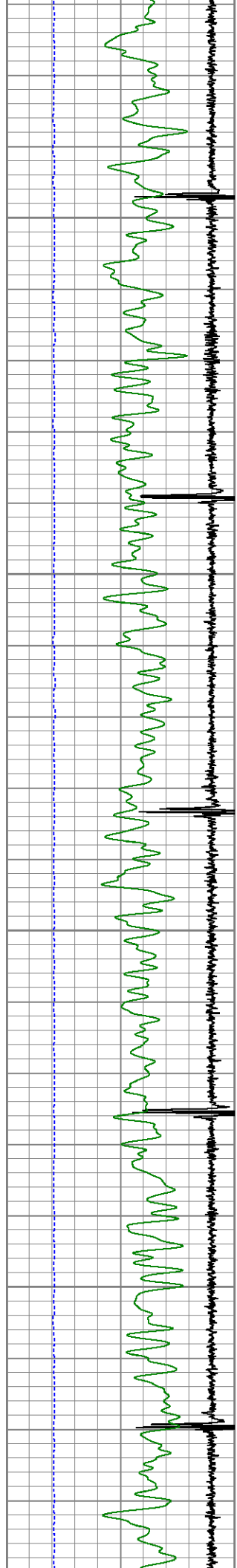
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1550

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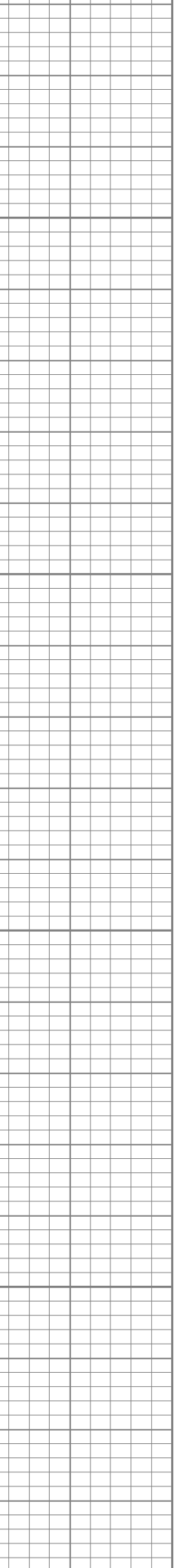
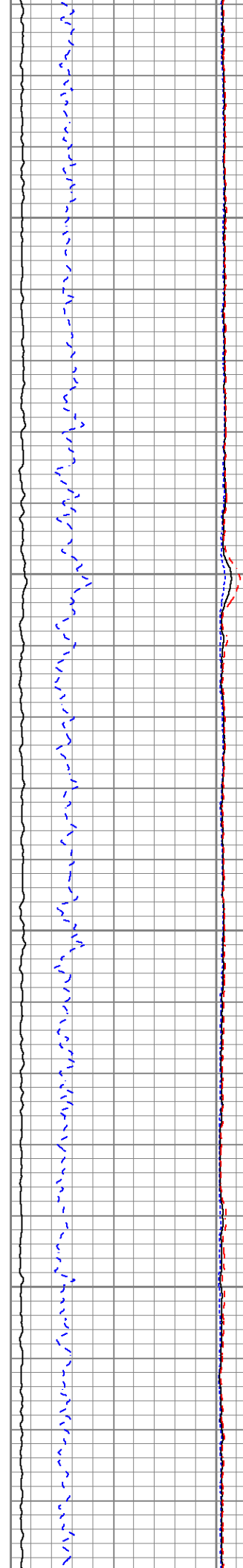


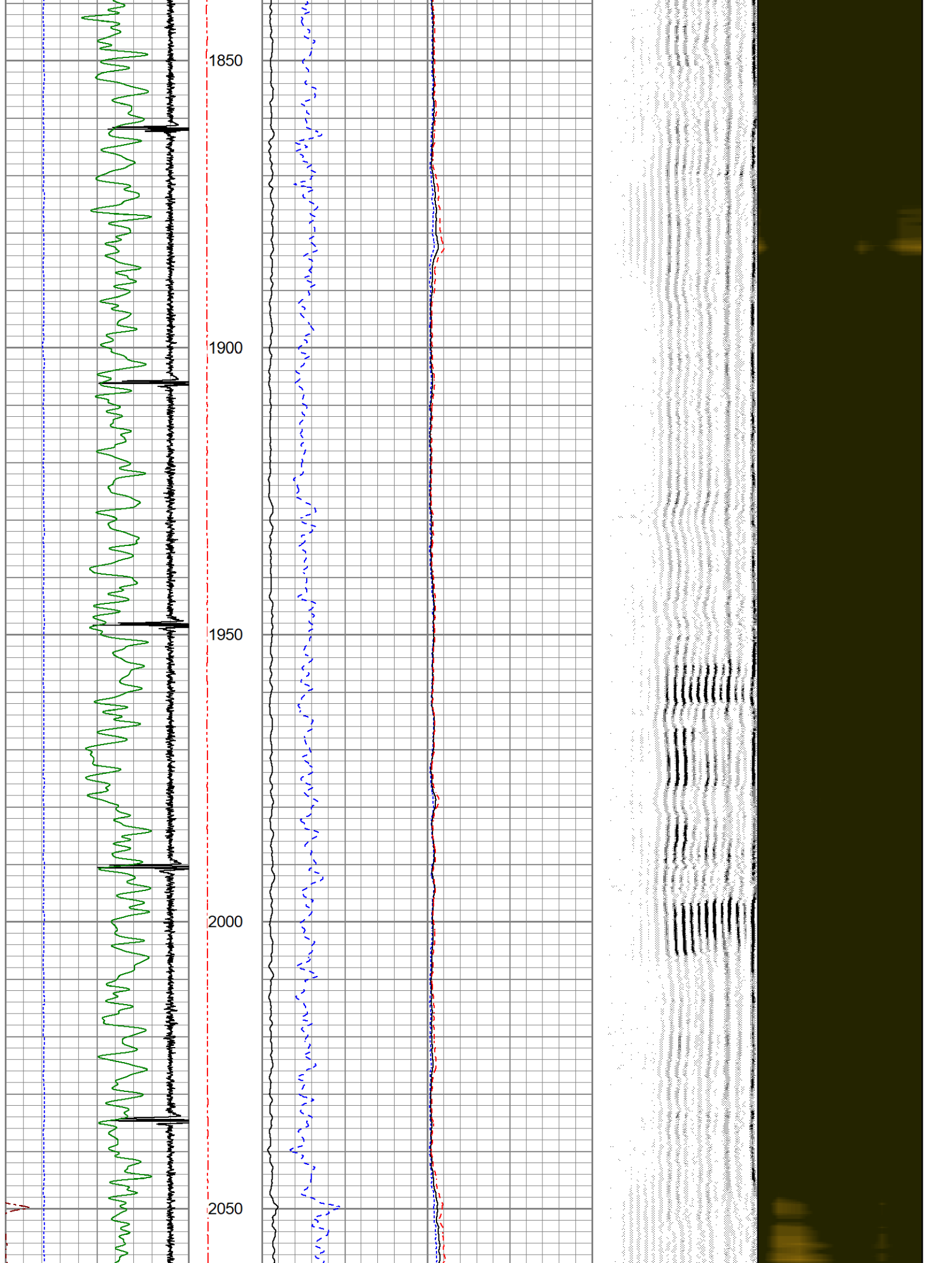
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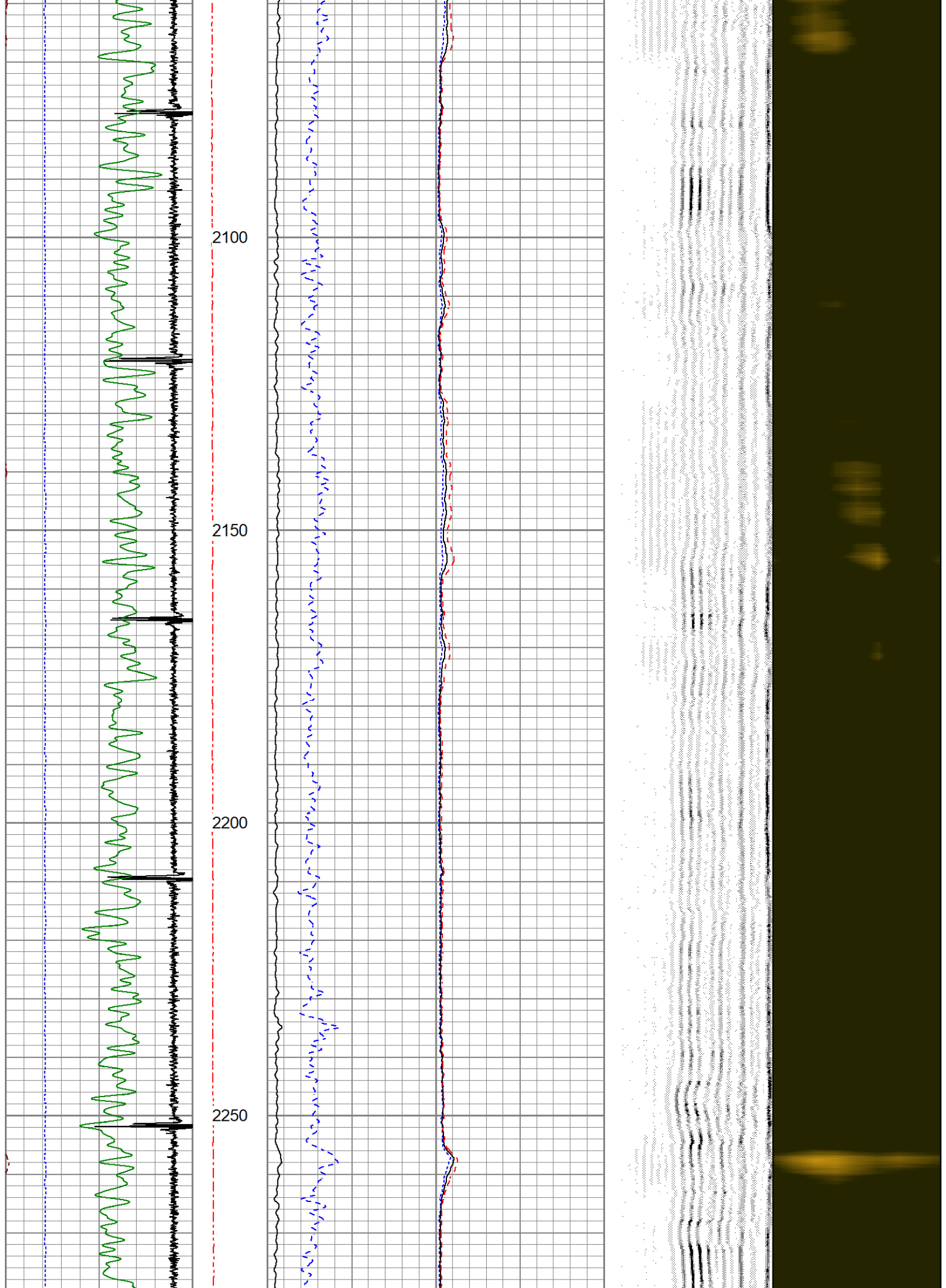
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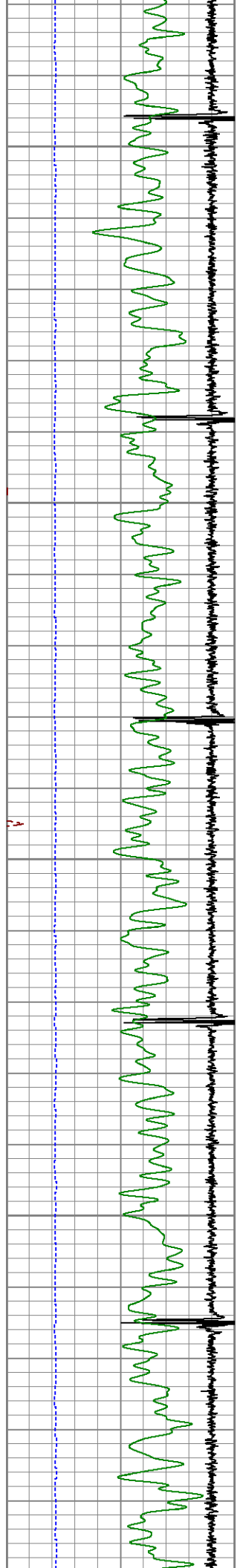
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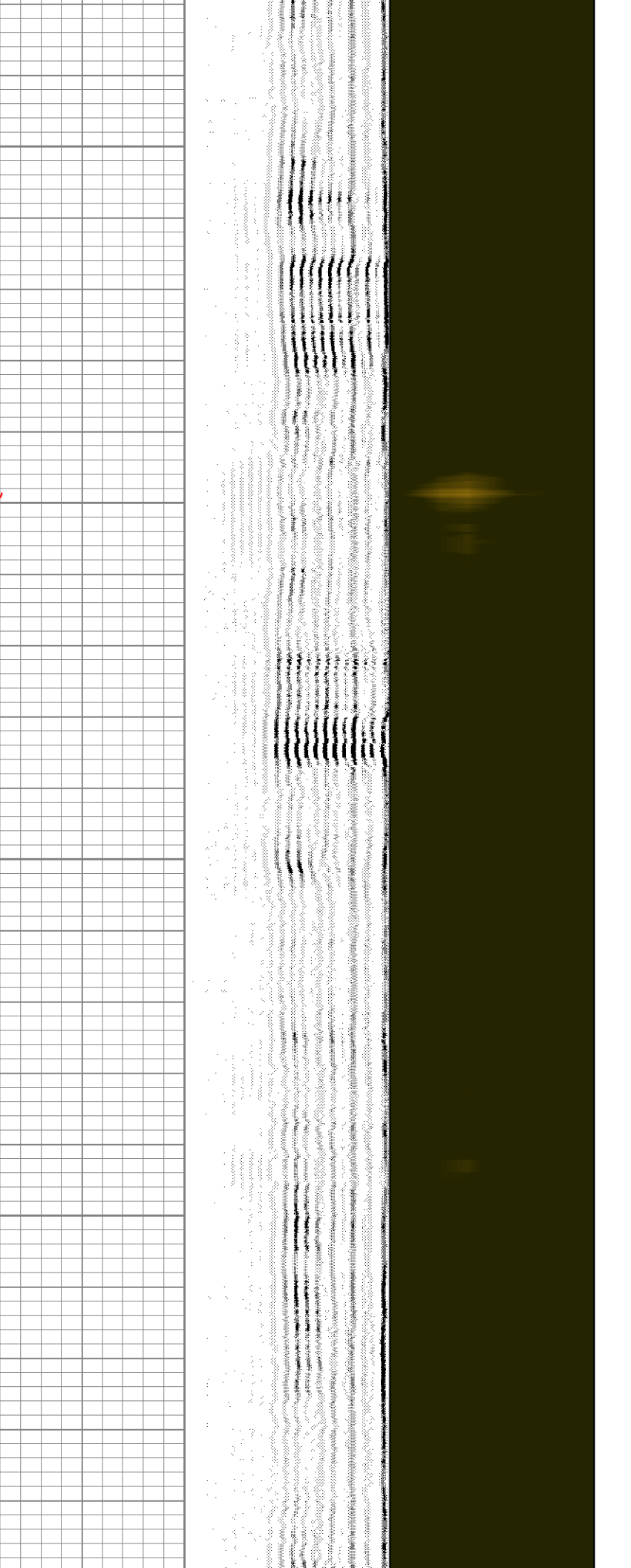
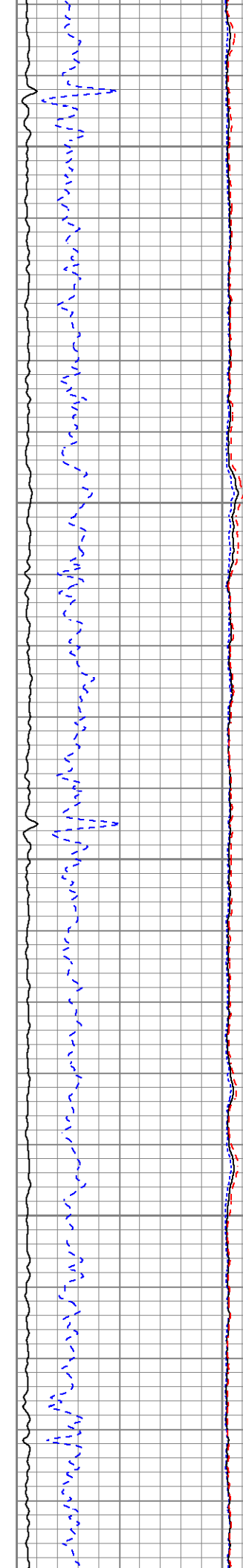


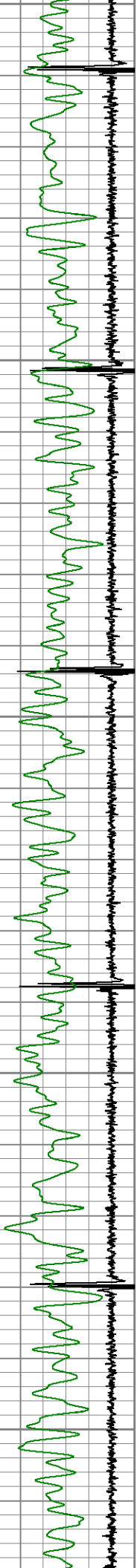




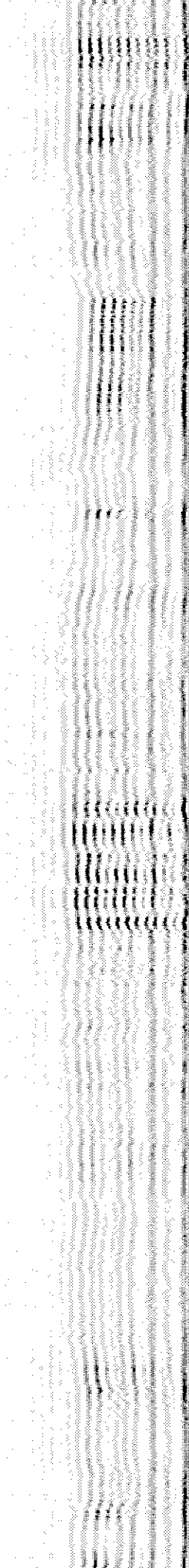
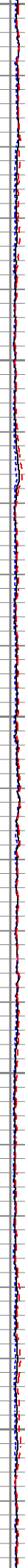


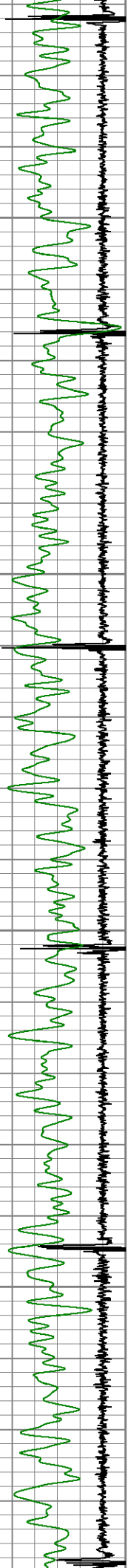
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2550
2600
2650
2700



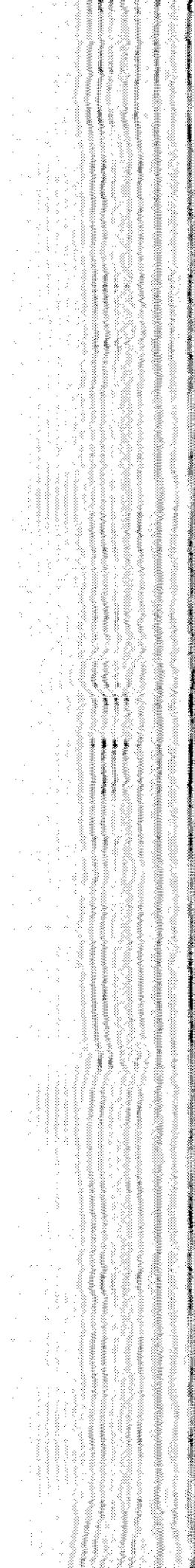
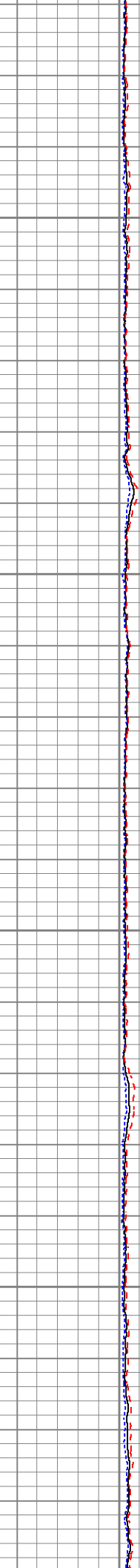
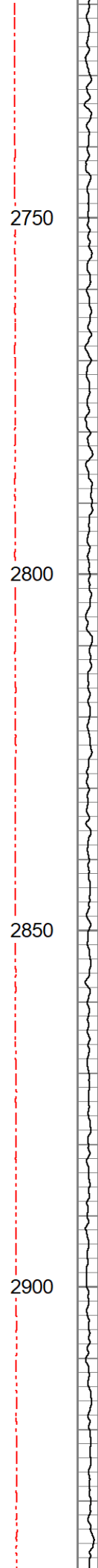


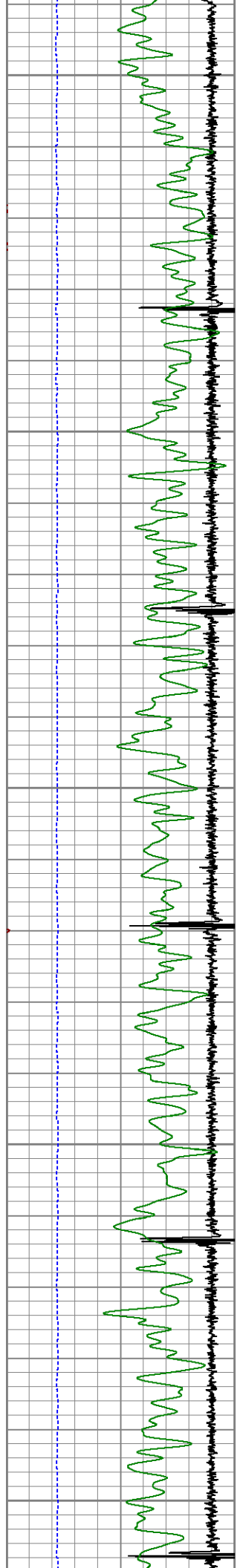
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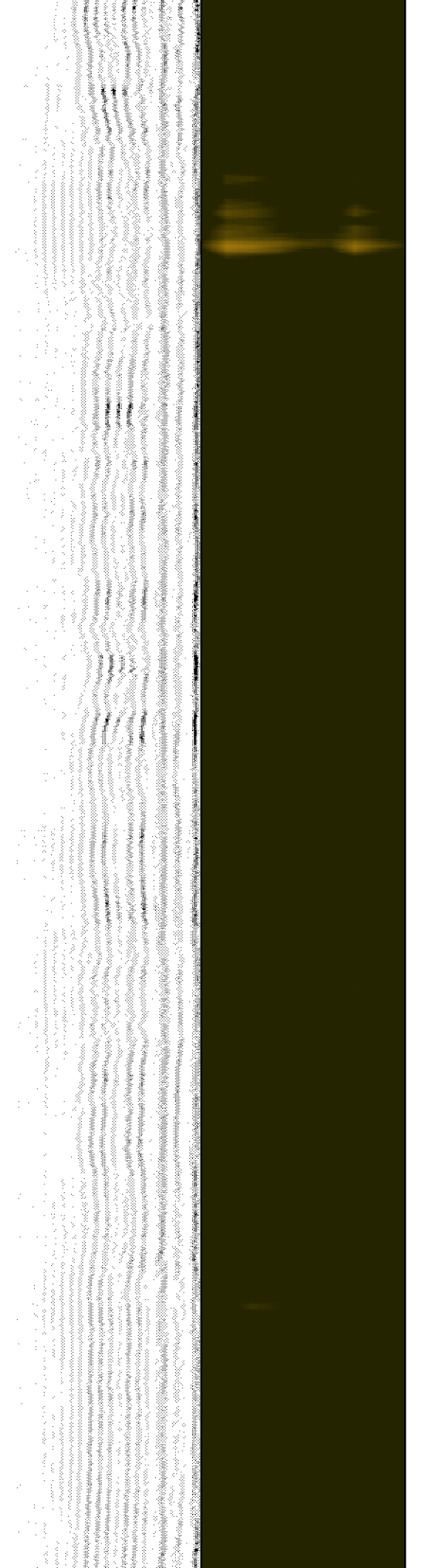
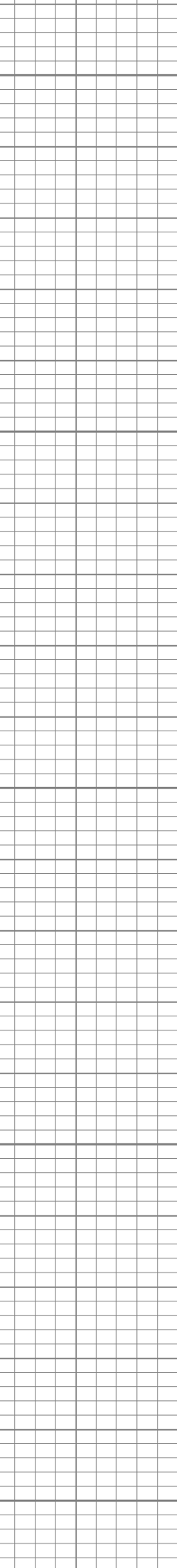
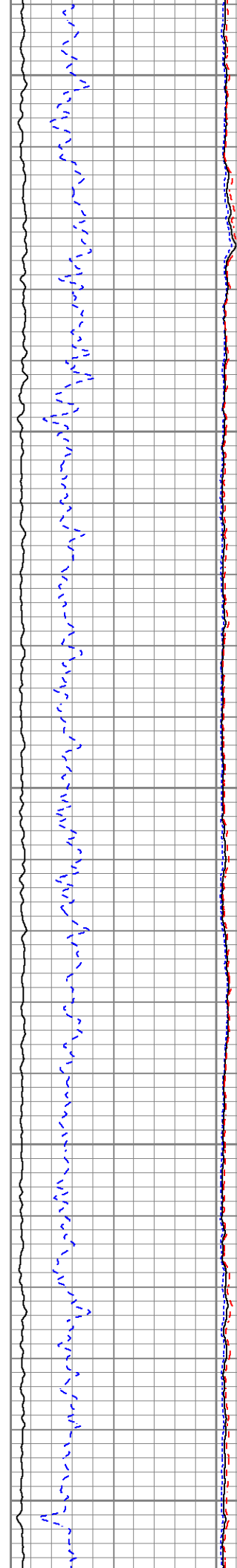
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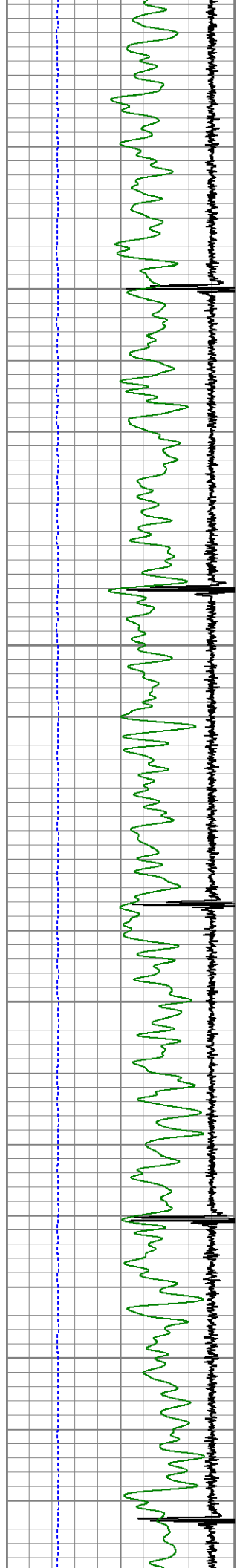
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2950
3000
3050
3100
3150



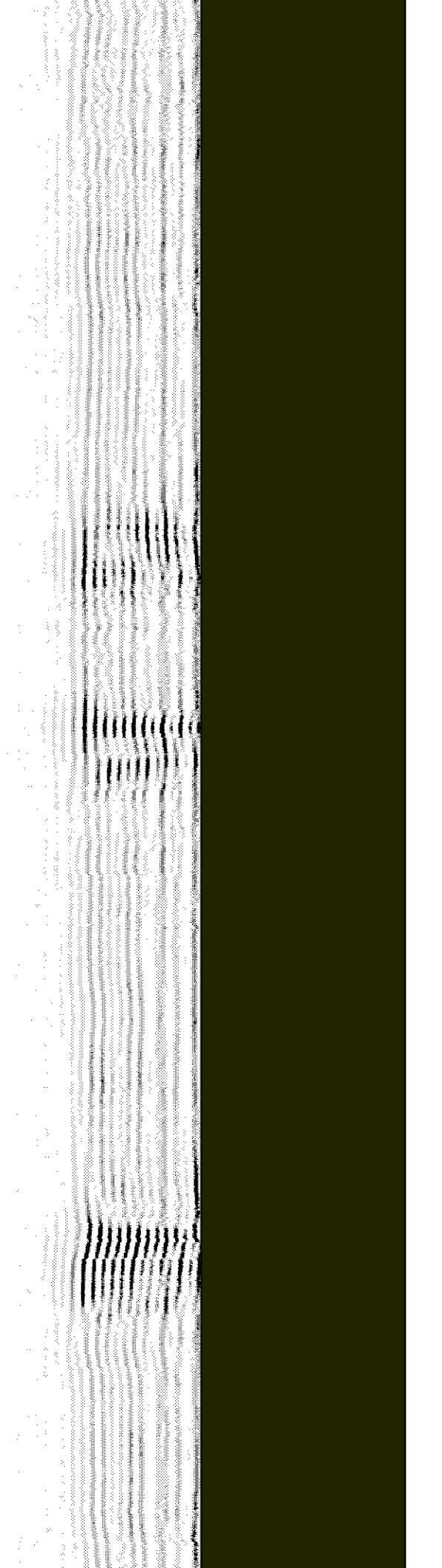
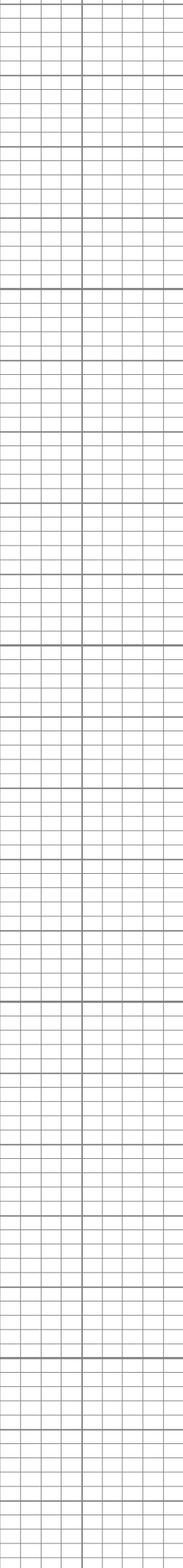
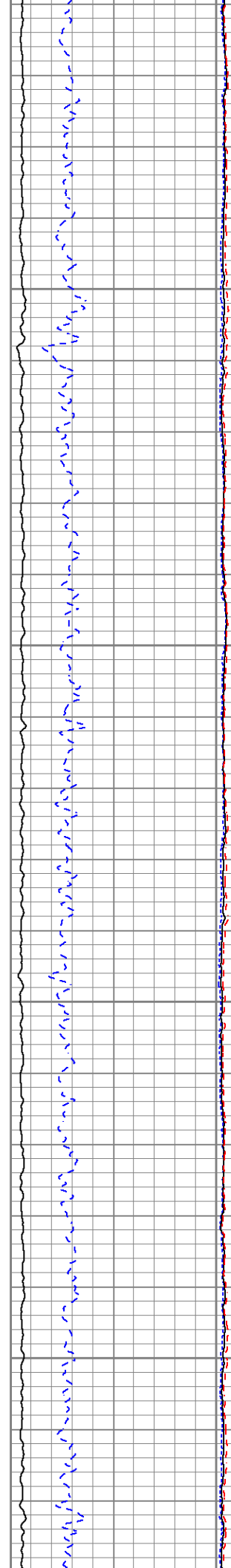


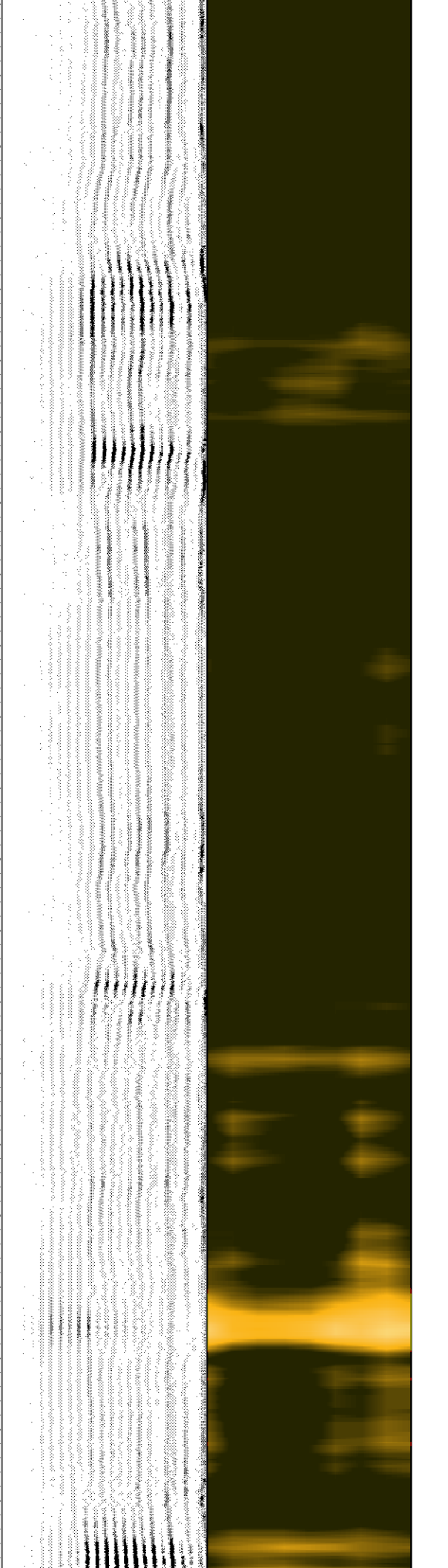
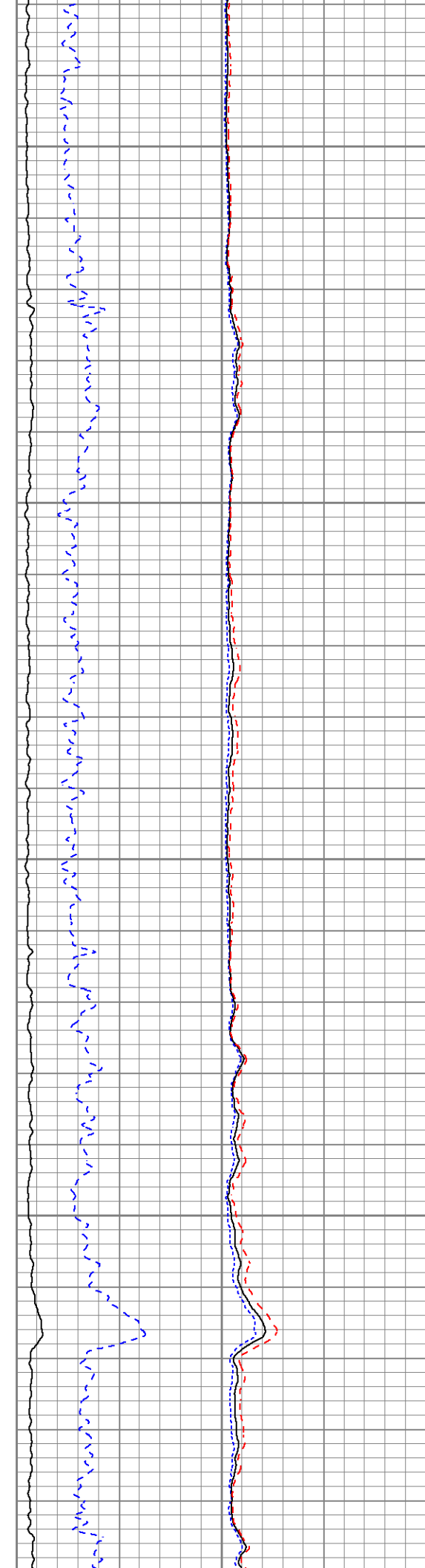
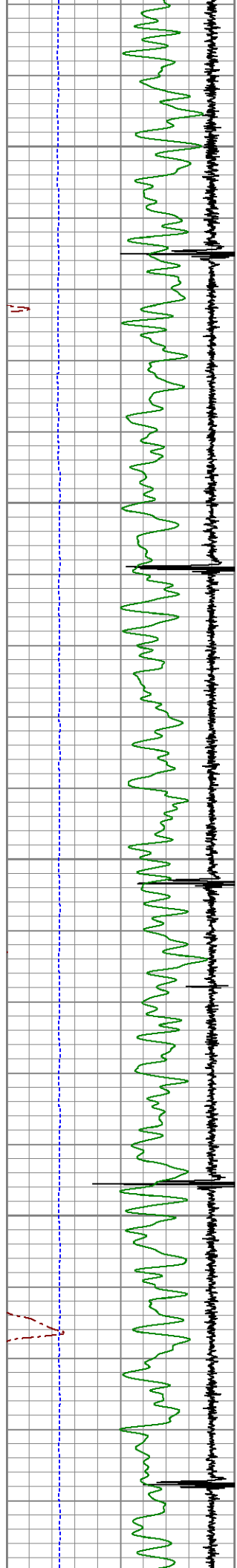
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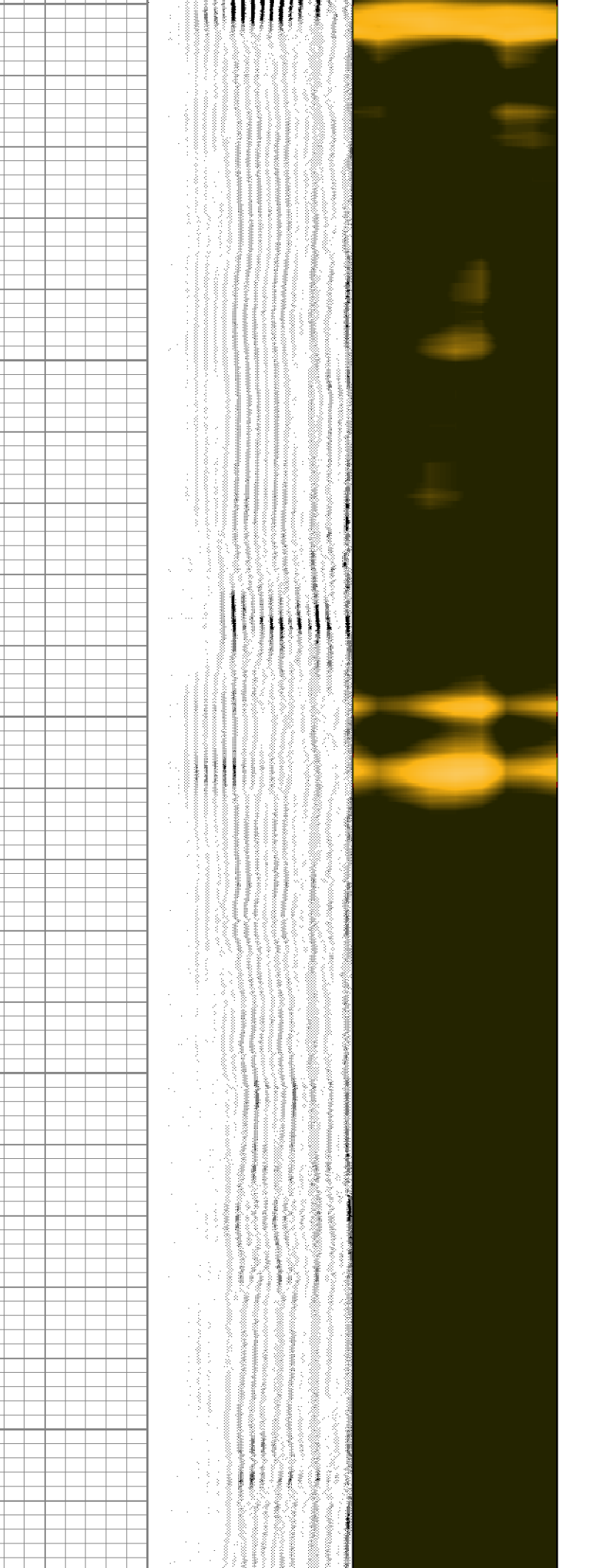
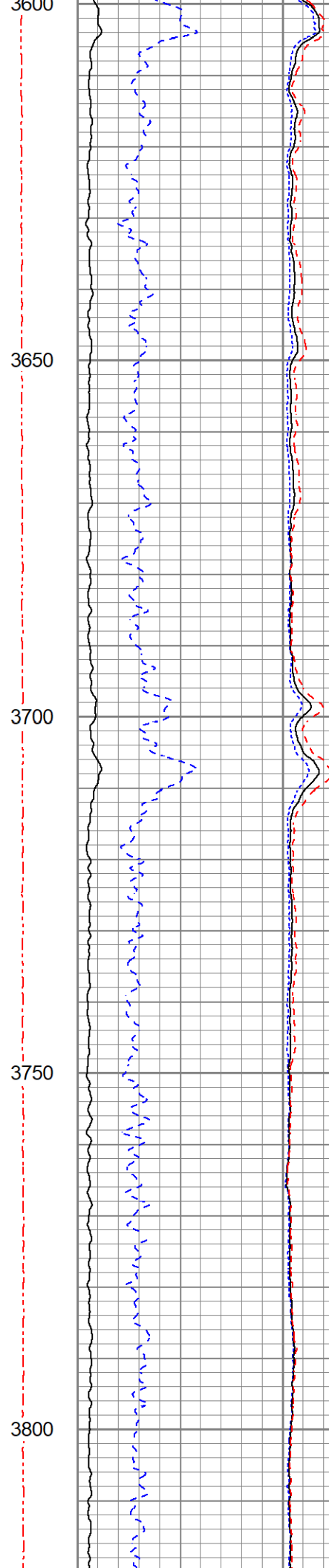
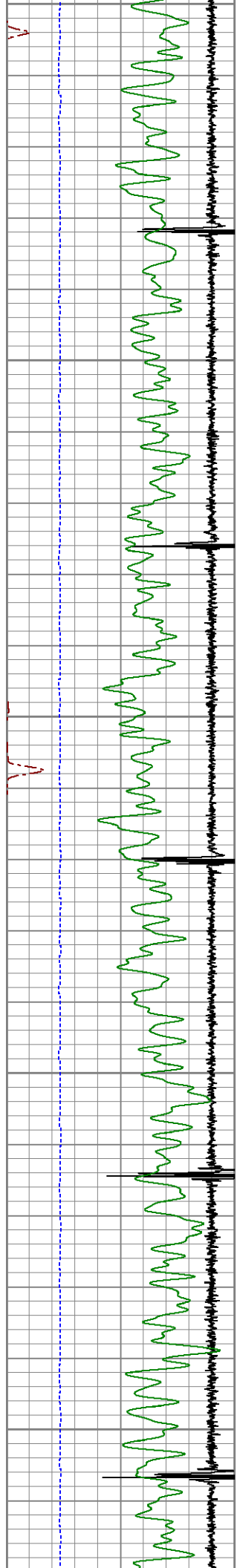
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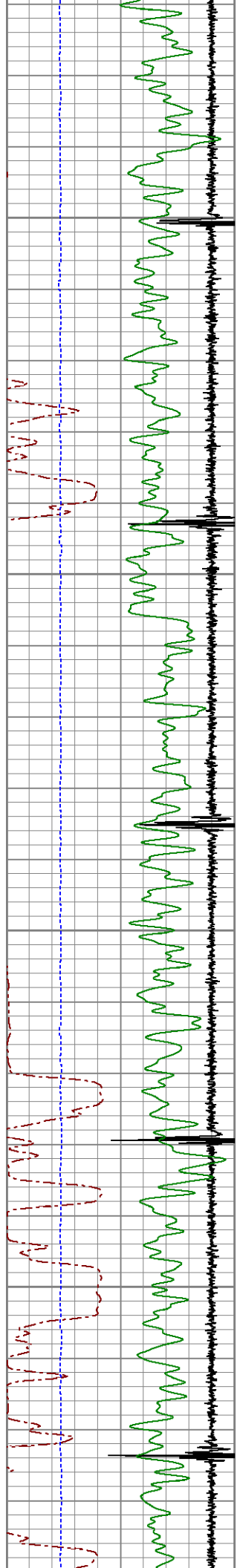
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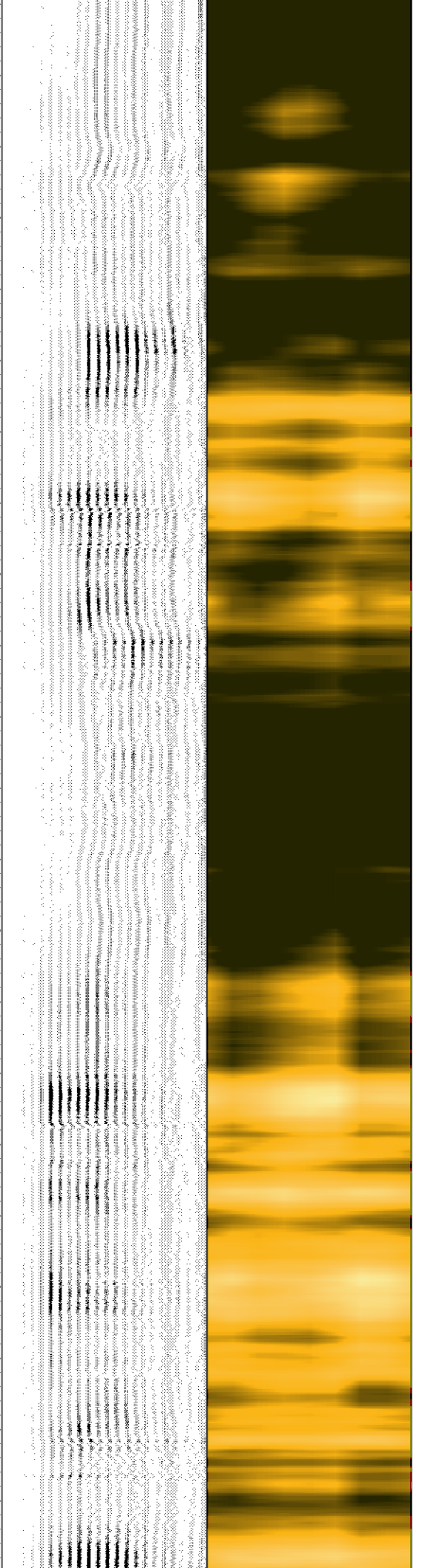
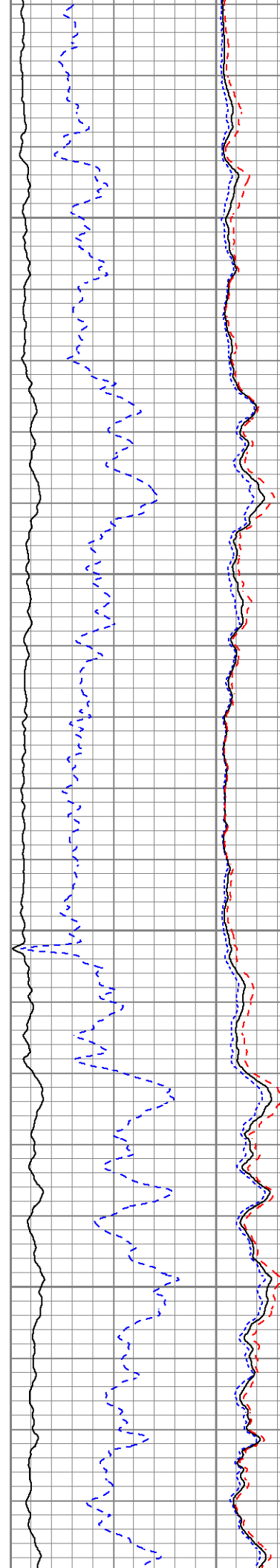


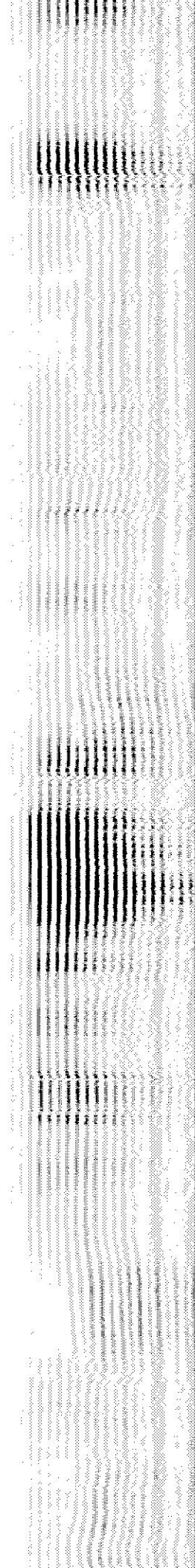
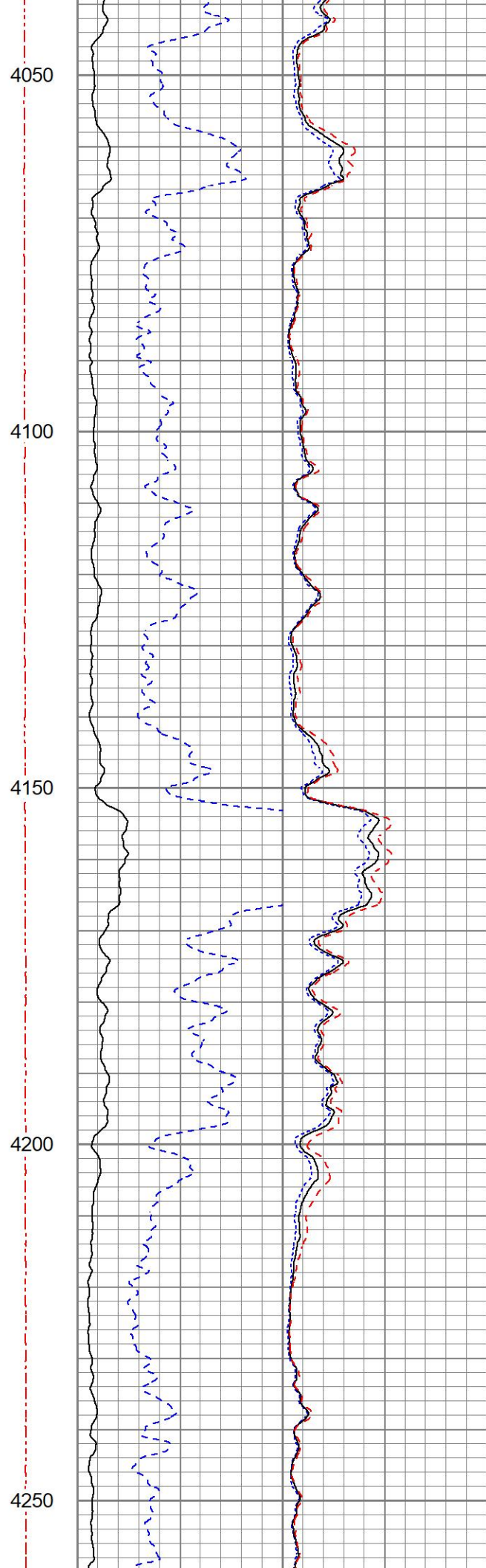
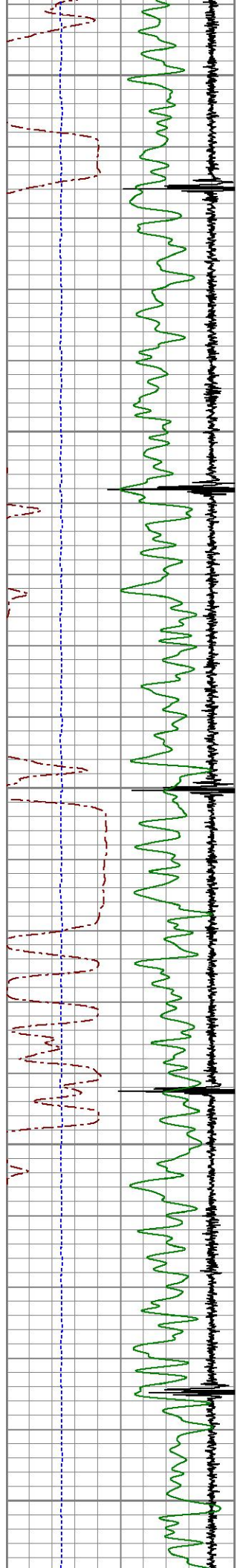
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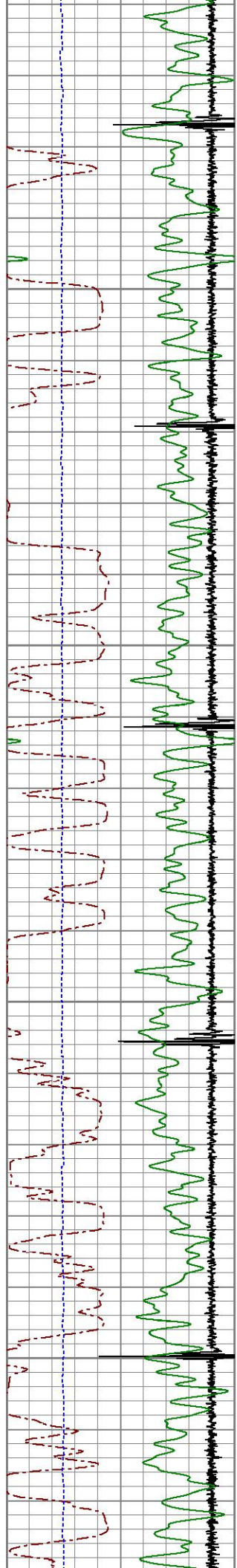
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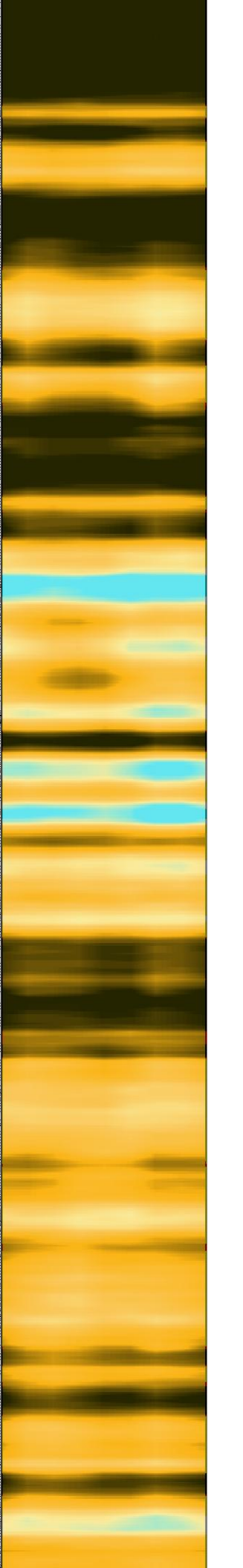
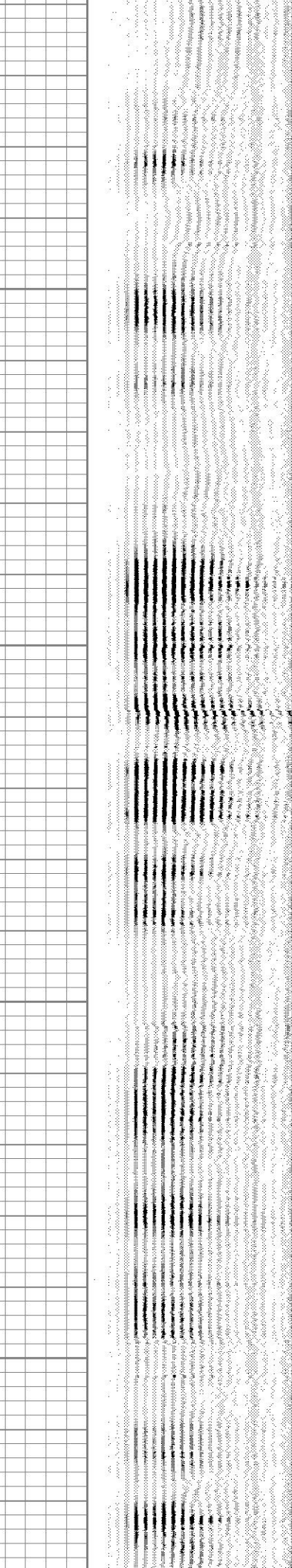
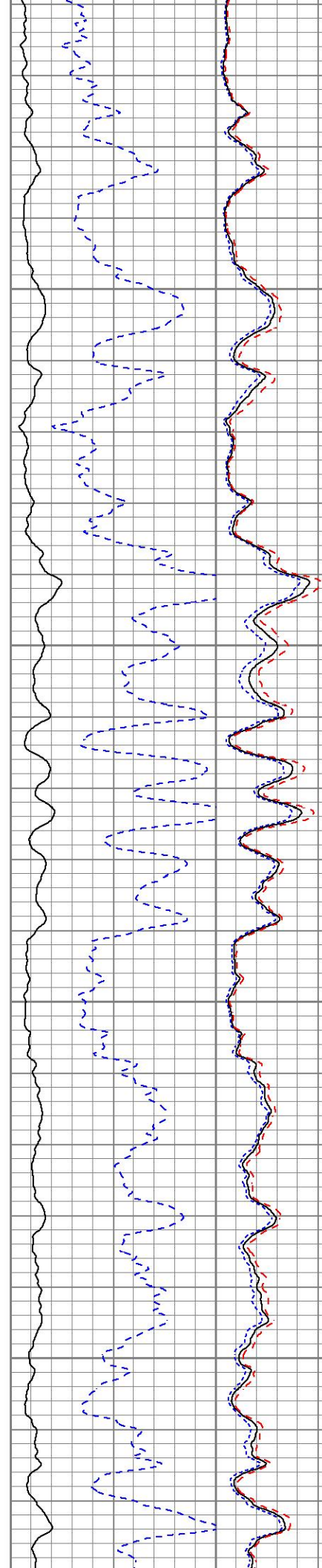


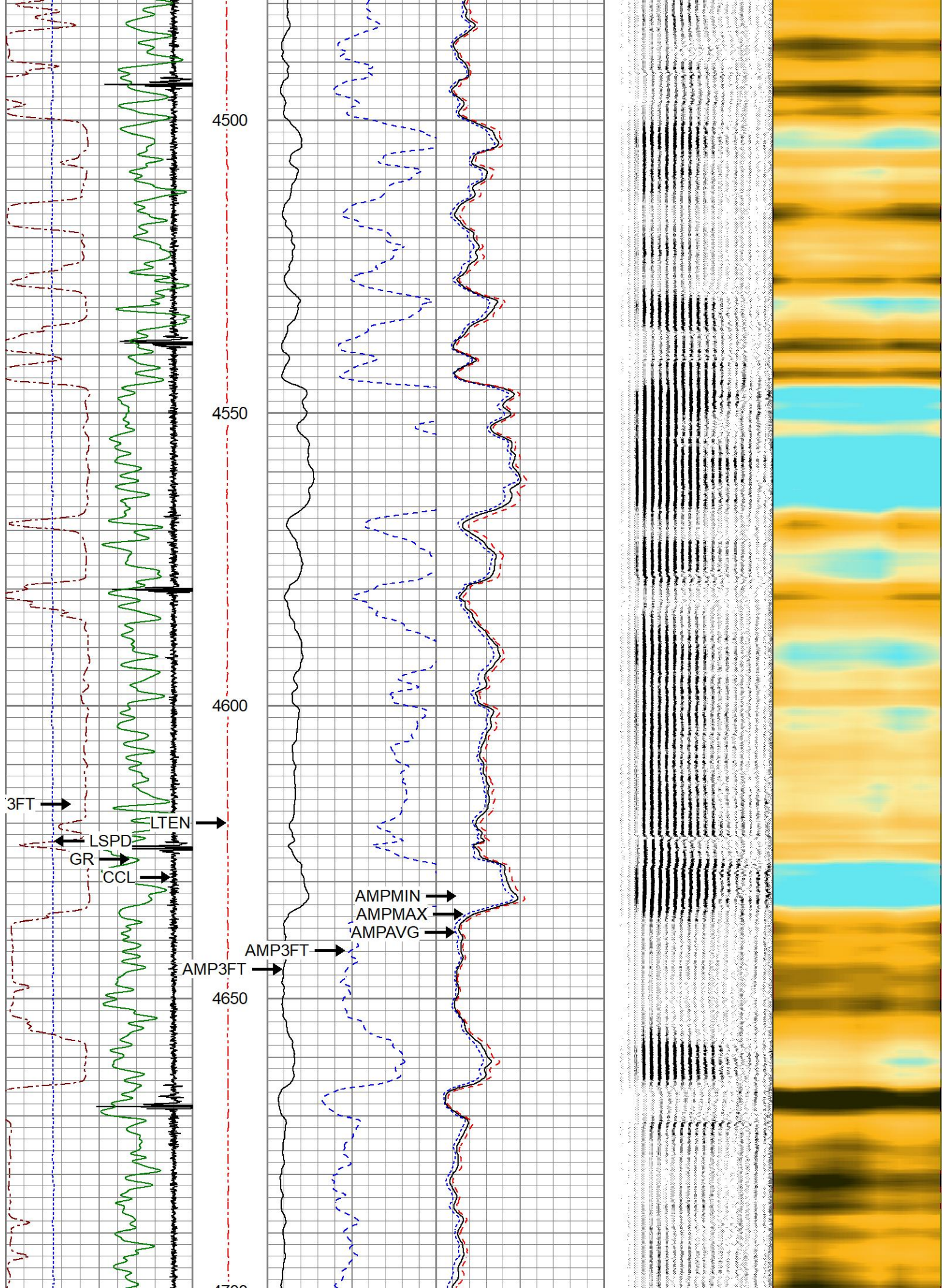
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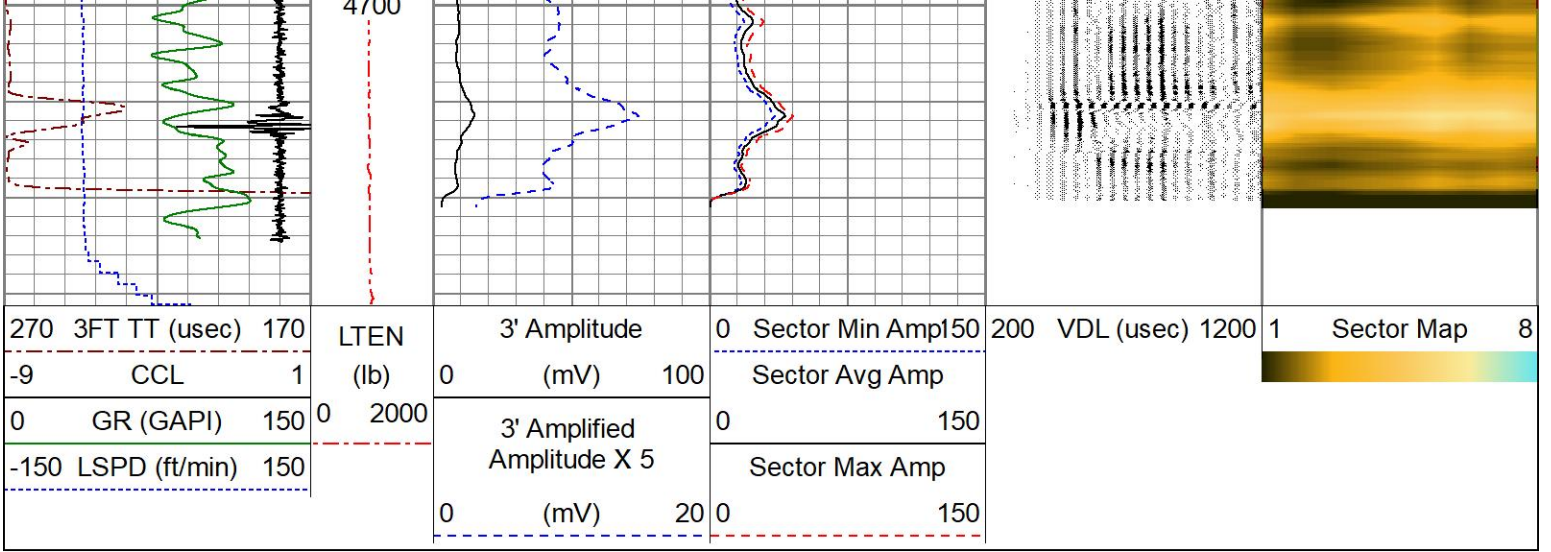
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4450







MAIN PASS

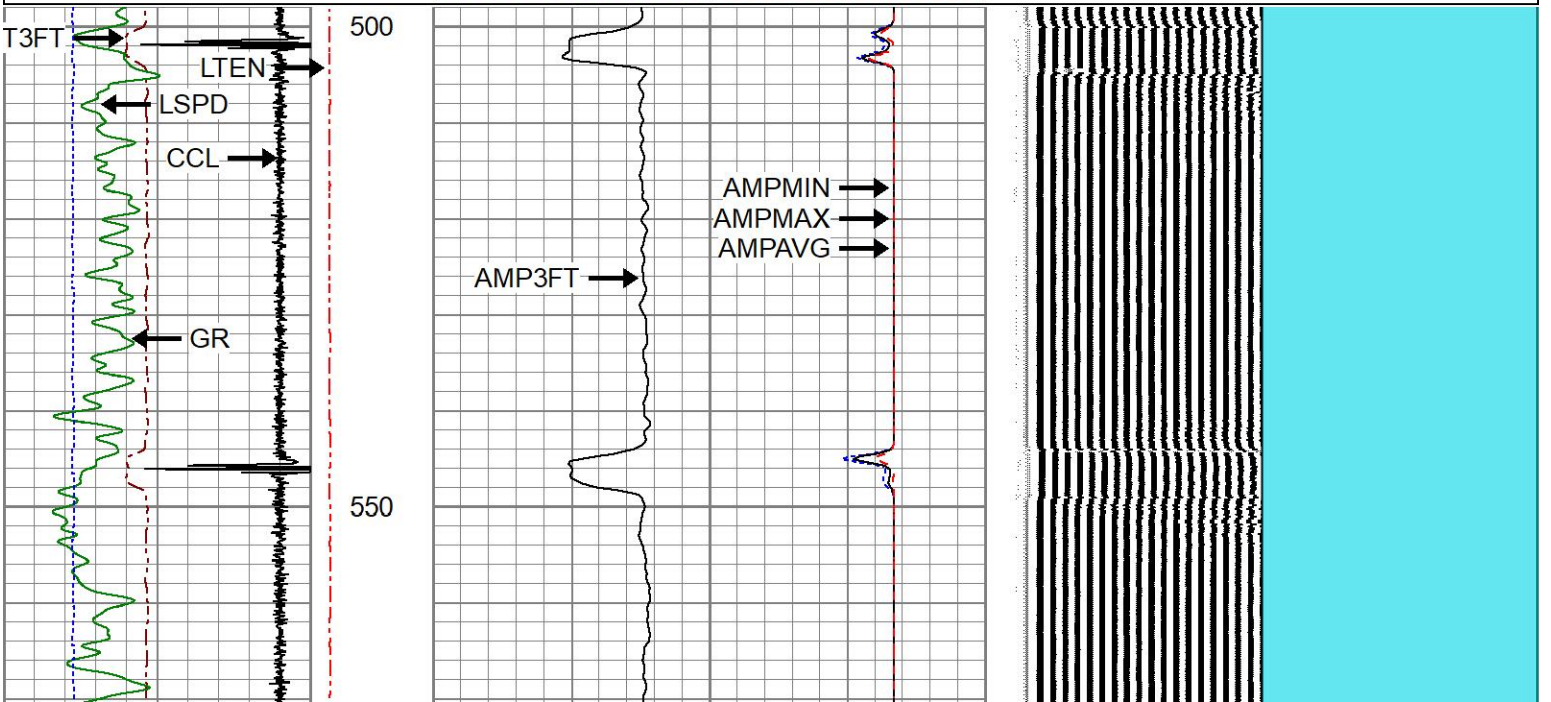
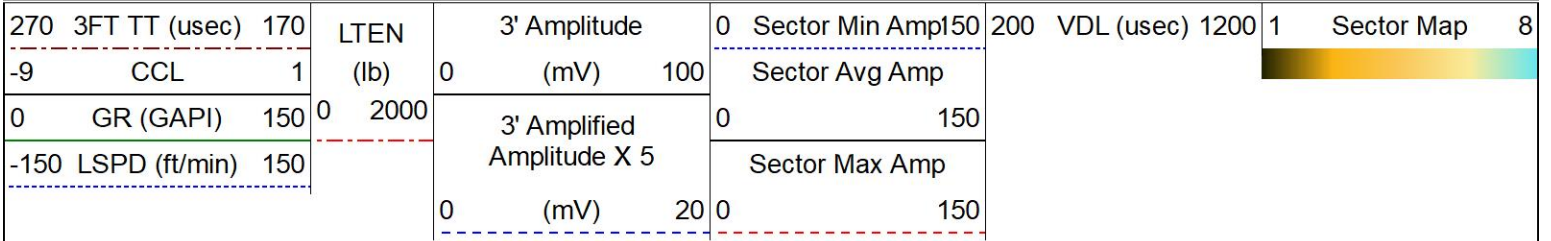
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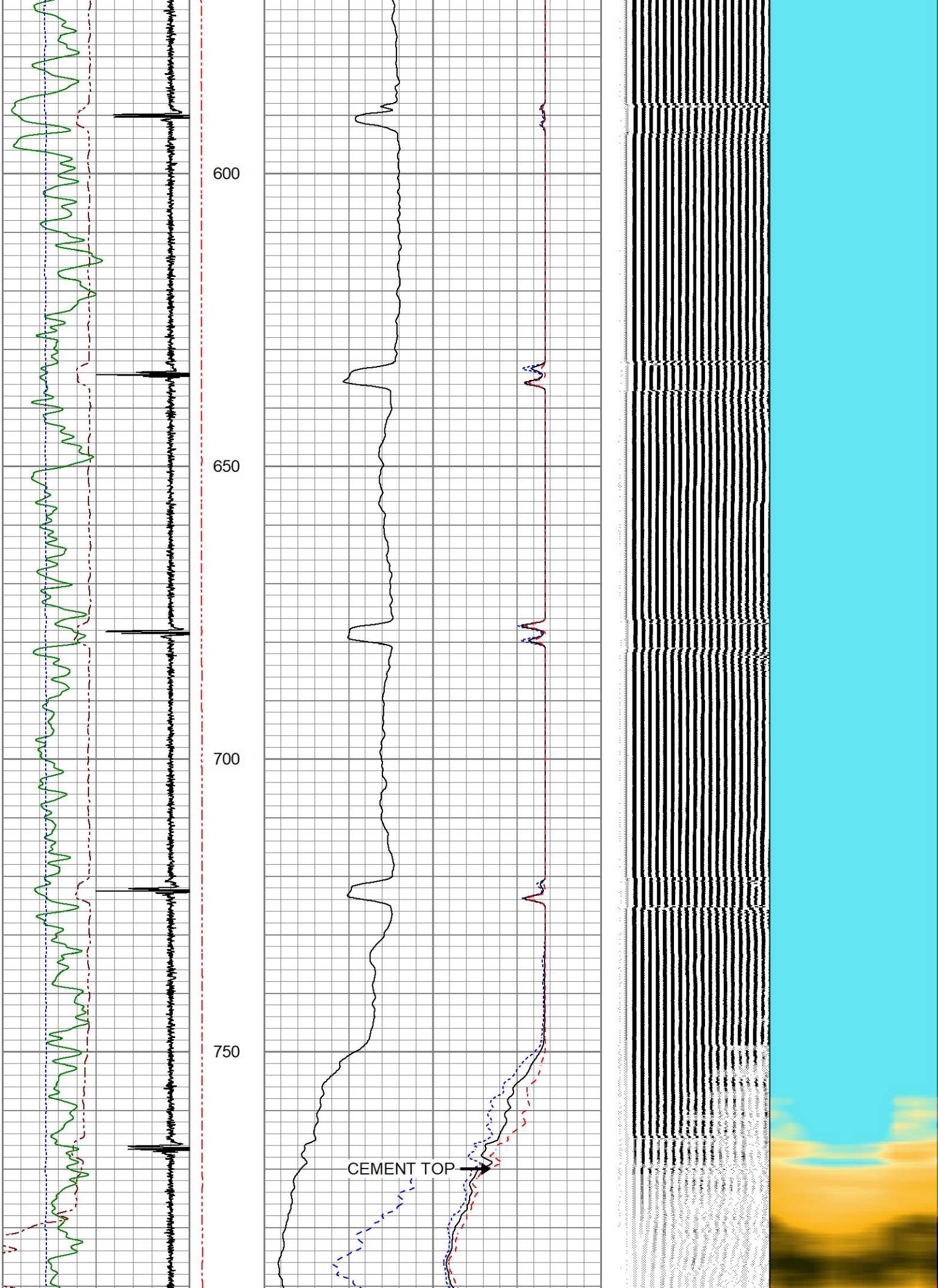


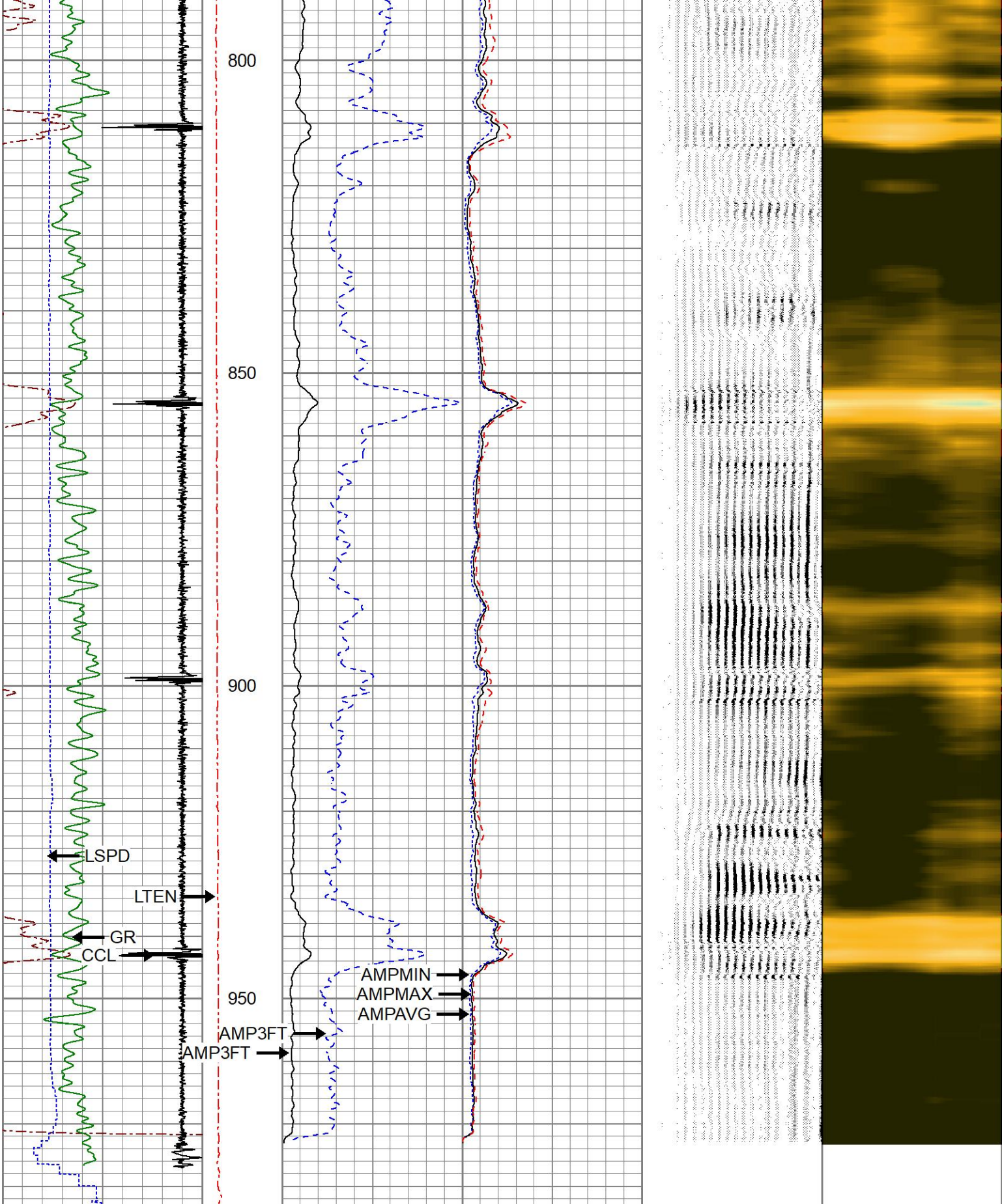
REPEAT PASS

0 PSI APPLIED AT SURFACE

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 Presentation Format res_scbl 8sec
 Dataset Creation Thu Mar 30 17:33:40 2023
 Charted by Depth in Feet scaled 1:240







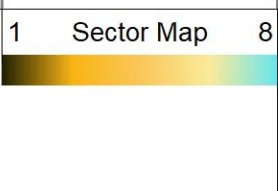
270	3FT TT (usec)	170
-9	CCL	1
0	GR (GAPI)	150
-150	LSPD (ft/min)	150

LTEN	(lb)	0	2000
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3' Amplitude	(mV)	0	100
3' Amplified Amplitude X 5	(mV)	0	20

Sector Min Amp	150
Sector Avg Amp	150
Sector Max Amp	150

200	VDL (usec)	1200
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REPEAT PASS

0 PSI APPLIED AT SURFACE

Calibration Report

Database File 535725_occidental_northglen_state_10-36_0512334471_20230330_scbl.db
 Dataset Pathname 535725_occidental_NORTHGLEN_STATE_10-36/run1/pass9
 Dataset Creation Thu Mar 30 17:34:41 2023

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: 4.500 in
 Calibration Depth: 3579.139 ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.024	0.900	1.000	81.196	86.774	3.088
CAL	0.002	1.015				
5'	0.000	0.824	1.000	81.196	97.384	1.000
SUM						
S1	0.000	2.499	0.000	100.000	40.020	-0.002
S2	0.000	2.499	0.000	100.000	40.020	-0.002
S3	0.000	2.499	0.000	100.000	40.020	-0.002
S4	0.000	2.499	0.000	100.000	40.020	-0.002
S5	0.000	2.499	0.000	100.000	40.020	-0.002
S6	0.000	2.499	0.000	100.000	40.020	-0.002
S7	0.000	2.499	0.000	100.000	40.020	-0.002
S8	0.000	2.499	0.000	100.000	40.020	-0.002

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.002	1.015	1.000	0.000

Air Zero Calibration, performed Wed Jul 20 11:36:42 2022:

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

	ZC10	ZC10	CHSCT
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



Company **OCCIDENTAL PETROLEUM CORP.**
 Well **NORTHGLENN STATE 10-36**
 Field **WATTENBERG**
 County **WELD**
 State **COLORADO**