

HALLIBURTON

CEMENT BOND LOG  
GR-CCL

Company	URSA OPERATING COMPANY						
Well	B&V 11B-18-07-95						
Field	WILDCAT						
County	Garfield	State	CO				
				Company	URSA OPERATING COMPANY		
				Well	B&V 11B-18-07-95		
				Field	WILDCAT		
				County	Garfield	State	CO
API No.:	05-045-228450000	Serv #:	903923398	Other Services			
Location:							
SHL: 1863' FSL & 502' FWL							
BHL: 397" FSL & 580' FWL							
		JB/GR					
Sec: 7	Twp: 7S	Rge: 95W					

Permanent Datum	Ground Level		Elevation		5084'		Elevation	
Log Measured From	KB		17 Ft. above perm. datum				K.B. 5101' D.F. 5102' G.L. 5084'	
Drilling Measured From	KB							
Date @ Time Logged	25-MARCH-2017		Type Fluid in Hole		FRESH WATER			
Run No.	ONE		Density of Fluid		8.4 PPG			
Depth - Driller	6868 FT		Fluid Level		FULL			
Depth - Logger	6638 FT		Cement Top Est. Logged		N/A			
Bottom - Logged Interval	6631 FT		Equipment / Location		11808537 /		RS	
Top - Log Interval	1800 FT		Recorded by		Pedro Gonzalez Baqueiro			
Max. Recorded Temp.	196 °F		Witnessed by		Luke Grieger			
CEMENTING DATA	Surface		Protection		Production		Liner	
Date / Time Cemented	String		String		String			
Primary / Squeeze								
Expected Compressive Strength	psi@ hrs		psi@ hrs		psi@ hrs		psi@ hrs	
Cement Volume								
Cement Type / Weight	/		/		/		/	
Formulation								
Mud Type / Mud Wgt.	/		/		/		/	
Borehole Record			Casing & Tubing Record					
Run Number	Bit	From	To	Size	Weight	From	To	
ONE	24"	SURFACE	60'	16"	75	SURFACE	60'	
TWO	12.25"	SURFACE	1700'	8.625"	32	SURFACE	1700'	
THREE	7.875"	SURFACE	6865'	4.5"	11.6	SURFACE	6865'	

<<< Fold Here >>>

HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.

Comments

HES Cement Bond log First Run in to the Hole  
Log Correlated By KB 17'  
Log Interval Per Customer Request  
Log Ran in combo with RMTi tool

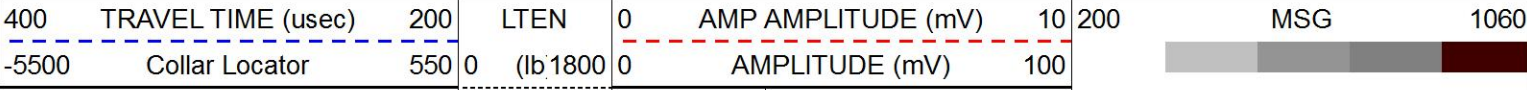
\*\*THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES ROCK SPRING WY\*\*

MAIN PASS

HALLIBURTON

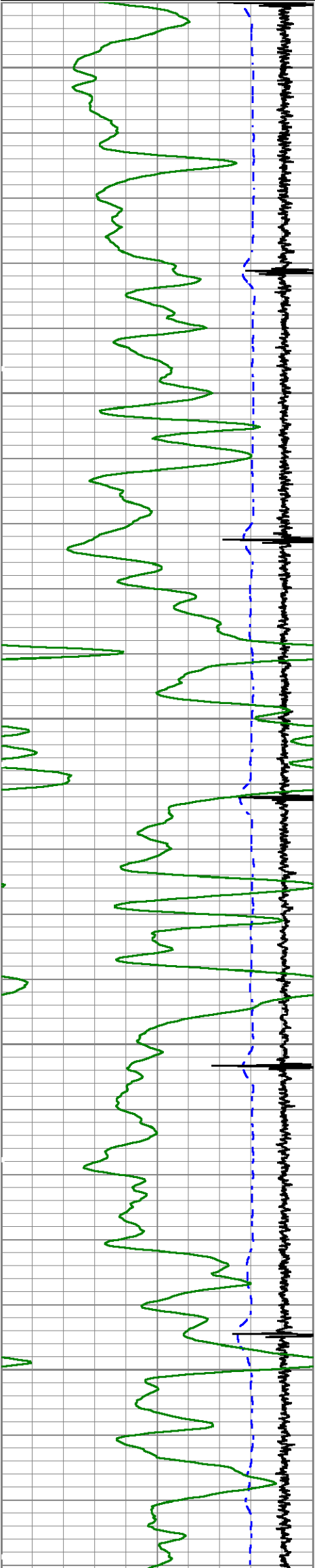
5"=100'

Database File c:\users\h182119\desktop\ursa b&v logs\first 12\b&v 11b-18-07-95\b&v 11b-18-07-95.db  
Dataset Pathname WC/B&V\_11B-07-95/run1/MAIN  
Presentation Format Unknown  
Dataset Creation Sat Mar 25 22:53:16 2017  
Charted by Depth in Feet scaled 1:240



0 Gamma Ray (GAPI) 150

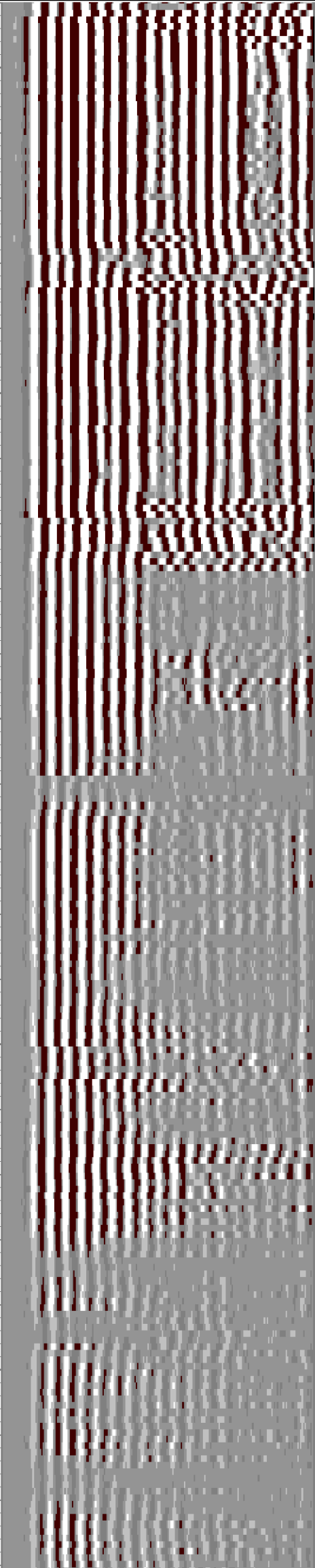
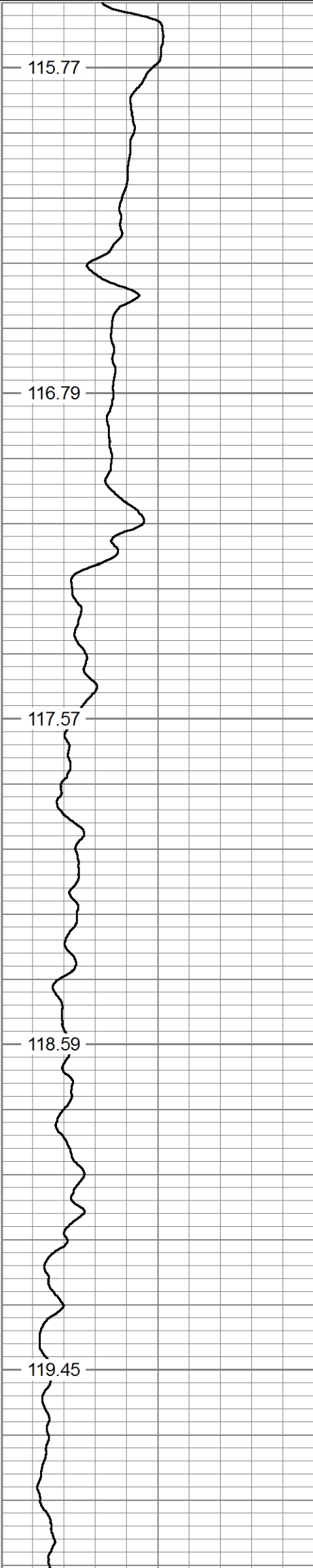
Cbll Temp  
(degF)

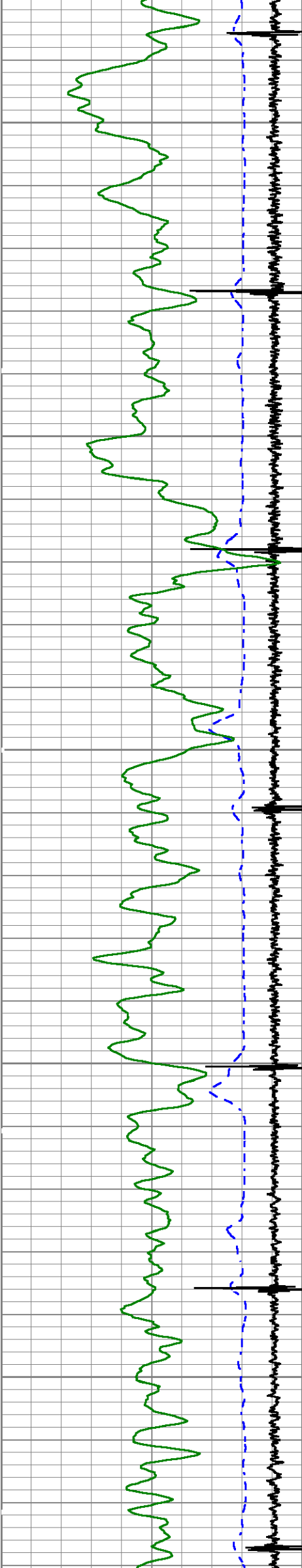


1800

1900

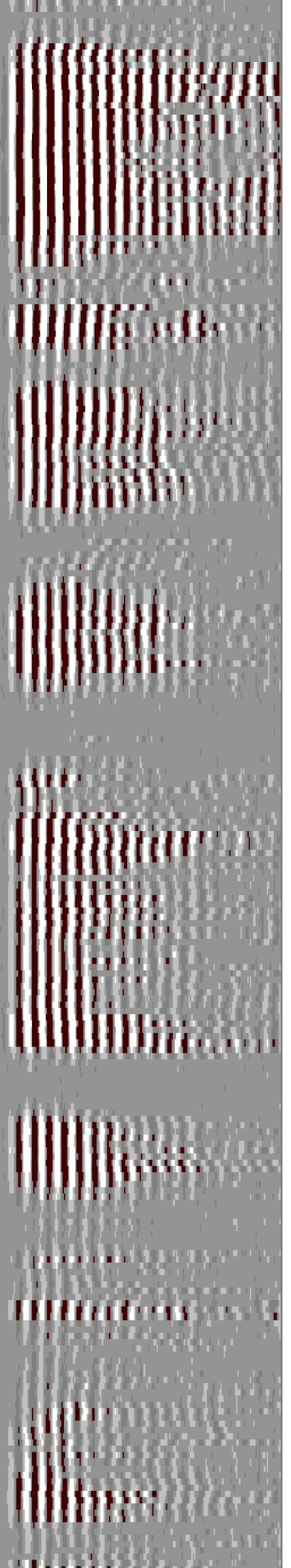
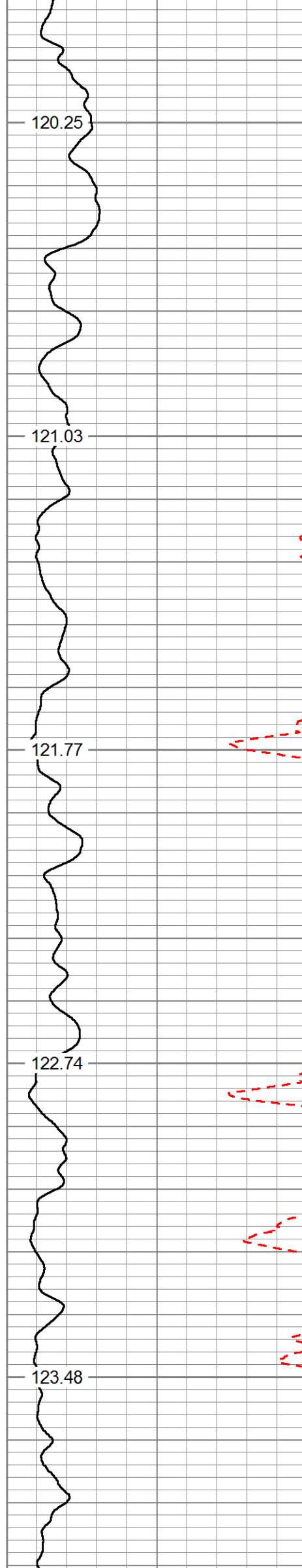
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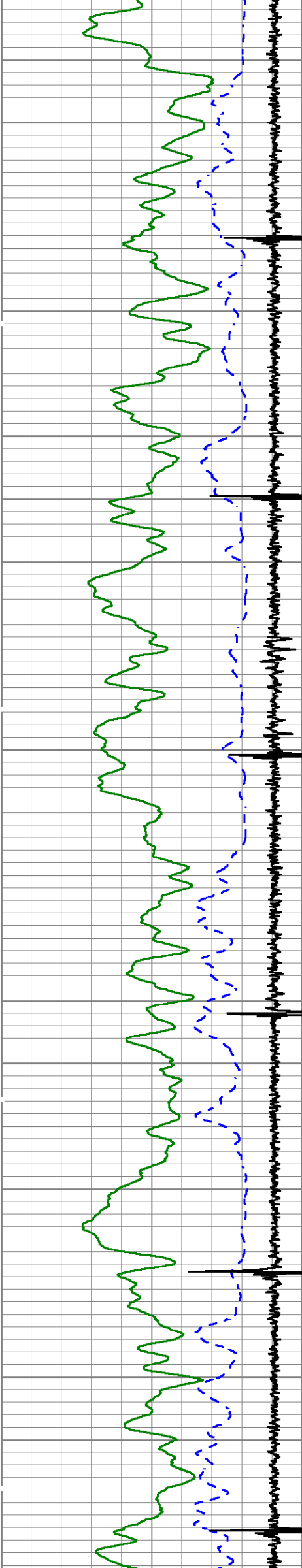




2100

2200

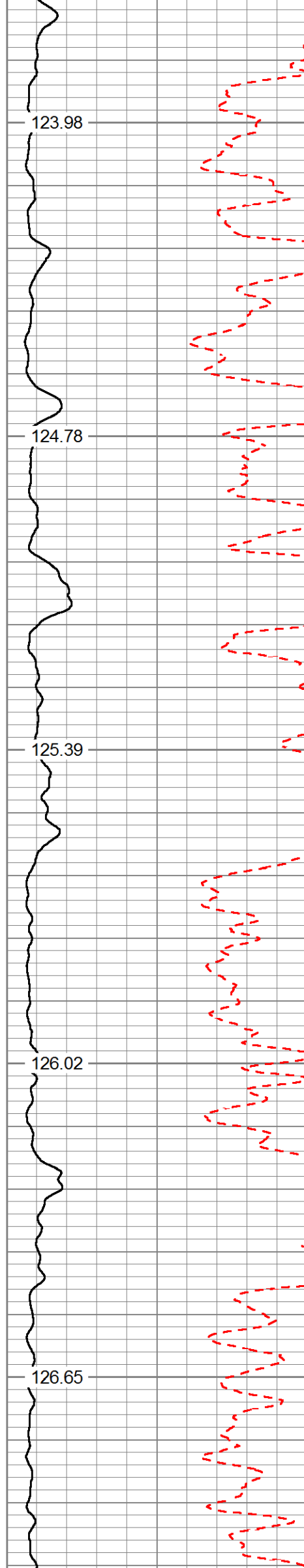




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2400

2500



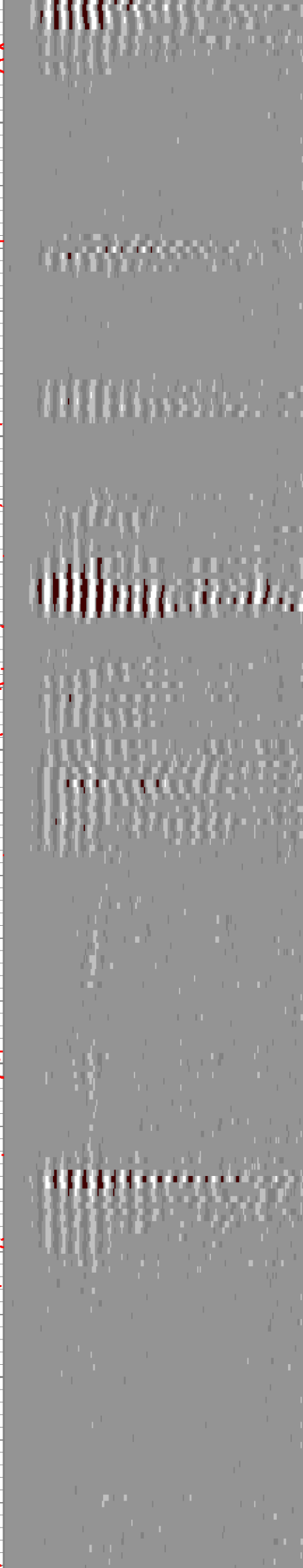
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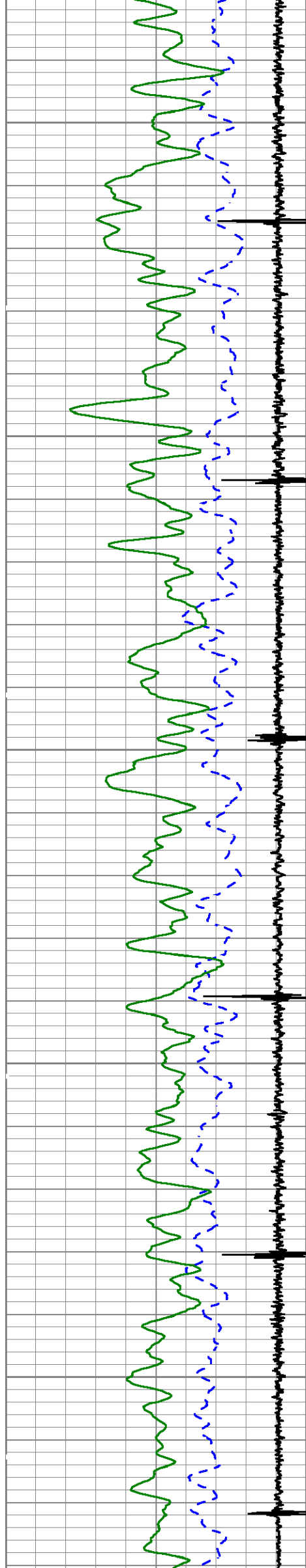
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126.02

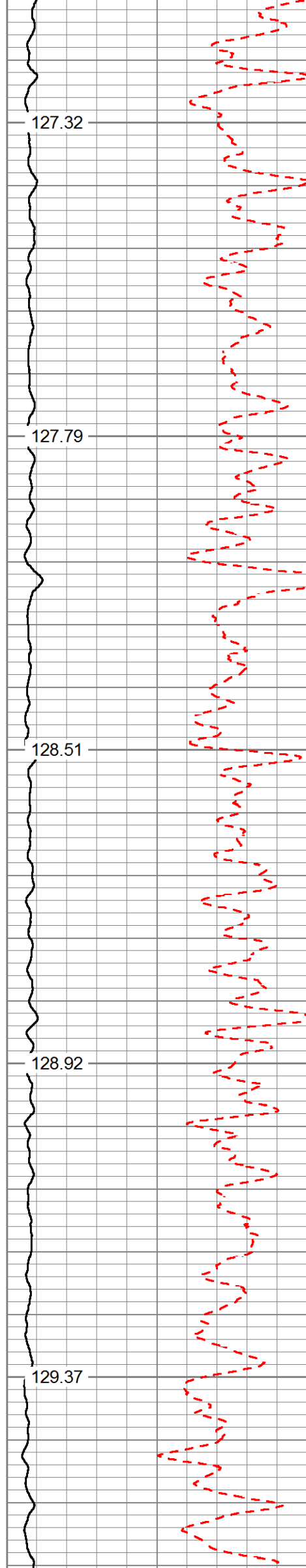
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2600

2700



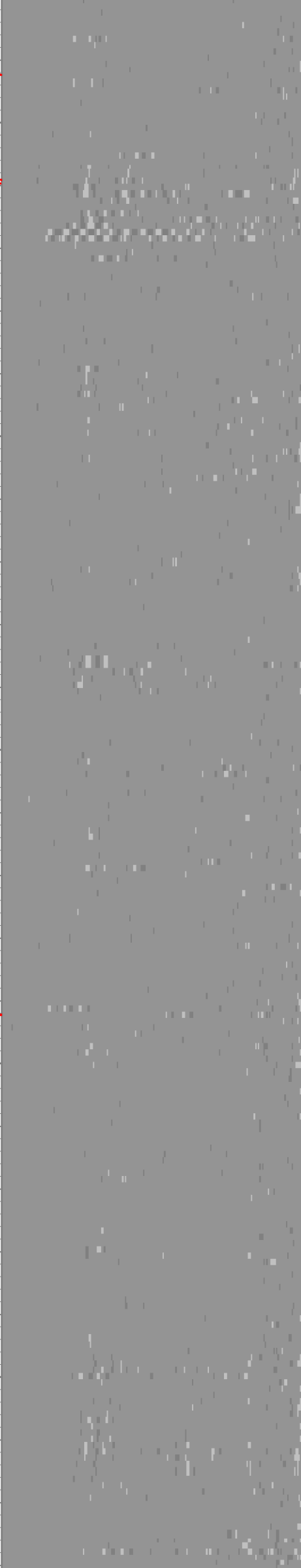
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127.79

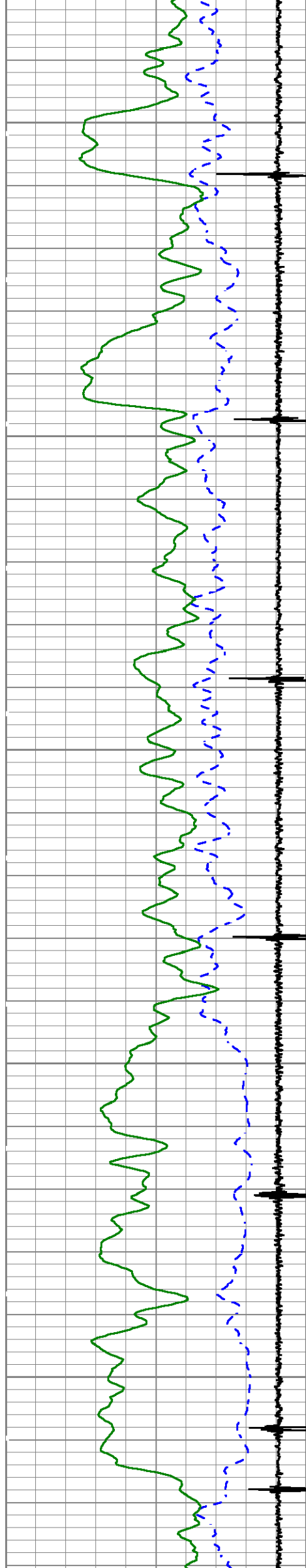
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128.92

129.37



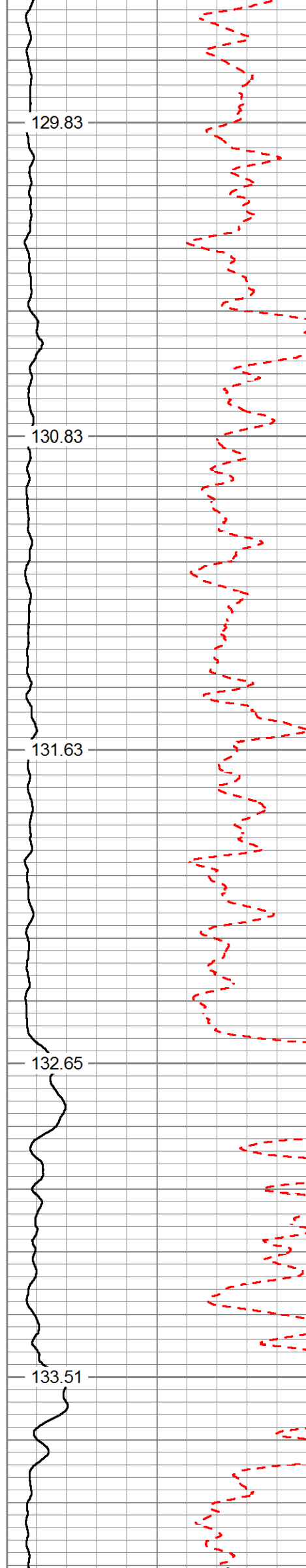




2800

2900

3000



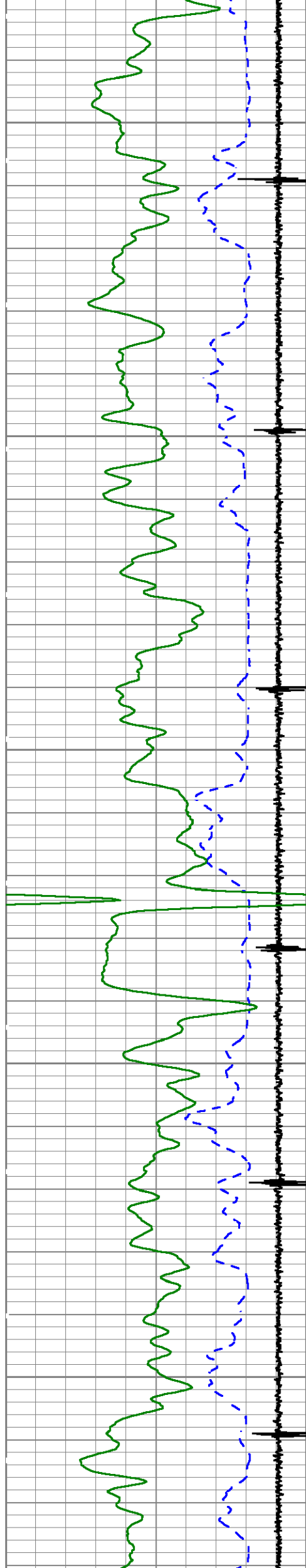
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130.83

131.63

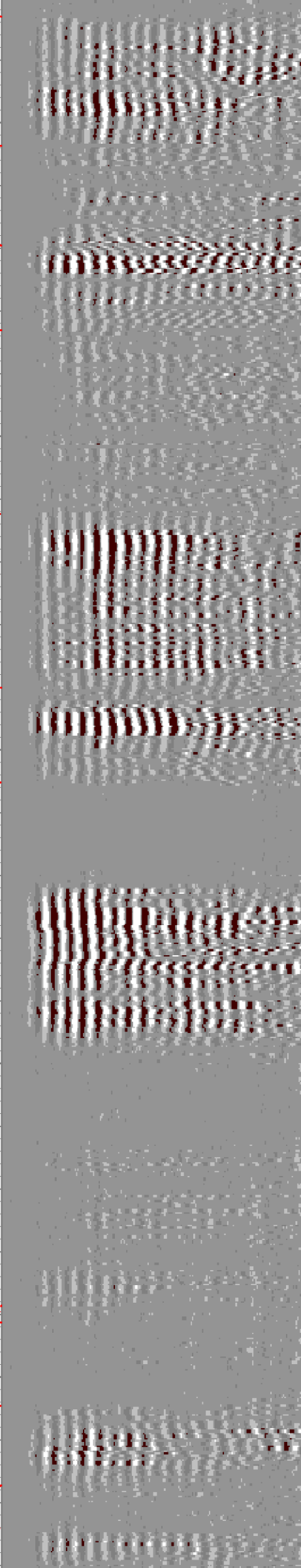
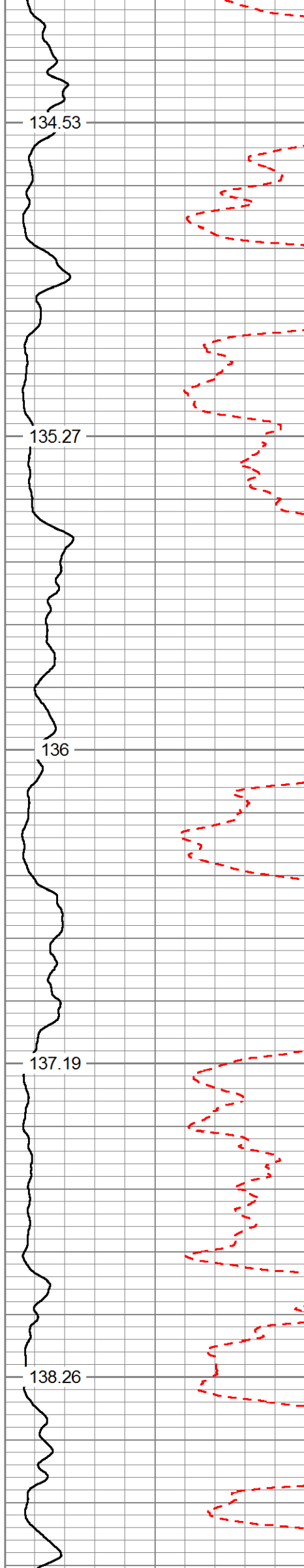
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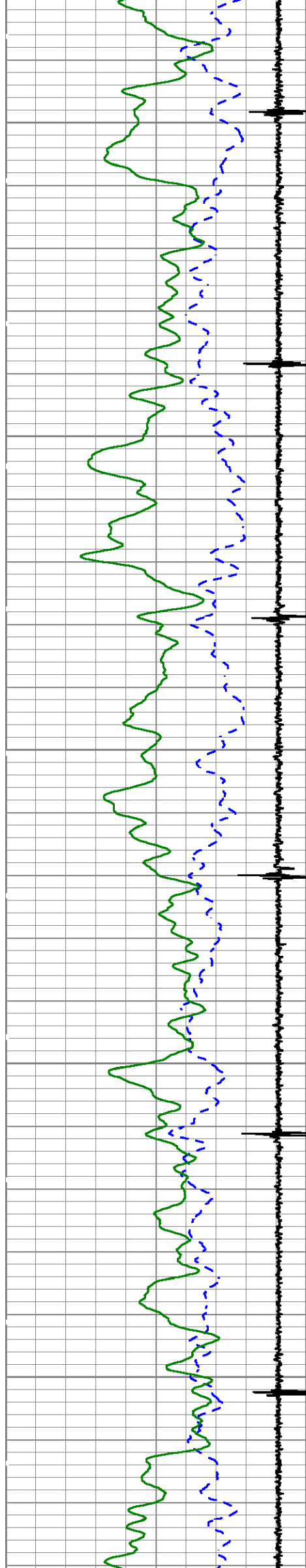
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3100

3200

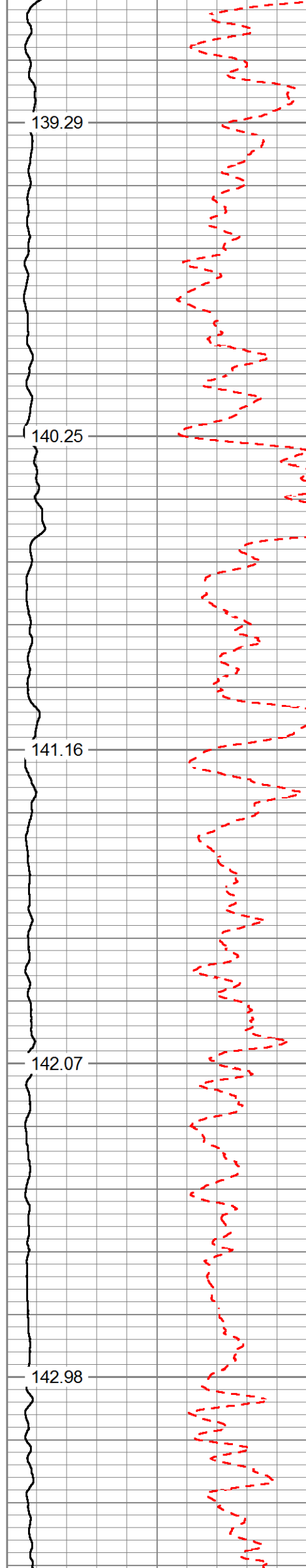




3300

3400

3500



139.29

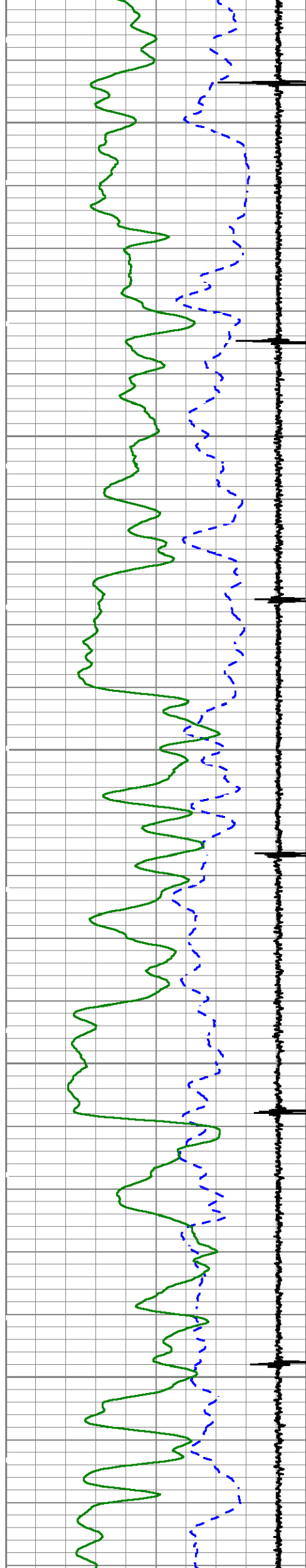
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141.16

142.07

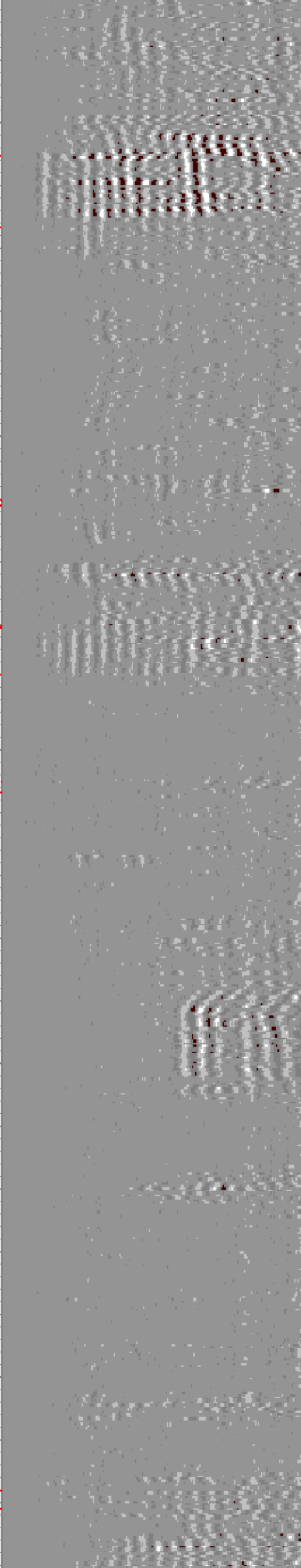
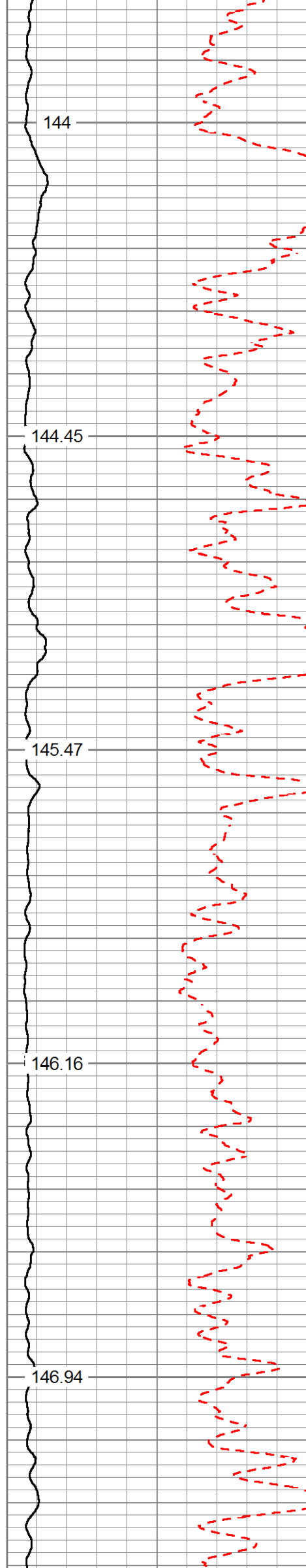
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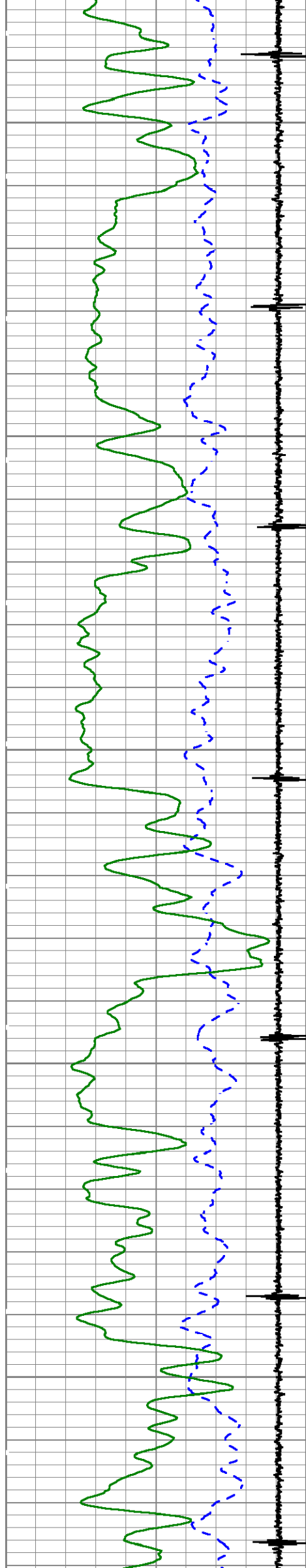




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3700

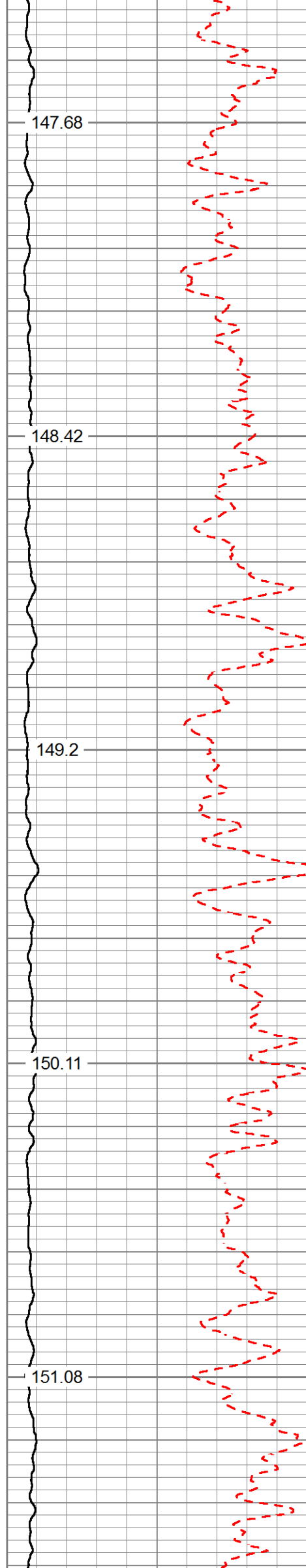




3800

3900

4000



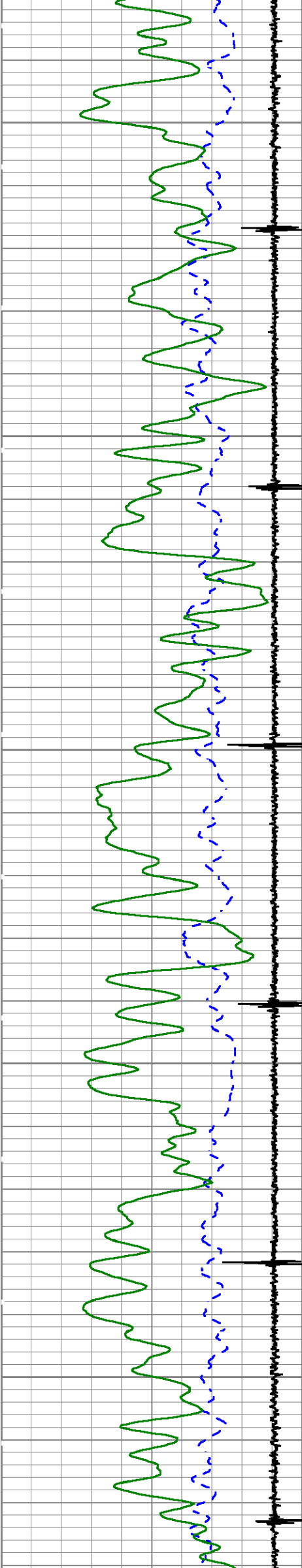
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148.42

149.2

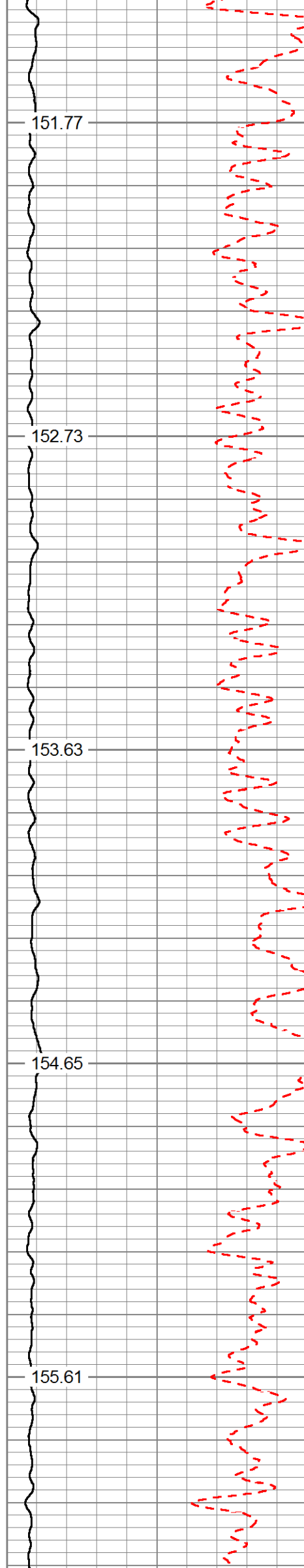
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151.08



4100

4200



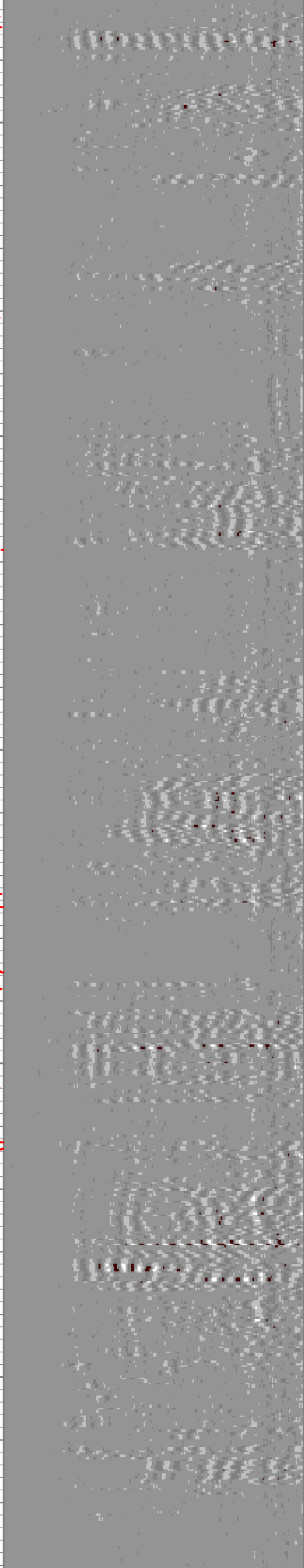
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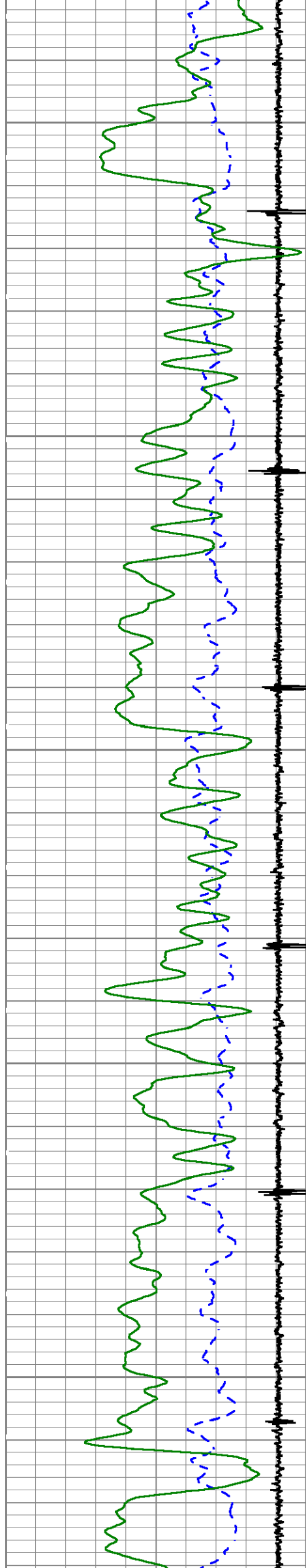
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153.63

154.65

155.61

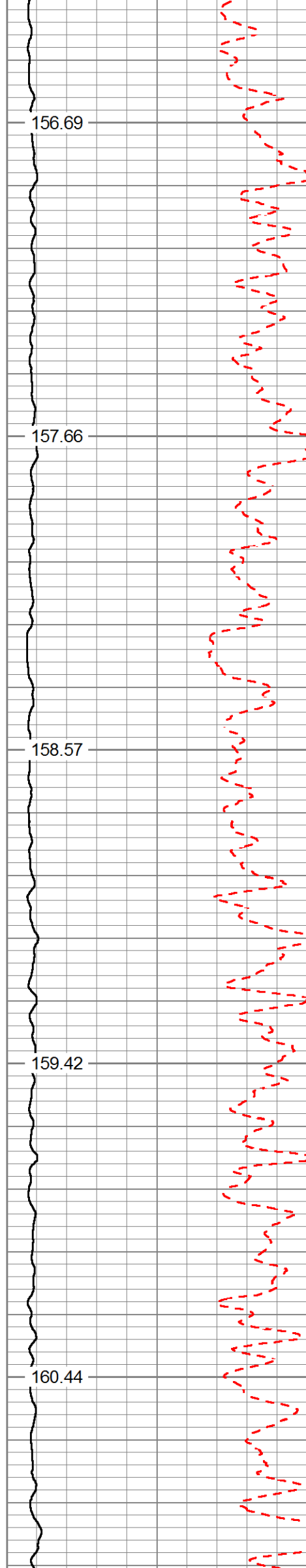




4300

4400

4500



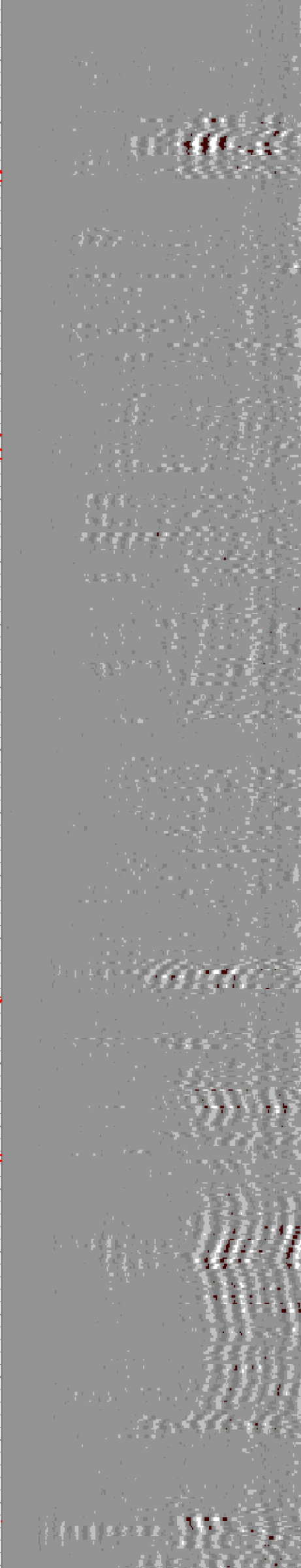
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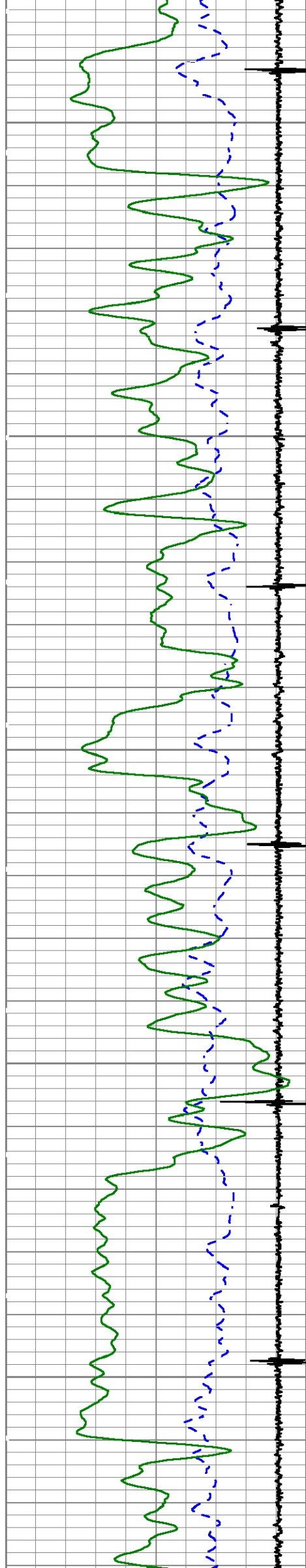
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159.42

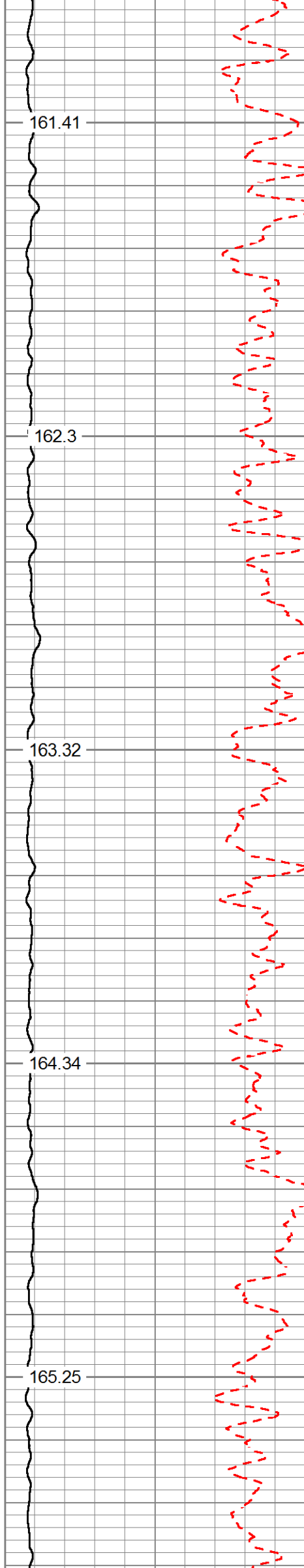
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4700



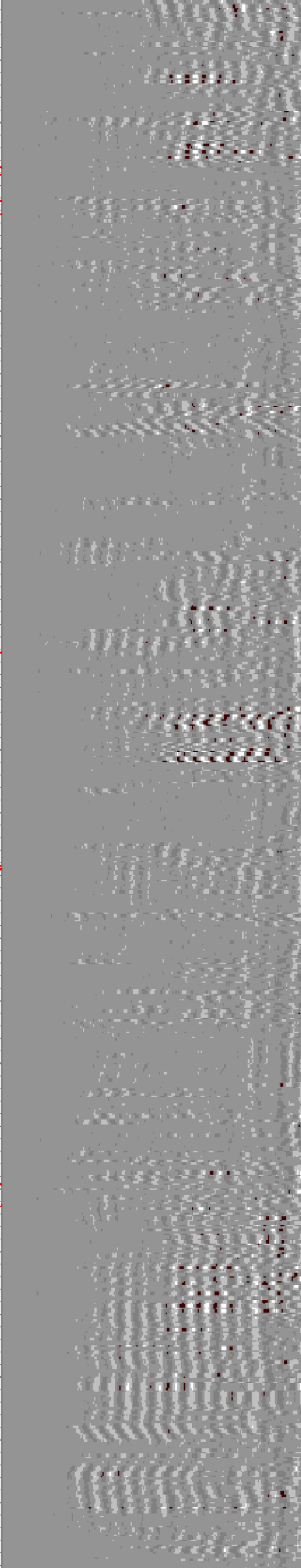
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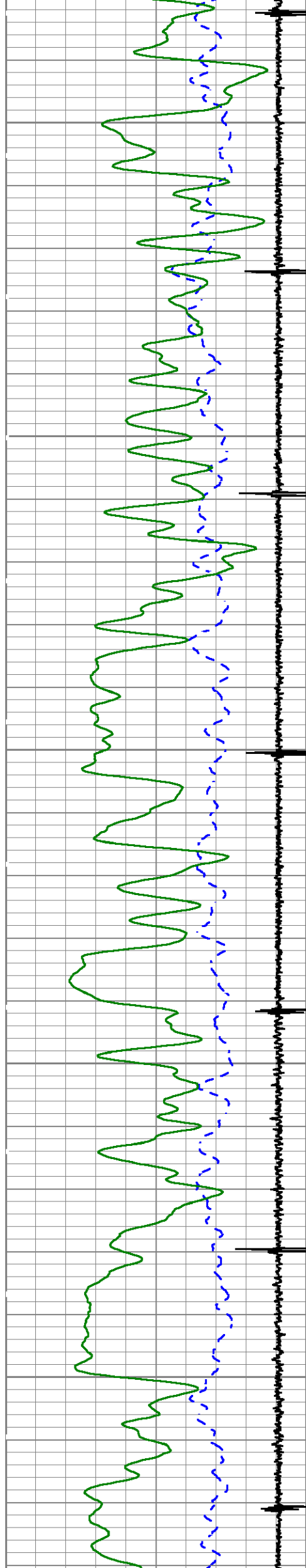
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164.34

165.25

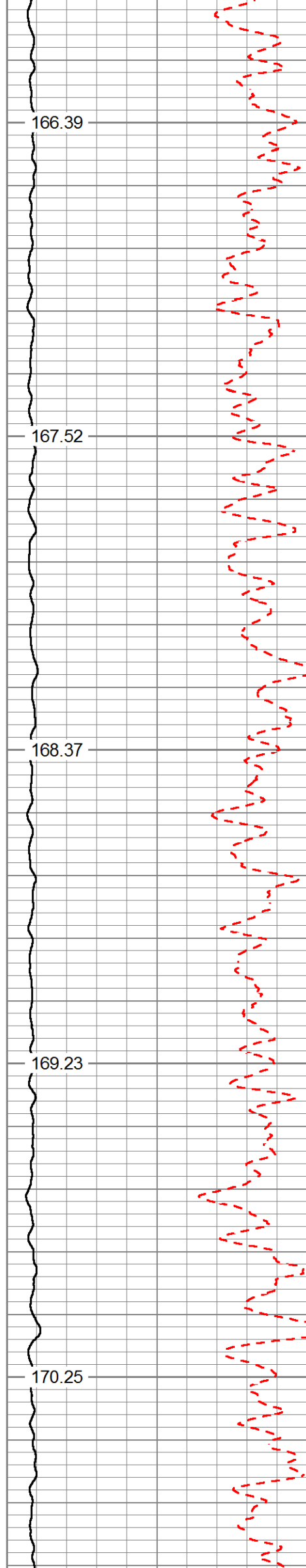




4800

4900

5000



166.39

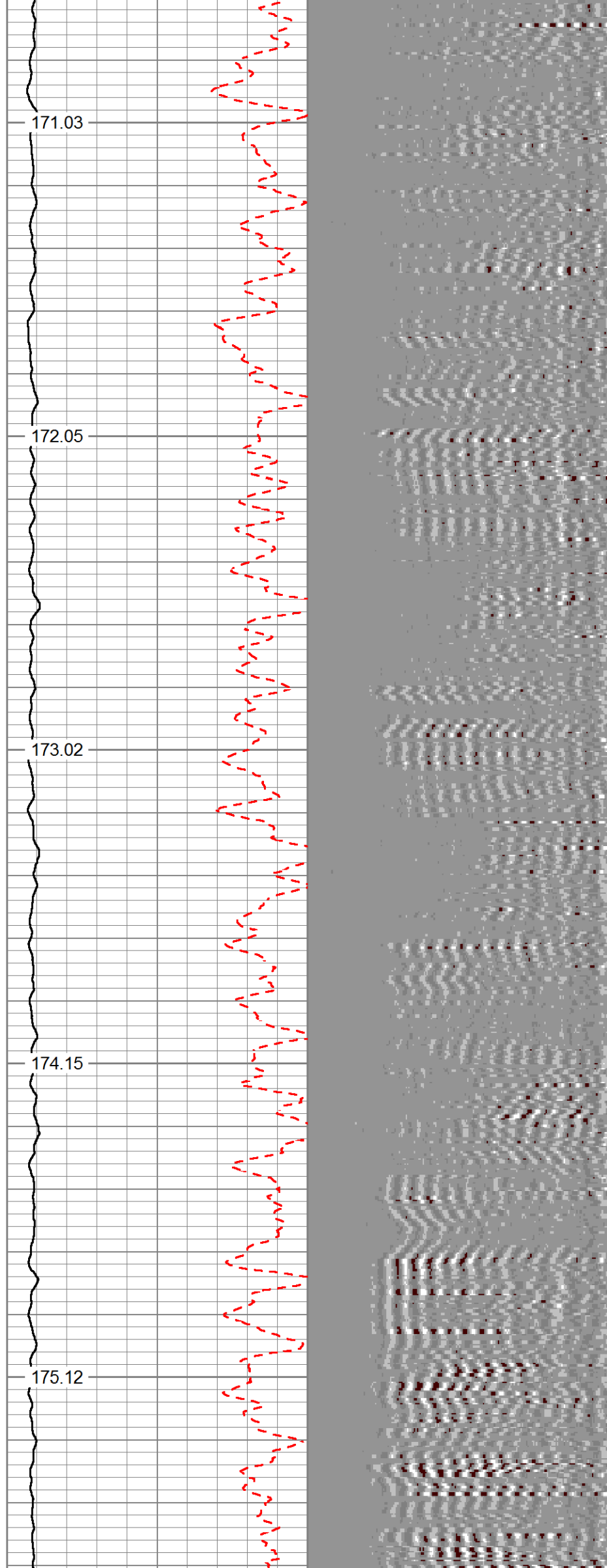
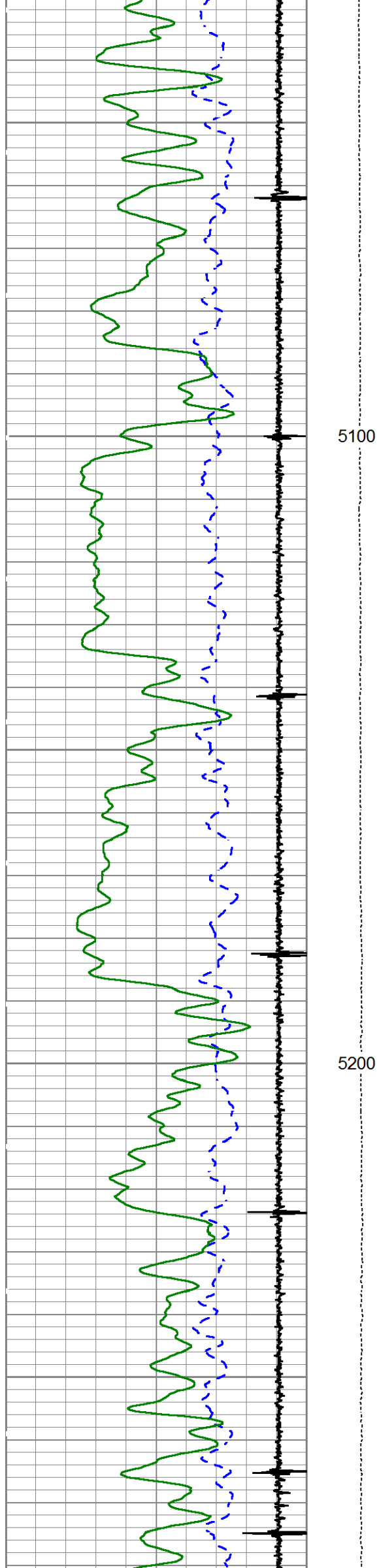
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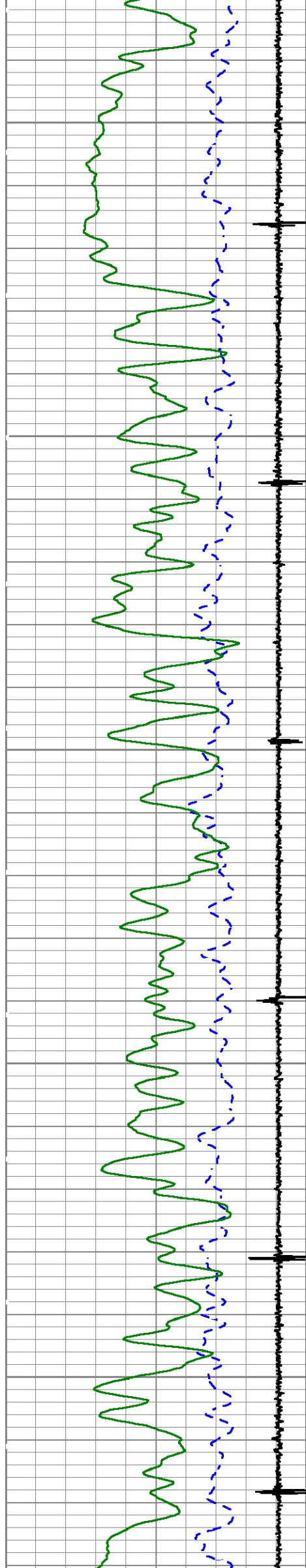
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170.25



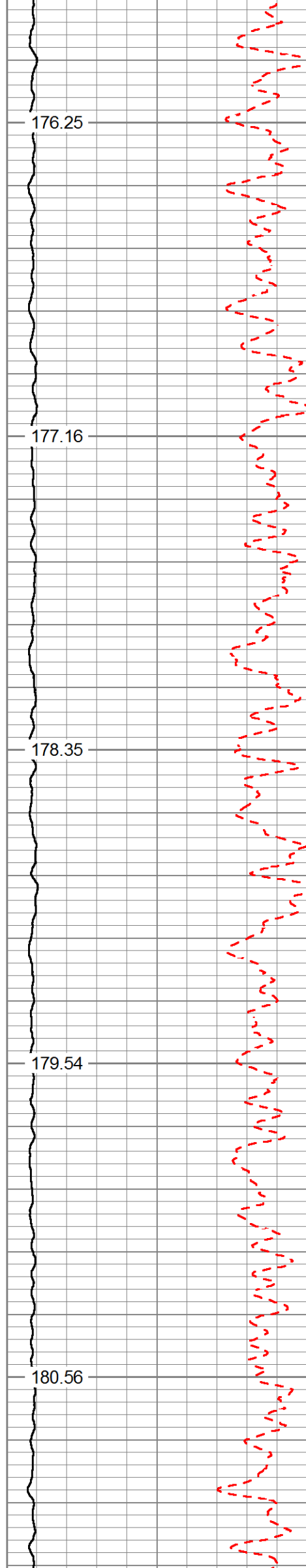




5300

5400

5500



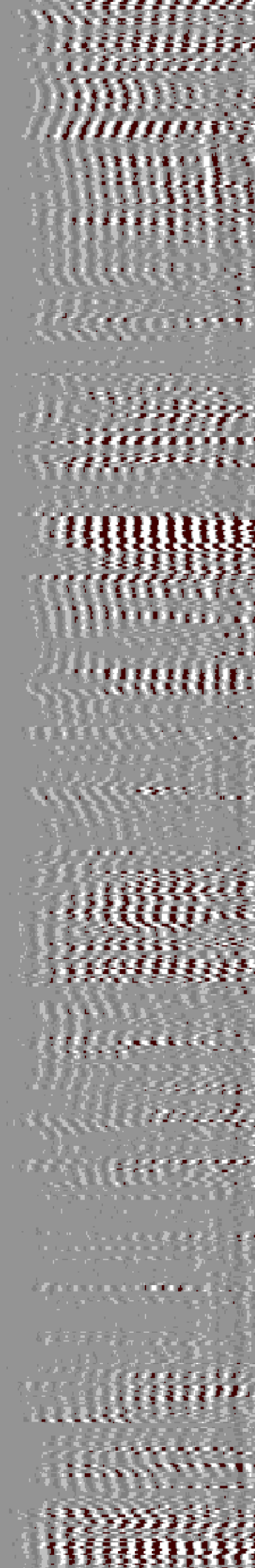
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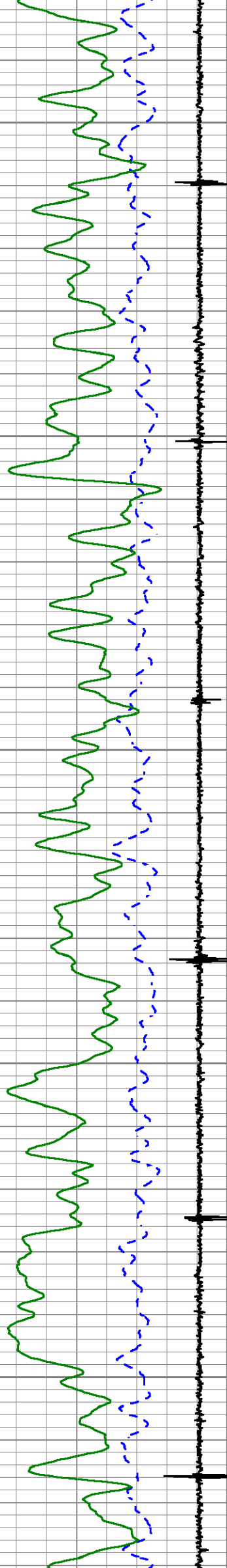
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179.54

180.56





5600

5700

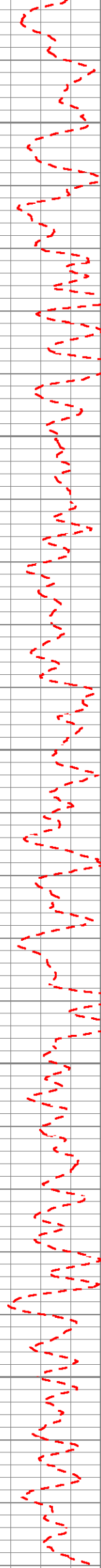
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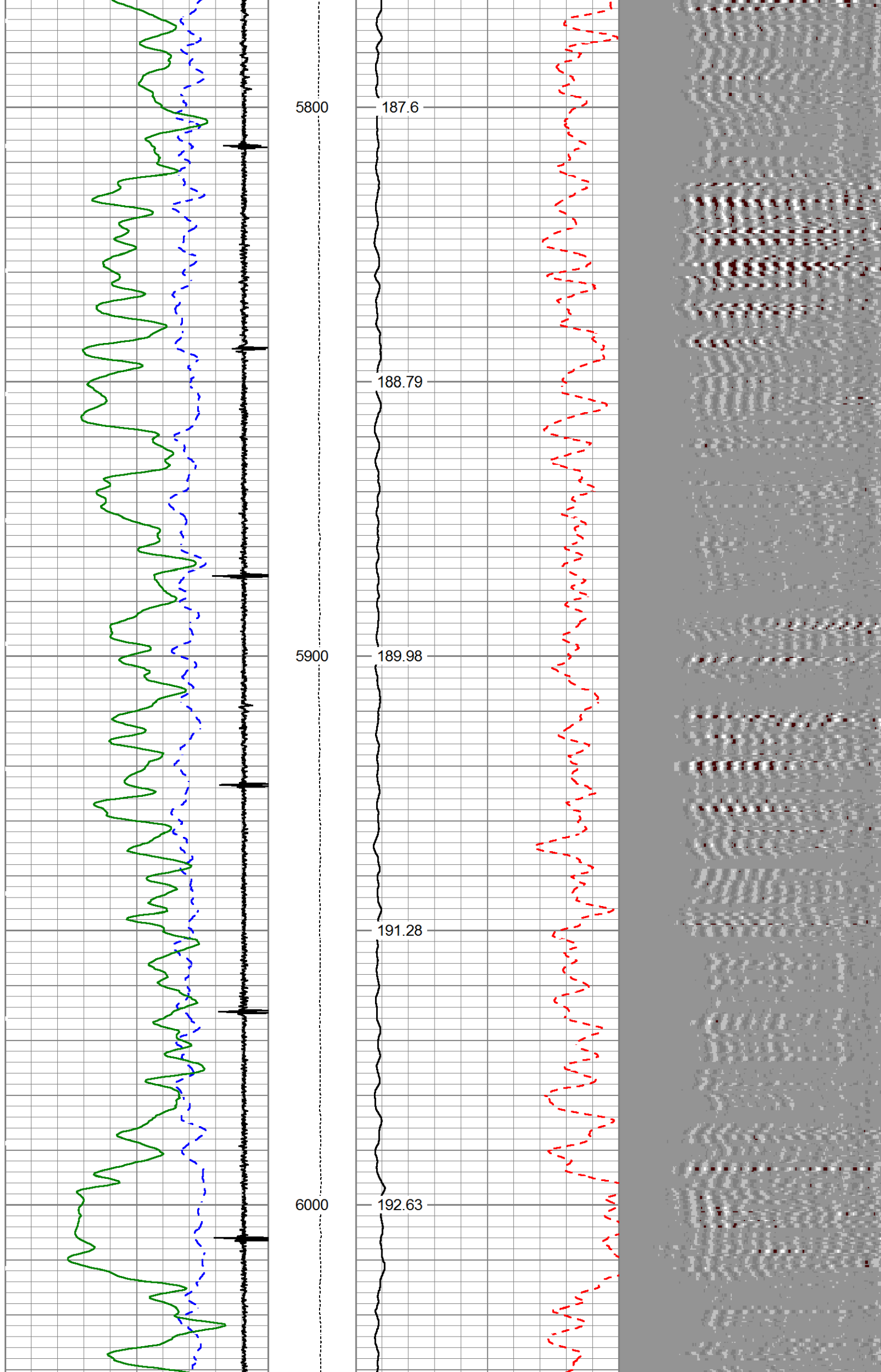
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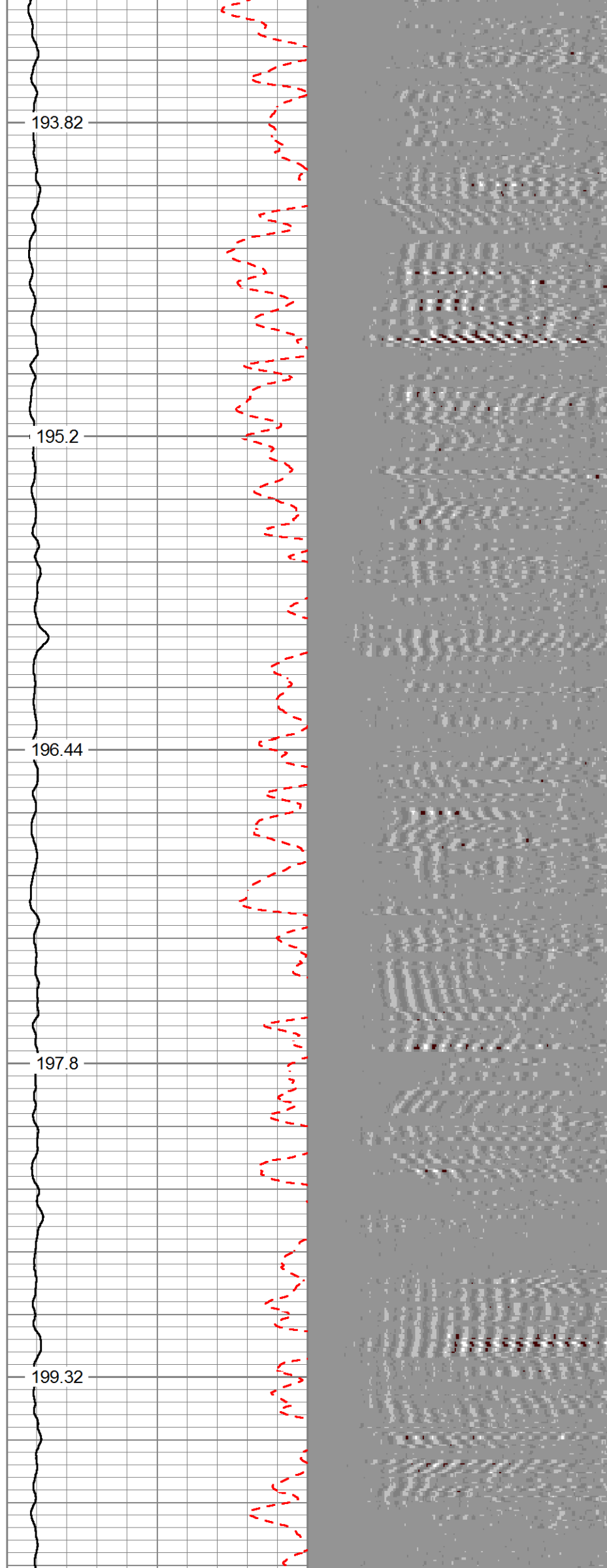
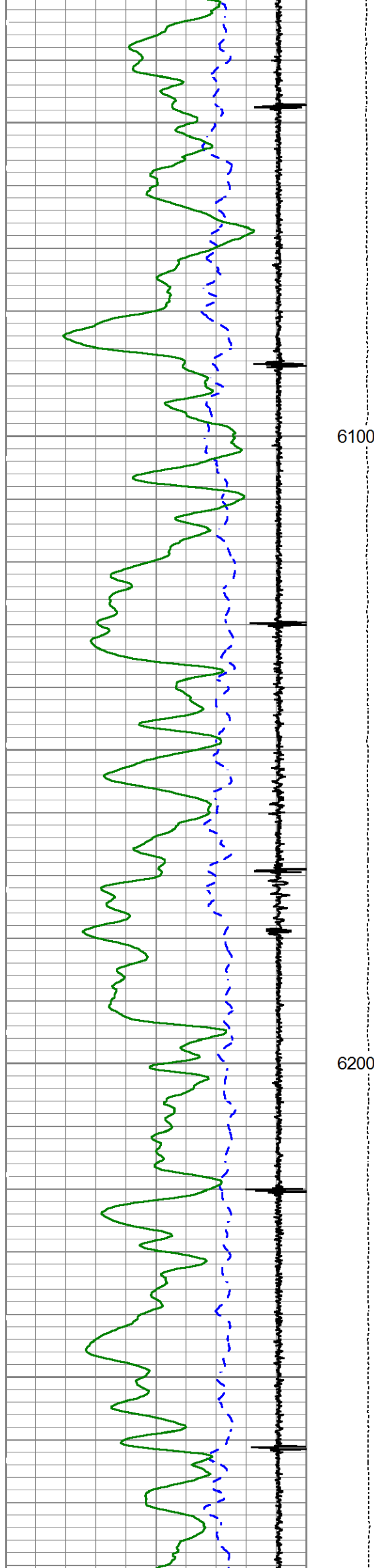
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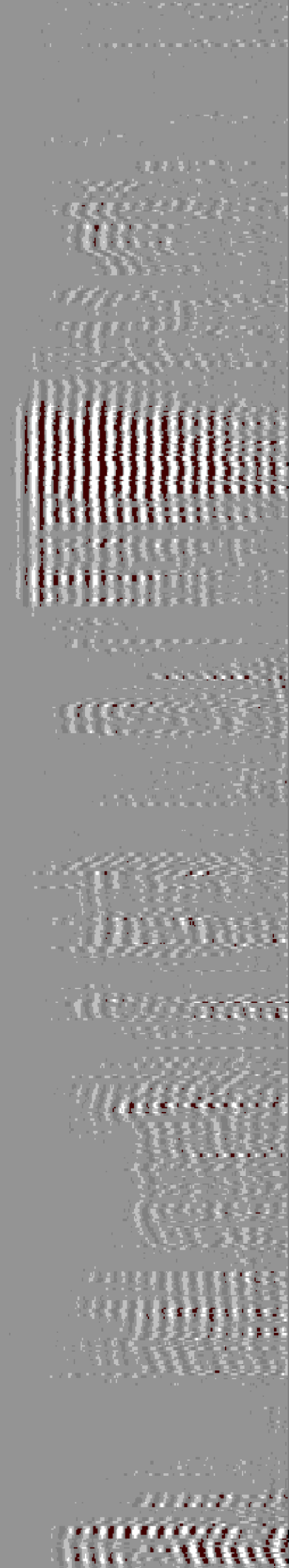
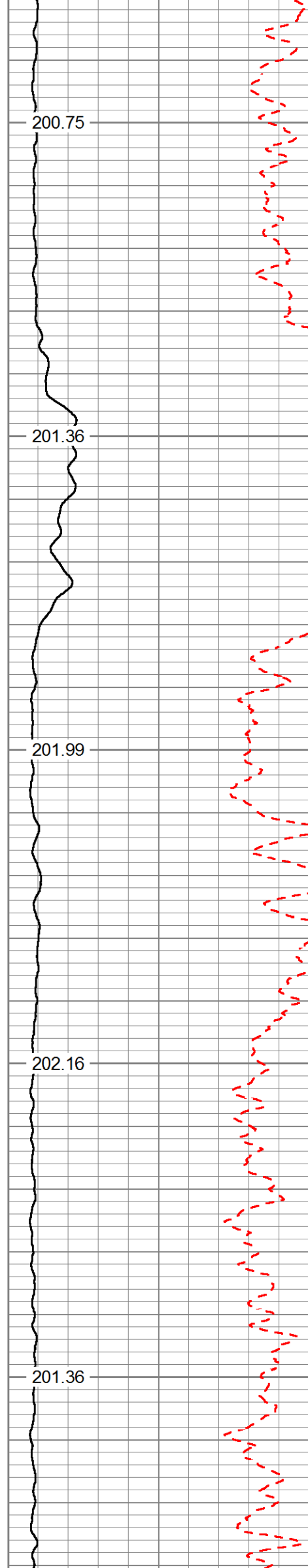
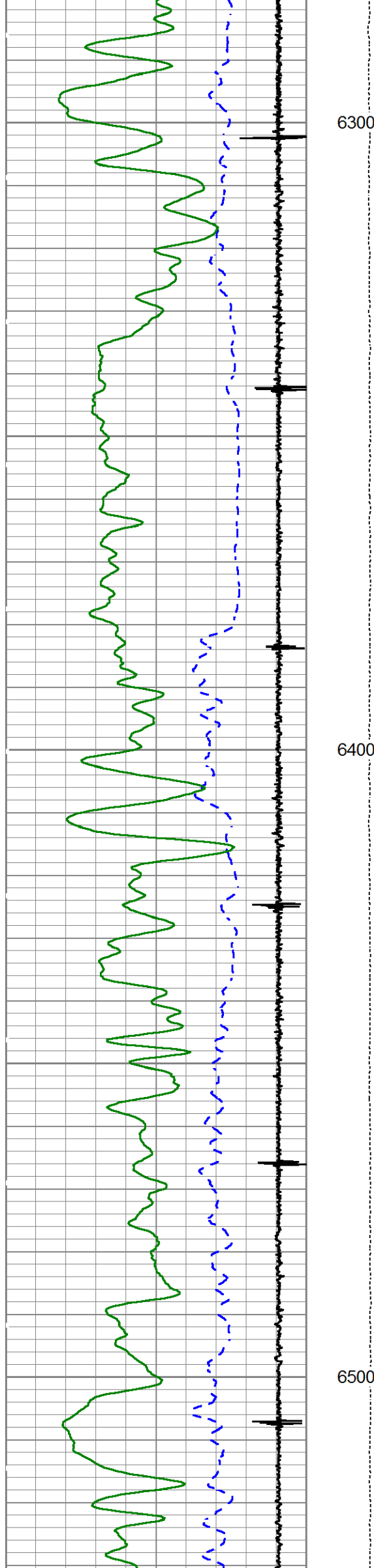
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186.45

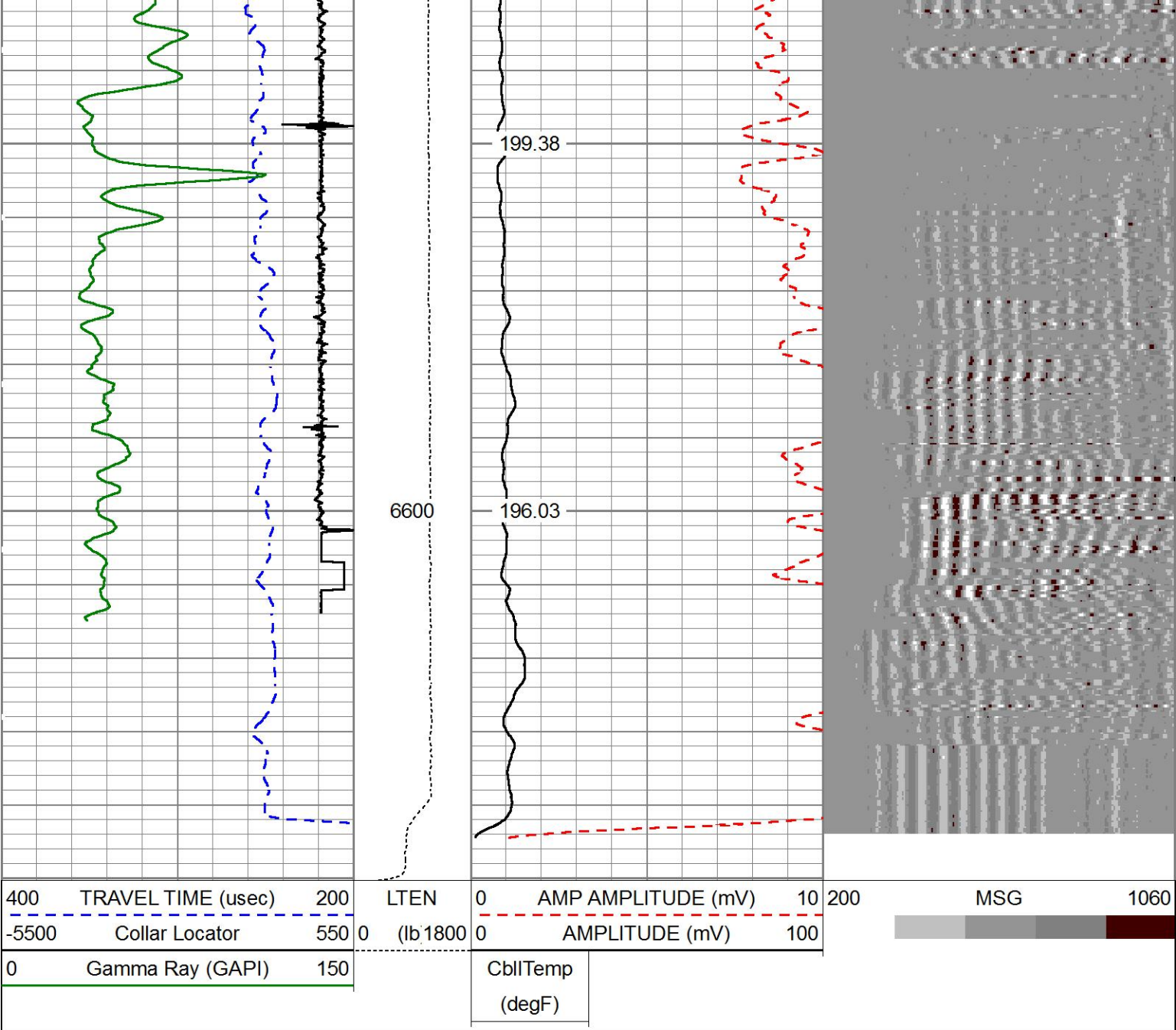












MAIN PASS

5"=100'

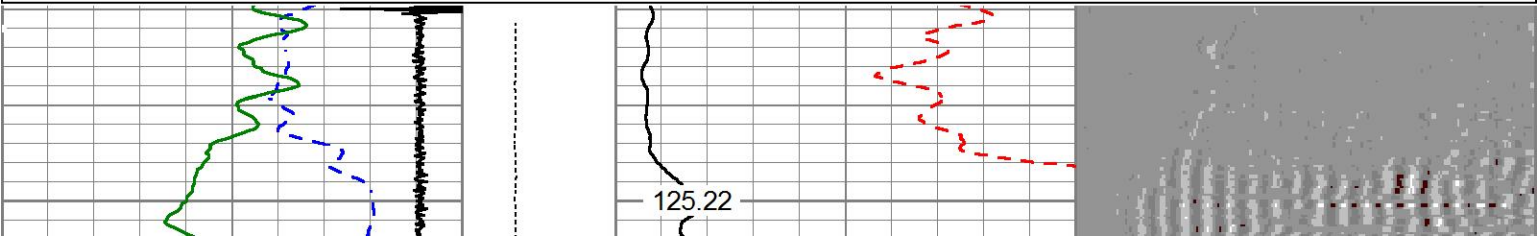
HALLIBURTON

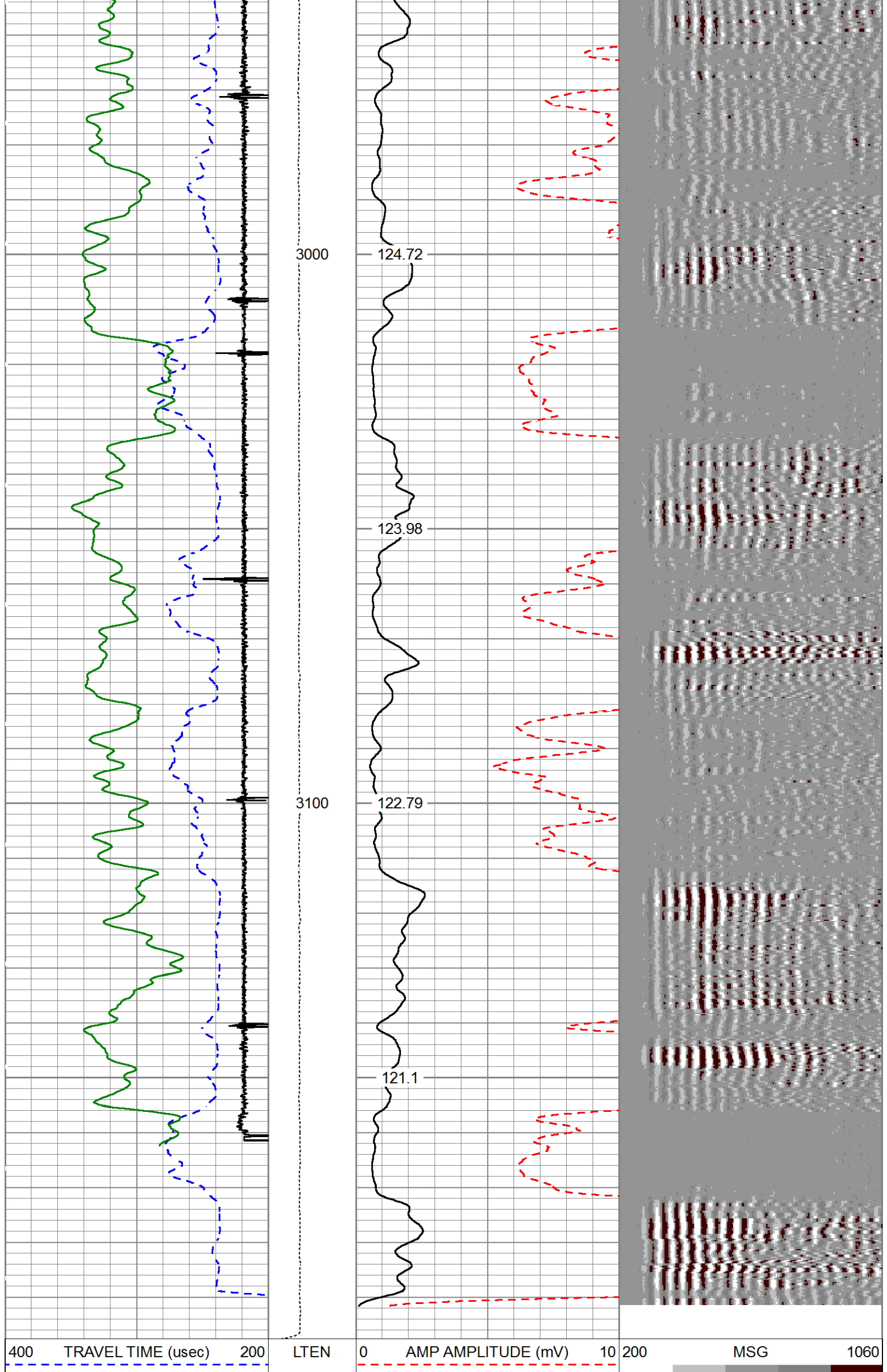
REPEAT PASS

5"=100'

HALLIBURTON

Database File	c:\users\h182119\desktop\ursa b&v logs\first 12\b&v 11b-18-07-95\b&v 11b-18-07-95.db				
Dataset Pathname	WC/B&V_11B-07-95/run1/REPEAT				
Presentation Format	Unknown				
Dataset Creation	Sat Mar 25 22:17:00 2017				
Charted by	Depth in Feet scaled 1:240				
400 TRAVEL TIME (usec) 200	LTEN	0 AMP AMPLITUDE (mV) 10	200	MSG	1060
-5500 Collar Locator 550	0 (lb 1800)	0 AMPLITUDE (mV) 100			
0 Gamma Ray (GAPI) 150		CblITemp (degF)			





5500	Collar Locator	550	0	(lb 1800	0	AMPLITUDE (mV)	100
0	Gamma Ray (GAPI)	150		CblTemp			
				(degF)			
REPEAT PASS							
5"=100'							
HALLIBURTON							

Calibration Report		
Database File	C:\Users\H182119\Desktop\URSA B&V LOGS\FIRST 12\B&V 11B-18-07-95\b&v 11b-18-07-95.db	
Dataset Pathname	WC/B&V_11B-07-95/run1/MAIN	
Dataset Creation	Sat Mar 25 22:53:16 2017	
Cement Bond Log Shop Calibration Report		
Serial-Model:	12091454-A	
Calibration Performed:	Sat Mar 25 21:54:57 2017	
Free Pipe Calibration		
TT	Measured	Units
Amplitude	245.3	usec
Log Base Line	623.9	mV
	1.2	mV
Calibration References and Gain		
Name	Value	Units
Pipe O.D.	4.500	in
Pipe Weight	11.6	lb/ft
Pipe Ref. Amp.	81.2	mV
Amp. Gain	0.129	
Reservoir Monitor Tool I Calibration Report		
Serial-Model:	11917905-A	
Shop Calibration Performed:	Sat Aug 27 14:12:23 2016	

Carbon/Oxygen Mode					
Stabilization					
Result	Logged	Expected Value	Diff.	Tol.	Units
GENV	87.00	80.00	7.00	+/-15.00	V
ITCR2	3097	3250	-153	+/-250	cps
Near Detector					
	Channel	Expected Value	Amplitude	FWHM	Tol.
H	60	60 +/-2	0.0293	5.38	<6.00
Fe	206	206 +/-2	0.1005	-----	-----
NGAIN = 0.996	NZOFF = 0.5				
Far Detector					
	Channel	Expected Value	Amplitude	FWHM	Tol.
H	60	60 +/-2	0.0381	5.90	<6.50
Fe	209	208 +/-2	0.0928	-----	-----
FGAIN = 0.990	FZOFF = 0.9				
Flask Temperature	64.9 degF				
Result	Logged	Expected Value	Diff.	Tol.	Units

COIR2	0.44	0.45	-0.01	+/-0.02	
LIRI2	1.38	1.36	0.02	+/-0.05	
TCCR2	3970	4000	-30	+/-1000	cps
ITCR2	3128	3200	-72	+/-250	cps
Sigma Mode					
Stabilization					
Result	Logged	Expected Value	Diff.	Tol.	Units
GENV	86.00	80.00	6.00	+/-15.00	V
FCAP	10019	10000	19	+/-500	cps
Horizontal Water Tank					
Result	Logged	Expected Value	Diff.	Tol.	Units
N/F Normalizer	0.98	0.95	0.03		
N/F Inel Norm	0.64	0.61	0.03		
RNF	1.02	1.07	-0.05	+/-0.12	
RINC	1.57	1.64	-0.07	+/-0.18	
SGFN	24.14	24.00	0.13	+/-0.50	cu
SGFF	22.92	22.85	0.07	+/-0.50	cu
FSIN	24190	24000	190	+/-2000	cps
FCAP	10200	10000	200	+/-1000	cps
NFTR	0.83			<5.00	
FFTR	0.94			<5.00	
NBKG	219			<500	cps
FBKG	103			<500	cps
RTN	0.40	0.40	-0.00	+/-0.10	usec
RTF	0.43	0.40	0.03	+/-0.10	usec
Calibration Software Modules					
HRMTI Module	2015.5.4.0				
RMTI Module	2015.10.16.1				
Log Data Acquisition Software Modules					
HRMTI Module	2015.5.4.0				
RMTI Module	2015.10.16.1				
Gamma Ray Calibration Report					
Type / Serial:		002 / 11224502			
SHOP CALIBRATION		Mon Feb 27 11:33:38 2017			
	Counts/Sec.	Gain	Offset	Jig	Units
Background	29.0				cps
Calibrator	296.5				cps
		1.3758			GAPI/cps
PRIMARY VERIFICATION					
Background	39.1				cps
Calibrator	412.9				cps
Difference				373.7	GAPI
BEFORE SURVEY VERIFICATION					
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI
AFTER SURVEY VERIFICATION					
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
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Code	Depth (ft)	Diagram	Description	Length (ft)	O.D. (in)	Weight (lb)
			STNDCH-STND_CH 1.4375 IN CABLE HEAD	1.50	1.44	1.00
CCL	35.86					
GR	33.60		TTTCU-002 (11224502) Through Tubing Telemetry Cartridge - Ultrawire	7.65	1.69	37.00
			XHU-003 (11899561) Crossover Halliburton 1553 to Ultrawire	1.58	1.69	7.00
RmtTFGT RmtTNGT	22.95 22.45		RMTI-A (11917905) Halliburton RMTI Tool	14.00	2.13	77.00
RmtFP5V RmtNFwvMcsP RmtCommFWa	14.70 14.70 14.70		X-OVER-SondexxGo Sondex Box x Go Pin Cross Over	0.31	1.69	1.00
			CENT-CASTM-CENT CAST M INLINE CENTRALIZER	2.16	3.13	25.00
Temp	9.57					
TT3FT AMP3FT WVF5FT	7.32 7.32 6.36		HCBLM-A (12091454) Halliburton HCBLM Tool	9.38	2.75	116.00
WVF3FT	2.84		CENT-CASTM-CENT CAST M INLINE CENTRALIZER	2.16	3.13	25.00
			AUH-001 (11703517) Adaptor Ultrawire/Halliburton	0.38	1.69	3.00
LLMTEN	0.00		BUL-001 (000001) Bullnose	0.30	1.69	1.50

Dataset:
b&v 11b-18-07-95.db: WC/B&V\_11B-07-95/run1/MAIN

Total length:
39.43 ft

Total weight:
293.50 lb

O.D.:
3.13 in

Company	URSA OPERATING COMPANY		
Well	B&V 11B-18-07-95		
Field	WILDCAT		
County	Garfield	State	CO
<b>HALLIBURTON</b>		CEMENT BOND LOG GR-CCL	