



Temperature
Gamma Ray
Casing Collar Log

Company TEP Rocky Mountain LLC
Well Youberg SR 331-12
Field Rulison
County Garfield
State Colorado

Company TEP Rocky Mountain LLC
Well Youberg SR 331-12
Field Rulison
County Garfield
State Colorado

Location: API #: 05-045-23296

Other Services

1880' FNL & 2117' FEL SWNE
SEC 12 TWP 7S RGE 94W

Elevation

Permanent Datum Ground Level Elevation 7254'
Log Measured From Kelly Bushing 24 FT
Drilling Measured From Kelly Bushing

K.B. 7278'
D.F. 7277'
G.L. 7254'

Date 17-JUN-2017

Run Number	One		
Depth Driller	9403 FT		
Depth Logger	9346 FT		
Bottom Logged Interval	9346 FT		
Top Log Interval	Surface		
Open Hole Size	8.750"		
Type Fluid	Fresh Water		
Density / Viscosity	8.34 lb/gal		
Max. Recorded Temp.	171°F		
Estimated Cement Top	4250 FT		
Time Well Ready	14:00		
Time Logger on Bottom	15:00		
Equipment Number	HDO359		
Location	Grand Junction, CO		
Recorded By	Michael Kochevar		
Witnessed By	---		

Borehole Record			Tubing Record				
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size (in)	Wgt (lbs/ft)	Grade	Top	Bottom
Surface Casing	9 5/8	32.3	---	Surface	1100 FT
Intermediate #1	4 1/2	11.6	---	Surface	9403 FT
Intermediate #2					
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 as per customer request
Depth referenced to Kelly Bushing
Marker joint logged at 5696 FT to 5717 FT

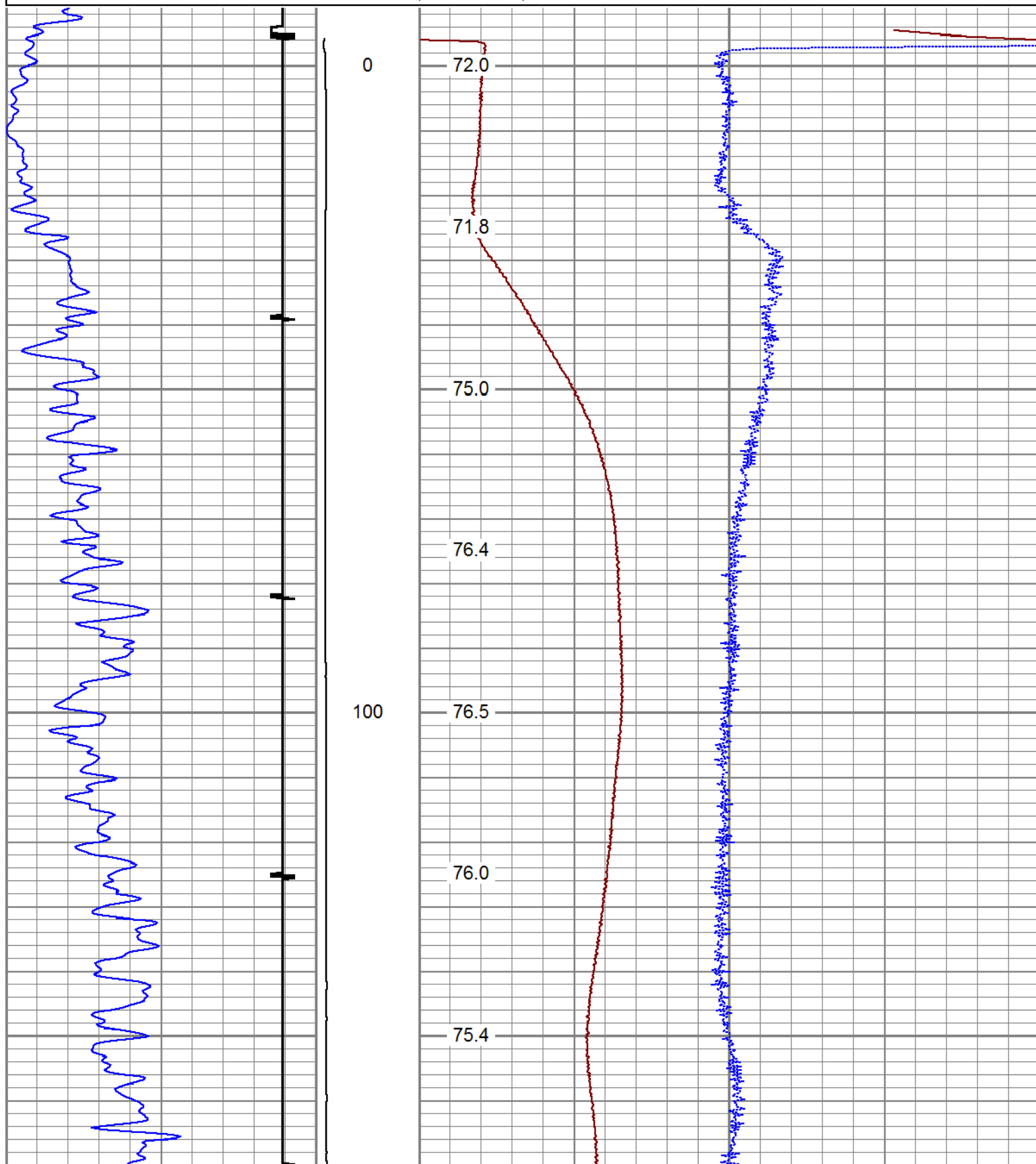
Thank you for choosing Reliance Oilfield Services, LLC!!

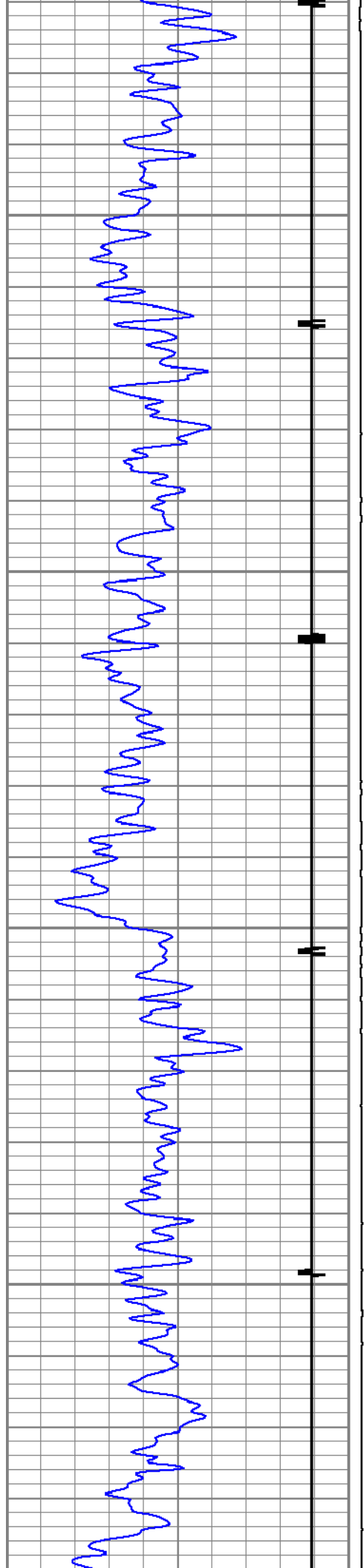


Main Pass

Database File	tep_youberg sr 331-12_06-17-17_temp\processed_tep_youberg sr 331-12_06-17-17_temp.db
Dataset Pathname	pass3
Presentation Format	ros_temp_tep
Dataset Creation	Sat Jun 17 15:24:32 2017
Charted by	Depth in Feet scaled 1:240

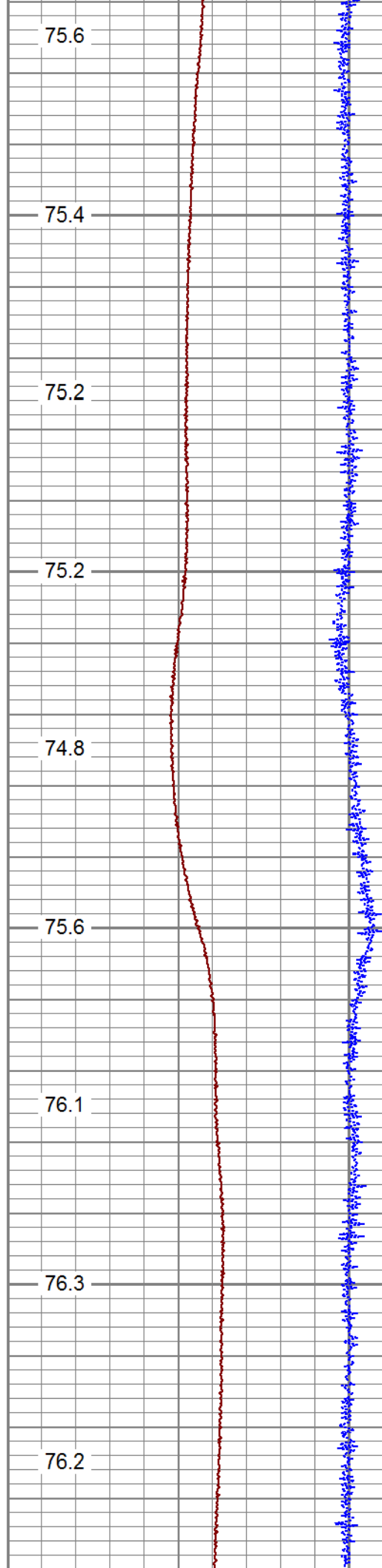
0	Gamma Ray (GAPI)	120	LTEN	50	TEMP (degF)	70
	Casing Collar Locator		(lb)	-1	DTMP (degF)	1
		0	2000	TEMP		
				(degF)		





200

300



75.6

75.4

75.2

75.2

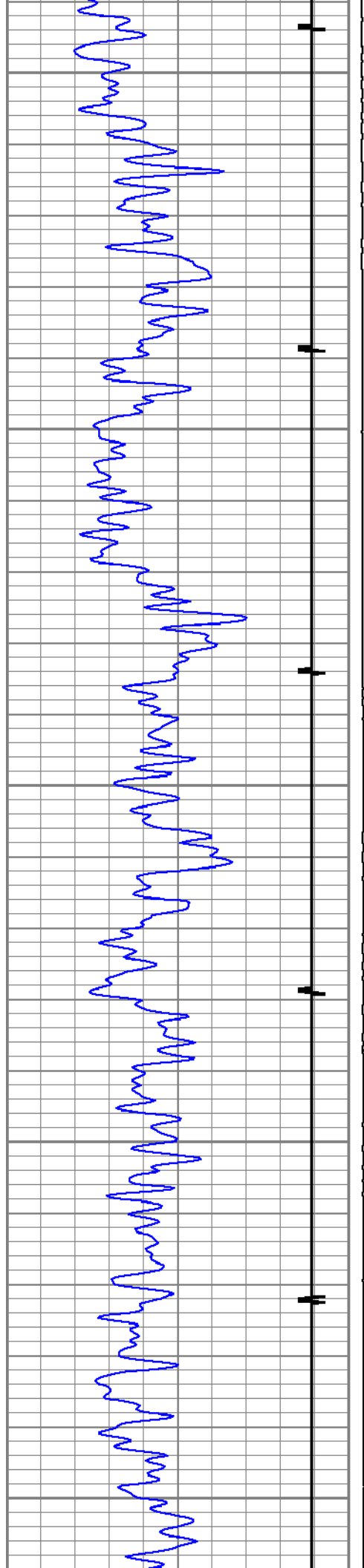
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75.6

76.1

76.3

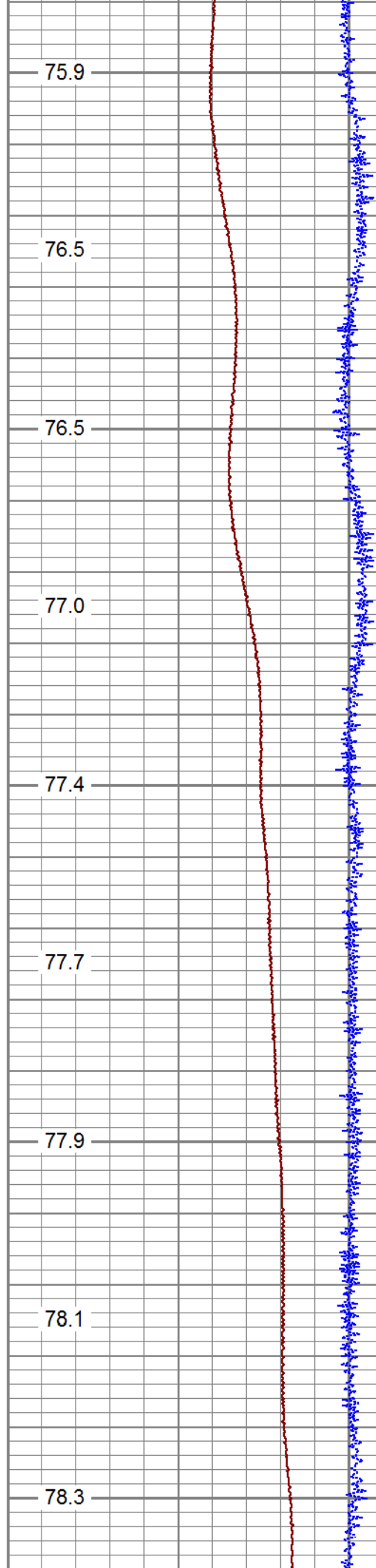
76.2



400

500

600



75.9

76.5

76.5

77.0

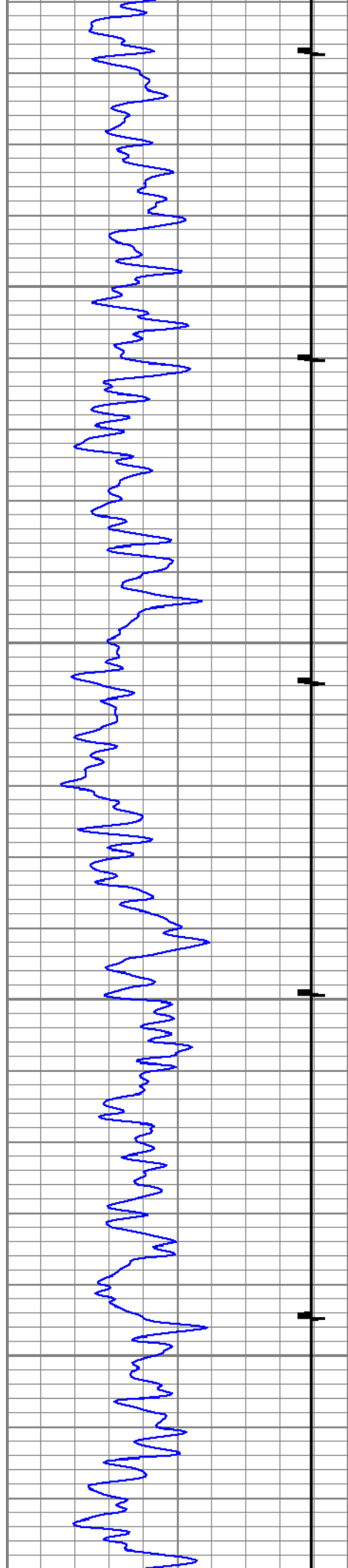
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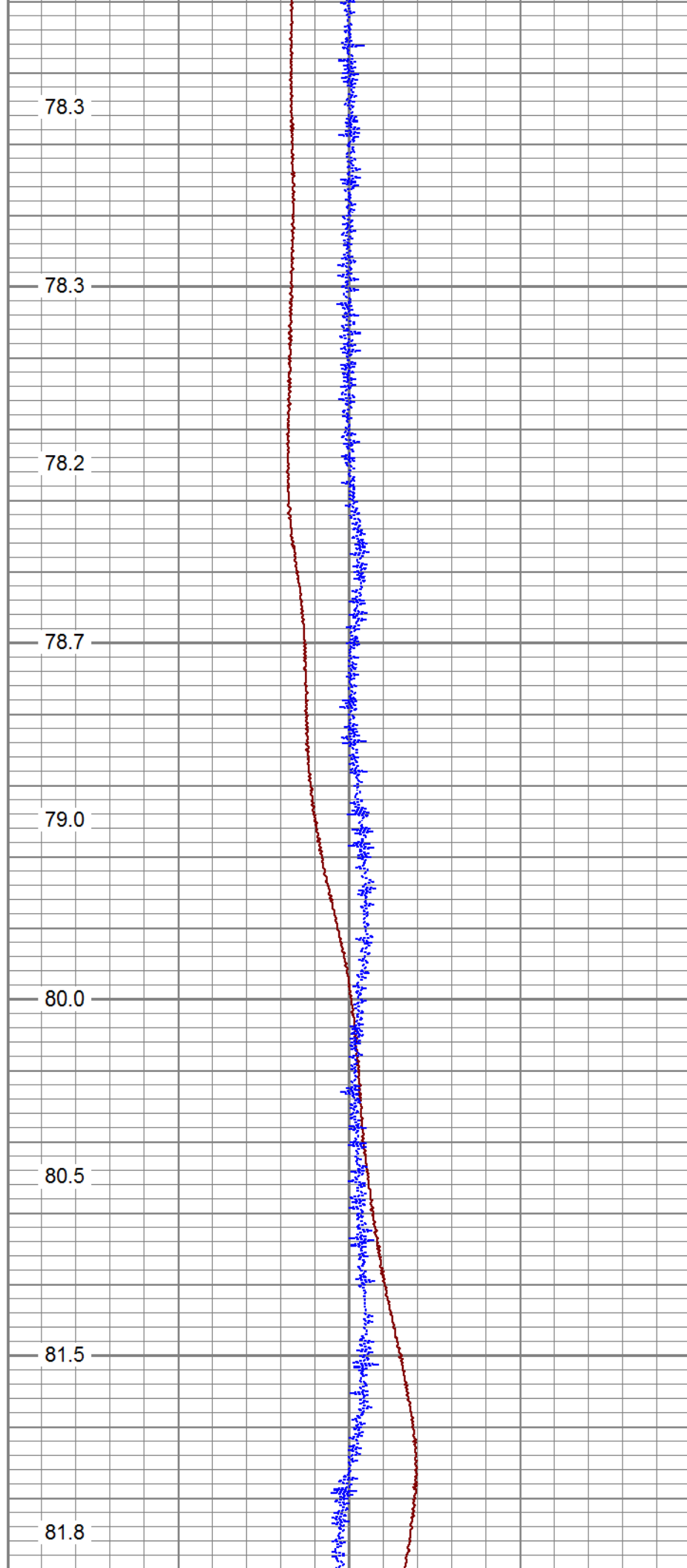
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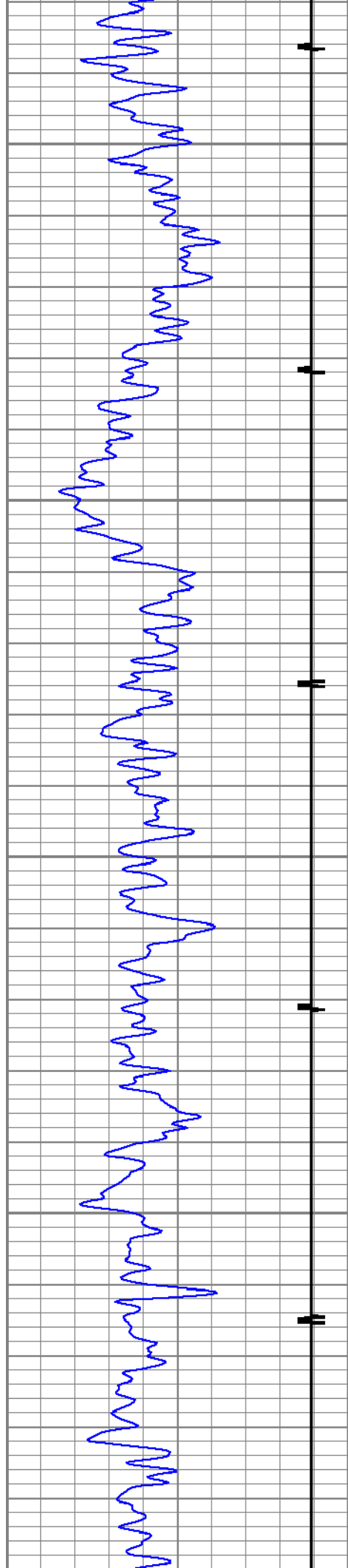
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700

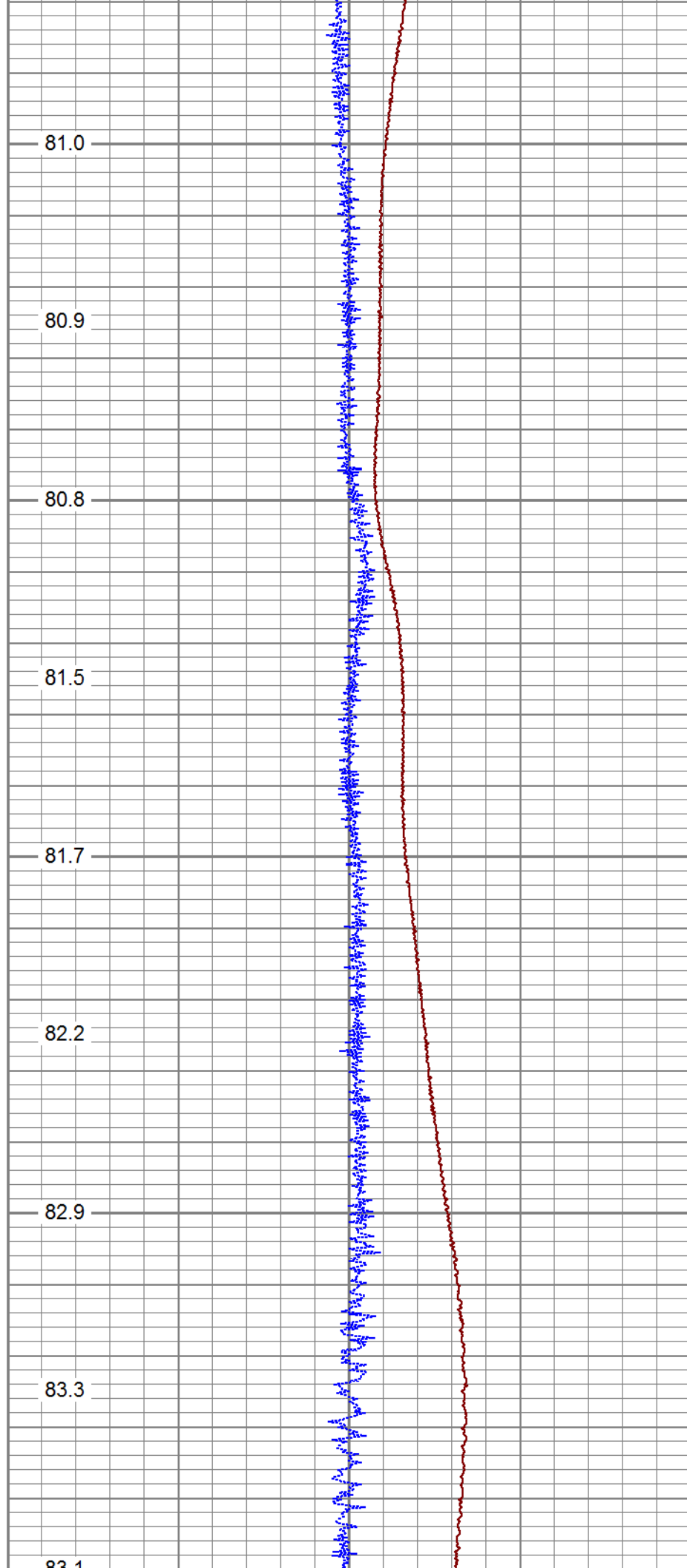
800





900

1000



81.0

80.9

80.8

81.5

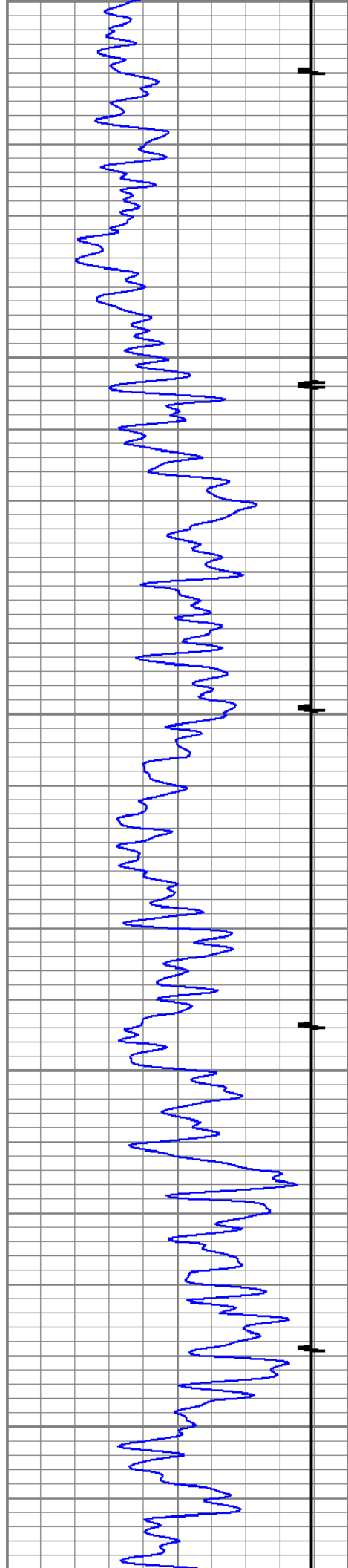
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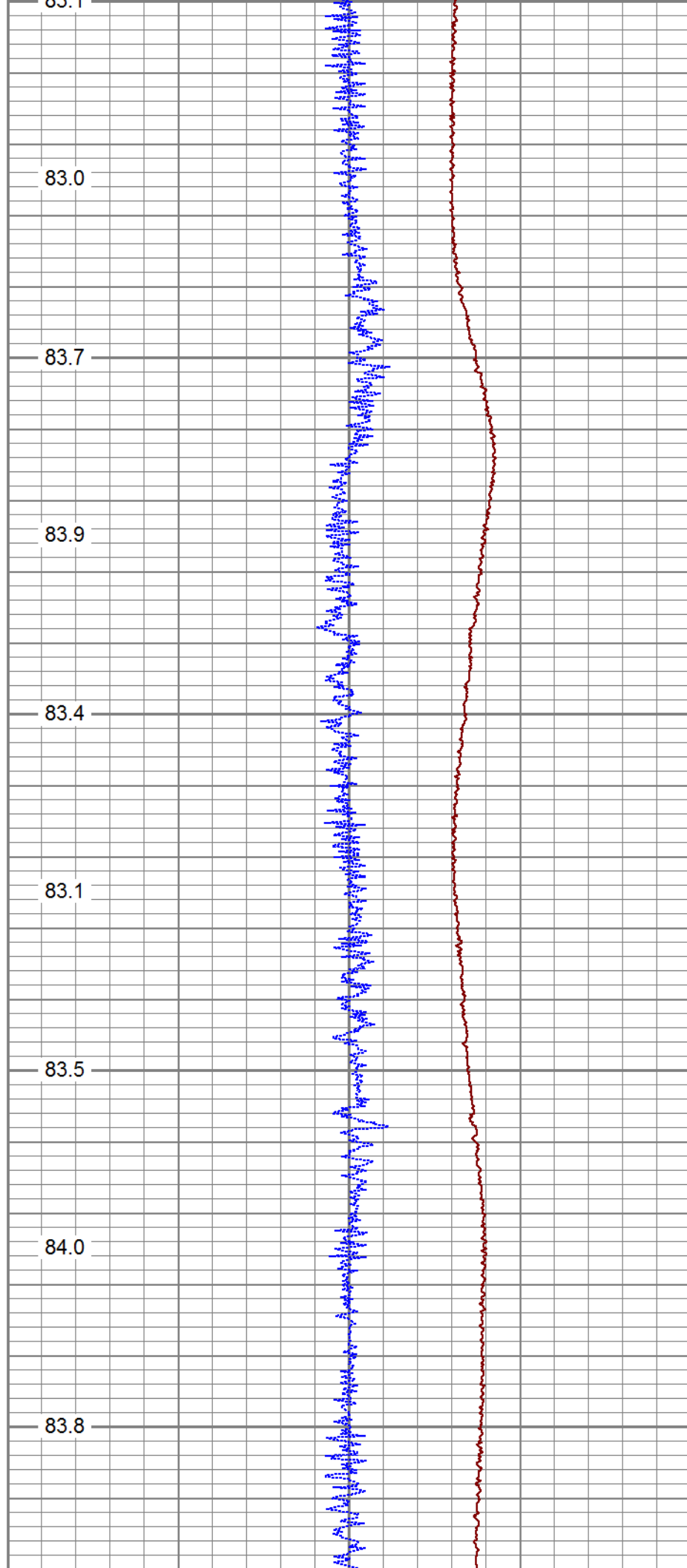
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83.1



1100

1200



83.0

83.7

83.9

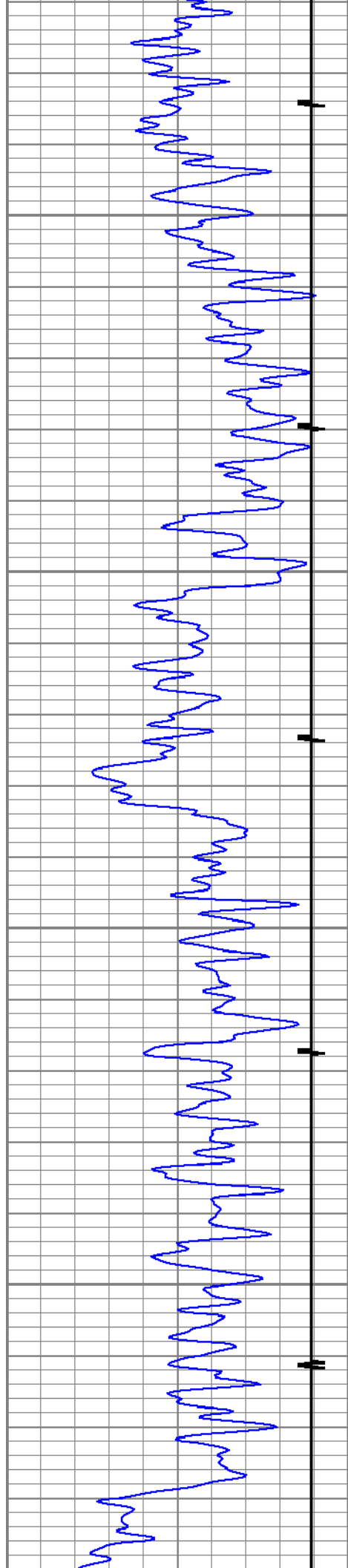
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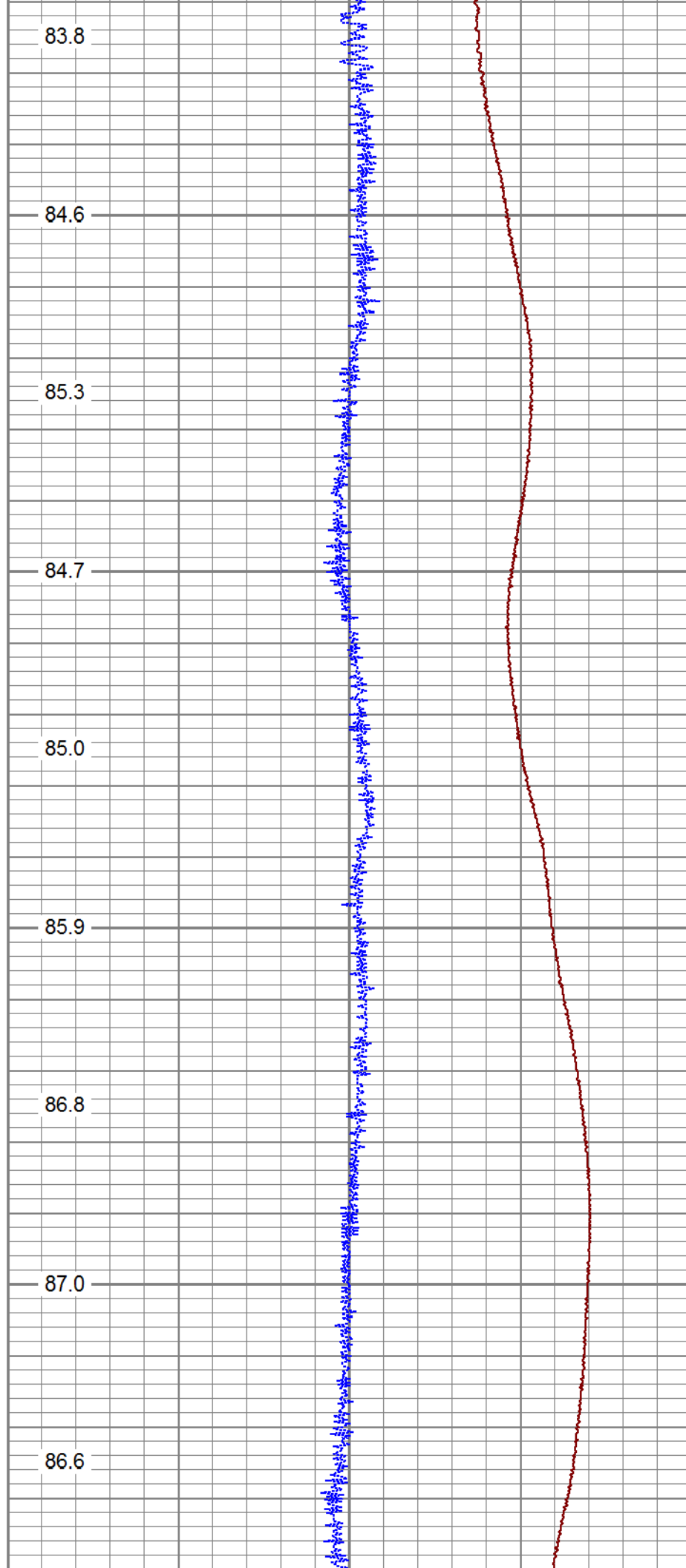
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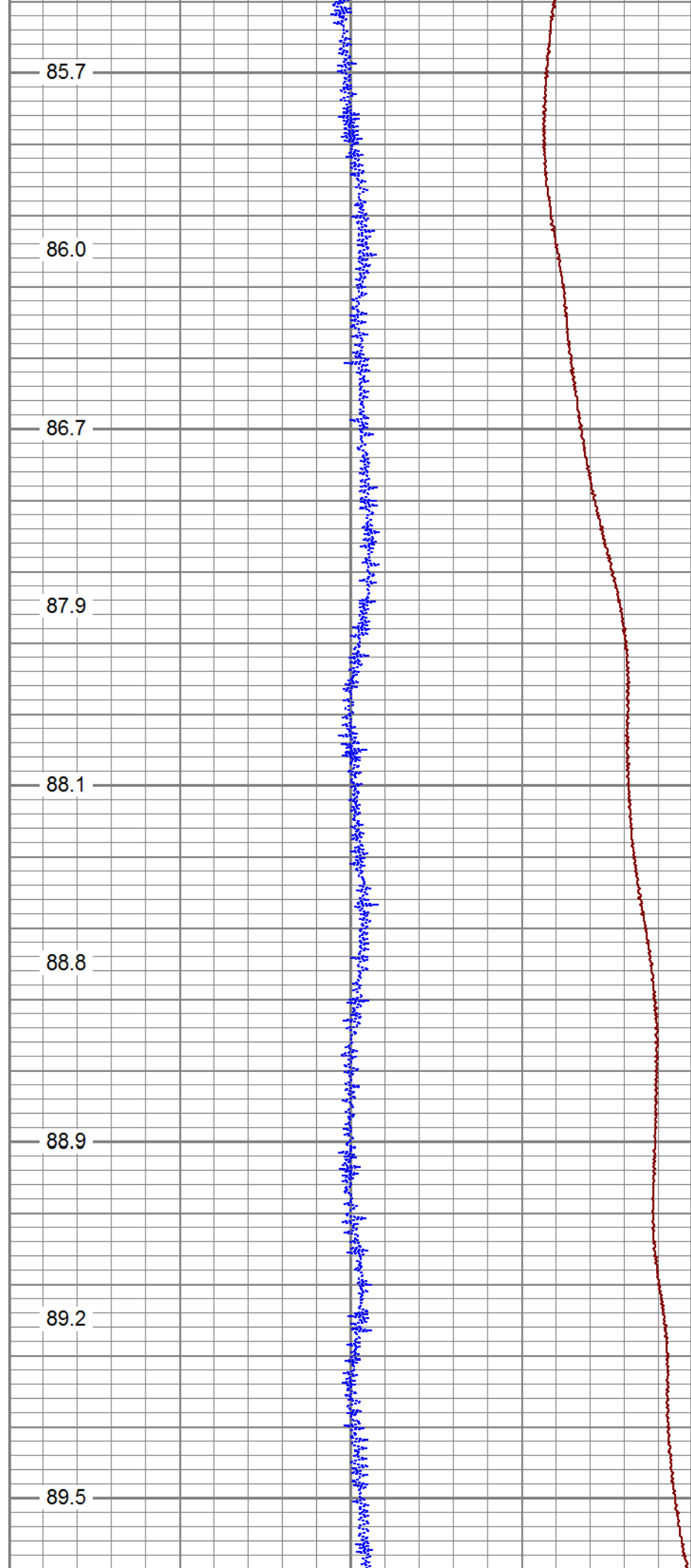
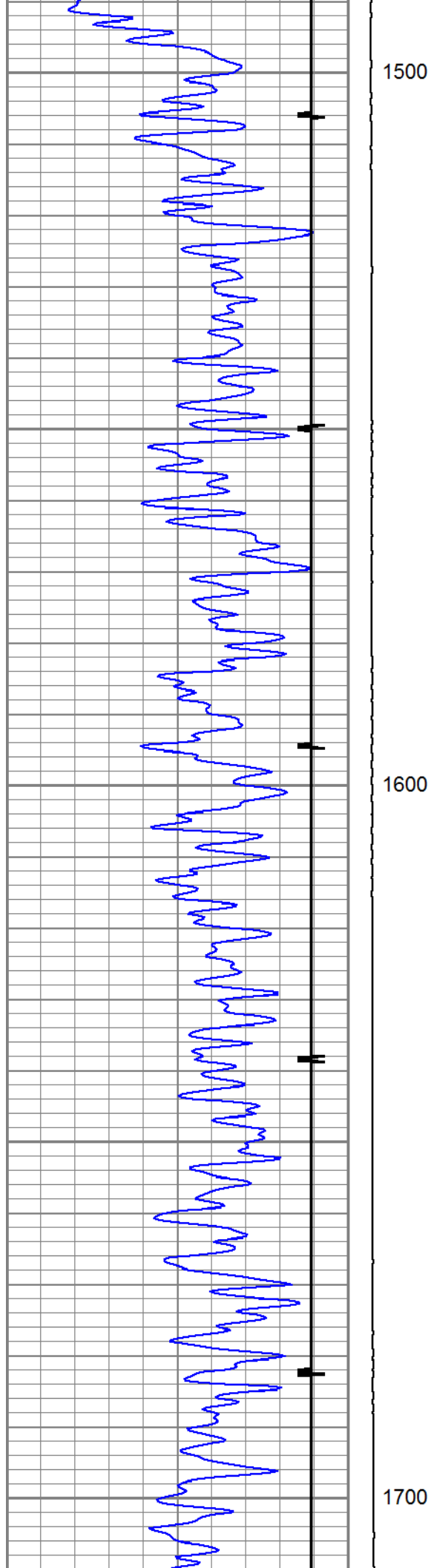
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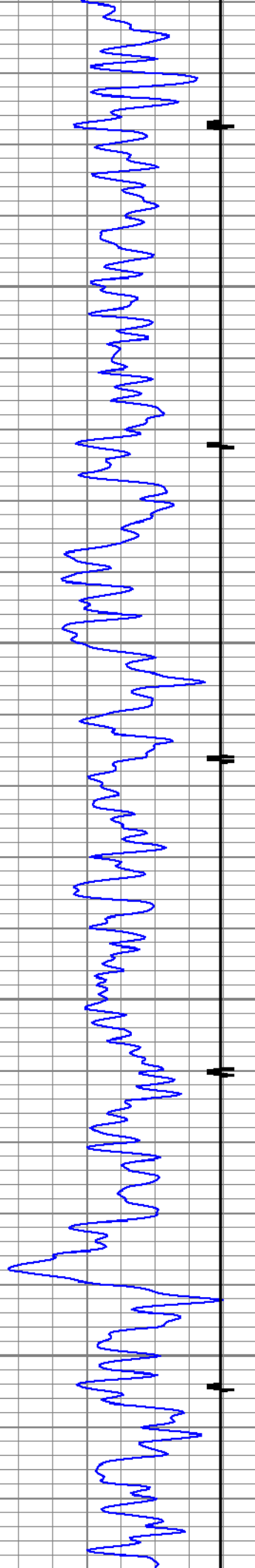


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1400

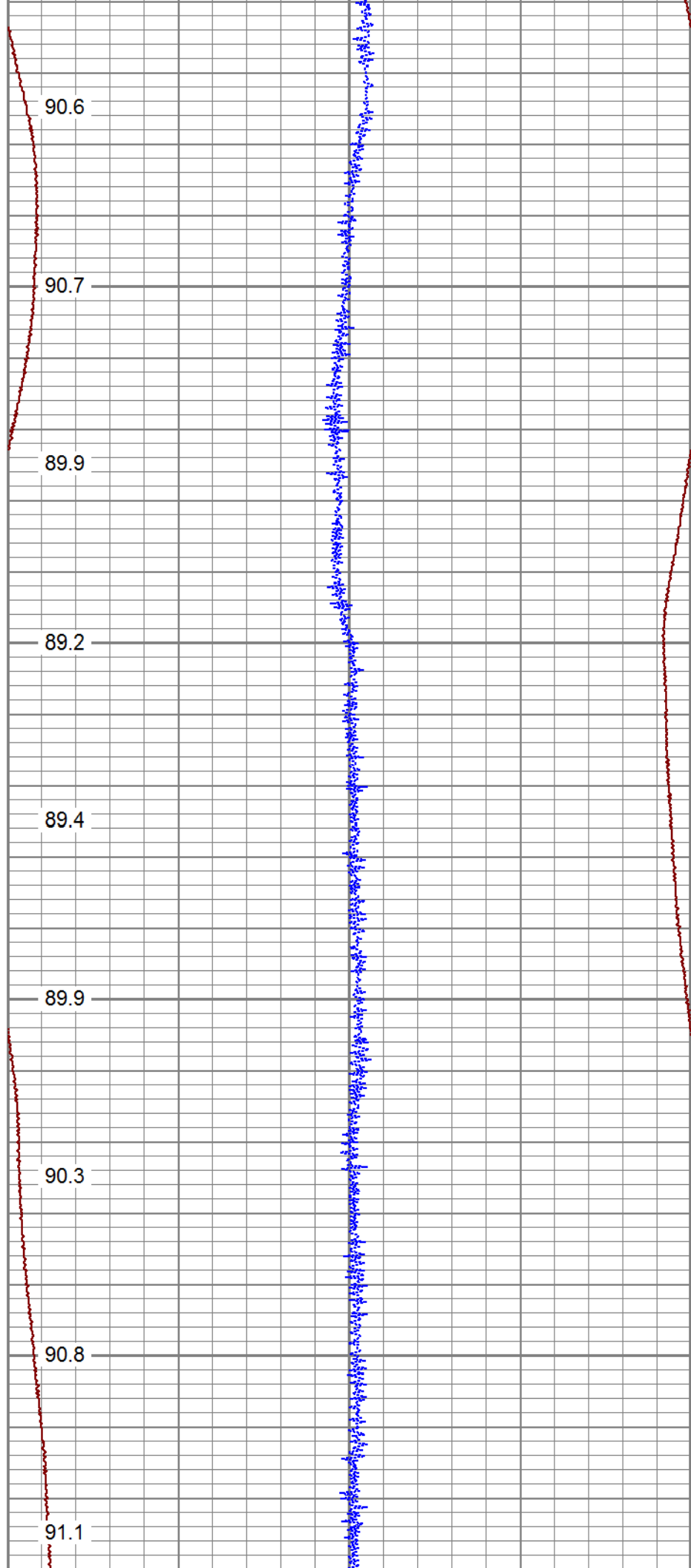


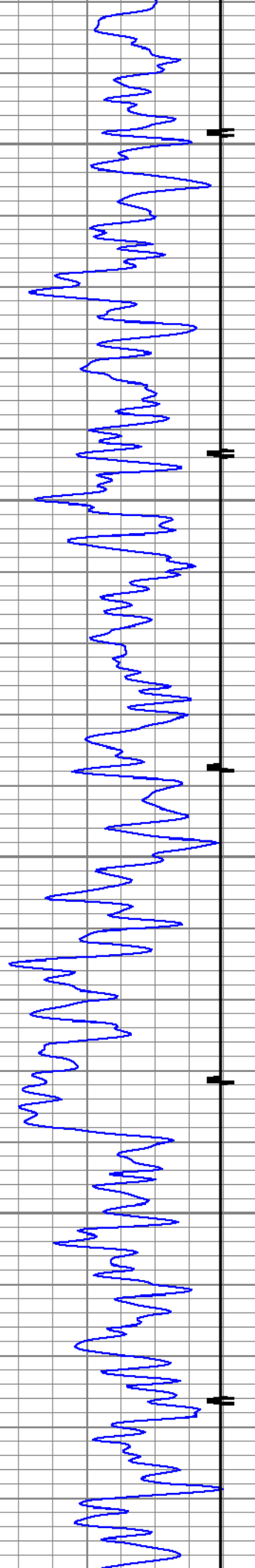




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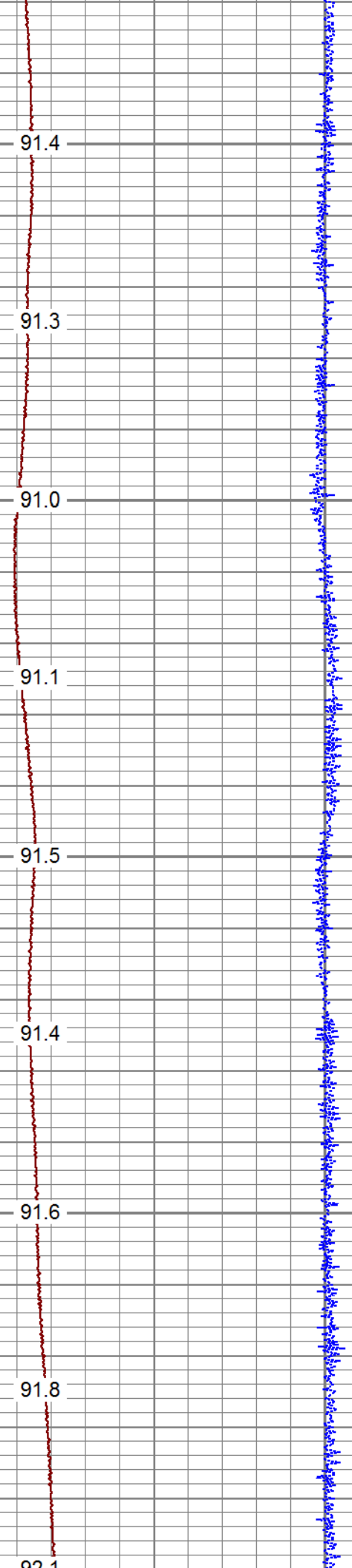
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2000

2100



91.4

91.3

91.0

91.1

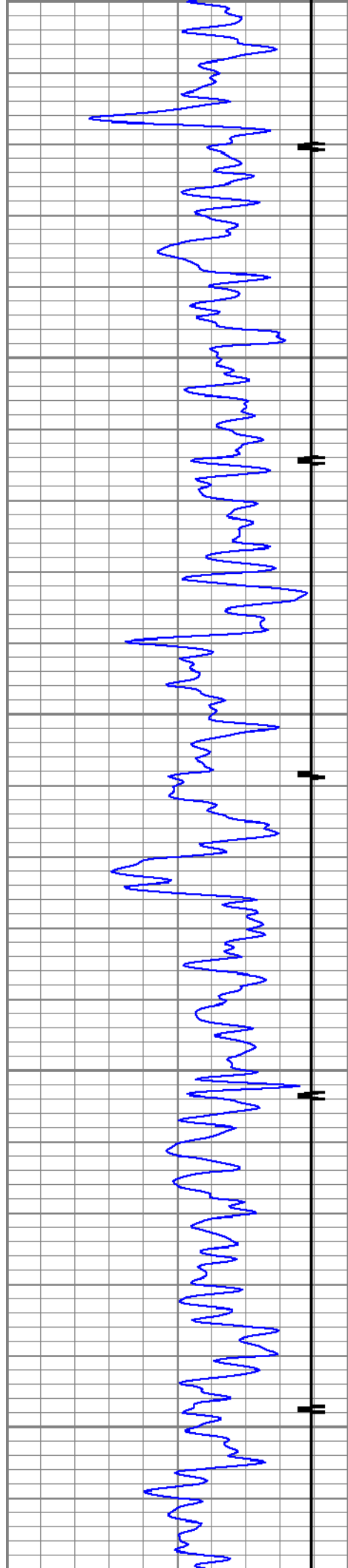
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91.4

91.6

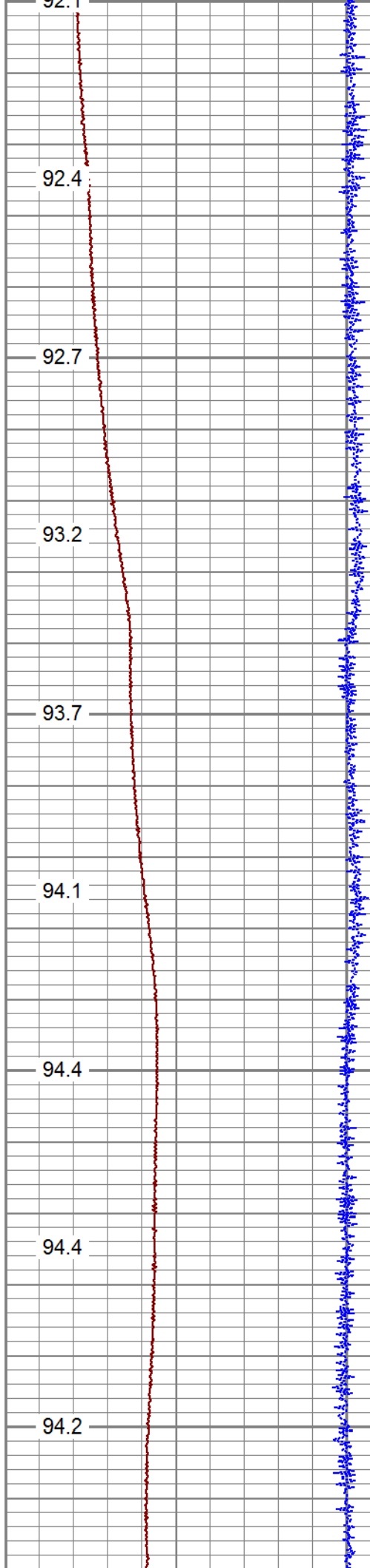
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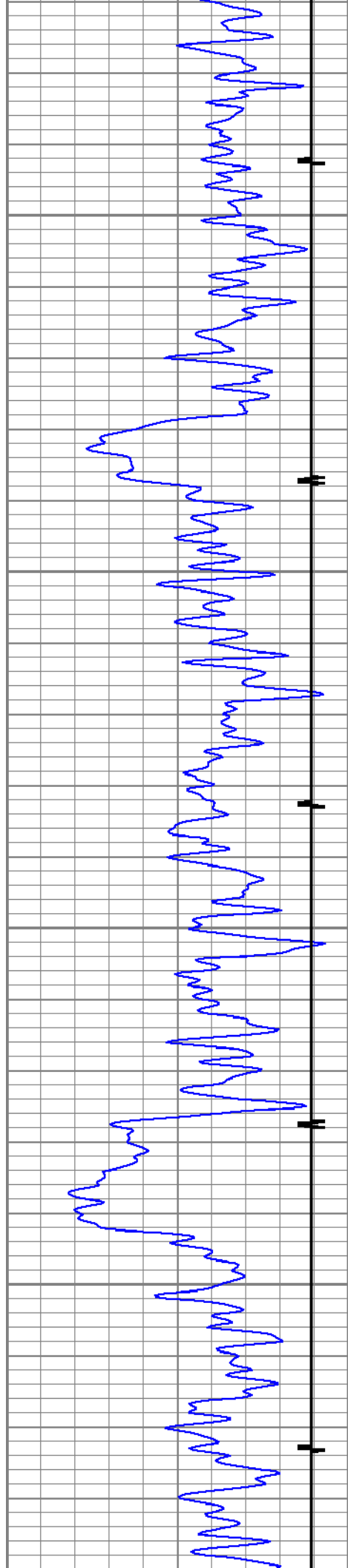
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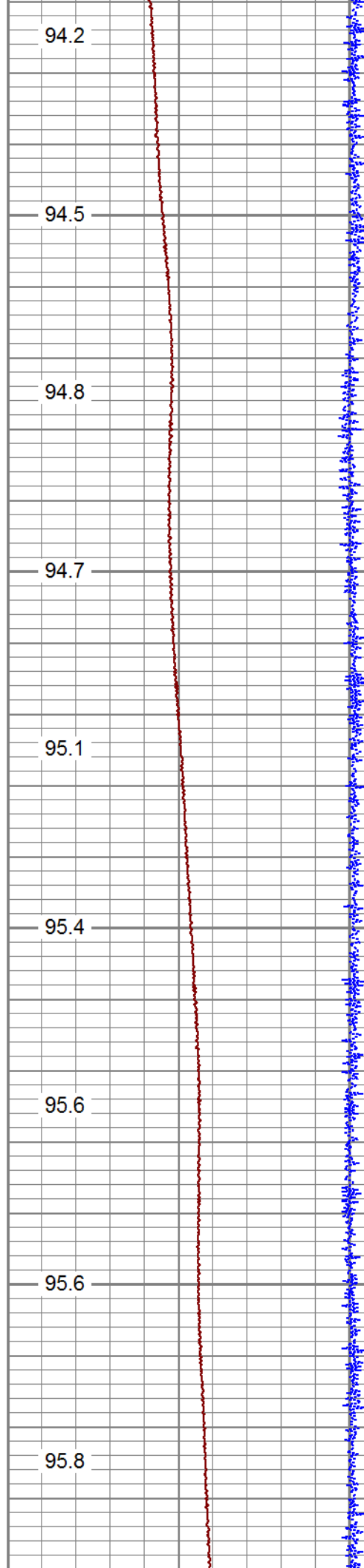
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2400

2500



94.2

94.5

94.8

94.7

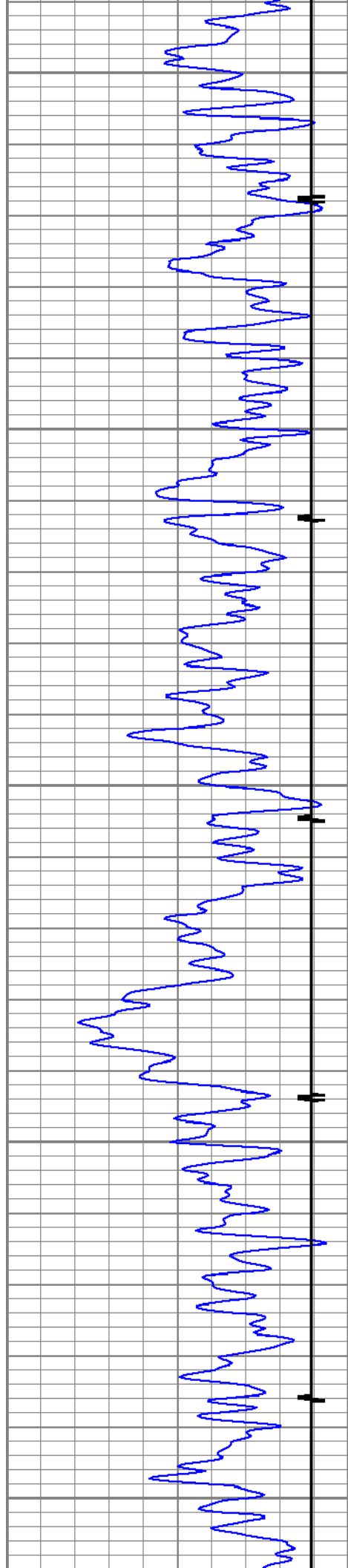
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95.4

95.6

95.6

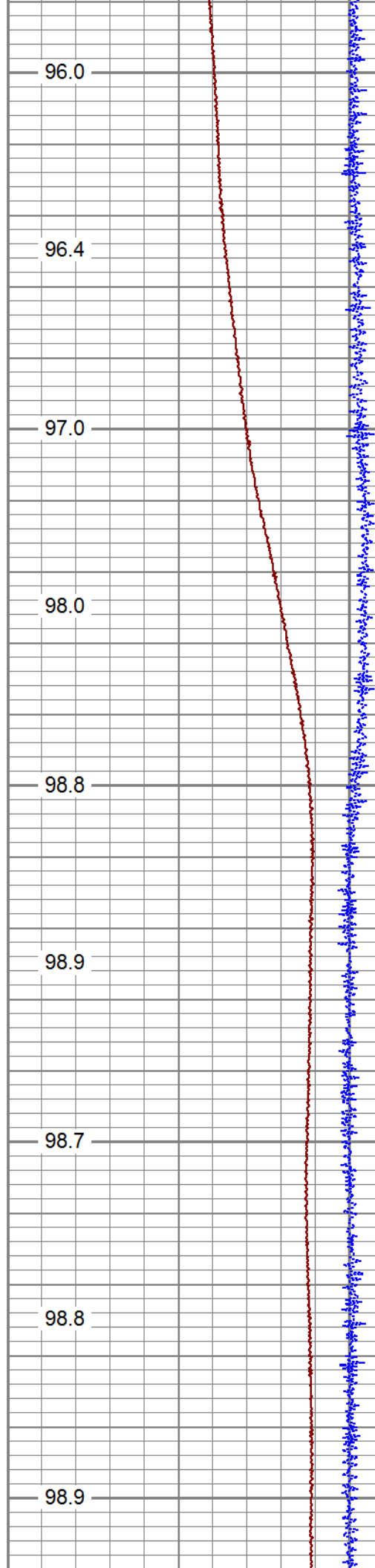
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2600

2700

2800



96.0

96.4

97.0

98.0

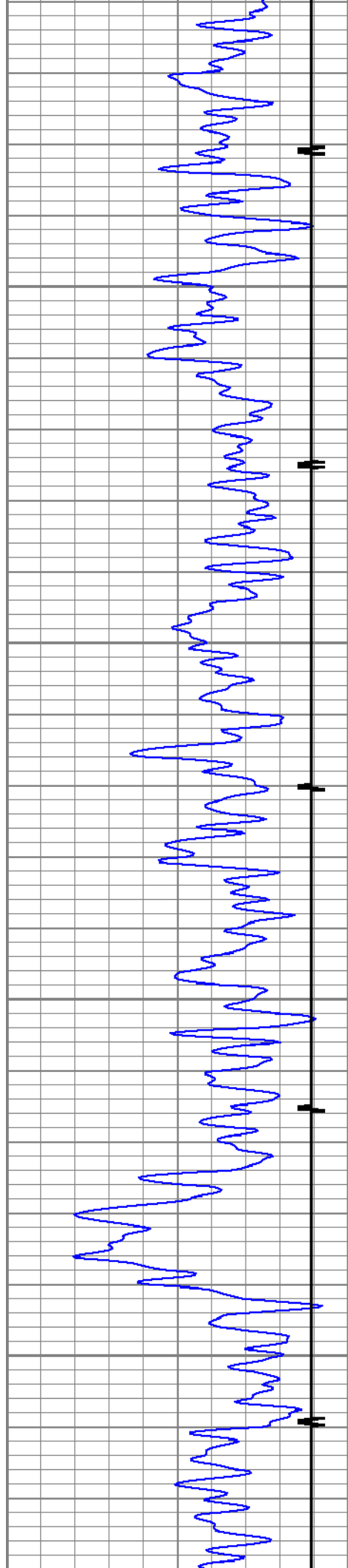
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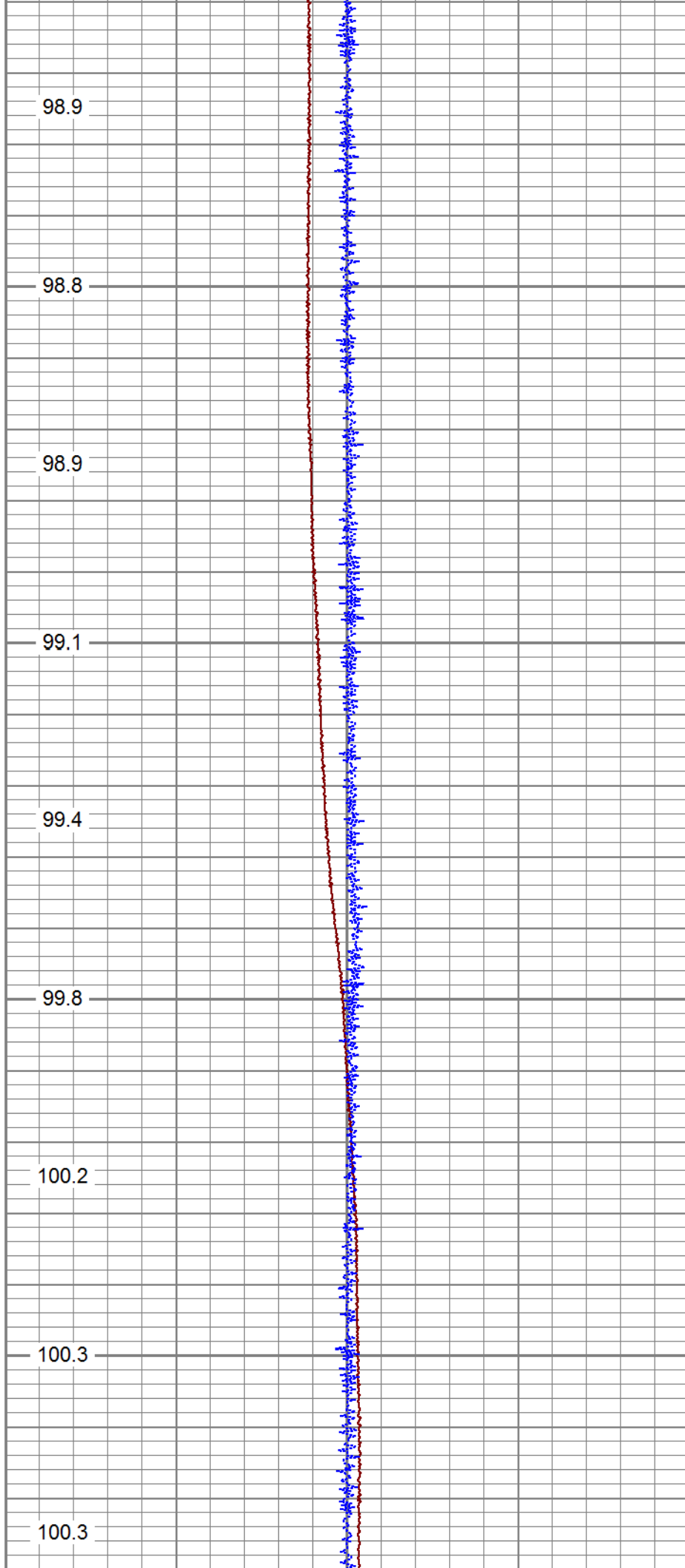
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98.9



2900

3000



98.9

98.8

98.9

99.1

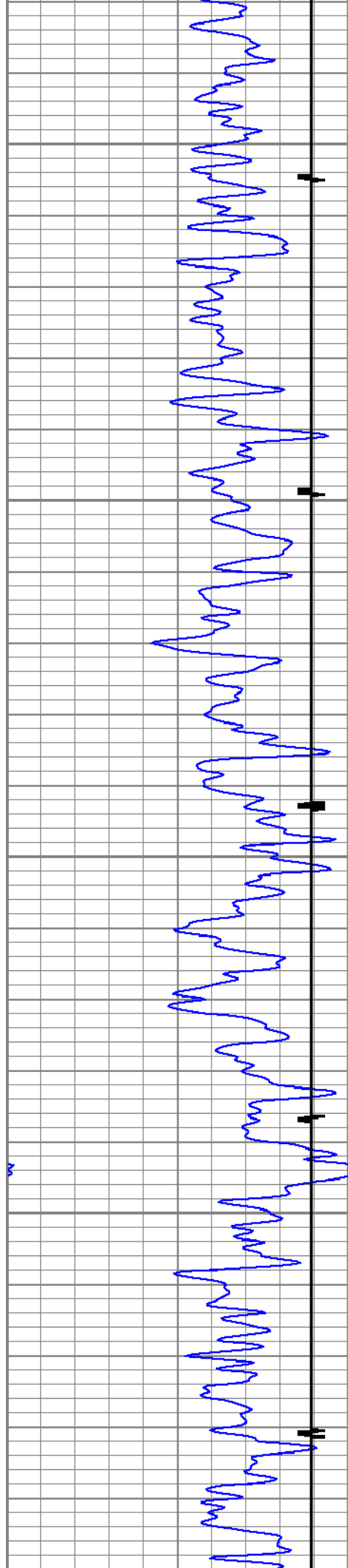
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99.8

100.2

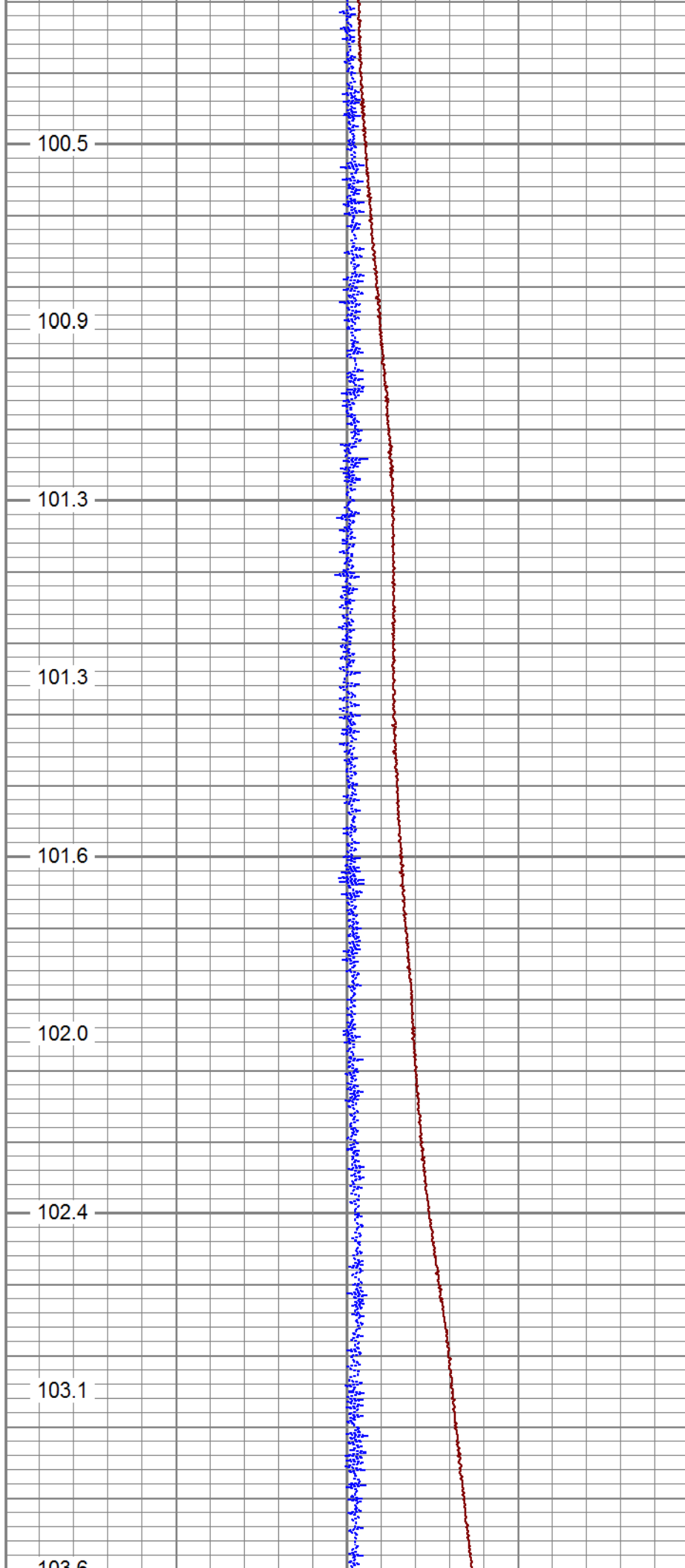
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100.3



3100

3200



100.5

100.9

101.3

101.3

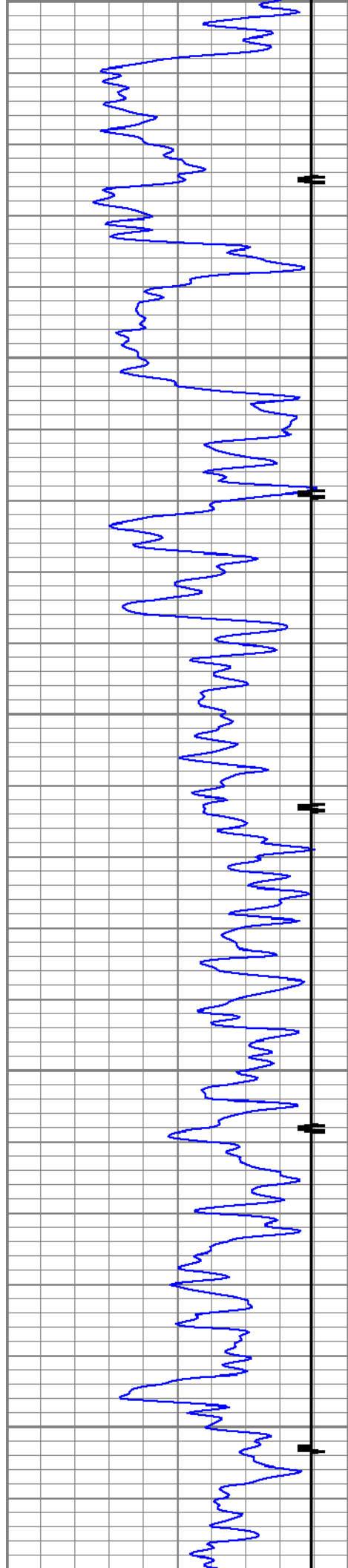
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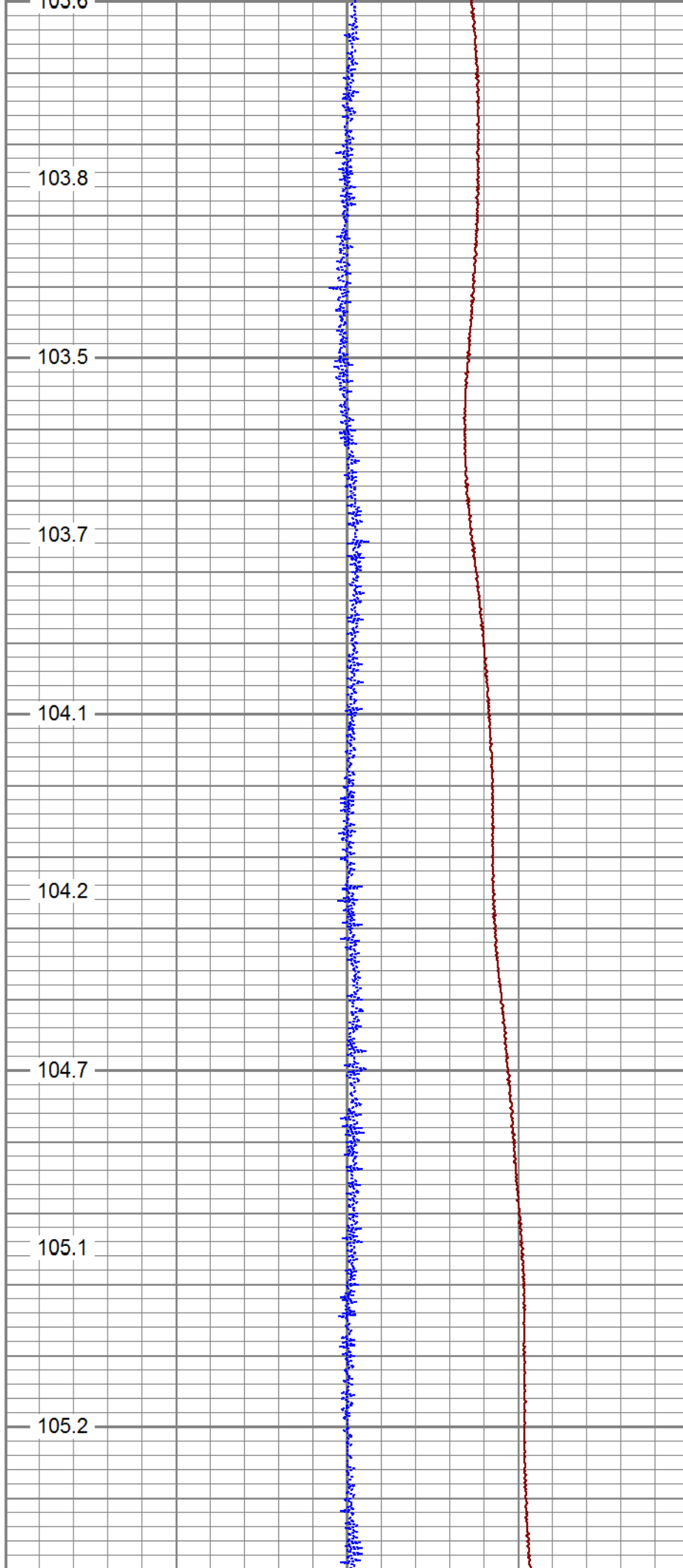
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103.6



3300

3400



103.8

103.5

103.7

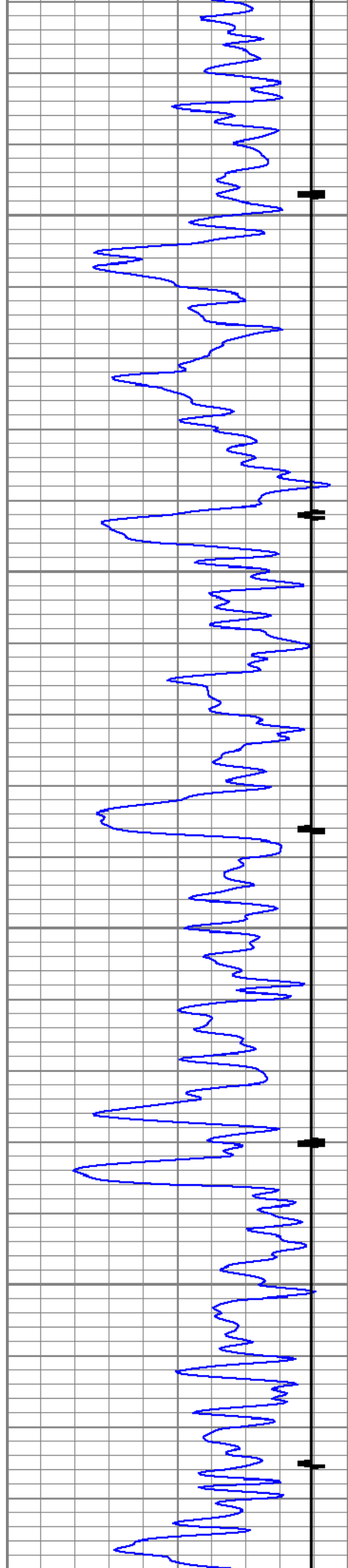
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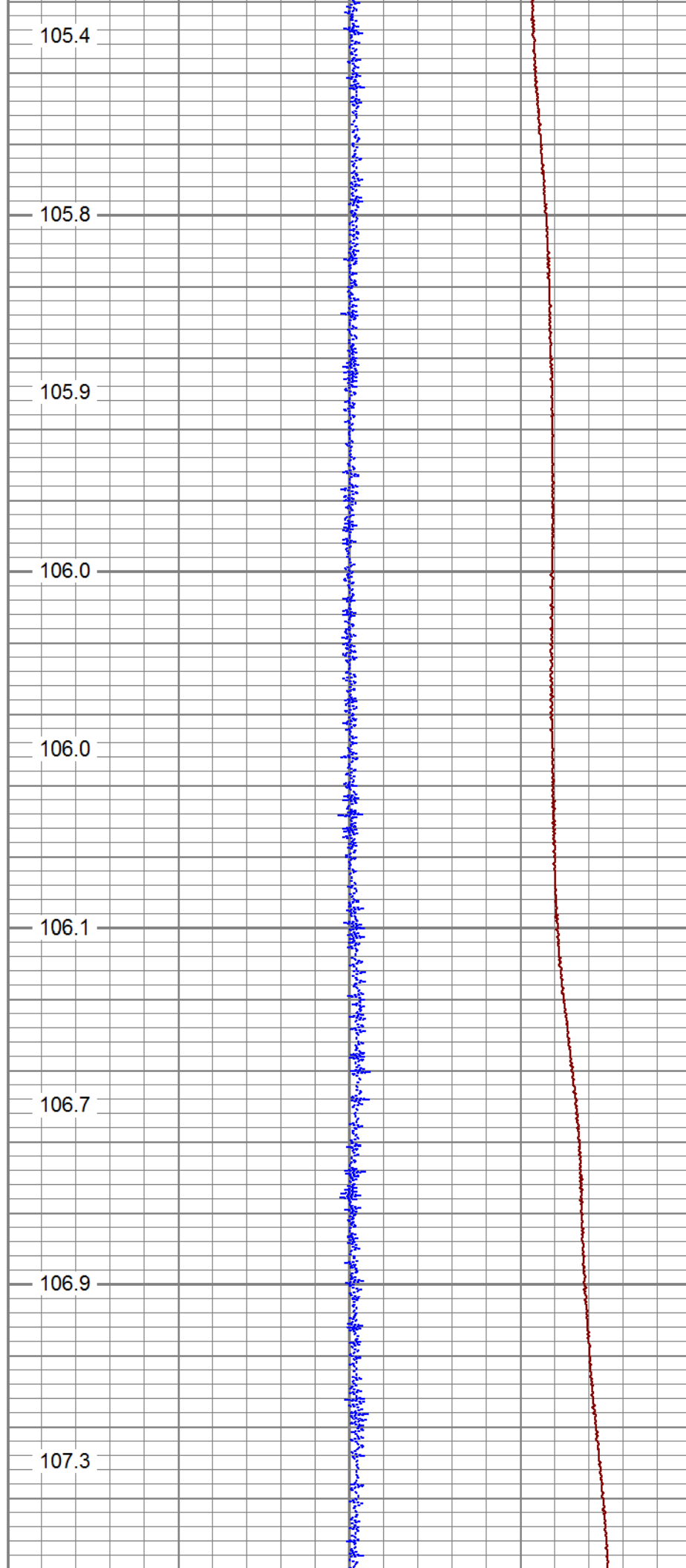
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105.2



3500

3600



105.4

105.8

105.9

106.0

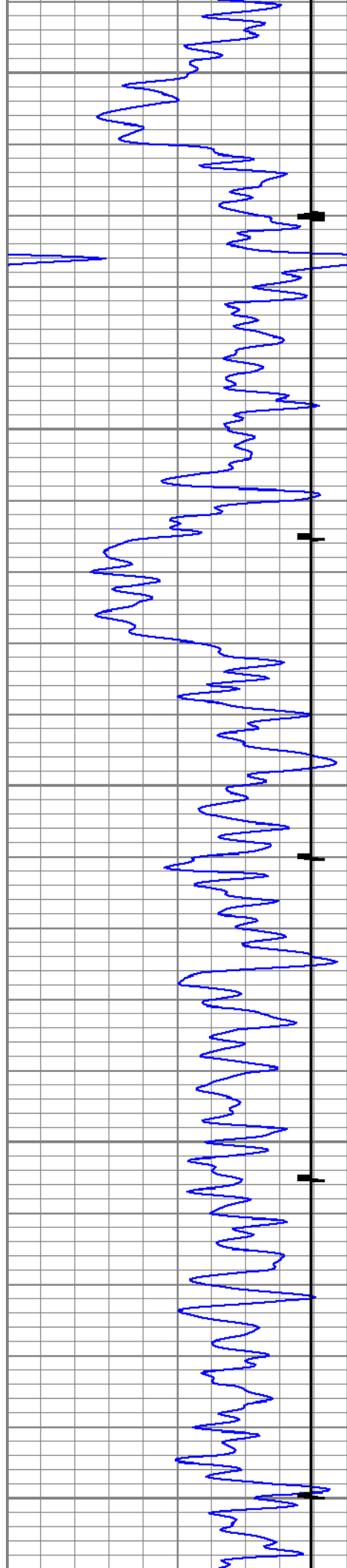
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106.1

106.7

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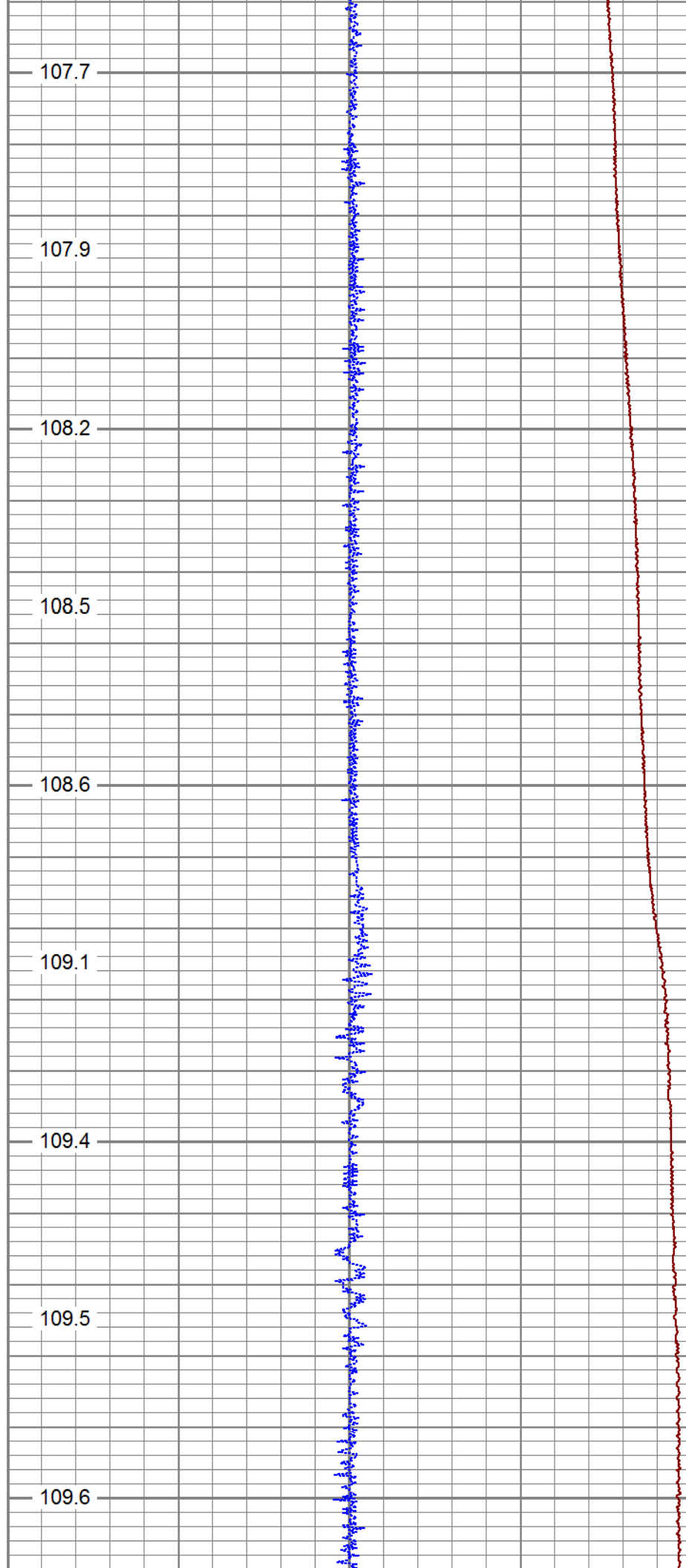
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3700

3800

3900



107.7

107.9

108.2

108.5

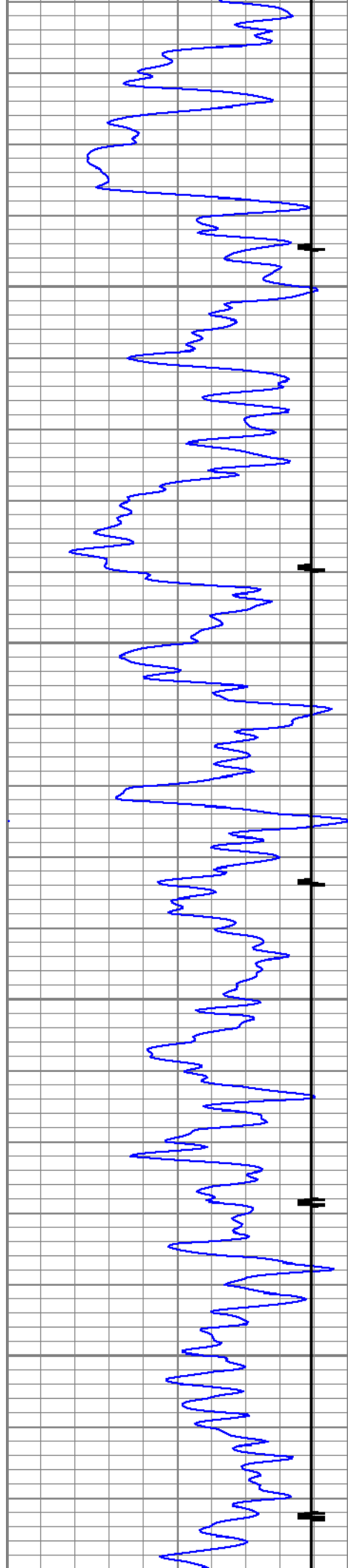
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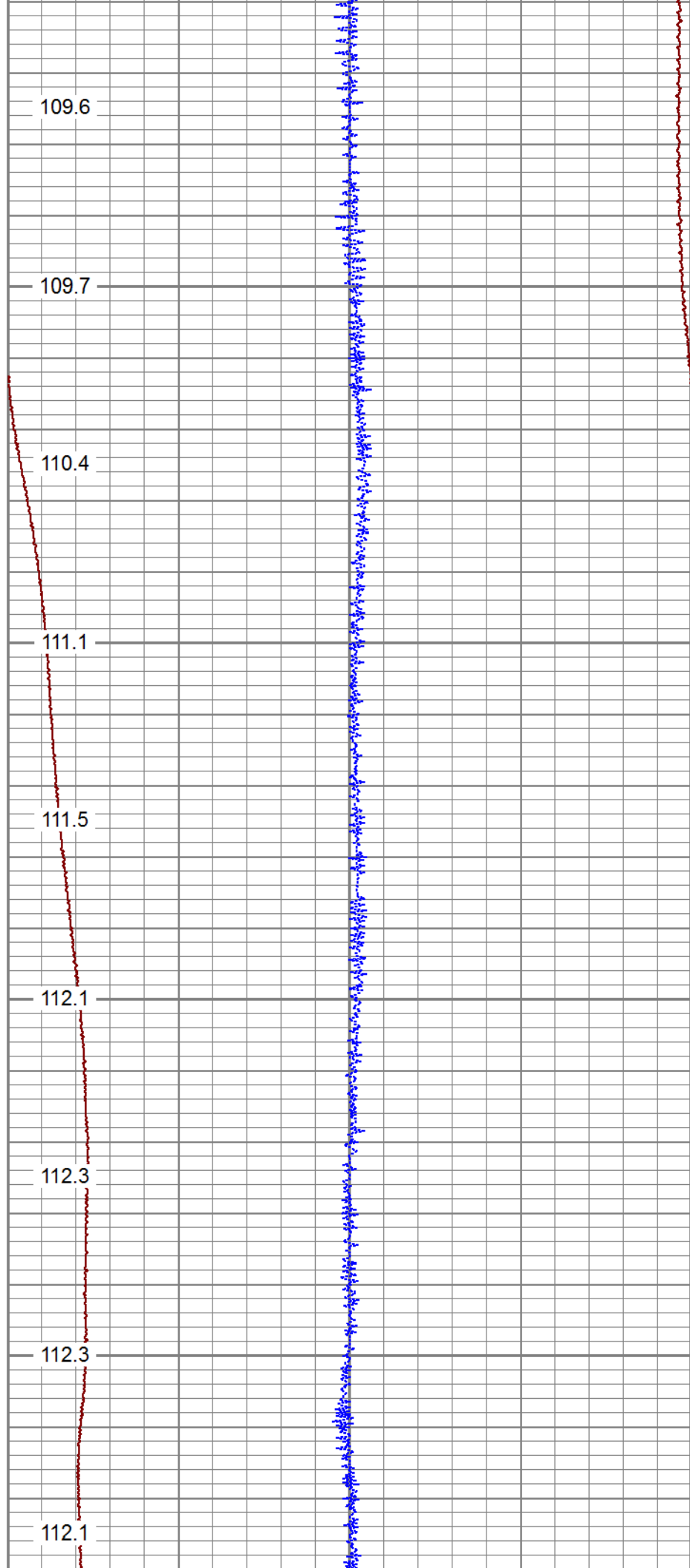
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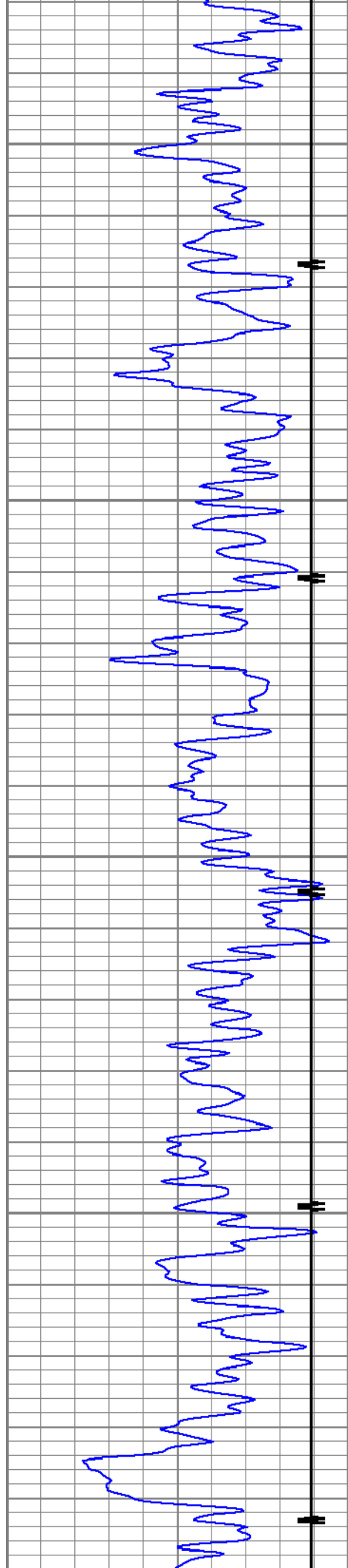
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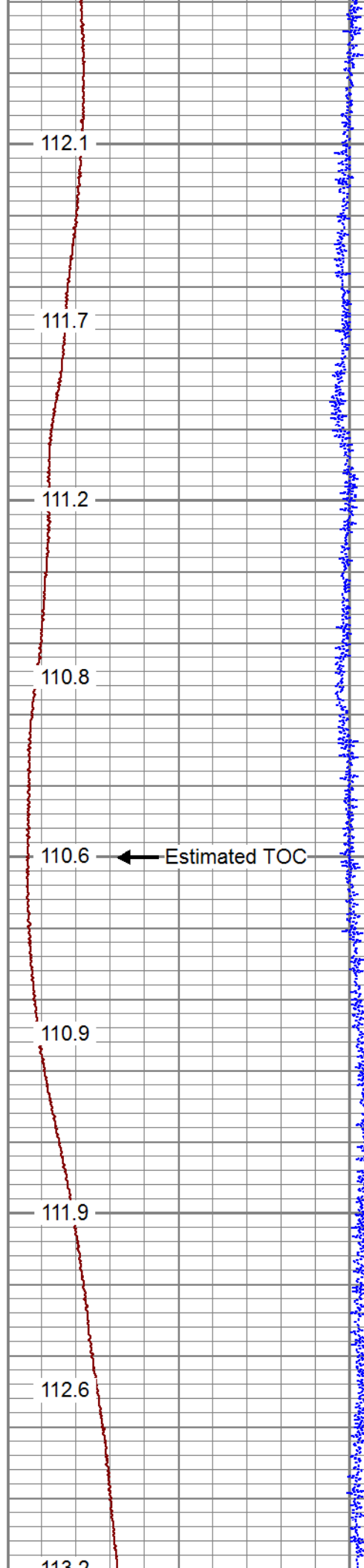
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4200

4300



112.1

111.7

111.2

110.8

110.6

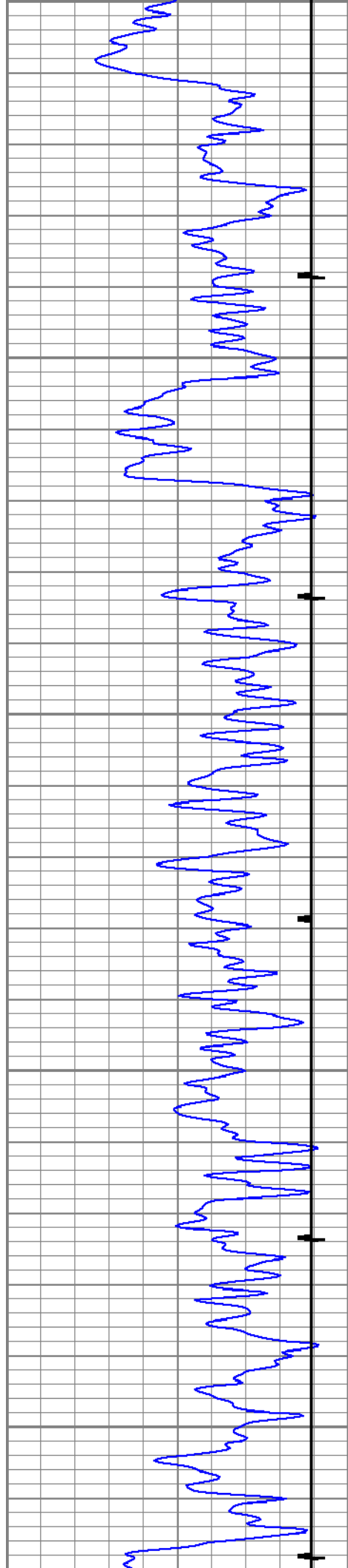
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111.9

112.6

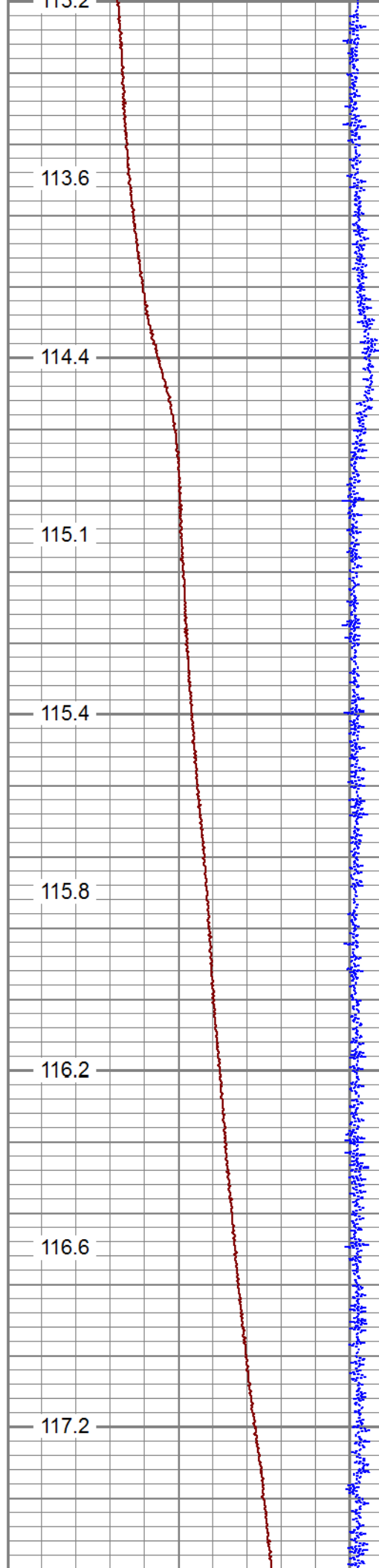
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← Estimated TOC



4400

4500



113.6

114.4

115.1

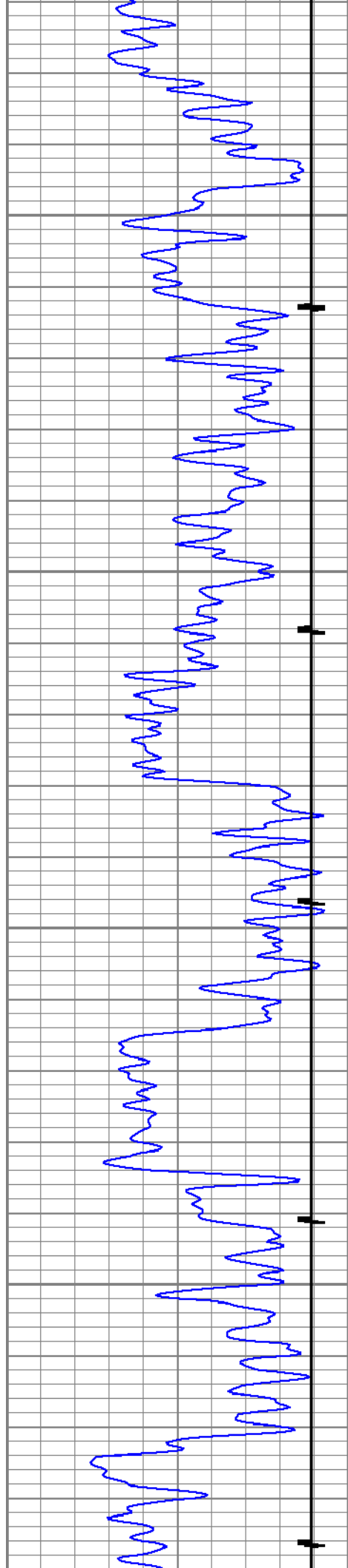
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115.8

116.2

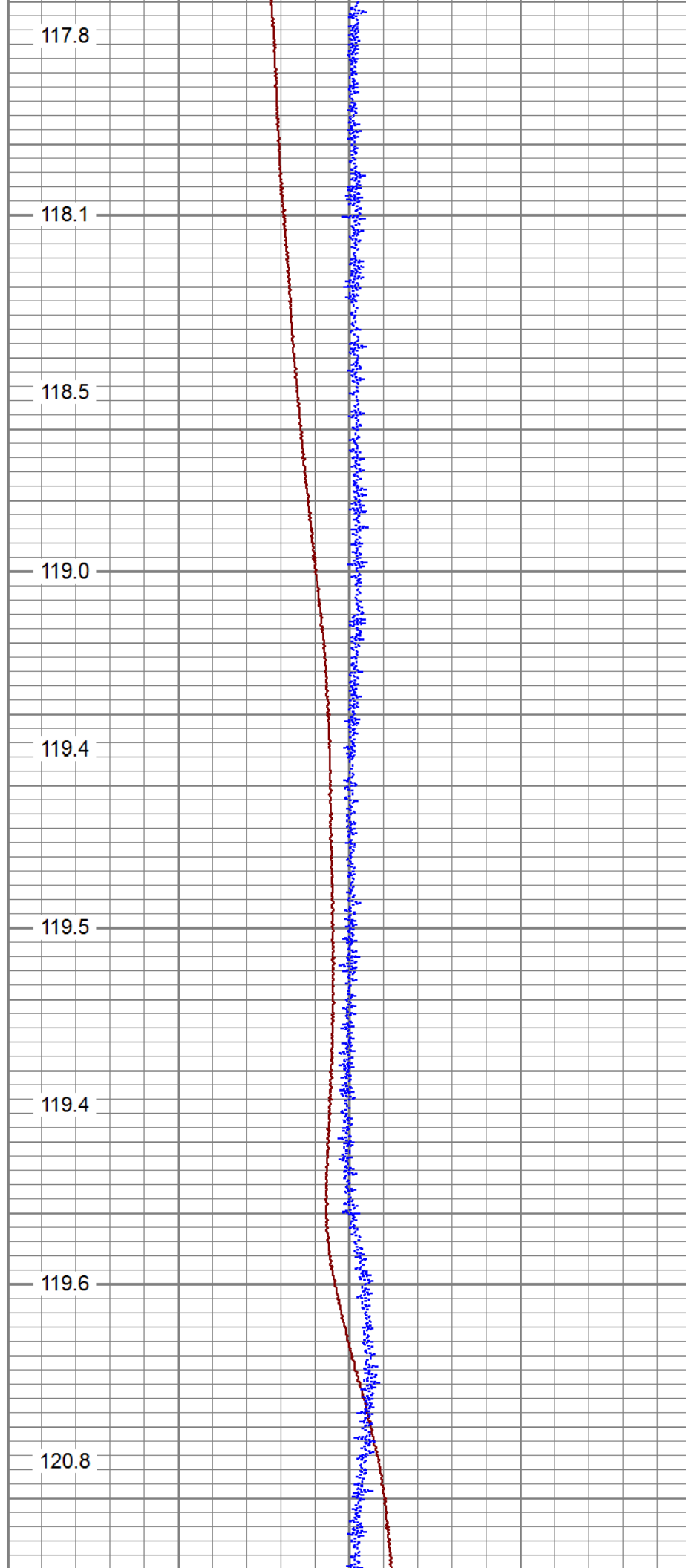
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117.2



4600

4700



117.8

118.1

118.5

119.0

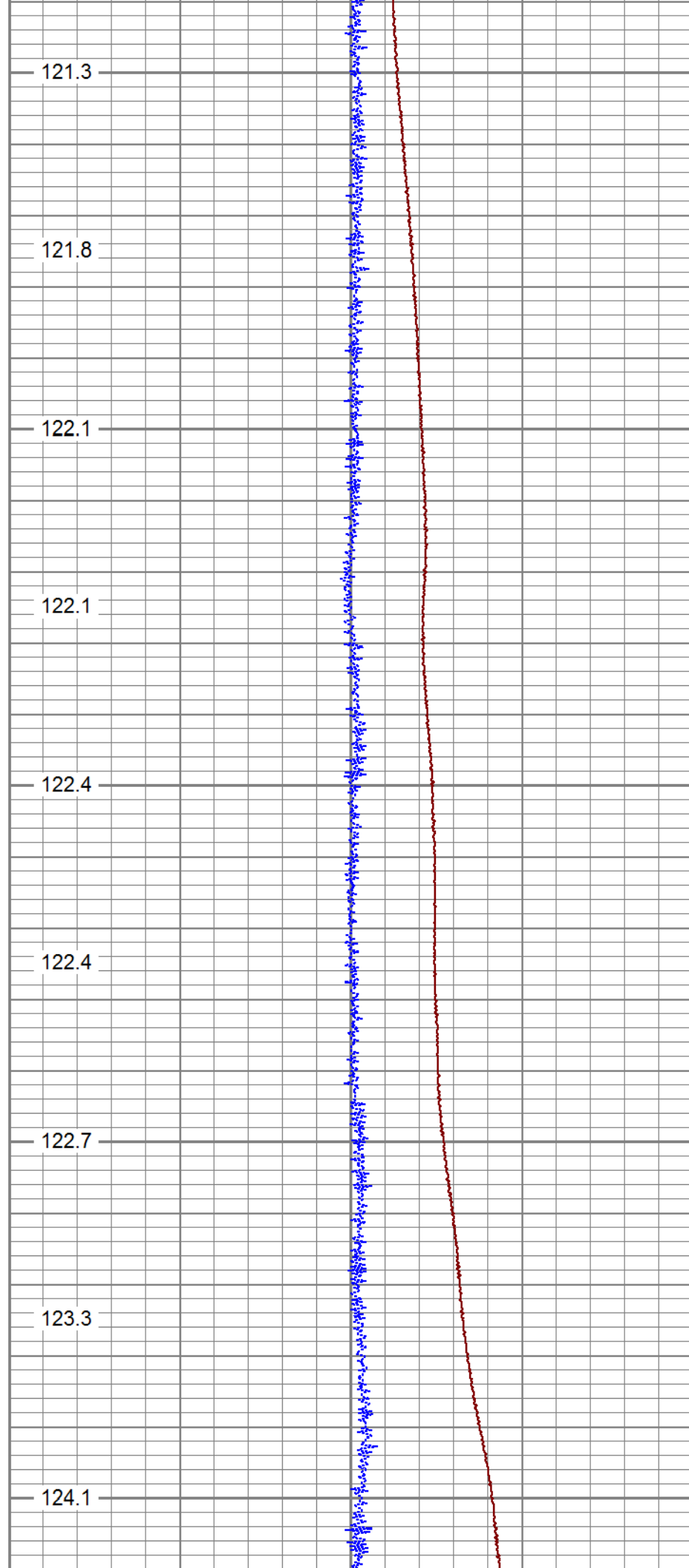
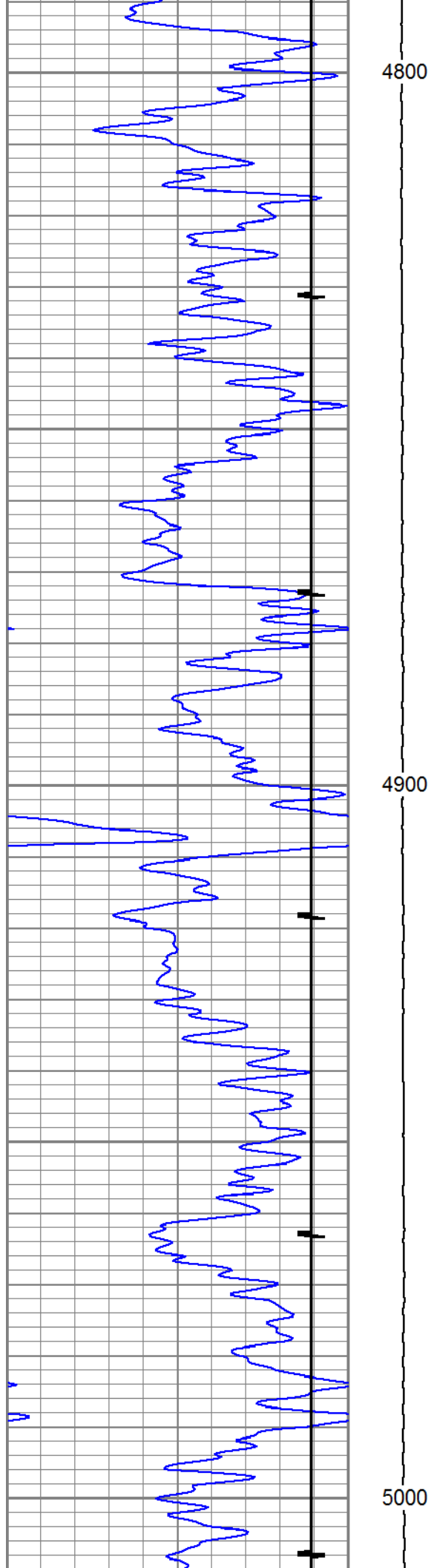
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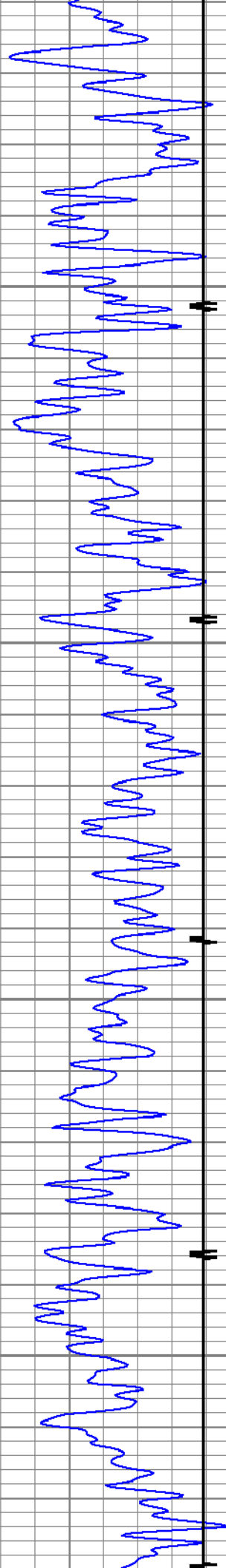
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119.4

119.6

120.8





5100

5200

124.6

125.0

125.2

125.4

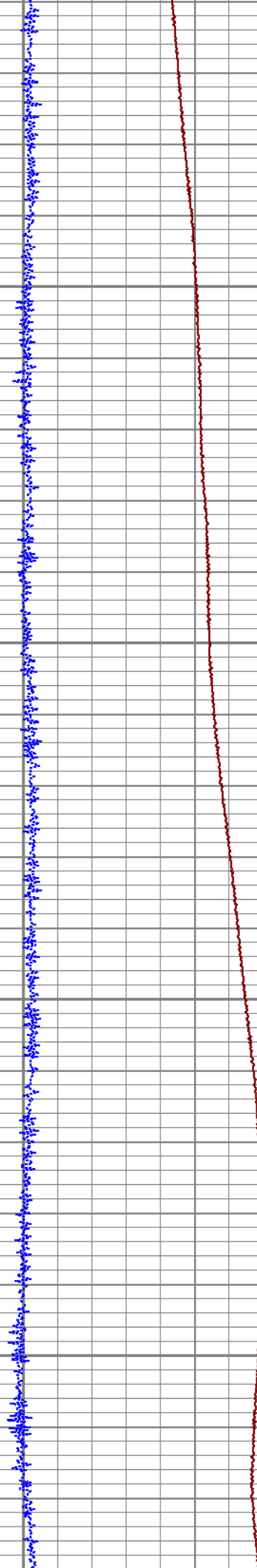
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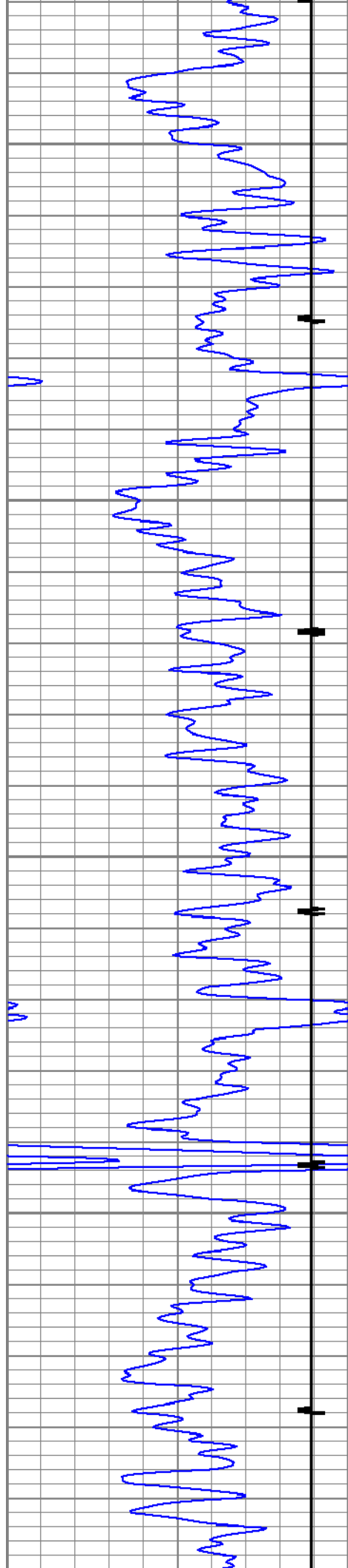
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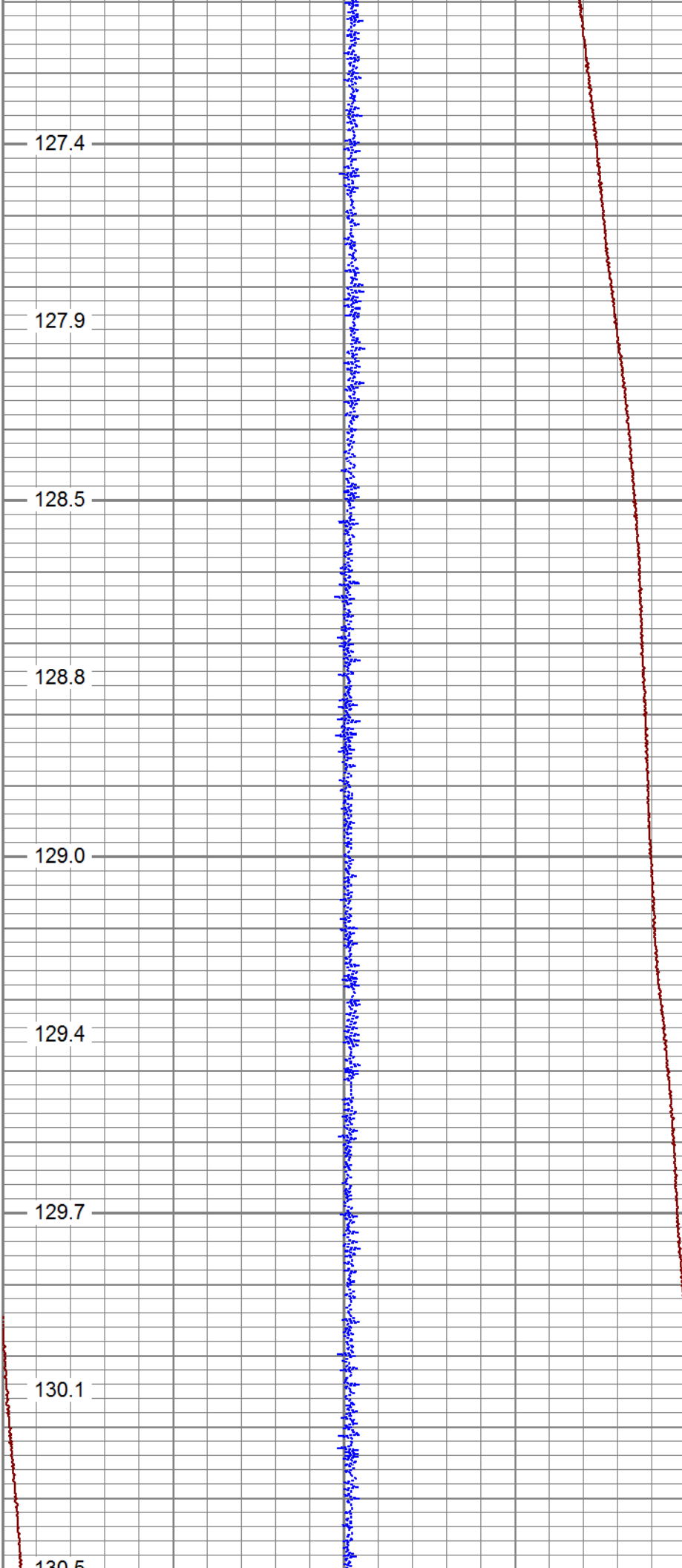
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5300

5400



127.4

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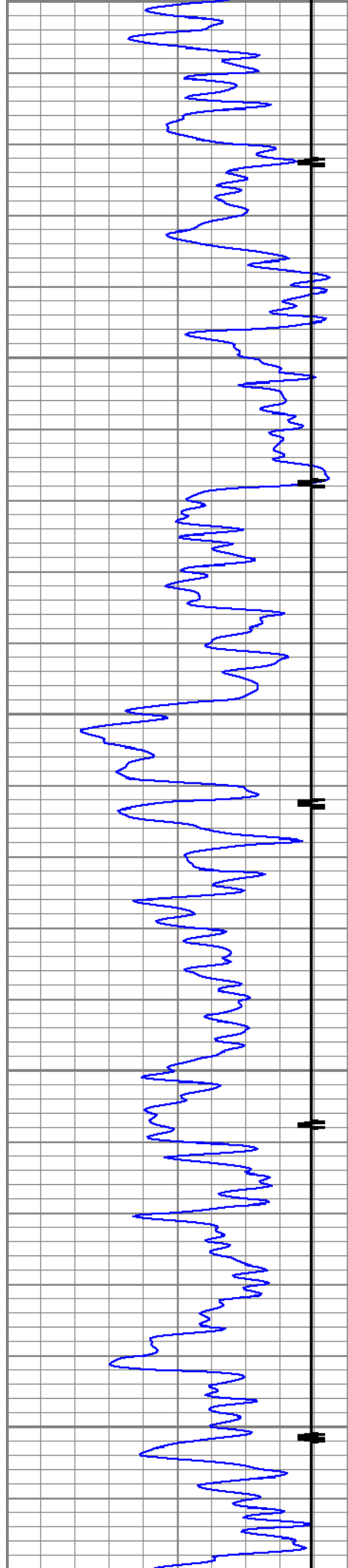
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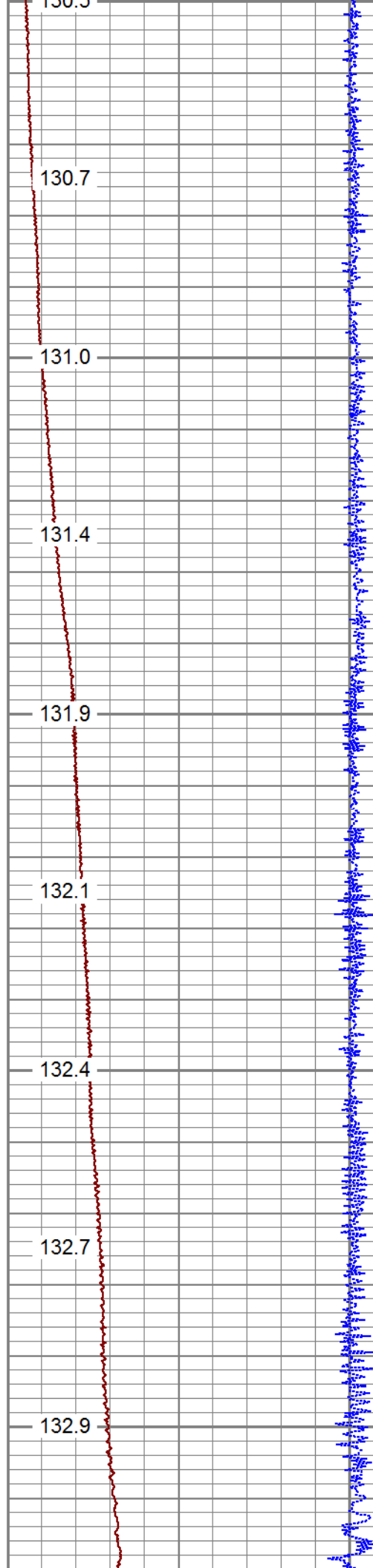
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130.5



5500

5600



130.7

131.0

131.4

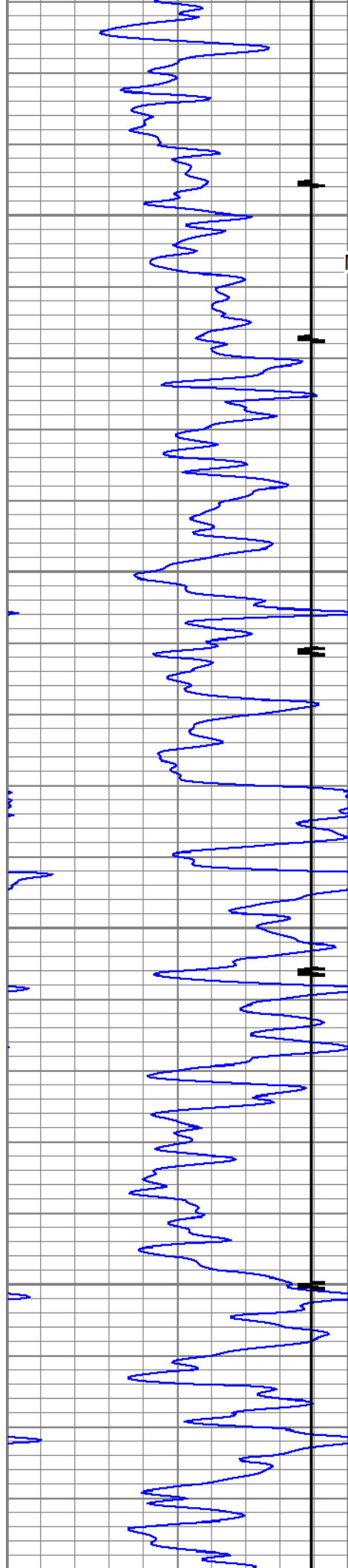
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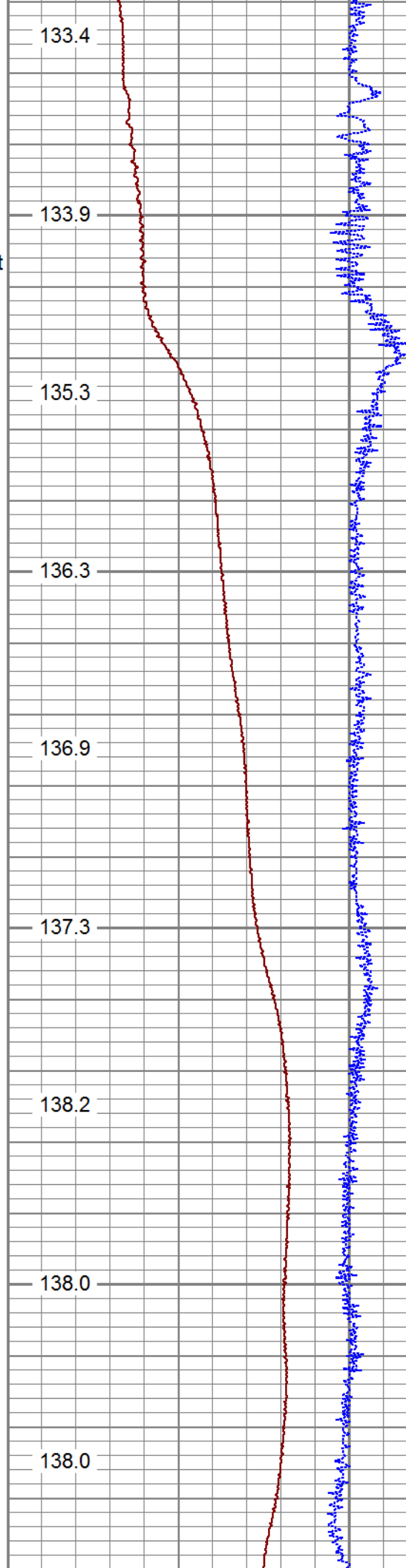
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132.9



5700
Marker Joint

5800



133.4

133.9

135.3

136.3

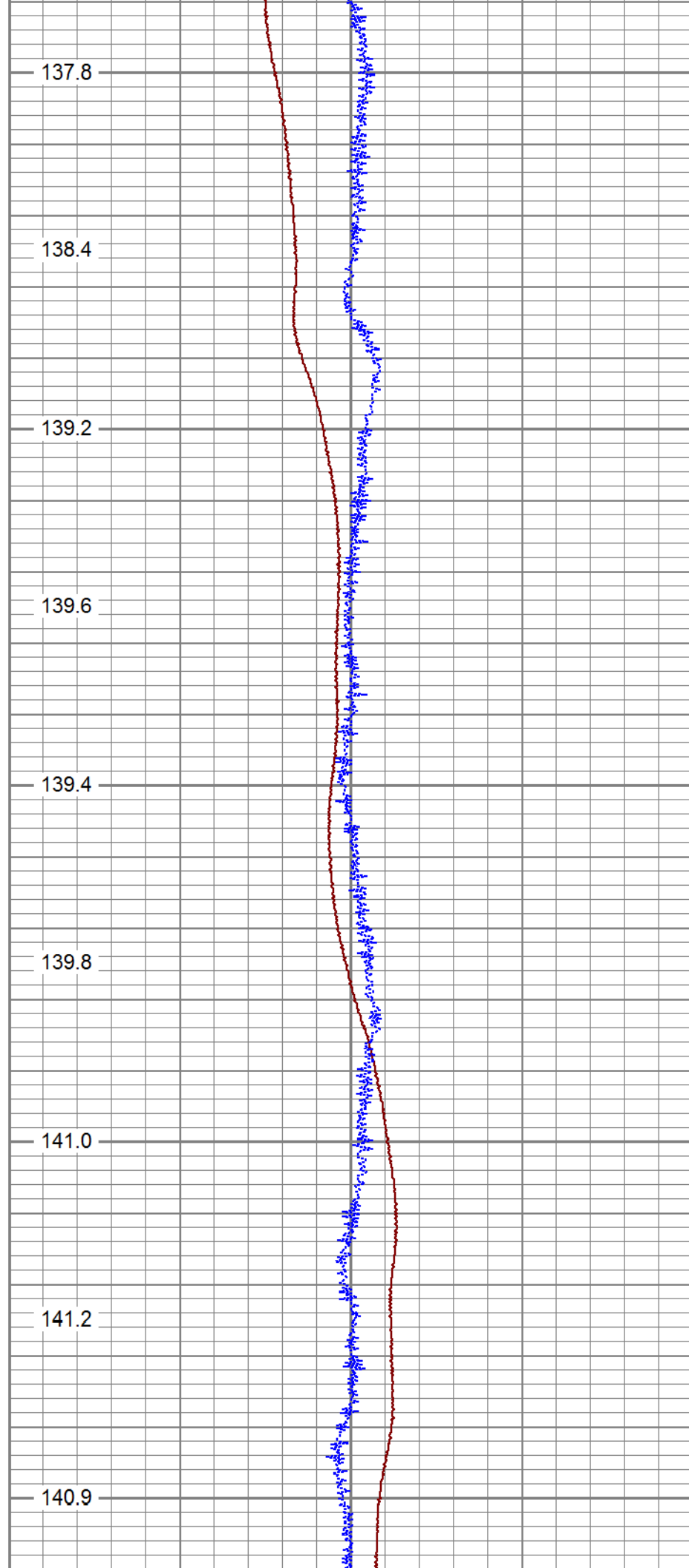
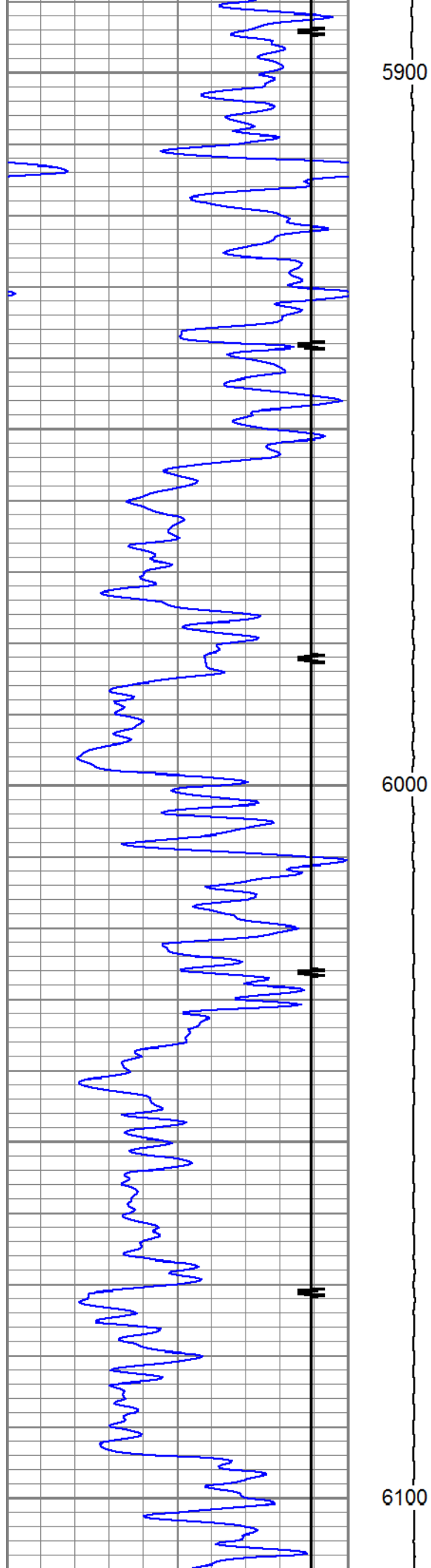
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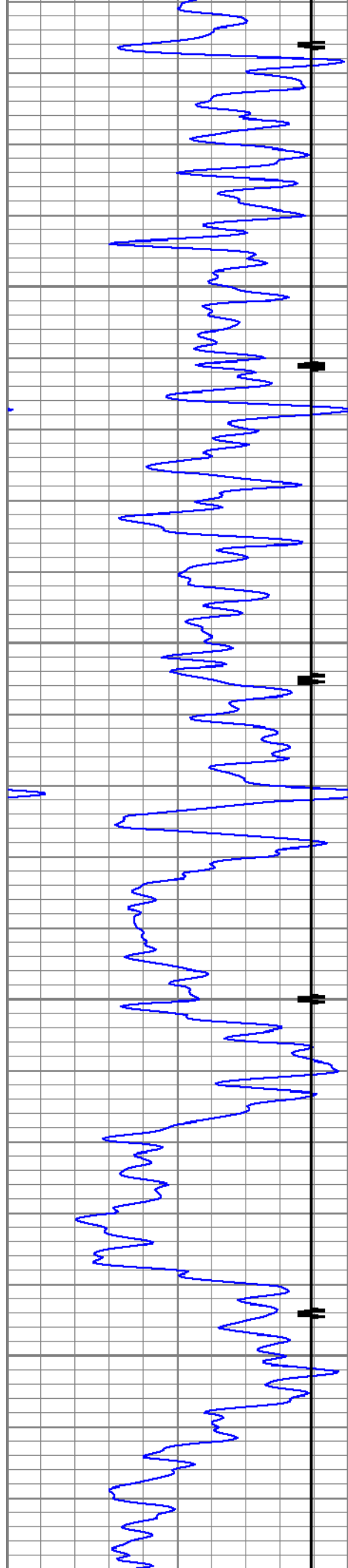
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138.0

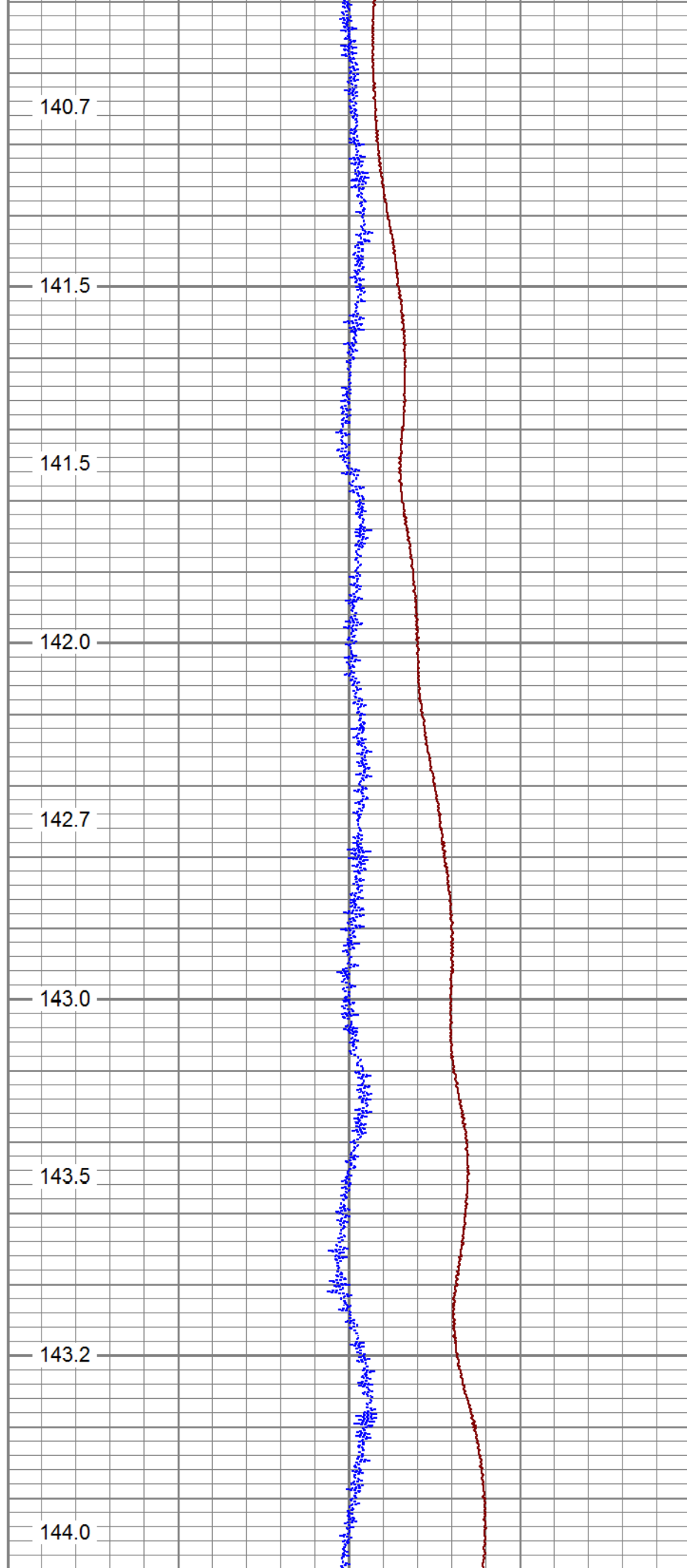
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6200

6300



140.7

141.5

141.5

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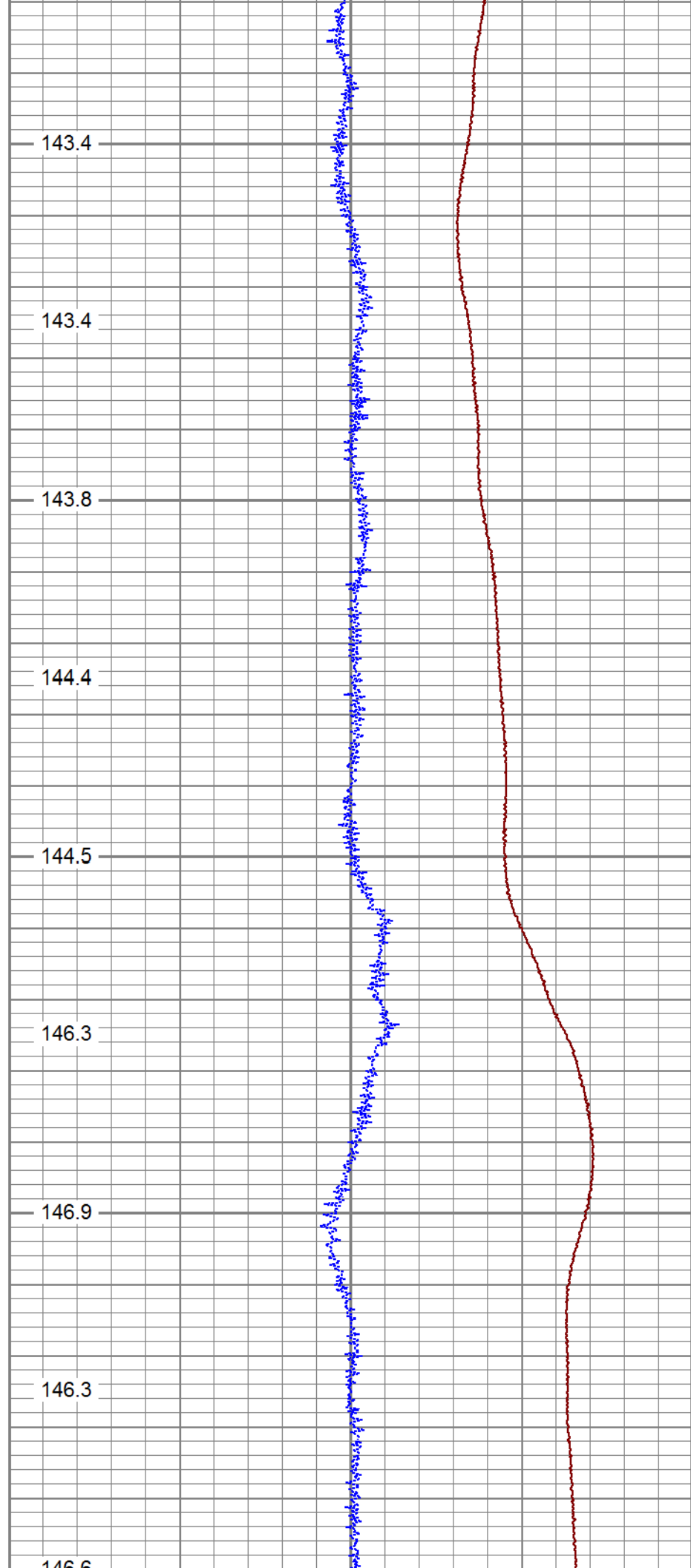
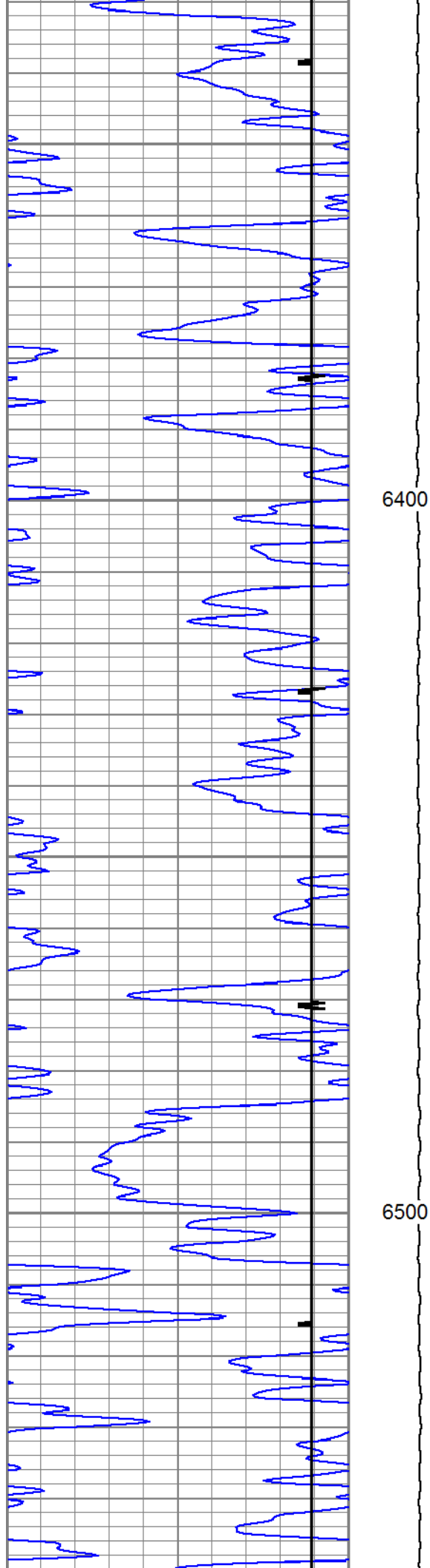
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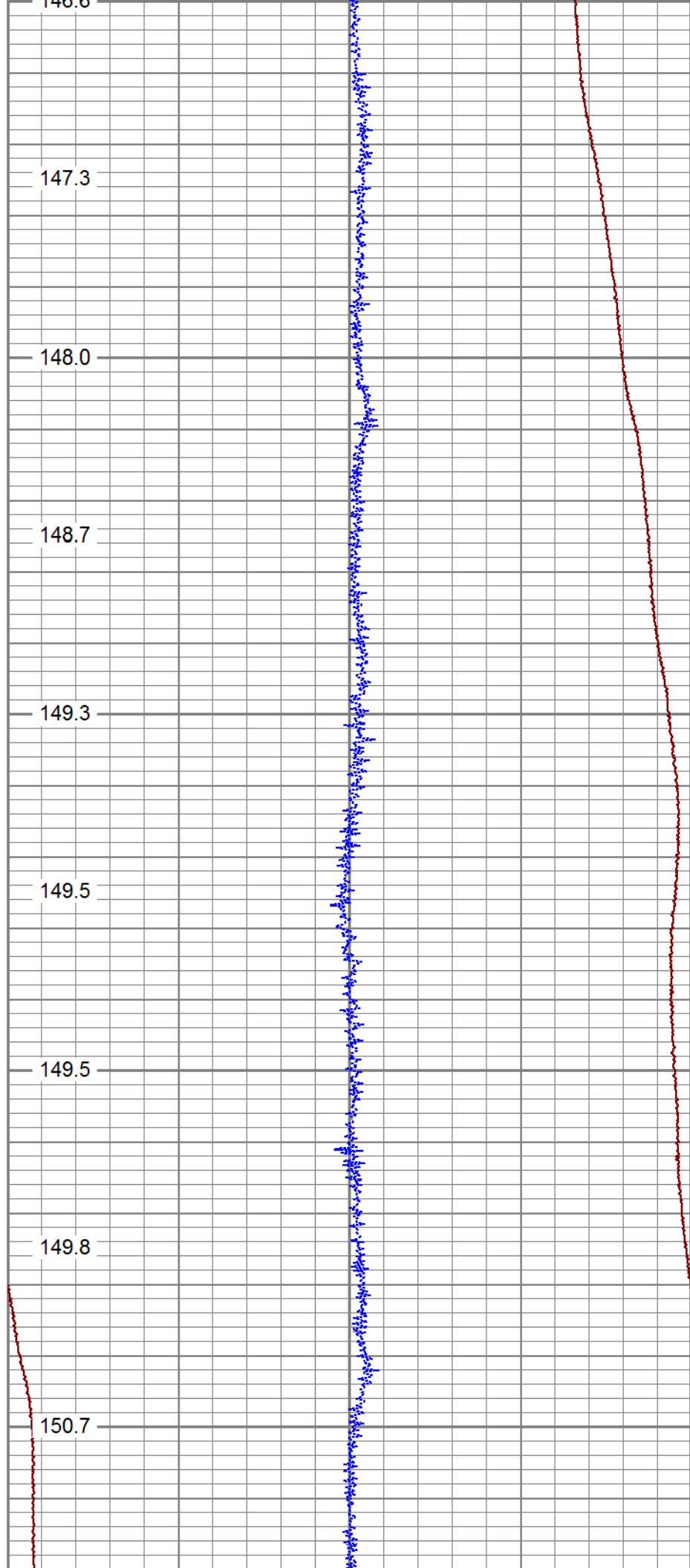
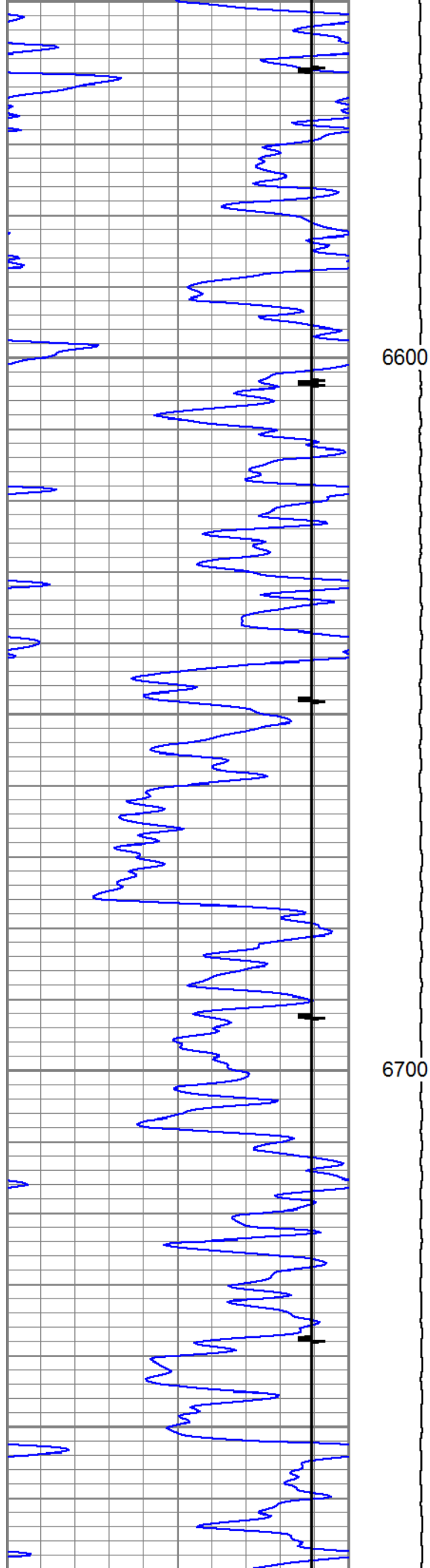
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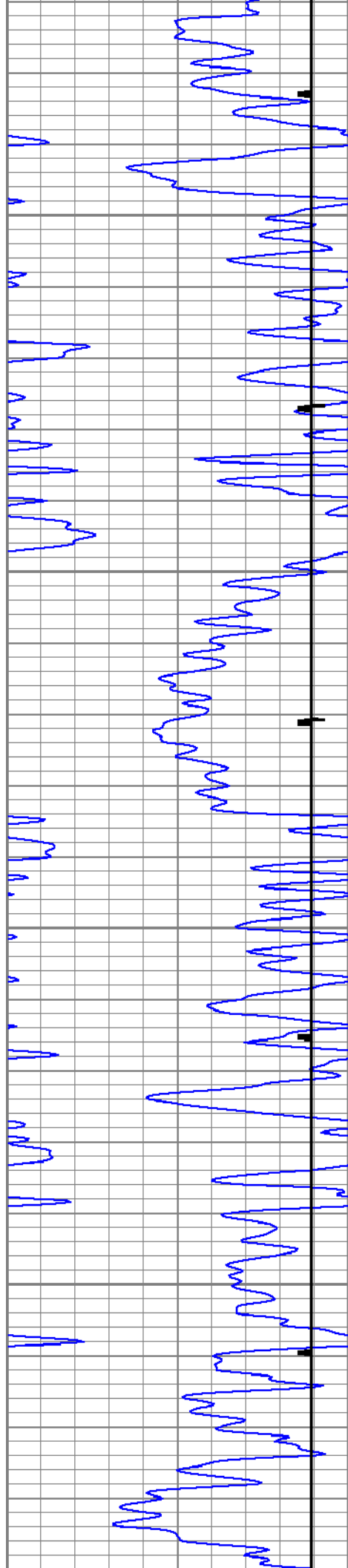
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6800

6900

150.8

150.8

150.7

151.2

151.7

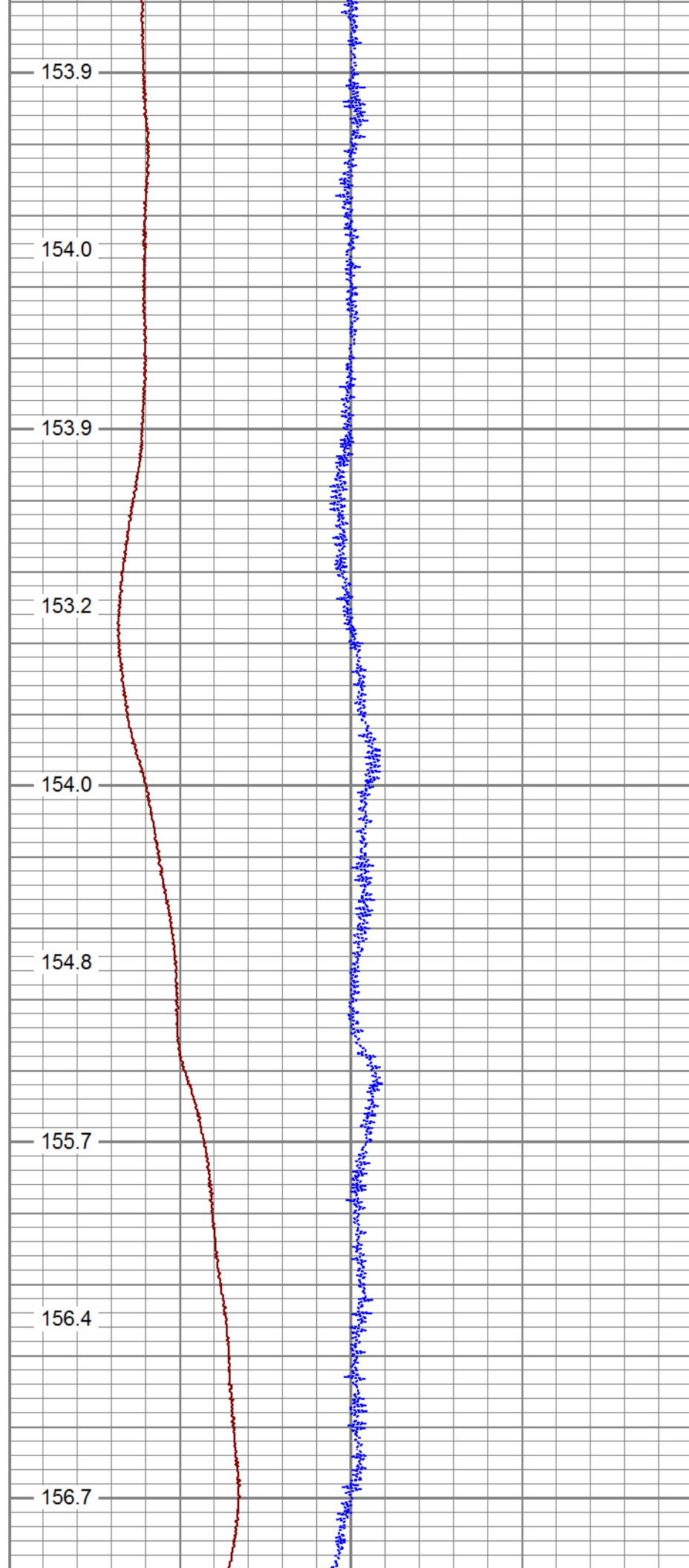
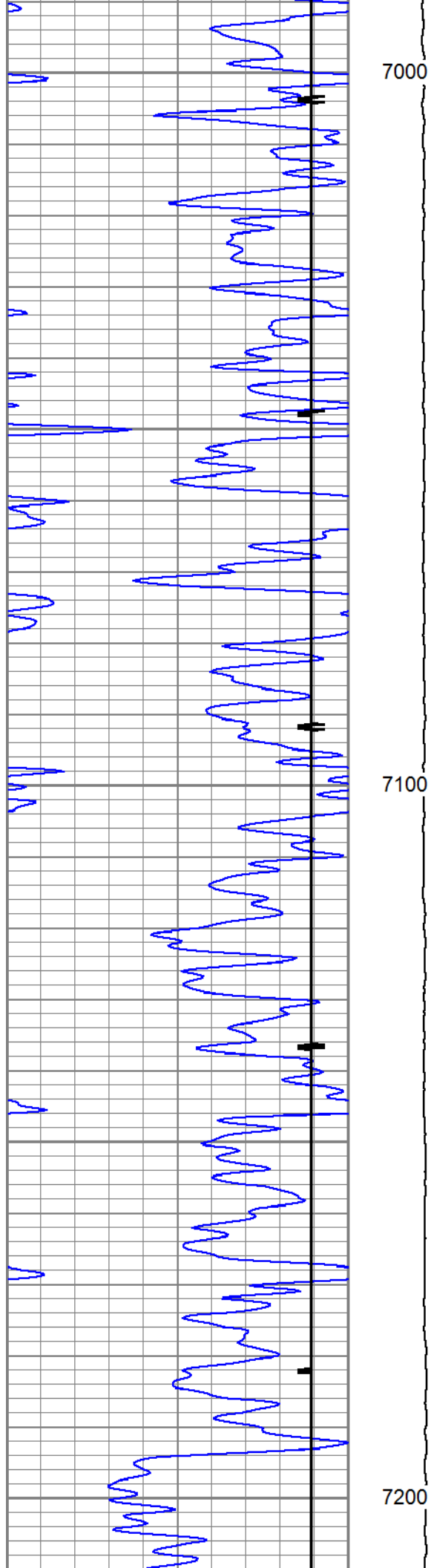
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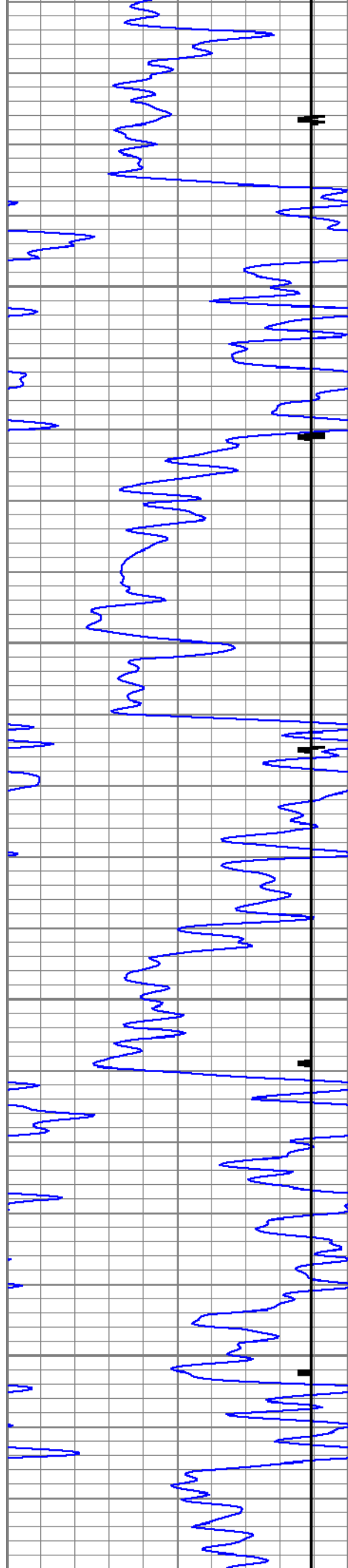
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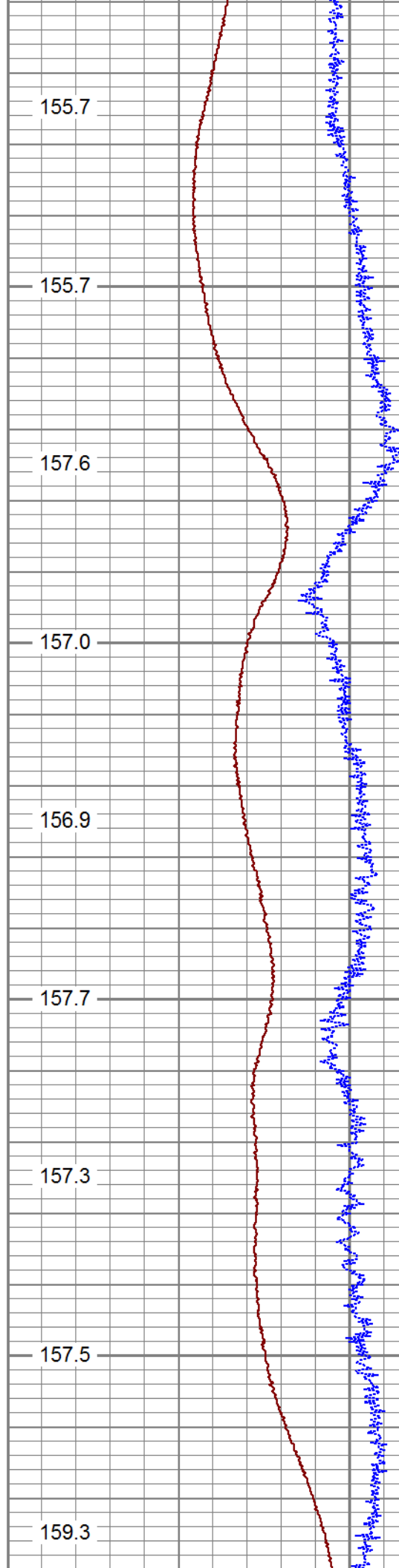


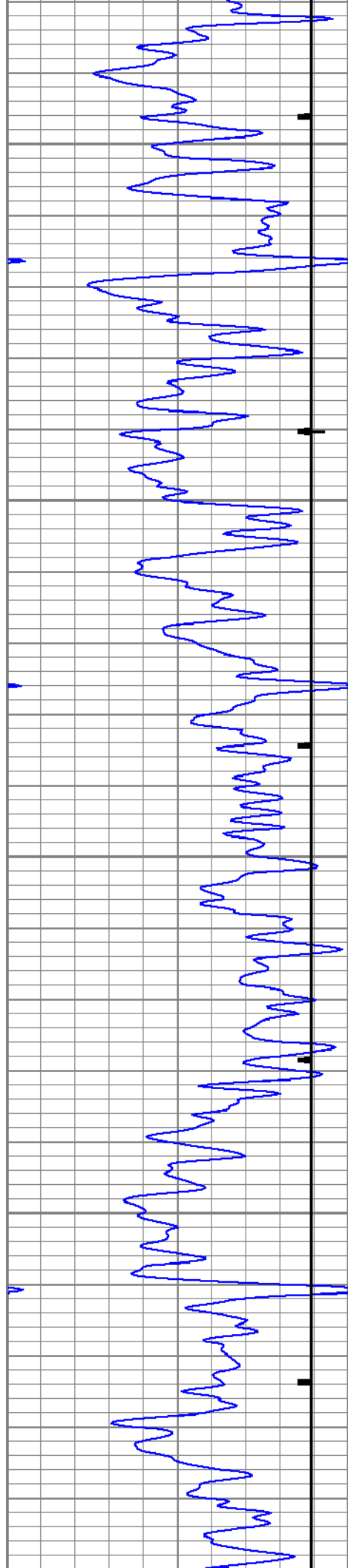




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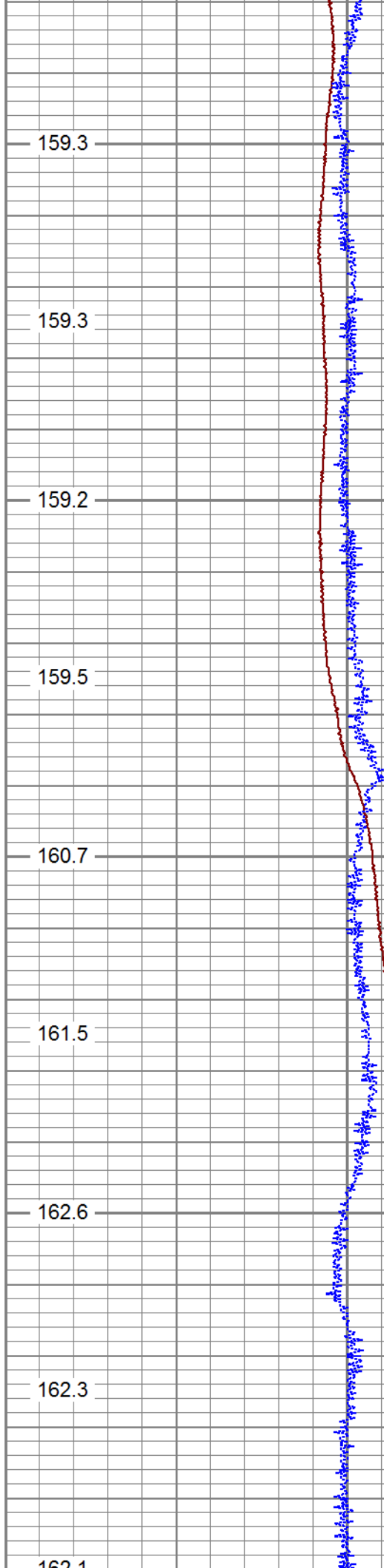
7400





7500

7600



159.3

159.3

159.2

159.5

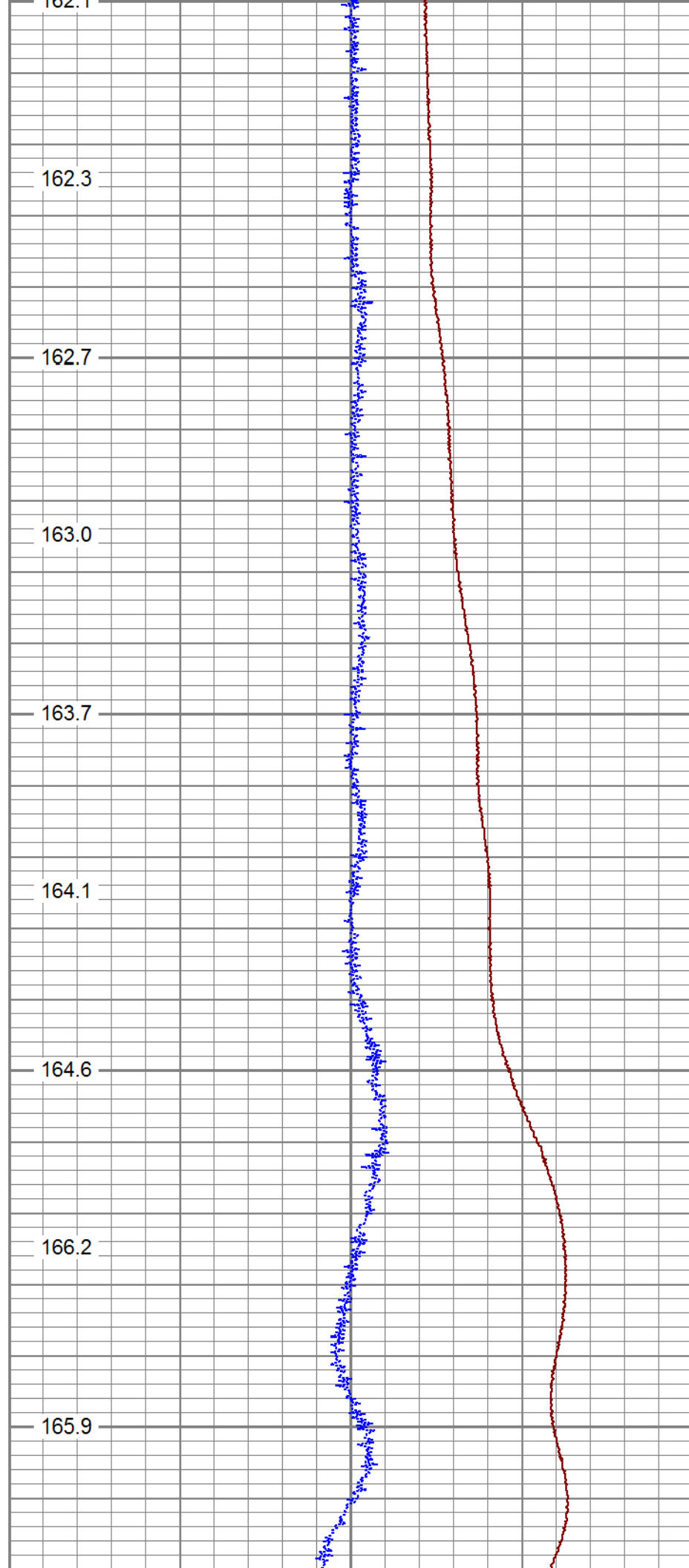
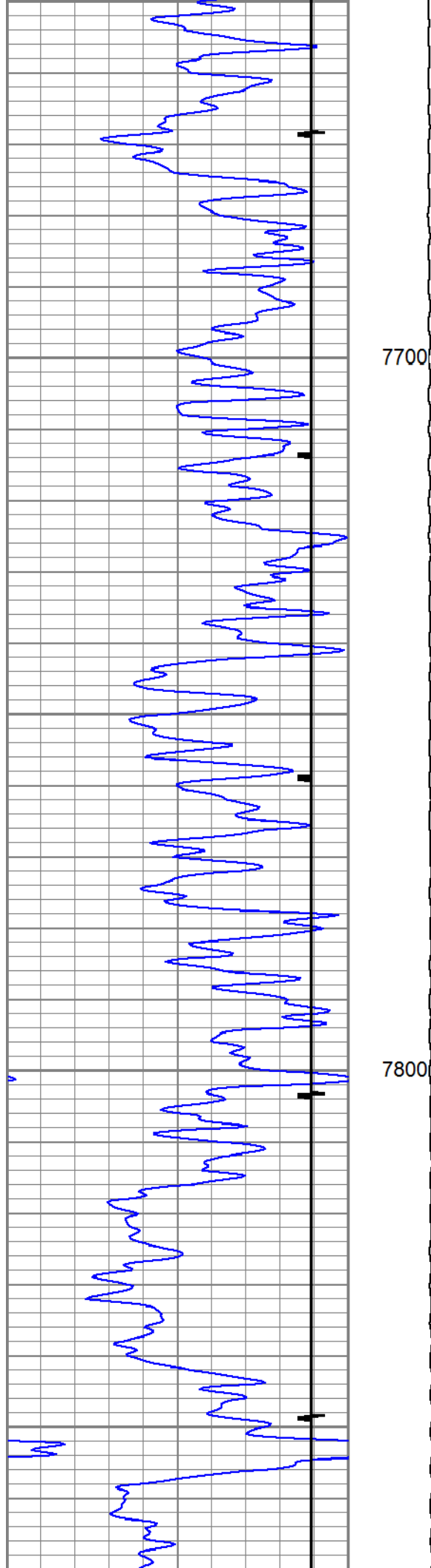
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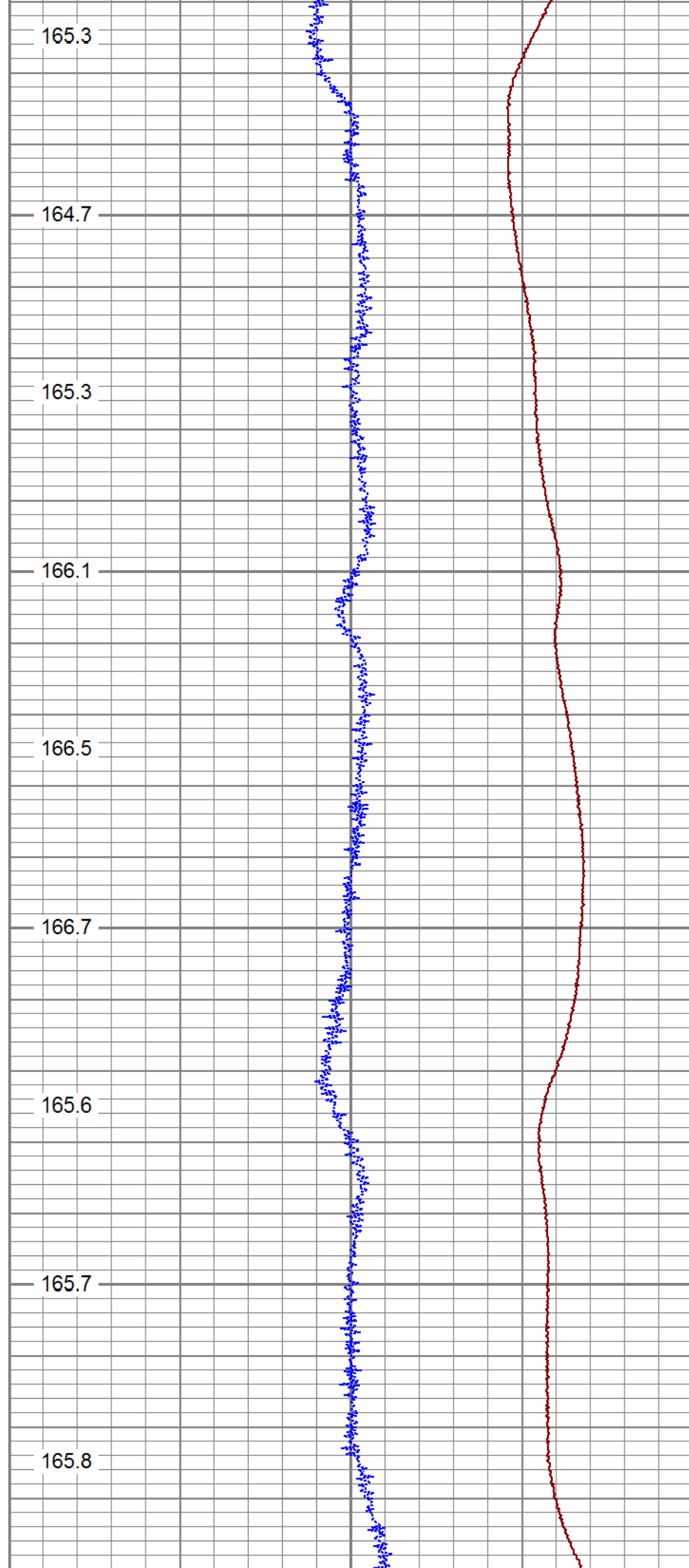
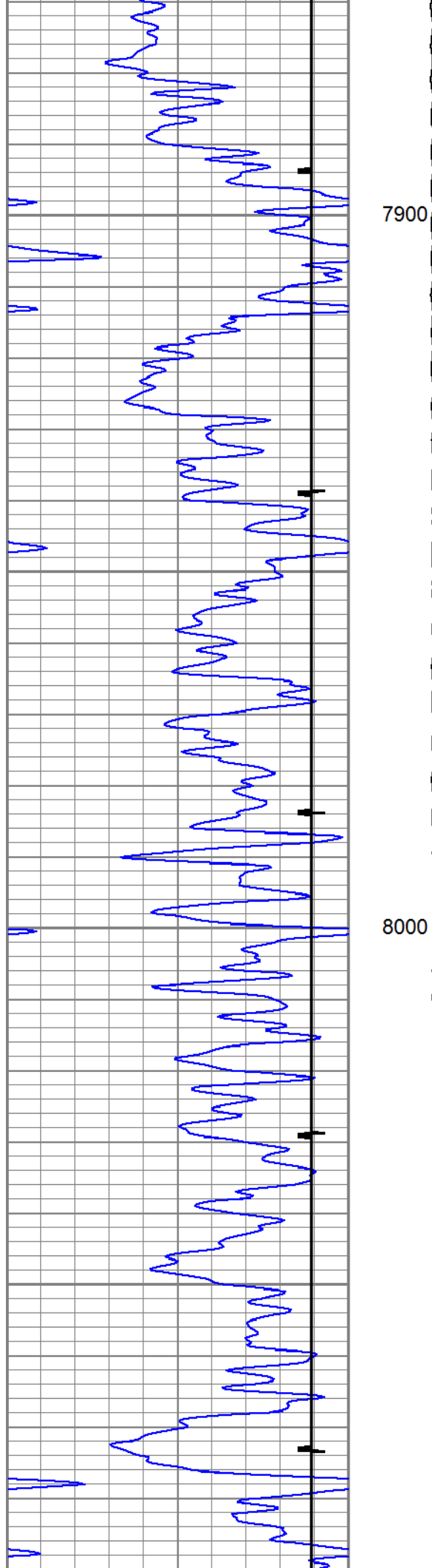
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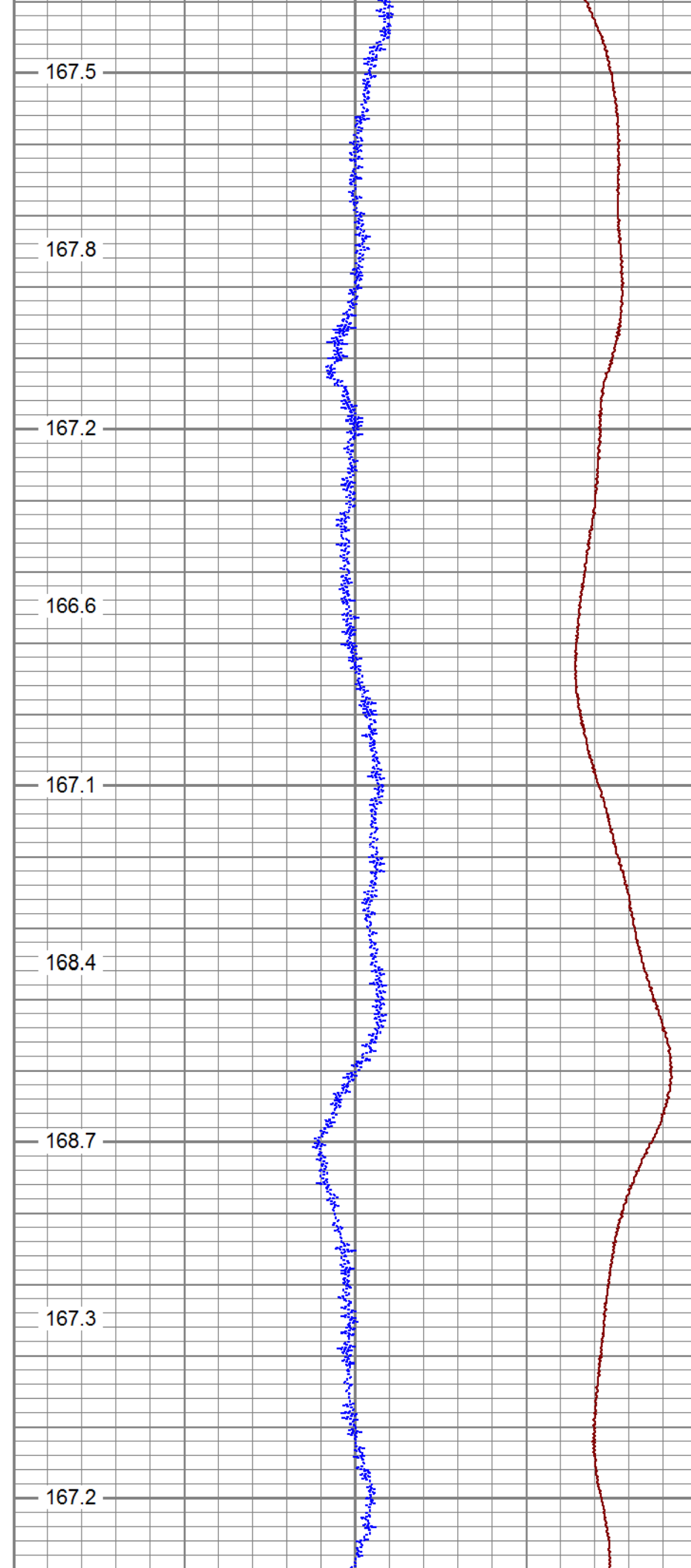
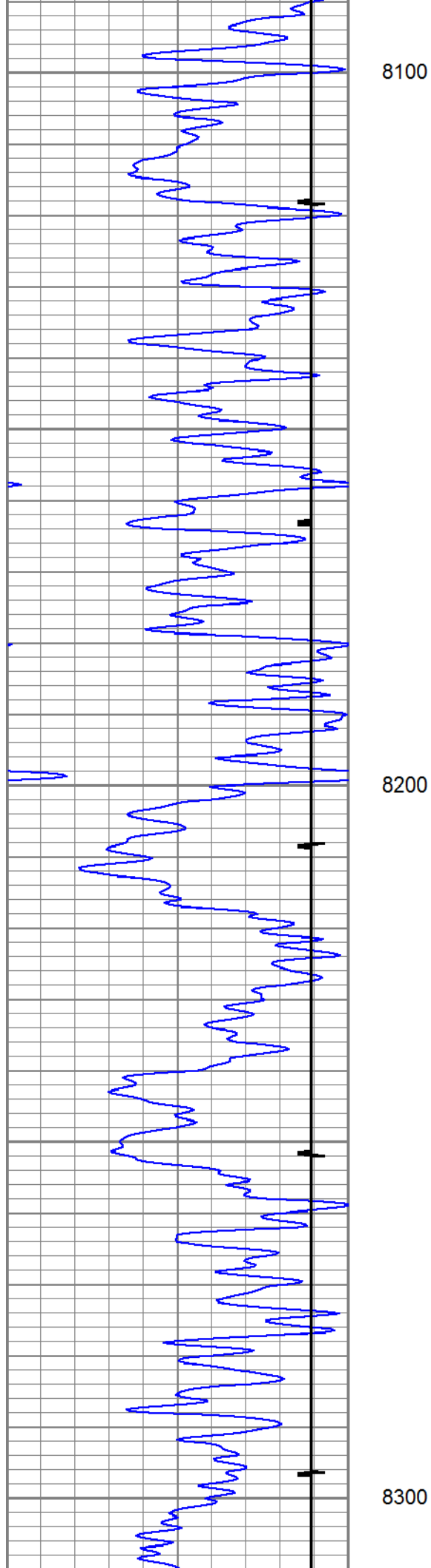
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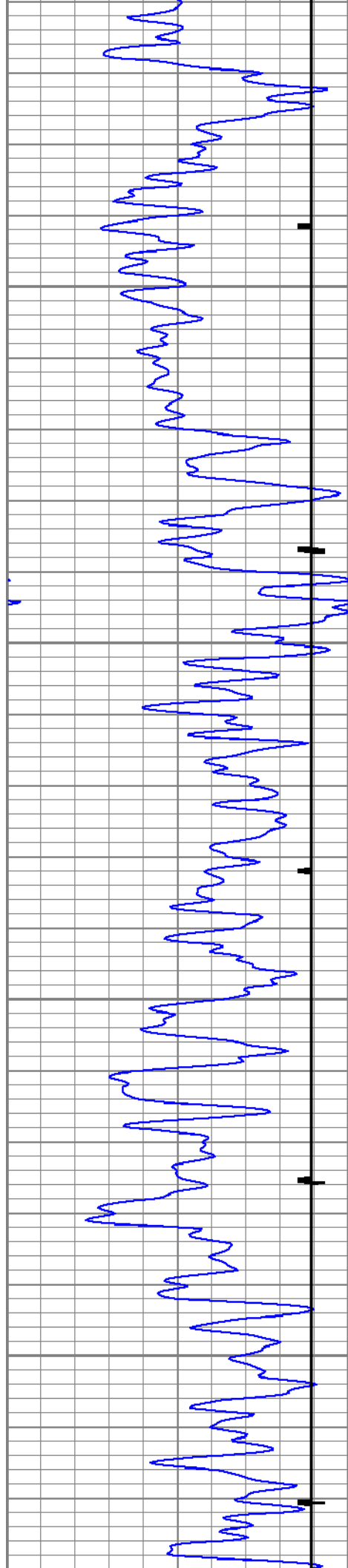
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162.1



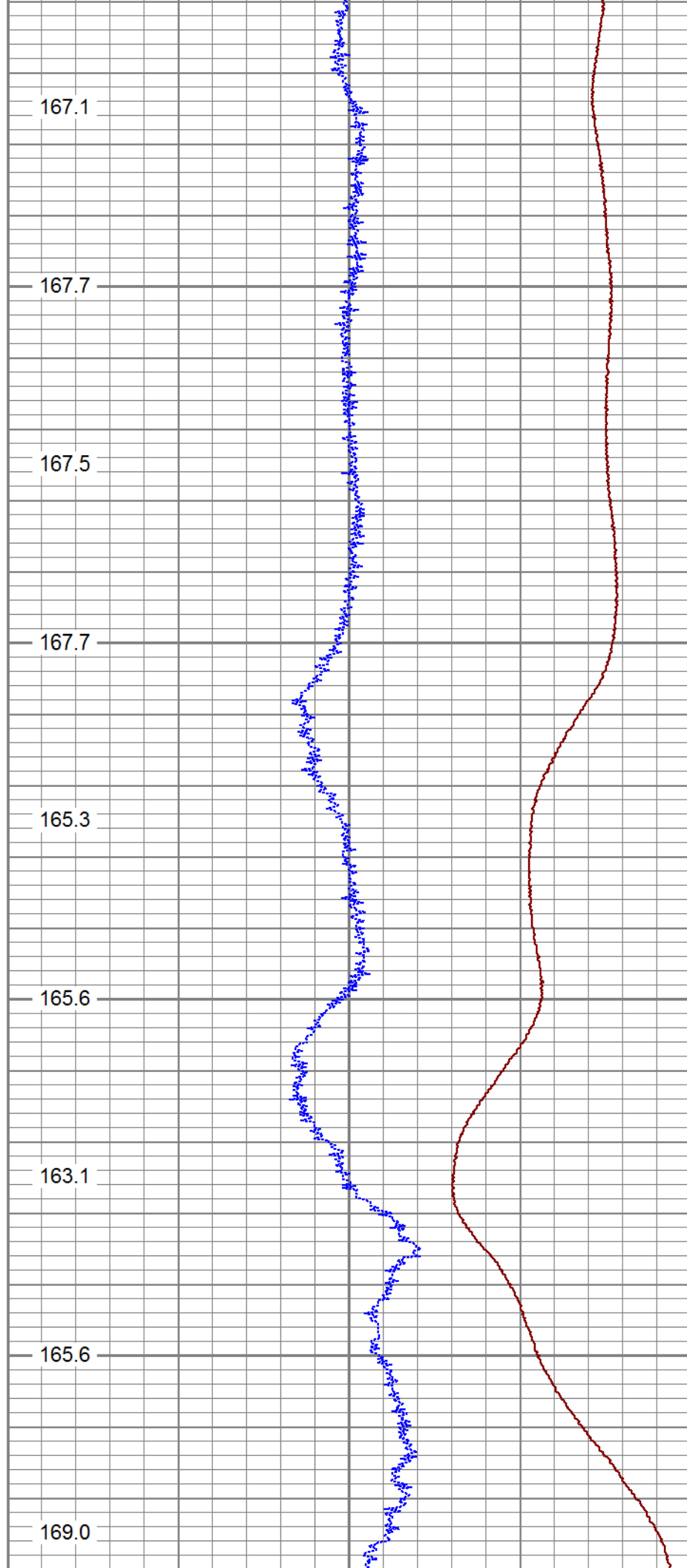


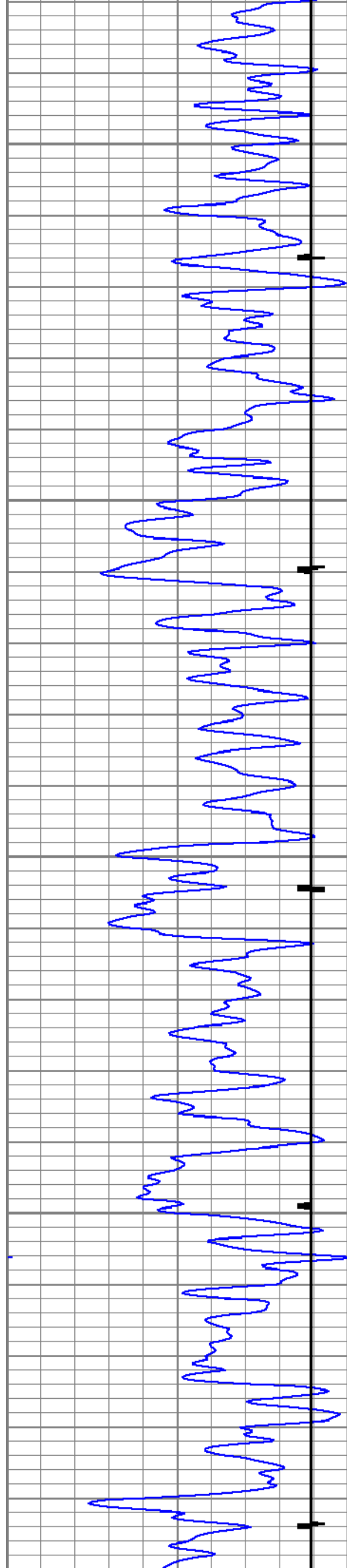




8400

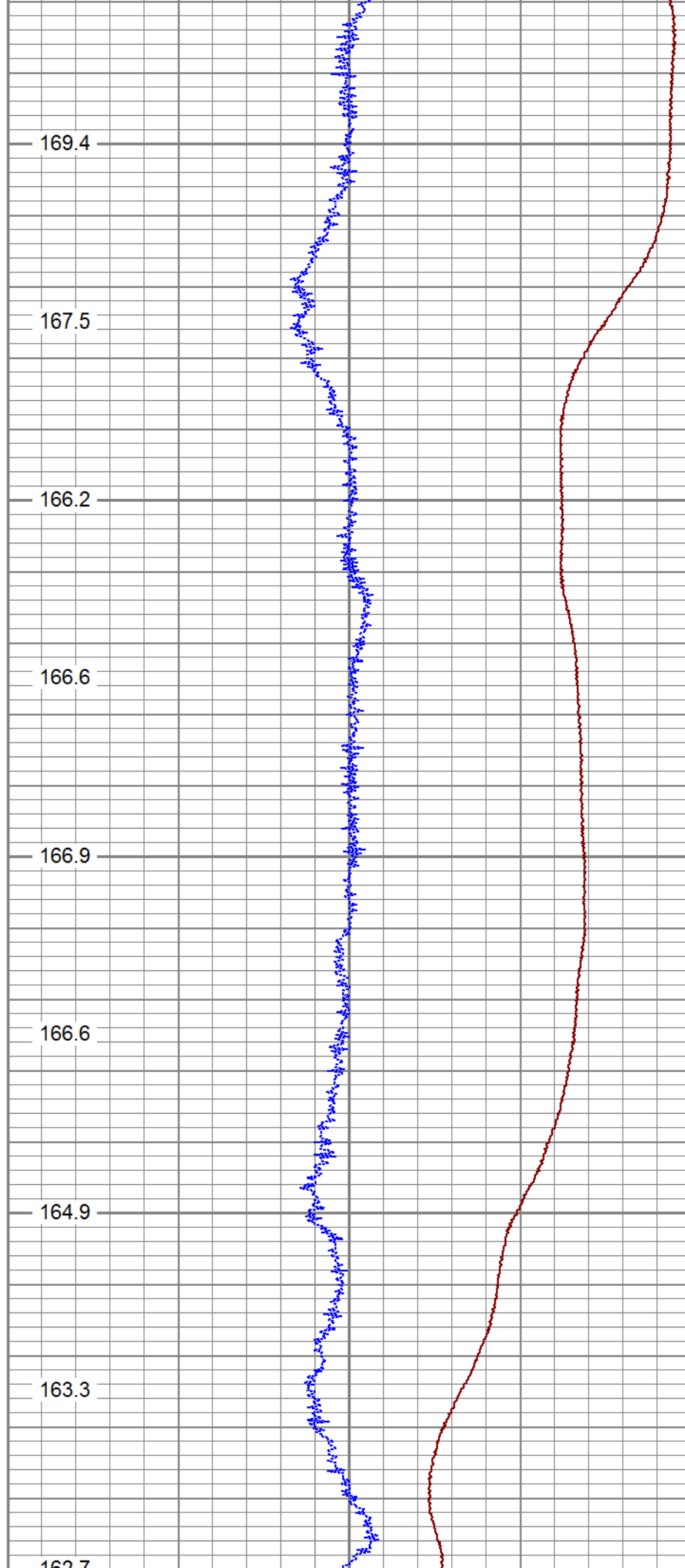
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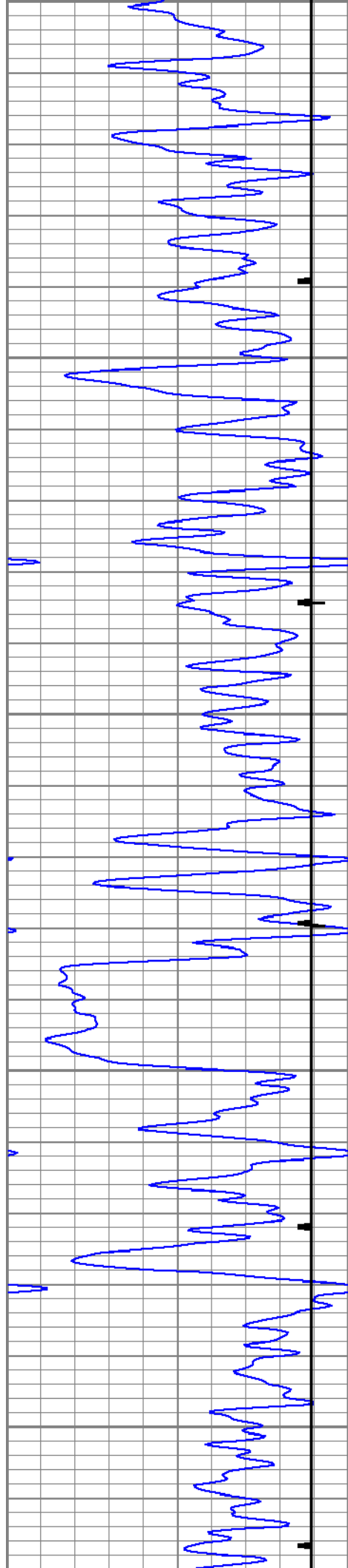




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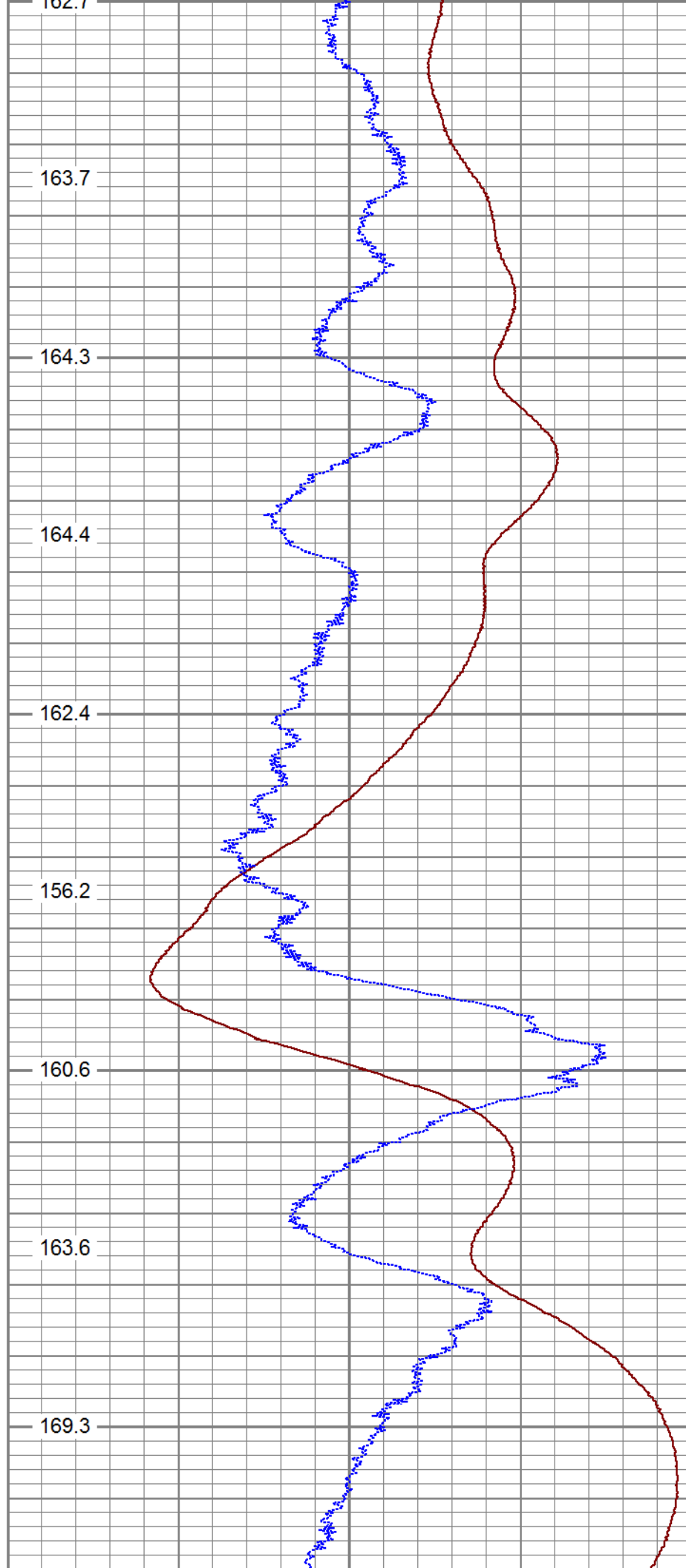
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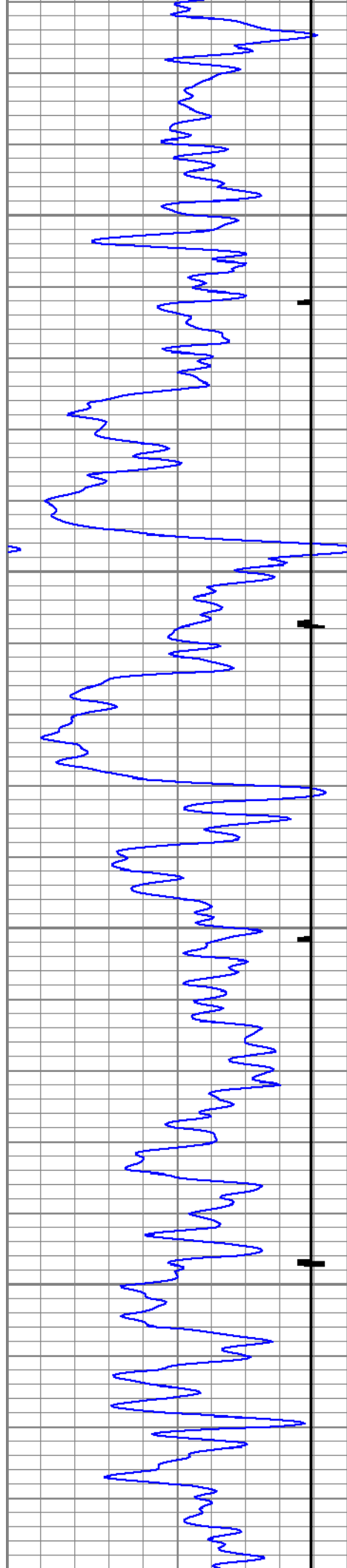




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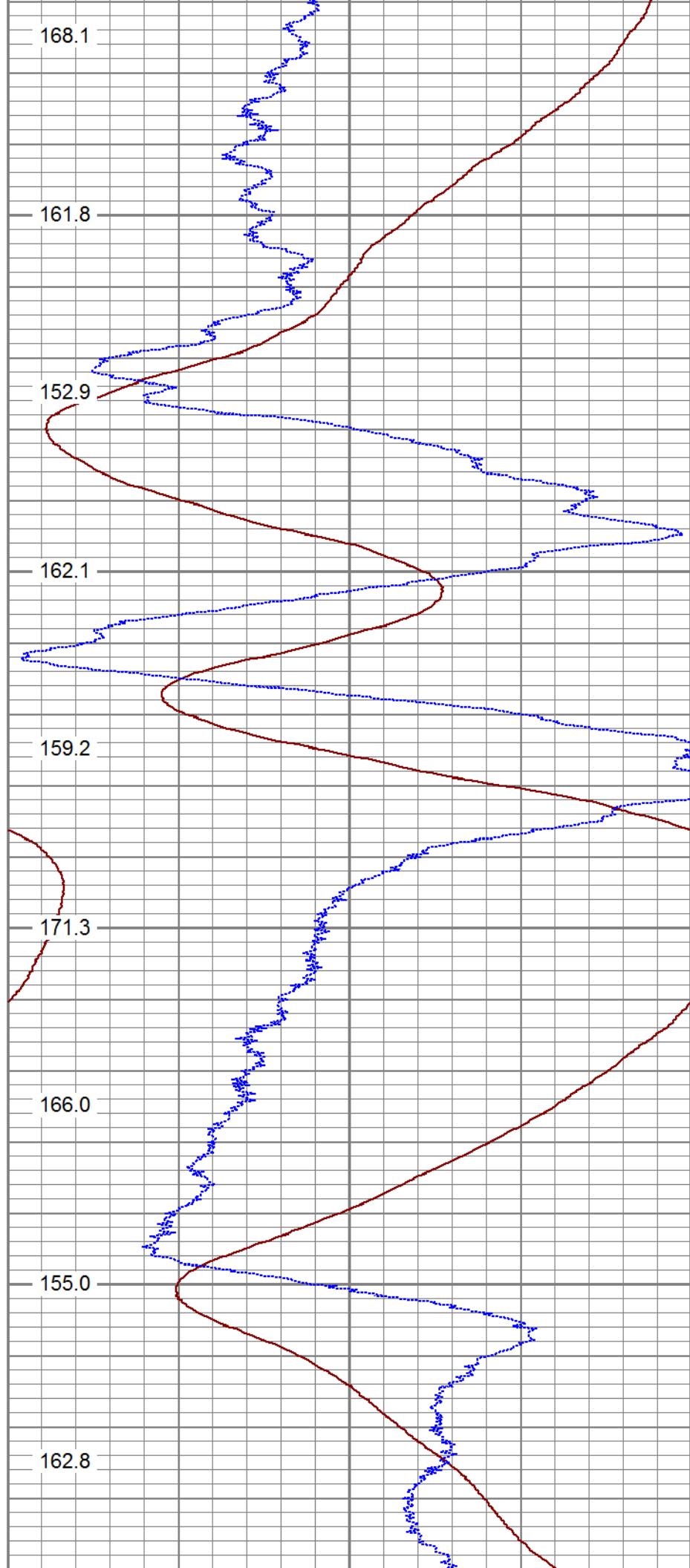
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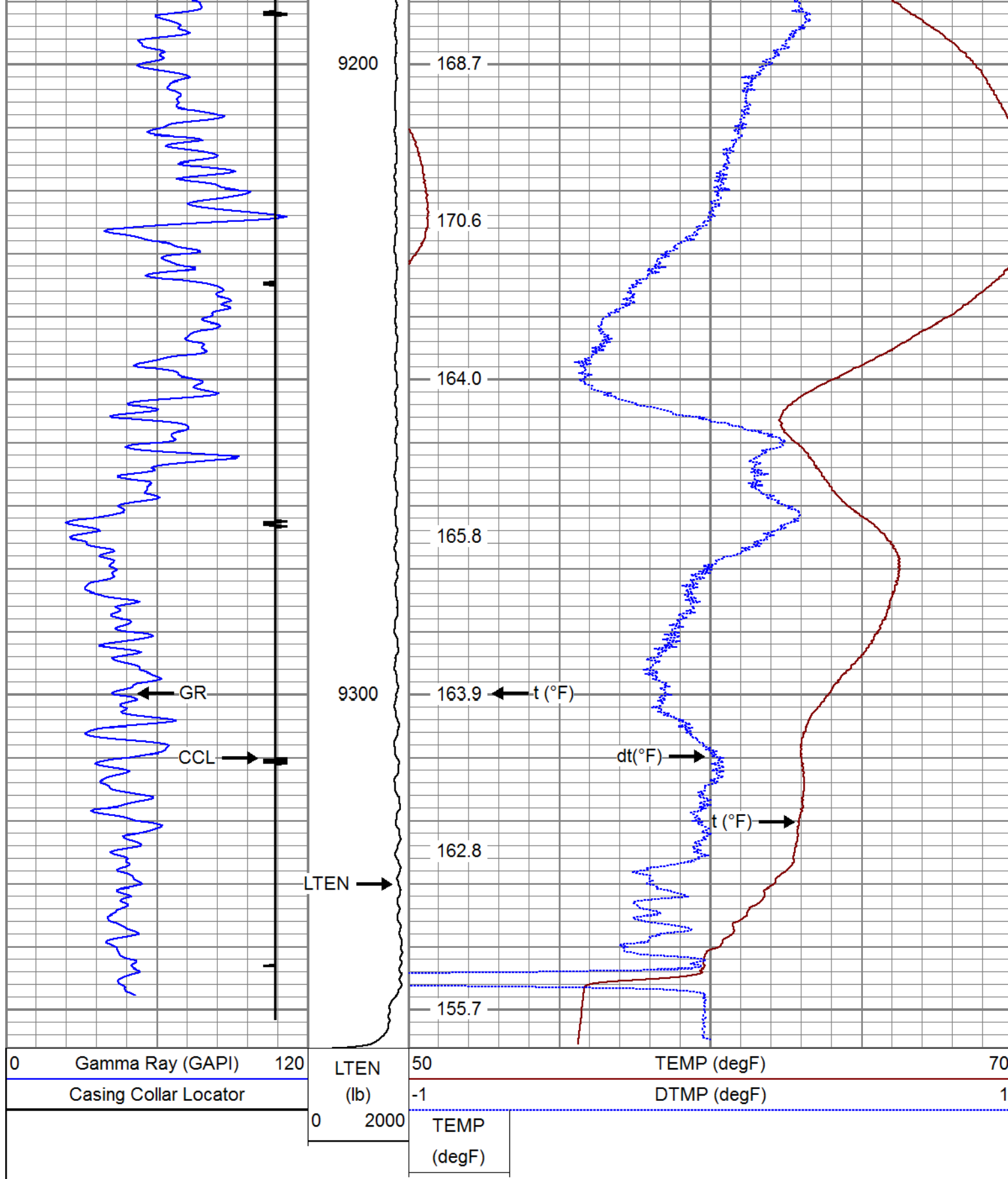




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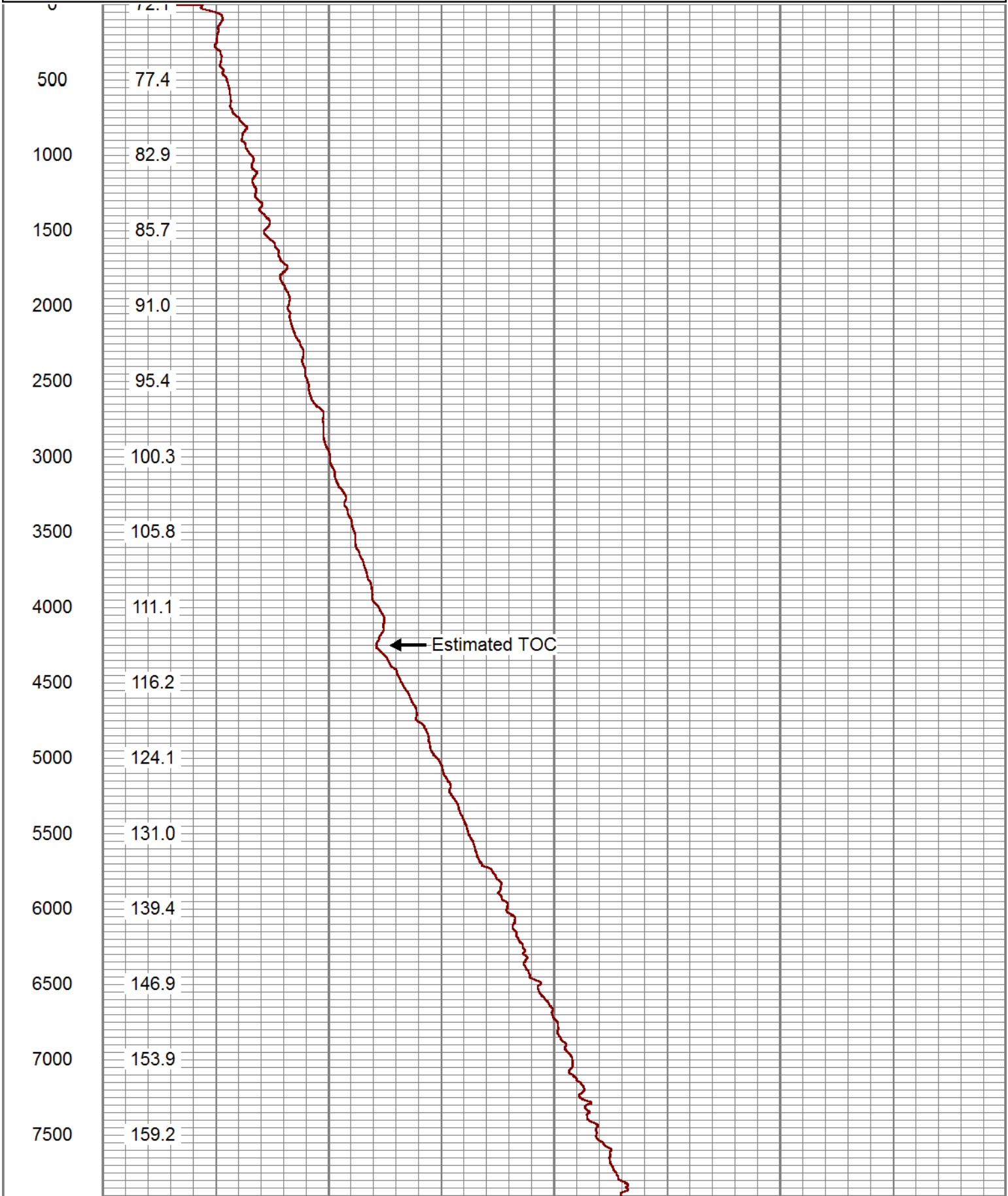
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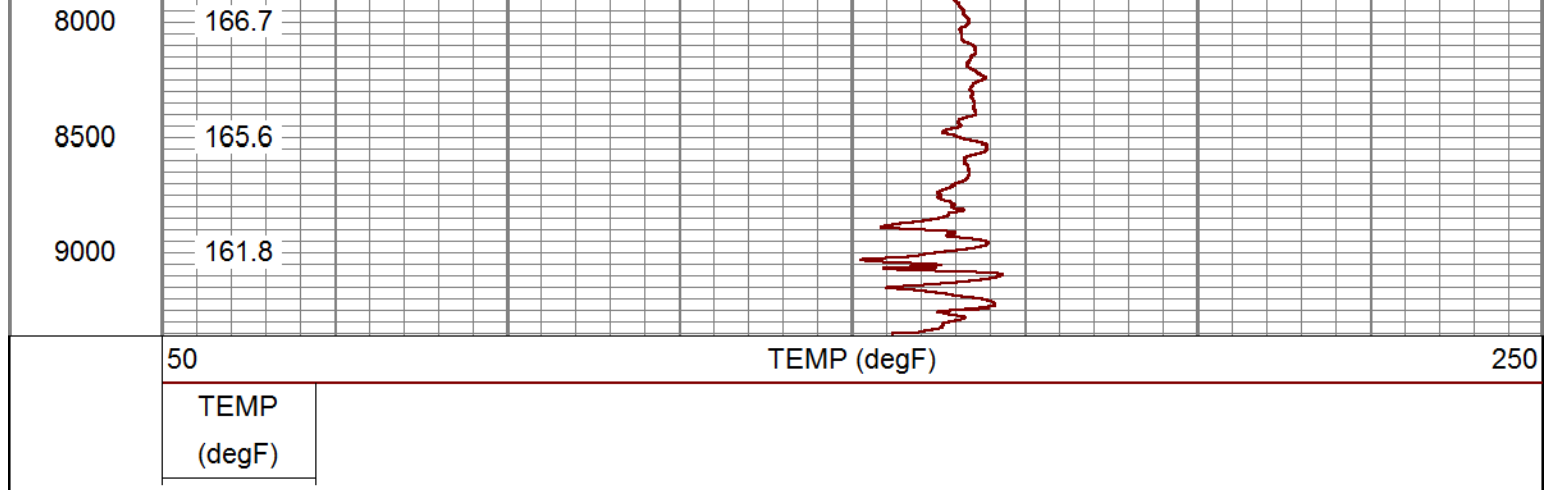


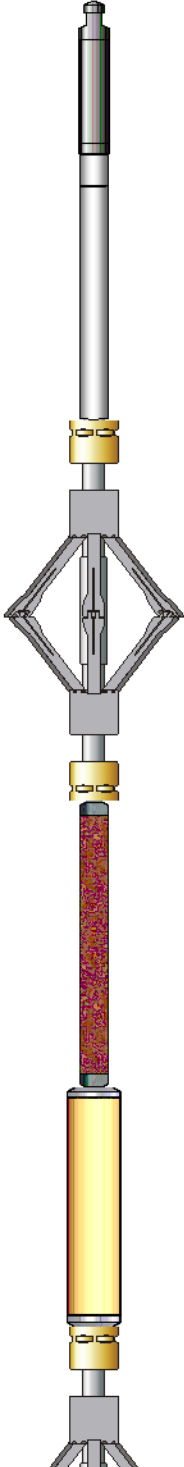
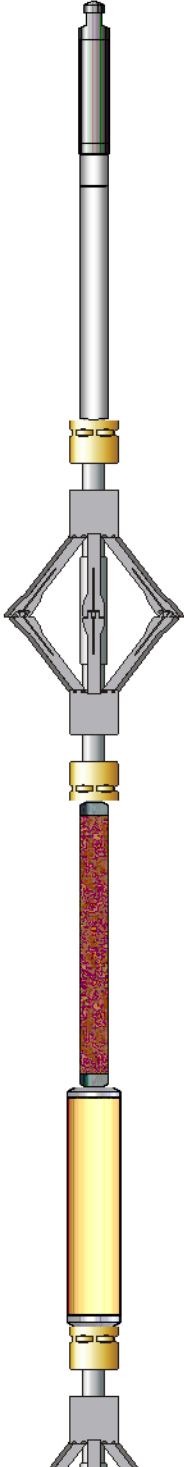


Main Pass (Quick Look)

50	TEMP (degF)		250
TEMP (degF)			






Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			Titan_Electric_Cable_Heads-Titan_1-11/16" 1.03 Electric Cable Head with 1" Fishing Neck	1.03	1.69	5.40
			UW_AGS-UW_AGS_001 (219135) Sondex Adapter - GO Box to Sondex Pin	0.21	1.69	1.00
			UW_XTU-UW_XTU_002 (211461) Crossover Ultrawire Toolbus to Ultralink	1.58	1.69	6.50
			DSS_RAC-RAC_5-Arm 5 Arm 2-3/4" Roller Centralizer	2.55	2.75	32.00
			UW_PGR-UW_PGR_020 (10019371) Production Gamma Ray	1.92	1.69	9.50
GR	5.92					
CCL	4.32		UW_CCL-UW_CCL_028 (10026421) 3-1/8" Ultrawire Casing Collar Locator	1.61	3.13	36.00
			DSS_RAC-RAC_5-Arm	2.55	2.75	32.00

			5 Arm 2-3/4" Roller Centralizer	2.00	2.70	32.00
TEMP	0.37					
HVOLT	0.00		UW_PRT-PRT_016 (10025093)	1.04	1.69	5.20
ITEMPX	0.00		Platinum Resistance Thermometer			
TSTAMP	0.00		UW_BUL-UW_BUL_006 (10019730)	0.22	1.69	1.20
			Sondex Ultrawire Bullnose Terminator			
Dataset: PROCESSED_TEP_Youberg SR 331-12_06-17-17_TEMP.db: field/well/run1/pass3 Total length: 12.71 ft Total weight: 128.80 lb O.D.: 3.13 in						

Calibration Report	
Database File	C:\ProgramData\Warrior\Data\TEP_Youberg SR 331-12_06-17-17_TEMP\PROCESSED_TEP_You
Dataset Pathname	pass3
Dataset Creation	Sat Jun 17 15:24:32 2017

Temperature Calibration Report					
		Serial Number:		10025093	
		Tool Model:		PRT_016	
		Performed:		Sun Oct 11 12:31:14 2015	
Point #	Reading			Reference	
1	13006.00	cps		68.00	degF
2	18181.00	cps		104.00	degF
3	29634.00	cps		176.00	degF
4	41077.00	cps		248.00	degF
5	52560.00	cps		320.00	degF
6	58409.00	cps		356.00	degF
7		cps			degF
8		cps			degF
9		cps			degF
10		cps			degF

Gamma Ray Calibration Report			
Serial Number:		10019371	
Tool Model:		UW_PGR_020	
Performed:		(Not Performed)	
Calibrator Value:		1.0	GAPI
Background Reading:		0.0	cps
Calibrator Reading:		1.0	cps
Sensitivity:		1.0000	GAPI/cps

 RELIANCE OILFIELD SERVICES	Company	TEP Rocky Mountain LLC
	Well	Youberg SR 331-12
	Field	Rulison
	County	Garfield
	State	Colorado