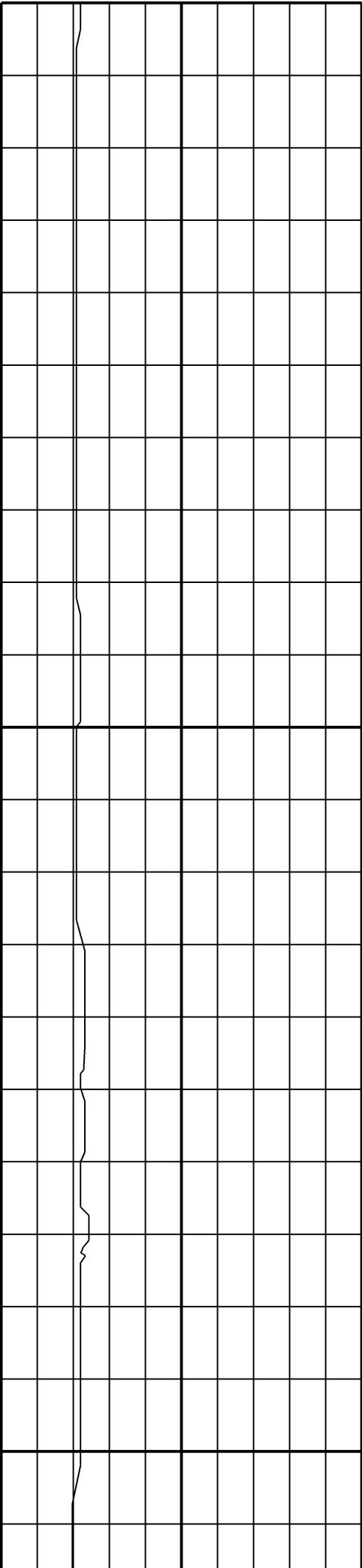


MD 1:120 Feet	
Client: Total Directional	
Well Name: ANSCHUTZ STATE #5-62-25-1080XBH	
Field: Weld County, Colorado	
Location: SEC 25 T5N R62W 6TH P.	Company Representative
Country: United States	Cecil Crow
Prov/State: Colorado	
County: Weld	
Drilling Rig #: SST 17	Geologist
Latitude: 40.375022	Blue Spikes
Longitude: 104.279972	
UWI/API: 05-123-38353	
License/Permit#: 18336DSI	Directional Drillers
Job No: 13-132	Paul Loehr
Vertical Section Direction: 79.13	Scott Summers
KB: 18	
DF: 0	
GL: 4581	
Permanent Datum: 0	MWD Operator
Drilling Measurement From: 0	Paul Perhonis
Magnetic Declination: 8.26	David Keele
Mag Field: 0.530	
Dip Angle: 67.02	
Spud Date: 12-15-13	
Print Date: 12/25/2013	
Log Start Depth: 0	Leg Name
Log End Depth: 10808	Main Leg
Comments:	
- ZONE DIRECT MWD SERVICES LTD ("ZONE DIRECT") DOES NOT MAKE AND EXPRESSLY DISCLAIMS ALL WARRANTIES, REPRESENTATIONS AND CONDITIONS, WITH RESPECT TO THE INFORMATION CONTAINED IN THIS DOCUMENT, WHETHER ORAL OR WRITTEN, EXPRESS OR IMPLIED OR ARISING FROM CONTRACT OR STATUTE INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY, ACCURACY AND FITNESS FOR A PARTICULAR PURPOSE. ANYONE USING THIS INFORMATION DOES SO AT THEIR OWN RISK AND ACKNOWLEDGES AND AGREES THAT ZONE DIRECT SHALL NOT BE LIABLE FOR ANY ERROR, OMISSION, DEFECT, DEFICIENCY, OR NONCONFORMITY IN THE INFORMATION AND WITHOUT LIMITING THE FOREGOING, ZONE DIRECT DOES NOT WARRANT THAT THE INFORMATION (OR THE USE THEREOF) WILL BE FREE OF ALL ERRORS OR THAT IT DOES NOT INFRINGE ANY THIRD PARTY RIGHTS. ANYONE USING THE INFORMATION AGREES TO INDEMNIFY AND HOLD ZONE DIRECT HARMLESS FROM ALL CLAIMS, ACTIONS, COSTS (INCLUDING LEGAL COSTS ON A SOLICITOR AND HIS OWN CLIENT BASIS) AND LIABILITIES ARISING FROM OR IN CONNECTION WITH THE USE OF THE INFORMATION.	

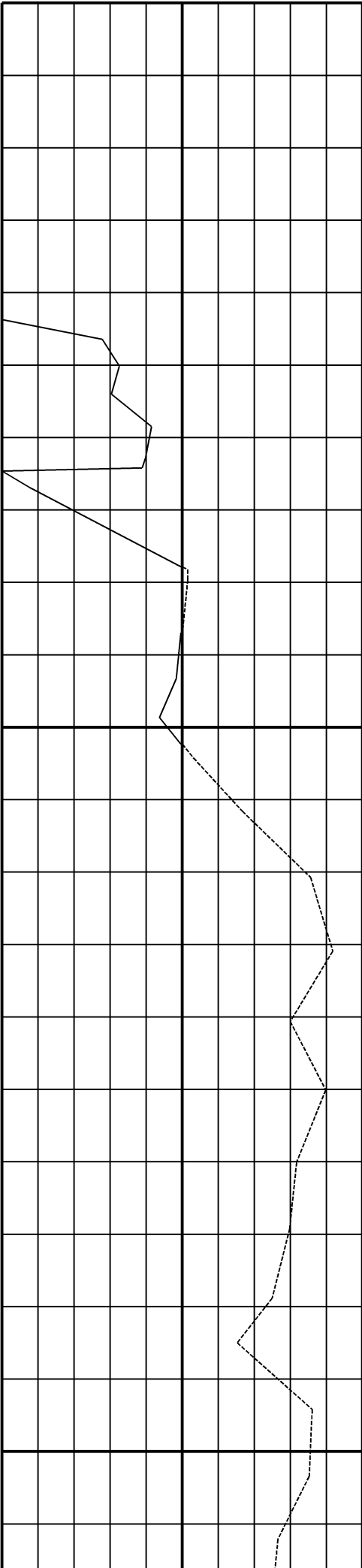
BitRun:	1	2	3	4
Start Depth:	0	5645	5992	6595
End Depth:	5645	5992	6595	10808.2
Start Date:	2013/12/14	2013/12/19	2013/12/20	2013/12/23
End Date:	2013/12/19	2013/12/20	2013/12/21	2013/12/25
Gamma Scale Factor:	3.5	2.7	2.7	2.25
Survey-to-Bit (PTB):	52	53	53	62
Gamma-to-Bit (GTB):	41	43	43	49
Drill Collar ID/OD:	3.125 / 6.5	2.063/4.5	2.063 / 4.5	2.75 / 4.75
Hole Size:	8.75	8.75	8.75	6.125
Casing Size:	9.625	9.625	9.625	8
Casing Start Depth:	0	0	0	828
Casing End Depth:	800	810	810	6595
Mud Type 1:	Water Base	Water	Water	WBM
Mud Weight 1:	9.15	9.7	10.20	10
Mud Viscosity 1:	41	65	50	49
Mud Type 2:	0	-	-	-
Mud Weight 2:	0	-	-	-
Mud Viscosity 2:	0	-	-	-
Comment:	-	Curve Assembly	Swap MWD Tool String	Lateral Assembly

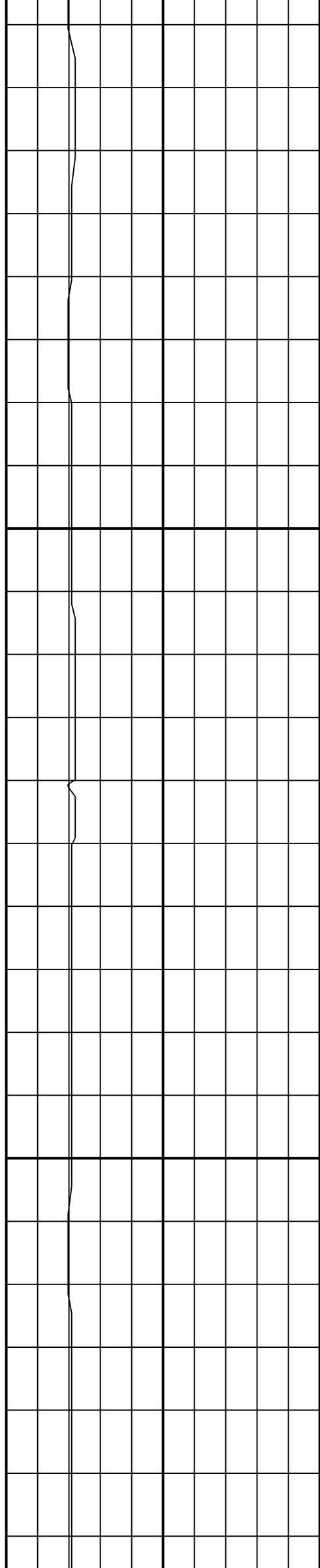
BitRun:				
Start Depth:				
End Depth:				
Start Date:				
End Date:				
Gamma Scale Factor:				
Survey-to-Bit (PTB):				
Gamma-to-Bit (GTB):				
Drill Collar ID/OD:				
Hole Size:				
Casing Size:				
Casing Start Depth:				
Casing End Depth:				
Mud Type 1:				
Mud Weight 1:				
Mud Viscosity 1:				
Mud Type 2:				
Mud Weight 2:				
Mud Viscosity 2:				
Comment:				

API			API		
0	Gama	150	150	Gama	300

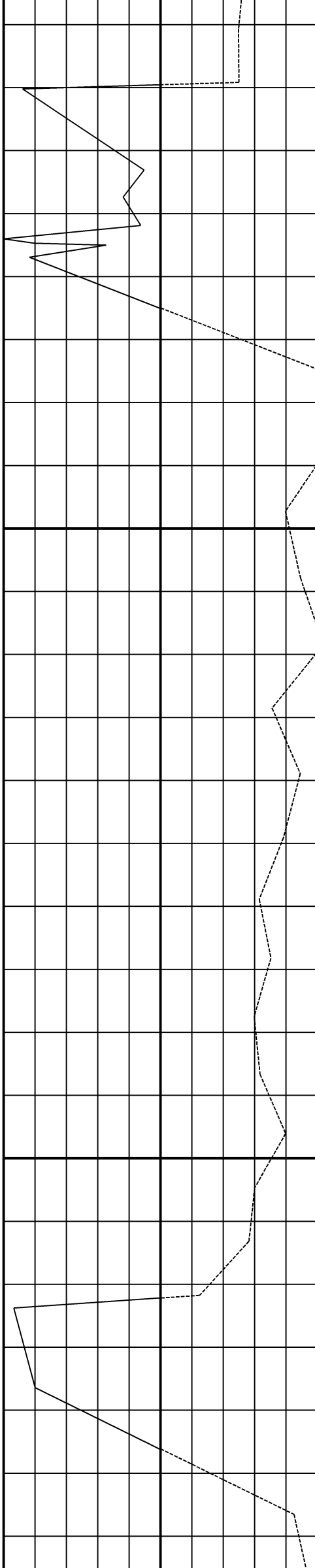


ft per hr			ft per hr		
0	ROP	500	500	ROP	1000

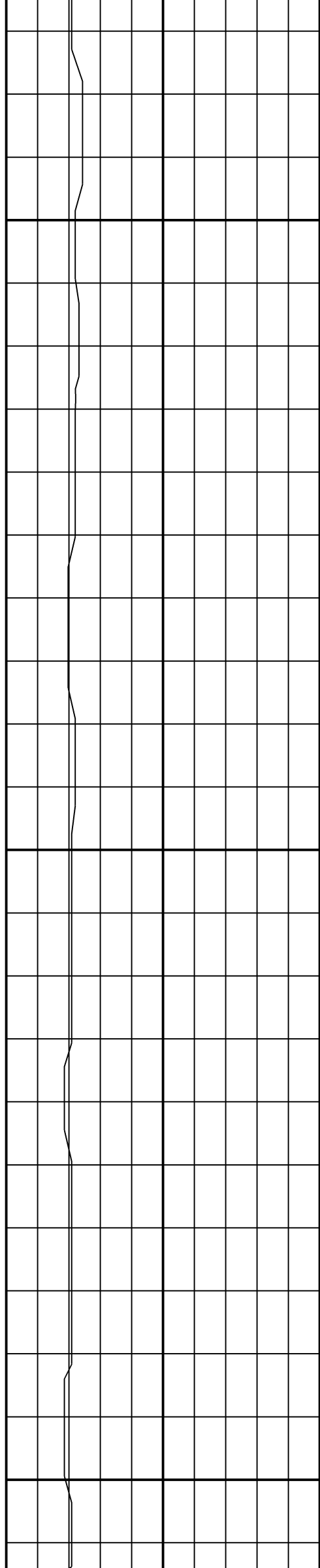




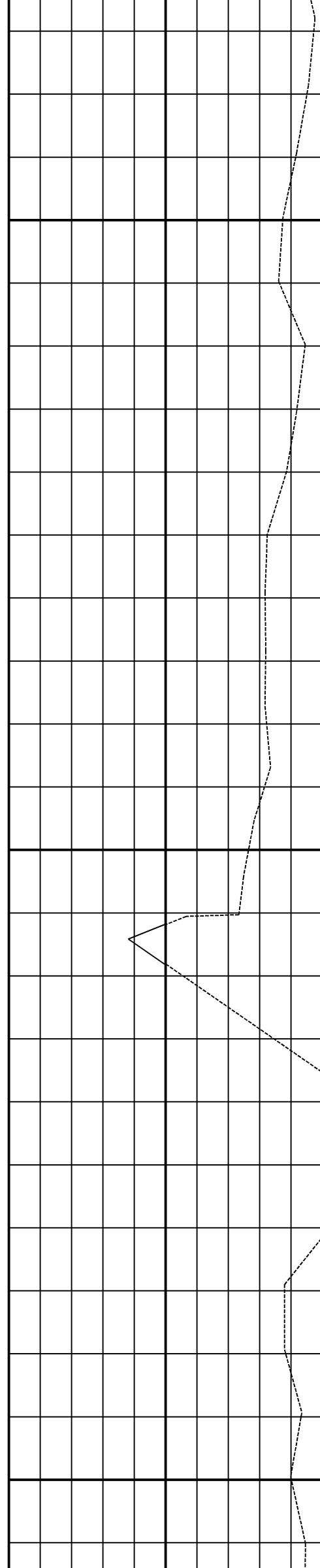
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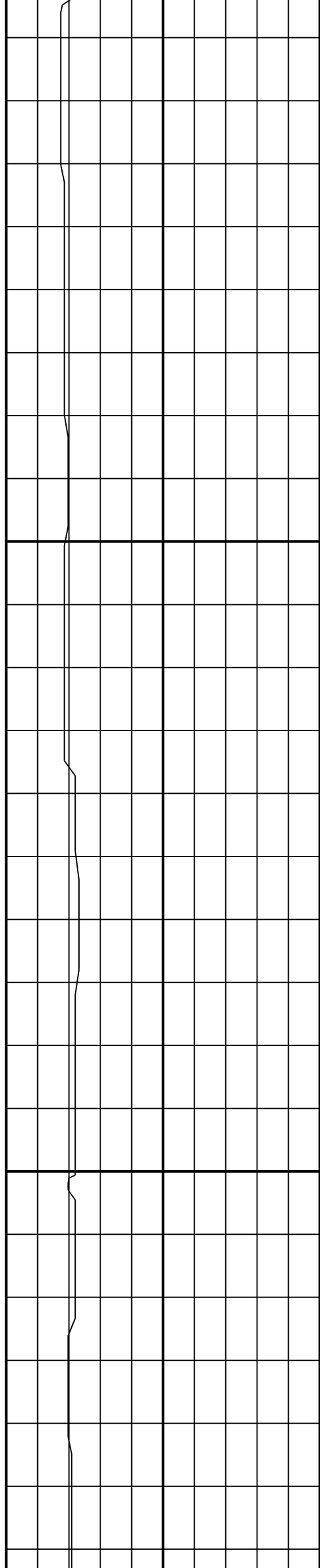


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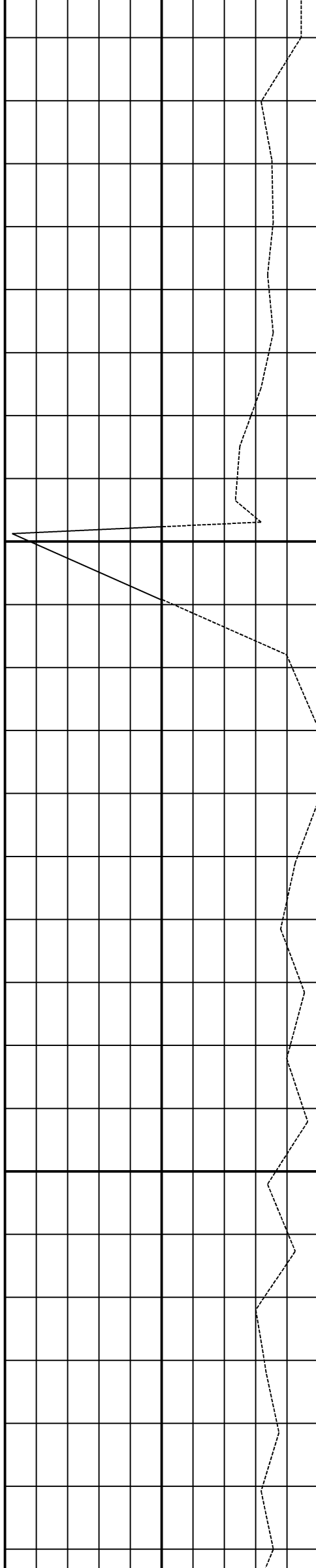


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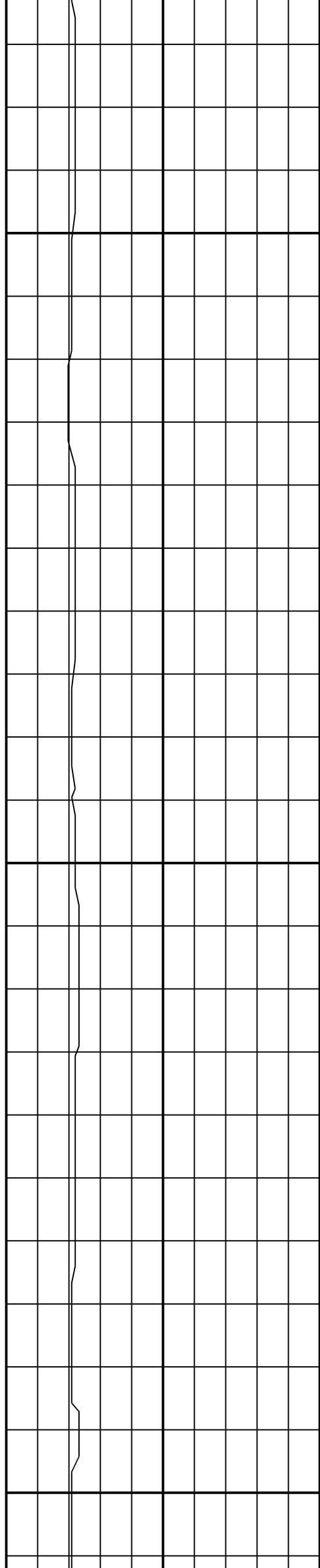
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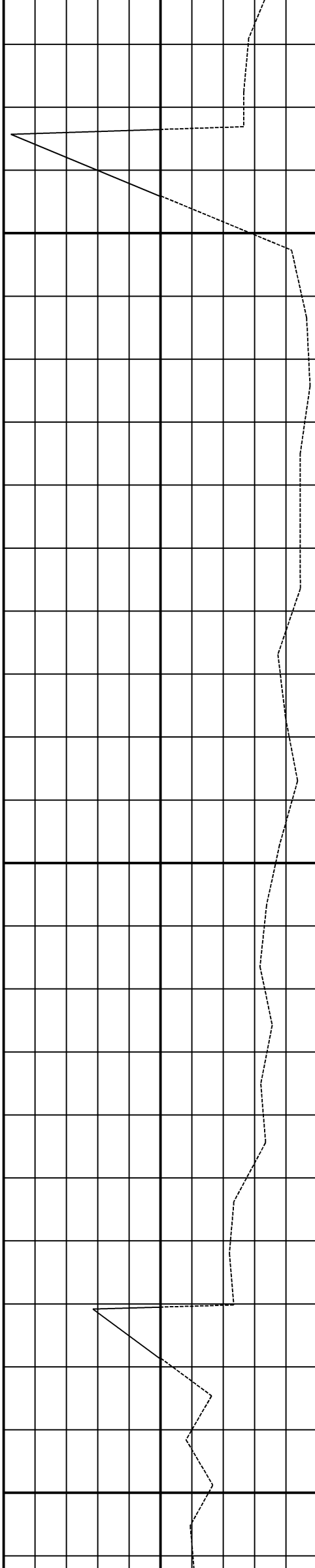
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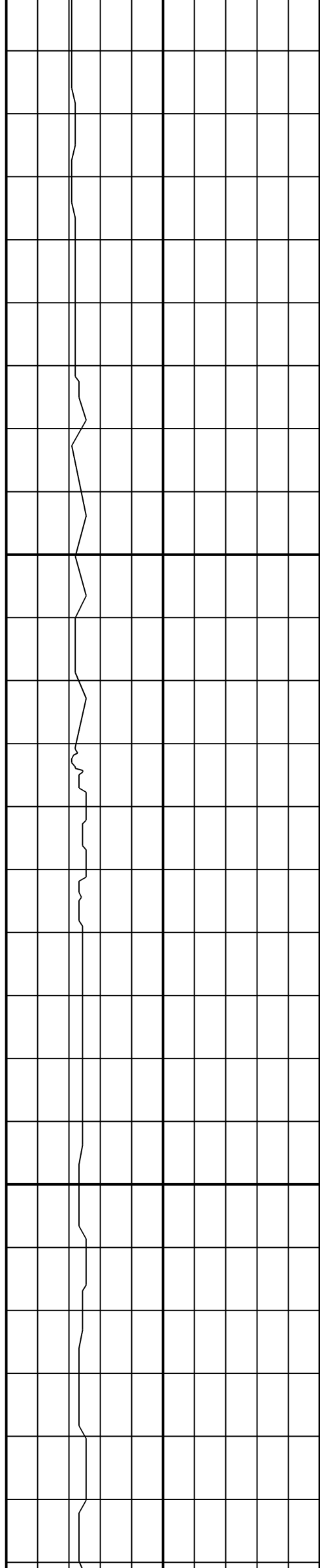


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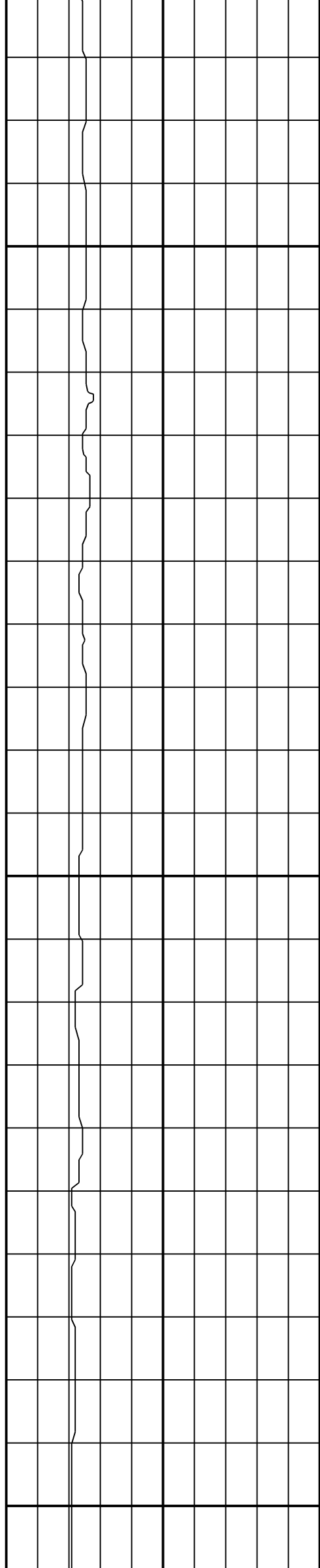
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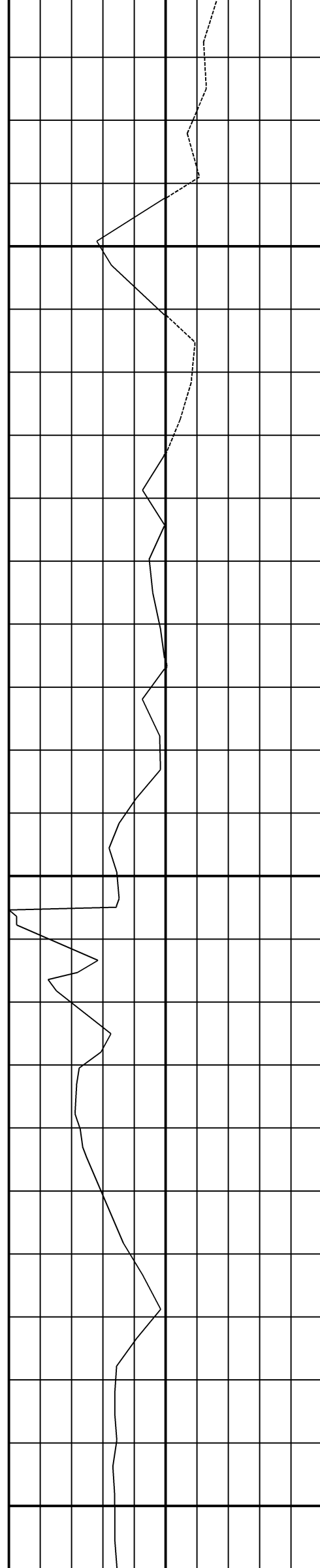
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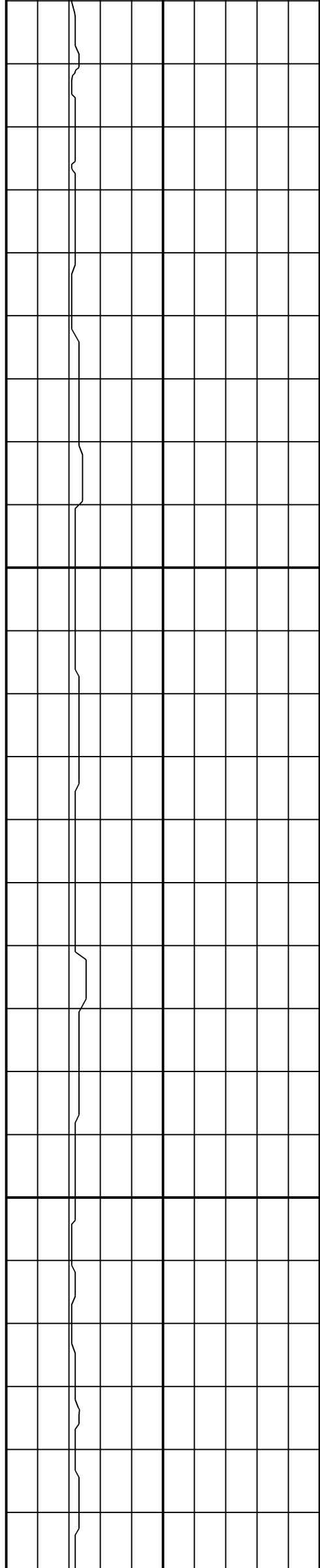


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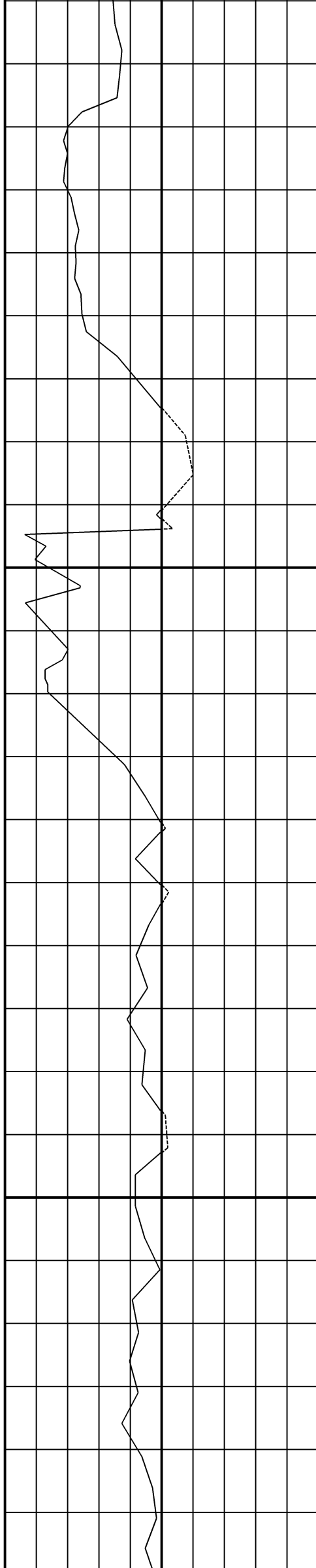
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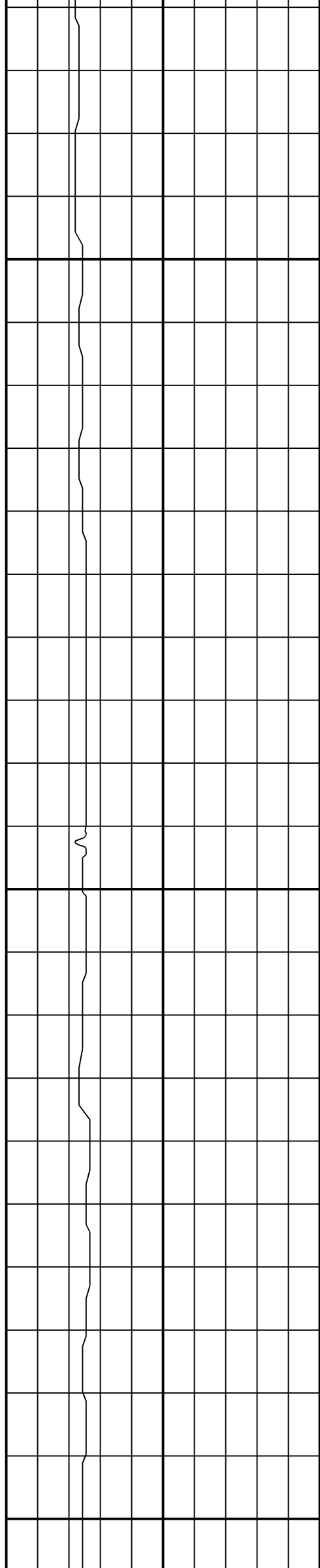




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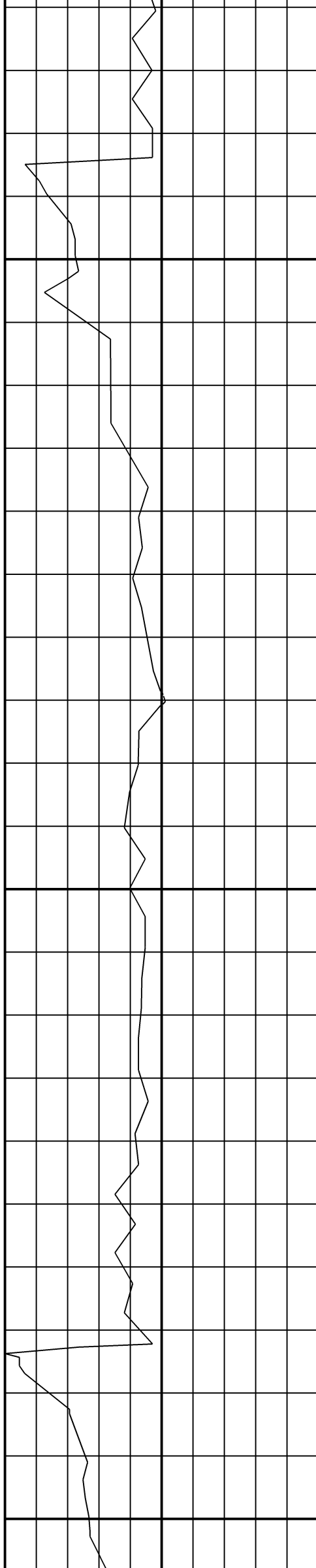
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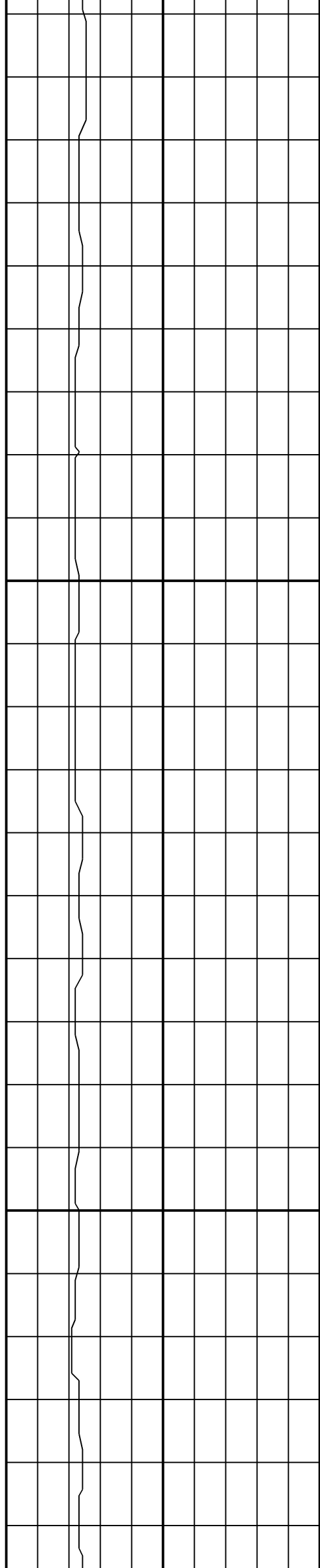


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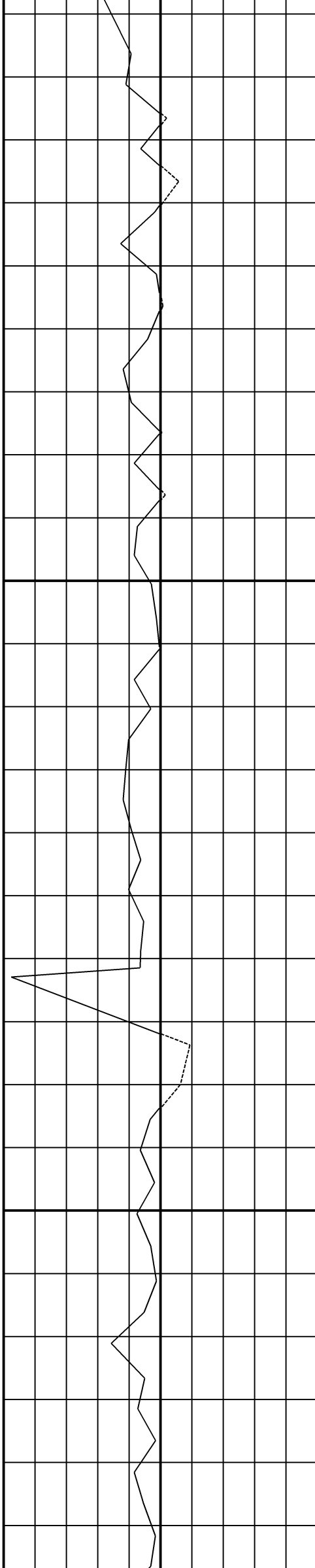
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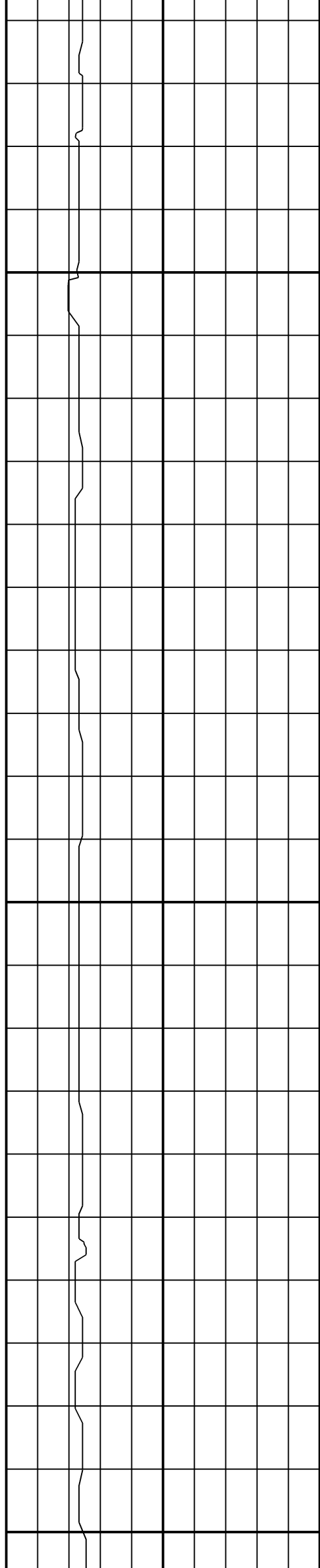




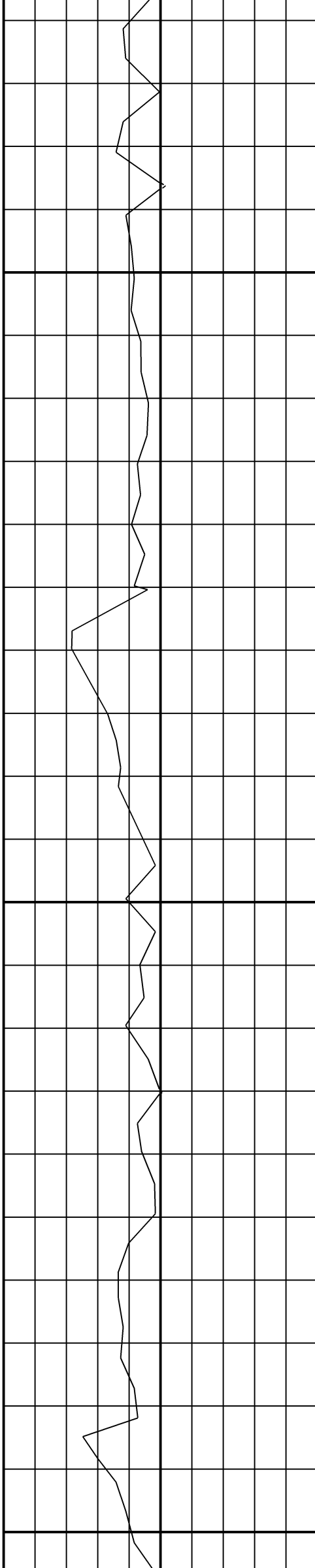
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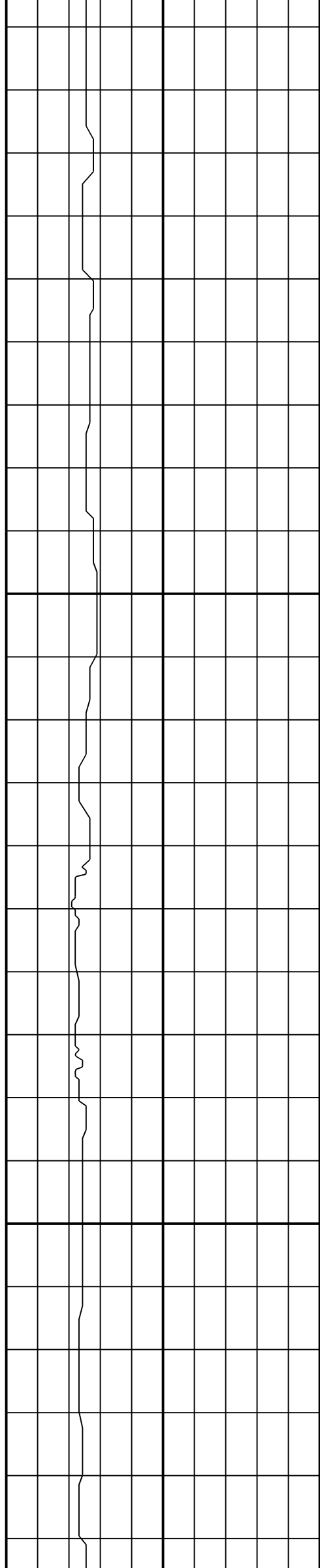


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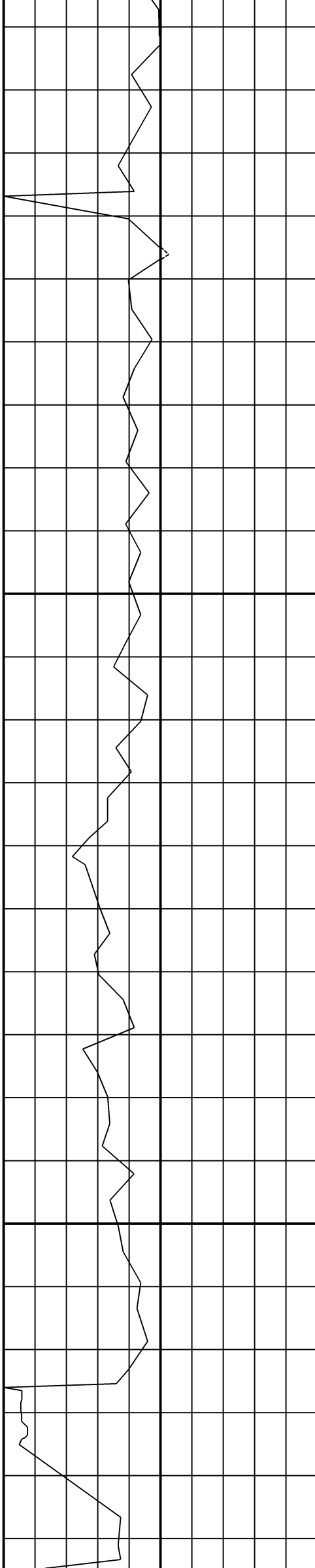


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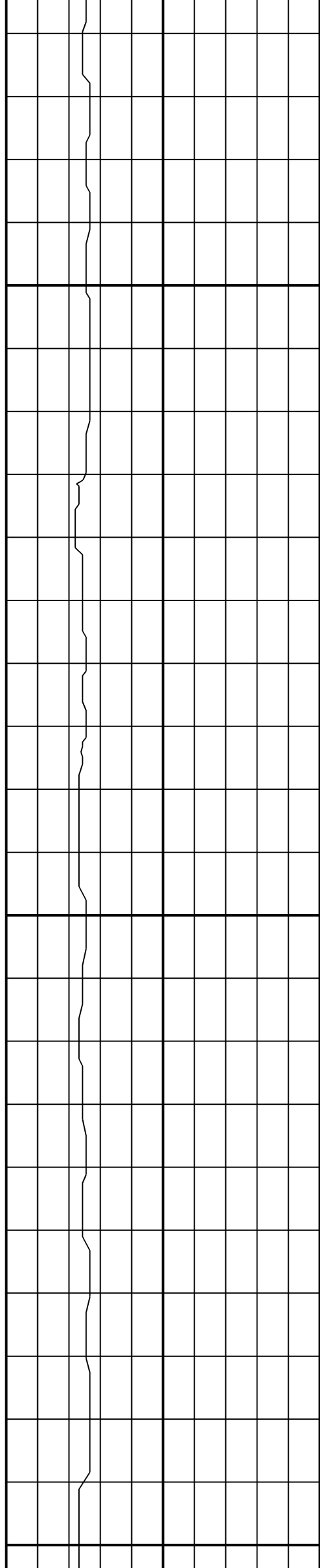
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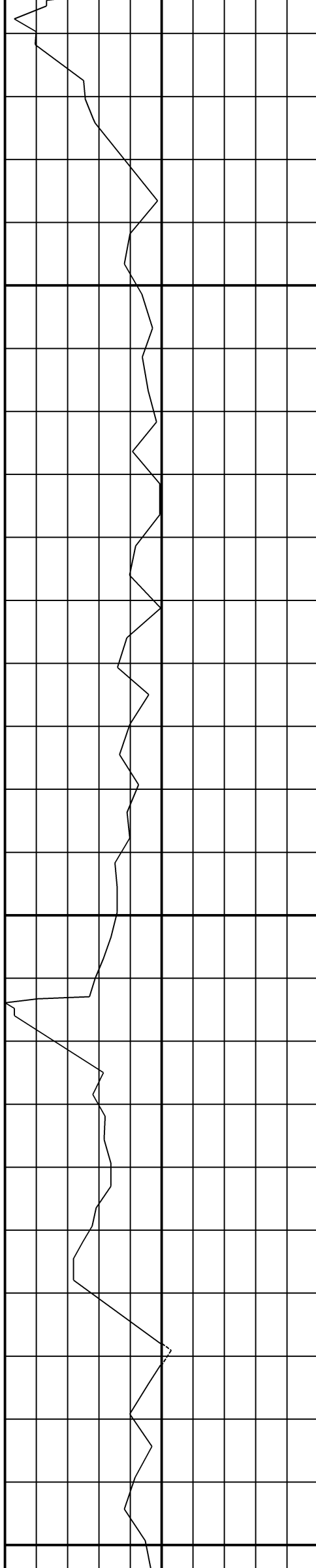
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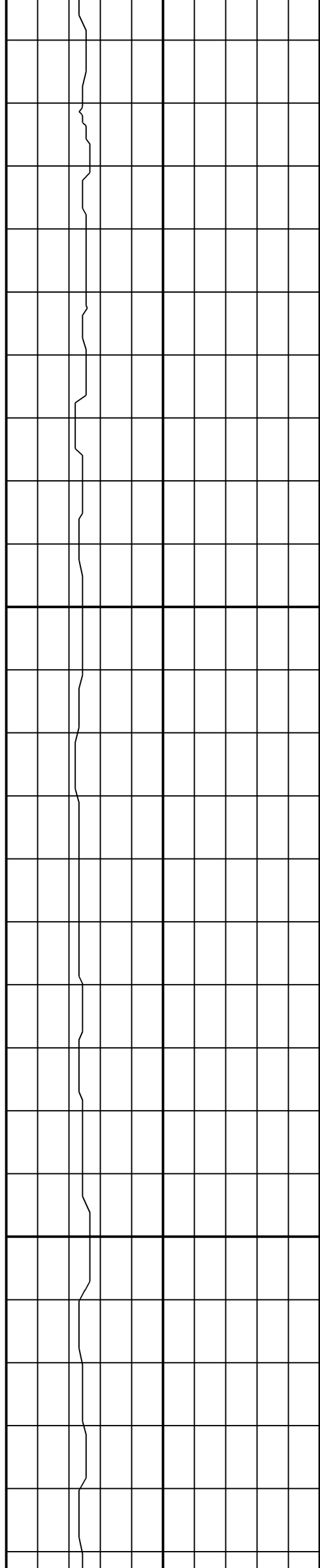


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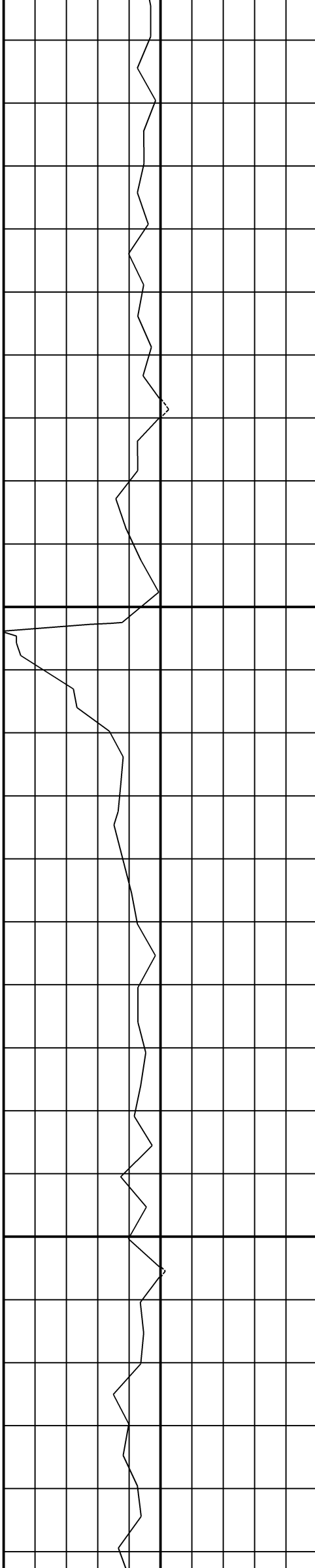
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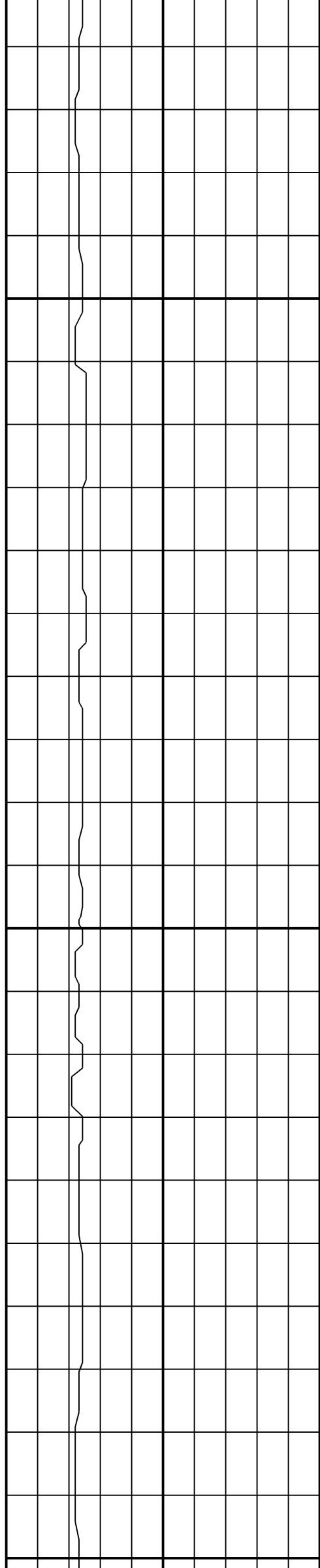




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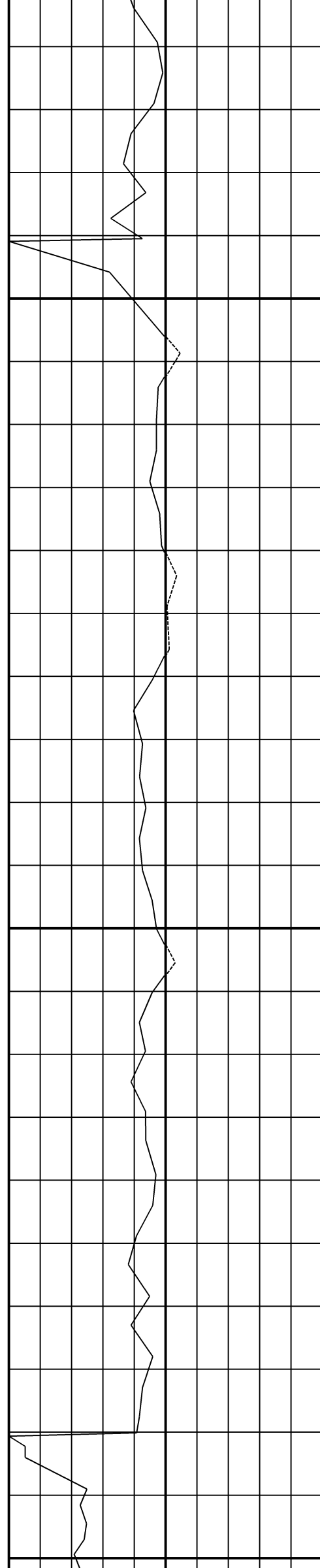
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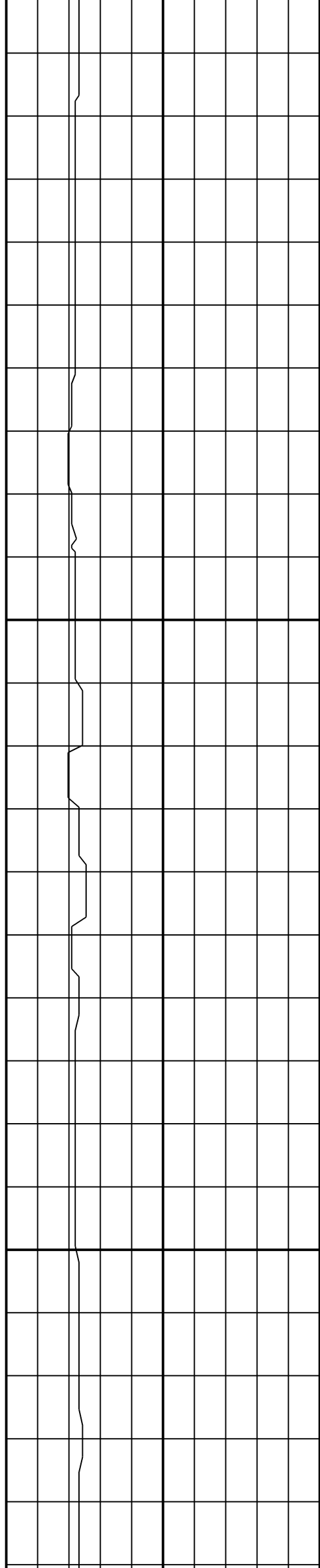


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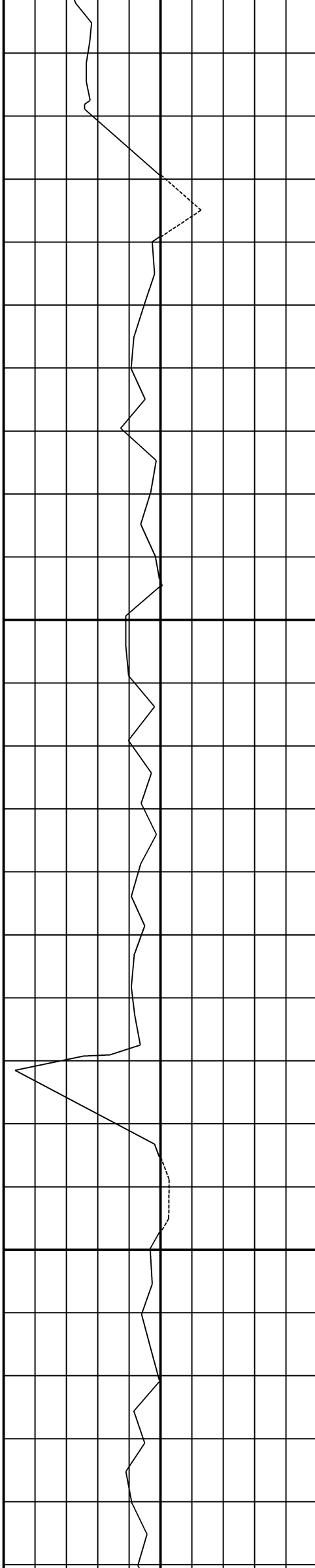
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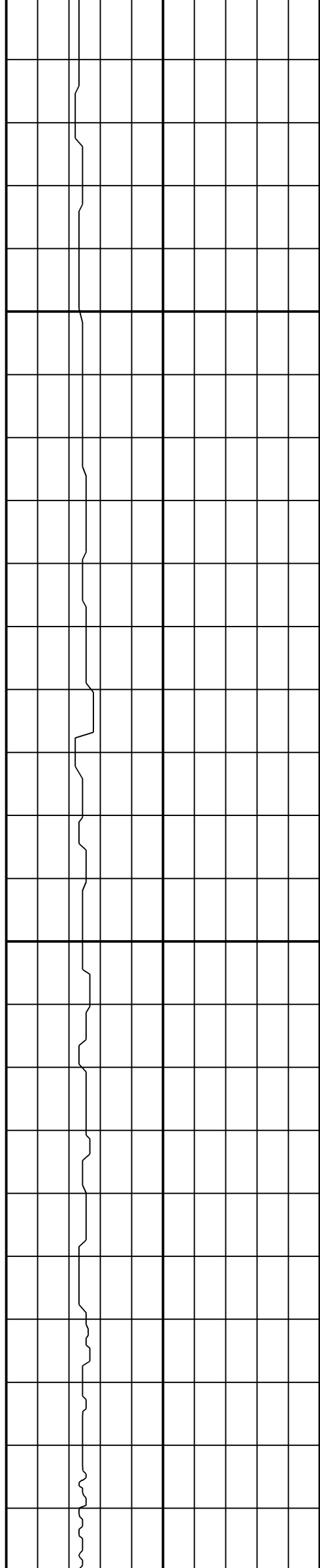




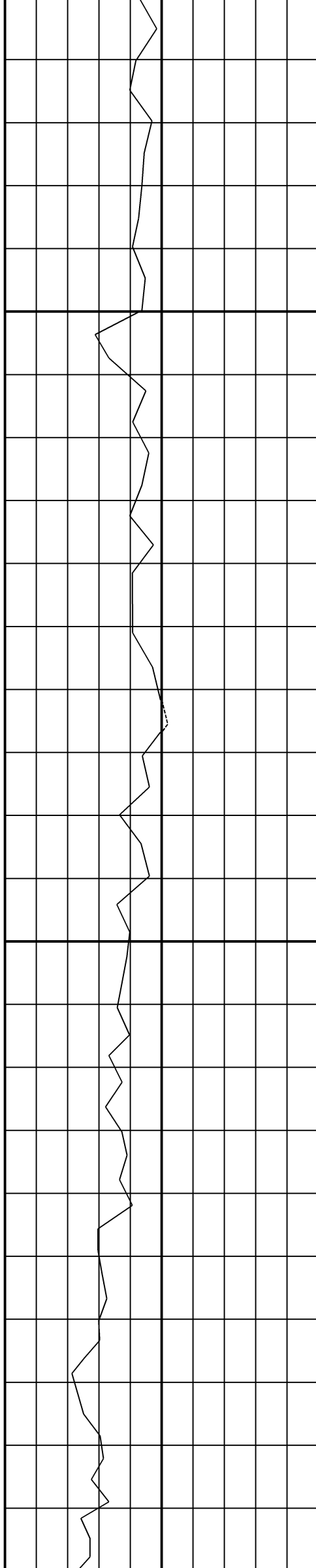
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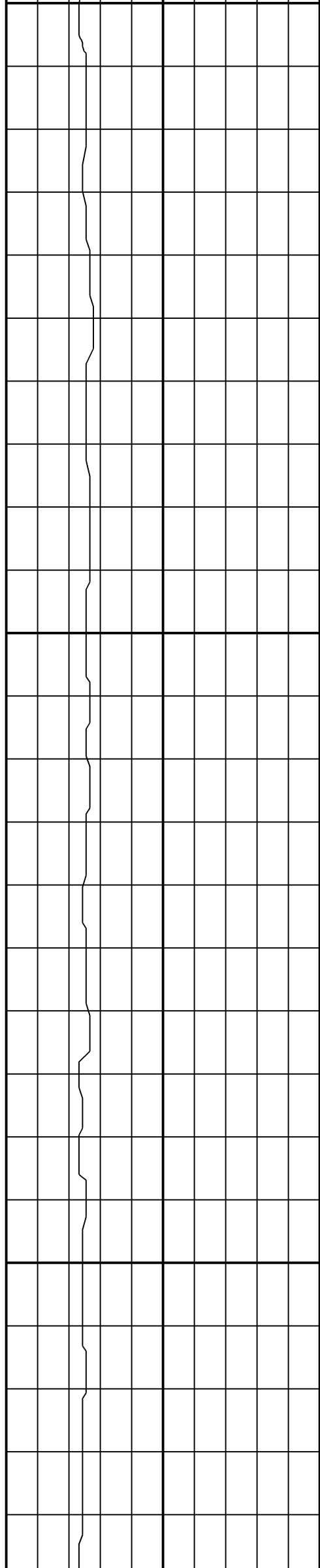


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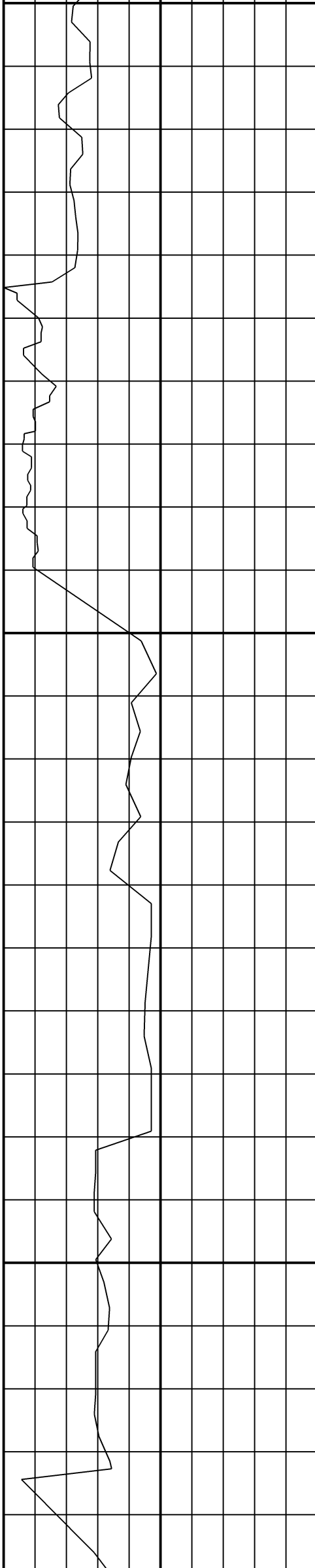


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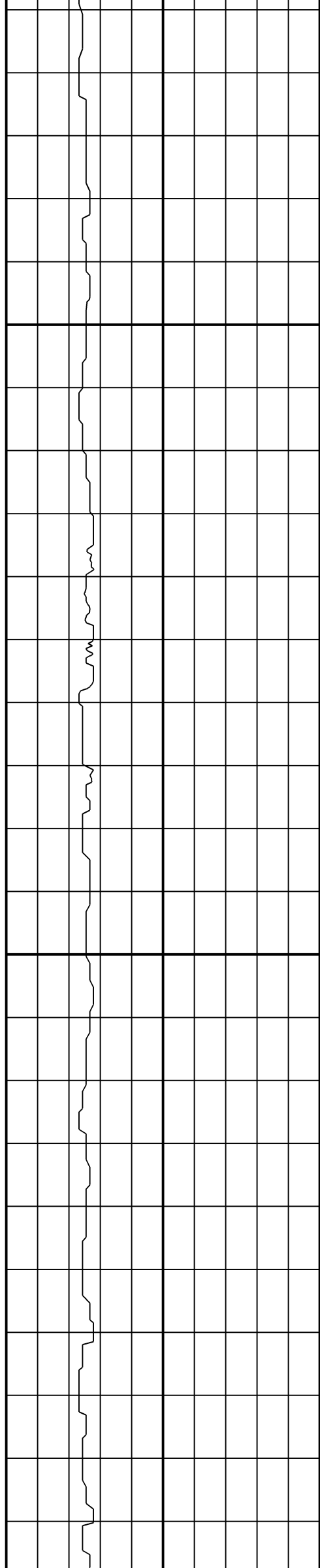


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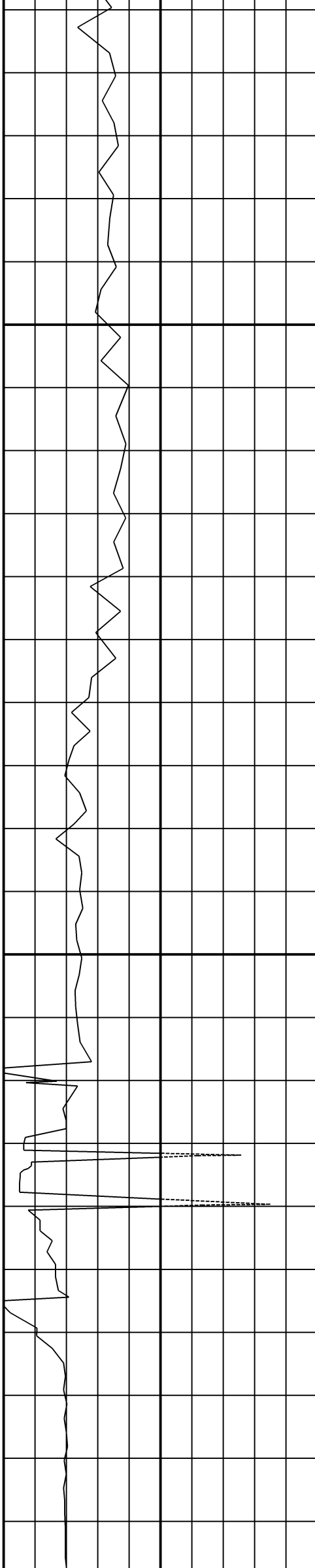


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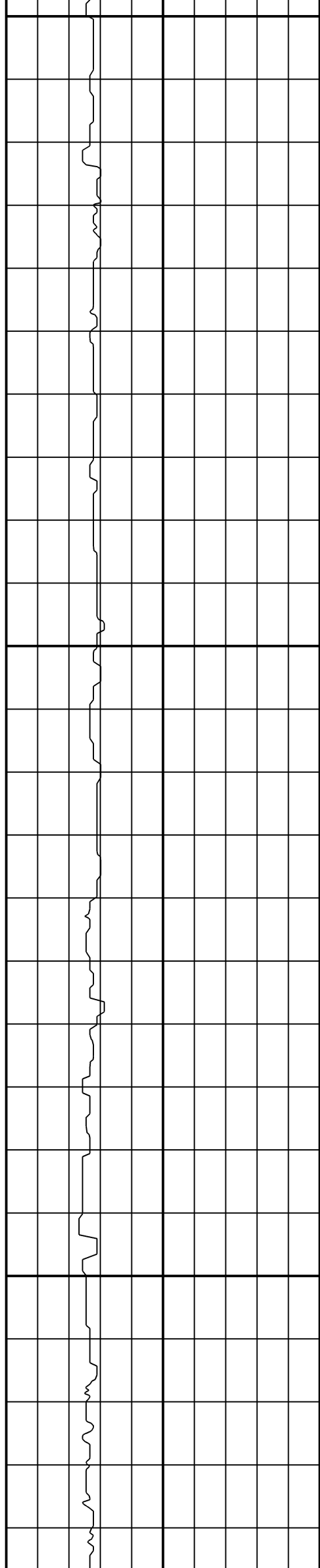
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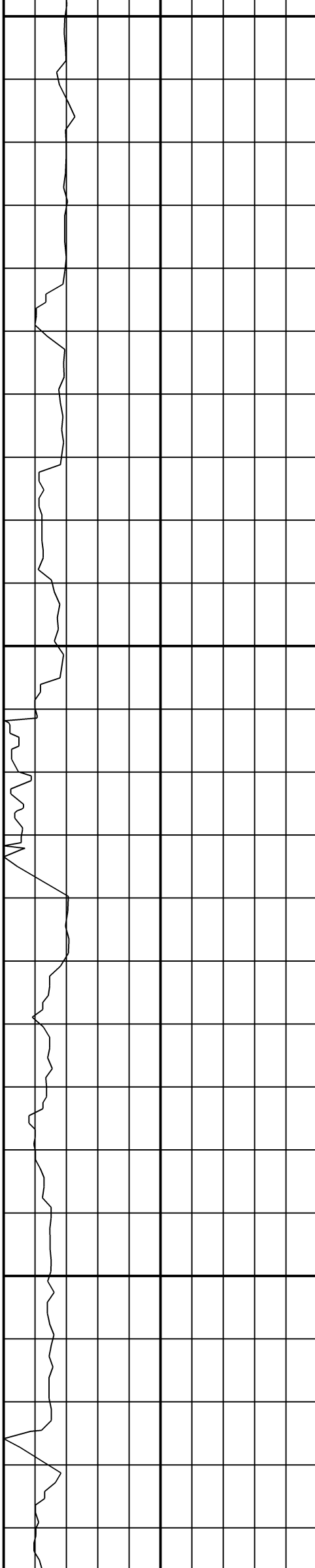
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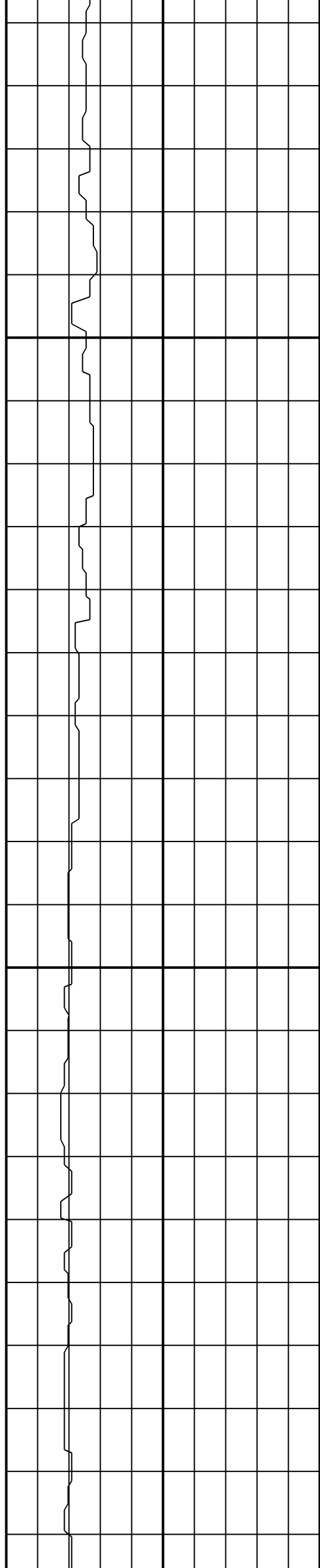


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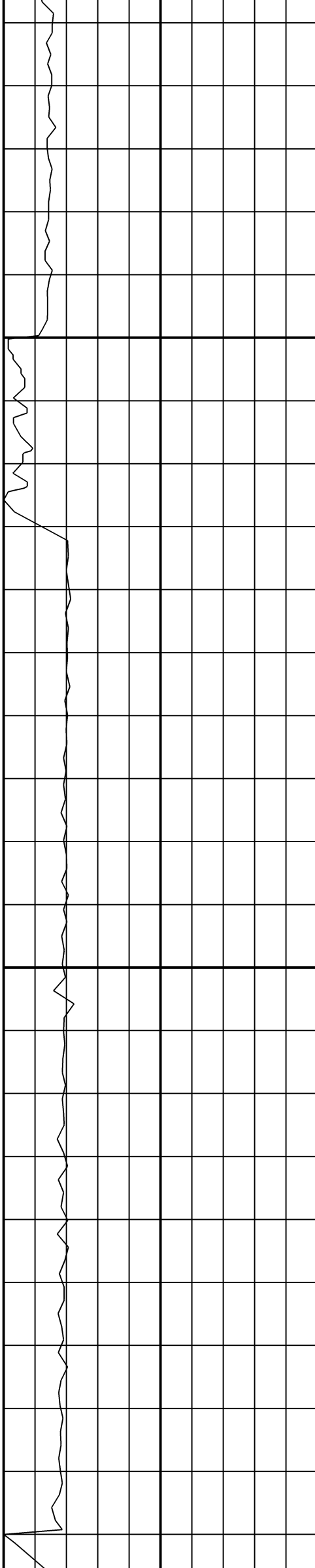


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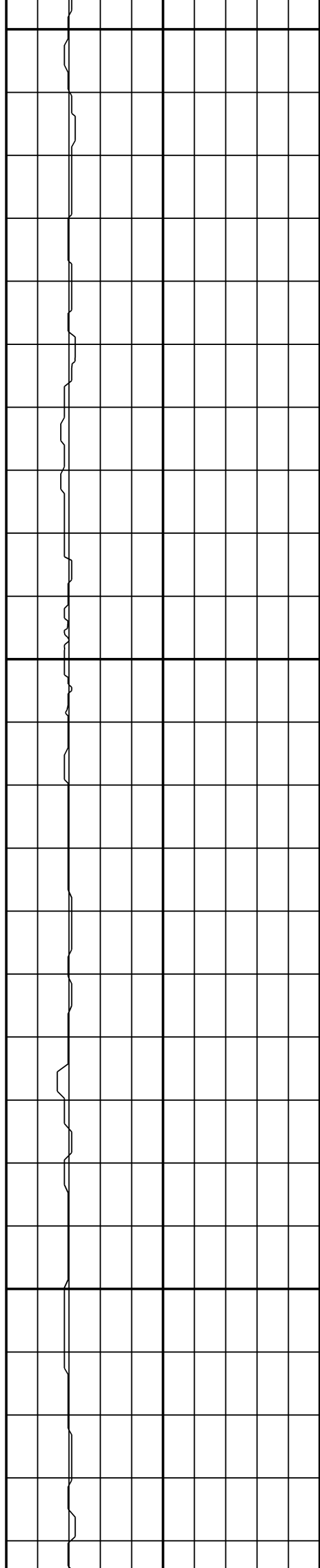
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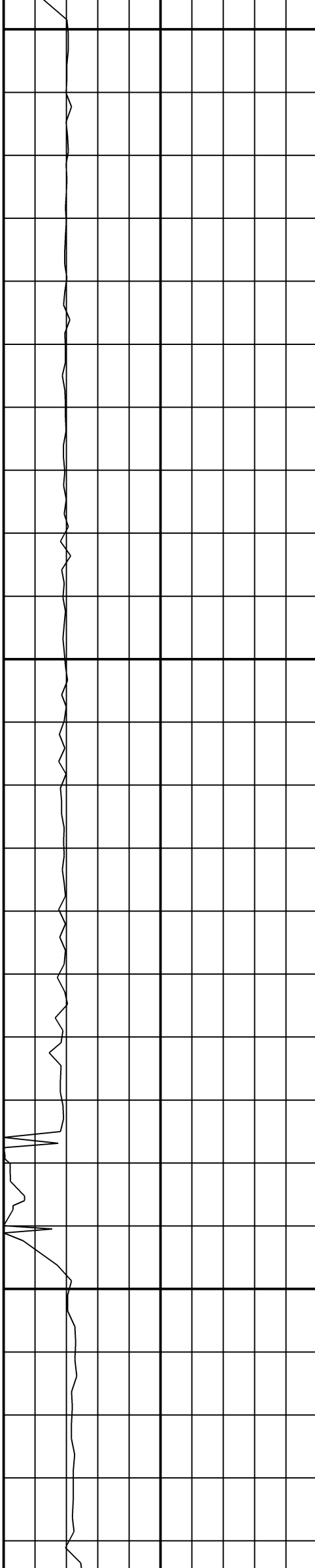
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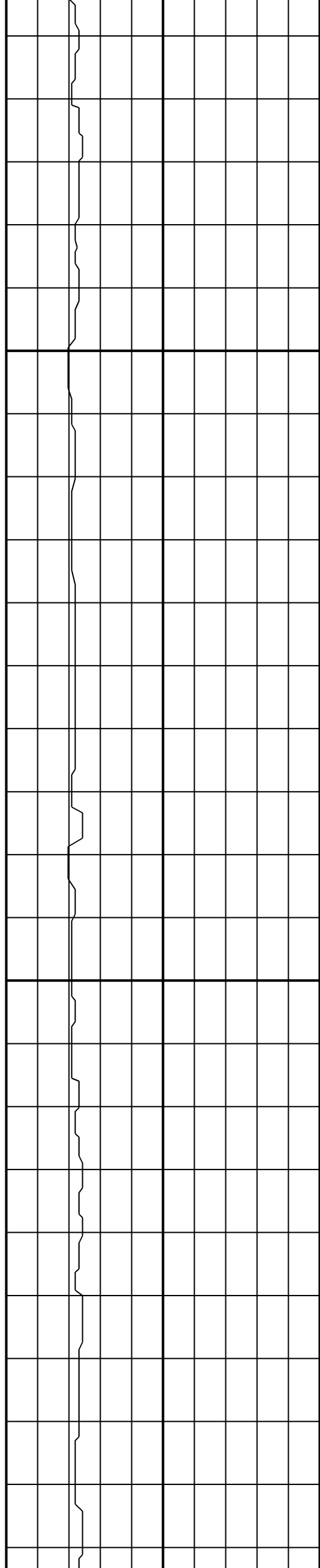


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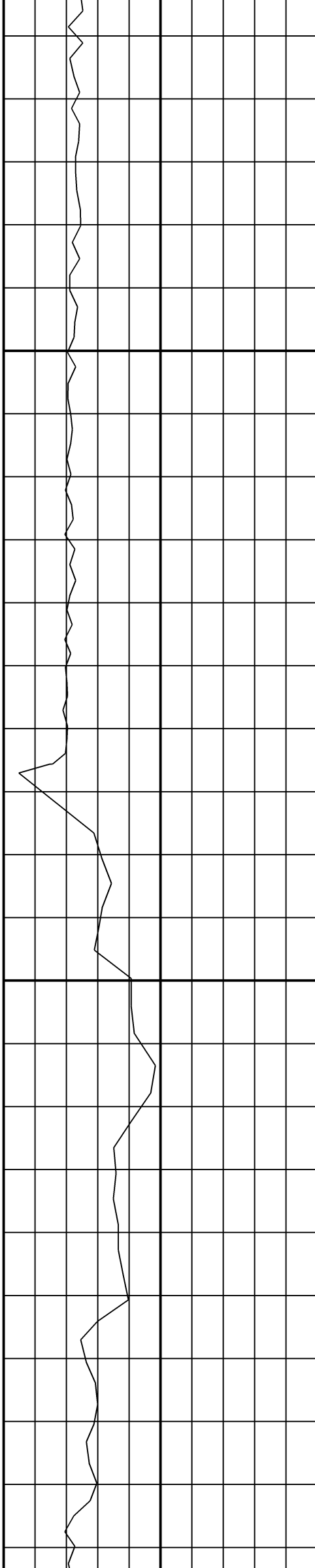


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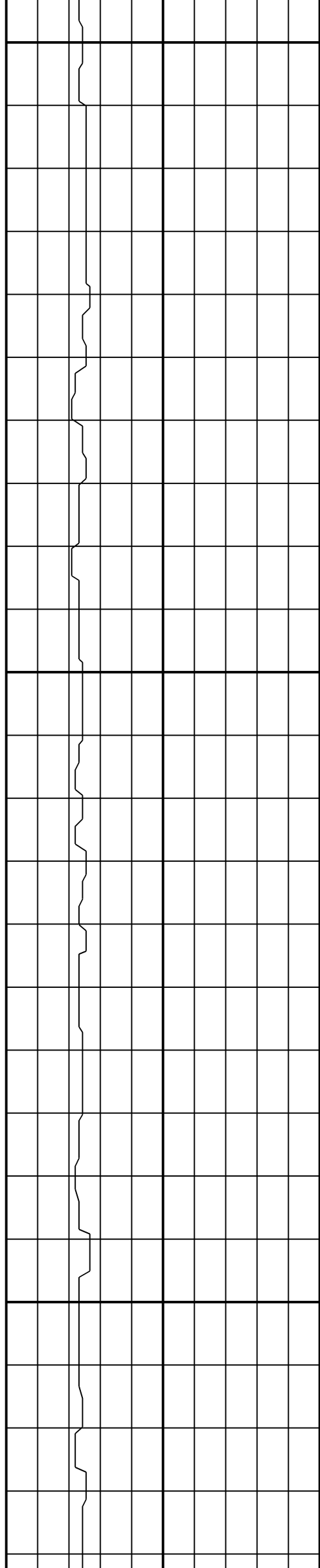
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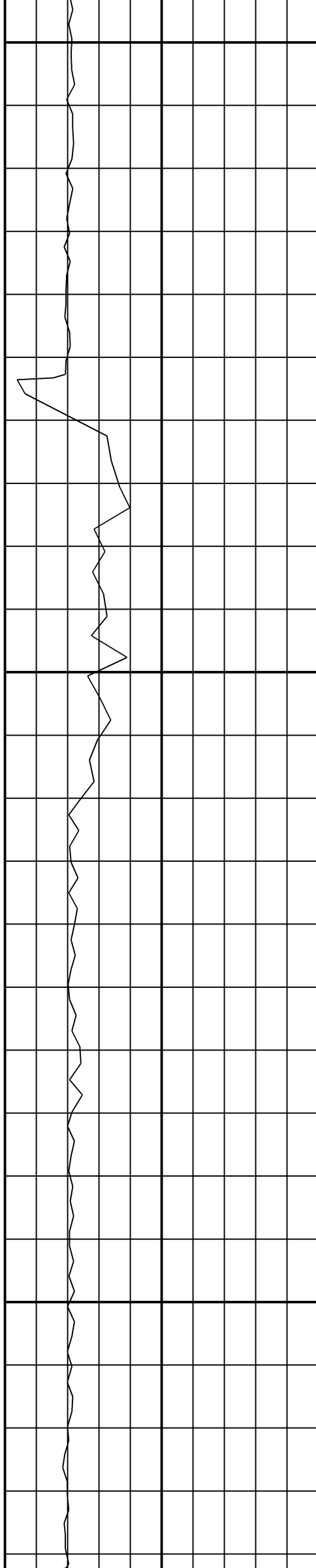
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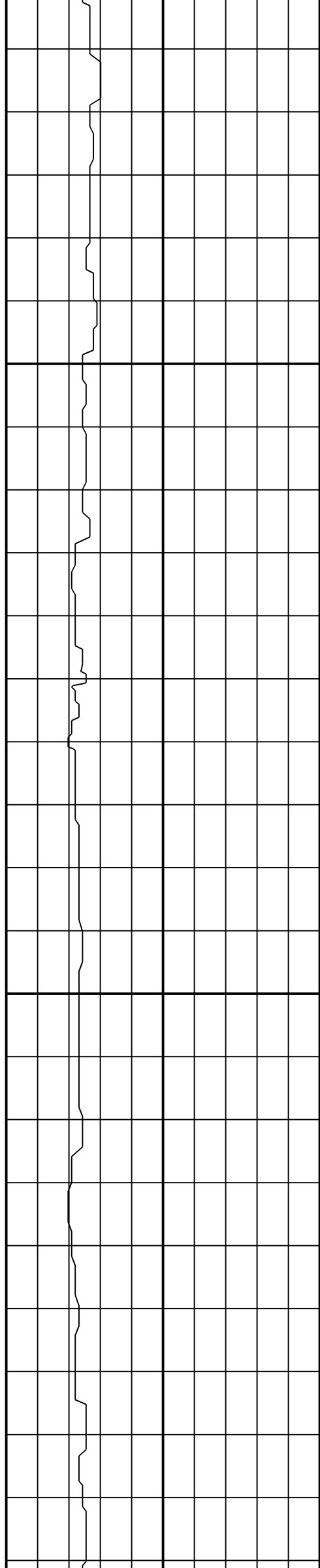


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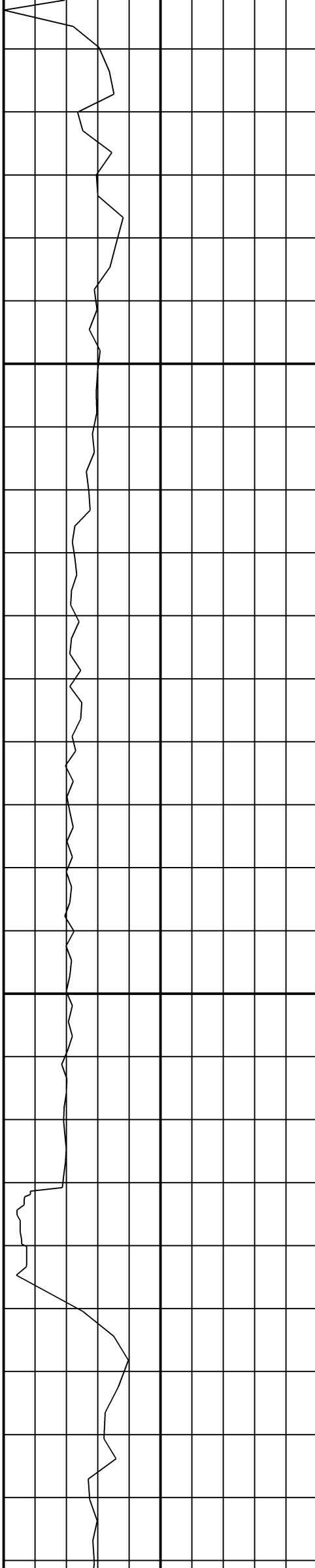


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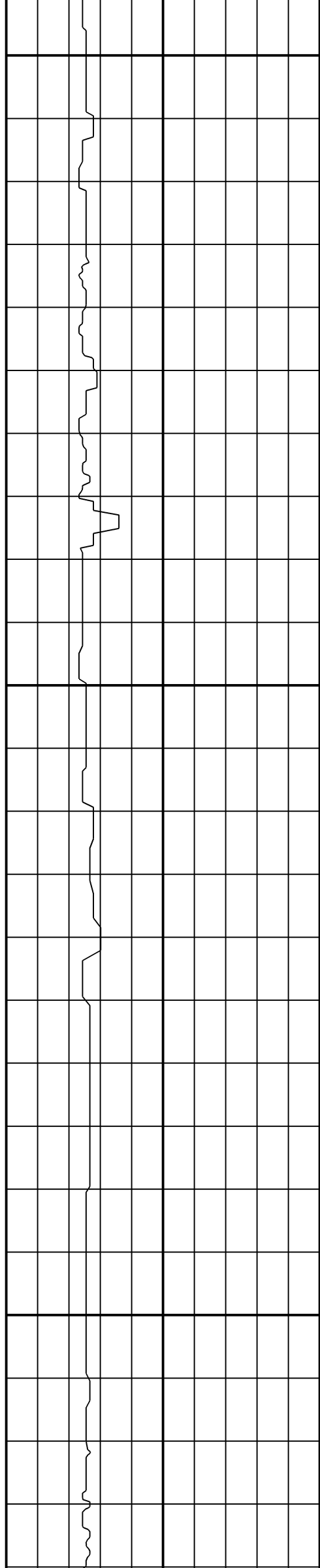
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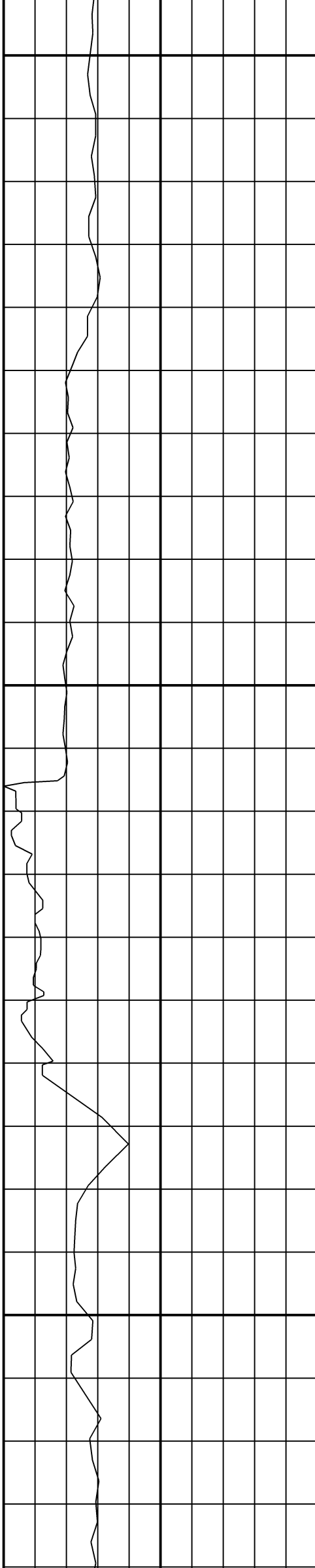
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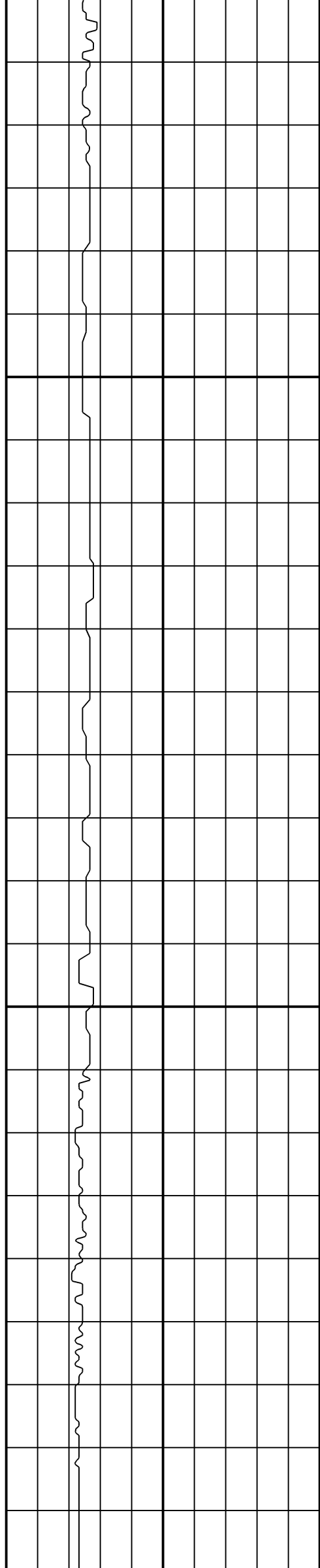


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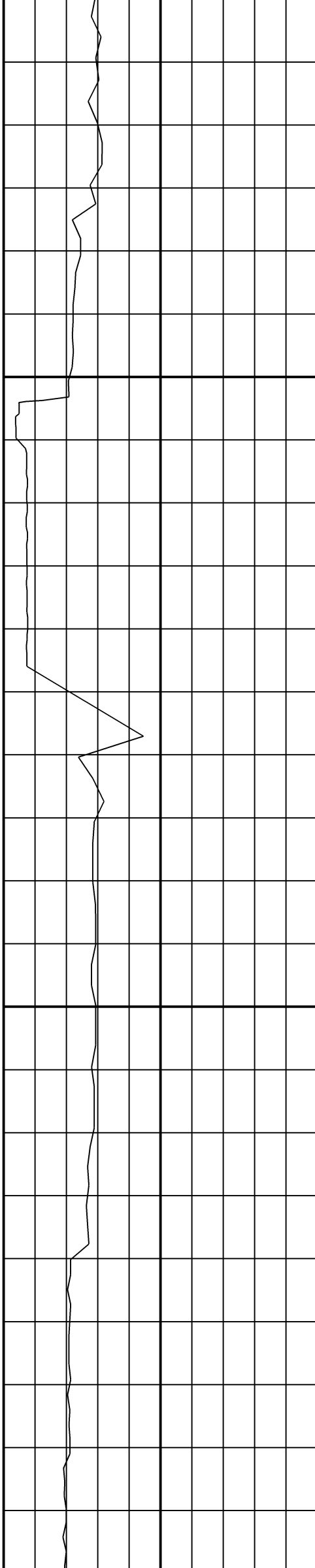


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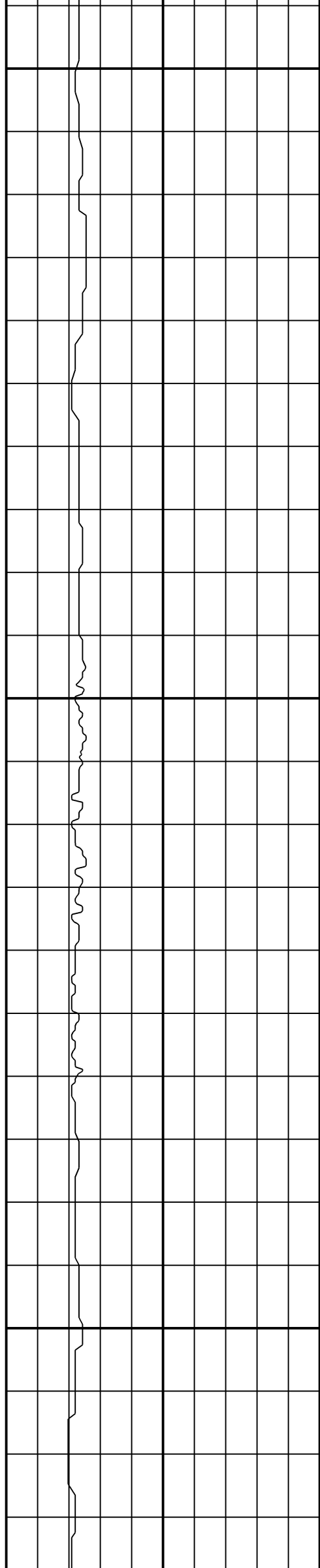
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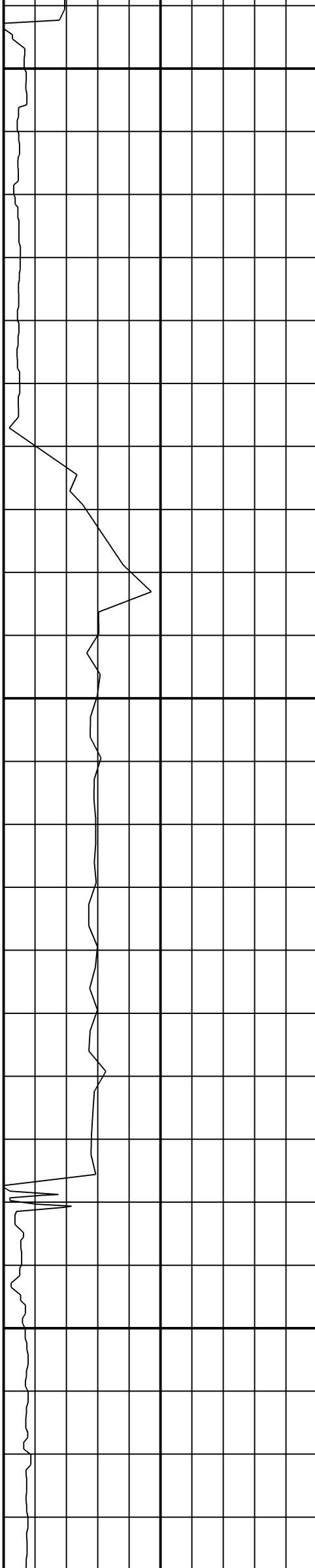
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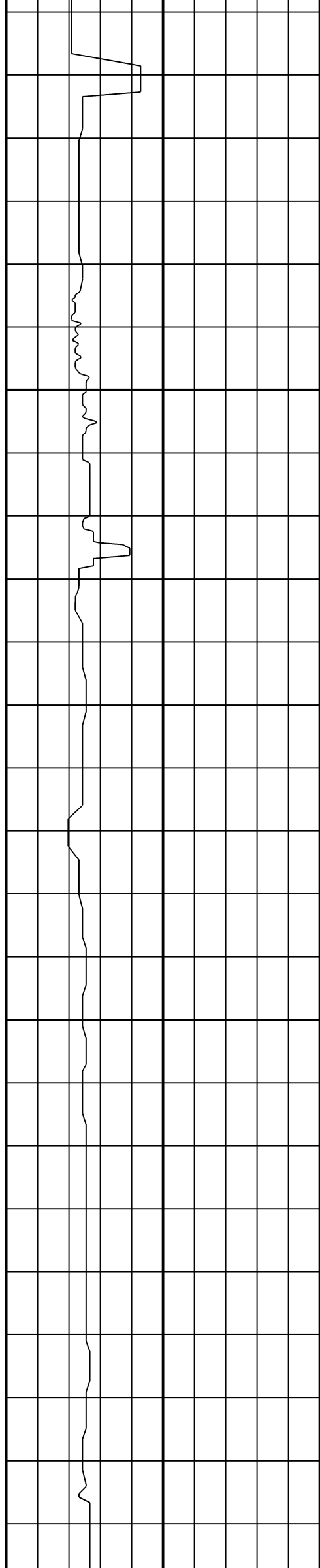


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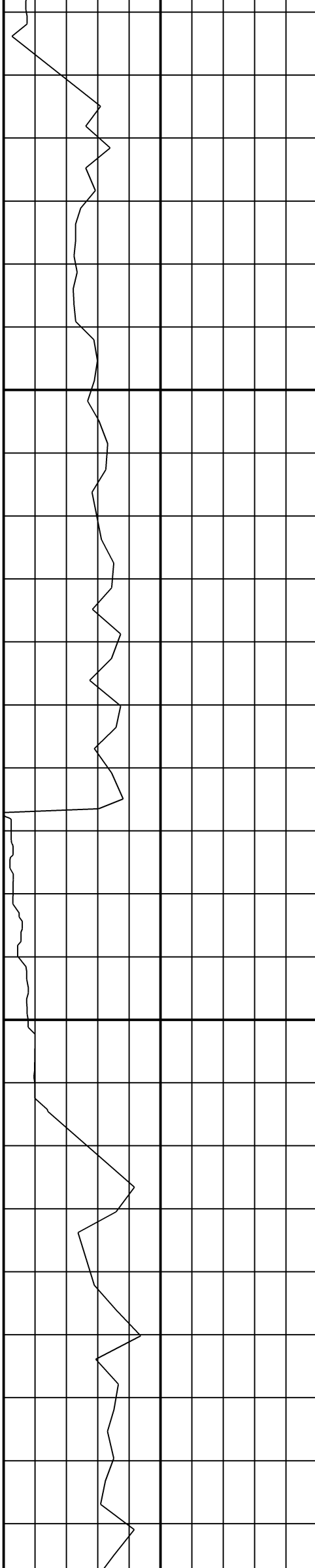


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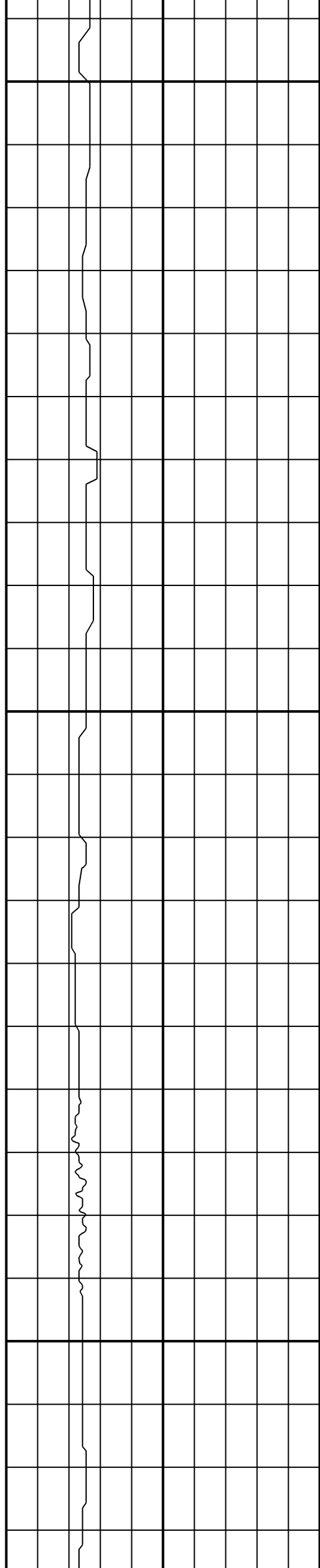
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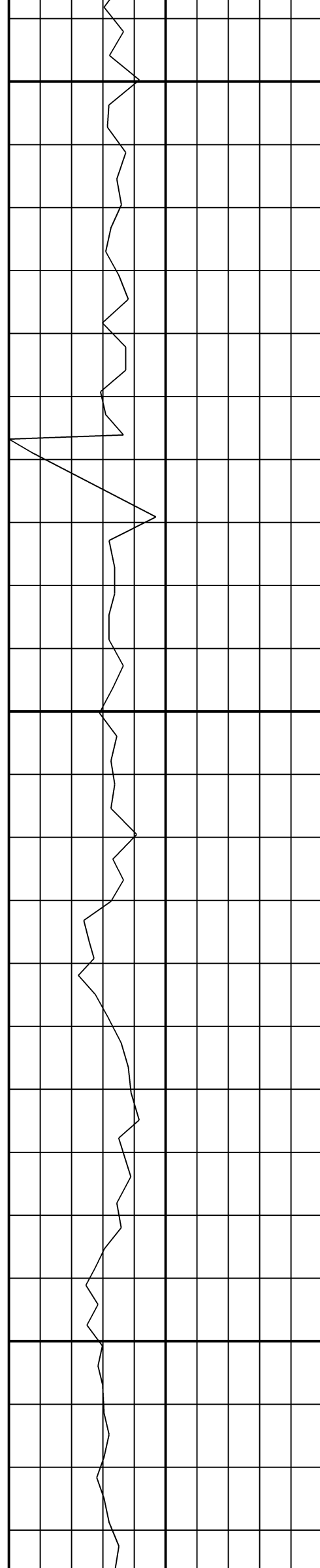
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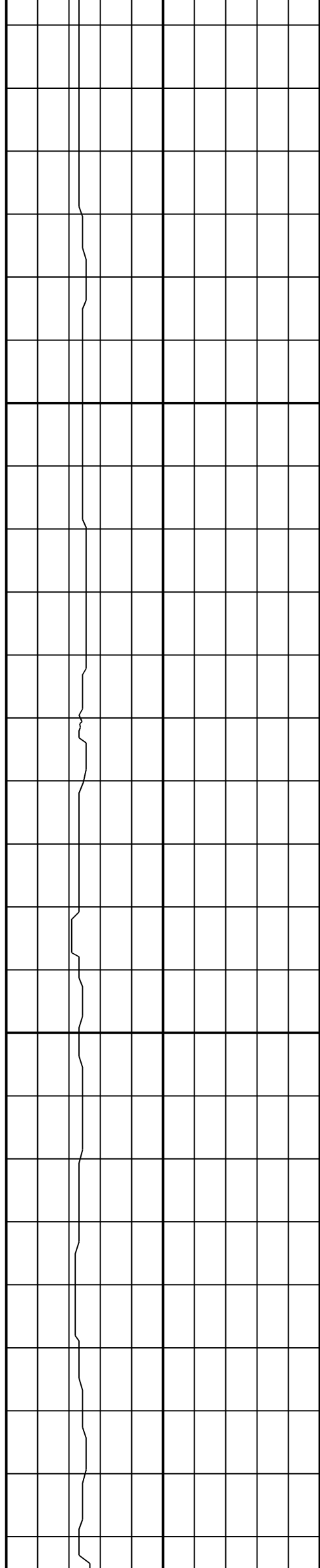
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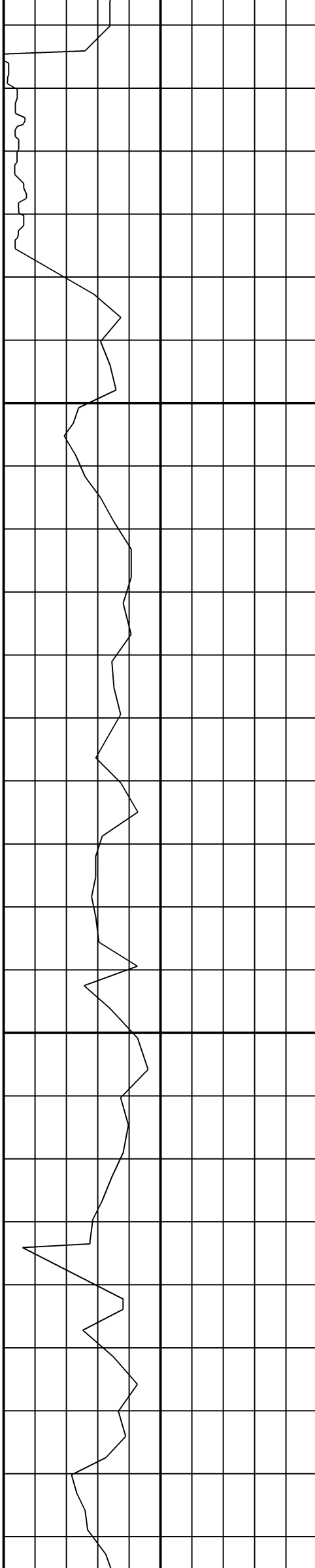
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INC: 1
AZM: 223.8

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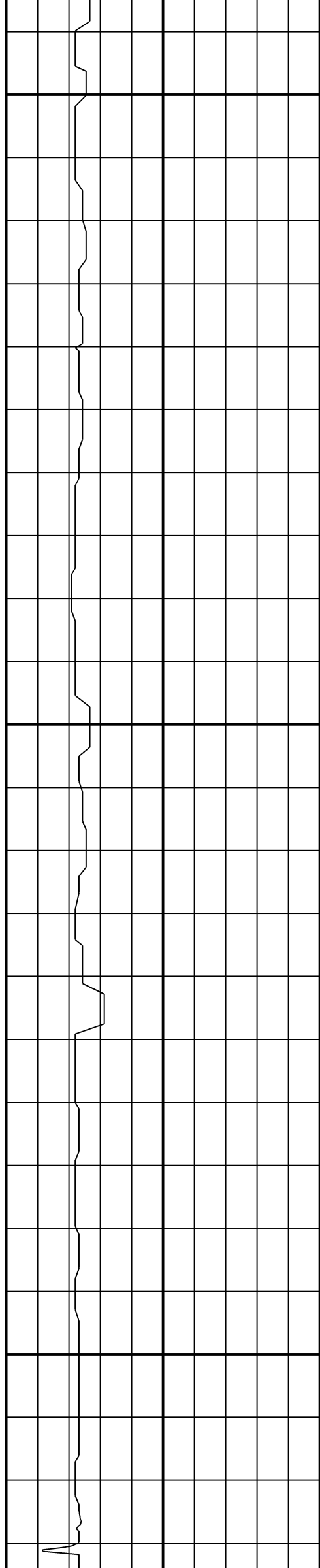


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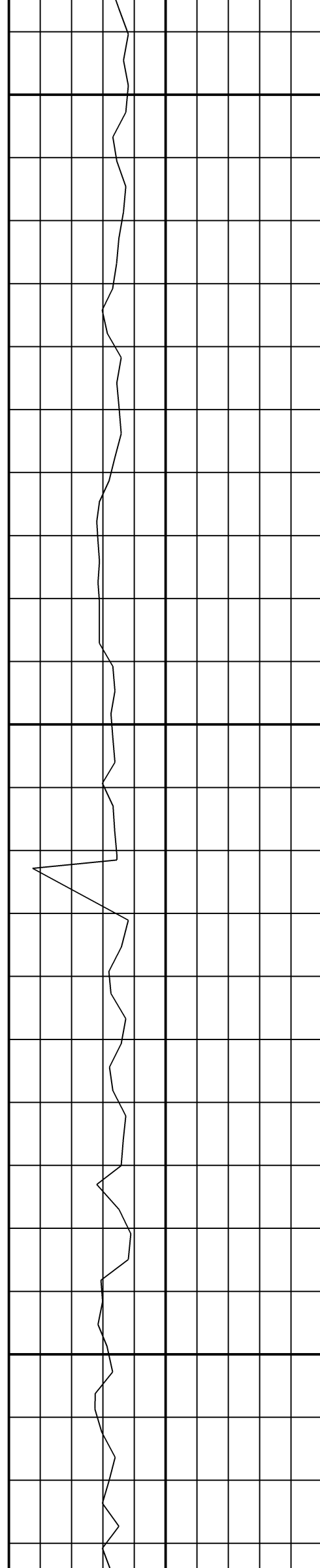
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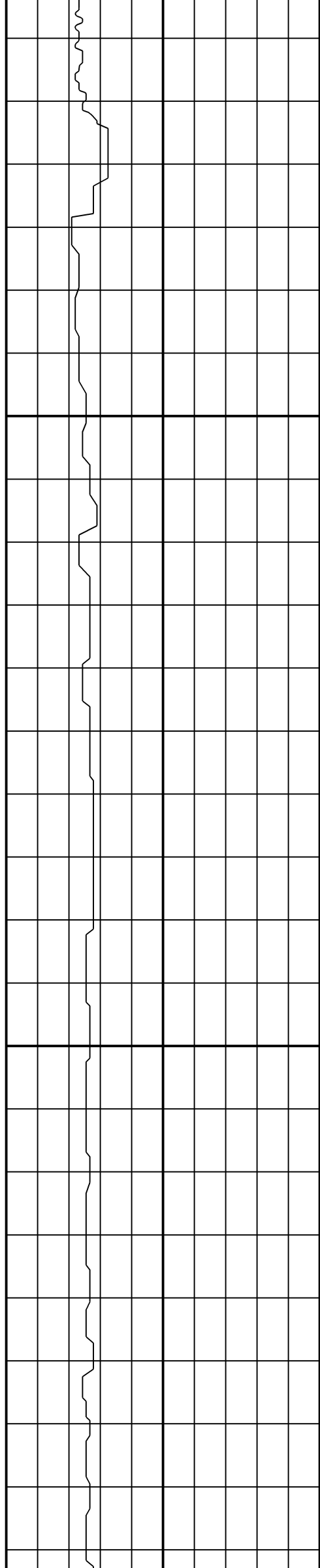
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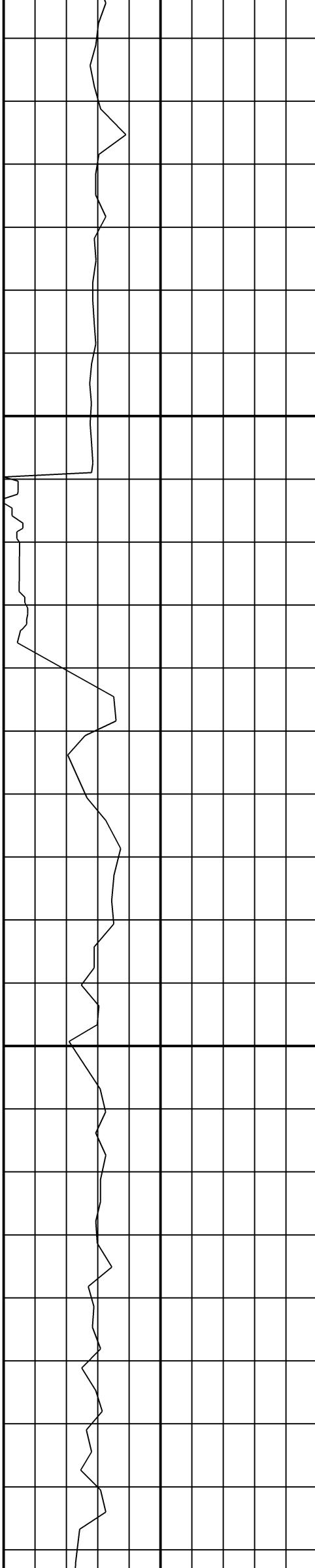


MD: 4685
INC: 1.2
AZM: 155.3

MD: 4779
INC: 1.2
AZM: 156.4

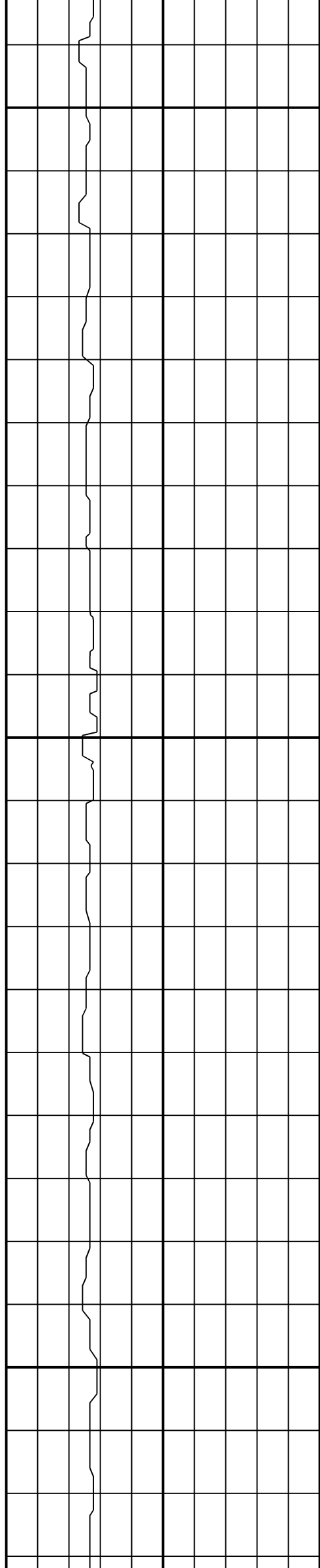


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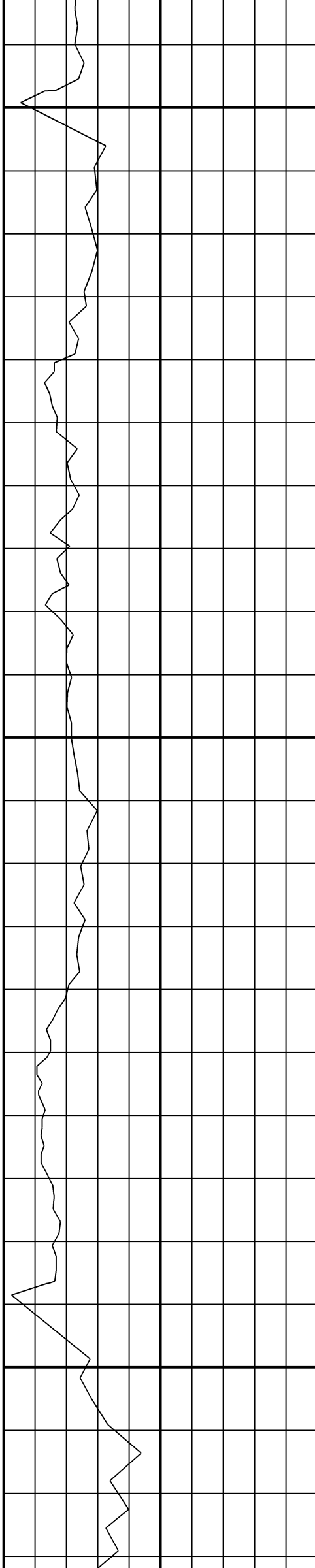


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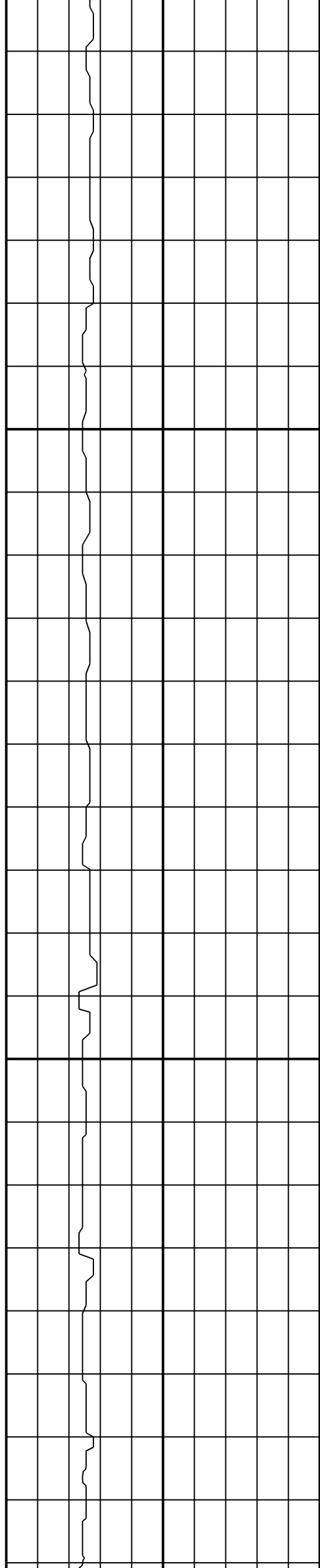
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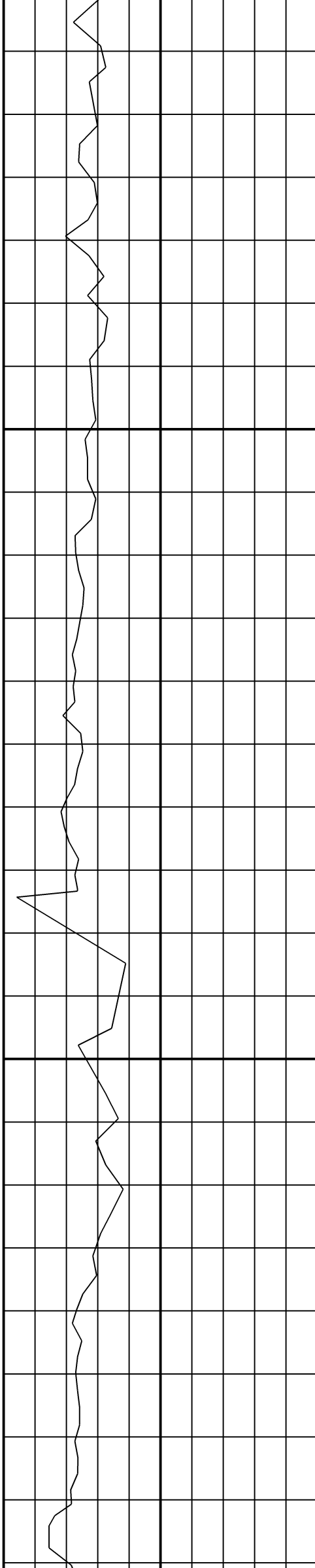
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INC: 1.7
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4978

5028



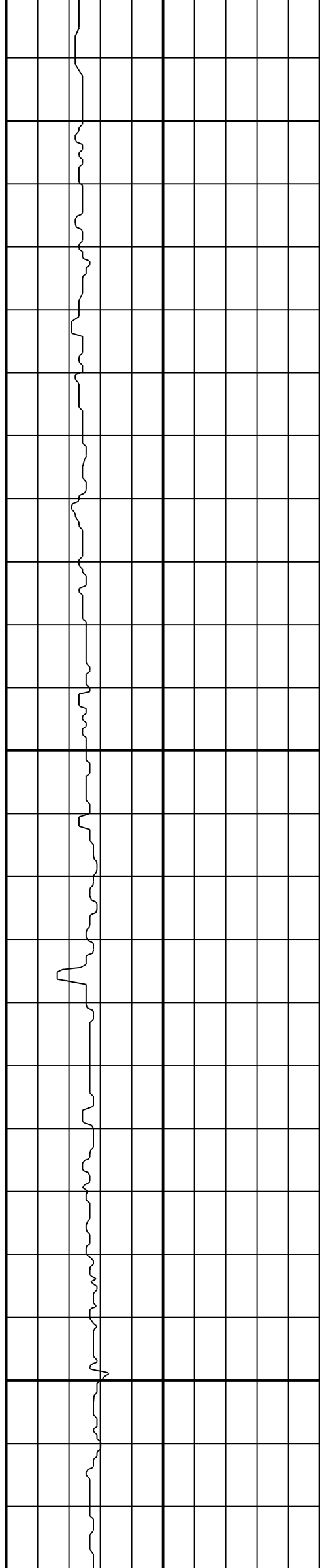
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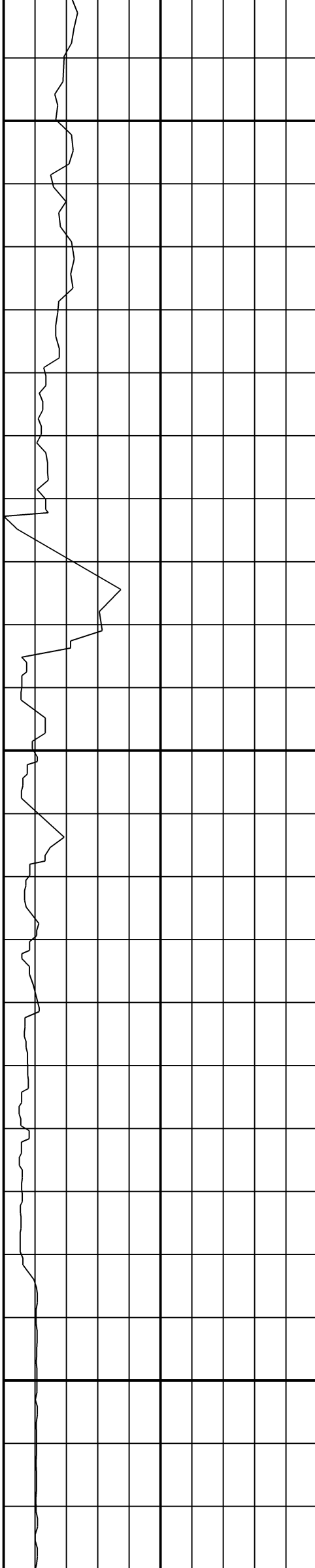
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INC: 1.6
AZM: 177.4

5128

MD: 5155
INC: 1.6
AZM: 163.2



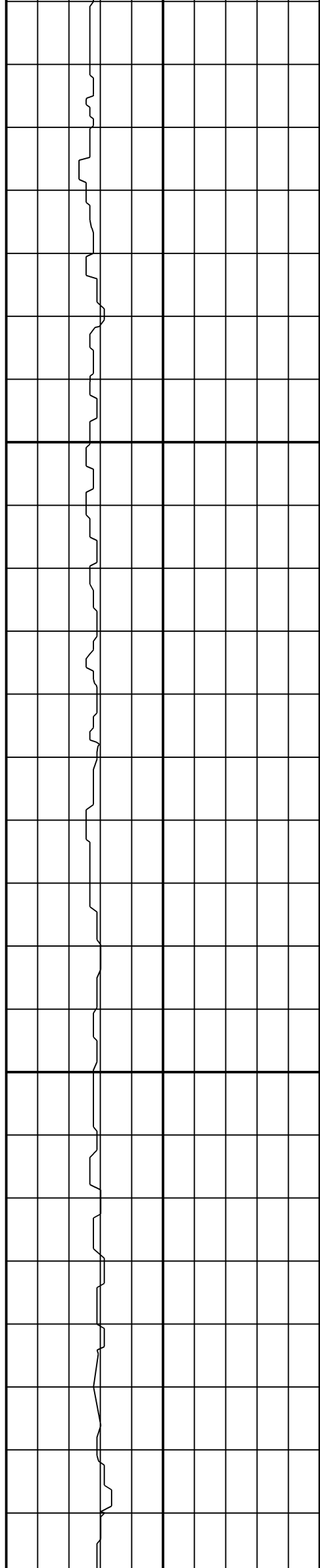
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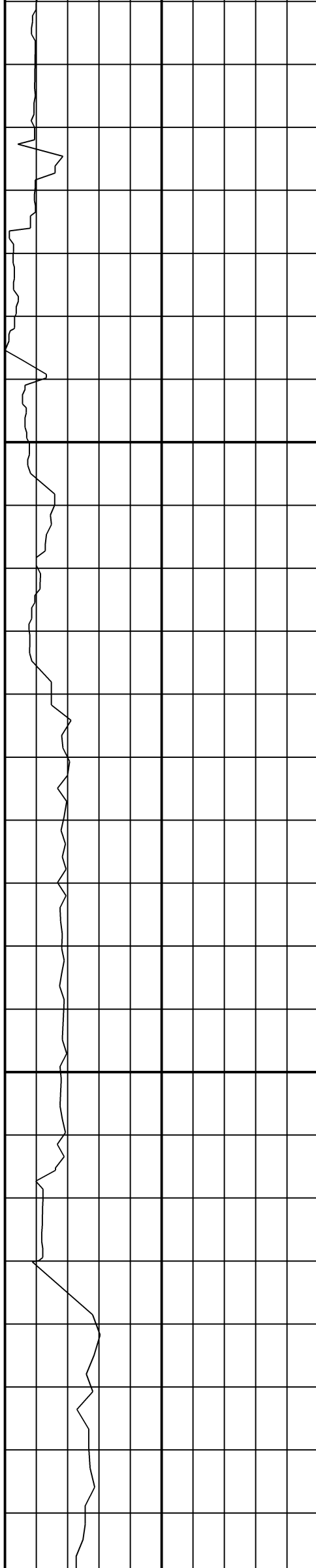
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MD: 5248
INC: 1.5
AZM: 164.8

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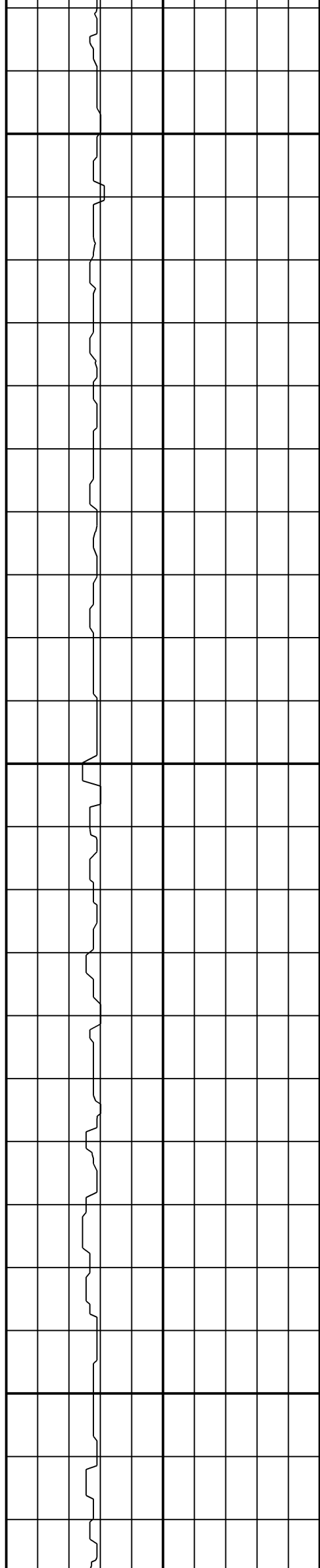


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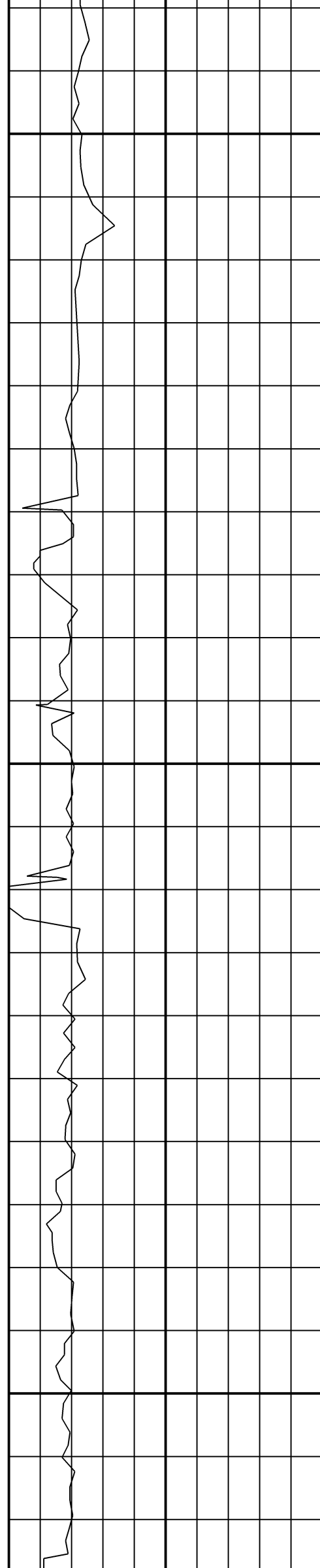


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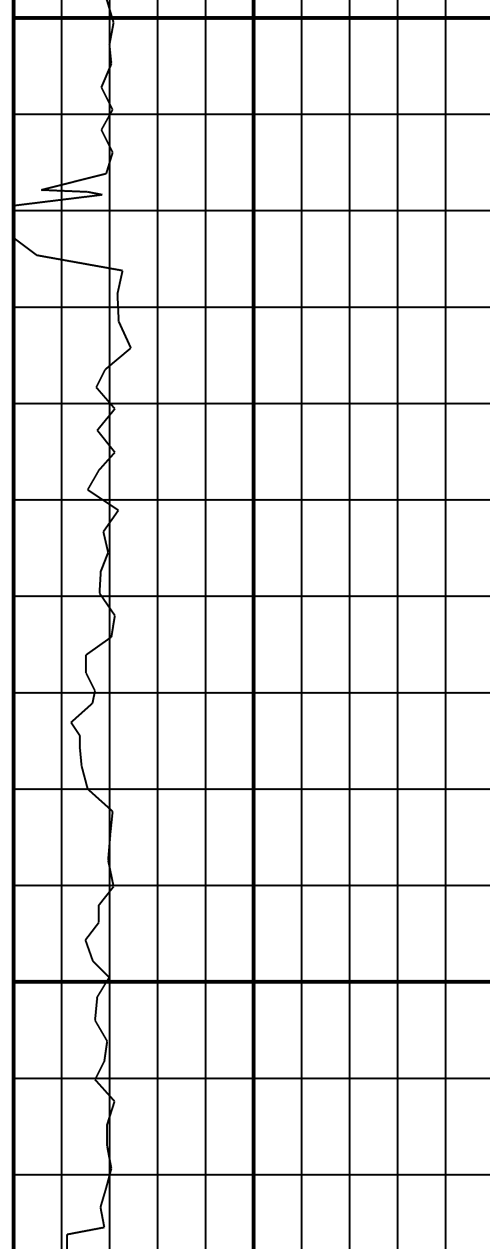
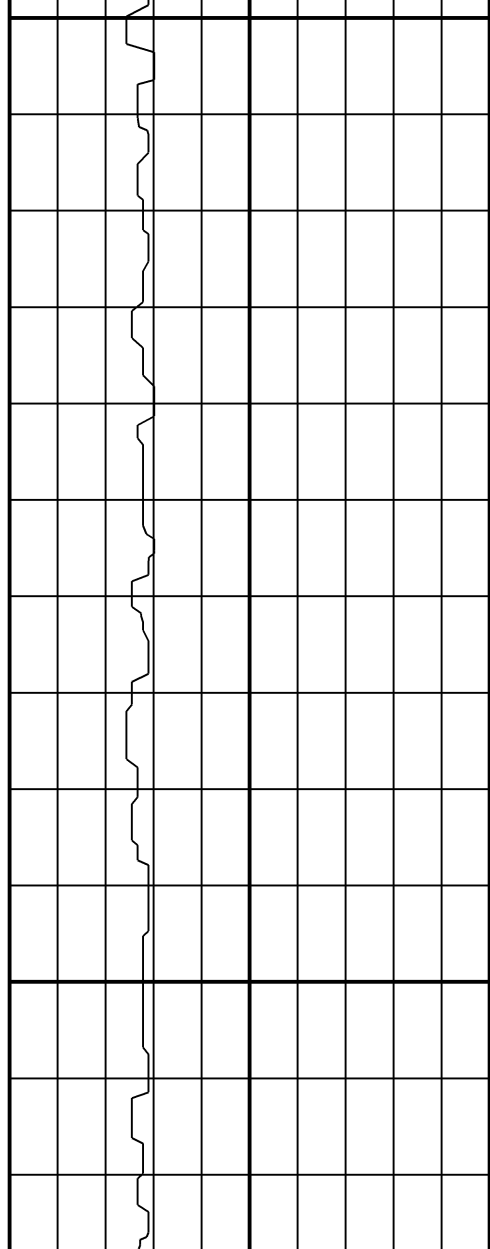


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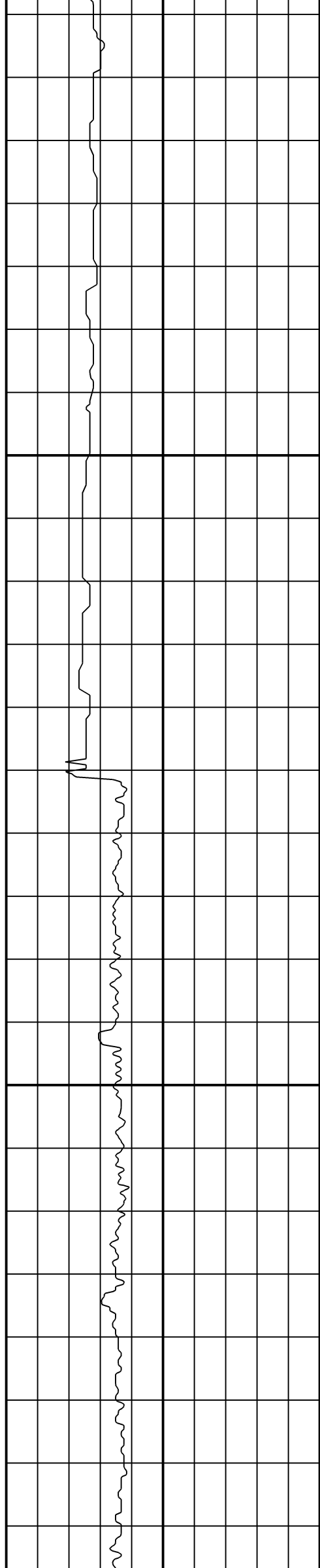
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INC: 0.3
AZM: 223.1

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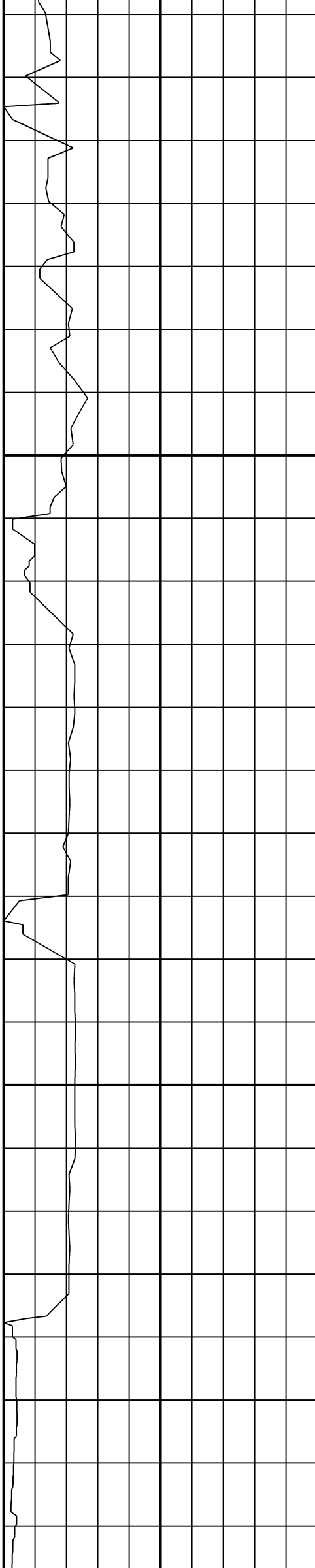


MD: 5531
INC: 0.5
AZM: 183.1

5528



5578

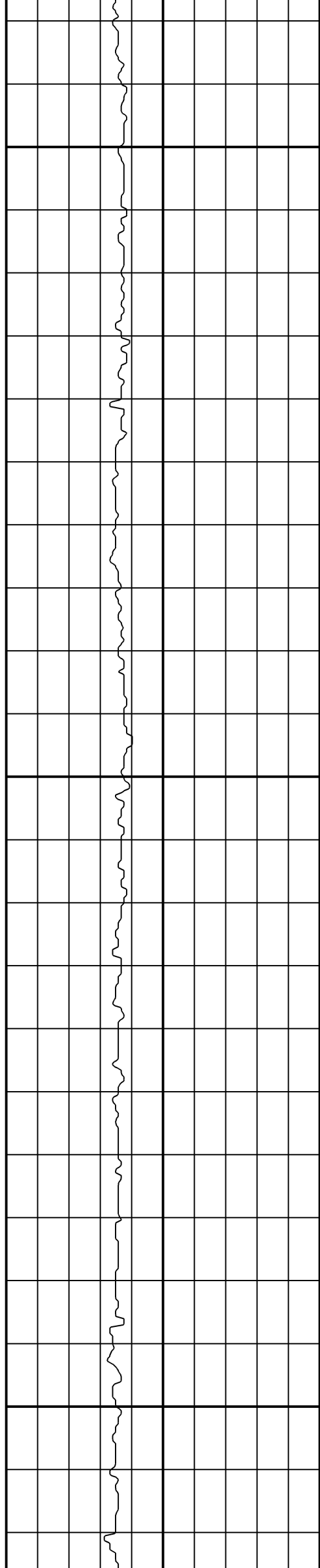


MD: 5593
INC: 0.7
AZM: 200.9

5628

MD: 5625
INC: 0.7
AZM: 194

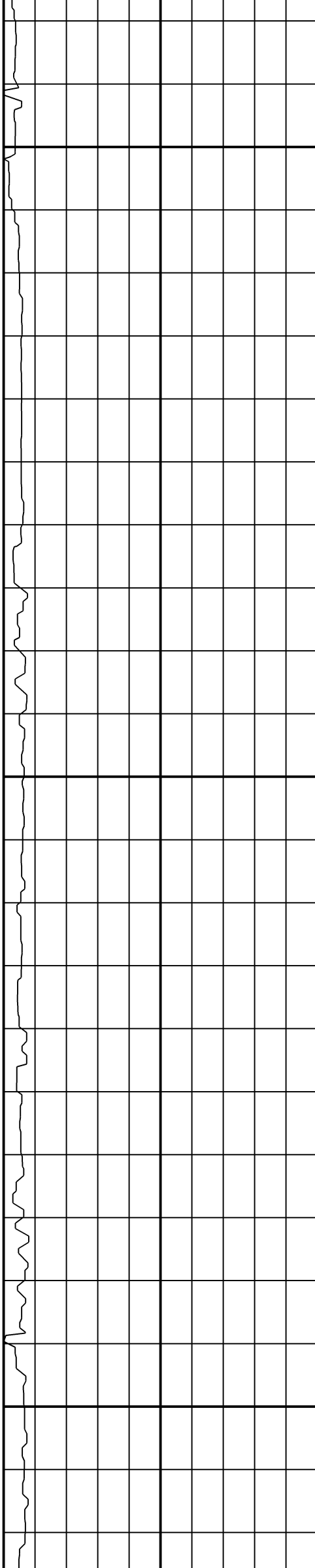
MD: 5657
INC: 0.5
AZM: 212.6



5678

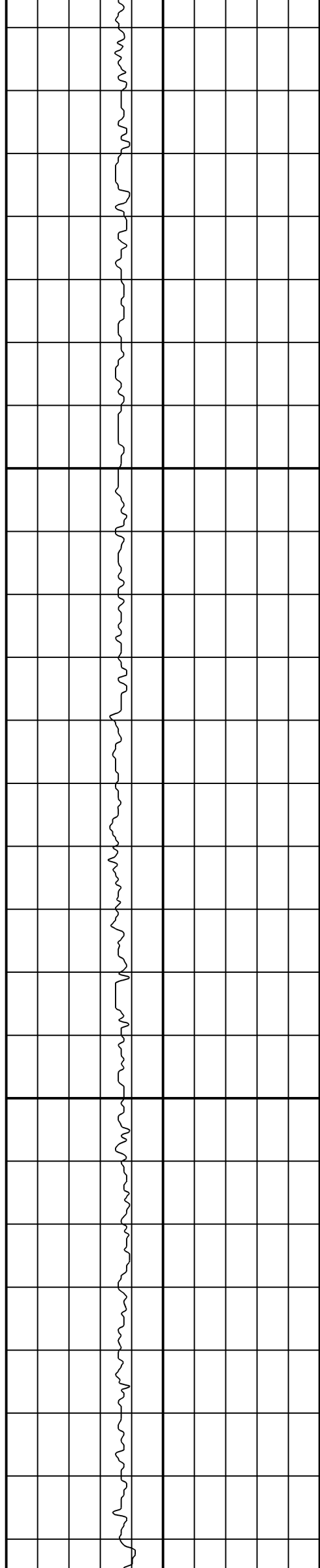
5728

5778

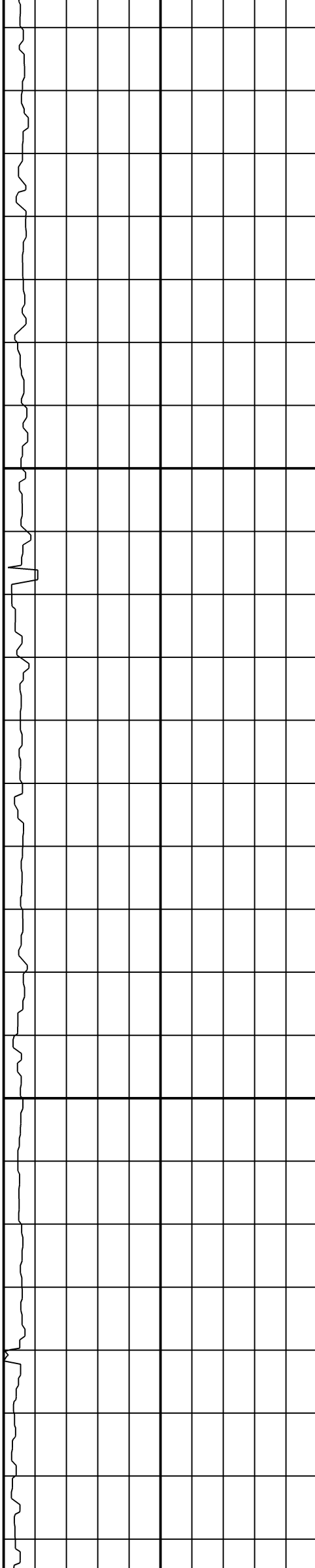


MD: 5720
INC: 5.1
AZM: 106.5

MD: 5782
INC: 12.4
AZM: 96.3



5828



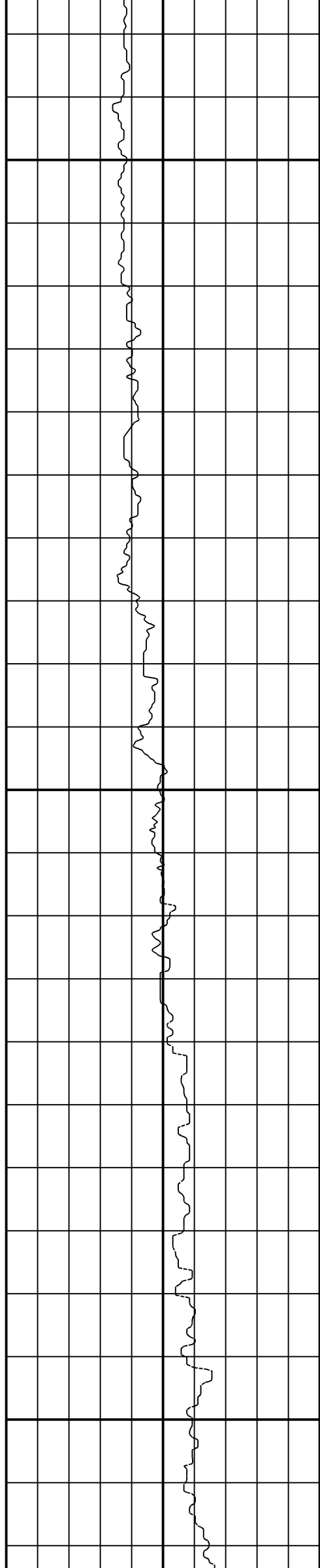
MD: 5814
INC: 16.4
AZM: 91.8

MD: 5845
INC: 19.4
AZM: 89.7

5878

MD: 5876
INC: 23.6
AZM: 90.7

MD: 5907
INC: 26.7
AZM: 90.5



5928

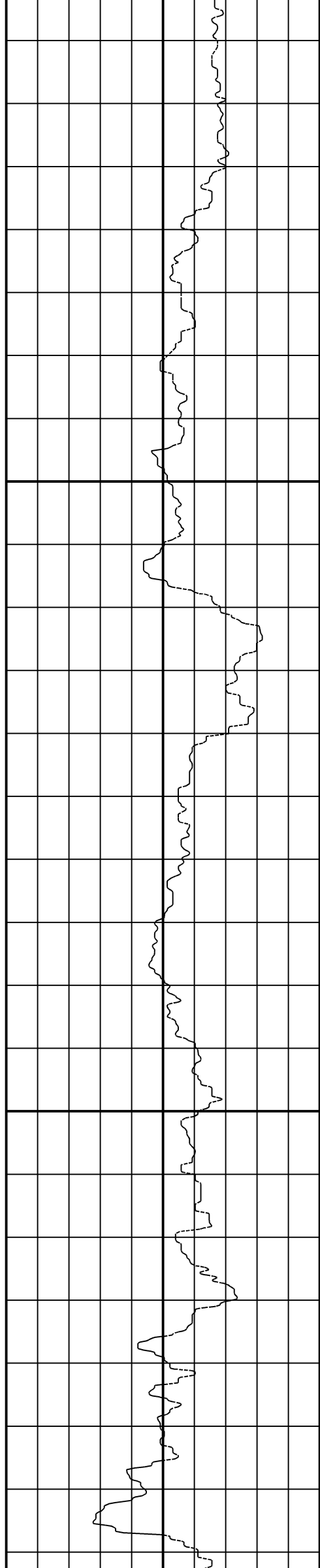
MD: 5938
INC: 31.1
AZM: 92

5978

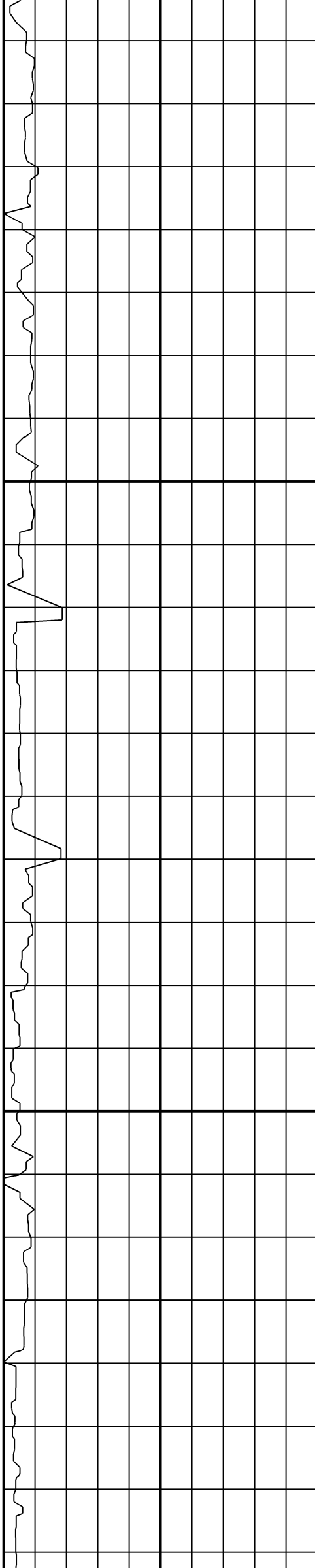
MD: 5969
INC: 34
AZM: 90

6028

MD: 6032
INC: 36.4
AZM: 86.3



6078



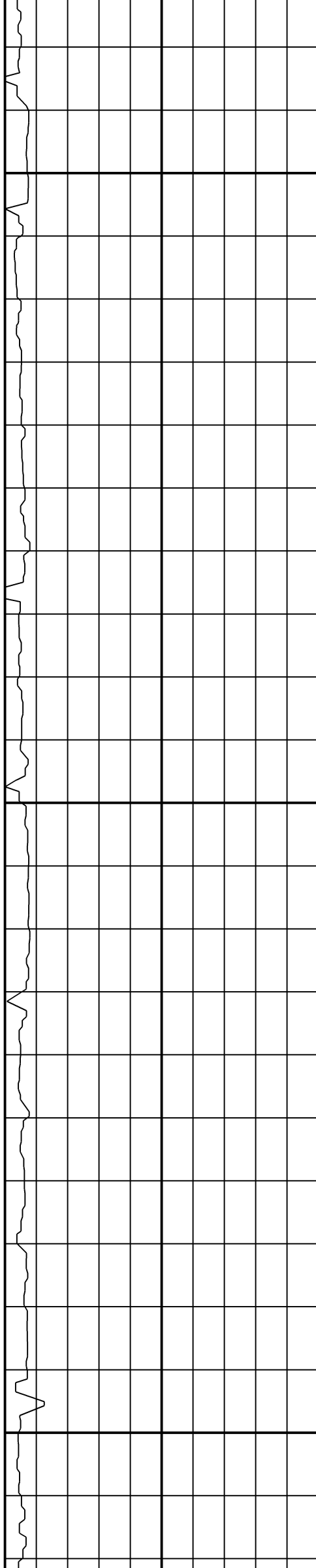
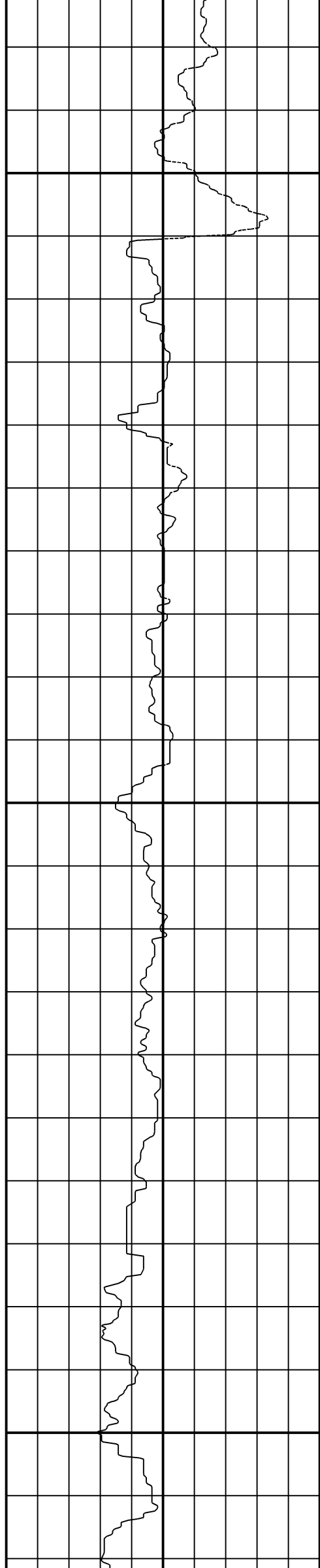
MD: 6063
INC: 41
AZM: 85.7

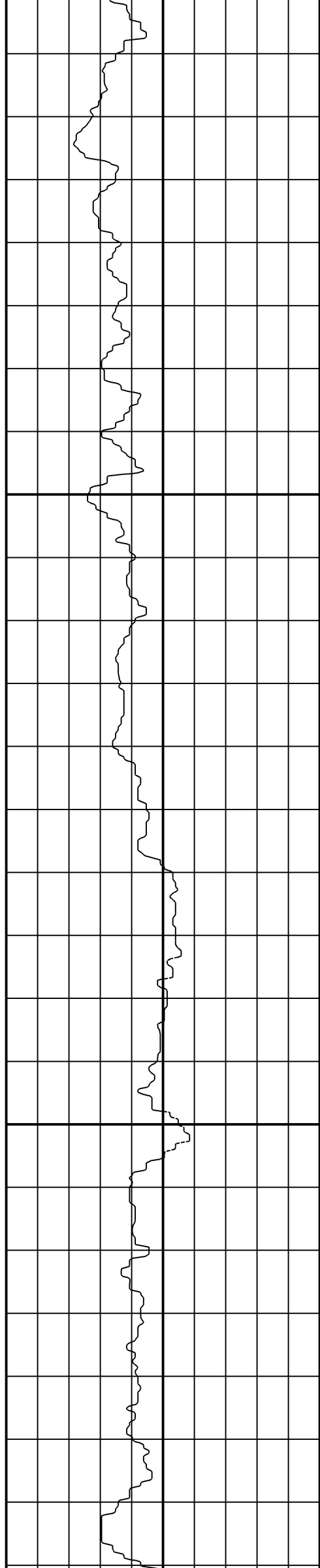
MD: 6095
INC: 42.2
AZM: 87.4

6128

MD: 6126
INC: 44.6
AZM: 87.8

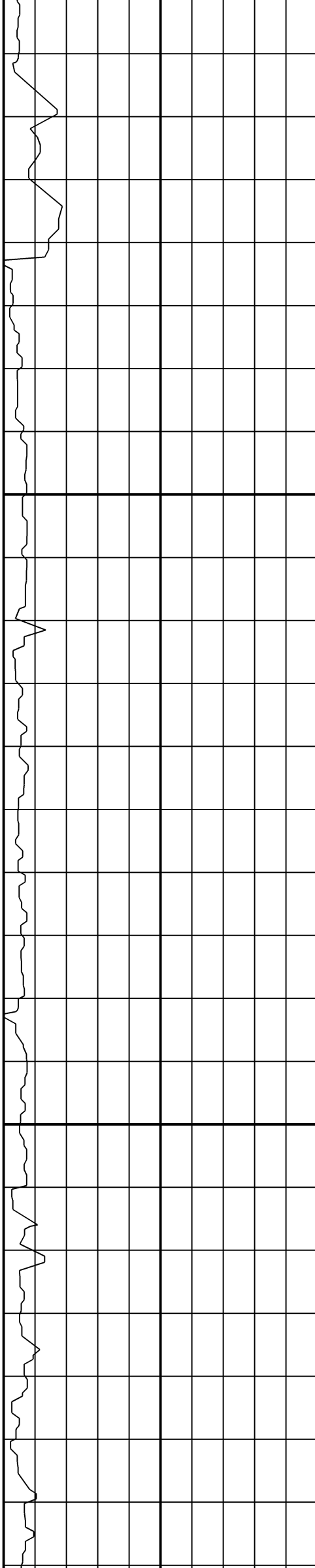
MD: 6158
INC: 47.3
AZM: 89.2





6328

6378

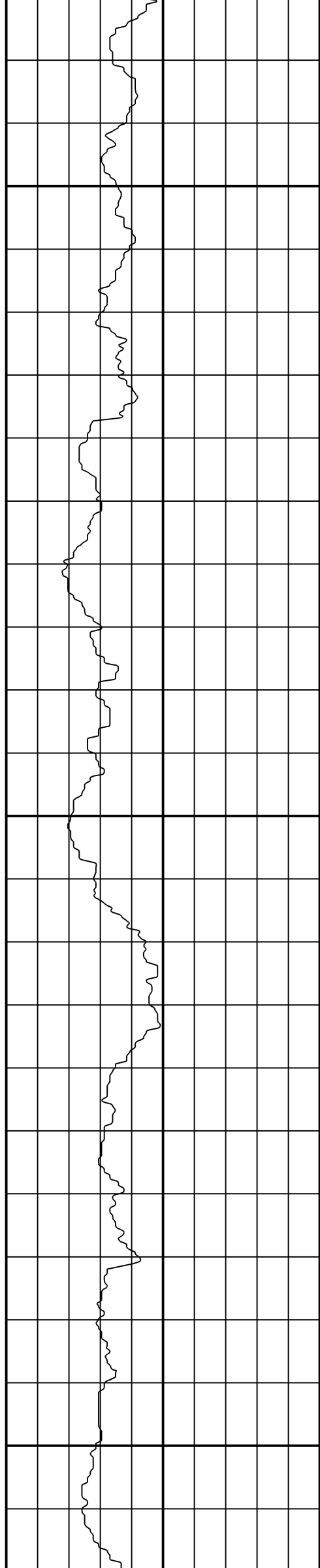


MD: 6315
INC: 62
AZM: 88

MD: 6346
INC: 64.5
AZM: 87.4

MD: 6378
INC: 68.3
AZM: 86.3

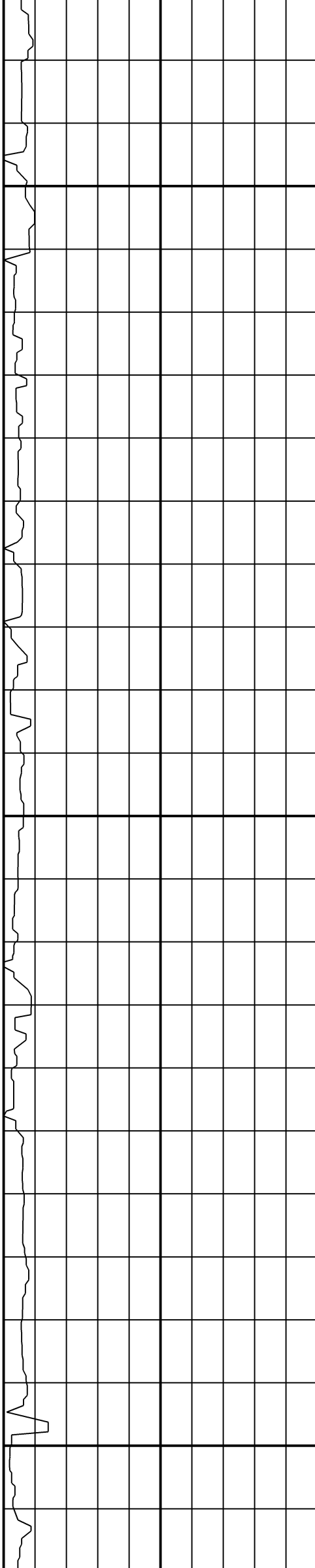
MD: 6409
INC: 72.2
AZM: 86



6428

6478

6528

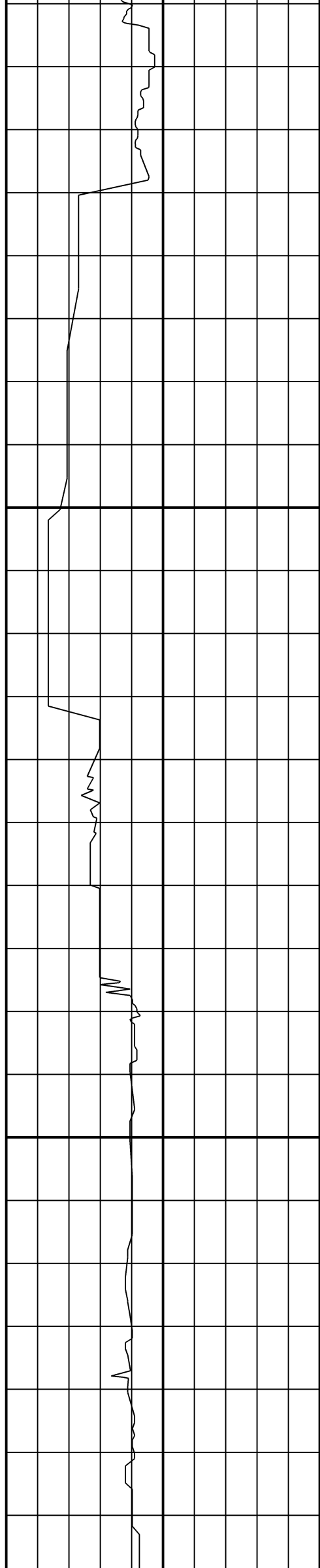


MD: 6440
INC: 76.3
AZM: 86.6

MD: 6471
INC: 79.3
AZM: 86.1

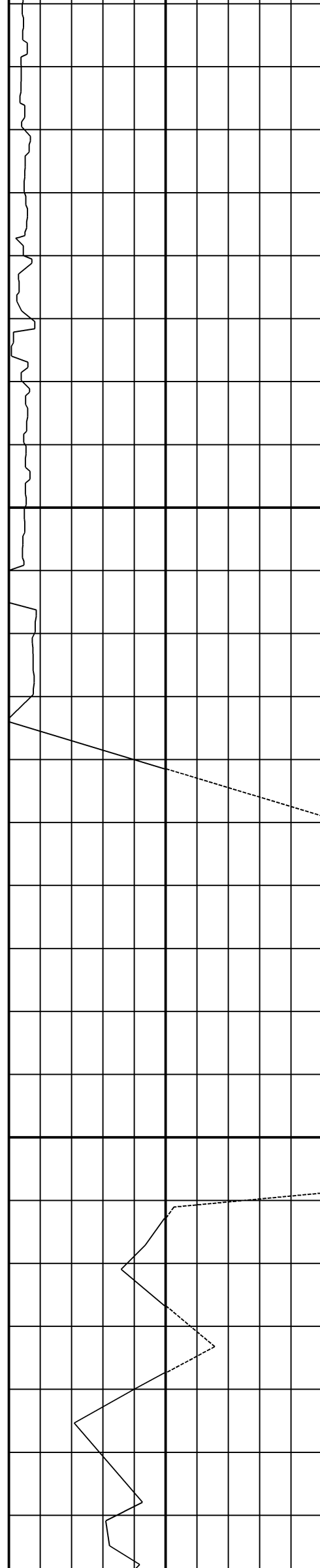
MD: 6502
INC: 81.5
AZM: 86.6

MD: 6533
INC: 83.5
AZM: 86.2



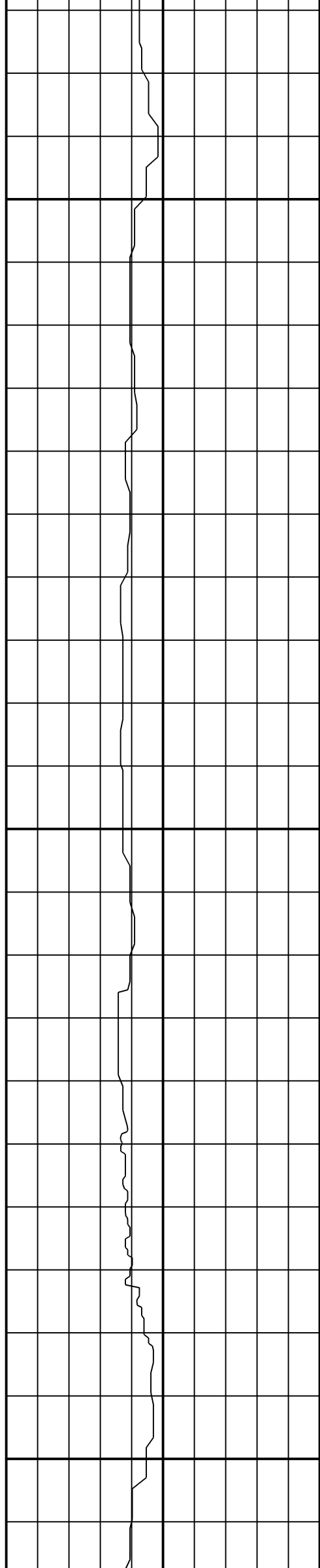
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6628

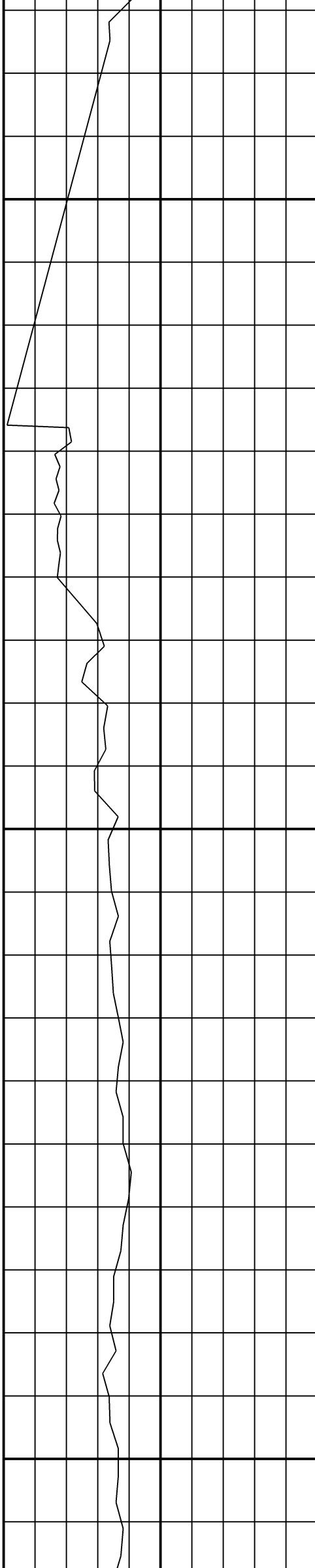


MD: 6542
INC: 85.1
AZM: 85.6

MD: 6633
INC: 90.1
AZM: 86.6



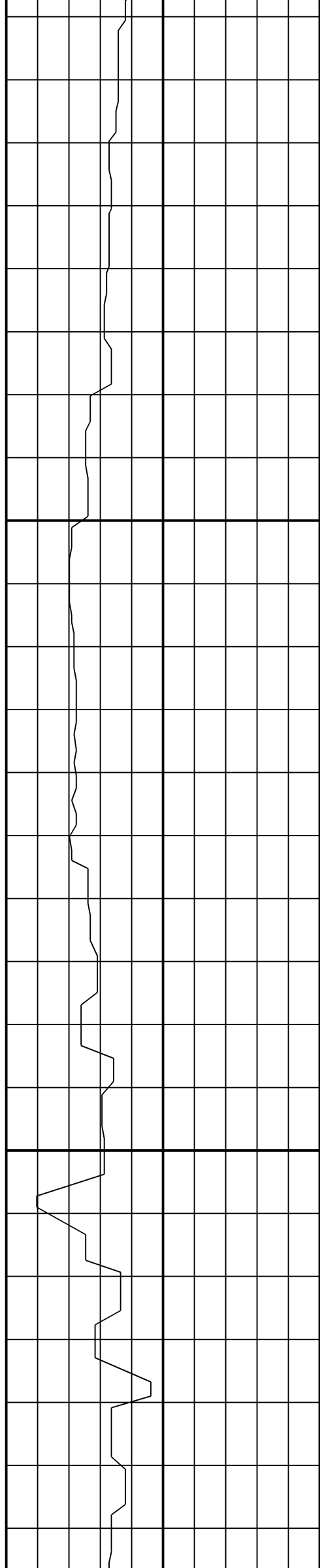
6678



6728

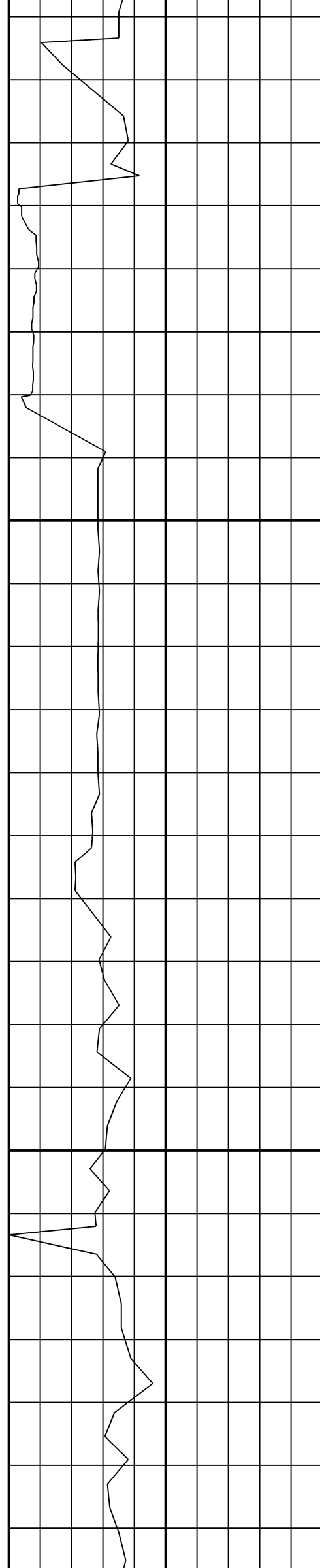
MD: 6728
INC: 90
AZM: 88.5

6778

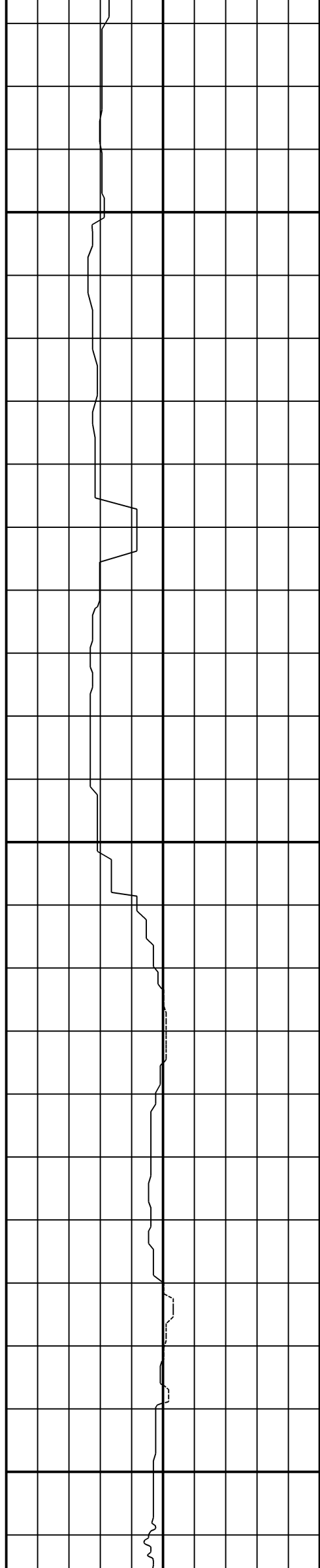


6828

6878



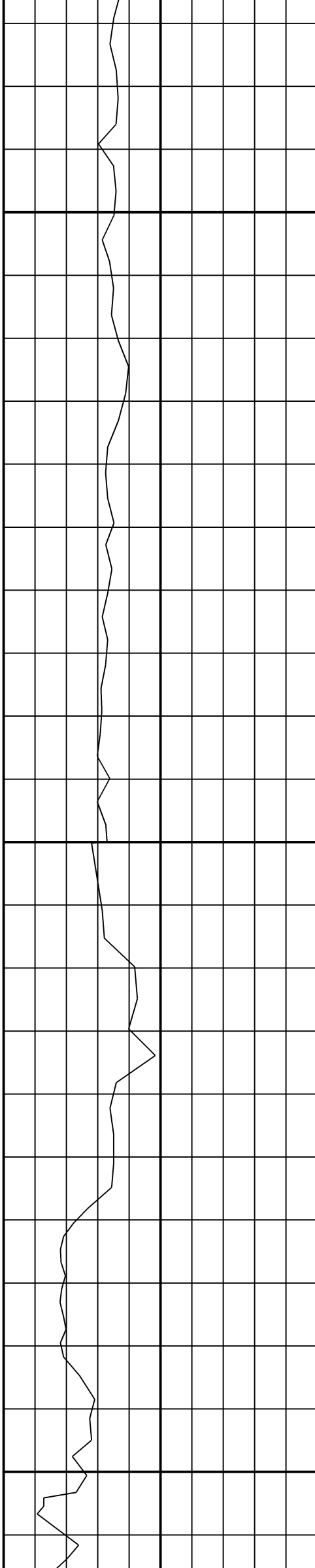
MD: 6822
INC: 91
AZM: 88.2



6928

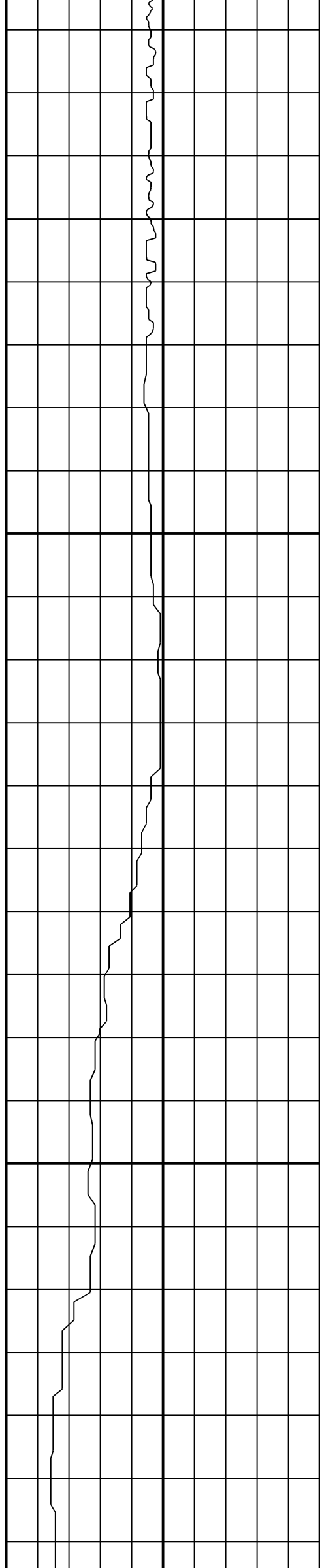
6978

7028



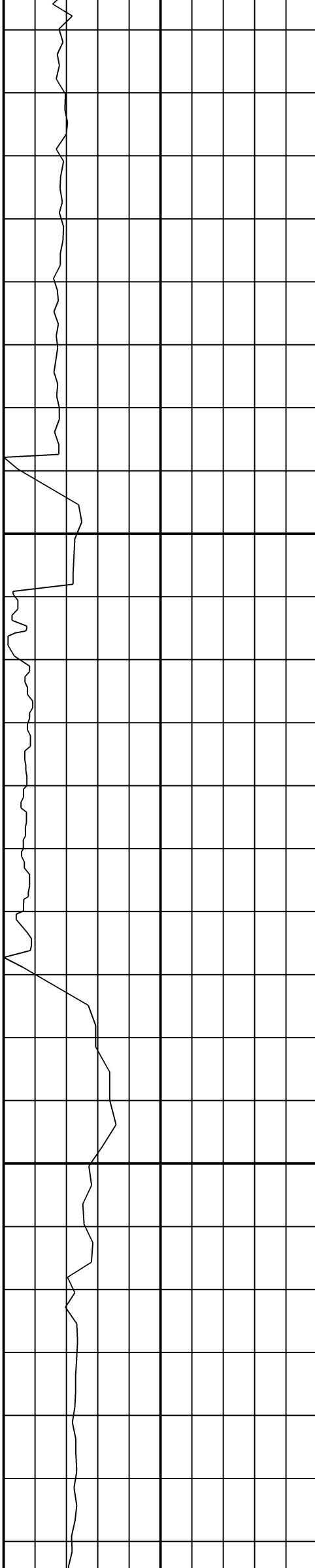
MD: 6916
INC: 91.1
AZM: 87.4

MD: 7009
INC: 89.8
AZM: 85.5

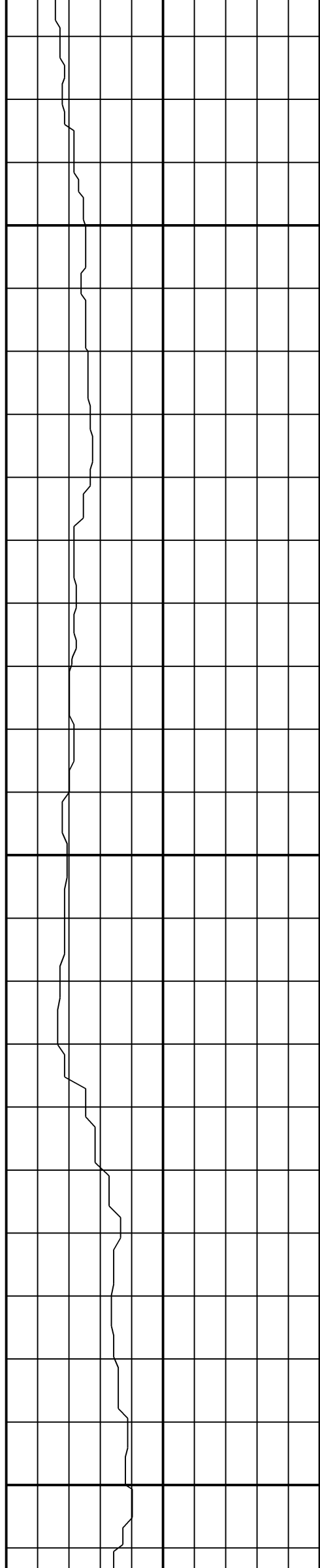


7078

7128



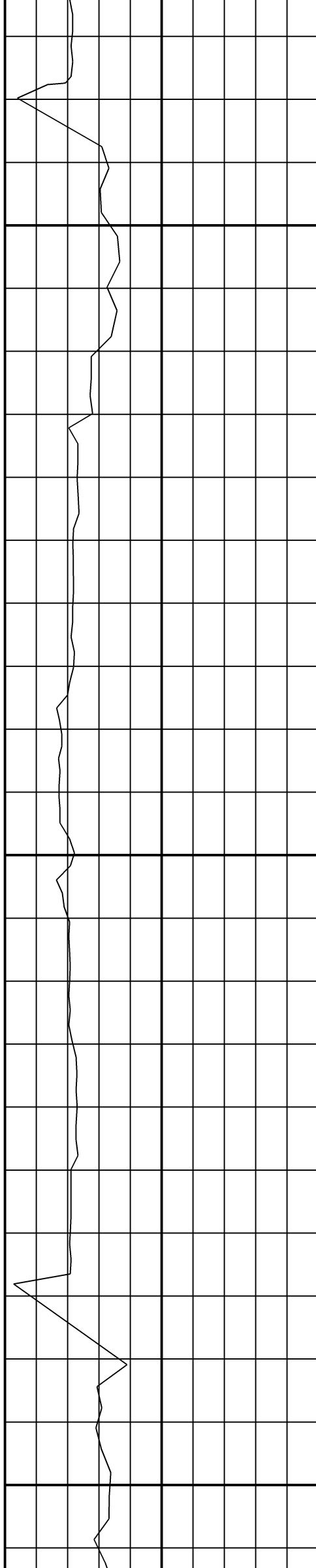
MD: 7104
INC: 92.1
AZM: 89.5



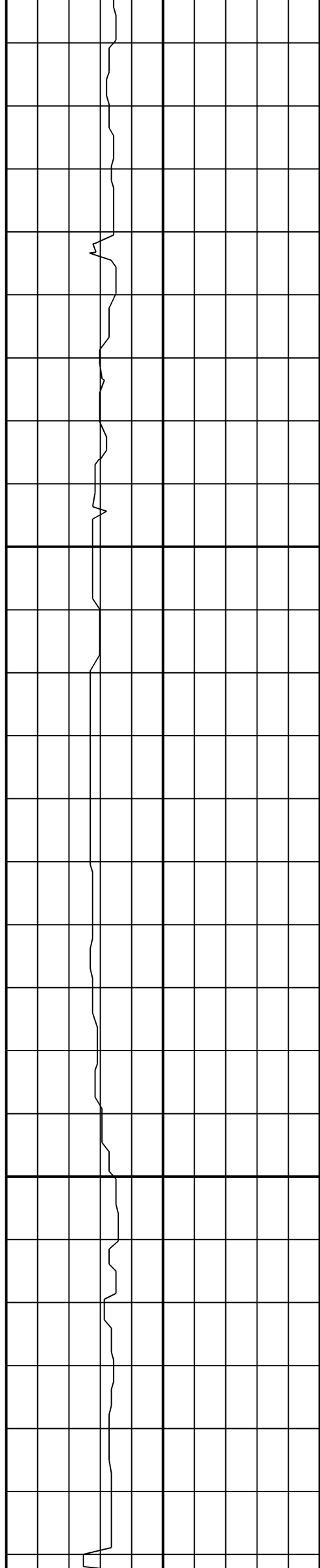
7178

7228

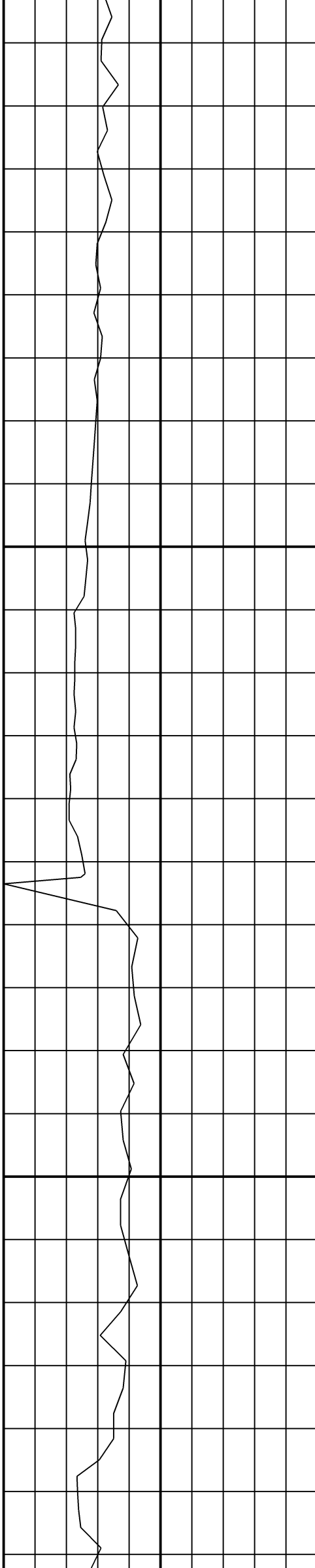
7278



MD: 7198
INC: 92.4
AZM: 88.2



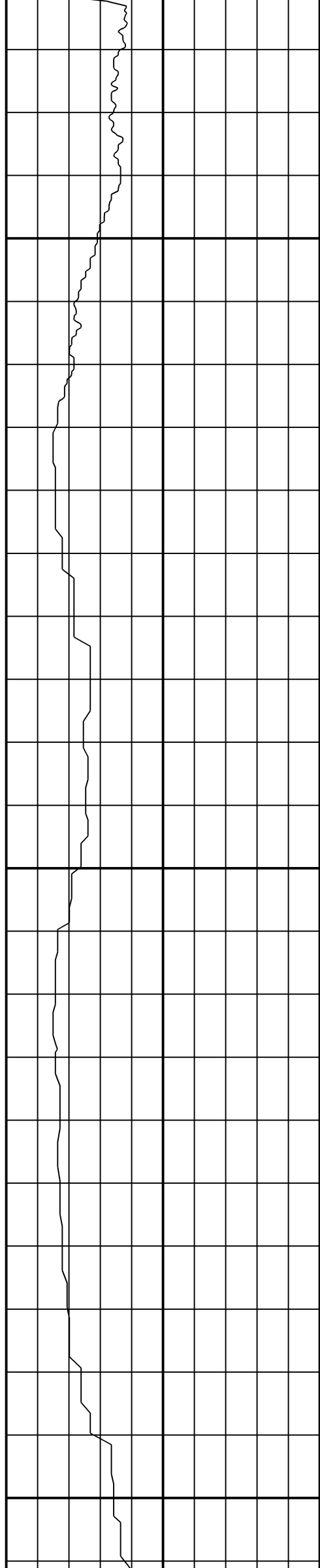
7328



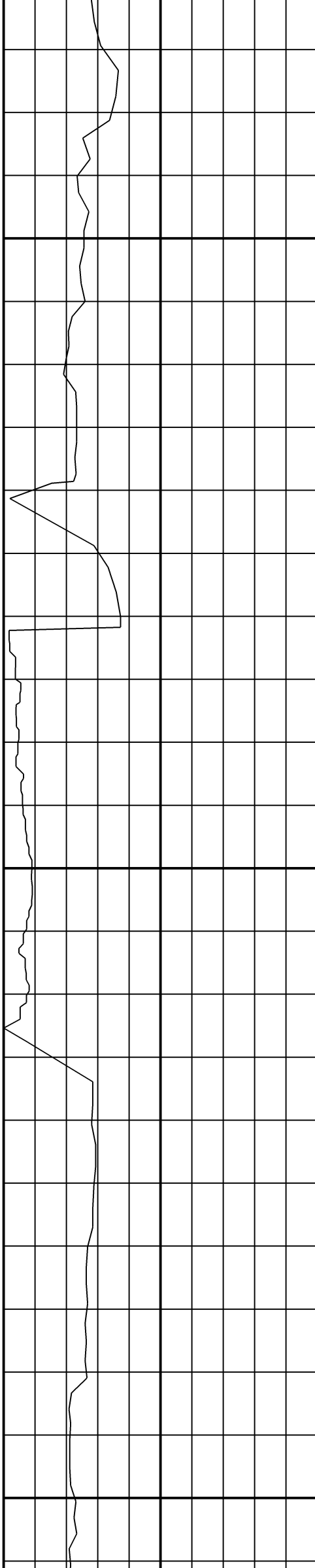
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MD: 7292
INC: 91.4
AZM: 87.3

MD: 7386
INC: 89.1
AZM: 86.2



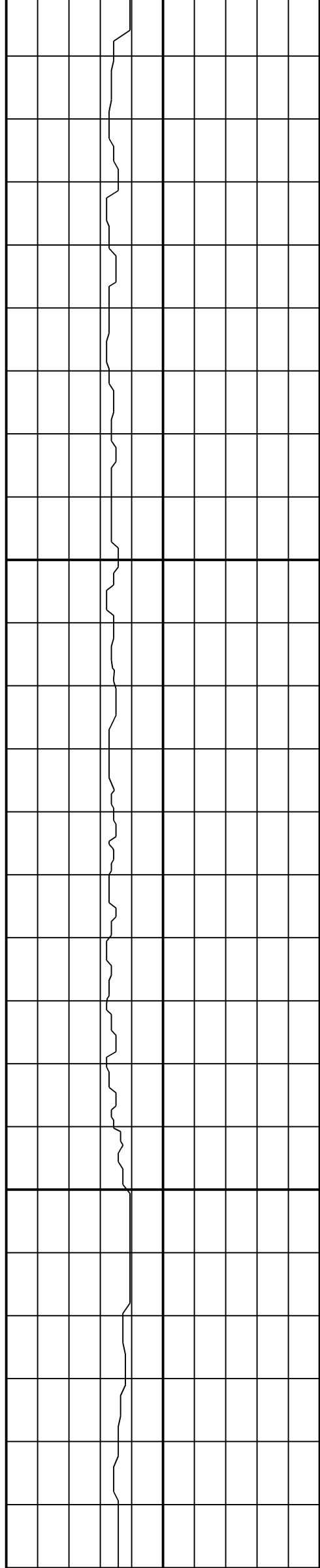
7428



7478

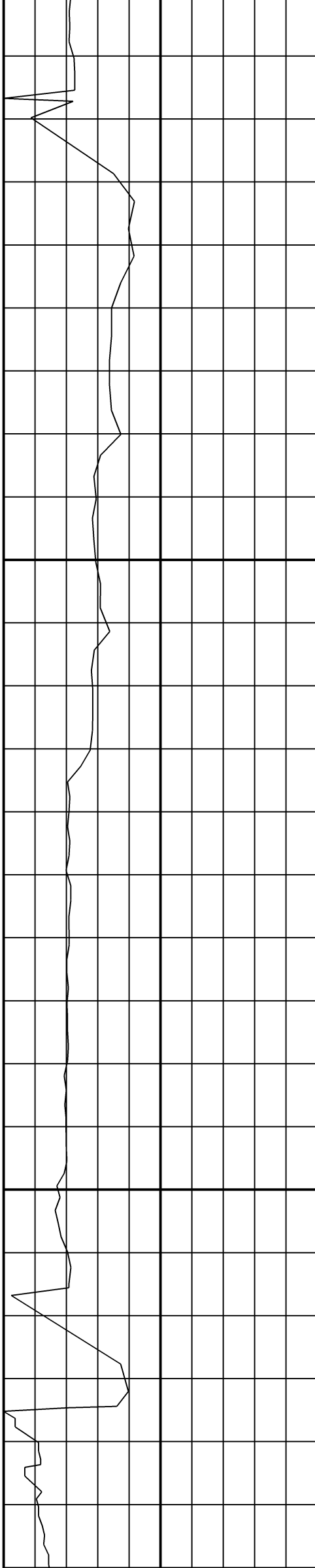
MD: 7480
INC: 90.5
AZM: 88.7

7528

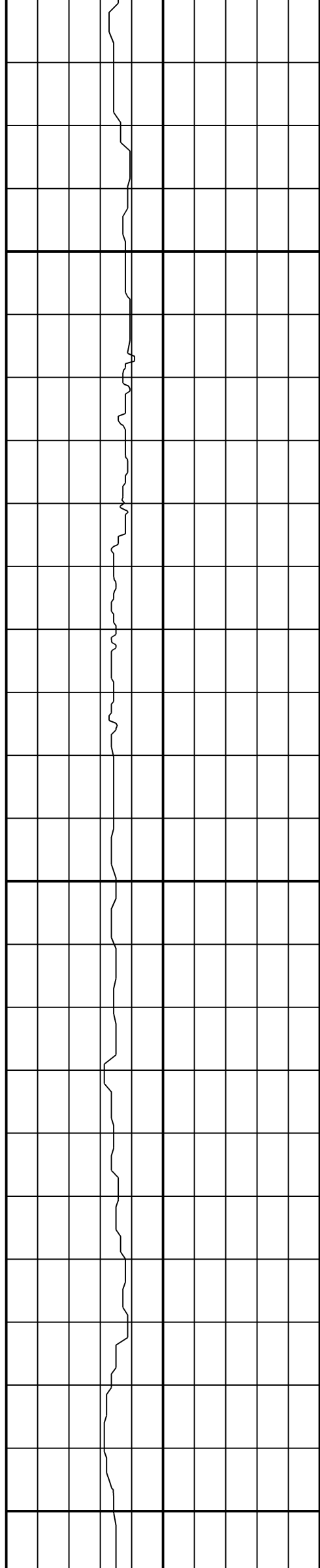


7578

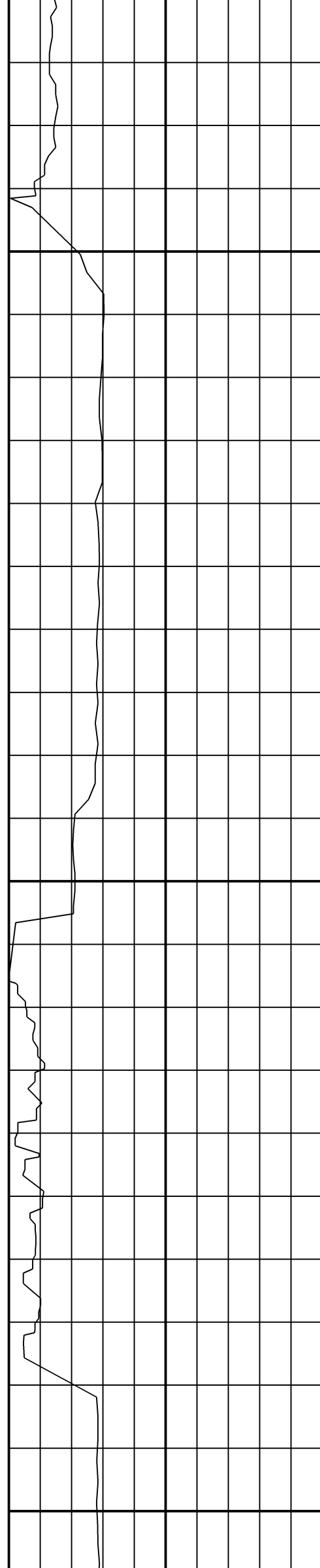
7628



MD: 7574
INC: 90.4
AZM: 87



7678

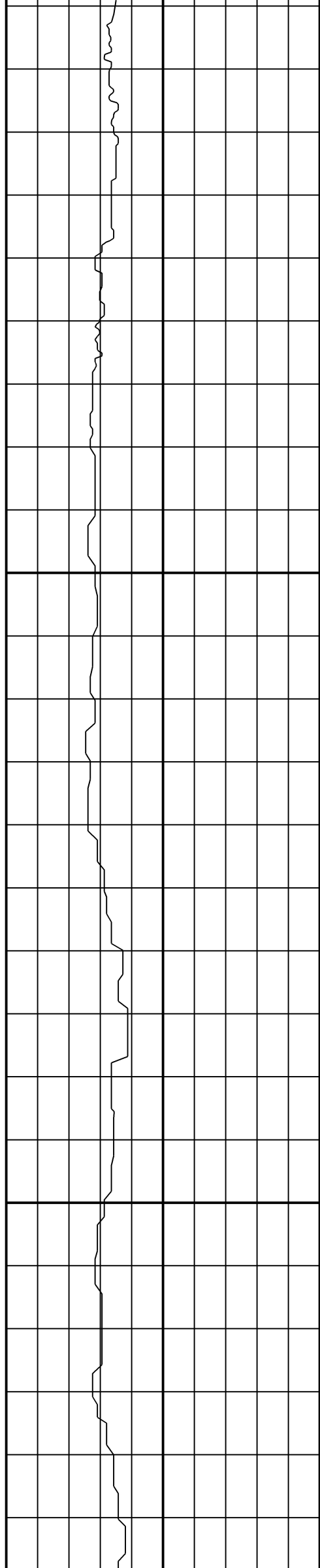


MD: 7668
INC: 90.7
AZM: 87.3

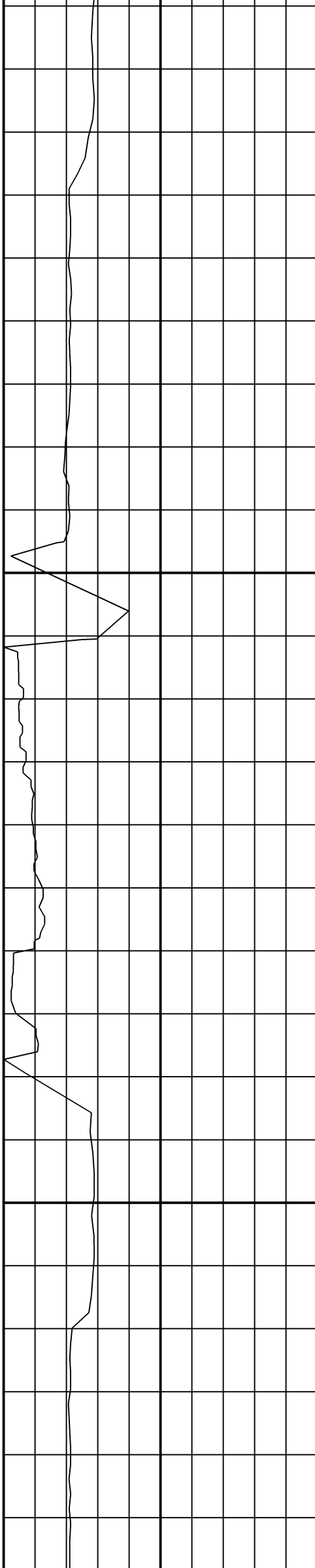
7728

MD: 7763
INC: 91.4
AZM: 88.4

7778

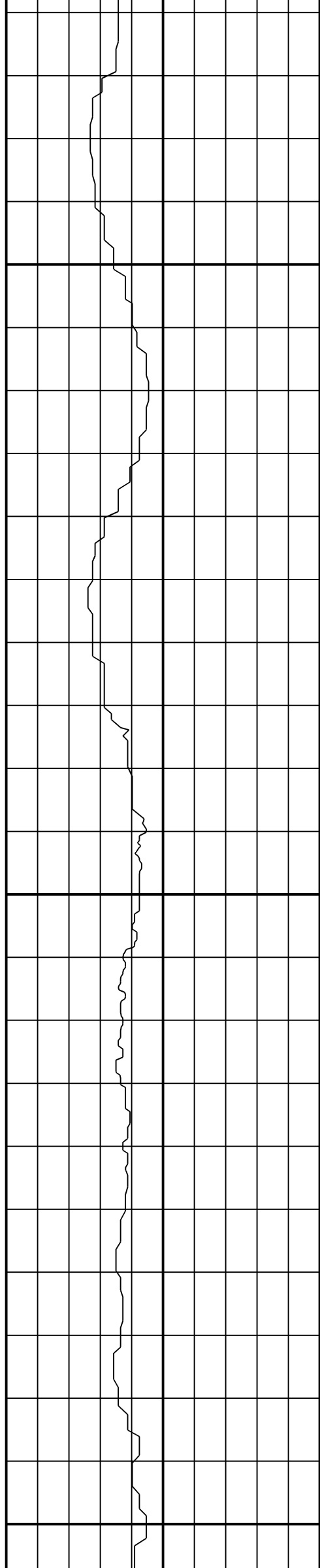


7828



MD: 7857
INC: 94.5
AZM: 89.7

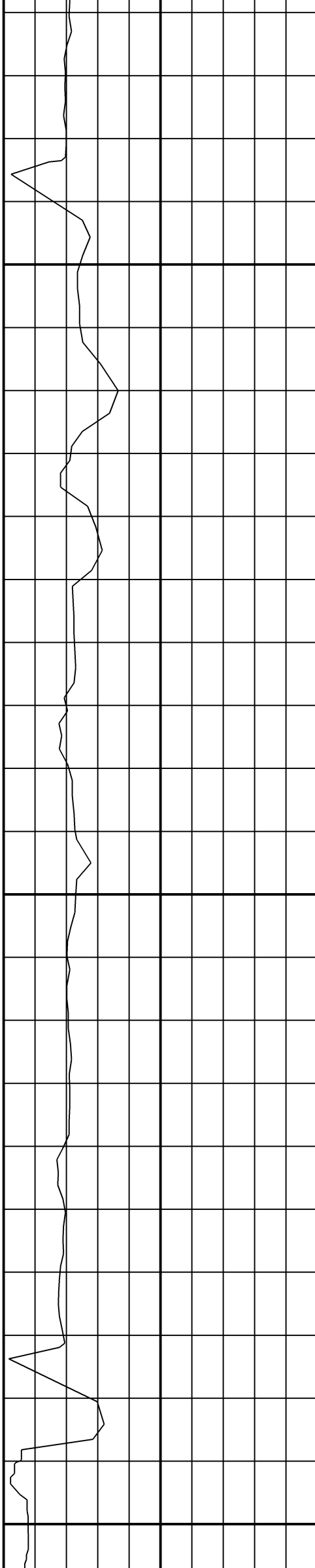
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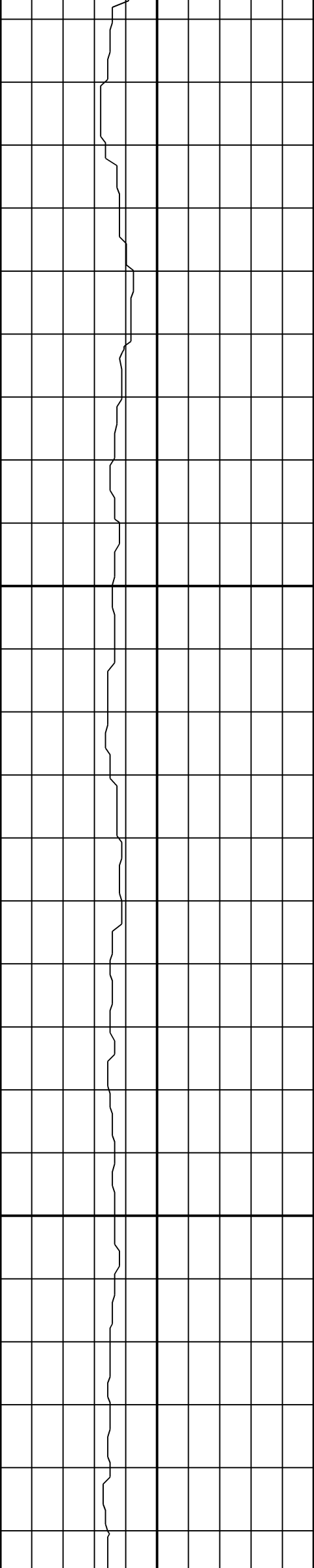
7928

7978

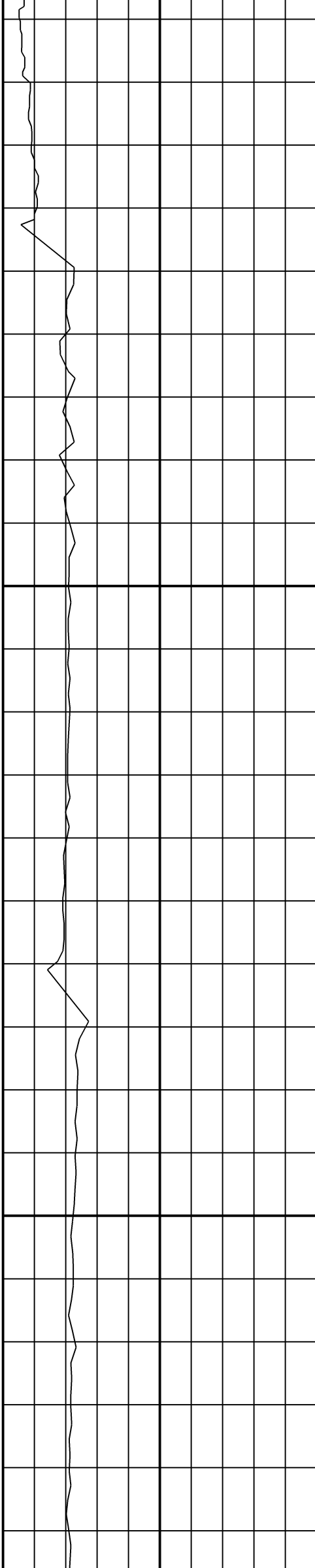
8028



MD: 7951
INC: 94.9
AZM: 88.2



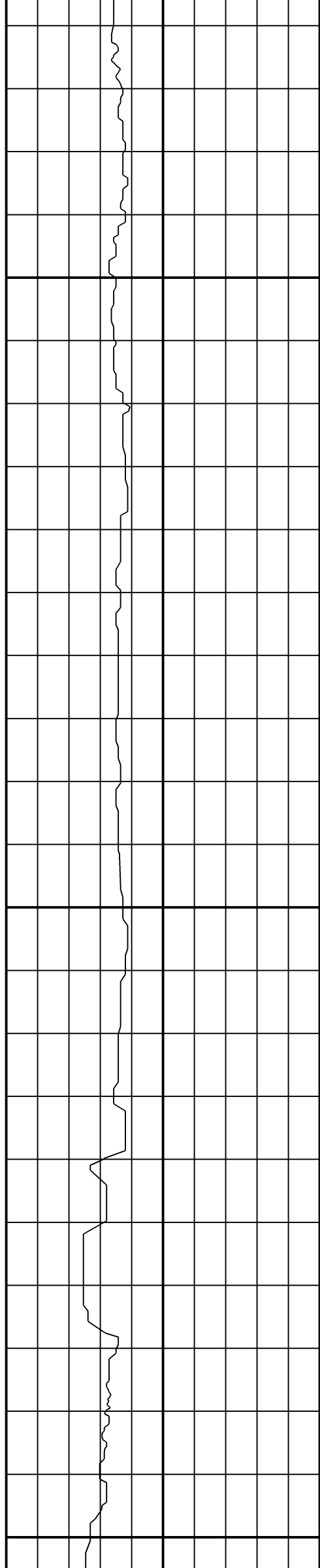
8078



MD: 8045
INC: 93.4
AZM: 90.2

8128

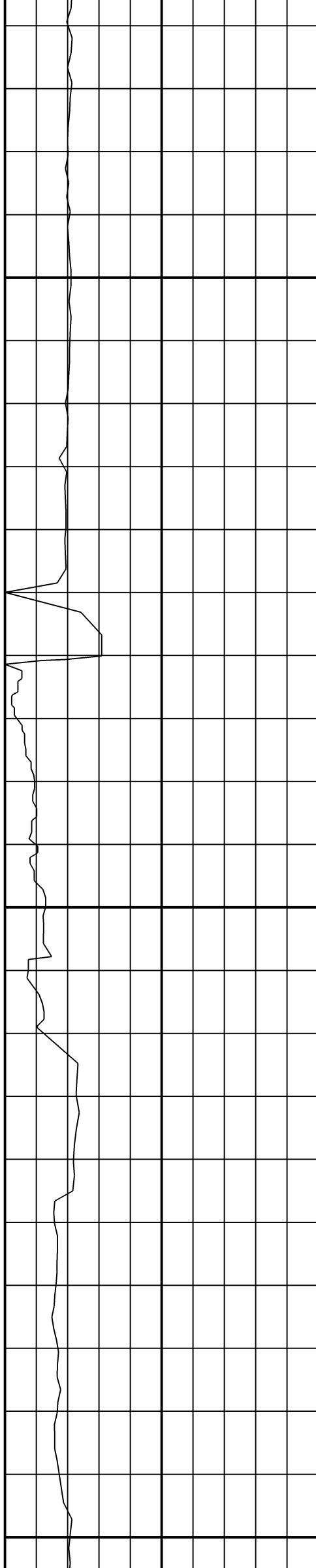
MD: 8139
INC: 93.4
AZM: 90



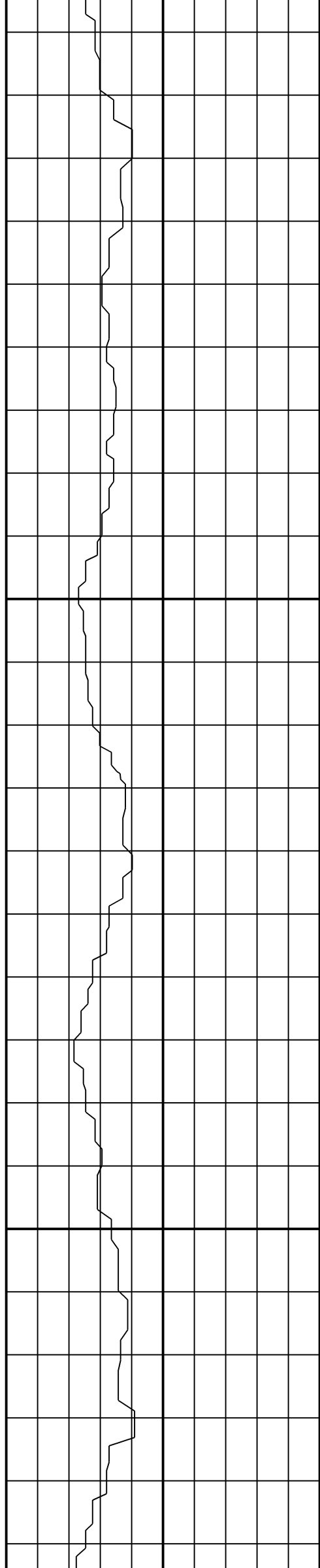
8178

8228

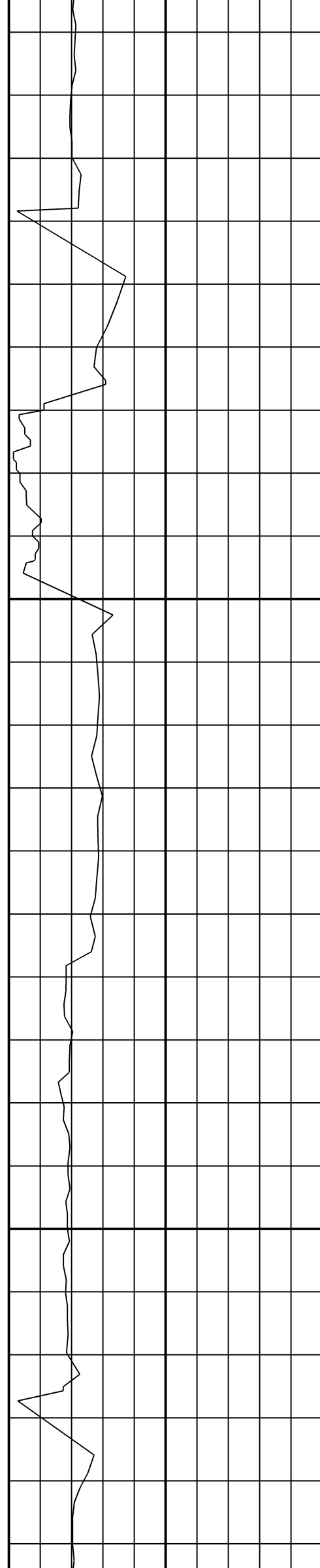
8278



MD: 8234
INC: 91.8
AZM: 91.7

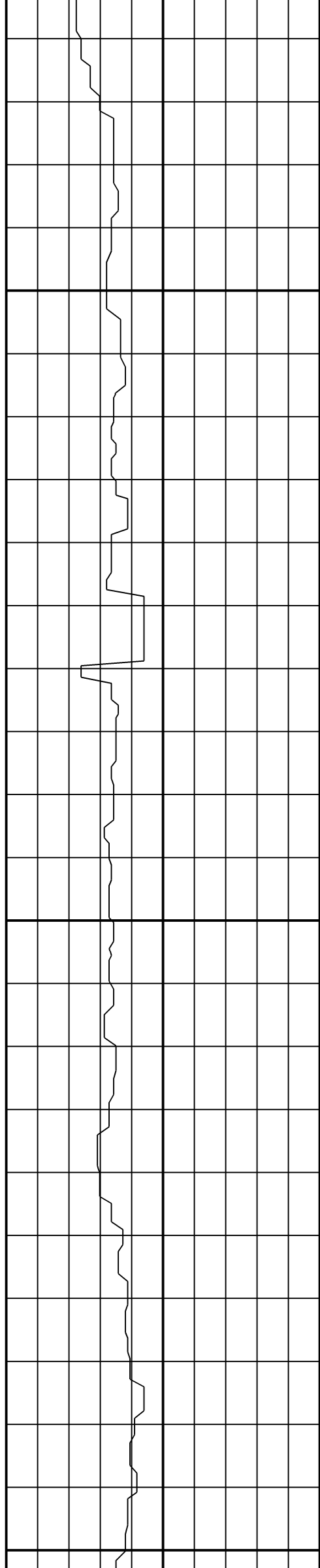


8328



8378

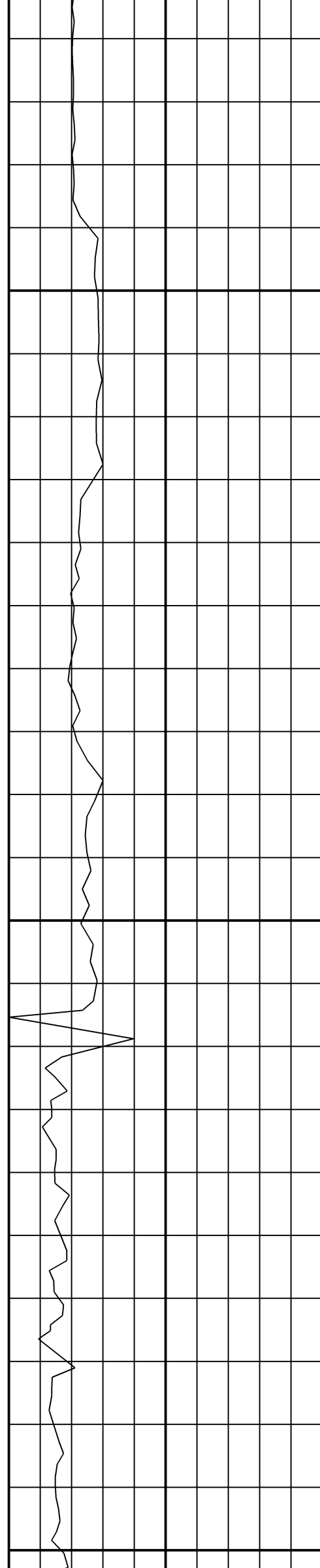
MD: 8328
INC: 89.6
AZM: 90.9



8428

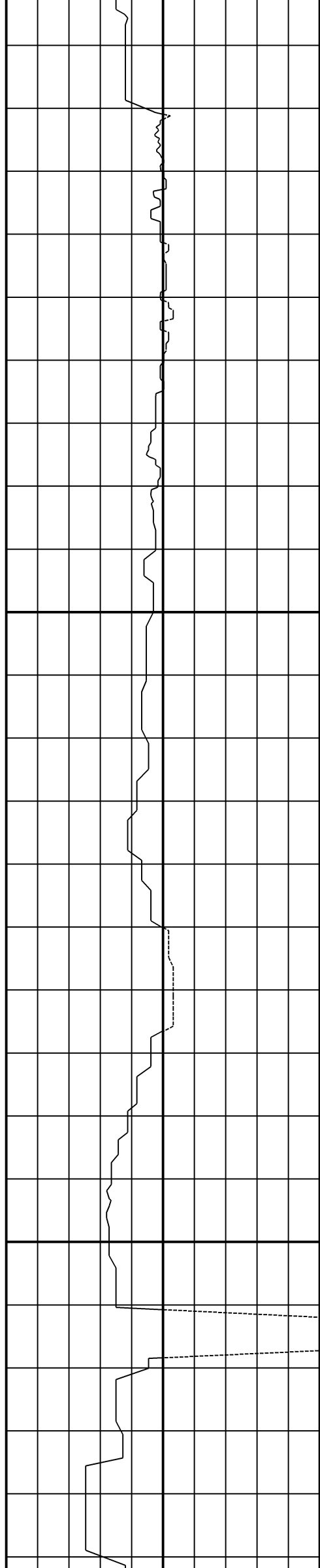
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8528



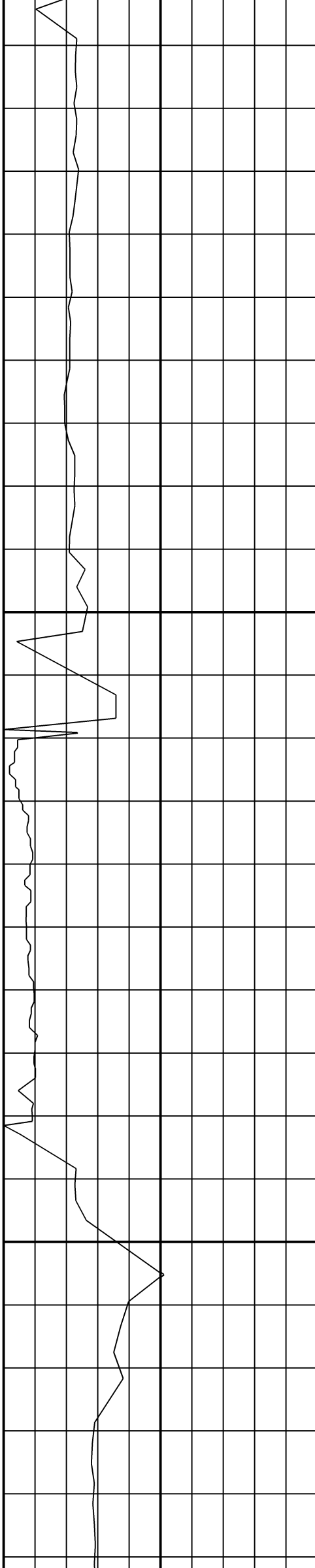
MD: 8422
INC: 88.7
AZM: 89.7

MD: 8516
INC: 87.3
AZM: 89.6

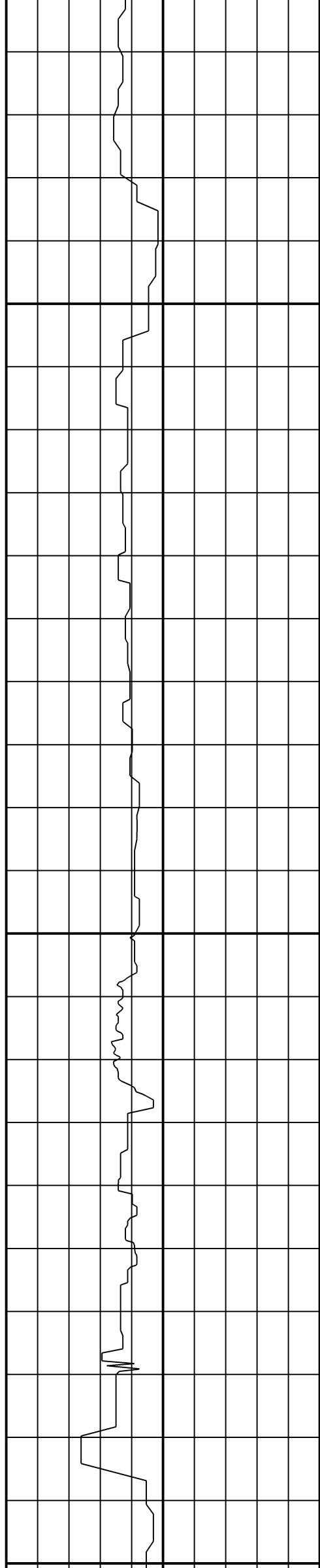


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8628



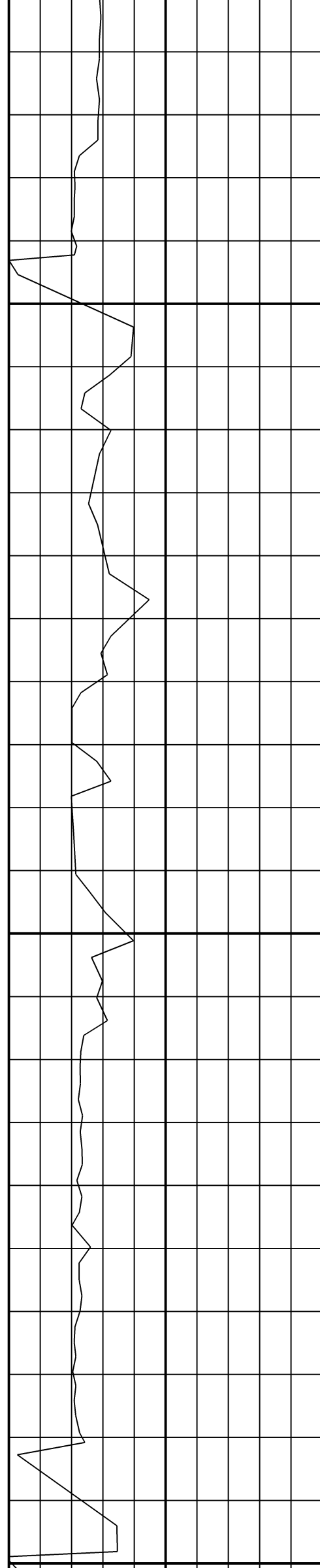
MD: 8610
INC: 89.3
AZM: 88.9



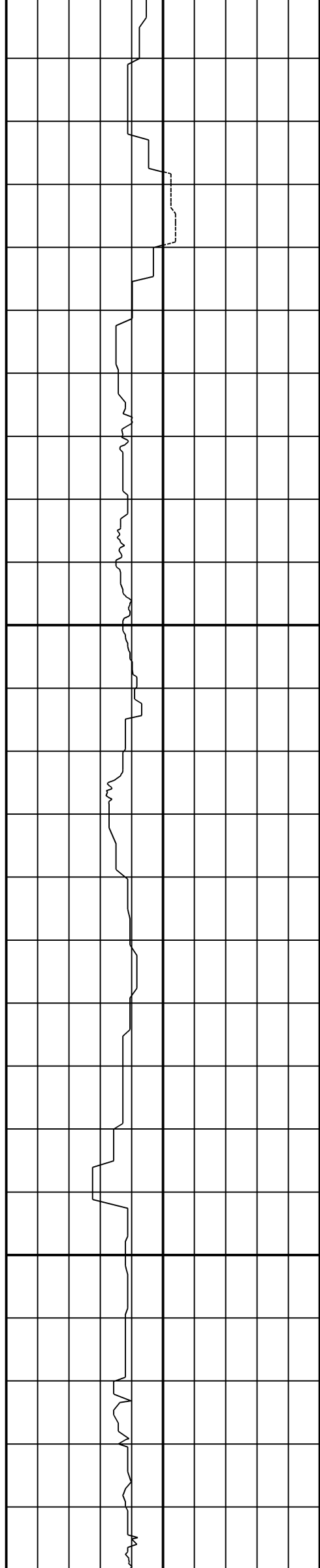
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8728

8778

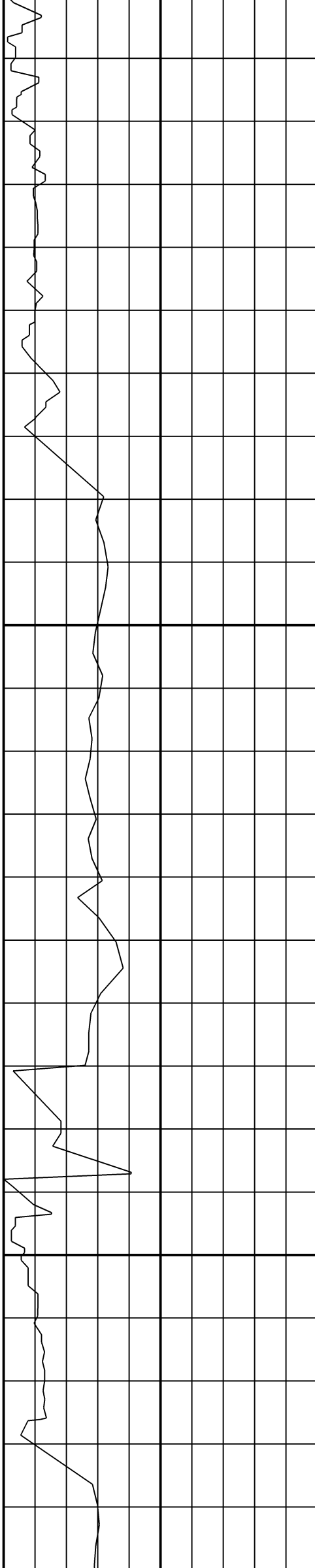


MD: 8704
INC: 88.3
AZM: 87.4



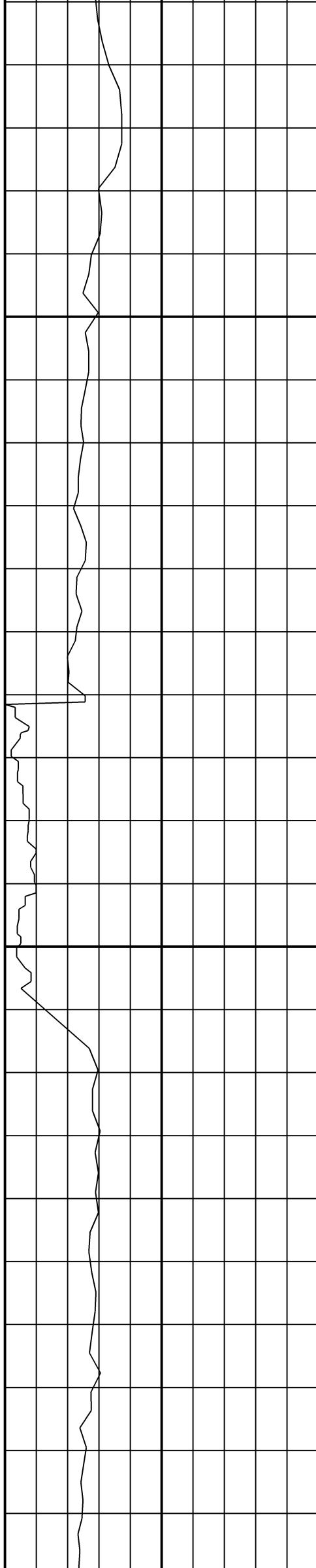
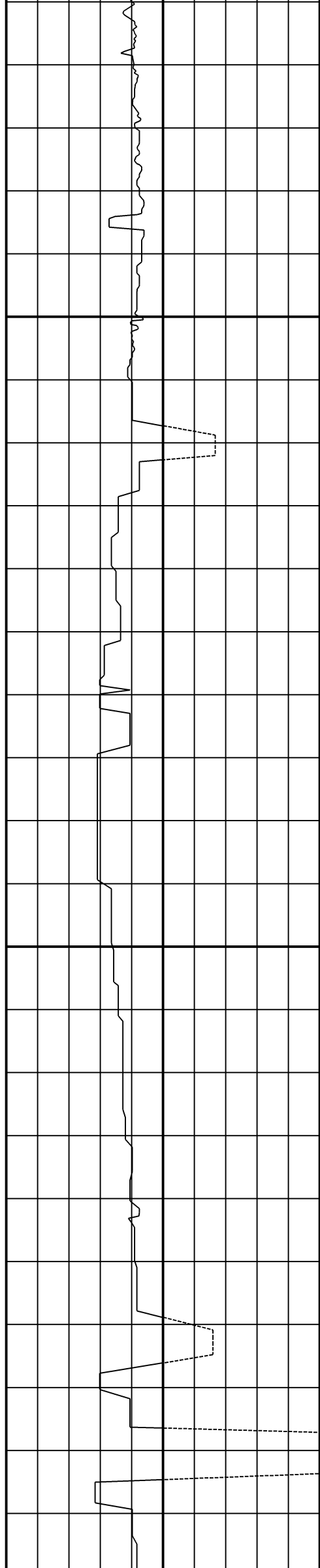
8828

8878

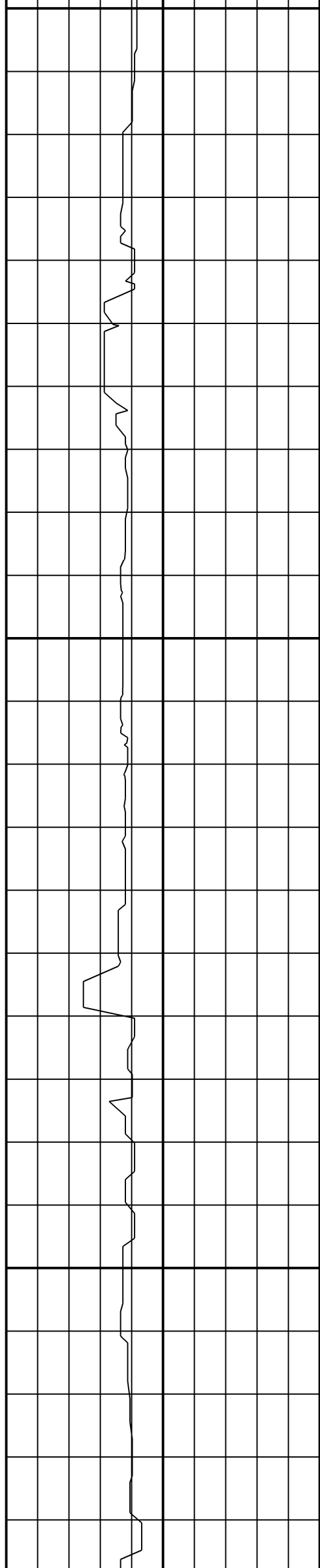


MD: 8799
INC: 89.4
AZM: 87.1

MD: 8892
INC: 90.2
AZM: 86.8



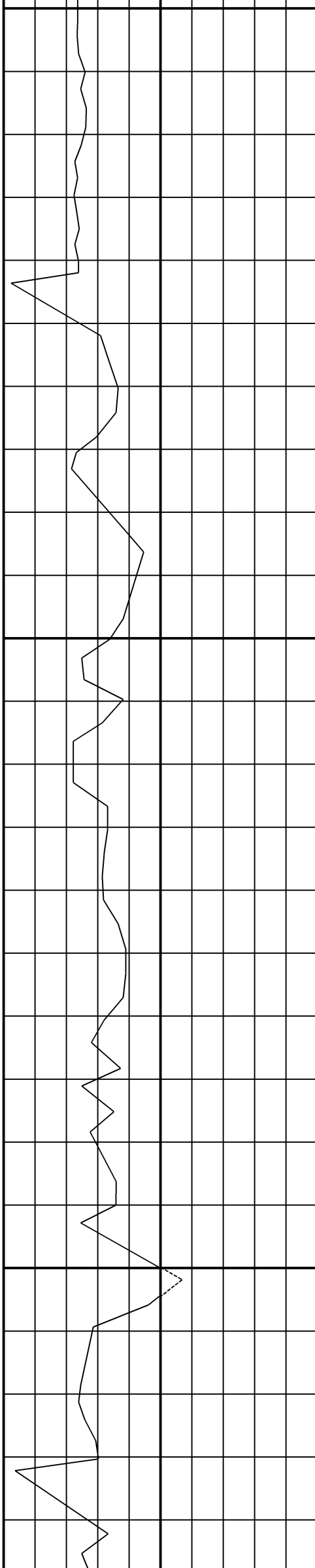
MD: 8986
INC: 91.7
AZM: 88.3



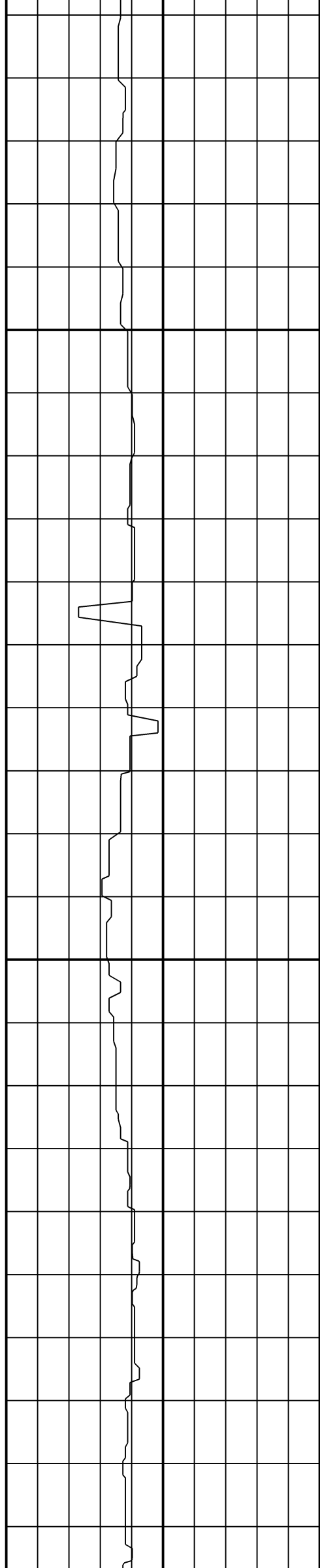
9028

9078

9128

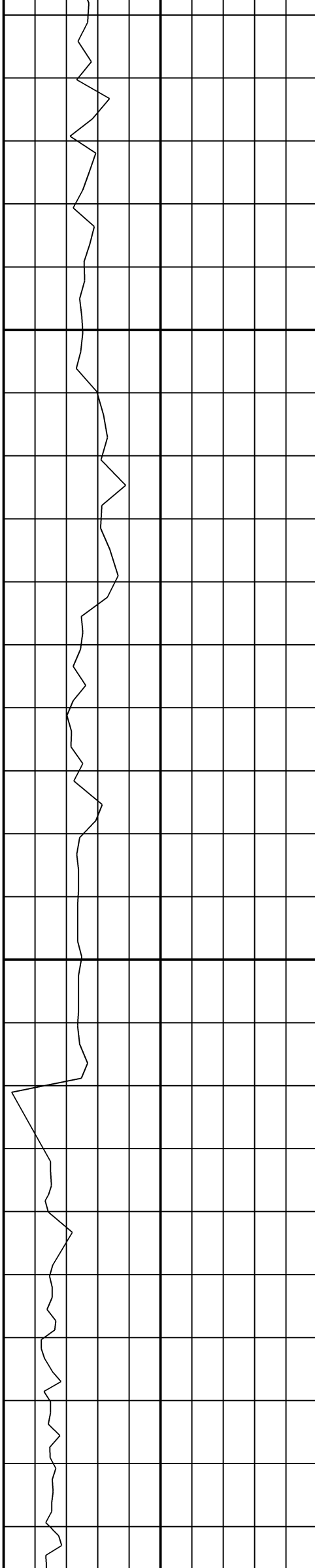


MD: 9080
INC: 91.8
AZM: 88.6



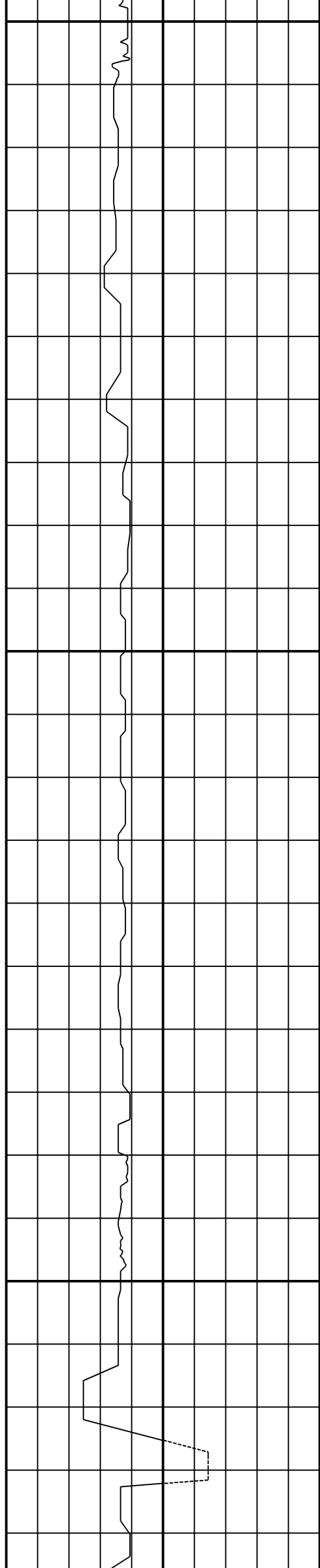
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9228



MD: 9174
INC: 92.3
AZM: 88.9

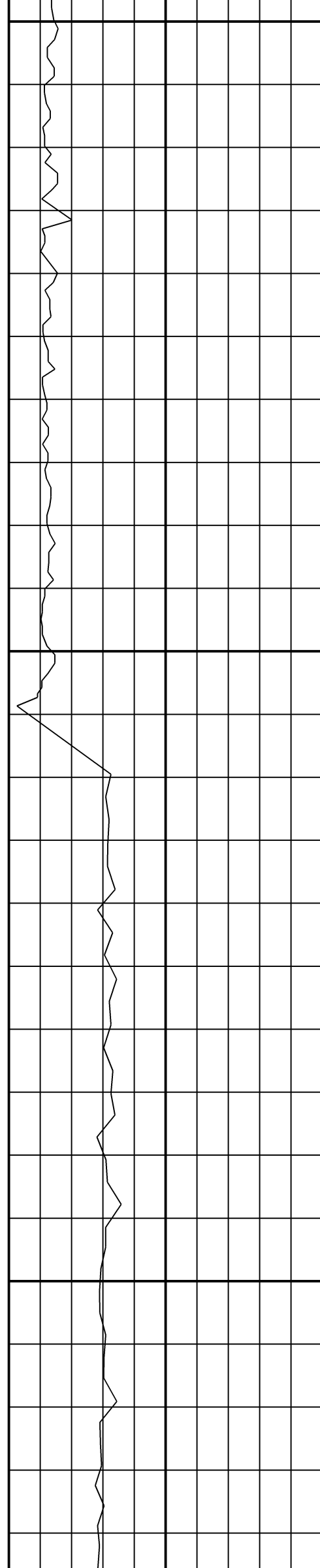
MD: 9268
INC: 92.5
AZM: 87.9



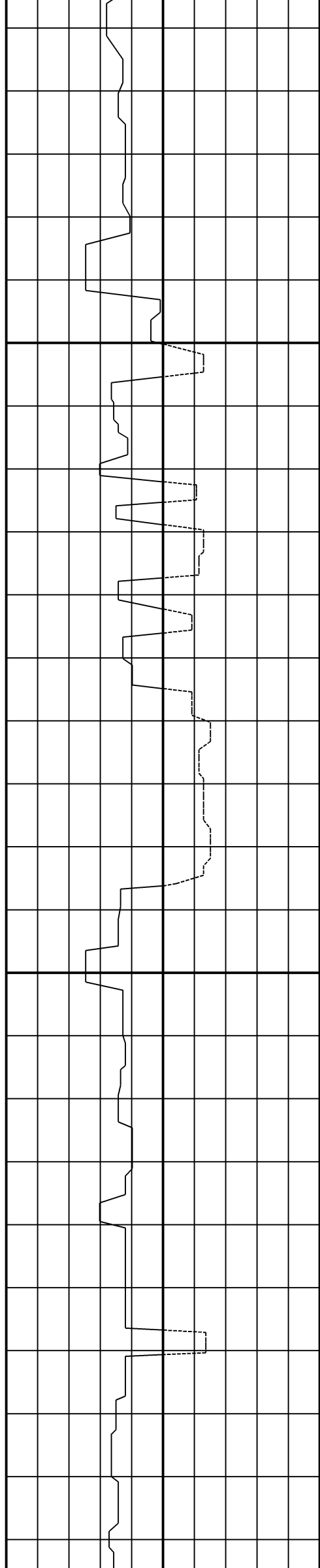
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9328

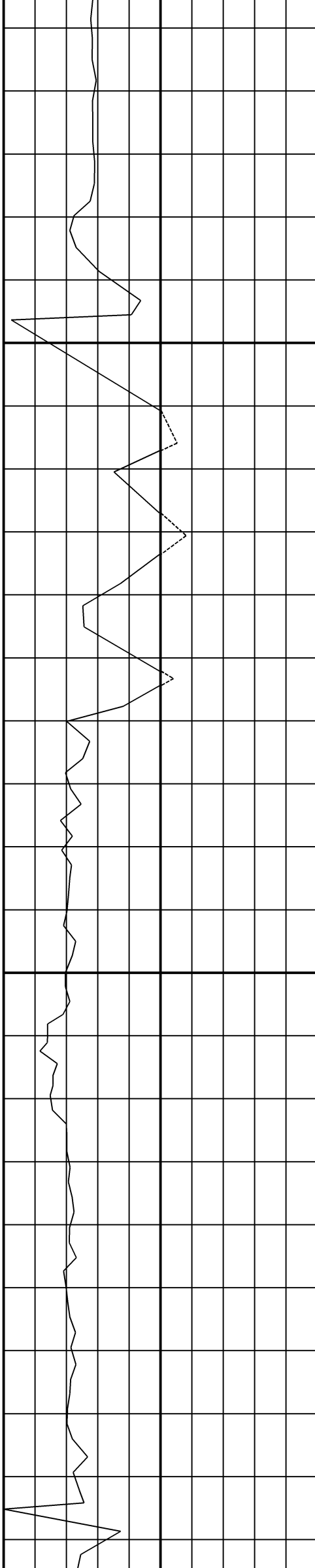
9378



MD: 9362
INC: 91.7
AZM: 88.2

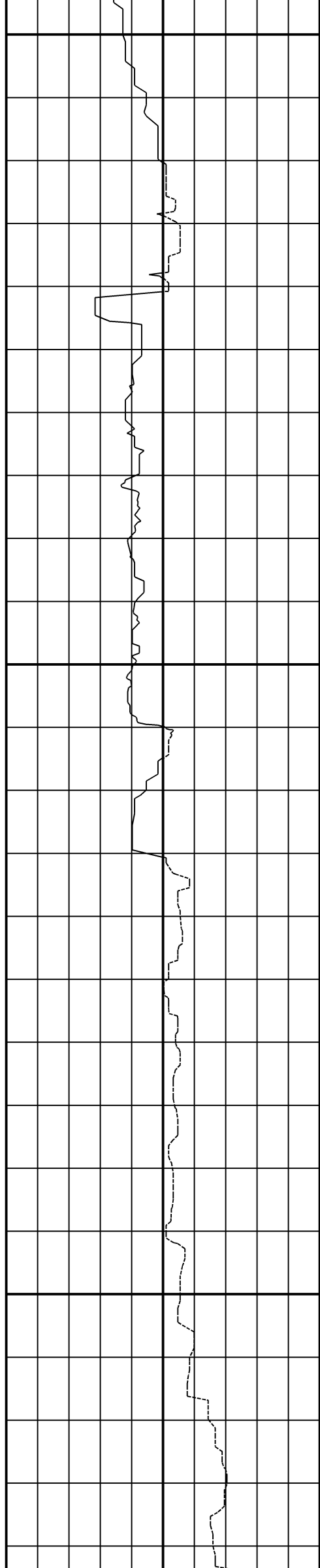


9428

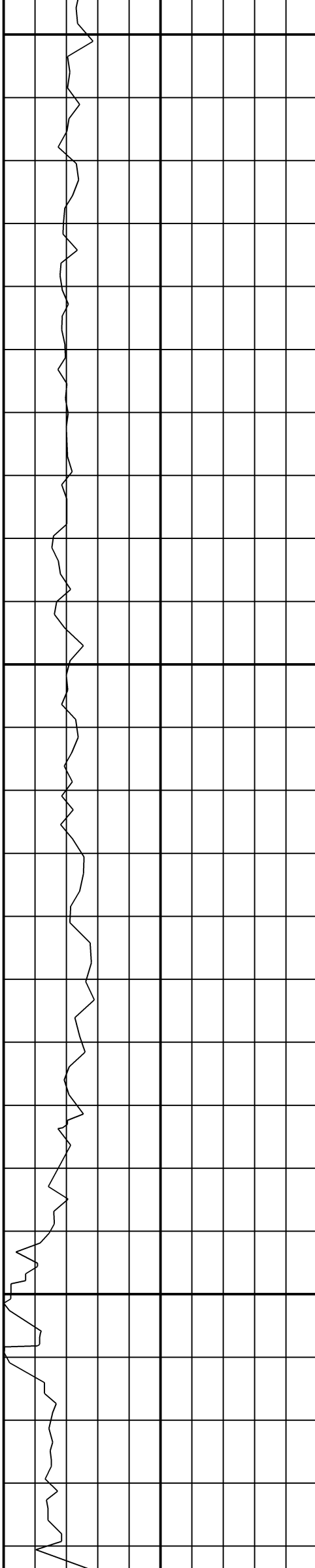


9478

MD: 9456
INC: 91.5
AZM: 89.6



9528

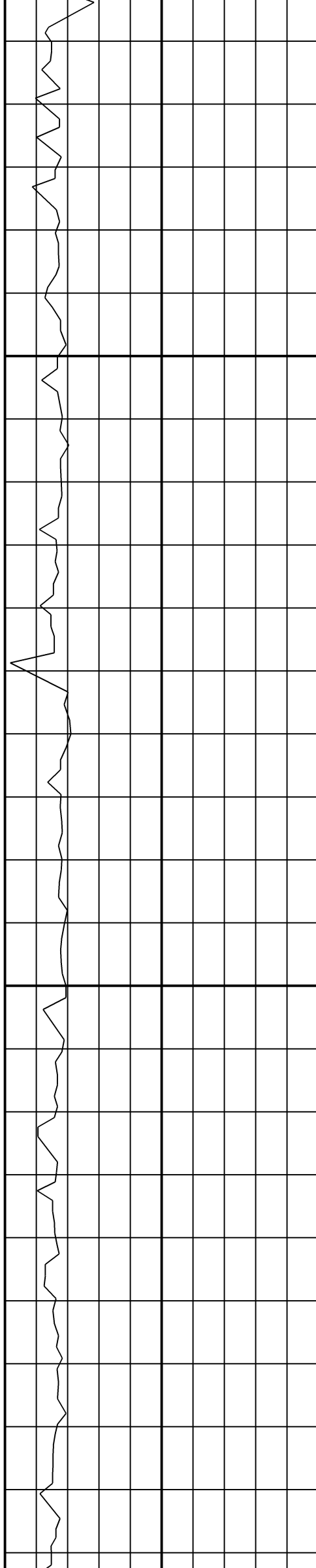
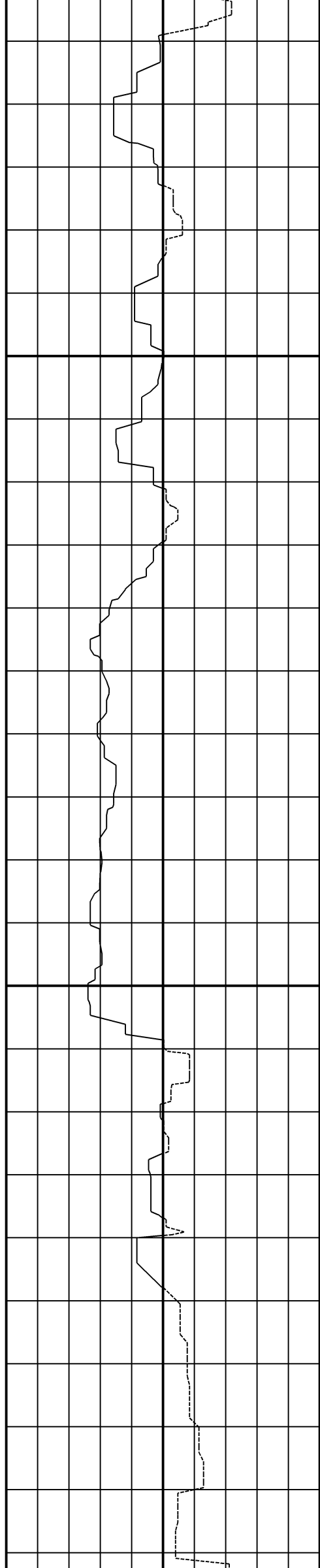


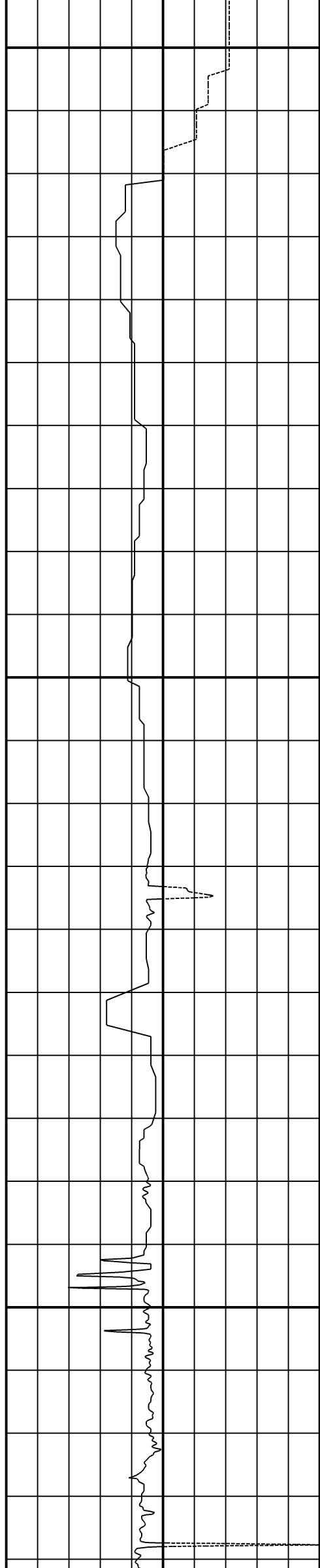
MD: 9551
INC: 91.9
AZM: 89.4

9578

9628

MD: 9645
INC: 90.1
AZM: 89

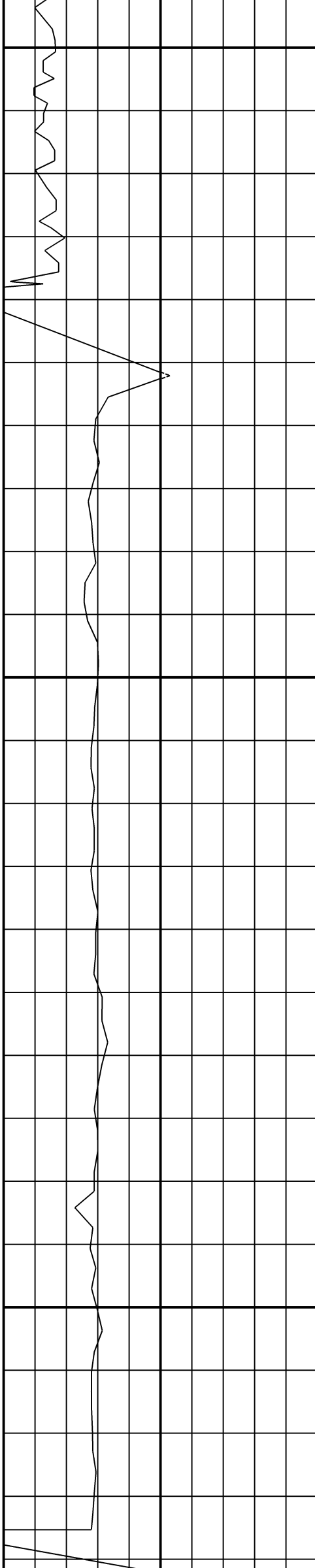




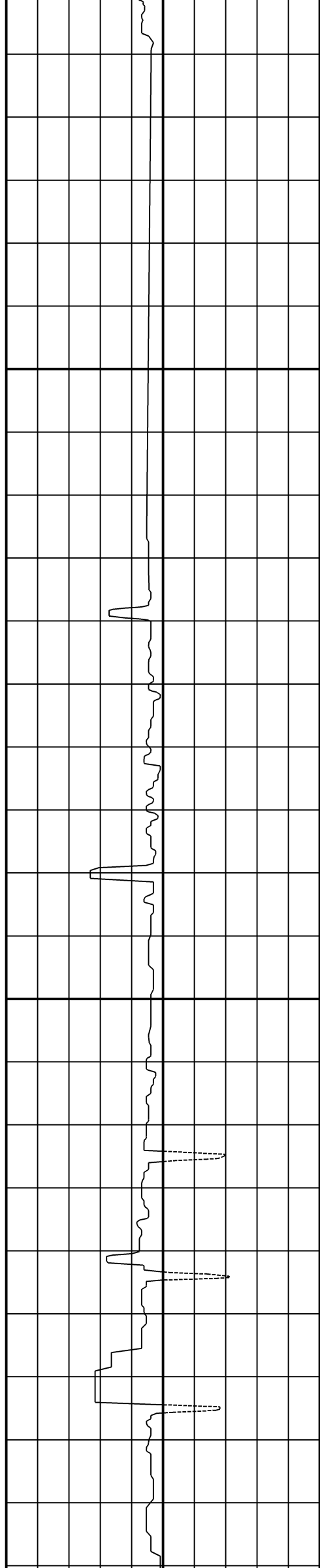
9778

9828

9878

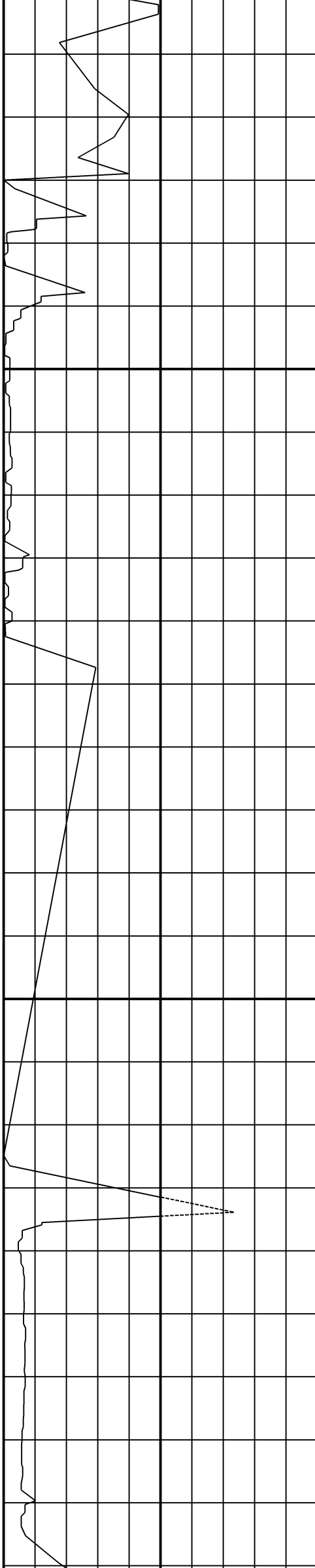


MD: 9834
INC: 86.5
AZM: 88.6



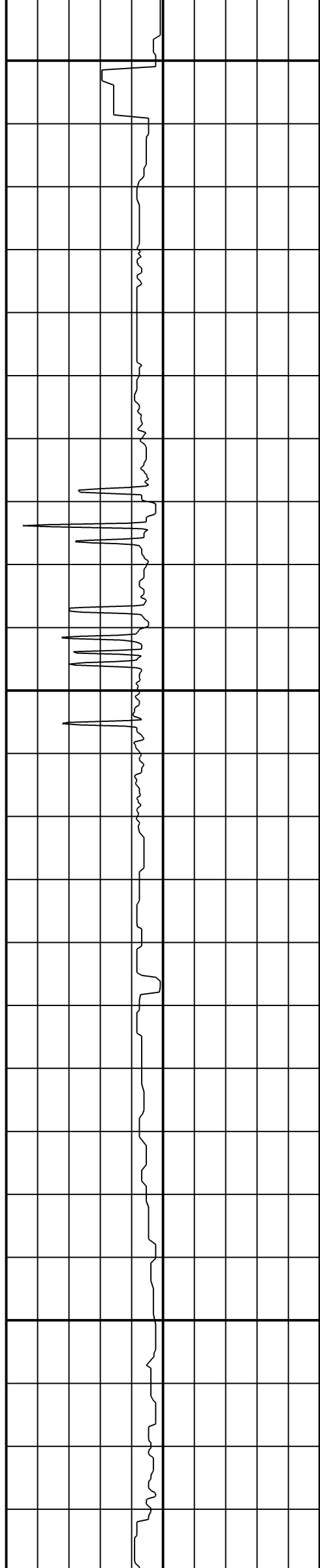
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9978



MD: 9928
INC: 87.3
AZM: 87.9

MD: 10022
INC: 87.3



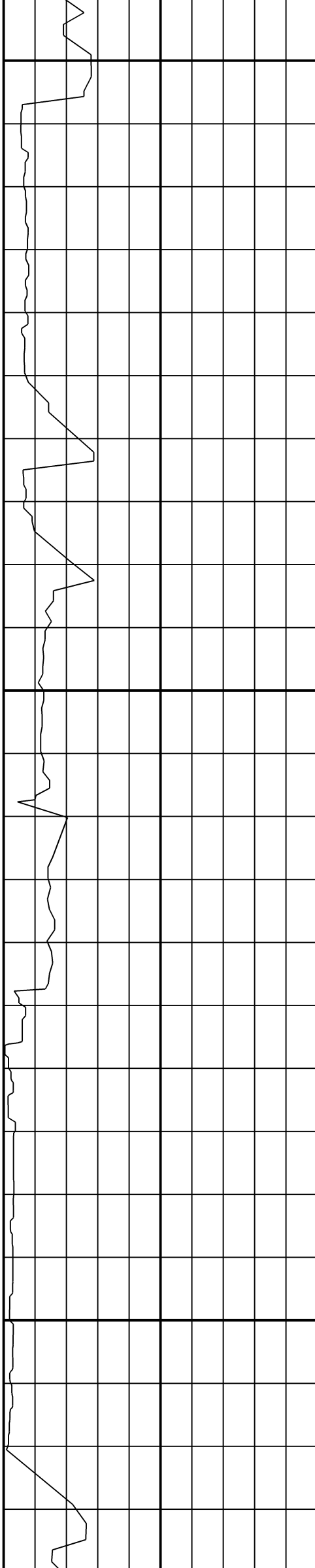
10028

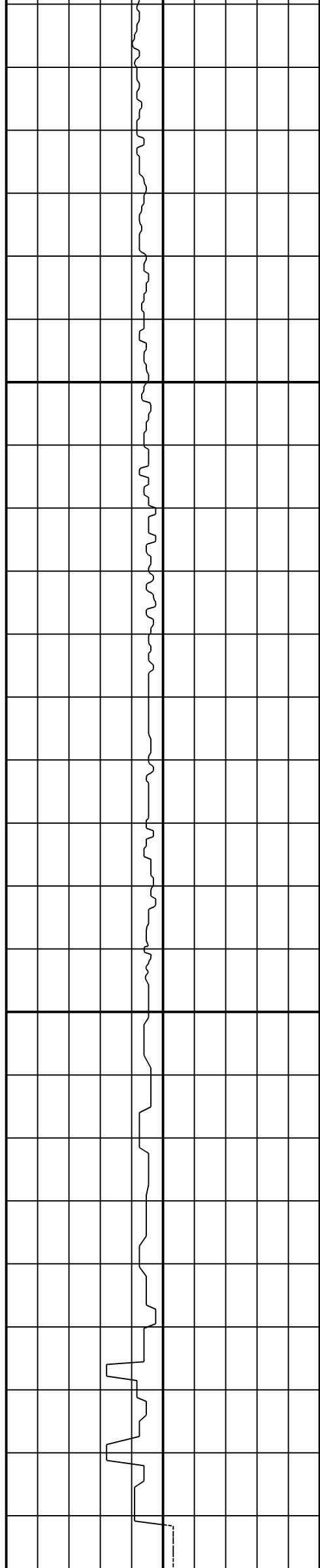
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10128

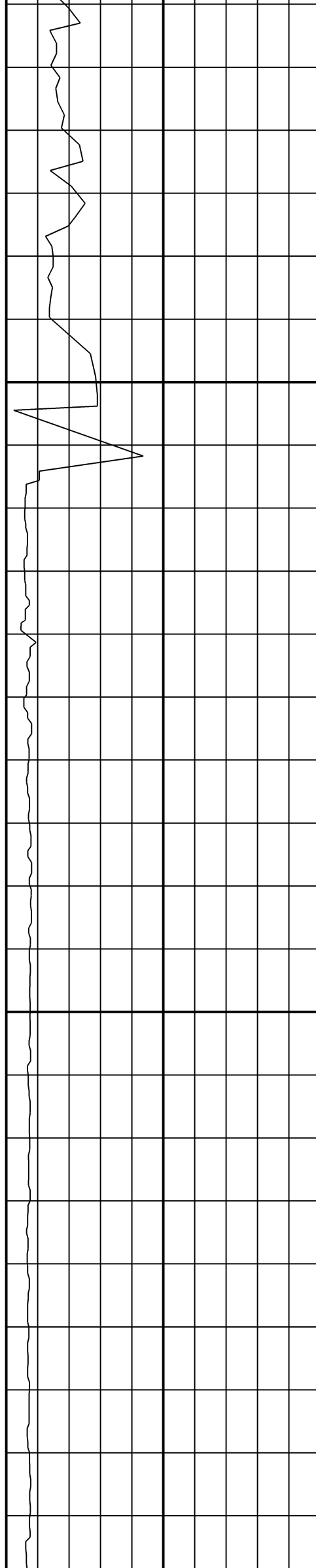
INC: 88.8
AZM: 87.9

MD: 10117
INC: 90.9
AZM: 86



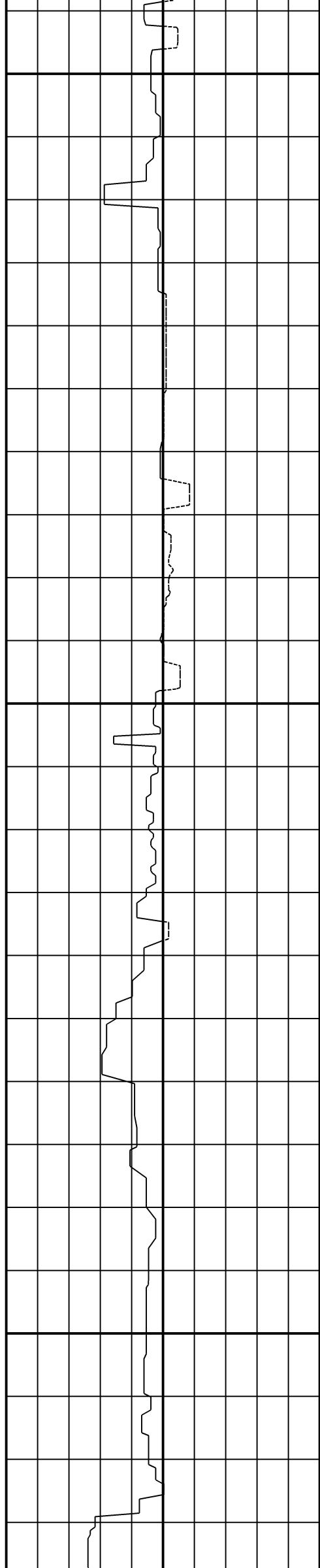


10178



MD: 10211
INC: 92.2
AZM: 86

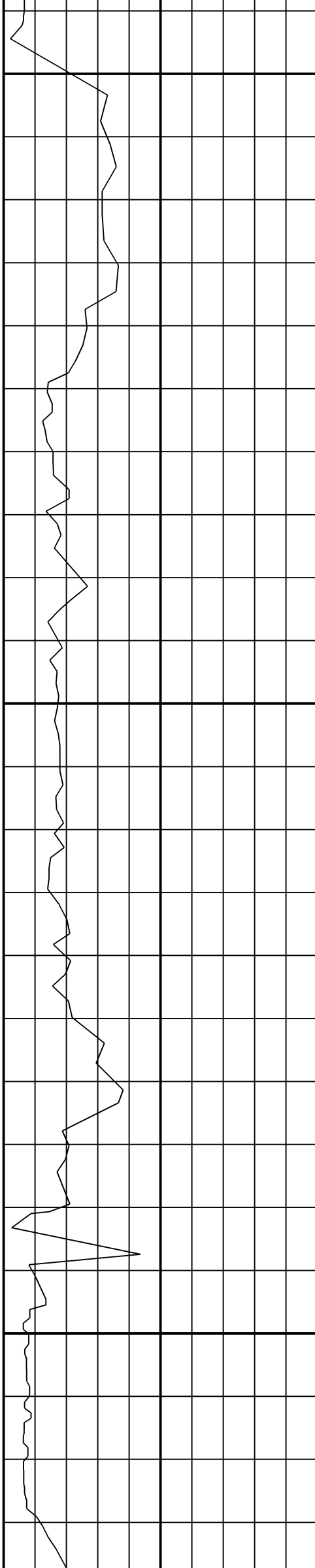
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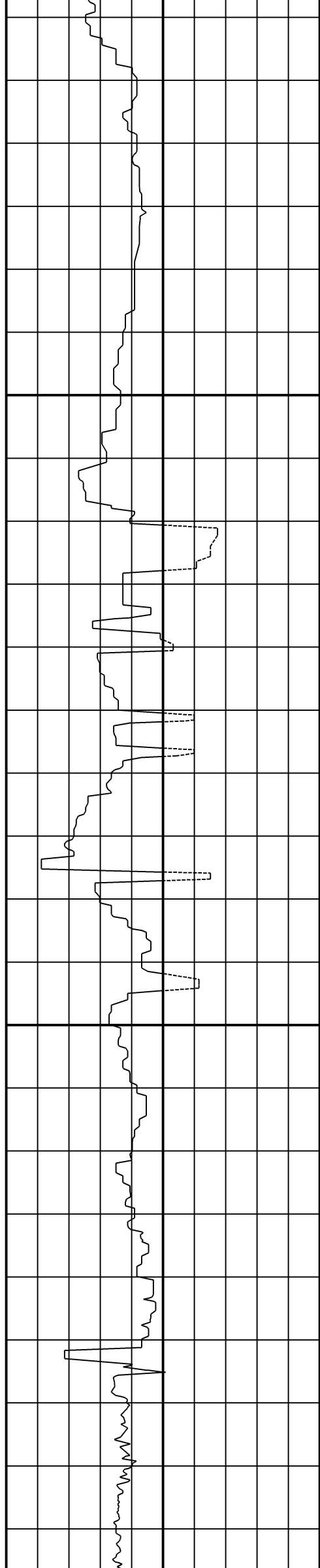
10278

10328

10378

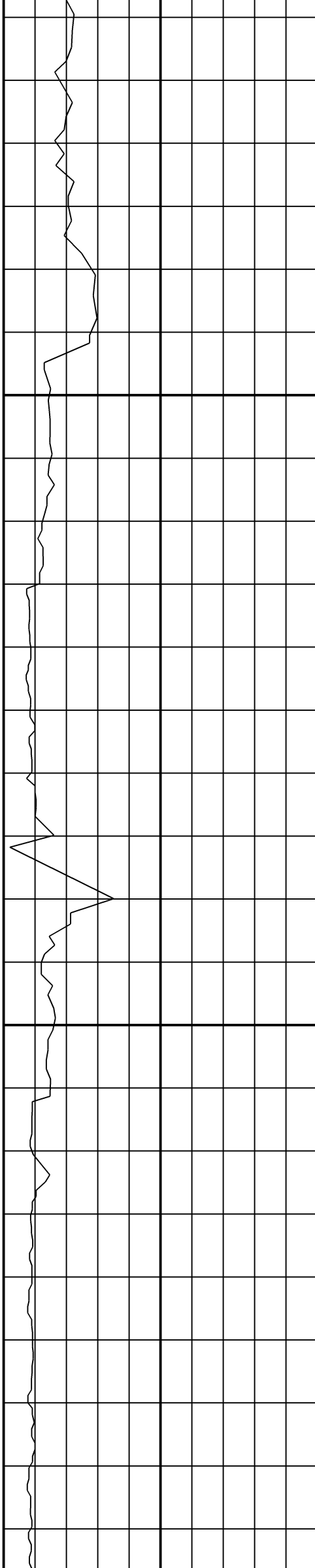


MD: 10304
INC: 92.3
AZM: 86.7



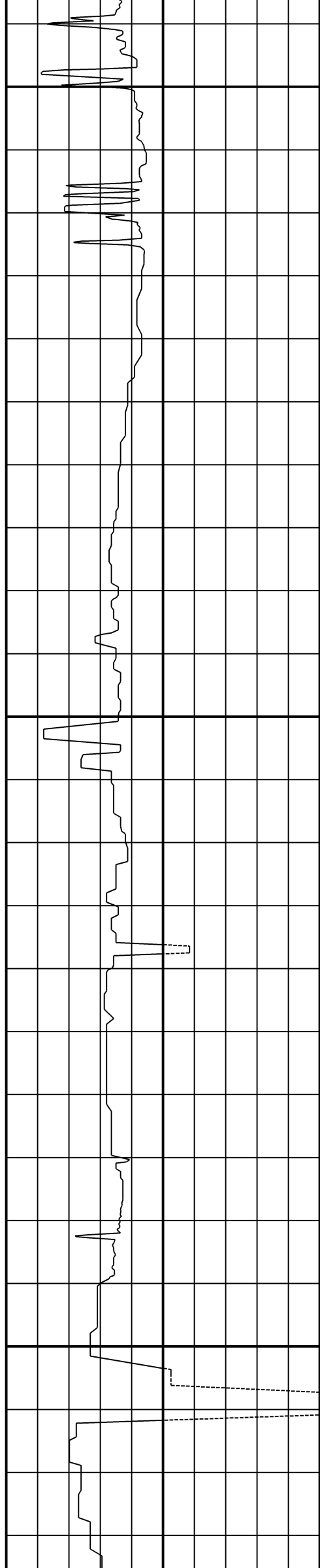
10428

10478



MD: 10399
INC: 93.3
AZM: 85.7

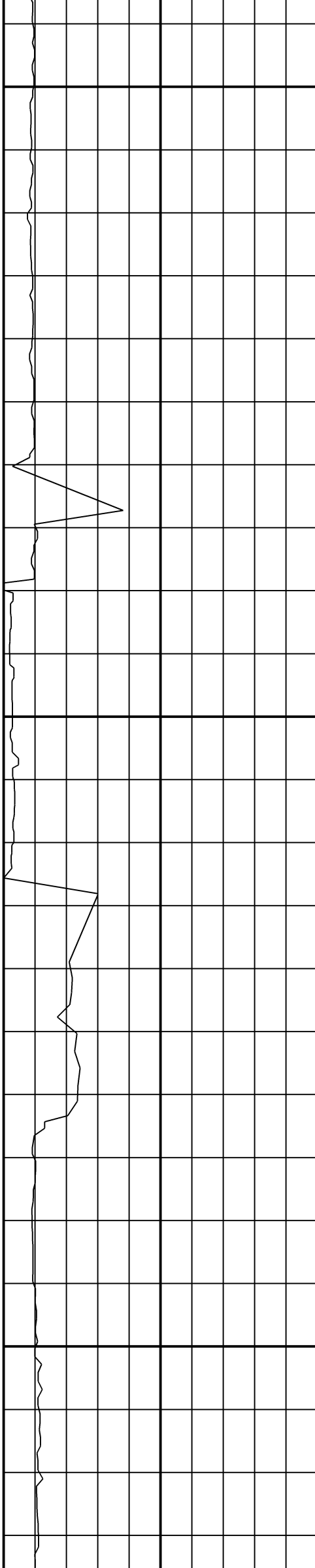
MD: 10493
INC: 95.7
AZM: 84.6



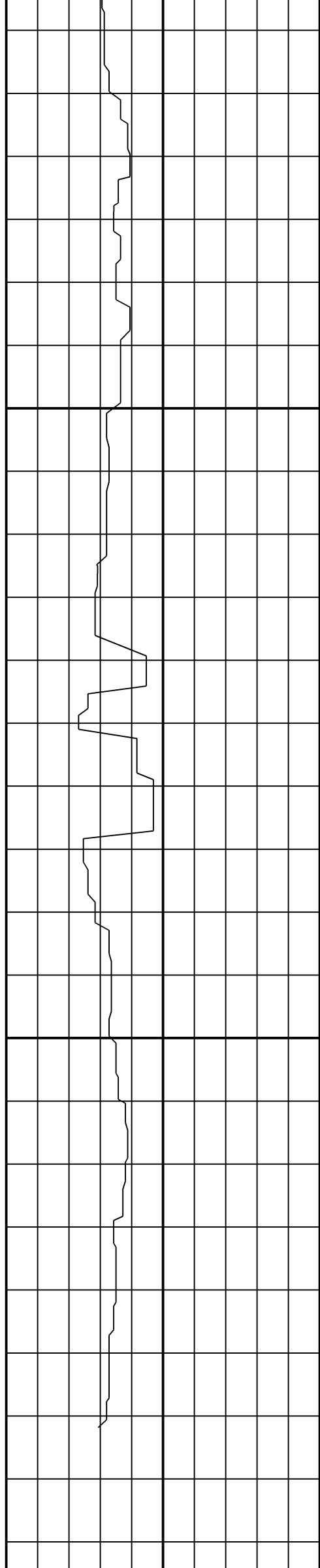
10528

10578

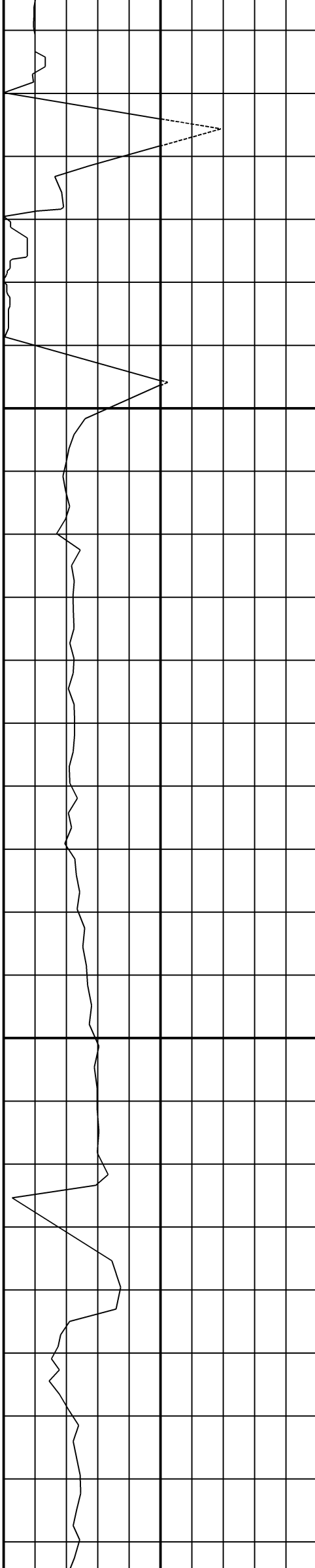
10628



MD: 10588
INC: 93.2
AZM: 84.6



10678



MD: 10680
INC: 92.3
AZM: 85

10728

MD: 10746
INC: 91.7
AZM: 85.2

10778

MD: 10808
INC: 91.7
AZM: 85.2