



Casing Inspection Log

Company	Whiting Oil & Gas Corporation						
Well	Razor 11E-1401A						
Field	Wildcat						
County	Weld						
State	Colorado						
Location:	API #: 05-123-38529 SHL: 2396' FNL 789' FWL Lat/Long: 40 853983/-103 839508 SEC 11 TWP 10N RGE 58W						
Date	05-April-2014						
Run Number	One						
Depth Driller	13465 FT						
Depth Logger	5050 FT						
Bottom Logged Interval	5047 FT						
Top Log Interval	Surface						
Open Hole Size	8.750"						
Type Fluid	Water						
Density / Viscosity	8.34 lbm/gal						
Max. Recorded Temp.	181°F						
Estimated Cement Top	474 FT						
Time Well Ready	ROA						
Time Logger on Bottom	---						
Equipment Number	HD-311						
Location	Fort Lupton, CO						
Recorded By	Wayne Wacker						
Witnessed By	Ed Martin						
Borehole Record	Tubing Record						
Run Number	Bit	From	To	Size	Weight	From	To
Surface Casing	9-5/8"	36#	J-55	Surface	1841 FT		
Intermediate #1	7"	29#	HCL-80	Surface	6343 FT		
Intermediate #2							
Liner	4-1/2"	11.6#	HCL-80	5080 FT			---

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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

Radial Cement Bond Log - Casing Inspection Log is first recorded log in hole.
RCBL-CIL ran at 2000 PSI surface induced pressure.
Estimated Cement Top recorded at 474'

Thank you for choosing FMC Technologies Completion Services, Inc.



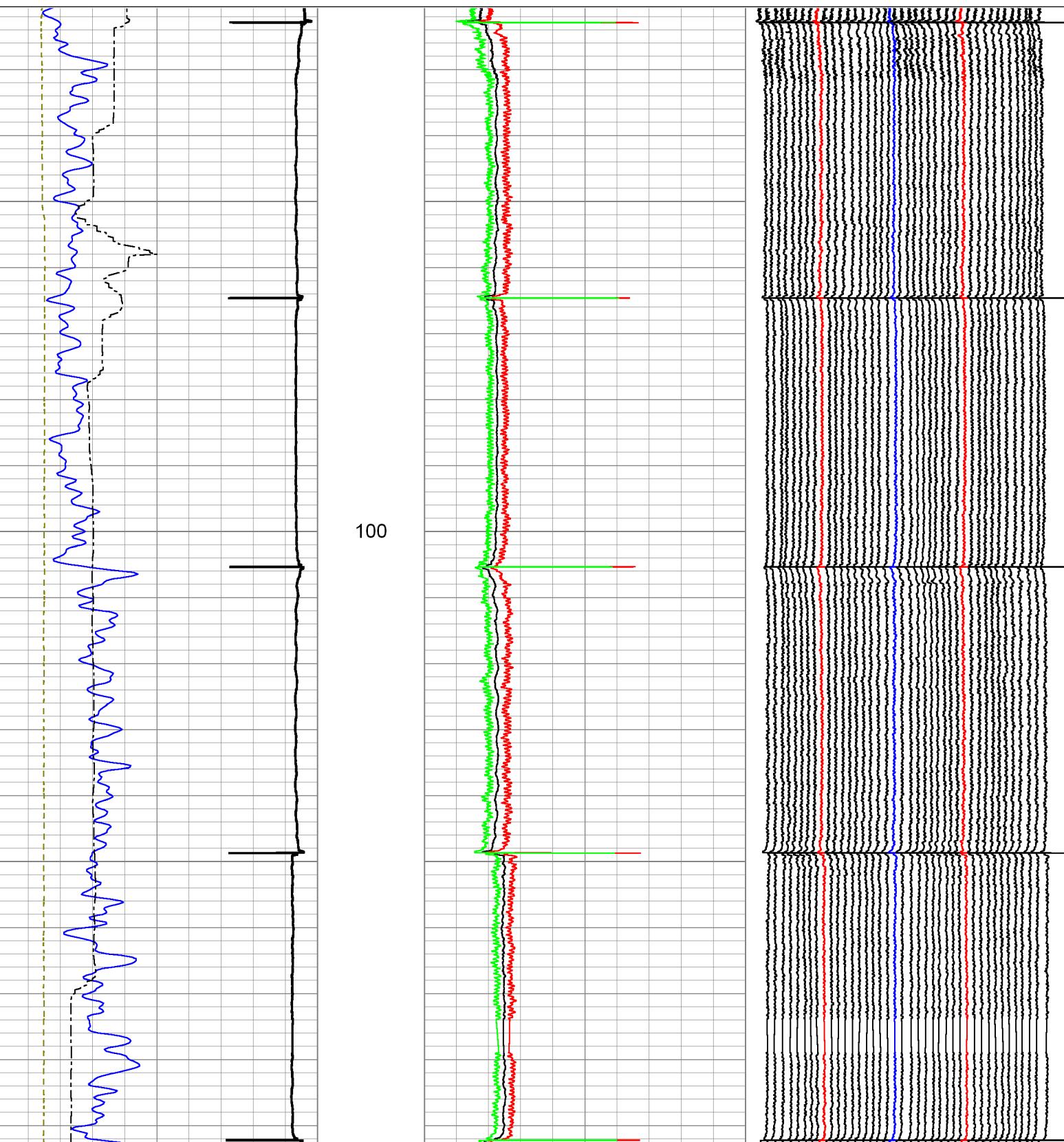
Main Pass

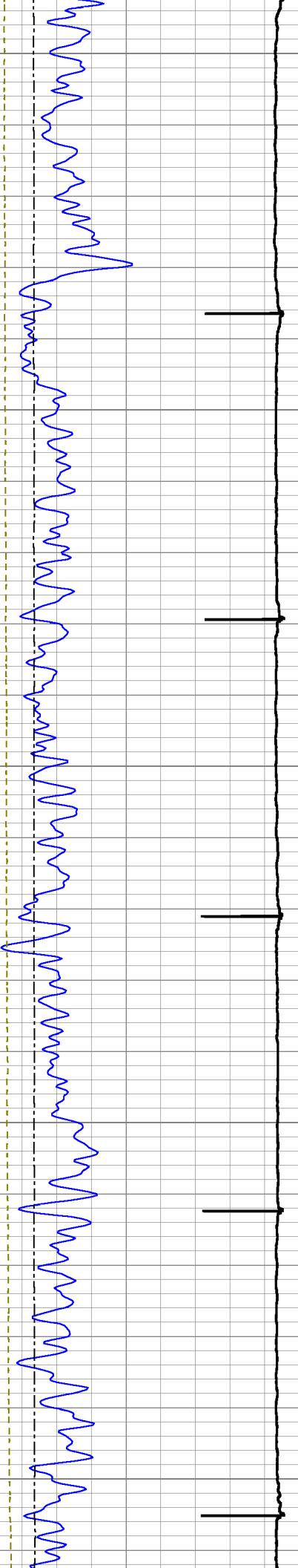
Logged With 2000 PSI At Surface

Database File: 04-04-14_whiting_razor 11e-1401a_mit_rbl.db
Dataset Pathname: main
Presentation Format: 7.0mit40
Dataset Creation: Sun Apr 06 11:34:32 2014 by Log Sondex V7.03
Charted by: Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	120
-100	Line Speed (ft/min)	100
-10	Deviation (°)	90
Casing Collar Locator		

6	Average Diameter (in)	7	Caliper #10
6	Maximum Diameter (in)	7	Caliper #20
6	Minimum Diameter (in)	7	Caliper #30

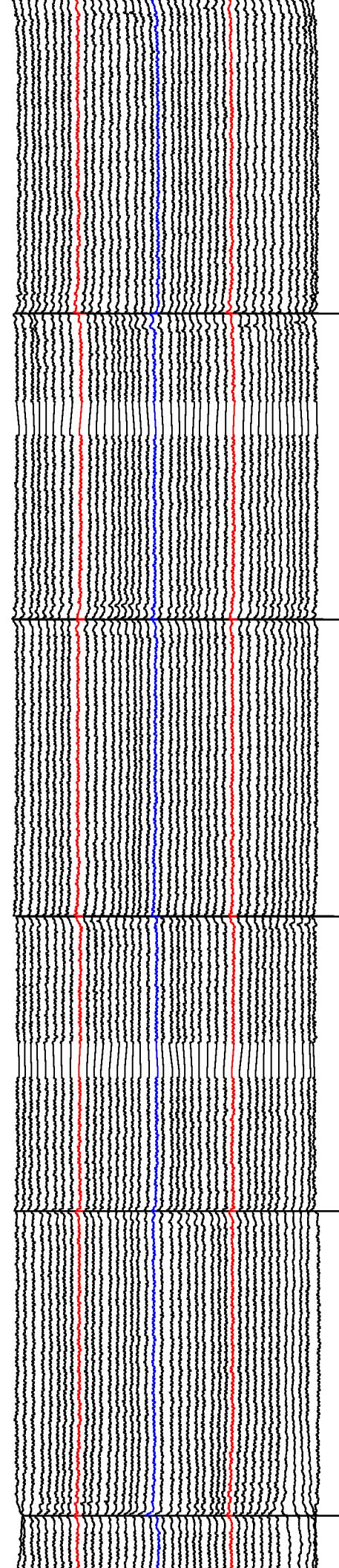
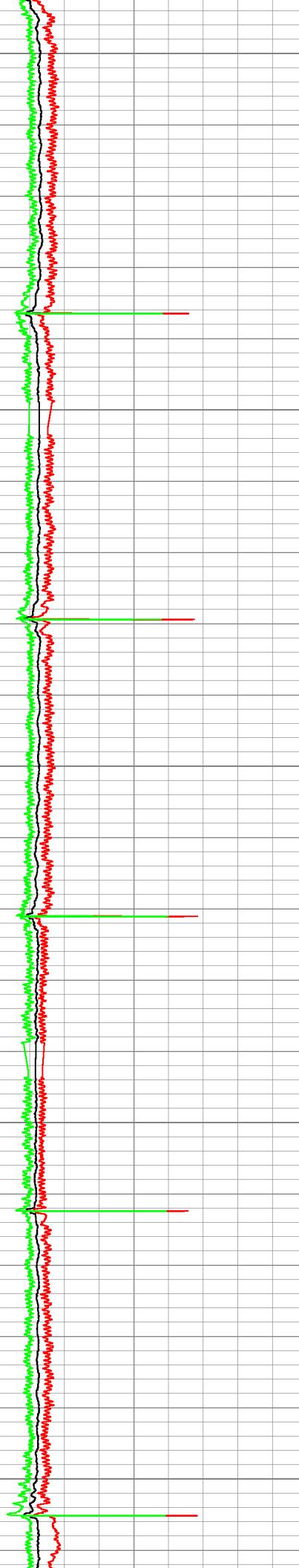




200

300

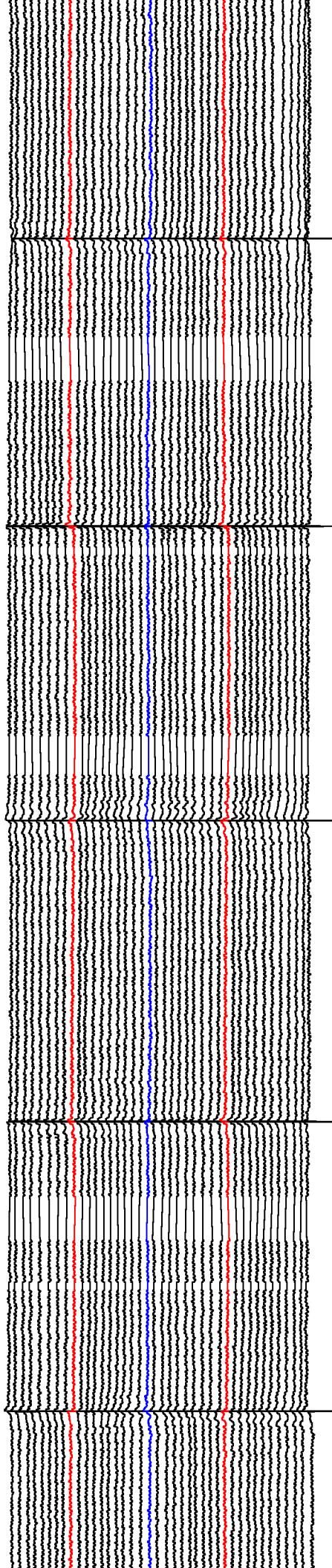
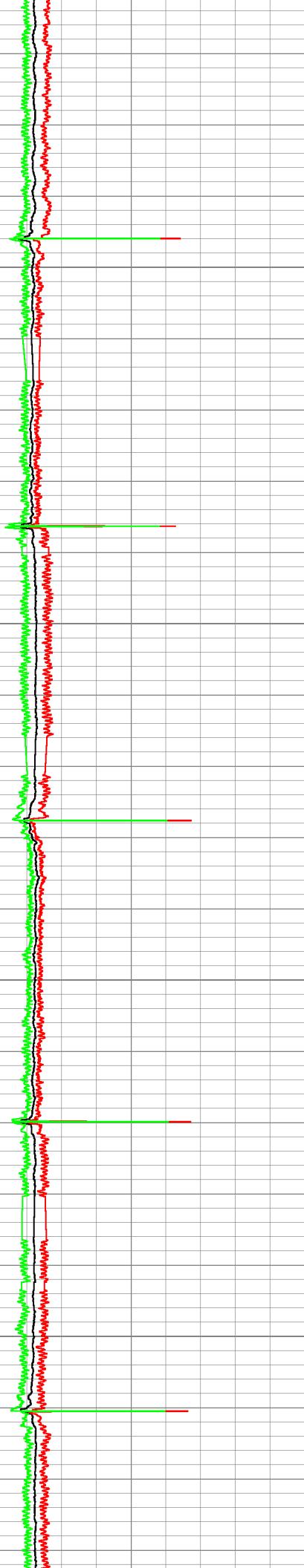
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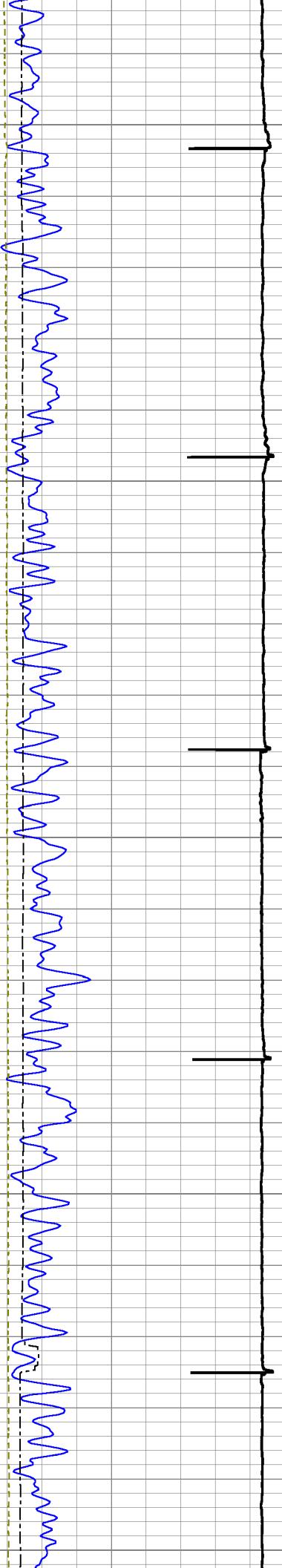




500

600

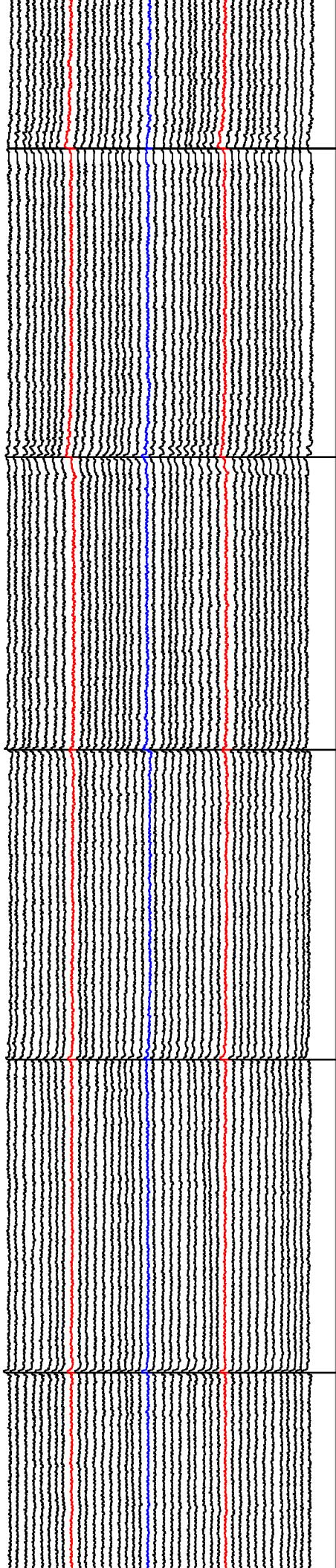


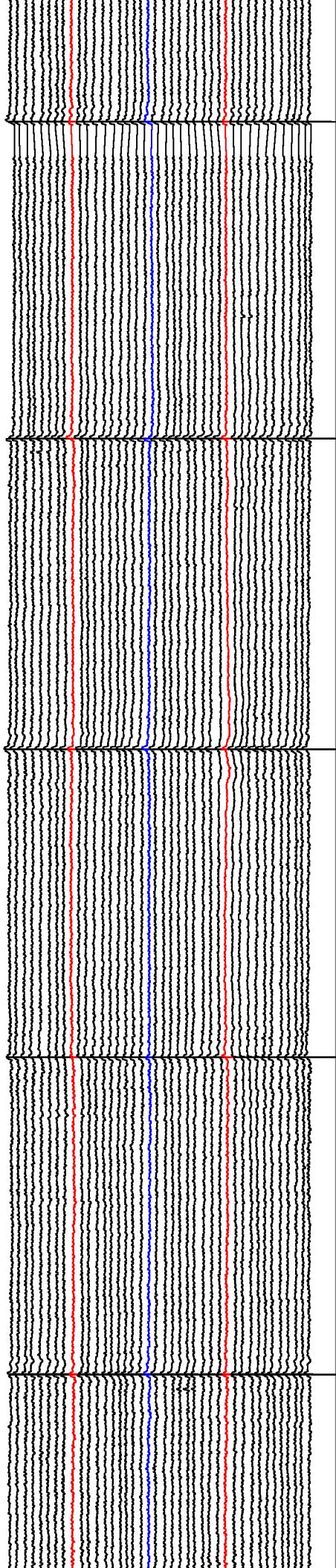


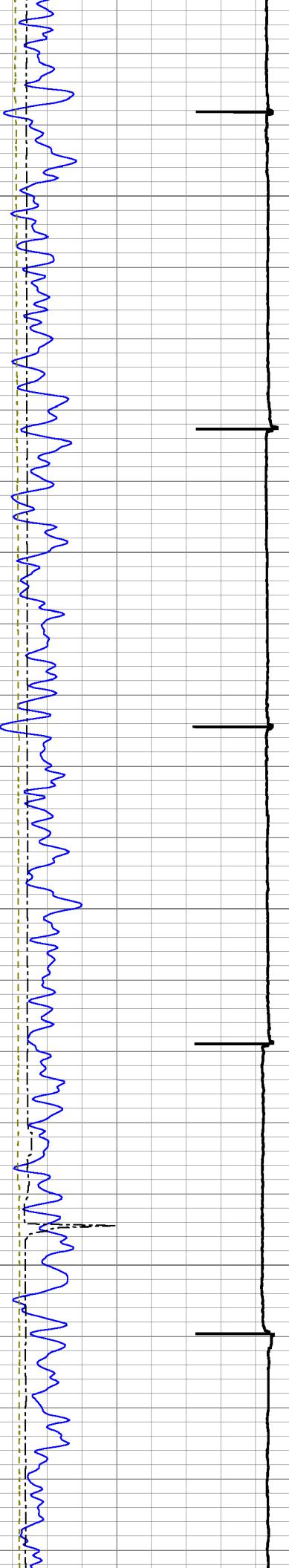
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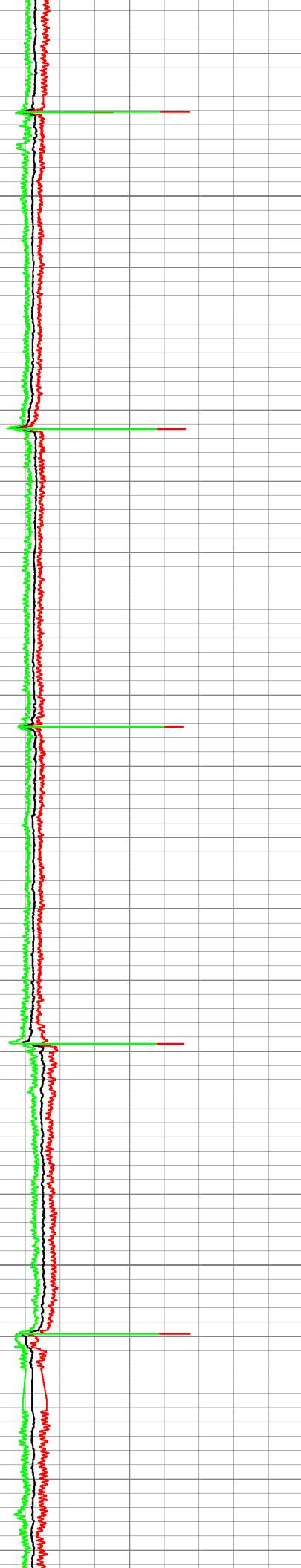
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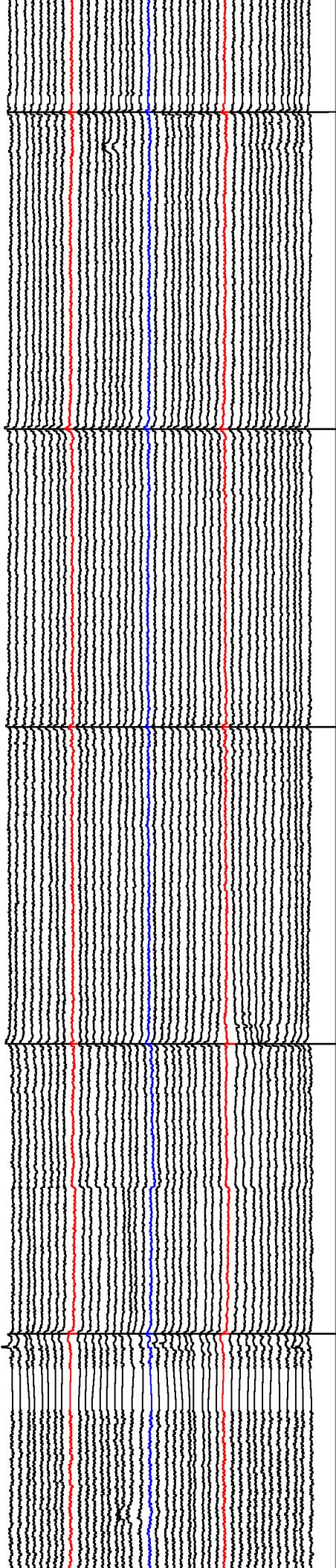




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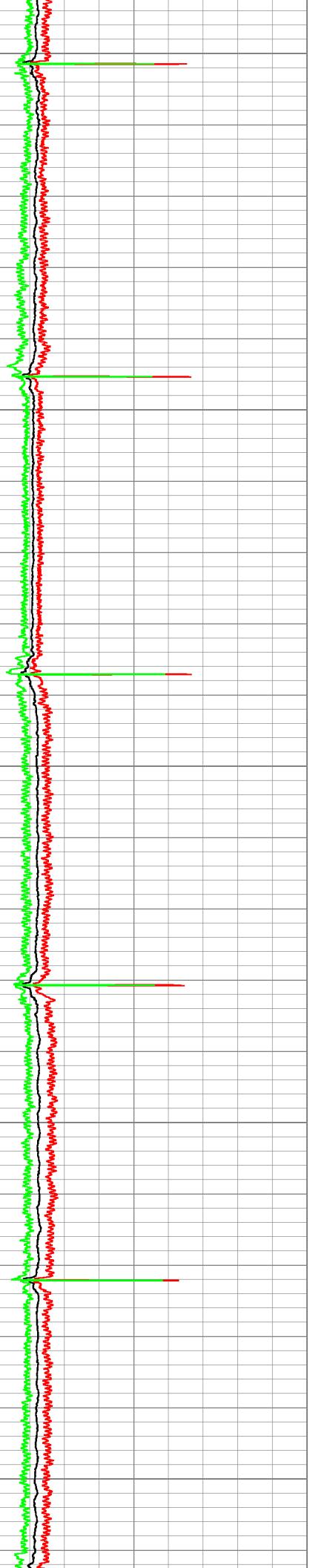


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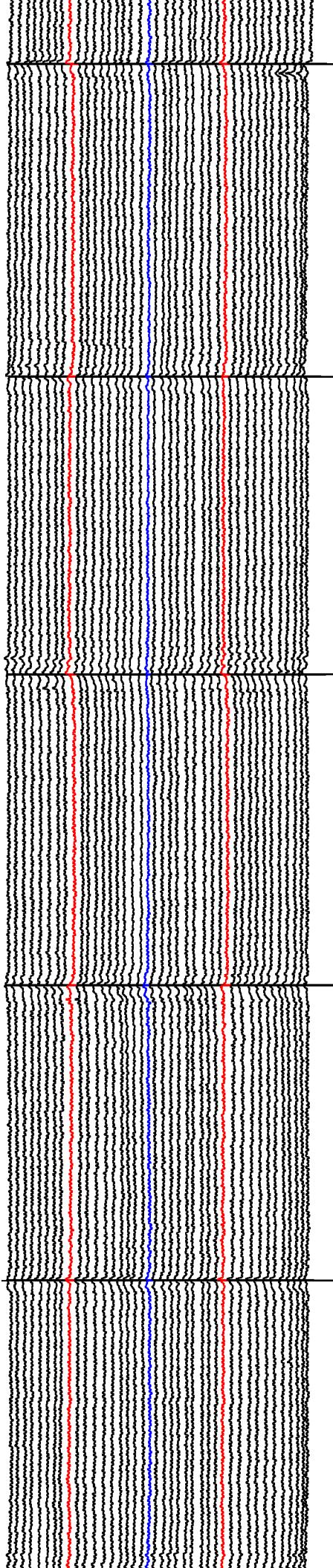




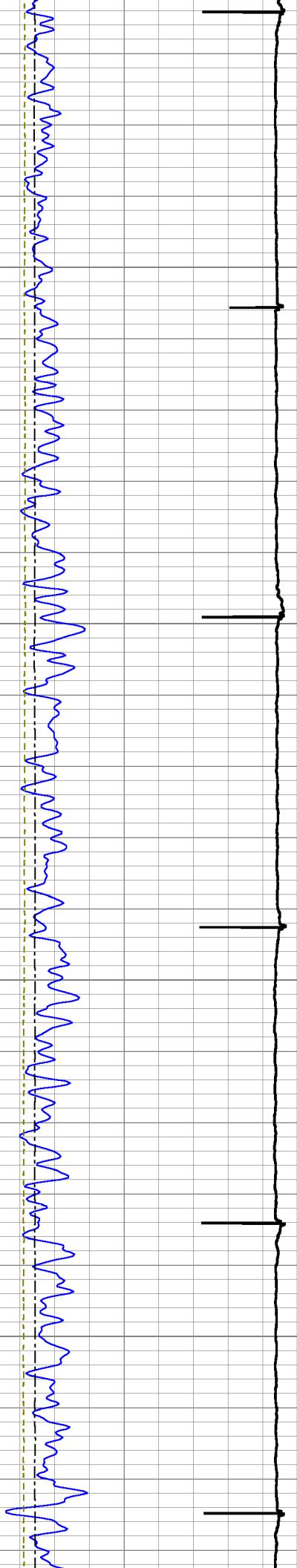
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1400

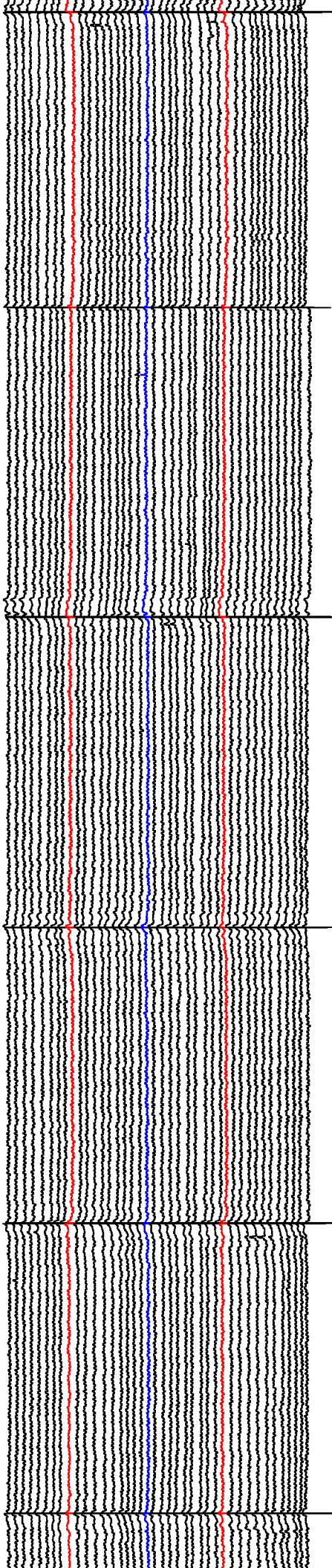
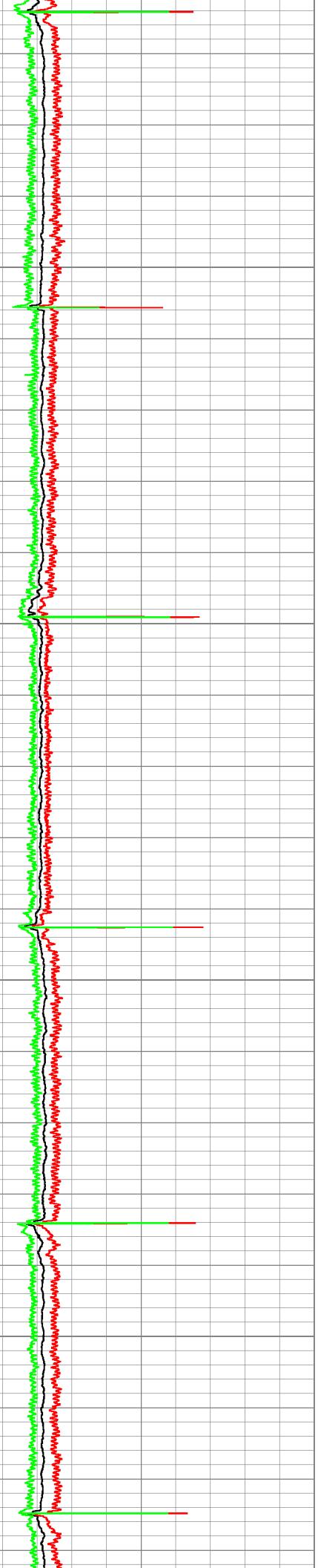


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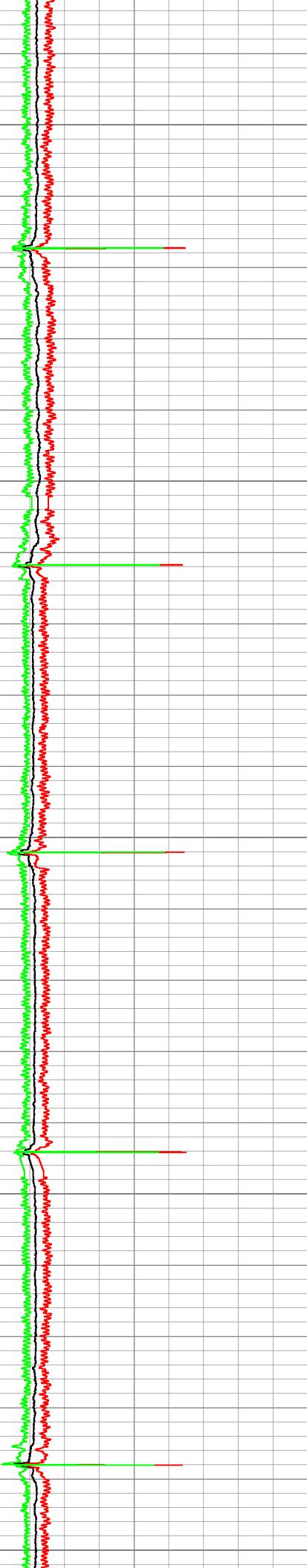
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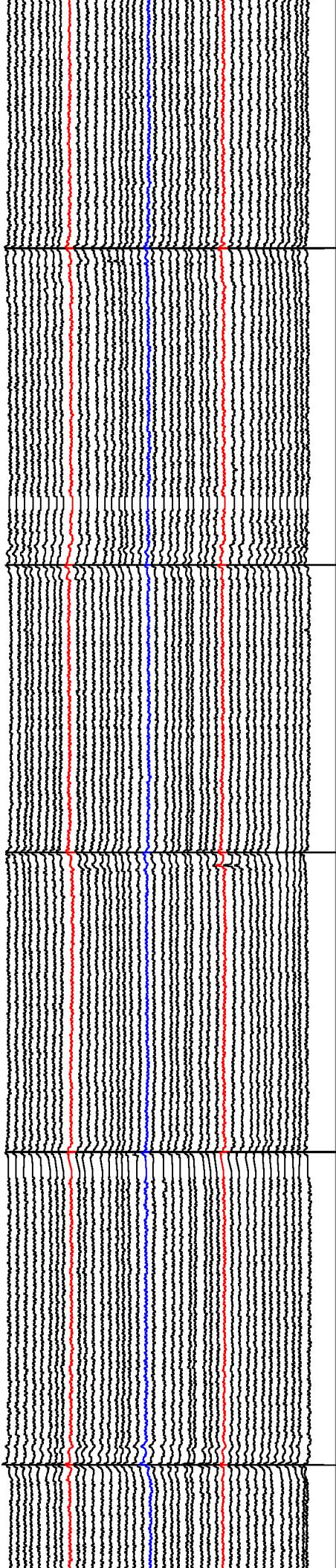


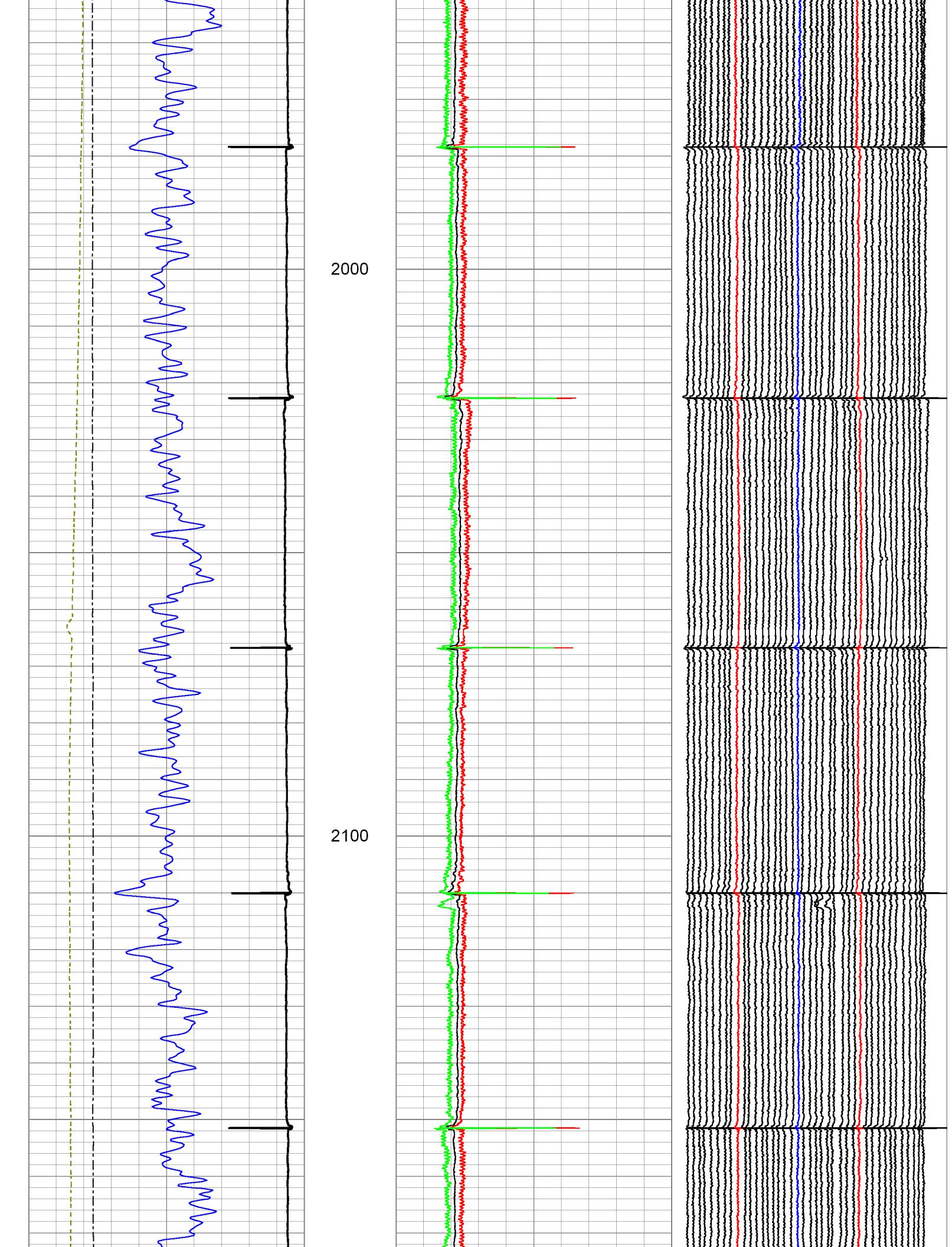


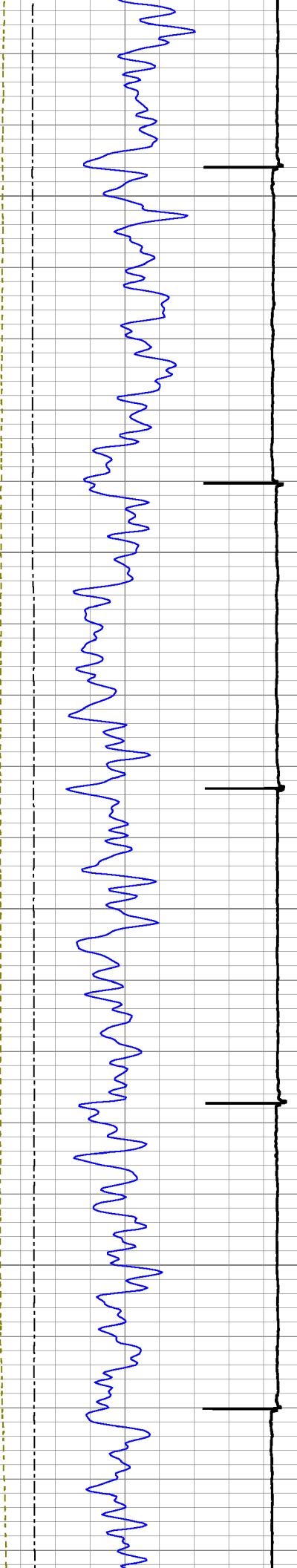
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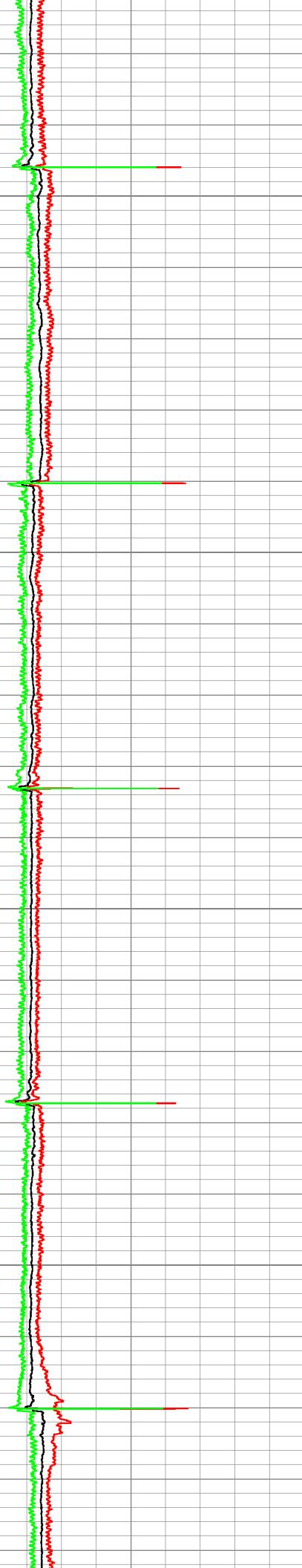
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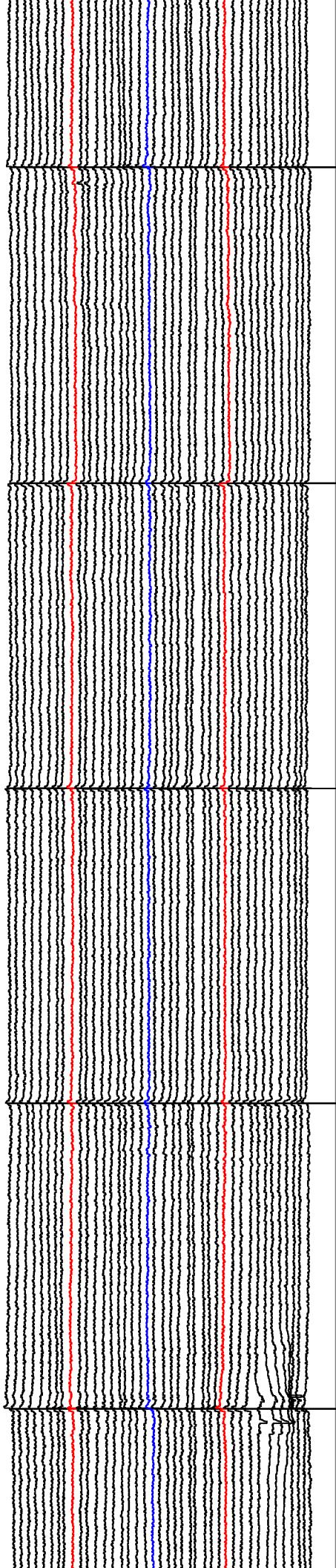


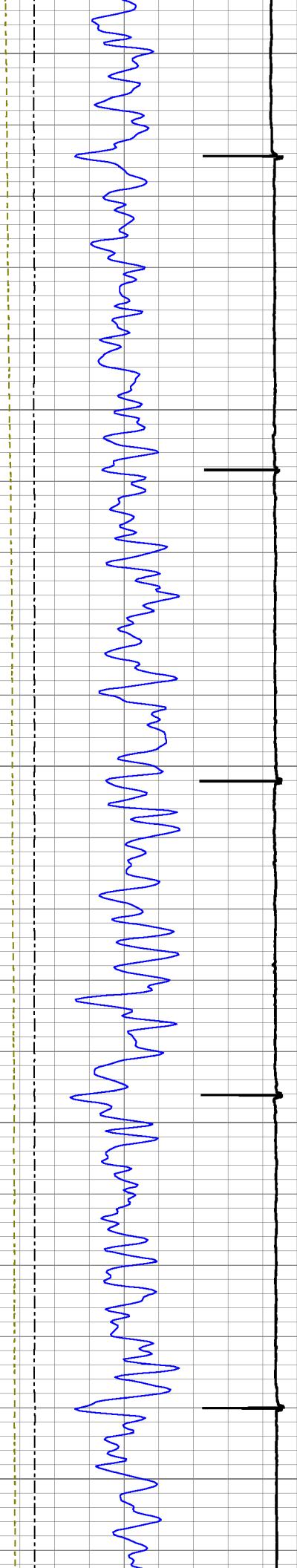


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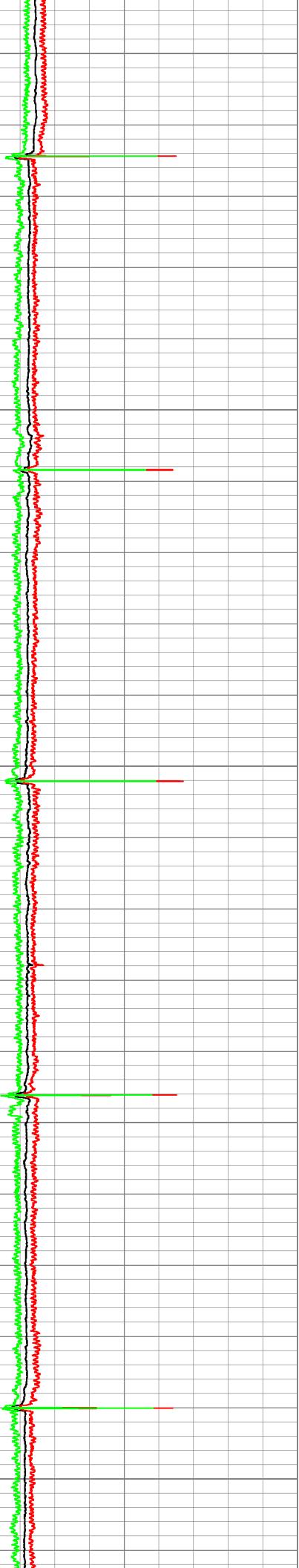


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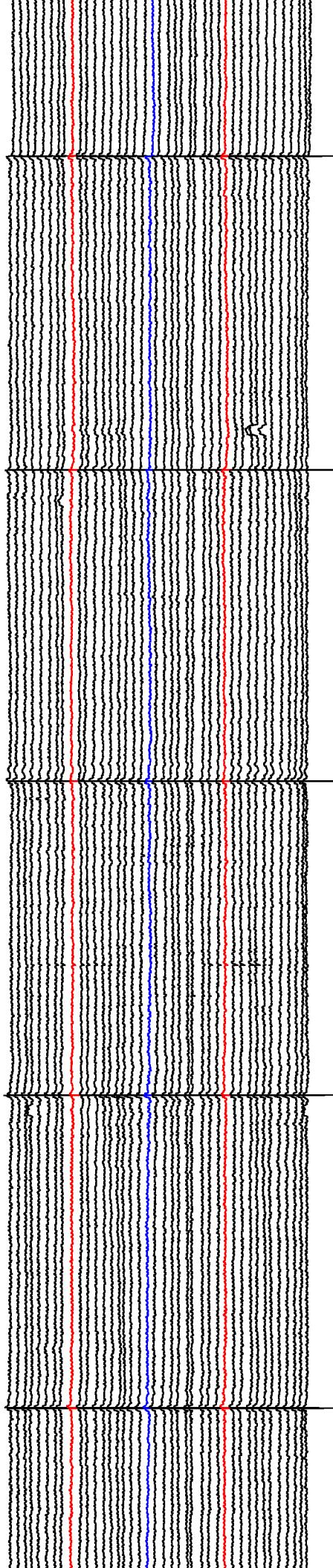




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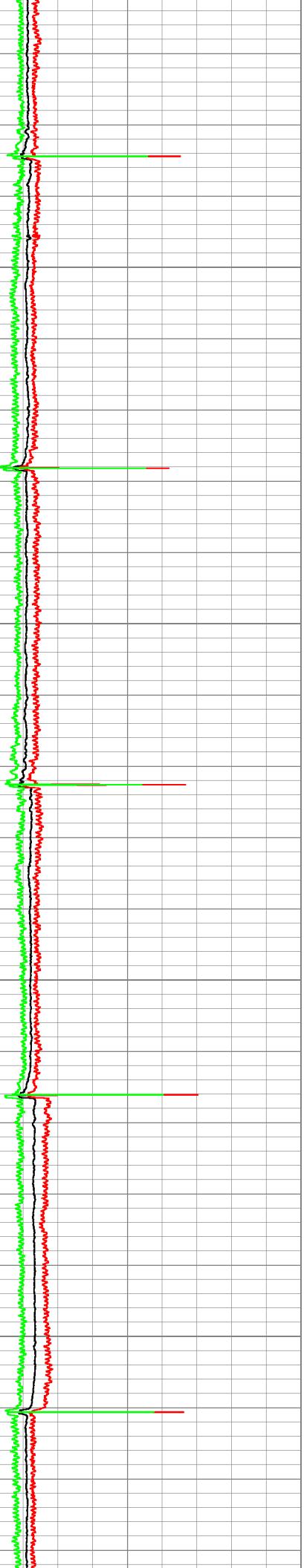
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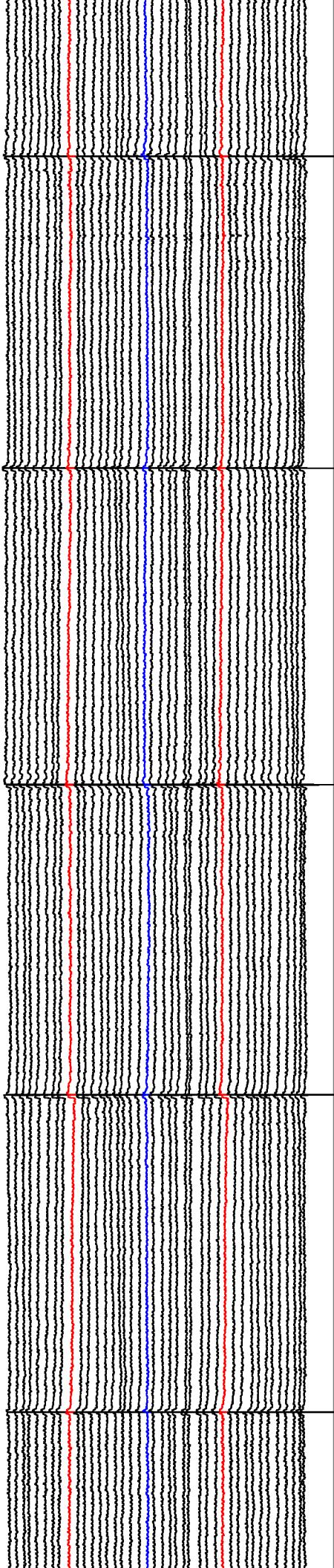
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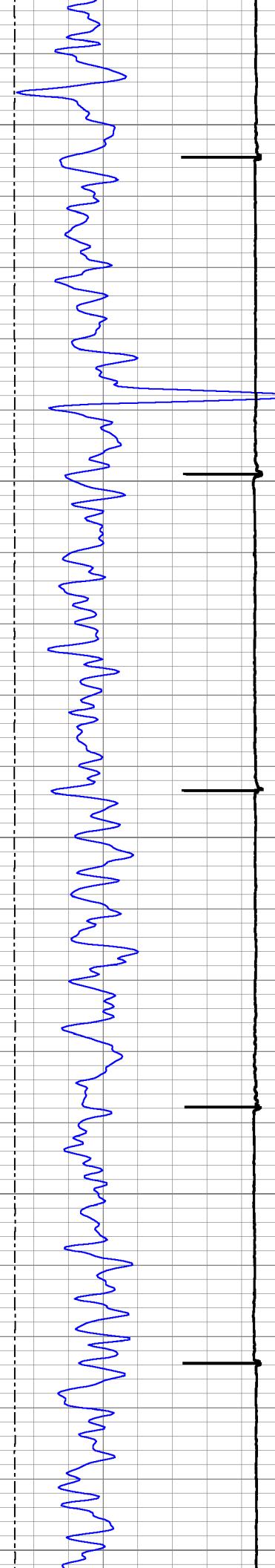


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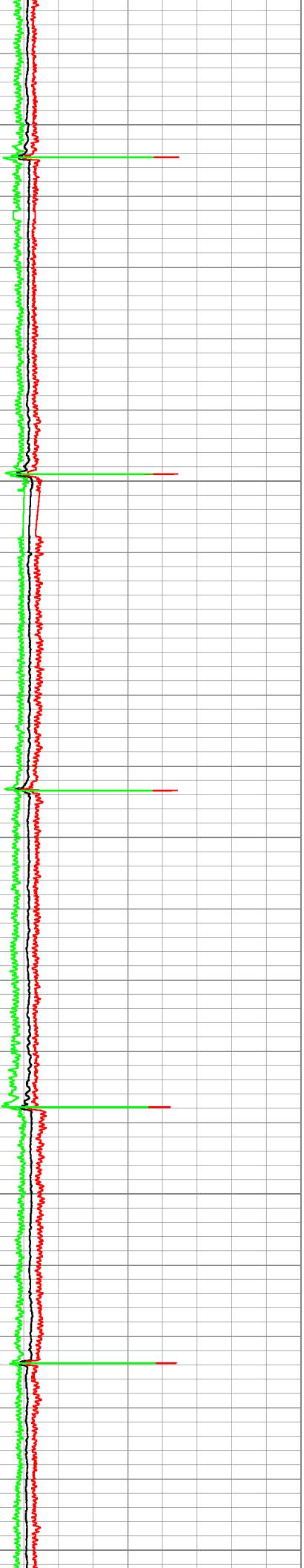


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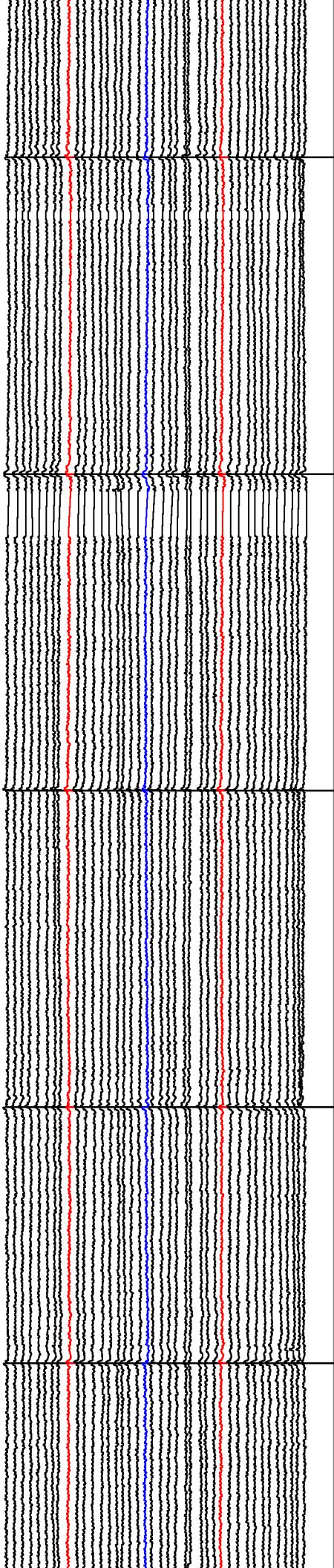


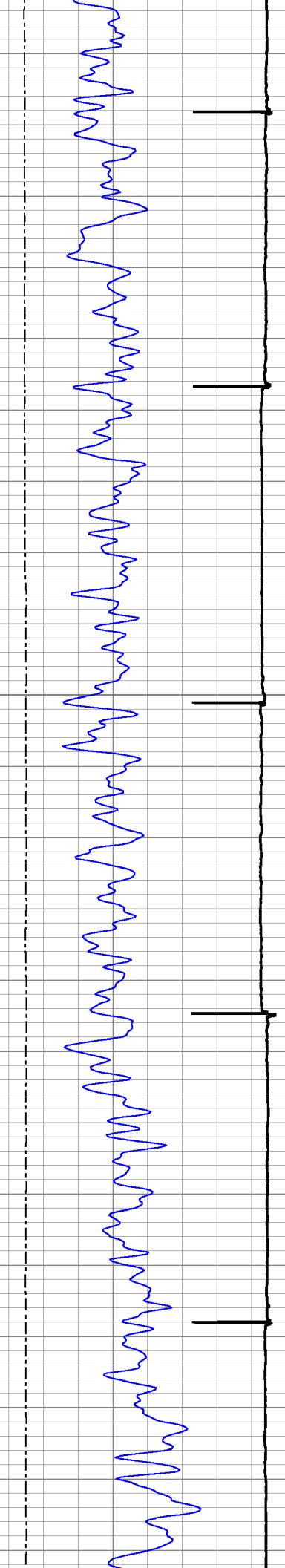


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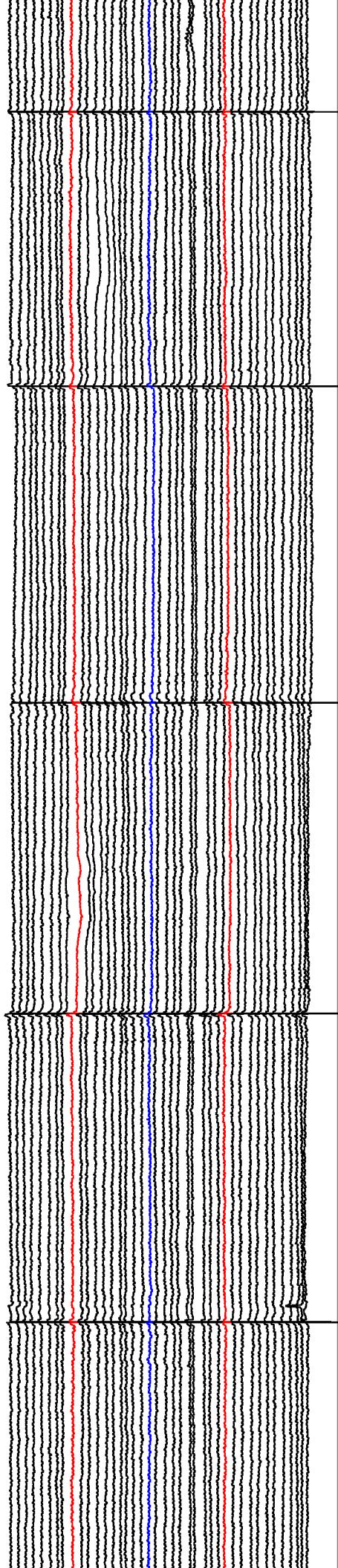


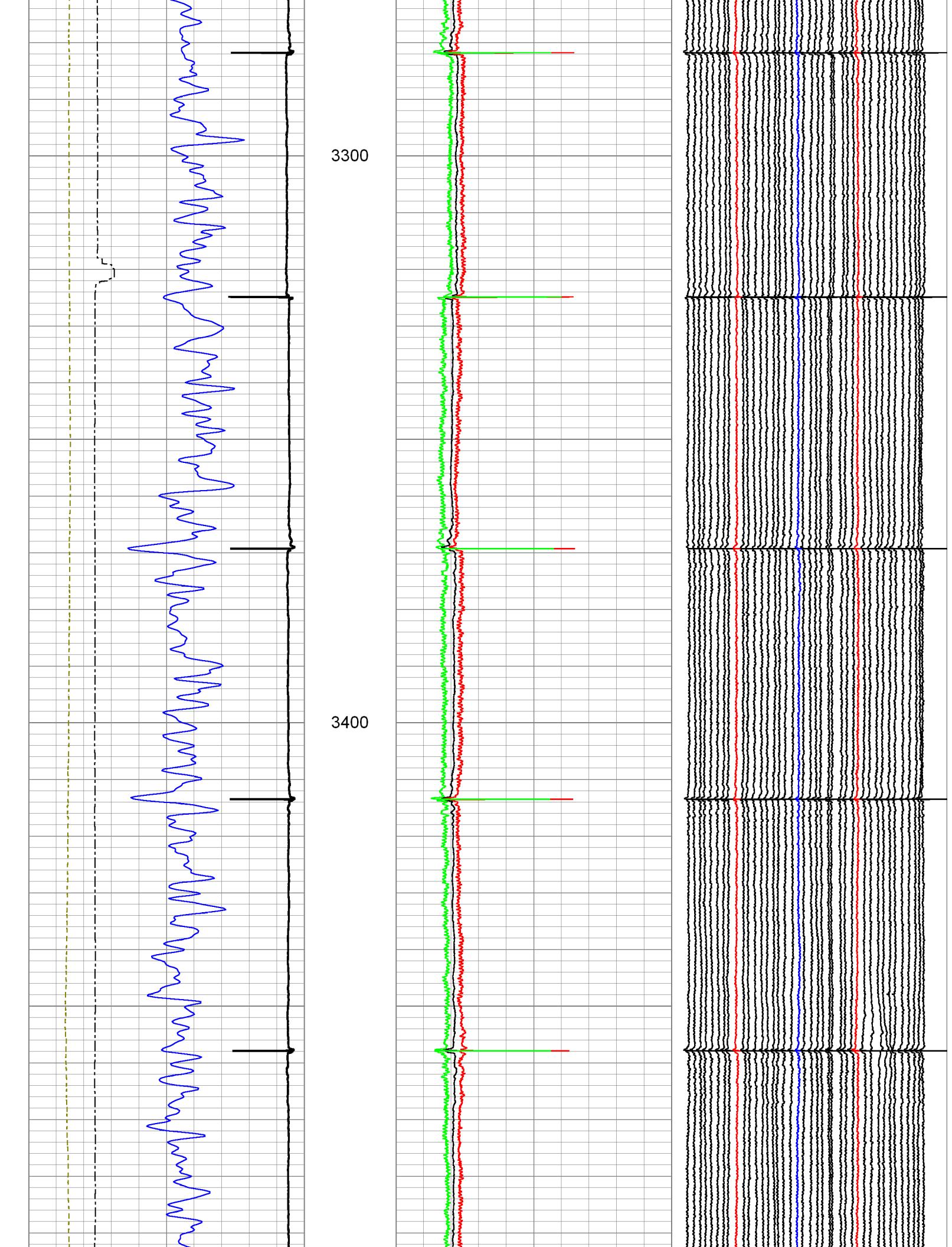


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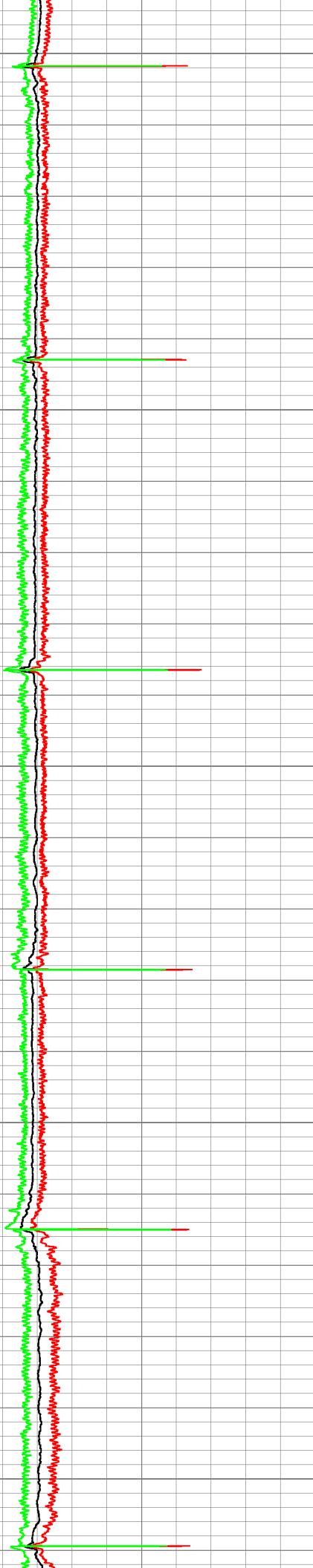
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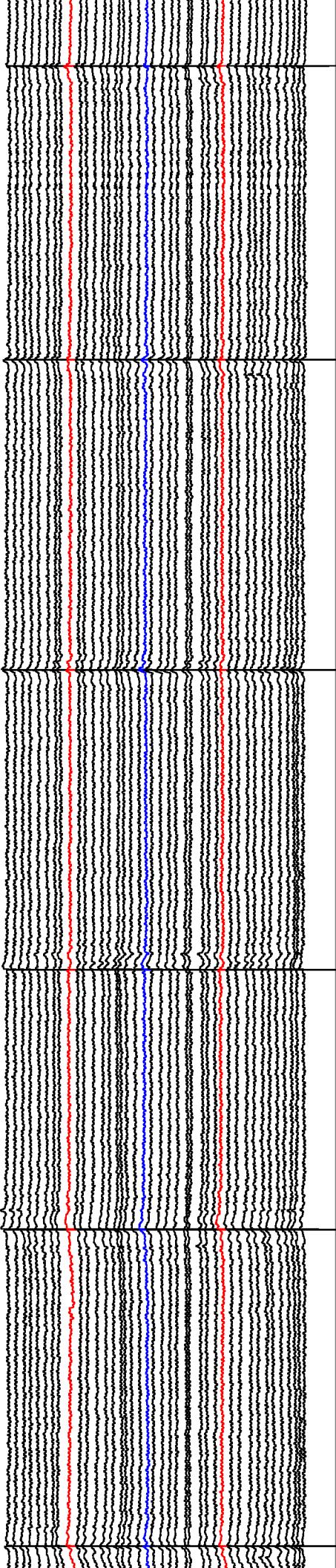




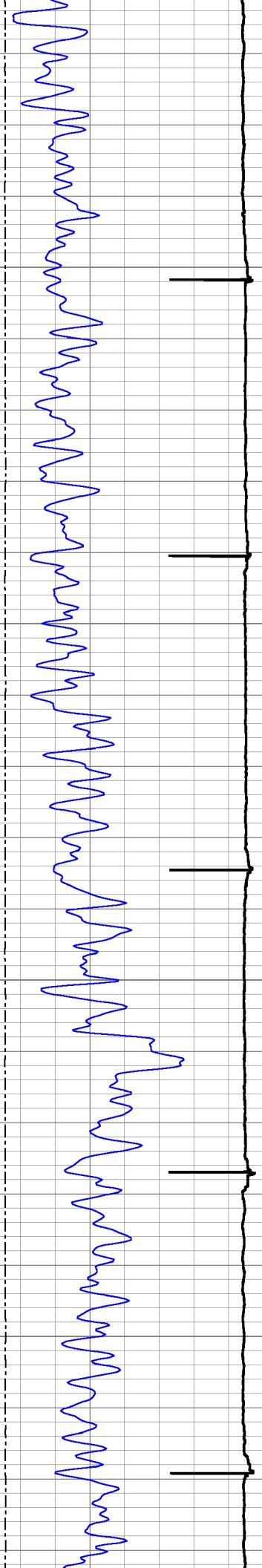
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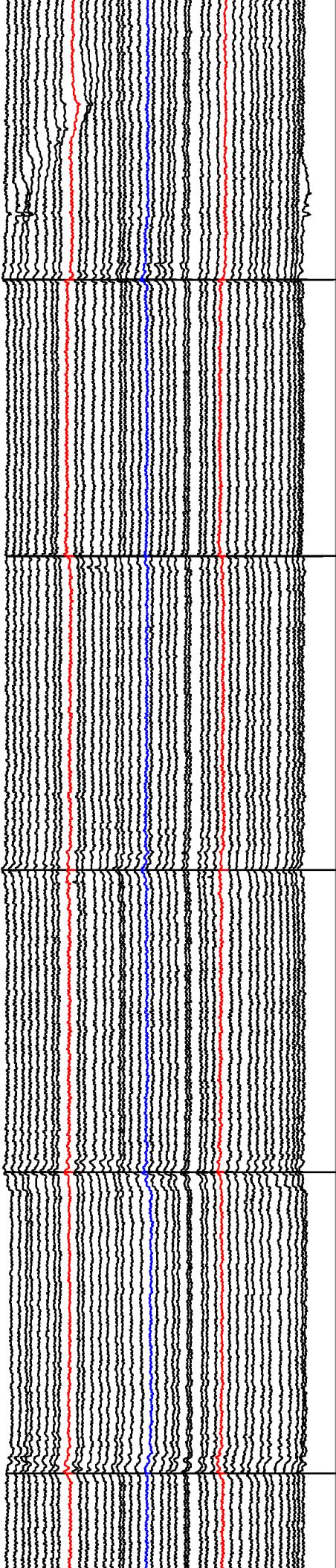
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3800



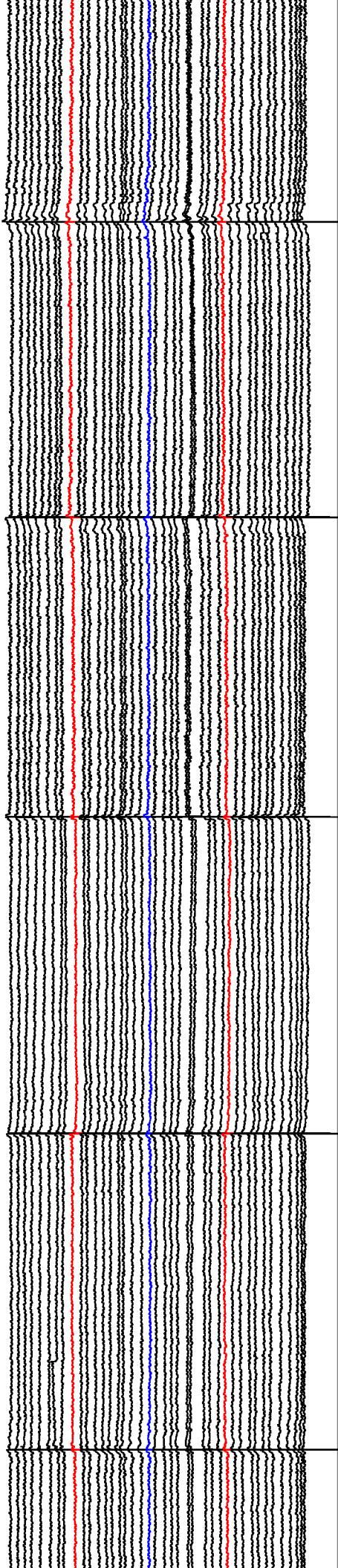
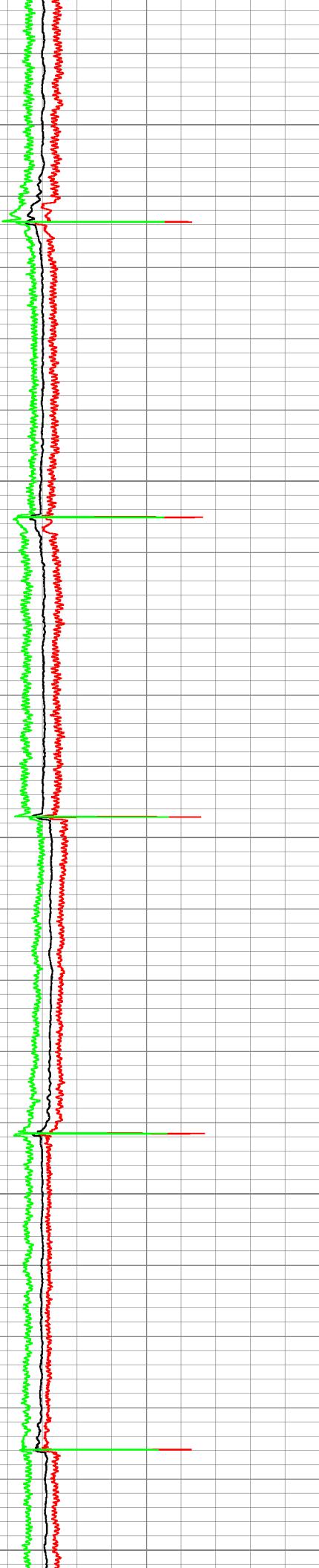
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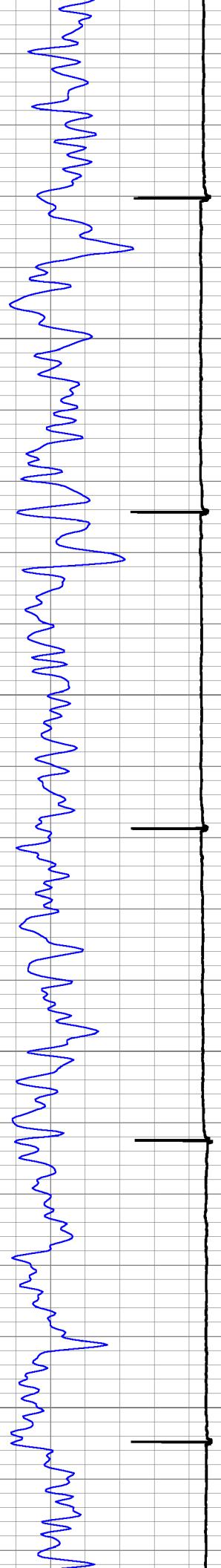




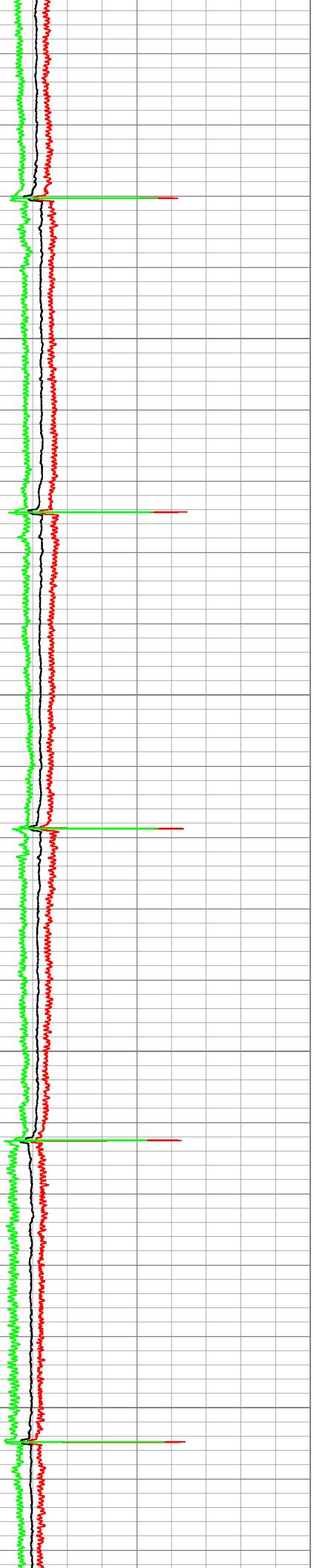
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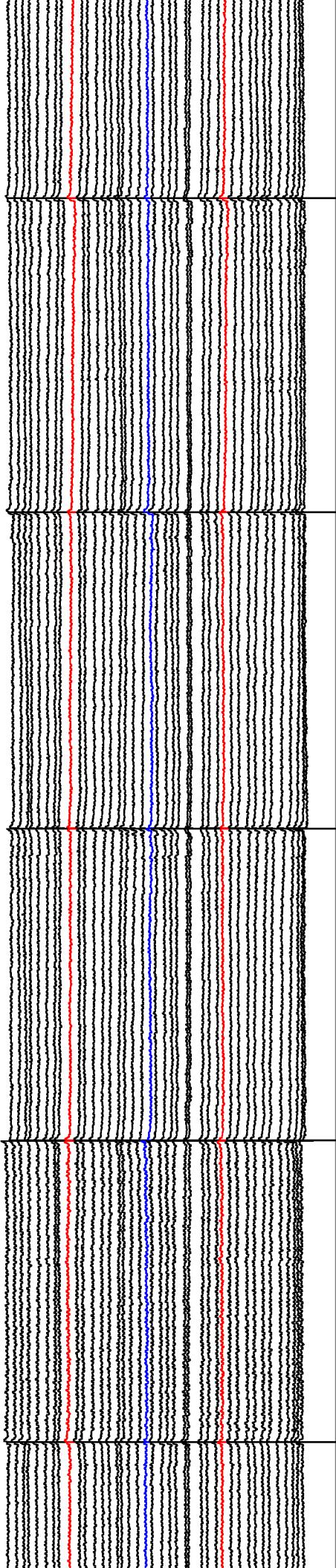




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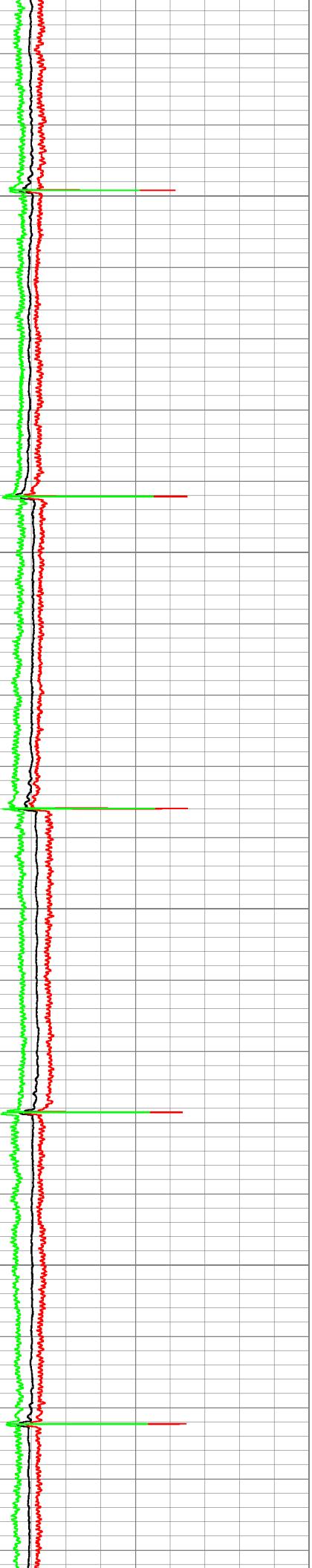


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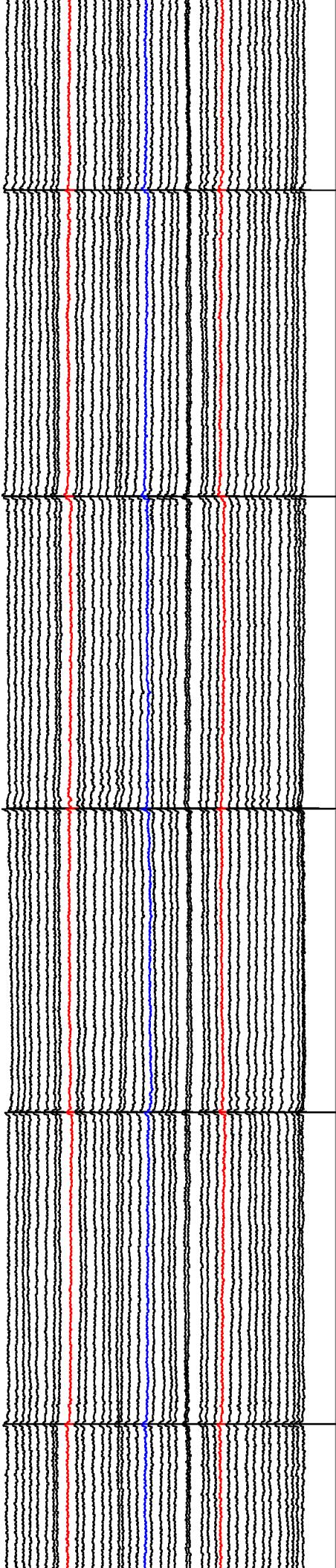


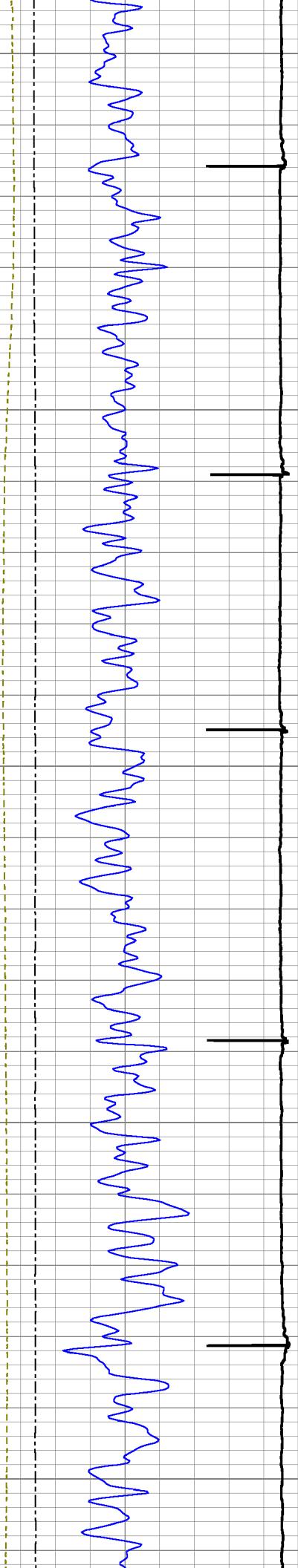


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4500

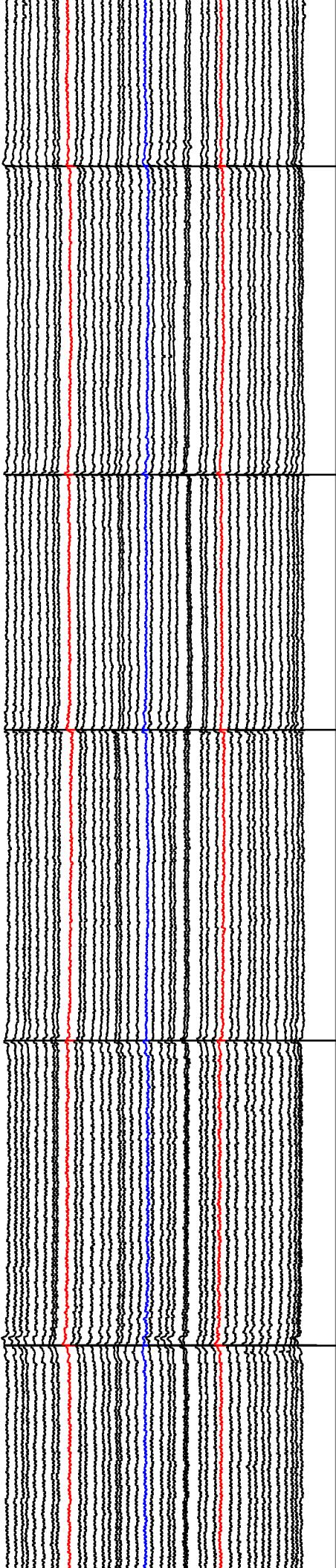
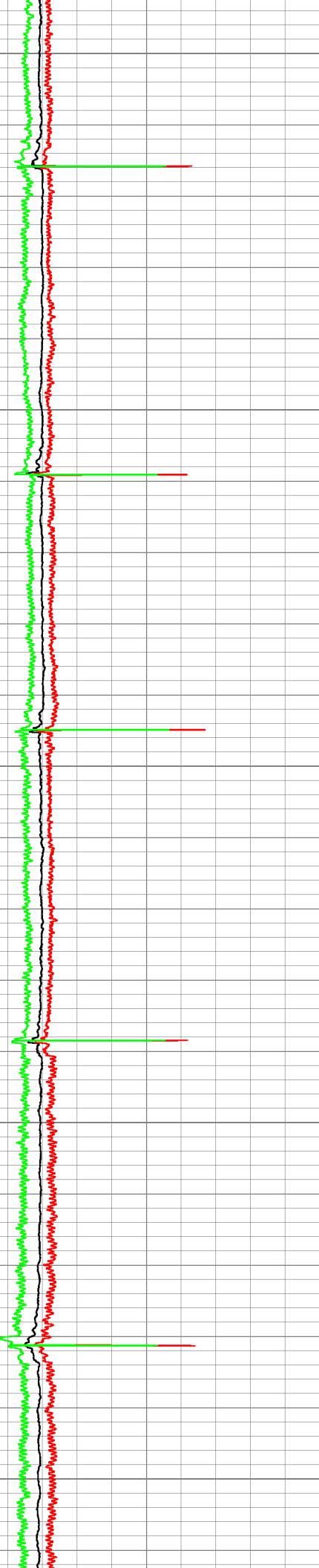


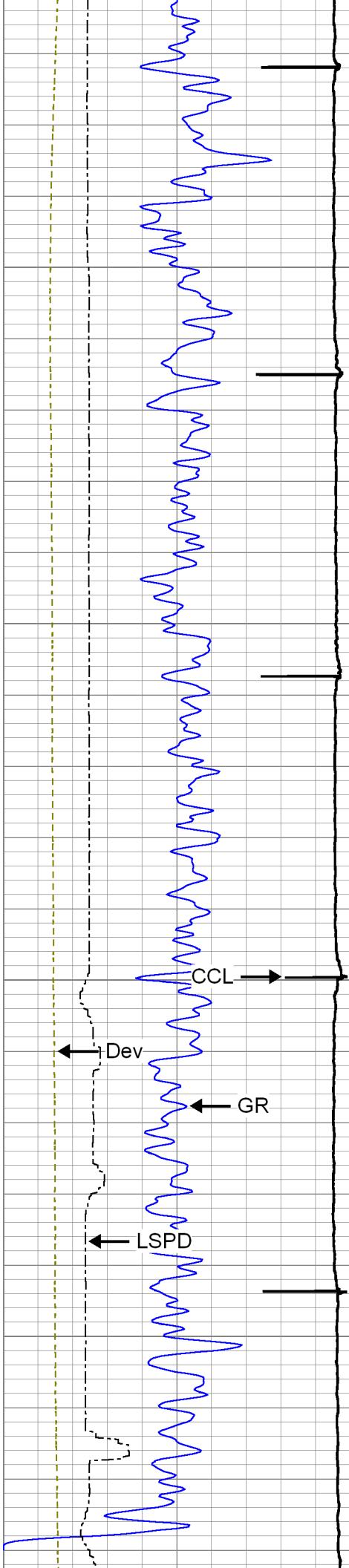


4600

4700

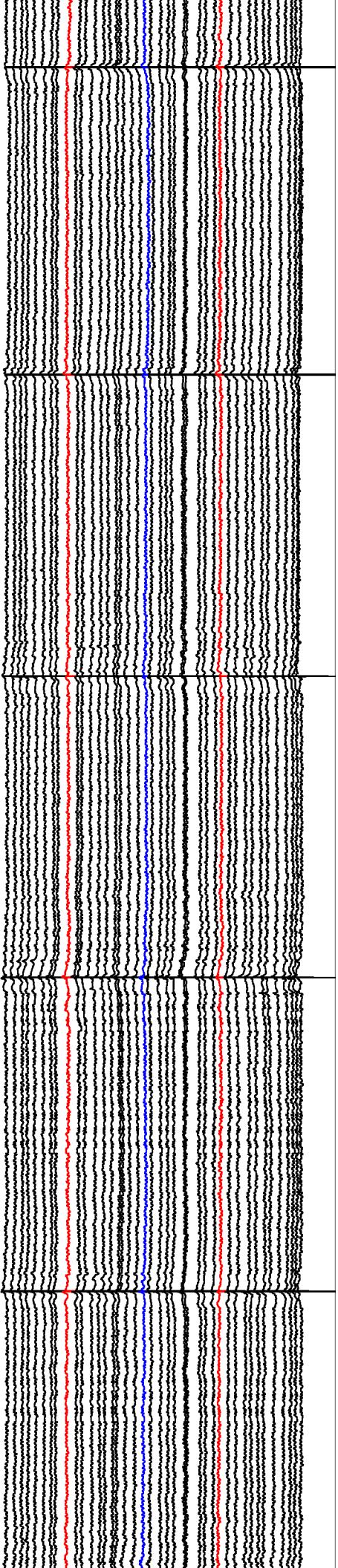
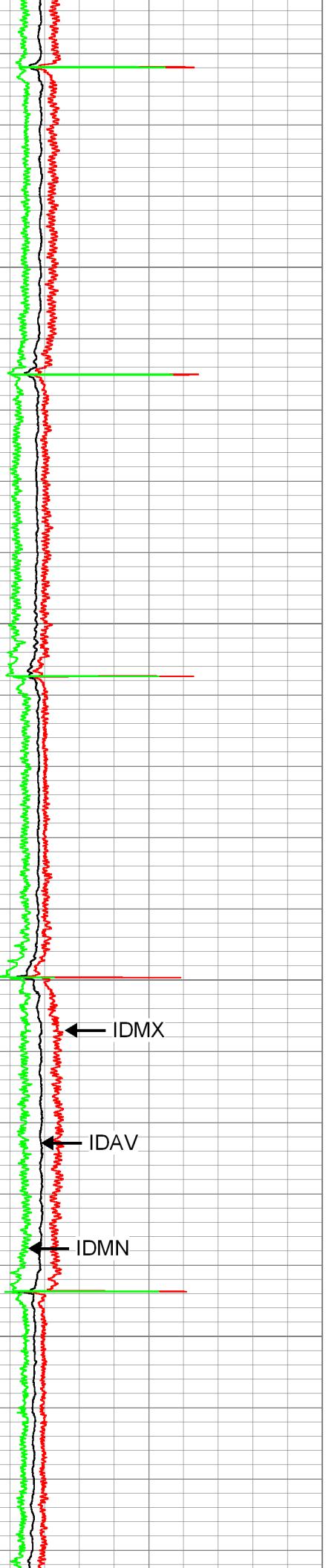
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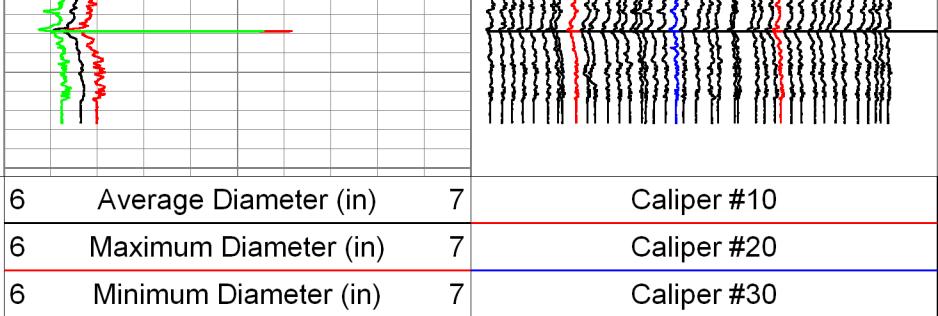
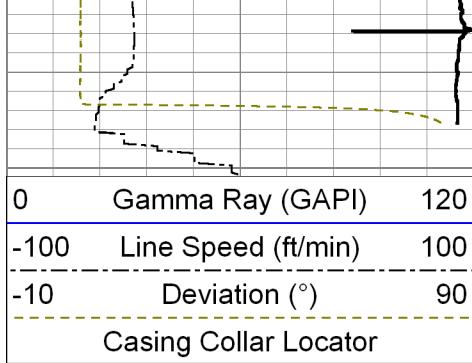




4900

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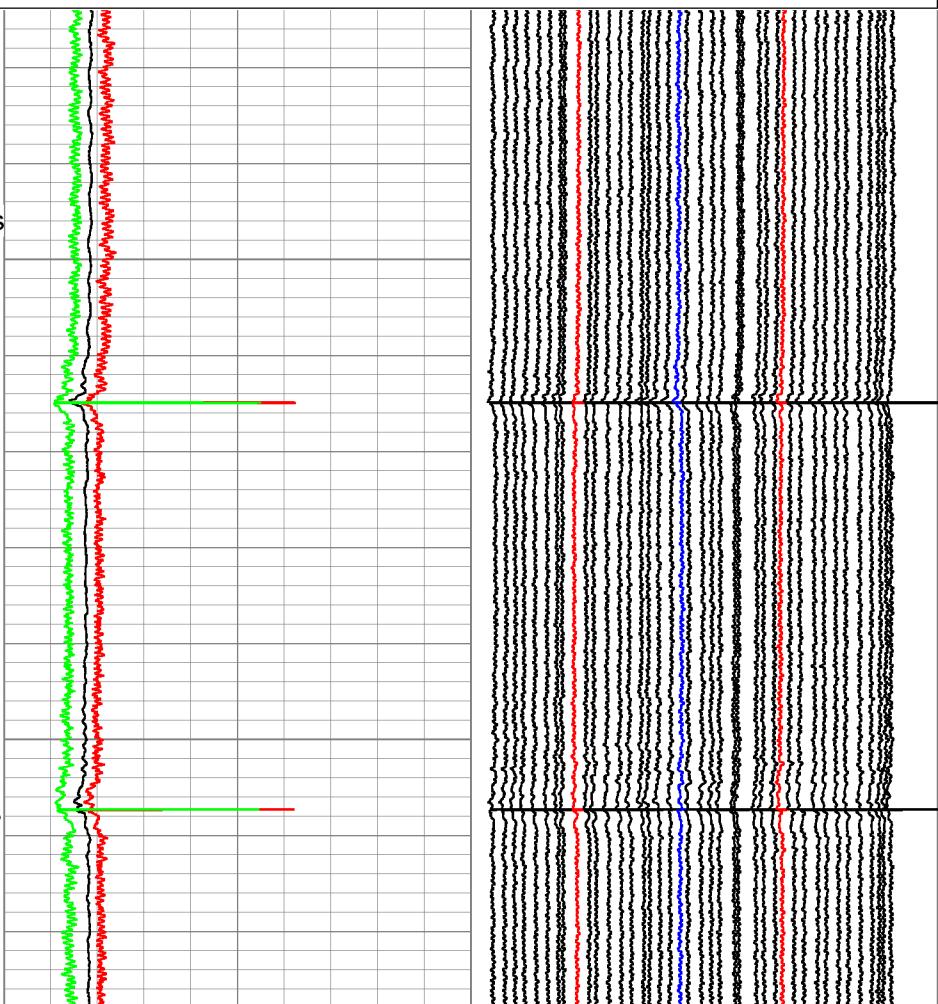
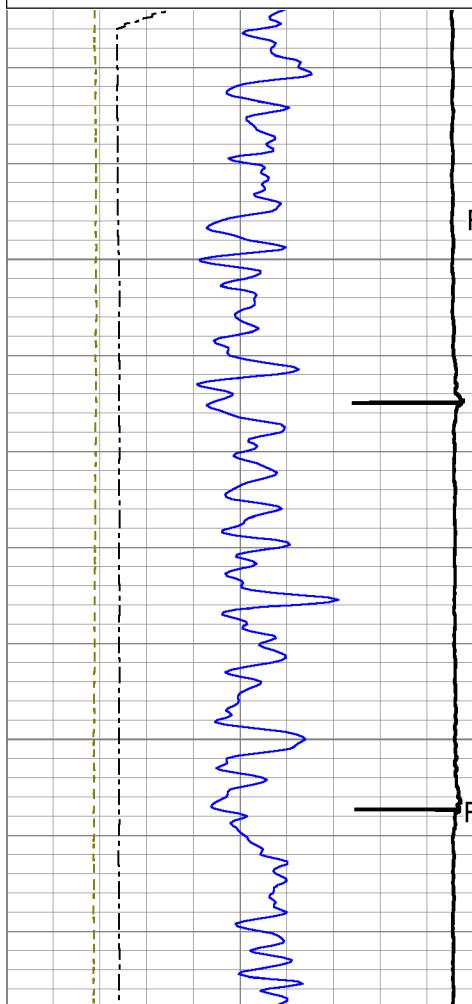
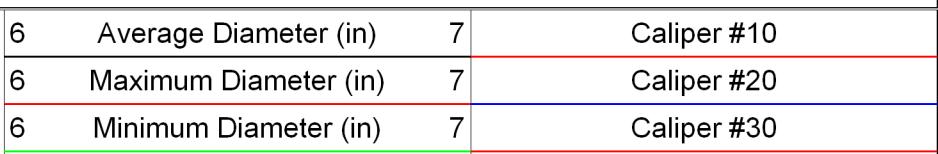
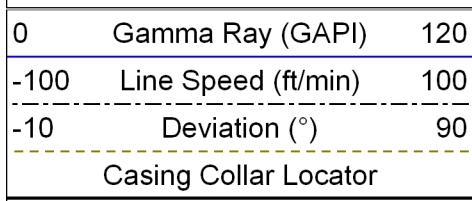


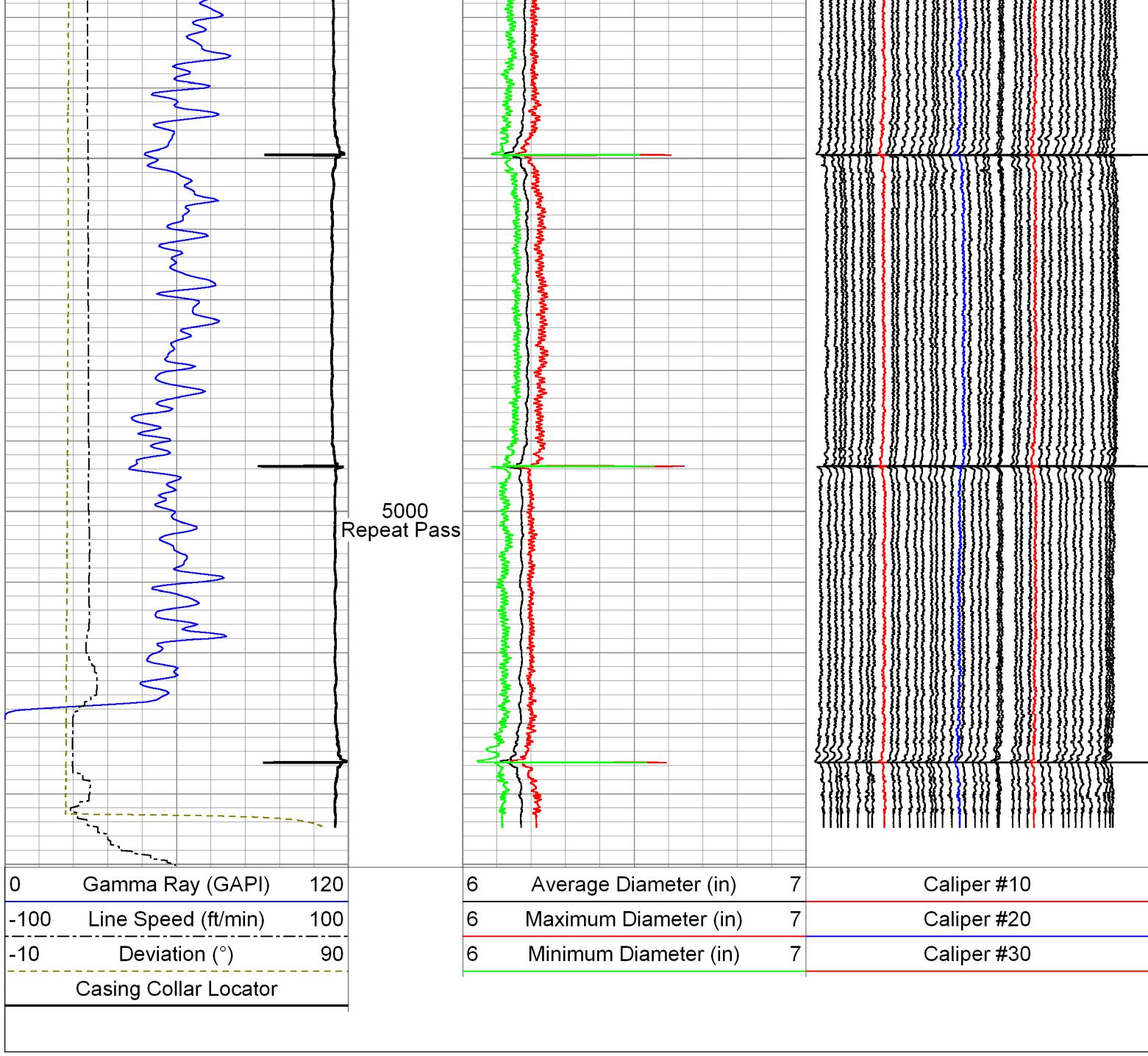


Repeat Pass

Logged With 2000 PSI At Surface

Database File: 04-04-14_whiting_razor 11e-1401a_mit_rbl.db
 Dataset Pathname: repeat
 Presentation Format: 7.0mit40
 Dataset Creation: Sun Apr 06 11:25:33 2014 by Log Sondex V7.03
 Charted by: Depth in Feet scaled 1:240





Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
GR	22.68		AES 1-7/16" Cablehead AGS-001 (219135) Adaptor GO to Sondex XTU-002 (218874) Crossover Ultrawire Toolbus to Ultralink PGR-020 (211727) Production Gamma Ray PRC-051 (390331) Production Roller Centraliser (4 Arm) (Large Cent)	1.08 0.21 1.58 1.93 2.52	1.44 1.69 1.69 1.69 4.13	1.00 1.00 6.50 9.50 32.00

WVF3FT	15.32		RBT-004 (10012639in7) Radial Bond Tool (UW 3 1/8)	9.47	3.13	140.00	
WVFS1	15.32						
WVFS2	15.32						
WVFS3	15.32						
WVFS4	15.32						
WVFS5	15.32						
WVFS6	15.32						
WVFS7	15.32						
WVFS8	15.32						
CBLTEMP	15.32						
CBLROT	15.32						
WVF5FT	14.32						
			PRC-051 (390332) Production Roller Centraliser (4 Arm) (Large Cent)	2.52	4.13	32.00	
MIT	5.47		MIT-027 (218949) Multifinger Imaging Tool (UW 40F)	4.54	2.75	61.10	
			PRC-034 (000005) Production Roller Centraliser (4 Arm)	2.91	1.69	13.00	
			BUL-006 (218707) Bullnose Terminator	0.22	1.69	1.20	
TSTAMP	0.00						

Dataset: 04-04-14_Whiting_Razor 11E-1401A_MIT_RBL.db: field/well/run1/main
 Total Length: 26.98 ft
 Total Weight: 297.30 lb
 O.D.: 4.13 in

Calibration Report	
Database File:	04-04-14_Whiting_Razor 11E-1401A_MIT_RBL.db
Dataset Pathname:	postcal
Dataset Creation:	Sun Apr 06 13:36:20 2014 by Log Sondex V7.03

Multi-finger Imaging Tool Calibration Report

Serial Number: 218949
 Number of Fingers: 40
 Tool Model: 027

Inclinometer Calibration Report
 Performed: Mon, Oct, 06 14:03:04 2008
 Calibration Angle: 45

Vertical:	Inc X	Inc Y
Finger 1 up:	1996	1984
	1780	1738

Finger 1 up:		1755	1755
Finger 31 up:		2235	1756
Finger 21 up:		2216	2228
Finger 11 up:		1736	2196
Sensitivity ratio:	1.0062		
X-axis angle:	131.534		
Deviation const.:	331.322		

Finger Calibration Report

Performed:

Sun Apr 06 10:29:48 2014

Ring size: (in)	4	5	6	7
Finger 01:	1115	287.0	1402	440.0
Finger 02:	1067	294.0	1361	458.0
Finger 03:	1067	290.0	1357	445.0
Finger 04:	1024	300.0	1324	465.0
Finger 05:	1058	294.0	1352	433.0
Finger 06:	1048	310.0	1358	448.0
Finger 07:	1059	318.0	1377	431.0
Finger 08:	1019	327.0	1346	441.0
Finger 09:	1080	340.0	1420	418.0
Finger 10:	1049	347.0	1396	412.0
Finger 11:	1024	354.0	1378	406.0
Finger 12:	1104	363.0	1467	378.0
Finger 13:	1037	368.0	1405	385.0
Finger 14:	1022	392.0	1414	391.0
Finger 15:	999	398.0	1397	385.0
Finger 16:	1037	400.0	1437	366.0
Finger 17:	1072	399.0	1471	347.0
Finger 18:	1099	406.0	1505	338.0
Finger 19:	1067	416.0	1483	343.0
Finger 20:	985	418.0	1403	348.0
Finger 21:	1080	409.0	1489	334.0
Finger 22:	1061	416.0	1477	334.0
Finger 23:	1172	387.0	1559	312.0
Finger 24:	1080	412.0	1492	343.0
Finger 25:	1084	400.0	1484	343.0
Finger 26:	1117	392.0	1509	341.0
Finger 27:	1131	373.0	1504	339.0
Finger 28:	1094	377.0	1471	360.0
Finger 29:	1074	370.0	1444	375.0
Finger 30:	1069	355.0	1424	383.0
Finger 31:	1126	343.0	1469	376.0
Finger 32:	1073	333.0	1406	396.0
Finger 33:	1085	327.0	1412	405.0
Finger 34:	1077	320.0	1397	420.0
Finger 35:	1134	302.0	1436	406.0
Finger 36:	1068	302.0	1370	432.0
Finger 37:	1178	287.0	1465	409.0
Finger 38:	1127	285.0	1412	426.0
Finger 39:	1076	289.0	1365	445.0
Finger 40:	1011	293.0	1304	469.0
			1773	439.0
				2212

Post Survey Calibration Check

Performed:

Sun Apr 06 13:36:05 2014

Ring size: (in)	4	Nom. wear	5	Nom. wear	6	Nom. wear	7	Nom. wear
Finger 01:	3.934	-0.033	4.965	-0.018	6.006	0.003	7.011	0.006
Finger 02:	3.936	-0.032	4.954	-0.023	5.997	-0.001	7.003	0.001
Finger 03:	3.935	-0.033	4.955	-0.022	6.000	0.000	7.010	0.005
Finger 04:	3.932	-0.034	4.957	-0.021	5.998	-0.001	7.004	0.002
Finger 05:	3.924	-0.038	4.964	-0.018	5.999	-0.000	7.006	0.003
Finger 06:	3.928	-0.036	4.971	-0.015	6.001	0.001	7.008	0.004
Finger 07:	3.924	-0.038	4.976	-0.012	6.006	0.003	7.006	0.003
Finger 08:	3.920	0.040	4.990	0.005	6.001	0.001	7.002	0.001

Finger 00:	3.920	-0.040	4.990	-0.003	6.001	0.001	7.002	0.001
Finger 09:	3.920	-0.040	4.995	-0.003	6.000	0.000	7.004	0.002
Finger 10:	3.919	-0.041	5.000	-0.000	6.004	0.002	7.005	0.003
Finger 11:	3.916	-0.042	5.007	0.003	6.002	0.001	7.001	0.000
Finger 12:	3.918	-0.041	5.013	0.006	5.998	-0.001	6.998	-0.001
Finger 13:	3.924	-0.038	5.015	0.007	6.001	0.001	6.999	-0.001
Finger 14:	3.922	-0.039	5.013	0.006	6.011	0.006	7.005	0.003
Finger 15:	3.924	-0.038	5.011	0.005	6.005	0.003	7.007	0.003
Finger 16:	3.925	-0.037	4.999	-0.000	6.000	-0.000	7.010	0.005
Finger 17:	3.923	-0.038	4.990	-0.005	6.004	0.002	7.007	0.004
Finger 18:	3.920	-0.040	4.972	-0.014	5.997	-0.001	7.002	0.001
Finger 19:	3.925	-0.038	4.970	-0.015	6.002	0.001	7.011	0.006
Finger 20:	3.936	-0.032	4.965	-0.017	6.001	0.001	7.010	0.005
Finger 21:	3.928	-0.036	4.961	-0.020	6.009	0.005	7.003	0.001
Finger 22:	3.927	-0.037	4.950	-0.025	6.004	0.002	7.009	0.004
Finger 23:	3.923	-0.038	4.955	-0.023	5.998	-0.001	7.013	0.007
Finger 24:	3.932	-0.034	4.959	-0.021	6.001	0.000	7.002	0.001
Finger 25:	3.934	-0.033	4.966	-0.017	6.001	0.000	7.003	0.002
Finger 26:	3.926	-0.037	4.968	-0.016	5.996	-0.002	6.998	-0.001
Finger 27:	3.927	-0.037	4.981	-0.010	6.003	0.002	7.000	-0.000
Finger 28:	3.927	-0.036	4.992	-0.004	6.002	0.001	7.003	0.001
Finger 29:	3.925	-0.038	4.996	-0.002	6.002	0.001	7.005	0.003
Finger 30:	3.921	-0.040	5.008	0.004	5.997	-0.001	7.000	0.000
Finger 31:	3.920	-0.040	5.008	0.004	6.005	0.002	7.008	0.004
Finger 32:	3.913	-0.044	5.013	0.006	6.000	-0.000	7.005	0.003
Finger 33:	3.919	-0.040	5.009	0.004	6.005	0.003	7.006	0.003
Finger 34:	3.919	-0.041	5.007	0.003	6.006	0.003	7.005	0.002
Finger 35:	3.922	-0.039	5.006	0.003	6.004	0.002	7.007	0.004
Finger 36:	3.921	-0.039	4.995	-0.002	6.002	0.001	7.005	0.003
Finger 37:	3.918	-0.041	4.988	-0.006	6.005	0.002	7.010	0.005
Finger 38:	3.924	-0.038	4.982	-0.009	6.007	0.003	7.001	0.001
Finger 39:	3.929	-0.035	4.973	-0.013	6.001	0.000	7.006	0.003
Finger 40:	3.928	-0.036	4.962	-0.019	6.000	0.000	7.000	0.000
Average:	3.925	-0.038	4.984	-0.008	6.002	0.001	7.005	0.003

Segmented Cement Bond Log Calibration Report

Serial Number: 10012639in7

Tool Model: 004

Calibration Casing Diameter: 7.000 in
Calibration Depth: 385.706 ft

Master Calibration, performed Sun Apr 06 10:44:51 2014:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3FT	0.001	0.658	0.800	62.165	93.391	0.750
5FT	-0.004	0.723	0.800	62.165	84.441	1.109
S1	0.001	0.656	0.000	100.000	152.722	-0.186
S2	-0.000	0.630	0.000	100.000	158.751	0.006
S3	0.000	0.623	0.000	100.000	160.521	-0.006
S4	-0.002	0.638	0.000	100.000	156.229	0.248
S5	0.000	0.661	0.000	100.000	151.245	-0.031
S6	0.001	0.680	0.000	100.000	147.283	-0.088
S7	0.000	0.686	0.000	100.000	145.867	-0.005
S8	-0.000	0.679	0.000	100.000	147.270	0.049

Gamma Ray Calibration Report

Serial Number: 211727

Tool Model: 020

Performed: Sun Jun 12 12:32:21 1902

Performed.

Sun Jun 13 13:33:21 1993

Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.0000	GAPI/cps



Company	Whiting Oil & Gas Corporation
Well	Razor 11E-1401A
Field	Wildcat
County	Weld
State	Colorado