

Company WHITING OIL & GAS				Company WHITING OIL & GAS			
Well RAZOR 27-3414H				Well RAZOR 27-3414H			
Field REDTAIL				Field REDTAIL			
County WELD				County WELD			
State COLORADO				State COLORADO			
Location:				API # : 05-123-36130			
NWSW SEC 27 T10N R58W				N/A			
SEC 27 TWP 10N RGE 58W				Other Services			
Permanent Datum				GROUND LEVEL Elevation 4755'			
Log Measured From				KELLY BUSHING			
Drilling Measured From				KELLY BUSHING			
Elevation				K.B. 4771' D.F. 4770' G.L. 4755'			
Date				JAN 18 2013			
Run Number				1			
Depth Driller				12390'			
Depth Logger				4876'			
Bottom Logged Interval				4876'			
Top Log Interval				SURFACE			
Open Hole Size				9.625			
Type Fluid				WATER			
Density / Viscosity				8.4LB/GAL			
Max. Recorded Temp.				N/A			
Estimated Cement Top				100'			
Time Well Ready				1:30 PM			
Time Logger on Bottom				N/A			
Equipment Number				HD0119			
Location				FORT LUPTON, CO			
Recorded By				RYAN HARRIS			
Witnessed By				MIKE STAAB			
Borehole Record				Tubing Record			
Run Number				Bit			
From				To			
Size				Weight			
From				To			
Casing Record				Size			
Surface String				Wgt/Ft			
Prot. String				36			
Production String				SURFACE			
Liner				Top			
4.5				Bottom			
7'				1505'			
29				SURFACE			
11.6				6056'			
5008'				12390'			

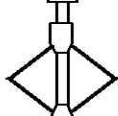
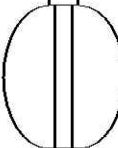
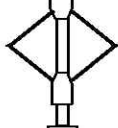
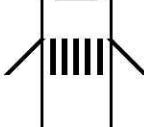
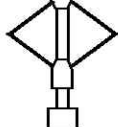
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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on 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

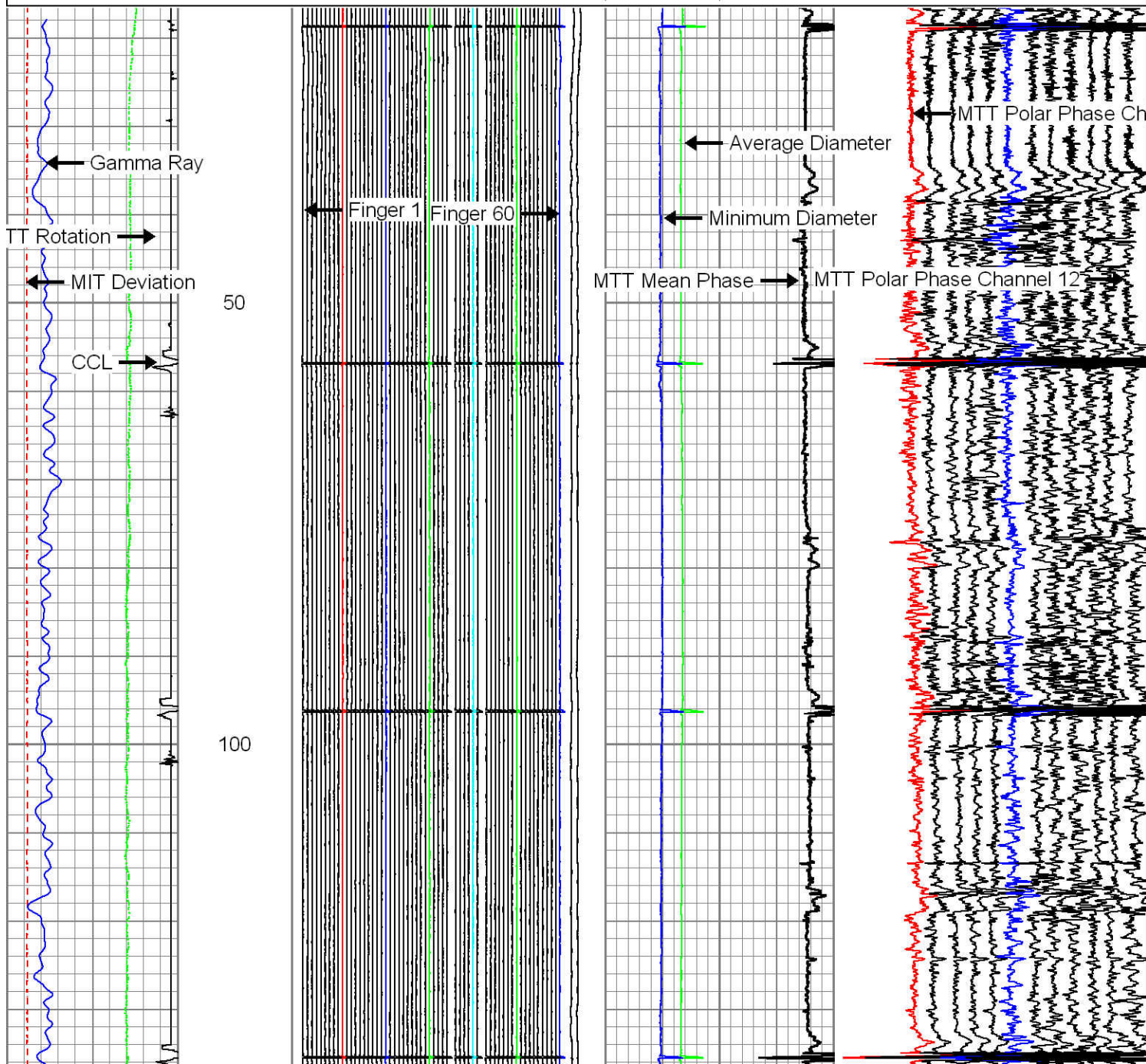
**LOG CORRELATED TO PURE ENERGY
CEMENT BOND LOG**

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			CHD-AES (000001) Cable Head	1.04	1.69	2.00
			XTU-001 (000001) Crossover Ultrawire Toolbus to Ultralink	1.58	1.69	6.50

				PRC-034 (000006) Production Roller Centraliser (4 Arm)	2.77	1.69	13.00
MTT	17.10			MTT-002 (000001) Magnetic Thickness Tool	6.86	1.69	30.00
				Sondex 4 Arm Sondex Roller Centralizer, 2.75" OD	2.91	2.75	40.00
MIT	8.51			MIT-029 (212855) Multifinger Imaging Tool (UW 60F)	5.00	4.00	90.00
				PRC-057 (000007) Production Roller Centraliser (4 Arm)	2.71	2.75	32.00
CCL	2.46			CCL-015 (000001) Casing Collar Locator	1.54	1.69	9.00
GR	0.50						
TSTAMP	0.00						
ITEMPX	0.00			PGR-020 (000001) Production Gamma Ray	1.93	1.69	9.50
HVOLT	0.00						
Dataset: Whiting Razor27-3418h.db: field/well/run24/MainPass Total Length: 26.33 ft Total Weight: 232.00 lb O.D. 4.00 in							

Database File: whiting razor27-3418h.db
Dataset Pathname: run24/MainPass
Presentation Format: 60_mtt_7
Dataset Creation: Fri Jan 18 19:46:18 2013 by Log Sondex V7.03
Charted by: Depth in Feet scaled 1:200

MIT Deviation	2.559	FING01 (in)	16.732	Average Diameter	MTT	1	MTTP01 (rad)	9
-10 (°) 90	0.787	FING10 (in)	14.961	5.184r7.184	Mean Phase	0.5	MTTP02 (rad)	8.5
Gamma Ray	-1.181	FING20 (in)	12.992	5.184r7.184	Phase	-4	MTTP11 (rad)	4
0 (GAPI) 120	-5.118	FING40 (in)	9.055	Minimum Diameter	0 (rad) 4	-4.5	MTTP12 (rad)	3.5
-1250 CCL 50	-9.055	FING60 (in)	5.118	5.184r7.184				
MIT Rotation	-7.087	FING50 (in)	7.087	Maximum Diameter				
0 (°) 360				5.184r7.184				
				Nominal Diameter				
				5.184r7.184				

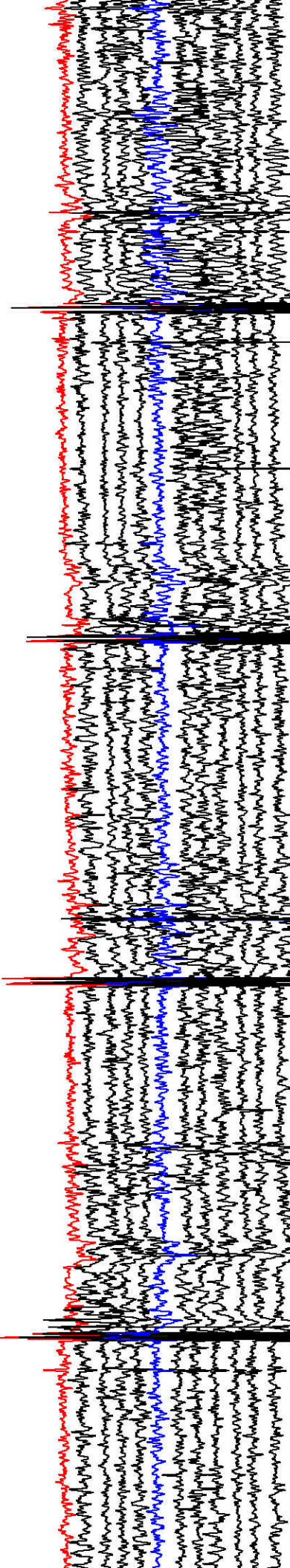
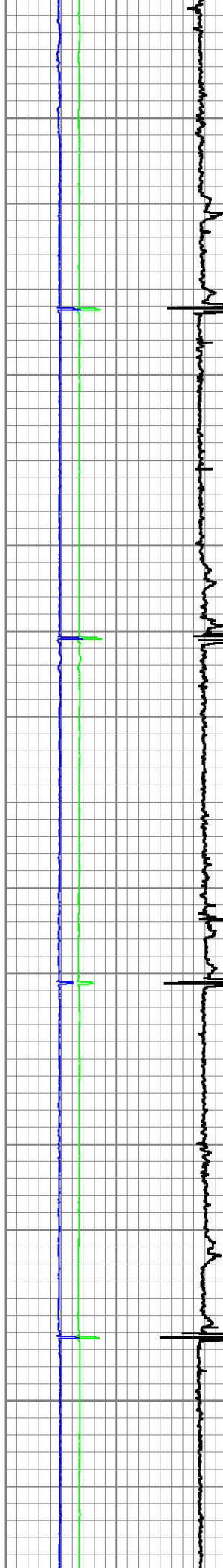
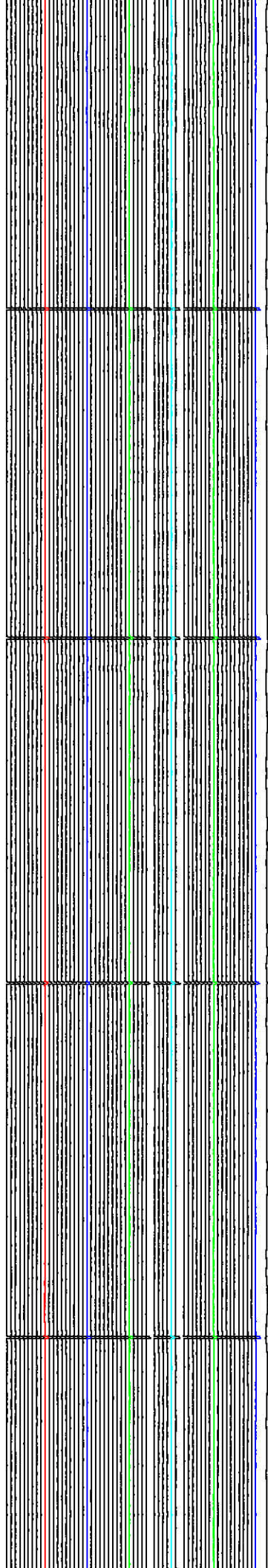
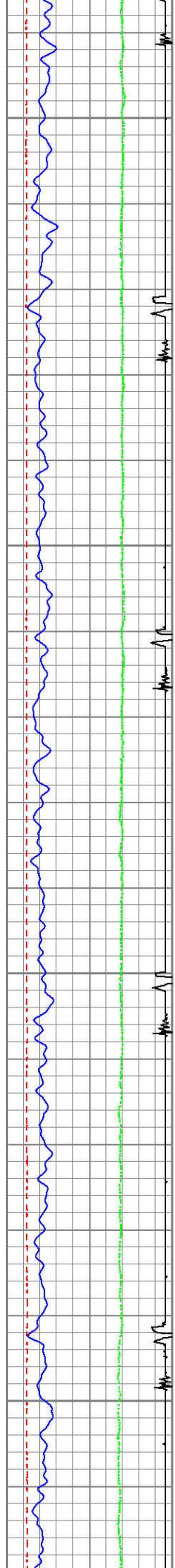


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200

250

300

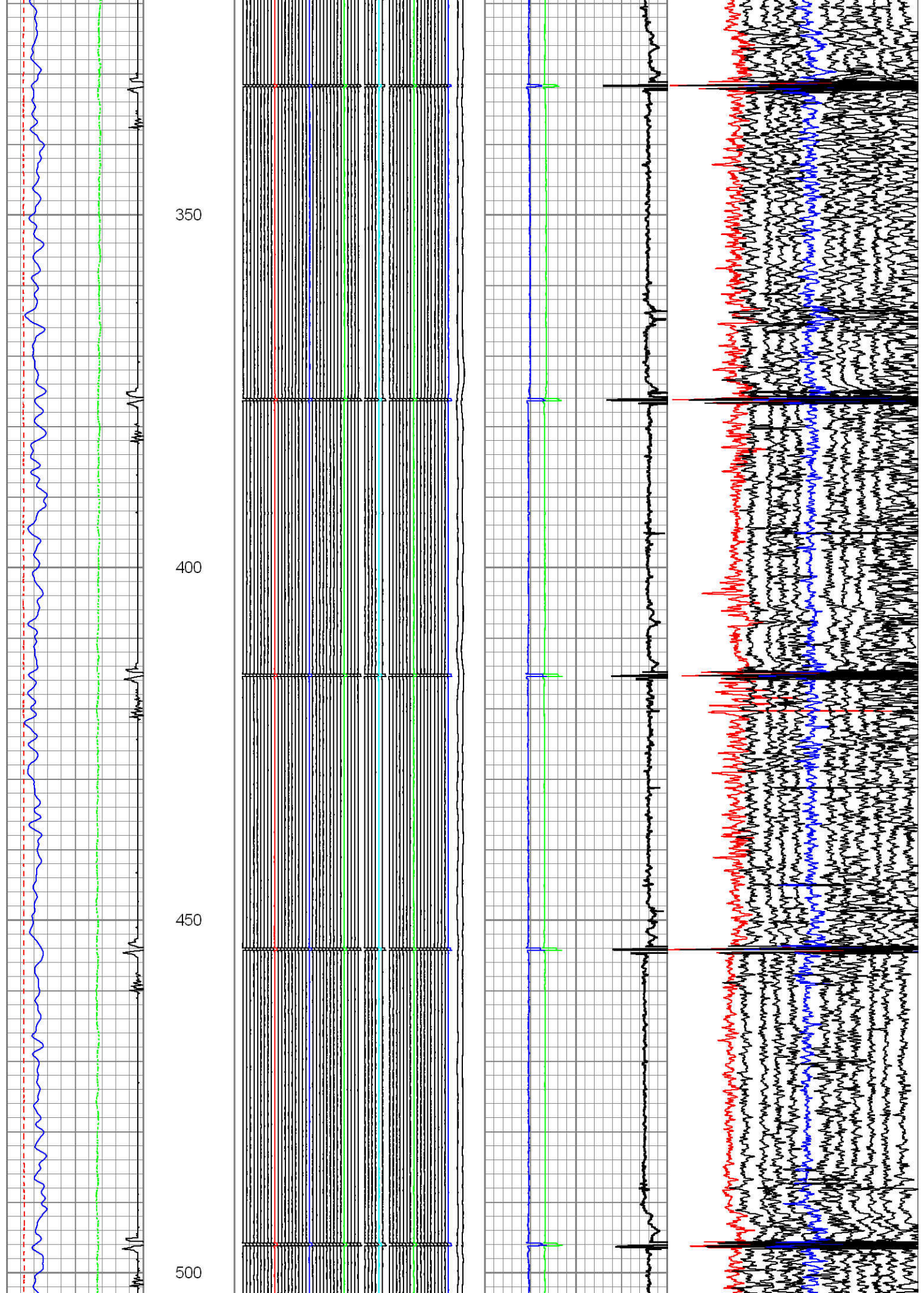


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400

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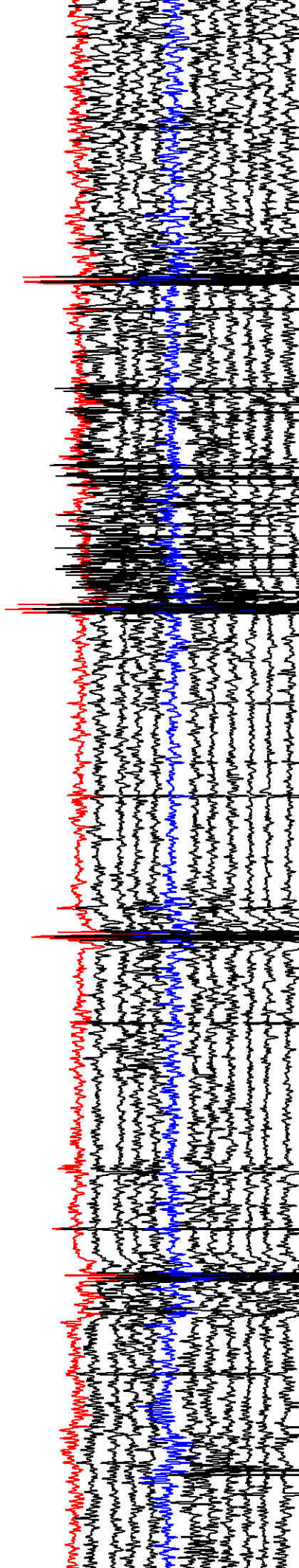
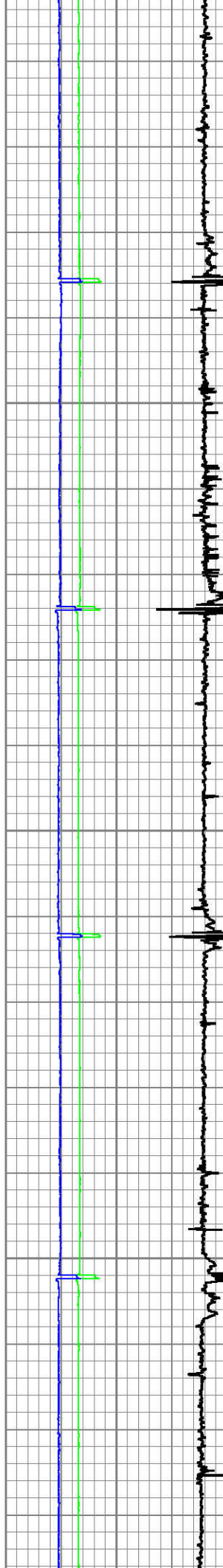
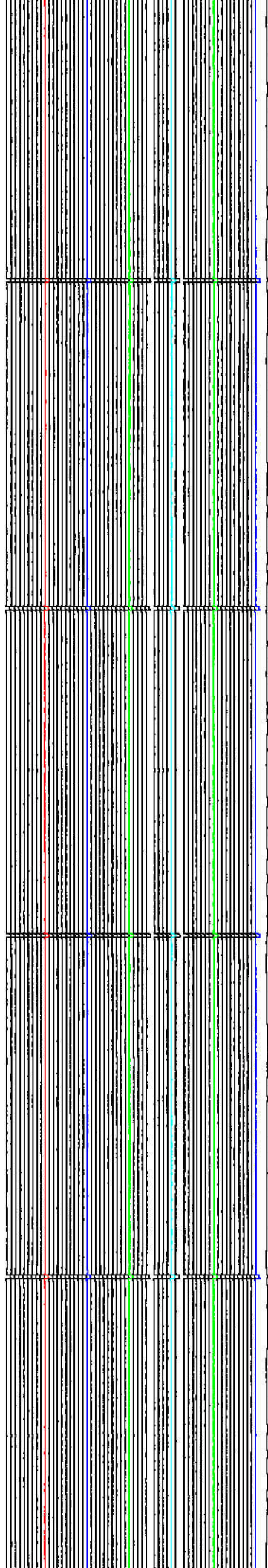
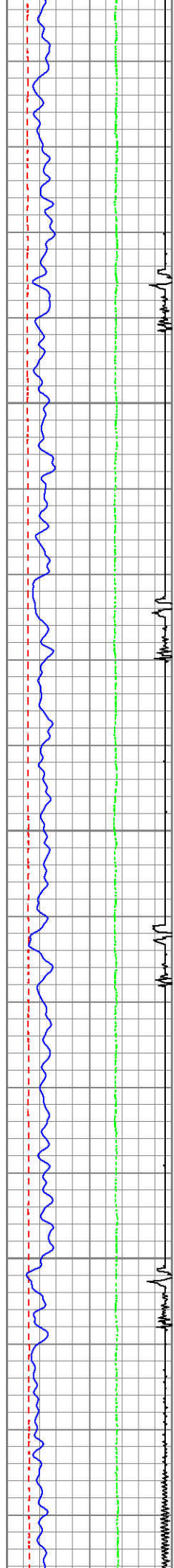
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550

600

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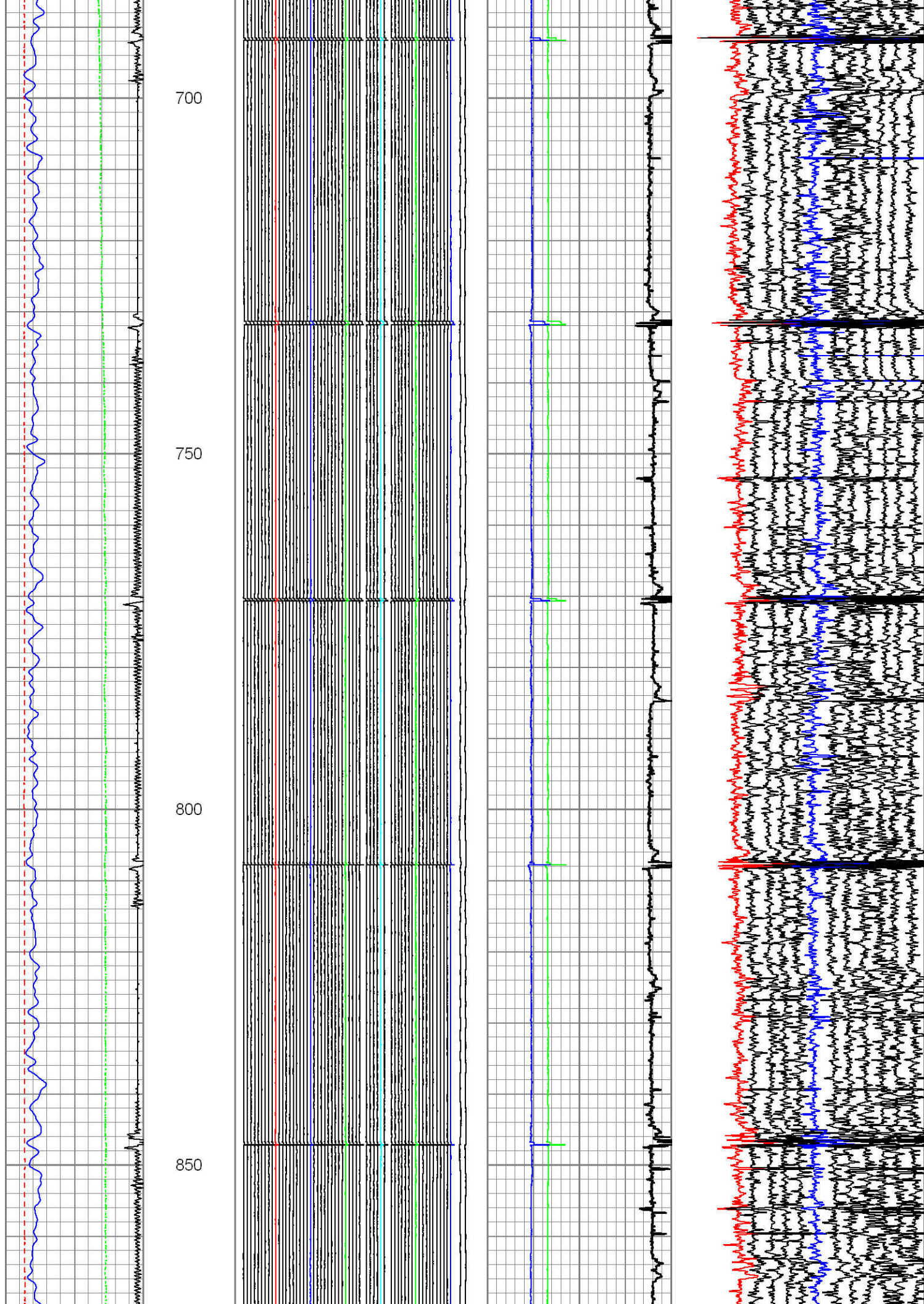


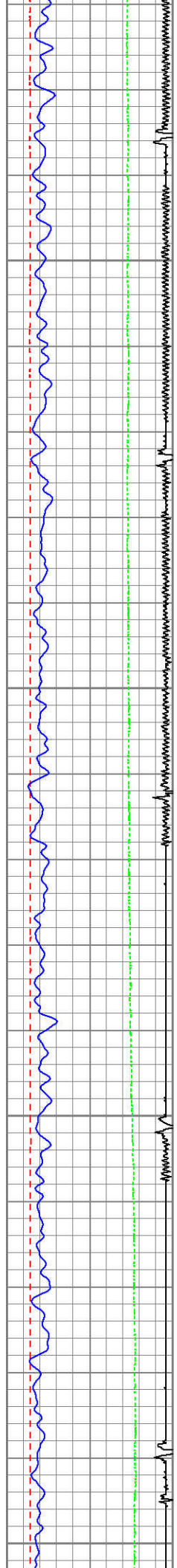
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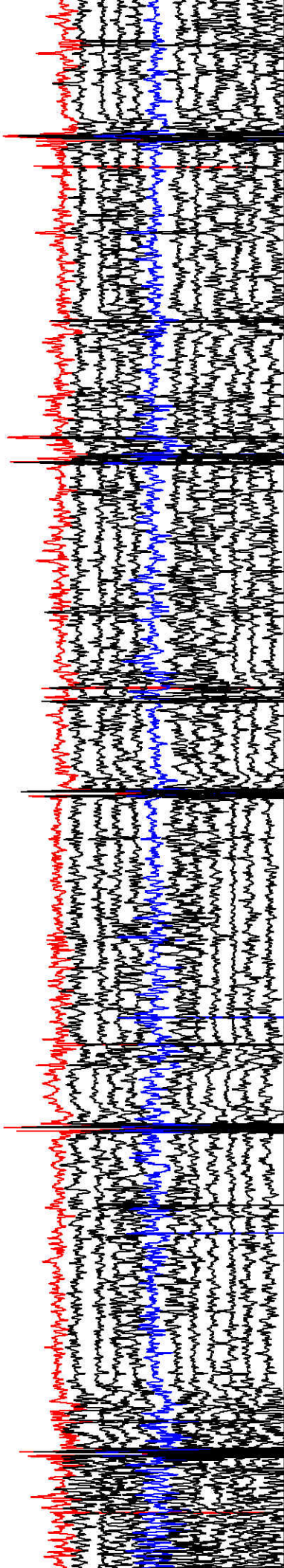
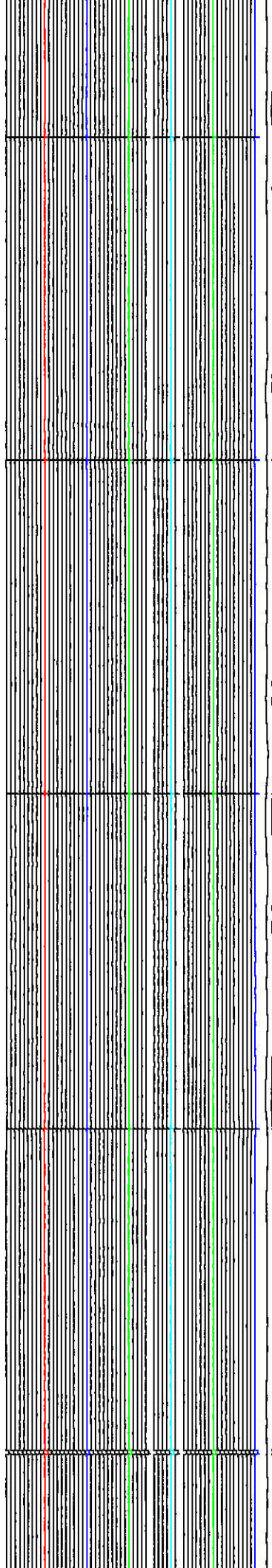


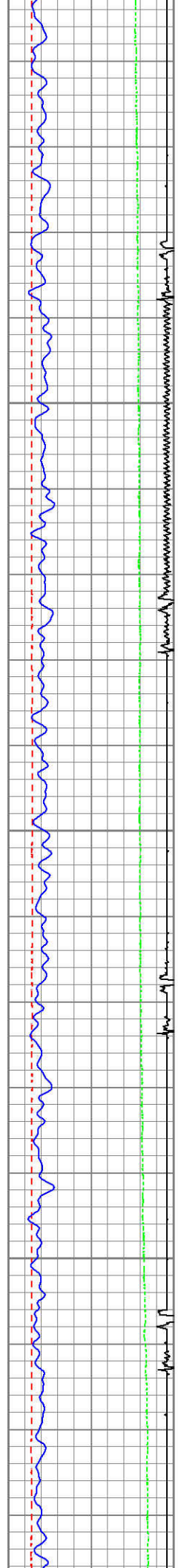
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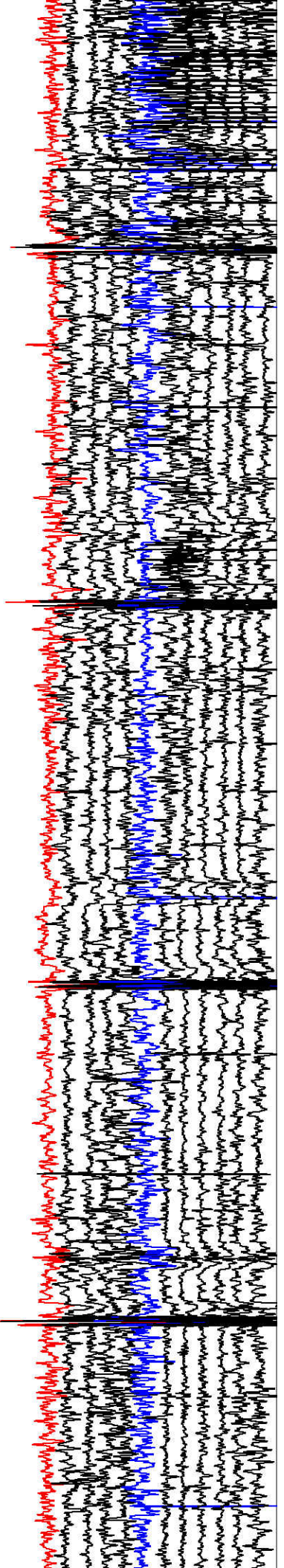
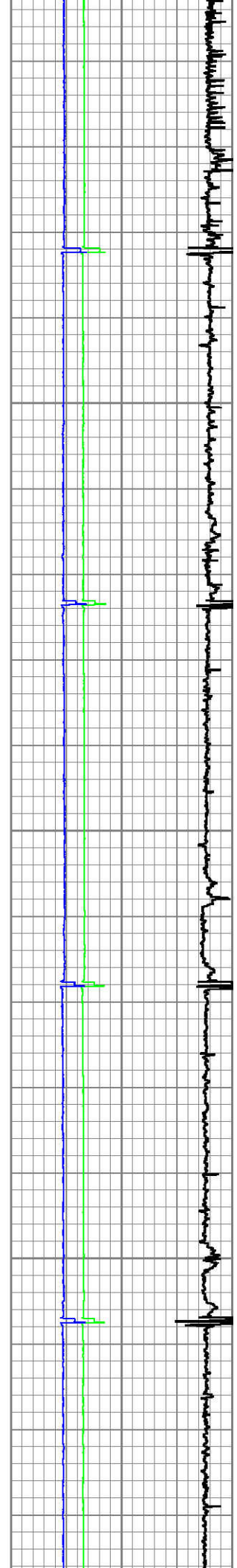
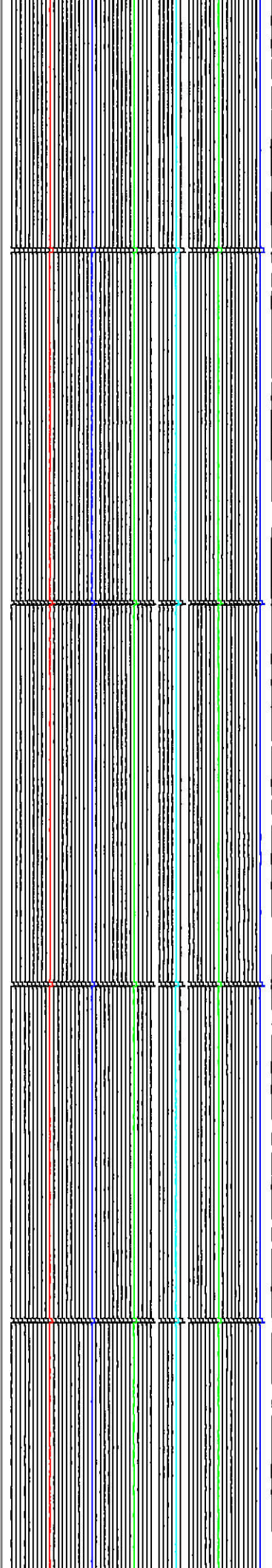


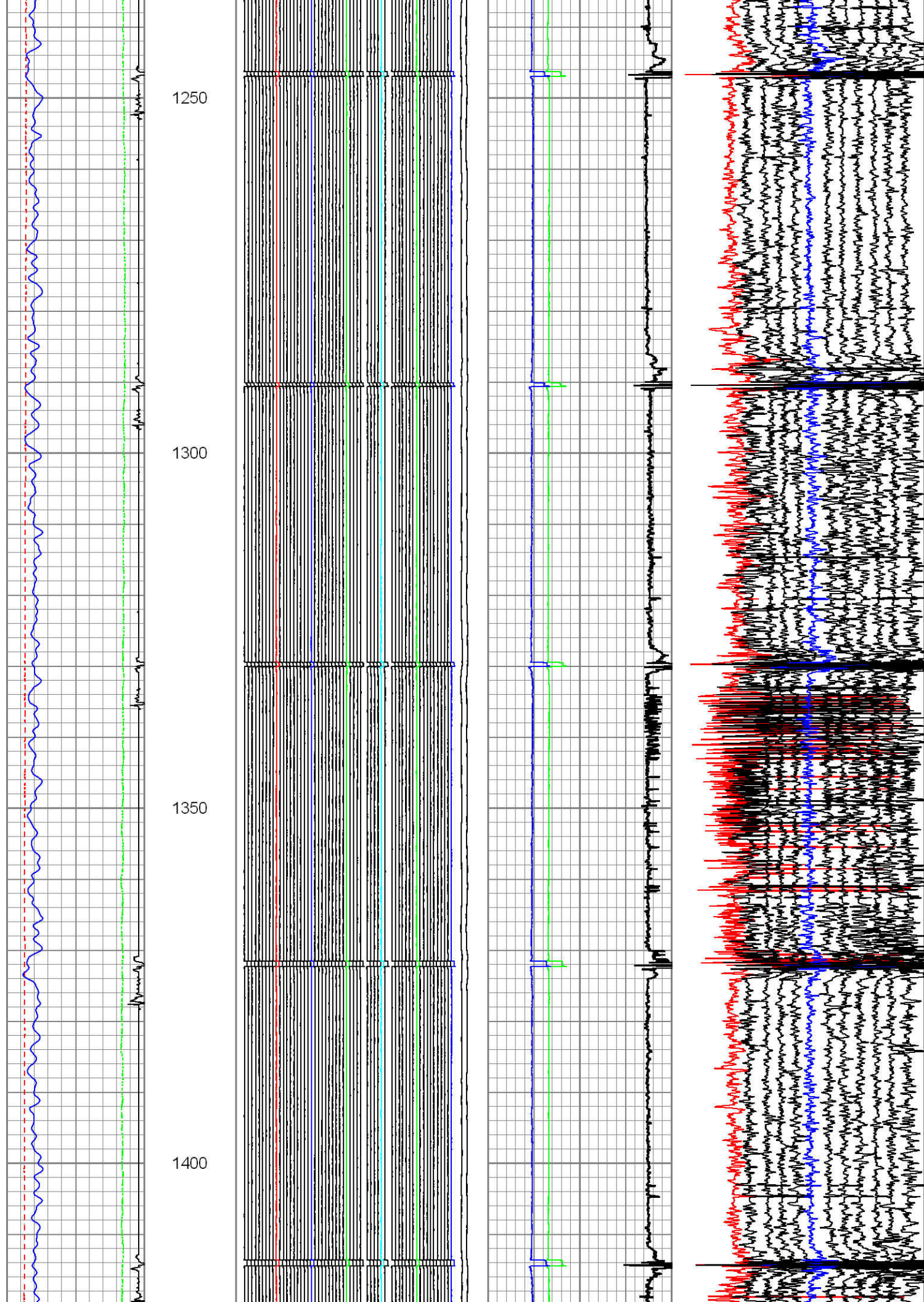


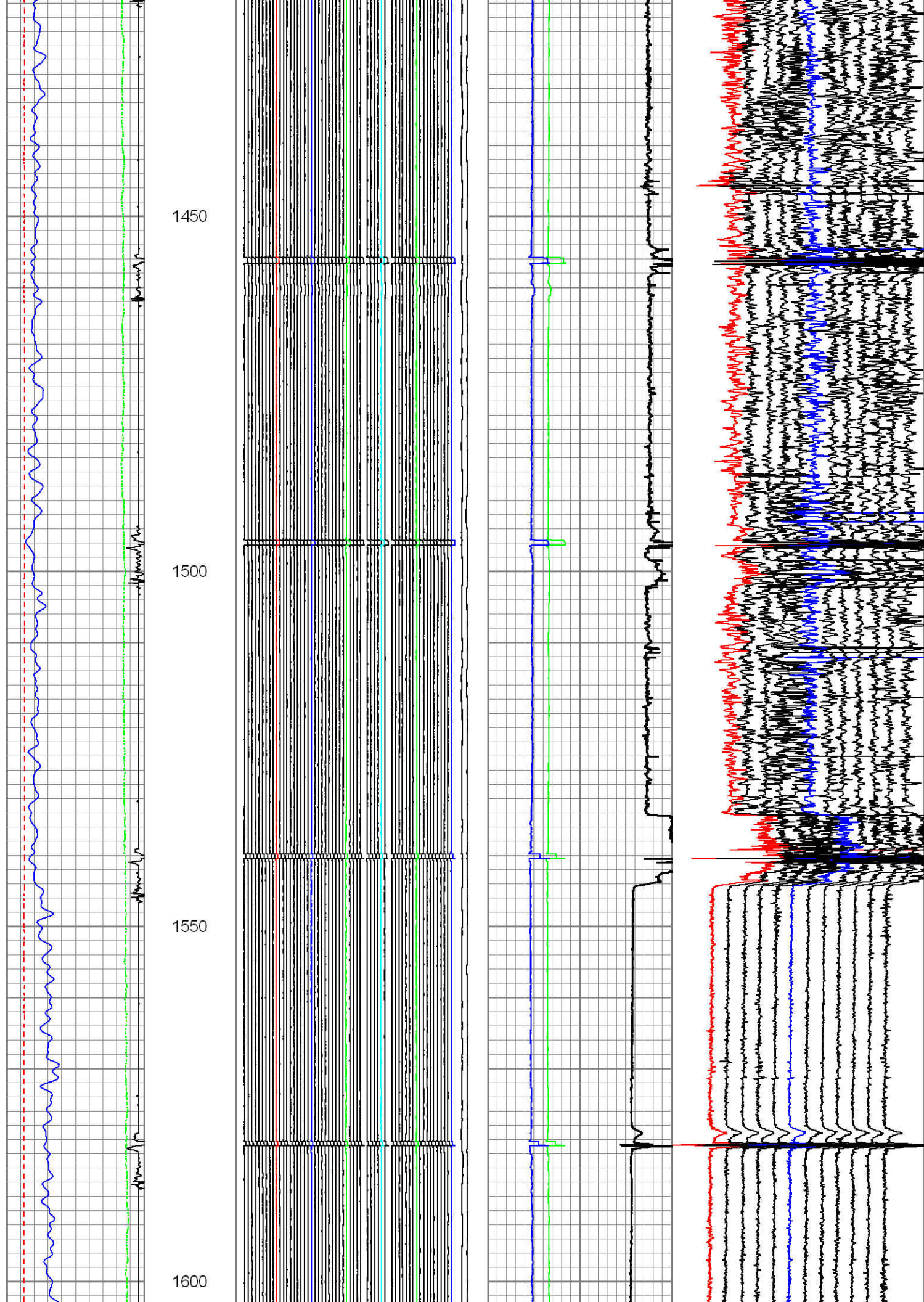
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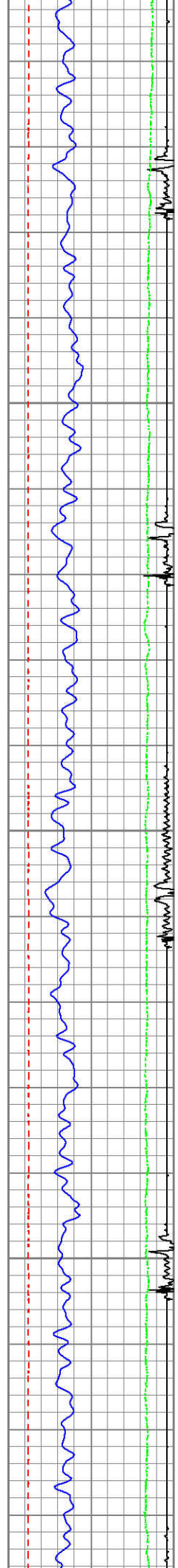
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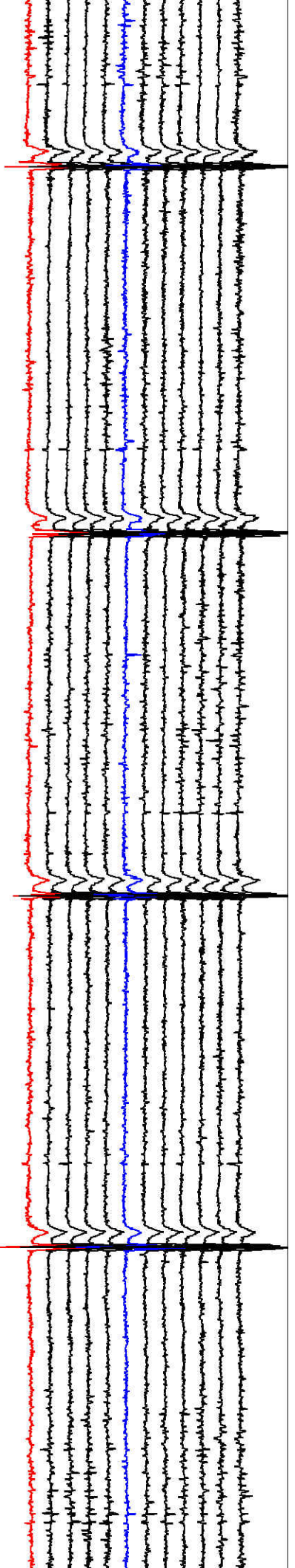
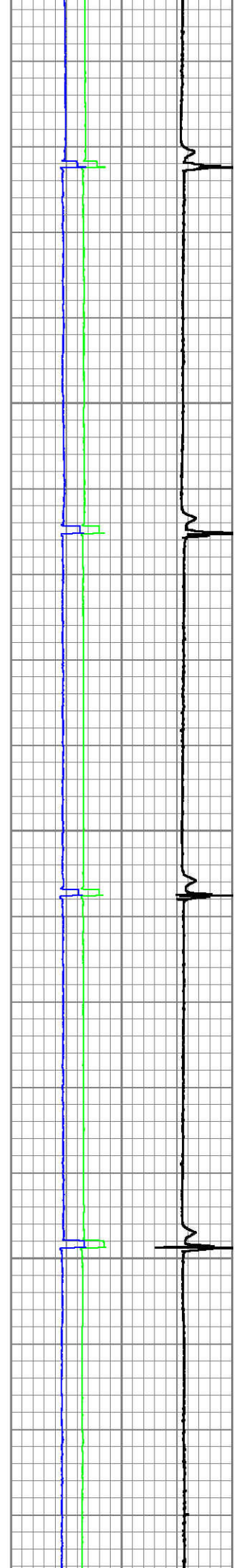
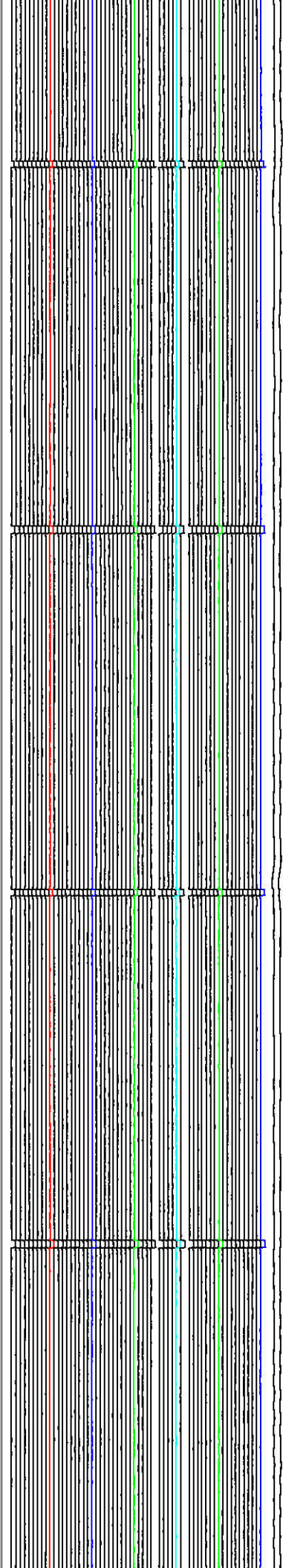


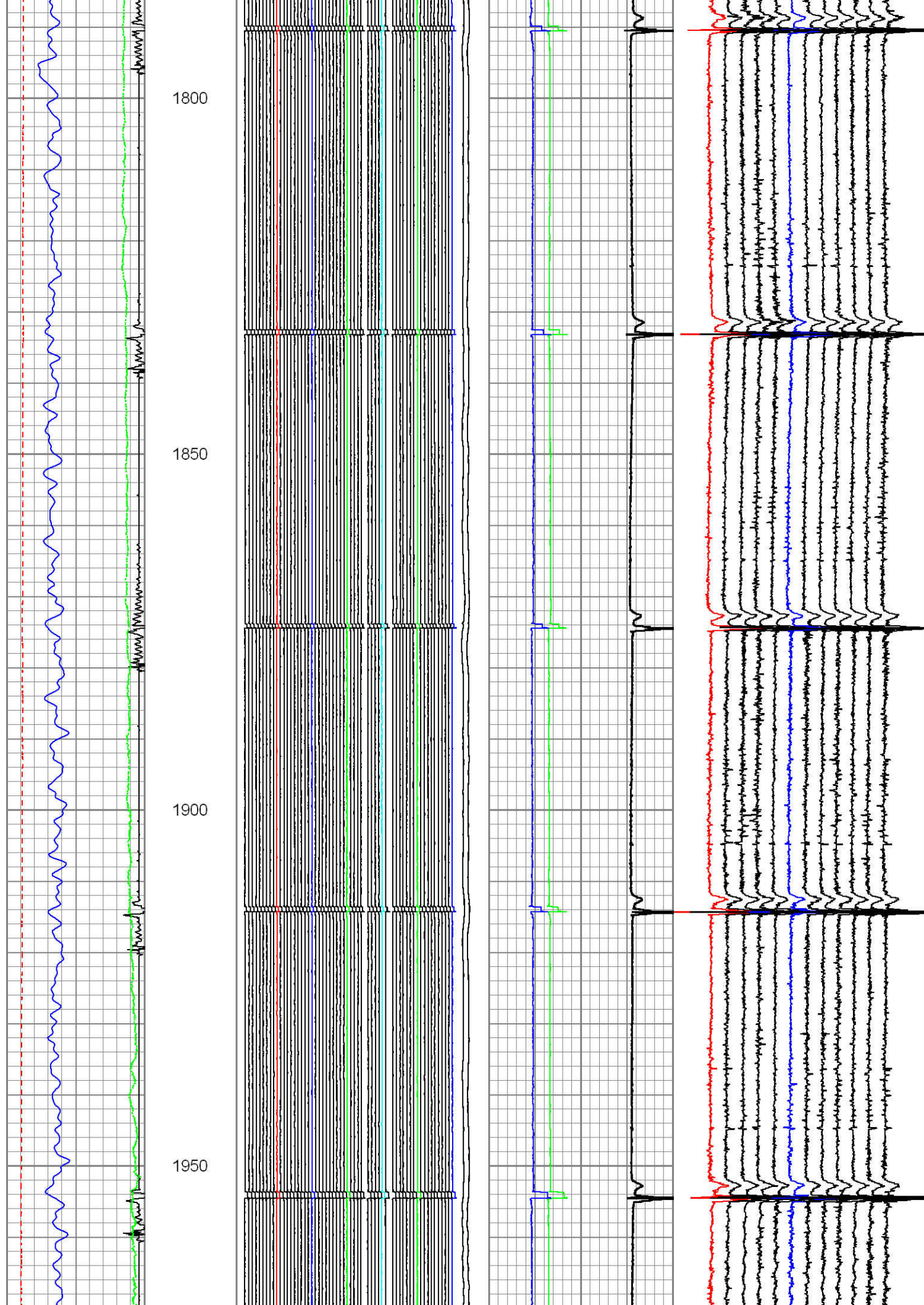


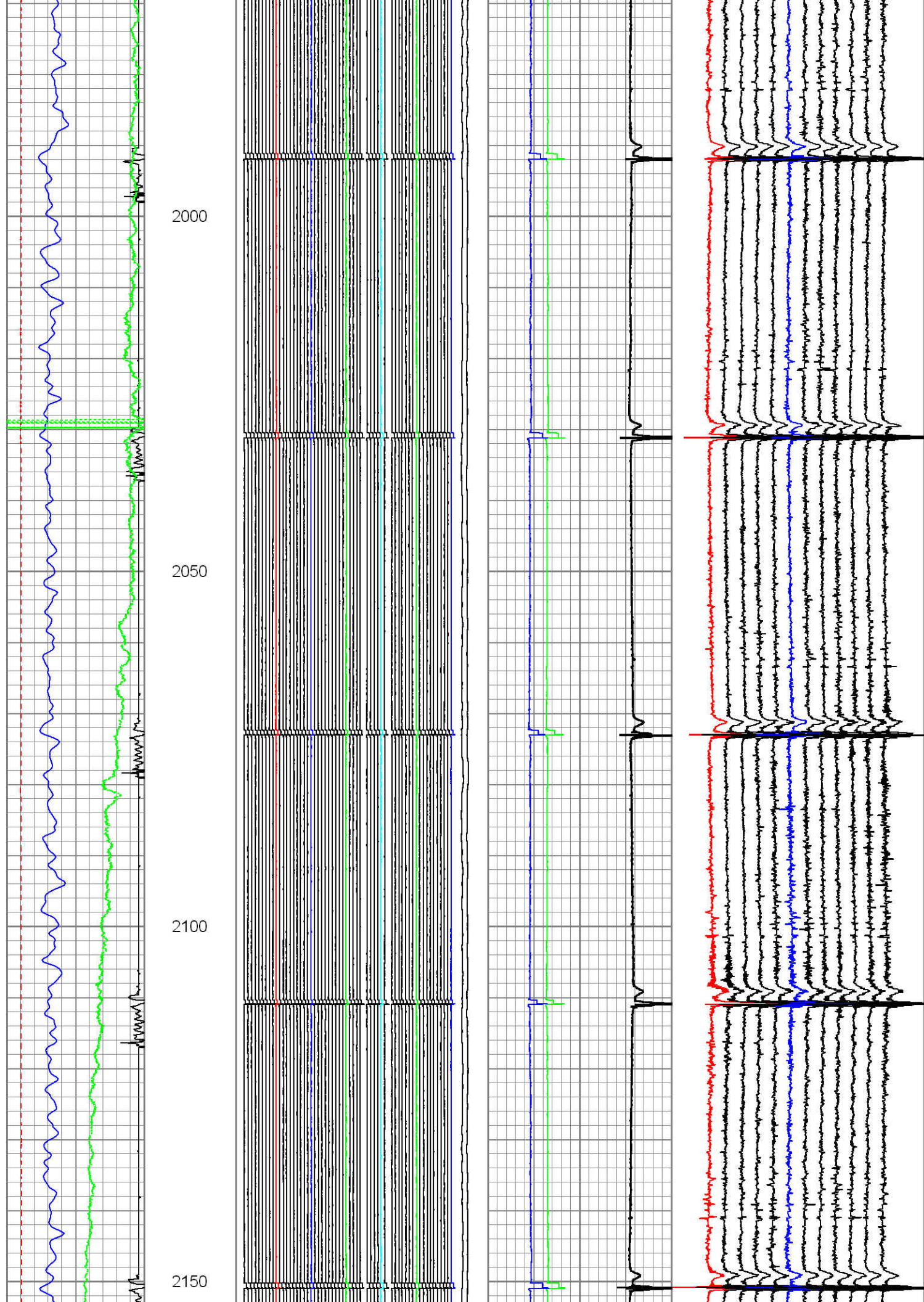
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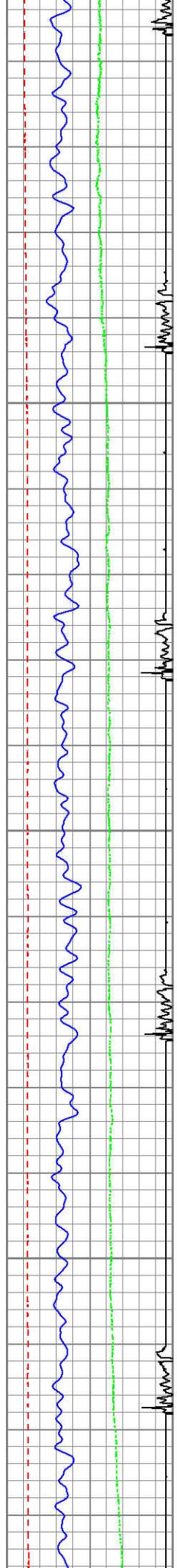
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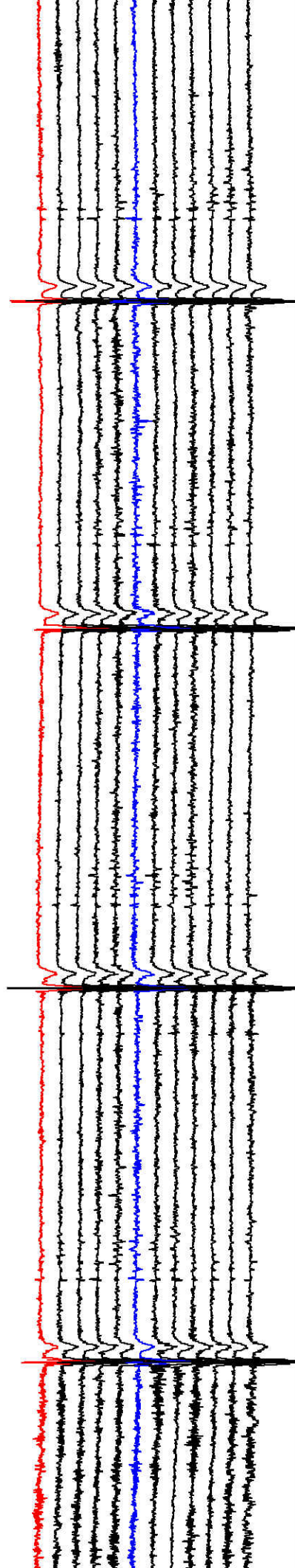
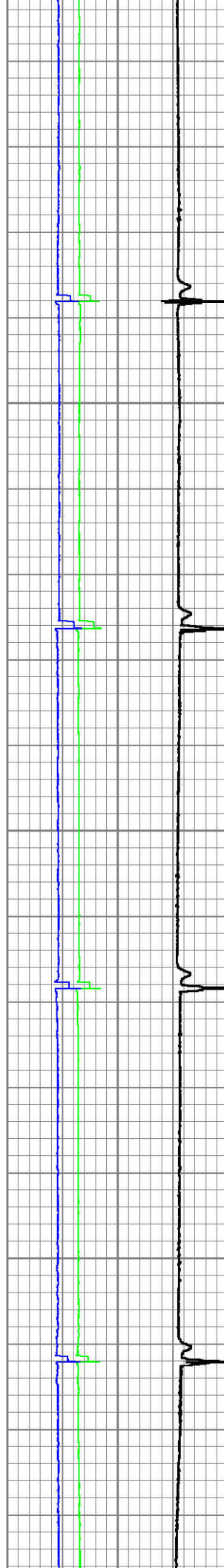
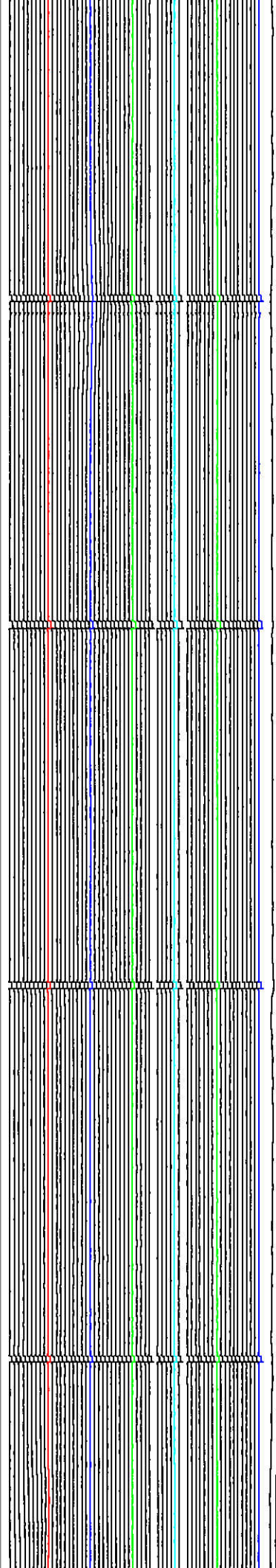


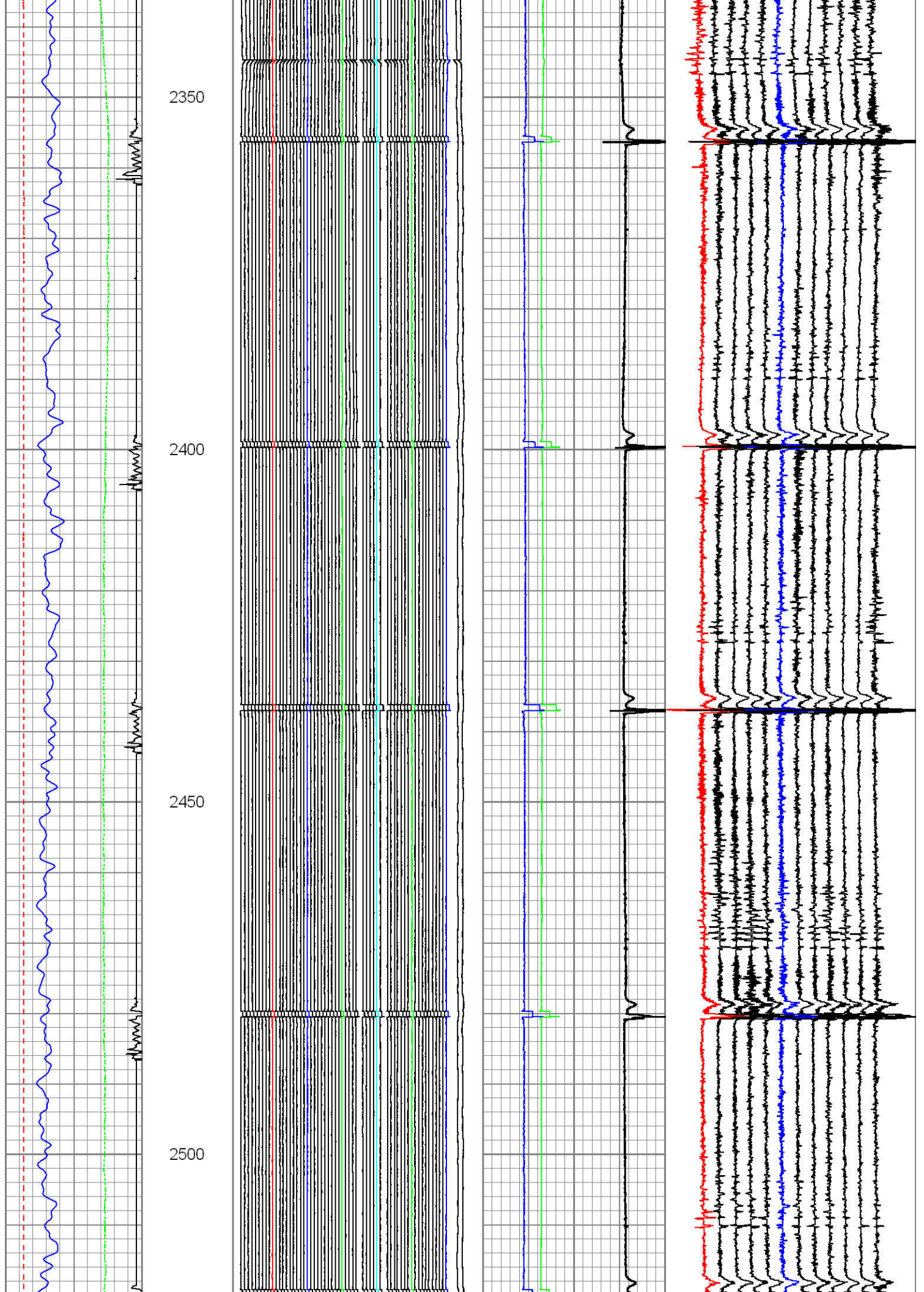


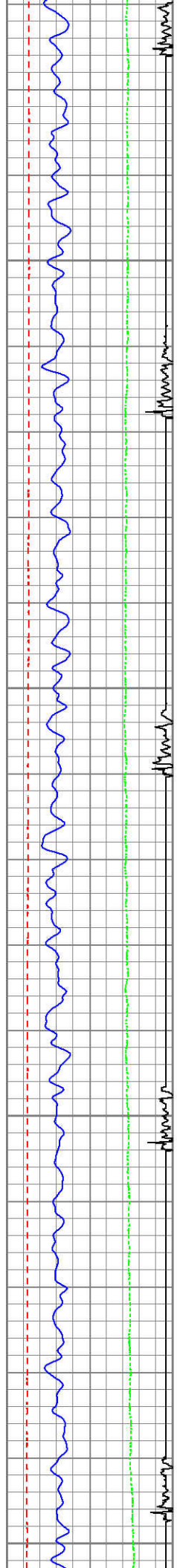
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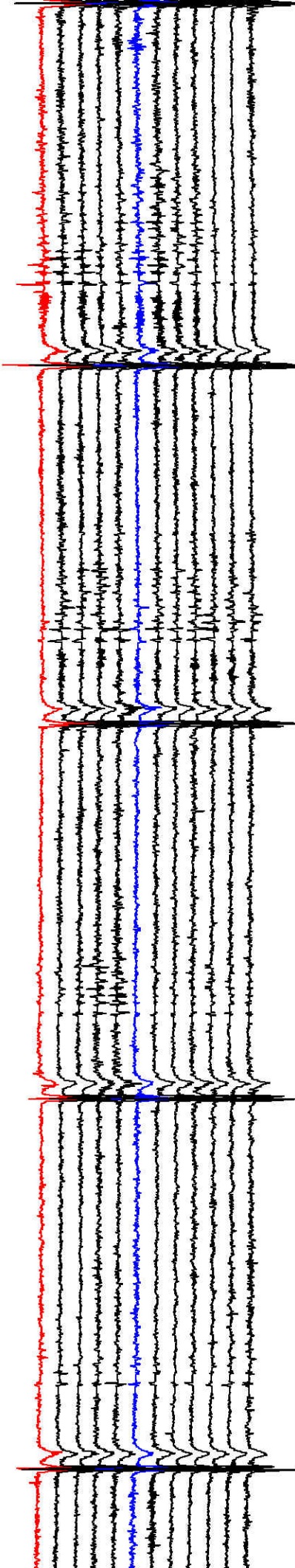
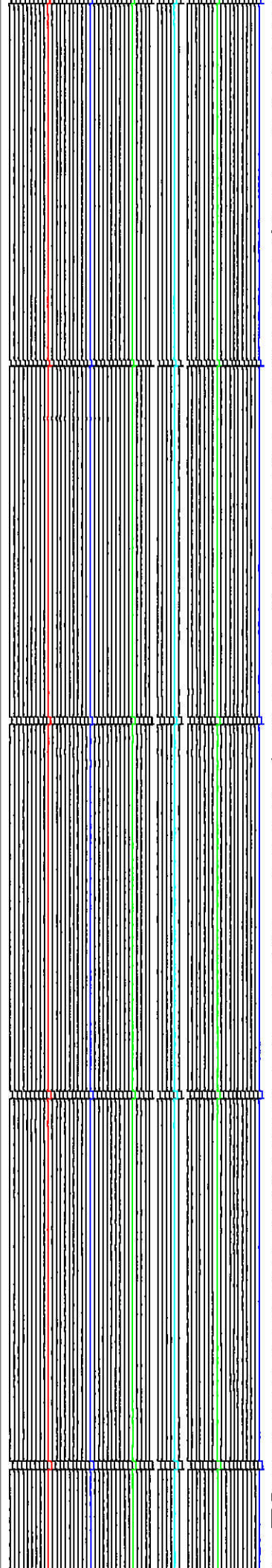


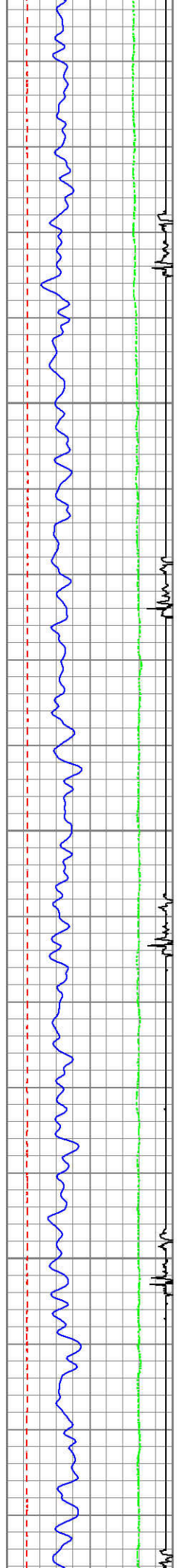
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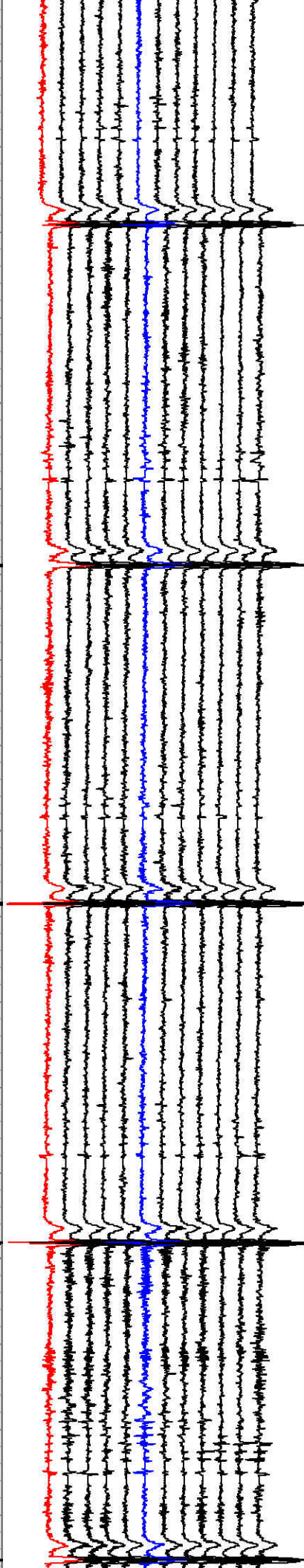
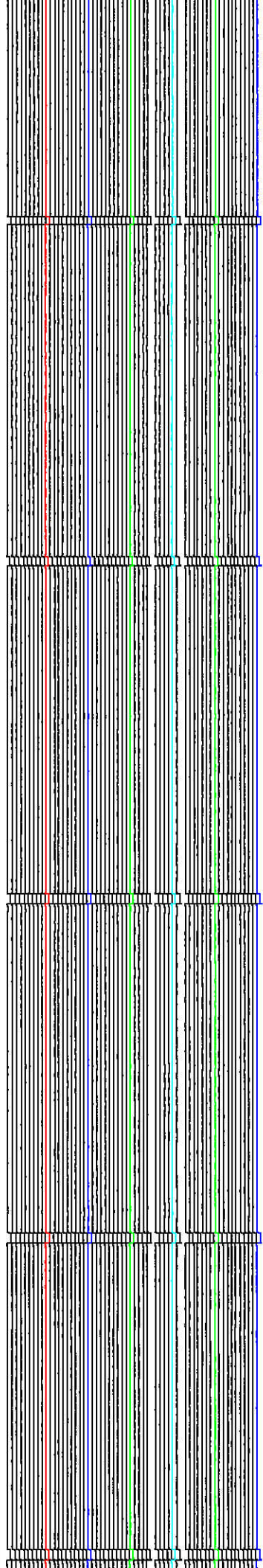


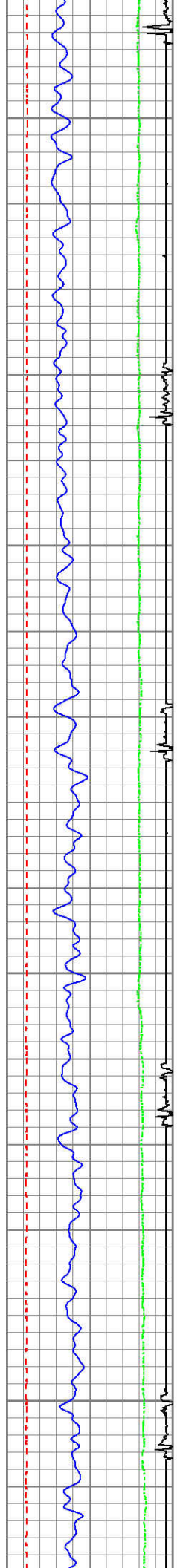


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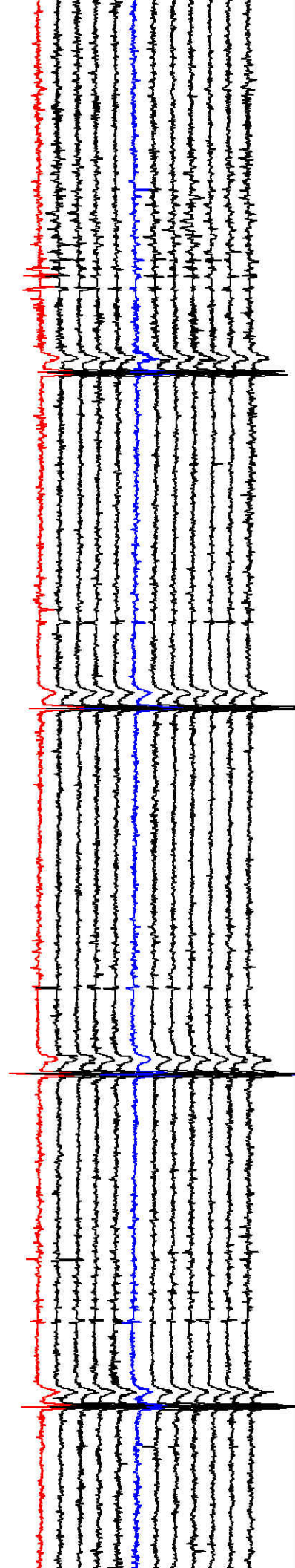
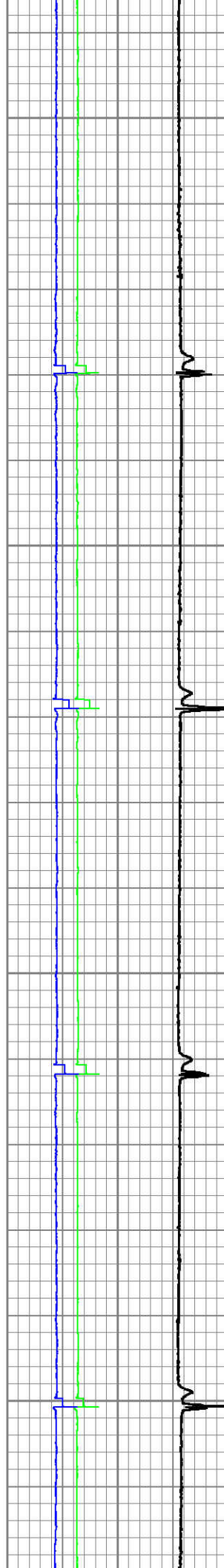
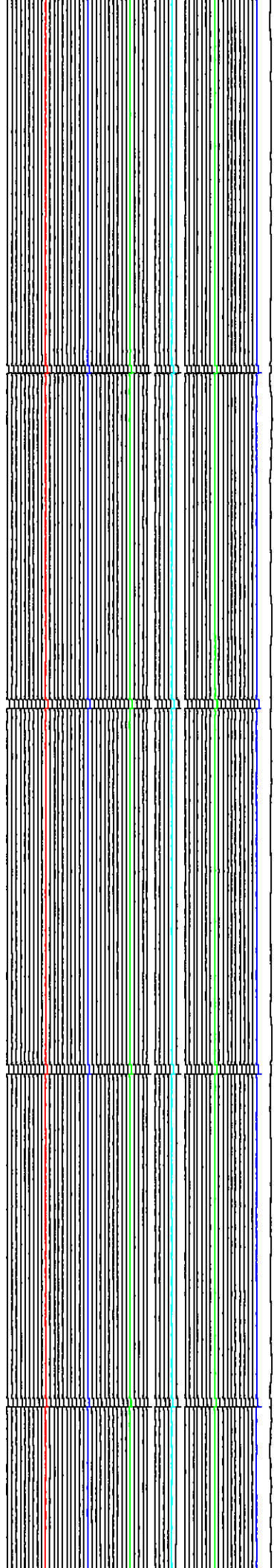


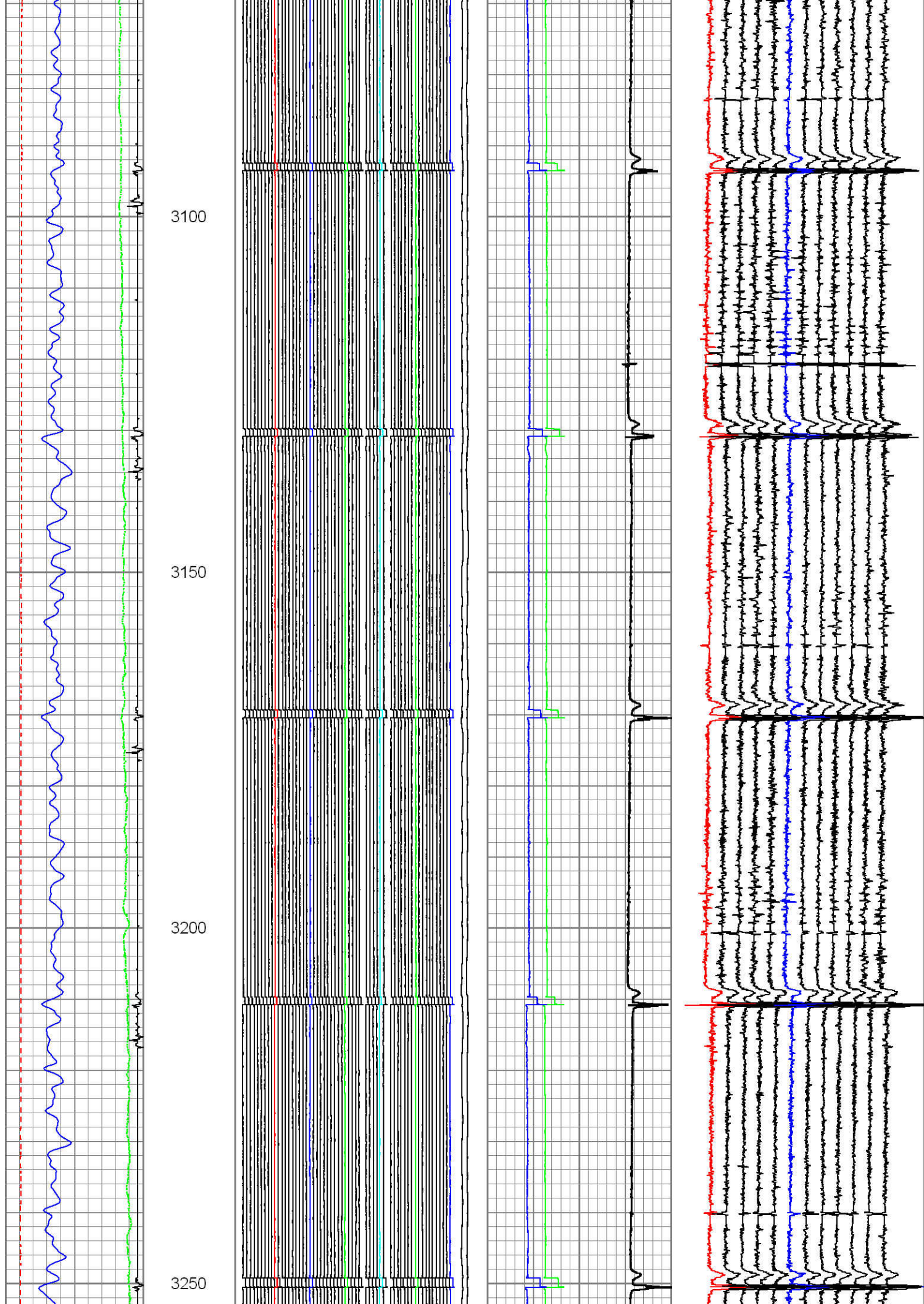
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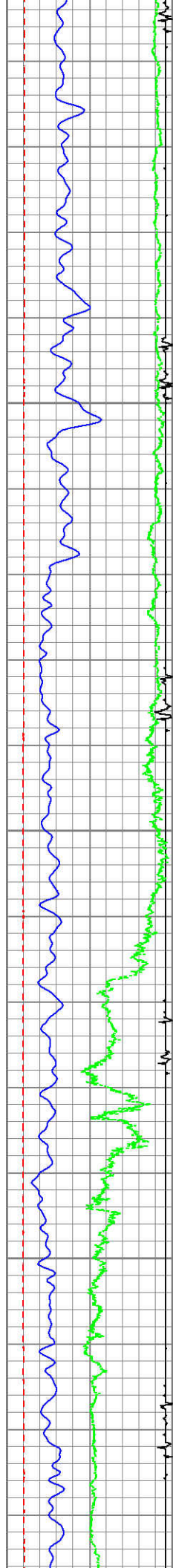
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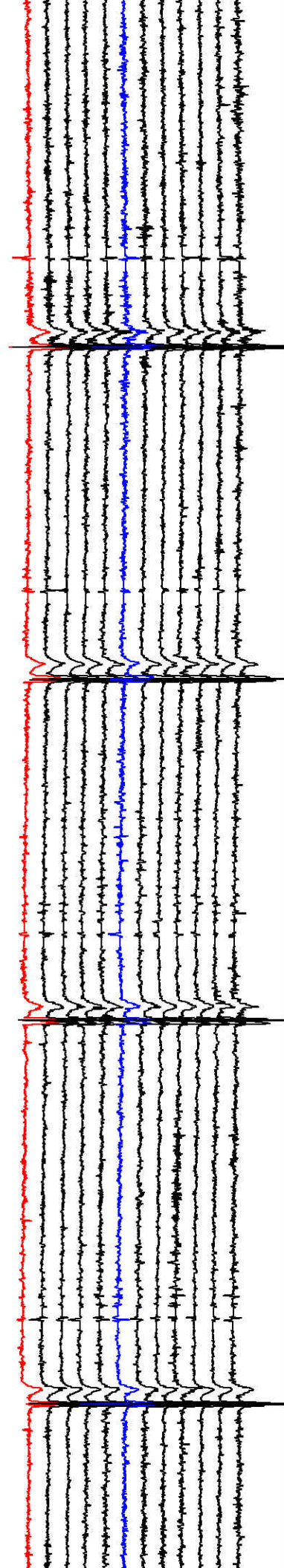
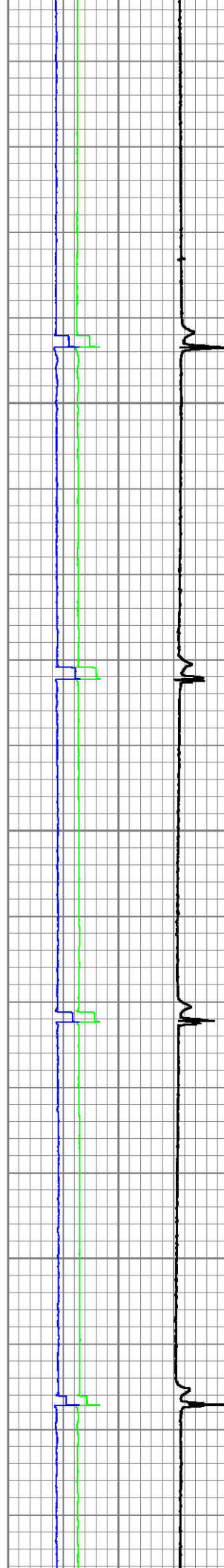
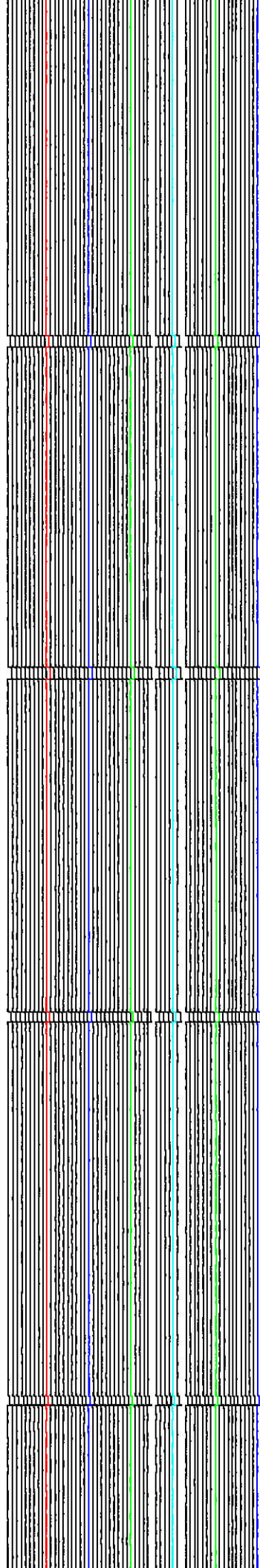


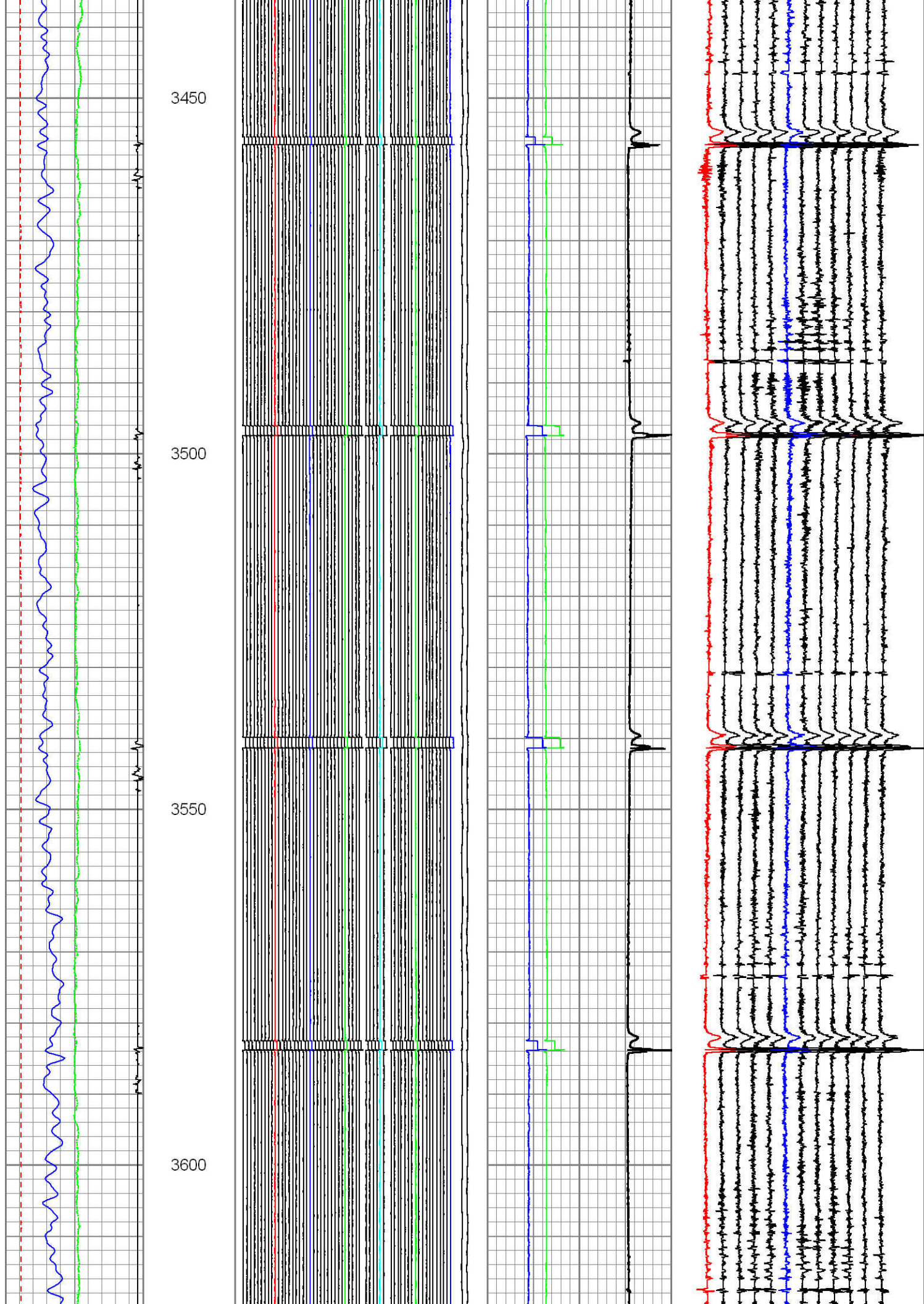


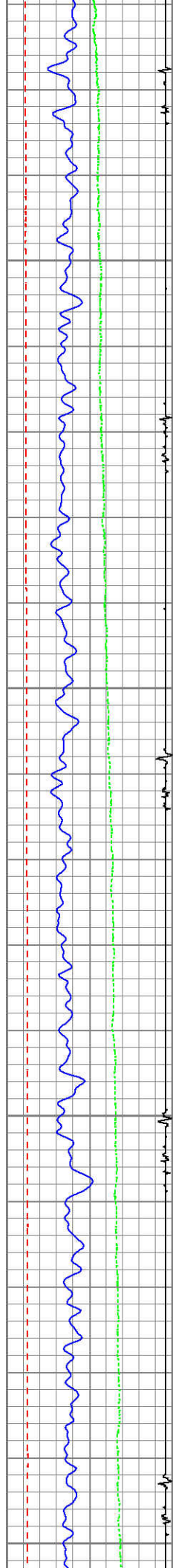
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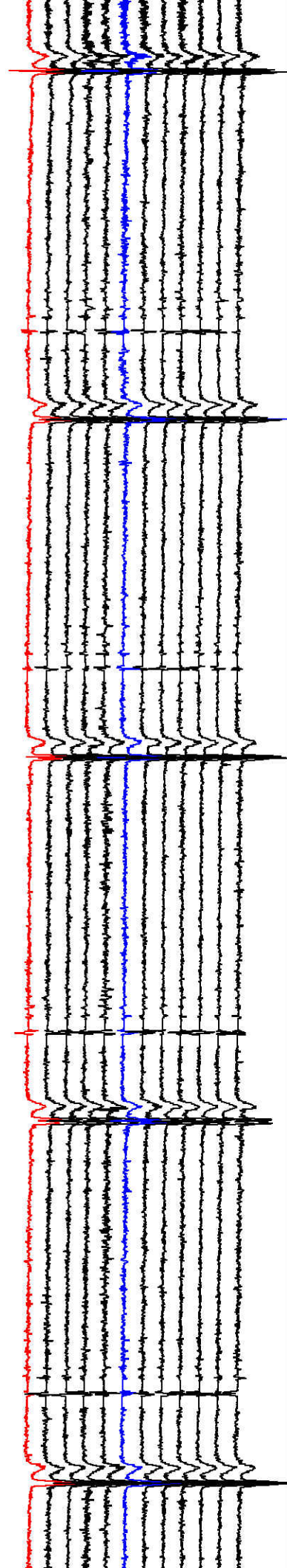
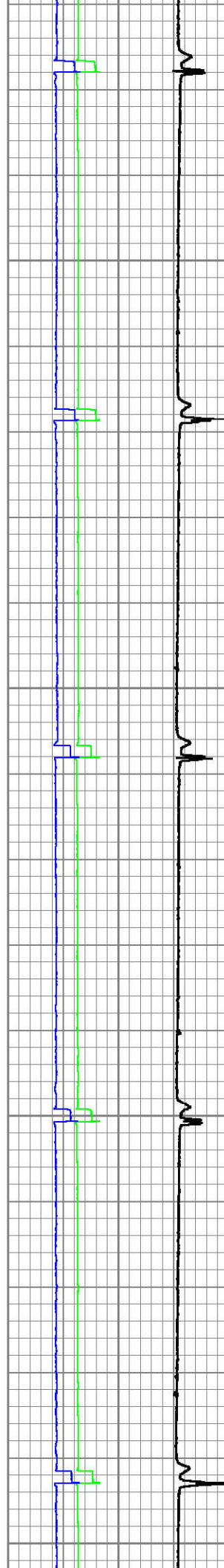
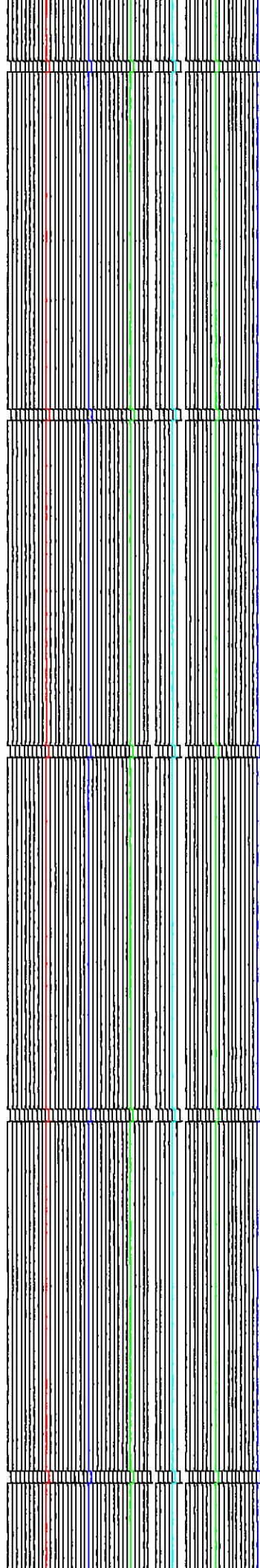


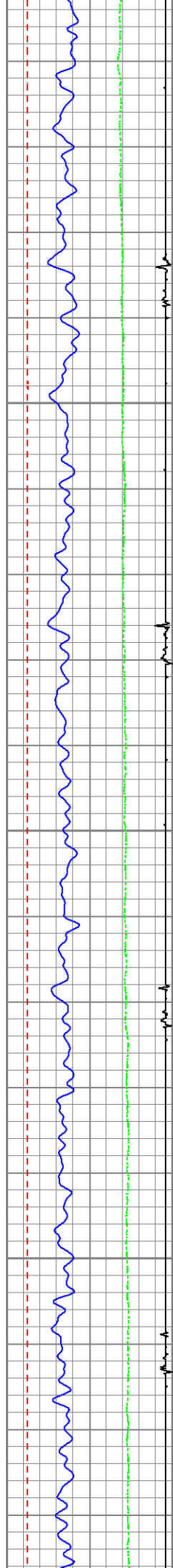
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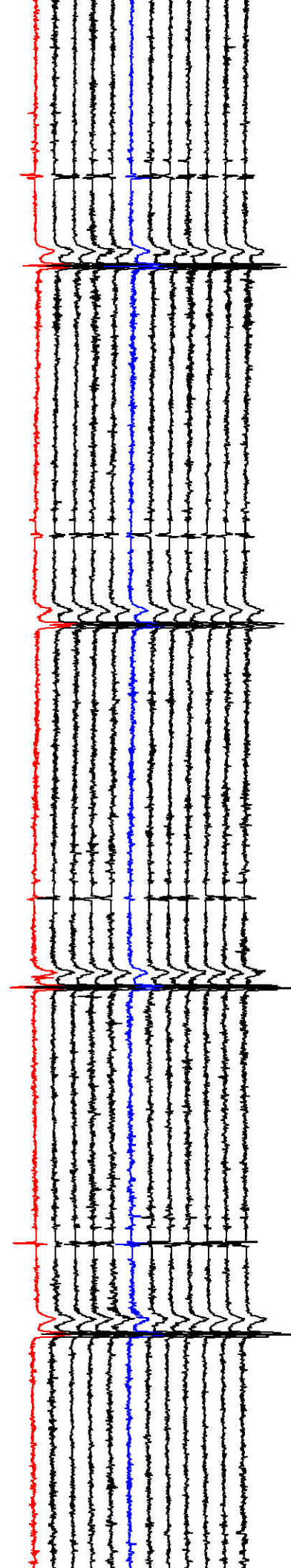
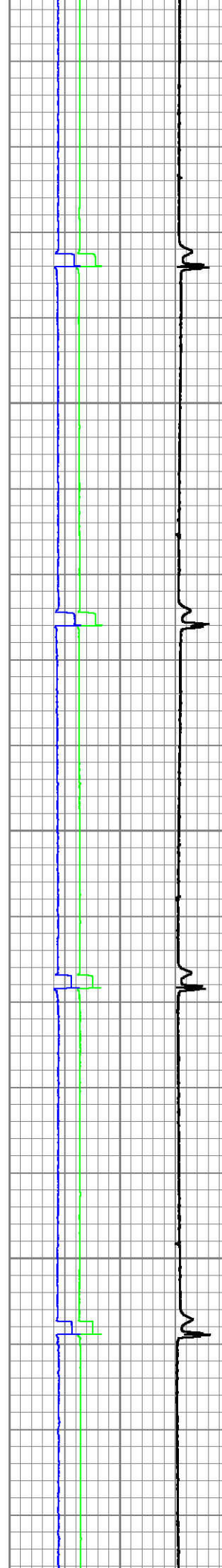
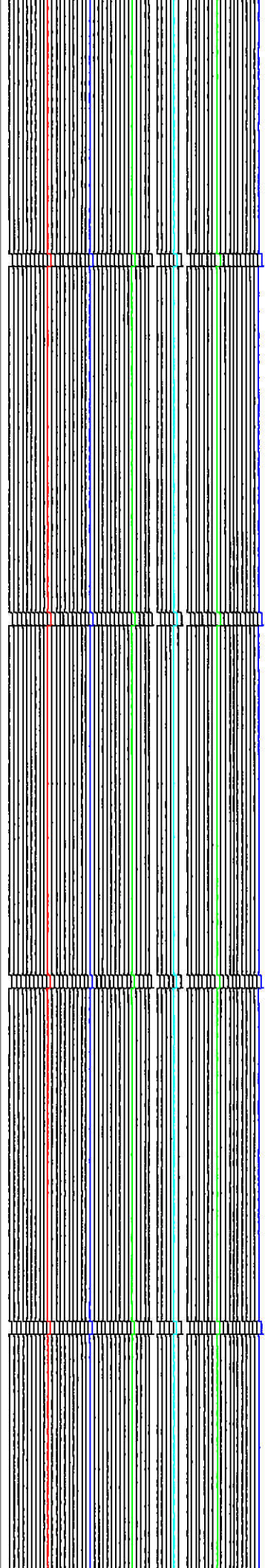


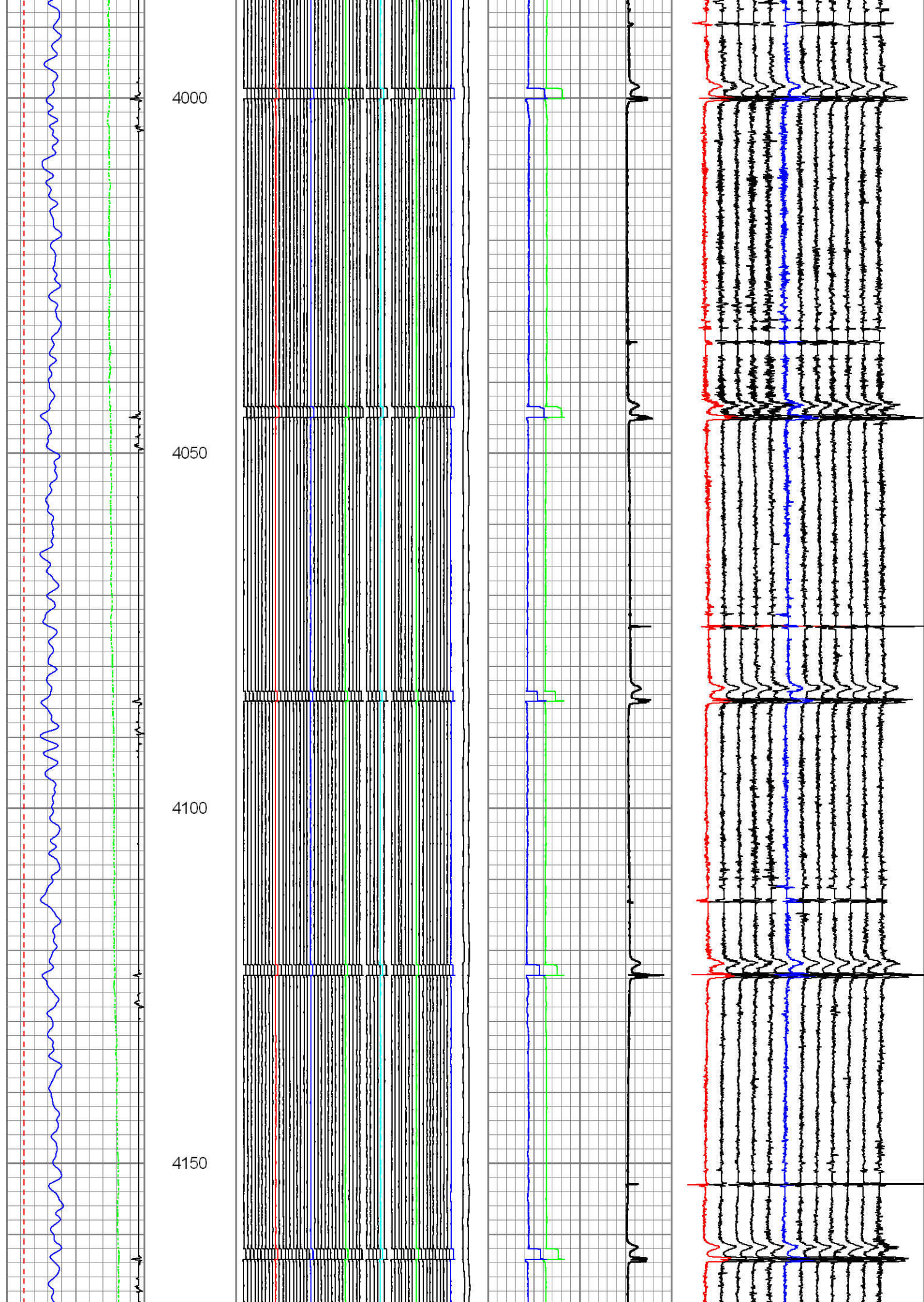


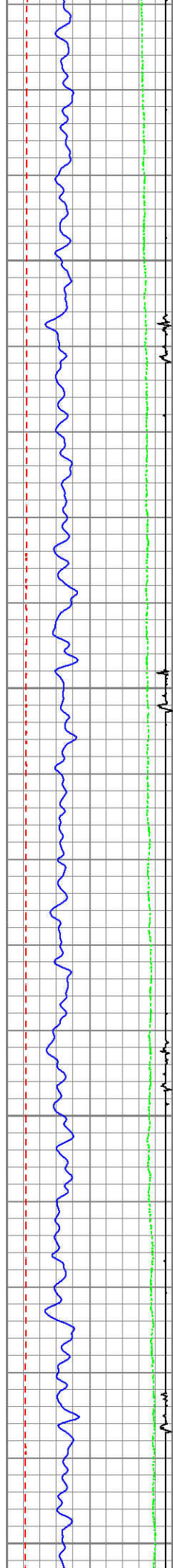
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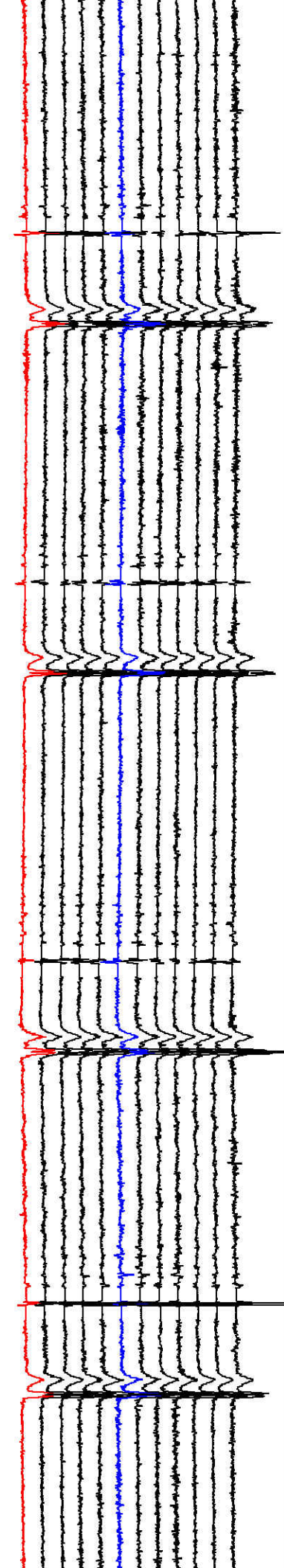
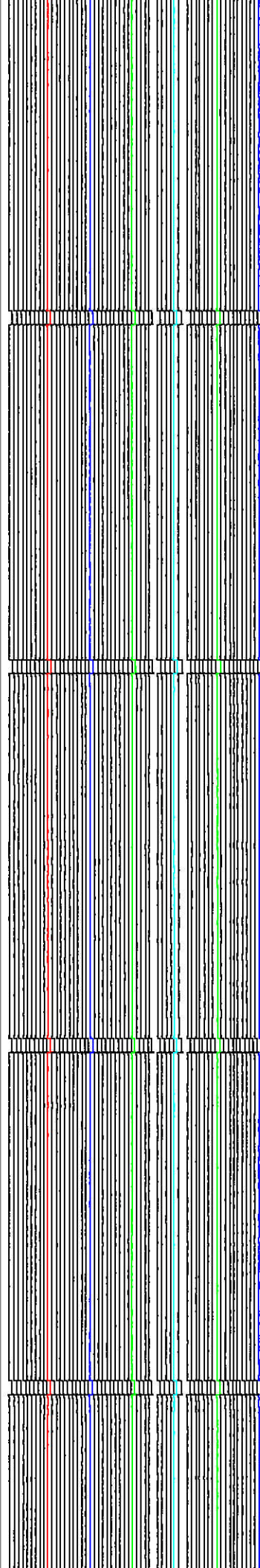


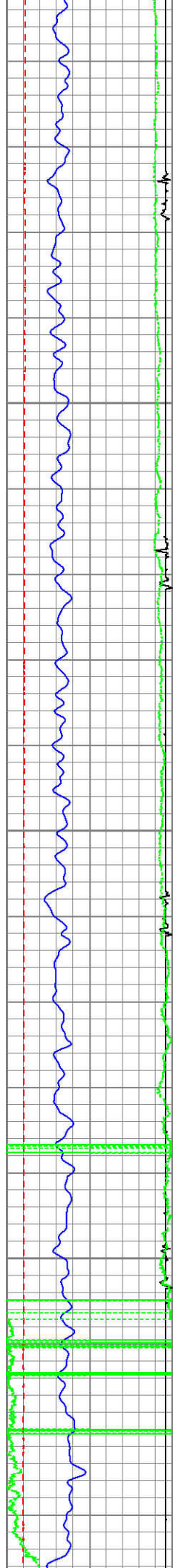
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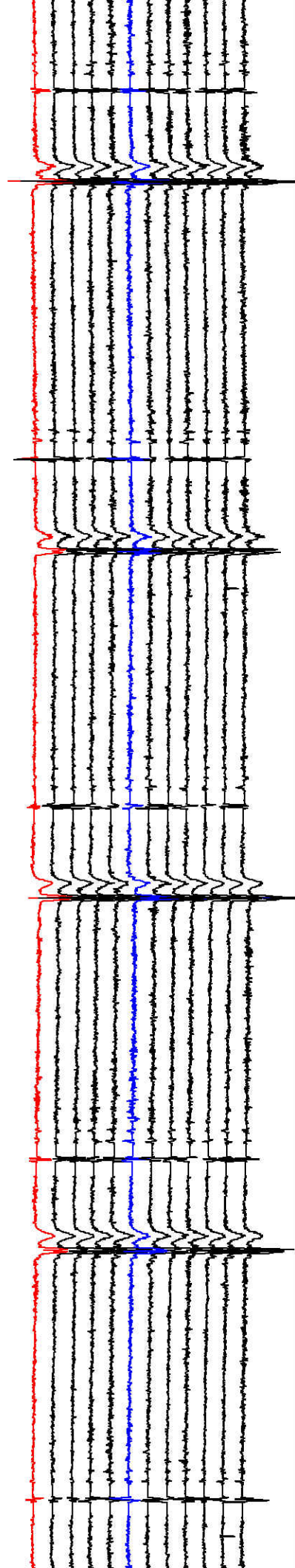
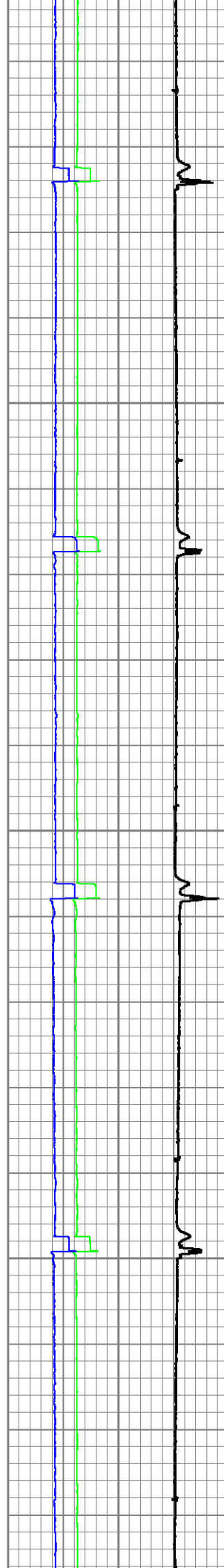
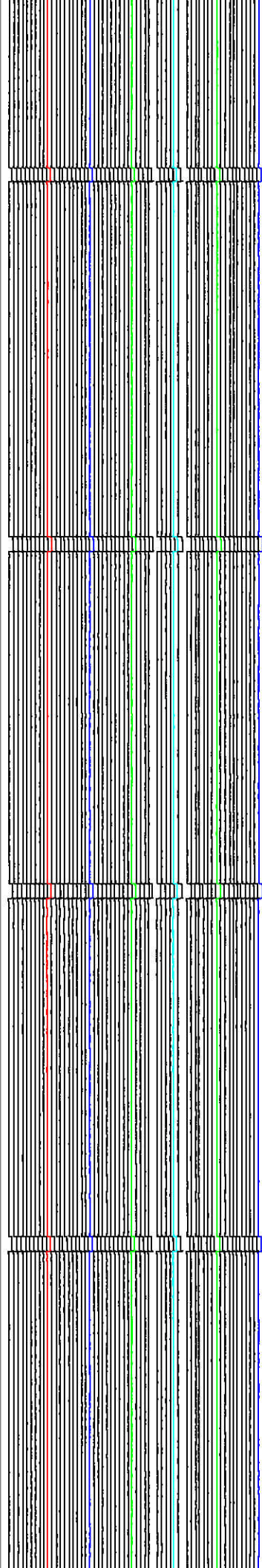


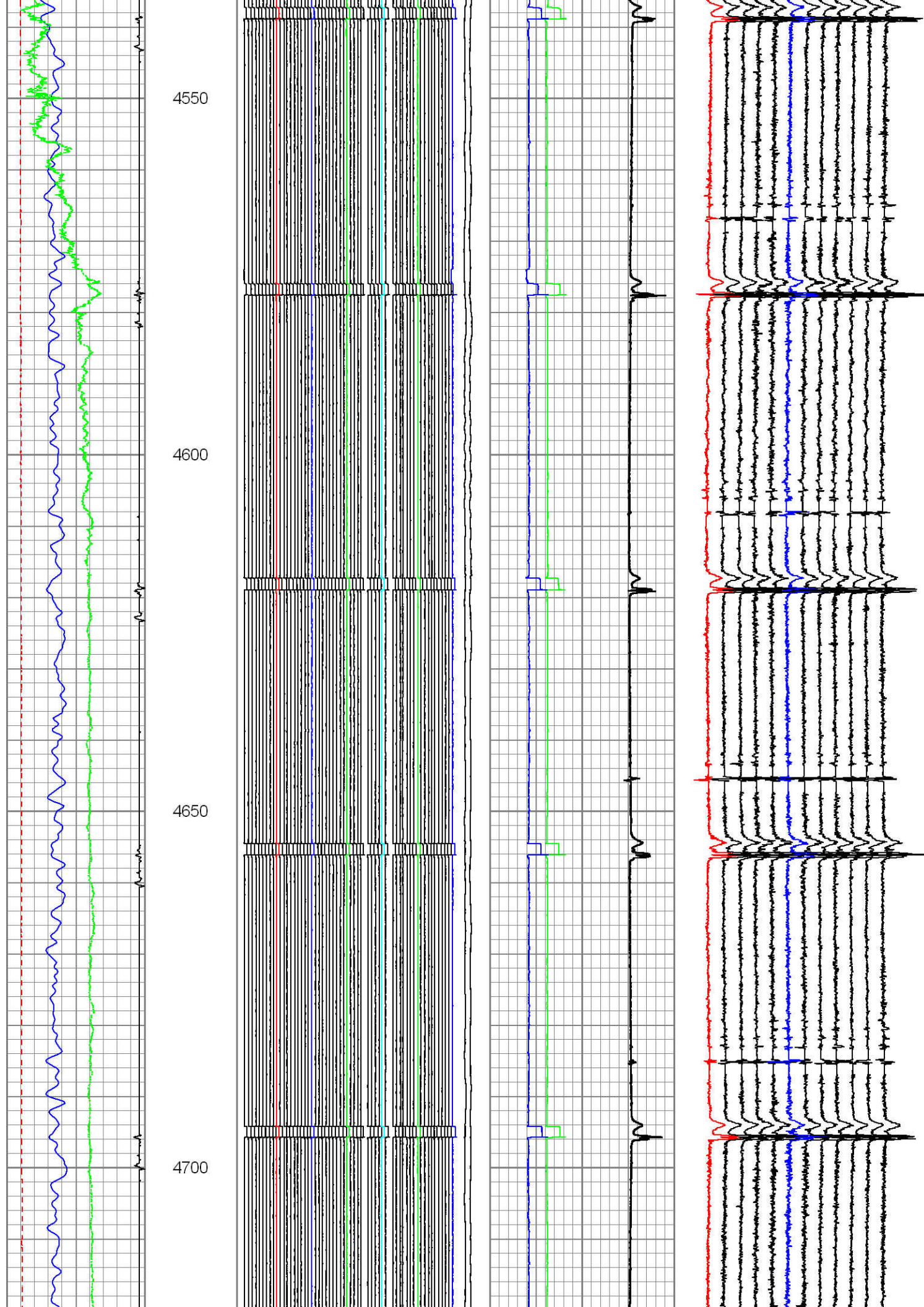


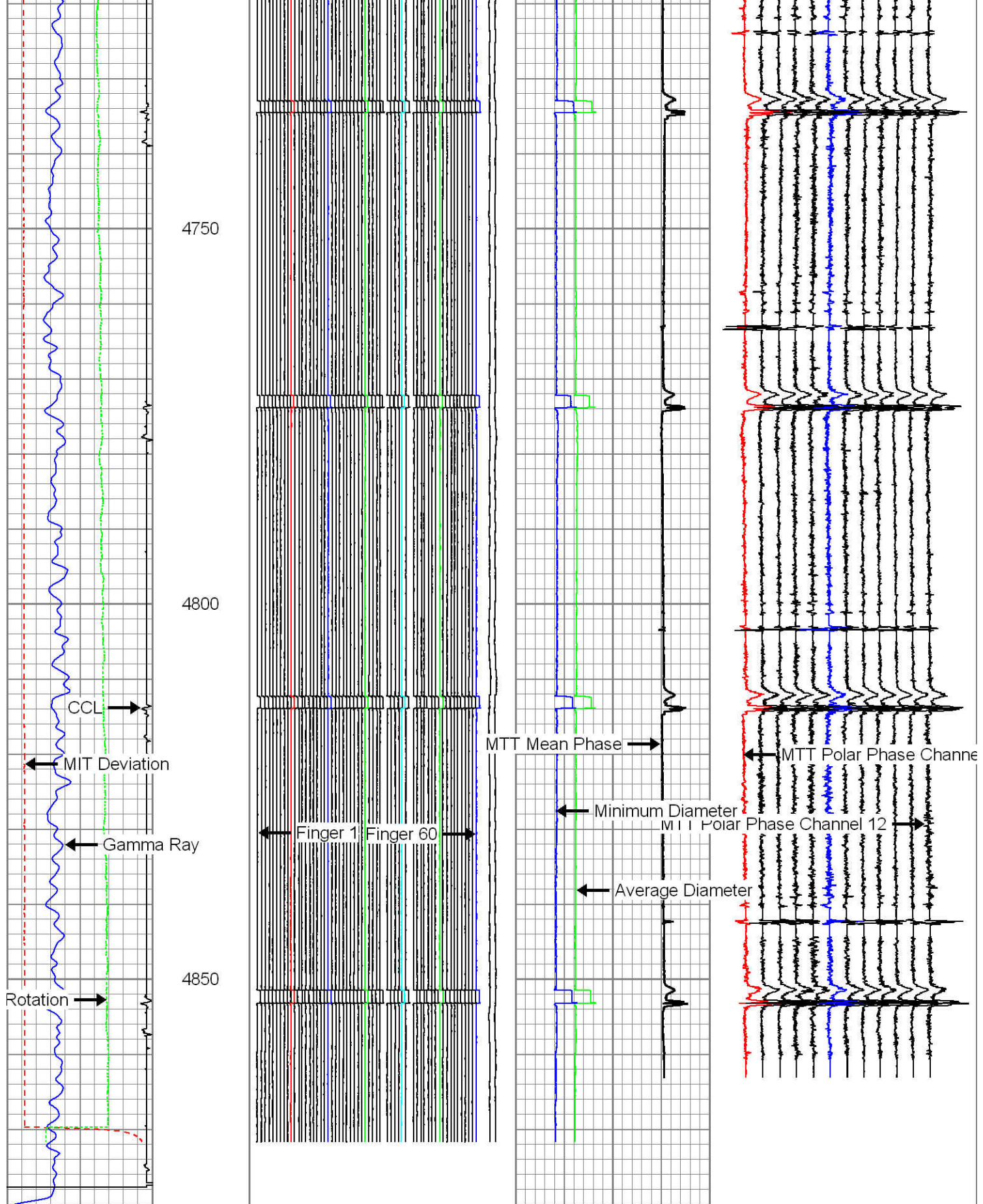
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4500








MIT Deviation	2.559	FING01 (in)	16.732	Average Diameter	MTT	1	MTTP01 (rad)	9
-10 (°) 90	0.787	FING10 (in)	14.961		Mean	0.5	MTTP02 (rad)	8.5
Gamma Ray	-1.181	FING20 (in)	12.992	5.1847.184	Phase	-4	MTTP11 (rad)	4
0 (GAPI) 120	-5.118	FING40 (in)	9.055			-4.5	MTTP12 (rad)	3.5
-1250 CCL 50	-9.055	FING60 (in)	5.118	Minimum Diameter	0 (rad) 4			
MIT Rotation	-7.087	FING50 (in)	7.087	5.1847.184				

MIT Rotation					
0	(°)	360			
				Maximum Diameter	
				5.184r7.184	
				Nominal Diameter	
				5.184r7.184	



REPEAT PASS

Database File: whiting razor27-3418h.db

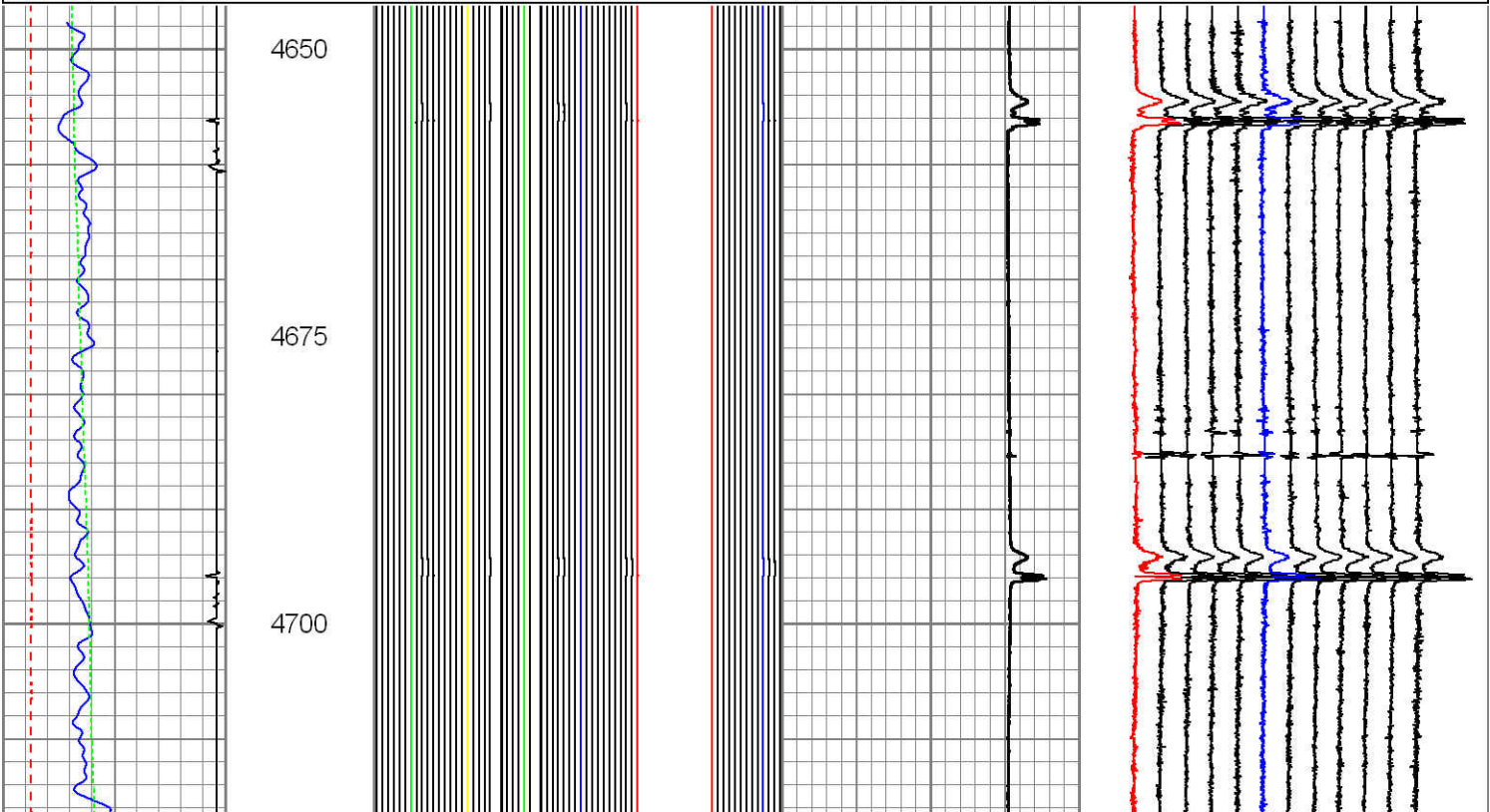
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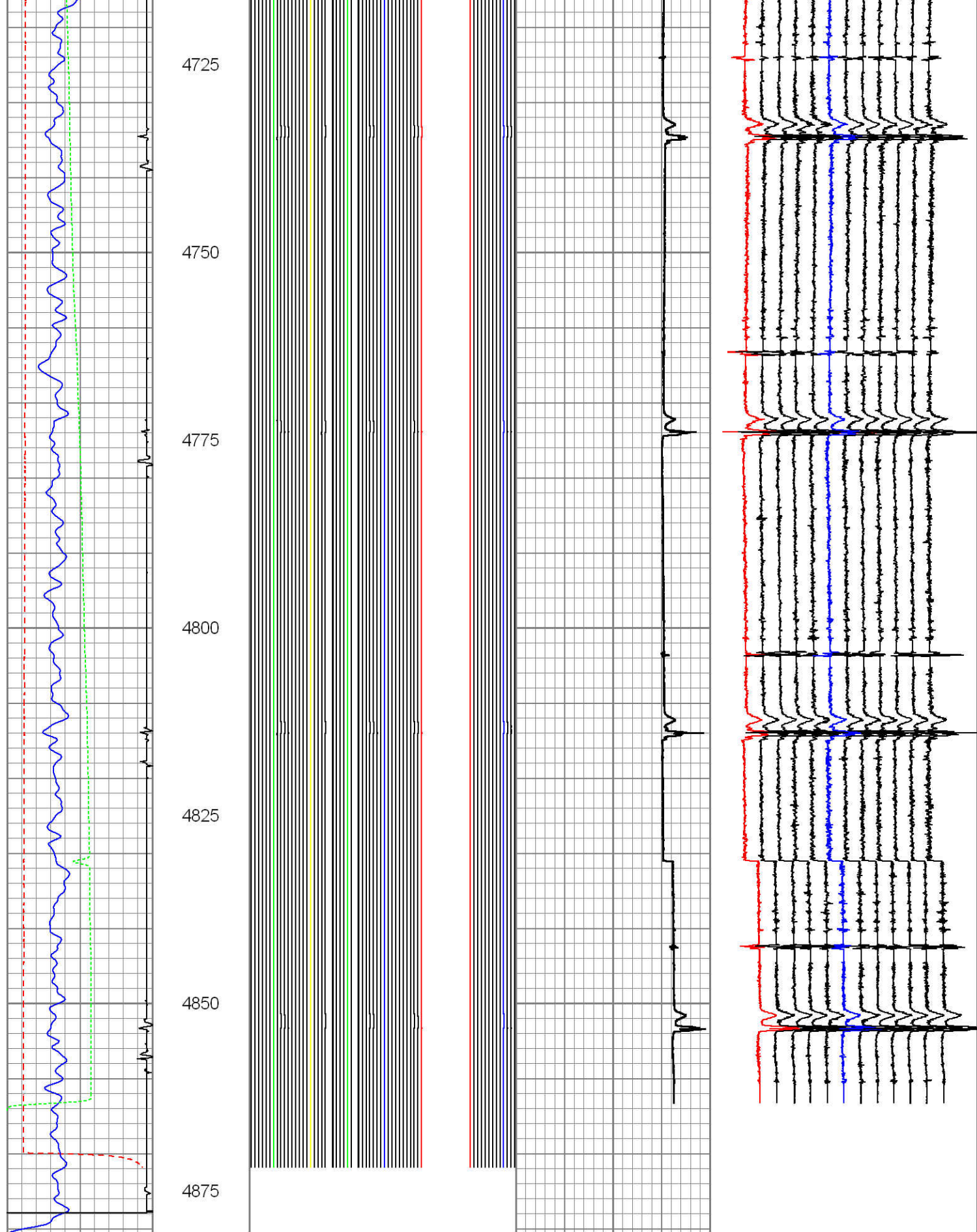
Presentation Format: mtt60_244

Dataset Creation: Fri Jan 18 19:27:17 2013 by Log Sondex V7.03

Charted by: Depth in Feet scaled 1:200

MIT Deviation		65	FING1 (in)	425	Average Diameter		MTT	1	MTTP01 (rad)	9
-10	(°)	90					Mean	0.5	MTTP02 (rad)	8.5
Gamma Ray		-125	FING39 (in)	235	142 (in) 182		Phase	-4	MTTP11 (rad)	4
0	(GAPI)	120	-130	FING40 (in)	230			-4.5	MTTP12 (rad)	3.5
-1250	CCL	50	-230	FING60 (in)	130	Minimum Diameter	0	(rad)	4	
MTT Rotation		-175	FING49 (in)	185	142 (in) 182					
0	(°)	360	-180	FING50 (in)	180	Maximum Diameter				
			-225	FING59 (in)	135	142 (in) 182				
						Nominal Diameter				
						142 (in) 182				





MIT Deviation	65	FING1 (in)	425	Average Diameter	MTT Mean Phase	1	MTTP01 (rad)	9
-10 (°) 90	60	FING02 (in)	420			0.5	MTTP02 (rad)	8.5
Gamma Ray	-125	FING39 (in)	235	142 (in) 182		-4	MTTP11 (rad)	4
0 (GAPI) 120	-130	FING40 (in)	230	Minimum Diameter	0 (rad) 4	-4.5	MTTP12 (rad)	3.5
-1250 CCL 50	-230	FING60 (in)	130					

MTT Rotation	-175	FING49 (in)	185	142 (in) 182
0 (°) 360	-180	FING50 (in)	180	Maximum Diameter
	-225	FING59 (in)	135	142 (in) 182
				Nominal Diameter
				142 (in) 182

FMCTechnologies

RAZOR 27-3418H

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CompanyWHITING OIL & GAS
Well RAZOR 27-3414H
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County WELD
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