



RADIAL CEMENT BOND LOG
GAMMA RAY / CCL

Company ANTERO
Well TEN MILE 1H
Field MARCELLUS
County HARRISON State WV

Location: API #: N/A
4703305645
Other Services
NONE

Company ANTERO
Well TEN MILE 1H
Field MARCELLUS
County HARRISON
State WV

Permanent Datum G.L.
Log Measured From K.B.20 FT
Drilling Measured From KELLY BUSHING

Elevation
K.B.
D.F.
G.L.

Date SEPT.11.2013
Run Number ONE
Depth Driller N/A
Depth Logger 7579'
Bottom Logged Interval 7566'
Top Log Interval SURFACE
Open Hole Size N/A
Type Fluid H2O
Density / Viscosity N/A
Max. Recorded Temp. N/A
Estimated Cement Top 2879'
Time Well Ready 2:55
Time Logger on Bottom 3:36
Equipment Number 107
Location WASHINGTON PA
Recorded By C.WESTERFIELD
Witnessed By MR.J.BRANSCUM

FIELD COPY

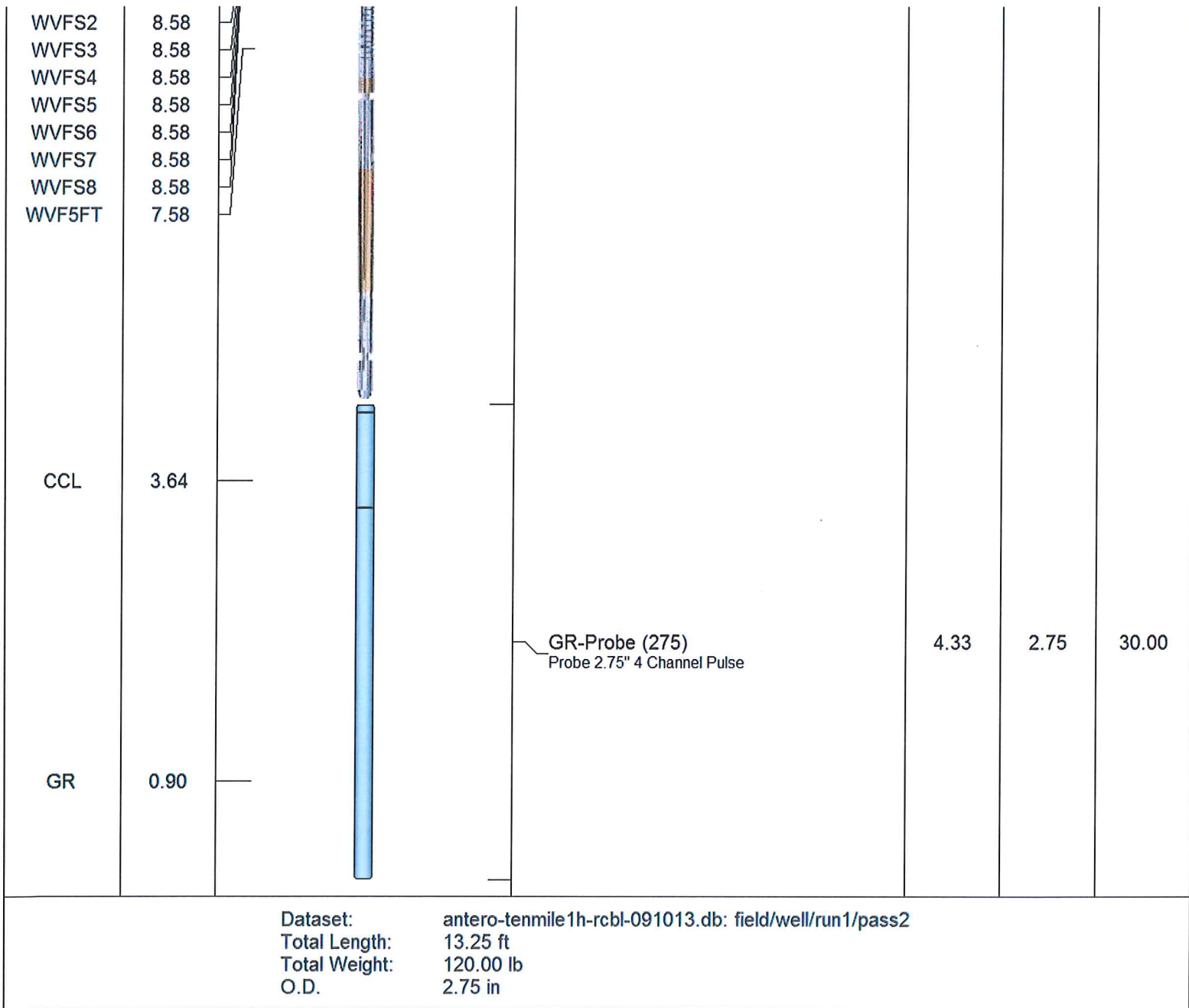
Run Number	Borehole Record		Tubing Record				
	Bit	From	To	Size	Weight	From	To
Casing Record							
Surface String		Size		Wgt/Ft		Top	Bottom
Prot. String							
Production String							
Liner							

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 MEASURED FROM 20 FT K.B
 ESTIMATED CEMENT TOP @ 2376'
 NO WELL INFO AT TIME OF JOB

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
HEADVOLT	13.25					
IntTemp	11.83					
WV3FT	8.58					
WVFCAL	8.58					
WVFS1	8.58					
			RBT-Probe (Base) Probe Radii Bond Tool with Digital Telemetry	8.92	2.75	90.00

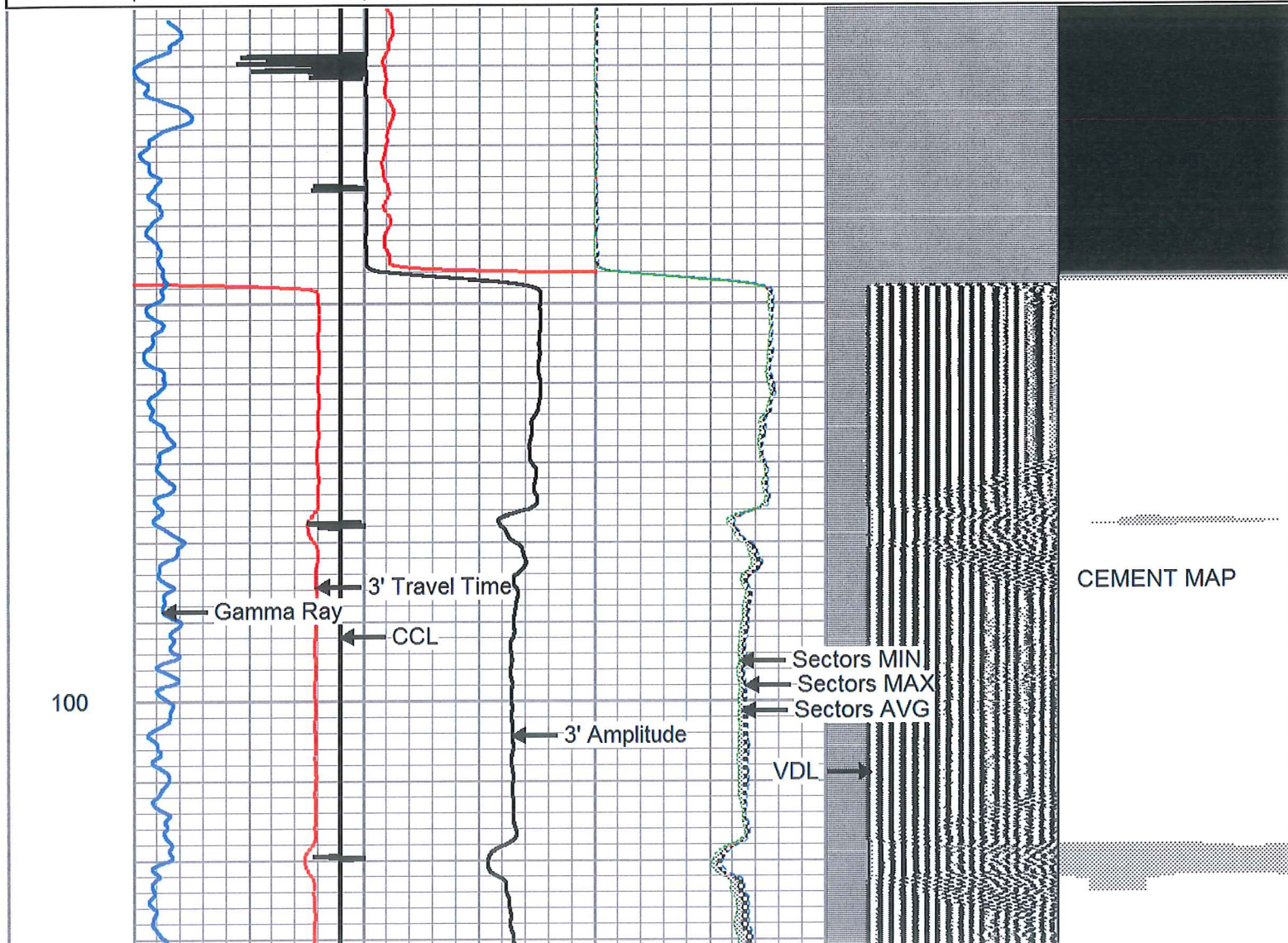




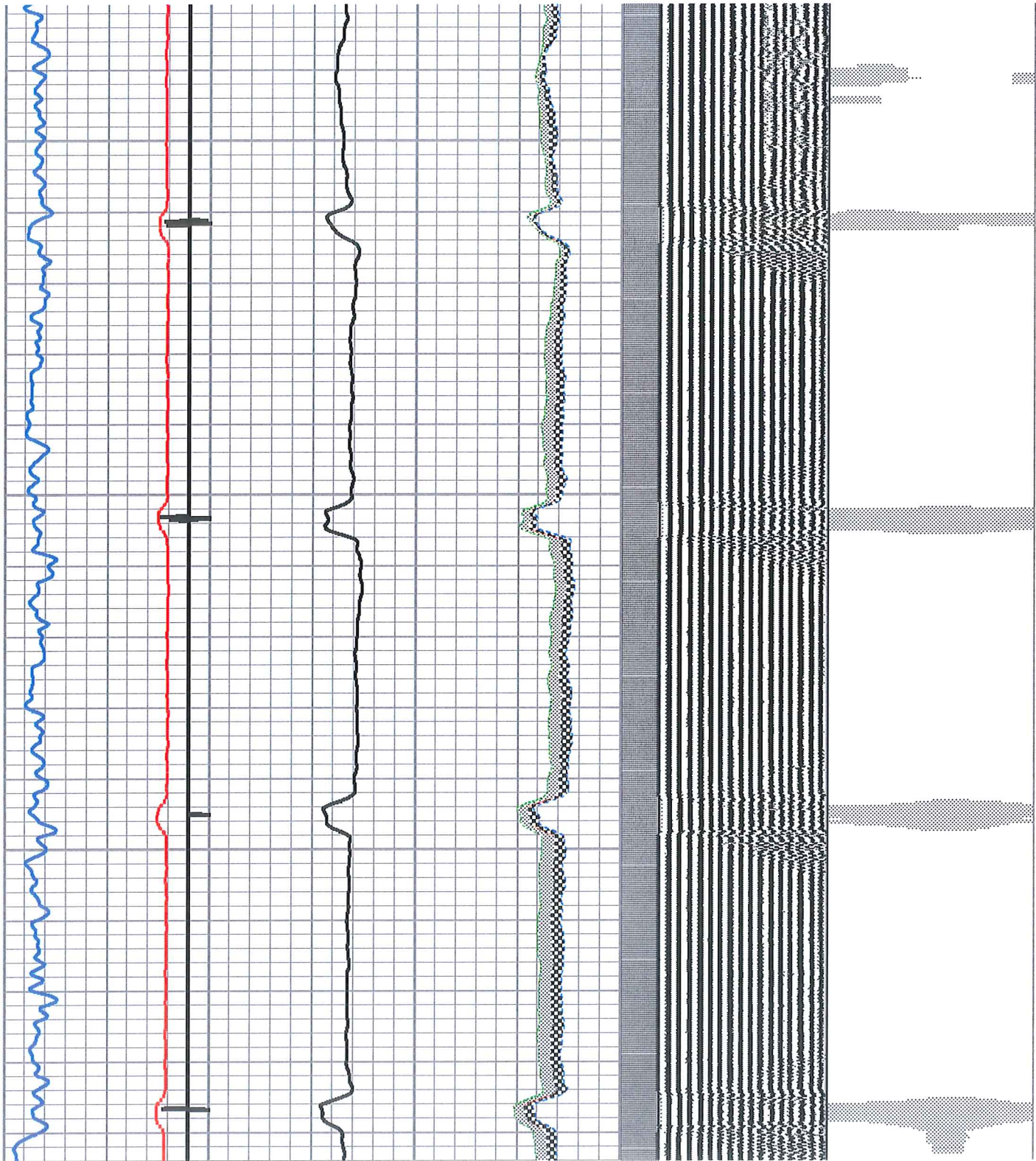
FREE PIPE PASS

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 Dataset Pathname: pass4
 Presentation Format: scbl02
 Dataset Creation: Wed Sep 11 05:18:17 2013 by Log SCH 120430
 Charted by: Depth in Feet scaled 1:240

	3' Travel Time	3' Amplitude	0 Sectors AVG 100	Variable Density	1 Cement Map	8
335 (usec)	235	0 (mV)	100	200	10	60
Gamma Ray	3' Amplitude x 10	0 Sectors MAX 100				
0 (GAPI)	150	0 (mV)	10			
-9 CCL	1					

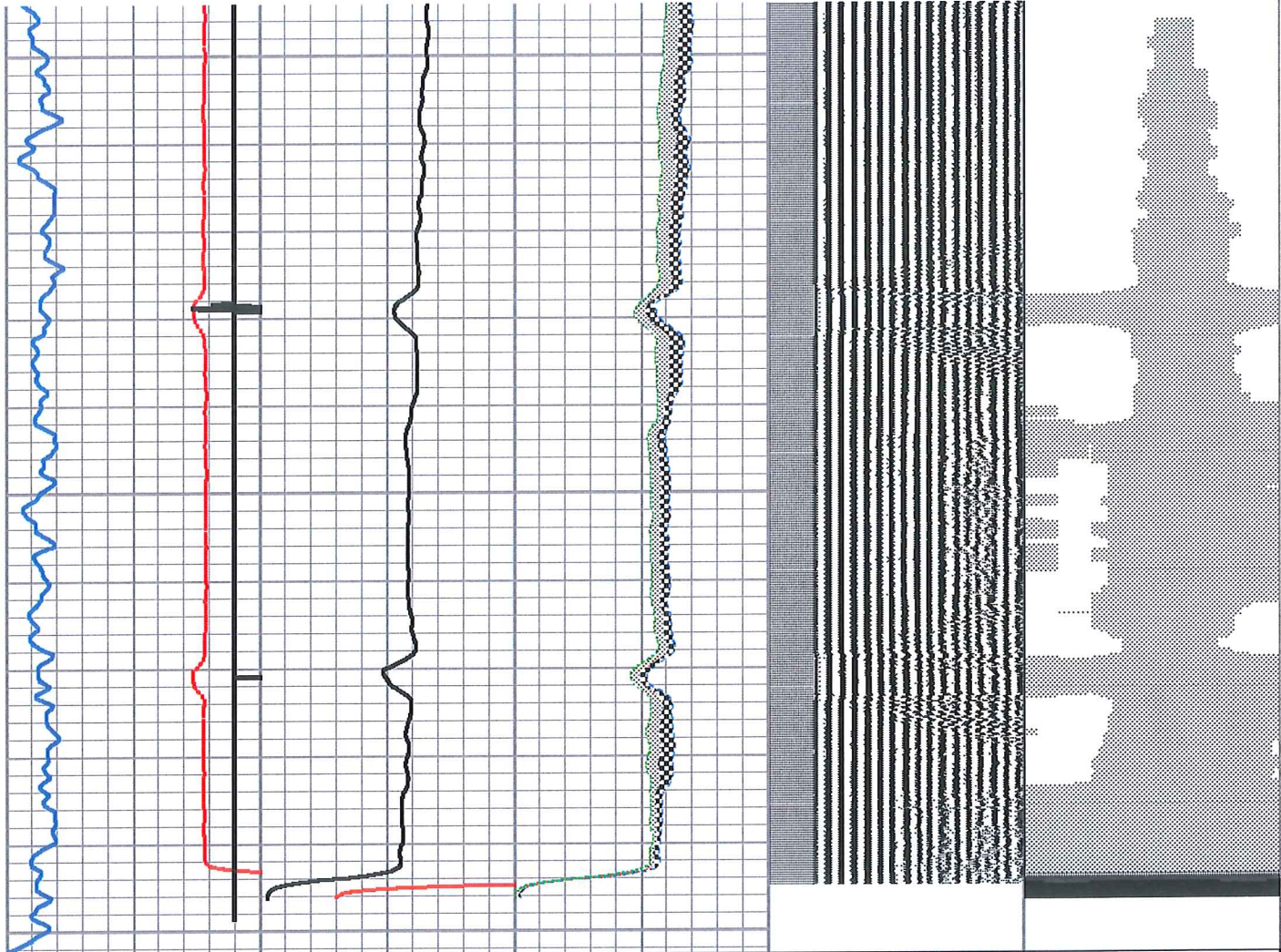


200



300

400



3' Travel Time	3' Amplitude	0 Sectors AVG	100	Variable Density	1 Cement Map	8
335 (usec)	235 0 (mV)	0 Sectors MAX	100	200	10	60
Gamma Ray	3' Amplitude x 10	0 Sectors MIN	100			
0 (GAPI)	150 0 (mV)		10			
-9 CCL	1					



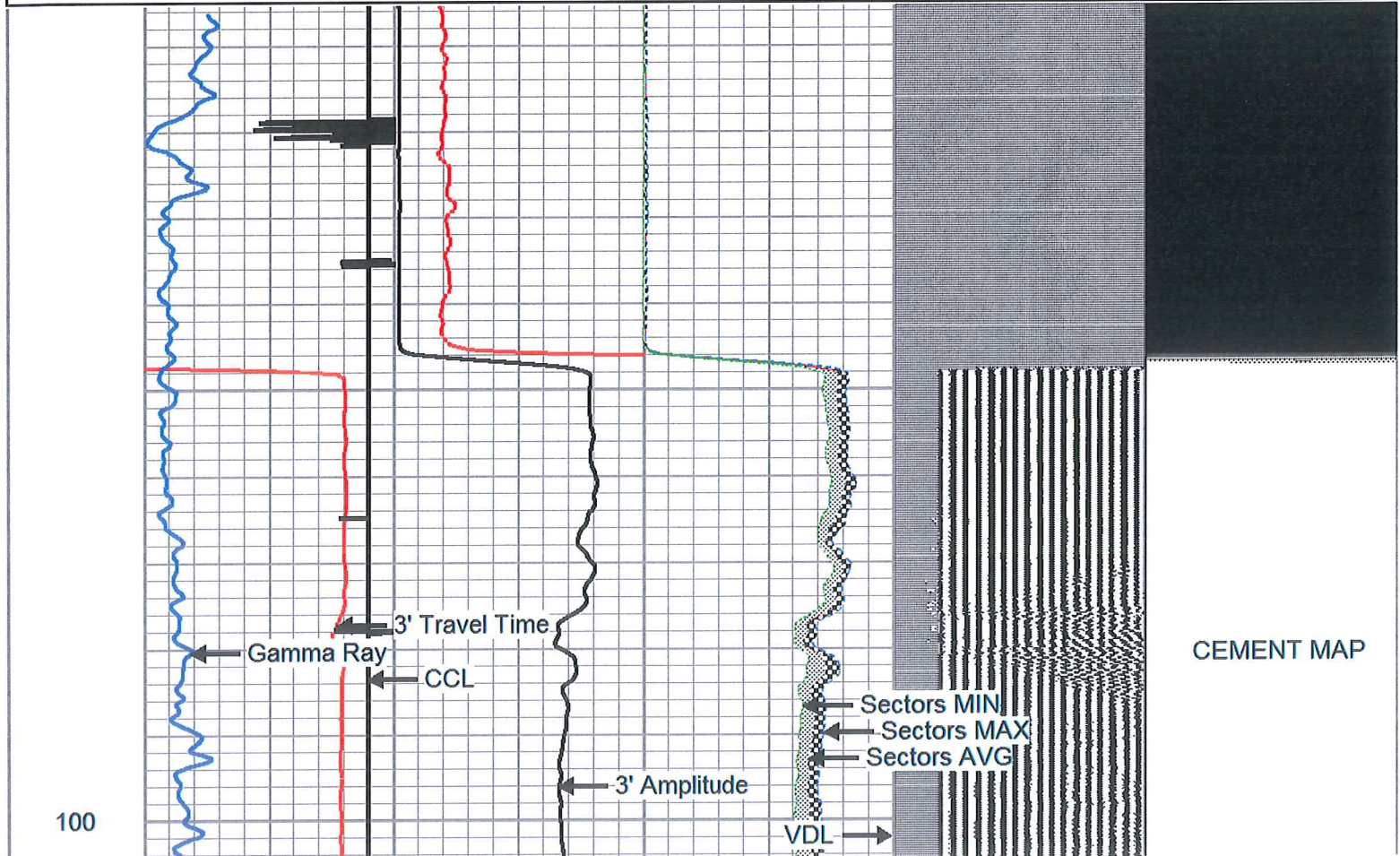
FREE PIPE PASS



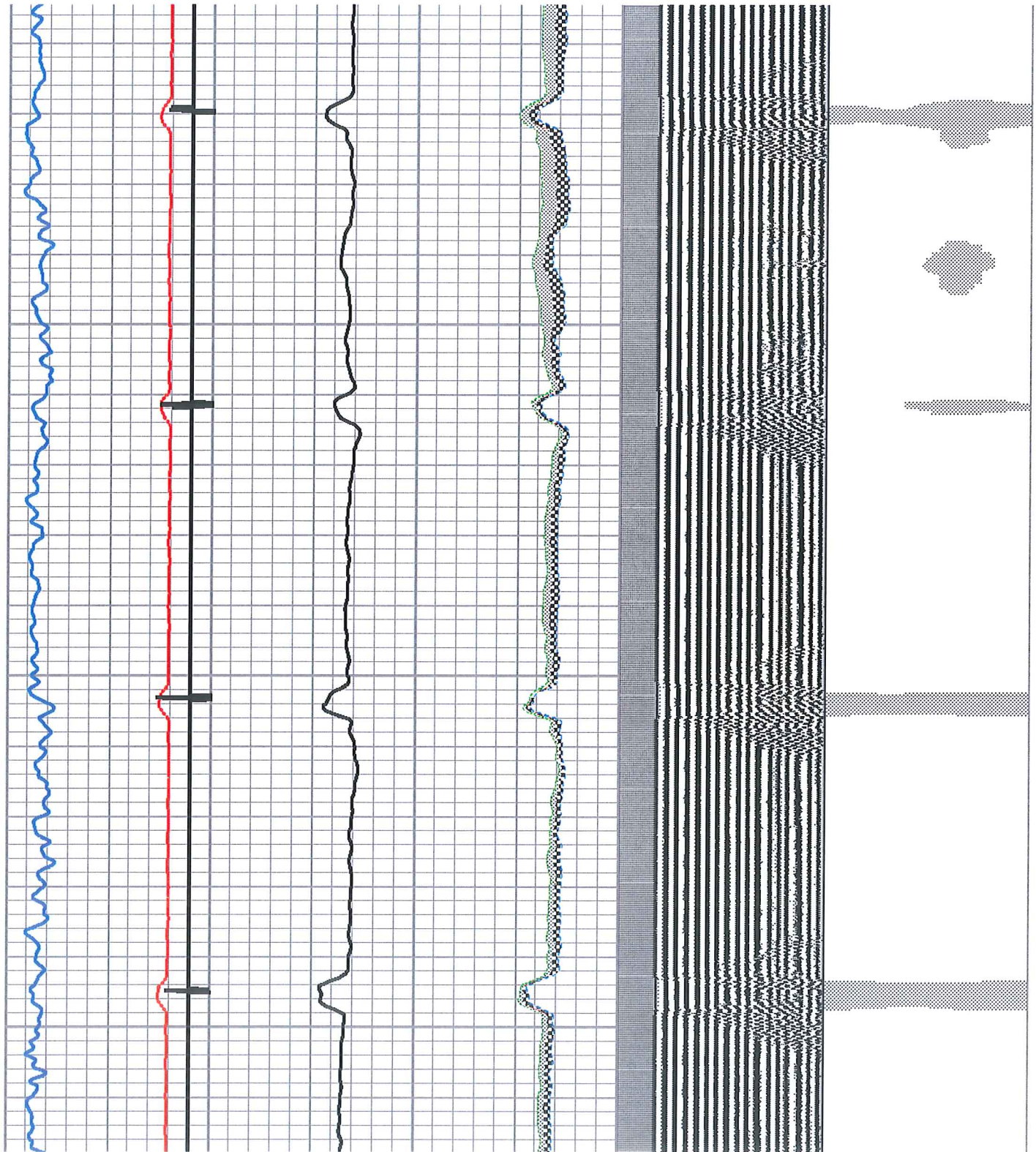
MAIN PASS

Database File: antero-tenmile1h-rcbl-091013.db
 Dataset Pathname: pass2
 Presentation Format: scbl02
 Dataset Creation: Wed Sep 11 10:10:18 2013 by Calc SCH 120430
 Charted by: Depth in Feet scaled 1:240

3' Travel Time	3' Amplitude	0 Sectors AVG 100	Variable Density	1 Cement Map	8
335 (usec) 235	0 (mV) 100	0 Sectors MAX 100	200 1200	10	60
Gamma Ray	3' Amplitude x 10	0 Sectors MIN 100			
0 (GAPI) 150	0 (mV) 10				
-9 CCL	1				

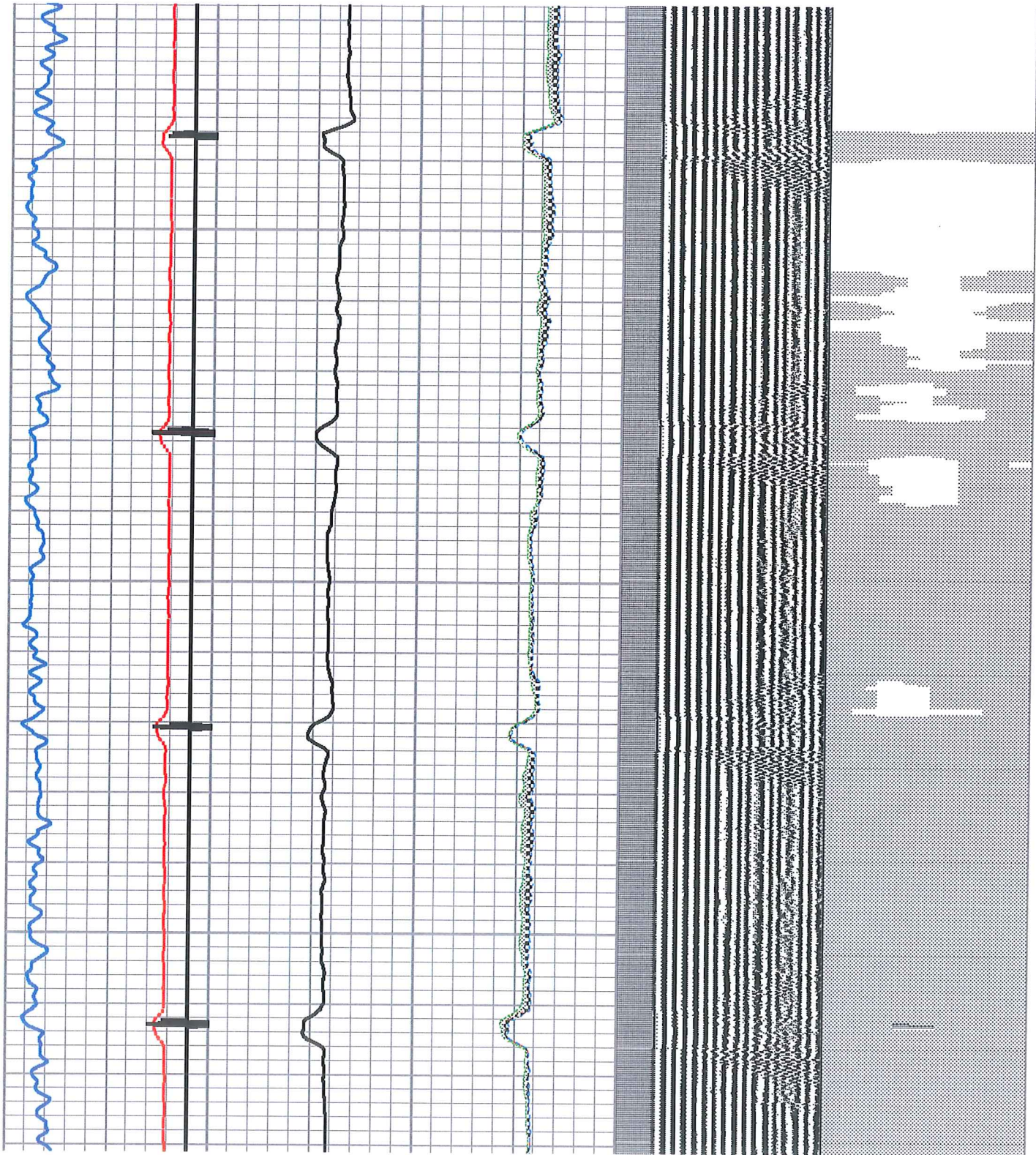


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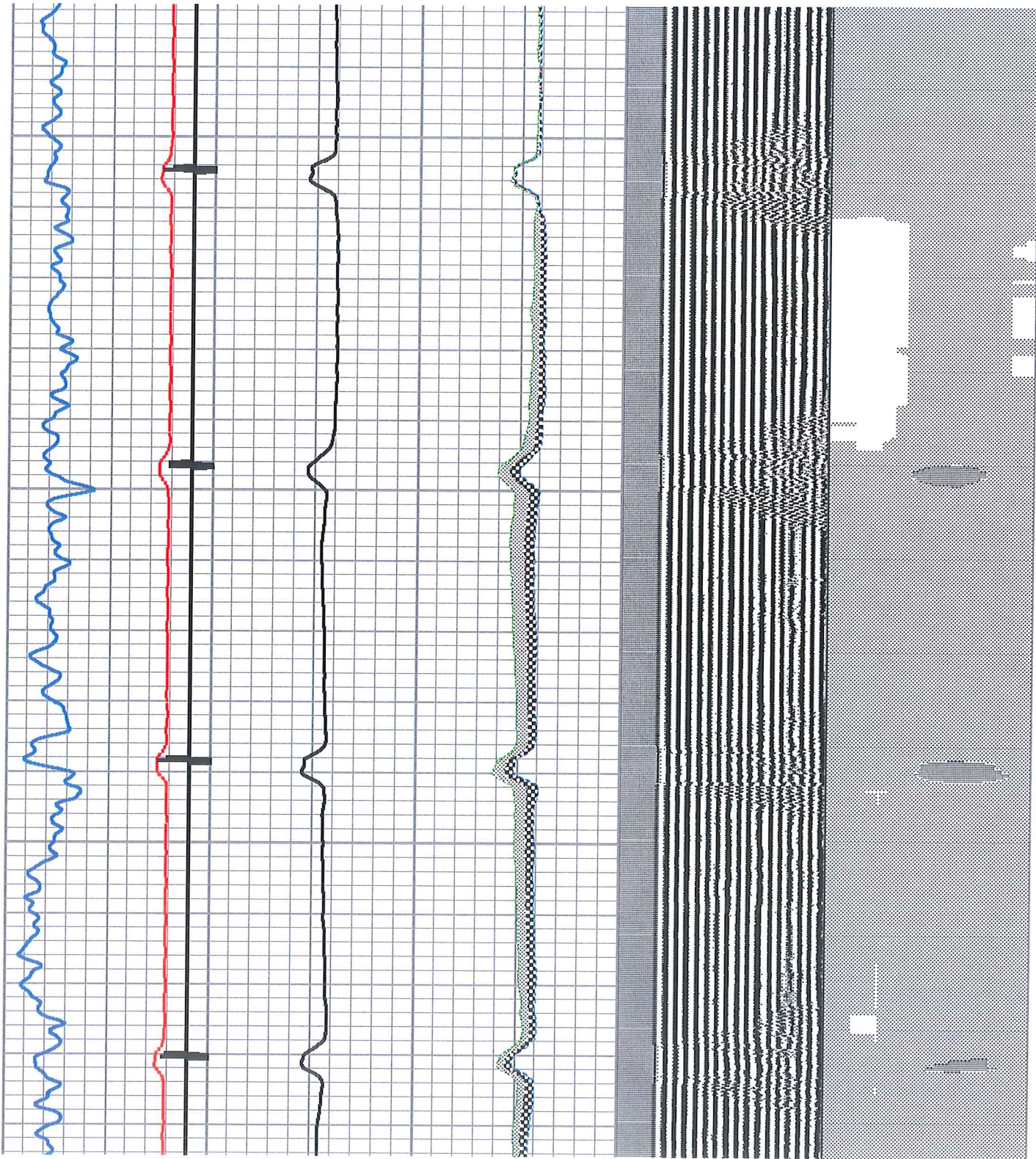


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400

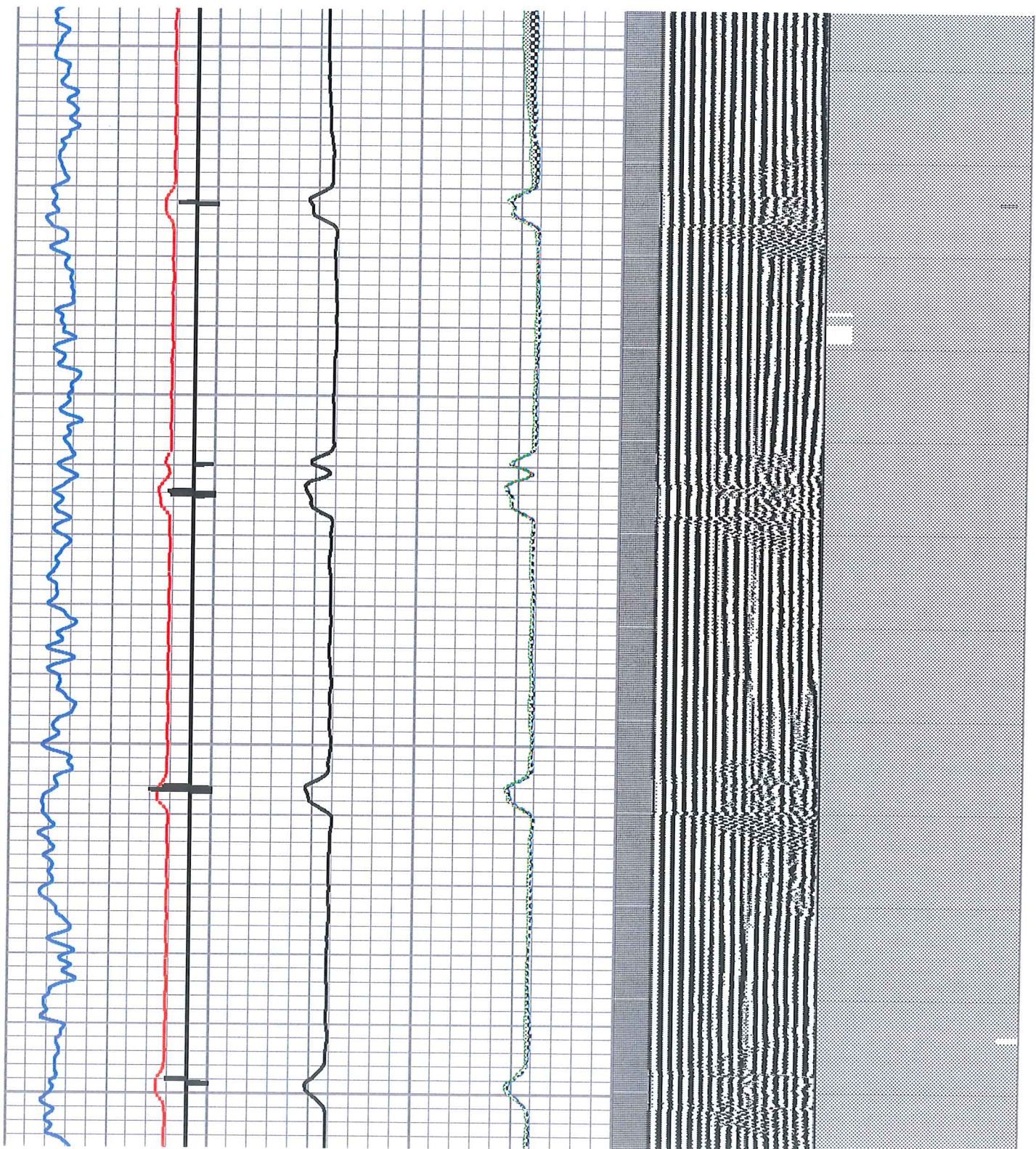


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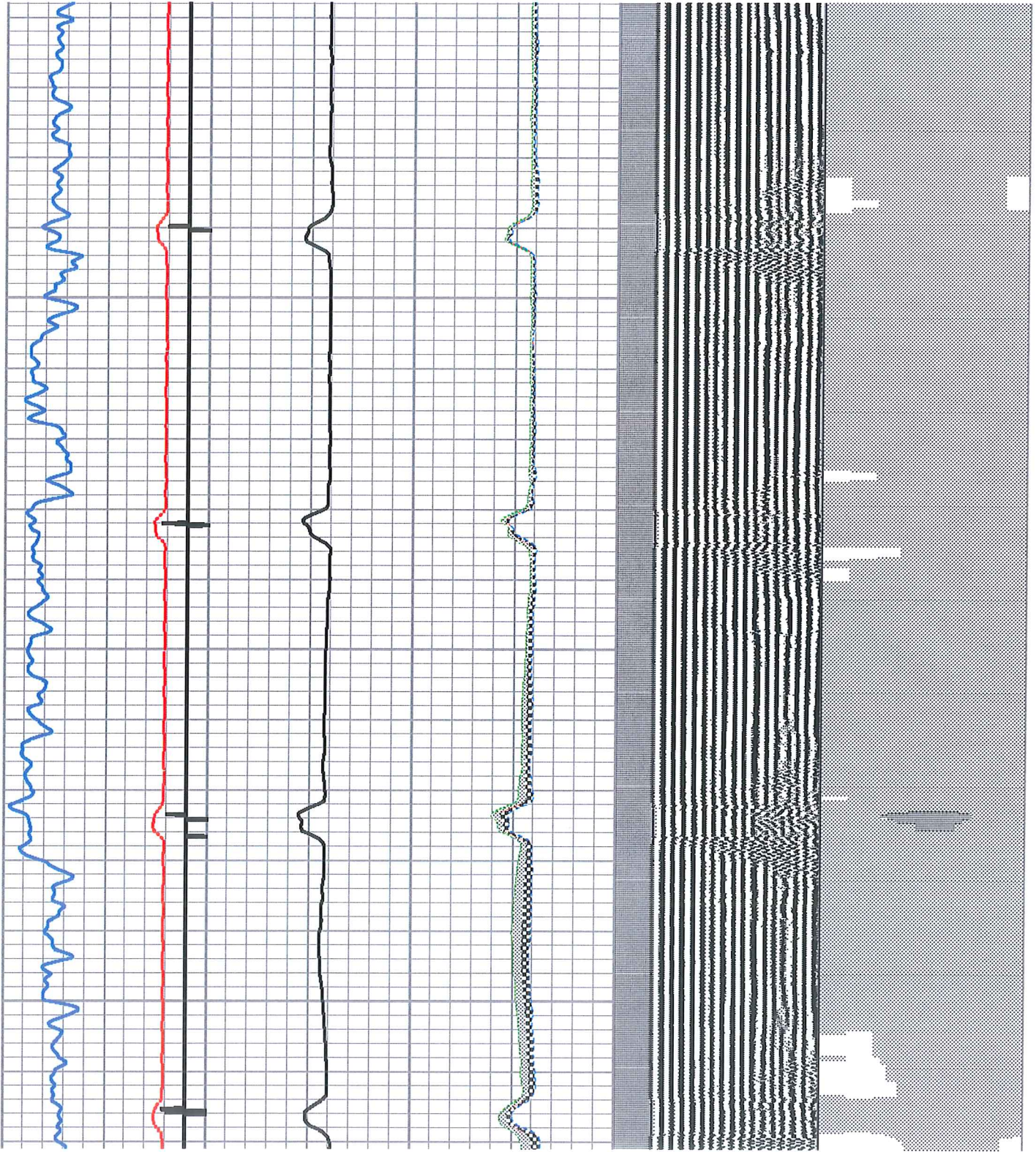
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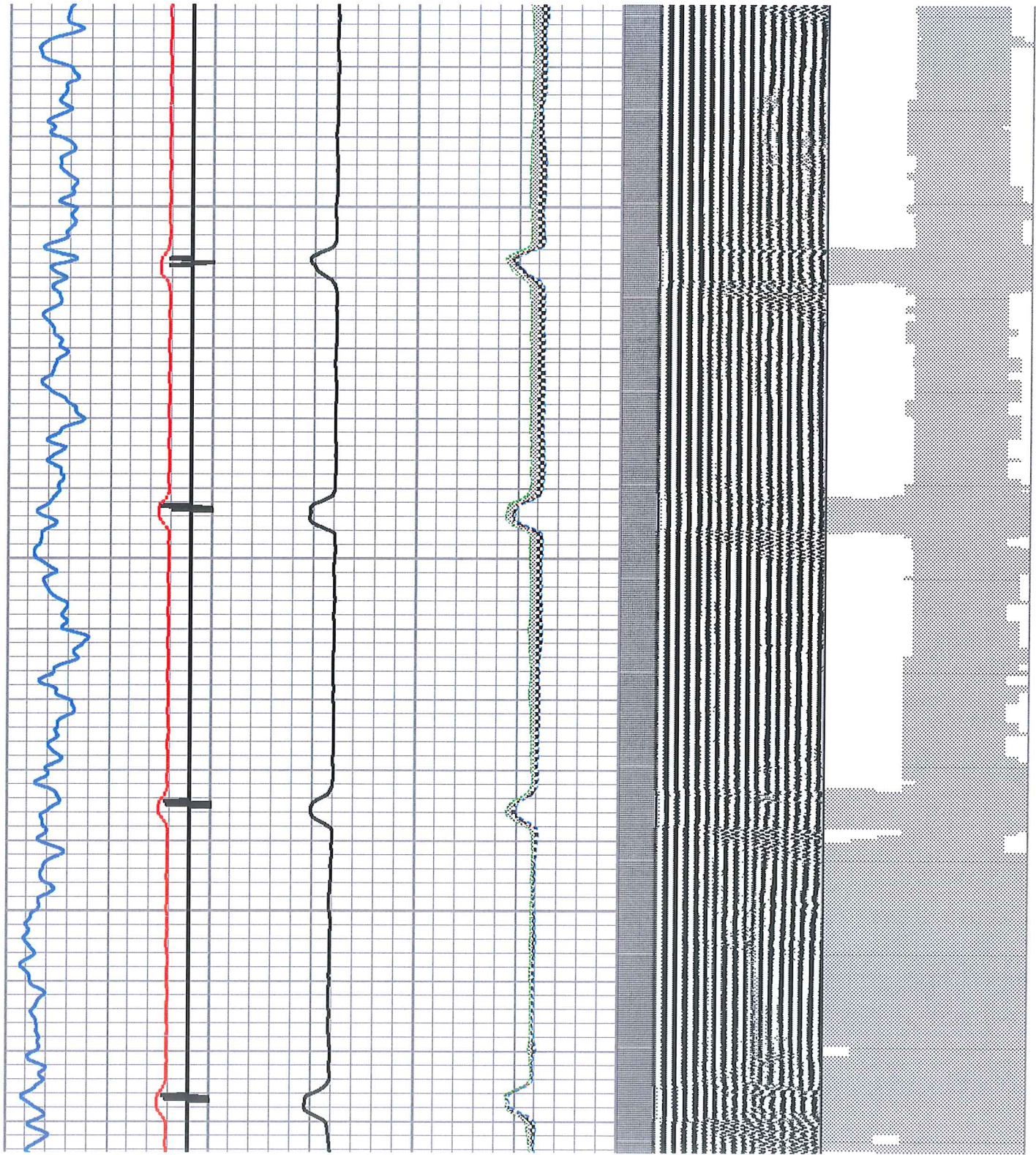


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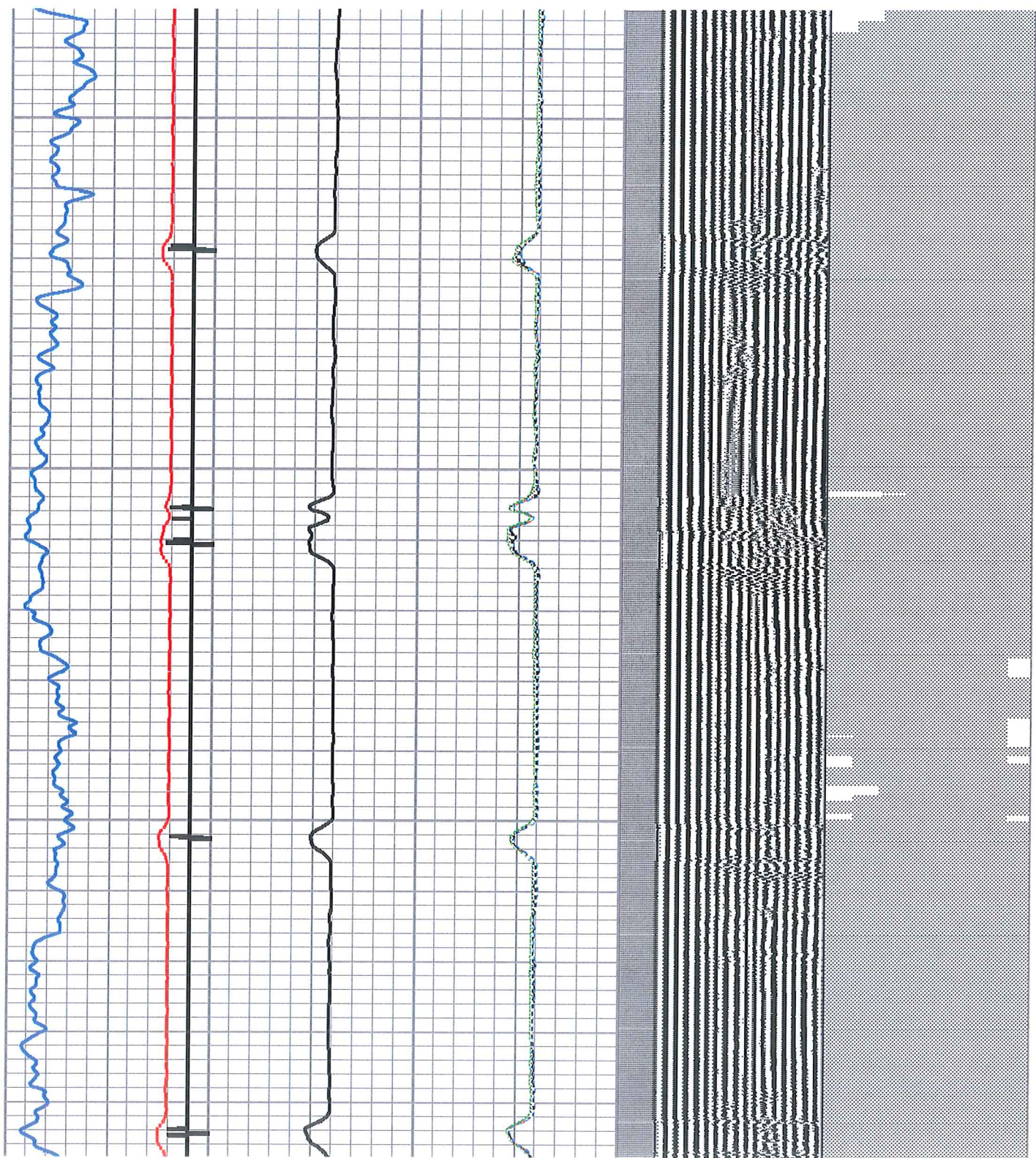


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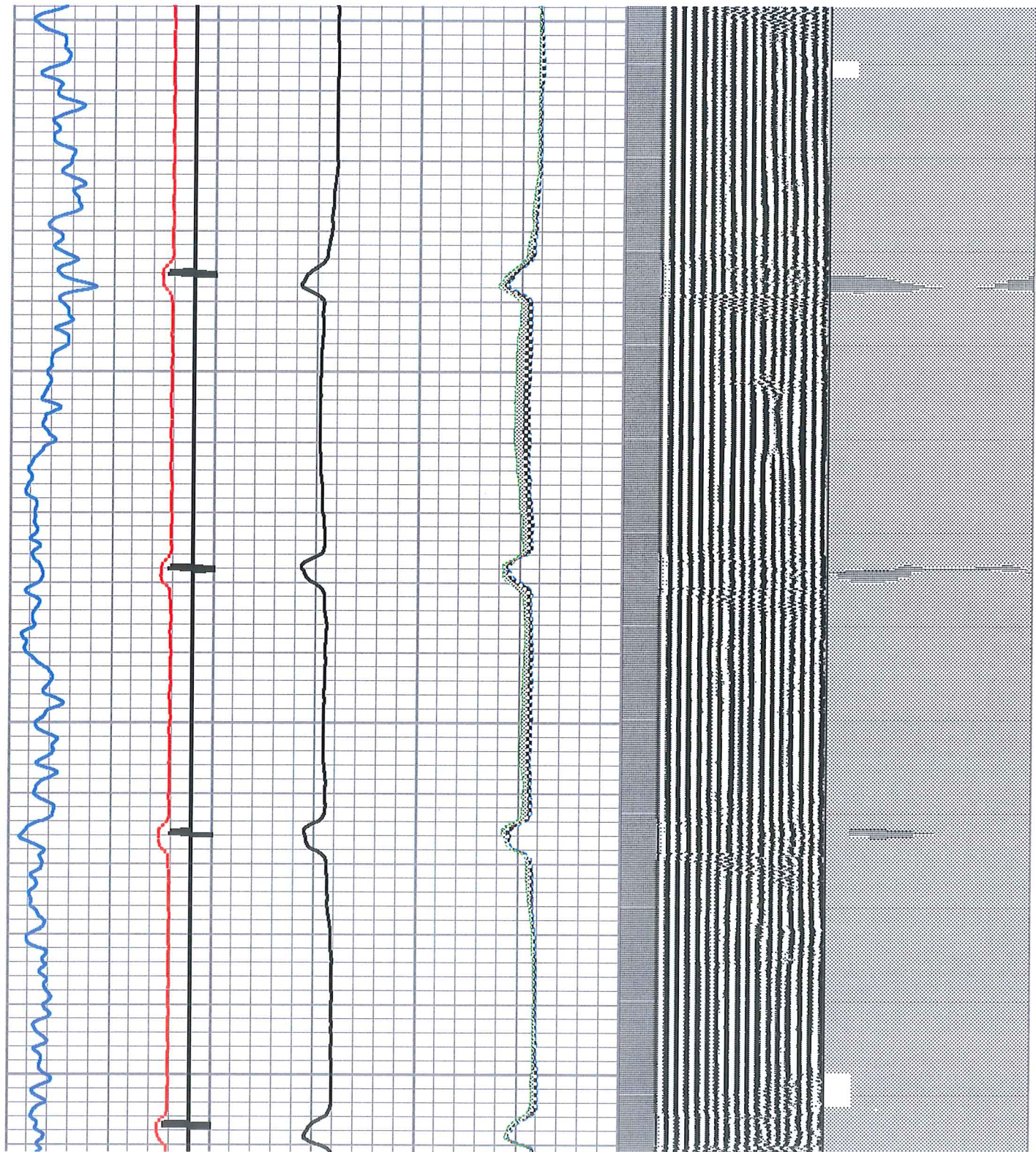
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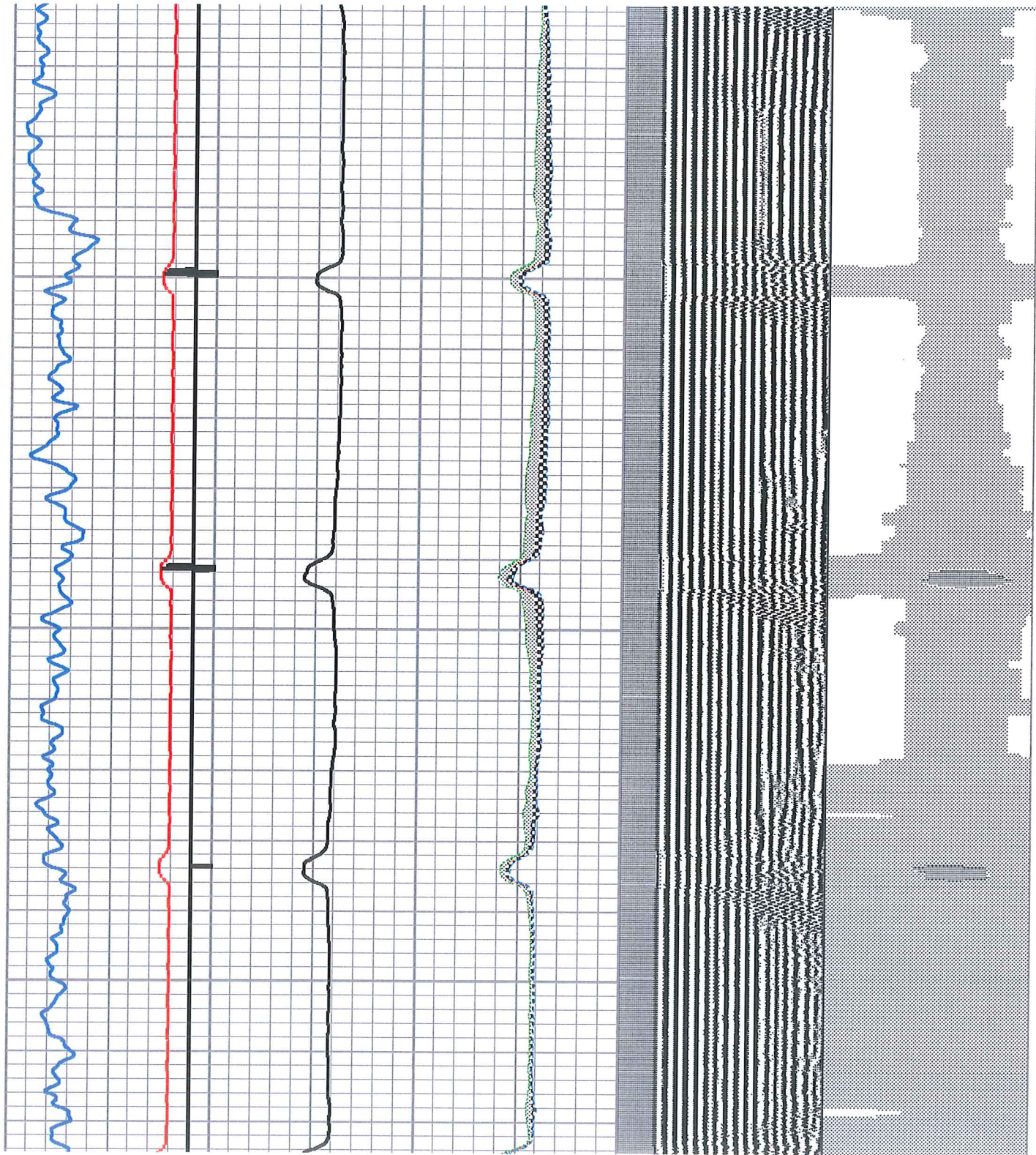


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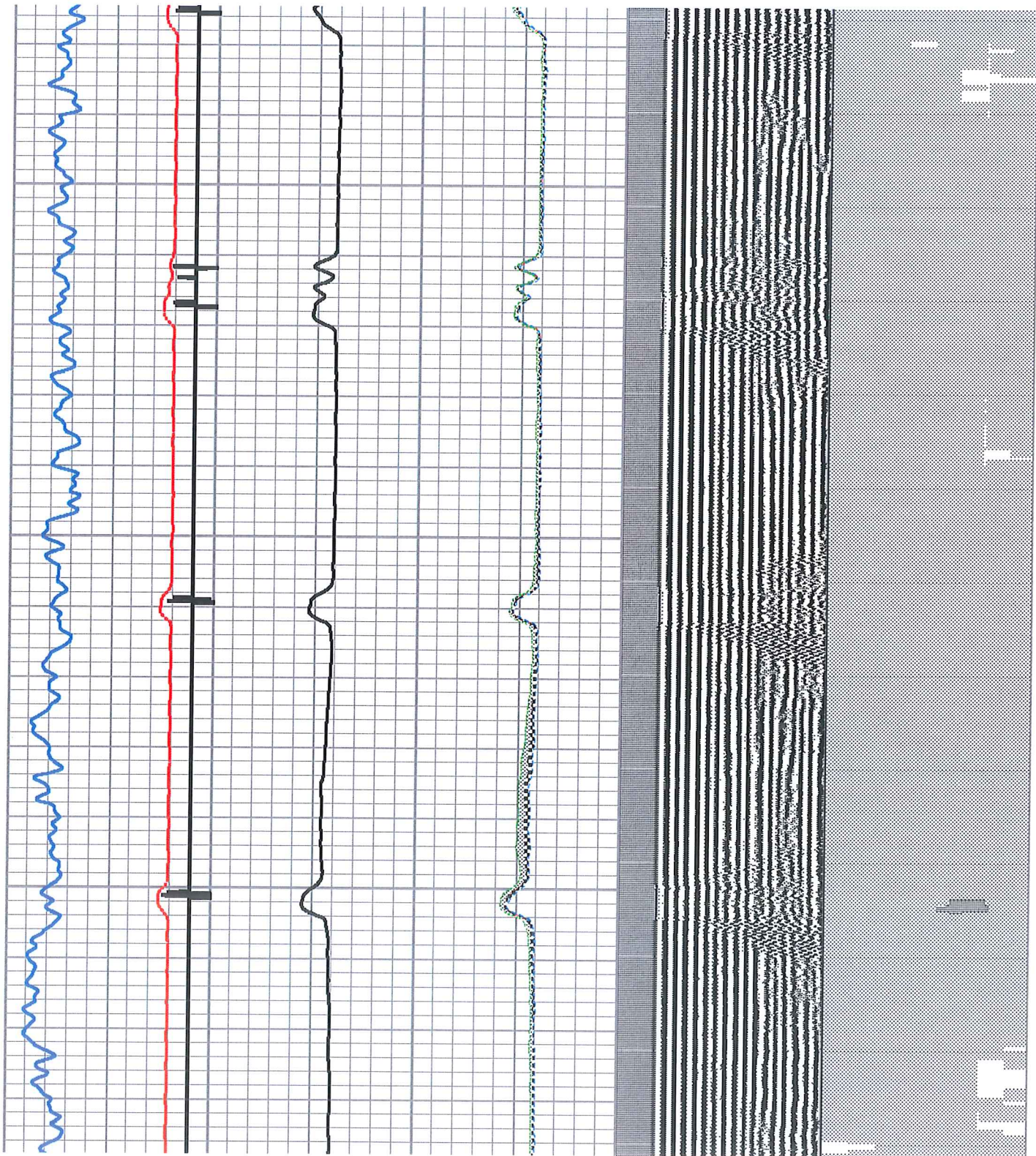


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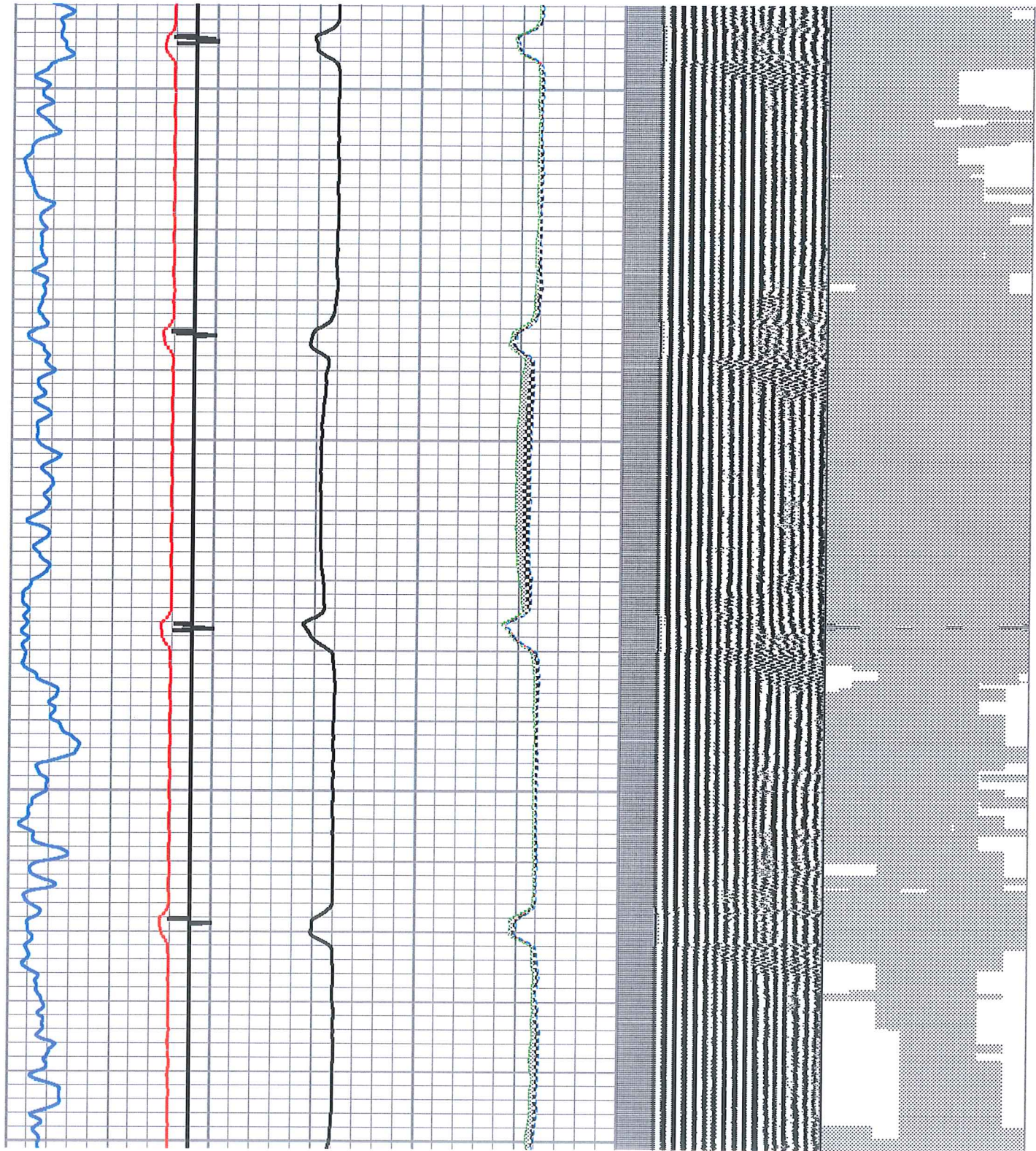
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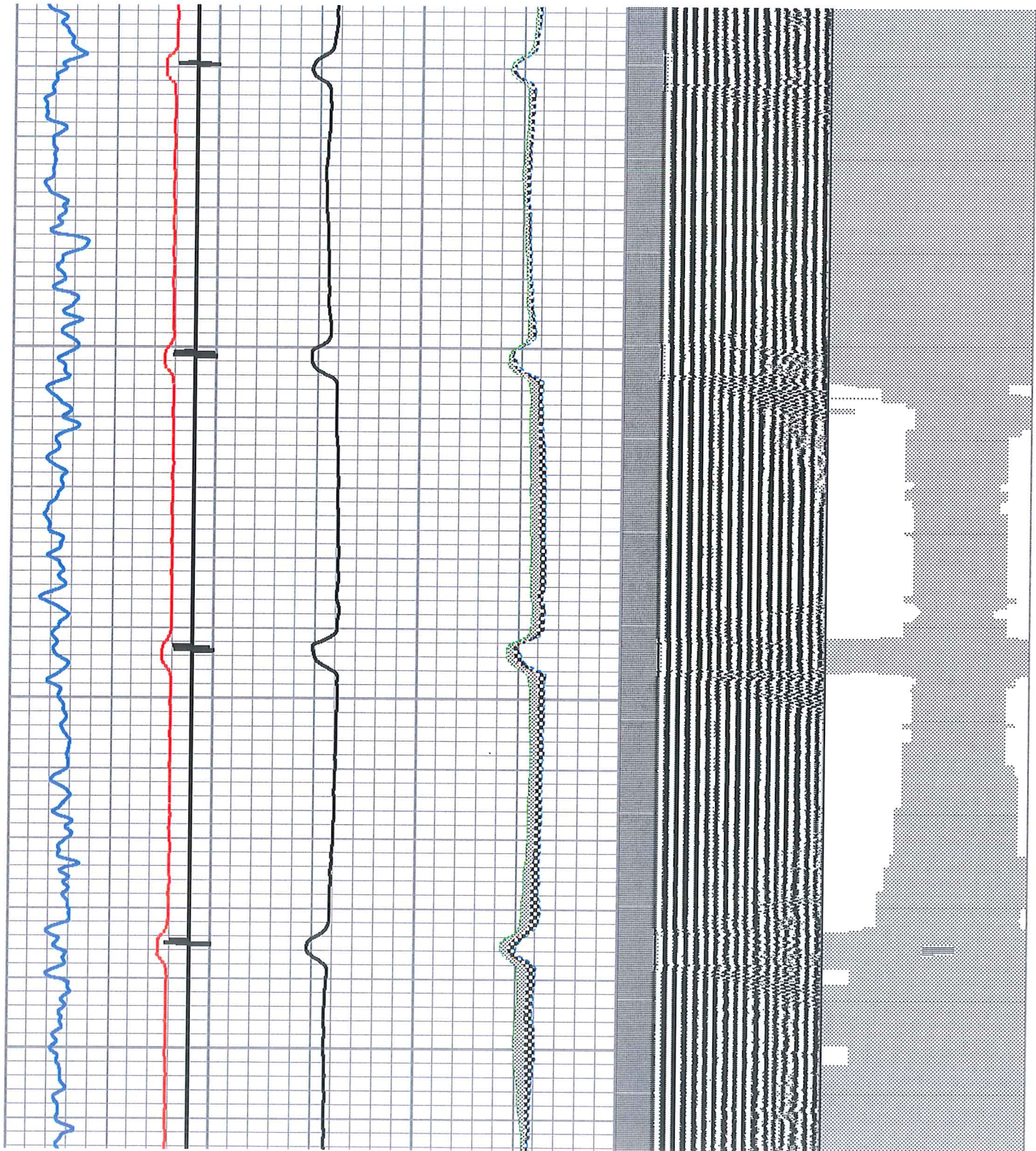


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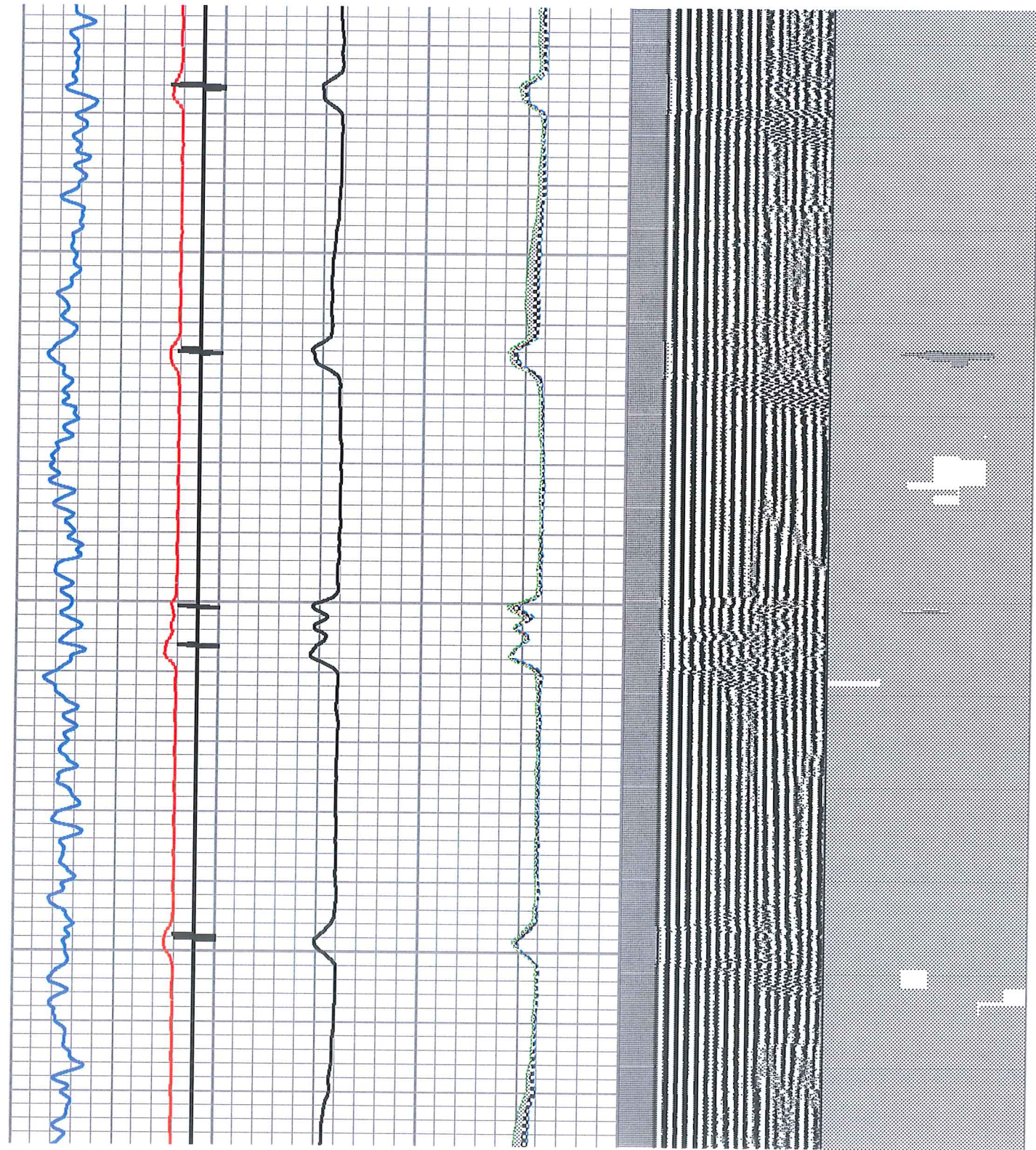


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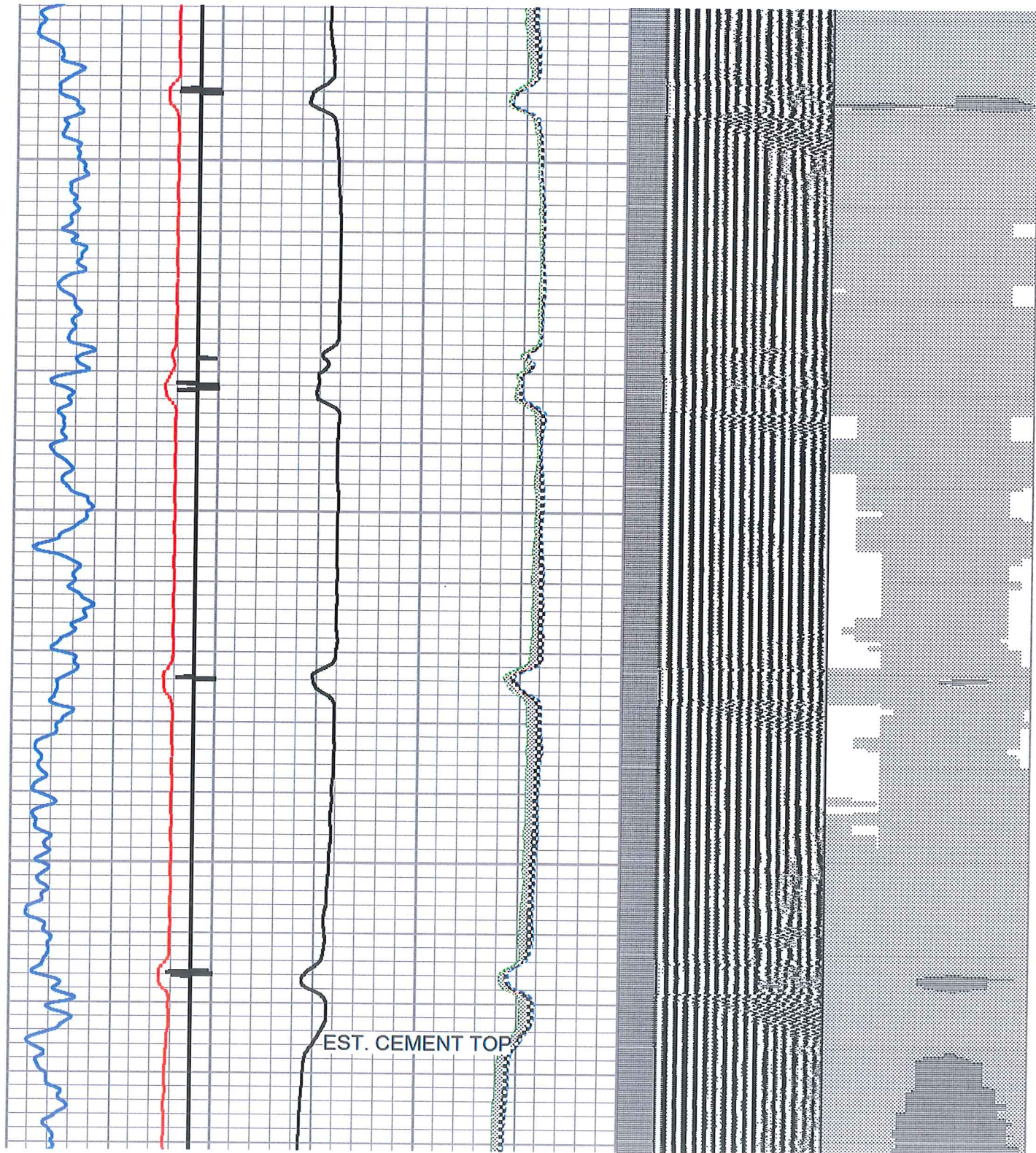


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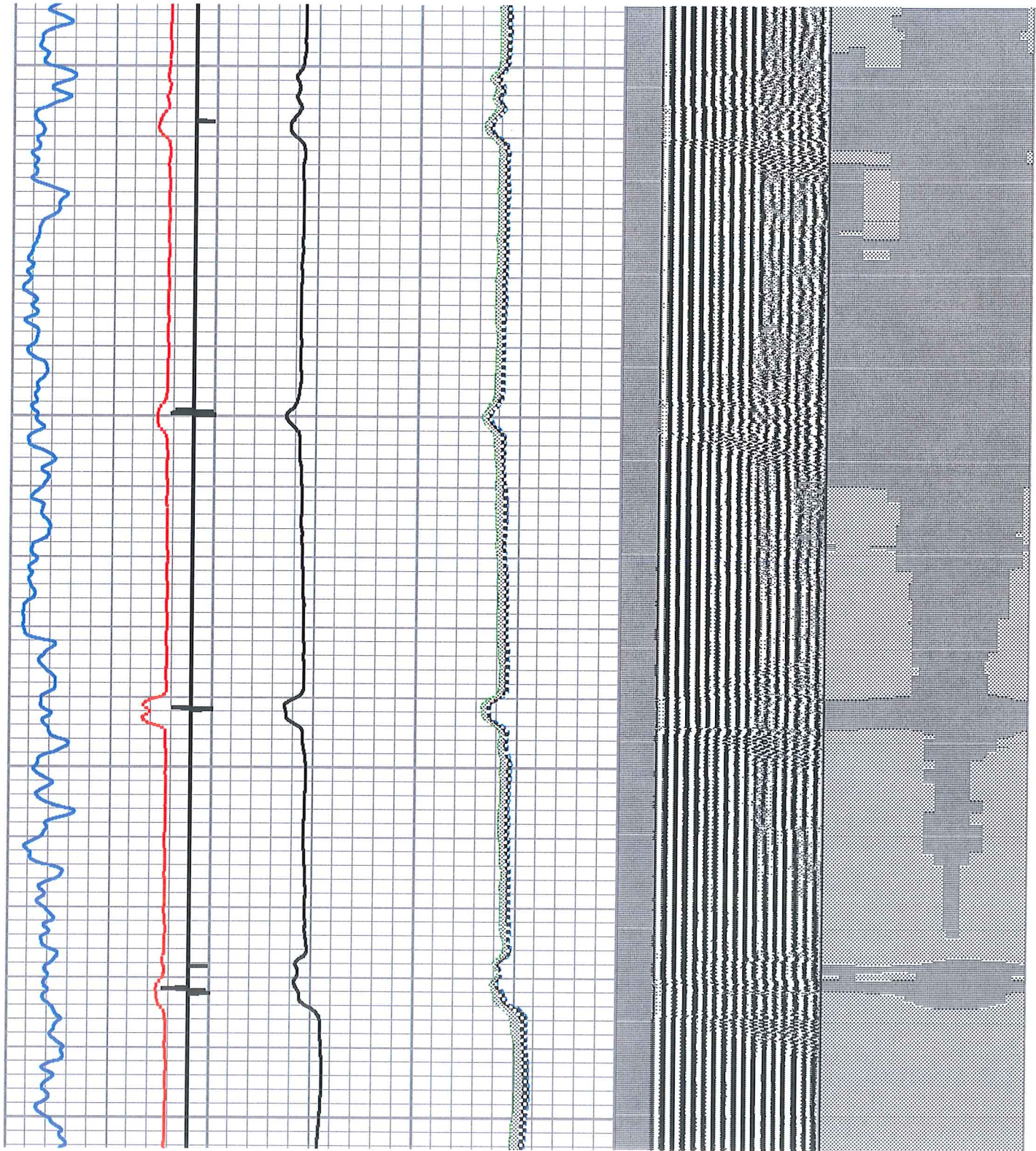


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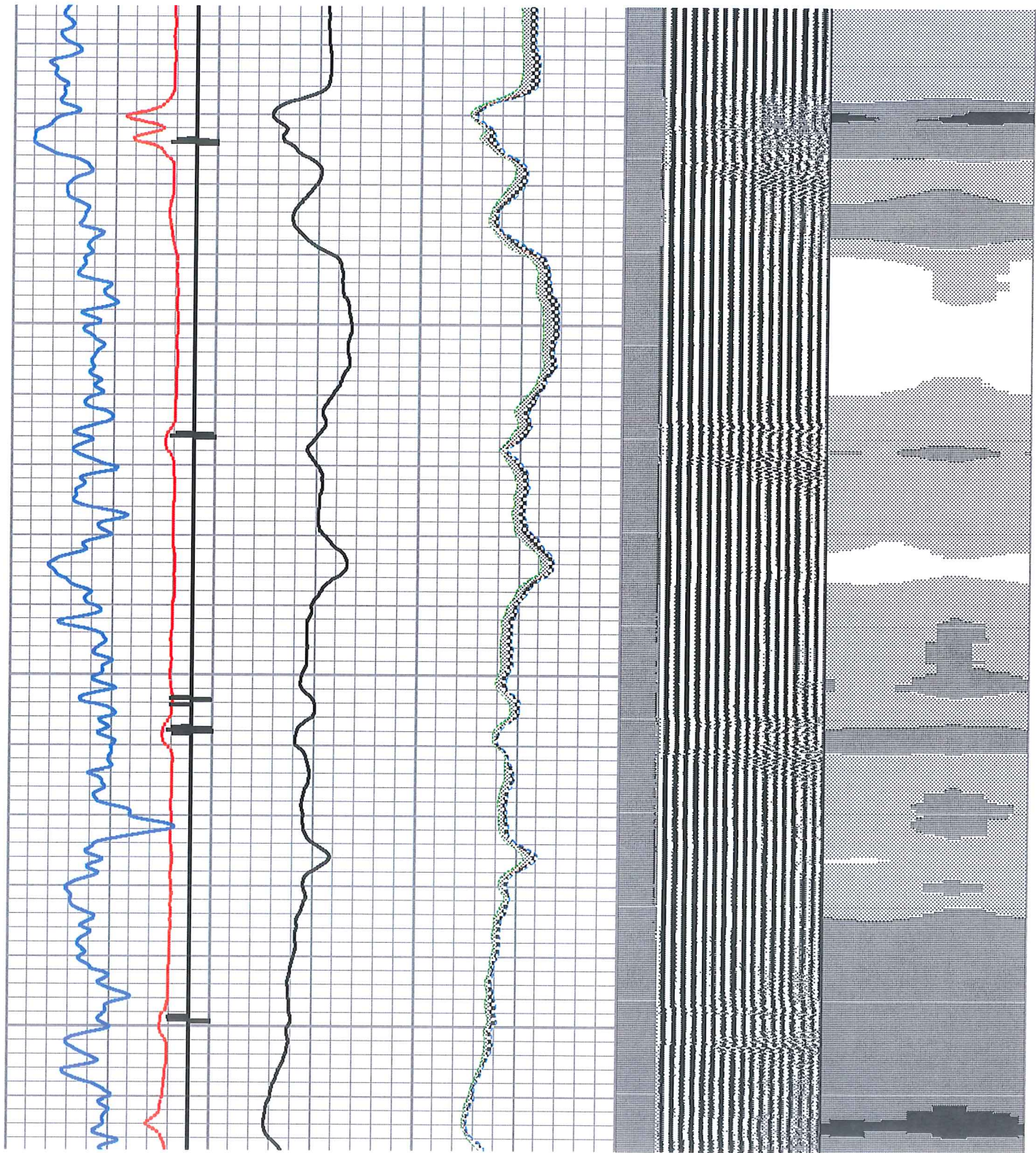
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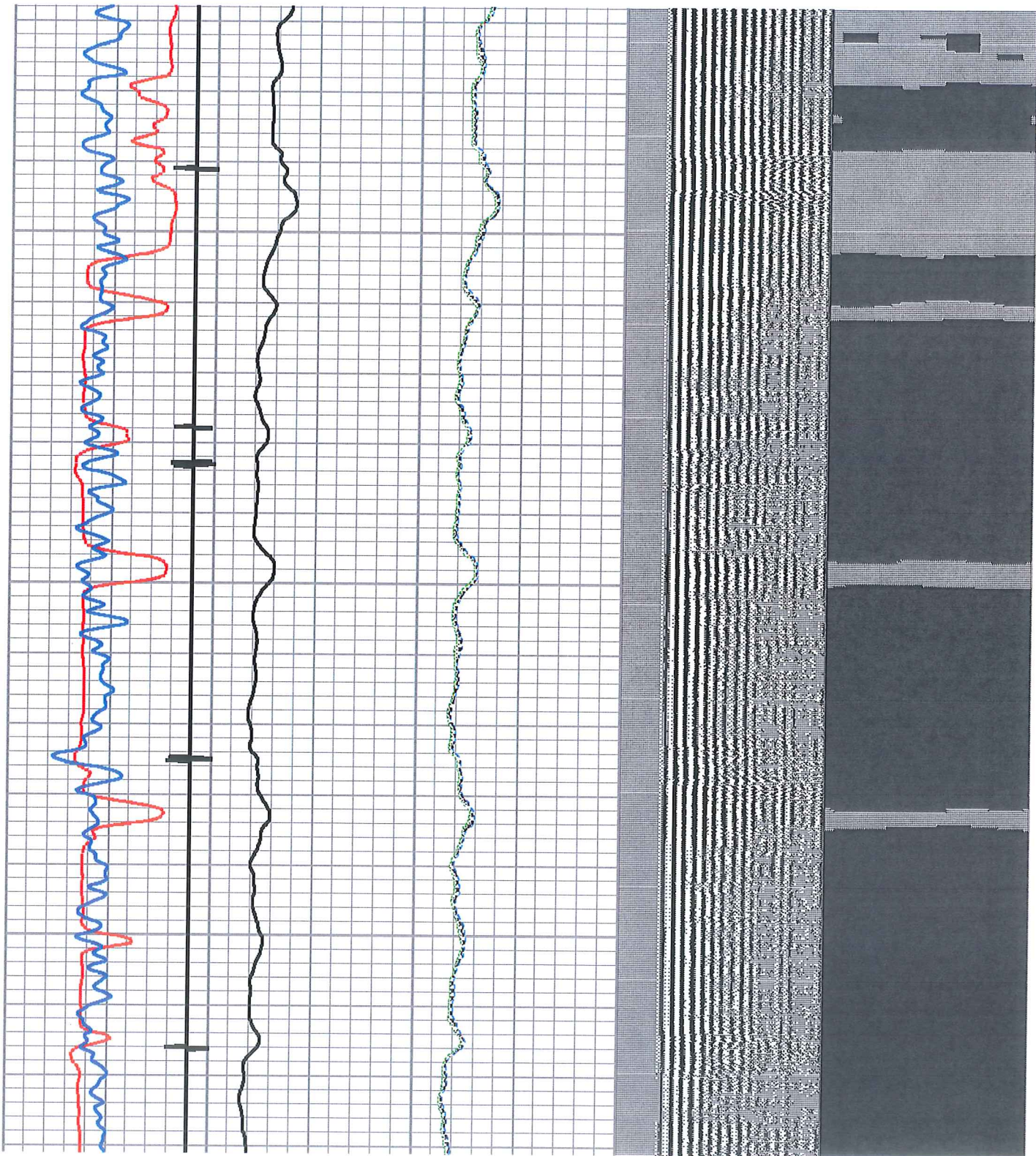


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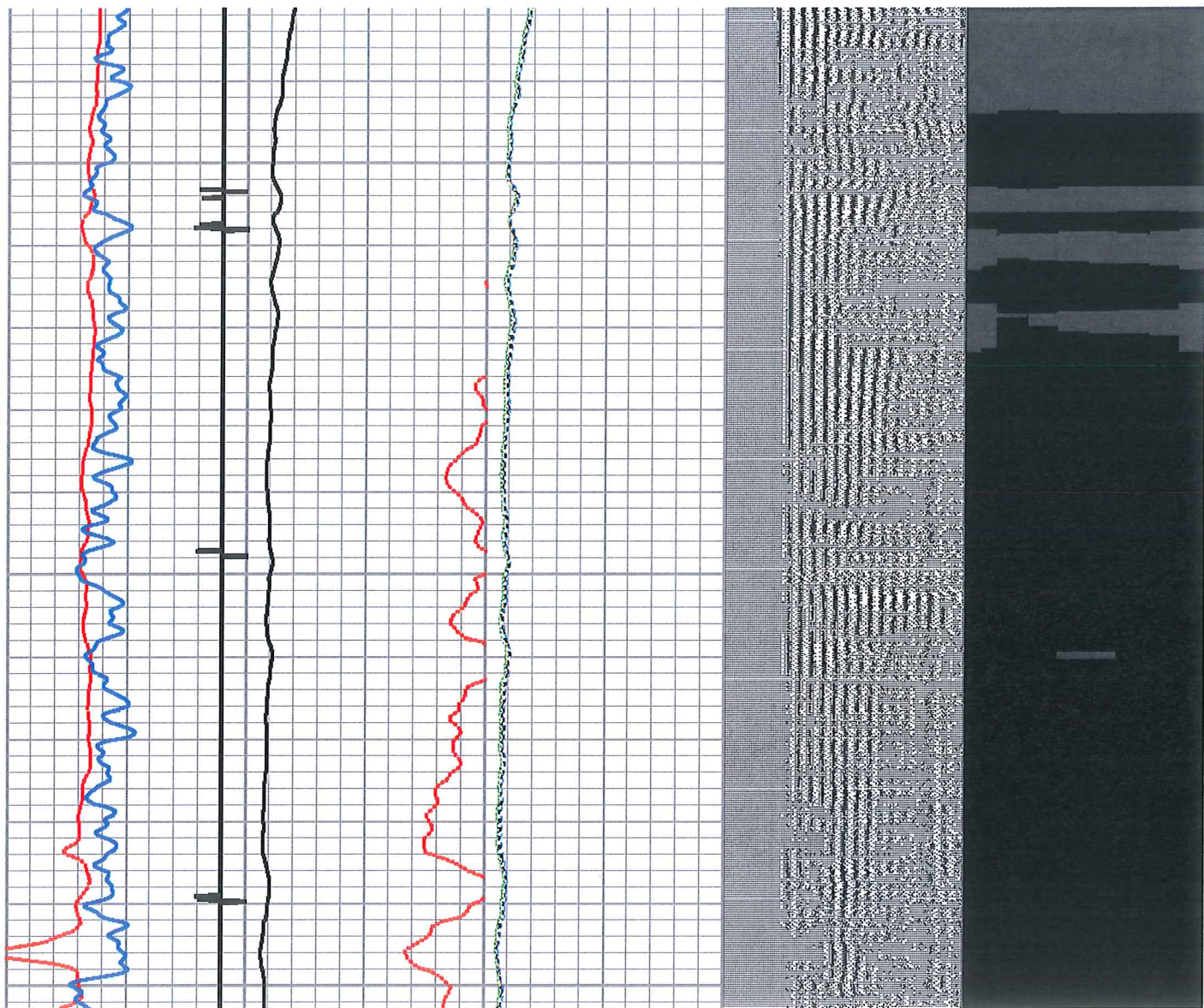


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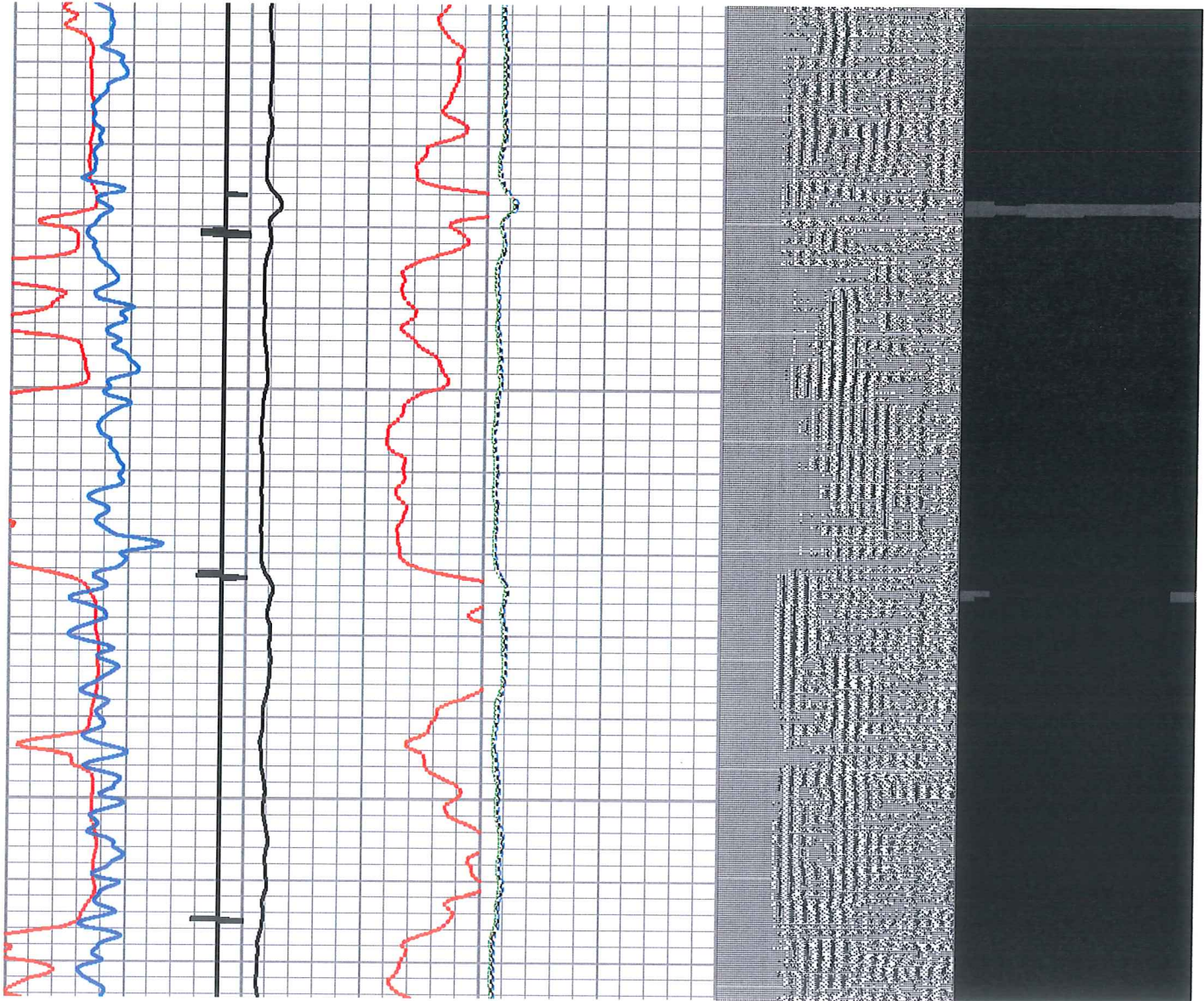


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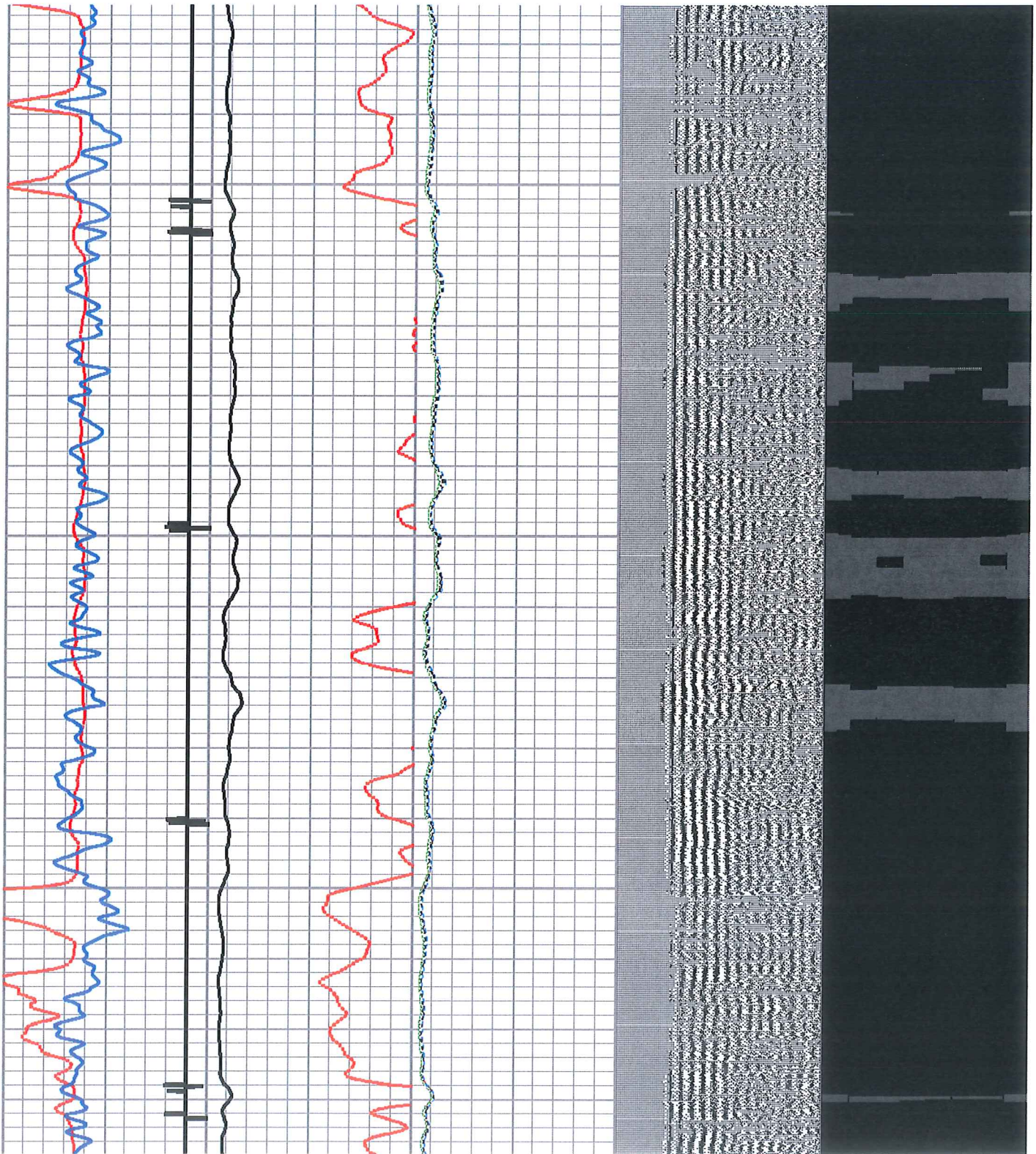
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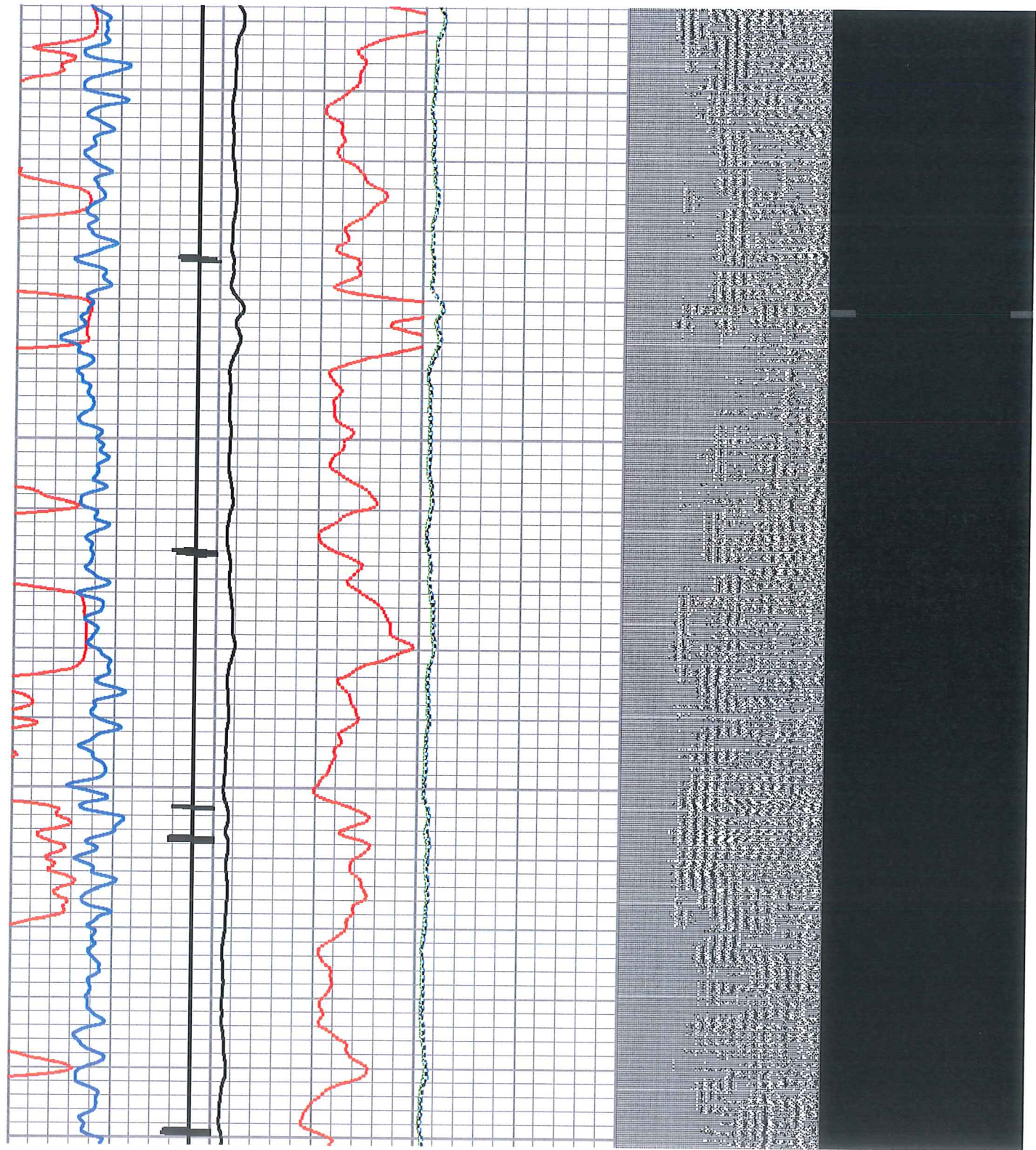


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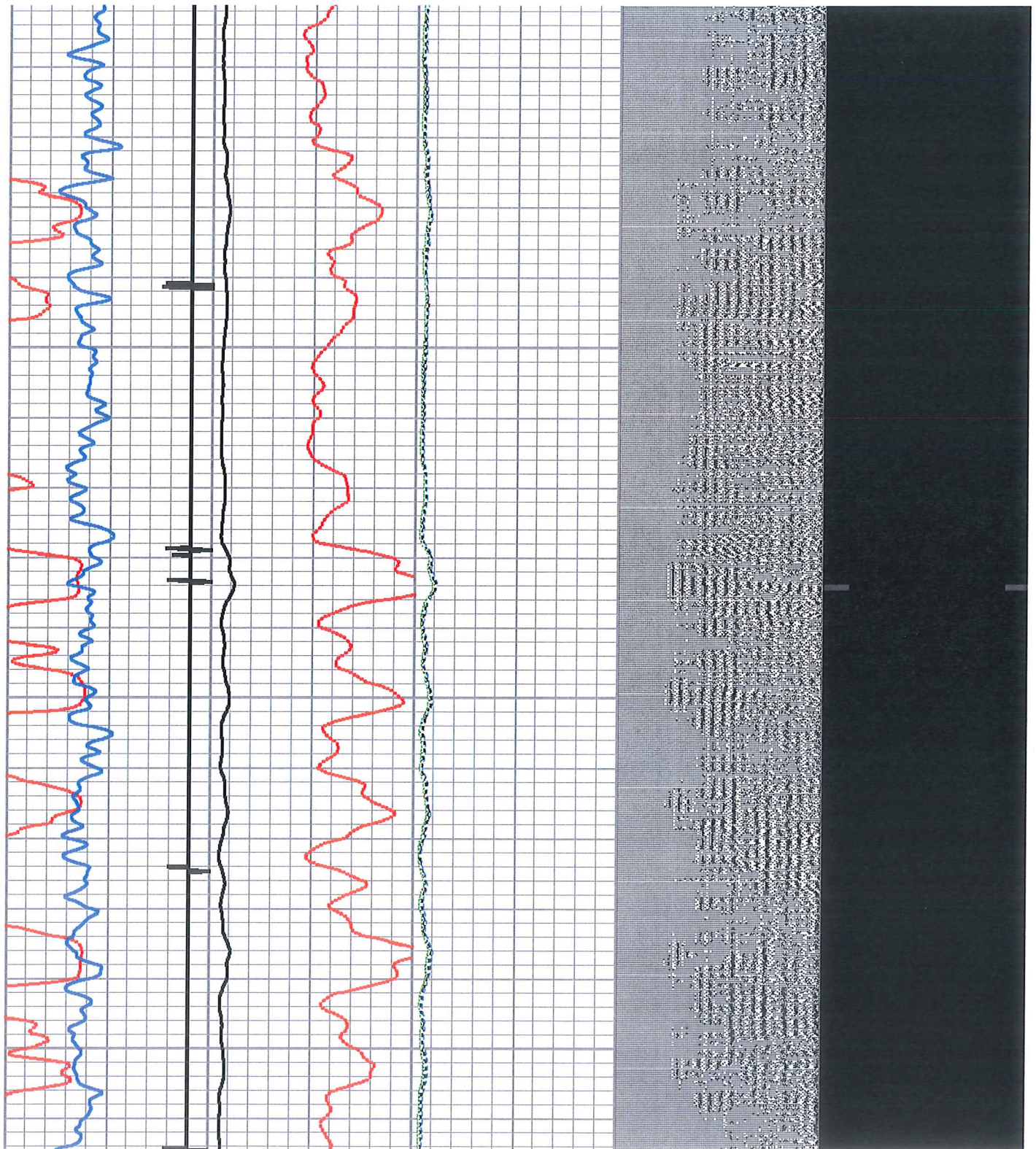
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3400

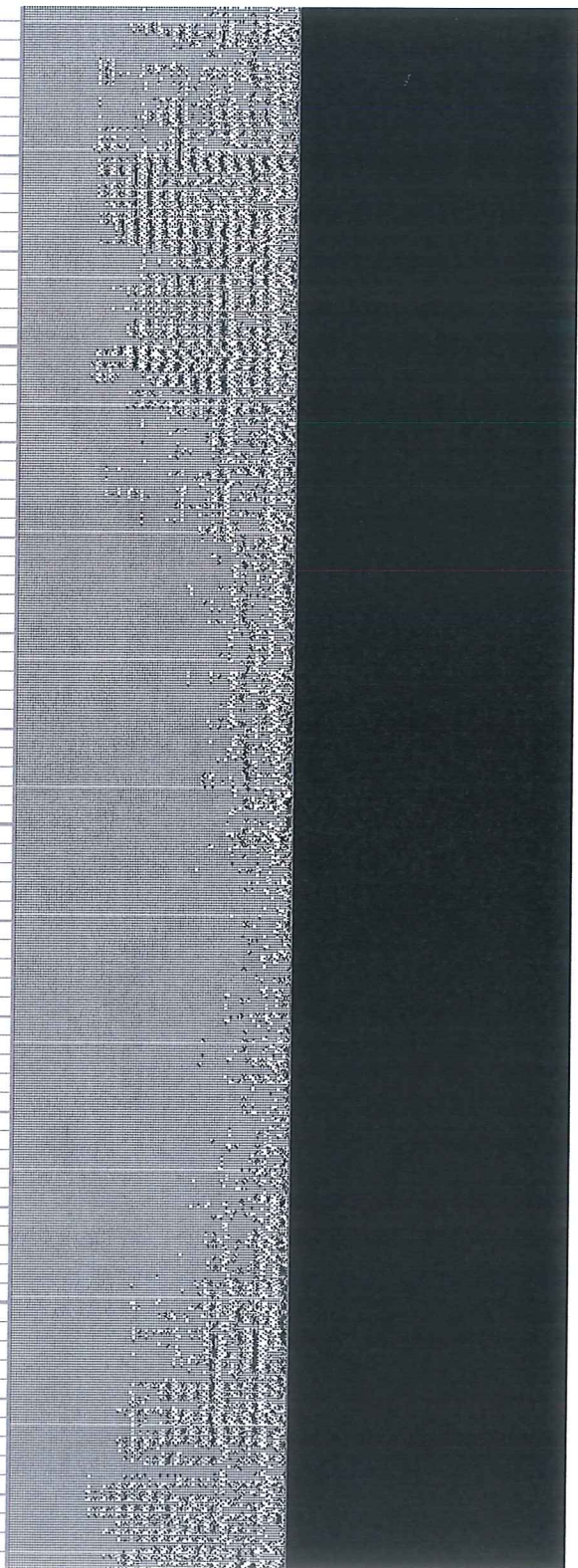
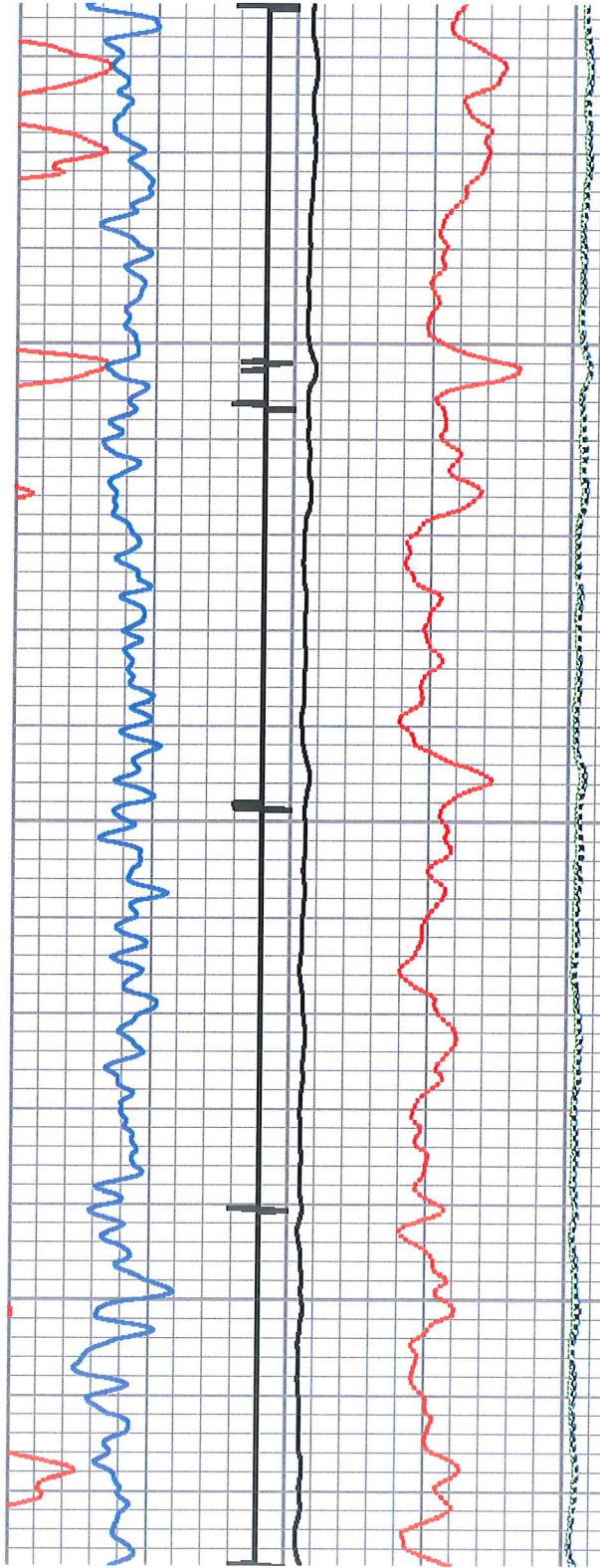


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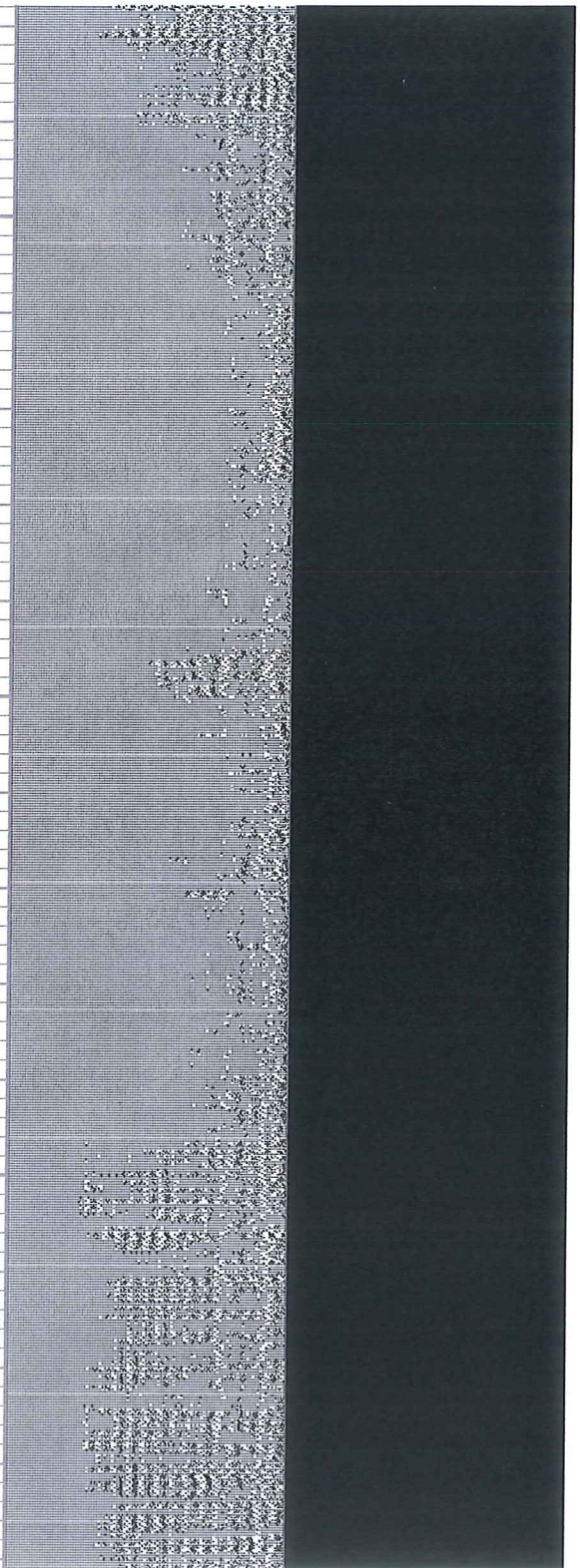
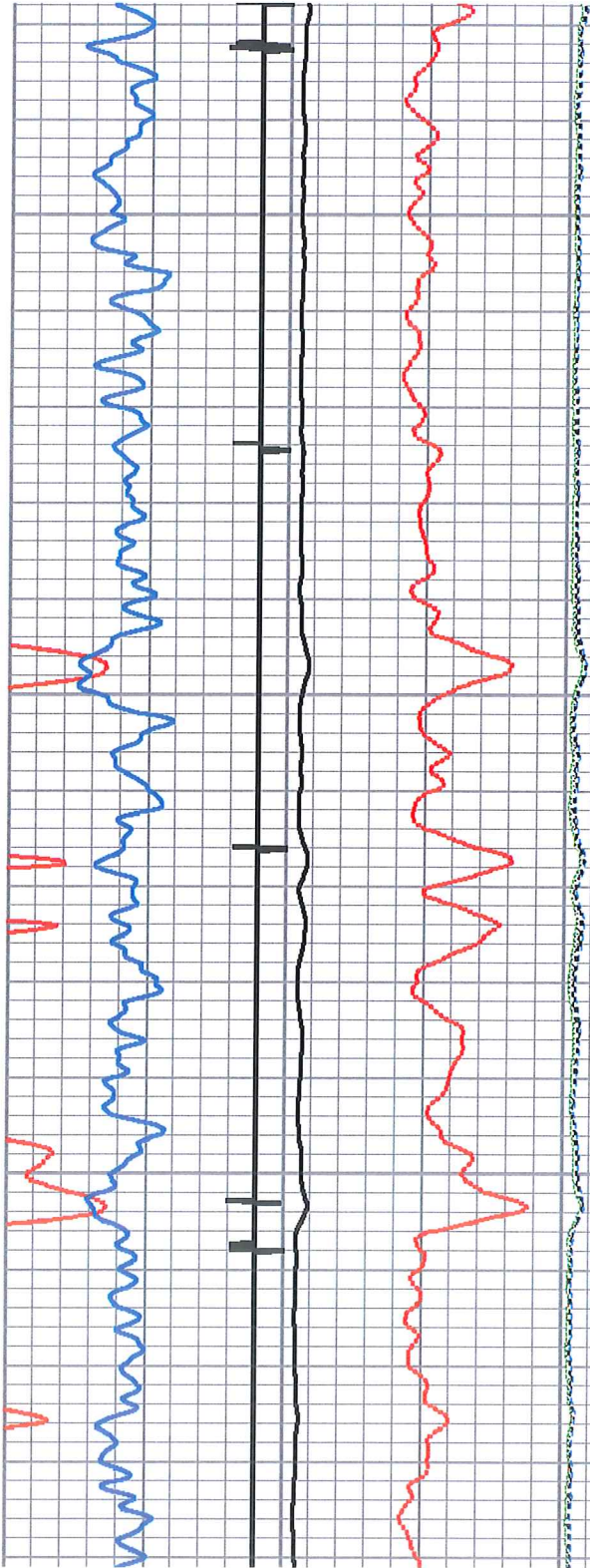


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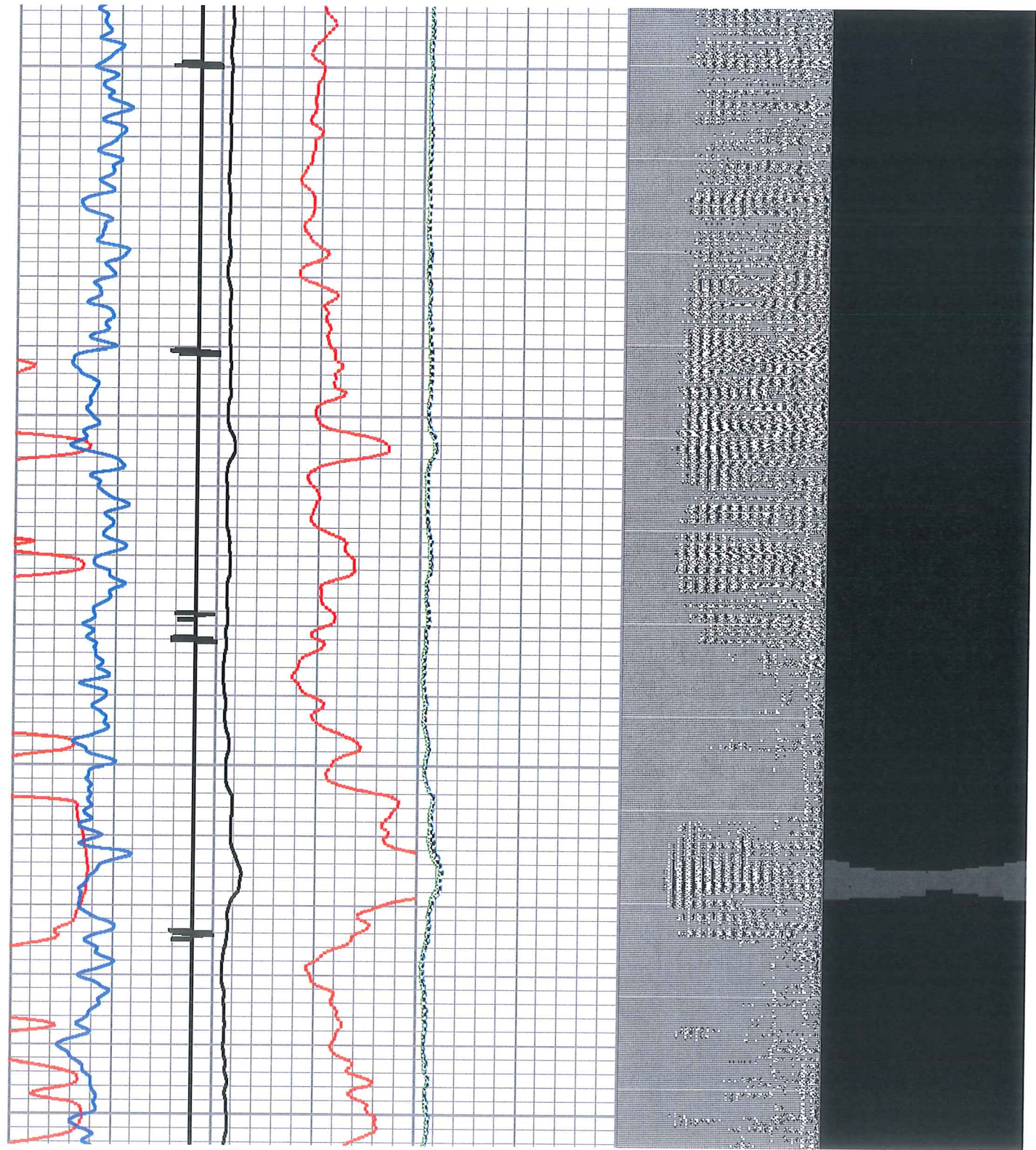
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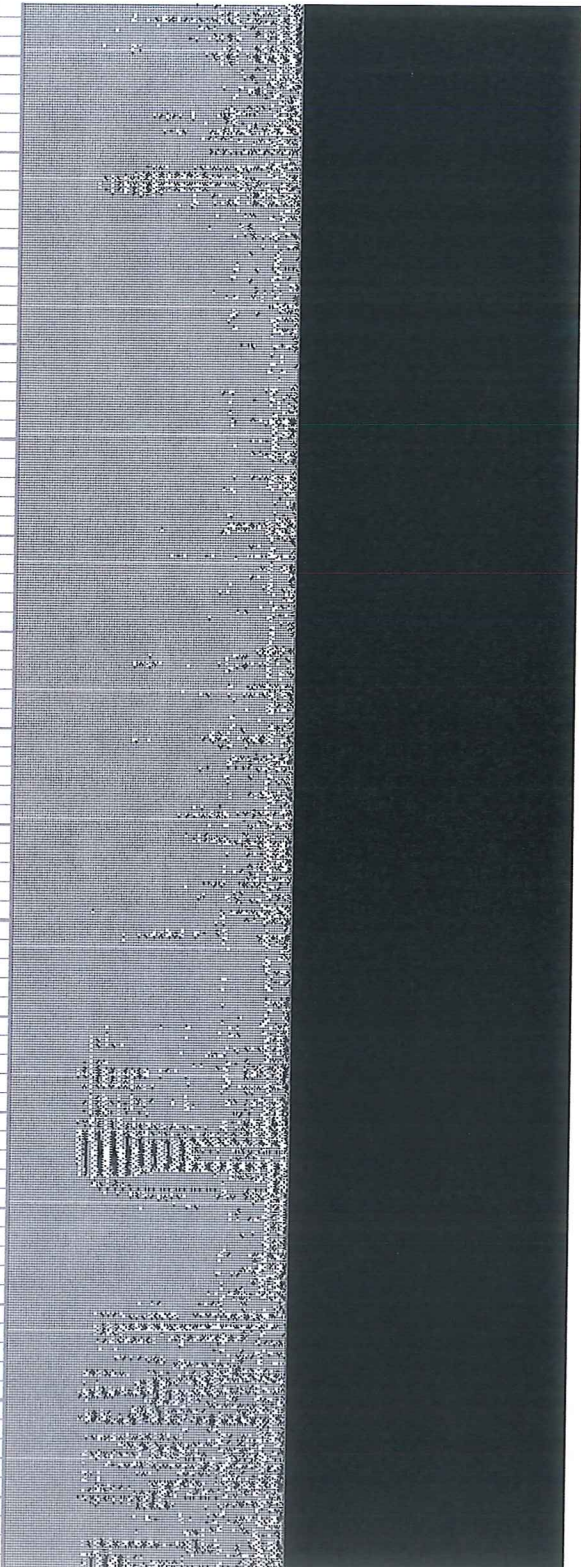
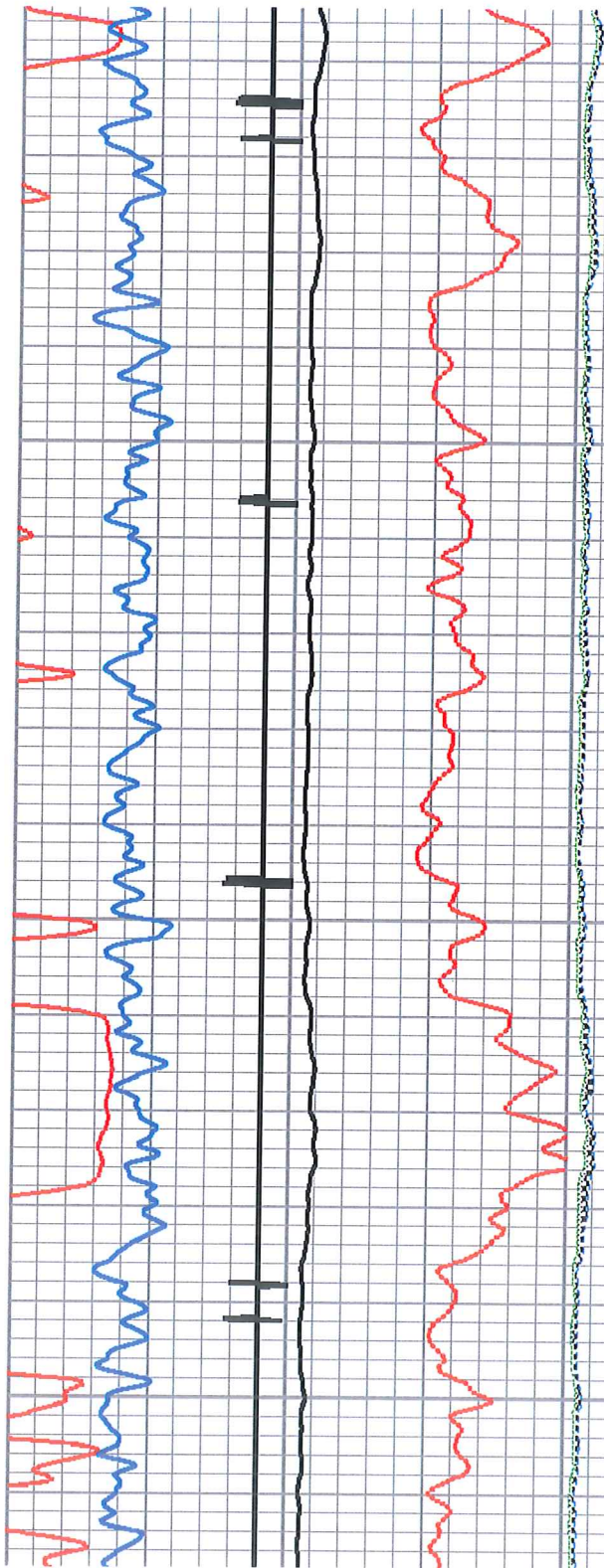


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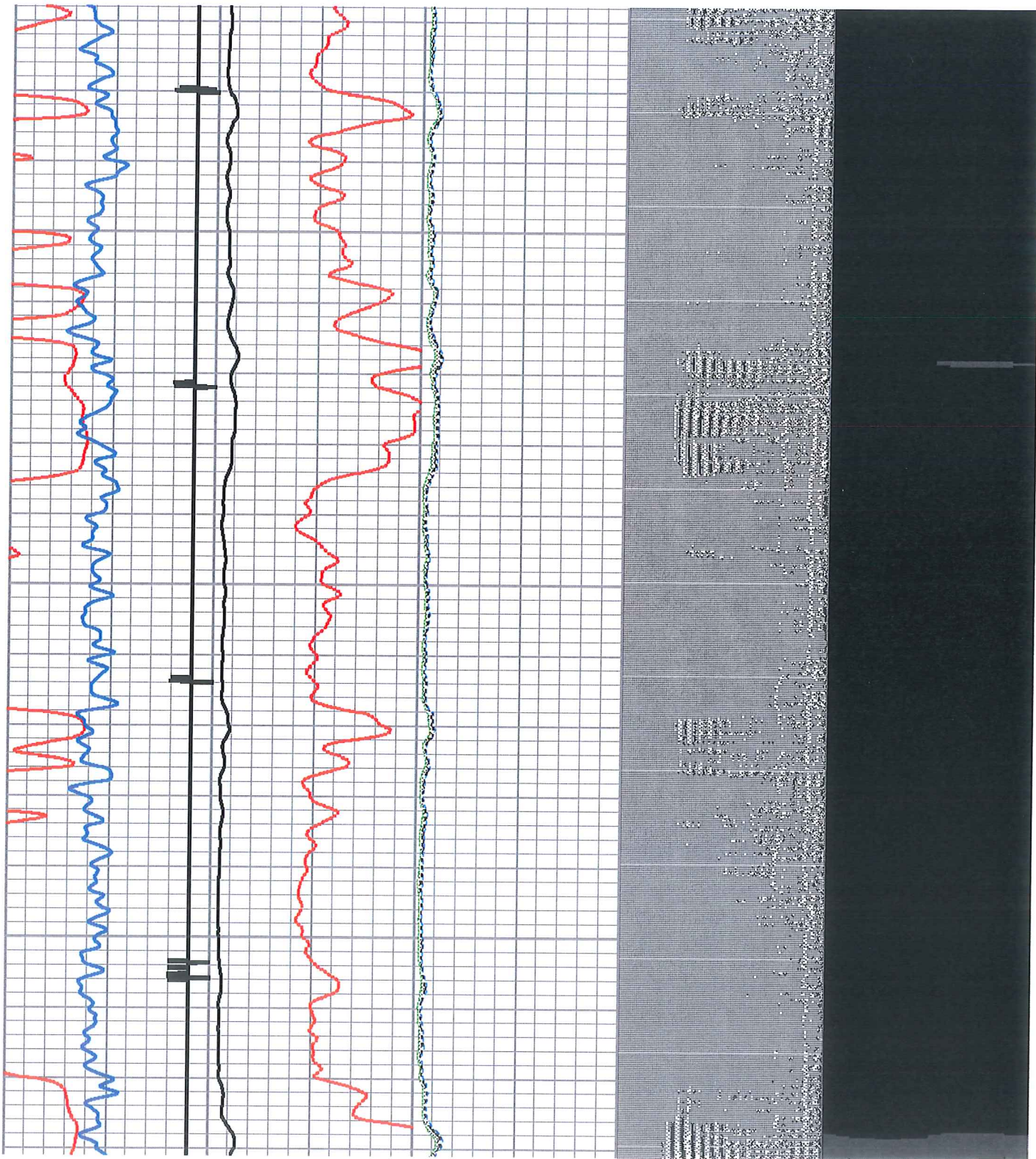


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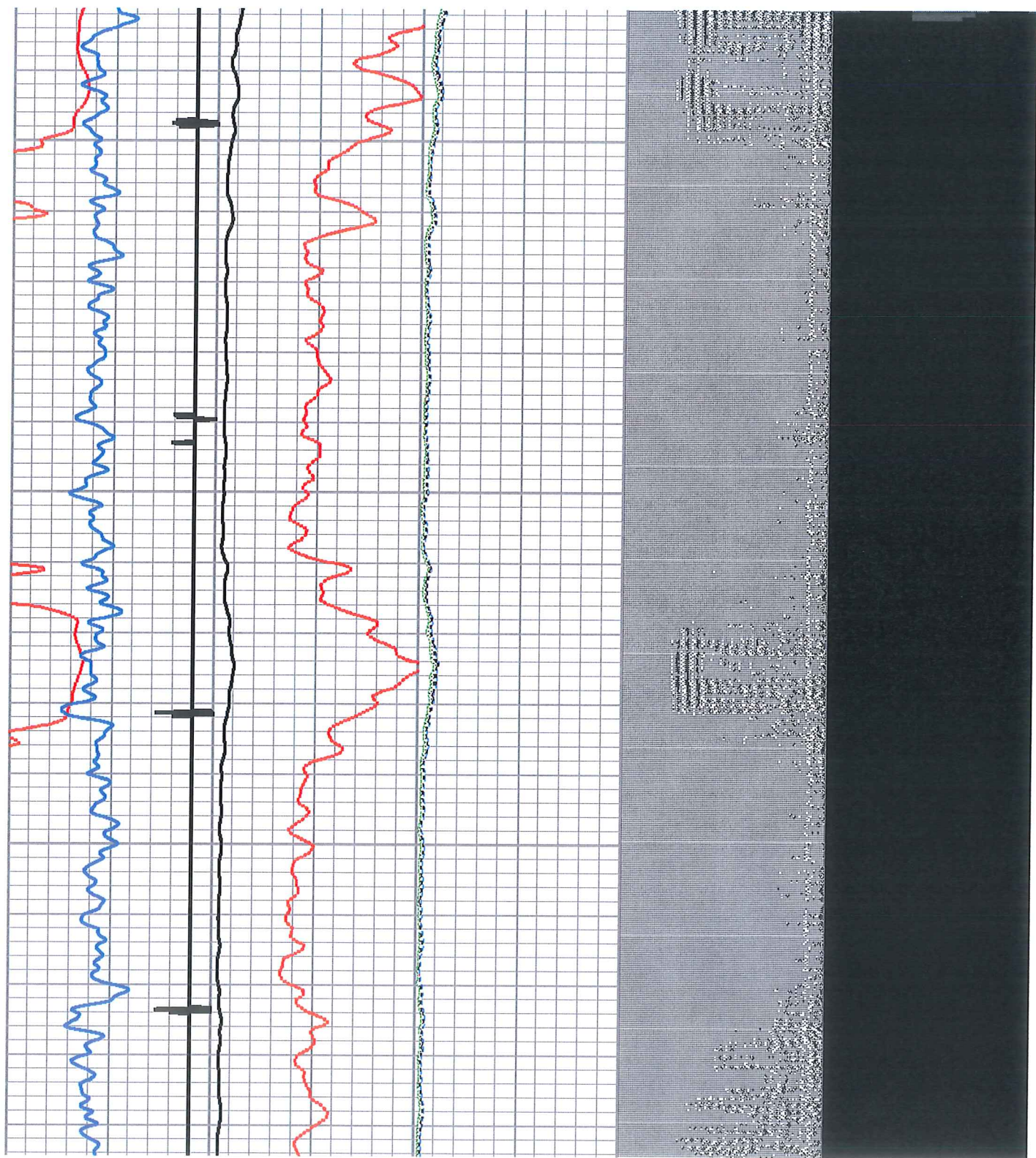


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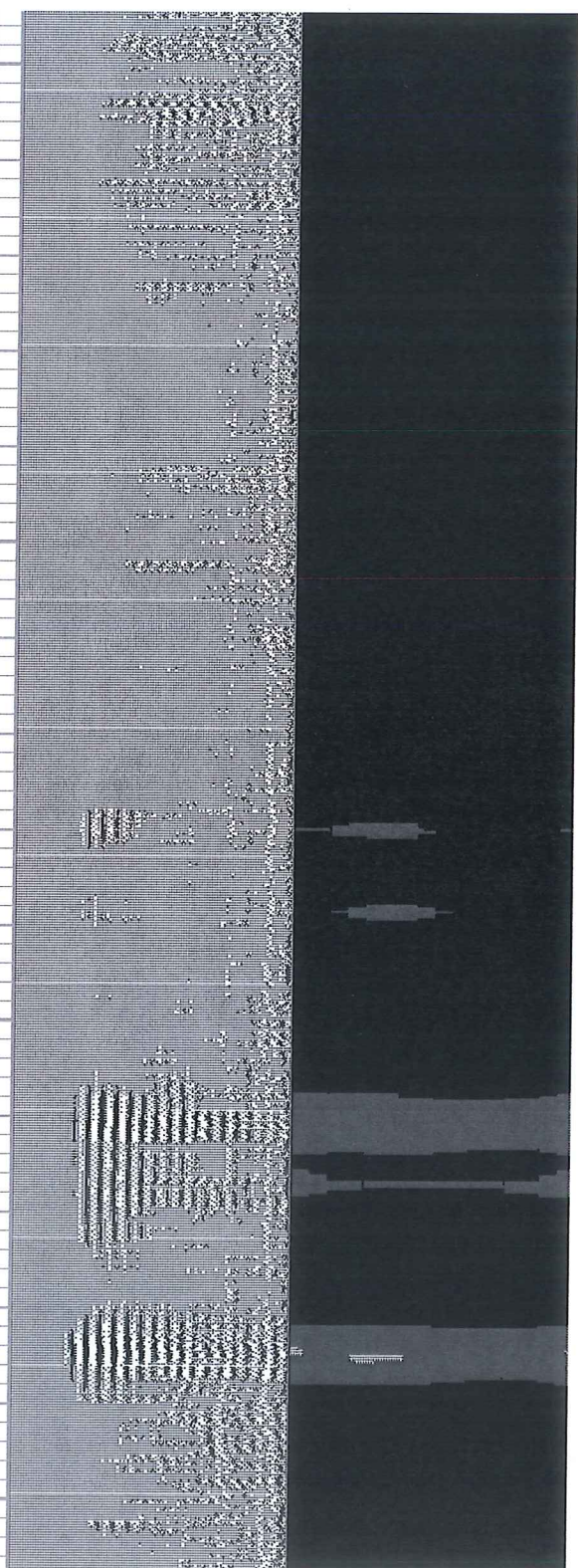
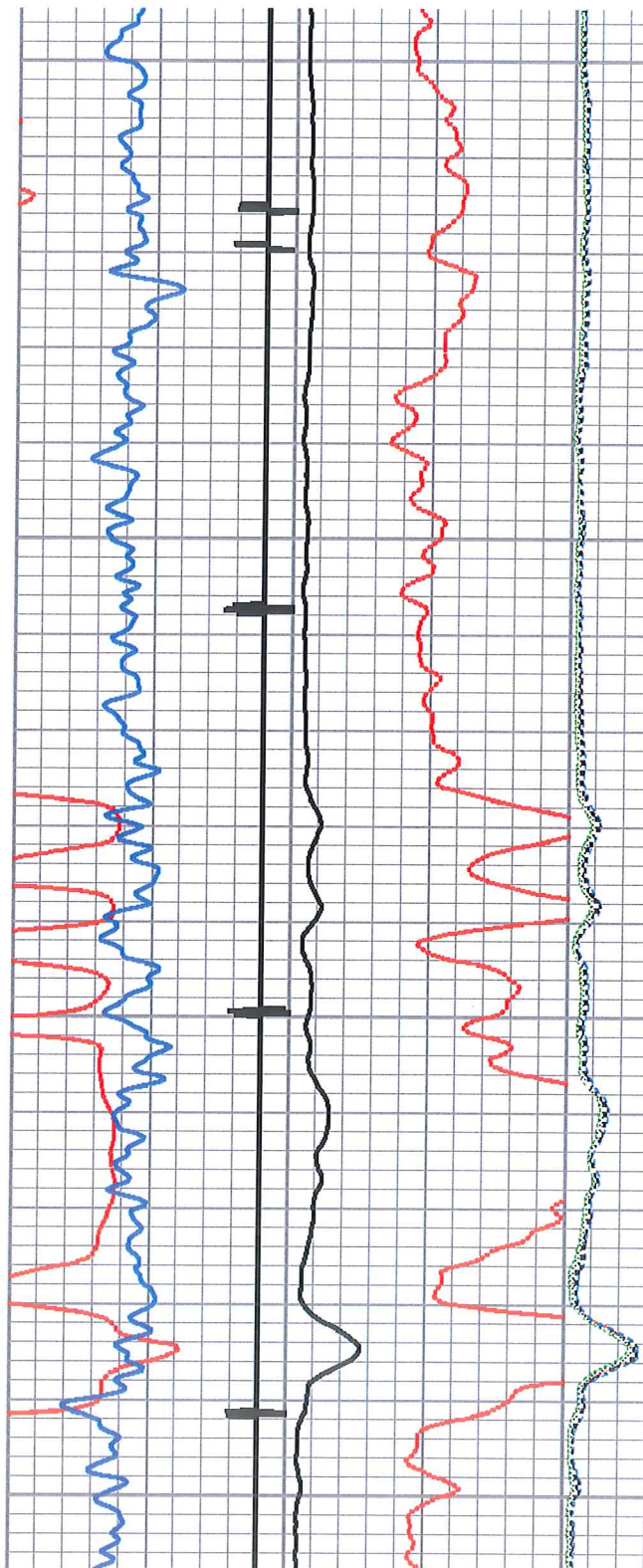


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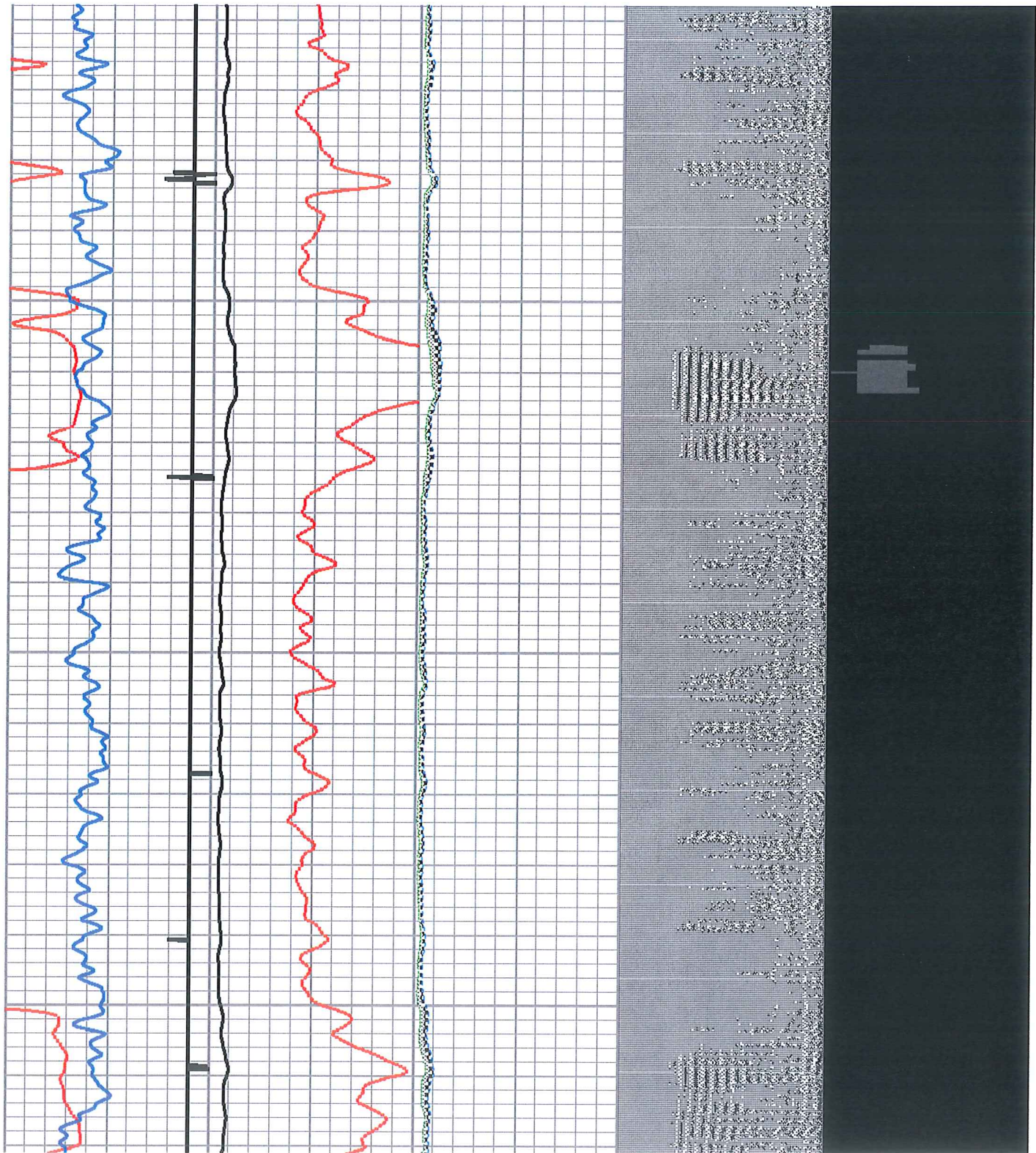
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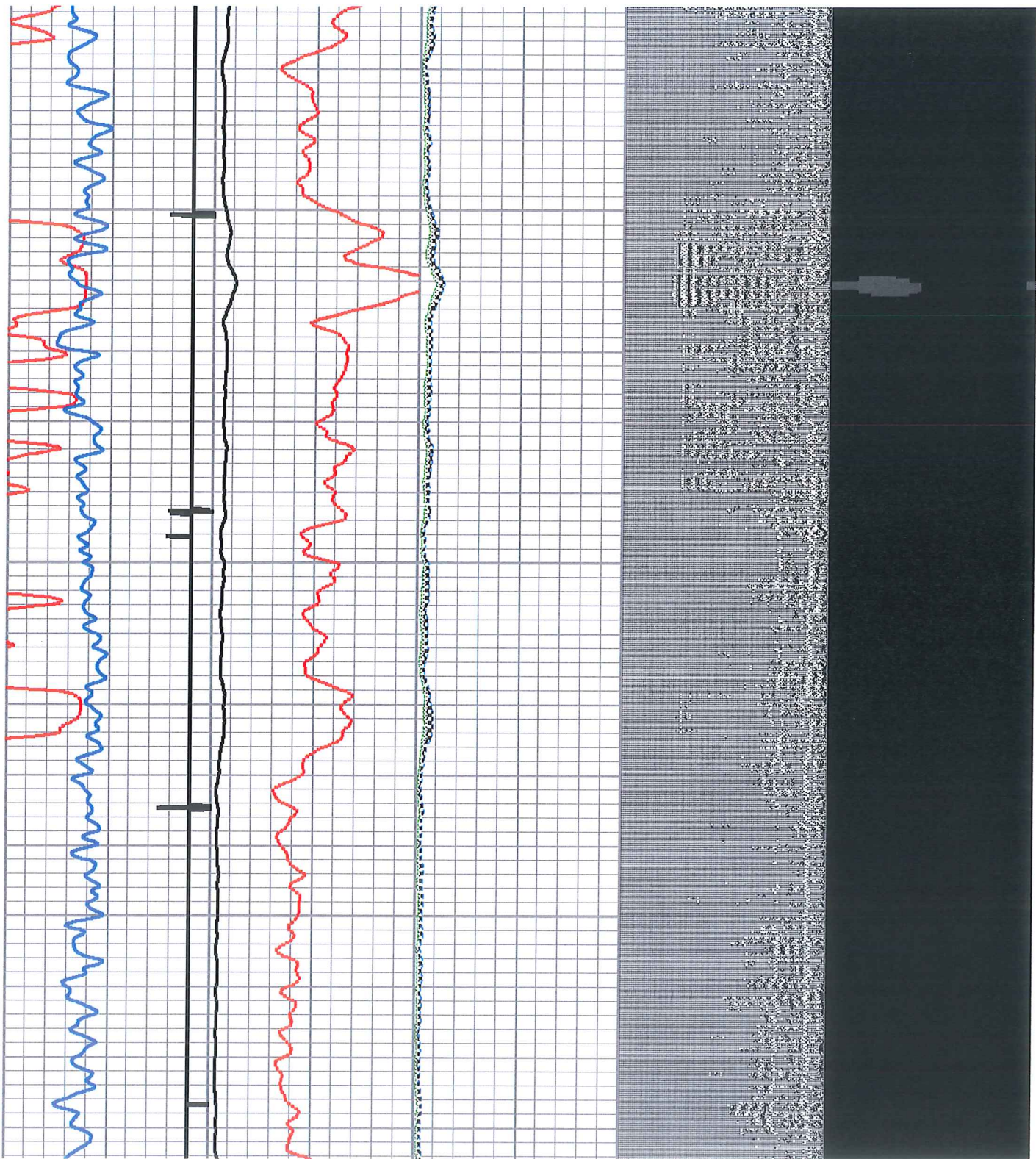


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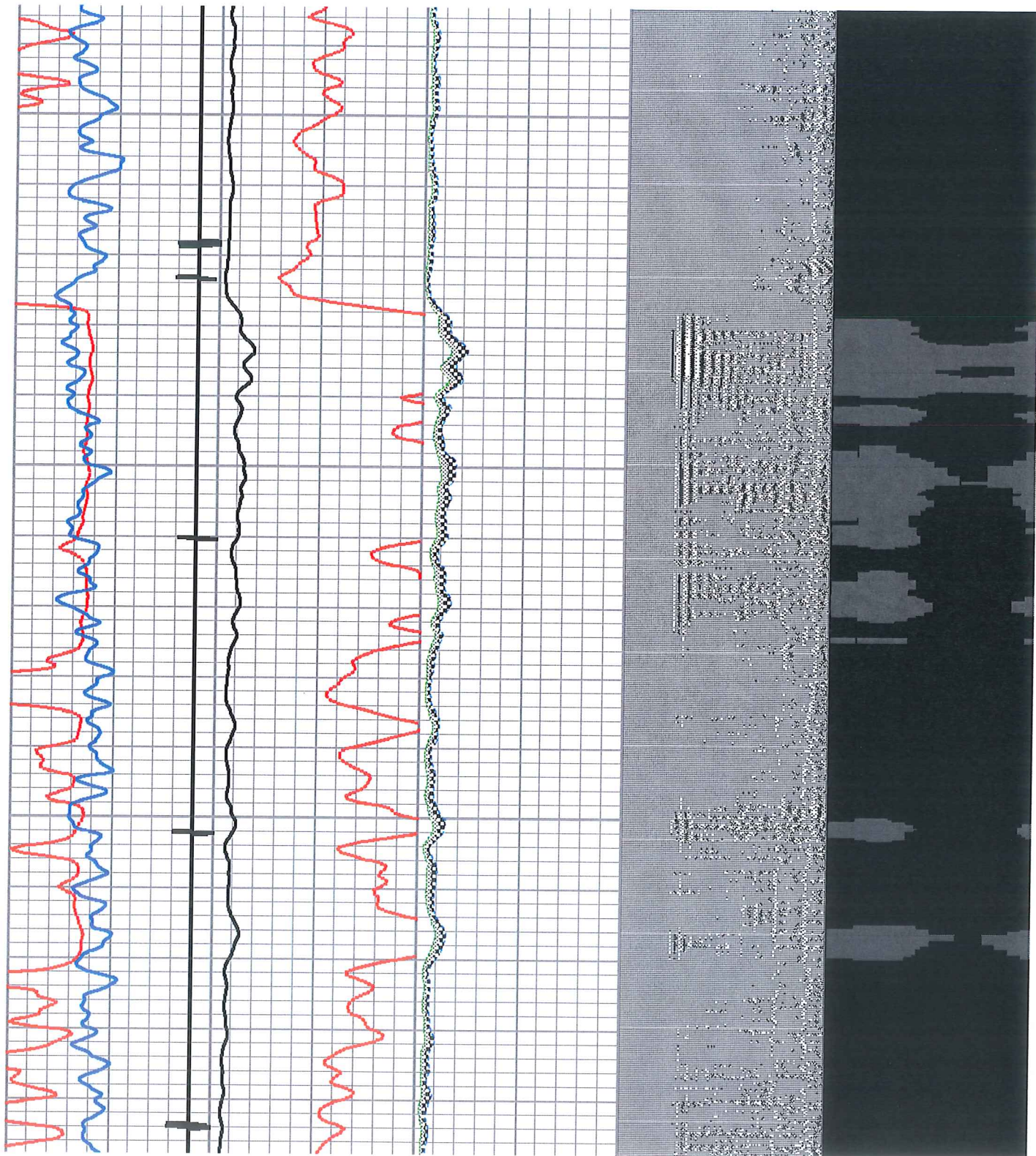


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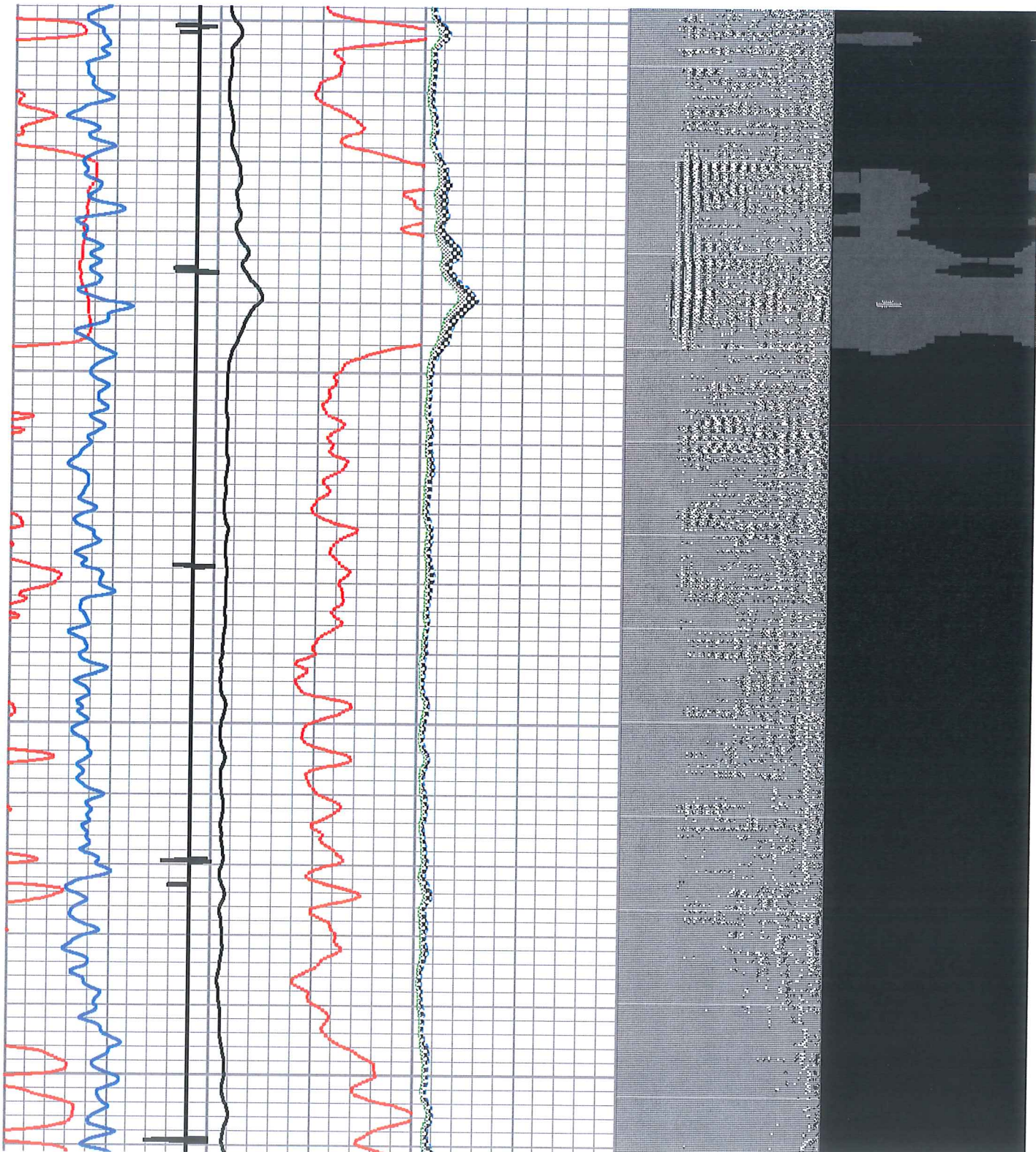
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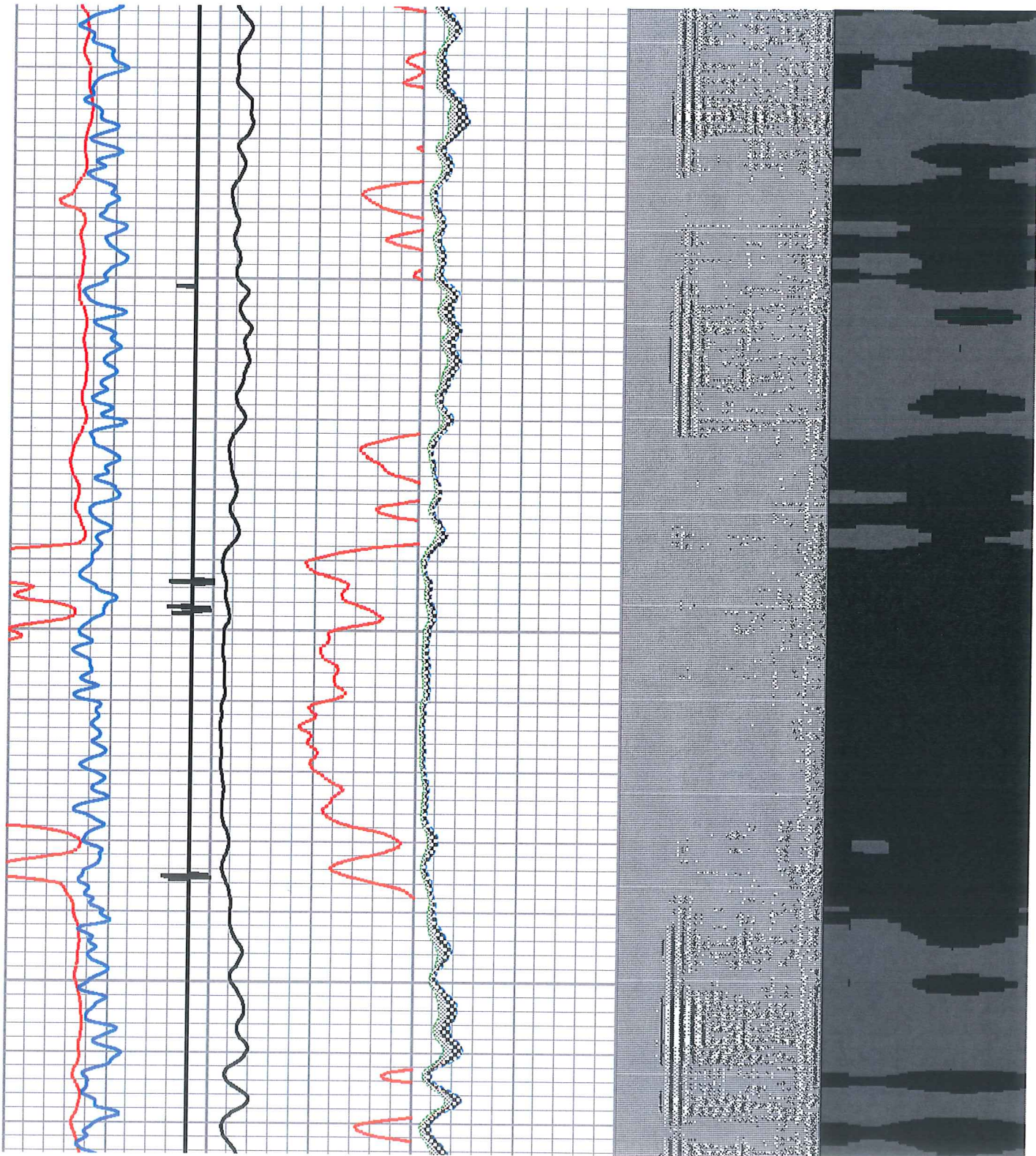


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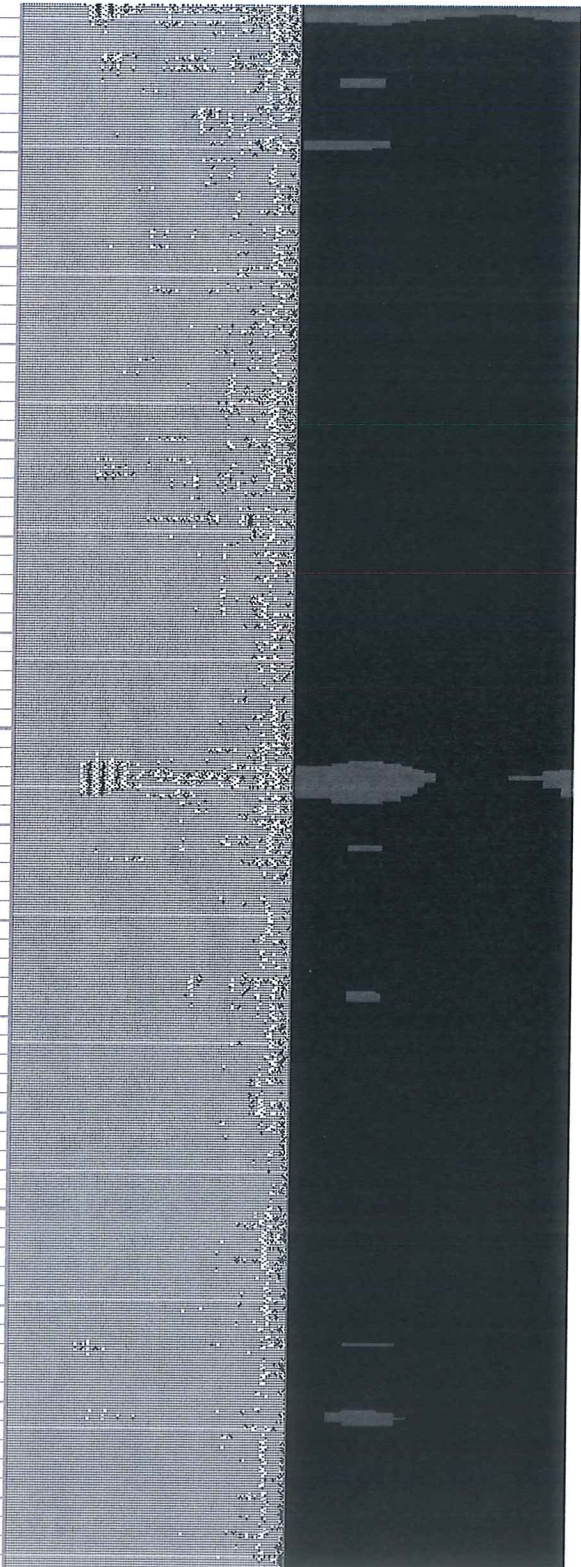
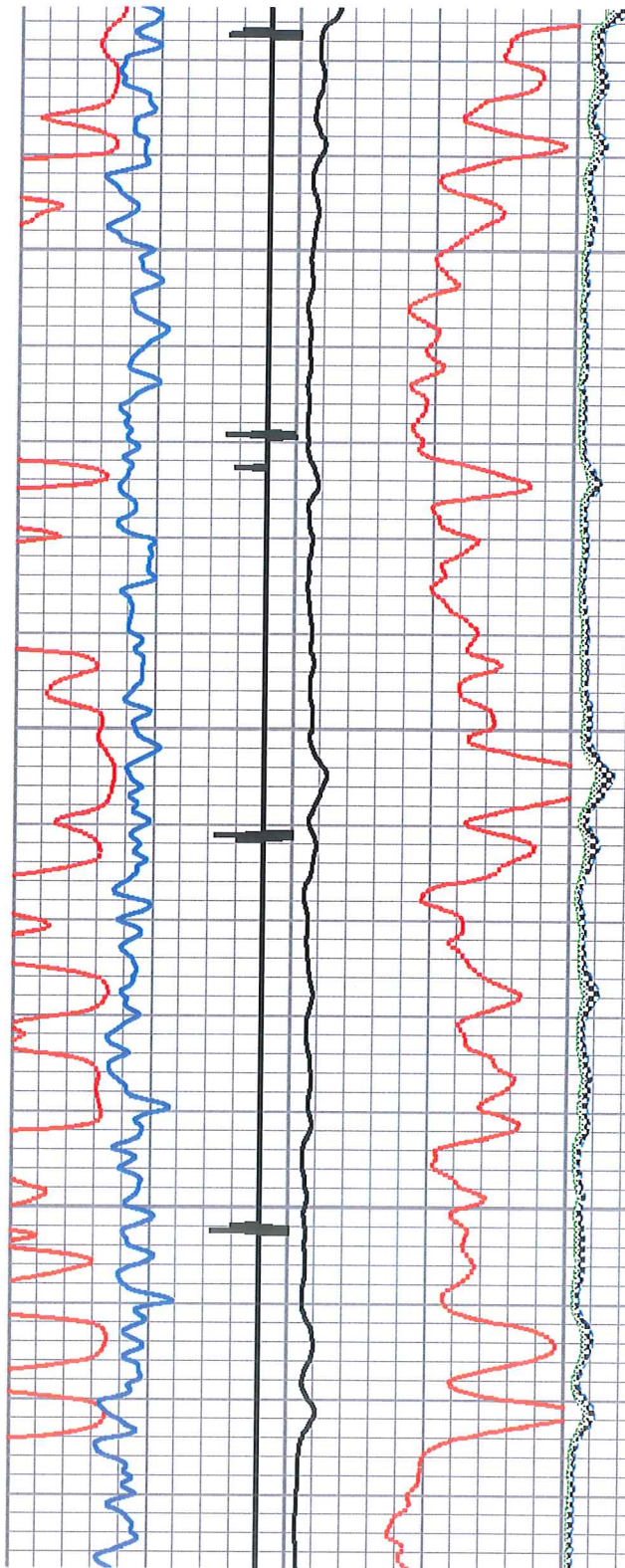


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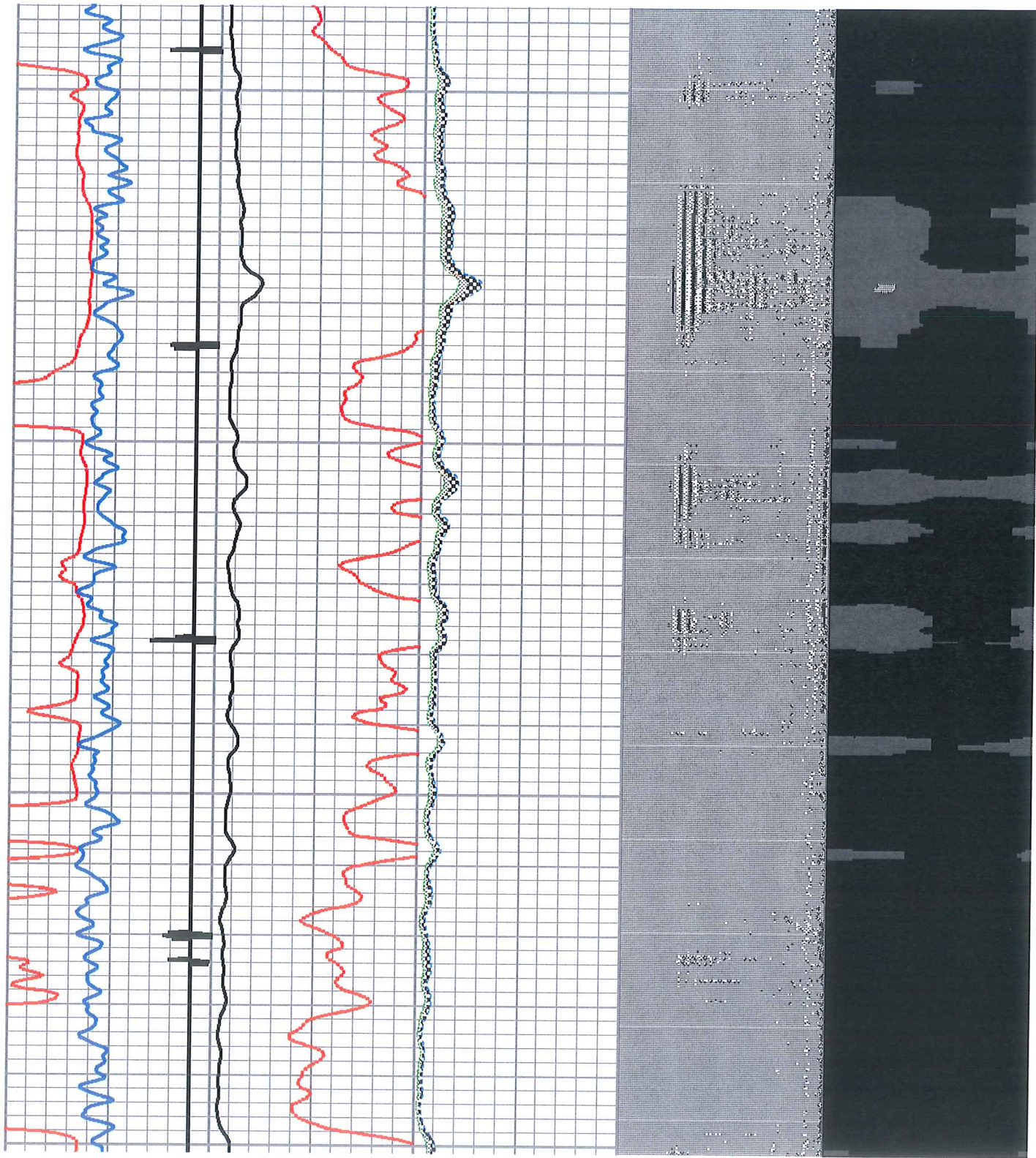
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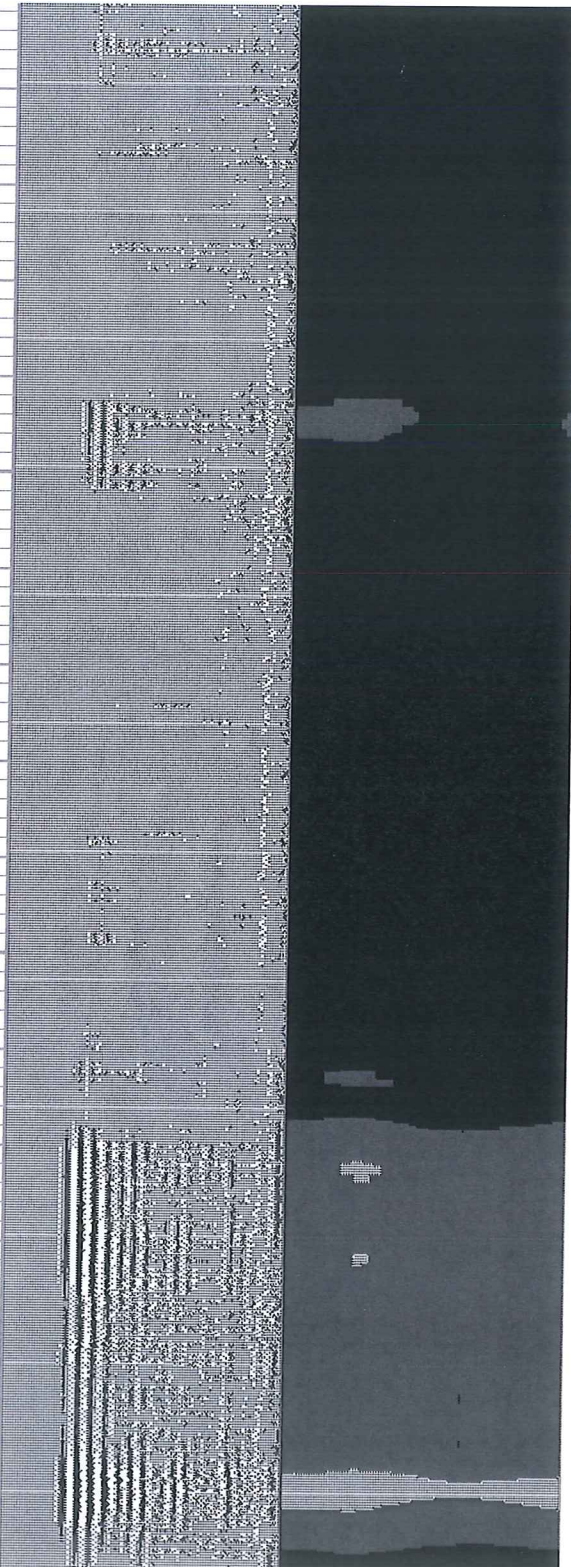
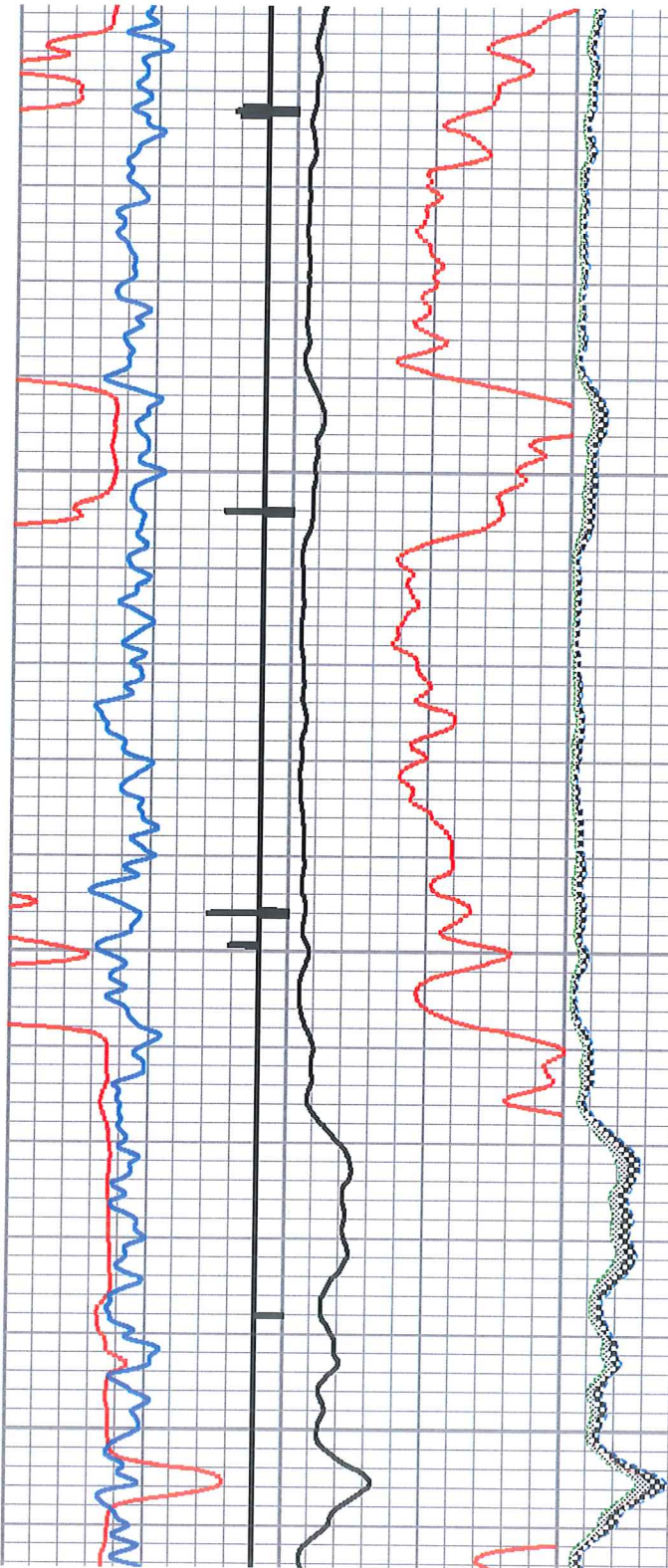


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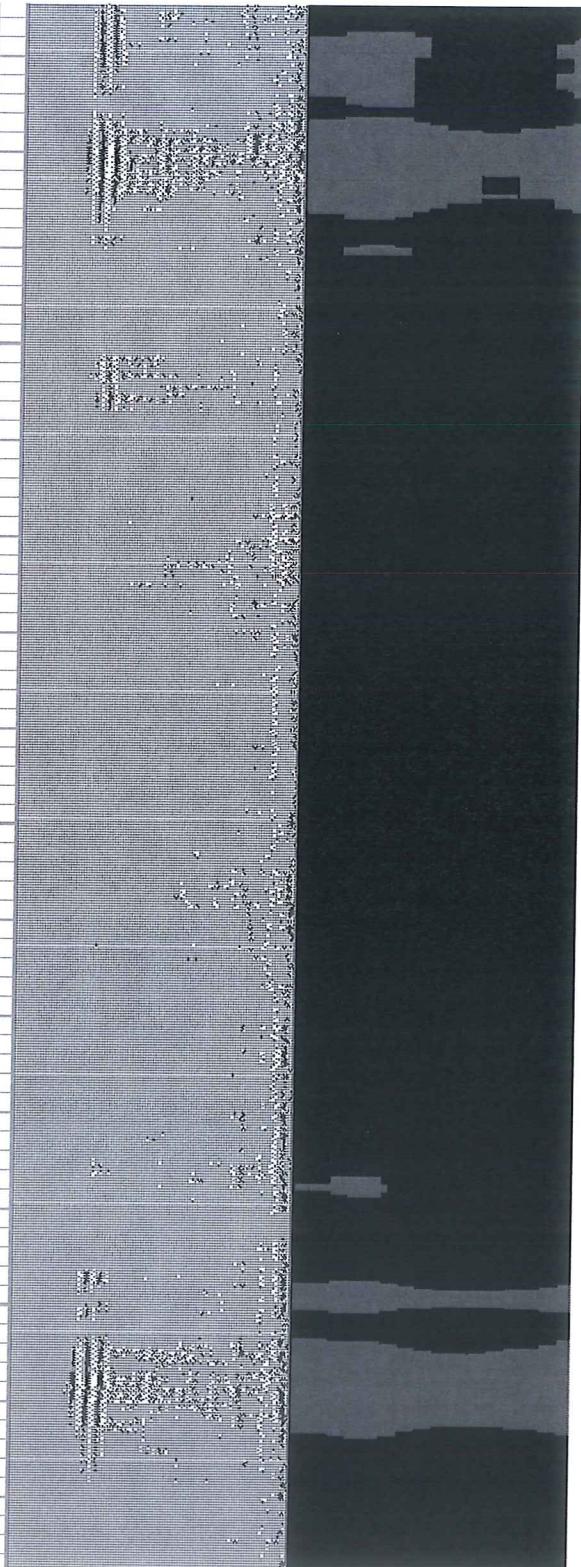
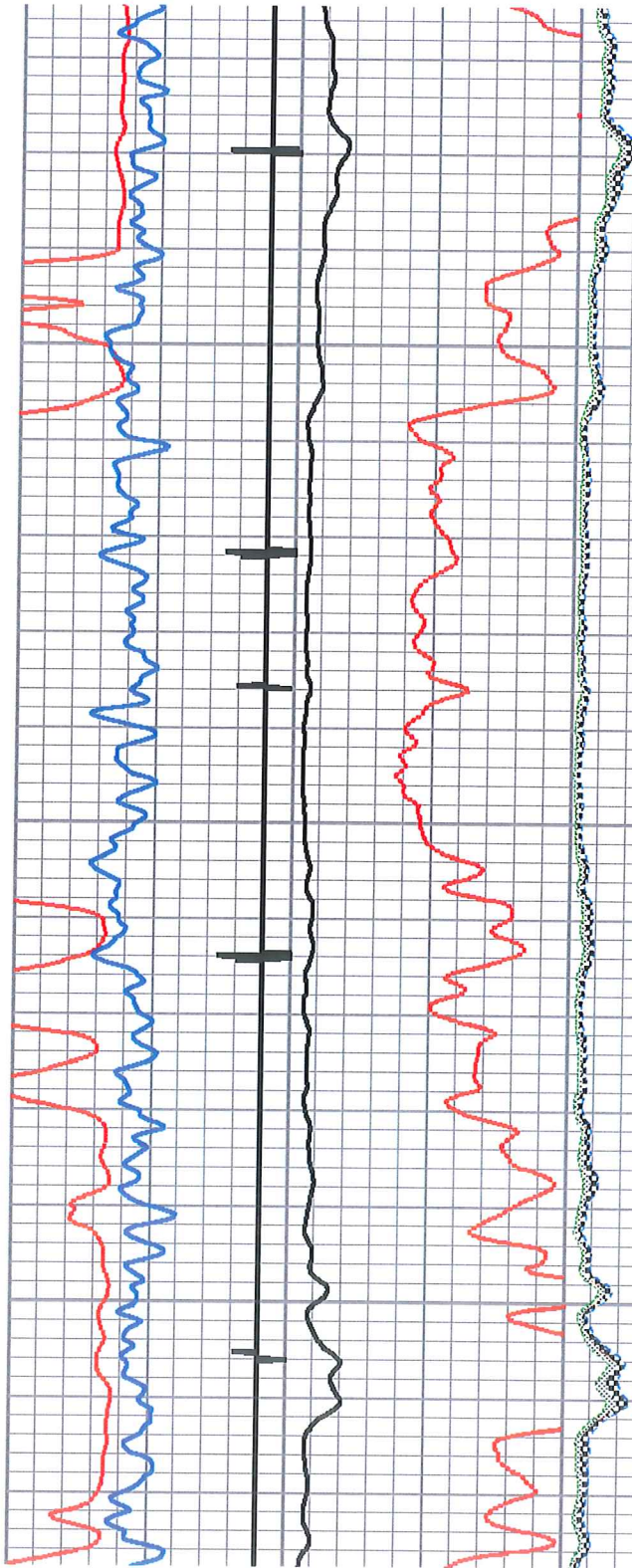


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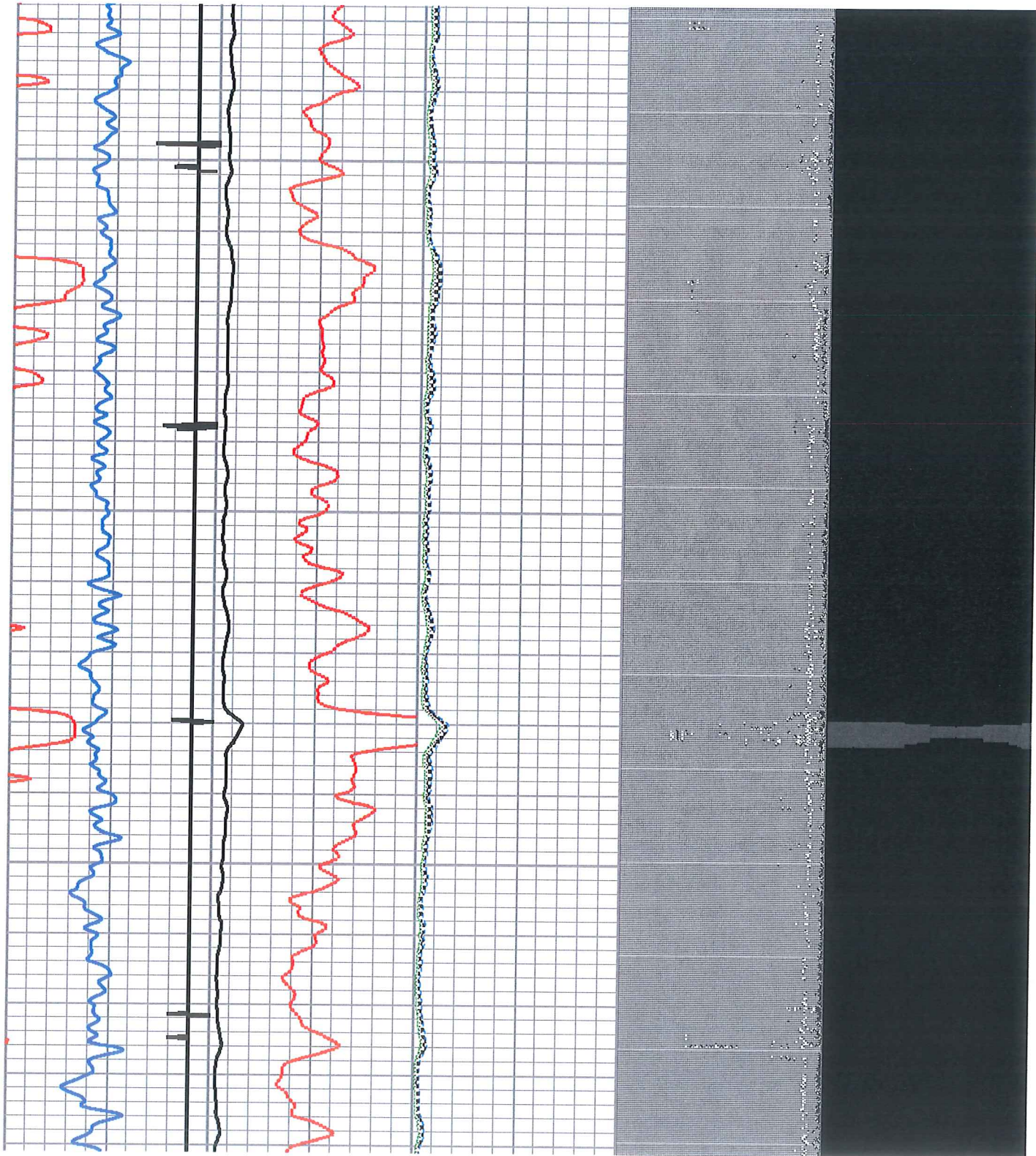


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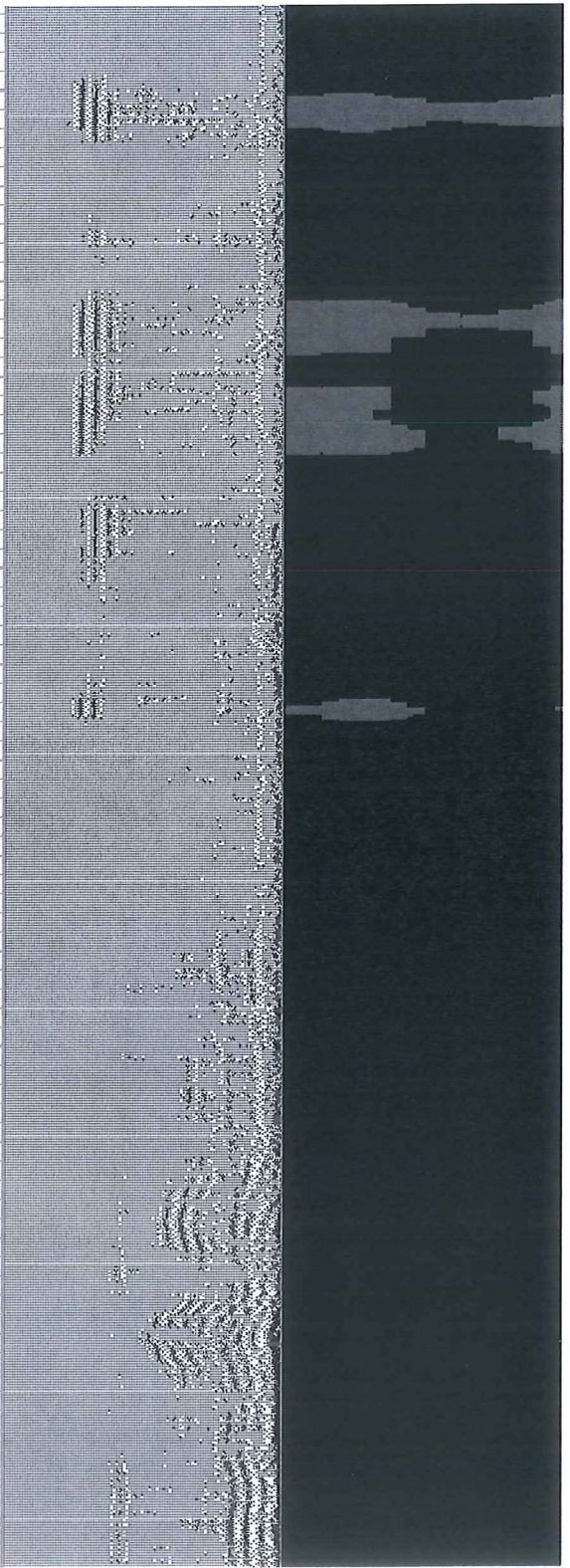
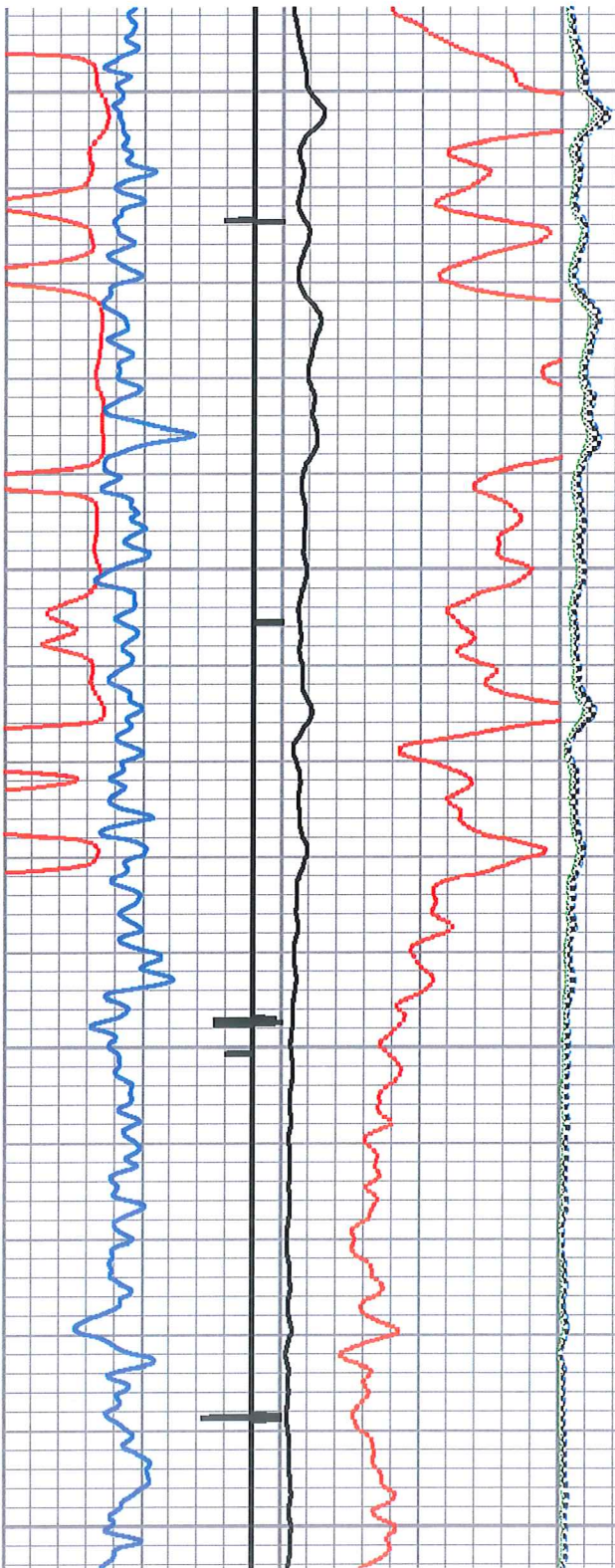


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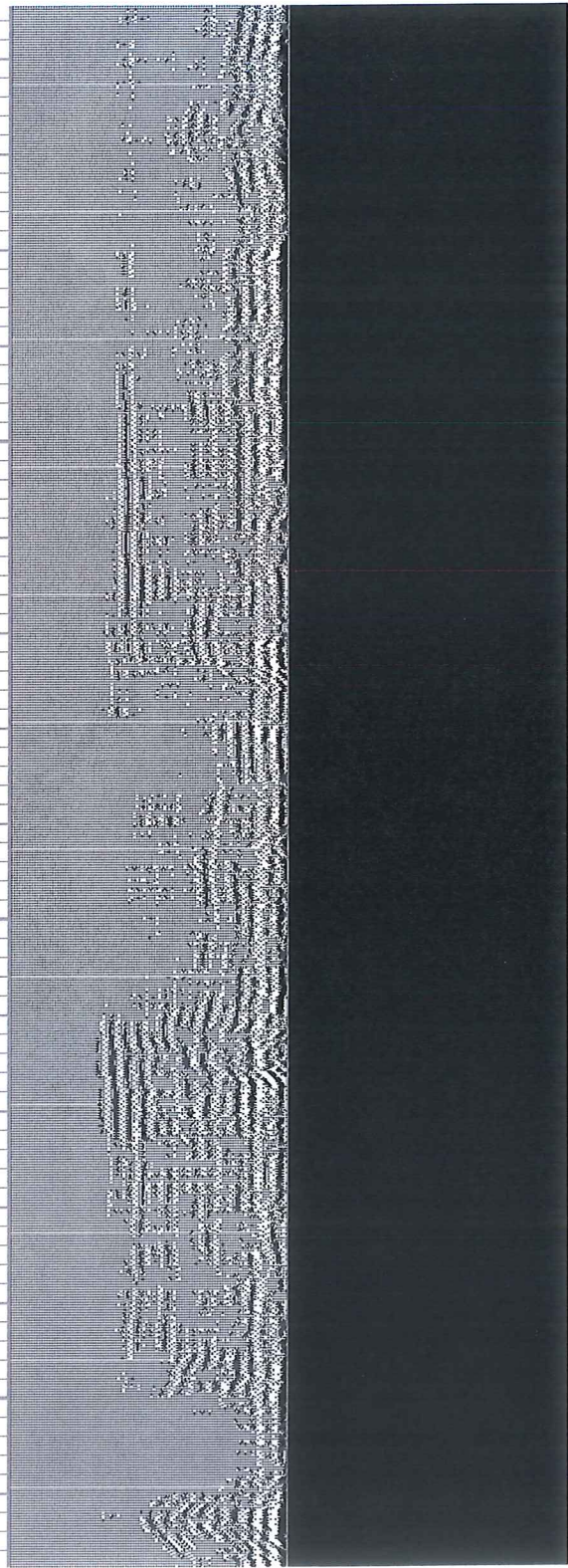
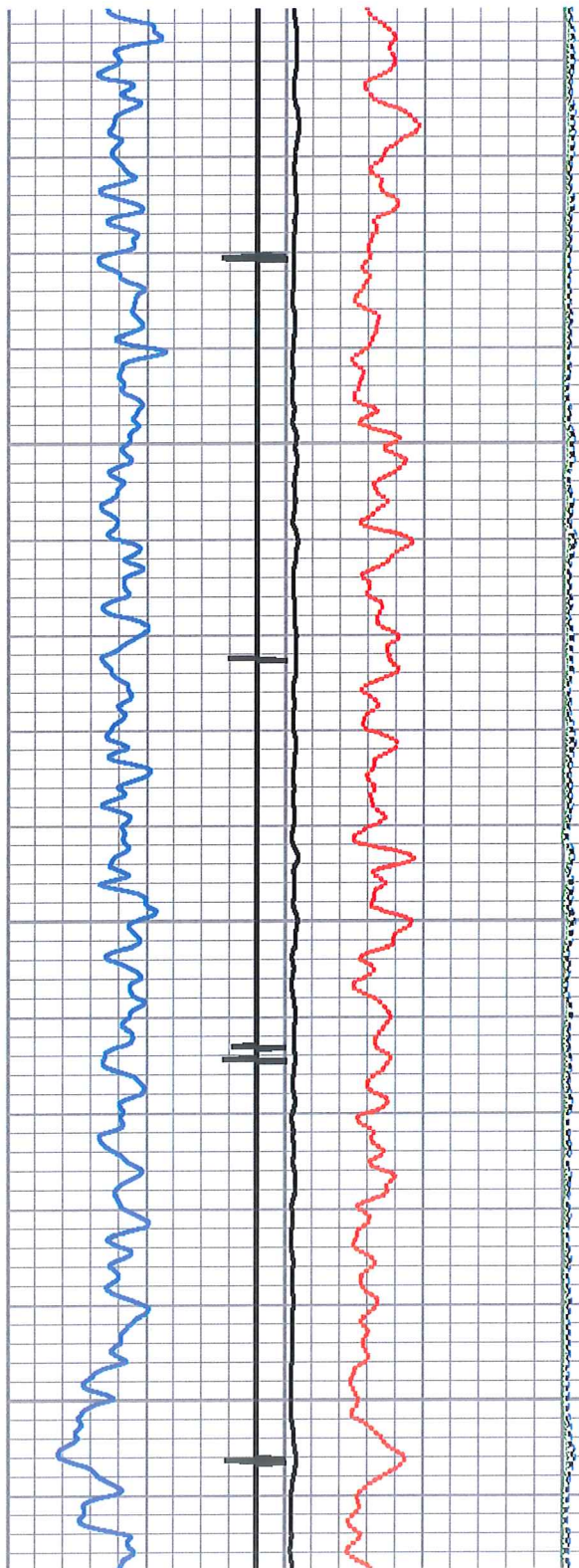
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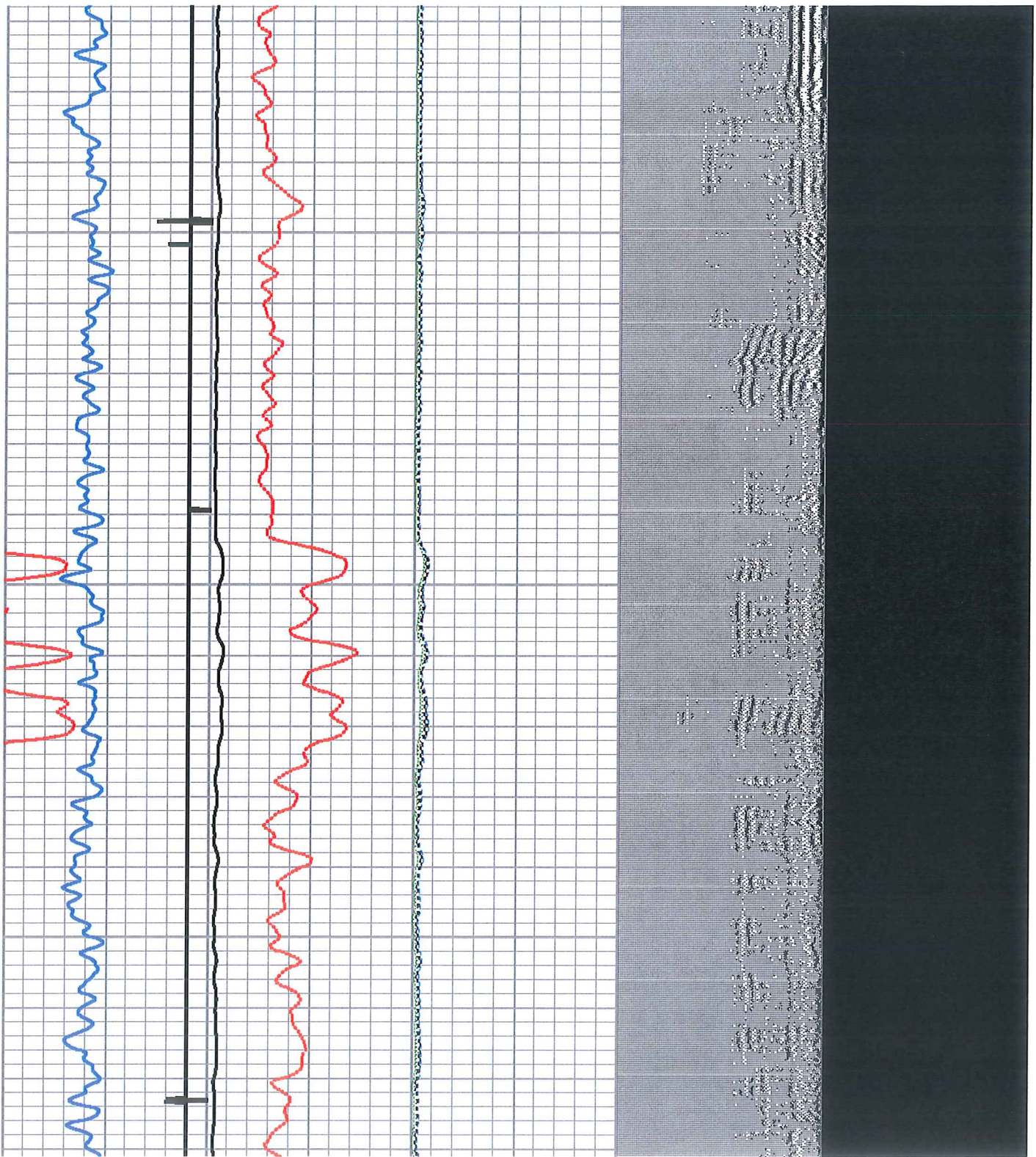


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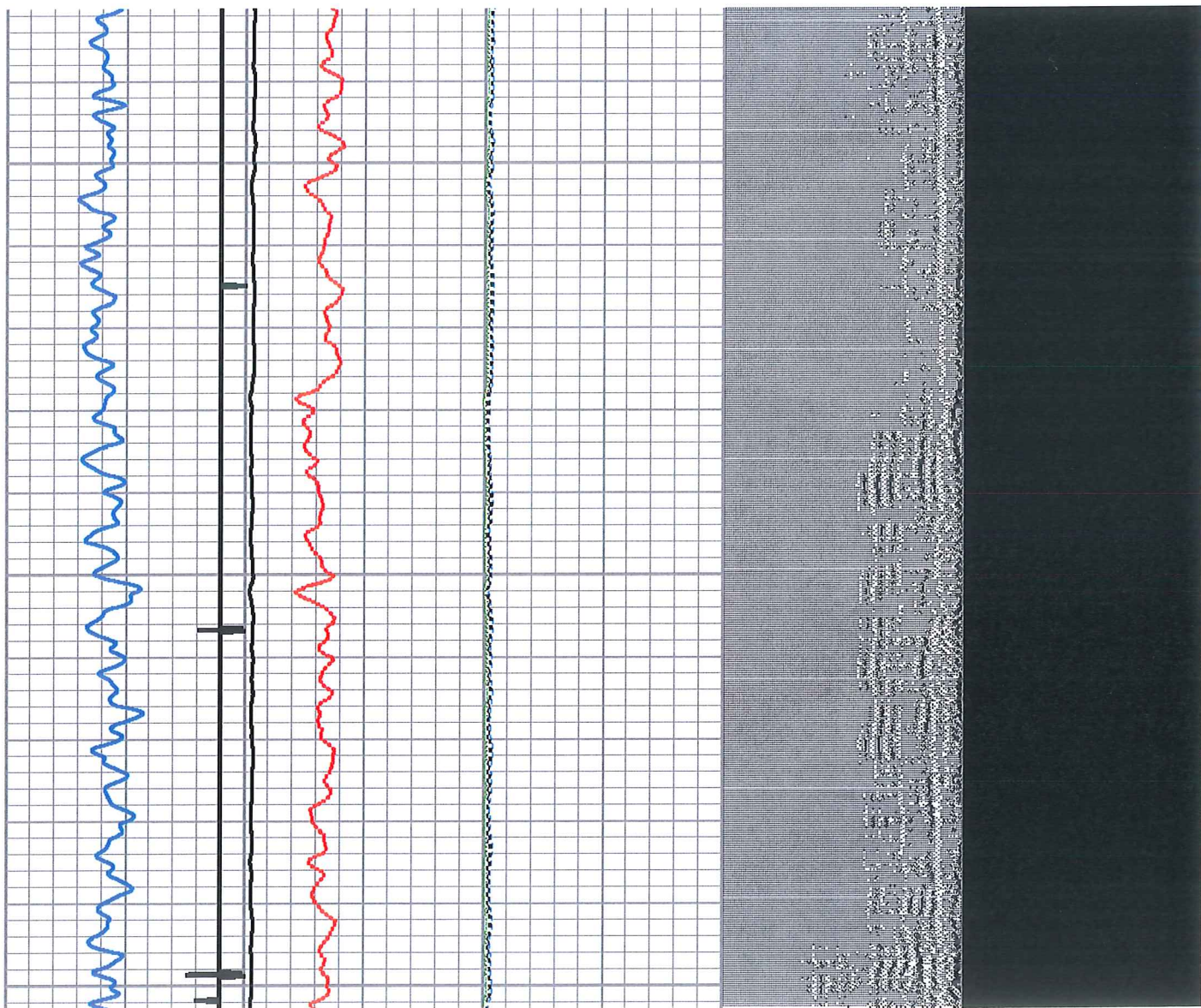


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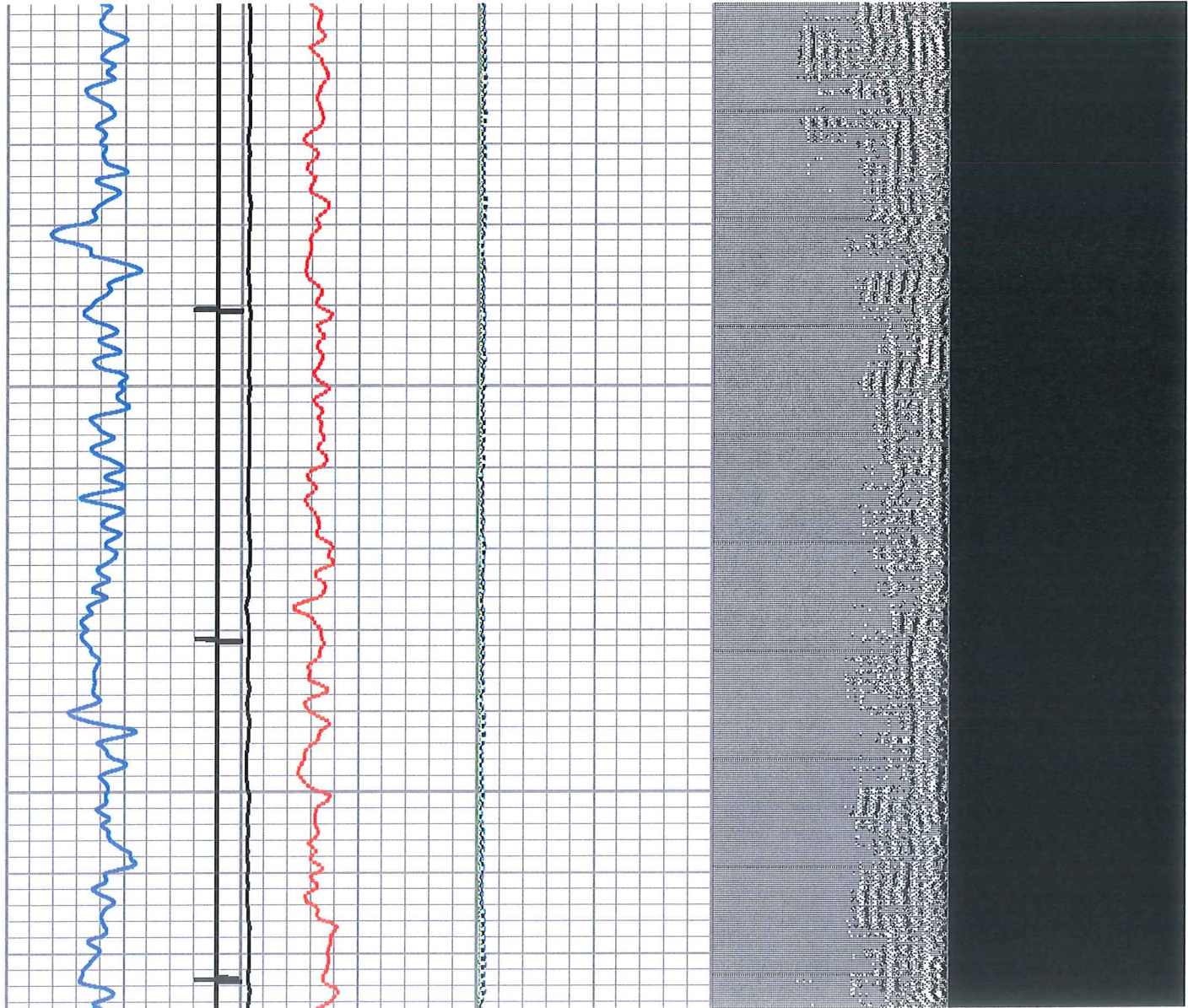


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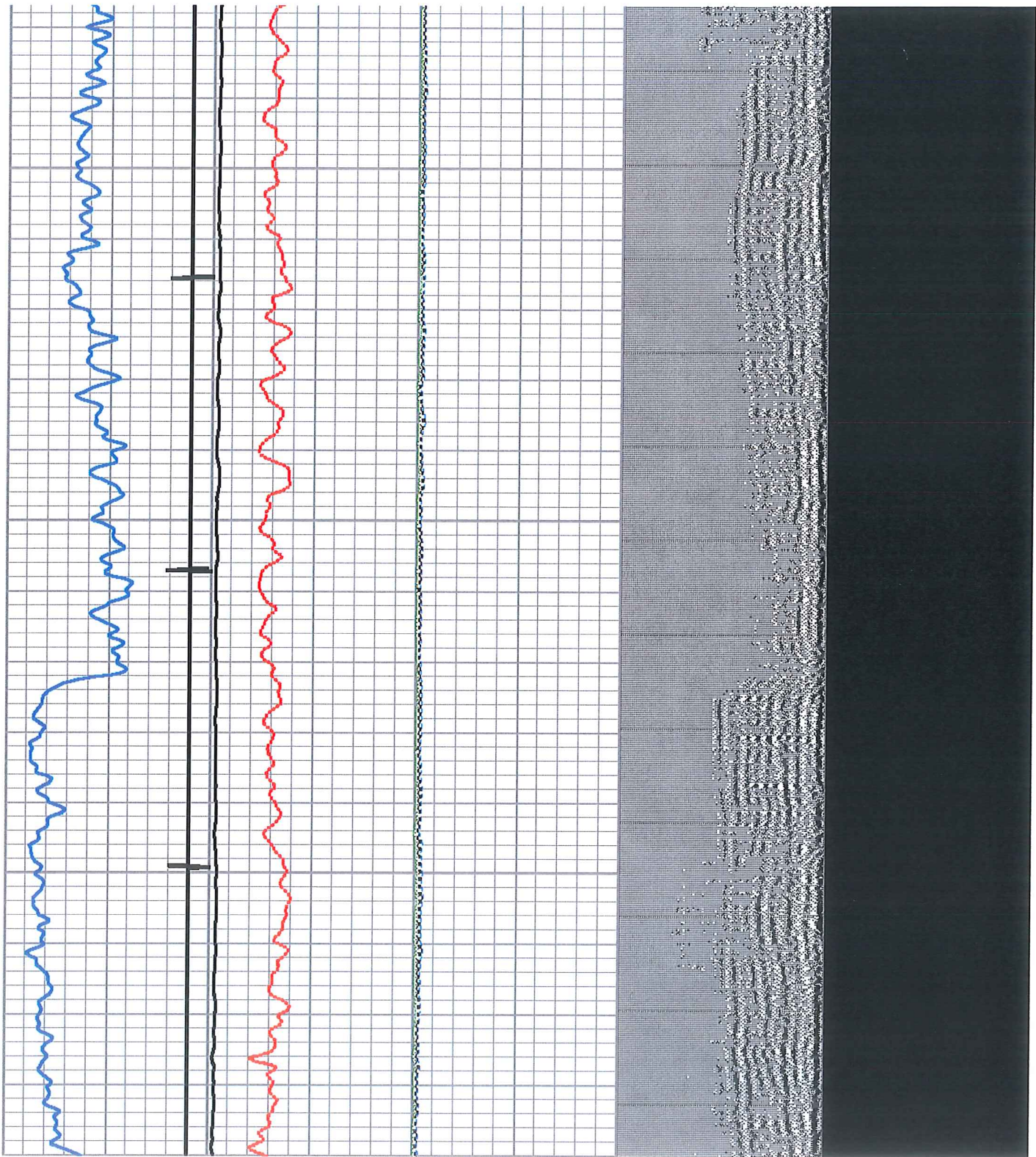
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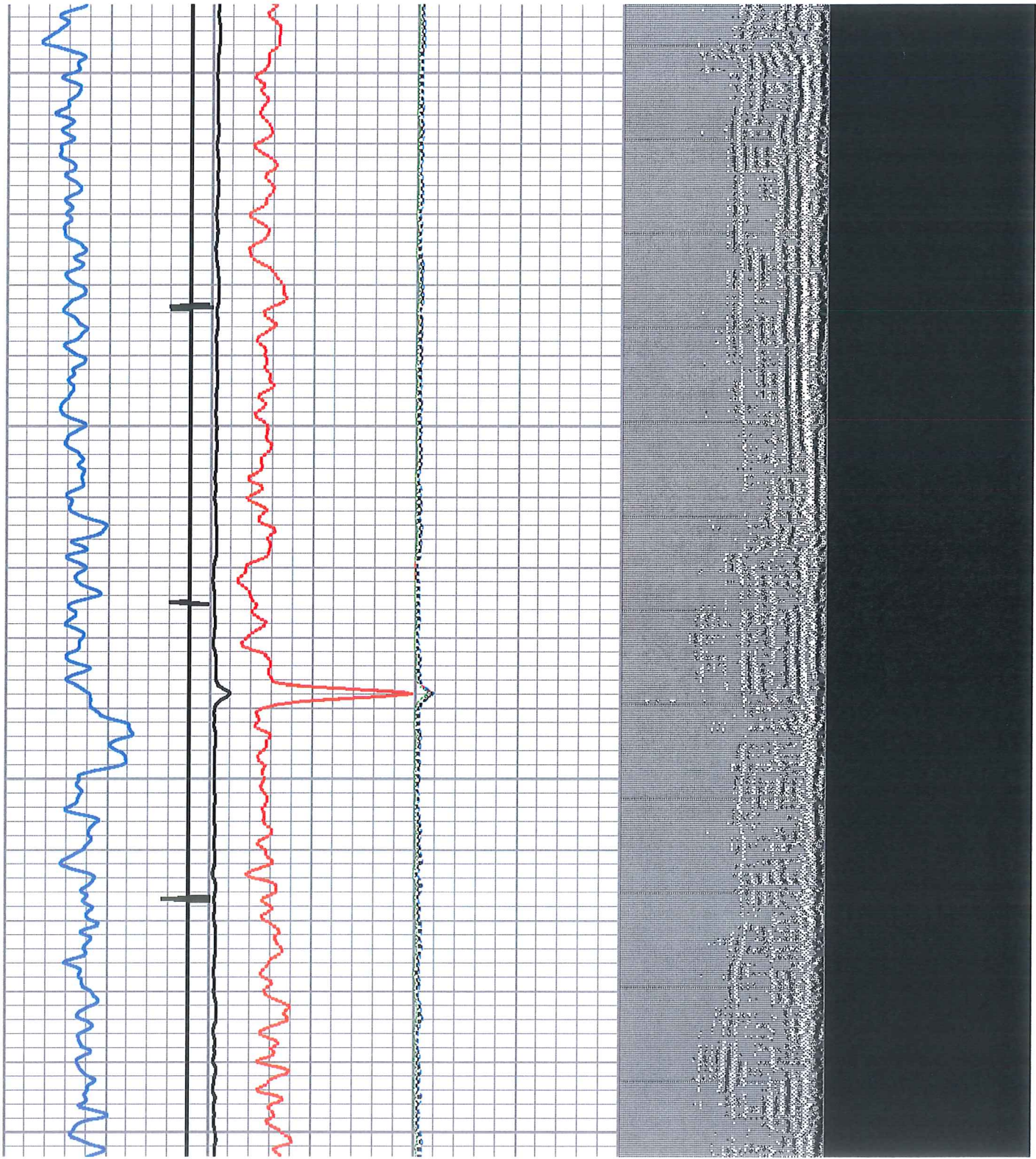


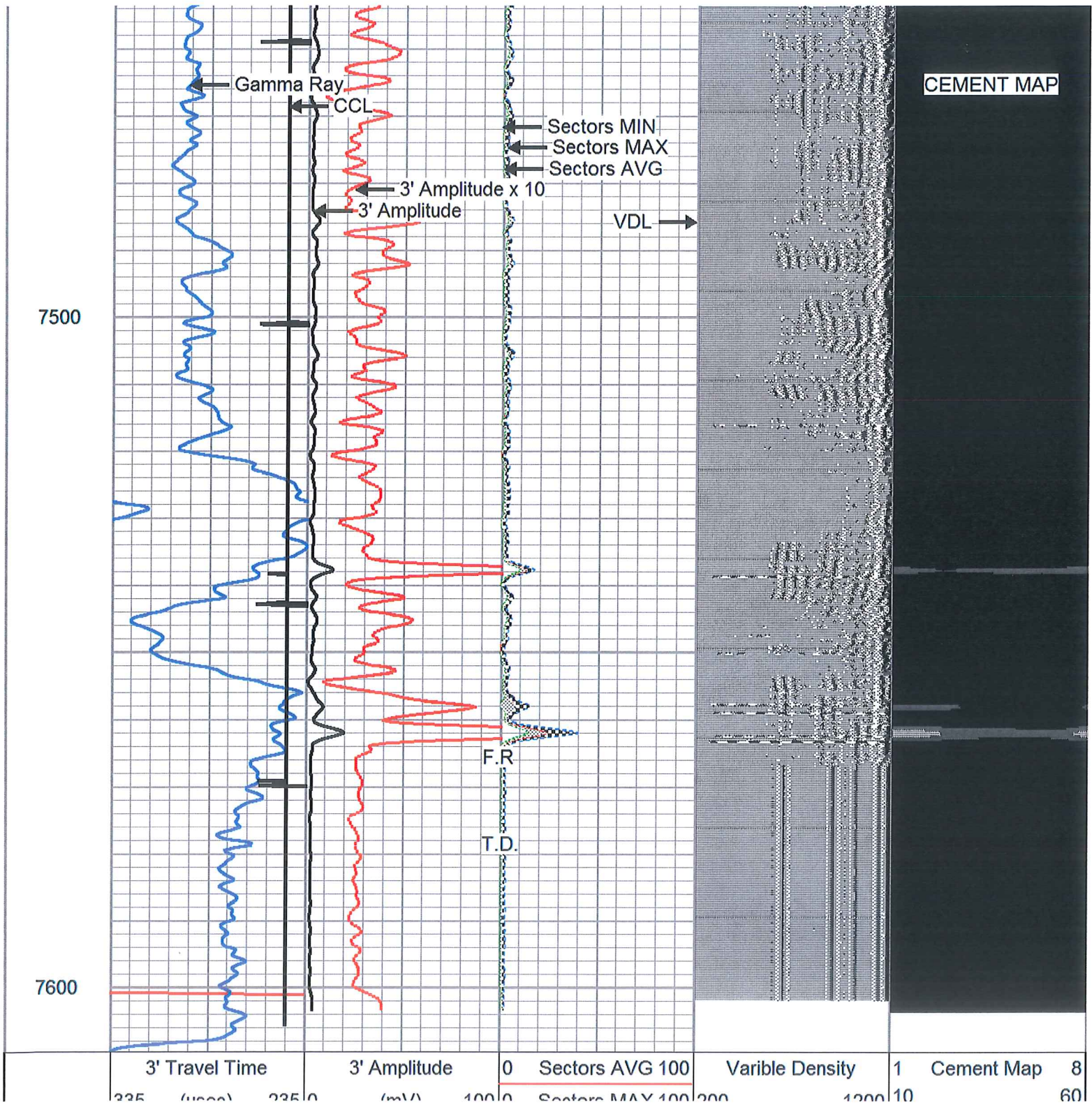
7200



7300

7400






3' Travel Time	3' Amplitude	0	Sectors AVG 100	Variable Density	1	Cement Map	8
235 (usec)	(mV)	100.0	Sectors MAX 100	1200	10		60

335	(usec)	235	0	(mV)	100	0	SECTORS MAX 100	200	1200
Gamma Ray		3' Amplitude x 10		0		SECTORS MIN 100			
0	(GAPI)	150	0	(mV)	10				
-9	CCL	1							



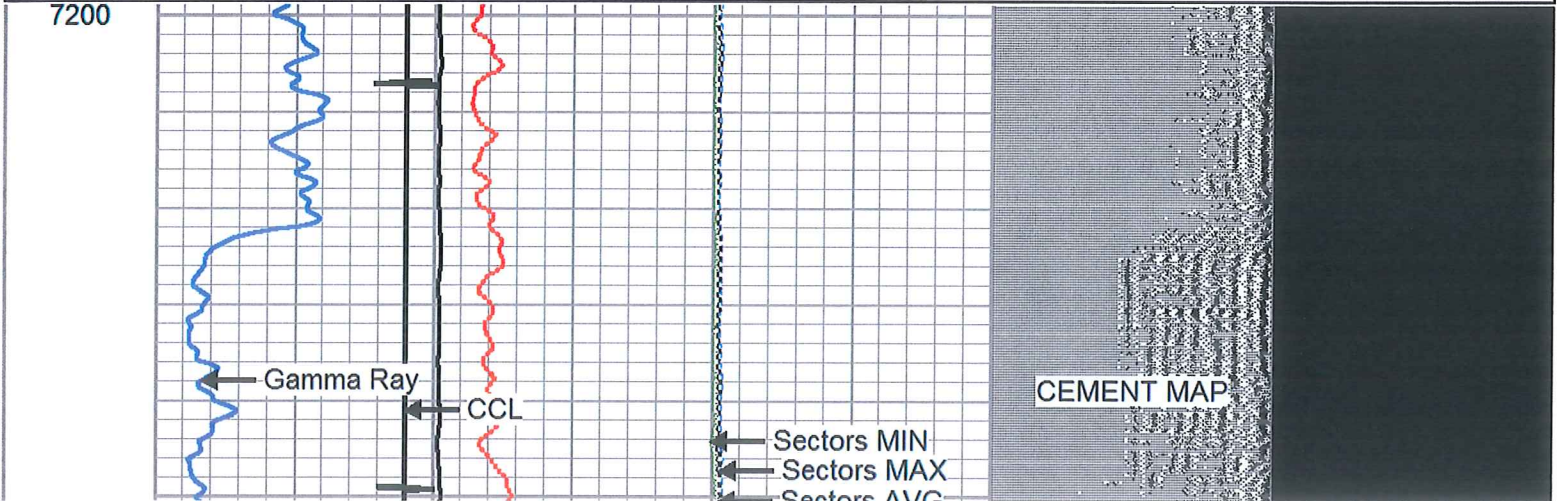
MAIN PASS



REPEAT PASS

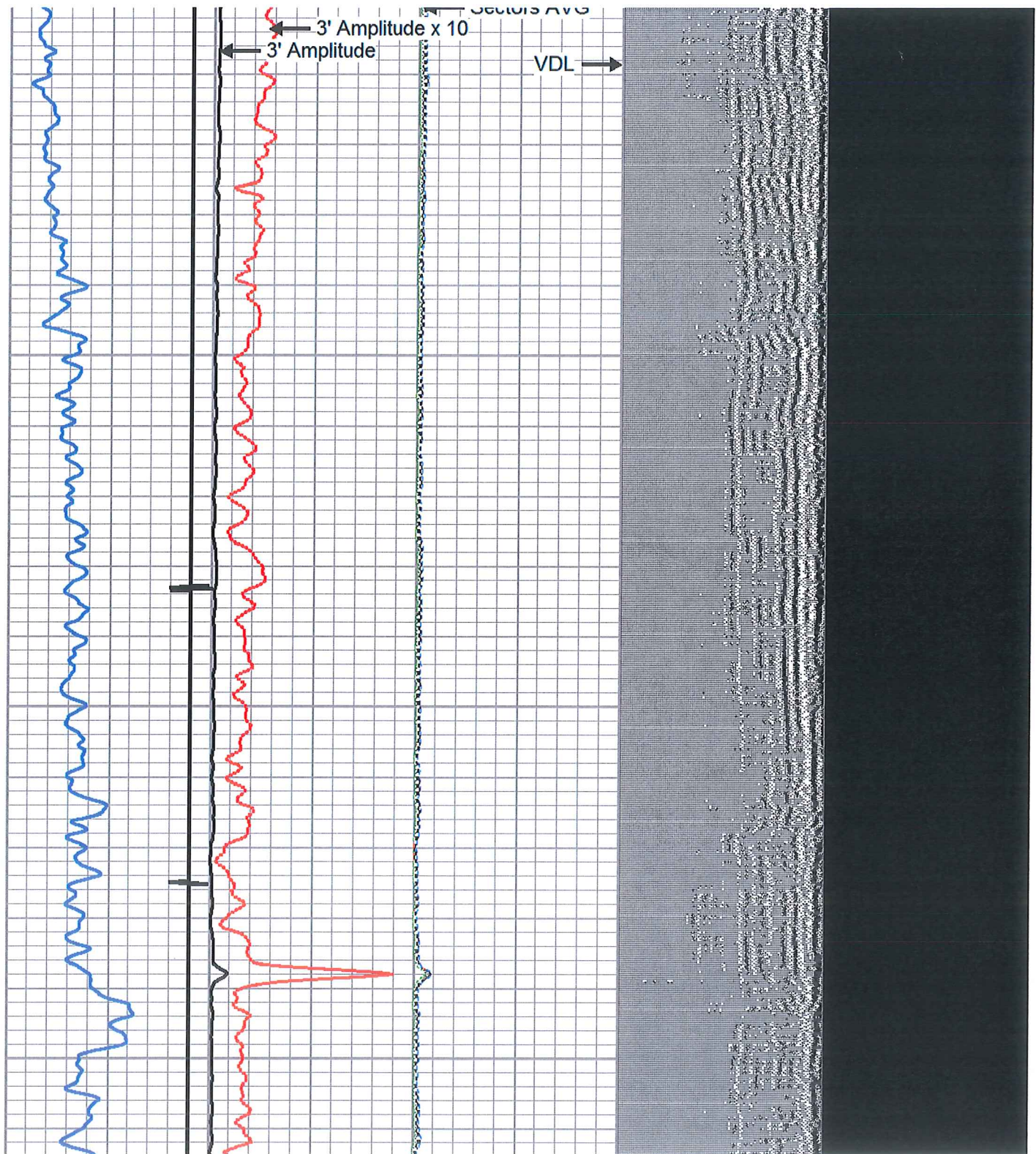
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 Dataset Pathname: pass3
 Presentation Format: scbl02
 Dataset Creation: Wed Sep 11 03:36:19 2013 by Log SCH 120430
 Charted by: Depth in Feet scaled 1:240

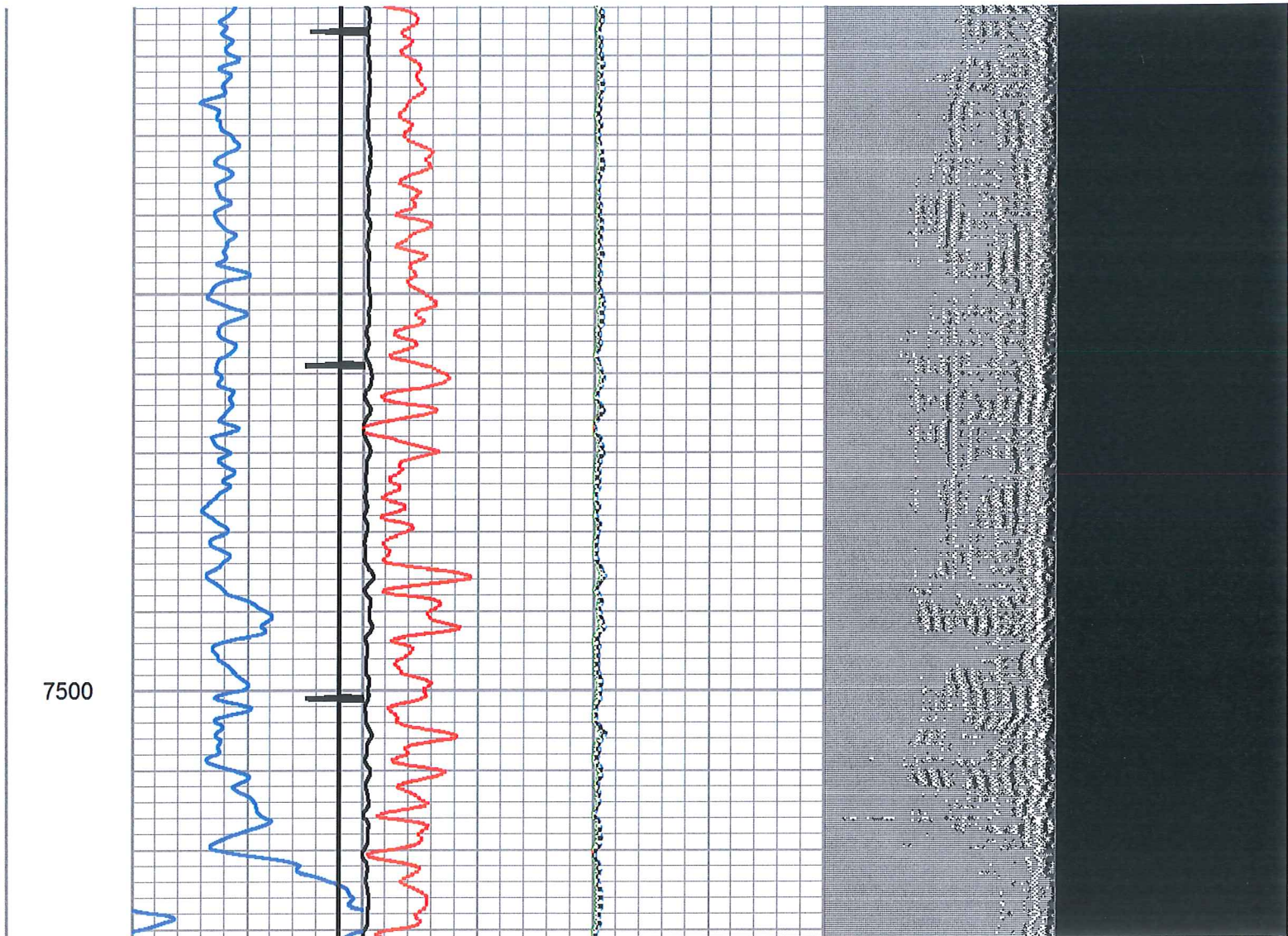
	3' Travel Time	3' Amplitude	0	SECTORS AVG 100	Variable Density	1	Cement Map	8
	335 (usec)	235 0	(mV)	100	0	SECTORS MAX 100	200	1200
	0	(GAPI)	150	0	(mV)	10	60	
	-9	CCL	1					



7300

7400





3' Travel Time	3' Amplitude	0	Sectors AVG 100	Variable Density	1	Cement Map	8
335 (usec) 235	0 (mV) 100	0	Sectors MAX 100	200 1200	10		60
Gamma Ray	3' Amplitude x 10	0	Sectors MIN 100				
0 (GAPI) 150	0 (mV) 10						
-9 CCL 1							



REPEAT PASS

Calibration Report

Database File: antero-tenmile1h-rcbl-091013.db
 Dataset Pathname: pass3
 Dataset Creation: Wed Sep 11 03:36:19 2013 by Log SCH 120430

Gamma Ray Calibration Report

Serial Number: 275
 Tool Model: Probe
 Performed: Thu Dec 16 15:42:53 2010

Calibrator Value: 100.0 GAPI

Background Reading: 35.0 cps
 Calibrator Reading: 160.0 cps

Sensitivity: 0.5000 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: Base
 Tool Model: Probe

Calibration Casing Diameter: 5.500 in
 Calibration Depth: 78.858 ft

Master Calibration, performed Wed Sep 11 02:54:26 2013:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.011	0.368	1.000	71.921	187.137	2.992
CAL	-0.009	0.460				
5'	-0.010	0.303	1.000	71.921	226.275	3.356
SUM						
S1	-0.002	0.361	0.500	71.921	196.739	0.980
S2	-0.010	0.354	0.500	71.921	196.224	2.512
S3	-0.009	0.369	0.500	71.921	188.717	2.219
S4	-0.010	0.388	0.500	71.921	179.412	2.298
S5	-0.010	0.402	0.500	71.921	173.640	2.175
S6	-0.010	0.396	0.500	71.921	176.033	2.243
S7	-0.010	0.367	0.500	71.921	189.249	2.445
S8	-0.010	0.350	0.500	71.921	198.420	2.522

Internal Reference Calibration, performed Tue Nov 21 11:42:07 2006:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.009	0.460	1.000	0.000

Air Zero Calibration, performed Tue Sep 10 22:09:11 2013:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.000		0.000		0.000	
5'	0.000		0.000		0.000	
SUM						
S1	0.000		0.000		0.000	
S2	0.000		0.000		0.000	
S3	0.000		0.000		0.000	
S4	0.000		0.000		0.000	
S5	0.000		0.000		0.000	
S6	0.000		0.000		0.000	
S7	0.000		0.000		0.000	
S8	0.000		0.000		0.000	



Company ANTERO
 Well TEN MILE 1H
 Field MARCELLUS
 County HARRISON
 State WV