



**CEMENT
BOND LOG
WITH GAMMA RAY**

Pioneer Energy Services

Company **BONANZA CREEK**
Well **North Platte 21-24-34HNB**
Field **WATTENBERG**
County **WELD**
State **COLORADO**

Company **BONANZA CREEK**
Well **North Platte 21-24-34HNB**
Field **WATTENBERG**
County **WELD** State **COLORADO**

Location: API # : 05-123-41883-00 Other Services
1119' FSL, 2453' FWL
Permanent Datum **GROUND LEVEL** Elevation **N/A**
Log Measured From **KB 17'** Elevation
Drilling Measured From **KB** K.B. 4558'
D.F. 4557'
G.L. 4541'

SEC 27 TWP 5N RGE 63W

NONE

Date of Service 10-10-15

Run Number ONE

Depth Driller or PBTID NA

Depth Logger 6190'

Bottom Log Interval 6190'

Top Log Interval SURFACE

Open Hole Size 8 7/8"

Type Fluid FSW

Fluid Level 231'

Fluid Density NA

Max. Recorded Temperature NA

Max. Wellhead Pressure 0# PSI

Wellhead Connection OPEN

Estimated Cement Top 1196'

Unit Number 129

Wireline Size 9/32"

Location FORT MORGAN

Recorded By CODY NELSON

Witnessed By N/A

Size

WT/Ft

Top

Bottom

9 5/8"

36#

26#

SURFACE

SURFACE

1663'

6928'

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not 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.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

CORRELATED TO LINER TOP AT 6125'

THANK YOU FOR USING PIONEER ENERGY SERVICES

Your Pioneer Energy Services Crew

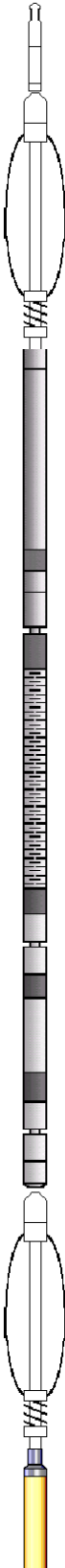
Tool Data - Services


Serial Number

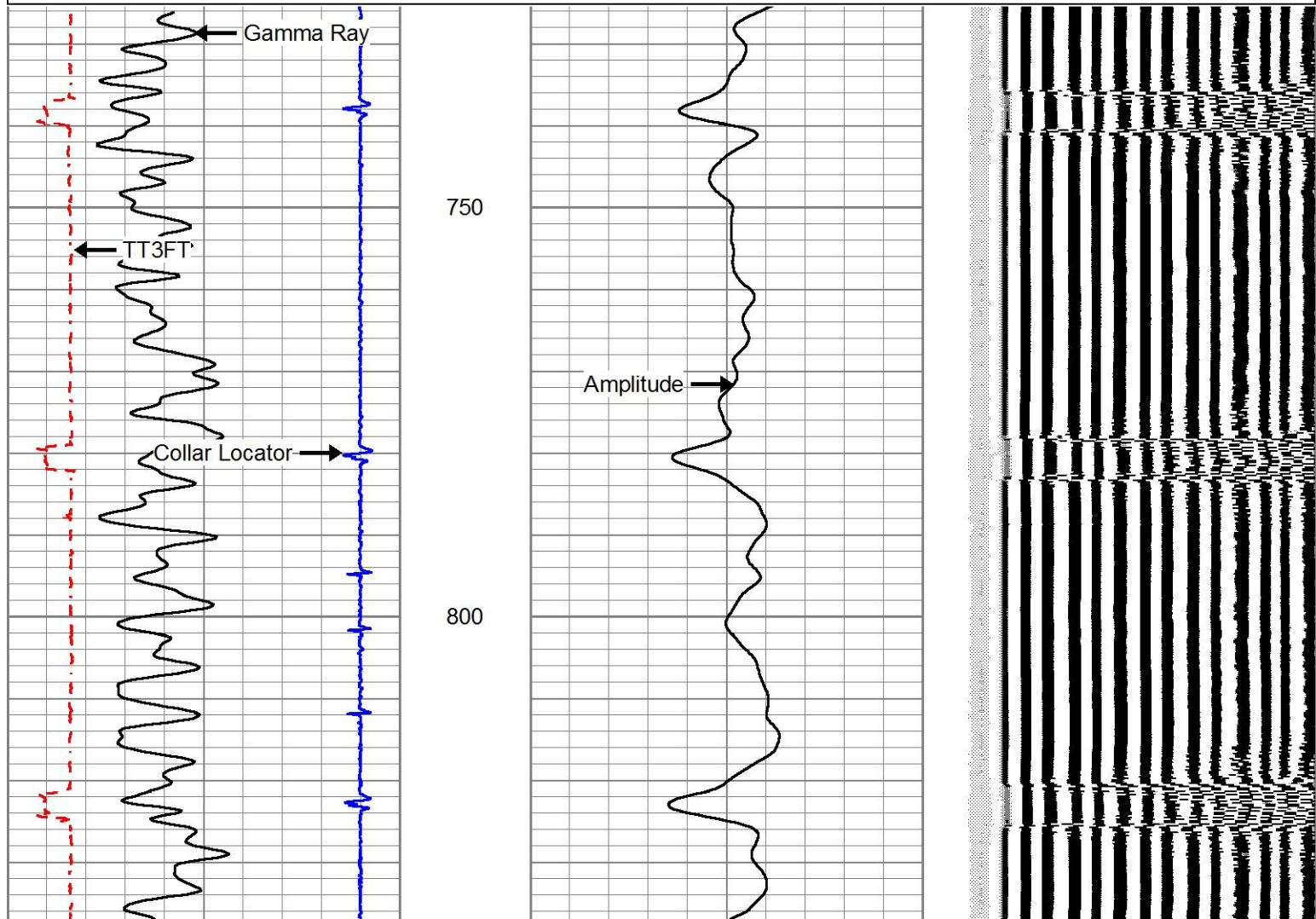
Engineer: C. NELSON
Operator: J. HOLLIS
Operator: C. WILLIAMS
Operator:

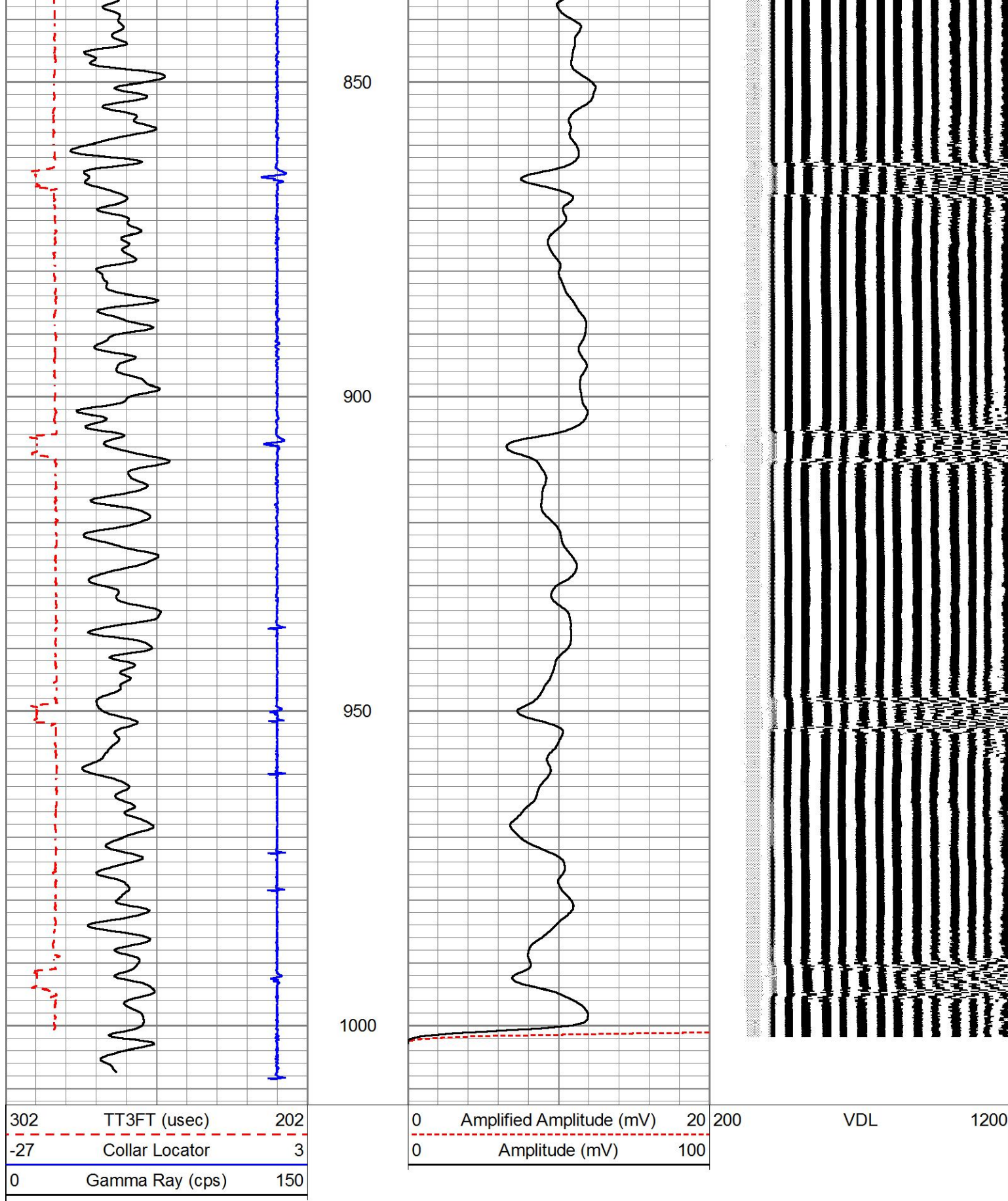
Top - Bottom

BHTEMP_Src TEMP	PPT usec 0	CASEWGHT lb/ft 26	MAXAMPL mV 0	MINAMPL mV 1.5	MINATTN db/ft 0.08	SRFTEMP degF 0	CASETHCK in 0
CASEOD in 7	PERFS 0	TDEPTH ft 0	BOTTEMP degF 100	BOREID in 7.875			

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
HEADVOLT	16.33		CHD-Titan 1 7/16" Titan Cable Head	1.00	1.44	2.00
			CENT-Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00
TEMP	13.90					
			RBT-ProbeTemp(Probe (1305-84) Probe Radii Bond Tool with Digital Telemetry and Temperature	9.39	2.75	95.00
WVFS8	11.67					
WVFS7	11.67					
WVFS6	11.67					
WVFS5	11.67					
WVFS4	11.67					
WVFS3	11.67					
WVFS2	11.67					
WVFS1	11.67					
WVFCAL	11.67					
WVF3FT	11.67					
WVF5FT	10.67					
			CENT-Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00
CCL	3.63					

GR	2.30		GR-PTS275Inv (125010)	4.54	2.75	50.00
<p>Dataset: bonanzacreek_21_24_34hnb_cbl.db: field/well/run1/passcbl22</p> <p>Total length: 20.68 ft</p> <p>Total weight: 177.00 lb</p> <p>O.D.: 2.75 in</p>						



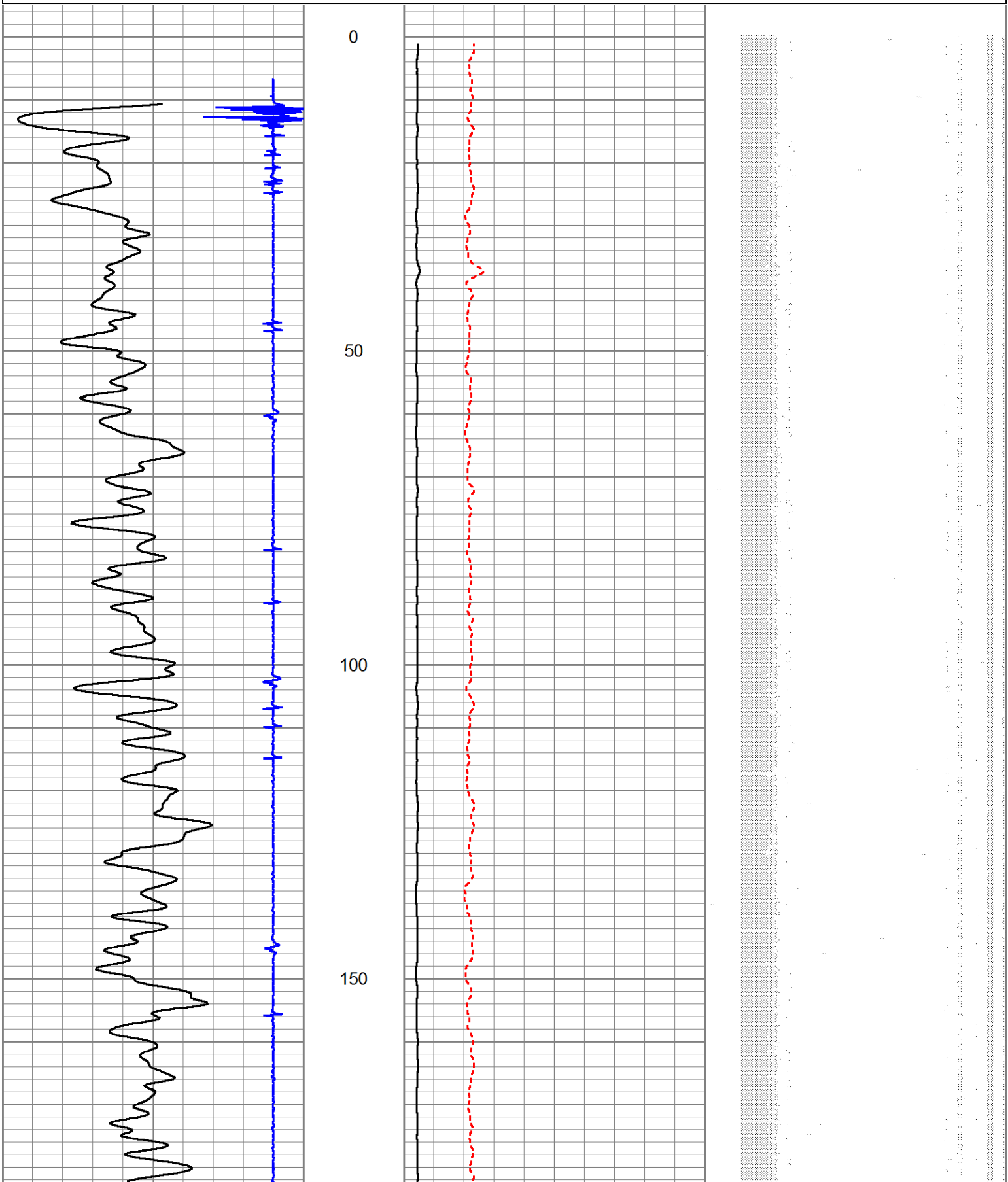


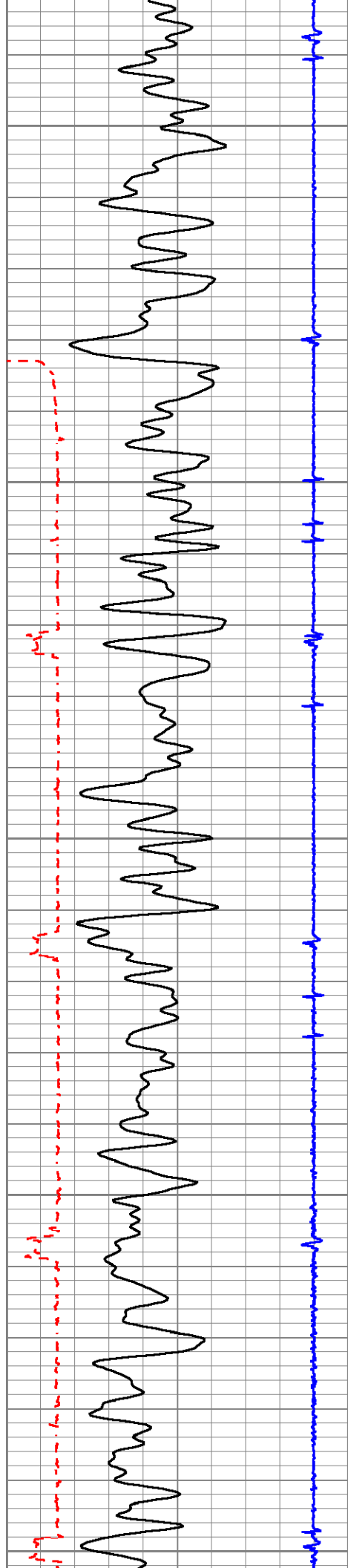
Database File: donalzacreek_21_24_04.mdb_cbl.db
Dataset Pathname: passcbl22.9
Presentation Format: cbl
Dataset Creation: Sat Oct 10 14:54:36 2015
Charted by: Depth in Feet scaled 1:240

302	TT3FT (usec)	202
-27	Collar Locator	3
0	Gamma Ray (cps)	150

0	Amplified Amplitude (mV)	20
0	Amplitude (mV)	100

200 VDL 1200





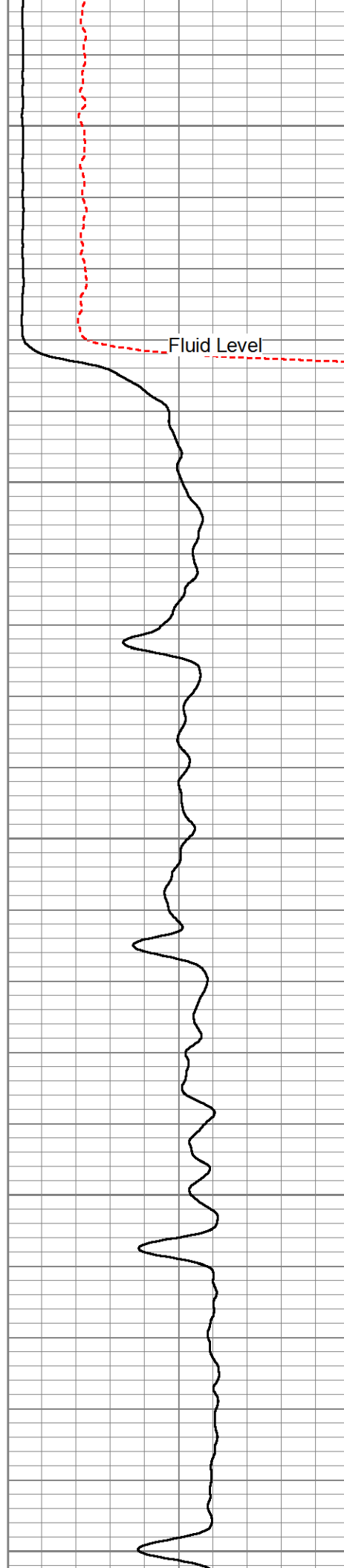
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250

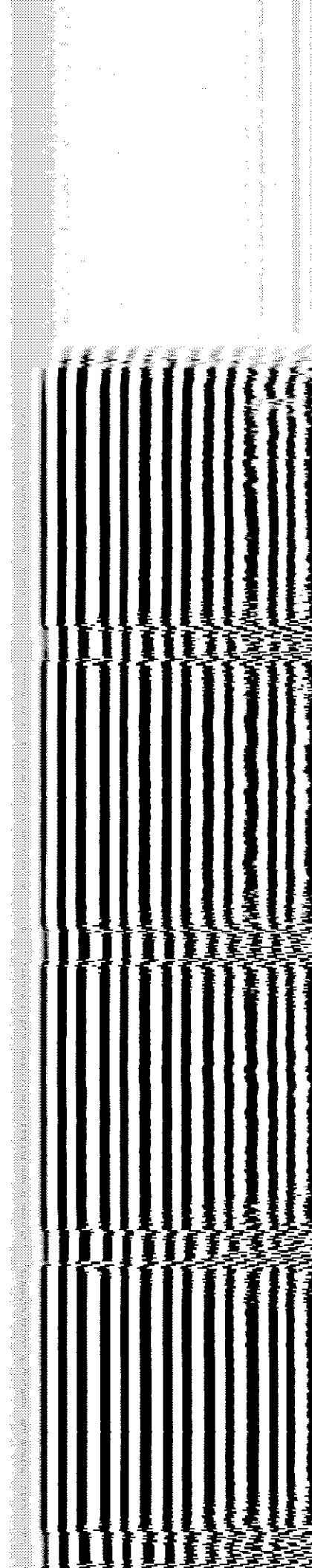
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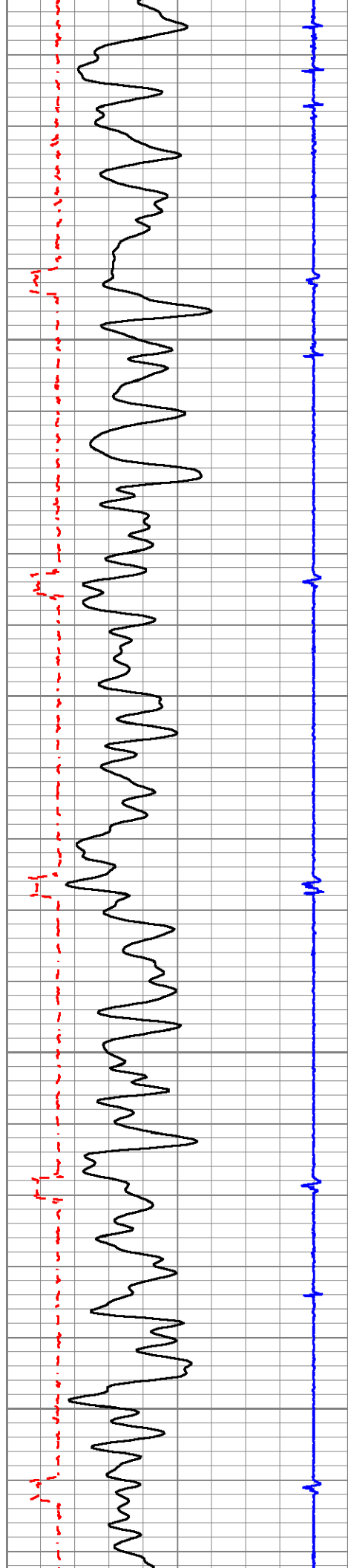
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400



Fluid Level



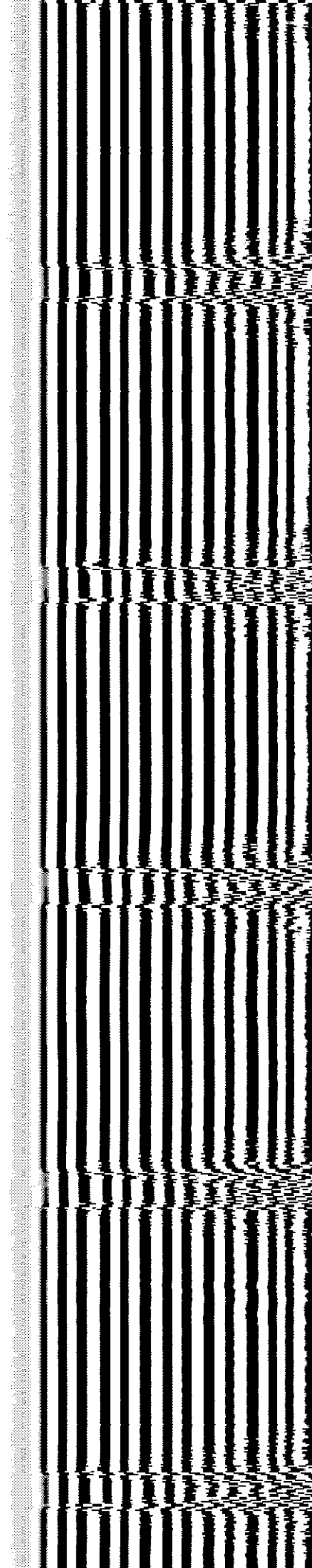
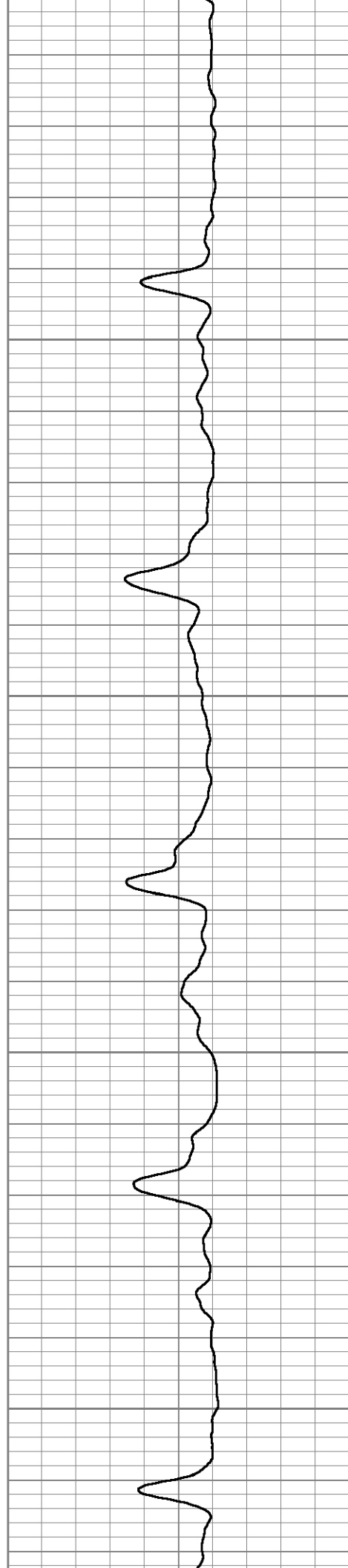


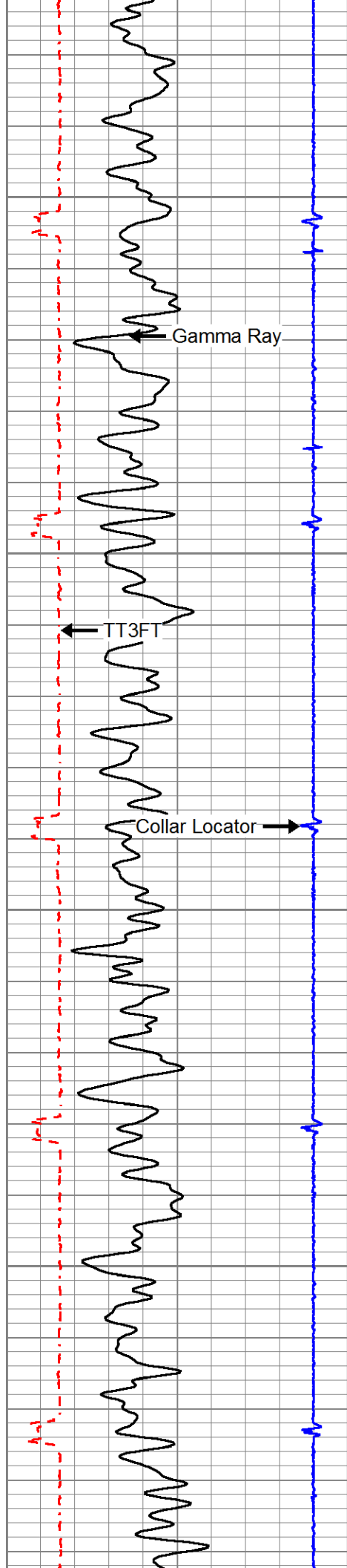
450

500

550

600





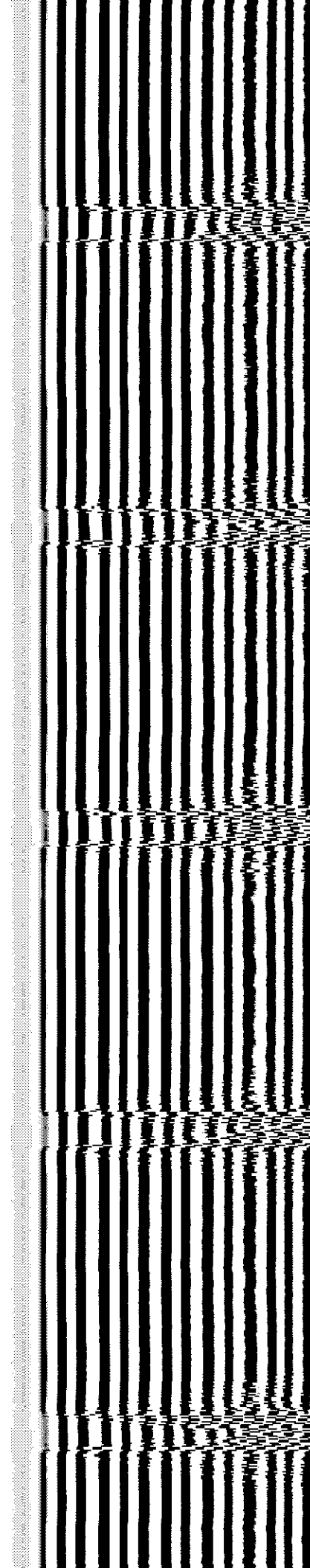
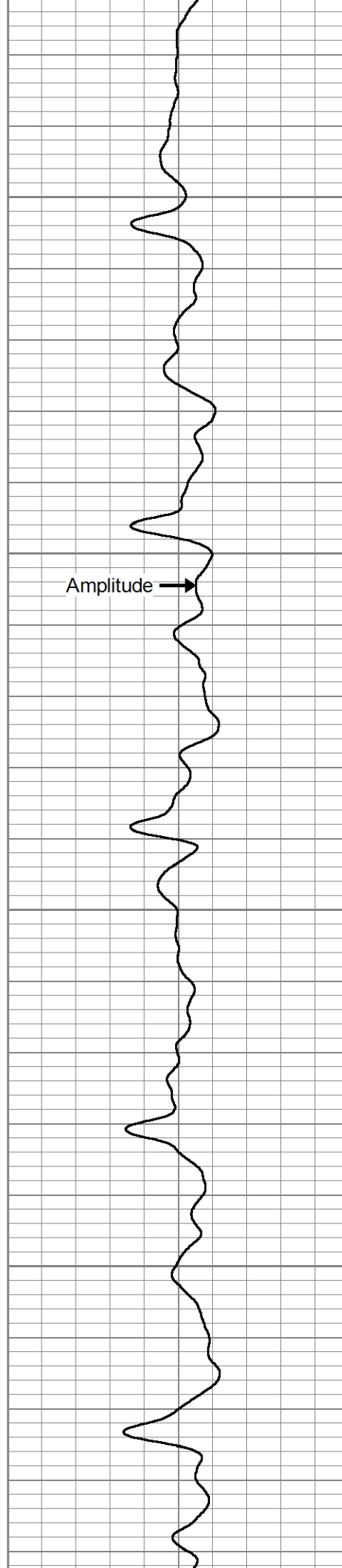
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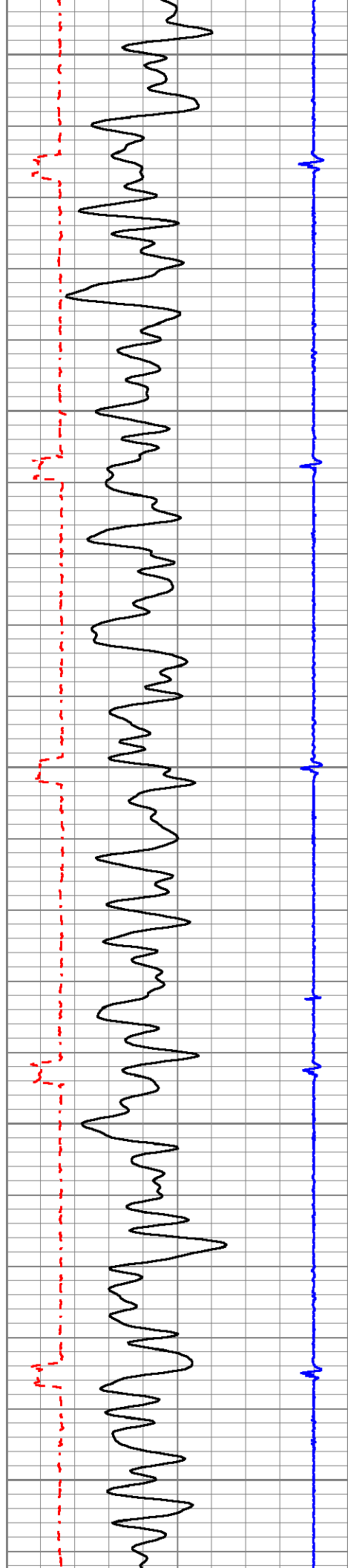
700

750

800

Amplitude





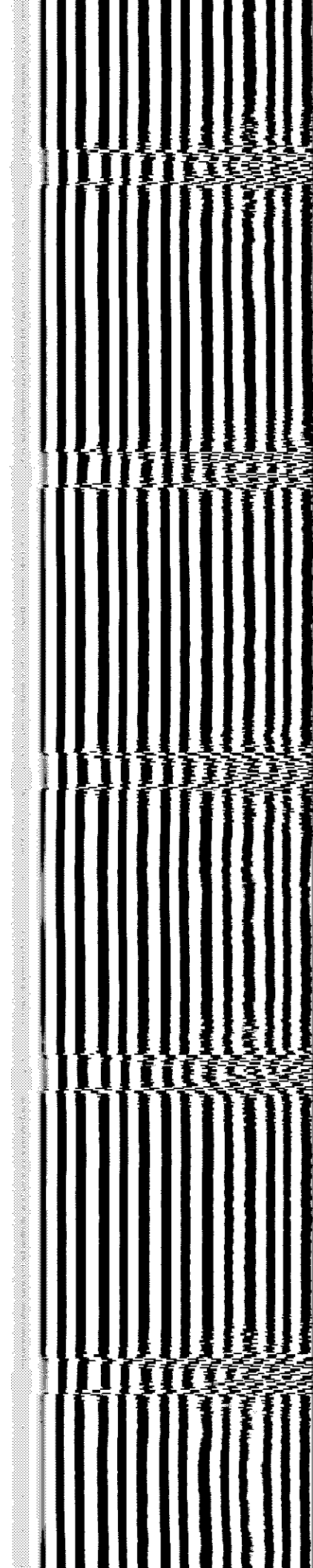
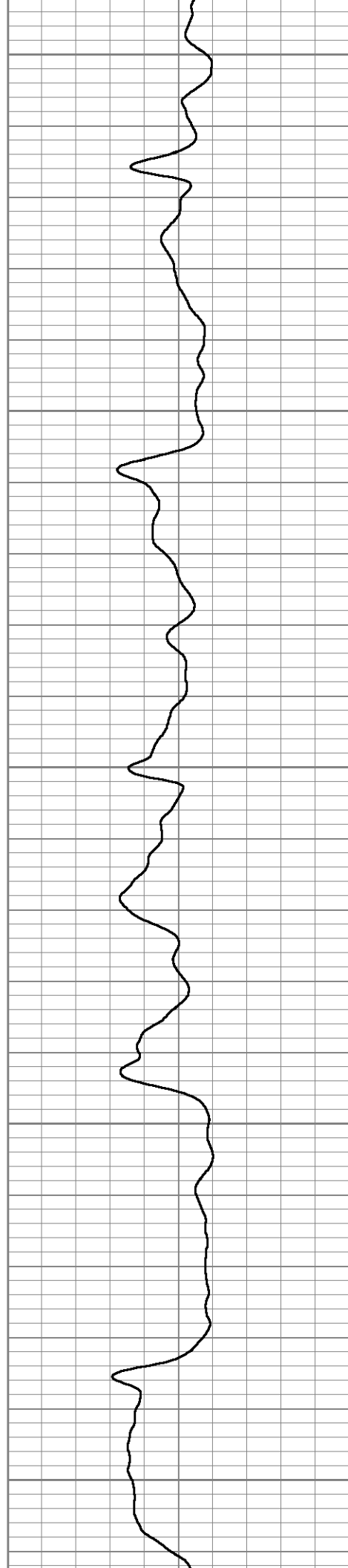
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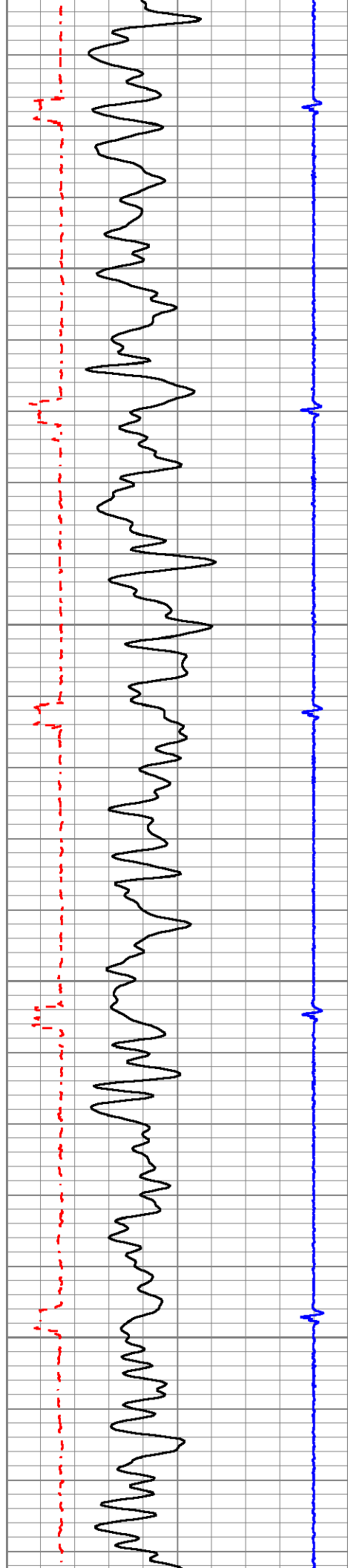
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950

1000

1050





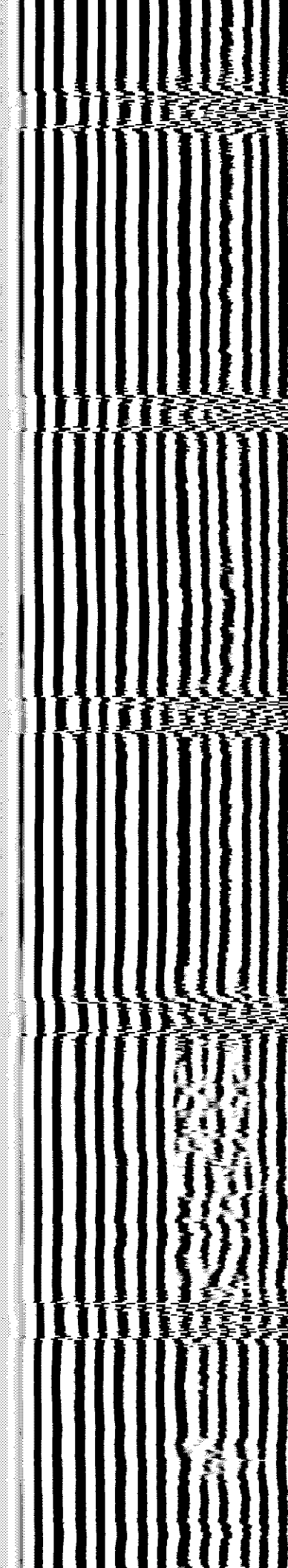
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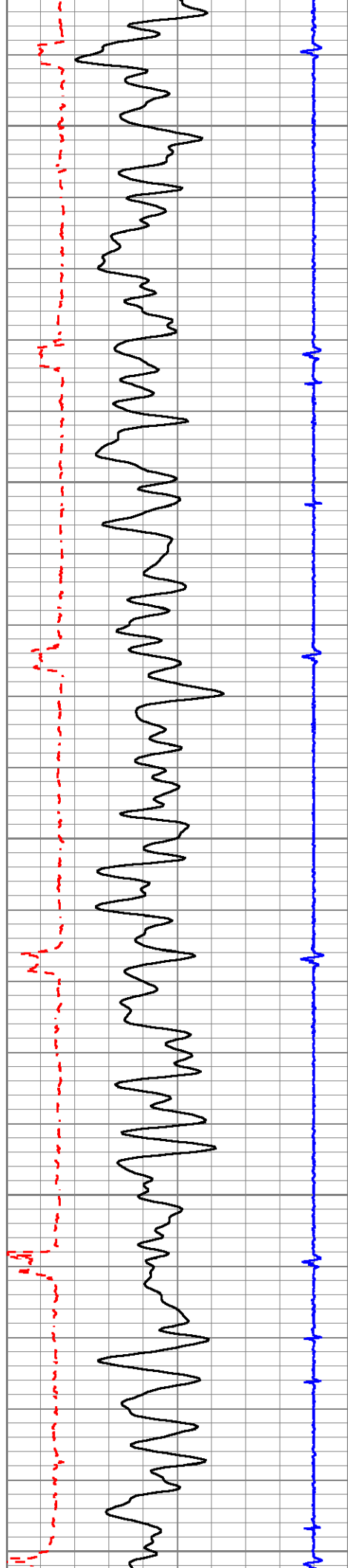
1150

1200

1250

Top of Cement





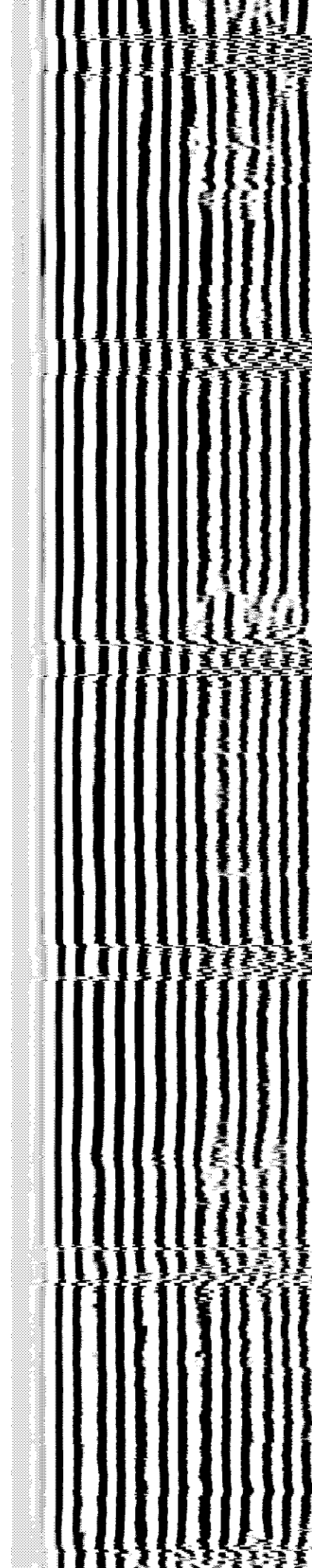
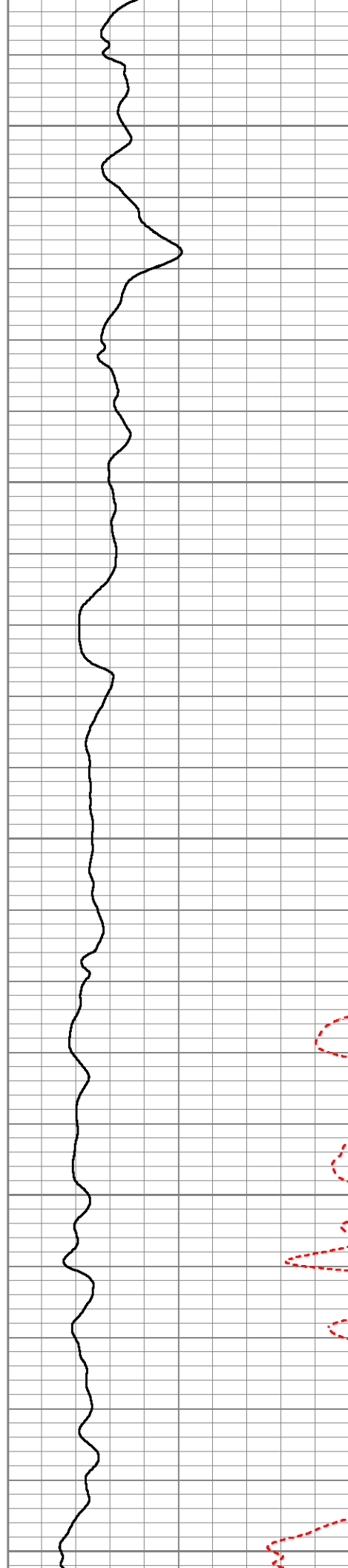
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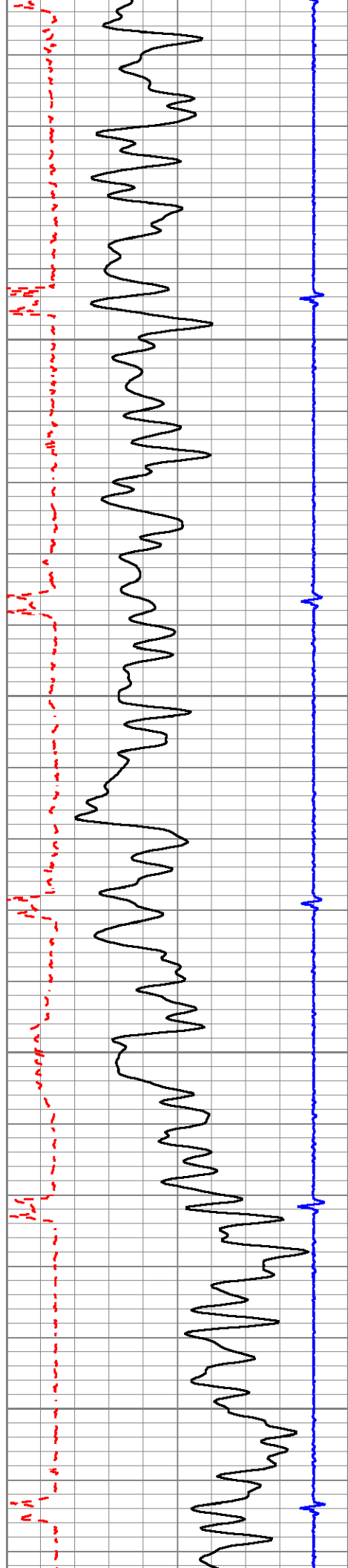
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1450

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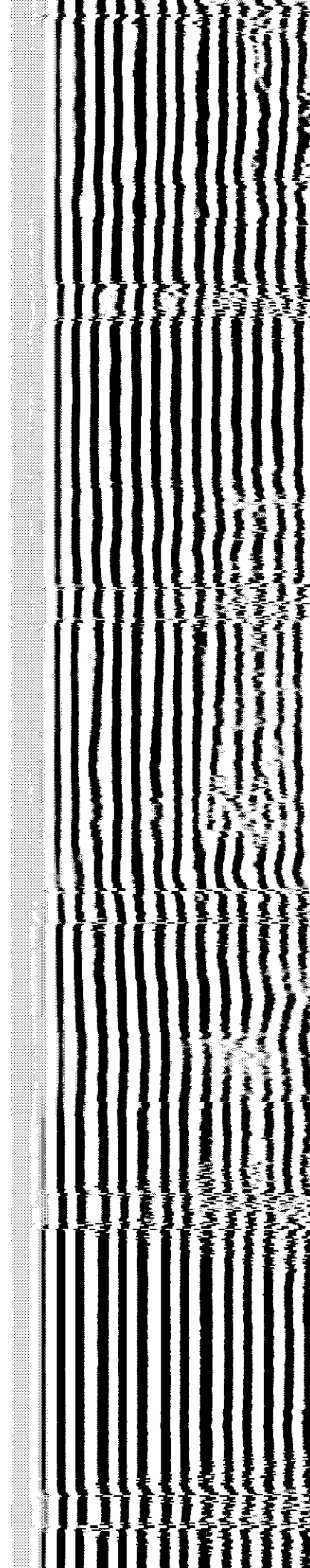


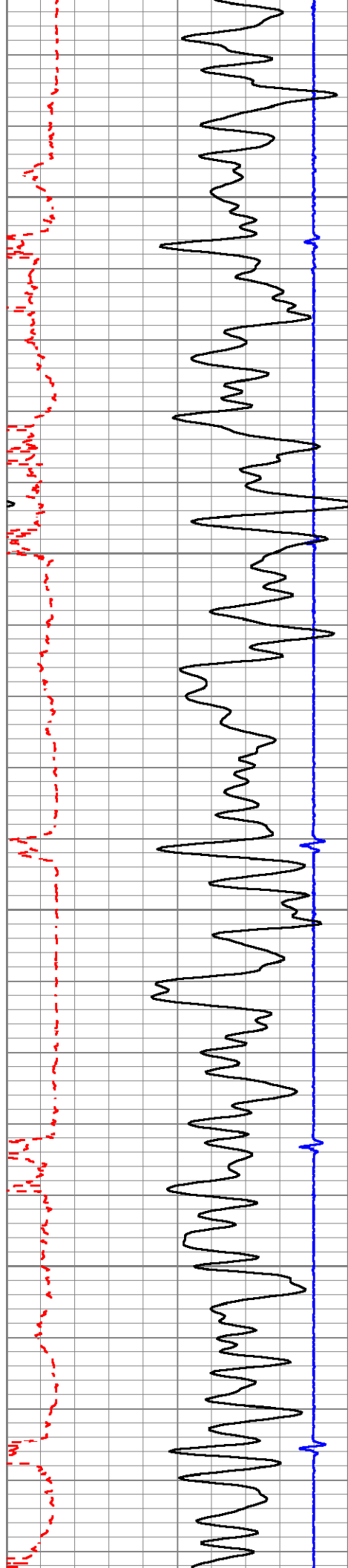
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1600

1650

1700



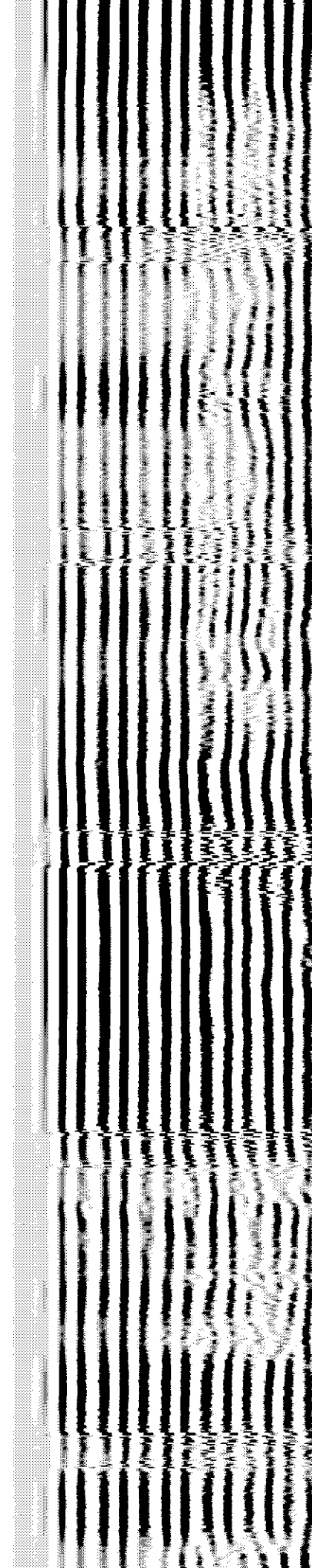
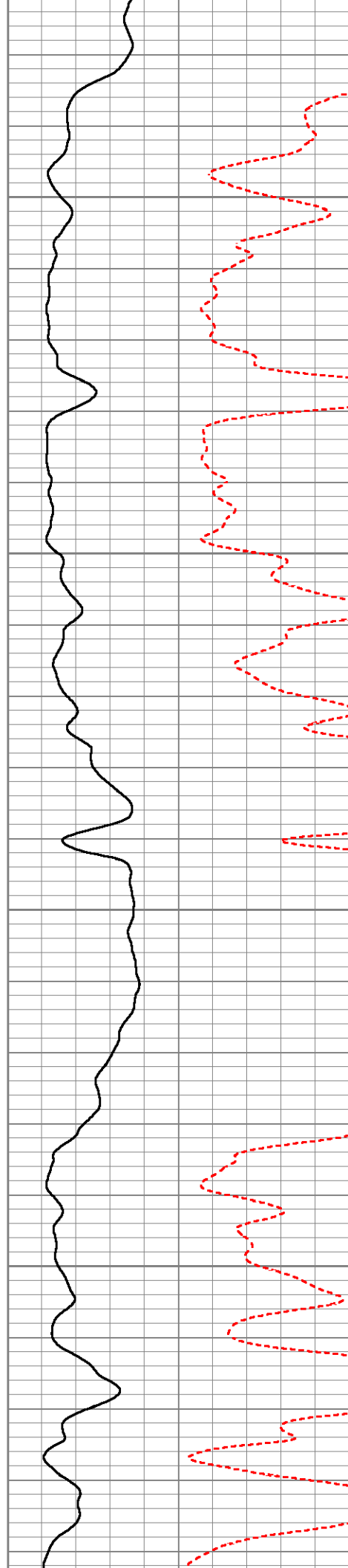


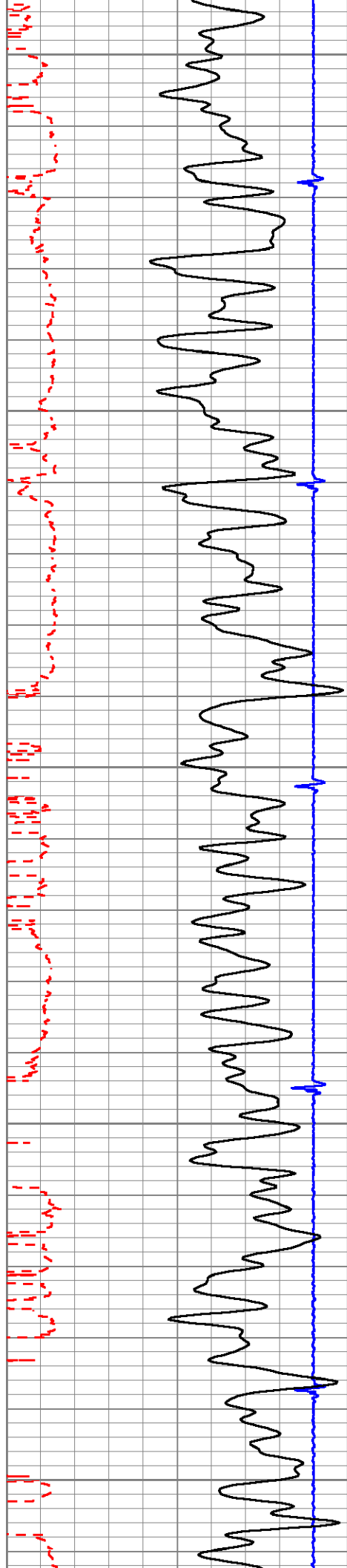
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1800

1850

1900





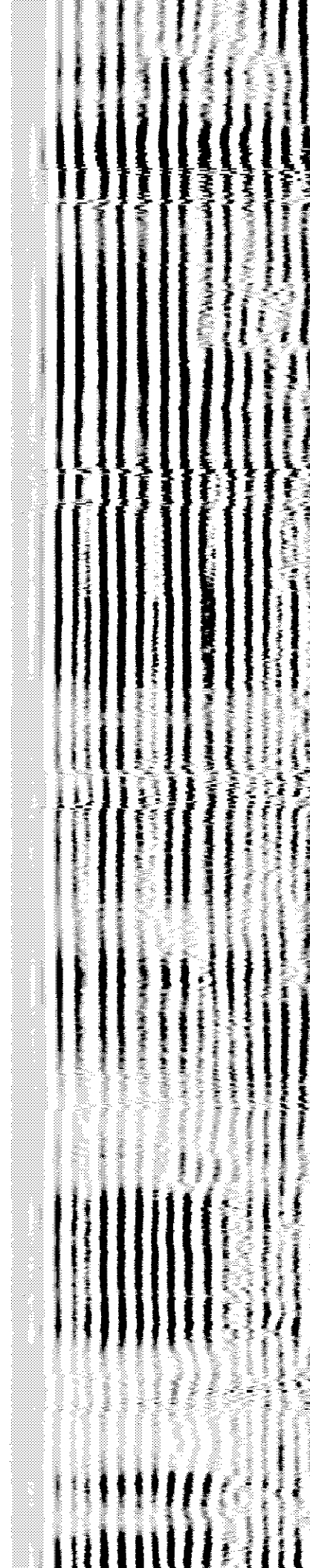
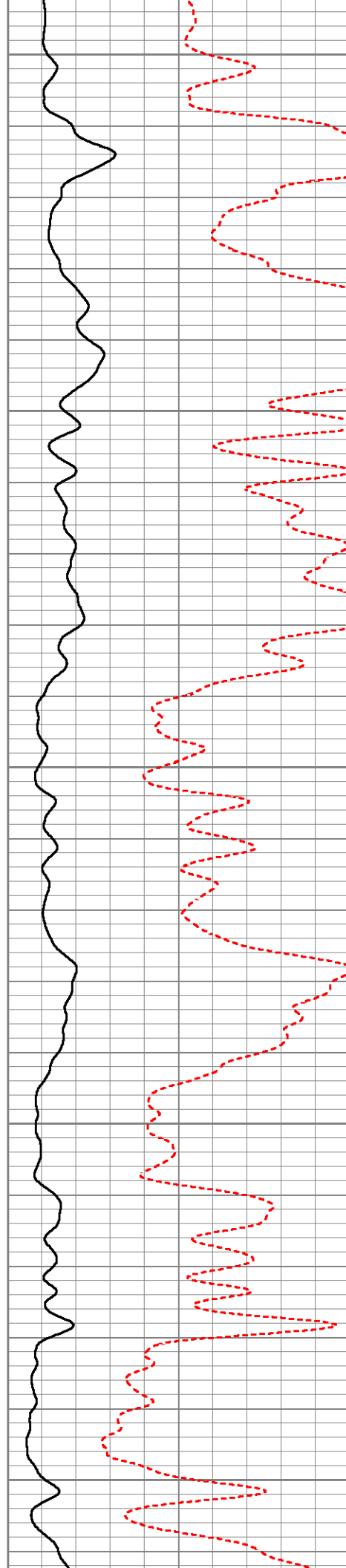
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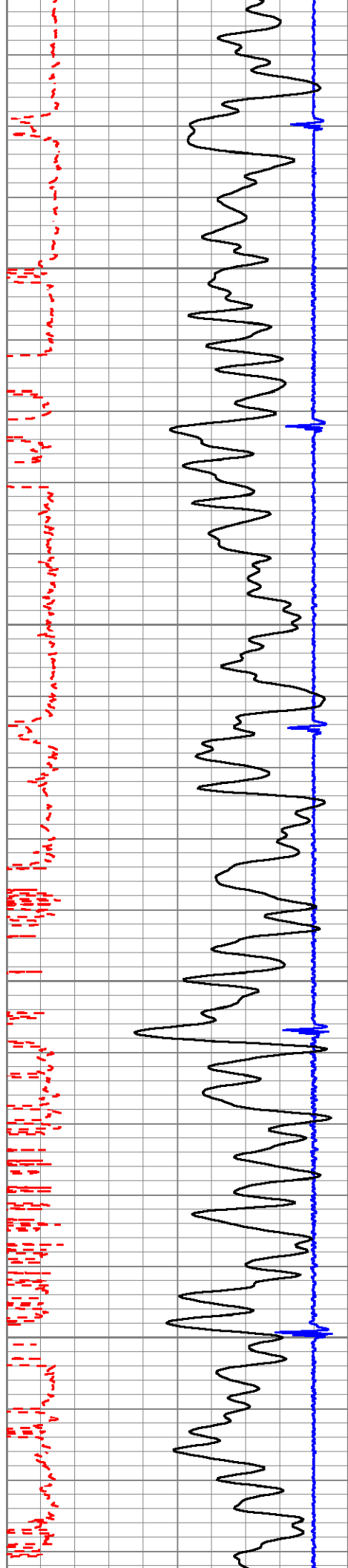
2000

2050

2100

2150



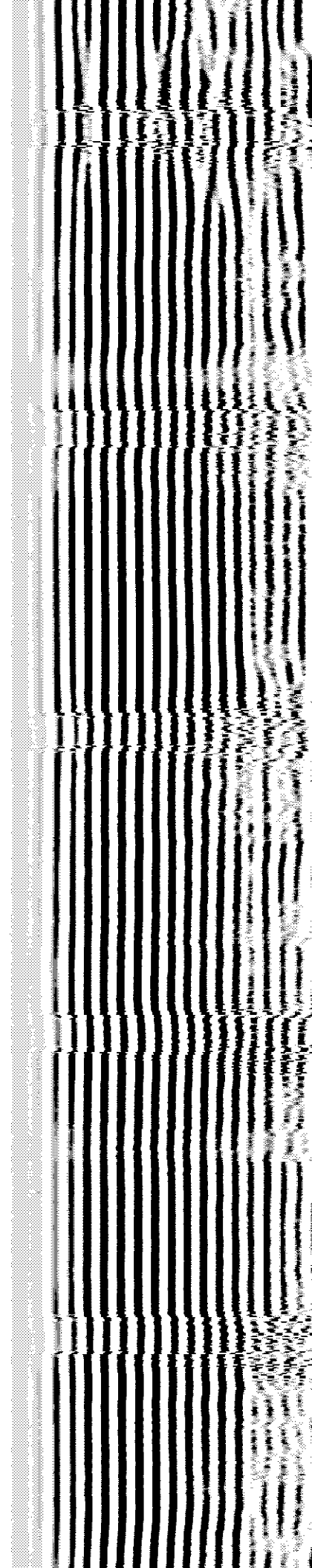
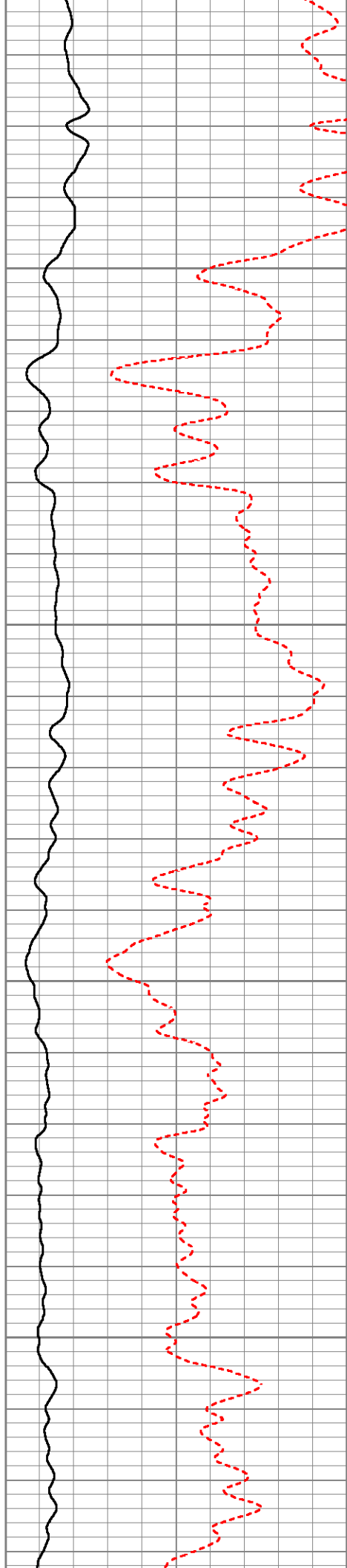


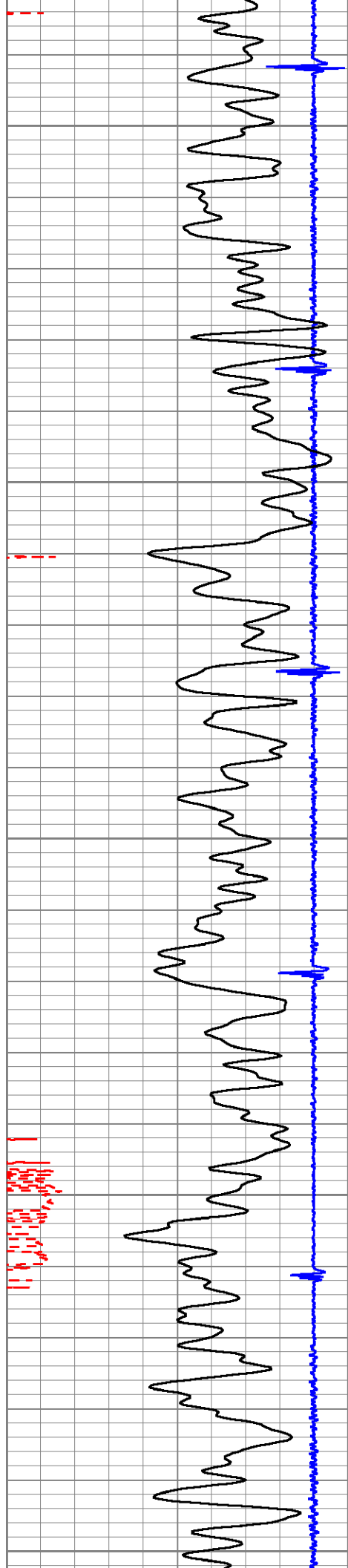
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2250

2300

2350





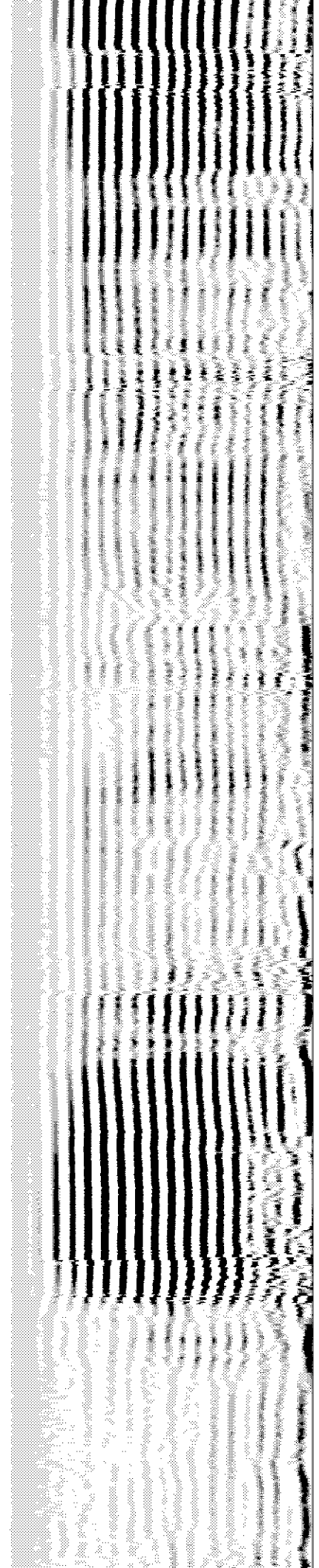
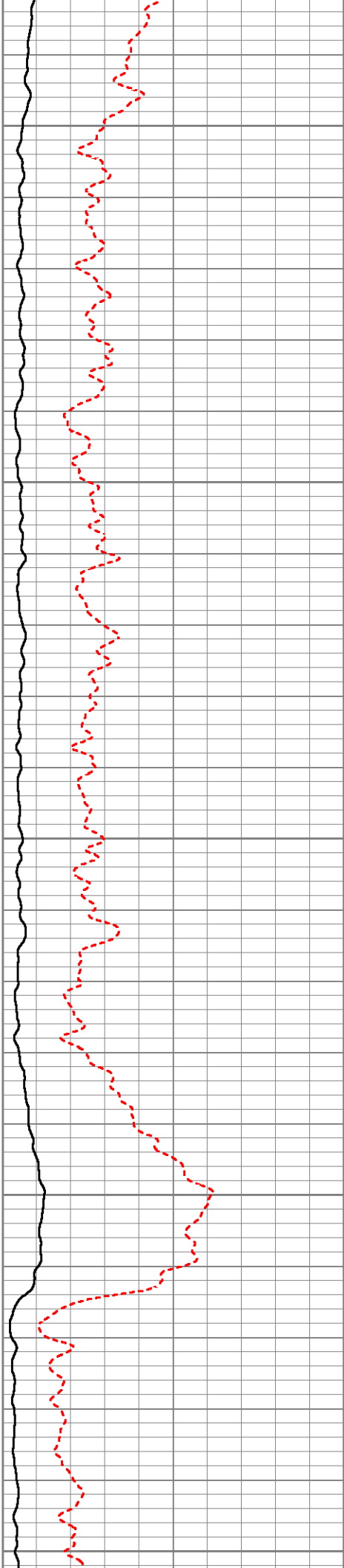
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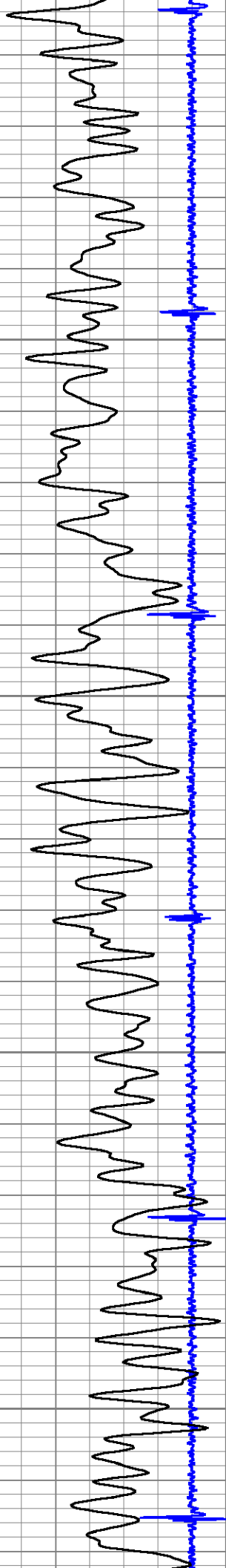
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2550

2600



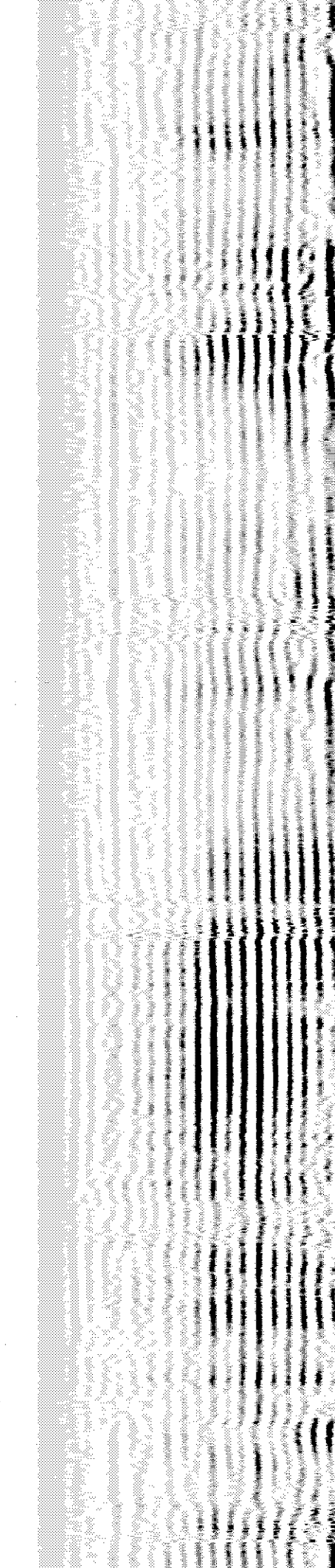
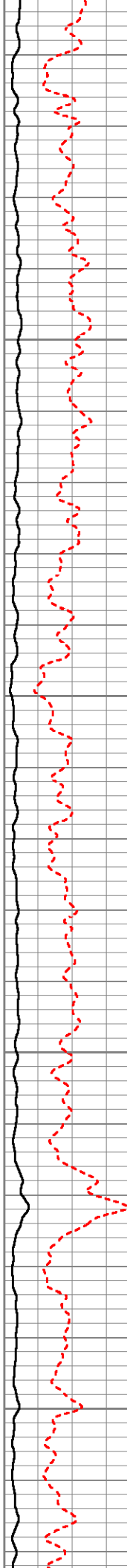


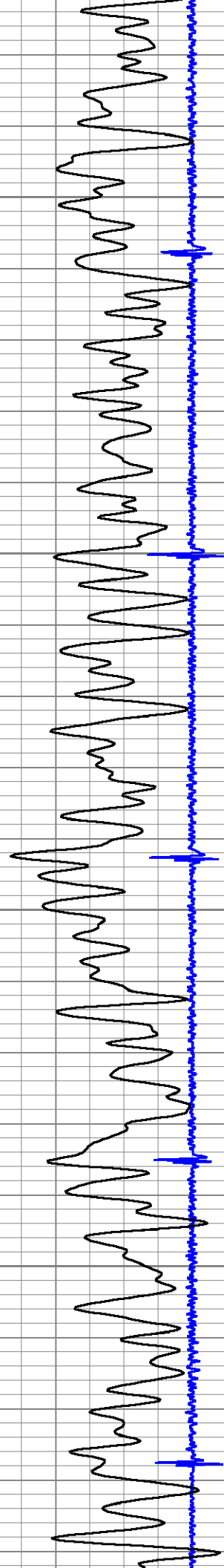
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2700

2750

2800



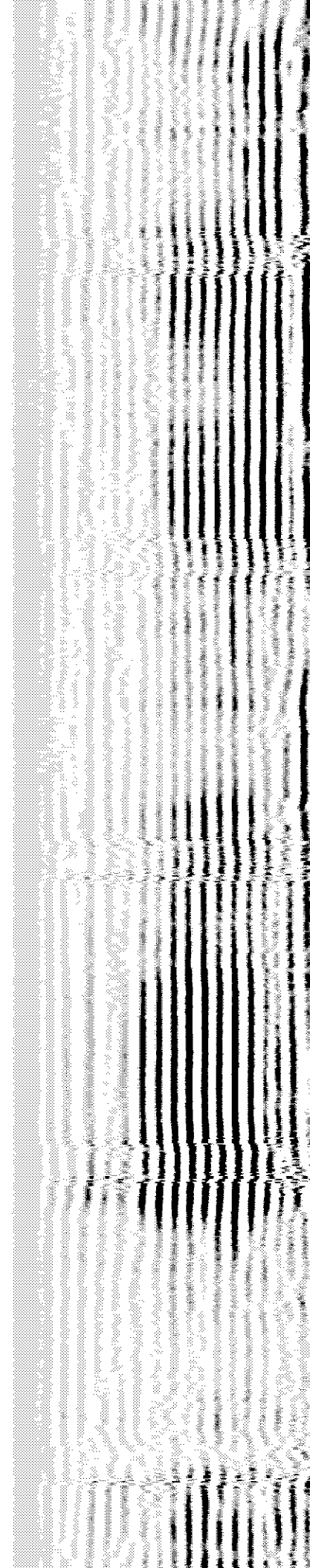
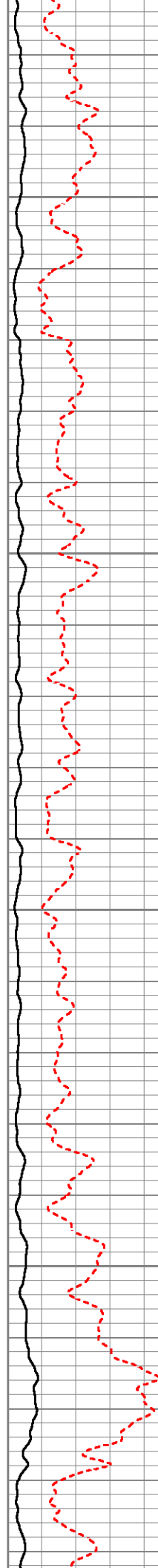


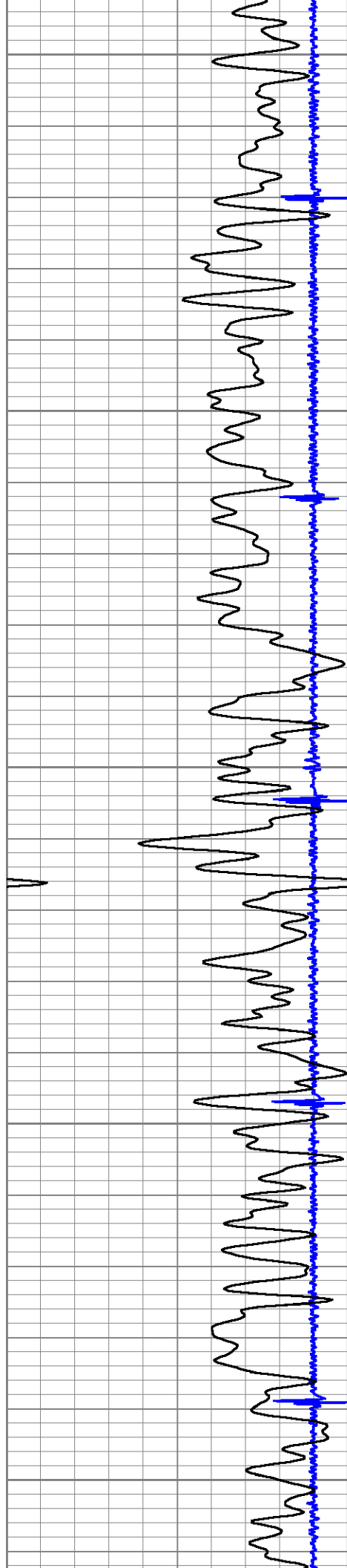
2850

2900

2950

3000





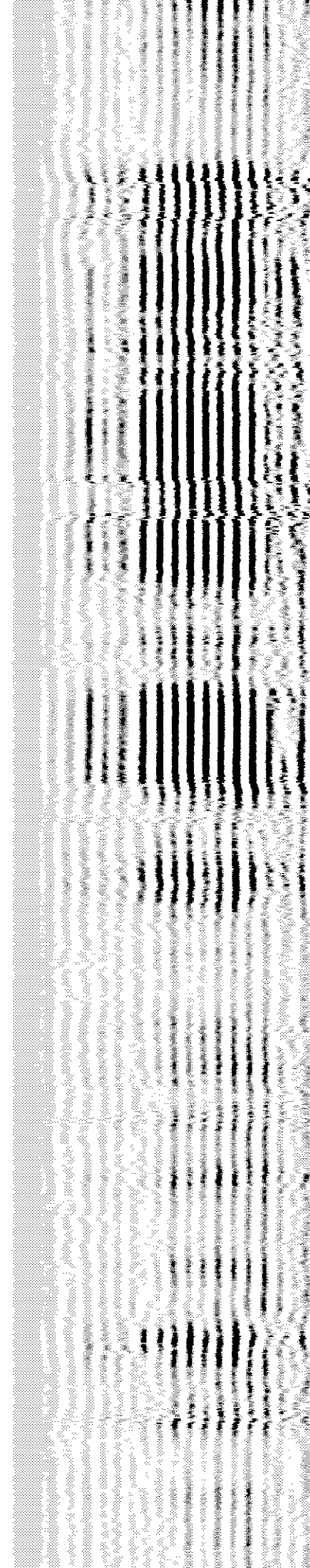
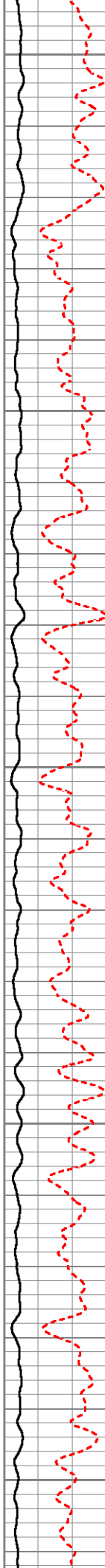
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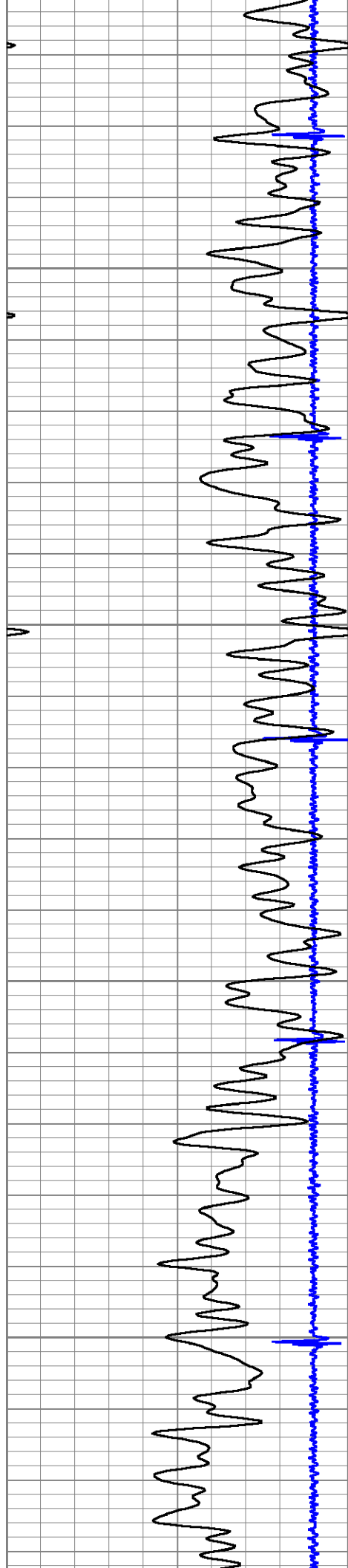
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3150

3200

3250



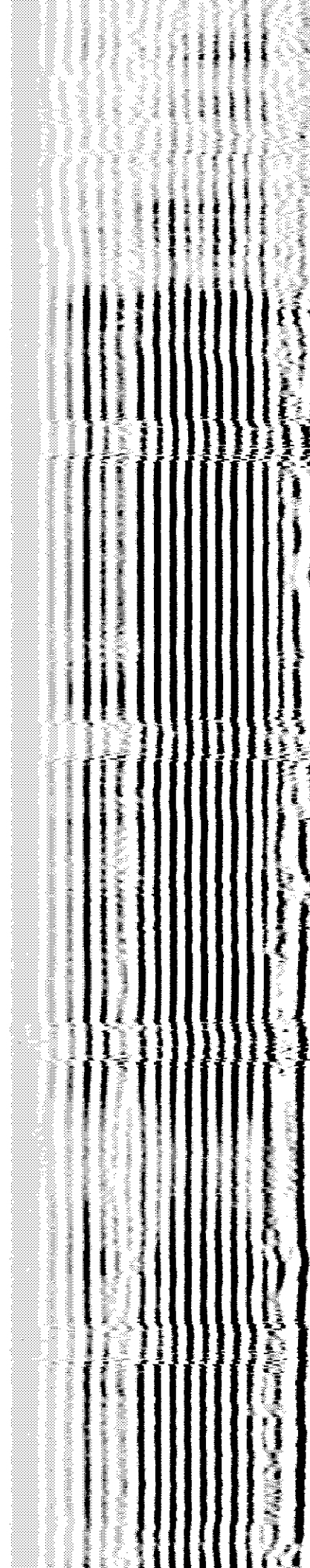
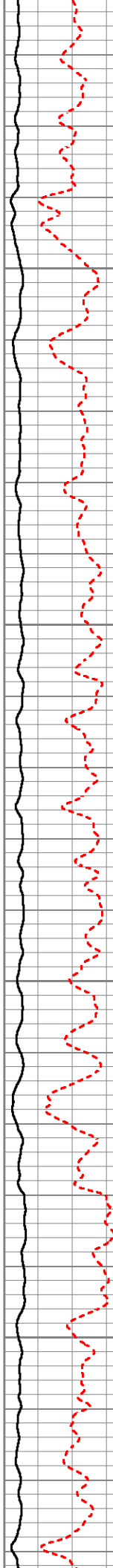


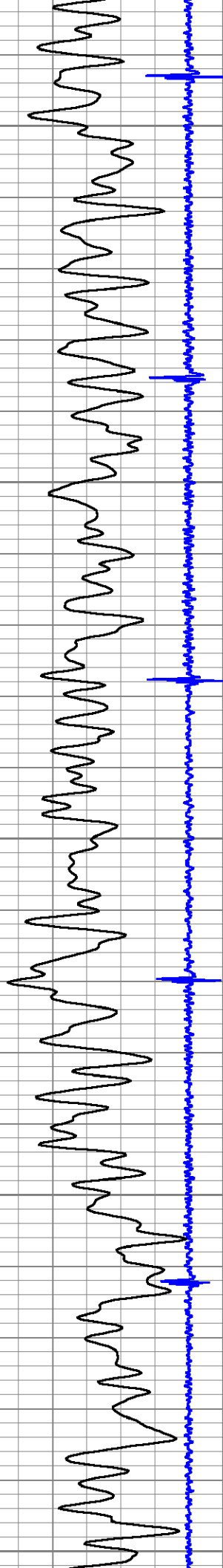
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3350

3400

3450





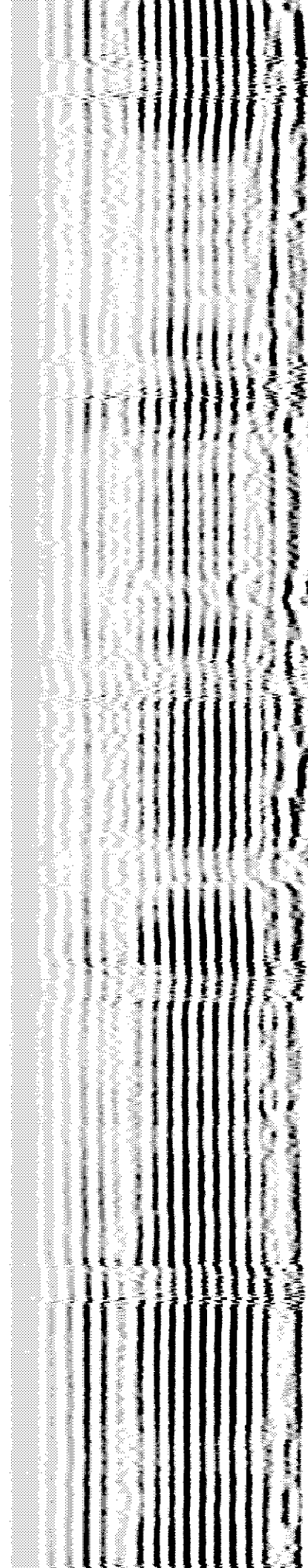
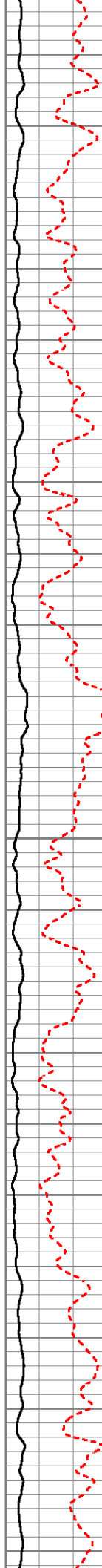
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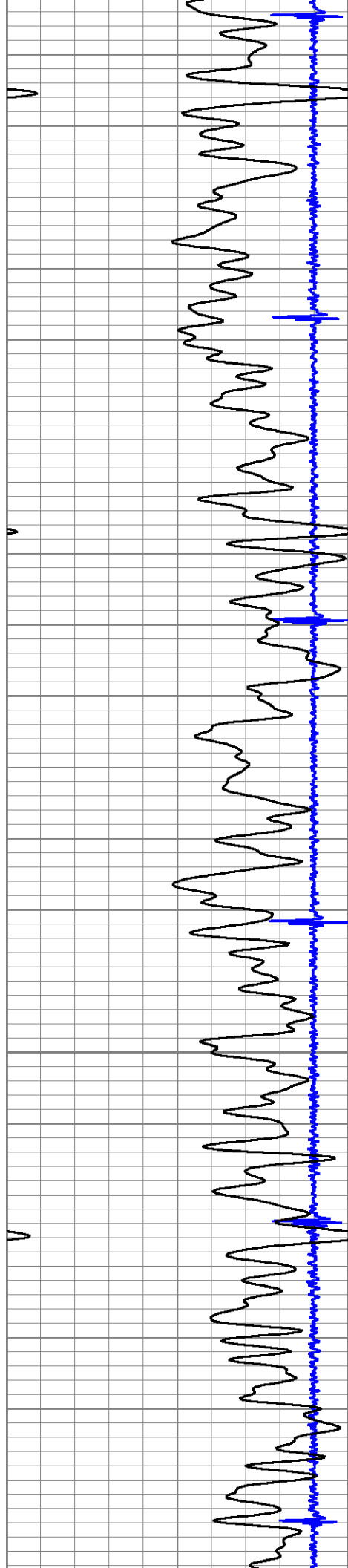
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3700



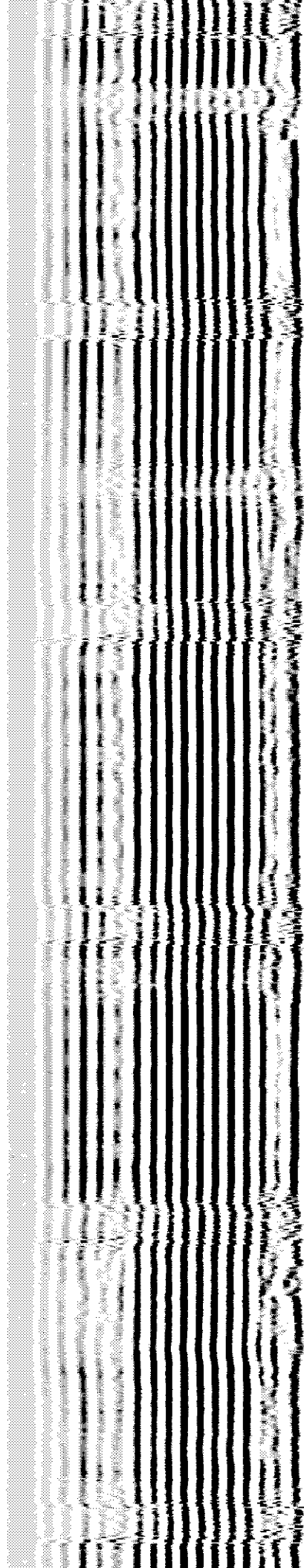
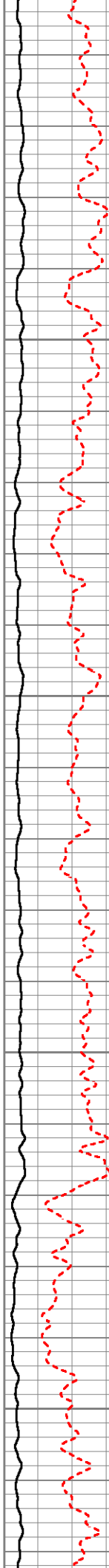


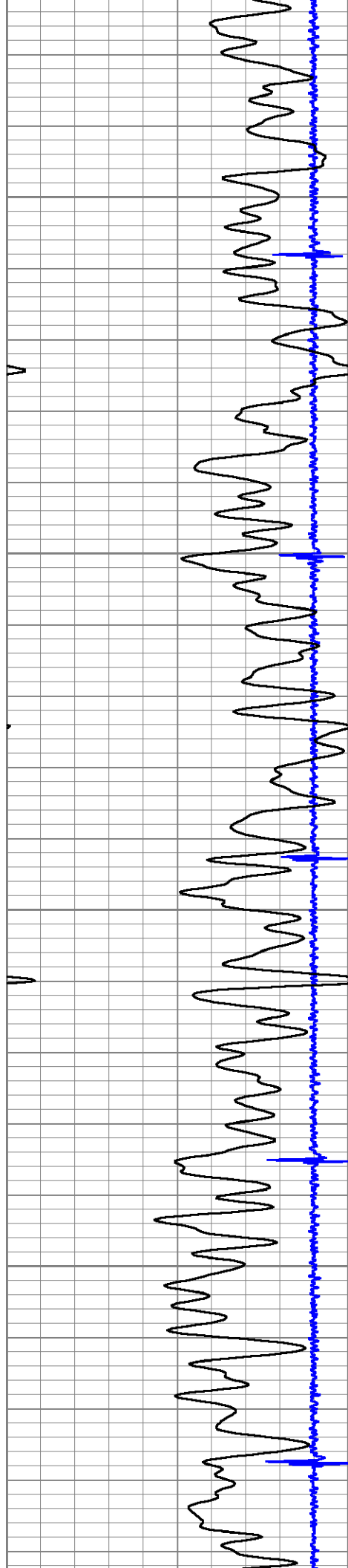
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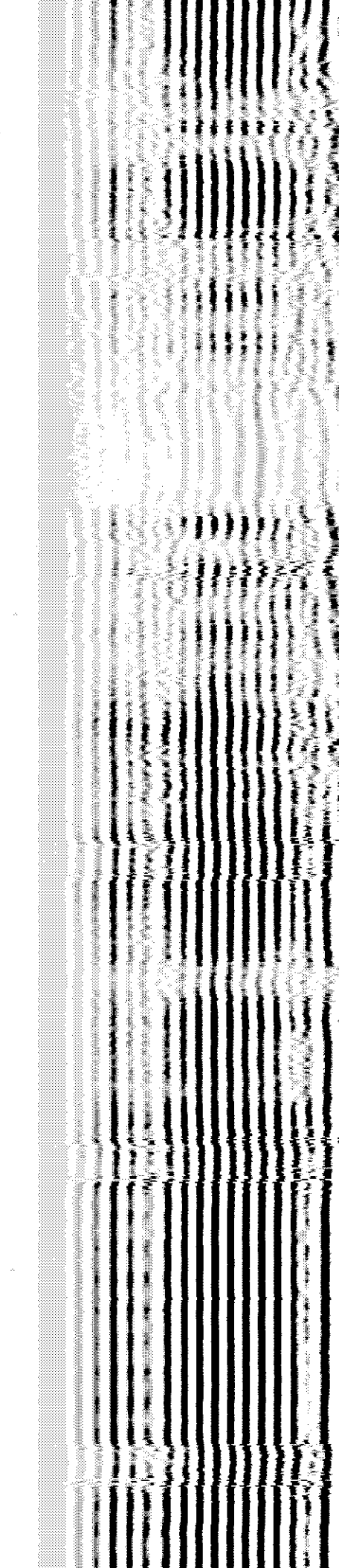
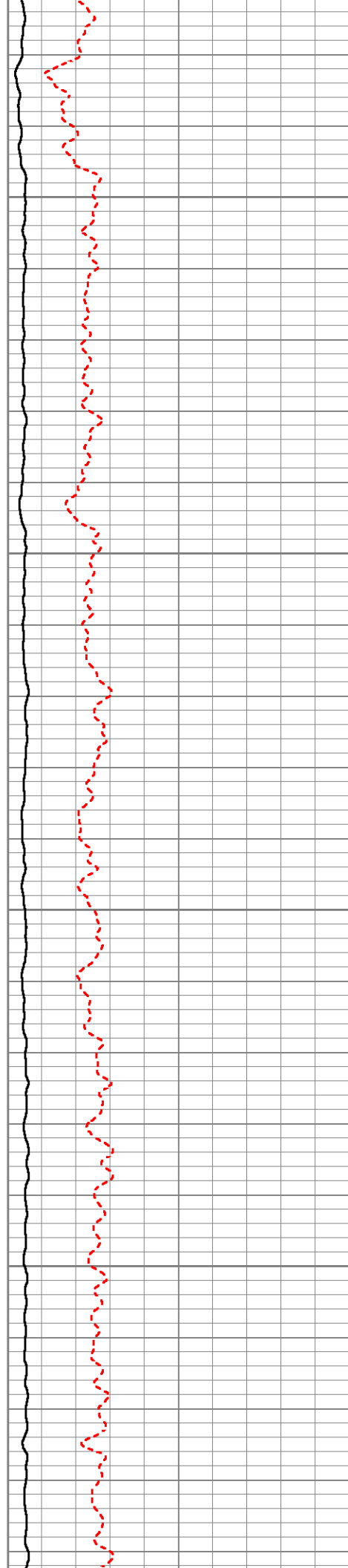


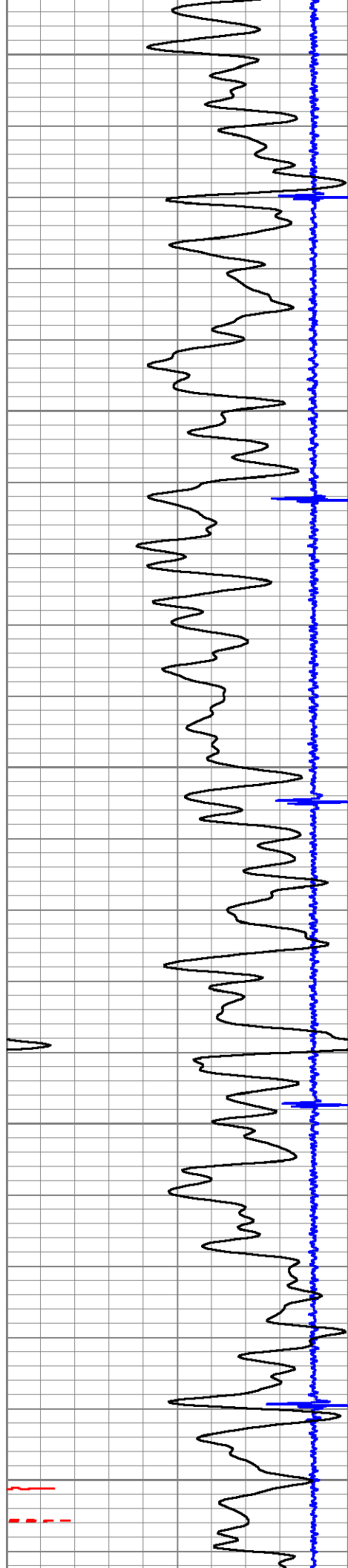
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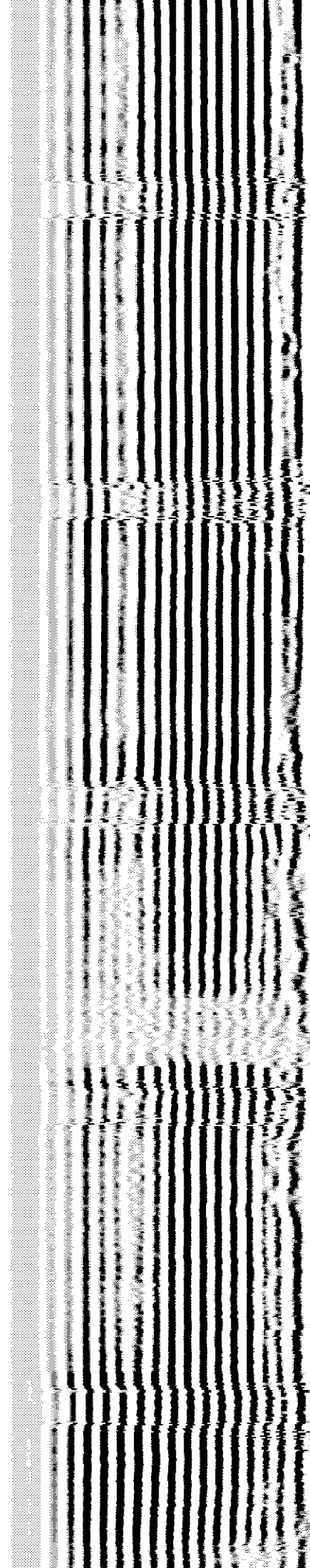
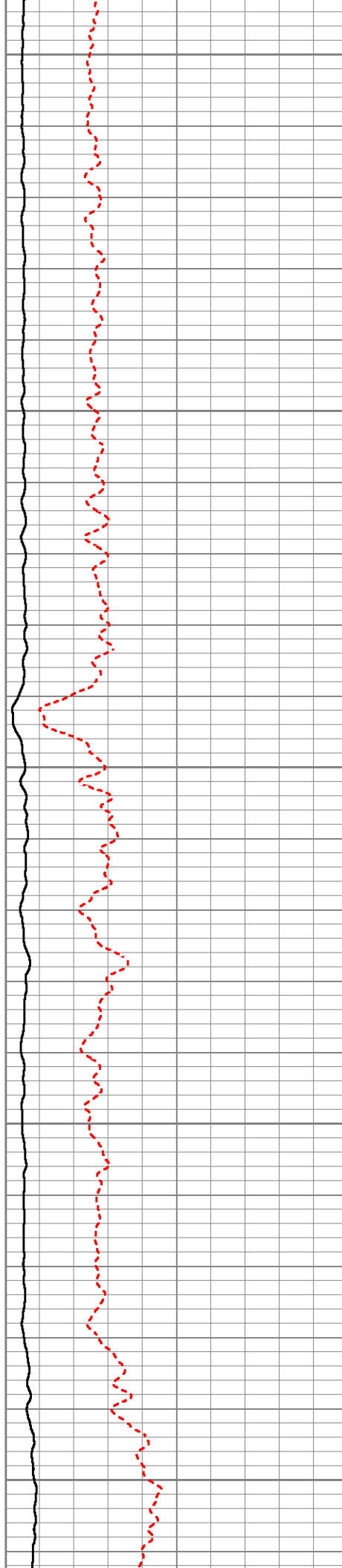
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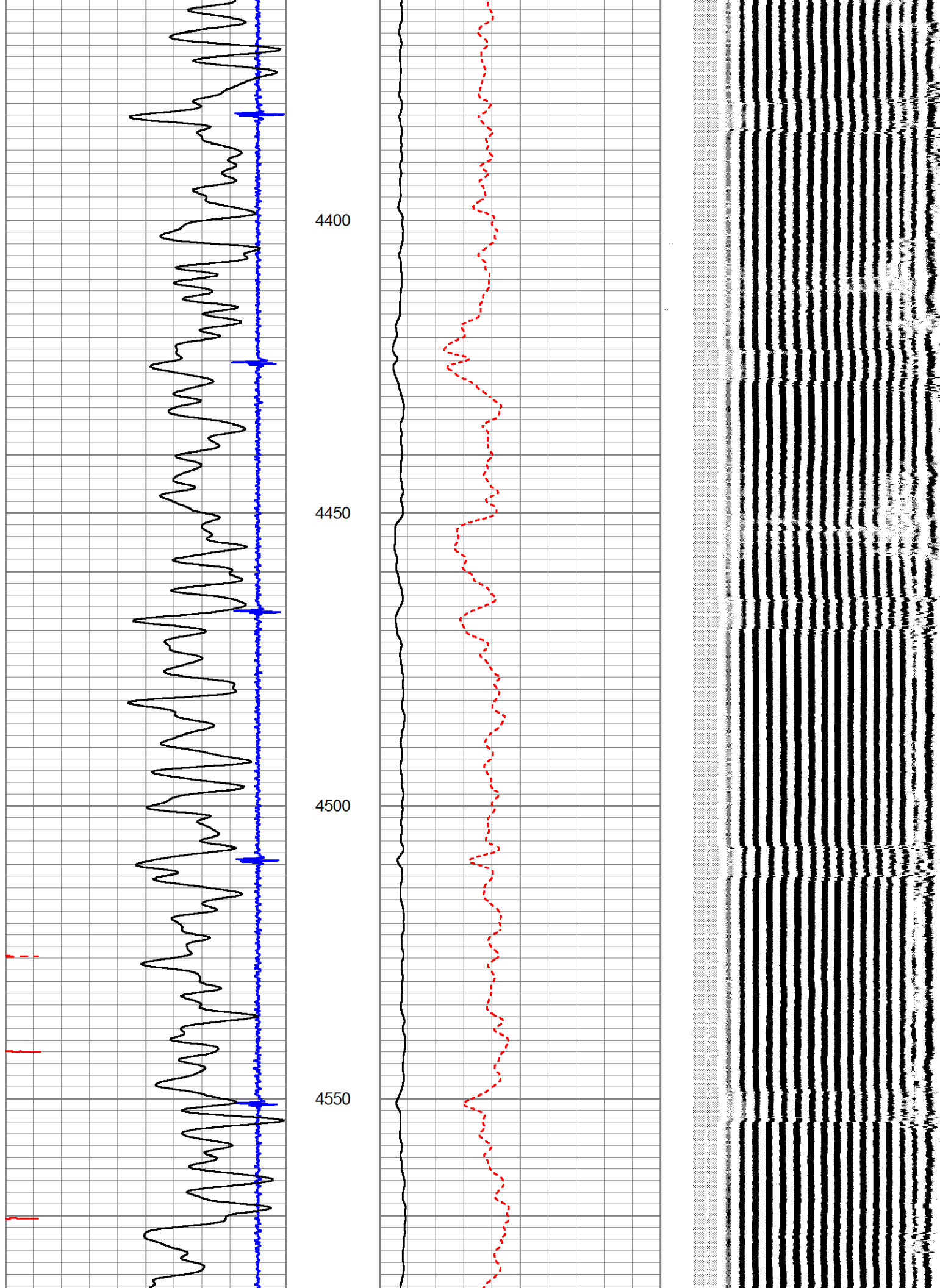
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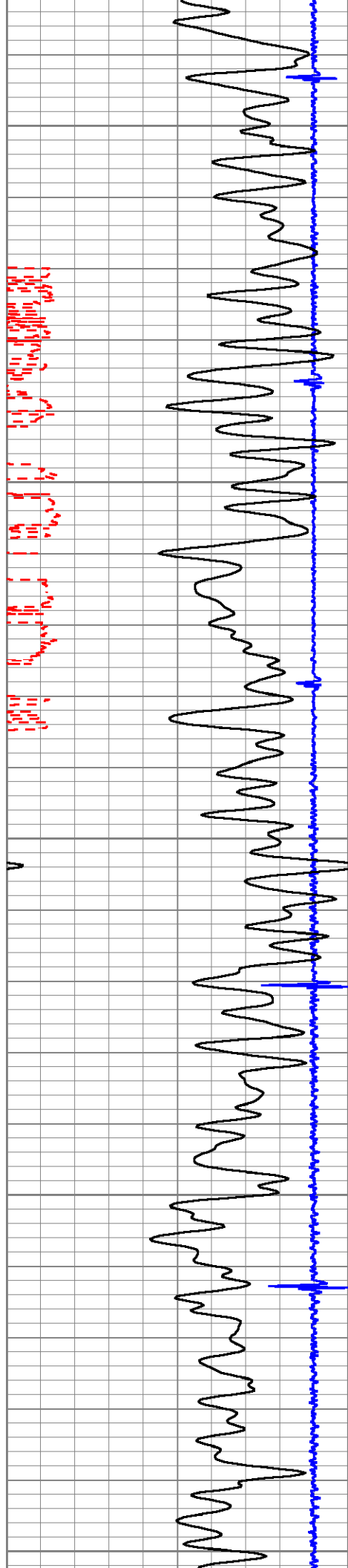
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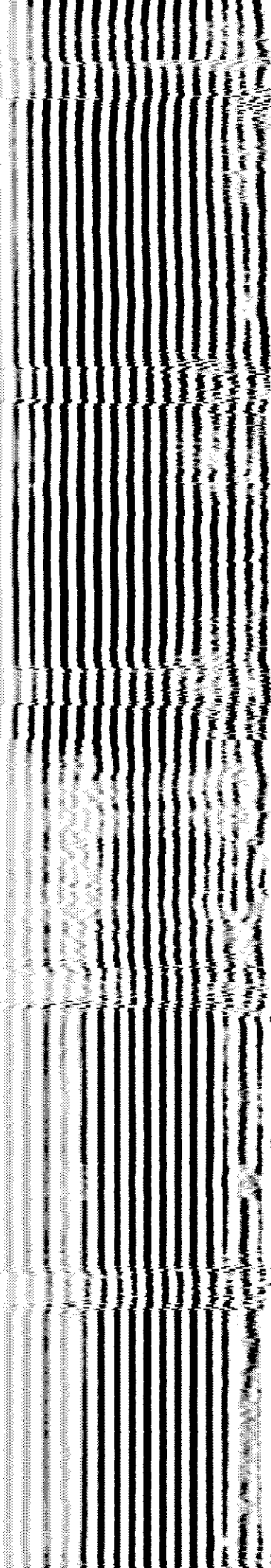
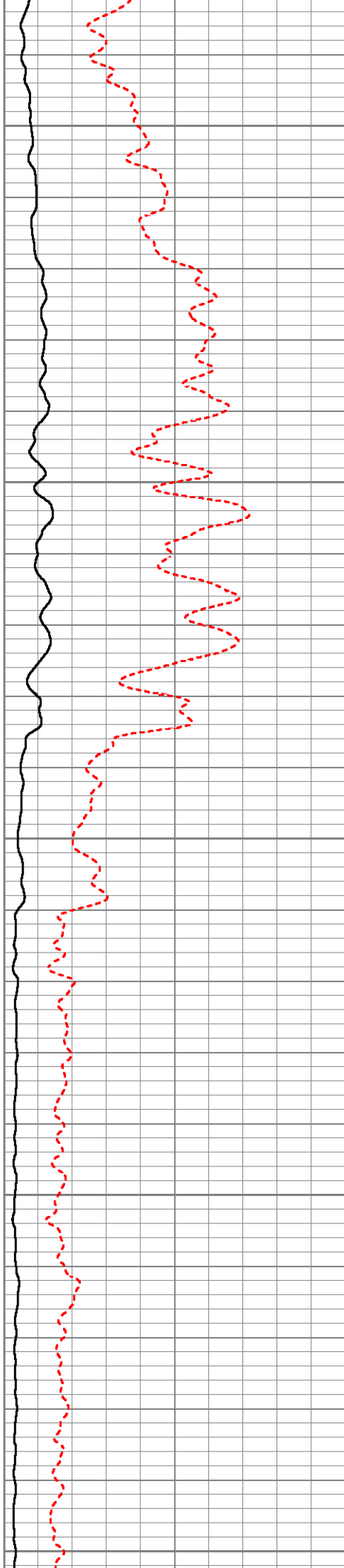
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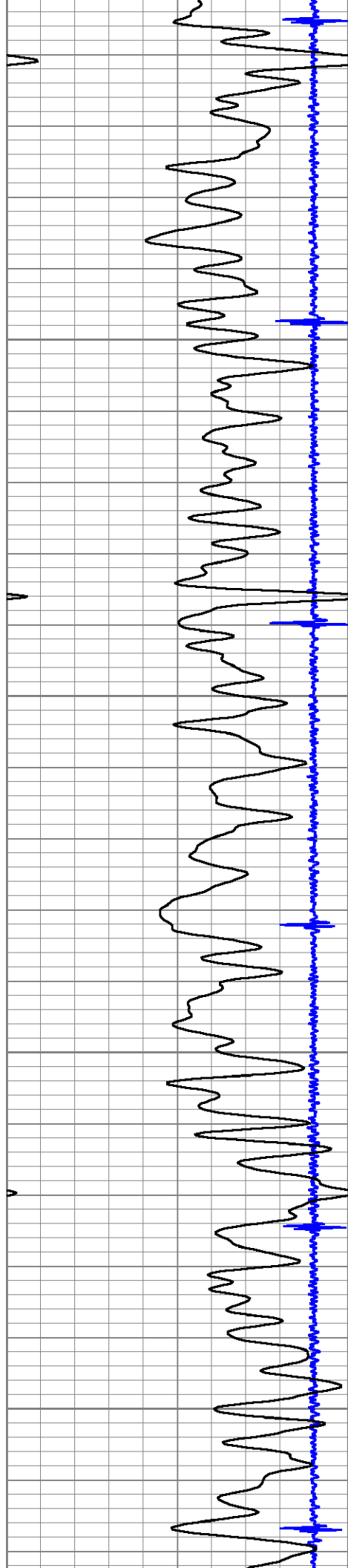
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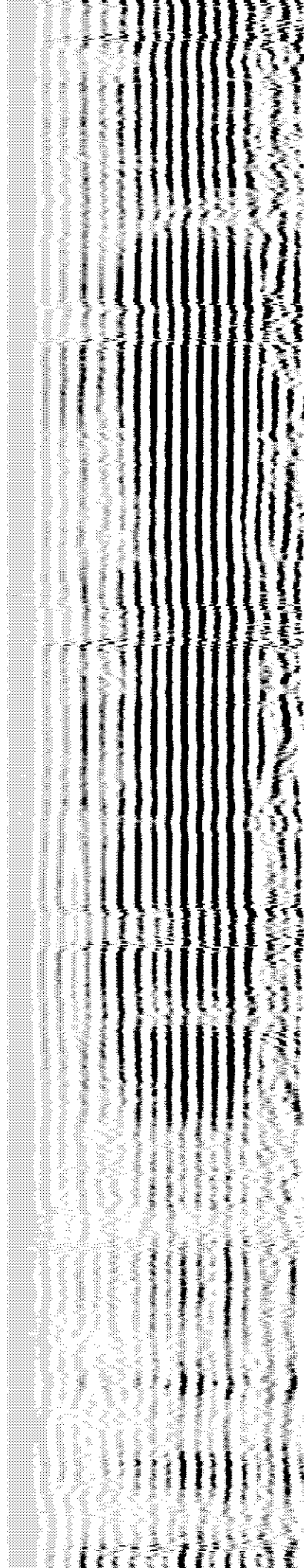
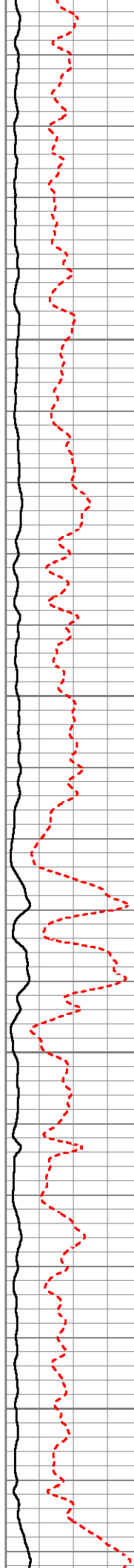


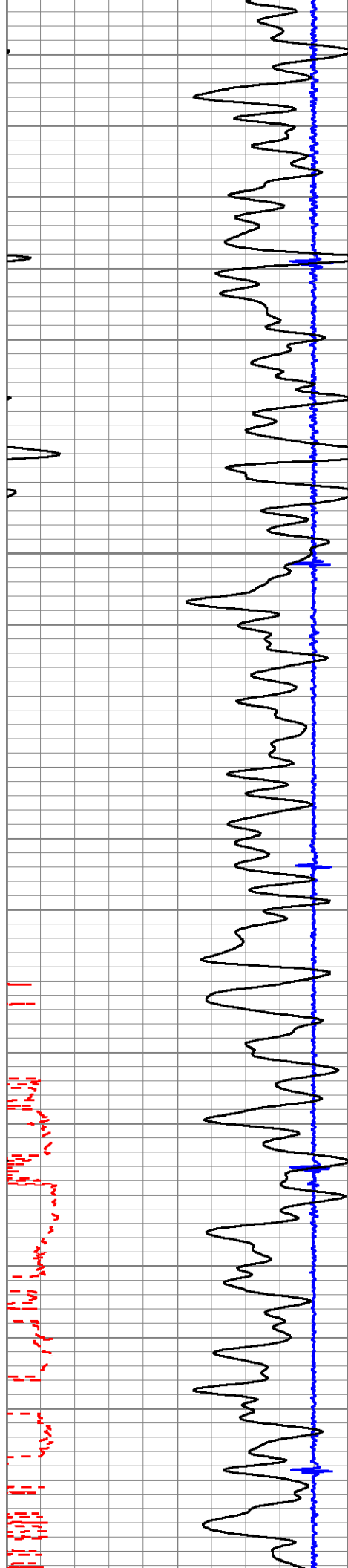
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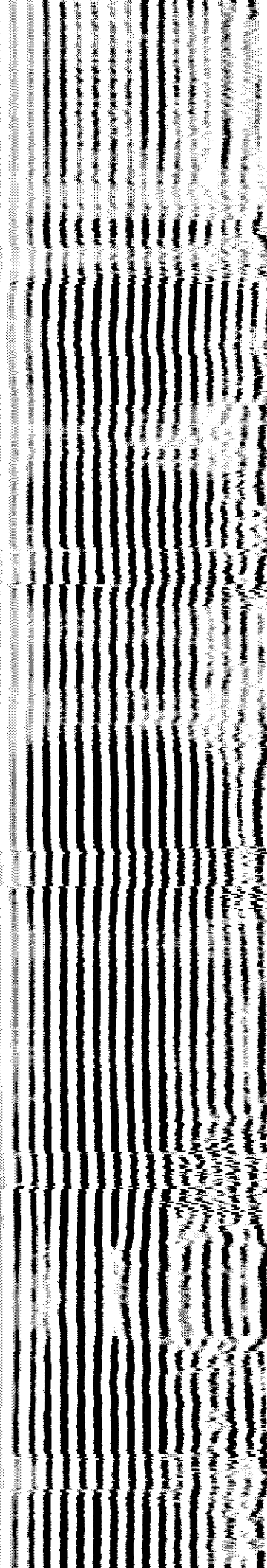
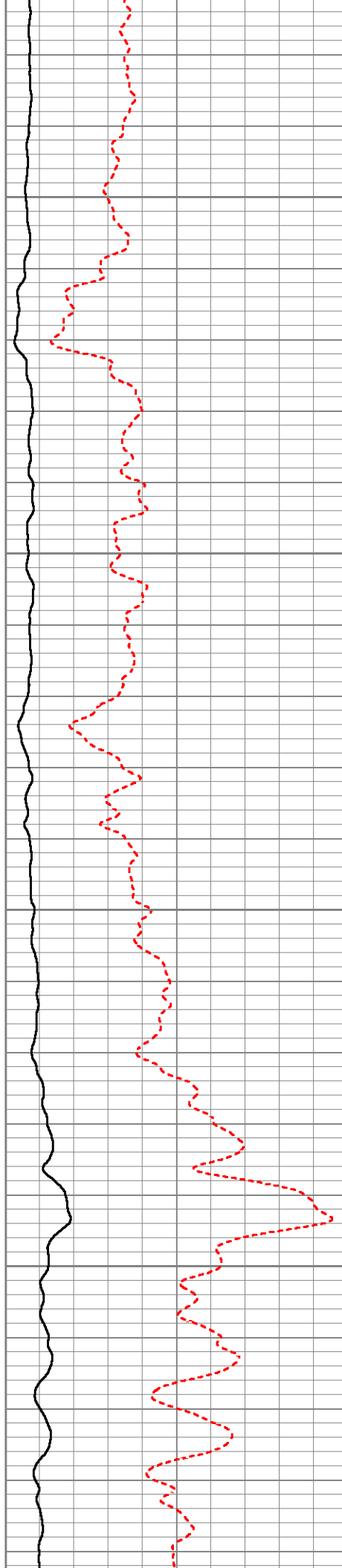


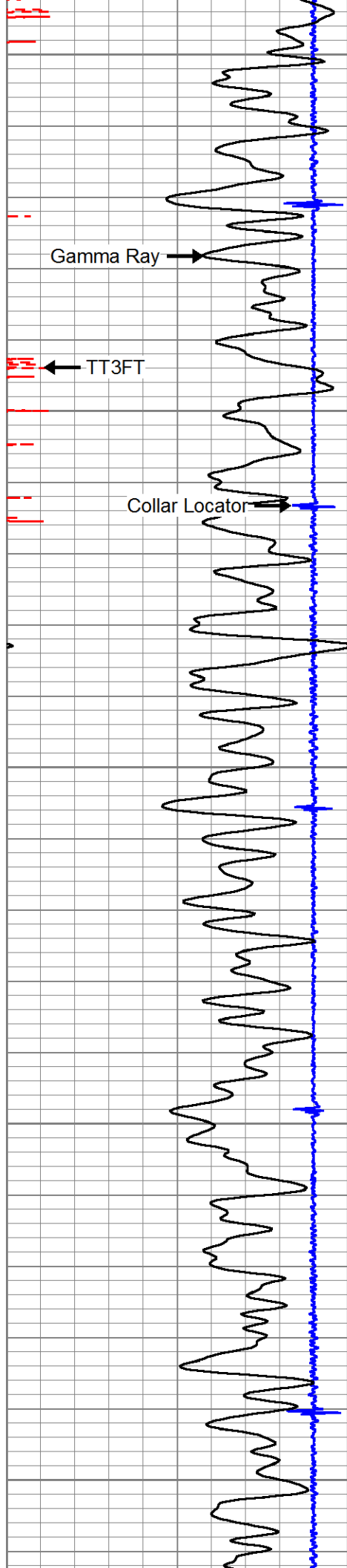
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5200





5250

Gamma Ray

TT3FT

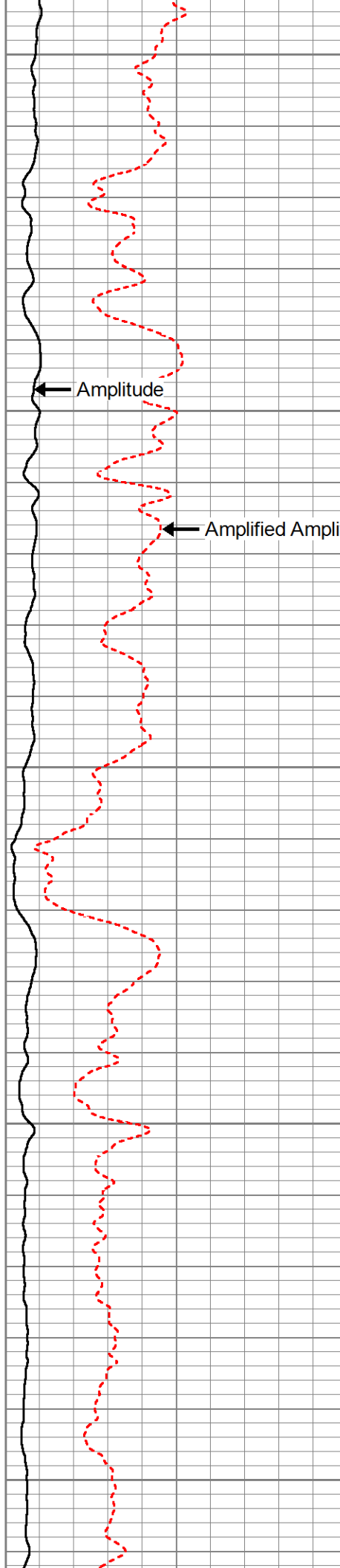
Collar Locator

5300

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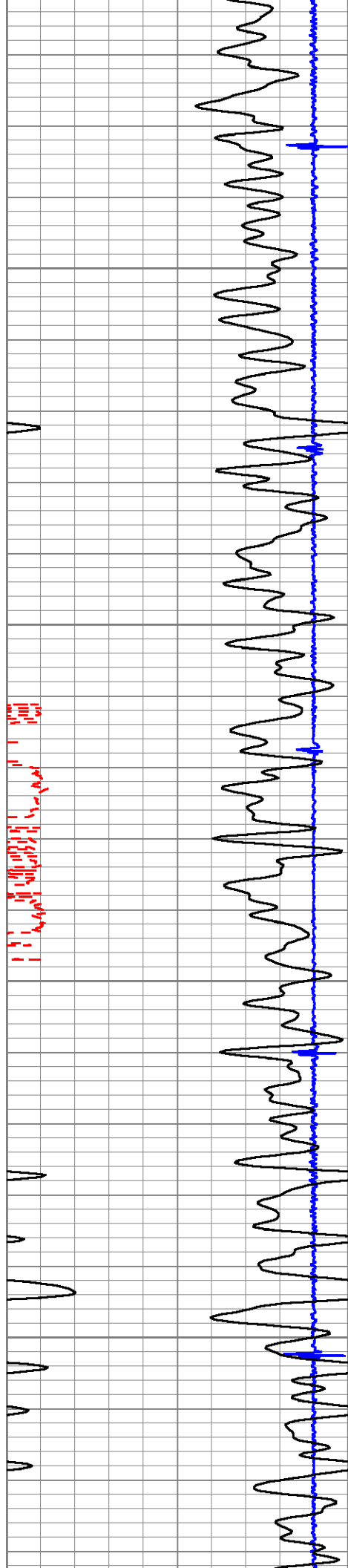
5400

5450



Amplitude

Amplified Amplitude

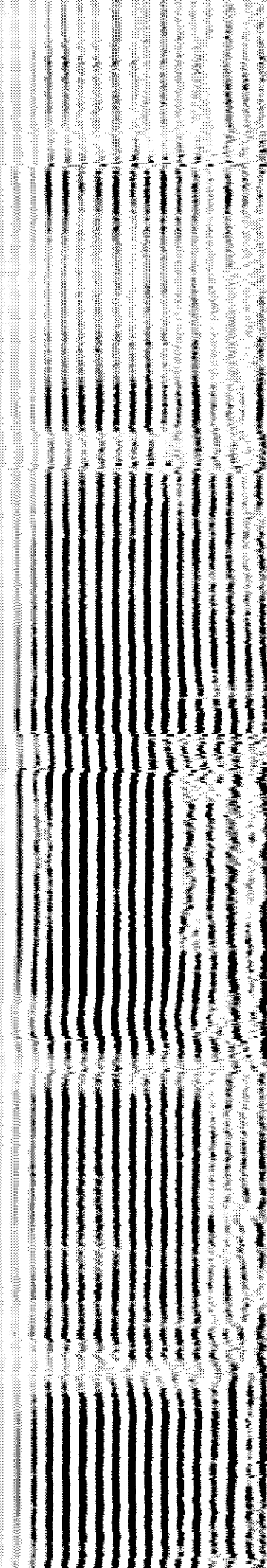
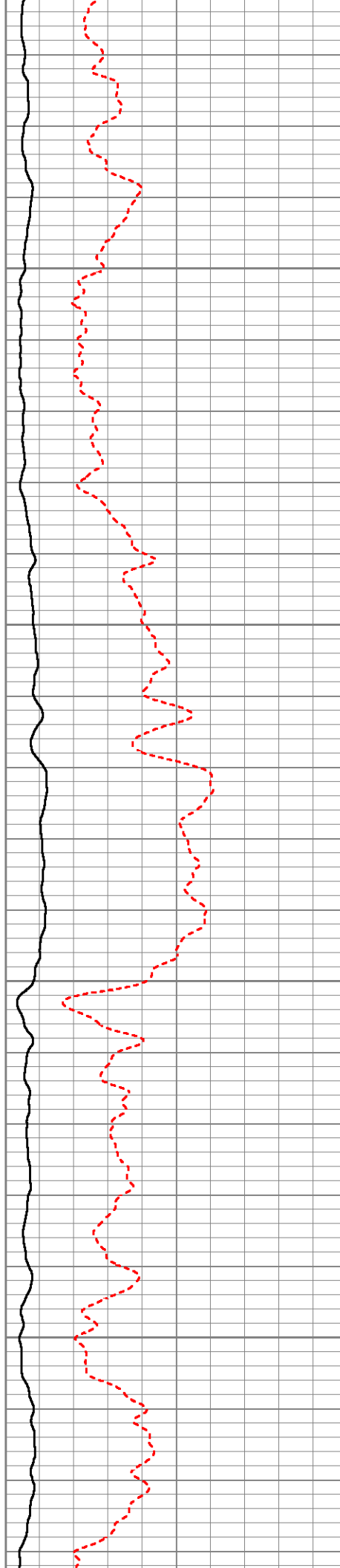


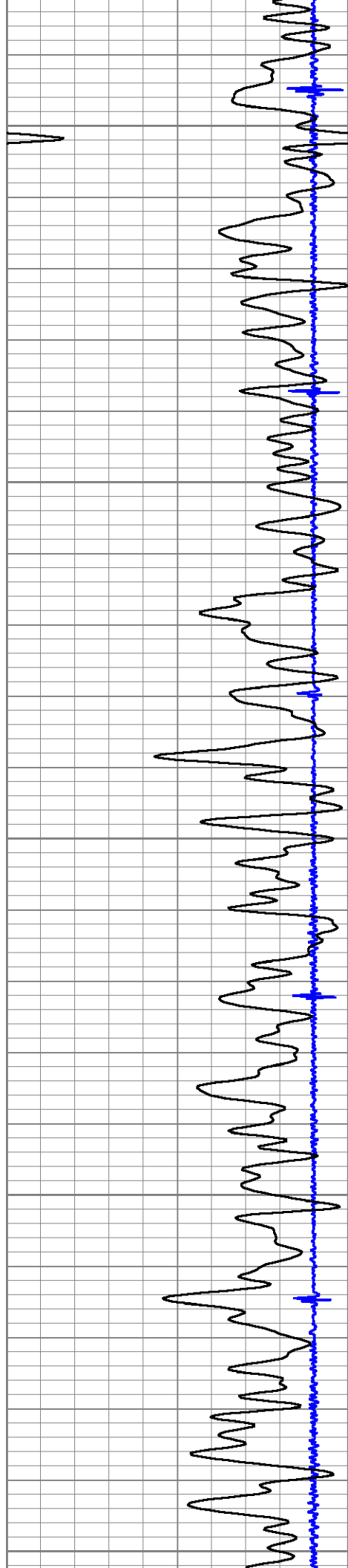
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5550

5600

5650





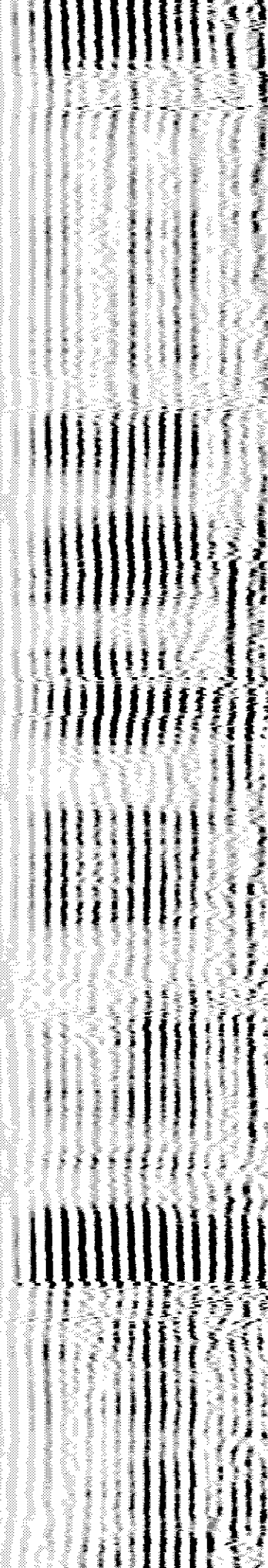
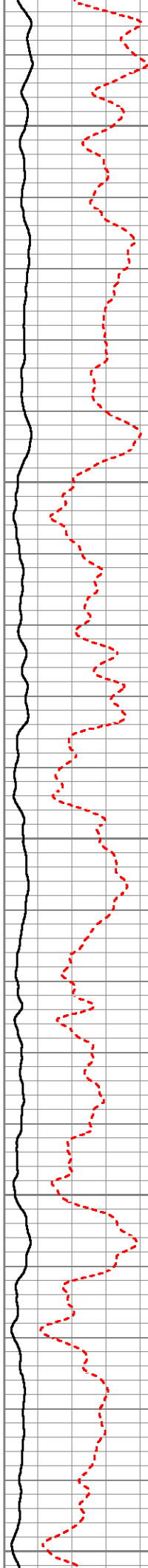
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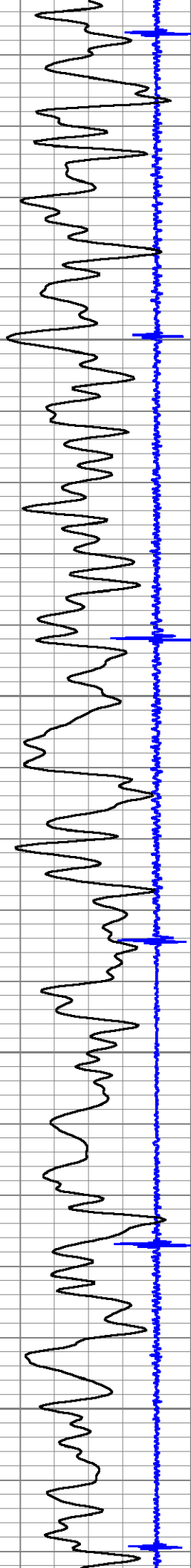
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5800

5850

5900



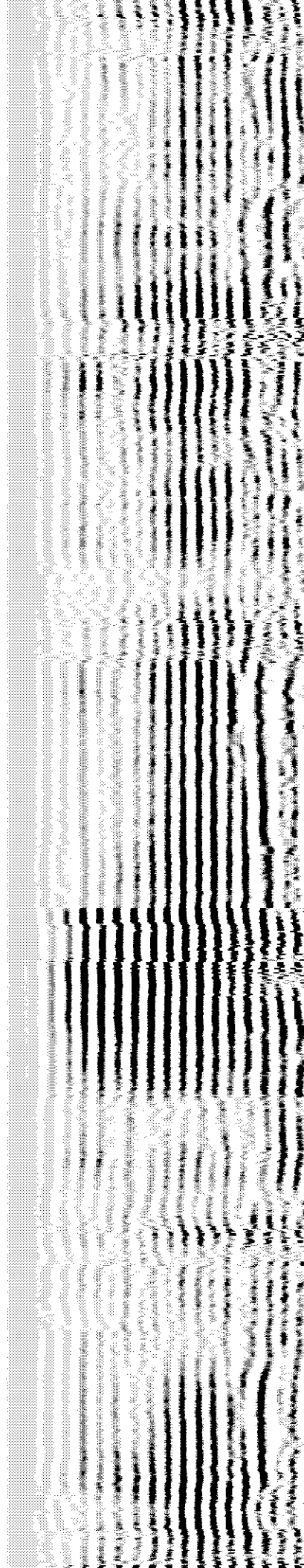
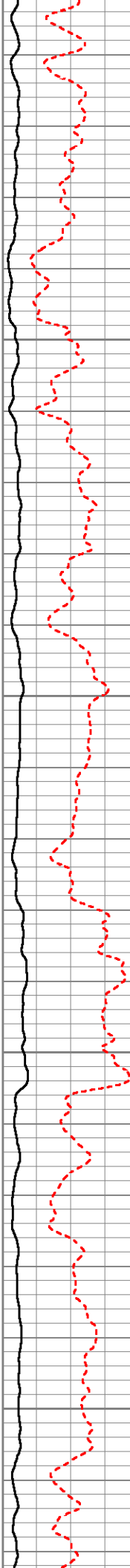


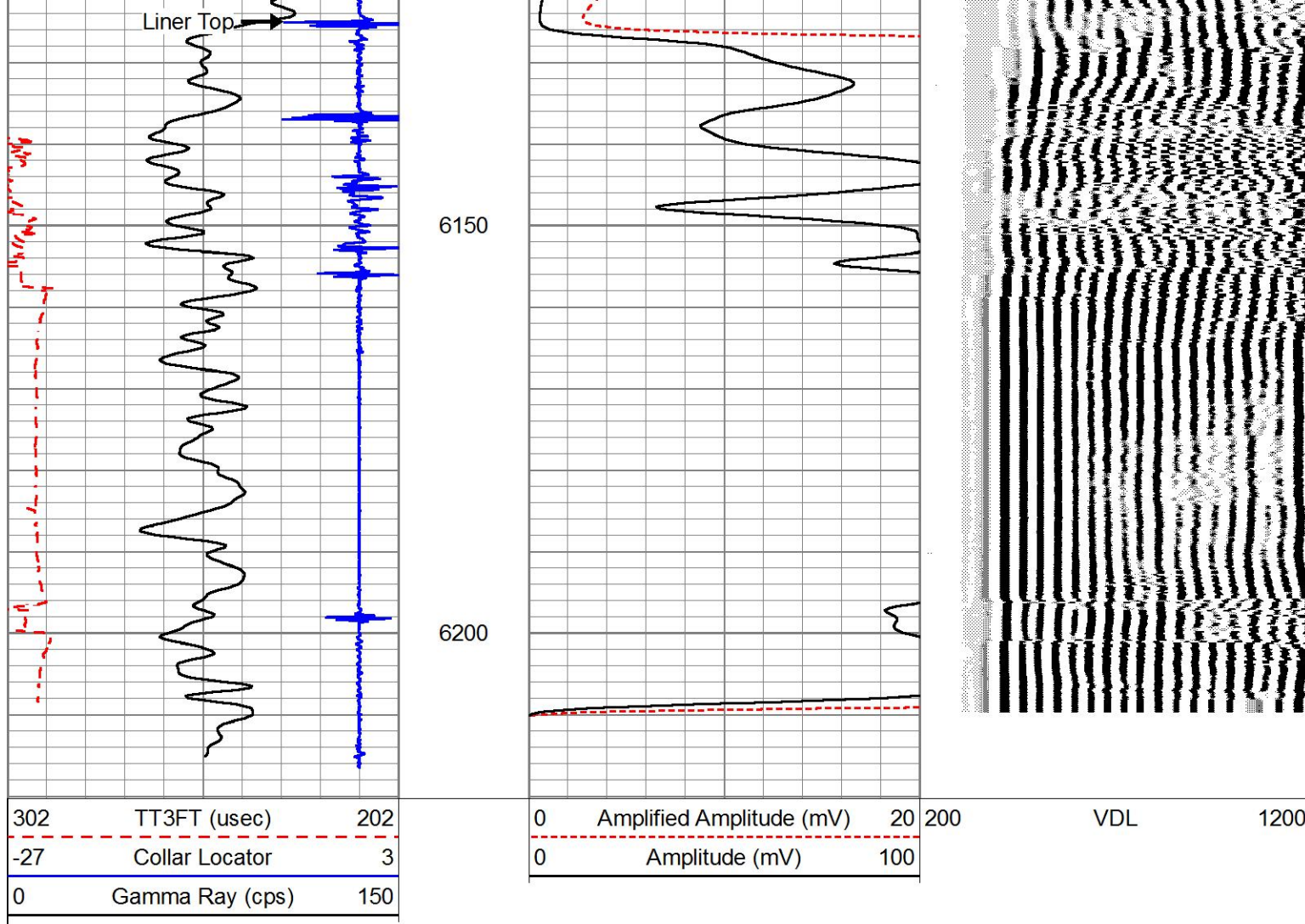
5950


6000

6050

6100







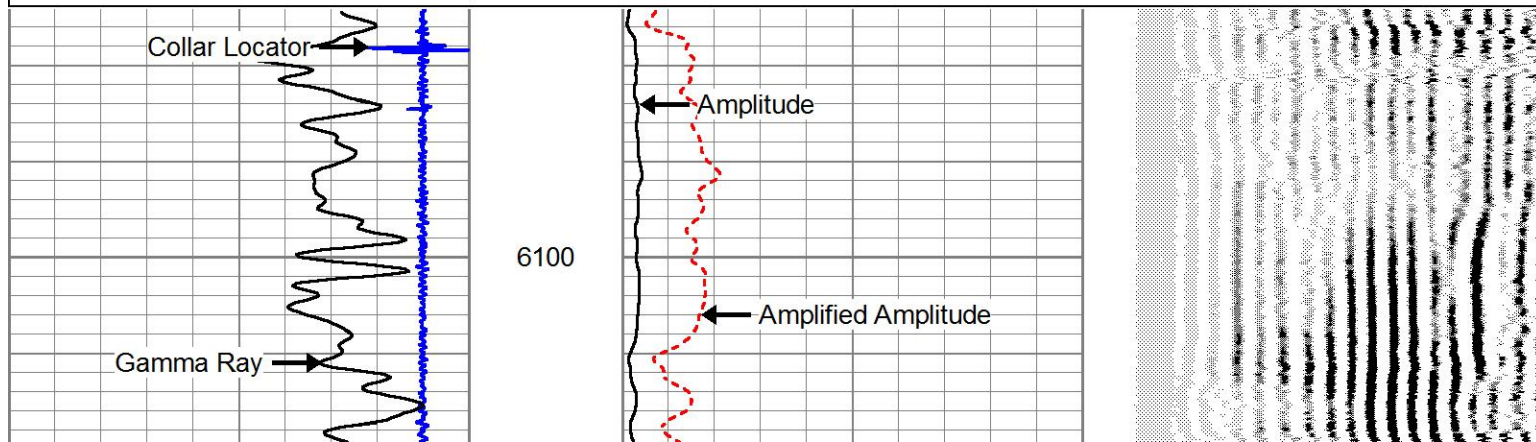
PIONEER

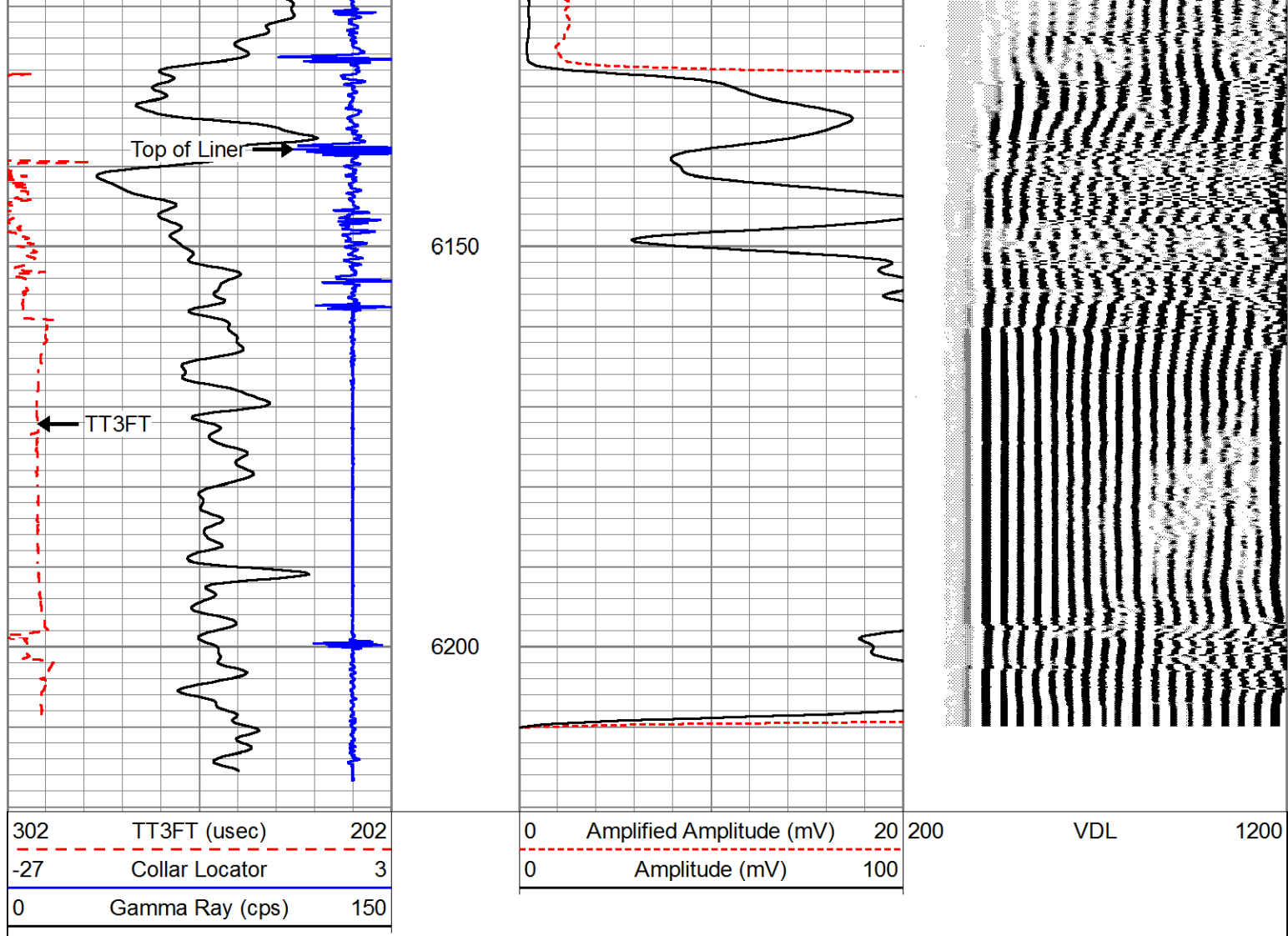
Pioneer Energy Services

REPEAT SECTION

Database File	bonanzacreek_21_24_34hnb_cbl.db
Dataset Pathname	passcbl20.1
Presentation Format	cbl
Dataset Creation	Sat Oct 10 17:08:58 2015
Charted by	Depth in Feet scaled 1:240

302	TT3FT (usec)	202	0	Amplified Amplitude (mV)	20	200	VDL	1200
-27	Collar Locator	3	0	Amplitude (mV)	100			
0	Gamma Ray (cps)	150						





Calibration Report

Database File bonanzacreek_21_24_34hnb_cbl.db
 Dataset Pathname passcbl22
 Dataset Creation Sat Oct 10 13:07:29 2015

Gamma Ray Calibration Report

Serial Number: 125010
 Tool Model: PTS275Inv
 Performed: Sat Oct 10 07:32:07 2015

Calibrator Value: 1.0 cps

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity: 1.0000 cps/cps

Segmented Cement Bond Log Calibration Report

Serial Number: 1305-84
 Tool Model: ProbeTemp(Probe

Calibration Casing Diameter: 7.000 in
 Calibration Depth: 1030.350 ft

Master Calibration, performed Sat Oct 10 12:47:56 2015:


Raw (v)

Calibrated (mv)

Results

	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.006	1.370	0.000	62.165	45.563	-0.266
CAL	1.847	1.847				
5'	0.005	1.412	0.000	62.165	44.191	-0.241
SUM						
S1	0.147	1.220	0.000	100.000	93.117	-13.646
S2	0.006	1.197	0.000	100.000	83.921	-0.479
S3	0.001	1.167	0.000	100.000	85.803	-0.105
S4	0.003	1.241	0.000	100.000	80.802	-0.259
S5	0.005	1.336	0.000	100.000	75.115	-0.350
S6	0.006	1.379	0.000	100.000	72.835	-0.430
S7	0.007	1.377	0.000	100.000	72.988	-0.534
S8	0.008	1.314	0.000	100.000	76.595	-0.610

Temperature Calibration Report					
Serial Number:	1305-84				
Tool Model:	ProbeTemp(Probe				
Performed:	Sat Oct 10 07:32:18 2015				
	Reference		Reading		
Low Reference:	0.00	degF	0.00	degF	
High Reference:	1.00	degF	1.00	degF	
Gain:	1.00				
Offset:	0.00				
Delta Spacing	1				

 Pioneer Energy Services	Company	BONANZA CREEK			
	Well	North Platte 21-24-34HNB			
	Field	WATTENBERG			
	County	WELD			
	State	COLORADO			Country