

DUAL INDUCTION LOG

Company	AGV CORPORATION	Company	AGV CORPORATION
Well	BARBARA #1	Well	BARBARA #1
Field	BENFER	Field	BENFER
County	BUTLER	County	BUTLER
State	KANSAS	State	KANSAS
Location:	API # : 15-015-24153-0000 2310' FSL & 2110' FEL E/2 - NW - NW - SE	Other Services CDL/CNL MEL/SON	
Permanent Datum	GROUND LEVEL	Elevation	1342
Log Measured From	KELLY BUSHING	Elevation	K.B. 1351 D.F. 1349 G.L. 1342
Drilling Measured From	KELLY BUSHING		
Date	9/21/21		
Run Number	ONE		
Depth Driller	3340		
Depth Logger	3338		
Bottom Logged Interval	3336		
Top Log Interval	00		
Casing Driller	8 5/8"@218"		
Casing Logger	220		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES	N/A
Density / Viscosity	9.5/42		
pH / Fluid Loss	N/A		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.50@85F		
Rmf @ Meas. Temp	1.13@85F		
Rmc @ Meas. Temp	1.80@85F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	1.16@110F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	10:00 A.M.		
Maximum Recorded Temperature	110F		
Equipment Number	922339		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	KENT ROBERTS		

<<< Fold Here >>>

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.

15-015-24153-0000

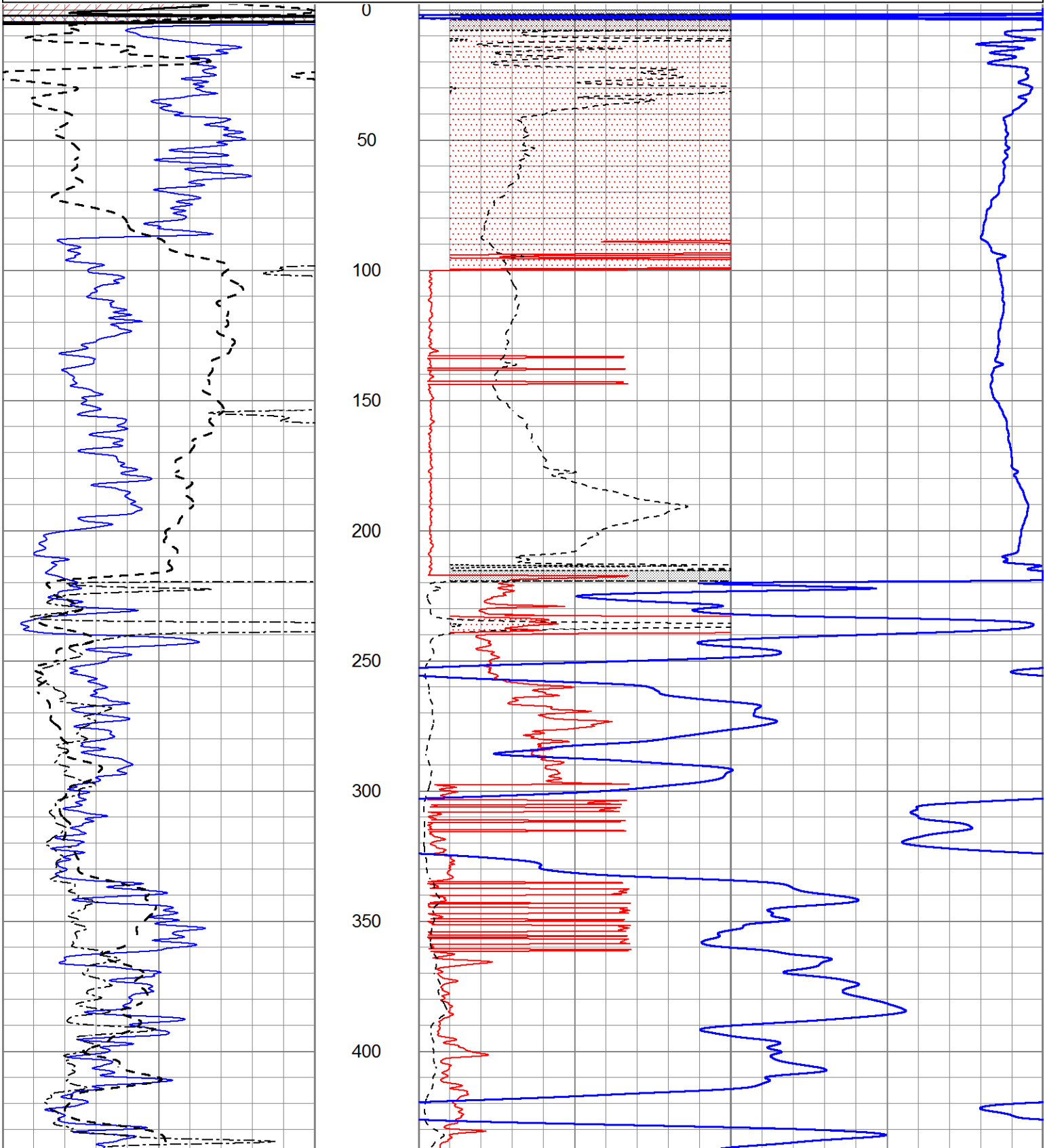
Comments

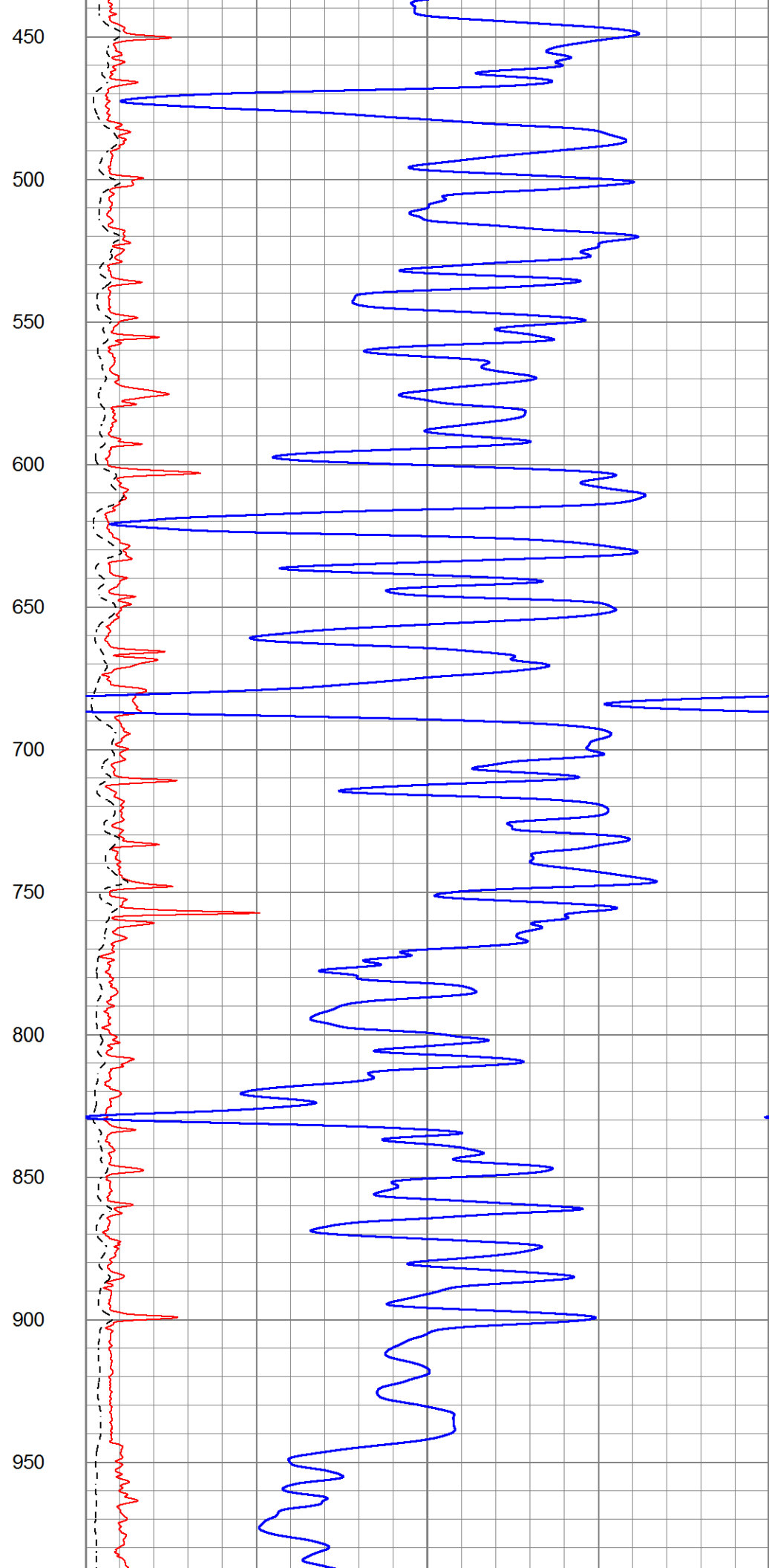
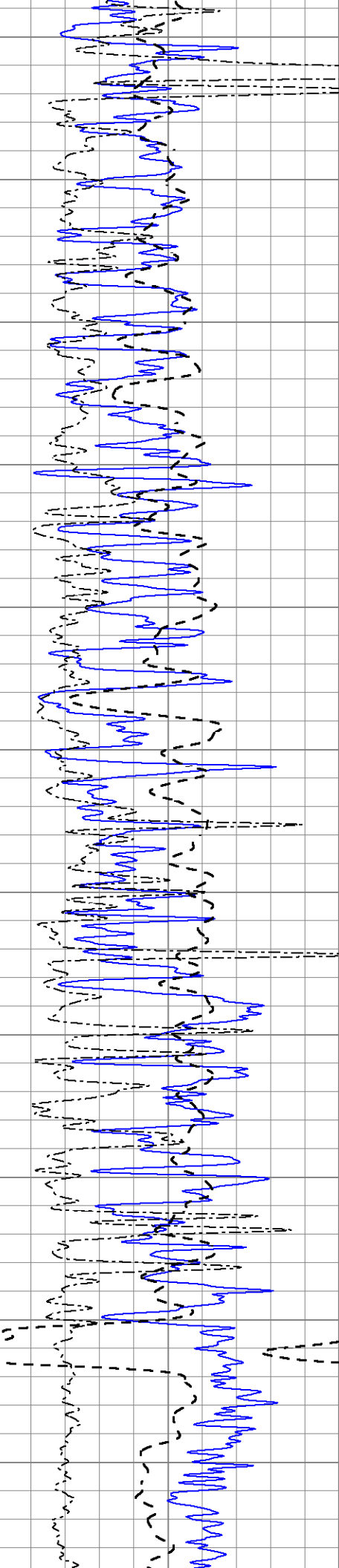
THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS
BENTON, KS., & HWY 254 EXIT, N. 100 YARDS TO FRONTAGE RD THAT GOES WEST 1/2 MILE,
THEN NORTH 1/8, W. INTO

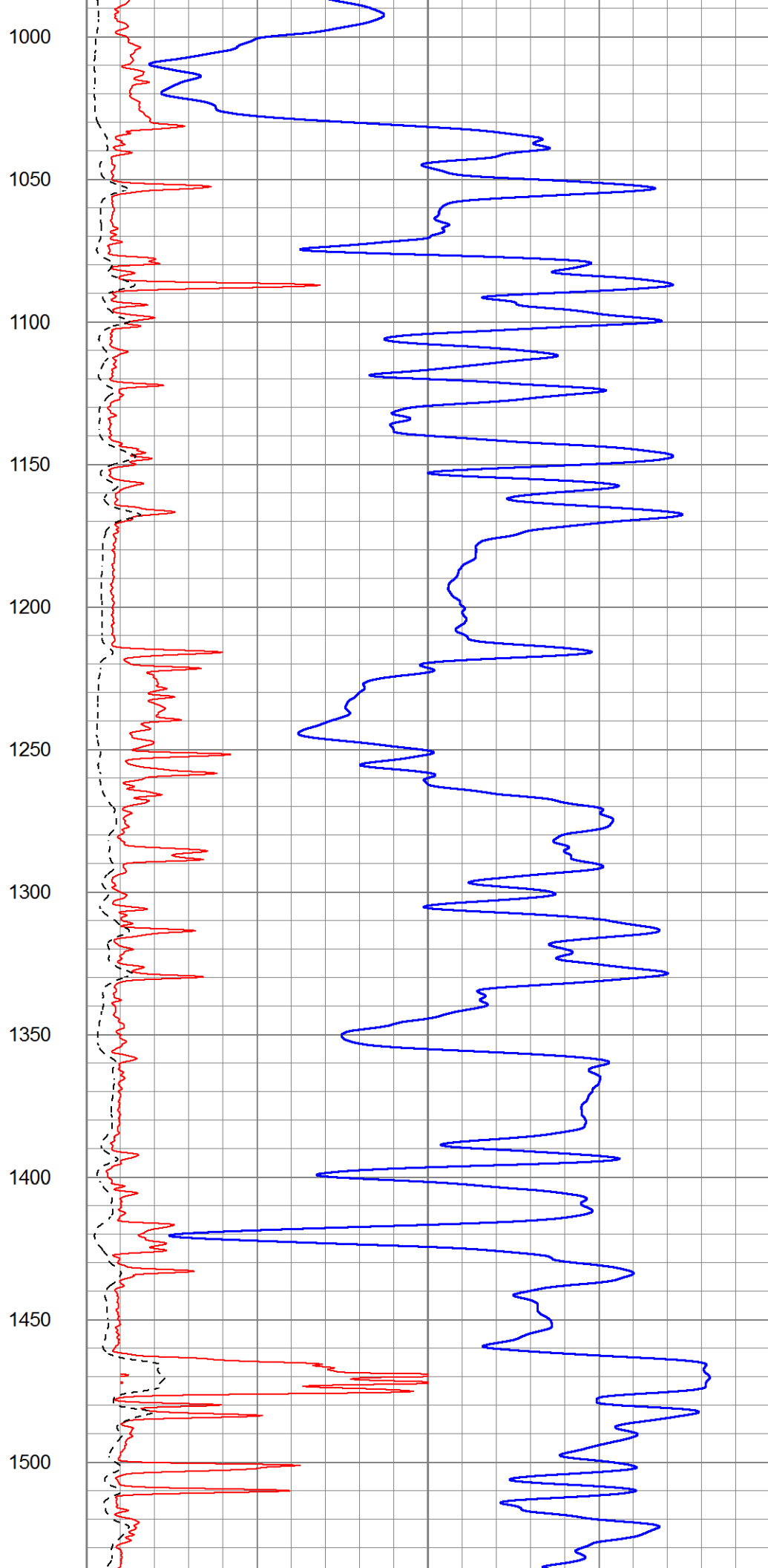
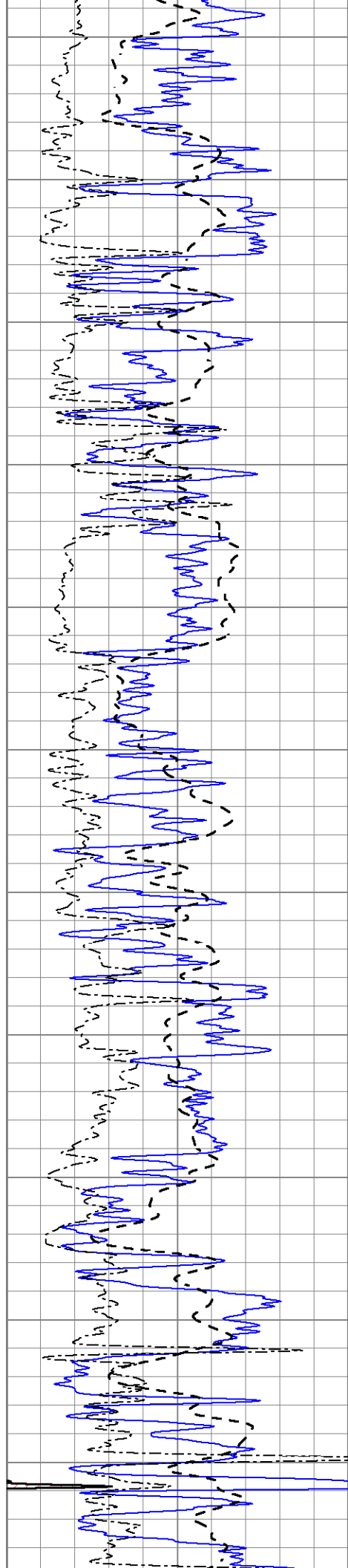


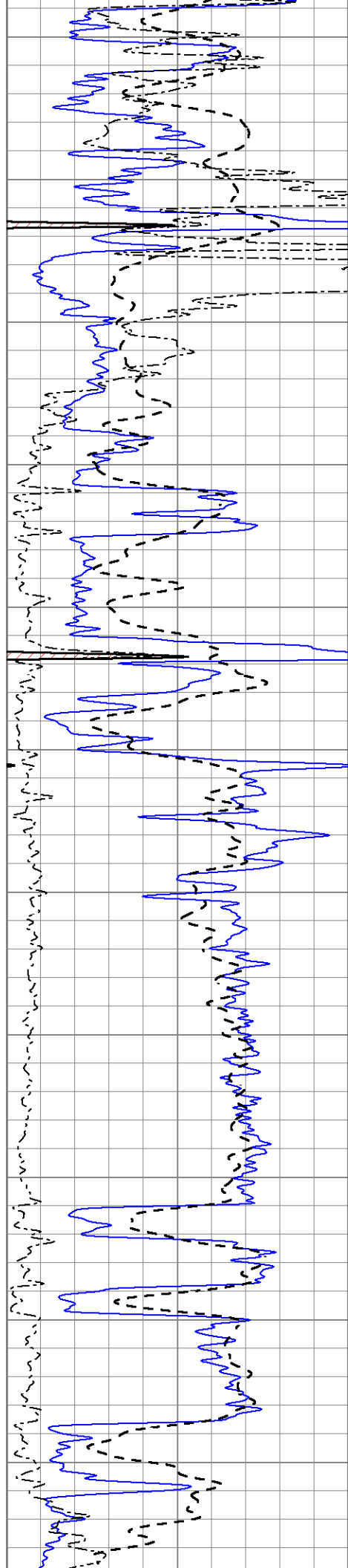
MAIN SECTION

0	Gamma Ray (GAPI)	150	1000	CILD (mmho/m)	0
-100	SP (mV)	100	0	RLL3 (Ohm-m)	50
0	RWA (Ohm-m)	1	0	RILD (Ohm-m)	50
			50	RILD X10 (Ohm-m)	500
			50	RLL3 X10 (Ohm-m)	500









1550

1600

1650

1700

1750

1800

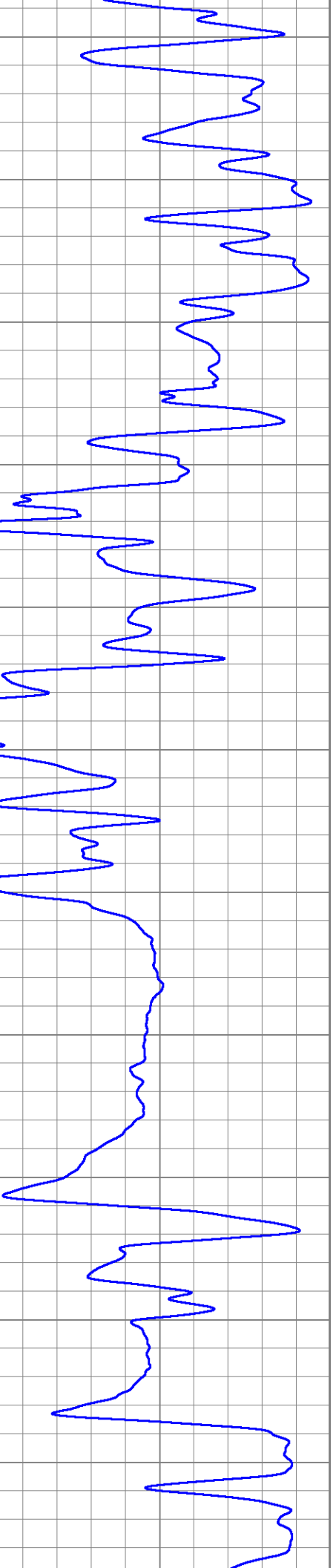
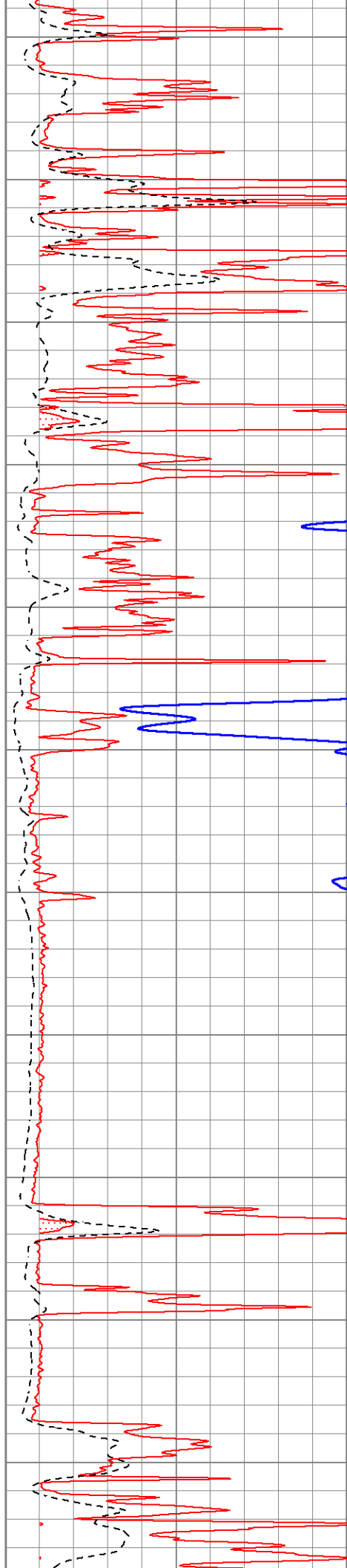
1850

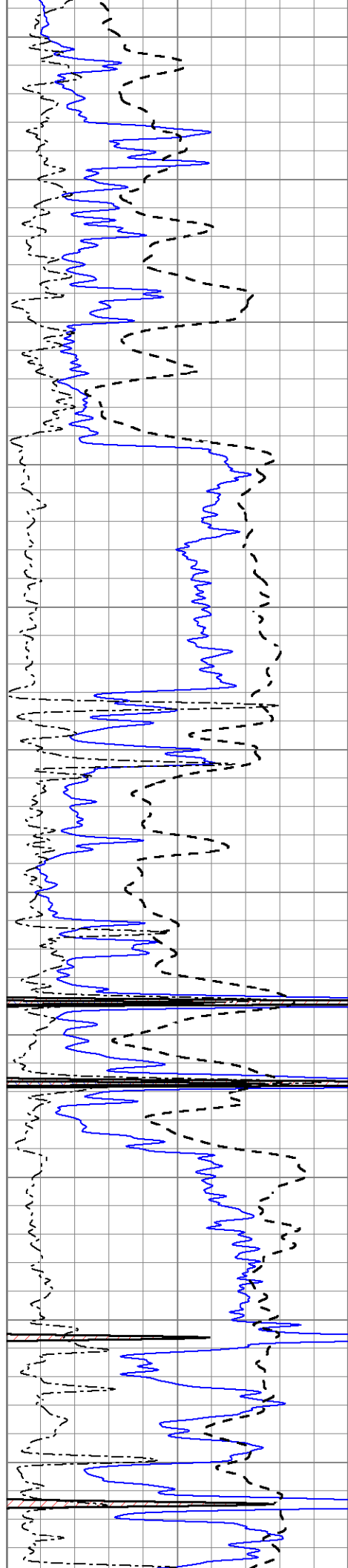
1900

1950

2000

2050





2100

2150

2200

2250

2300

2350

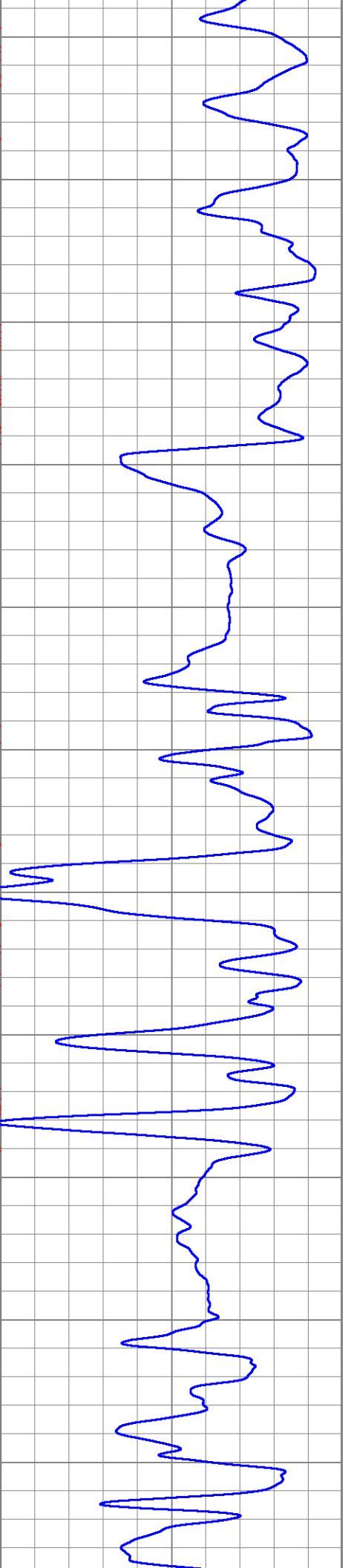
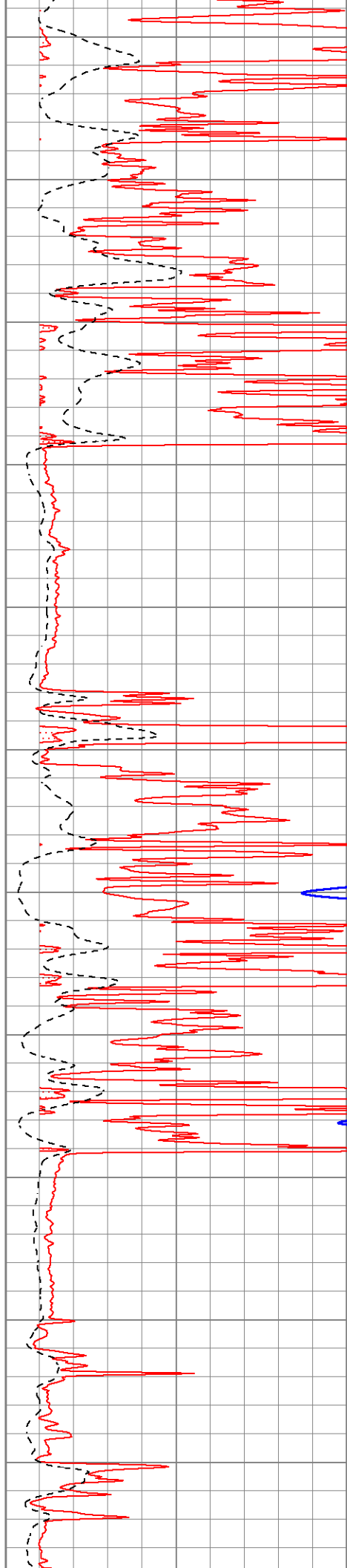
2400

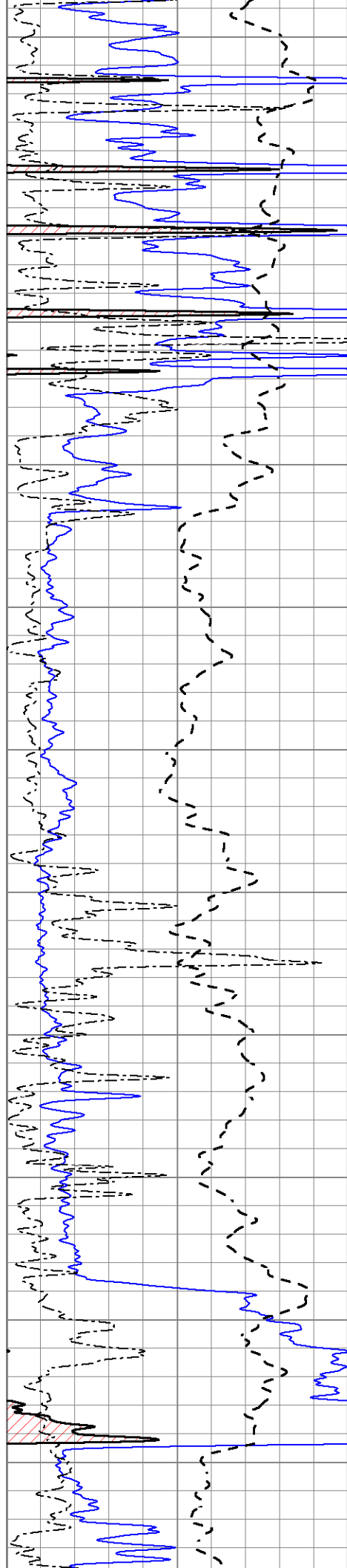
2450

2500

2550

2600





2650

2700

2750

2800

2850

2900

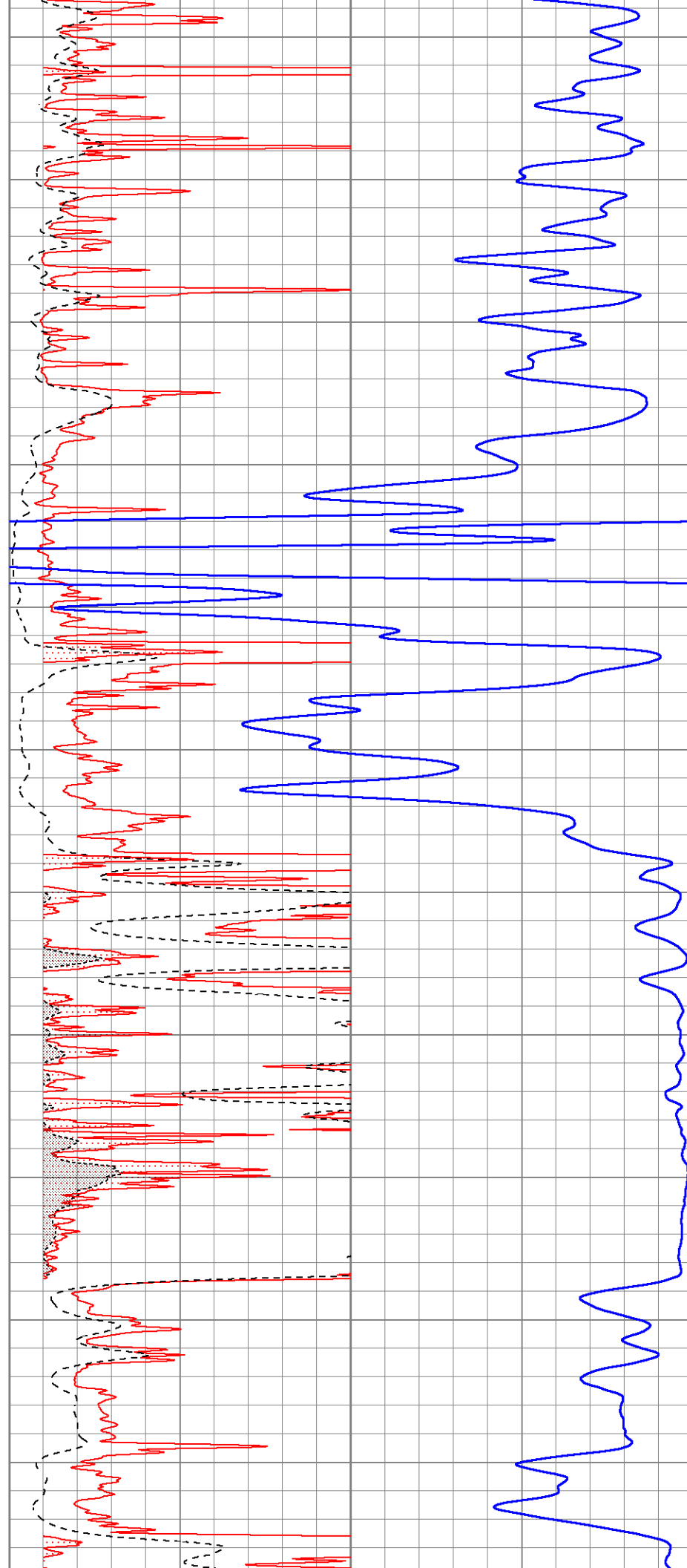
2950

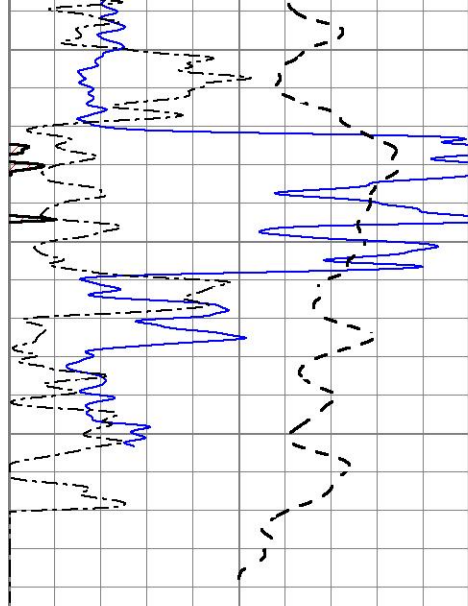
3000

3050

3100

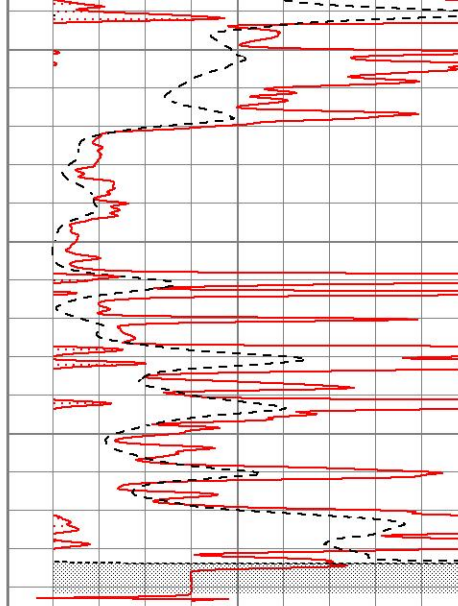
3150





0	Gamma Ray (GAPI)	150
-100	SP (mV)	100
0	RWA (Ohm-m)	1

3200
3250
3300



1000	CILD (mmho/m)	0
0	RLL3 (Ohm-m)	50
0	RILD (Ohm-m)	50
50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500

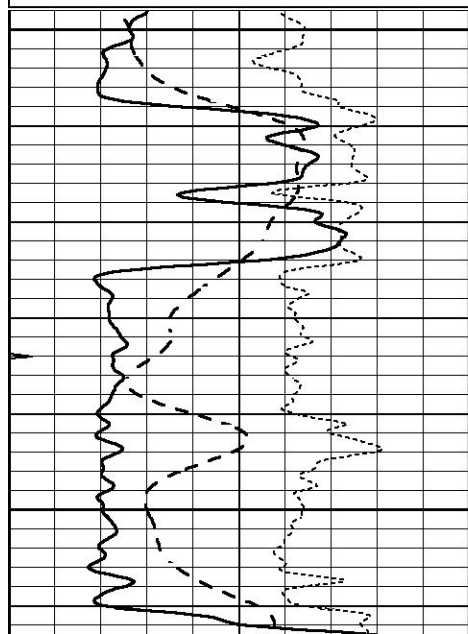


MAIN SECTION

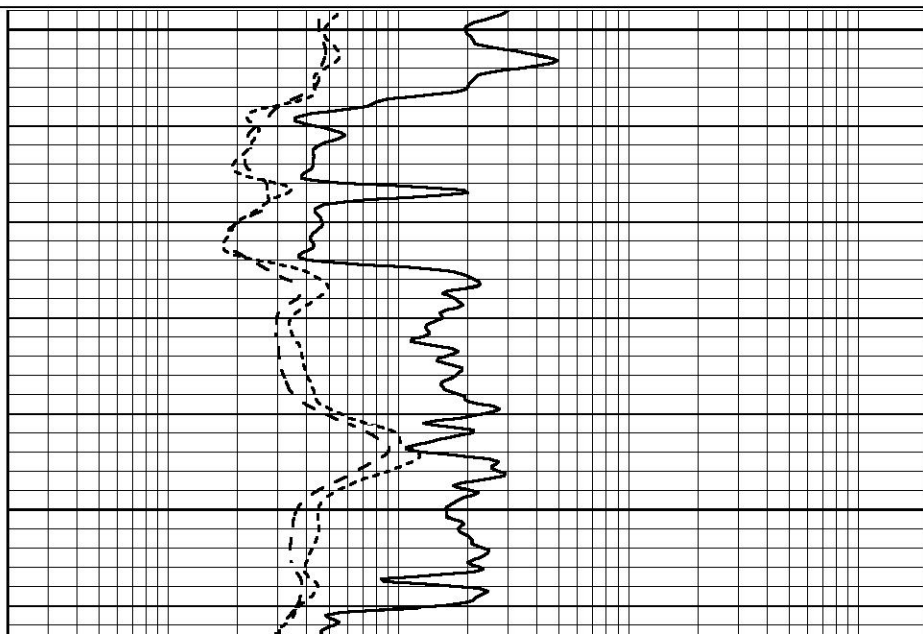
Database File 5660ddn.db
Dataset Pathname pass3.1M
Presentation Format _dil
Dataset Creation Tue Sep 21 11:40:48 2021
Charted by Depth in Feet scaled 1:240

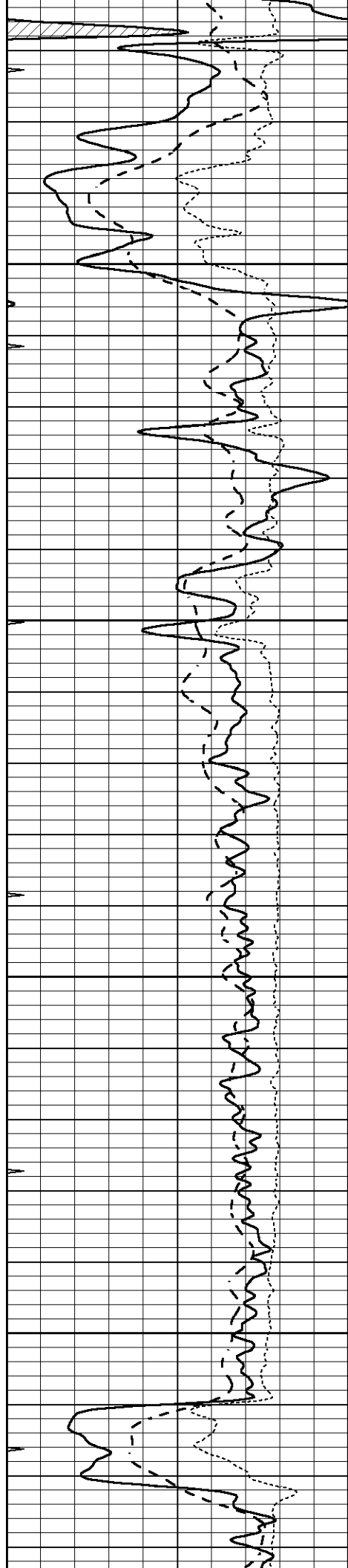
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



1700
1750



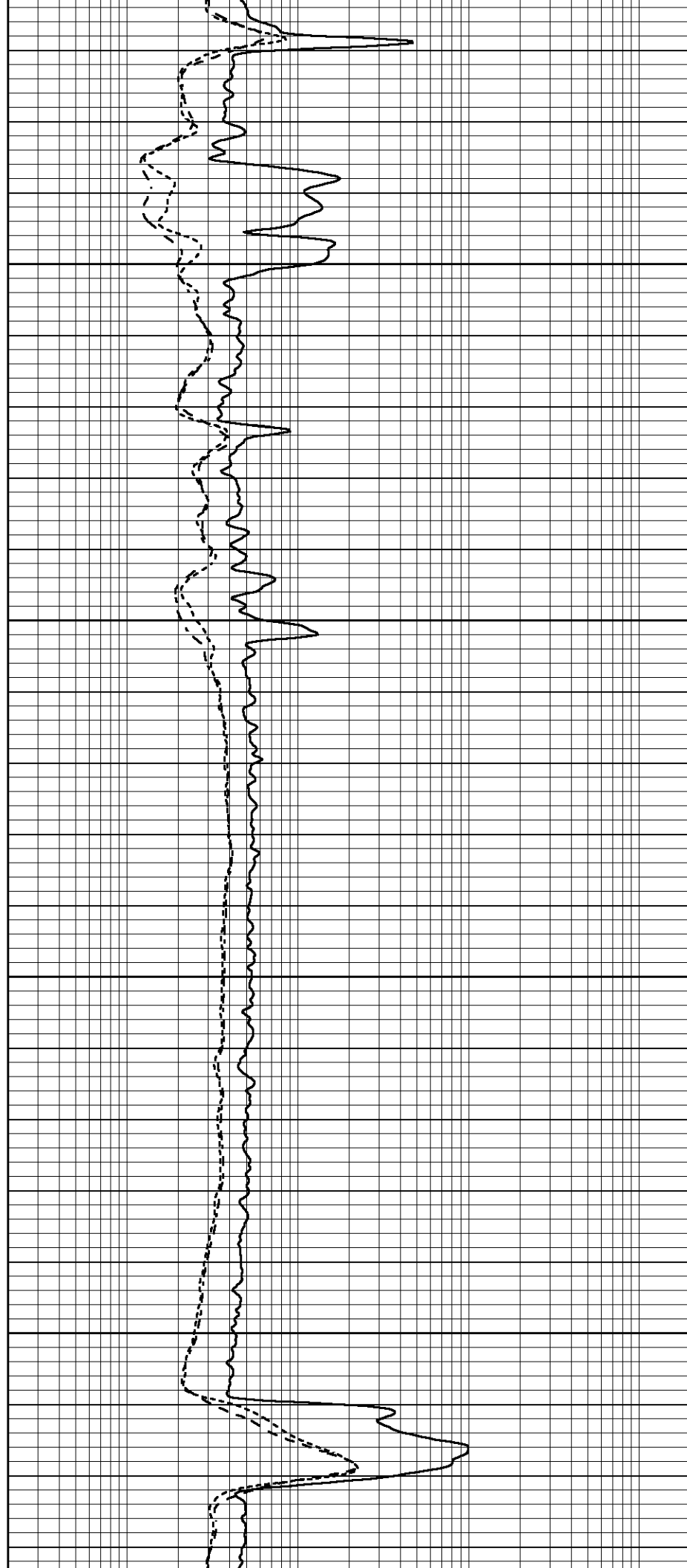


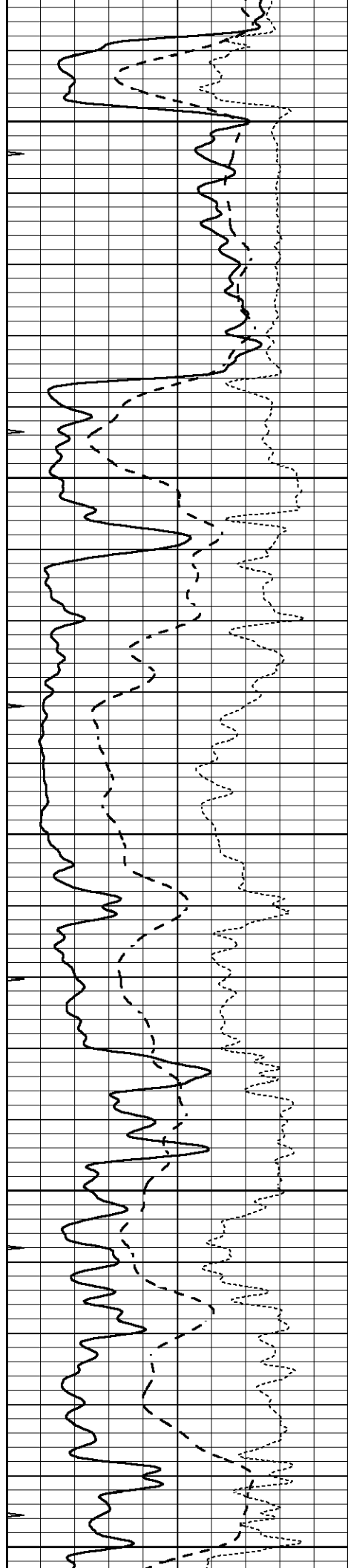
1800

1850

1900

1950





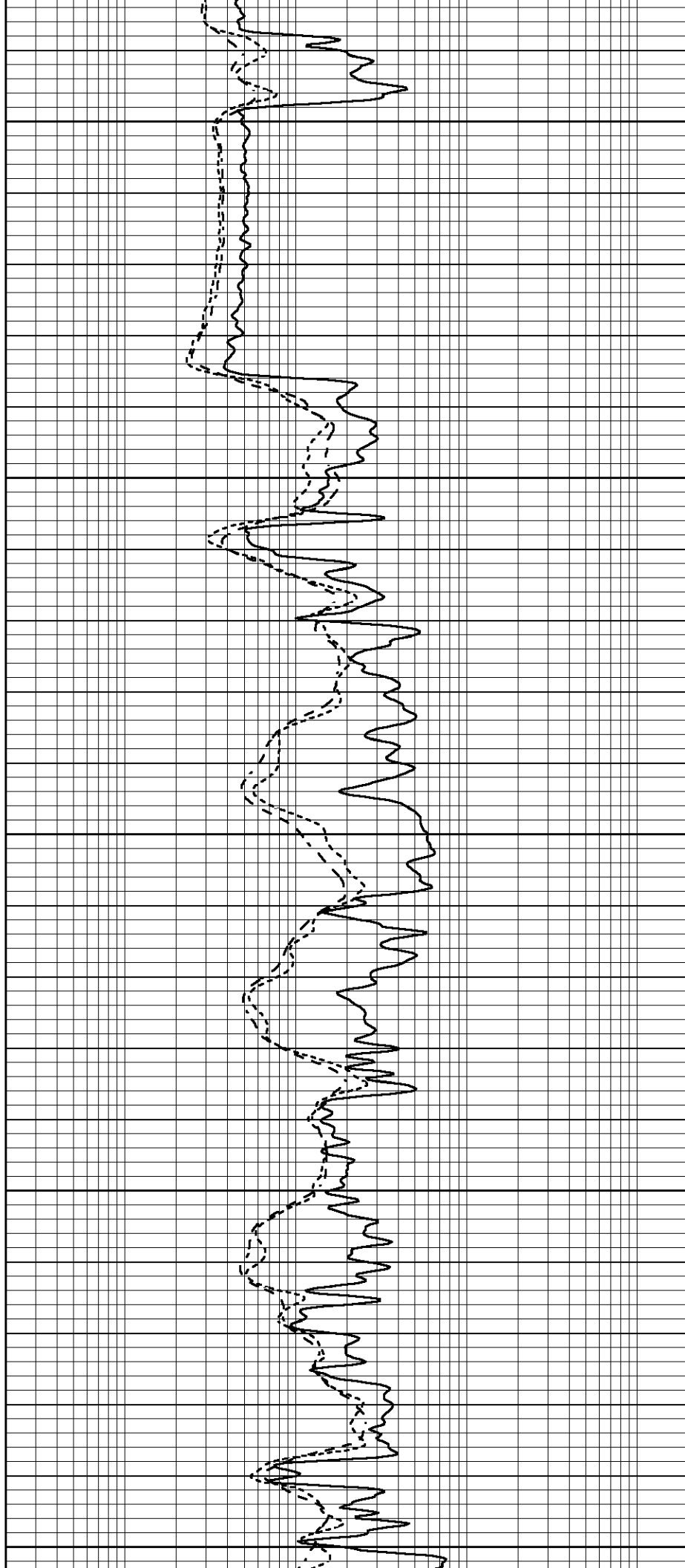
2000

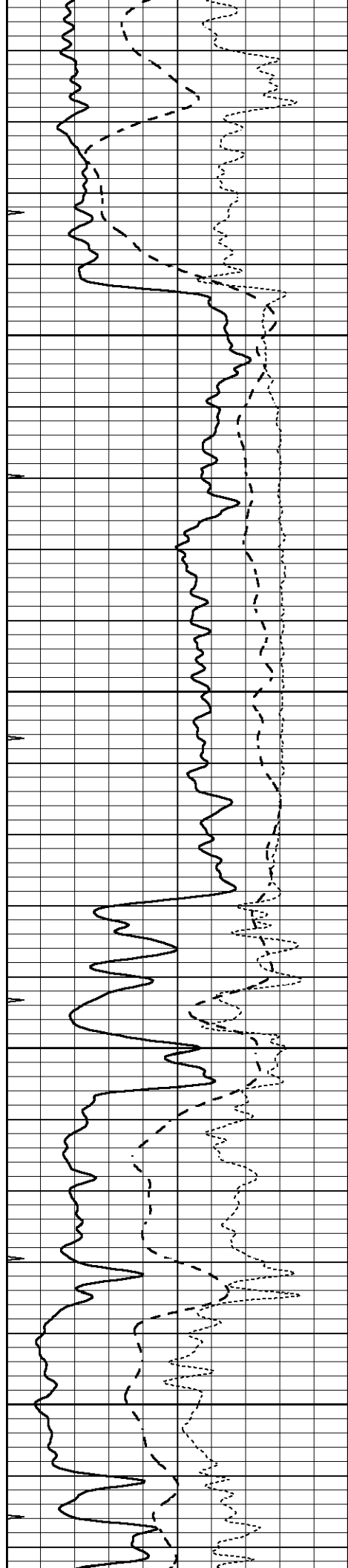
2050

2100

2150

2200



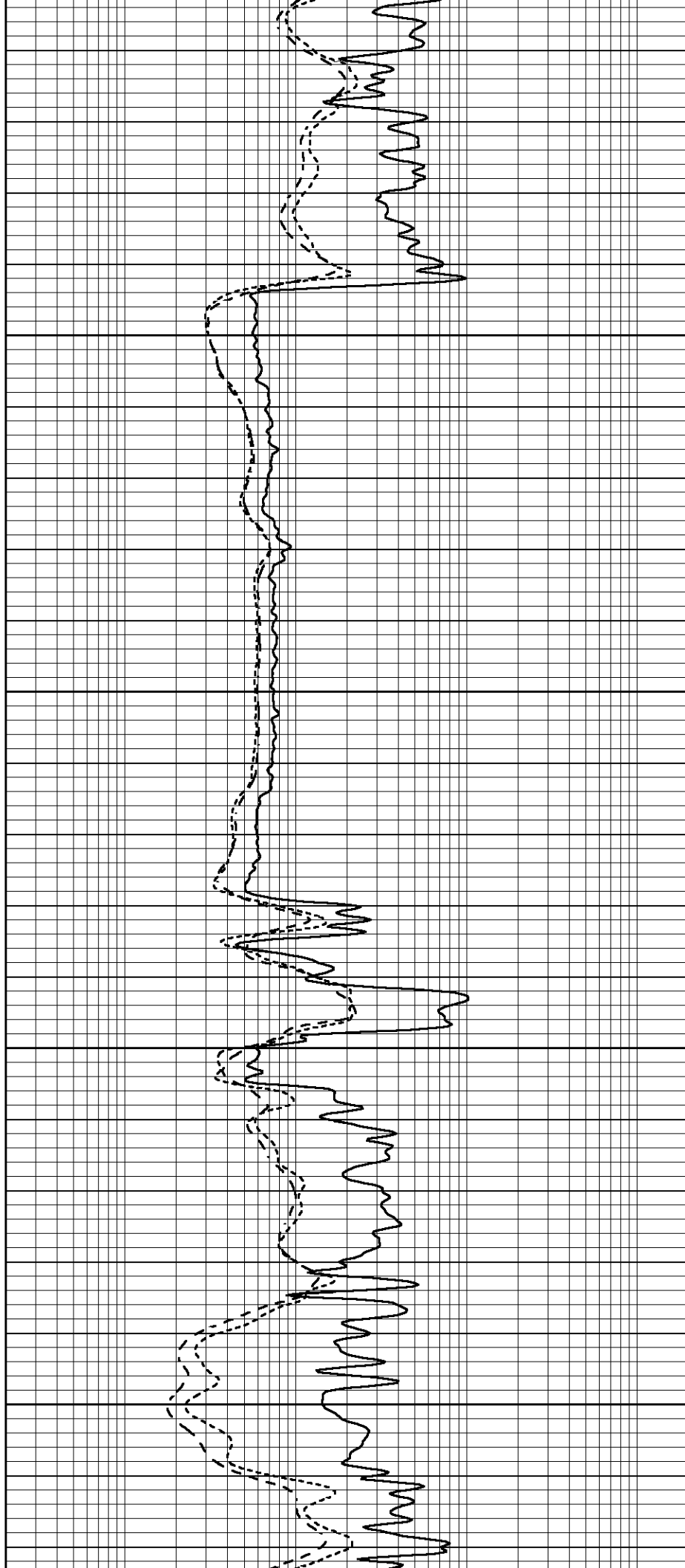


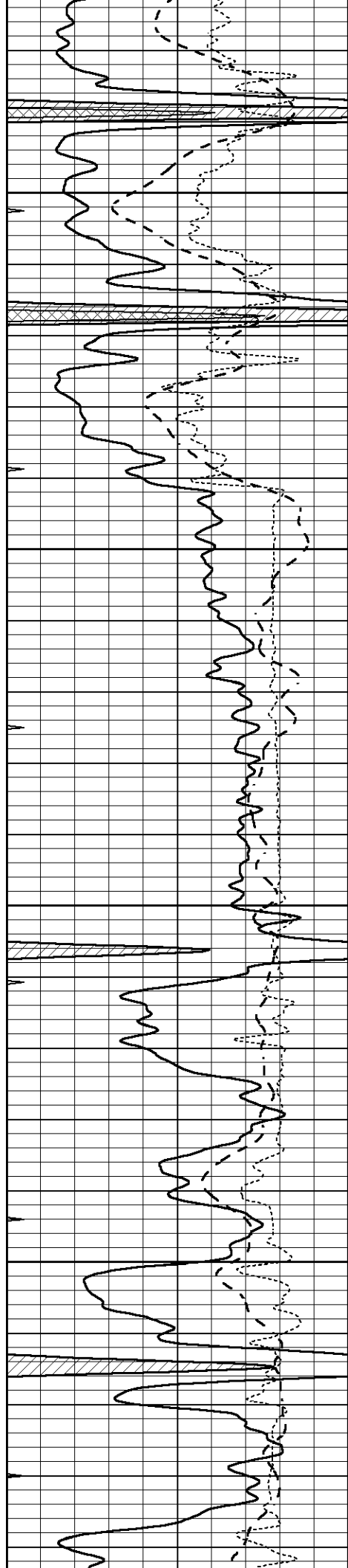
2250

2300

2350

2400



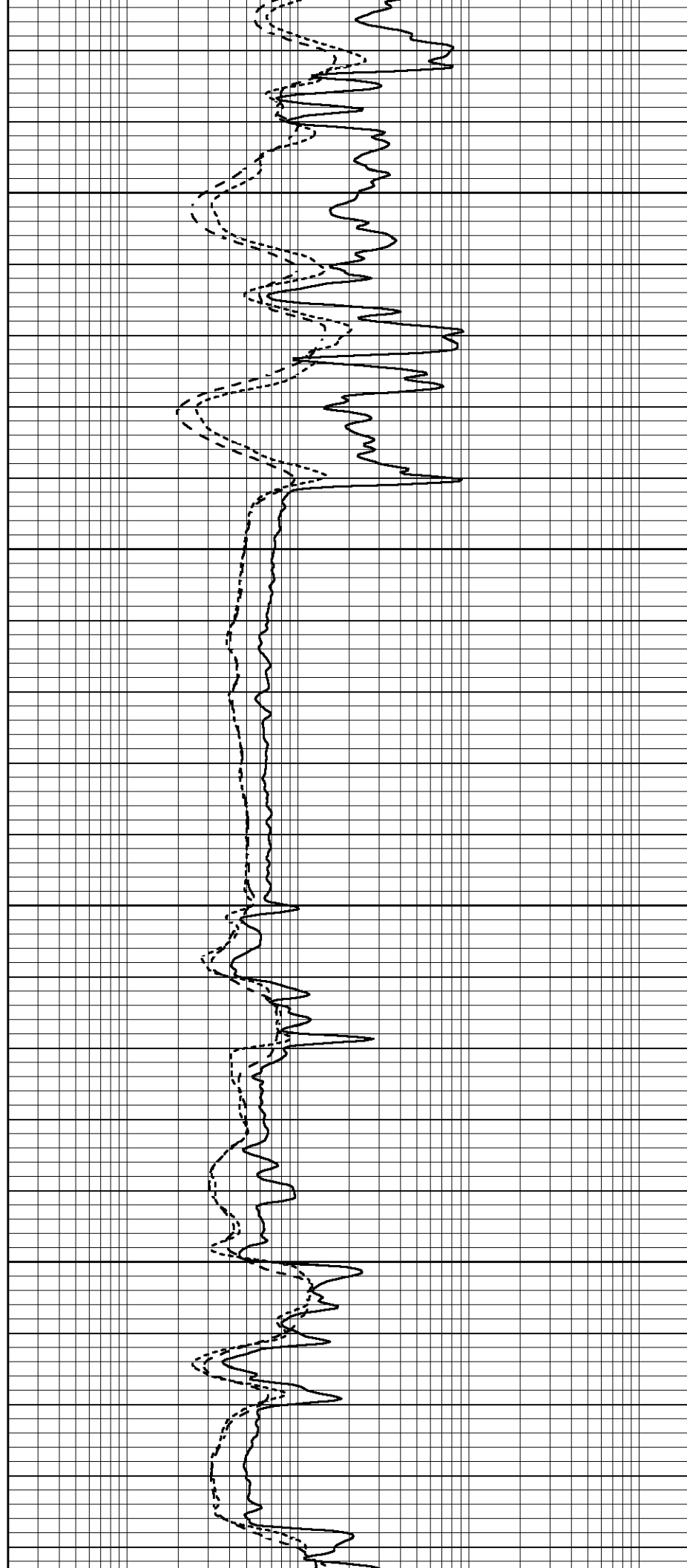


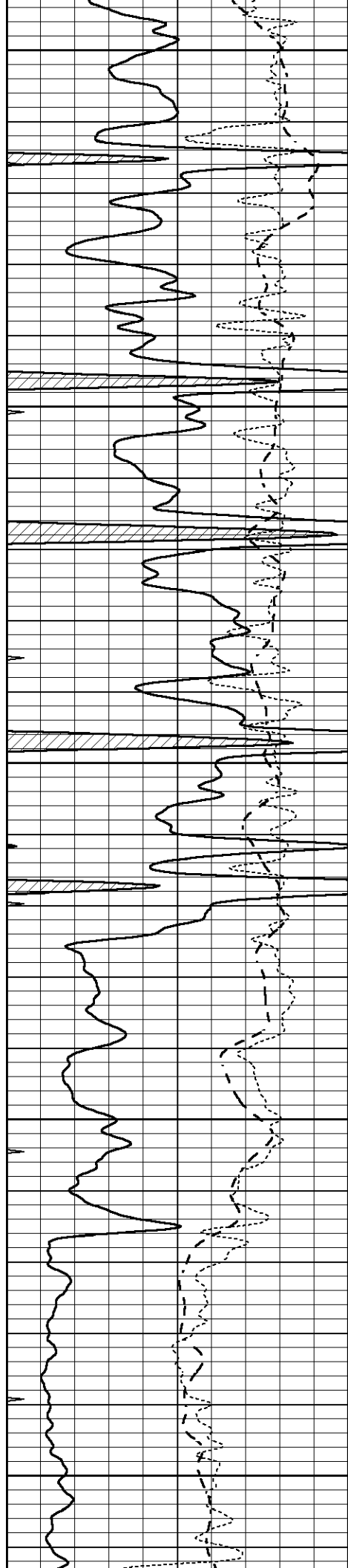
2450

2500

2550

2600





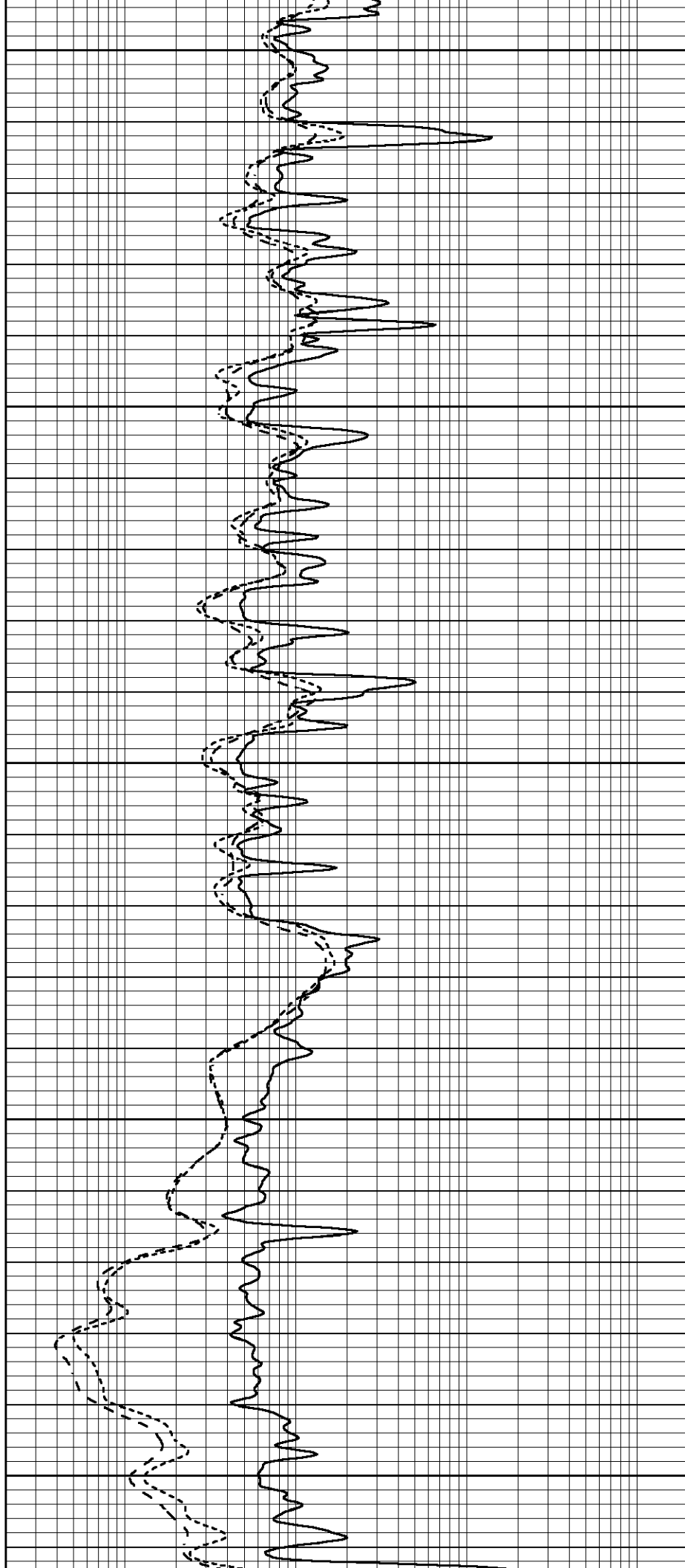
2650

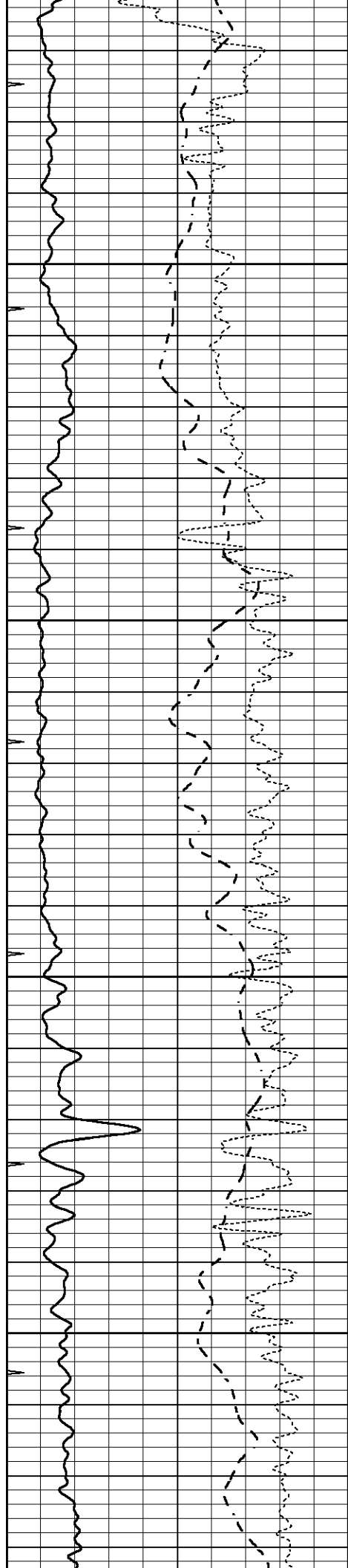
2700

2750

2800

2850



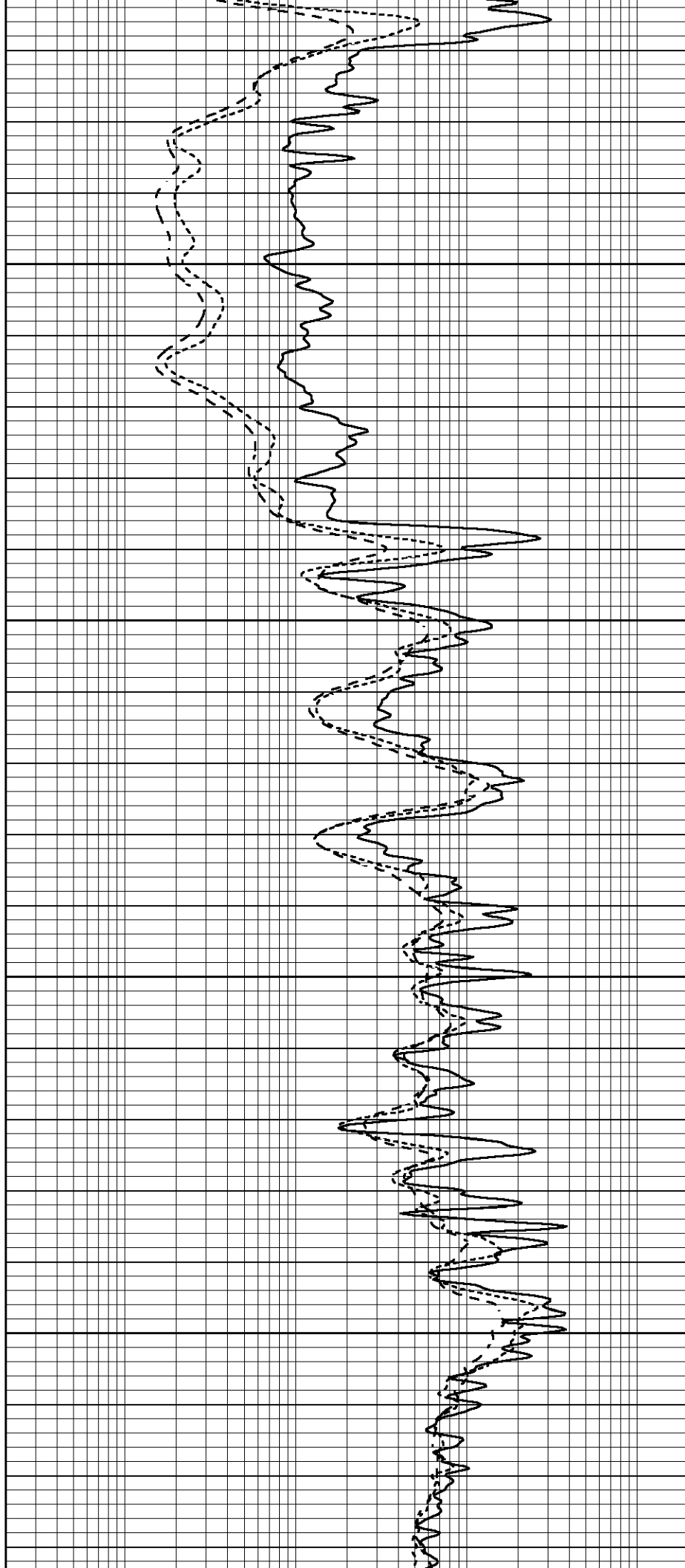


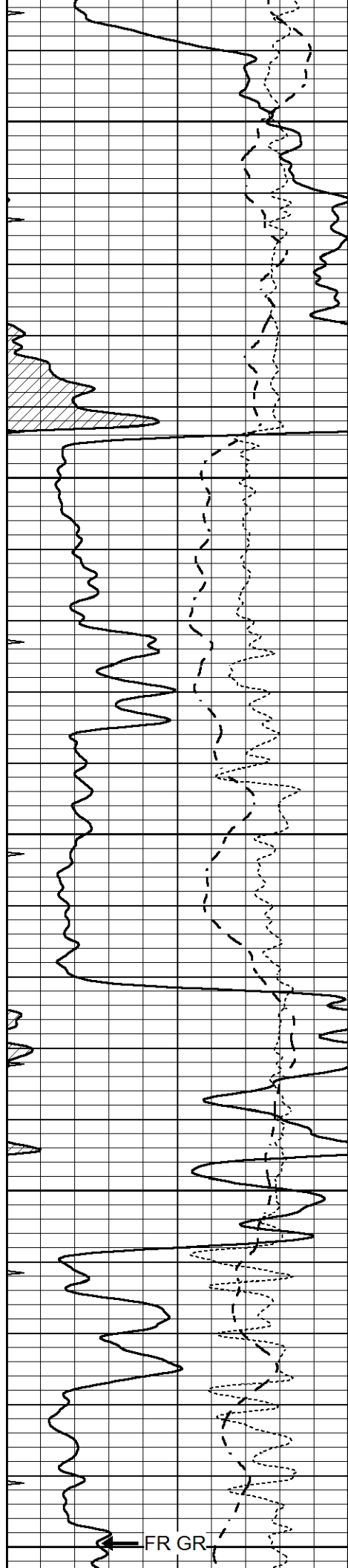
2900

2950

3000

3050





3100

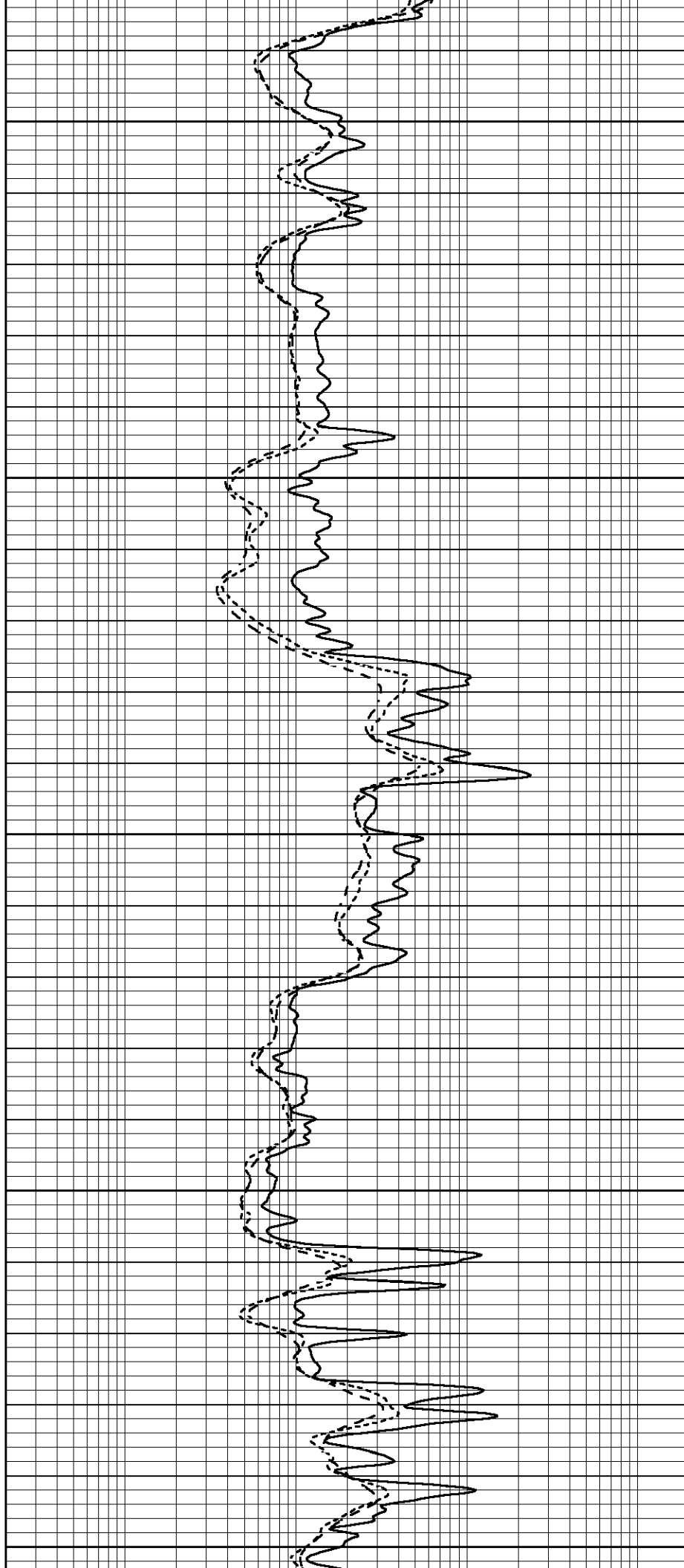
3150

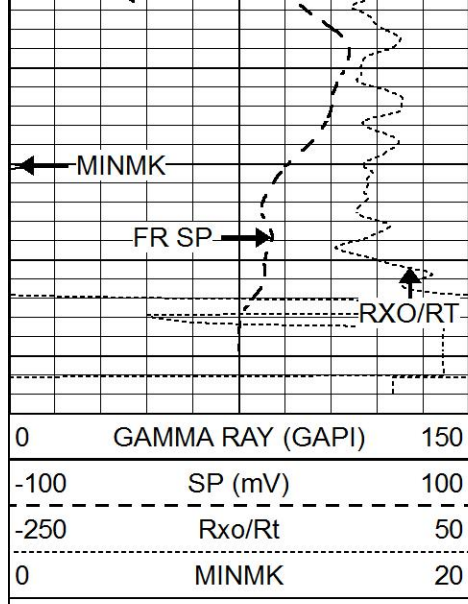
3200

3250

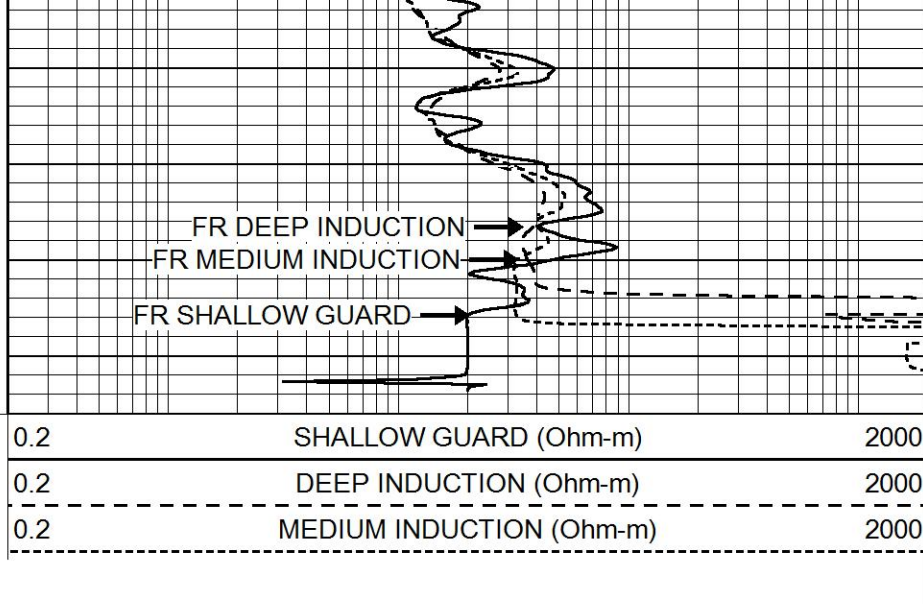
FR GR

3300



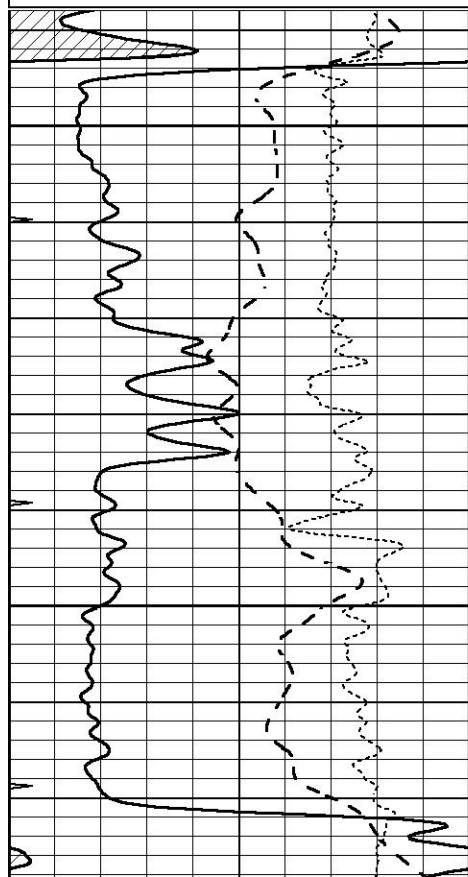
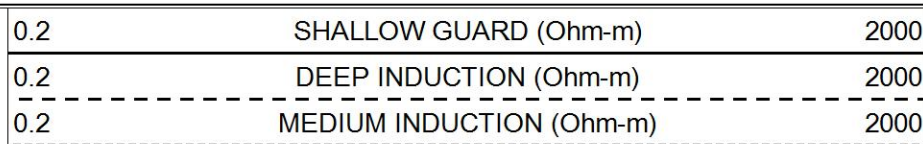
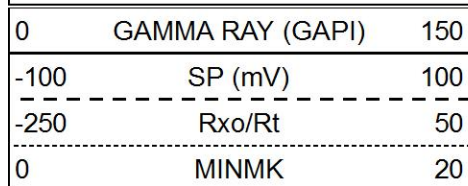


LTD 3338



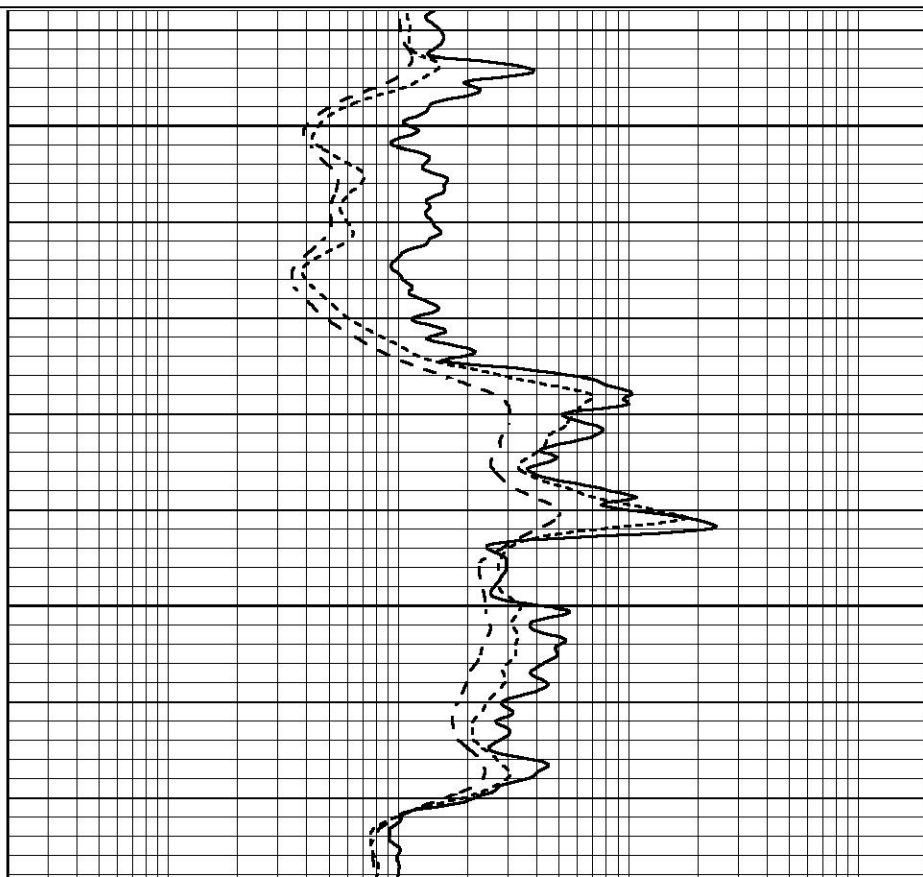
REPEAT SECTION

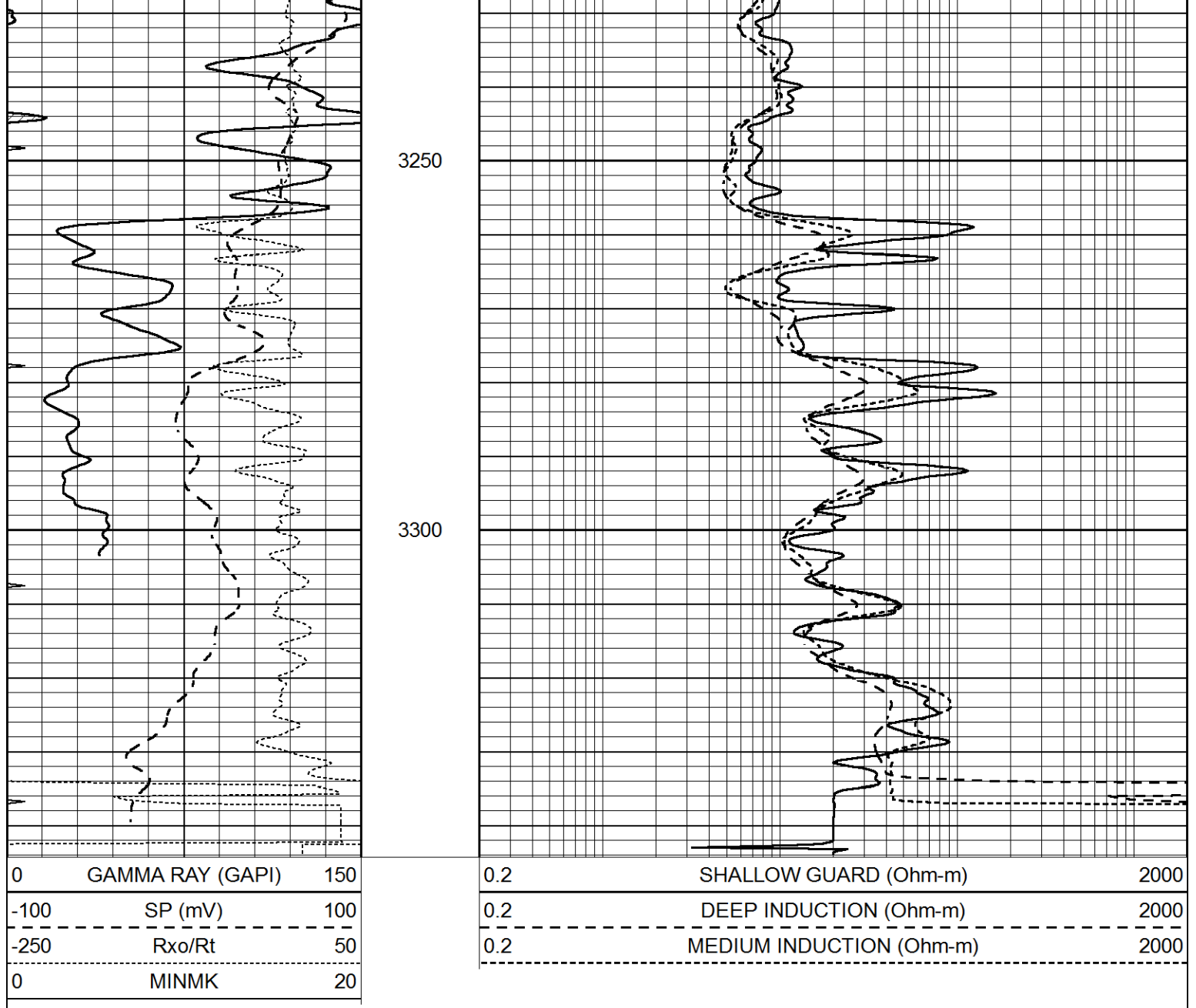
Database File 5660ddn.db
 Dataset Pathname pass2.1R
 Presentation Format _dil
 Dataset Creation Tue Sep 21 10:48:03 2021
 Charted by Depth in Feet scaled 1:240



3150

3200





Calibration Report								
Database File	5660ddn.db							
Dataset Pathname	pass3.1M							
Dataset Creation	Tue Sep 21 11:40:48 2021							
Dual Induction Calibration Report								
Serial-Model:			PROBE7-DILG					
Surface Cal Performed:			Tue Sep 21 11:13:53 2021					
Downhole Cal Performed:			Thu Mar 12 11:45:10 2020					
After Survey Verification Performed:			Thu Mar 12 11:45:00 2020					
Surface Calibration								
		Readings			References		Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	650.000	-8.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	680.000	-50.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.011	0.610	V	0.000	400.000	mmho/m	667.135	-7.256
Medium	0.005	0.712	V	0.000	464.000	mmho/m	655.677	-3.102

Downhole Calibration								
Readings			References			Results		
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	14.508	388.384	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	166.367	504.400	mmho/m	1.000	0.000
LL3		7.500	V		1400.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		4000.000	mmho-m		

After Survey Verification								
Readings			Targets			Results		
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
LL3		1.000	Ohm-m		1.000	Ohm-m		
		0.000	Ohm-m		0.000	Ohm-m		
		0.000	mmho-m		4000.000	mmho-m		

Litho Density Calibration Report								
Serial: 004			Model: PRB					

Master Calibration					Performed Tue May 18 11:02:48 2021			
	Background	Magnesium	Aluminum	Aluminum+Fe				
Window 1	1187.1	10004.0	3142.5	2810.8				cps
Window 2	1084.9	8556.6	2749.3	2502.4				cps
Window 3	923.1	5129.8	1819.8	1719.3				cps
Window 4	263.5	263.6	259.7	262.8				cps
Long Space	0.0	7471.7	1664.4	1417.5				cps
Short Space	1.5	984.9	645.6	561.2				cps
Rho		1.7100	2.5900	0.0000				g/cc
Pe		2.0000	2.7500	5.7900				
Rib Angle	: 44.3	Rib Slope	: 0.976	Density/Spine Ratio			: 0.564	
Spine Angle	: 74.3	Spine Slope	: 3.555	Spine Intercept			: -15.6	

Before Survey Verification					Performed Wed Dec 31 18:00:00 1969			
Window 1	0.0	0.0	0.0	0.0				cps
Window 2	0.0	0.0	0.0	0.0				cps
Window 3	0.0	0.0	0.0	0.0				cps
Window 4	0.0	0.0	0.0	0.0				cps
Long Space	0.0	0.0	0.0	0.0				cps
Short Space	0.0	0.0	0.0	0.0				cps
Measured Rho		0.0000	0.0000	0.0000				g/cc
Measured Correction		0.0000	0.0000	0.0000				g/cc
Measured Pe			0.0000	0.0000				

After Survey Verification					Performed Wed Dec 31 18:00:00 1969			
Window 1	0.0	0.0	0.0	0.0				cps
Window 2	0.0	0.0	0.0	0.0				cps
Window 3	0.0	0.0	0.0	0.0				cps
Window 4	0.0	0.0	0.0	0.0				cps
Long Space	0.0	0.0	0.0	0.0				cps
Short Space	0.0	0.0	0.0	0.0				cps
Measured Rho		0.0000	0.0000	0.0000				g/cc

Measured Rho	0.0000	0.0000	0.0000	g/cc
Measured Correction	0.0000	0.0000	0.0000	
Measured Pe		0.0000	0.0000	
Compensated Neutron Calibration Report				
Serial Number:		070808PMC		
Tool Model:		NABORS		
PRE-SURVEY VERIFICATION				
Detector	Readings	Measured	Target	
Short Space	cps			
Long Space	cps	pu	pu	
POST-SURVEY VERIFICATION				
Detector	Readings	Measured	Target	
Short Space	cps			
Long Space	cps	pu	pu	
Gamma Ray Calibration Report				
Serial Number:	070558			
Tool Model:	OPEN_GR			
Performed:	Fri Sep 03 05:25:49 2021			
Calibrator Value:	1.0	GAPI		
Background Reading:	0.0	cps		
Calibrator Reading:	1.0	cps		
Sensitivity:	0.2800	GAPI/cps		