

DUAL INDUCTION LOG

Company	RITCHIE EXPLORATION, INC.		
Well	BRIDGES 24CD #2		
Field	BRIDGES		
County	LOGAN	State	KANSAS
Location:	API # : 15-109-21637-0000 1106' FSL & 907' FWL NE - SW - SW		
Permanent Datum	SEC 24 TWP 14S RGE 32W	Other Services CDL/CNL MEL/SON	
Log Measured From	GROUND LEVEL	Elevation	K.B. 2744 D.F. 2742 G.L. 2737
Drilling Measured From	KELLY BUSHING	2737	
Date	6/25/22		
Run Number	ONE		
Depth Driller	4480		
Depth Logger	4476		
Bottom Logged Interval	4474		
Top Log Interval	00		
Casing Driller	8 5/8"@223'		
Casing Logger	223		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES: 3,500 PPM	
Density / Viscosity	9.2/59		
pH / Fluid Loss	10.5/9.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.10@75F		
Rmf @ Meas. Temp	.825@75F		
Rmc @ Meas. Temp	1.32@75F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	.688@120F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	3.45 P.M.		
Maximum Recorded Temperature	120F		
Equipment Number	8916		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	MAX LOVELY		

<<< 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.

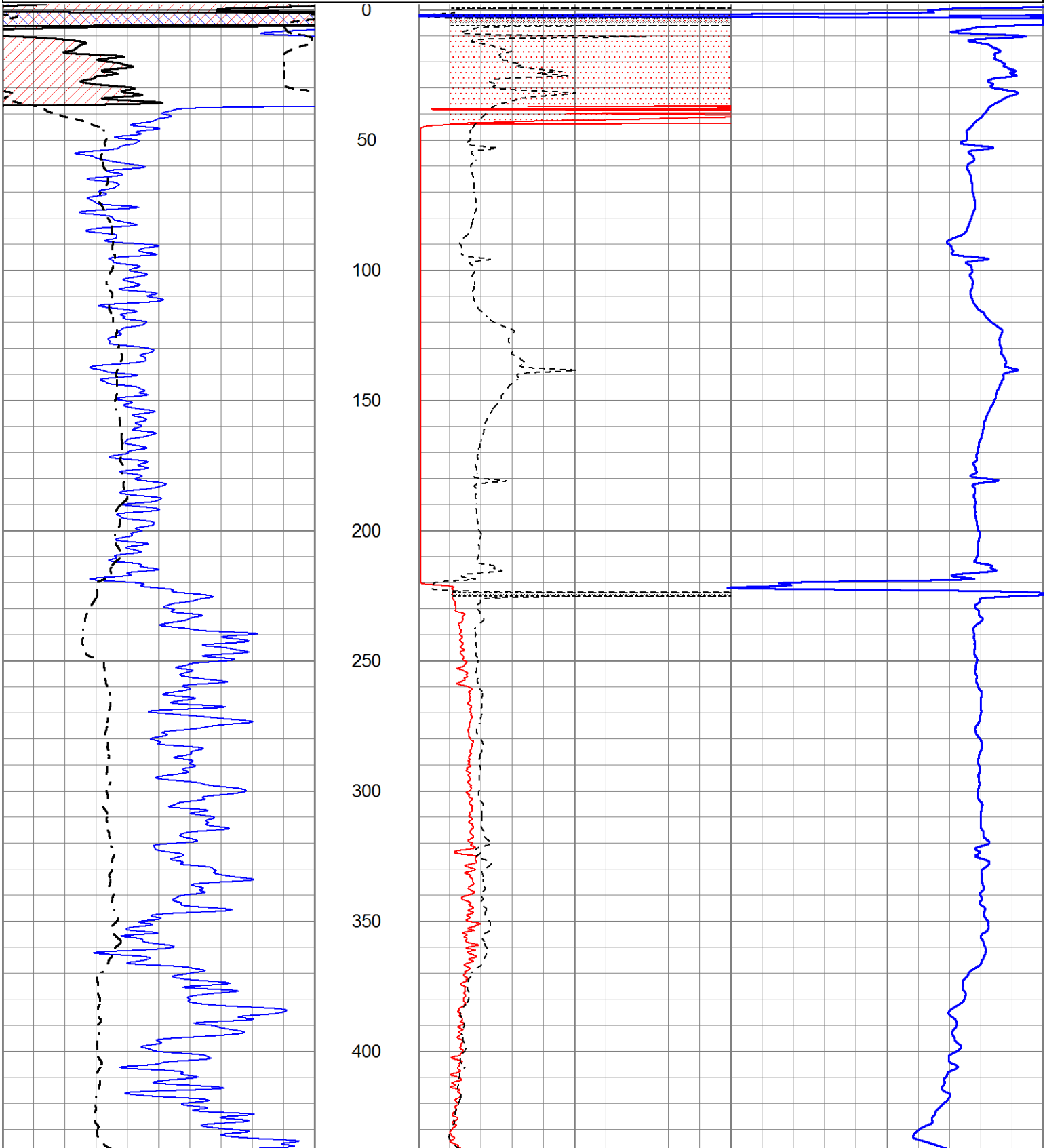
Comments

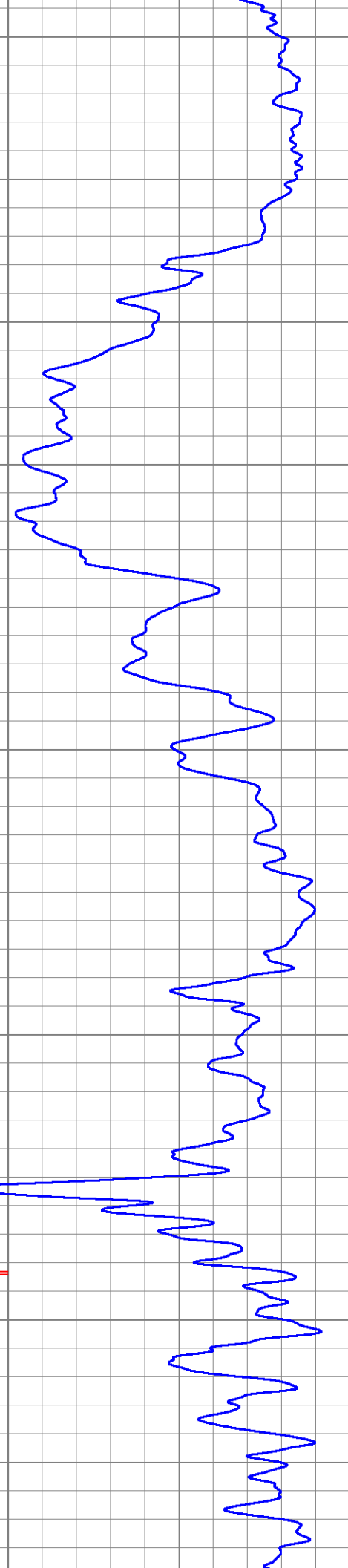
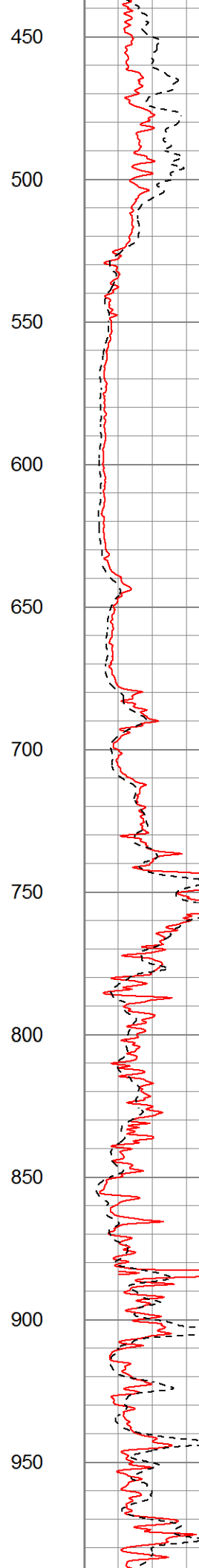
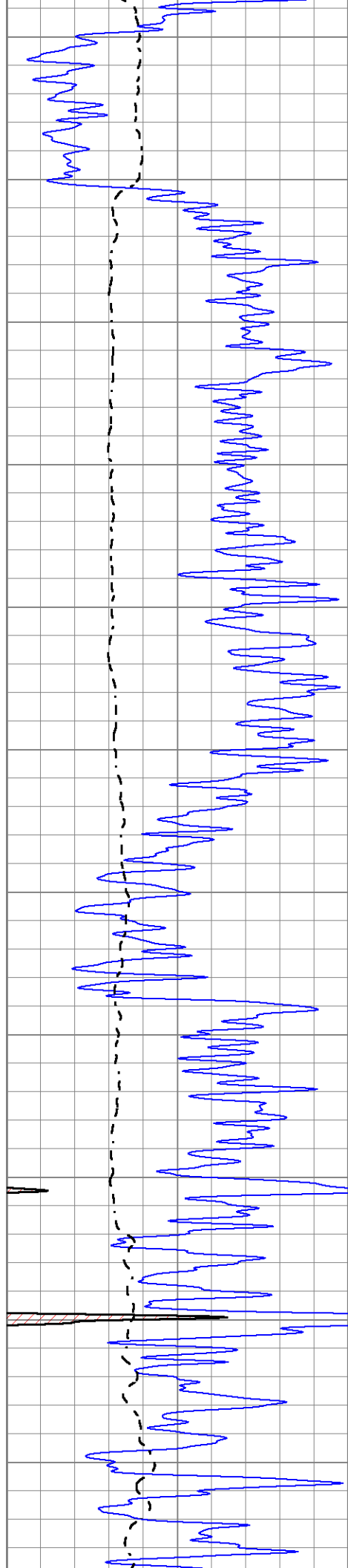
THANK YOU FOR USING ELI WIRELINE, HAYS, KS. (785) 628-6395
DIRECTIONS:
OAKLEY, KS., 20S. ON HWY 83 TO "JAYHAWK RD.", 1E., 3/4S. JUST PAST TANK BATTERY E. INTO

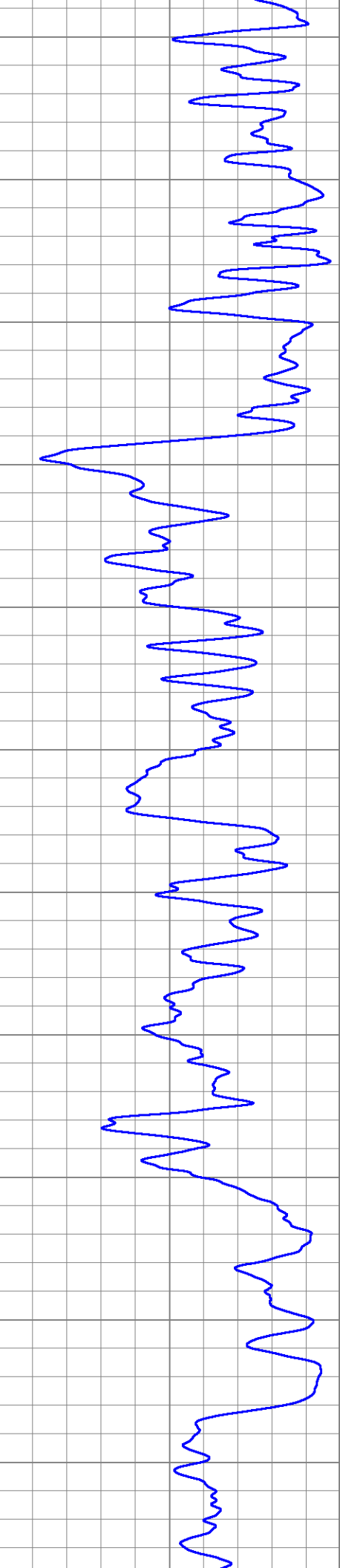
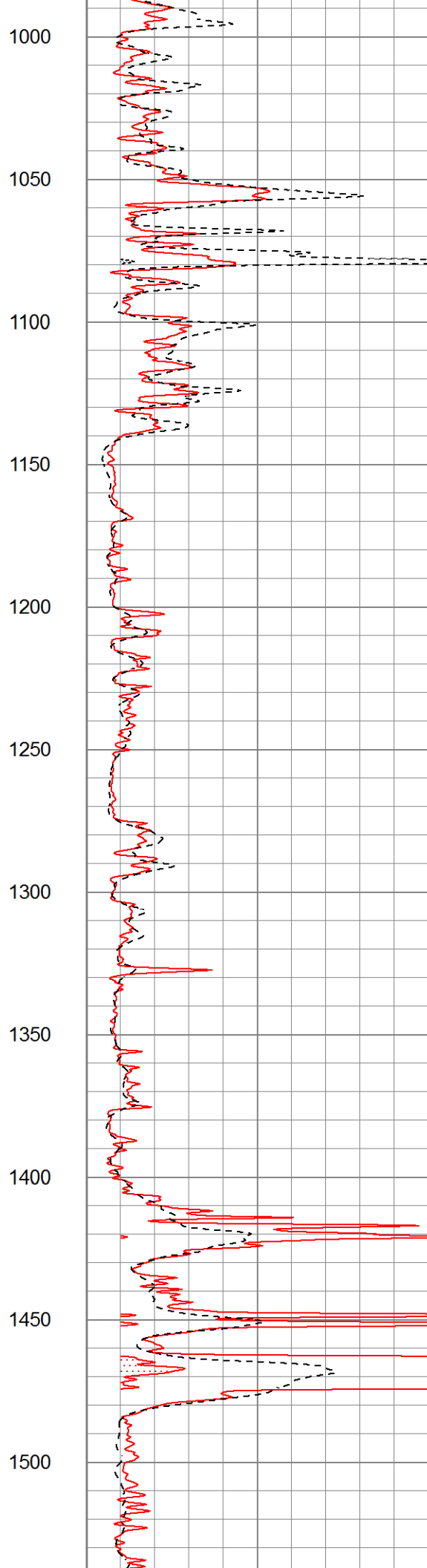
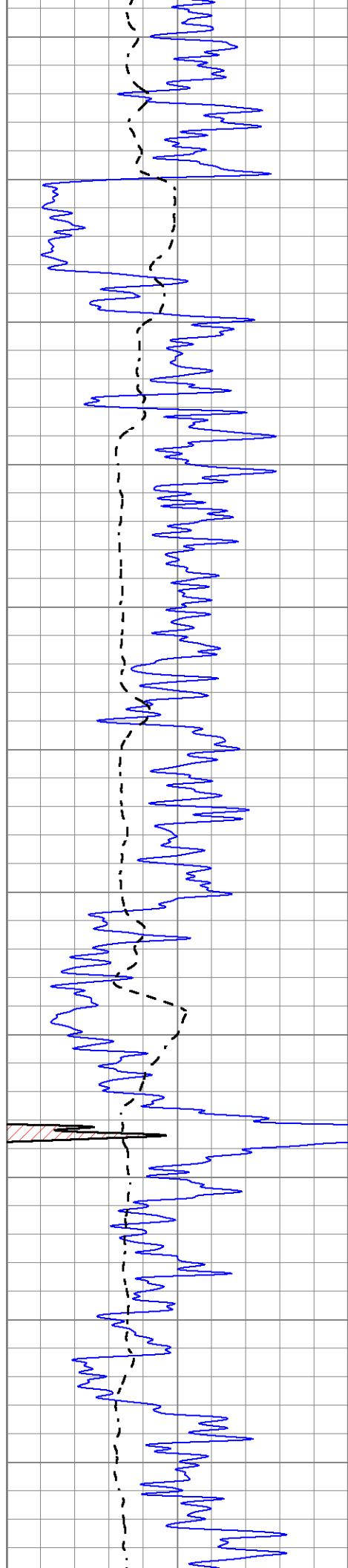


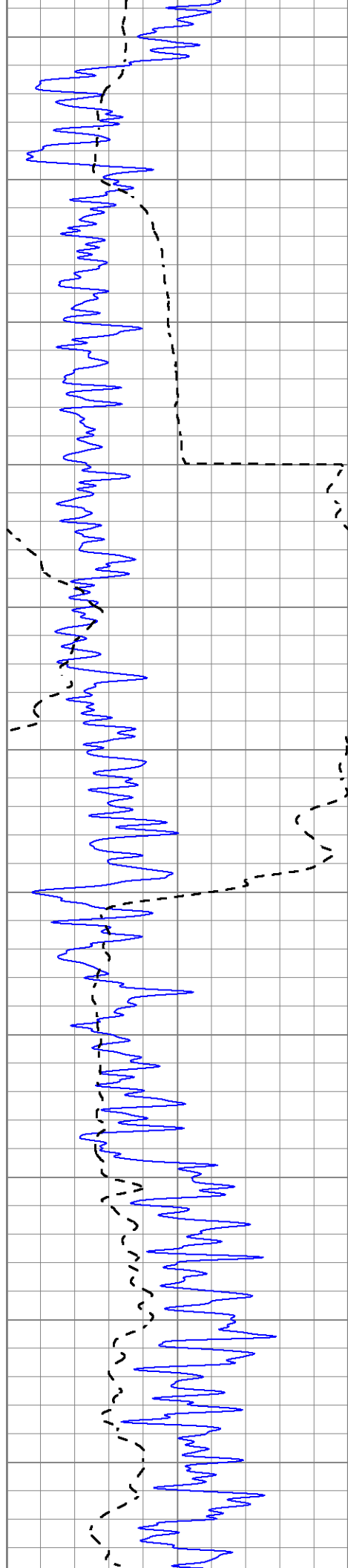
MAIN SECTION

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









1550

1600

1650

1700

1750

1800

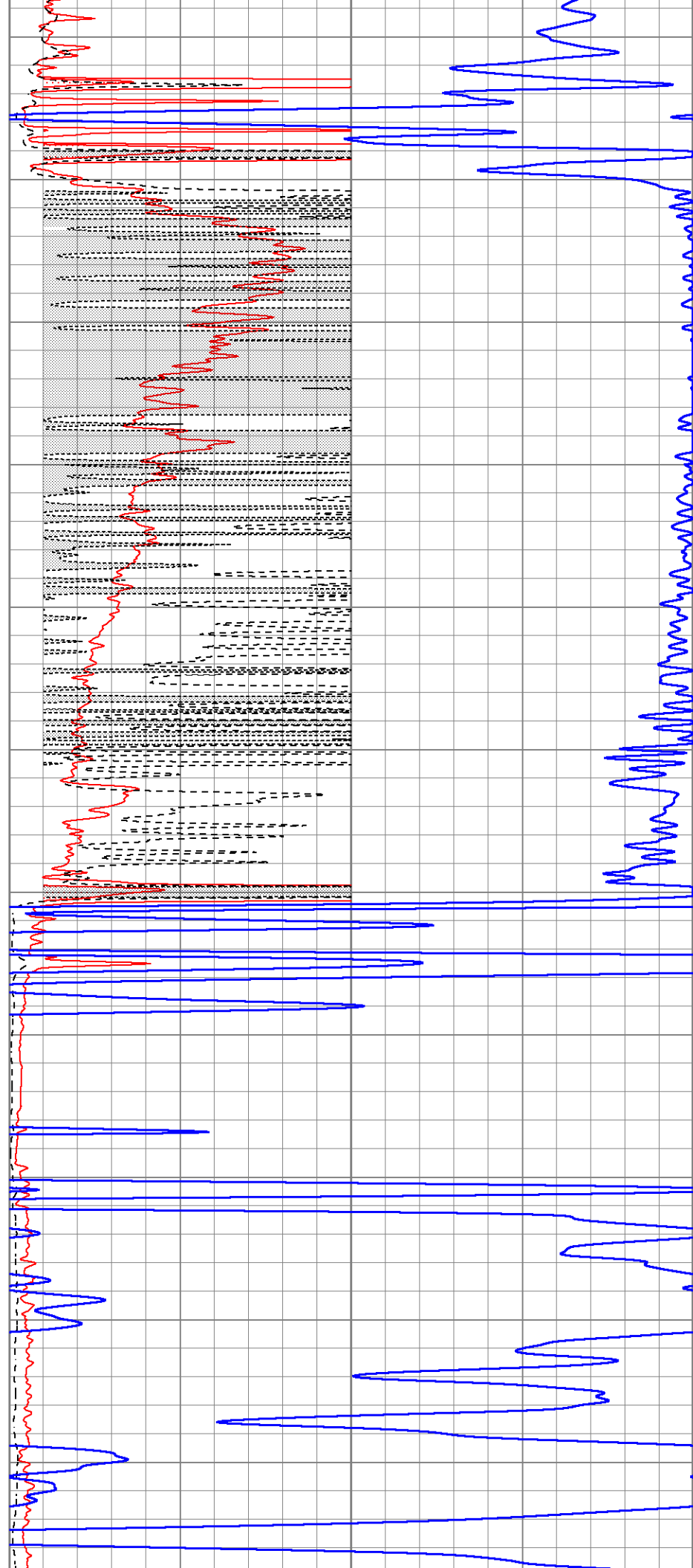
1850

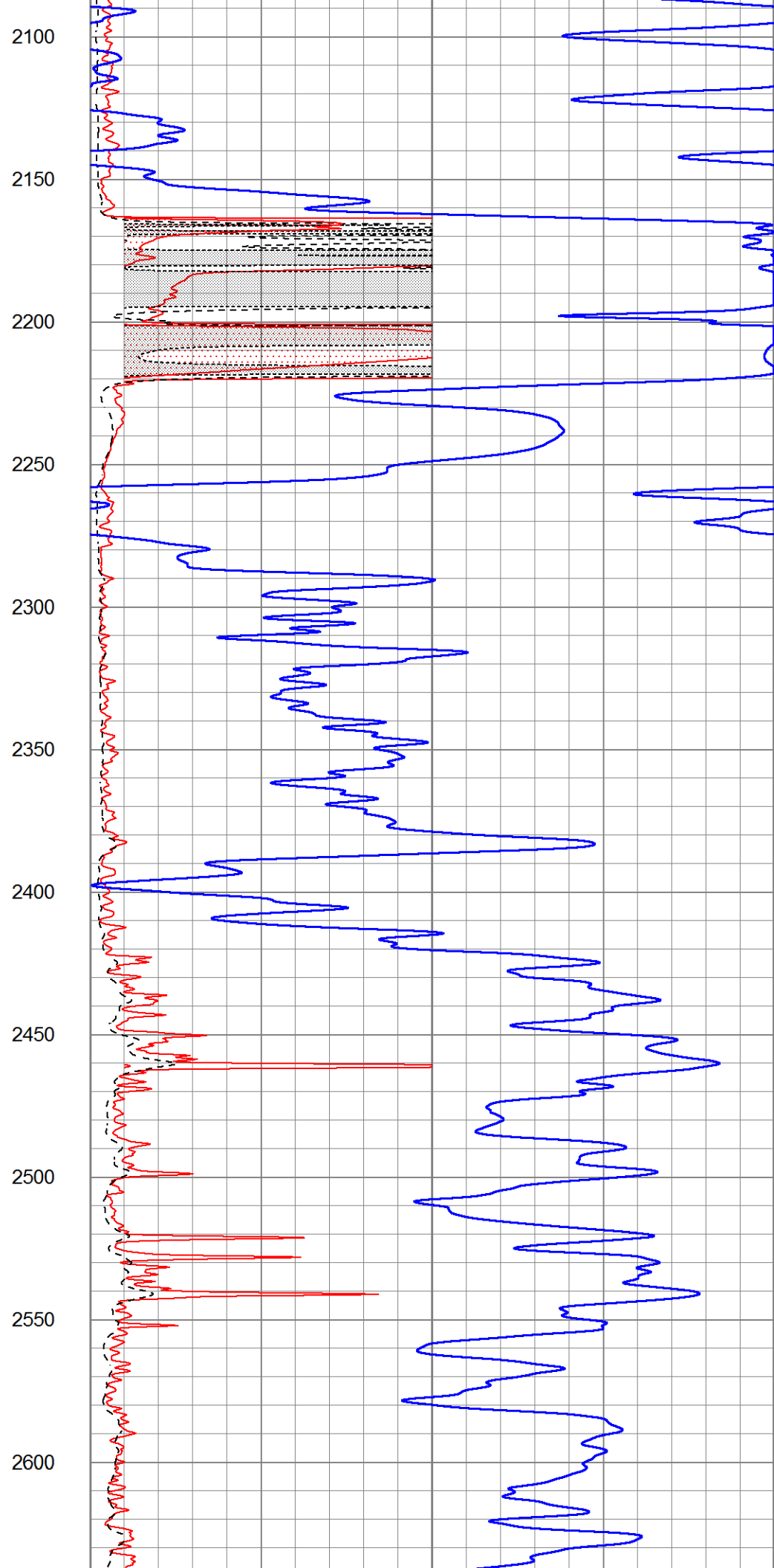
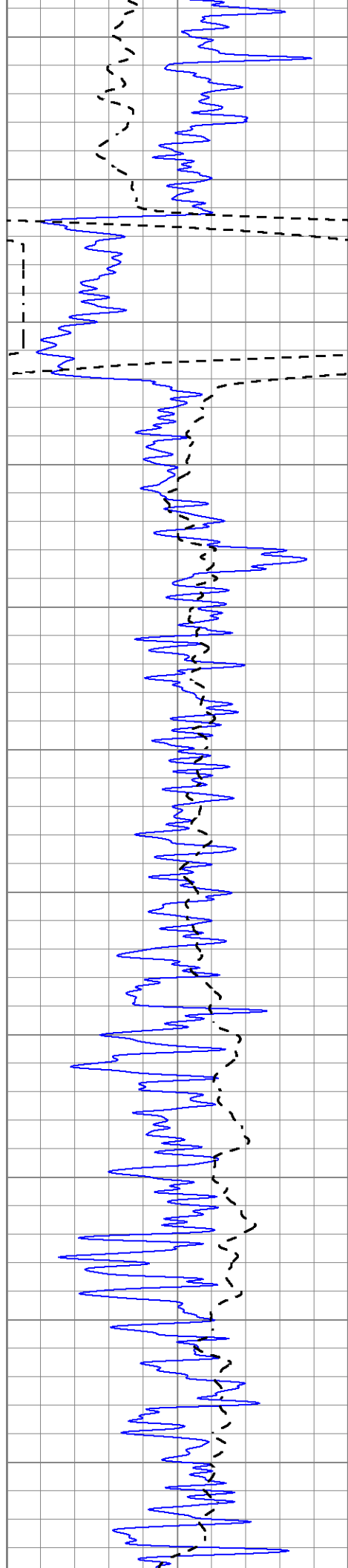
1900

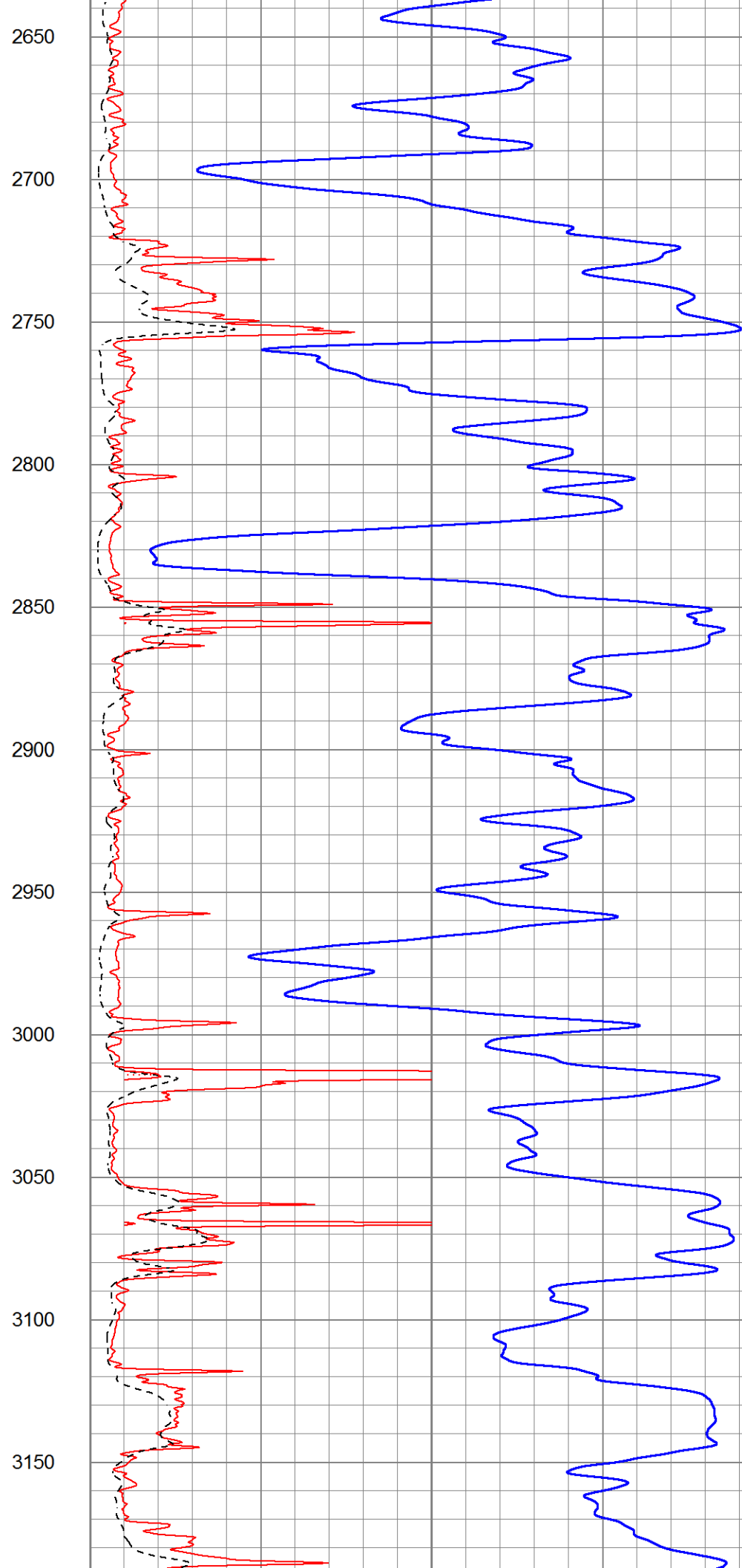
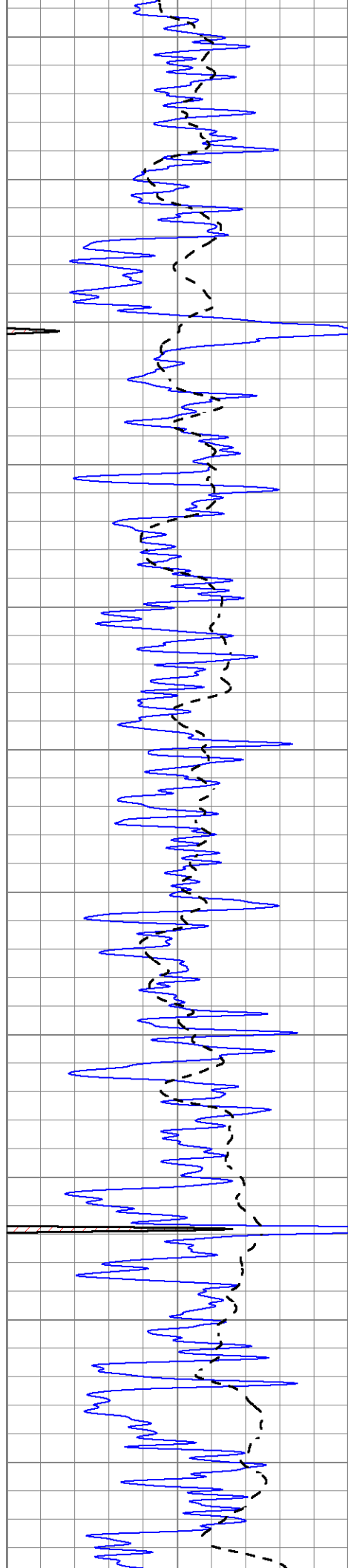
1950

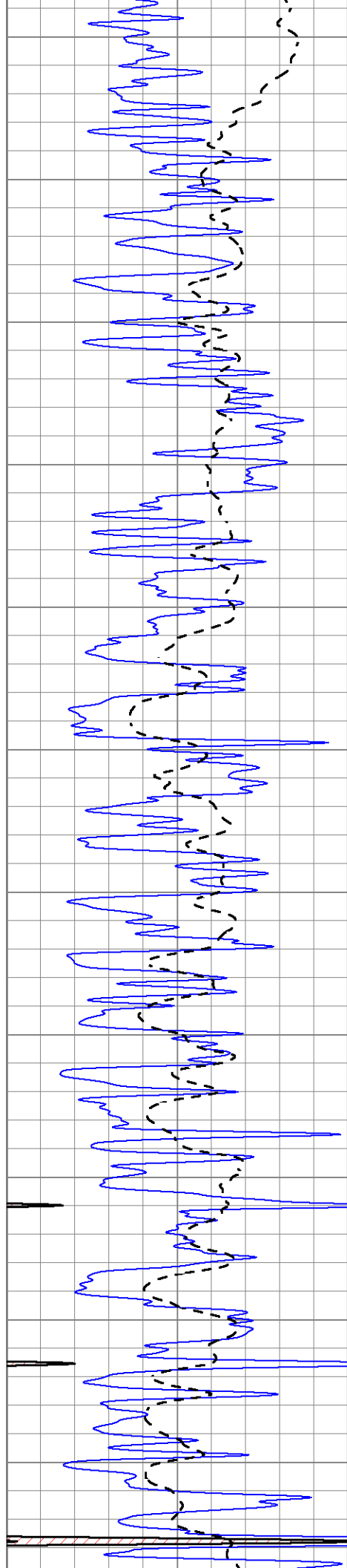
2000

2050









3200

3250

3300

3350

3400

3450

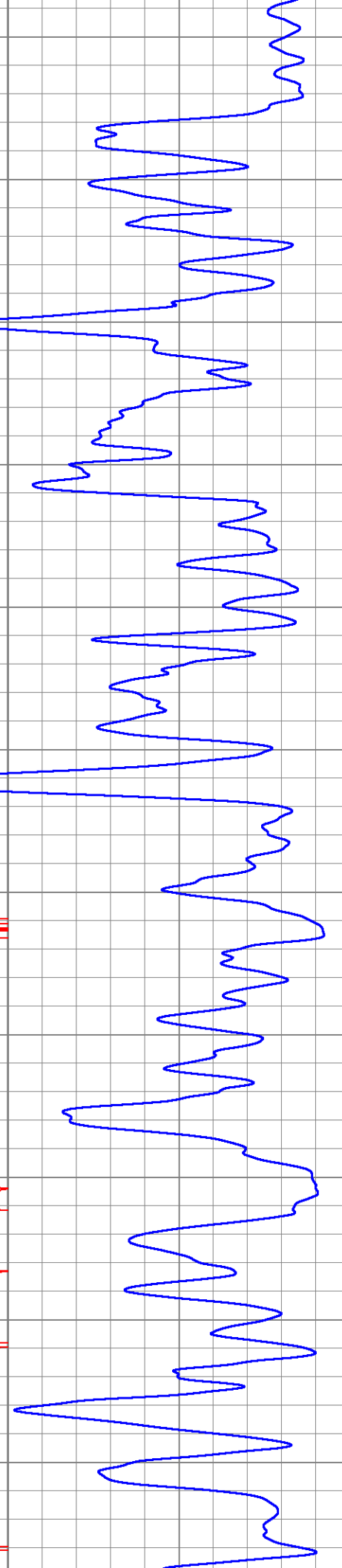
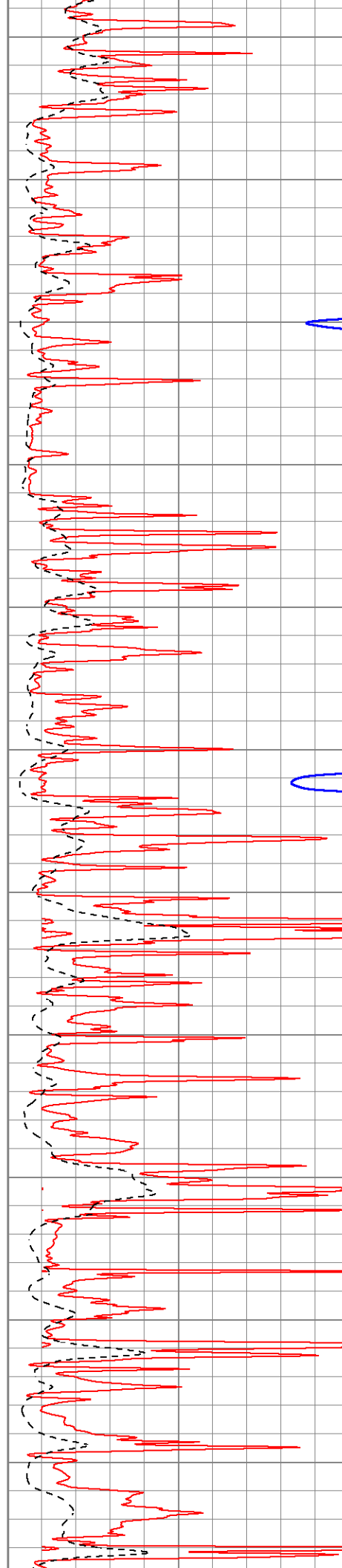
3500

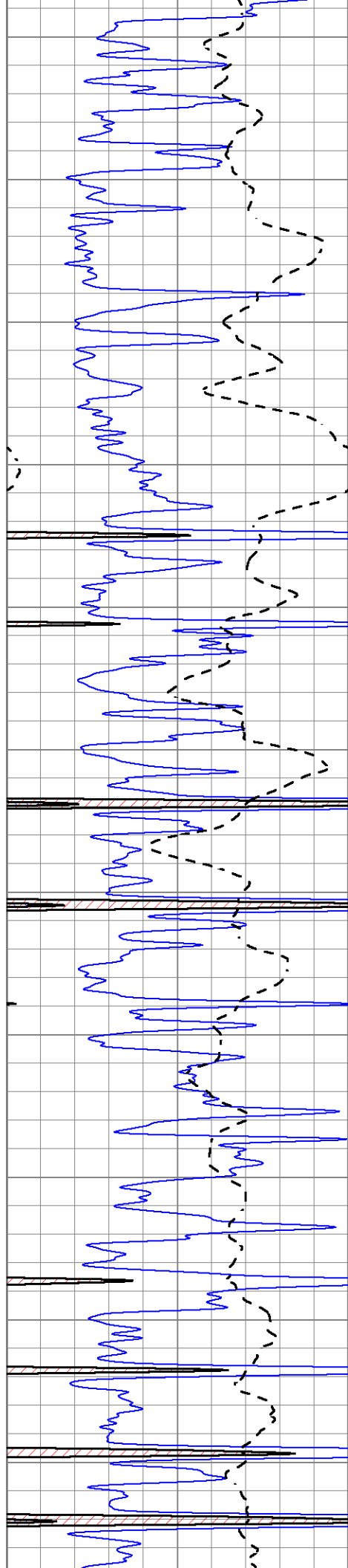
3550

3600

3650

3700





3750

3800

3850

3900

3950

4000

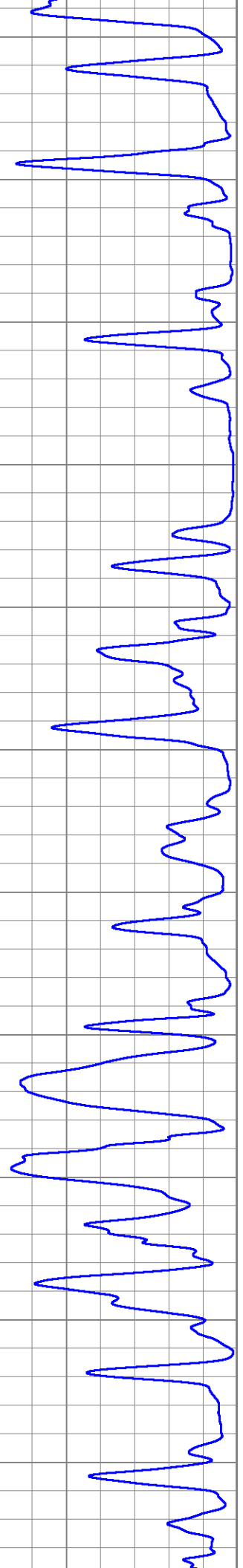
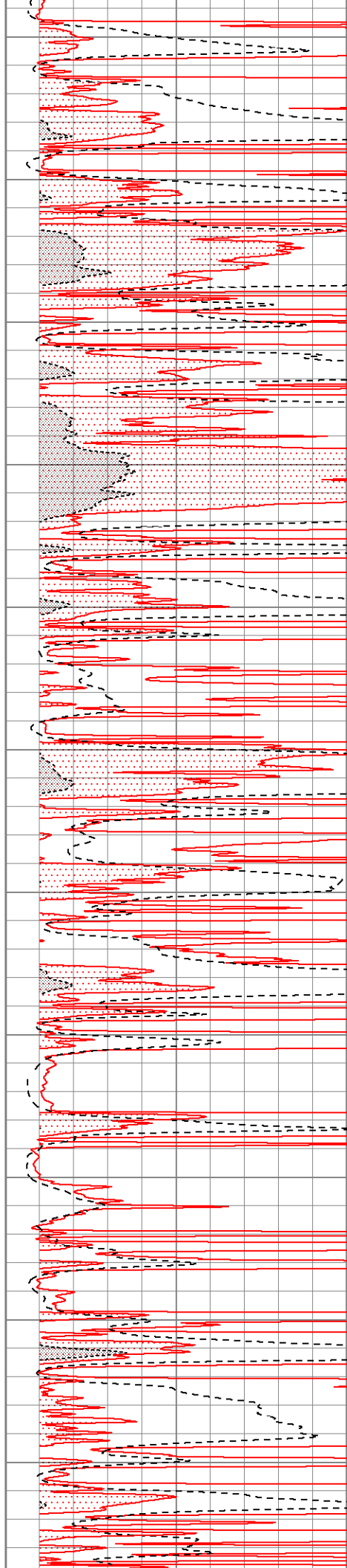
4050

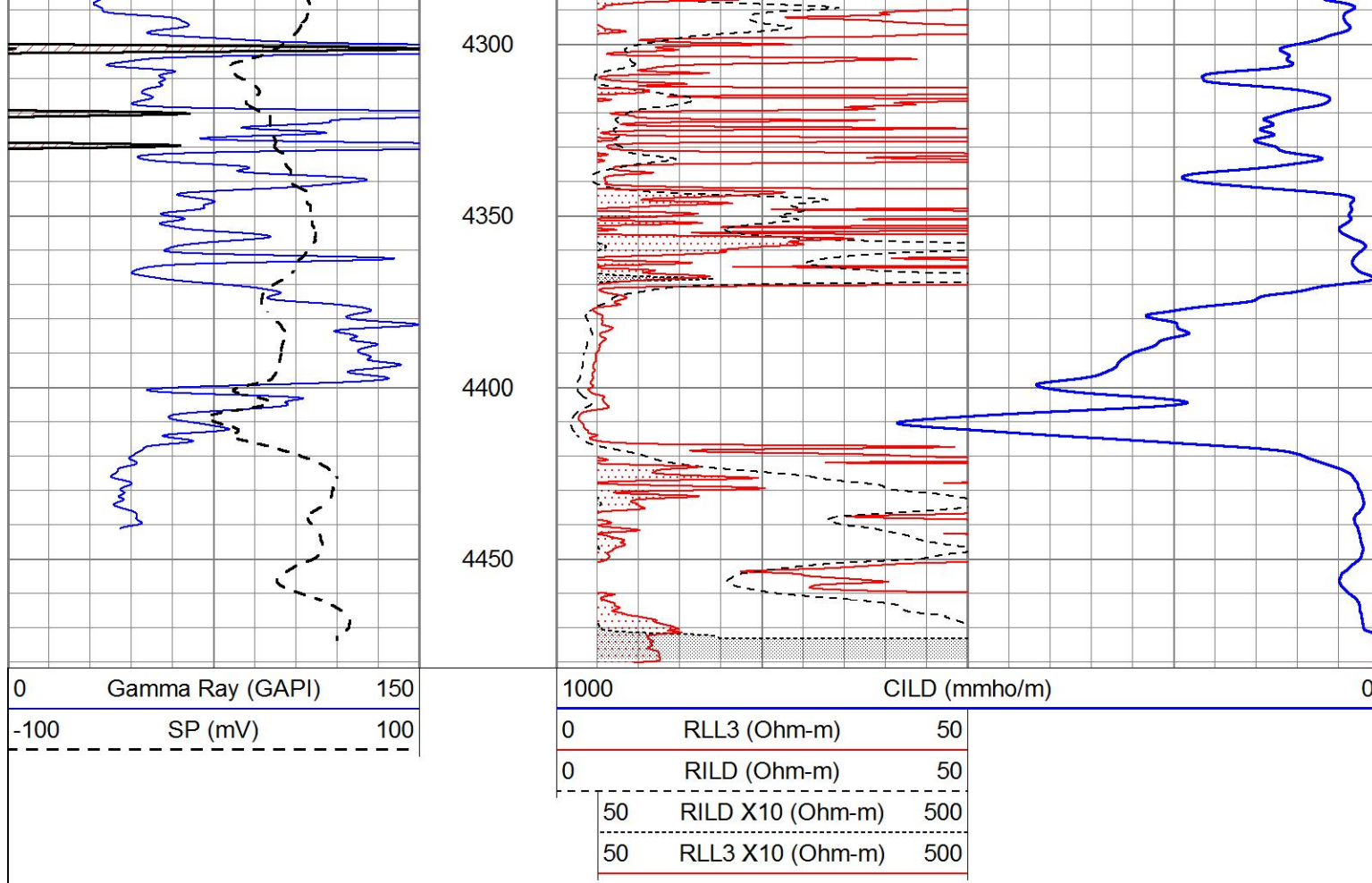
4100

4150

4200

4250

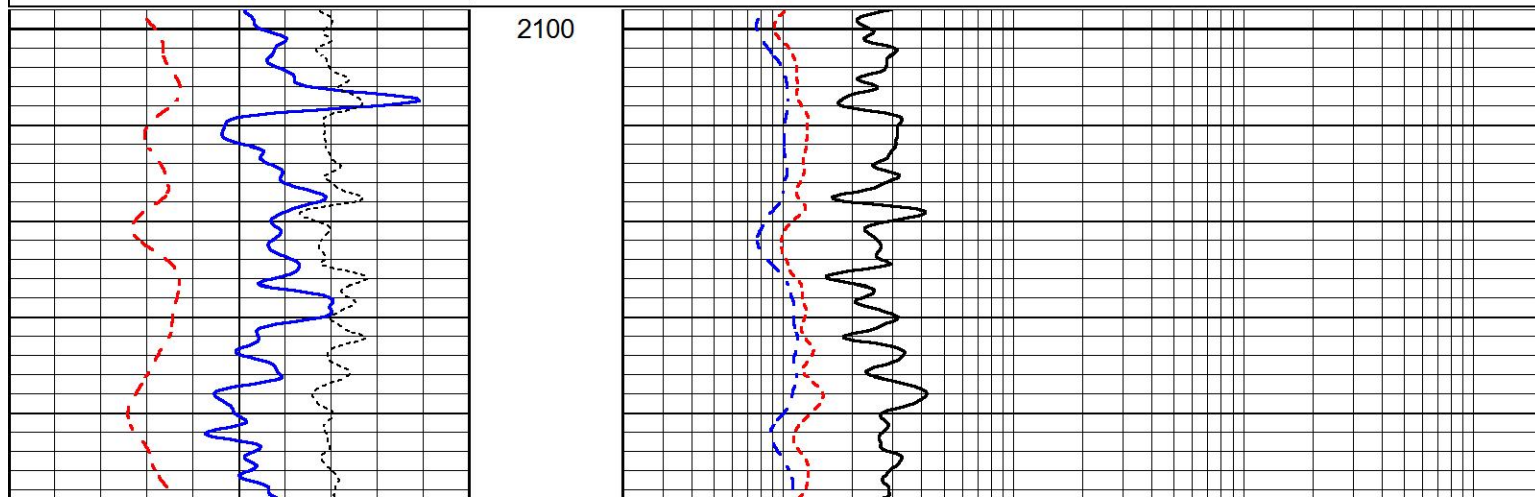


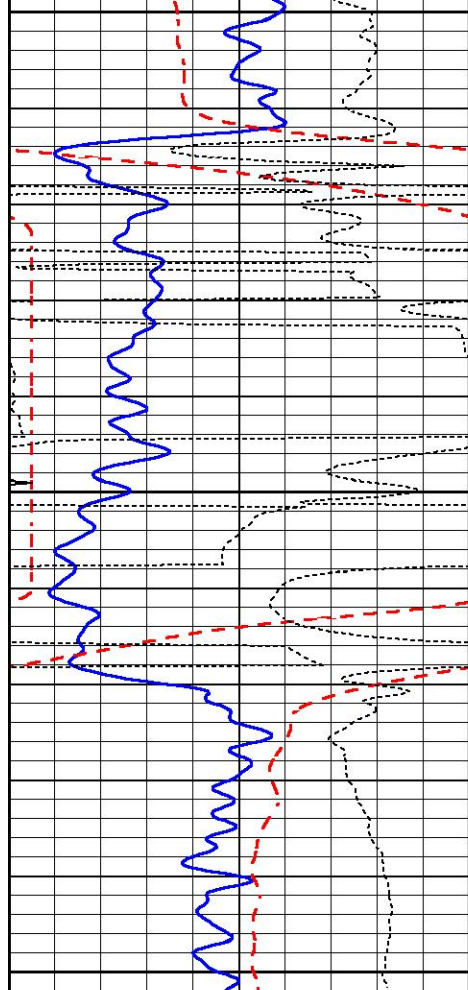


ANHYDRITE

Database File 6572ddn.db
 Dataset Pathname pass3.1A
 Presentation Format _dil
 Dataset Creation Sat Jun 25 18:54:46 2022
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000
-100	SP (mV)	100	0.2	DEEP INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000
0	MINMK	20			



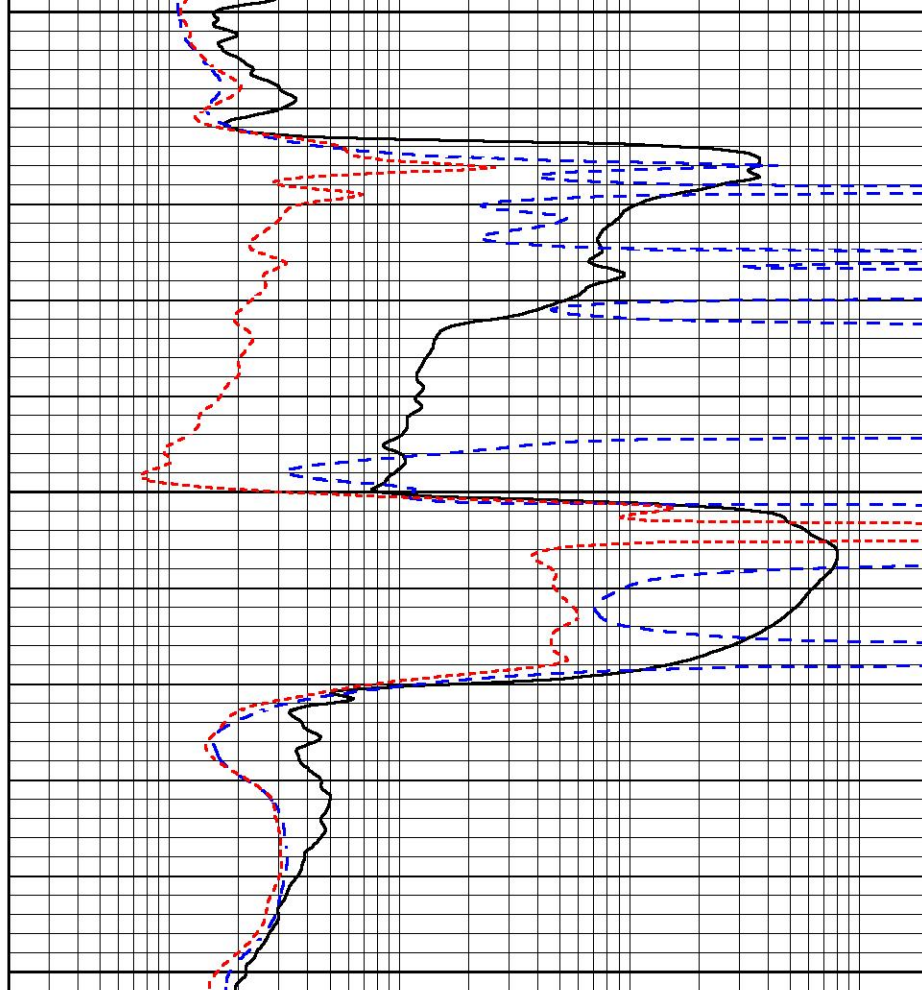


0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

2150

2200

2250



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

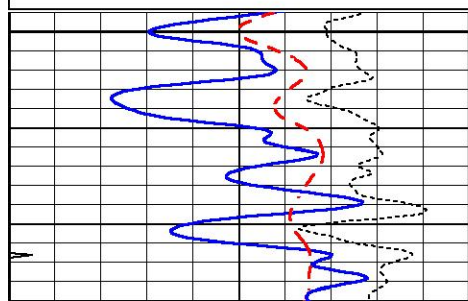


MAIN SECTION

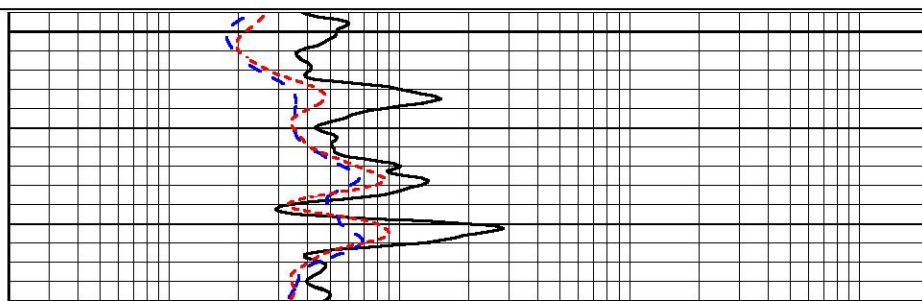
Database File 6572ddn.db
 Dataset Pathname pass3.1M
 Presentation Format _dil
 Dataset Creation Sat Jun 25 18:39:28 2022
 Charted by Depth in Feet scaled 1:240

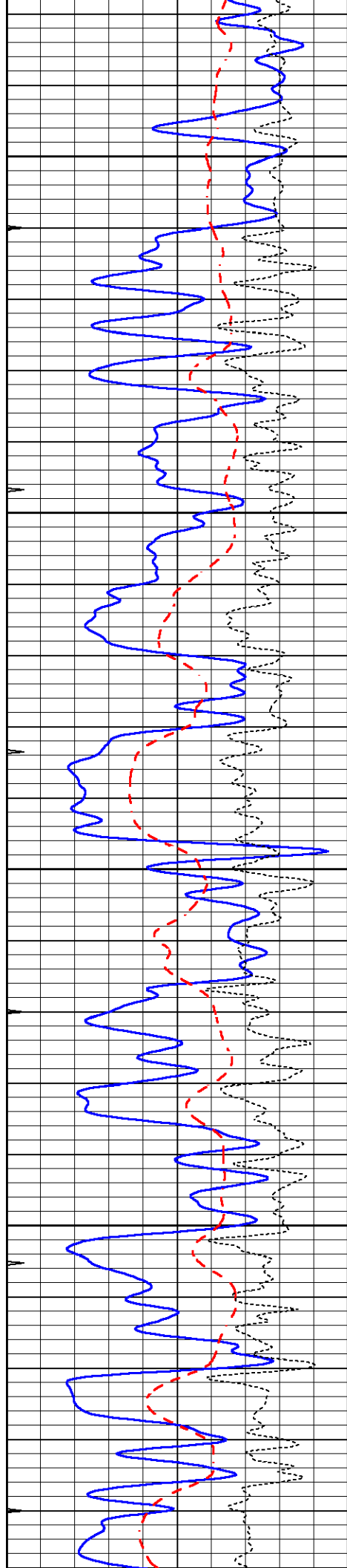
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

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



3300



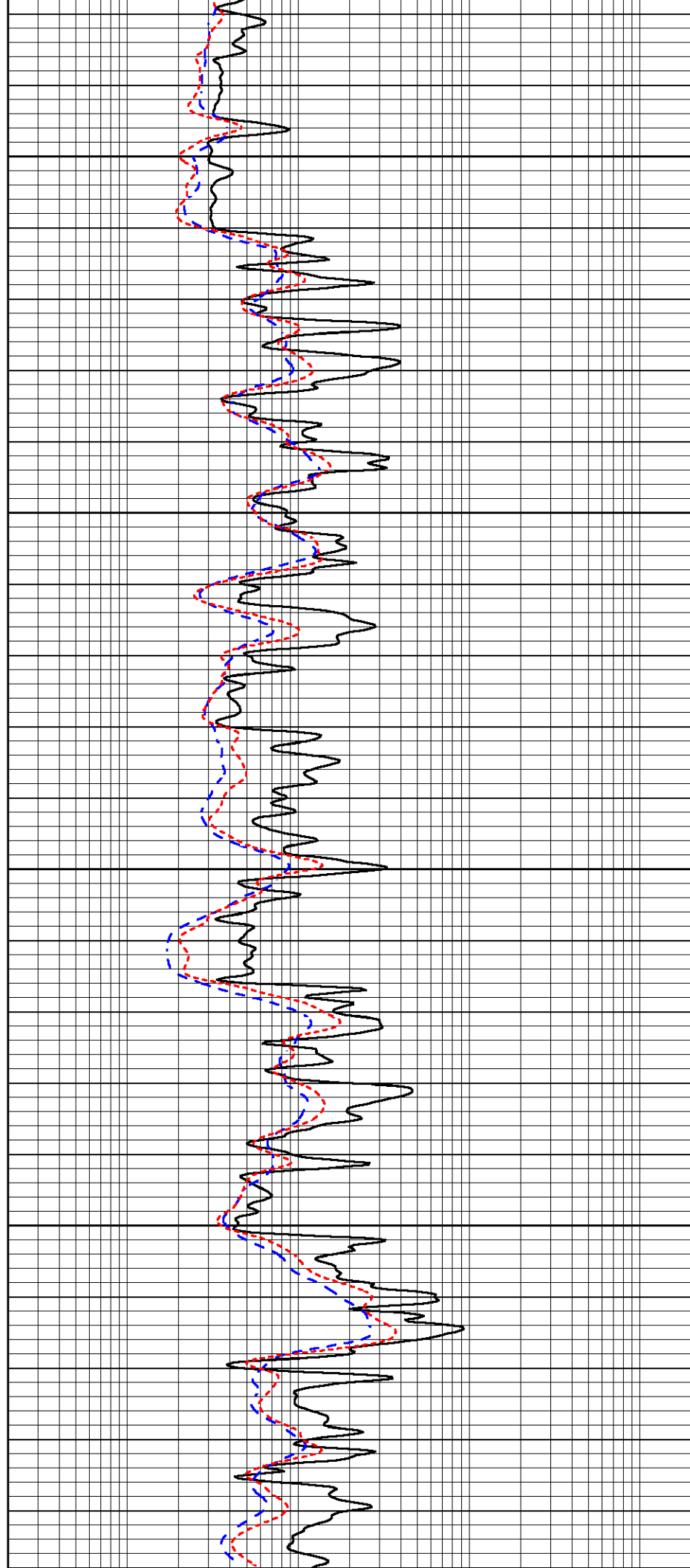


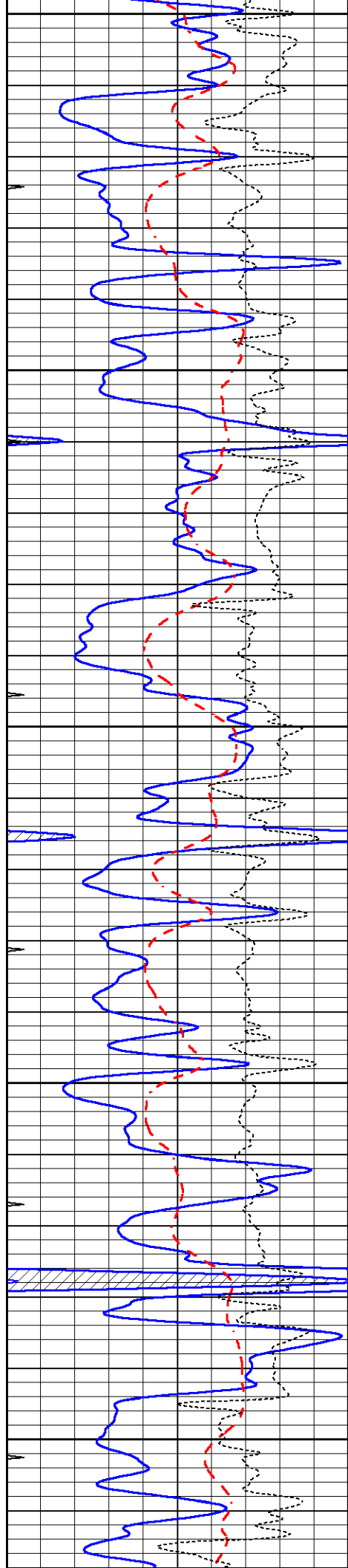
3350

3400

3450

3500





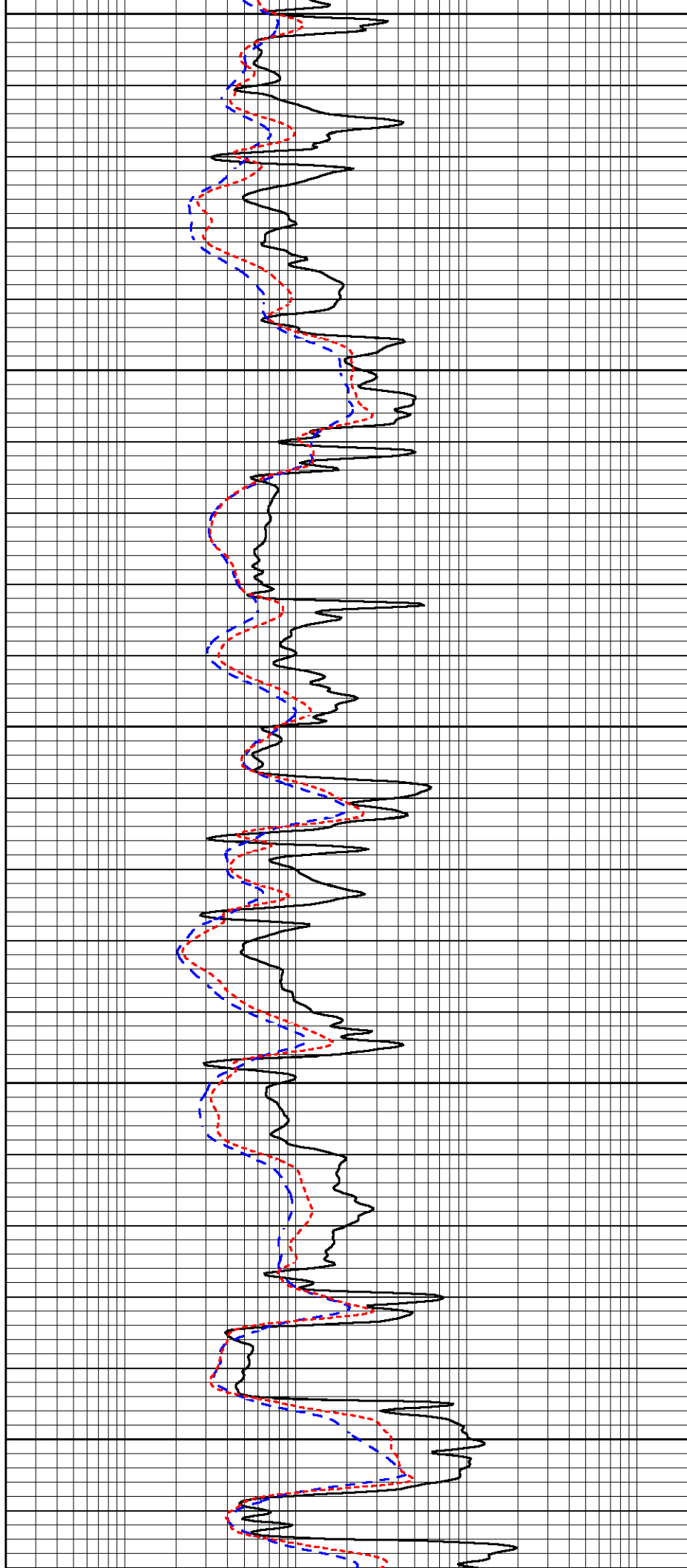
3550

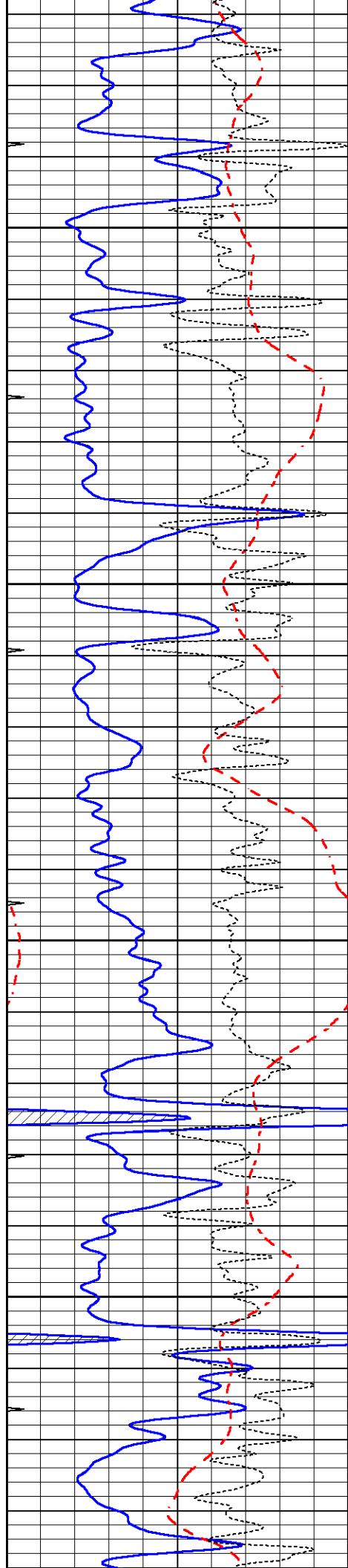
3600

3650

3700

3750



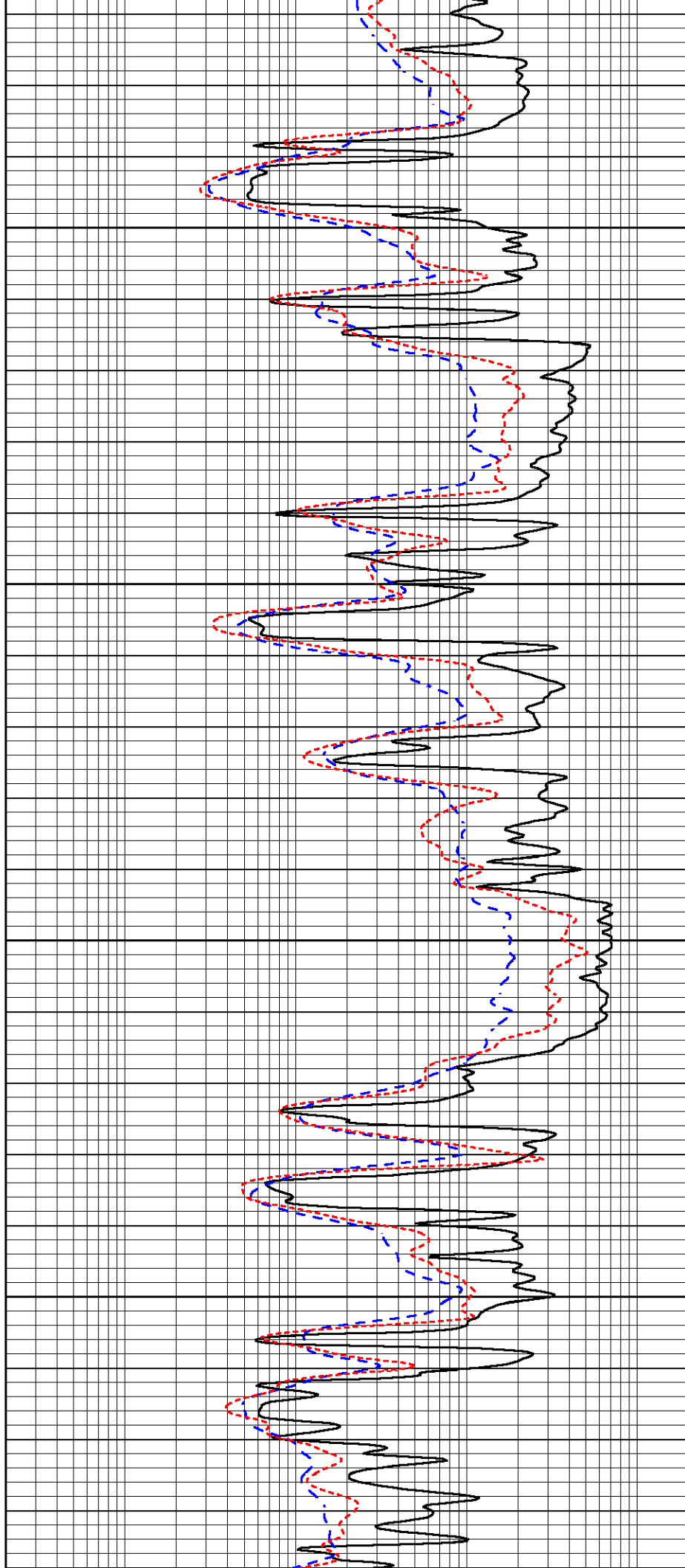


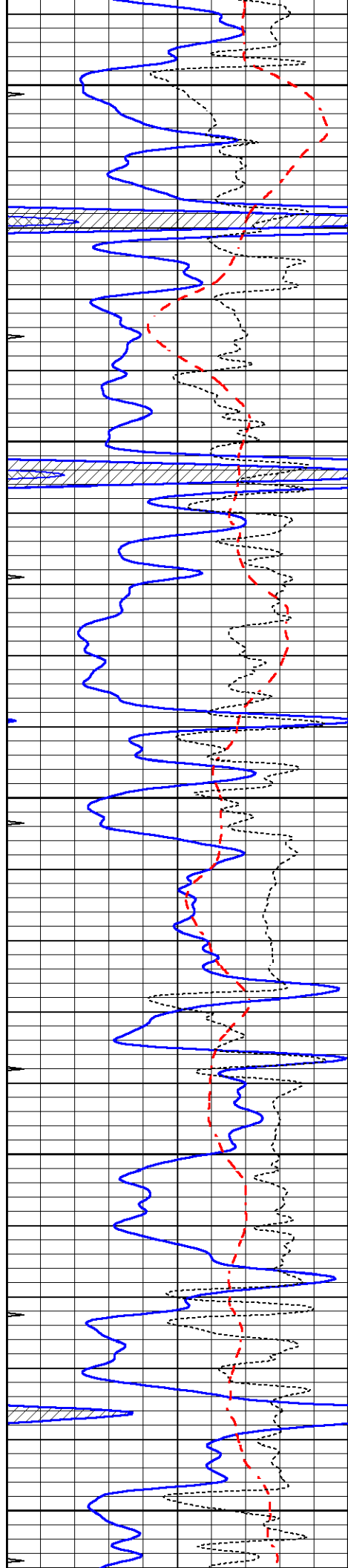
3800

3850

3900

3950





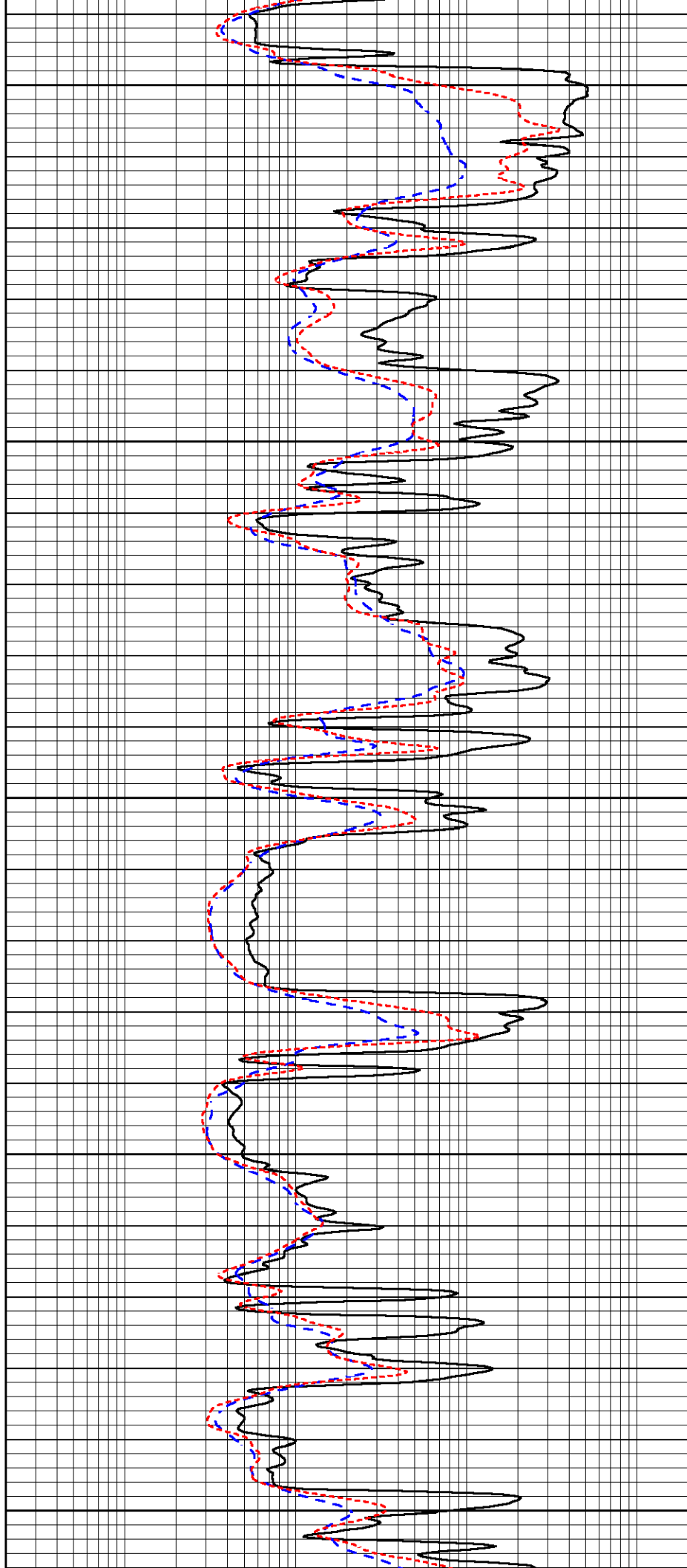
4000

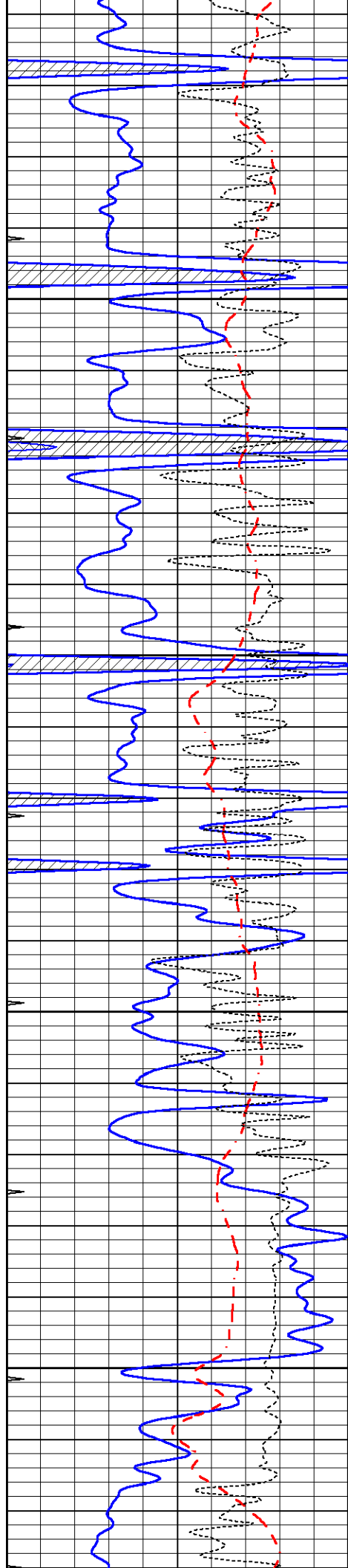
4050

4100

4150

4200



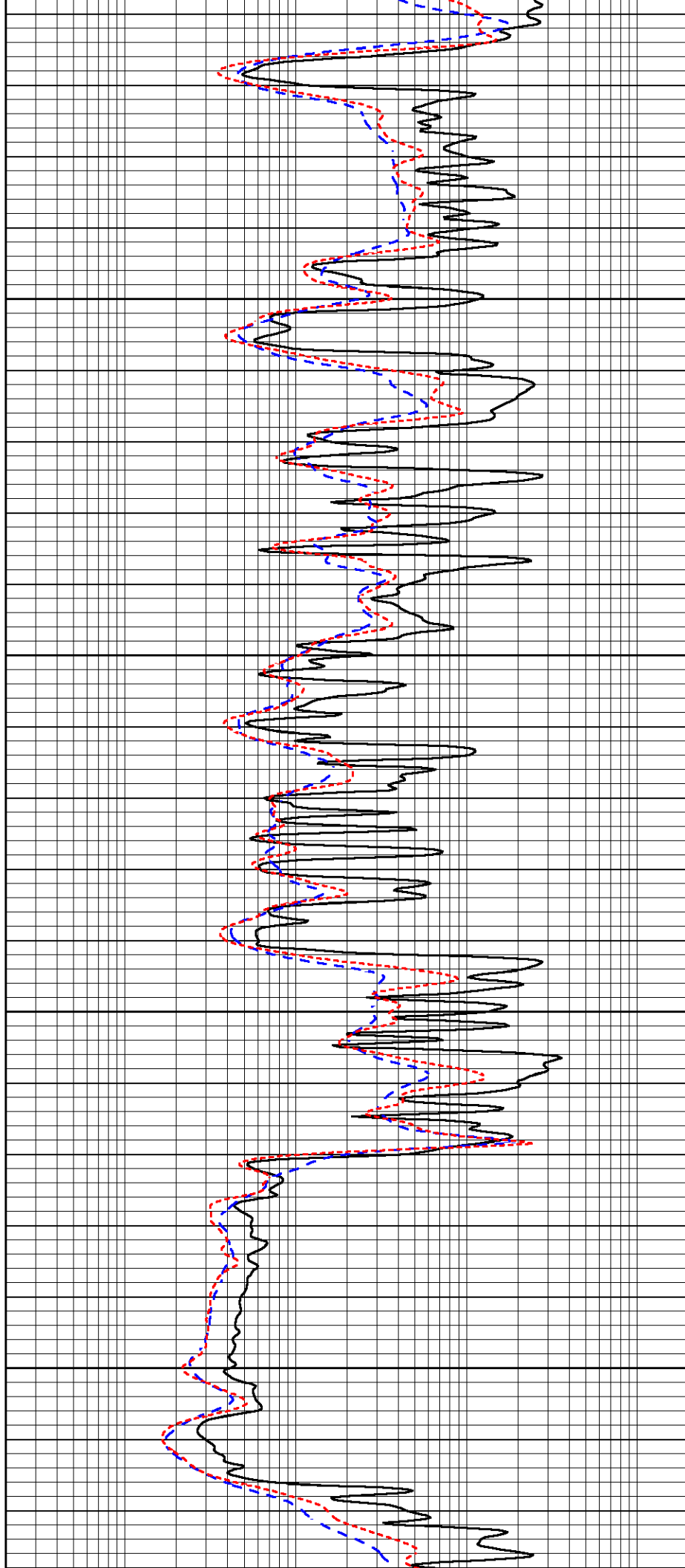


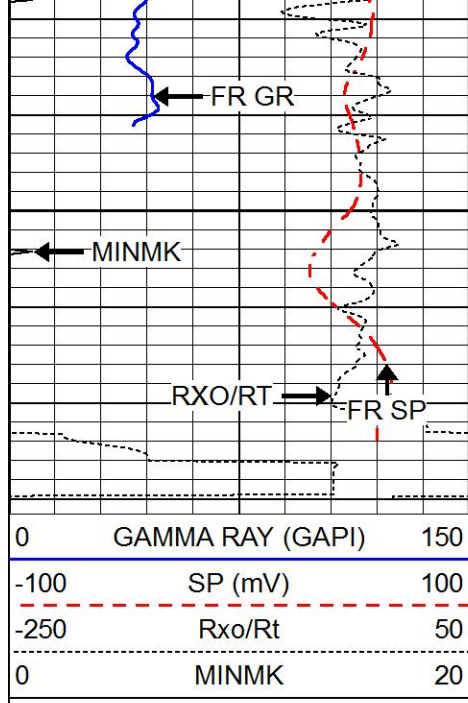
4250

4300

4350

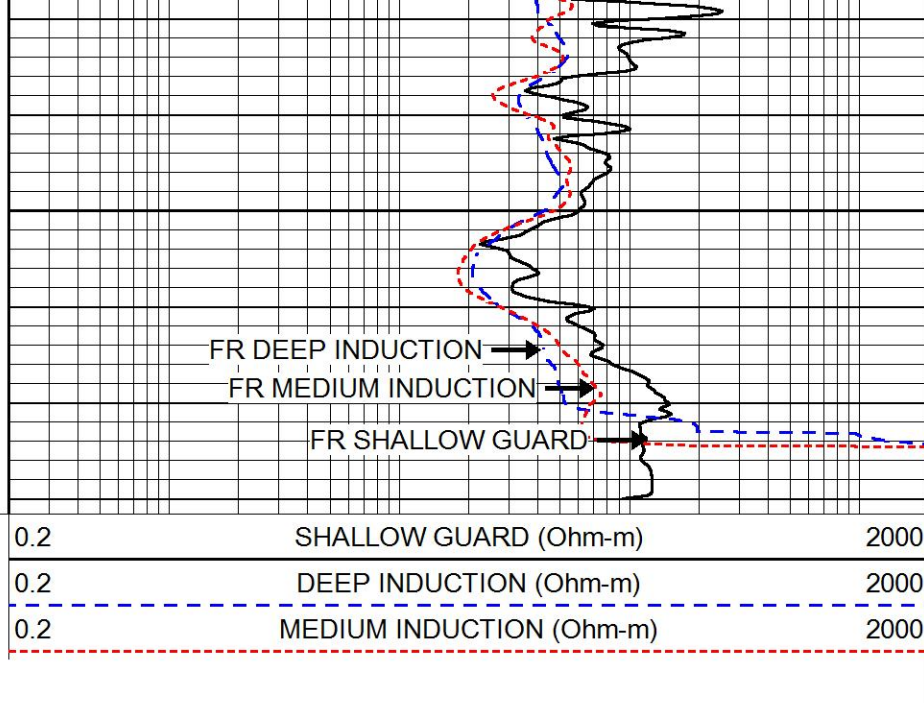
4400





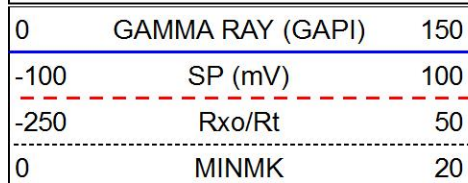
4450

LTD 4476



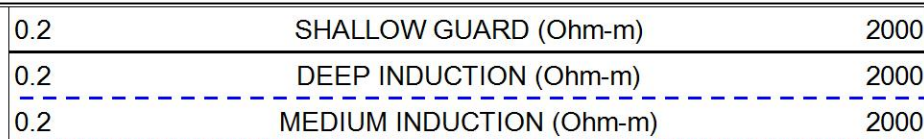
REPEAT SECTION

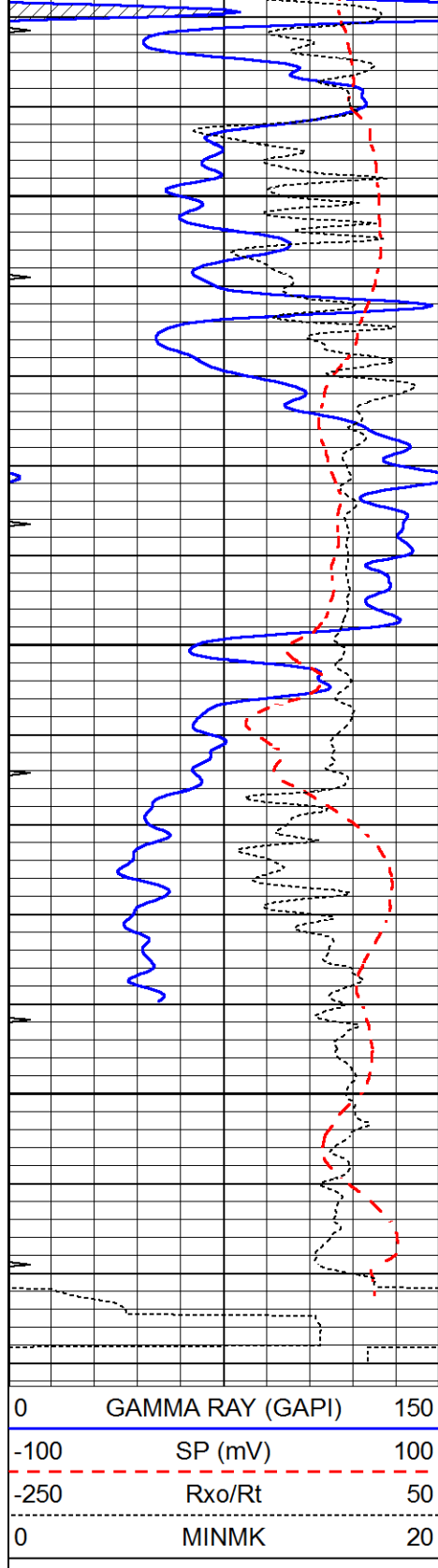
Database File 6572ddn.db
 Dataset Pathname pass2.1R
 Presentation Format _dil
 Dataset Creation Sat Jun 25 16:47:15 2022
 Charted by Depth in Feet scaled 1:240



4250

4300

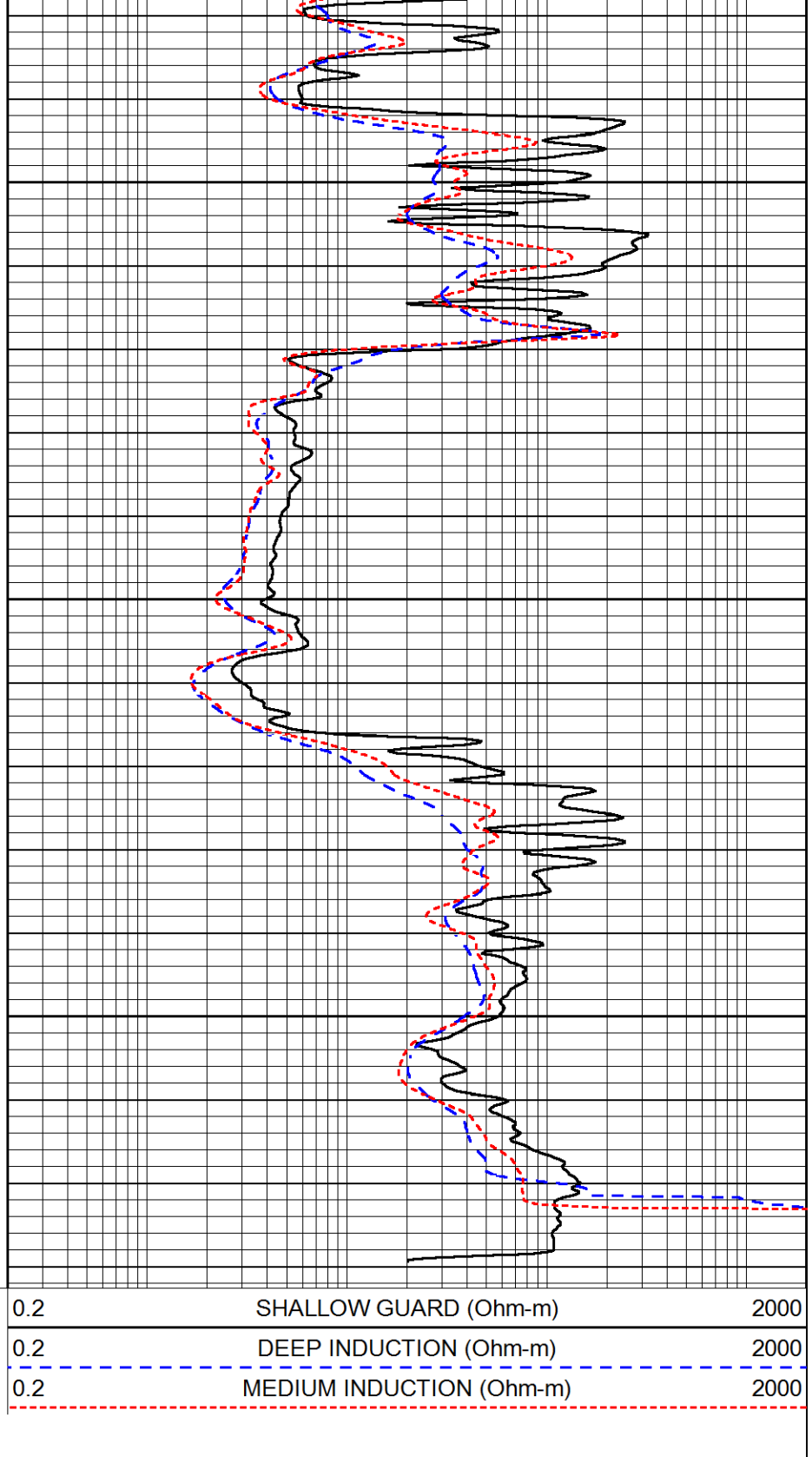




4350

4400

4450



Calibration Report

Database File 6572ddn.db
 Dataset Pathname pass3.1M
 Dataset Creation Sat Jun 25 18:39:28 2022

Dual Induction Calibration Report

Serial-Model:	PROBE8-DILG
Surface Cal Performed:	Sat Jun 25 17:06:33 2022
Downhole Cal Performed:	Mon Sep 10 14:28:38 2018
After Survey Verification Performed:	Mon Sep 10 14:28:40 2018

Surface Calibration				Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b			
Deep	0.015	0.648	V	0.000	400.000	mmho/m	600.000	4.000			
Medium	0.029	0.796	V	0.000	464.000	mmho/m	600.000	-11.000			
Internal:	Zero	Cal		Zero	Cal		m	b			
Deep	0.017	0.657	V	0.000	400.000	mmho/m	625.153	-10.619			
Medium	0.016	0.757	V	0.000	464.000	mmho/m	625.992	-9.739			

Downhole Calibration			Readings			References			Results		
	Zero	Cal		Zero	Cal		m'	b'			
Deep	0.000	0.000	mmho/m	2.011	405.777	mmho/m	1.000	0.000			
Medium	0.000	0.000	mmho/m	7.590	503.393	mmho/m	1.000	0.000			
LL3		7.500	V		1500.000	Ohm-m					
		0.000	V		20.000	Ohm-m					
		-7.200	V		3800.000	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				
			1.000	mmho-m		1.000	mmho-m				

Litho Density Calibration Report															
Serial: 001N								Model: PRB							

Master Calibration				Performed Thu Mar 19 11:30:16 2020											
		Background		Magnesium		Aluminum		Aluminum+Fe							
Window 1		1572.2		7510.8		2837.3		2643.1		cps					
Window 2		1446.2		6523.9		2552.8		2409.9		cps					
Window 3		1060.9		3611.4		1731.5		1684.8		cps					
Window 4		145.5		363.4		363.2		368.1		cps					
Long Space		0.0		5077.7		1106.6		963.7		cps					
Short Space		3.1		1709.3		1103.4		916.9		cps					
Rho				1.7100		2.5900		0.0000		g/cc					
Pe				2.0000		2.7500		5.7900							
Rib Angle		: 44.0		Rib Slope		: 0.965		Density/Spine Ratio		: 0.555					
Spine Angle		: 74.0		Spine Slope		: 3.481		Spine Intercept		: -17.4					

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 Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

Compensated Neutron Calibration Report					
Serial Number:		6I			
Tool Model:		G			

CALIBRATION					
Detector		Readings		Target	Normalization
Short Space		1.00	cps	1.00 cps	1.0000
Long Space		1.00	cps	1.00 cps	1.0000

PRE-SURVEY VERIFICATION					
Detector		Readings		Measured	Target
1)	Short Space		cps		
	Long Space		cps	pu	pu
2)	Short Space		cps		
	Long Space		cps	pu	
3)	Short Space		cps		
	Long Space		cps	pu	

POST-SURVEY VERIFICATION					
Detector		Readings		Measured	Target
1)	Short Space		cps		
	Long Space		cps	pu	pu
2)	Short Space		cps		
	Long Space		cps	pu	pu
3)	Short Space		cps		
	Long Space		cps	pu	pu

Gamma Ray Calibration Report					
Serial Number:		GR6			
Tool Model:		OPEN			
Performed:		Mon Jun 20 01:31:16 2022			
Calibrator Value:		150.0		GAPI	
Background Reading:		0.0		cps	
Calibrator Reading:		276.0		cps	
Sensitivity:		0.8500		GAPI/cps	