



DUAL INDUCTION LOG

Company	RAYMOND OIL COMPANY, INC.		
Well	#4 FRUSHER		
Field	SANDPIT NORTH		
County	HODGEMAN	State	KANSAS
Location:	API #: 15-083-21996-0000	Other Services CDL/CNL MEL	
SEC 9 TWP 21S RGE 23W		Elevation	
Permanent Datum	GROUND LEVEL	Elevation	2348
Log Measured From	KELLY BUSHING	5' A.G.L.	
Drilling Measured From	KELLY BUSHING		
Date	11/11/21		
Run Number	ONE		
Depth Driller	4650		
Depth Logger	4650		
Bottom Logged Interval	4648		
Top Log Interval	00		
Casing Driller	8 5/8" @ 259		
Casing Logger	259		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 6300 PPM	
Density / Viscosity	9.3/50		
pH / Fluid Loss	10.5/10.8		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.75 @ 60F		
Rmf @ Meas. Temp	.56 @ 60F		
Rmc @ Meas. Temp	.90 @ 60F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.36 @ 122F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	////		
Maximum Recorded Temperature	122F		
Equipment Number	3802		
Location	HAYS, KANSAS		
Recorded By	JASON CAPPELLUCCI		
Witnessed By	KIM SHOEMAKER		

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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.

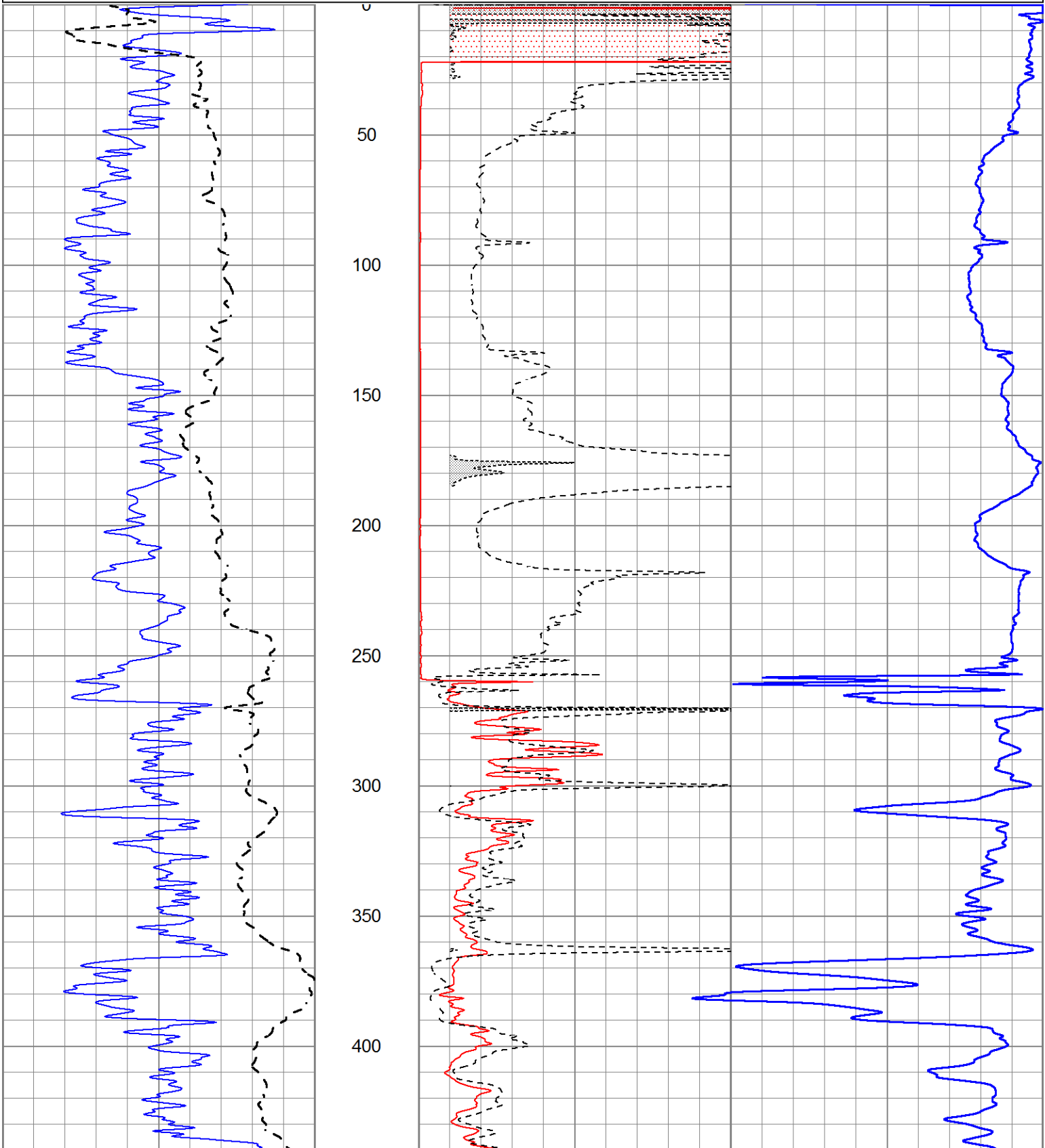
Comments

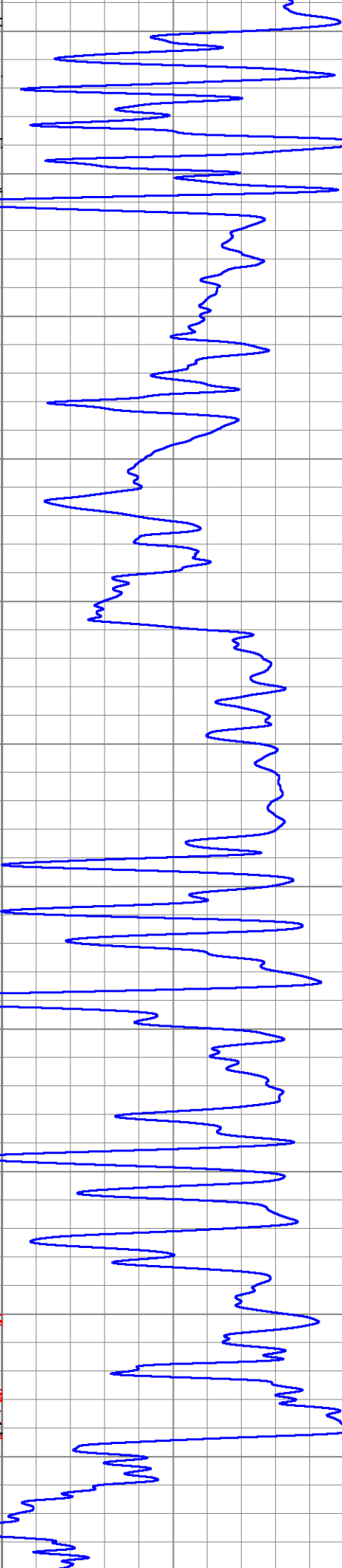
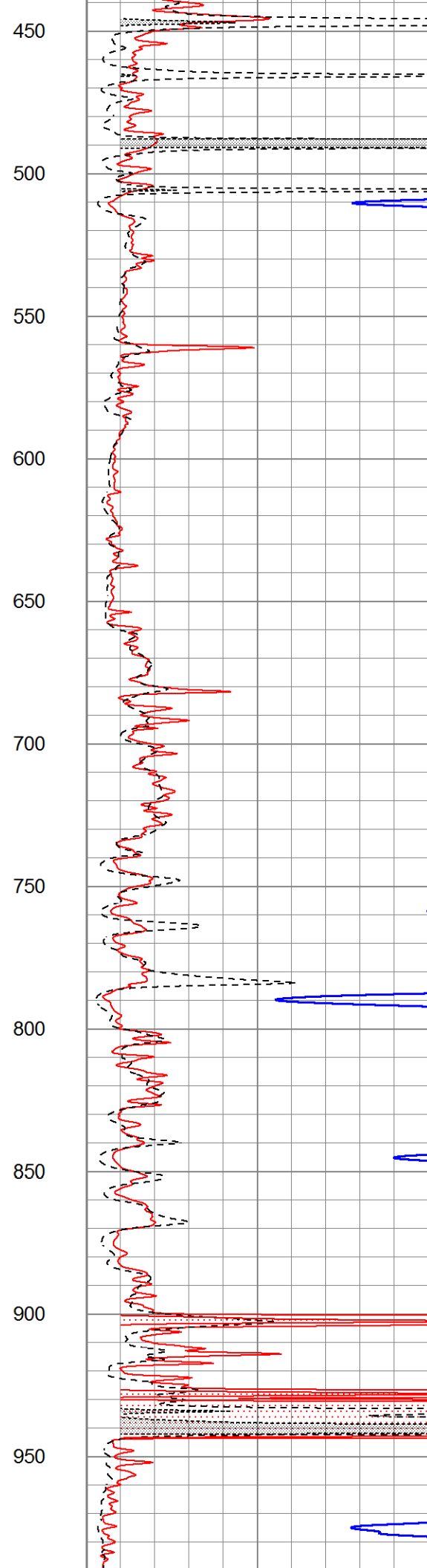
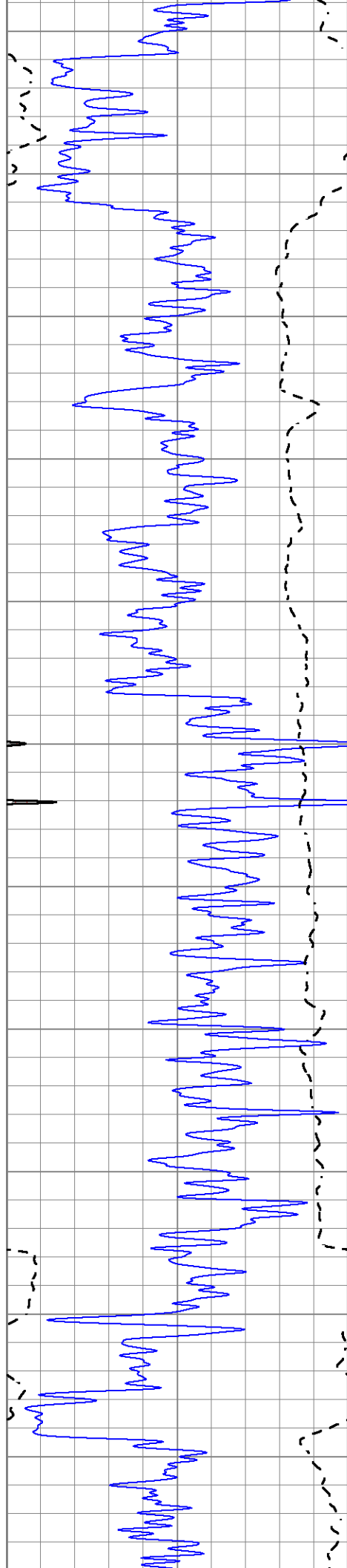
THANK YOU FOR USING ELI WIRELINE SERVICES, HAYS, KS. (785) 628-6395
DIRECTIONS
NESS CITY, KS. - SOUTH JUST PAST THE COUNTY LINE TO RD. X - 2 1/2 EAST
SOUTH INTO

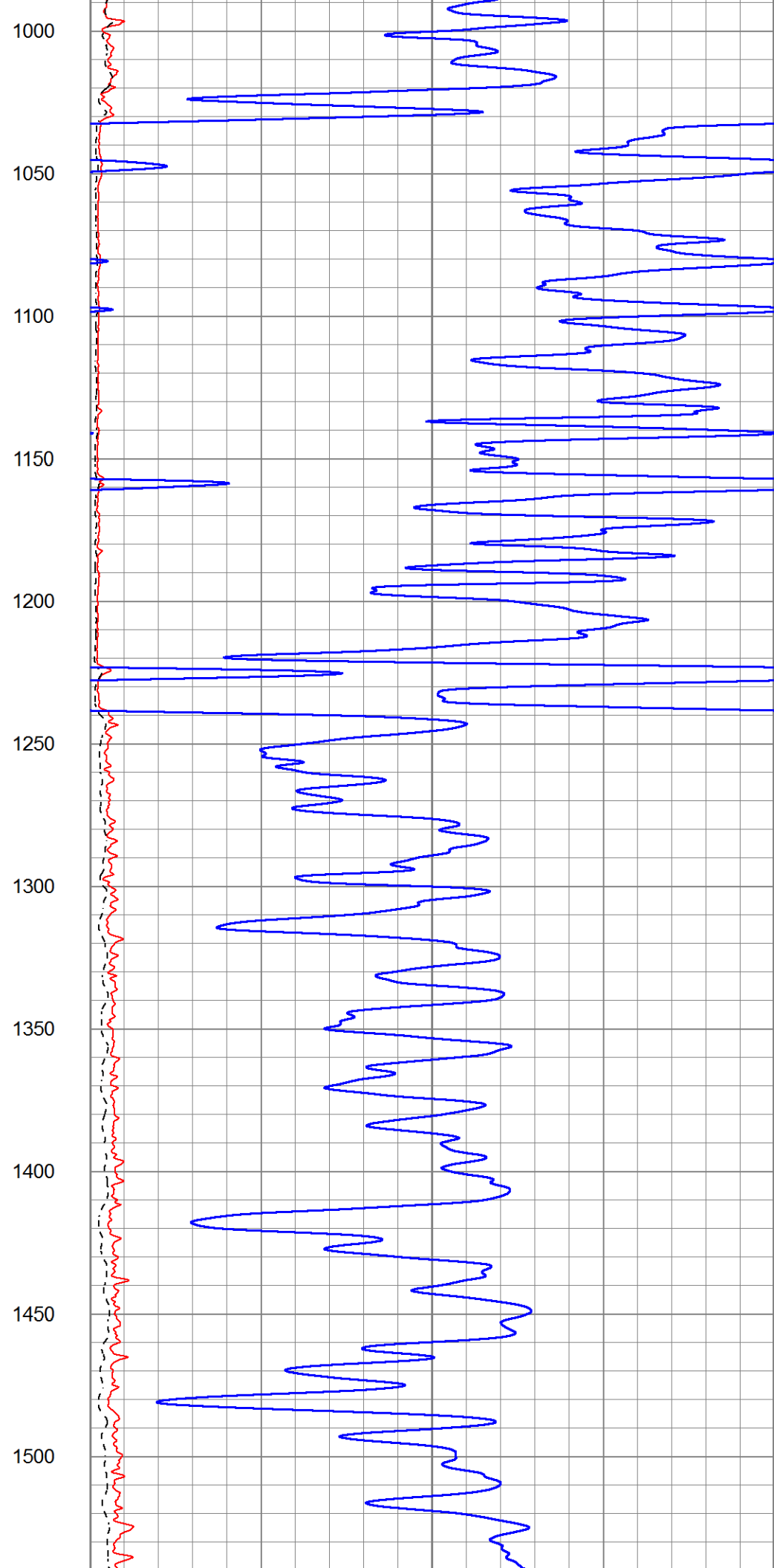
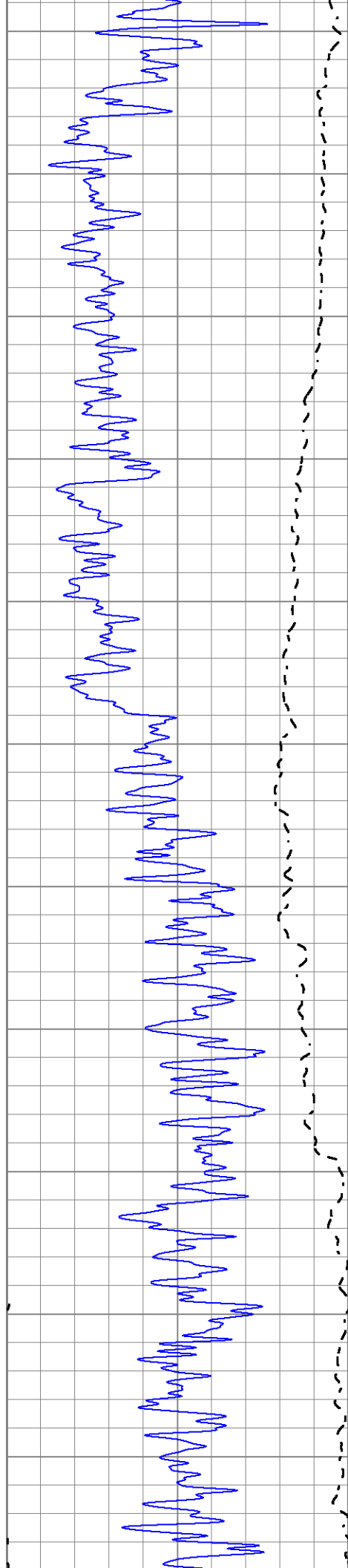


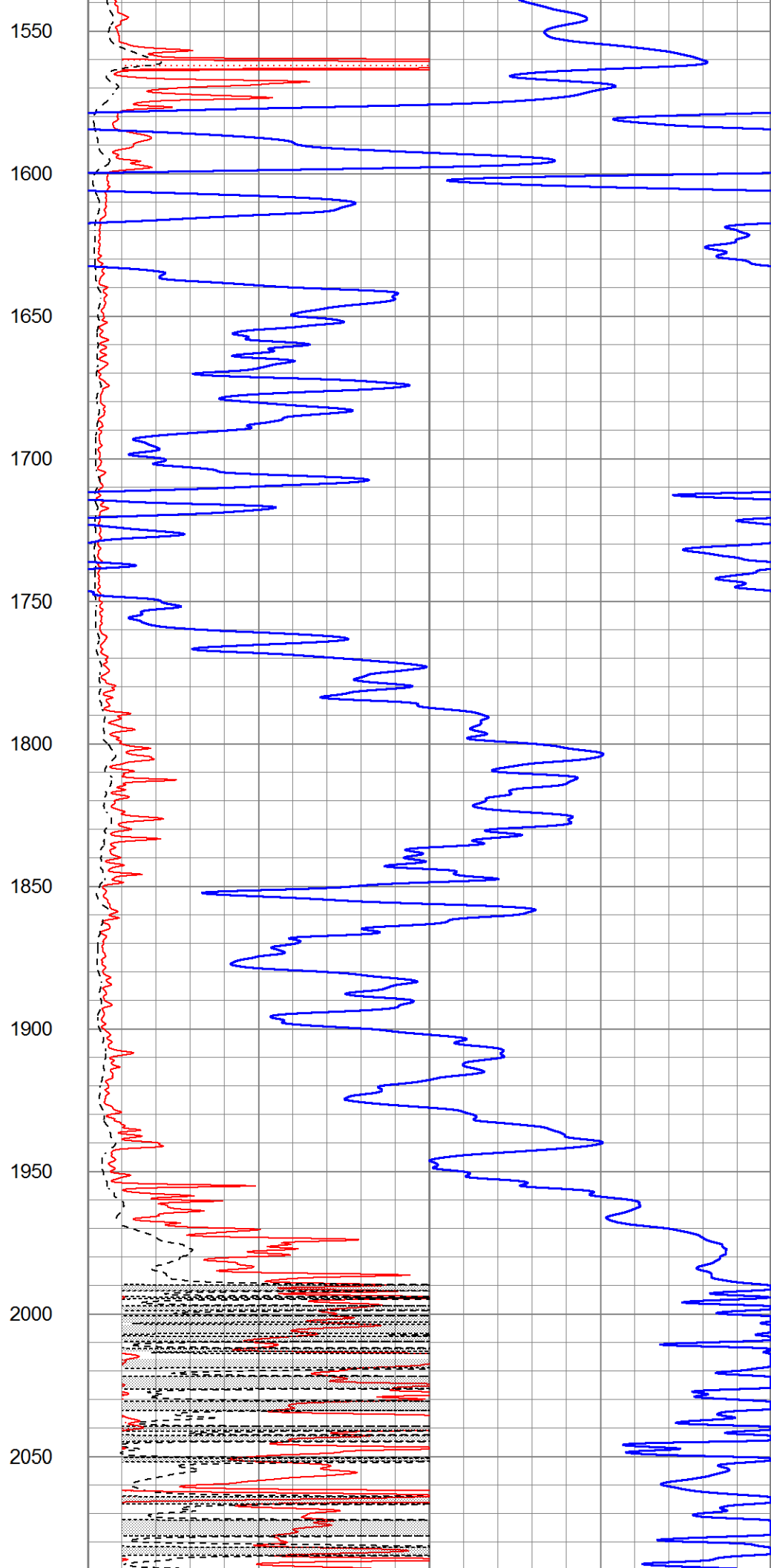
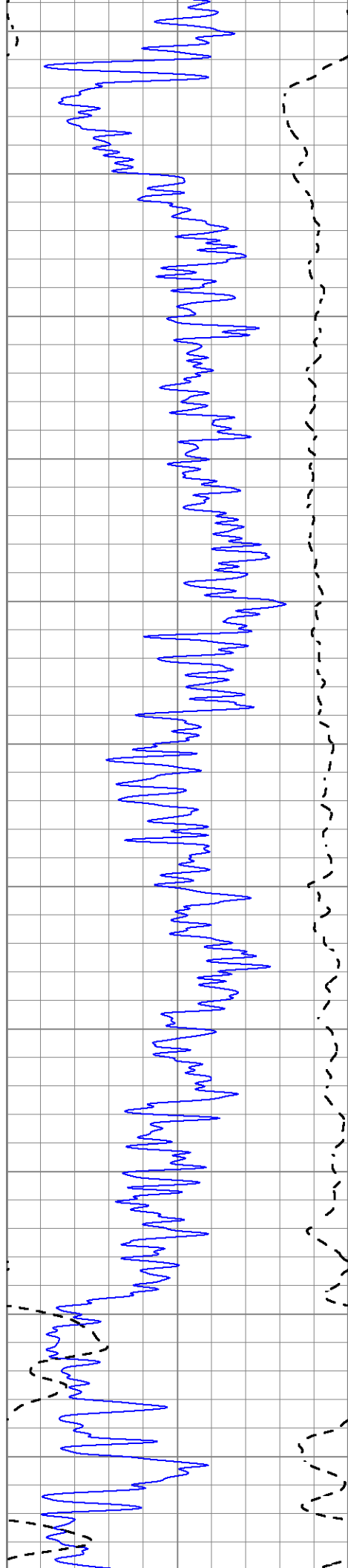
MAIN SECTION

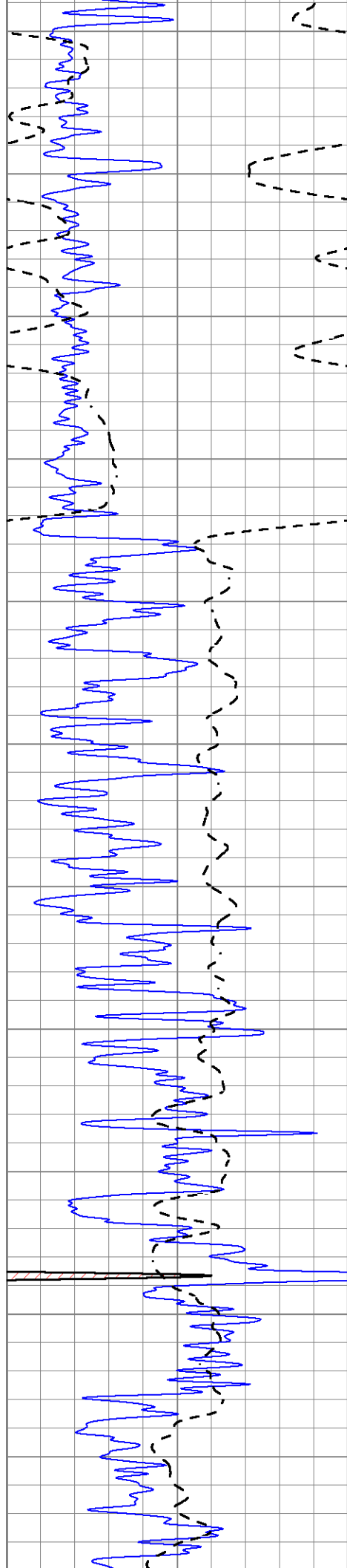
0	Gamma Ray (GAPI)	150	1000	CILD (mmho/m)	0
-100	SP (mV)	100	0	RLL3 (Ohm-m)	50
-----			0	Deep Induction (Ohm-m)	50
			50	RILD X10 (Ohm-m)	500
			50	RLL3 X10 (Ohm-m)	500



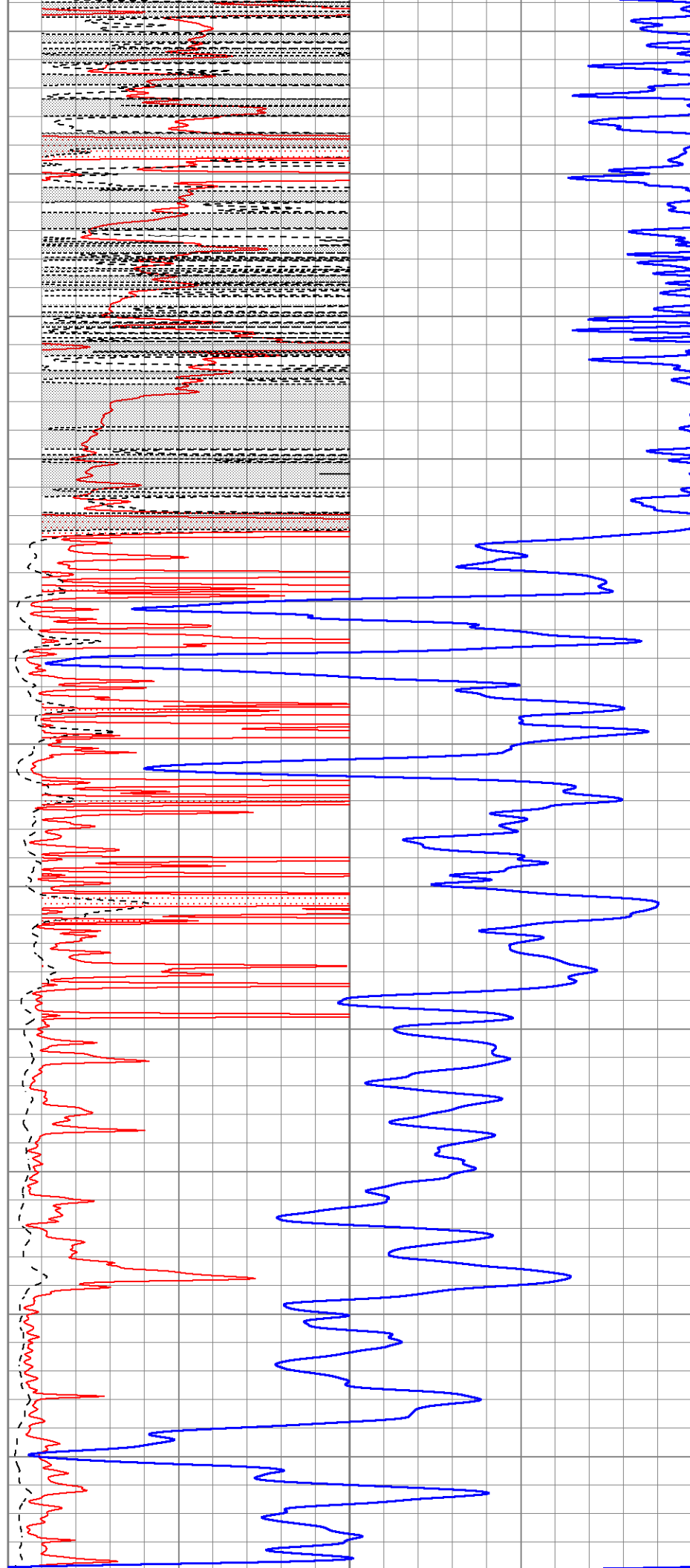


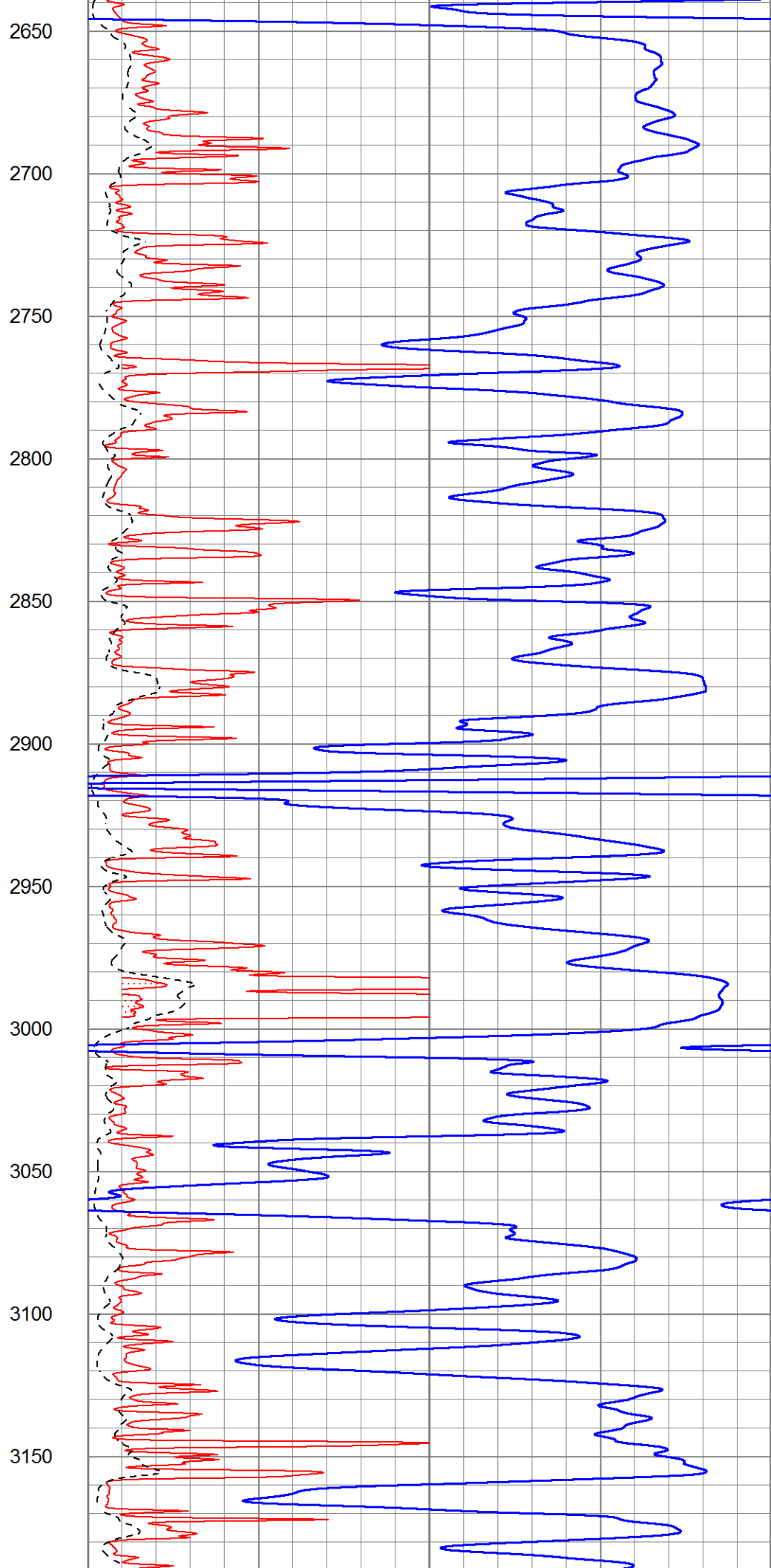
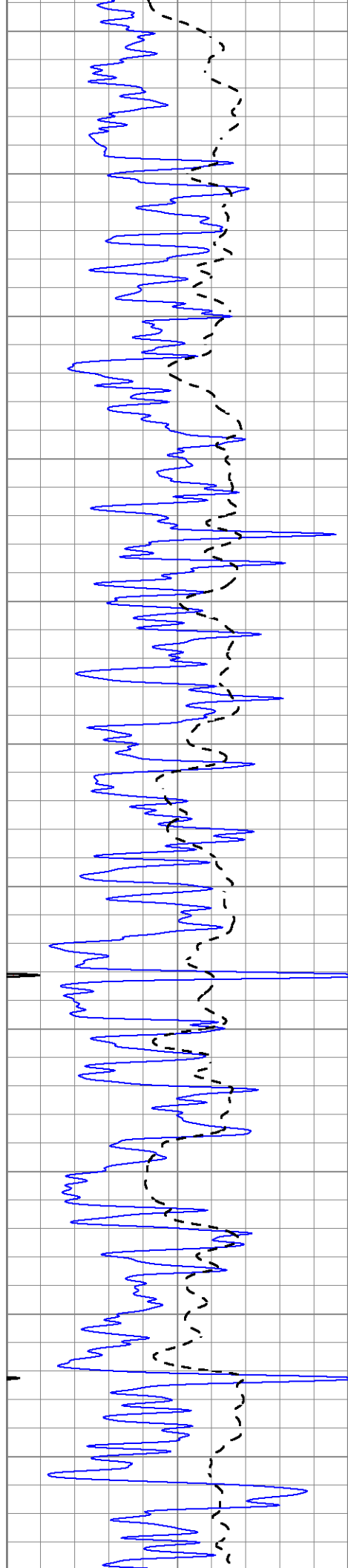


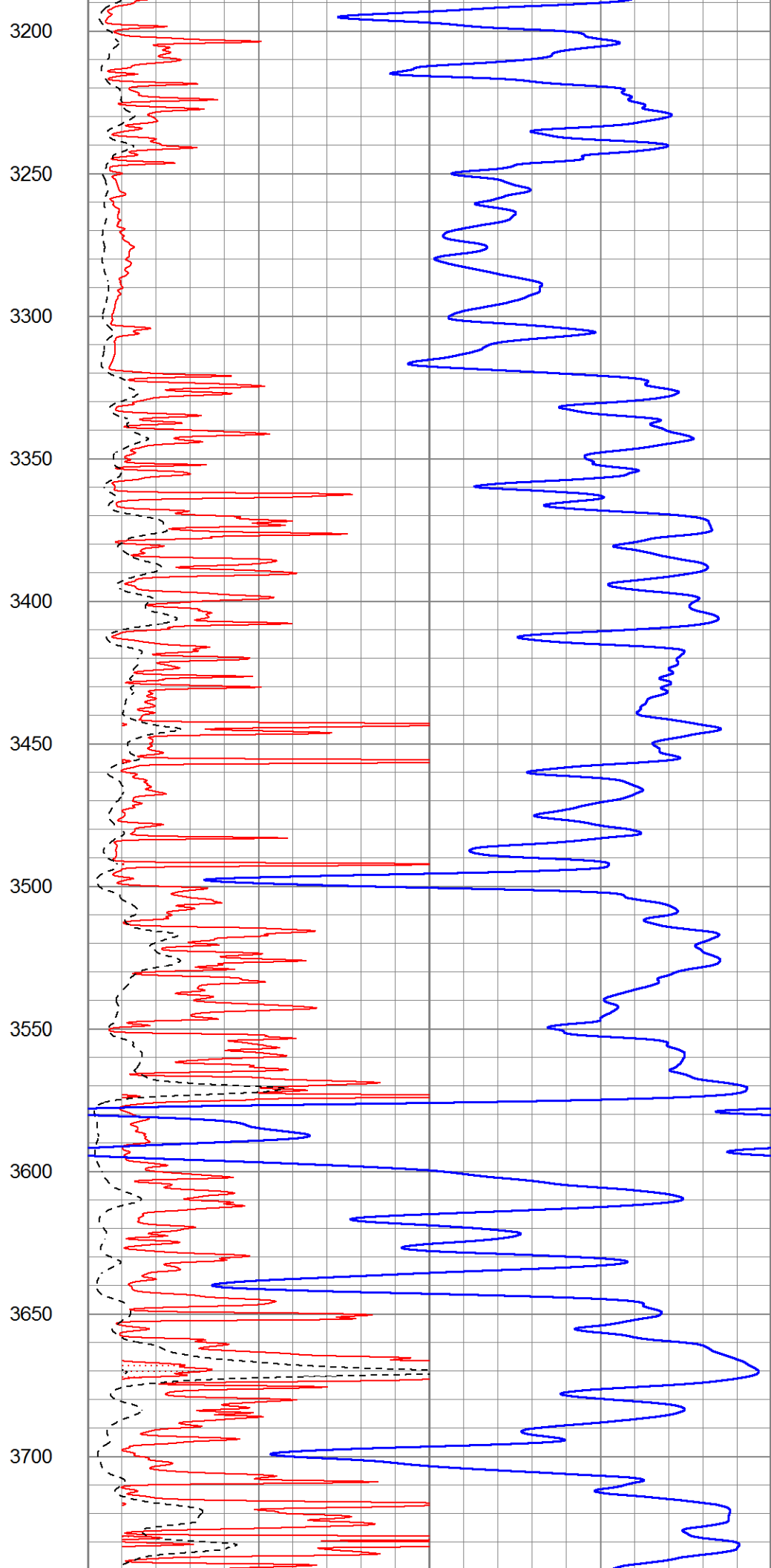
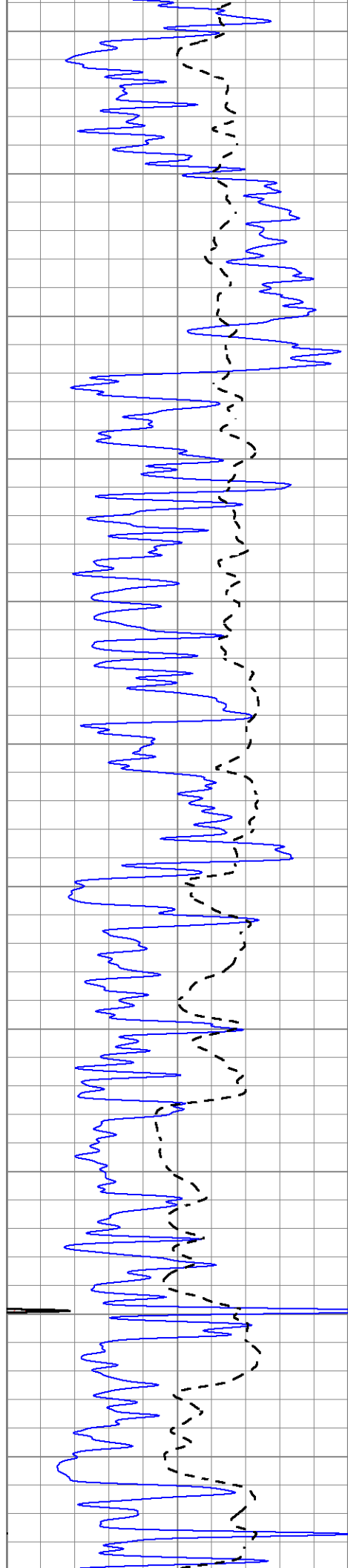


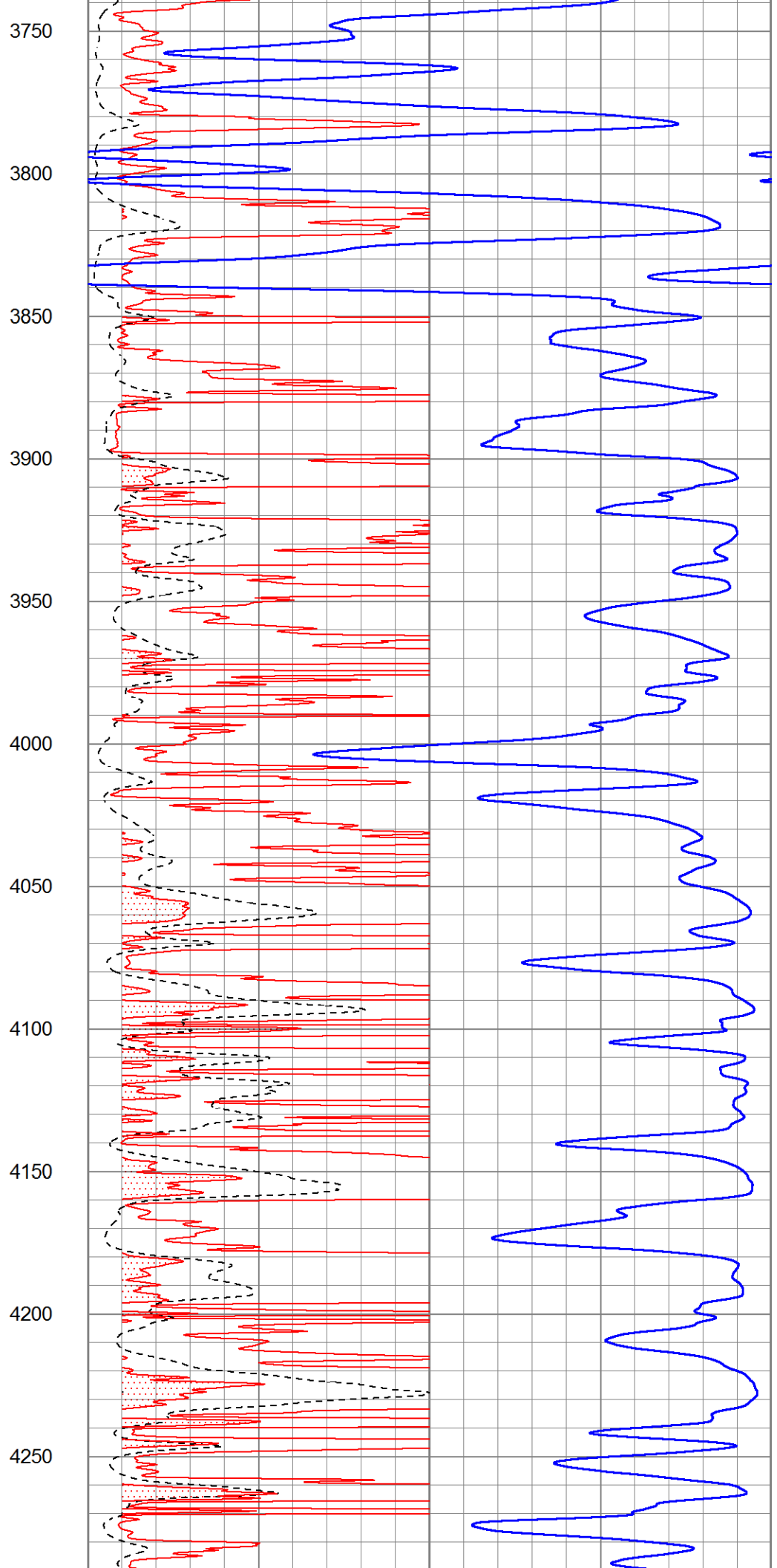
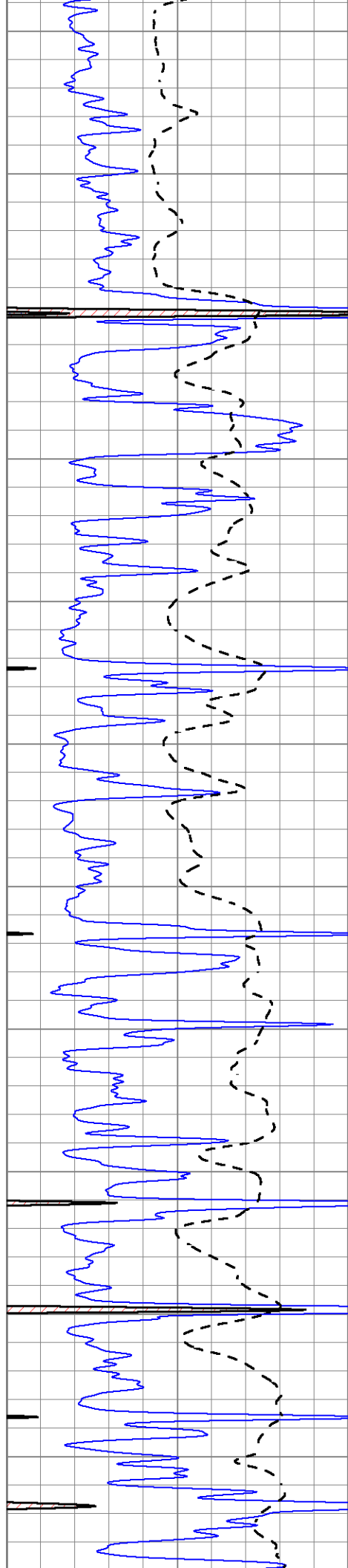


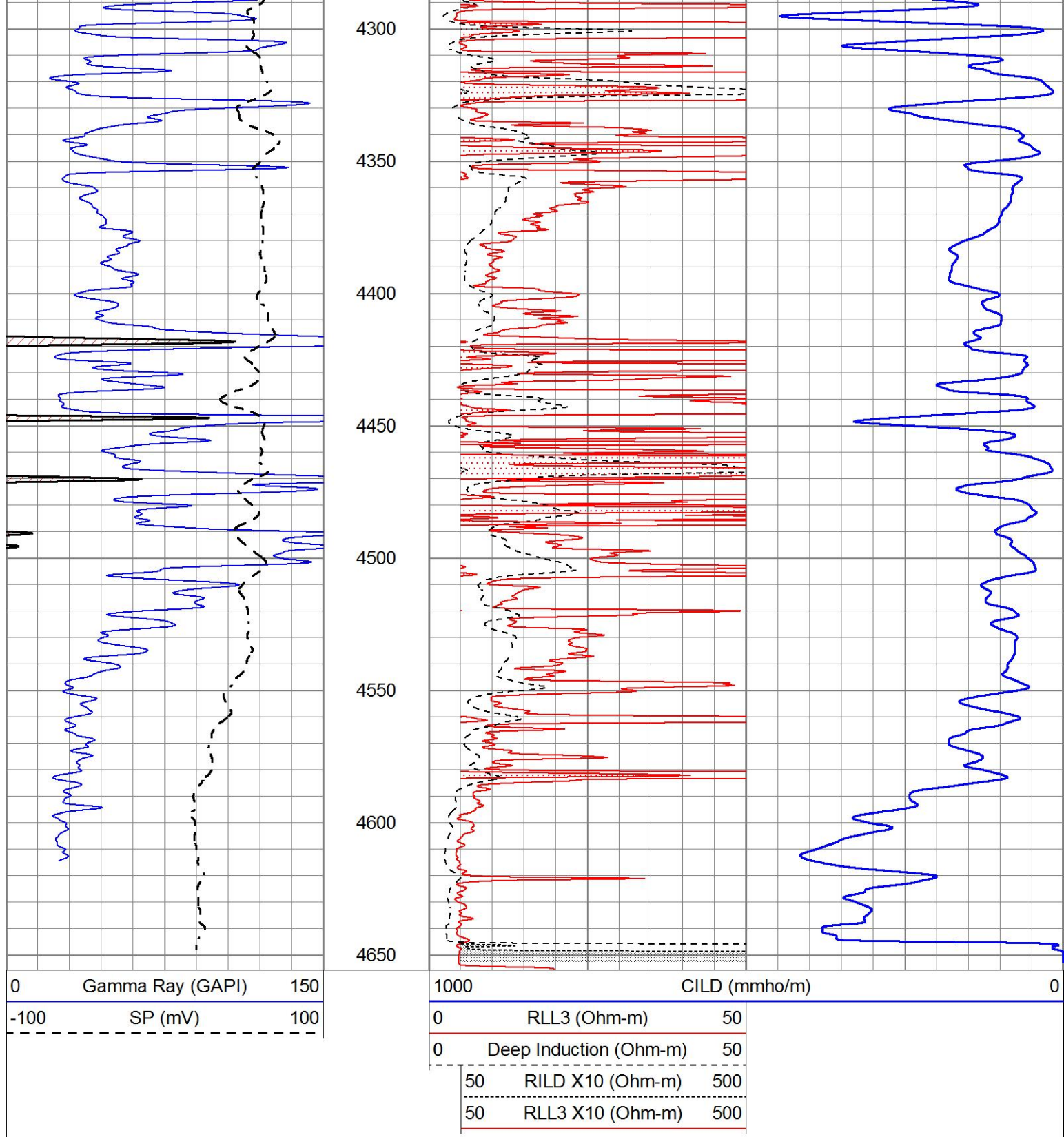
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2150
2200
2250
2300
2350
2400
2450
2500
2550
2600







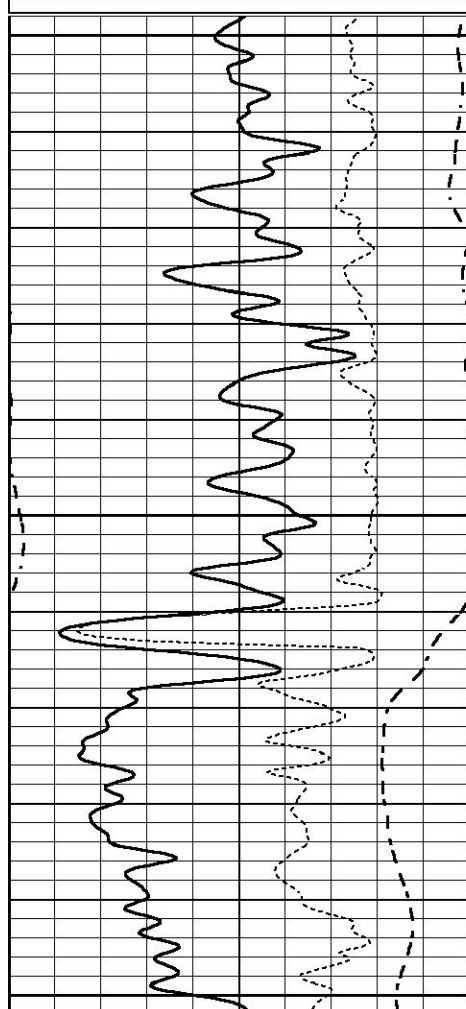




ANHYDRITE

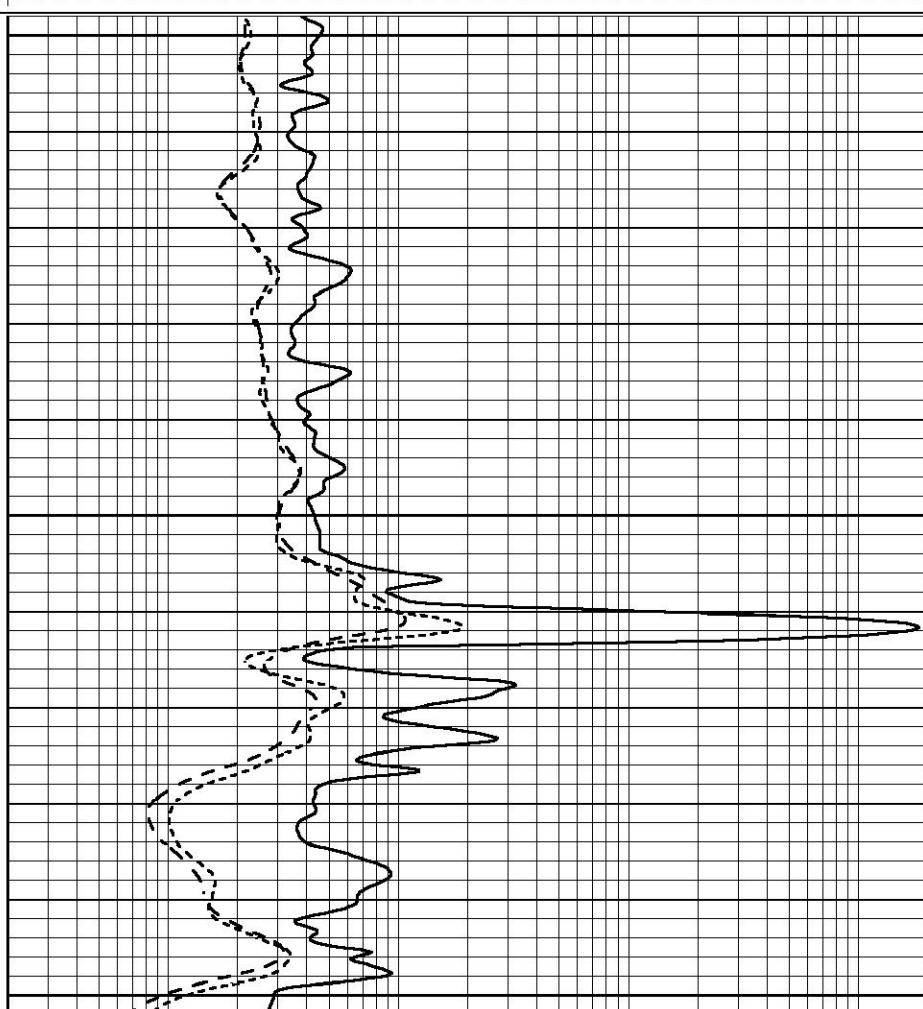
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Dataset Pathname pass3.2
Presentation Format _dil
Dataset Creation Thu Nov 11 12:00:43 2021
Charted by Depth in Feet scaled 1:240

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



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

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



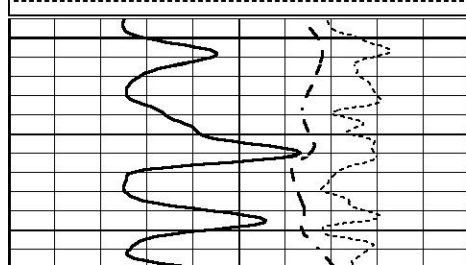
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000



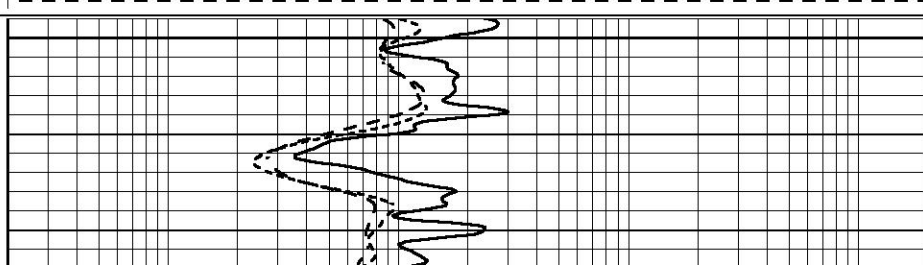
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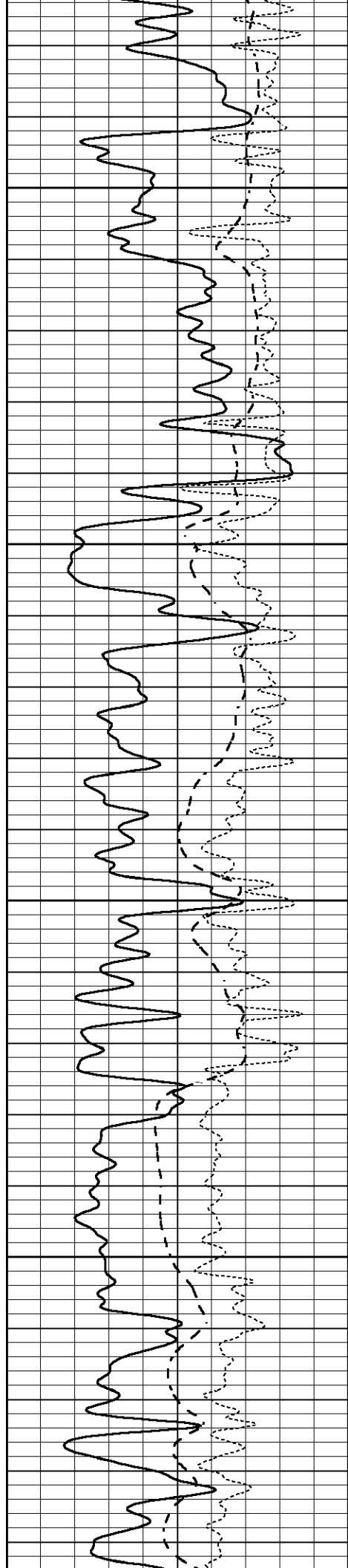
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Dataset Pathname pass3.1
Presentation Format _dil
Dataset Creation Thu Nov 11 11:43:09 2021
Charted by Depth in Feet scaled 1:240

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



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



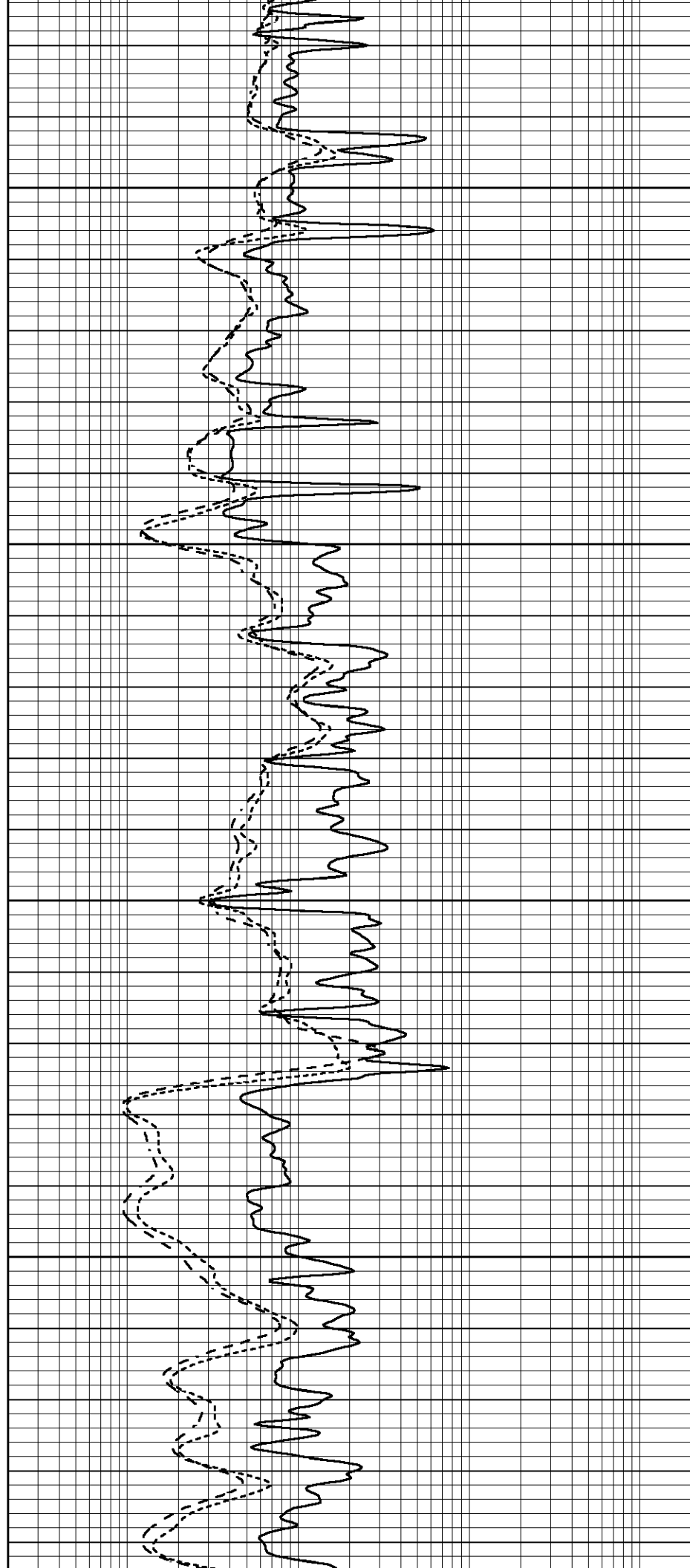


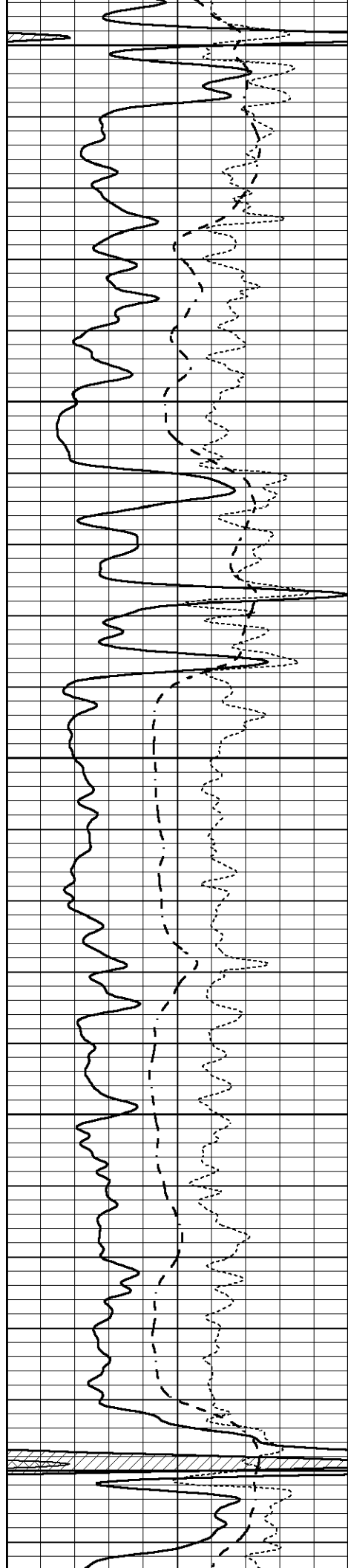
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3500

3550

3600





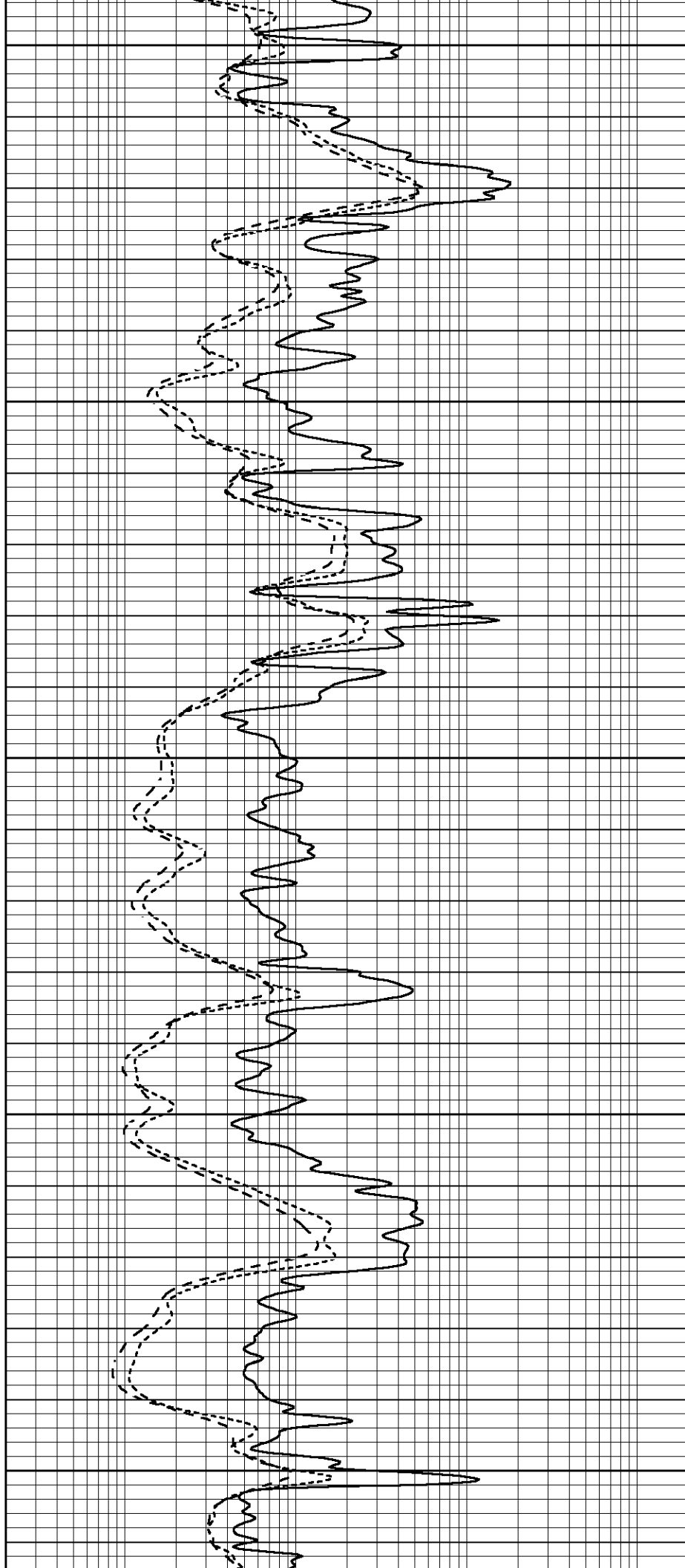
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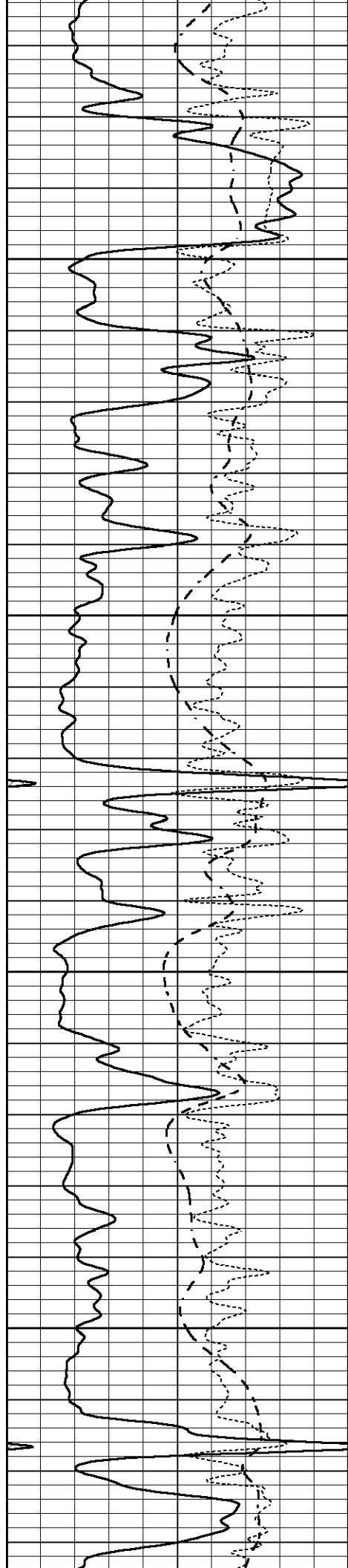
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3750

3800

3850



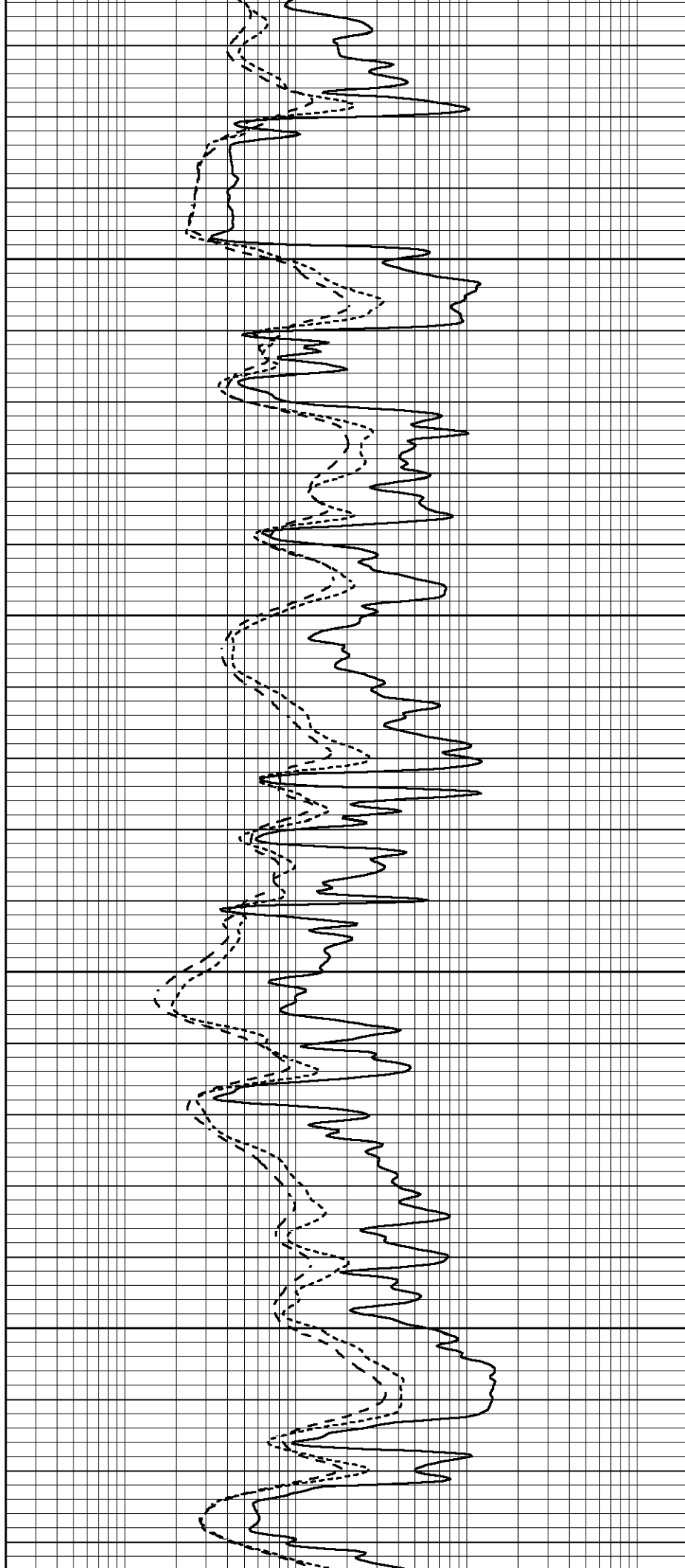


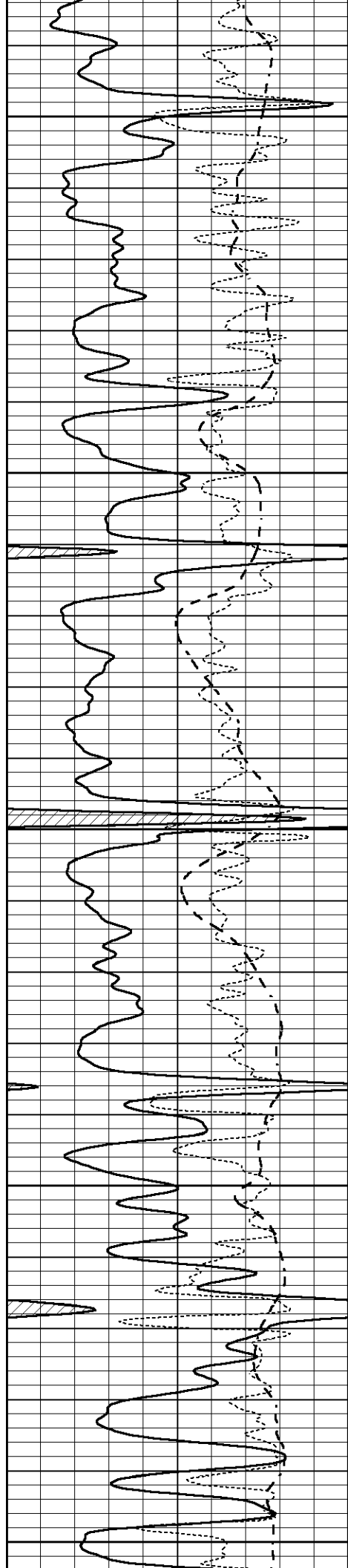
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3950

4000

4050





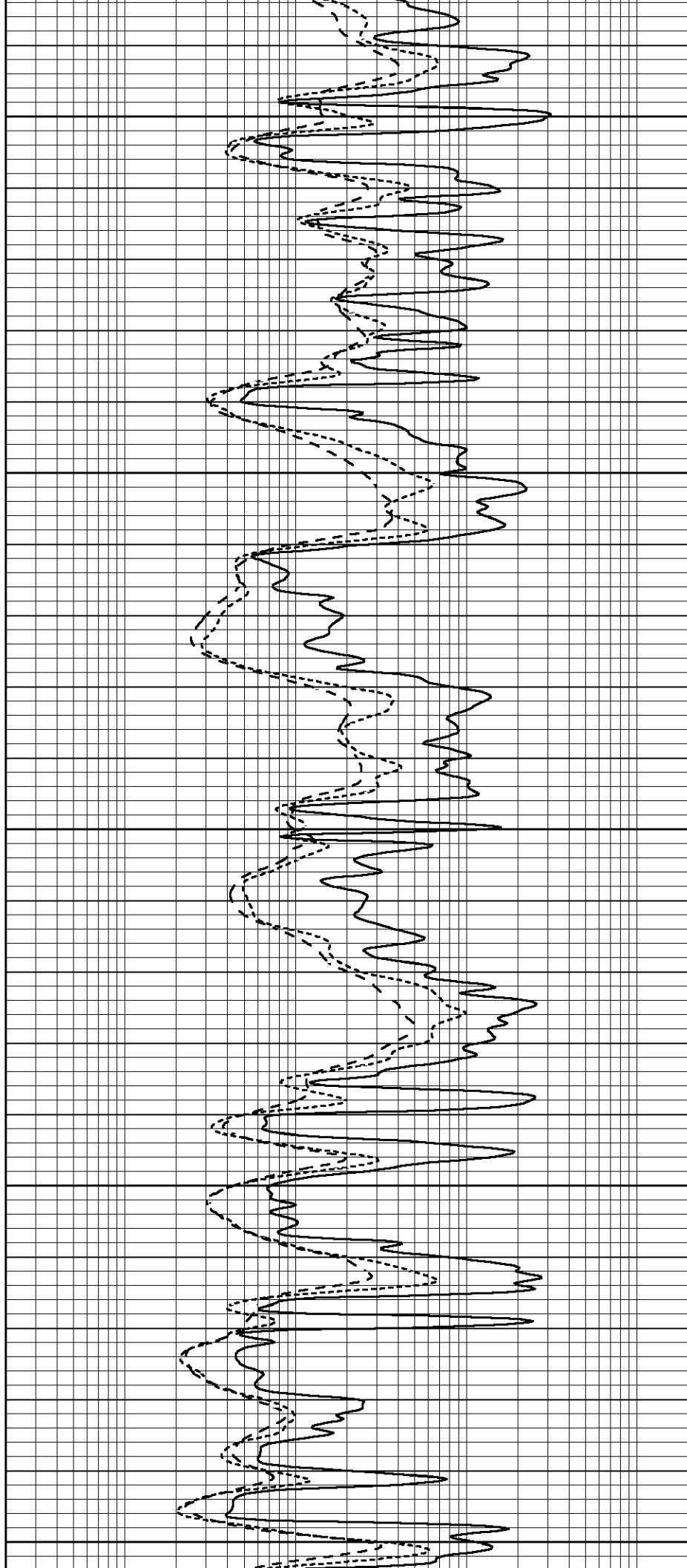
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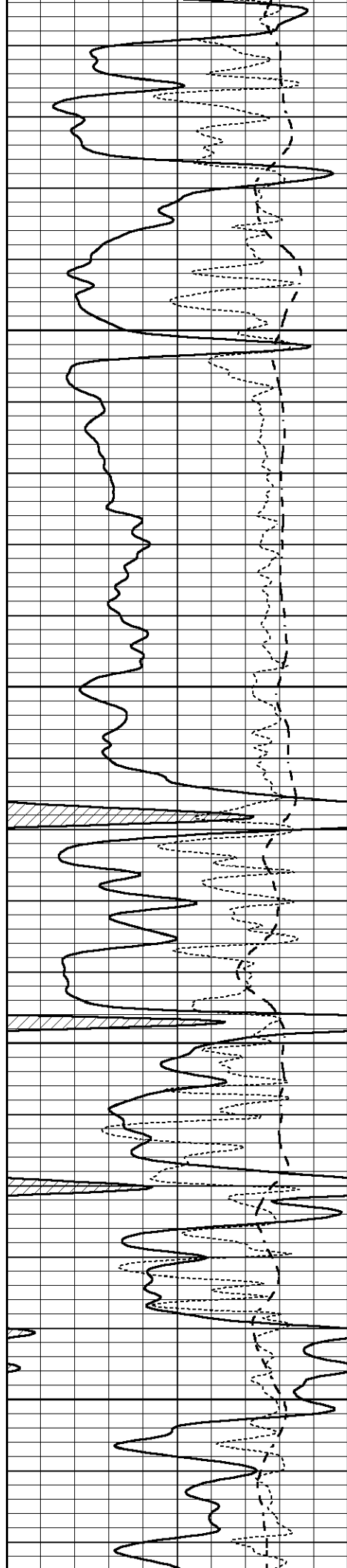
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4200

4250

4300



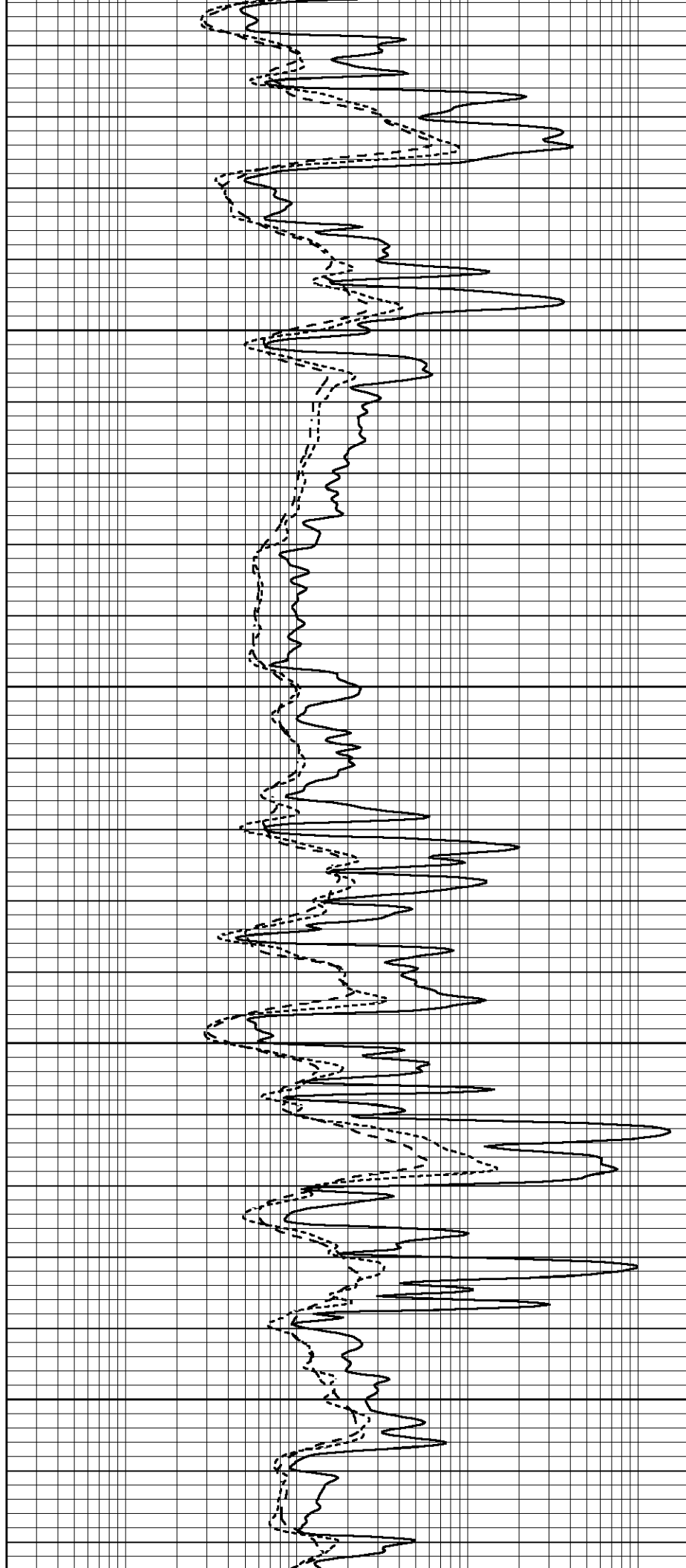


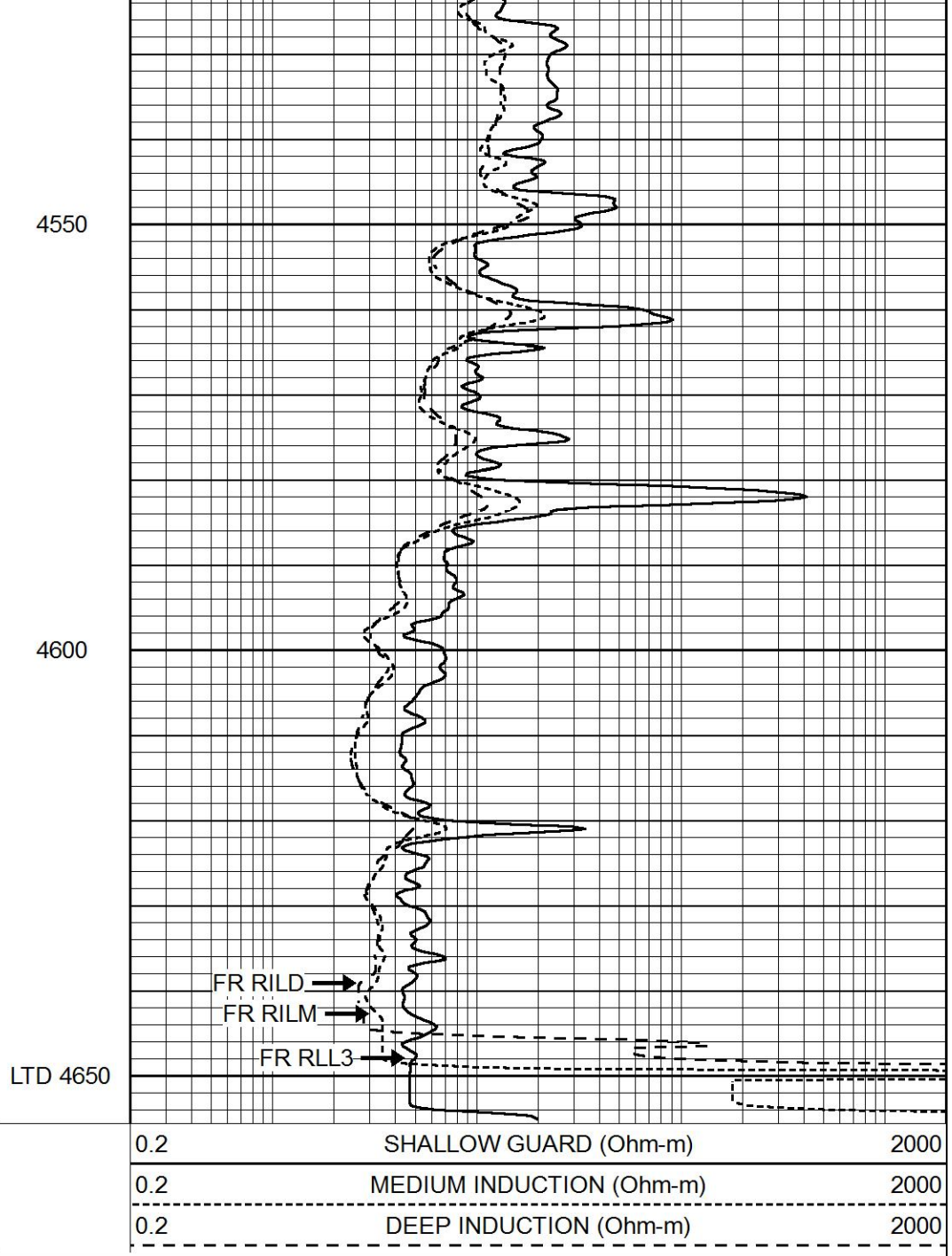
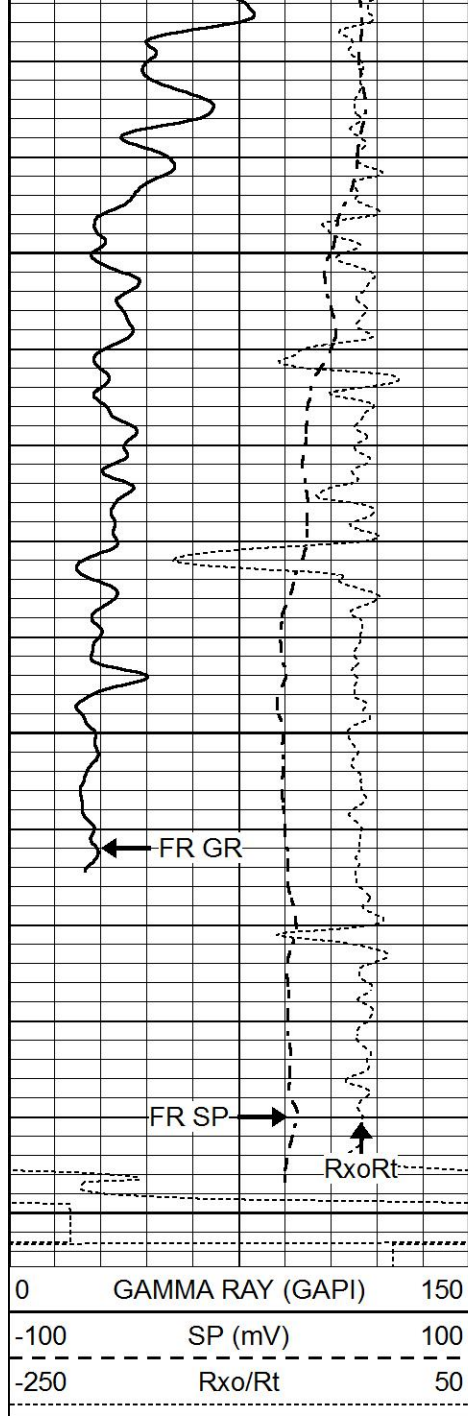
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4400

4450

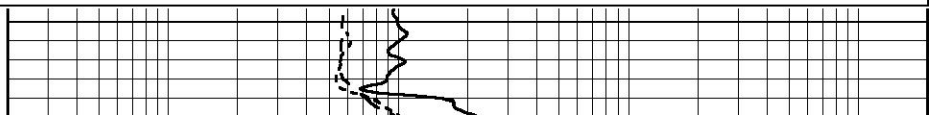
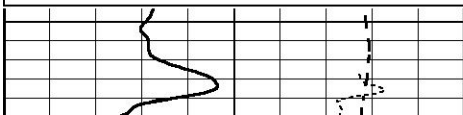
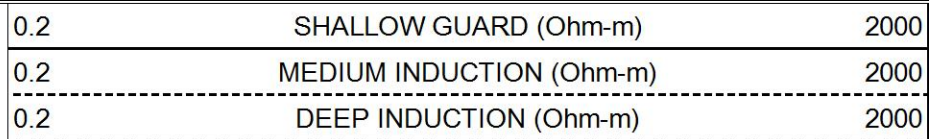
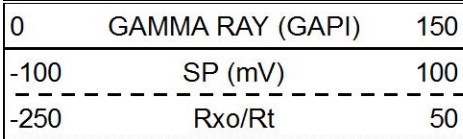
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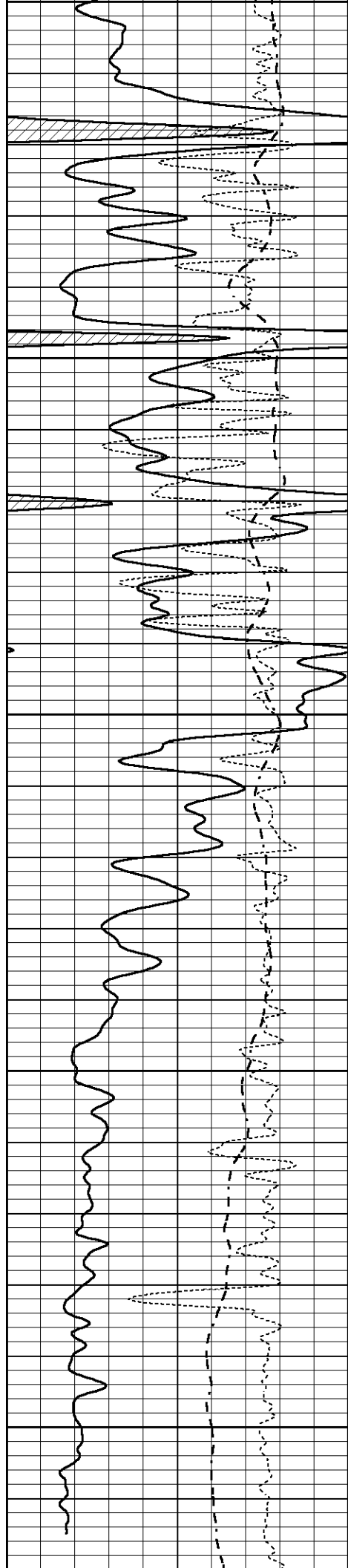




REPEAT SECTION

Database File 5875ddn.db
 Dataset Pathname pass2.1
 Presentation Format _dil
 Dataset Creation Thu Nov 11 11:40:08 2021
 Charted by Depth in Feet scaled 1:240





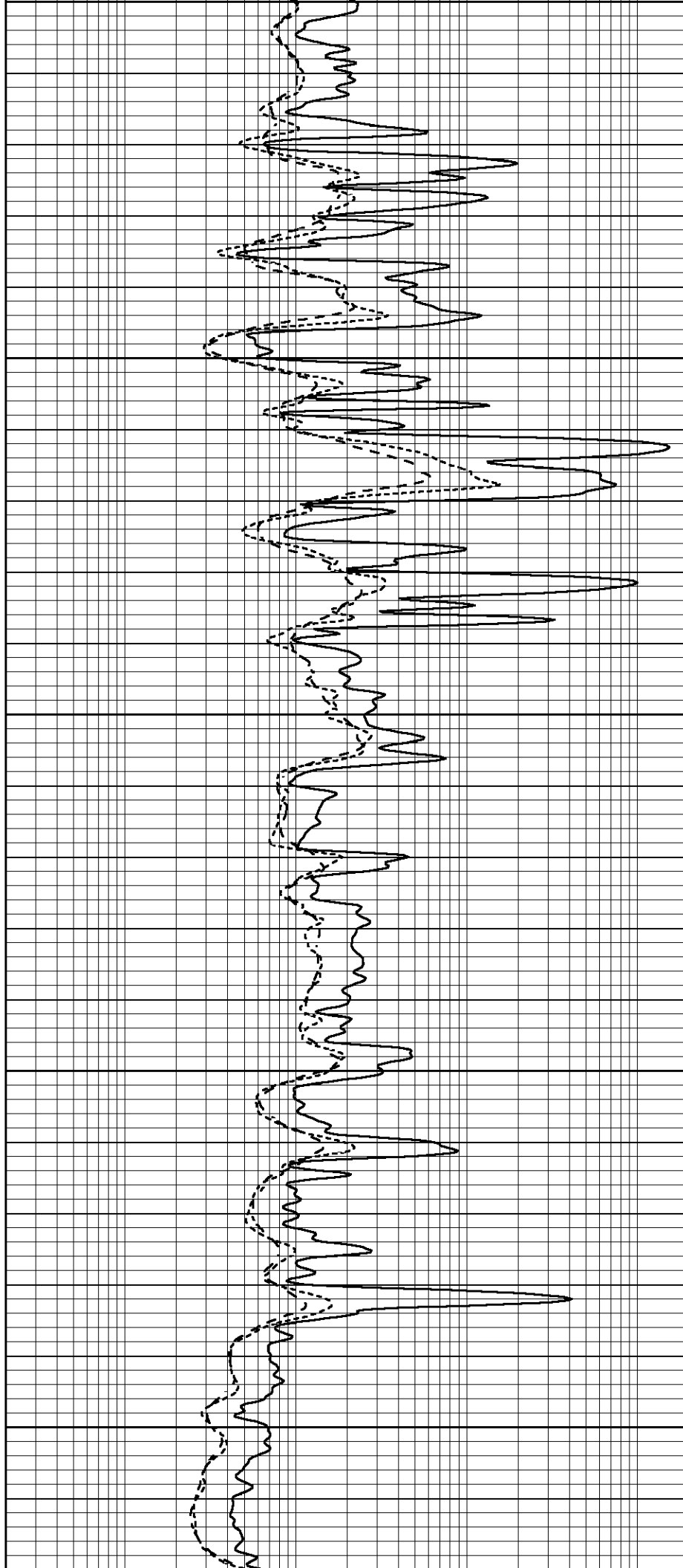
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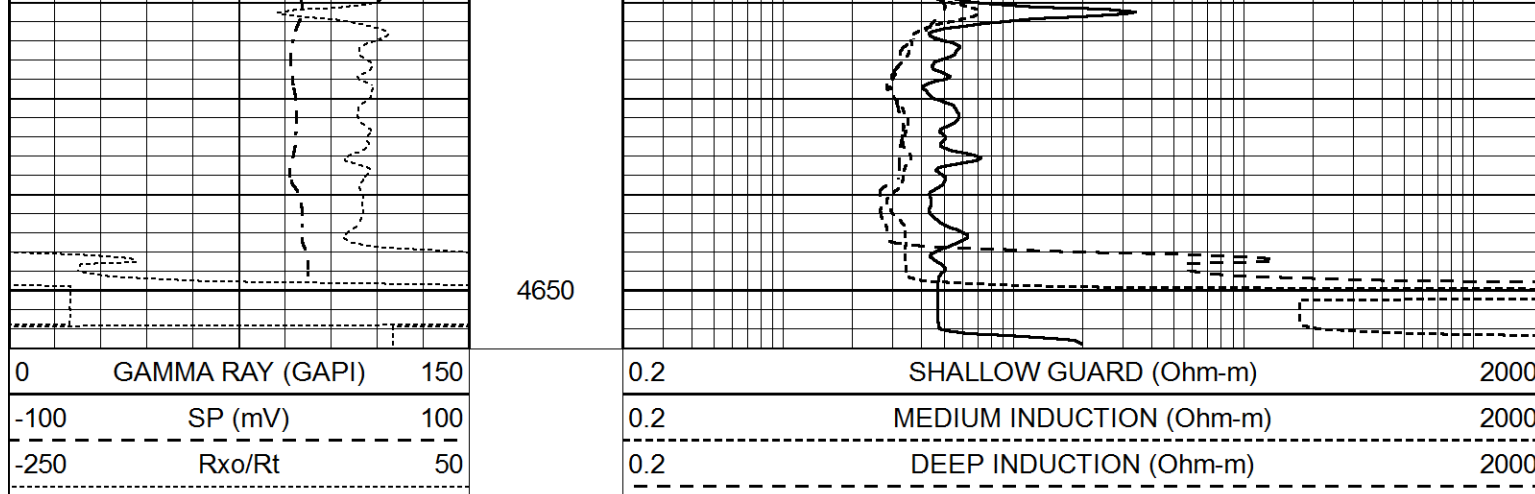
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4500

4550

4600





Calibration Report	
Database File	5875ddn.db
Dataset Pathname	pass2.1
Dataset Creation	Thu Nov 11 11:40:08 2021

Dual Induction Calibration Report

Serial-Model:	FW1410-55-Probe
Surface Cal Performed:	Tue Feb 19 11:44:18 2019
Downhole Cal Performed:	Tue Feb 19 11:44:24 2019
After Survey Verification Performed:	Tue Feb 19 11:44:27 2019

Surface Calibration		Readings		References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	1.000	420.000	mmho/m	649.602	-5.851
Medium	-0.000	0.731	V	1.000	464.000	mmho/m	632.856	1.197
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.007	0.649	V	0.000	400.000	mmho/m	623.784	-4.595
Medium	0.004	0.743	V	0.000	464.000	mmho/m	627.284	-2.251

Downhole Calibration		Readings		References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	-0.824	395.917	mmho/m	-0.976	397.550	mmho/m	1.004	-0.149
Medium	3.565	471.327	mmho/m	3.468	471.590	mmho/m	1.001	-0.099
LL3		7.503	V		1500.000	Ohm-m		
		0.001	V		20.000	Ohm-m		
		-7.481	V		3745.000	mmho-m		

After Survey Verification		Readings		Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	-0.824	395.917	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	3.565	471.327	mmho/m	1.000	0.000
LL3		0.000	Ohm-m		1500.000	Ohm-m		
		0.000	Ohm-m		20.000	Ohm-m		
		0.000	mmho-m		3745.000	mmho-m		

Litho Density Calibration Report	
Serial:	140704
Model:	V4_10P

Master Calibration			Performed: Mon Dec 07 12:12:14 2020		
	Background	Aluminum	Magnesium		
Window 1	557.73	5525.14	24361.20	cps	
Window 2	47.08	1245.09	5901.17	cps	
Window 4	239.06	1250.70	5456.76	cps	
Window 5	564.08	8300.56	16134.07	cps	
Window 6	44.21	1356.78	2705.40	cps	
Window 8	267.87	2686.97	5150.30	cps	
Bulk Density	-	2.6020	1.6830	g/cc	
Pe	-	3.0000	2.5070	b/e	
LS Alpha:	: -1.8719	SS Alpha:	: -0.8000	LS CPE:	: 1.1424
LS Beta:	: 135562.6841	SS Beta:	: 20128.7209	SS CPE:	: 1.5489

Before Survey Background Counts Verification			Performed: Wed Dec 31 18:00:00 1969	
Window 1	0.00	cps		
Window 2	0.00	cps		
Window 4	0.00	cps		
Window 5	0.00	cps		
Window 6	0.00	cps		
Window 8	0.00	cps		

After Survey Background Counts Verification			Performed: Wed Dec 31 18:00:00 1969	
Window 1	0.00	cps		
Window 2	0.00	cps		
Window 4	0.00	cps		
Window 5	0.00	cps		
Window 6	0.00	cps		
Window 8	0.00	cps		

Lithodensity Caliper Calibration			Performed: Mon Dec 07 12:12:14 2020		
Results	Readings	References (in)		Gain	Offset
Low	High	Low	High		
5852.8	8972.7	8.0	14.0	0.0	-3.3

Before Survey Caliper Verification			Performed:	
	Reference	Reading		
Caliper (in)	_____	_____		

After Survey Caliper Verification			Performed:	
	Reference	Reading		
Caliper (in)	_____	_____		

Compensated Neutron Calibration Report				
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Serial Number:		080621PMC		
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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:

7

Tool Model:

Probe1

Performed:

Tue Jan 19 17:50:08 2021

Calibrator Value:

1.0

GAPI

Background Reading:

0.0

cps

Calibrator Reading:

1.0

cps

Sensitivity:

0.5300

GAPI/cps