



DUAL INDUCTION LOG

Company SHAKESPEARE OIL COMPANY, INC.

Well TRACTOR #1-13

Field

County SCOTT

State KANSAS

Location: API #: 15-171-21277-0000

50' FNL & 1270' FEL

Other Services
CDL/CNL/PE
MEL

SEC 13 TWP 18S RGE 32W

Elevation

Permanent Datum GROUND LEVEL Elevation 2970

Log Measured From KELLY BUSHING 8' A.G.L

Drilling Measured From KELLY BUSHING

K.B. 2978
D.F. 2976
G.L. 2970

Date 9/1/21

Run Number ONE

Depth Driller 4675

Depth Logger 4677

Bottom Logged Interval 4675

Top Log Interval 00

Casing Driller 8 5/8" @ 265

Casing Logger 265

Bit Size 7 7/8

Type Fluid in Hole CHEMICAL MUD

Density / Viscosity 9.3/55

pH / Fluid Loss 10.5/8.0

Source of Sample FLOWLINE

Rm @ Meas. Temp .90 @ 90F

Rmf @ Meas. Temp .67 @ 90F

Rmc @ Meas. Temp 1.08 @ 90F

Source of Rmf / Rmc MEASUREMENT

Rm @ BHT .66 @ 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 KENT MATSON

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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

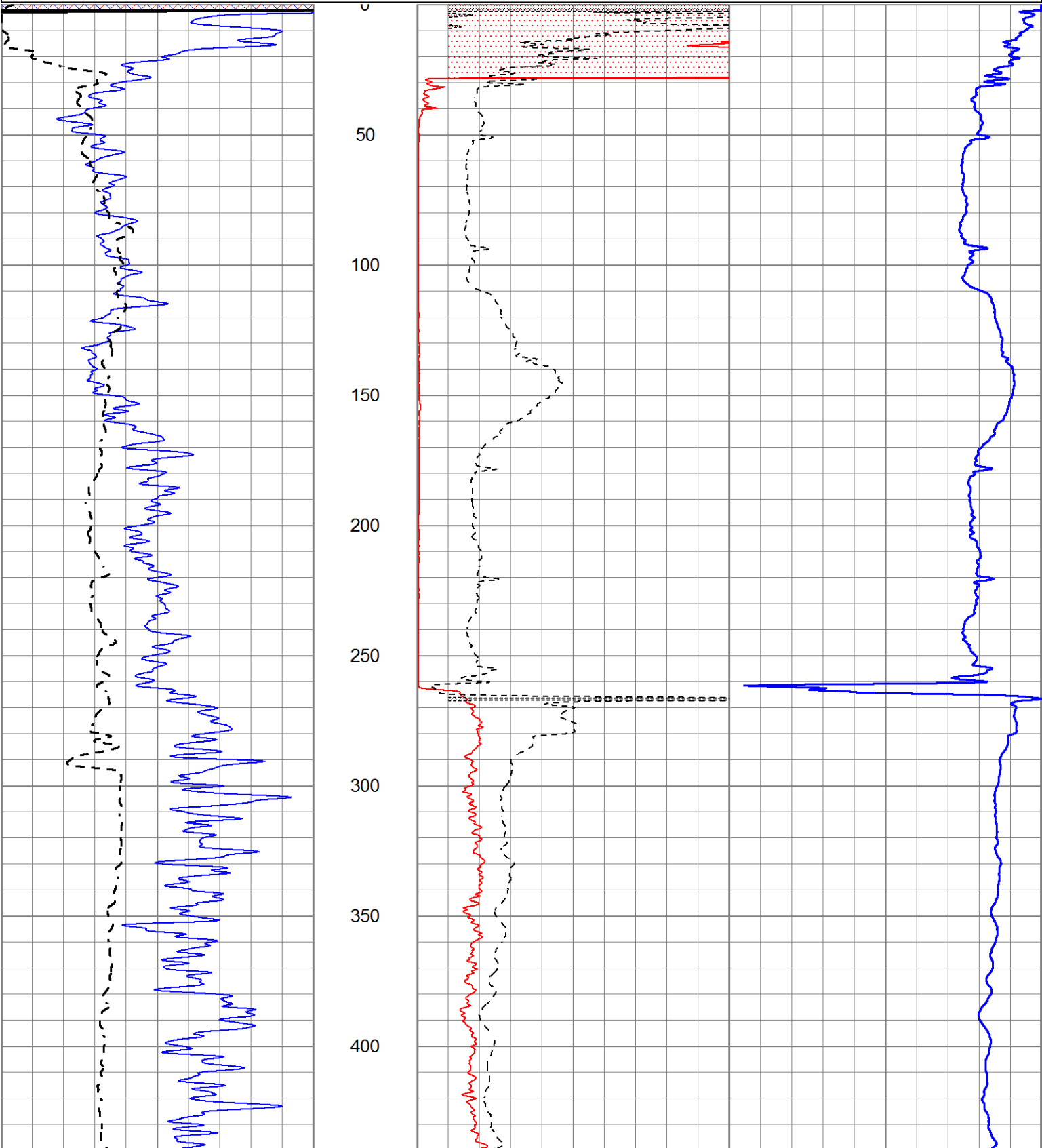
THANK YOU FOR USING ELI WIRELINE SERVICES, HAYS, KS. (785) 628-6395
DIRECTIONS
SCOTT CITY, KS. - 6 EAST TO RODEO RD. - 1 NORTH - 1/2 WEST - SOUTH INTO

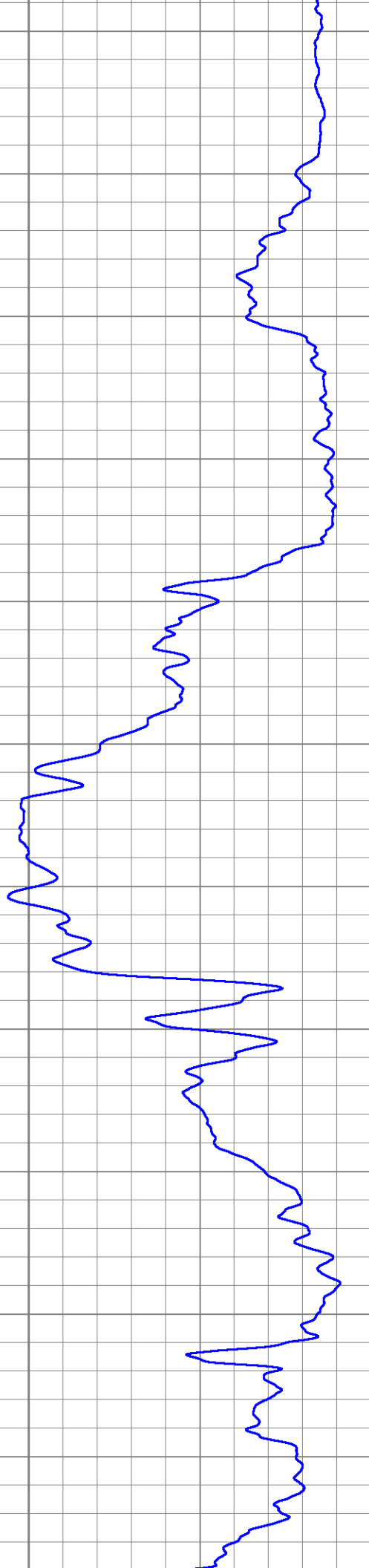
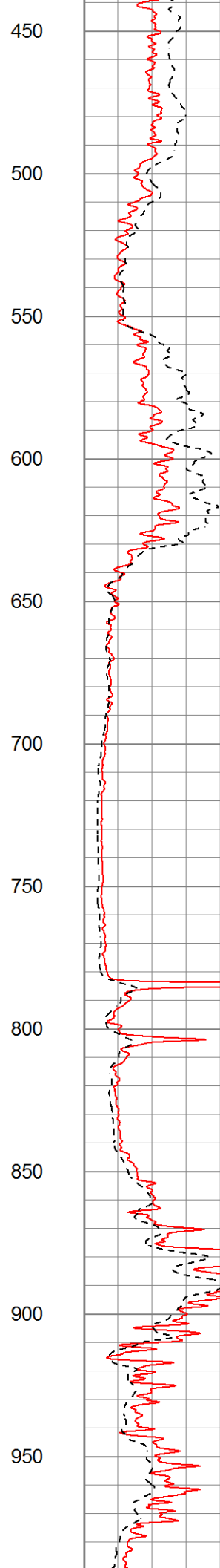
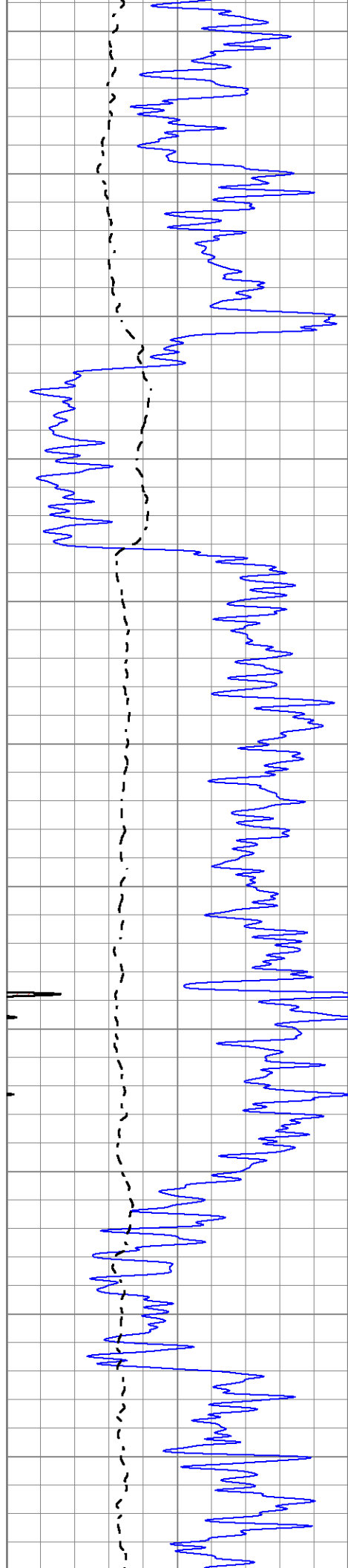


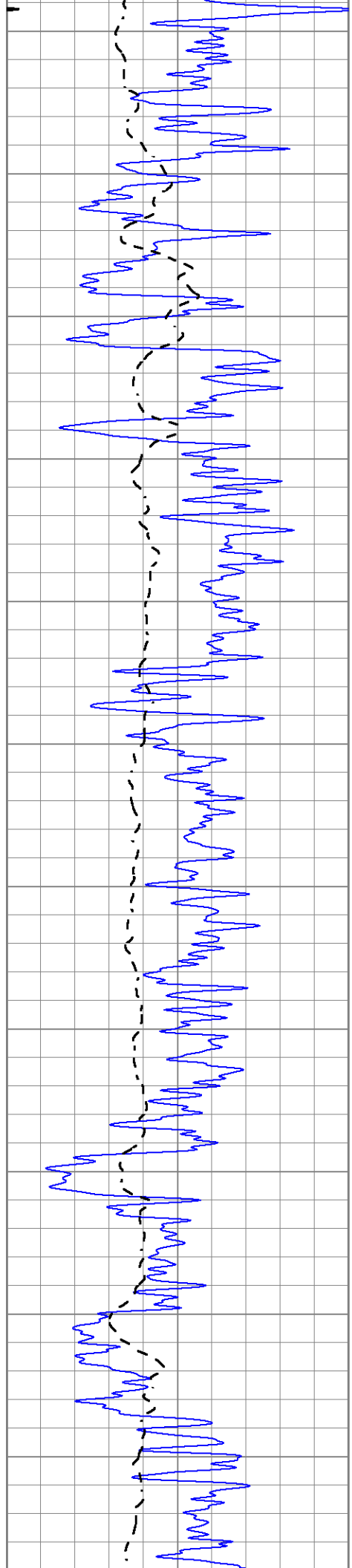
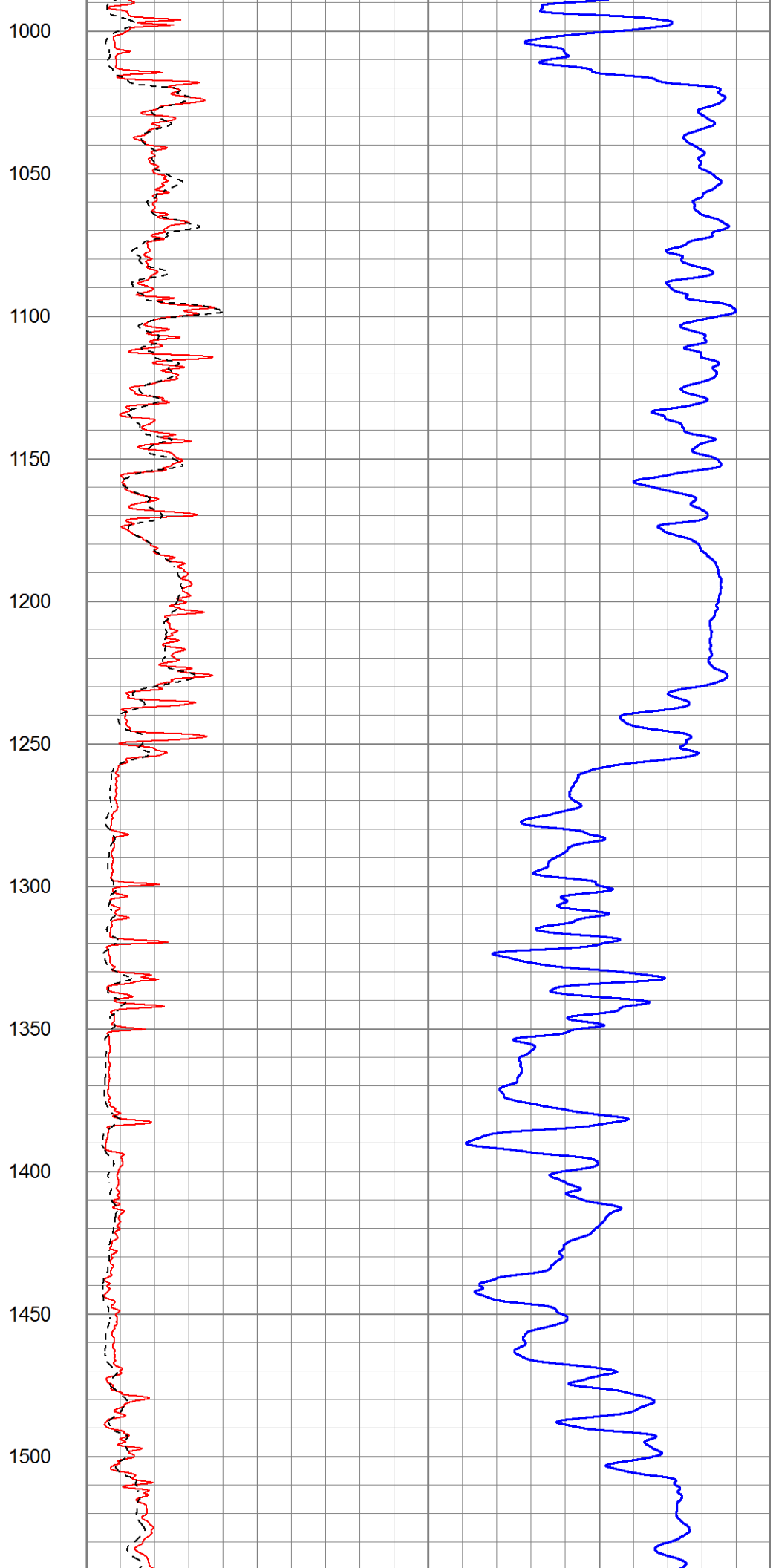
MAIN SECTION

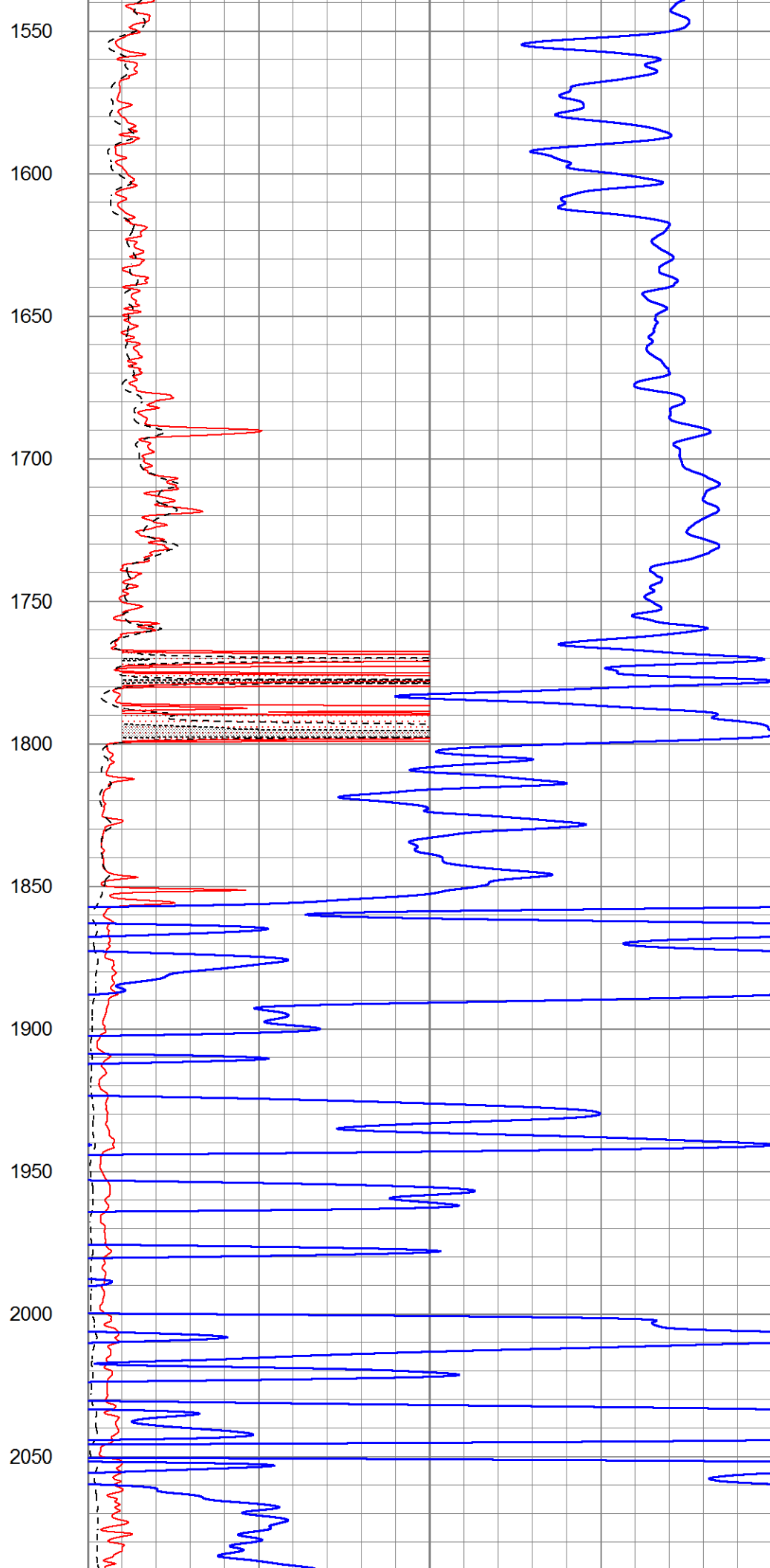
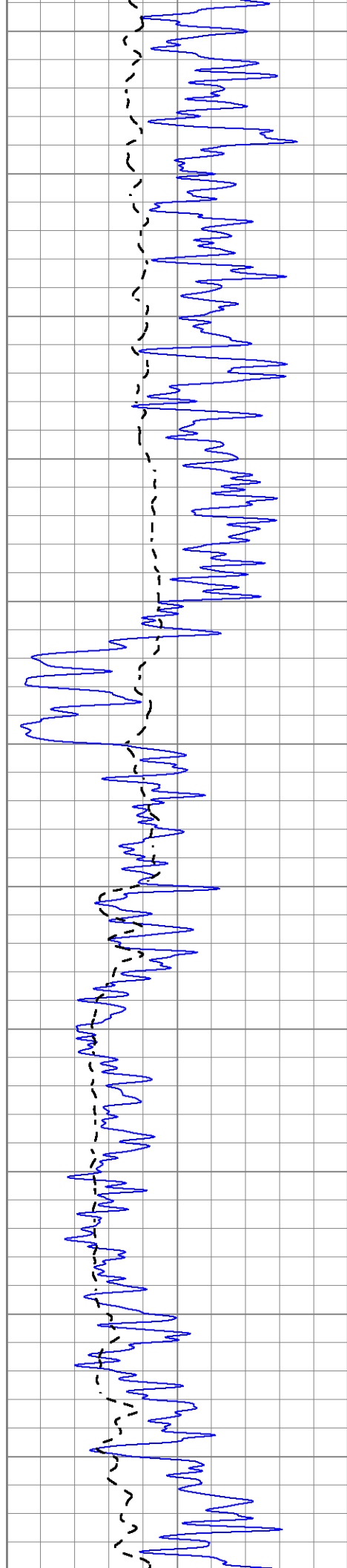
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Dataset Pathname	pass3.4
Presentation Format	_dil2
Dataset Creation	Wed Sep 01 19:19:23 2021
Charted by	Depth in Feet scaled 1:600

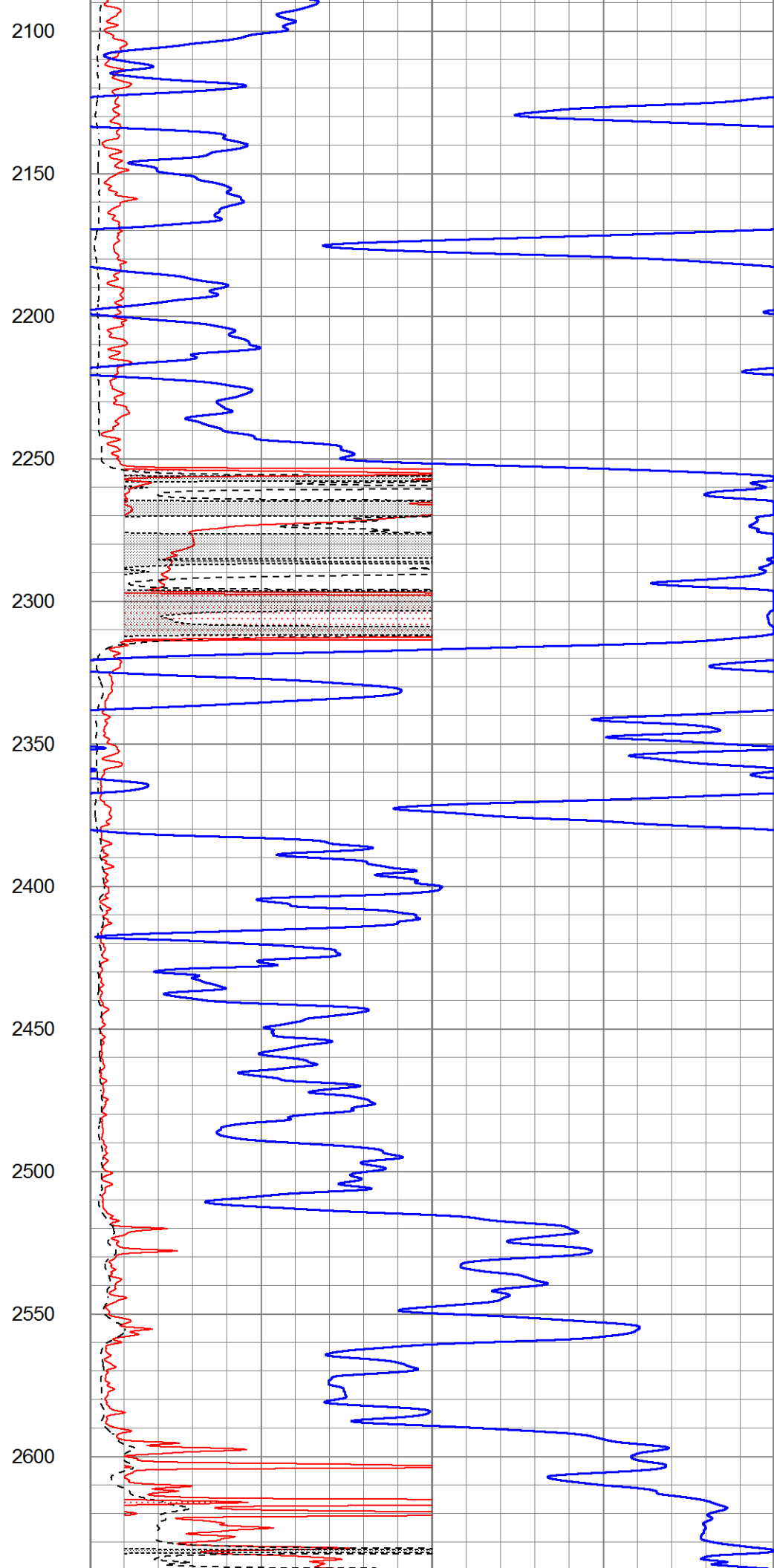
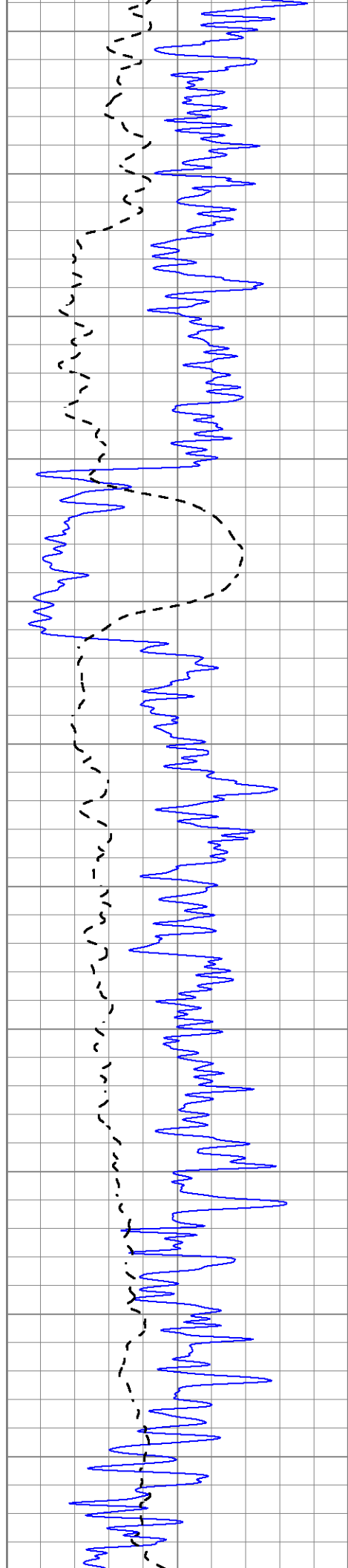
0	Gamma Ray (GAPI)	150	1000	CILD (mmho/m)	0
-100	SP (mV)	100	0	RLL3 (Ohm-m)	50
-----			0	Deep Induction (Ohm-m)	50
			50	RILD X10 (Ohm-m)	500
			50	RLL3 X10 (Ohm-m)	500

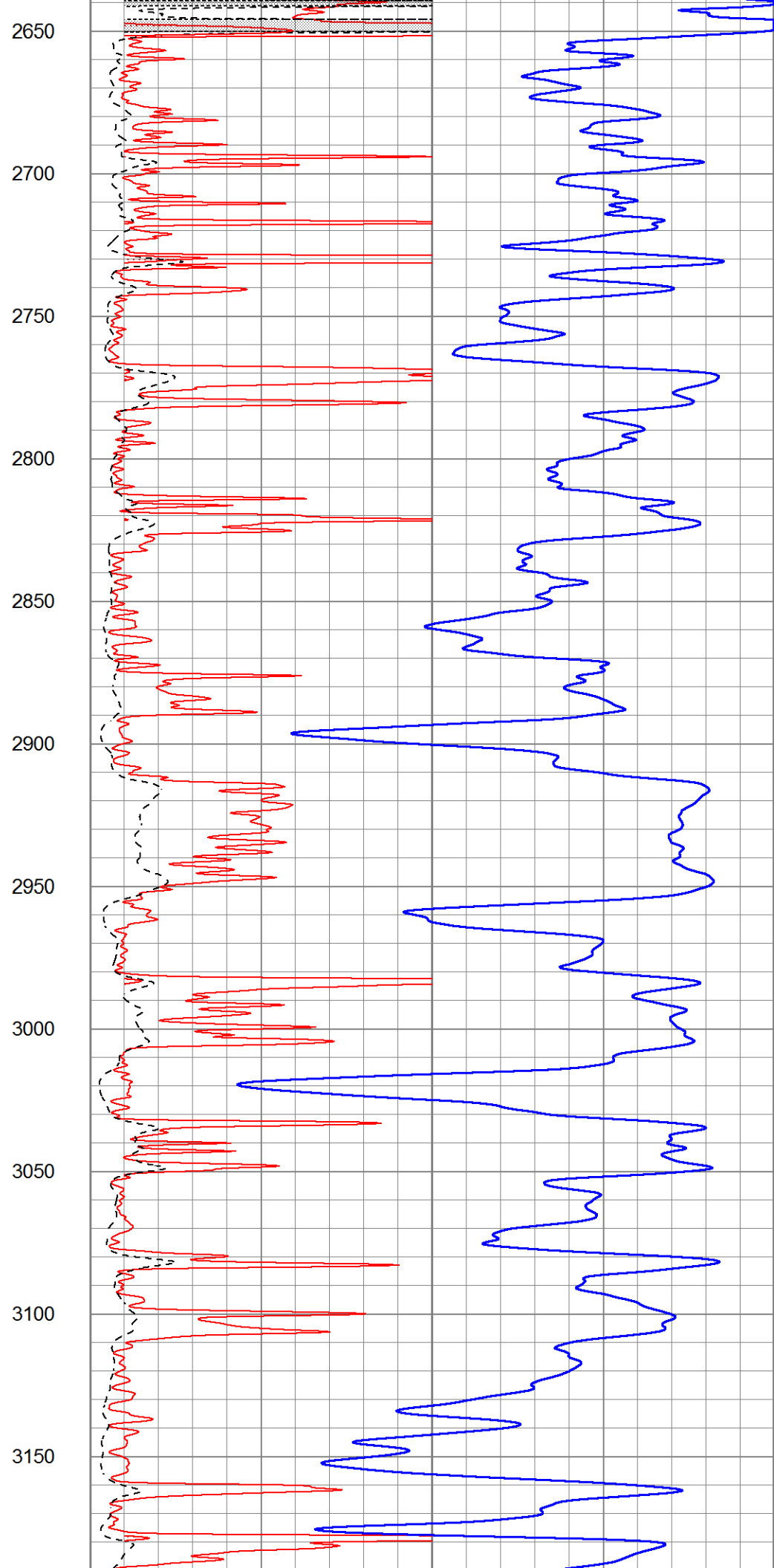
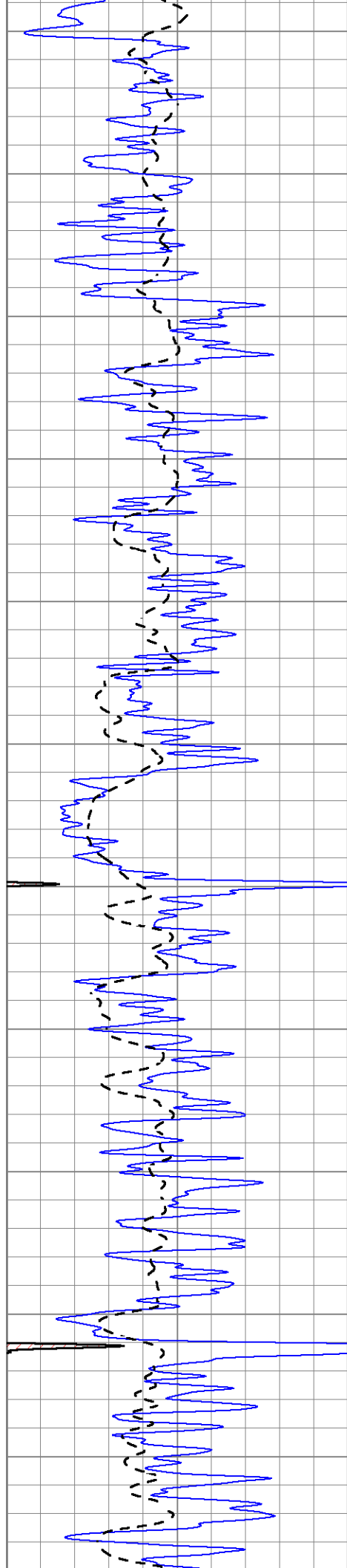


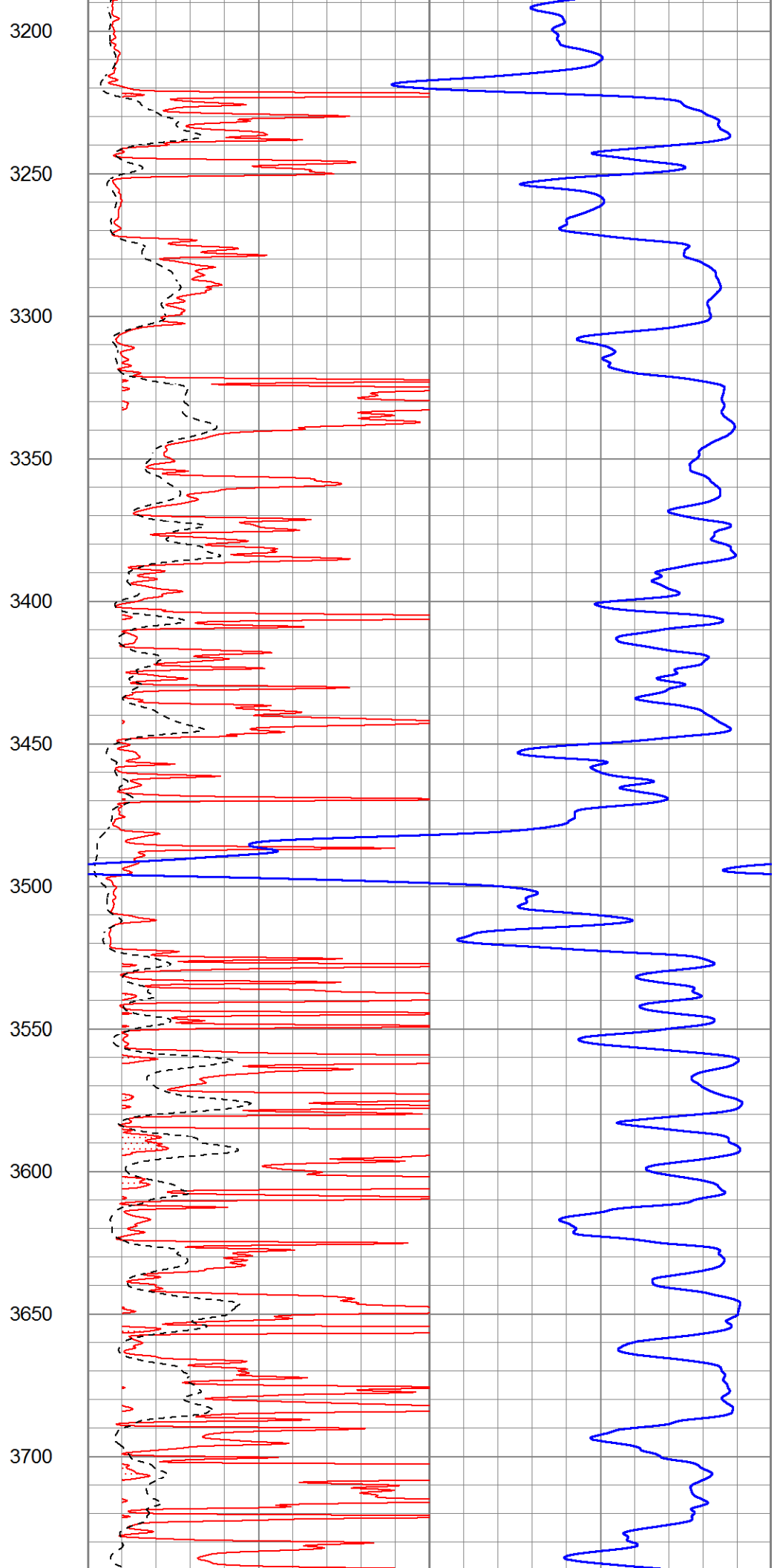
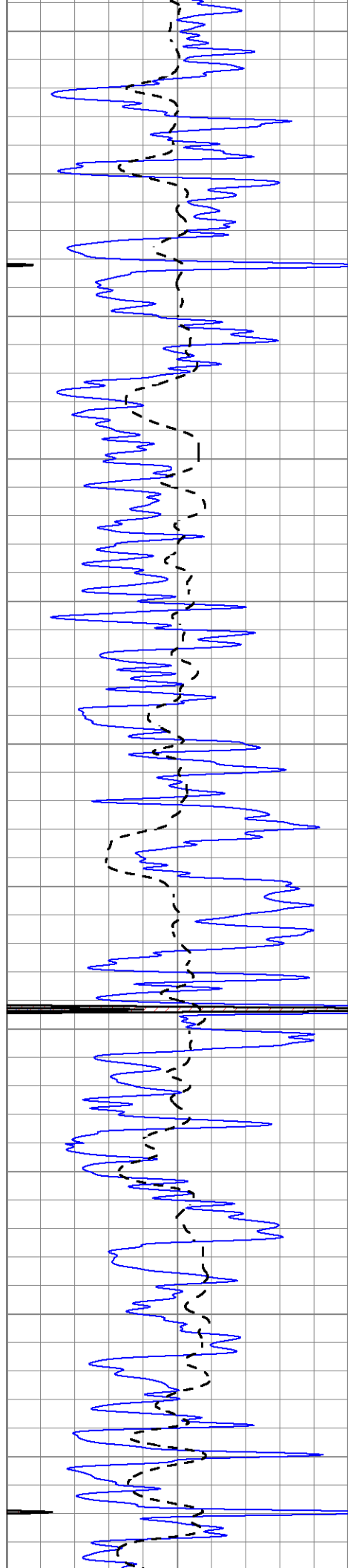


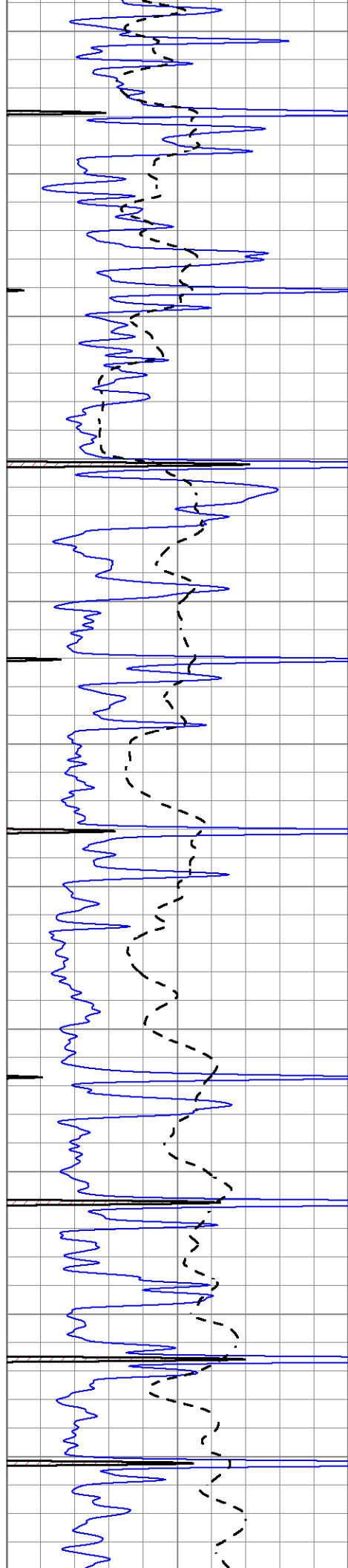












3750

3800

3850

3900

3950

4000

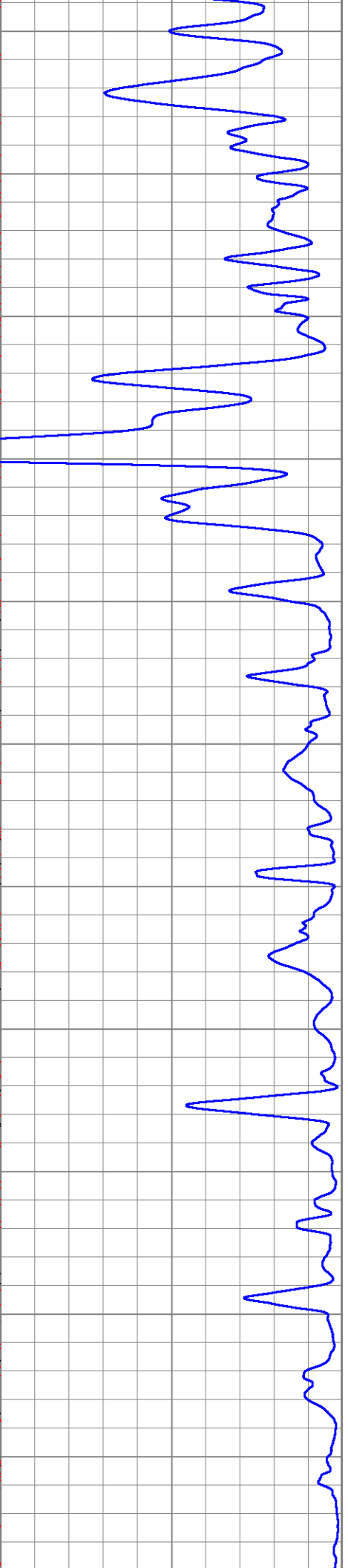
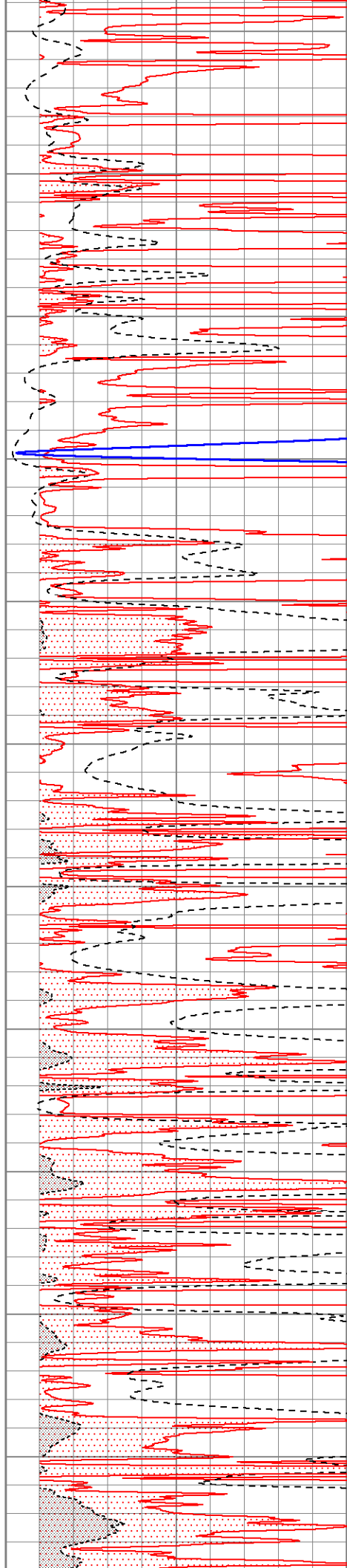
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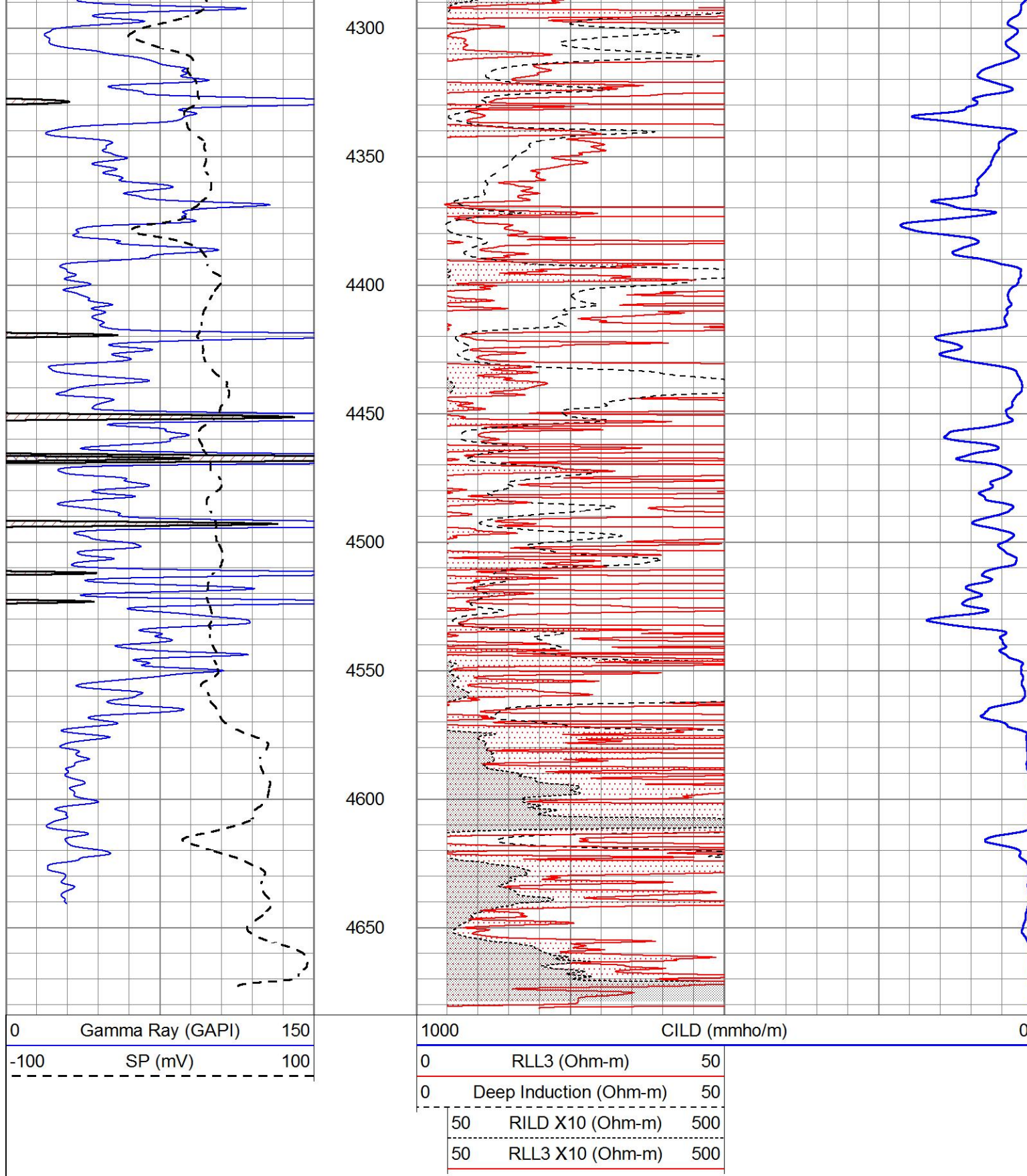
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4150

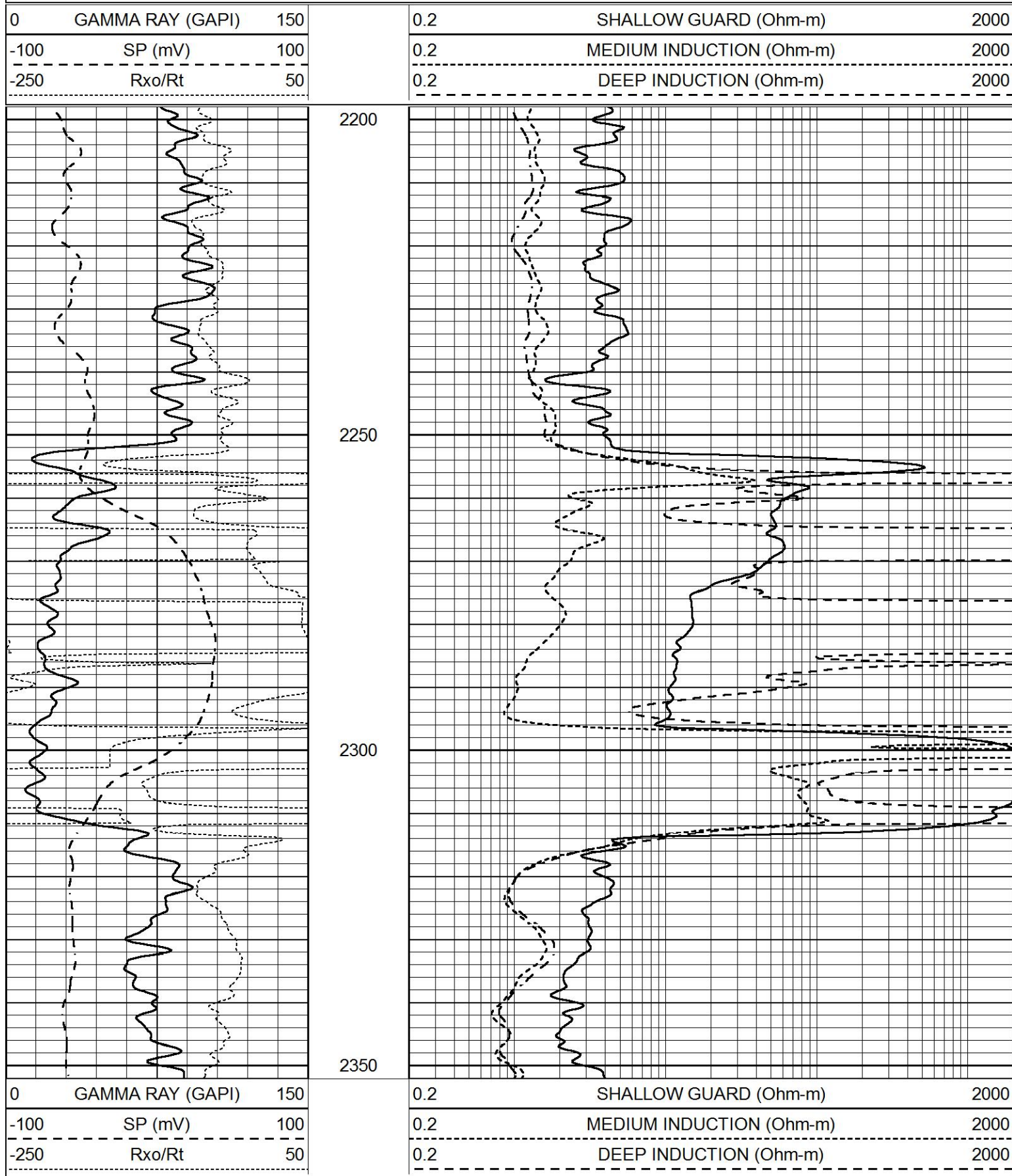
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4250





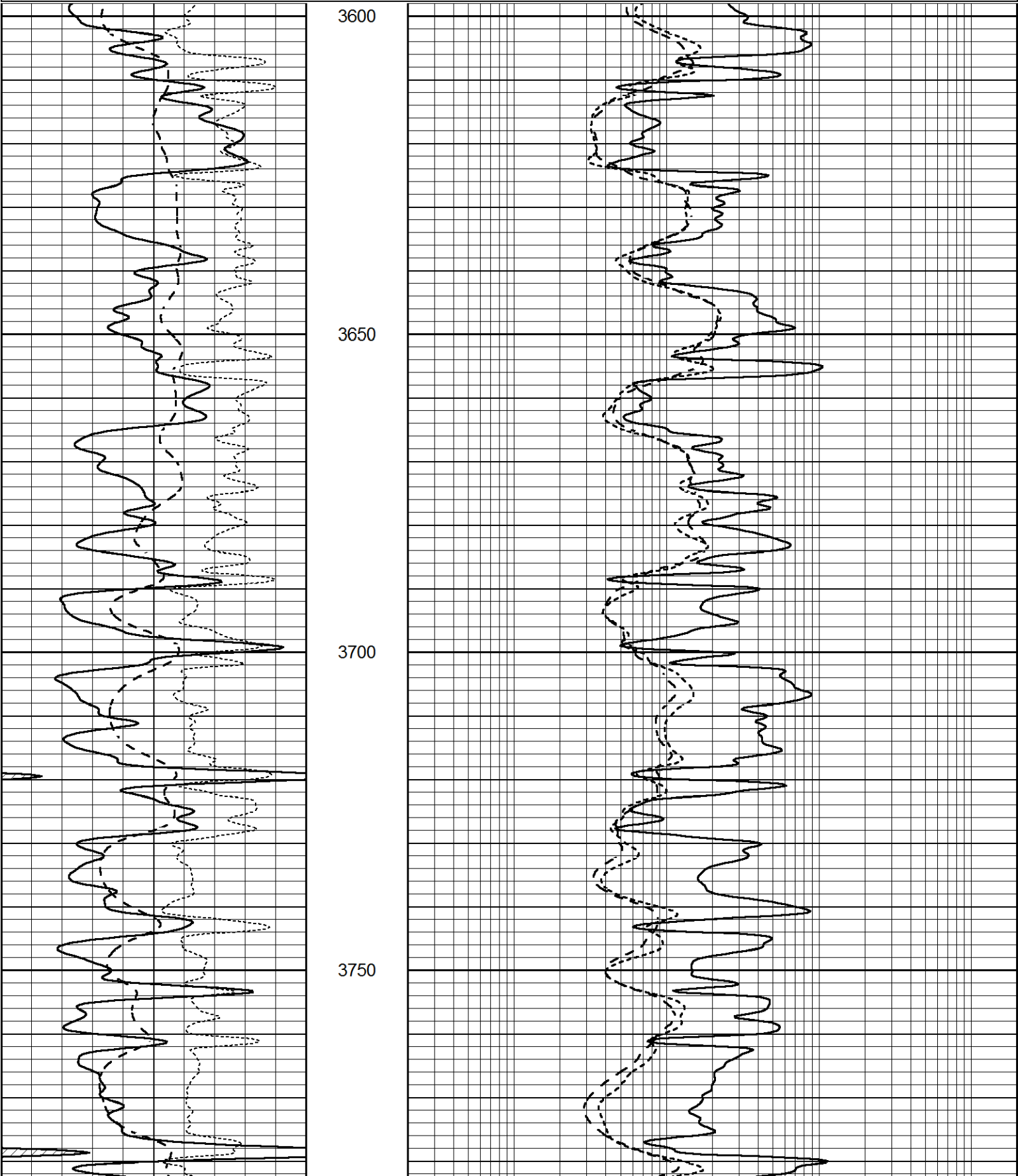
ANHYDRITE

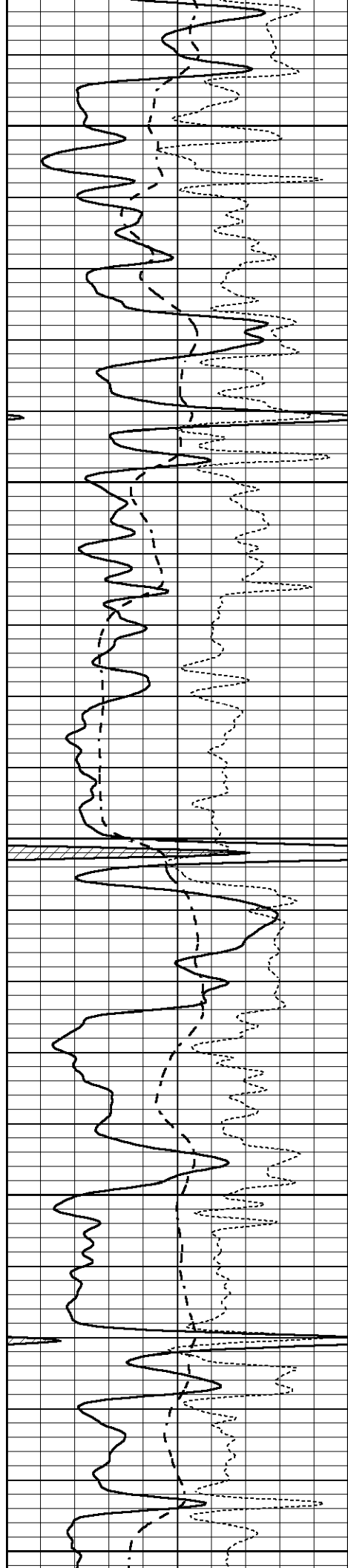


MAIN SECTION

Database File	5649pe.db
Dataset Pathname	pass3.1
Presentation Format	_dil
Dataset Creation	Wed Sep 01 18:05:10 2021
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	MEDIUM INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	DEEP INDUCTION (Ohm-m)	2000





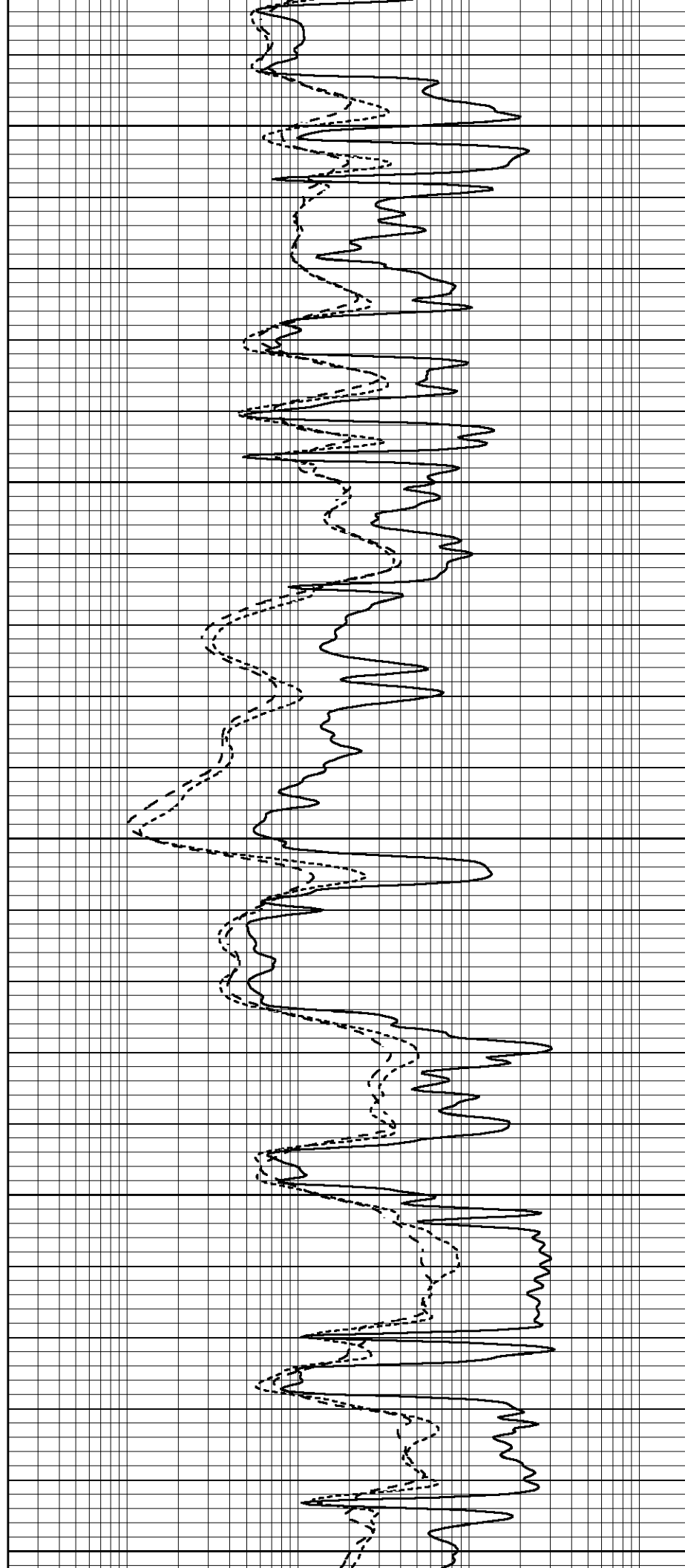
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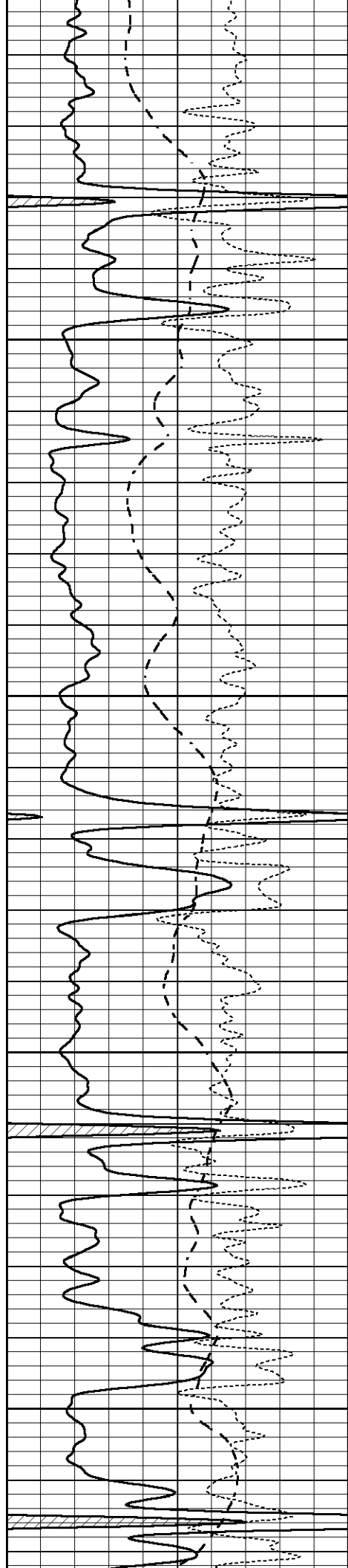
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3900

3950

4000



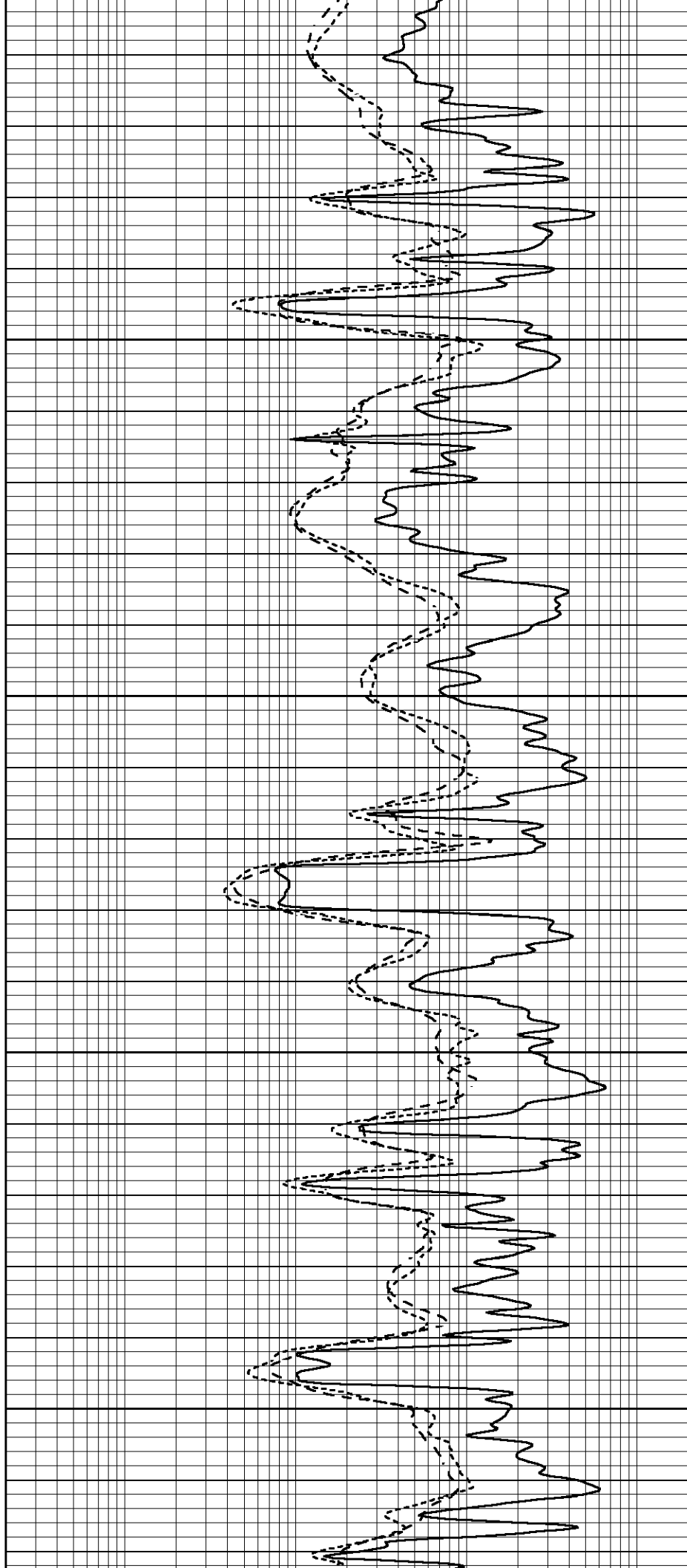


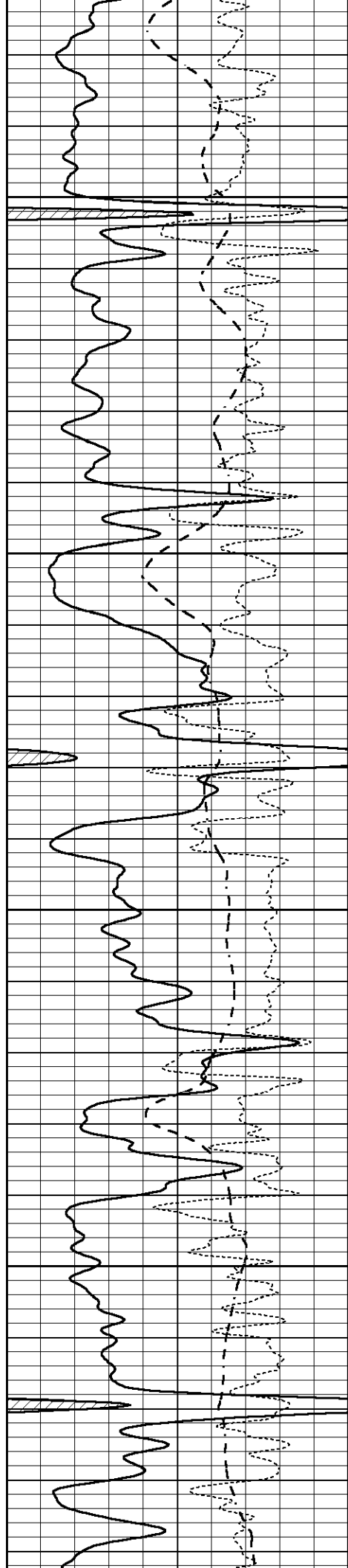
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4100

4150

4200



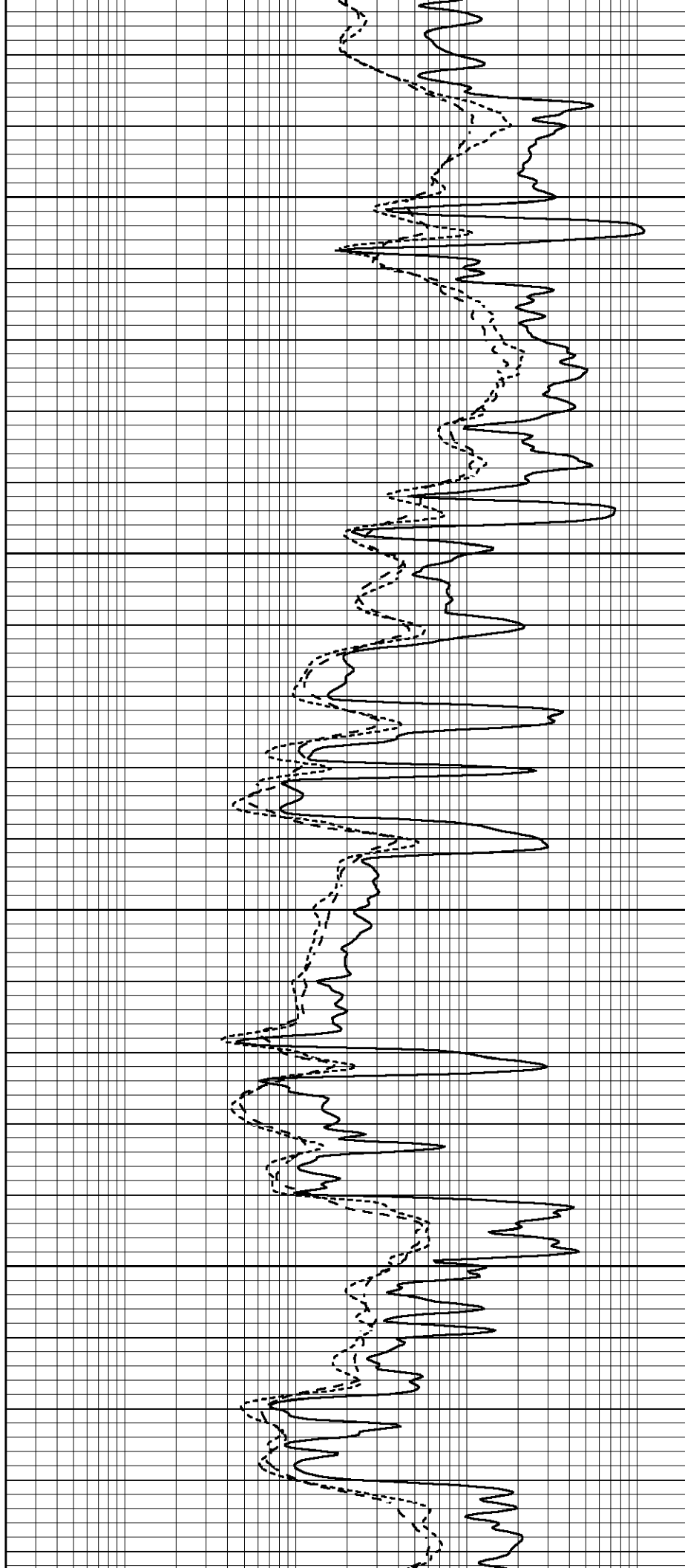


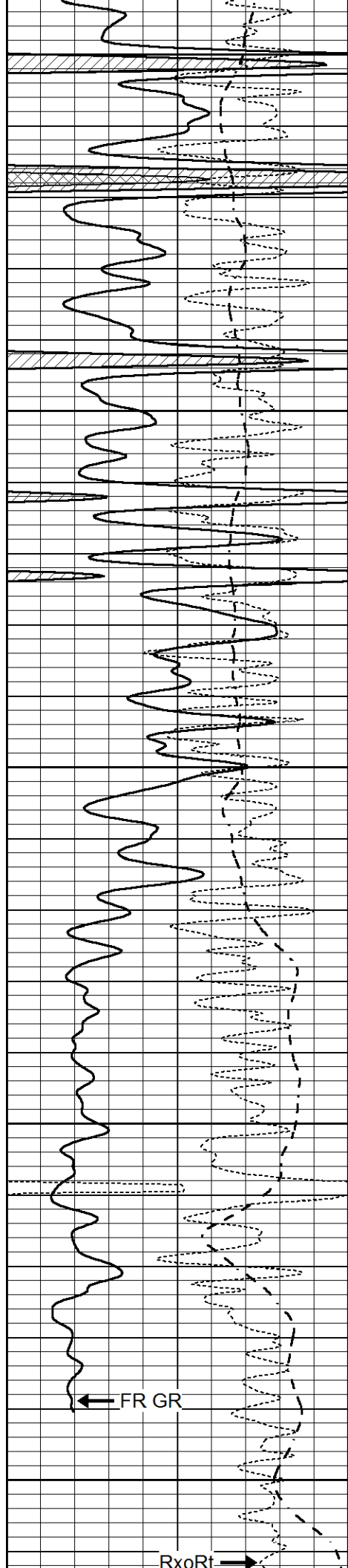
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4300

4350

4400





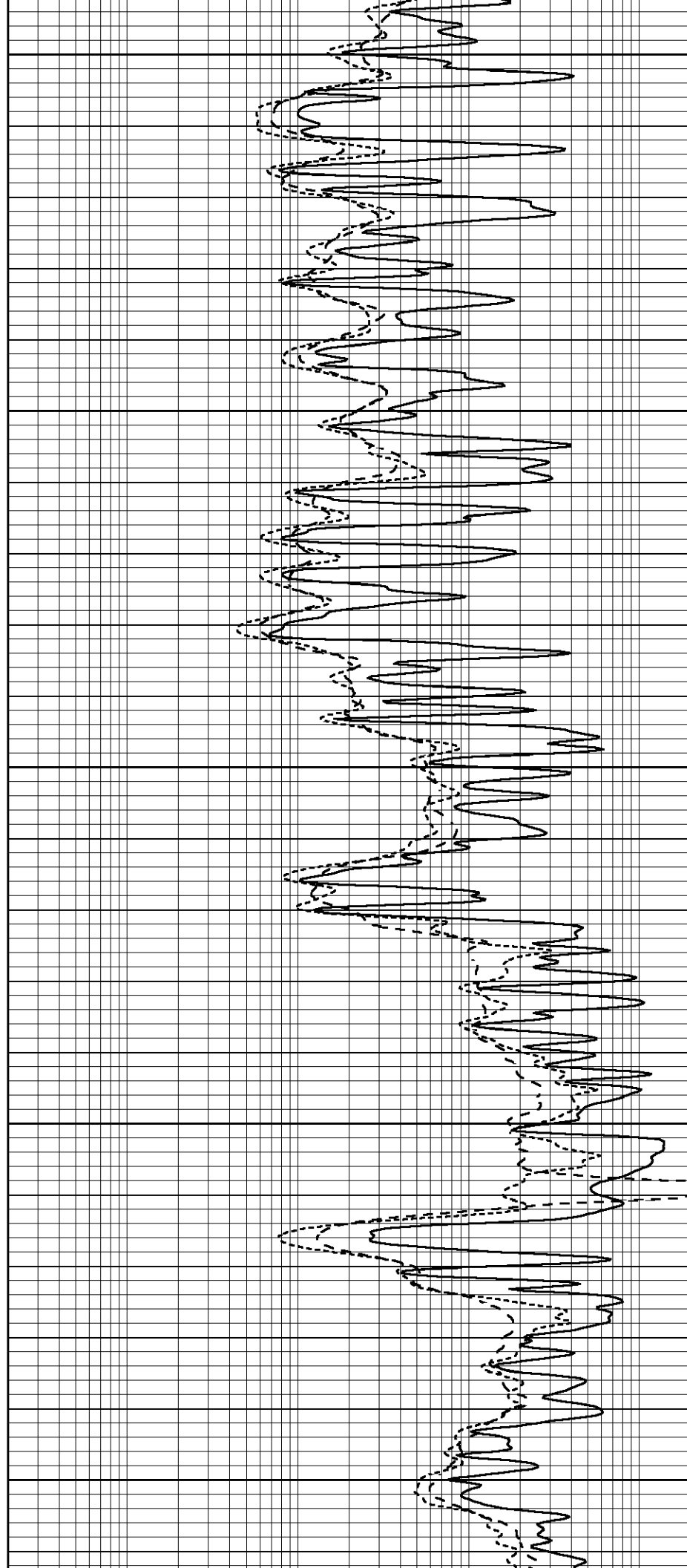
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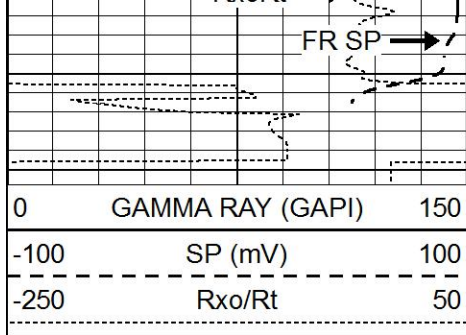
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4550

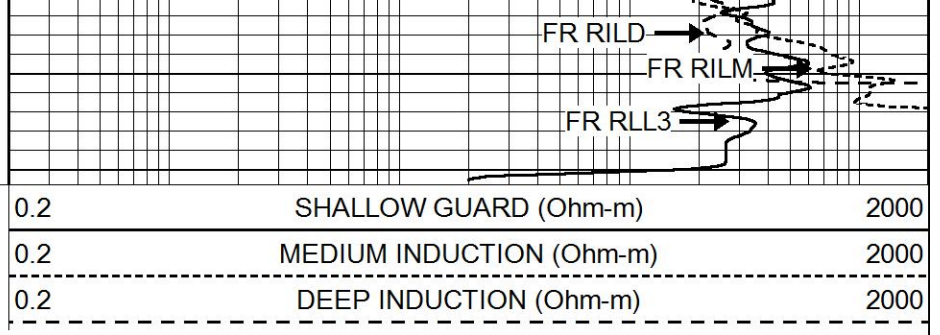
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4650



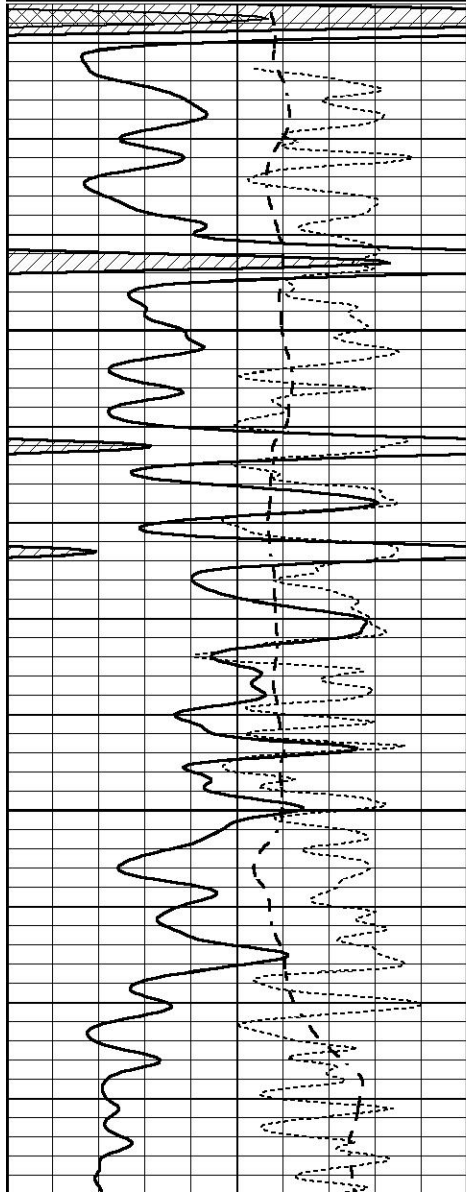
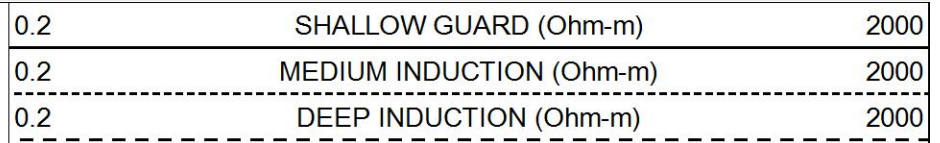
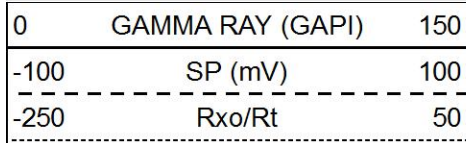


LTD 4677



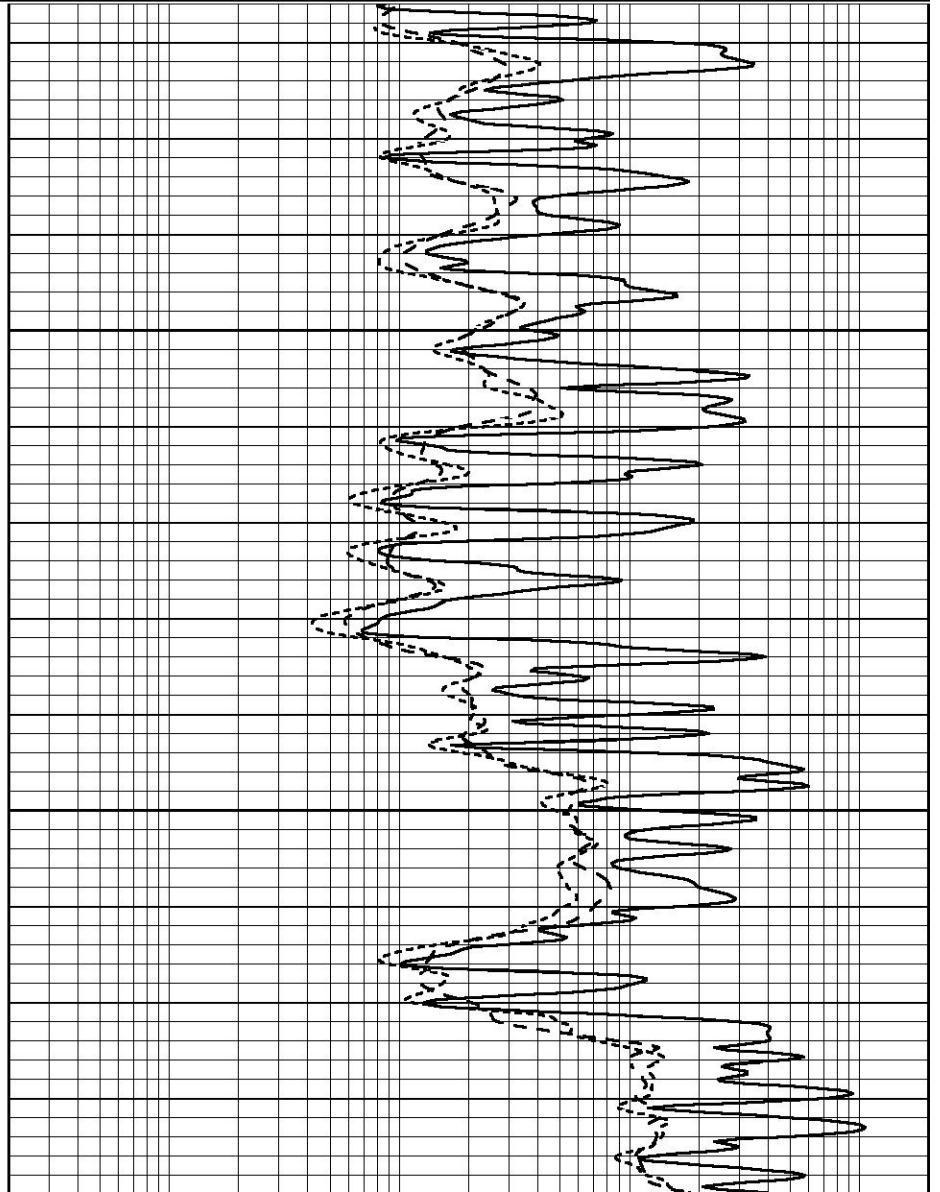
REPEAT SECTION

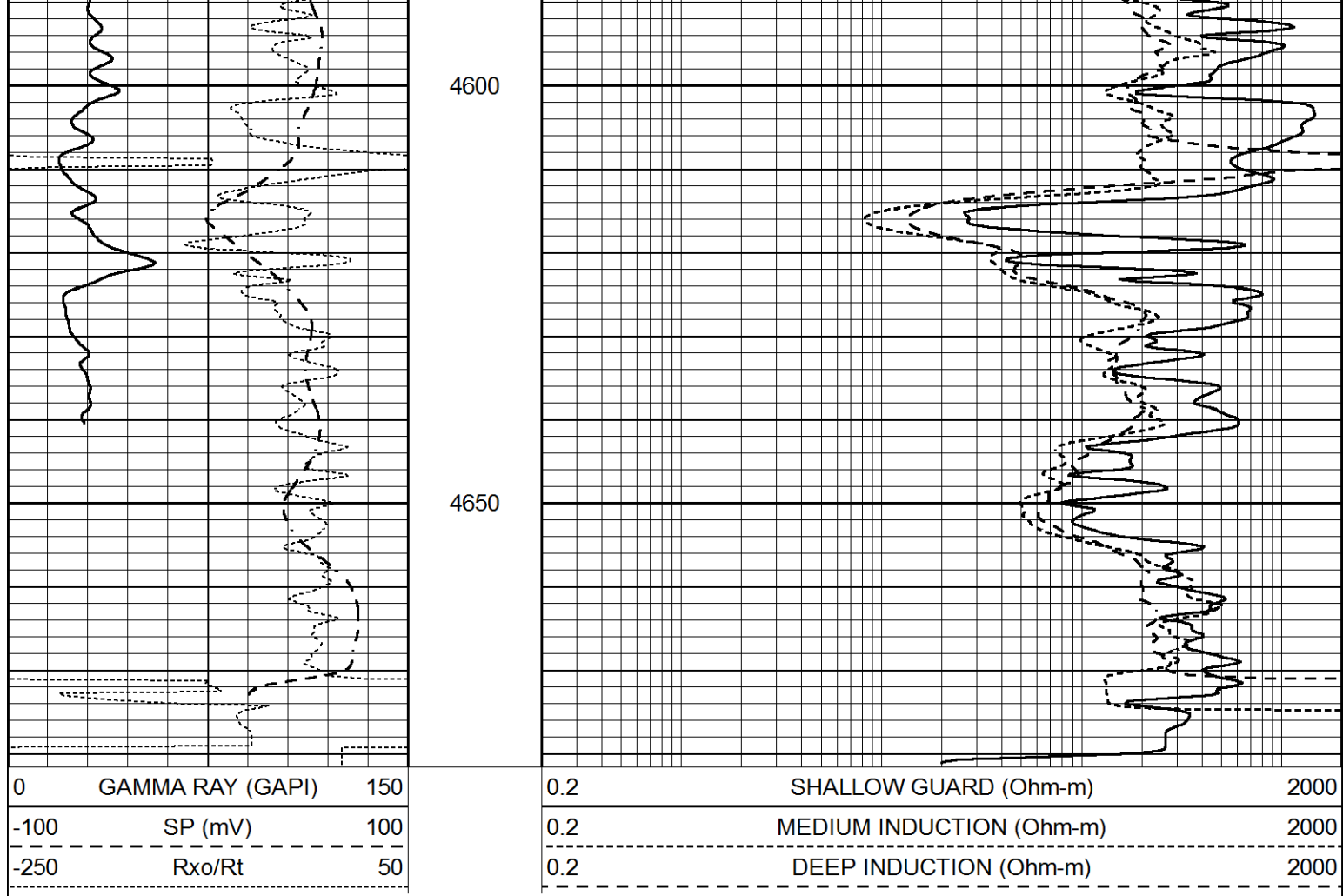
Database File 5649pe.db
Dataset Pathname pass2.1
Presentation Format _dil
Dataset Creation Wed Sep 01 17:53:39 2021
Charted by Depth in Feet scaled 1:240



4500

4550





Calibration Report								
Database File	5649pe.db							
Dataset Pathname	pass2.1							
Dataset Creation	Wed Sep 01 17:53:39 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	400.000	mmho/m	618.595	-5.524
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 -7.481	V V		20.000 3745.000	Ohm-m 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 Source Number: 74GBq-19								
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)					
	Low	High	Low	High	Gain		Offset	
	10940.2	14100.5	8.0	14.0	0.0		-7.0	
Before Survey Caliper Verification					Performed:			

	Reference	Reading	
	_____	_____	
Caliper (in)			
After Survey Caliper Verification			
Performed:			
	Reference	Reading	
	_____	_____	
Caliper (in)			
Compensated Neutron Calibration Report			
	Serial Number:	080621PMC	
	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	