



DUAL INDUCTION LOG

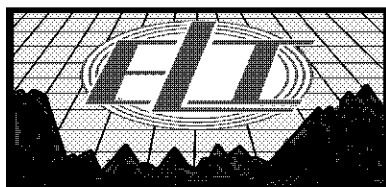
Company L.D. DRILLING, INC.	
Well	#1-21 DWIGHT
Field	WILDCAT
County	GOVE
State	KANSAS
Location: API #: 15-063-22357-0000 1853' FSL & 1503' FEL	
Permanent Datum	GROUND LEVEL Elevation 2540
Log Measured From	KELLY BUSHING 5' A.G.L
Drilling Measured From	KELLY BUSHING
Other Services CDL/CNL MEL	
Elevation K.B. 2545 D.F. 2543 G.L. 2540	
Date	6/5/19
Run Number	ONE
Depth Driller	4370
Depth Logger	4371
Bottom Logged Interval	4369
Top Log Interval	00
Casing Driller	8 5/8" @ 369'
Casing Logger	368
Bit Size	7 7/8
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.5/59
PH / Fluid Loss	10.0/7.4
Source of Sample	FLOWLINE
Rm @ Meas. Temp	1.20 @ 87F
Rmf @ Meas. Temp	.90 @ 87F
Rmc @ Meas. Temp	1.44 @ 87F
Source of Rmf / Rmc	MEASUREMENT
Rm @ BHT	.87 @ 119F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	////
Maximum Recorded Temperature	119F
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
GOVE, KS. - 16 SOUTH TO RD. C - 2 WEST - NORTH INTO



MAIN SECTION

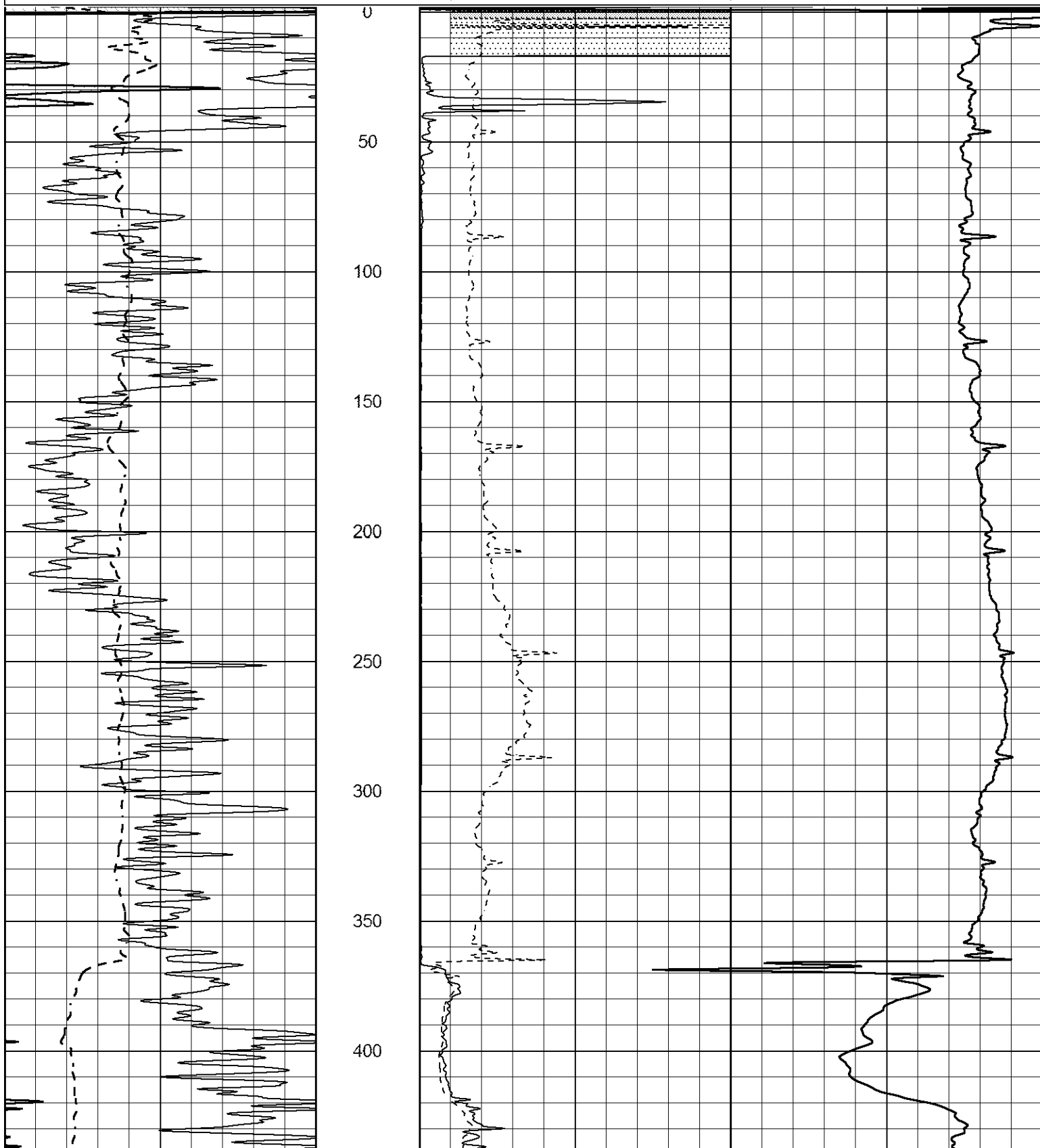
Database File 3641ddn8.db
Dataset Pathname pass3.3
Presentation Format _dil2
Dataset Creation Wed Jun 05 09:49:14 2019
Charted by Depth in Feet scaled 1:600

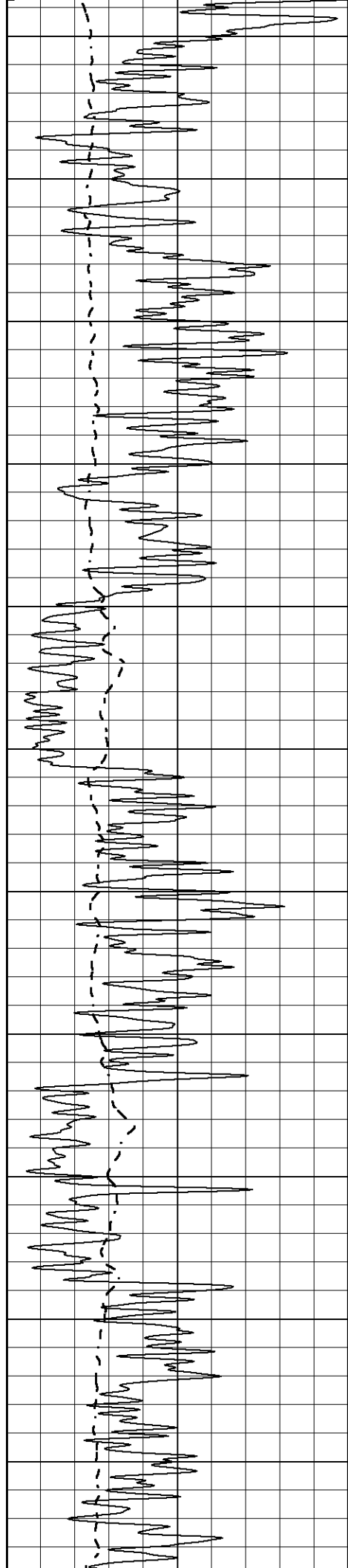
0 Gamma Ray (GAPI) 150
-100 SP (mV) 100

1000 CILD (mmho/m) 0
0 RLL3 (Ohm-m) 50
0 Deep Induction (Ohm-m) 50

50 RILD X10 (Ohm-m) 500

50 RLL3 X10 (Ohm-m) 500





450

500

550

600

650

700

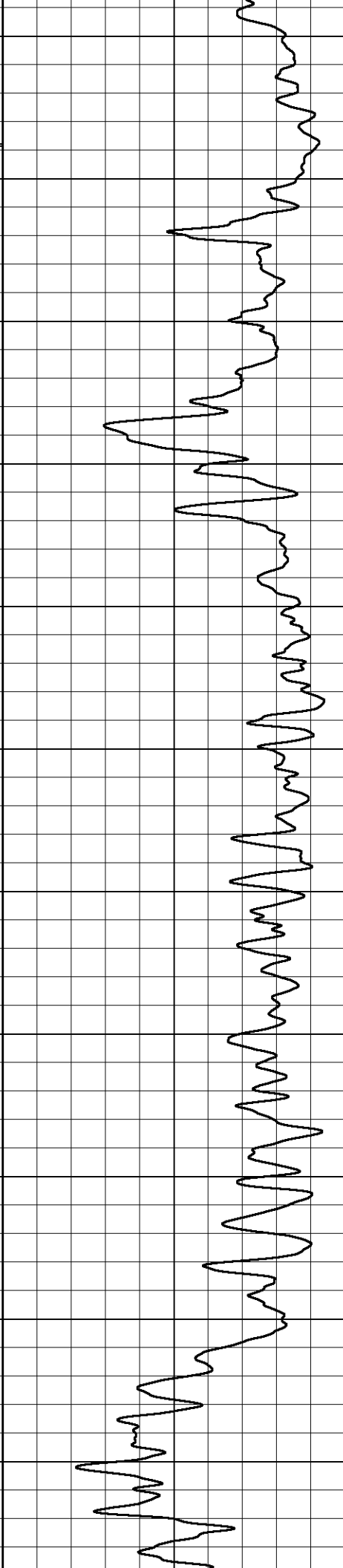
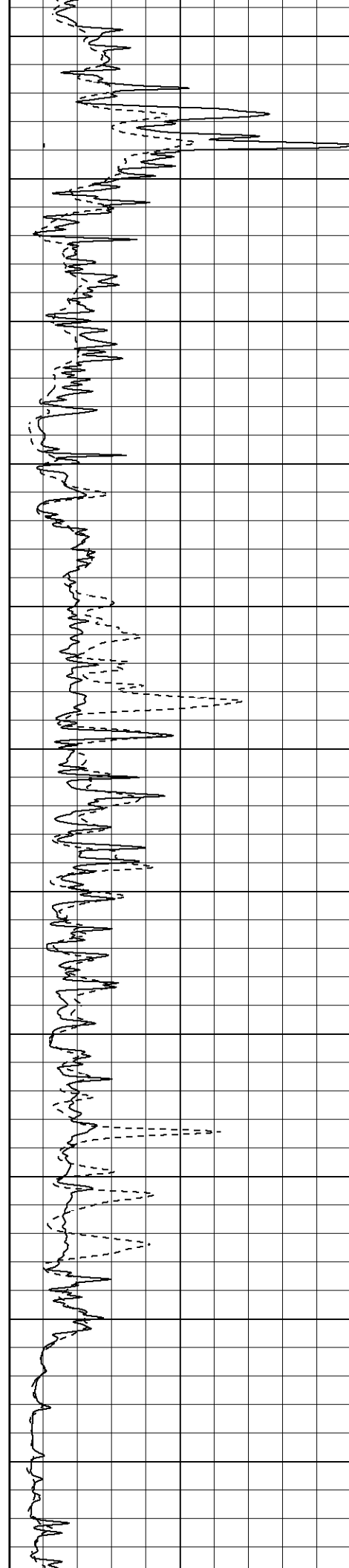
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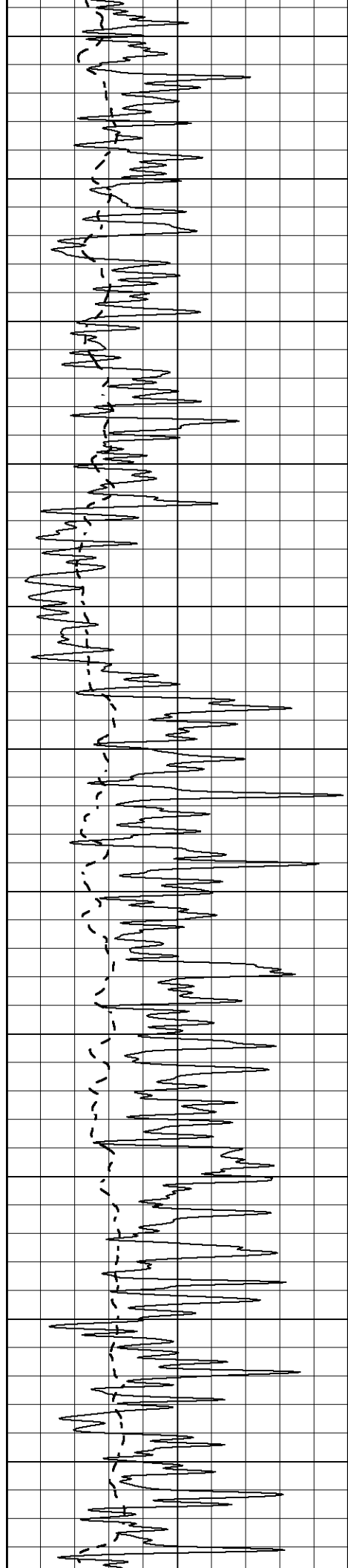
800

850

900

950





1000

1050

1100

1150

1200

1250

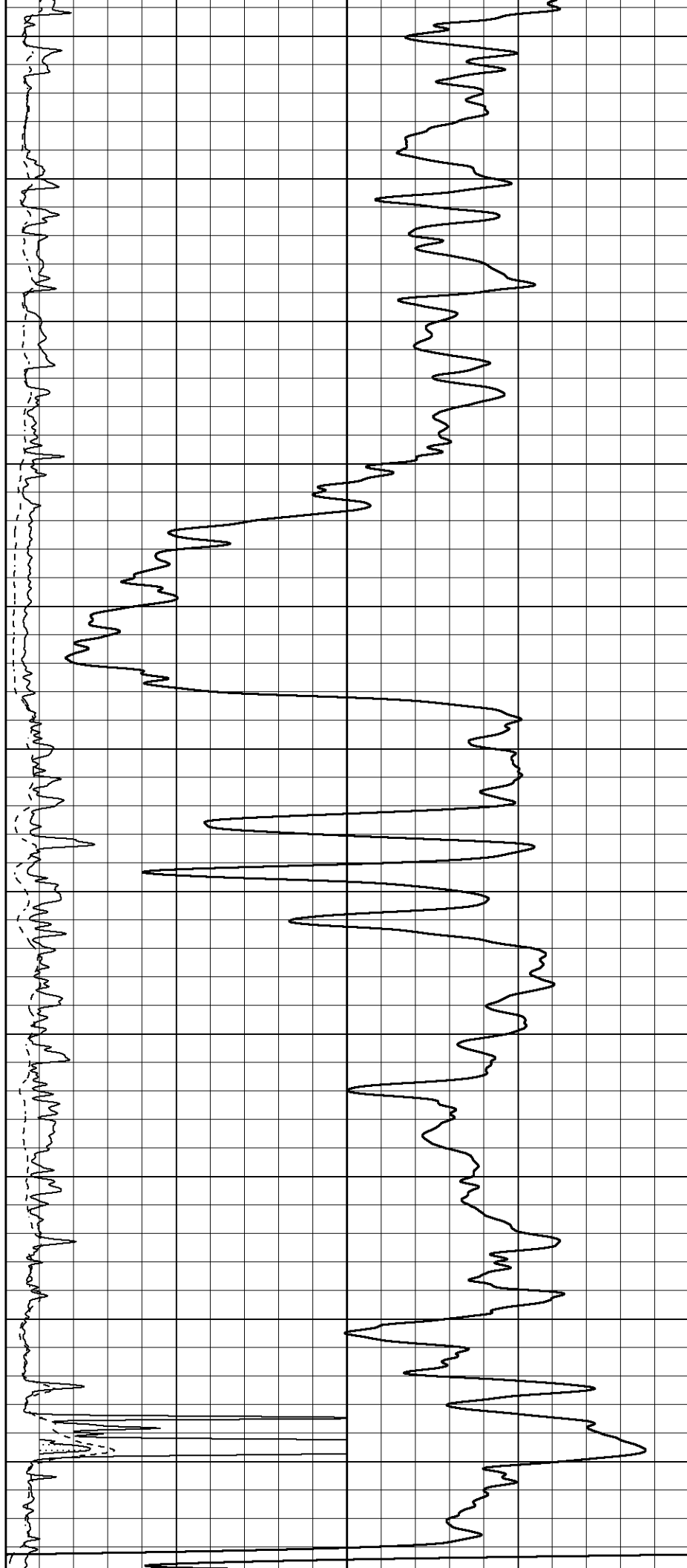
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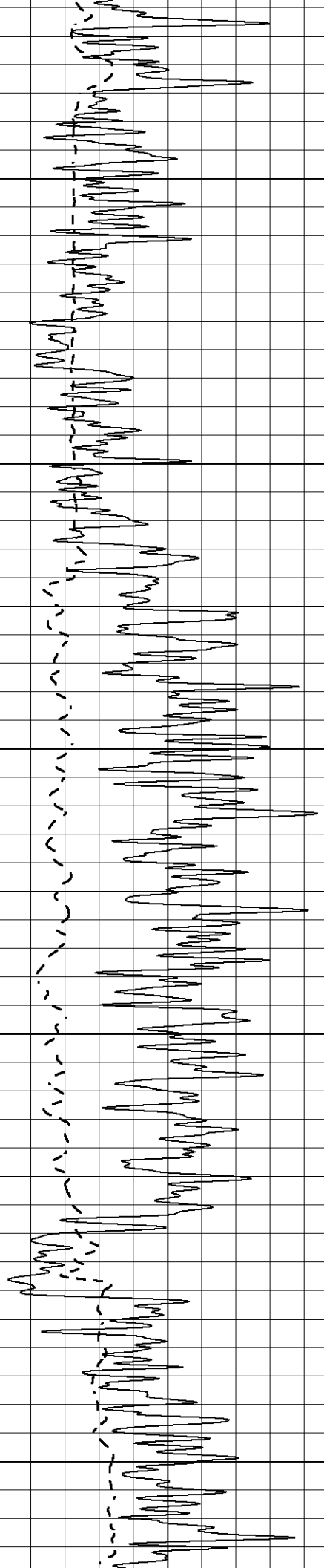
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1400

1450

1500





1550

1600

1650

1700

1750

1800

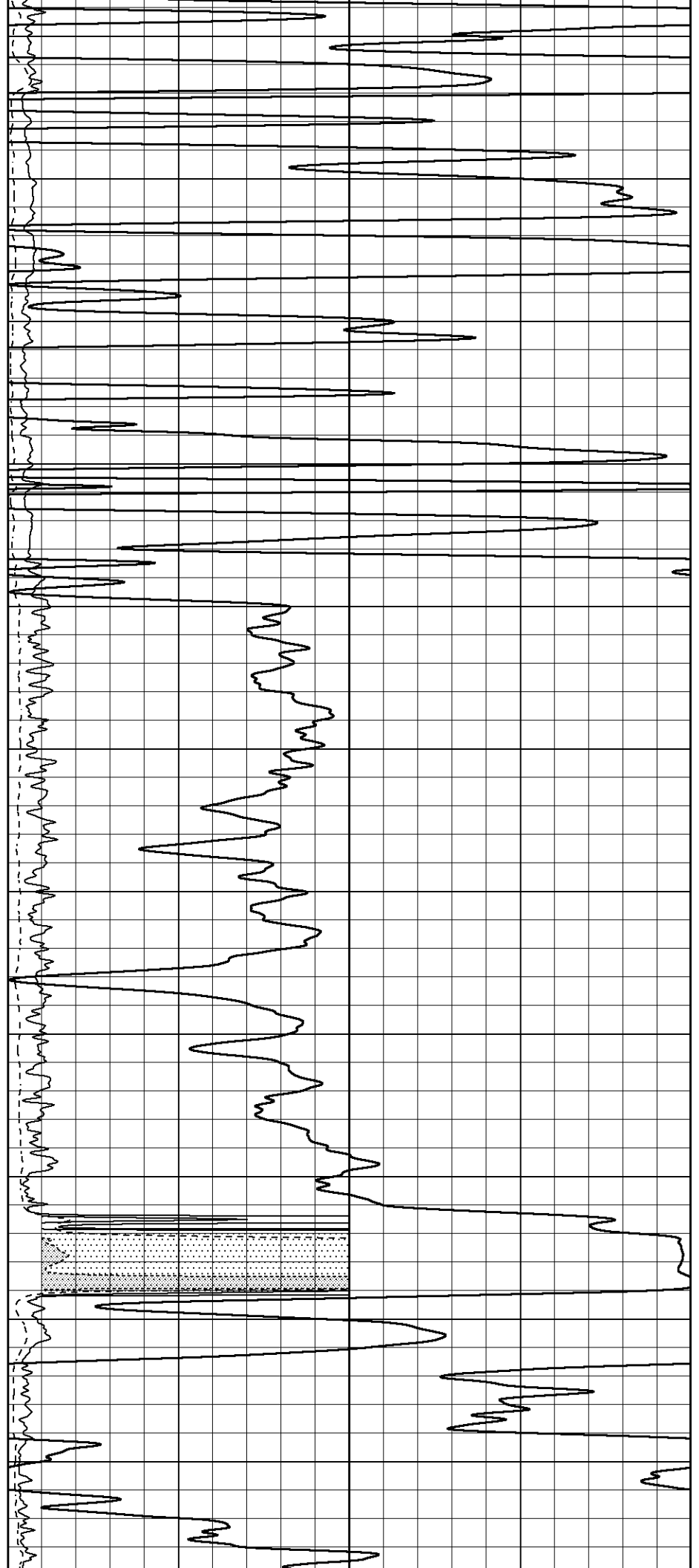
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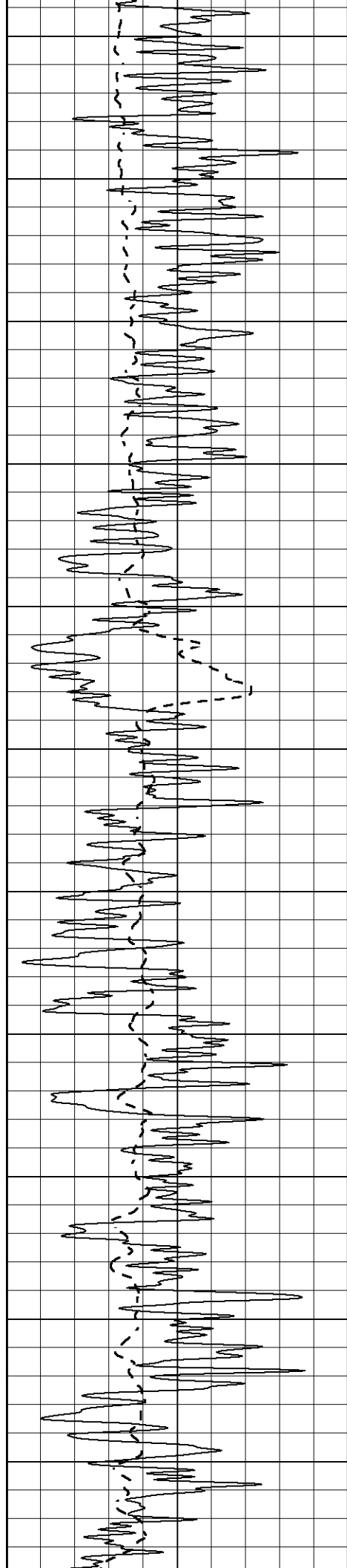
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1950

2000

2050





2100

2150

2200

2250

2300

2350

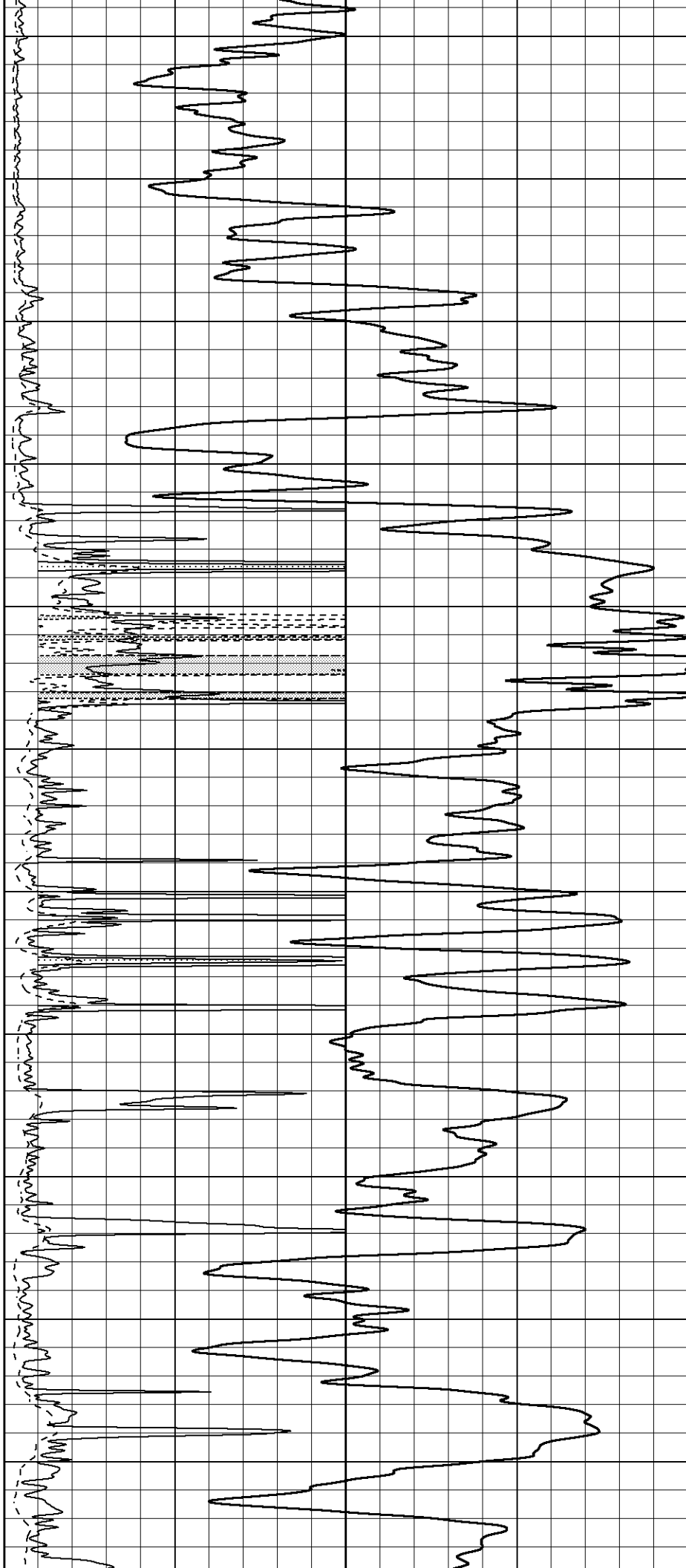
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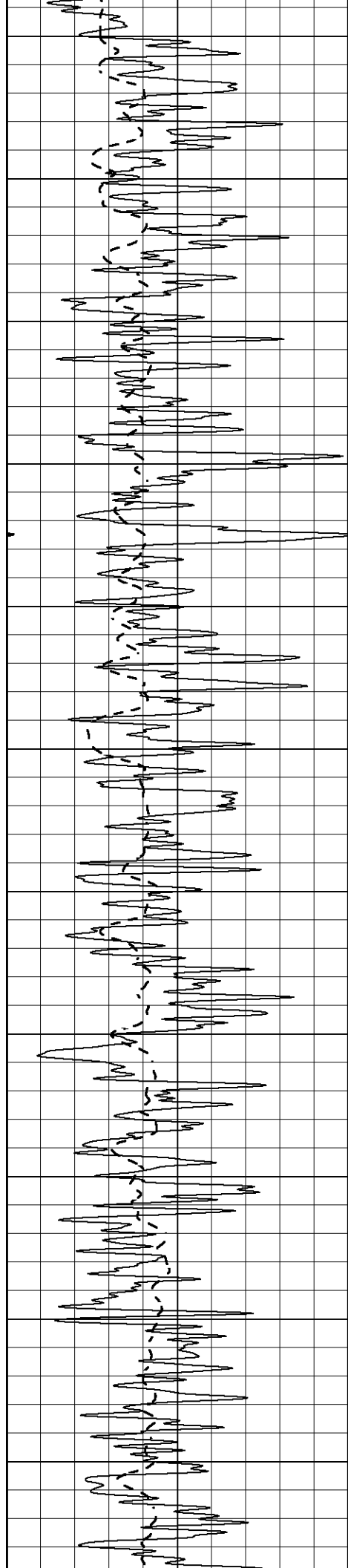
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2500

2550

2600





2650

2700

2750

2800

2850

2900

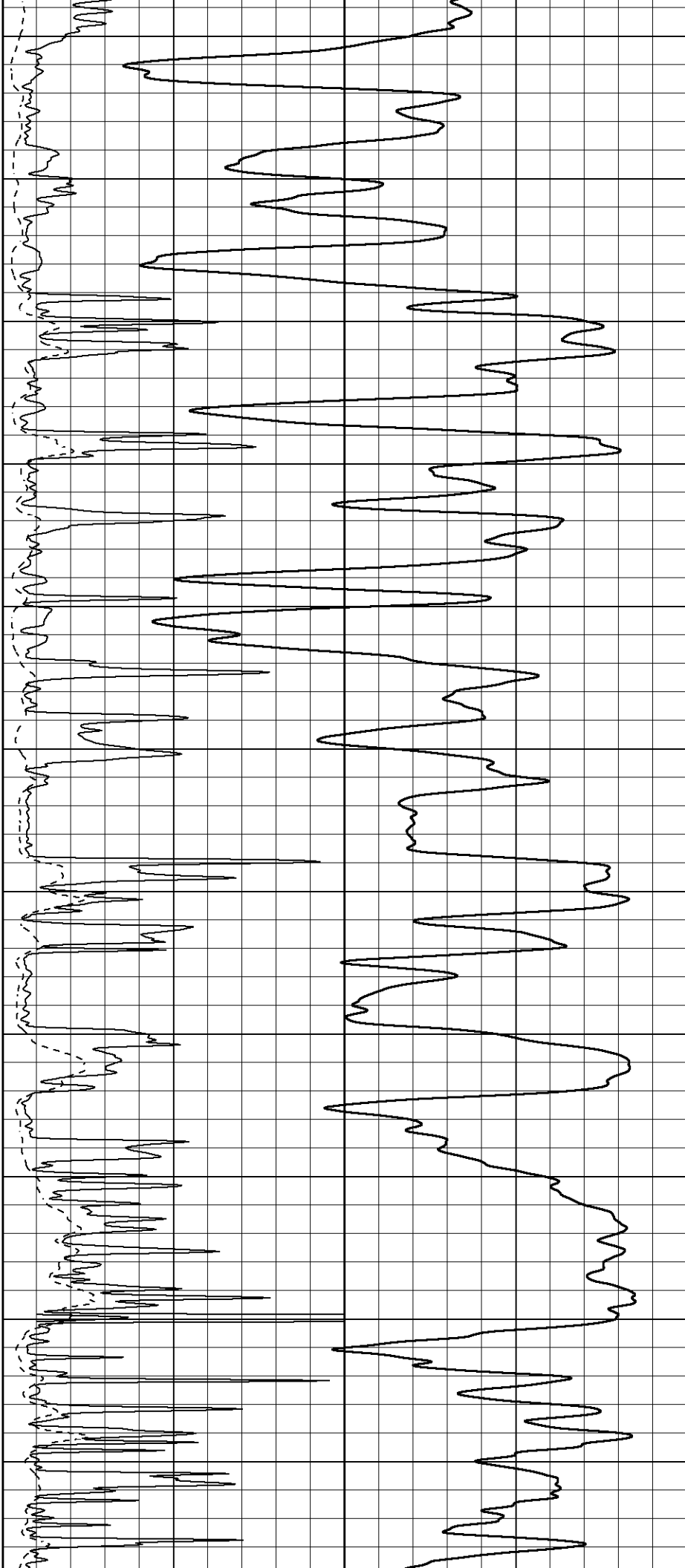
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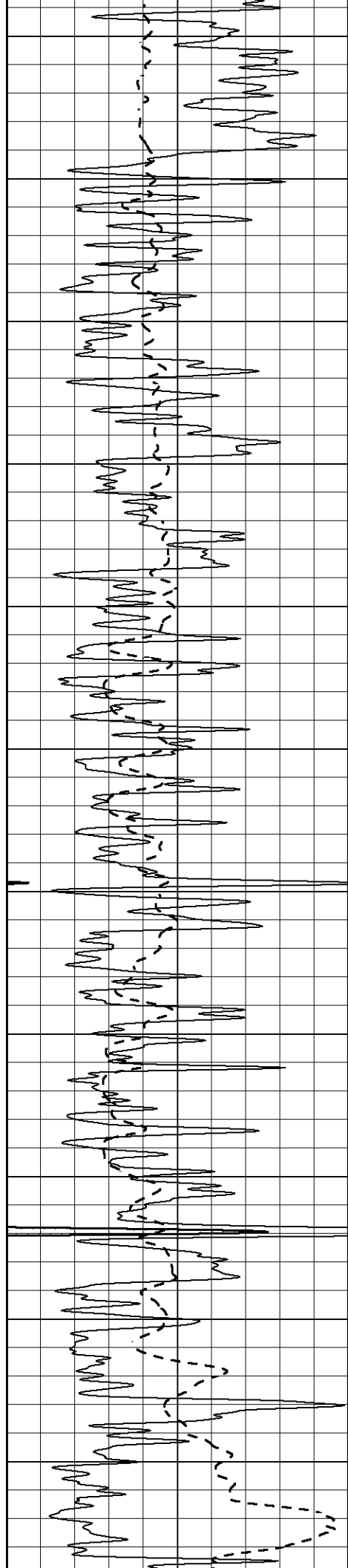
3000

3050

3100

3150





3200

3250

3300

3350

3400

3450

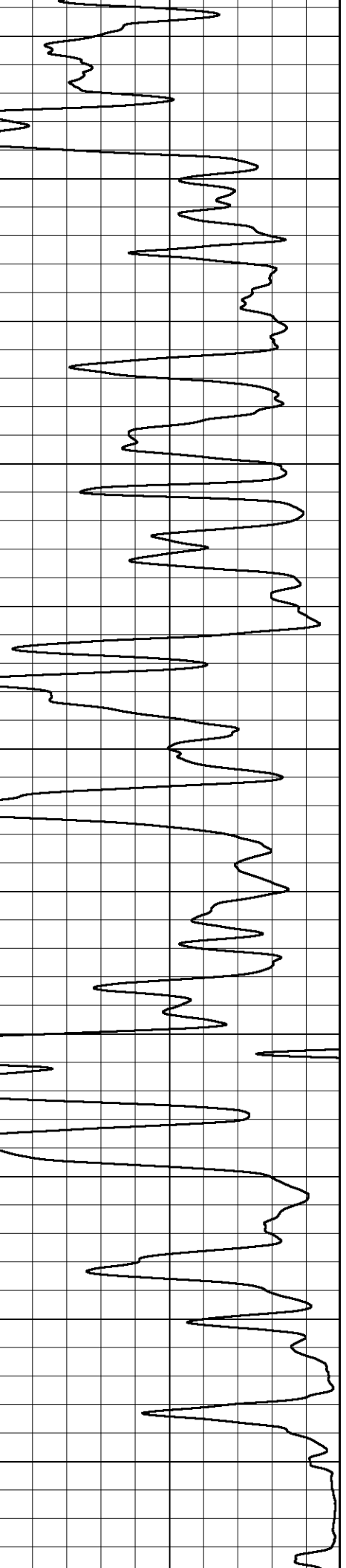
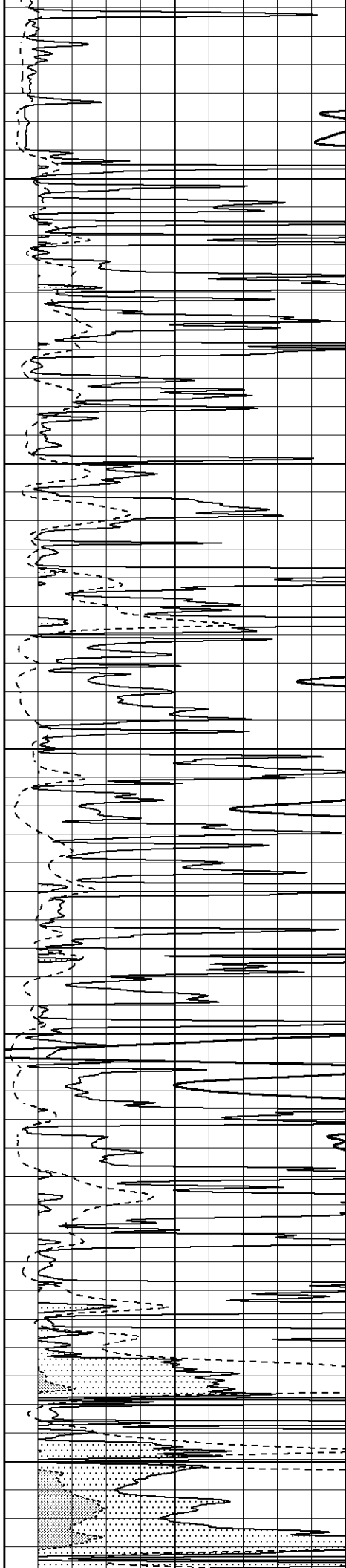
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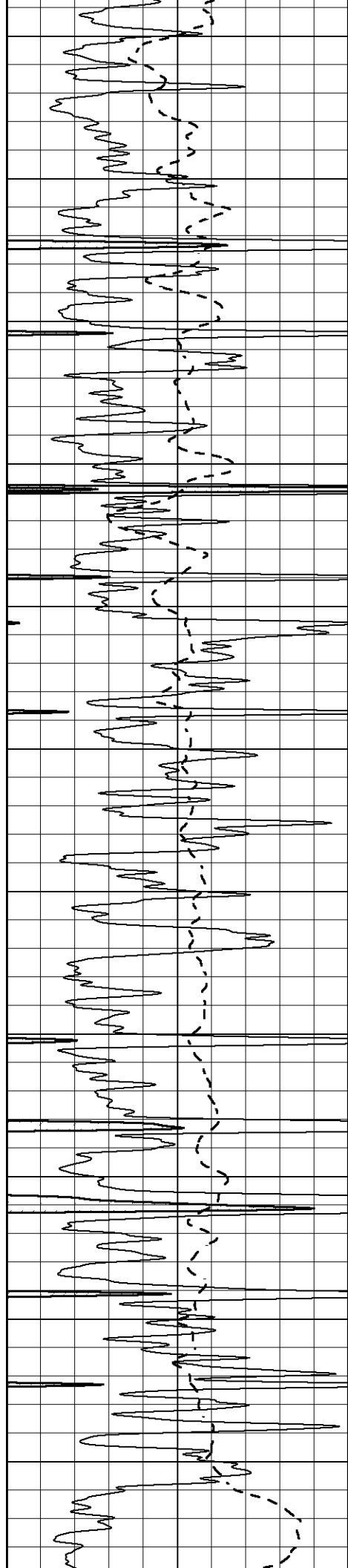
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3600

3650

3700





3750

3800

3850

3900

3950

4000

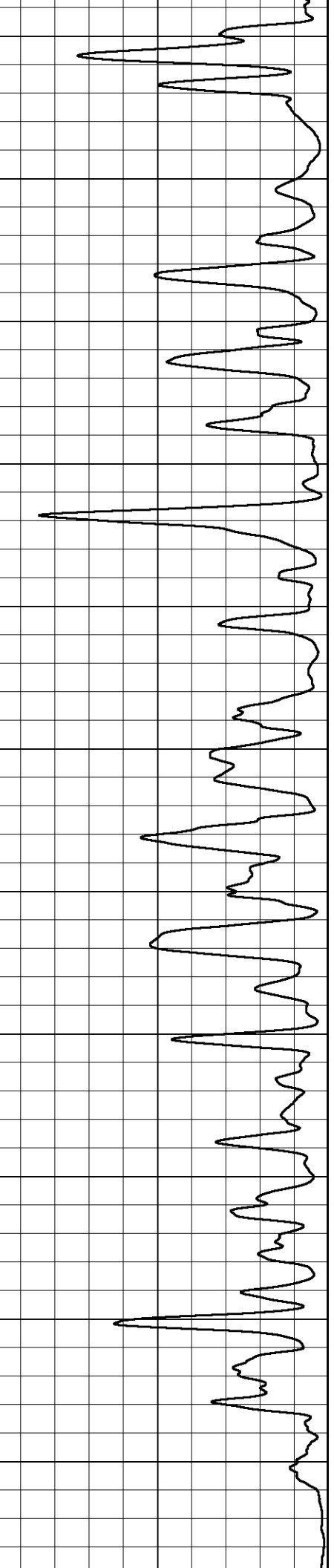
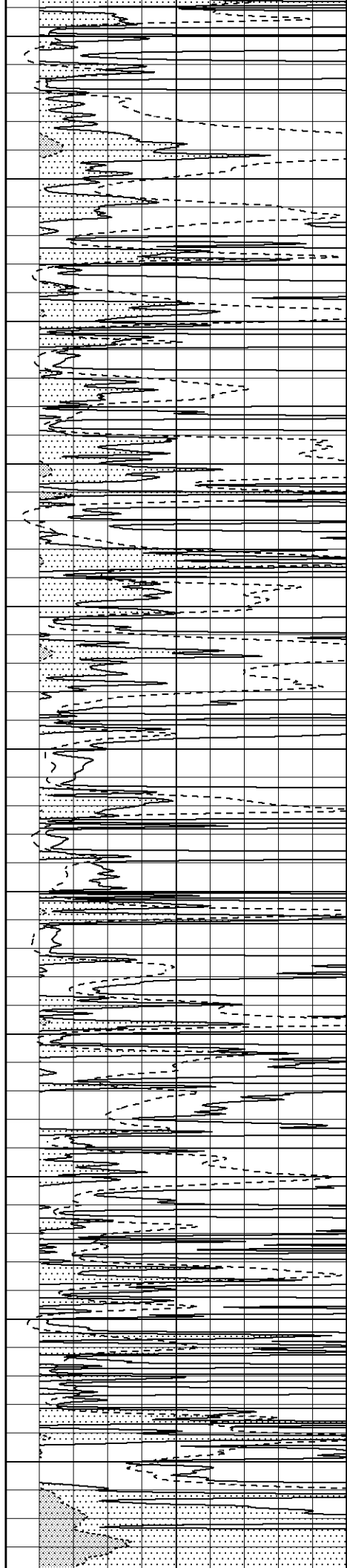
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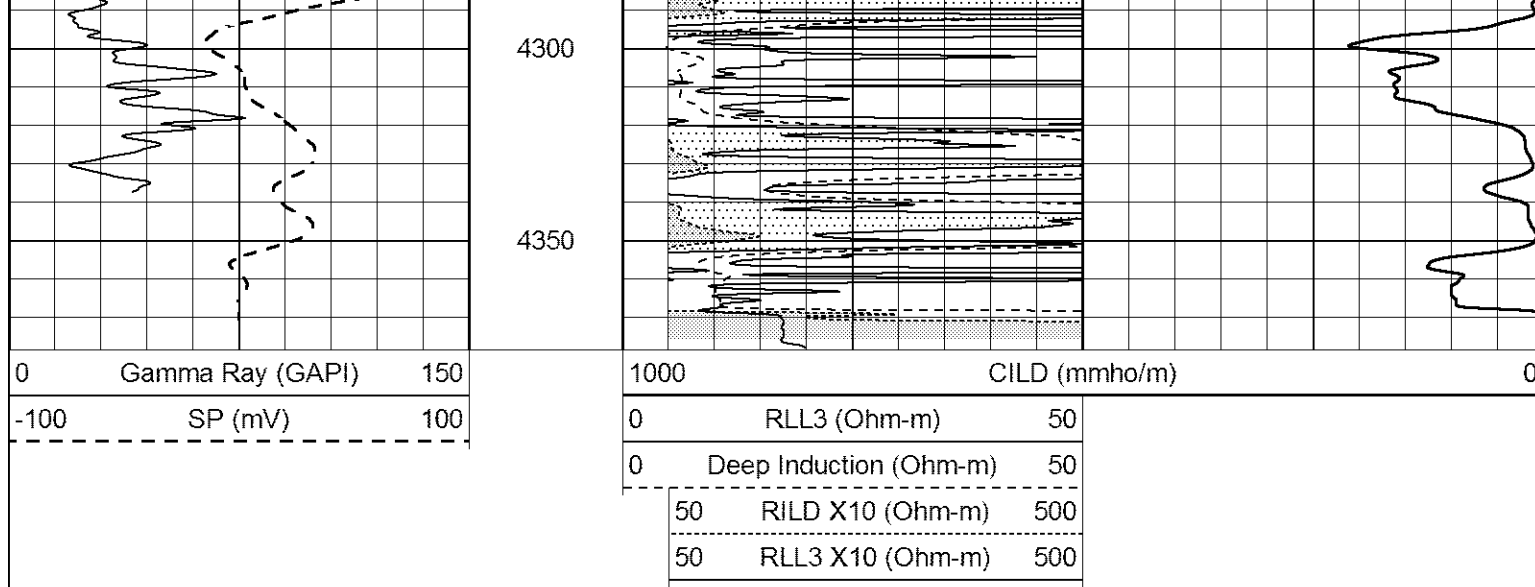
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4150

4200

4250

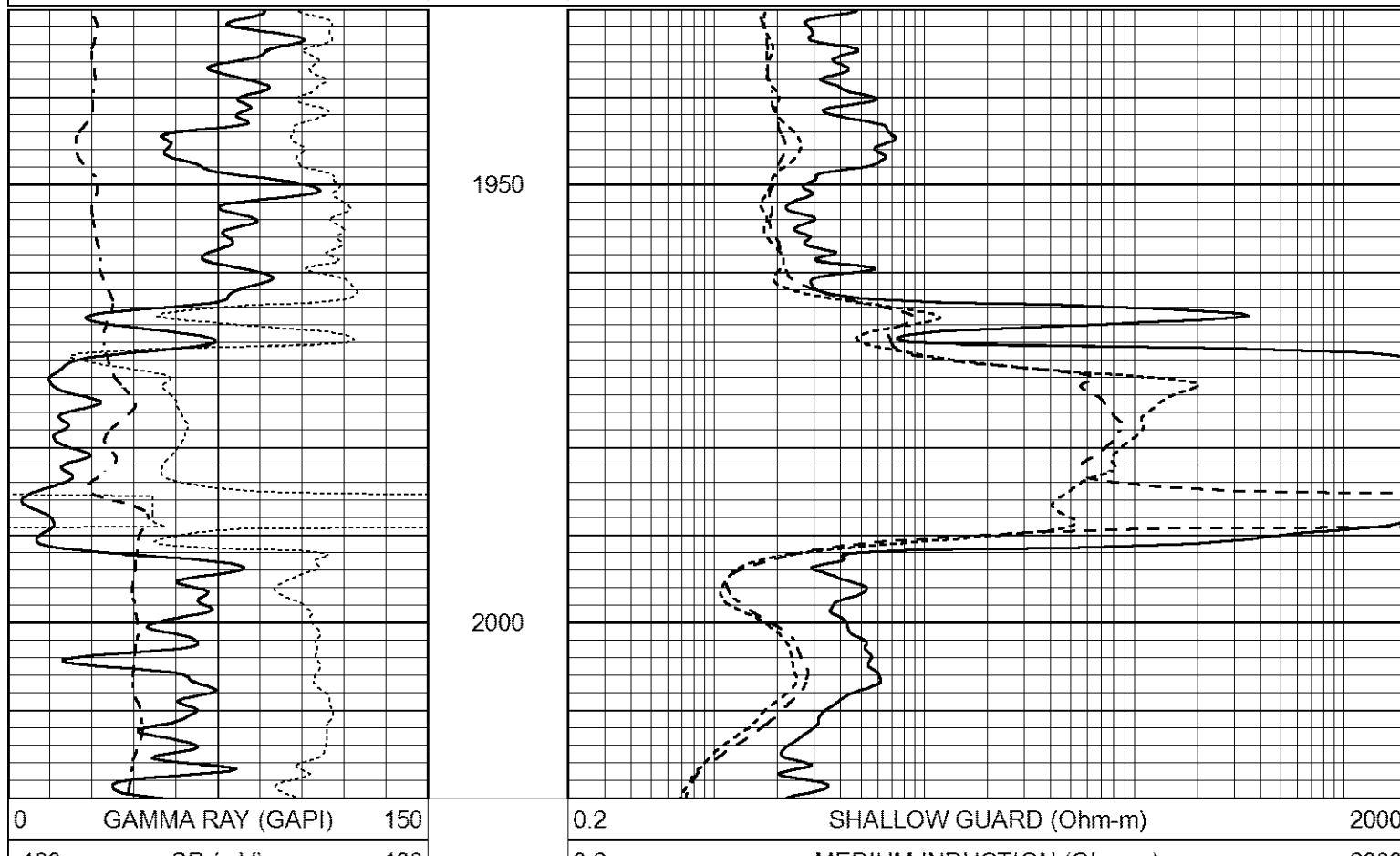




ANHYDRITE

Database File 3641ddn8.db
 Dataset Pathname pass3.2
 Presentation Format _dil
 Dataset Creation Wed Jun 05 09:18:01 2019
 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



-100	SP (mV)	100
-250	Rxo/Rt	50

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

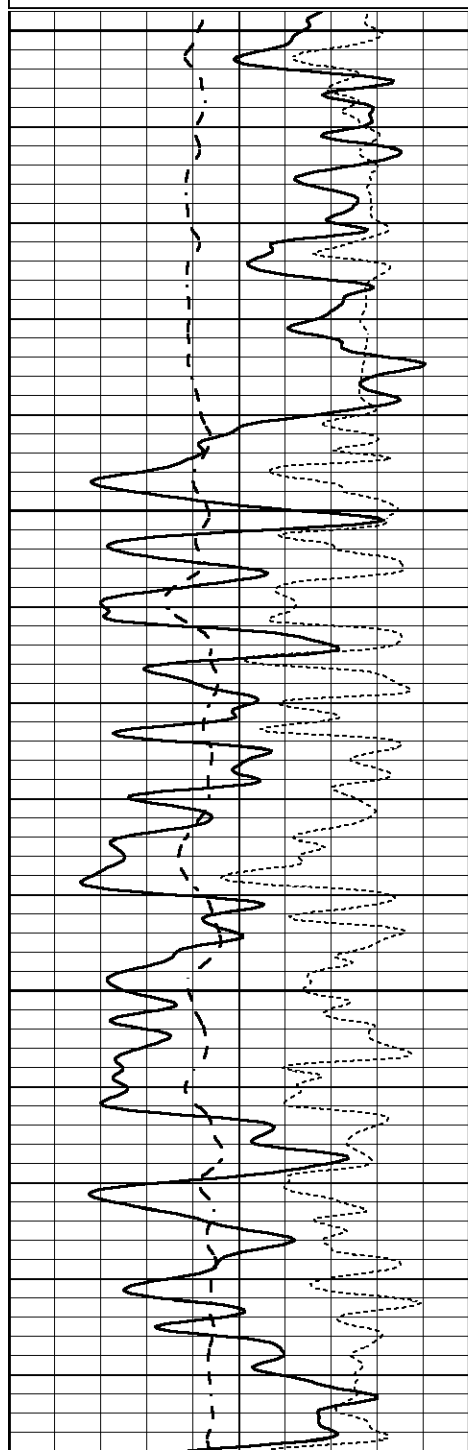


MAIN SECTION

Database File 3641ddn8.db
 Dataset Pathname pass3.1
 Presentation Format _dil
 Dataset Creation Wed Jun 05 09:03:35 2019
 Charted by Depth in Feet scaled 1:240

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

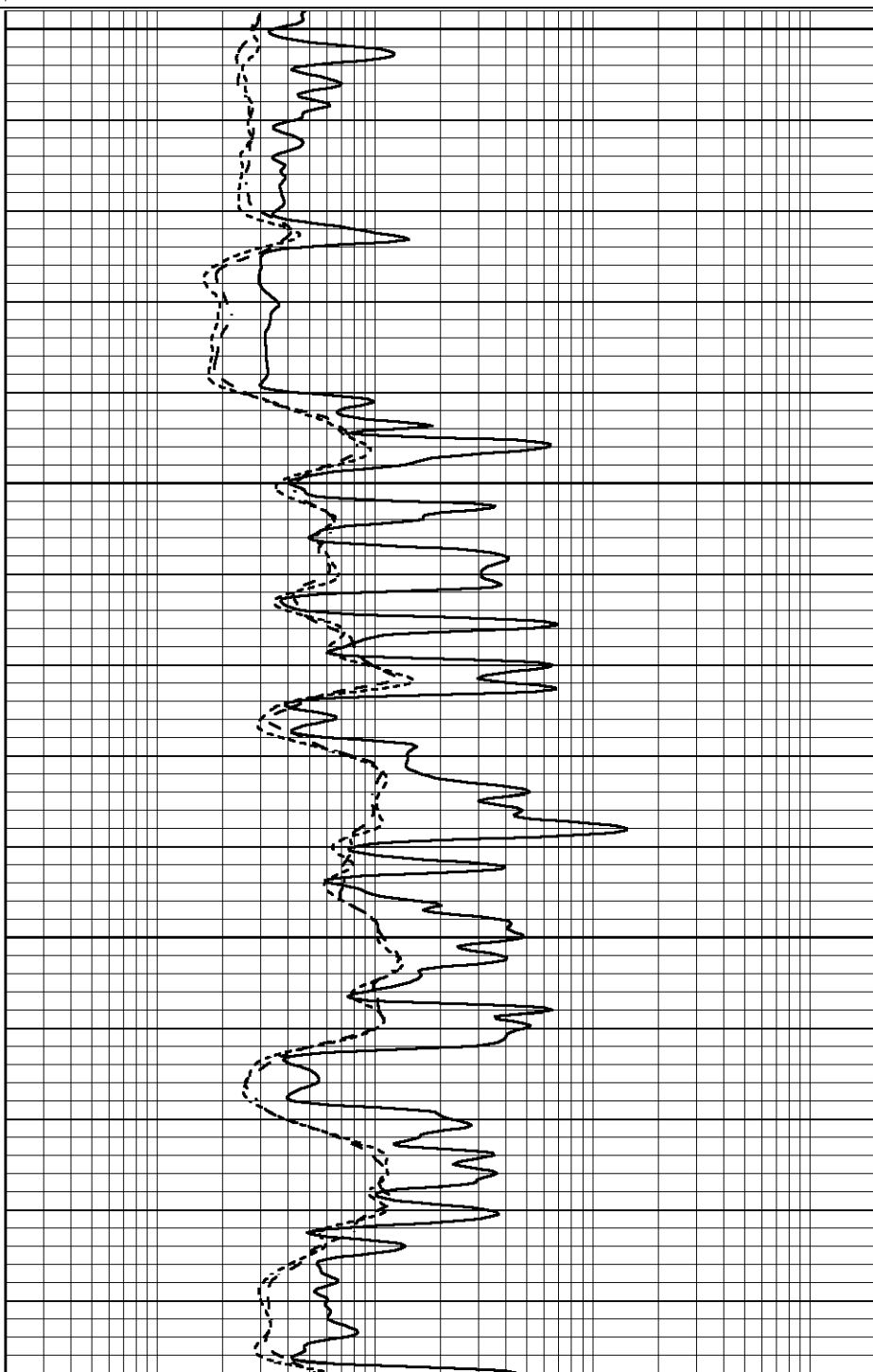
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000

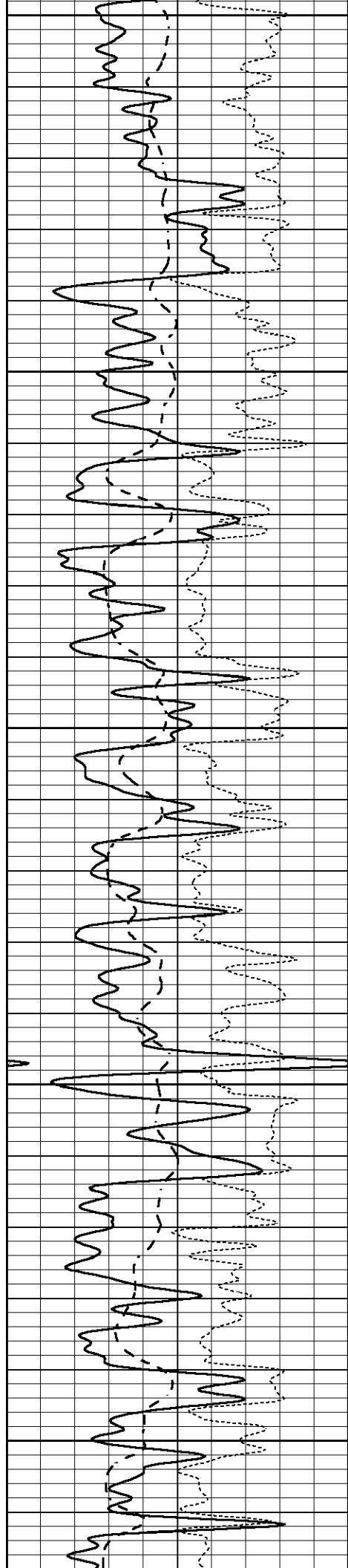


3200

3250

3300





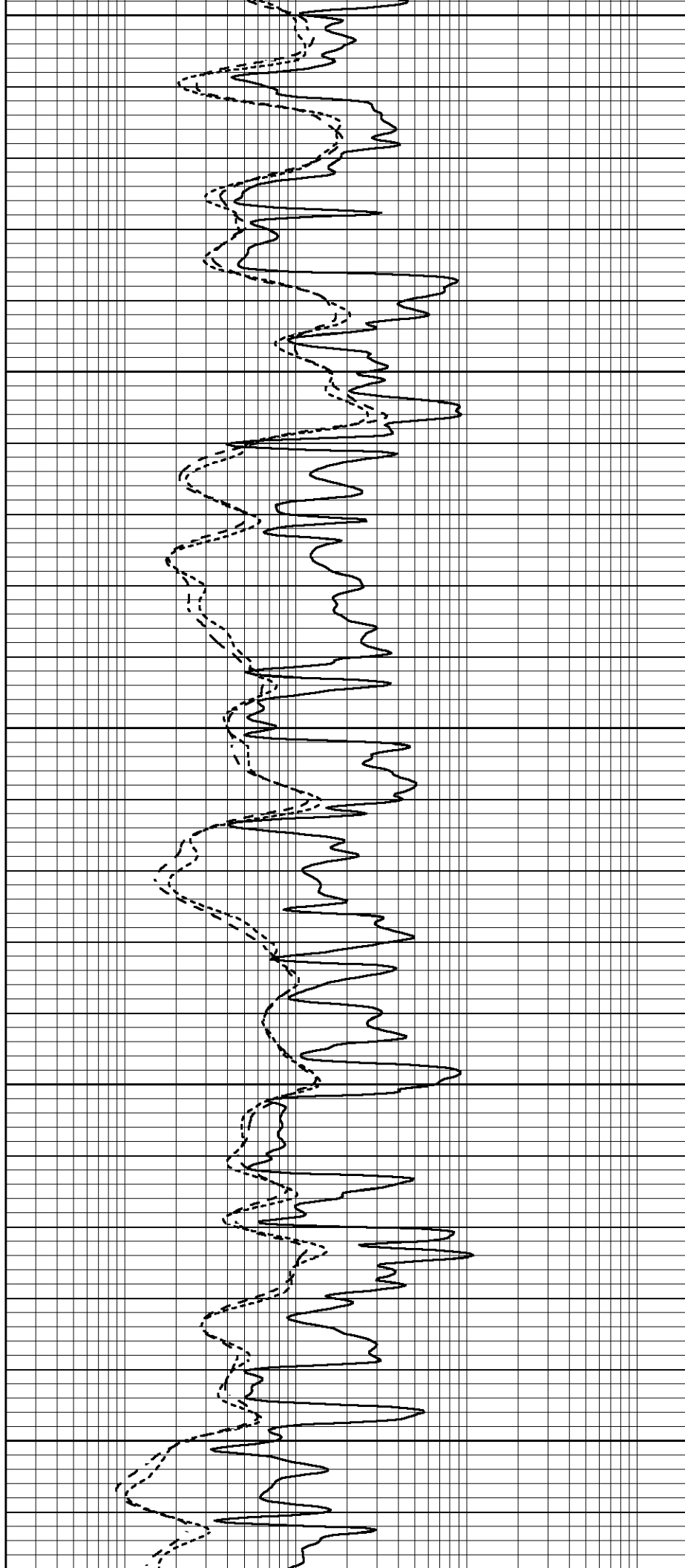
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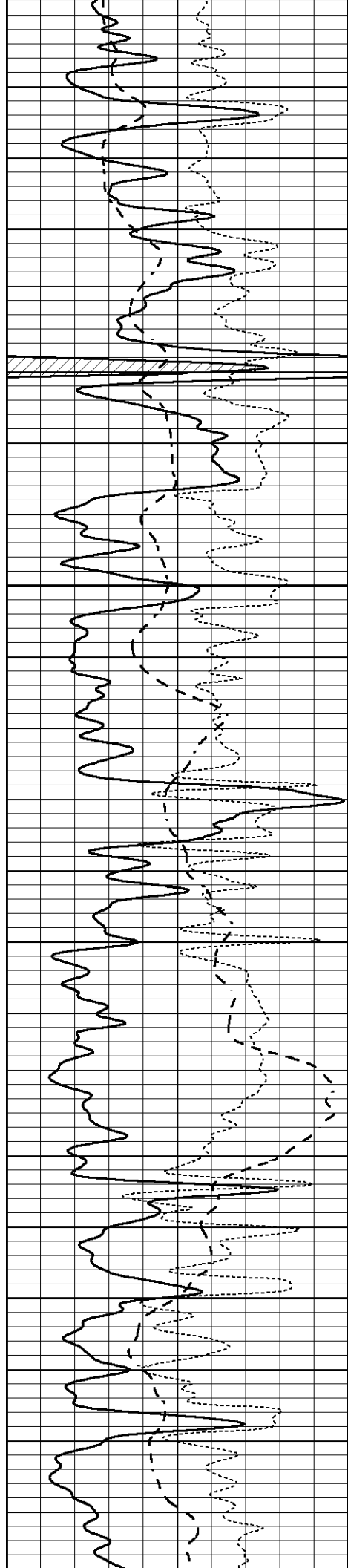
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3450

3500

3550



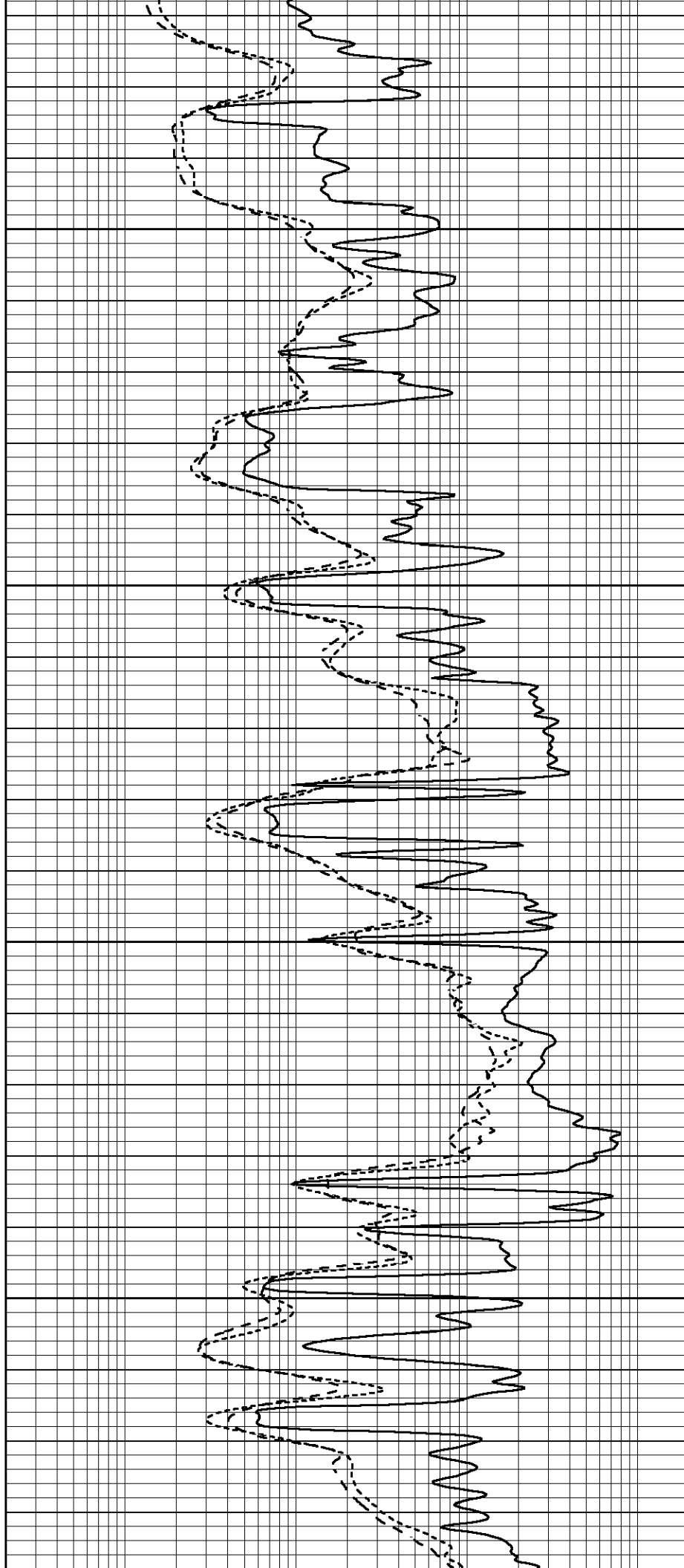


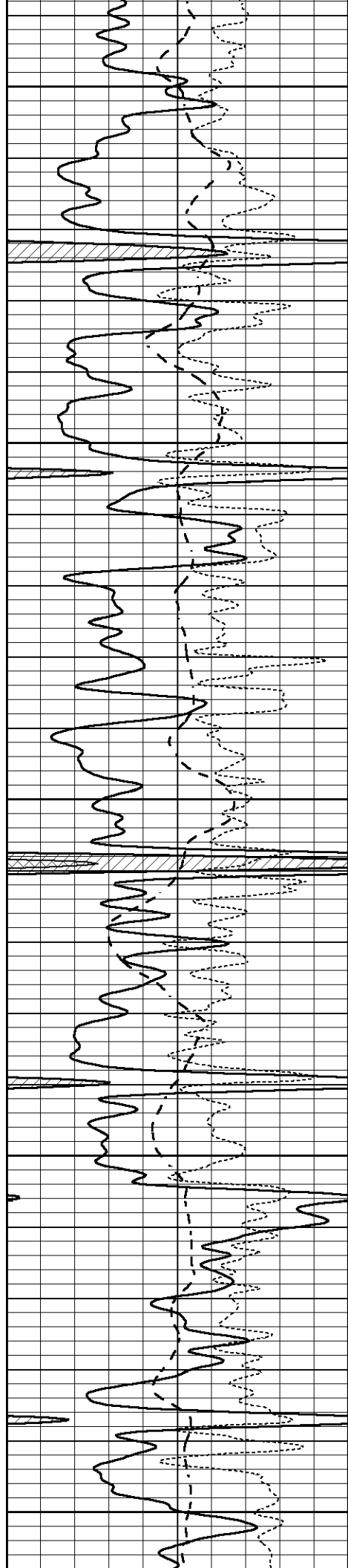
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3700

3750





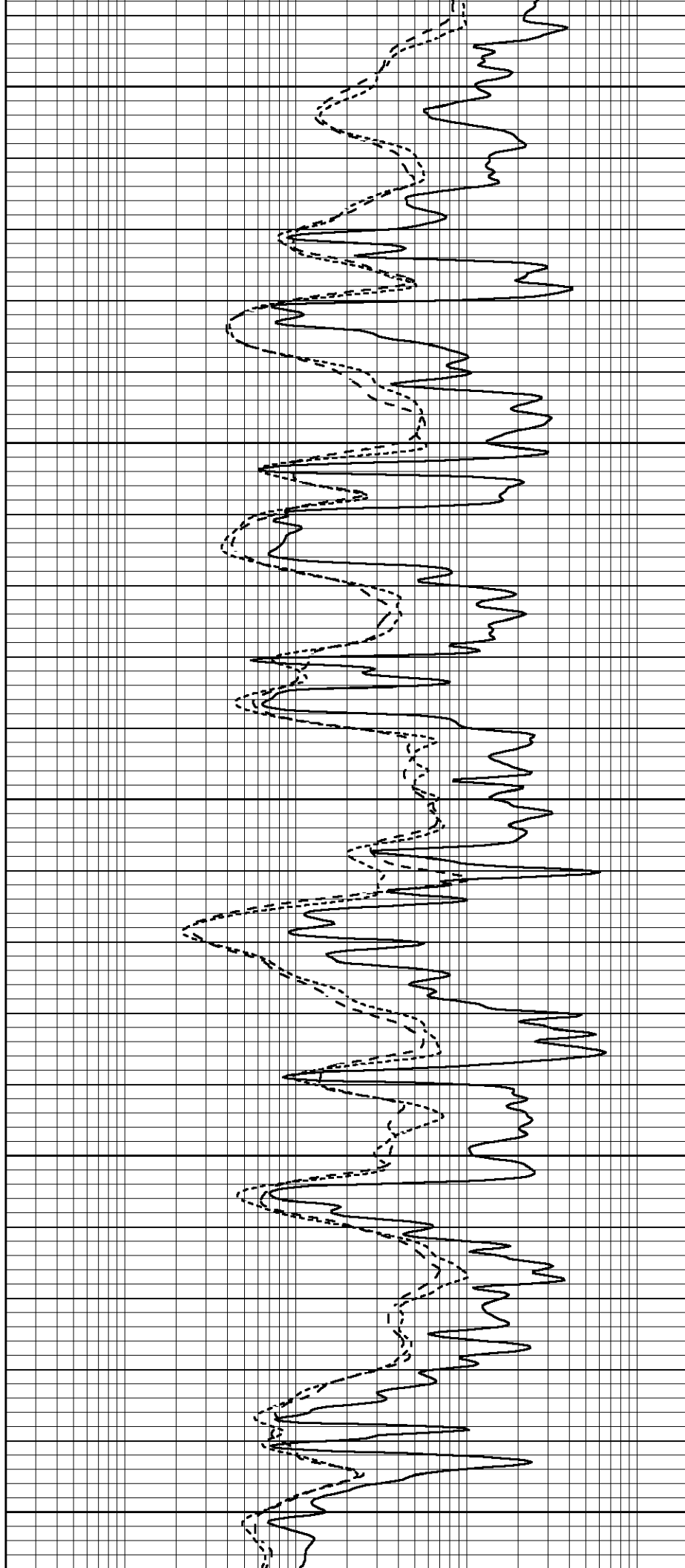
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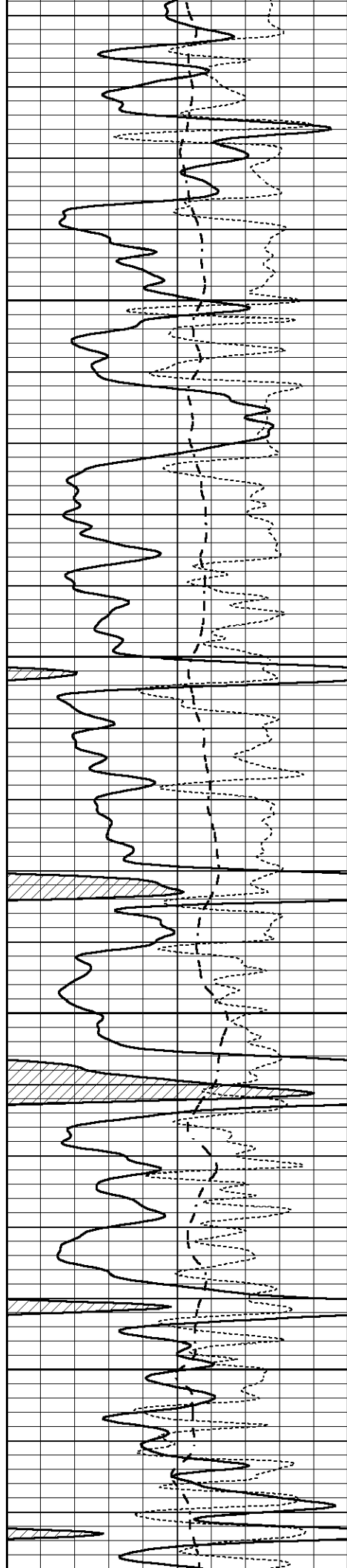
3850

3900

3950

4000



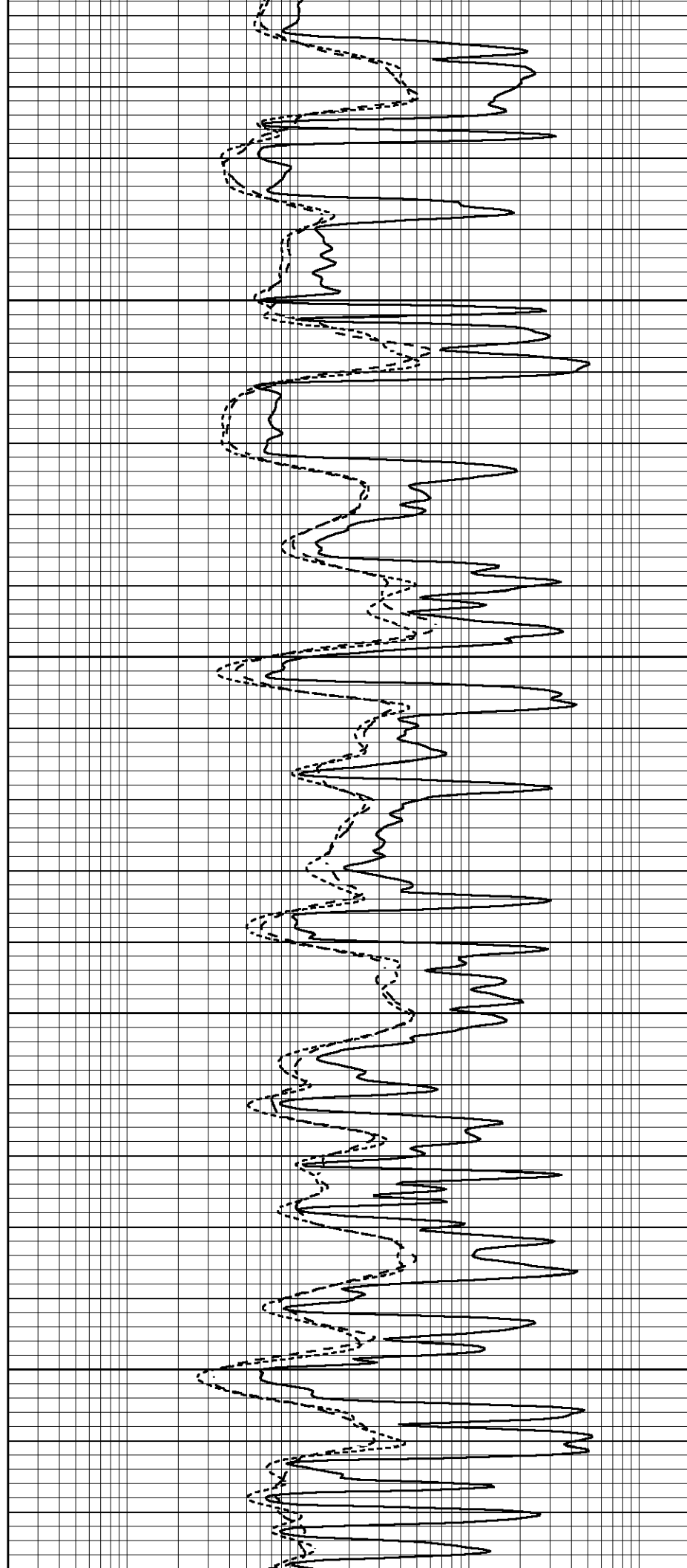


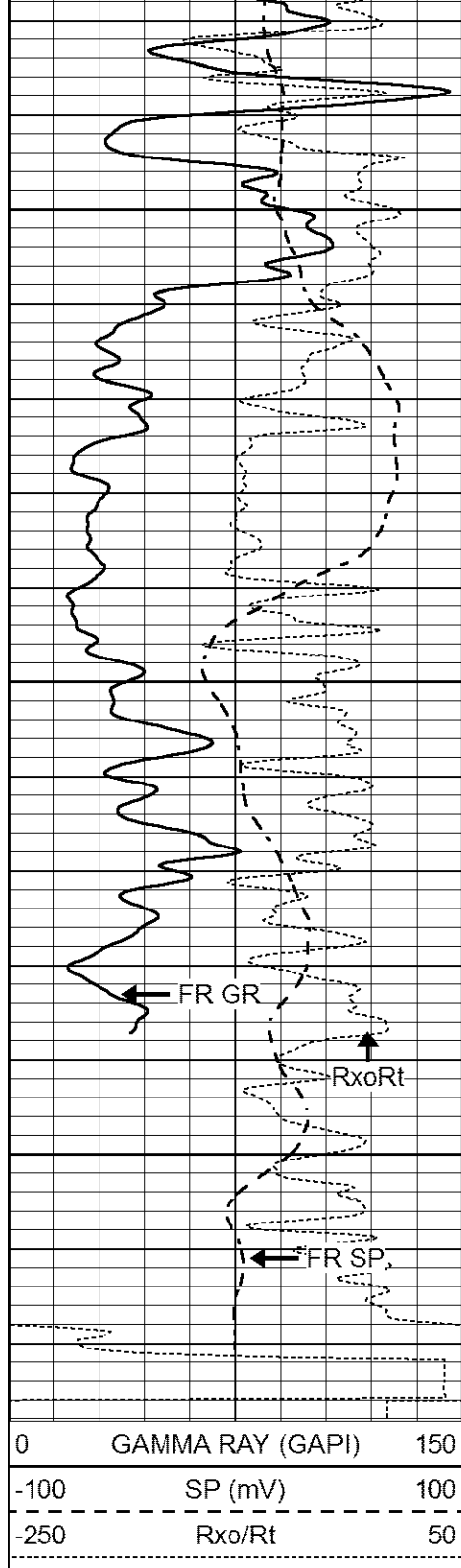
4050

4100

4150

4200



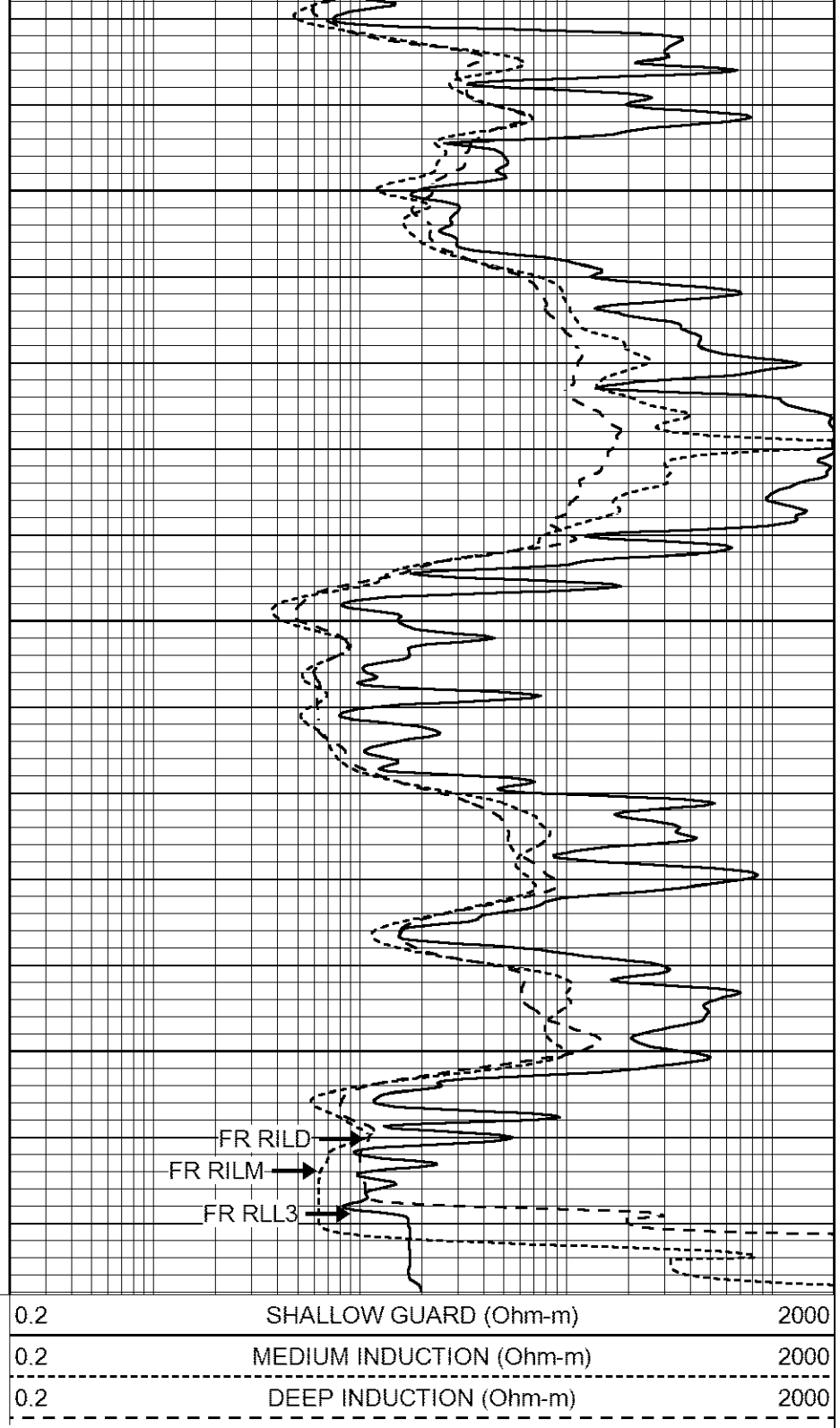


4250

4300

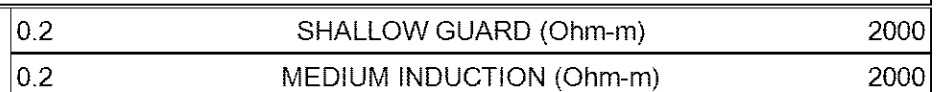
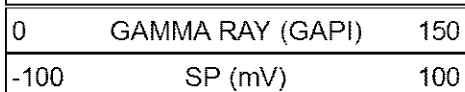
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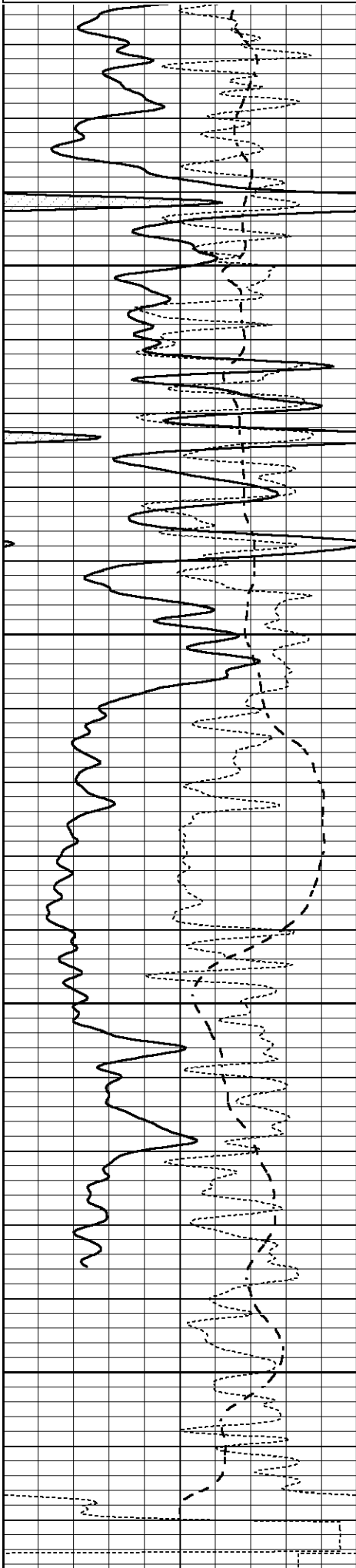
LTD 4371



REPEAT SECTION

Database File 3641ddn8.db
 Dataset Pathname pass2.1
 Presentation Format _dil
 Dataset Creation Wed Jun 05 08:45:46 2019
 Charted by Depth in Feet scaled 1:240



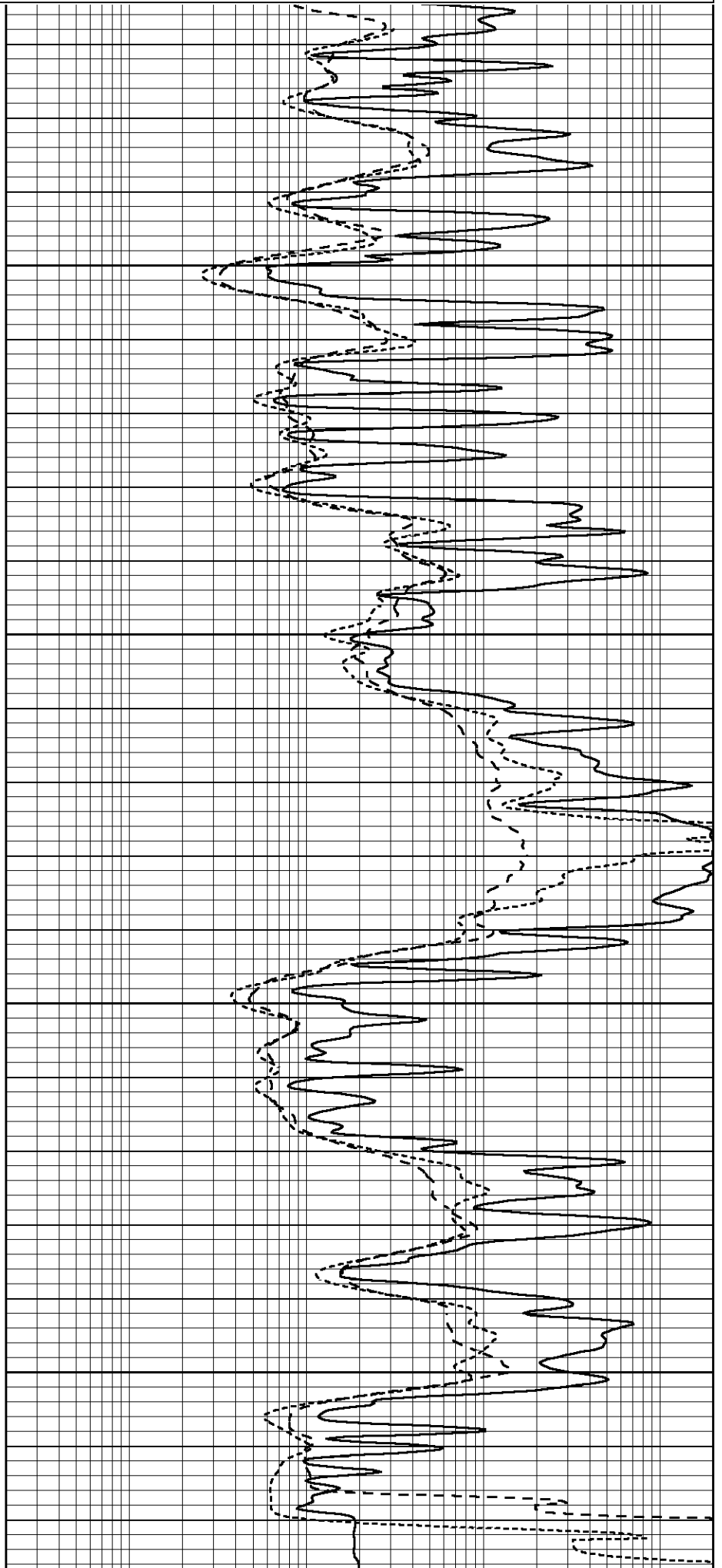


4200

4250

4300

4350



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

Calibration Report		
Database File	3641ddn8.db	
Dataset Pathname	pass2.1	
Dataset Creation	Wed Jun 05 08:45:46 2019	

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	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		

Compensated Neutron Calibration Report		
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Serial Number:	080621PMC
Tool Model:	NABORS

PRE-SURVEY VERIFICATION				
Detector	Readings	Measured	Target	
Short Space	cps			
Long Space	cps	pu	pu	

POST-SURVEY VERIFICATION				
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Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu
Gamma Ray Calibration Report			
Serial Number:	7		
Tool Model:	Probe1		
Performed:	Tue Feb 19 11:45:10 2019		
Calibrator Value:	1.0	GAPI	
Background Reading:	0.0	cps	
Calibrator Reading:	1.0	cps	
Sensitivity:	0.4300	GAPI/cps	