



**DUAL
INDUCTION
LOG**

Company DOWNING-NELSON OIL COMPANY, INC.
 Well CHARLENE B #1-17
 Field UNNAMED
 County RAWLINS State KANSAS

Location: API #: 15-153-21286-0000
 2212 FSL & 2636' FWL
 SE/NENE/SW
 SEC 17 TWP 5S RGE 36W
 Permanent Datum GROUND LEVEL Elevation 3332
 Log Measured From KELLY BUSHING 11' A.G.L.
 Drilling Measured From KELLY BUSHING
 Other Services
 CNL/CDL
 MEL
 Elevation
 K.B. 3343
 D.F. 3341
 G.L. 3332

Date	4/19/22		
Run Number	ONE		
Depth Driller	4910		
Depth Logger	4912		
Bottom Logged Interval	4910		
Top Log Interval	00		
Casing Driller	8 5/8" @ 440		
Casing Logger	440		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 1000 PPM	
Density / Viscosity	9.3/46		
pH / Fluid Loss	10.5/7.8		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	2@60F		
Rmt @ Meas. Temp	1.5@60F		
Rmc @ Meas. Temp	2.4@60F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.97@124F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	////		
Maximum Recorded Temperature	124F		
Equipment Number	3802		
Location	HAYS, KANSAS		
Recorded By	TJ DREILING		
Witnessed By	MARC DOWNING		

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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
 -BREWSTER KANSAS, NORTH ON BLACKTOP TO CURVE WEST,
 -3 MILES NORTH TO RD D, -1/2 WEST -NORTH INTO

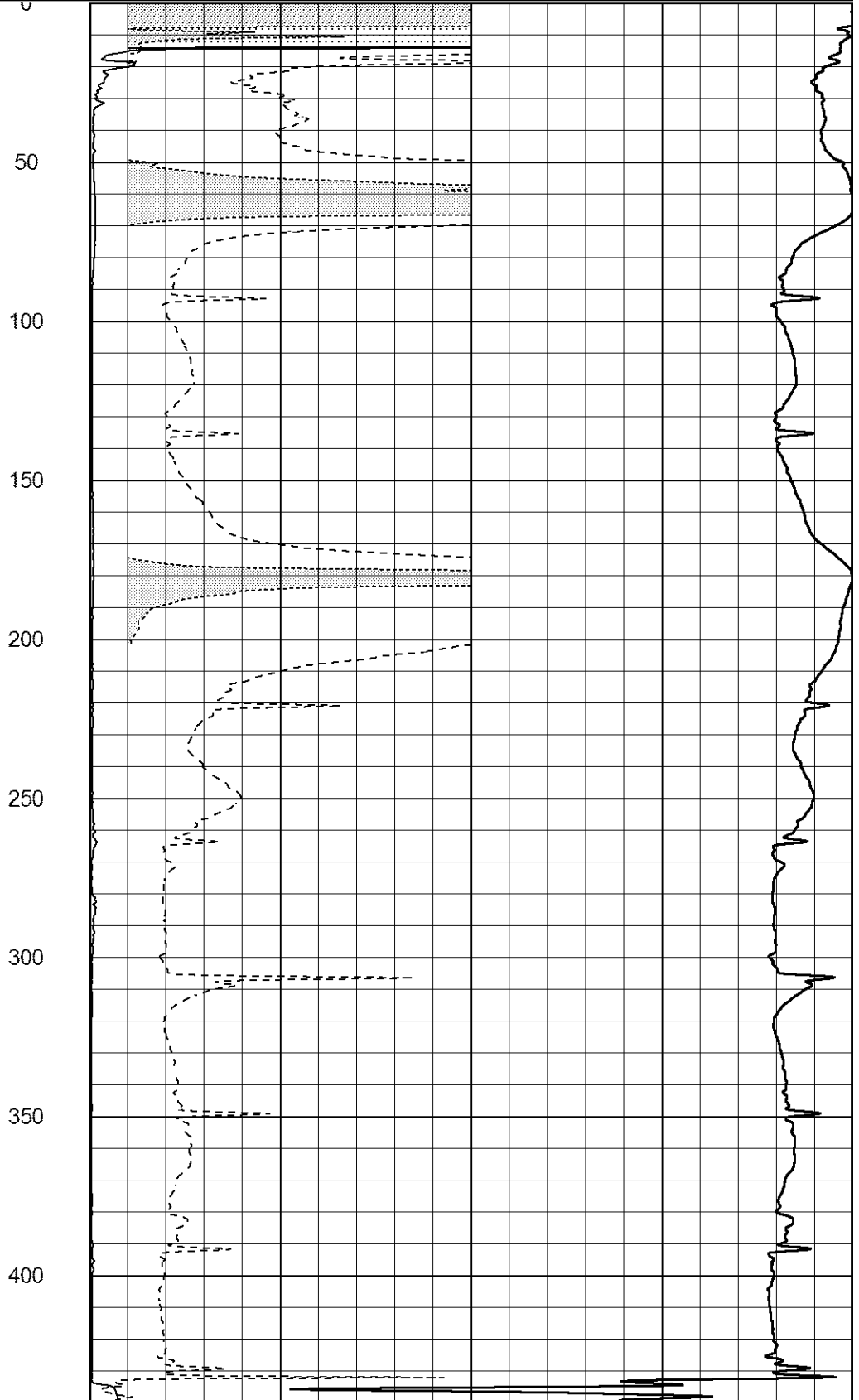
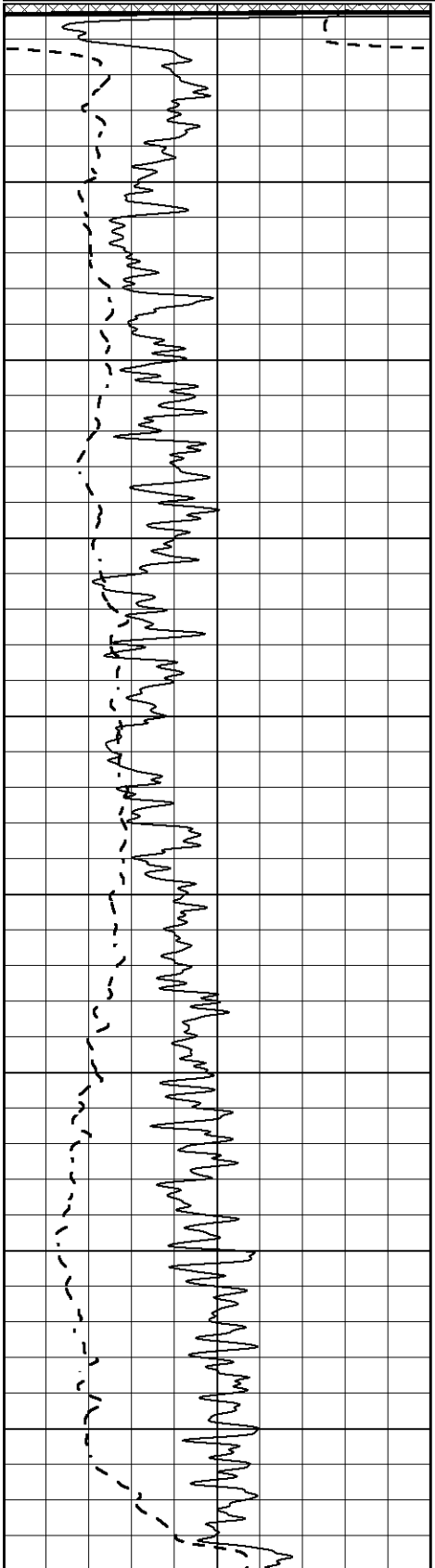


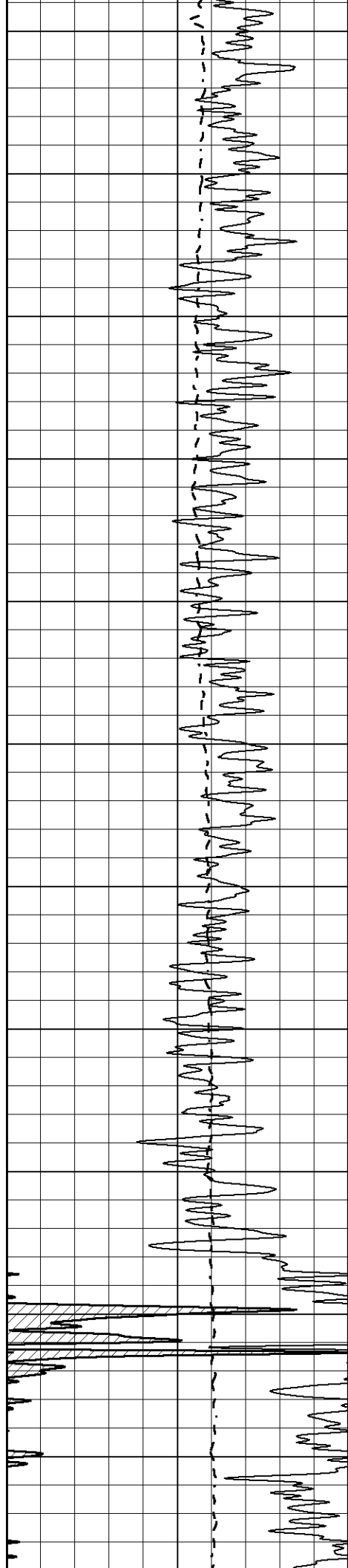
MAIN SECTION

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 Dataset Pathname pass6.3
 Presentation Format _dil2
 Dataset Creation Tue Apr 19 14:32:35 2022
 Charted by Depth in Feet scaled 1:600

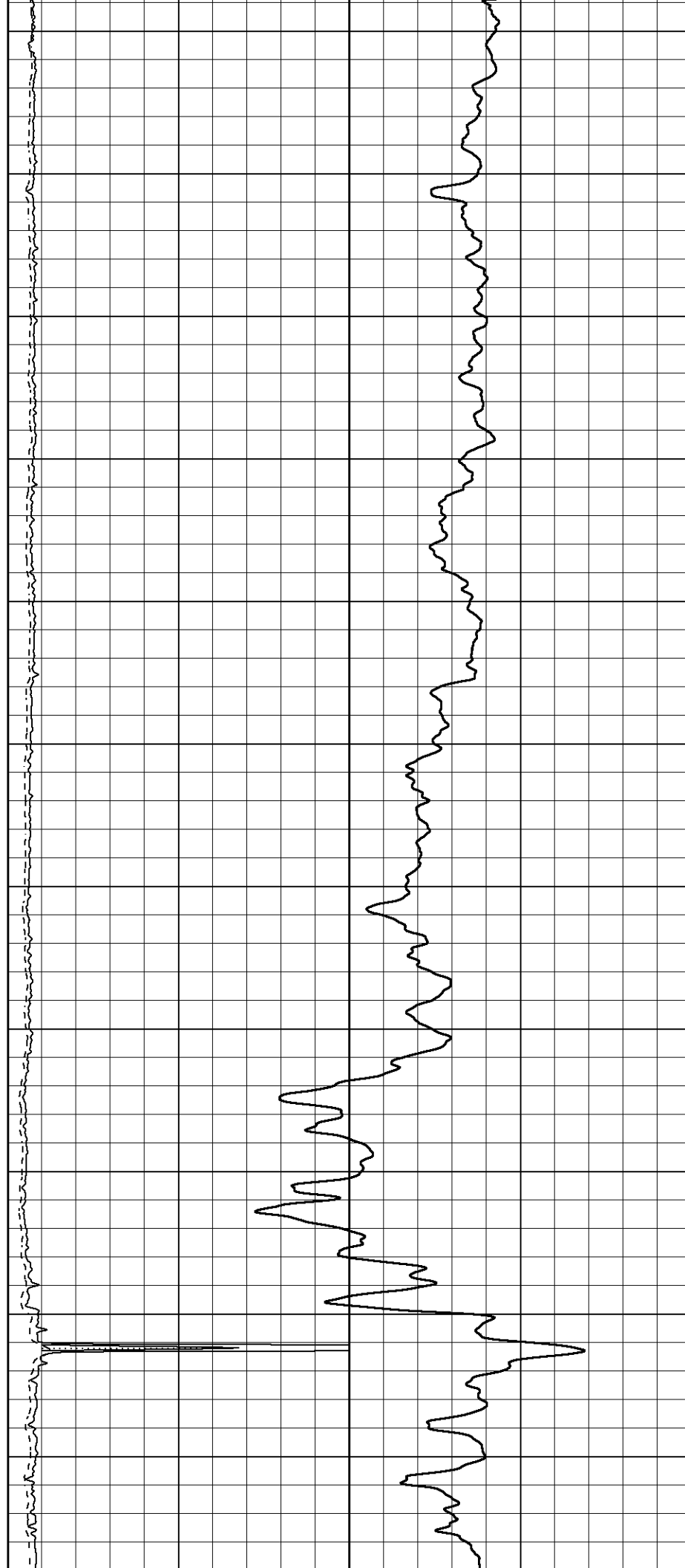
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 -100 SP (mV) 100

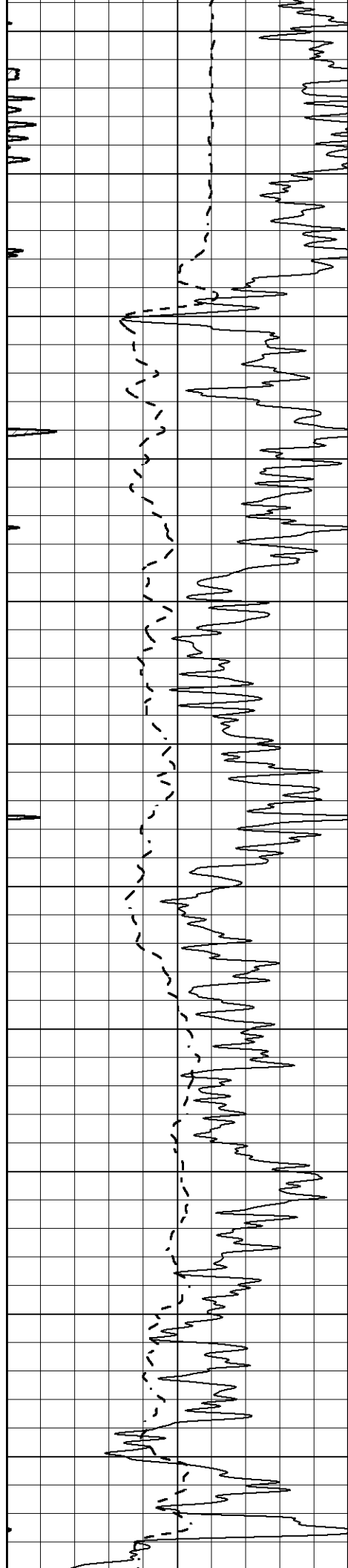
1000 CILD (mmho/m) 0
 0 RLL3 (Ohm-m) 50
 0 Deep Induction (Ohm-m) 50
 50 RILD X10 (Ohm-m) 500
 50 RLL3 X10 (Ohm-m) 500



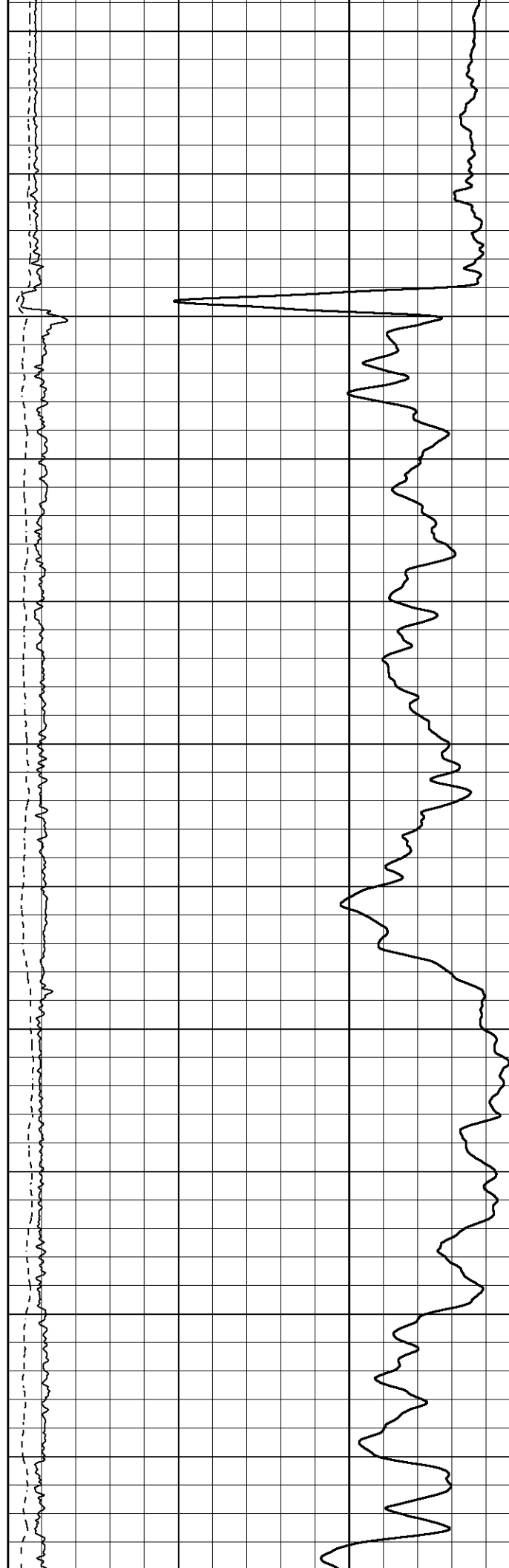


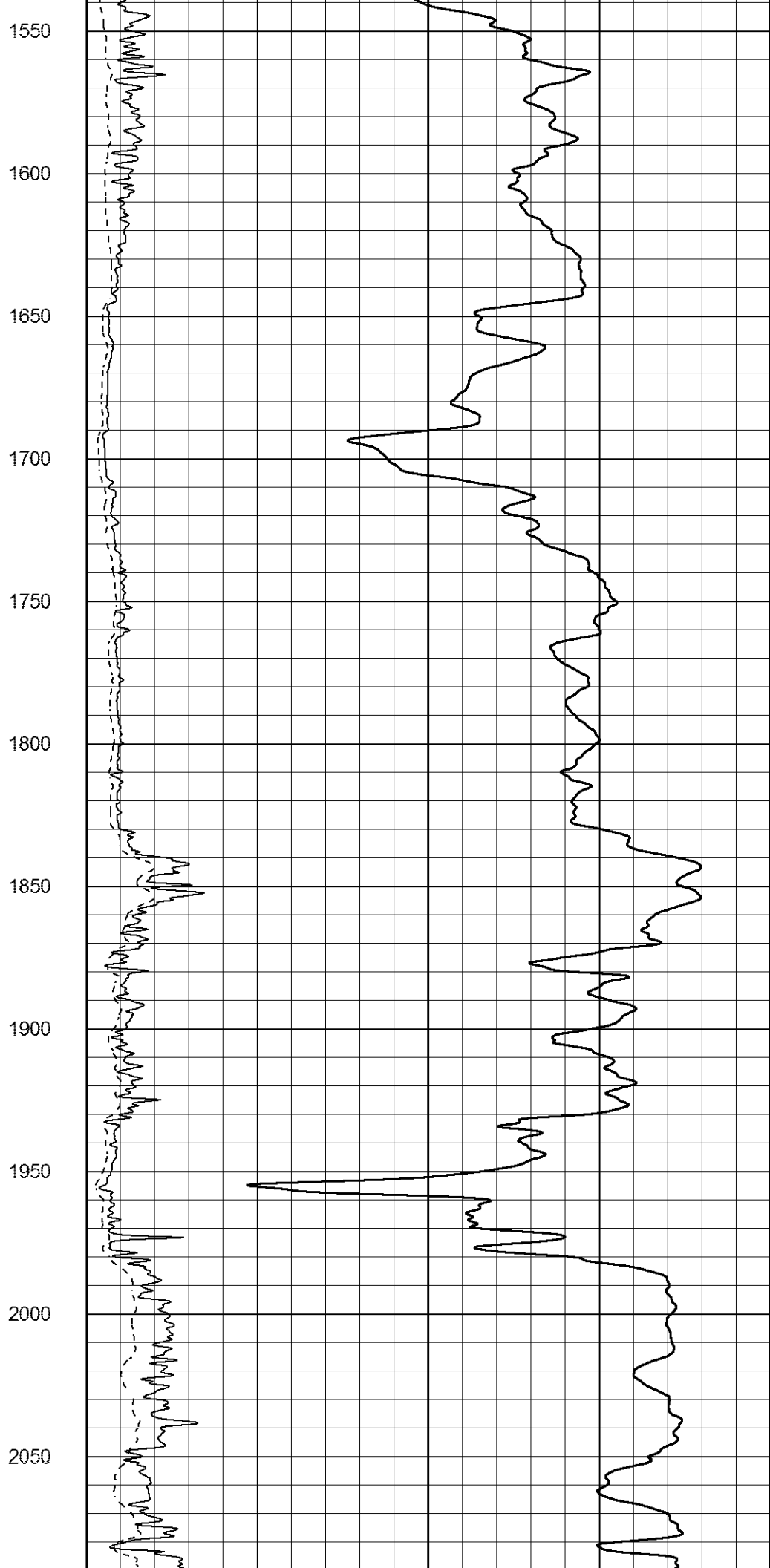
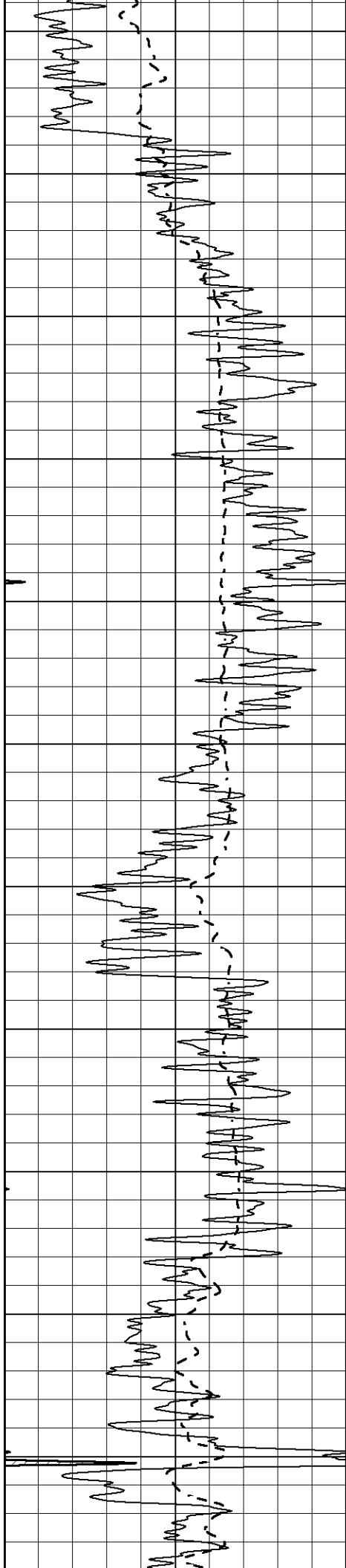
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850
900
950



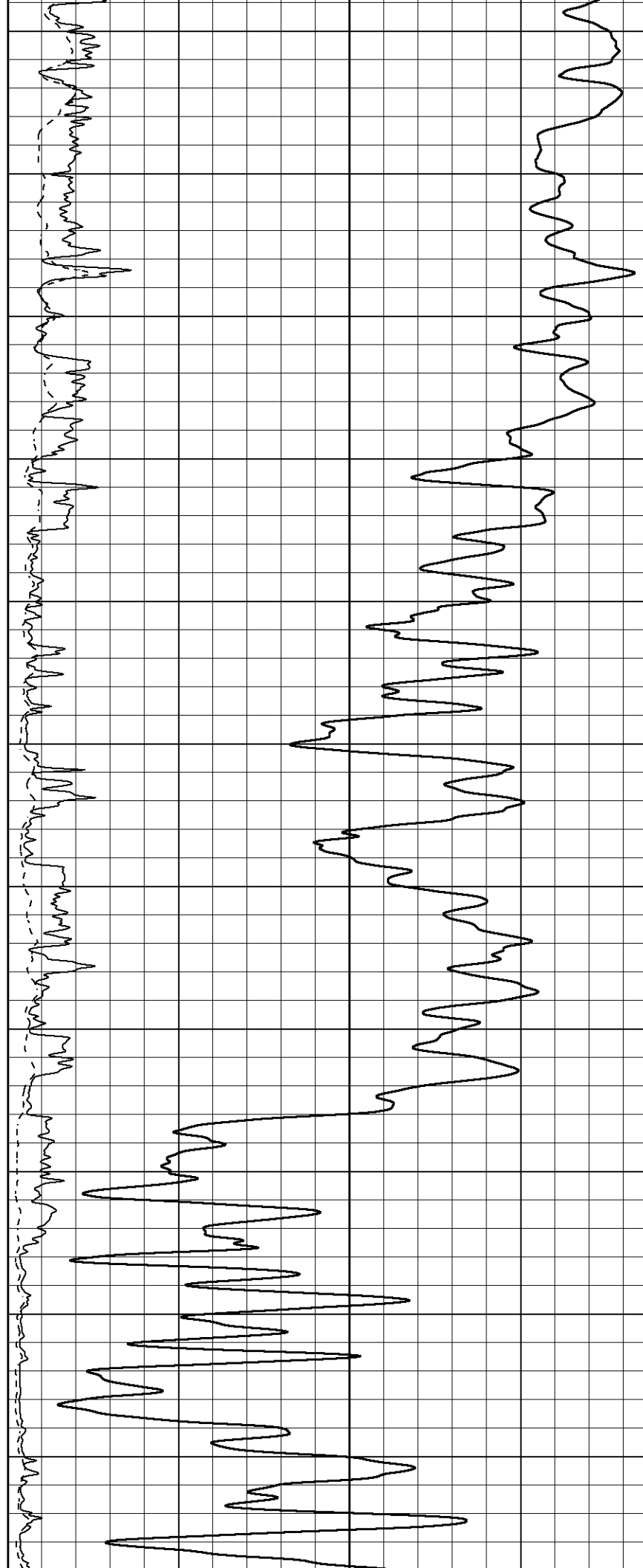
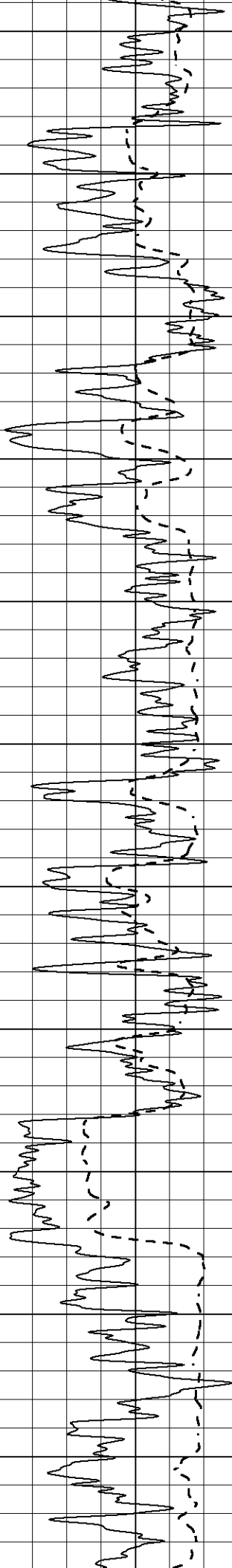


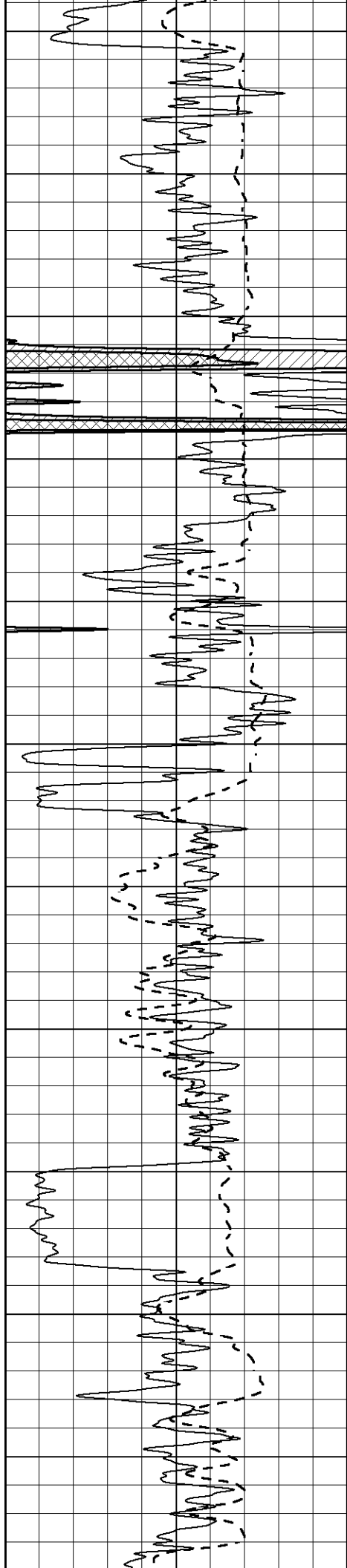
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1450
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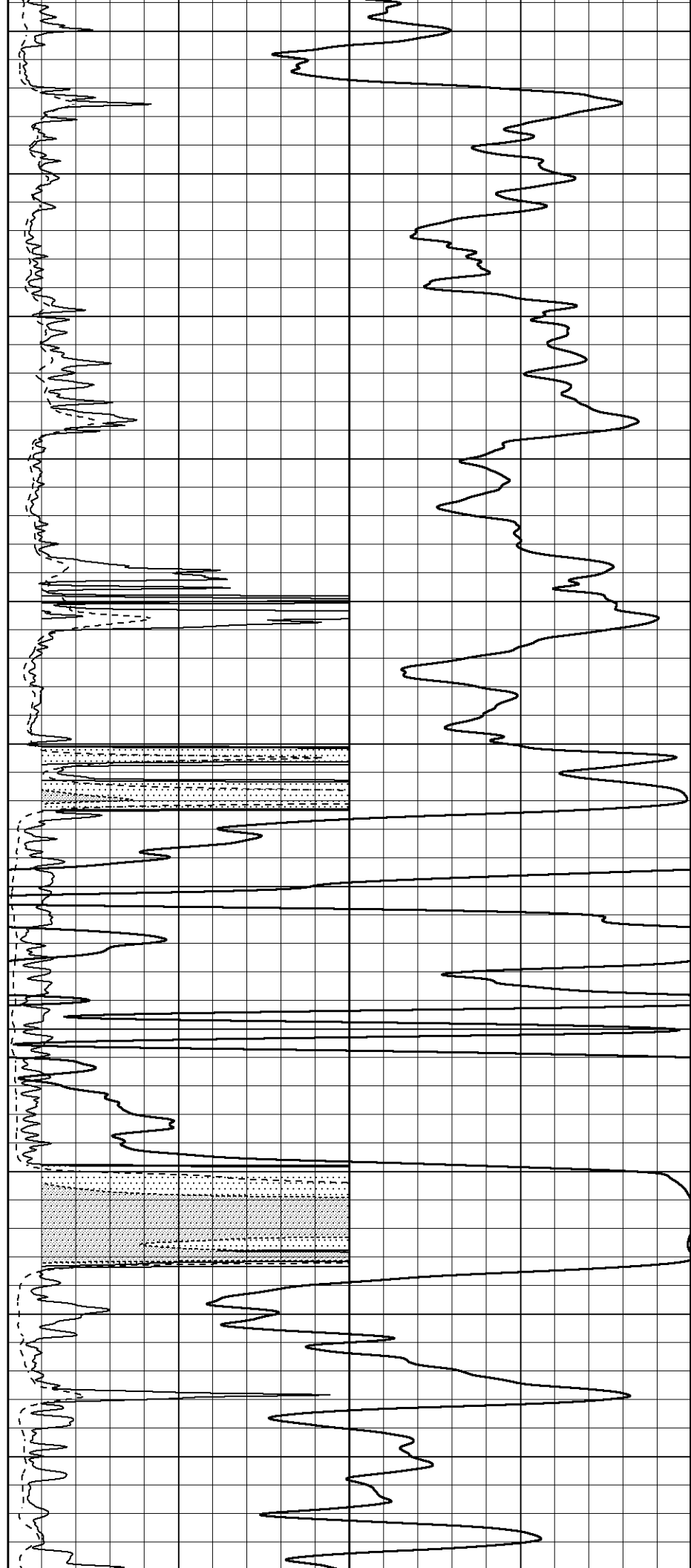


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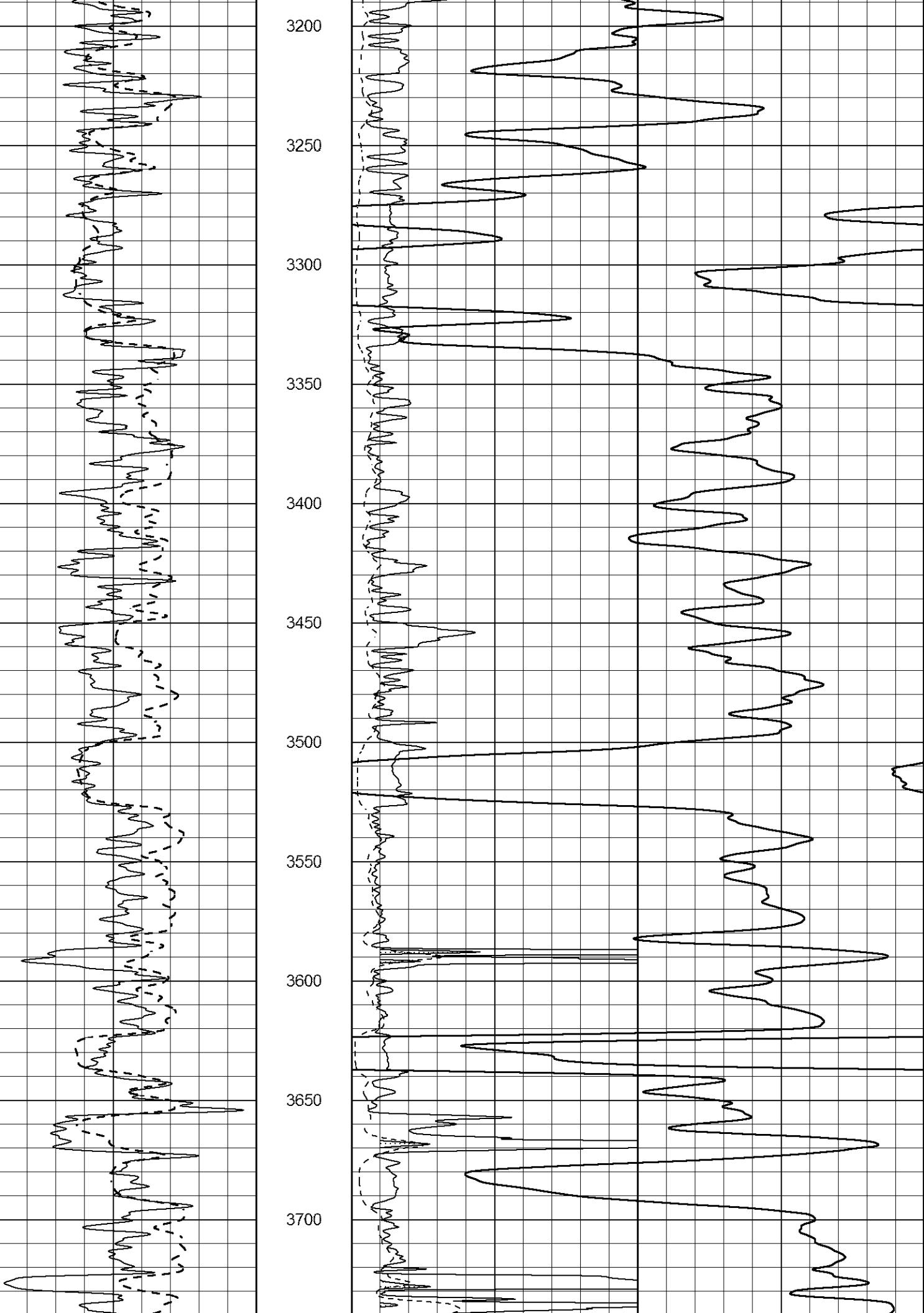


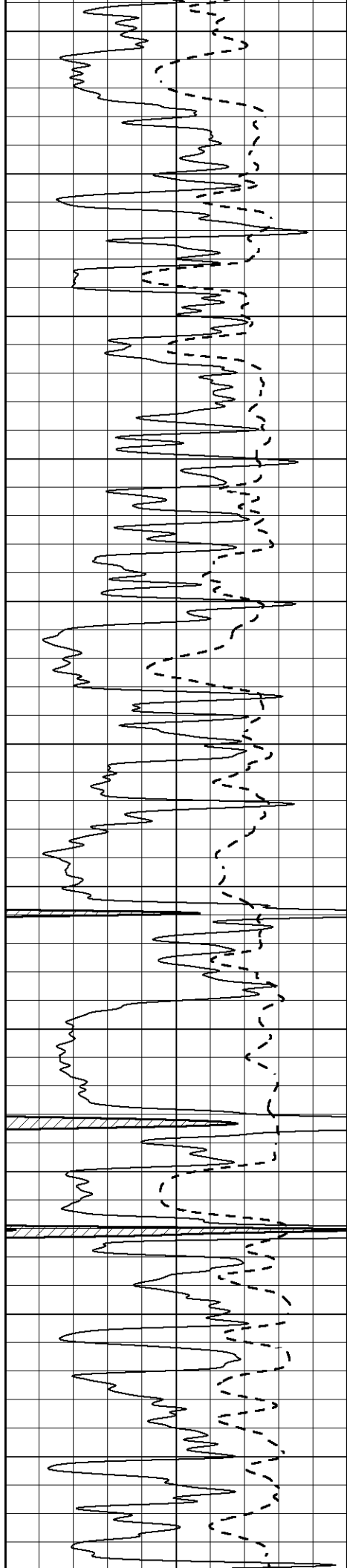


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2700
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2900
2950
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3050
3100
3150

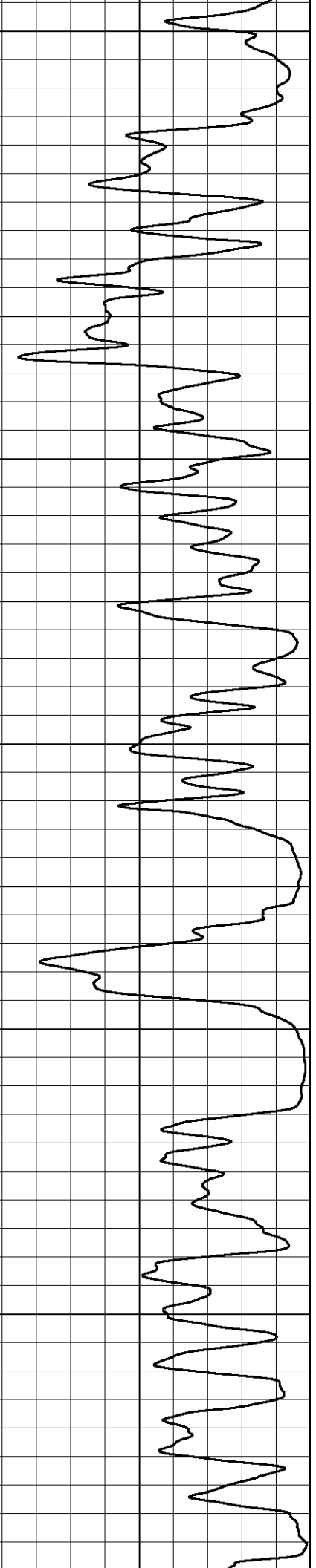
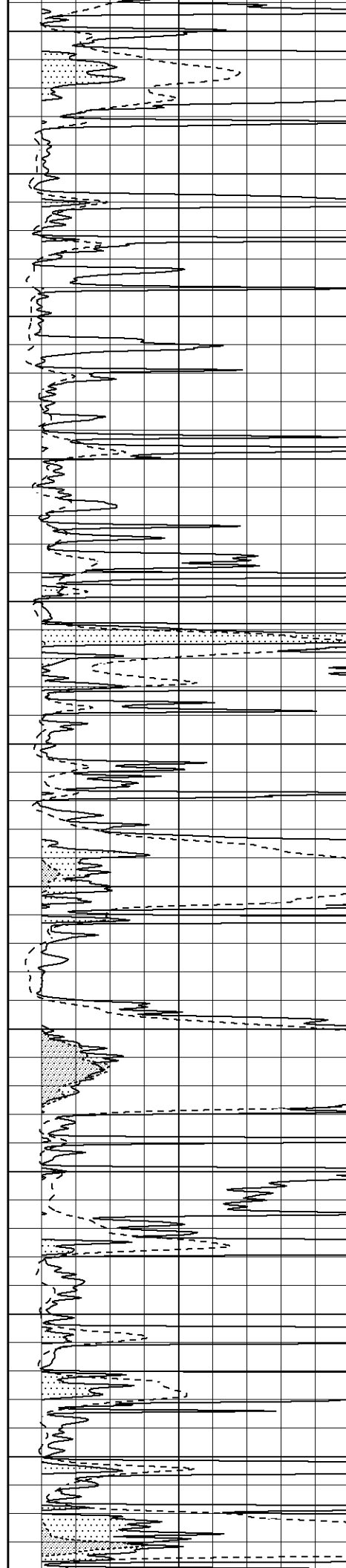


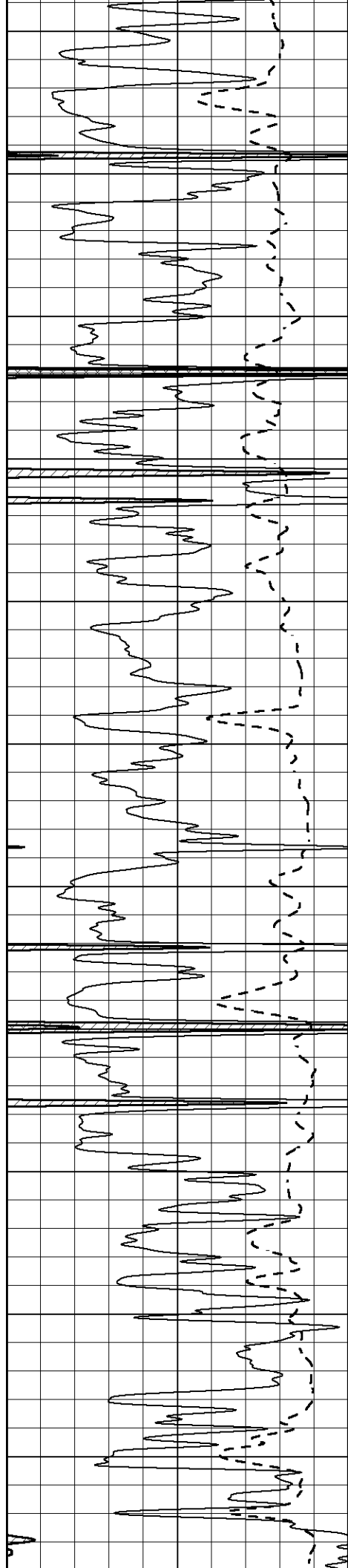
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3600
3650
3700



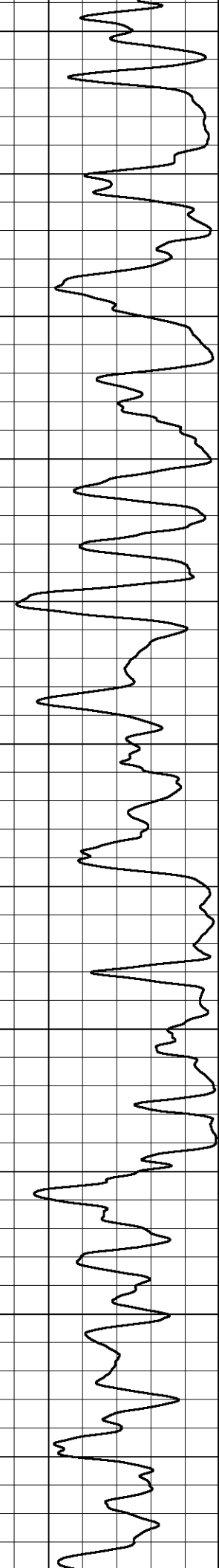
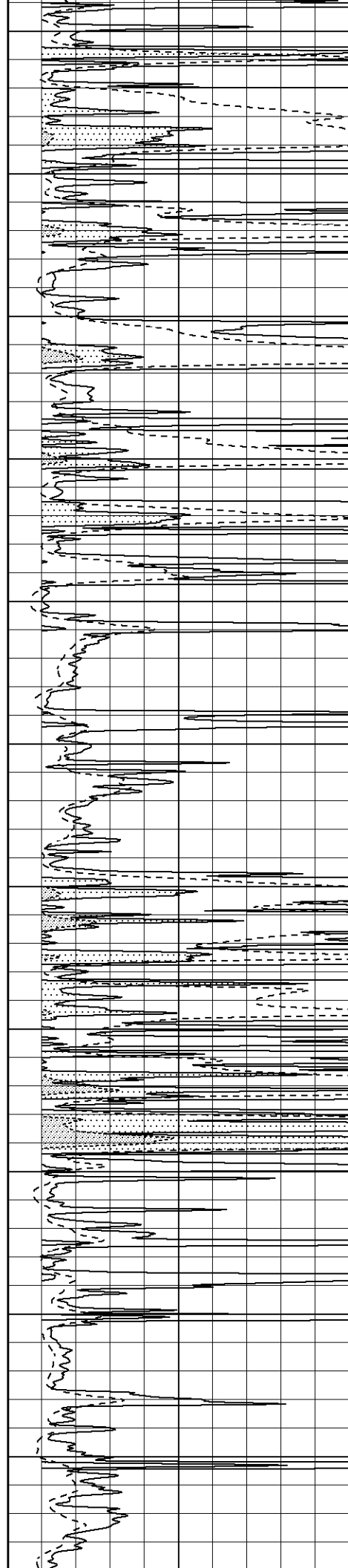


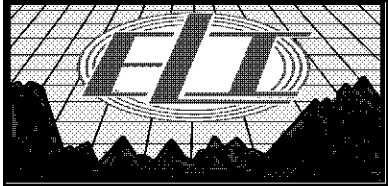
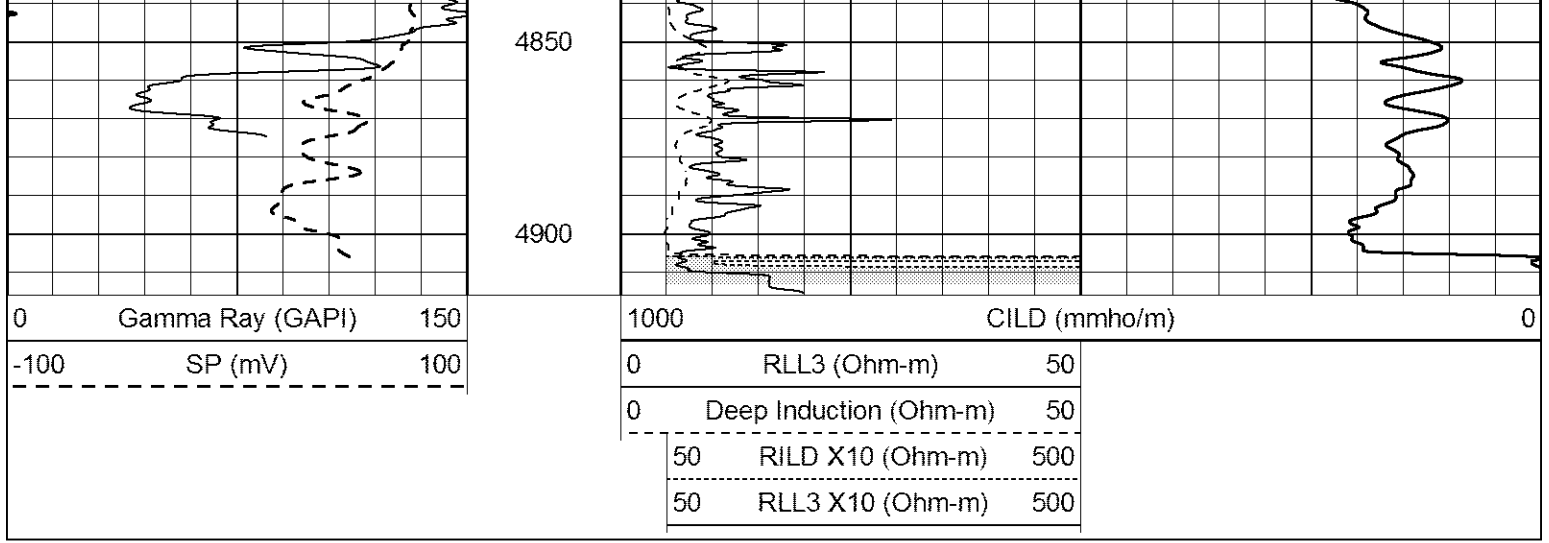
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4700
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4800

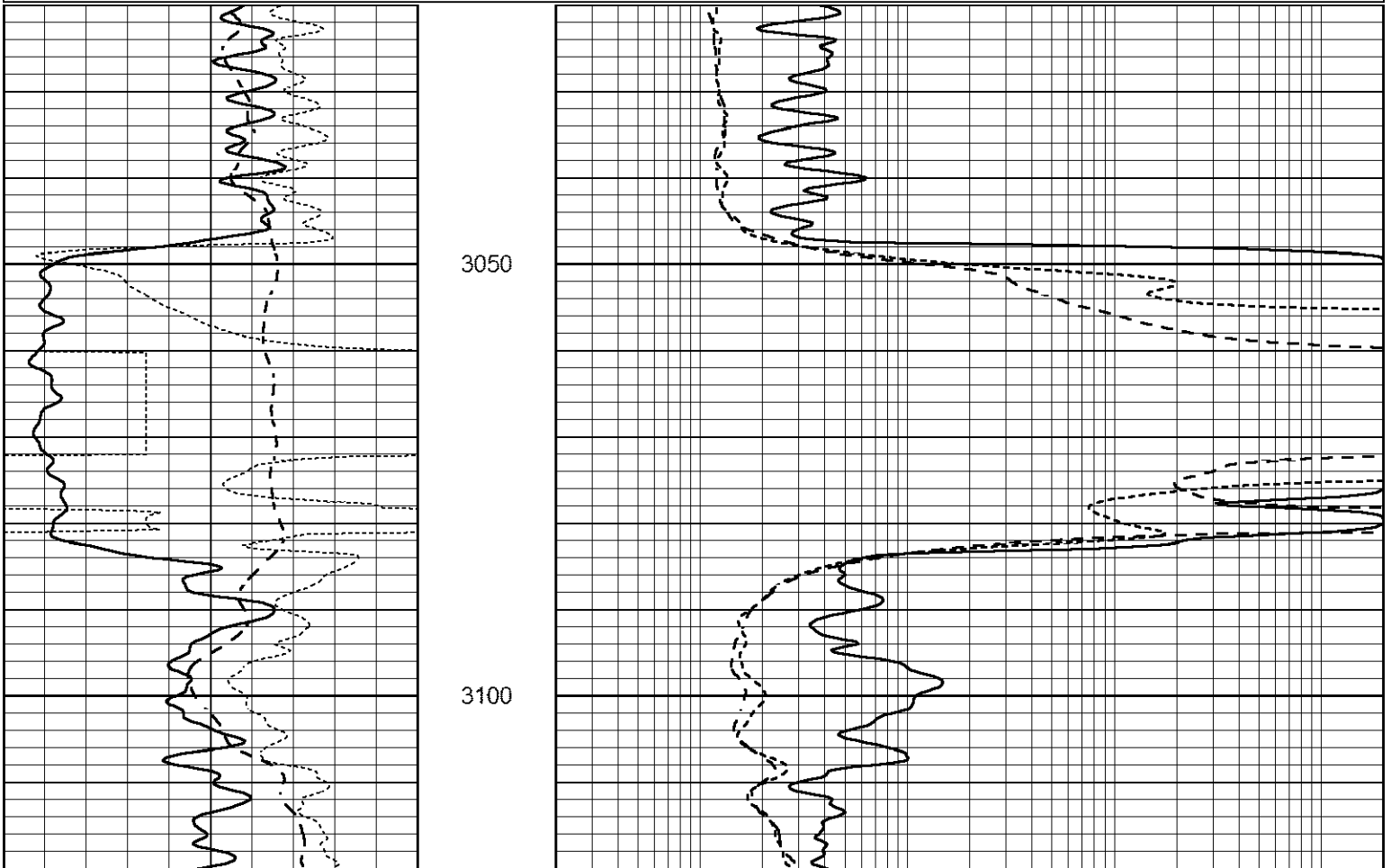




ANHYDRITE

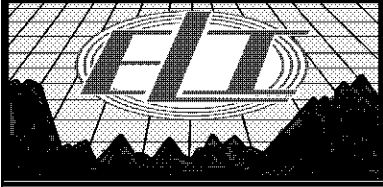
Database File 6388ddn.db
 Dataset Pathname pass6.2
 Presentation Format _dil
 Dataset Creation Tue Apr 19 14:06:25 2022
 Charted by Depth in Feet scaled 1:240

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



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

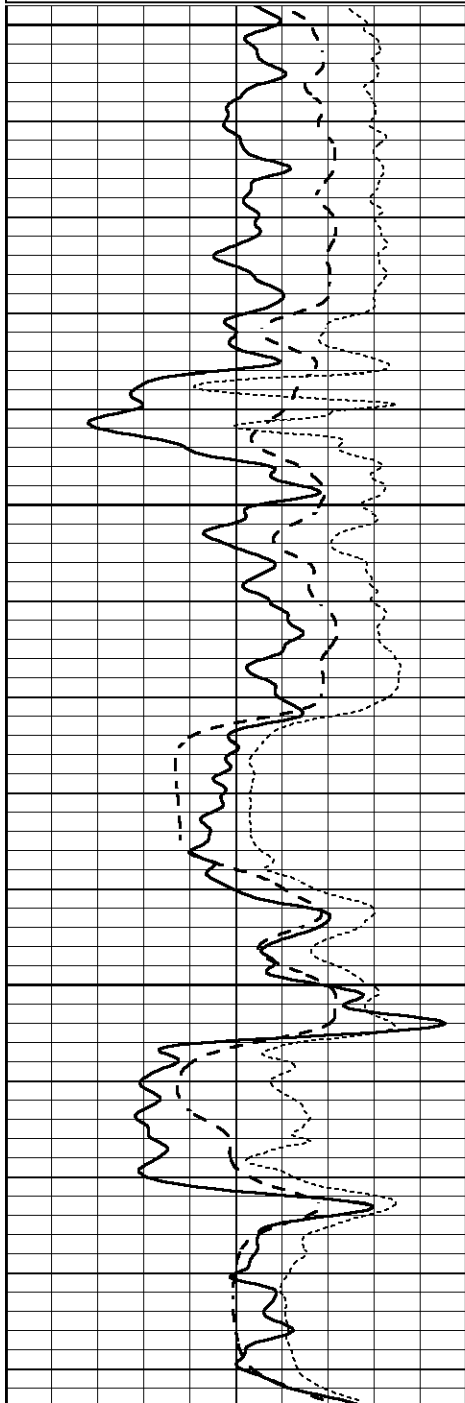


MAIN SECTION

Database File 6388ddn.db
 Dataset Pathname pass6.1
 Presentation Format _dil
 Dataset Creation Tue Apr 19 13:56:58 2022
 Charted by Depth in Feet scaled 1:240

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

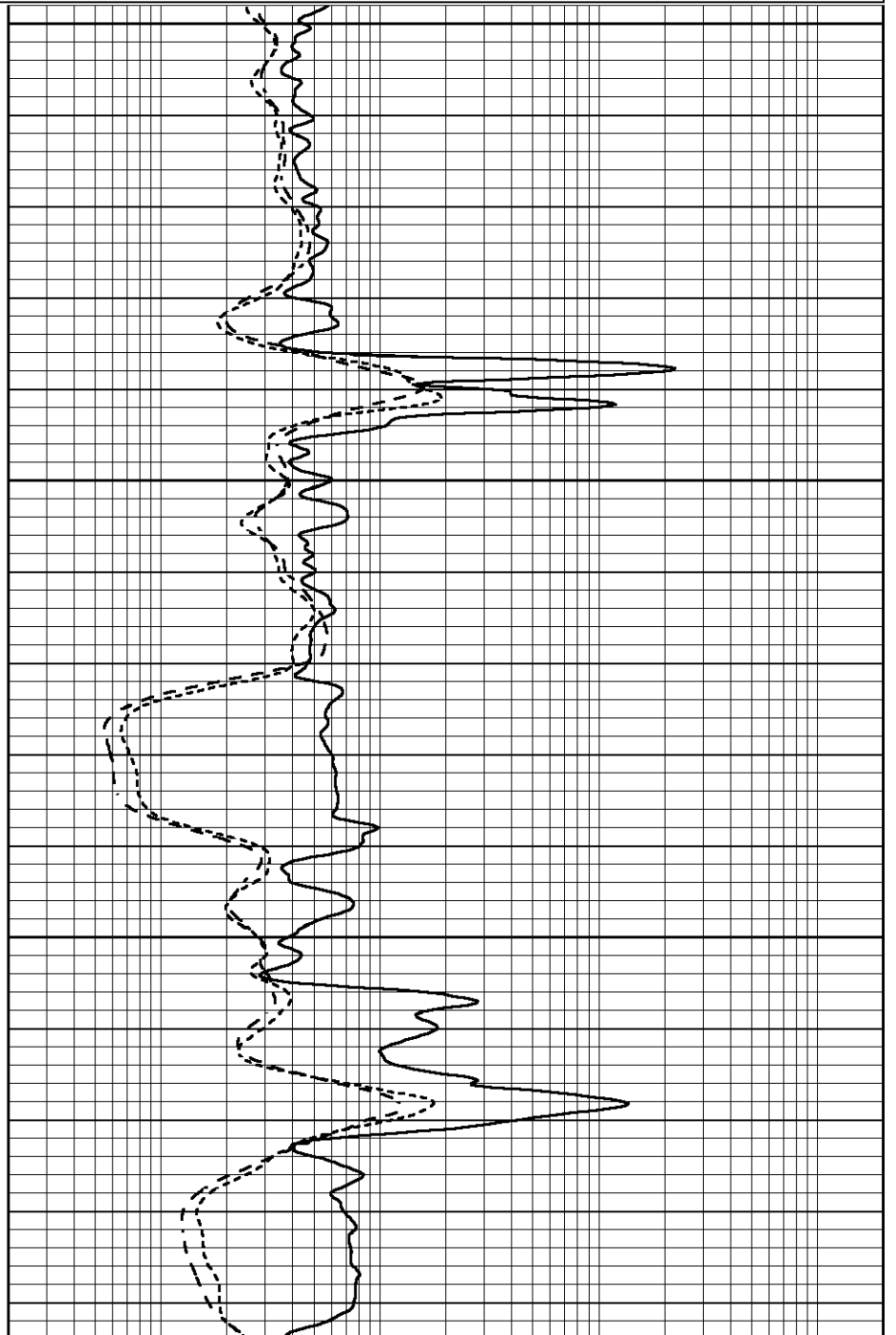
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000

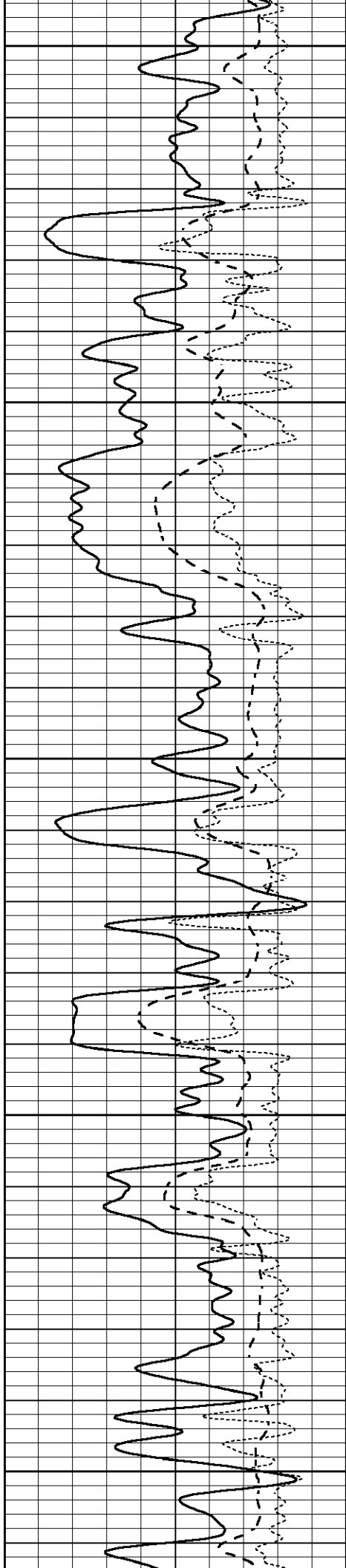


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3650





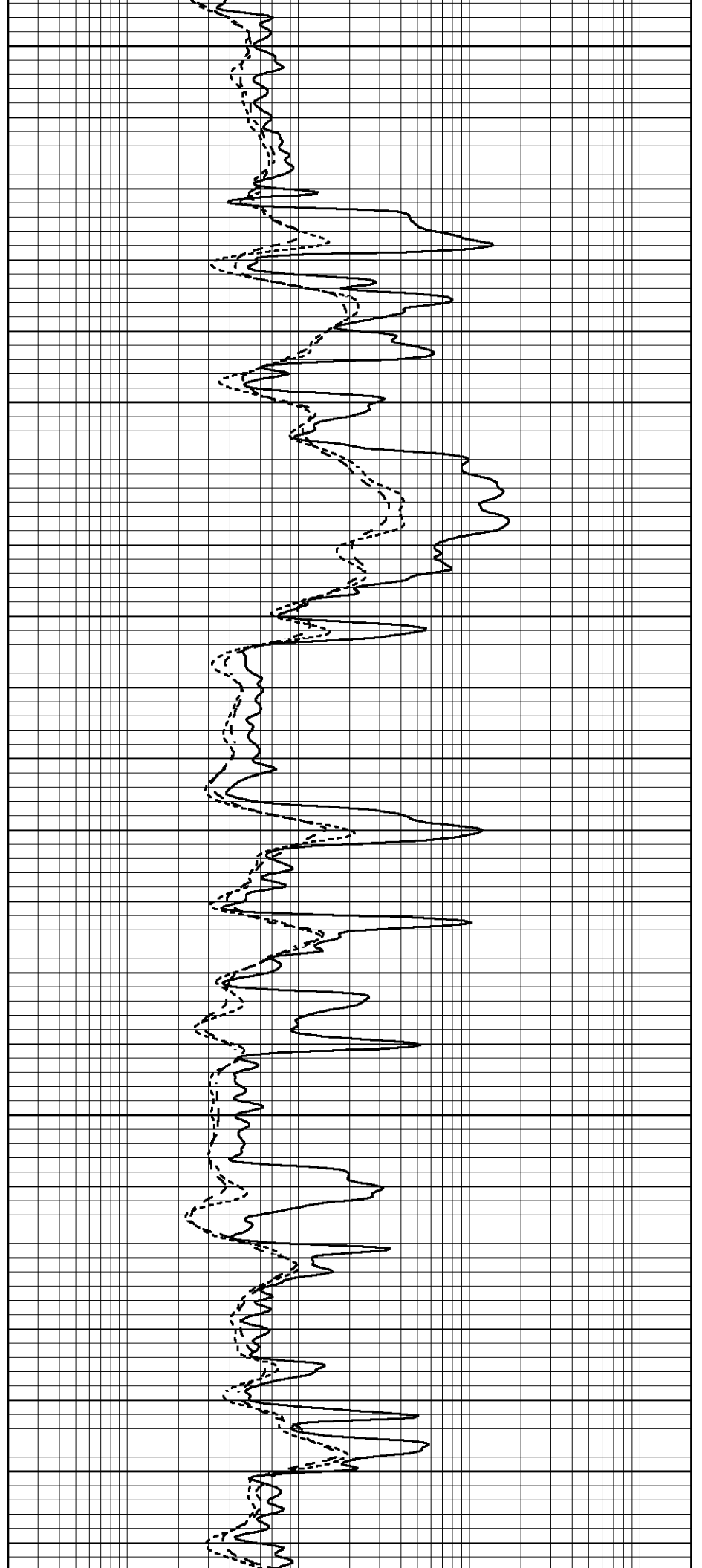
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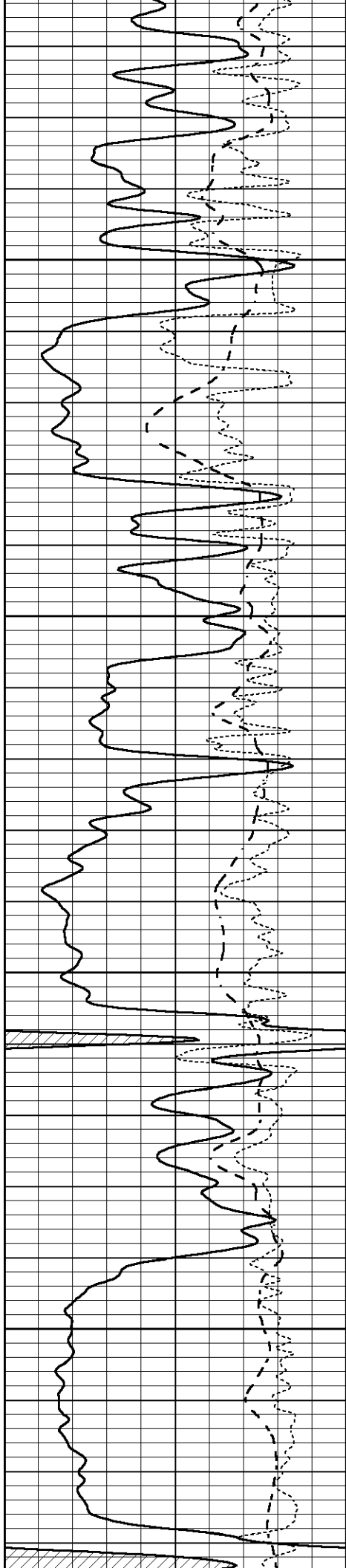
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3850

3900



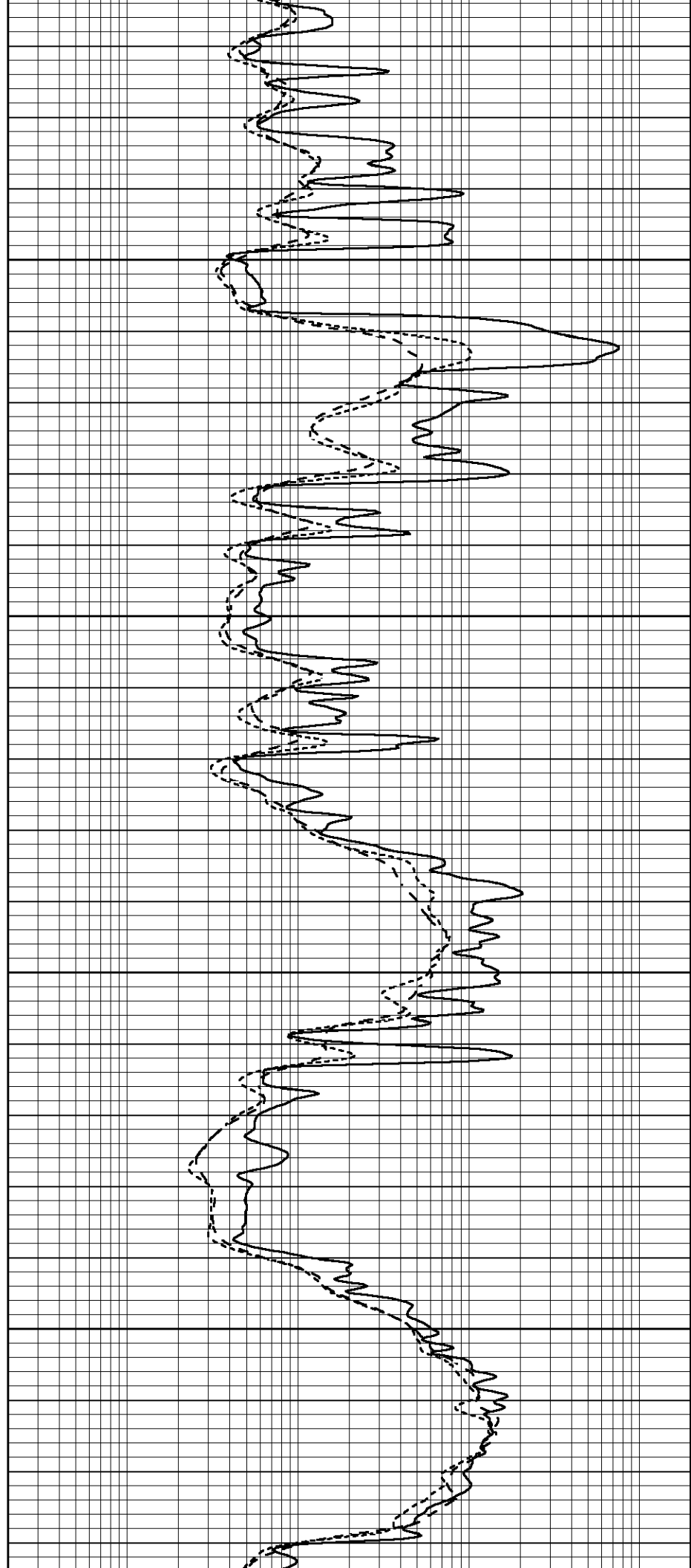


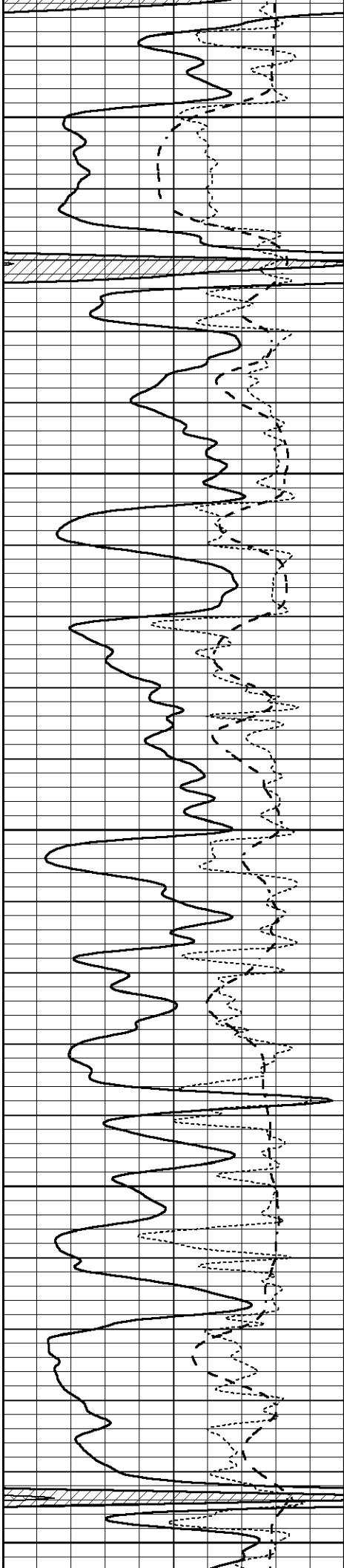
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4050

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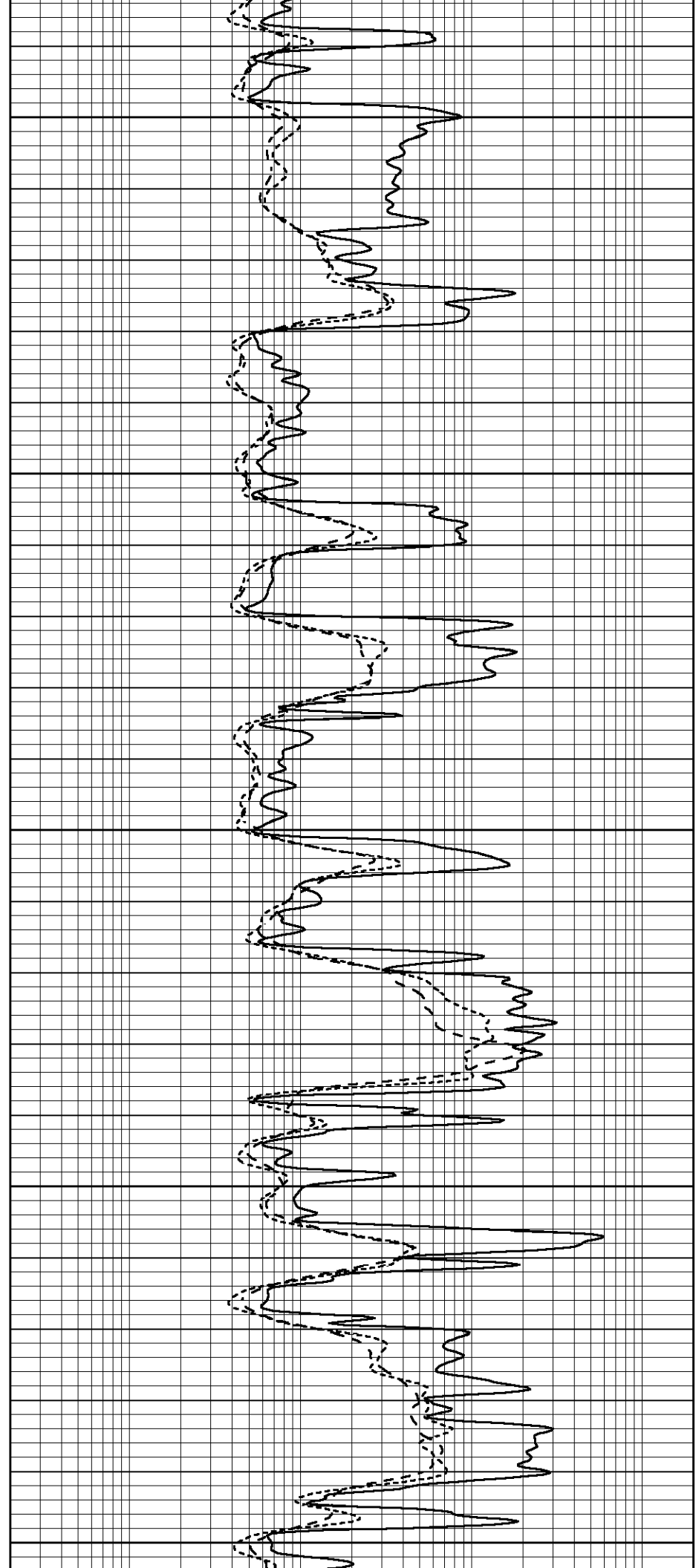
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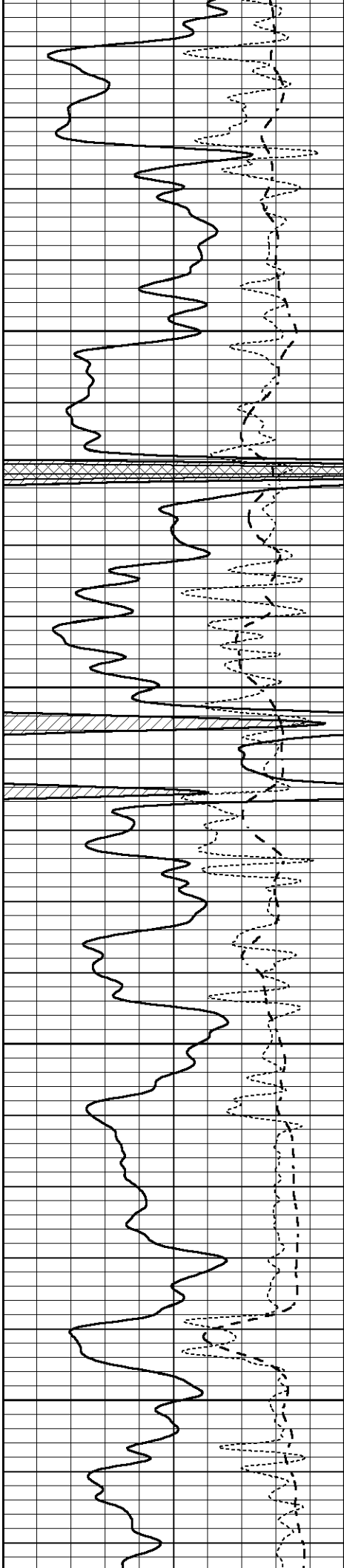
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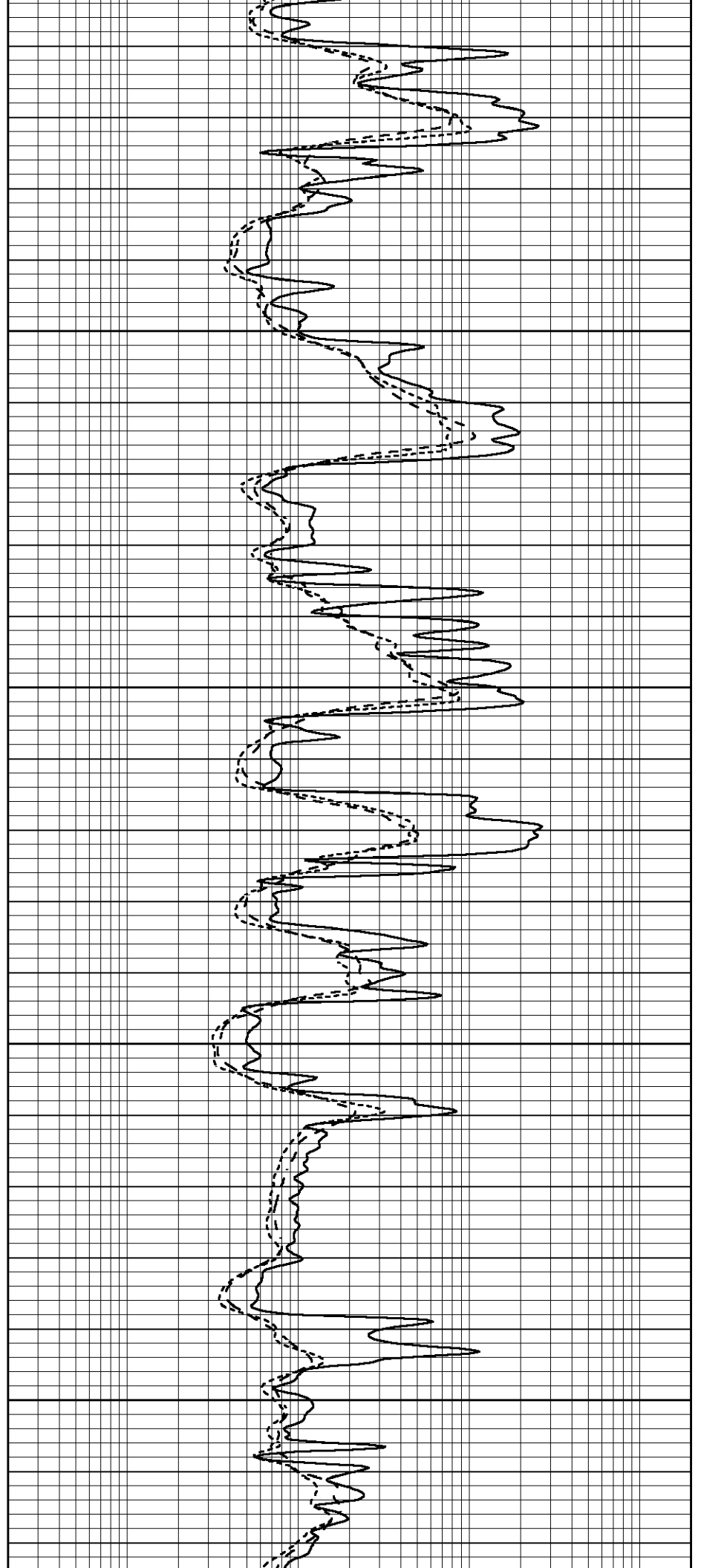


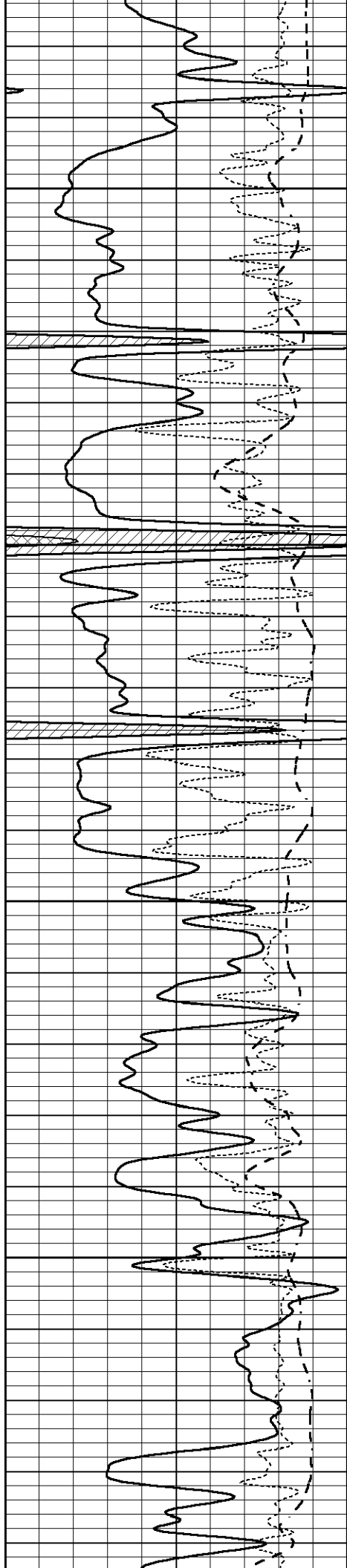
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4500

4550



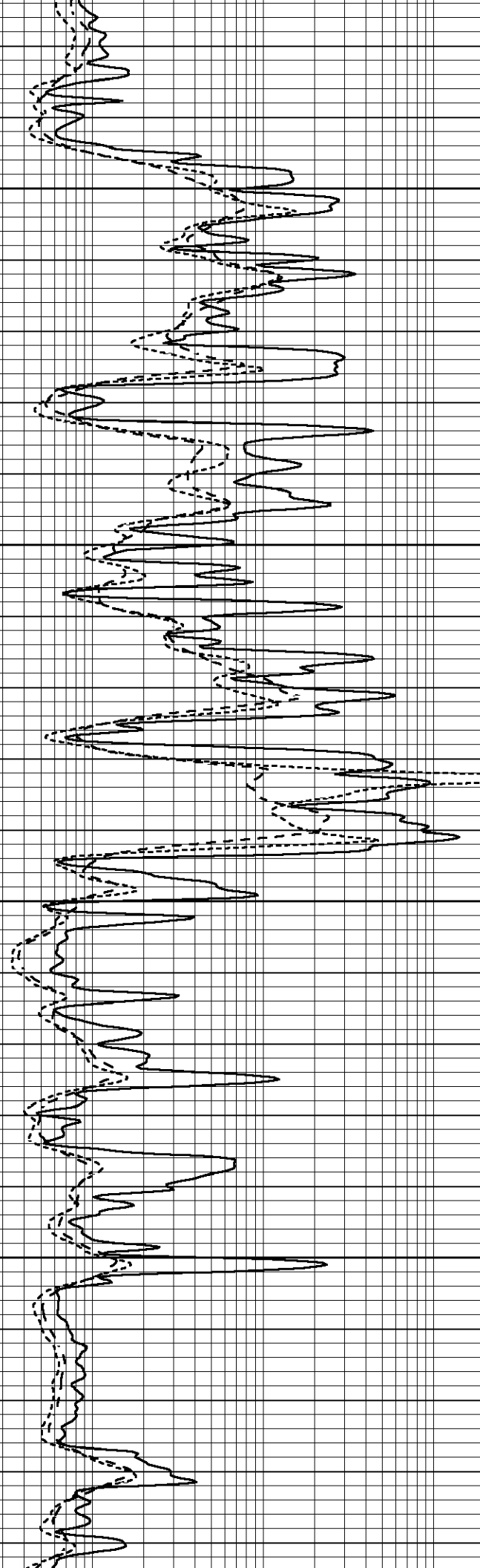


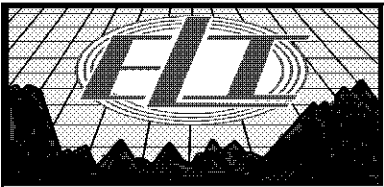
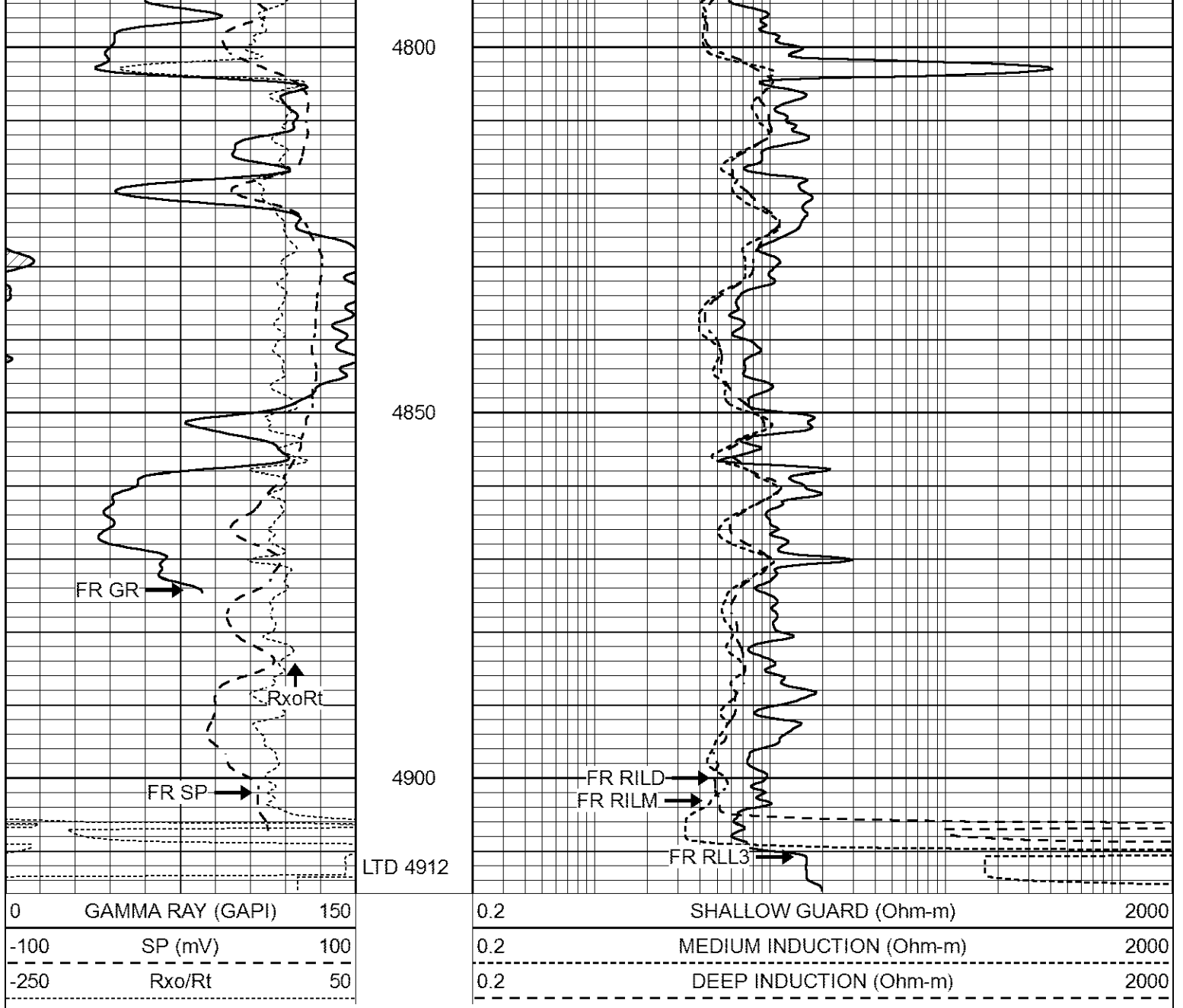
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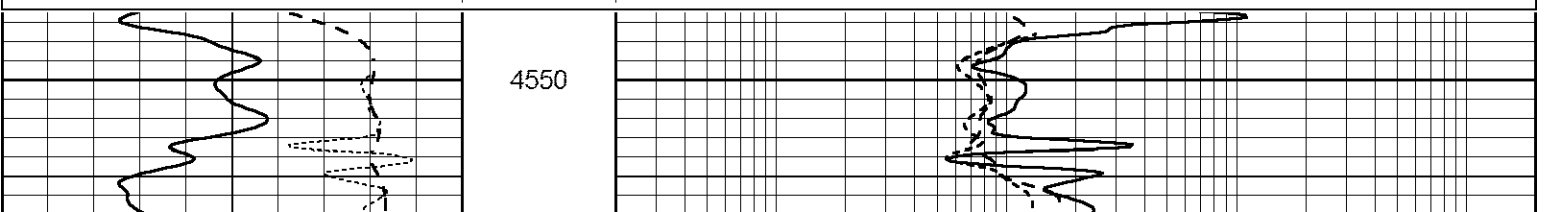
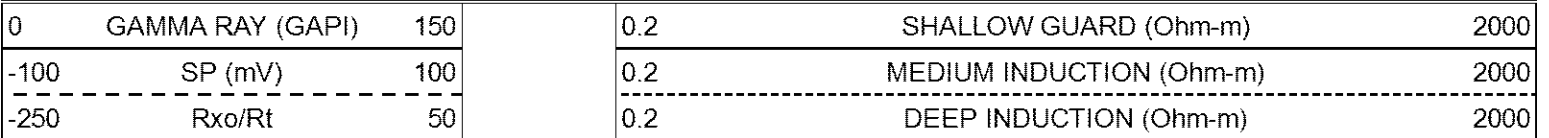
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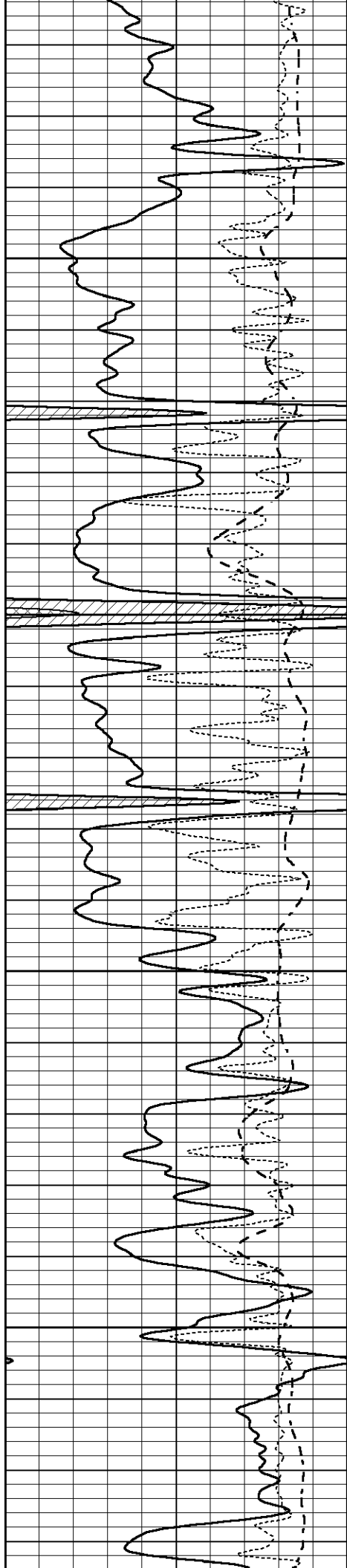




REPEAT SECTION

Database File 6388ddn.db
 Dataset Pathname pass5.1
 Presentation Format _dil
 Dataset Creation Tue Apr 19 13:22:20 2022
 Charted by Depth in Feet scaled 1:240



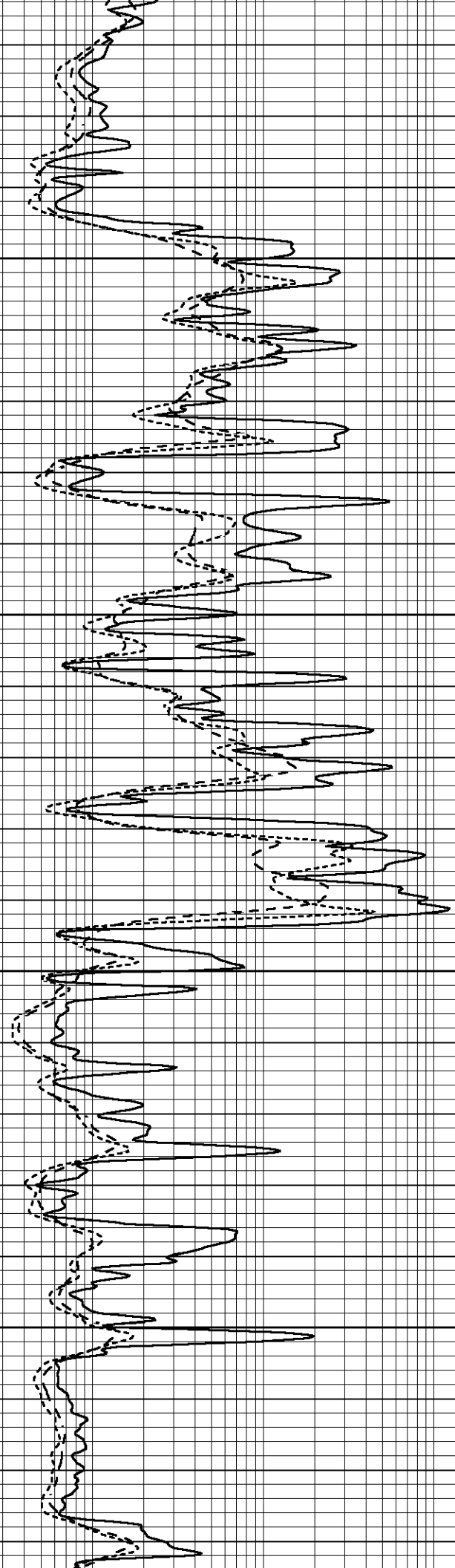


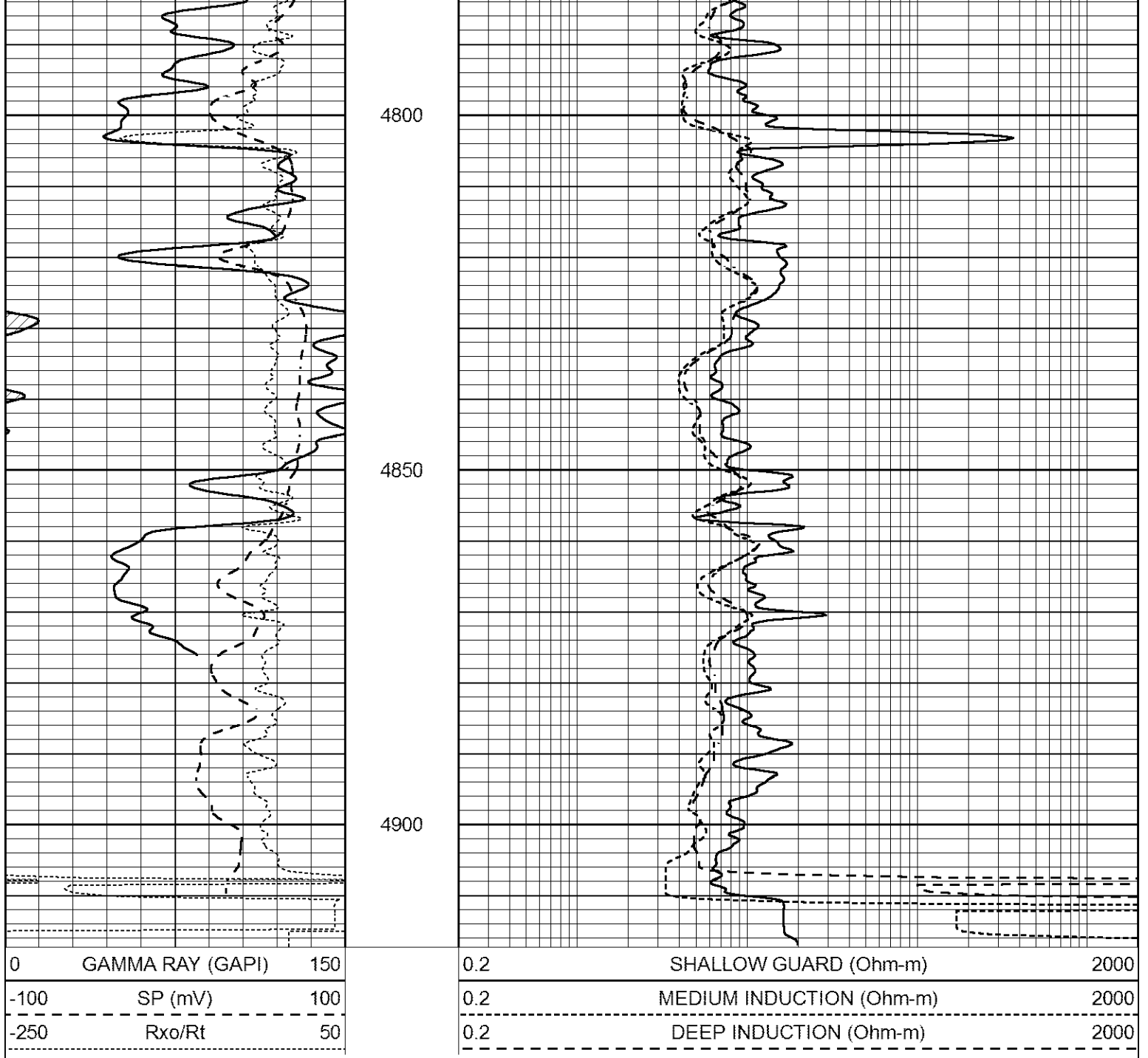
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4650

4700

4750





Calibration Report

Database File 6388ddn.db
 Dataset Pathname pass6.3
 Dataset Creation Tue Apr 19 14:32:35 2022

Dual Induction Calibration Report

Serial-Model: FW1410-55-Probe
 Surface Cal Performed: Sat Jan 29 11:57:42 2022
 Downhole Cal Performed: Tue Feb 19 11:44:24 2019
 After Survey Verification Performed: Tue Feb 19 11:44:27 2019

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop	V	Air	Loop	mmho/m	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		

Litho Density Calibration Report
Serial: 140704
Model: V4_10P
Source Number: 74GBq-19

Master Calibration				Performed: Fri Feb 18 15:41:27 2022			
	Background	Aluminum		Magnesium			
Window 1	515.75	5443.58		23734.91		cps	
Window 2	41.45	1226.32		5757.32		cps	
Window 4	224.78	1223.03		5315.97		cps	
Window 5	549.25	7983.61		15349.73		cps	
Window 6	43.12	1271.88		2496.98		cps	
Window 8	261.02	2595.65		4928.92		cps	
Bulk Density	-	2.6020		1.6830		g/cc	
Pe	-	3.0000		2.5070		b/e	
LS Alpha:	: -1.8571	SS Alpha:	: -0.7875	LS CPE:		: 1.1396	
LS Beta:	: 128618.9672	SS Beta:	: 18780.4869	SS CPE:		: 1.5966	

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 5	0.00	cps
Window 6	0.00	cps
Window 8	0.00	cps

Lithodensity Caliper Calibration Performed: Fri Feb 18 15:41:27 2022

Results	Readings		References (in)		Gain	Offset
Low	High	Low	High	Gain	Offset	
8107.9	11082.1	8.0	14.0	0.0	-8.0	

Before Survey Caliper Verification Performed:

Caliper (in)	Reference	Reading
	_____	_____

After Survey Caliper Verification Performed:

Caliper (in)	Reference	Reading
	_____	_____

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