



**SUPERIOR**  
Hays,  
Kansas

**DUAL  
INDUCTION  
LOG**

Company RITCHIE EXPLORATION, INC.  
Well W & E 21 AD UNIT #1  
Field WILDCAT  
County GOVE  
State KANSAS

Company RITCHIE EXPLORATION, INC.  
Well W & E 21 AD UNIT #1  
Field WILDCAT  
County GOVE State KANSAS

Location: API # : 15-063-21907-0000  
2475' FSL & 1990' FEL  
SEC 21 TWP 12S RGE 31W  
Permanent Datum GROUND LEVEL Elevation 2888  
Log Measured From KELLY BUSHING 10' A.G.L.  
Drilling Measured From KELLY BUSHING  
Other Services CDL/CNL  
Elevation K.B. 2898  
D.F. 2896  
G.L. 2888

Date	5/5/11		
Run Number	ONE		
Depth Driller	4660		
Depth Logger	4661		
Bottom Logged Interval	4659		
Top Log Interval	00		
Casing Driller	8 5/8" @ 219		
Casing Logger	216		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 3400 PPM	
Density / Viscosity	9.3/58		
pH / Fluid Loss	10.0/8.8		
Source of Sample	FLOWLINE		
Rin @ Meas. Temp	1.3 @ 85F		
Rmf @ Meas. Temp	.97 @ 85F		
Rmc @ Meas. Temp	1.56 @ 85F		
Source of Rmf / Rmc	MEASURED		
Rin @ BHT	.90 @ 122F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	122F		
Equipment Number	680		
Location	HAYS, KS.		
Recorded By	JASON CAPPELLUCCI		
Witnessed By	TOM FUNK		

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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 SUPERIOR WELL SERVICE (785) 628-6395  
DIRECTIONS  
I-70 TO OAKLEY EXIT 76 - 2 E. TO RD 14 - 8 S. - 1/2 E. TO GATE - S. INTO



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**MAIN SECTION**

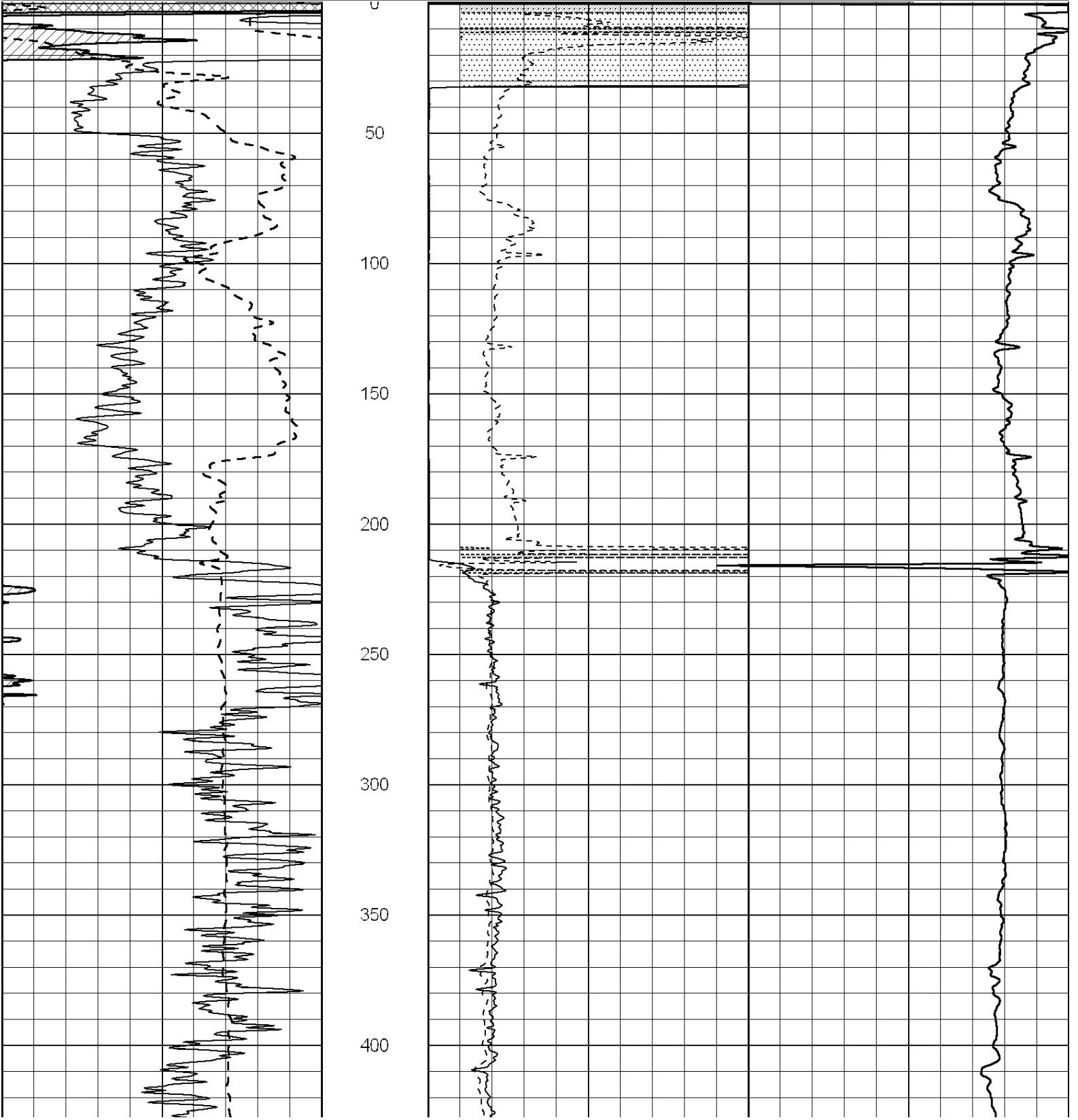
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 Dataset Creation: Thu May 05 23:09:51 2011 by Calc Open-Cased 090629  
 Charted by: Depth in Feet scaled 1:600

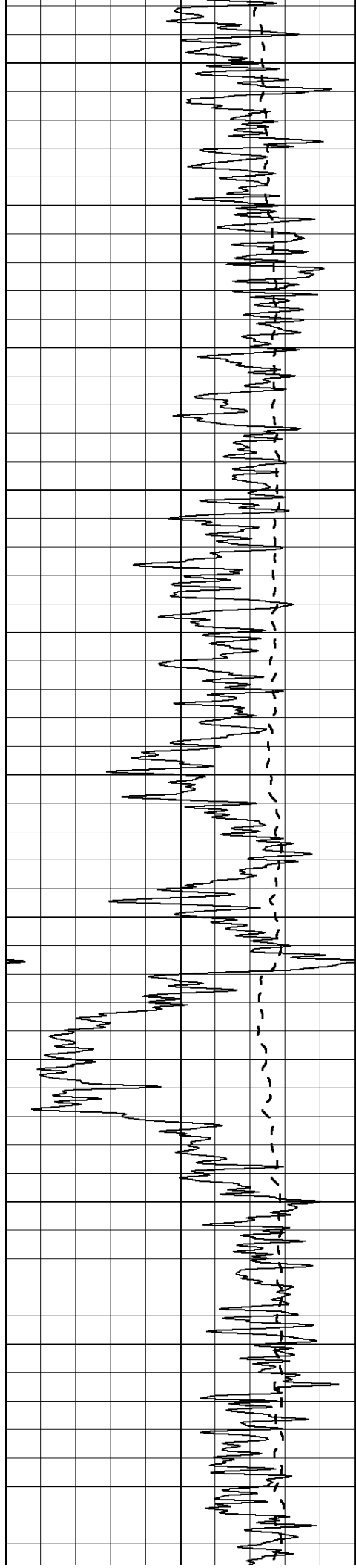
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 0 Deep Induction (Ohm-m) 50

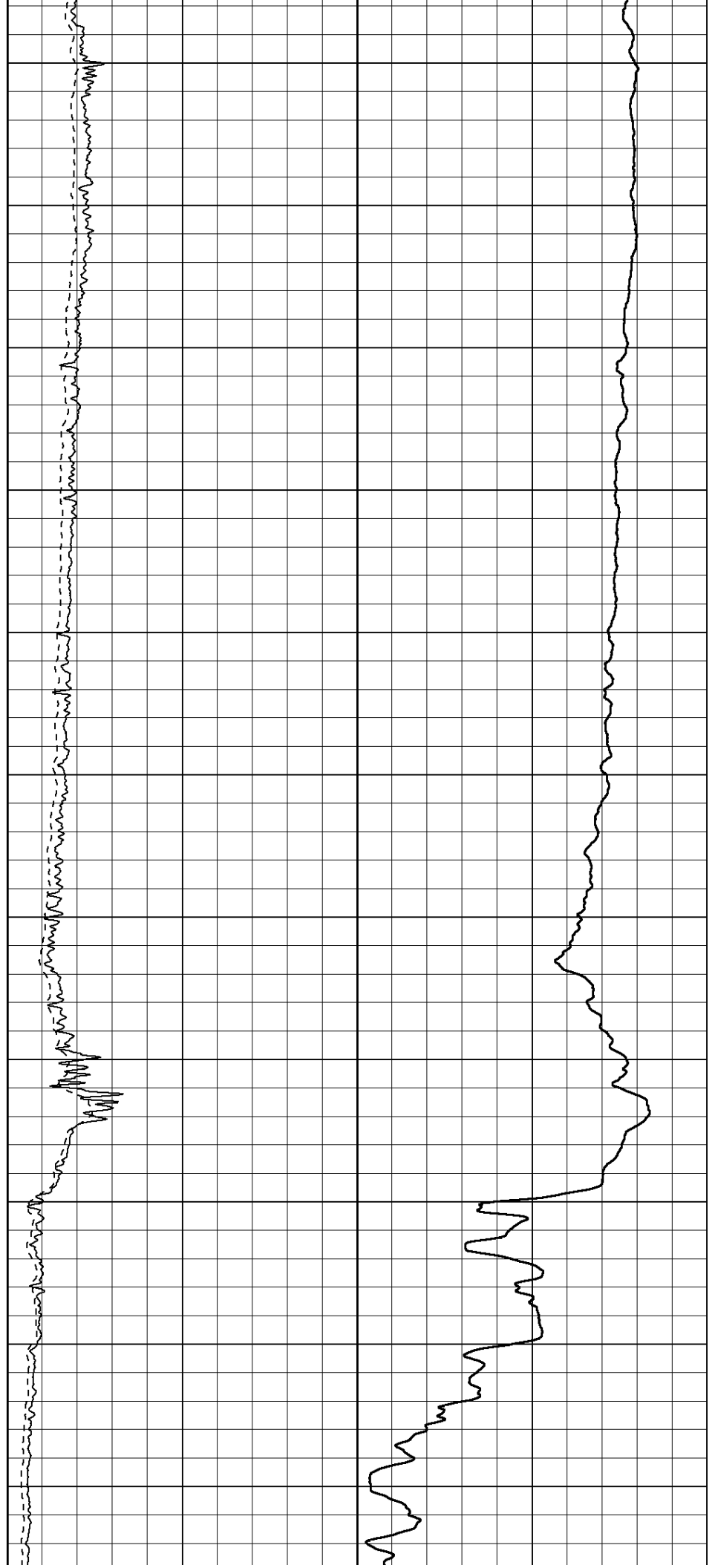
1000 CILD (mmho/m) 0

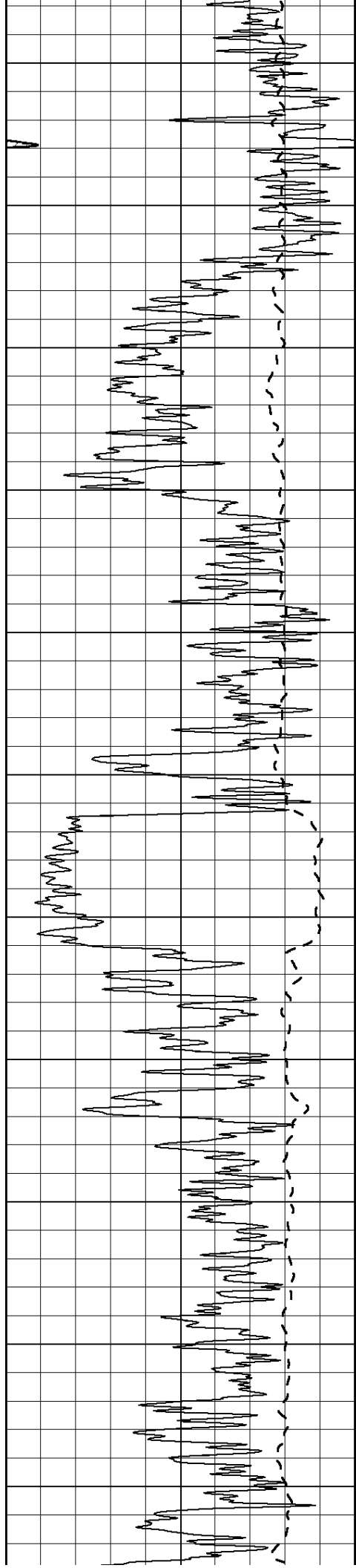
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 50 RLL3 X10 (Ohm-m) 500



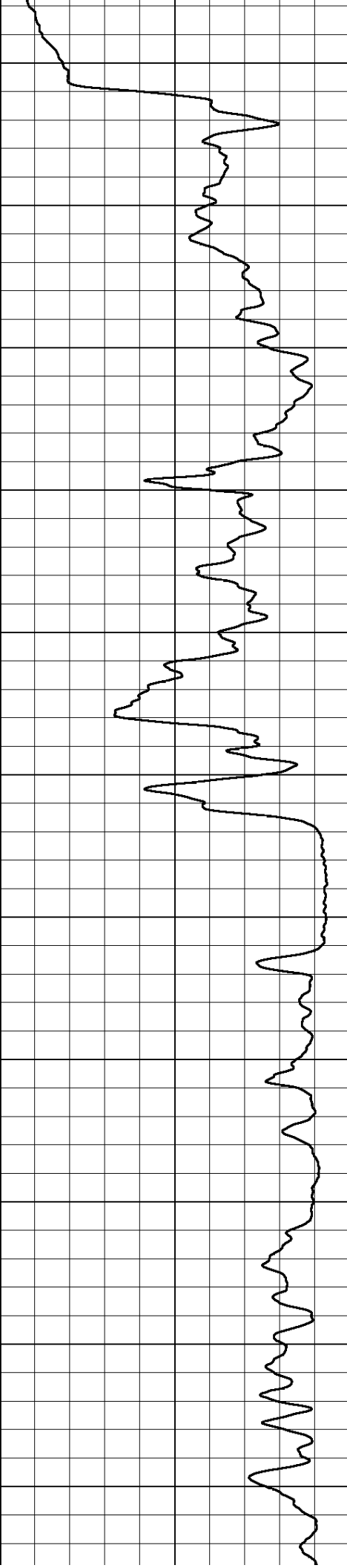
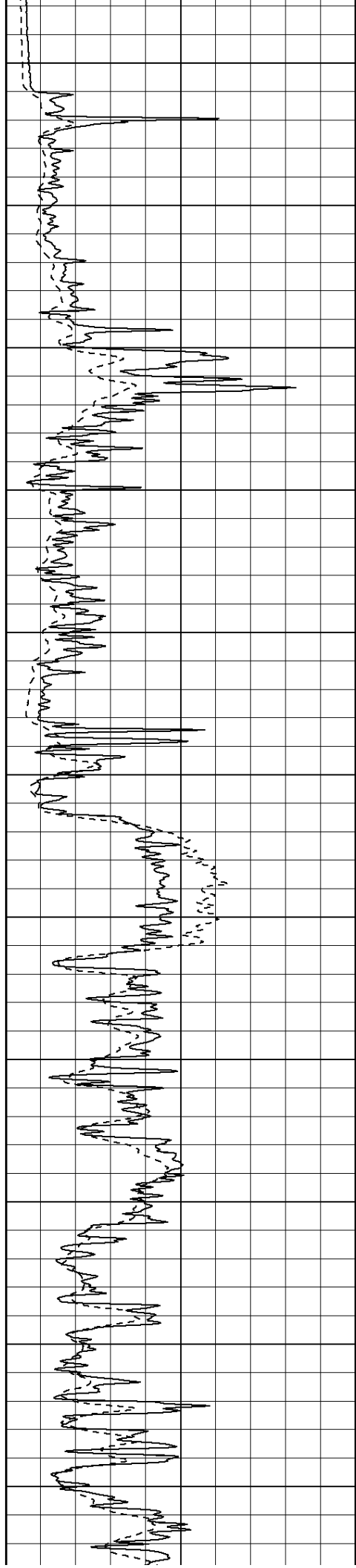


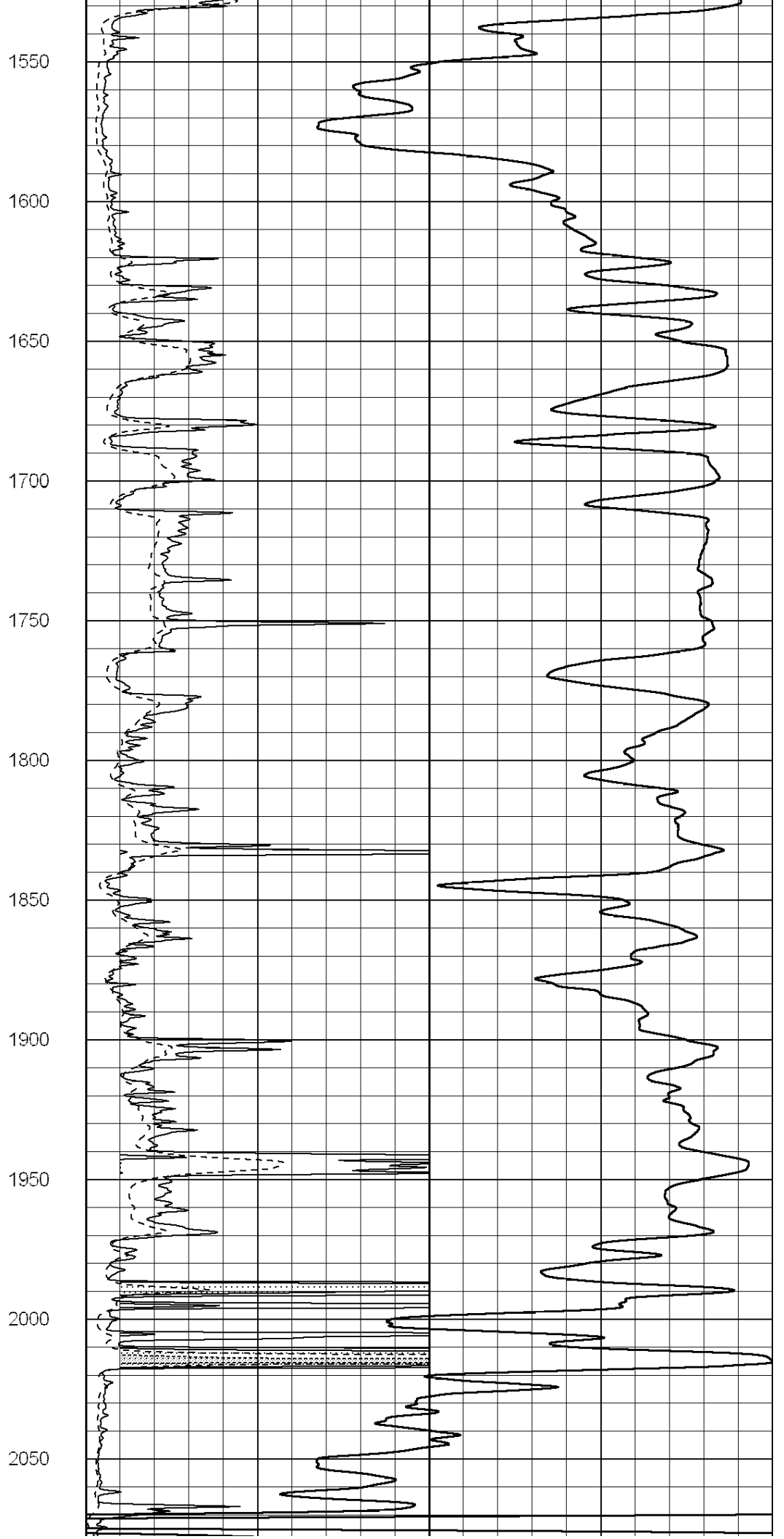
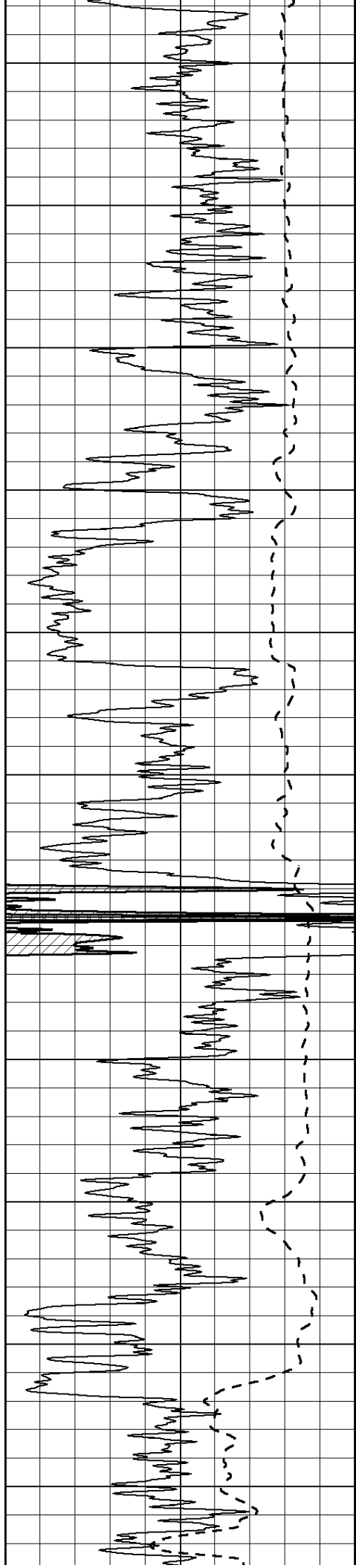
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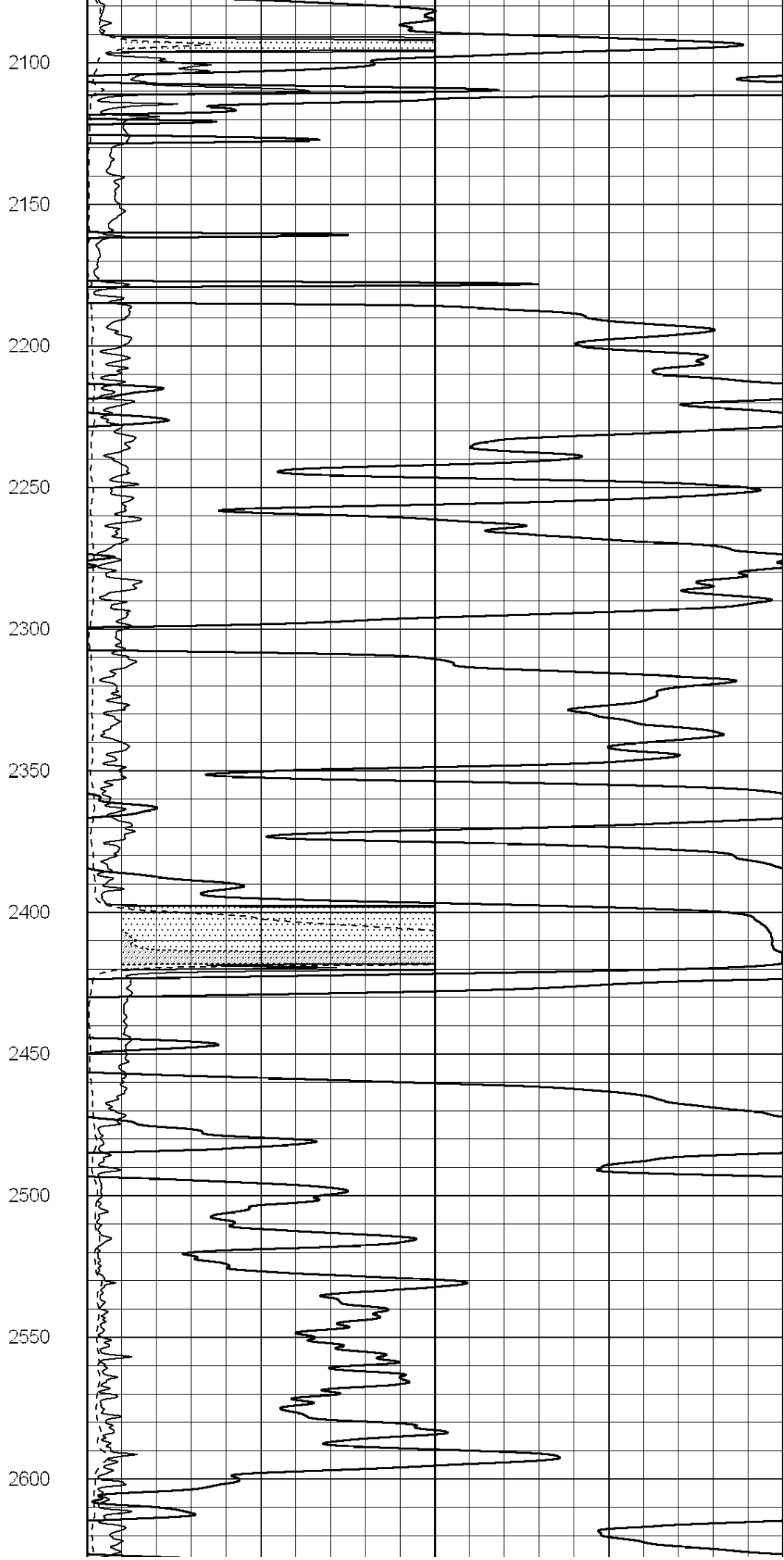
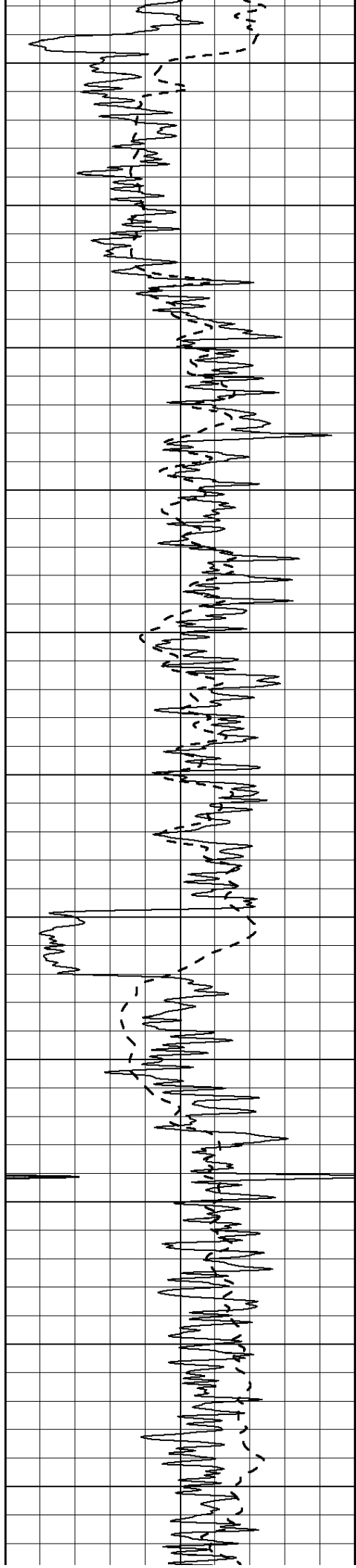


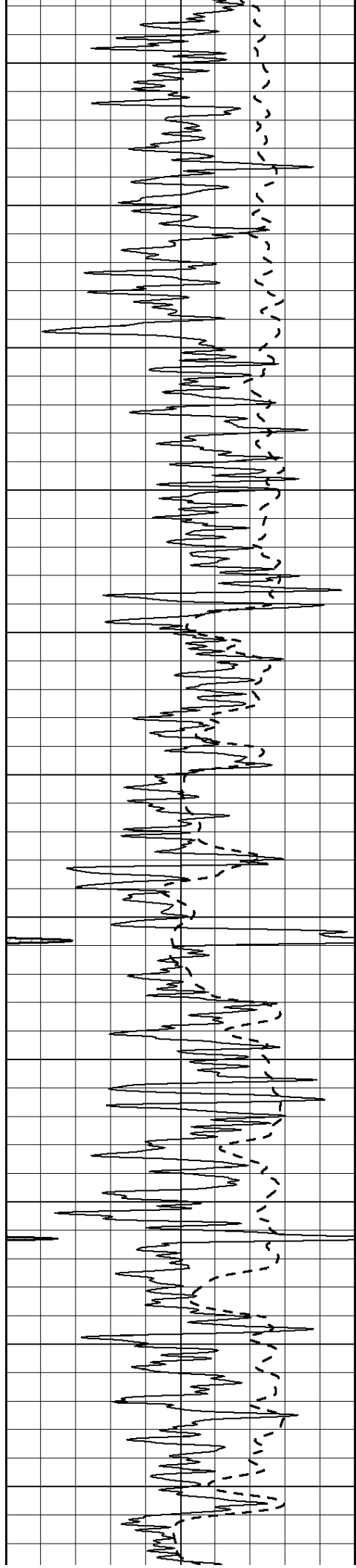


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1300  
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1400  
1450  
1500

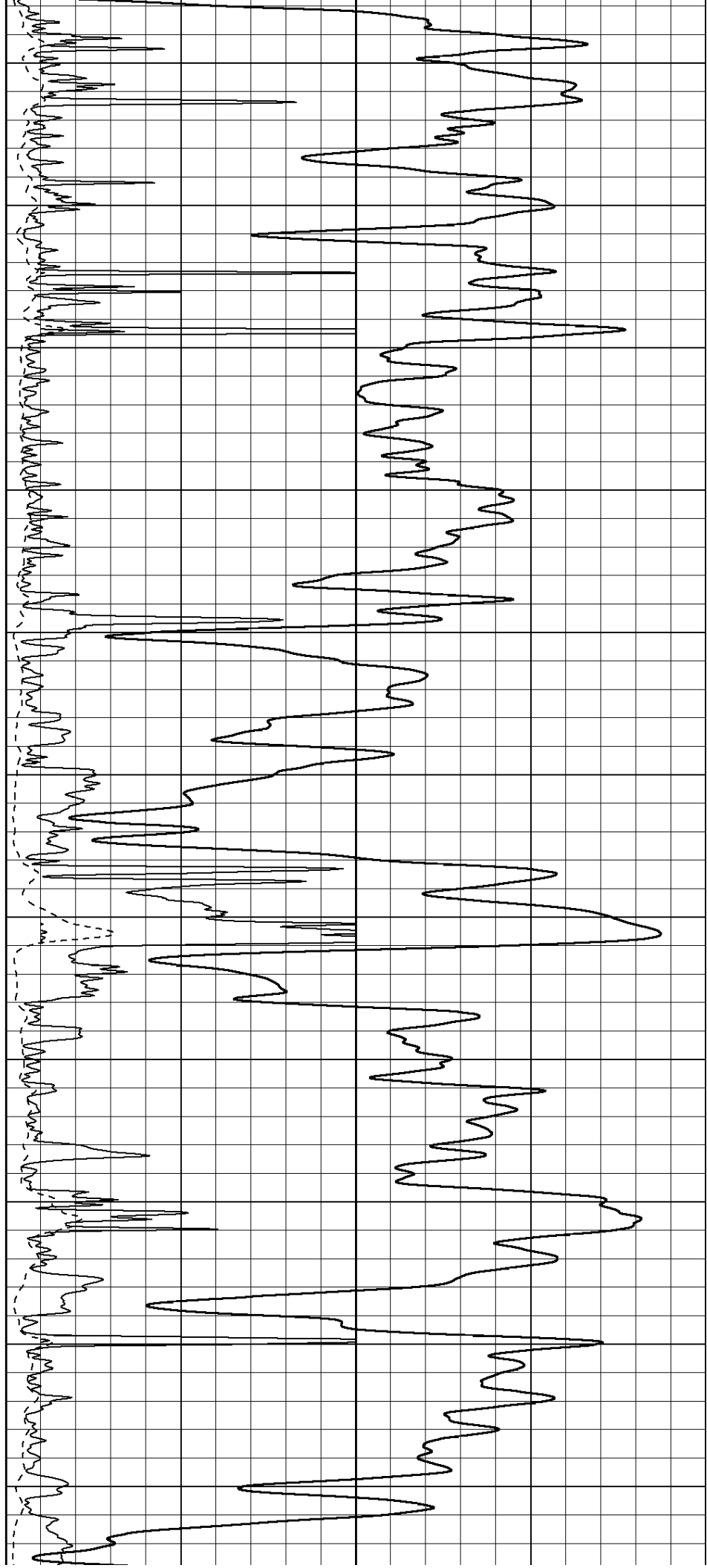


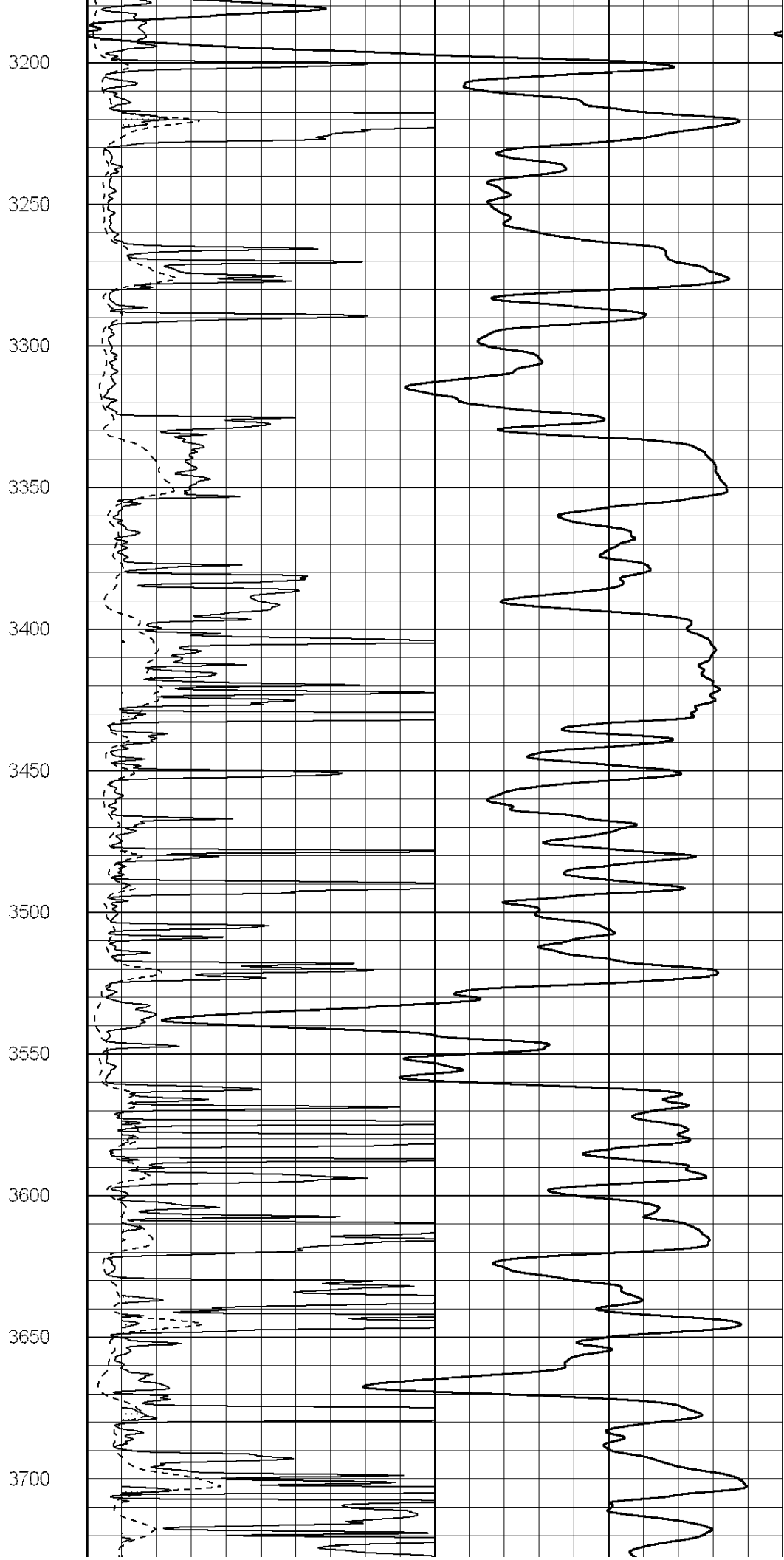
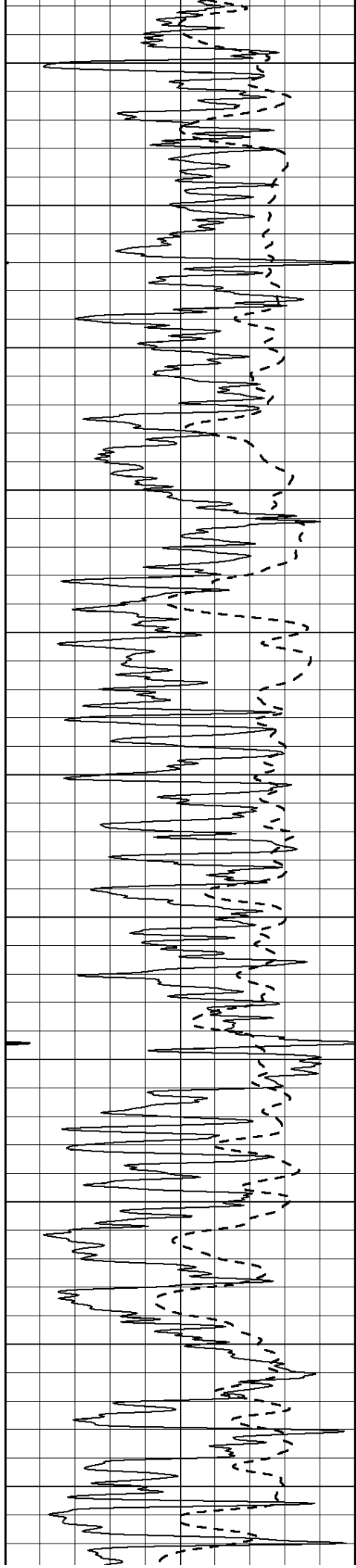


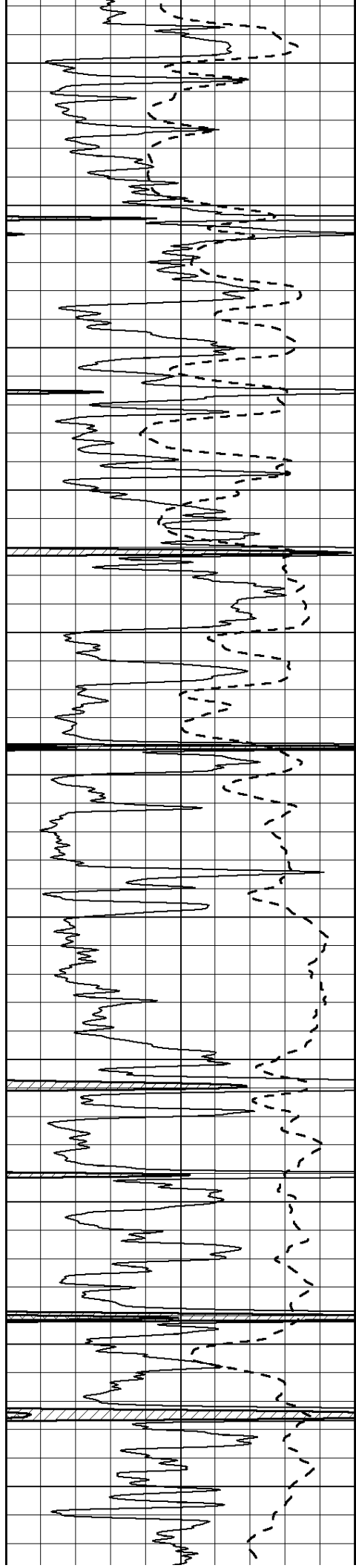




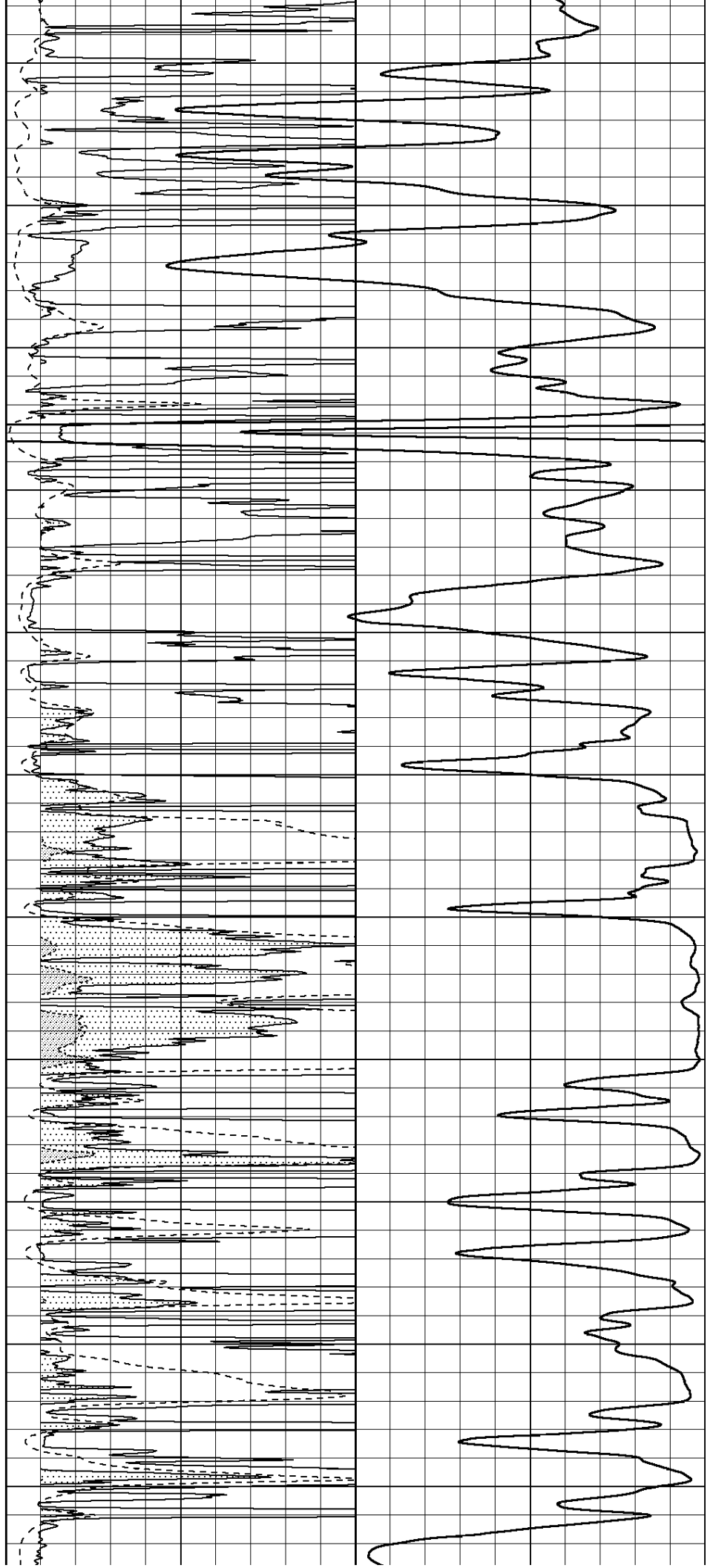
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3150

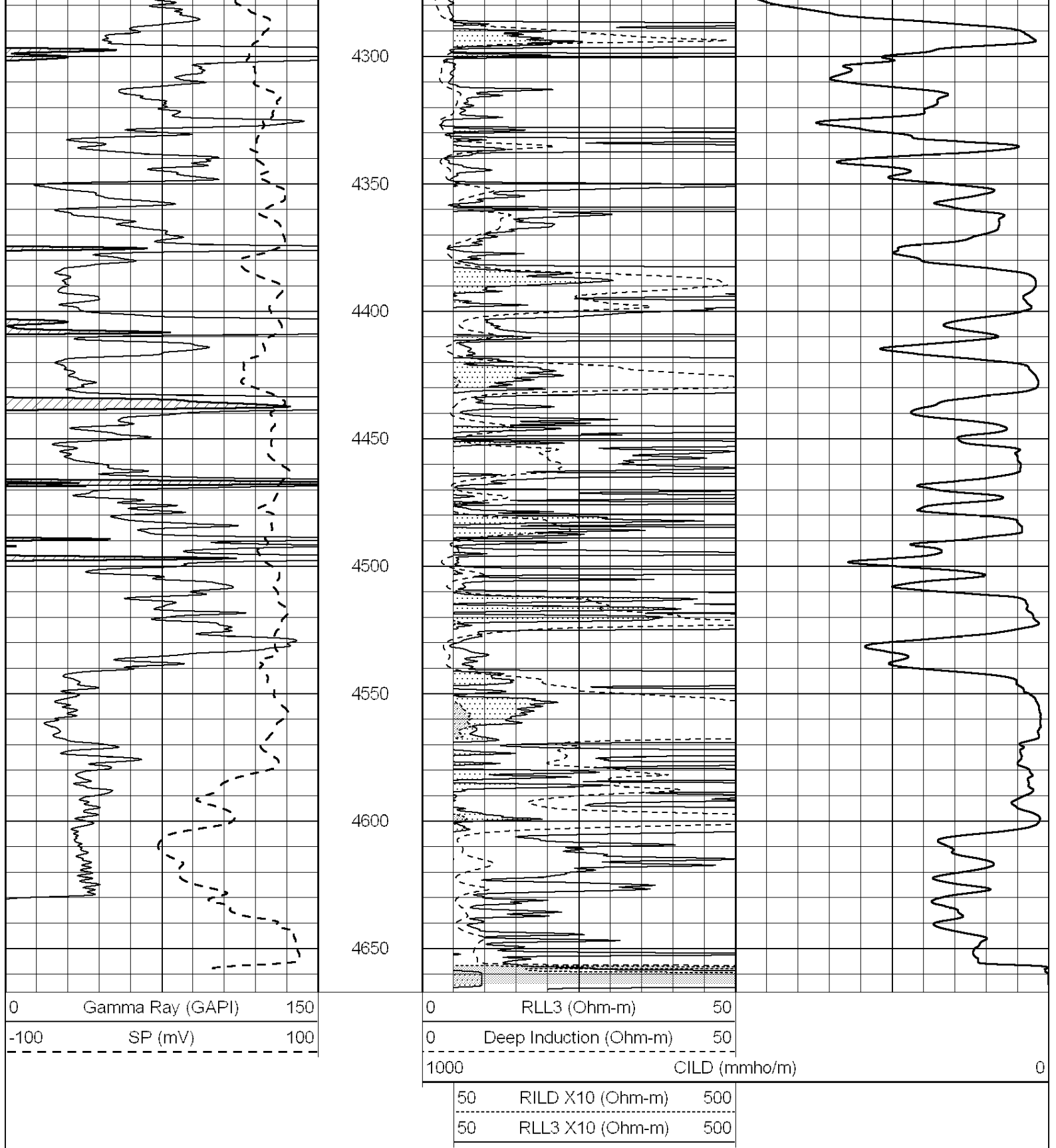






3750  
3800  
3850  
3900  
3950  
4000  
4050  
4100  
4150  
4200  
4250





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# ANHYDRITE

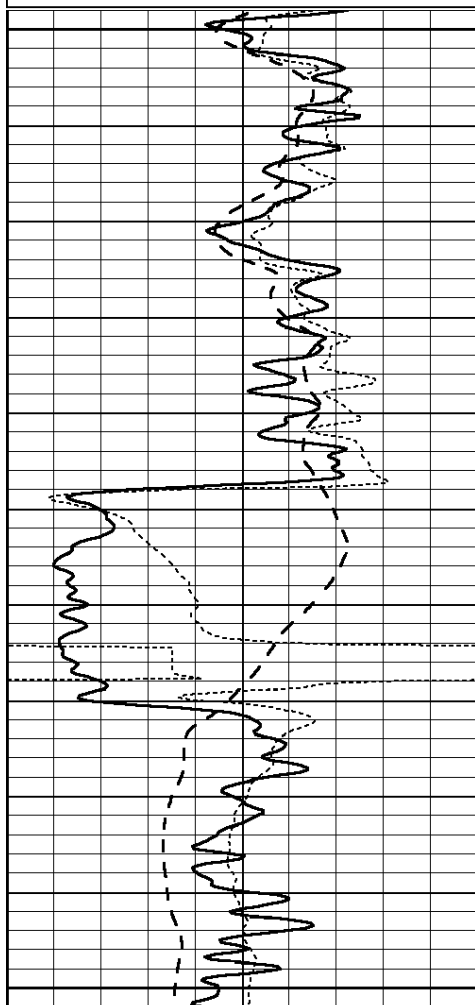
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Charted by:

Depth in Feet scaled 1:240

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

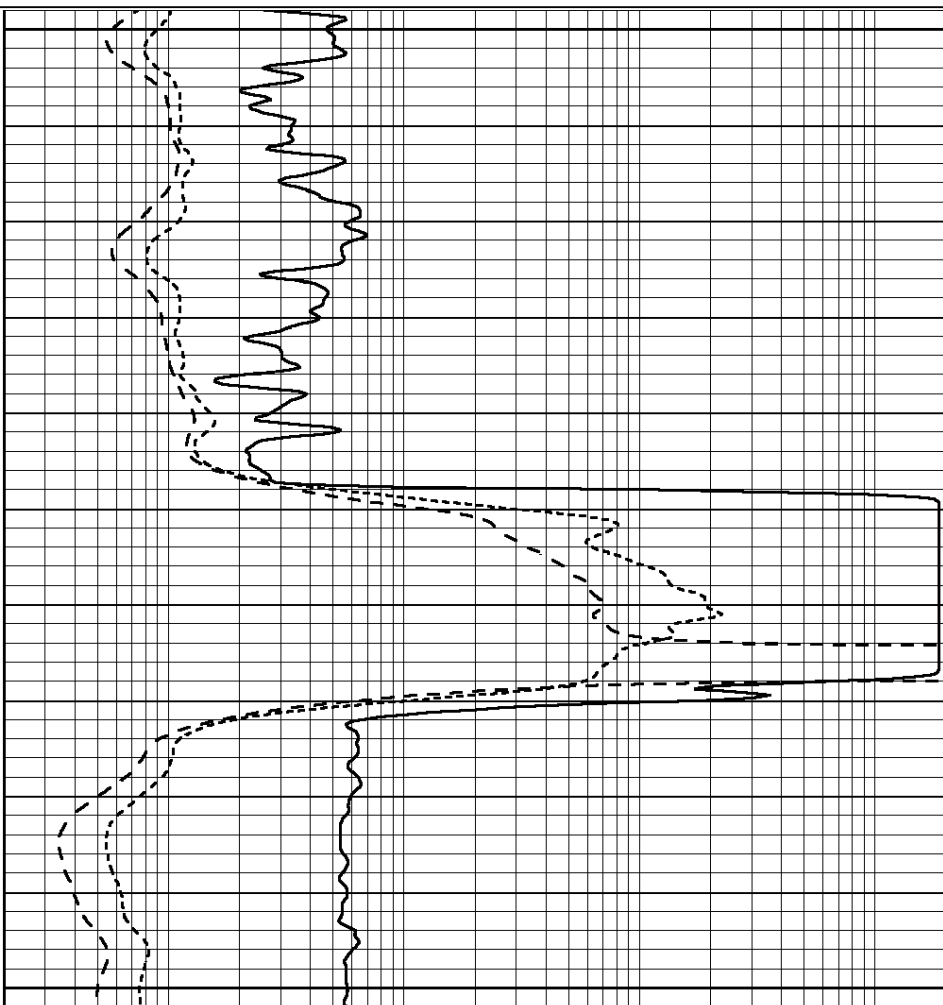
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0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000



2350

2400

2450



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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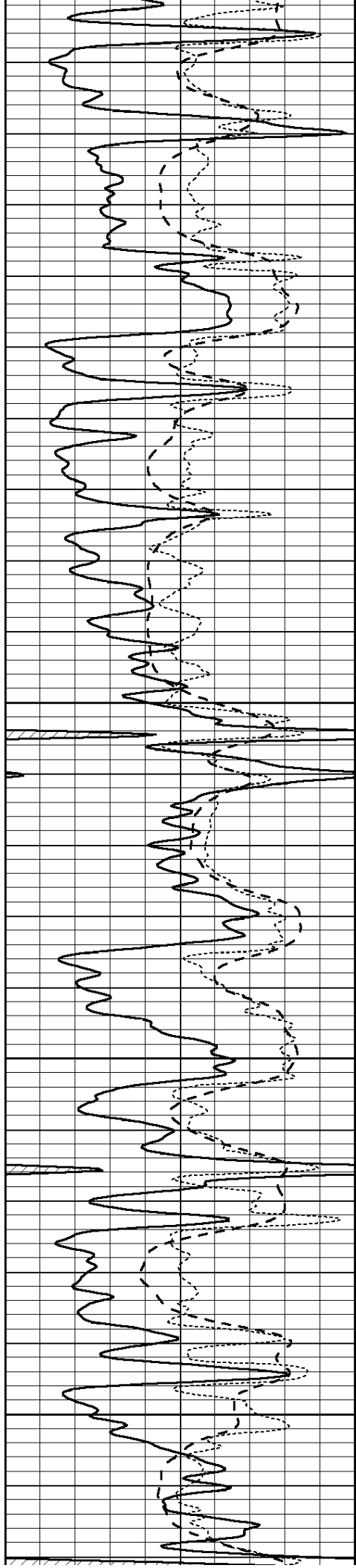
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 Charted by: Depth in Feet scaled 1:240

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

3700

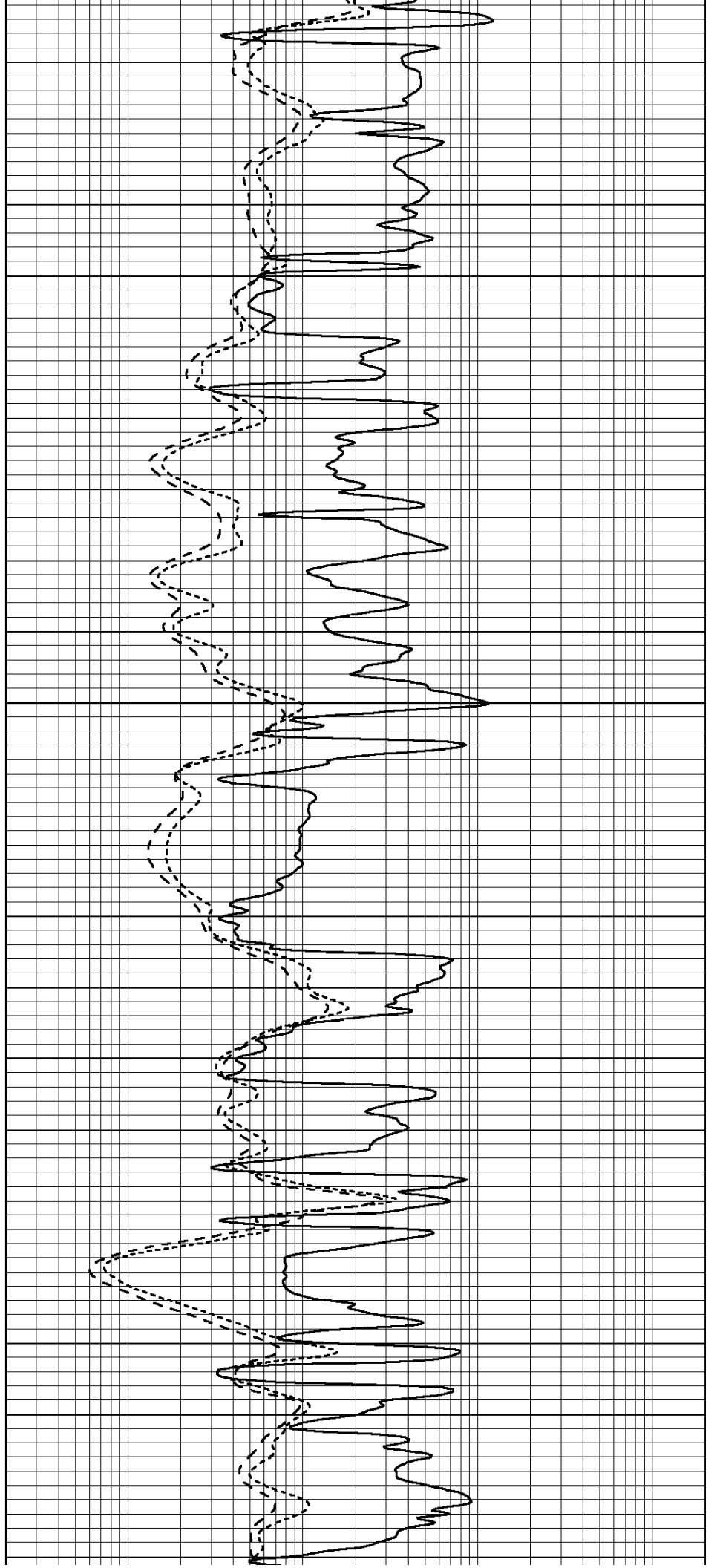


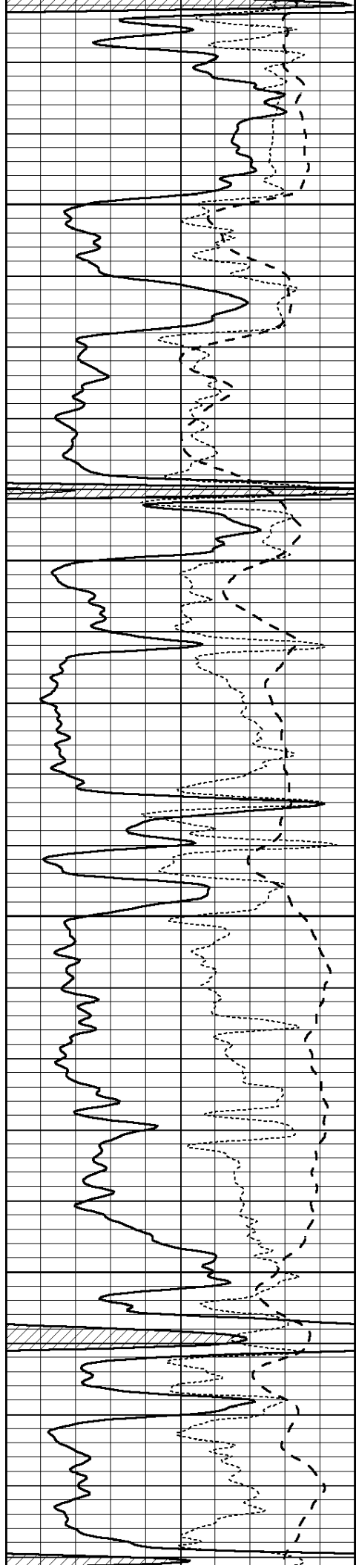
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3800

3850

3900



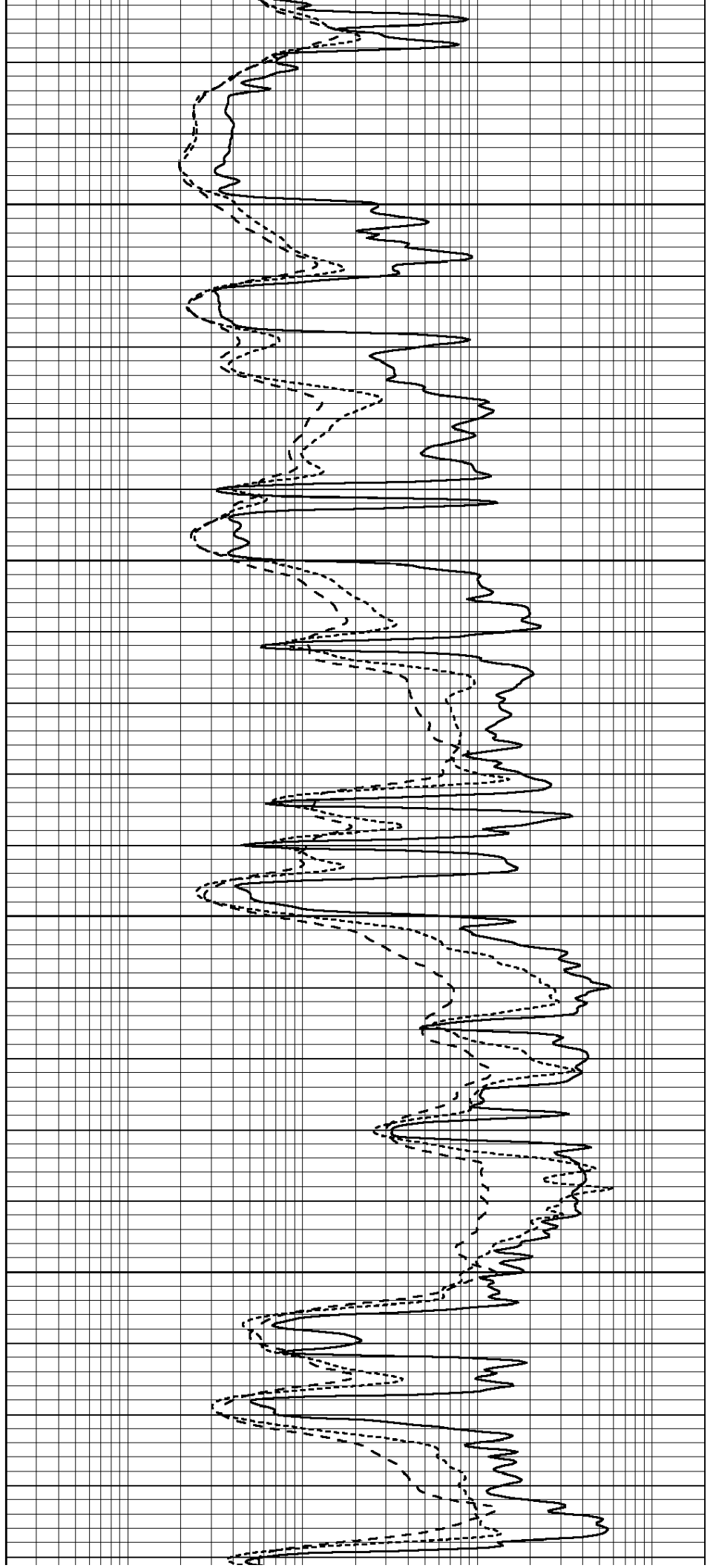


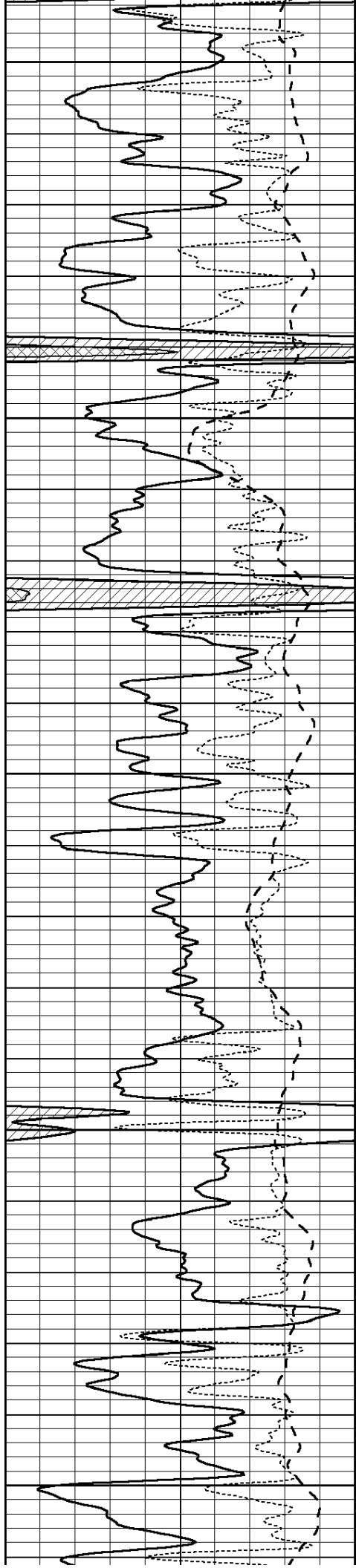
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4000

4050

4100





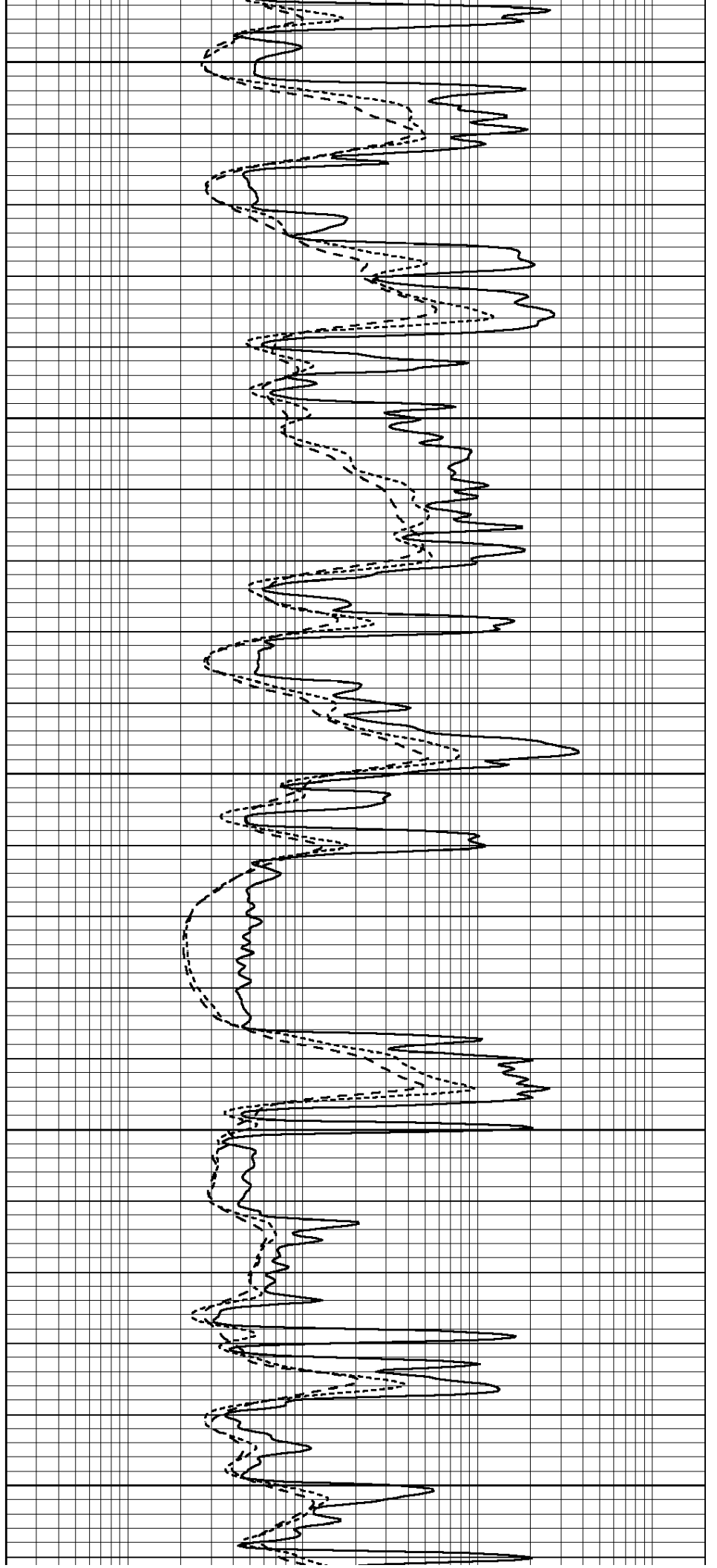
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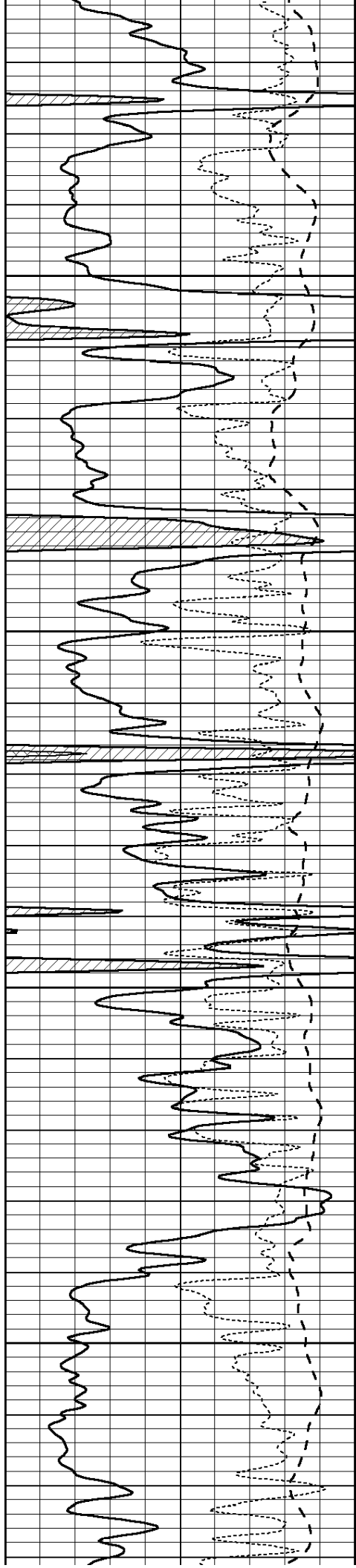
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4250

4300

4350



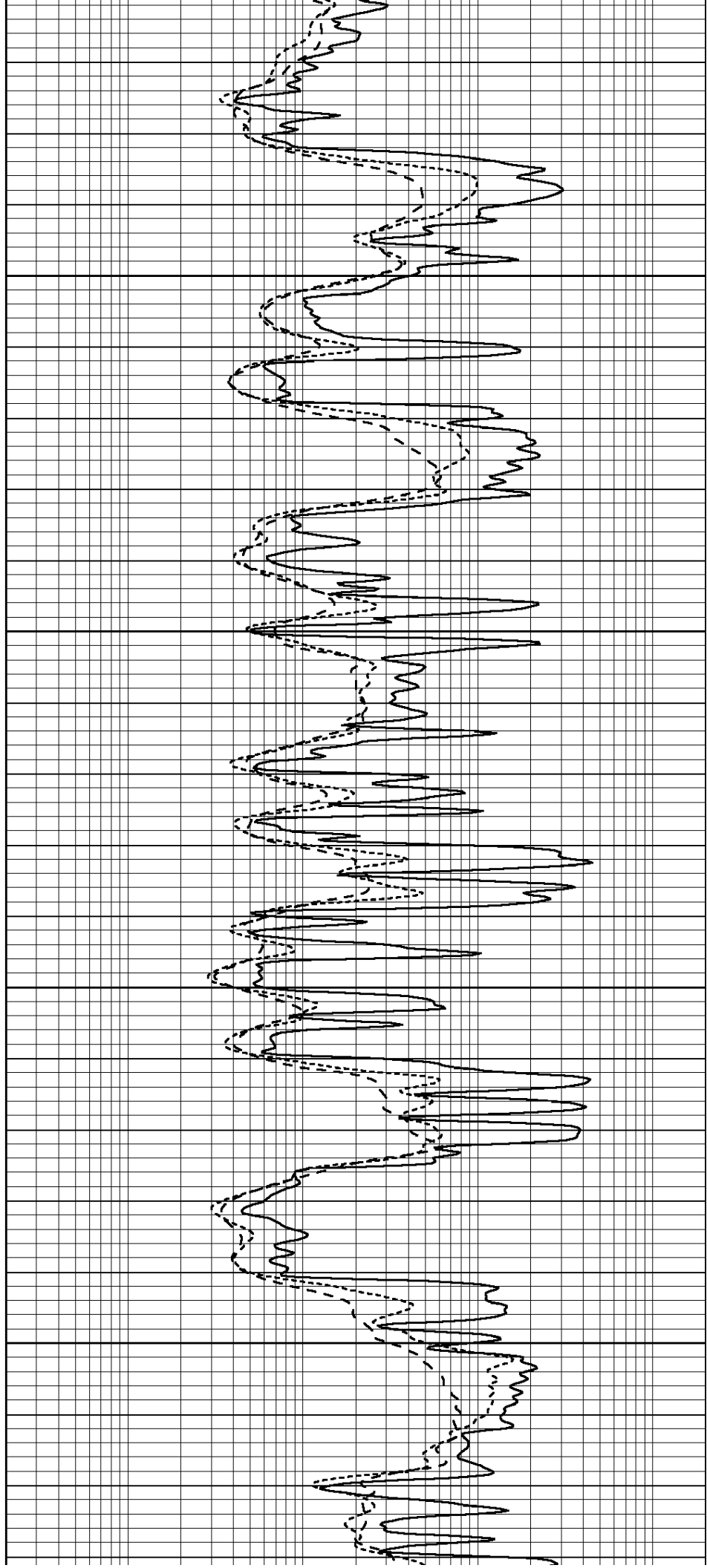


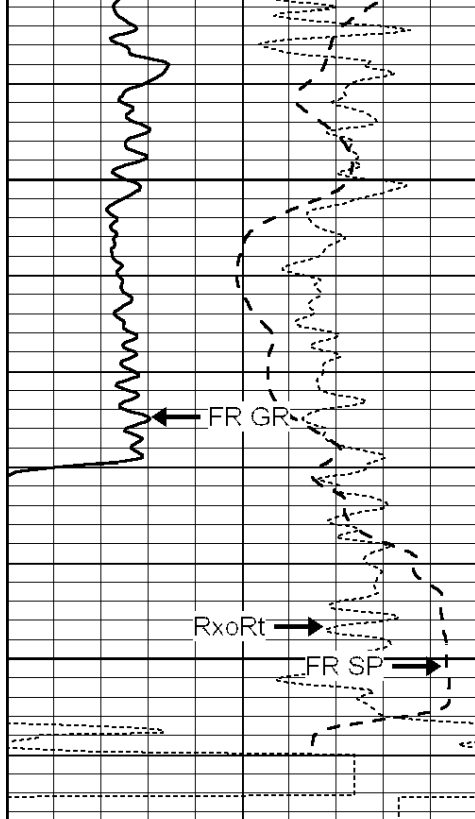
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4450

4500

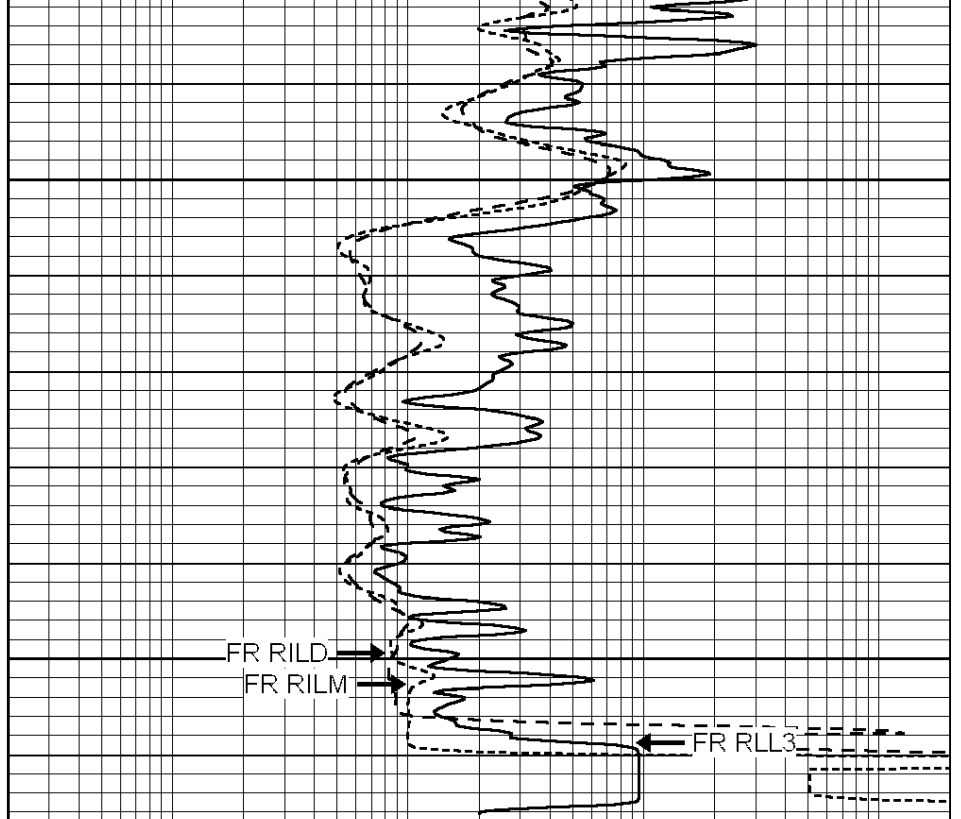
4550





4600  
4650  
LTD 4661

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



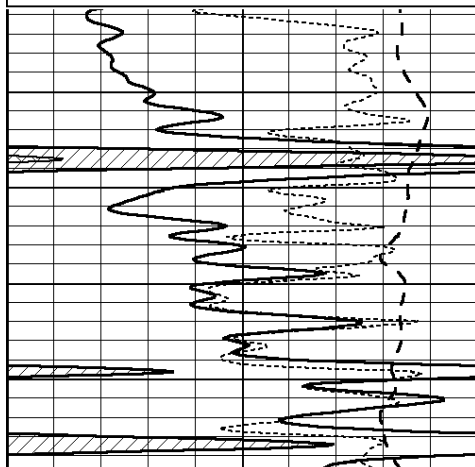
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# REPEAT SECTION

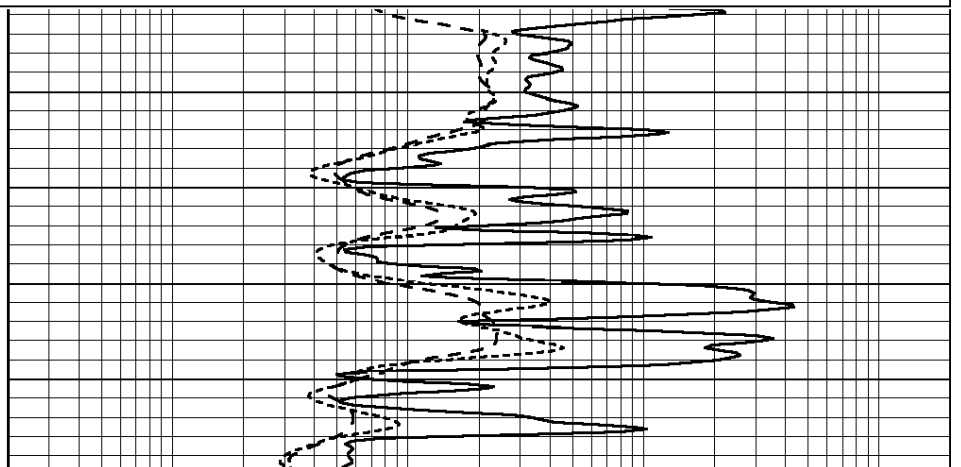
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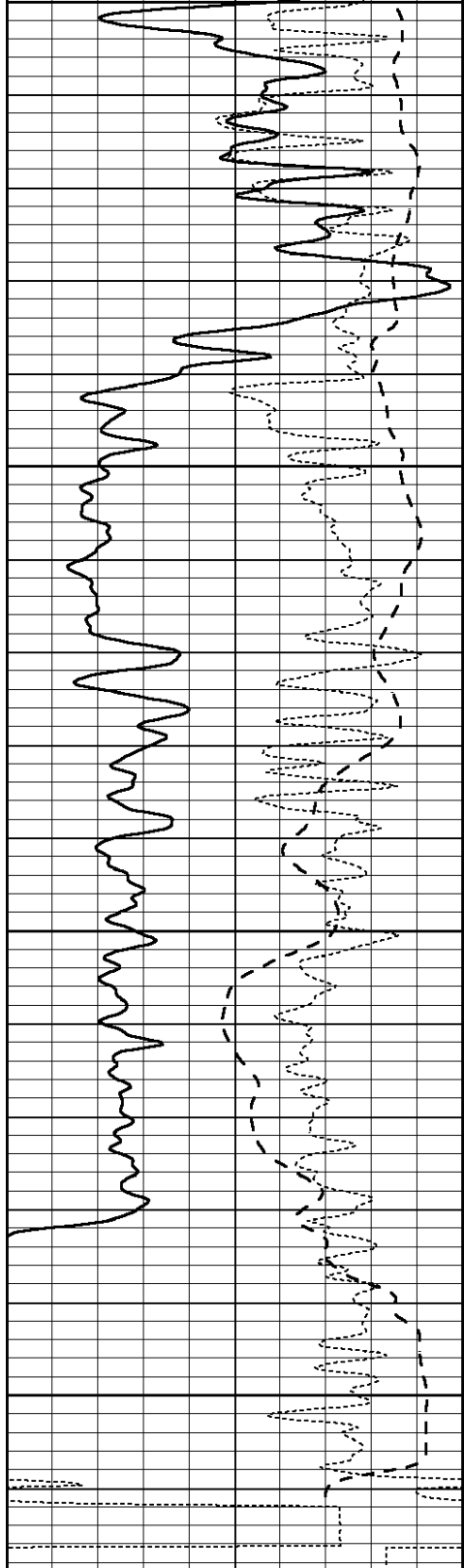
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

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

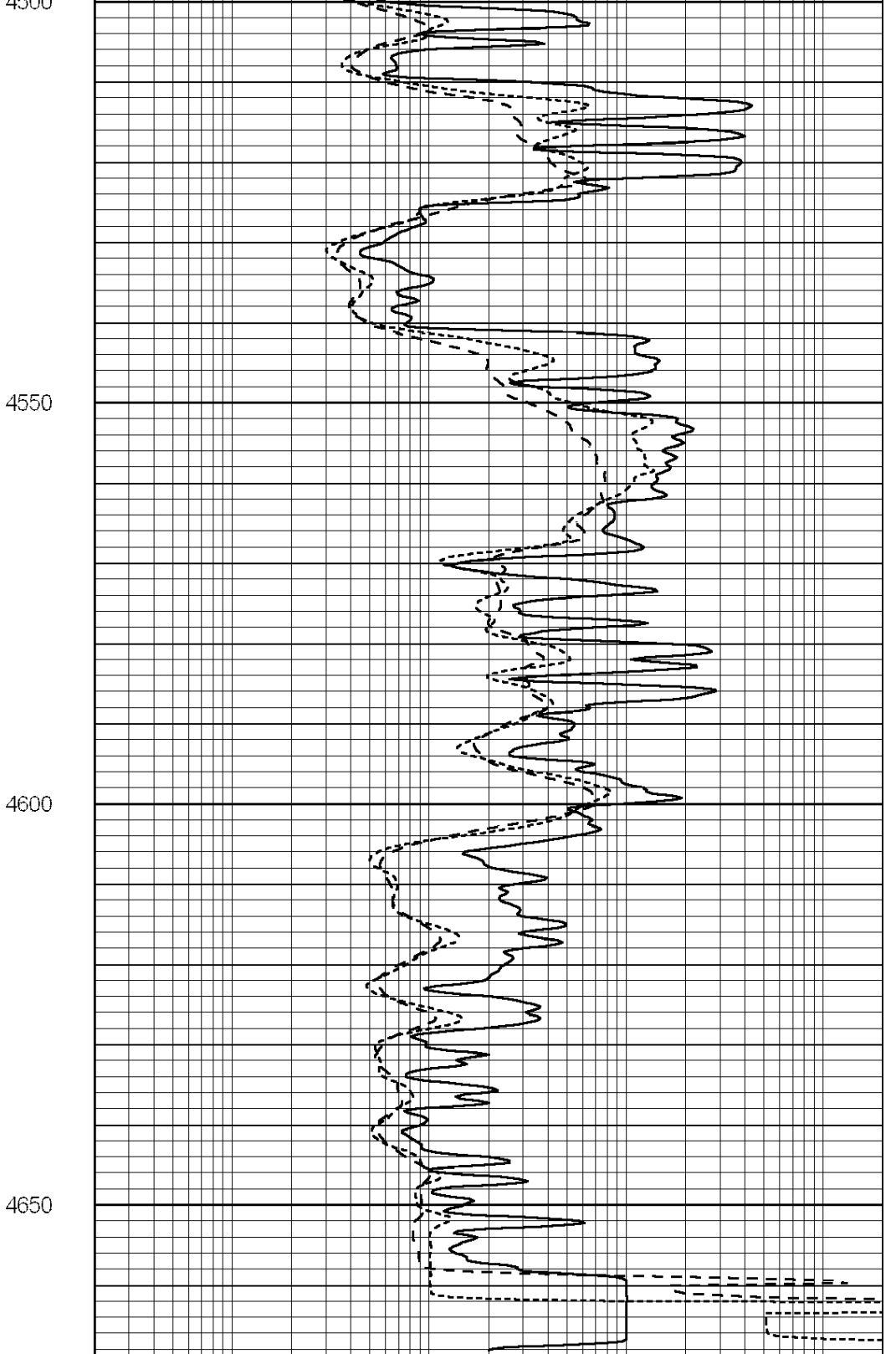


4500





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

Calibration Report

Database File: 007054ddn.db  
 Dataset Pathname: pass3.1  
 Dataset Creation: Thu May 05 22:14:40 2011 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: PROBE7-DILG  
 Surface Cal Performed: Wed Jul 30 06:14:24 2008  
 Downhole Cal Performed: Mon Jul 28 12:02:56 2008  
 After Survey Verification Performed: Mon Jul 28 12:02:56 2008

Surface Calibration

		Readings			References			Results	
Loop:	Air	Loop	V	Air	Loop		m	b	
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	621.923	8.759	
Medium	0.039	0.728	V	0.000	464.000	mmho/m	673.322	-26.058	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.011	0.610	V	0.000	400.000	mmho/m	667.135	-7.256	
Medium	0.005	0.712	V	0.000	464.000	mmho/m	655.677	-3.102	

Downhole Calibration

		Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'	
Deep	0.000	0.000	mmho/m	14.508	388.384	mmho/m	1.000	0.000	
Medium	0.000	0.000	mmho/m	166.367	504.400	mmho/m	1.000	0.000	
LL3		7.500	V		1400.000	Ohm-m			
		0.000	V		20.000	Ohm-m			
		-7.200	V		4000.000	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			

Compensated Density Calibration Report

Serial-Model: GEAR4-GEARHART  
 Source / Verifier: 143 / 143  
 Master Calibration Performed: Wed Jan 26 17:58:17 2011

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1015.91	497.51	cps
Aluminum	2.600	g/cc	227.67	350.20	cps
Spine Angle = 76.79			Density/Spine Ratio = 0.579		
	Size		Reading		
Small Ring	8.00	in	2.50	V	
Large Ring	14.00	in	4.70	V	

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

Gamma Ray Calibration Report

Serial Number:	#8	
Tool Model:	OPEN	
Performed:	Sun Apr 10 22:50:36 2011	
Calibrator Value:	150.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	175.0	cps
Sensitivity:	0.8971	GAPI/cps