



SUPERIOR
Hays,
Kansas

DUAL INDUCTION LOG

Company	MULL DRILLING COMPANY, INC.	Company	MULL DRILLING COMPANY, INC.	Location:	API # : 15-101-22132-0000	Other Services CDL/CNL MEL/SONIC
Well	#1-7 KENT	Well	#1-7 KENT			
Field	WILDCAT	Field	WILDCAT			
County	LANE	County	LANE			
State	KANSAS	State	KANSAS			
				SEC 7 TWP 18S RGE 27W		
				Permanent Datum	GROUND LEVEL	Elevation
				Log Measured From	KELLY BUSHING 9' A.G.L.	2703
				Drilling Measured From	KELLY BUSHING	K.B. 2712 D.F. 2710 G.L. 2703
Date	10/30/08					
Run Number	CNE					
Depth Driller	4650					
Depth Logger	4649					
Bottom Logged Interval	4647					
Top Log Interval	00					
Casing Driller	8 5/8"@228'					
Casing Logger	230					
Bit Size	7 7/8					
Type Fluid in Hole	CHEMICAL MUD					
Density / Viscosity	9.3/55					
pH / Fluid Loss	10.5/10.0					
Source of Sample	FLOWLINE					
Rm @ Meas. Temp	1.50@62F					
Rmf @ Meas. Temp	1.13@62F					
Rmc @ Meas. Temp	1.80@62F					
Source of Rmf / Rmc	MEASUREMENT					
Rm @ BHT	.762@122F					
Time Circulation Stopped	2.5 HOURS					
Time Logger on Bottom	3:30 A.M.					
Maximum Recorded Temperature	122F					
Equipment Number	0836					
Location	HAYS, KANSAS					
Recorded By	JEFF LUEBBERS					
Witnessed By	KEVIN KESSLER					

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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 HAYS, KANSAS (785)628-6395
DIRECTIONS
DIGHTON, KS. 7E. ON HWY 96, 1N., W. INTO



SUPERIOR
Hays,
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MAIN SECTION

Database File: 002755ddn.db
Dataset Pathname: pass3.4
Presentation Format: dil2
Dataset Creation: Thu Oct 30 04:47:47 2008 by Calc Open-Cased 060407
Charted by: Depth in Feet scaled 1:600

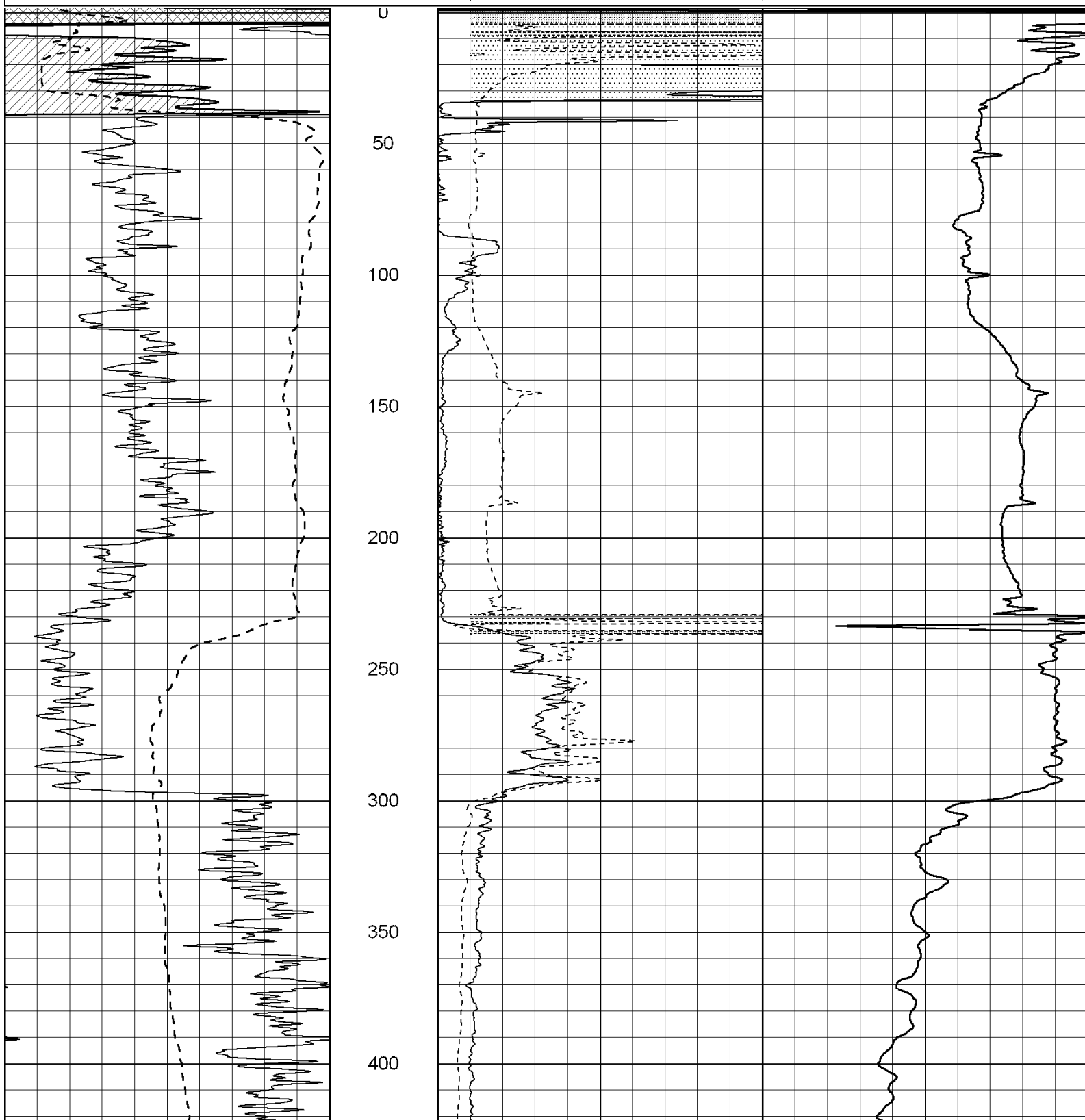
0 Gamma Ray (GAPI) 150
-100 SP (mV) 100

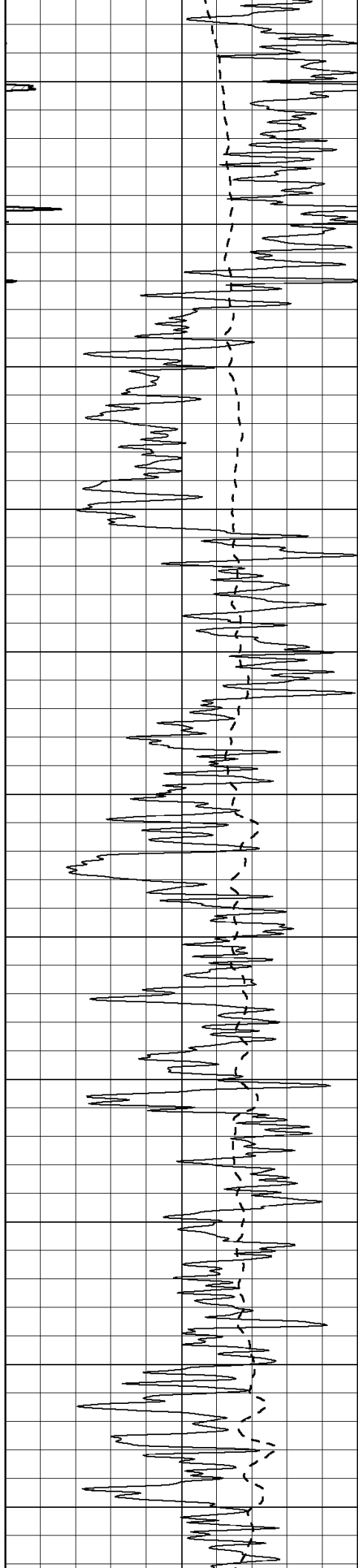
0 RLL3 (Ohm-m) 50
0 Deep Induction (Ohm-m) 50

1000 CILD (mmho-m) 0

50 RILD X10 (Ohm-m) 500

50 RLL3 X10 (Ohm-m) 500





450

500

550

600

650

700

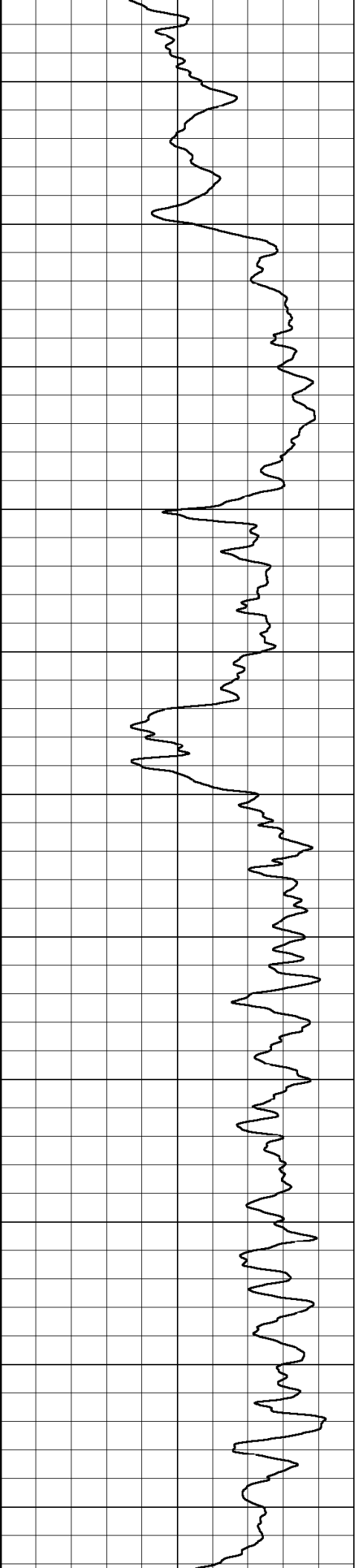
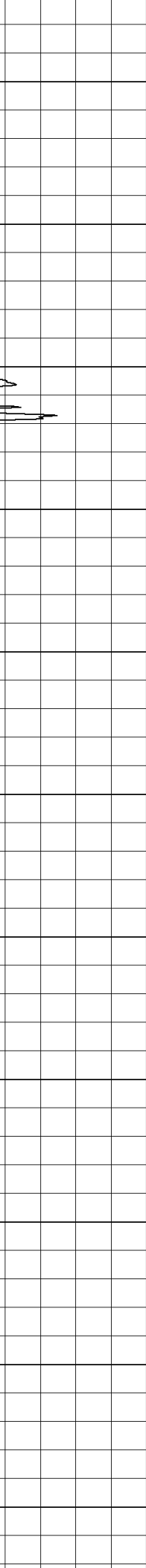
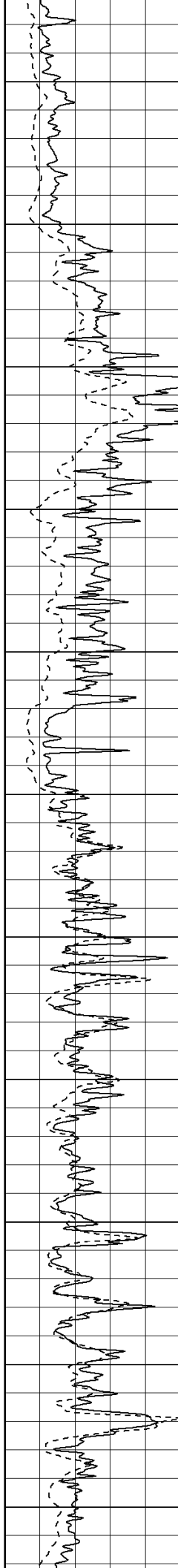
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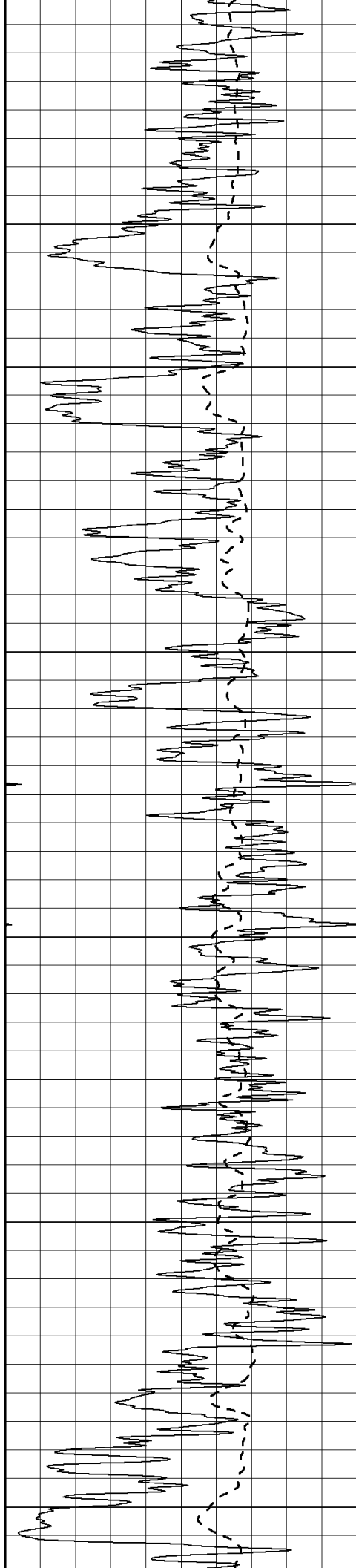
800

850

900

950





1000

1050

1100

1150

1200

1250

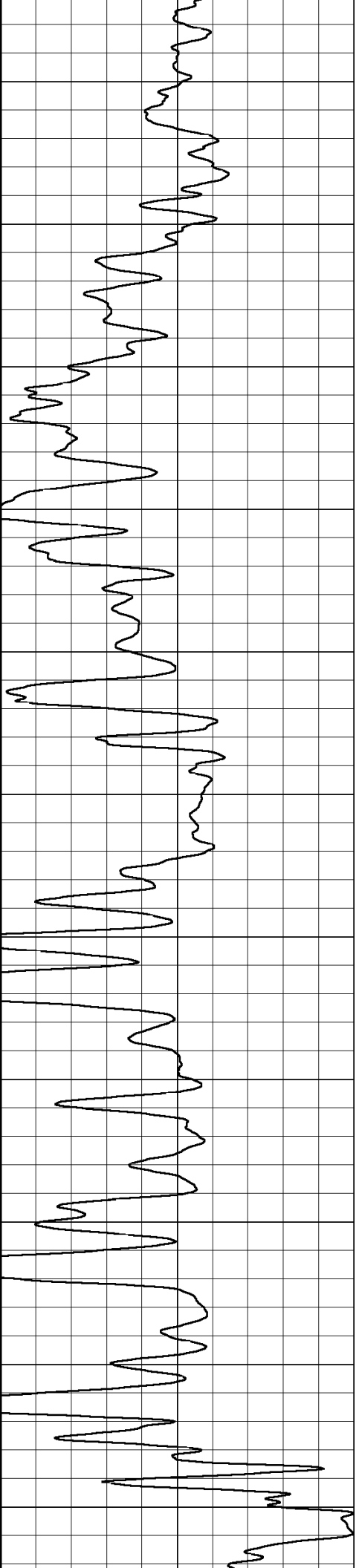
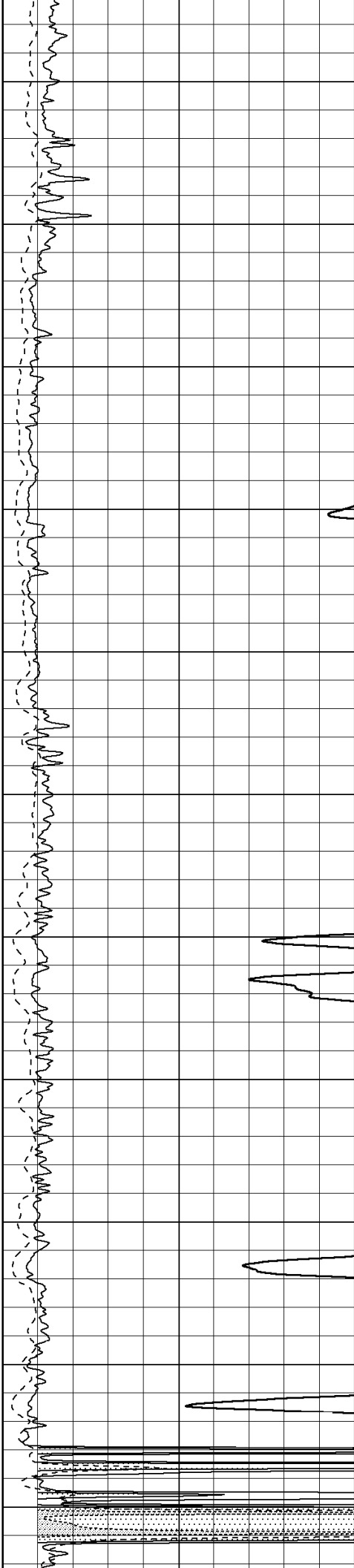
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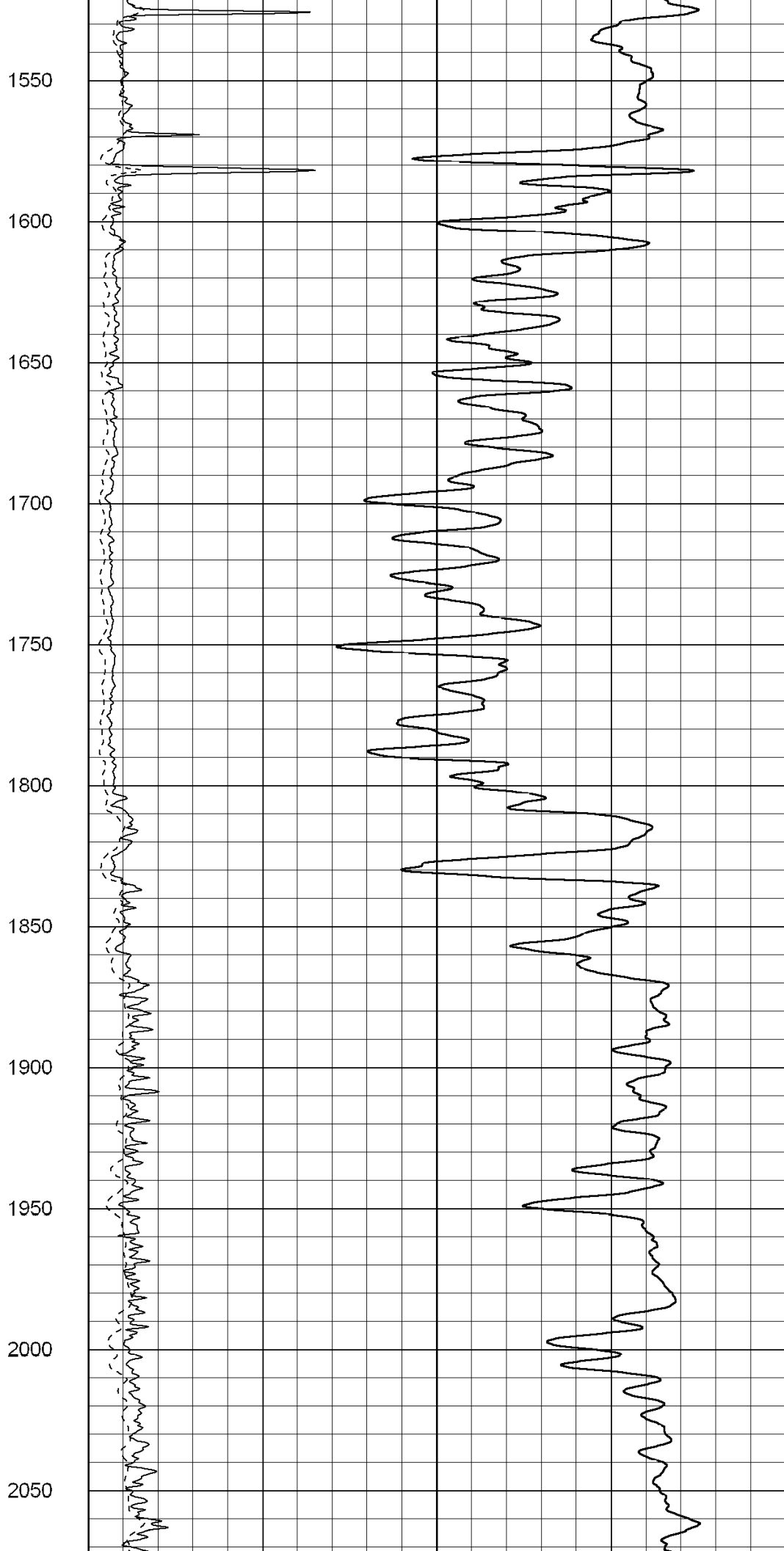
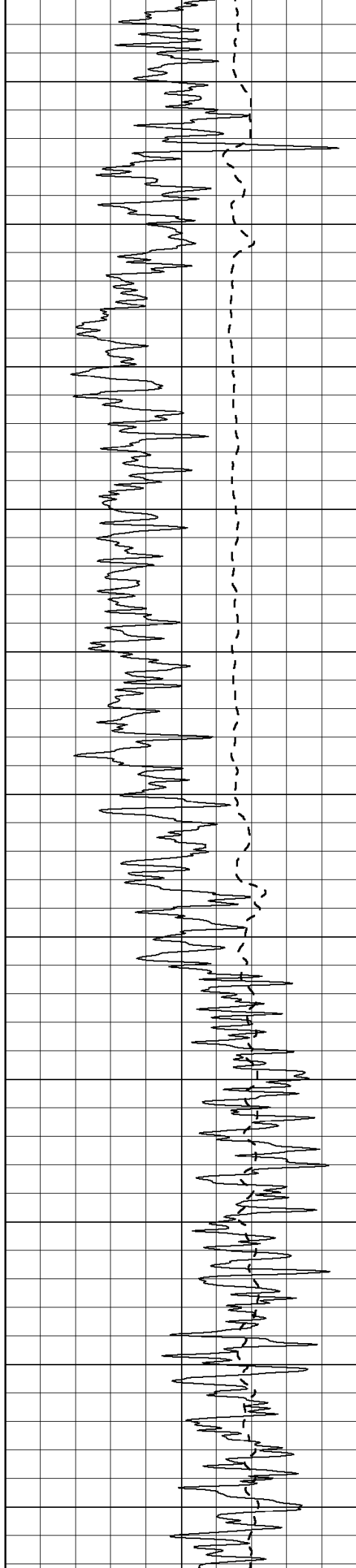
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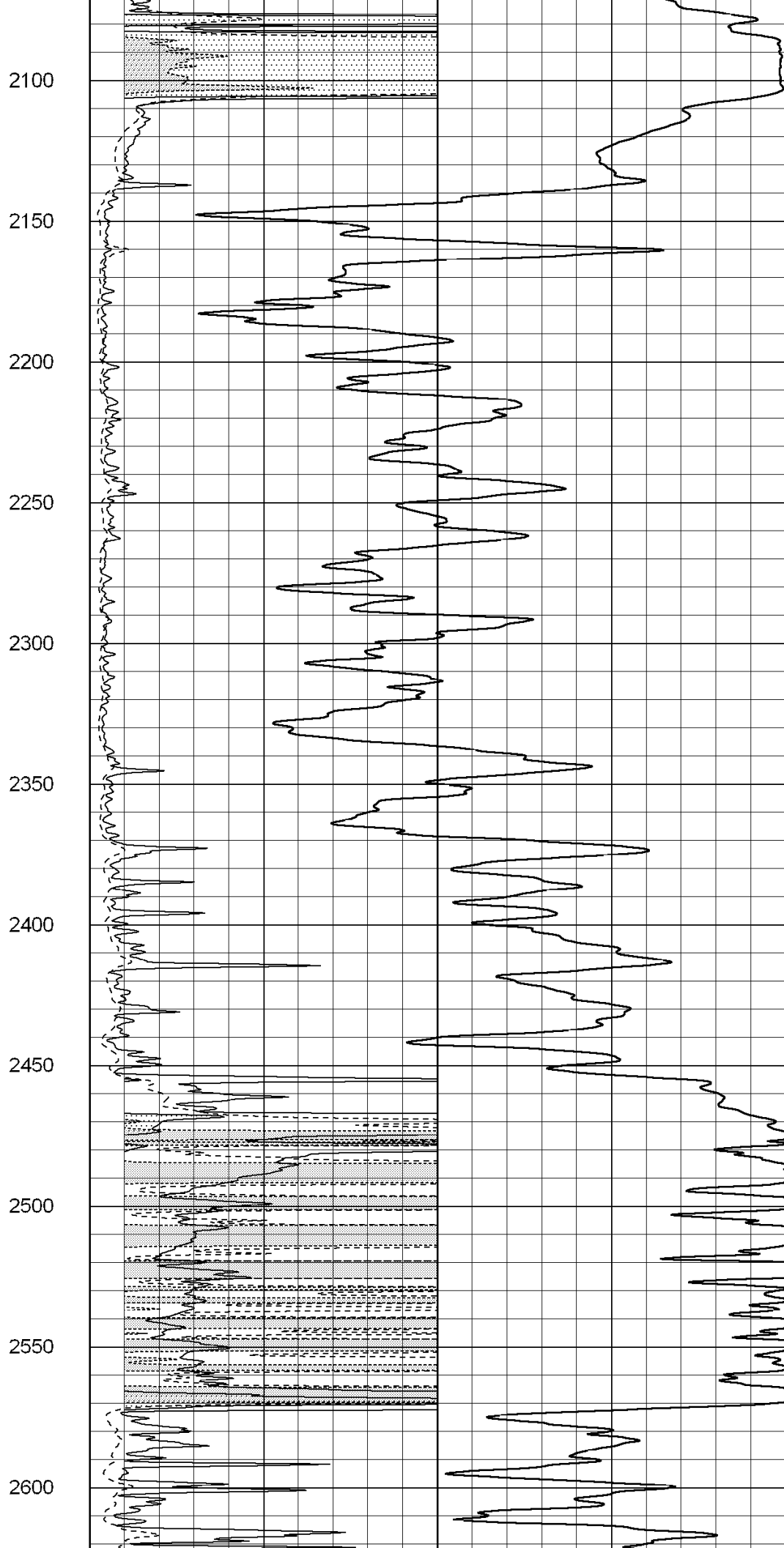
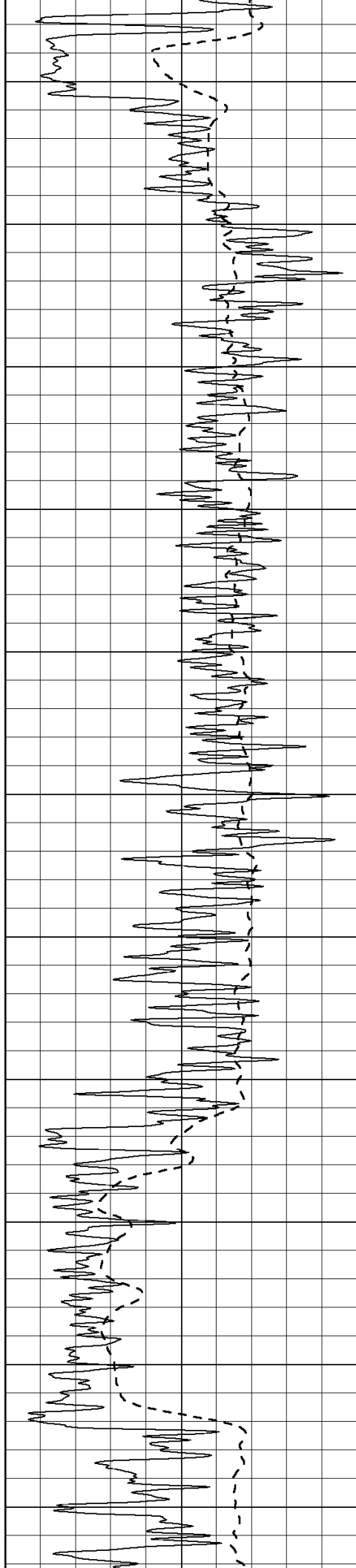
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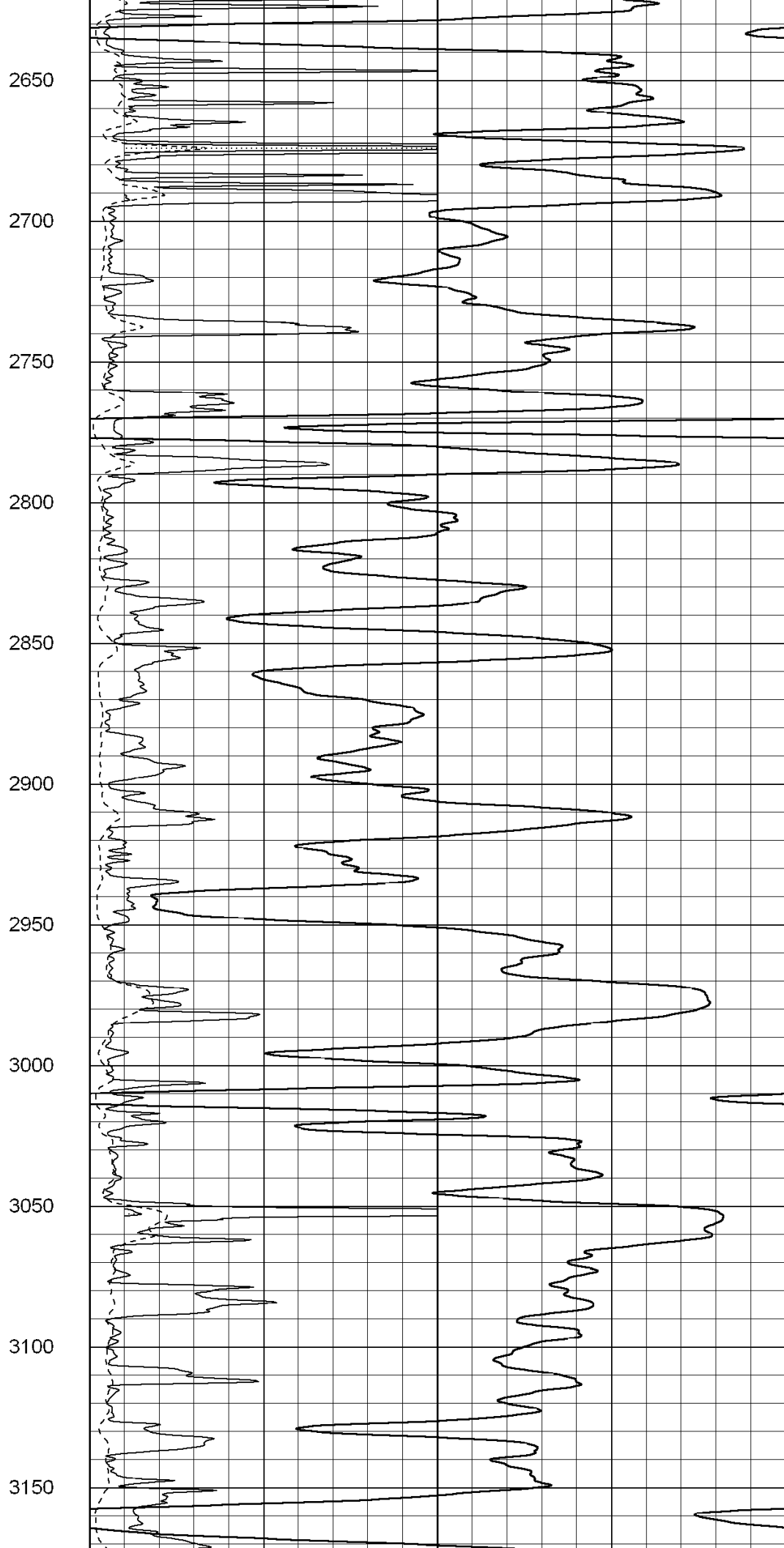
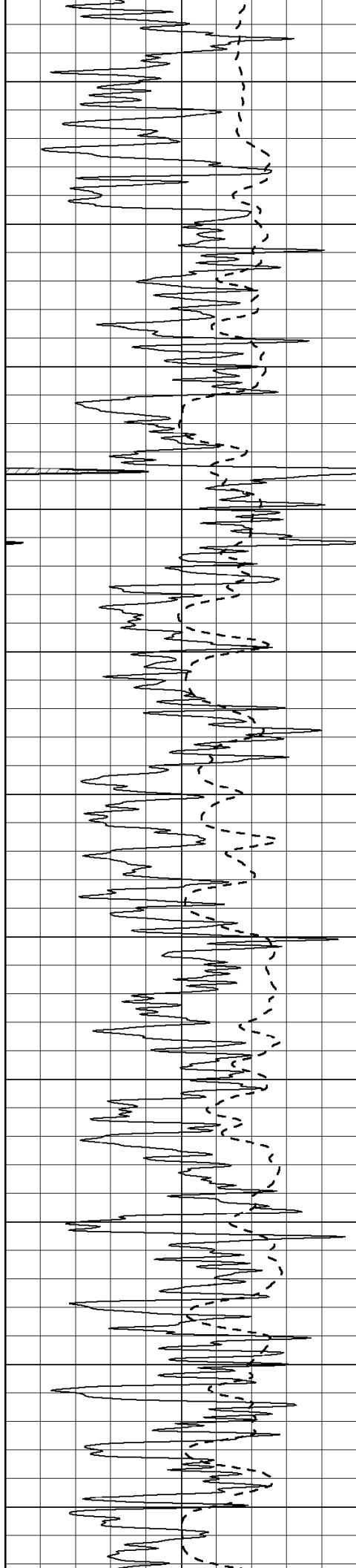
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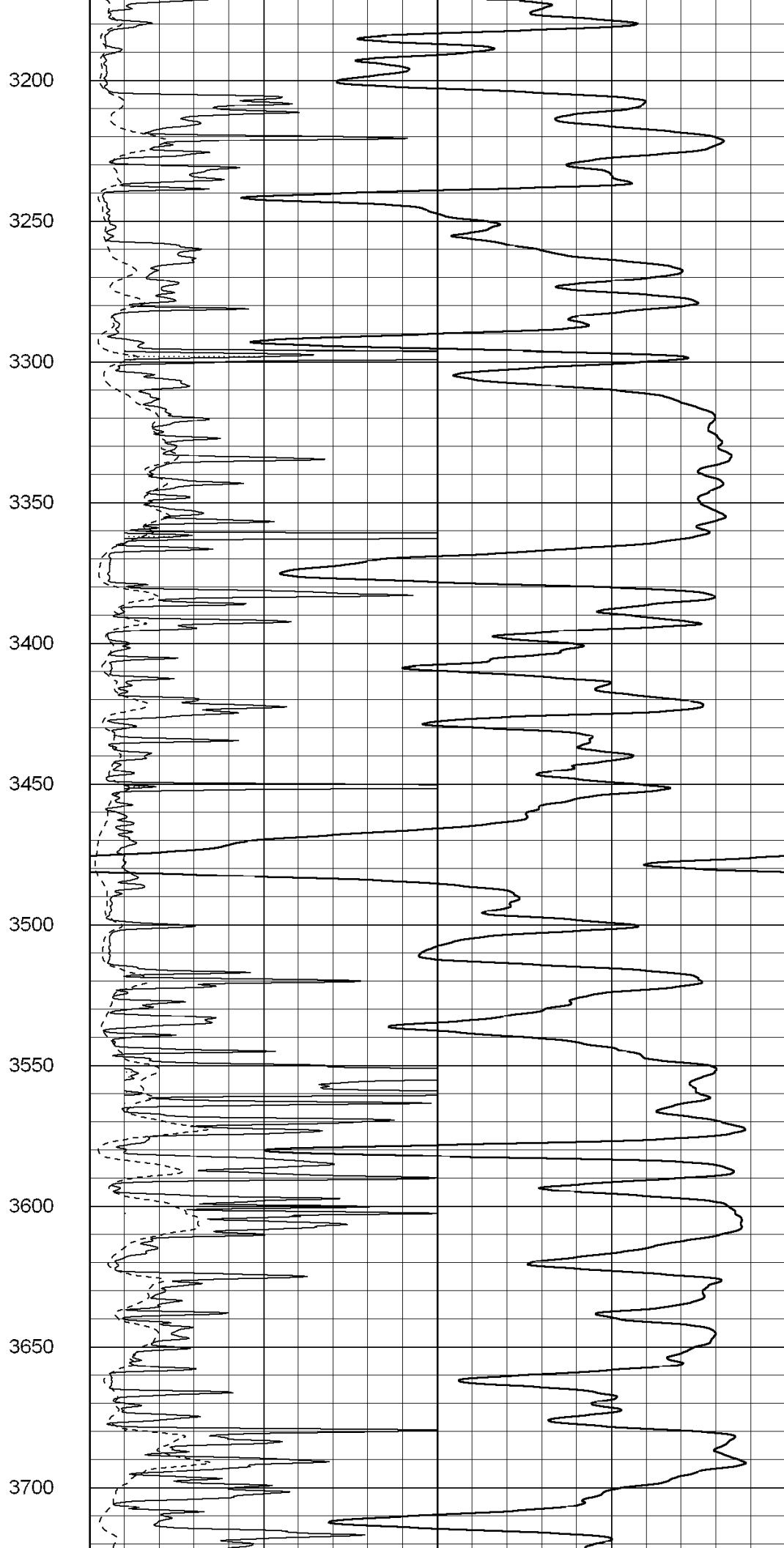
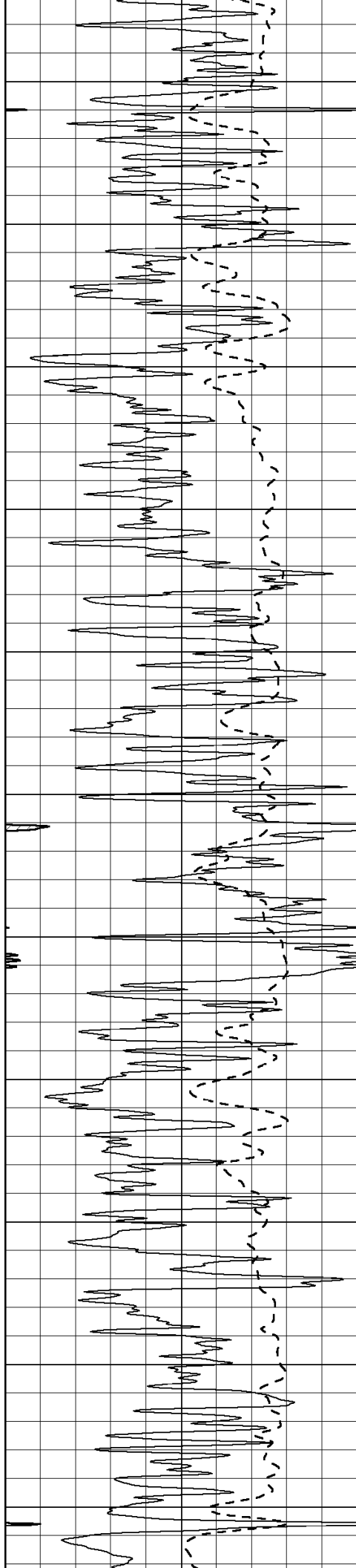
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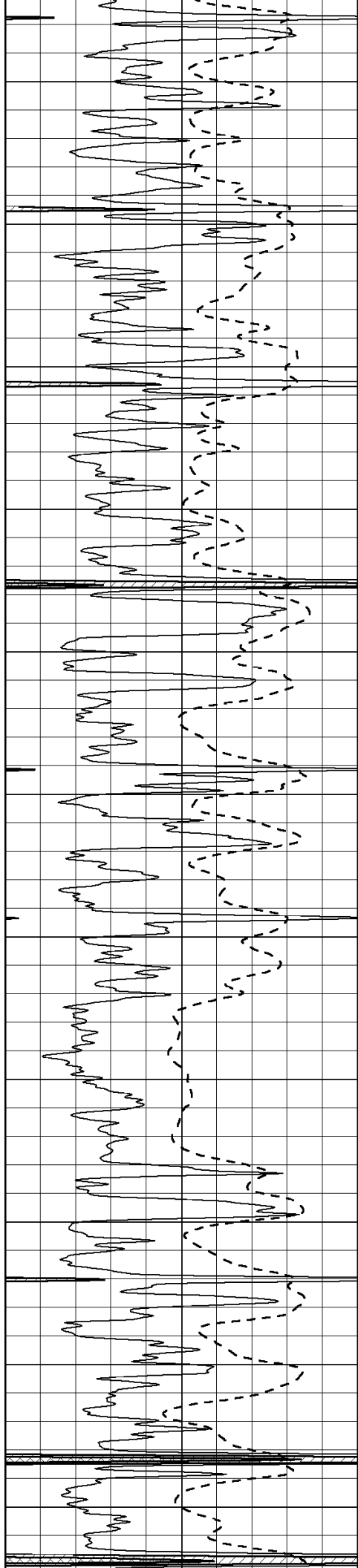












3750

3800

3850

3900

3950

4000

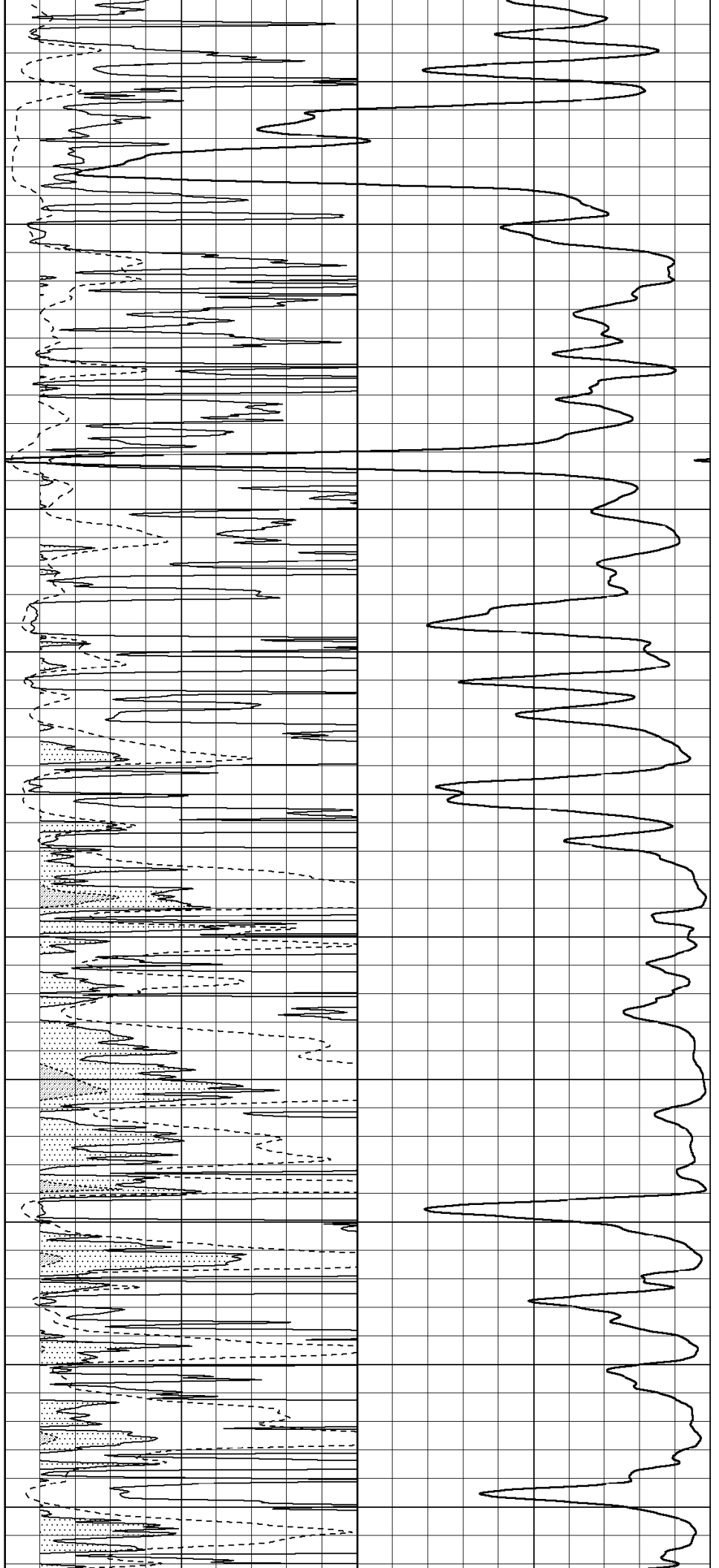
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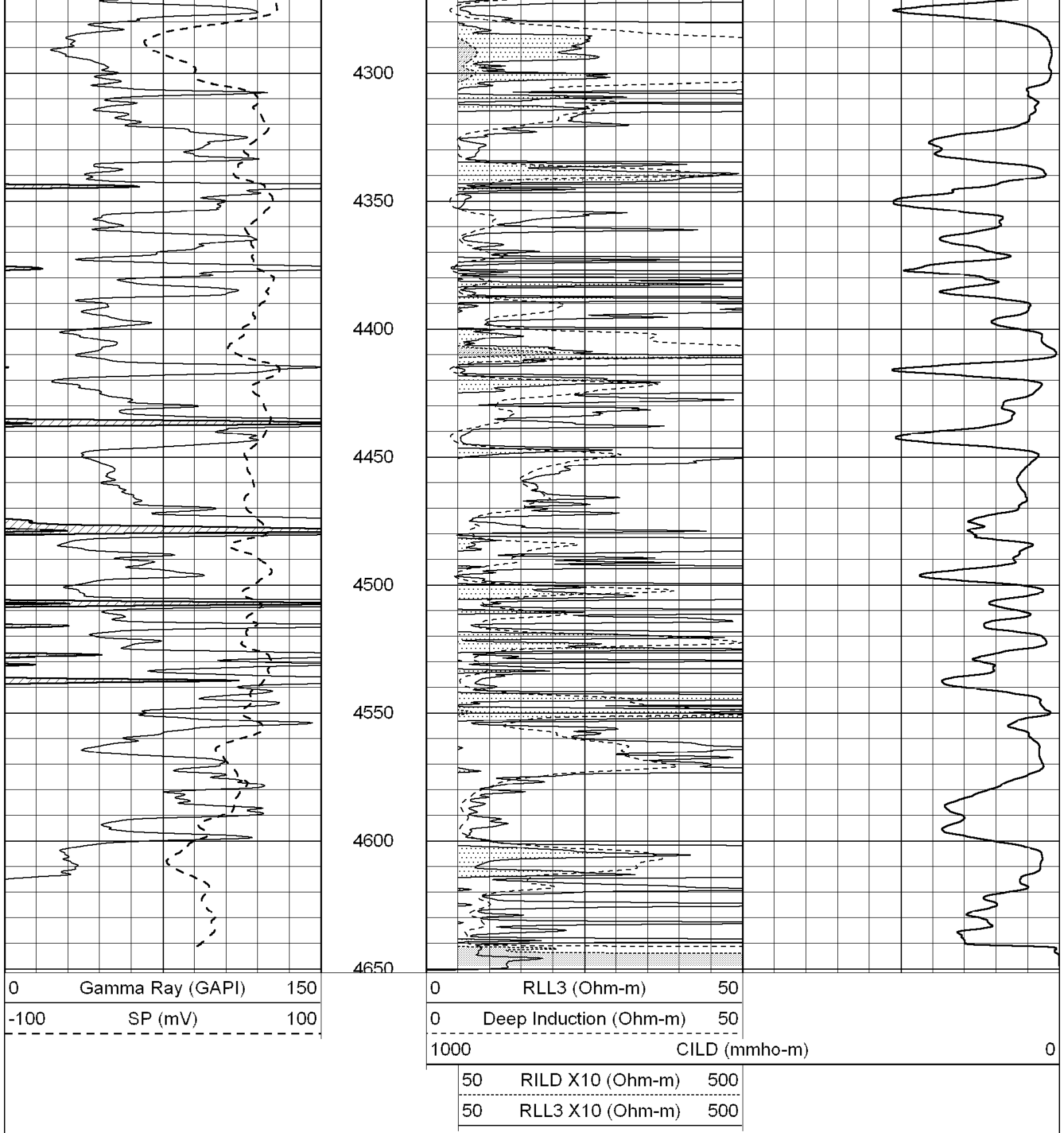
4100

4150

4200

4250



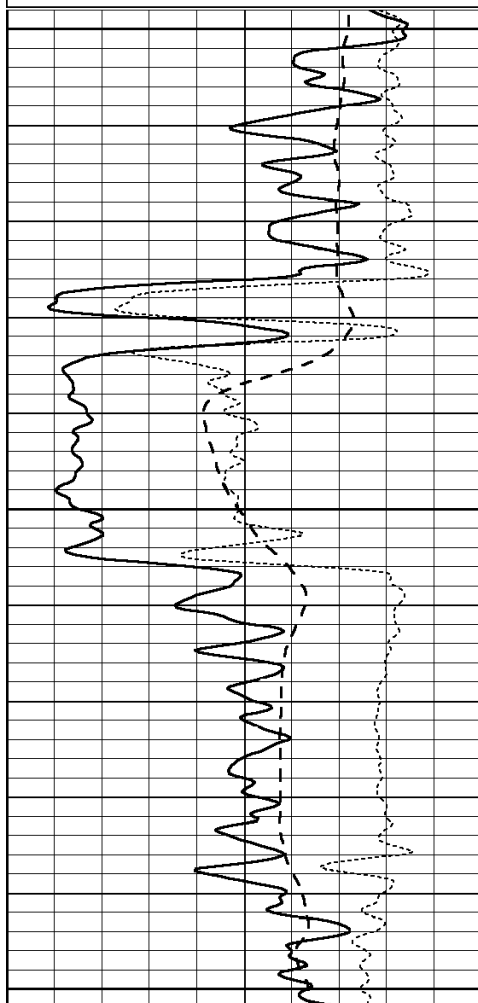


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ANHYDRITE

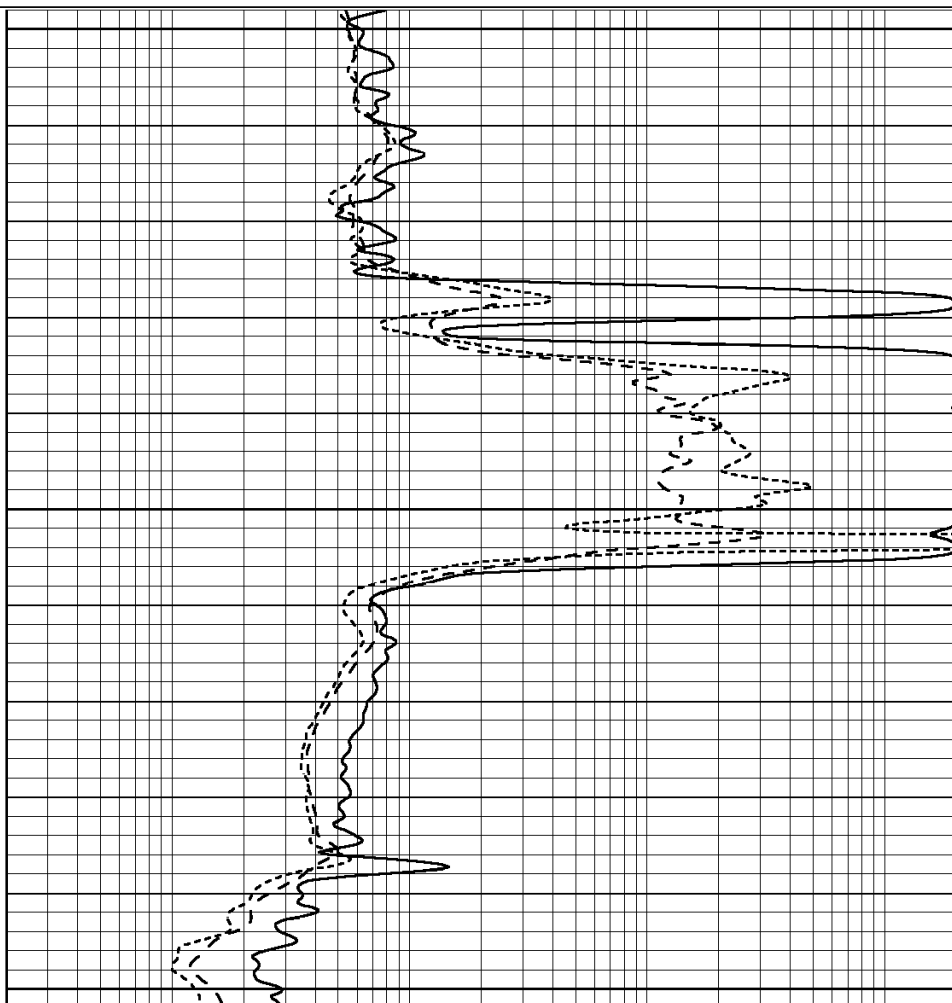
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Presentation Format: dil
Dataset Creation: Thu Oct 30 04:48:20 2008 by Calc Open-Cased 060407
Charted by: Depth in Feet scaled 1:240

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	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

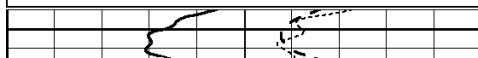


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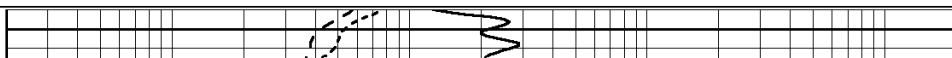
MAIN SECTION

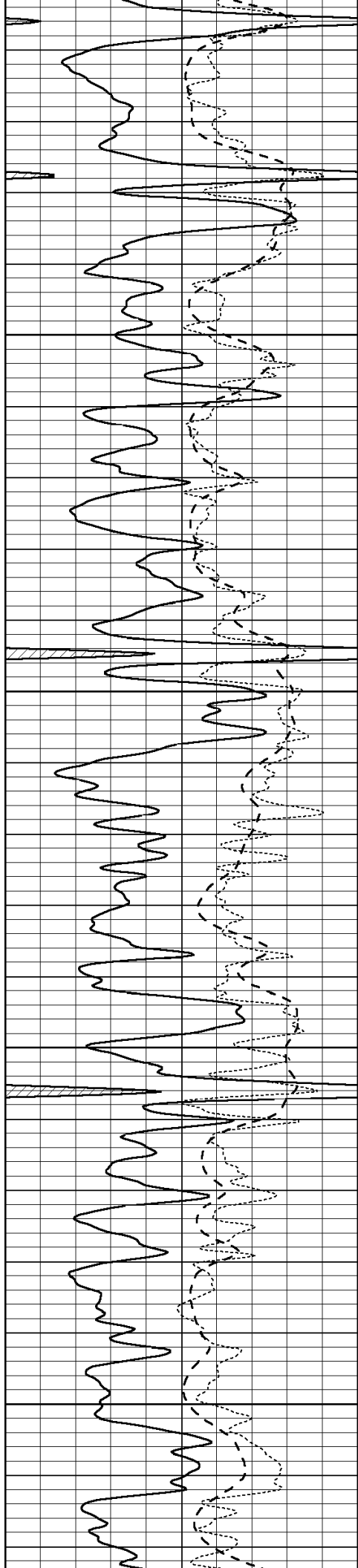
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 Dataset Pathname: pass3.4
 Presentation Format: dil
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 Charted by: Depth in Feet scaled 1:240

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



0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



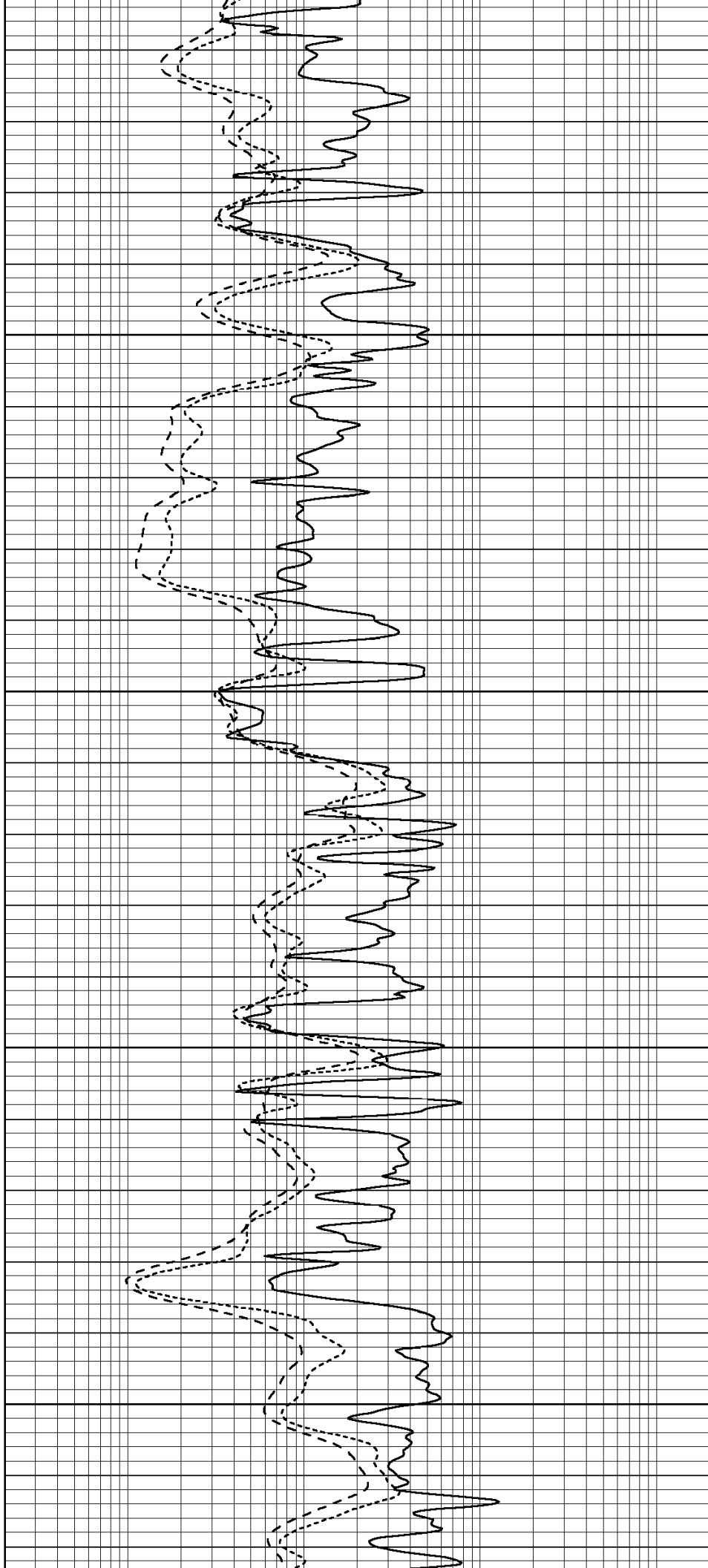


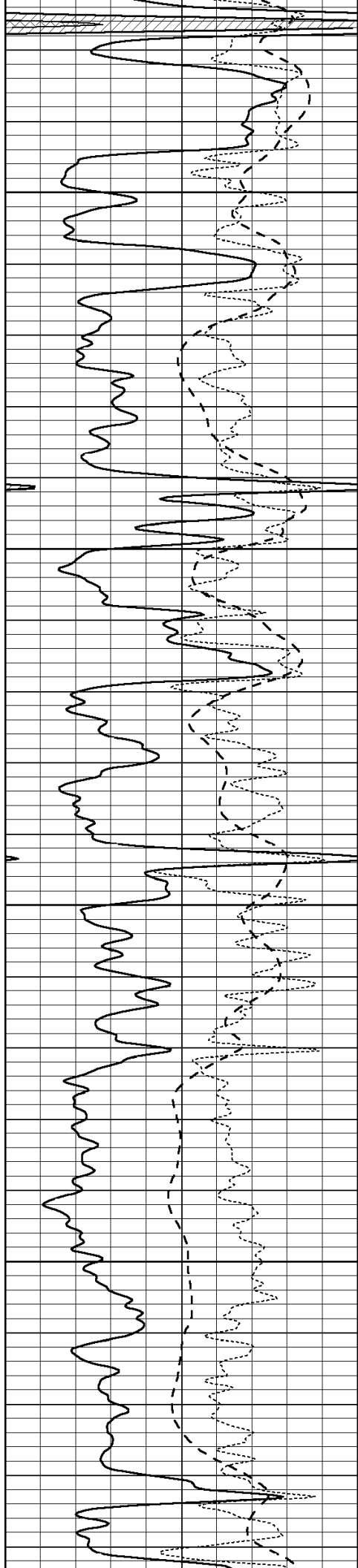
3750

3800

3850

3900



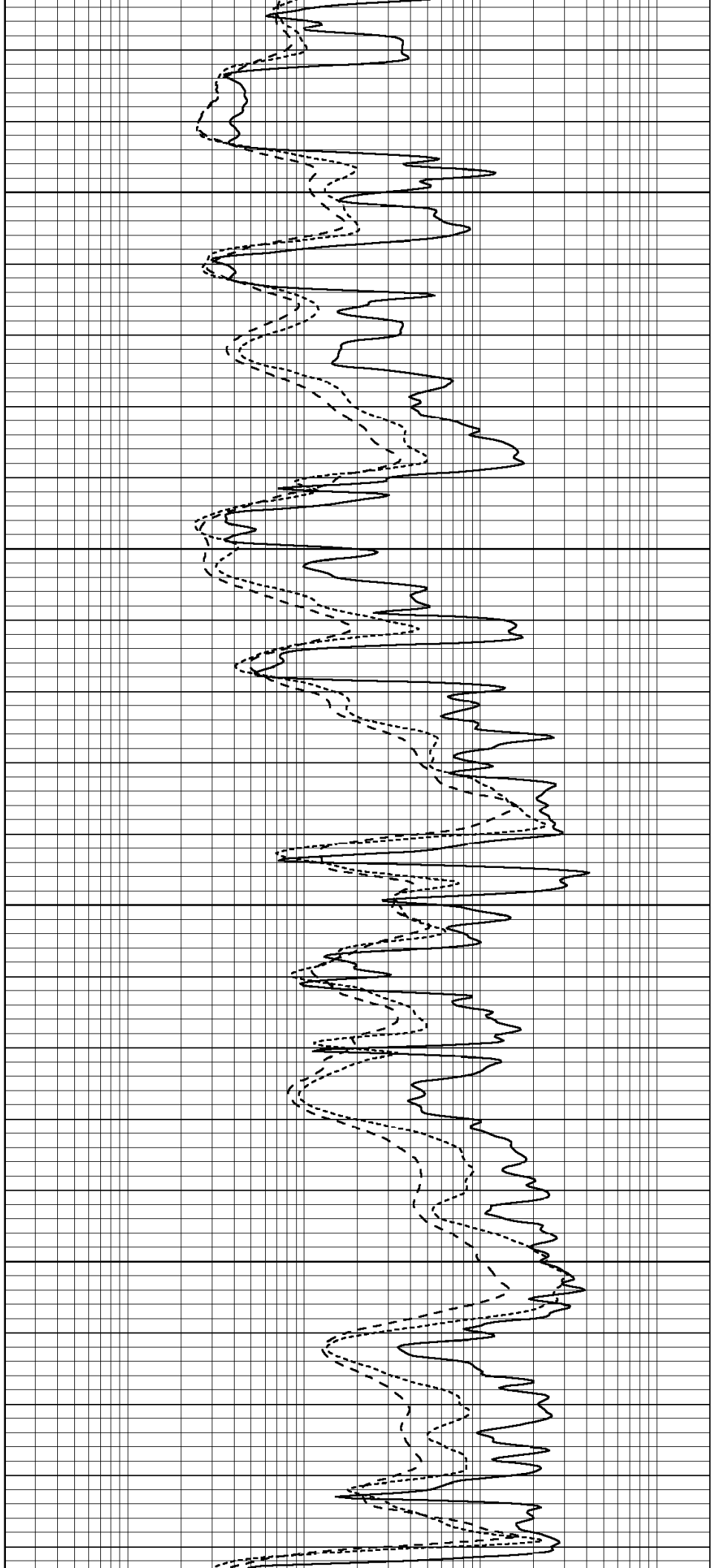


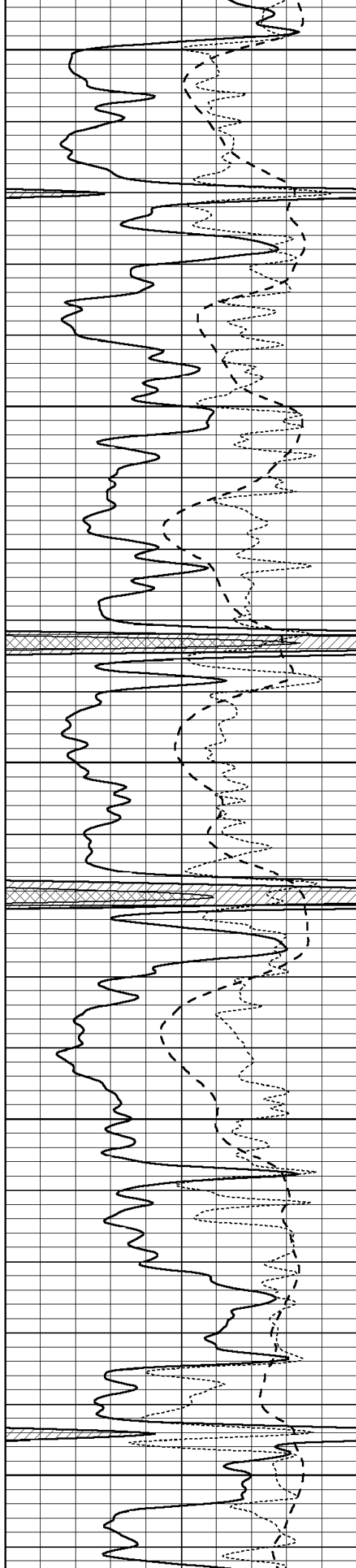
3950

4000

4050

4100





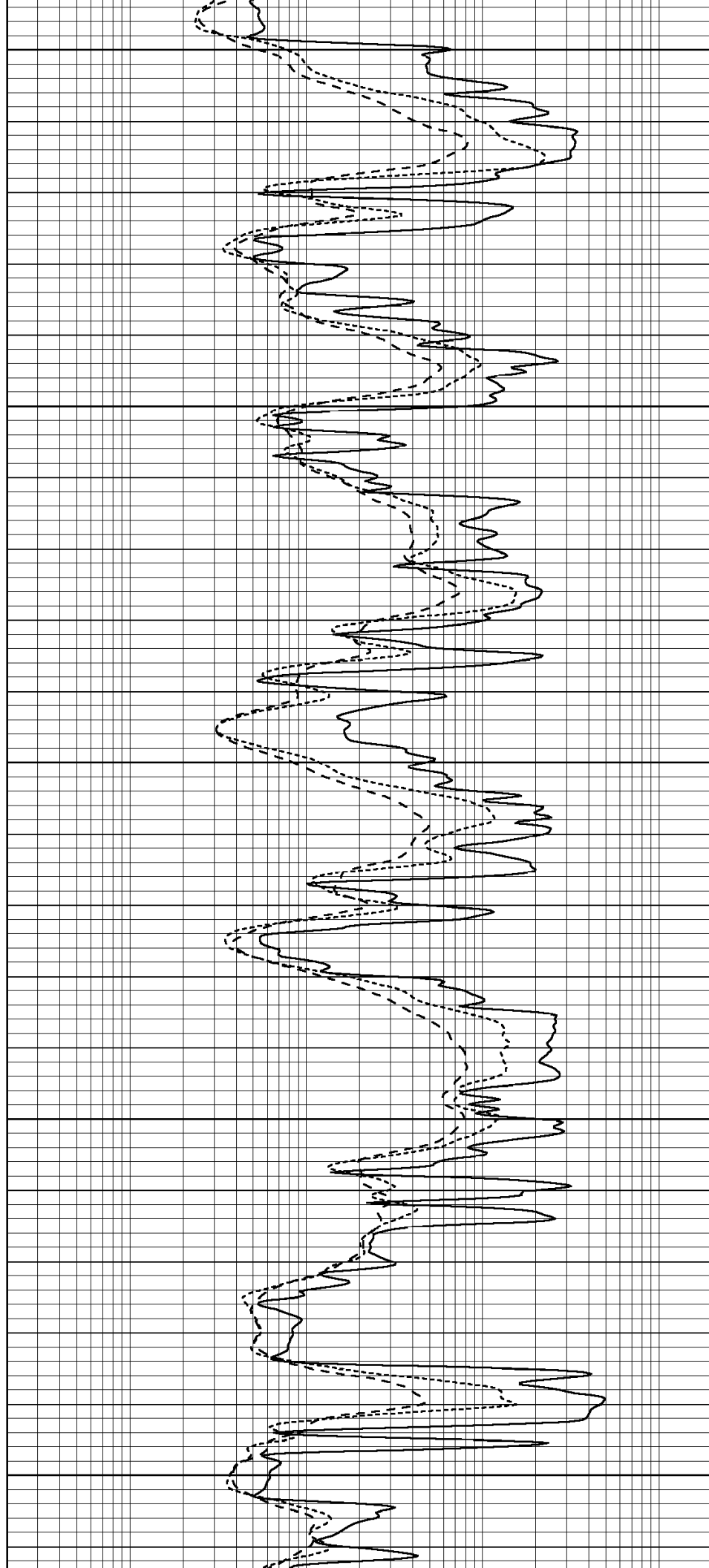
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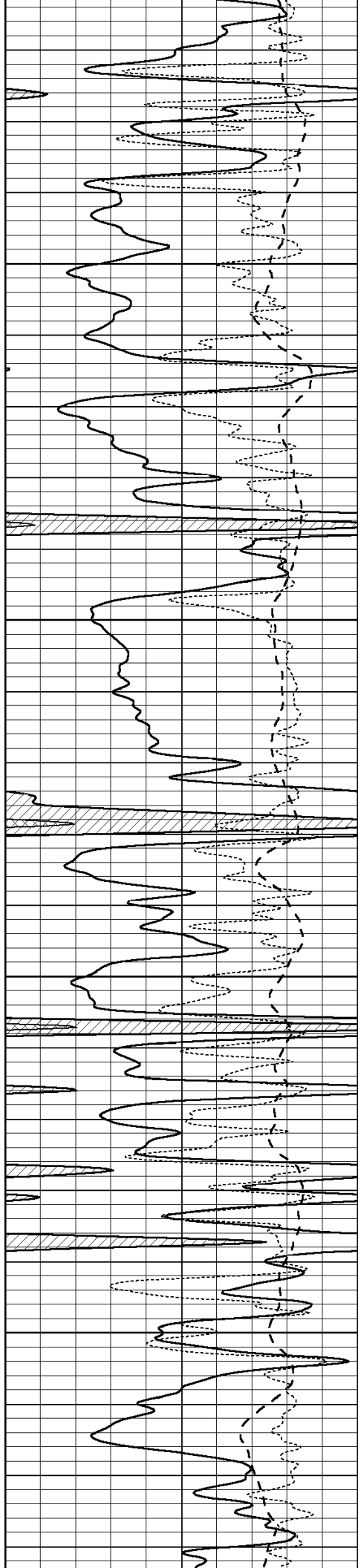
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4250

4300

4350



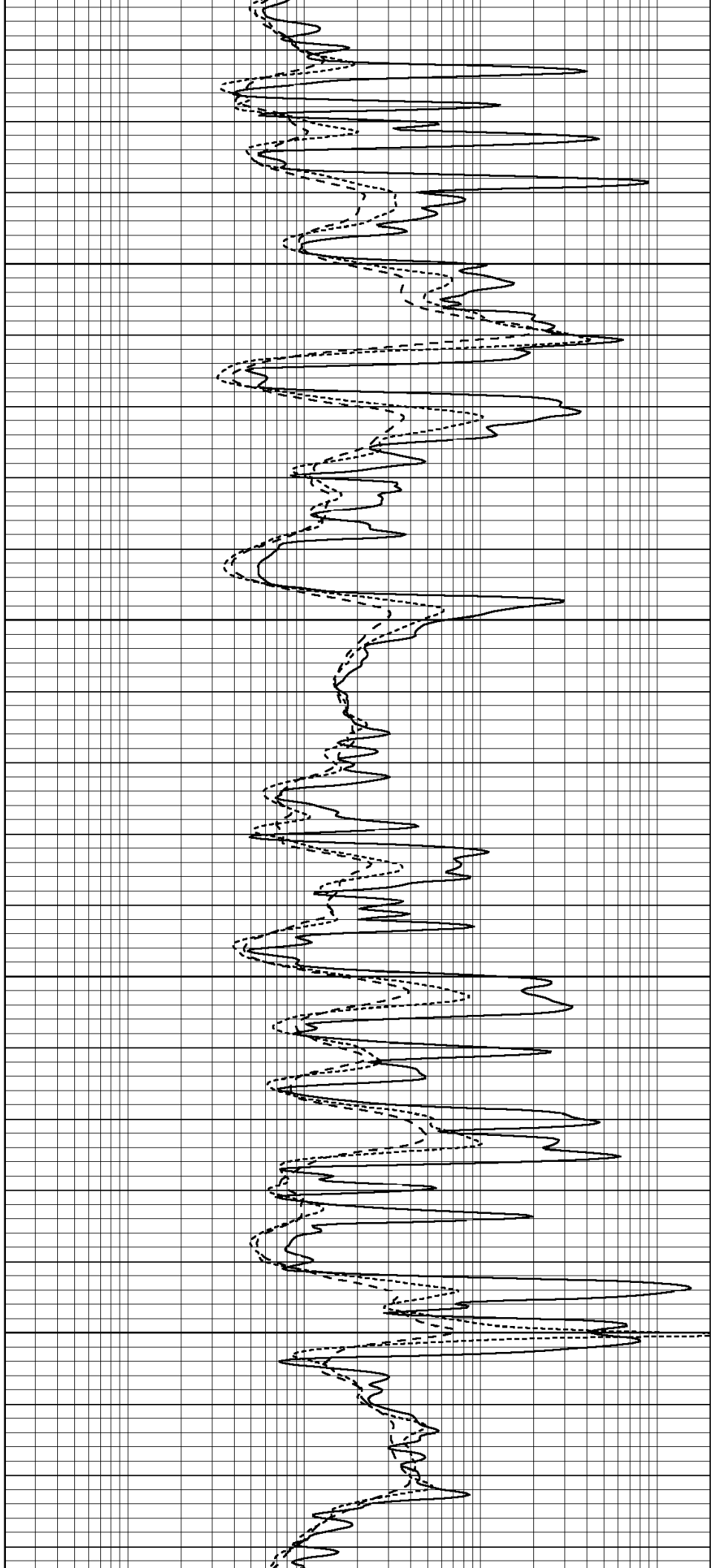


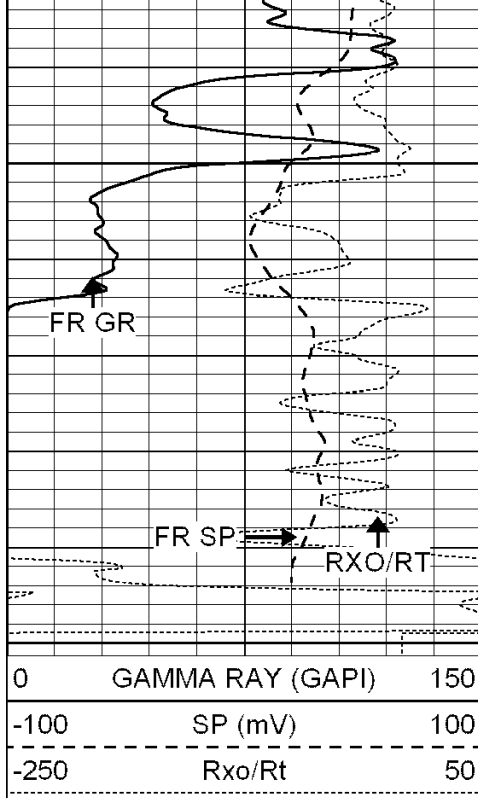
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4450

4500

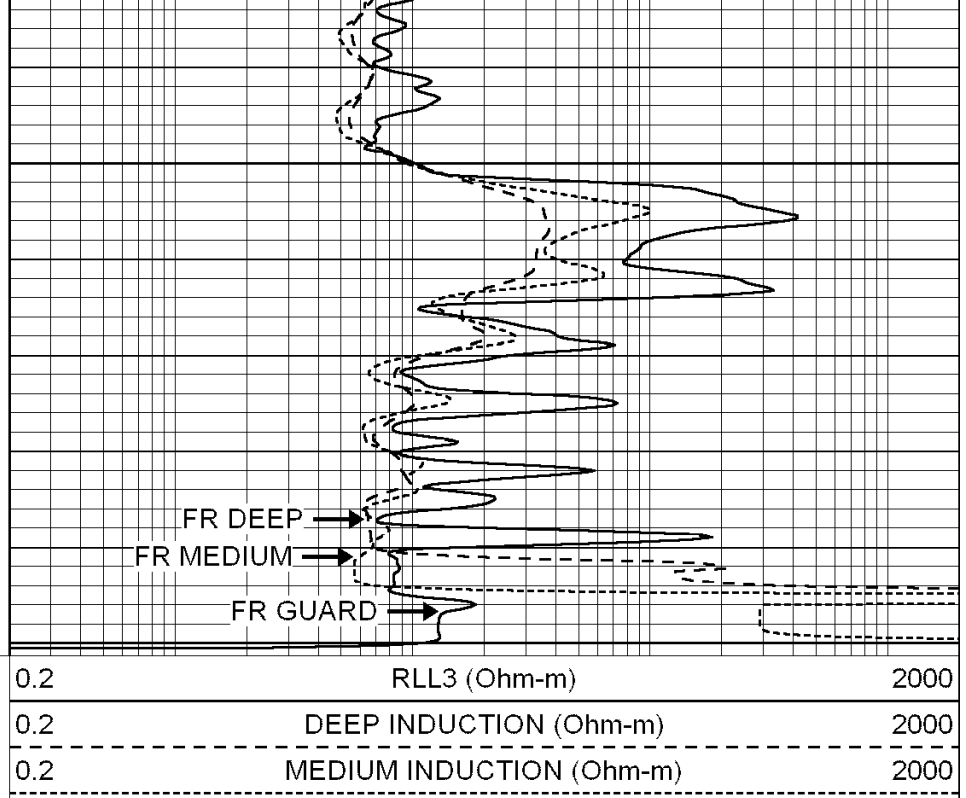
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4600

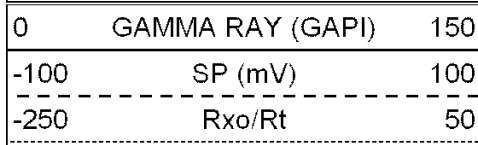
LTD 4649
4650



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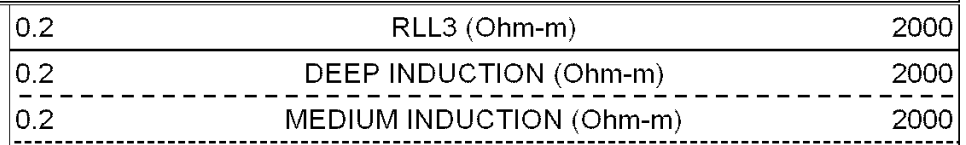
REPEAT SECTION

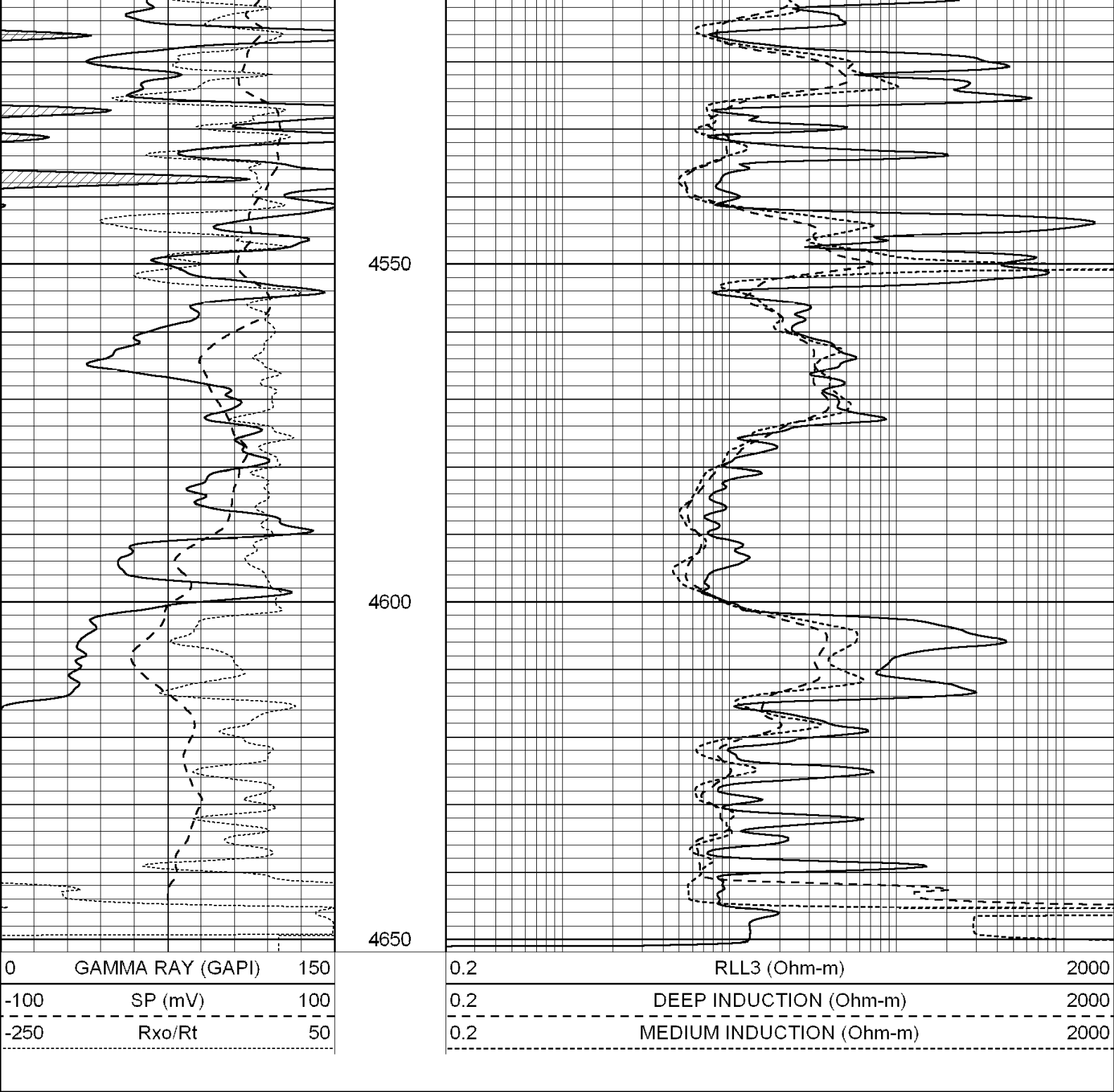
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 Presentation Format: dil
 Dataset Creation: Thu Oct 30 04:11:44 2008 by Calc Open-Cased 060407
 Charted by: Depth in Feet scaled 1:240



4450

4500





Calibration Report								
Database File:	002755ddn.db							
Dataset Pathname:	pass3.4							
Dataset Creation:	Thu Oct 30 04:47:47 2008 by Calc Open-Cased 060407							
Dual Induction Calibration Report								
Serial-Model:			DIL6-GEAR					
Performed:			Sat Oct 25 21:58:51 2008					
Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.001	0.644	V	0.000	400.000	mmho-m	640.000	-3.000
Medium	0.020	0.738	V	0.000	462.500	mmho-m	720.000	-23.000

Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.000	1.000	V	0.000	1.000	mmho-m	1.000	0.000
Medium	0.000	1.000	V	0.000	1.000	mmho-m	1.000	0.000
Litho Density Calibration Report Serial: 004 Model: PRB Performed Sun May 27 14:22:12 2007								
Litho Density Calibration								
	Background	Magnesium		Aluminum		Sandstone		
Window 1	1637.8	12277.9		3987.9		13175.0		cps
Window 2	1491.6	10303.7		3430.3		10765.5		cps
Window 3	1139.1	4797.1		1913.1		4884.2		cps
Window 4	357.0	362.0		360.1		361.1		cps
Long Space	0.0	8812.1		1938.7		9273.9		cps
Short Space	1.4	1599.6		1036.7		1659.2		cps
Rho		1.7100		2.5900		1.3800		g/cc
Pe				2.5700		1.5500		
Rib Angle	: 44.0	Rib Slope	: 0.966	Density/Spine Ratio		: 0.559		
Spine Angle	: 74.0	Spine Slope	: 3.491	Spine Intercept		: -16.7		
Caliper								
Low Ref	Readings 2.2	Reference 6.3						
High Ref	4.4	15.0						
	Gain: 4.0			Offset: -2.7				
Compensated Neutron Calibration Report								
		Serial Number:		NEU_4I				
		Tool Model:		G				
CALIBRATION								
	Detector	Readings		Target		Normalization		
	Short Space	996.00 cps		1000.00 cps		1.0000		
	Long Space	977.00 cps		1000.00 cps		1.0000		
Gamma Ray Calibration Report								
	Serial Number:		GR4					
	Tool Model:		OPEN					
	Performed:		Thu Oct 30 02:00:19 2008					
	Calibrator Value:		200.0		GAPI			
	Background Reading:		0.0		cps			
	Calibrator Reading:		189.0		cps			
	Sensitivity:		1.0500		GAPI/cps			