



SUPERIOR
Hays,
Kansas

DUAL INDUCTION LOG

Company	MULL DRILLING COMPANY, INC.		
Well	FOOS #1-27		
Field	WILDCAT		
County	LANE	State	KANSAS
Location:	API # : 15-101-22136-0000		Other Services CDL/CNL MEL/SONIC
SEC 27 TWP 17S RGE 28W		Elevation	
Permanent Datum	GROUND LEVEL	Elevation	2704
Log Measured From	KELLY BUSHING 5' A.G.L.		
Drilling Measured From	KELLY BUSHING		
Date	11/2/08		
Run Number	CNE		
Depth Driller	4610		
Depth Logger	4610		
Bottom Logged Interval	4608		
Top Log Interval	00		
Casing Driller	8 5/8"@235'		
Casing Logger	235		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 3,100 PPM	
Density / Viscosity	9.5/46		
pH / Fluid Loss	8.5/11.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.00@84F		
Rmf @ Meas. Temp	.750@84F		
Rmc @ Meas. Temp	1.20@84F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.694@121F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	5:30 A.M.		
Maximum Recorded Temperature	121F		
Equipment Number	0836		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	PHIL ASKEY		

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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. 4N. ON HWY 23 TO RD. 190., 4E., 1/2N., W. INTO



SUPERIOR
Hays,
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MAIN SECTION

Database File: 002757ddn.db
Dataset Pathname: pass3.6
Presentation Format: dil2
Dataset Creation: Sun Nov 02 05:40:17 2008 by Calc Open-Cased 060407
Charted by: Depth in Feet scaled 1:600

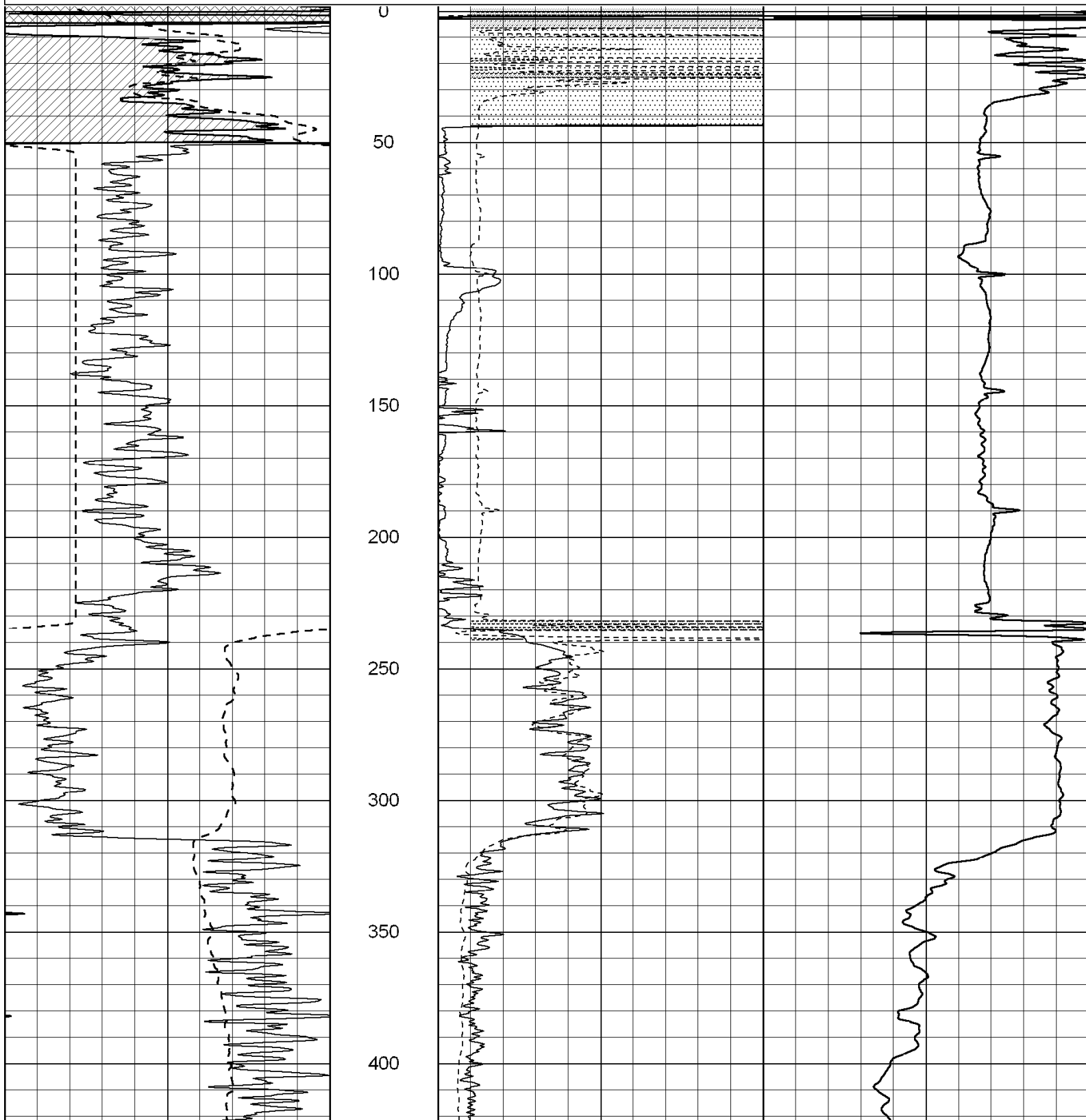
0 Gamma Ray (GAPI) 150
-100 SP (mV) 100

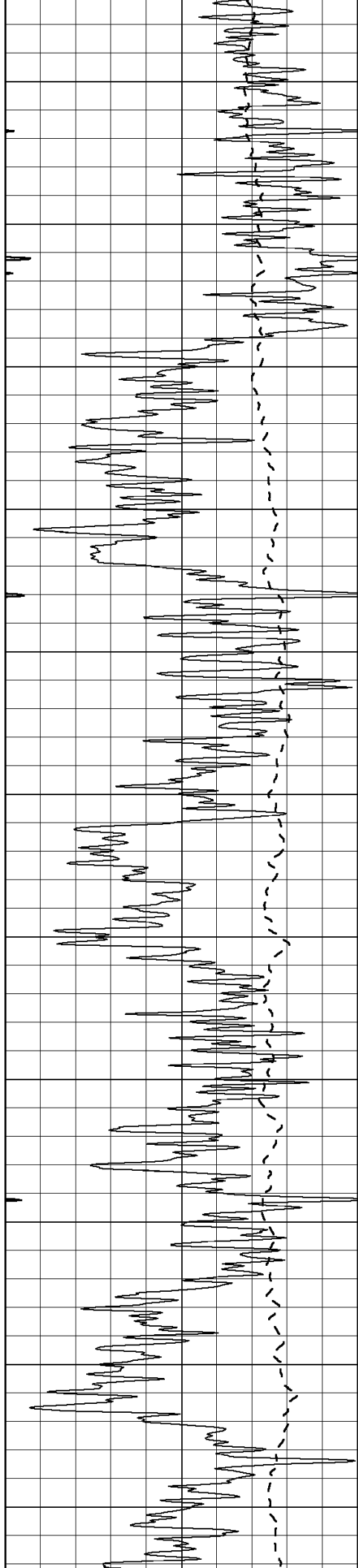
0 RLL3 (Ohm-m) 50
0 Deep Induction (Ohm-m) 50

1000 CILD (mmho-m) 0

50 RILD X10 (Ohm-m) 500

50 RLL3 X10 (Ohm-m) 500





450

500

550

600

650

700

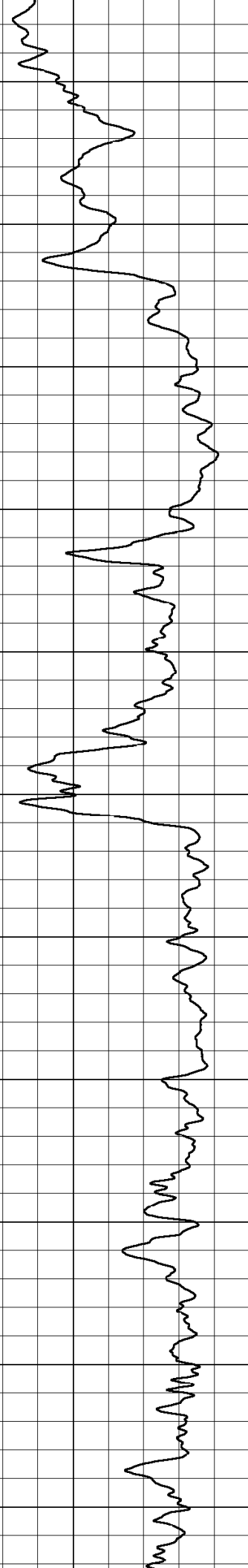
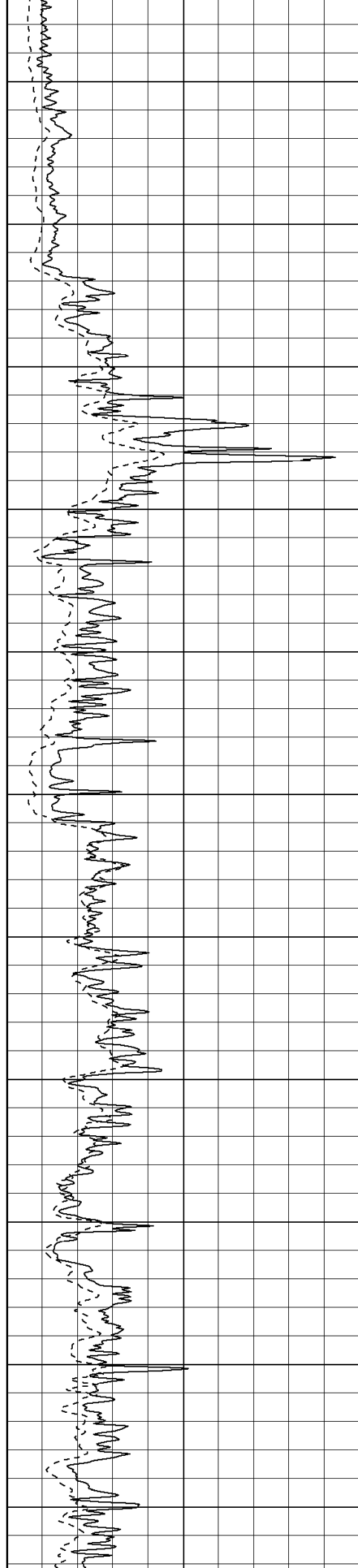
750

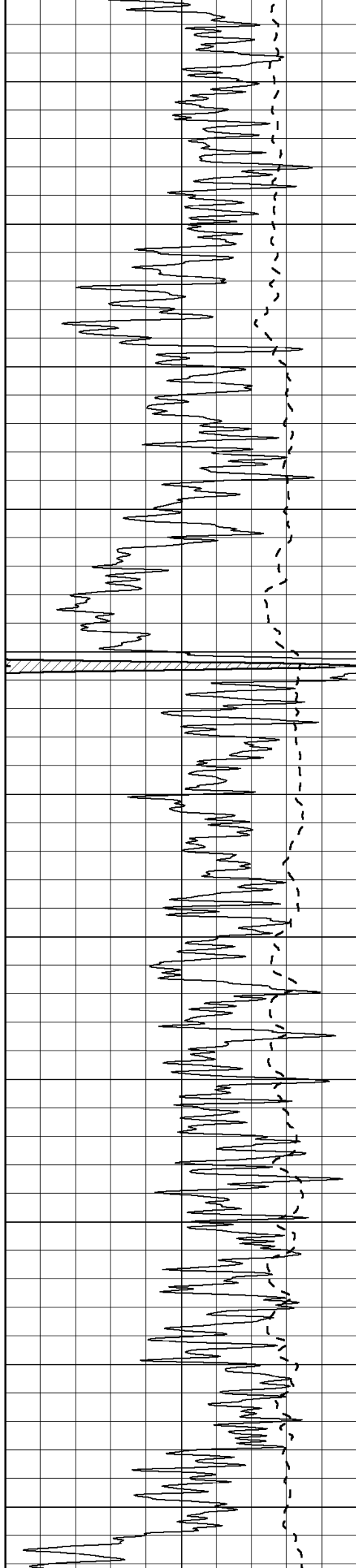
800

850

900

950





1000

1050

1100

1150

1200

1250

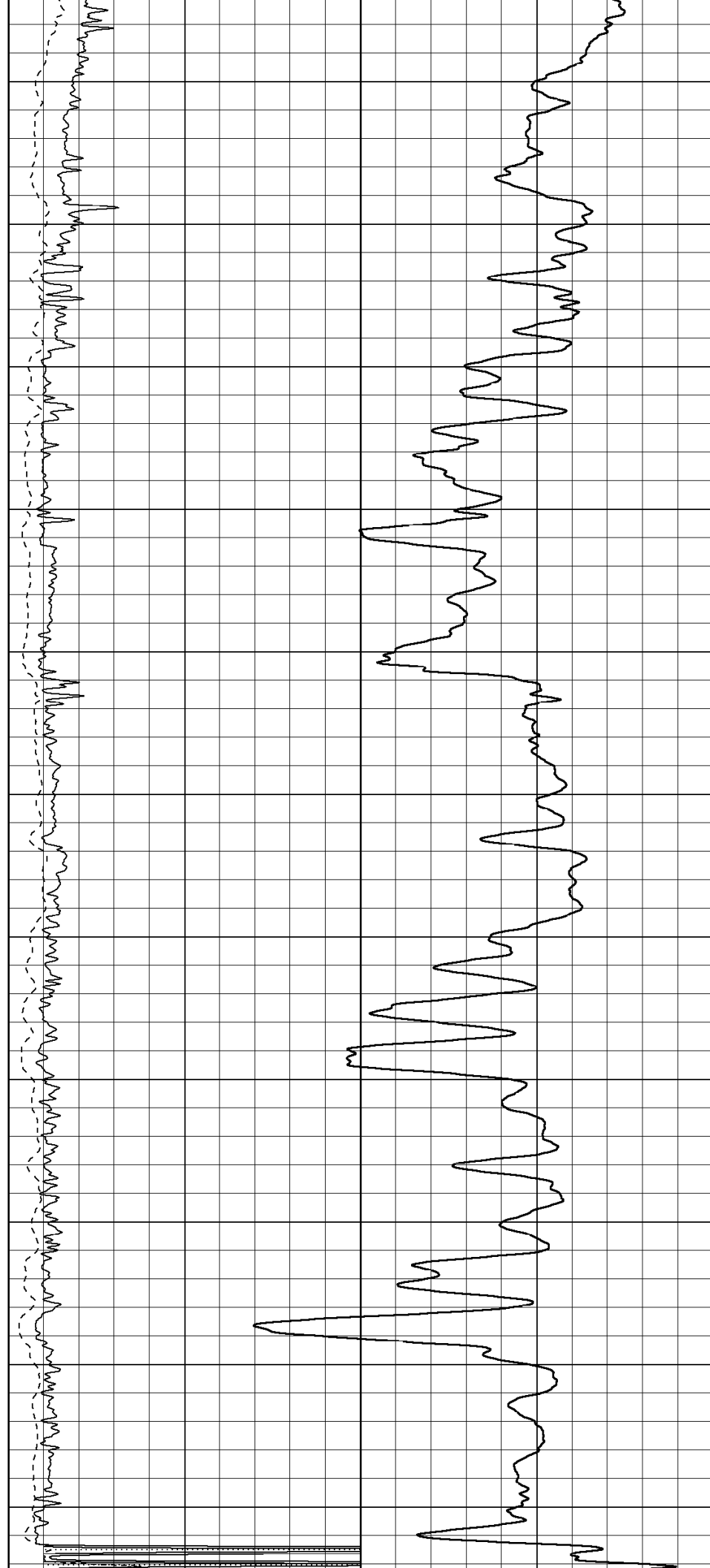
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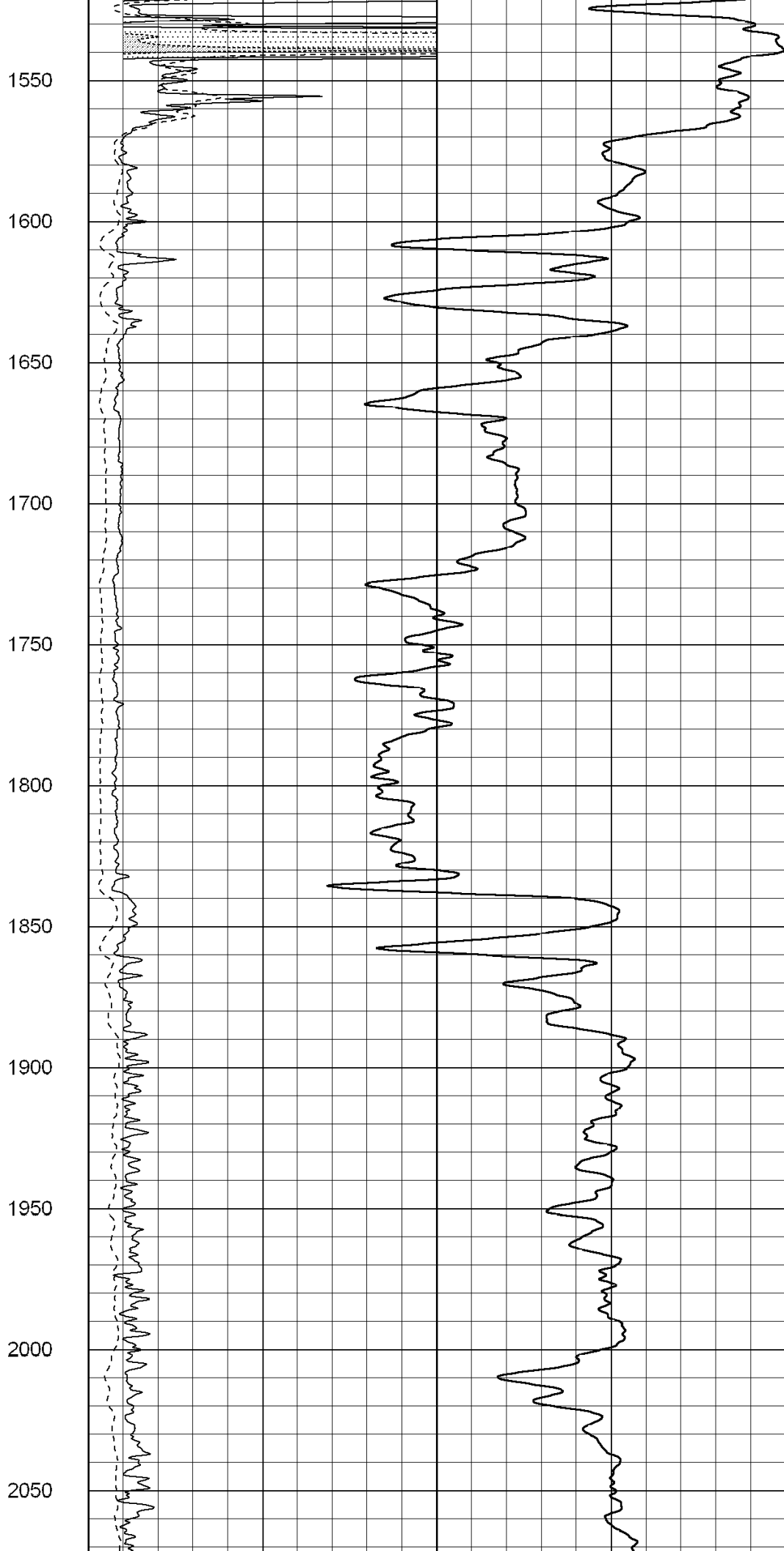
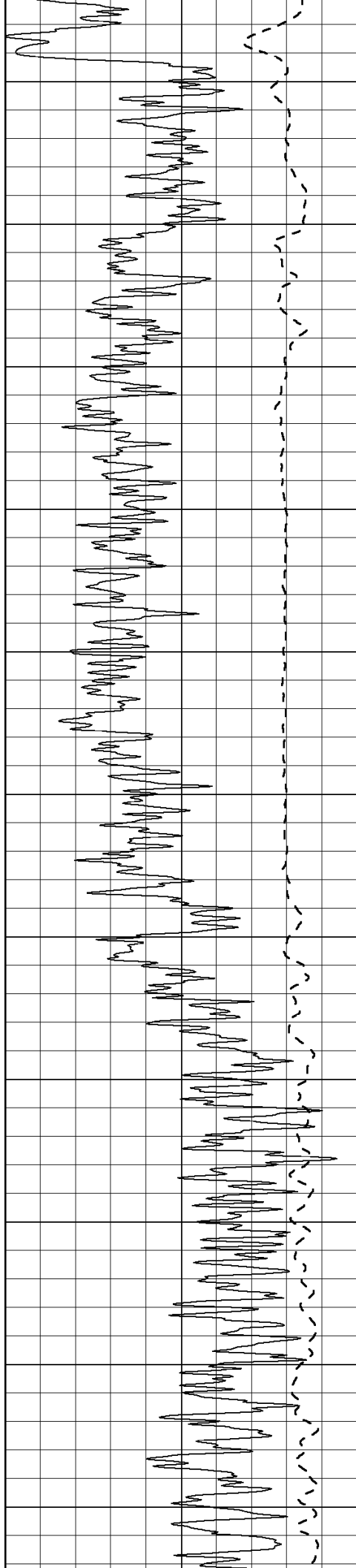
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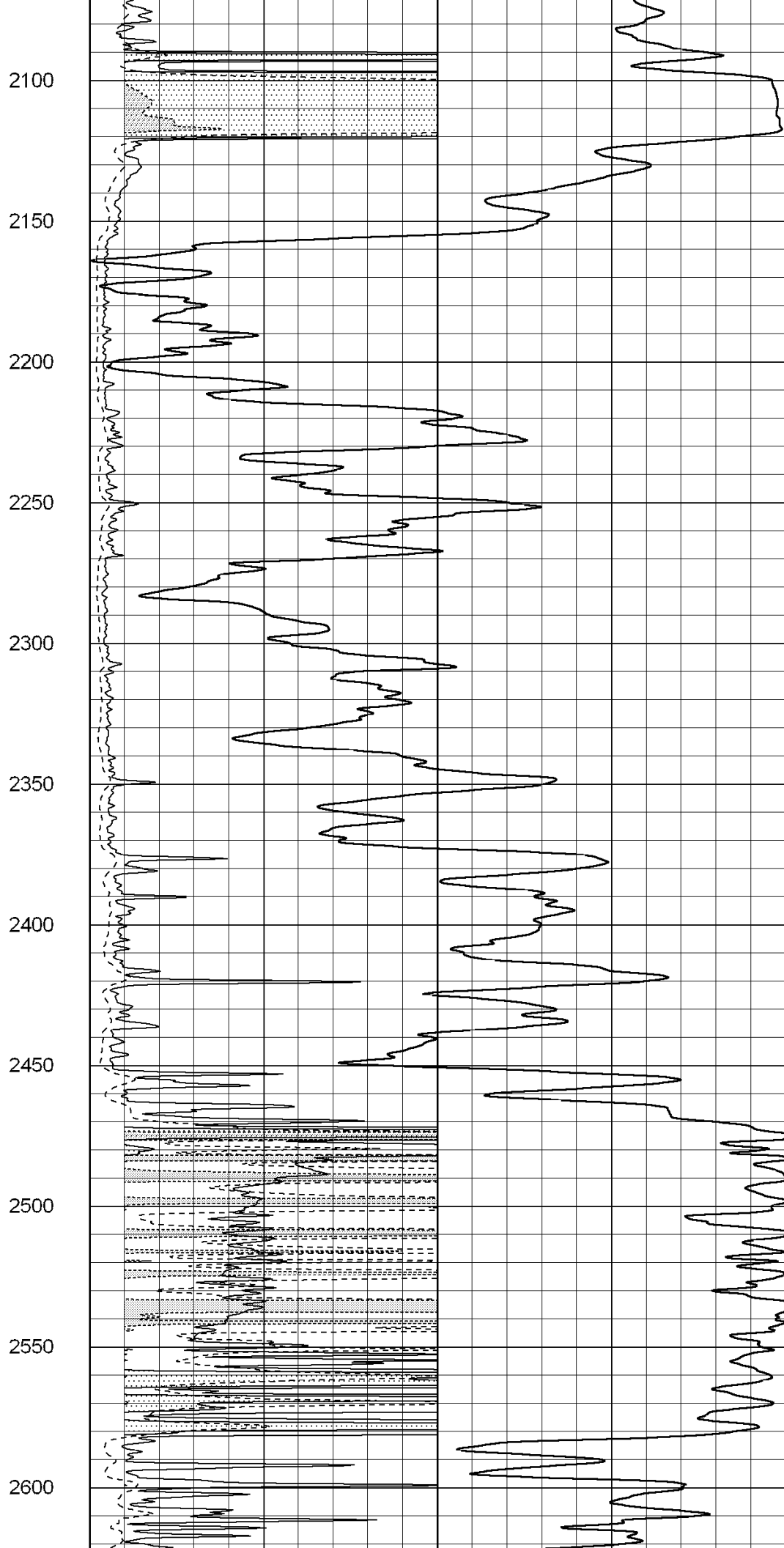
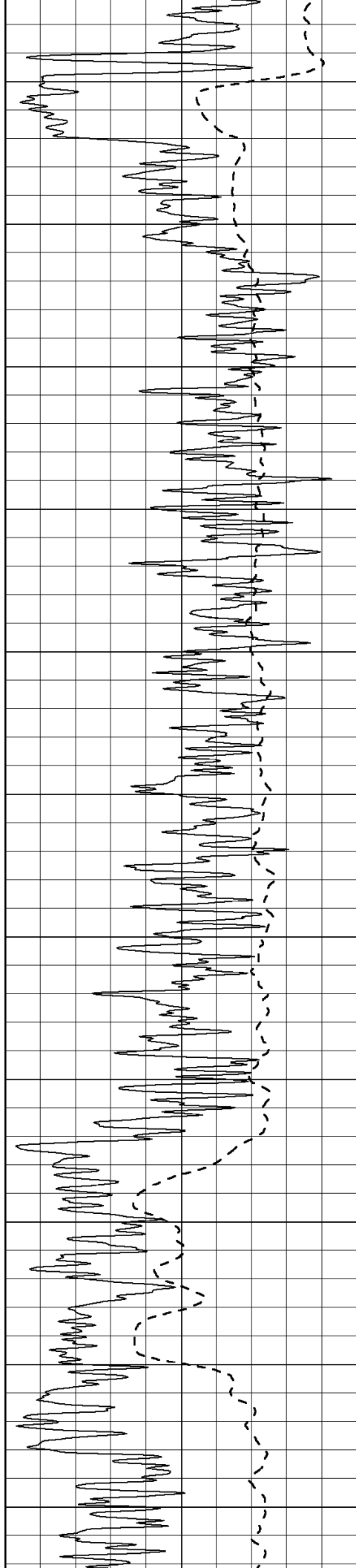
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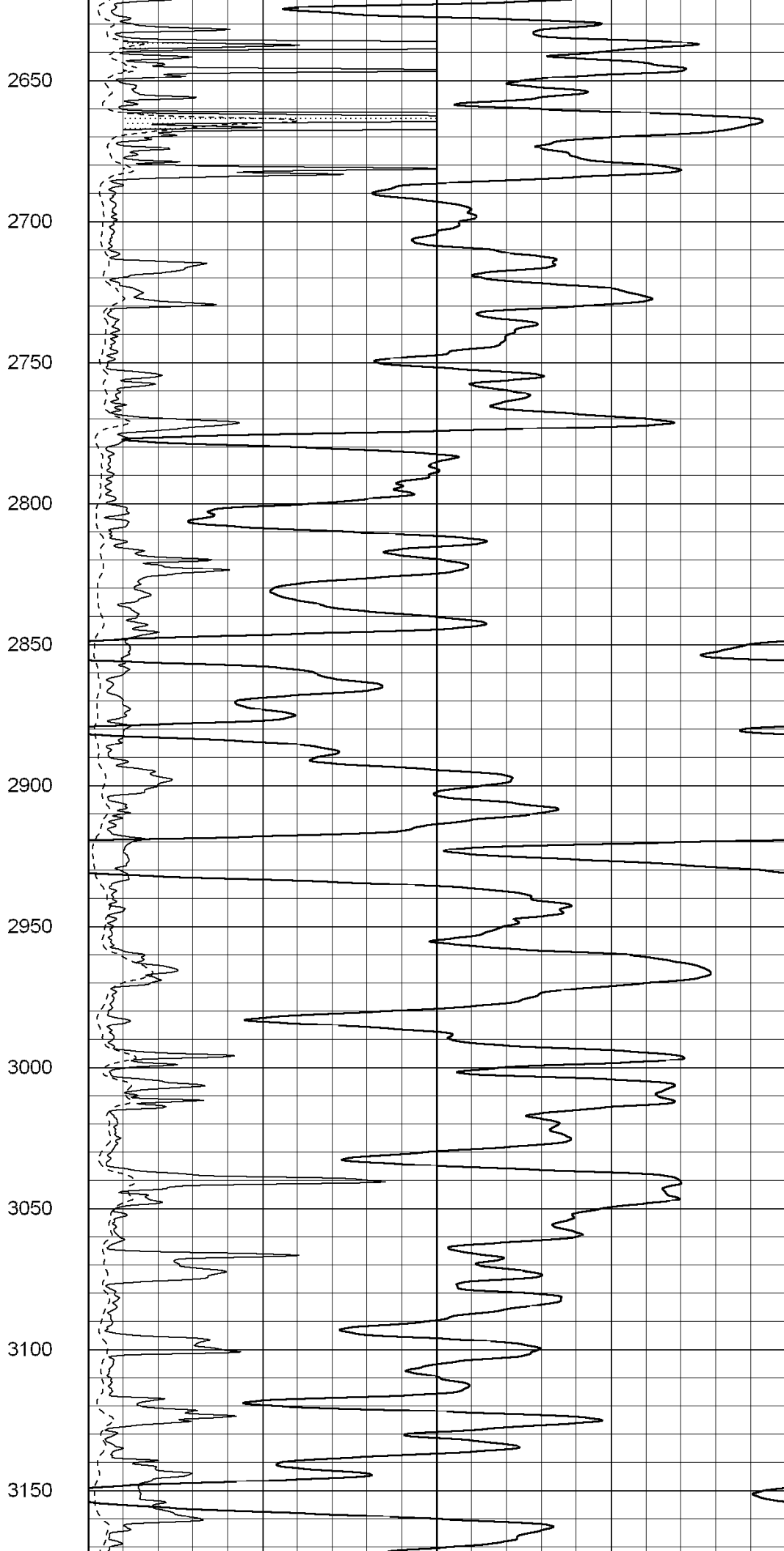
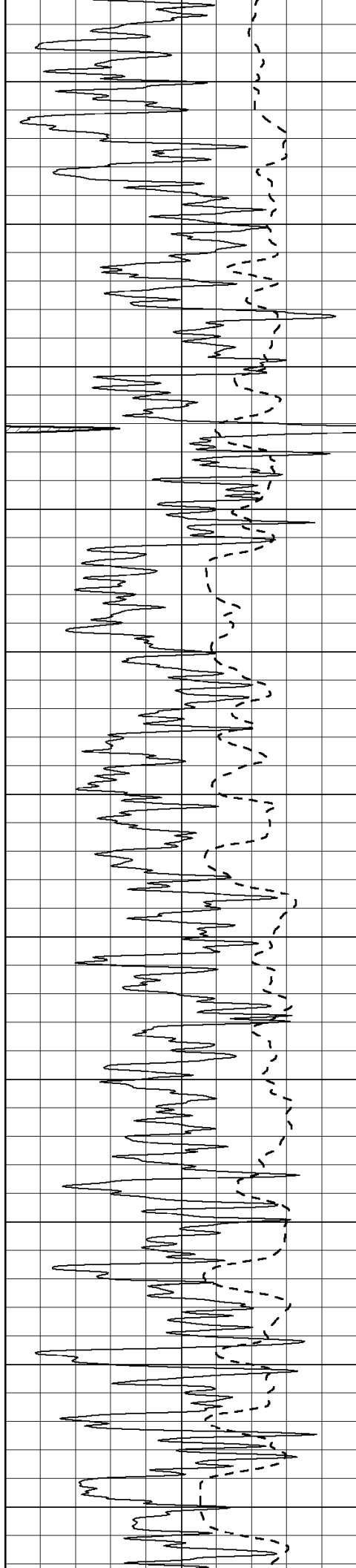
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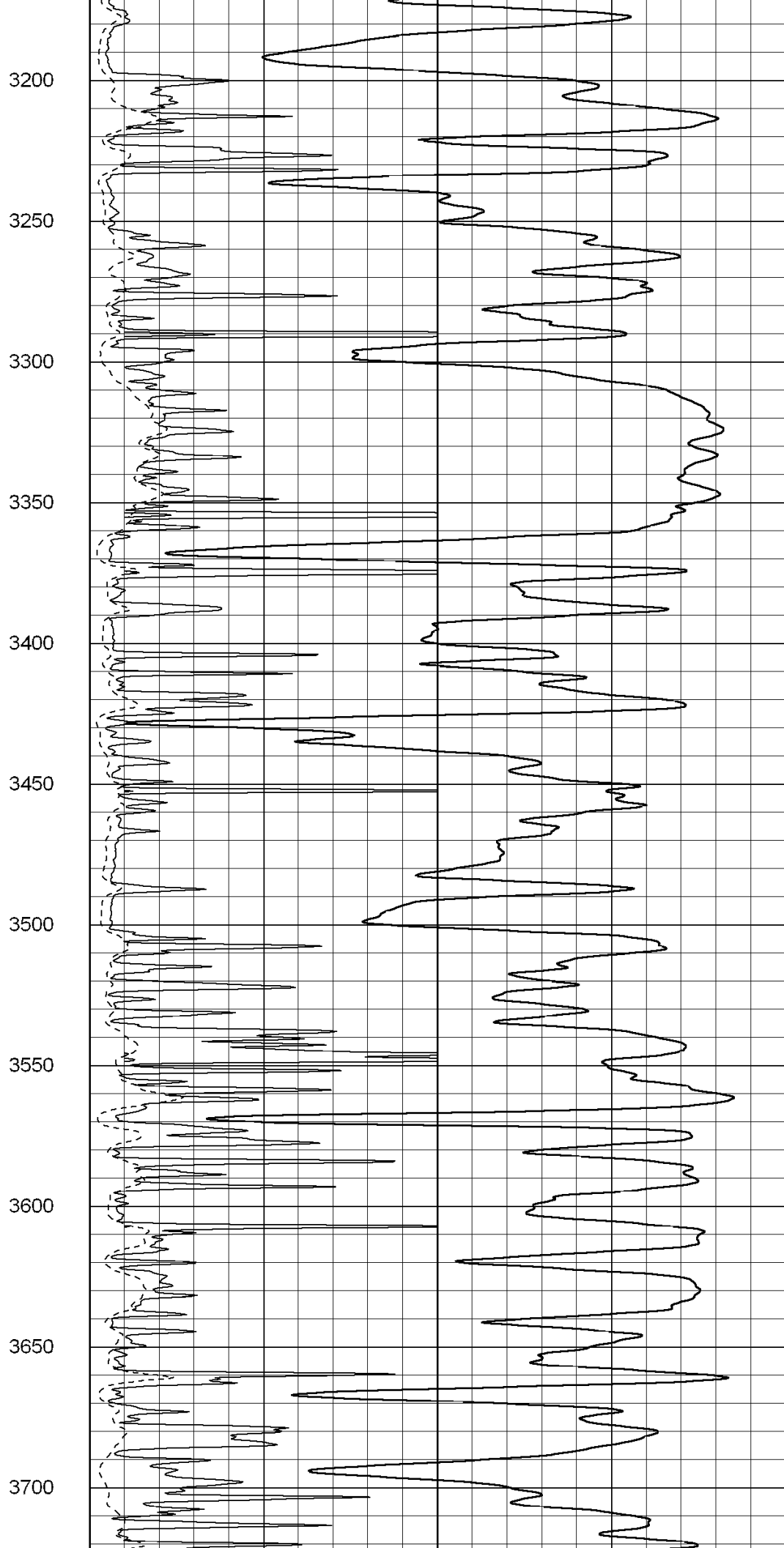
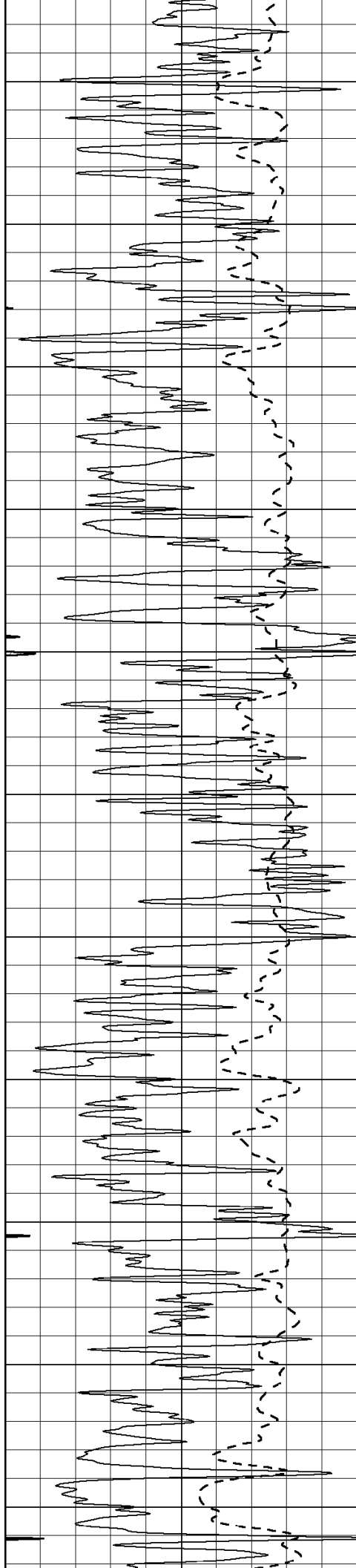
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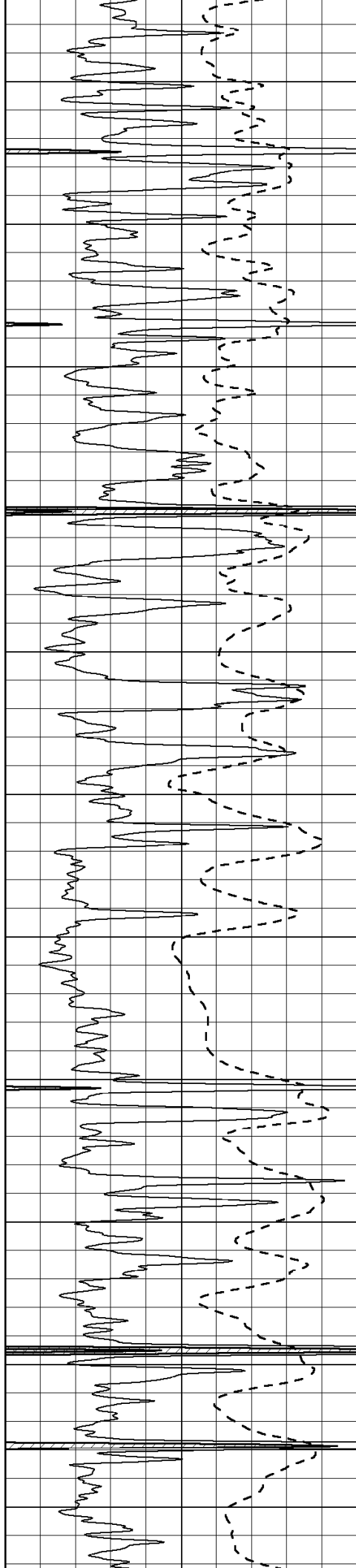












3750

3800

3850

3900

3950

4000

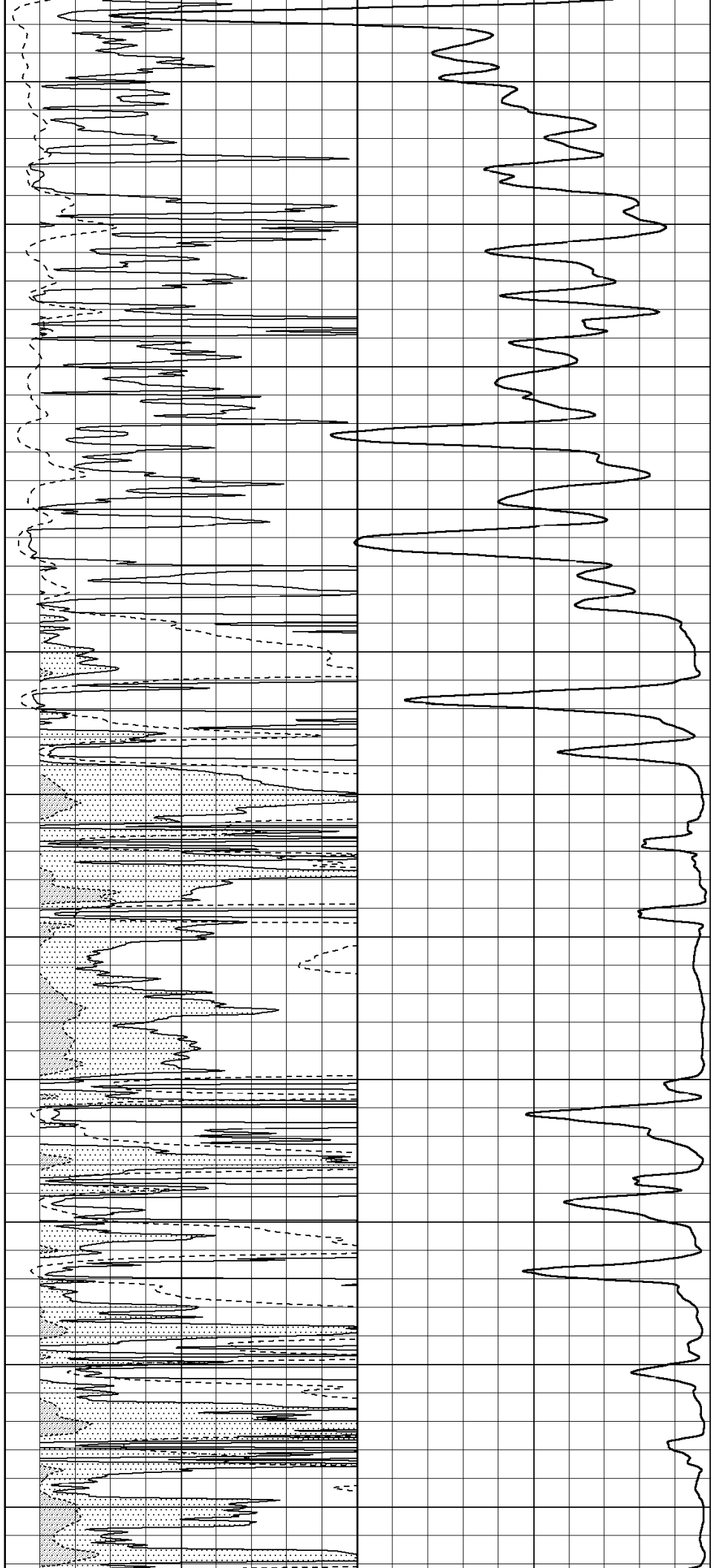
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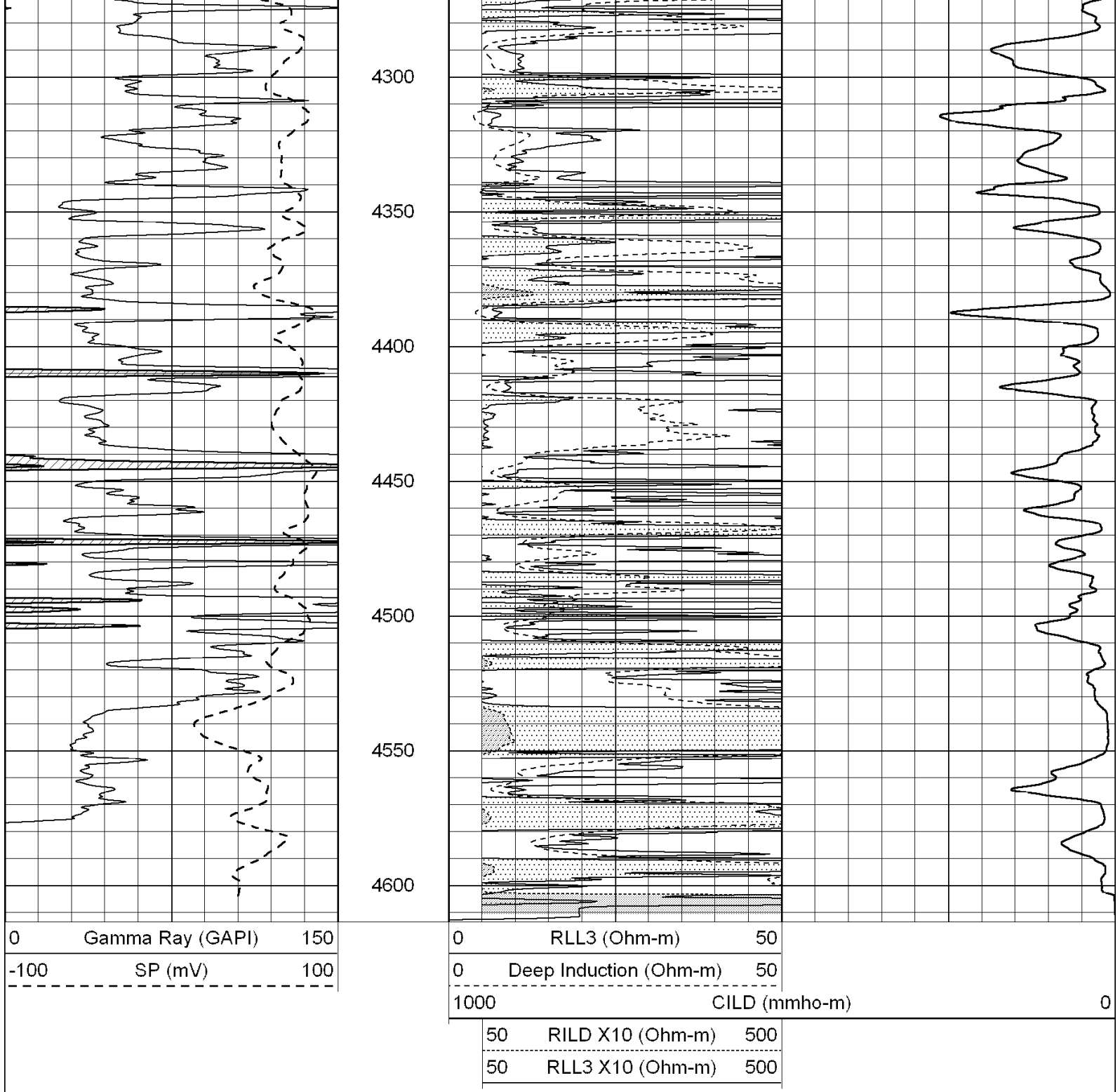
4100

4150

4200

4250





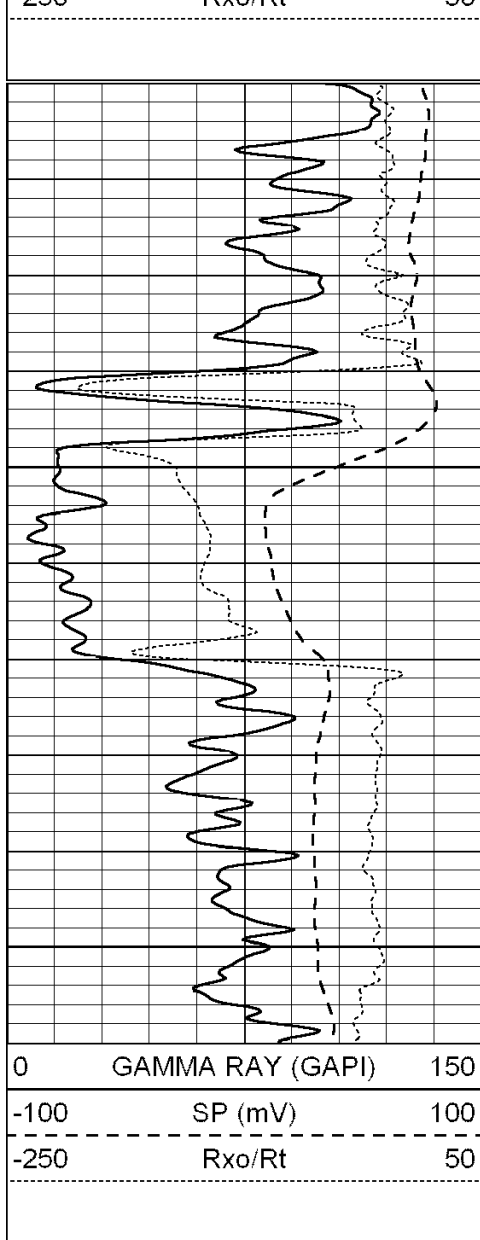
SUPERIOR
Hays,
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ANHYDRITE

Database File: 002757ddn.db
 Dataset Pathname: pass3.7
 Presentation Format: dil
 Dataset Creation: Sun Nov 02 05:41:02 2008 by Calc Open-Cased 060407
 Charted by: Depth in Feet scaled 1:240

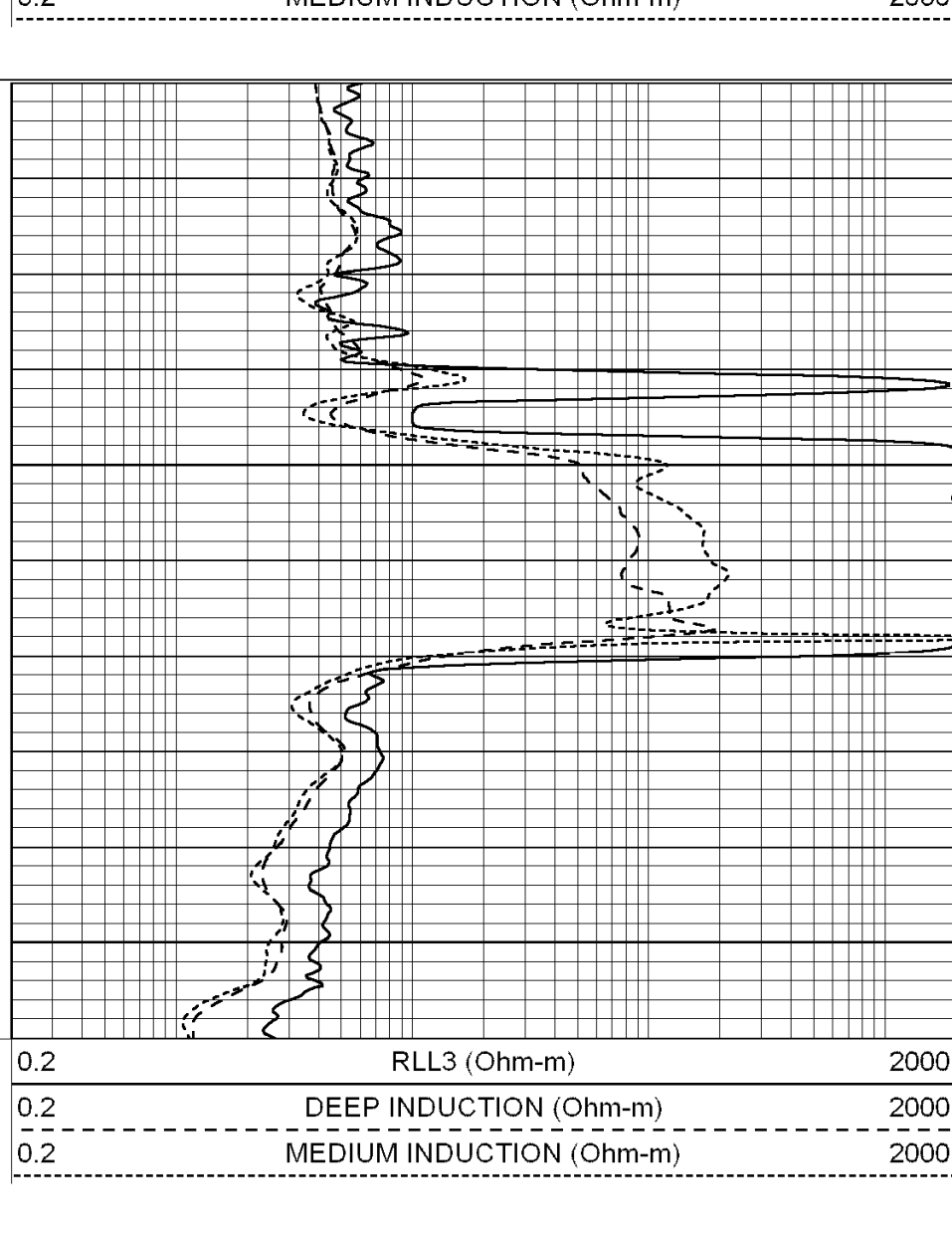
0 GAMMA RAY (GAPI) 150
 -100 SP (mV) 100
 -250 Rxc/Rt 50

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



2100

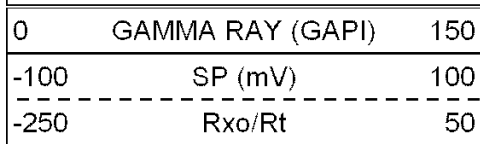
2150



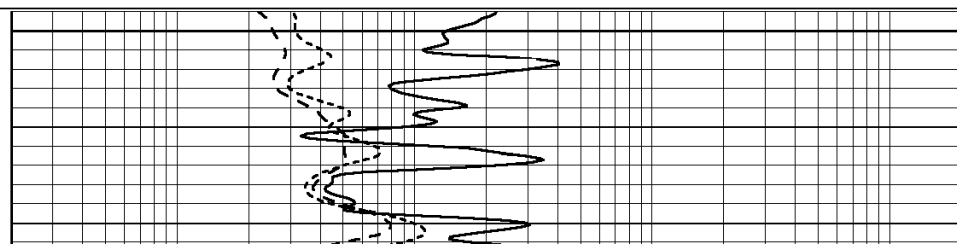
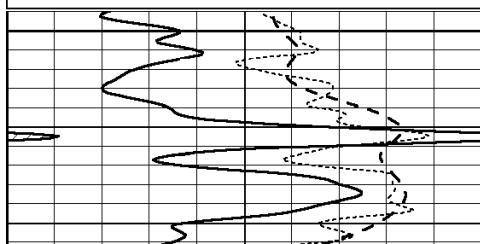
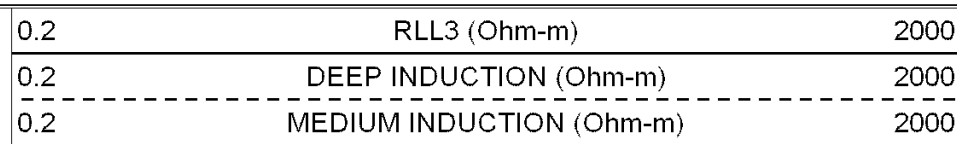
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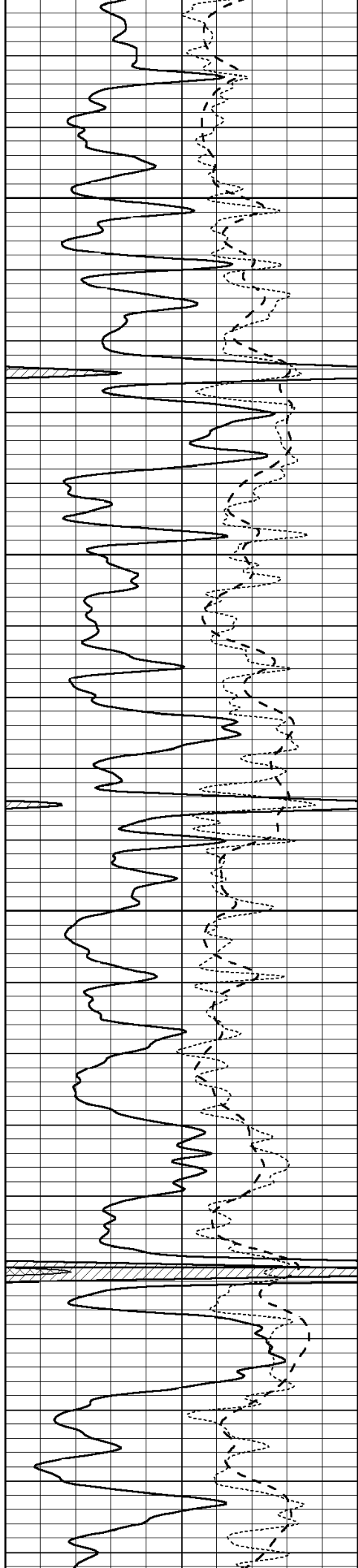
MAIN SECTION

Database File: 002757ddn.db
 Dataset Pathname: pass3.6
 Presentation Format: dil
 Dataset Creation: Sun Nov 02 05:40:17 2008 by Calc Open-Cased 060407
 Charted by: Depth in Feet scaled 1:240



3700



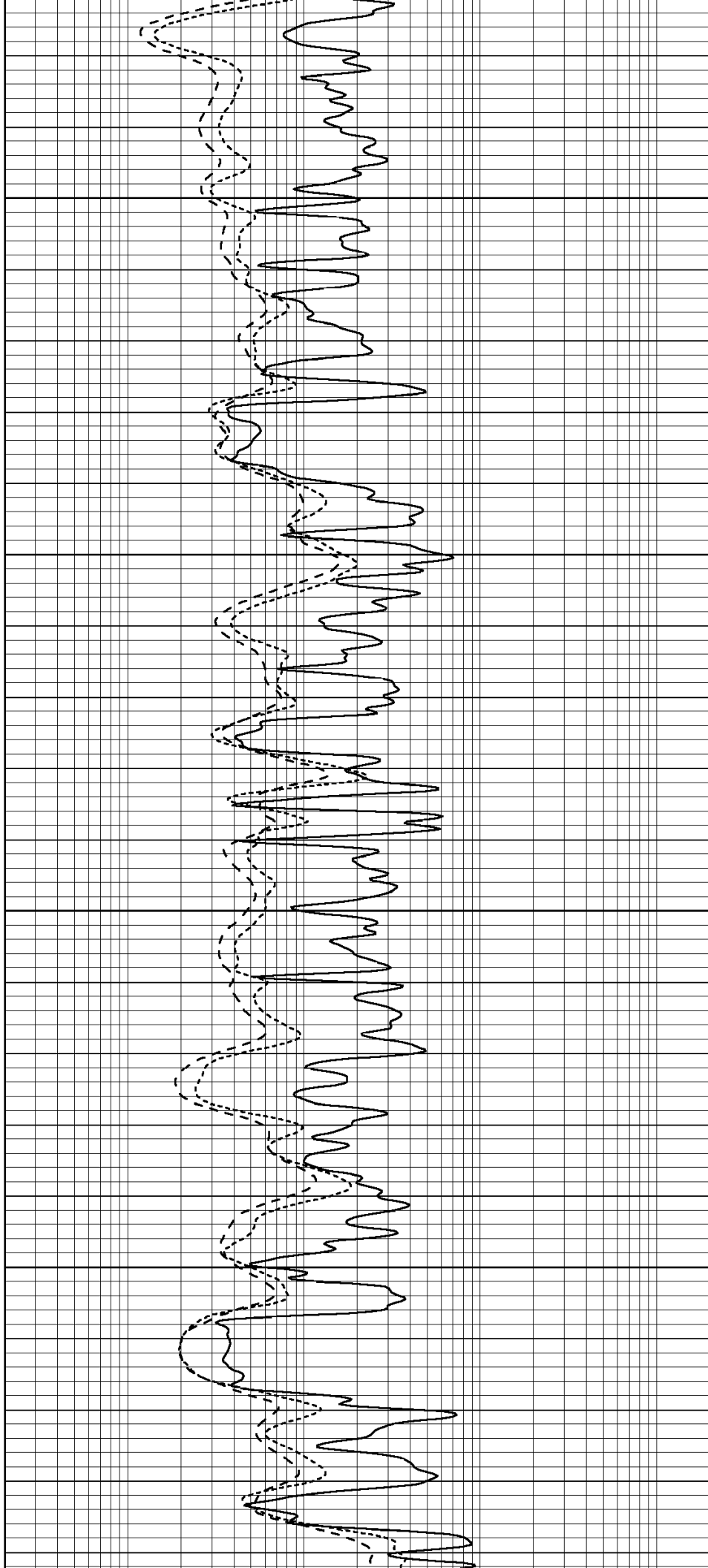


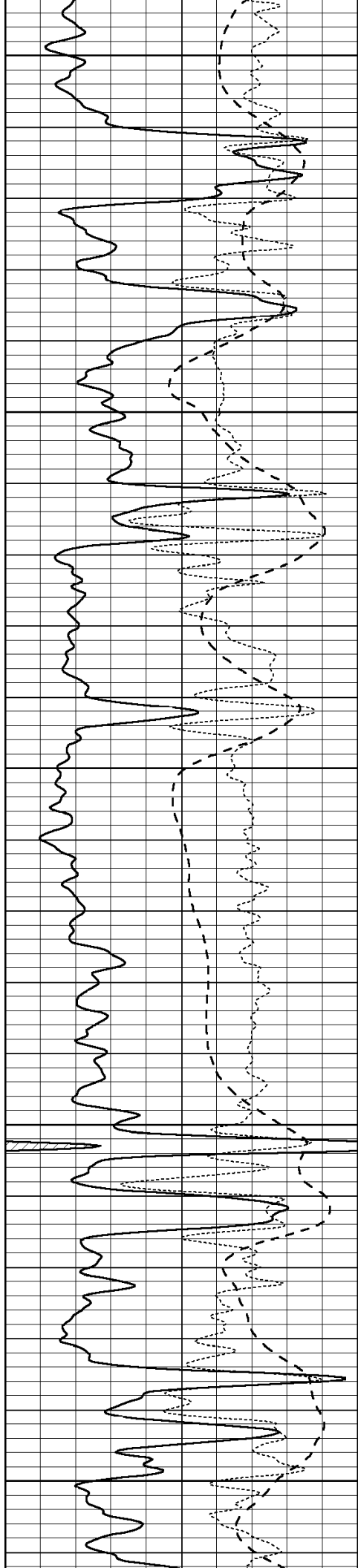
3750

3800

3850

3900





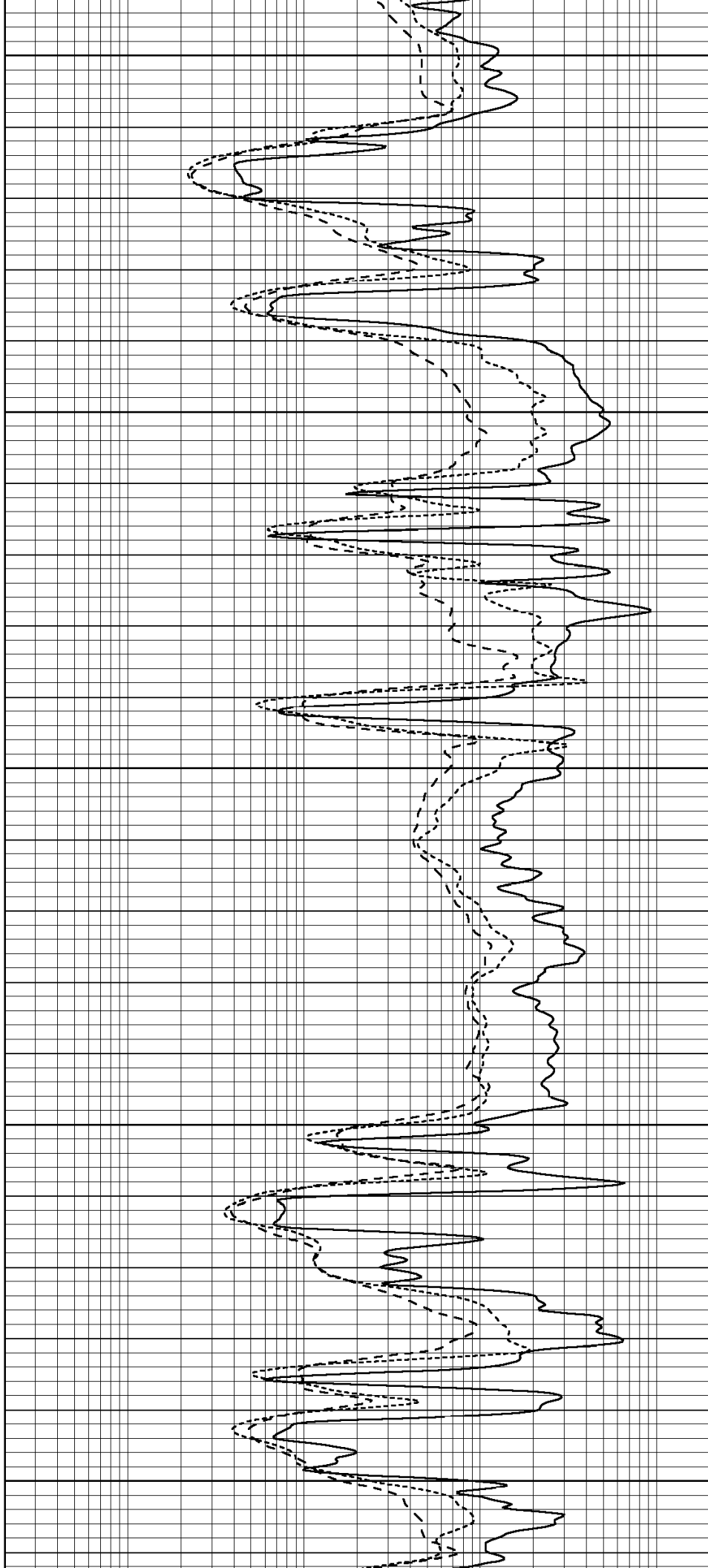
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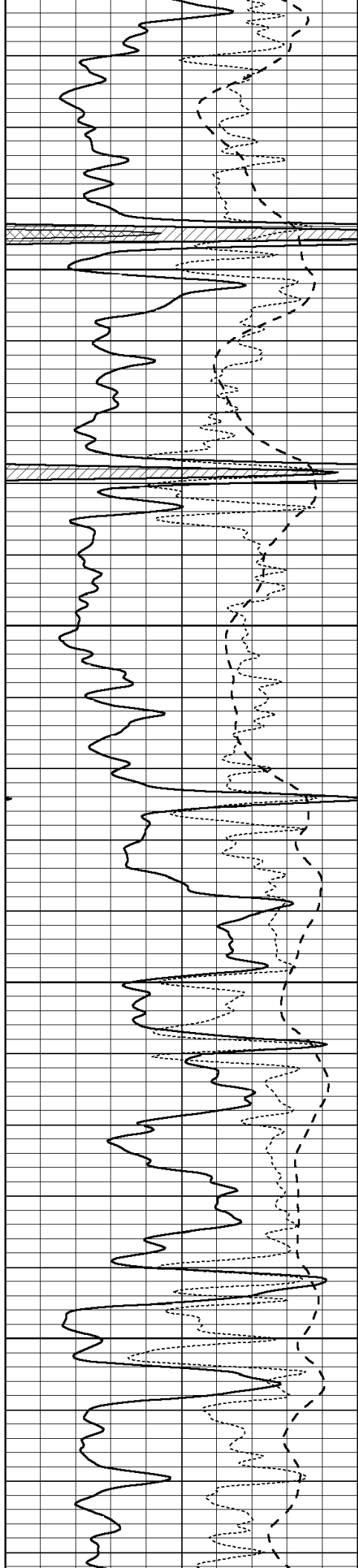
4000

4050

4100

4150



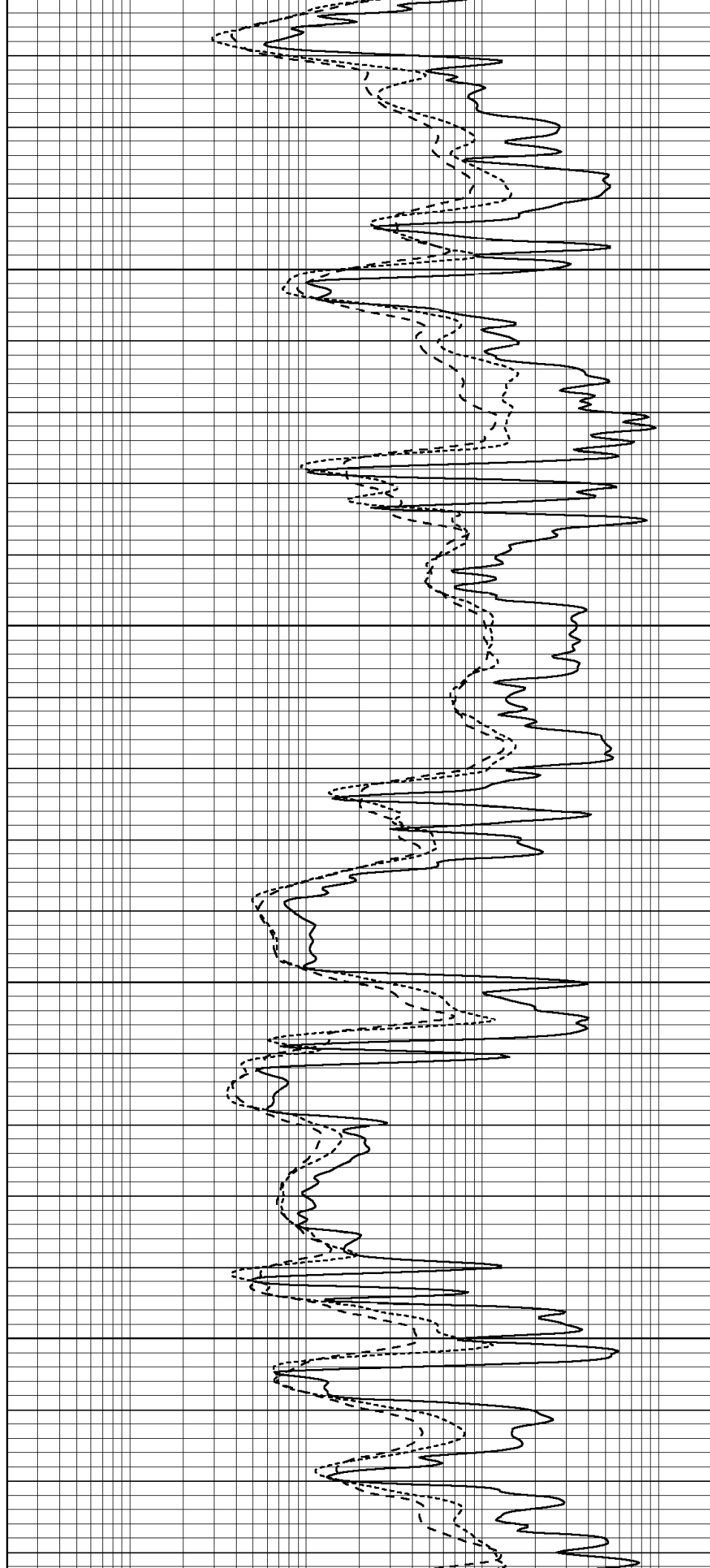


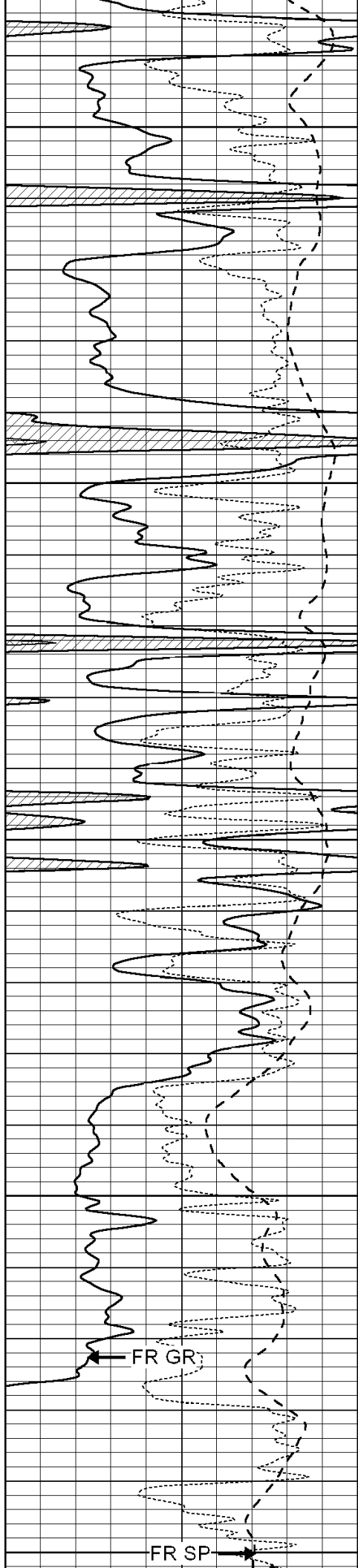
4200

4250

4300

4350





4400

4450

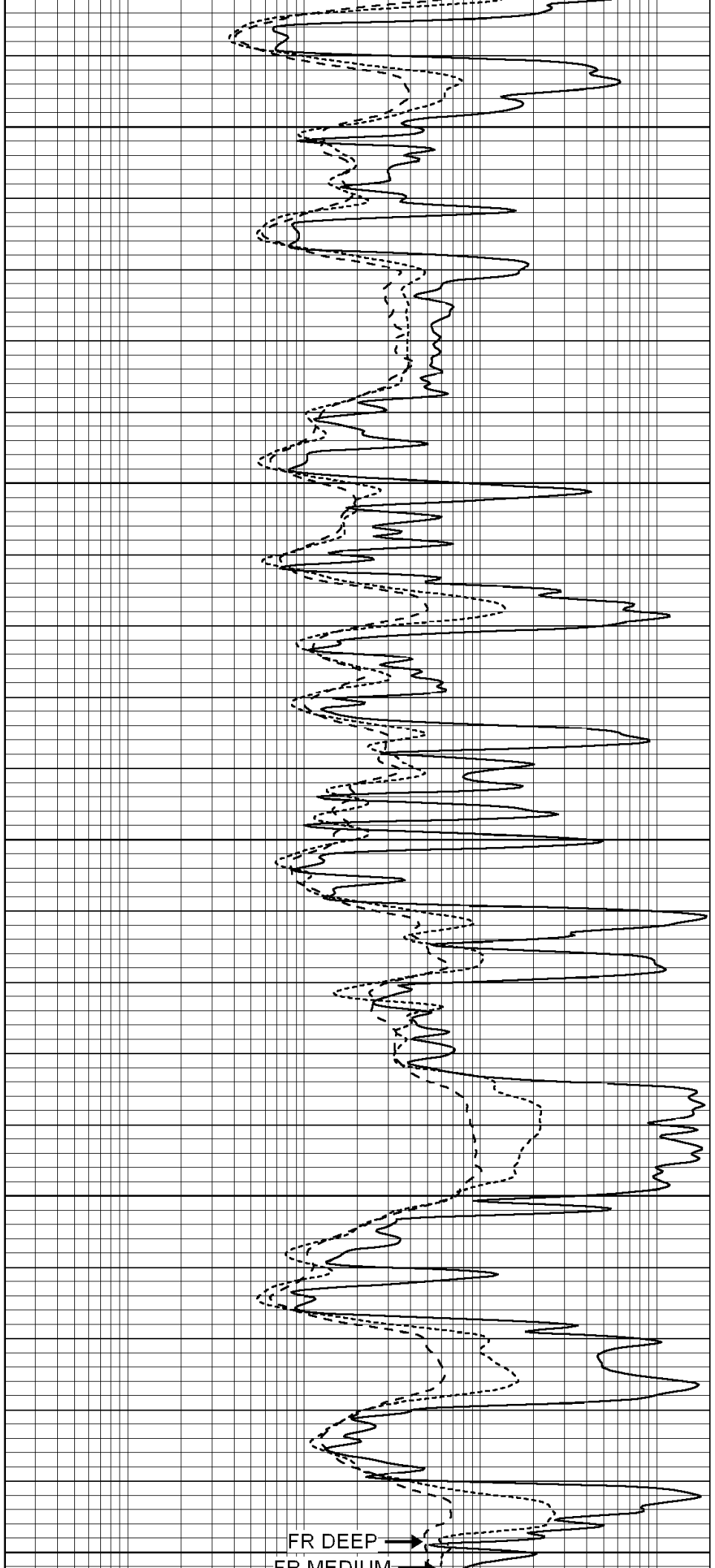
4500

4550

4600

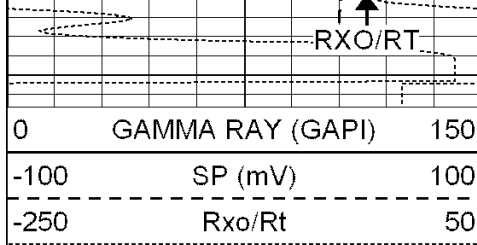
FR GR

FR SP

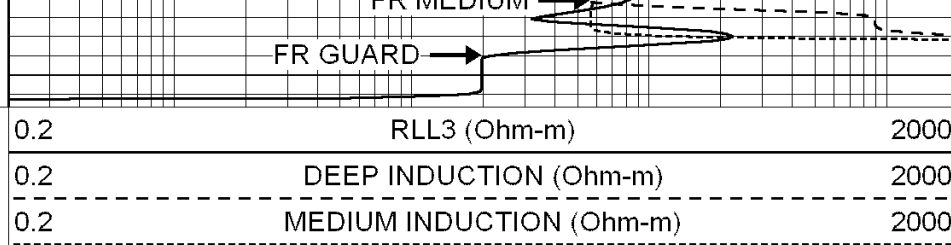


FR DEEP

FR MEDIUM



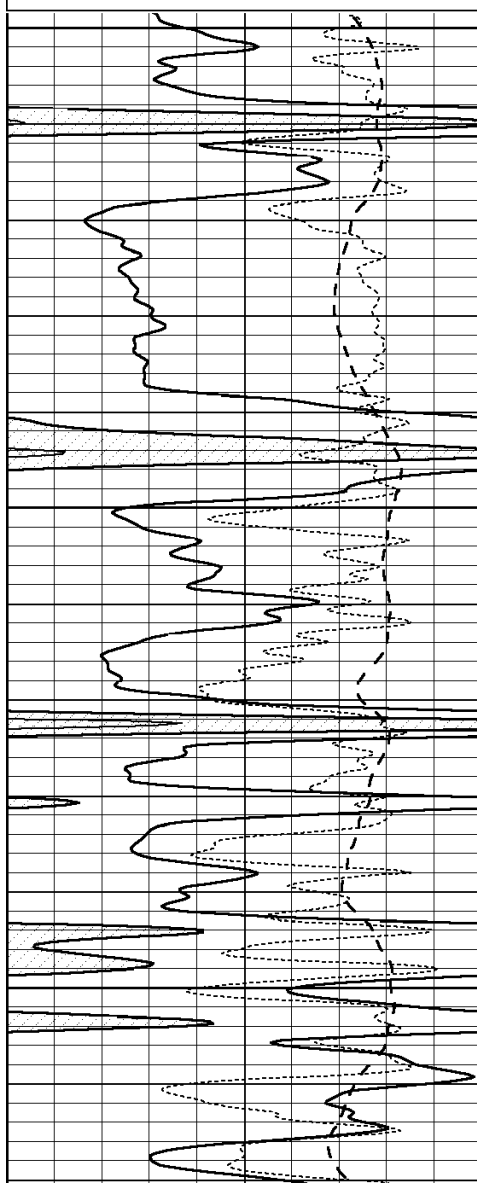
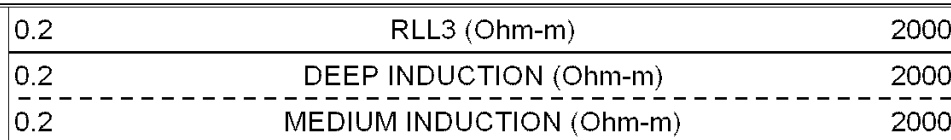
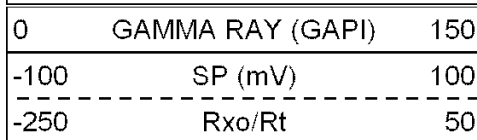
LTD 4610



SUPERIOR
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REPEAT SECTION

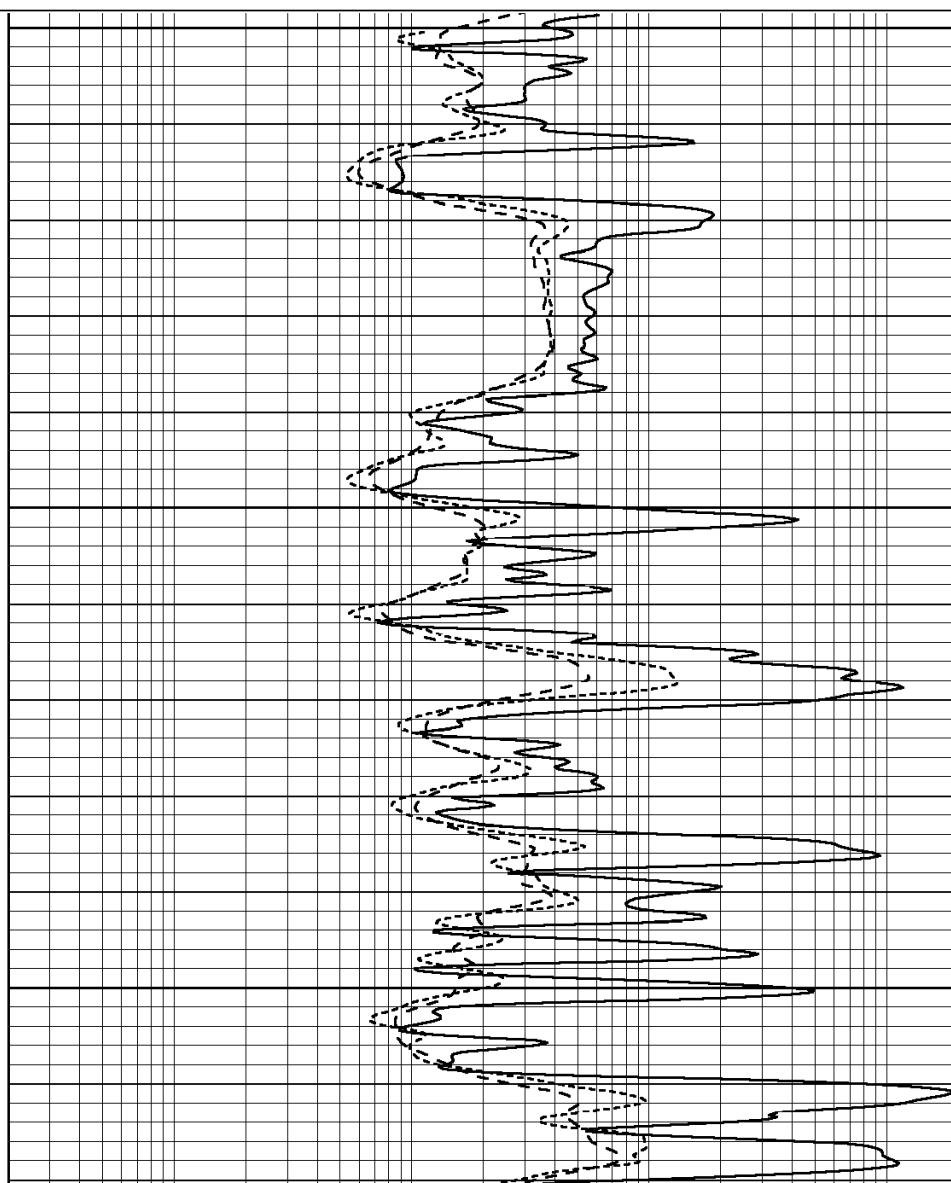
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Presentation Format: dil
Dataset Creation: Sun Nov 02 05:10:45 2008 by Calc Open-Cased 060407
Charted by: Depth in Feet scaled 1:240

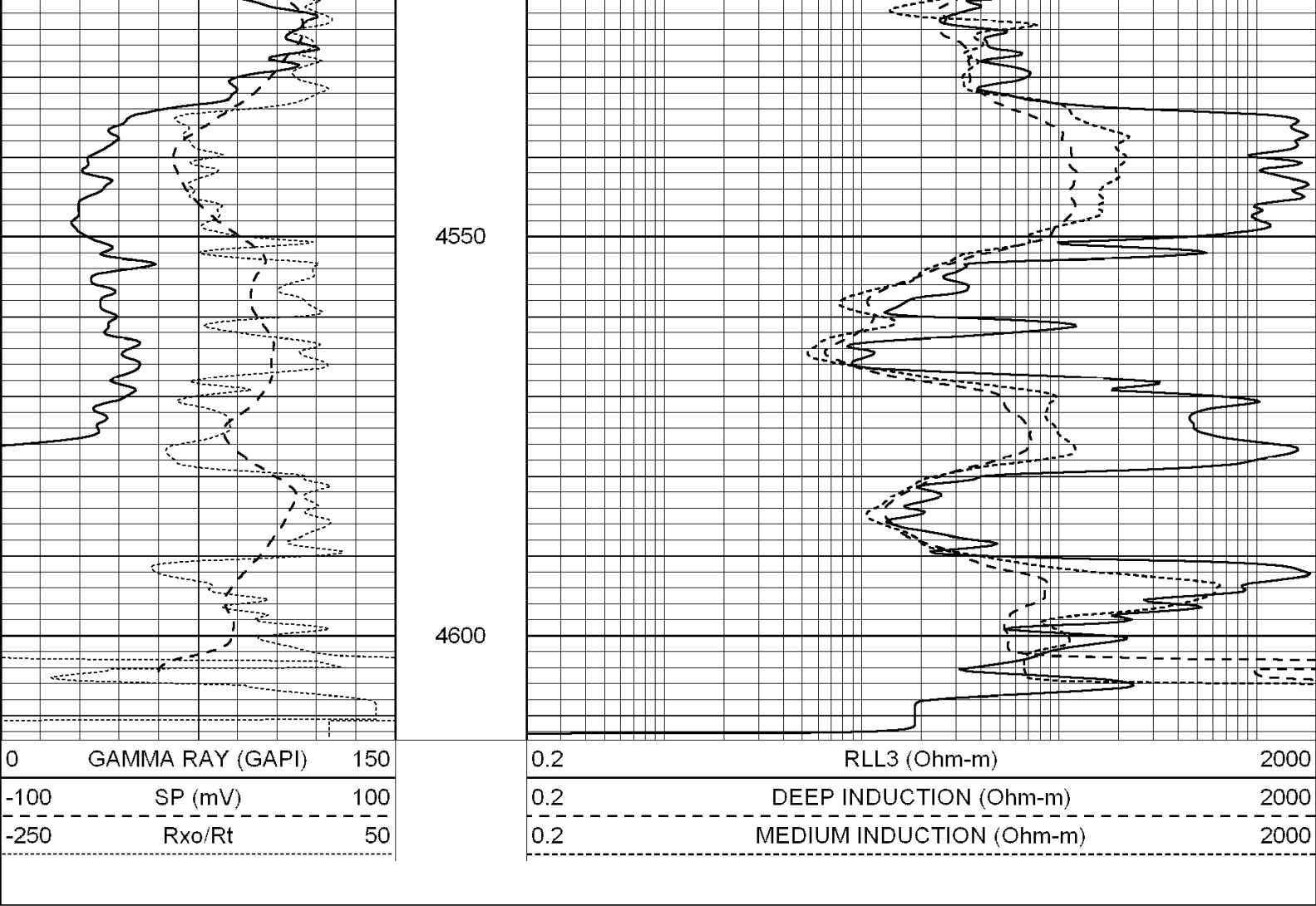


4400

4450

4500





Calibration Report								
Database File:		002757ddn.db						
Dataset Pathname:		pass3.6						
Dataset Creation:		Sun Nov 02 05:40:17 2008 by Calc Open-Cased 060407						
Dual Induction Calibration Report								
Serial-Model:		DIL6-GEAR						
Performed:		Sun Nov 02 04:29:31 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	0.000
Medium	0.020	0.738	V	0.000	462.500	mmho-m	720.000	-22.000
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	Reference			
High Ref	2.2	5.7			
	4.4	15.0			
	Gain: 4.3		Offset: -3.9		

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:	Sun Nov 02 04:29:14 2008	
Calibrator Value:	200.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	189.0	cps
Sensitivity:	1.0500	GAPI/cps