



SUPERIOR
Hays,
Kansas

DUAL
INDUCTION
LOG

Company		MAI OIL OPERATIONS, INC.	
Well		WOYDZIAK-KIRMER UNIT #1	
Field		KRAFT-PRUSA	
County		BARTON	
State		KANSAS	
Location:		AP1 # : 15-009-25619-0000	
Permanent Datum		GROUND LEVEL	
Log Measured From		1300' FNL & 1500' FVL	
Drilling Measured From		SW-SW-NE-NW	
SEC 7		TWP 16S	
RGE 11W		Other Services	
		CDL/CNL	
		MEL	
Elevation		K.B. 1871	
		D.F. 1869	
		G.L. 1863	
Date	11/17/11		
Run Number	ONE		
Depth Driller	3405		
Depth Logger	3409		
Bottom Logged Interval	3407		
Top Log Interval	00		
Casing Driller	8 5/8" @ 424		
Casing Logger	424		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 7700 PPM	
Density / Viscosity	9.1/52		
pH / Fluid Loss	10.5/7.2		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	.75 @ 57F		
Rmf @ Meas. Temp	.56 @ 57F		
Rmc @ Meas. Temp	.90 @ 57F		
Source of Rmf / Rmc	MEASURED		
Rim @ BHT	.38 @ 110F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	110F		
Equipment Number	680		
Location	HAYS, KS.		
Recorded By	JASON CAPPELLUCCI		
Witnessed By	JIM MUSGROVE		

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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
ODIN KS. - 9 N. - 1 E. - 1/4 S. - E. INTO



SUPERIOR
Hays,
Kansas

MAIN SECTION

Database File: 008086ddn.db
Dataset Pathname: pass3.2
Presentation Format: _dil2
Dataset Creation: Thu Nov 17 02:01:52 2011 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:600

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

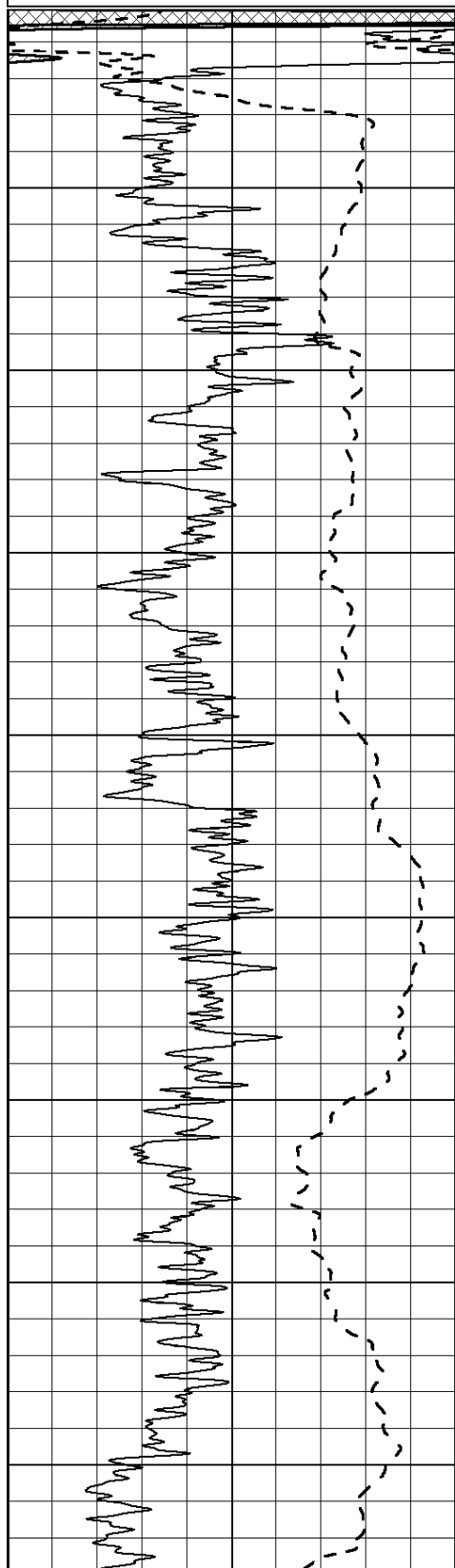
0	RLL3 (Ohm-m)	50
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0	Deep Induction (Ohm-m)	50
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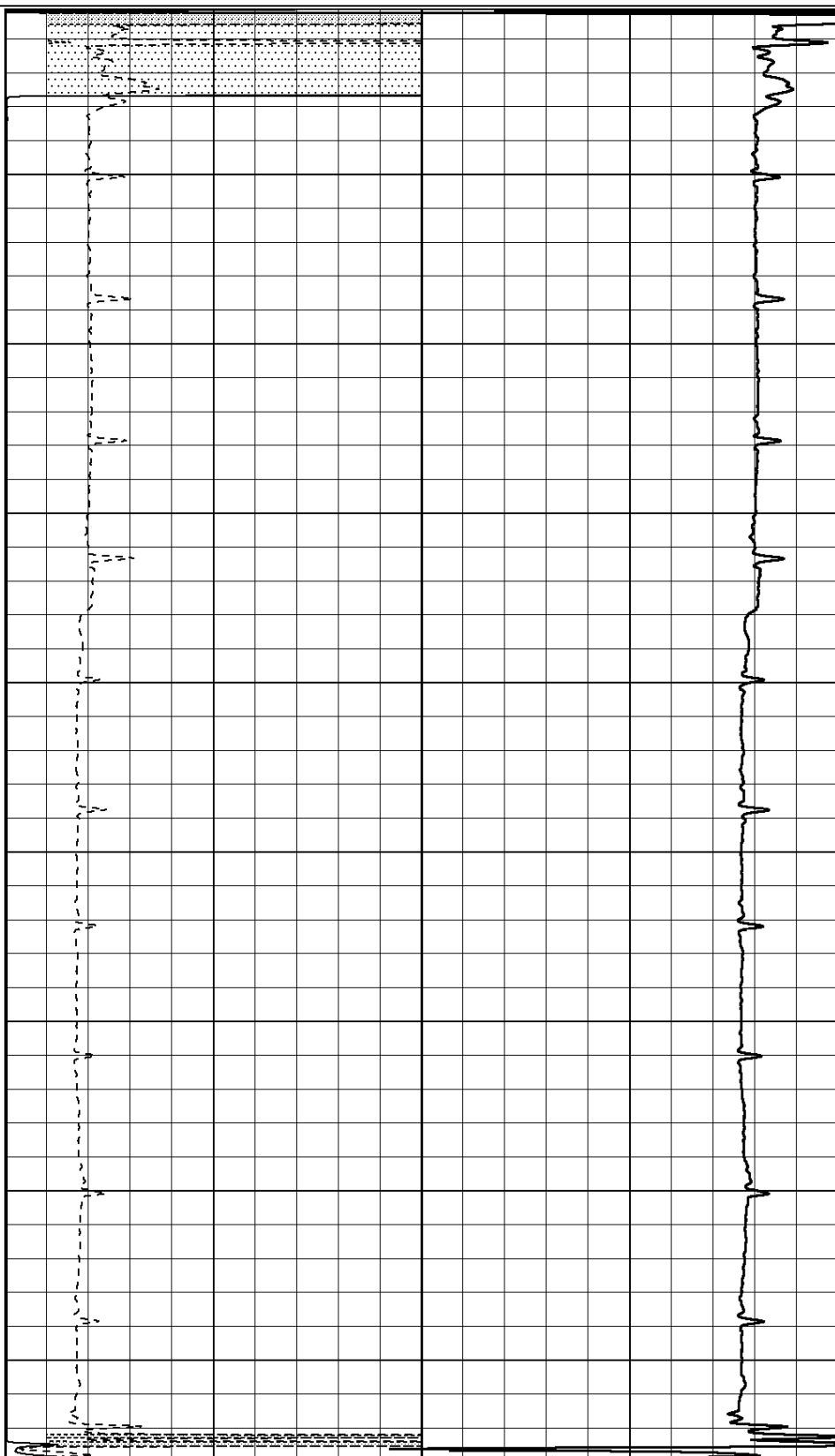
1000	CILD (mmho/m)	0
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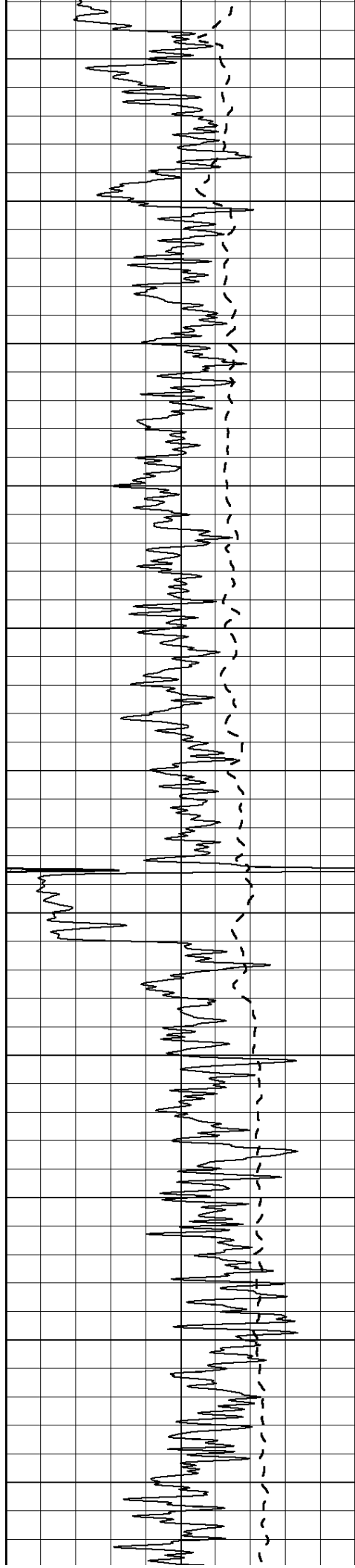
50	RILD X10 (Ohm-m)	500
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50	RLL3 X10 (Ohm-m)	500
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50
100
150
200
250
300
350
400





450

500

550

600

650

700

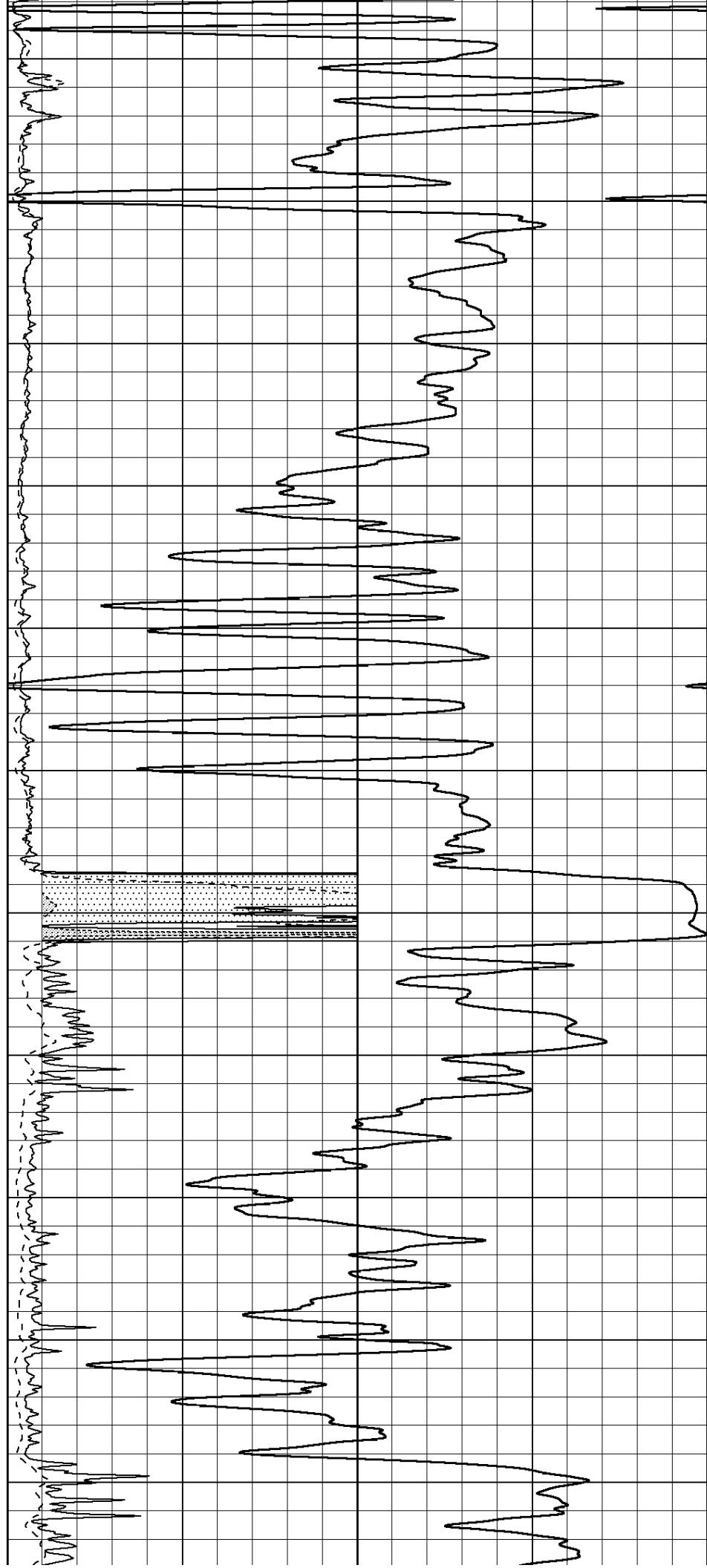
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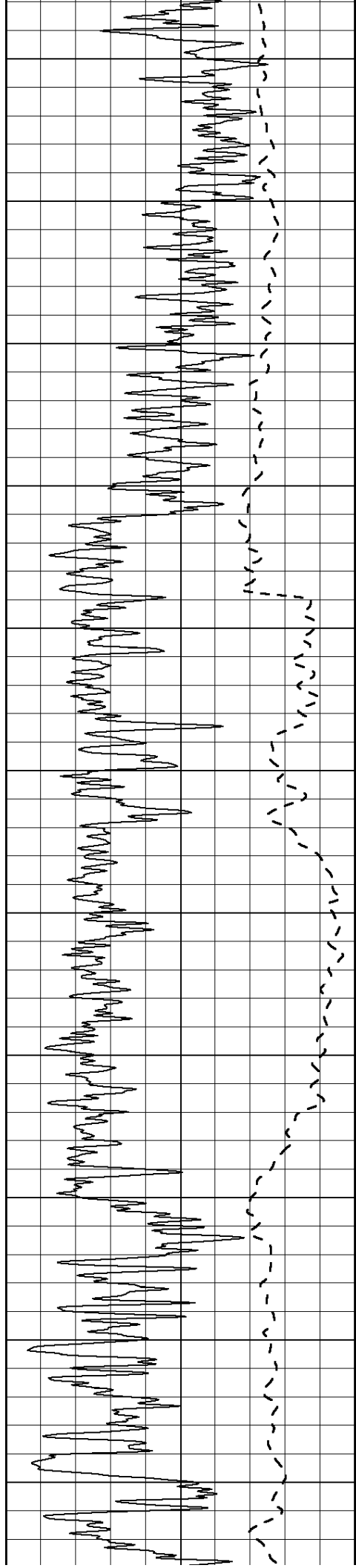
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850

900

950





1000

1050

1100

1150

1200

1250

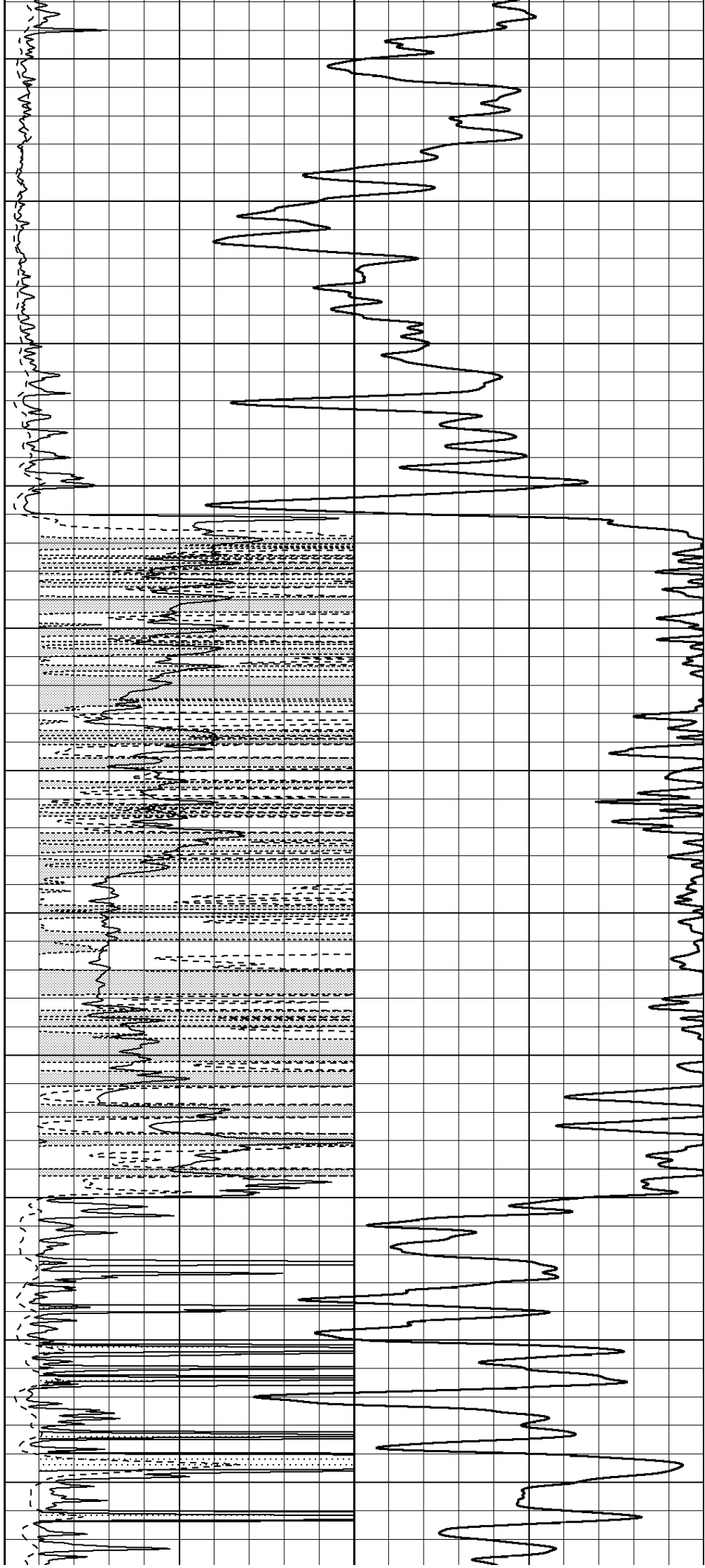
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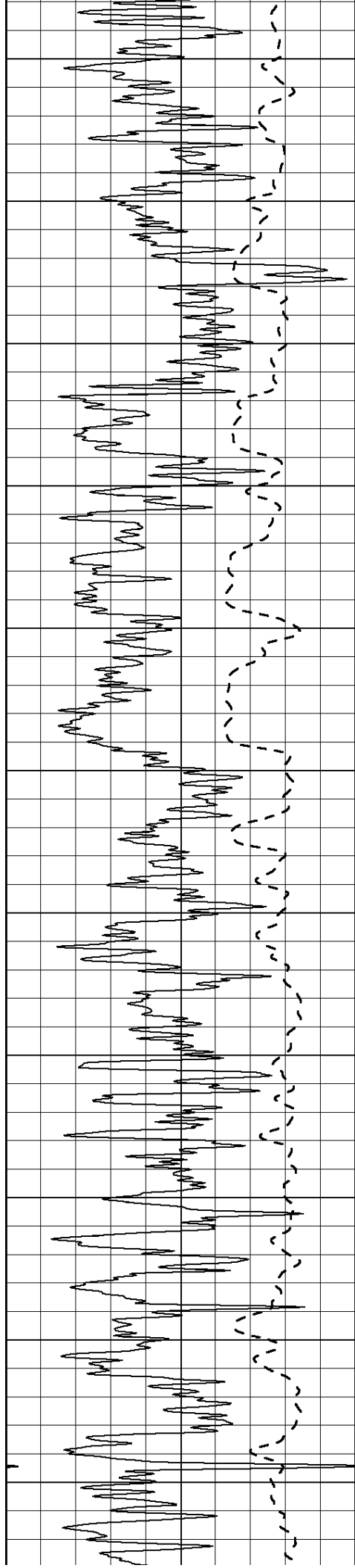
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1400

1450

1500





1550

1600

1650

1700

1750

1800

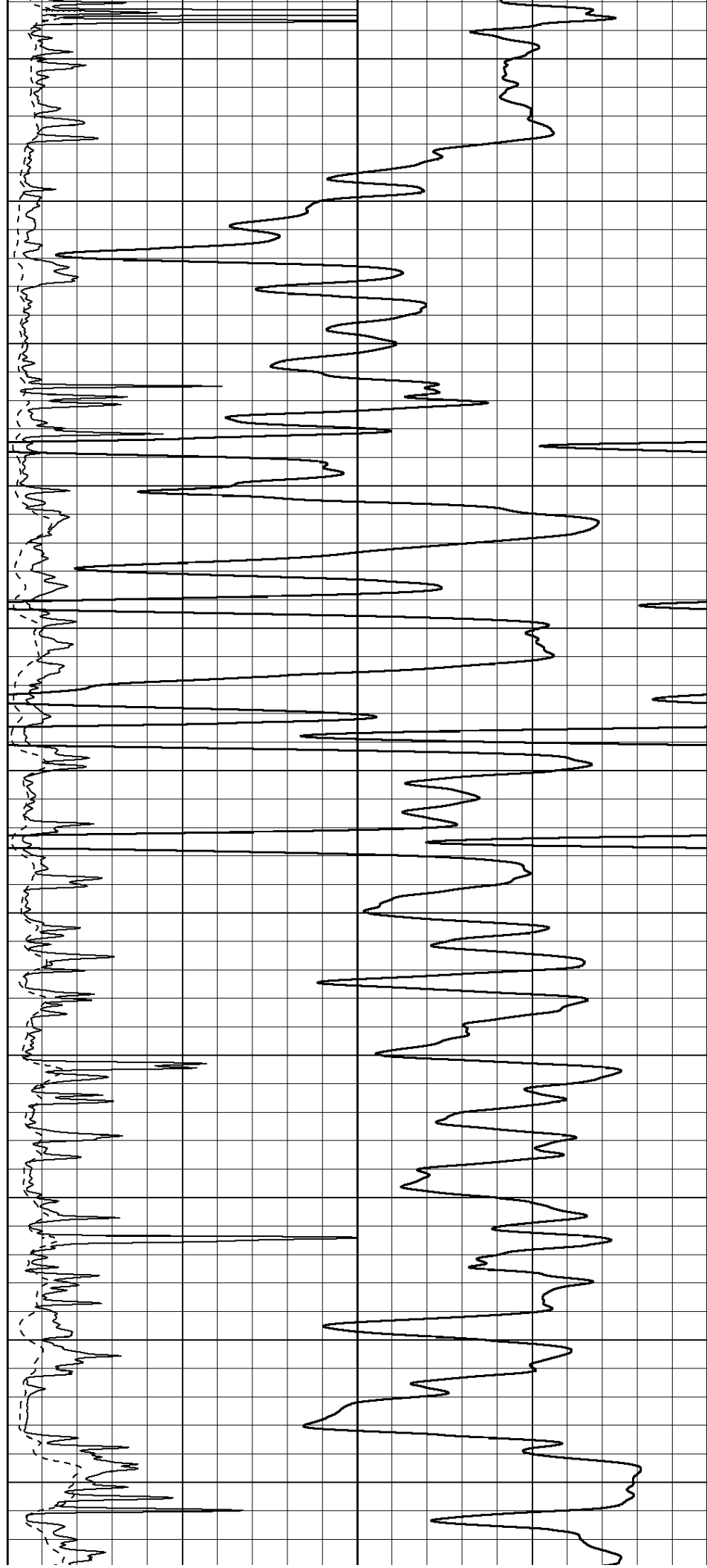
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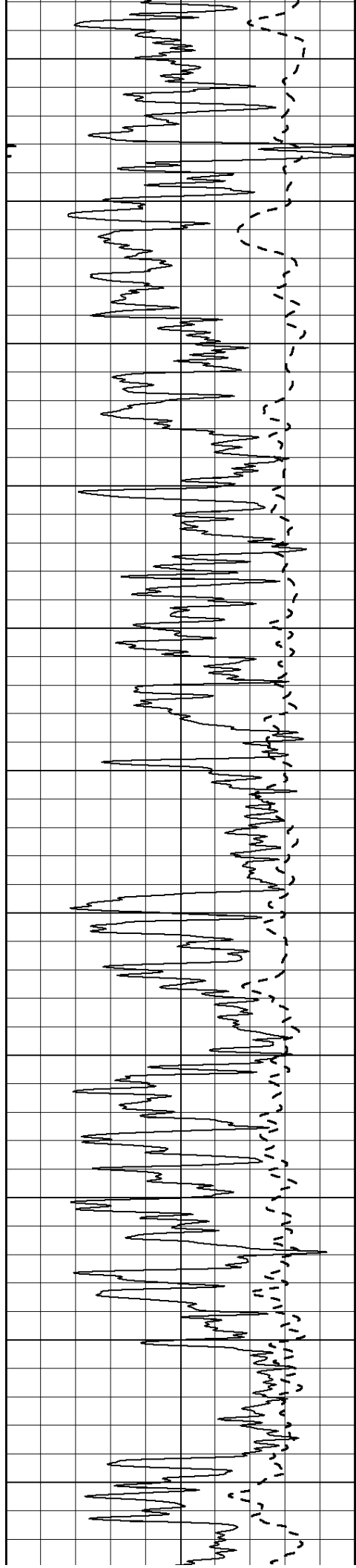
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1950

2000

2050





2100

2150

2200

2250

2300

2350

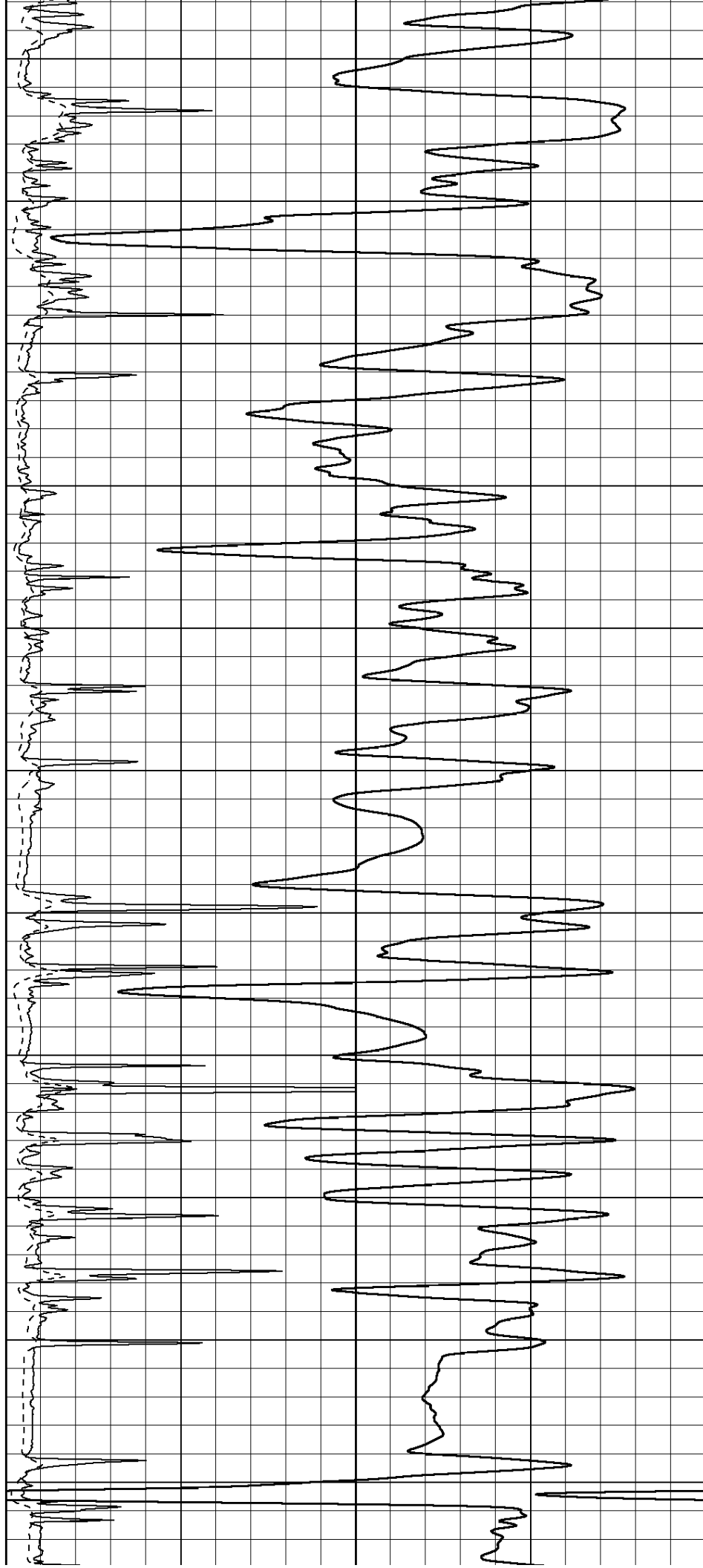
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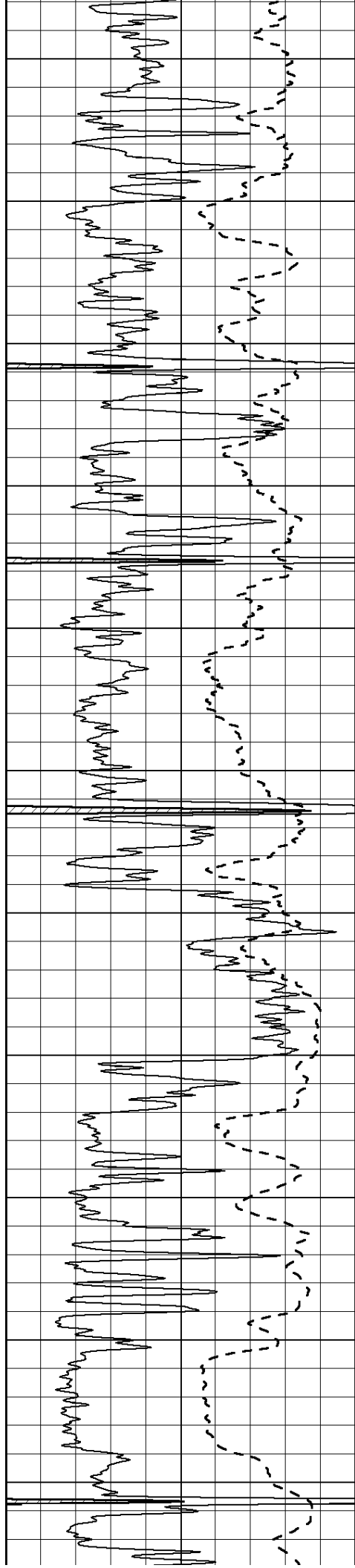
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2500

2550

2600





2650

2700

2750

2800

2850

2900

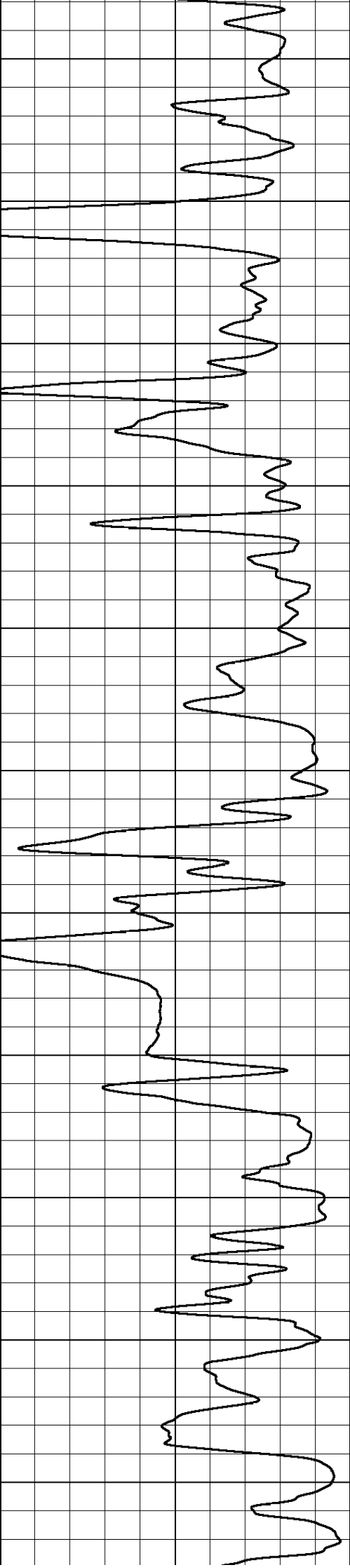
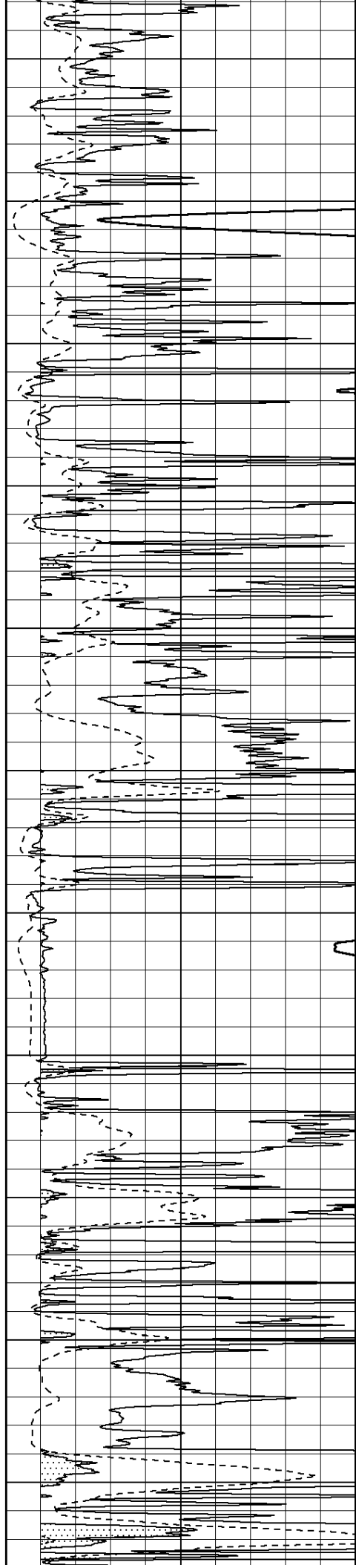
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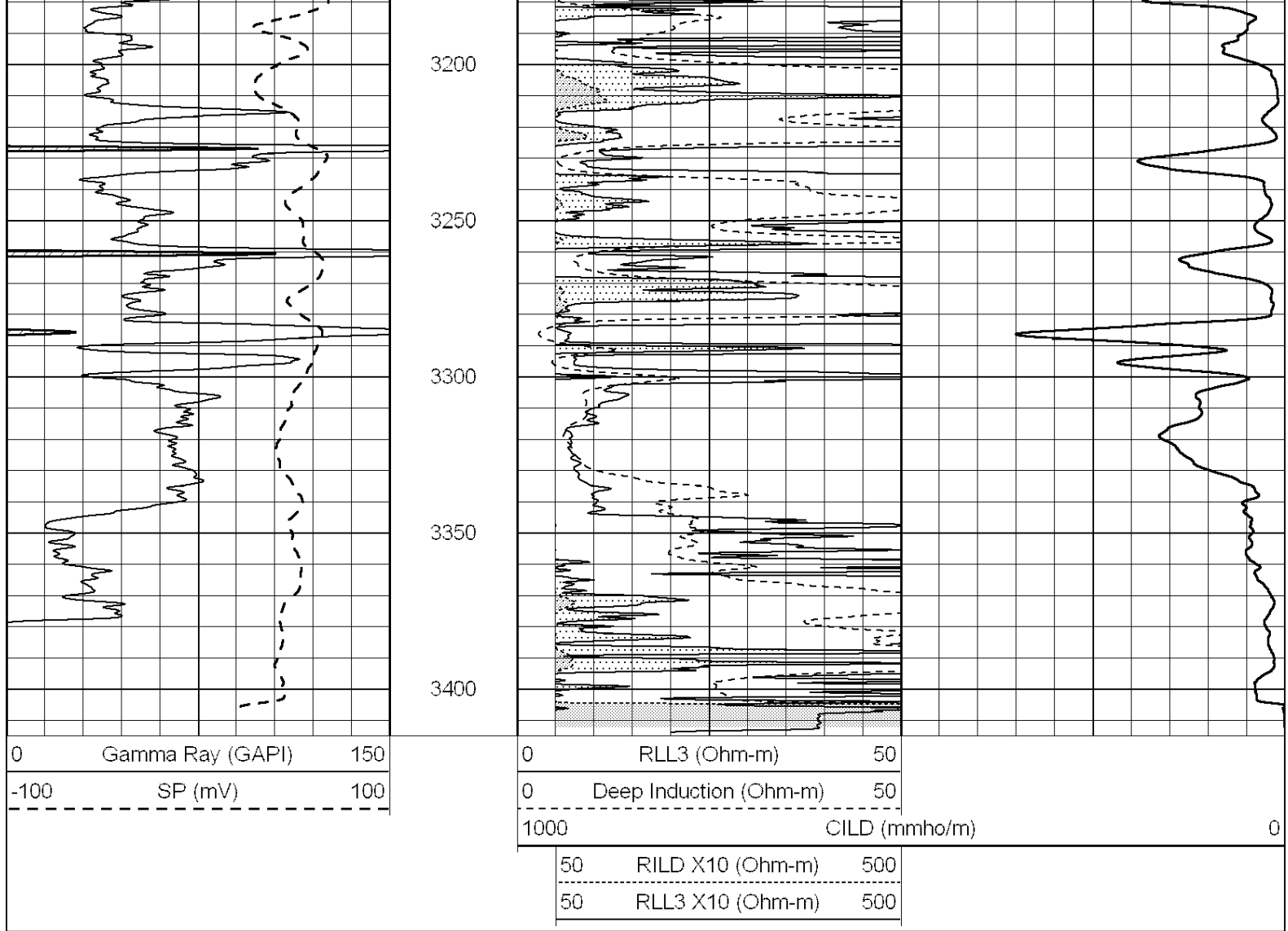
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3050

3100

3150



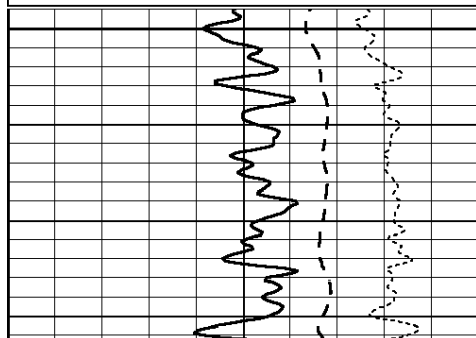


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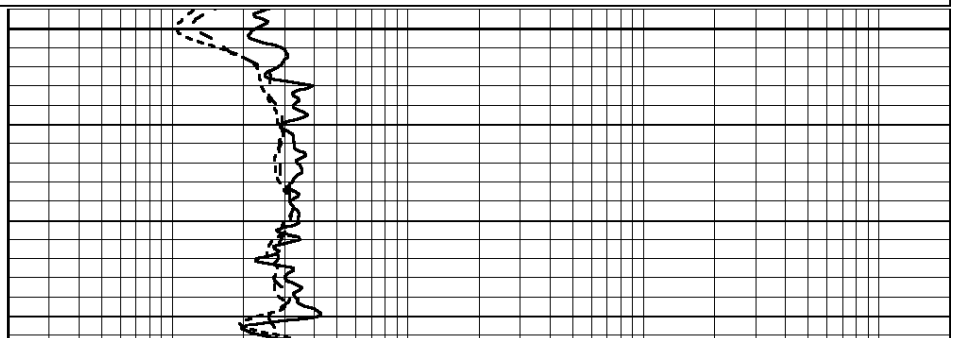
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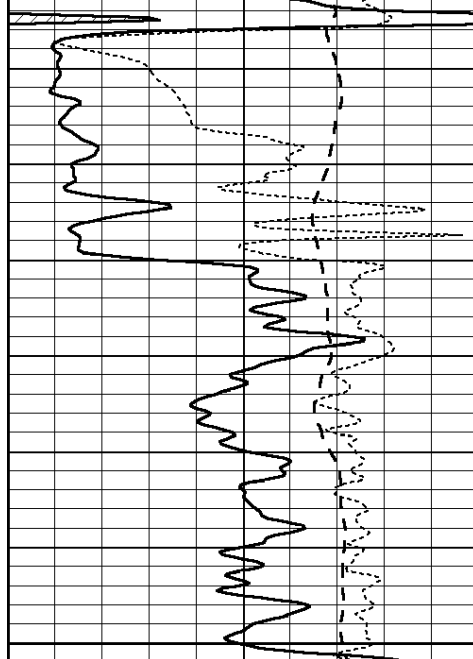
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 Dataset Pathname: pass3.3
 Presentation Format: _dil
 Dataset Creation: Thu Nov 17 01:35:45 2011 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

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



700

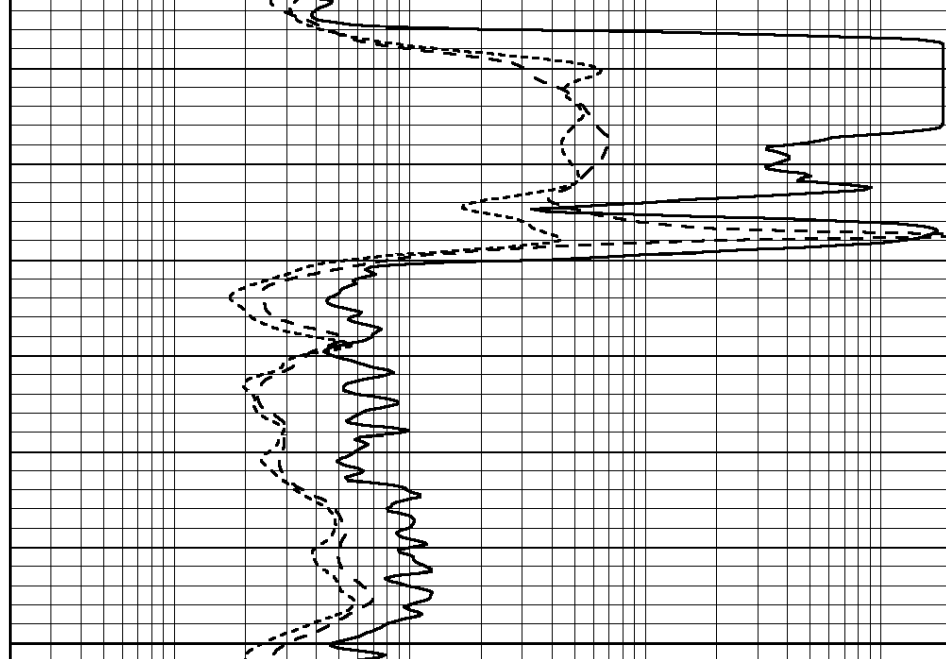




750

800

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



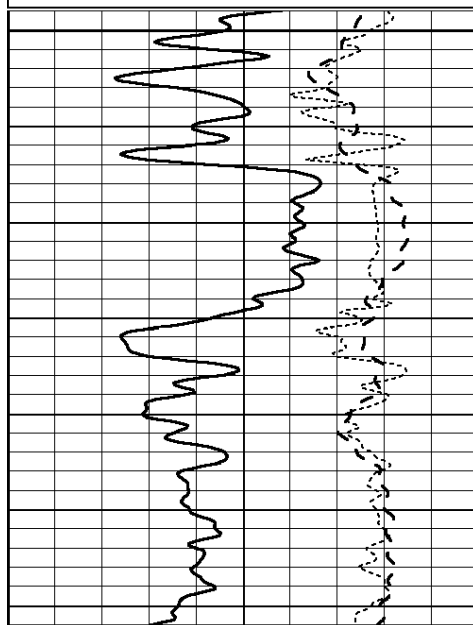
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MAIN SECTION

Database File: 008086ddn.db
 Dataset Pathname: pass3.1
 Presentation Format: _dil
 Dataset Creation: Thu Nov 17 01:14:12 2011 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

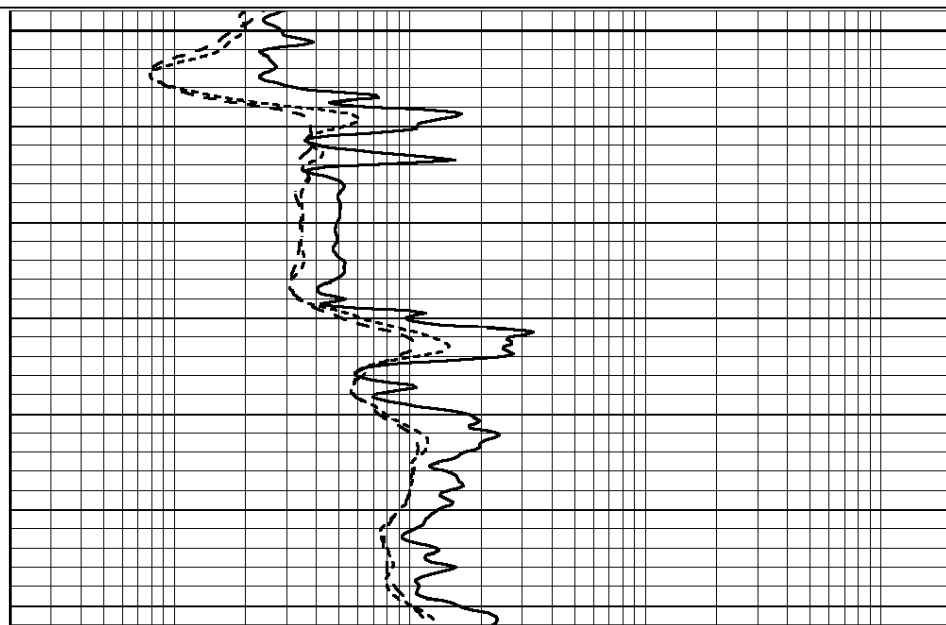
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

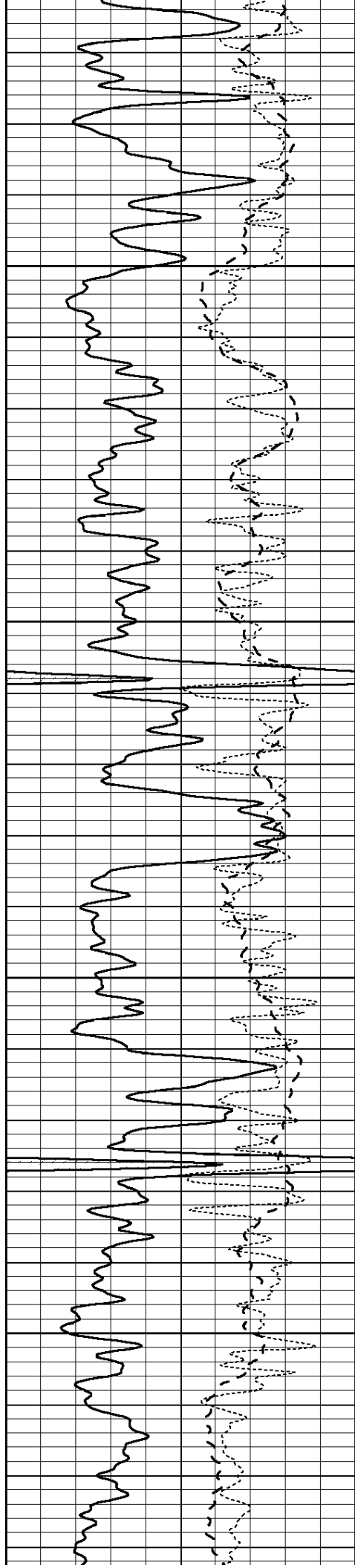
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000



2600

2650



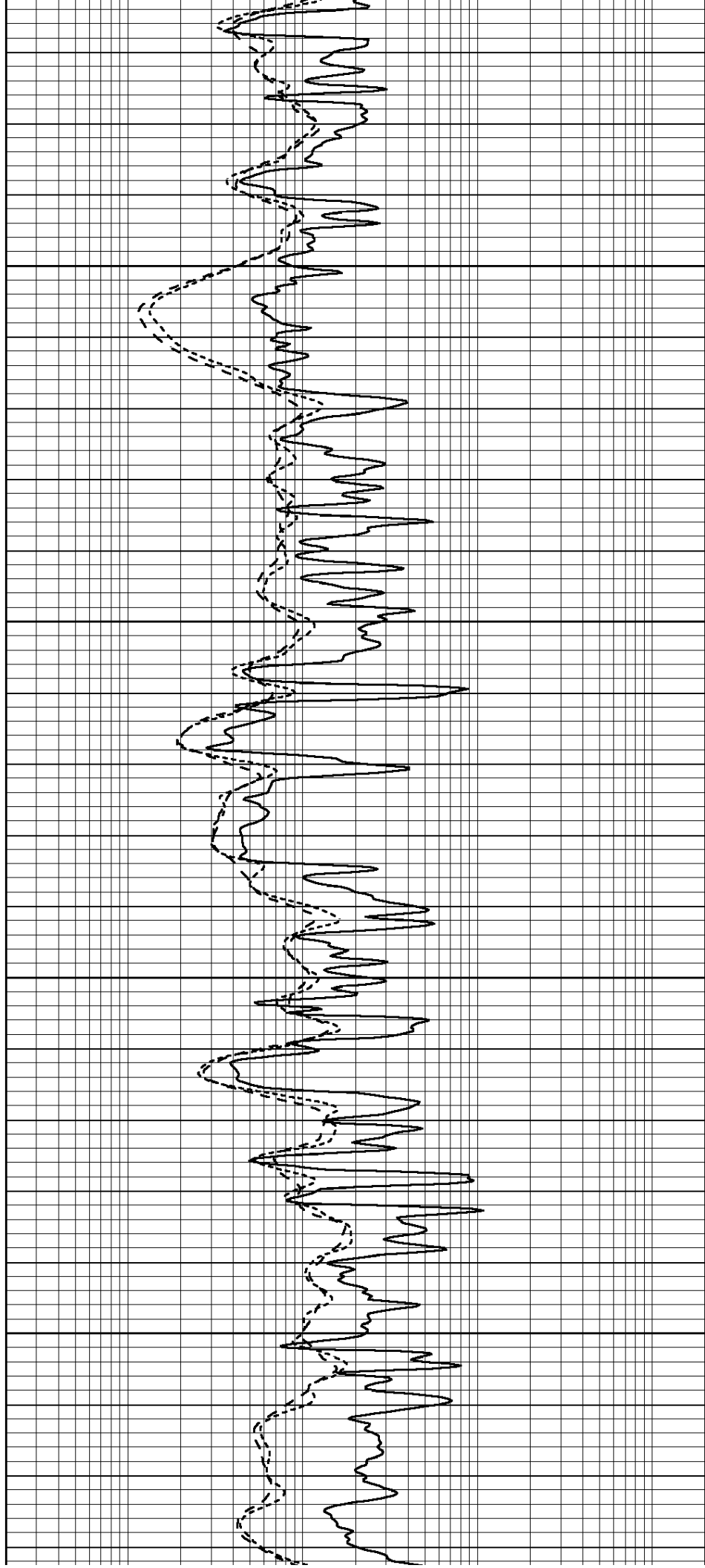


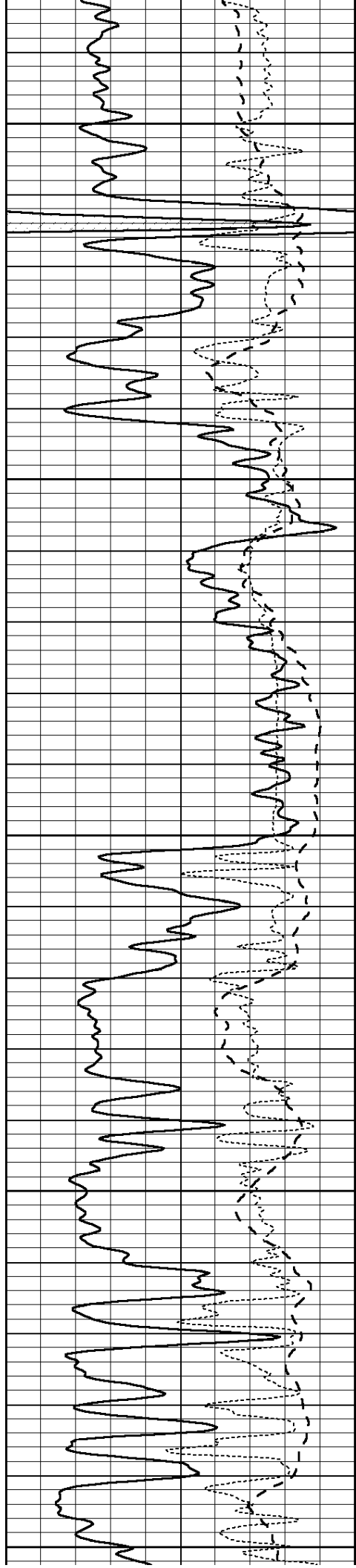
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2750

2800

2850





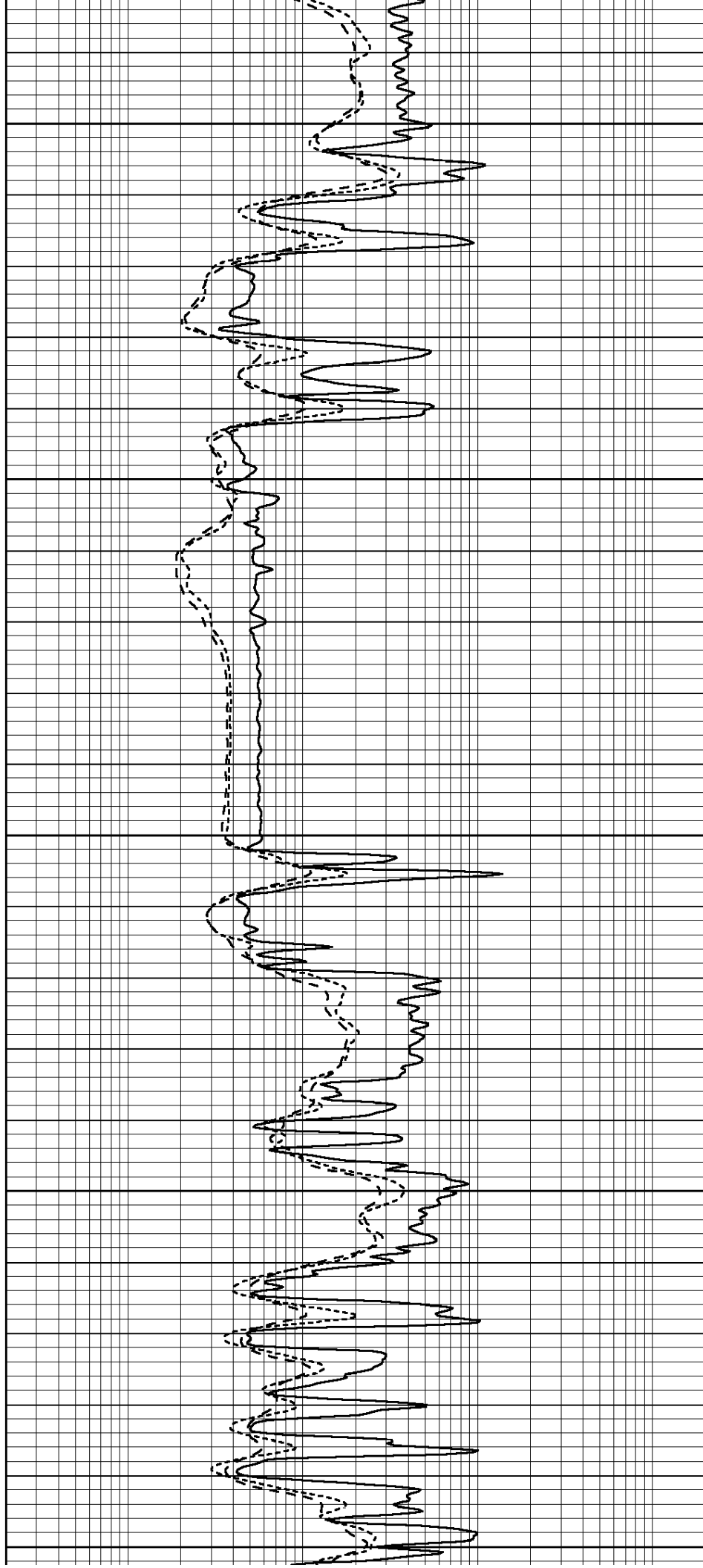
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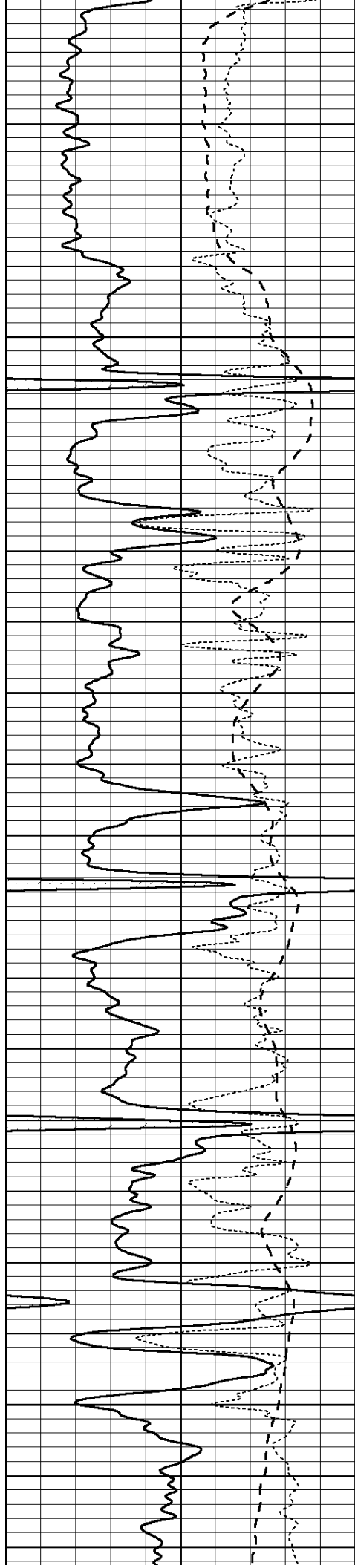
2950

3000

3050

3100



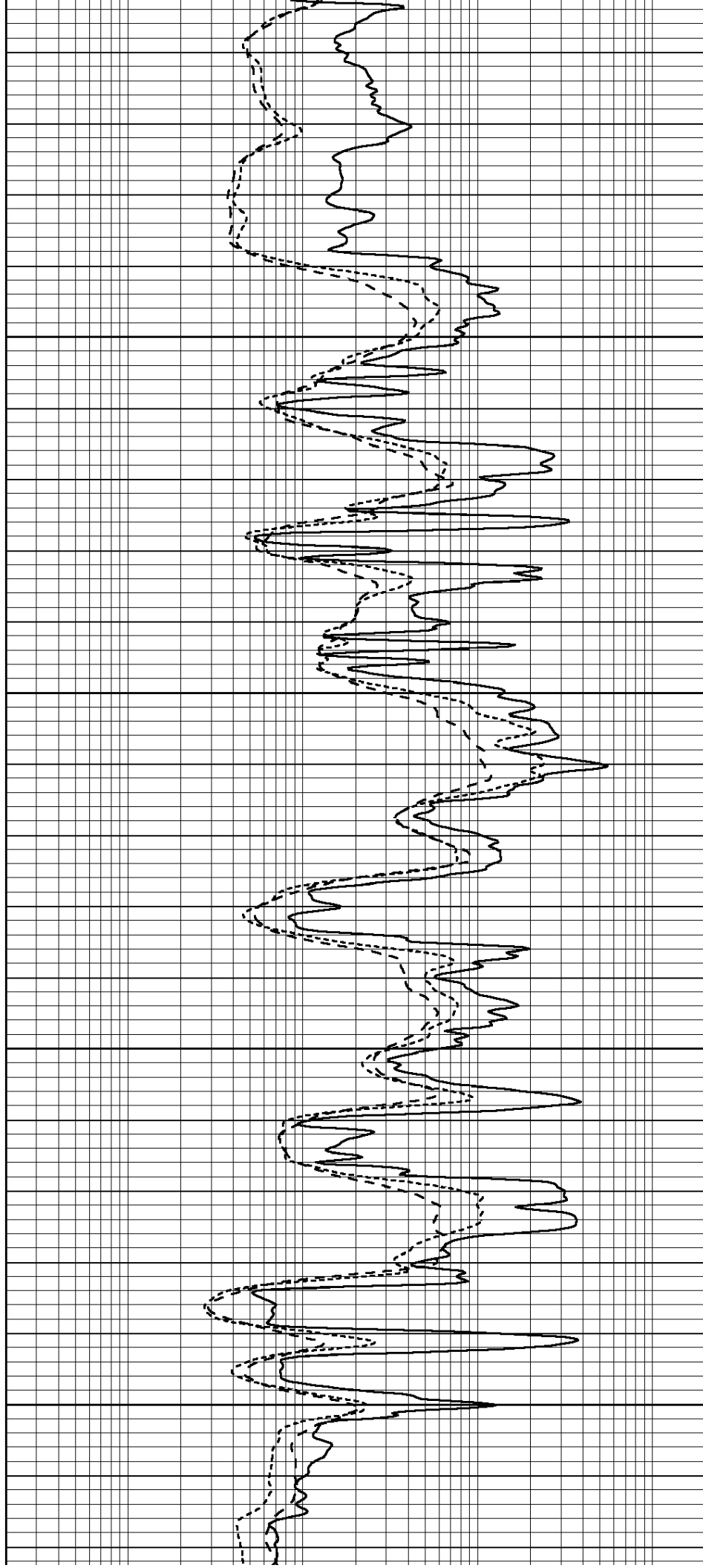


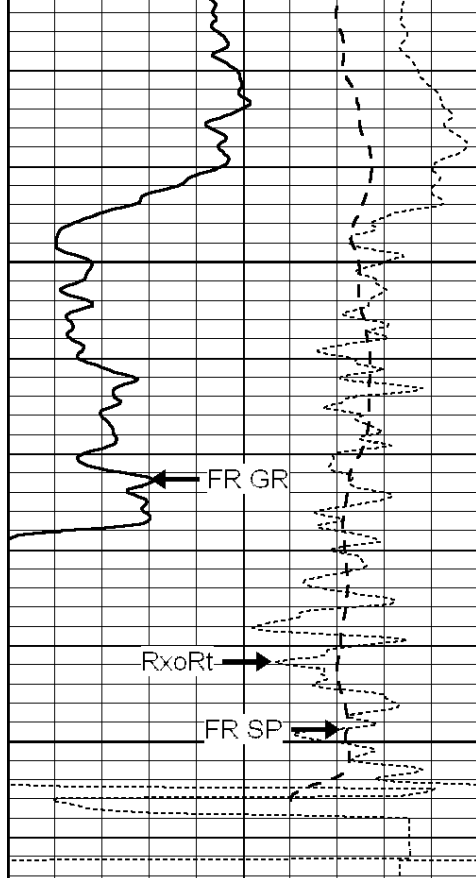
3150

3200

3250

3300



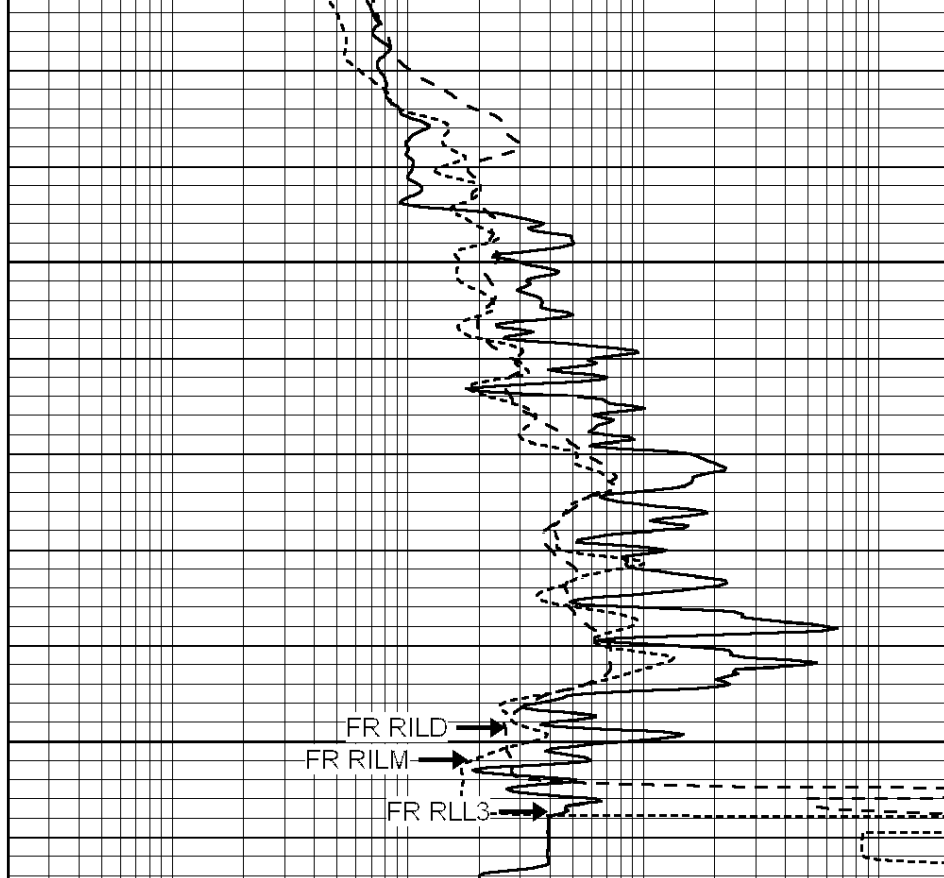


3350

3400

LTD 3409

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



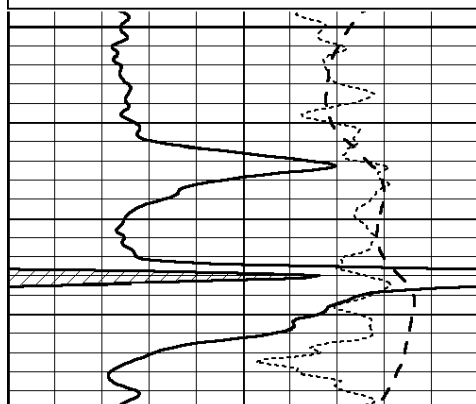
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REPEAT SECTION

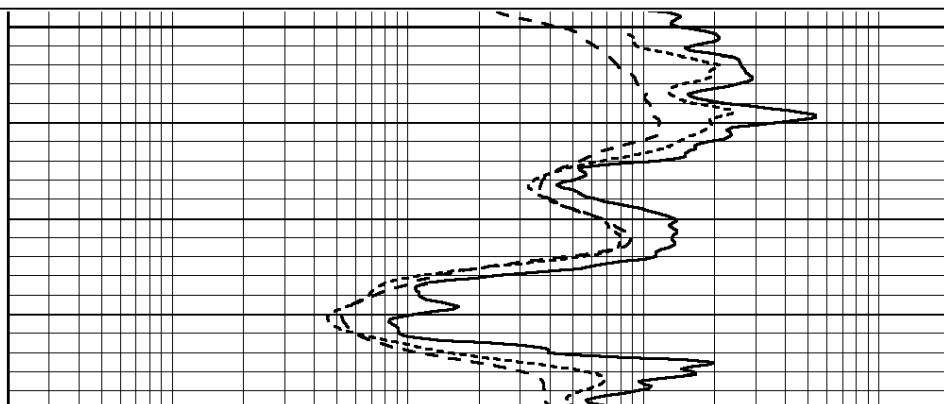
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 Dataset Pathname: pass2.1
 Presentation Format: _dil
 Dataset Creation: Thu Nov 17 01:19:24 2011 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

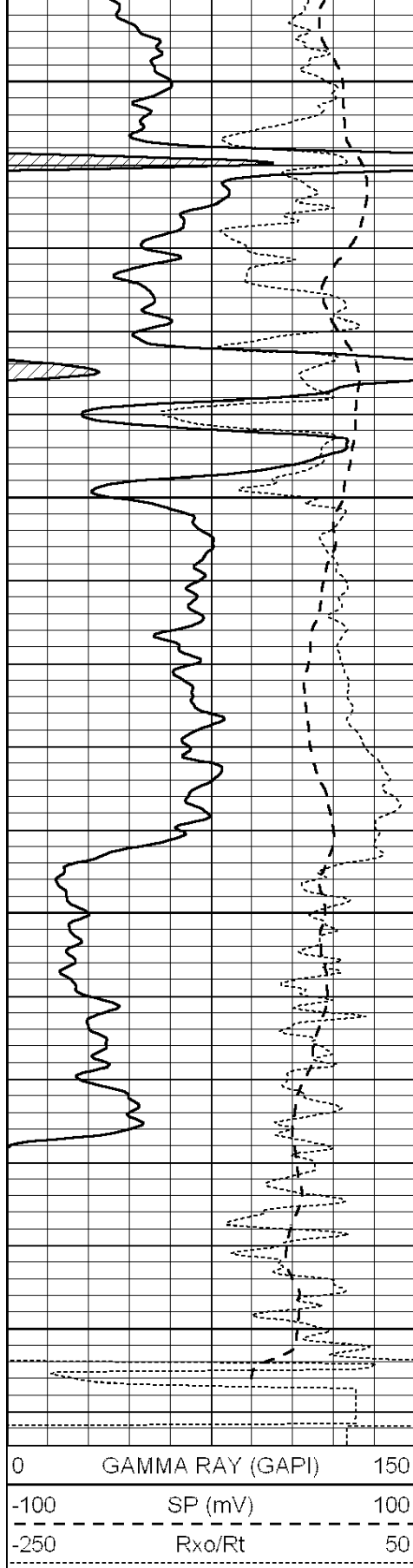
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

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



3200



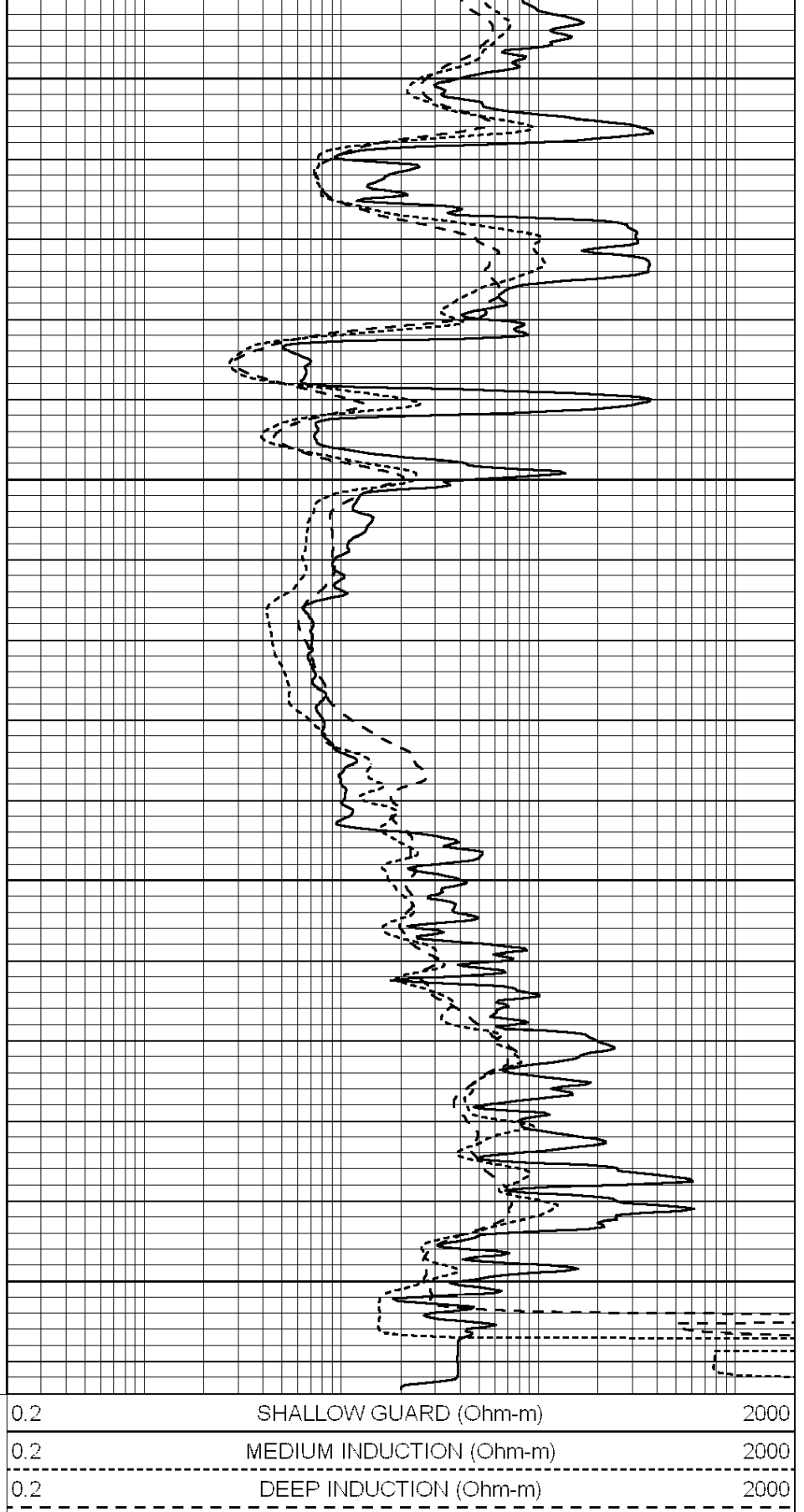


3250

3300

3350

3400



Calibration Report

Database File: 008086ddn.db
 Dataset Pathname: pass2.1
 Dataset Creation: Thu Nov 17 01:19:24 2011 by Calc Open-Cased 090629

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		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:	Sat Jul 16 17:35:04 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		2.24	V		
Large Ring	14.00	in		4.38	V		

Compensated Neutron Calibration Report

Serial Number:	6I
Tool Model:	G

CALIBRATION

Detector	Readings	Target	Normalization
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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:	Mon Jun 13 16:56:43 2011				
Calibrator Value:	150.0	GAPI			
Background Reading:	0.0	cps			
Calibrator Reading:	175.0	cps			
Sensitivity:	0.8371	GAPI/cps			