



NABORS

**COMPLETION
& PRODUCTION
SERVICES CO.**

**DUAL
INDUCTION
LOG**

Company		EAGLE CREEK CORPORATION	
Well		BARNHART #1-19	
Field		WILDCAT	
County		SCOTT	
State		KANSAS	
Location:		APL # : 15-171-21048-0000	
Permanent Datum		GROUND LEVEL	
Log Measured From		KELLY BUSHING 8' A.G.L.	
Drilling Measured From		KELLY BUSHING	
SEC 19 TWP 17S RGE 34W		Elevation	
1423' FNL & 583' FEL		CDL/CNL/PE	
		MEL/SON	
Date		5/9/14	
Run Number		ONE	
Depth Driller		4990	
Depth Logger		4992	
Bottom Logged Interval		4990	
Top Log Interval		00	
Casing Driller		8 5/8" @ 265'	
Casing Logger		264	
Bit Size		7 7/8"	
Type Fluid in Hole		CHEMICAL MUD	
Density / Viscosity		9.5/50	
pH / Fluid Loss		10.0/9.6	
Source of Sample		FLOWLINE	
Rim @ Meas. Temp		.60 @ 90F	
Rmf @ Meas. Temp		.45 @ 90F	
Rmc @ Meas. Temp		.72 @ 90F	
Source of Rmf / Rmc		MEASUREMENT	
Rim @ BHT		.43 @ 125F	
Time Circulation Stopped		2 HOURS	
Time Logger on Bottom		5:00 P.M.	
Maximum Recorded Temperature		125F	
Equipment Number		4854	
Location		HAYS, KANSAS	
Recorded By		JASON CAPPELLUCCI	
Witnessed By		GARY GENSCH	

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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 "NABORS" HAYS, KANSAS (785) 628-6395
DIRECTIONS
SCOTT CITY, KS. - 11 WEST TO COUNTY LINE RD. - 5 1/2 NORTH - 1 EAST INTO

Database File: 24150pe.db
 Dataset Pathname: pass3.4
 Presentation Format: _dil2
 Dataset Creation: Fri May 09 18:54:02 2014 by Calc SOC 120430
 Charted by: Depth in Feet scaled 1:600

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

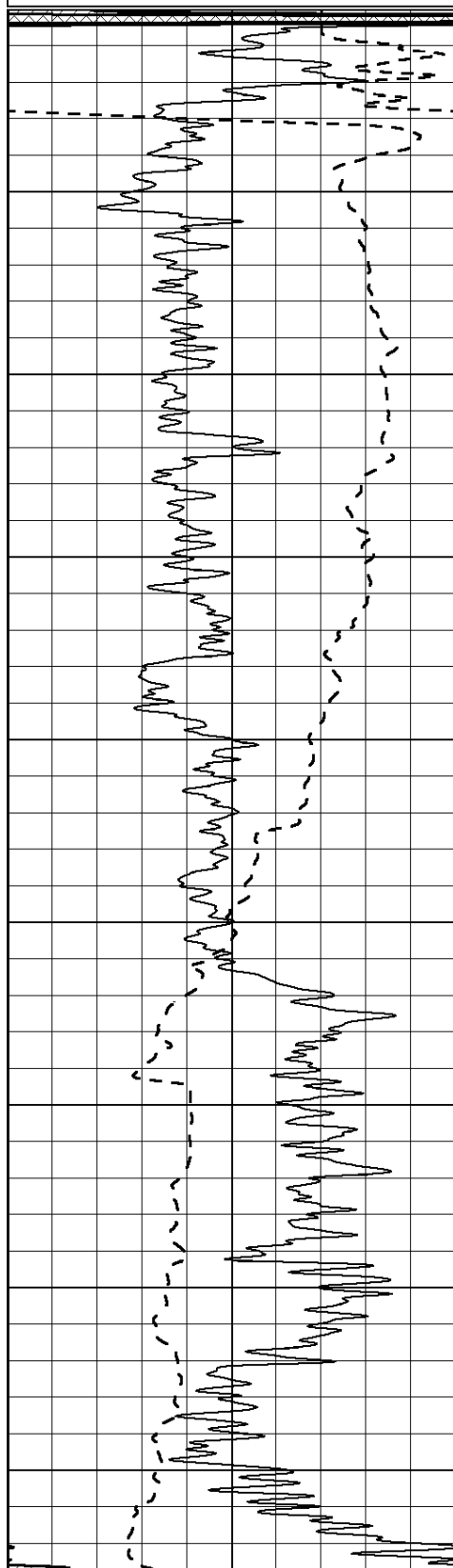
0 RLL3 (Ohm-m) 50

0 RILD (Ohm-m) 50

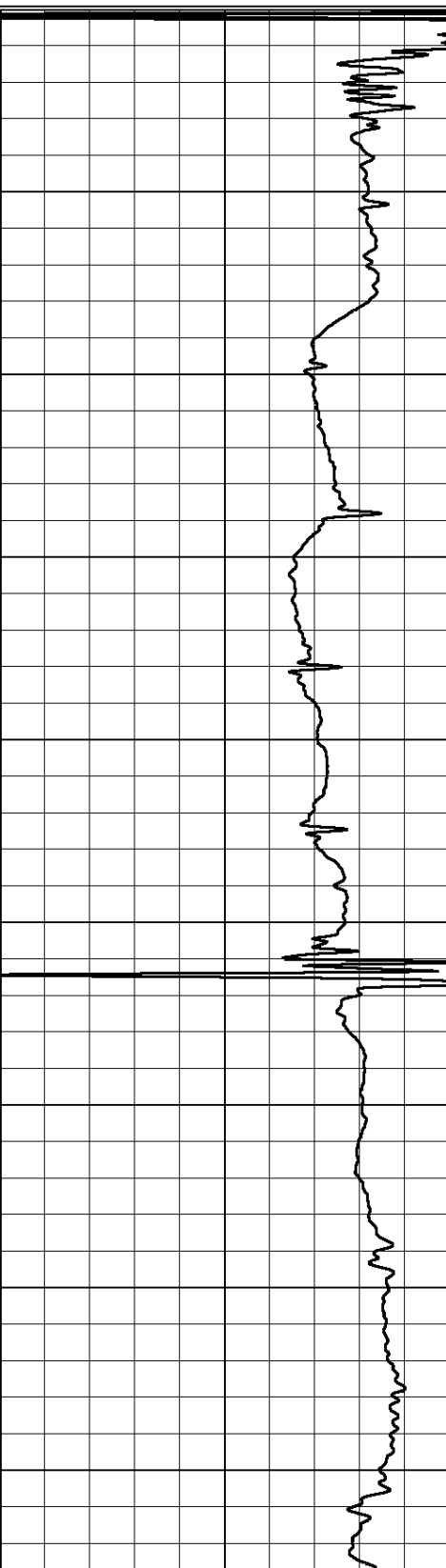
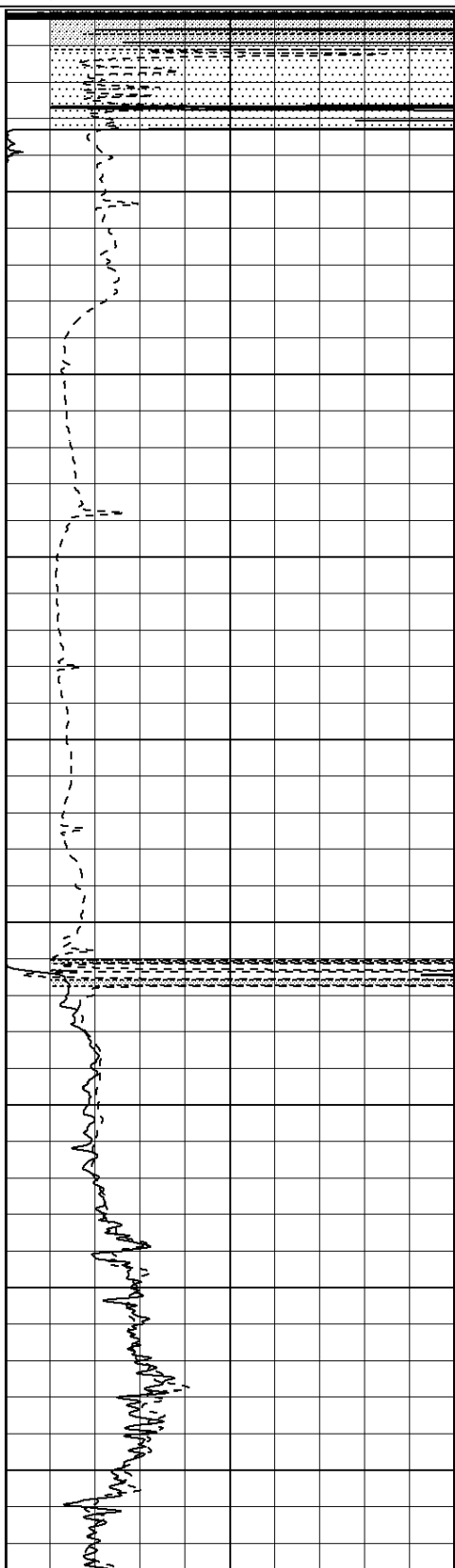
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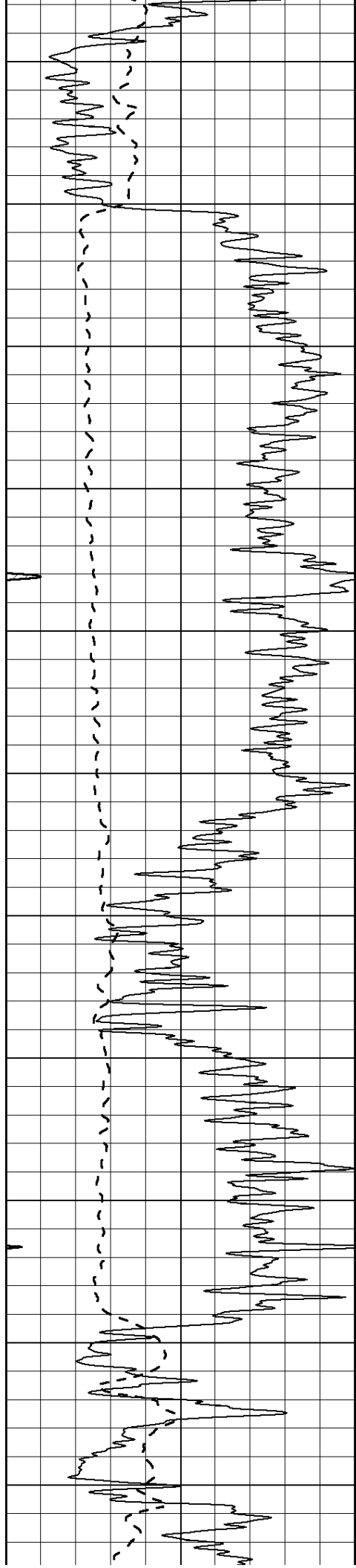
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50 RLL3 X10 (Ohm-m) 500

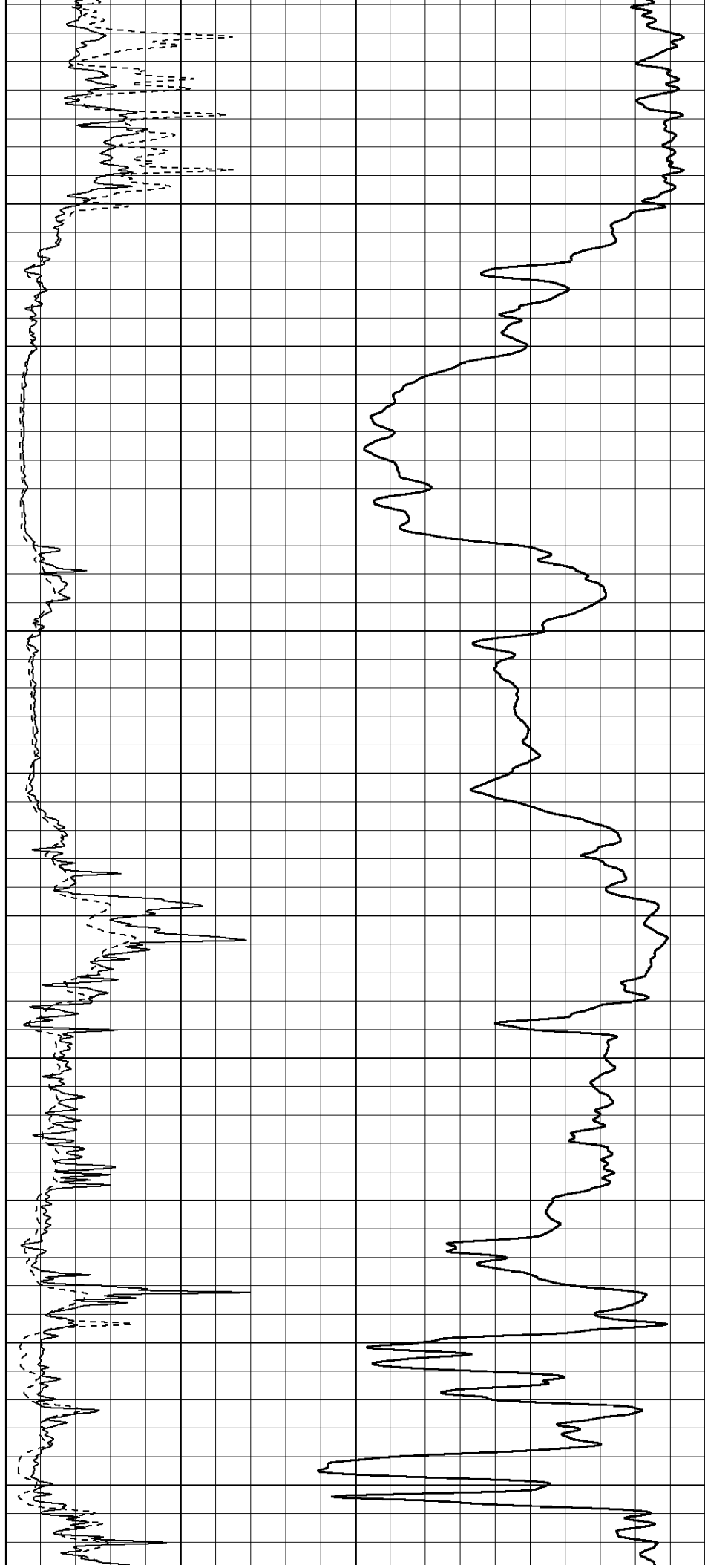


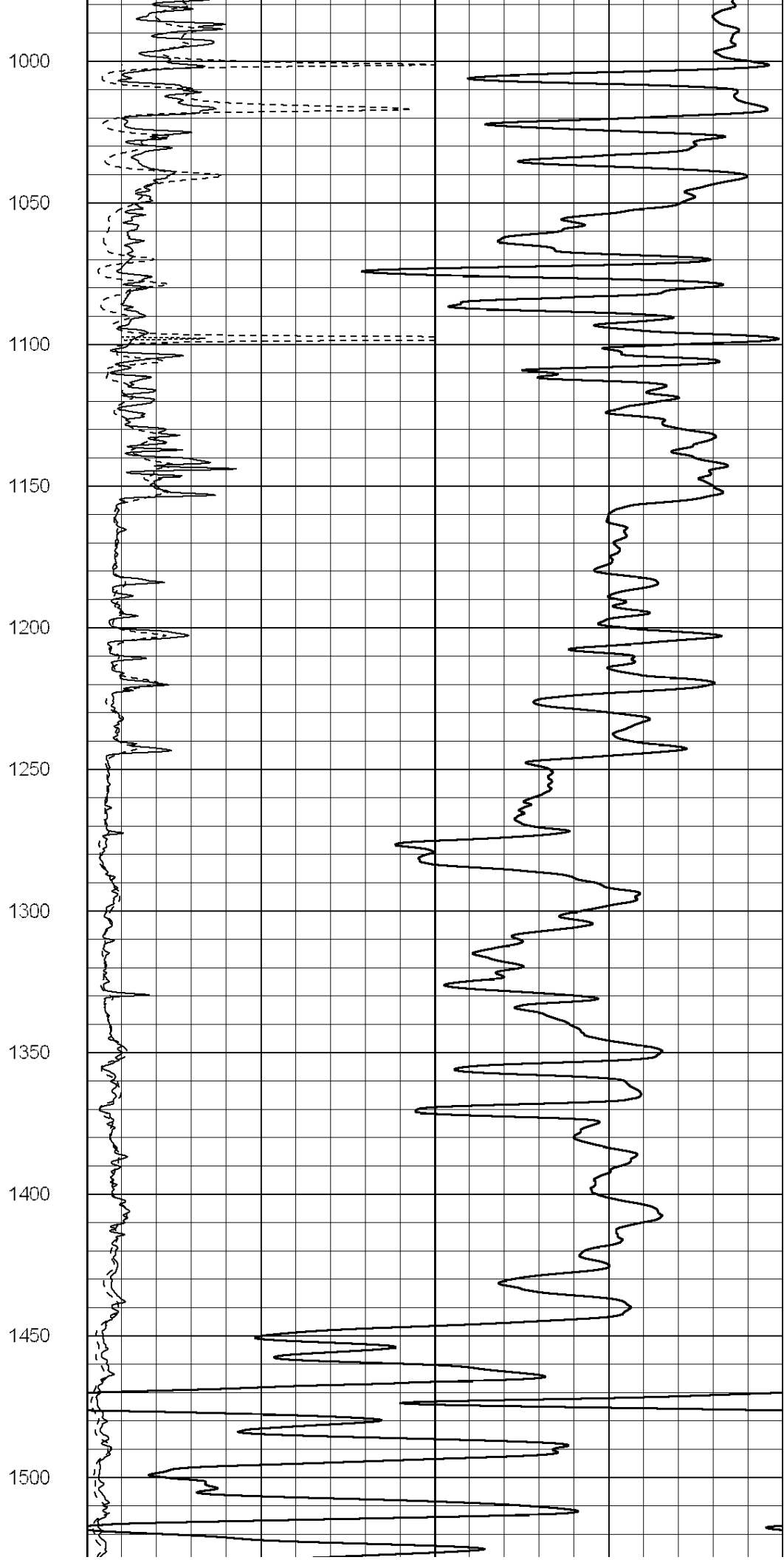
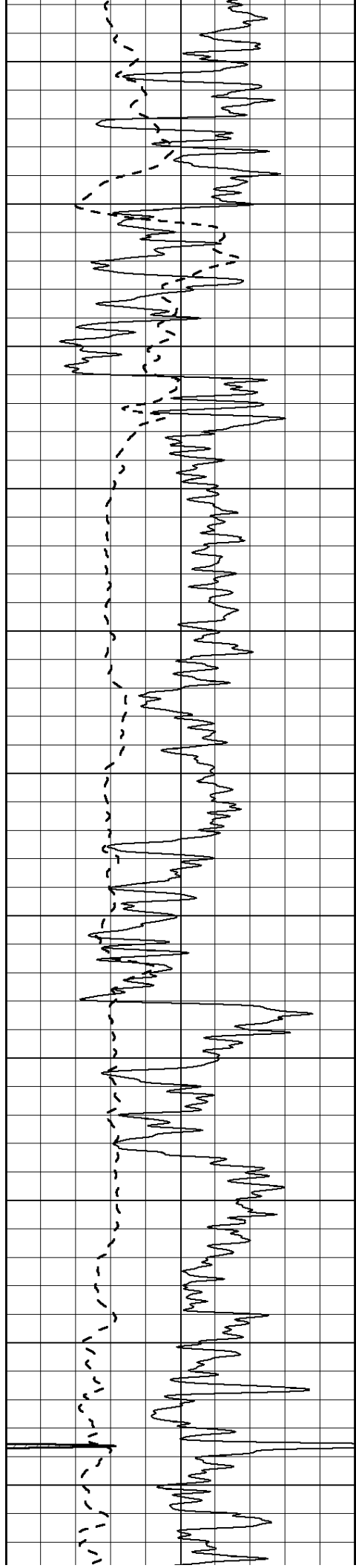
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50
100
150
200
250
300
350
400

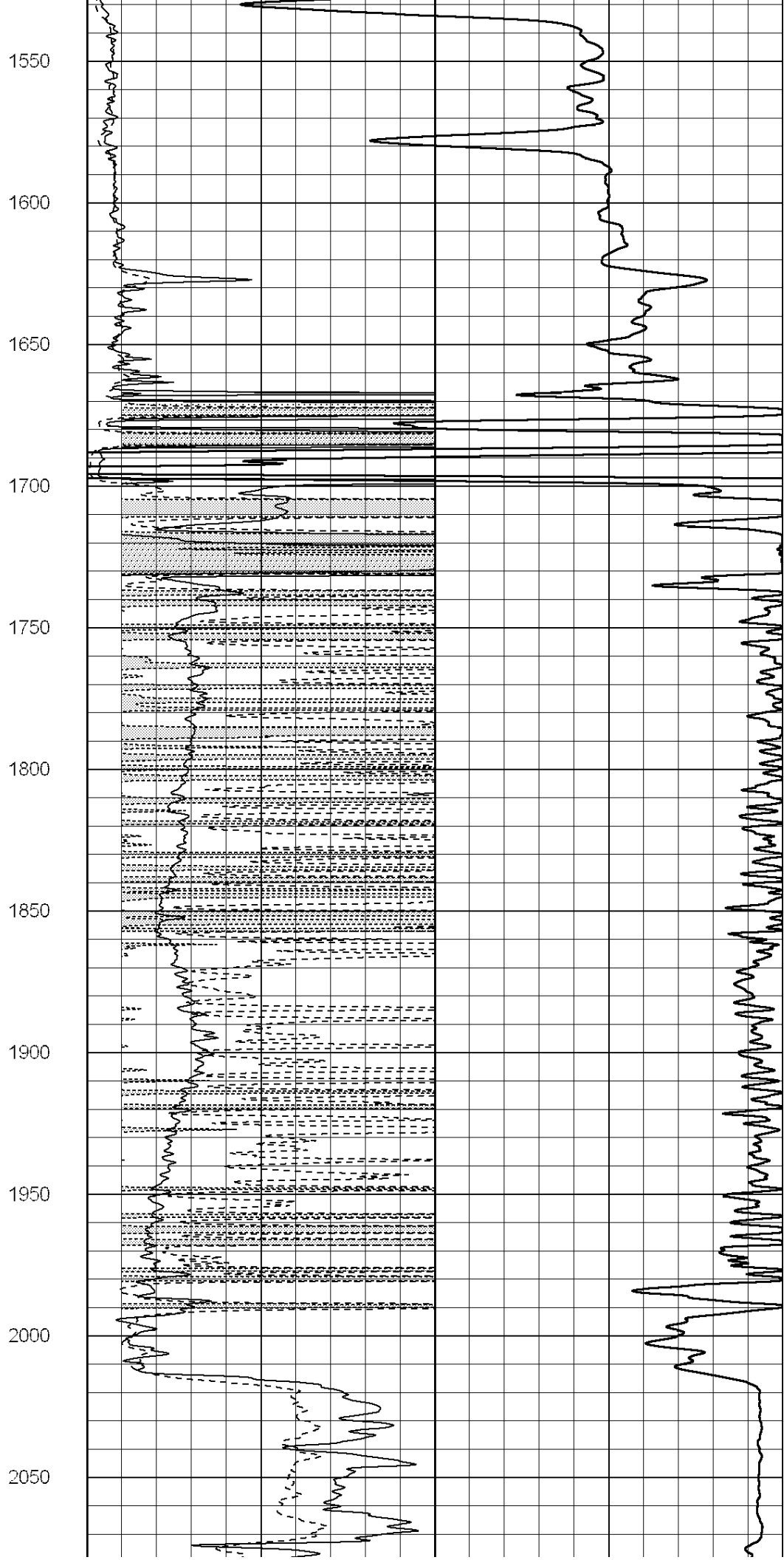
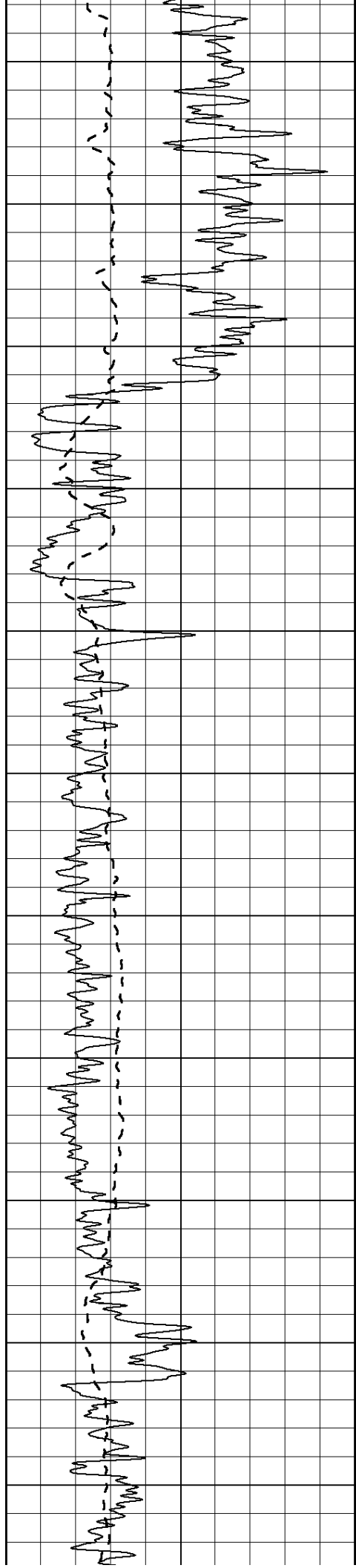


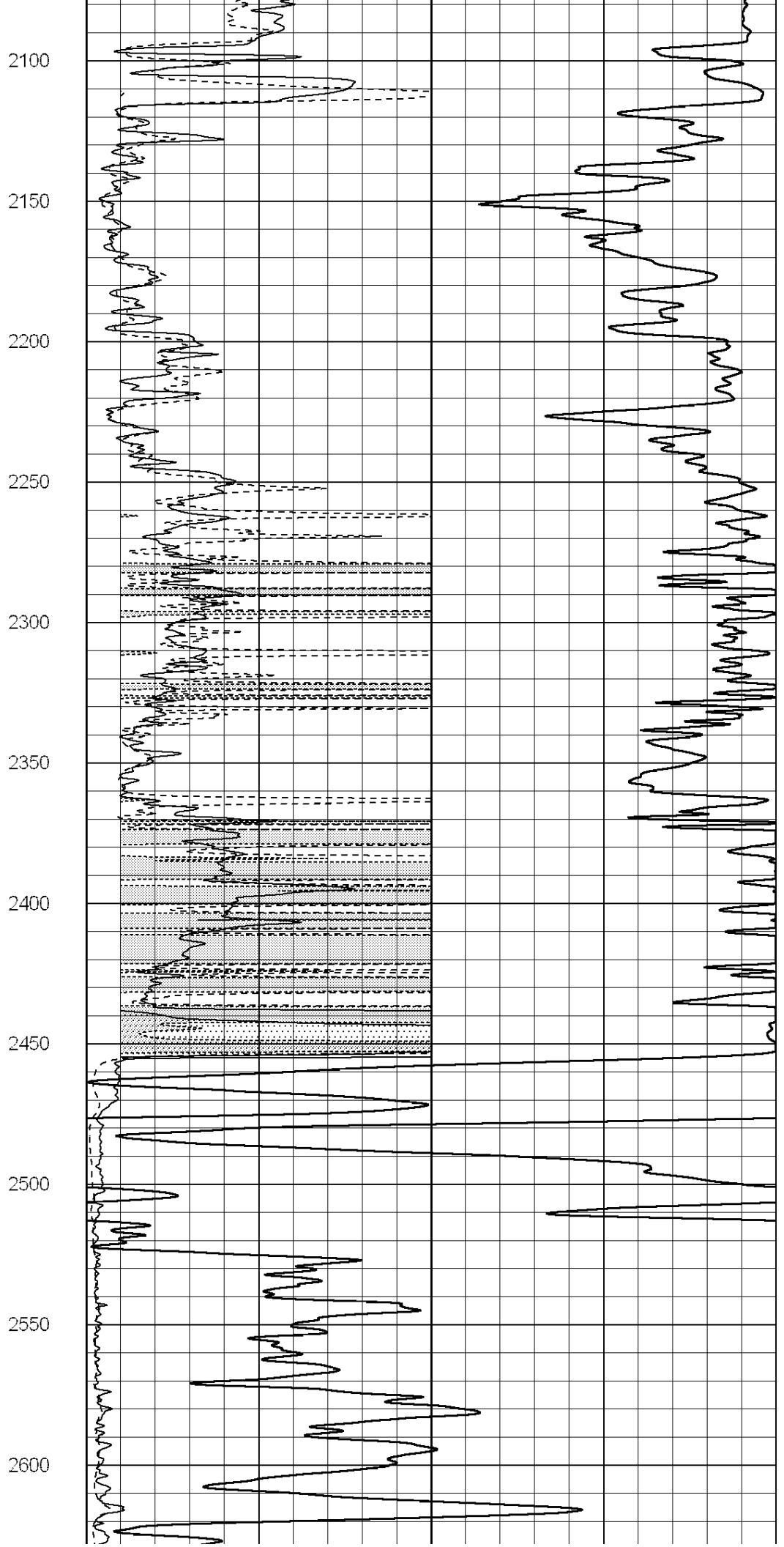
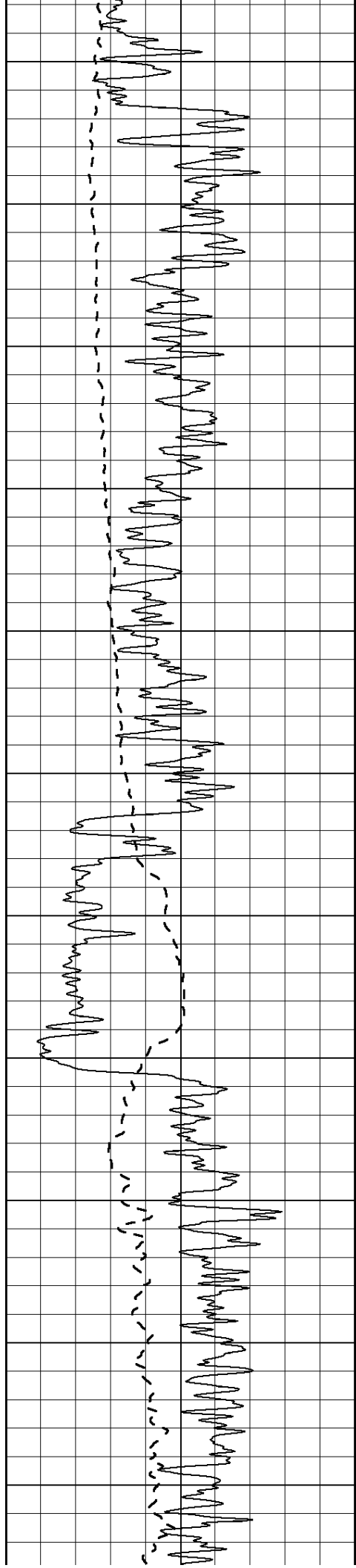


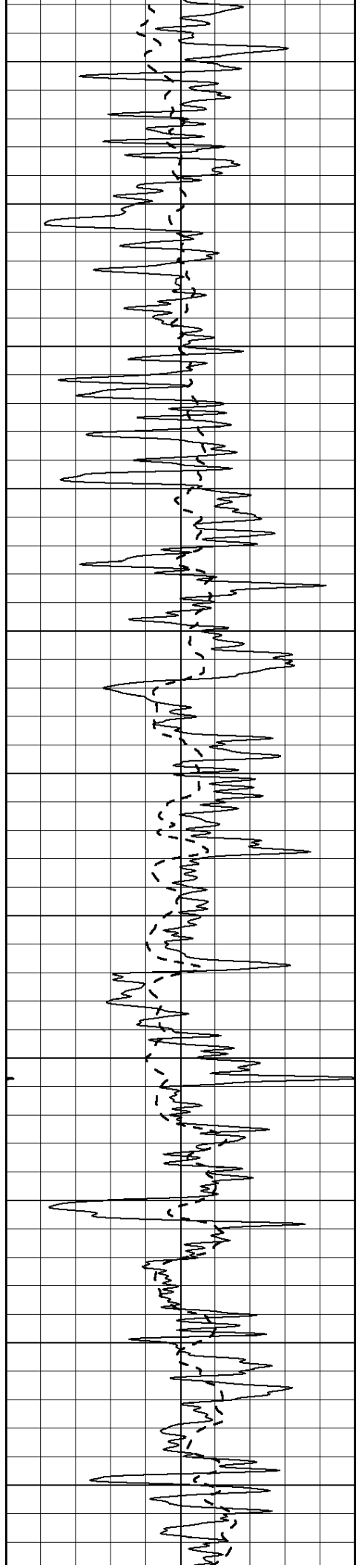
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500
550
600
650
700
750
800
850
900
950











2650

2700

2750

2800

2850

2900

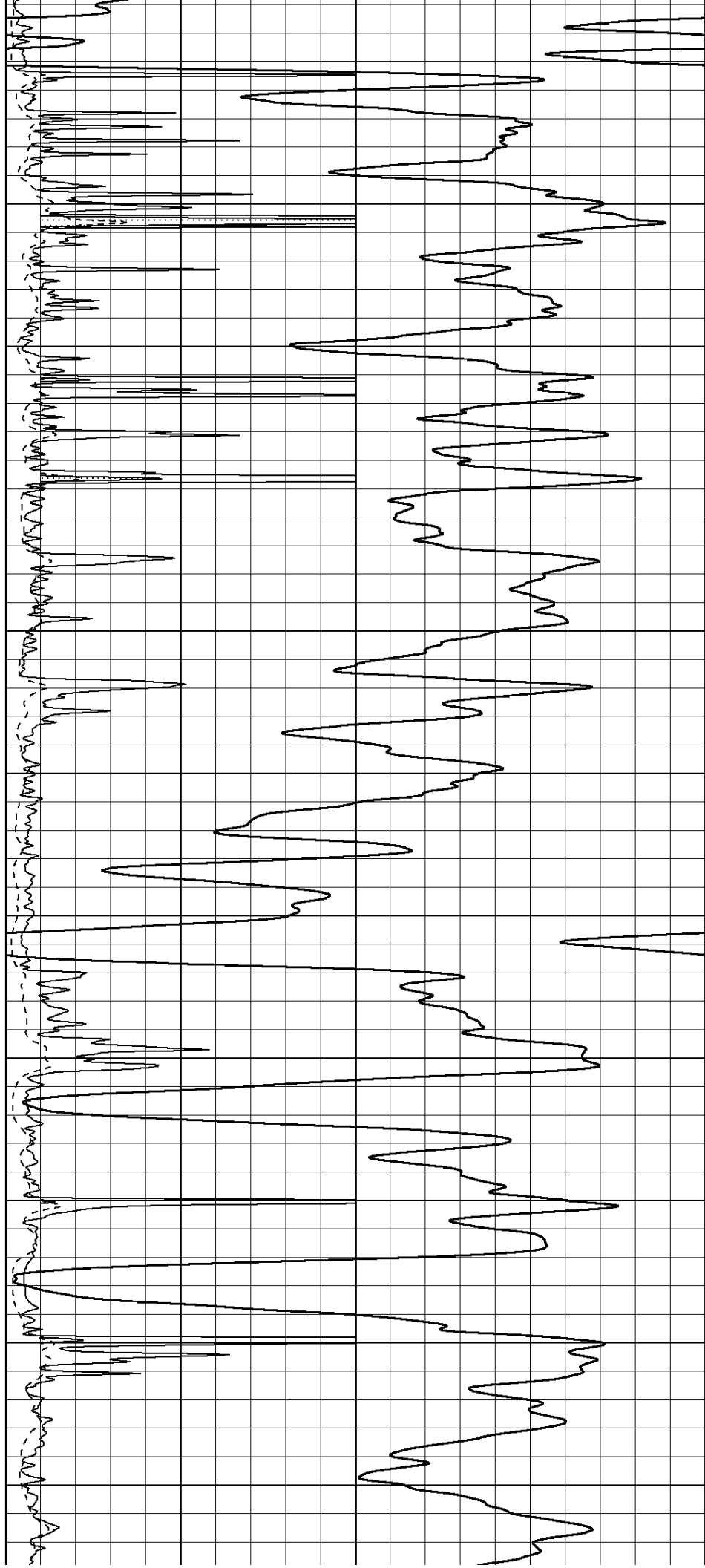
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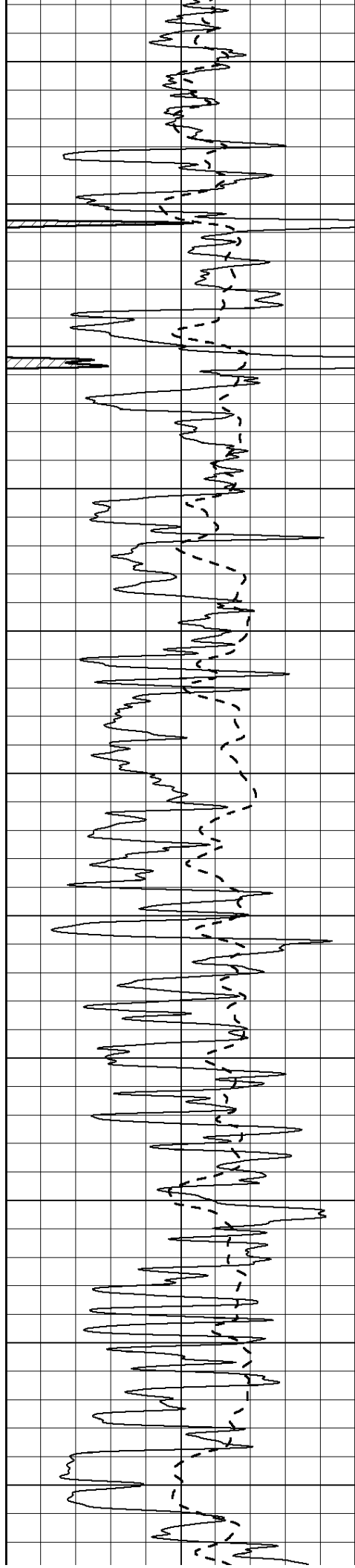
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3050

3100

3150





3200

3250

3300

3350

3400

3450

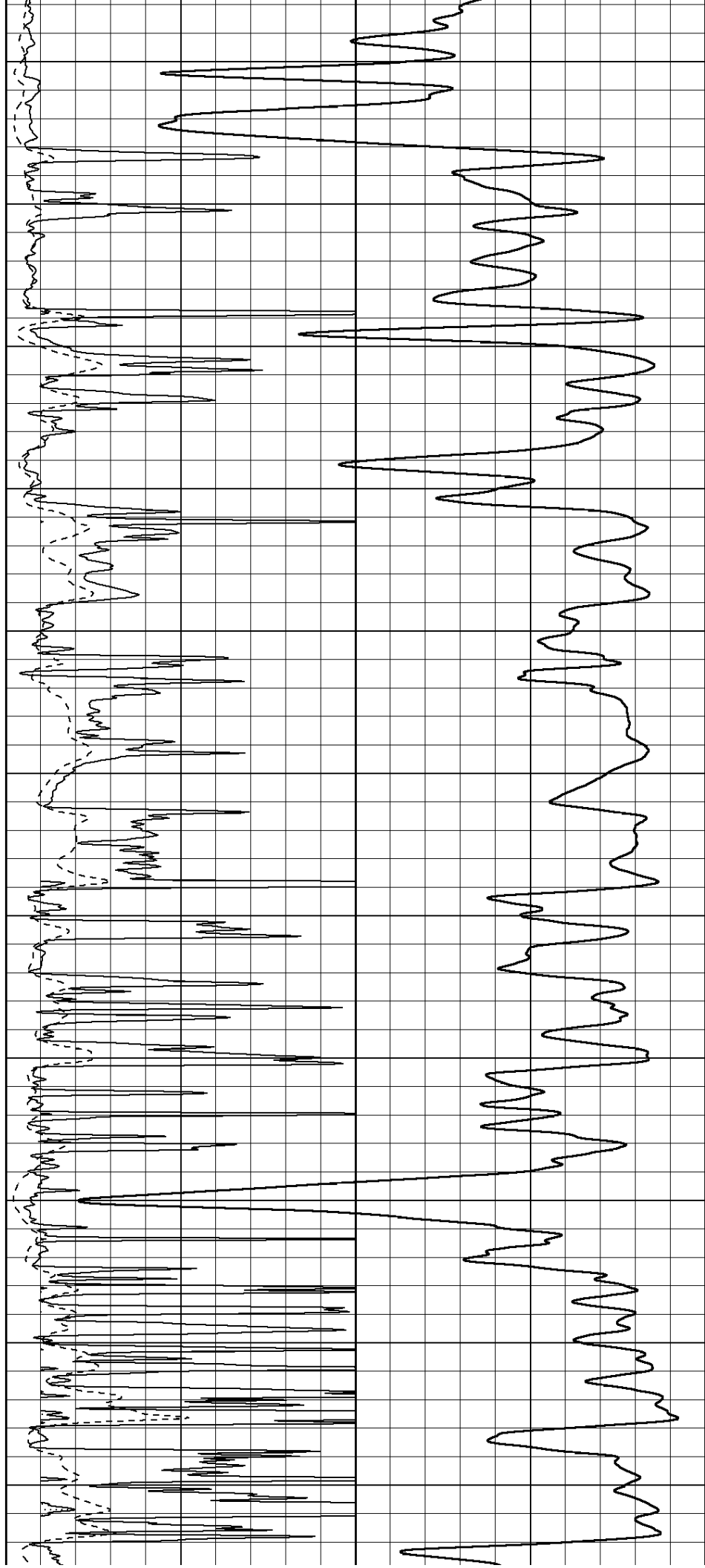
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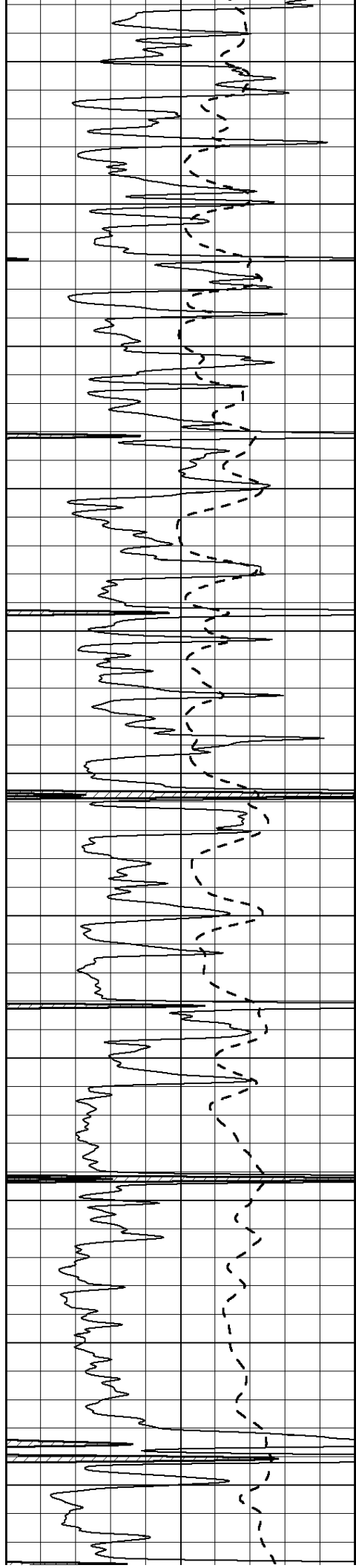
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3700





3750

3800

3850

3900

3950

4000

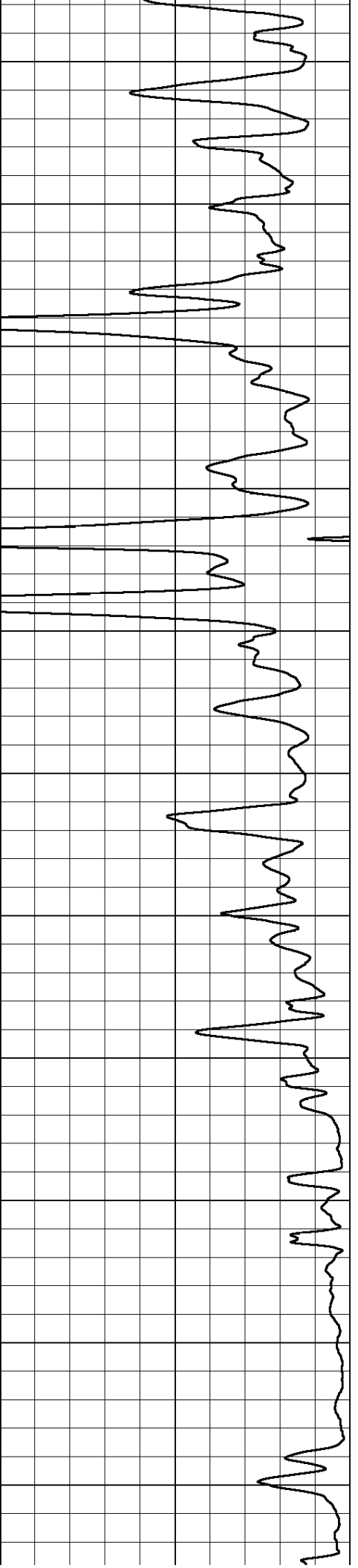
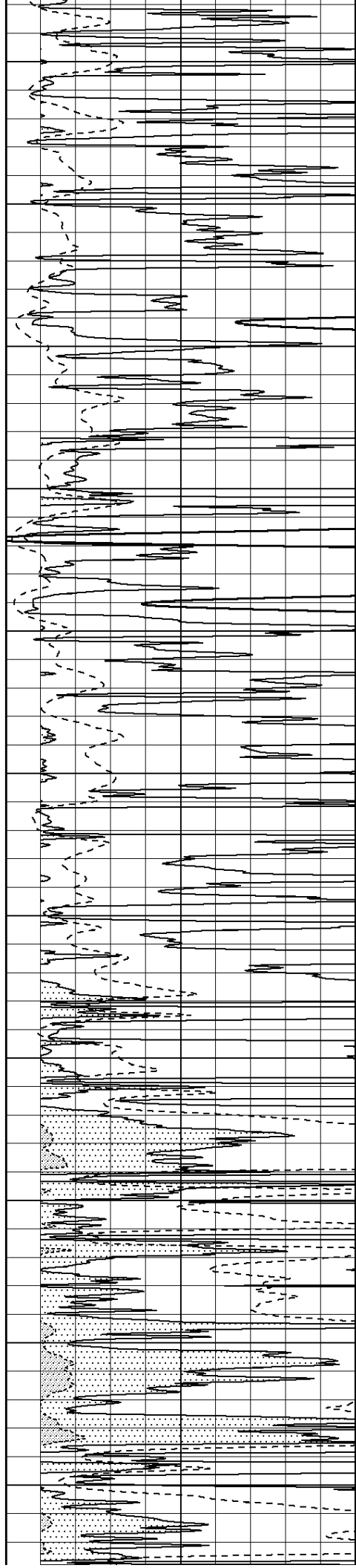
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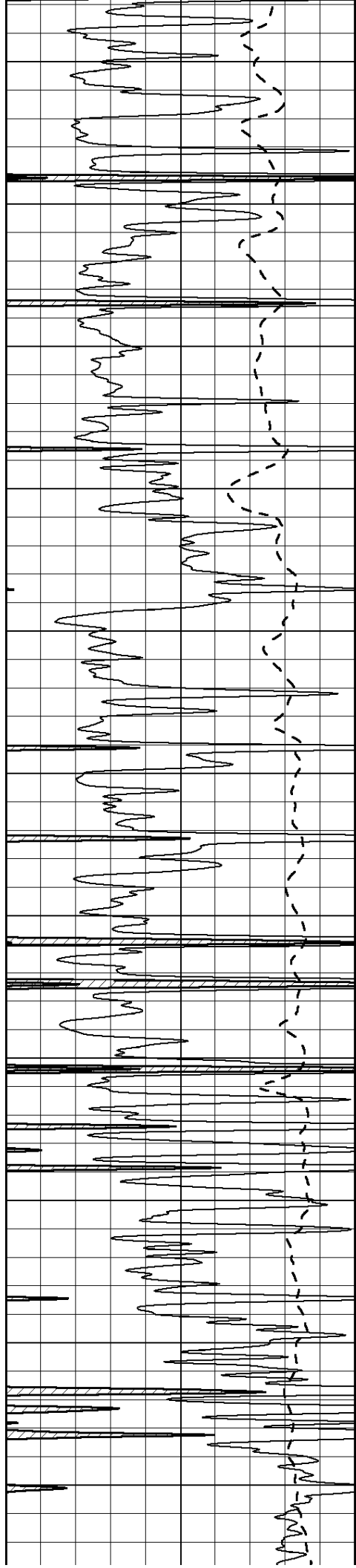
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4150

4200

4250





4300

4350

4400

4450

4500

4550

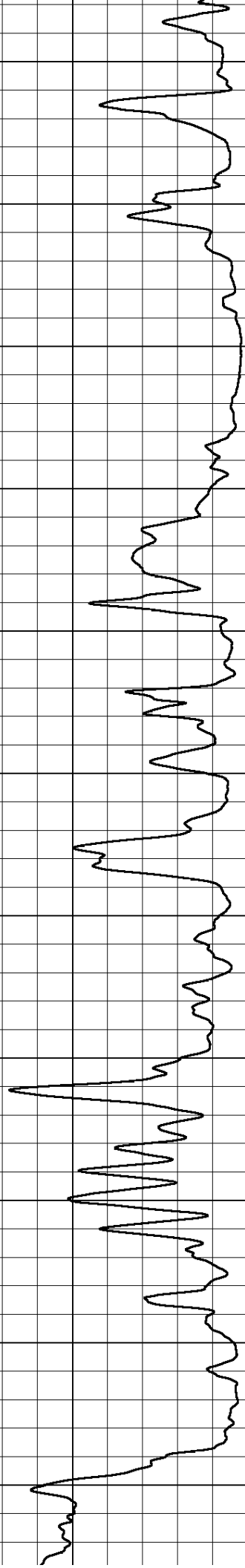
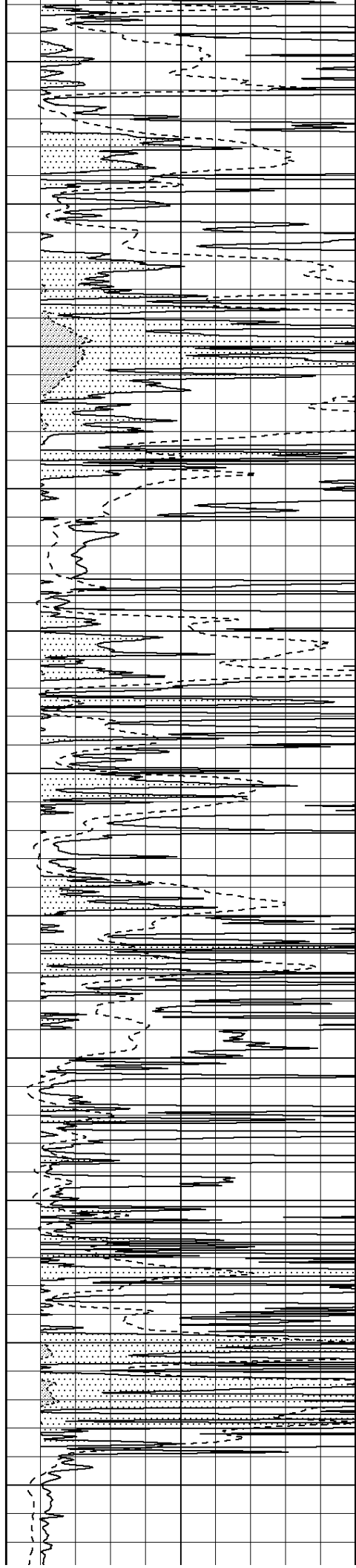
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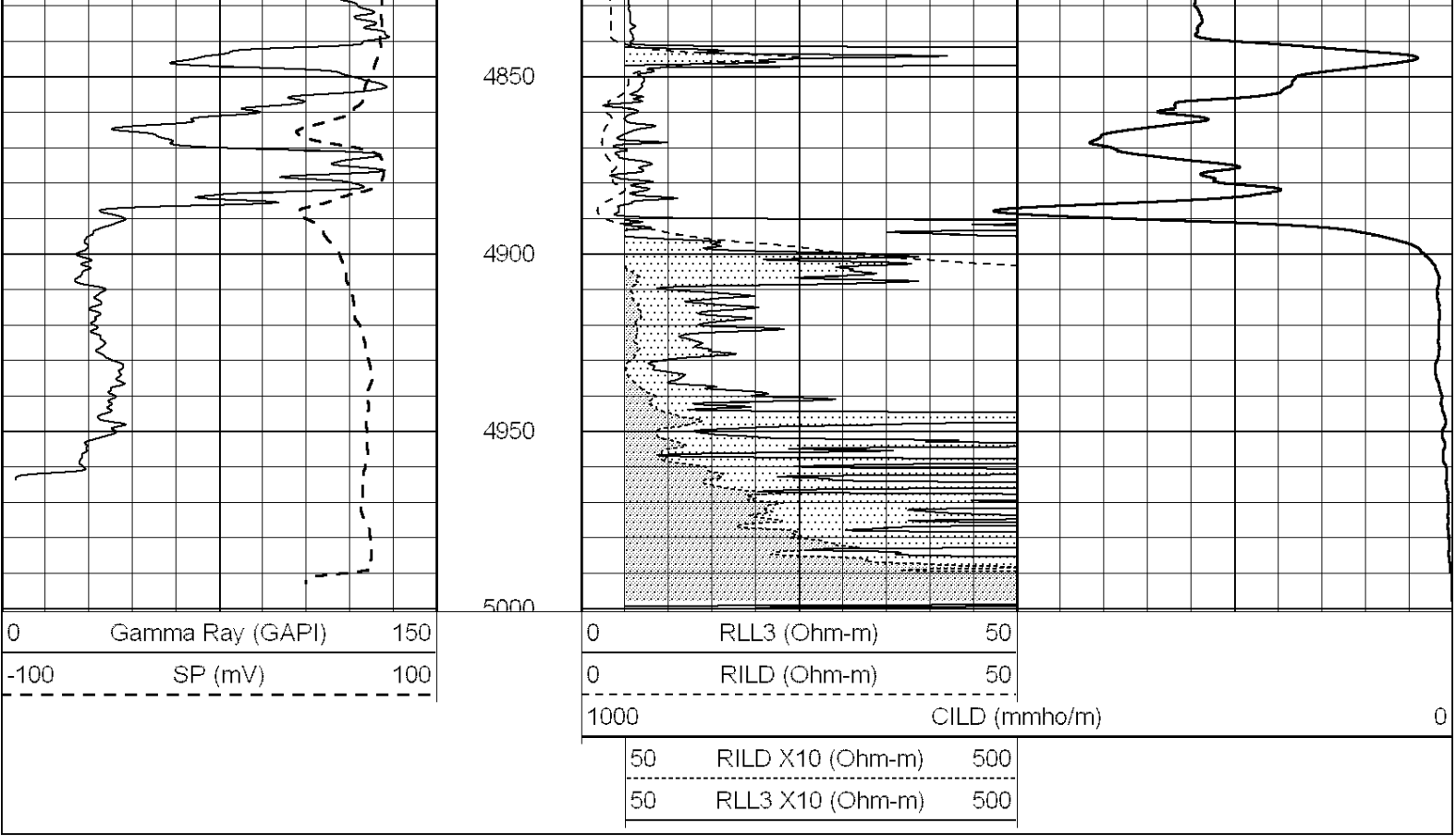
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4700

4750

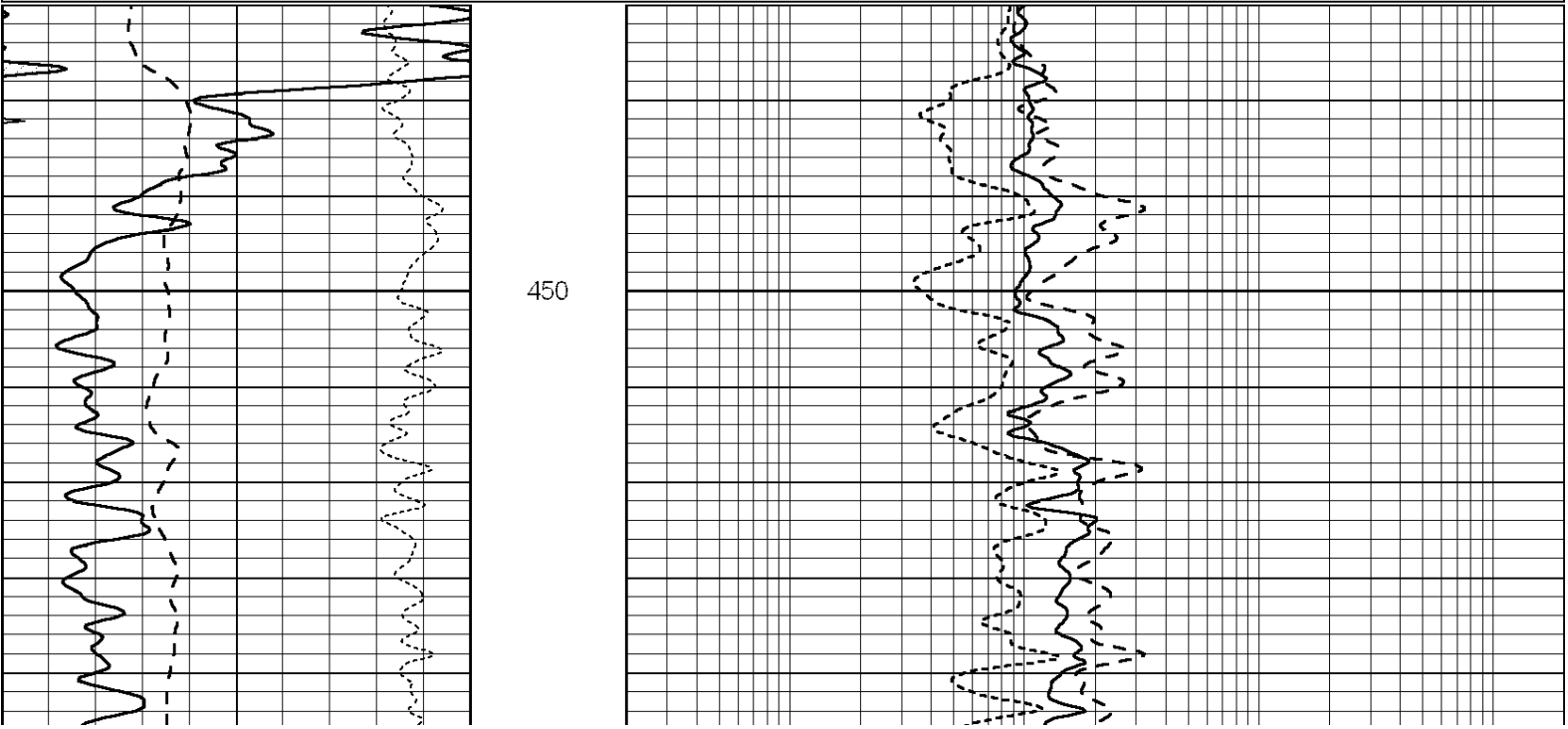
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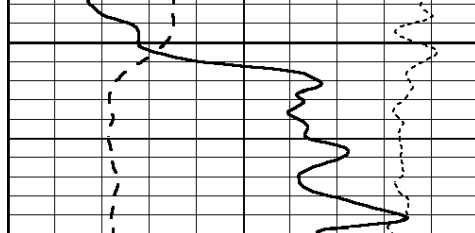




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Presentation Format: _dil
Dataset Creation: Fri May 09 18:41:01 2014 by Calc SOC 120430
Charted by: Depth in Feet scaled 1:240

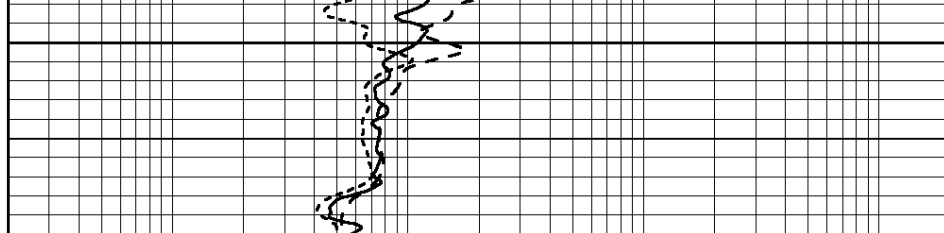
0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000
-100	SP (mV)	100	0.2	DEEP INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000
0	MINMK	20			





500

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20



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

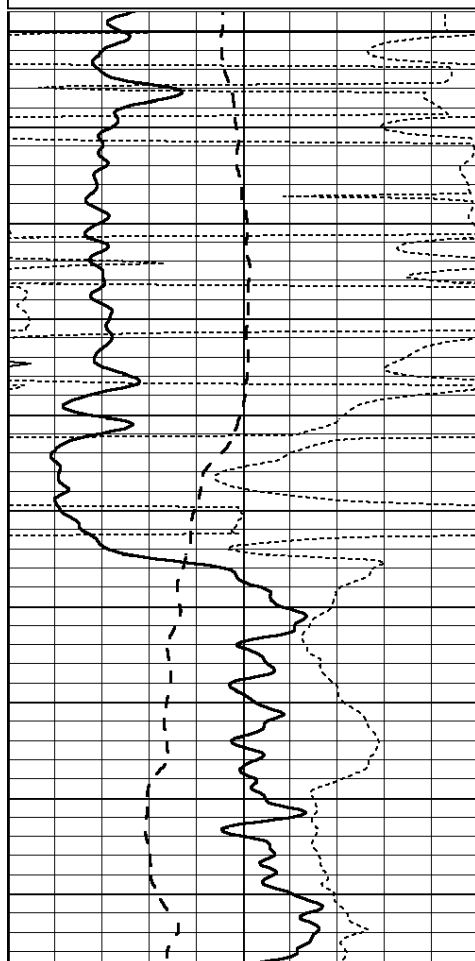


ANHYDRITE

Database File: 24150pe.db
 Dataset Pathname: pass3.2
 Presentation Format: _dil
 Dataset Creation: Fri May 09 18:22:52 2014 by Calc SOC 120430
 Charted by: Depth in Feet scaled 1:240

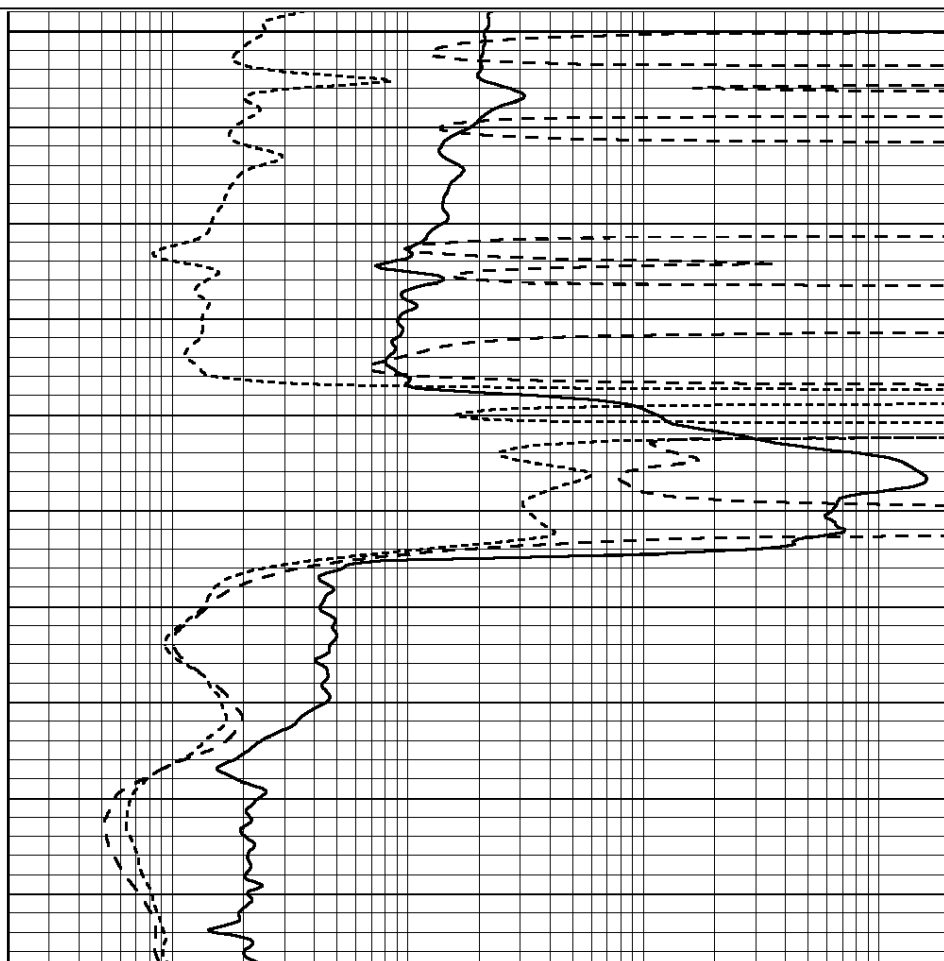
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

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



2400

2450



0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

2500

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



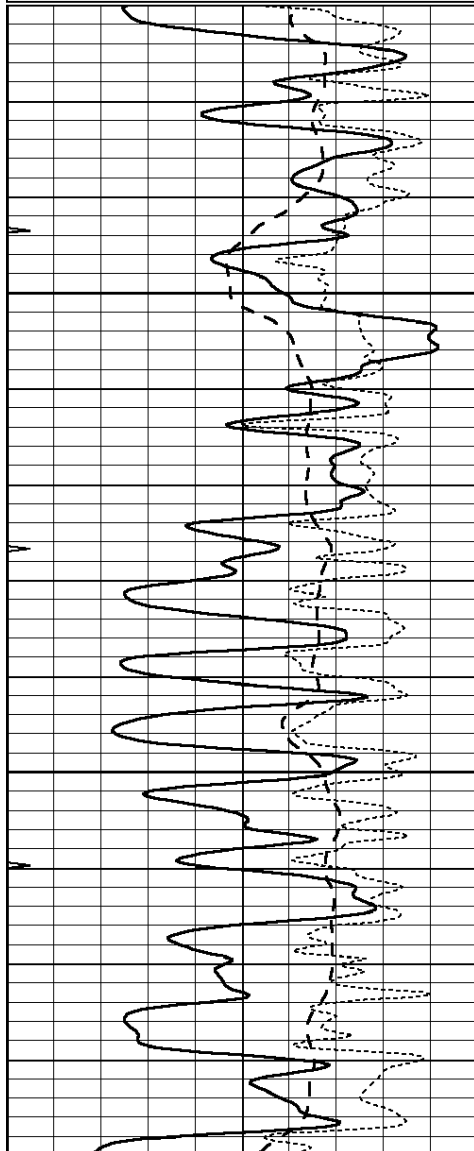
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MAIN SECTION

Database File: 24150pe.db
Dataset Pathname: pass3.1
Presentation Format: _dil
Dataset Creation: Fri May 09 18:11:08 2014 by Calc SOC 120430
Charted by: Depth in Feet scaled 1:240

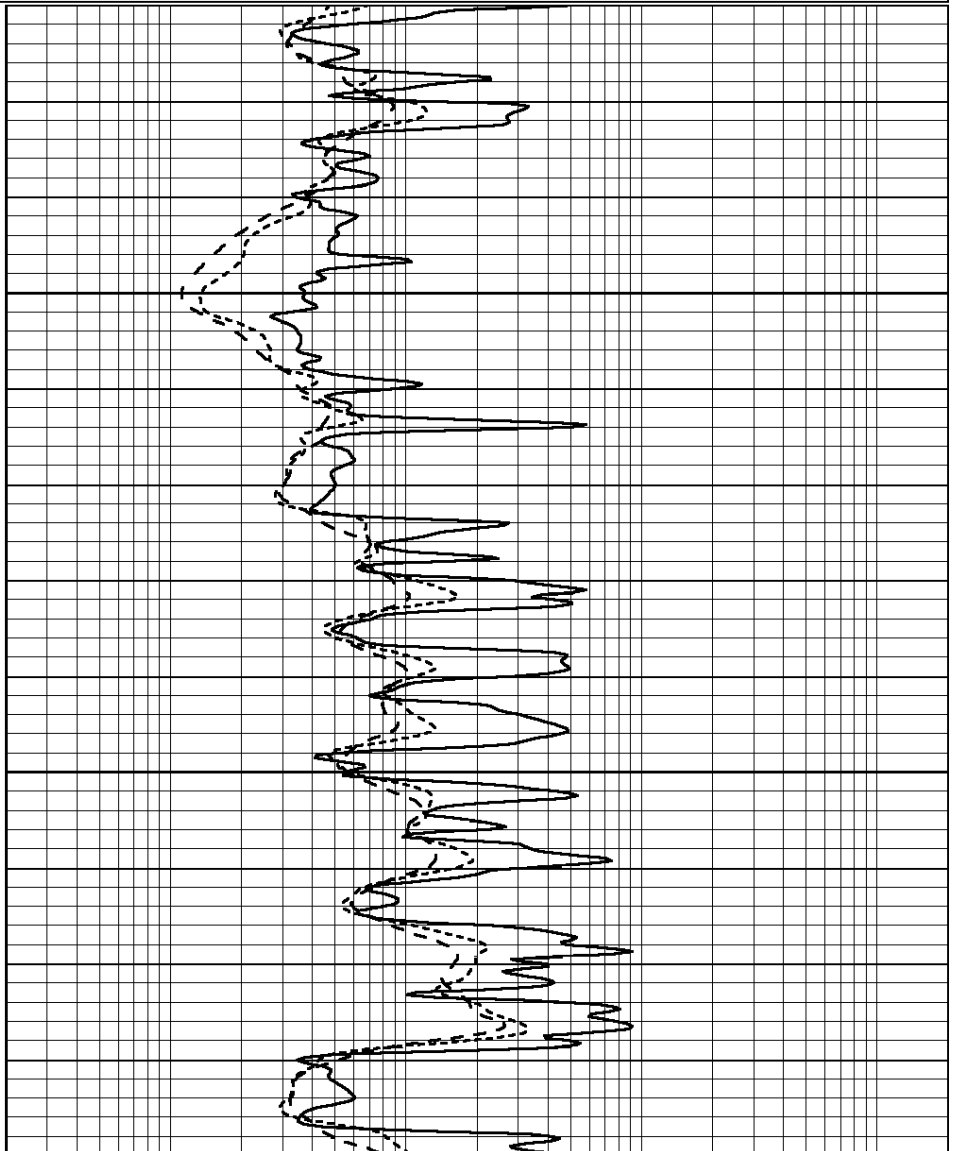
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-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

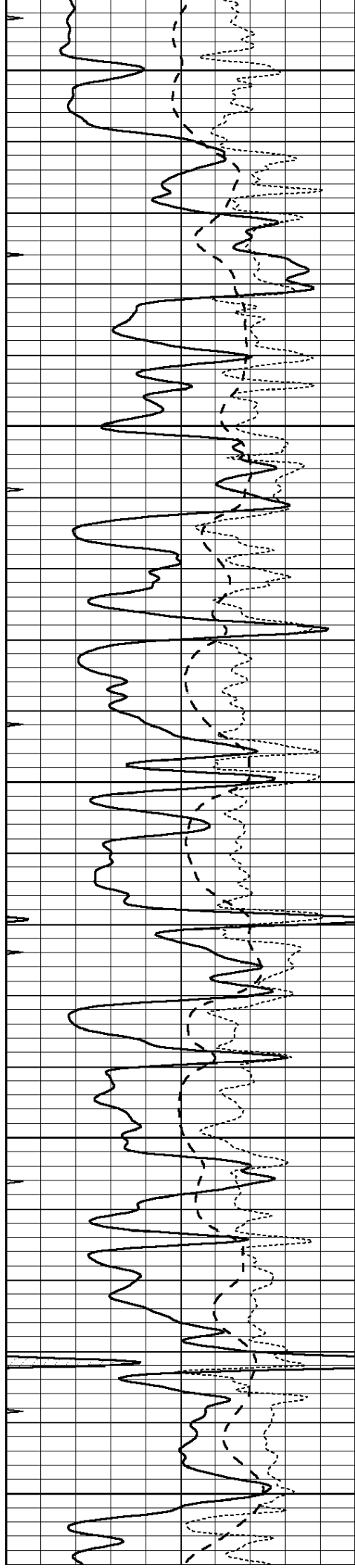
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



3600

3650





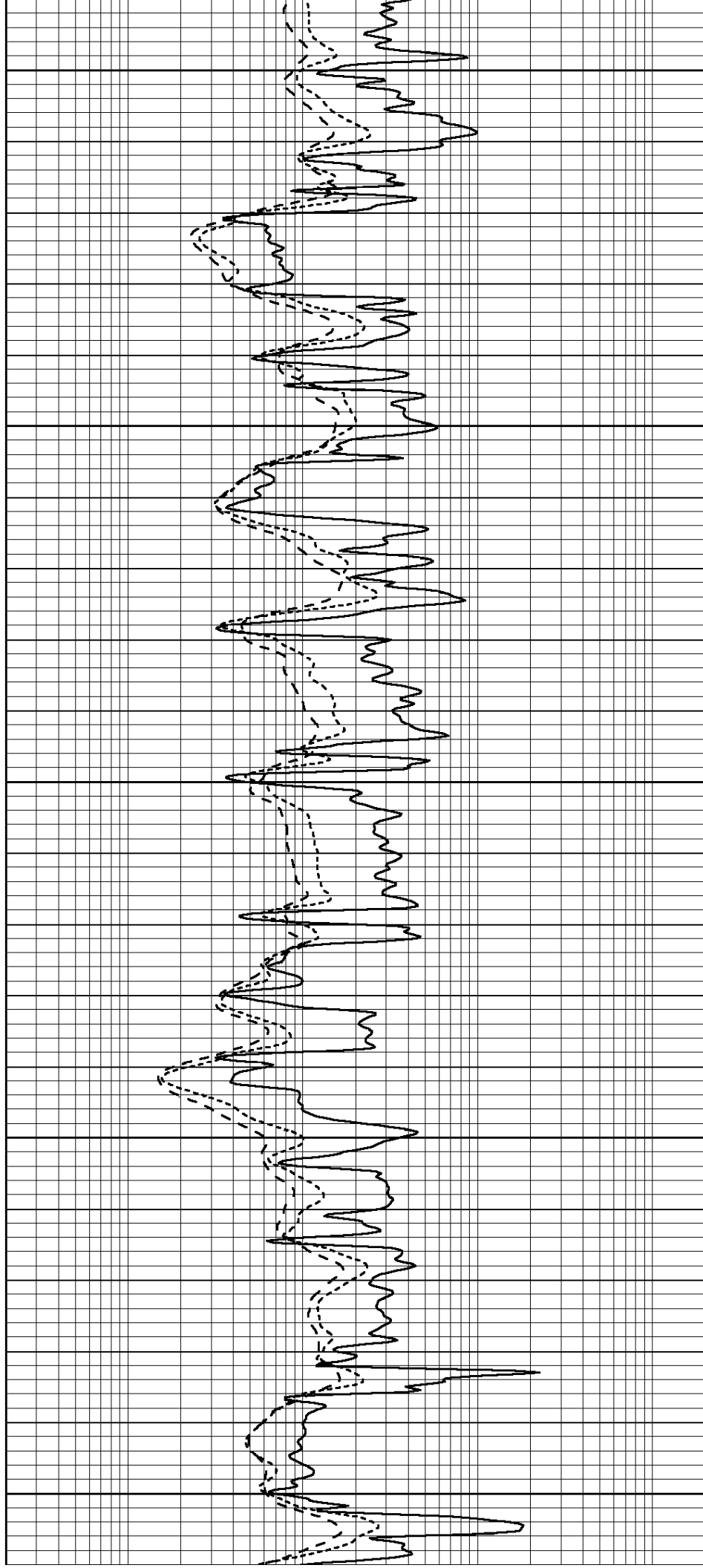
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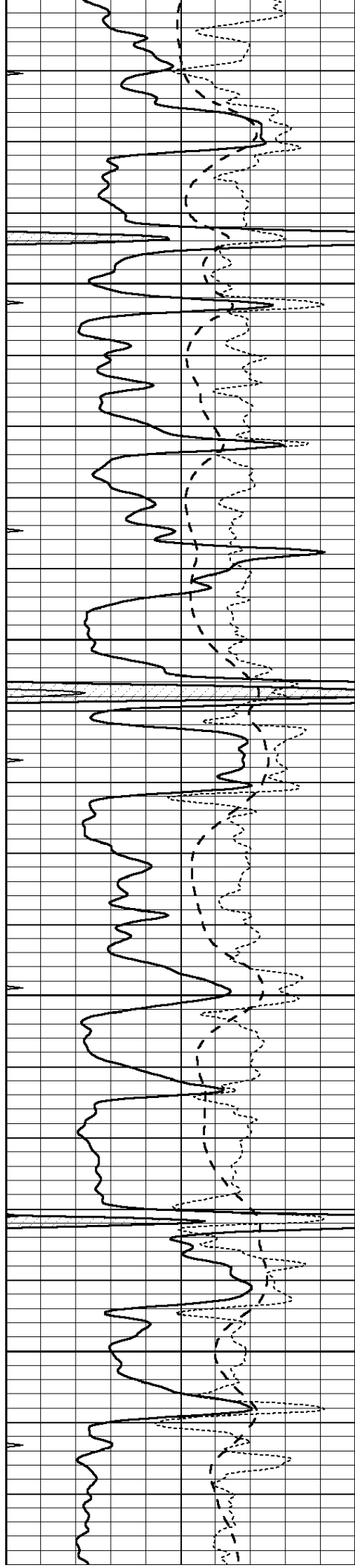
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3800

3850

3900



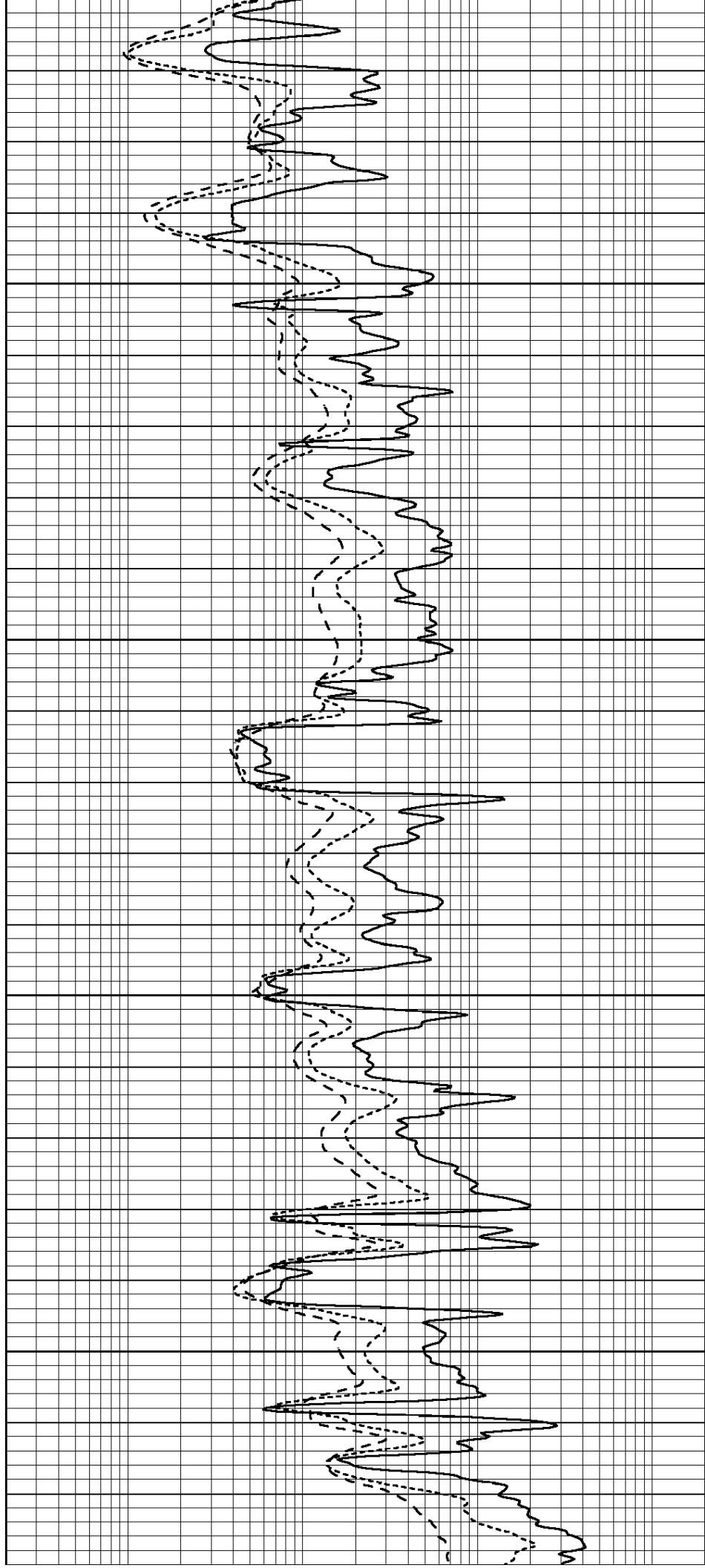


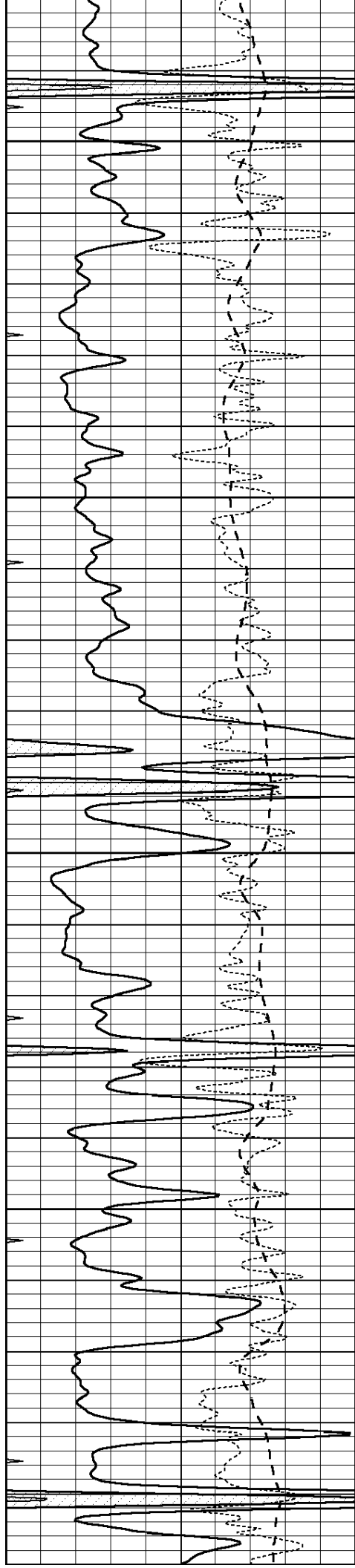
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4000

4050

4100





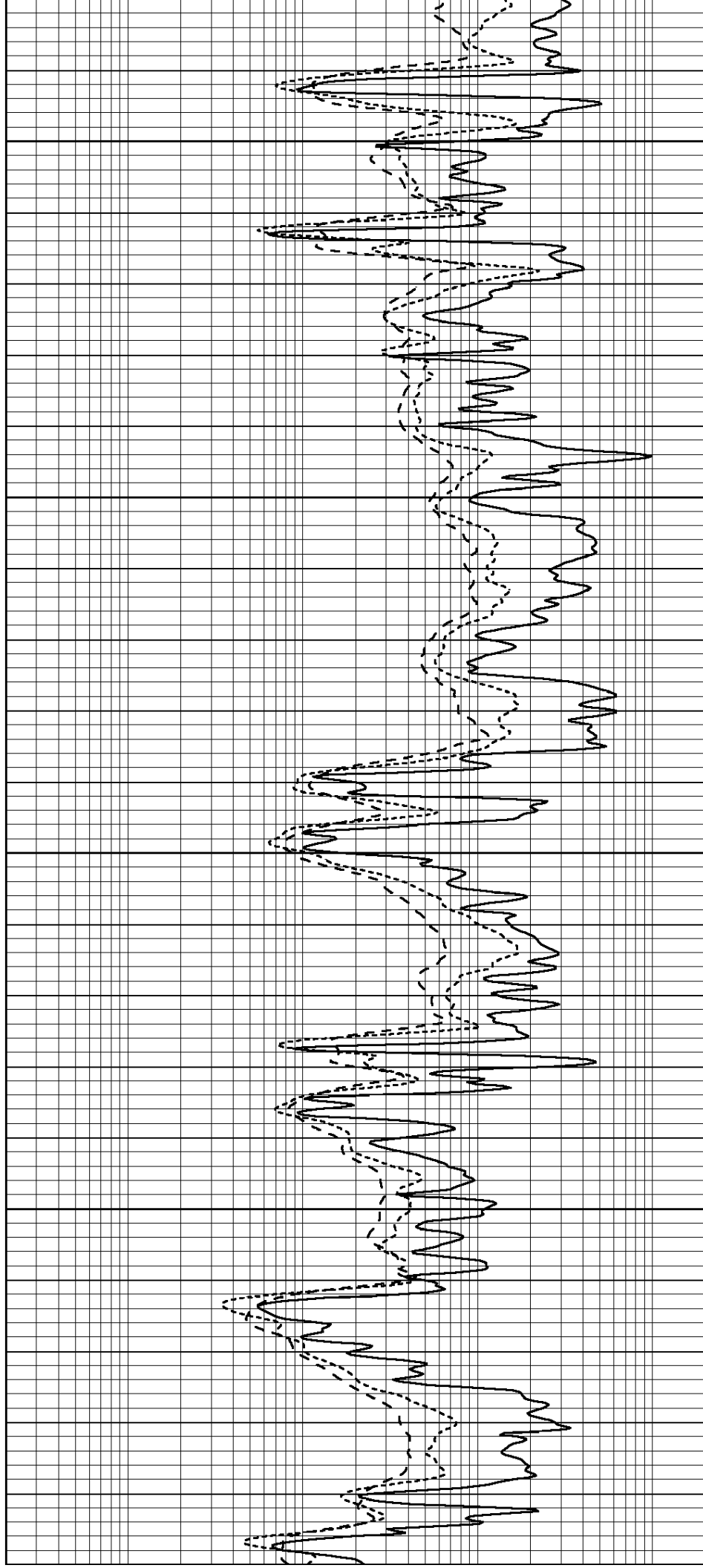
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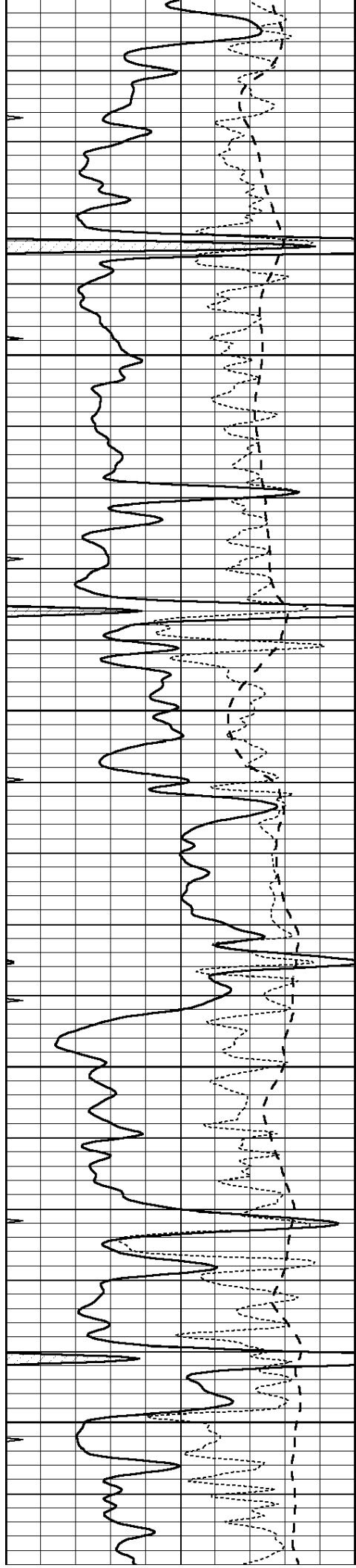
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4250

4300

4350





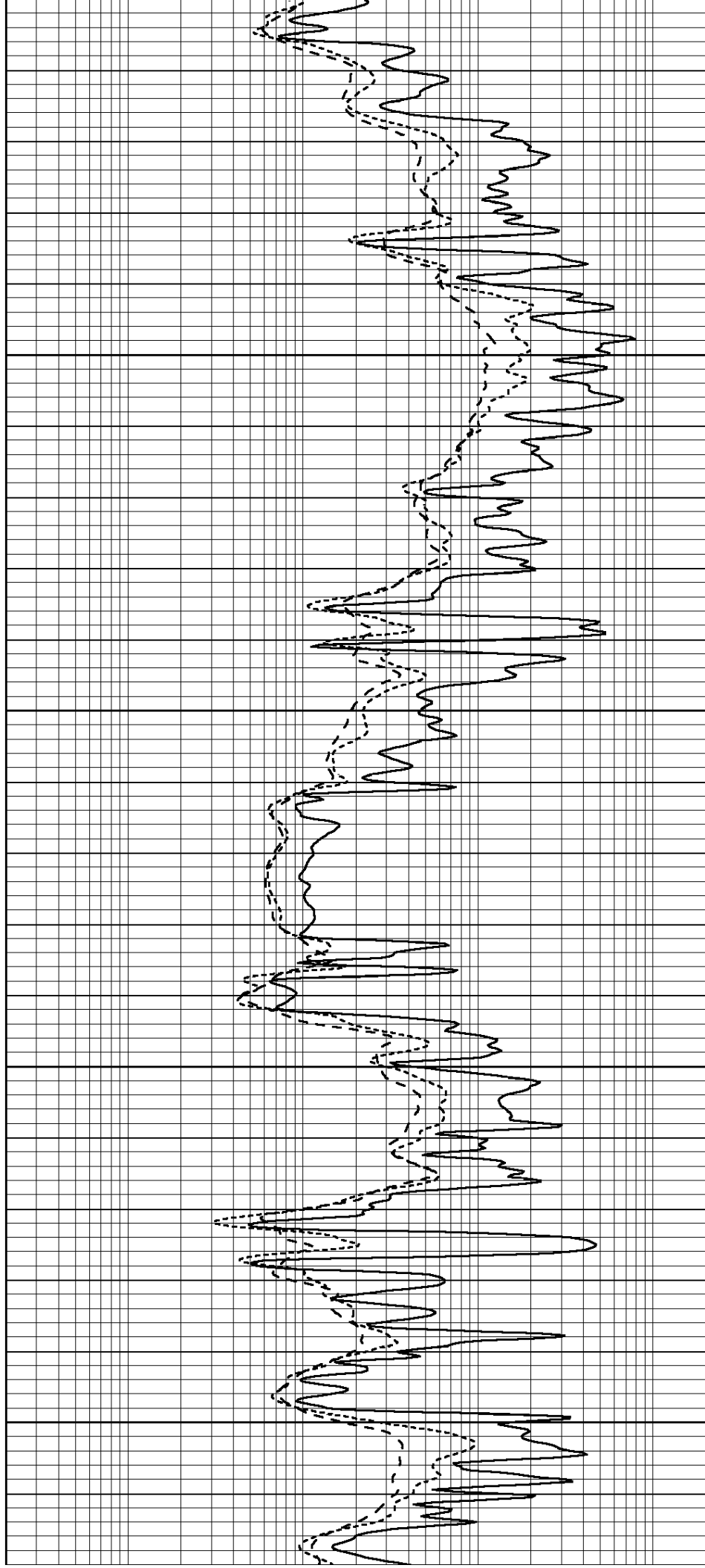
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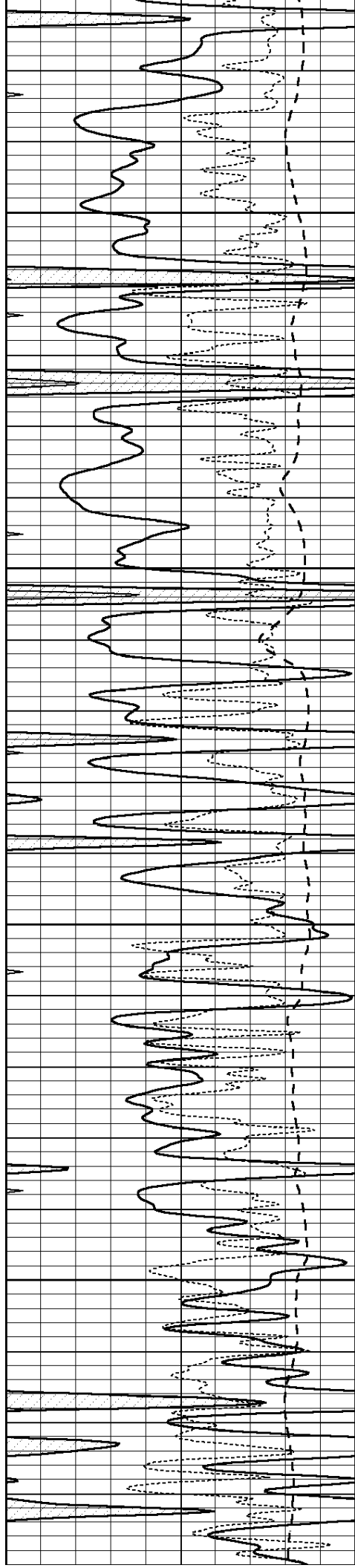
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4450

4500

4550



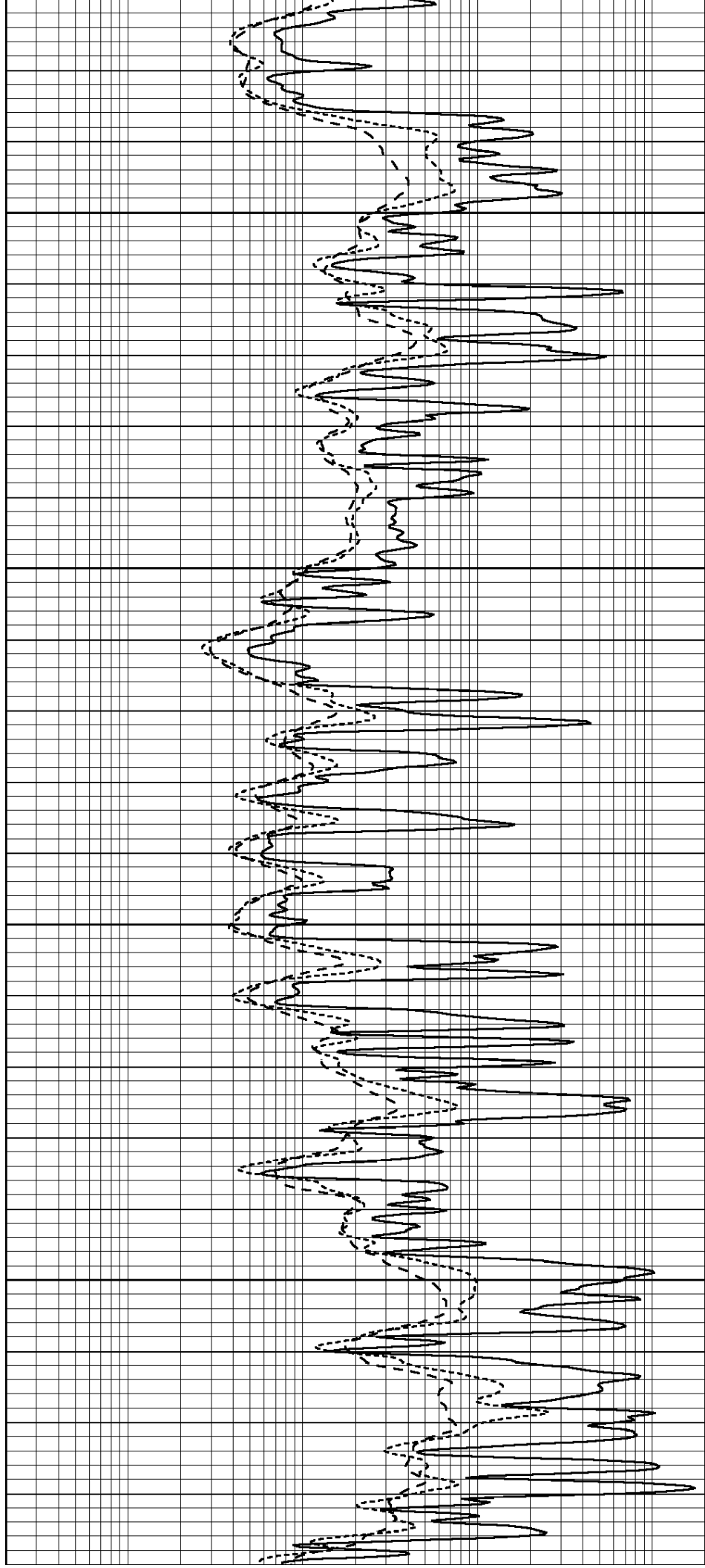


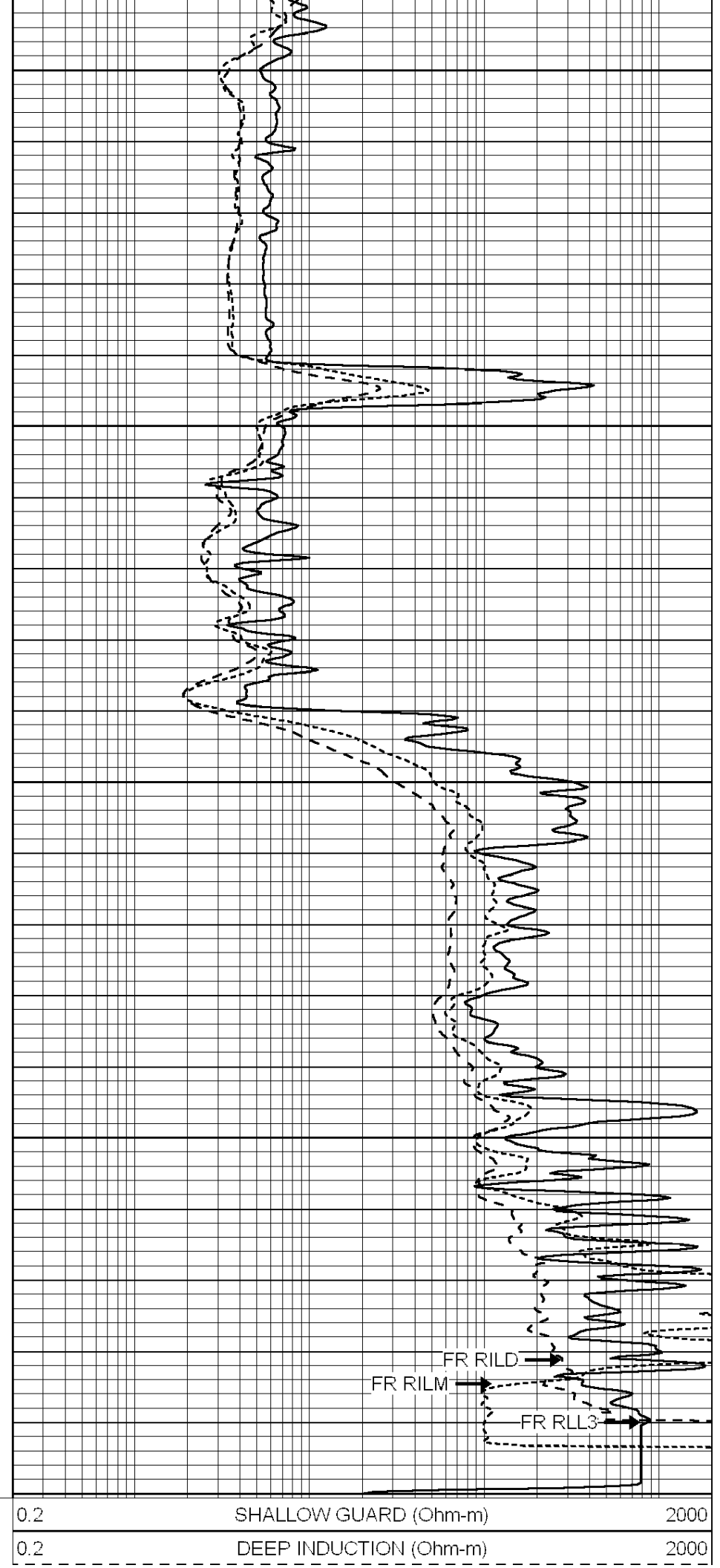
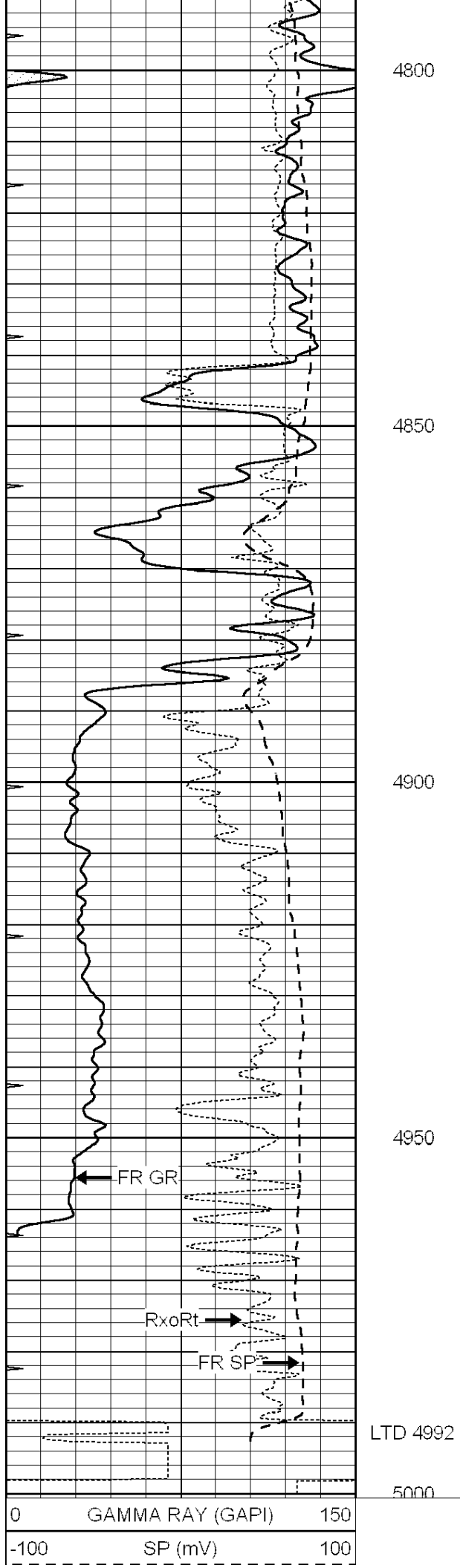
4600

4650

4700

4750





-250	Rxo/Rt	50
0	MINMK	20

0.2	MEDIUM INDUCTION (Ohm-m)	2000
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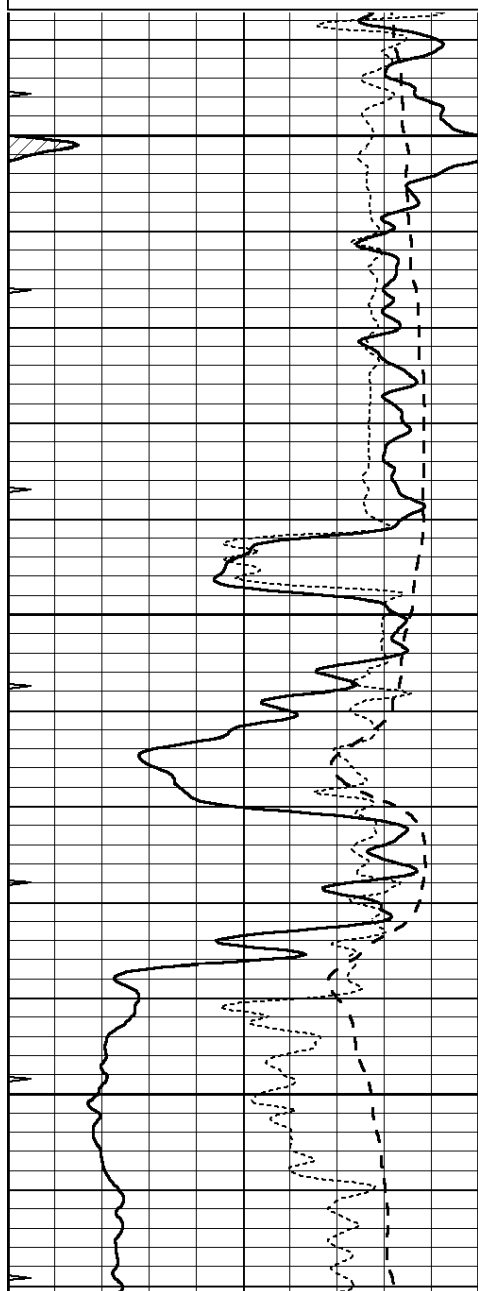
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REPEAT SECTION

Database File: 24150pe.db
Dataset Pathname: pass2.1
Presentation Format: _dil
Dataset Creation: Fri May 09 18:18:45 2014 by Calc SOC 120430
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

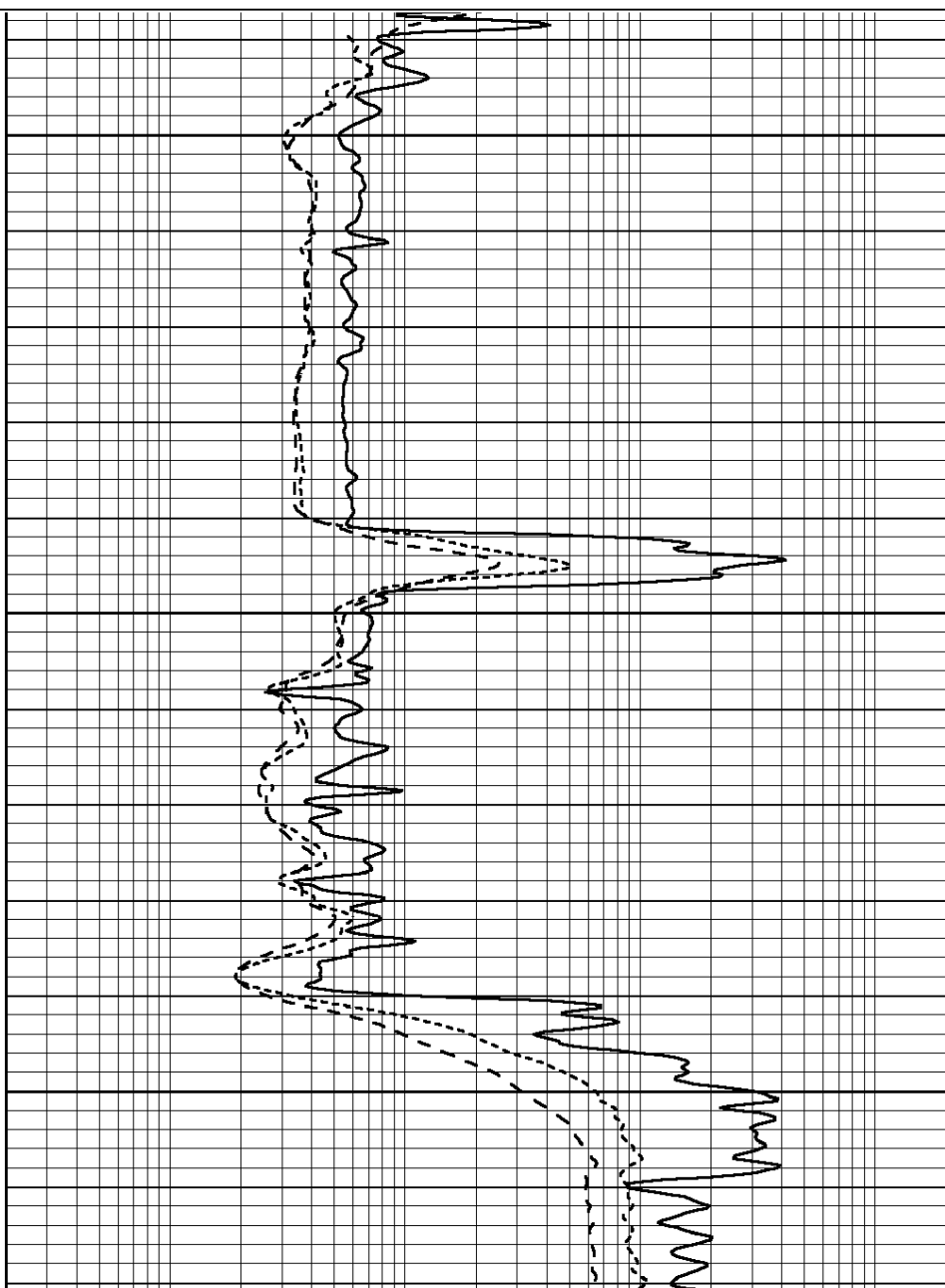
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0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

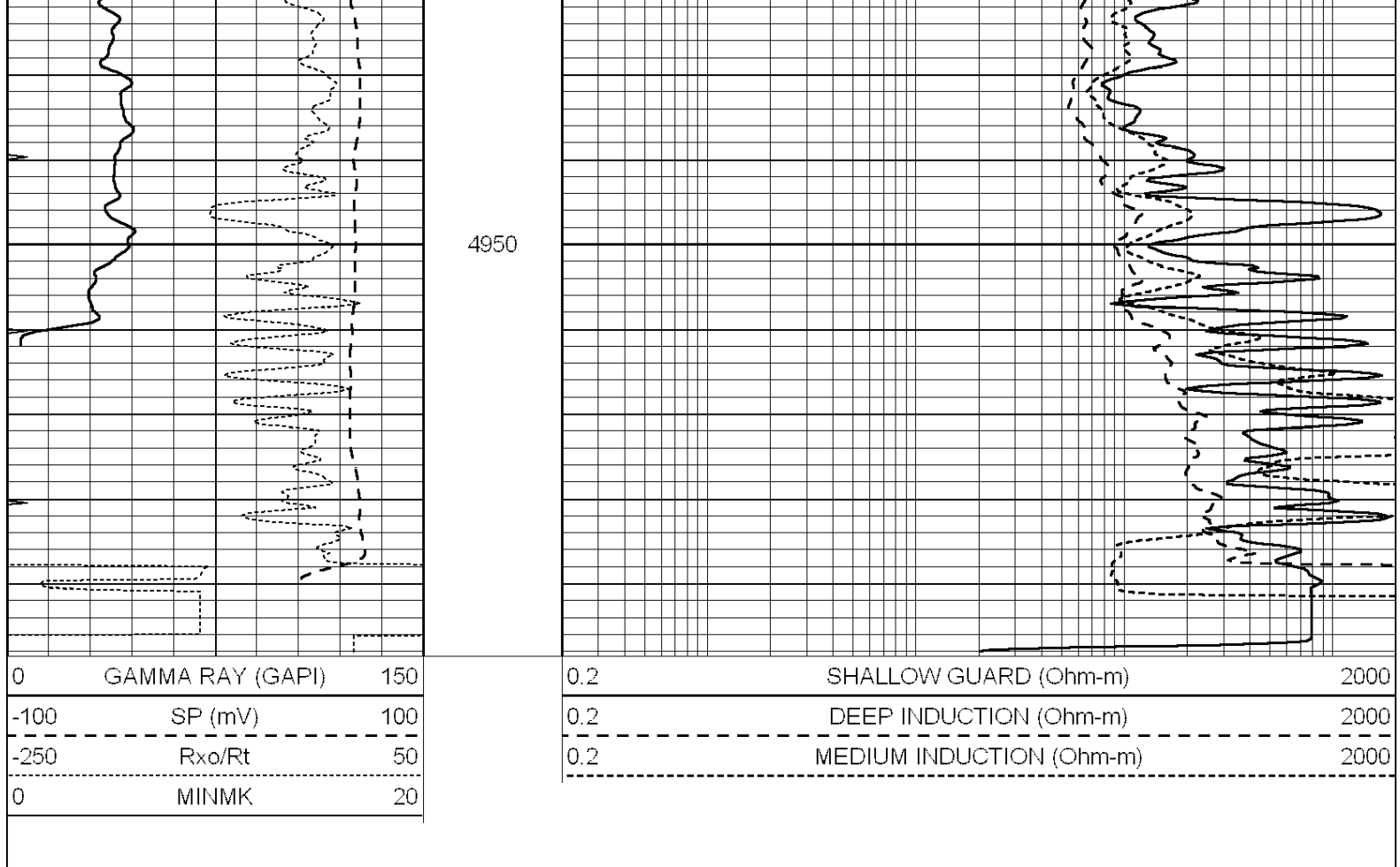


4800

4850

4900





Calibration Report

Database File: 24150pe.db
 Dataset Pathname: pass2.1
 Dataset Creation: Fri May 09 18:18:45 2014 by Calc SOC 120430

Dual Induction Calibration Report

Serial-Model: PROBE9-DILG
 Surface Cal Performed: Sat May 03 21:20:05 2014
 Downhole Cal Performed: Mon Jul 28 12:02:56 2008
 After Survey Verification Performed: Mon Jul 28 12:02:56 2008

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	660.000	-8.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	650.000	-16.000
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		

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:	070558		
Tool Model:	OPEN_GR		
Performed:	Sat May 03 22:43:08 2014		
Calibrator Value:	1.0	GAPI	
Background Reading:	0.0	cps	
Calibrator Reading:	1.0	cps	
Sensitivity:	0.2800	GAPI/cps	