



**COMPLETION  
& PRODUCTION  
SERVICES CO.**

**DUAL  
INDUCTION  
LOG**

Company CHARTER ENERGY, INC.  
Well PRIEFERT TRUST #1  
Field WILDCAT  
County GOVE  
State KANSAS

Company CHARTER ENERGY, INC.  
Well PRIEFERT TRUST #1  
Field WILDCAT  
County GOVE State KANSAS

Location: API # : 15-063-22090-0000  
553' FSL & 1304' FWL  
SW - NW - NE - SE  
SEC 21 TWP 13S RGE 29W  
Permanent Datum GROUND LEVEL Elevation 2830  
Log Measured From KELLY BUSHING 7' A.G.L.  
Drilling Measured From KELLY BUSHING  
Other Services  
CDL/CNL  
MEL/SON  
Elevation  
K.B. 2837  
D.F. 2835  
G.L. 2830

Date	3/6/13		
Run Number	ONE		
Depth Driller	4650		
Depth Logger	4651		
Bottom Logged Interval	4649		
Top Log Interval	00		
Casing Driller	8 5/8" @ 233		
Casing Logger	230		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 2500 PPM	
Density / Viscosity	9.5/57		
pH / Fluid Loss	9.07/ 0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.80 @ 66F		
Rmt @ Meas. Temp	.60 @ 66F		
Rmc @ Meas. Temp	.96 @ 66F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.43 @ 122F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	122F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	JASON CAPPELLUCCI		
Witnessed By	KURT TALBOTT		

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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  
GOVE, KS. - 4 S. TO RD. 0 - 2 1/2 W. - 1 MILE N. INTO



**MAIN SECTION**

Database File: 010854ddn.db  
 Dataset Pathname: pass3.6  
 Presentation Format: \_dil2  
 Dataset Creation: Wed Mar 06 19:07:34 2013 by Calc Open-Cased 090629  
 Charted by: Depth in Feet scaled 1:600

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

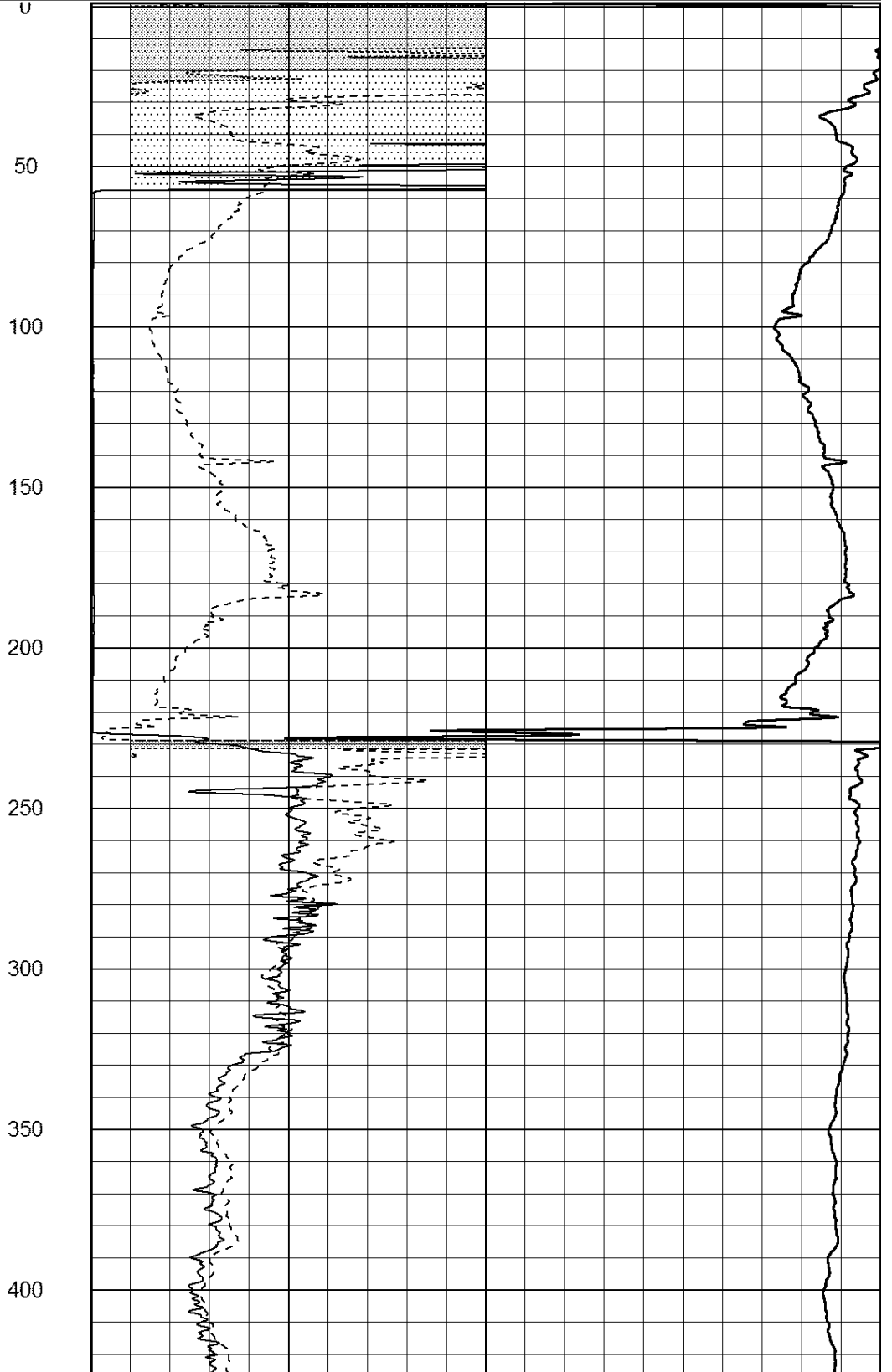
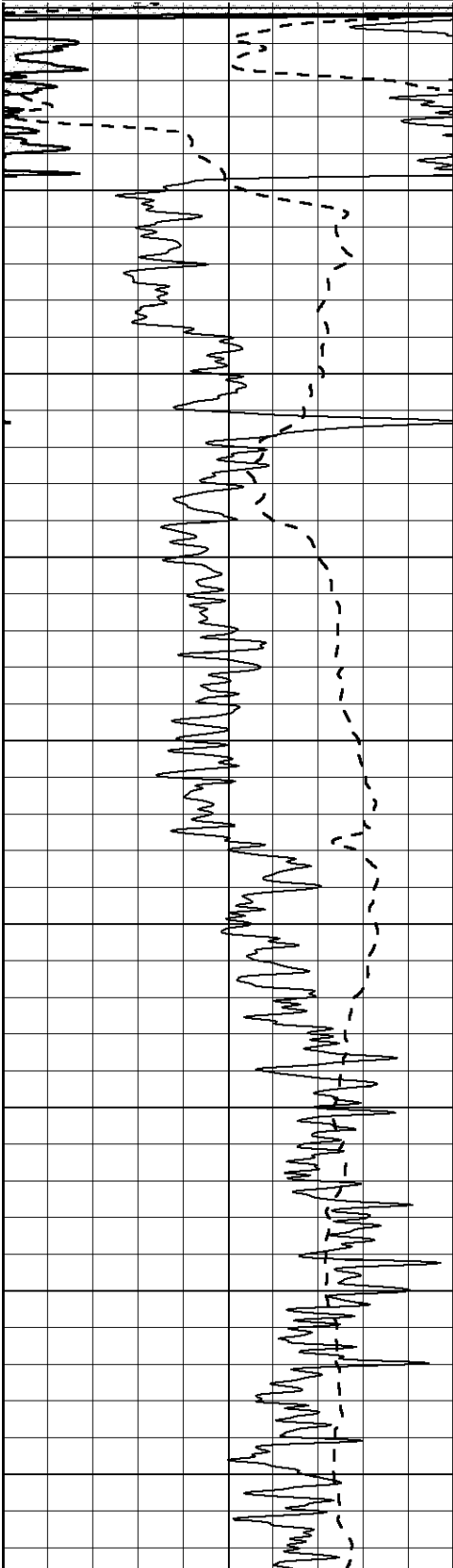
0	RLL3 (Ohm-m)	50
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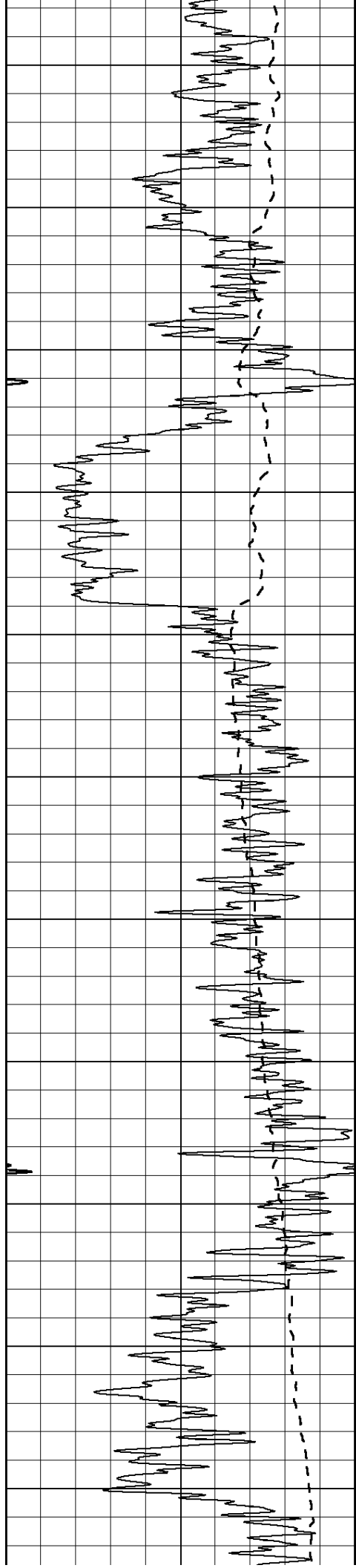
0	RILD (Ohm-m)	50
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1000	CILD (mmho/m)	0
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50	RILD X10 (Ohm-m)	500
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50	RLL3 X10 (Ohm-m)	500
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450

500

550

600

650

700

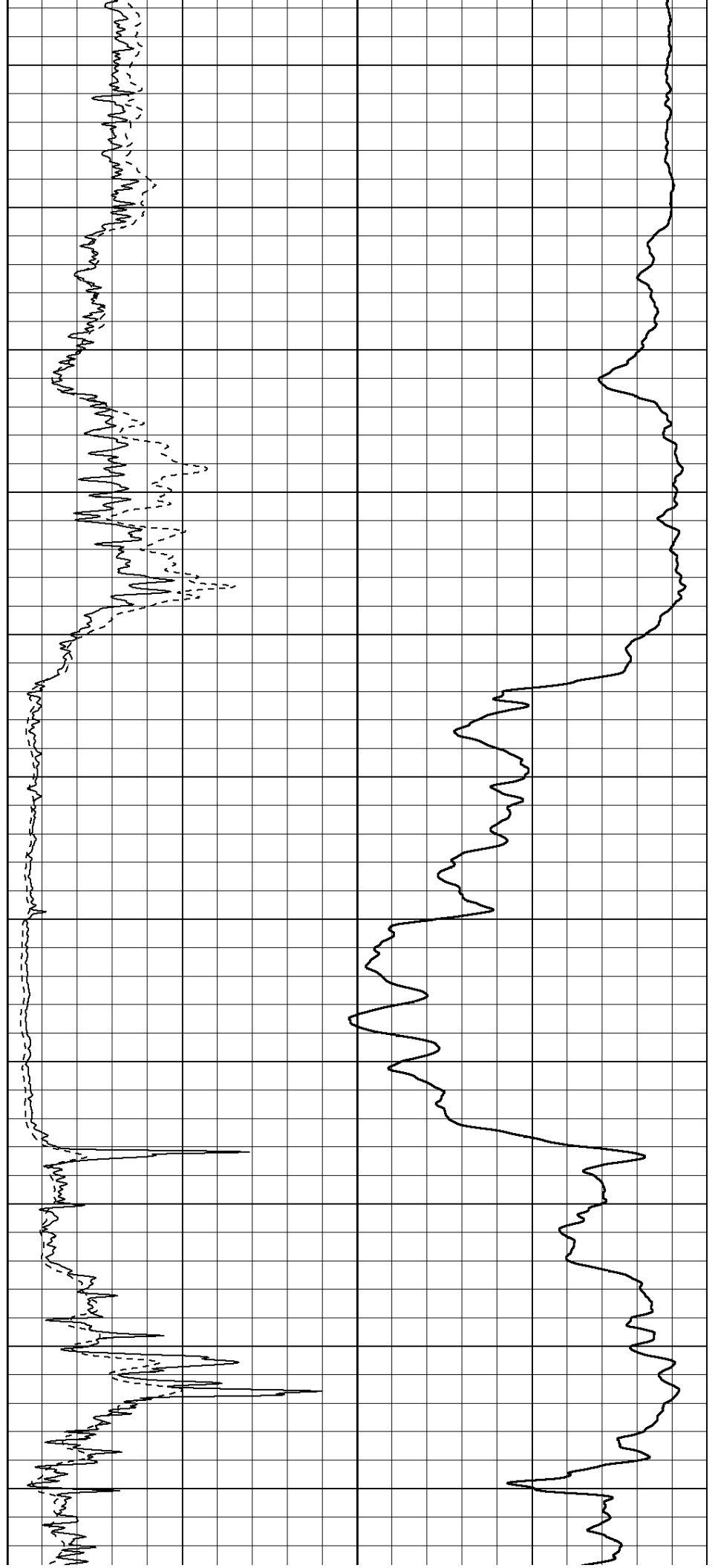
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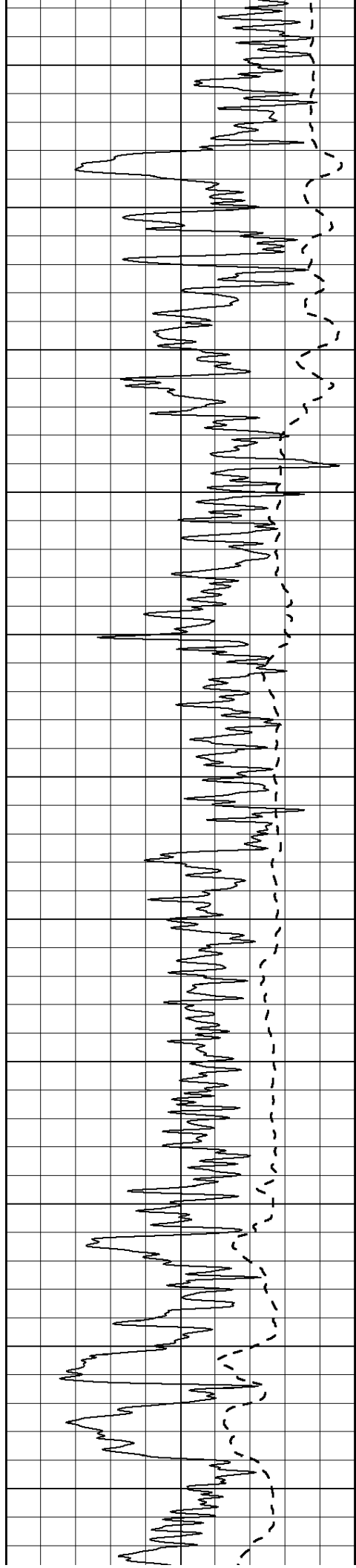
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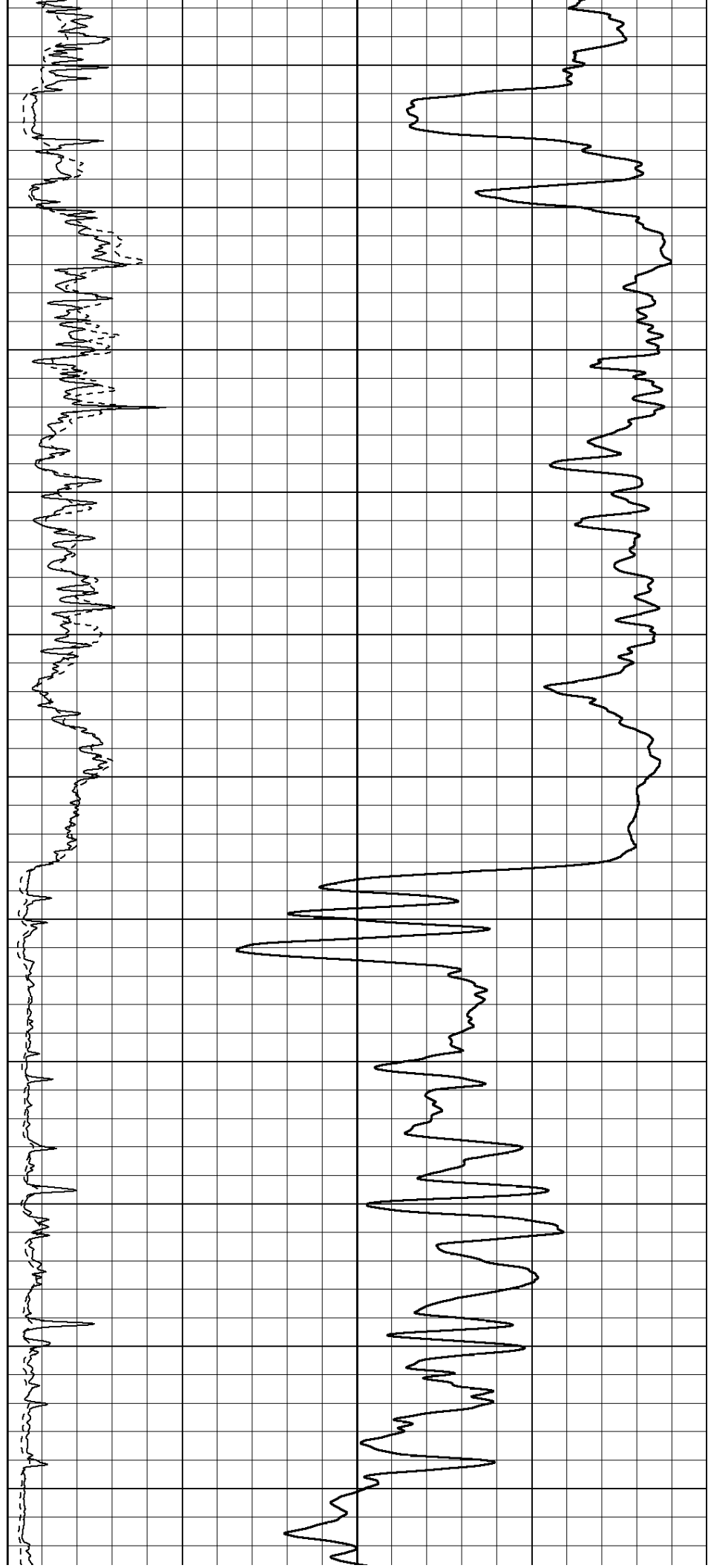
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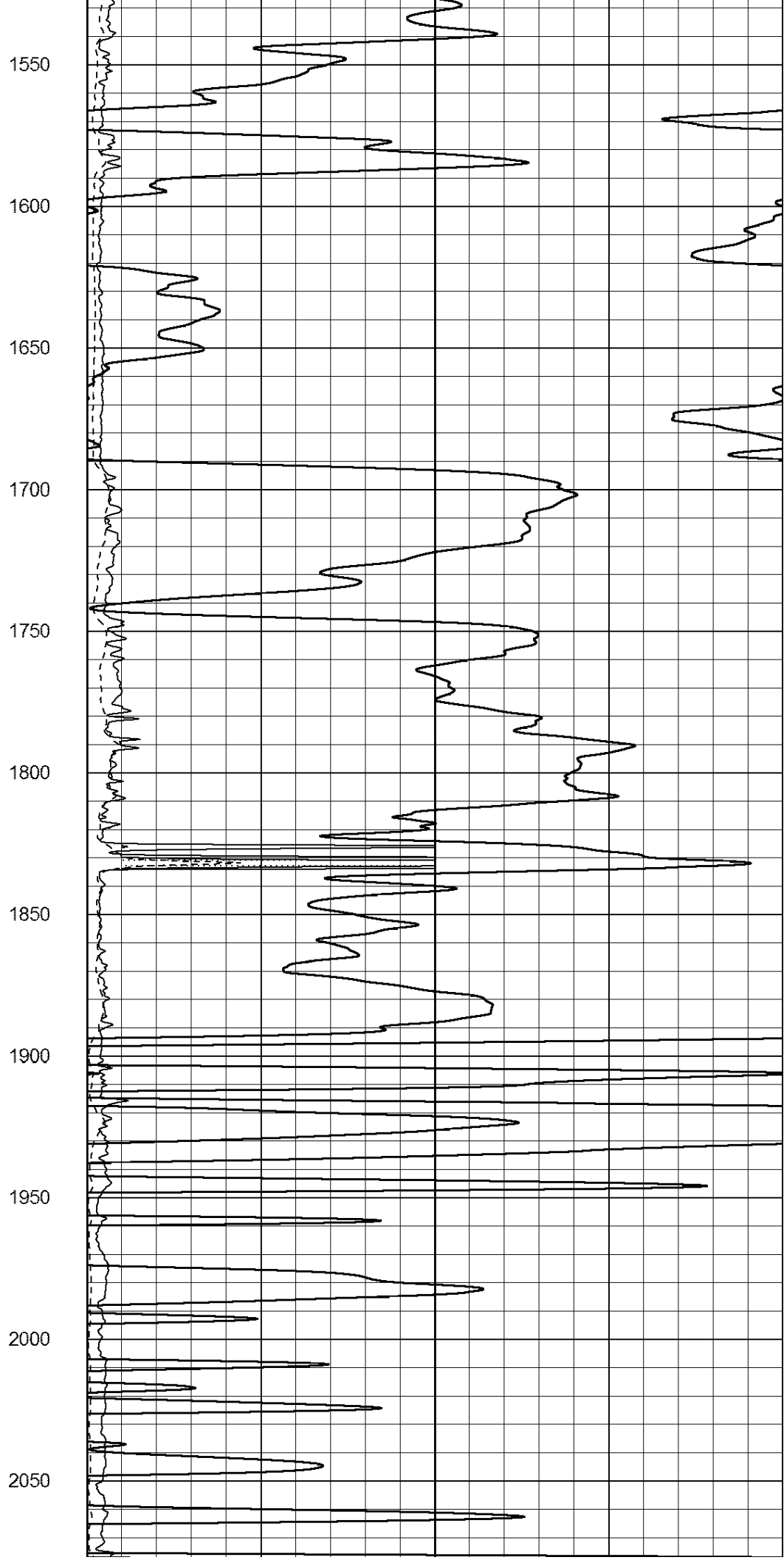
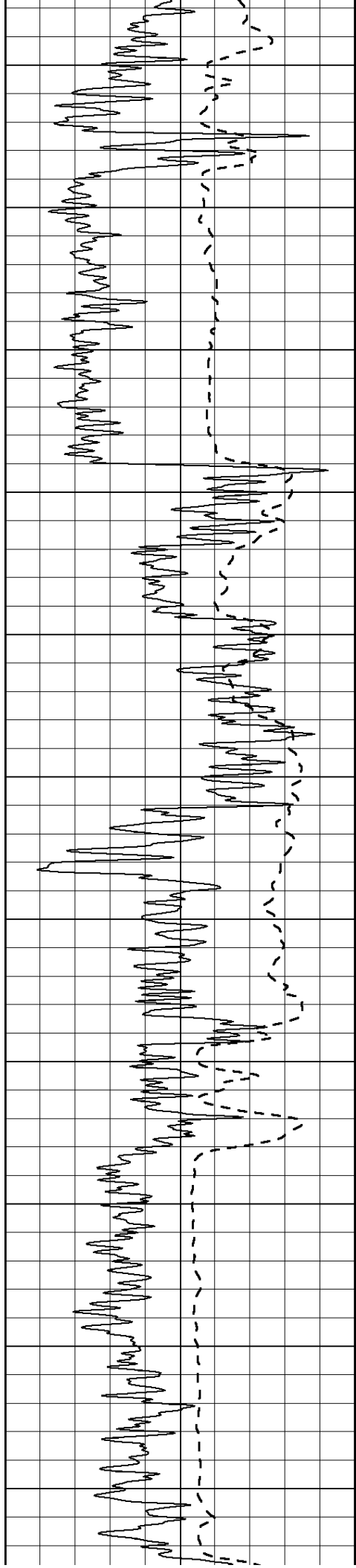
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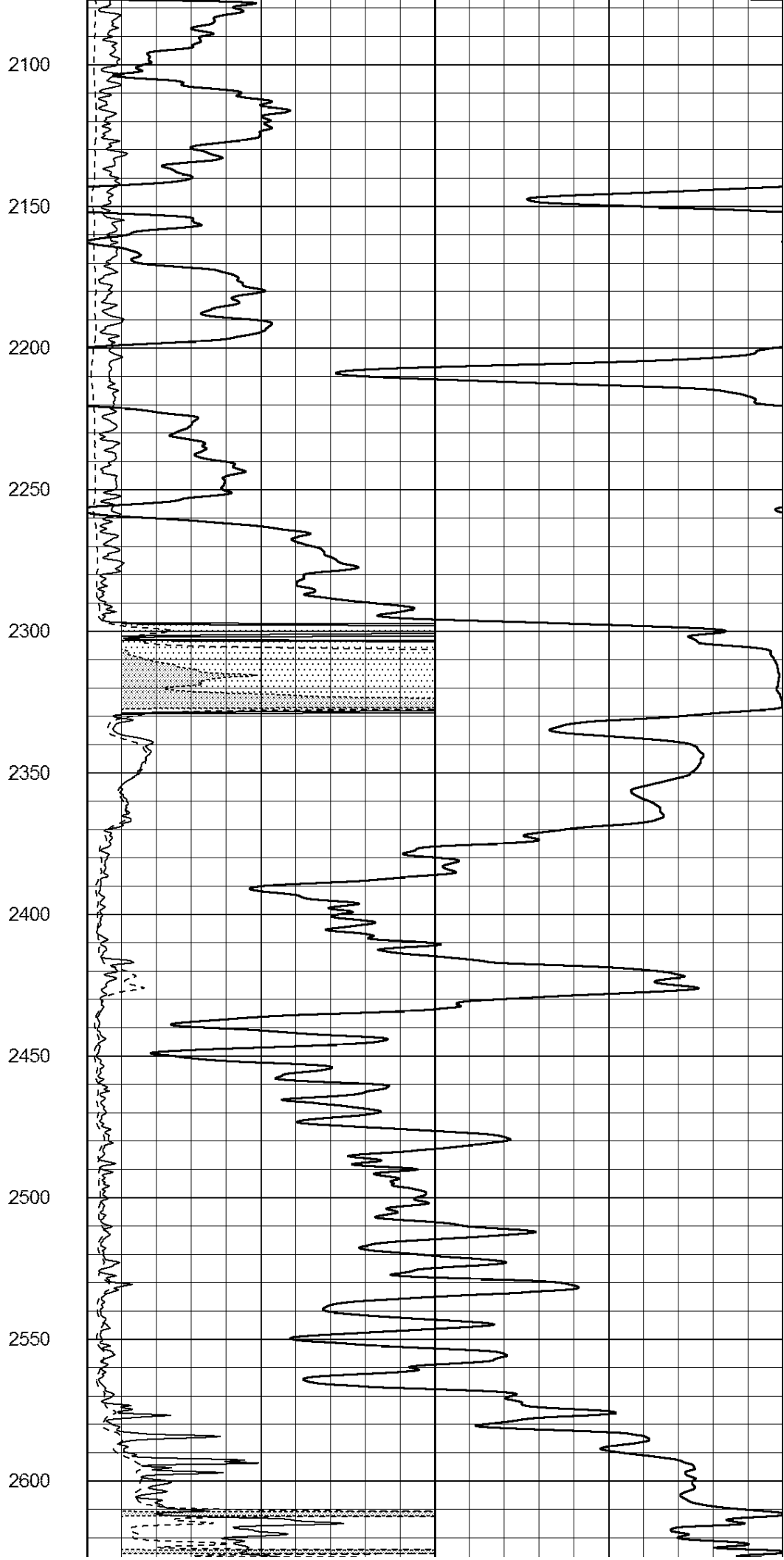
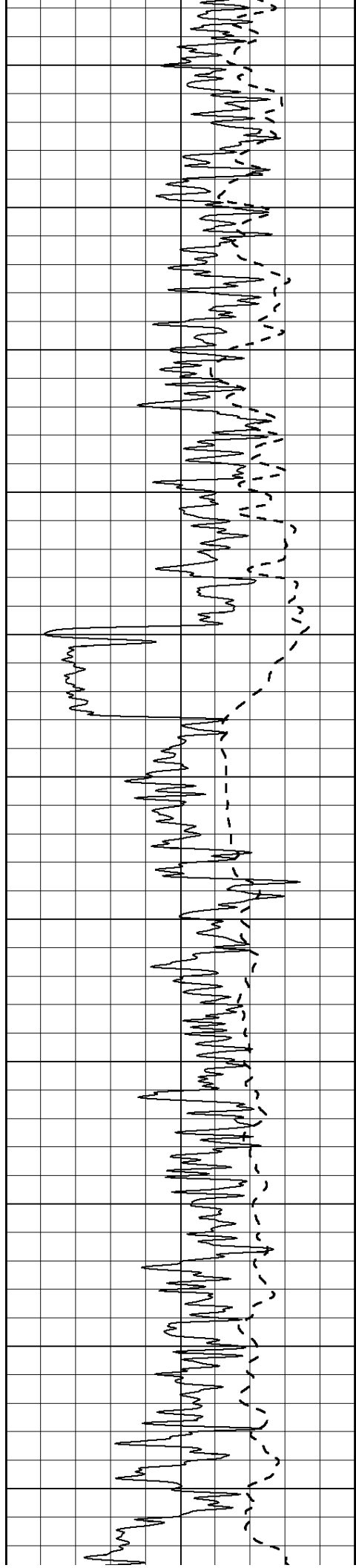


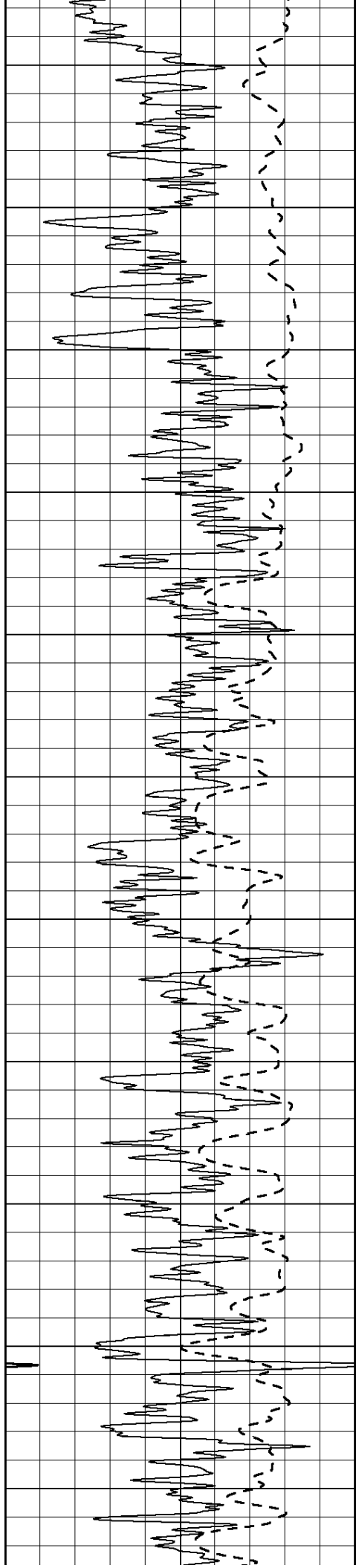


1000  
1050  
1100  
1150  
1200  
1250  
1300  
1350  
1400  
1450  
1500









2650

2700

2750

2800

2850

2900

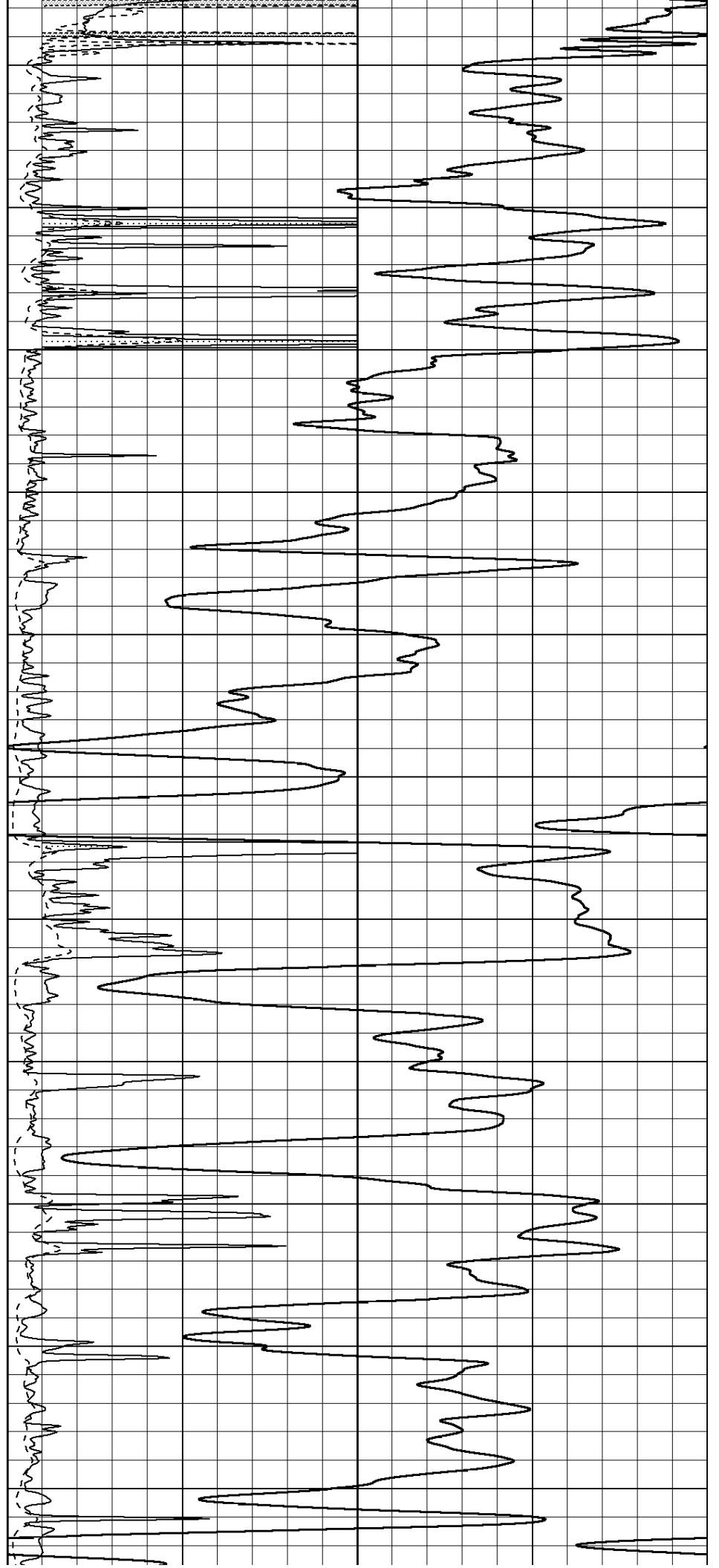
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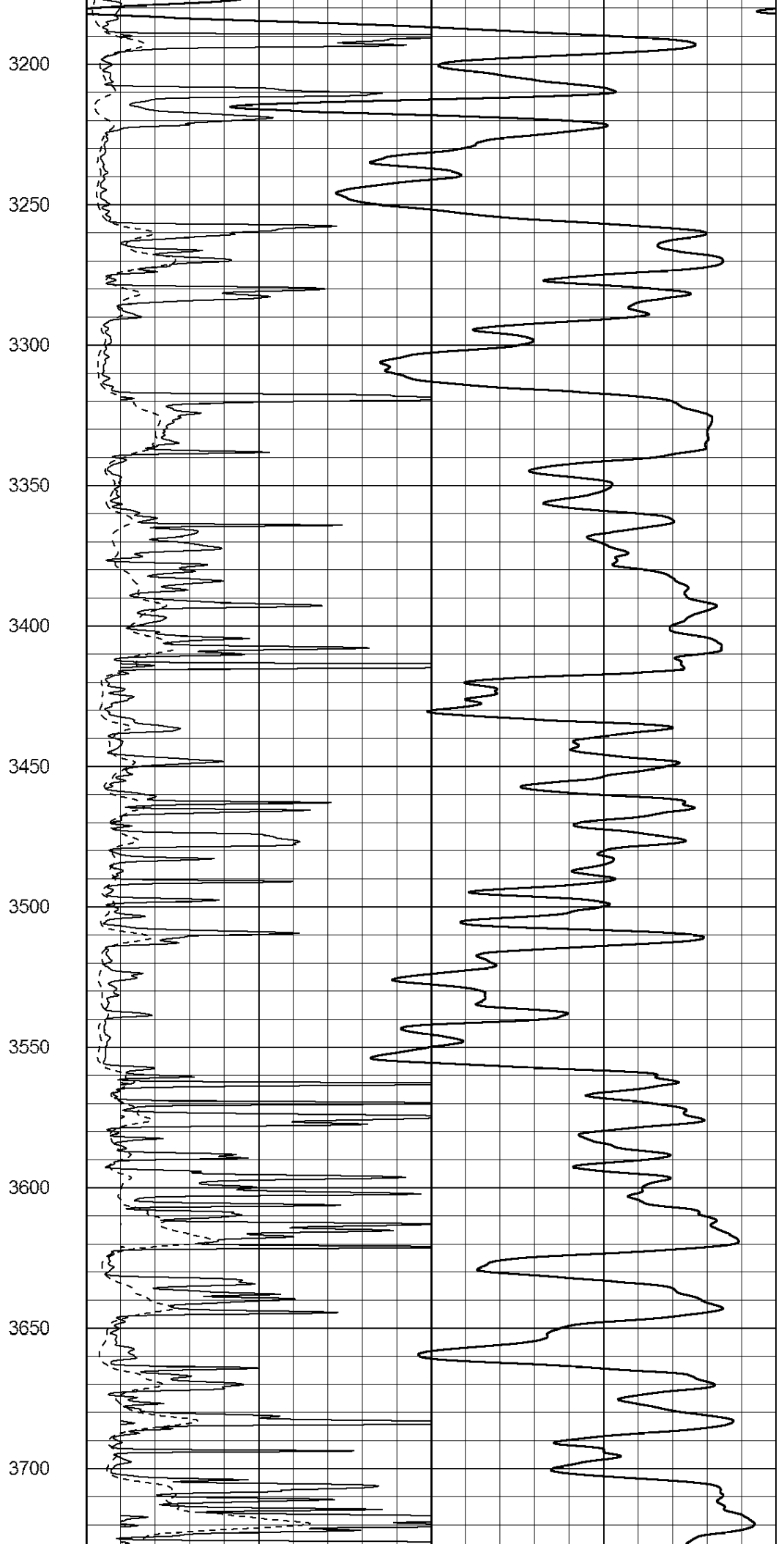
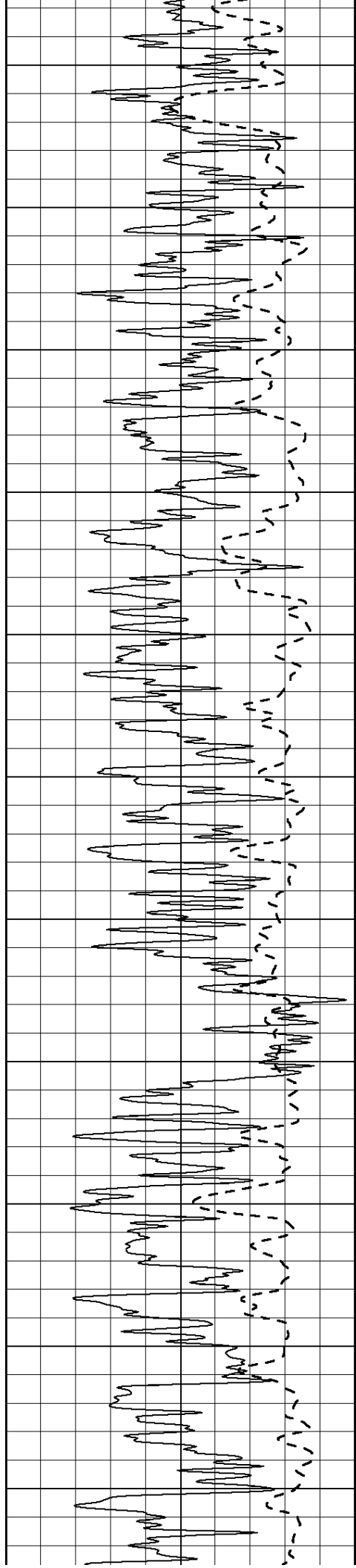
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3050

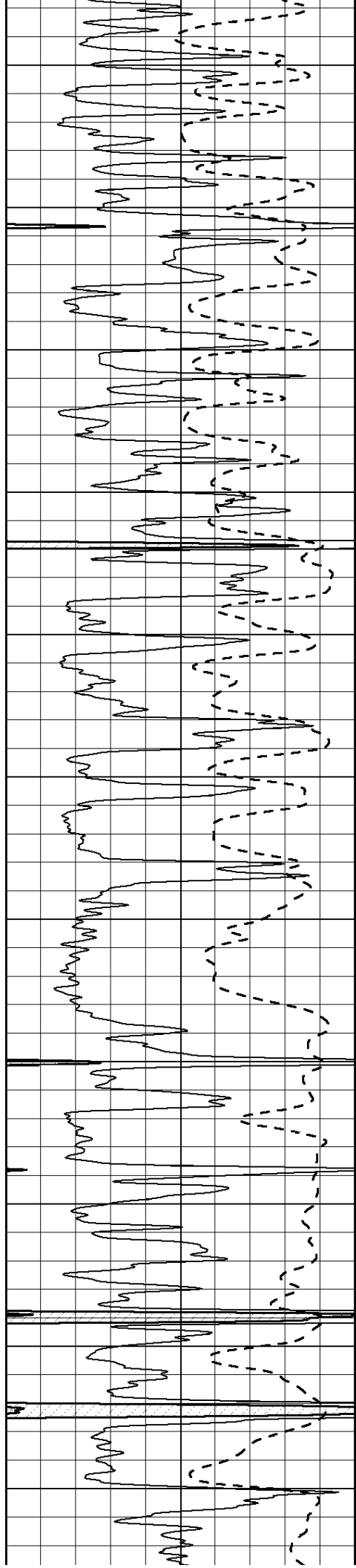
3100

3150









3750

3800

3850

3900

3950

4000

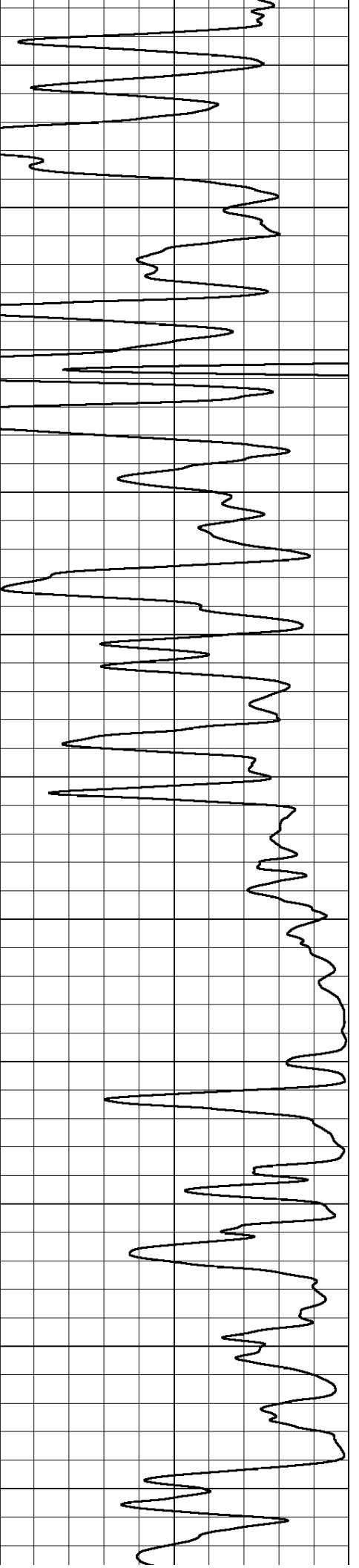
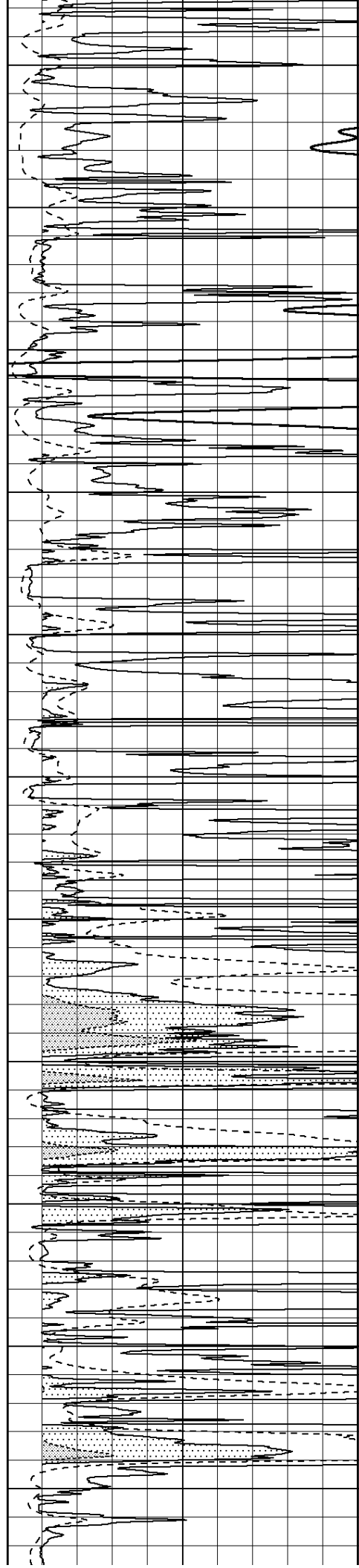
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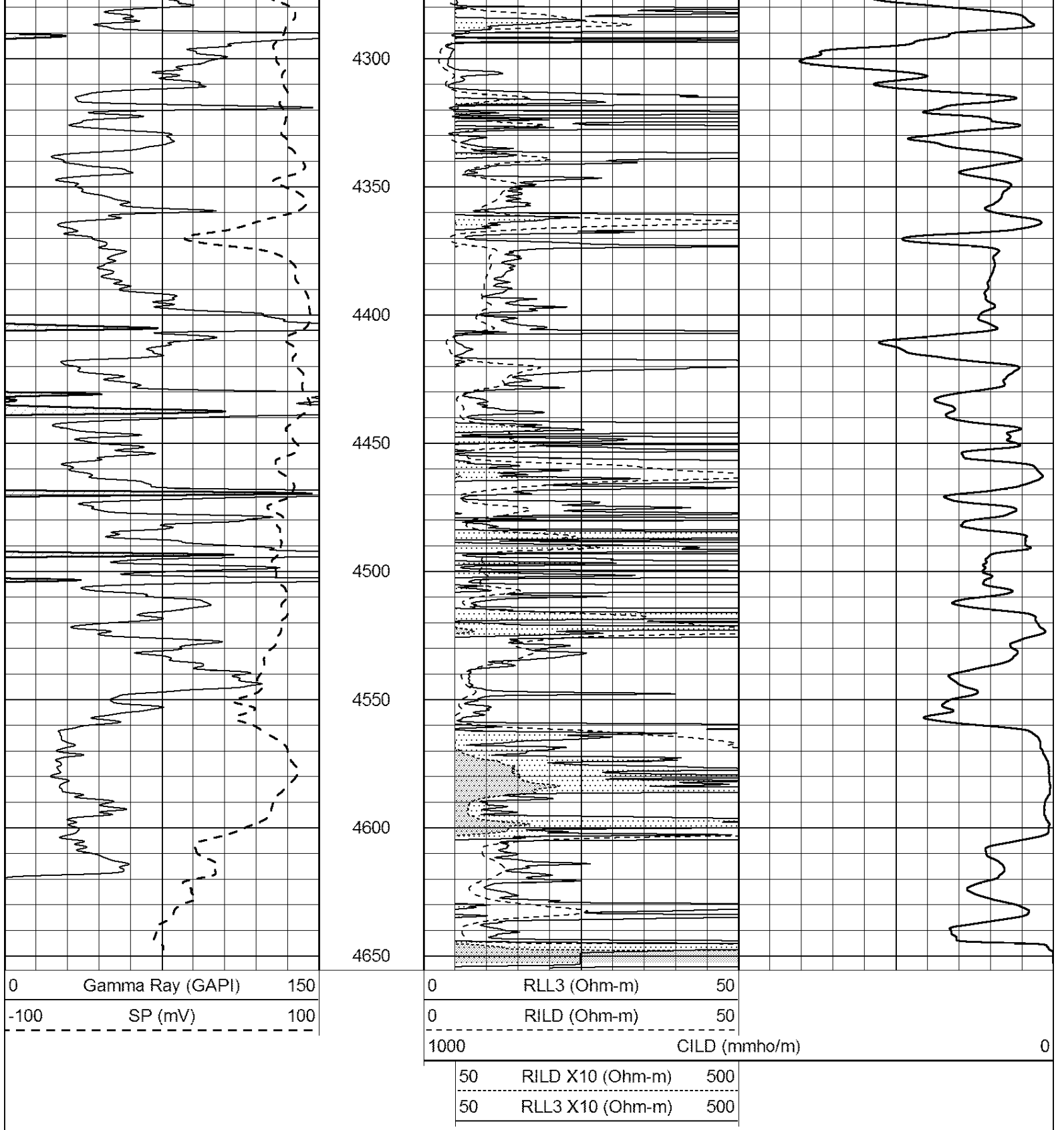
4100

4150

4200

4250



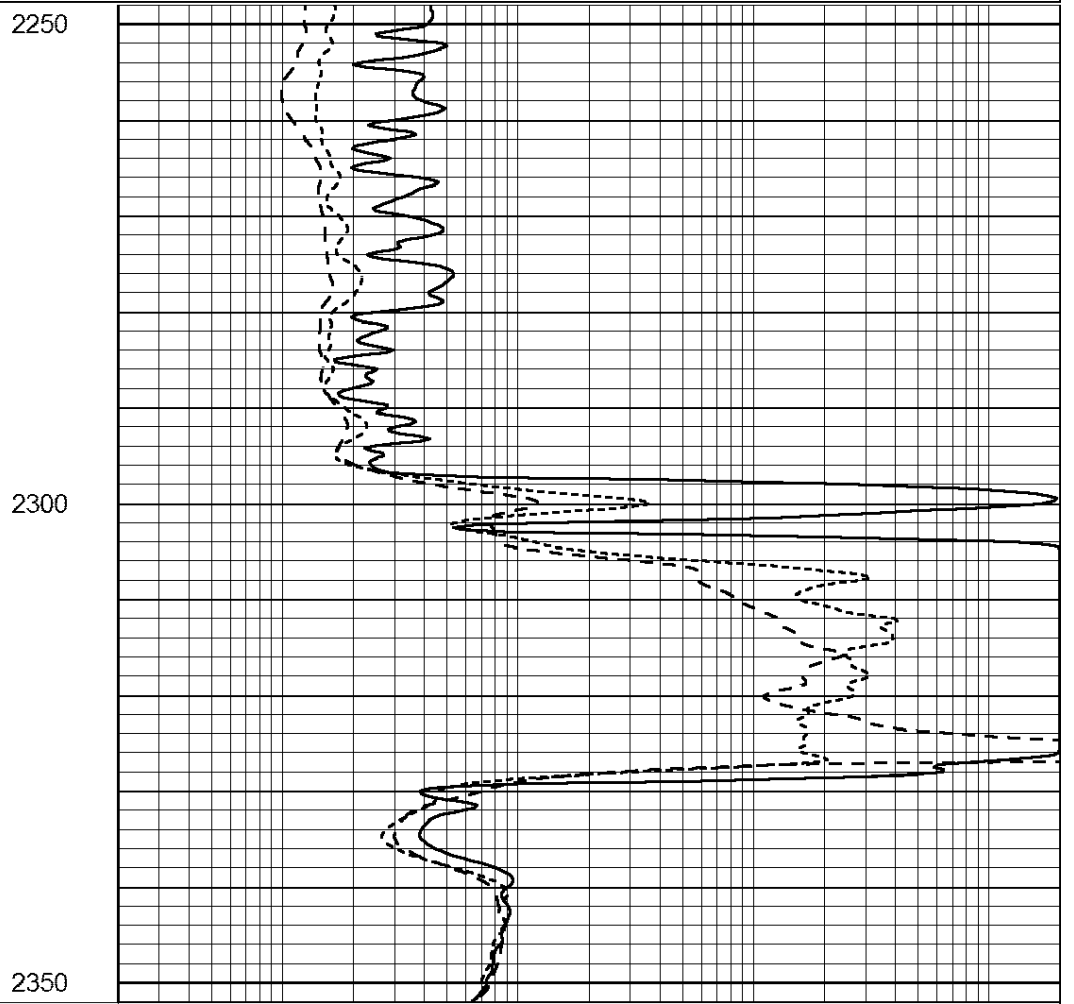
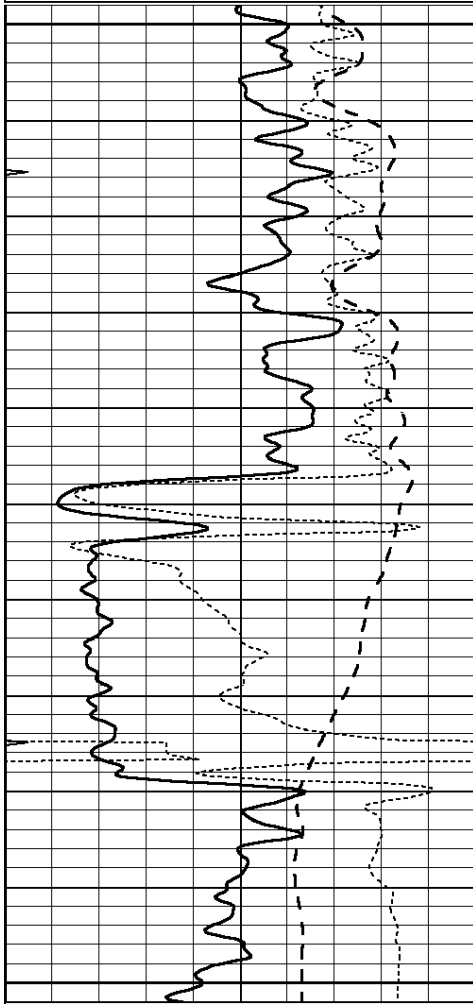


# ANHYDRITE

Database File: 010854ddn.db  
 Dataset Pathname: pass3.5  
 Presentation Format: \_dil  
 Dataset Creation: Wed Mar 06 18:26:04 2013 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	MINMK	20

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



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

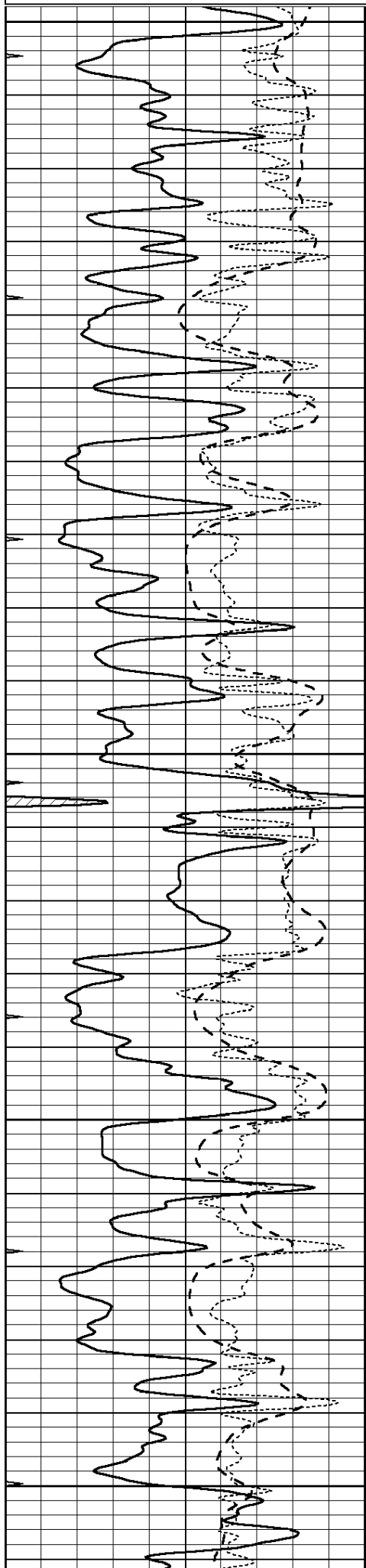


# MAIN SECTION

Database File: 010854ddn.db  
 Dataset Pathname: pass3.4  
 Presentation Format: \_dil  
 Dataset Creation: Wed Mar 06 18:10:20 2013 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	MINMK	20

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



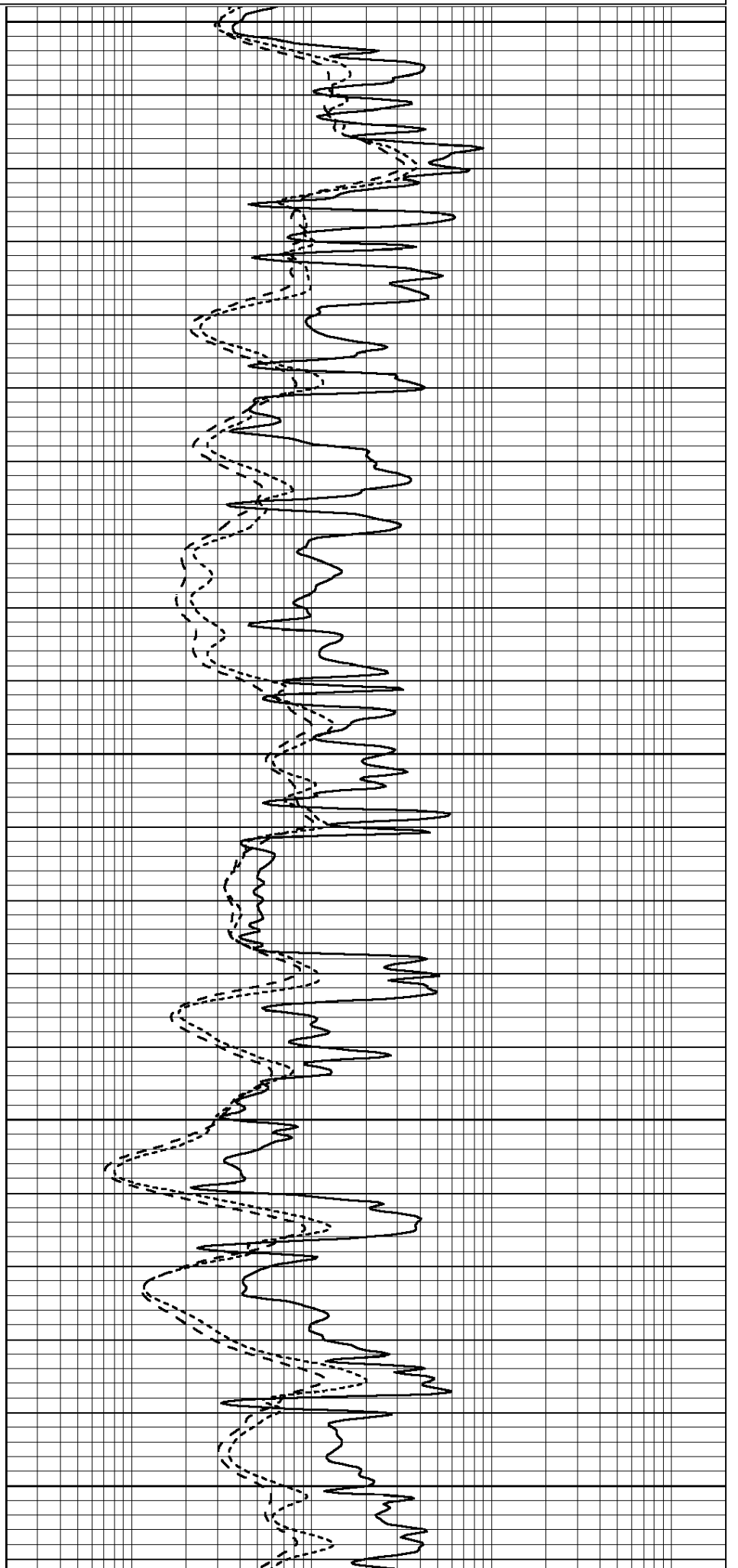
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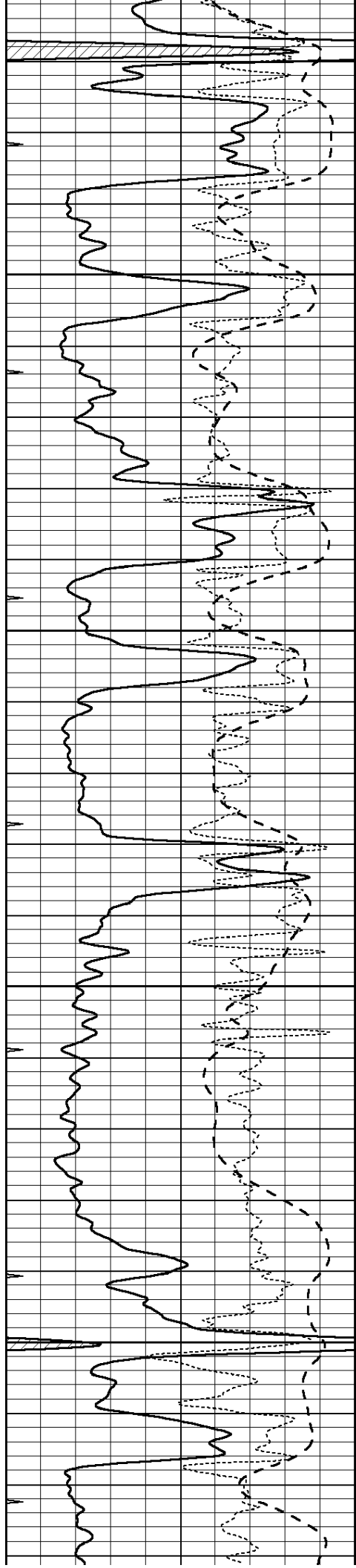
3750

3800

3850

3900



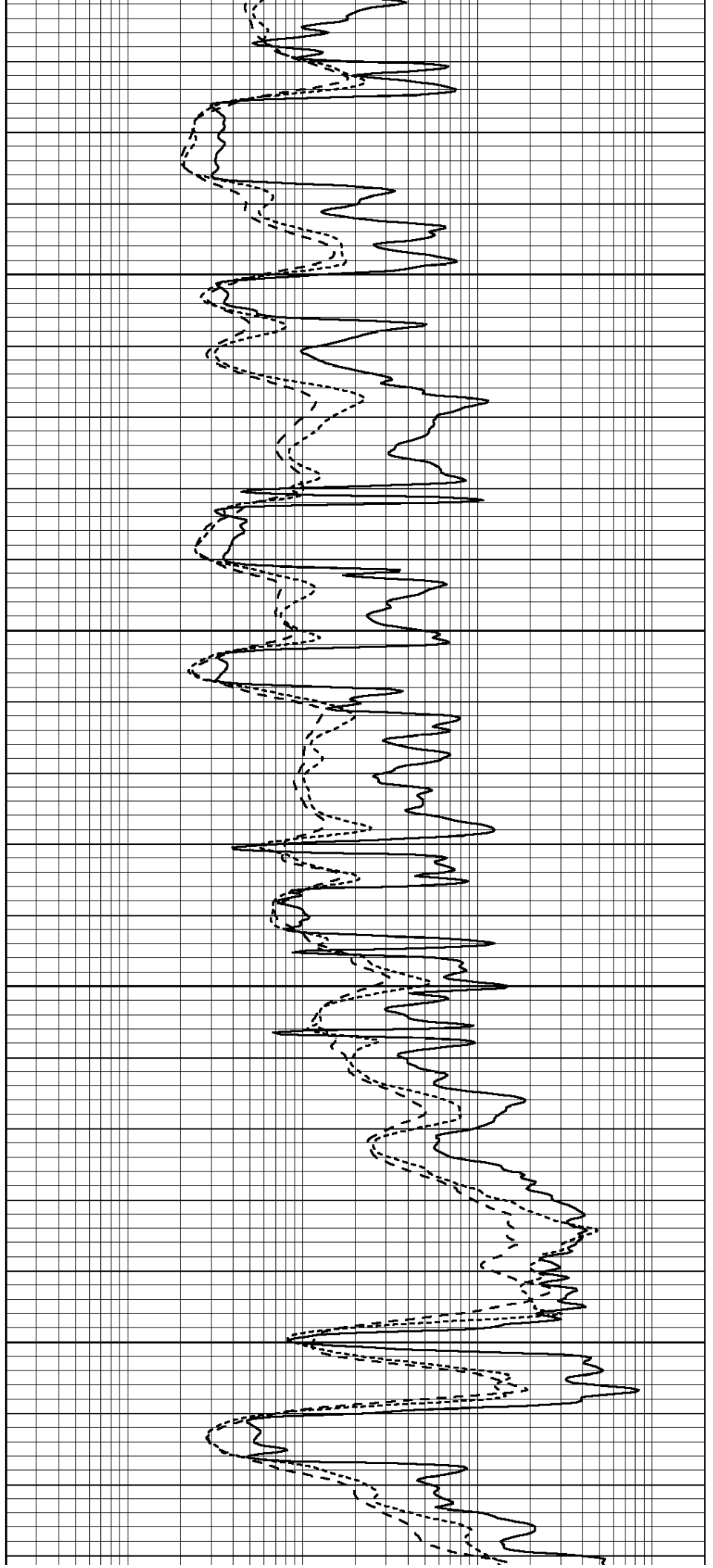


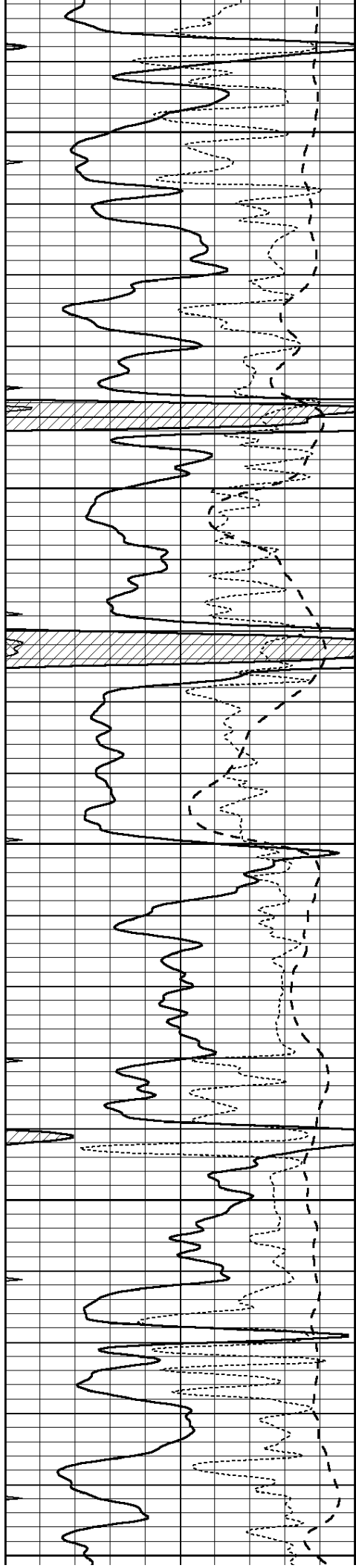
3950

4000

4050

4100





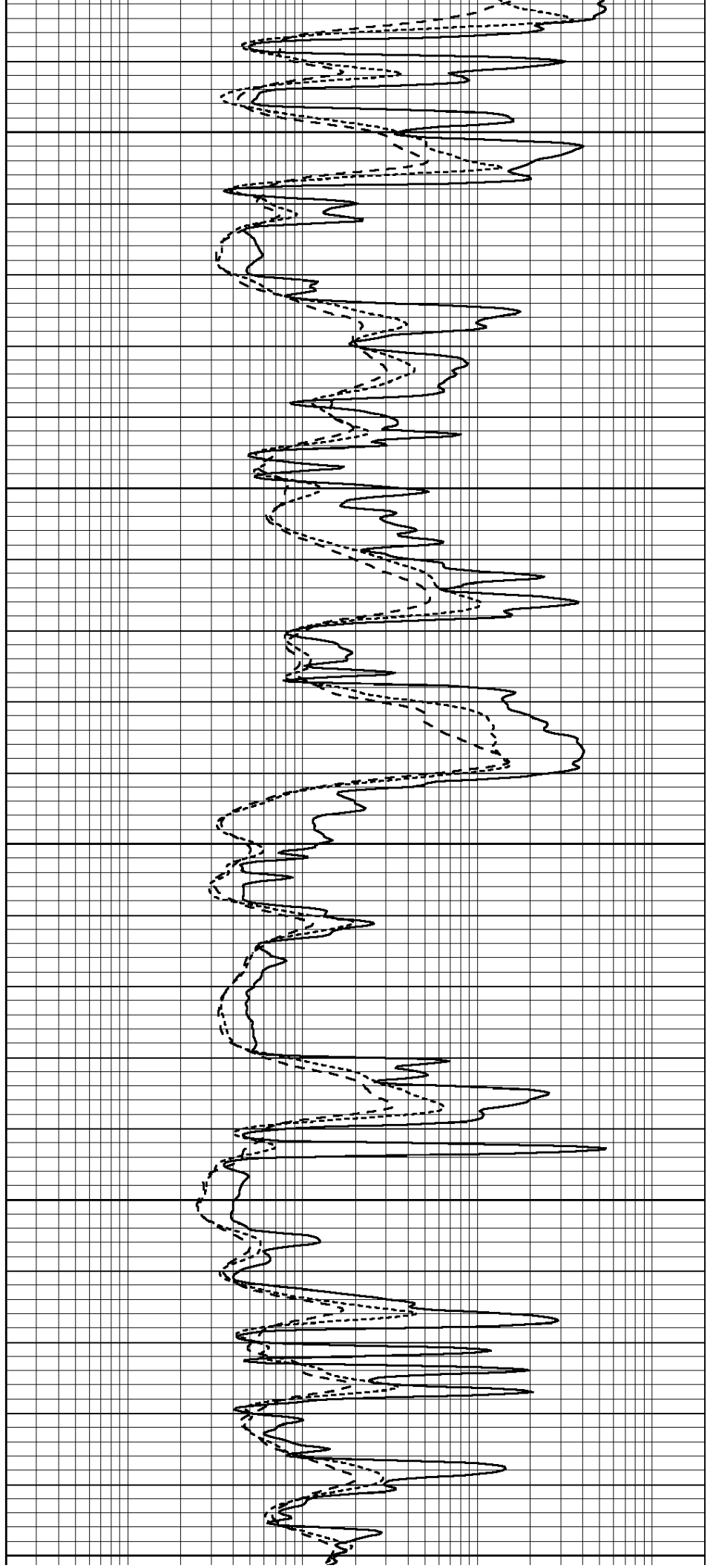
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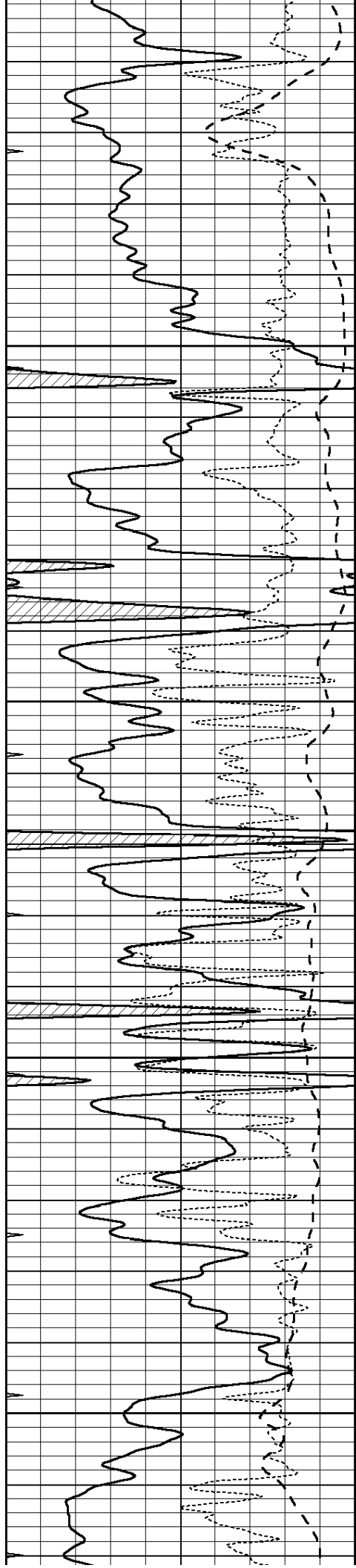
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4250

4300

4350



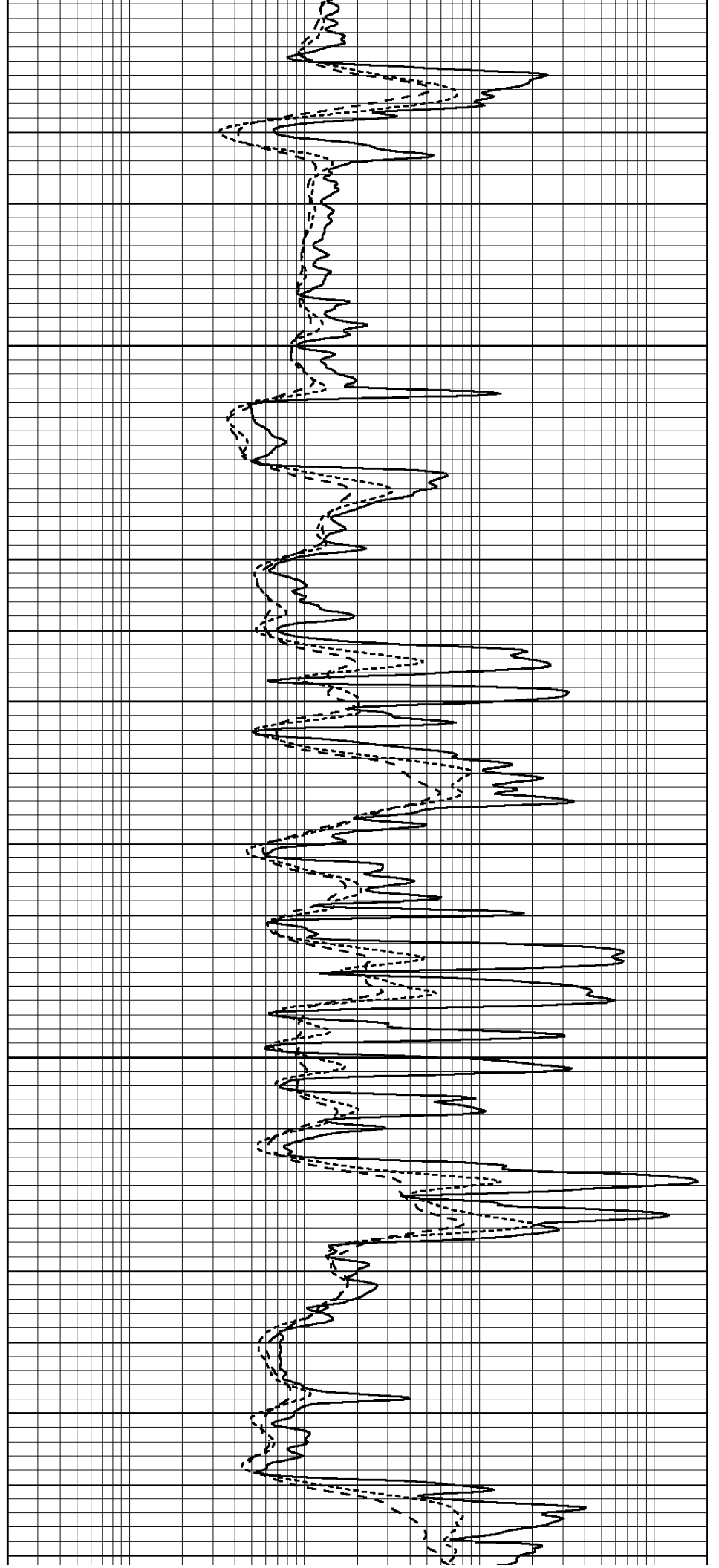


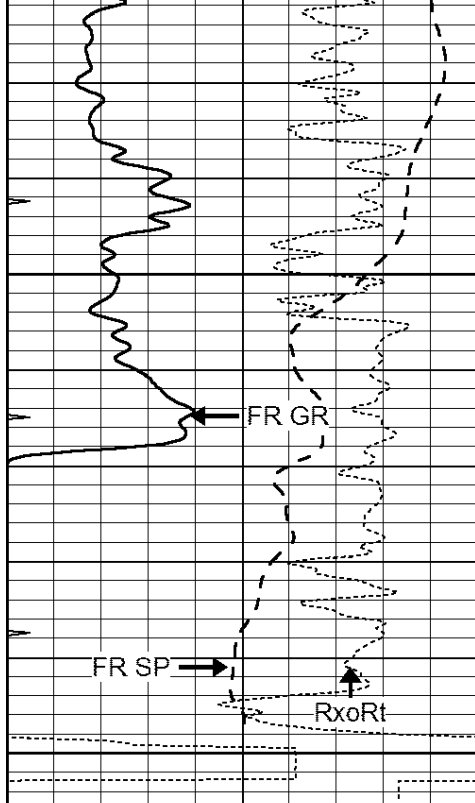
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4450

4500

4550

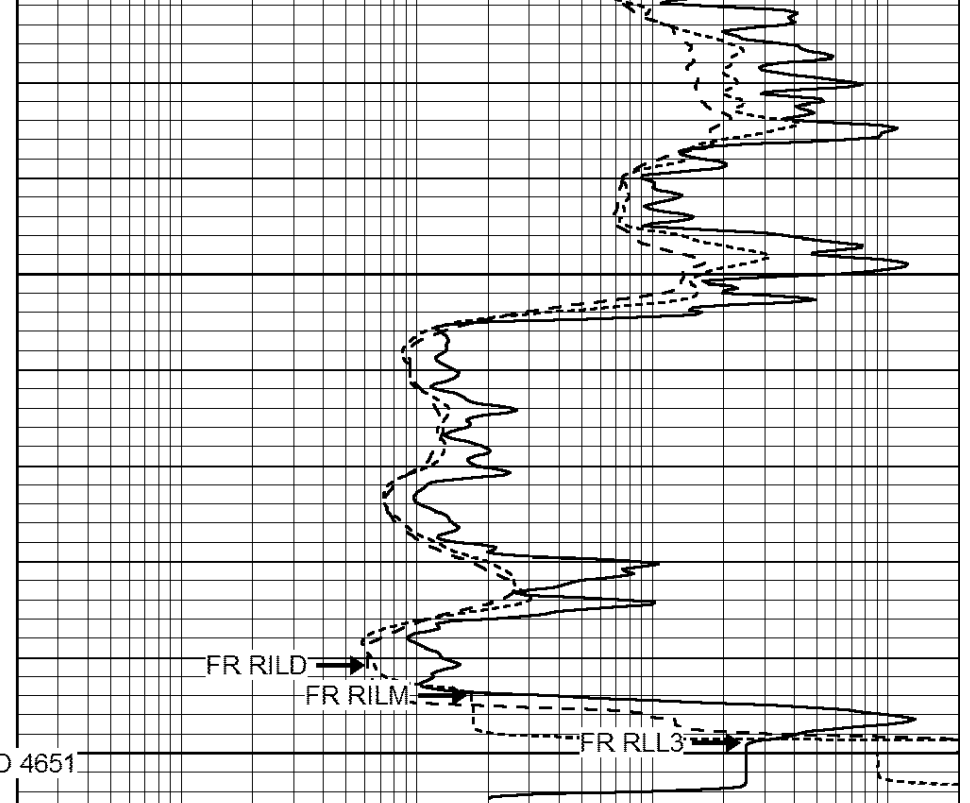




0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

4600

4650 LTD 4651



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



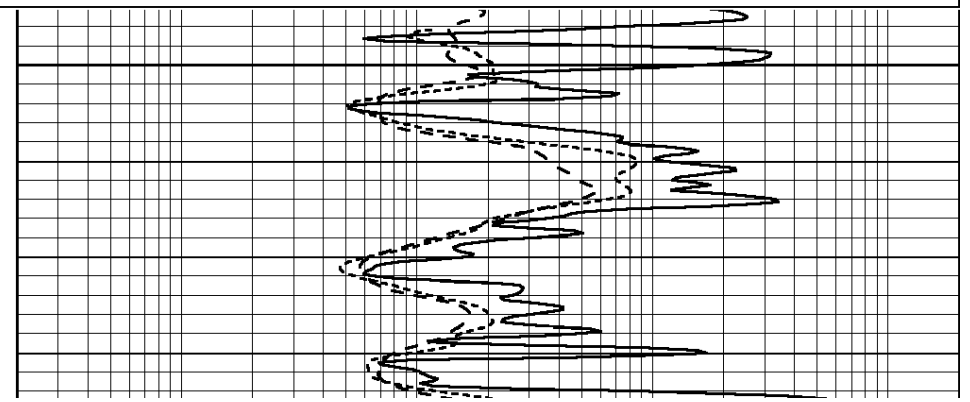
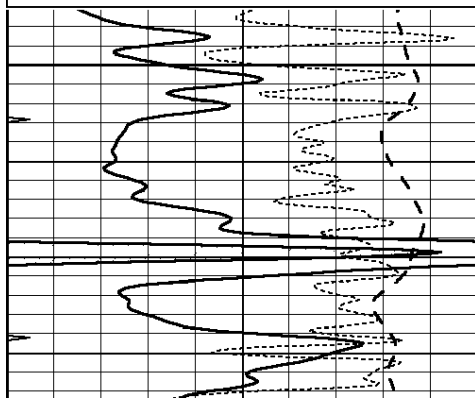
# REPEAT SECTION

Database File: 010854ddn.db  
 Dataset Pathname: pass2.2  
 Presentation Format: \_dil  
 Dataset Creation: Wed Mar 06 18:21:52 2013 by Calc Open-Cased 090629  
 Charted by: Depth in Feet scaled 1:240

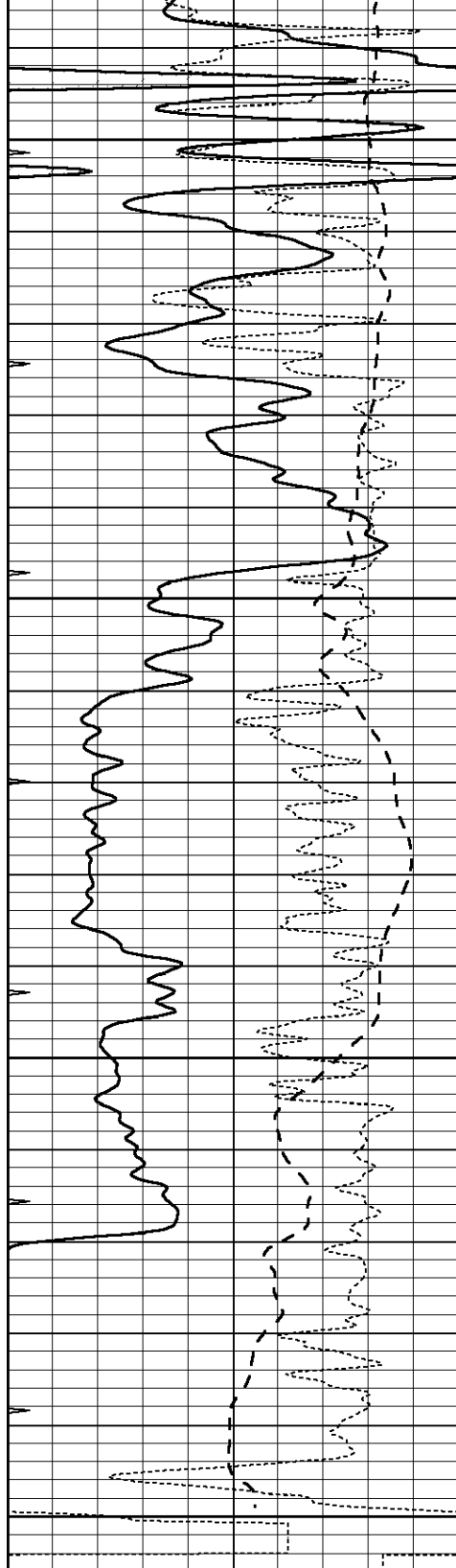
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

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

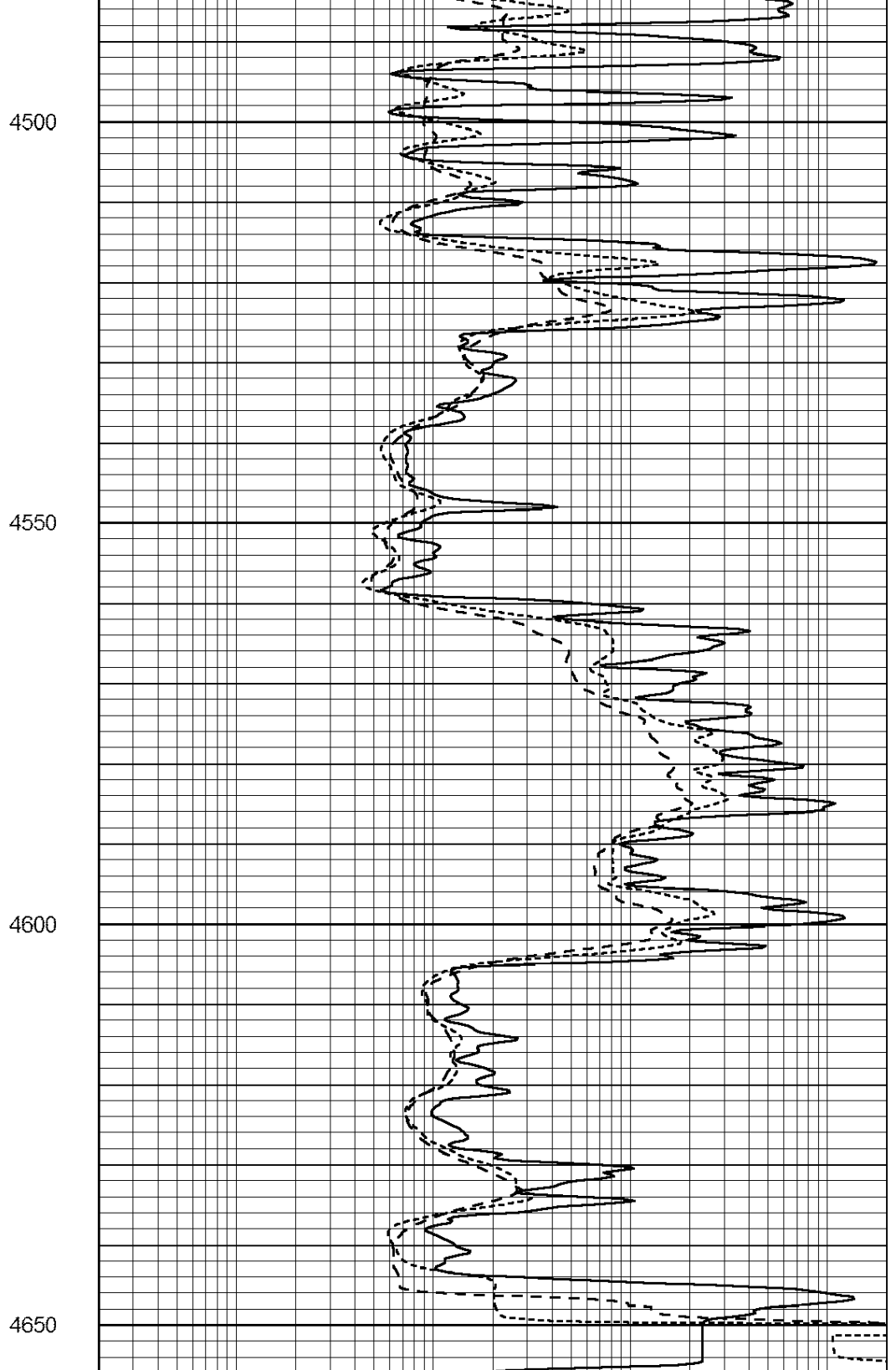
4450







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

Calibration Report

Database File: 010854ddn.db  
 Dataset Pathname: pass2.2  
 Dataset Creation: Wed Mar 06 18:21:52 2013 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model:	PROBE8-DILG
Surface Cal Performed:	Fri Aug 01 06:33:19 2008
Downhole Cal Performed:	Mon Jul 28 11:08:27 2008
After Survey Verification Performed:	Mon Jul 28 11:08:27 2008

Surface Calibration

Readings			References				Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	632.616	-9.730
Medium	0.029	0.796	V	0.000	464.000	mmho/m	605.049	-17.680
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.017	0.657	V	0.000	400.000	mmho/m	625.153	-10.619
Medium	0.016	0.757	V	0.000	464.000	mmho/m	625.992	-9.739

Downhole Calibration

Readings			References				Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	2.011	405.777	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	7.590	503.393	mmho/m	1.000	0.000
LL3		7.500	V		1500.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		3800.000	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:	GEAR3-GEARHART
Source / Verifier:	143 / 143
Master Calibration Performed:	Fri Jan 04 15:48:16 2013
Before Survey Verification Performed:	
After Survey Verification Performed:	

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	935.36	501.55	cps
Aluminum	2.580	g/cc	209.32	357.01	cps
	Spine Angle = 77.21		Density/Spine Ratio = 0.567		
	Size		Reading		
Small Ring	8.00	in	4.29	V	
Large Ring	14.00	in	6.24	V	

Before Survey Verification

	Target		Measured	
		g/cc		g/cc
		a/cc		a/cc

g/cc	g/cc
After Survey Verification	
<u>Target</u>	<u>Measured</u>
g/cc g/cc g/cc	g/cc g/cc g/cc
Compensated Neutron Calibration Report	
Serial Number:	61
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	

PRE-SURVEY VERIFICATION						
Detector	Readings		Measured		Target	
1) Short Space	cps		pu		pu	
Long Space	cps		pu		pu	
2) Short Space	cps		pu		pu	
Long Space	cps		pu		pu	
3) Short Space	cps		pu		pu	
Long Space	cps		pu		pu	

POST-SURVEY VERIFICATION						
Detector	Readings		Measured		Target	
1) Short Space	cps		pu		pu	
Long Space	cps		pu		pu	
2) Short Space	cps		pu		pu	
Long Space	cps		pu		pu	
3) Short Space	cps		pu		pu	
Long Space	cps		pu		pu	

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				