



NABORS

**COMPLETION
& PRODUCTION
SERVICES CO.**

DUAL INDUCTION LOG

Company		BLUERIDGE PETROLEUM CORPORATION	
Well	TAMMANY #3-29		
Field	SONADOR		
County	NESS	State	KANSAS
Company		BLUERIDGE PETROLEUM CORPORATION	
Well	TAMMANY #3-29		
Field	SONADOR		
County	NESS	State	KANSAS
Location:	API # : 15-135-25704-0000		Other Services CDL/CNL MEL
Permanent Datum Log Measured From Drilling Measured From		1234' FSL & 1756' FEL NW - NE - SW - SE SEC 29 TWP 19S RGE 25W GROUND LEVEL Elevation 2534 KELLY BUSHING 9' A.G.L. KELLY BUSHING Elevation K.B. 2543 D.F. 2541 G.L. 2534	
Date	12/10/13		
Run Number	ONE		
Depth Driller	4649		
Depth Logger	4650		
Bottom Logged Interval	4648		
Top Log Interval	00		
Casing Driller	8 5/8" @ 626'		
Casing Logger	627		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 5400 PPM	
Density / Viscosity	9.3/46		
pH / Fluid Loss	9.0/9.6		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.65 @ 55F		
Rmt @ Meas. Temp	0.49 @ 55F		
Rmc @ Meas. Temp	0.78 @ 55F		
Source of Rmt / Rmc	MEASUREMENT		
Rm @ BHT	.27 @ 129F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	129F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	JASON CAPPELLUCCI		
Witnessed By	JIM MUSGROVE	CLINT 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 NABORS, HAYS, KS. (785) 628-6395
DIRECTIONS:
NESS CITY, KS. - WEST TO LAIRD ELEVATOR - 1/2 WEST TO J. RD. - SOUTH
TO RD. 60 - 1 WEST - 1/2 NORTH - 1/2 WEST TO CURVE - STAY WEST
FOR 1/2 MILE & NORTH & EAST INTO

Database File:

22108ddn.db

Dataset Pathname:

pass3.3

Presentation Format:

_dil2

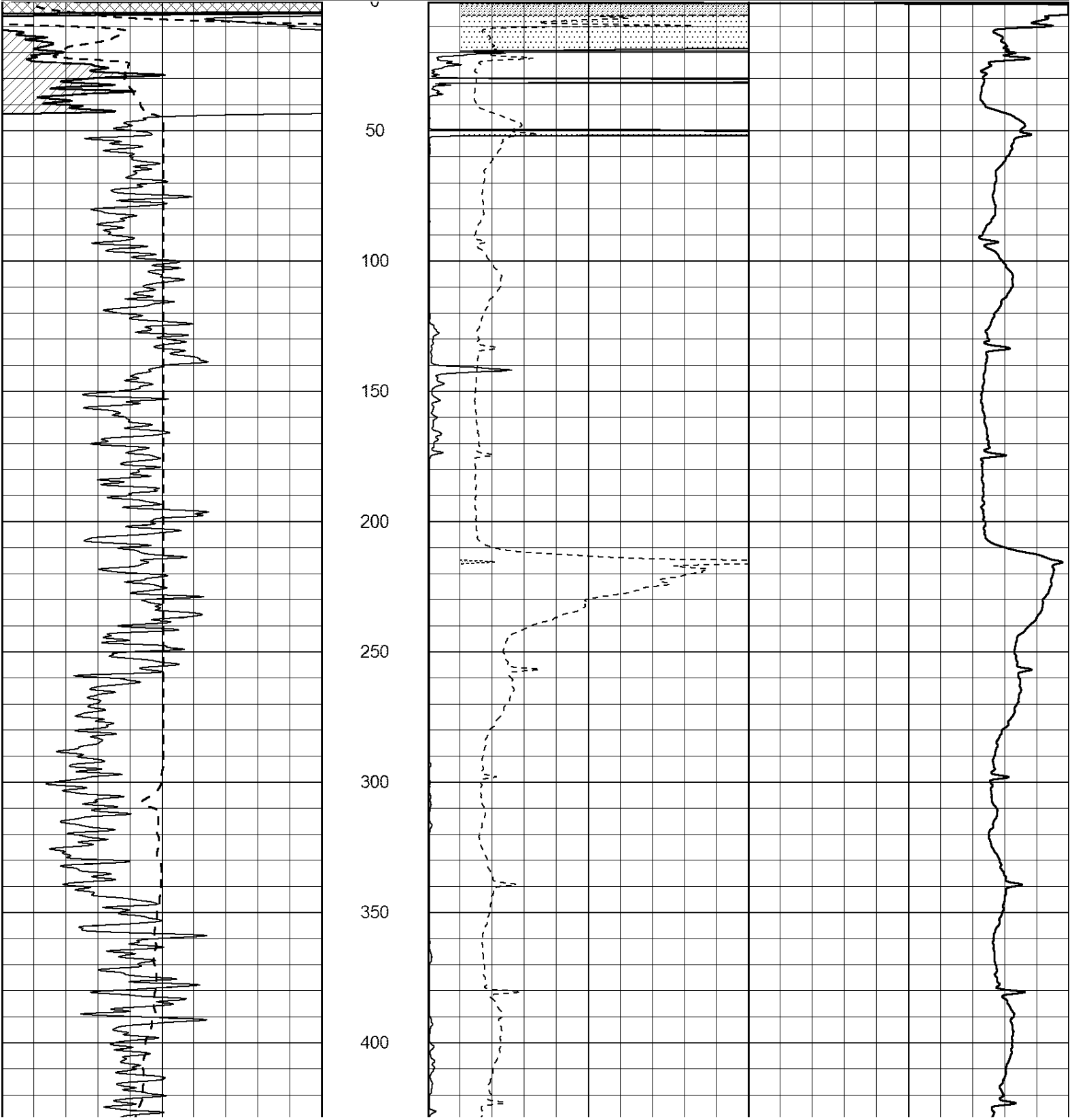
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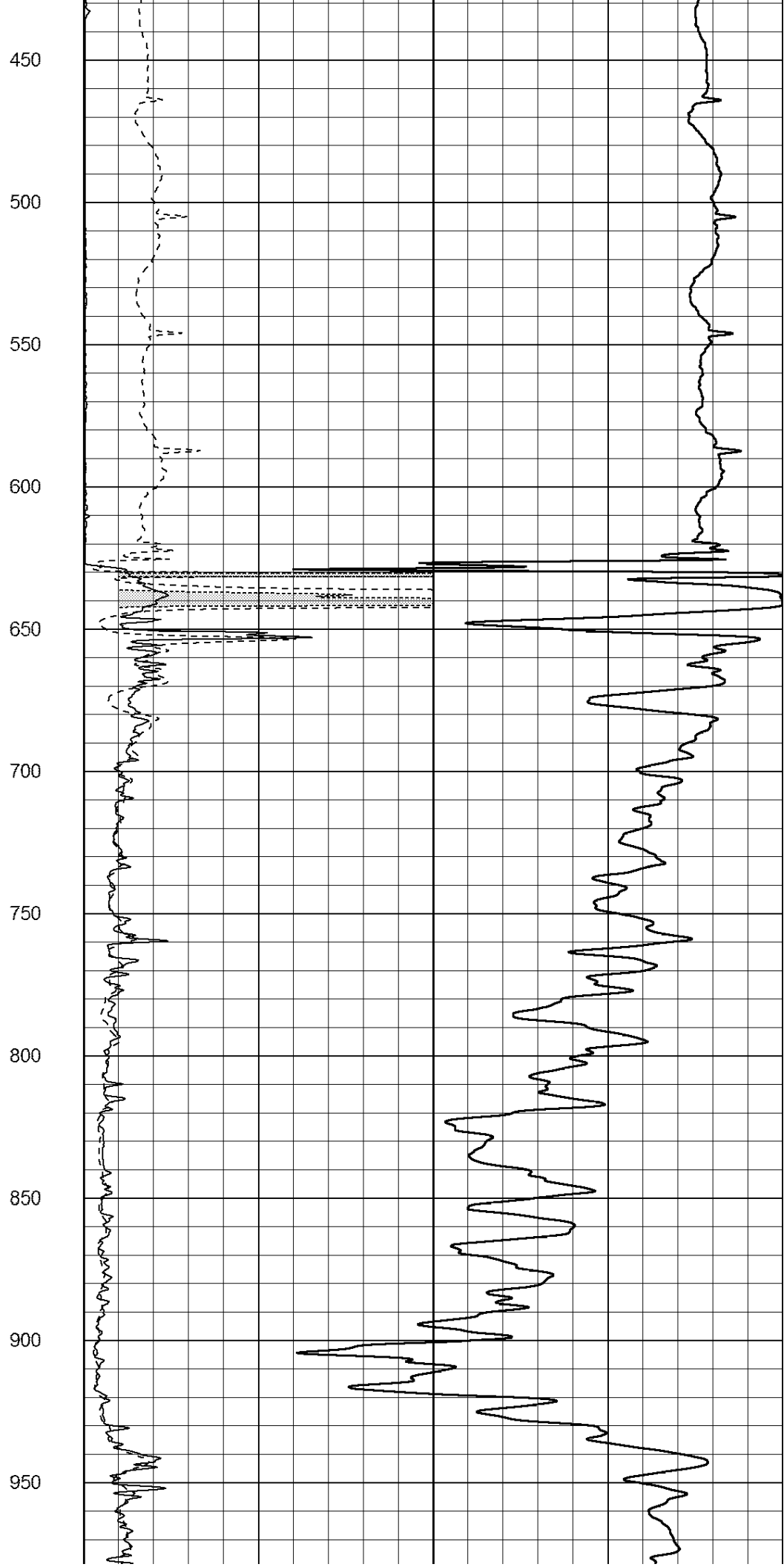
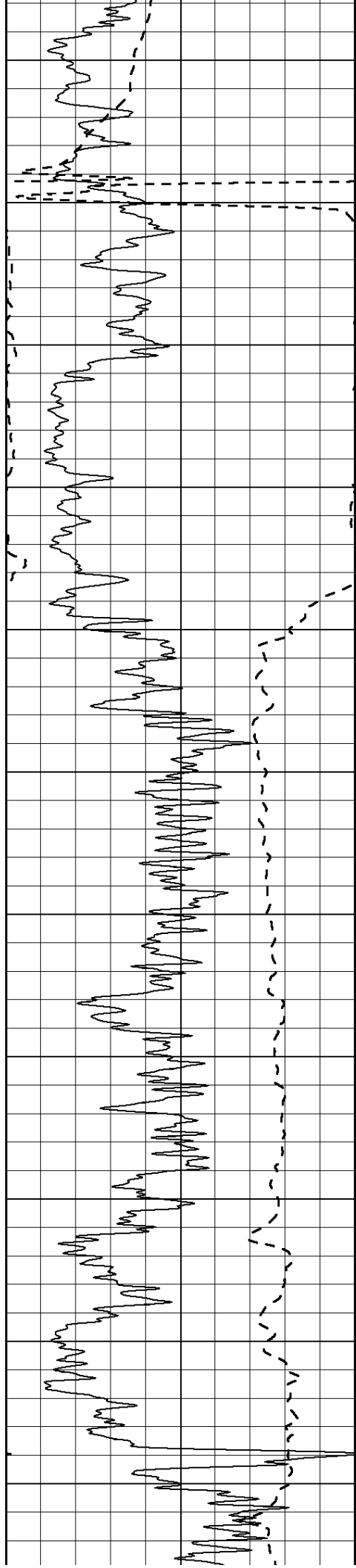
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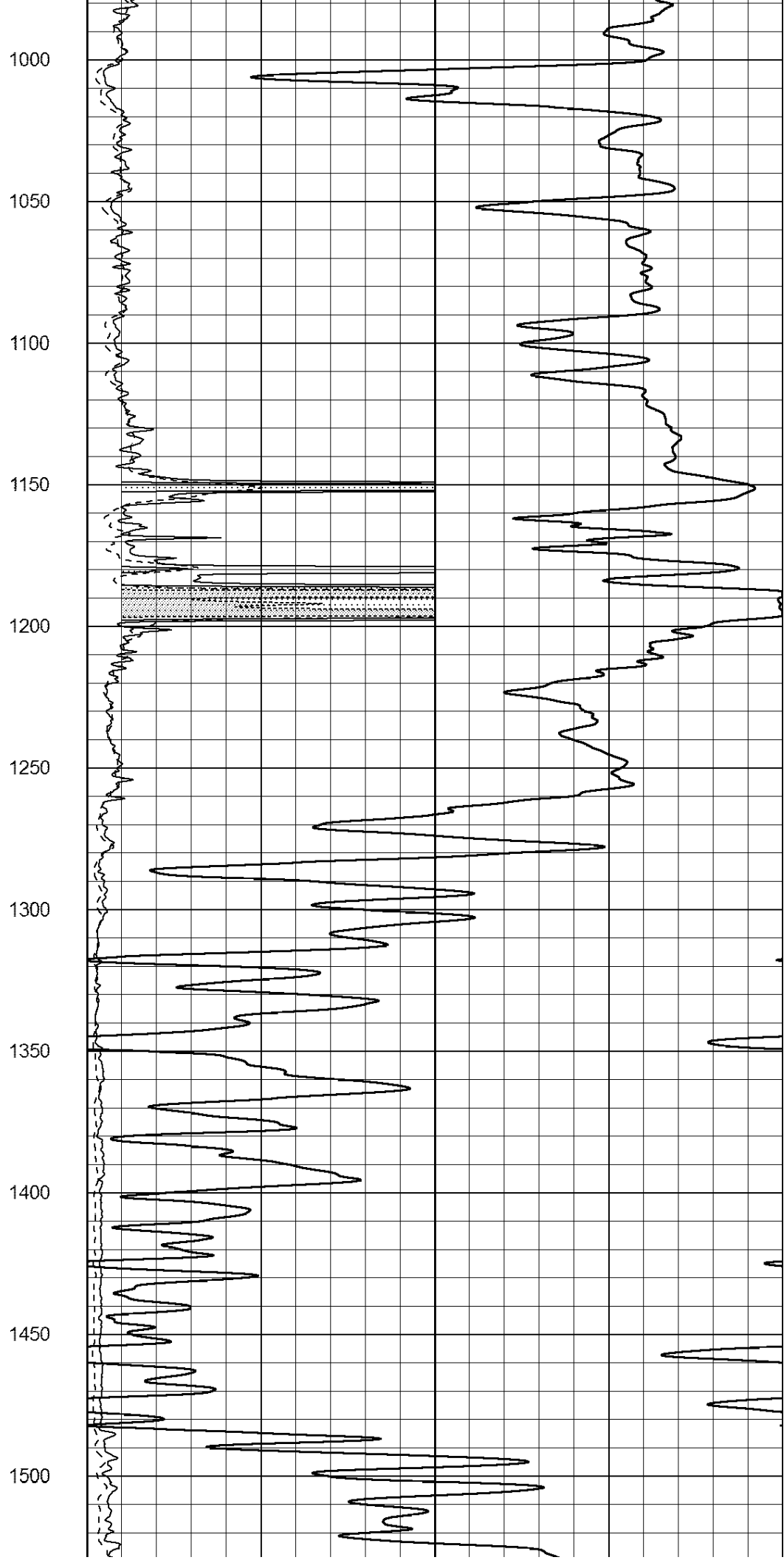
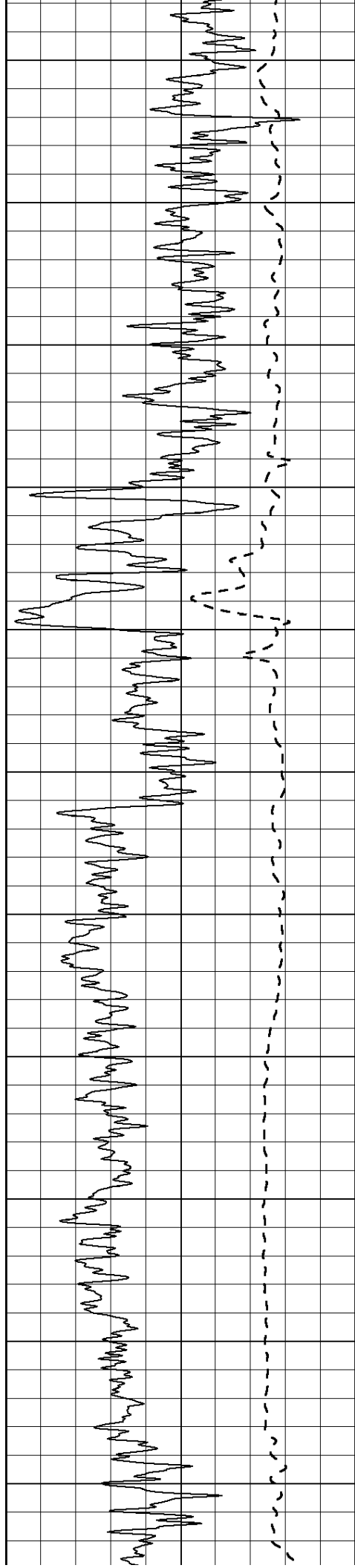
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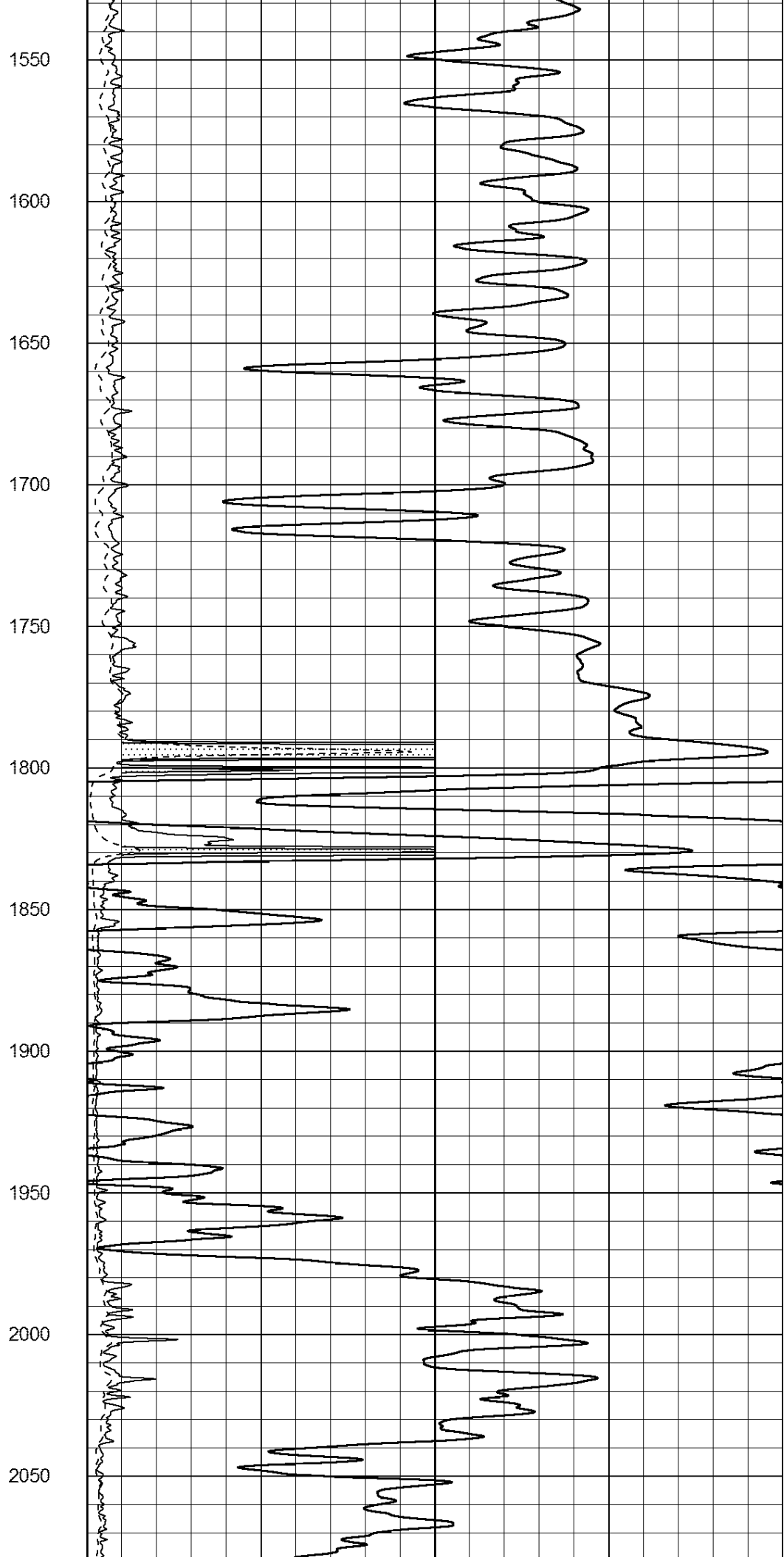
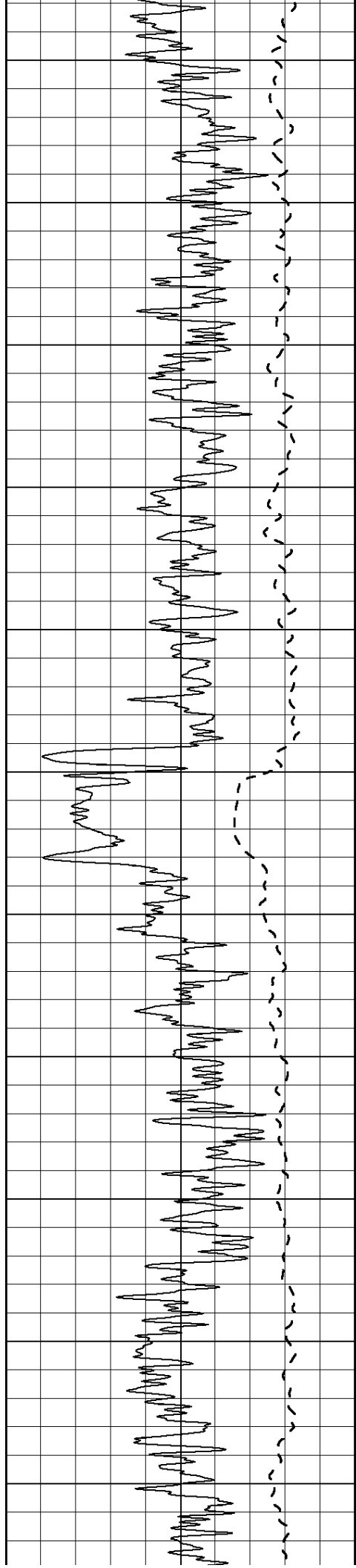
Depth in Feet scaled 1:600

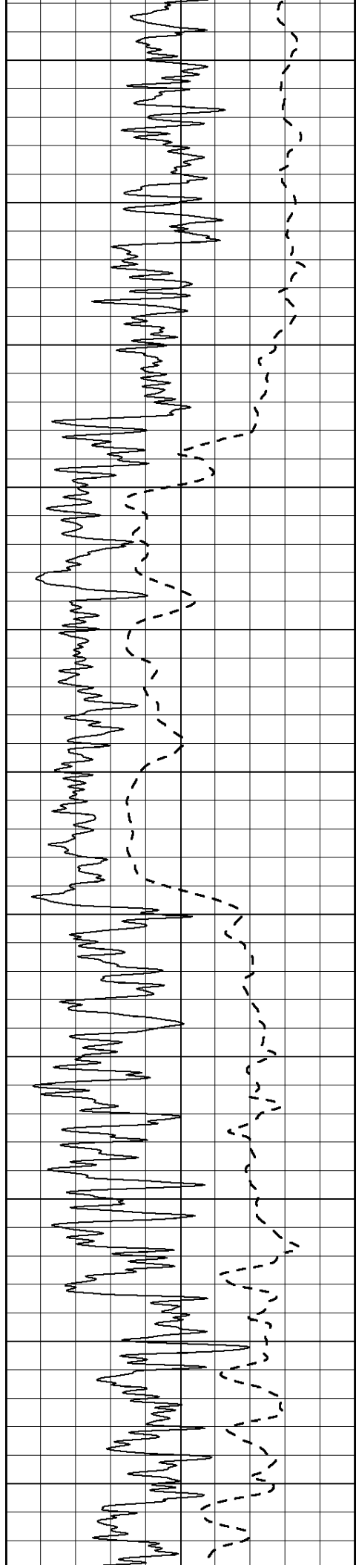
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-100	SP (mV)	100	0	RILD (Ohm-m)	50	
-----			-----			
			1000		CILD (mmho/m)	0
			50	RILD X10 (Ohm-m)	500	
			50	RLL3 X10 (Ohm-m)	500	











2100

2150

2200

2250

2300

2350

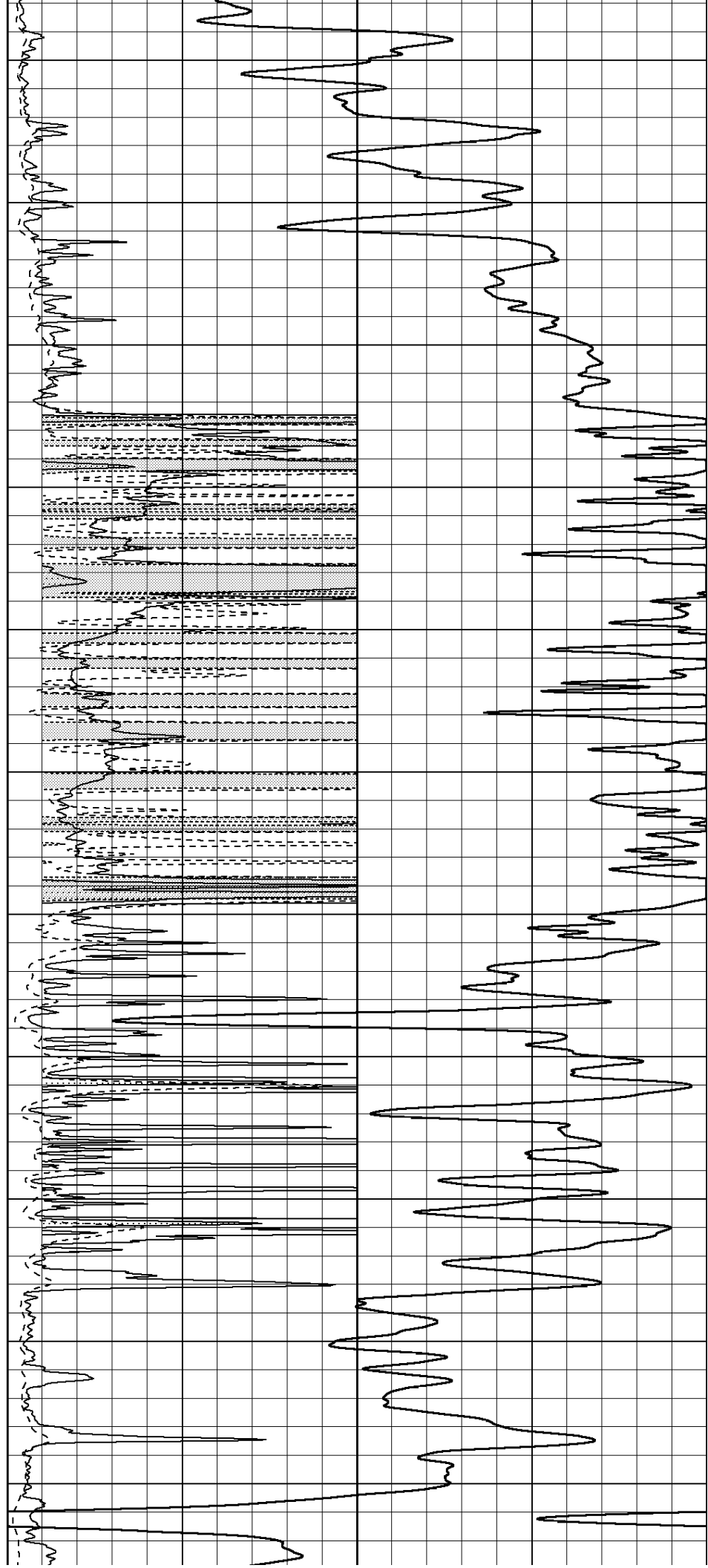
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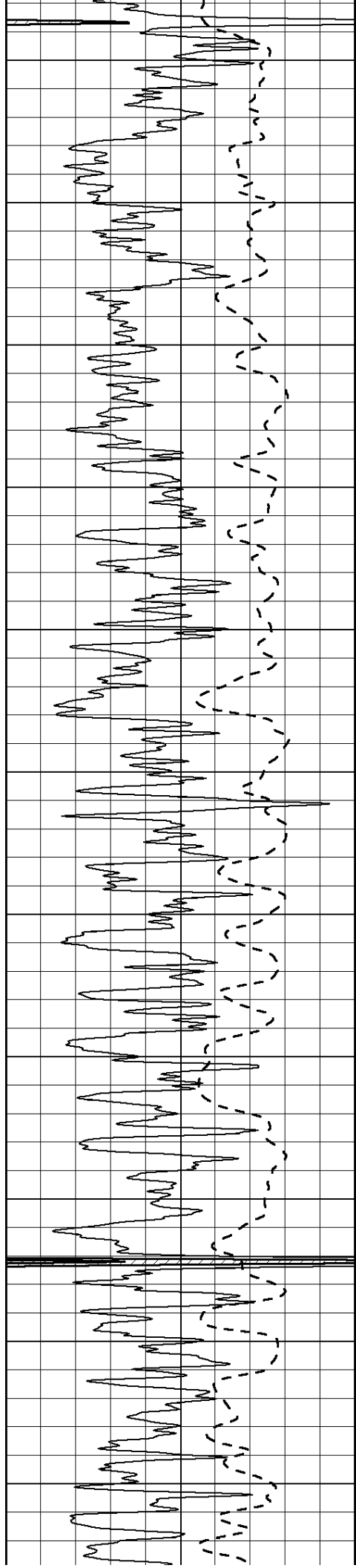
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2500

2550

2600





2650

2700

2750

2800

2850

2900

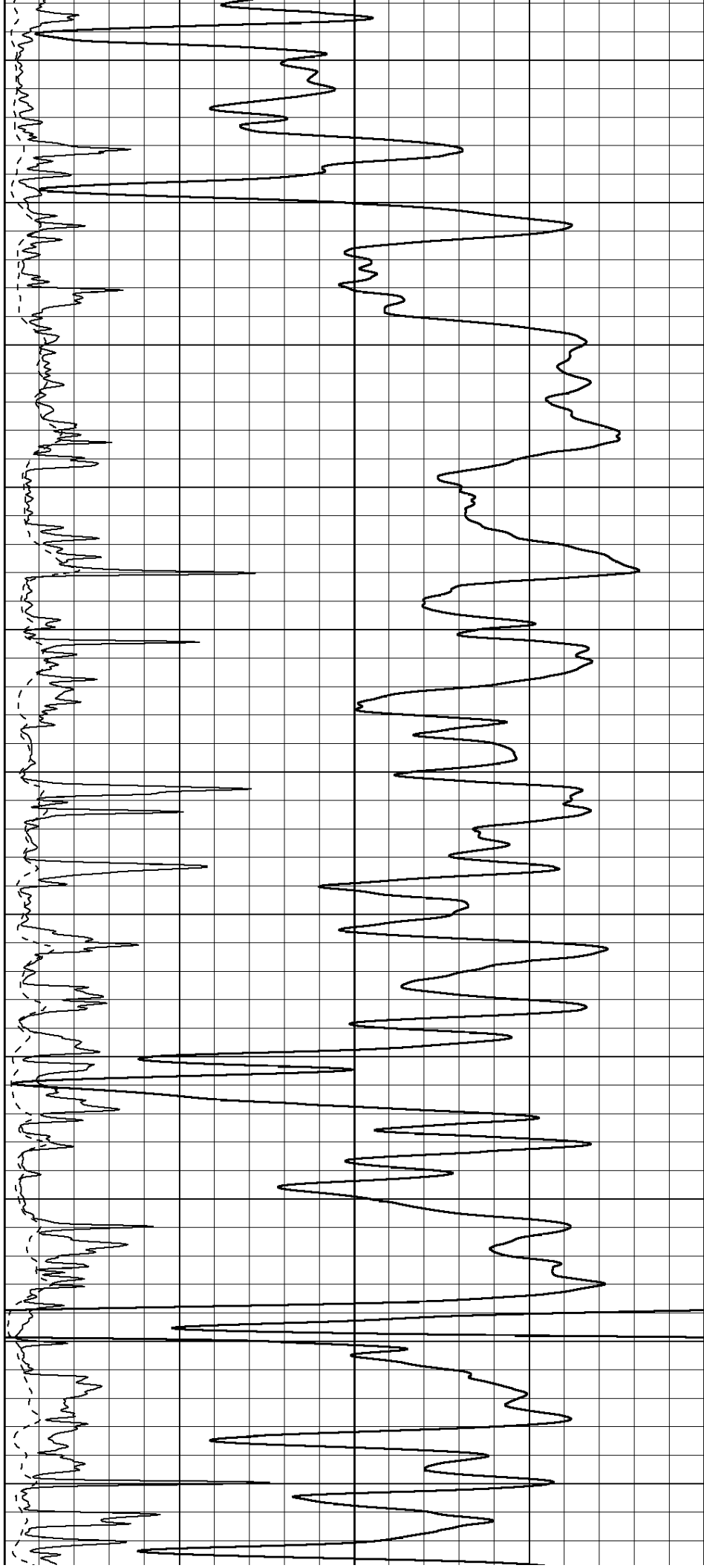
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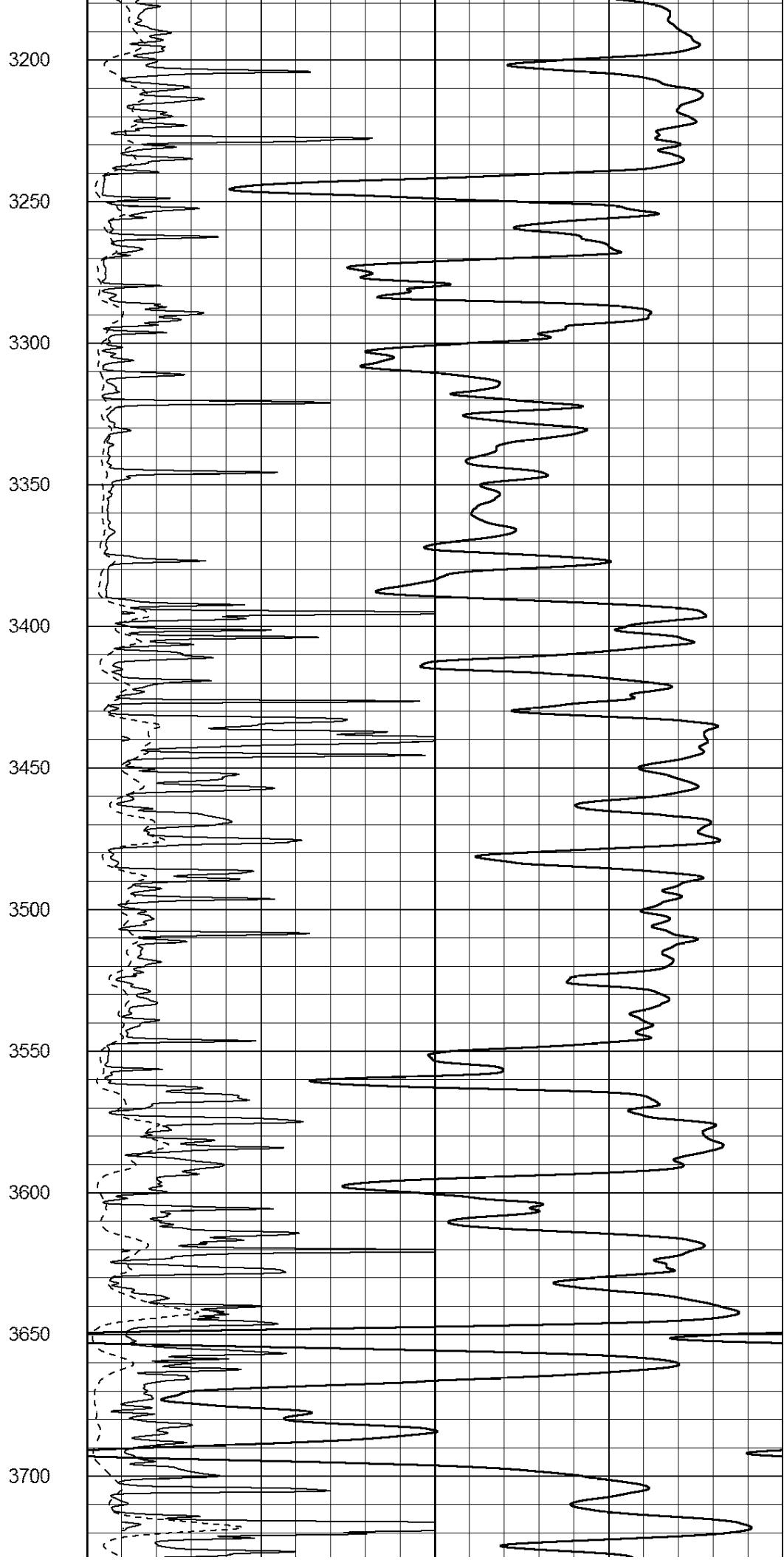
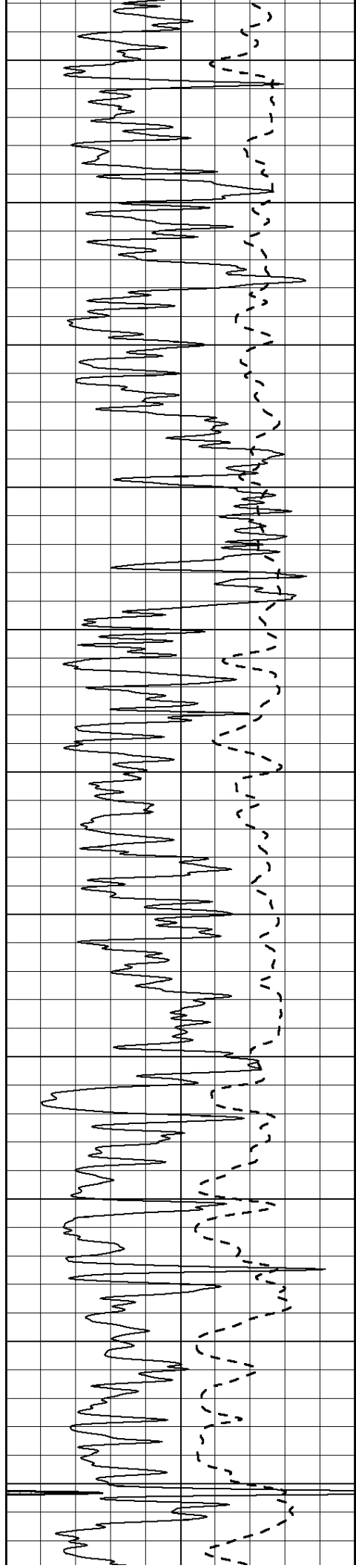
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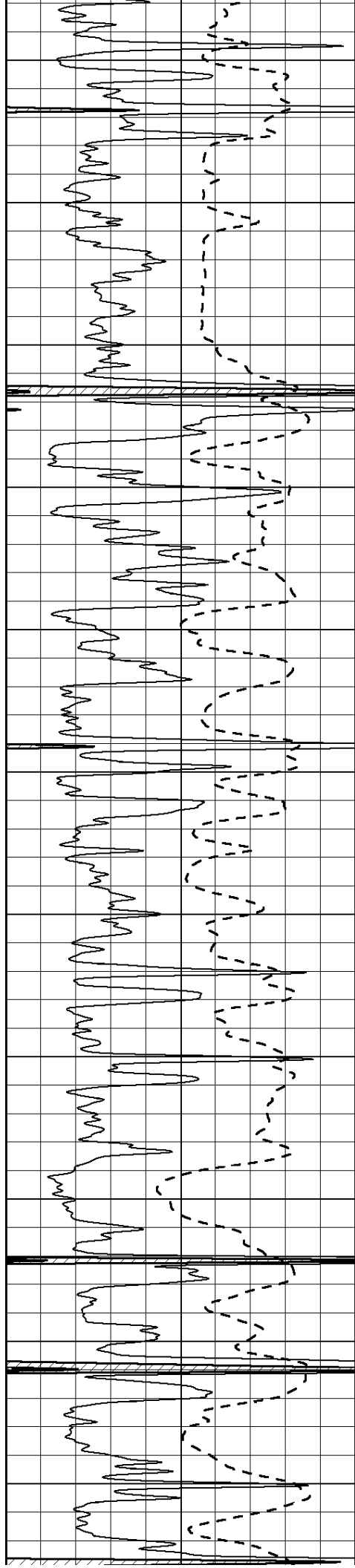
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3100

3150







3750

3800

3850

3900

3950

4000

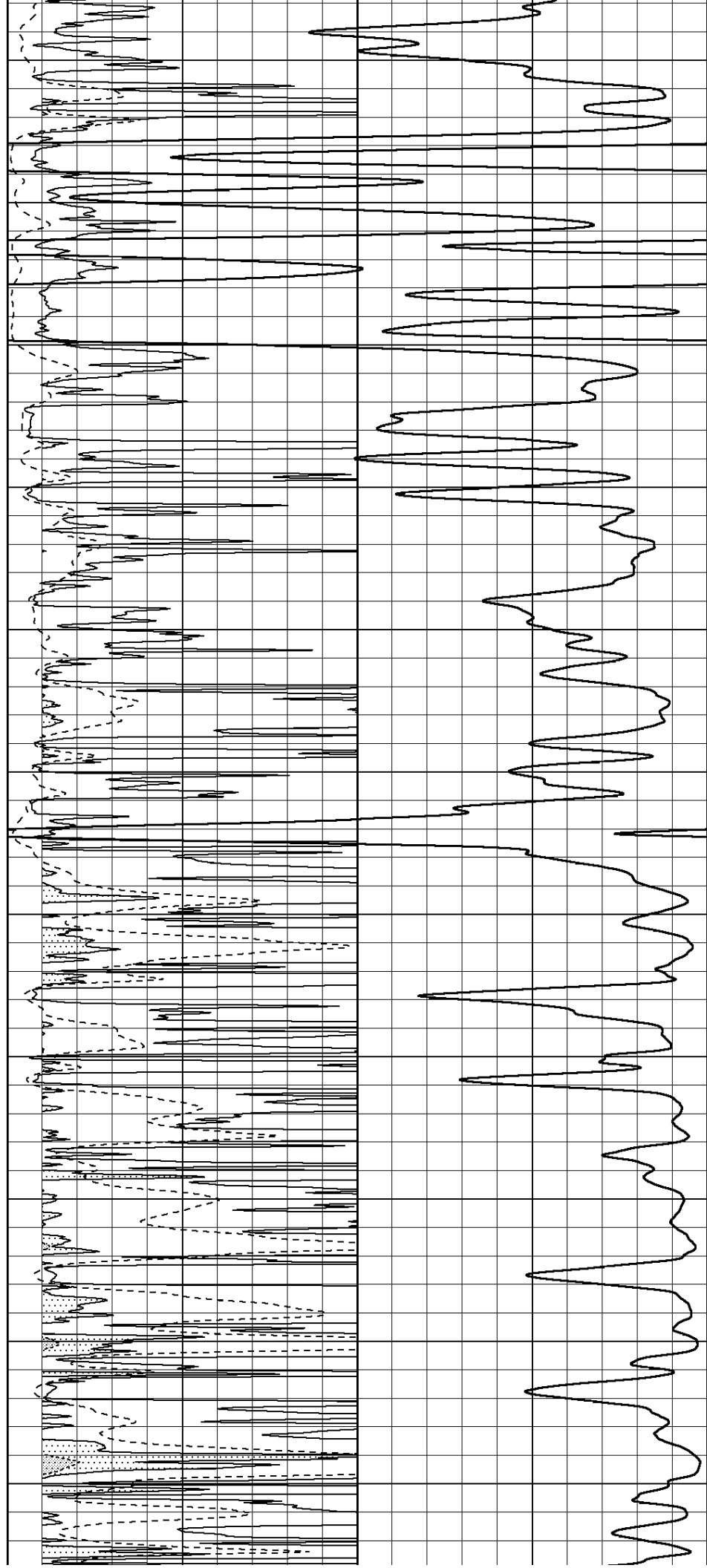
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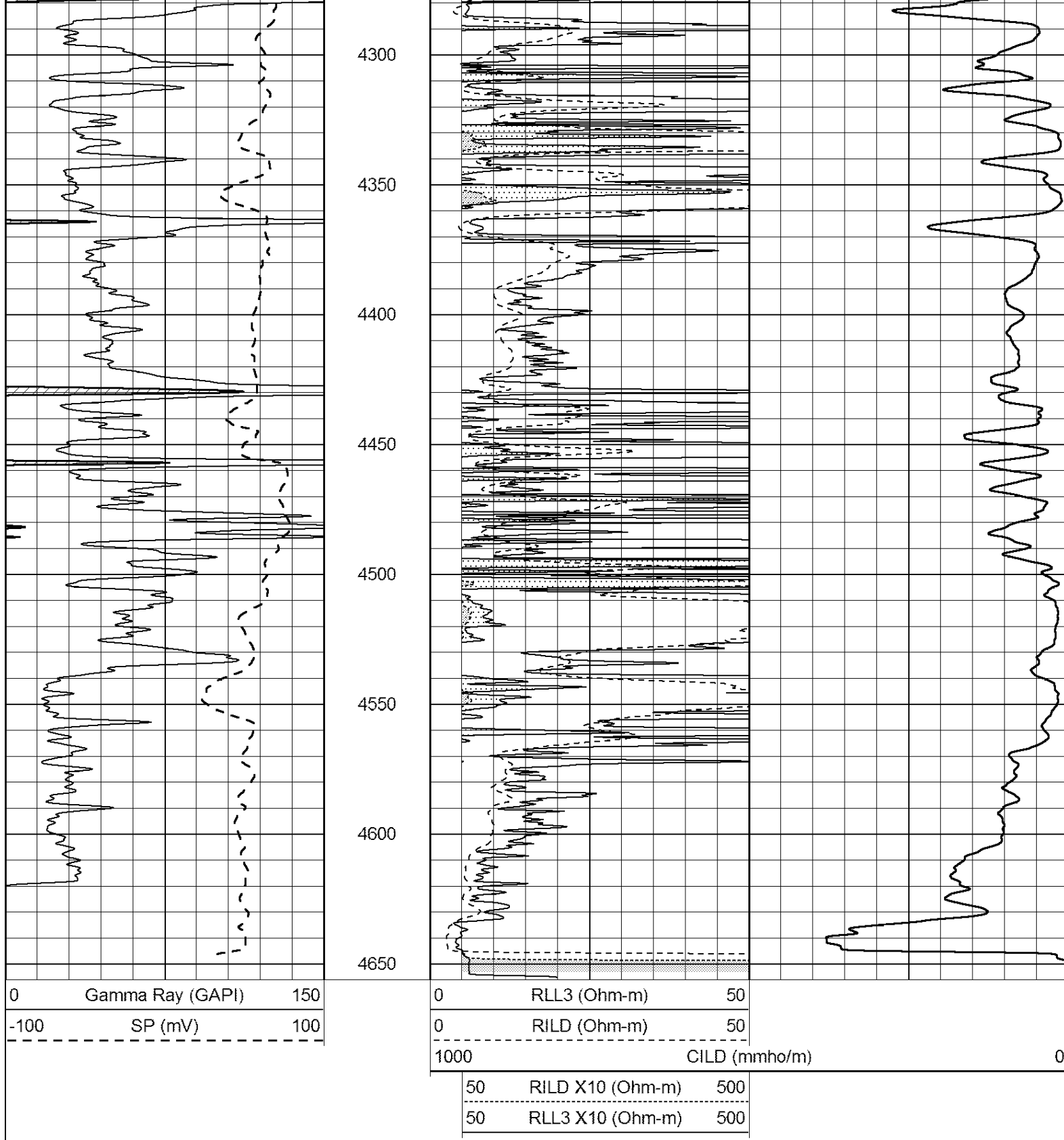
4100

4150

4200

4250





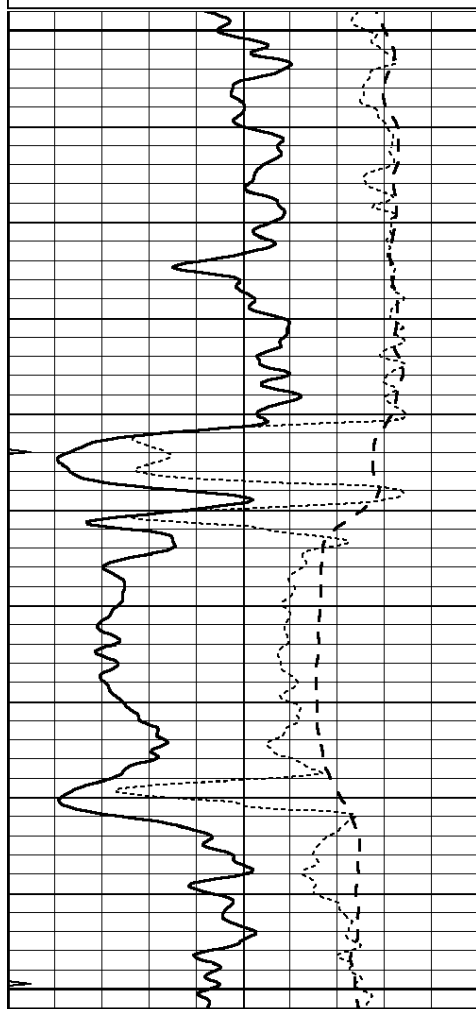
NABORS

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ANHYDRITE

Database File: 22108ddn.db
 Dataset Pathname: pass3.2
 Presentation Format: _dil
 Dataset Creation: Tue Dec 10 21:03:35 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



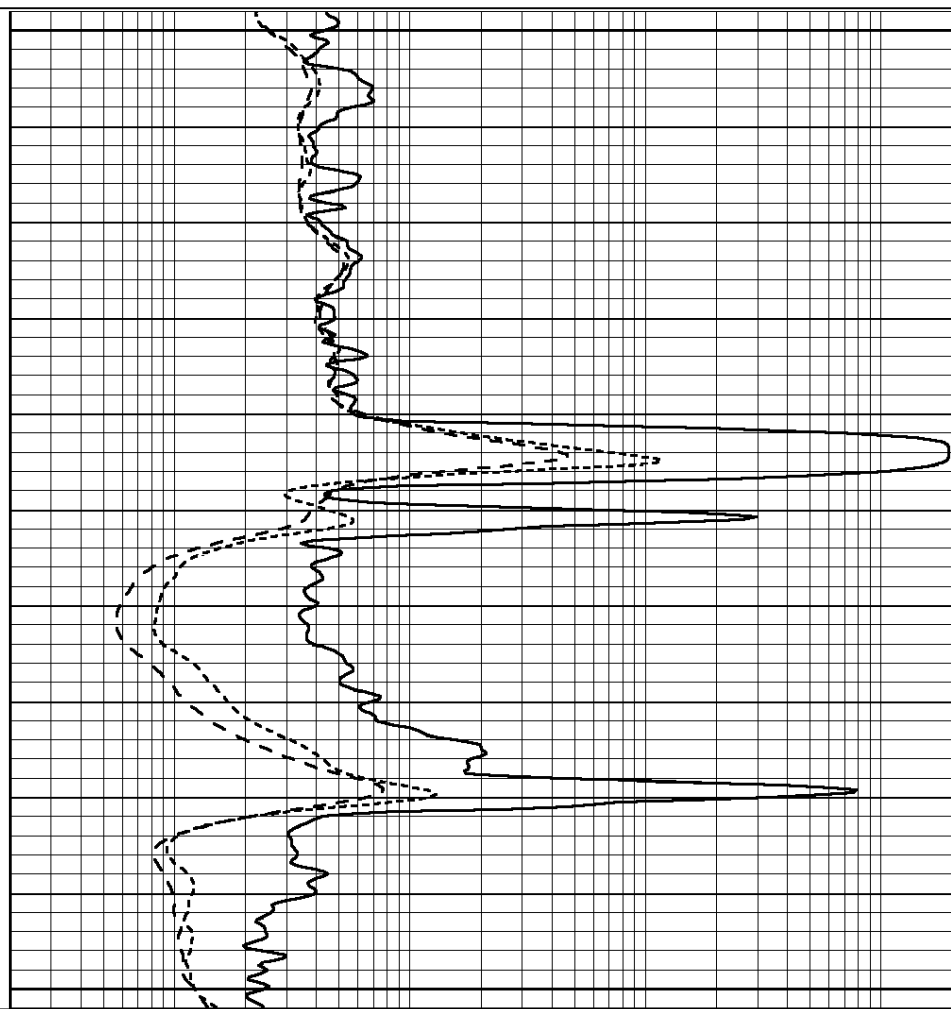
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

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

1750

1800

1850



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

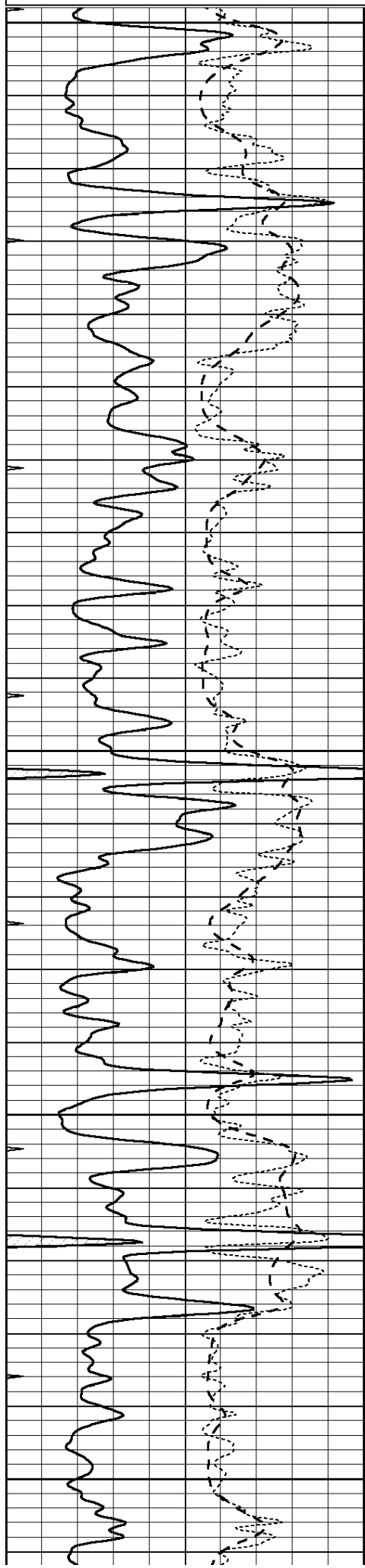


MAIN SECTION

Database File: 22108ddn.db
 Dataset Pathname: pass3.1
 Presentation Format: _dil
 Dataset Creation: Tue Dec 10 21:01:50 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



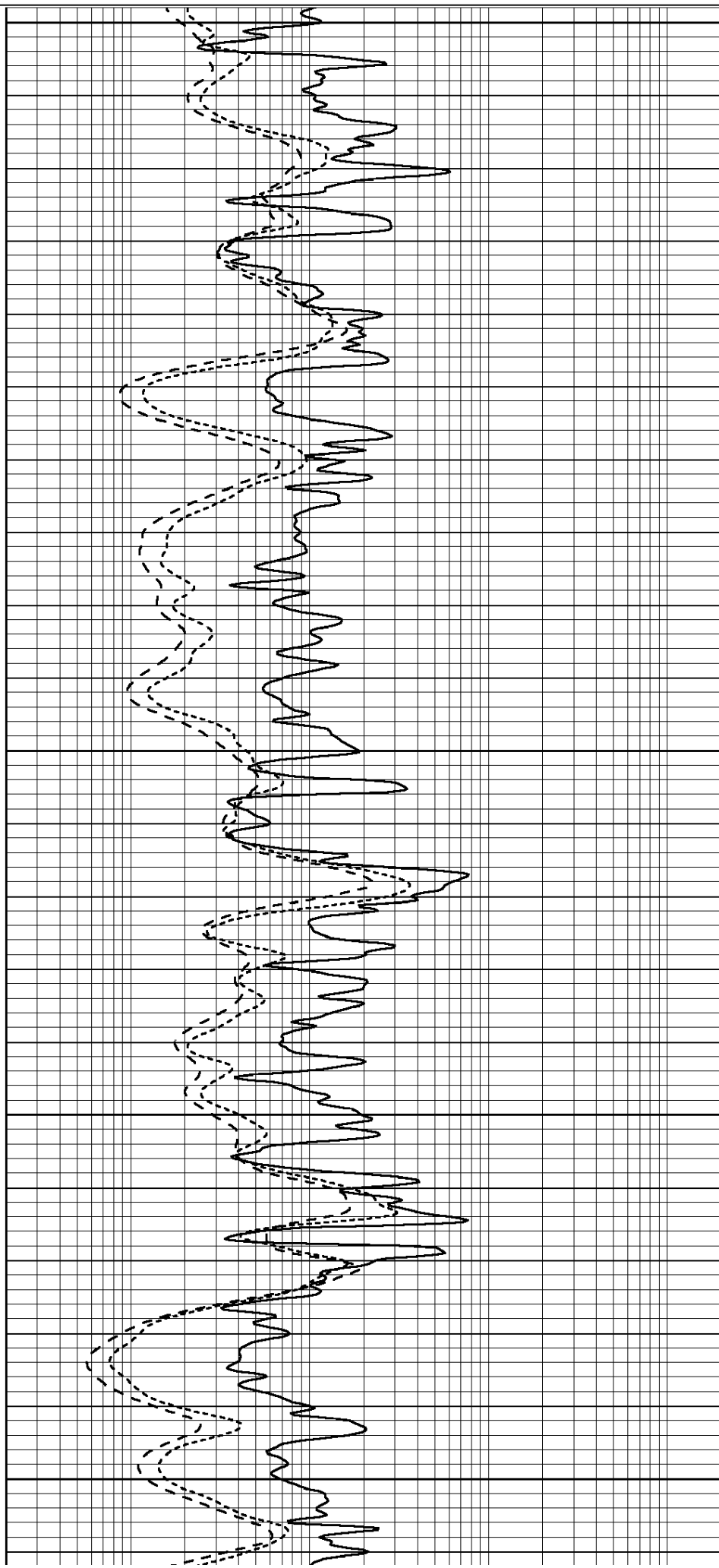
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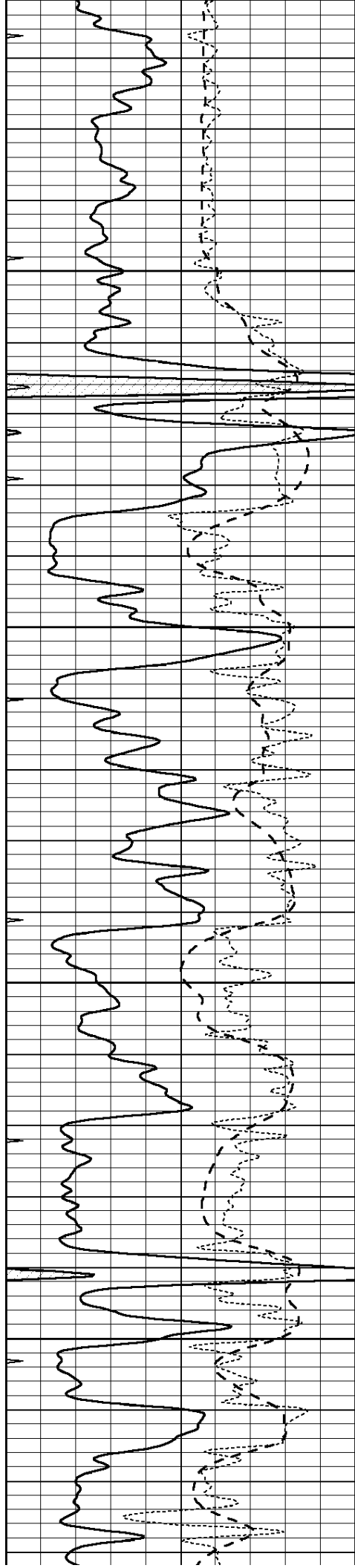
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3700

3750

3800



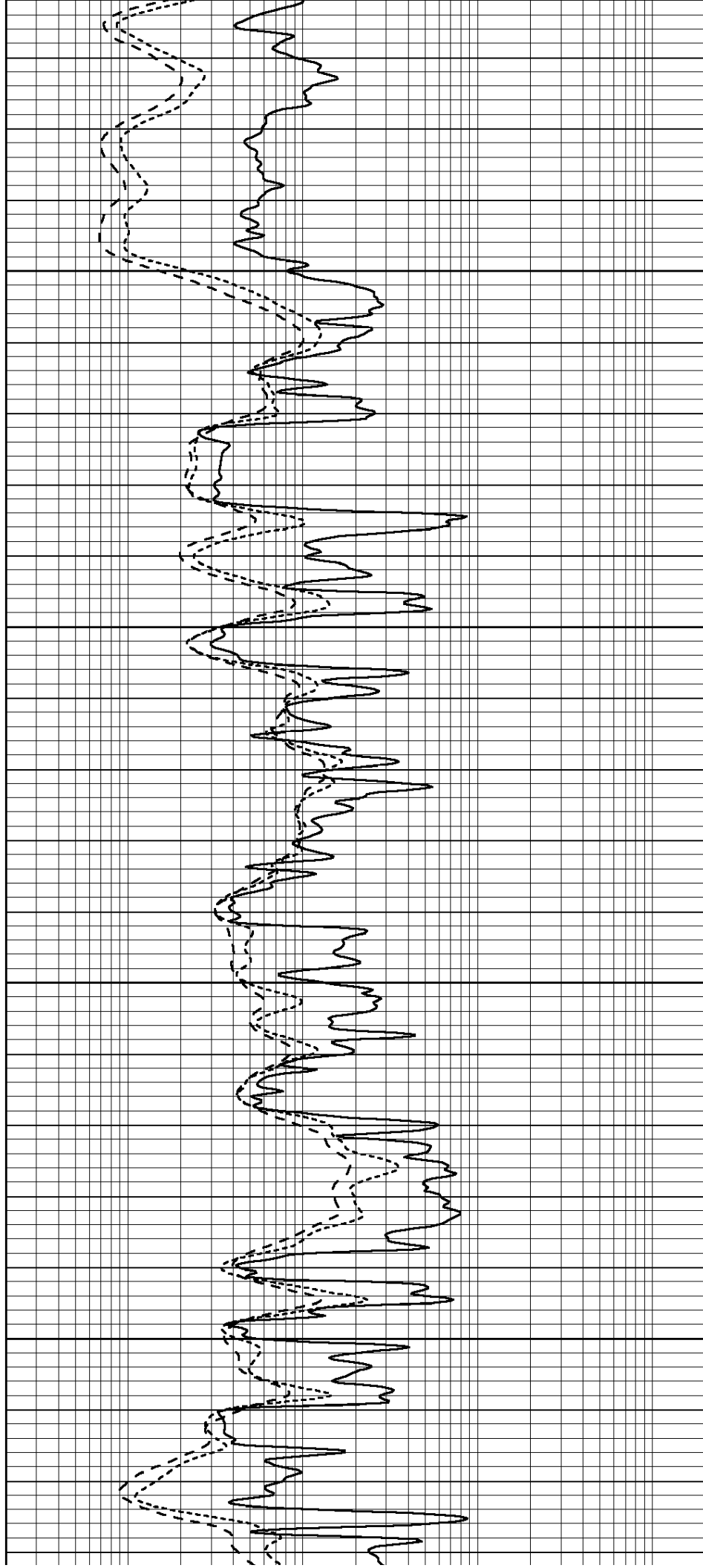


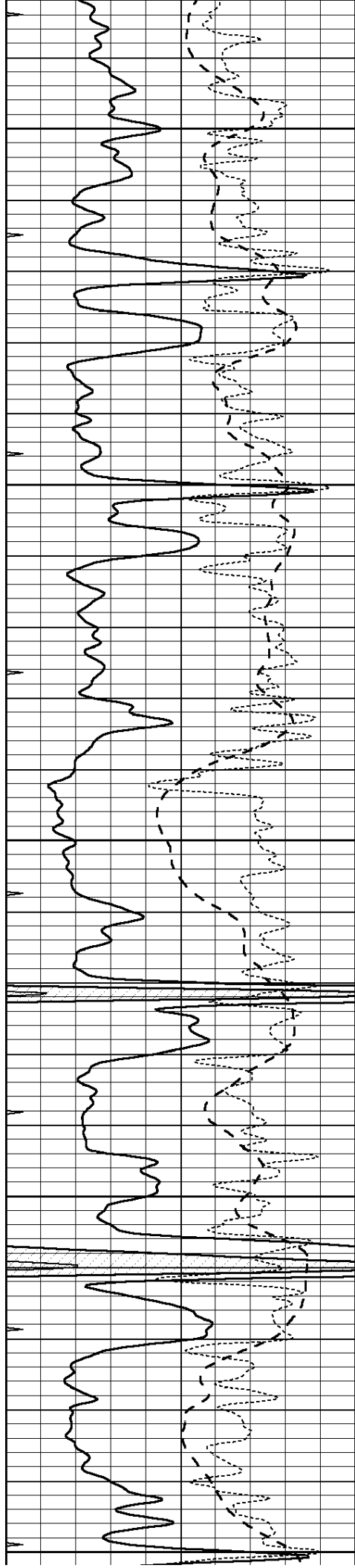
3850

3900

3950

4000





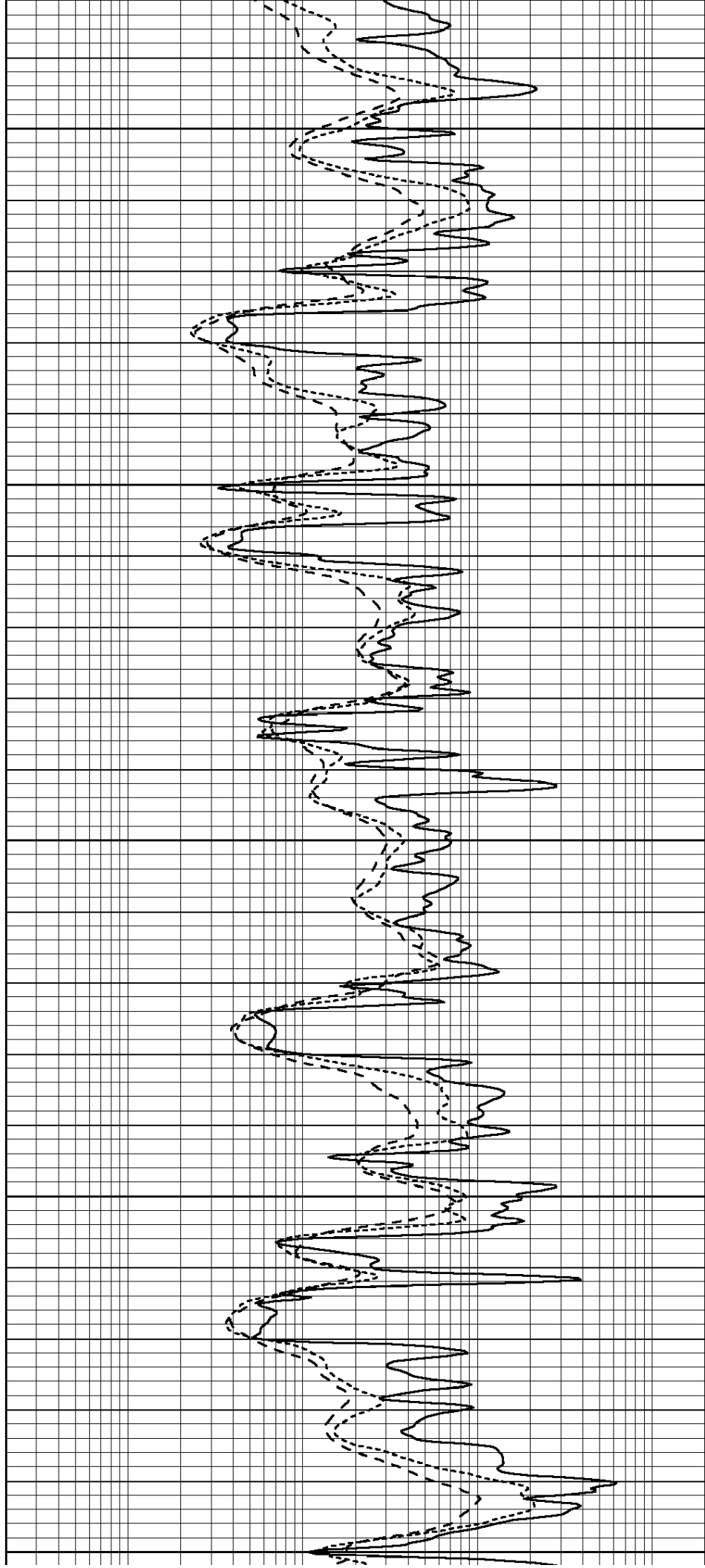
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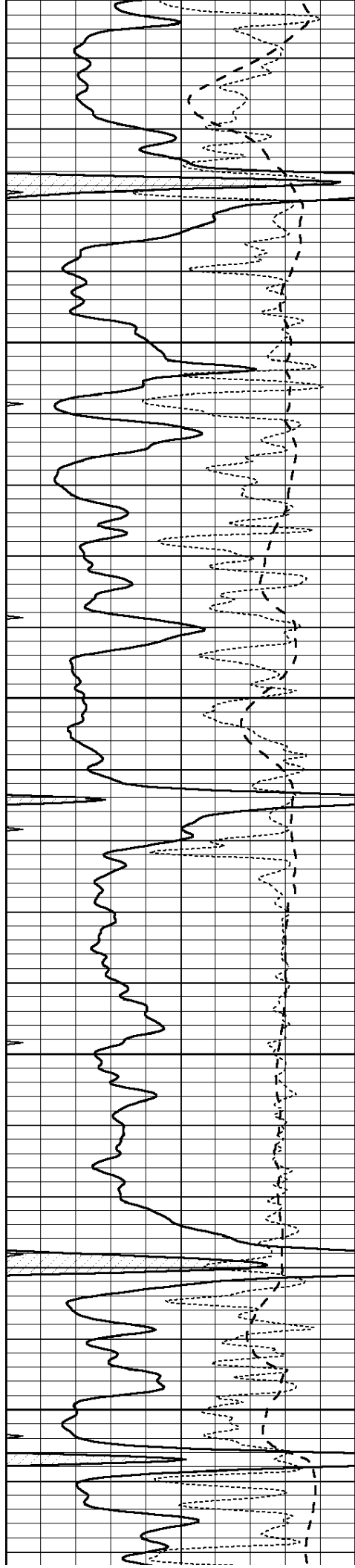
4100

4150

4200

4250



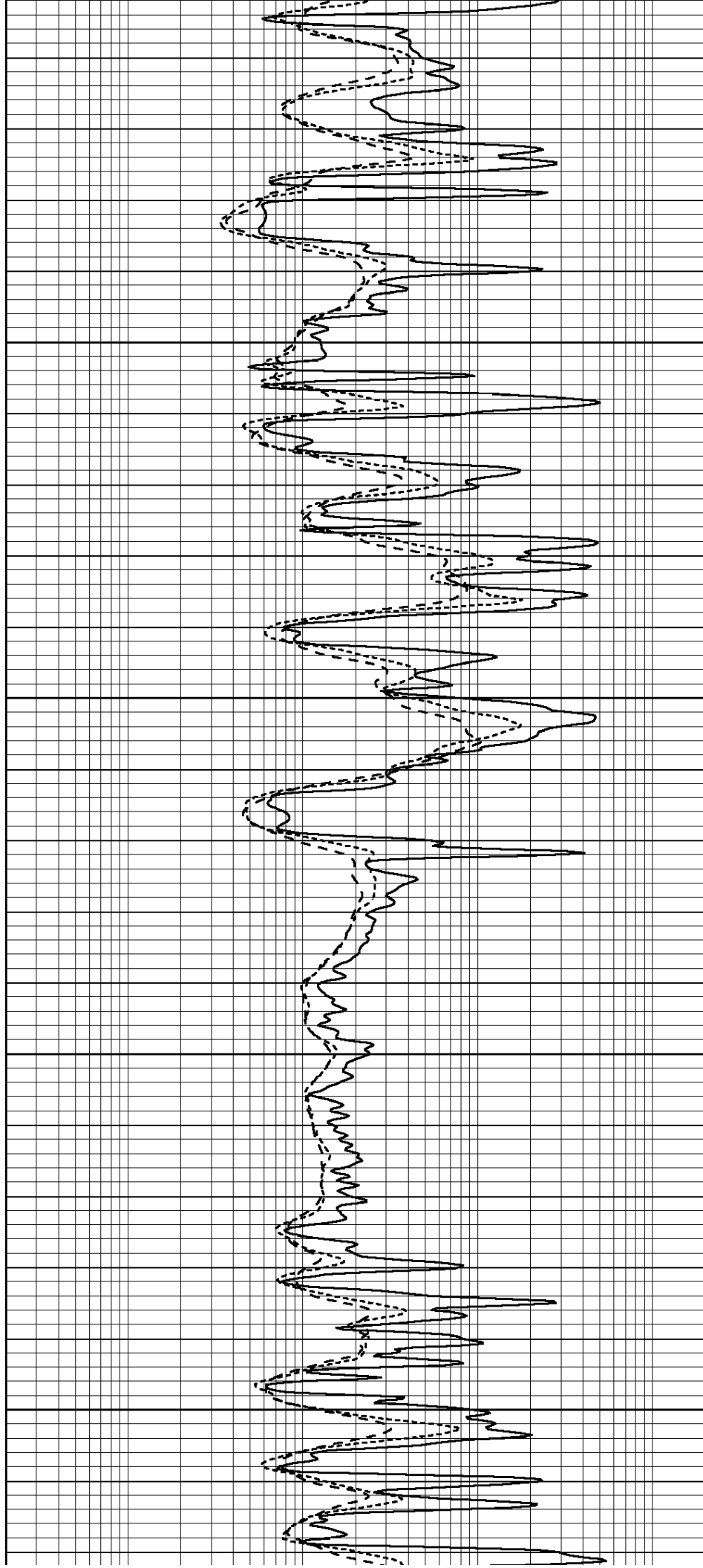


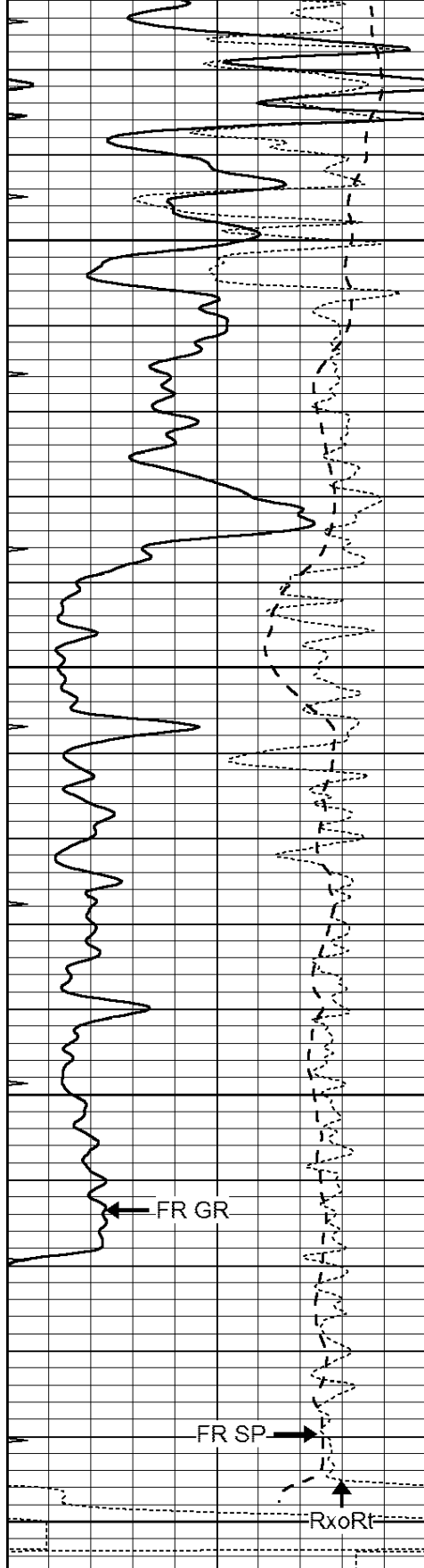
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4350

4400

4450





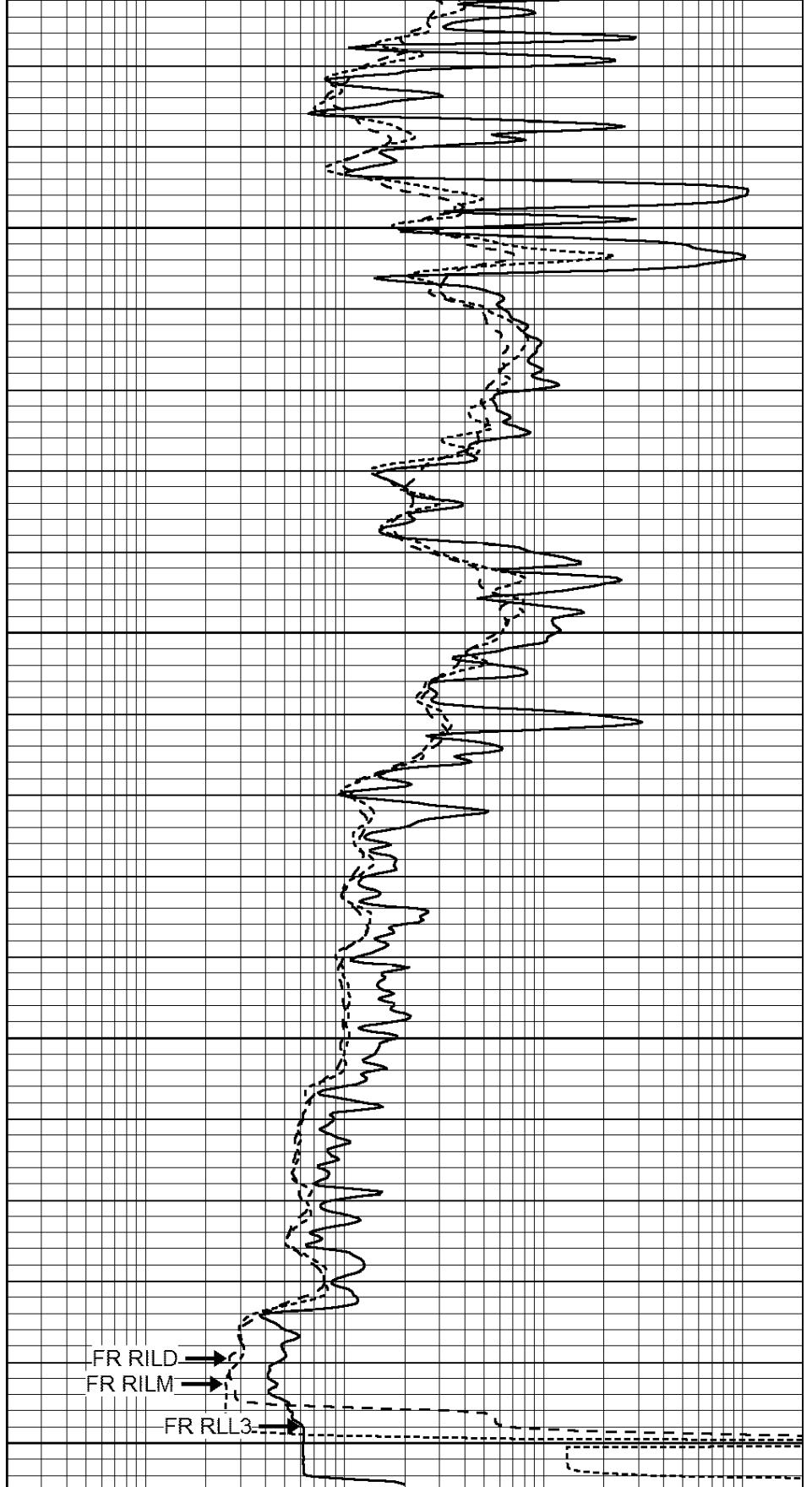
4500

4550

4600

LTD 4650

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



FR RILD

FR RILM

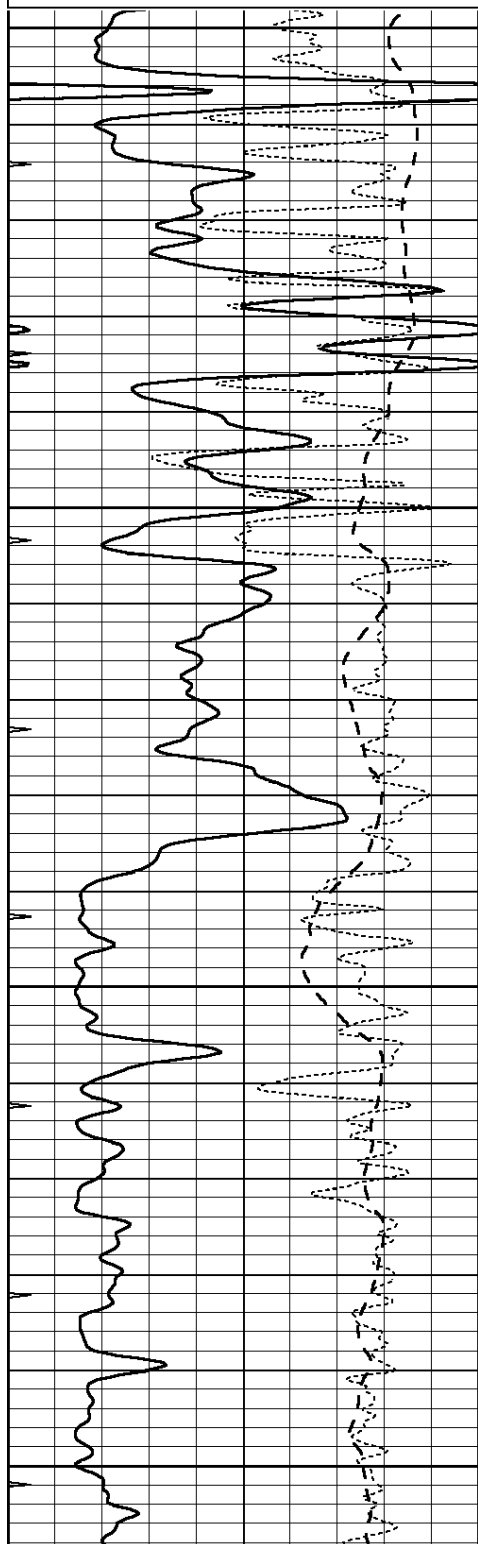
FR RLL3

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

Database File: 22108ddn.db
Dataset Pathname: pass2.1
Presentation Format: _dil
Dataset Creation: Tue Dec 10 20:42:39 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

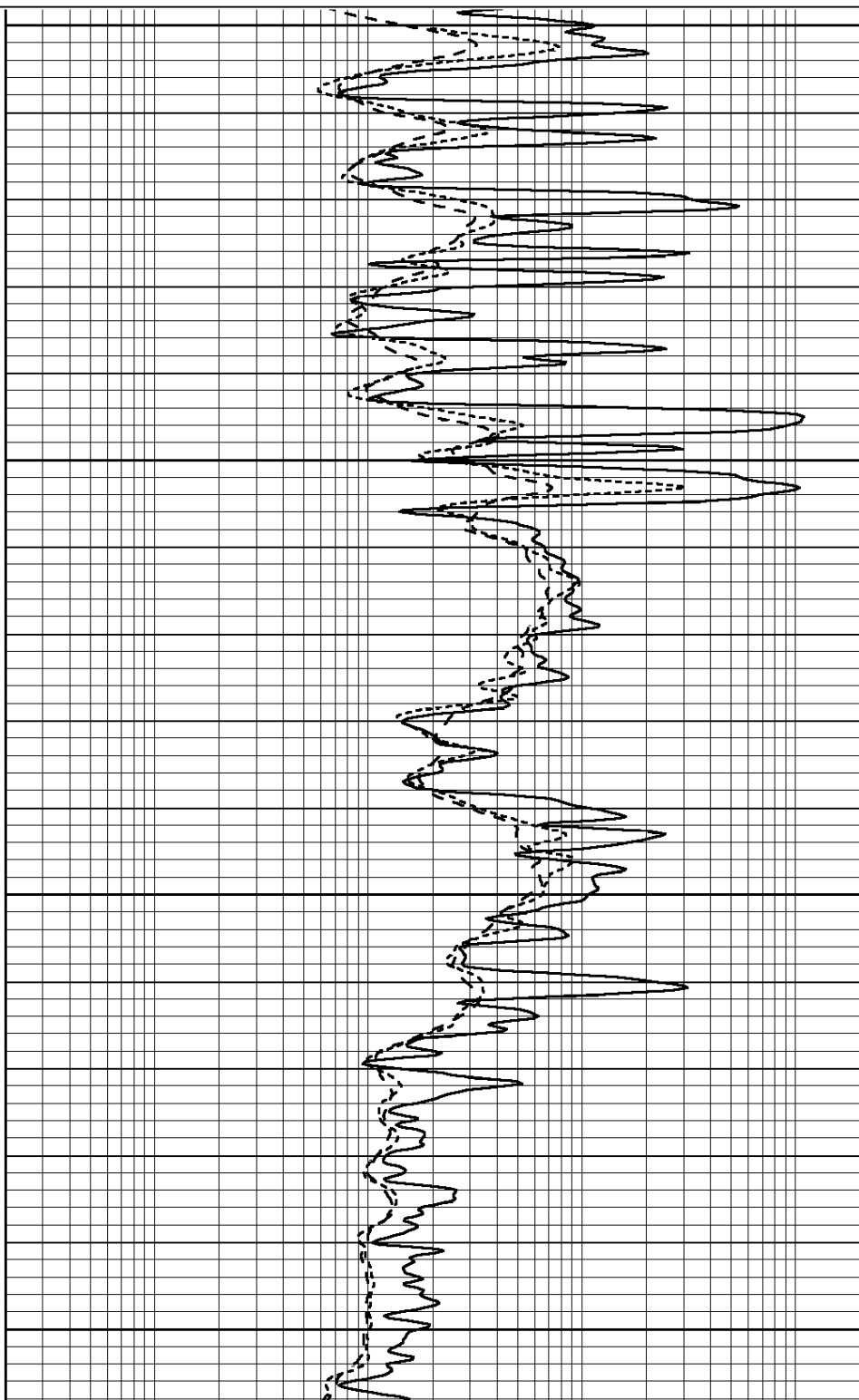


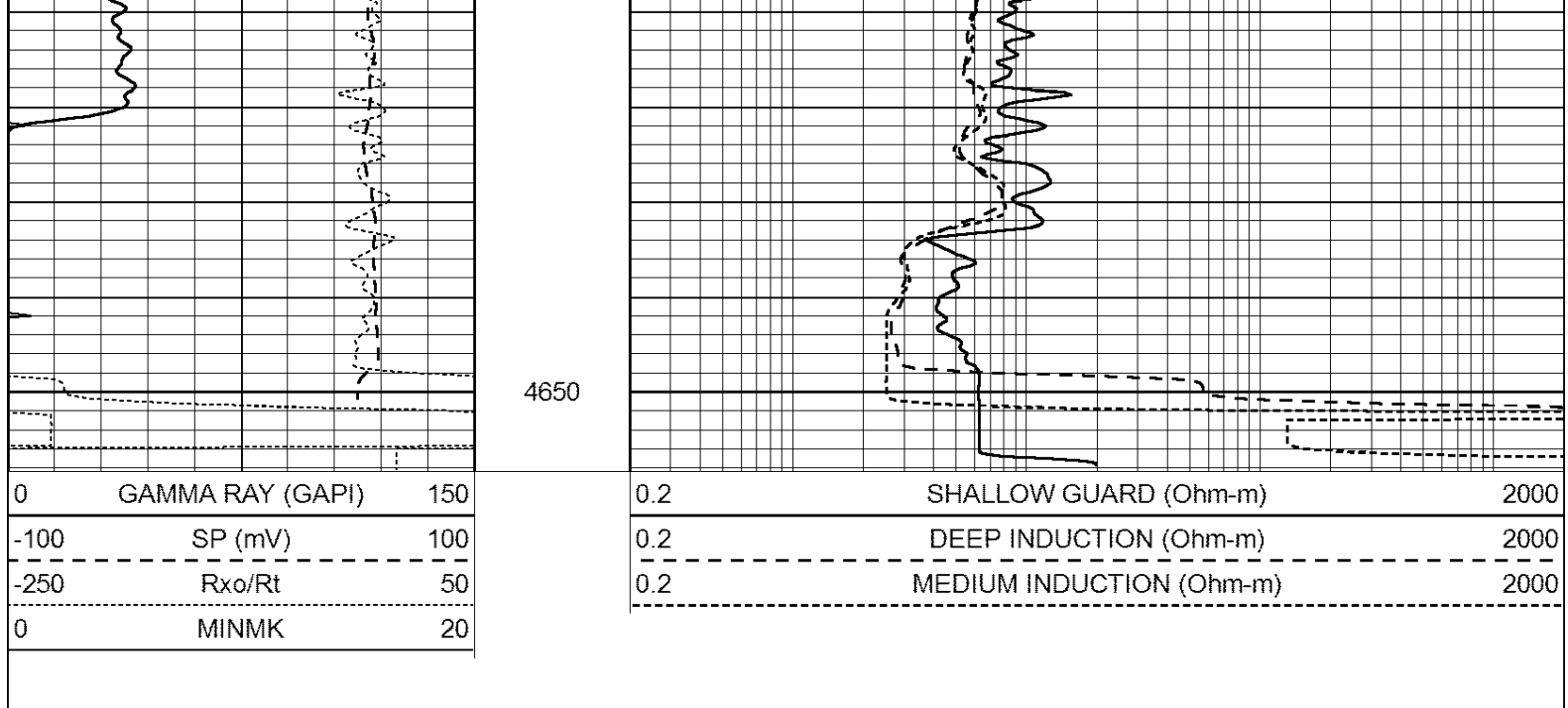
4450

4500

4550

4600





Calibration Report									
Database File:		22108ddn.db							
Dataset Pathname:		pass2.1							
Dataset Creation:		Tue Dec 10 20:42:39 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:	GEAR4-GEARHART
Source / Verifier:	143 / 143
Master Calibration Performed:	Wed Sep 18 03:03:09 2013
Before Survey Verification Performed:	
After Survey Verification Performed:	

Master Calibration					
	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1075.98	532.39	cps
Aluminum	2.560	g/cc	286.51	422.88	cps
Spine Angle = 80.13			Density/Spine Ratio = 0.633		
	Size		Reading		
Small Ring	8.00	in	3.21	V	
Large Ring	14.00	in	5.46	V	

Before Survey Verification					
	Target		Measured		
		g/cc		g/cc	
		g/cc		g/cc	
		g/cc		g/cc	

After Survey Verification					
	Target		Measured		
		g/cc		g/cc	
		g/cc		g/cc	
		g/cc		g/cc	

Compensated Neutron Calibration Report

Serial Number:	6I
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			
	Long Space		cps	pu		pu
2)	Short Space		cps			
	Long Space		cps	pu		
3)	Short Space		cps			
	Long Space		cps	pu		

POST-SURVEY VERIFICATION						
	Detector	Readings		Measured		Target

1)	Short Space Long Space	cps cps	pu	pu
2)	Short Space Long Space	cps cps	pu	pu
3)	Short Space Long Space	cps cps	pu	pu

Gamma Ray Calibration Report				
Serial Number:	GR6			
Tool Model:	OPEN			
Performed:	Fri Nov 29 08:34:37 2013			
Calibrator Value:	150.0	GAPI		
Background Reading:	0.0	cps		
Calibrator Reading:	276.0	cps		
Sensitivity:	0.6035	GAPI/cps		