



SUPERIOR
Hays,
Kansas

DUAL
INDUCTION
LOG

Company	DOWNING-NELSON OIL COMPANY, INC.			
Well	SCHMIDT 'B' #9			
Field	CATHERINE			
County	ELLIS	State	KANSAS	
Location:	API # : 15-051-26254-0000		Other Services CDL/CNL MEL	
	335' FNL & 1900' FEL SW - NE - NW - NE			
Permanent Datum	SEC 3	TWP 13S	RGE 17W	Elevation K.B. 2052 D.F. 2050 G.L. 2044
Log Measured From	GROUND LEVEL			
Drilling Measured From	KELLY BUSHING & A.G.L. KELLY BUSHING			
Date	1/11/12			
Run Number	ONE			
Depth Driller	3672			
Depth Logger	3674			
Bottom Logged Interval	3672			
Top Log Interval	0			
Casing Driller	8 5/8" @ 221			
Casing Logger	222			
Bit Size	7 7/8			
Type Fluid in Hole	CHEMICAL MUD		CHLORIDES 2000 PPM	
Density / Viscosity	9.3/75			
pH / Fluid Loss	10.0/8.8			
Source of Sample	FLOWLINE			
Rim @ Meas. Temp	0.95 @ 68F			
Rmf @ Meas. Temp	0.71 @ 68F			
Rmc @ Meas. Temp	1.14 @ 68F			
Source of Rmf / Rmc	MEASURED			
Rim @ BHT	0.57 @ 113F			
Time Circulation Stopped	2 HOURS			
Time Logger on Bottom				
Maximum Recorded Temperature	113F			
Equipment Number	680			
Location	HAYS, KS.			
Recorded By	JEFF GRONEMEG			
Witnessed By	RON NELSON			

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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

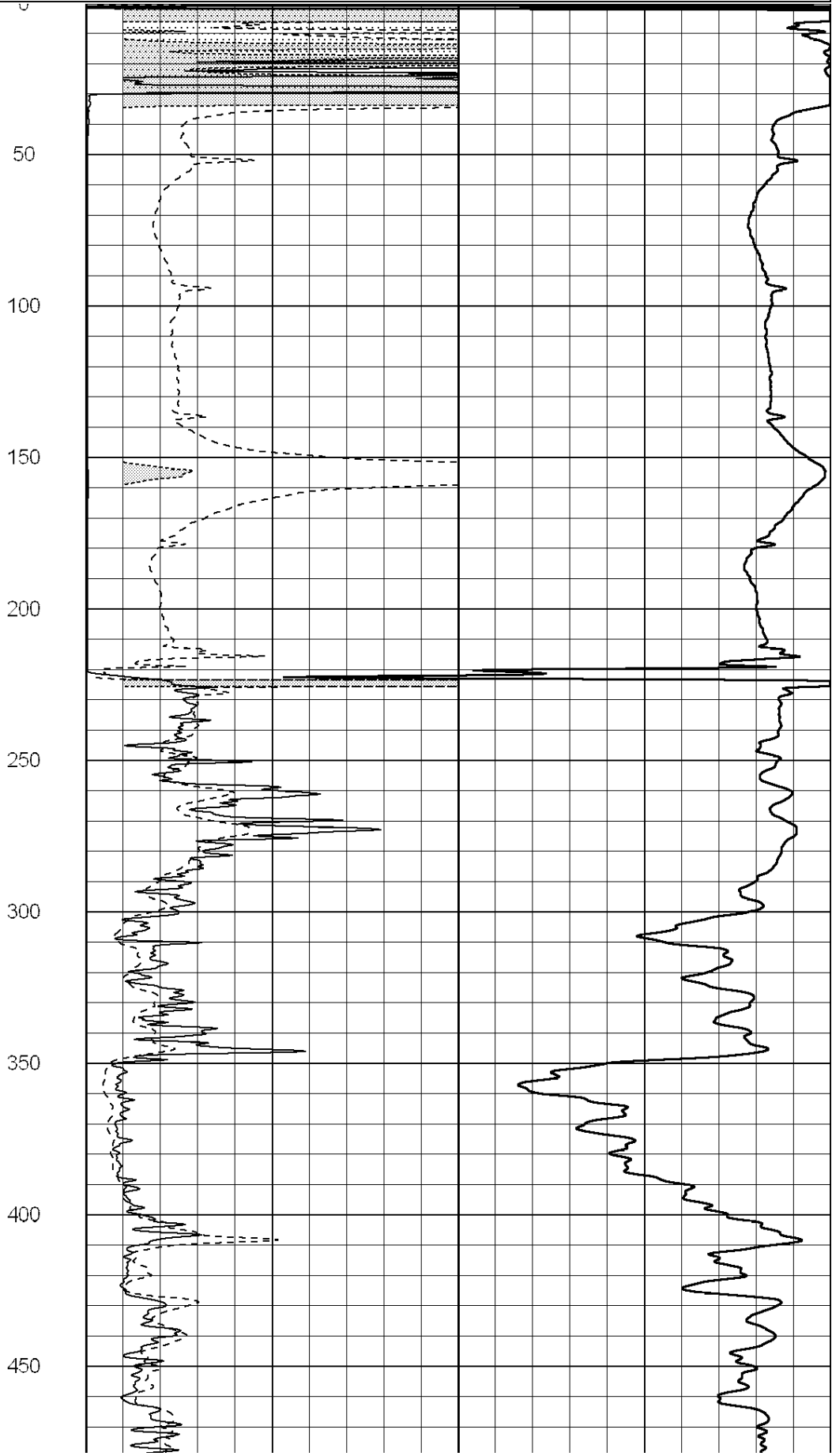
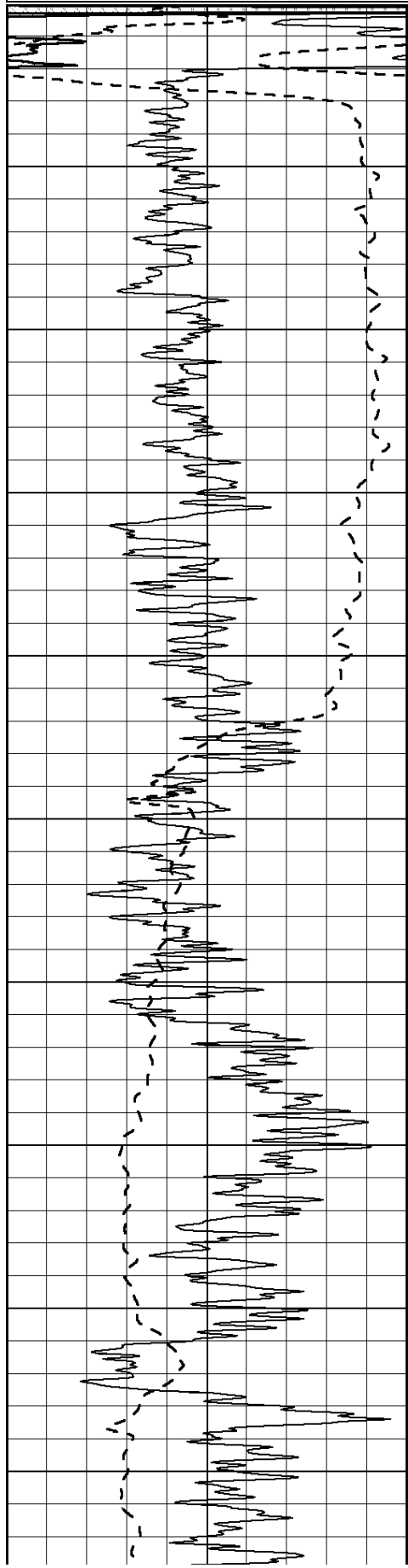
THANK YOU FOR USING SUPERIOR WELL SERVICE (785) 628-6395
DIRECTIONS
CATHERINE, KS - 2 MILES EAST TO CODELL RD - 2 MILES NORTH
1/2 MILE WEST - SOUTH INTO

Charted by: Depth (m) Est scaled (m)		
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



500

550

600

650

700

750

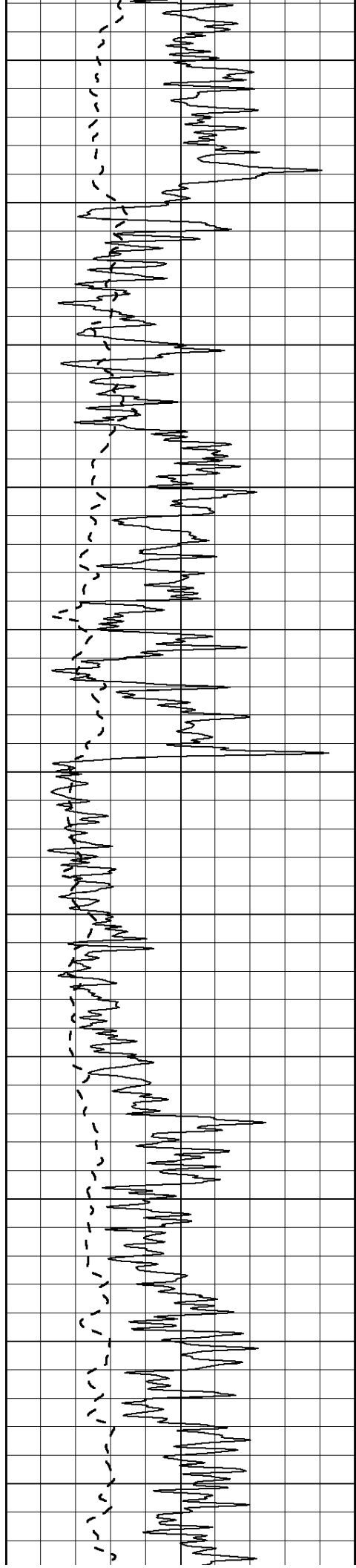
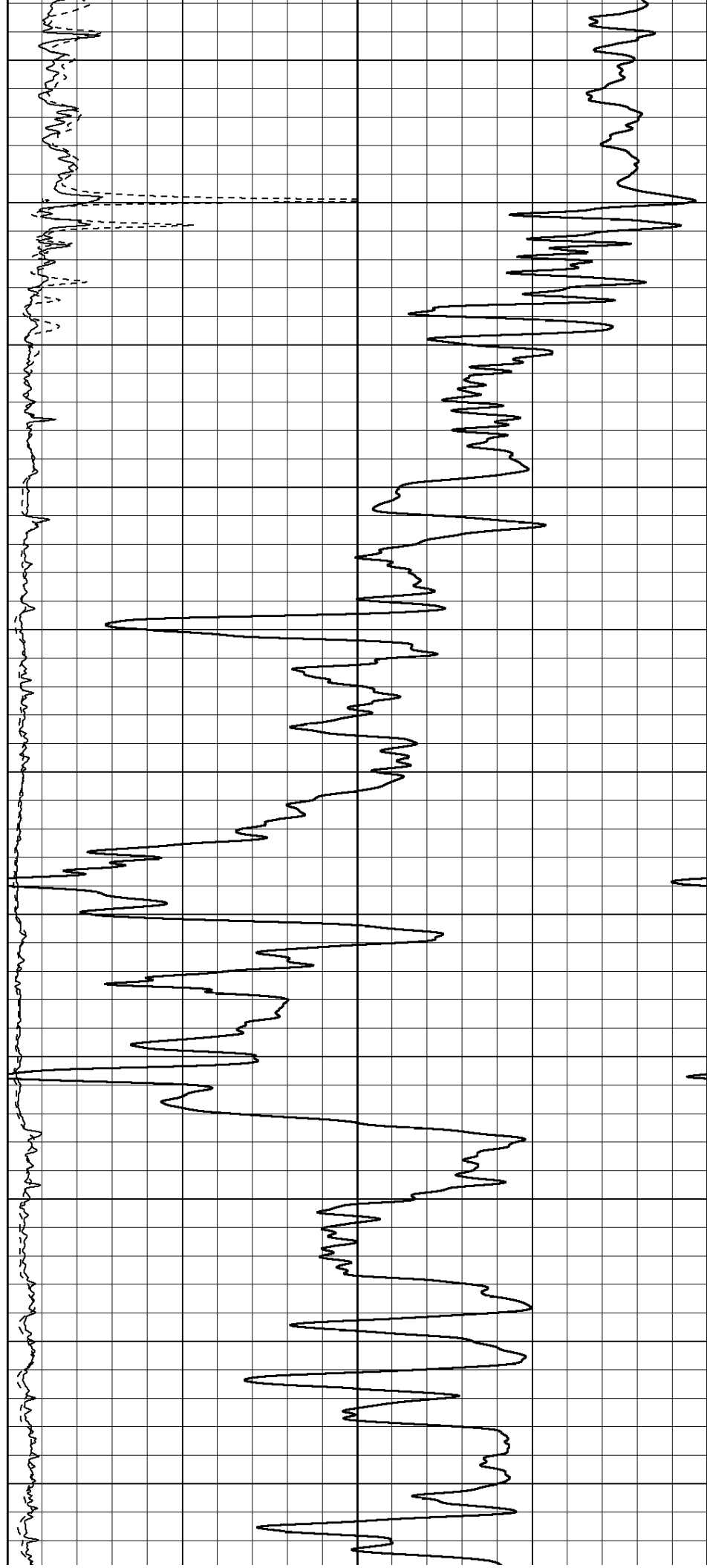
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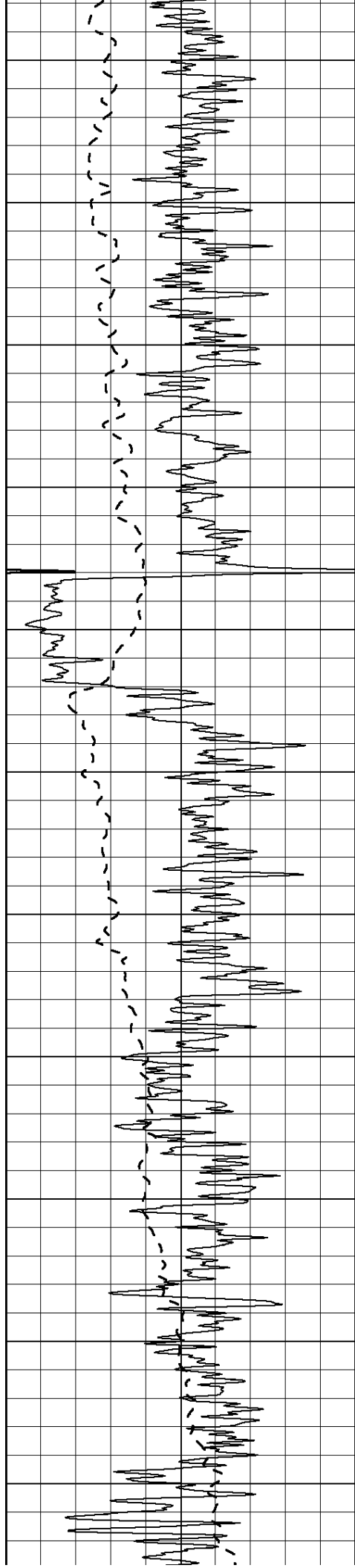
850

900

950

1000





1050

1100

1150

1200

1250

1300

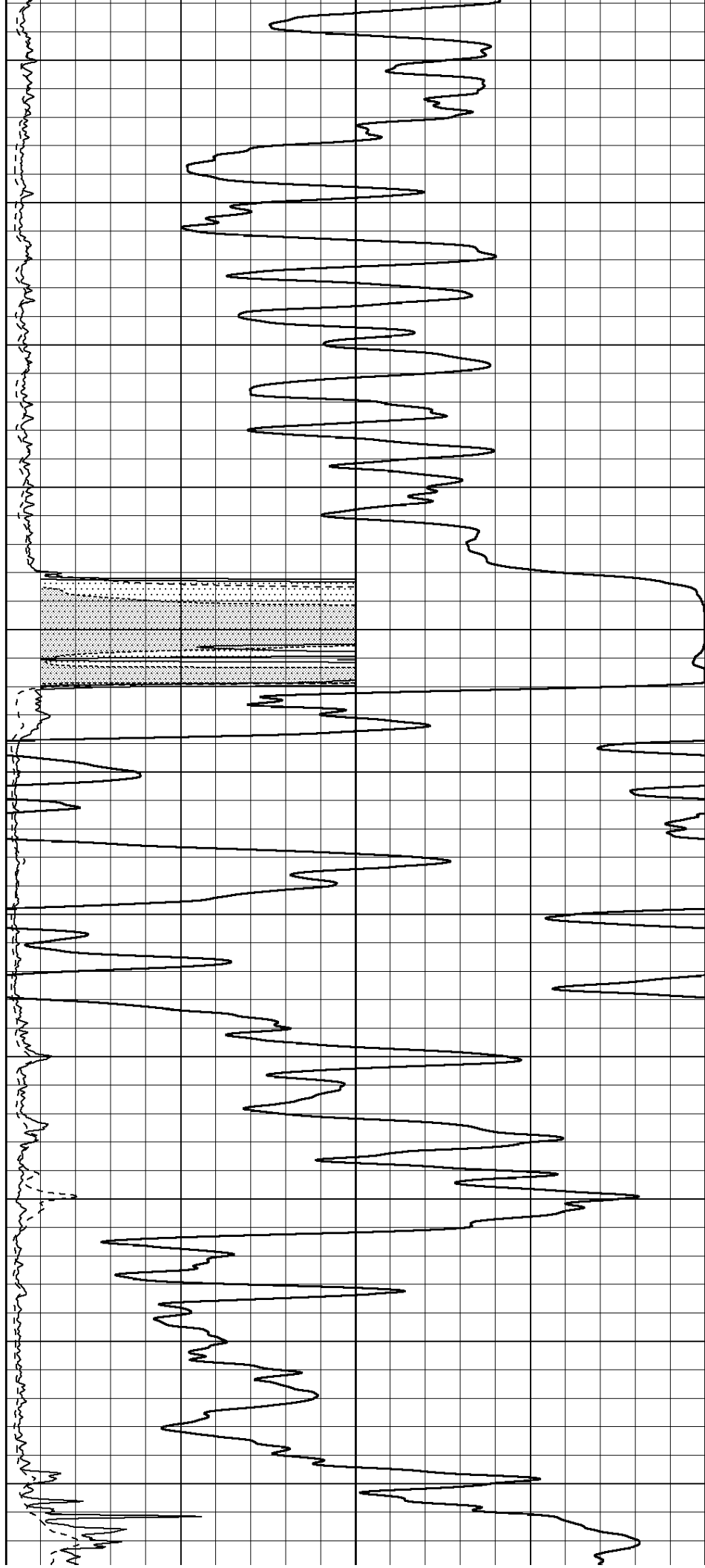
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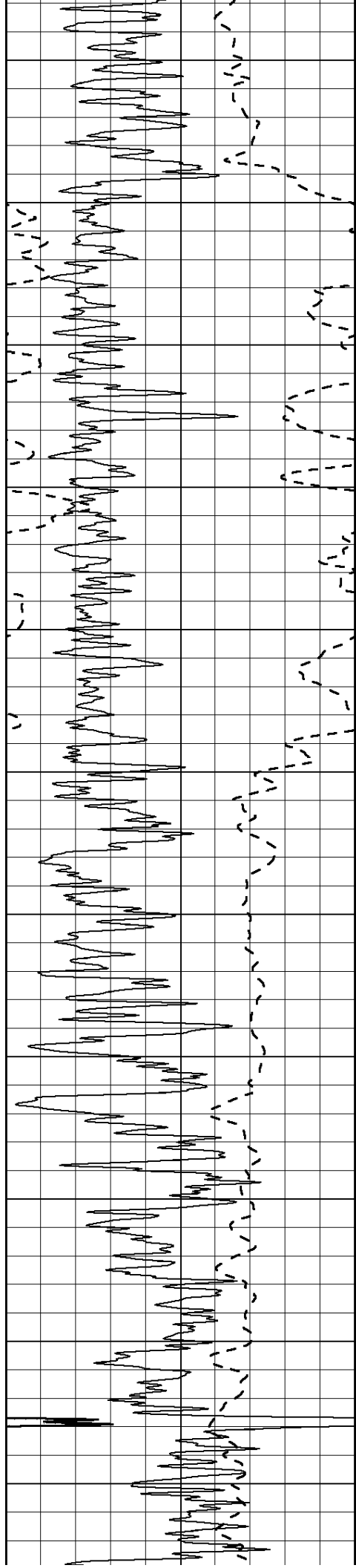
1400

1450

1500

1550





1600

1650

1700

1750

1800

1850

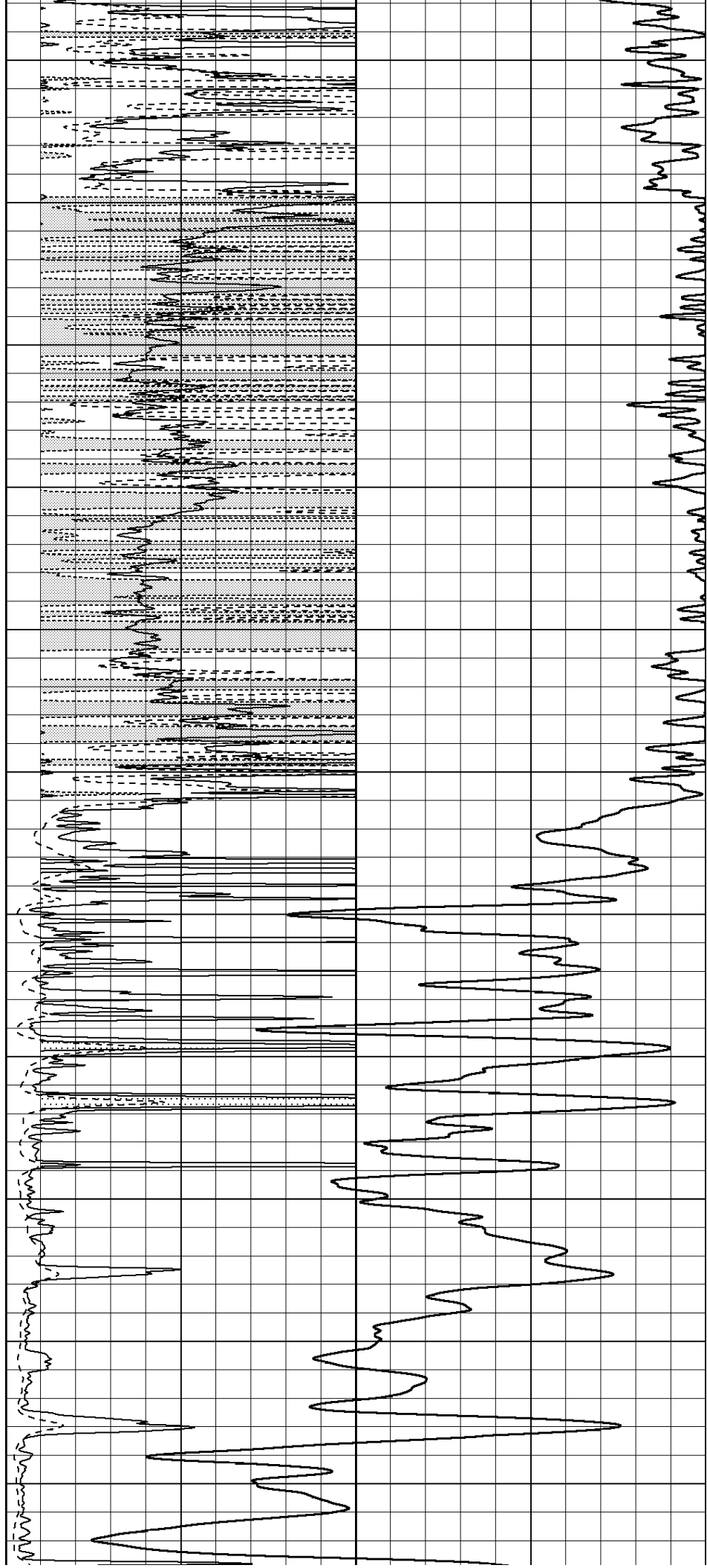
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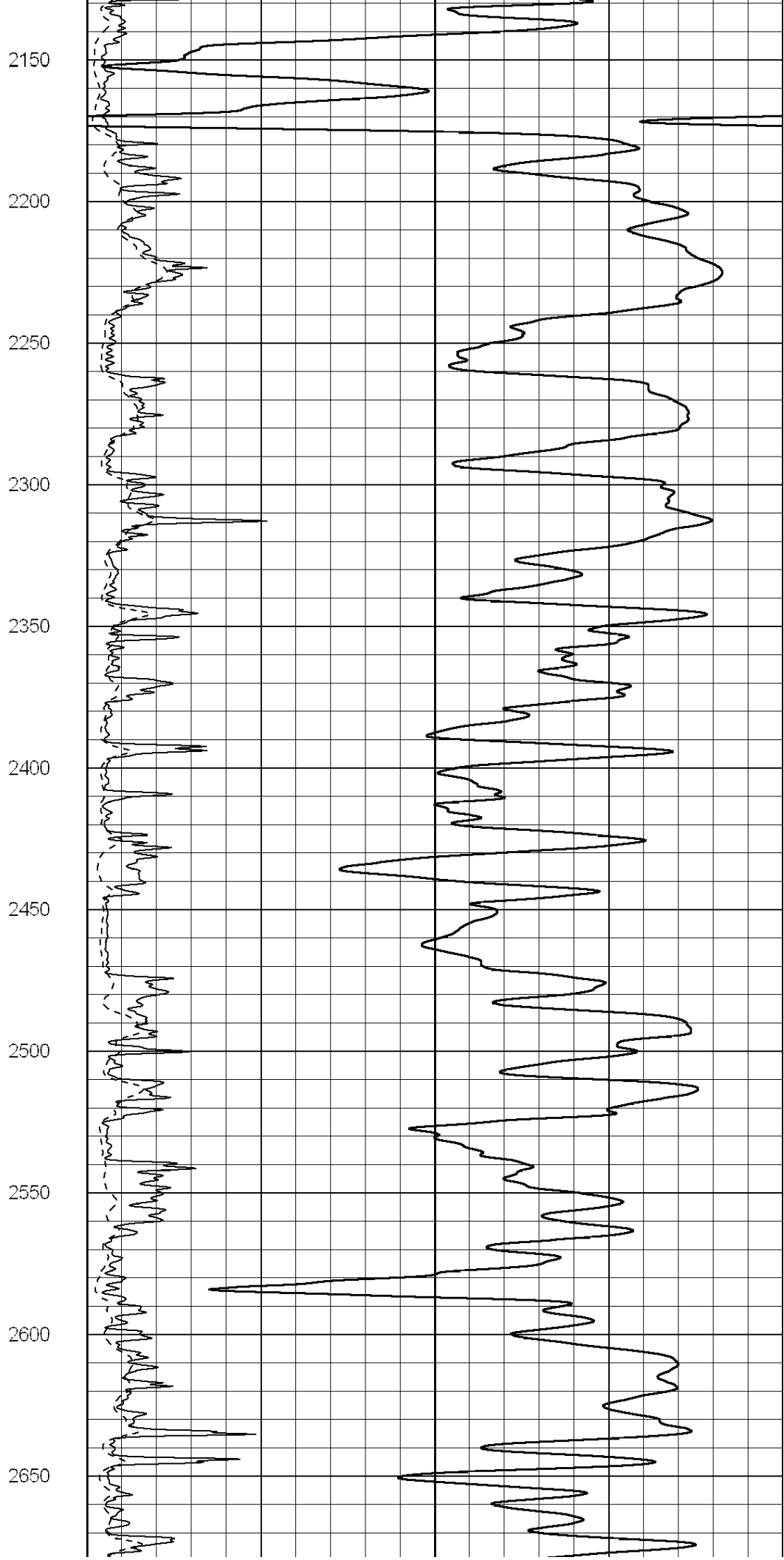
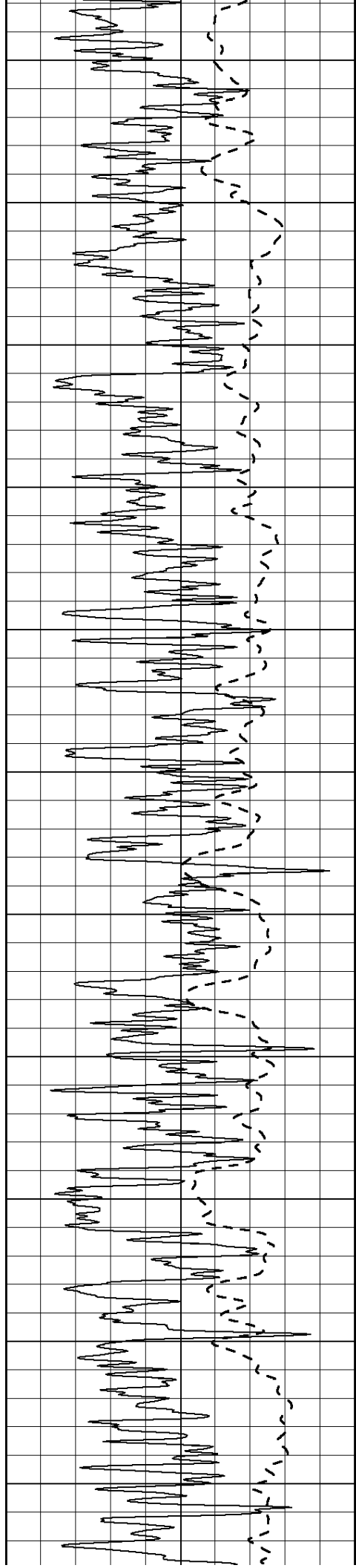
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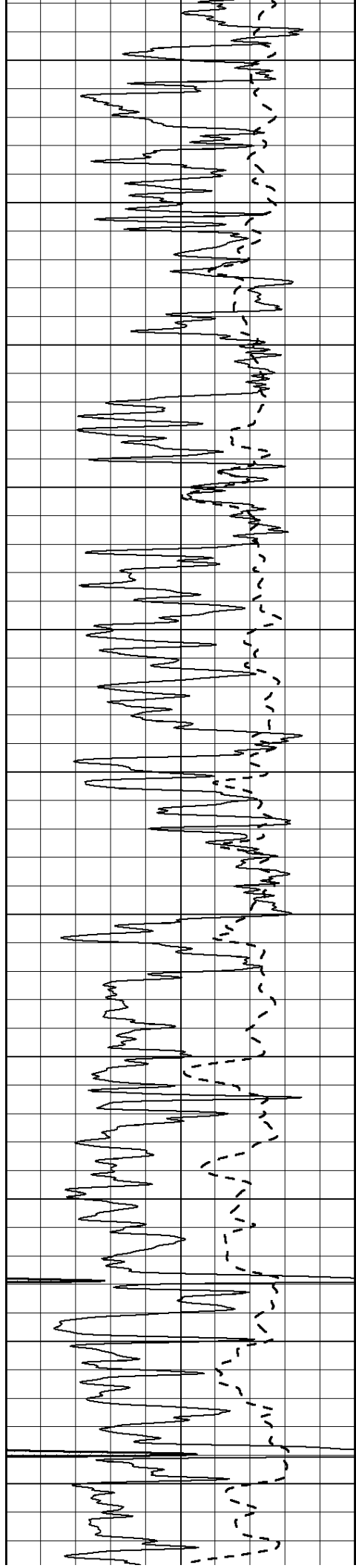
2000

2050

2100







2700

2750

2800

2850

2900

2950

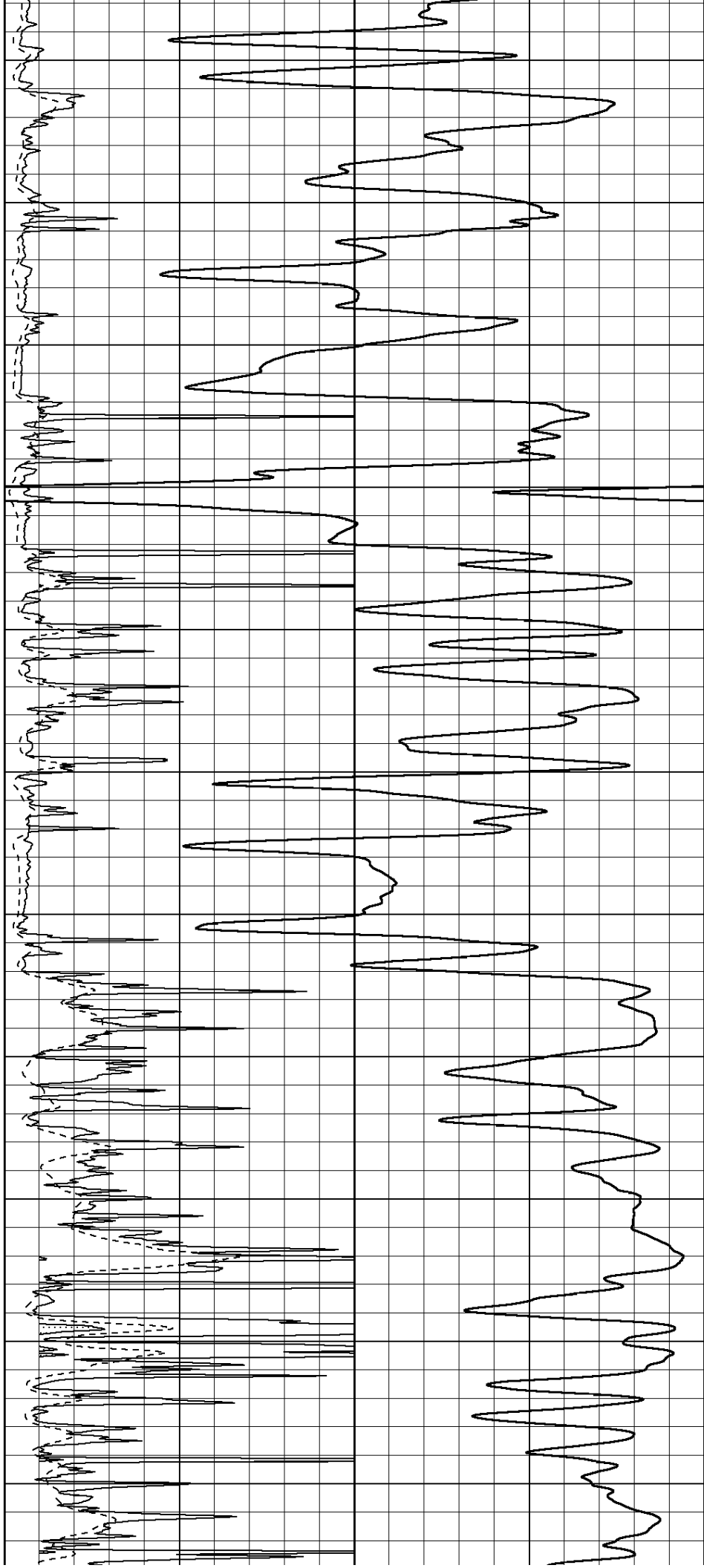
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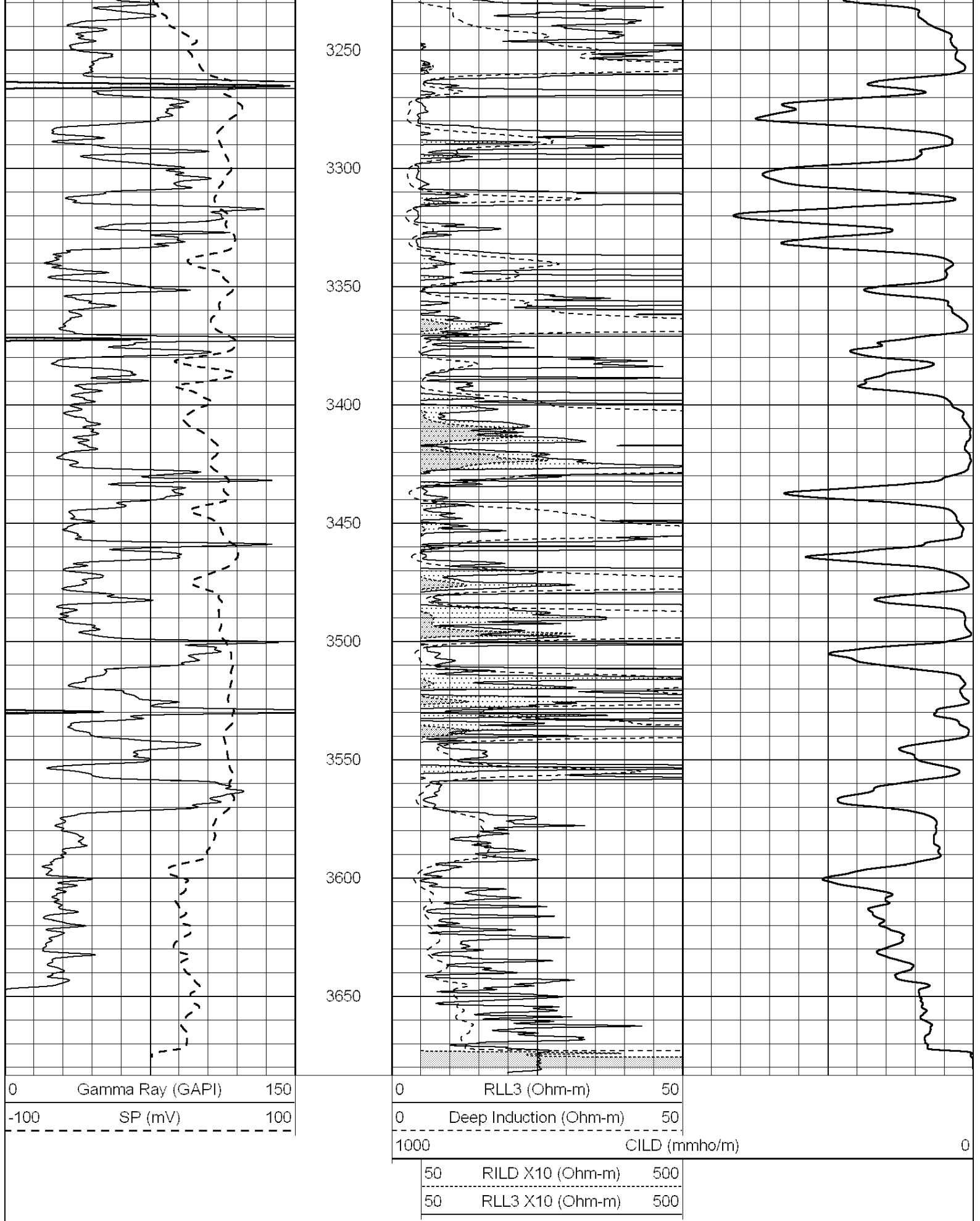
3050

3100

3150

3200

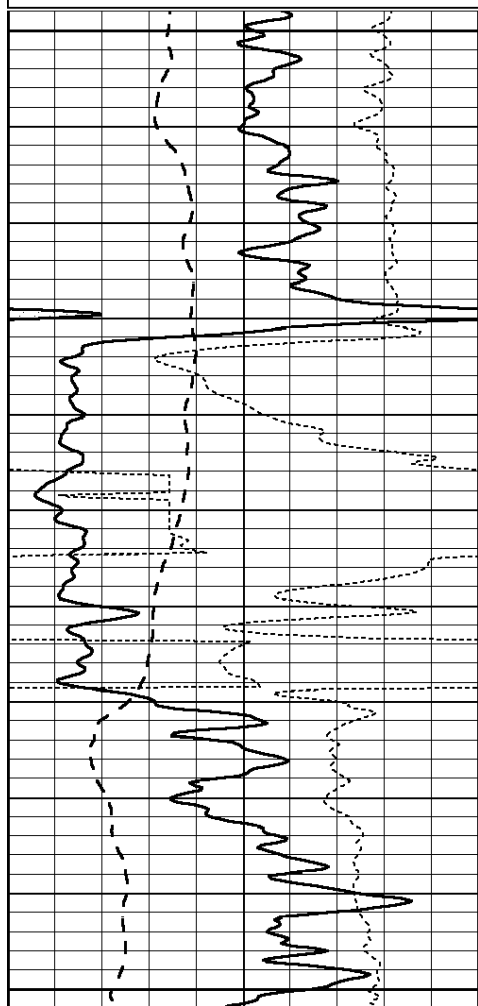




Presentation Format: _dil
Dataset Creation: Wed Jan 11 15:11:31 2012 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

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

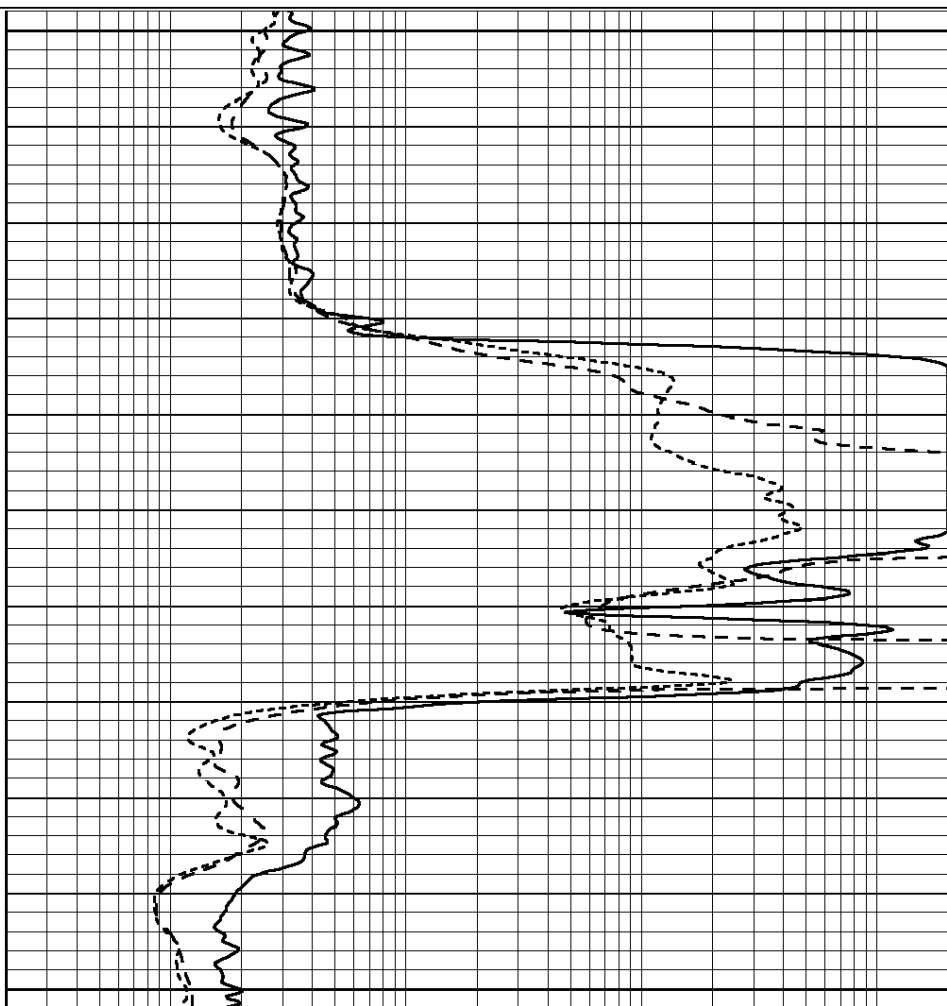
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0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000



1200

1250

1300



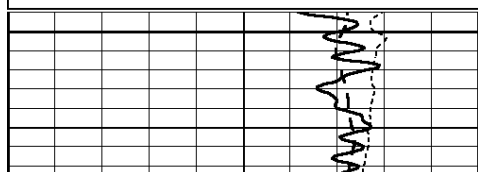
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

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

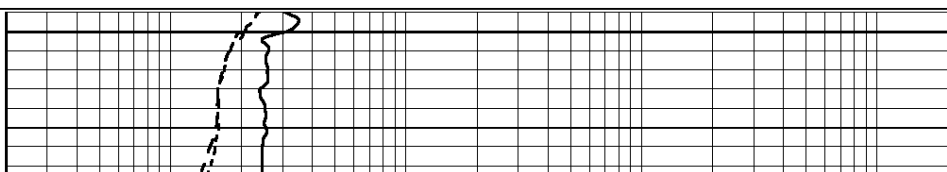
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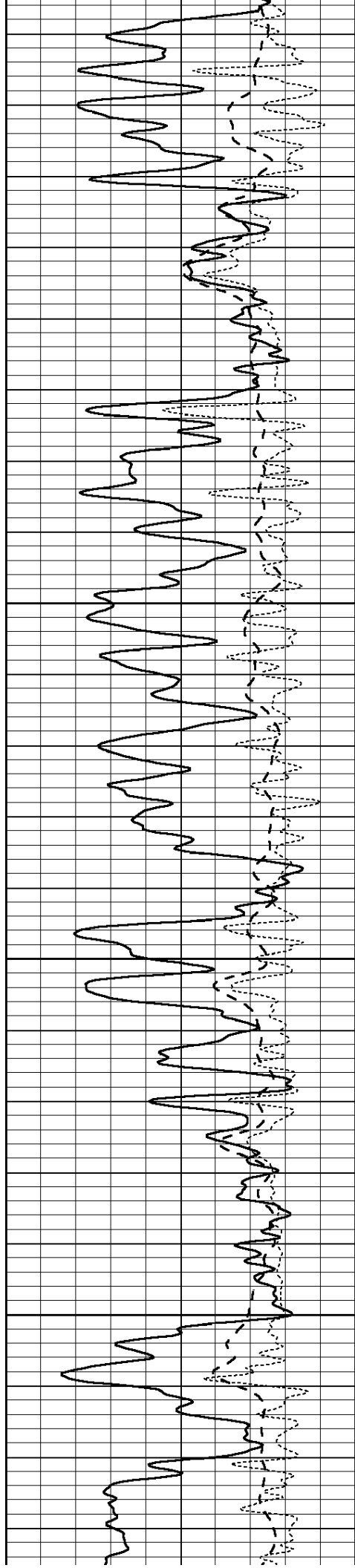
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

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



2800



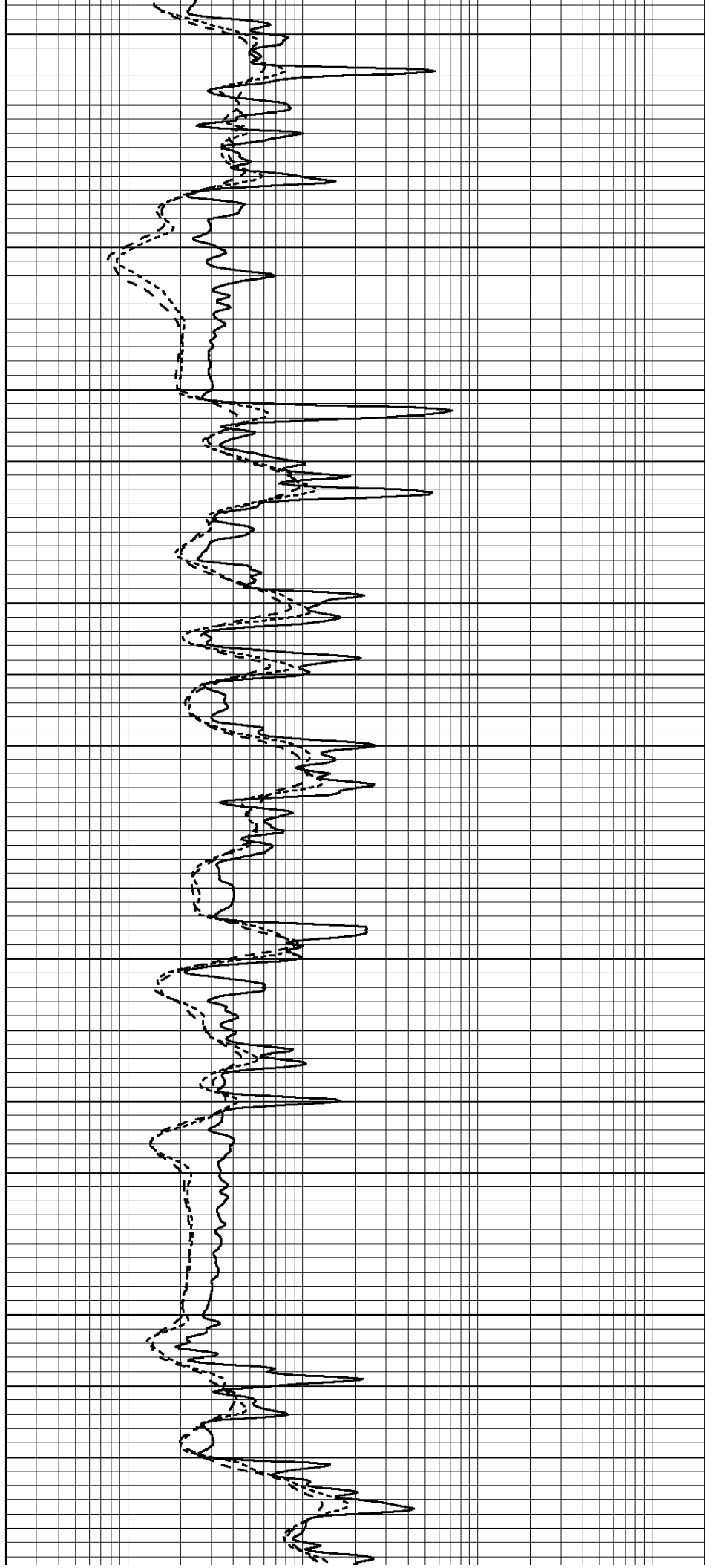


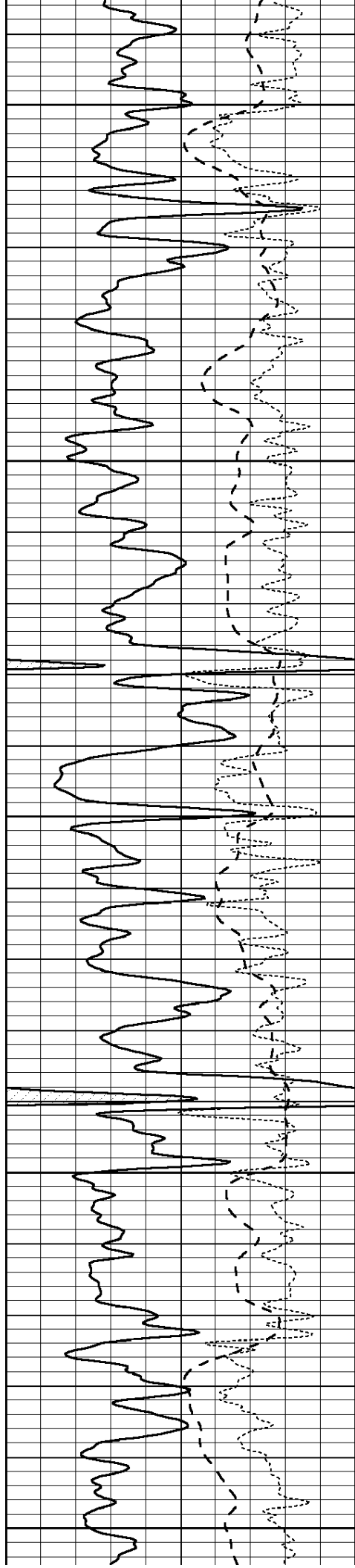
2850

2900

2950

3000





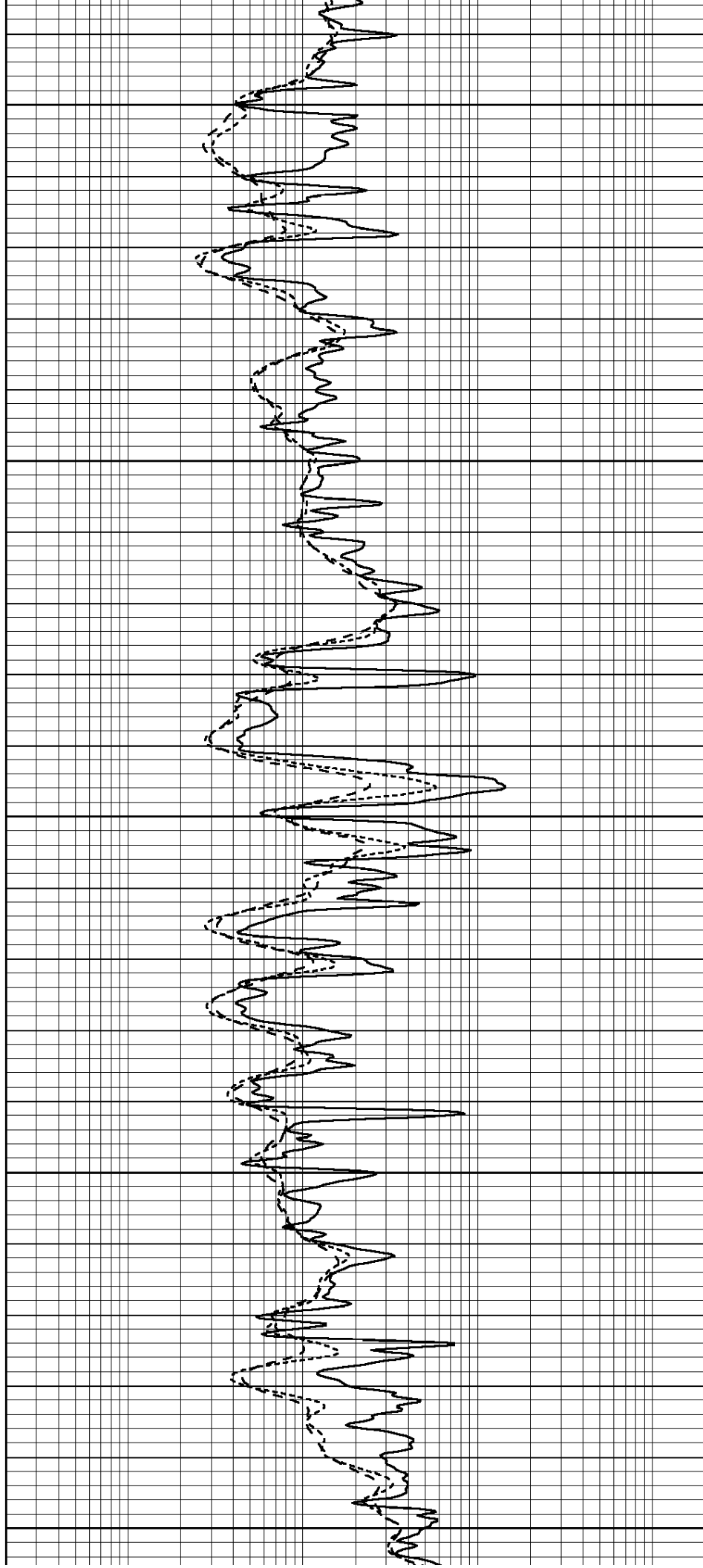
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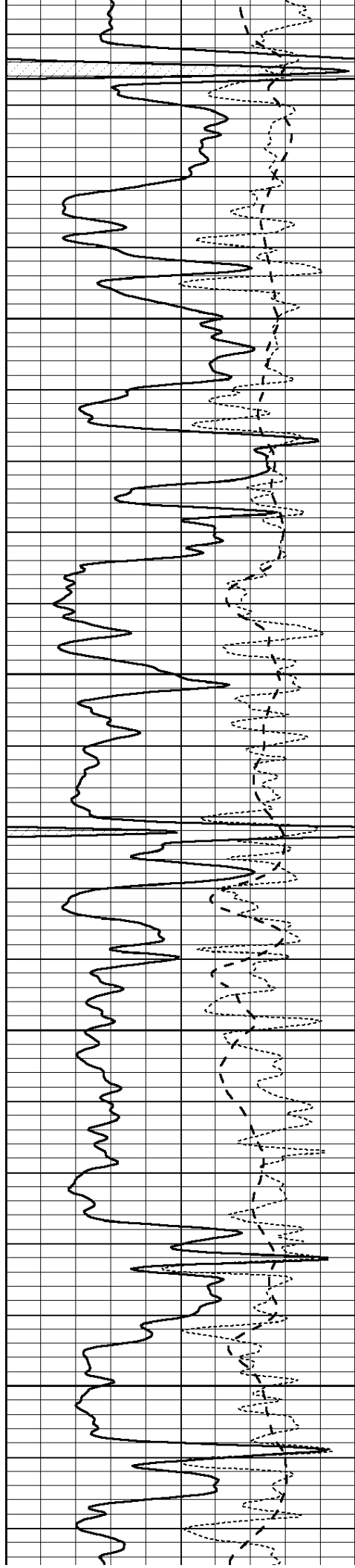
3100

3150

3200

3250



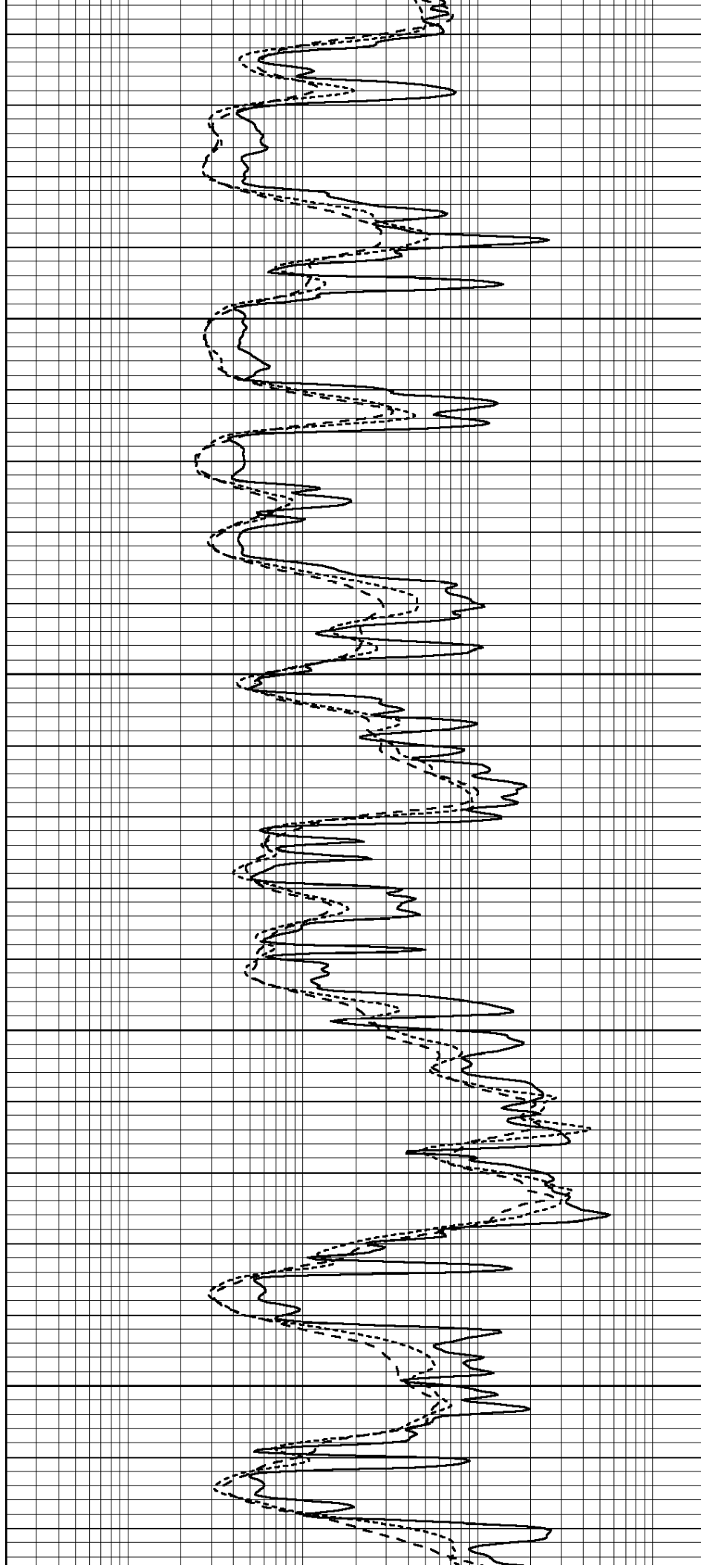


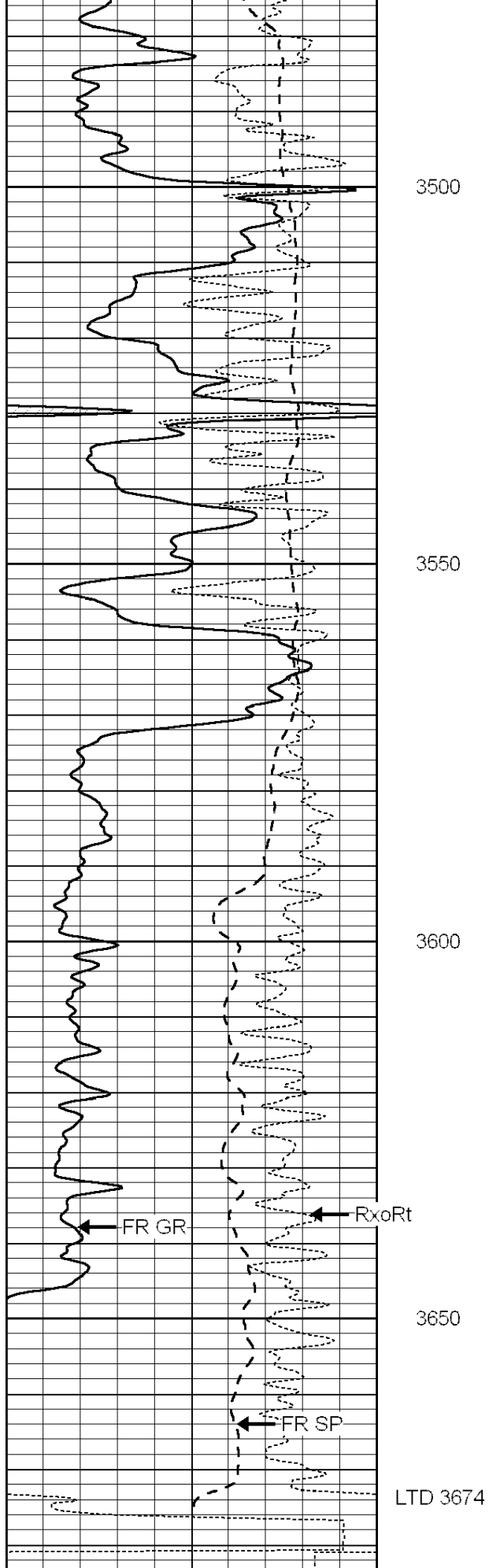
3300

3350

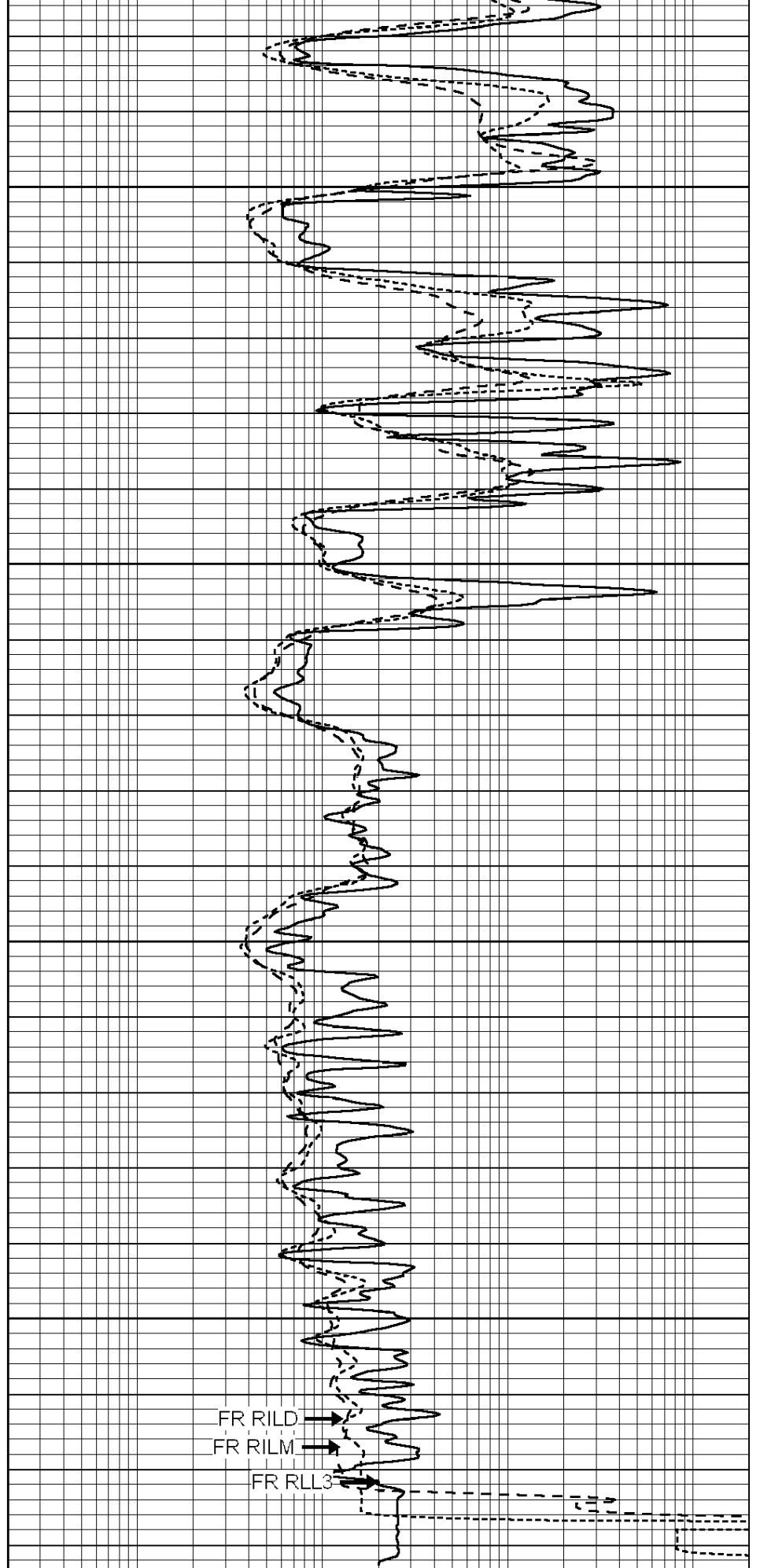
3400

3450





0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
250	RxoRt	50



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

250 RXO/Rt 50

0.2 DEEP INDUCTION (Ohm-m) 2000



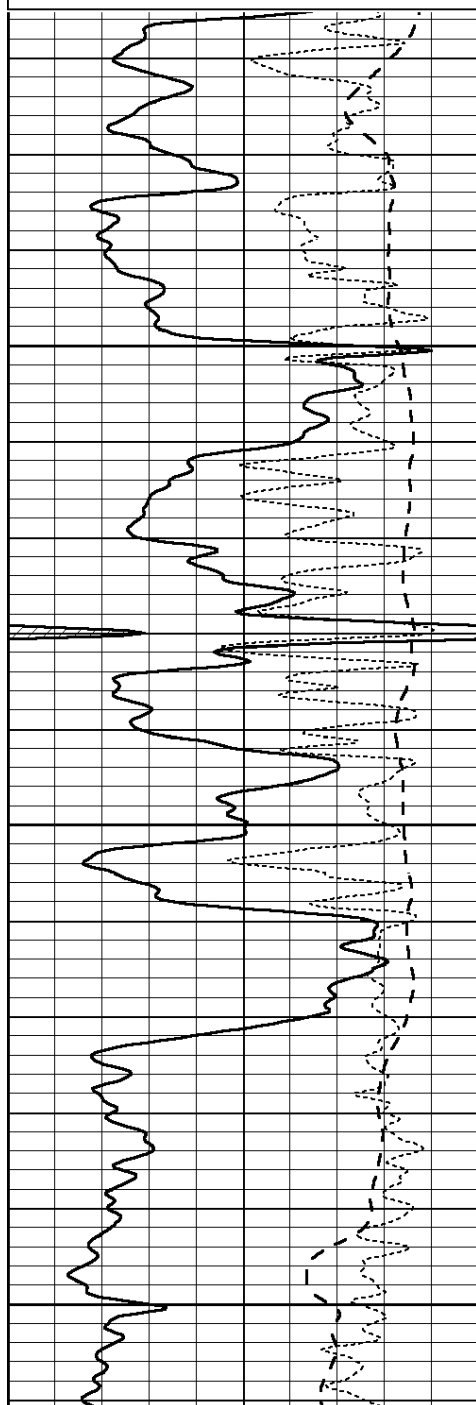
SUPERIOR
Hays,
Kansas

REPEAT SECTION

Database File: 008670ddn.db
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Presentation Format: _dil
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Charted by: Depth in Feet scaled 1:240

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-100	SP (mV)	100
-250	Rxo/Rt	50

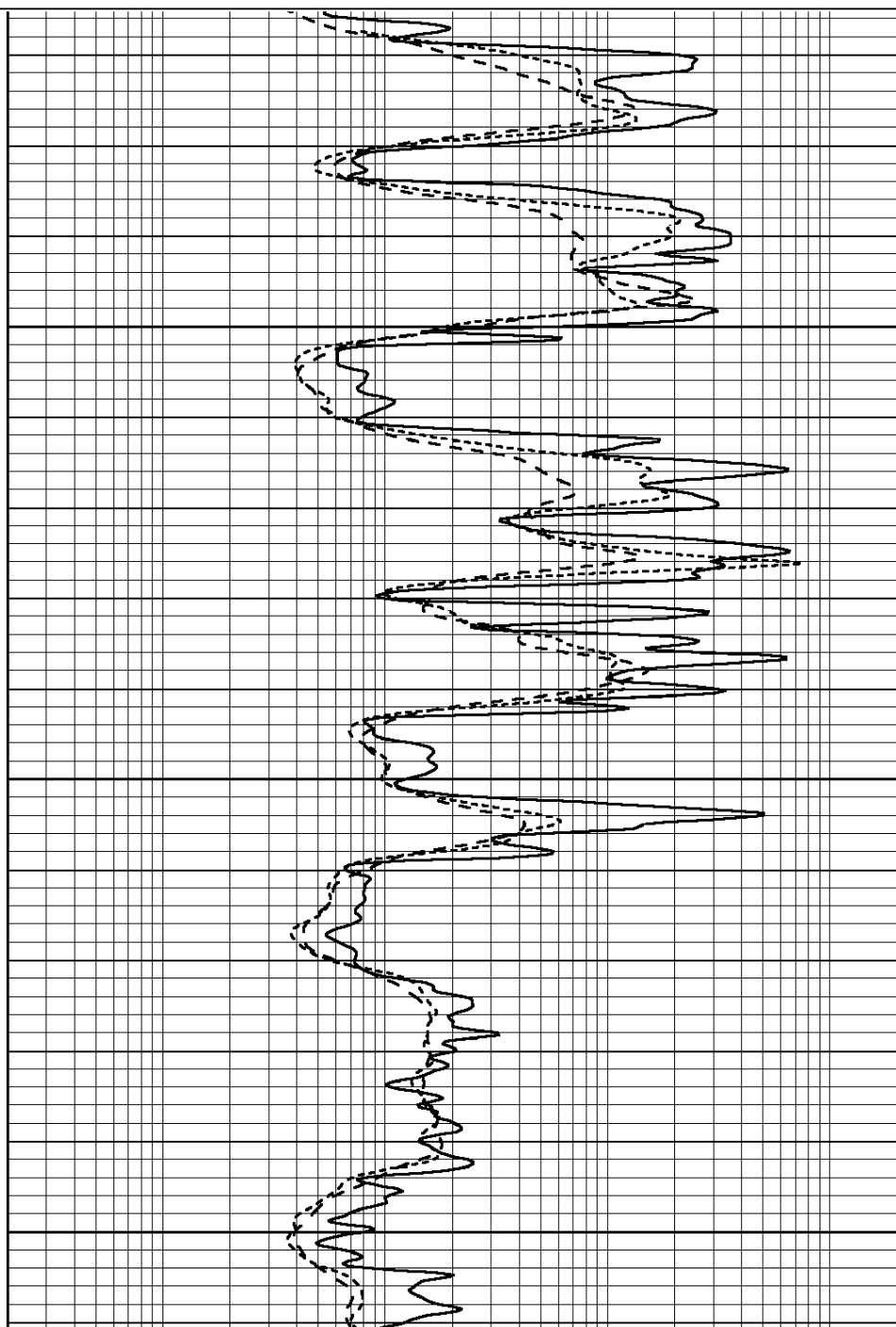
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0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000

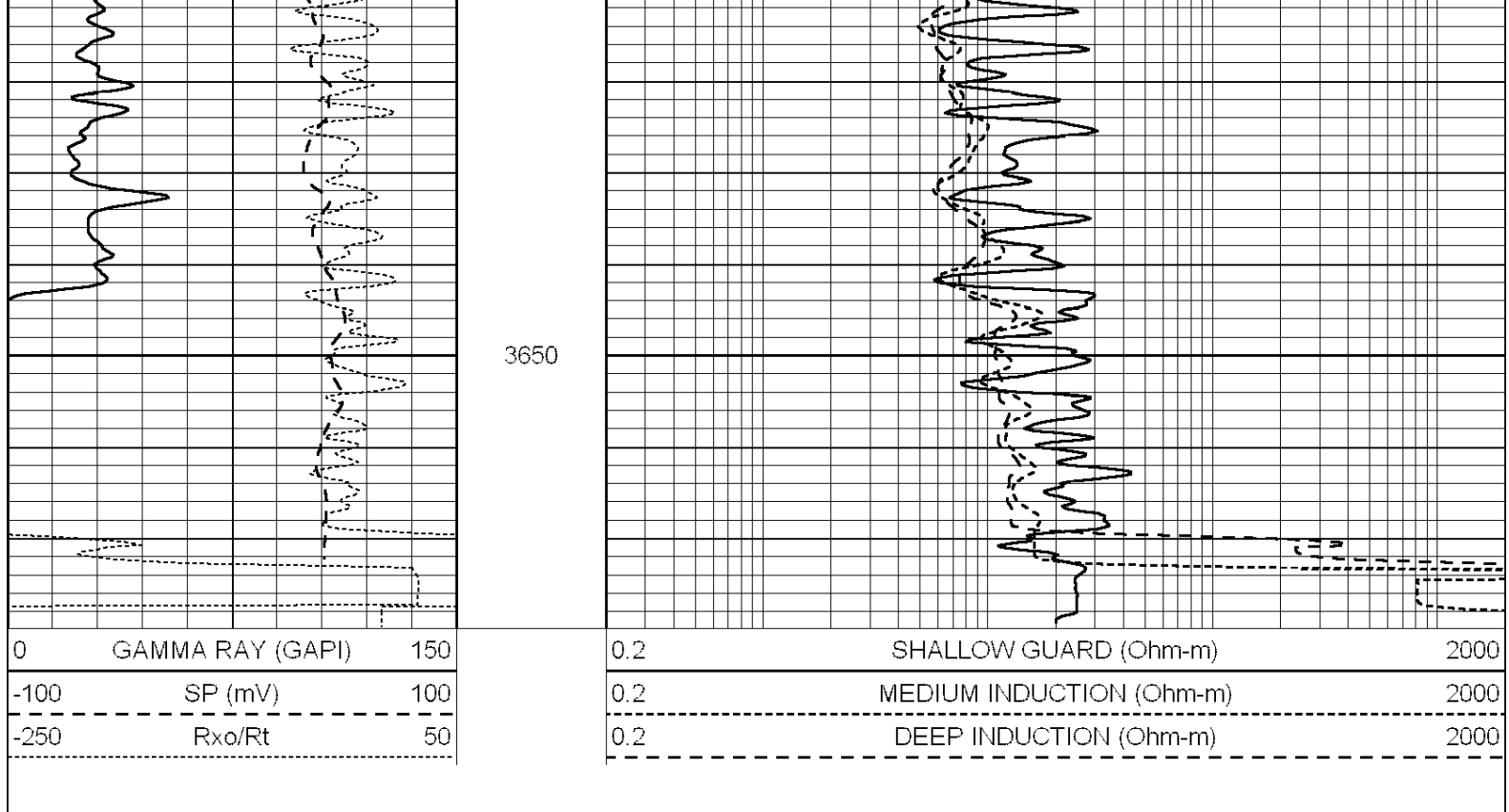


3500

3550

3600





Calibration Report

Database File: 008670ddn.db
 Dataset Pathname: pass3.2
 Dataset Creation: Wed Jan 11 15:11:31 2012 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

Loop:	Readings			References			Results	
	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
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	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: Fri Jan 06 21:06:59 2012

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1015.91	497.51	cps
Aluminum	2.580	g/cc	227.67	350.20	cps
Spine Angle = 76.79			Density/Spine Ratio = 0.566		
	Size		Reading		
Small Ring	8.00	in	2.25	V	
Large Ring	14.00	in	4.37	V	

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

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