



SUPERIOR
Hays,
Kansas

DUAL
INDUCTION
LOG

Company BLACK DIAMOND OIL, INC.
Well STATES AG #2-36
Field POOL EXT.
County NORTON
State KANSAS

Company BLACK DIAMOND OIL, INC.
Well STATES AG #2-36
Field POOL EXT.
County NORTON State KANSAS

Location: API # : 15-137-20577-0000
2130' FNL & 2140' FEL

Other Services
CDL/CNL
MEL

SEC 36 TWP 4S RGE 21W

Permanent Datum GROUND LEVEL Elevation 2035
Log Measured From KELLY BUSHING 8' A.G.L.
Drilling Measured From KELLY BUSHING

Elevation
K.B. 2043
D.F. 2041
G.L. 2035

Date	9/3/11		
Run Number	ONE		
Depth Driller	3500		
Depth Logger	3488		
Bottom Logged Interval	3486		
Top Log Interval	00		
Casing Driller	8 5/8" @ 221		
Casing Logger	219		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 1000 PPM	
Density / Viscosity	9.2/55		
pH / Fluid Loss	10.0/8.0		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	.40 @ 85F		
Rmf @ Meas. Temp	.30 @ 85F		
Rmc @ Meas. Temp	.48 @ 85F		
Source of Rmf / Rmc	MEASURED		
Rim @ BHT	.30 @ 111F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	111F		
Equipment Number	680		
Location	HAYS, KS.		
Recorded By	JASON CAPPELLUCCI		
Witnessed By	KEN VEHIGE		

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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
LOGAN KS. - 3 1/4 W - S. INTO



SUPERIOR
Hays,
Kansas

MAIN SECTION

Database File: 007704ddn.db
Dataset Pathname: pass3.2
Presentation Format: _dil2
Dataset Creation: Sat Sep 03 03:04:09 2011 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:600

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

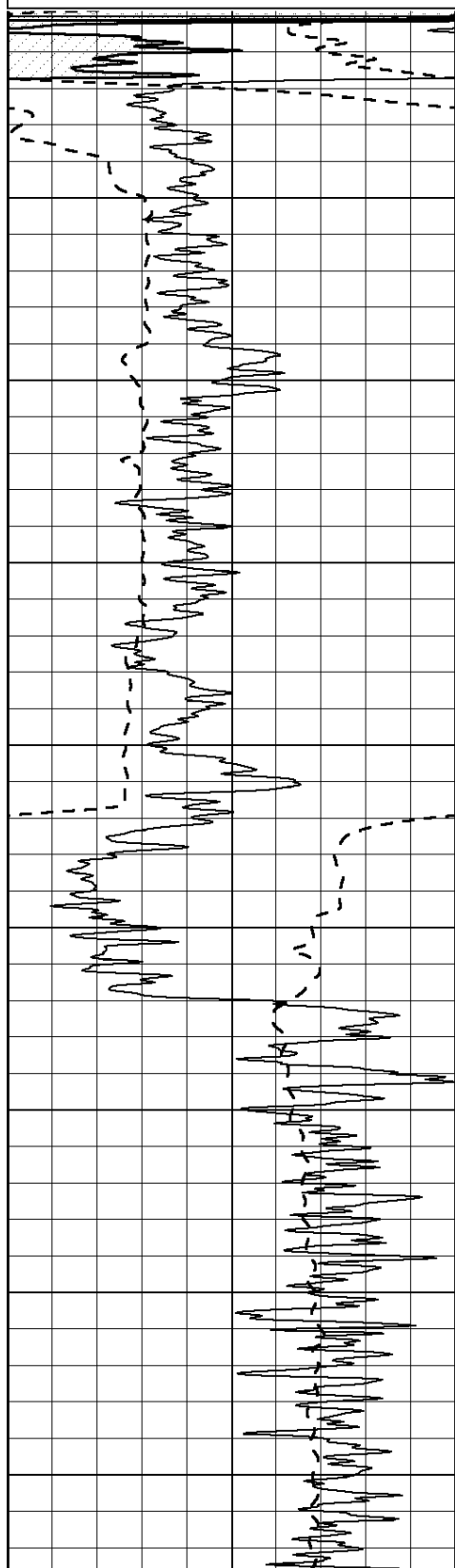
0 RLL3 (Ohm-m) 50

0 Deep Induction (Ohm-m) 50

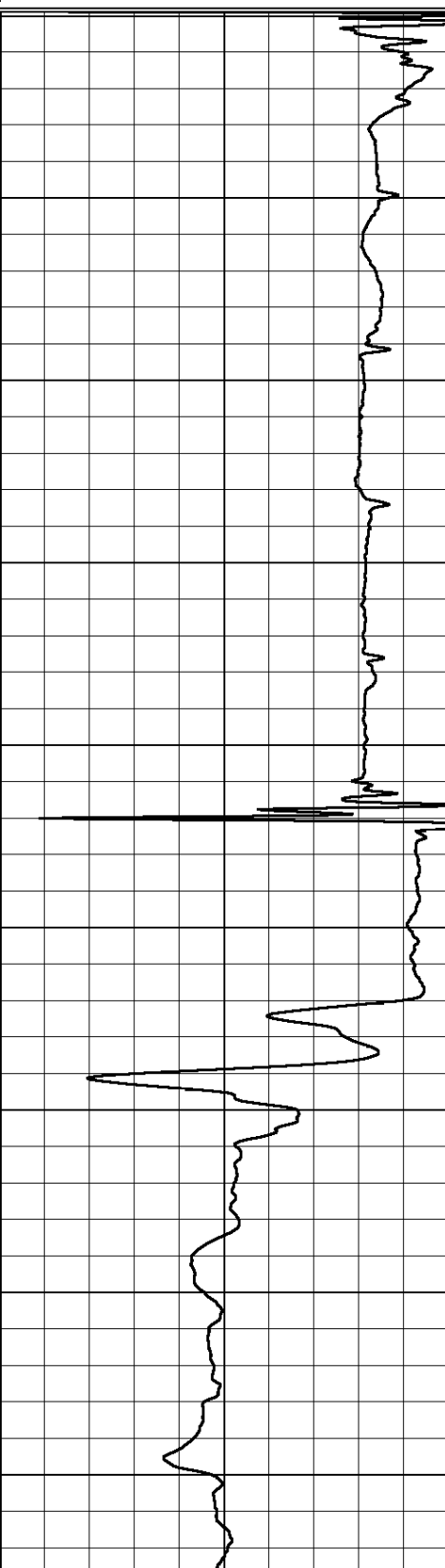
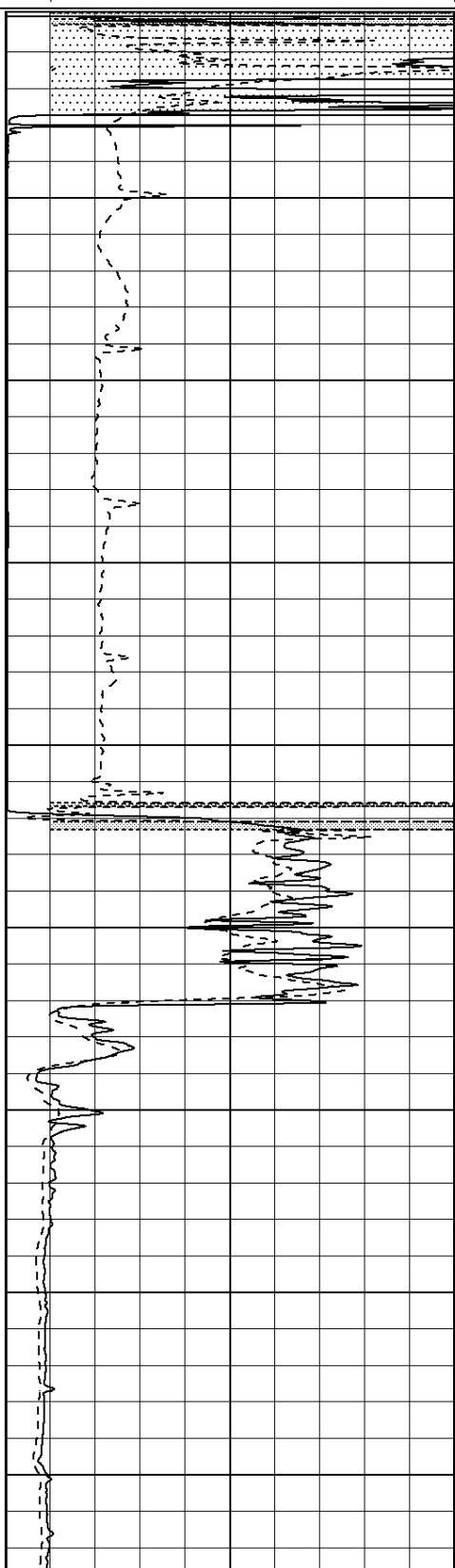
1000 CILD (mmho/m) 0

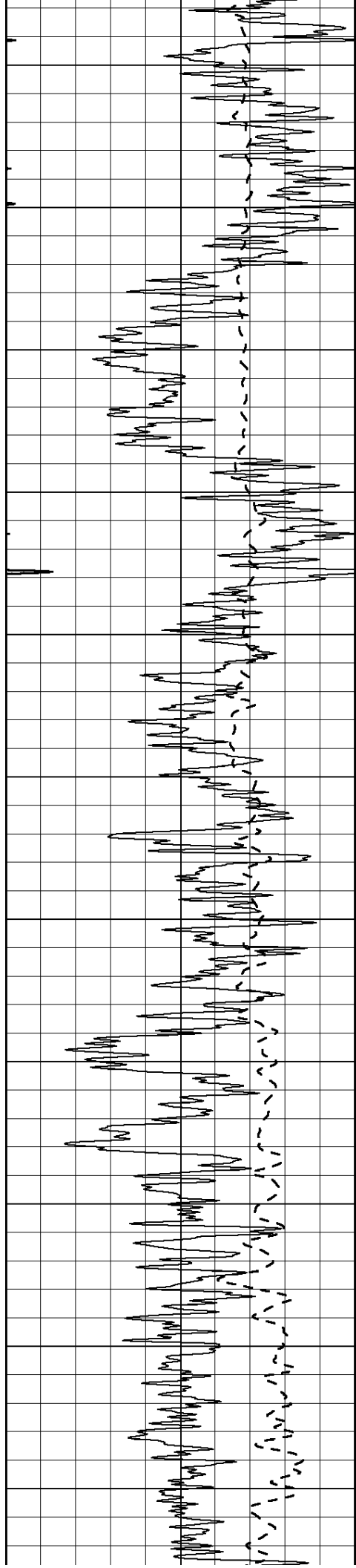
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50 RLL3 X10 (Ohm-m) 500

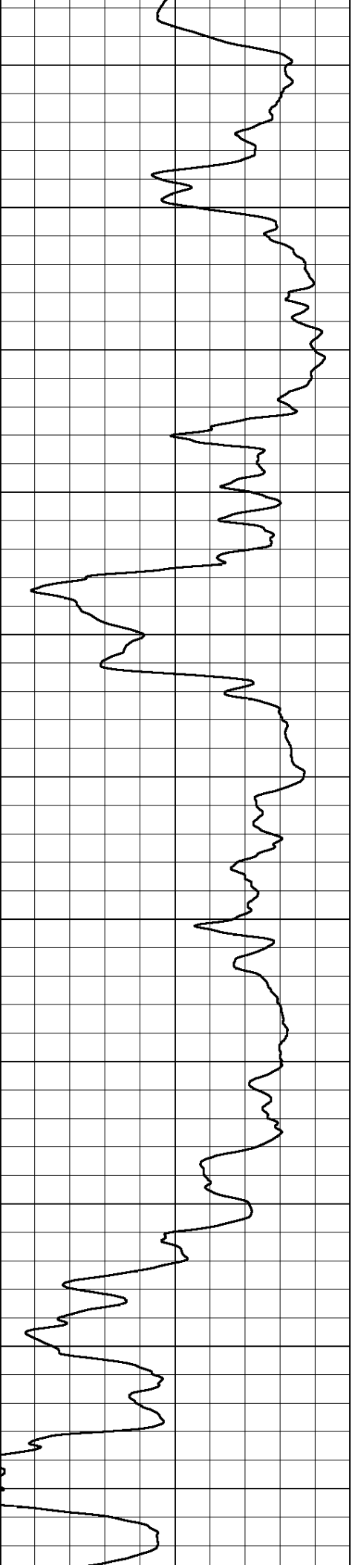
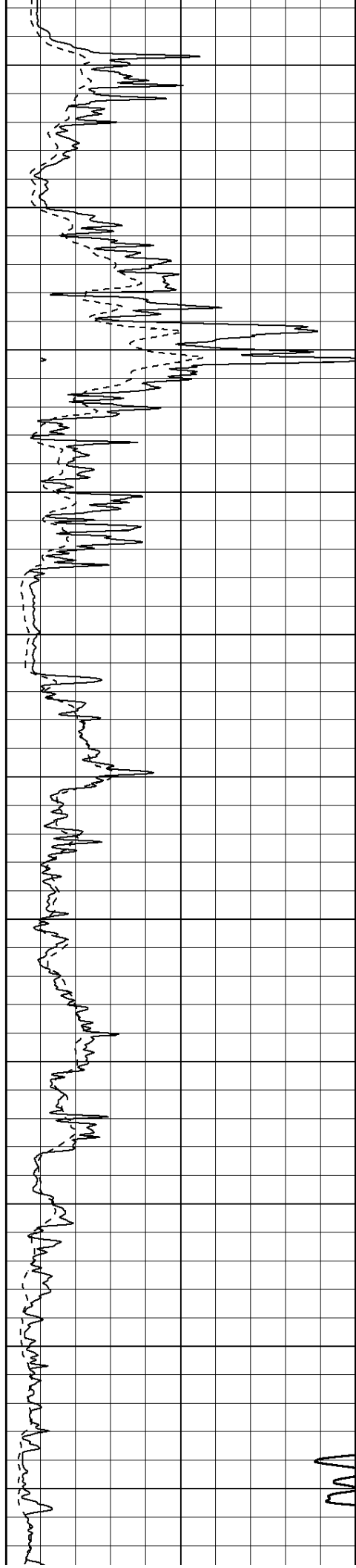


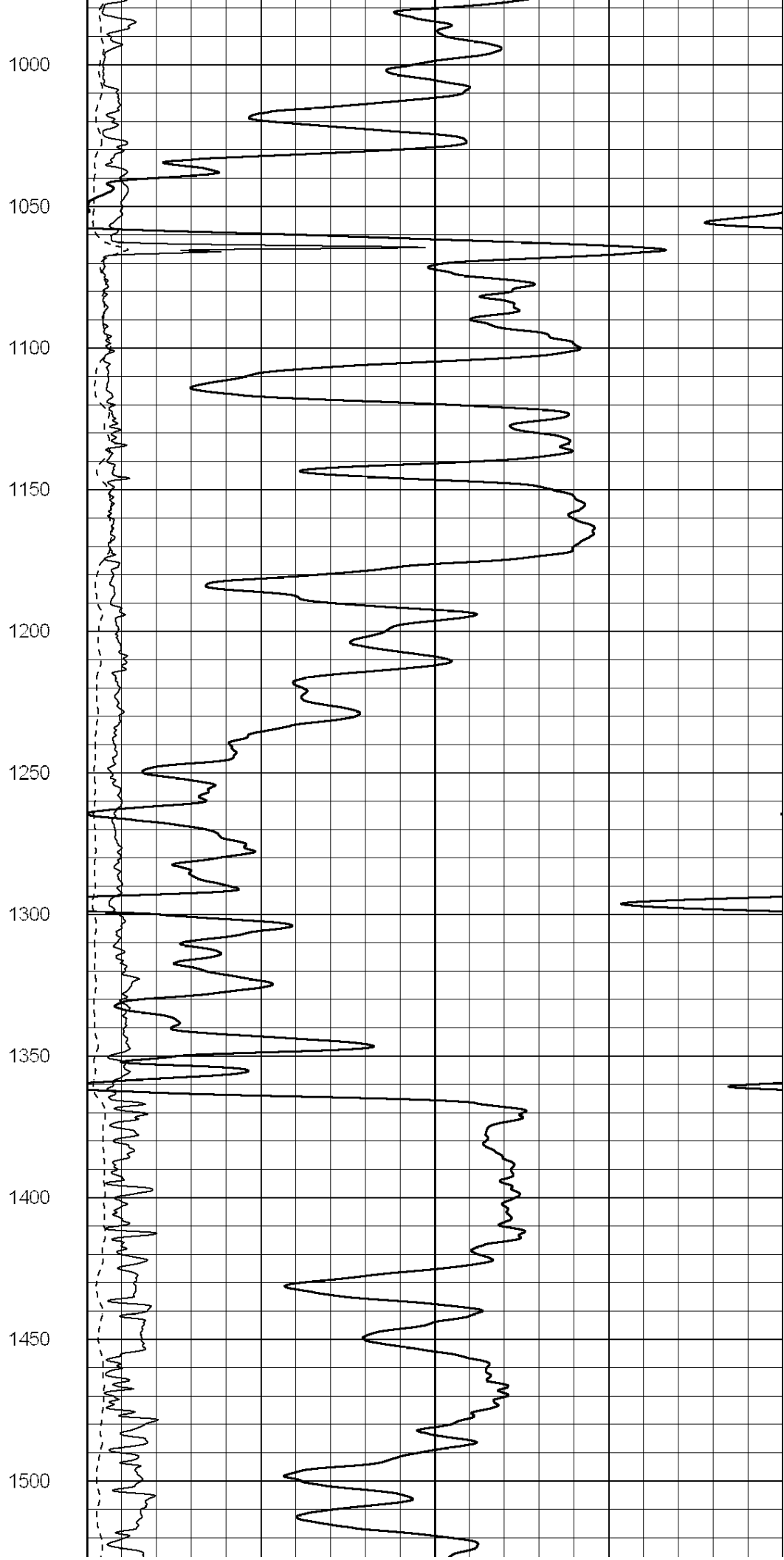
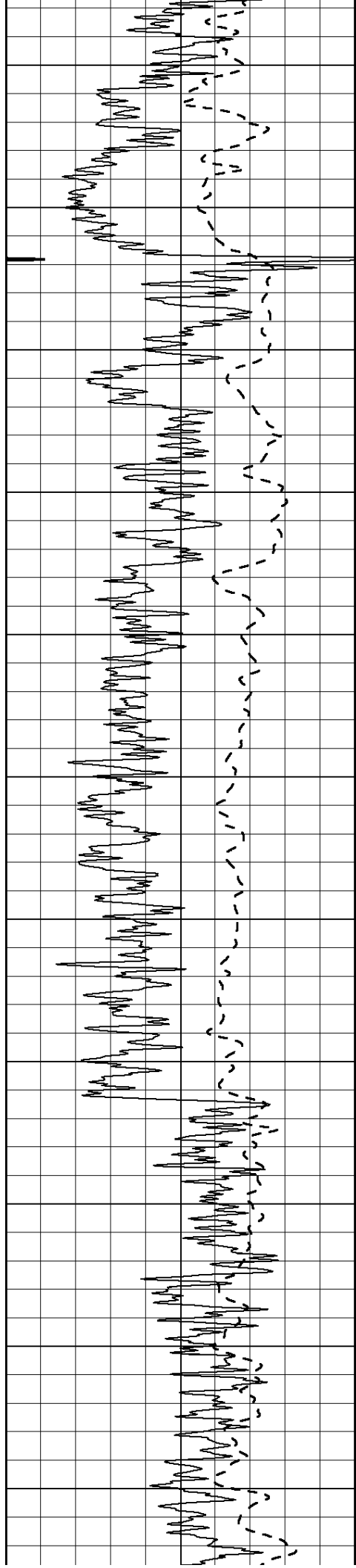
0
50
100
150
200
250
300
350
400

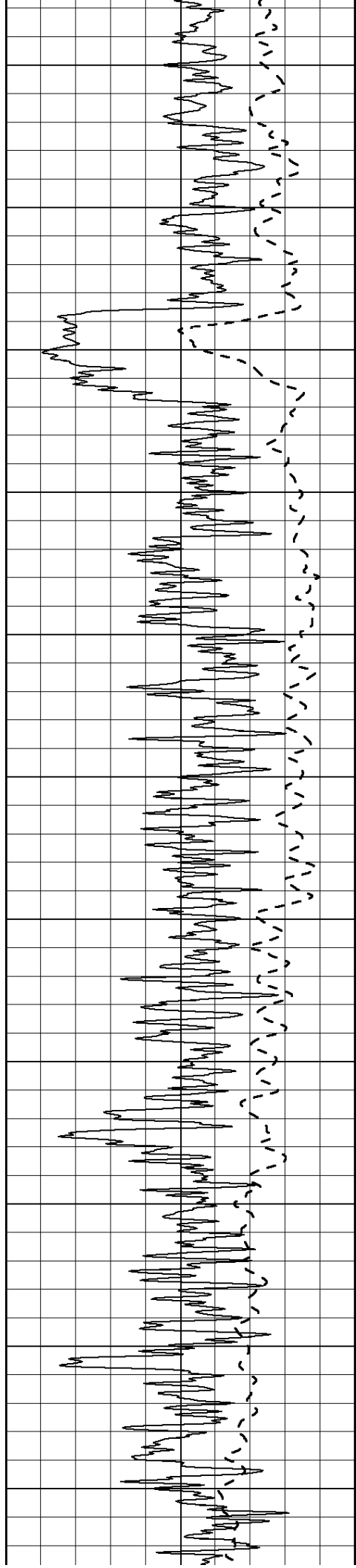




450
500
550
600
650
700
750
800
850
900
950







1550

1600

1650

1700

1750

1800

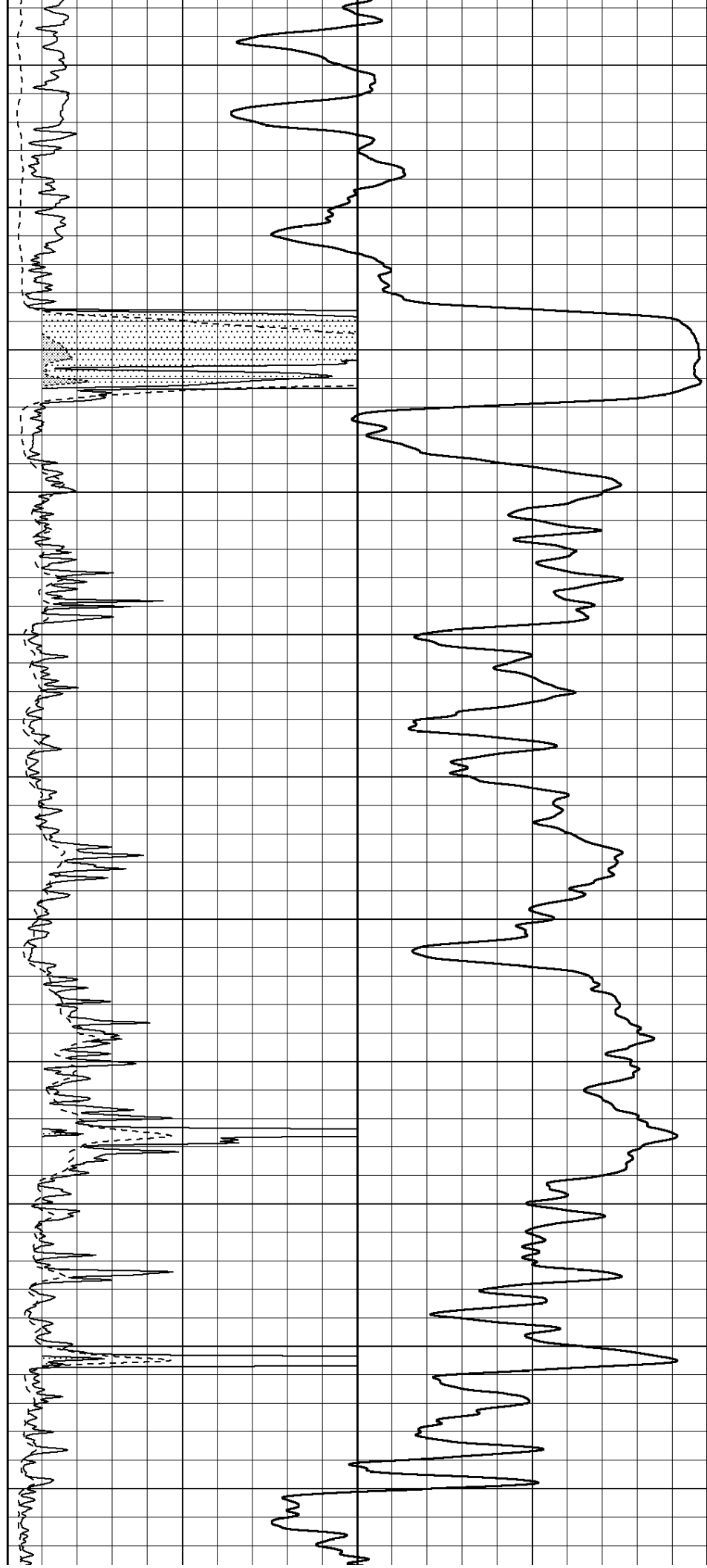
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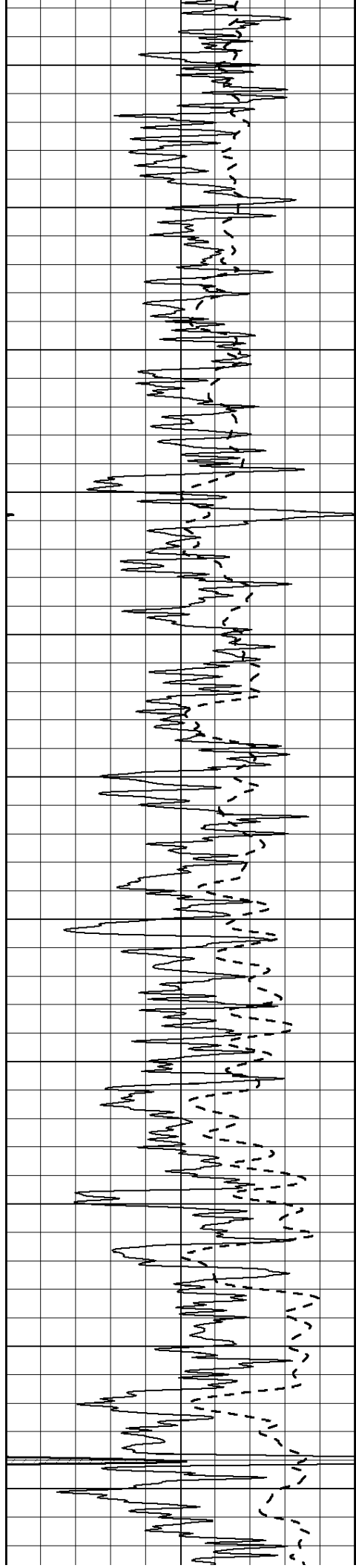
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1950

2000

2050





2100

2150

2200

2250

2300

2350

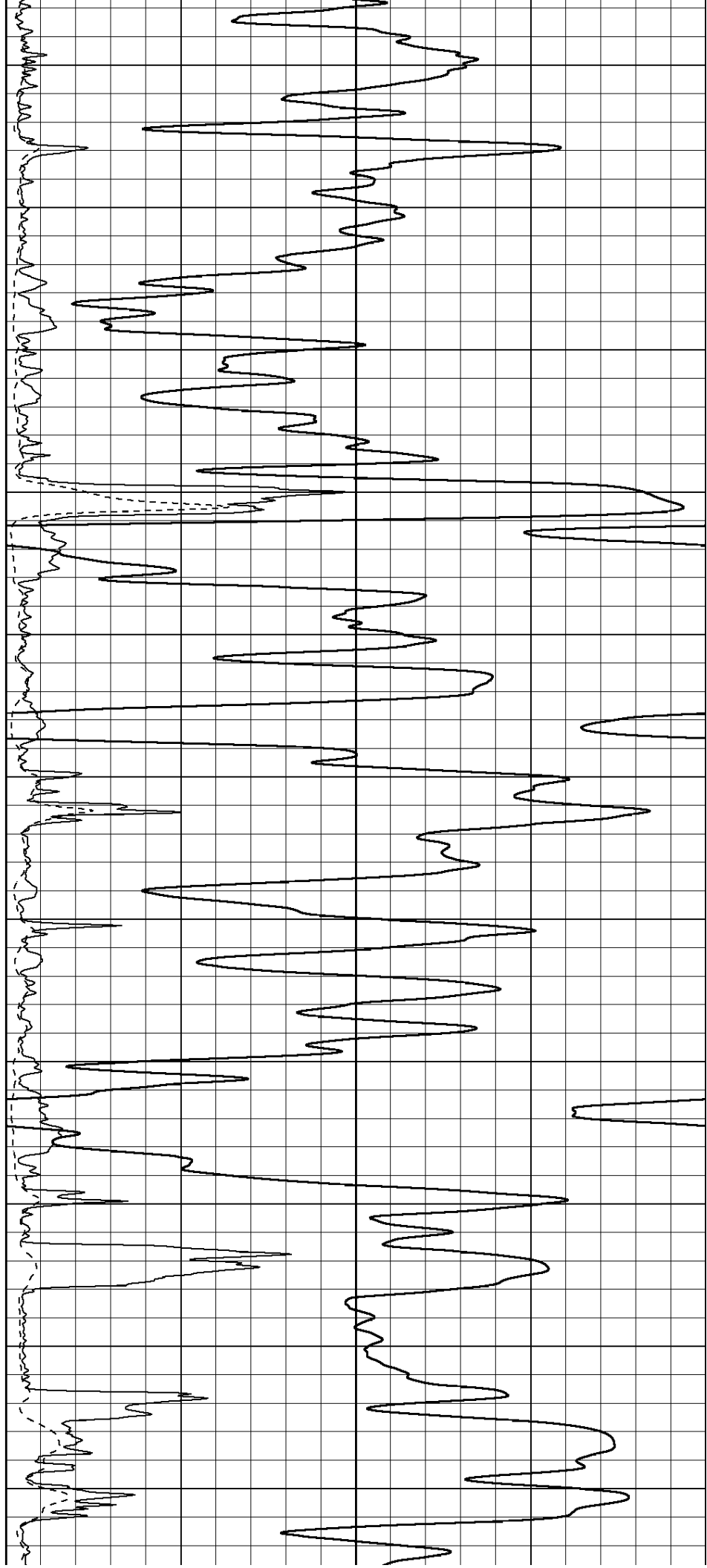
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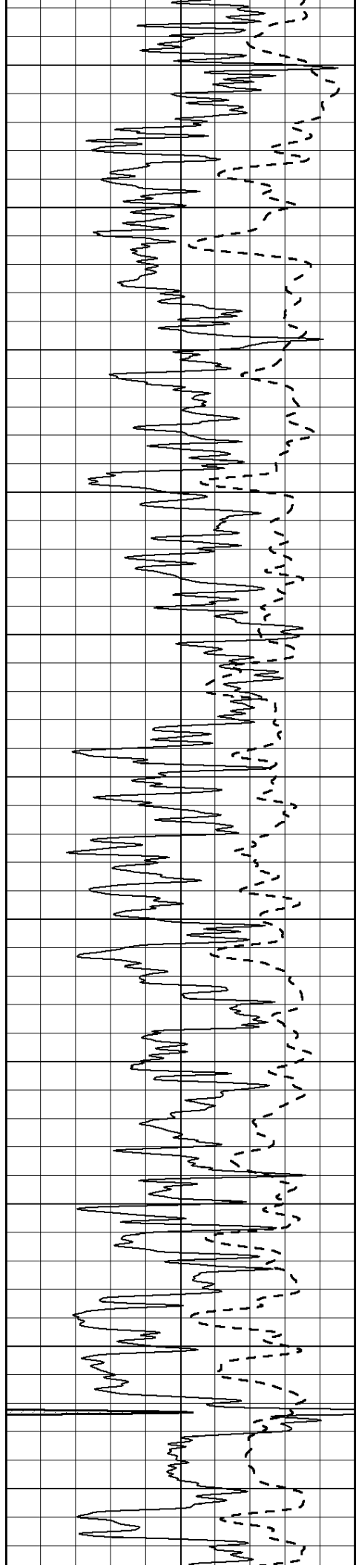
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2500

2550

2600





2650

2700

2750

2800

2850

2900

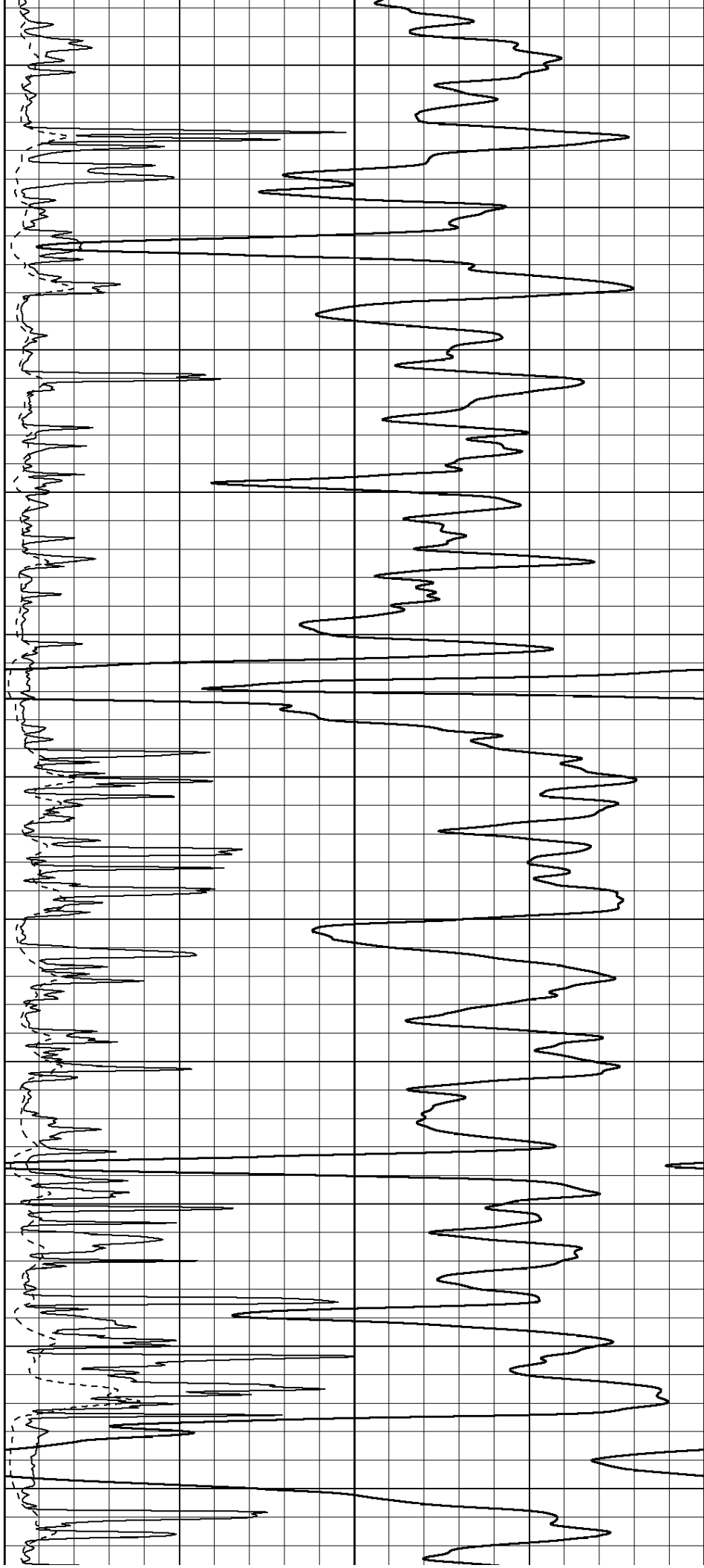
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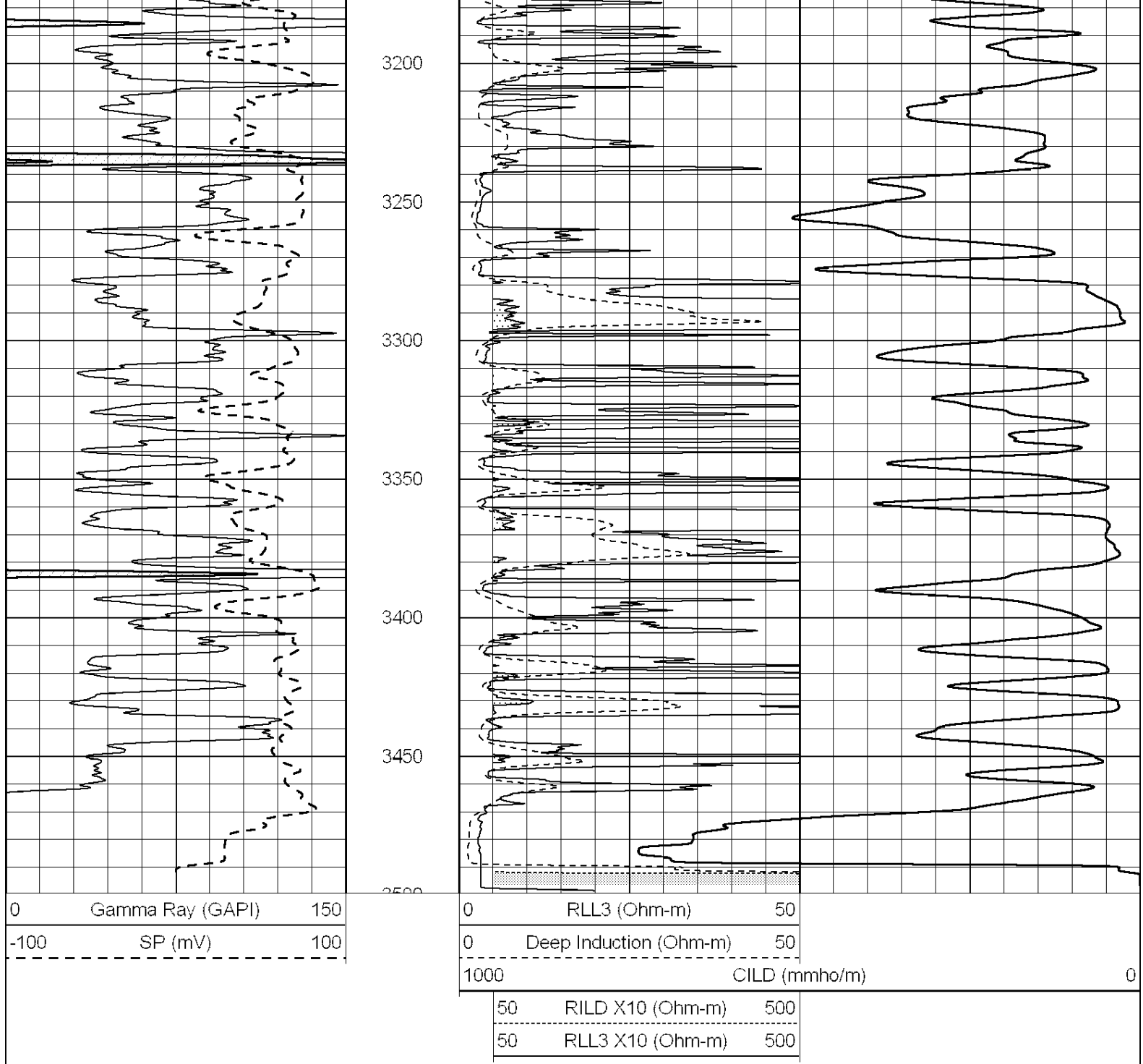
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3050

3100

3150



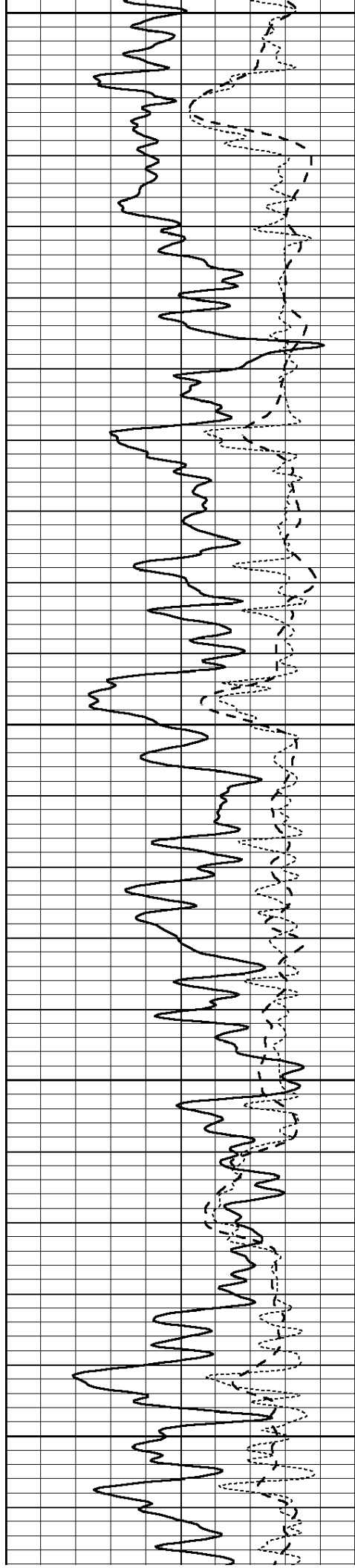


SUPERIOR
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MAIN SECTION

Database File: 007704ddn.db
 Dataset Pathname: pass3.1
 Presentation Format: _dil
 Dataset Creation: Sat Sep 03 03:01:46 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



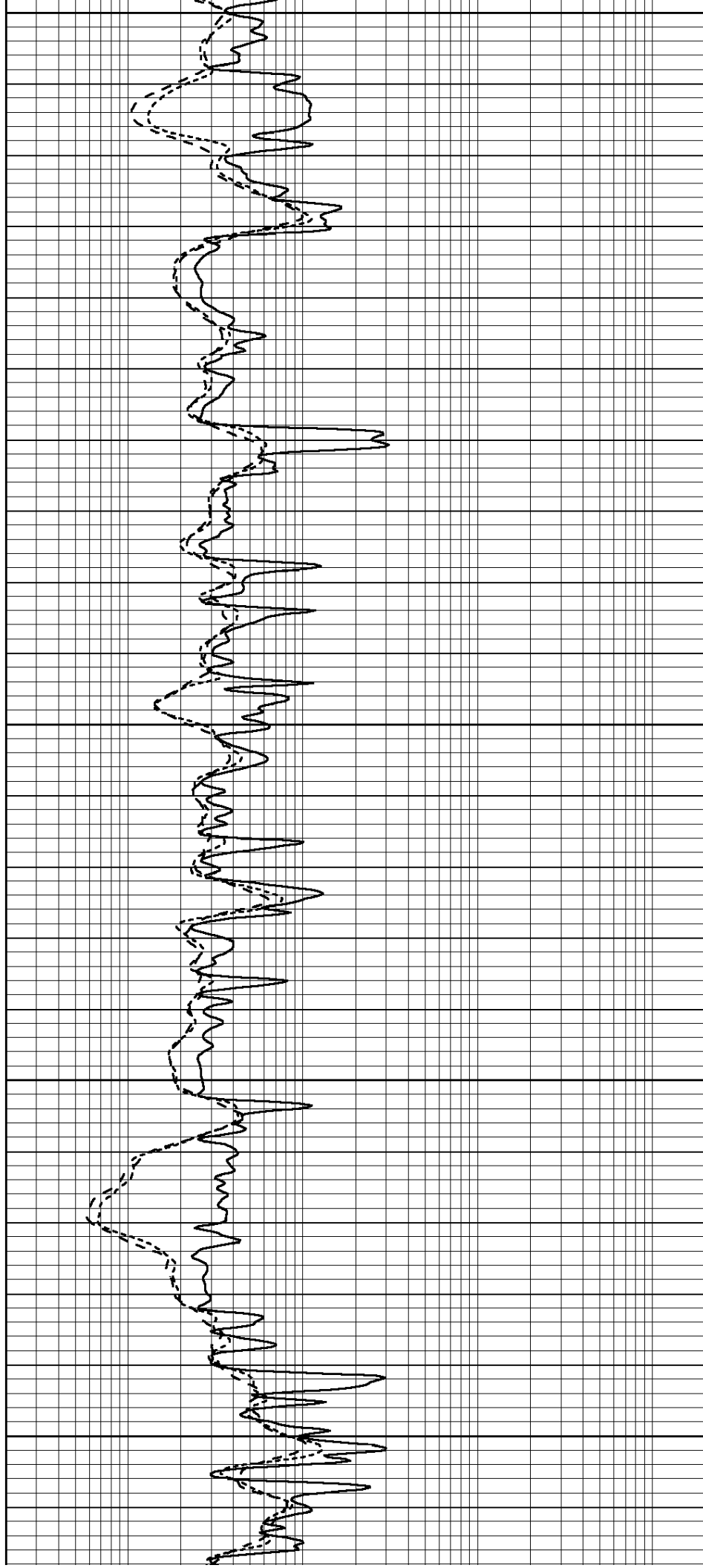
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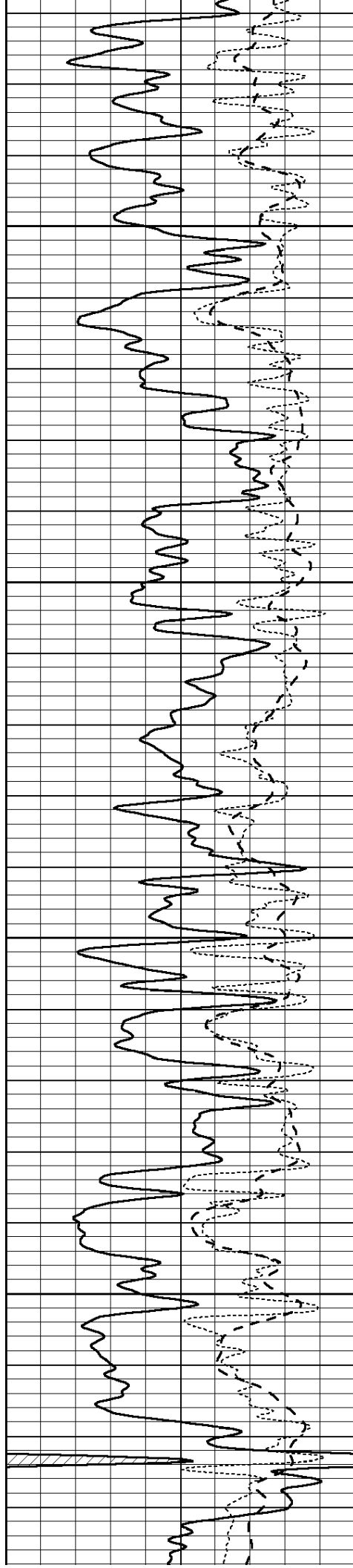
2750

2800

2850

2900



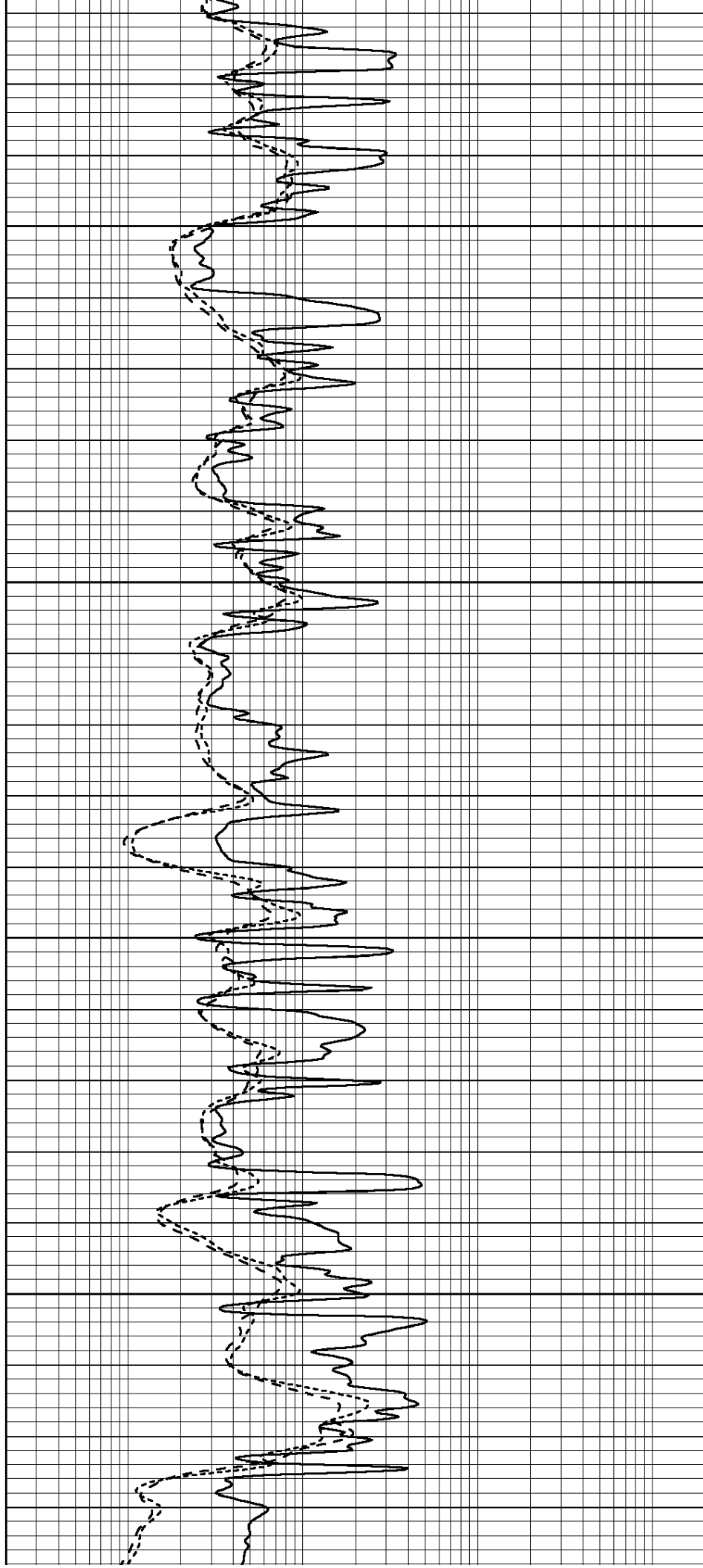


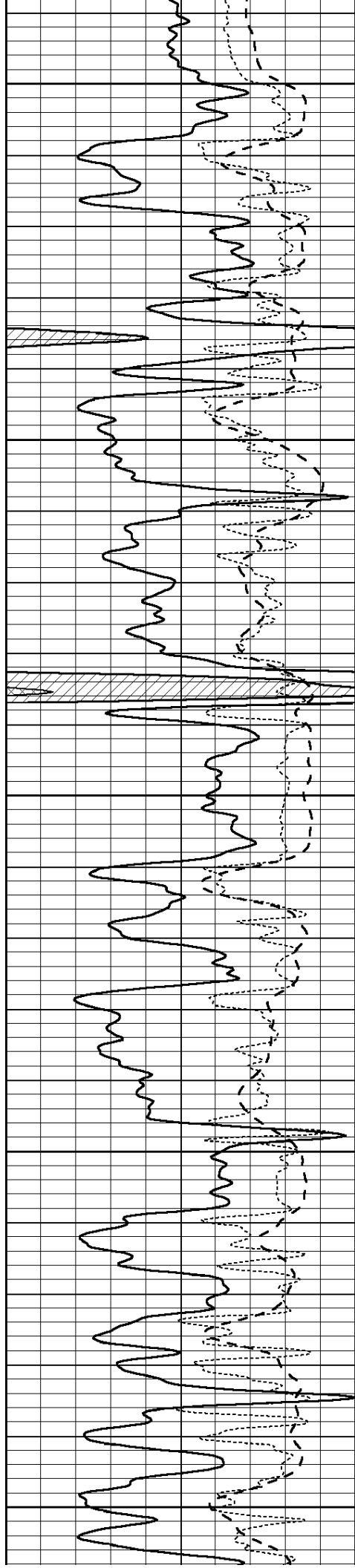
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3000

3050

3100





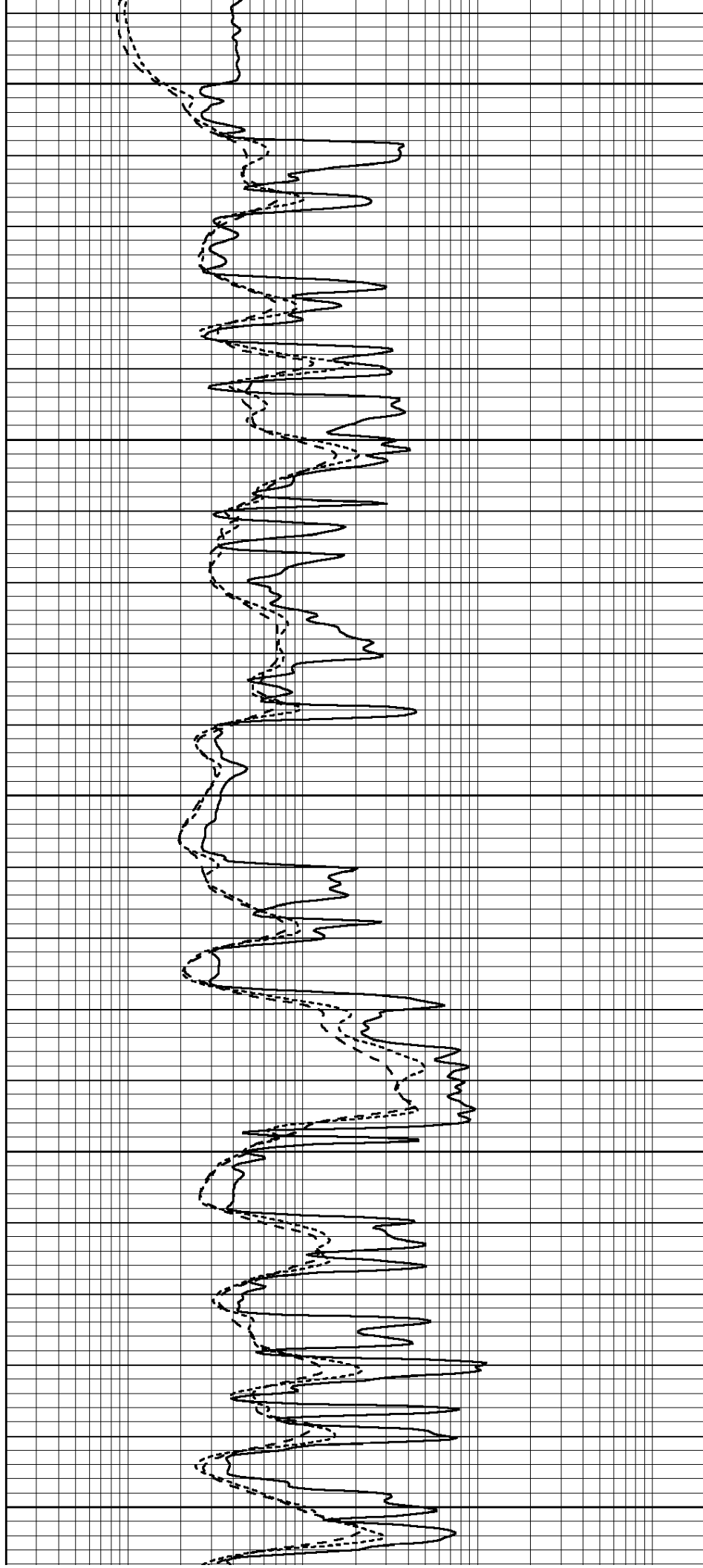
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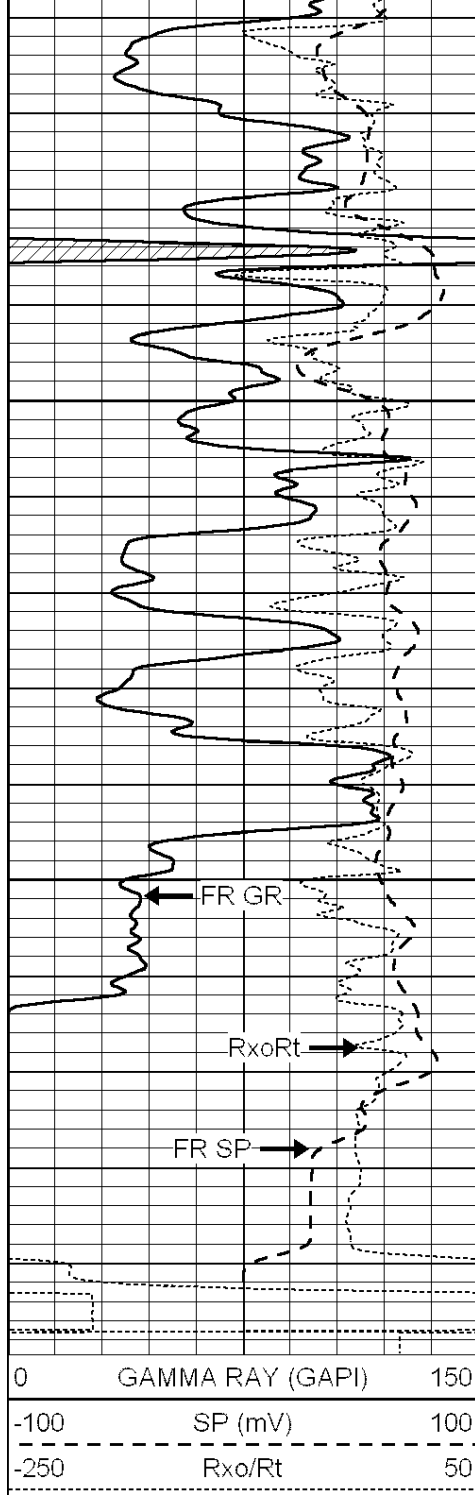
3200

3250

3300

3350

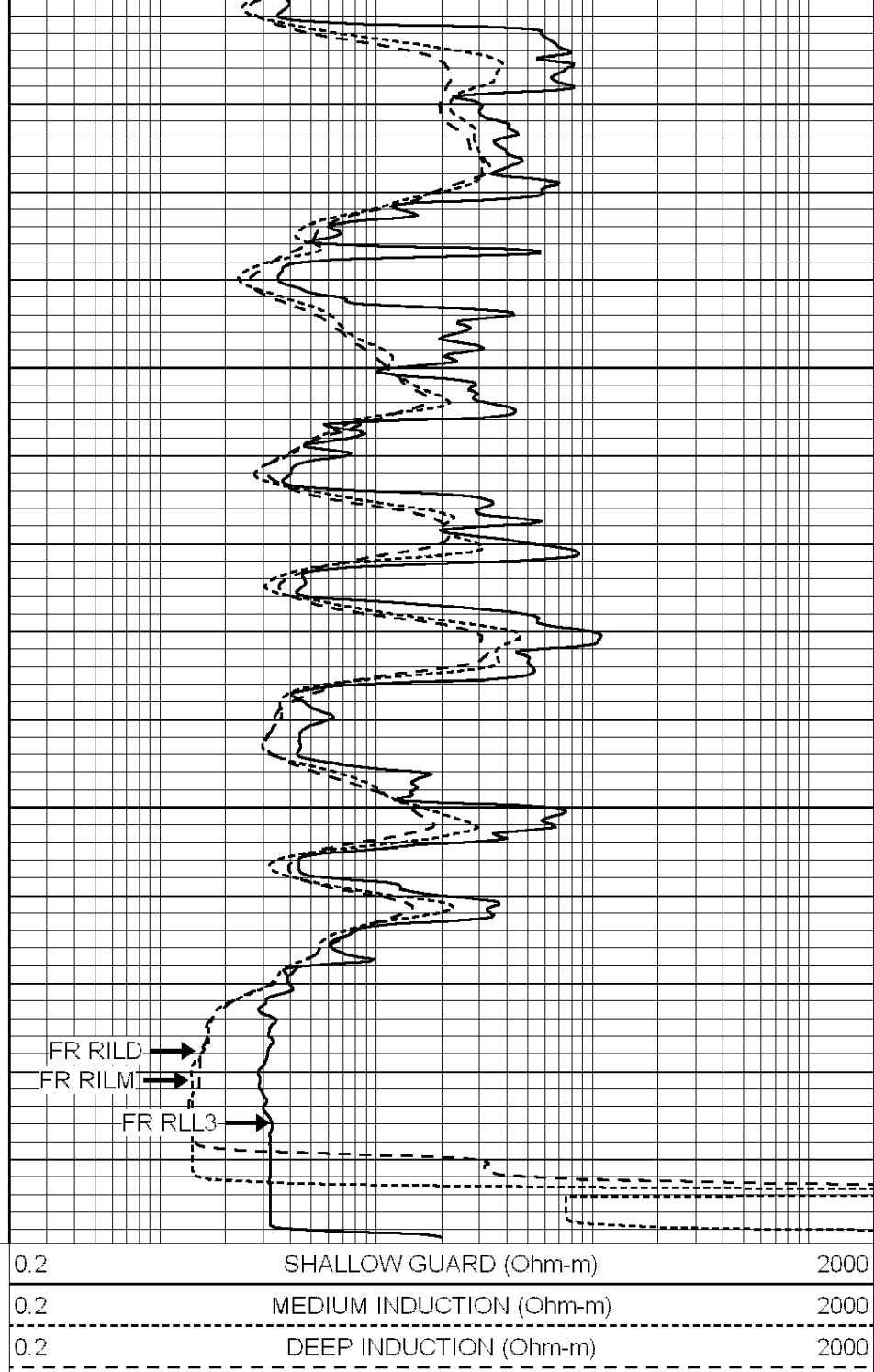




3400

3450

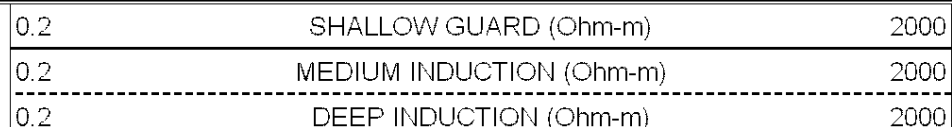
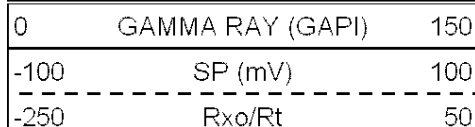
LTD 3488

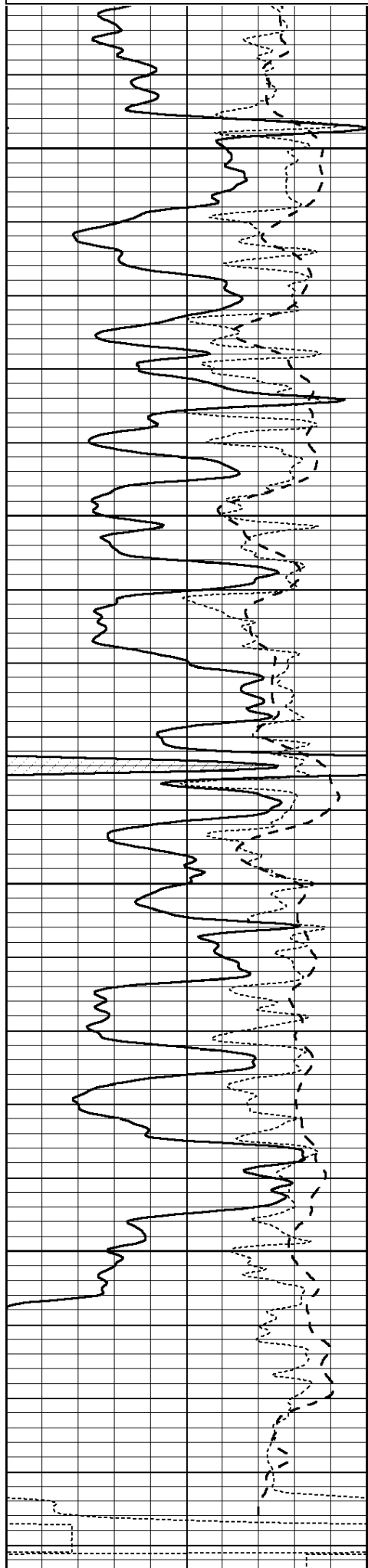


SUPERIOR
WELL SERVICES
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REPEAT SECTION

Database File: 007704ddn.db
 Dataset Pathname: pass2.1
 Presentation Format: _dil
 Dataset Creation: Sat Sep 03 03:05:45 2011 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240



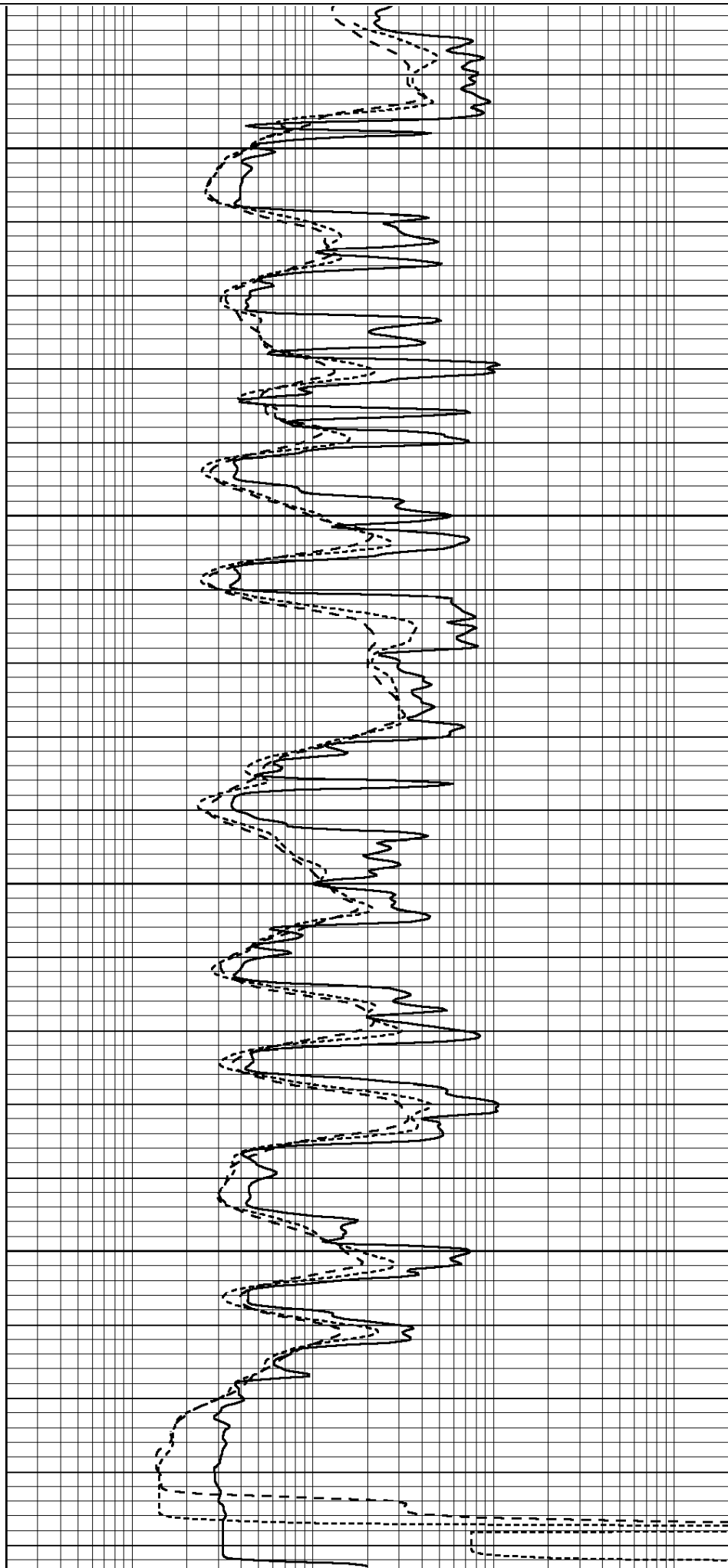


3300

3350

3400

3450



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

Calibration Report					
Database File:	007704ddn.db				
Dataset Pathname:	pass2.1				
Dataset Creation:	Sat Sep 03 03:05:45 2011 by Calc Open-Cased 090629				

Dual Induction Calibration Report					
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	2.55	V		
Large Ring	14.00	in	4.36	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			