



NABORS

**COMPLETION
& PRODUCTION
SERVICES CO.**

DUAL INDUCTION LOG

Company		DOUBLE D'S, LLC.	
Well		YOUNGER #1	
Field		IRVIN	
County		ELLIS	
State		KANSAS	
Location:		API # : 15-051-26396-00-00 1040' FNL & 330' FWL S2 - SW - NW - NW	
SEC 25 TWP 13S RGE 20W		Other Services CD/CNL/MEL SONIC	
Permanent Datum		GROUND LEVEL Elevation 2125	
Log Measured From		KELLY BUSHING 6' A.G.L.	
Drilling Measured From		KELLY BUSHING	
Date	11/15/12		
Run Number	ONE		
Depth Driller	3850		
Depth Logger	3850		
Bottom Logged Interval	3848		
Top Log Interval	3000		
Casing Driller	8 5/8" @ 220		
Casing Logger	218		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.3/48		
pH / Fluid Loss	9.5/10.2		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	0.45 @ 91F		
Rmf @ Meas. Temp	0.34 @ 91F		
Rmc @ Meas. Temp	0.54 @ 91F		
Source of Rmf / Rmc	MEASURED		
Rim @ BHT	0.36 @ 114F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	114F		
Equipment Number	680		
Location	HAYS, KS.		
Recorded By	IAN MABB		
Witnessed By	AL DOWNING		

<<< Fold Here >>>

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

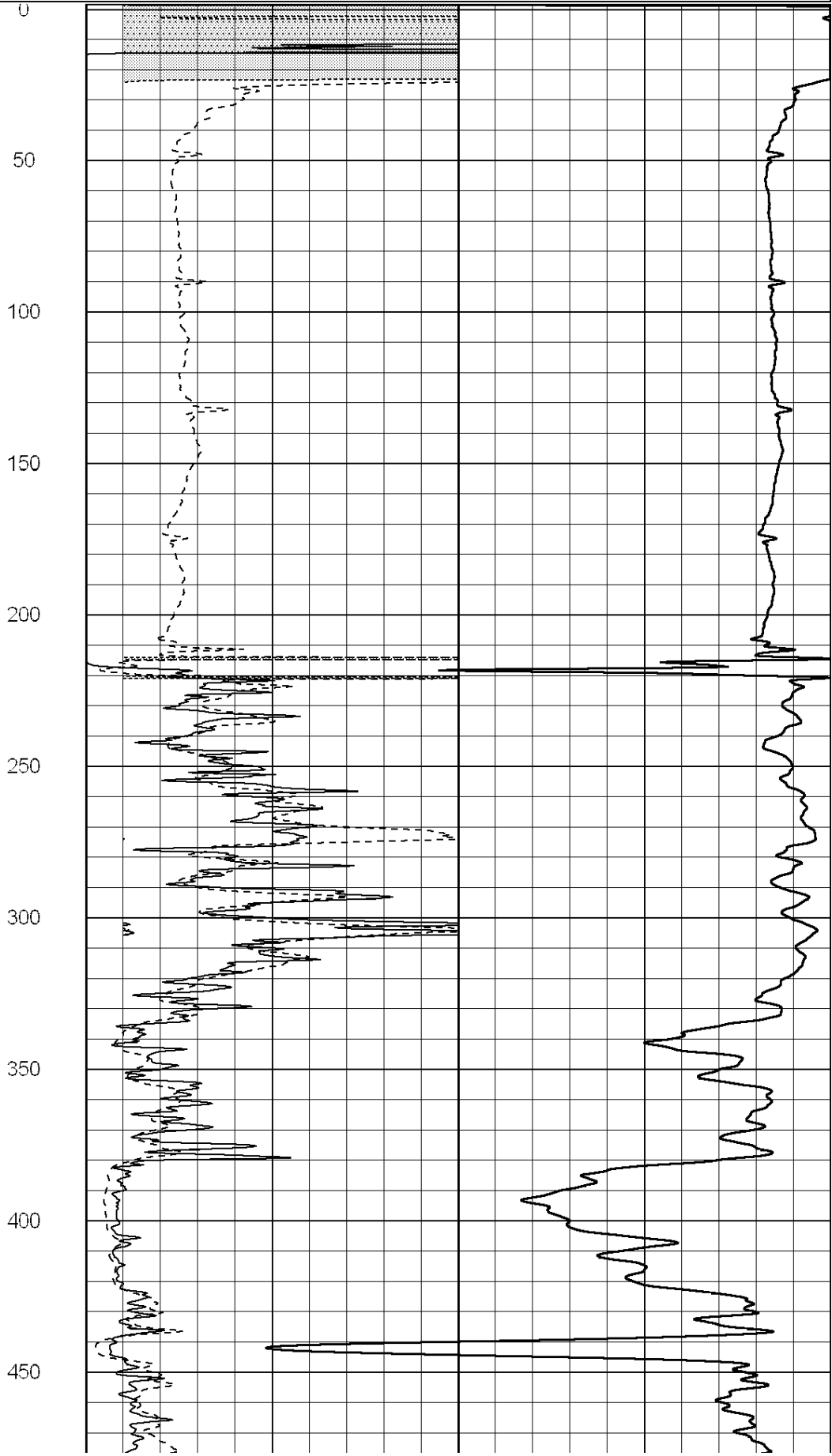
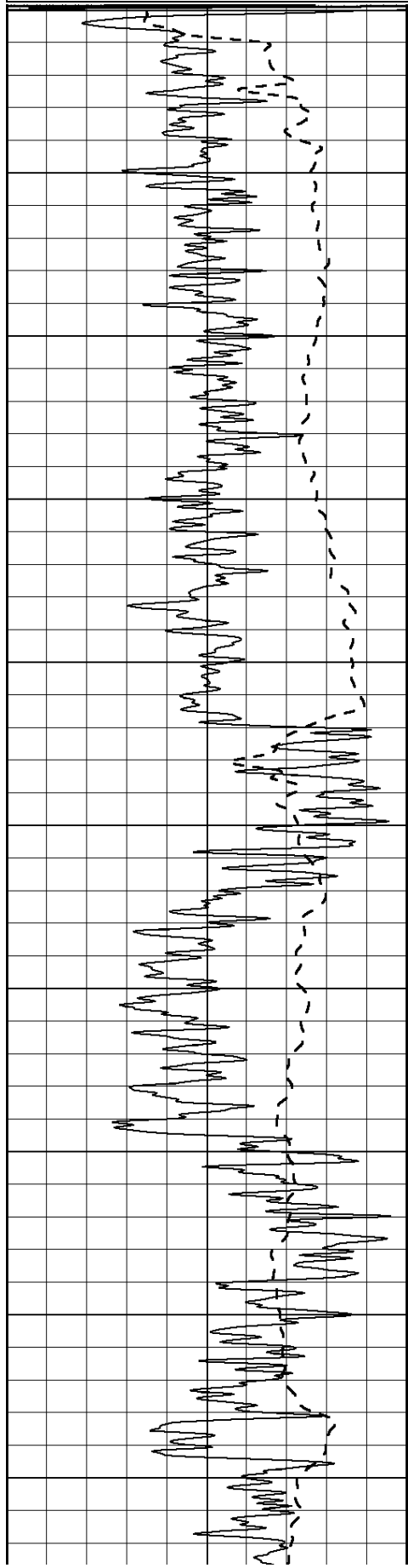
THANK YOU FOR USING SUPERIOR WELL SERVICE (785) 628-6395
 DIRECTIONS
 YOCEMENTO, KS. - 4 1/2 WEST ON HWY 40, 2 1/2 SOUTH ON 150 TH EAST INTO

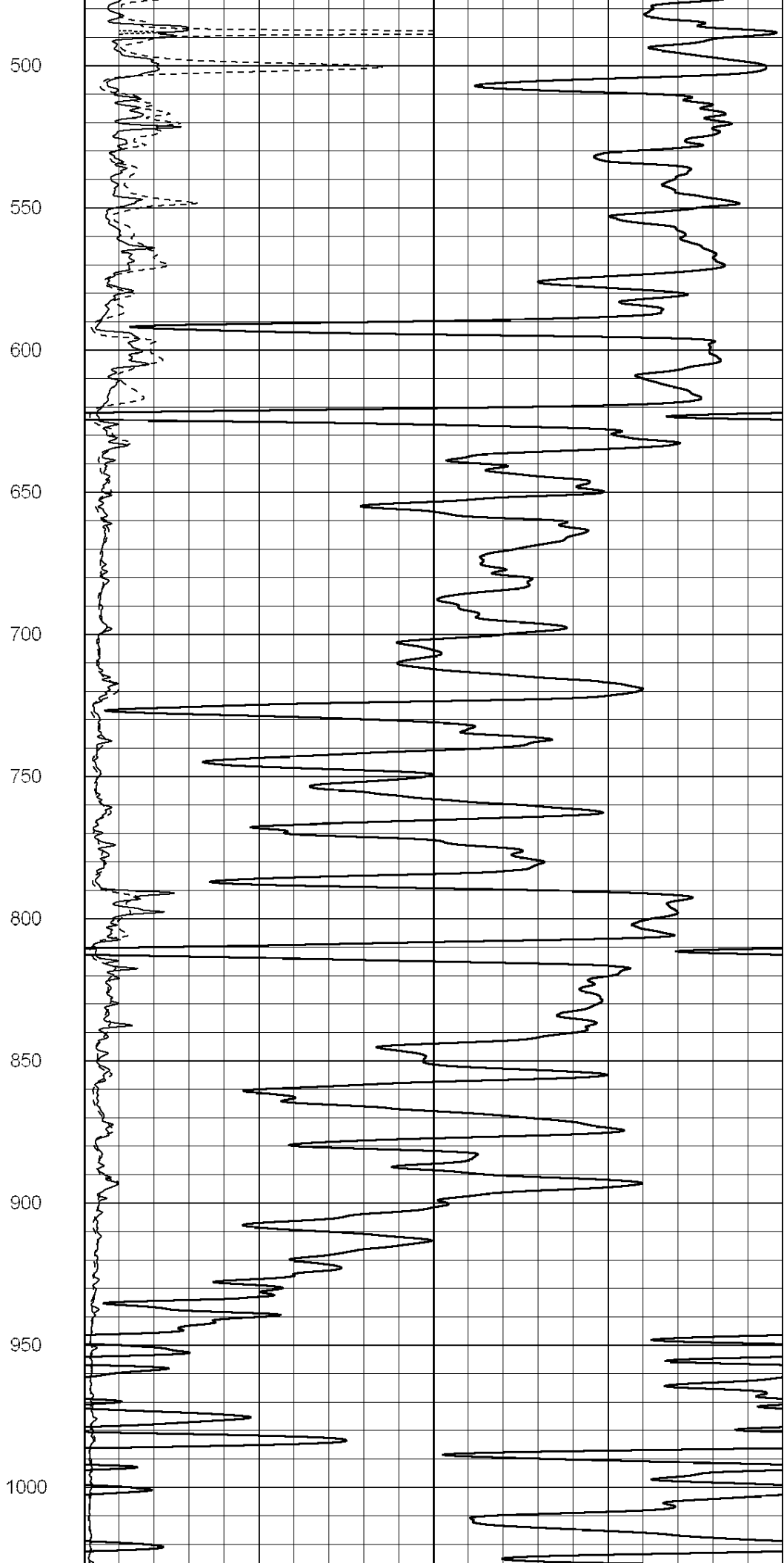
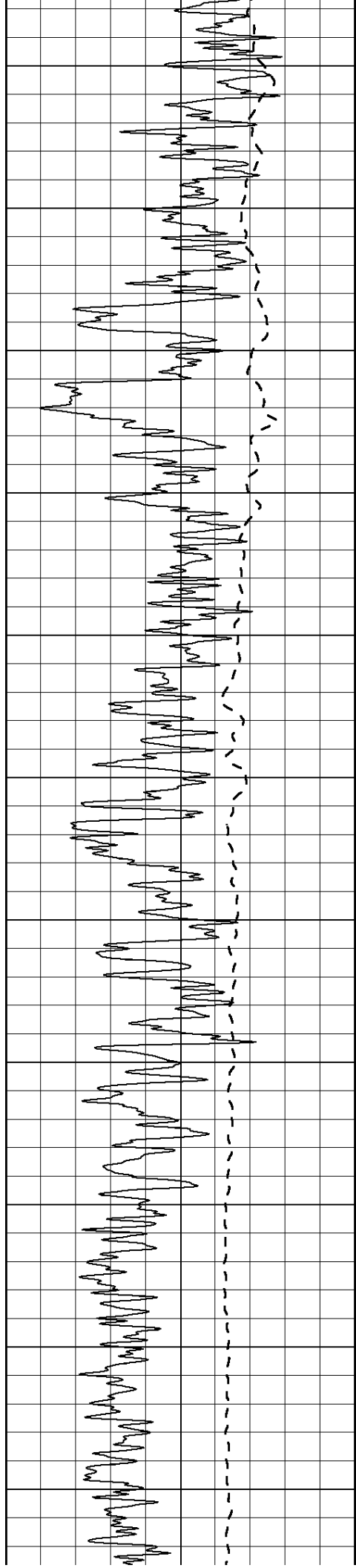
Charted by: Depth (m) Est. scaled (m)		
0	Gamma Ray (GAPI)	150
-100	SP (mV)	100

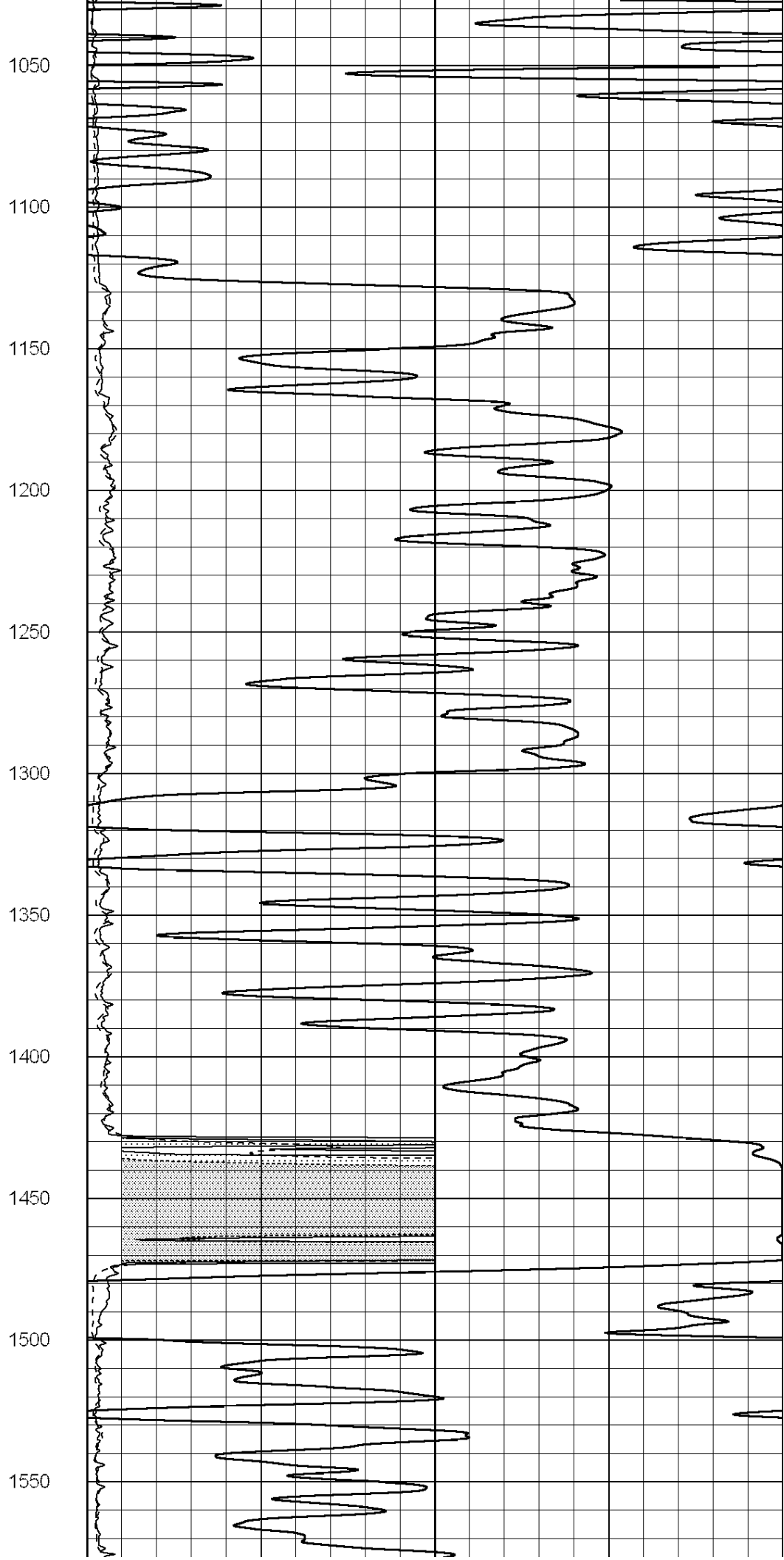
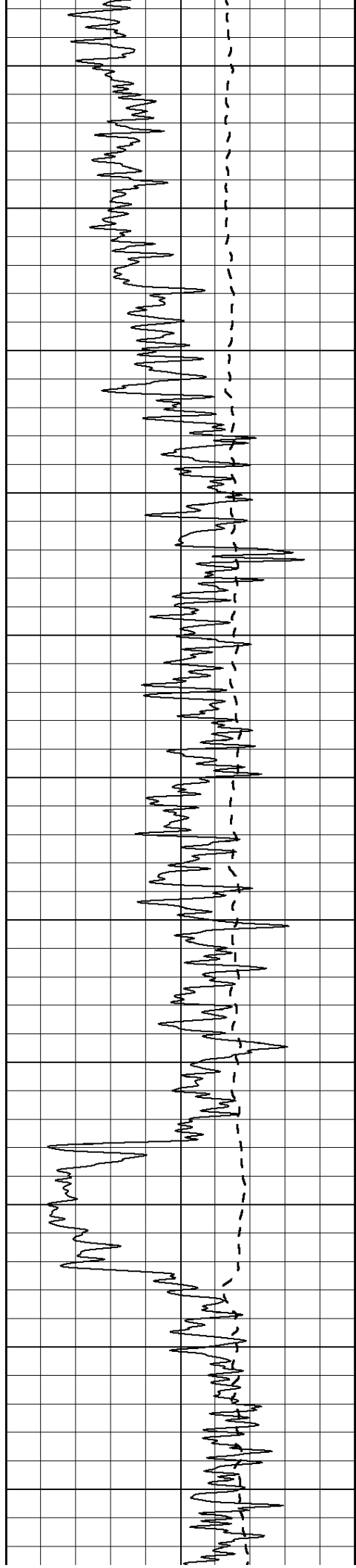
0	RLL3 (Ohm-m)	50
0	Deep Induction (Ohm-m)	50

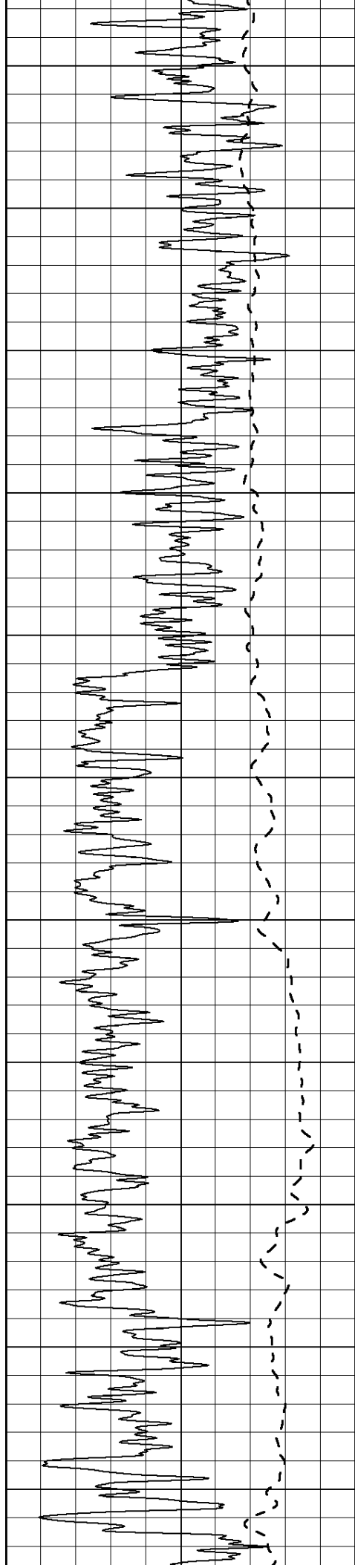
1000	CILD (mmho/m)	0
50	RILD X10 (Ohm-m)	500

50	RLL3 X10 (Ohm-m)	500









1600

1650

1700

1750

1800

1850

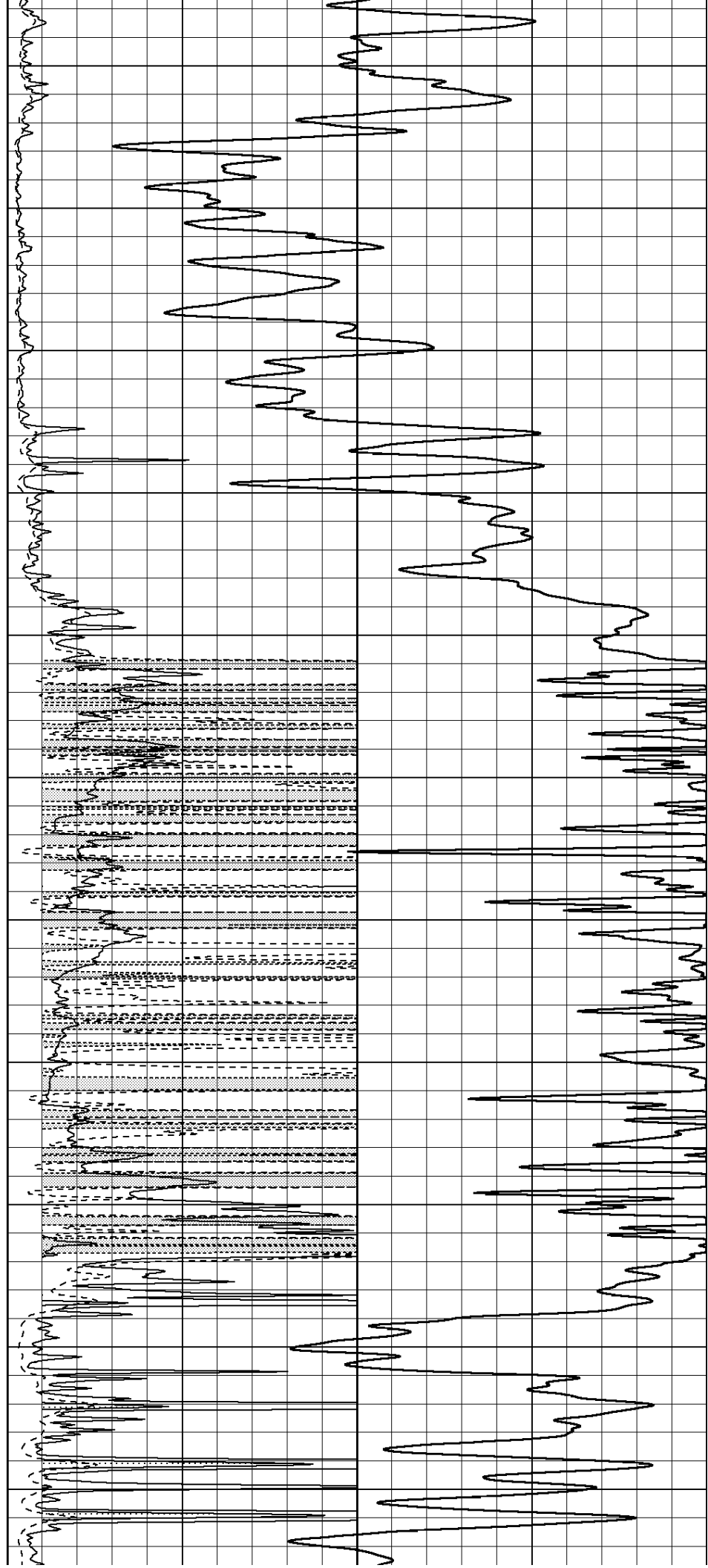
1900

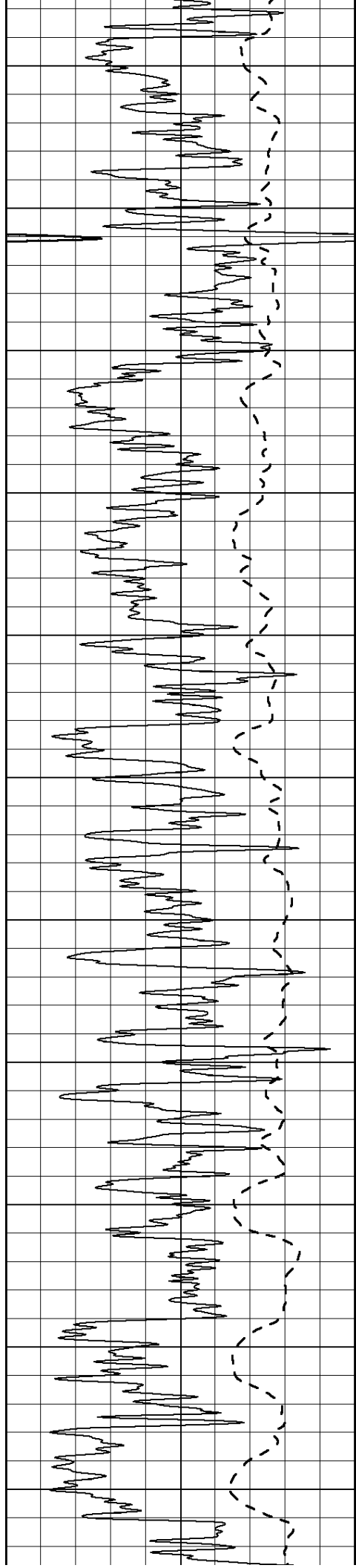
1950

2000

2050

2100





2150

2200

2250

2300

2350

2400

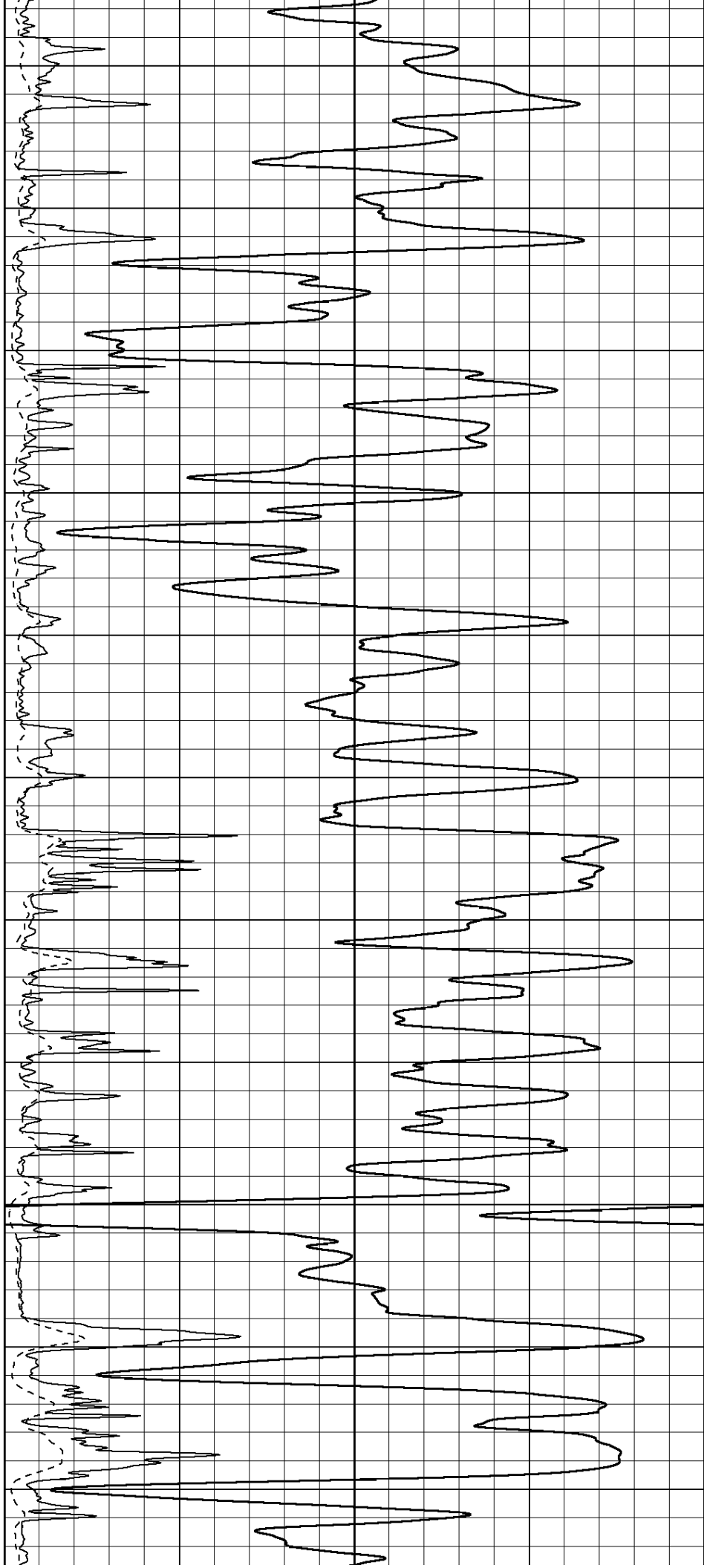
2450

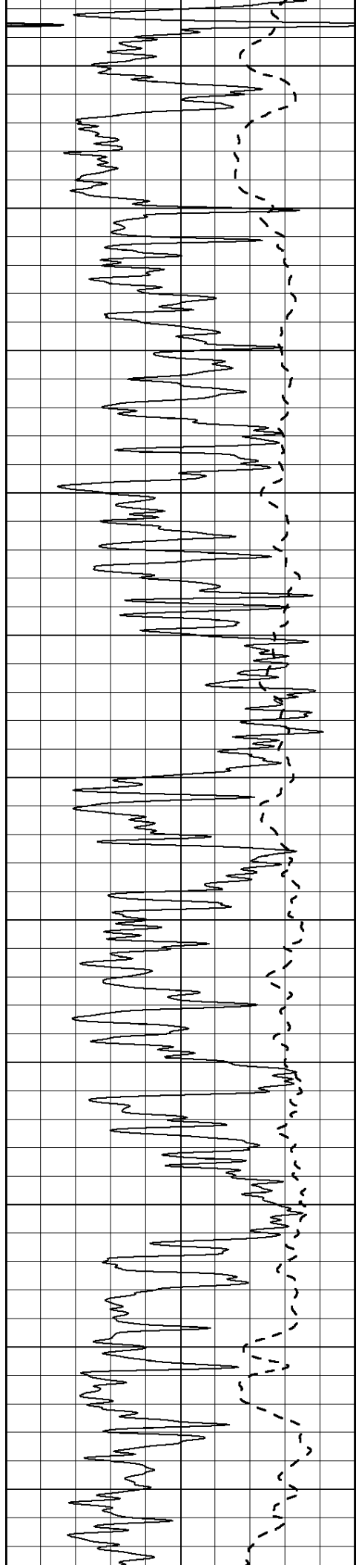
2500

2550

2600

2650





2700

2750

2800

2850

2900

2950

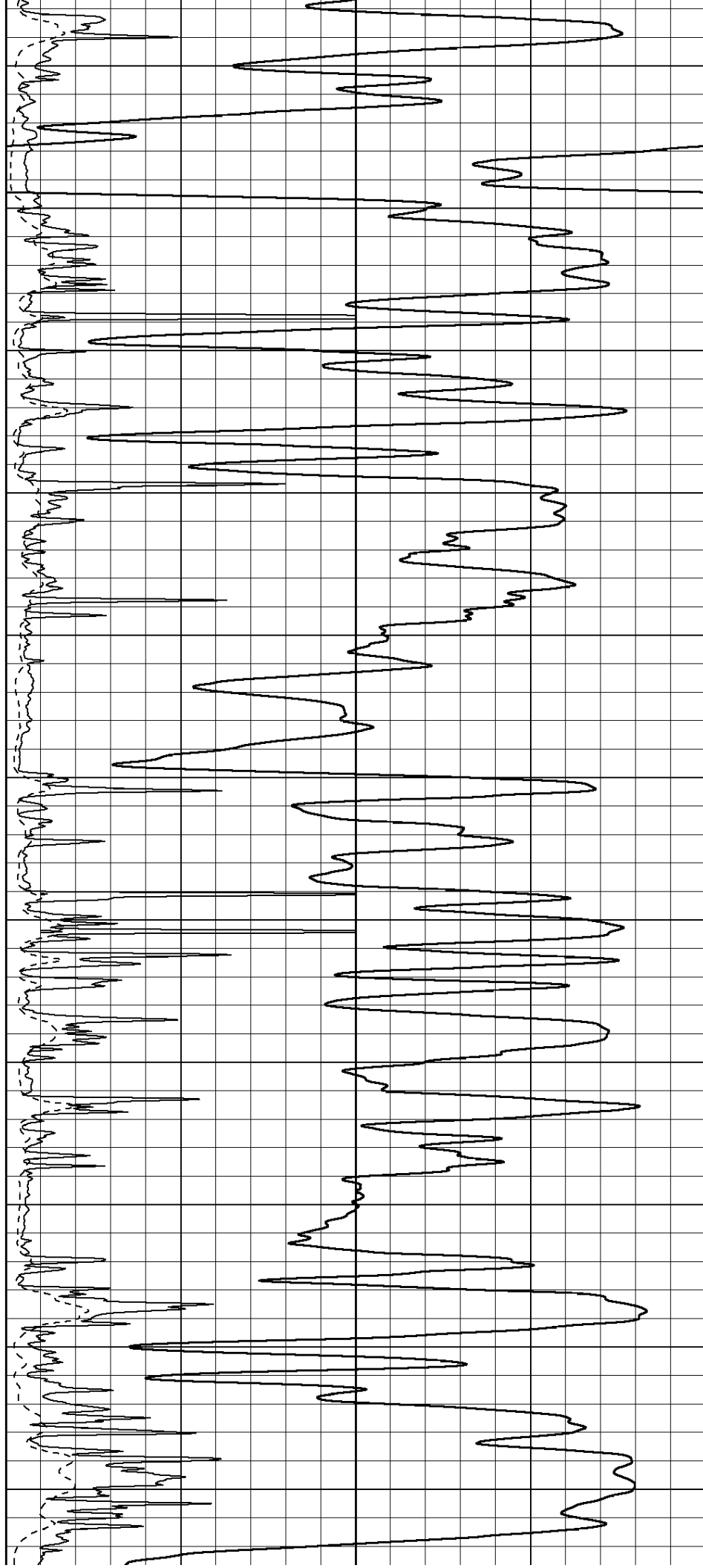
3000

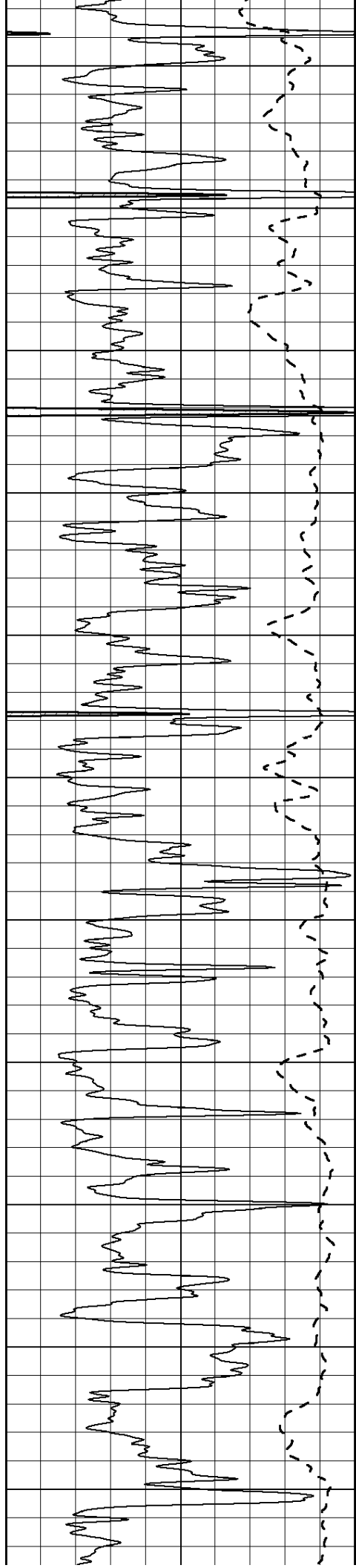
3050

3100

3150

3200





3250

3300

3350

3400

3450

3500

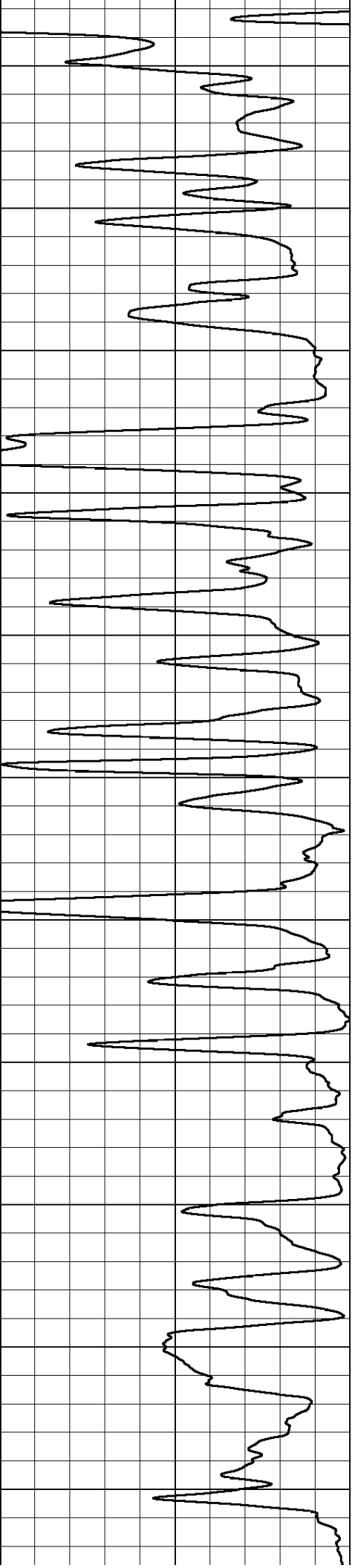
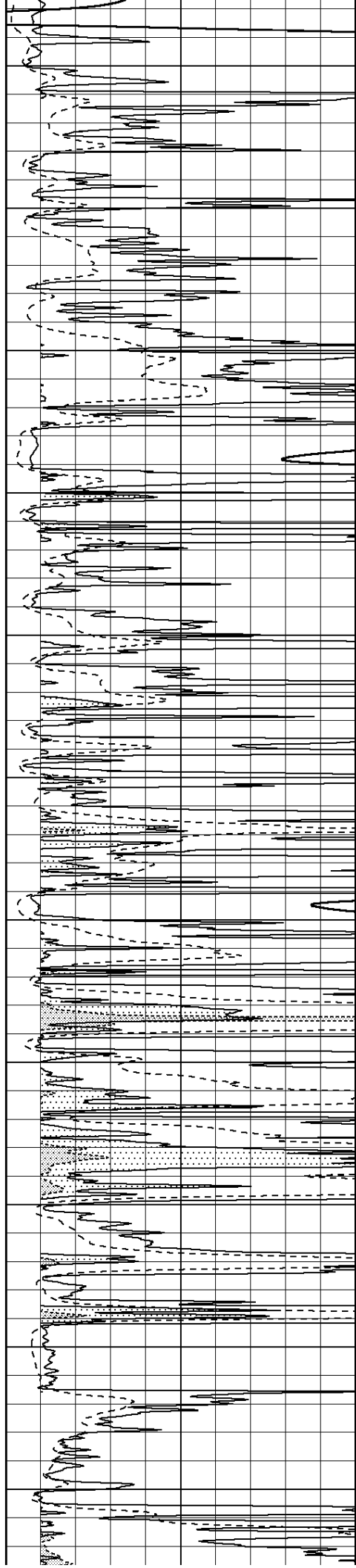
3550

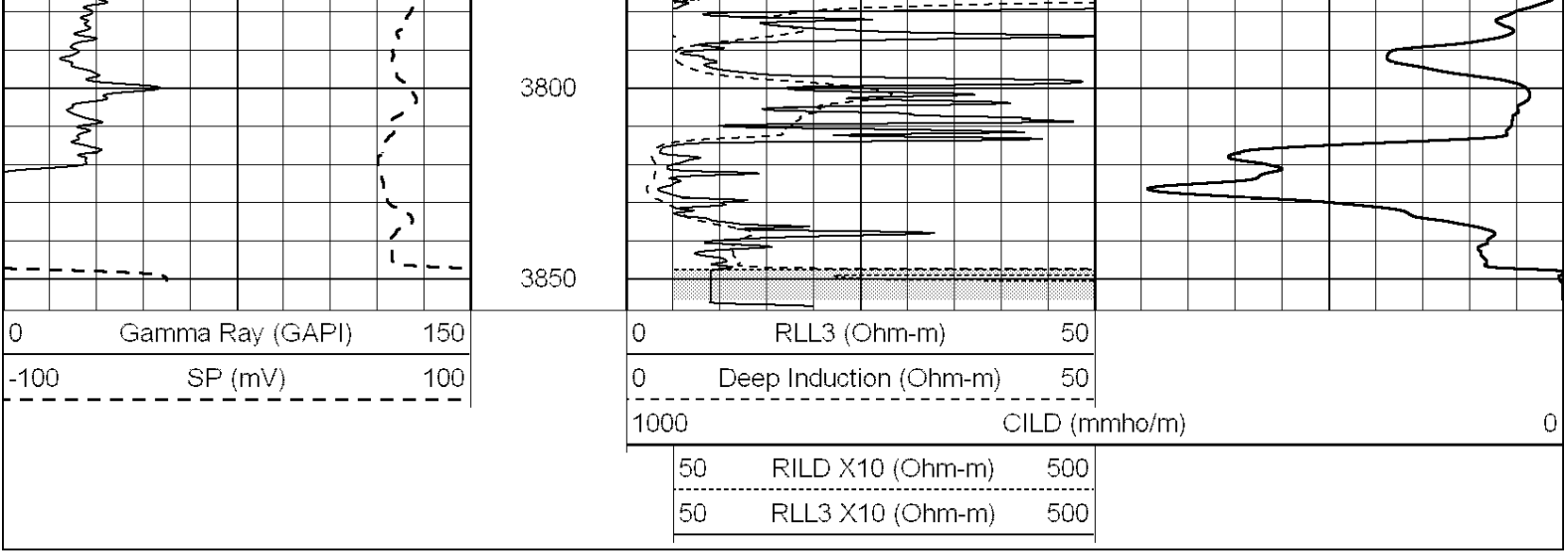
3600

3650

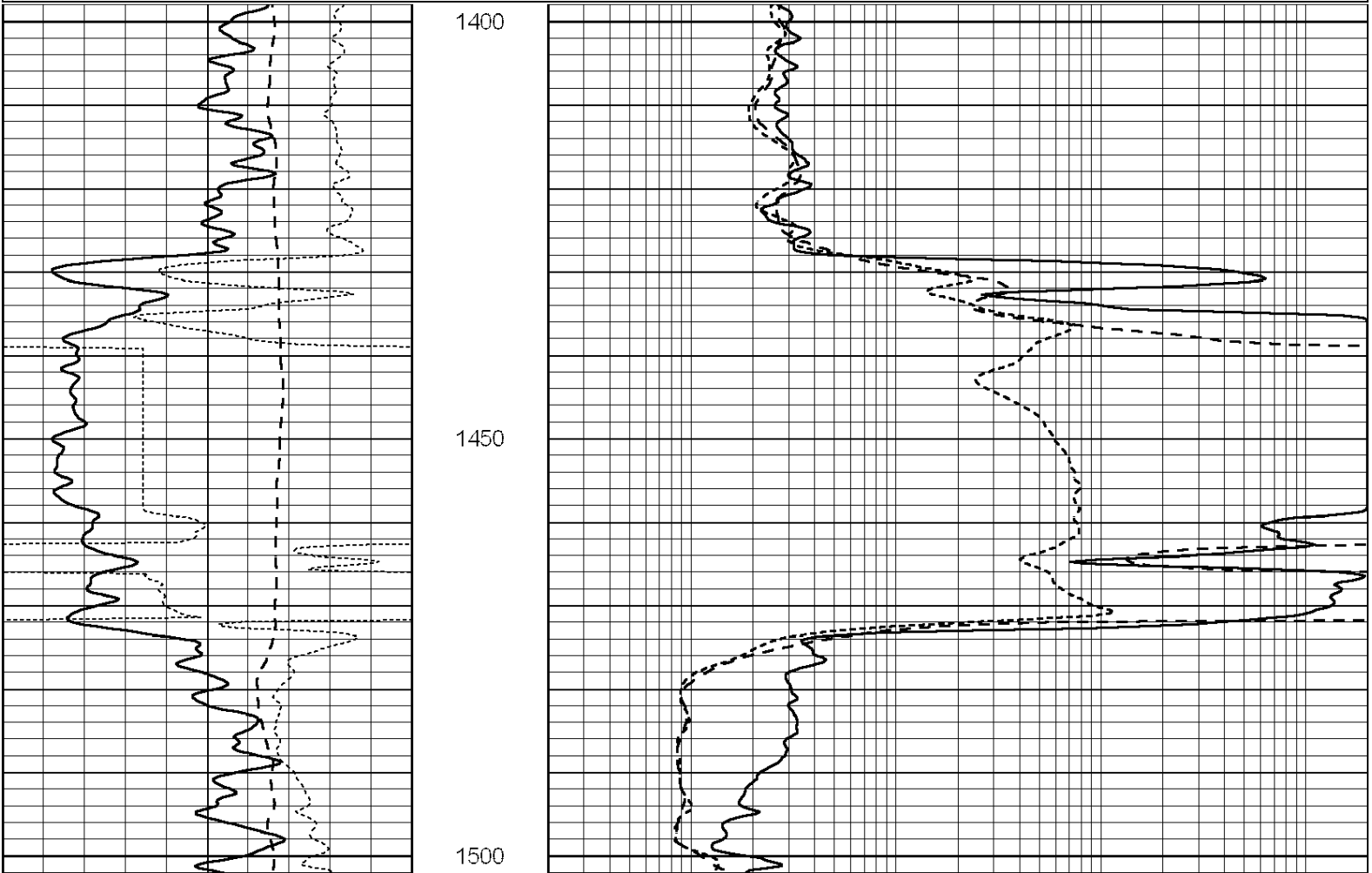
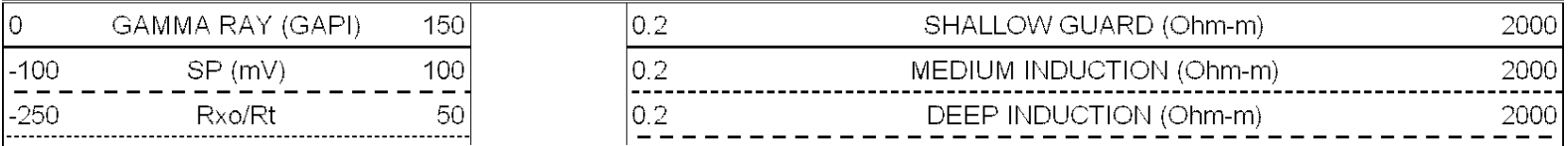
3700

3750





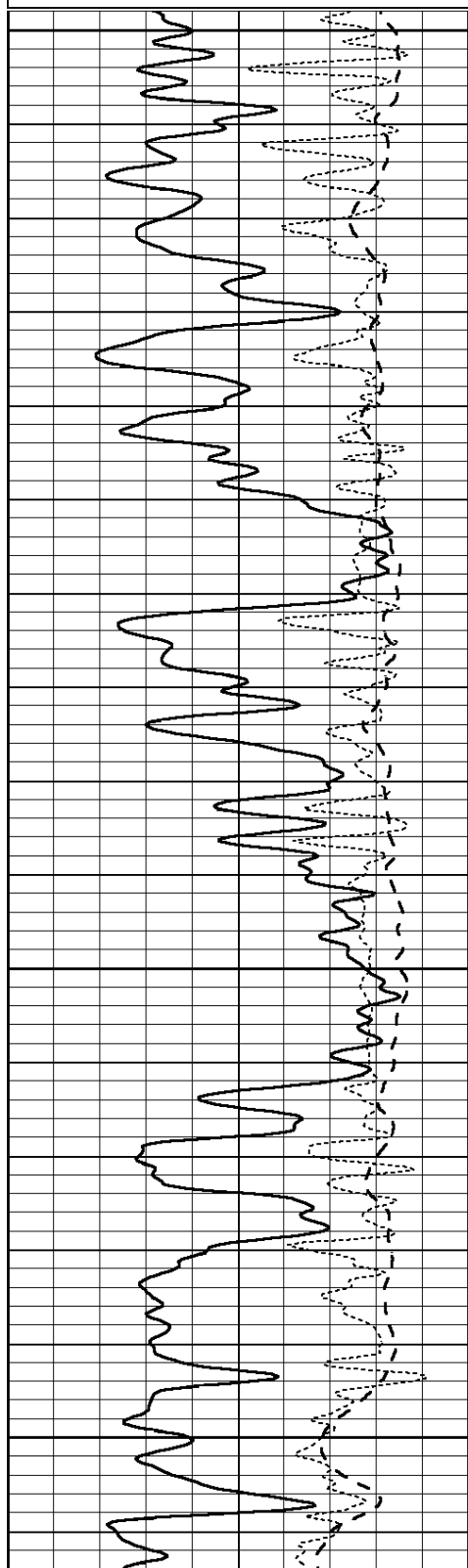
Database File: 010129ddn.db
Dataset Pathname: pass4.10
Presentation Format: _dil
Dataset Creation: Thu Nov 15 09:43:09 2012 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240



Database File: 010129ddn.db
 Dataset Pathname: pass4.10
 Presentation Format: _dil
 Dataset Creation: Thu Nov 15 09:43:09 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

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

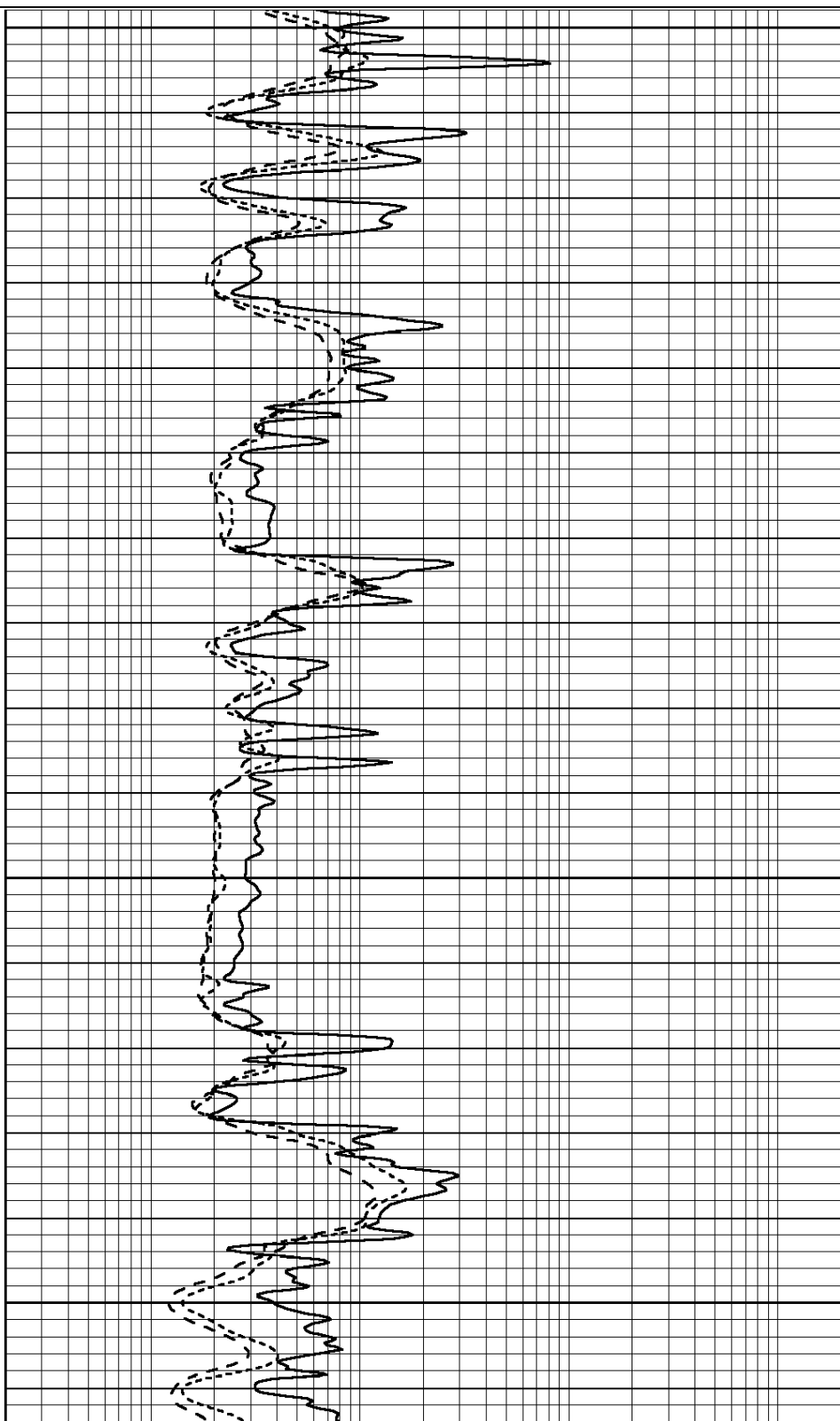


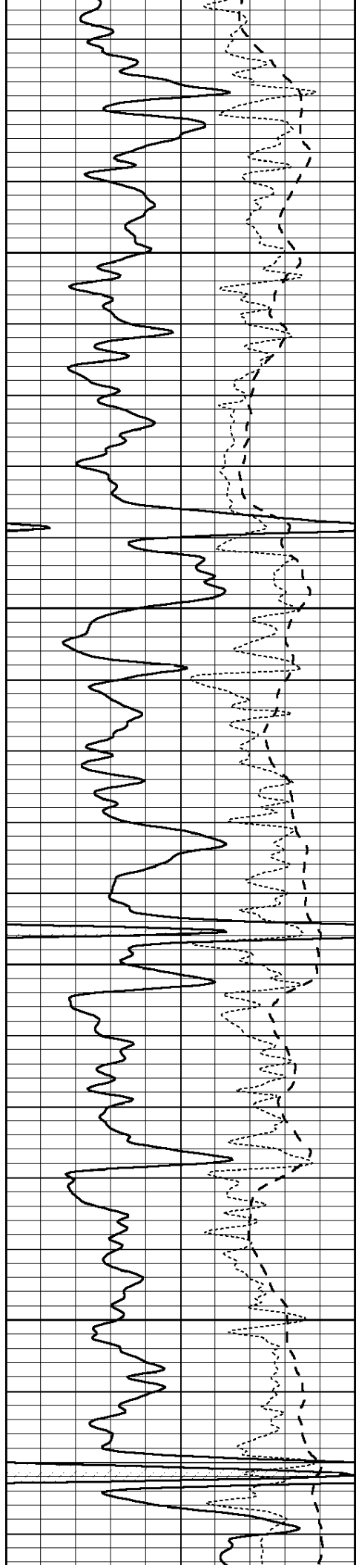
3000

3050

3100

3150



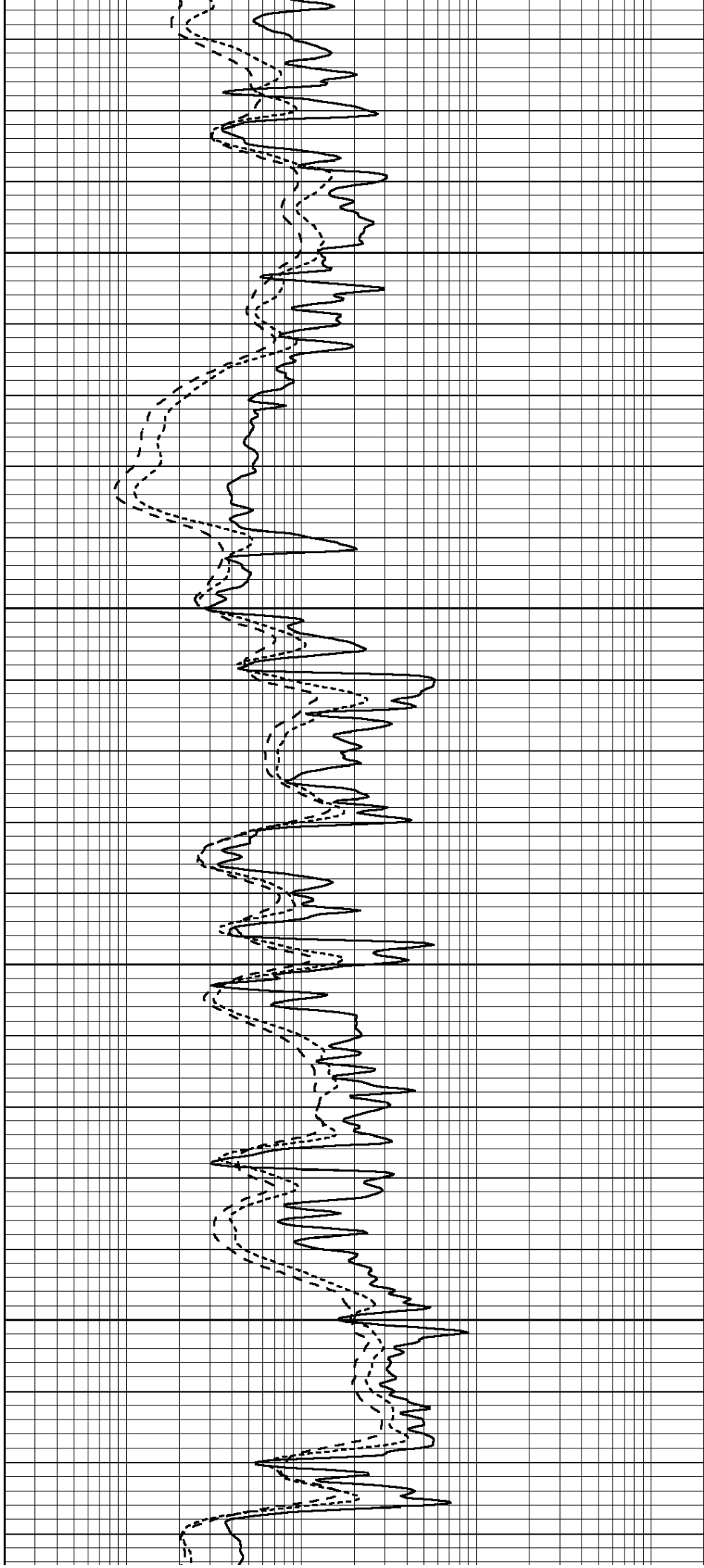


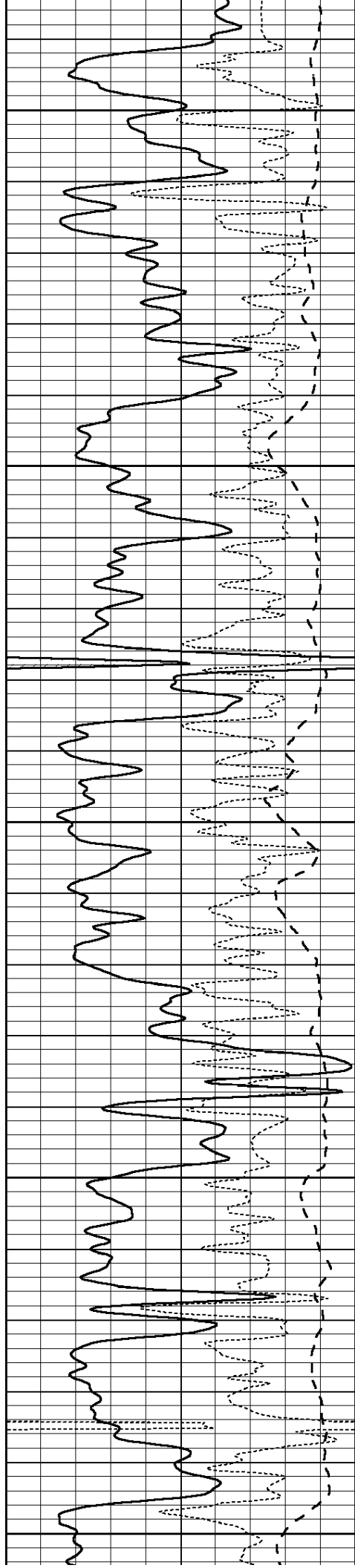
3200

3250

3300

3350





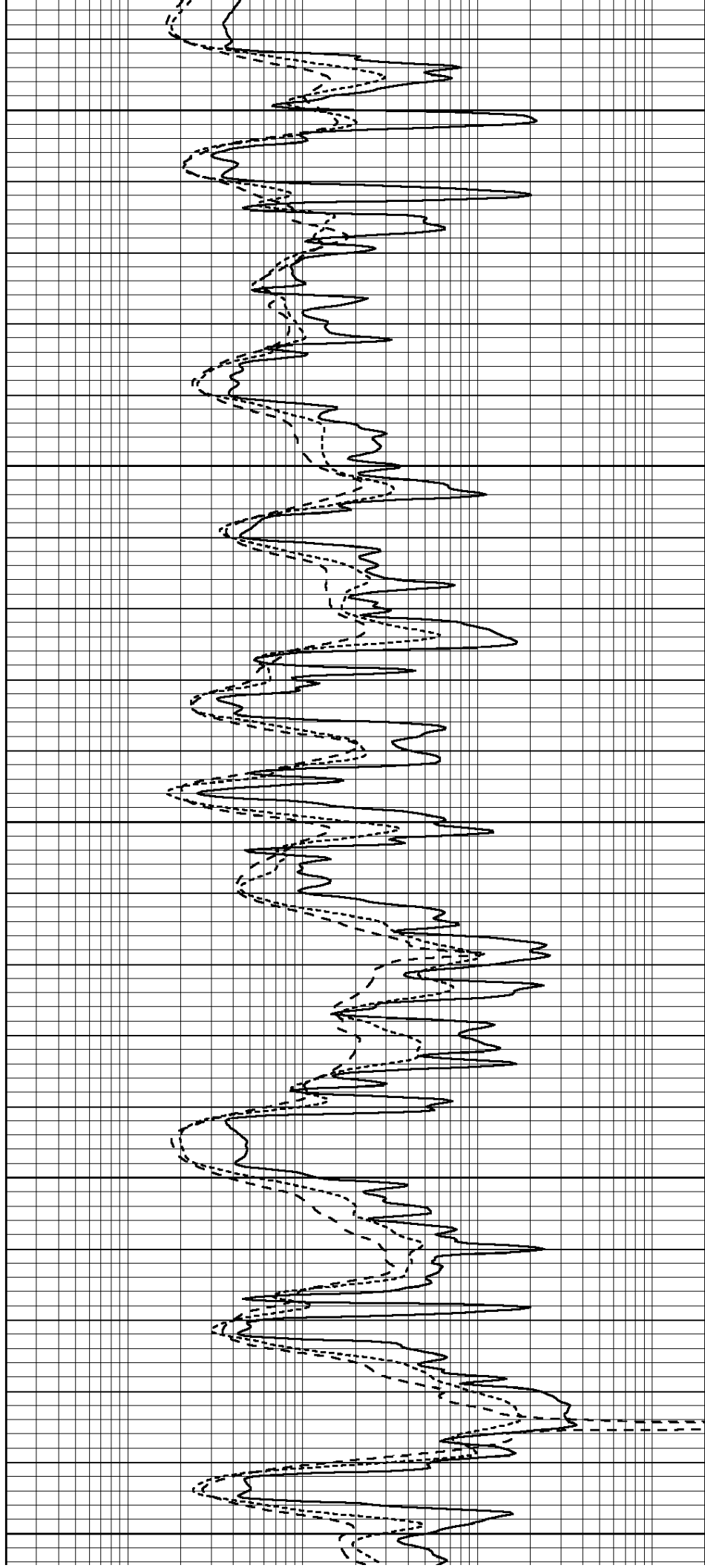
3400

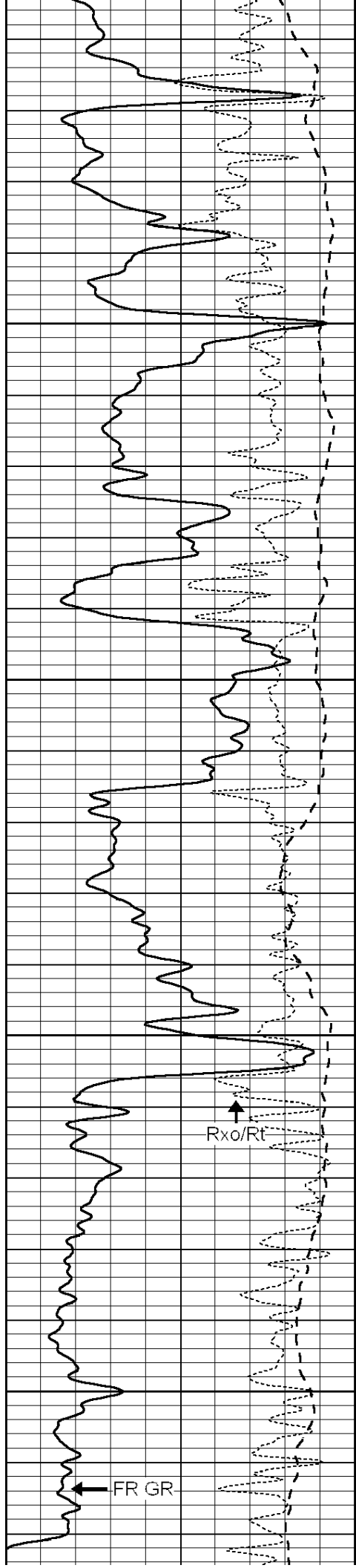
3450

3500

3550

3600



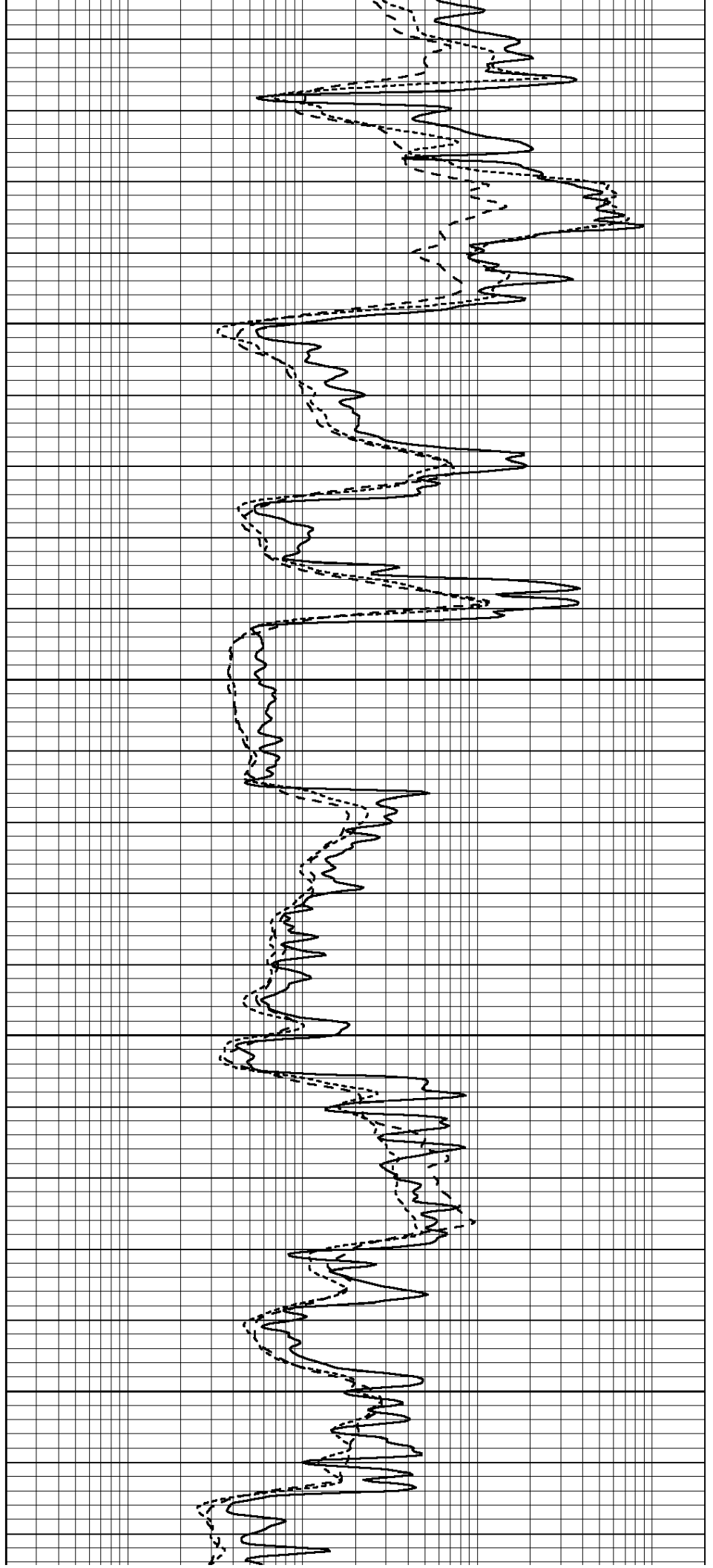


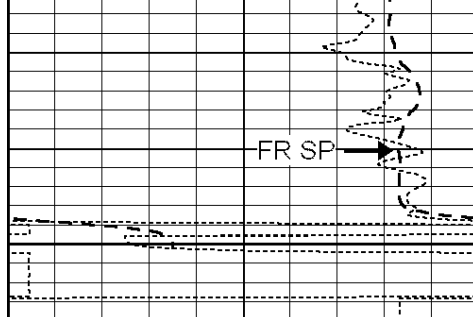
3650

3700

3750

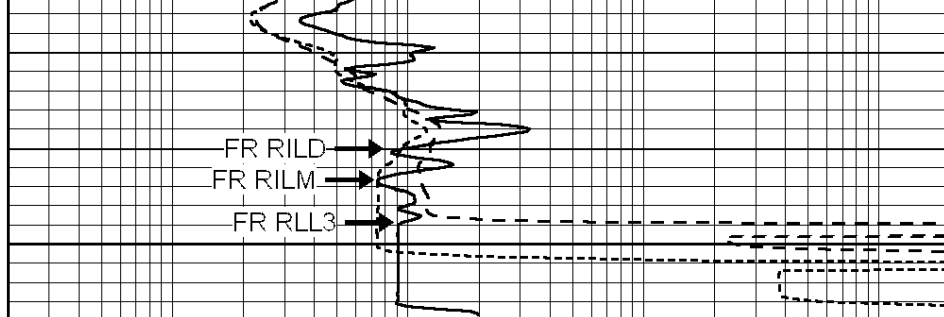
3800





3850
LTD 3850

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

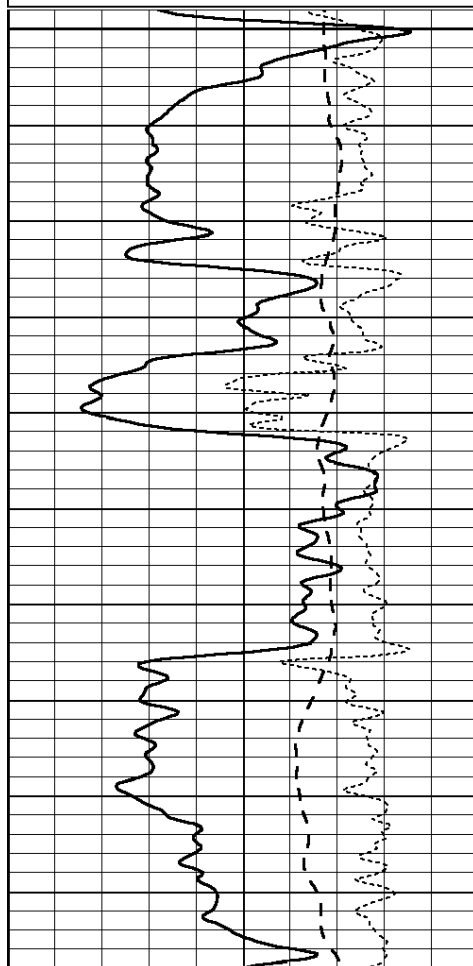


REPEAT SECTION

Database File: 010129ddn.db
 Dataset Pathname: pass3.1
 Presentation Format: _dil
 Dataset Creation: Thu Nov 15 08:31:58 2012 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

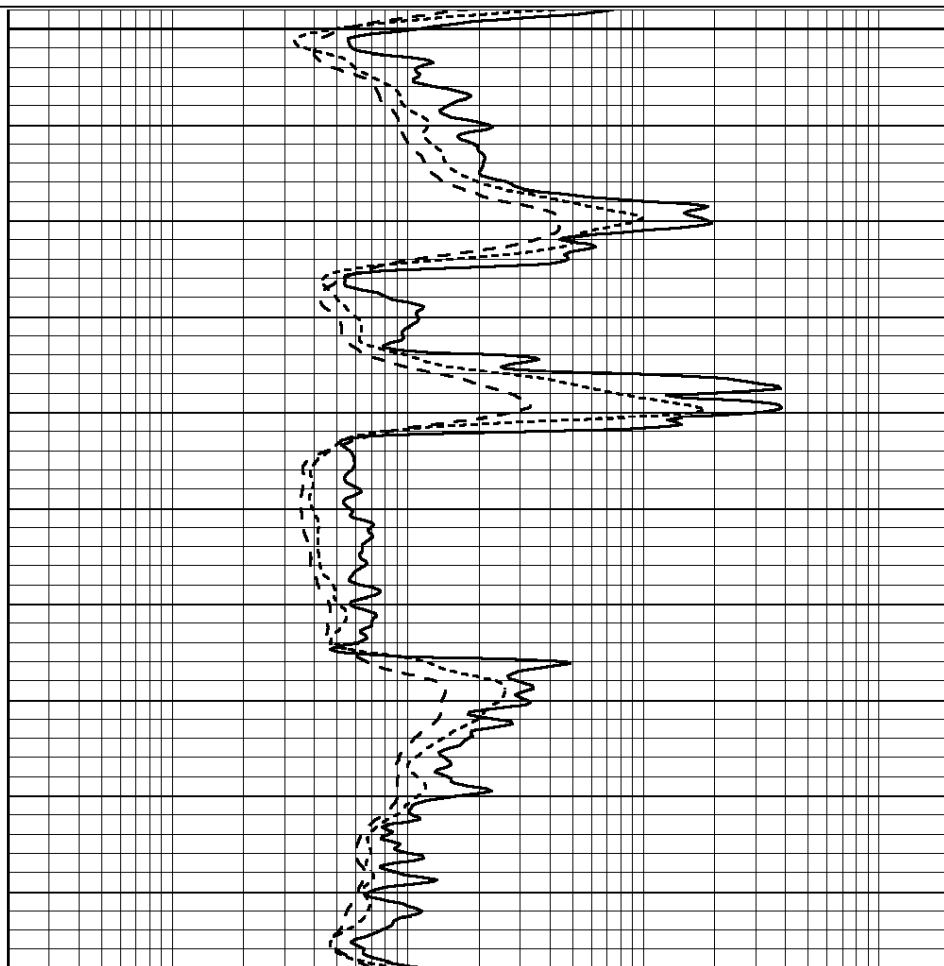
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

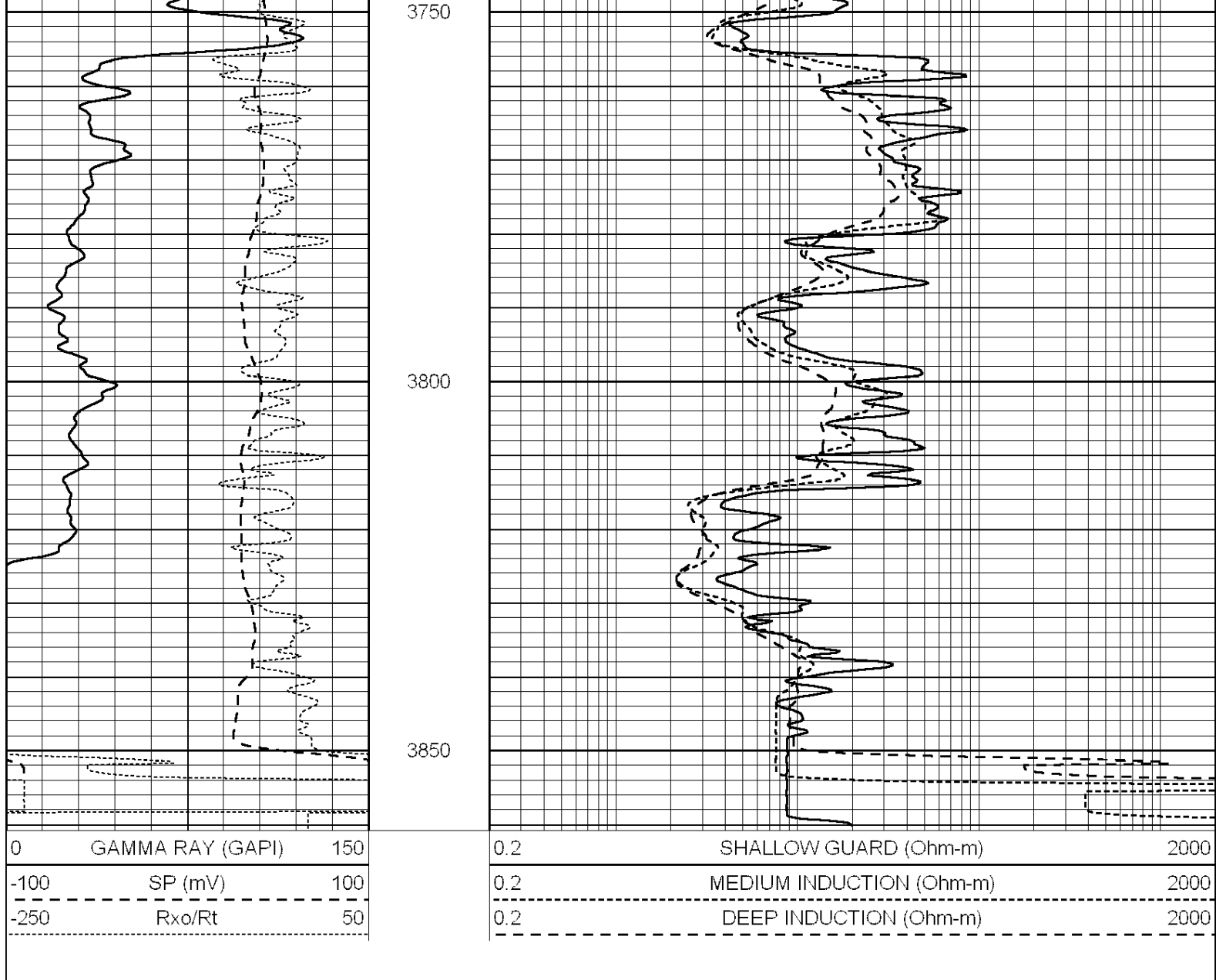
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000



3650

3700





Calibration Report

Database File: 010129ddn.db
Dataset Pathname: pass4.10
Dataset Creation: Thu Nov 15 09:43:09 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	
	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:	Mon Mar 19 19:07:19 2012

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	3.21	V		
Large Ring	14.00	in	5.46	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
--------------	--------	----------

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: Mon Mar 19 19:07:19 2012

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	3.21	V		
Large Ring	14.00	in	5.46	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		