



**COMPLETION
& PRODUCTION
SERVICES CO.**

**DUAL
INDUCTION
LOG**

Company FOURWINDS OIL CORPORATION
Well VANLOENEN UNIT #1
Field WILDCAT
County NORTON State KANSAS

Company FOURWINDS OIL CORPORATION
Well VANLOENEN UNIT #1
Field WILDCAT
County NORTON
State KANSAS

Location: API #: 15-137-20726-00-00
1340' FSL & 650' FEL
SW - SE - NE - SE
SEC 35 TWP 4S RGE 21W
Permanent Datum GROUND LEVEL Elevation 1996
Log Measured From KELLY BUSHING 5' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
CNL/CDL
MEL
Elevation
K.B. 2001
D.F. 1999
G.L. 1996

Date	11/30/14		
Run Number	ONE		
Depth Driller	3490		
Depth Logger	3490		
Bottom Logged Interval	3488		
Top Log Interval	00		
Casing Driller	8 5/8 @ 220'		
Casing Logger	220'		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.0/43	CHLORIDES 1,000 PPM	
pH / Fluid Loss	10.0/8.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.1 @ 71F		
Rmf @ Meas. Temp	0.83 @ 71F		
Rmc @ Meas. Temp	1.32 @ 71F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	0.70 @ 111F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	111F		
Equipment Number	3802		
Location	HAYS, KS.		
Recorded By	IAN MABB		
Witnessed By	JEFF LAWLER		

<<< 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.

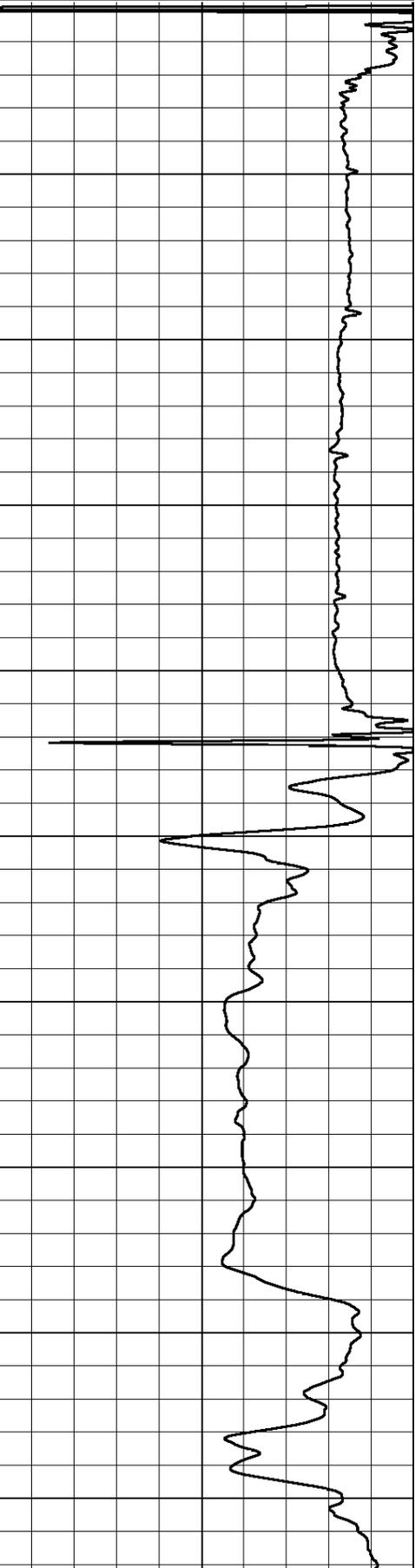
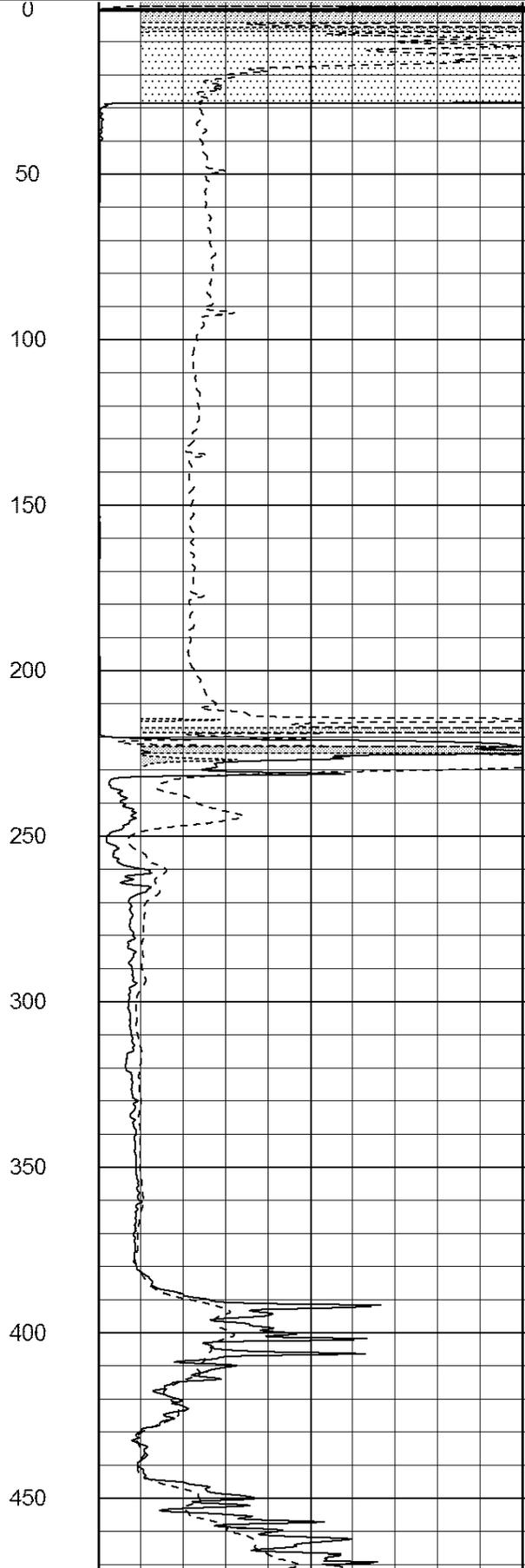
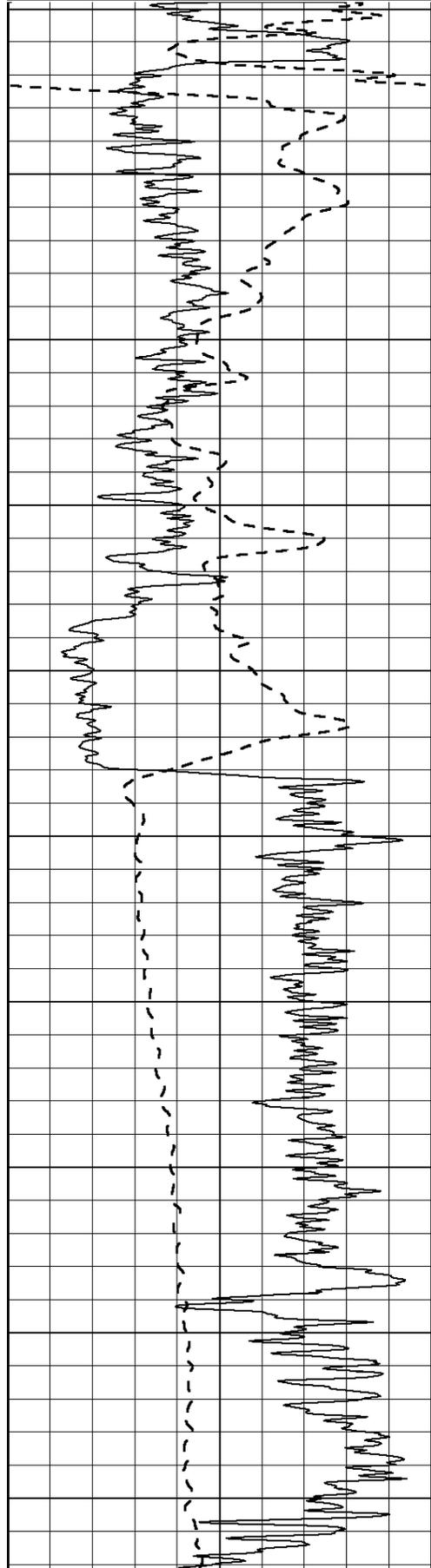
Comments

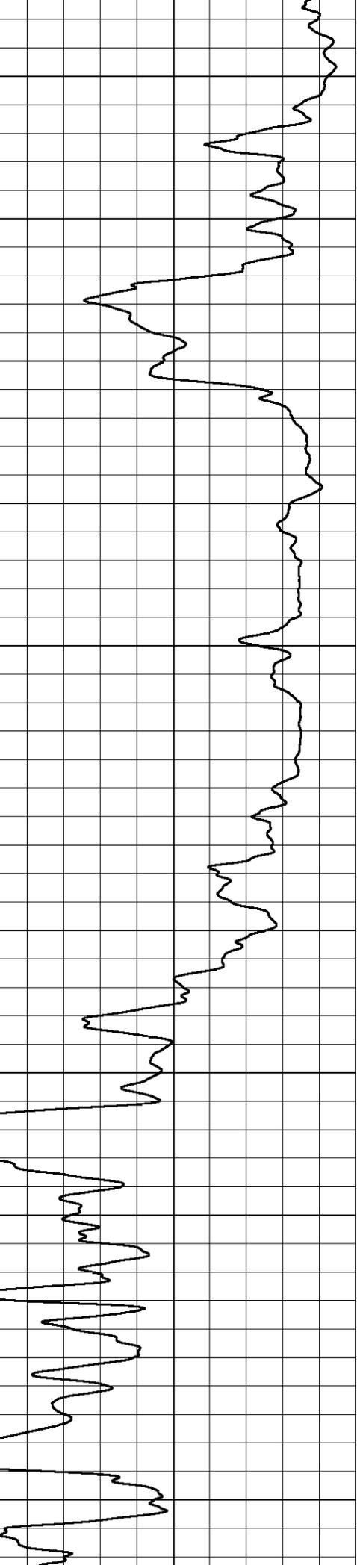
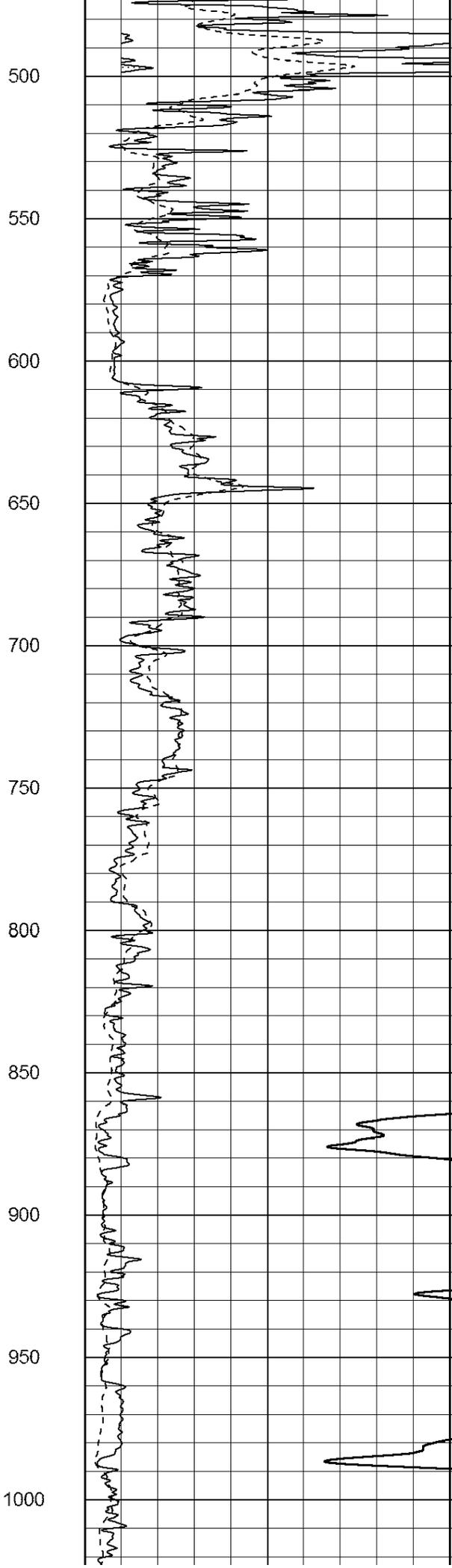
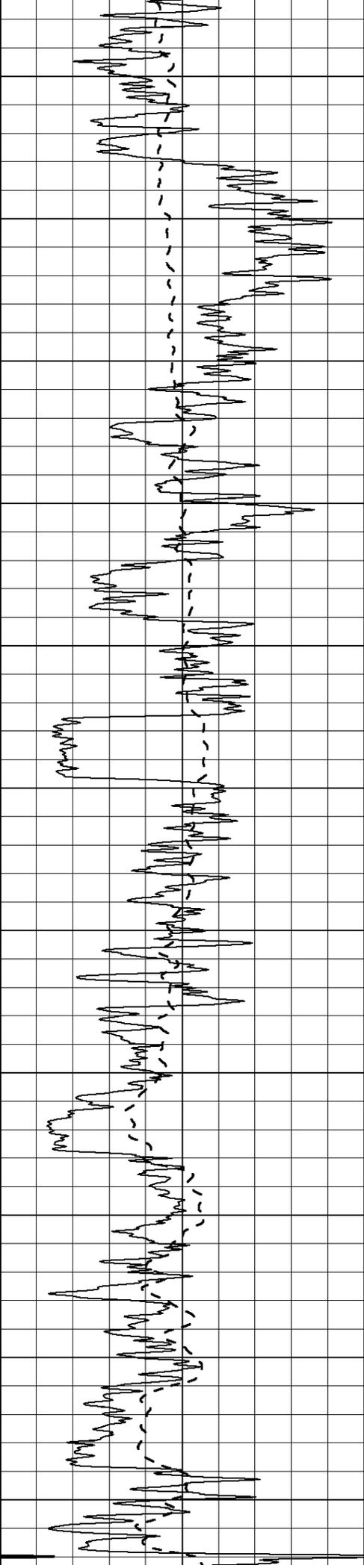
NABORS COMPLETION & PRODUCTION SERVICES CO.
785 (628 - 6395)
THANK YOU FOR YOUR BUSINESS
DIRECTIONS : LOGAN, KS. - 3 1/2 MILES WEST - SOUTH INTO

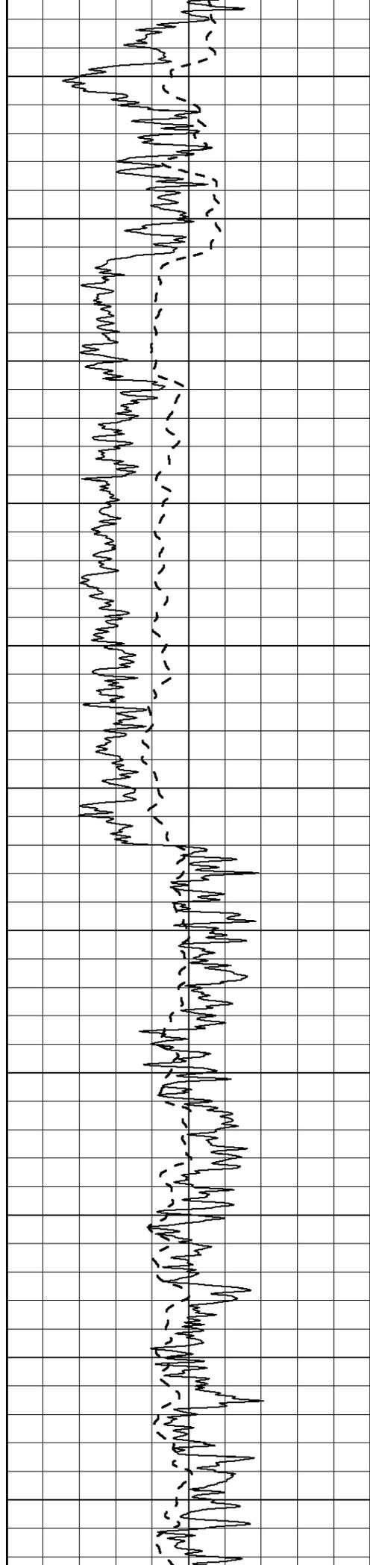
0	Gamma Ray (GAPI)	150
-100	SP (mV)	100

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







1050

1100

1150

1200

1250

1300

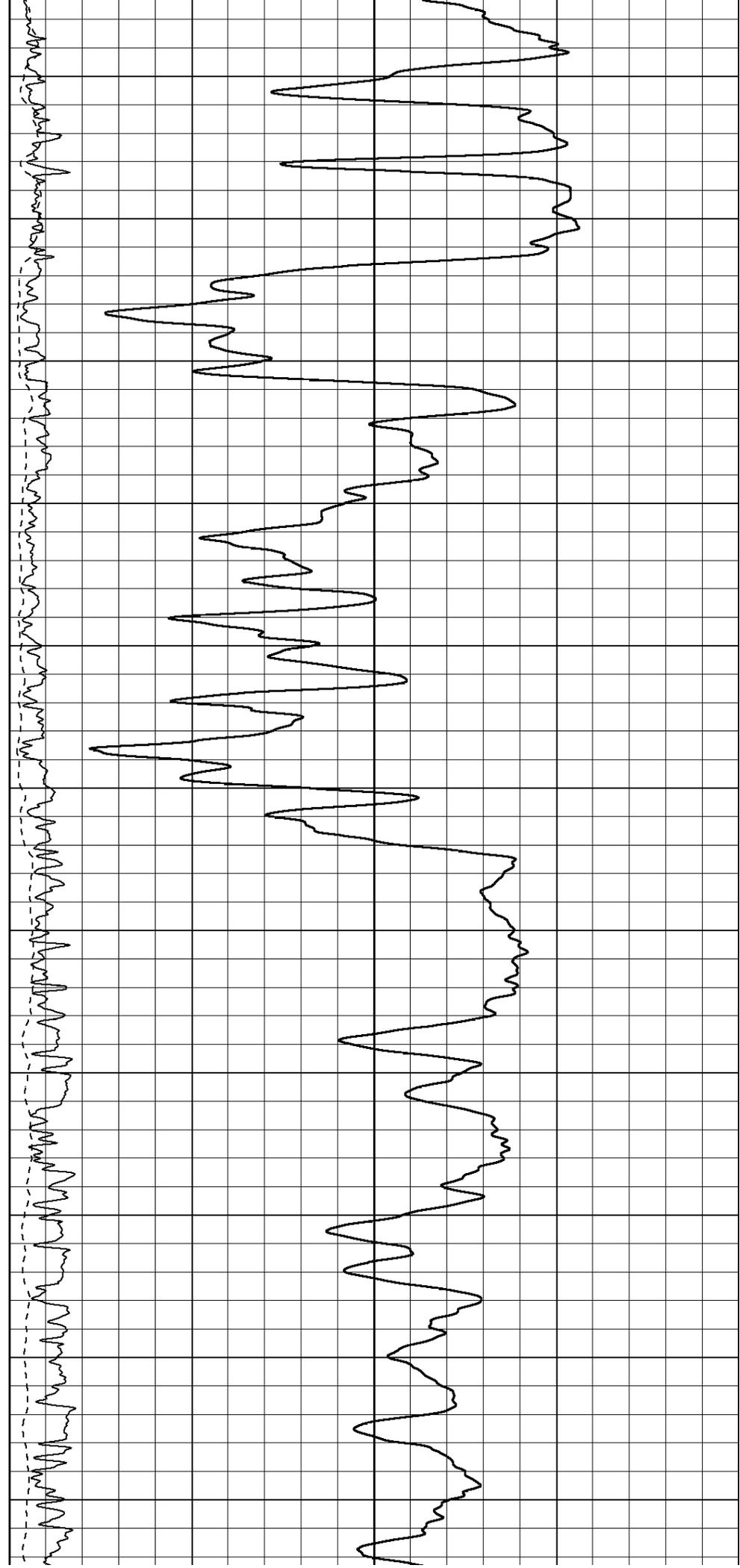
1350

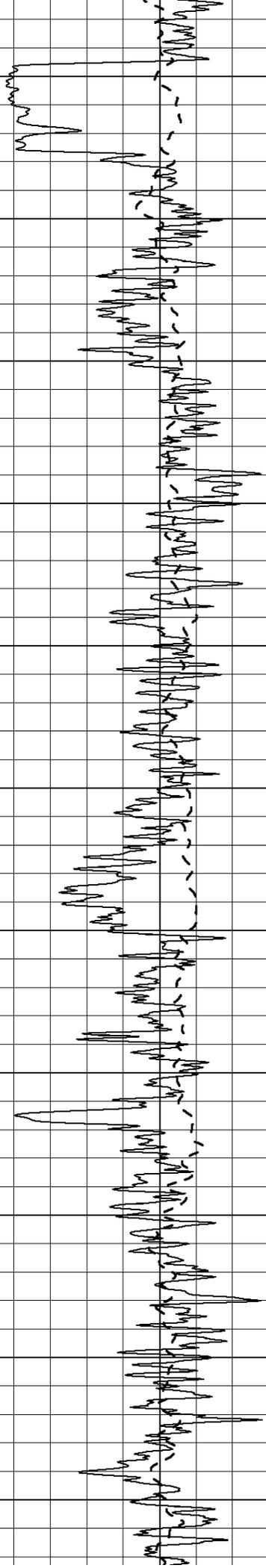
1400

1450

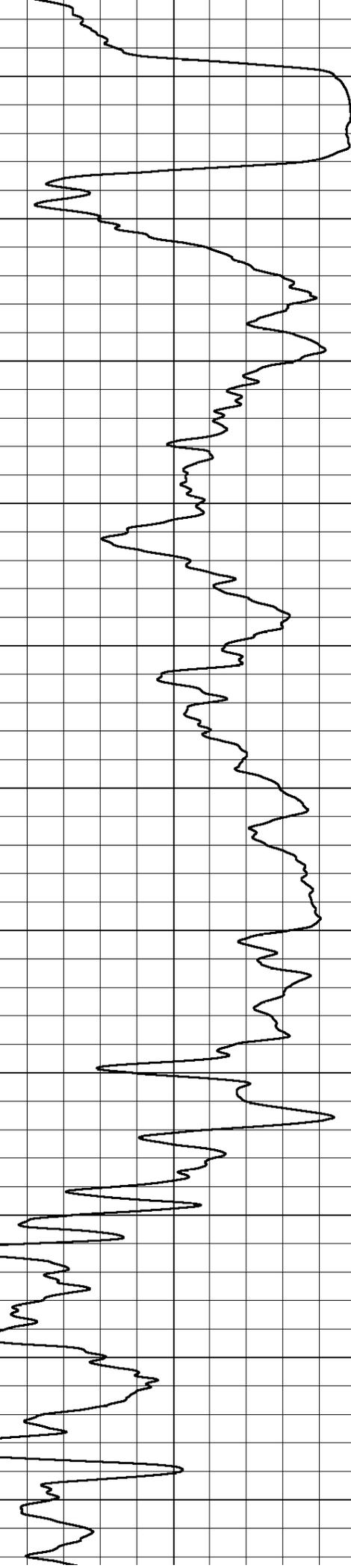
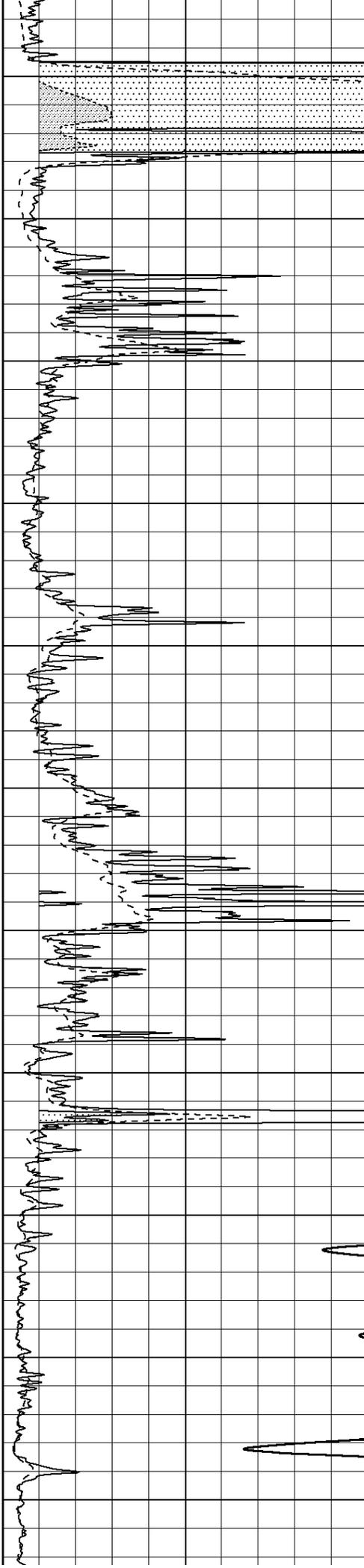
1500

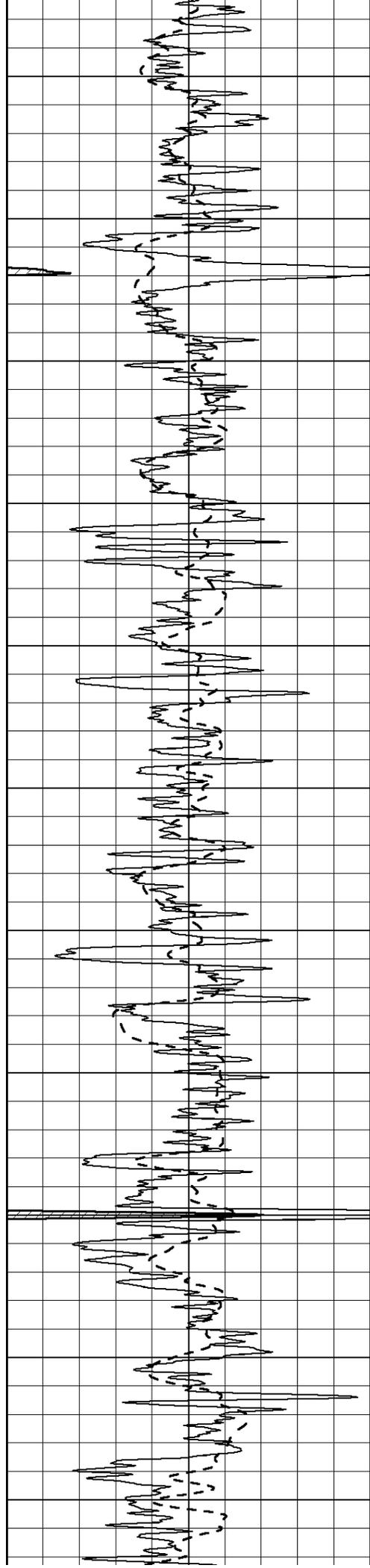
1550





1600
1650
1700
1750
1800
1850
1900
1950
2000
2050
2100





2150

2200

2250

2300

2350

2400

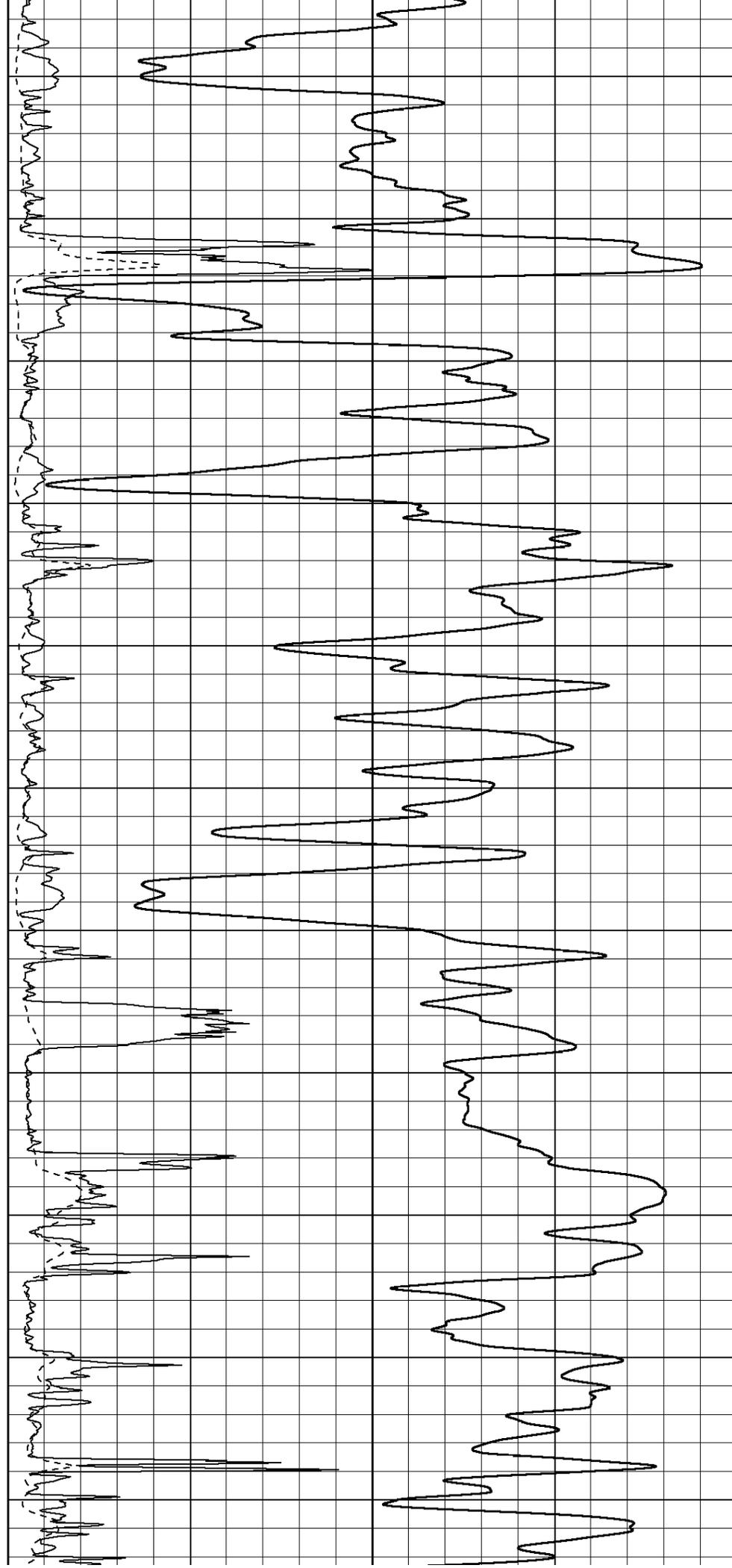
2450

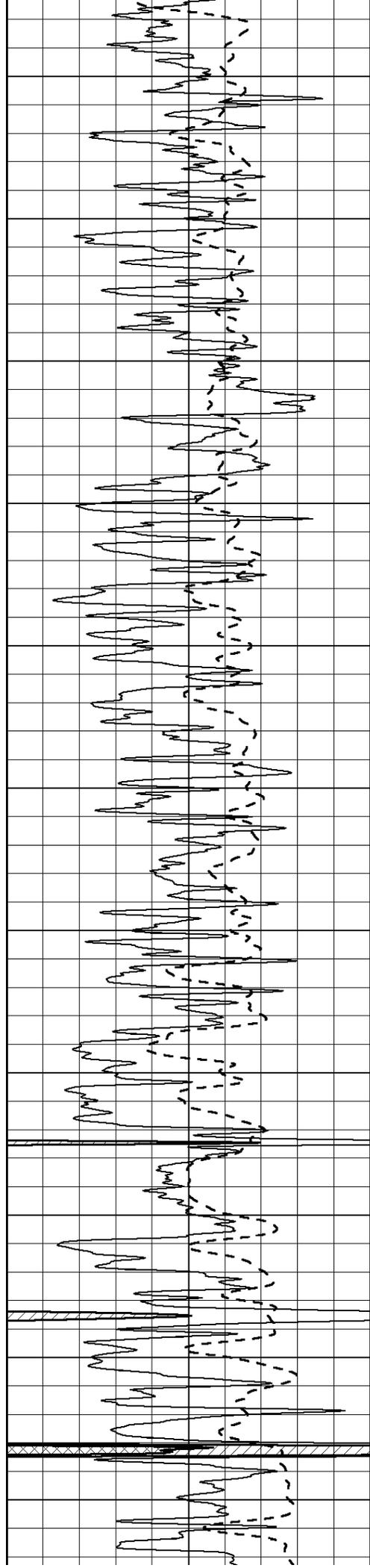
2500

2550

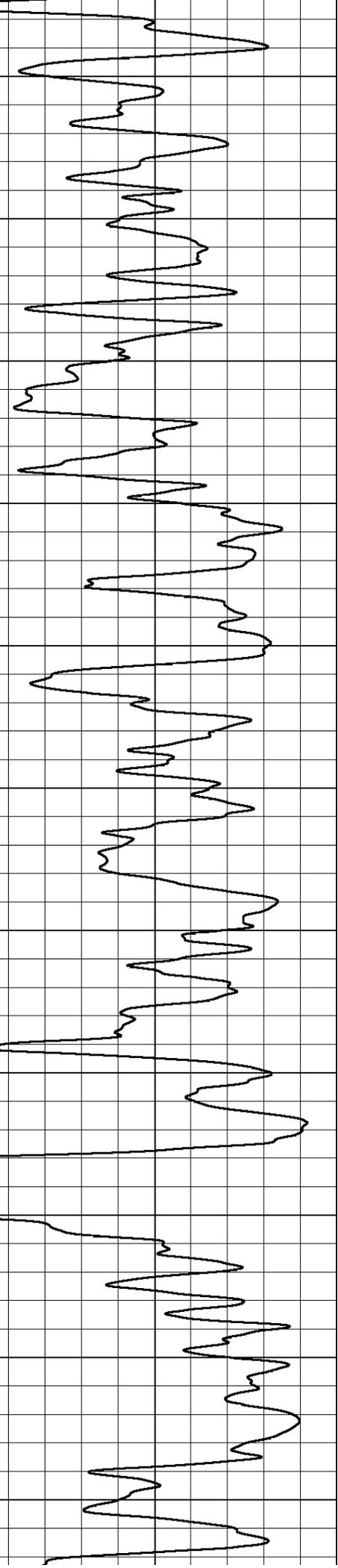
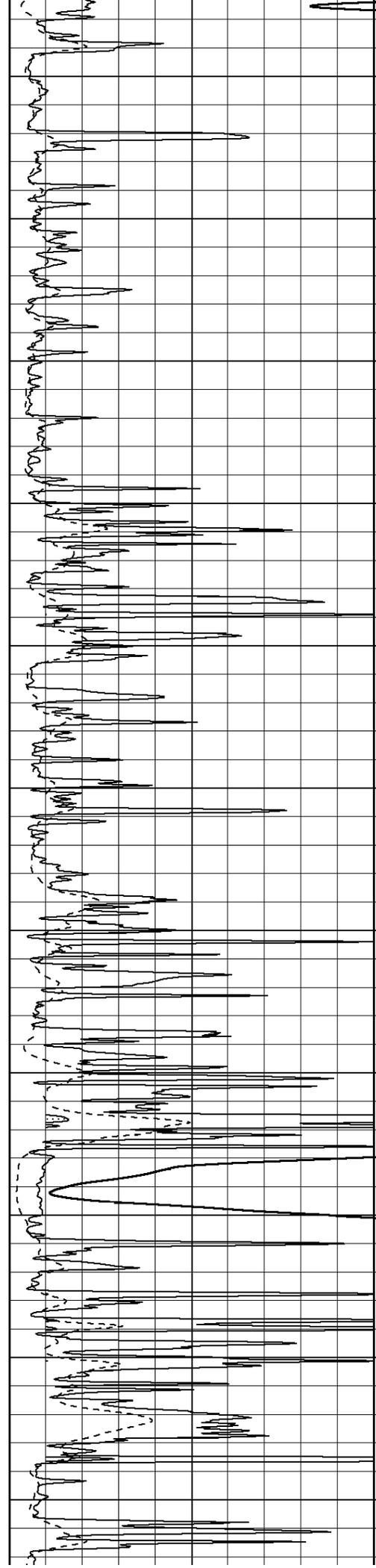
2600

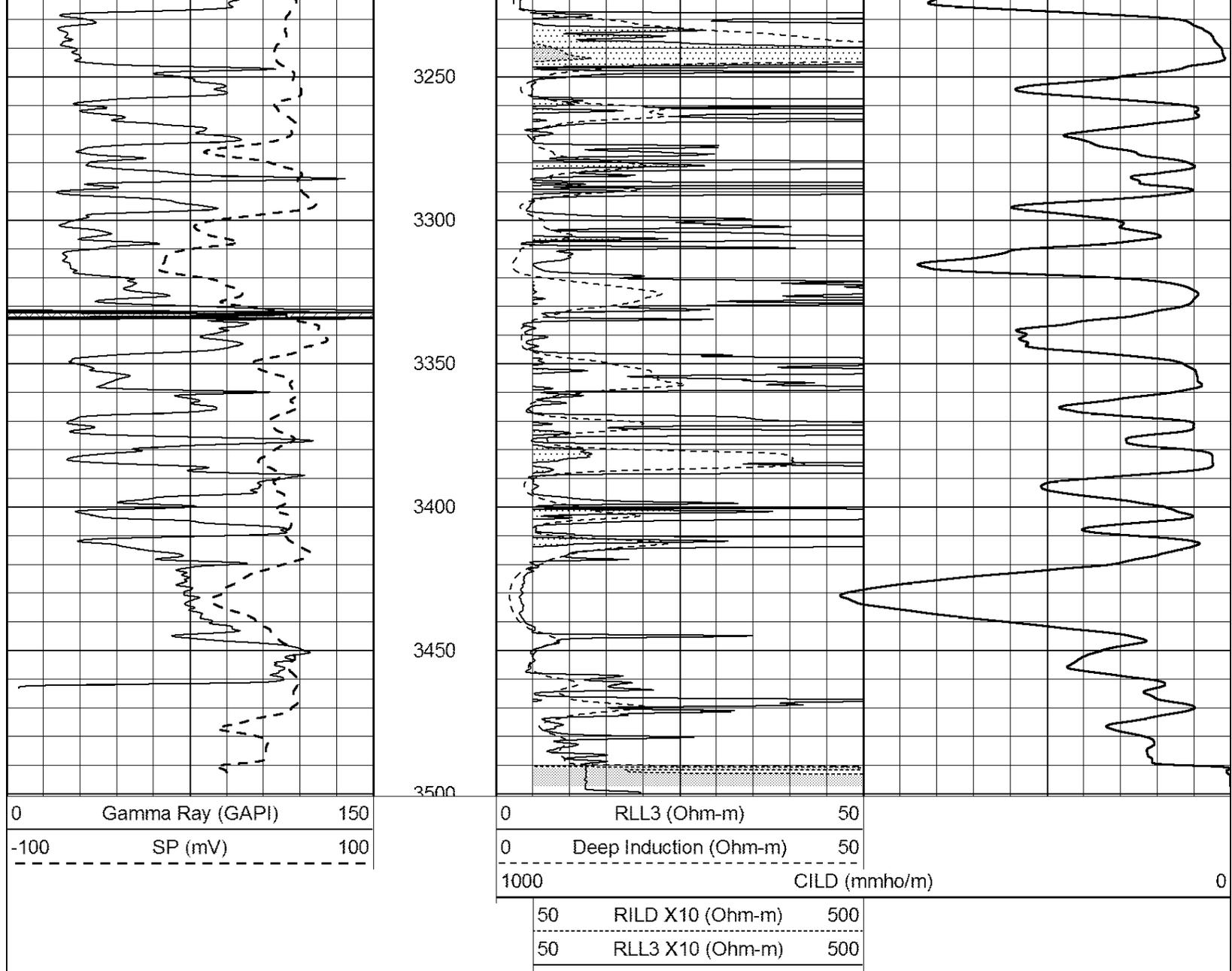
2650



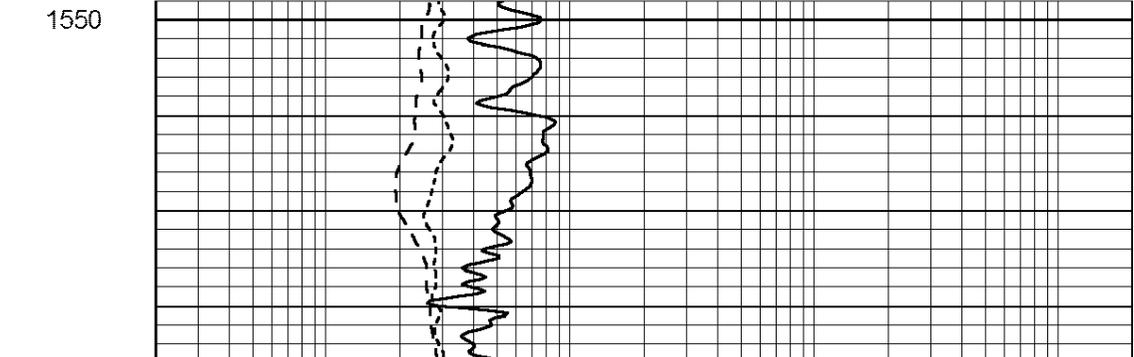
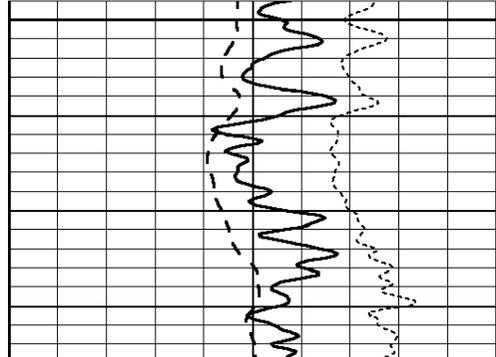
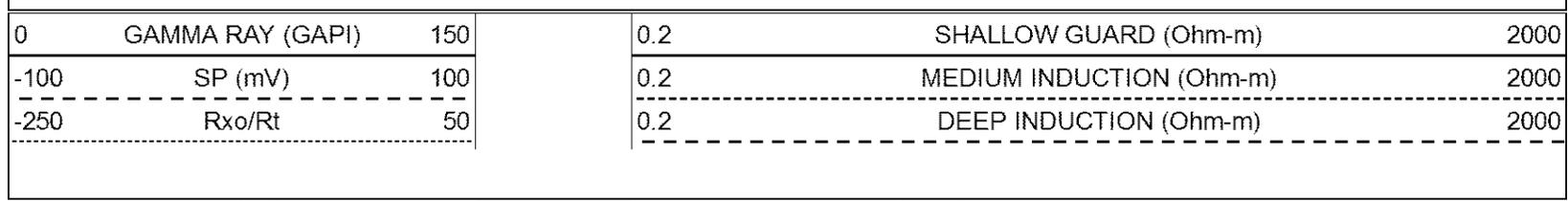


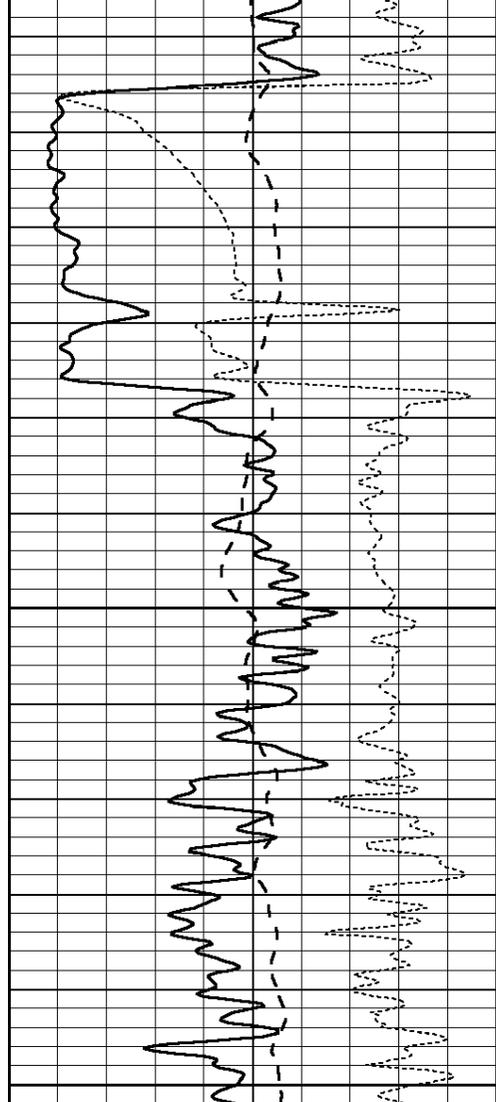
2700
2750
2800
2850
2900
2950
3000
3050
3100
3150
3200





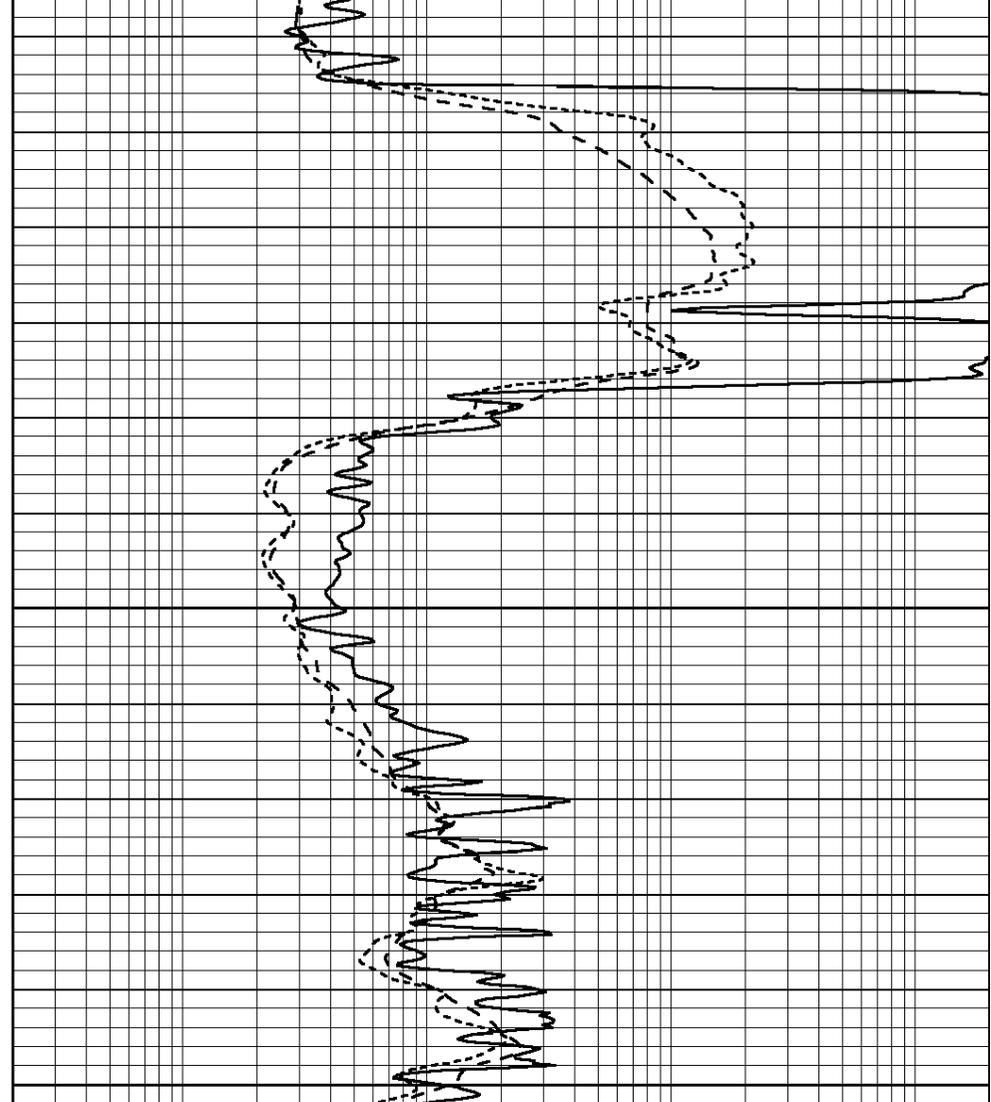
Database File: 26267ddn.db
 Dataset Pathname: pass3.3
 Presentation Format: _dil
 Dataset Creation: Sun Nov 30 21:18:34 2014 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240





1600
1650
1700

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

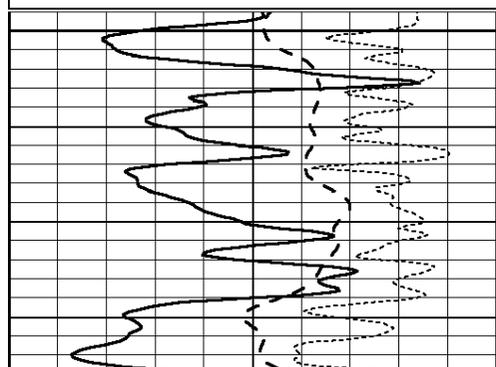


0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000

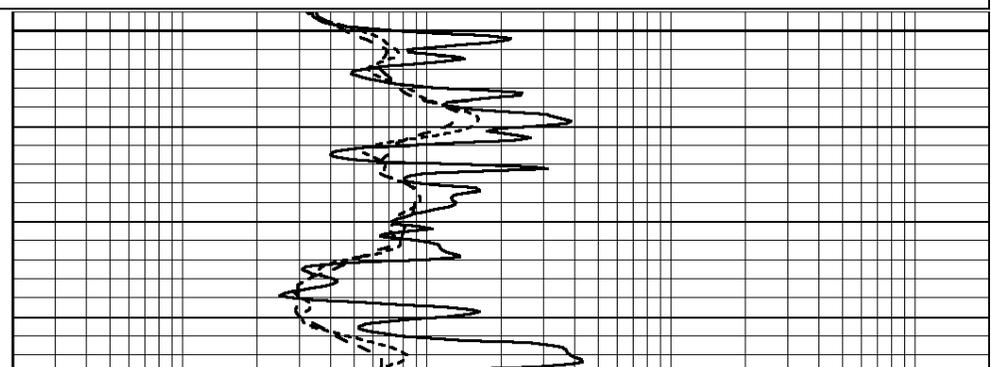
Database File: 26267ddn.db
 Dataset Pathname: pass3.2
 Presentation Format: _dil
 Dataset Creation: Sun Nov 30 20:50:25 2014 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

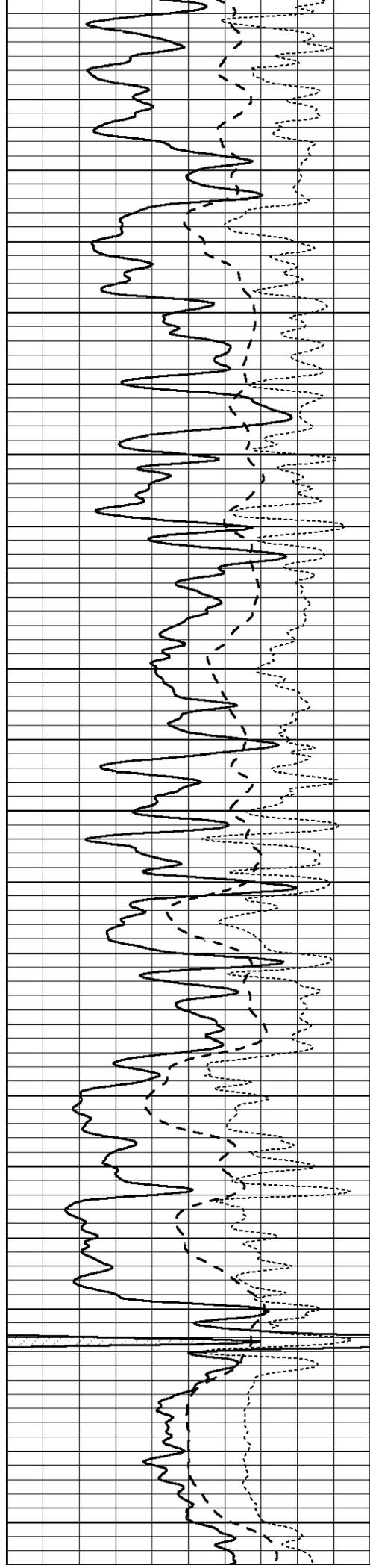
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

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



2850





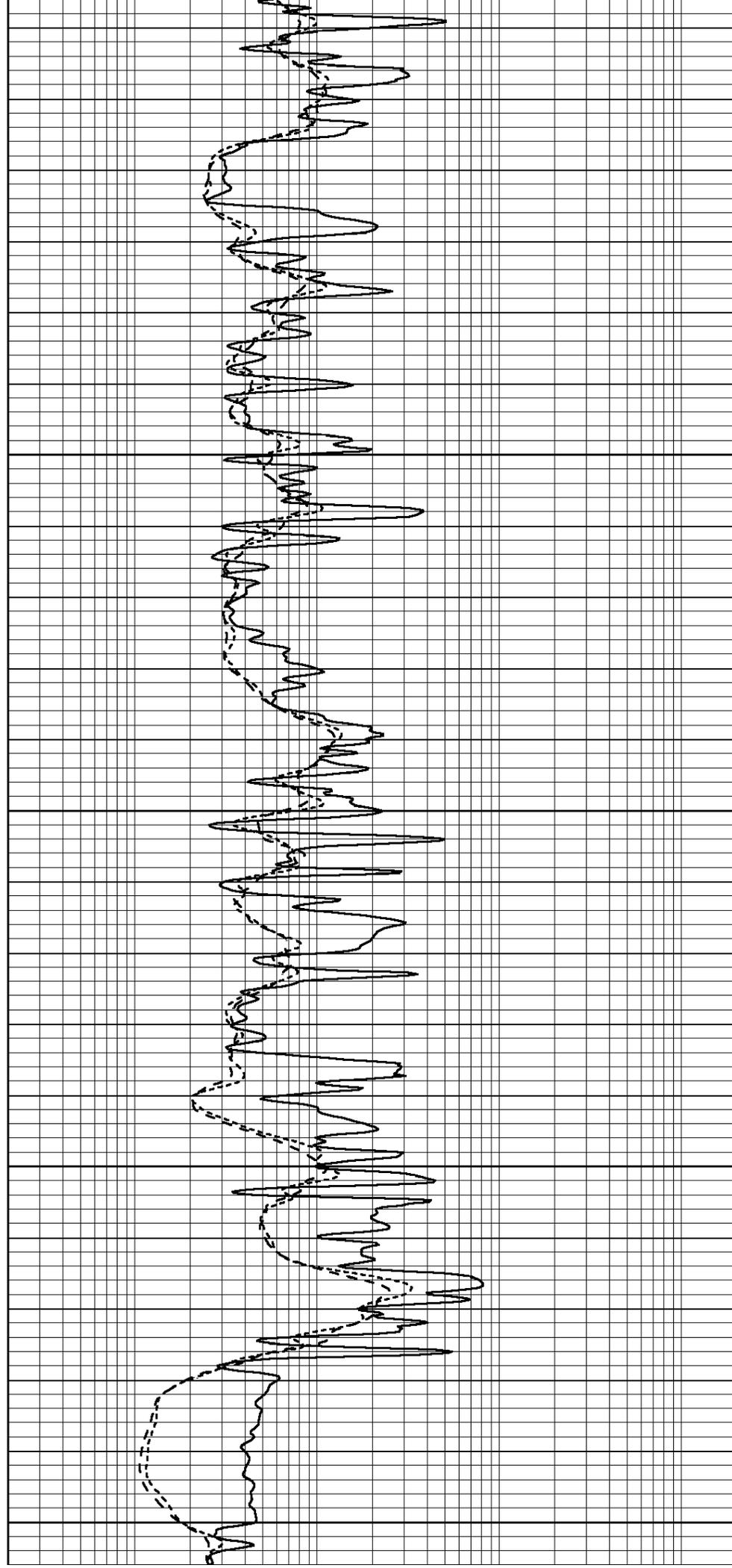
2900

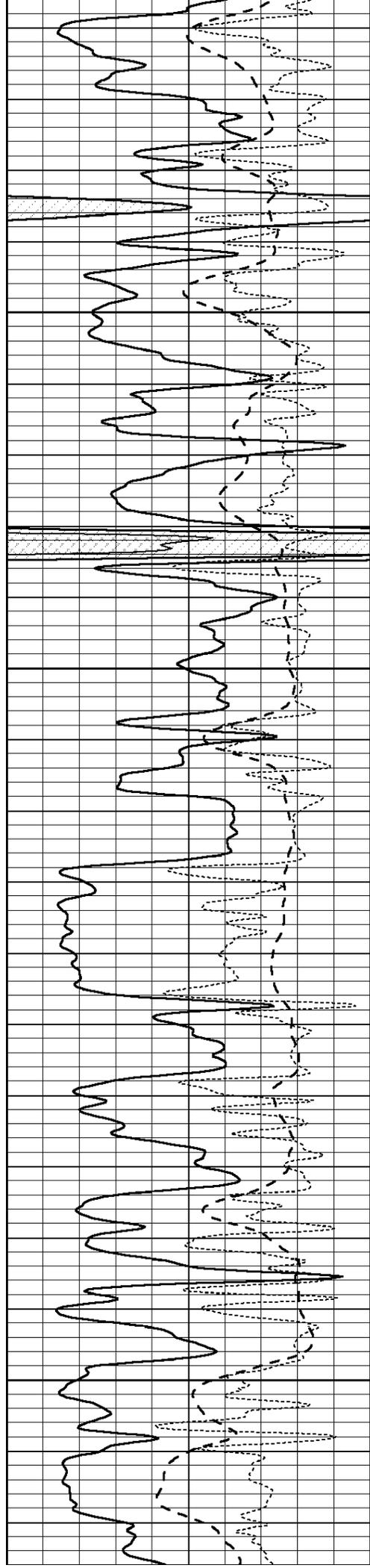
2950

3000

3050

3100



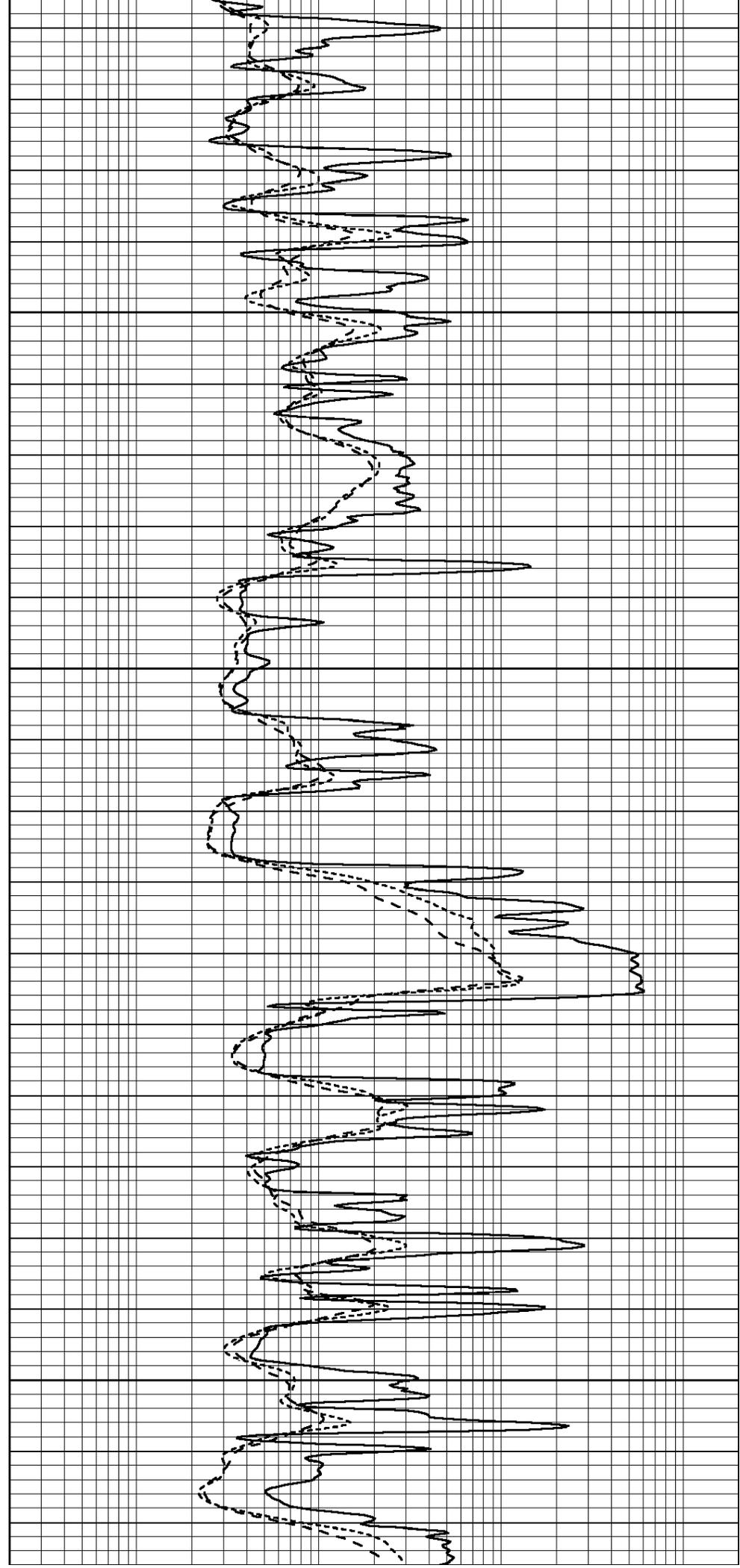


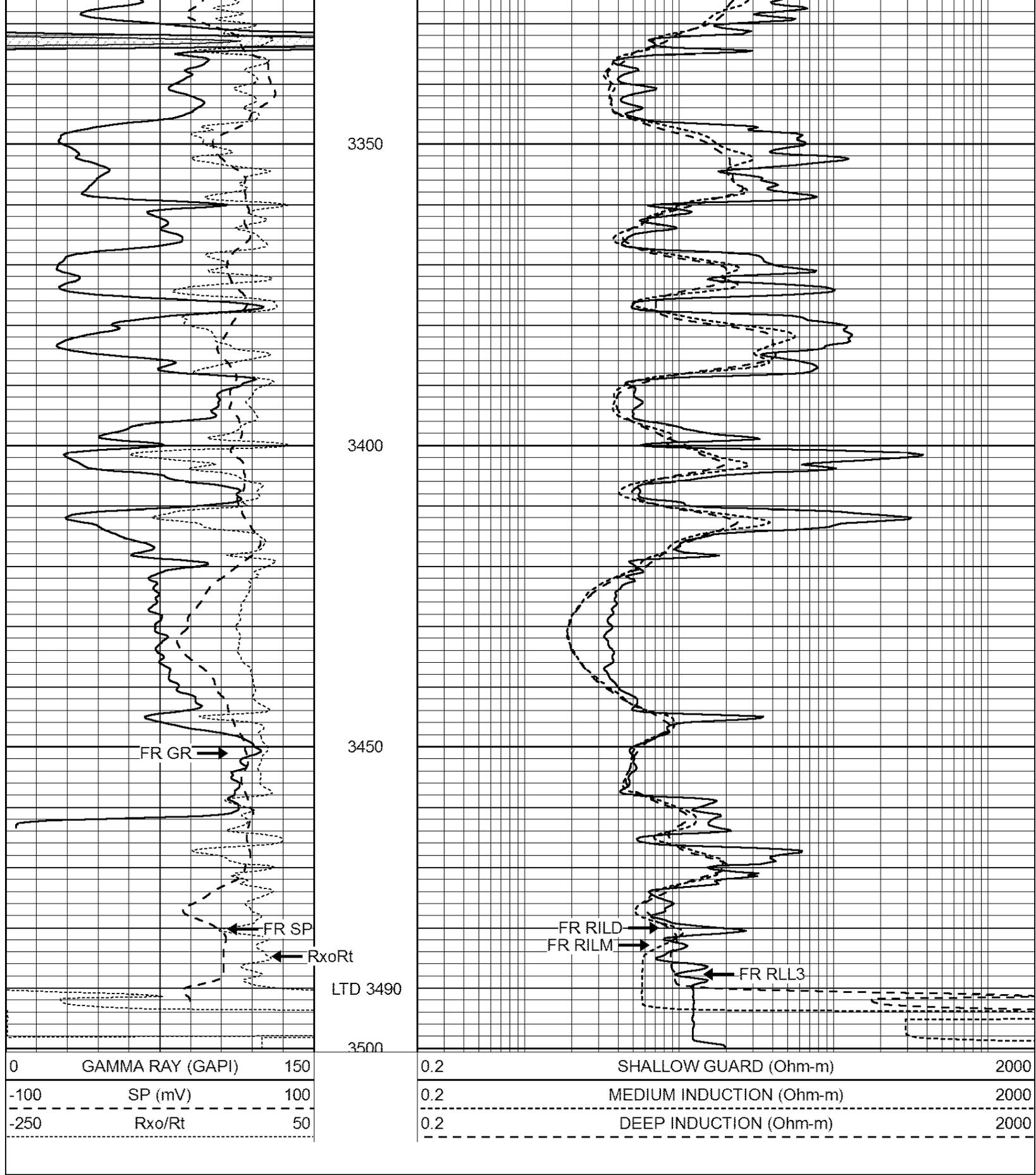
3150

3200

3250

3300

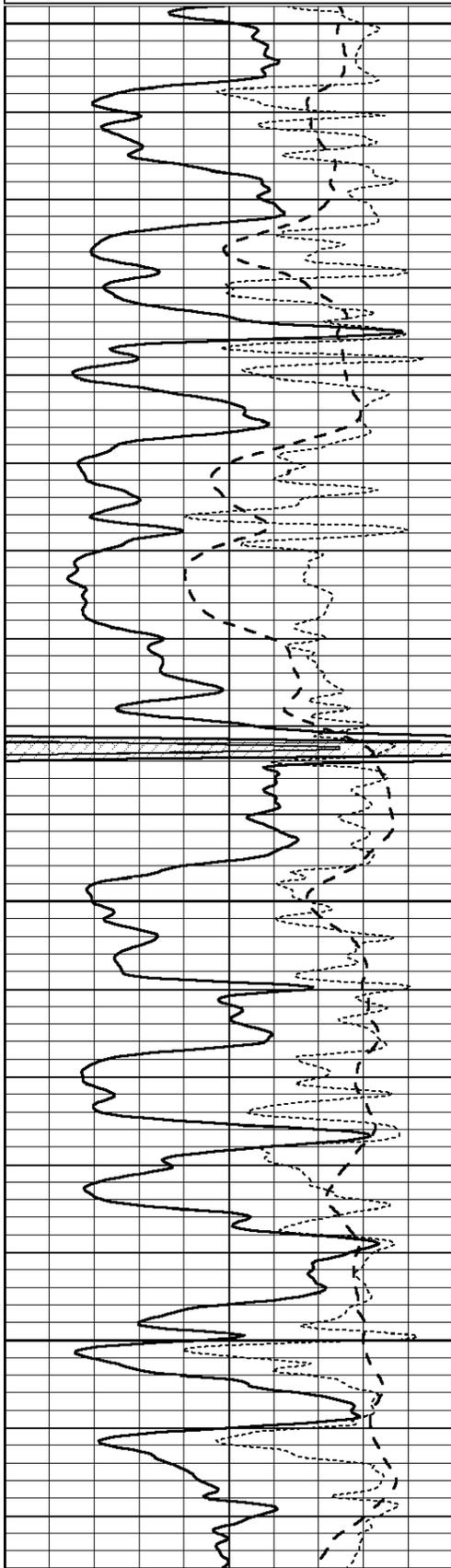




Database File: 26267ddn.db
 Dataset Pathname: pass2.2
 Presentation Format: _dil
 Dataset Creation: Sun Nov 30 20:21:11 2014 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

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

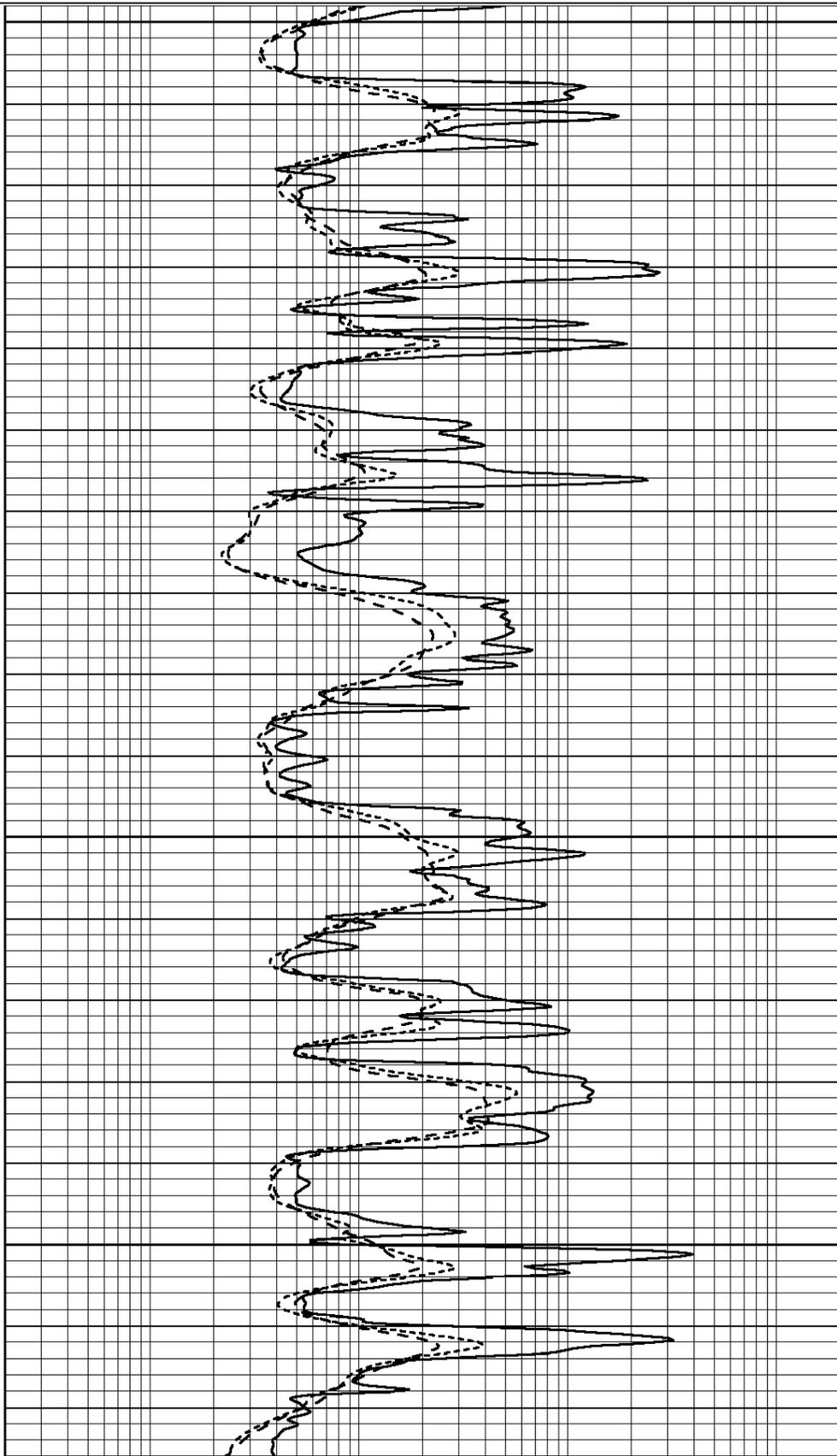


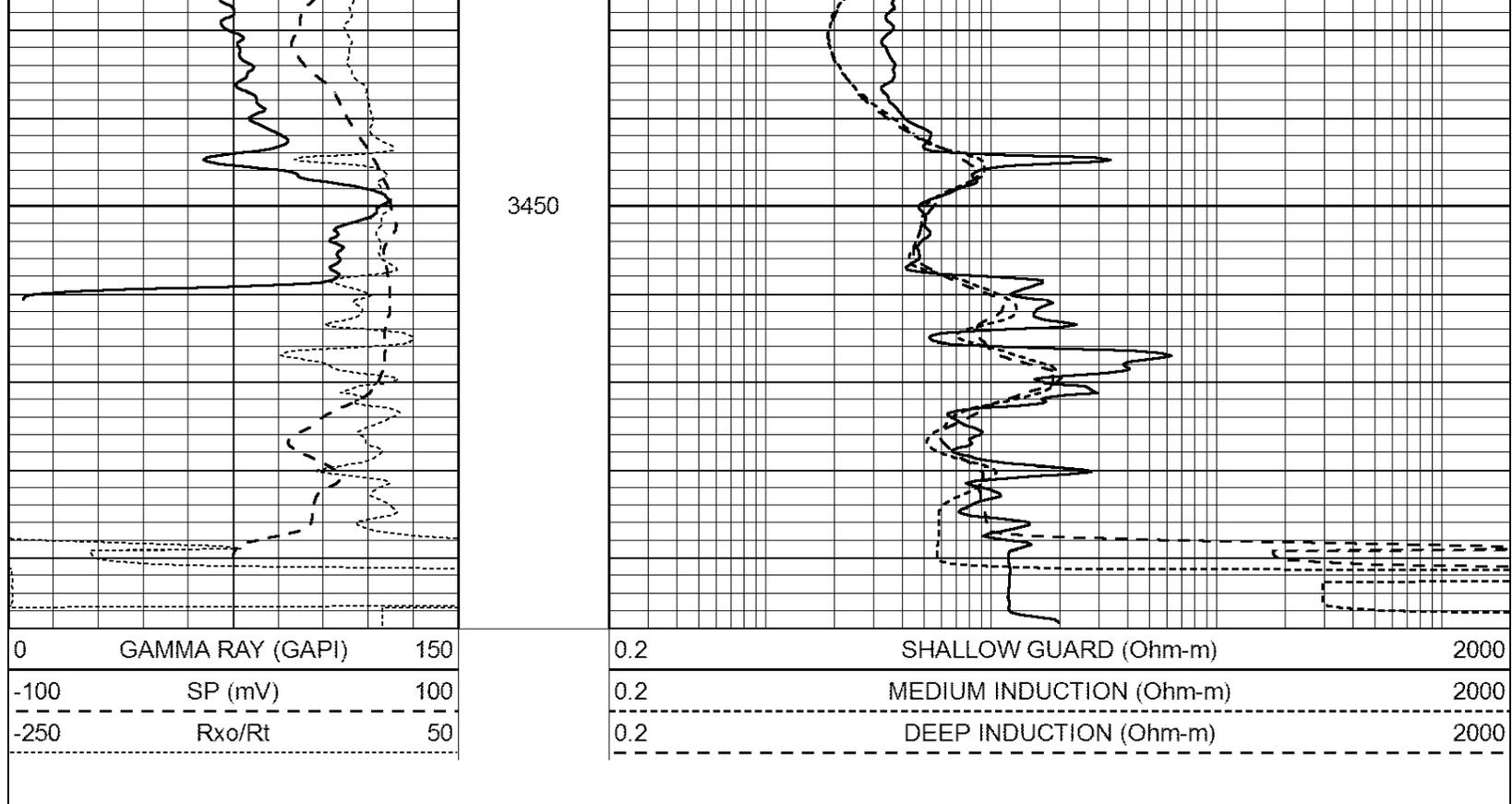
3250

3300

3350

3400





Calibration Report

Database File: 26267ddn.db
 Dataset Pathname: pass3.3
 Dataset Creation: Sun Nov 30 21:18:34 2014 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model:	PROBE7-DILG
Surface Cal Performed:	Mon Nov 24 11:09:57 2014
Downhole Cal Performed:	Sat Jan 19 19:51:38 2013
After Survey Verification Performed:	Sat Jan 19 19:51:38 2013

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop	V	Air	Loop	mmho/m	m	b
Deep	0.793	0.790	V	0.000	400.000	mmho/m	520.000	14.000
Medium	0.992	1.002	V	0.000	464.000	mmho/m	570.000	-28.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.041	0.642	V	0.000	400.000	mmho/m	664.874	-27.011
Medium	0.035	0.802	V	0.000	464.000	mmho/m	604.936	-21.367

Downhole Calibration

	Readings			References			Results	
	Zero	Cal	V	Zero	Cal	mmho/m	m'	b'
Deep	135384.000	27094.500	mmho/m	135400.000	27082.400	mmho/m	1.000	-19.259
Medium	-47330.100	-9381.740	mmho/m	-47327.100	-9389.280	mmho/m	1.000	-10.154
LL3		7.322	V		1400.000	Ohm-m		
		0.038	V		20.000	Ohm-m		
		-7.273	V		4000.000	mmho-m		

After Survey Verification

Readings	Targets	Results
----------	---------	---------

	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	135384.000	27094.500	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	-47330.100	-9381.740	mmho/m	1.000	0.000
LL3		0.000	Ohm-m		1400.000	Ohm-m		
		0.000	Ohm-m		20.000	Ohm-m		
		0.000	mmho-m		4000.000	mmho-m		

Compensated Density Calibration Report

Serial-Model: GEAR5-GEARHART
 Source / Verifier: 147 / 147
 Master Calibration Performed: Sat Nov 29 00:24:07 2014
 Before Survey Verification Performed:
 After Survey Verification Performed:

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	848.07	511.00	cps
Aluminum	2.610	g/cc	183.22	341.84	cps
Spine Angle = 75.30			Density/Spine Ratio = 0.568		
	Size		Reading		
Small Ring	8.20	in	1.64	V	
Large Ring	14.00	in	2.93	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: 080620
 Tool Model: Probe

PRE-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

POST-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number: 46001
 Tool Model: Probe1

Performed: Mon Nov 24 09:45:18 2014

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps

Calibrator Reading: 1.0 cps

Sensitivity: 0.2600 GAPI/cps