



**COMPLETION
& PRODUCTION
SERVICES CO.**

**DUAL
INDUCTION
LOG**

Company	MAI OIL OPERATIONS, INC.		
Well	KRAMER "A" #6		
Field	TRAPP		
County	RUSSELL	State	KANSAS
Location:	SEC 14 TWP 15S RGE 14W		API # : 15-167-23876-0000
Permanent Datum	GROUND LEVEL	Elevation	1893
Log Measured From	KELLY BUSHING 8 A.G.L.		
Drilling Measured From	KELLY BUSHING		
Date	5/3/13		
Run Number	ONE		
Depth Driller	3410		
Depth Logger	3410		
Bottom Logged Interval	3408		
Top Log Interval	00		
Casing Driller	8 5/8" @ 513		
Casing Logger	512		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.3/51	CHLORIDES 8800 PPM	
pH / Fluid Loss	10.0/8.8		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	.65 @ 86F		
Rmf @ Meas. Temp	.48 @ 86F		
Rmc @ Meas. Temp	.58 @ 86F		
Source of Rmf / Rmc	MEASURED		
Rim @ BHT	.50 @ 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	WYATT URBAN		

<<< 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 NABORS COMPLETION & PRODUCTION SVCS. (785) 628-6395

DIRECTIONS:
RUSSELL, KS. - 10 S. - W. INTO

Database File:

010778ddn.db

Dataset Pathname:

pass3.3

Presentation Format:

_dil2

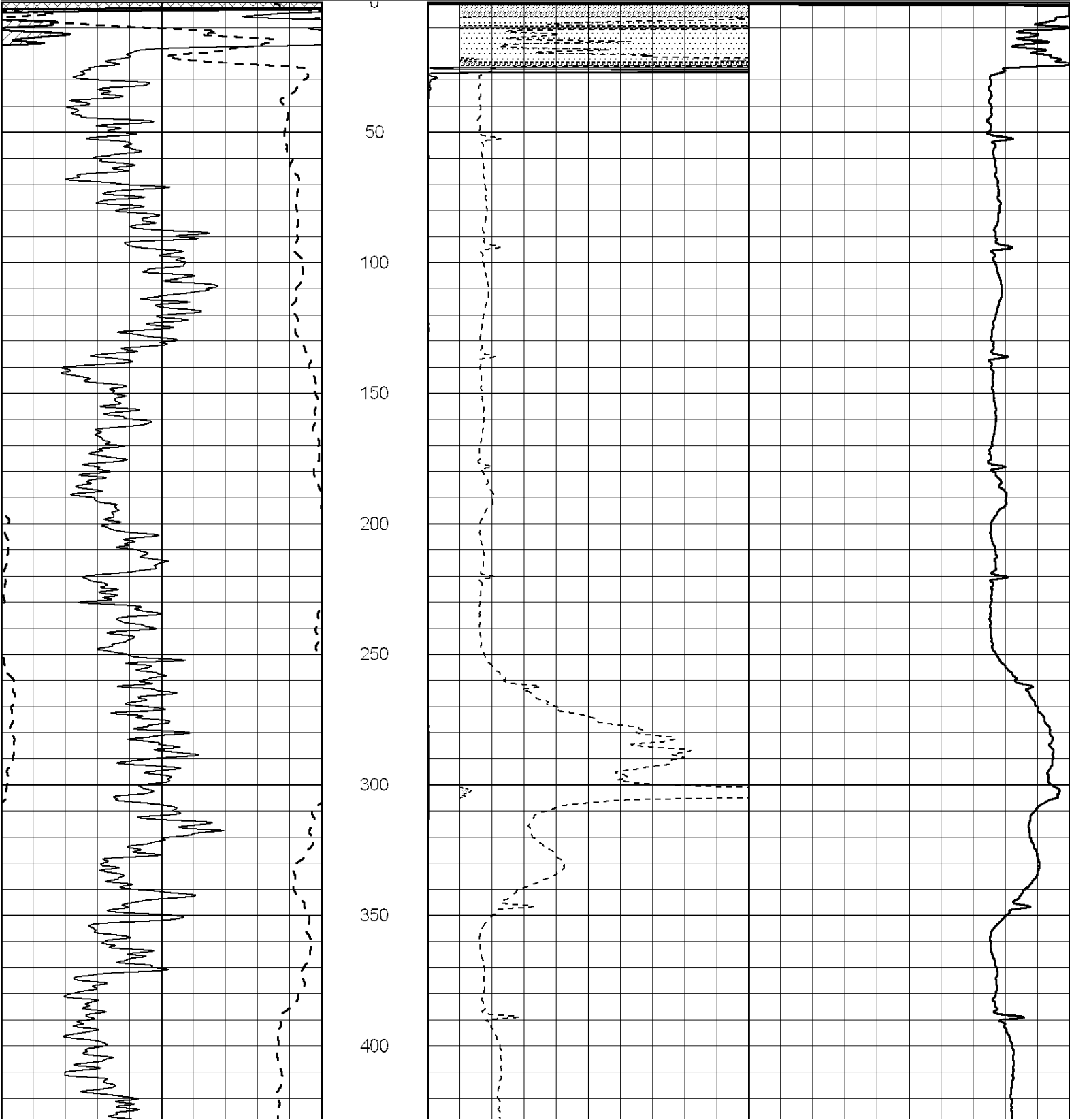
Dataset Creation:

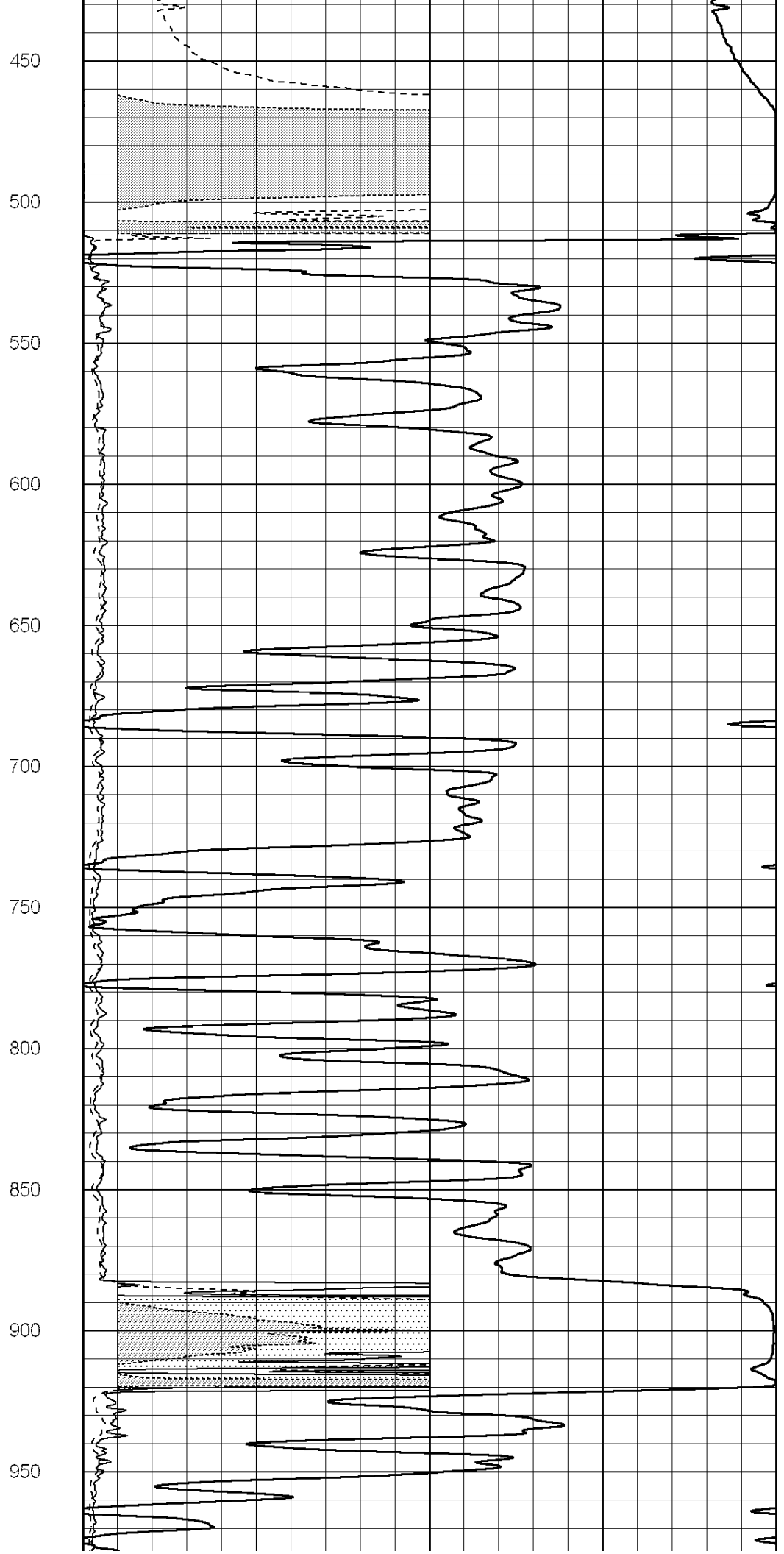
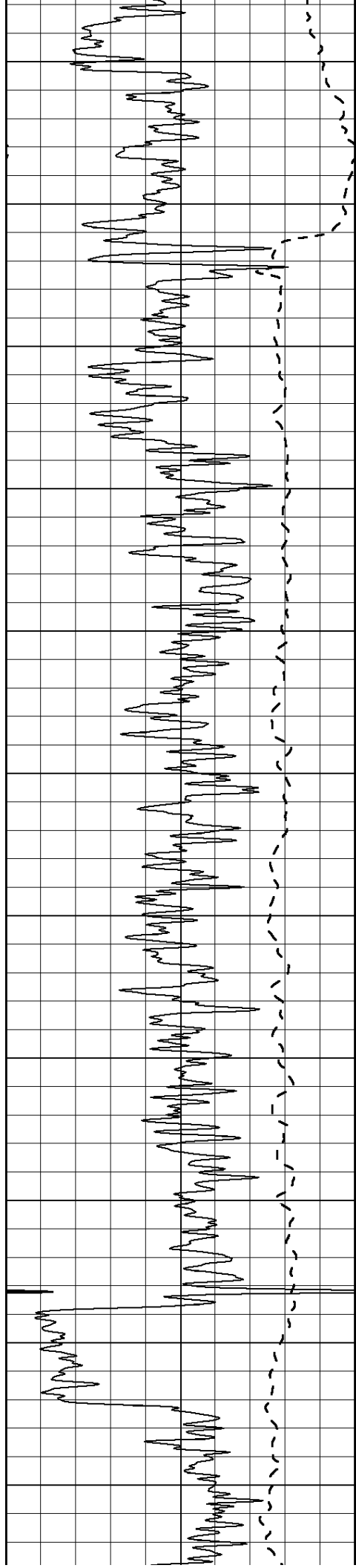
Fri May 03 13:42:16 2013 by Calc Open-Cased 090629

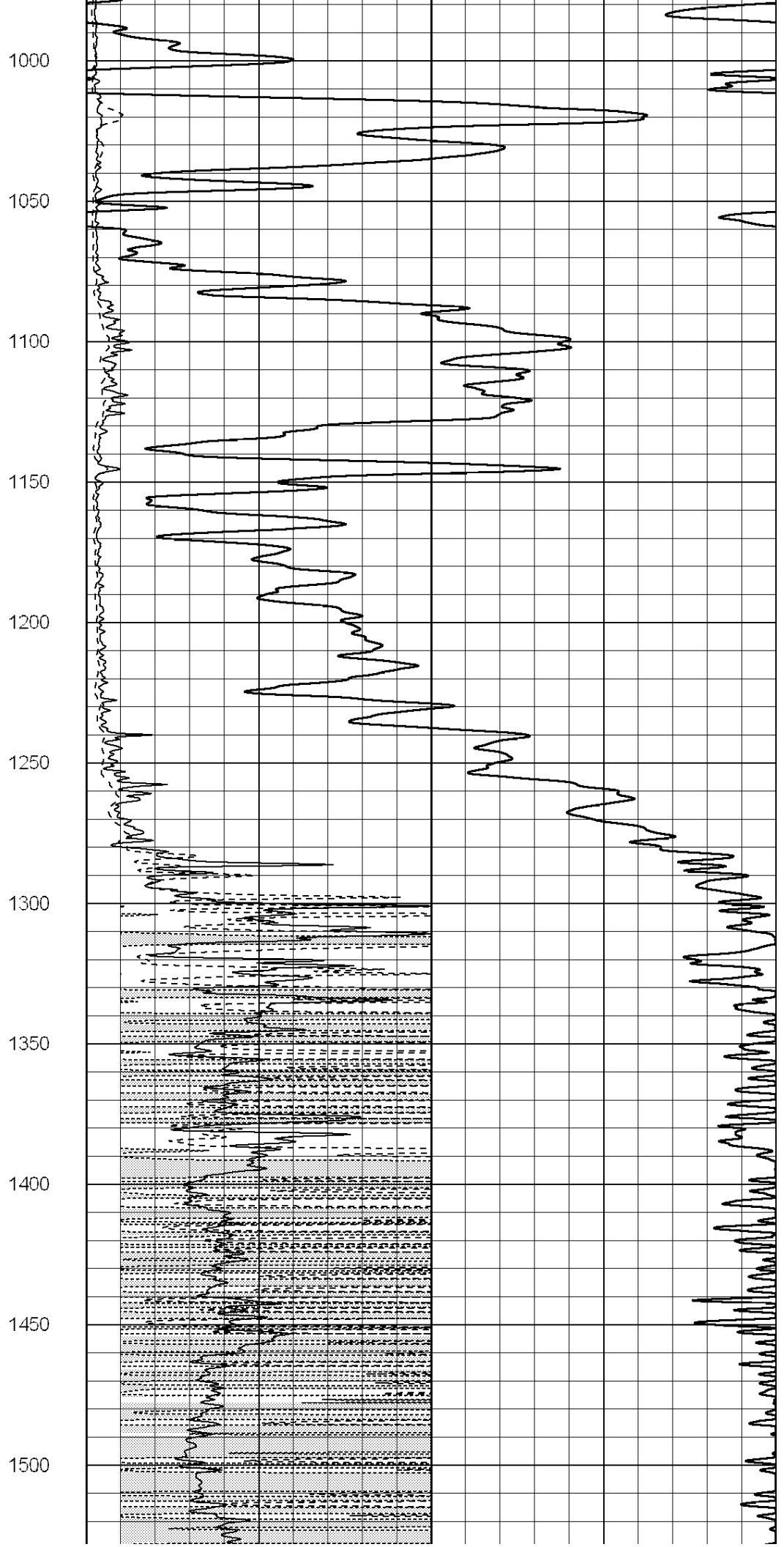
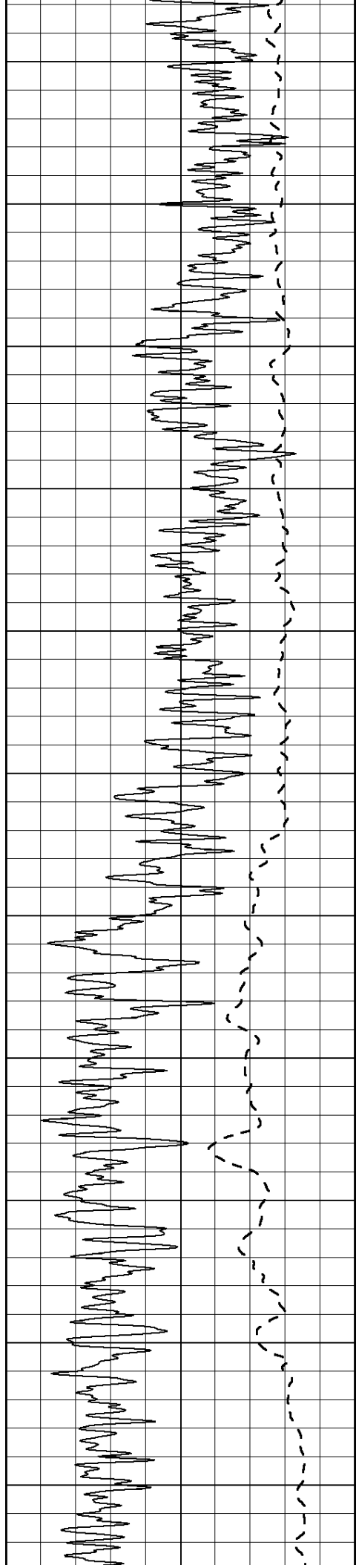
Charted by:

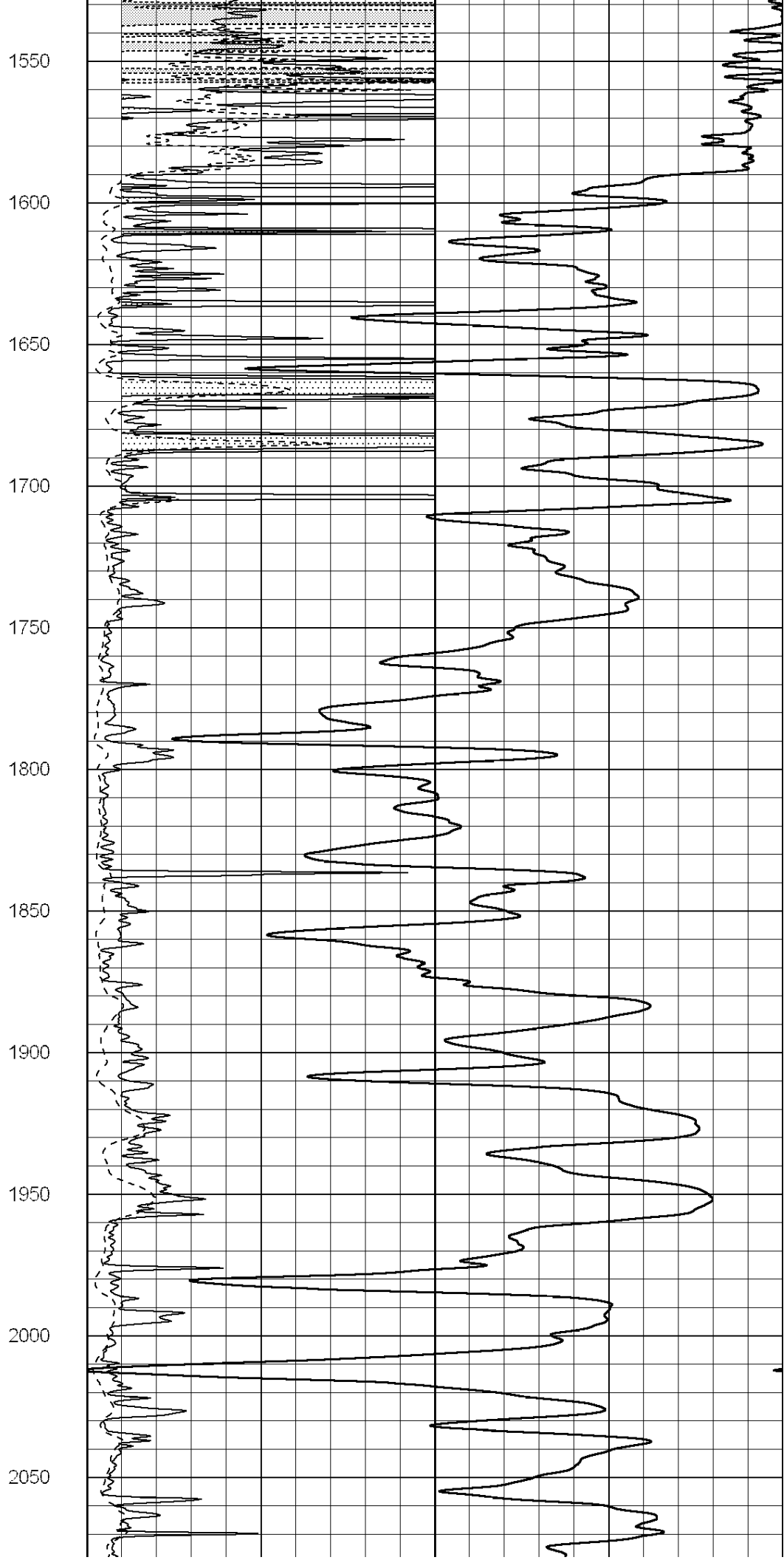
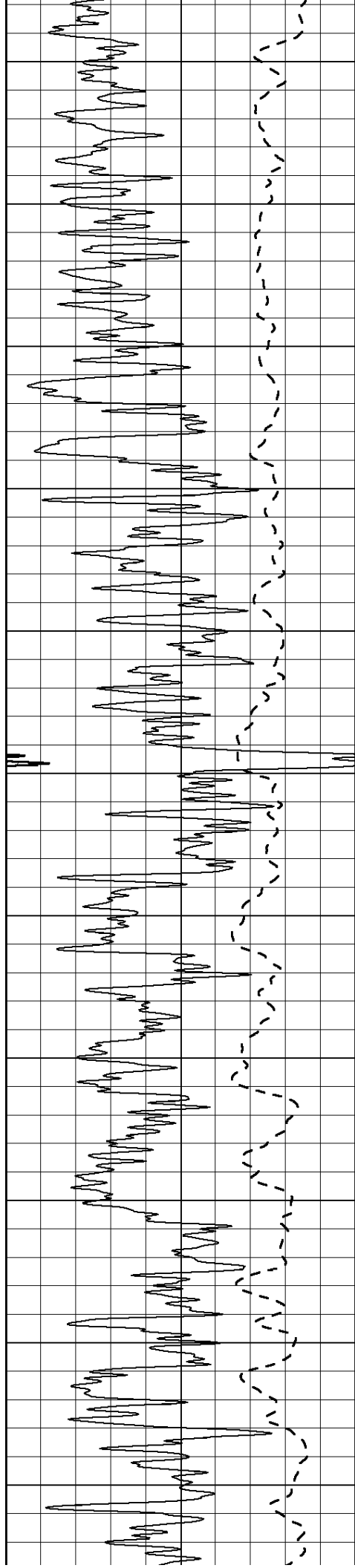
Depth in Feet scaled 1:600

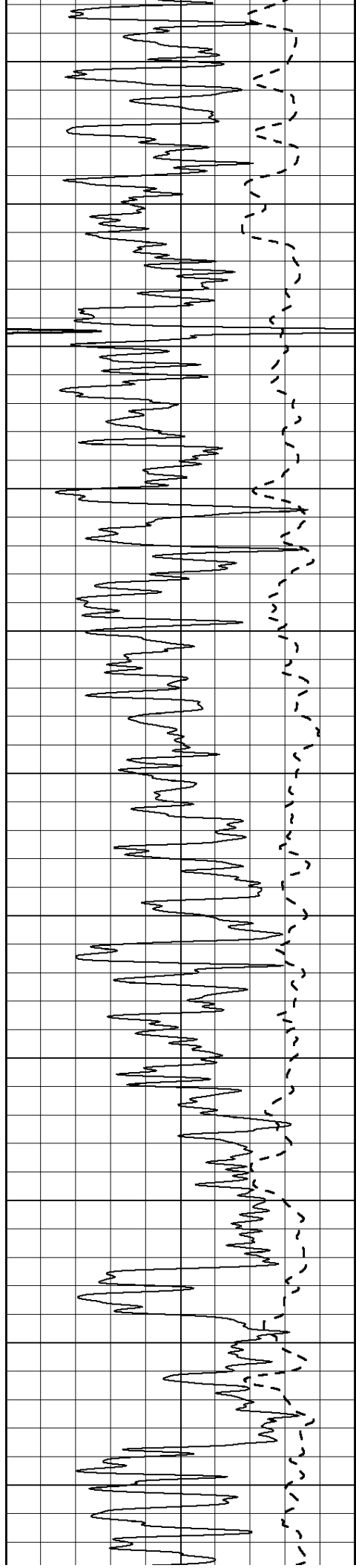
0	Gamma Ray (GAPI)	150	0	RLL3 (Ohm-m)	50	
-100	SP (mV)	100	0	Deep Induction (Ohm-m)	50	
-----			1000	CILD (mmho/m)		0
			50	RILD X10 (Ohm-m)	500	
			50	RLL3 X10 (Ohm-m)	500	











2100

2150

2200

2250

2300

2350

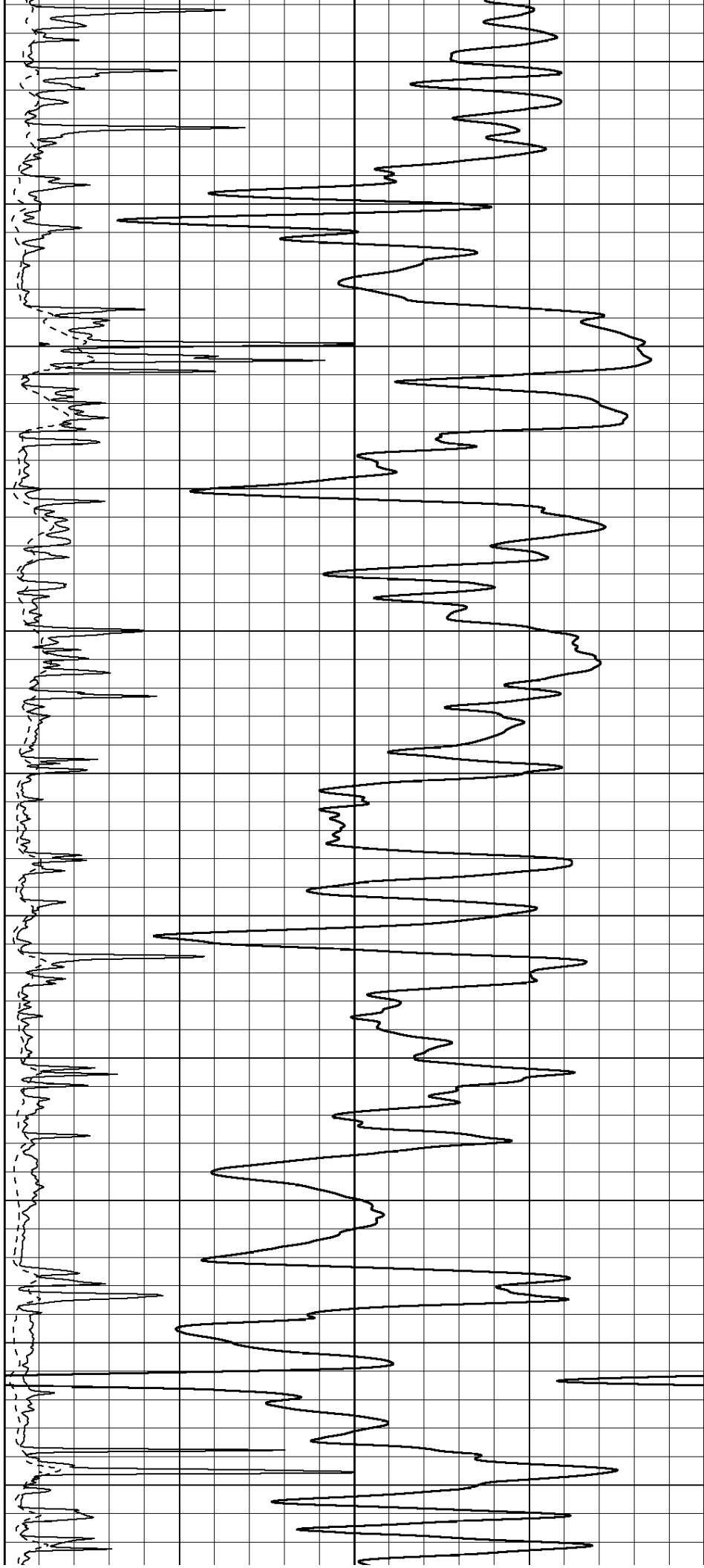
2400

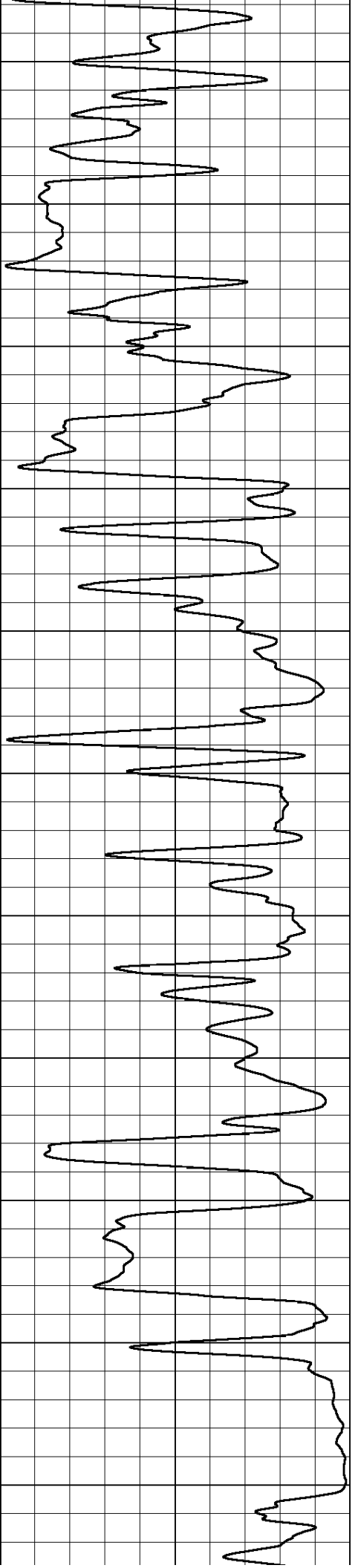
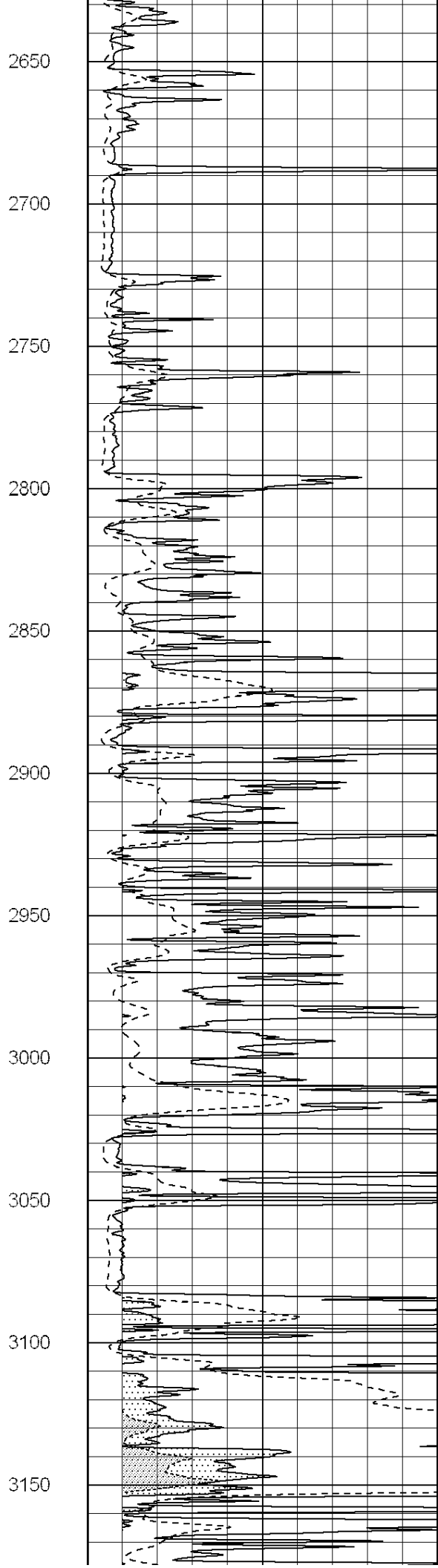
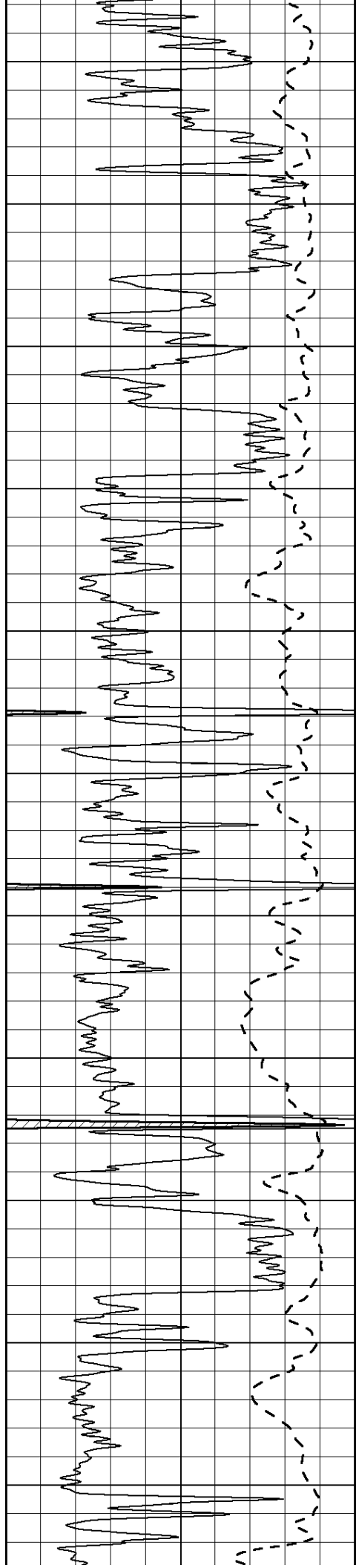
2450

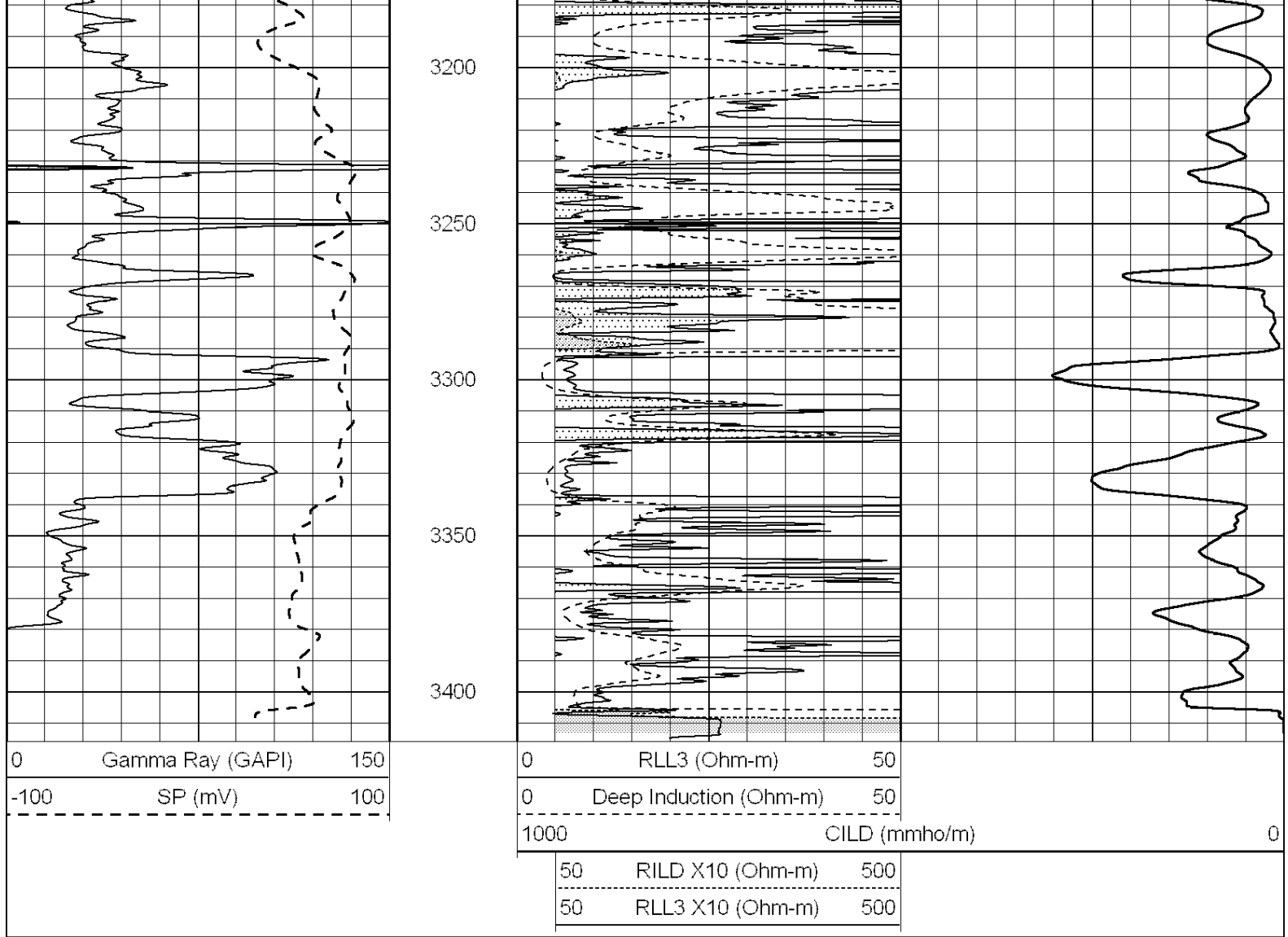
2500

2550

2600







NABORS
COMPLETION
& PRODUCTION
SERVICES CO.

ANHYDRITE

Database File: 010778ddn.db
Dataset Pathname: pass3.2
Presentation Format: _dil
Dataset Creation: Fri May 03 13:21:33 2013 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

0 GAMMA RAY (GAPI) 150

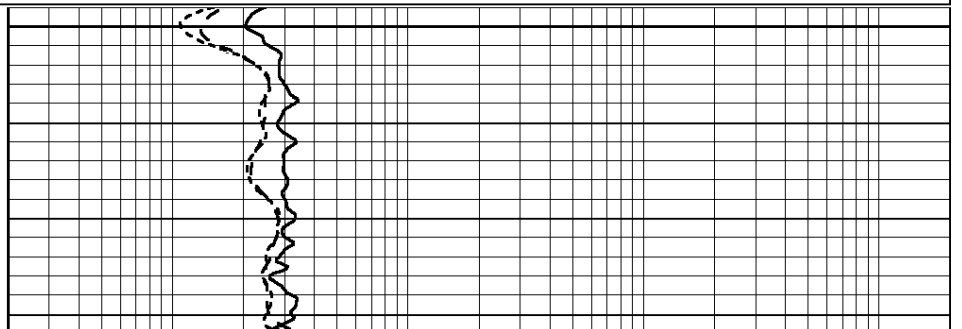
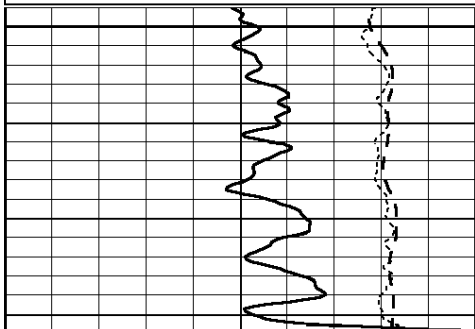
-100 SP (mV) 100

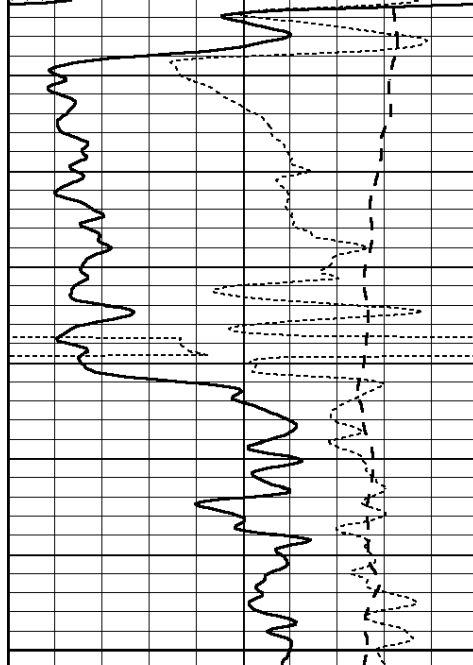
-250 Rxo/Rt 50

0.2 SHALLOW GUARD (Ohm-m) 2000

0.2 MEDIUM INDUCTION (Ohm-m) 2000

0.2 DEEP INDUCTION (Ohm-m) 2000

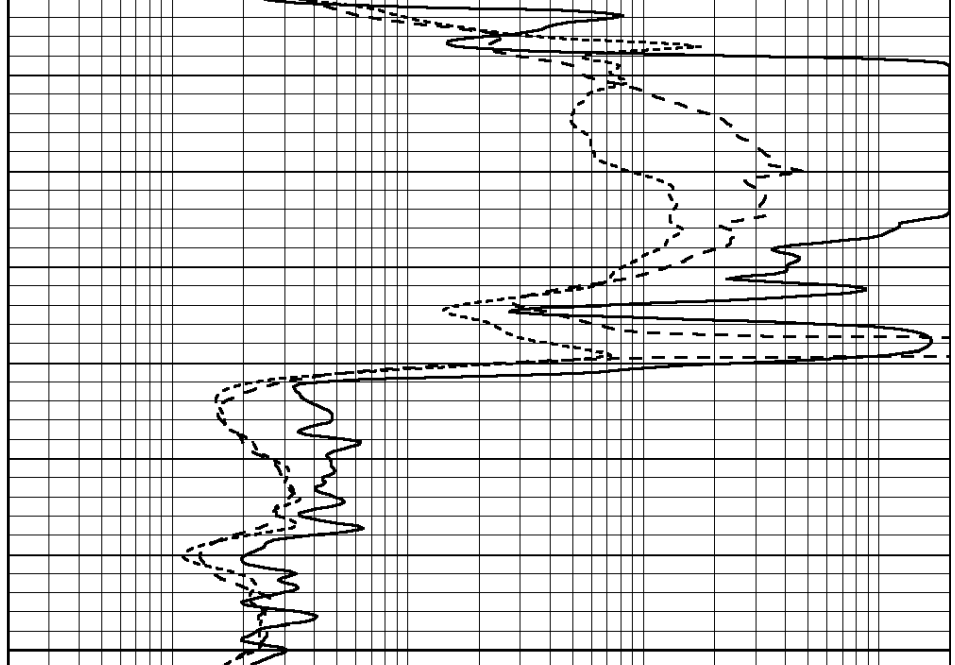




900

950

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



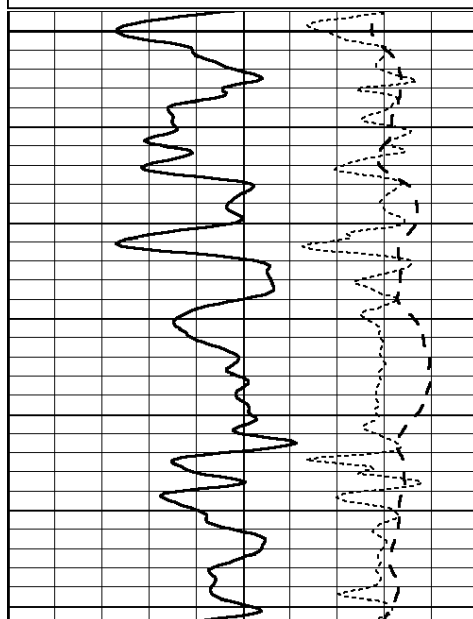
NABORS
COMPLETION
& PRODUCTION
SERVICES CO.

MAIN SECTION

Database File: 010778ddn.db
Dataset Pathname: pass3.1
Presentation Format: _dil
Dataset Creation: Fri May 03 13:07:53 2013 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

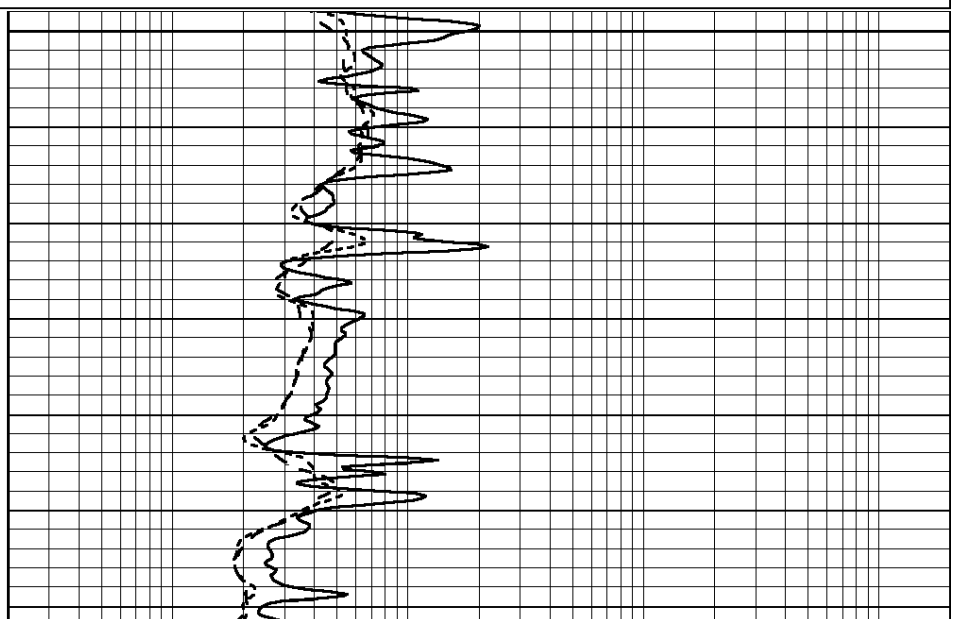
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

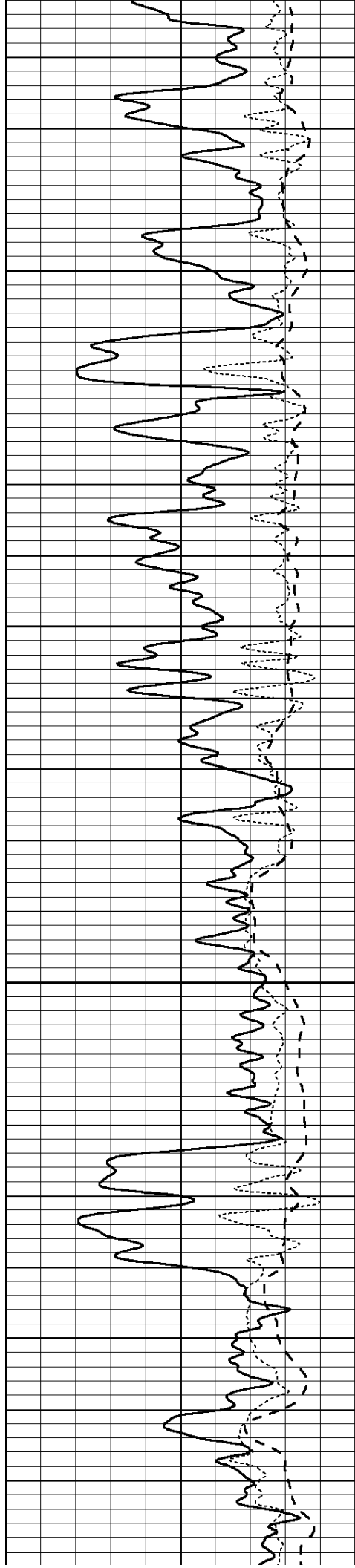
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000



2300

2350



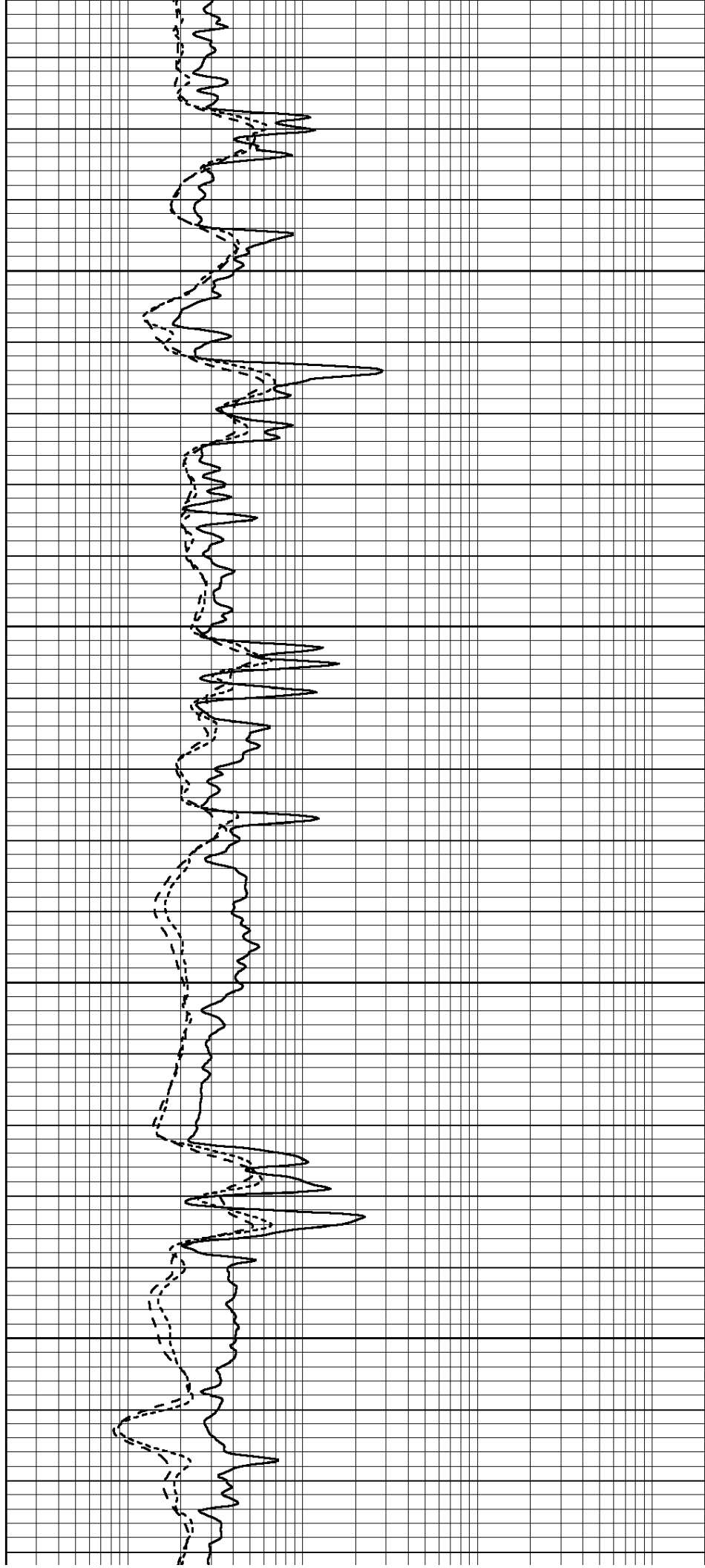


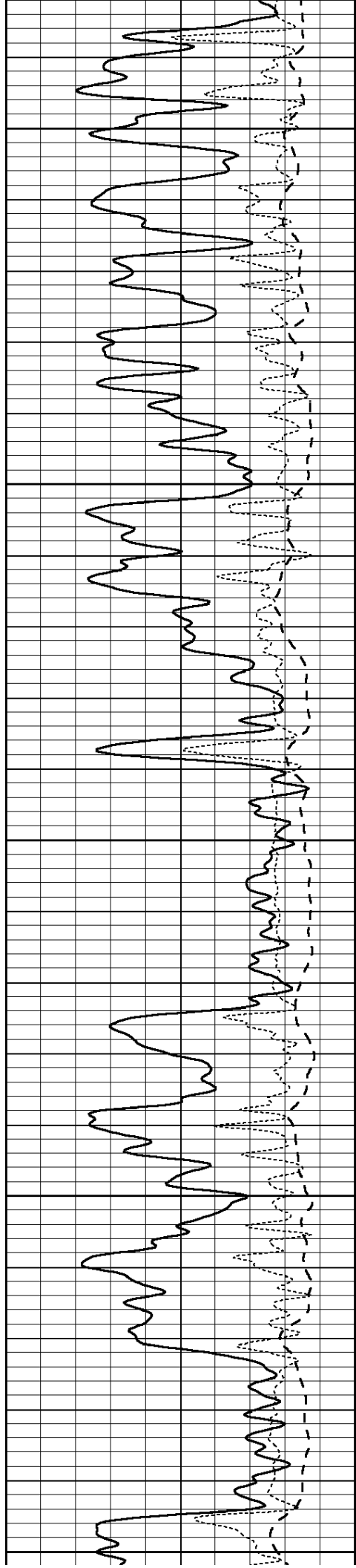
2400

2450

2500

2550





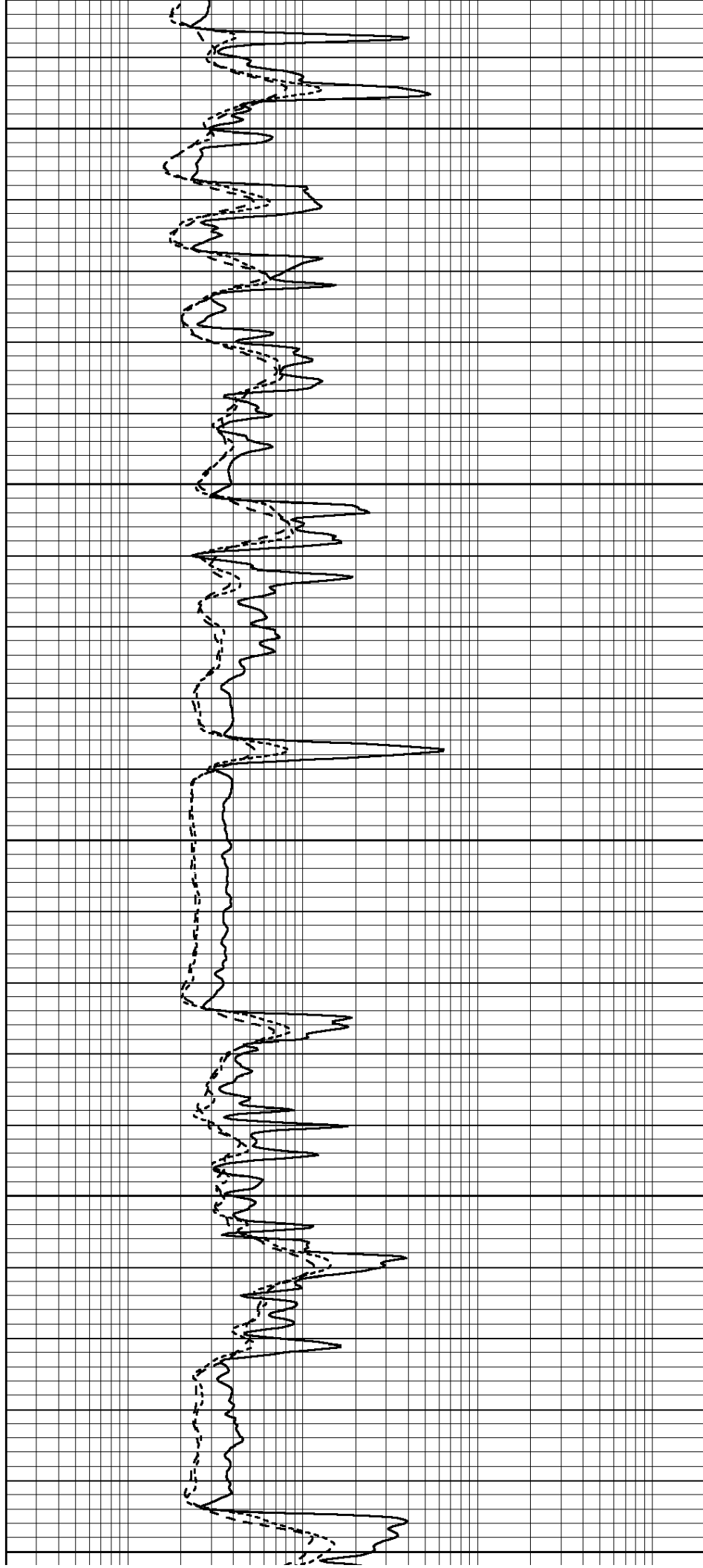
2600

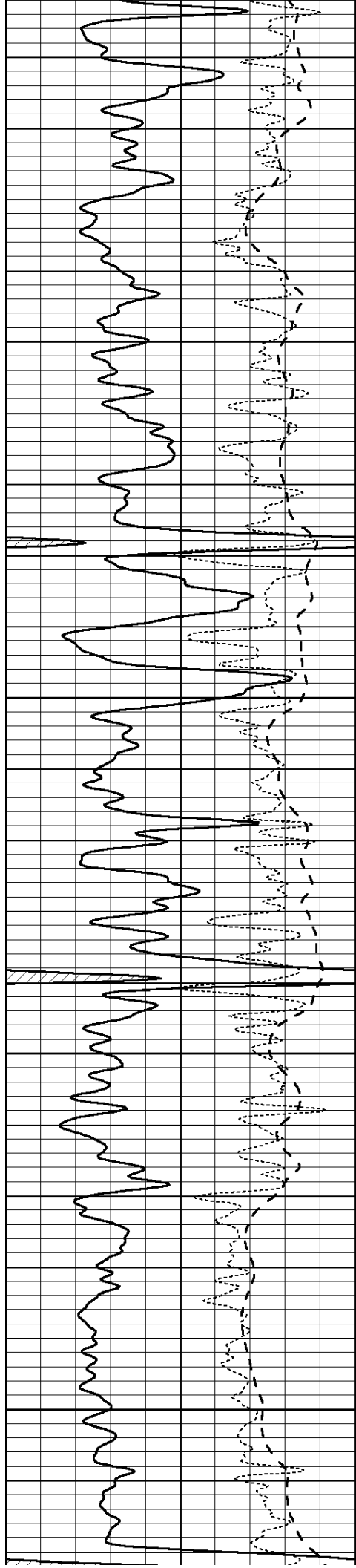
2650

2700

2750

2800



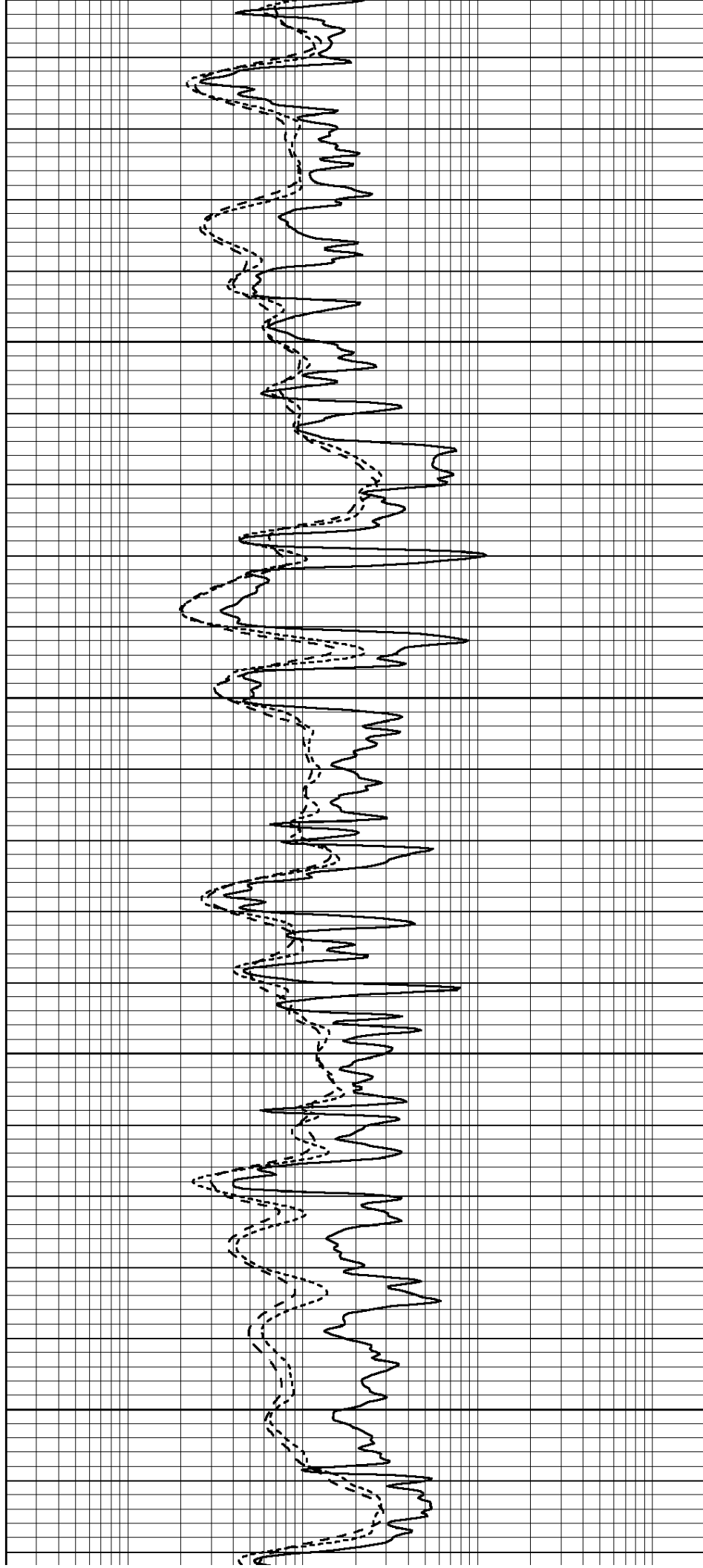


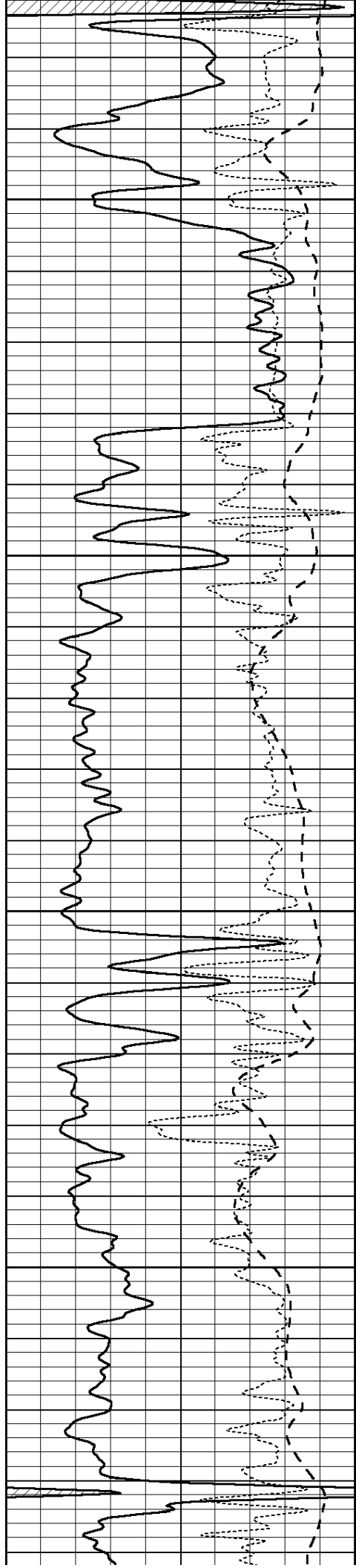
2850

2900

2950

3000



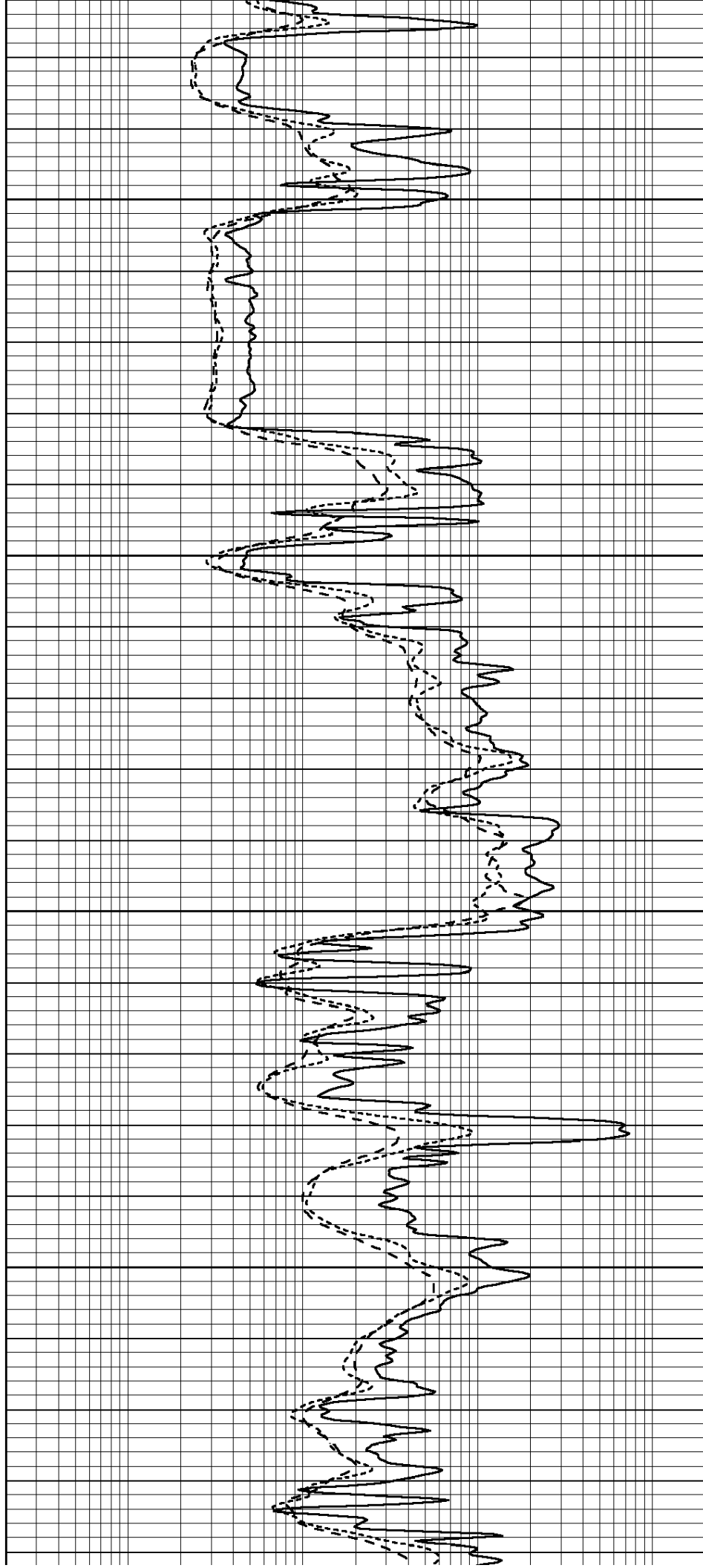


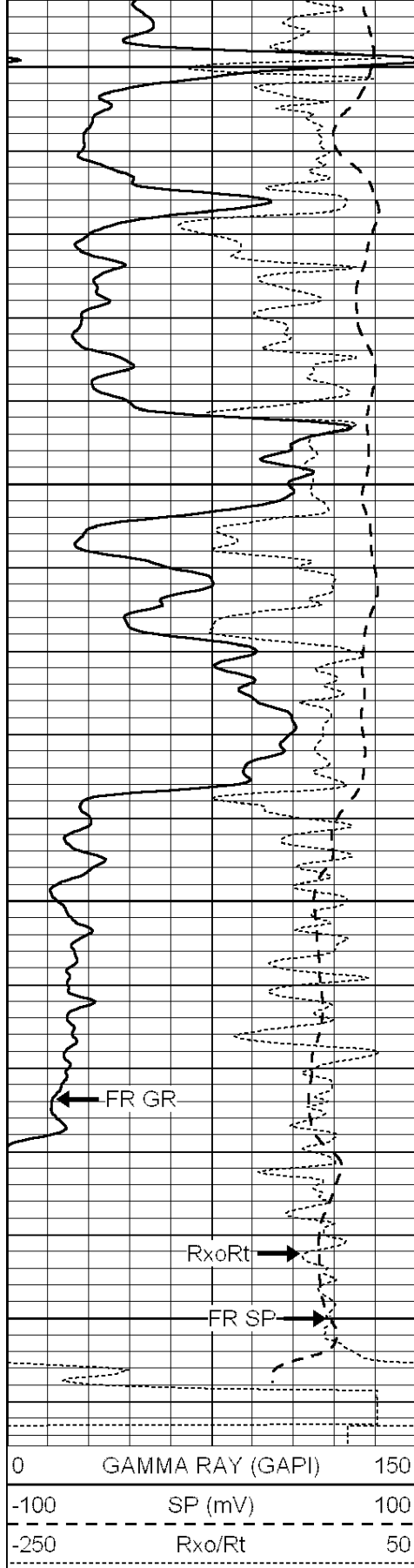
3050

3100

3150

3200





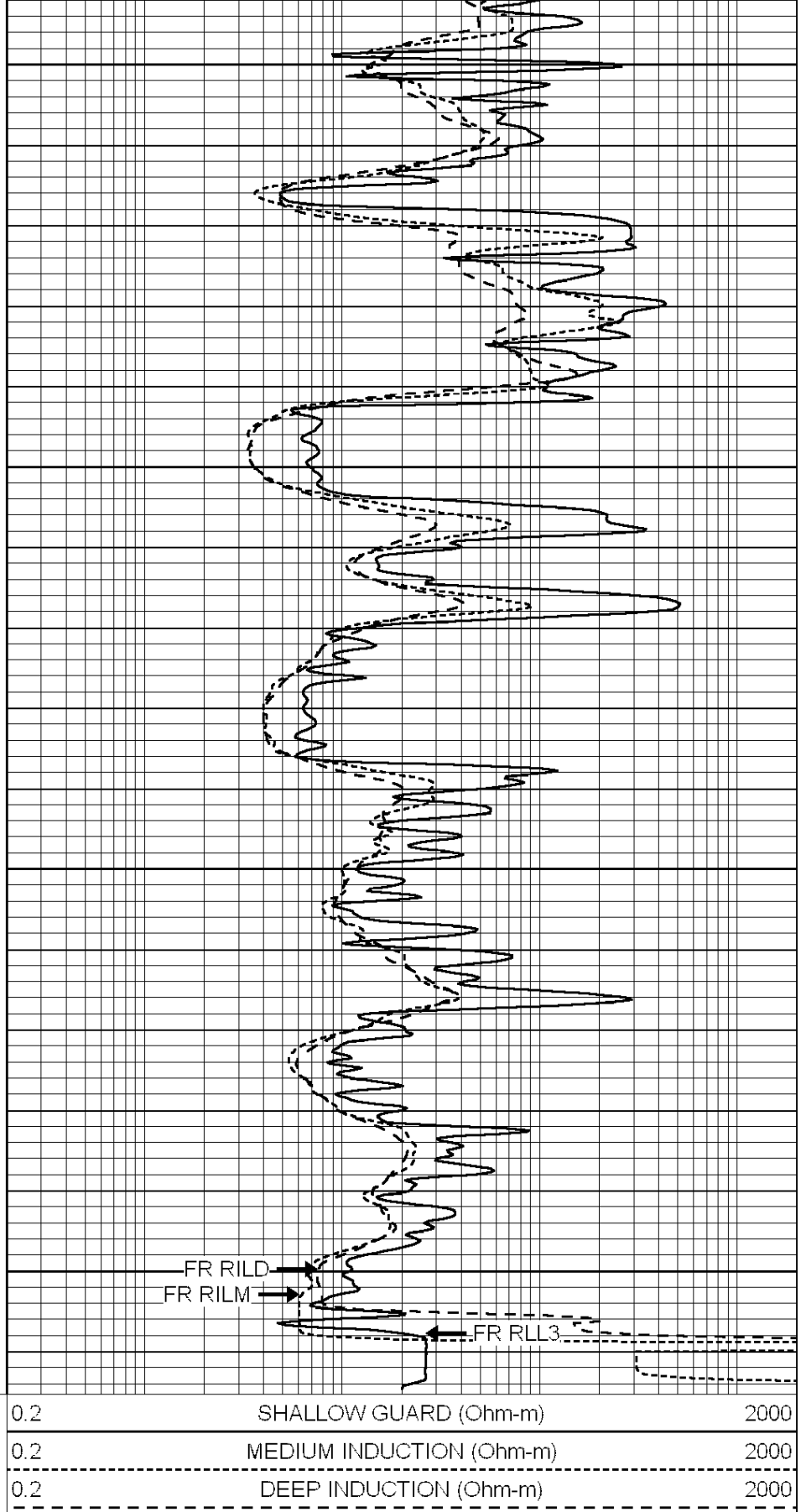
3250

3300

3350

3400

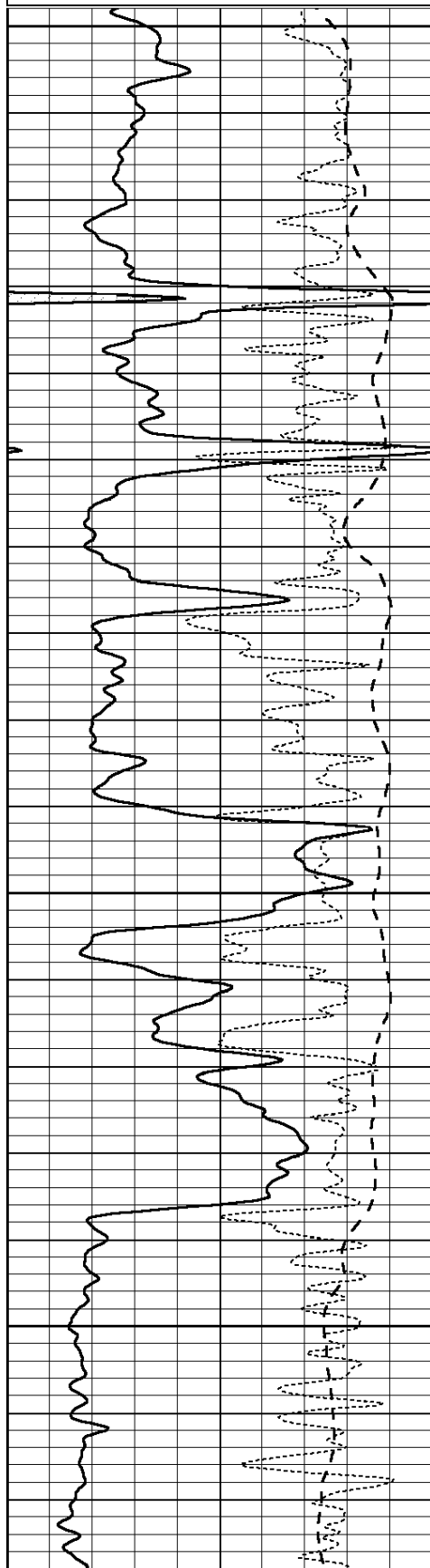
LTD 3410



Database File: 010778ddn.db
Dataset Pathname: pass2.1
Presentation Format: _dil
Dataset Creation: Fri May 03 12:57:49 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

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

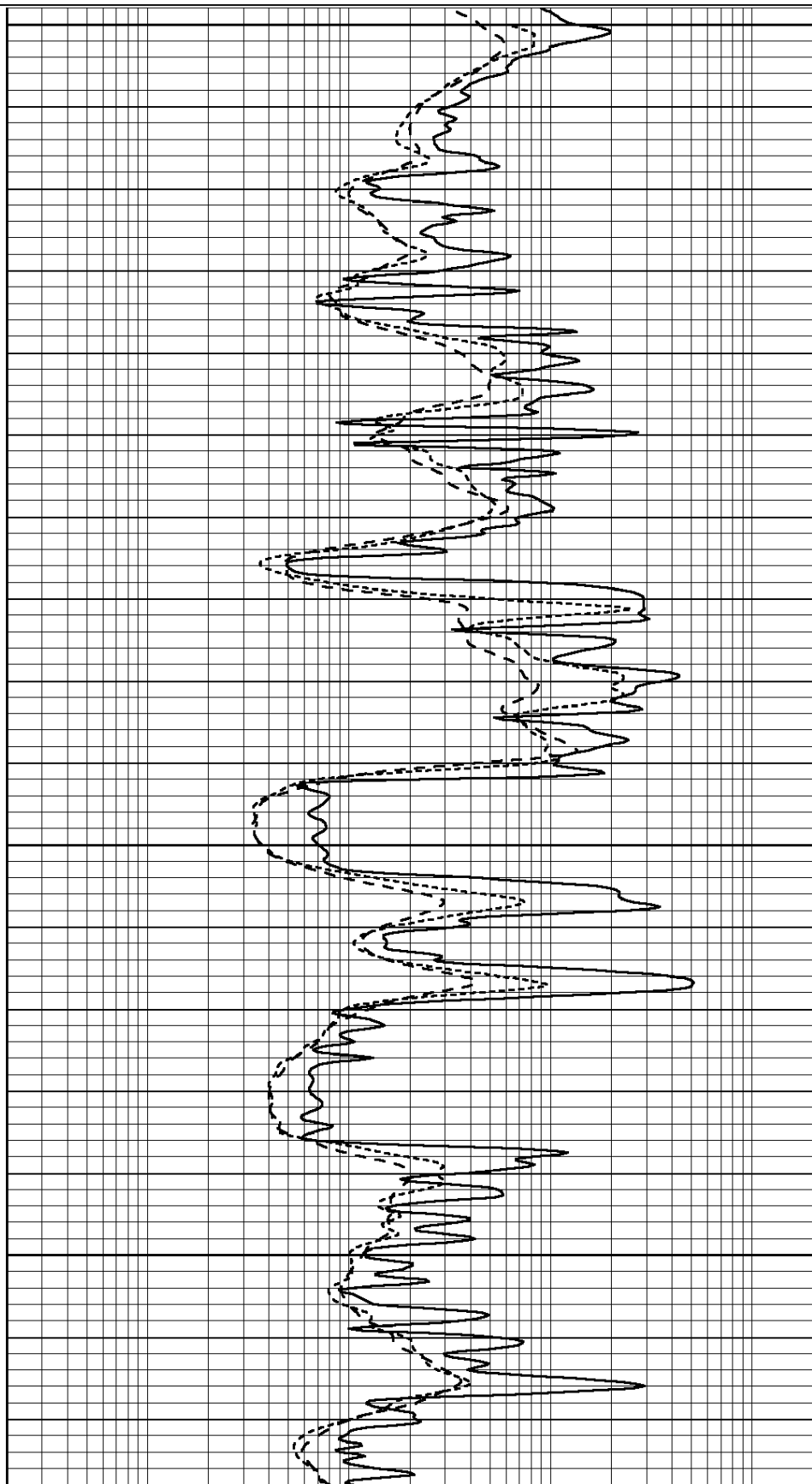


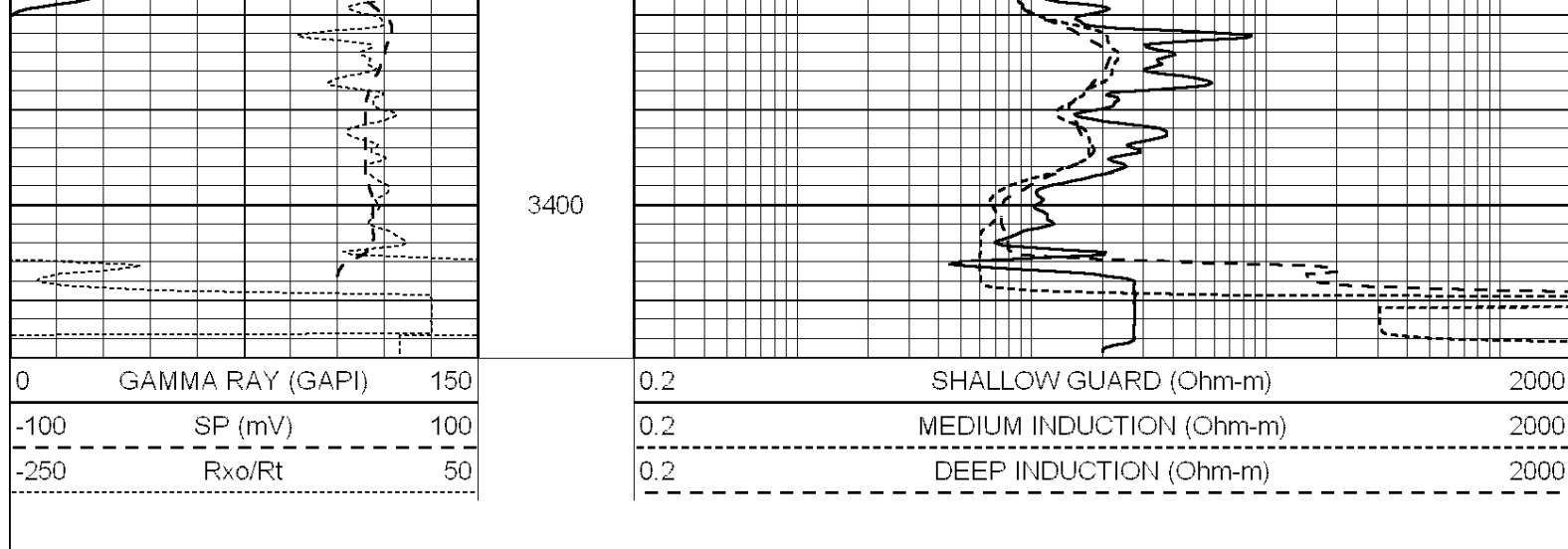
3200

3250

3300

3350





Calibration Report

Database File: 010778ddn.db
Dataset Pathname: pass2.1
Dataset Creation: Fri May 03 12:57:49 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

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	971.18	557.33	cps
Aluminum	2.580	g/cc	212.31	367.26	cps
Spine Angle = 74.66			Density/Spine Ratio = 0.552		
	Size		Reading		
Small Ring	8.00	in	4.29	V	
Large Ring	14.00	in	6.24	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
Calibrator Reading:	175.0
	cps
Sensitivity:	0.8371
	GAPI/cps