

DUAL INDUCTION LOG

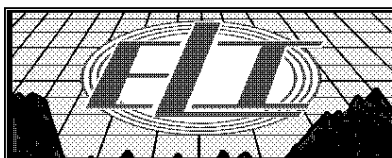
Company	DOUBLE D'S, LLC.		
Well	CECIL #1		
Field	WILDCAT		
County	ELLIS	State	KANSAS
Location:	APL # : 15-051-26908-0000 1096' FNL & 1818' FVL SE - SW - NE - NW		Other Services CDL/CNL MEL/SON
Permanent Datum	GROUND LEVEL	Elevation	1956
Log Measured From	KELLY BUSHING 10' A.G.L.	Elevation	K.B. 1966 D.F. 1964 G.L. 1956
Drilling Measured From	KELLY BUSHING		
SEC 30 TWP 15S RGE 18W			
Date	5/3/18		
Run Number	ONE		
Depth Driller	3669		
Depth Logger	3668		
Bottom Logged Interval	3666		
Top Log Interval	00		
Casing Driller	8 5/8" @ 1141'		
Casing Logger	1141		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 11,400 PPM	
Density / Viscosity	9.3/54		
pH / Fluid Loss	10.0/10.0		
Source of Sample	FLOWLINE		
Rin @ Meas. Temp	.700 @ 72F		
Rmf @ Meas. Temp	.525 @ 72F		
Rmc @ Meas. Temp	.840 @ 72F		
Source of Rmf / Rmc	MEASUREMENT		
Rin @ BHT	.446 @ 113F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	7:30 P.M.		
Maximum Recorded Temperature	113F		
Equipment Number	922339		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	MARC DOWNING	DOC BIEKER	

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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 ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS
SCHOENCHEN, KS. & HWY 183, 1N., 2W., S. INTO AT SAND PIT DRIVE



MAIN SECTION

Database File: 2489ddn.db
Dataset Pathname: pass3.3
Presentation Format: dil2
Dataset Creation: Thu May 03 20:37:31 2018
Charted by: Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150
-100	SP (mV)	100
0	RWA (Ohm-m)	1

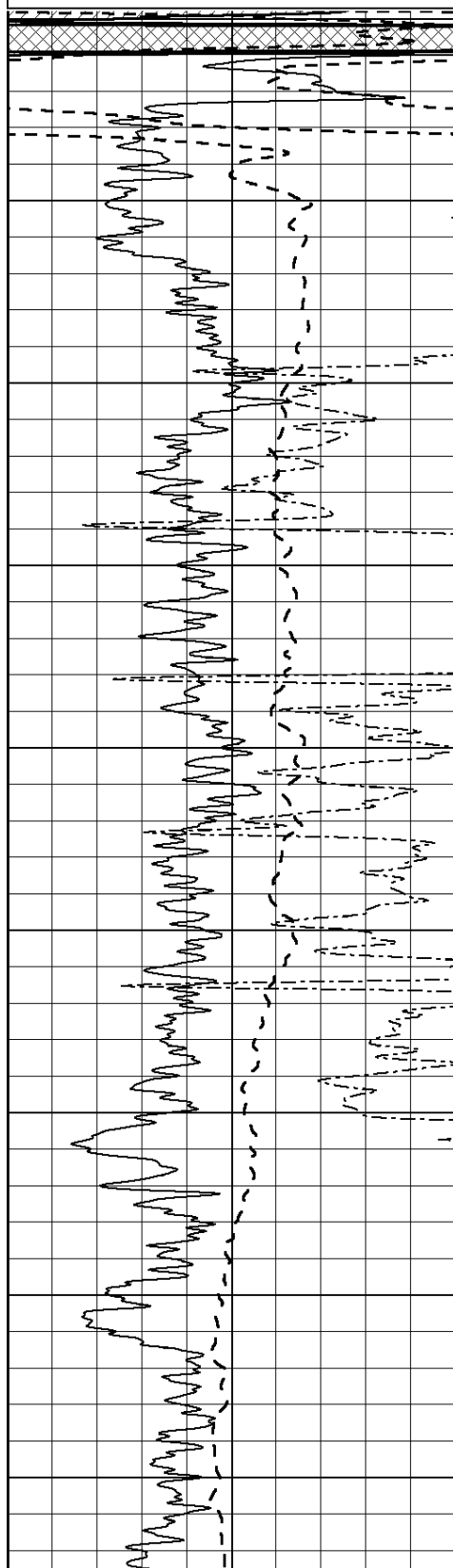
0	RLL3 (Ohm-m)	50
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0	RILD (Ohm-m)	50
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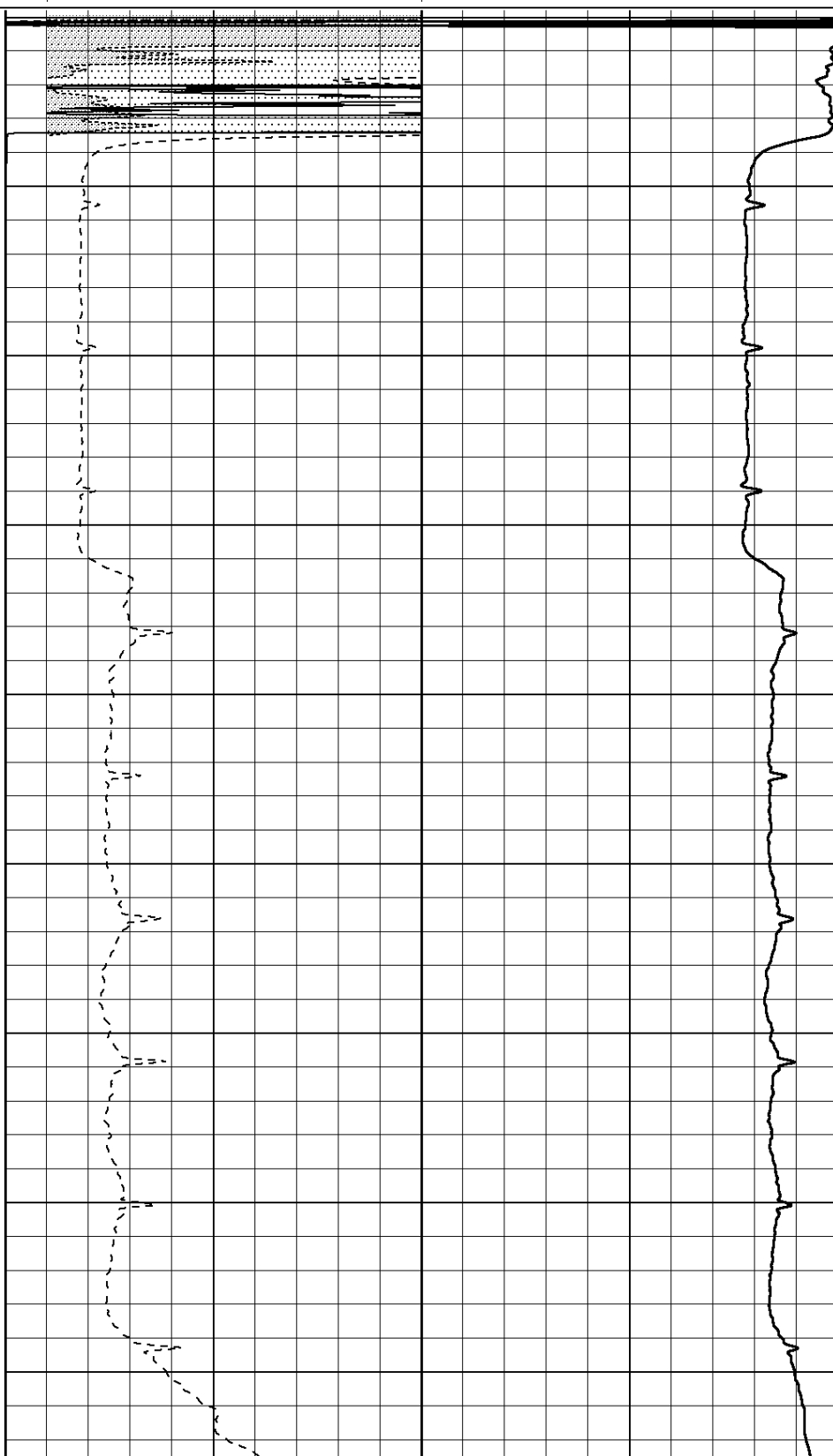
1000	CILD (mmho/m)	0
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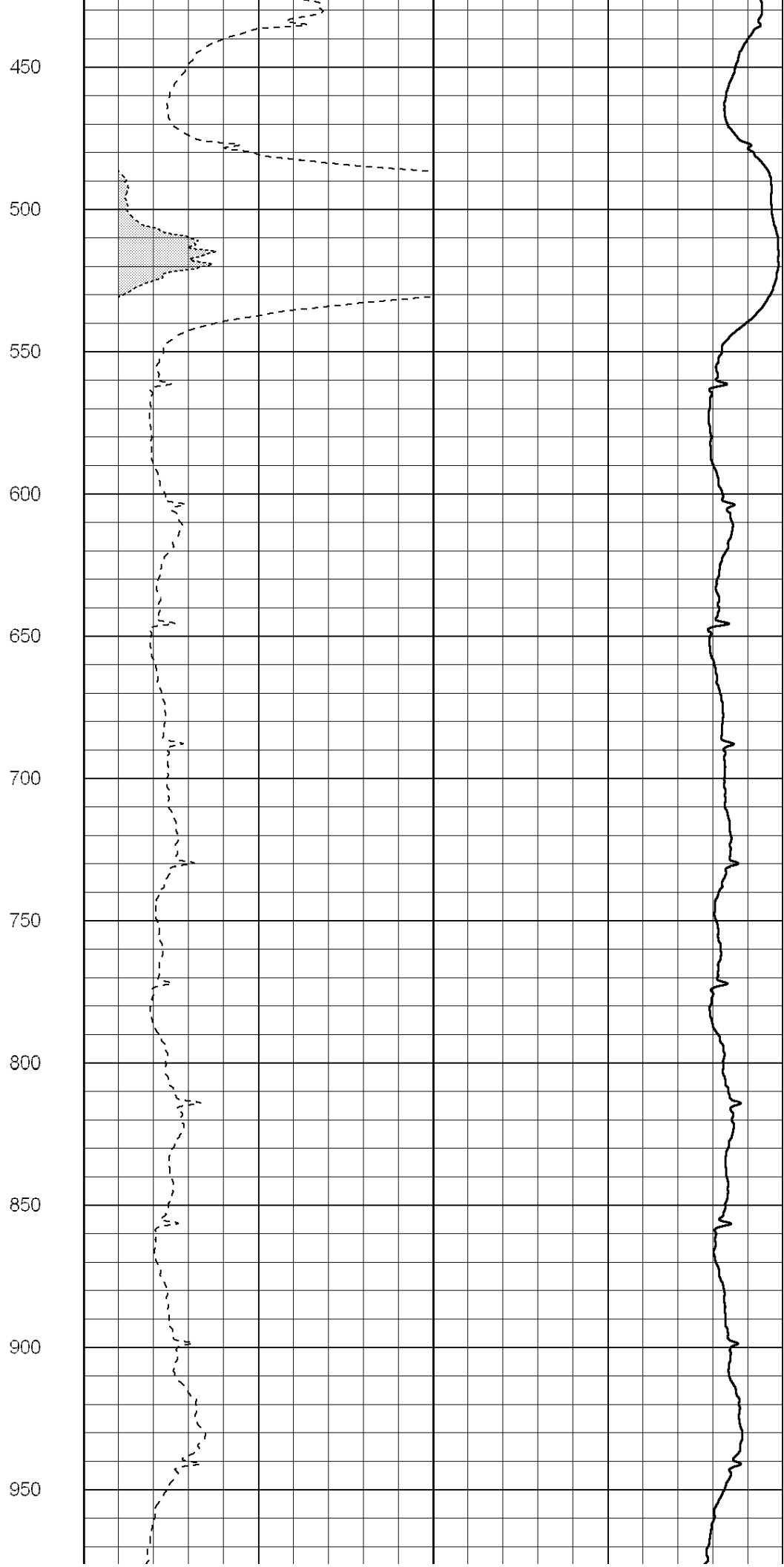
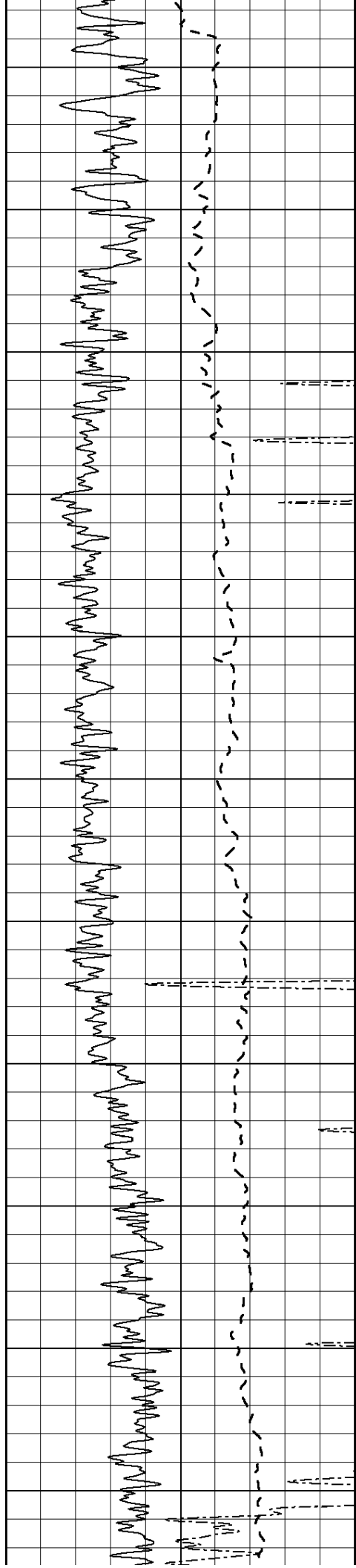
50	RILD X10 (Ohm-m)	500
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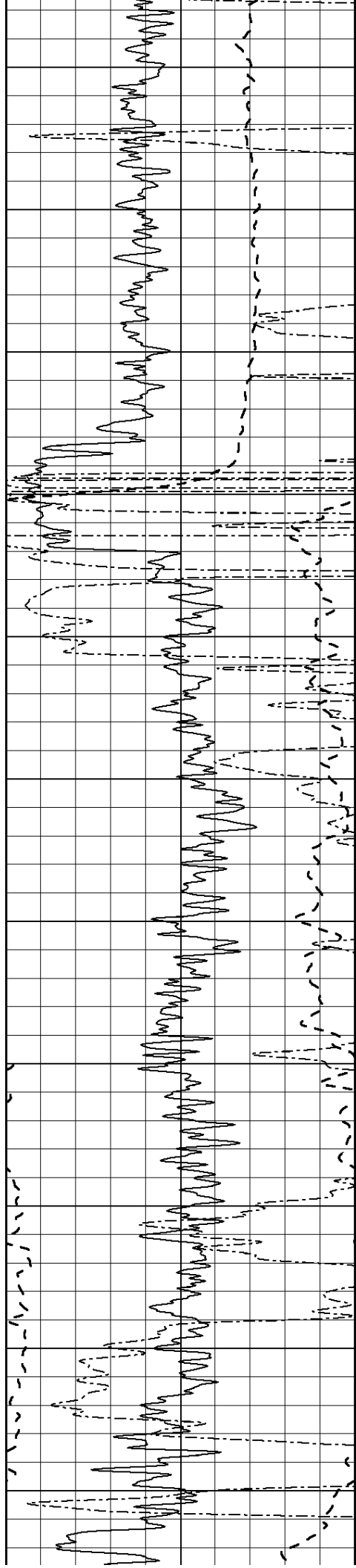
50	RLL3 X10 (Ohm-m)	500
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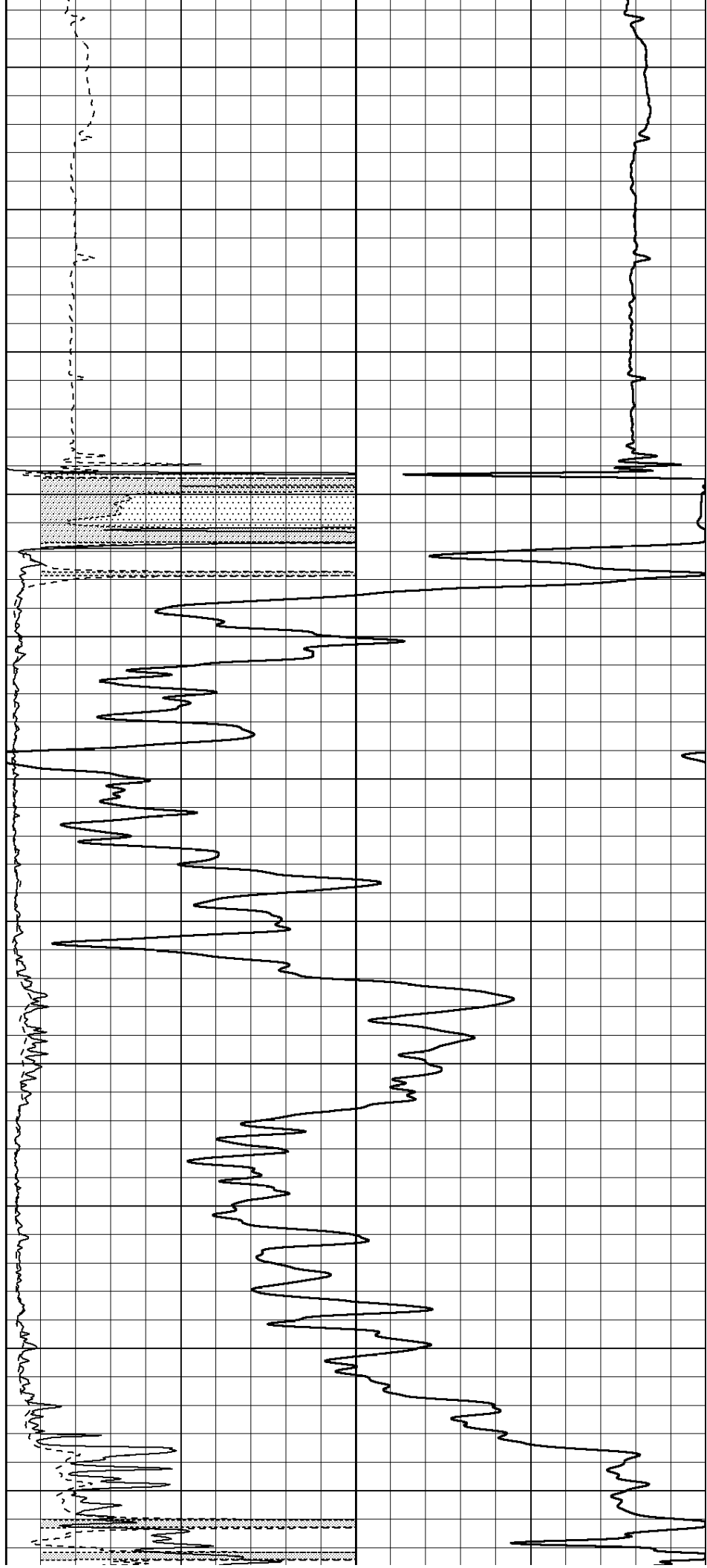
0
50
100
150
200
250
300
350
400

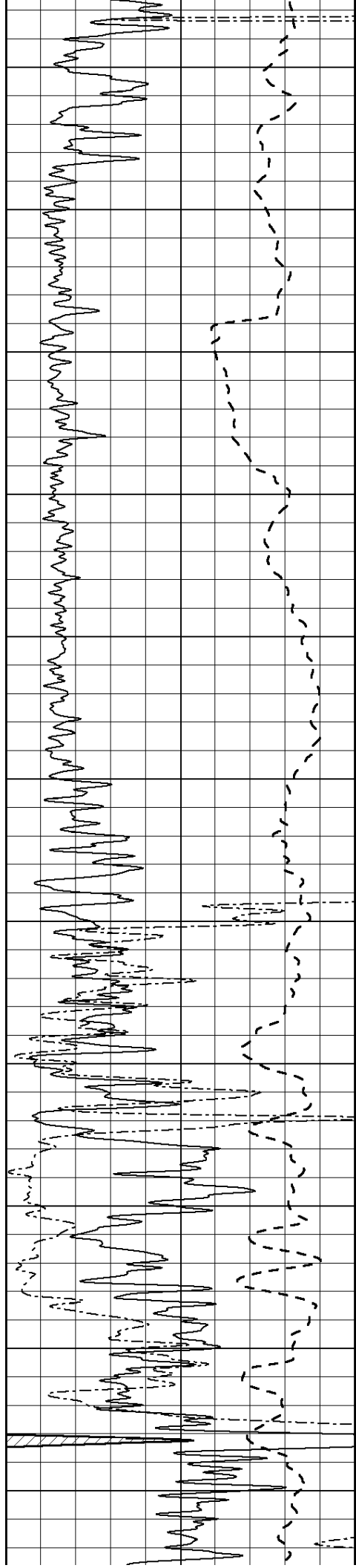






1000
1050
1100
1150
1200
1250
1300
1350
1400
1450
1500





1550

1600

1650

1700

1750

1800

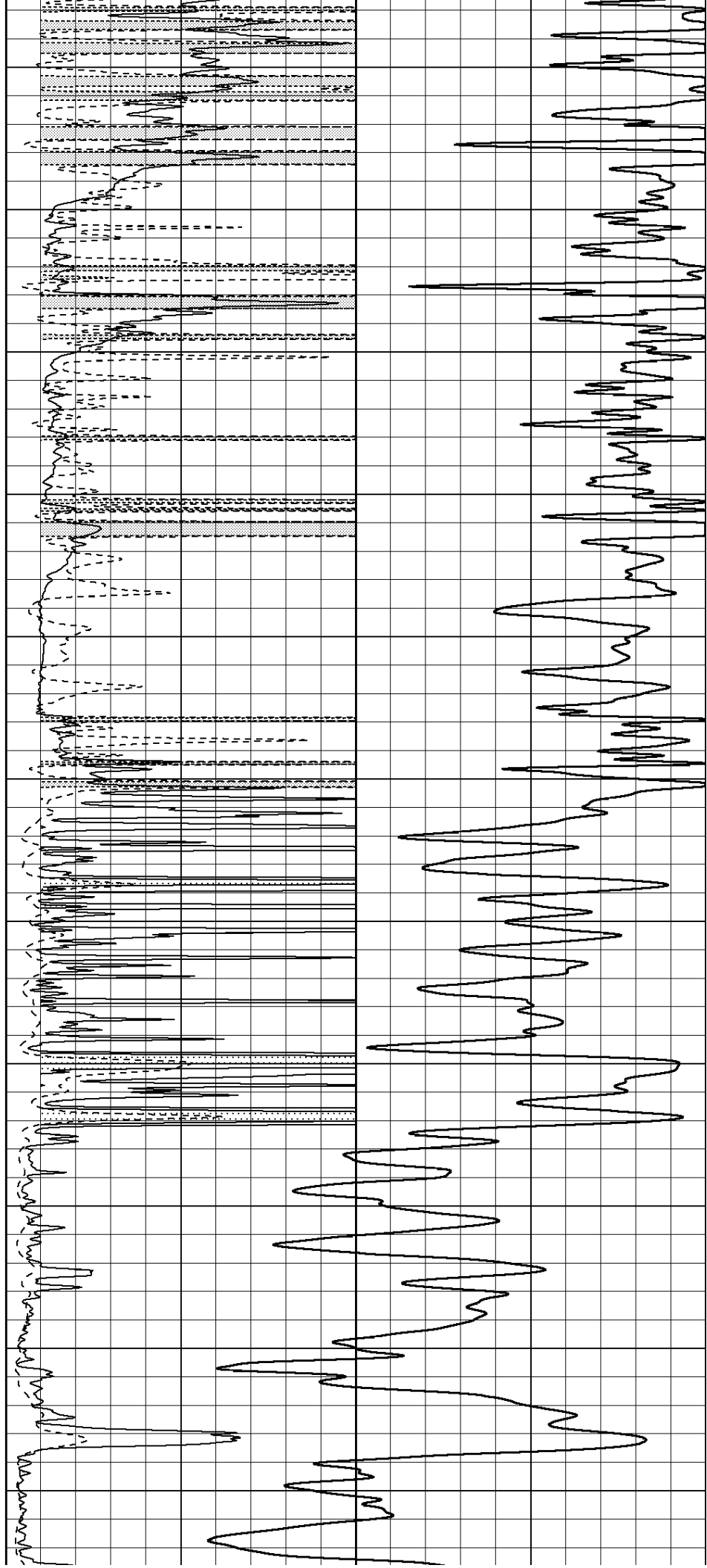
1850

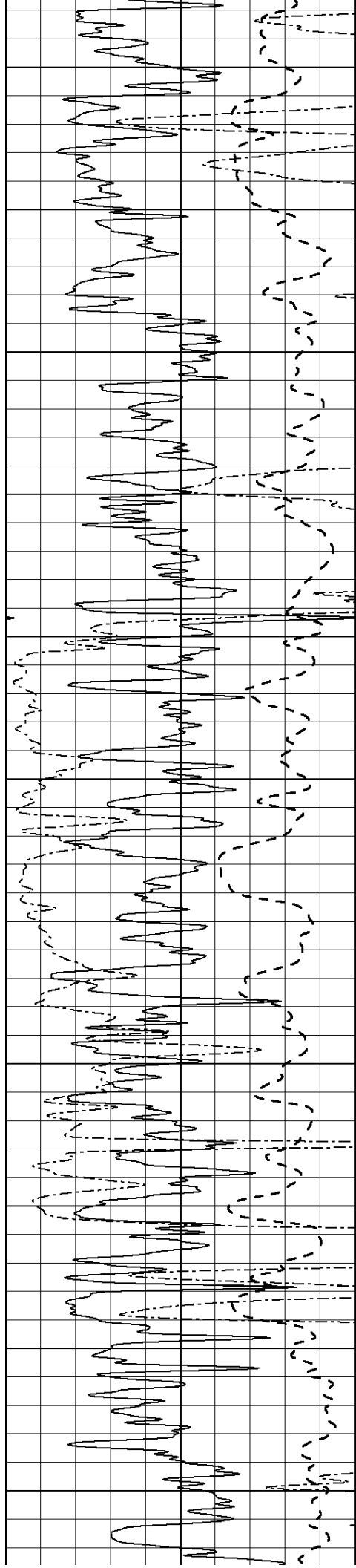
1900

1950

2000

2050





2100

2150

2200

2250

2300

2350

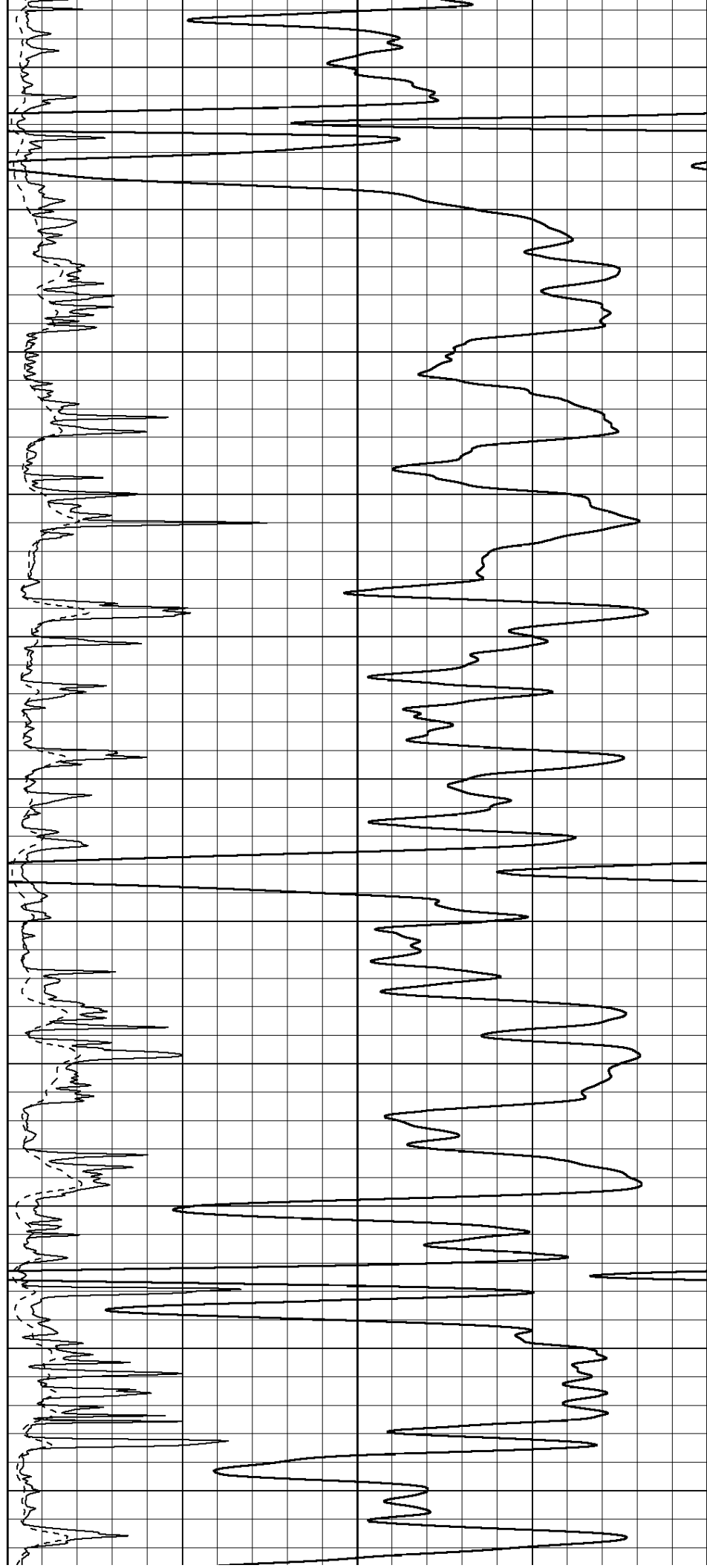
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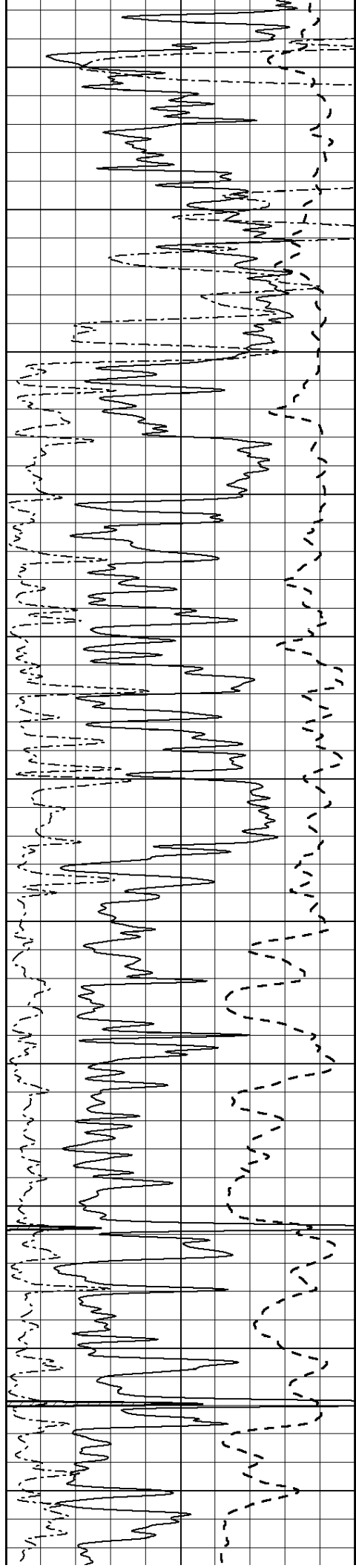
2450

2500

2550

2600





2650

2700

2750

2800

2850

2900

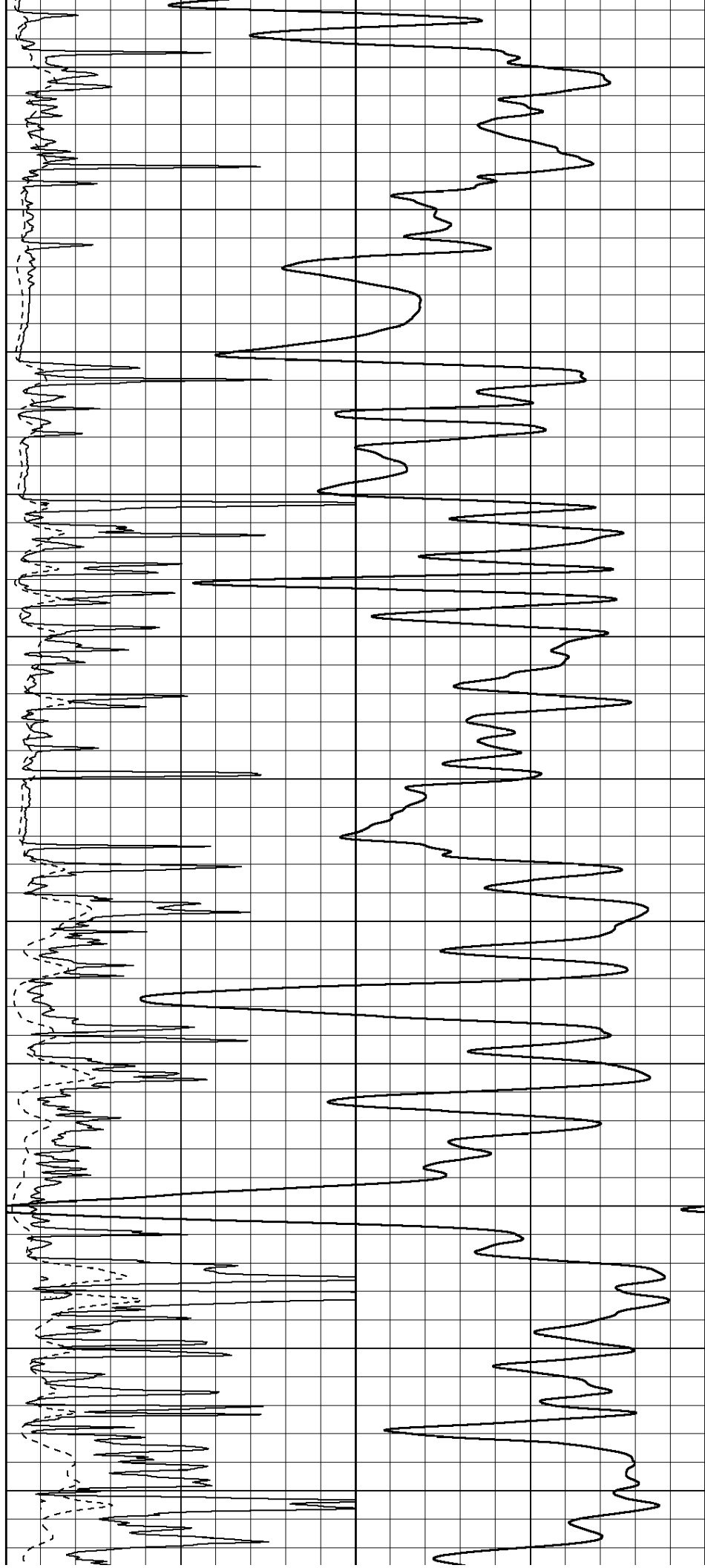
2950

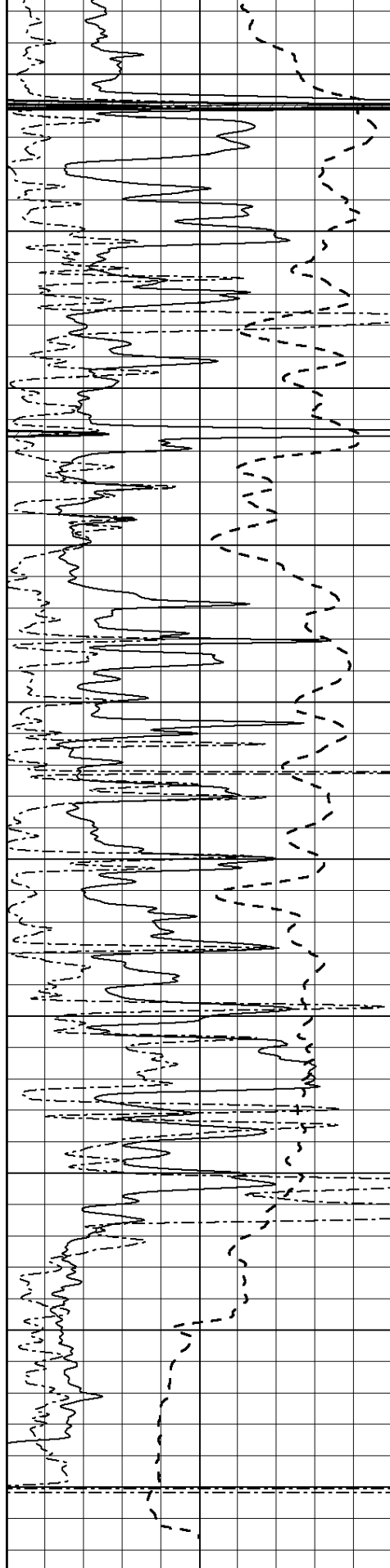
3000

3050

3100

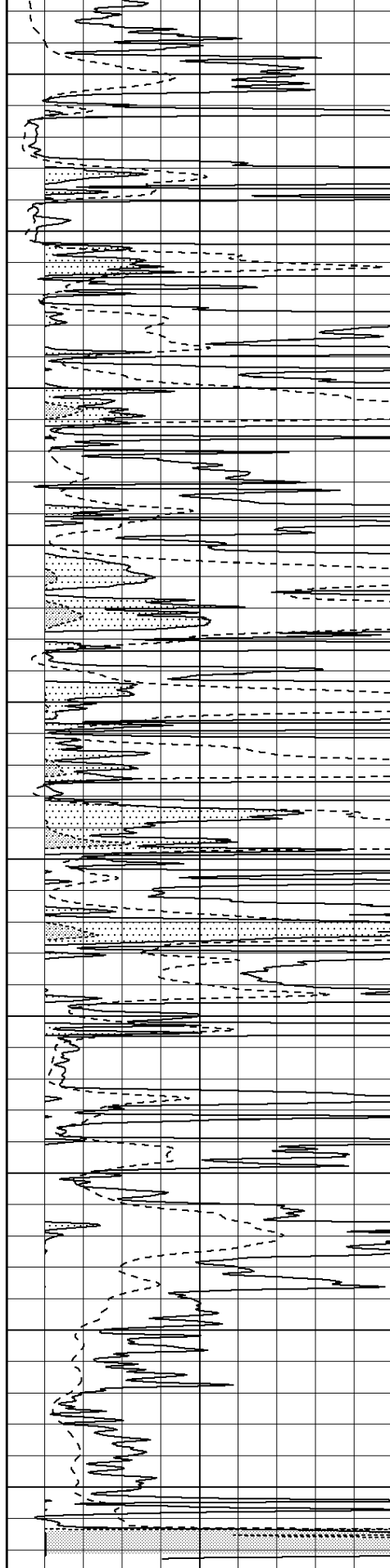
3150





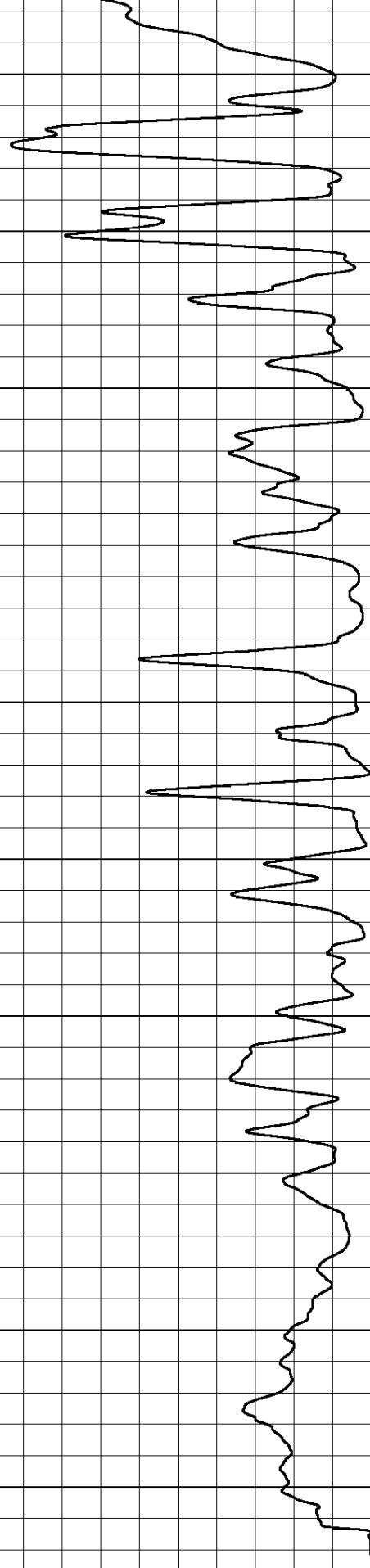
0 Gamma Ray (GAPI) 150
-100 SP (mV) 100
0 RWA (Ohm-m) 1

3200
3250
3300
3350
3400
3450
3500
3550
3600
3650

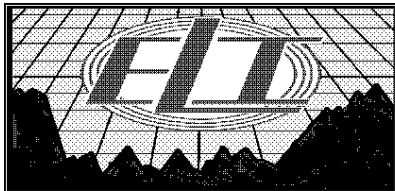


0 RLL3 (Ohm-m) 50
0 RILD (Ohm-m) 50
1000 CILD (mmho/m) 500

50 RILD X10 (Ohm-m) 500



0

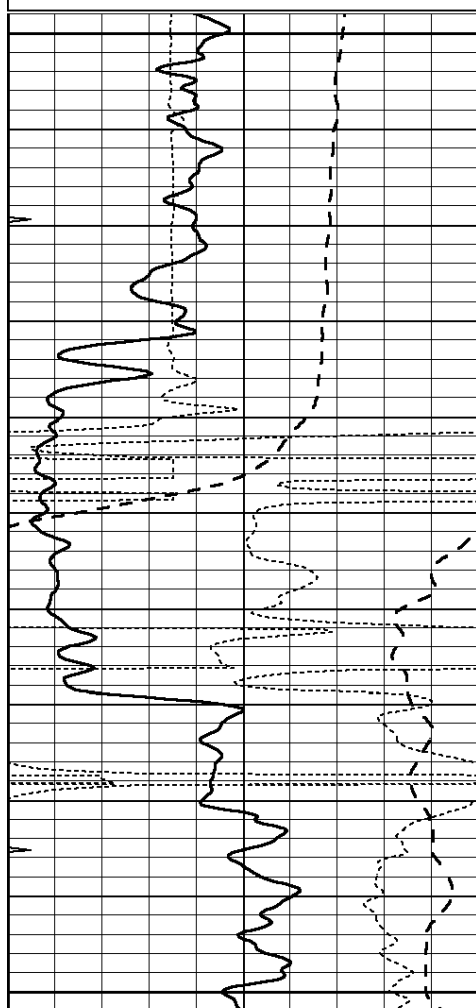


ANHYDRITE

Database File: 2489ddn.db
 Dataset Pathname: pass3.4
 Presentation Format: _dil
 Dataset Creation: Thu May 03 20:37:45 2018
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

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

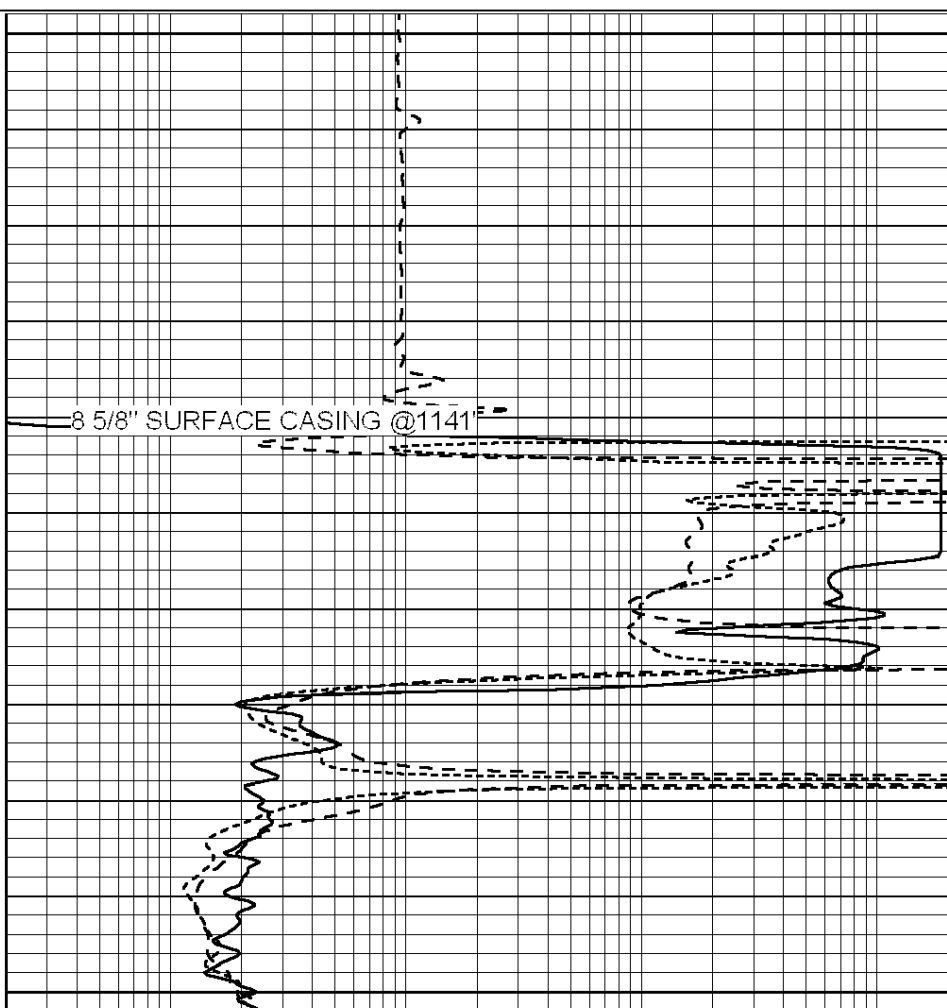


0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

1100

1150

1200



8 5/8" SURFACE CASING @1141'

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



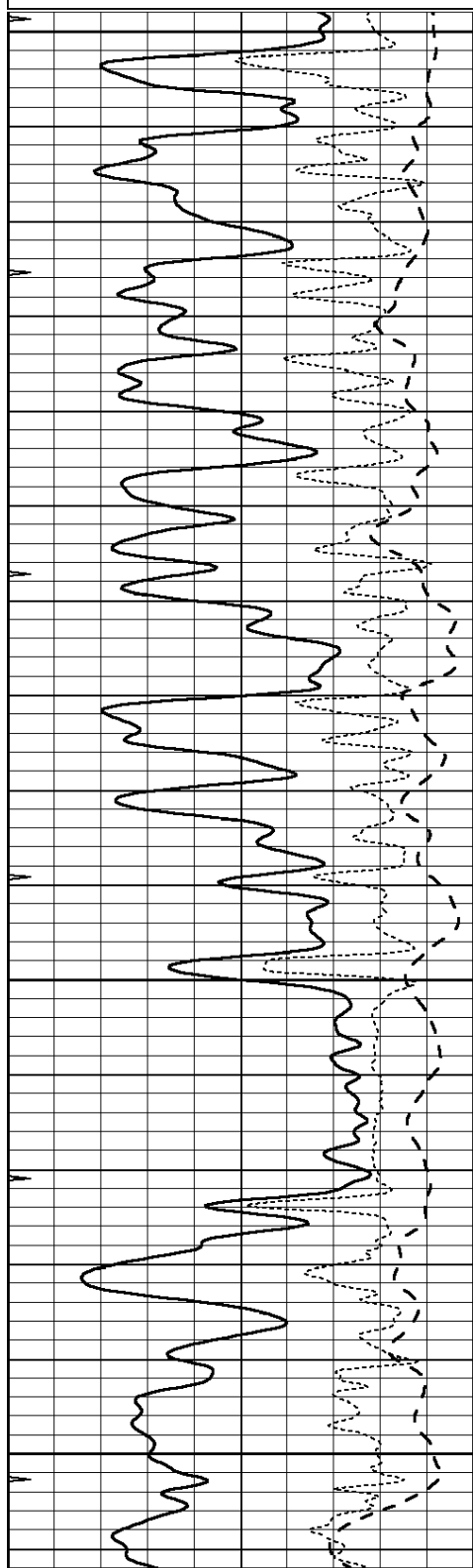
MAIN SECTION

MAIN SECTION

Database File: 2489ddn.db
 Dataset Pathname: pass3.3
 Presentation Format: _dil
 Dataset Creation: Thu May 03 20:37:31 2018
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

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

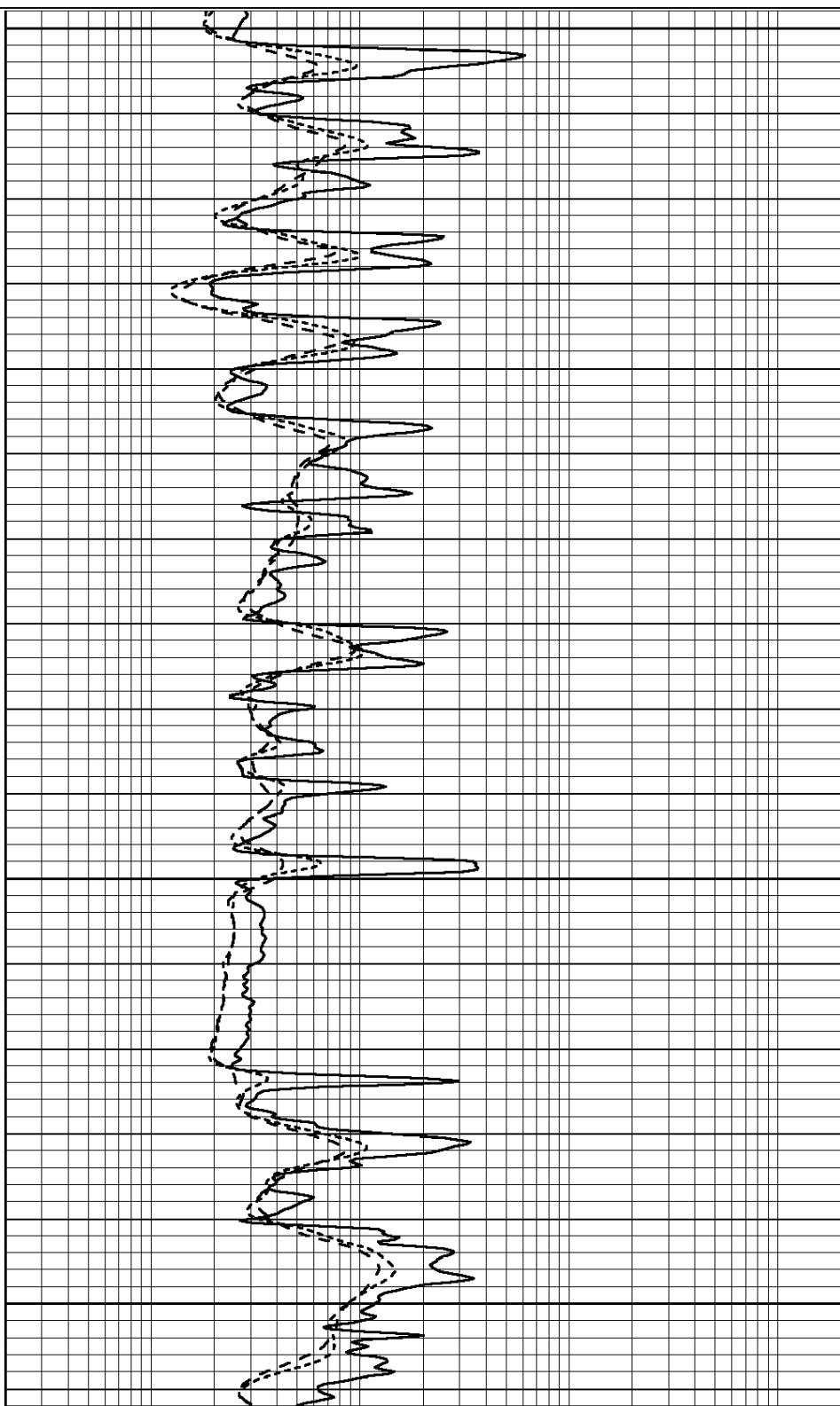


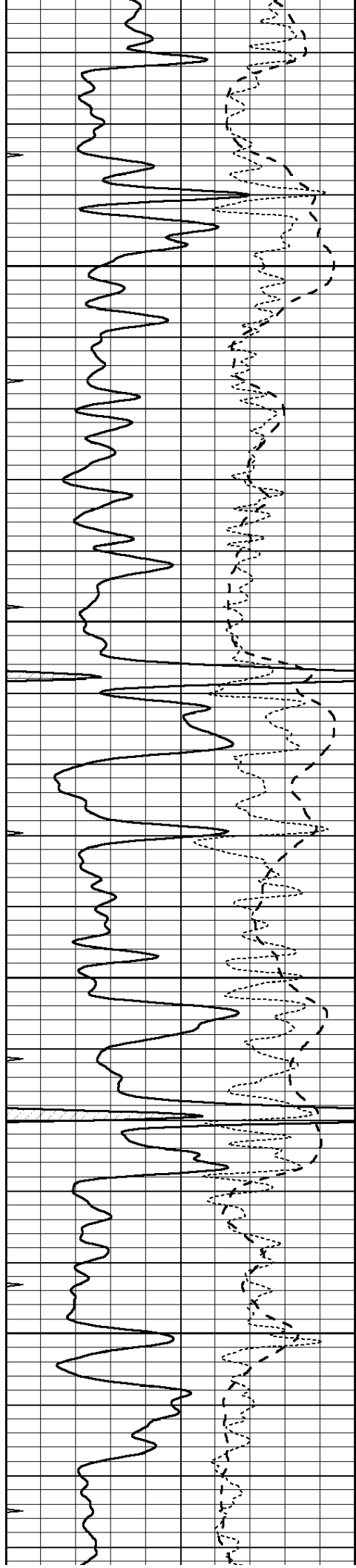
2800

2850

2900

2950



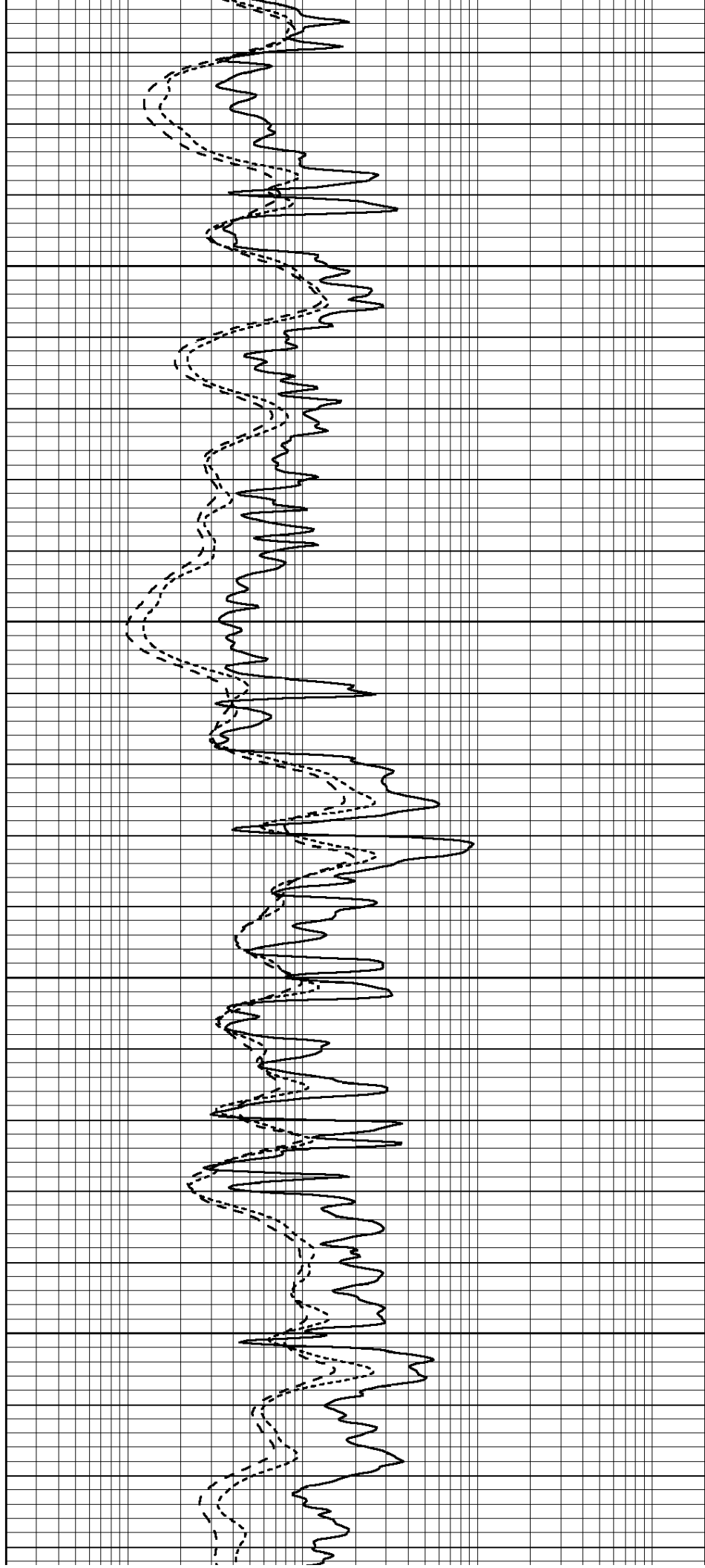


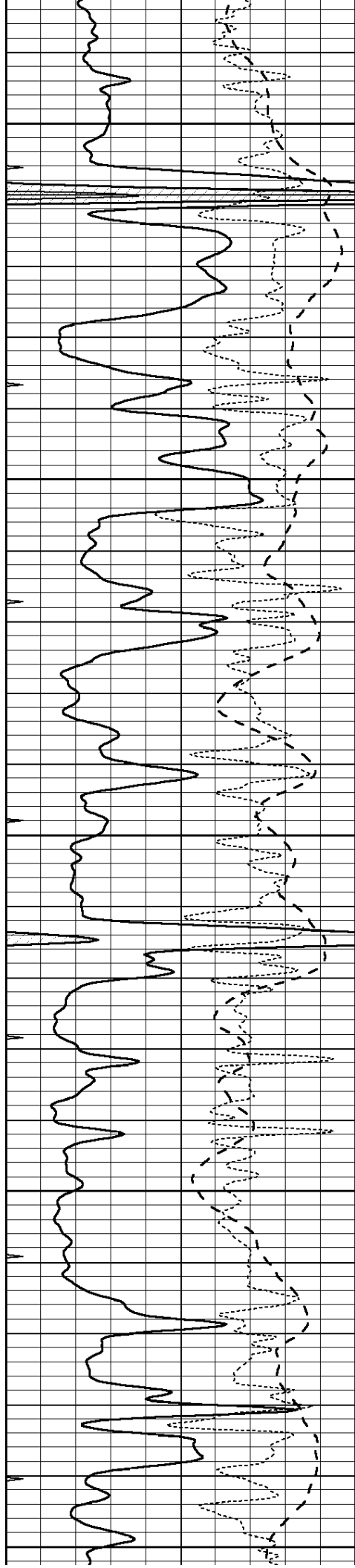
3000

3050

3100

3150





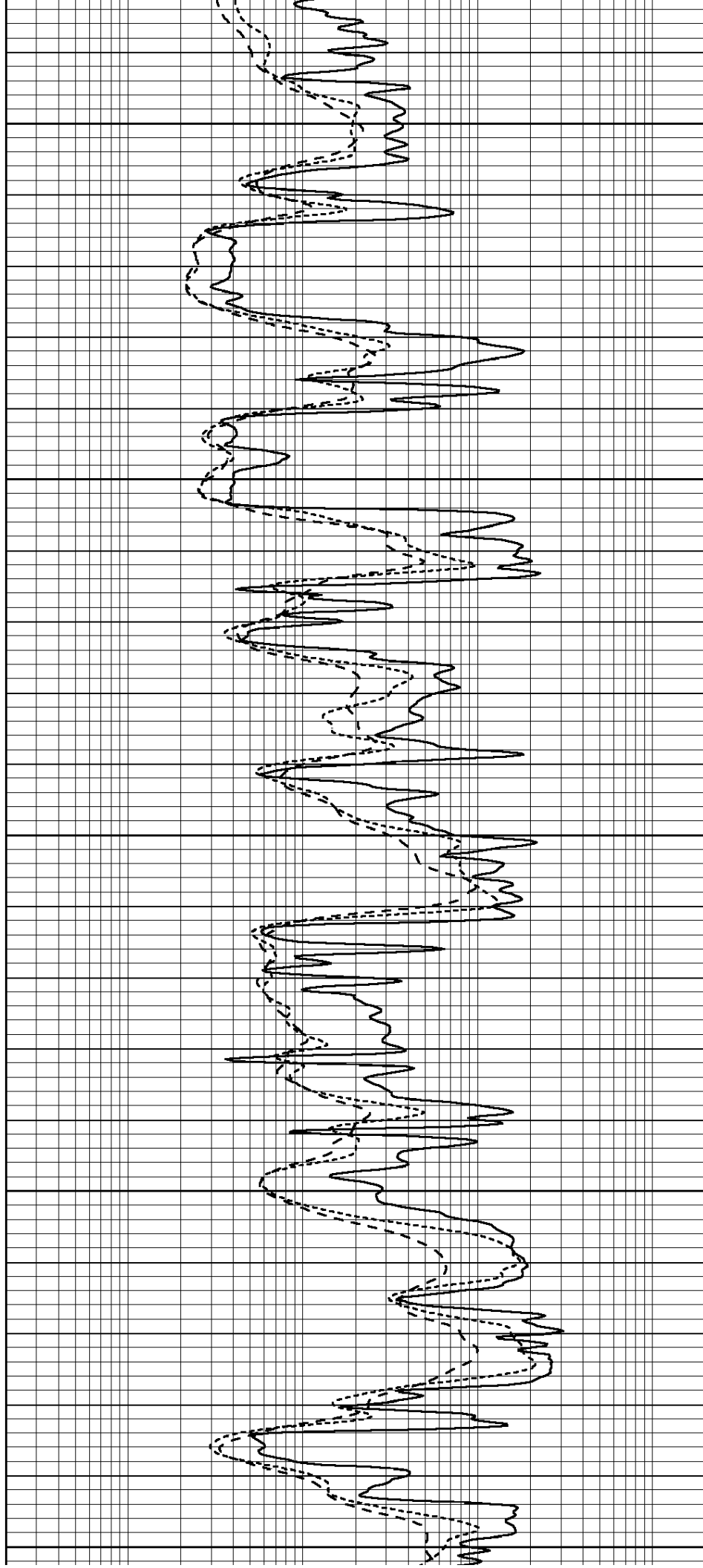
3200

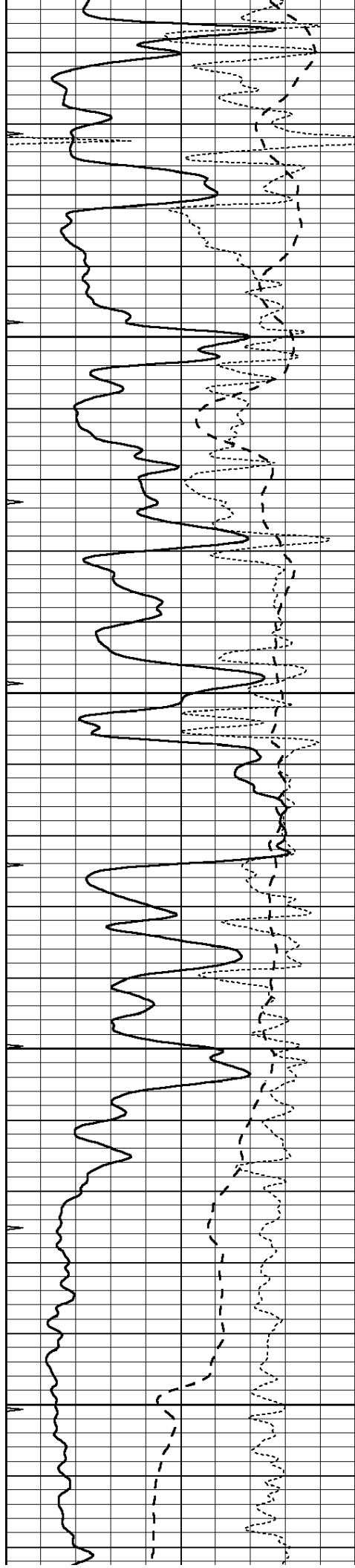
3250

3300

3350

3400



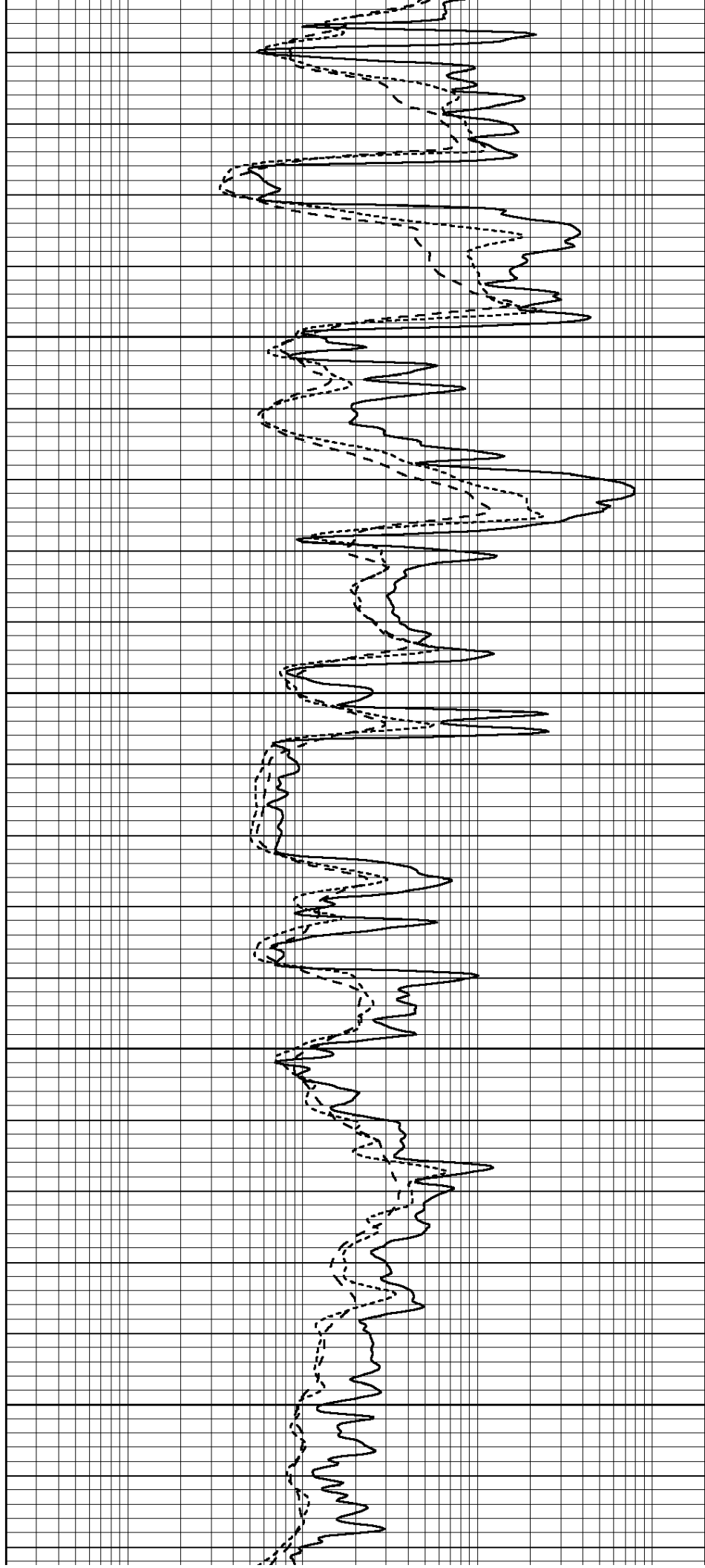


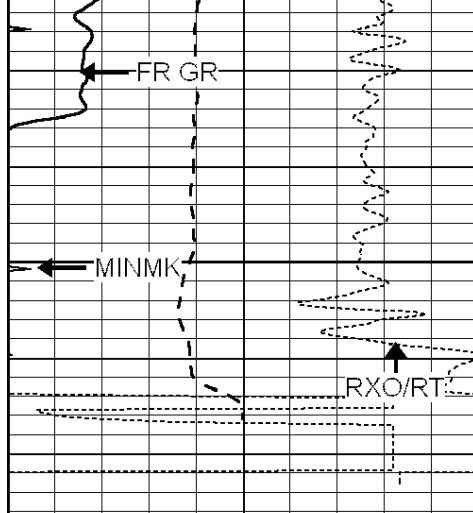
3450

3500

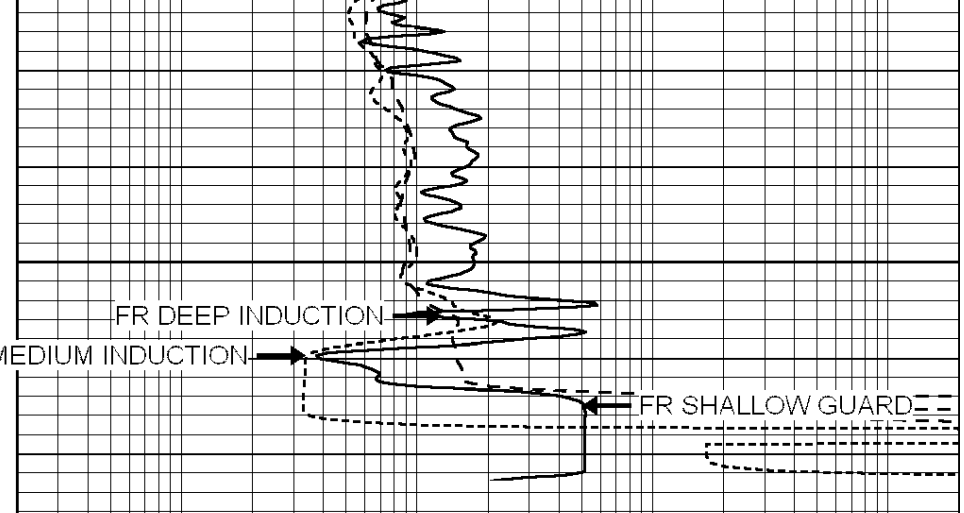
3550

3600

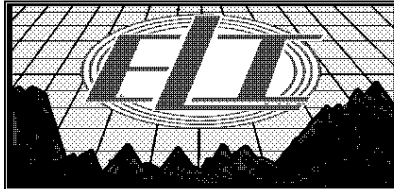




0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20



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

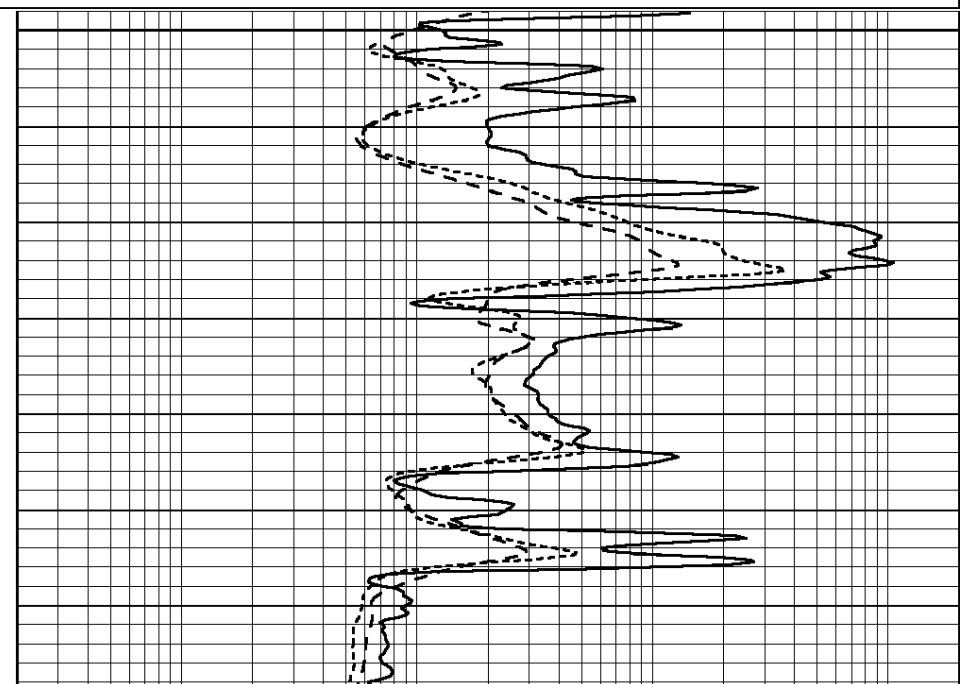
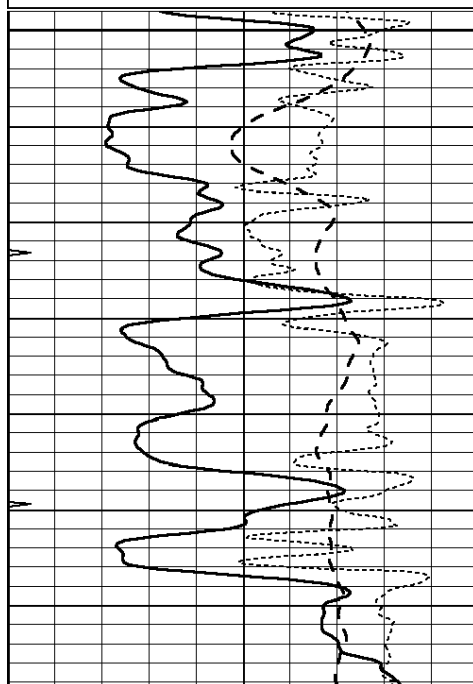


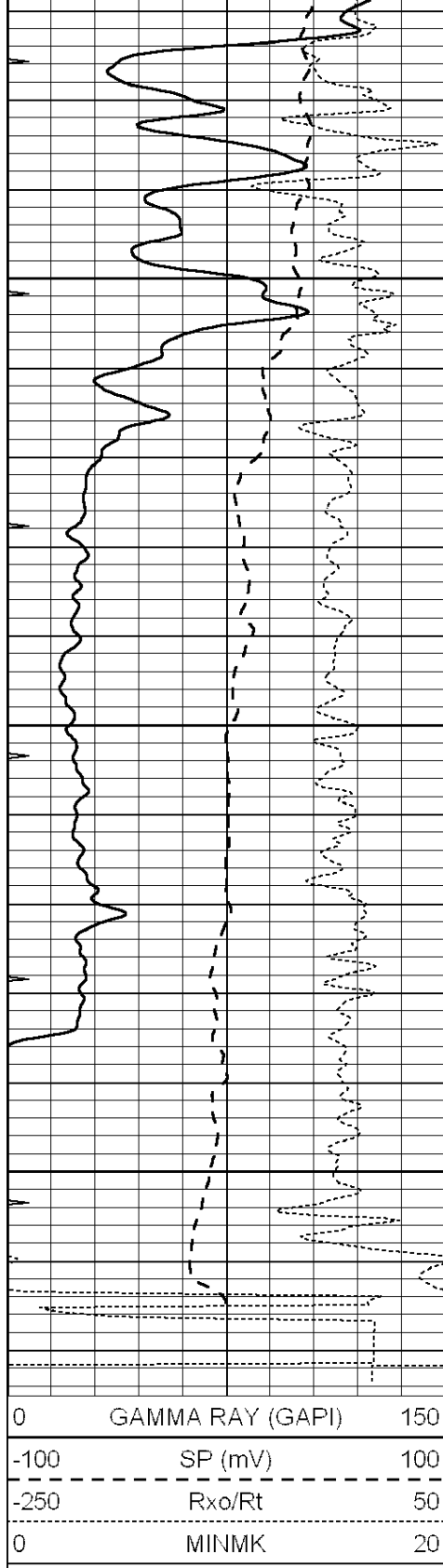
REPEAT SECTION

Database File: 2489ddn.db
 Dataset Pathname: pass2.4
 Presentation Format: _dil
 Dataset Creation: Thu May 03 19:30:38 2018 by Calc SOC 120430
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

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

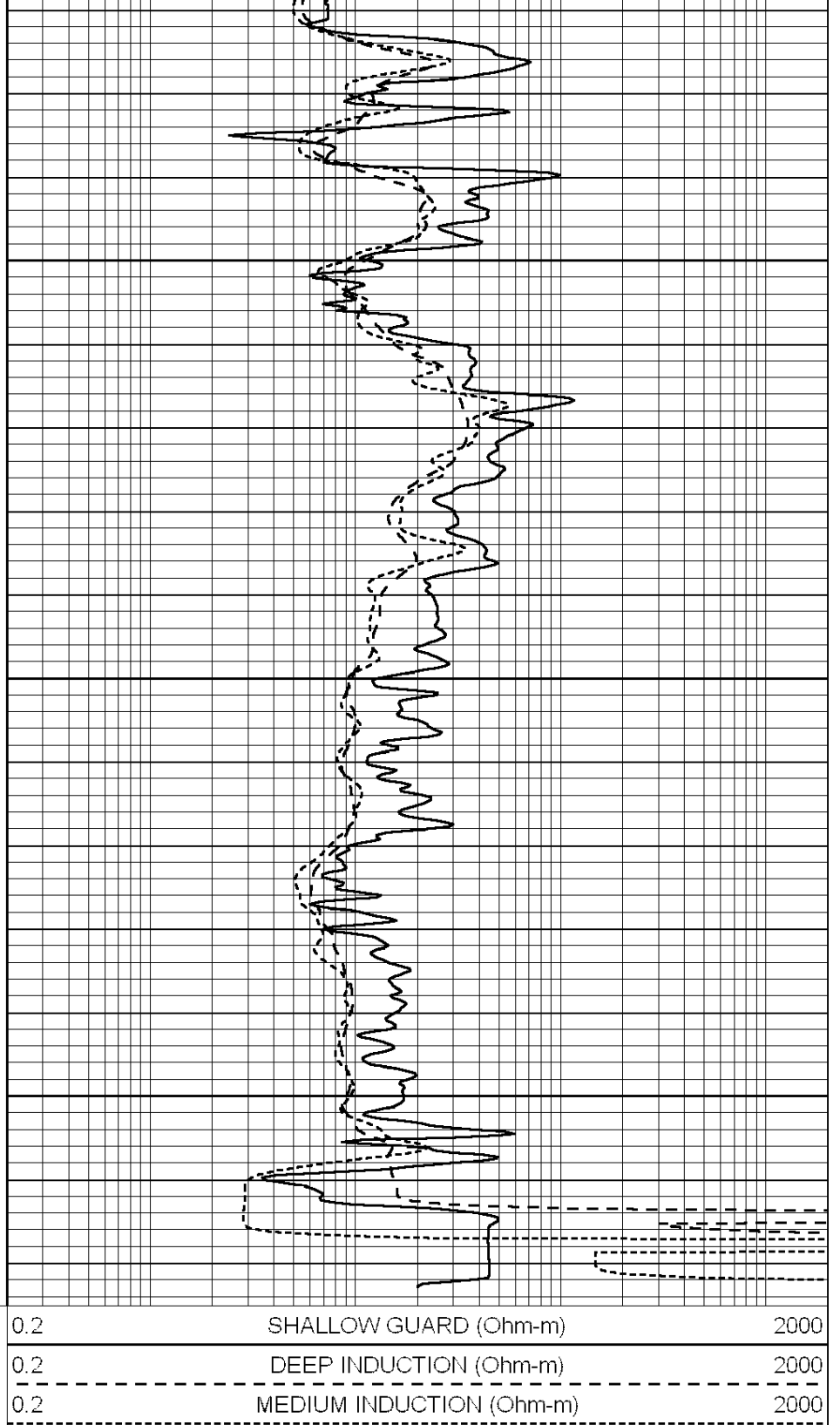




3550

3600

3650



Calibration Report

Database File: 1598ddn.db
 Dataset Pathname: pass4
 Dataset Creation: Wed Aug 30 02:13:00 2017 by Log SOC 120430

Dual Induction Calibration Report

Serial-Model: PROBE7-DILG
 Surface Cal Performed: Wed Aug 30 00:06:33 2017
 Downhole Cal 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	620.000	0.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	675.000	-44.000
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		

Litho Density Calibration Report
Serial: 002 Model: PRB

Master Calibration					Performed Mon Aug 21 11:27:42 2017			
	Background	Magnesium	Aluminum	Sandstone				
Window 1	837.1	10632.5	2945.1	12110.1				cps
Window 2	772.0	9117.4	2570.1	10197.3				cps
Window 3	631.7	4669.0	1481.9	5042.9				cps
Window 4	187.0	187.5	185.9	189.9				cps
Long Space	0.0	8345.4	1798.1	9425.3				cps
Short Space	1.1	1927.9	1285.9	2050.2				cps
Rho		1.7100	2.5960	1.3800				g/cc
Pe		0.0000	2.5700	1.5500				
Rib Angle	: 45.2	Rib Slope	: 1.008	Density/Spine Ratio			: 0.558	
Spine Angle	: 75.2	Spine Slope	: 3.790	Spine Intercept			: -19.6	

Before Survey Verification					Performed Wed Dec 31 18:00:00 1969			
Window 1	0.0	0.0	0.0	0.0				cps
Window 2	0.0	0.0	0.0	0.0				cps
Window 3	0.0	0.0	0.0	0.0				cps
Window 4	0.0	0.0	0.0	0.0				cps
Long Space	0.0	0.0	0.0	0.0				cps
Short Space	0.0	0.0	0.0	0.0				cps
Measured Rho		0.0000	0.0000	0.0000				g/cc
Measured Correction		0.0000	0.0000	0.0000				g/cc
Measured Pe			0.0000	0.0000				

After Survey Verification						Performed Wed Dec 31 18:00:00 1969					
Window 1	0.0	0.0	0.0	0.0	cps						
Window 2	0.0	0.0	0.0	0.0	cps						
Window 3	0.0	0.0	0.0	0.0	cps						
Window 4	0.0	0.0	0.0	0.0	cps						
Long Space	0.0	0.0	0.0	0.0	cps						
Short Space	0.0	0.0	0.0	0.0	cps						
Measured Rho		0.0000	0.0000	0.0000	g/cc						
Measured Correction		0.0000	0.0000	0.0000	g/cc						
Measured Pe			0.0000	0.0000							
Compensated Neutron Calibration Report											
		Serial Number:		070808							
		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:		070558									
Tool Model:		OPEN_GR									
Performed:		Wed May 31 00:09:32 2017									
Calibrator Value:		1.0		GAPI							
Background Reading:		0.0		cps							
Calibrator Reading:		1.0		cps							
Sensitivity:		0.2800		GAPI/cps							