

DUAL INDUCTION LOG

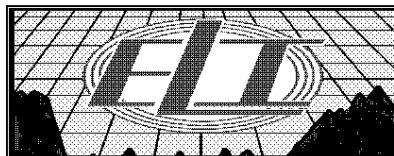
Company	MAI OIL OPOERATIONS, INC.		
Well	MILTON - BUTLER UNIT #1		
Field	MUELLER		
County	STAFFORD	State	KANSAS
Location:	API # : 15-185-23962-0000		Other Services CDL/CNL MEL
Permanent Datum	GROUND LEVEL	Elevation	1853
Log Measured From	KELLY BUSHING	8' A.G.L.	
Drilling Measured From	KELLY BUSHING		
SEC 29 TWP 21S RGE 12W			
Date	8/23/16		
Run Number	ONE		
Depth Driller	3700		
Depth Logger	3700		
Bottom Logged Interval	3676		
Top Log Interval	00		
Casing Driller	8 5/8"@667'		
Casing Logger	666		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 4,700 PPM	
Density / Viscosity	9.4/52		
pH / Fluid Loss	9.5/10.4		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	.700@90F		
Rmf @ Meas. Temp	.525@90F		
Rmc @ Meas. Temp	.840@90F		
Source of Rmf / Rmc	MEASUREMENT		
Rim @ BHT	.558@113F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	2:00 P.M.		
Maximum Recorded Temperature	113F		
Equipment Number	922339		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	WYATT URBAN	ALLEN BANGERT	

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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
GREAT BEND, KS., E. ON HWY 96 TO "DARTMOUTH BLKTOP", 12S. TO "170TH RD.", 1E., 1/2S., W. INTO



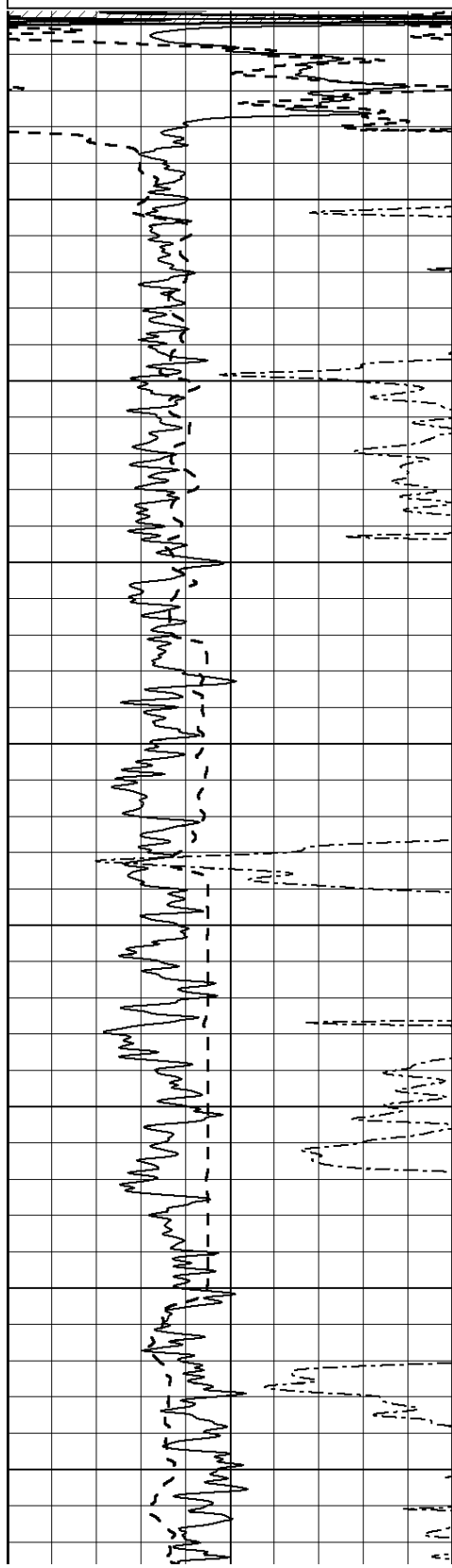
MAIN SECTION

Database File: 30763ddn.db
 Dataset Pathname: pass3.9
 Presentation Format: dil2
 Dataset Creation: Tue Aug 23 15:27:19 2016
 Charted by: Depth in Feet scaled 1:600

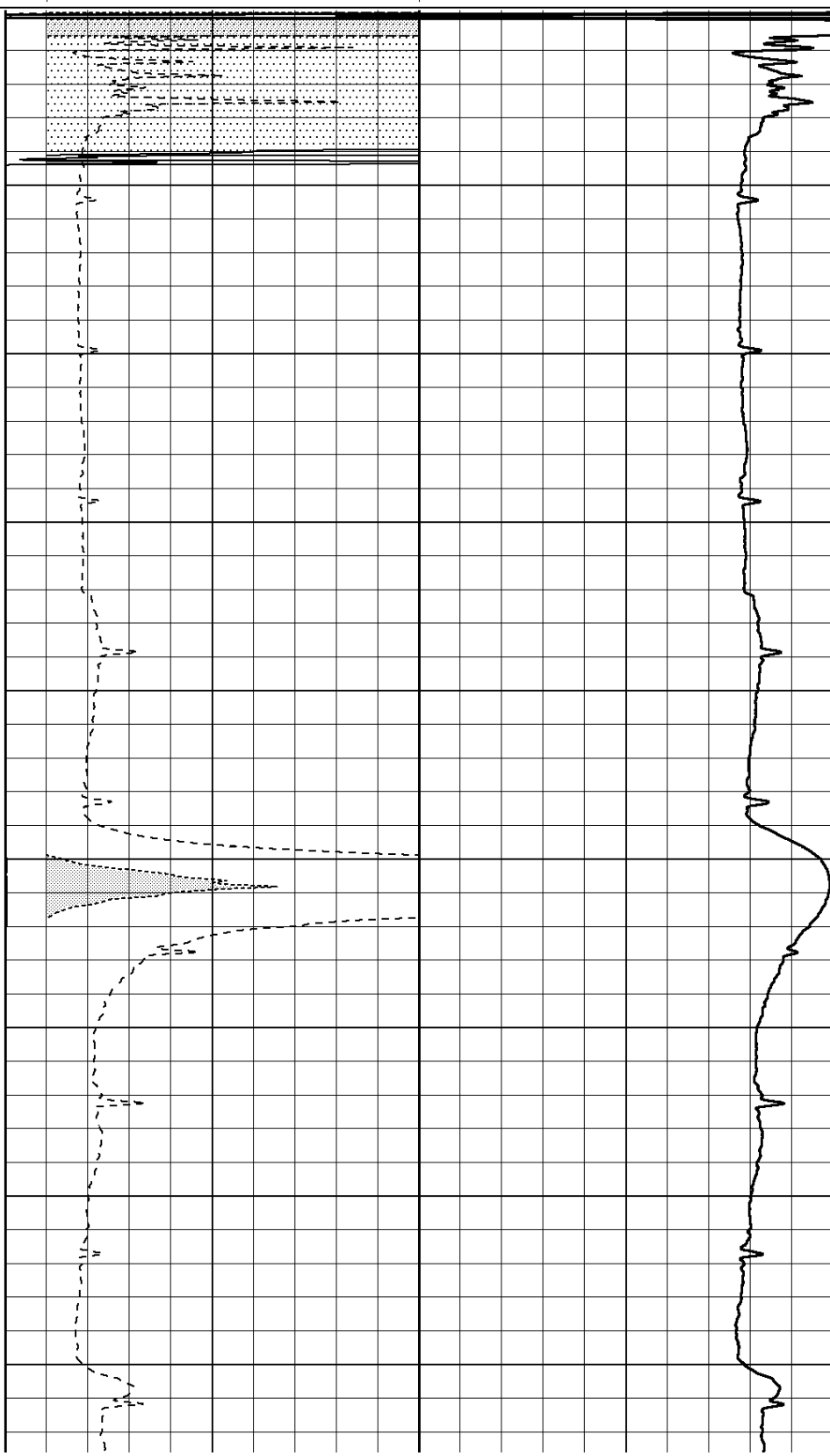
0	Gamma Ray (GAPI)	150
-100	SP (mV)	100
0	RWA (Ohm-m)	1

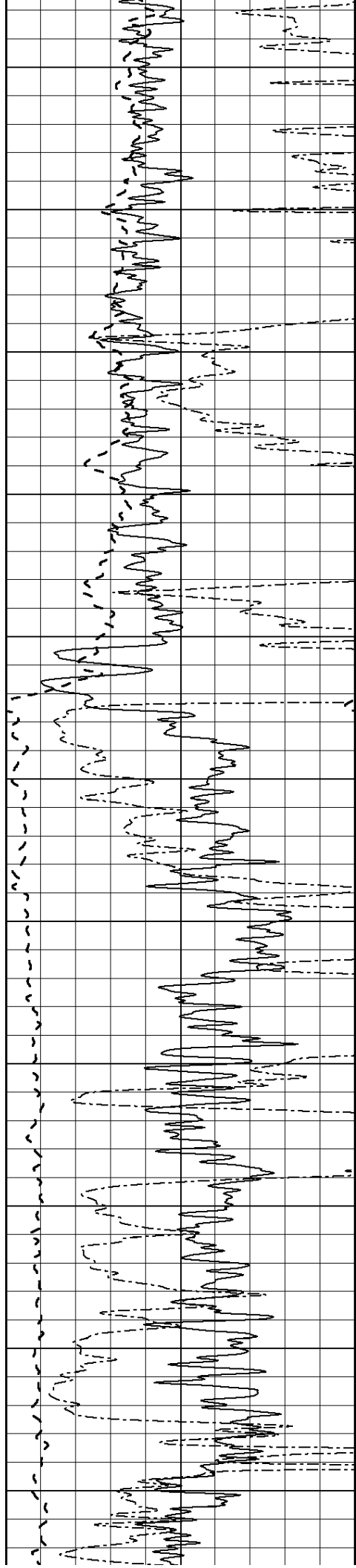
0	RLL3 (Ohm-m)	50
0	RILD (Ohm-m)	50
1000	CILD (mmho/m)	0

50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500



0
50
100
150
200
250
300
350
400





450

500

550

600

650

700

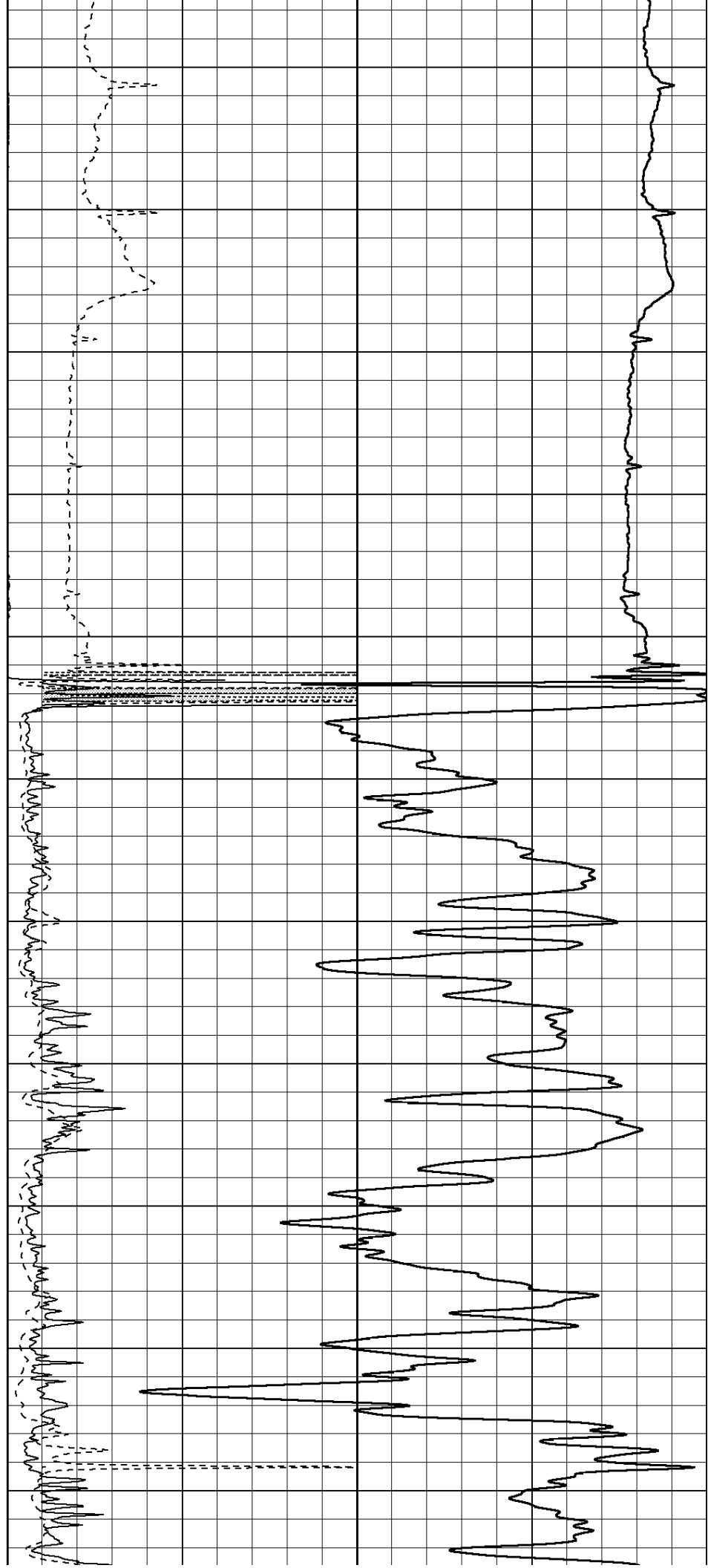
750

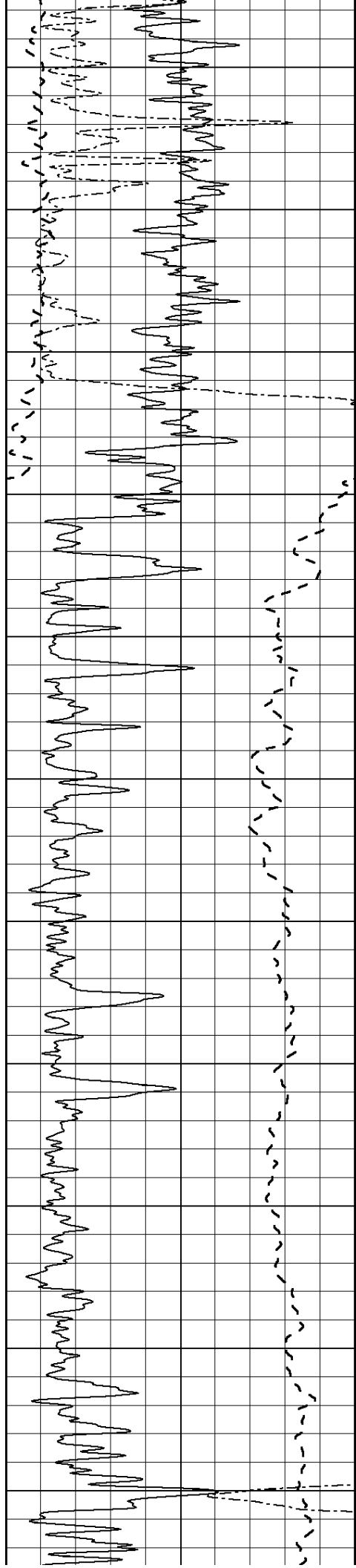
800

850

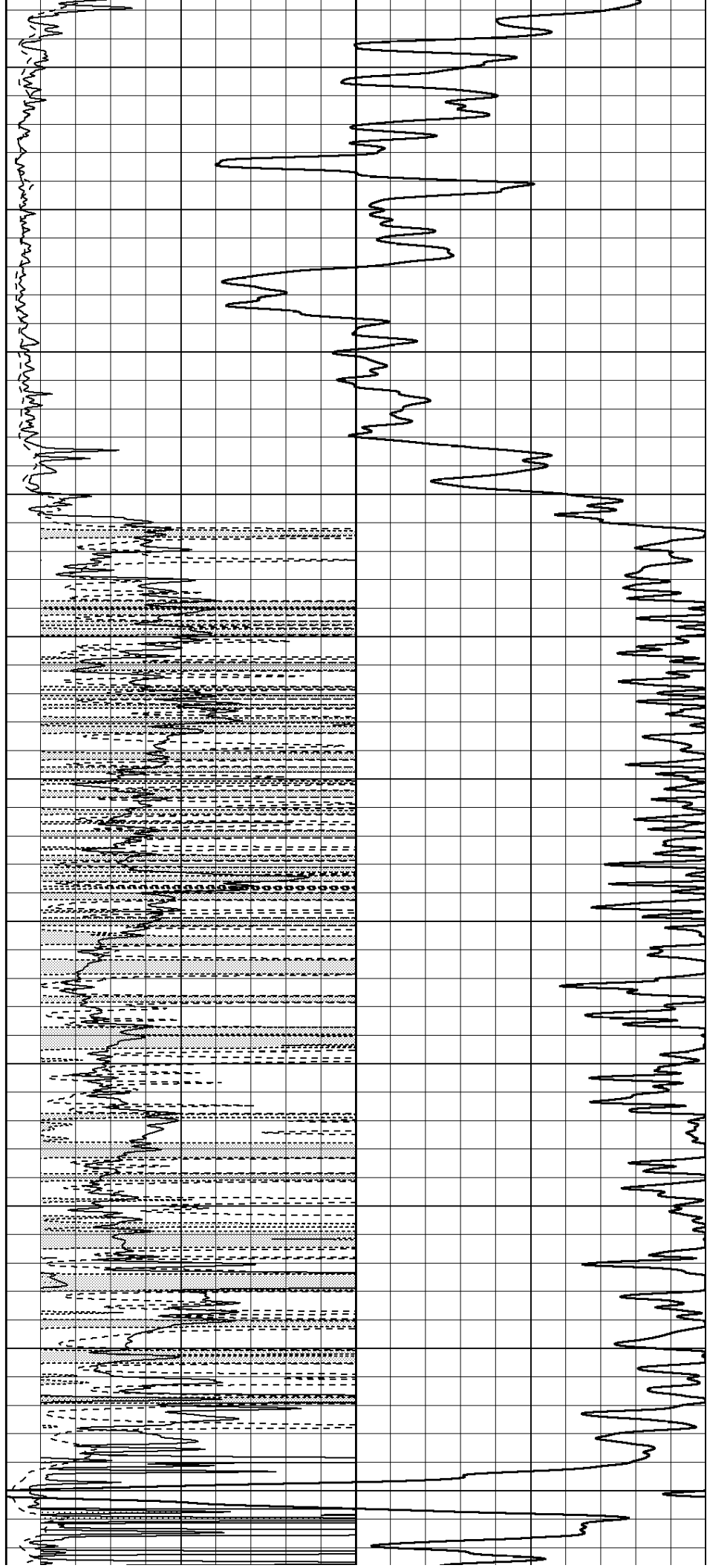
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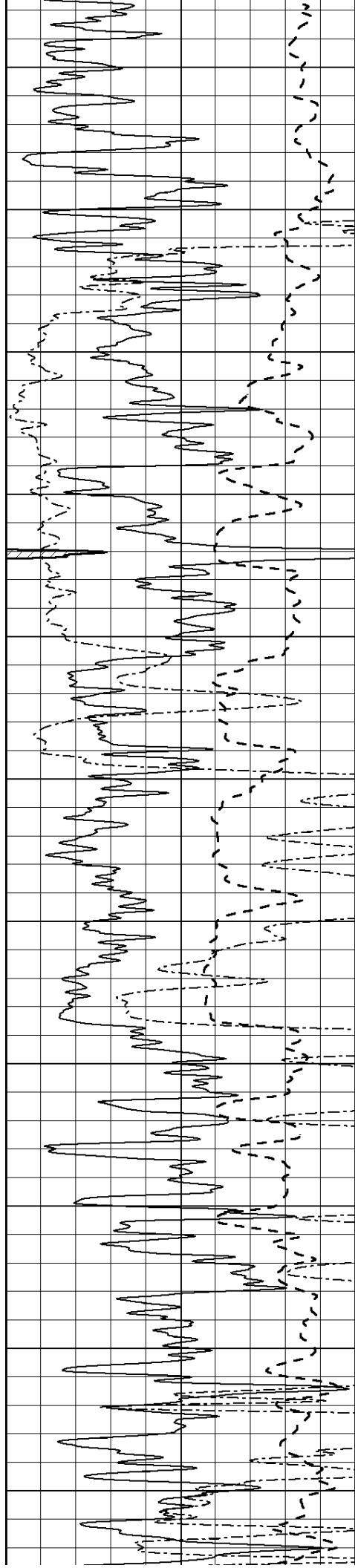
950





1000
1050
1100
1150
1200
1250
1300
1350
1400
1450
1500





1550

1600

1650

1700

1750

1800

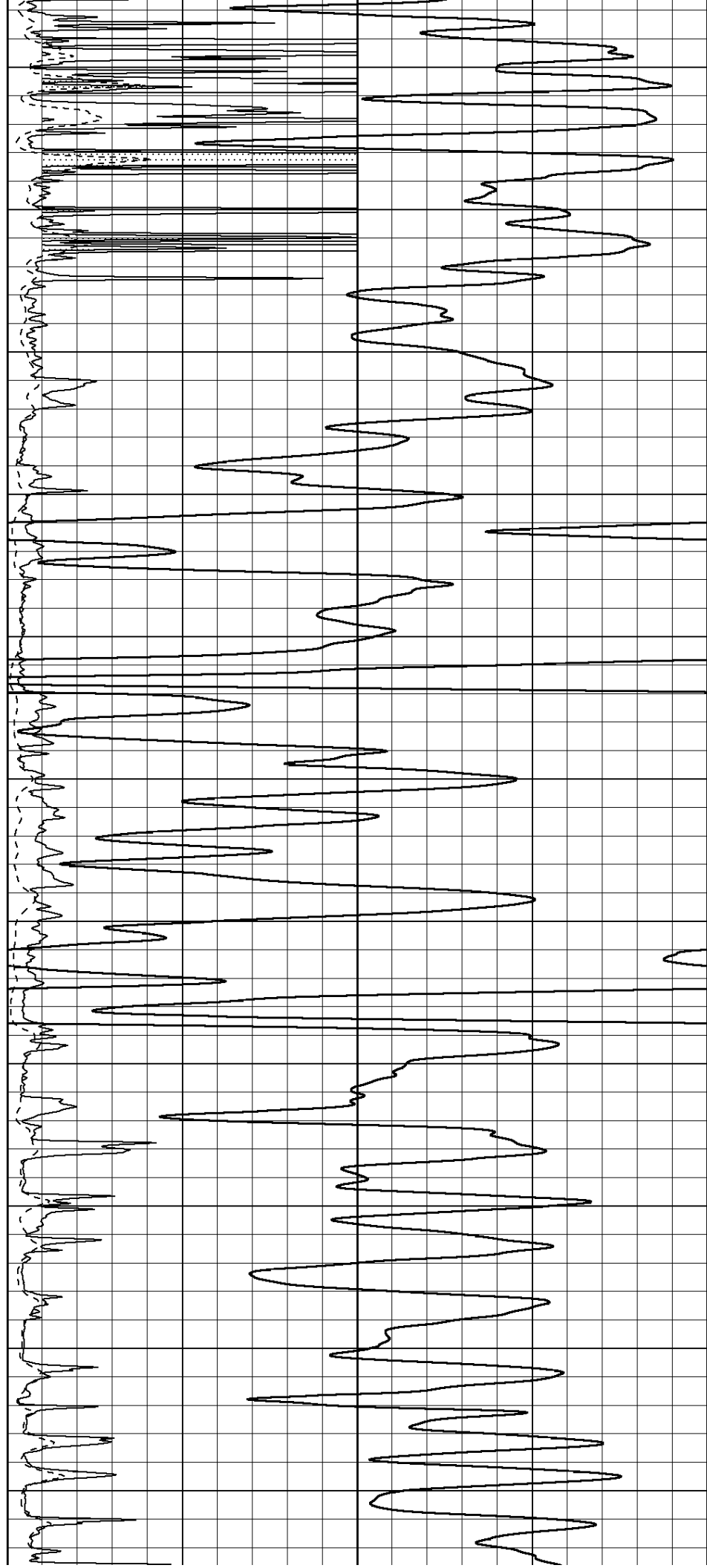
1850

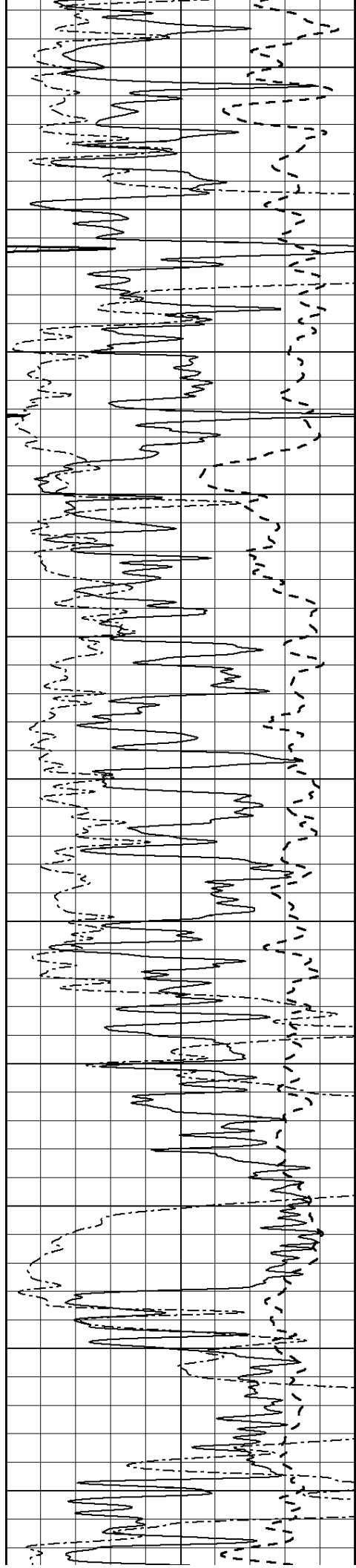
1900

1950

2000

2050





2100

2150

2200

2250

2300

2350

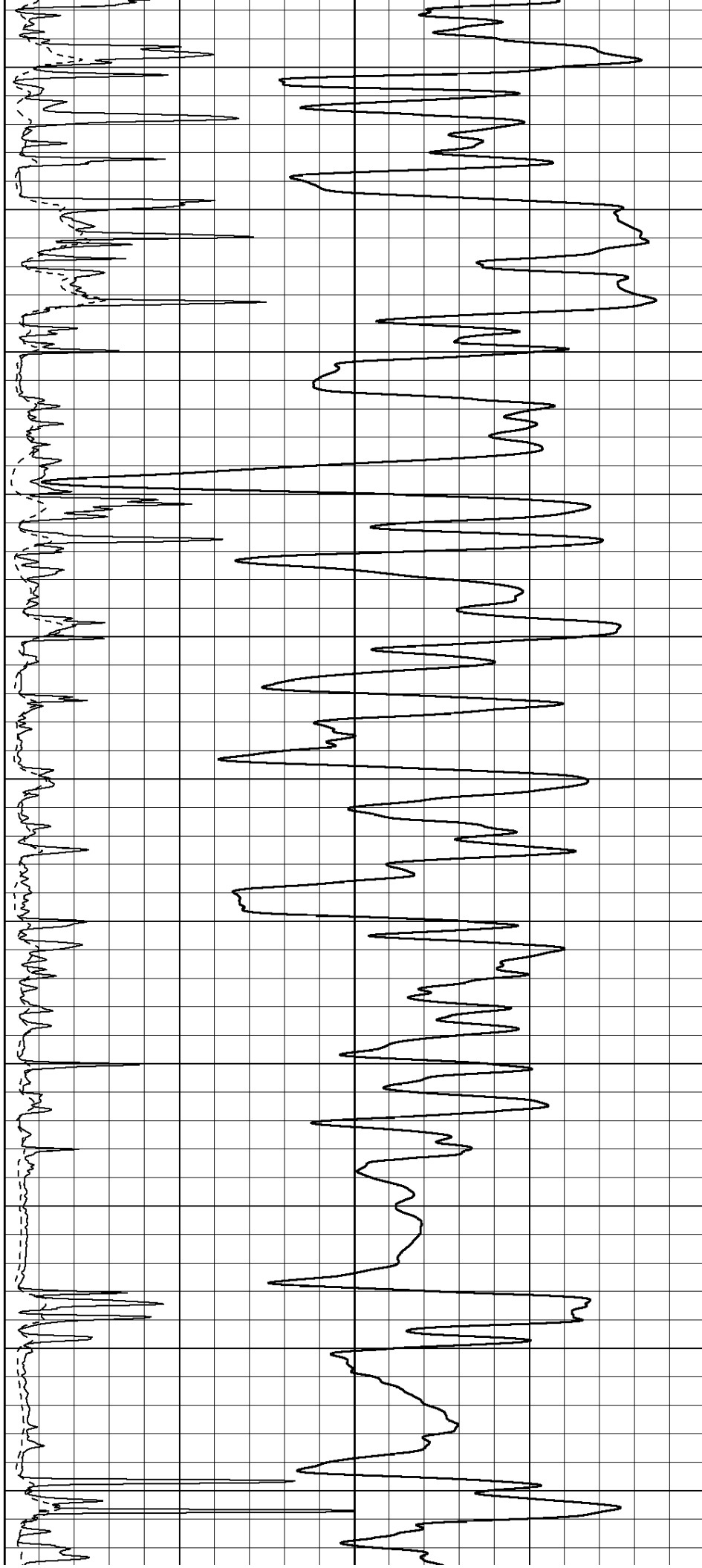
2400

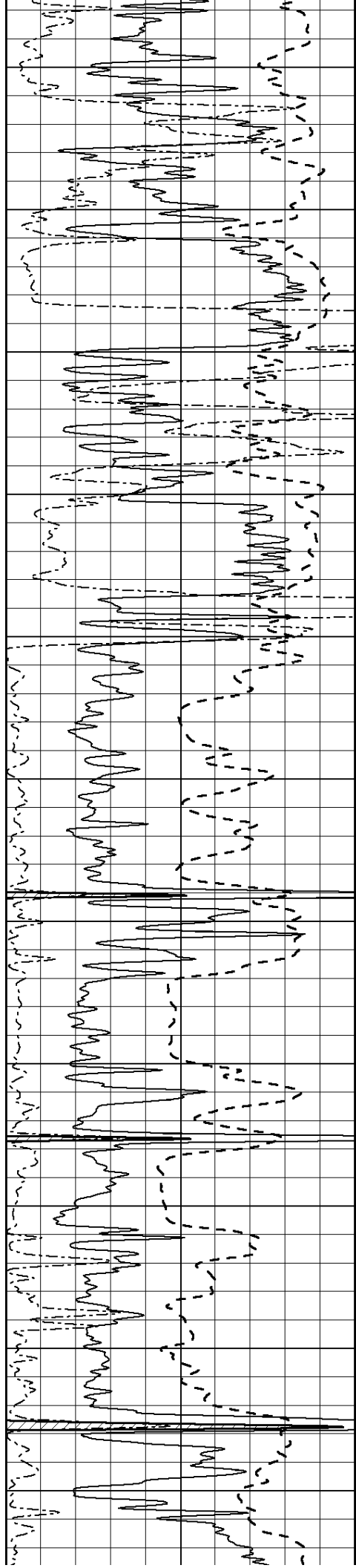
2450

2500

2550

2600





2650

2700

2750

2800

2850

2900

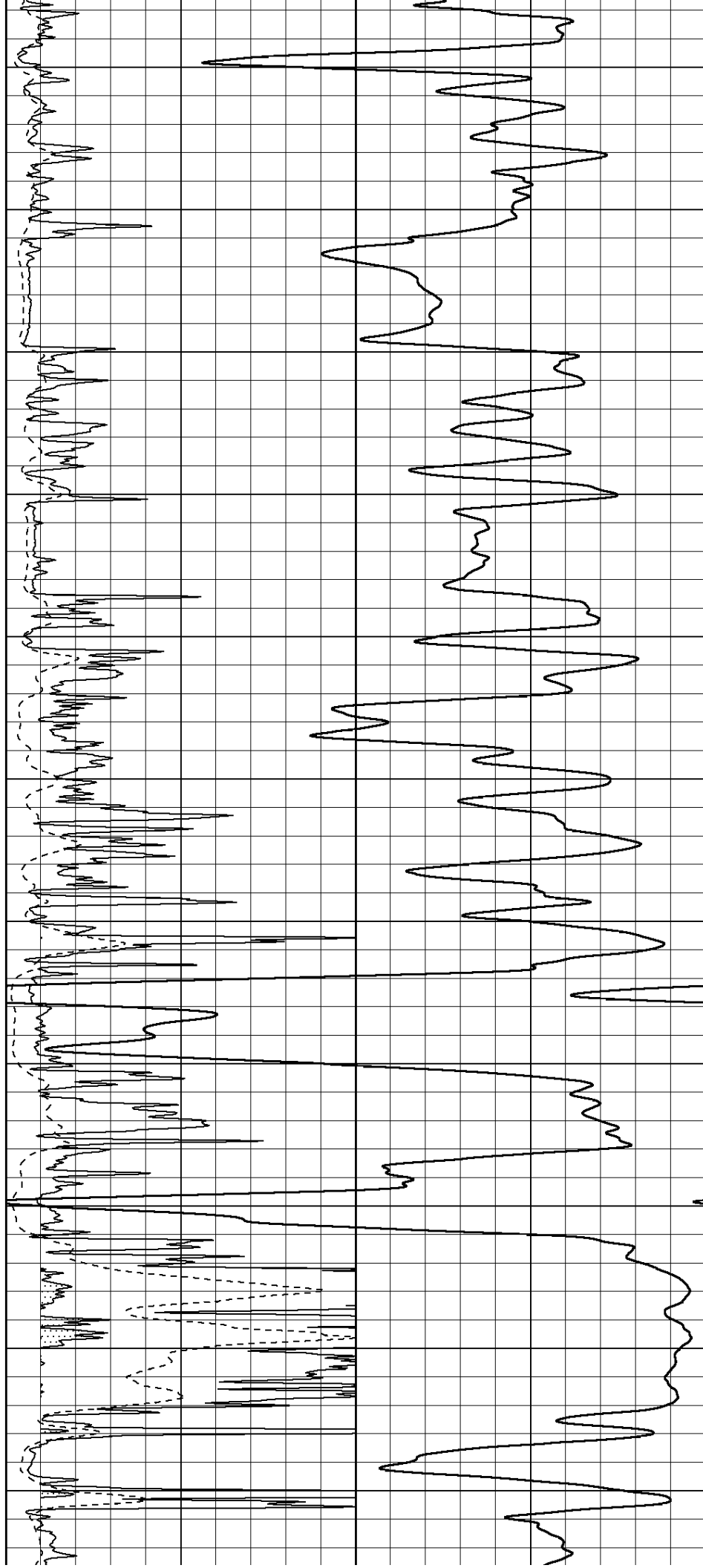
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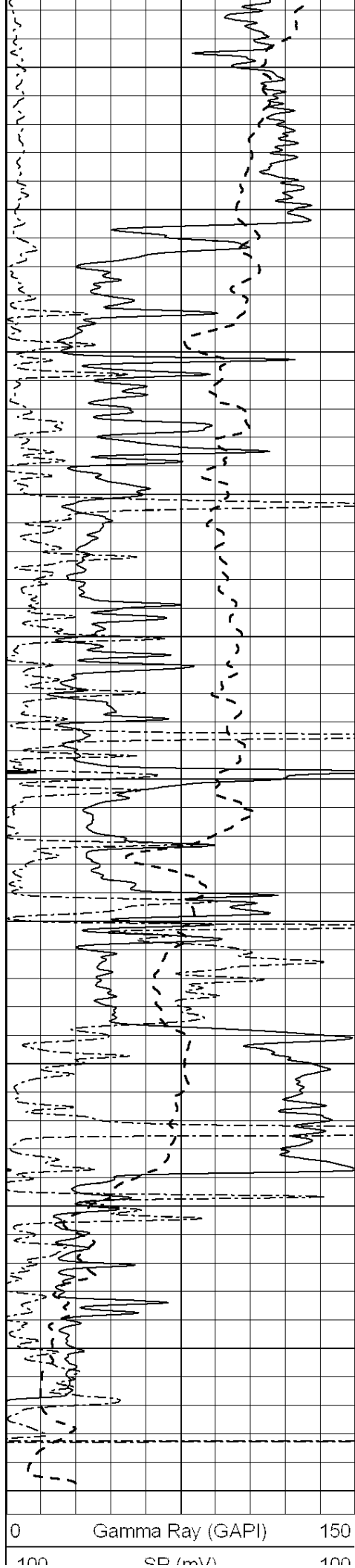
3000

3050

3100

3150





3200

3250

3300

3350

3400

3450

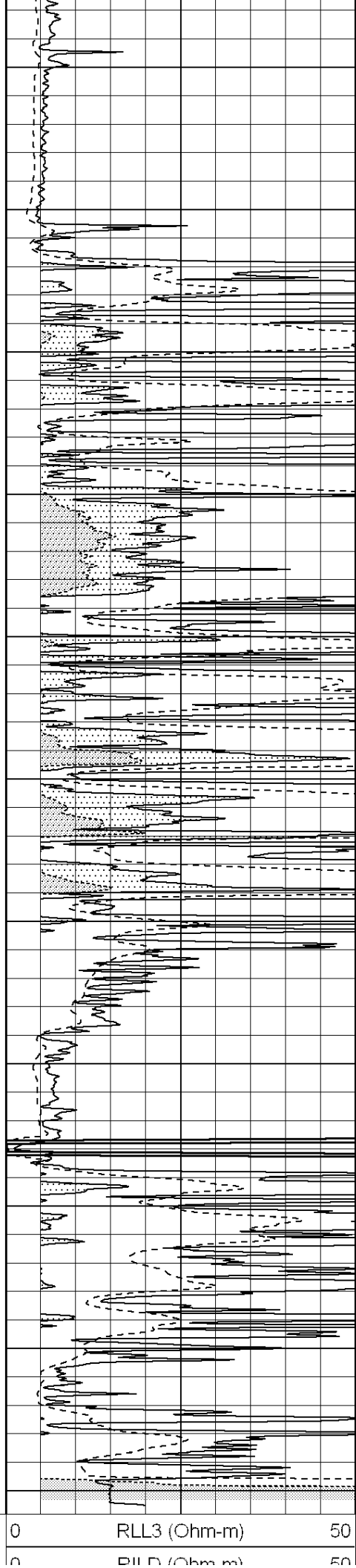
3500

3550

3600

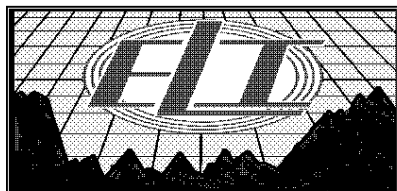
3650

3700



0	SP (mV)	100
0	RWA (Ohm-m)	1

0	RILD (Ohm-m)	50
1000	CILD (mmho/m)	0
50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500

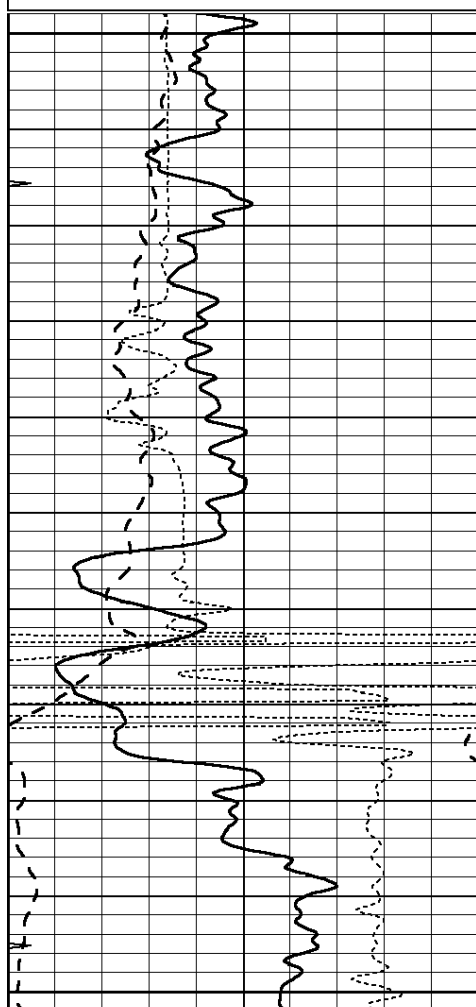


ANHYDRITE

Database File: 30763ddn.db
 Dataset Pathname: pass3.10
 Presentation Format: _dil
 Dataset Creation: Tue Aug 23 15:27:34 2016
 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

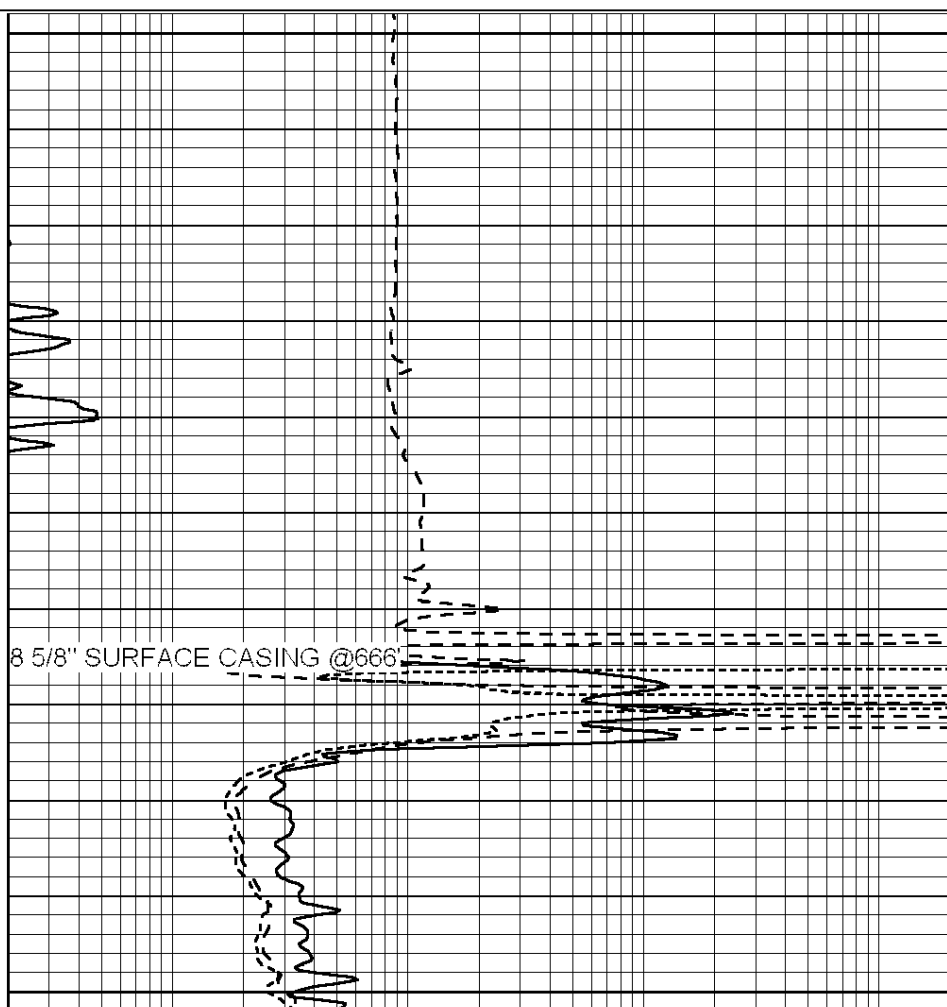


0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

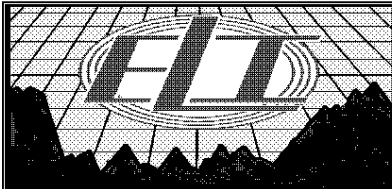
600

650

700



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

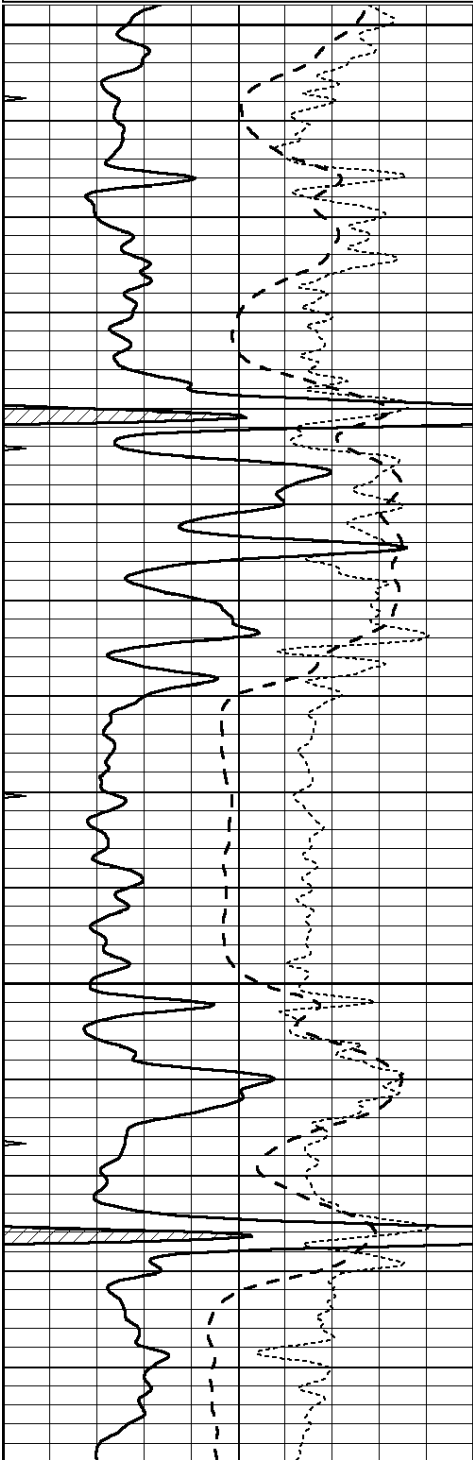


MAIN SECTION

Database File: 30763ddn.db
Dataset Pathname: pass3.9
Presentation Format: _dil
Dataset Creation: Tue Aug 23 15:27:19 2016
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

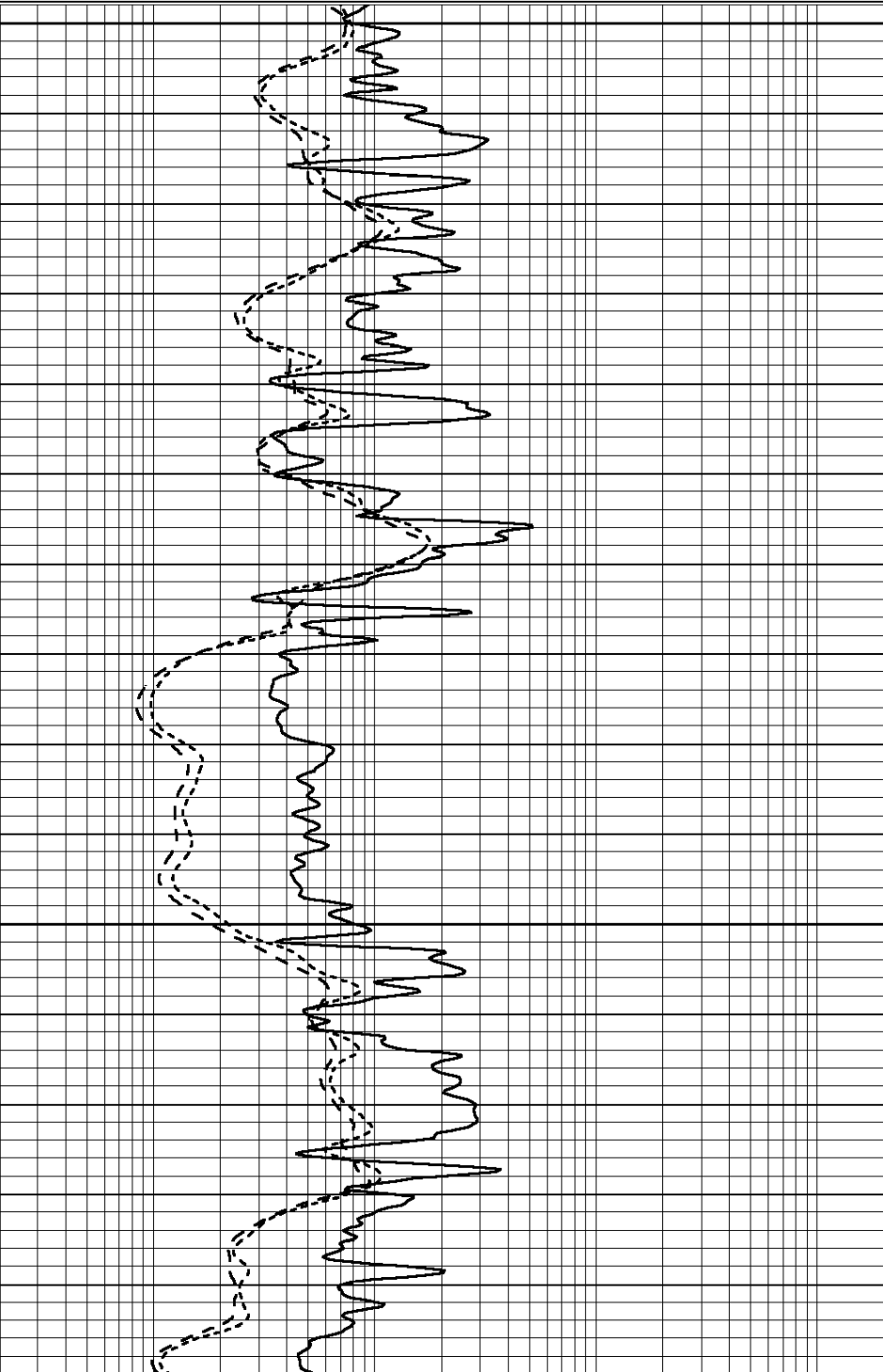


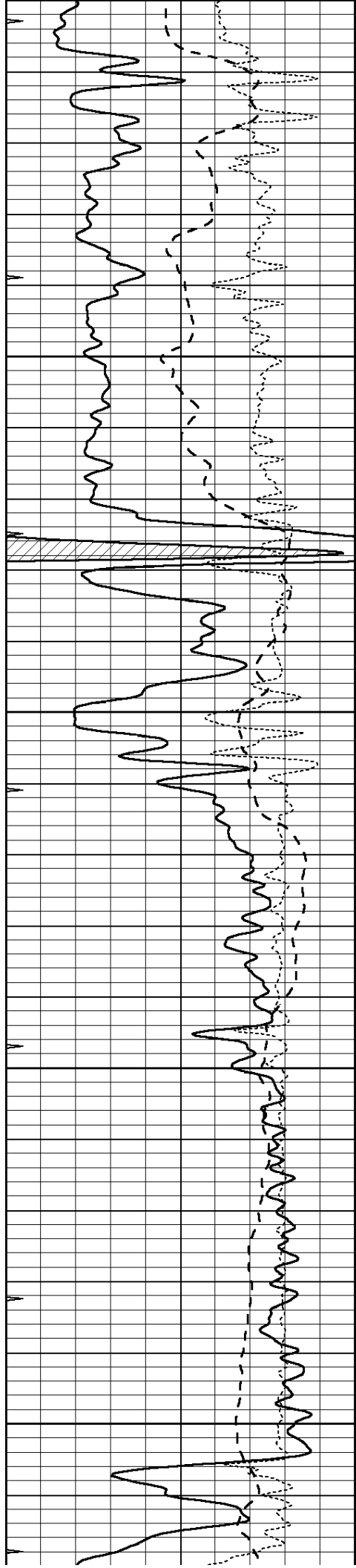
2900

2950

3000

3050





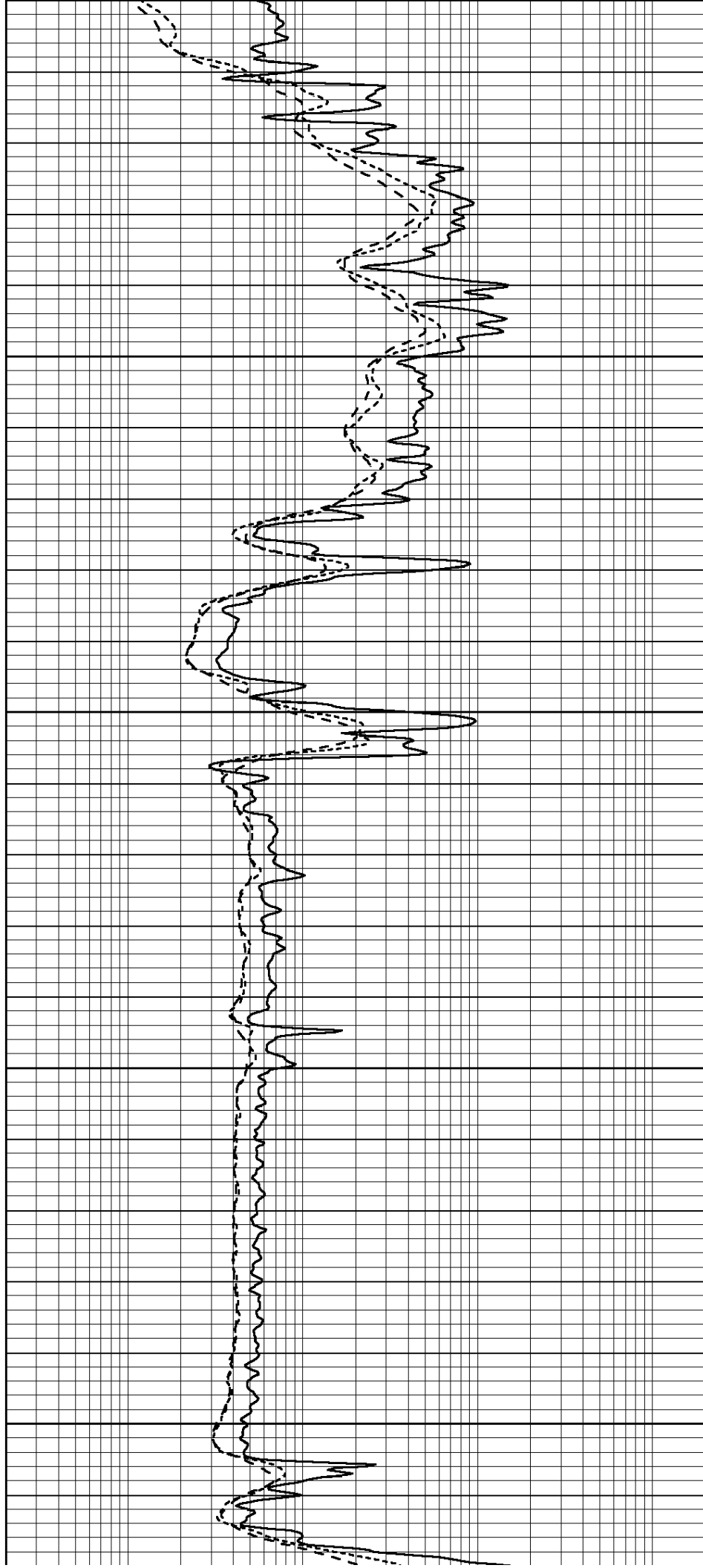
3050

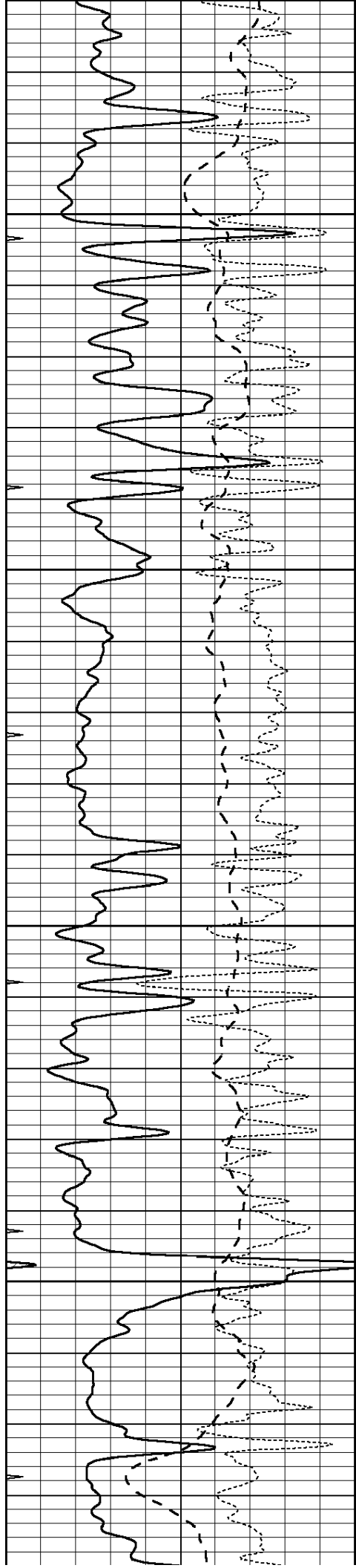
3100

3150

3200

3250



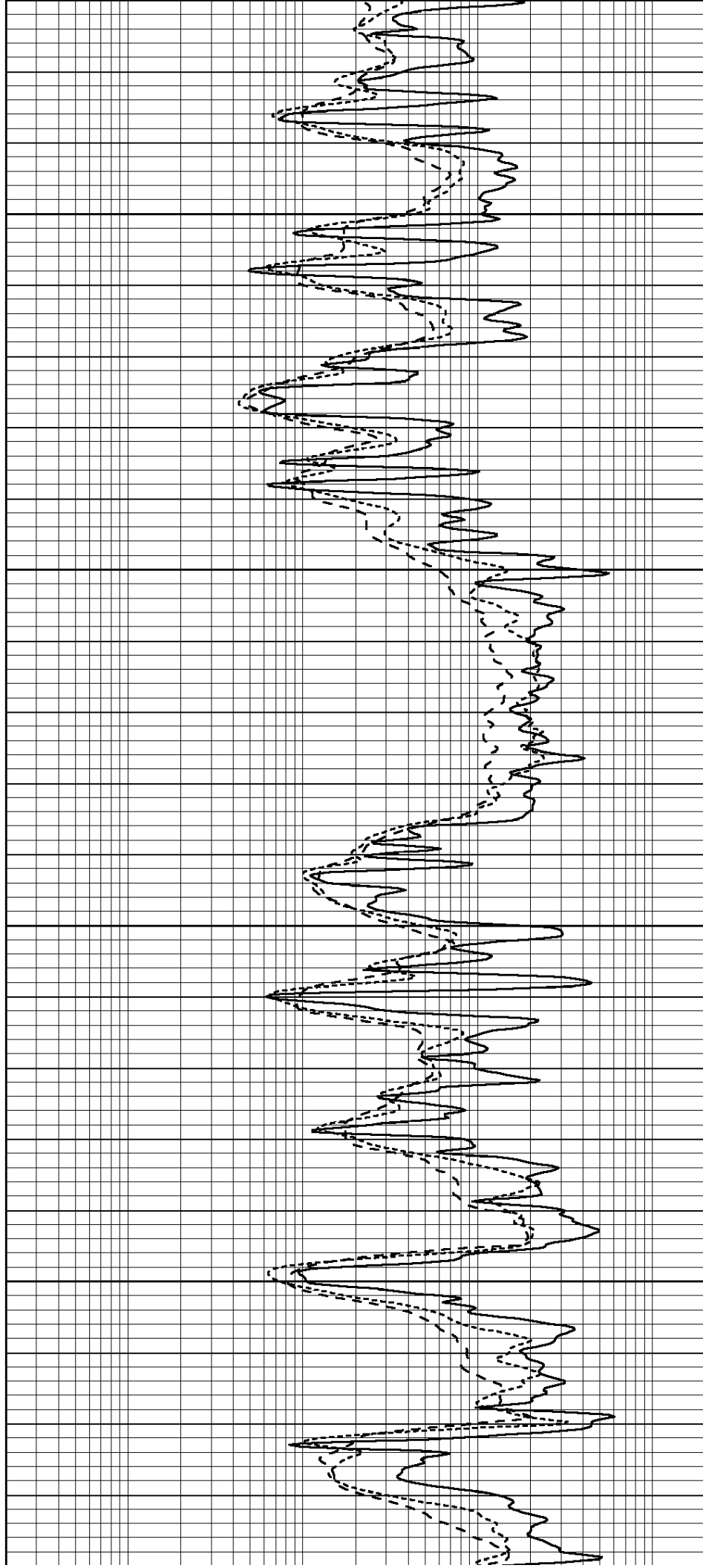


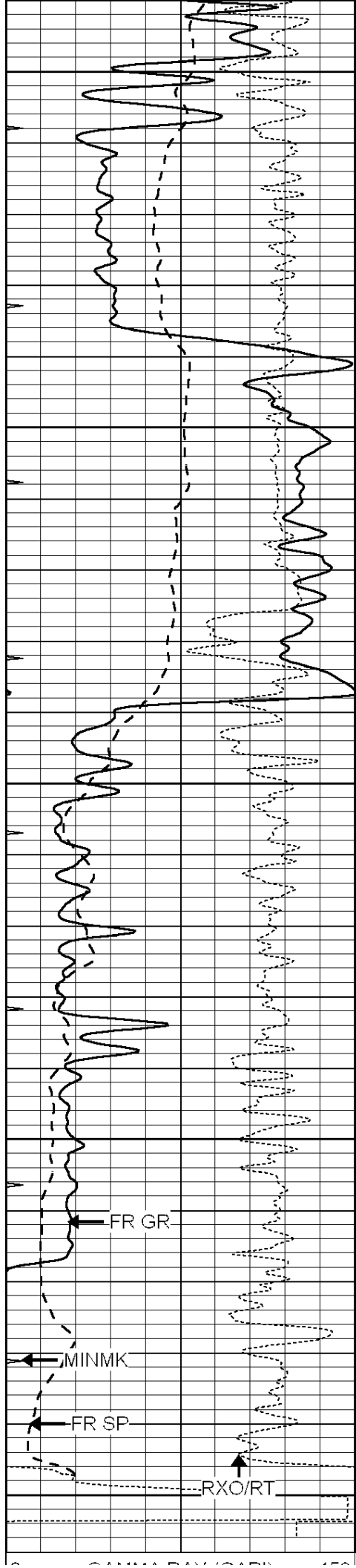
3300

3350

3400

3450





3500

3550

3600

3650

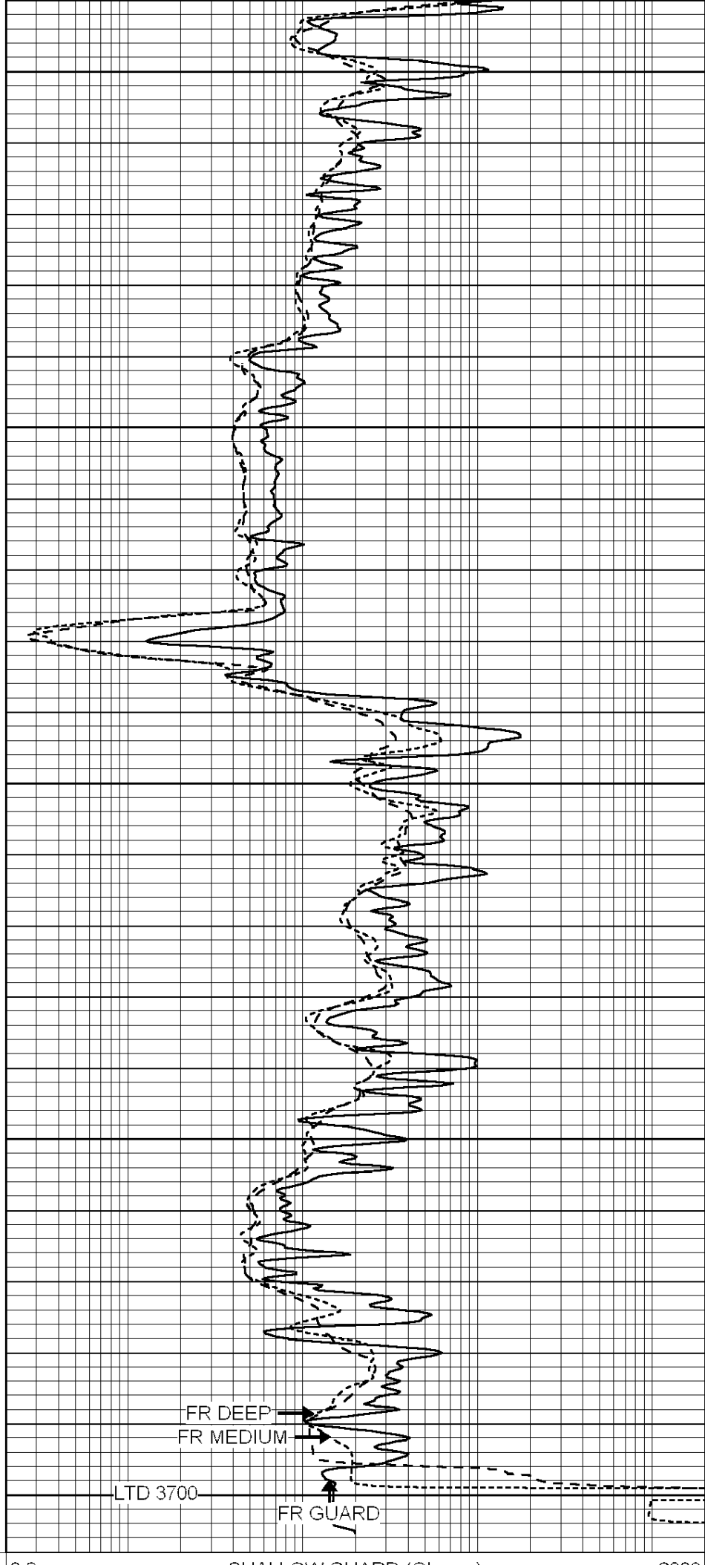
3700

FR GR

MINMK

FR SP

RXO/RT



FR DEEP

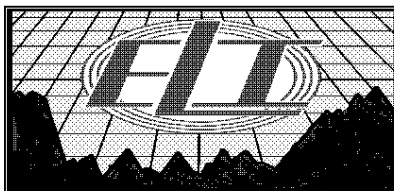
FR MEDIUM

FR GUARD

LTD 3700

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

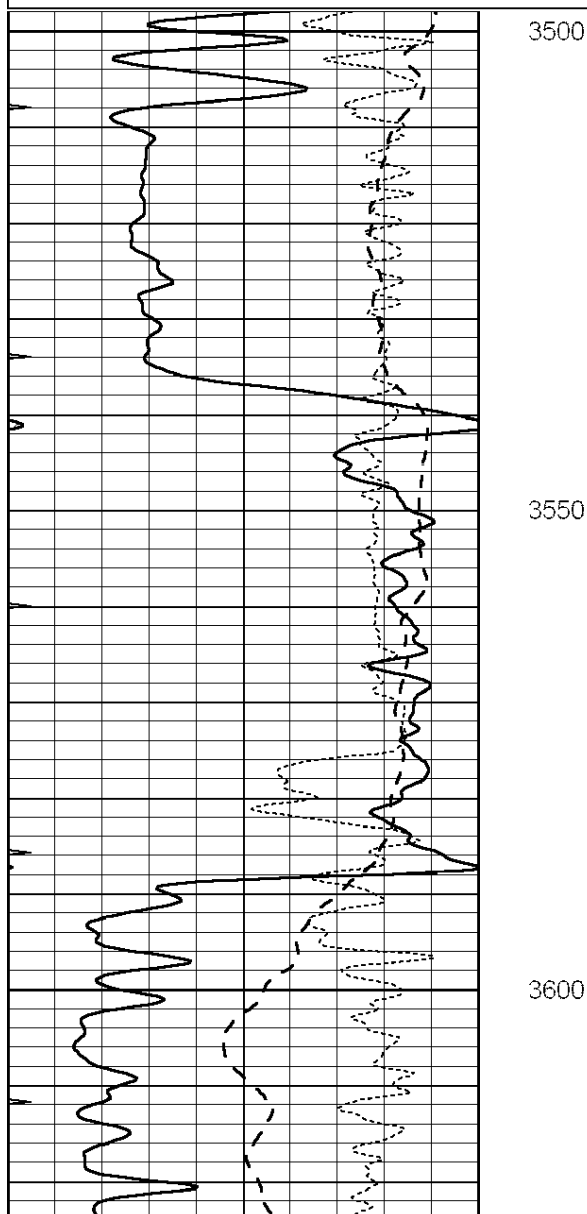
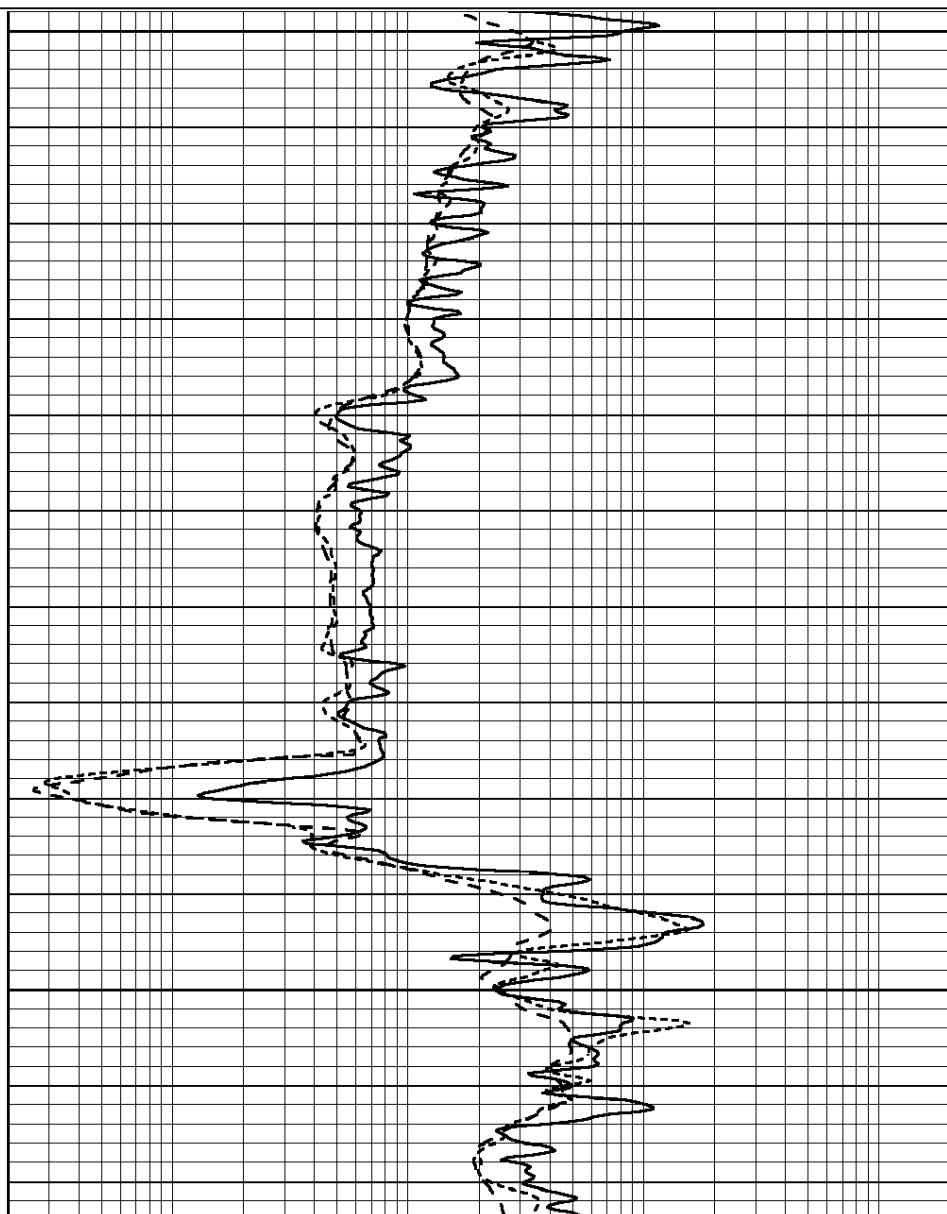


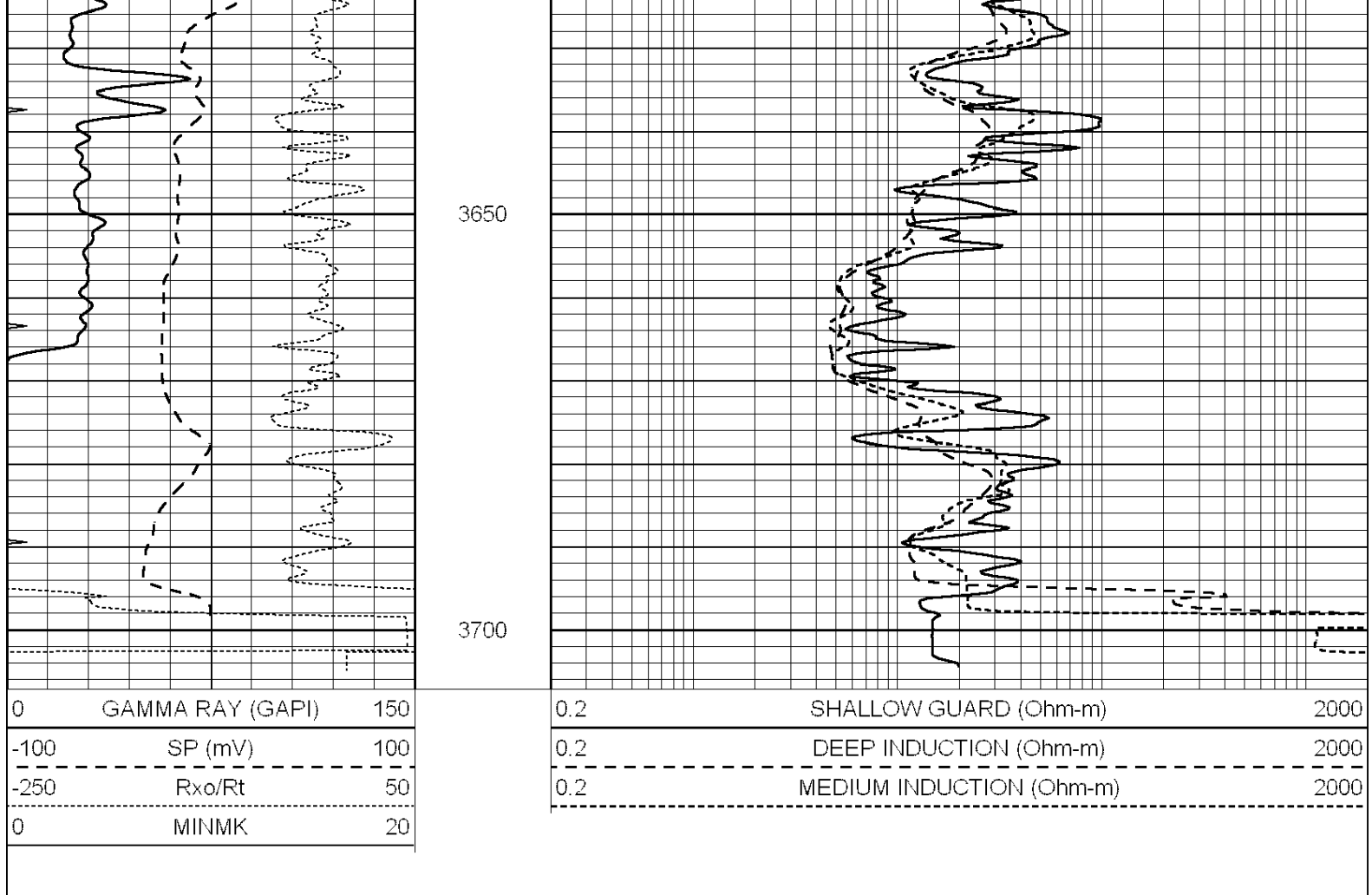
REPEAT SECTION

Database File: 30763ddn.db
 Dataset Pathname: pass2.2R
 Presentation Format: _dil
 Dataset Creation: Tue Aug 23 14:28:38 2016
 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





Calibration Report									
Database File:		30763ddn.db							
Dataset Pathname:		pass3.9							
Dataset Creation:		Tue Aug 23 15:27:19 2016							
Dual Induction Calibration Report									
Serial-Model:					PROBE7-DILG				
Surface Cal Performed:					Sun Aug 21 16:27:19 2016				
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	625.000	2.000	
Medium	0.039	0.728	V	0.000	464.000	mmho/m	675.000	-40.000	
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: 003N Model: PRB								

Master Calibration			Performed Mon Mar 14 08:48:13 2016					
	Background	Magnesium		Aluminum		Sandstone		
Window 1	1751.3	11741.0		3857.3		12907.8		cps
Window 2	1589.4	9536.2		3267.6		10282.0		cps
Window 3	1413.4	6466.1		2463.2		6828.7		cps
Window 4	399.5	407.1		405.1		406.5		cps
Long Space	0.0	7946.7		1678.1		8692.6		cps
Short Space	2.2	3366.2		2134.1		3410.2		cps
Rho		1.7100		2.5900		1.3800		g/cc
Pe		0.0000		2.5700		1.5500		
Rib Angle	: 43.7	Rib Slope	: 0.954	Density/Spine Ratio			: 0.543	
Spine Angle	: 73.7	Spine Slope	: 3.412	Spine Intercept			: -18.7	

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:	Mon Aug 22 01:00:15 2016		
Calibrator Value:	1.0	GAPI	
Background Reading:	0.0	cps	
Calibrator Reading:	1.0	cps	
Sensitivity:	0.2800	GAPI/cps	