



DUAL INDUCTION LOG

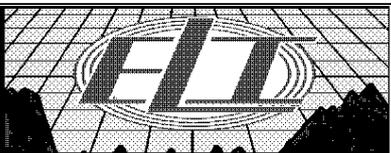
Company	ABERCROMBIE ENERGY, LLC.	Company	ABERCROMBIE ENERGY, LLC.
Well	#1-23 FOUSSER	Well	#1-23 FOUSSER
Field	WILDCAT	Field	WILDCAT
County	SCOTT	County	SCOTT
State	KANSAS	State	KANSAS
Location:	APL # : 15-171-21258-0000 830' FWL & 1390' FNL NW - NE - SW - NW	Permanent Datum	GROUND LEVEL
		Log Measured From	KELLY BUSHING 7' A.G.L.
		Drilling Measured From	KELLY BUSHING
		Elevation	2973
		Other Services	CDL/CNL/PE MEL/SONIC
Date	8/30/19		
Run Number	ONE		
Depth Driller	4720		
Depth Logger	4719		
Bottom Logged Interval	4717		
Top Log Interval	00		
Casing Driller	8 5/8"@266'		
Casing Logger	266		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES	4,000 PPM
Density / Viscosity	9.2/55		
pH / Fluid Loss	9.5/9.6		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	.950@92F		
Rmf @ Meas. Temp	.713@92F		
Rmc @ Meas. Temp	1.14@92F		
Source of Rmf / Rmc	MEASUREMENT		
Rim @ BHT	.716@122F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	1:45 A.M.		
Maximum Recorded Temperature	122F		
Equipment Number	922339		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	KEVIN KESSLER		

<<< 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 ELI WIRELINE HAYS, KANSAS (785) 628-6395
 DIRECTIONS
 SCOTT CITY, KS., 13N. ON HWY 83 TO "RD. 270", 2E. PAST "PAWNEE RD." INTO FARM YARD, S. INTO



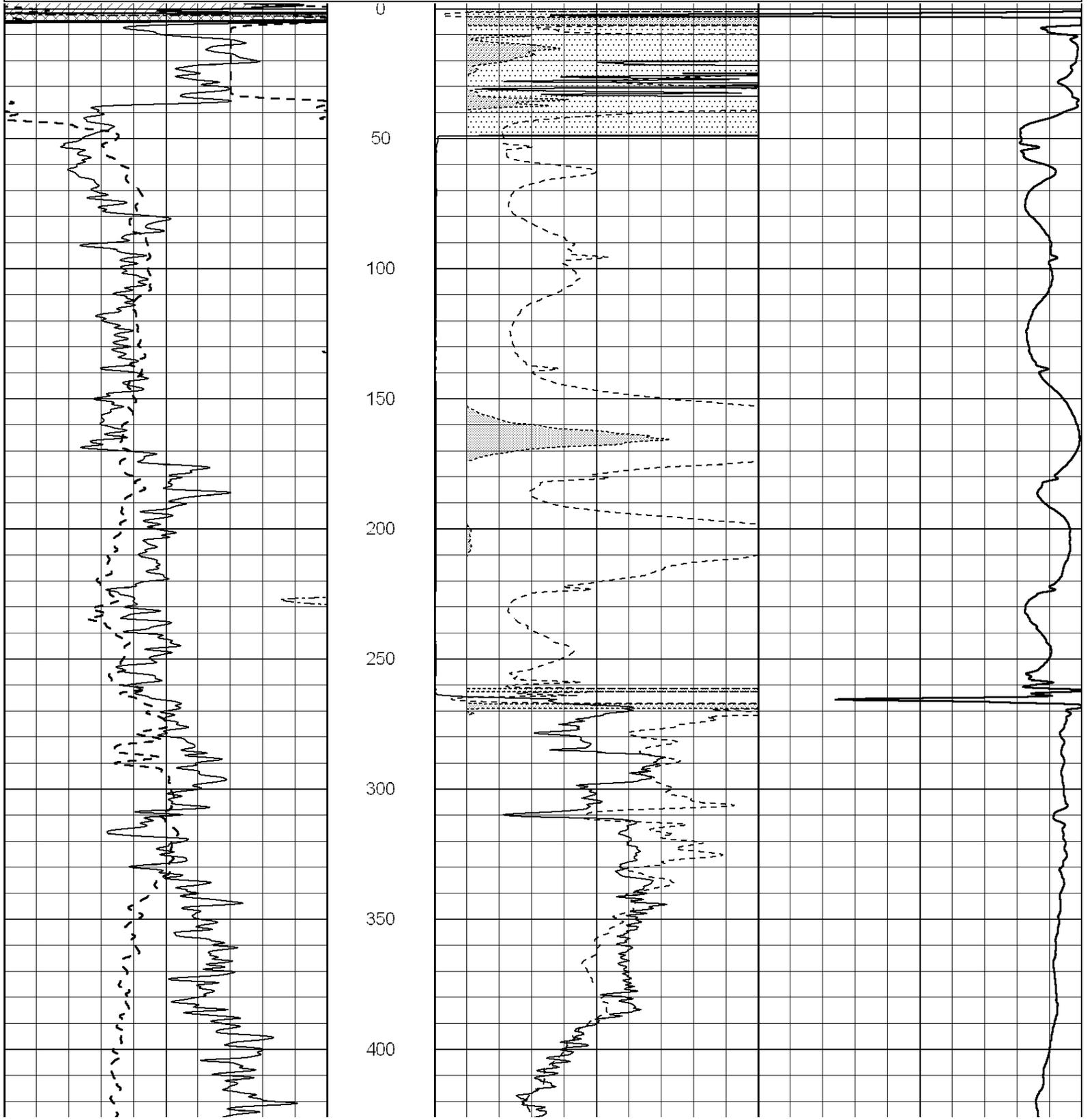
MAIN SECTION

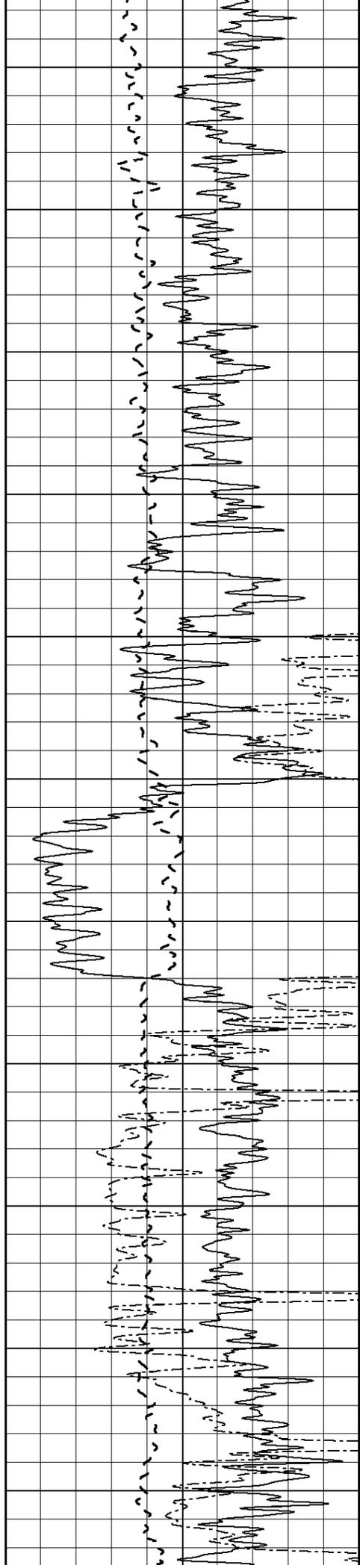
Database File: 3958pe.db
 Dataset Pathname: pass3.5
 Presentation Format: dil2
 Dataset Creation: Fri Aug 30 03:07:11 2019 by Calc SOC 120430
 Charted by: Depth in Feet scaled 1:600

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





450

500

550

600

650

700

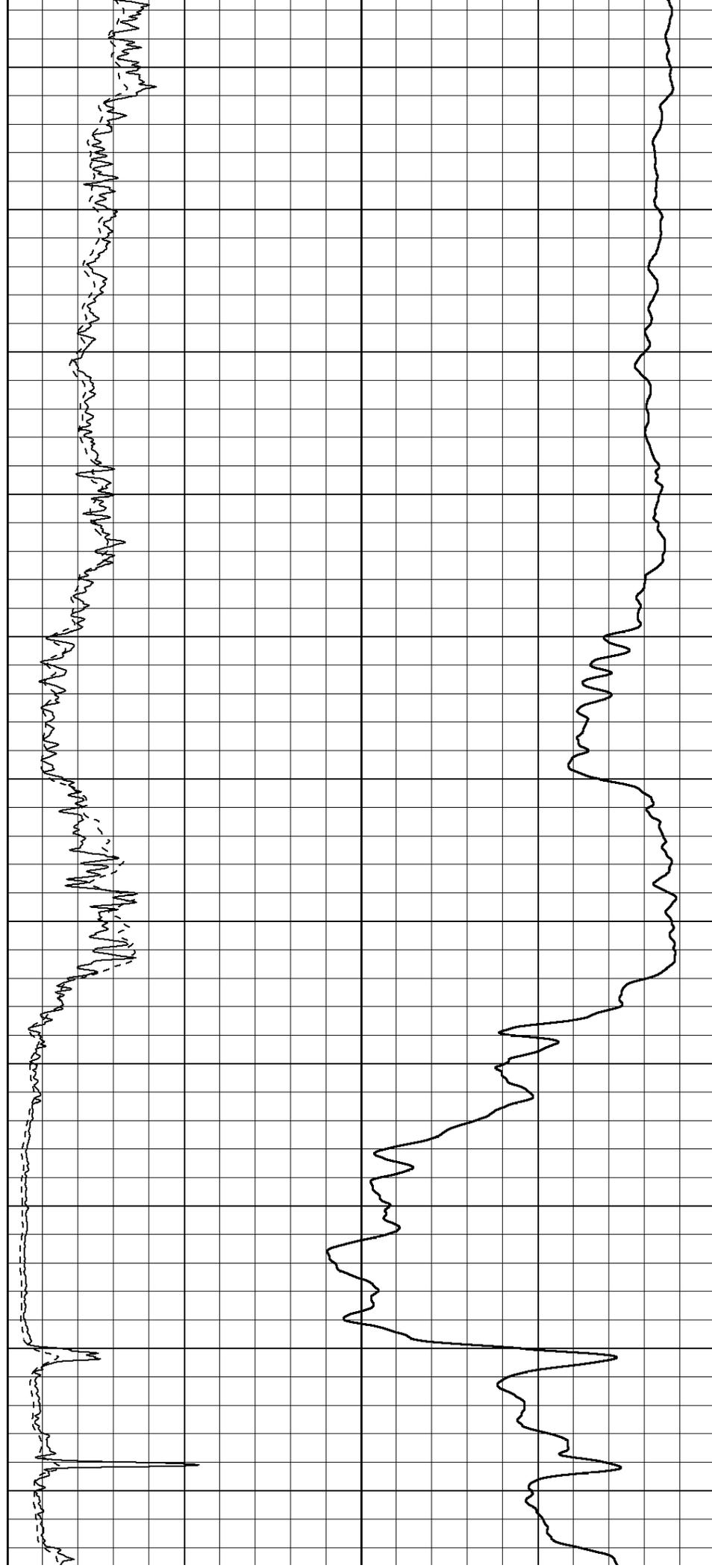
750

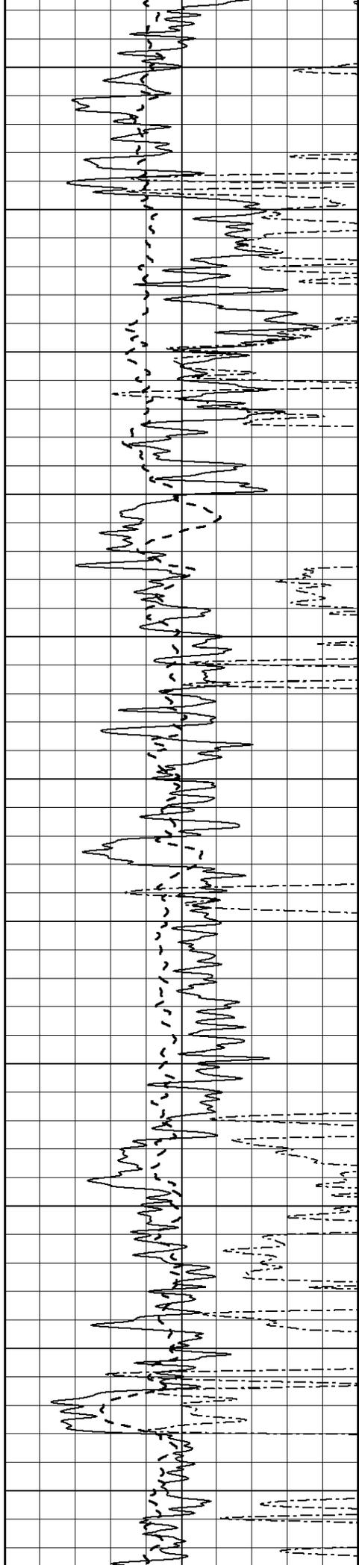
800

850

900

950





1000

1050

1100

1150

1200

1250

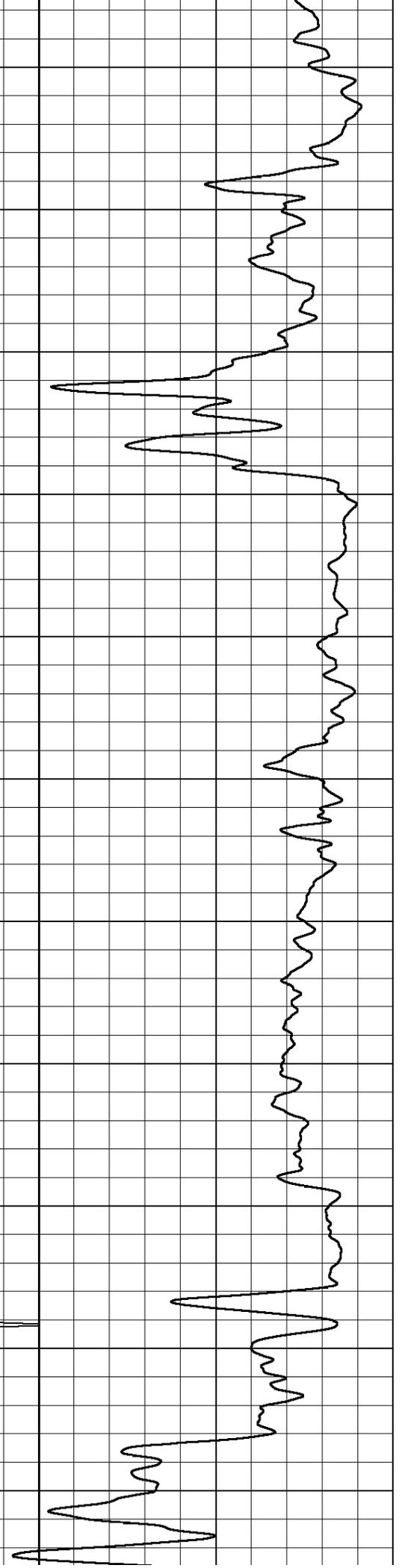
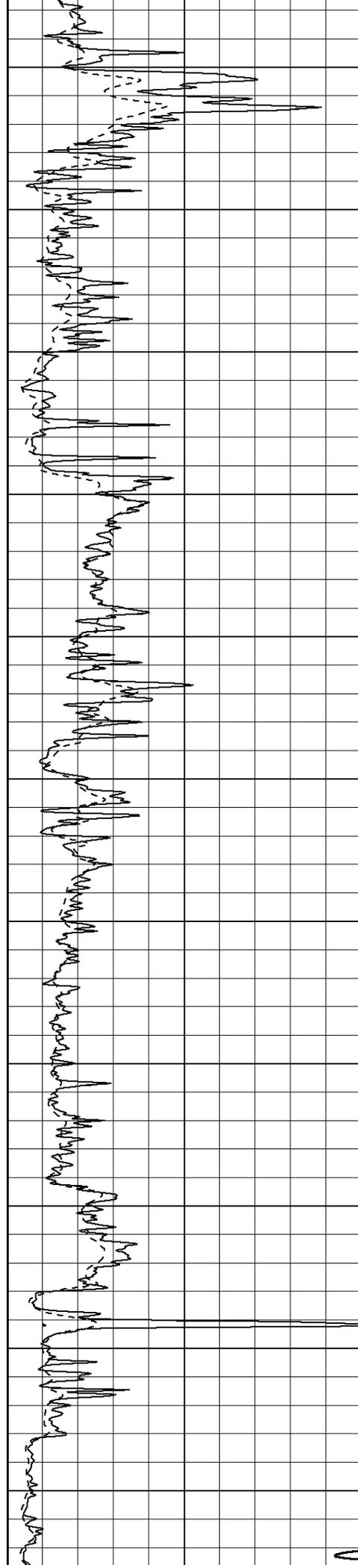
1300

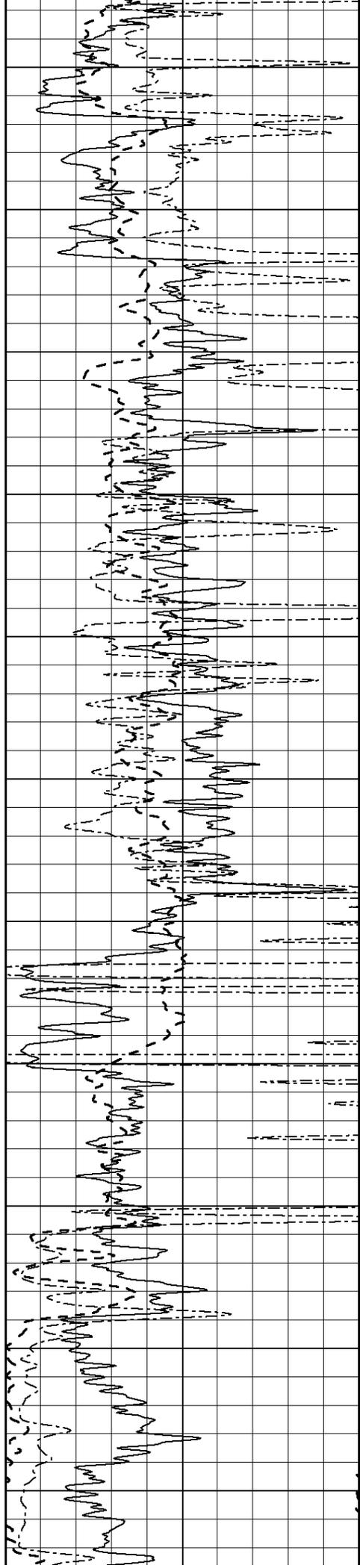
1350

1400

1450

1500





1550

1600

1650

1700

1750

1800

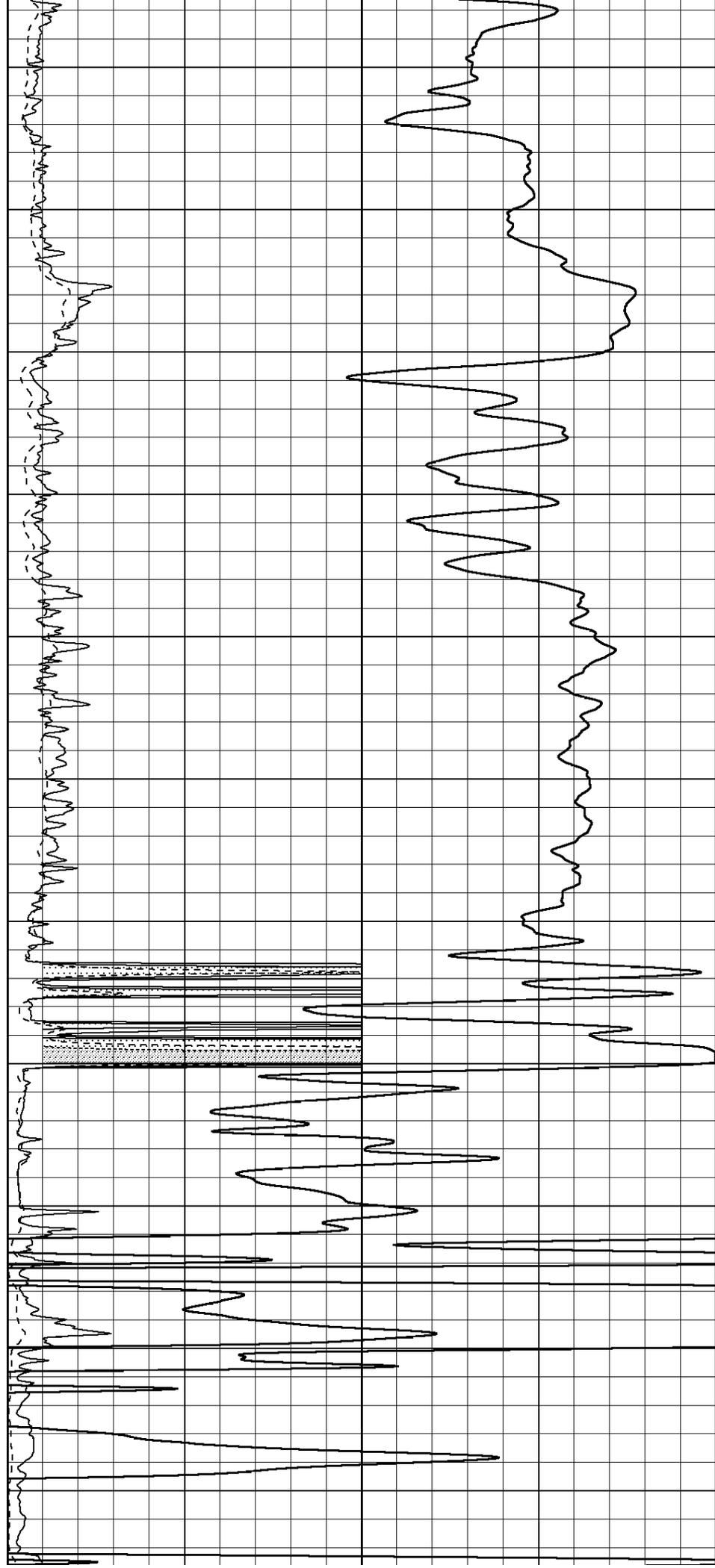
1850

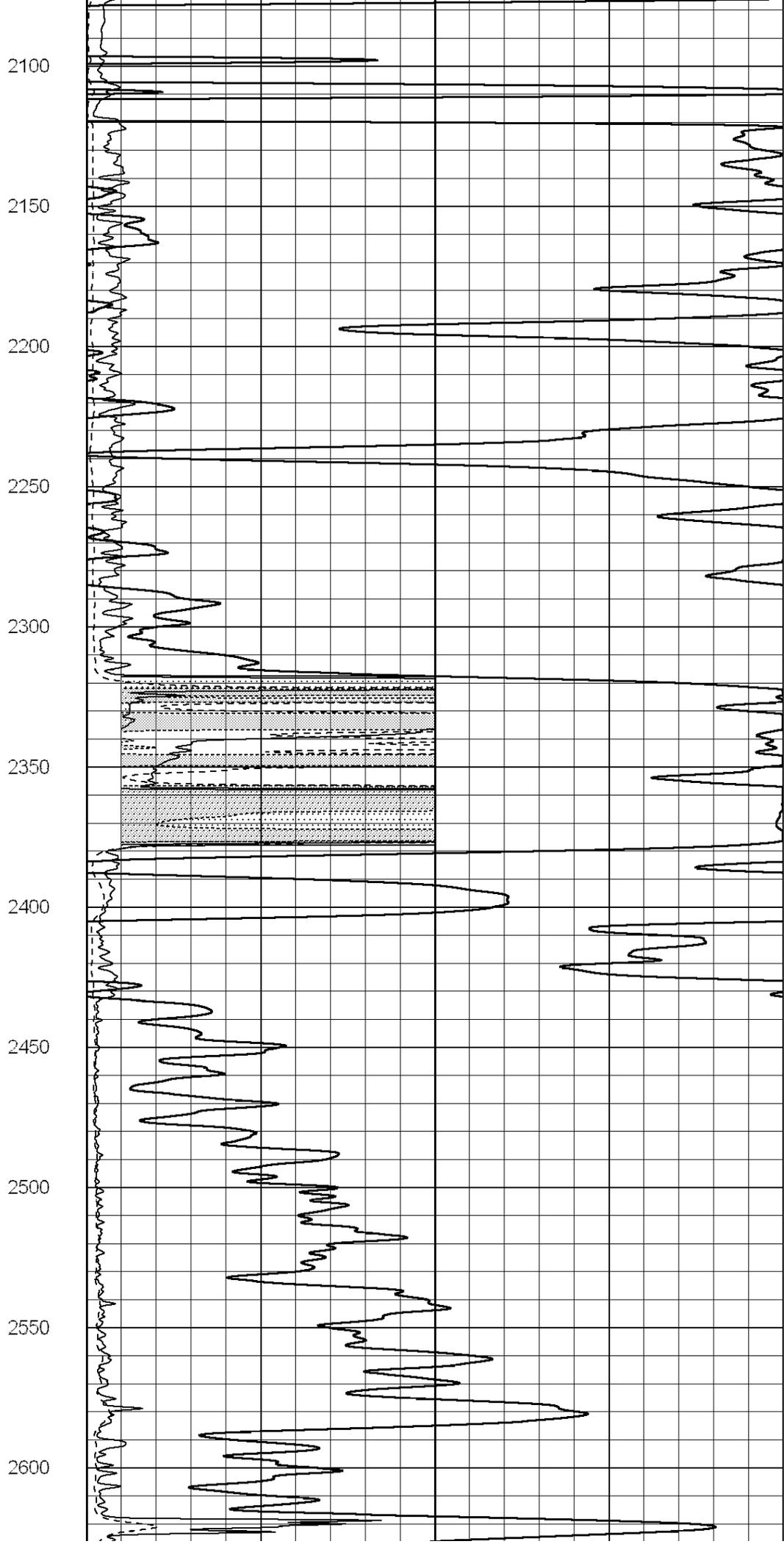
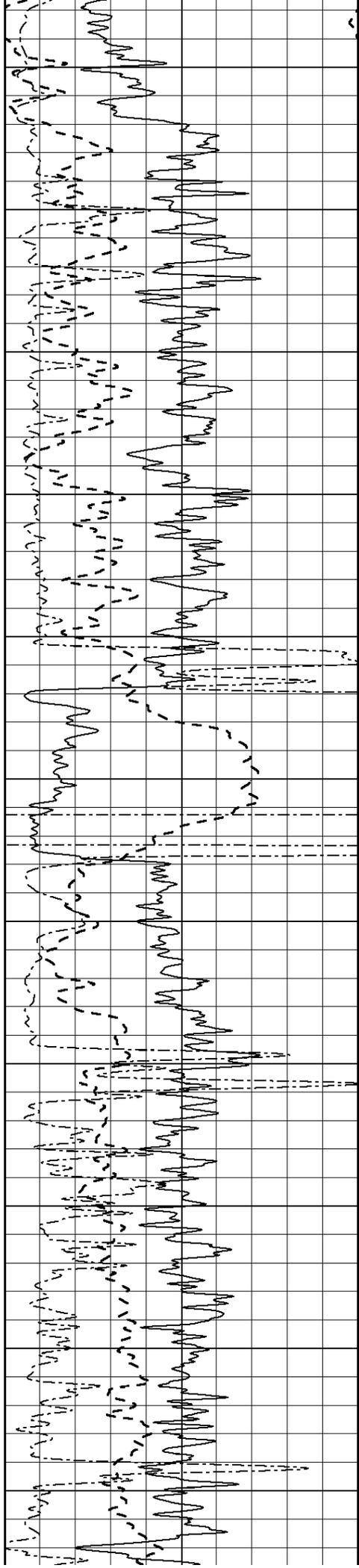
1900

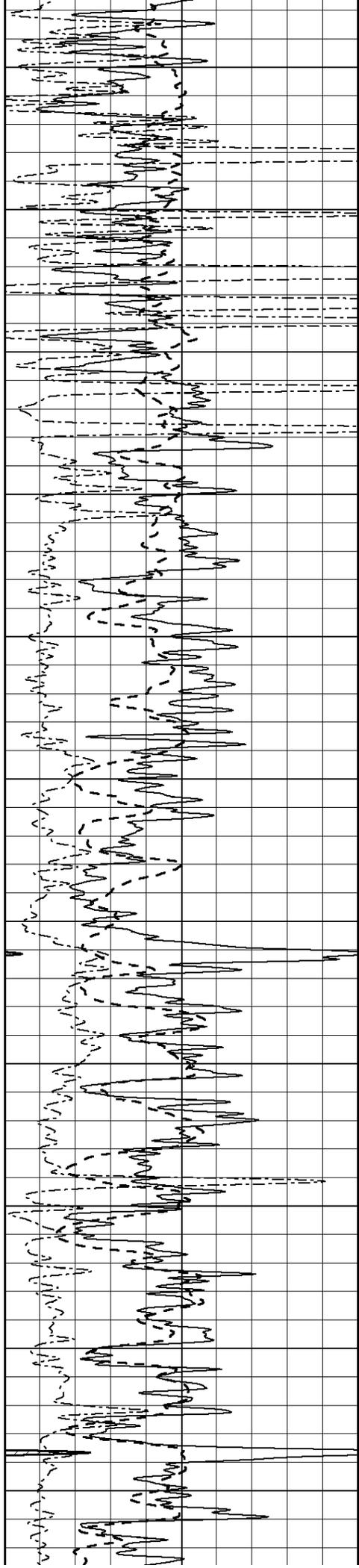
1950

2000

2050







2650

2700

2750

2800

2850

2900

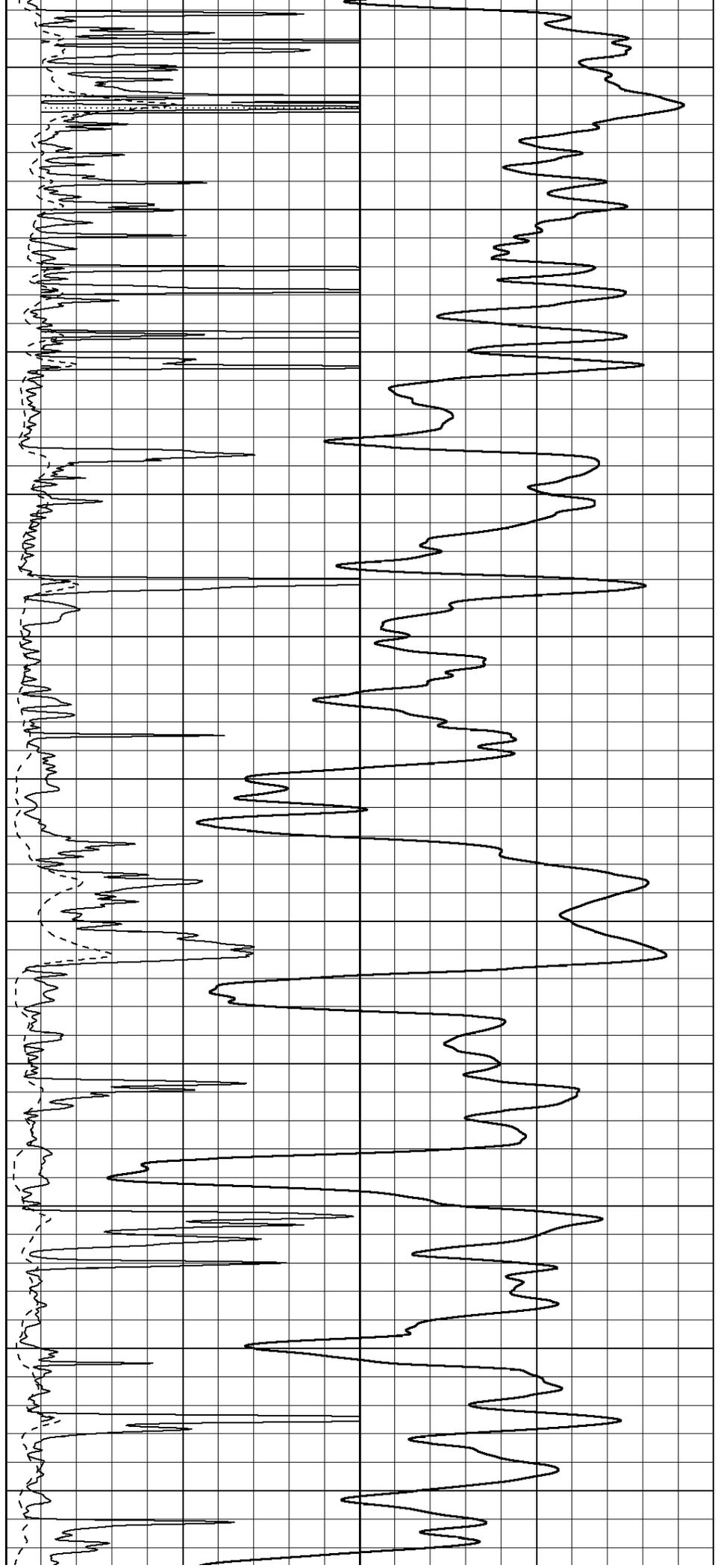
2950

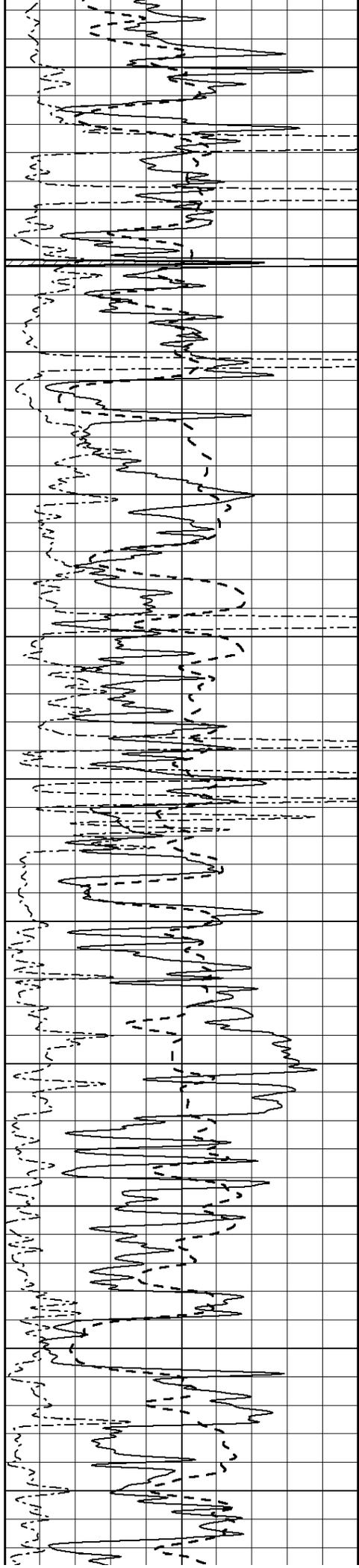
3000

3050

3100

3150





3200

3250

3300

3350

3400

3450

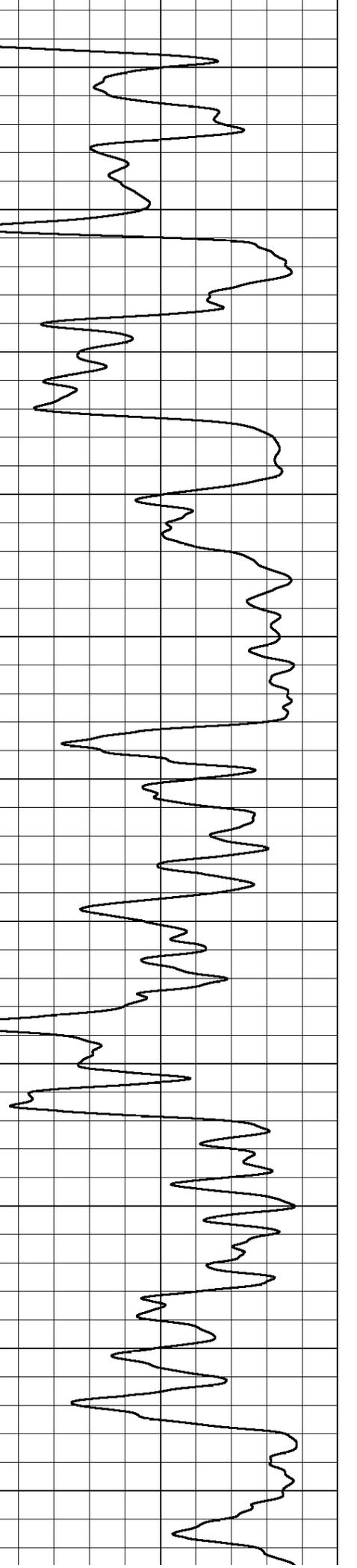
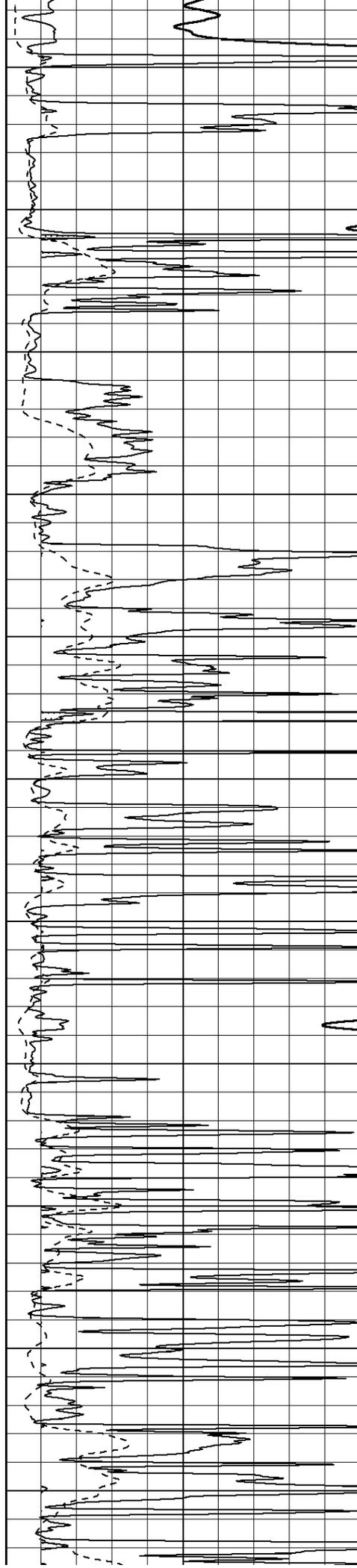
3500

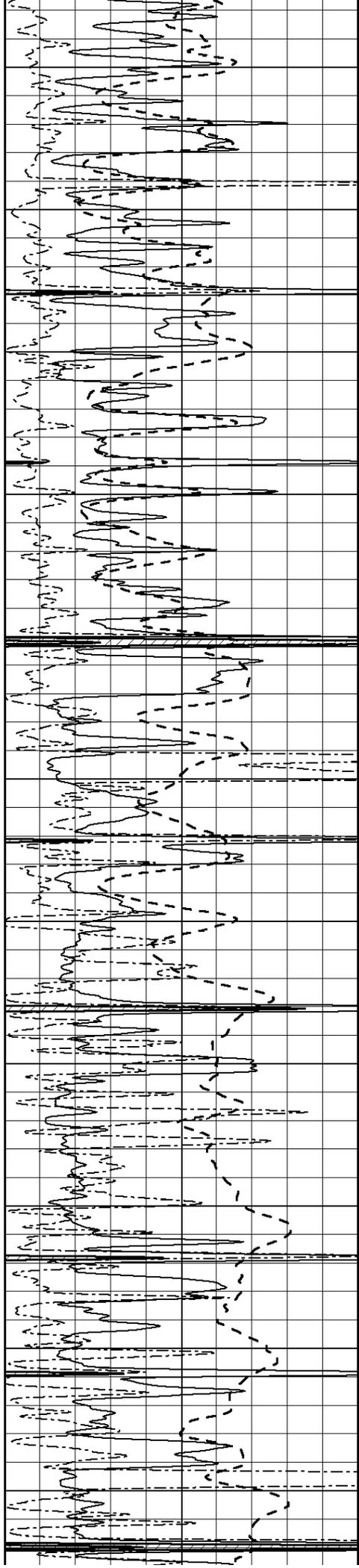
3550

3600

3650

3700





3750

3800

3850

3900

3950

4000

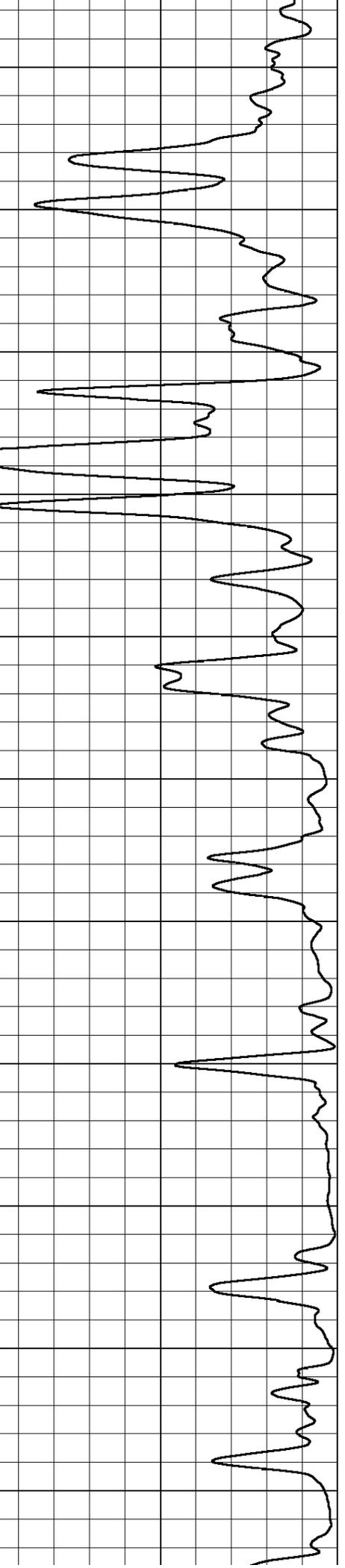
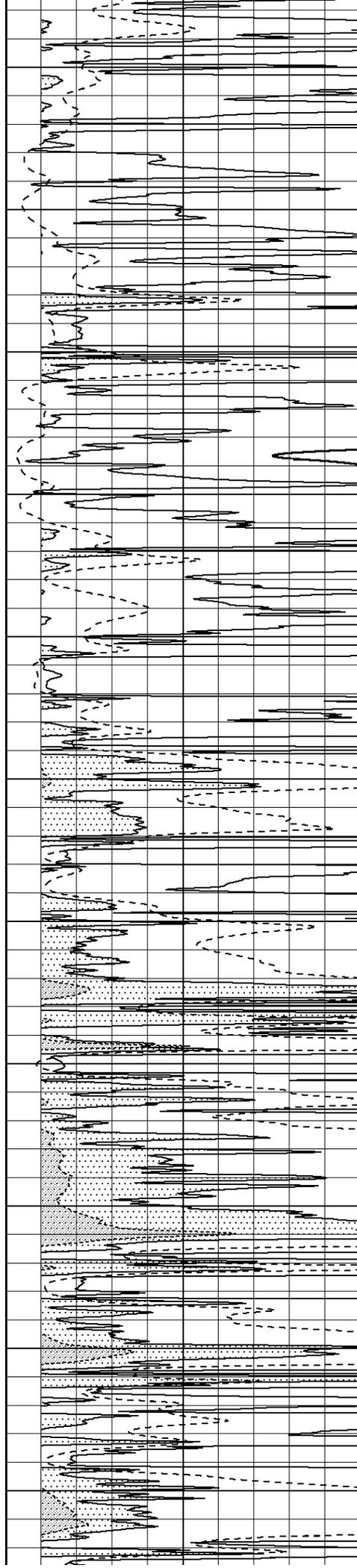
4050

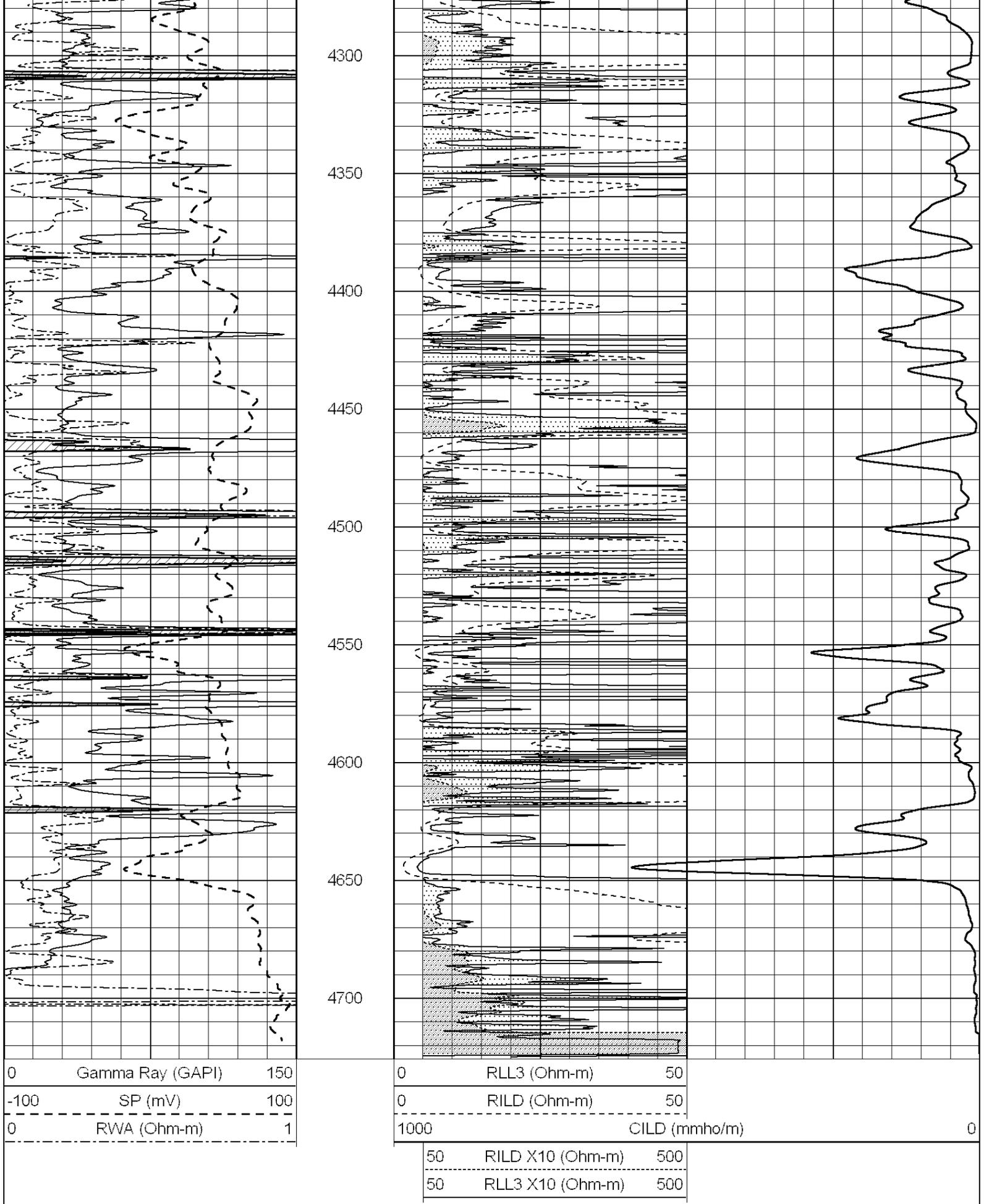
4100

4150

4200

4250





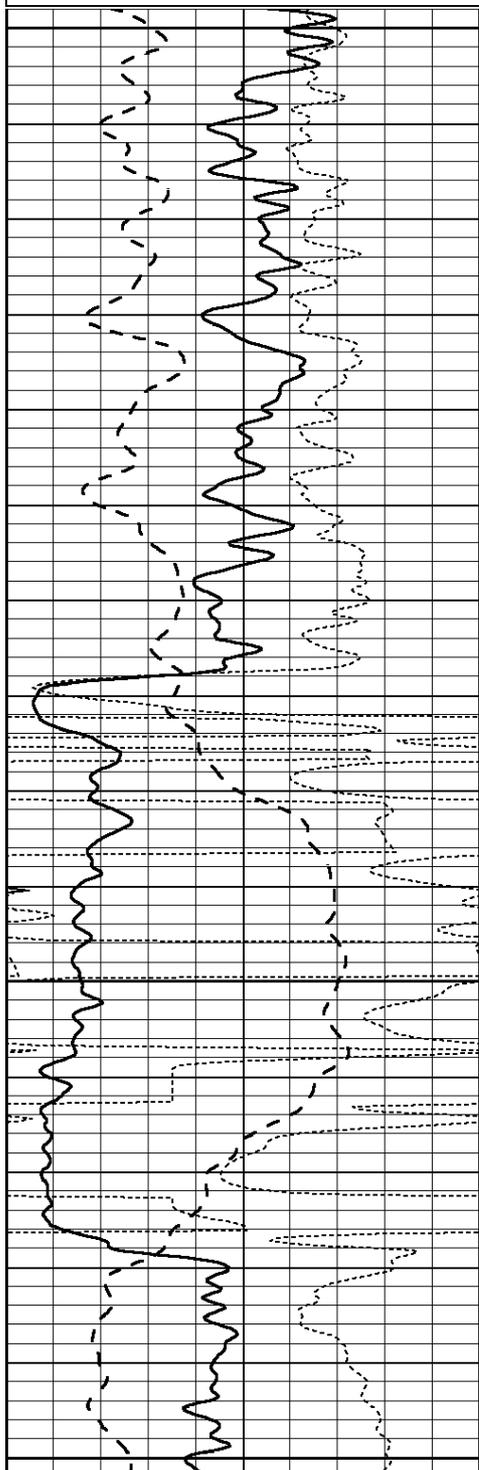
ANILVRDITE

ANHYDRITE

Database File: 3958pe.db
Dataset Pathname: pass3.6
Presentation Format: _dil
Dataset Creation: Fri Aug 30 03:08:07 2019 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

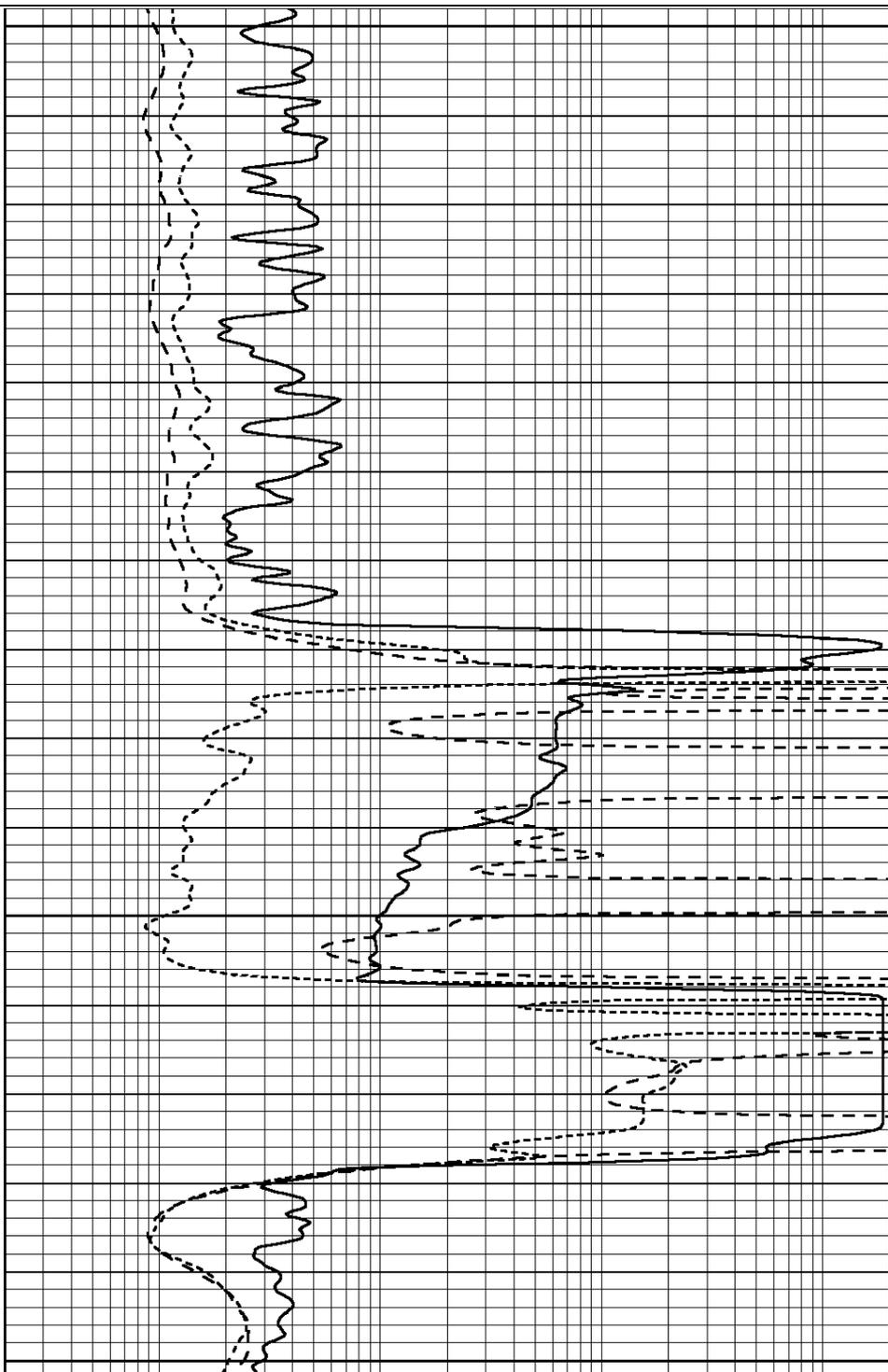


2250

2300

2350

2400

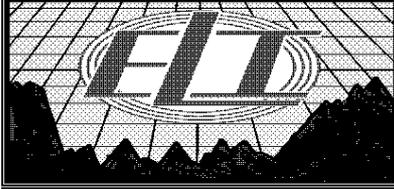


0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100

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

-250	Rxo/Rt	50
0	MINMK	20

0.2 MEDIUM INDUCTION (Ohm-m) 2000

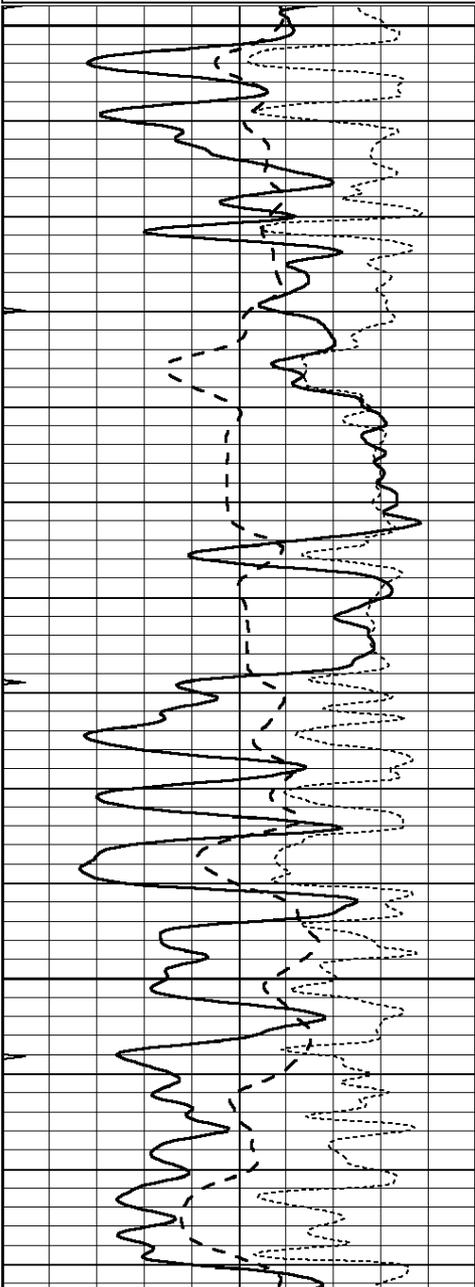


MAIN SECTION

Database File: 3958pe.db
 Dataset Pathname: pass3.5
 Presentation Format: _dil
 Dataset Creation: Fri Aug 30 03:07:11 2019 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

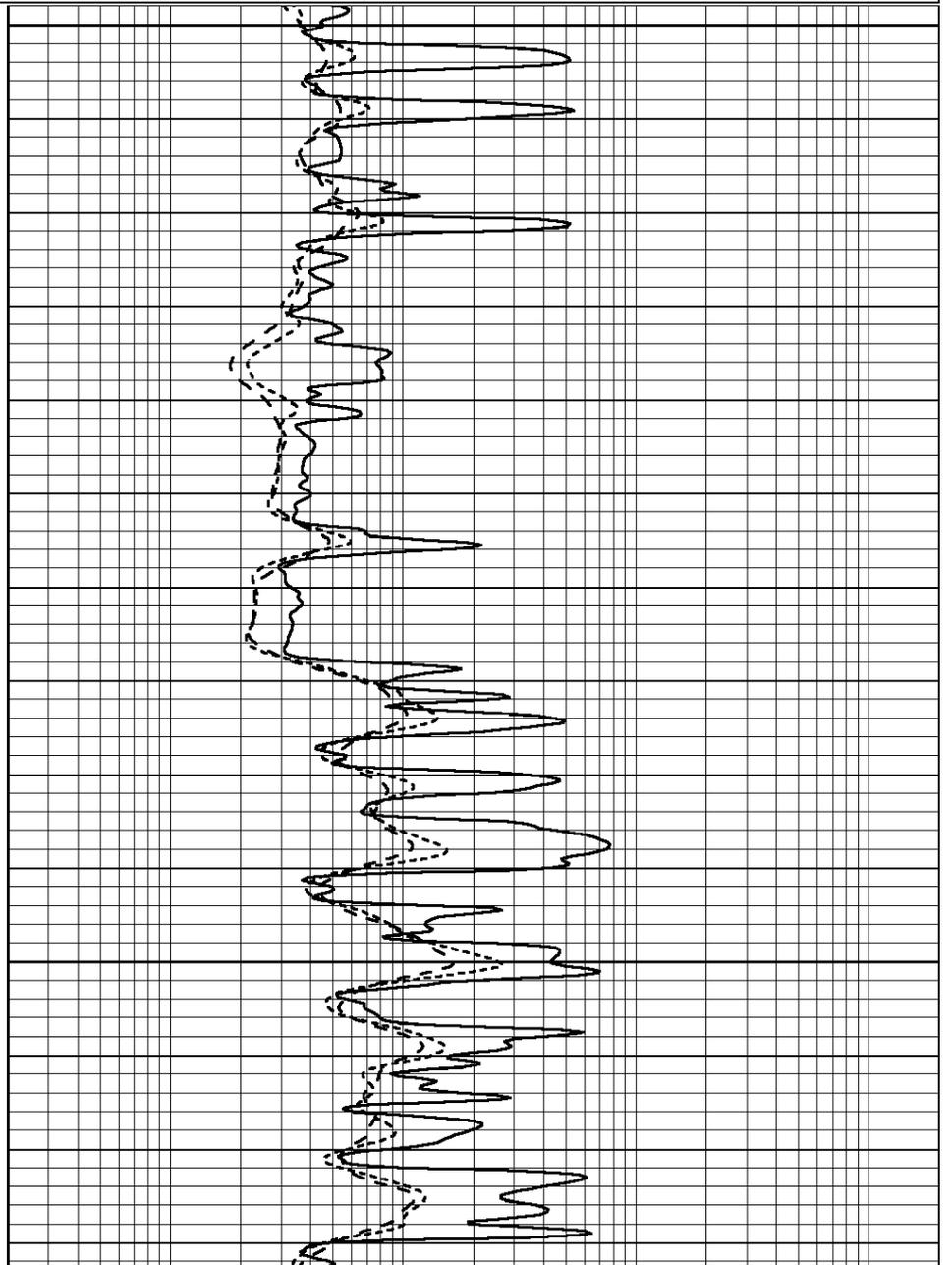
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

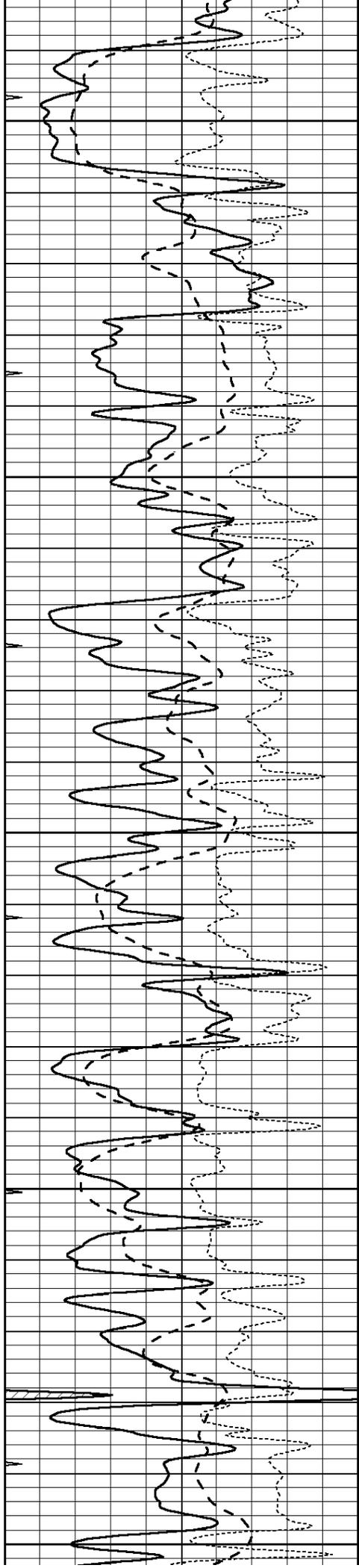


3500

3550

3600





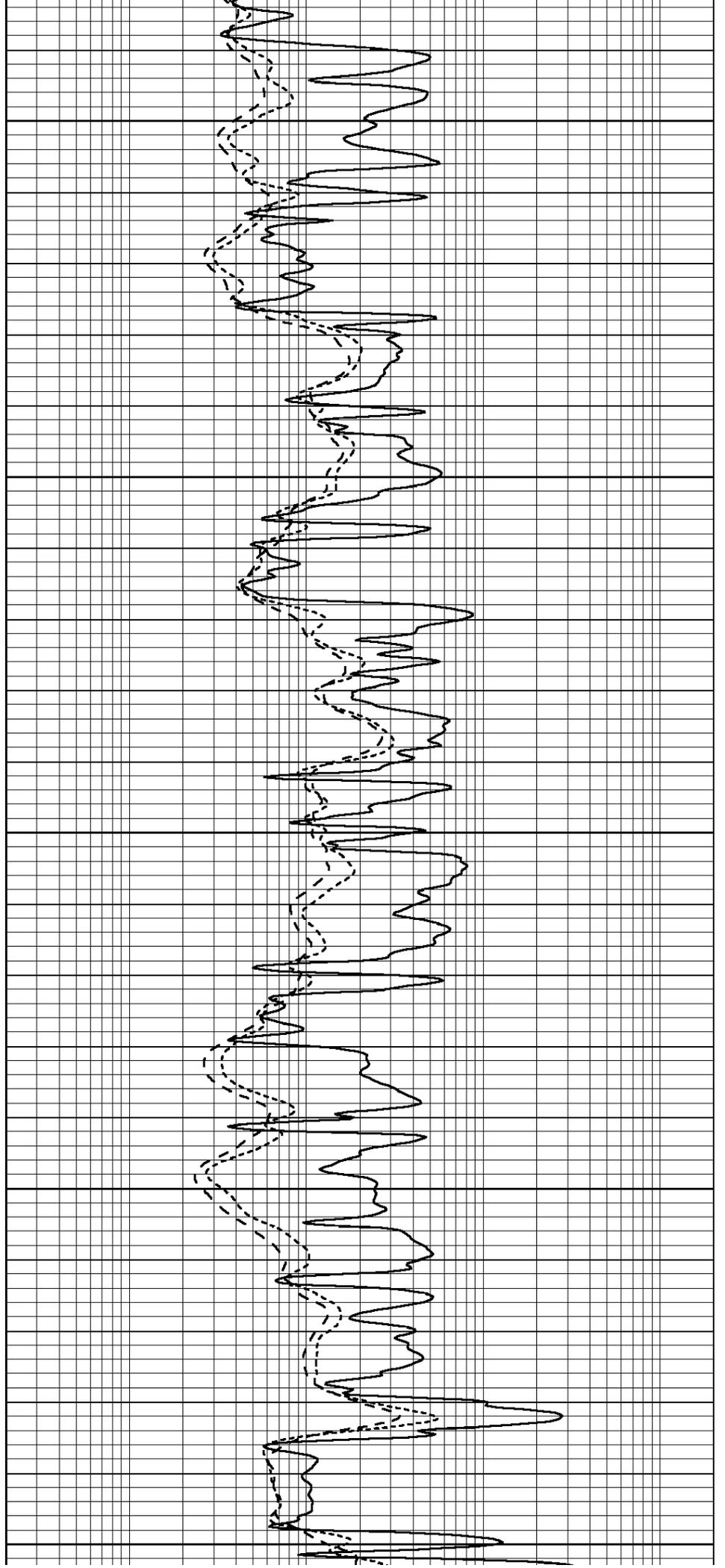
3650

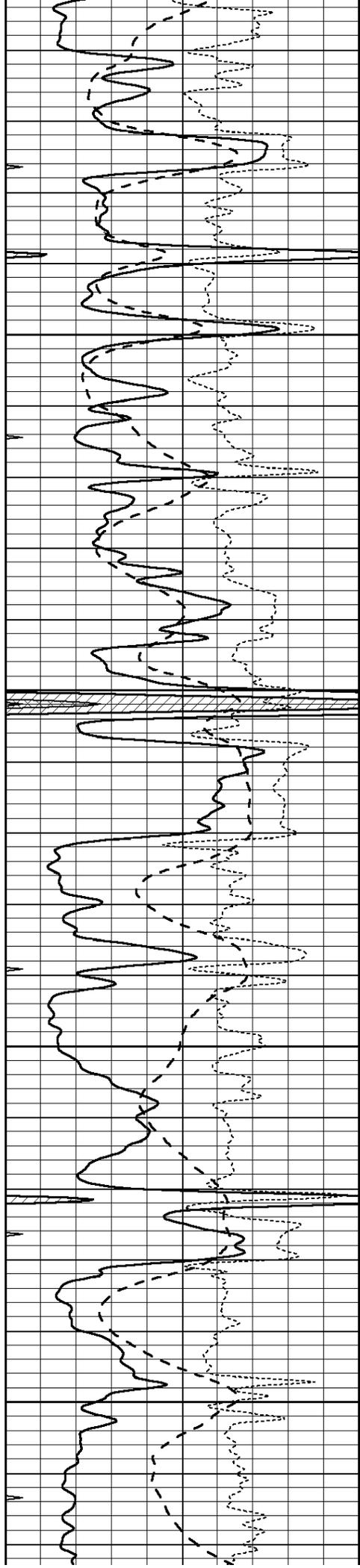
3700

3750

3800

3850



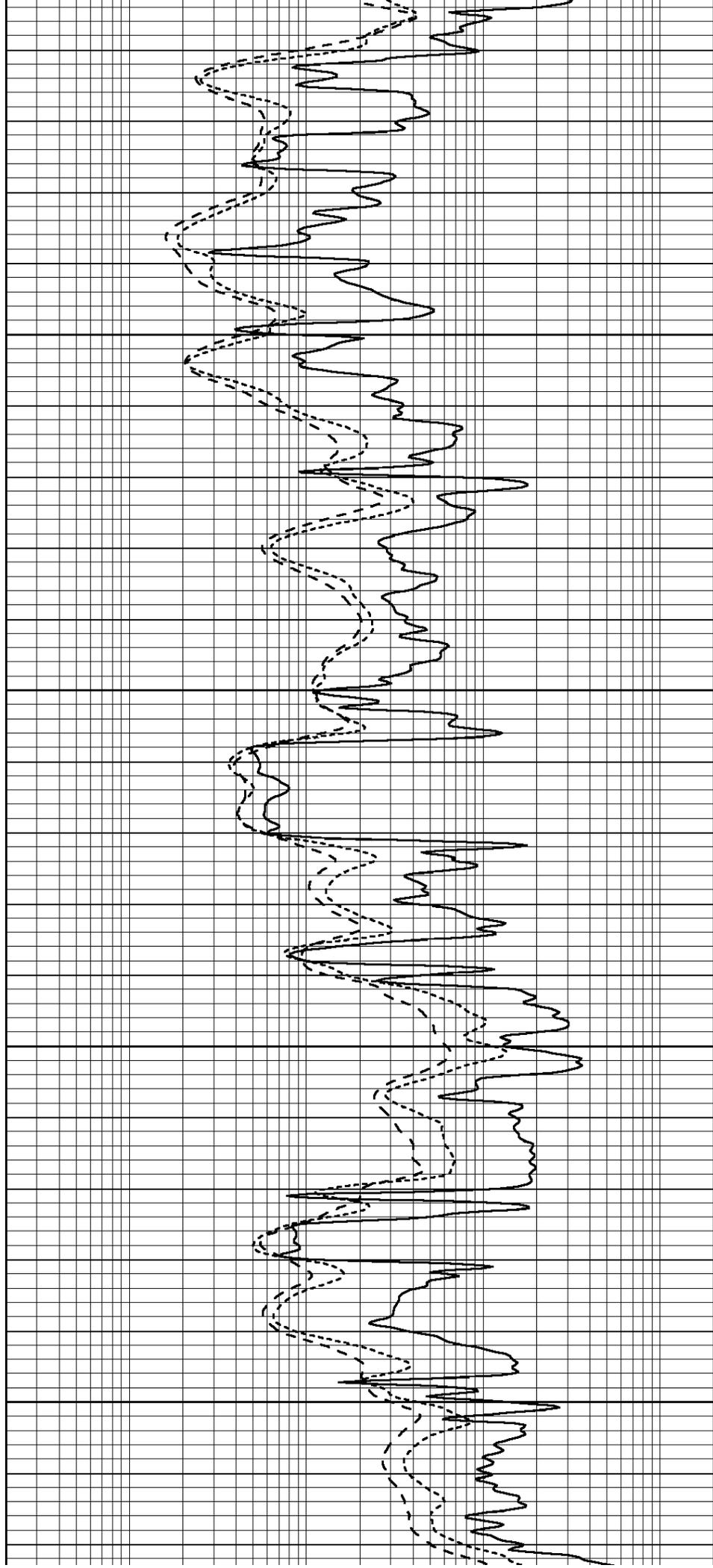


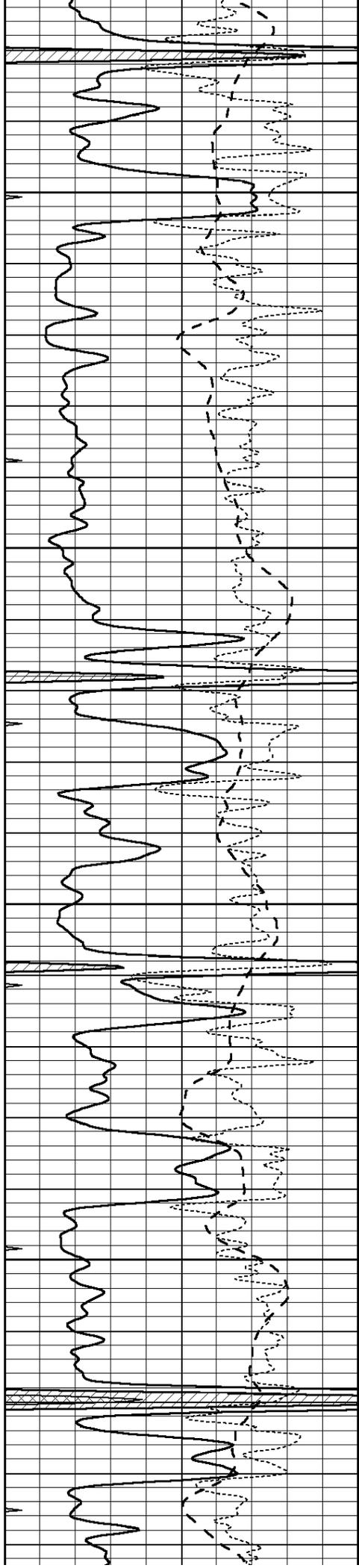
3900

3950

4000

4050



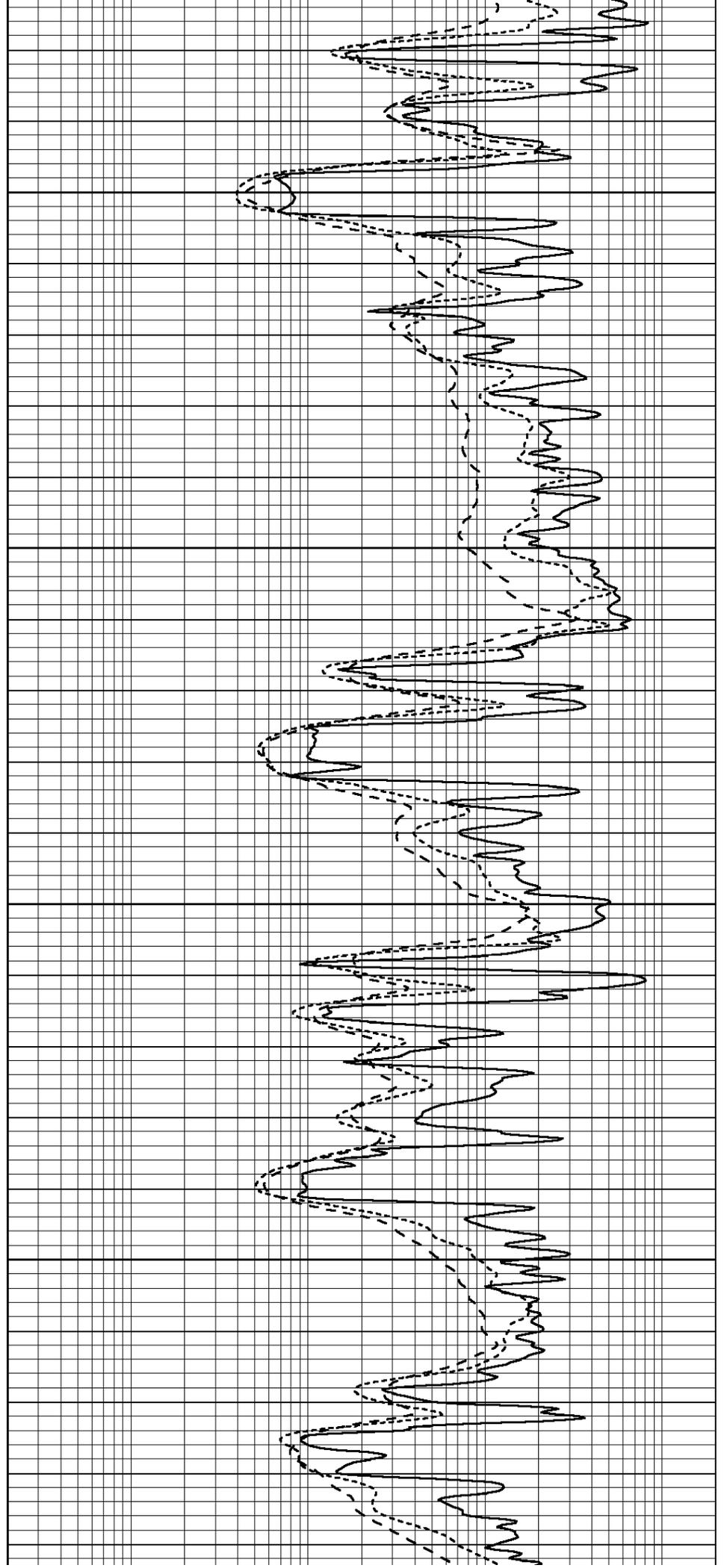


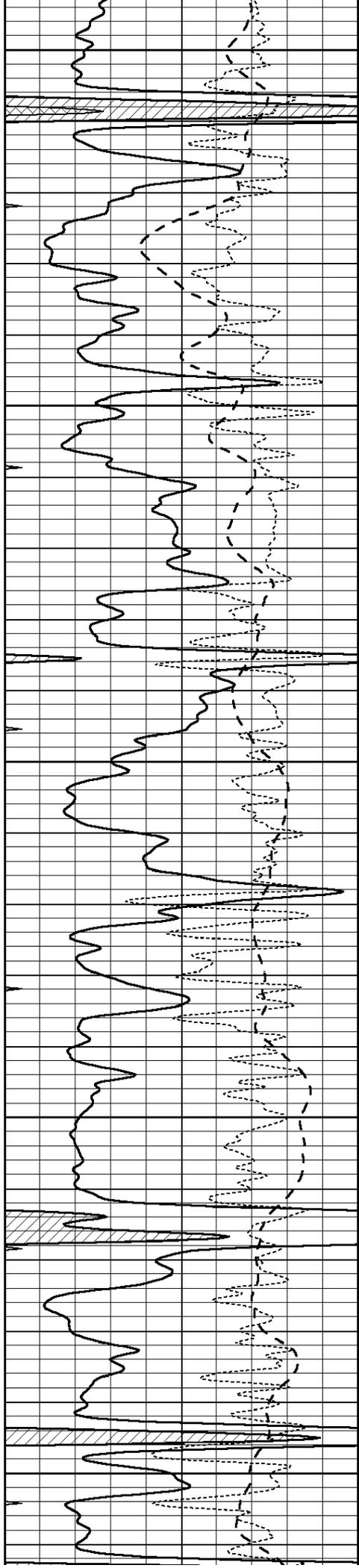
4100

4150

4200

4250





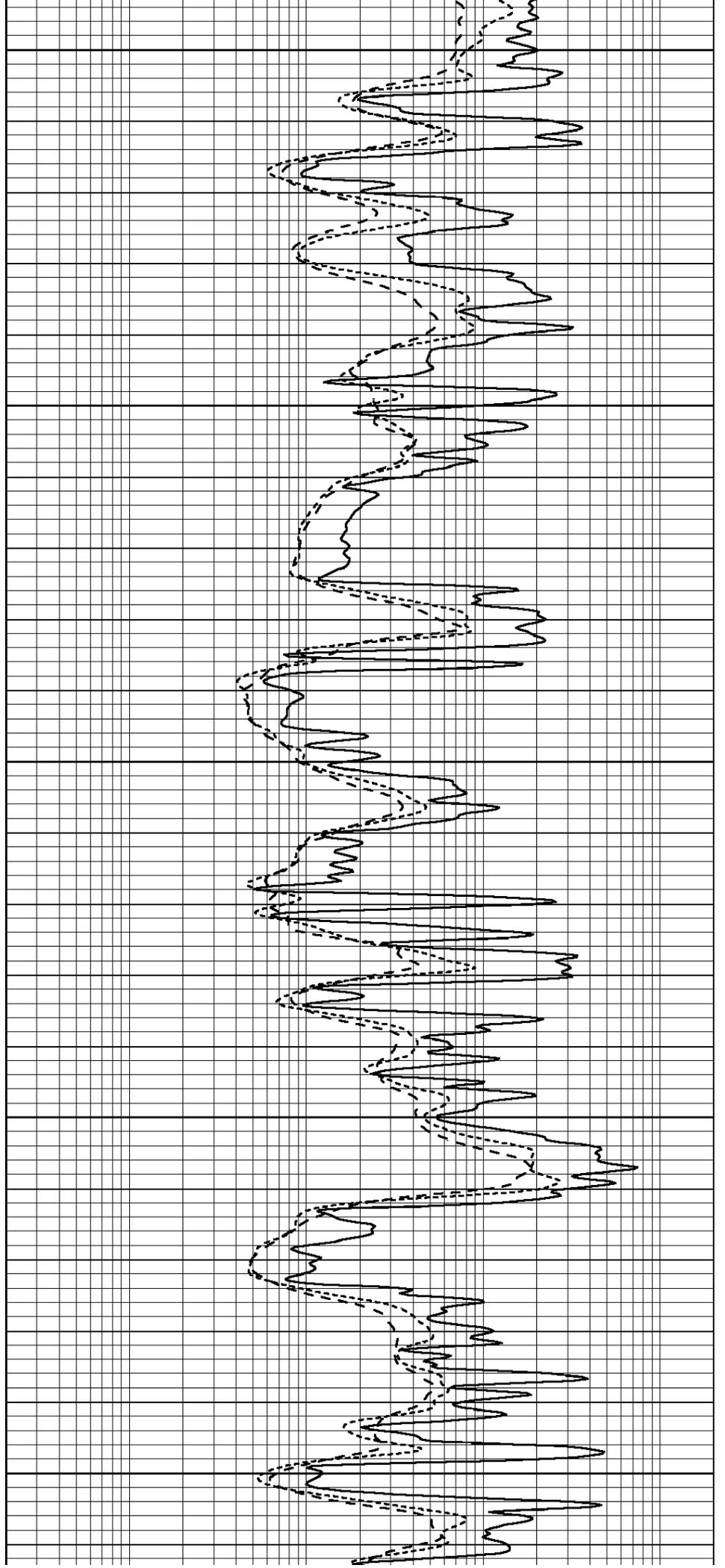
4300

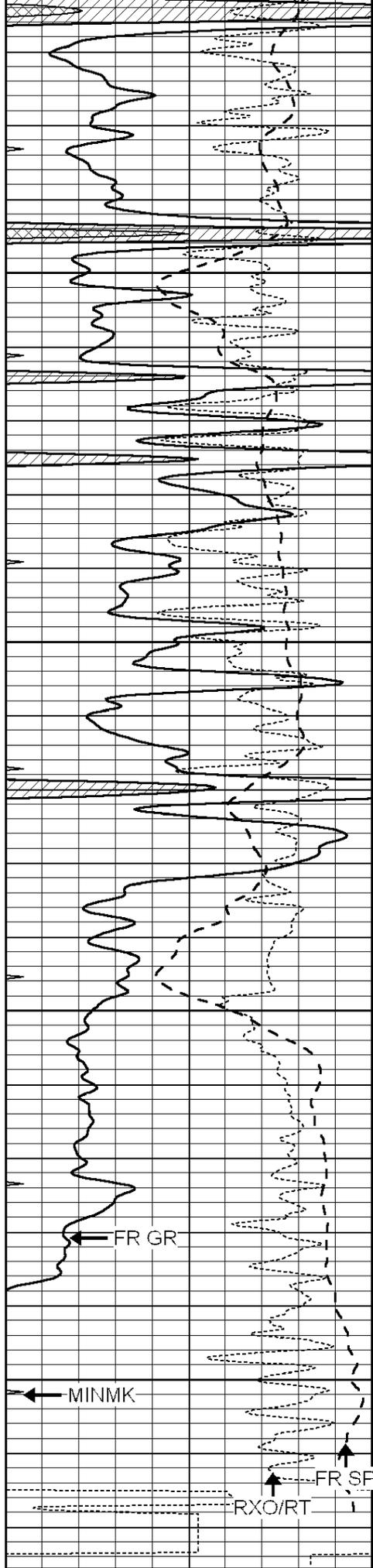
4350

4400

4450

4500





4550

4600

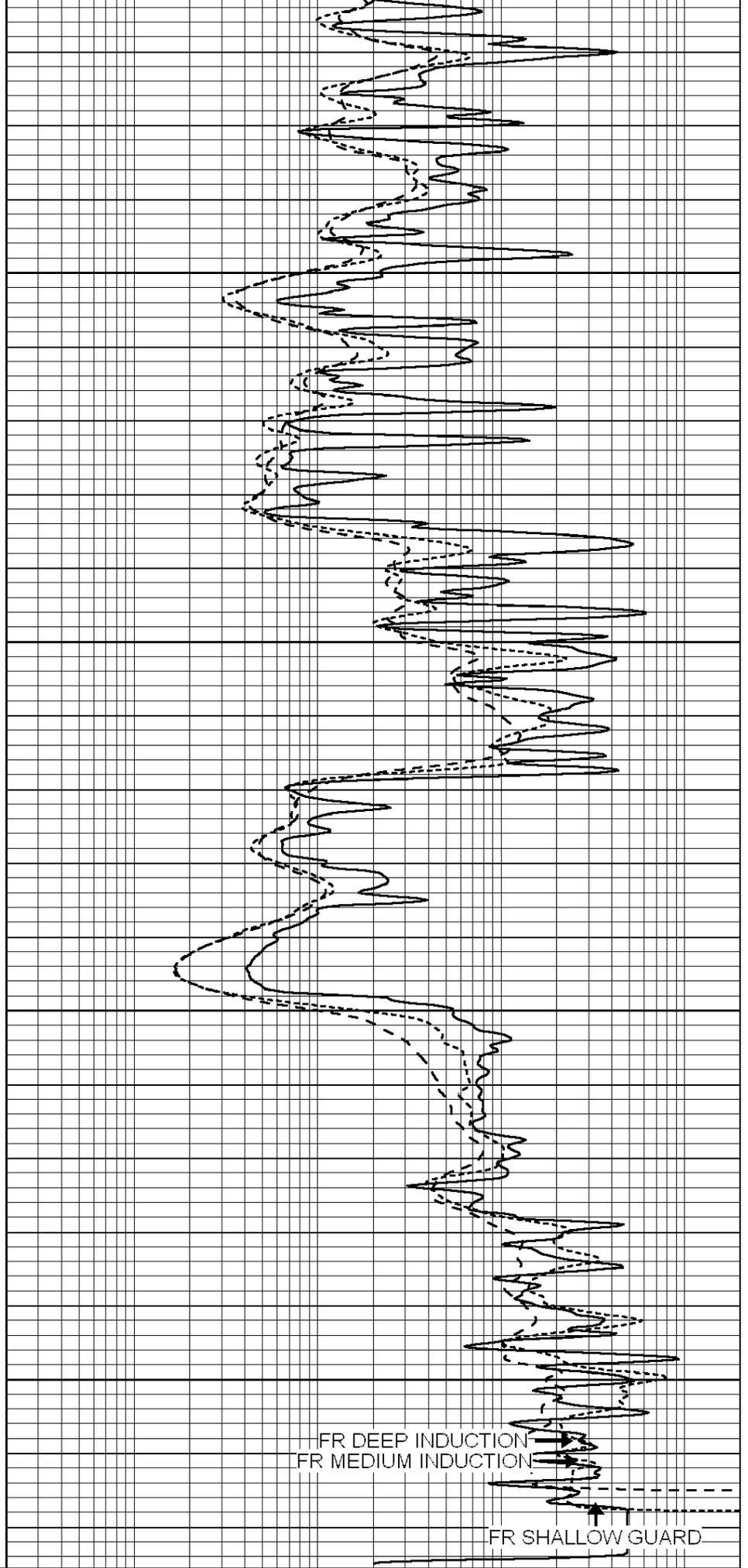
4650

4700

LTD 4719

0 GAMMA RAY (GAPI) 150

-100 SP (mV) 100

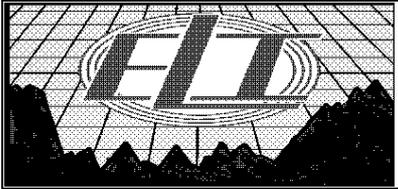


0.2 SHALLOW GUARD (Ohm-m) 2000

0.2 DEEP INDUCTION (Ohm-m) 2000

100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

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

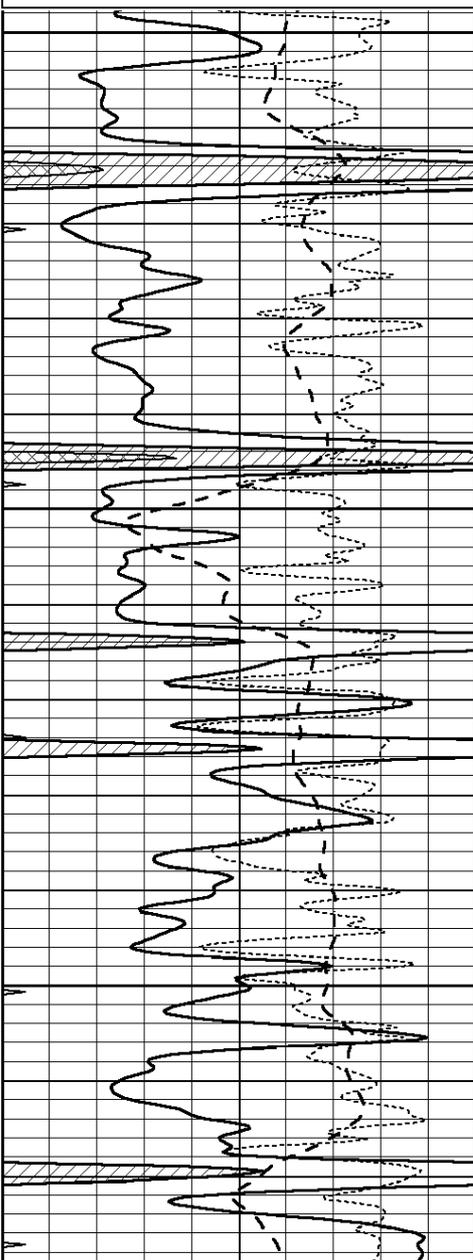


REPEAT SECTION

Database File: 3958pe.db
 Dataset Pathname: pass2.6
 Presentation Format: _dil
 Dataset Creation: Fri Aug 30 02:34:45 2019 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

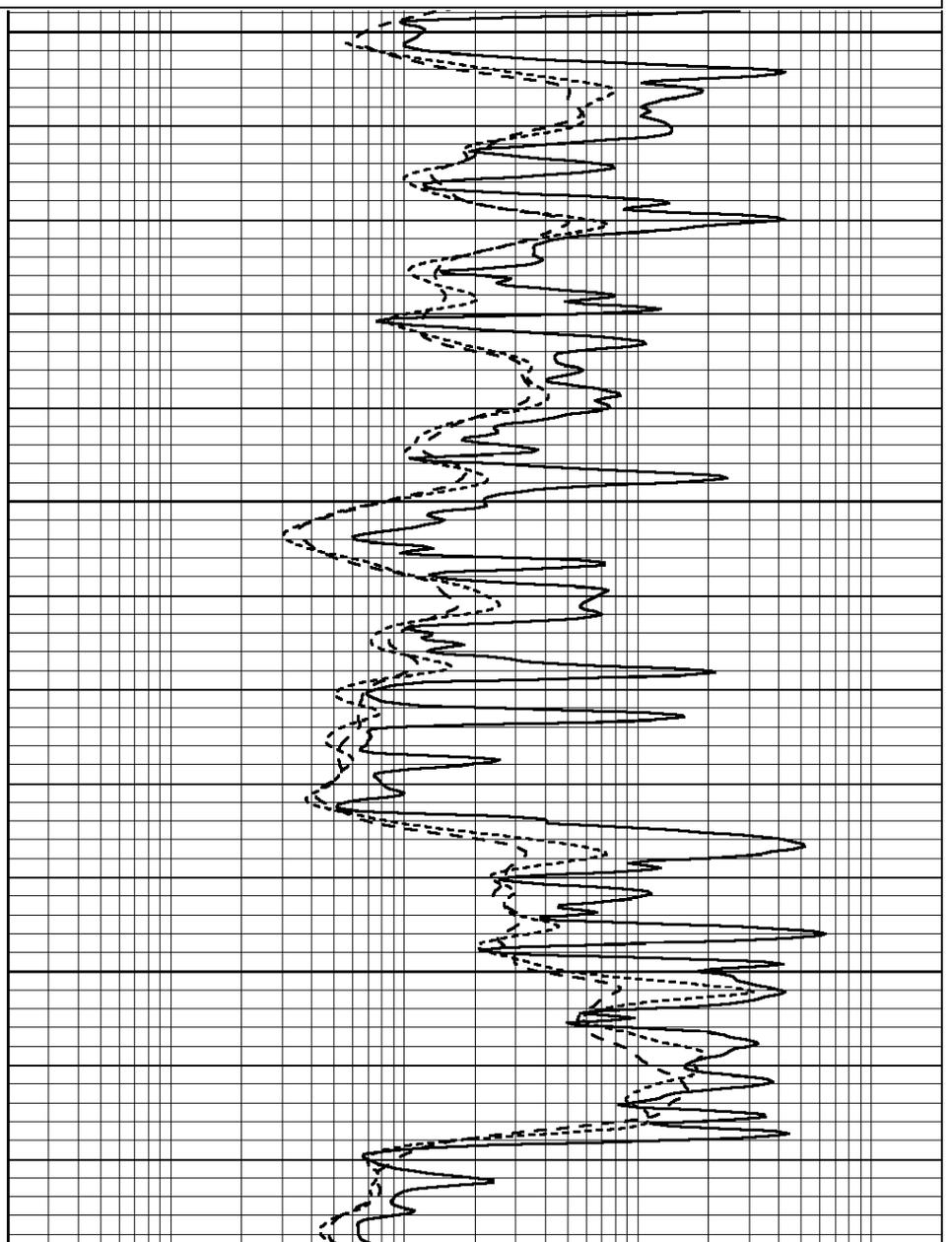
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

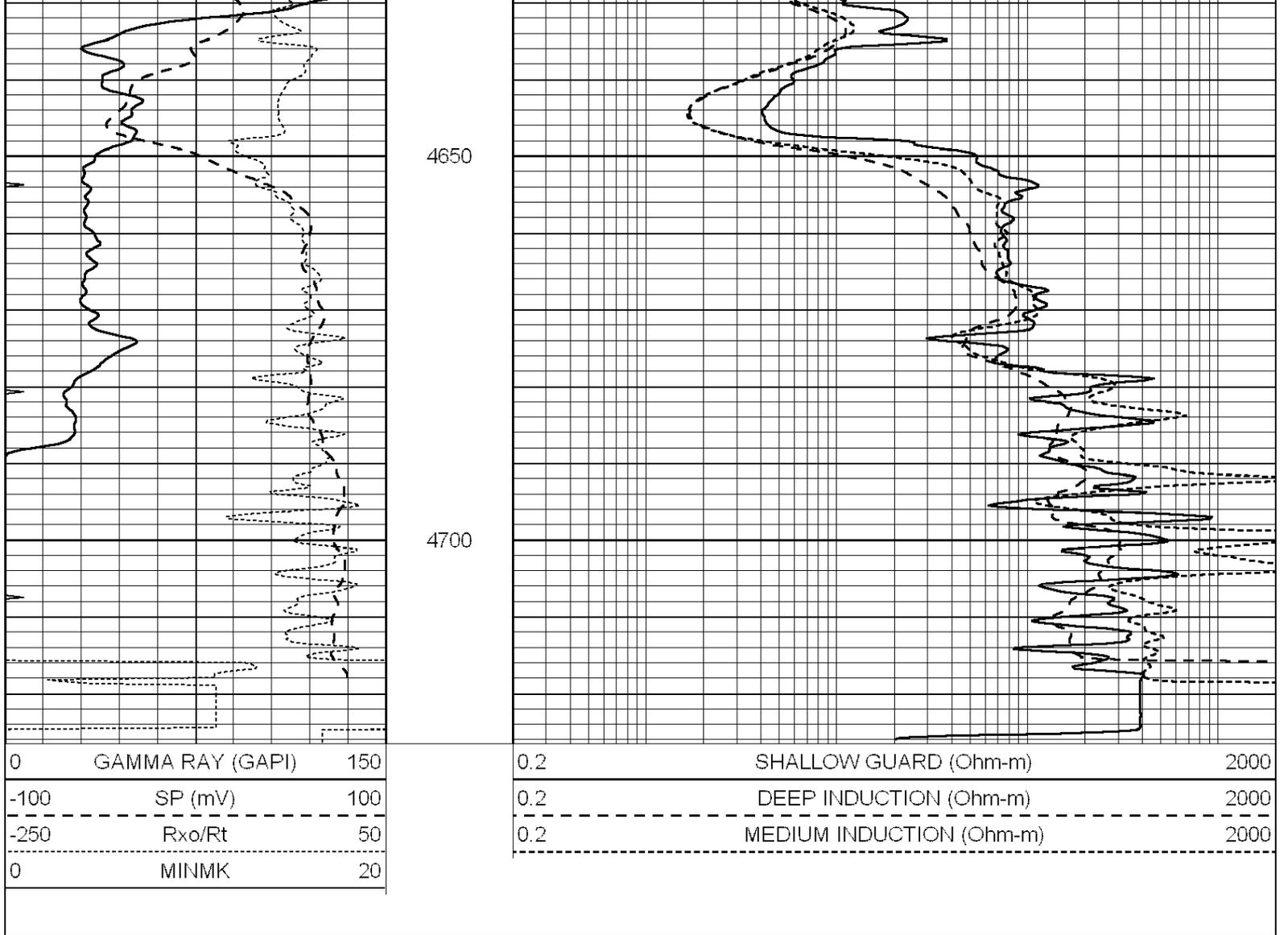


4500

4550

4600





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
 After Survey Verification Performed: Mon Jul 28 12:02:56 2008

Surface Calibration

Loop:	Readings				References		Results	
	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					
	Background	Magnesium	Aluminum	Sandstone			
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					
	Background	Magnesium	Aluminum	Sandstone			
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