



DUAL INDUCTION LOG

Company CHIZUM OIL, LLC.
 Well STARKEY TRUST #1-34
 Field UNNAMED
 County THOMAS State KANSAS

Location: API #: 15-193-21112-0000
 1100' FNL & 1680' FWL
 SEC 34 TWP 8S RGE 36W
 Permanent Datum GROUND LEVEL Elevation 3394
 Log Measured From KELLY BUSHING 5' A.G.L
 Drilling Measured From KELLY BUSHING
 Other Services CDL/CNL MEL
 Elevation K.B. 3399 D.F. 3397 G.L. 3394

Date	12/15/22
Run Number	ONE
Depth Driller	4860
Depth Logger	4862
Bottom Logged Interval	4860
Top Log Interval	00
Casing Driller	8 5/8" @ 335
Casing Logger	335
Bit Size	7 7/8
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.5/49
PH / Fluid Loss	10.0/9.6
Source of Sample	FLOWLINE
Rm @ Meas. Temp	.700 @ 80F
Rmt @ Meas. Temp	.525 @ 80F
Rmc @ Meas. Temp	.840 @ 80F
Source of Rmf / Rmc	MEASUREMENT
Rm @ BHT	.452 @ 124F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	4:30 A.M.
Maximum Recorded Temperature	124F
Equipment Number	3802
Location	HAYS, KANSAS
Recorded By	COLE ROBBEN
Witnessed By	TIM PRIEST

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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 SERVICES, HAYS, KS. (785) 628-6395

DIRECTIONS:
 FROM I70/BREWSTER GO SOUTH ON COUNTY ROAD 2 FOR TWO MILES TO CURVE, WEST TWO MILES, NORTH INTO

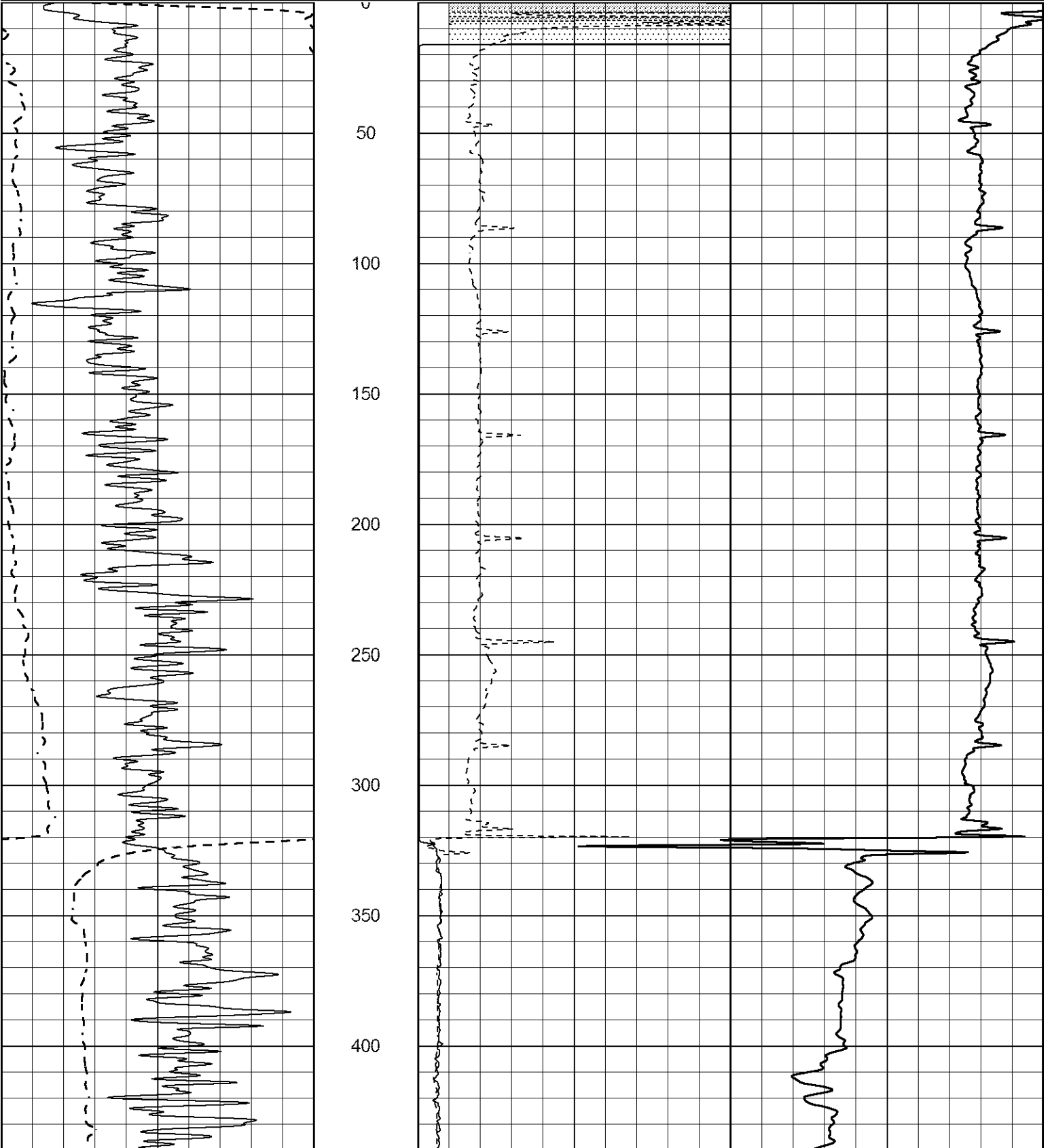


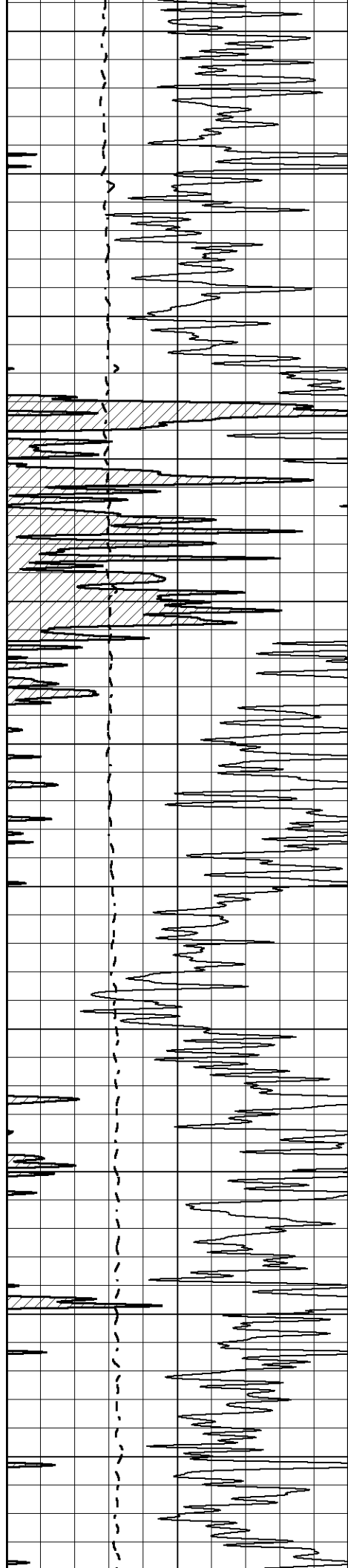
MAIN SECTION

Database File 7392pe.db
 Dataset Pathname pass3M
 Presentation Format _dil2
 Dataset Creation Thu Dec 15 07:03:57 2022
 Charted by Depth in Feet scaled 1:600

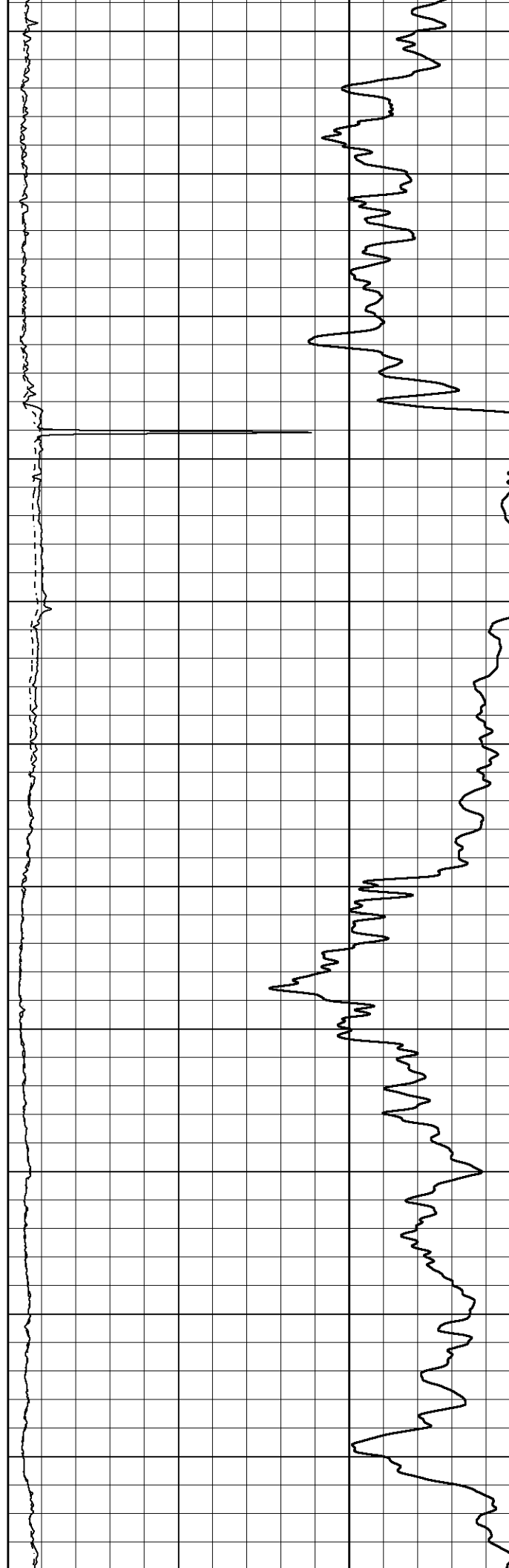
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 -100 SP (mV) 100

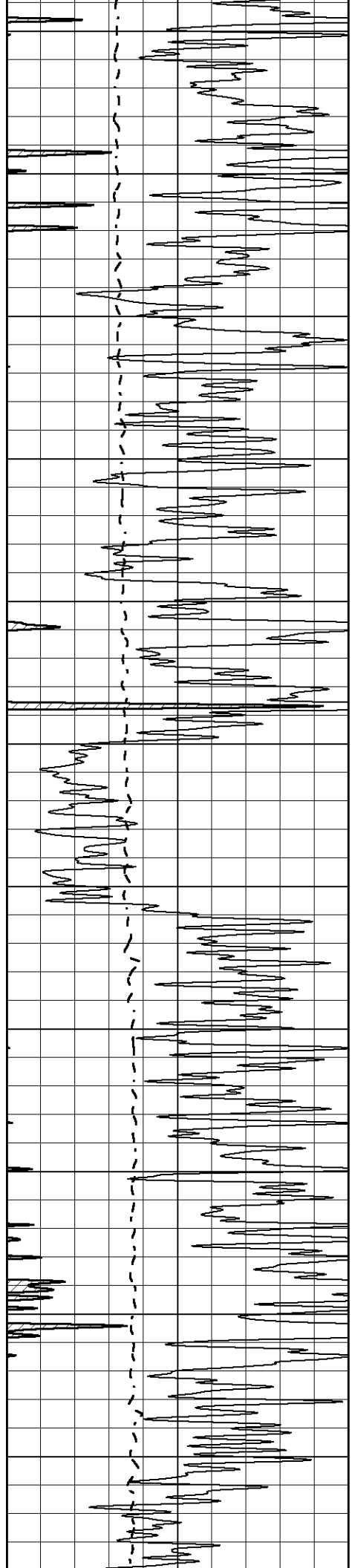
1000 CILD (mmho/m) 0
 0 RLL3 (Ohm-m) 50
 0 Deep Induction (Ohm-m) 50
 50 RILD X10 (Ohm-m) 500
 50 RLL3 X10 (Ohm-m) 500



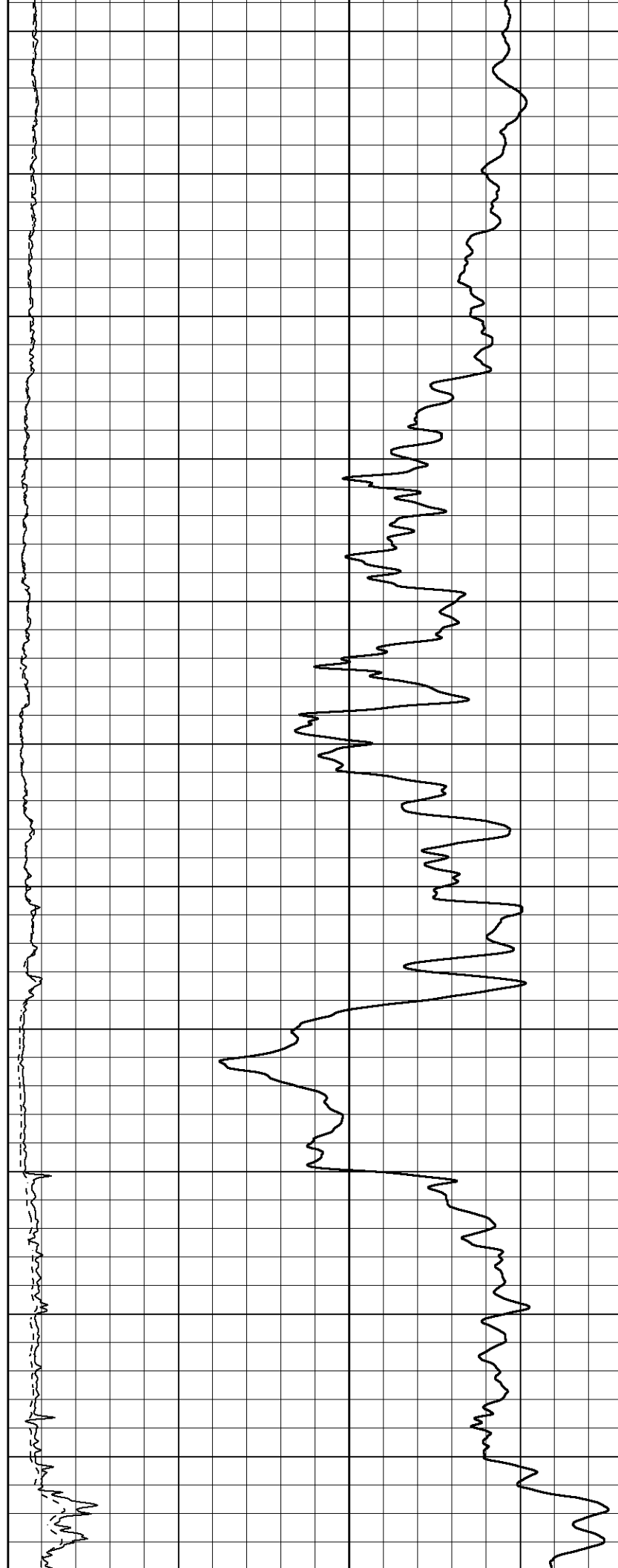


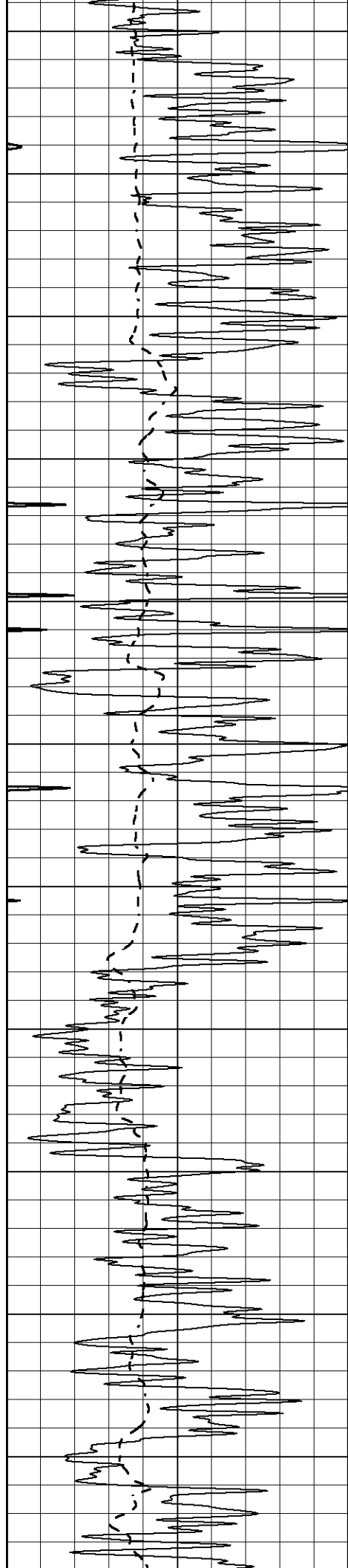
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1200
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1400
1450
1500





1550

1600

1650

1700

1750

1800

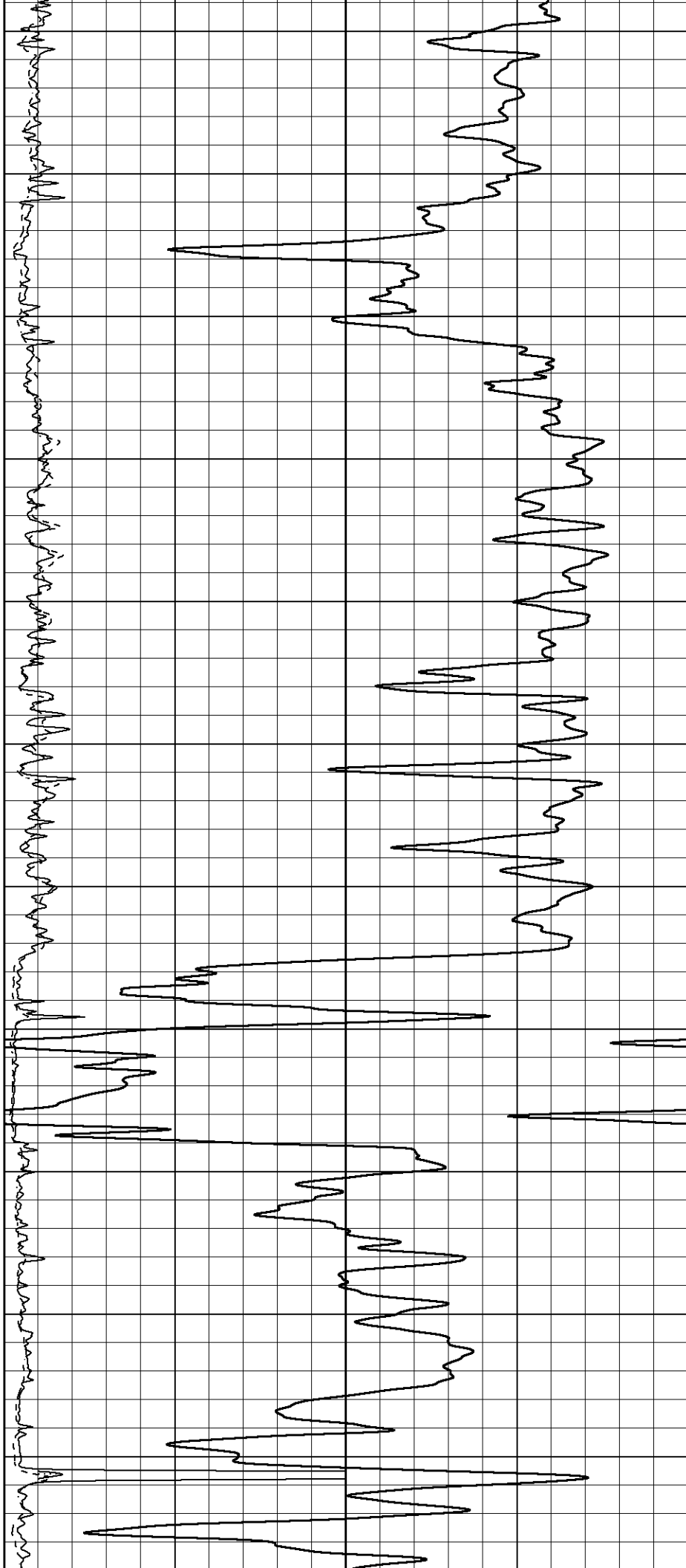
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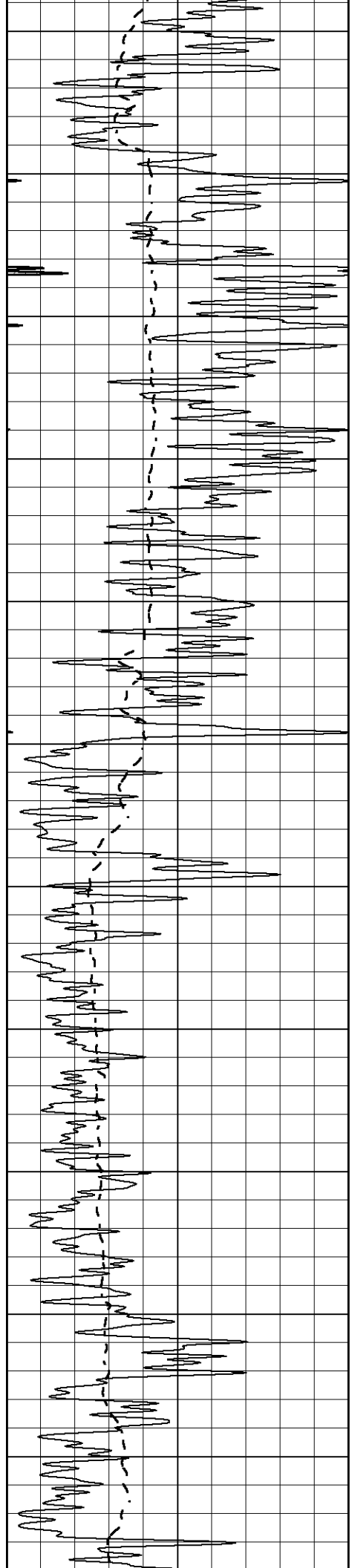
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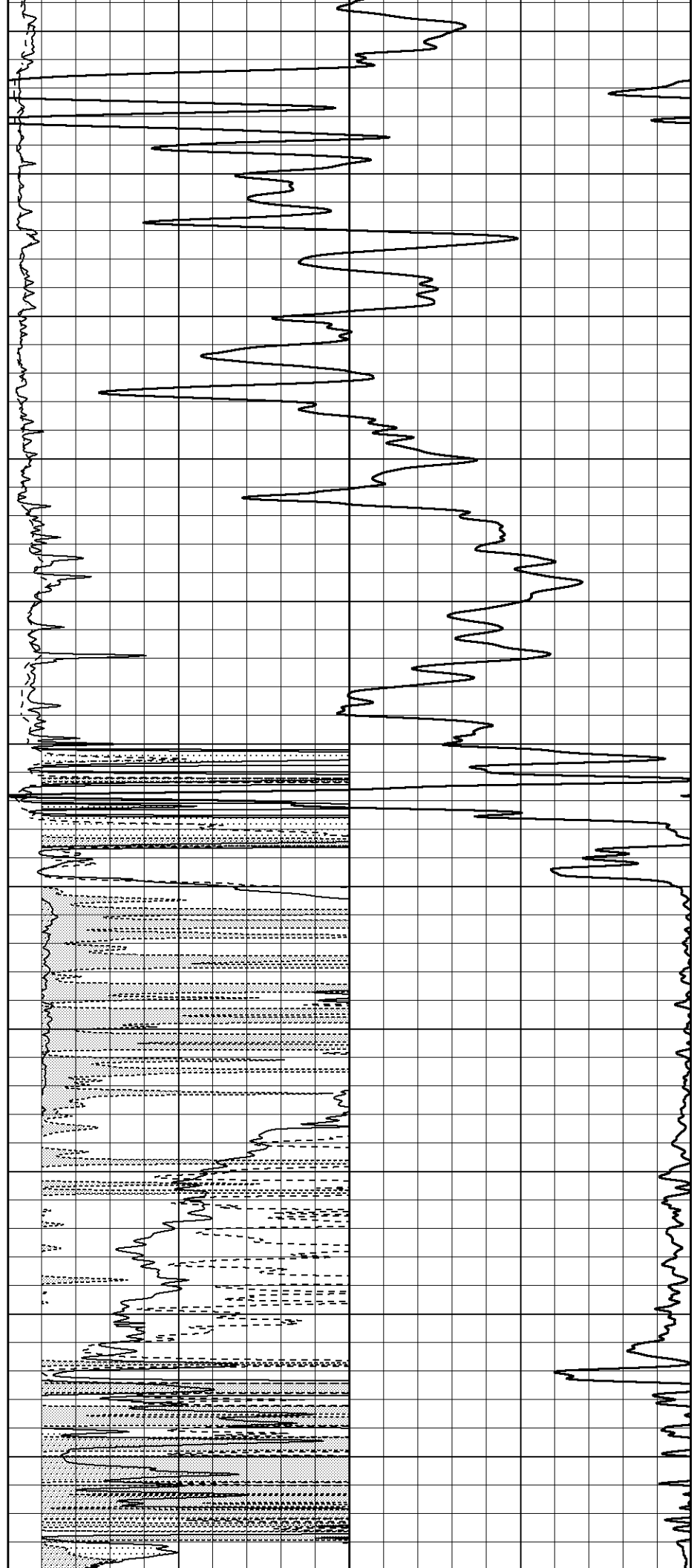
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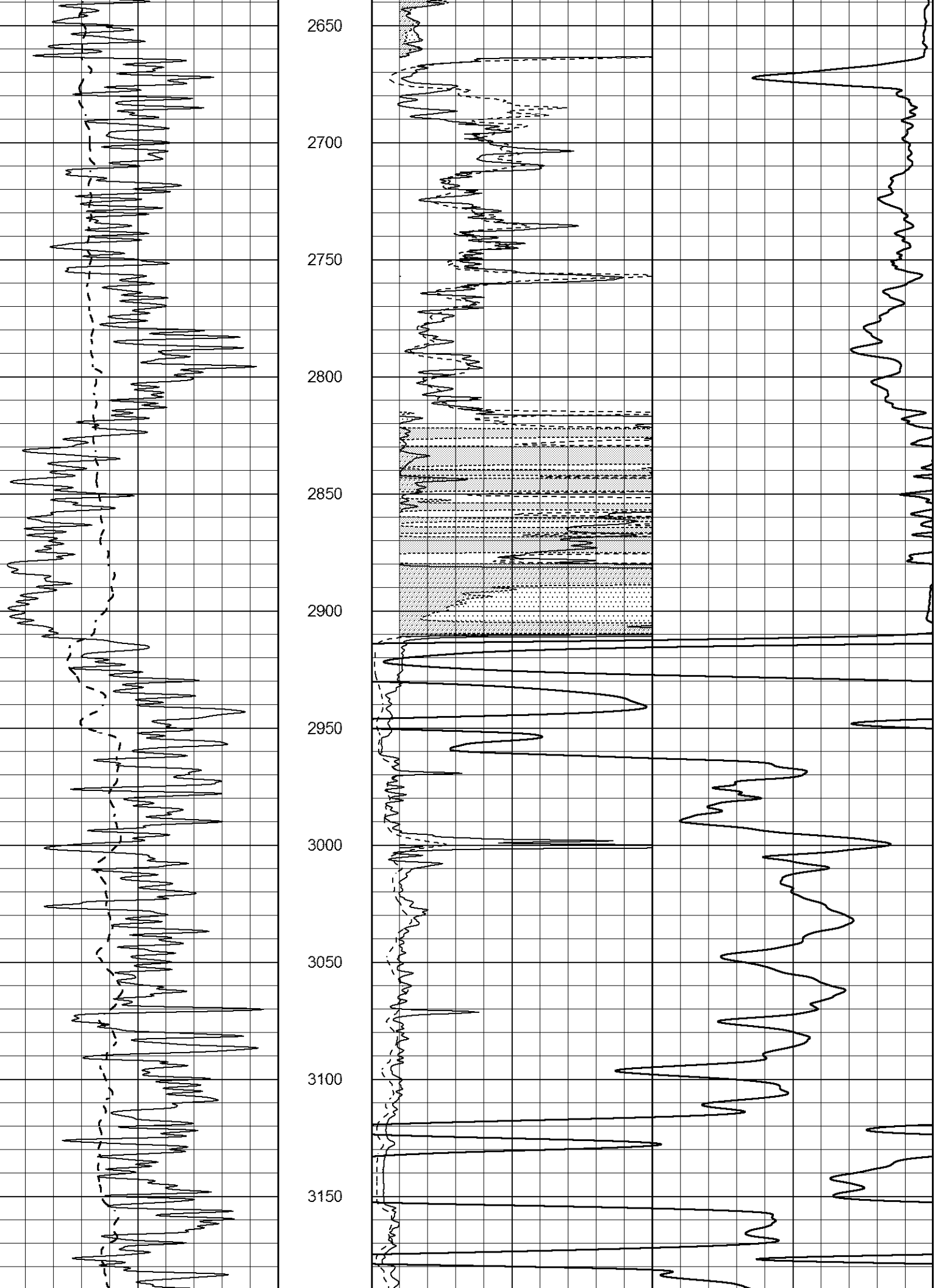
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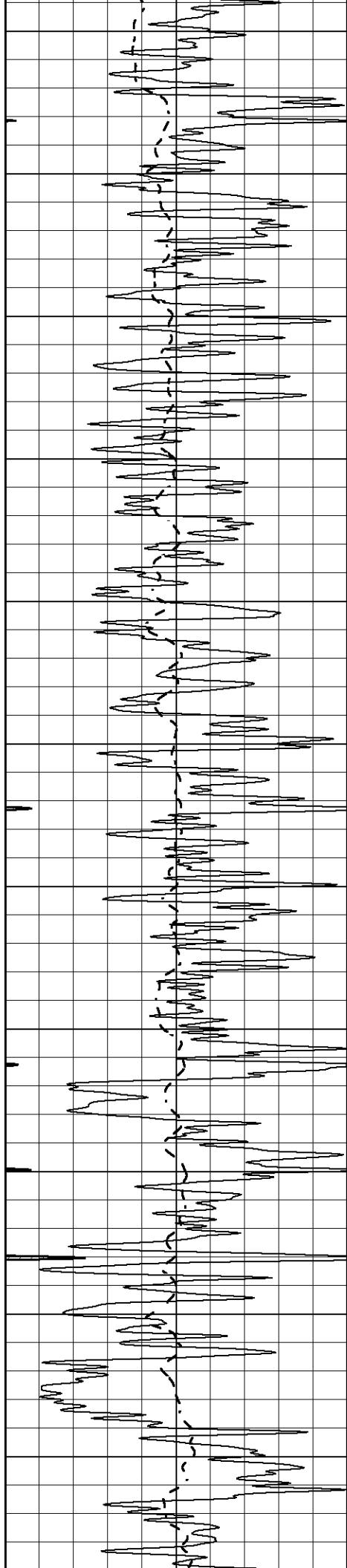




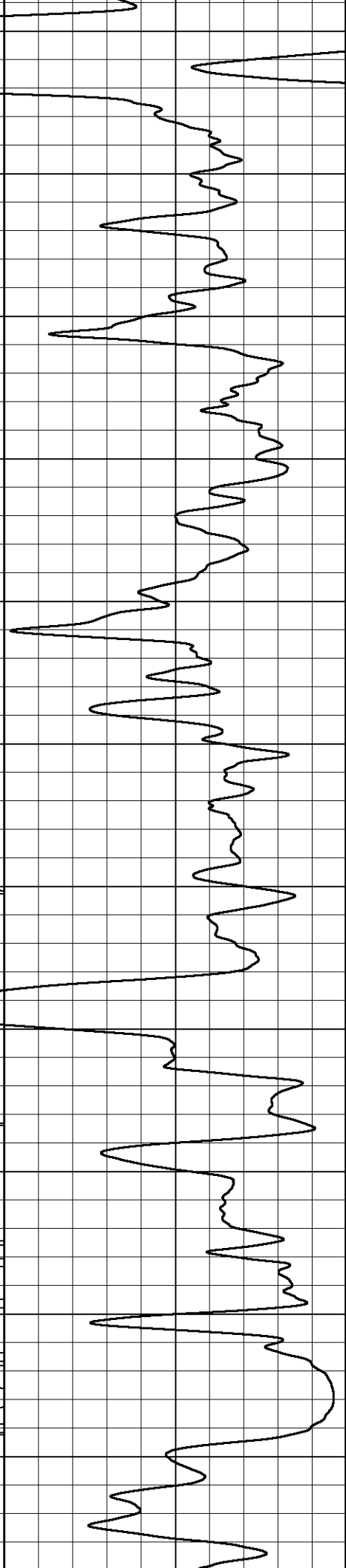
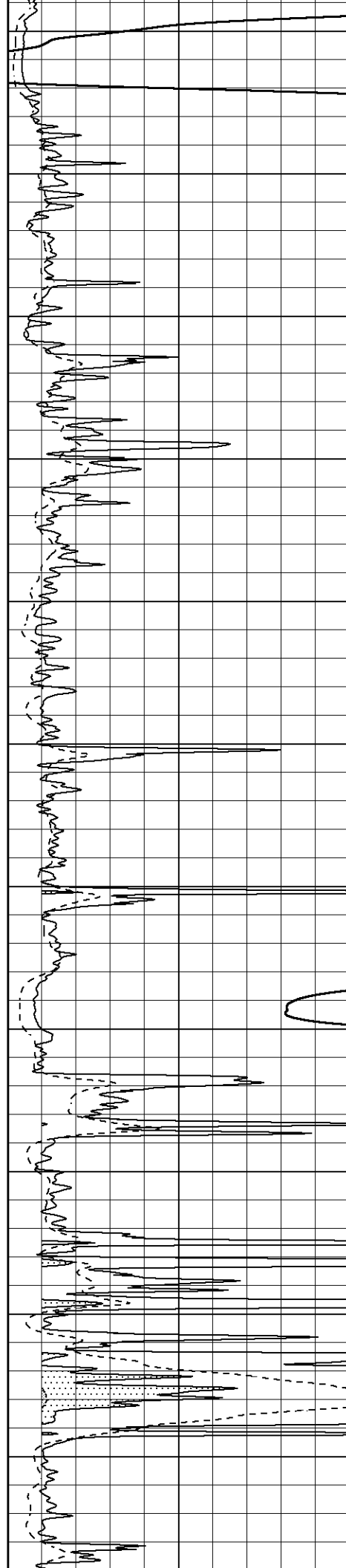
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2500
2550
2600

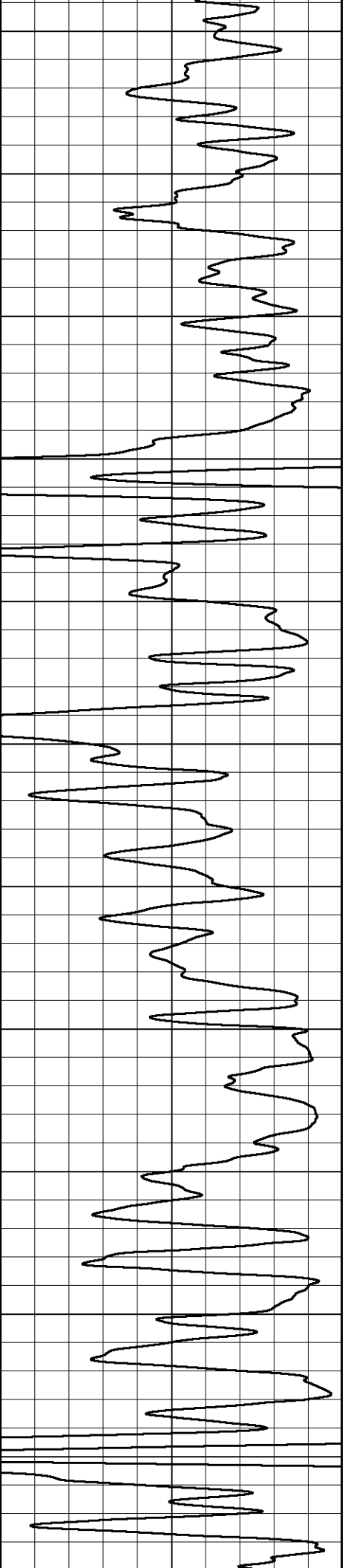
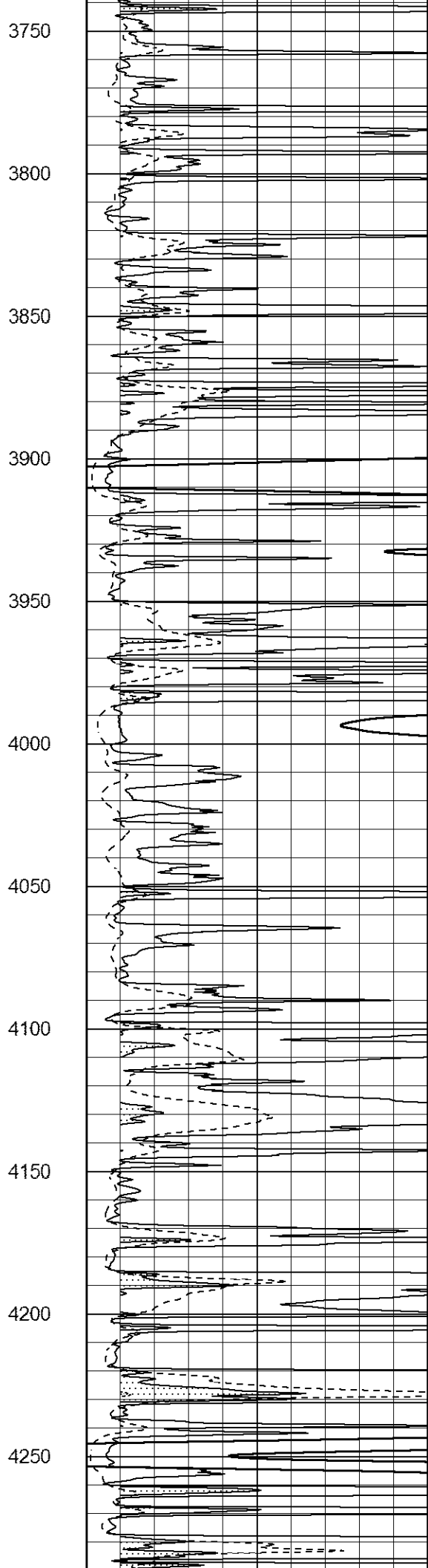
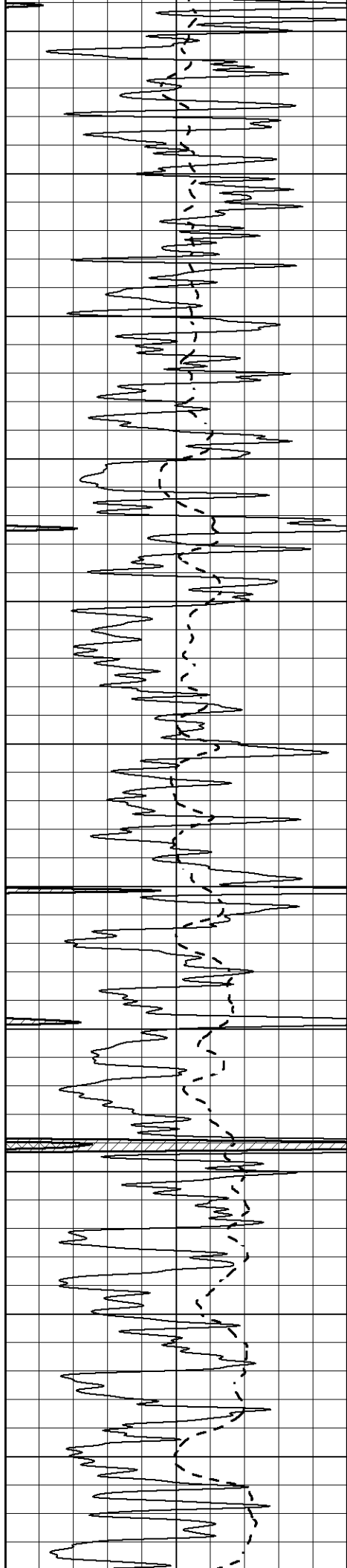


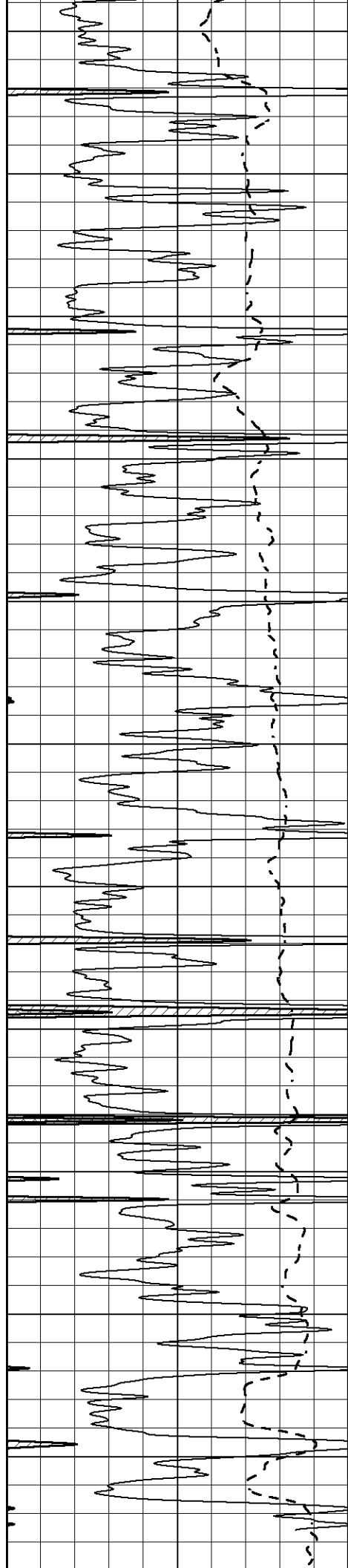




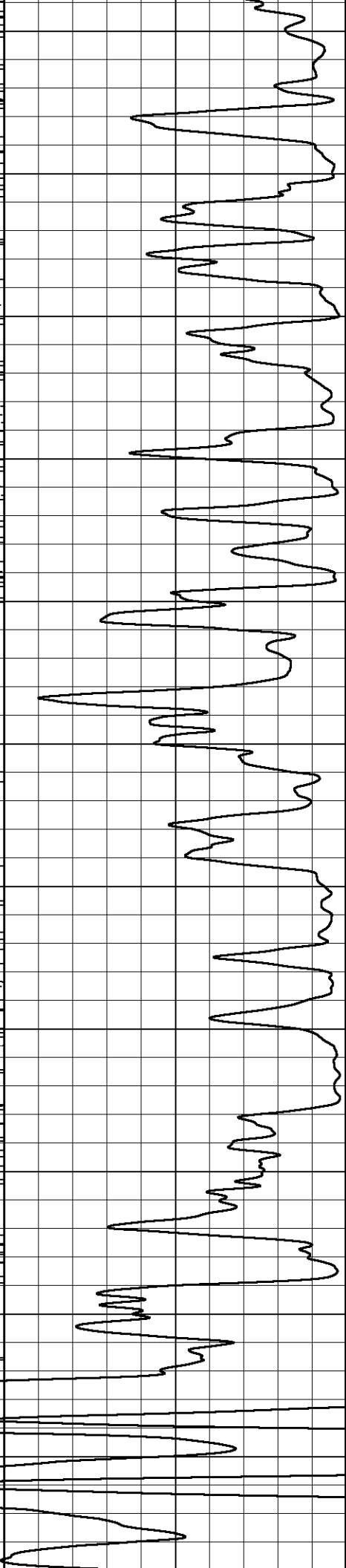
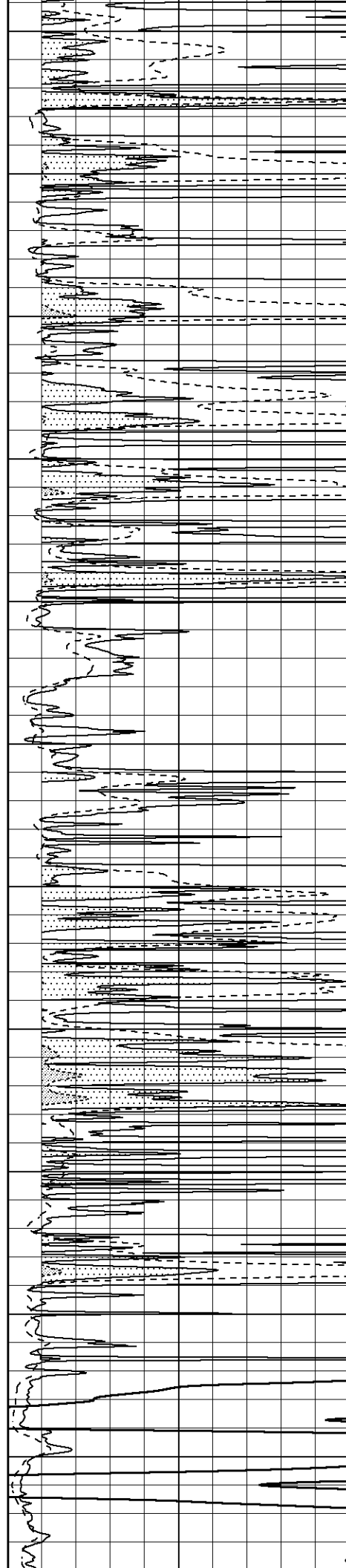
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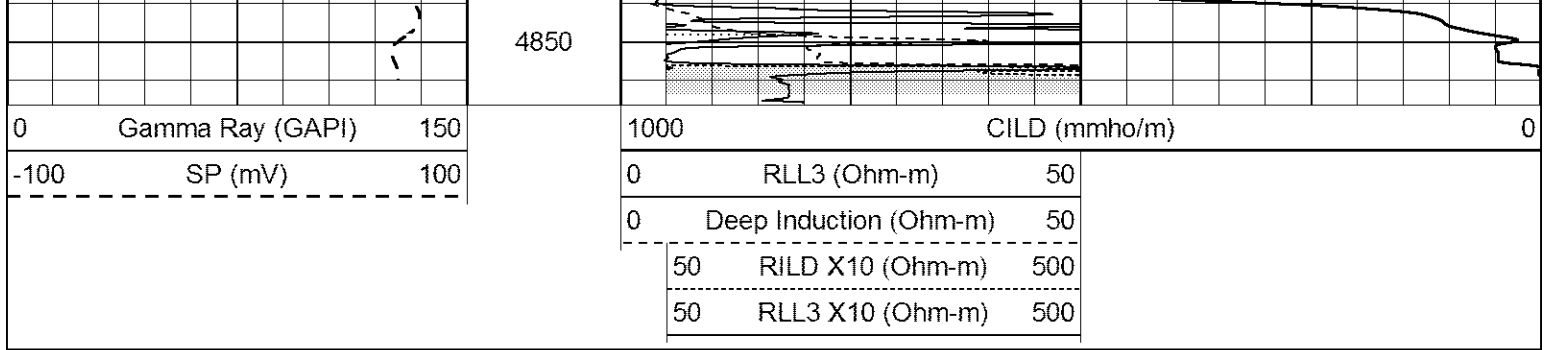






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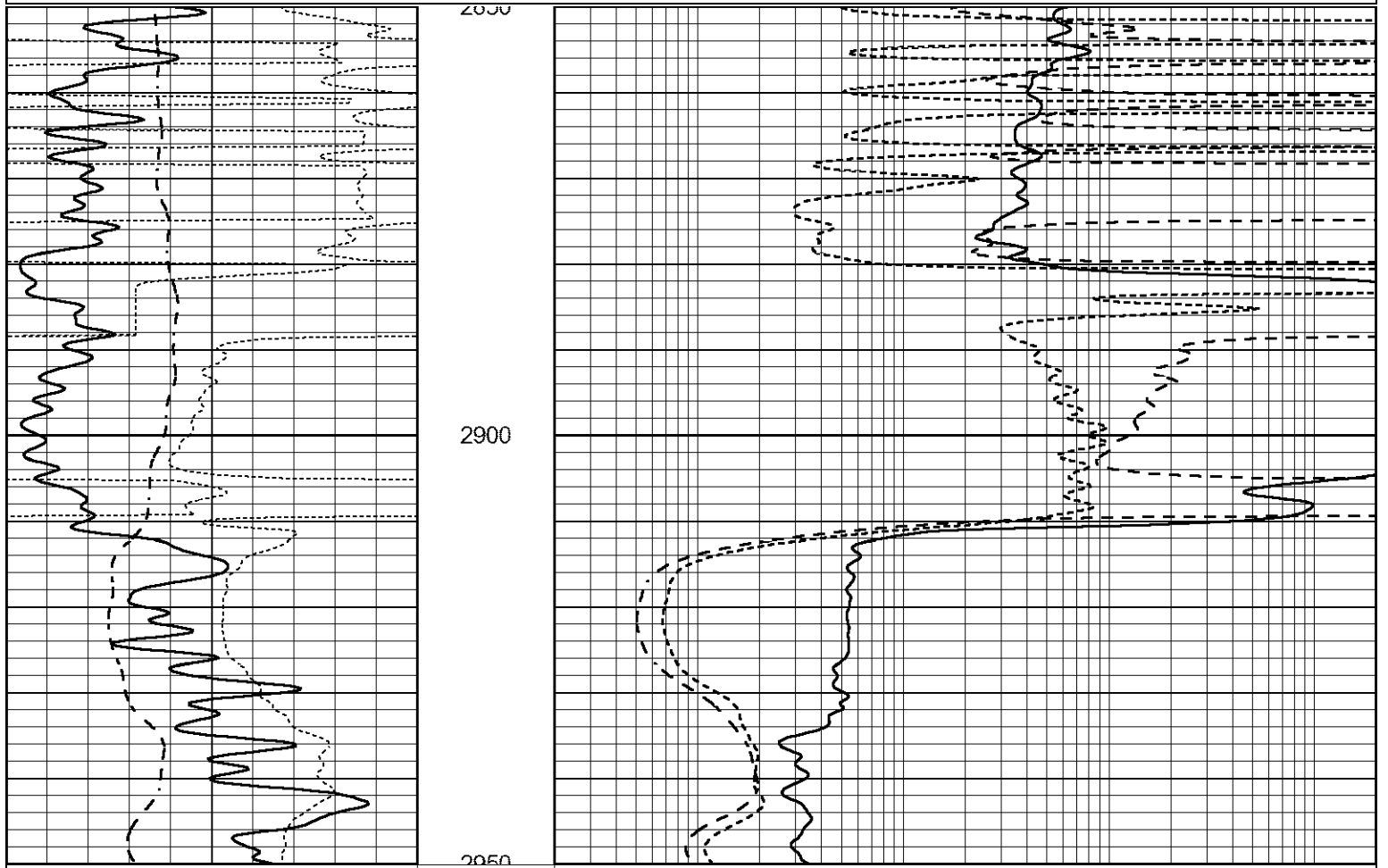




ANHYDRITE

Database File 7392pe.db
 Dataset Pathname pass3A
 Presentation Format _dil
 Dataset Creation Thu Dec 15 07:04:26 2022
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000
-100	SP (mV)	100	0.2	MEDIUM INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	DEEP INDUCTION (Ohm-m)	2000



0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000
-100	SP (mV)	100	0.2	MEDIUM INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	DEEP INDUCTION (Ohm-m)	2000

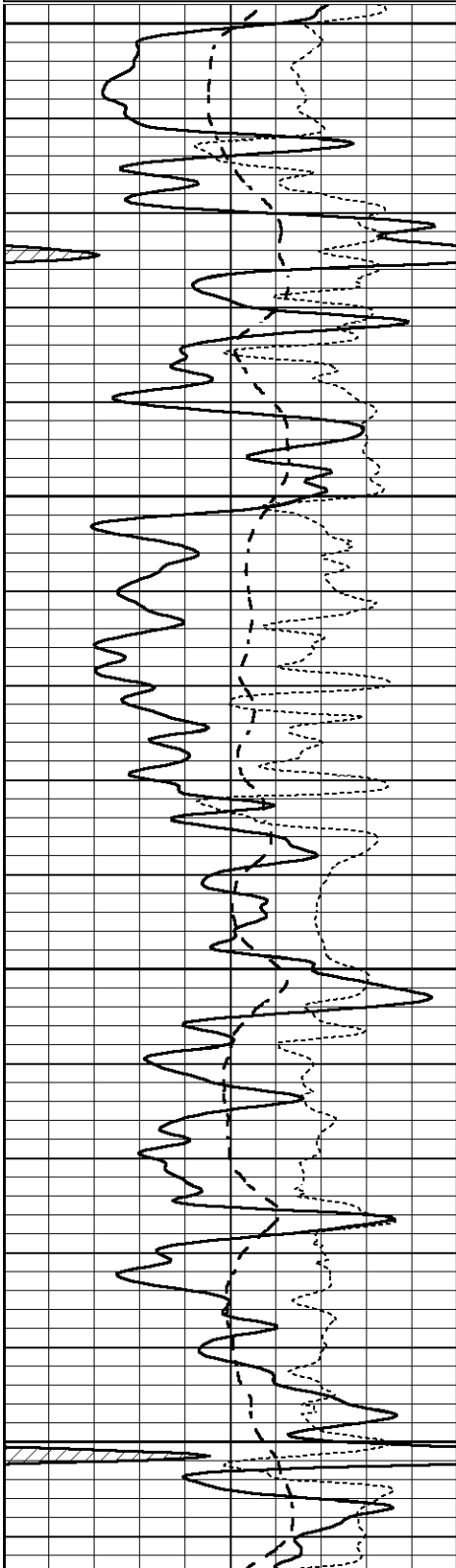


MAIN SECTION

Database File 7392pe.db
Dataset Pathname pass3d
Presentation Format _dil
Dataset Creation Thu Dec 15 06:07:04 2022
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

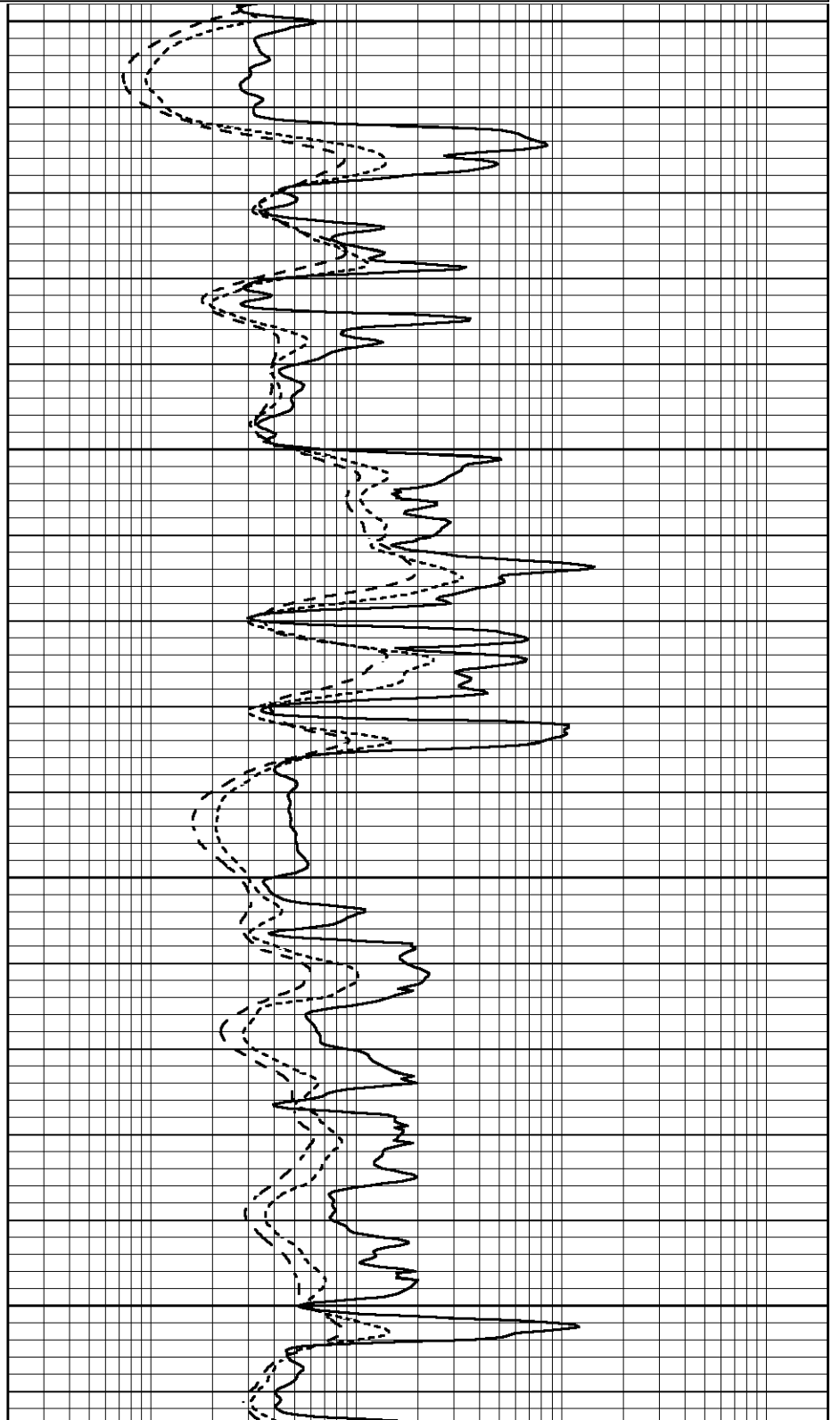


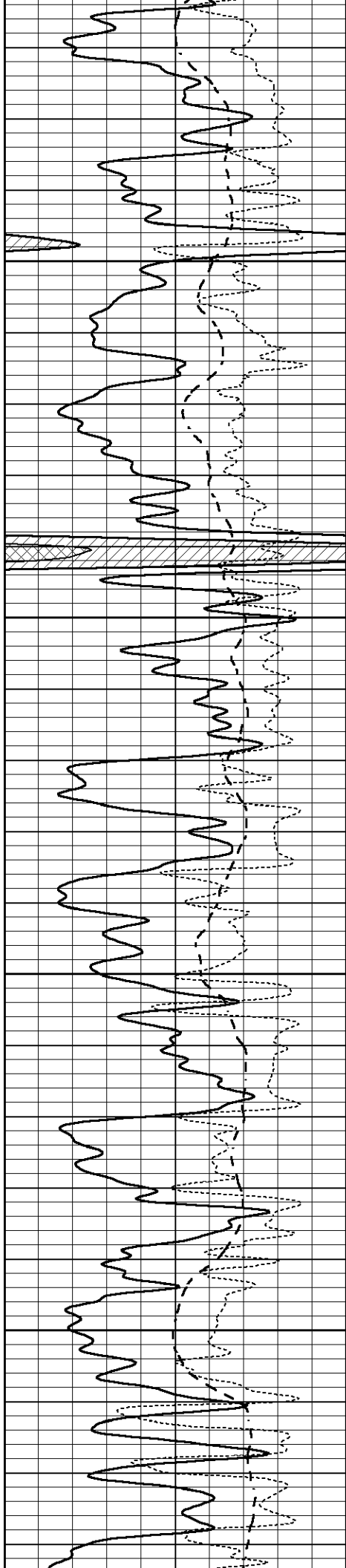
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3950

4000

4050



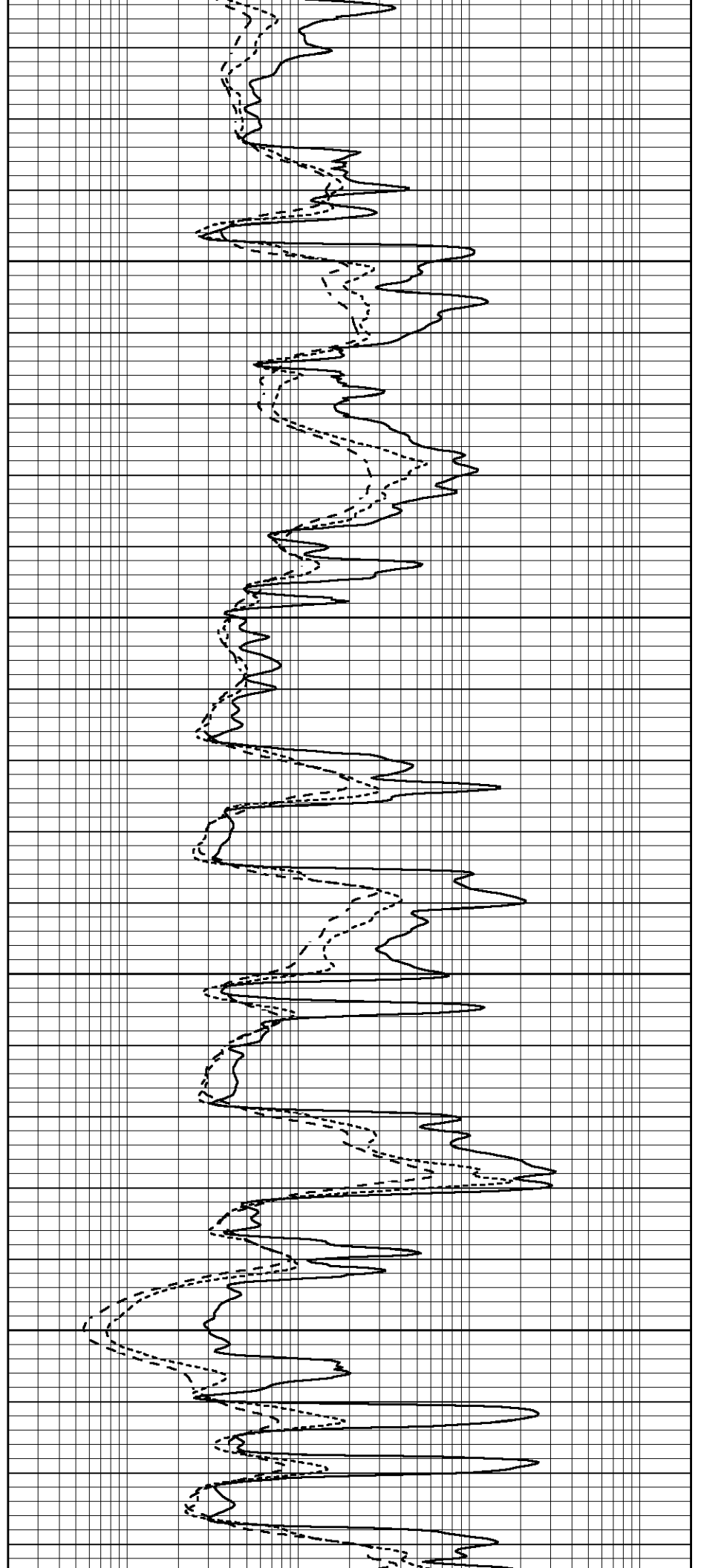


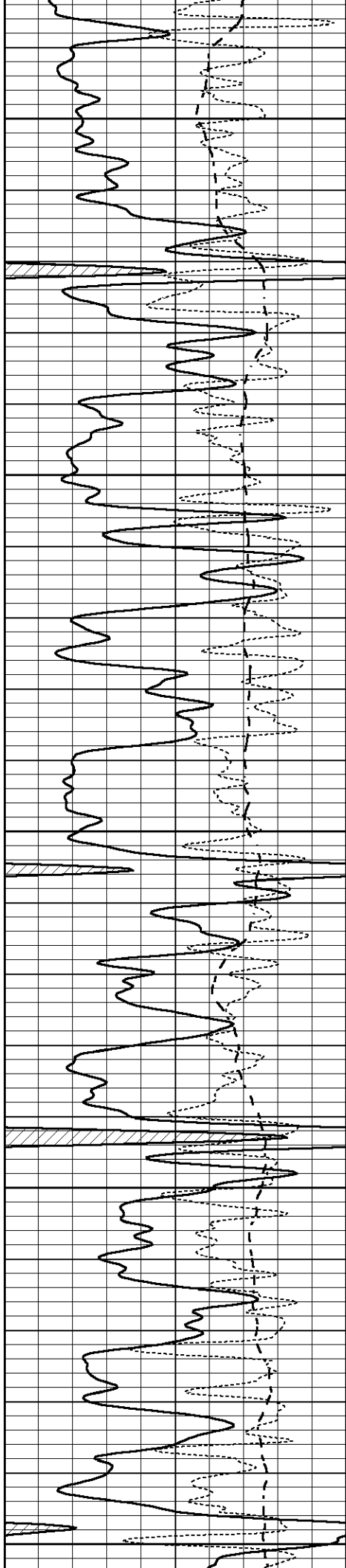
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4150

4200

4250





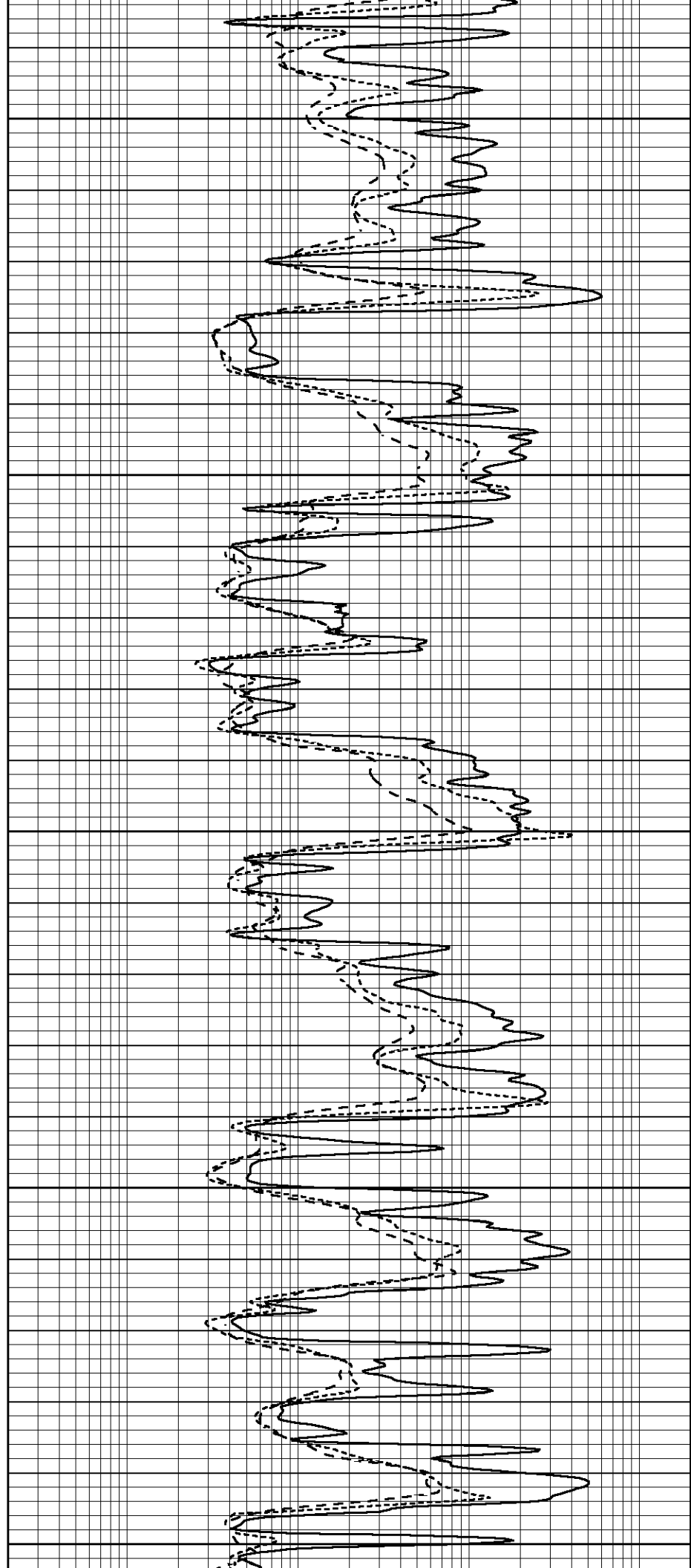
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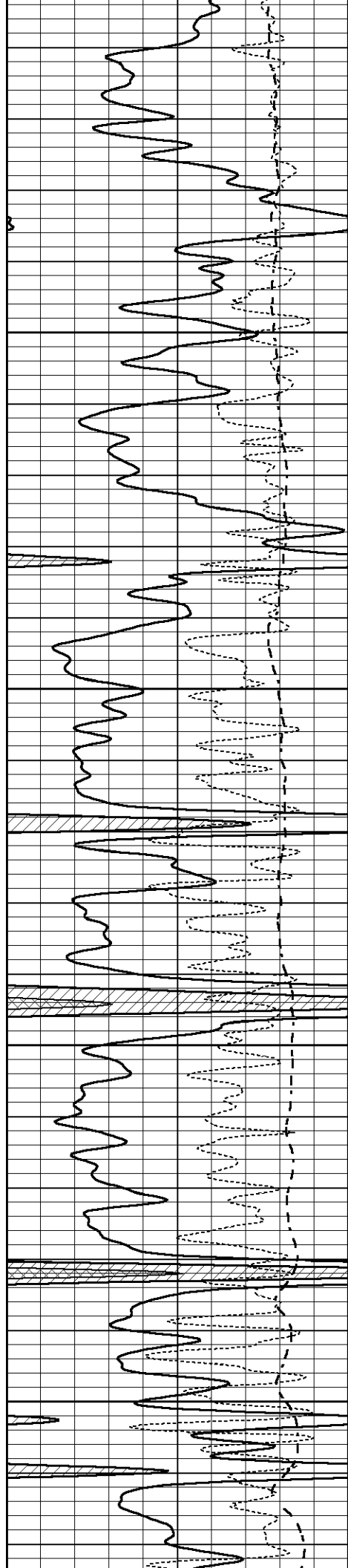
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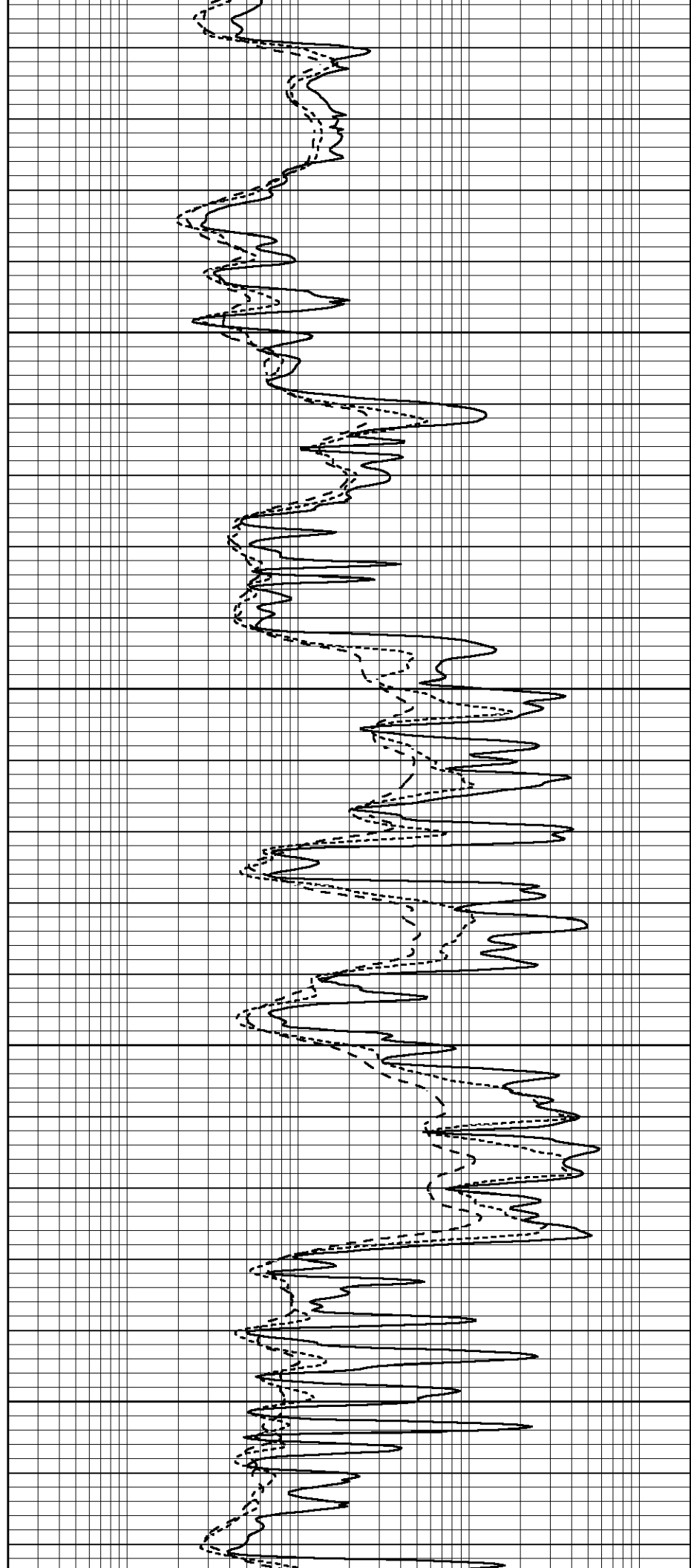


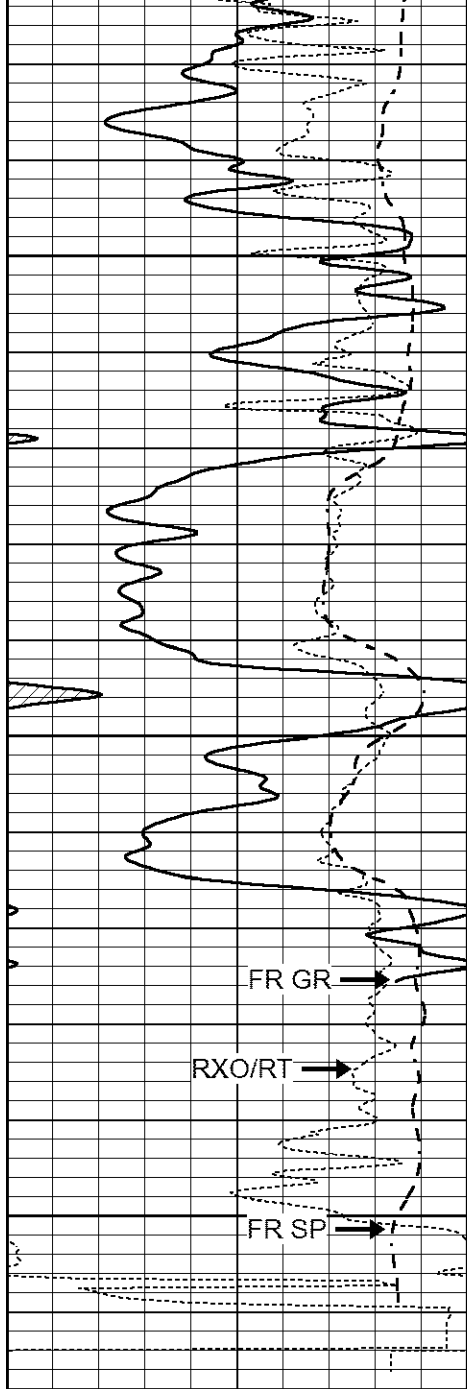
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4600

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4700





4750

4800

4850

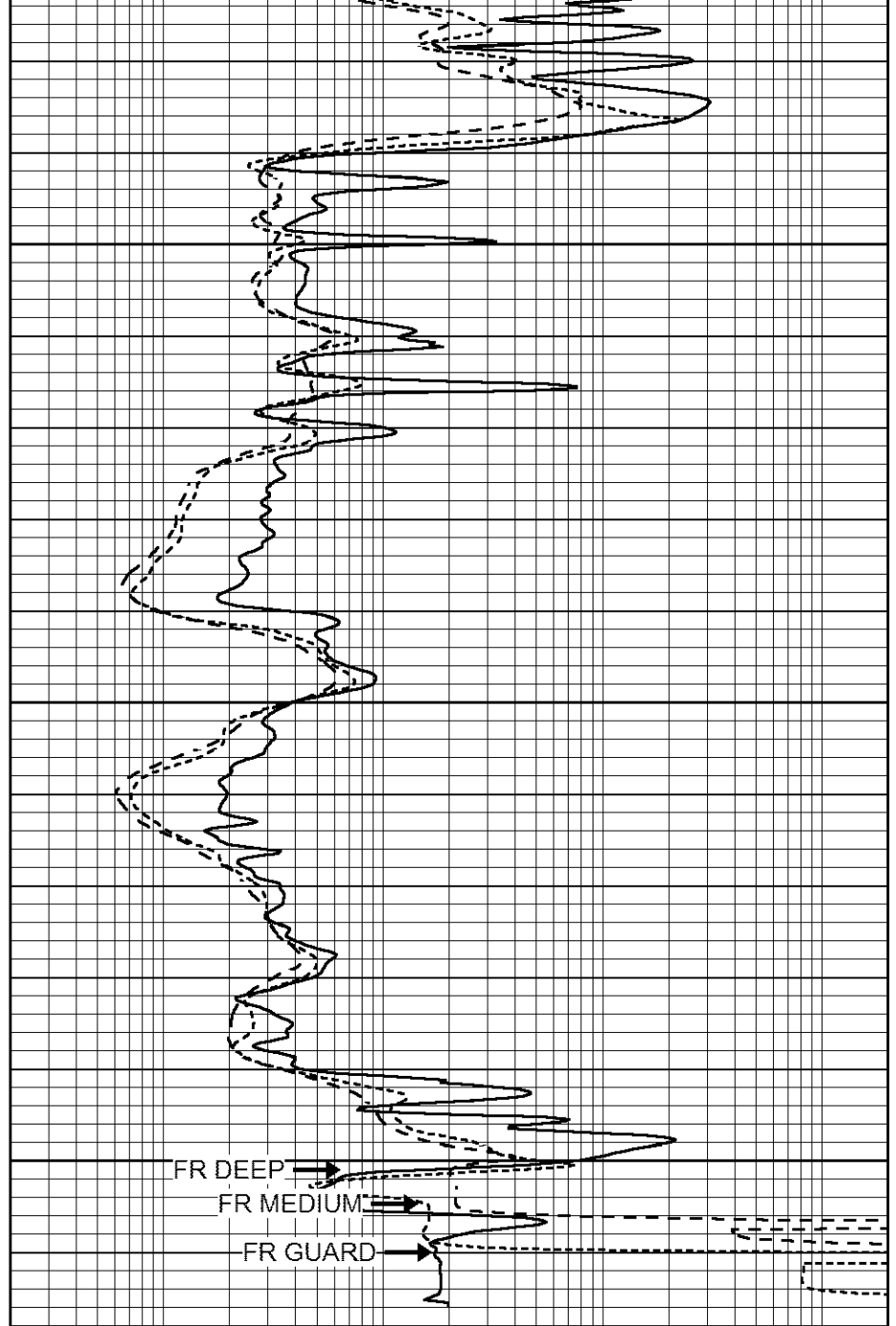
LTD 4862

FR GR →

RXO/RT →

FR SP →

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

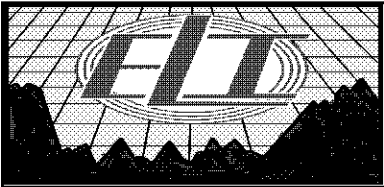


FR DEEP →

FR MEDIUM →

FR GUARD →

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

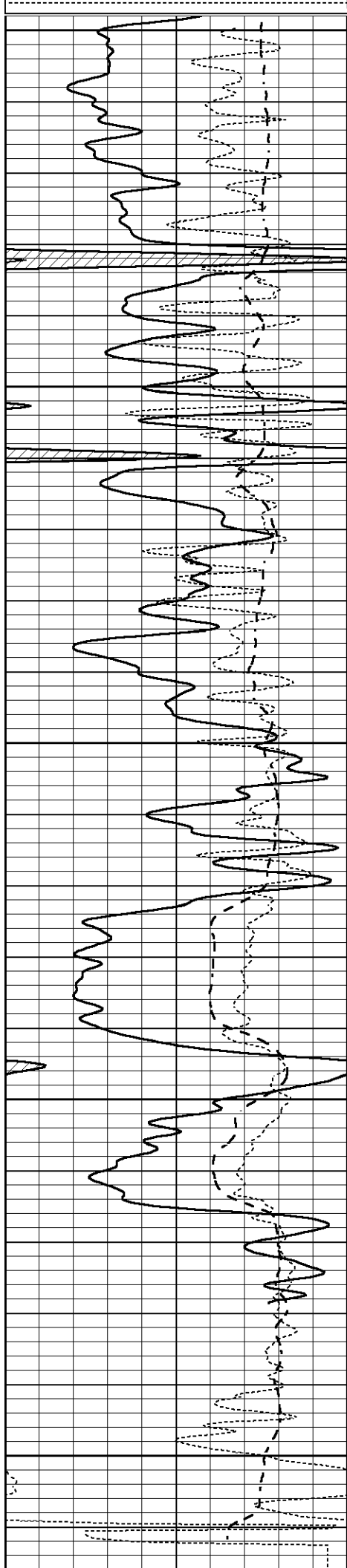


REPEAT SECTION

Database File 7392pe.db
 Dataset Pathname pass2R
 Presentation Format _dil
 Dataset Creation Thu Dec 15 06:41:33 2022
 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



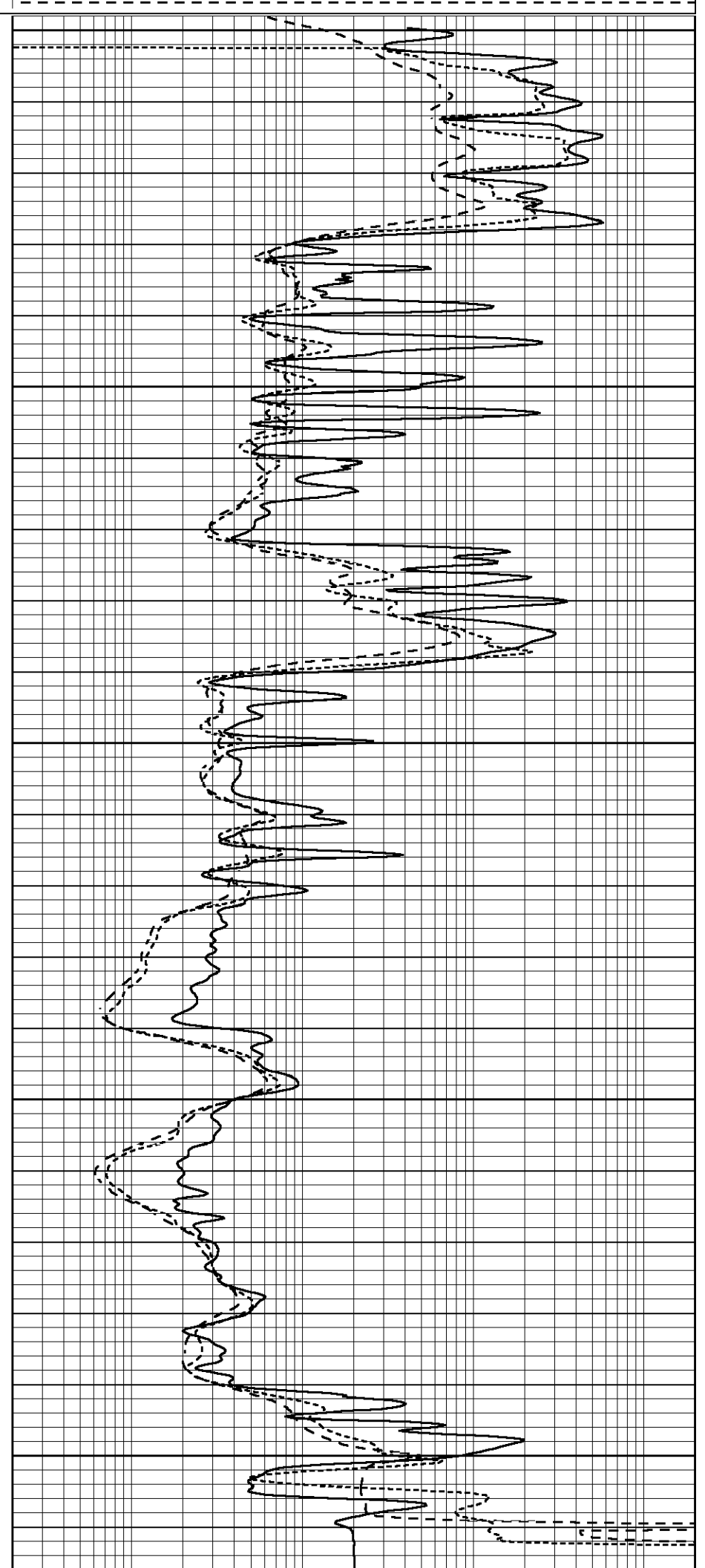
4650

4700

4750

4800

4850



0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000
-100	SP (mV)	100	0.2	MEDIUM INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	DEEP INDUCTION (Ohm-m)	2000

Calibration Report

Database File 7392pe.db
 Dataset Pathname pass3M
 Dataset Creation Thu Dec 15 07:03:57 2022

Dual Induction Calibration Report

Serial-Model: FW1410-55-Probe
 Surface Cal Performed: Thu Jun 30 01:48:00 2022
 Downhole Cal Performed: Tue Feb 19 11:44:24 2019
 After Survey Verification Performed: Tue Feb 19 11:44:27 2019

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	1.000	400.000	mmho/m	650.000	-3.000
Medium	-0.000	0.731	V	1.000	464.000	mmho/m	632.856	-10.500
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.007	0.649	V	0.000	400.000	mmho/m	623.784	-4.595
Medium	0.004	0.743	V	0.000	464.000	mmho/m	627.284	-2.251

Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	-0.824	395.917	mmho/m	-0.976	397.550	mmho/m	1.004	-0.149
Medium	3.565	471.327	mmho/m	3.468	471.590	mmho/m	1.001	-0.099
LL3		7.503	V		1500.000	Ohm-m		
		0.001	V		20.000	Ohm-m		
		-7.481	V		3745.000	mmho-m		

After Survey Verification

	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	-0.824	395.917	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	3.565	471.327	mmho/m	1.000	0.000
LL3		0.000	Ohm-m		1500.000	Ohm-m		
		0.000	Ohm-m		20.000	Ohm-m		
		0.000	mmho-m		3745.000	mmho-m		

Litho Density Calibration Report
 Serial: 005 Model: Litho_Ver3

Master Calibration

Performed Fri May 13 13:54:56 2022

	Background	Magnesium	Aluminum	Aluminum+Fe	
Window 1	1363.1	46477.8	11515.9	9589.9	cps
Window 2	1239.4	36488.4	9270.1	7998.9	cps
Window 3	1044.3	20488.1	5500.7	4913.3	cps
Window 4	315.7	358.7	321.5	319.5	cps
Long Space	0.0	35249.0	8030.7	6759.4	cps
Short Space	1.4	9675.7	6523.4	5391.9	cps

Short Space	0.0000	0.0000	0.0000	0.0000	cps
Rho	1.7100	2.5900	0.0000	0.0000	g/cc
Pe	2.0000	2.7500	5.7900		

Rib Angle	: 45.1	Rib Slope	: 1.003	Density/Spine Ratio	: 0.575
Spine Angle	: 75.1	Spine Slope	: 3.752	Spine Intercept	: -24.0

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: 080621PMC
Tool Model: NABORS

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: 7
Tool Model: Probe1
Performed: Thu May 26 08:56:46 2022

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity:

0.5500

GAP/cps