



**DUAL
INDUCTION
LOG**

Company **ARCADIAN RESOURCES, LLC.**
 Well **JERONE #1-31**
 Field
 County **THOMAS** State **KANSAS**

Location: **API # : 15-193-21033-0000**
970' FNL & 550' FWL
 Permanent Datum **GROUND LEVEL Elevation 3129**
 Log Measured From **KELLY BUSHING 6' A.G.L**
 Drilling Measured From **KELLY BUSHING**
 SEC 31 TWP 8S RGE 32W
 Other Services **CDL/CNL MEL/SON**
 Elevation **K.B. 3135 D.F. 3133 G.L. 3129**

Date	10/17/18
Run Number	ONE
Depth Driller	4787
Depth Logger	4790
Bottom Logged Interval	4788
Top Log Interval	00
Casing Driller	8 5/8" @ 263
Casing Logger	260
Bit Size	7 7/8
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.3/56
PH / Fluid Loss	10.0/7.2
Source of Sample	FLOWLINE
Rm @ Meas. Temp	1.20 @ 74F
Rmt @ Meas. Temp	.90 @ 74F
Rmc @ Meas. Temp	1.44 @ 74F
Source of Rmf / Rmc	MEASUREMENT
Rm @ BHT	.72 @ 123F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	////
Maximum Recorded Temperature	123F
Equipment Number	3802
Location	HAYS, KANSAS
Recorded By	JASON CAPPELLUCCI
Witnessed By	JEREMY SCHWARTZ

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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
I 70 & MINGO EXIT - 1 EAST TO TH 26 - NORTH TO TH N - WEST INTO

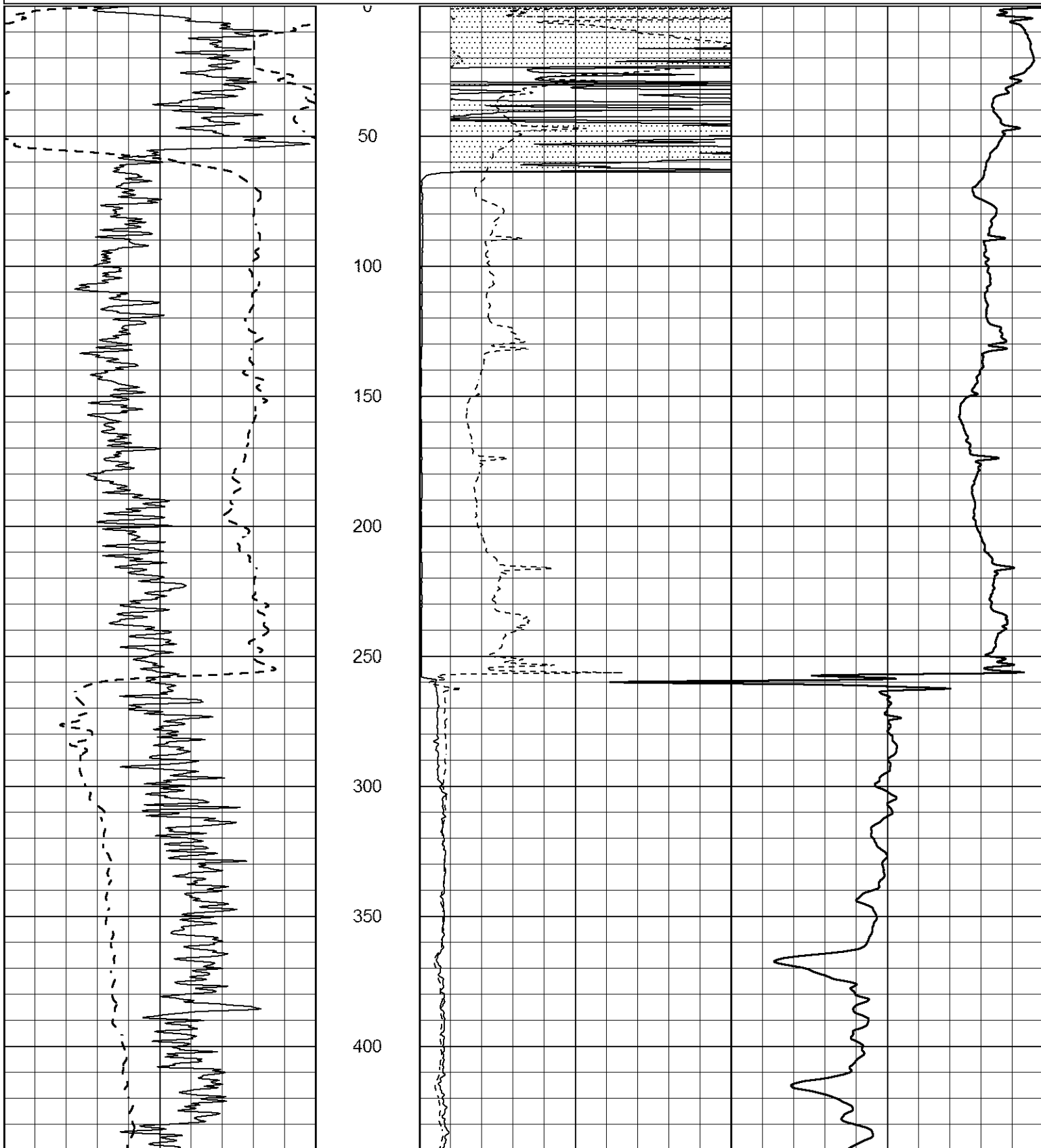


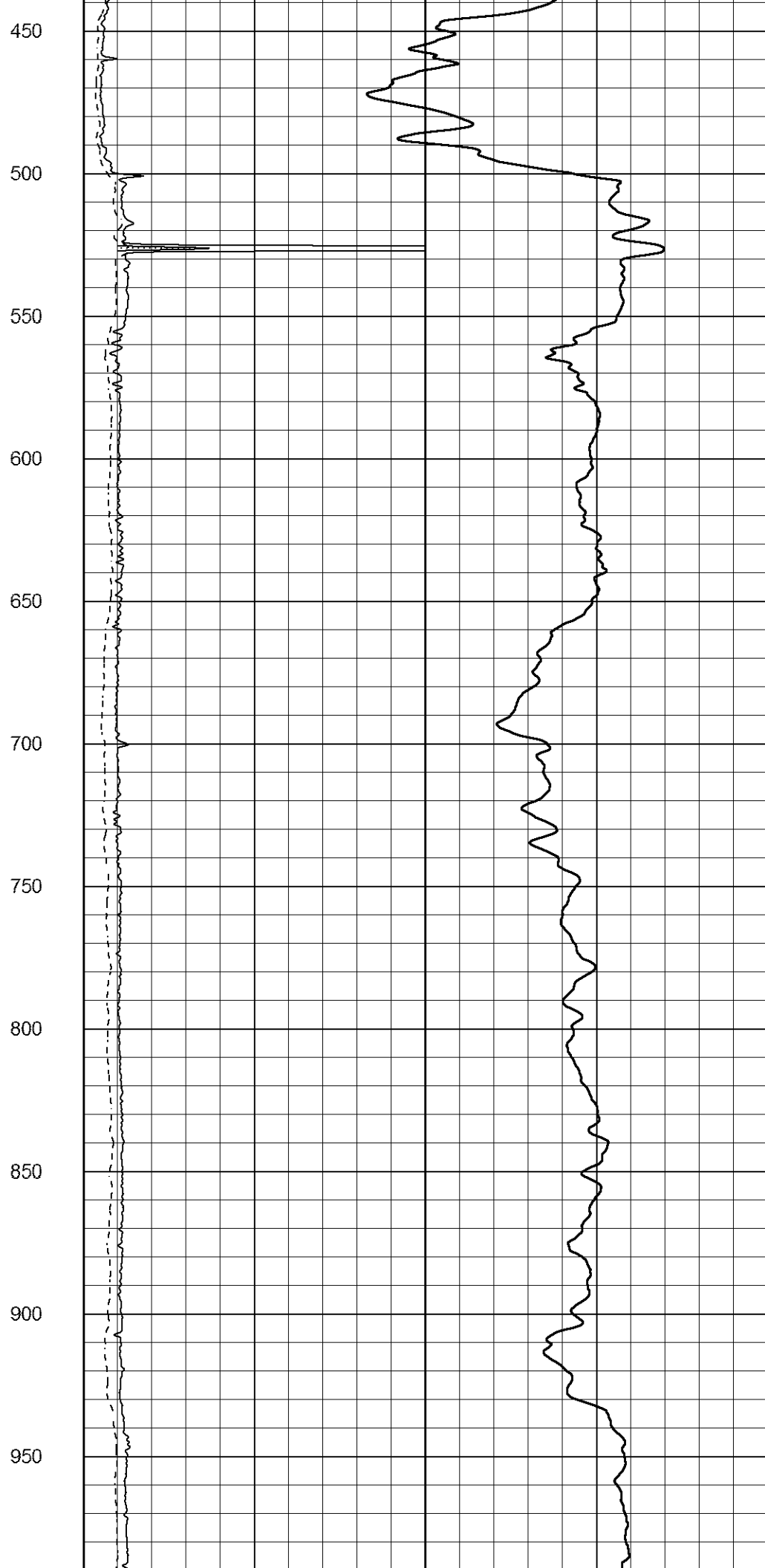
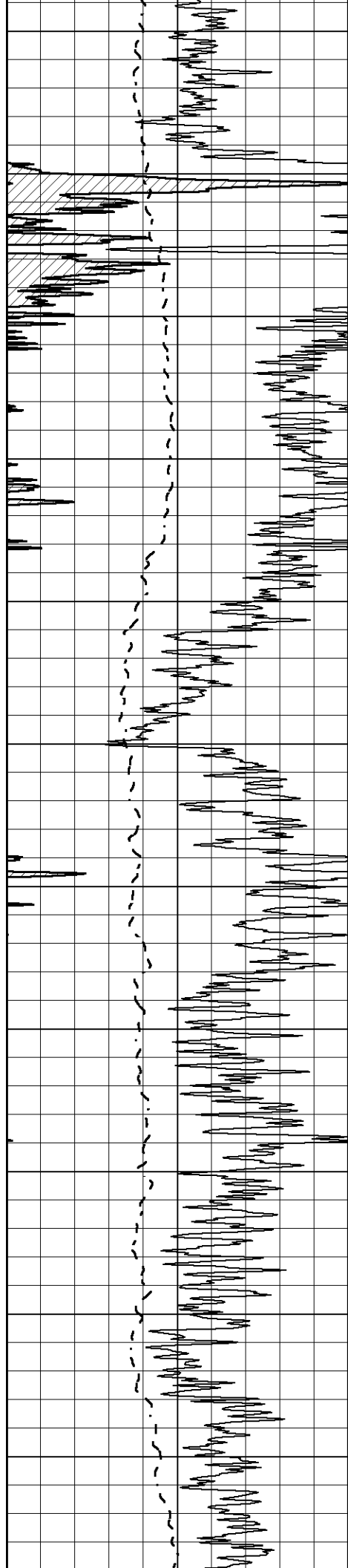
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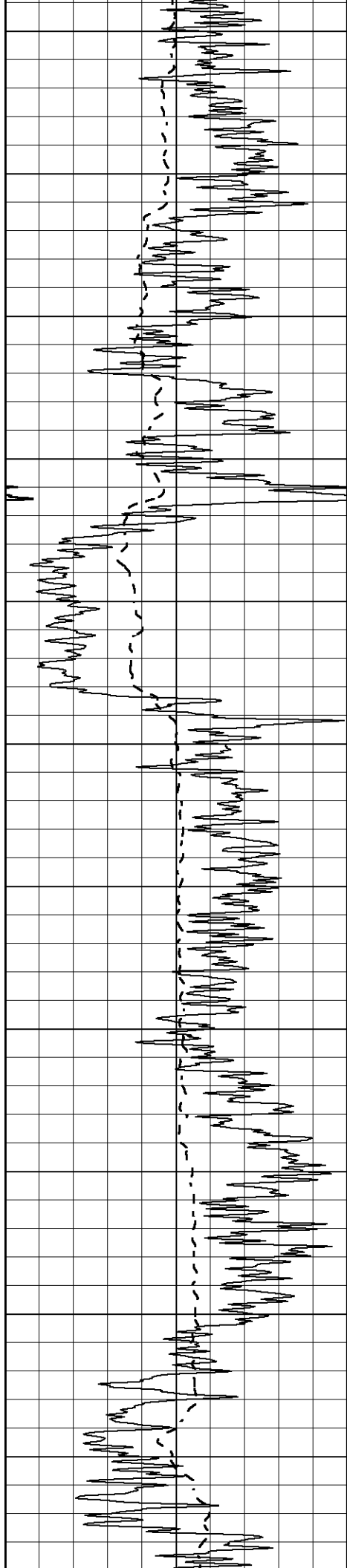
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 Dataset Pathname pass6.3
 Presentation Format _dil2
 Dataset Creation Wed Oct 17 17:24:08 2018
 Charted by Depth in Feet scaled 1:600

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-100	SP (mV)	100

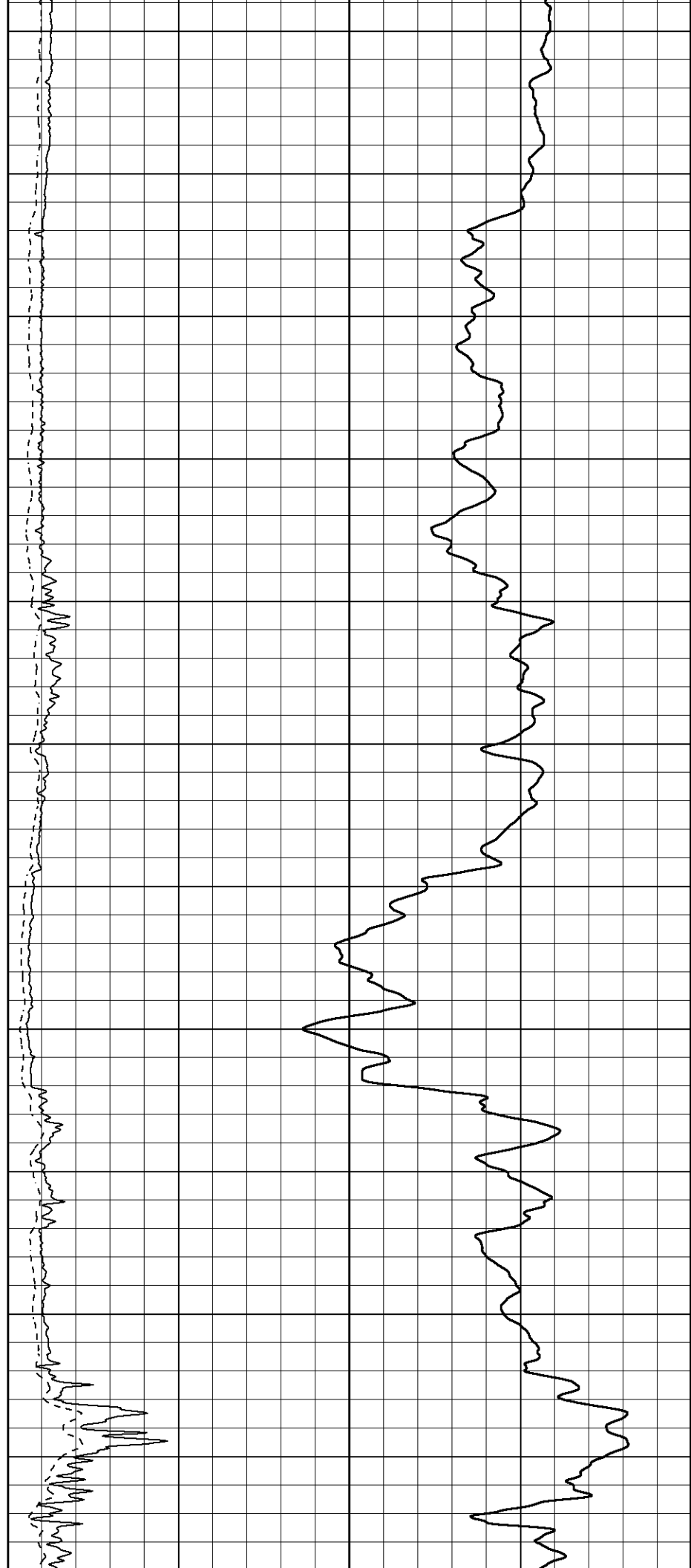
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0	RLL3 (Ohm-m)	50
0	Deep Induction (Ohm-m)	50
50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500

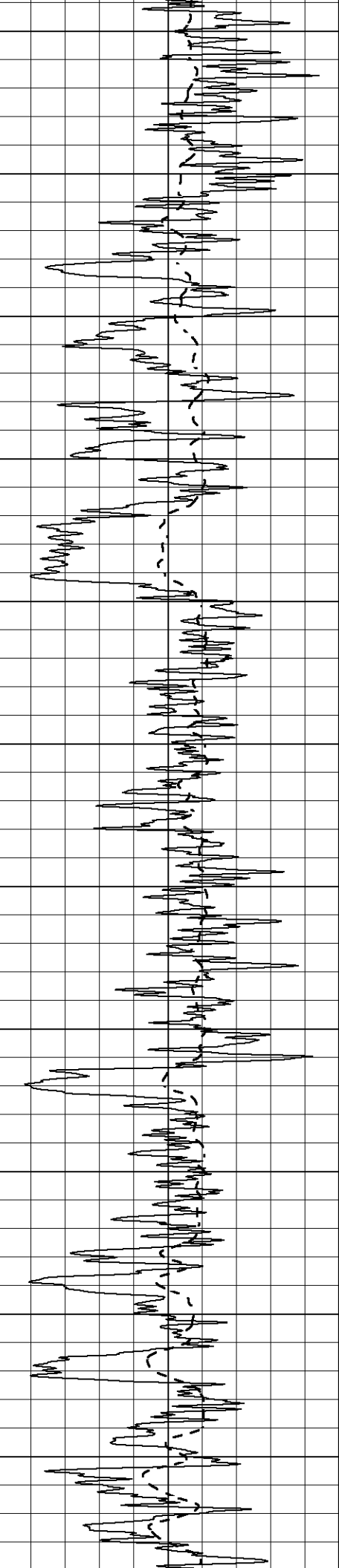




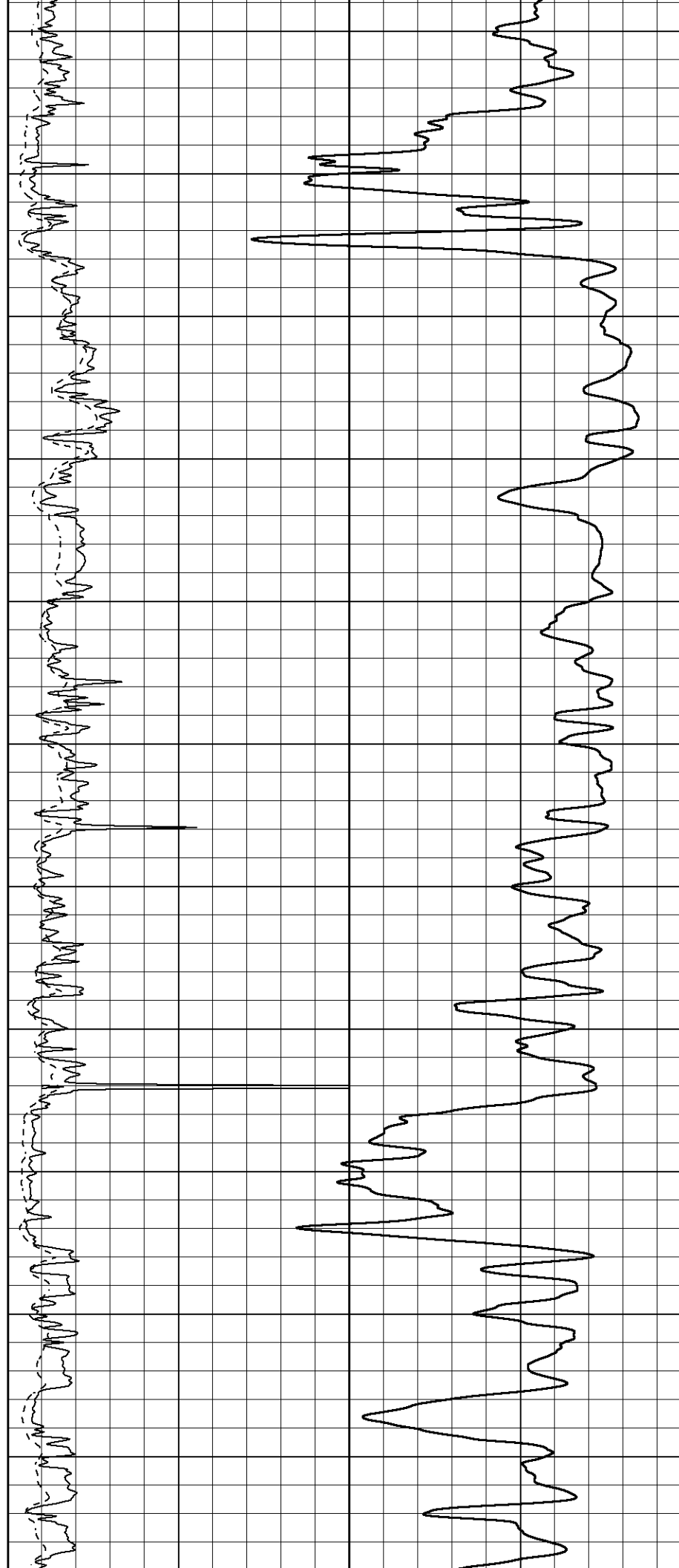


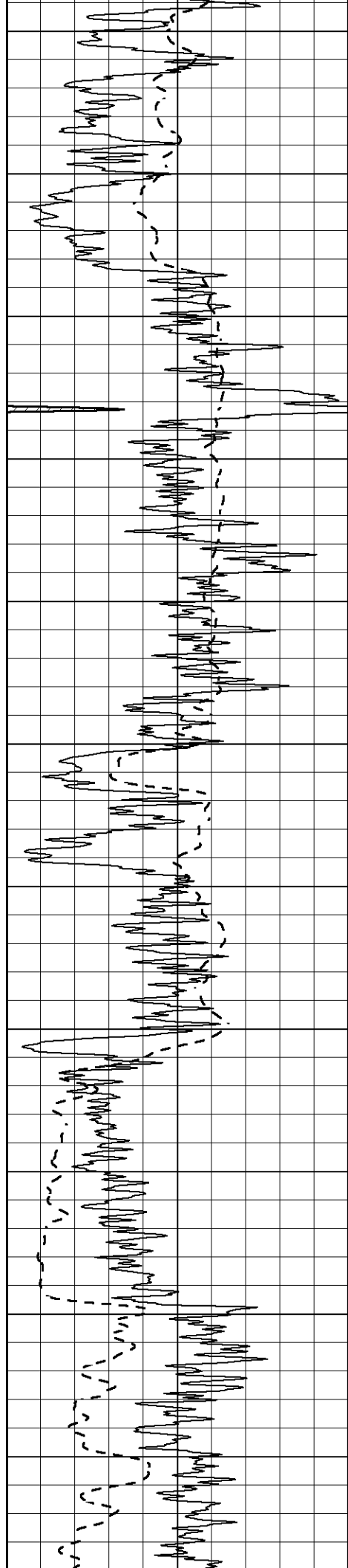
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1050
1100
1150
1200
1250
1300
1350
1400
1450
1500



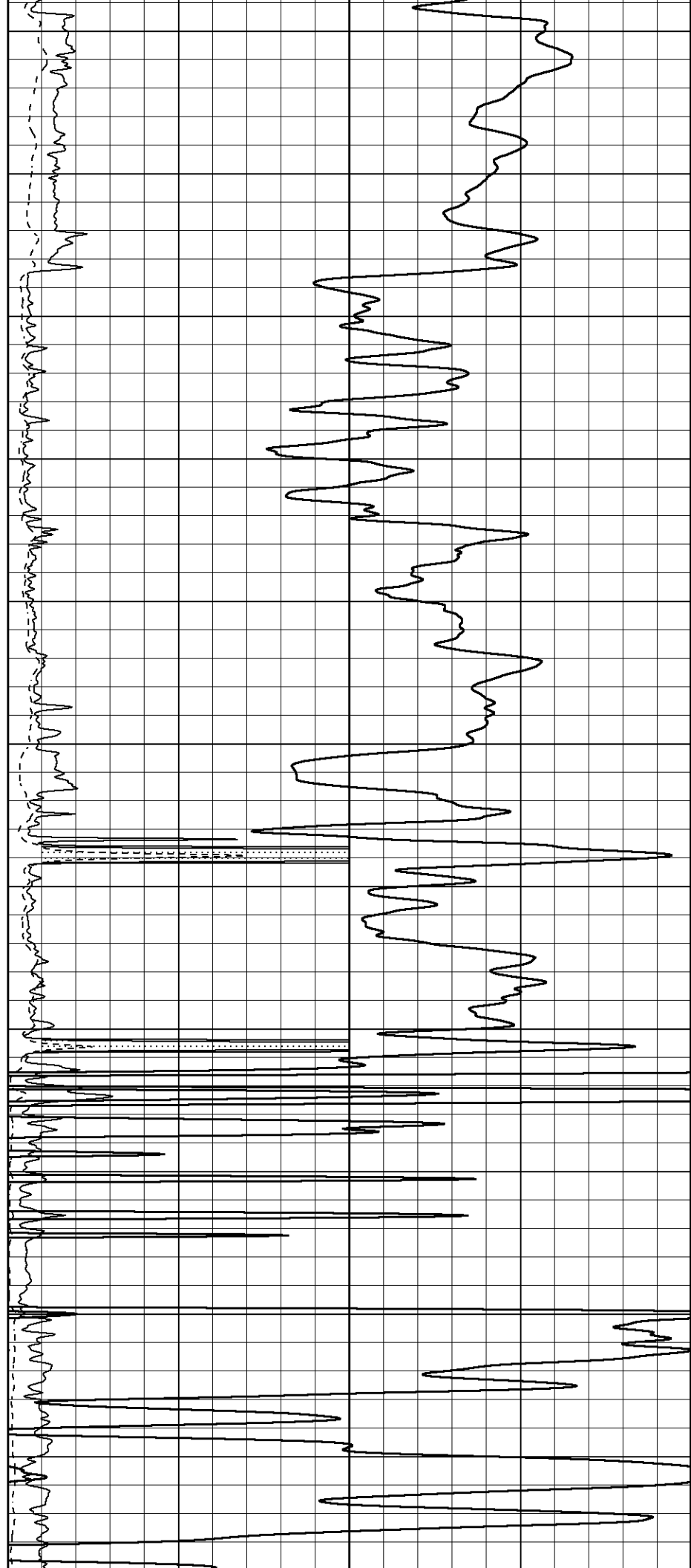


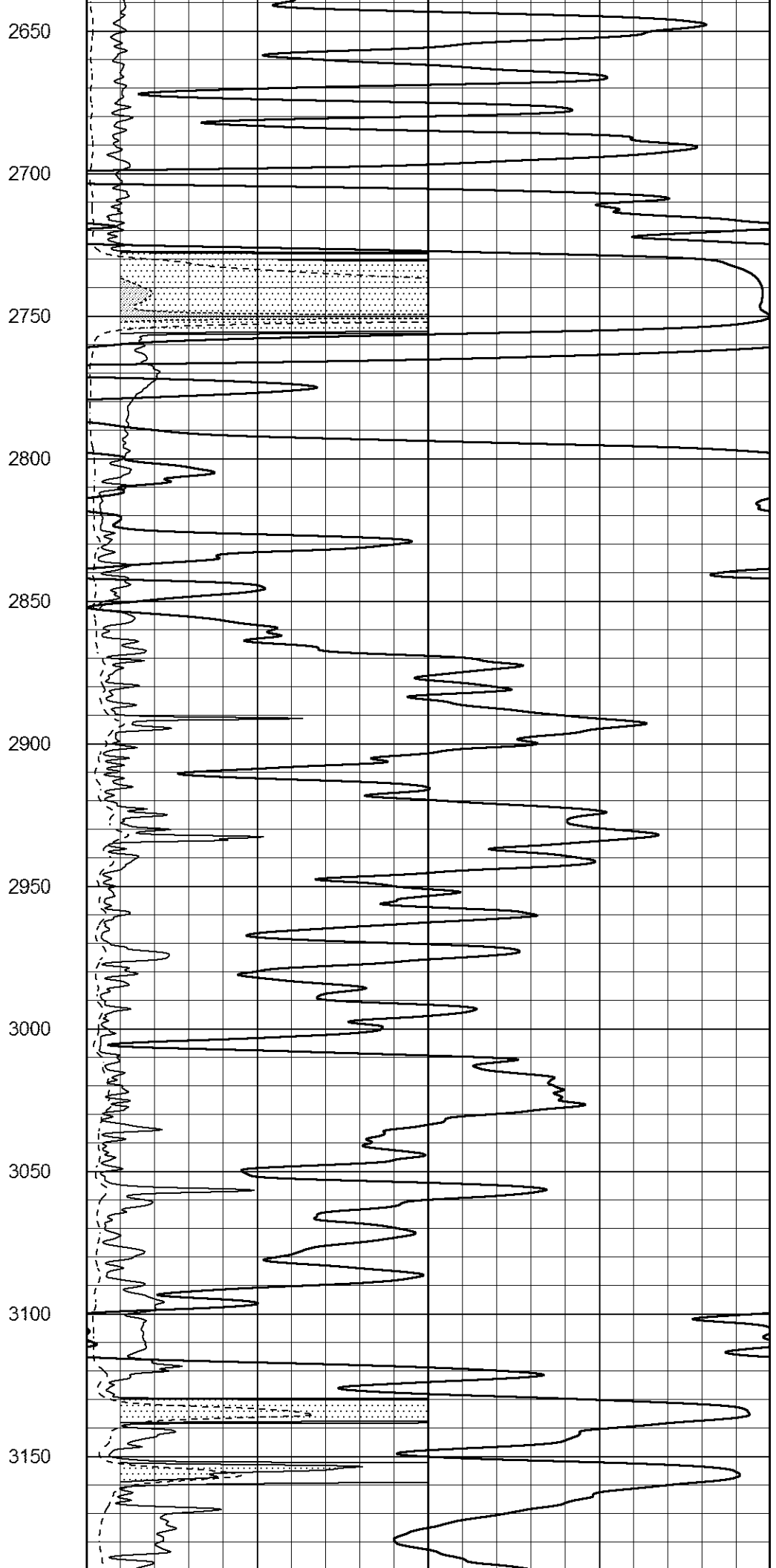
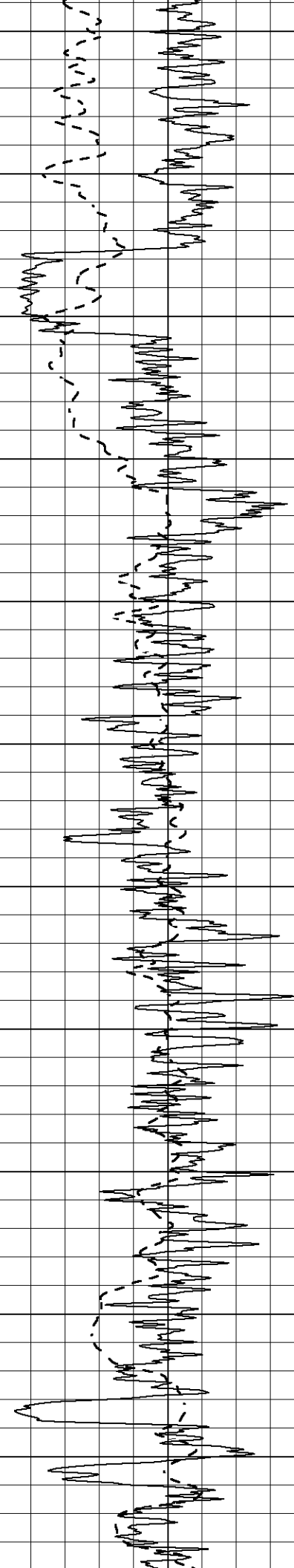
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1700
1750
1800
1850
1900
1950
2000
2050

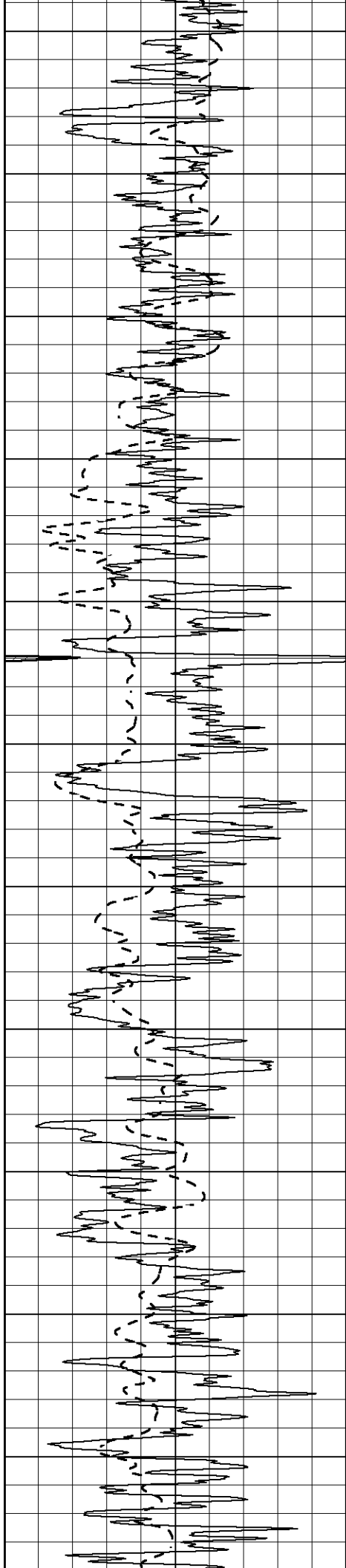




2100
2150
2200
2250
2300
2350
2400
2450
2500
2550
2600







3200

3250

3300

3350

3400

3450

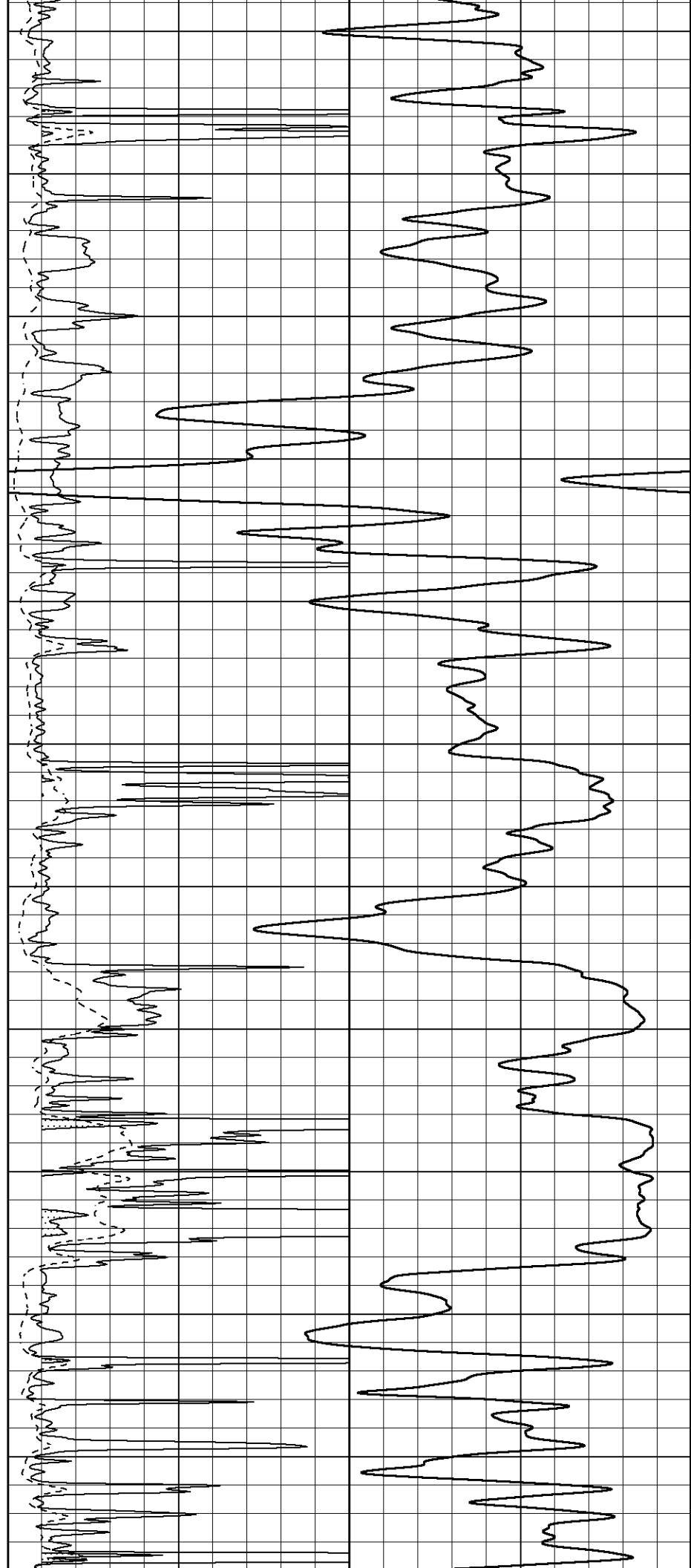
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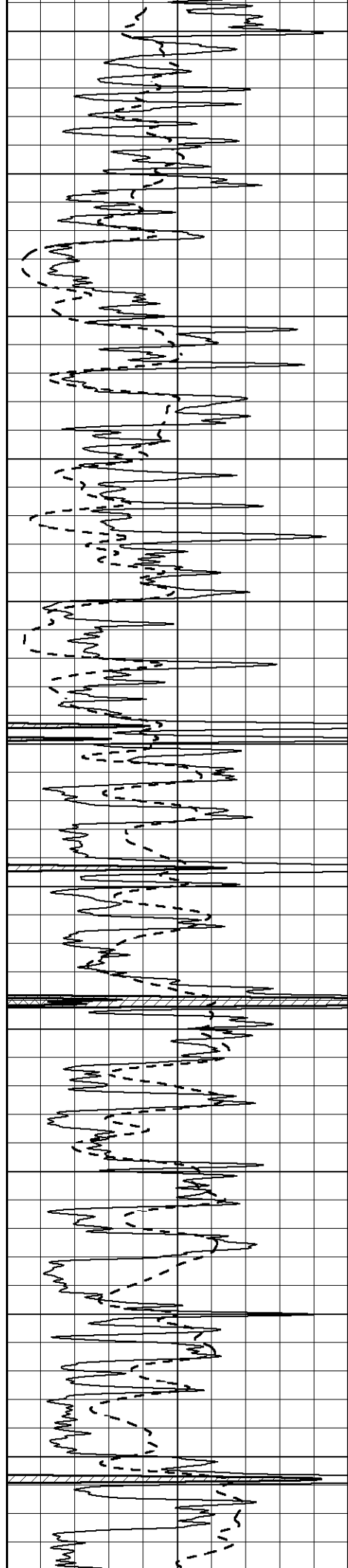
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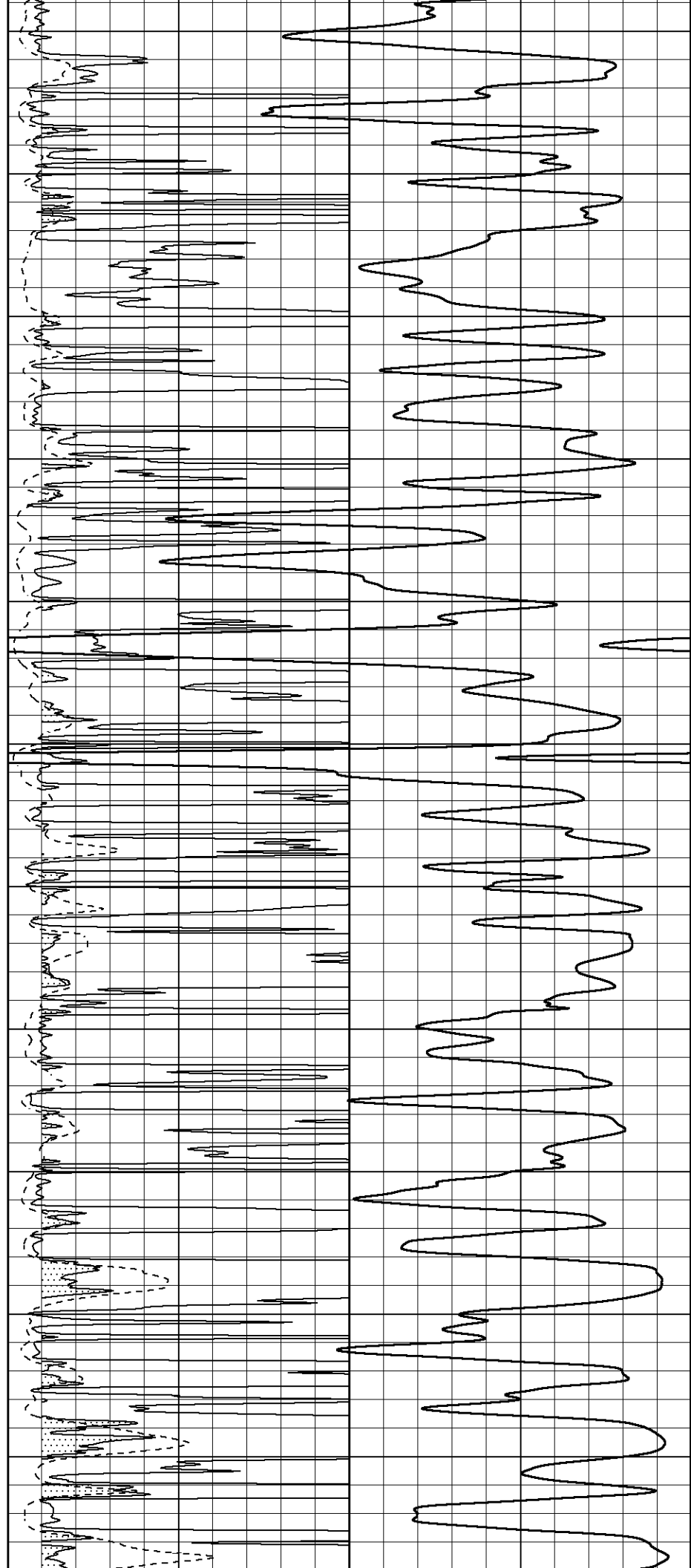
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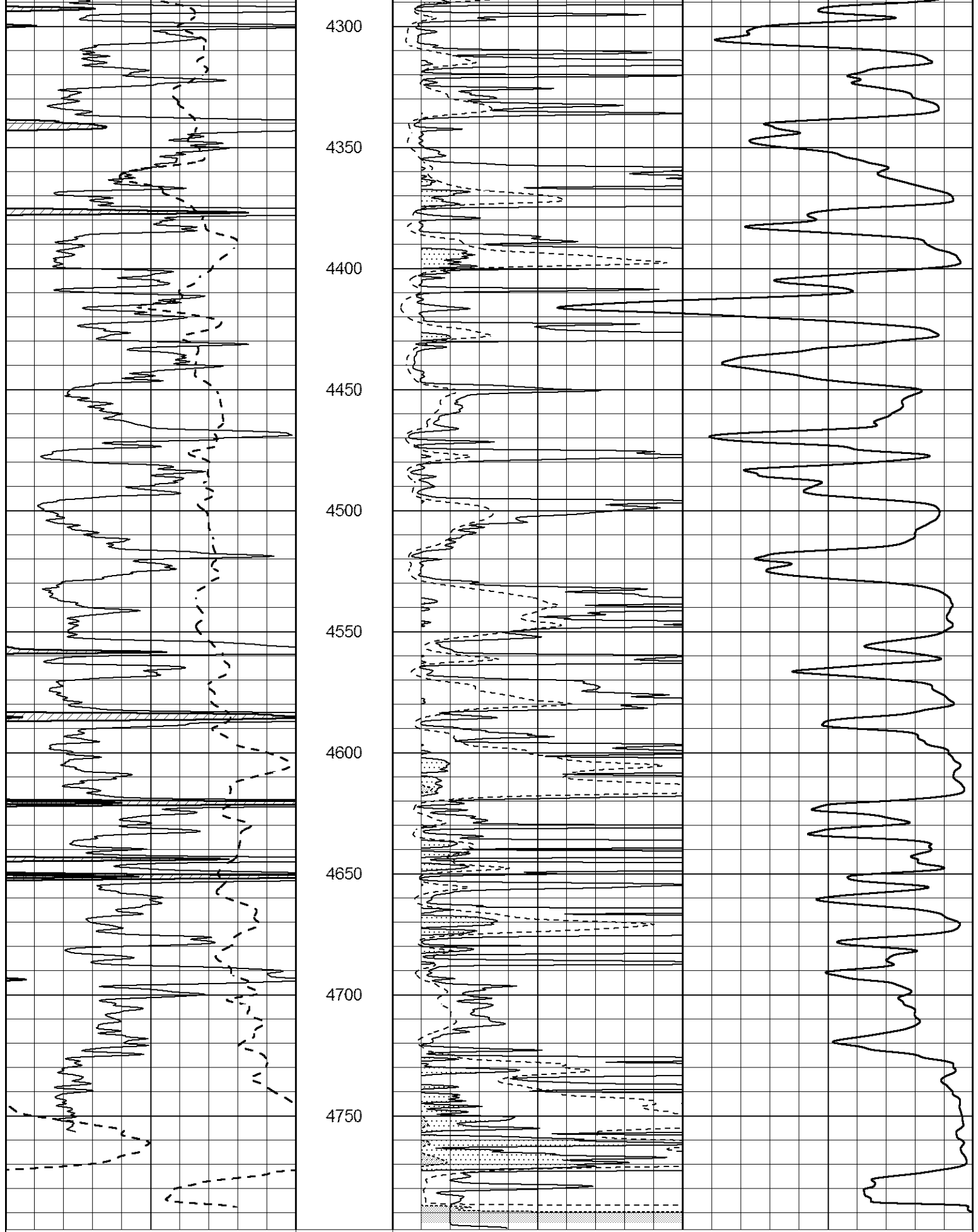
3700





3750
3800
3850
3900
3950
4000
4050
4100
4150
4200
4250





4300
4350
4400
4450
4500
4550
4600
4650
4700
4750

0 Gamma Ray (GAPI) 150
-100 SP (mV) 100

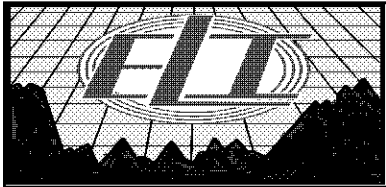
1000 CILD (mmho/m) 0

0 RLL3 (Ohm-m) 50

0 Deep Induction (Ohm-m) 50

50 RLLD X10 (Ohm-m) 500

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

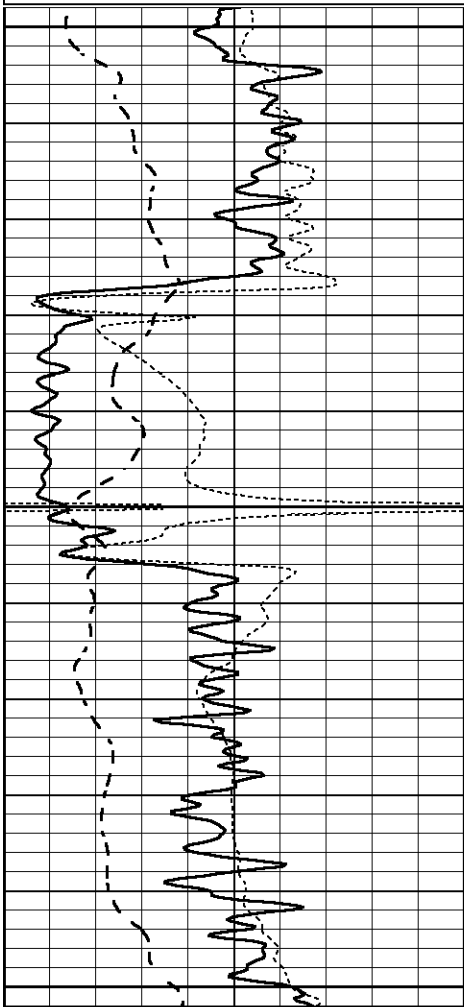


ANHYDRITE

Database File 3010ddn8.db
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 Presentation Format _dil
 Dataset Creation Wed Oct 17 16:17:47 2018
 Charted by Depth in Feet scaled 1:240

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

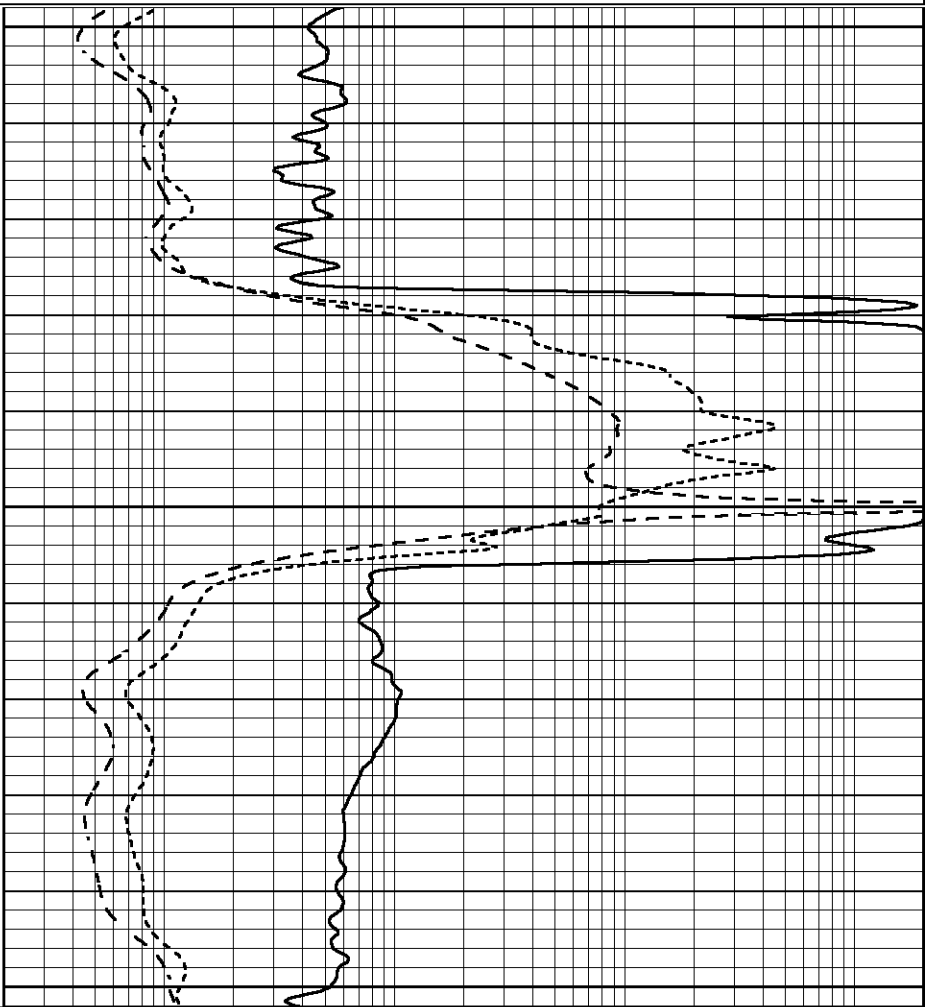
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000



2700

2750

2800



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



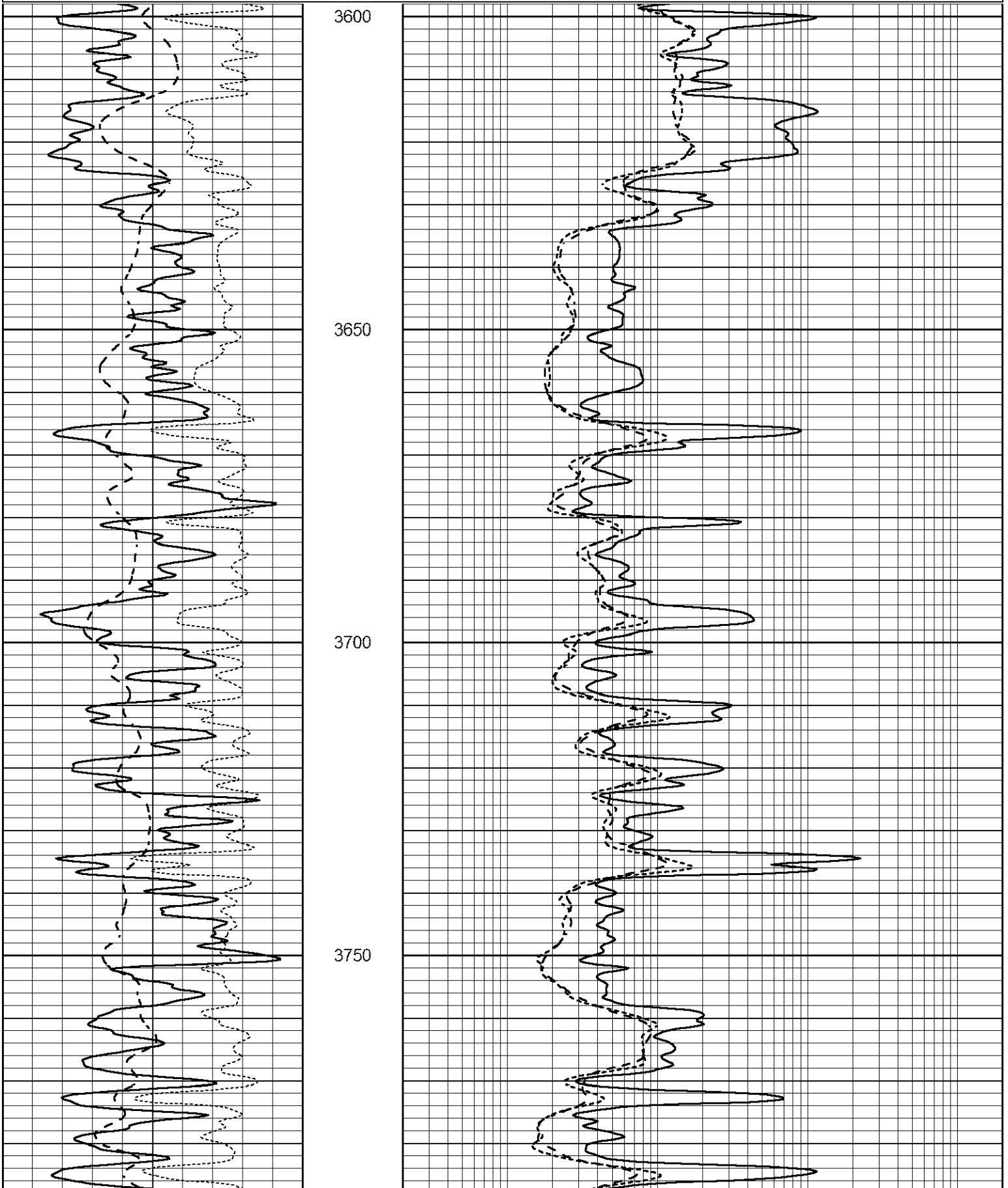
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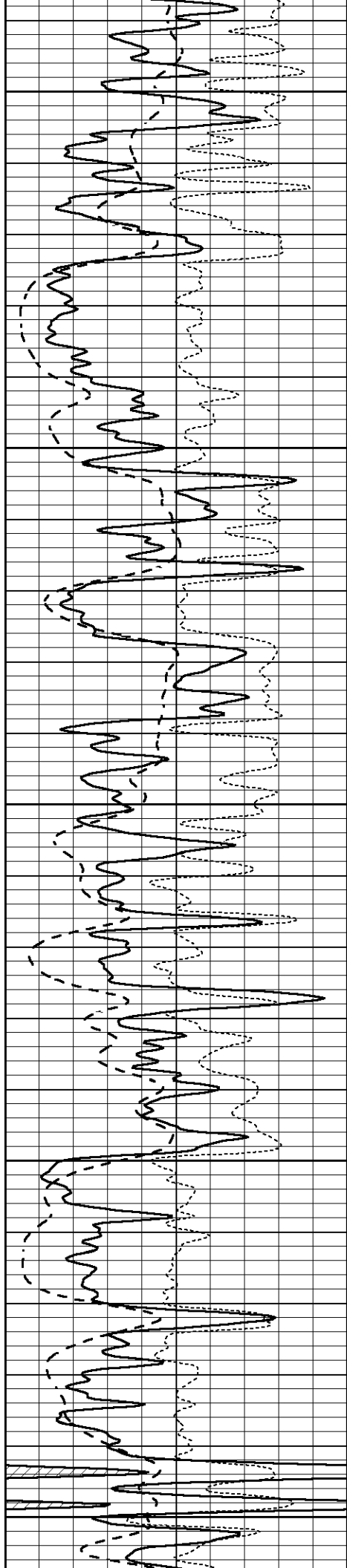
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Dataset Pathname pass6.1
 Presentation Format _dil
 Dataset Creation Wed Oct 17 16:08:25 2018
 Charted by Depth in Feet scaled 1:240

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





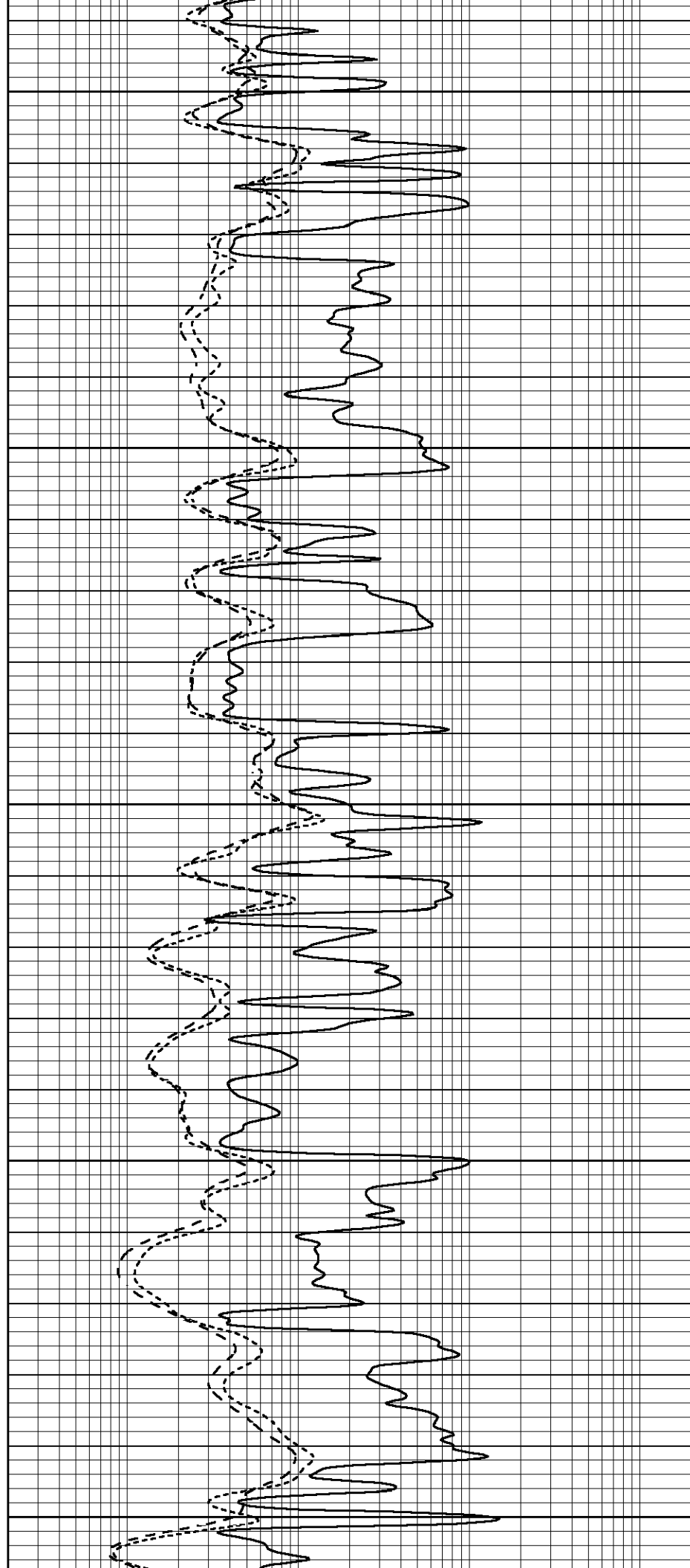
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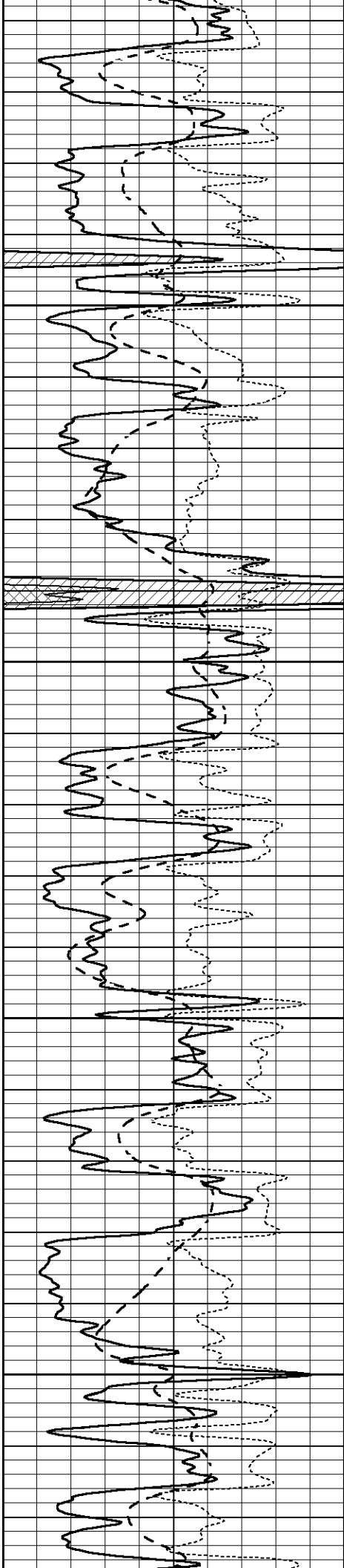
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3900

3950

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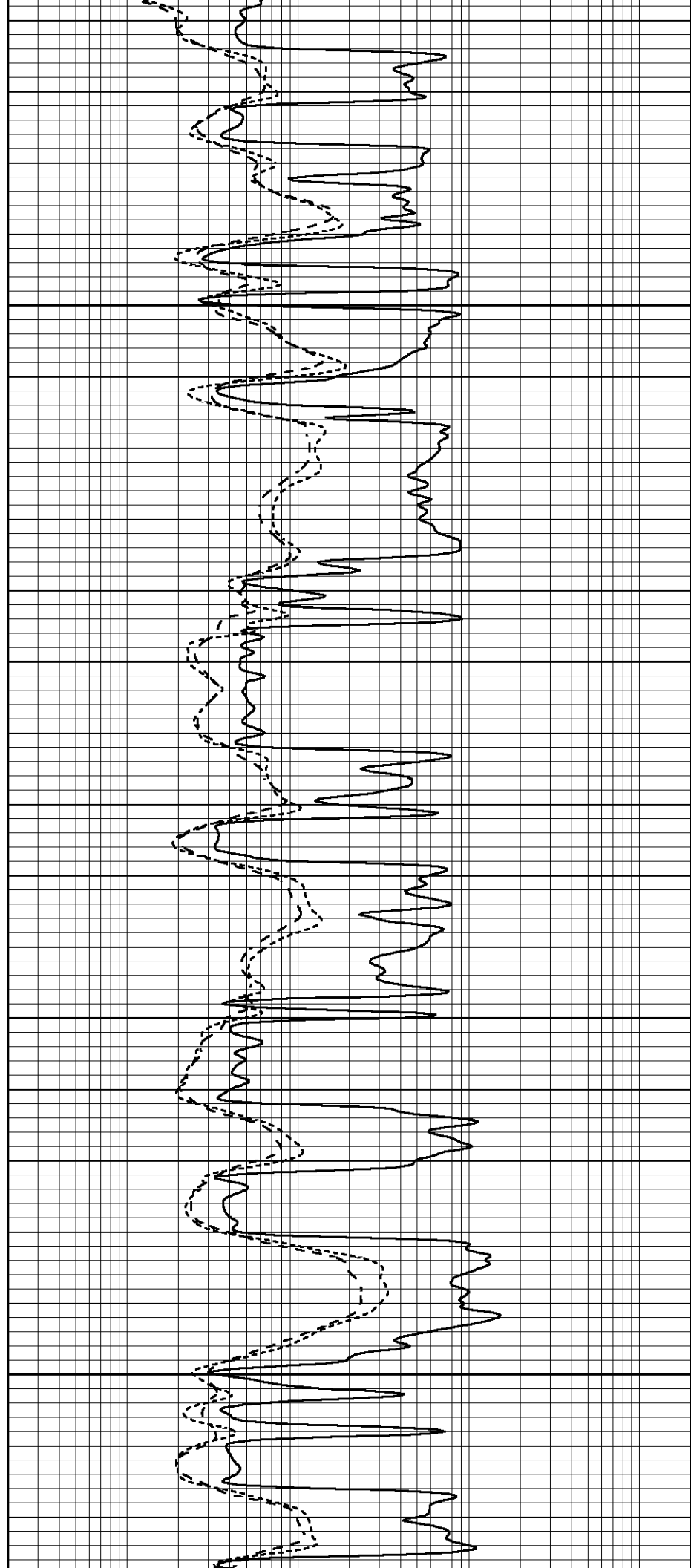


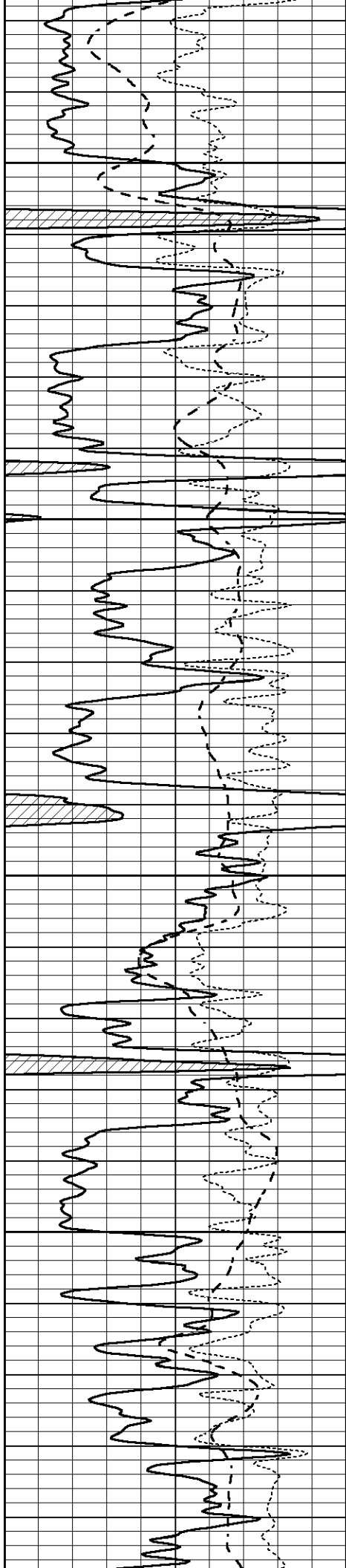
4050

4100

4150

4200



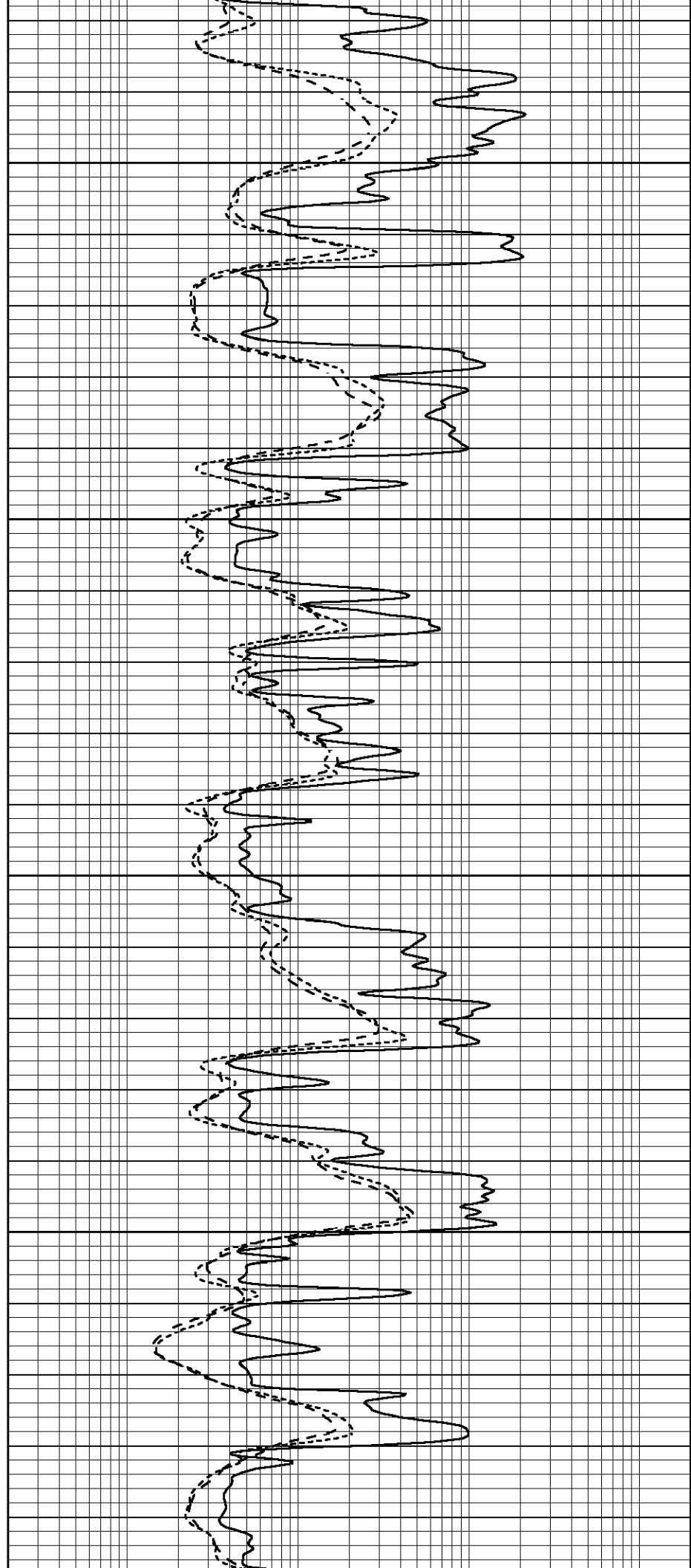


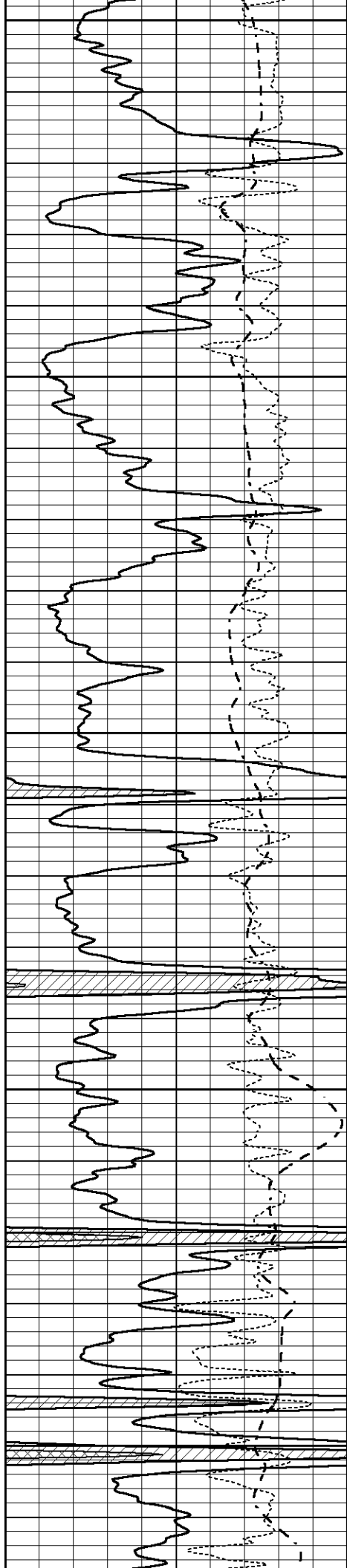
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4300

4350

4400





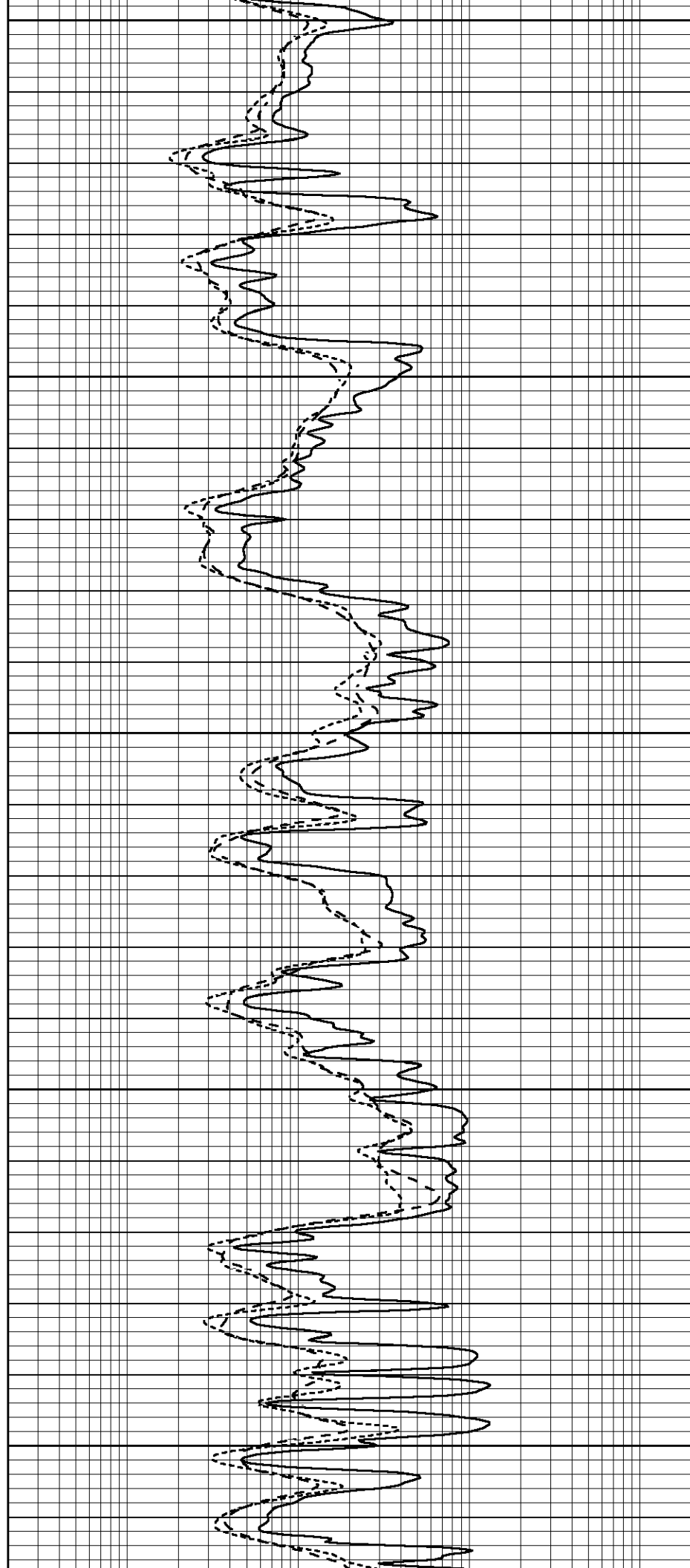
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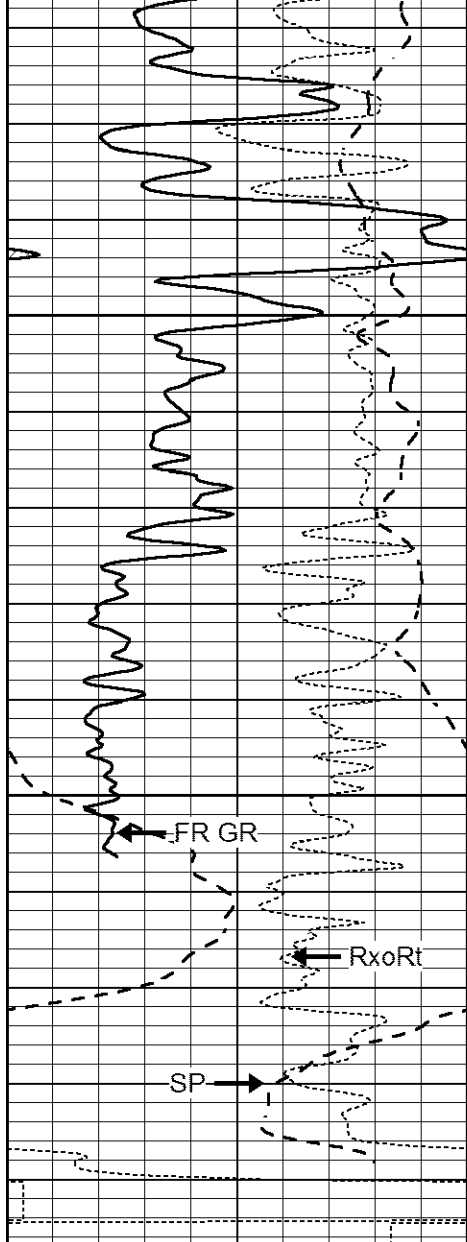
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4550

4600

4650



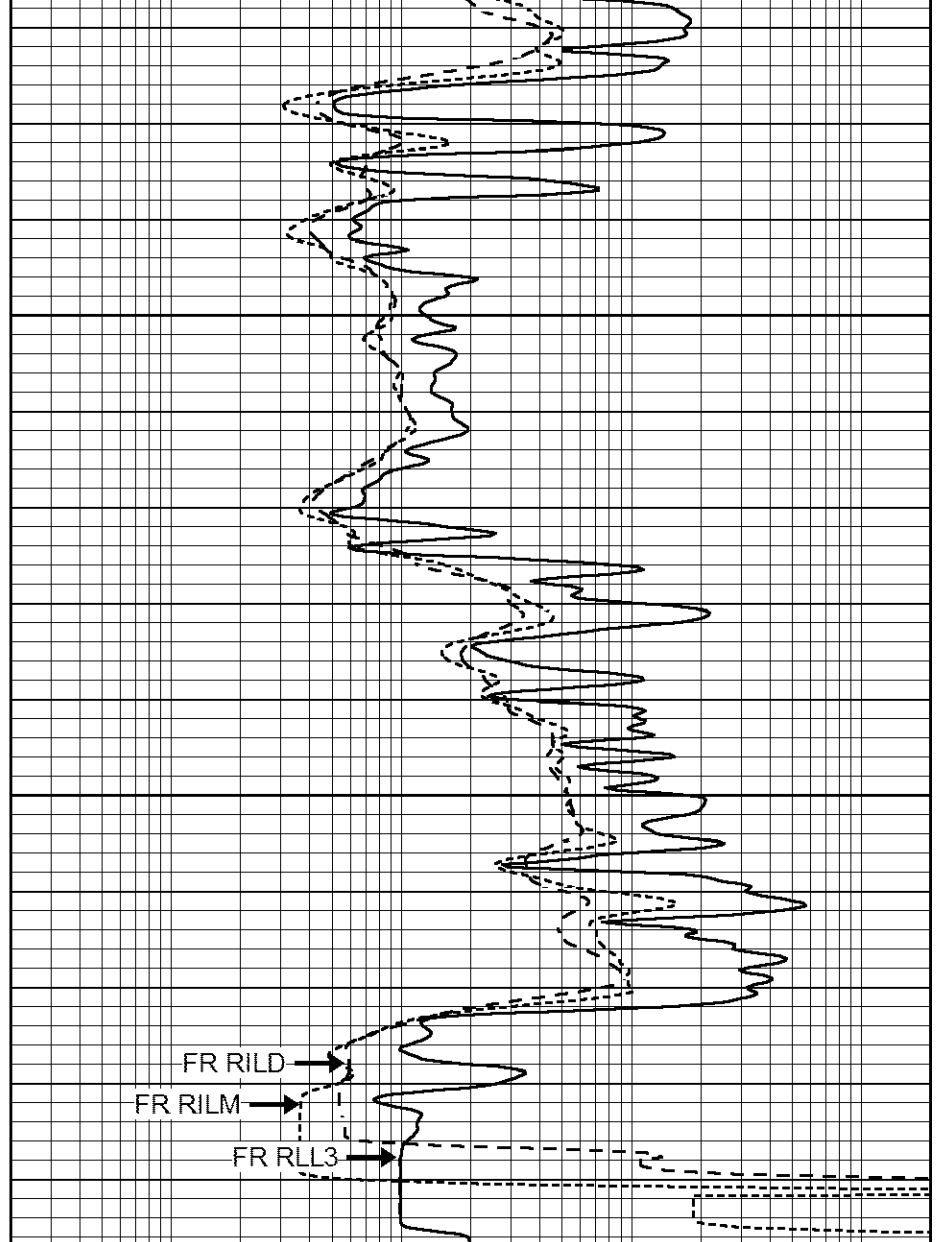


4700

4750

LTD 4790

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

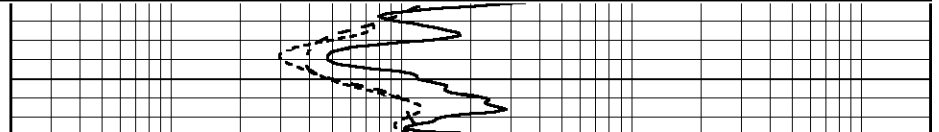
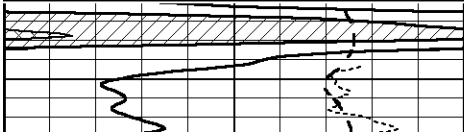


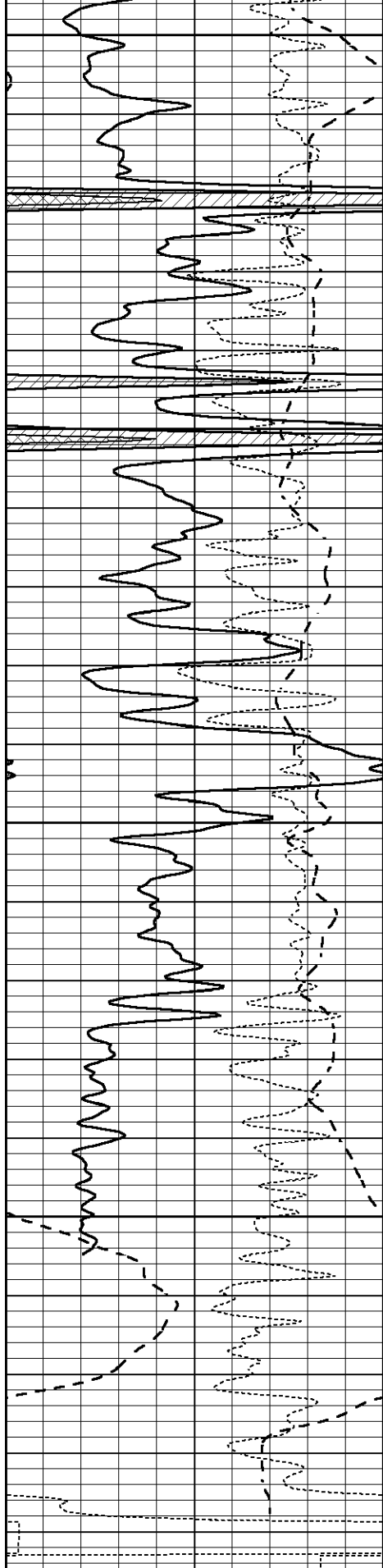
REPEAT SECTION

Database File 3010ddn8.db
 Dataset Pathname pass5.1
 Presentation Format _dil
 Dataset Creation Wed Oct 17 16:07:35 2018
 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





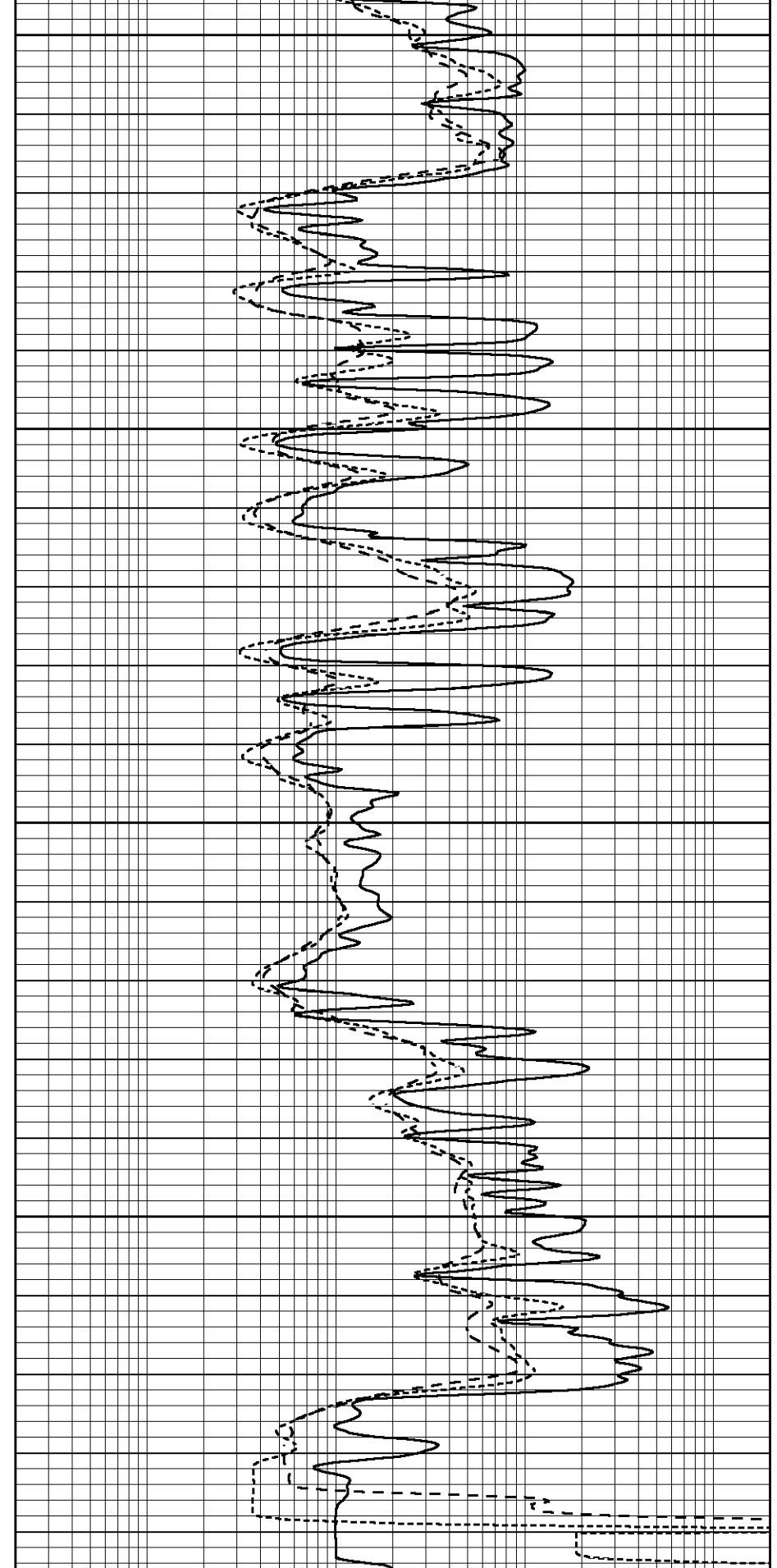
4600

4650

4700

4750

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

Calibration Report

Database File 3010ddn8.db
 Dataset Pathname pass5.1
 Dataset Creation Wed Oct 17 16:07:35 2018

Dual Induction Calibration Report

Serial-Model: FW1410-55-Probe
 Surface Cal Performed: Mon May 22 14:23:32 2017
 Downhole Cal Performed: Thu Mar 12 09:29:20 2015
 After Survey Verification Performed: Thu Mar 12 09:29:20 2015

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	1.000	400.000	mmho/m	618.595	-5.524
Medium	-0.000	0.731	V	1.000	464.000	mmho/m	632.856	1.197
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: 140704
 Model: V4_10P
 Source Number: 74GBq-19

Master Calibration

Performed: Wed Aug 01 11:38:24 2018

	Background	Aluminum	Magnesium	
Window 1	569.39	5471.56	24422.80	cps
Window 2	44.65	1262.27	6118.88	cps
Window 4	249.39	1232.61	5269.71	cps
Window 5	576.55	9103.77	17328.80	cps
Window 6	44.92	1511.92	2954.21	cps
Window 8	274.54	2911.53	5451.86	cps
Bulk Density	-	2.6020	1.6830	g/cc
Pe	-	3.0000	2.5070	b/e

I S Alpha: -1.8616

SS Alpha: -0.7719

I S CPF: 1.0928

LS Beta: : 128275.3419

SS Beta: : 20466.9887

SS CPE: : 1.5108

Before Survey Background Counts Verification

Performed: Wed Dec 31 18:00:00 1969

Window 1	0.00	cps
Window 2	0.00	cps
Window 4	0.00	cps
Window 5	0.00	cps
Window 6	0.00	cps
Window 8	0.00	cps

After Survey Background Counts Verification

Performed: Wed Dec 31 18:00:00 1969

Window 1	0.00	cps
Window 2	0.00	cps
Window 4	0.00	cps
Window 5	0.00	cps
Window 6	0.00	cps
Window 8	0.00	cps

Lithodensity Caliper Calibration

Performed: Wed Aug 01 11:38:24 2018

Results		Readings		References (in)		Gain	Offset
Low	High	Low	High				
1558.7	6360.9	8.0	14.0			0.0	5.3

Before Survey Caliper Verification

Performed:

	Reference	Reading
Caliper (in)	_____	_____

After Survey Caliper Verification

Performed:

	Reference	Reading
Caliper (in)	_____	_____

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: Wed Jun 29 11:10:58 2016

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.4300 GAPI/cps