

DUAL INDUCTION LOG

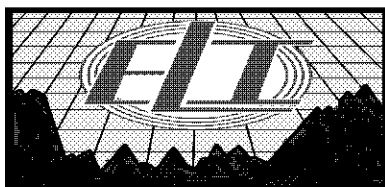
Company		MAI OIL OPERATIONS, INC.	
Well		L & N MILLER #1	
Field		RIVERSIDE EAST	
County		NESS	
State		KANSAS	
Location:		API # : 15-135-25956-0000	
Permanent Datum		GROUND LEVEL Elevation 2201	
Log Measured From		KELLY BUSHING 8' A.G.L	
Drilling Measured From		KELLY BUSHING	
SEC 16 TWP 20S RGE 22W		Other Services CDL/CNL MEL	
Elevation		K.B. 2209 D.F. 2207 G.L. 2201	
Date	6/26/17		
Run Number	ONE		
Depth Driller	4450		
Depth Logger	4453		
Bottom Logged Interval	4451		
Top Log Interval	00		
Casing Driller	8 5/8" @ 251'		
Casing Logger	251'		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 10000 PPM	
Density / Viscosity	9.1/52		
pH / Fluid Loss	9.5/9.6		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.40 @ 85F		
Rmf @ Meas. Temp	.30 @ 85F		
Rmc @ Meas. Temp	.48 @ 85F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.28 @ 120F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	120F		
Equipment Number	3802		
Location	HAYS, KANSAS		
Recorded By	JASON CAPELLUCCI		
Witnessed By	WYATT URBAN		

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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
BAZINE, KS. - 3 WEST TO AA RD. - 9 SOUTH TO 40 RD. - 1 WEST TO Z RD. - 1/4 SOUTH
EAST INTO



MAIN SECTION

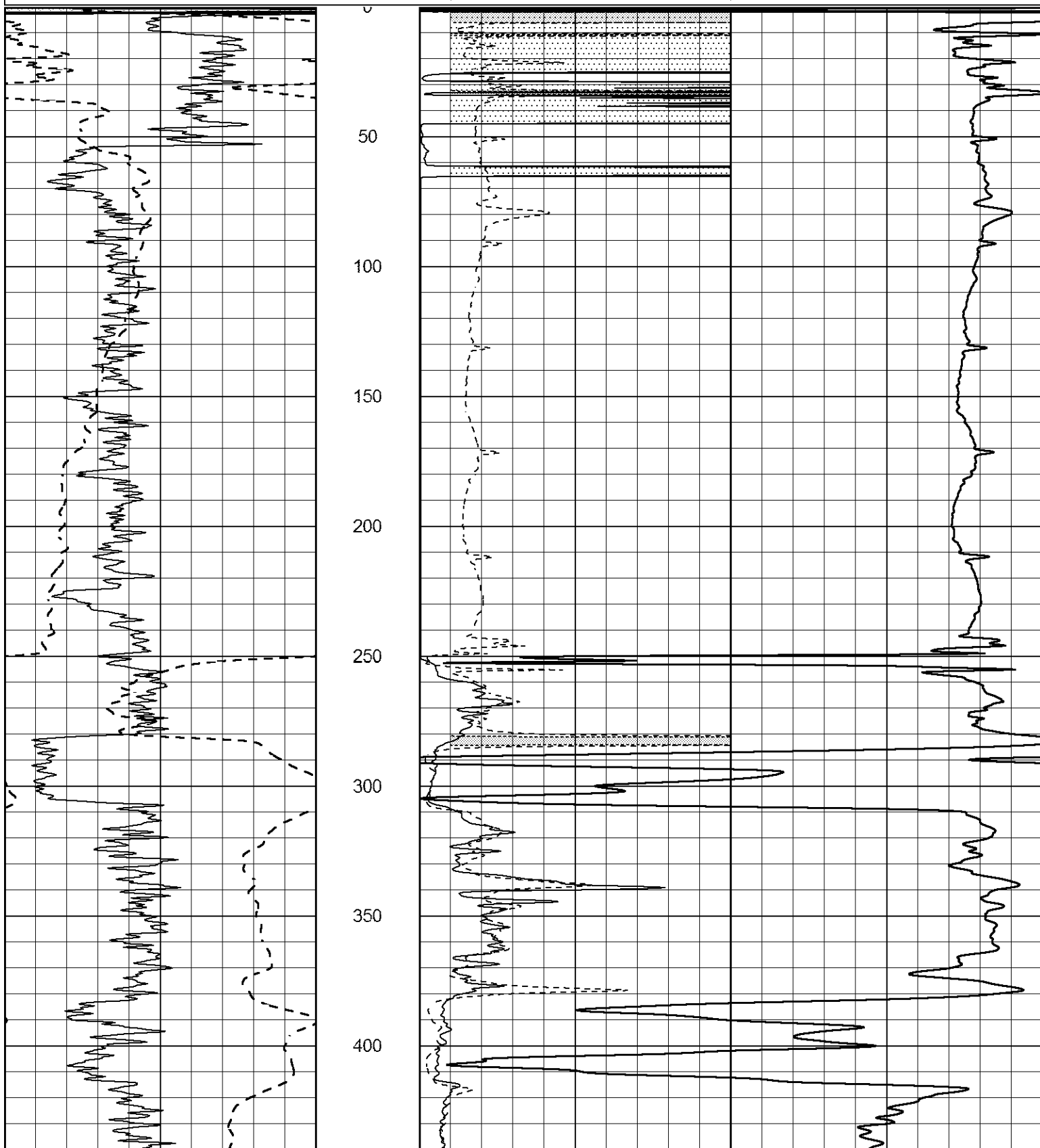
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Dataset Pathname pass4.3
Presentation Format _dil2
Dataset Creation Tue Jun 27 01:46:02 2017
Charted by Depth in Feet scaled 1:600

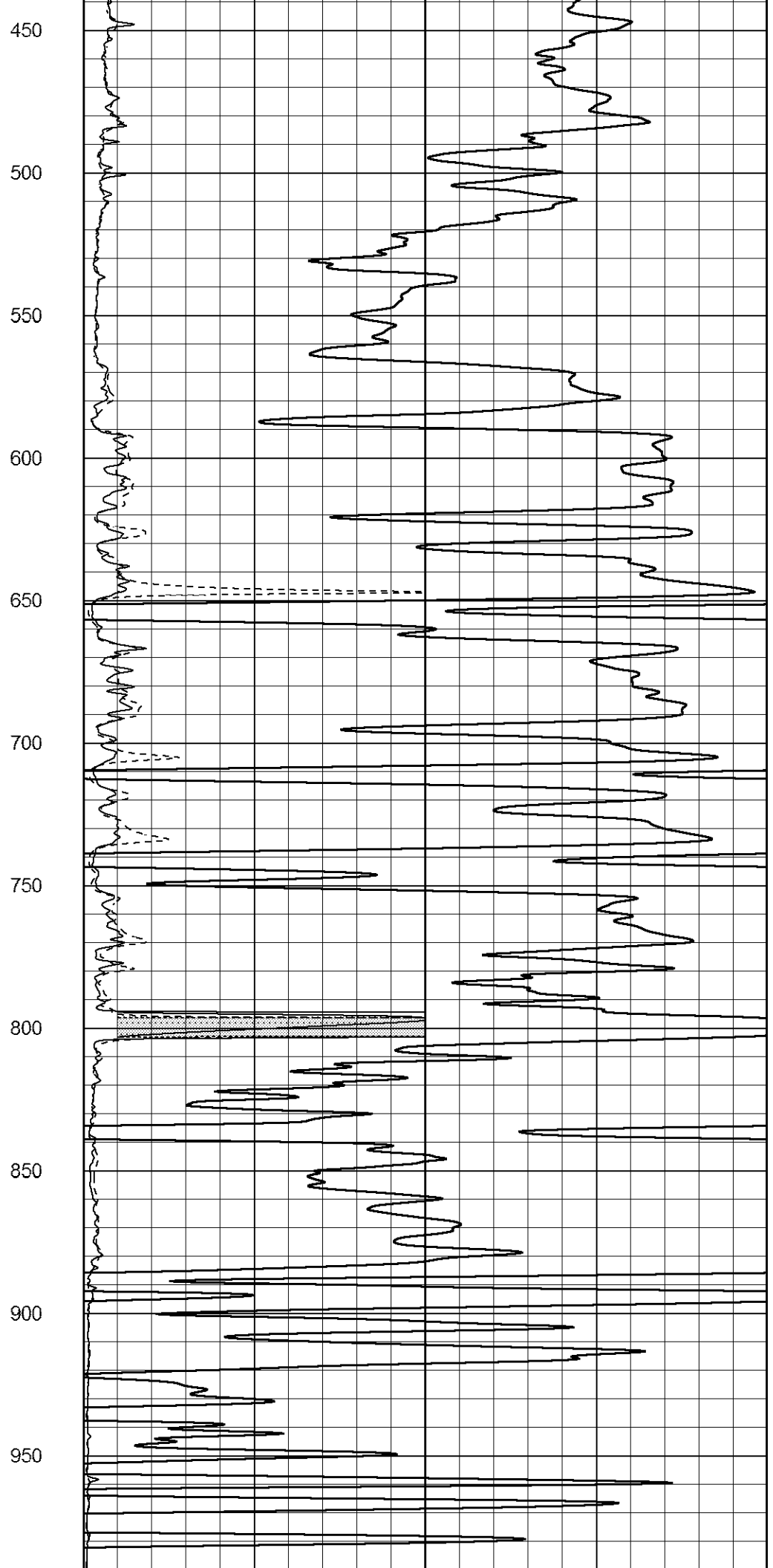
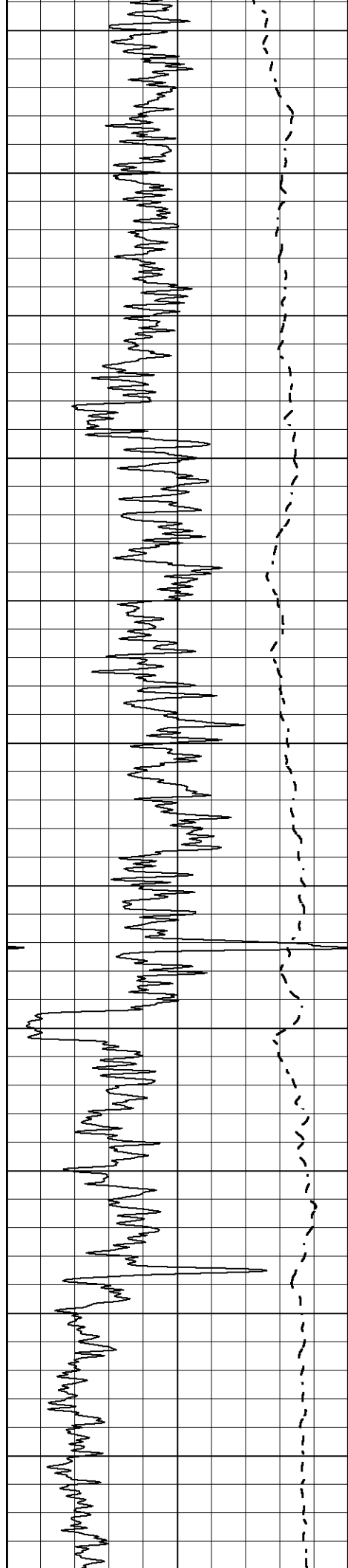
0 Gamma Ray (GAPI) 150
-100 SP (mV) 100

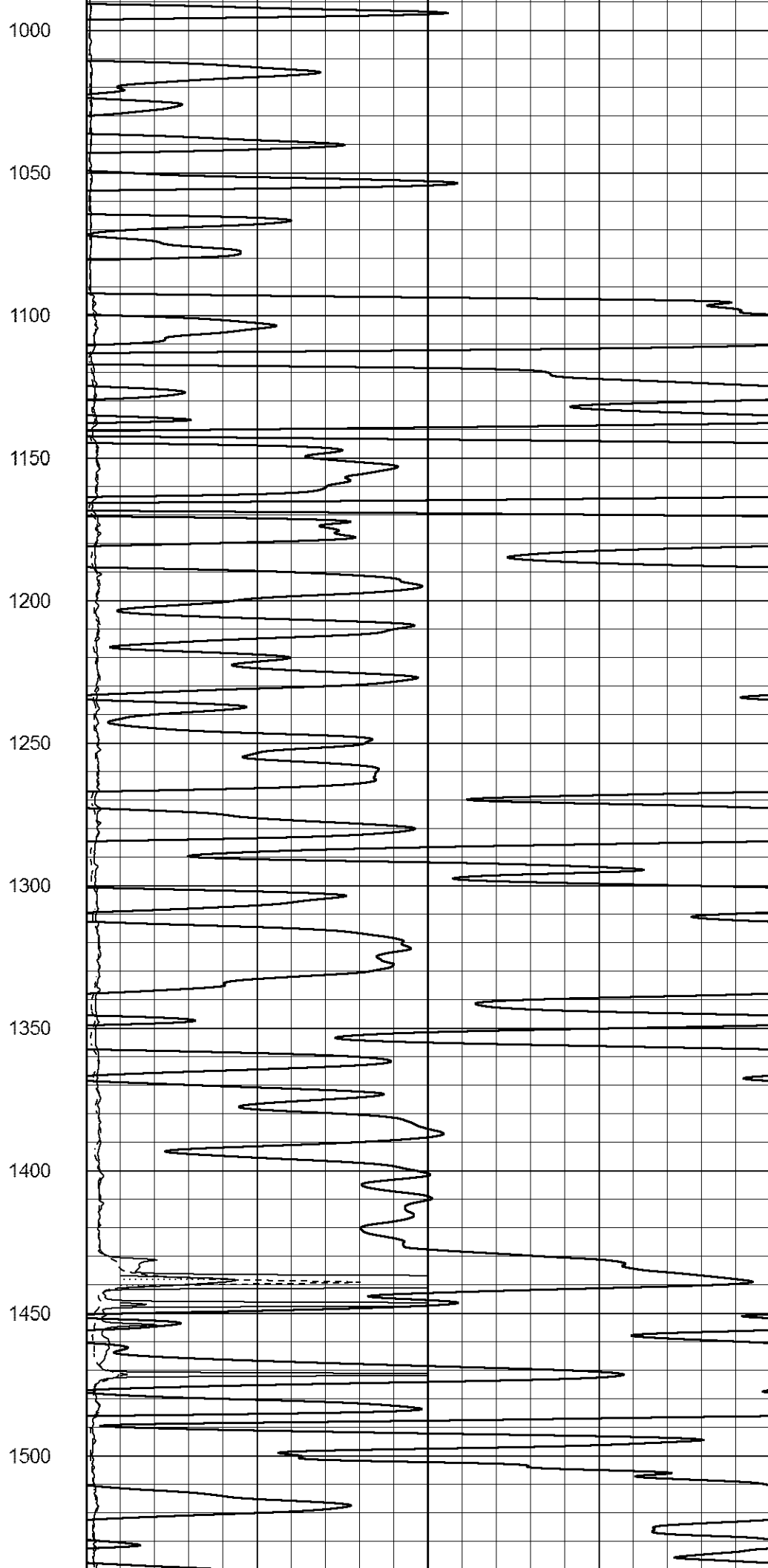
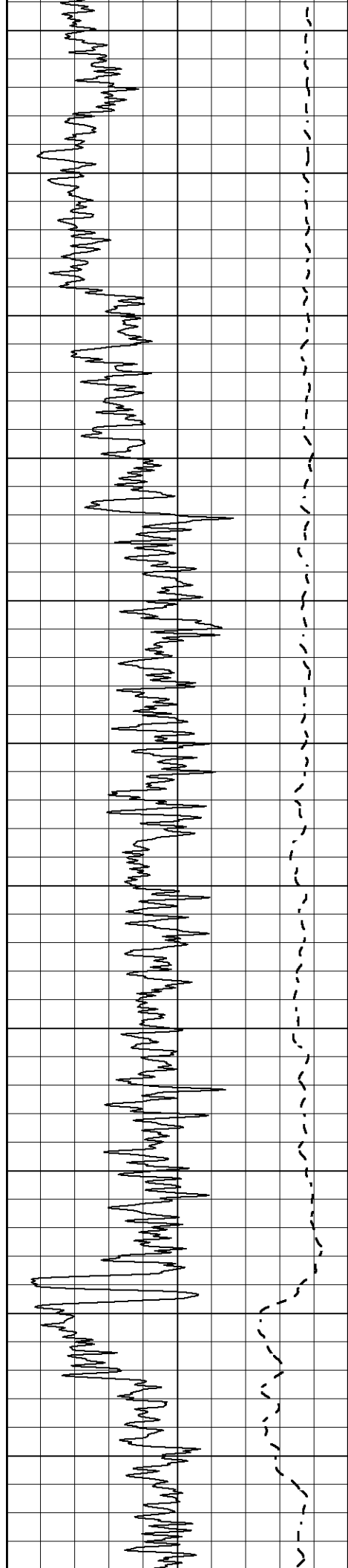
1000 CILD (mmho/m) 0
0 RLL3 (Ohm-m) 50
0 Deep Induction (Ohm-m) 50

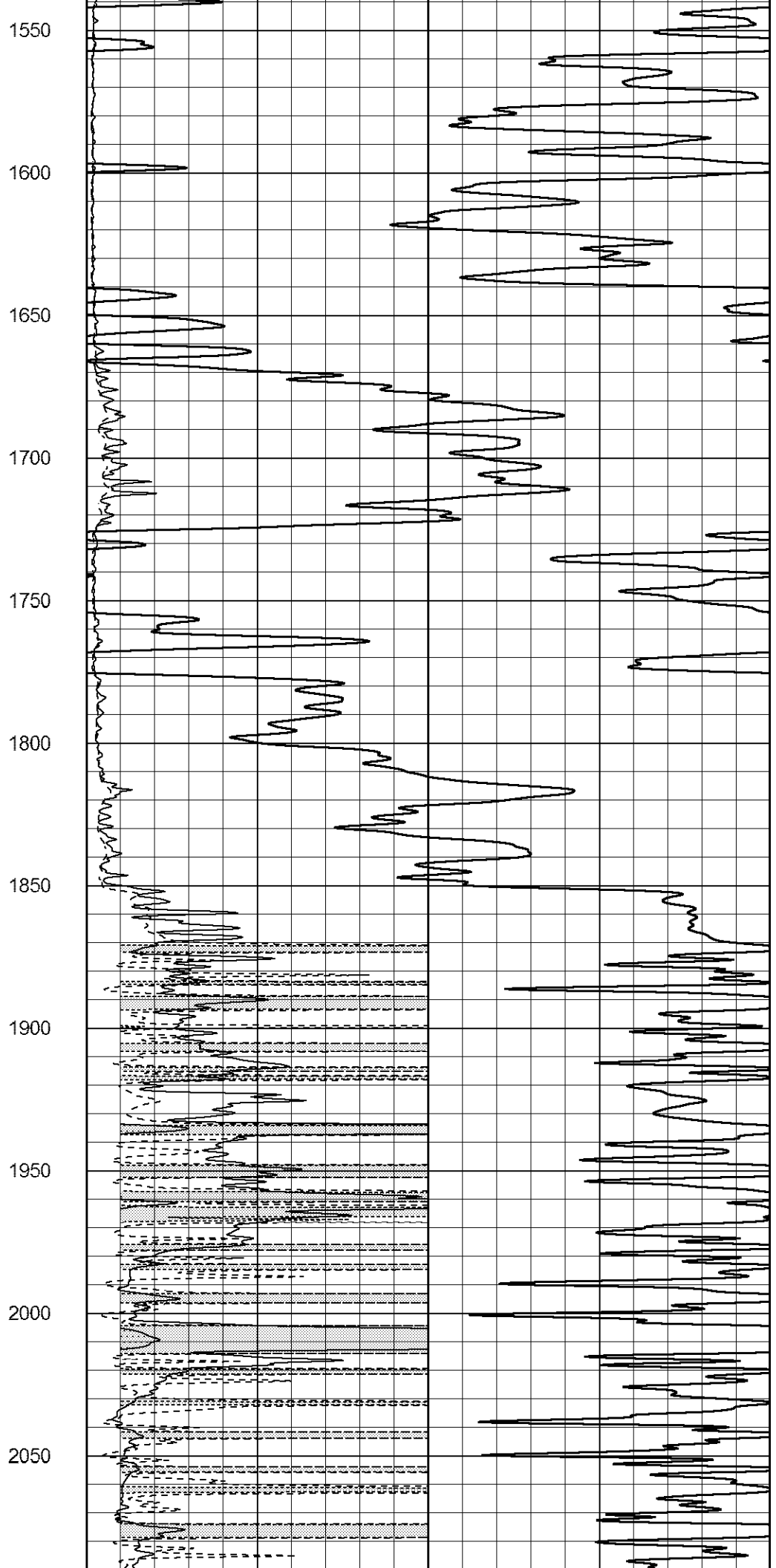
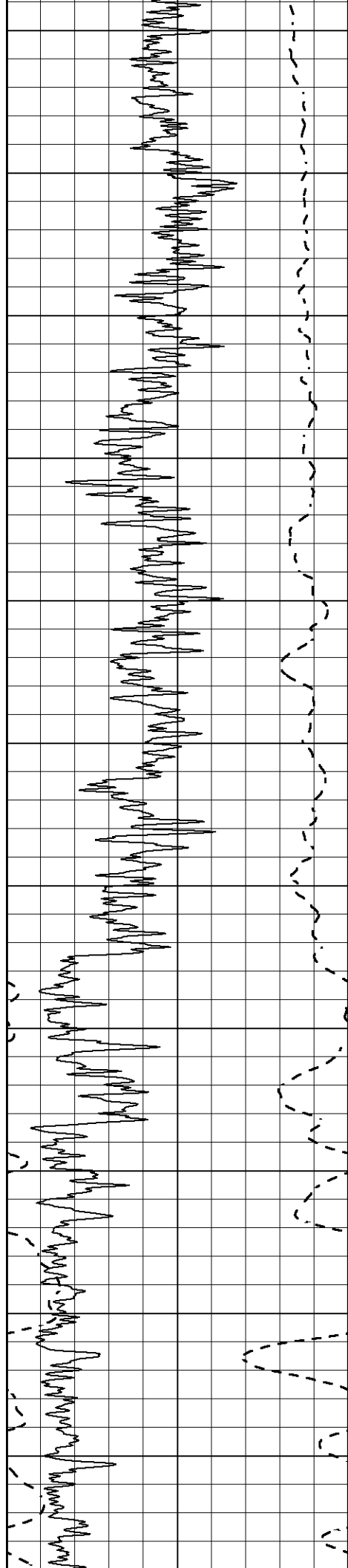
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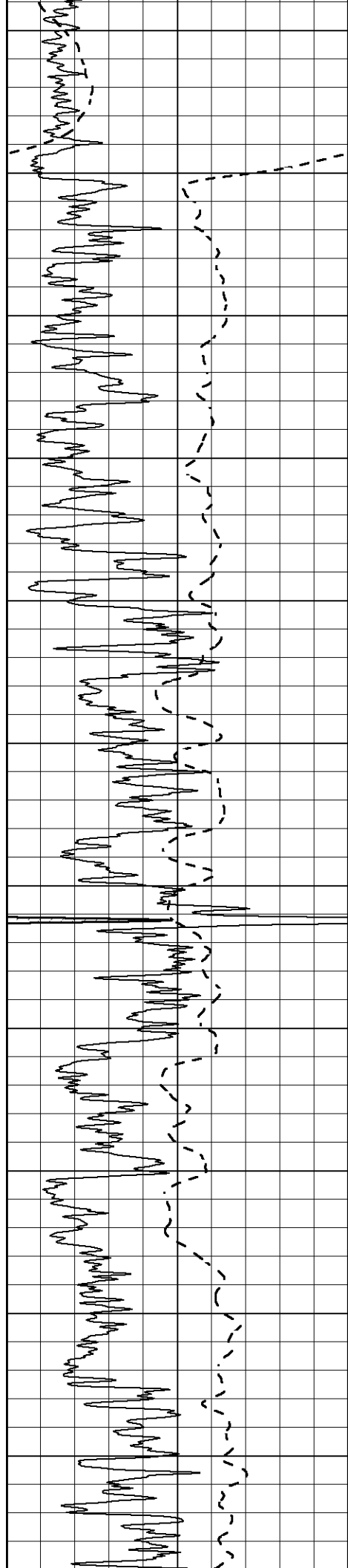
50 RLL3 X10 (Ohm-m) 500











2100

2150

2200

2250

2300

2350

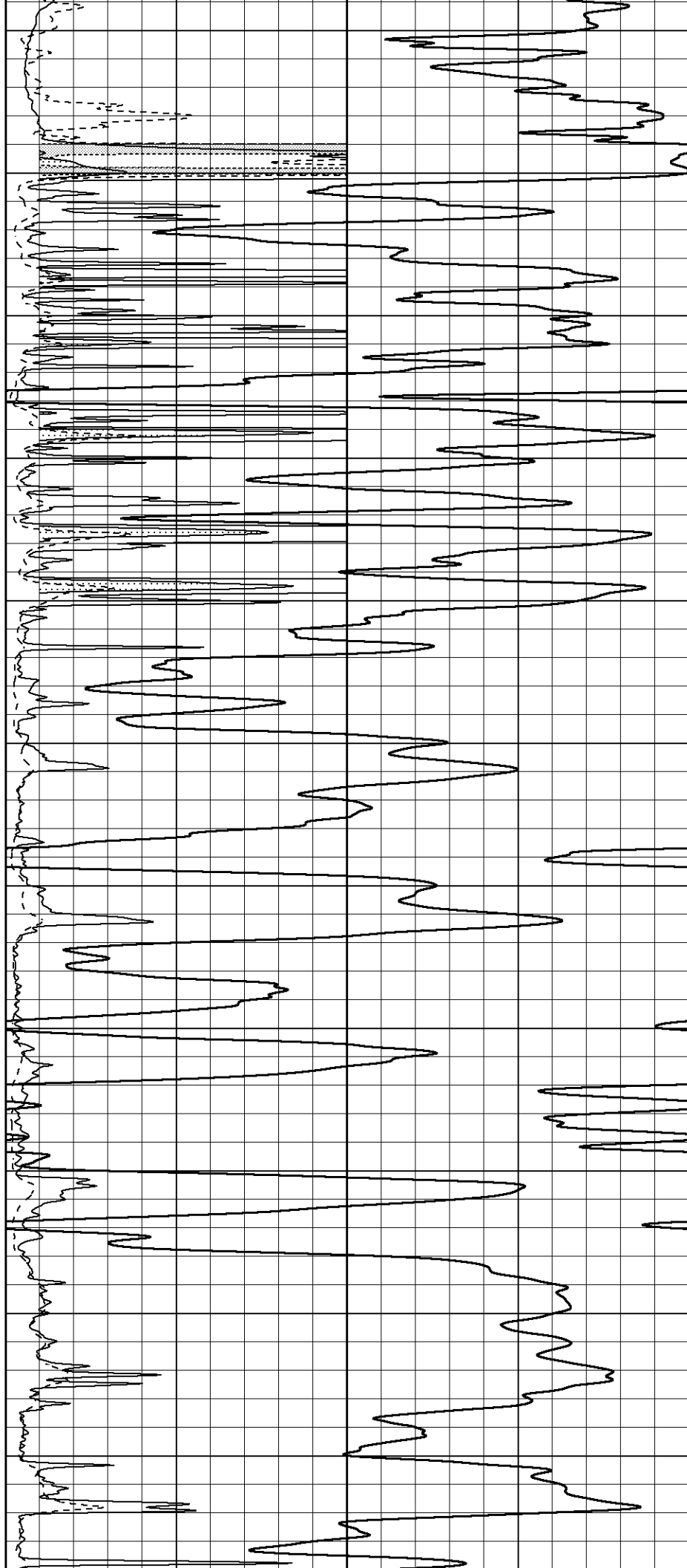
2400

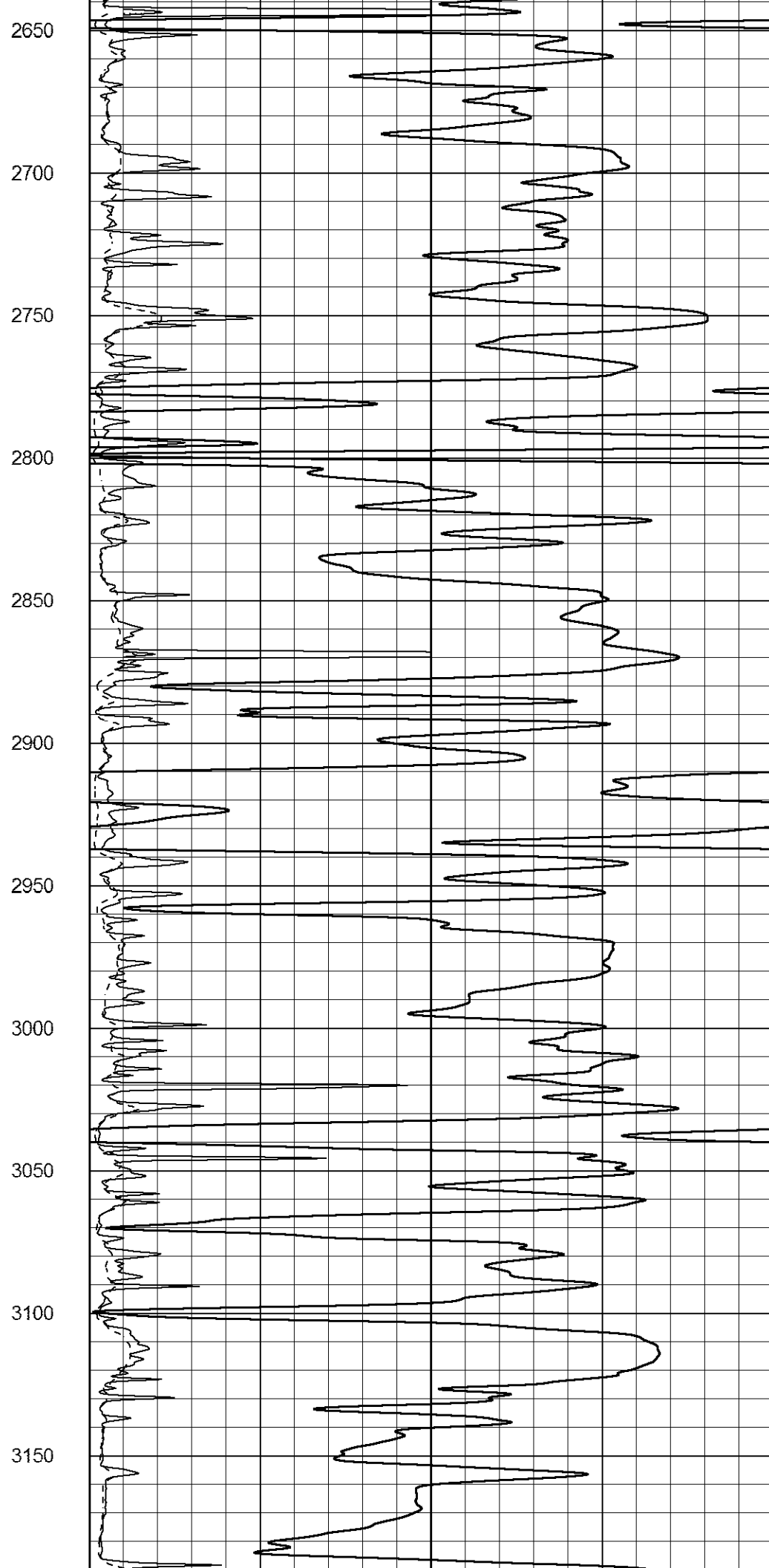
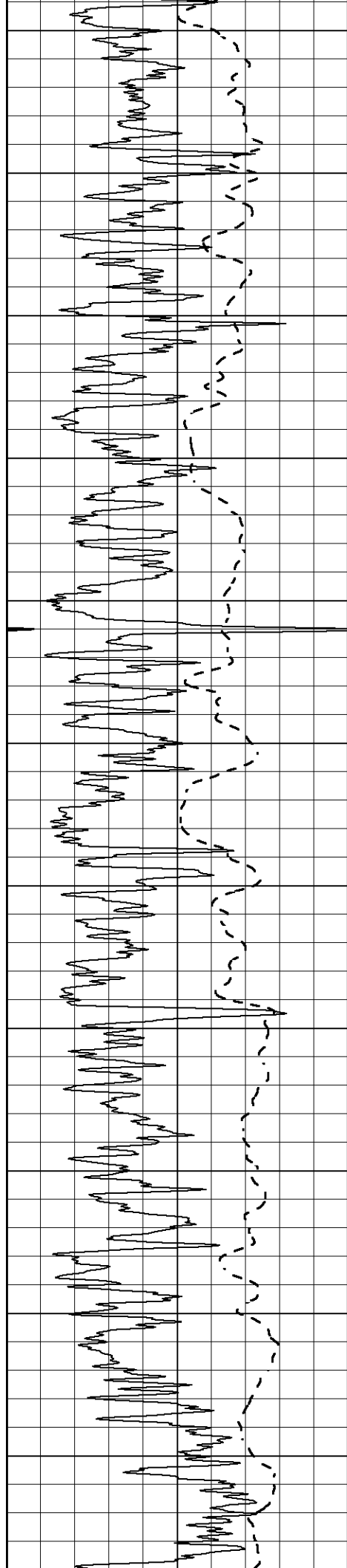
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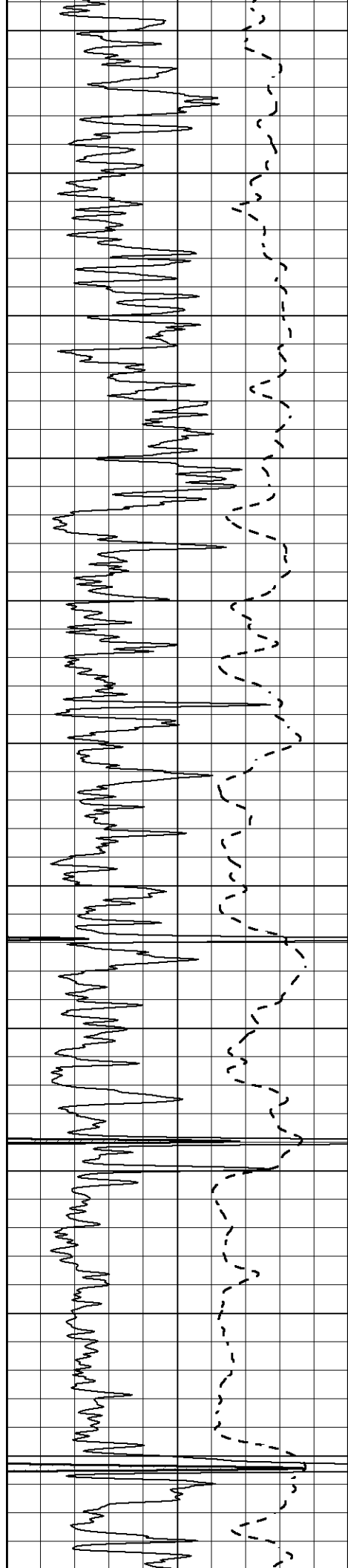
2500

2550

2600







3200

3250

3300

3350

3400

3450

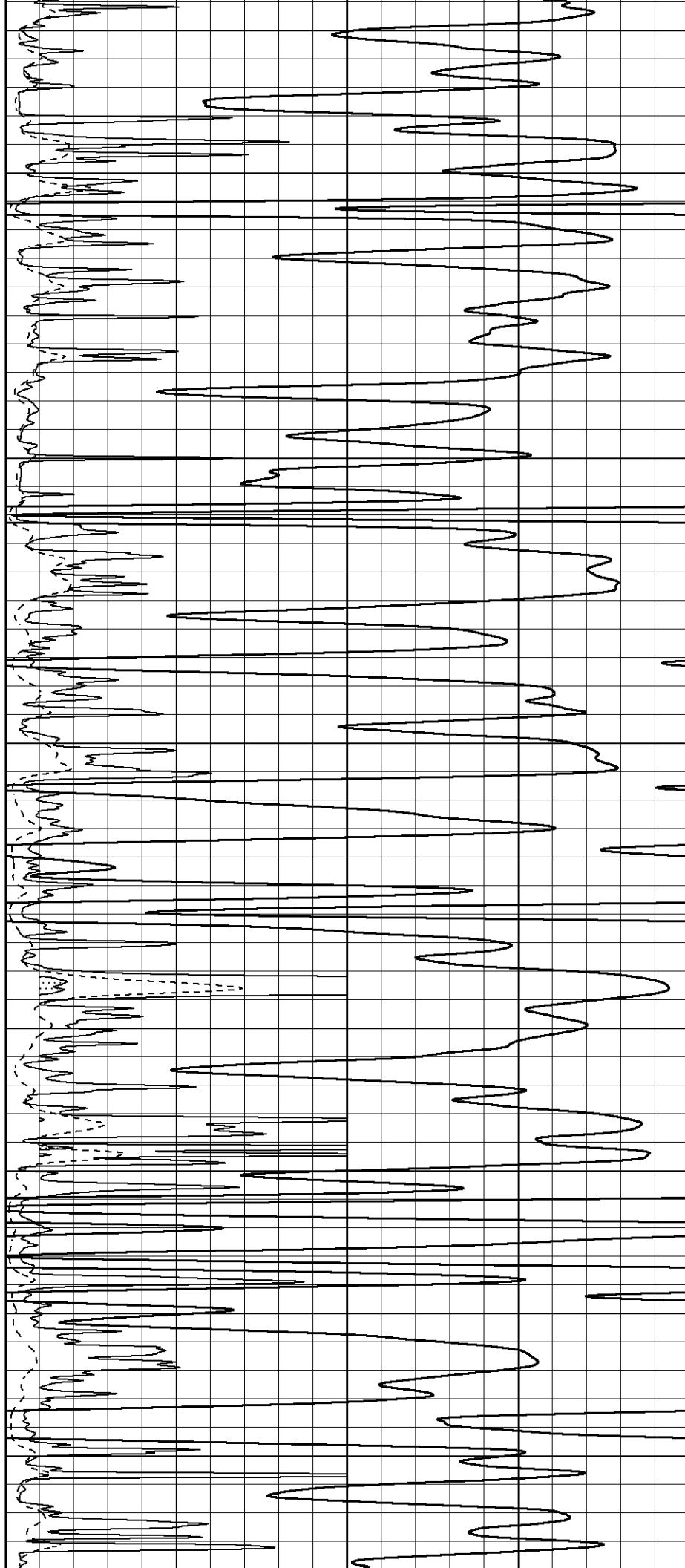
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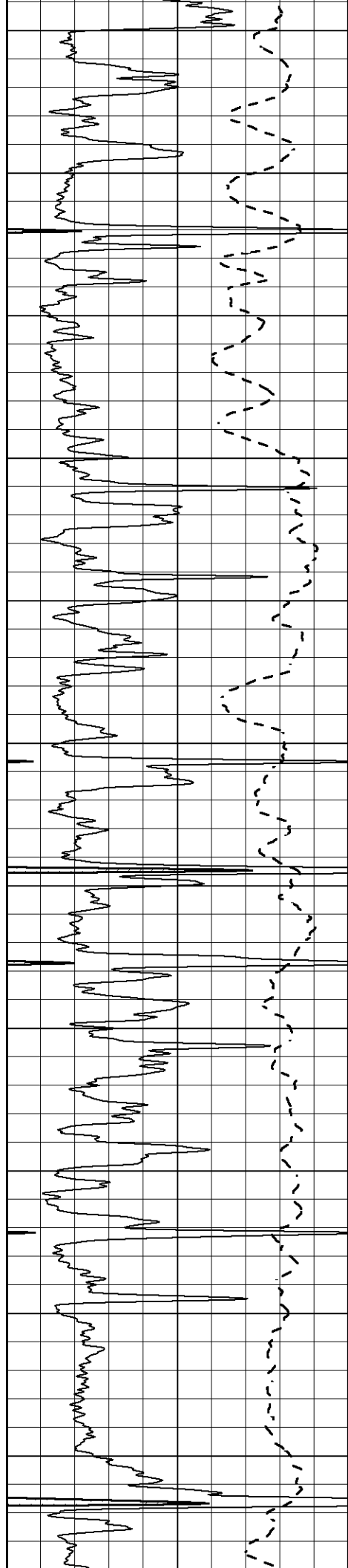
3550

3600

3650

3700





3750

3800

3850

3900

3950

4000

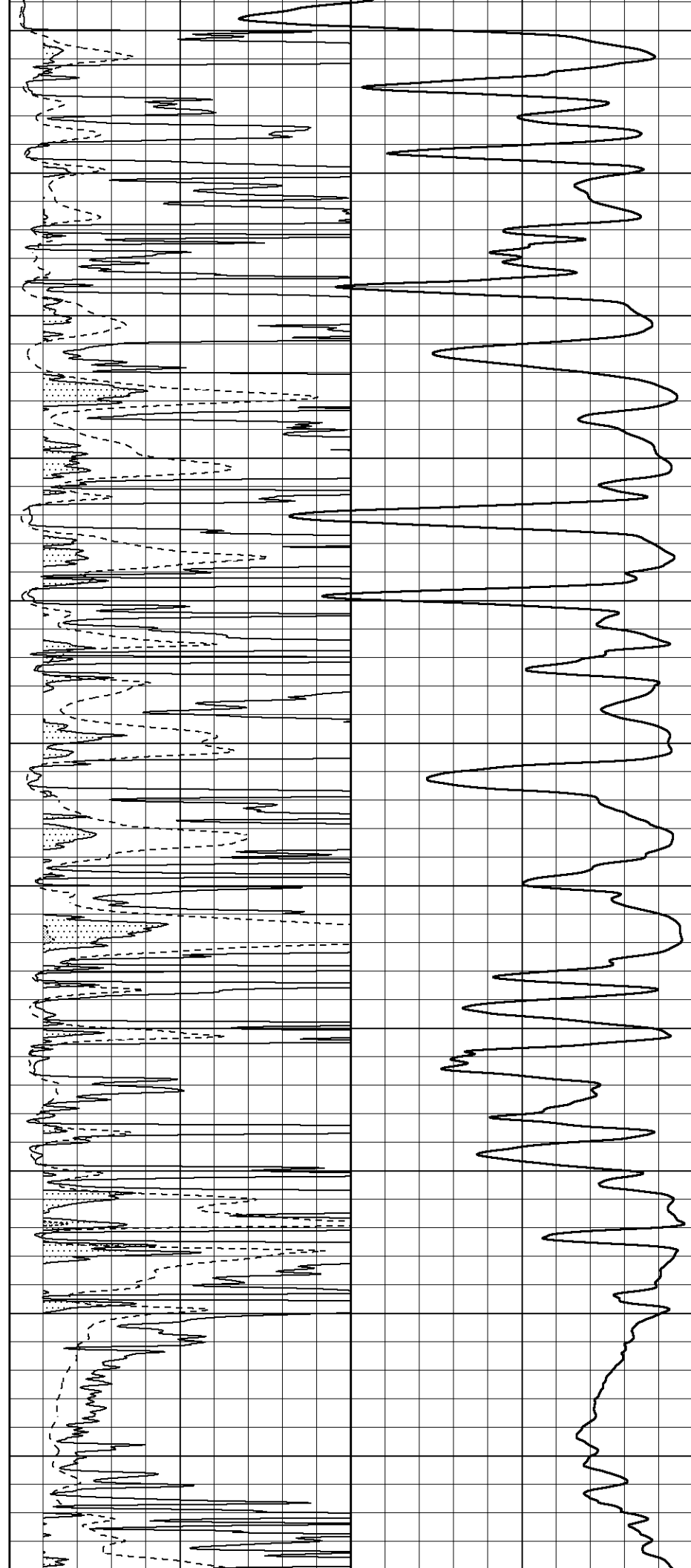
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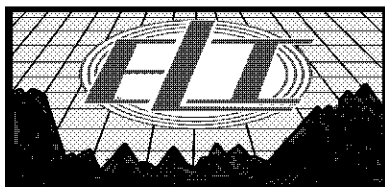
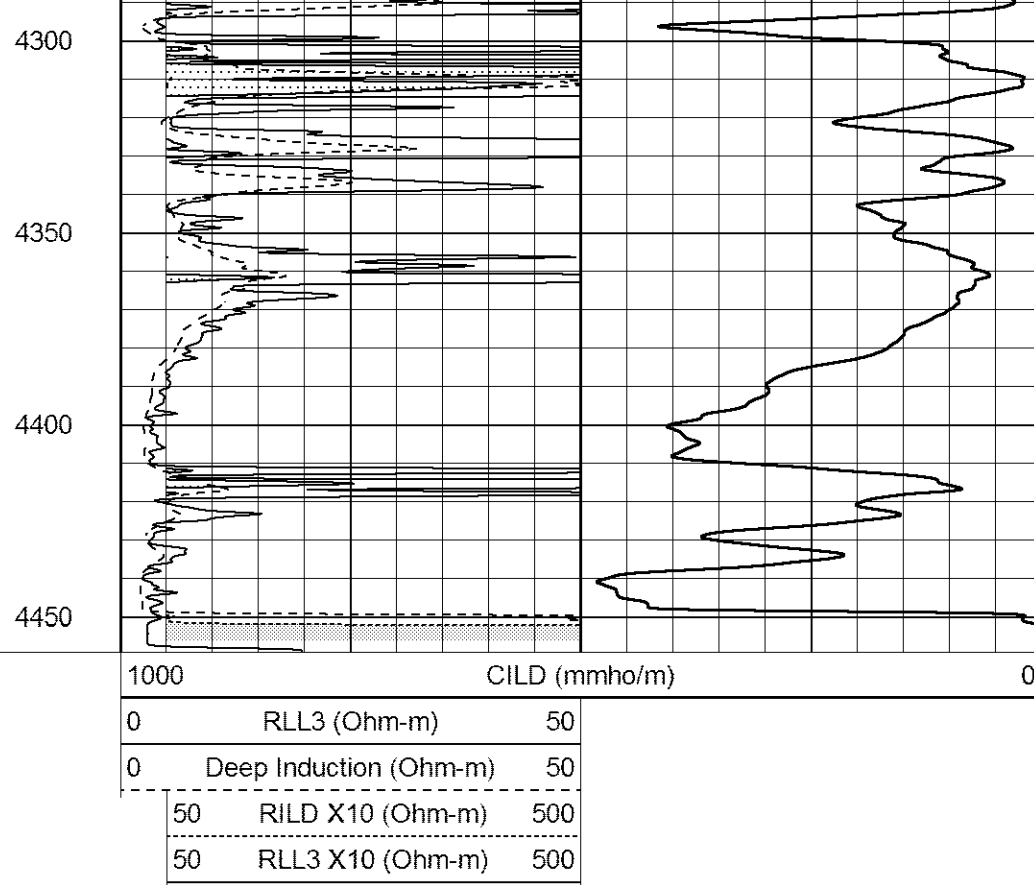
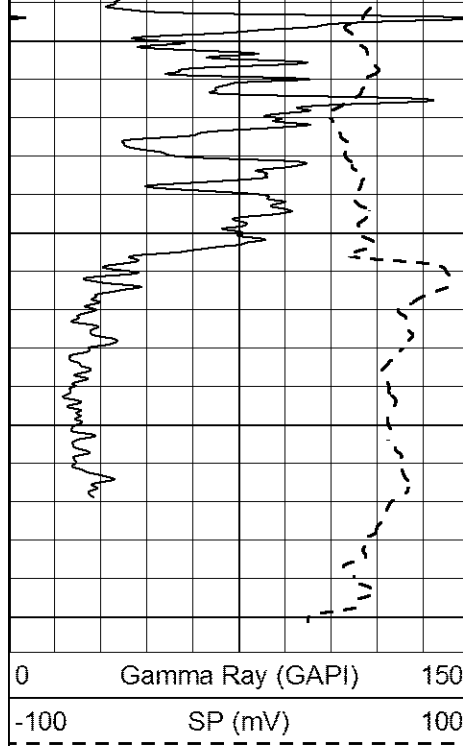
4100

4150

4200

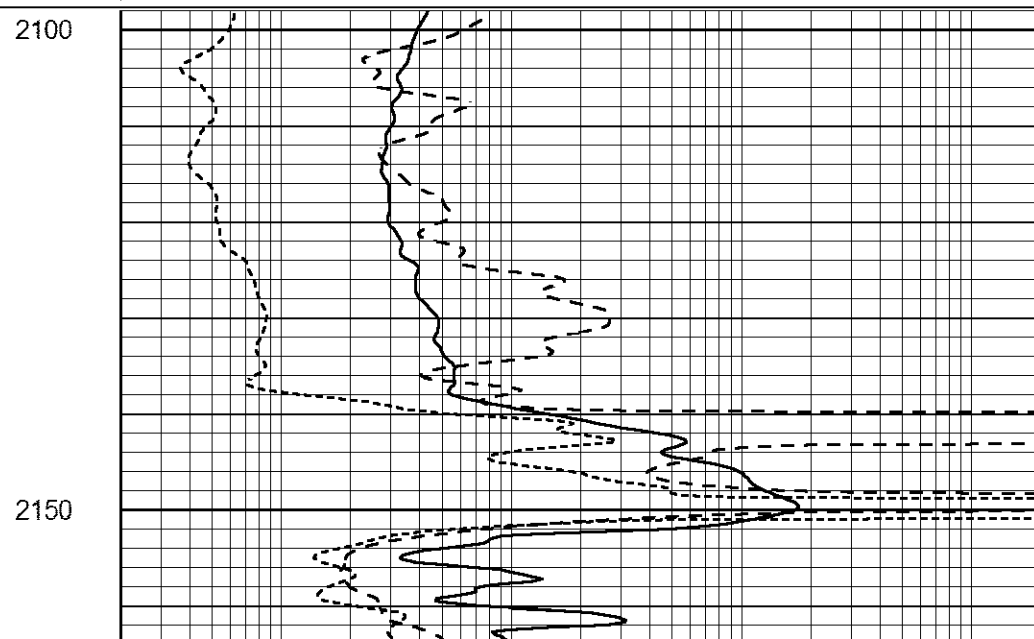
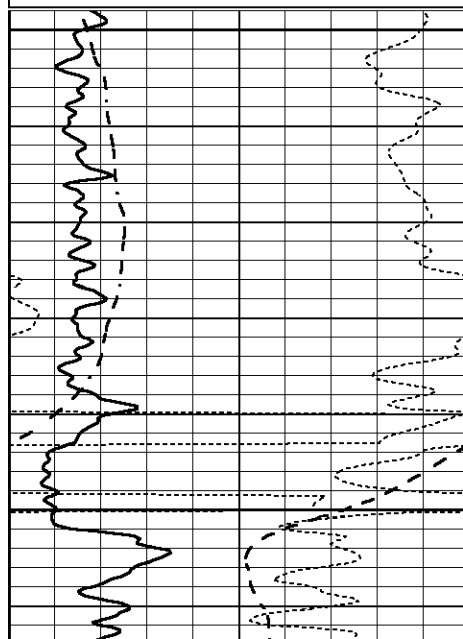
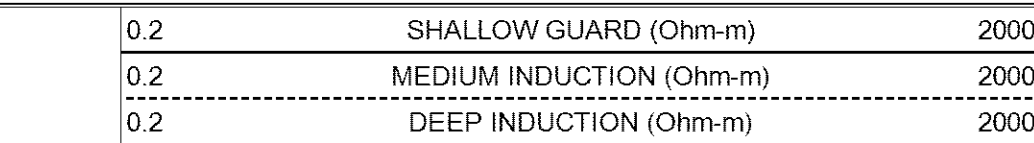
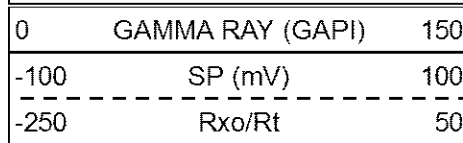
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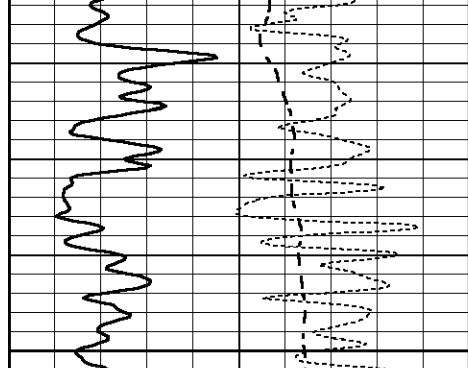




ANHYDRITE

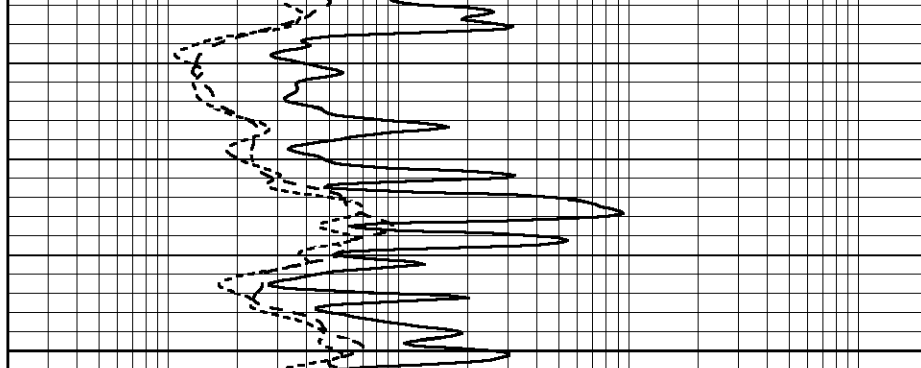
Database File 1565ddn8.db
 Dataset Pathname pass4.2
 Presentation Format _dil
 Dataset Creation Tue Jun 27 01:06:33 2017
 Charted by Depth in Feet scaled 1:240





2200

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



MAIN SECTION

Database File 1565ddn8.db
 Dataset Pathname pass4.1
 Presentation Format _dil
 Dataset Creation Tue Jun 27 00:49:23 2017
 Charted by Depth in Feet scaled 1:240

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

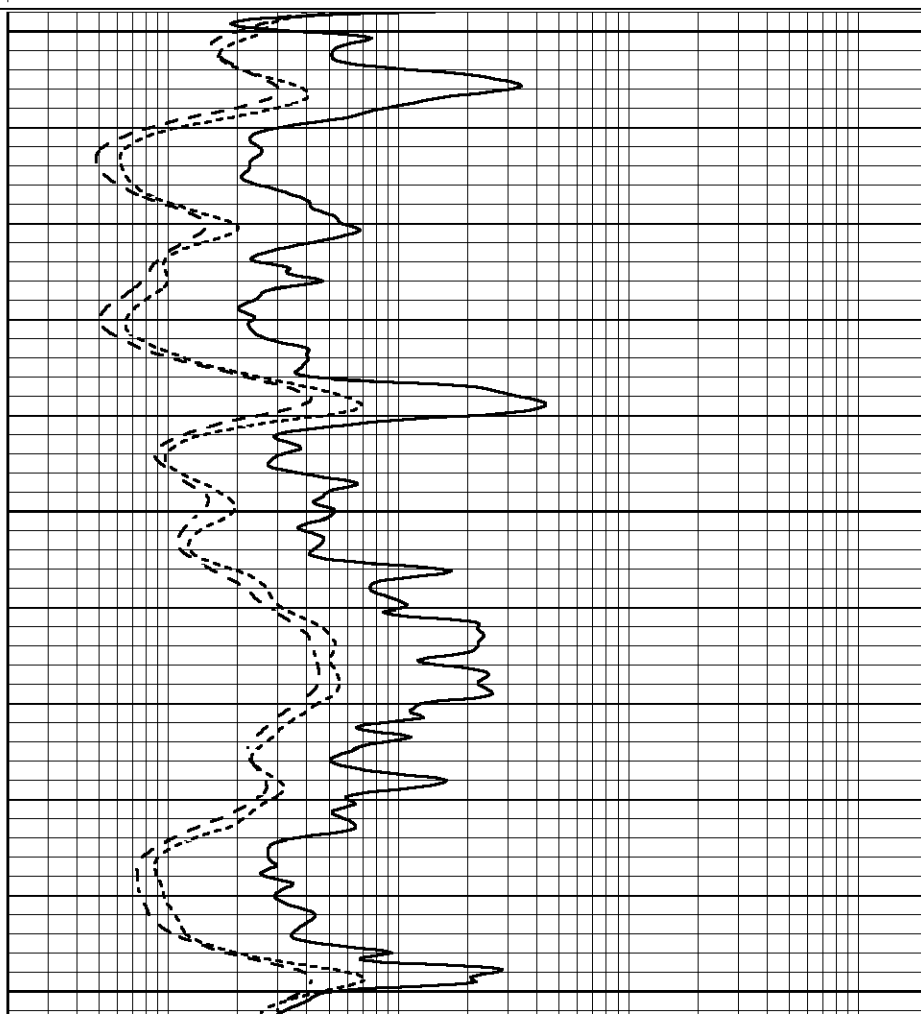
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000

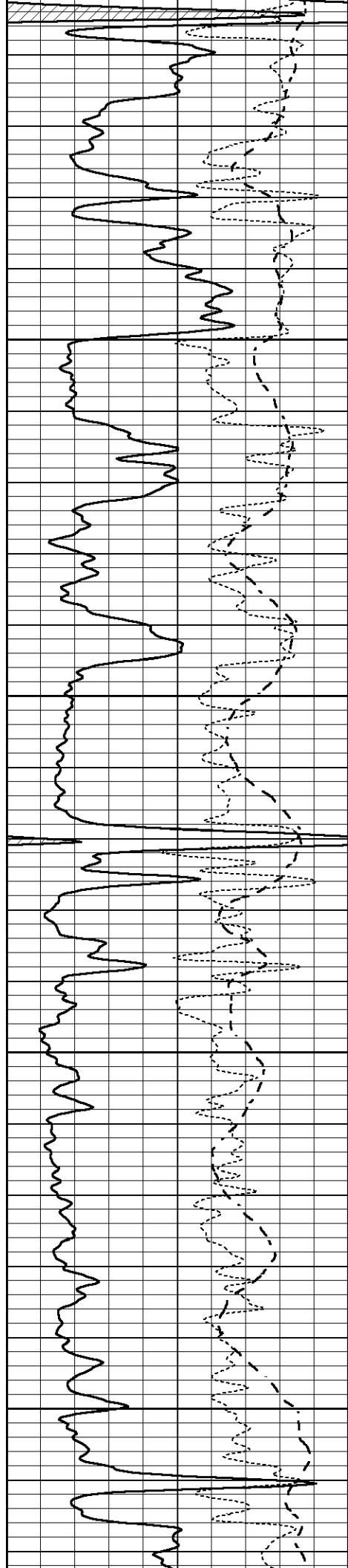


3600

3650

3700



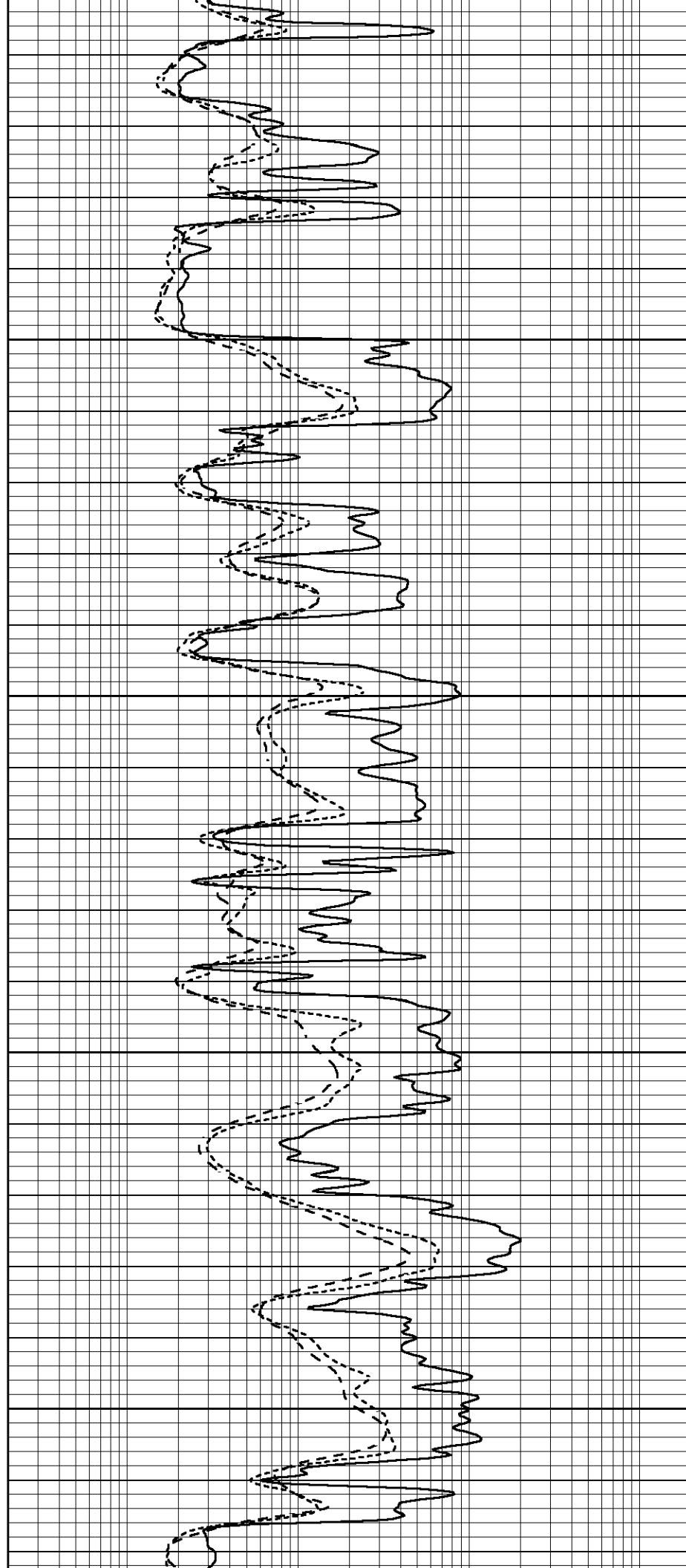


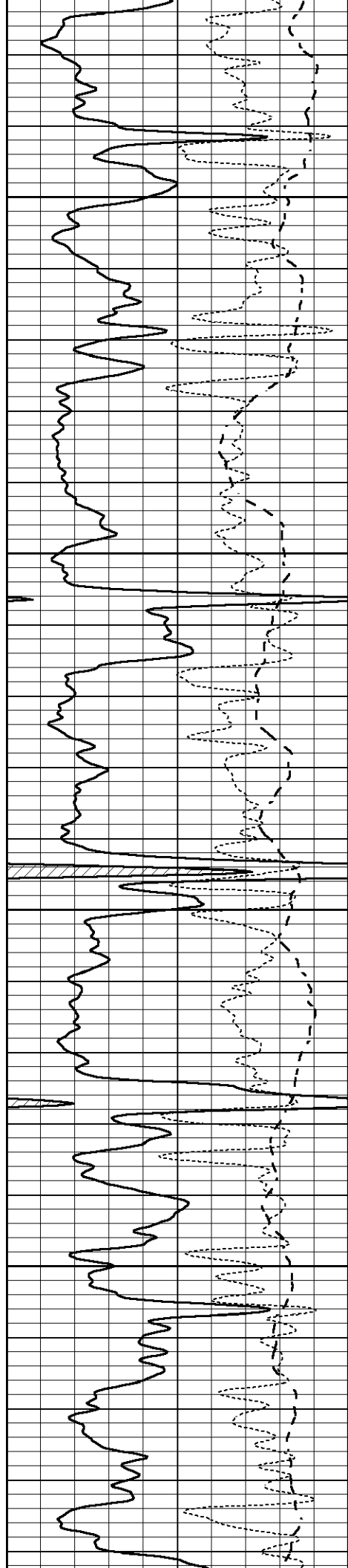
3750

3800

3850

3900



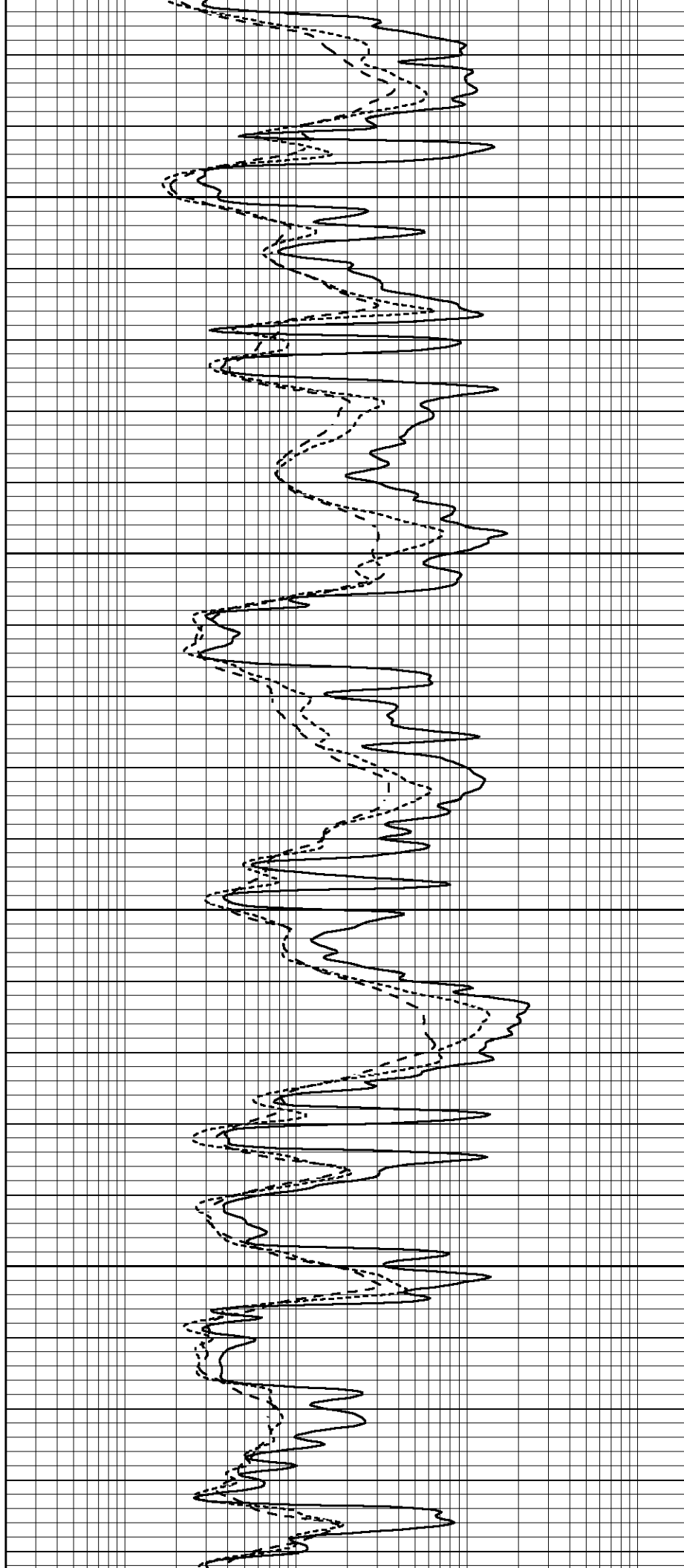


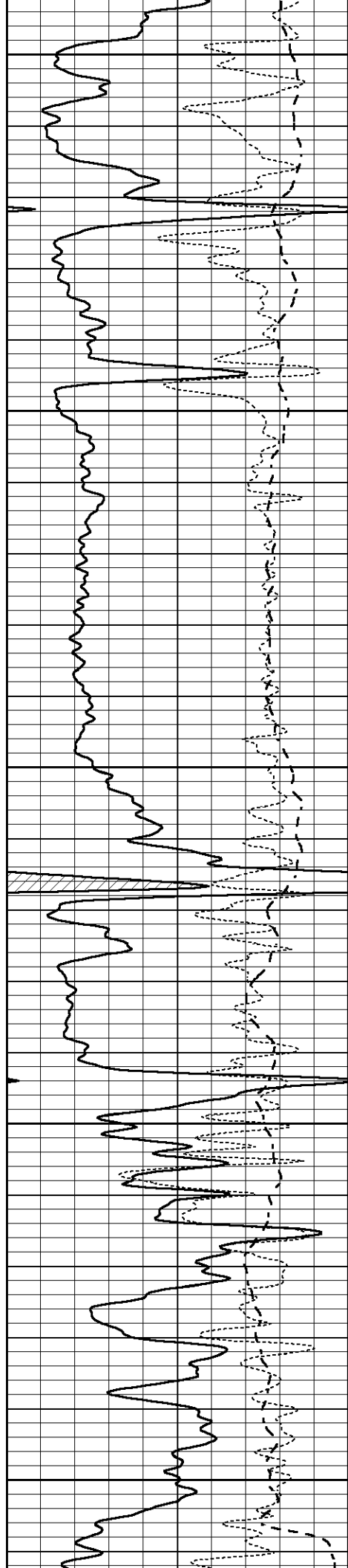
3950

4000

4050

4100





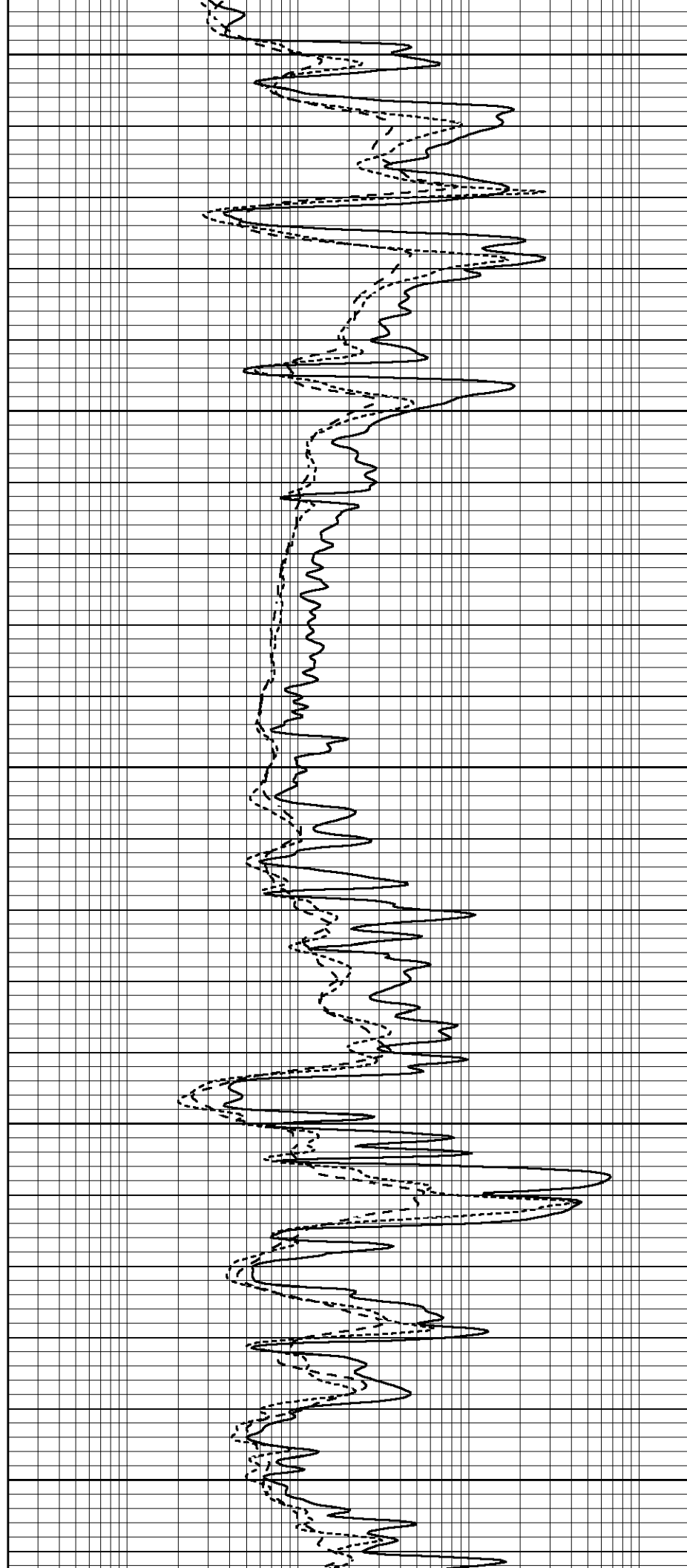
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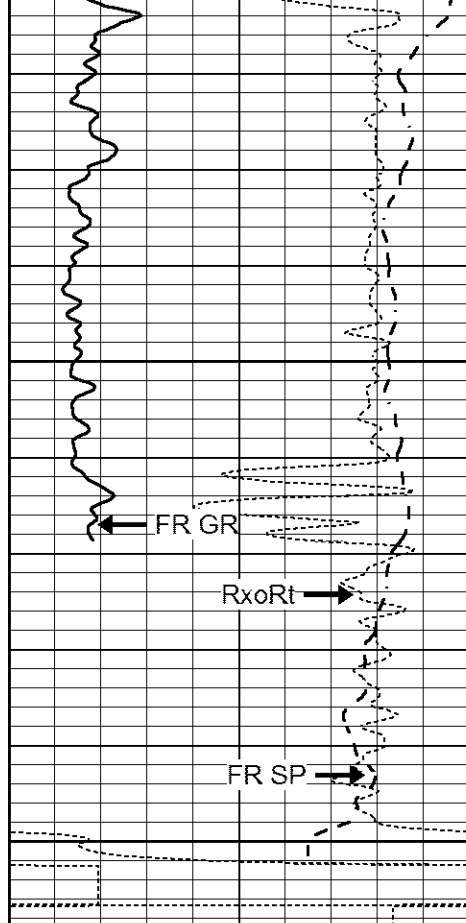
4200

4250

4300

4350

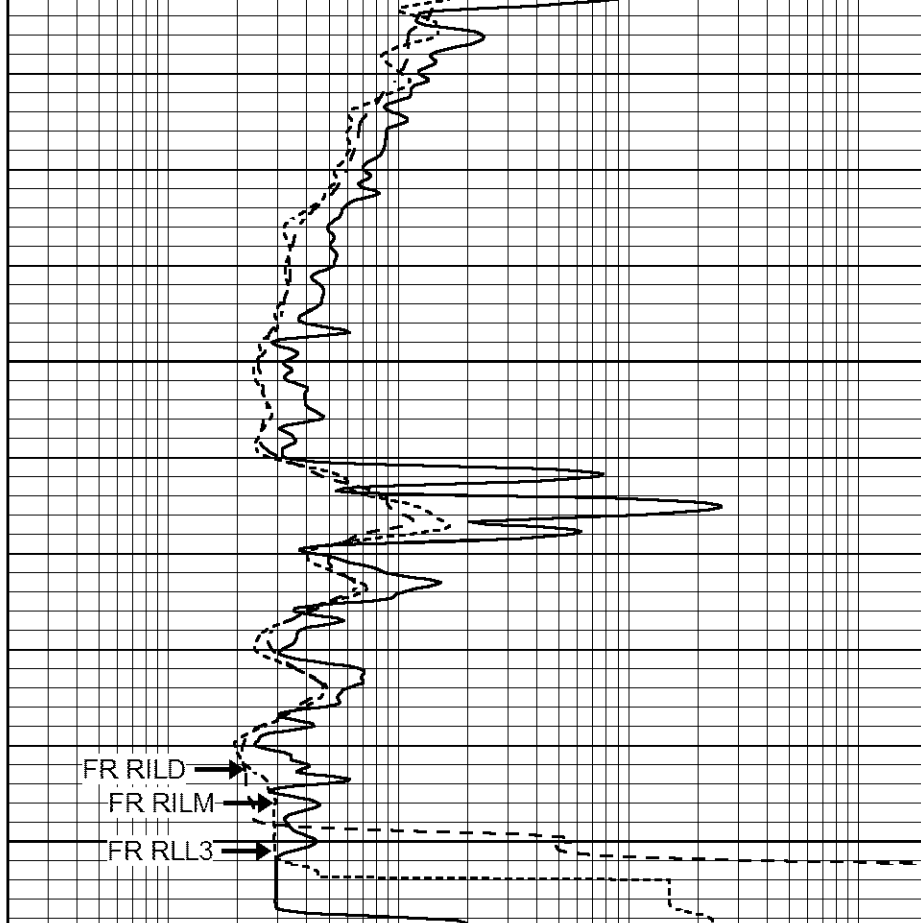




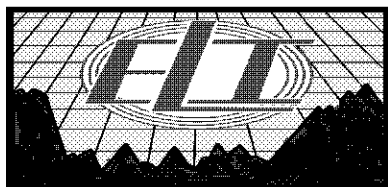
4400

4450
LTD 4453

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



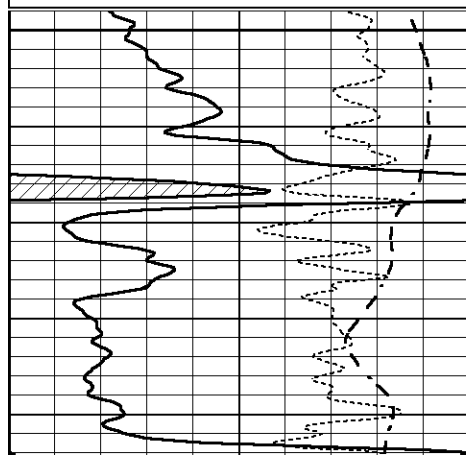
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0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000



REPEAT SECTION

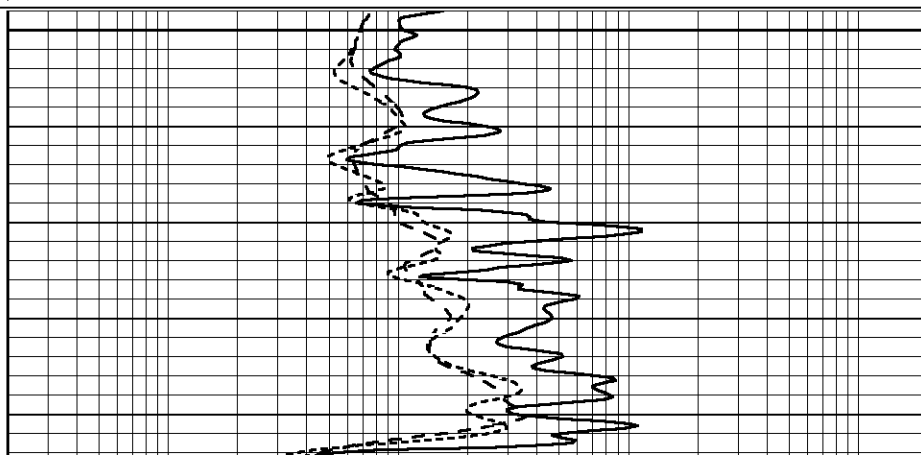
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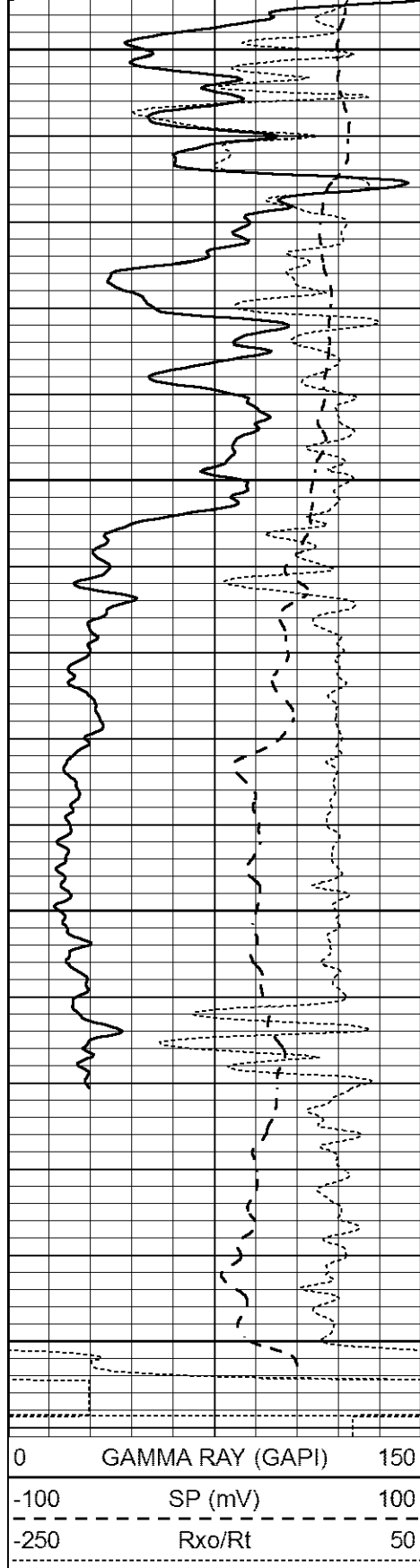
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-100	SP (mV)	100
-250	Rxo/Rt	50



4250

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



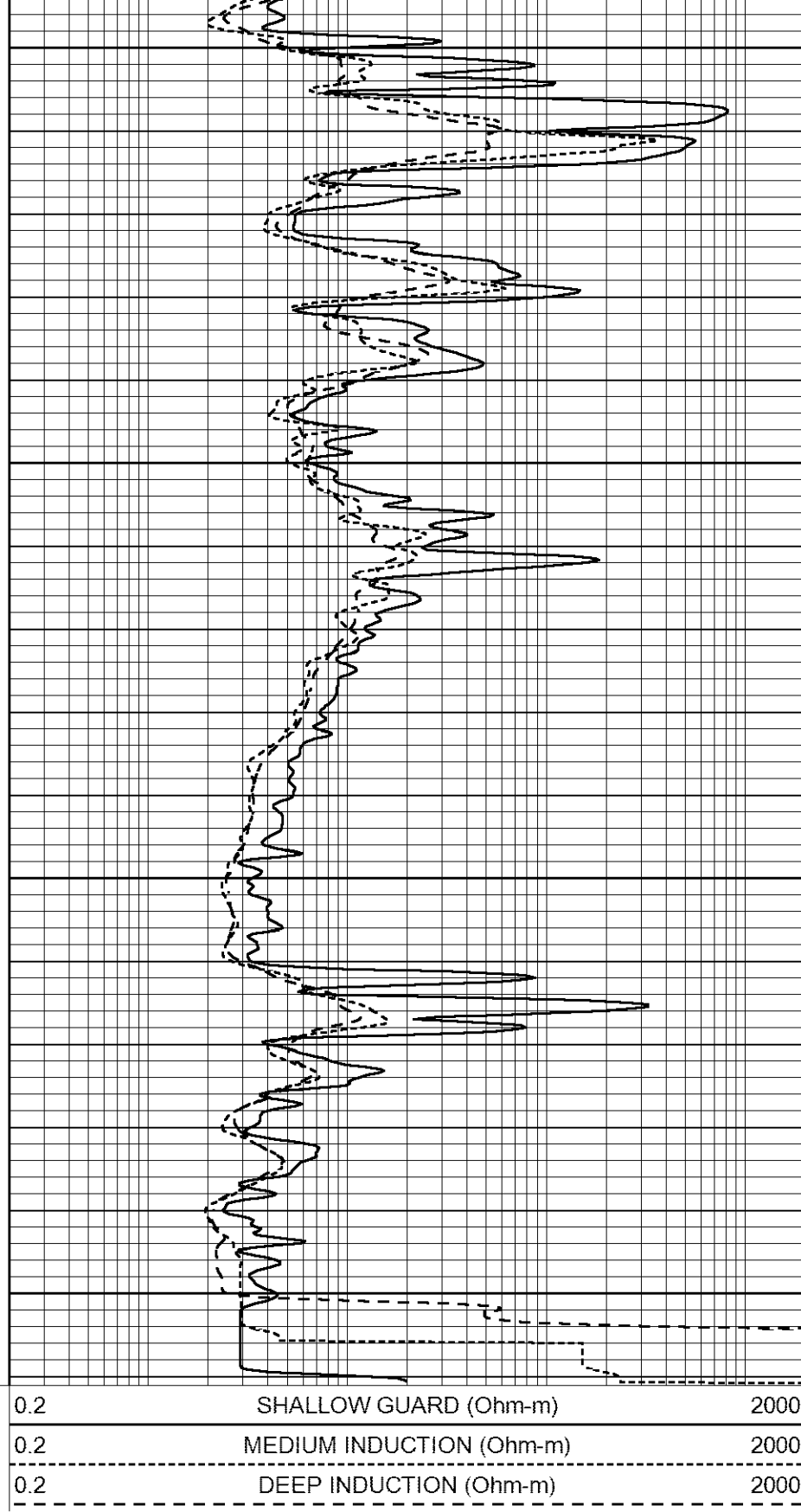


4300

4350

4400

4450



Calibration Report

Database File 1565ddn8.db
 Dataset Pathname pass3.1
 Dataset Creation Tue Jun 27 00:51:46 2017

Dual Induction Calibration Report

Serial-Model: FW1410-56-Probe
 Surface Cal Performed: Fri Mar 13 14:03:50 2015
 Deep Induction Cal Performed: Fri Mar 13 15:27:00 2015

Surface Calibration								
Readings			References				Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.008	0.765	V	1.000	400.000	mmho/m	527.061	-3.201
Medium	-0.056	0.761	V	1.000	464.000	mmho/m	567.187	32.510
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.005	0.624	V	0.000	400.000	mmho/m	645.611	-3.034
Medium	0.012	0.721	V	0.000	464.000	mmho/m	653.591	-7.532

Downhole Calibration								
Readings			References				Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	-0.647	301.329	mmho/m	-0.780	336.378	mmho/m	1.117	-0.058
Medium	38.256	411.013	mmho/m	39.046	441.706	mmho/m	1.080	-2.280
LL3		7.471	V		1500.000	Ohm-m		
		0.001	V		20.000	Ohm-m		
		-7.085	V		6000.000	mmho-m		

After Survey Verification								
Readings			Targets				Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	-0.647	301.329	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	38.256	411.013	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 Feb 11 18:53:41 2015			
	Background	Aluminum	Magnesium				
Window 1	613.01	6027.40	27508.60	cps			
Window 2	48.21	1424.77	7132.66	cps			
Window 4	266.48	1373.19	5767.15	cps			
Window 5	622.07	10090.30	18937.90	cps			
Window 6	49.07	1682.84	3271.18	cps			
Window 8	298.04	3248.38	5980.58	cps			
Bulk Density	-	2.6020	1.6830	g/cc			
Pe	-	3.0000	2.5070	b/e			
LS Alpha:	: -1.8451	SS Alpha:	: -0.7542	LS CPE:		: 1.0882	
LS Beta:	: 138648.8473	SS Beta:	: 21960.9250	SS CPE:		: 1.5181	

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 Feb 11 18:53:41 2015

Results	Readings	References (in)			
Low	High	Low	High	Gain	Offset
1107.5	7124.1	8.0	15.0	0.0	6.5

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:070558

Tool Model:Probe1

Performed:Mon May 22 14:24:46 2017

Calibrator Value:1.0GAPI

Background Reading:0.0cps

Calibrator Reading:1.0cps

Sensitivity:0.3000GAPI/cps

