



**DUAL
INDUCTION
LOG**

Company JASPAR CO. INC.
Well LARRY #2
Field WANKER
County ROOKS State KANSAS

Location: API #: 15-163-24450-0000
330' FSL & 1650' FEL
SE/SW/SE
SEC 20 TWP 9S RGE 19W
Permanent Datum GROUND LEVEL Elevation 2167
Log Measured From KELLY BUSHING 7' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
CNL/CDL
MEL
Elevation
K.B. 2174
D.F. 2172
G.L. 2167

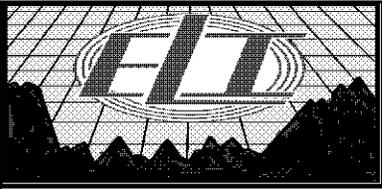
Date	4/19/22		
Run Number	ONE		
Depth Driller	3700		
Depth Logger	3699		
Bottom Logged Interval	3697		
Top Log Interval	00		
Casing Driller	8 5/8" @ 223		
Casing Logger	223		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 2000 PPM	
Density / Viscosity	9.1/70		
PH / Fluid Loss	9.5/8.4		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.2 @ 70F		
Rmt @ Meas. Temp	.9 @ 70F		
Rmc @ Meas. Temp	1.44 @ 70F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.74 @ 113F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	////		
Maximum Recorded Temperature	113F		
Equipment Number	3802		
Location	HAYS, KANSAS		
Recorded By	TJ DREILING		
Witnessed By	CAMERON BRIN		

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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

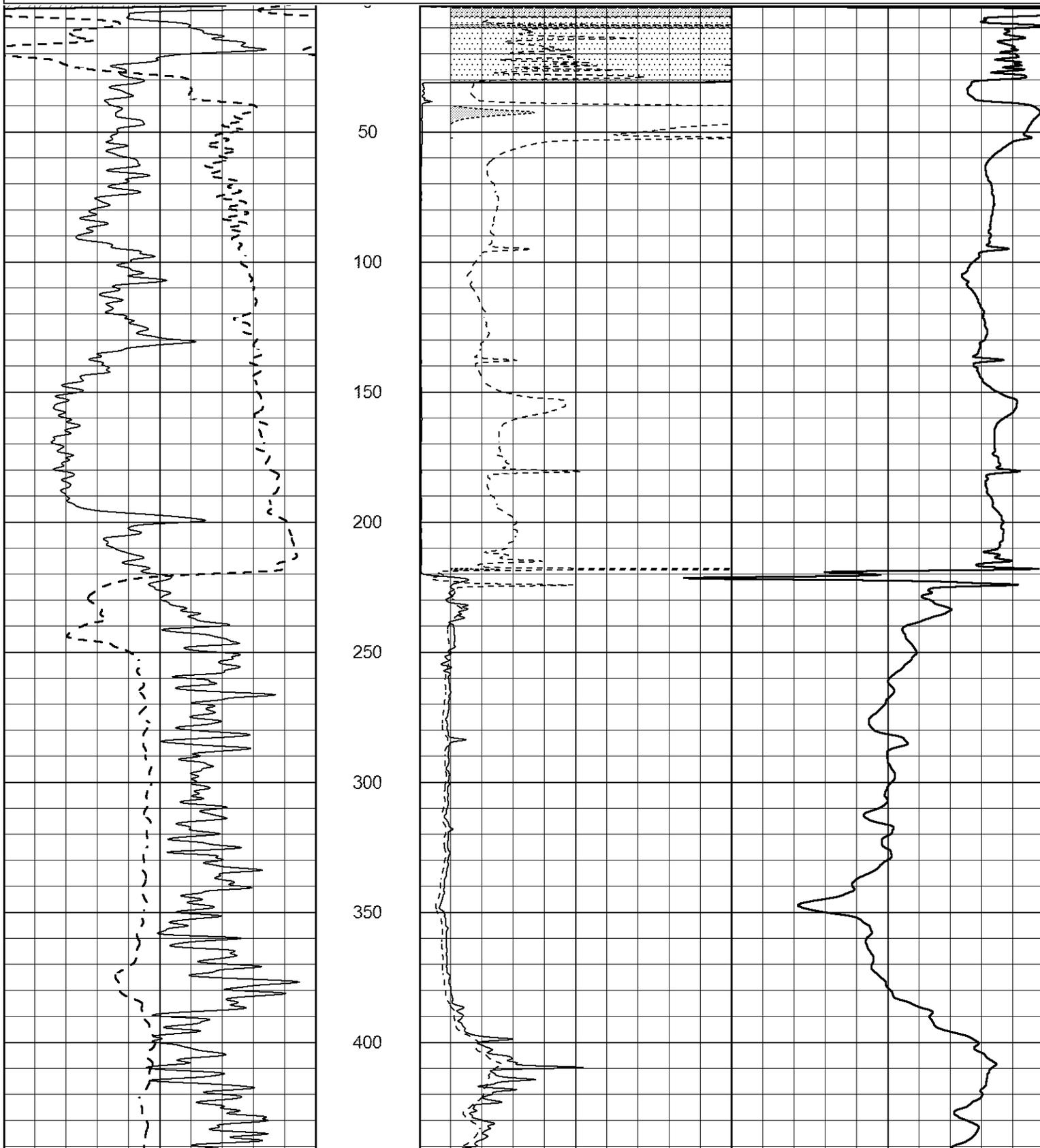
THANK YOU FOR USING ELI WIRELINE SERVICES, HAYS, KS. (785) 628-6395
DIRECTIONS
-ZURICH KANSAS, NORTH 1 MILE, -WEST 1-1/4 MILE,
-NORTH INTO BY TANK BATTERIES

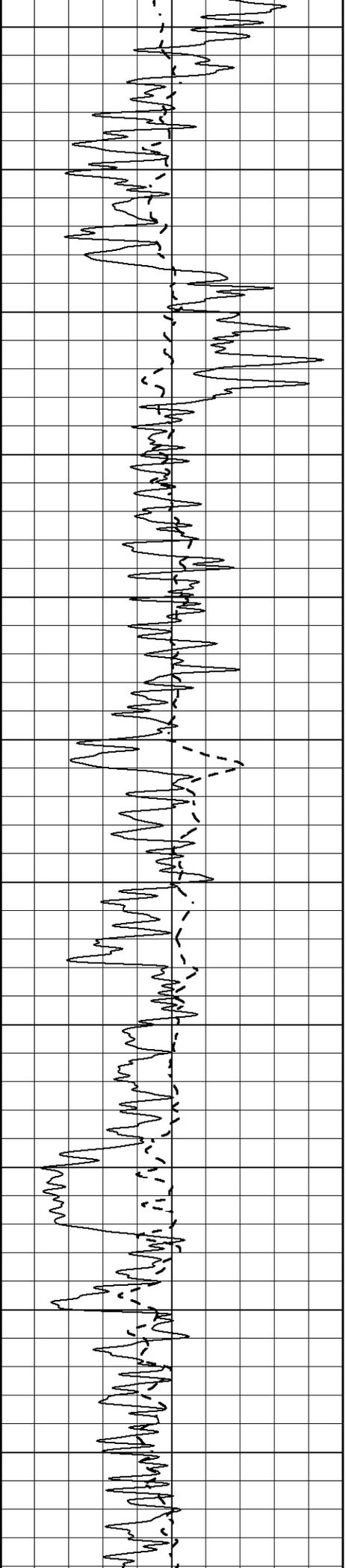


MAIN SECTION

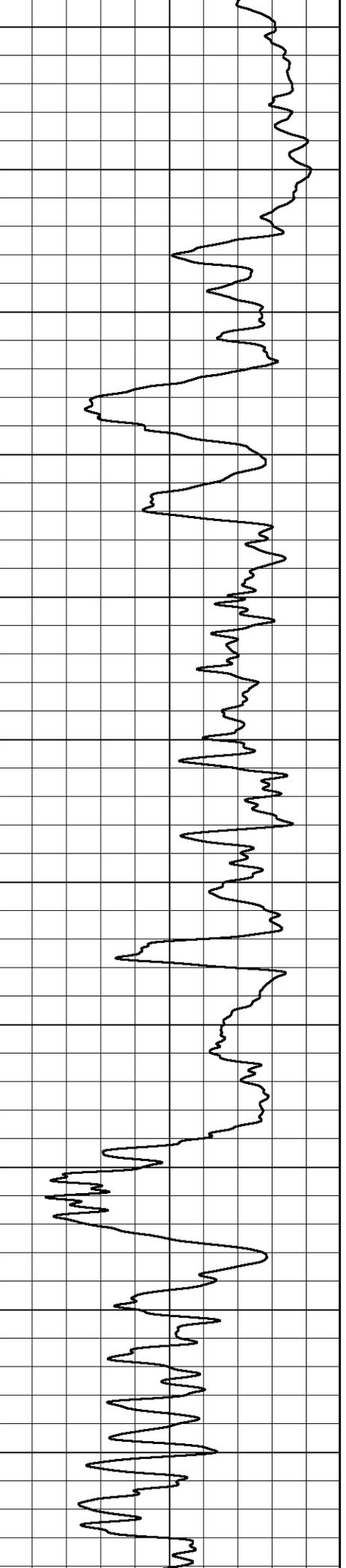
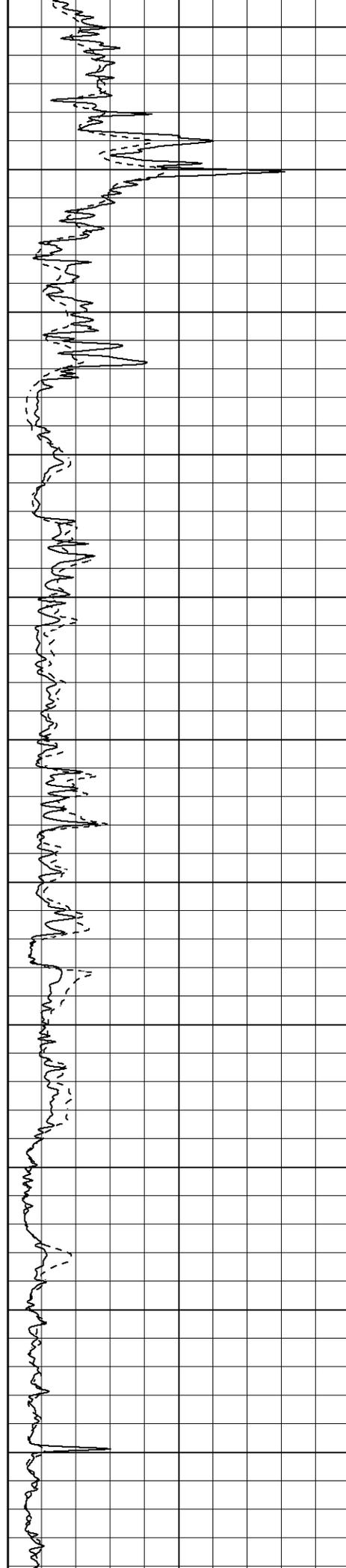
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 Presentation Format _dil2
 Dataset Creation Wed Apr 20 01:32:32 2022
 Charted by Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150	1000	CILD (mmho/m)	0
-100	SP (mV)	100	0	RLL3 (Ohm-m)	50
-----			0	Deep Induction (Ohm-m)	50
			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

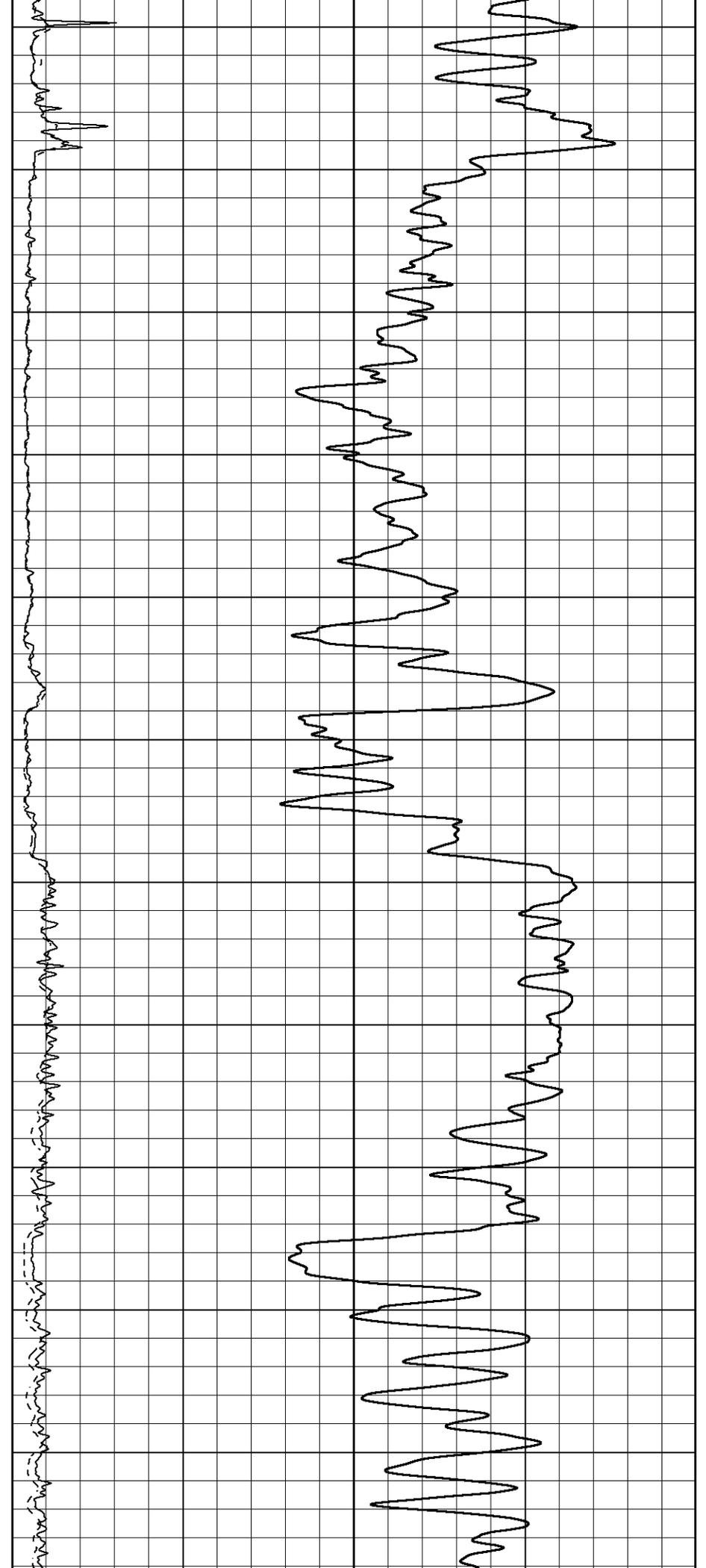
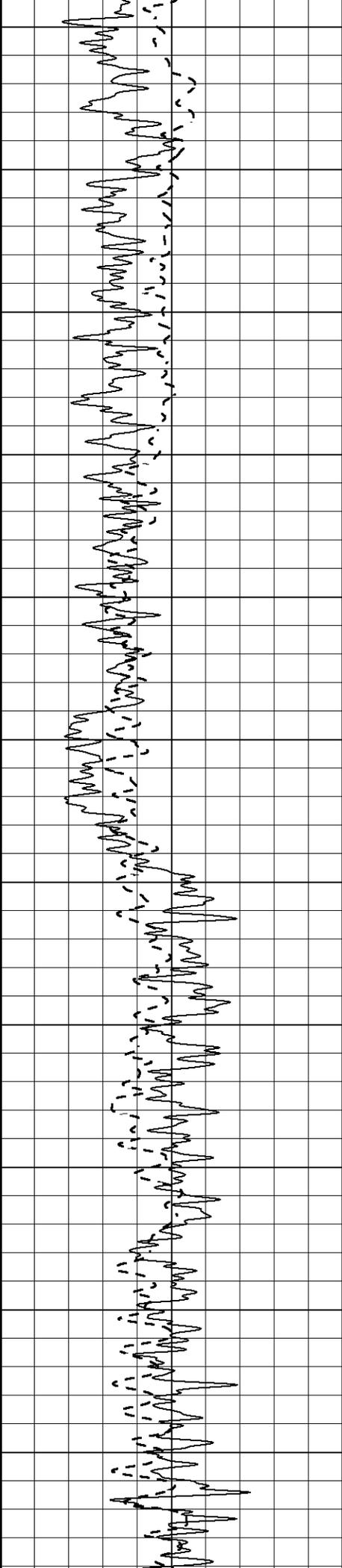
1300

1350

1400

1450

1500



1550

1600

1650

1700

1750

1800

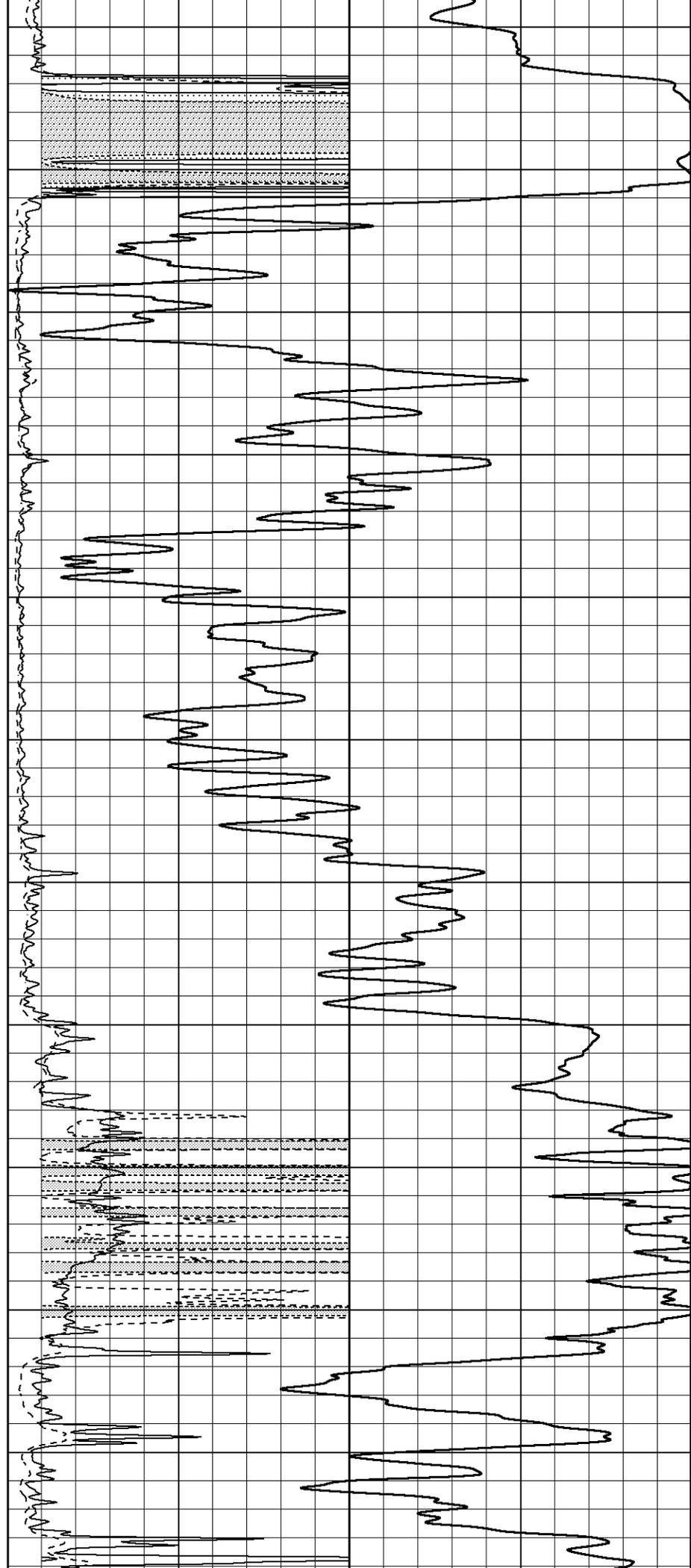
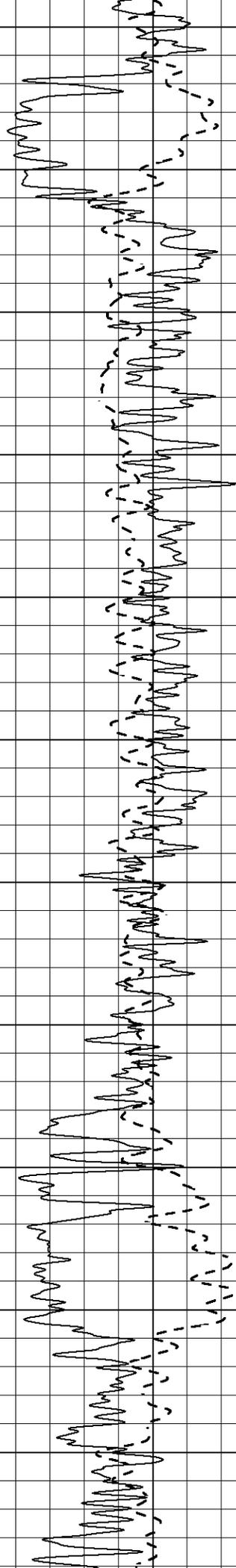
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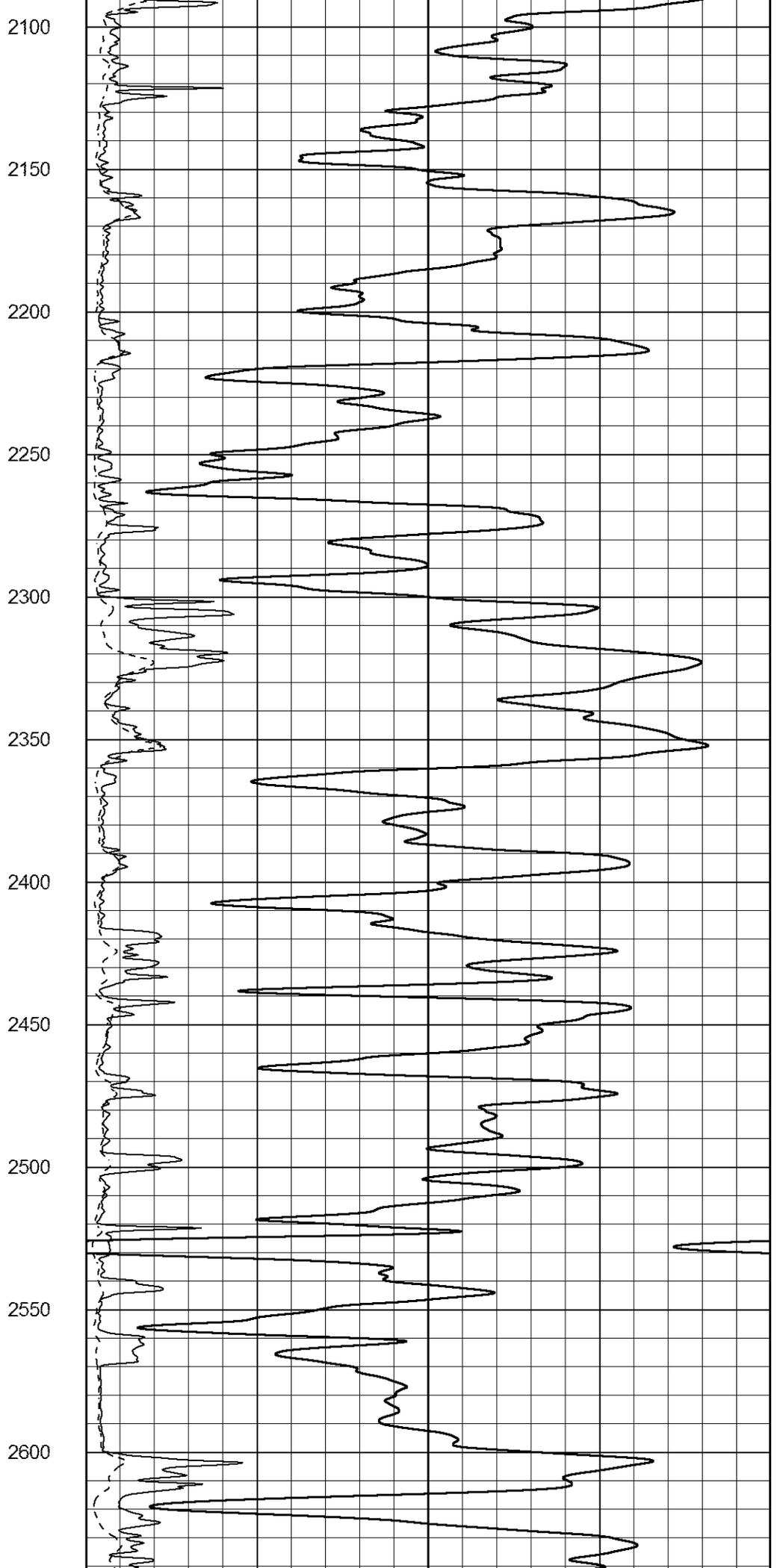
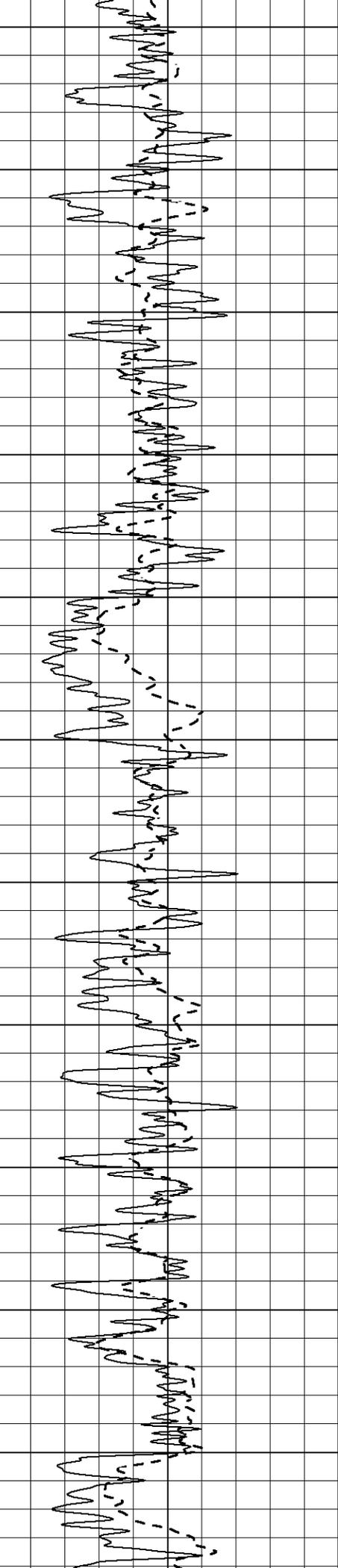
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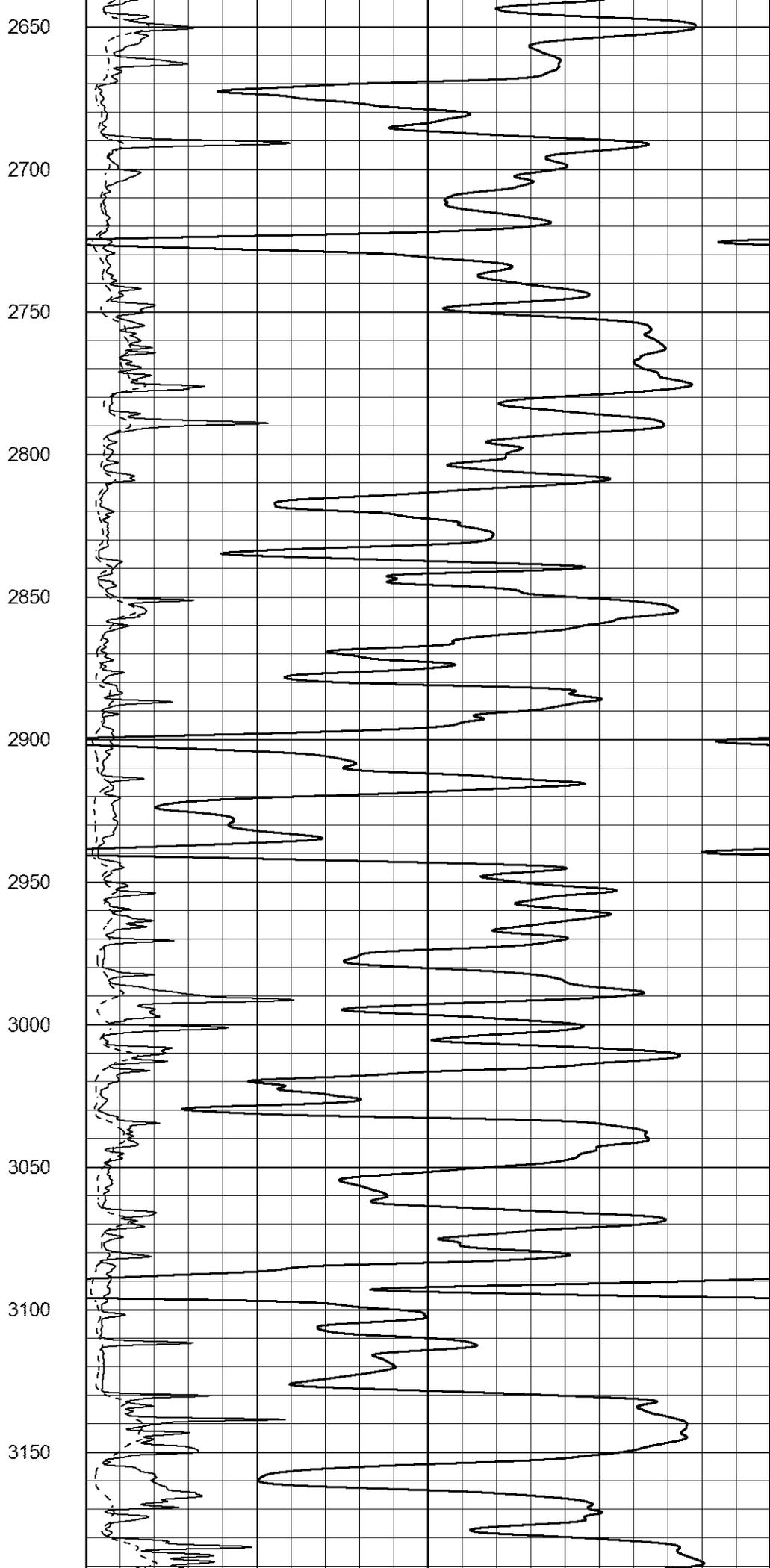
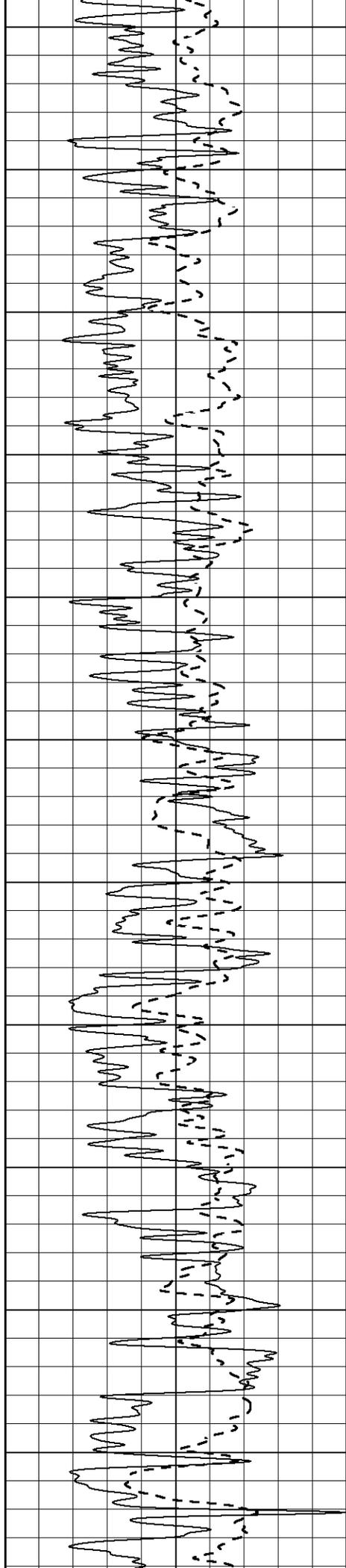
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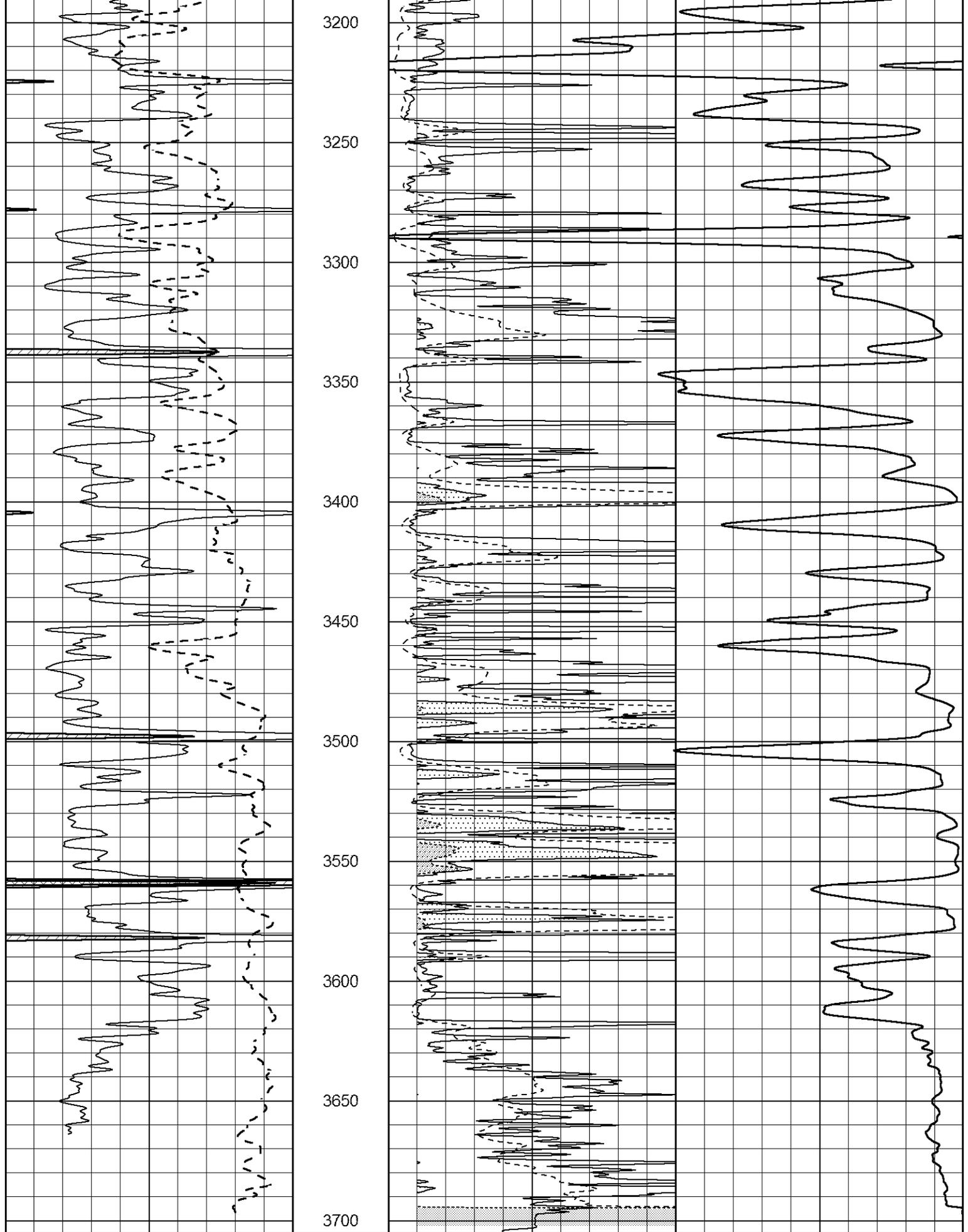
2000

2050









3200
3250
3300
3350
3400
3450
3500
3550
3600
3650
3700

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

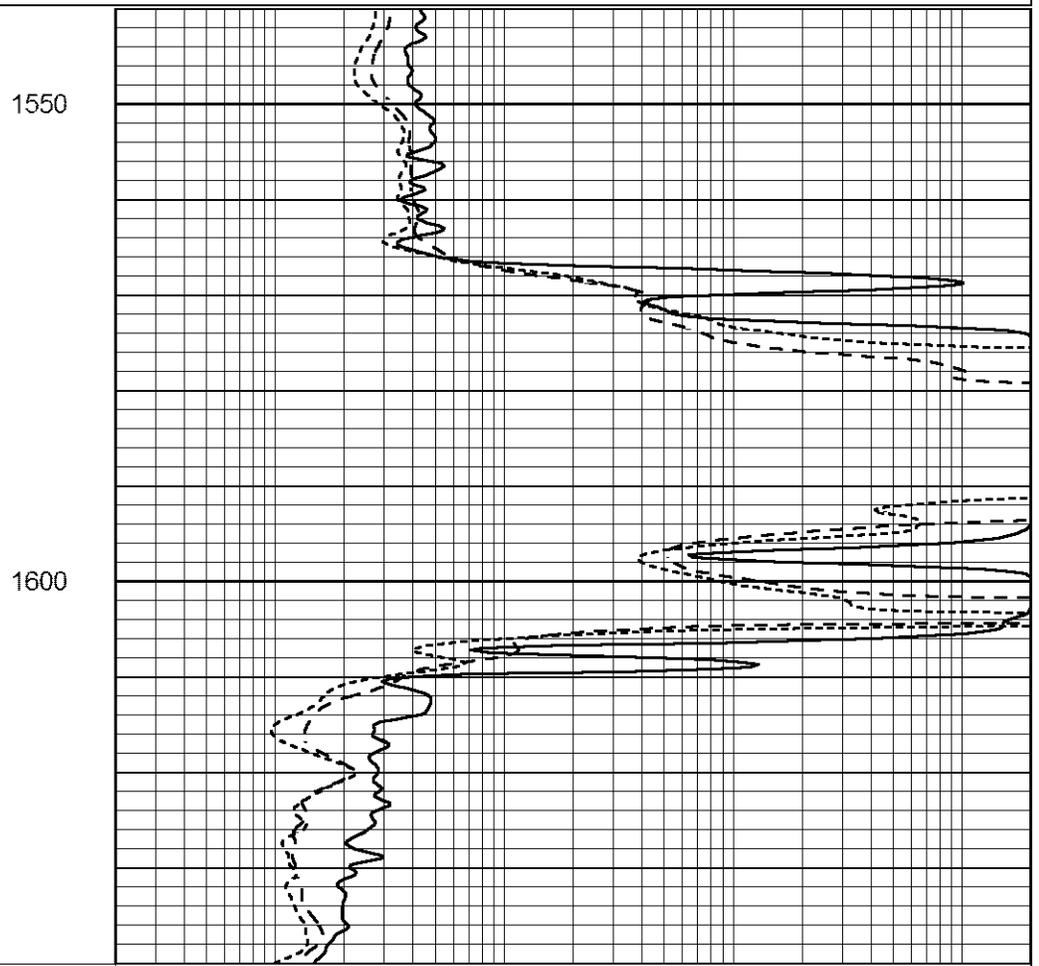
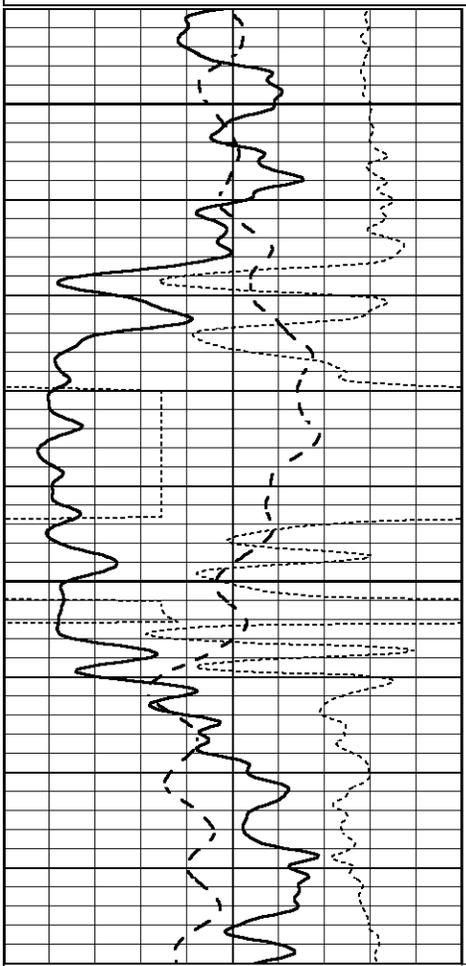


ANHYDRITE

Database File 6389ddn.db
 Dataset Pathname pass3.2
 Presentation Format _dil
 Dataset Creation Wed Apr 20 01:10:16 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



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

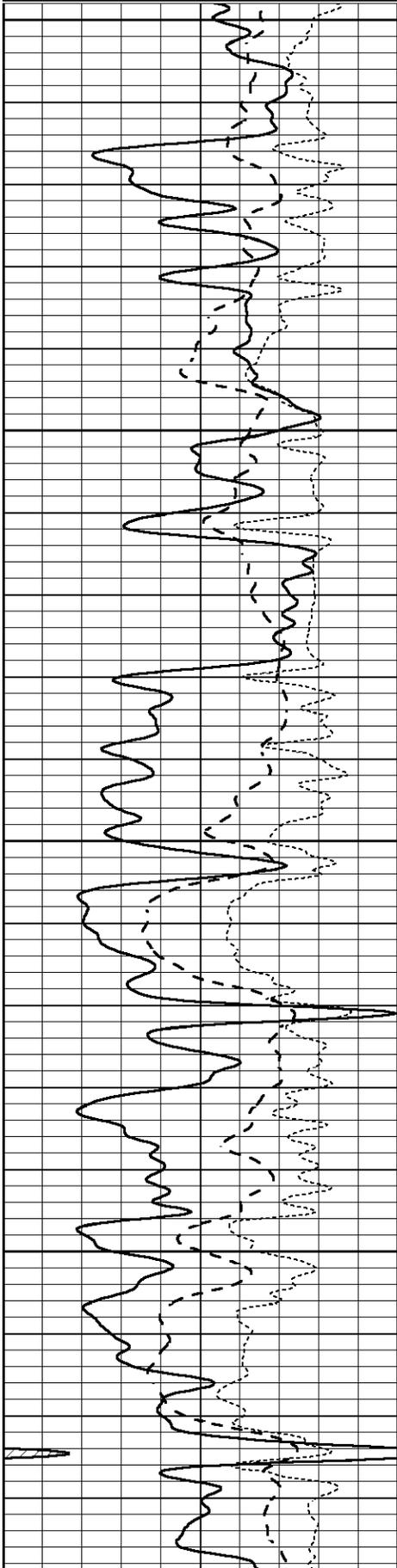


MAIN SECTION

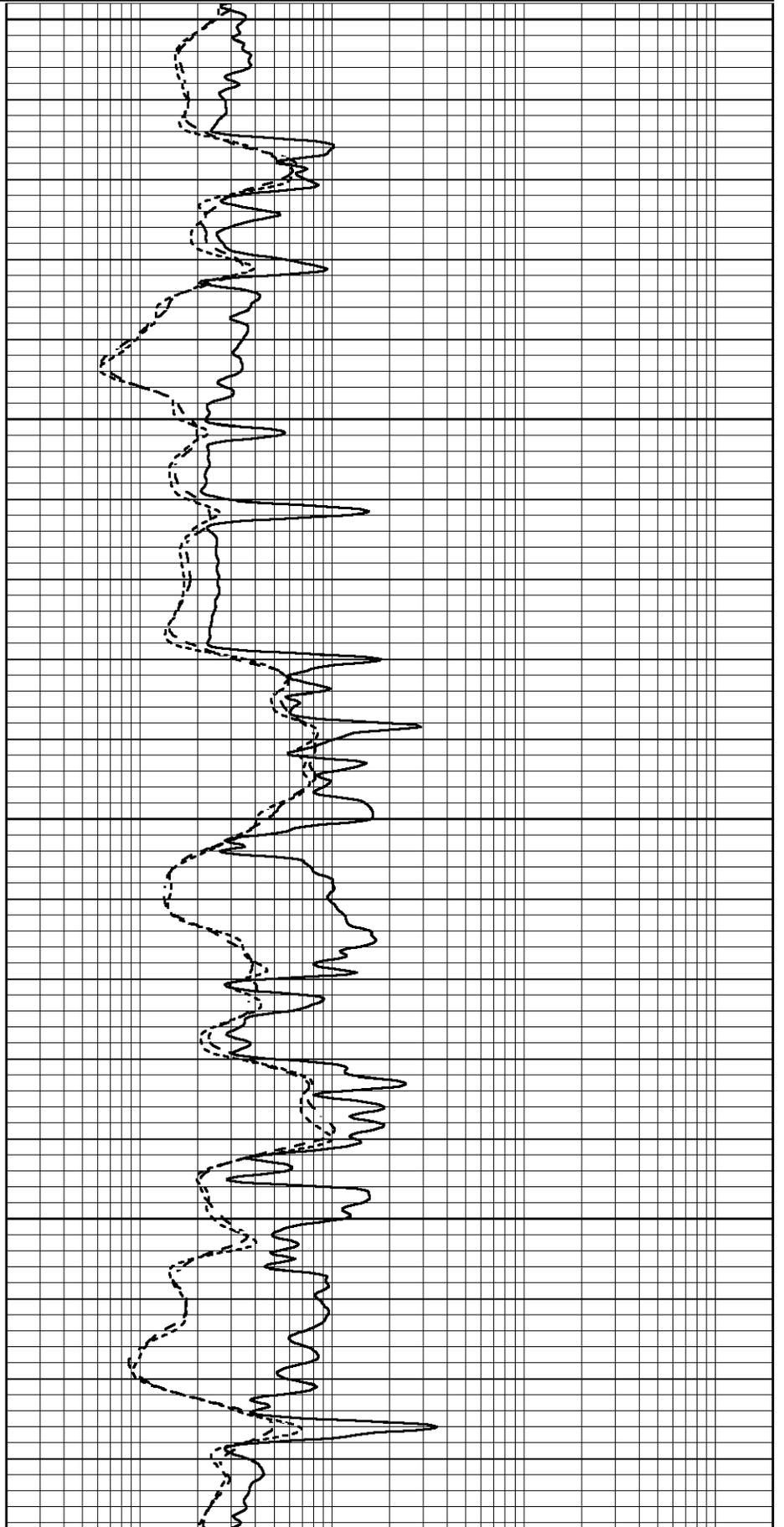
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 Dataset Pathname pass3.1

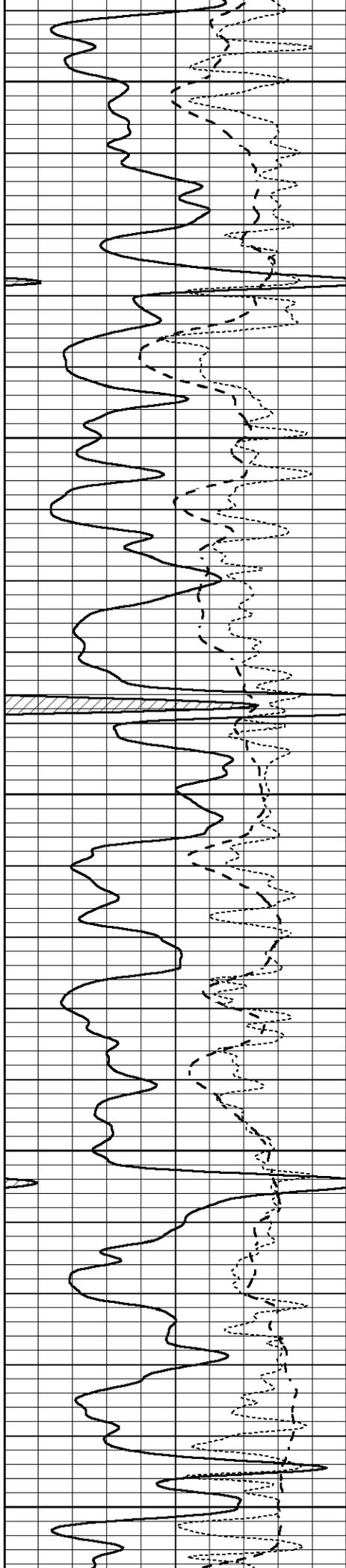
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

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



3050
3100
3150
3200





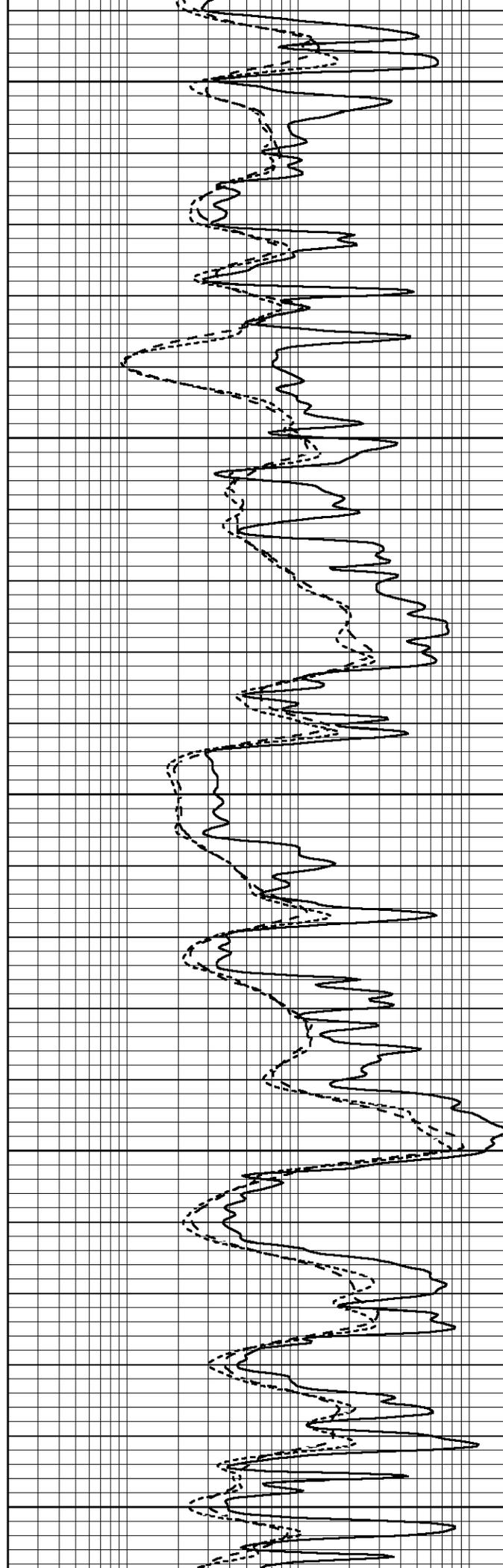
3250

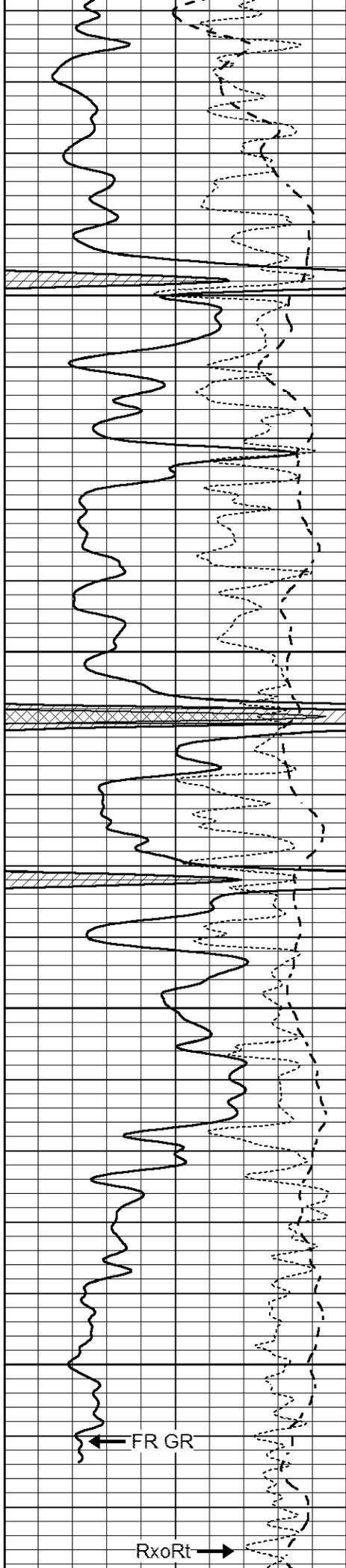
3300

3350

3400

3450



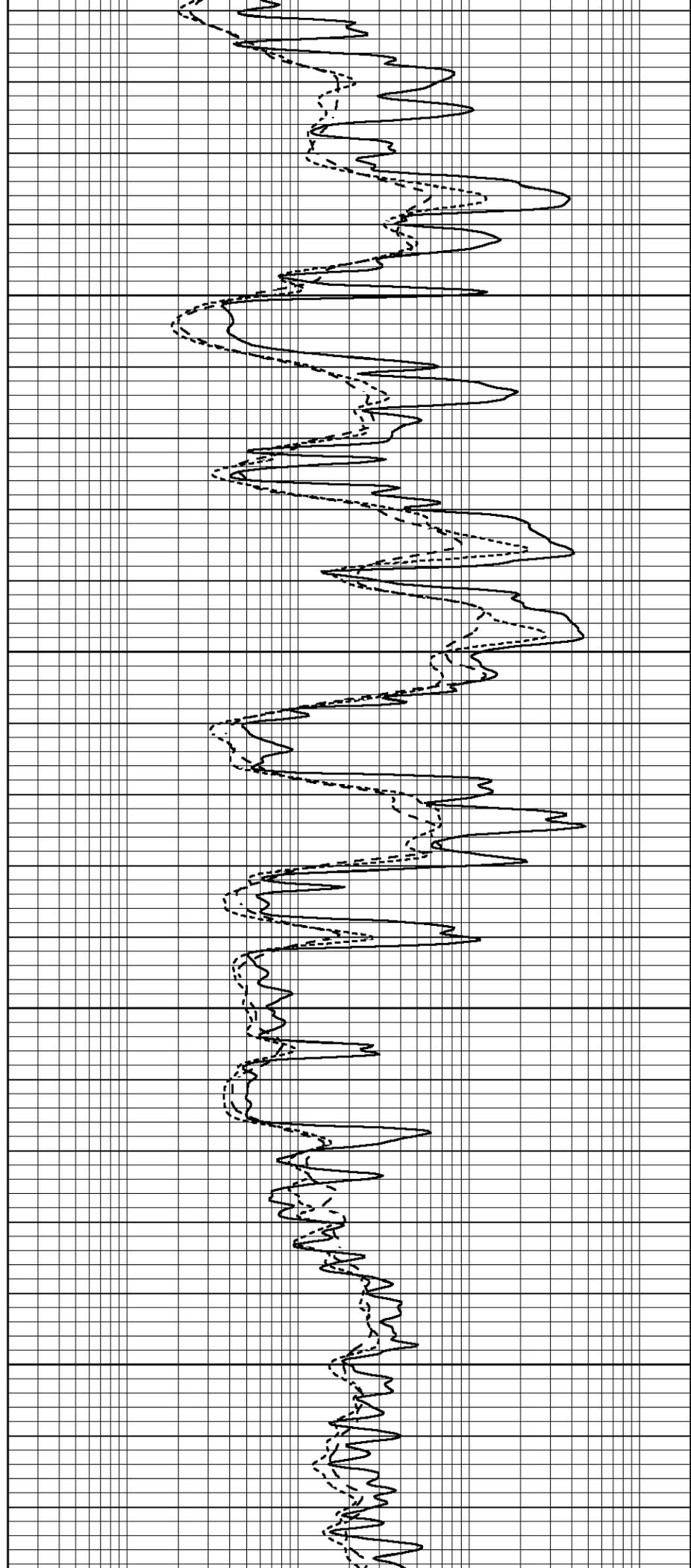


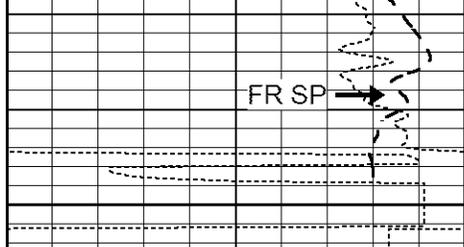
3500

3550

3600

3650



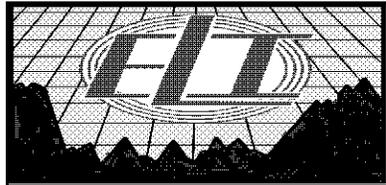


LTD 3699



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

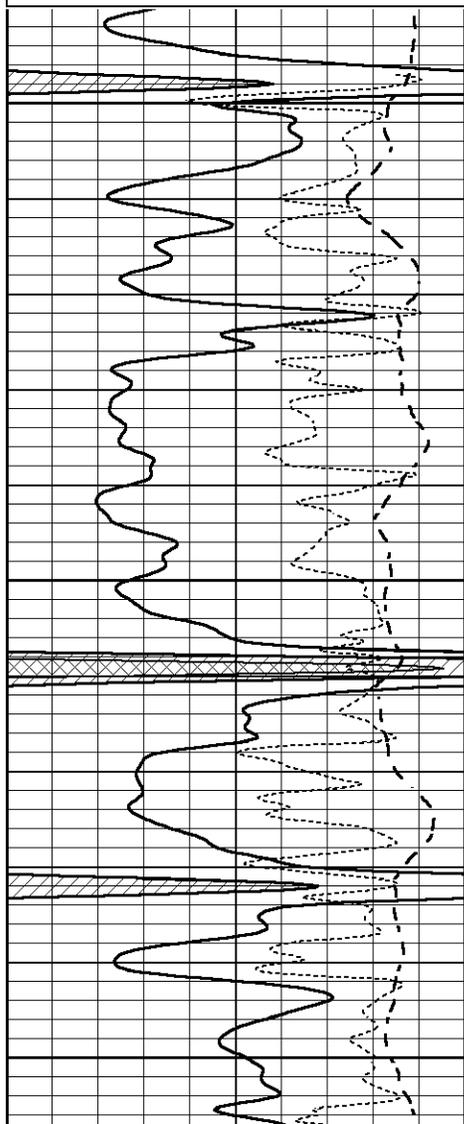


REPEAT SECTION

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 Dataset Pathname pass2.1
 Presentation Format _dil
 Dataset Creation Wed Apr 20 00:49:40 2022
 Charted by Depth in Feet scaled 1:240

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

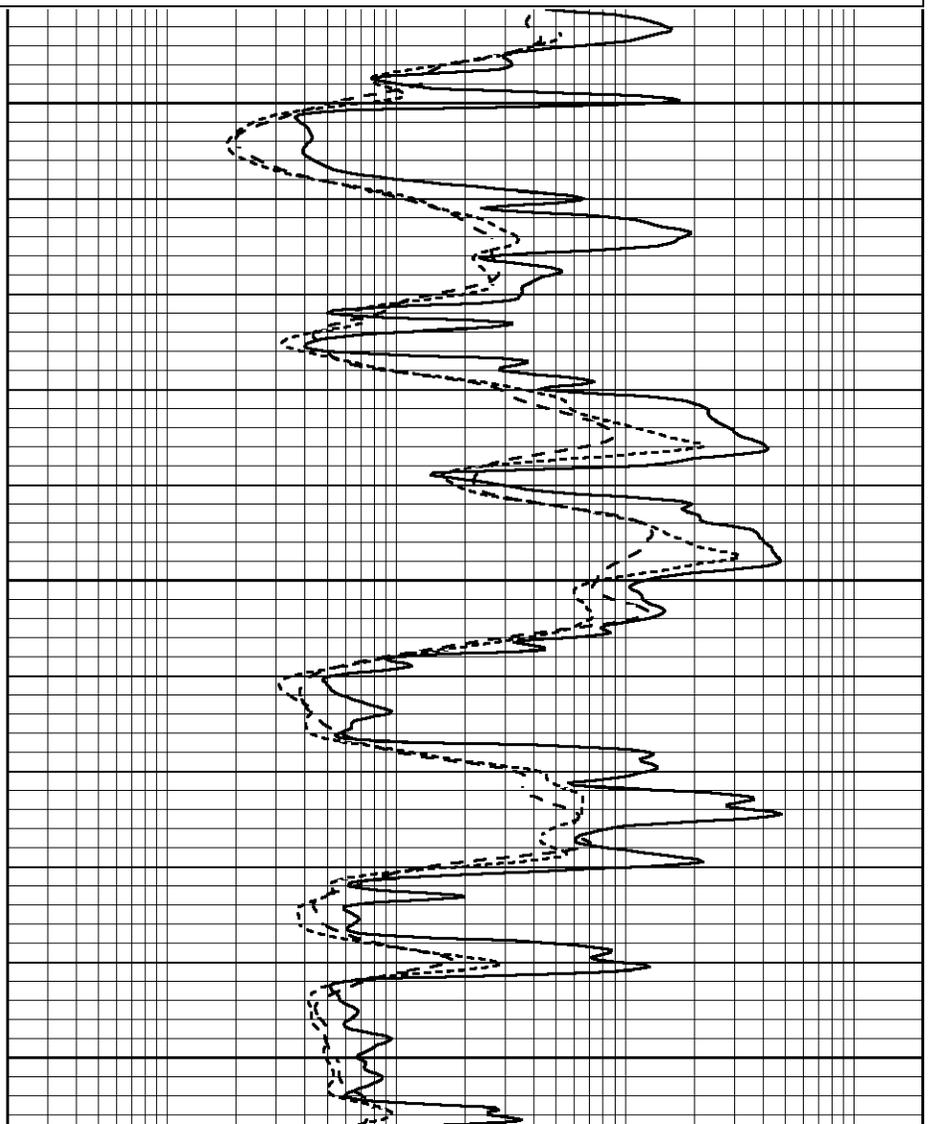
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000

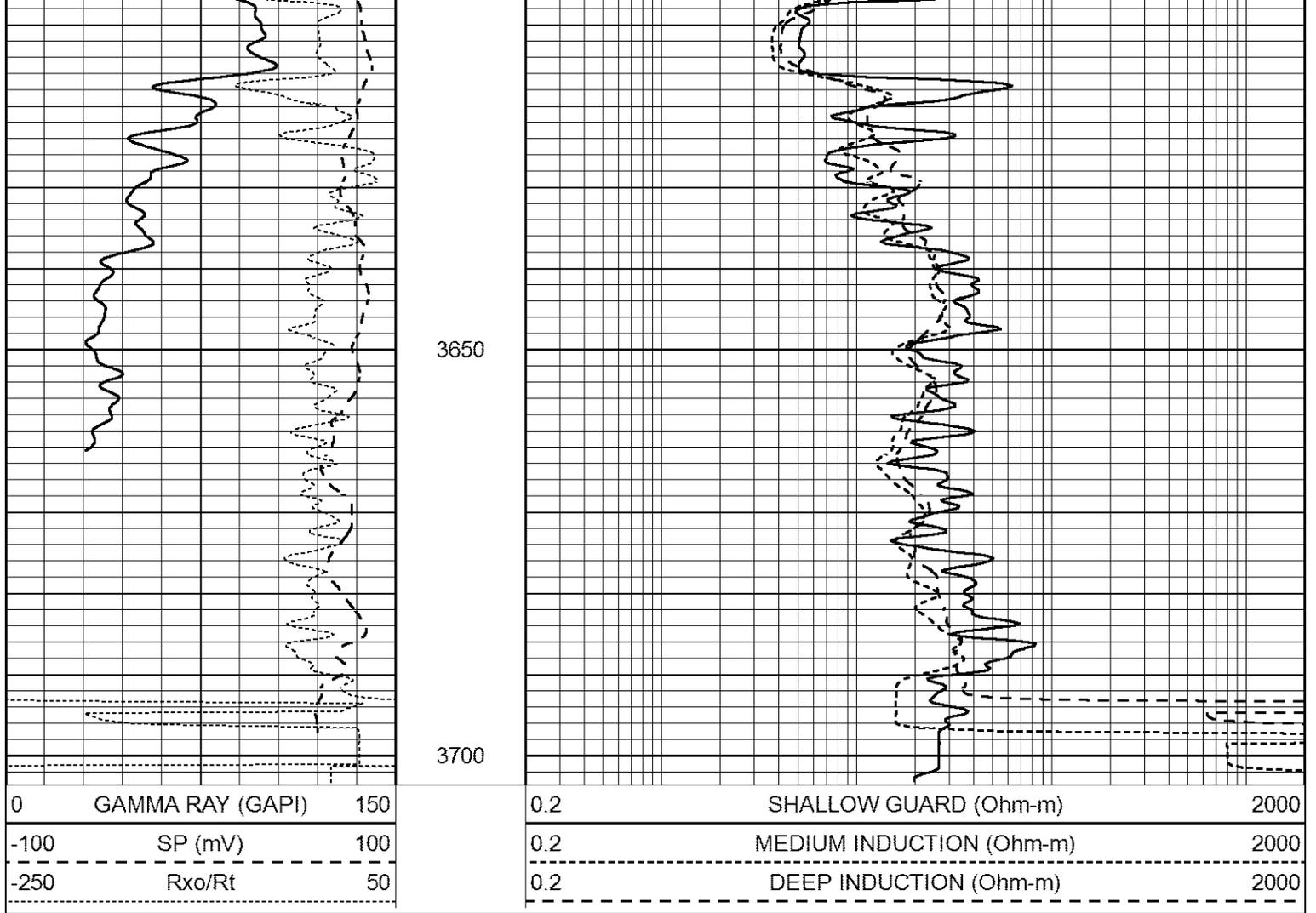


3500

3550

3600





Calibration Report

Database File 6389ddn.db
 Dataset Pathname pass3.3
 Dataset Creation Wed Apr 20 01:32:32 2022

Dual Induction Calibration Report

Serial-Model: FW1410-55-Probe
 Surface Cal Performed: Sat Jan 29 11:57:42 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	V	Air	Loop	mmho/m	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	V	Zero	Cal	mmho/m	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	mmho/m	Zero	Cal	mmho/m	m'	b'
Deep	-0.824	395.917	mmho/m	-0.976	397.550	mmho/m	1.004	-0.149
Medium	0.525	474.227	mmho/m	0.422	474.522	mmho/m	1.221	0.222

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: Fri Feb 18 15:41:27 2022			
	Background	Aluminum	Magnesium					
Window 1	515.75	5443.58	23734.91	cps				
Window 2	41.45	1226.32	5757.32	cps				
Window 4	224.78	1223.03	5315.97	cps				
Window 5	549.25	7983.61	15349.73	cps				
Window 6	43.12	1271.88	2496.98	cps				
Window 8	261.02	2595.65	4928.92	cps				
Bulk Density	-	2.6020	1.6830	g/cc				
Pe	-	3.0000	2.5070	b/e				
LS Alpha:	: -1.8571	SS Alpha:	: -0.7875	LS CPE:		: 1.1396		
LS Beta:	: 128618.9672	SS Beta:	: 18780.4869	SS CPE:		: 1.5966		

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: Fri Feb 18 15:41:27 2022		
Results	Readings		References (in)		Gain	Offset		
	Low	High	Low	High				
	8107.9	11082.1	8.0	14.0	0.0	-7.4		

Before Survey Caliper Verification

Performed:

Reference

Reading

Caliper (in)

After Survey Caliper Verification

Performed:

Reference

Reading

Caliper (in)

Compensated Neutron Calibration Report

Serial Number:
Tool Model:

080621PMC
NABORS

PRE-SURVEY VERIFICATION

Detector

Readings

Measured

Target

Short Space

cps

pu

pu

Long Space

cps

POST-SURVEY VERIFICATION

Detector

Readings

Measured

Target

Short Space

cps

pu

pu

Long Space

cps

Gamma Ray Calibration Report

Serial Number:

7

Tool Model:

Probe1

Performed:

Tue Jan 19 17:50:08 2021

Calibrator Value:

1.0

GAPI

Background Reading:

0.0

cps

Calibrator Reading:

1.0

cps

Sensitivity:

0.5300

GAPI/cps