

DUAL INDUCTION LOG

Company LD DRILLING, INC.
Well KOZISEK "B" #1-16
Field STOLTENBERG
County ELLSWORTH State KANSAS

Location: API # : 15-053-20426-0001
990' FSL & 500' FWL
E2 - NW - SW - SW
SEC 16 TWP 16S RGE 10W
Permanent Datum GROUND LEVEL Elevation 1895
Log Measured From KELLY BUSHING 8' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
CDL/CNL
MEL
Elevation
K.B. 1903
D.F. 1901
G.L. 1895

Date	8/5/22		
Run Number	ONE		
Depth Driller	3505		
Depth Logger	3478		
Bottom Logged Interval	3476		
Top Log Interval	00		
Casing Driller	8 5/8" @ 378		
Casing Logger	378		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 5.000 PPM	
Density / Viscosity	8.7/50		
pH / Fluid Loss	11.0/9.6		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.00 @ 80F		
Rmt @ Meas. Temp	.750 @ 80F		
Rmc @ Meas. Temp	1.20 @ 80F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.714 @ 112F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	12:30 P.M.		
Maximum Recorded Temperature	112F		
Equipment Number	3802		
Location	HAYS, KANSAS		
Recorded By	COLE ROBEN		
Witnessed By	KIM SHOEMAKER		

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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:

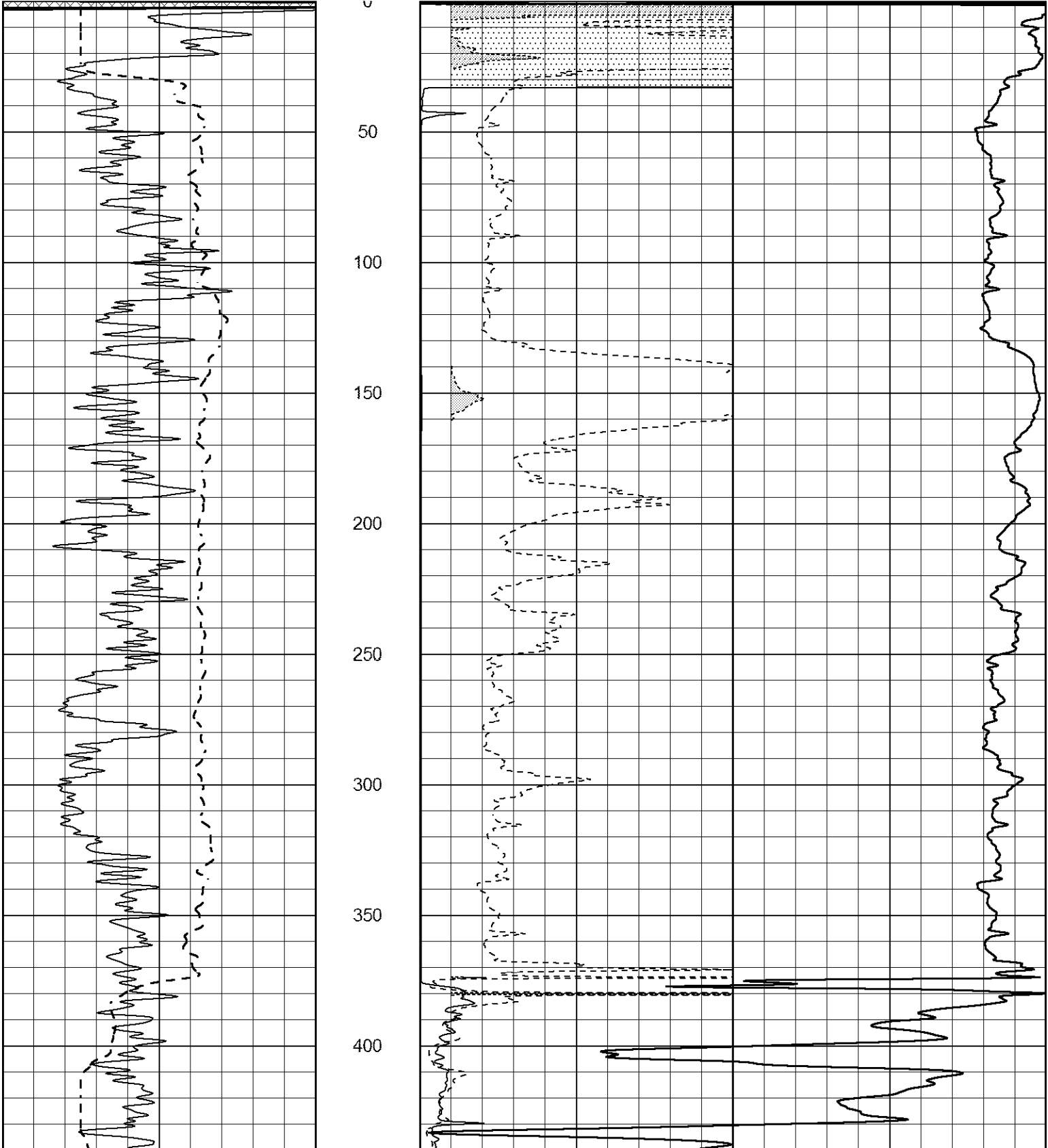
FROM WILSON, KANSAS GO 11 MILES SOUTH TO P ROAD, 2 MILES EAST, 1/8 MILE NORTH, EAST INTO



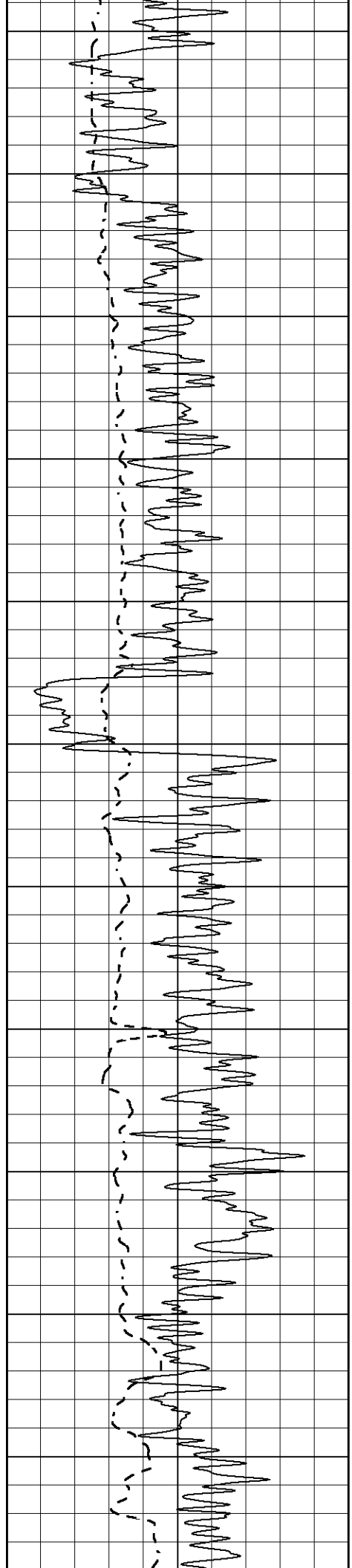
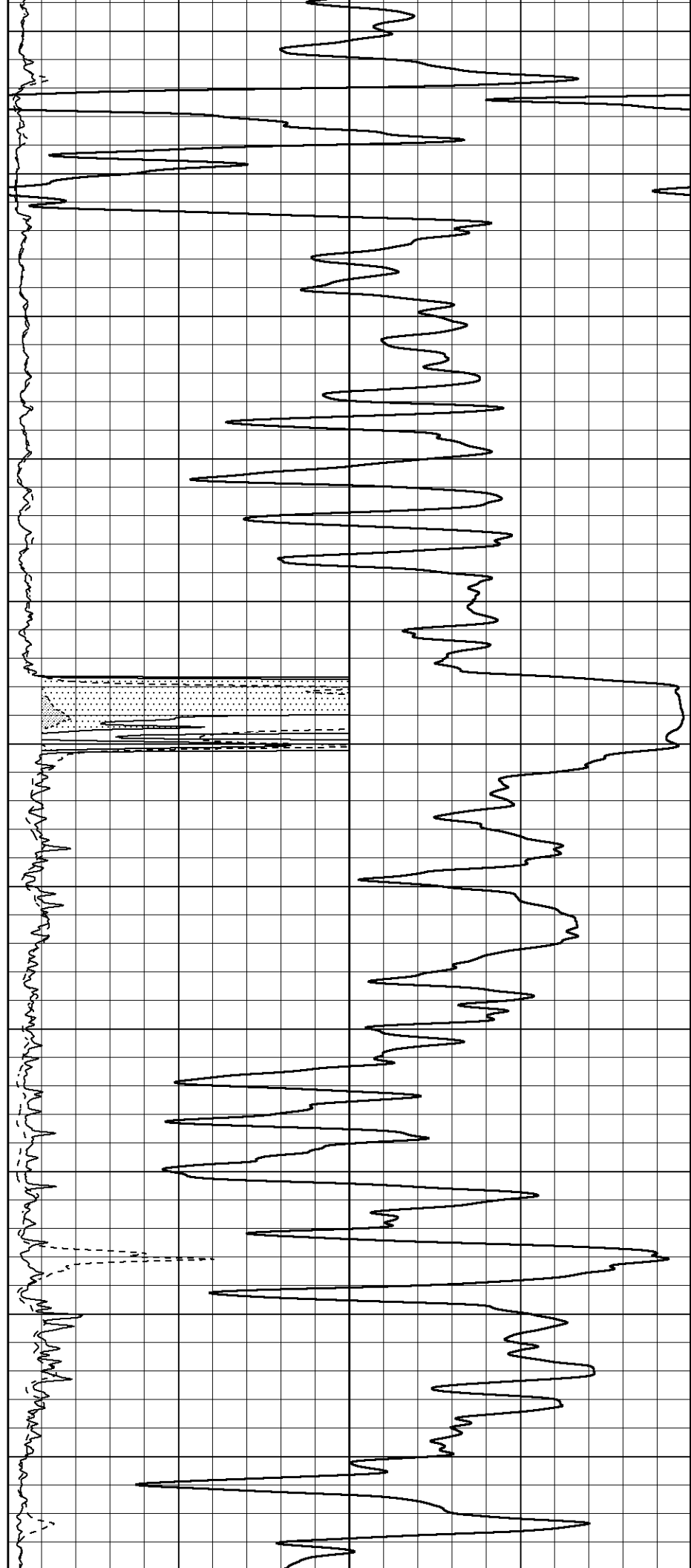
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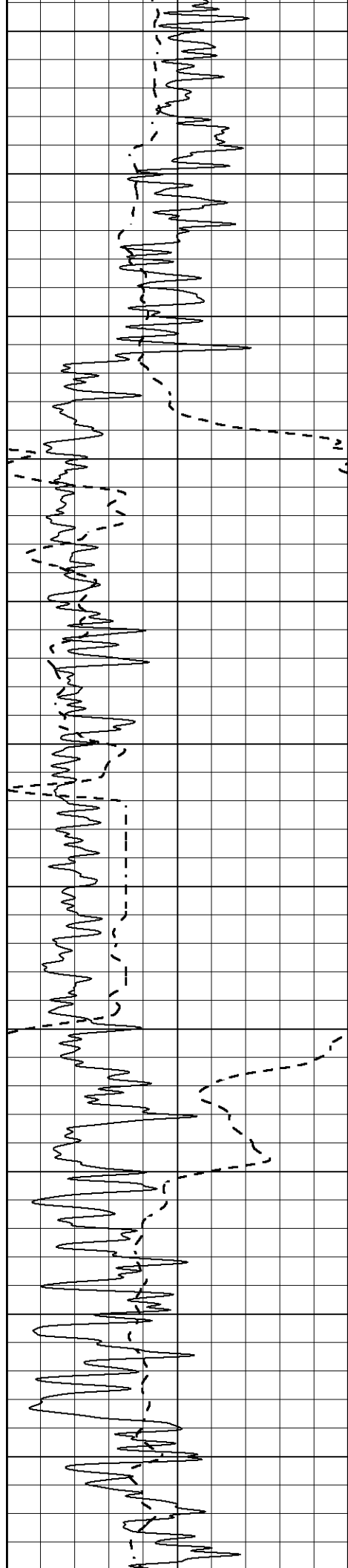
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Dataset Pathname	pass4M
Presentation Format	_dil2
Dataset Creation	Fri Aug 05 14:10:39 2022
Charted by	Depth in Feet scaled 1:600

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

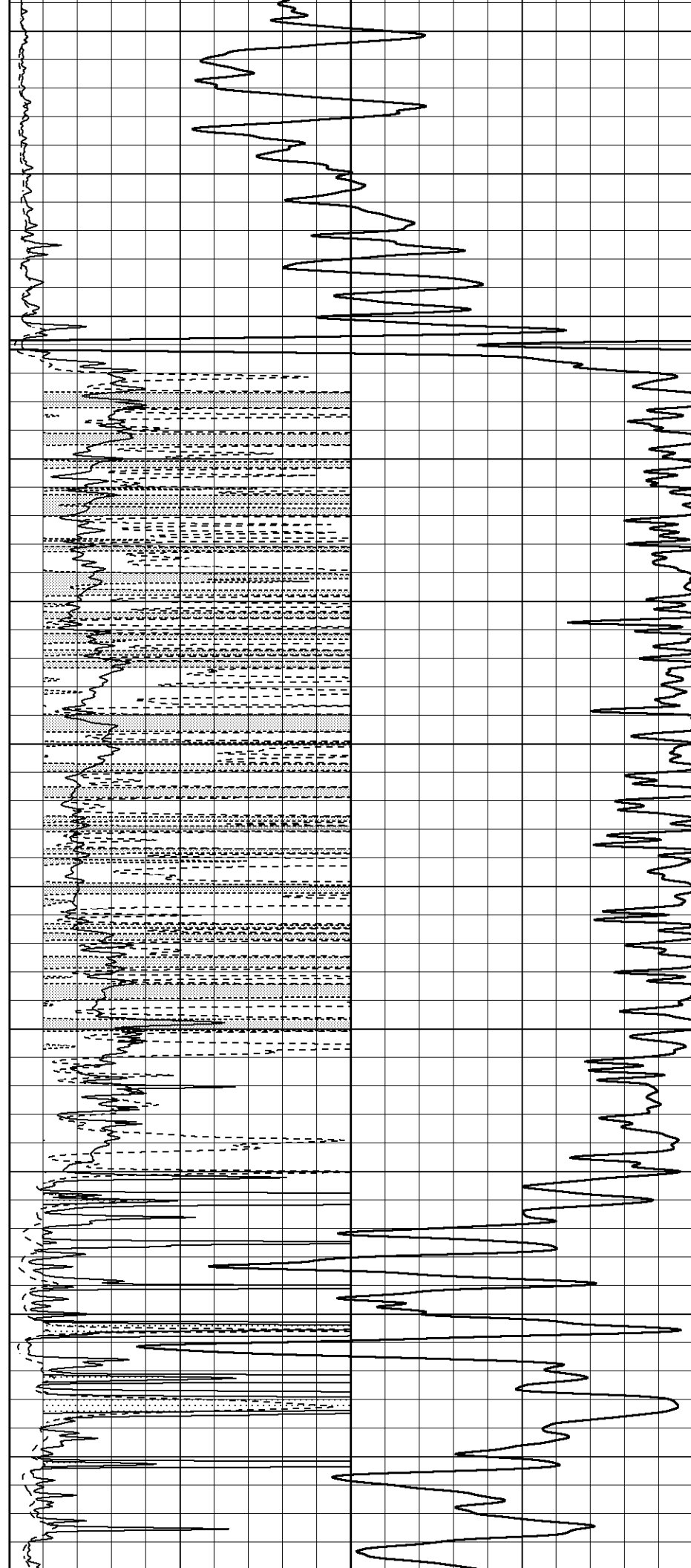
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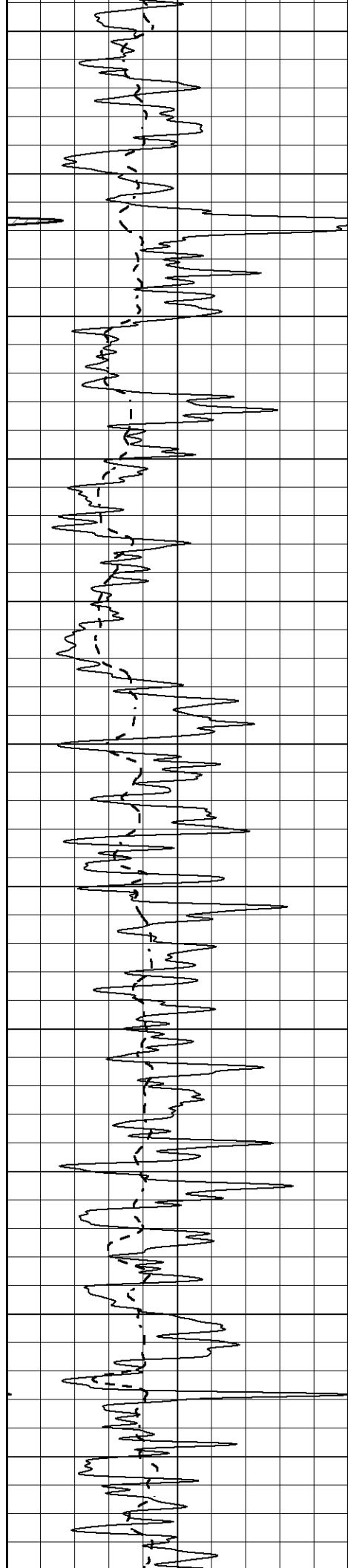
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1400

1450

1500





1550

1600

1650

1700

1750

1800

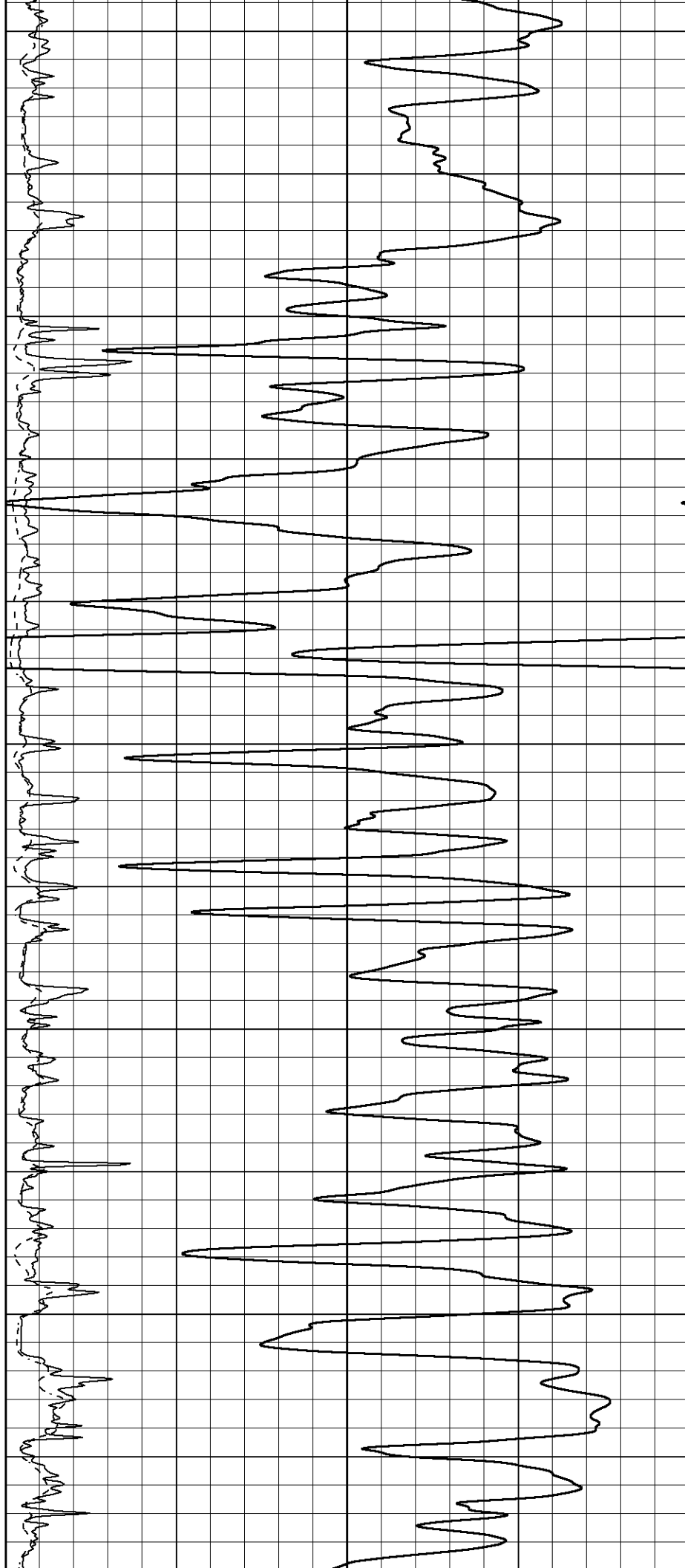
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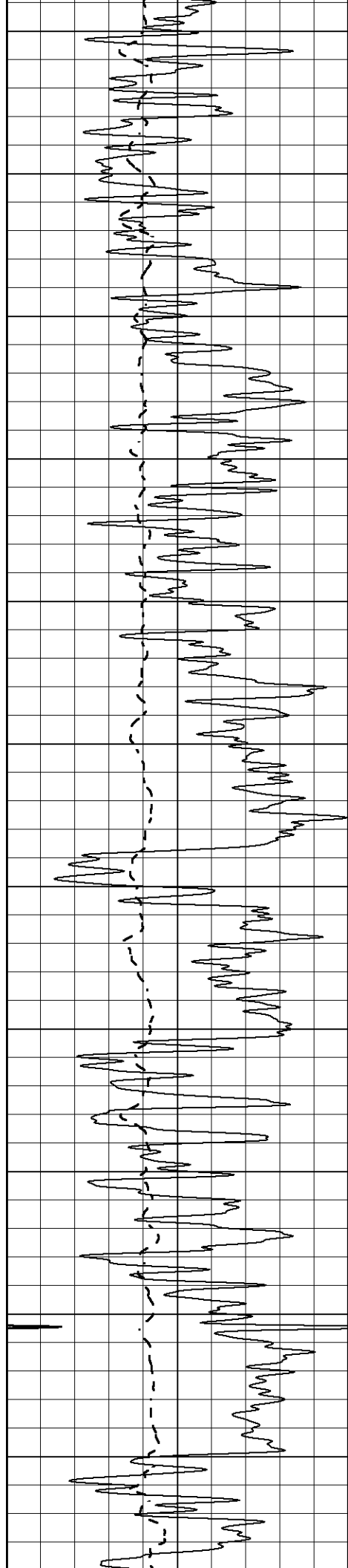
1900

1950

2000

2050





2100

2150

2200

2250

2300

2350

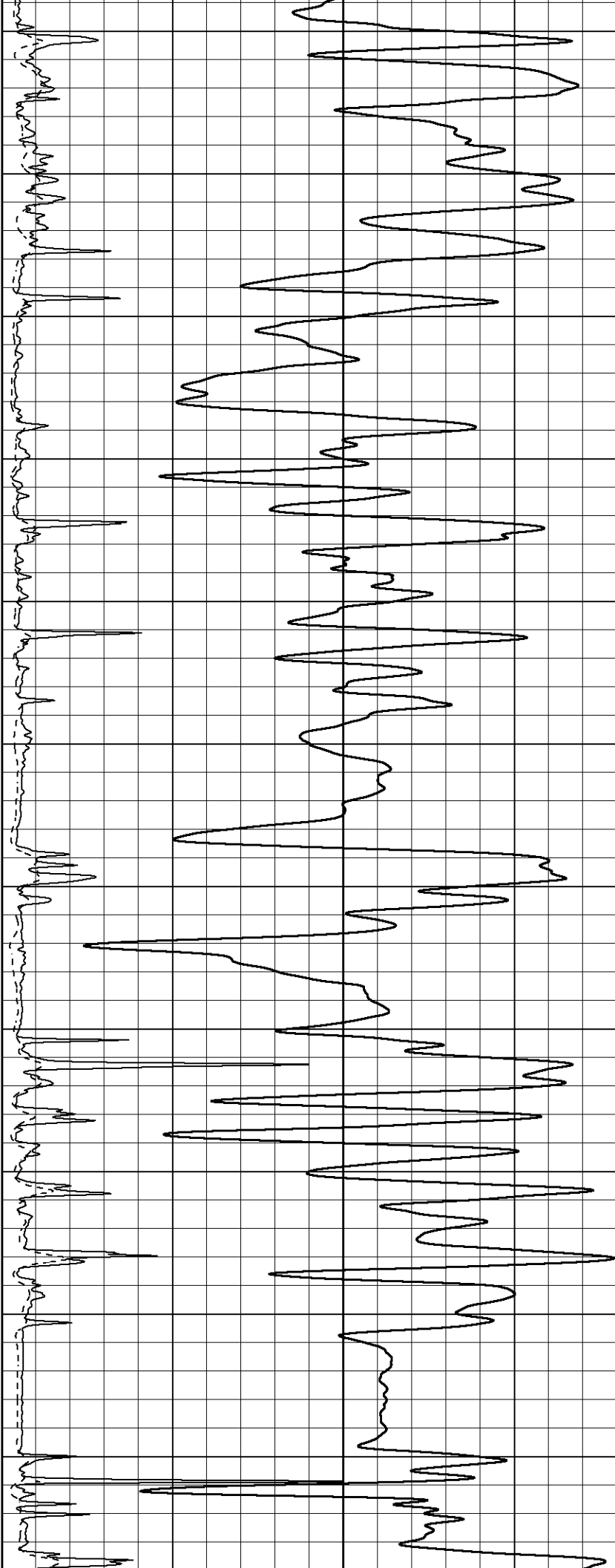
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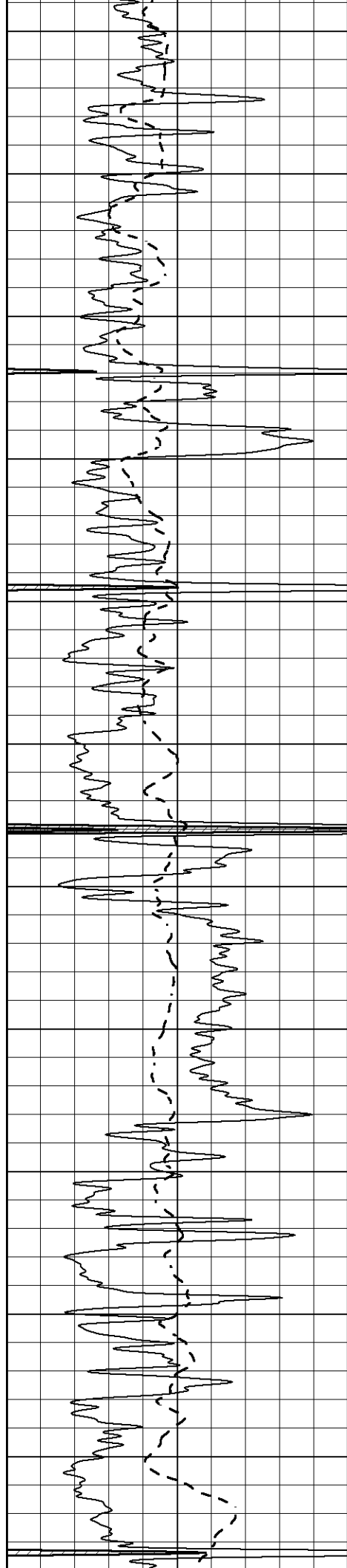
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2500

2550

2600





2650

2700

2750

2800

2850

2900

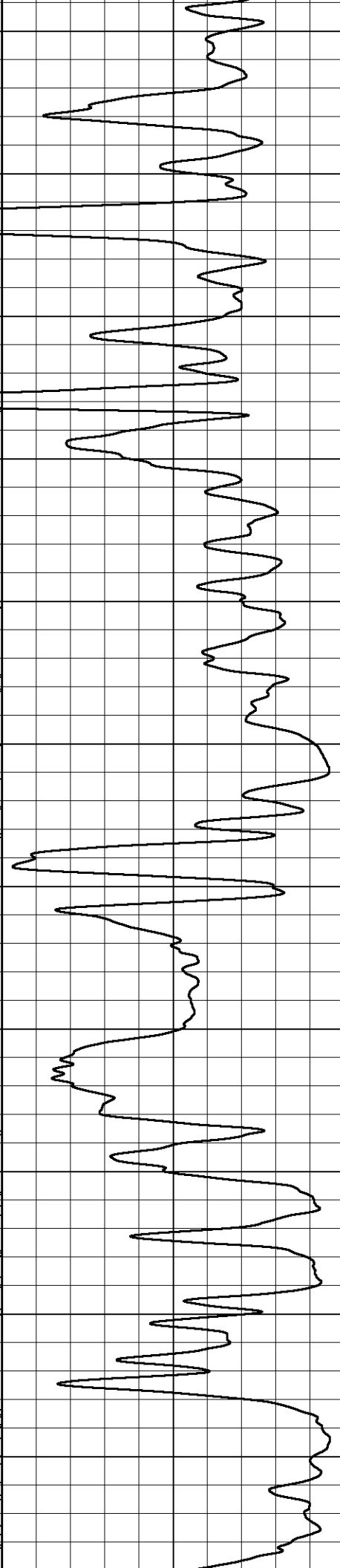
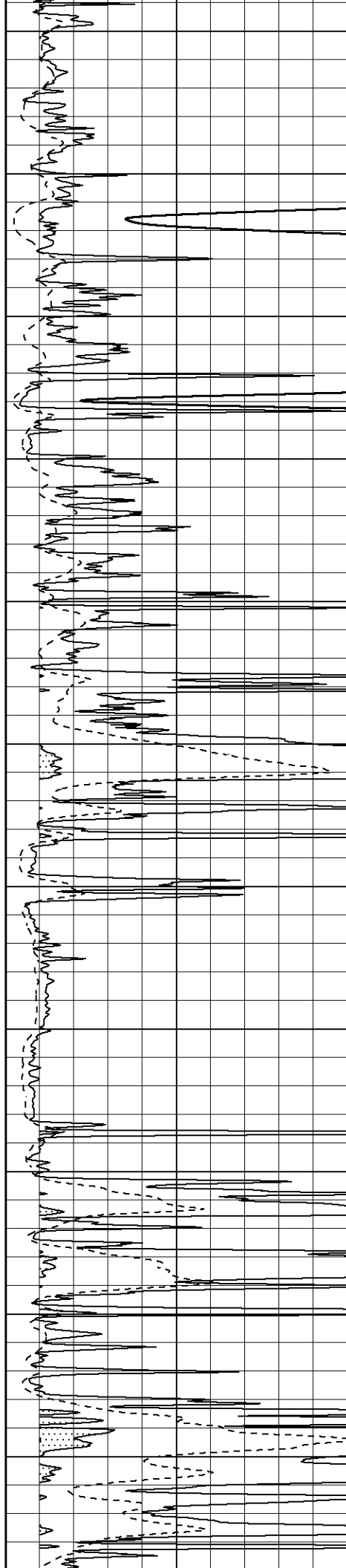
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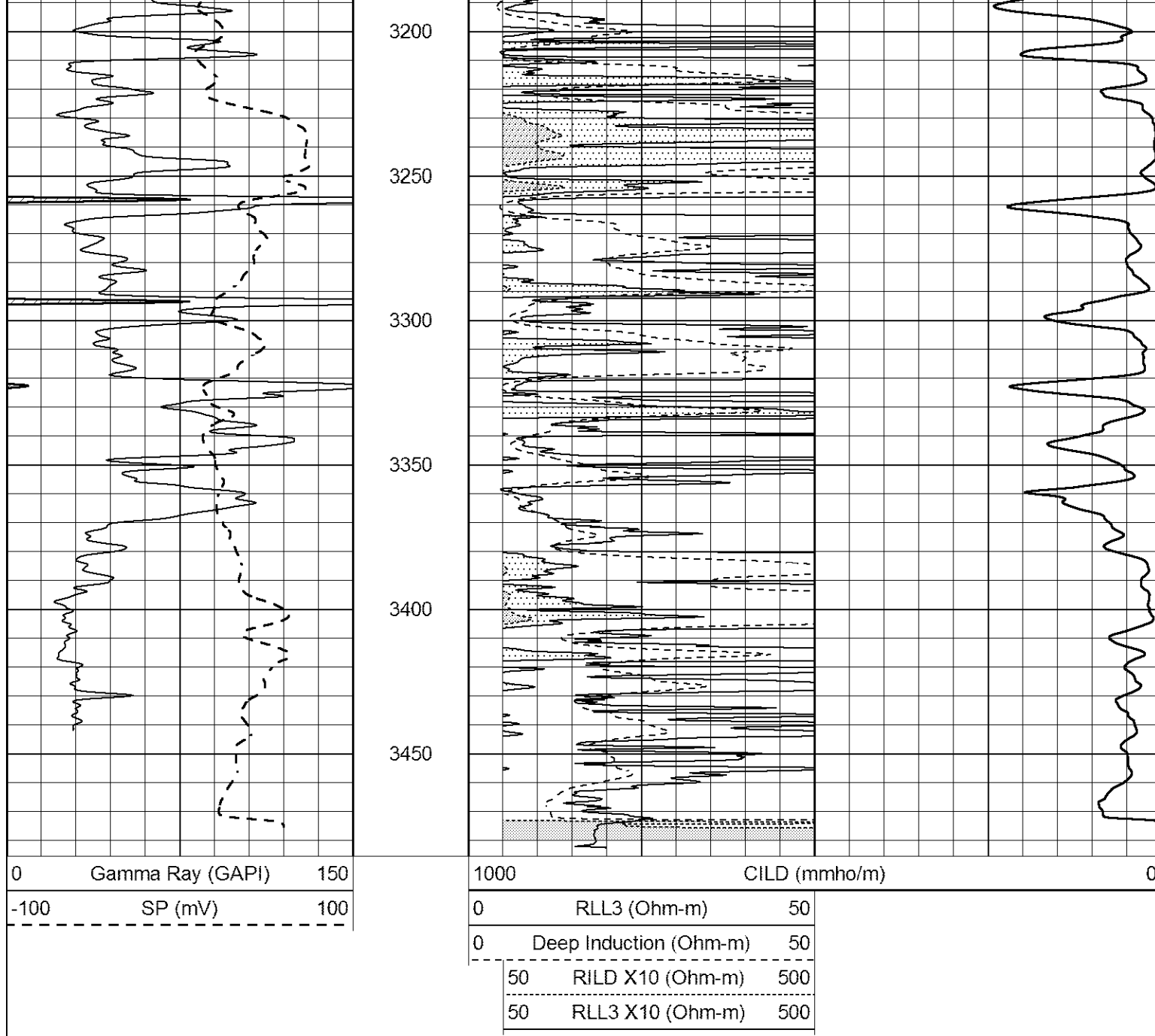
3000

3050

3100

3150

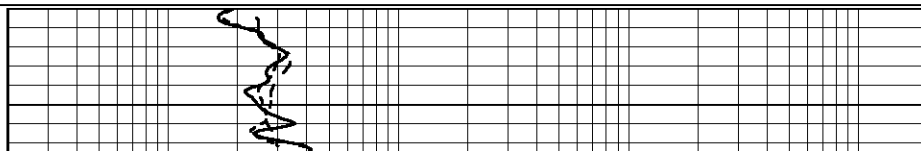
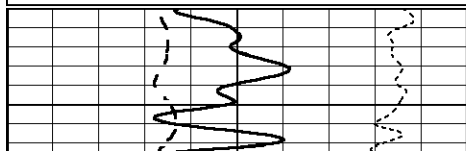


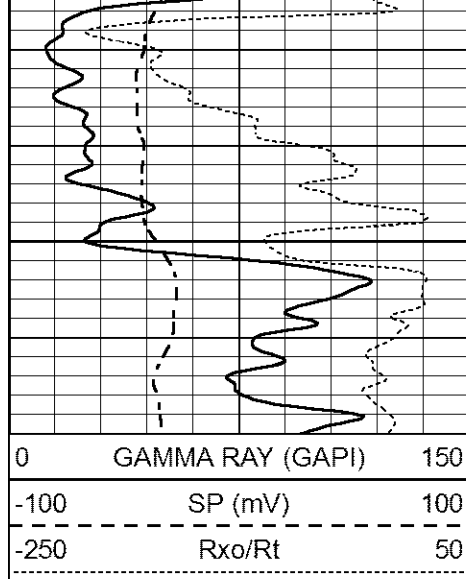


ANHYDRITE

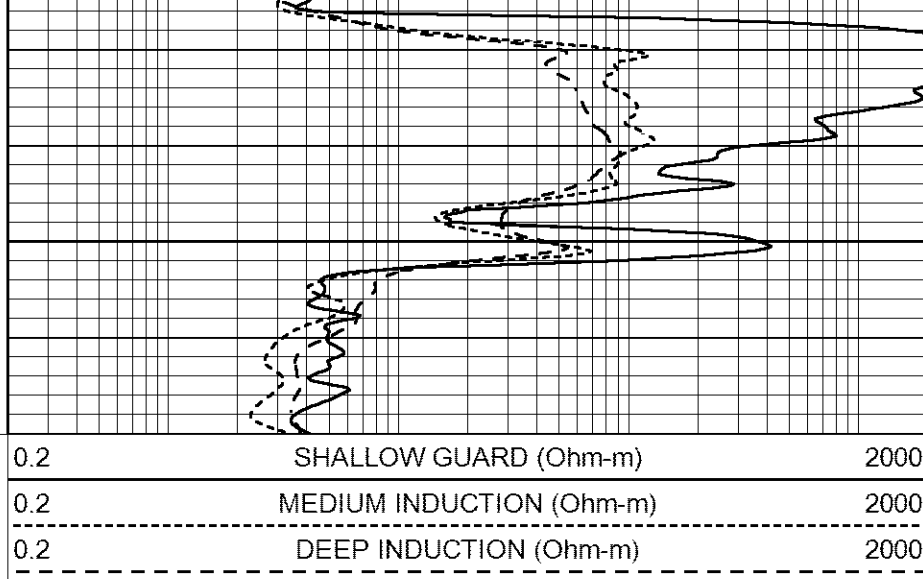
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 Presentation Format _dil
 Dataset Creation Fri Aug 05 14:34:45 2022
 Charted by Depth in Feet scaled 1:240

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



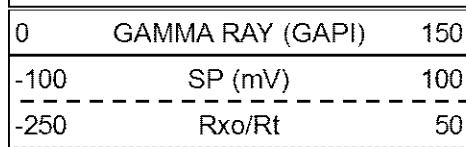


700

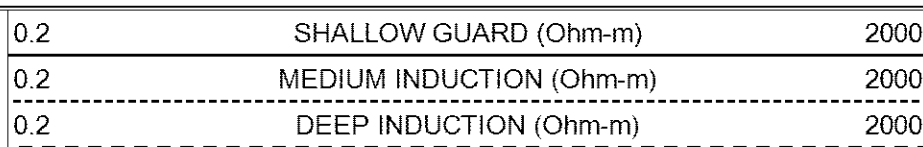


MAIN SECTION

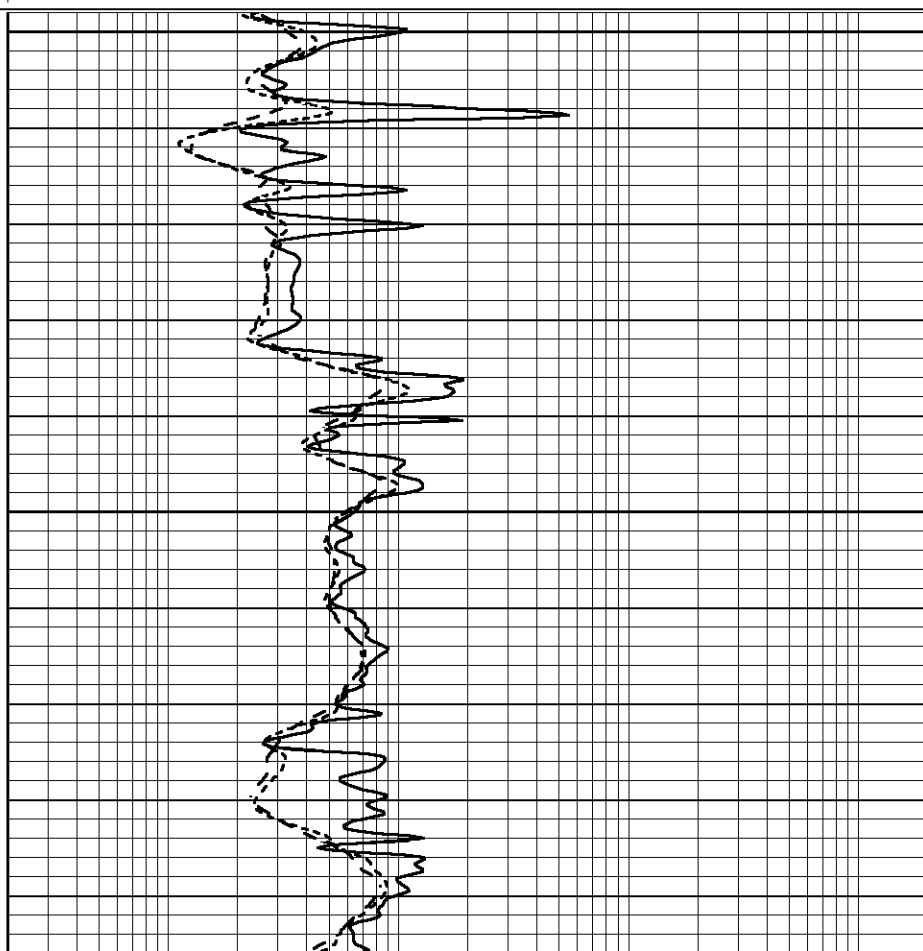
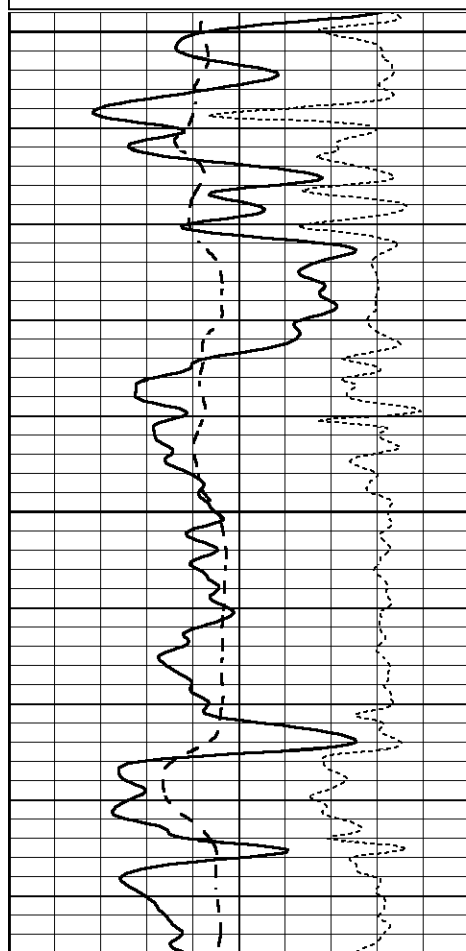
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 Presentation Format _dil
 Dataset Creation Fri Aug 05 14:10:39 2022
 Charted by Depth in Feet scaled 1:240

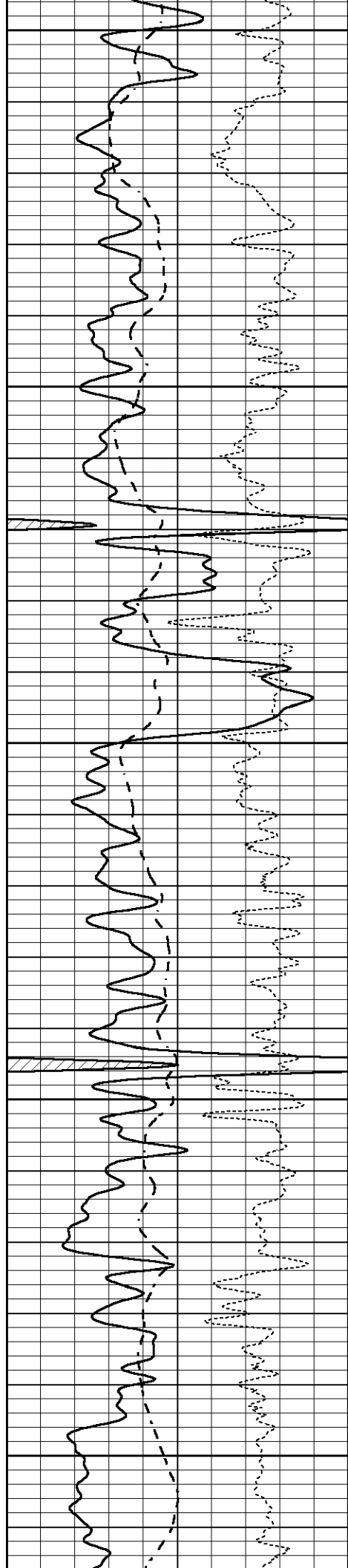


2600



2650





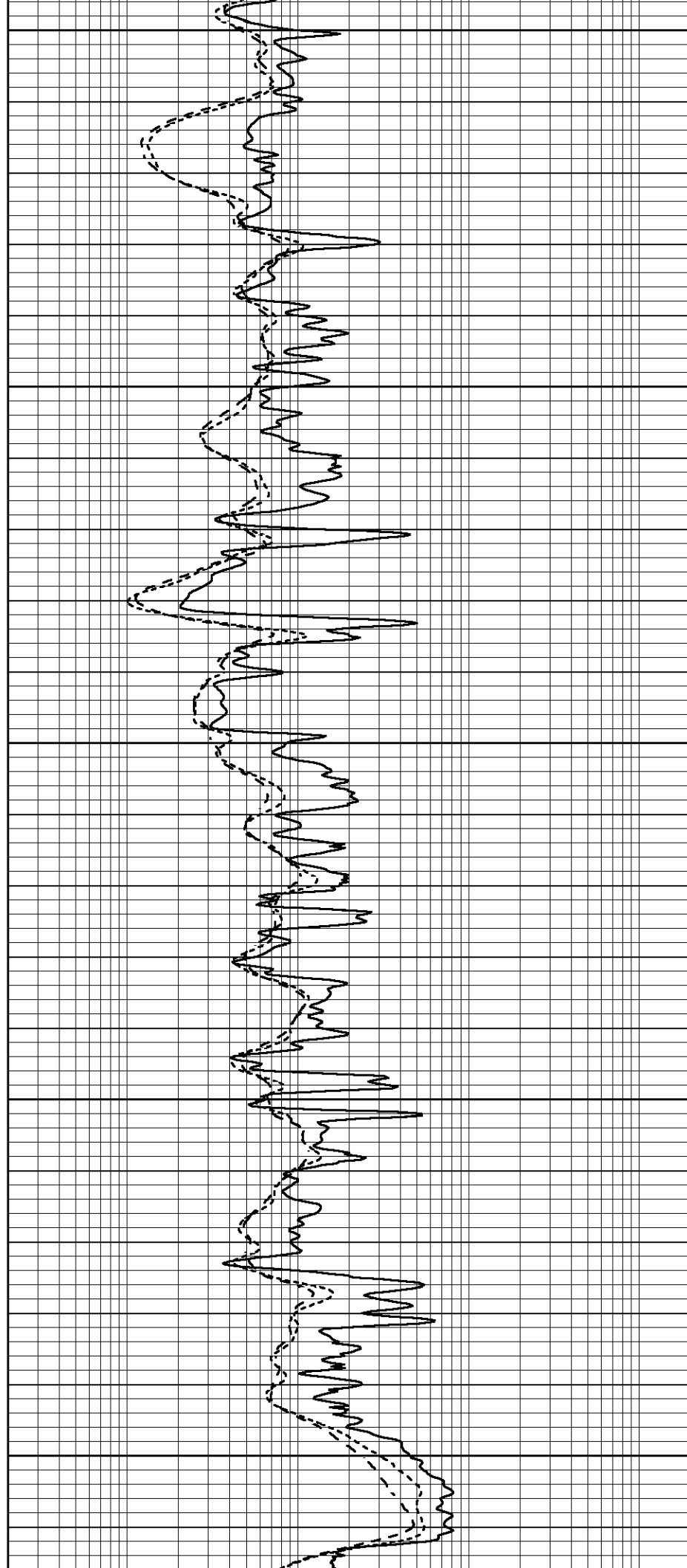
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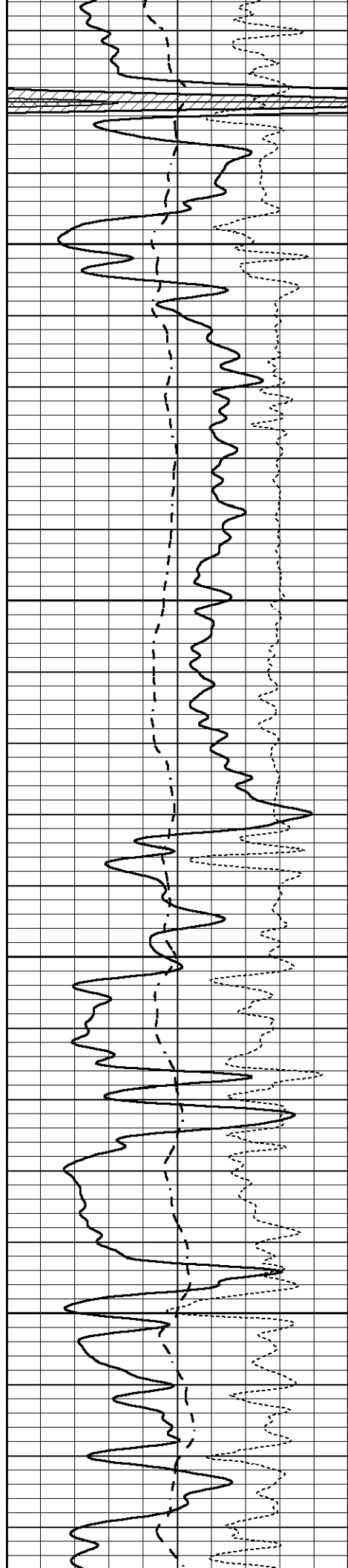
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2800

2850

2900



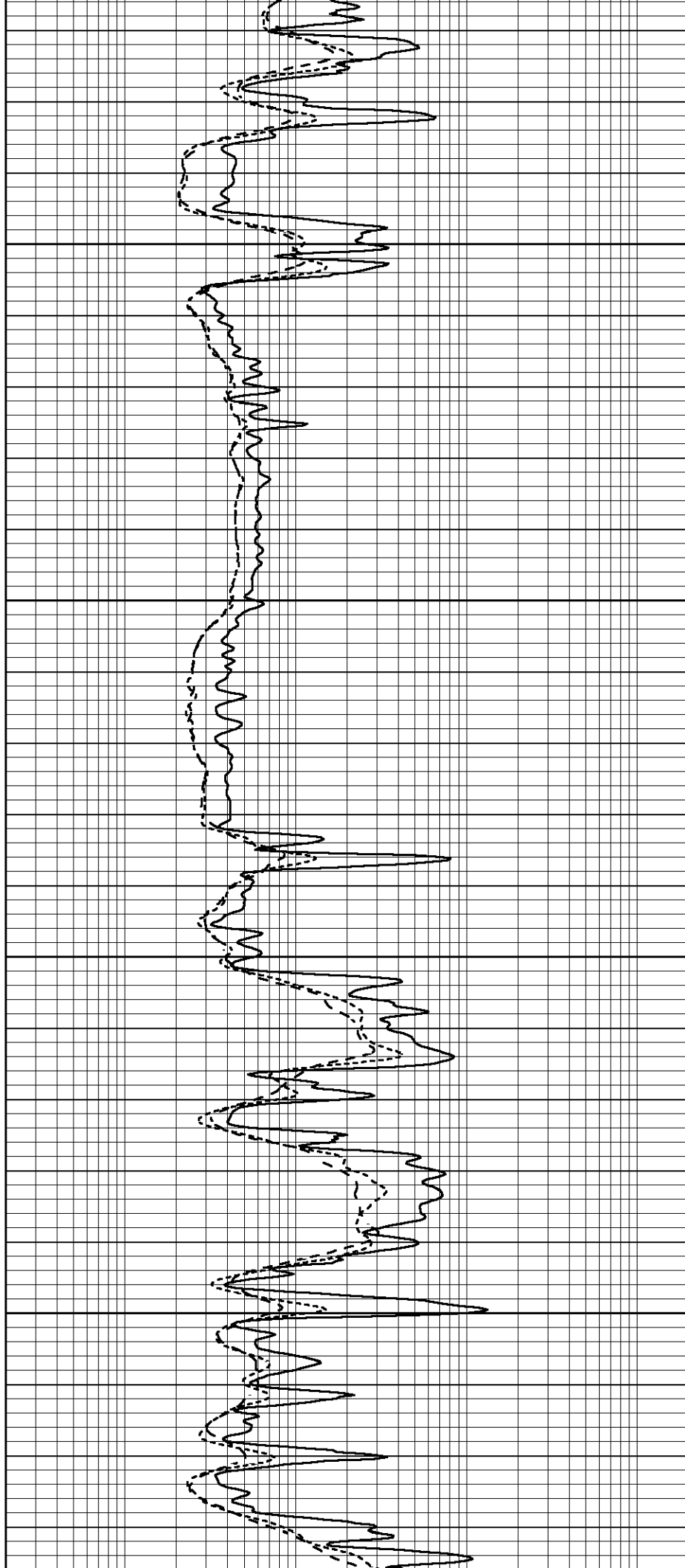


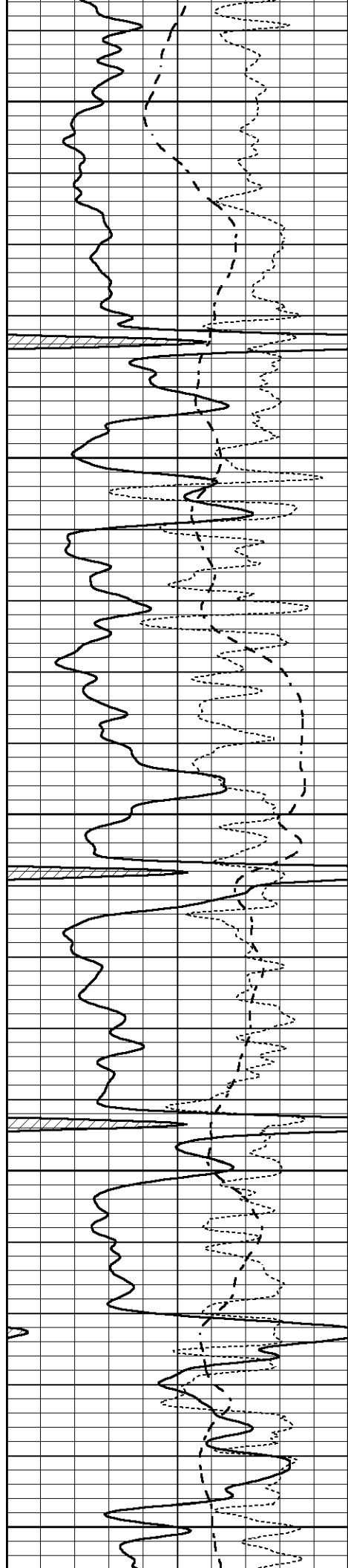
2950

3000

3050

3100





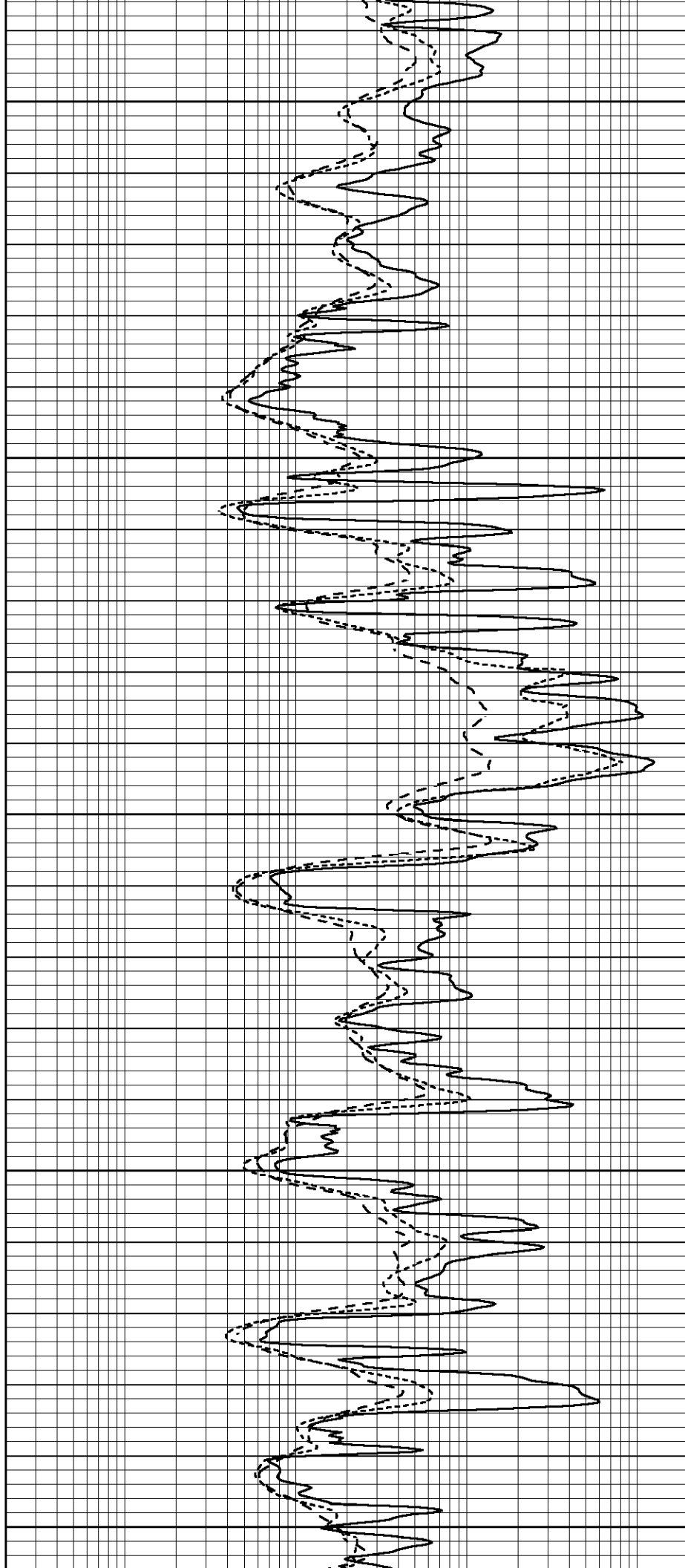
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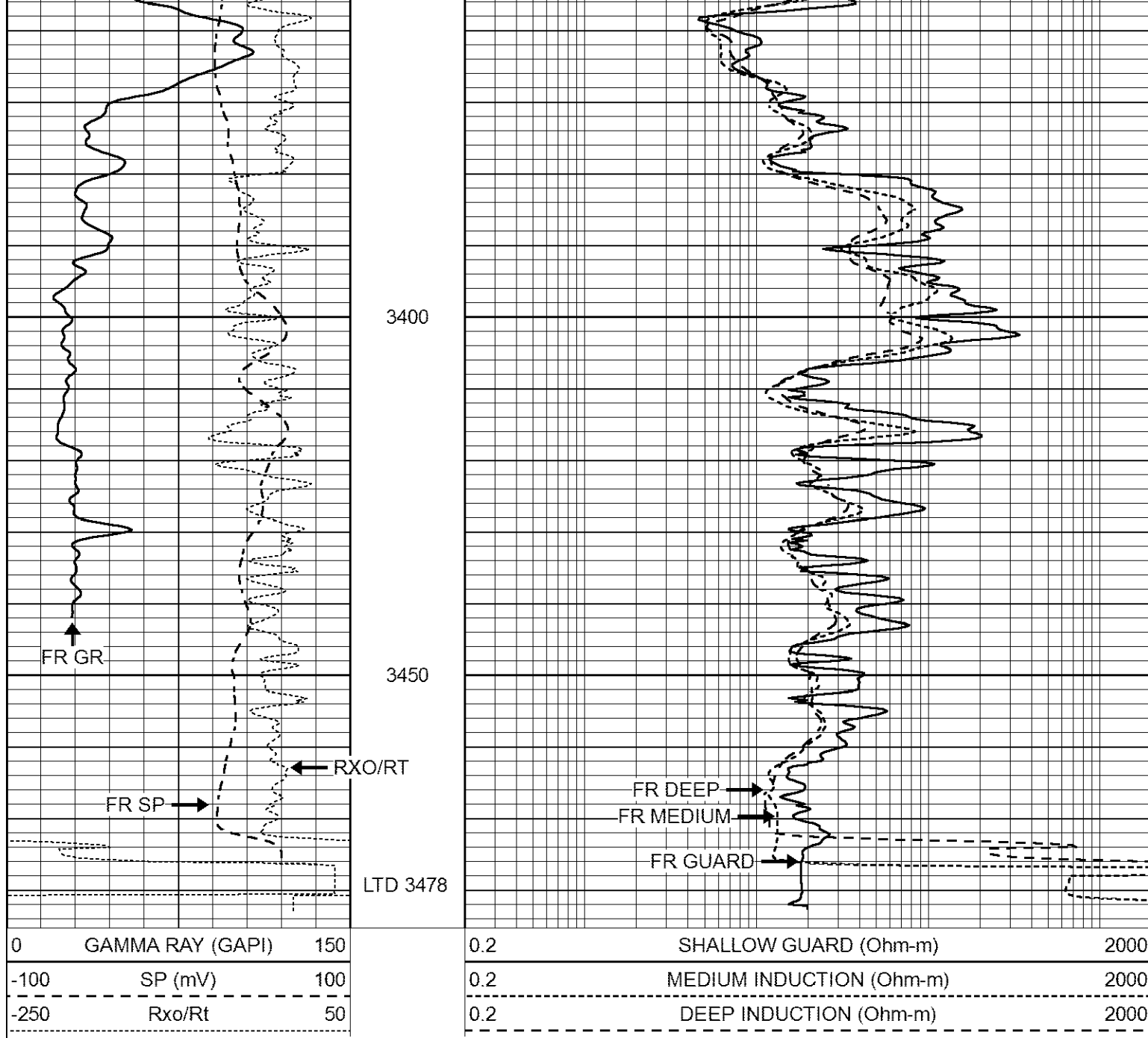
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3250

3300

3350

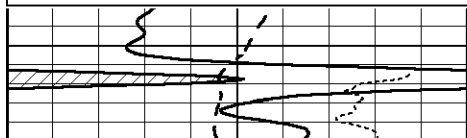




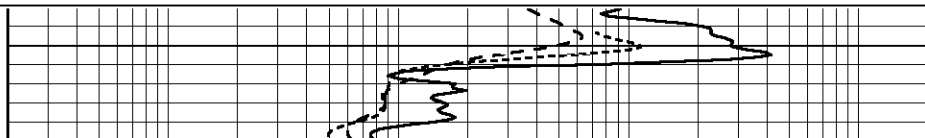
REPEAT SECTION

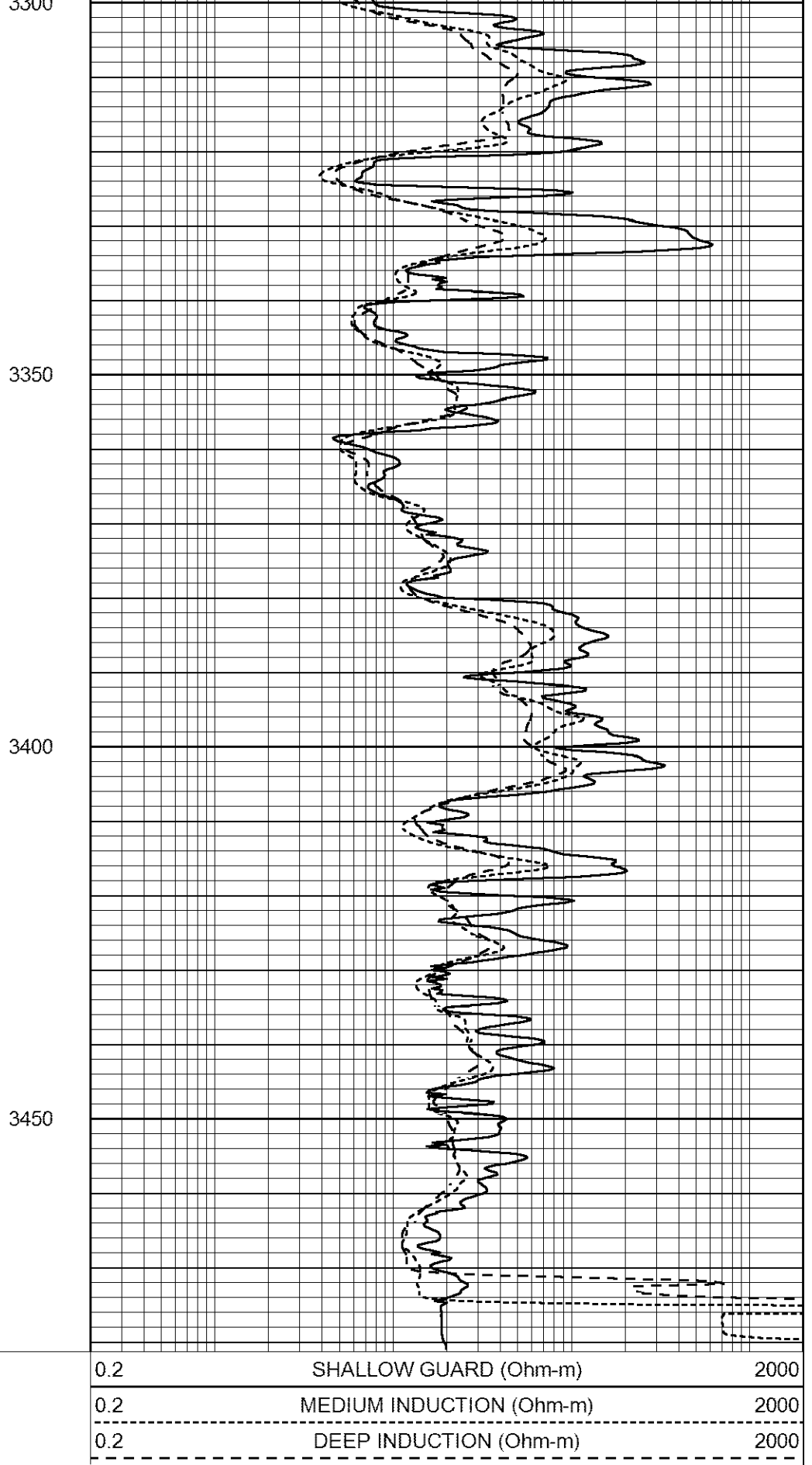
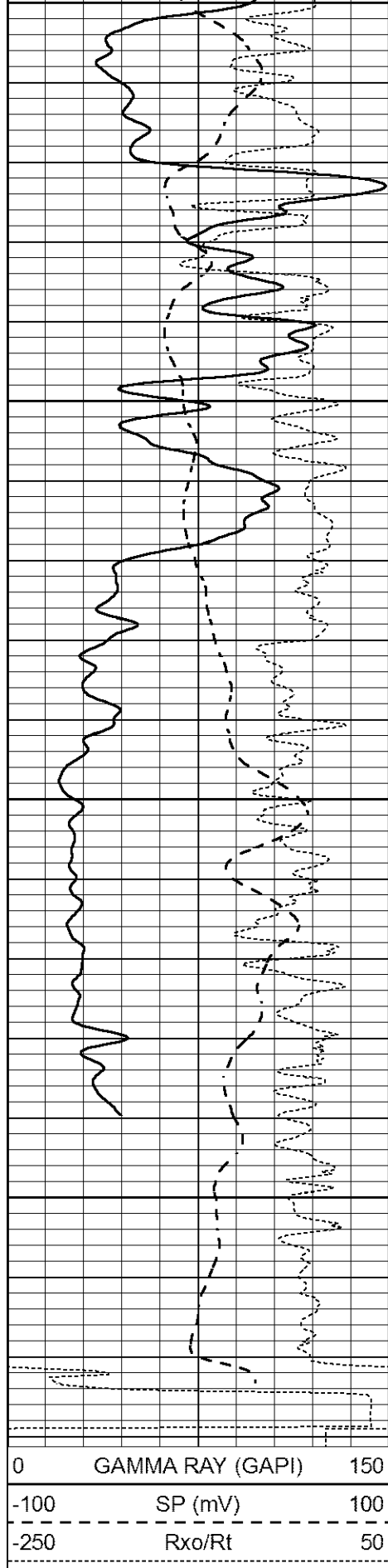
Database File 6765ddn.db
 Dataset Pathname pass3.4
 Presentation Format _dil
 Dataset Creation Fri Aug 05 13:55:00 2022
 Charted by Depth in Feet scaled 1:240

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



3400





Calibration Report

Database File 6765ddn.db
 Dataset Pathname pass4M
 Dataset Creation Fri Aug 05 14:10:39 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

Readings				References			Results	
Loop:	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: 140704
 Model: V4_10P
 Source Number: 74GBq-19

Master Calibration

Performed: Wed Jul 20 12:36:34 2022

	Background	Aluminum	Magnesium	
Window 1	503.67	5439.20	23645.11	cps
Window 2	40.11	1218.66	5702.60	cps
Window 4	221.18	1240.69	5295.43	cps
Window 5	542.56	7631.48	14305.13	cps
Window 6	41.67	1209.53	2345.40	cps
Window 8	256.91	2493.92	4591.85	cps
Bulk Density	-	2.6020	1.6830	g/cc
Pe	-	3.0000	2.5070	b/e

LS Alpha: : -1.8302 SS Alpha: : -0.7503 LS CPE: : 1.1699
 LS Beta: : 122464.5983 SS Beta: : 16307.0478 SS CPE: : 1.6095

Before Survey Background Counts Verification

Performed: Wed Dec 31 18:00:00 1969

Window 1: 0.00 Window 2: 0.00 Window 4: 0.00

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 Jul 20 12:36:34 2022
Results	Readings	References (in)
Low	High	Low High Gain Offset
11331.0	15645.5	8.0 14.0 0.0 -7.5
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:	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

GAPI/cps