

DUAL INDUCTION LOG

Company KNIGHTON OIL COMPANY, INC.

Well KACHELMAN #5

Field ALBANO WEST

County STAFFORD State KANSAS

Location: API #: 15-185-24141-0000

518' FSL & 330' FEL
N/2 - SE - SE - SE

Other Services
CDL/CNL/PE
MEL/SONIC

SEC 11 TWP 25S RGE 14W

Permanent Datum GROUND LEVEL Elevation 1961
Log Measured From KELLY BUSHING 11' A.G.L.
Drilling Measured From KELLY BUSHING

Elevation

K.B. 1972
D.F. 1970
G.L. 1961

Date 5/12/23

Run Number ONE

Depth Driller 4360

Depth Logger 4361

Bottom Logged Interval 4359

Top Log Interval 00

Casing Driller 8 5/8" @ 346'

Casing Logger 346

Bit Size 7 7/8"

Type Fluid in Hole CHEMICAL MUD

Density / Viscosity 9.1/51

pH / Fluid Loss 10.0/8.0

Source of Sample FLOWLINE

Rm @ Meas. Temp .750 @ 82F

Rmf @ Meas. Temp .563 @ 82F

Rmc @ Meas. Temp .900 @ 82F

Source of Rmf / Rmc MEASUREMENT

Rm @ BHT .517 @ 119F

Time Circulation Stopped 3 HOURS

Time Logger on Bottom 6.45 P.M.

Maximum Recorded Temperature 119F

Equipment Number 922339

Location HAYS, KANSAS

Recorded By JEFF LUEBBERS

Witnessed By BLAKE MILLER

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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.

15-185-24141-0000

Comments

THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS

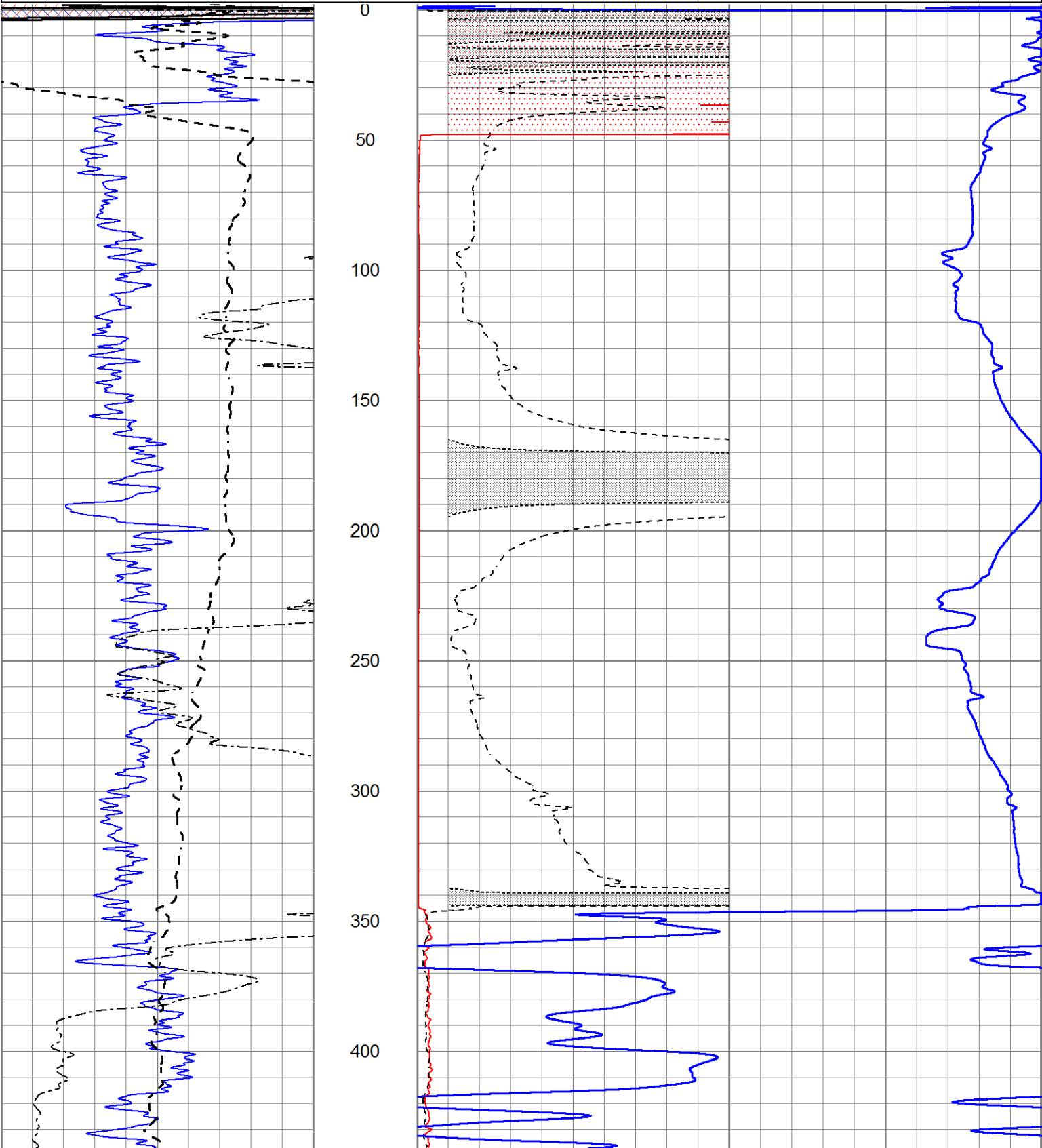
ST. JOHN, KS., S. ON HWY 281 TO "SW 50TH ST.", 4W. TO "SW 40TH AVE.", 1/4 N., W. INTO

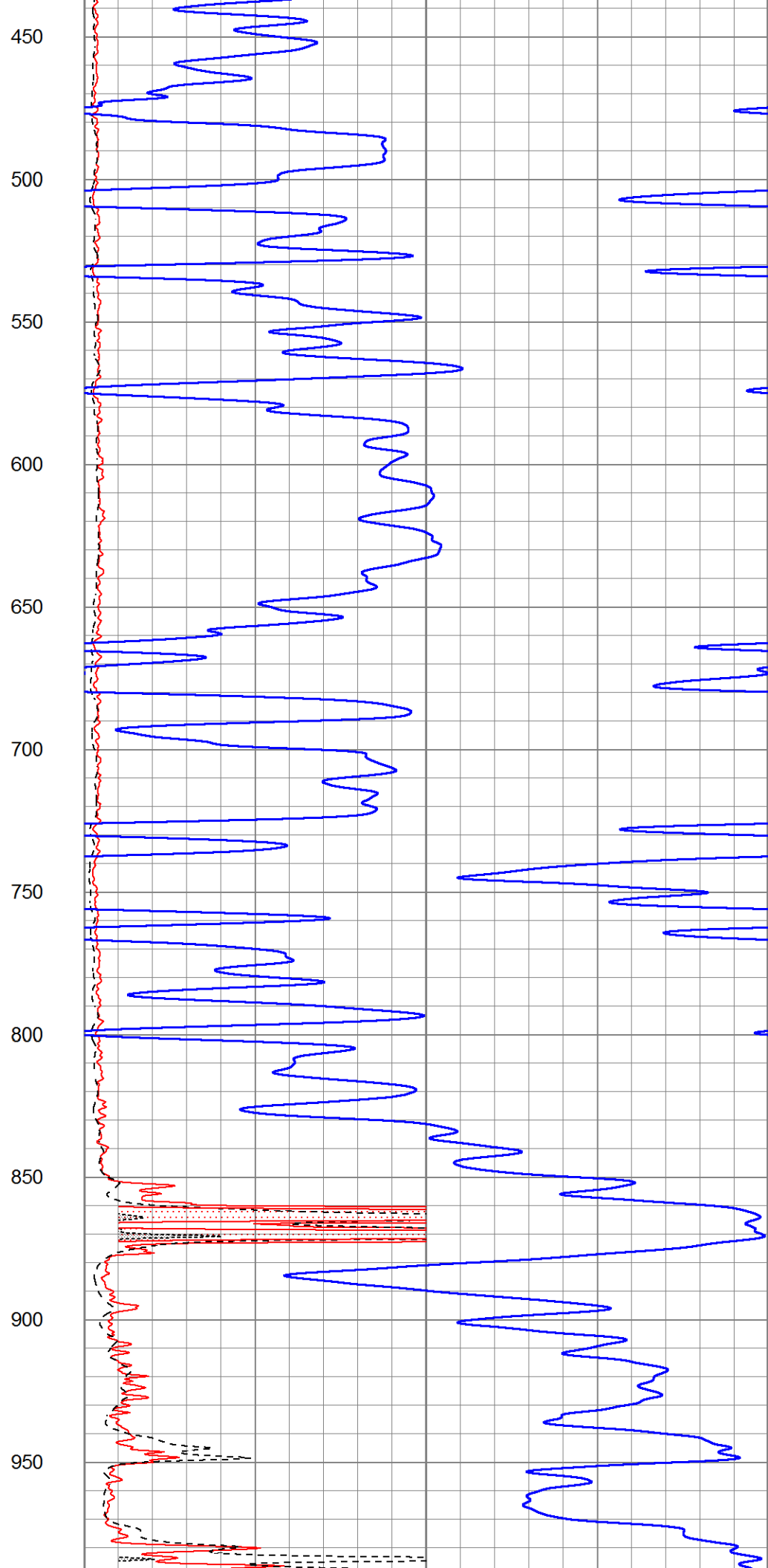
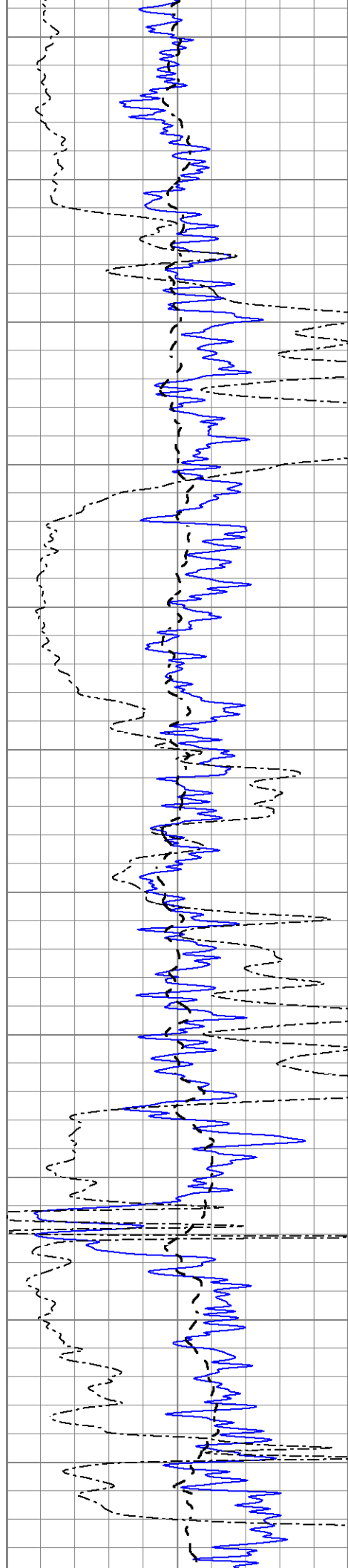


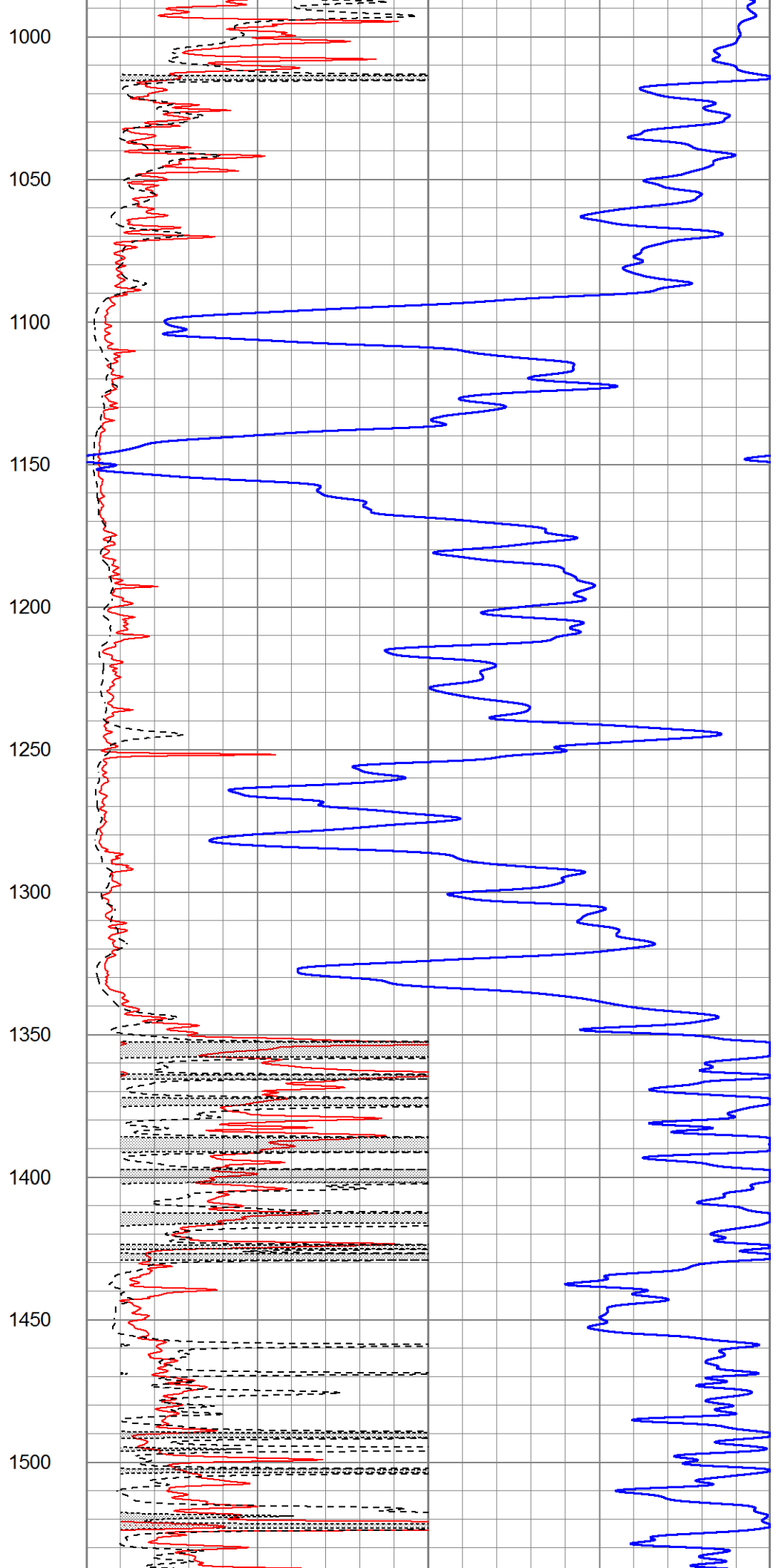
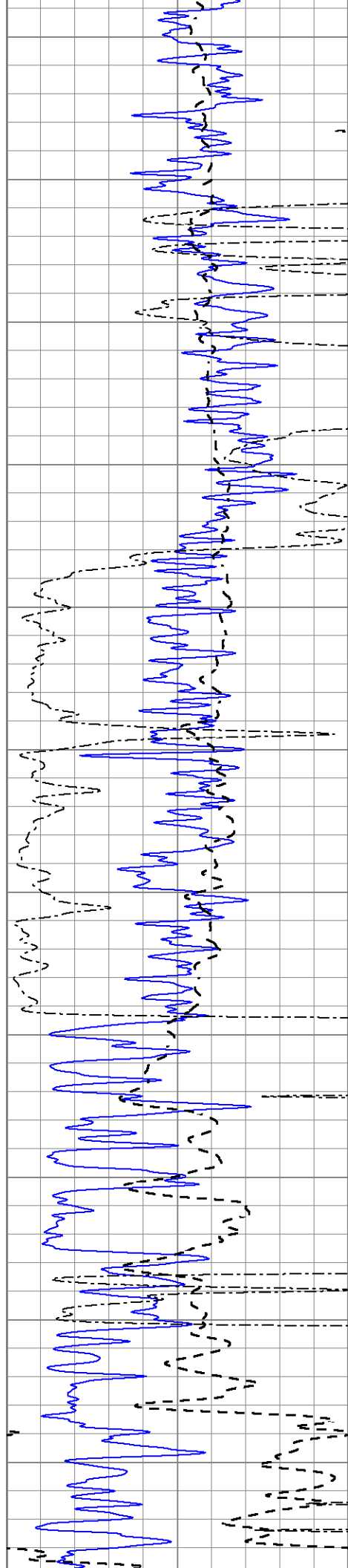
MAIN SECTION

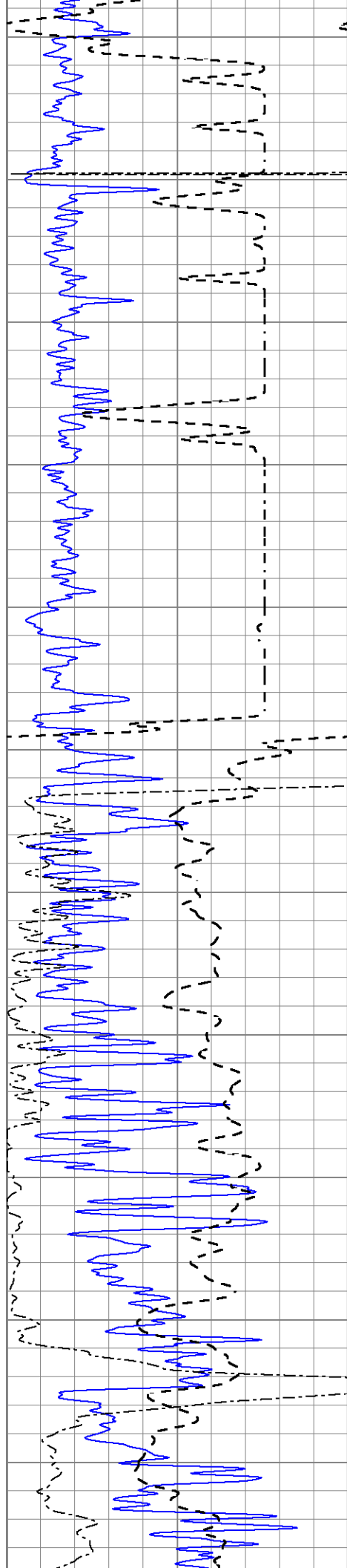
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Dataset Pathname	pass3.1M
Presentation Format	_dil2
Dataset Creation	Fri May 12 20:26:01 2023
Charted by	Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150	1000	CILD (mmho/m)	0
-100	SP (mV)	100	0	RLL3 (Ohm-m)	50
0	RWA (Ohm-m)	1	0	RILD (Ohm-m)	50
			50	RILD X10 (Ohm-m)	500
			50	RLL3 X10 (Ohm-m)	500









1550

1600

1650

1700

1750

1800

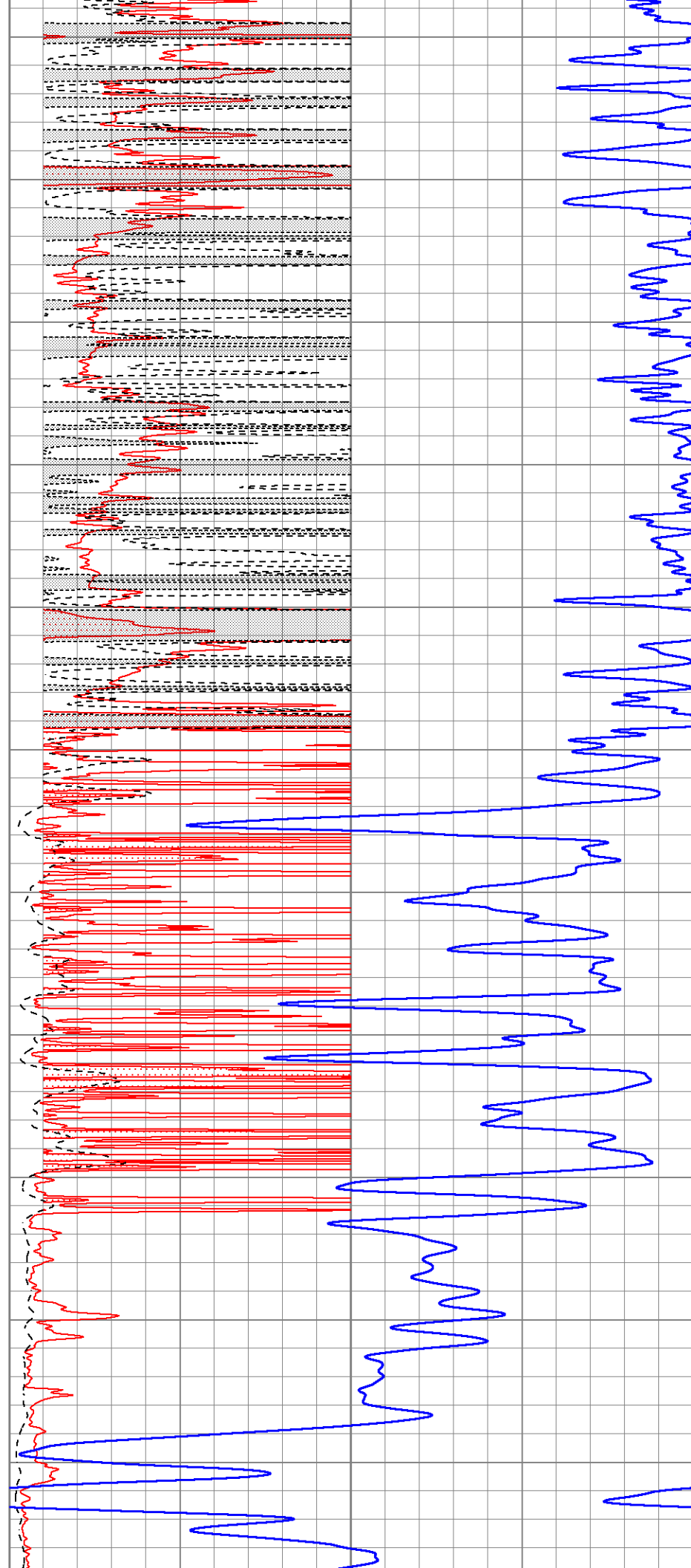
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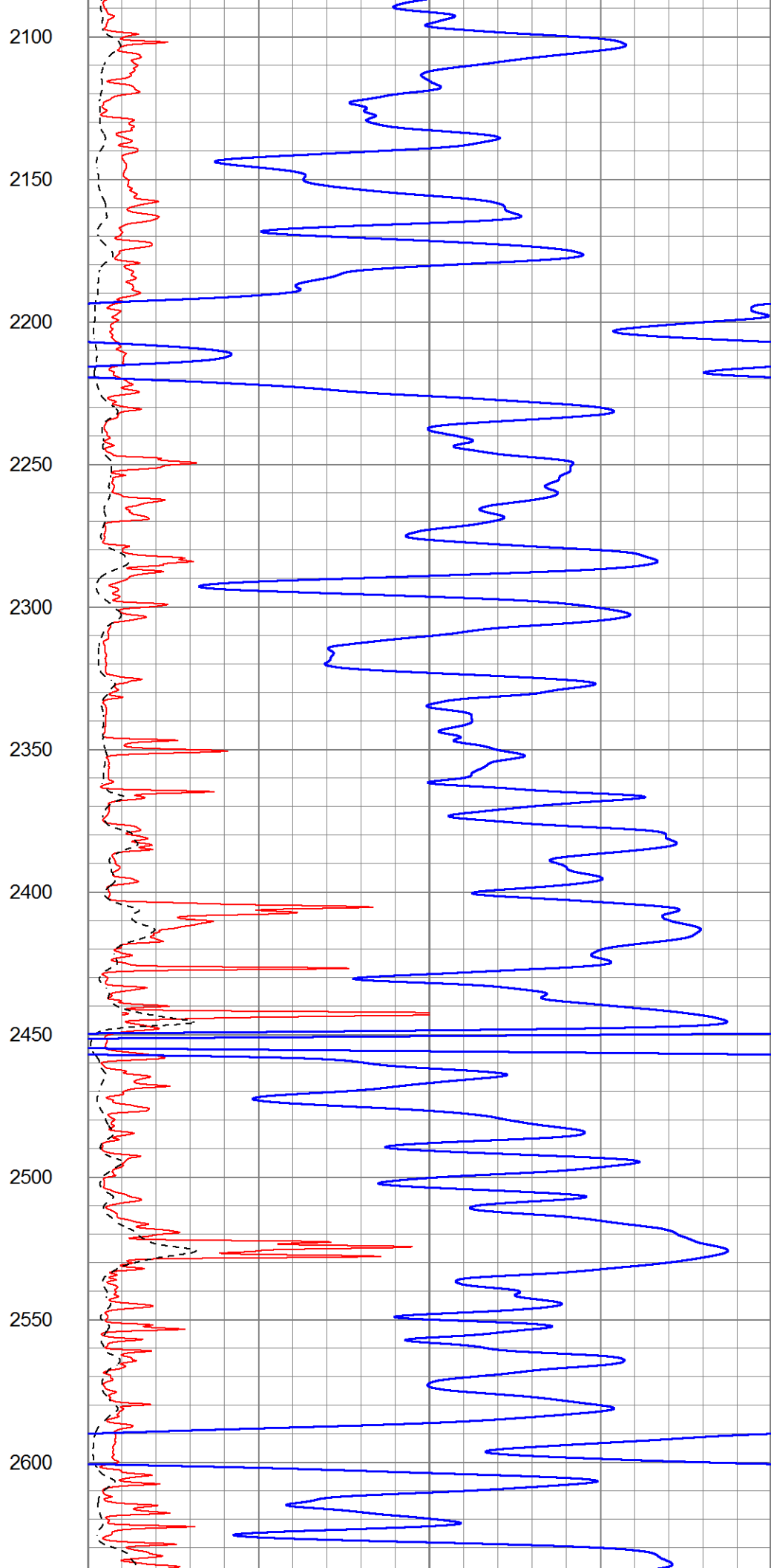
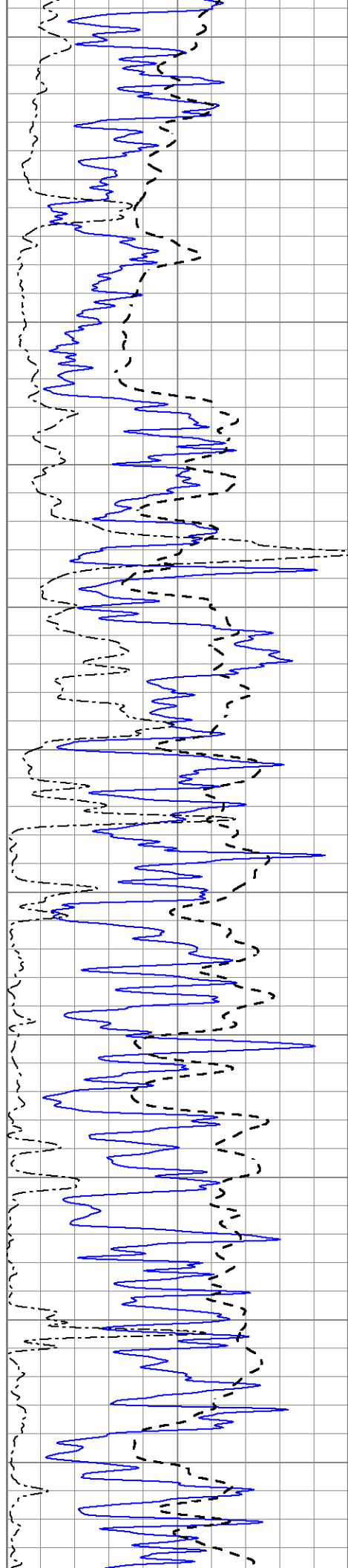
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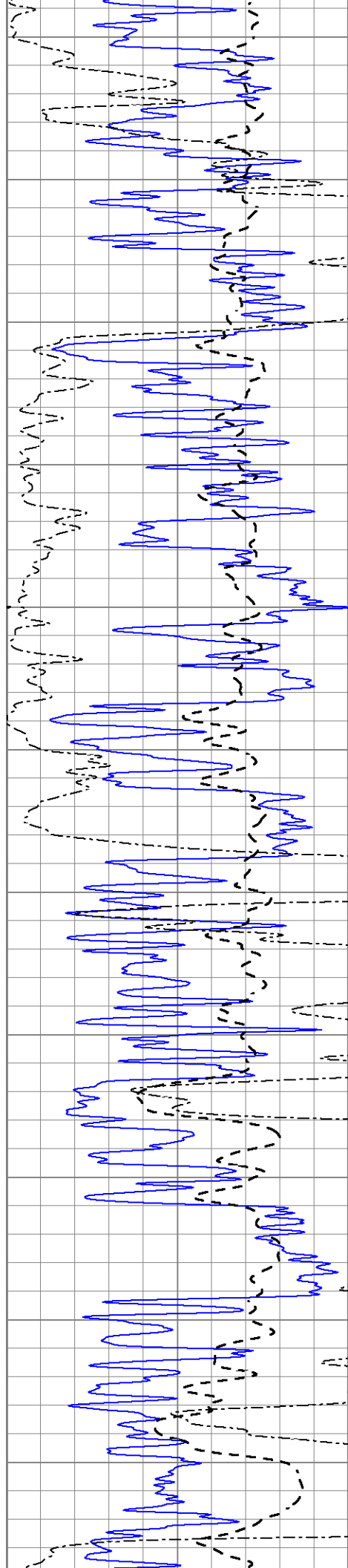
1950

2000

2050







2650

2700

2750

2800

2850

2900

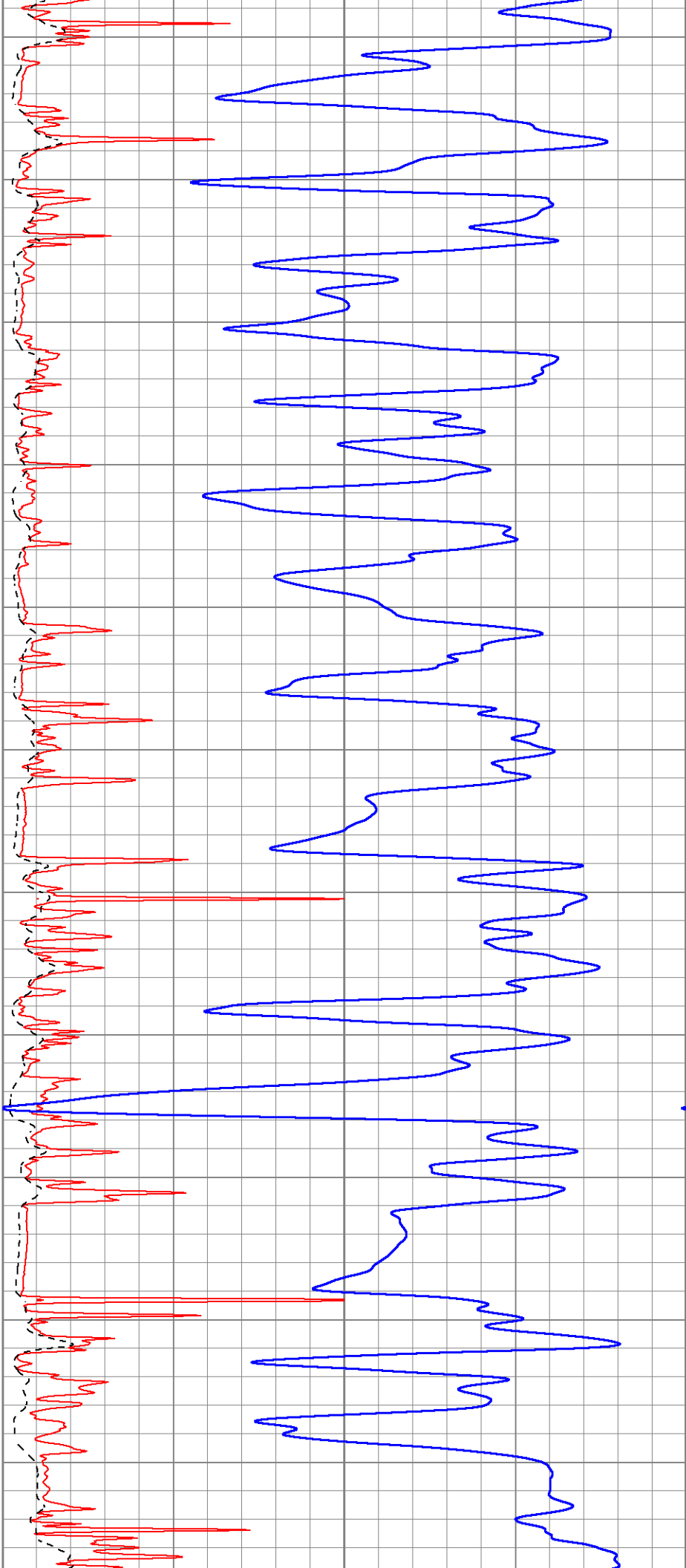
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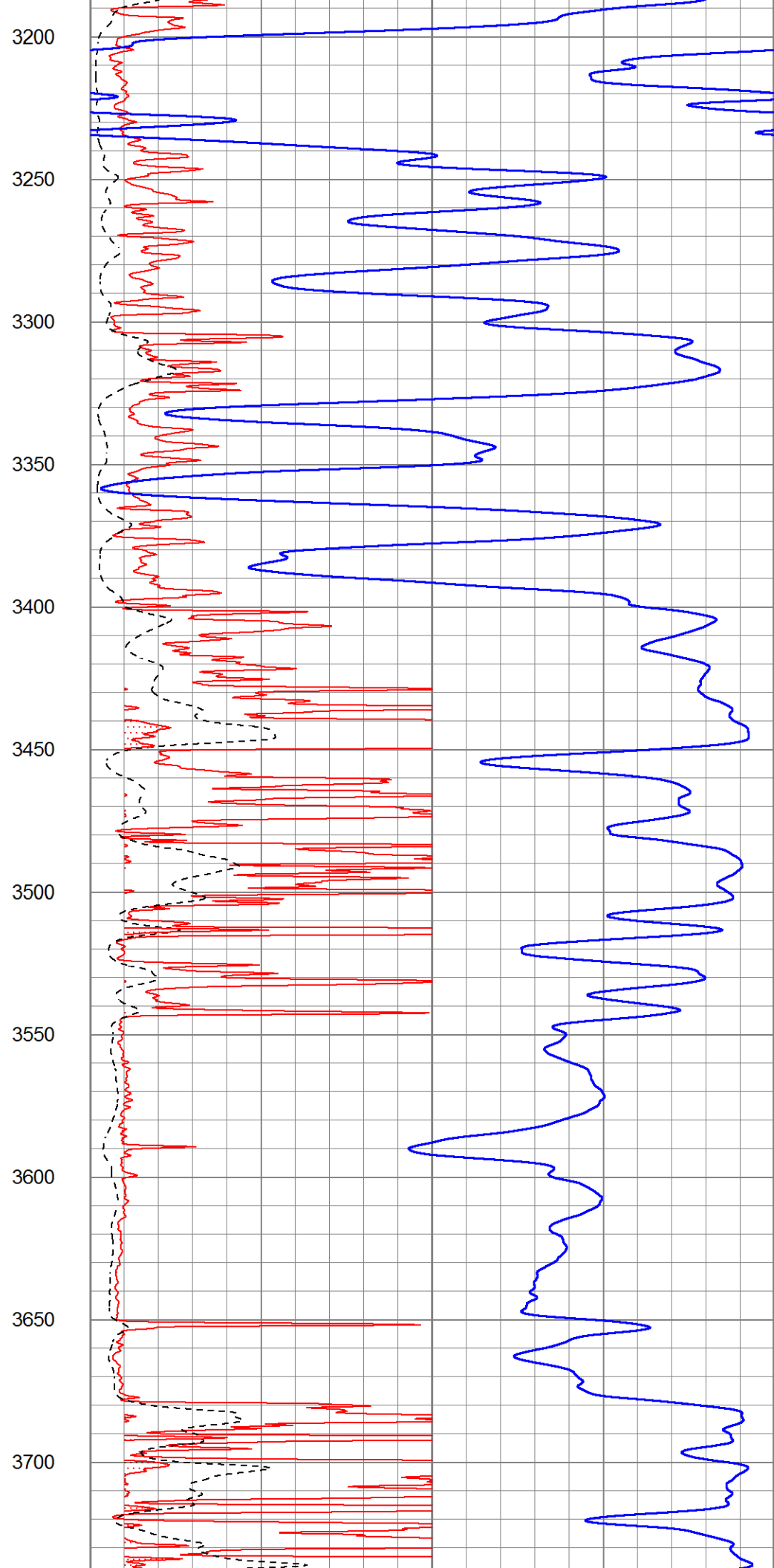
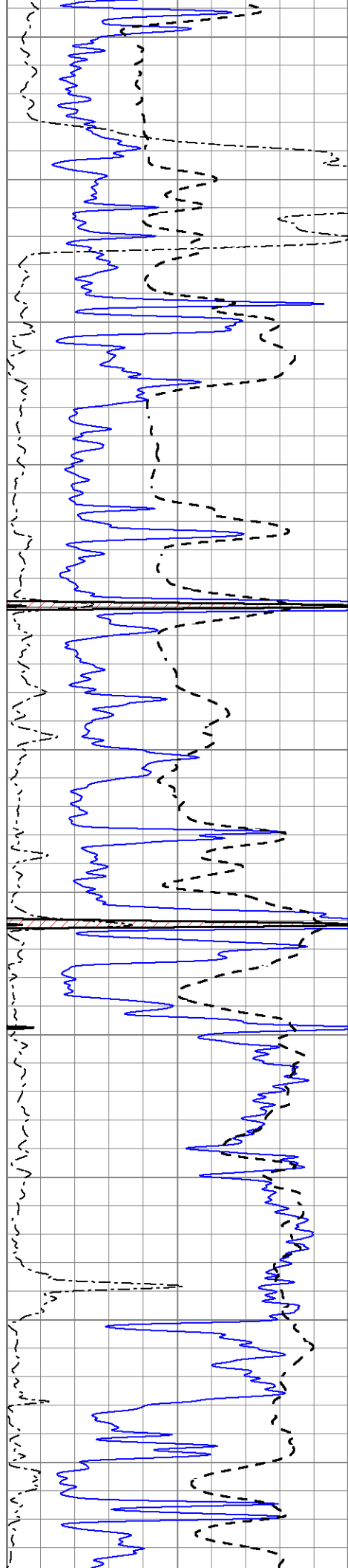
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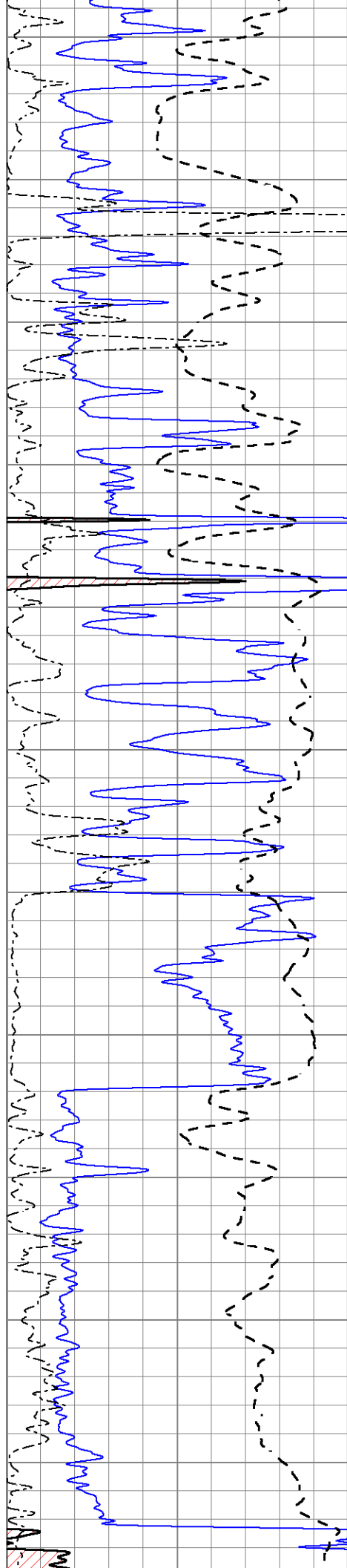
3050

3100

3150







3750

3800

3850

3900

3950

4000

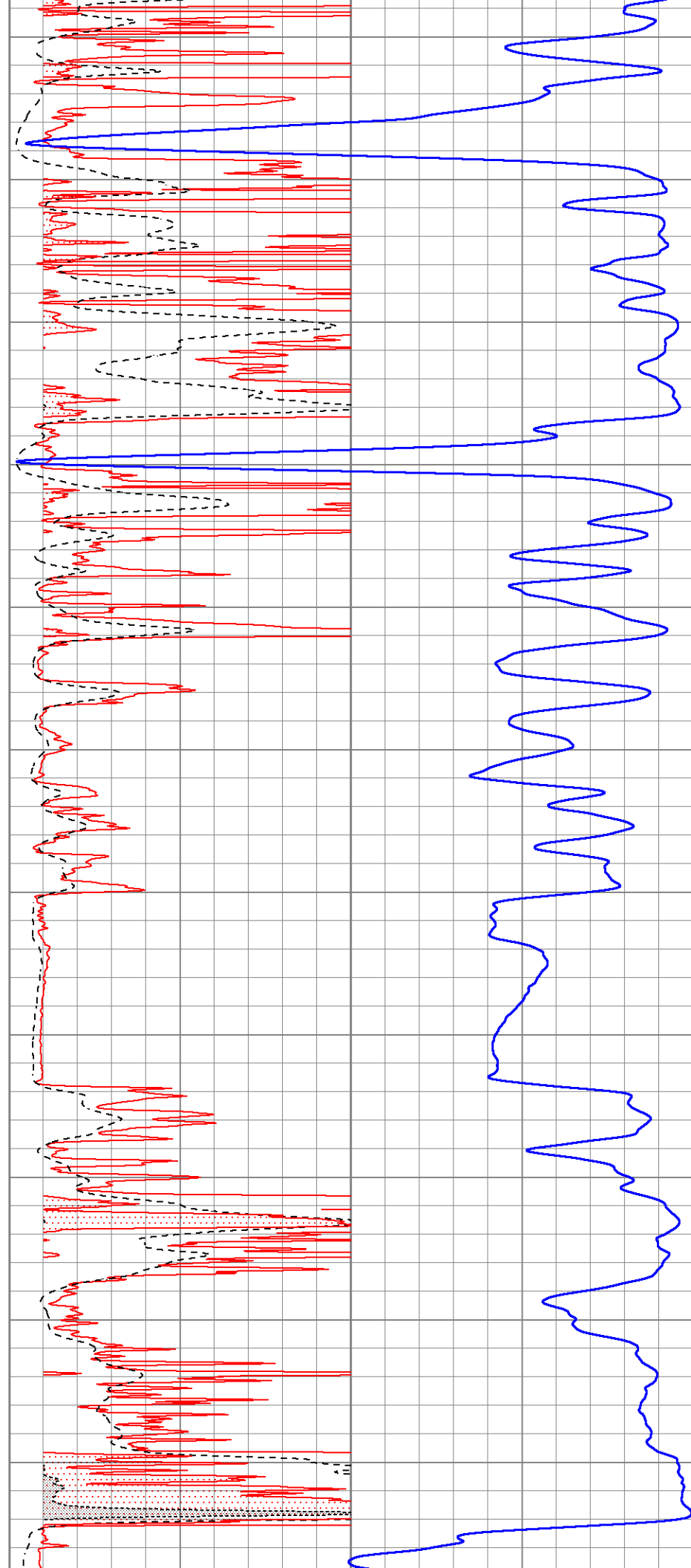
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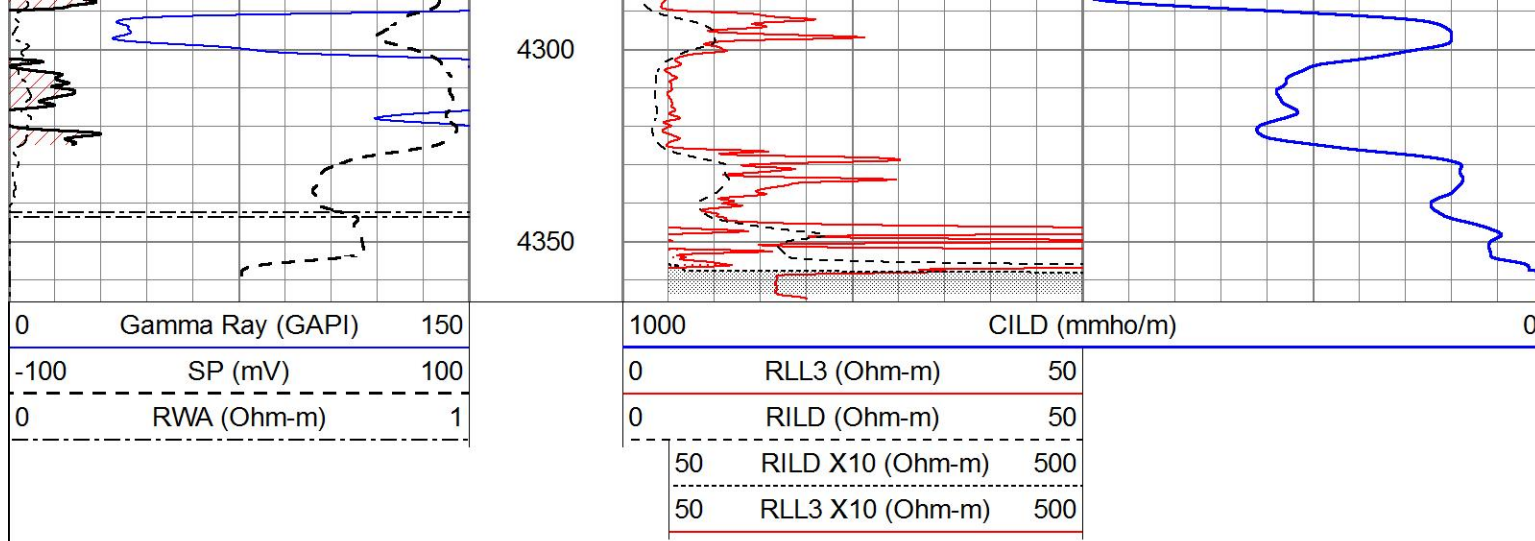
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4150

4200

4250

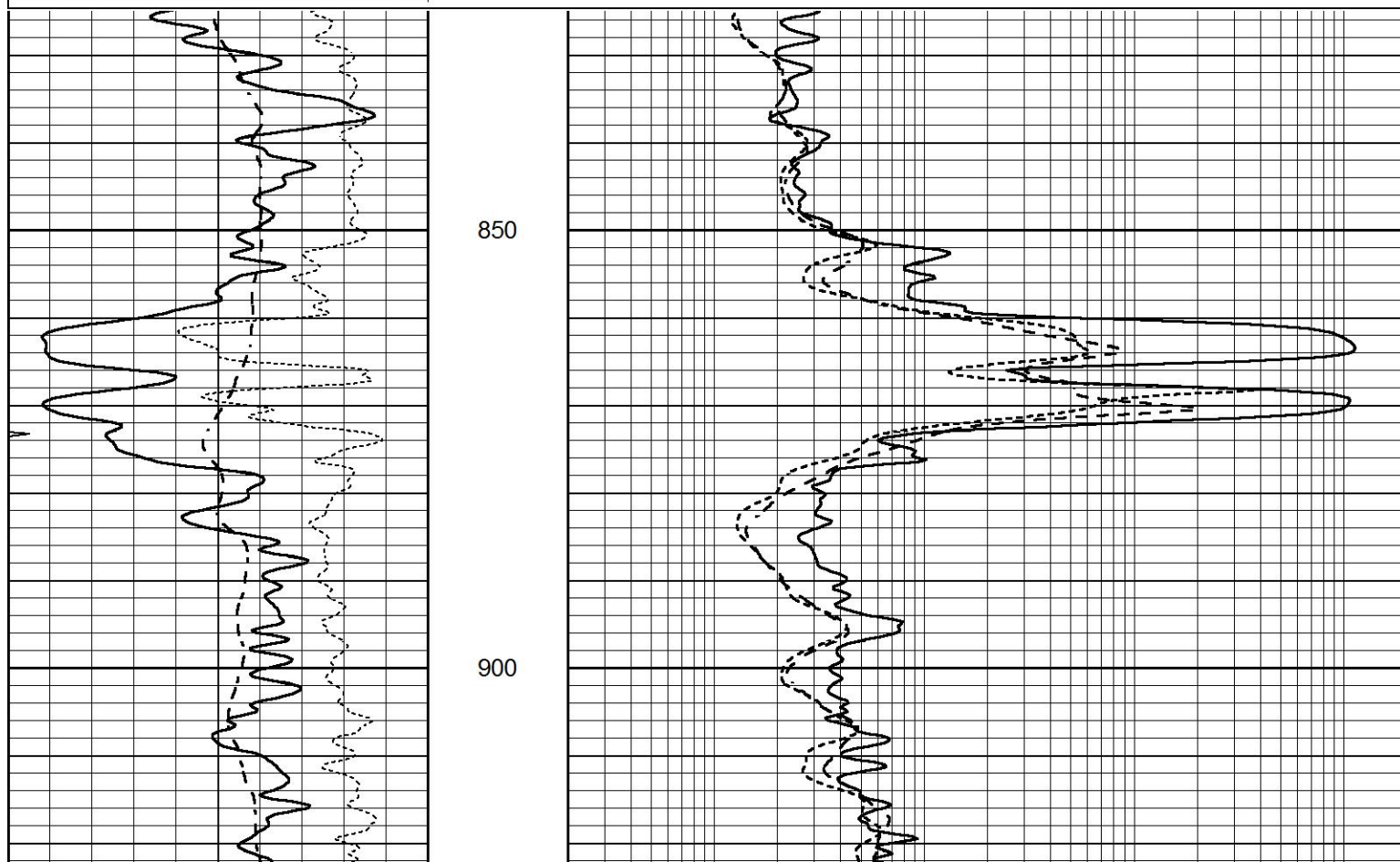




ANHYDRITE

Database File 7883pe.db
 Dataset Pathname pass3.1A
 Presentation Format _dil
 Dataset Creation Fri May 12 20:26:26 2023
 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	DEEP INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000
0	MINMK	20			



0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

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

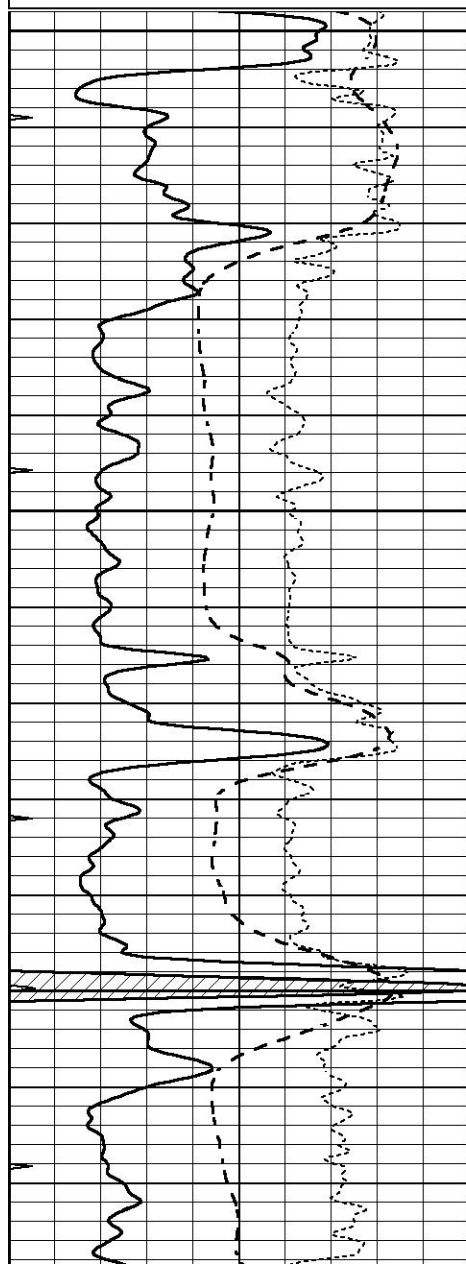


MAIN SECTION

Database File 7883pe.db
 Dataset Pathname pass3.1M
 Presentation Format _dil
 Dataset Creation Fri May 12 20:26:01 2023
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

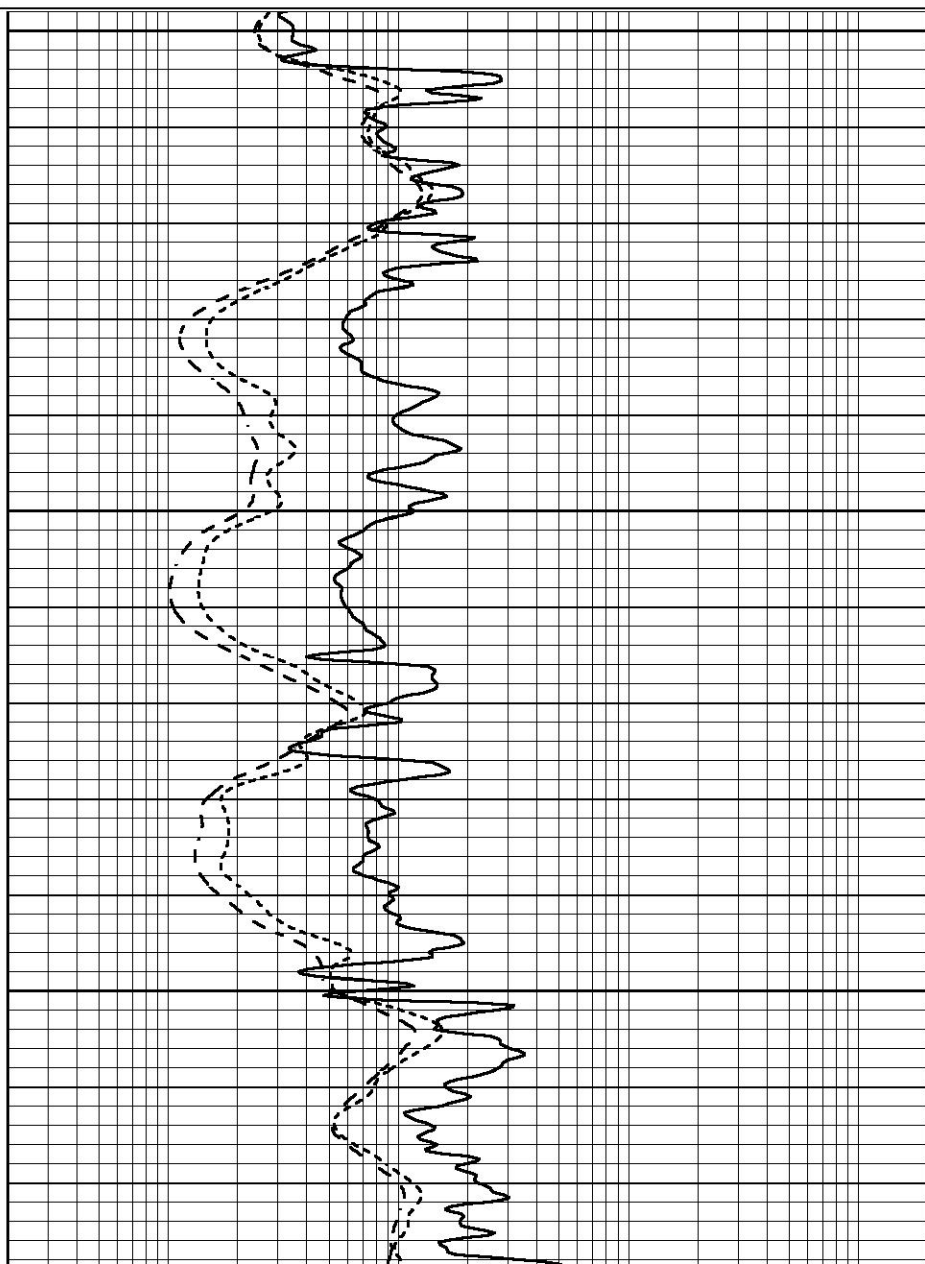
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

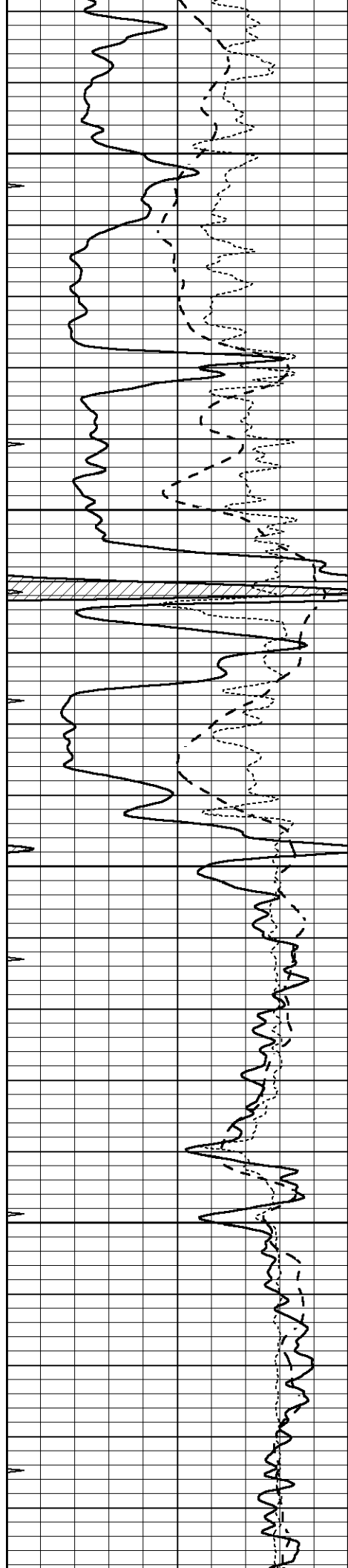


3300

3350

3400



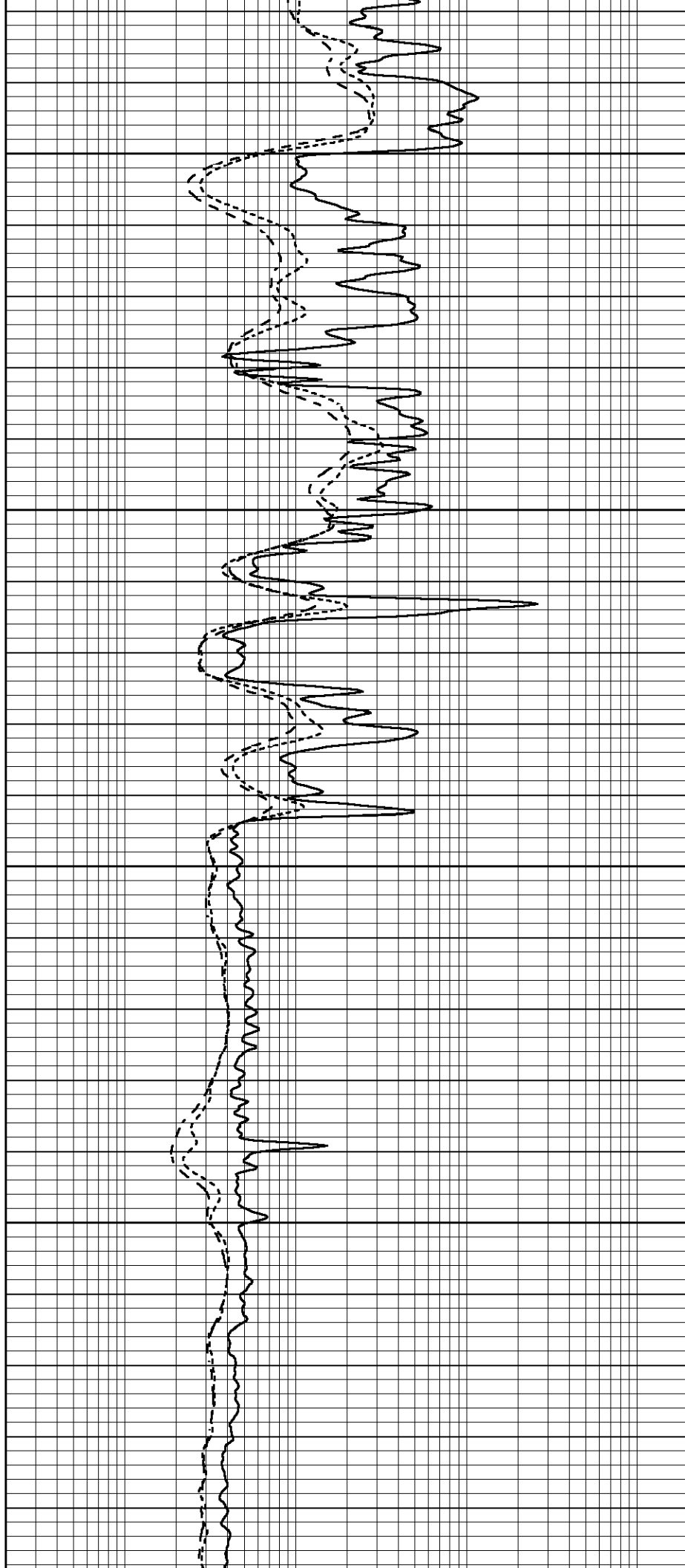


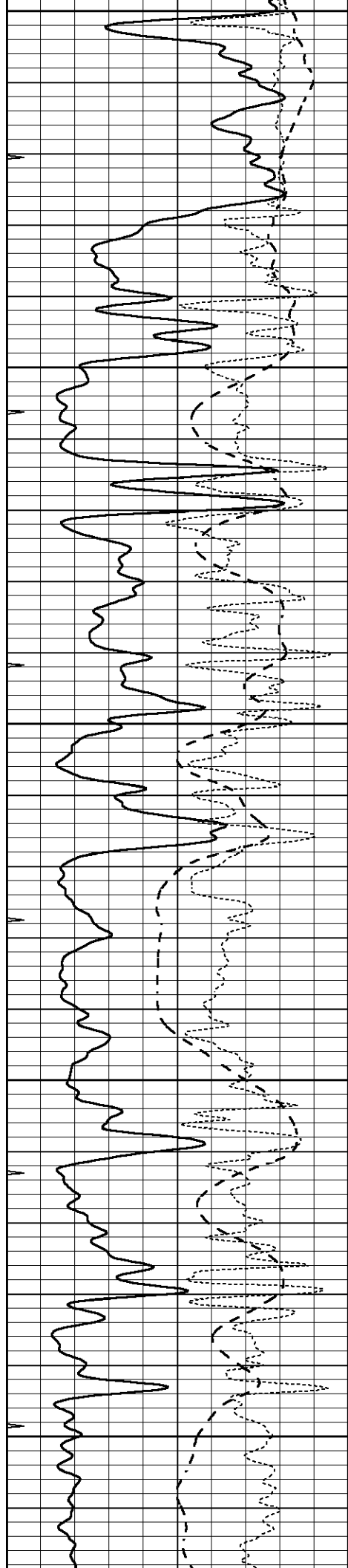
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3500

3550

3600





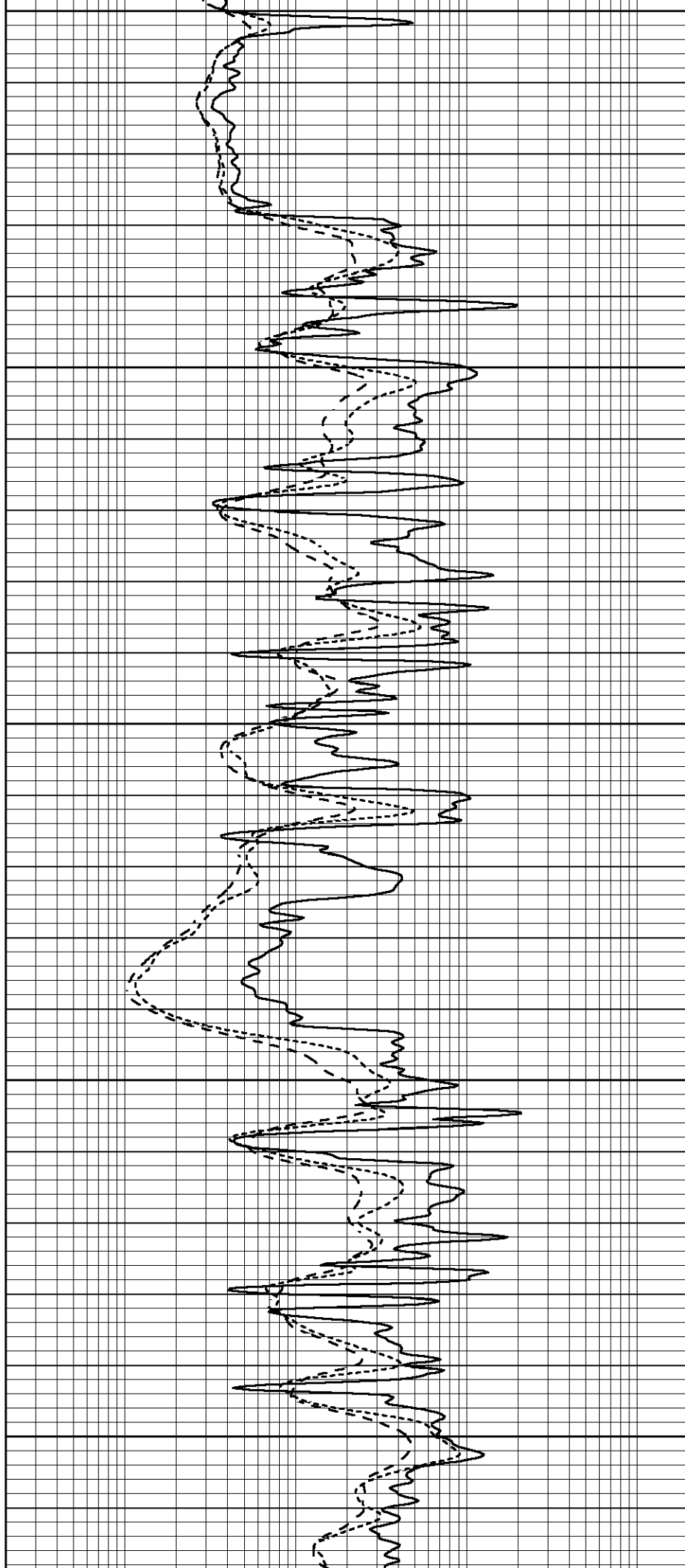
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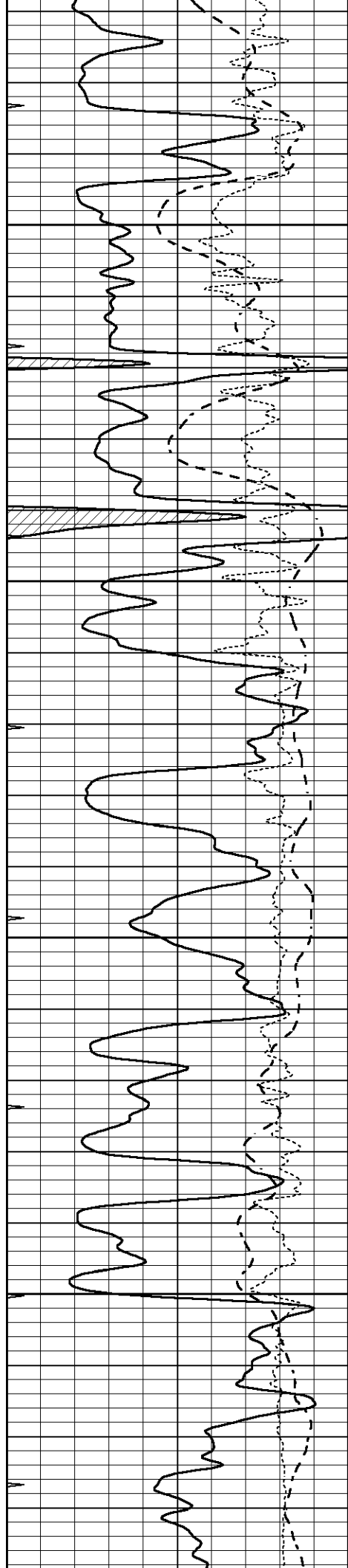
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3750

3800

3850



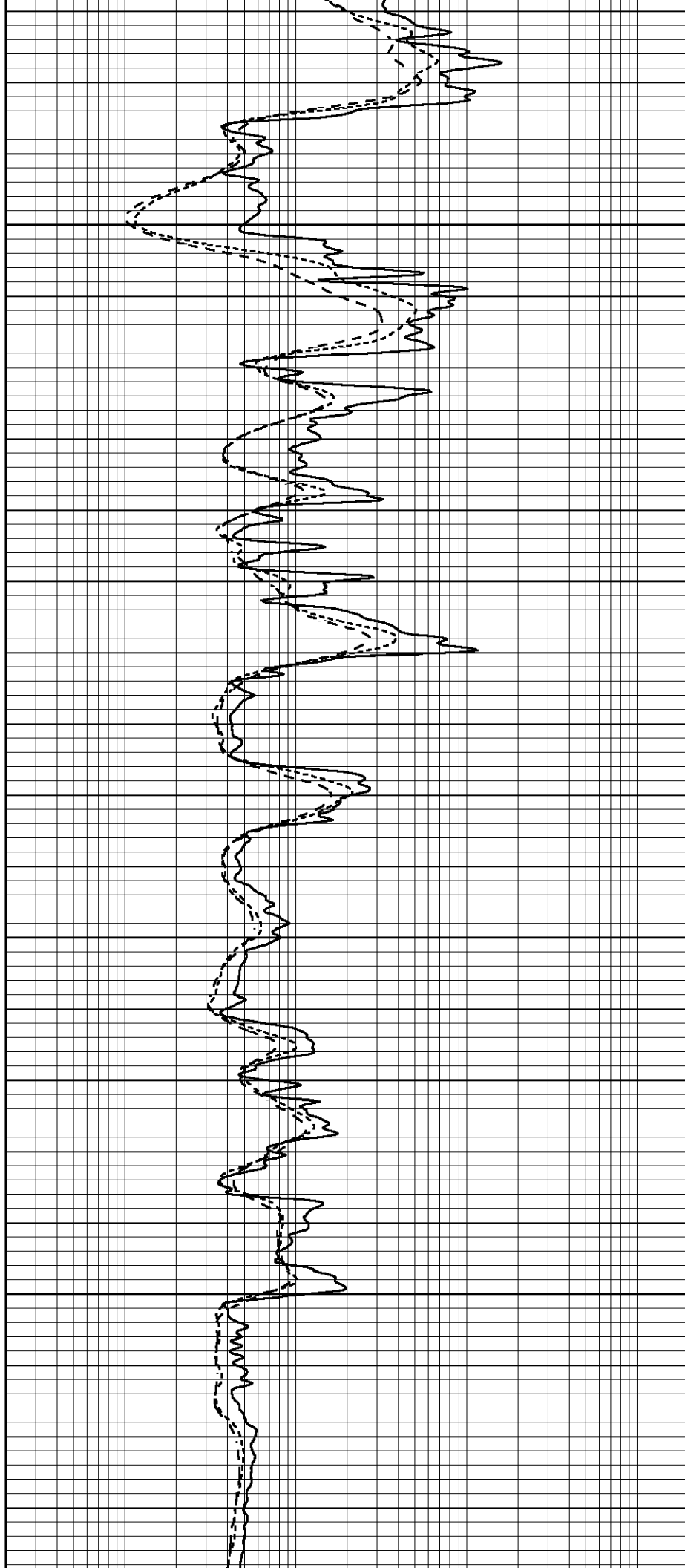


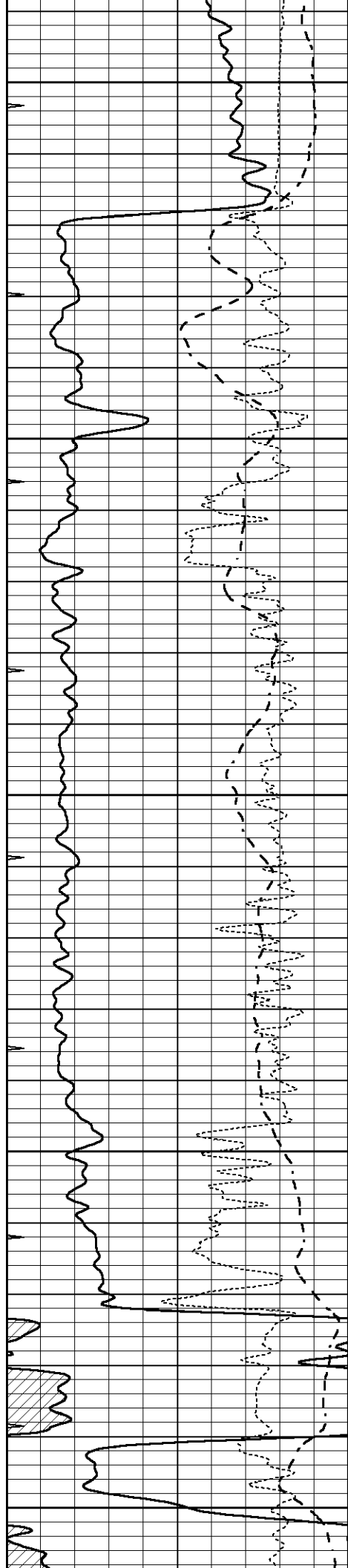
3900

3950

4000

4050





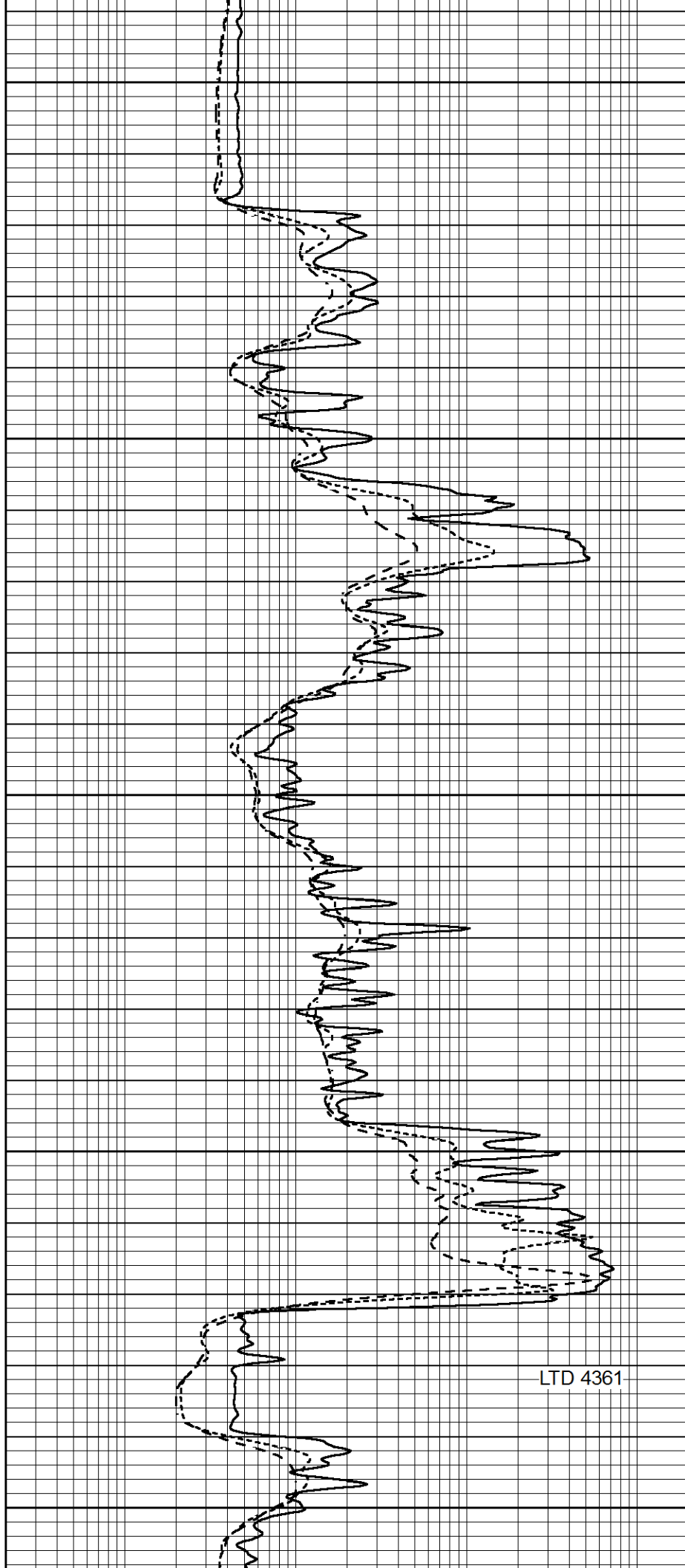
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4150

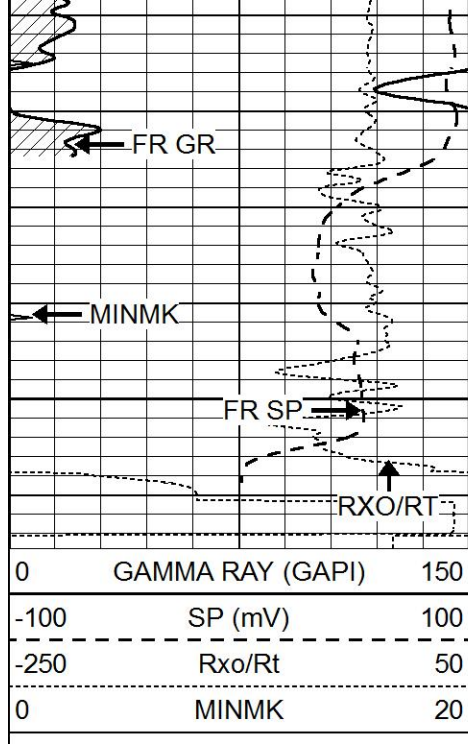
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4250

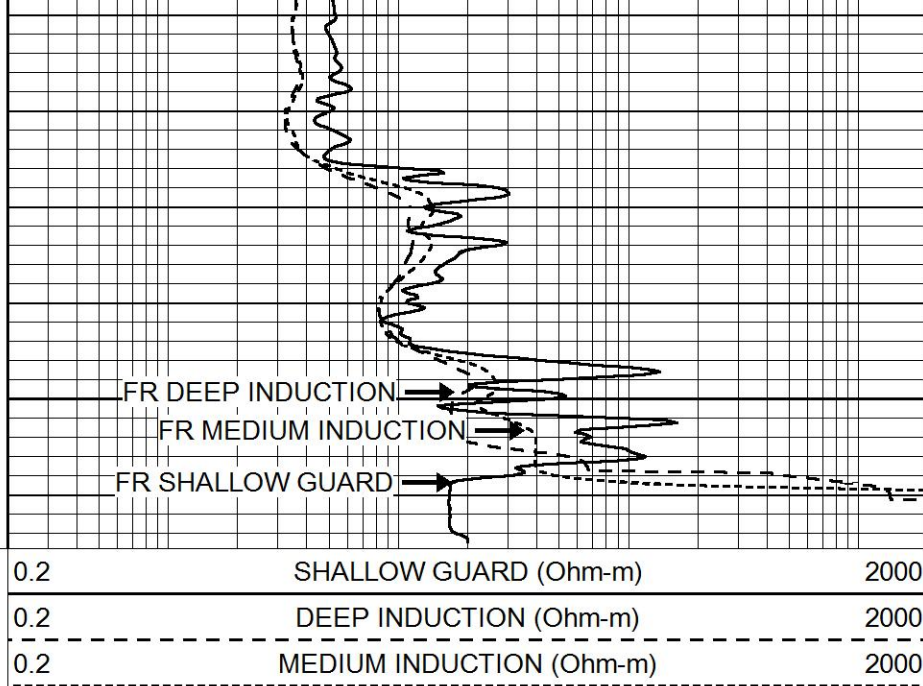
4300



LTD 4361

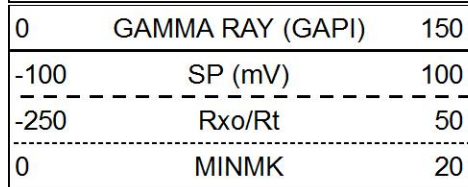


4350
LTD 4361



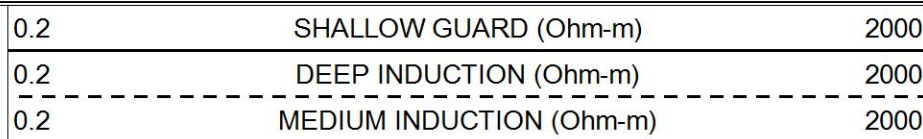
REPEAT SECTION

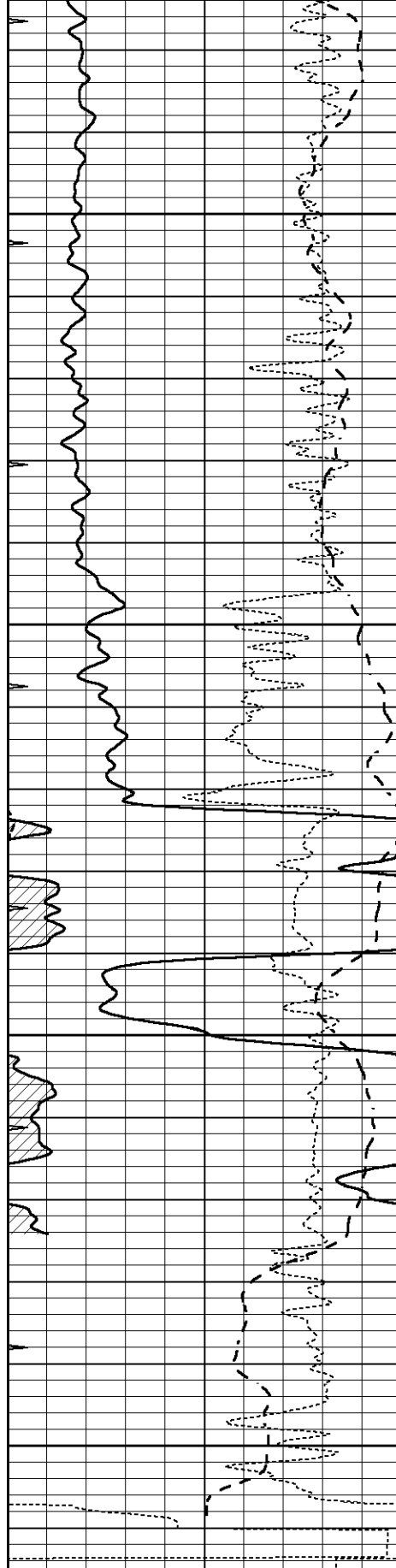
Database File 7883pe.db
Dataset Pathname pass2.1R
Presentation Format _dil
Dataset Creation Fri May 12 20:22:17 2023
Charted by Depth in Feet scaled 1:240



4100

4150





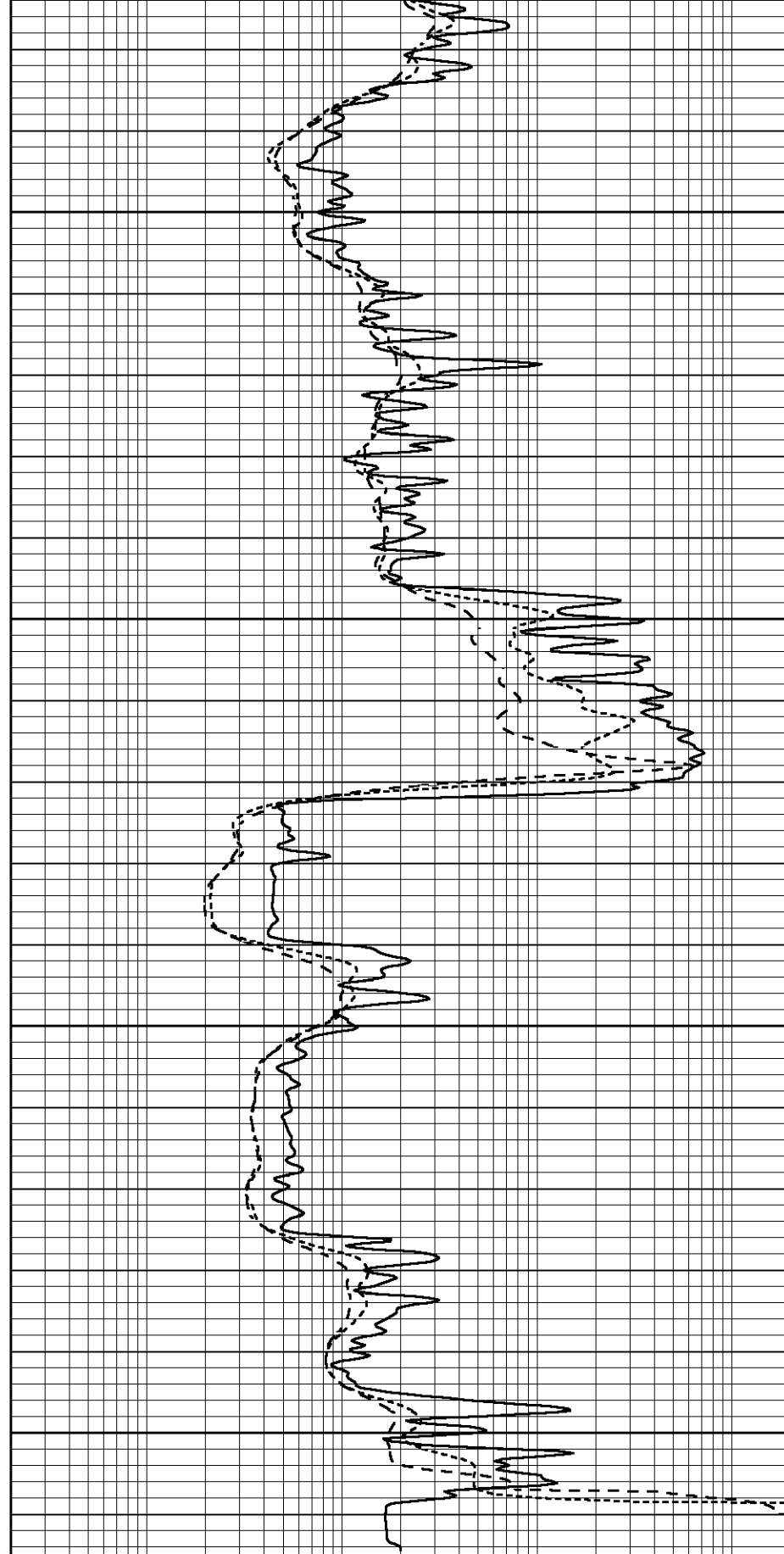
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

4200

4250

4300

4350



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

Database File	7883pe.db		Calibration Report					
Dataset Pathname	pass3.1M							
Dataset Creation	Fri May 12 20:26:01 2023							
Dual Induction Calibration Report								
Serial-Model:			PROBE8-DILG					
Surface Cal Performed:			Tue May 09 08:05:37 2023					
Downhole Cal Performed:			Mon Jul 28 11:08:27 2008					
After Survey Verification Performed:			Mon Jul 28 11:08:27 2008					
Surface Calibration								
Readings			References				Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	620.000	12.000
Medium	0.029	0.796	V	0.000	464.000	mmho/m	600.000	-2.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.017	0.657	V	0.000	400.000	mmho/m	625.153	-10.619
Medium	0.016	0.757	V	0.000	464.000	mmho/m	625.992	-9.739
Downhole Calibration								
Readings			References				Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	2.011	405.777	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	7.590	503.393	mmho/m	1.000	0.000
LL3		7.500	V		1500.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		3800.000	mmho-m		
After Survey Verification								
Readings			Targets				Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
LL3		1.000	Ohm-m		1.000	Ohm-m		
		0.000	Ohm-m		0.000	Ohm-m		
		1.000	mmho-m		1.000	mmho-m		
Litho Density Calibration Report								
Serial: 004			Model: PRB					
Master Calibration			Performed Tue Aug 02 11:29:35 2022					
	Background	Magnesium		Aluminum	Aluminum+Fe			
Window 1	1154.2	10019.5		3137.9	2795.6			cps
Window 2	1054.4	8597.6		2733.4	2469.5			cps
Window 3	902.3	5241.4		1832.1	1719.3			cps
Window 4	251.9	261.1		255.8	252.9			cps
Long Space	0.0	7543.2		1679.0	1415.0			cps
Short Space	4.4	2049.3		1321.7	1116.8			cps
Rho		1.7100		2.5900	0.0000			g/cc
Pe		2.0000		2.7500	5.7900			
Rib Angle	: 43.7	Rib Slope	: 0.957	Density/Spine Ratio			: 0.562	
Spine Angle	: 73.7	Spine Slope	: 3.426	Spine Intercept			: -17.2	
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
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Serial Number:	070808PMC
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:	OPEN_GR	
Performed:	Tue May 09 09:11:42 2023	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.3000	GAPI/cps