



DUAL INDUCTION LOG

Company JOHN O. FARMER, INC.
Well SAMUELSON #9
Field BEMIS
County ELLIS
State Kansas

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Well SAMUELSON #9
Field BEMIS
County ELLIS State Kansas

Location: 1753' FNL & 283' FWL
API #: 15 051 27048
Permanent Datum SEC 36 TWP 11S RGE 17W
Log Measured From Ground Level Elevation 2110
Drilling Measured From KB 8' AGL
KB
Other Services
ML
CDNL
Elevation
K.B. 2118
D.F. 2116
G.L. 2110

Date	09/25/22
Run Number	One
Depth Driller	3700
Depth Logger	3700
Bottom Logged Interval	3698
Top Log Interval	00
Casing Driller	8 5/8"@223'
Casing Logger	223
Bit Size	7 7/8"
Type Fluid in Hole	Chemical
Density / Viscosity	9.0/60
pH / Fluid Loss	10.0/6.8
Source of Sample	Pit
Rm @ Meas. Temp	.9@80degf
Rmf @ Meas. Temp	.68@80degf
Rmc @ Meas. Temp	1.08@80degf
Source of Rmf / Rmc	Calculated
Rm @ BHT	67@107degf
Time Circulation Stopped	12:30 PM
Time Logger on Bottom	2:30 PM
Maximum Recorded Temperature	107degf
Equipment Number	T-605
Location	Hays, KS.
Recorded By	GUS PFANENSTIEL
Witnessed By	AUSTIN KLAUS

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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

NORTH OF HAYS TO SEVERIN RD. EAST TO CODELL RD., NORTH 3.8 MILES
TO FLAGGED CATTLEGUARD, .9 MILE TO FLAGGED LEASE RD.
SOUTH ON RD .7 MILE TO ANOTHER LEASE RD EAST .3
THEN SOUTH .1, WEST AND SOUTH .3 MILES

Thanks for using Gemini Wireline LLC
785-625-1182



MAIN PASS

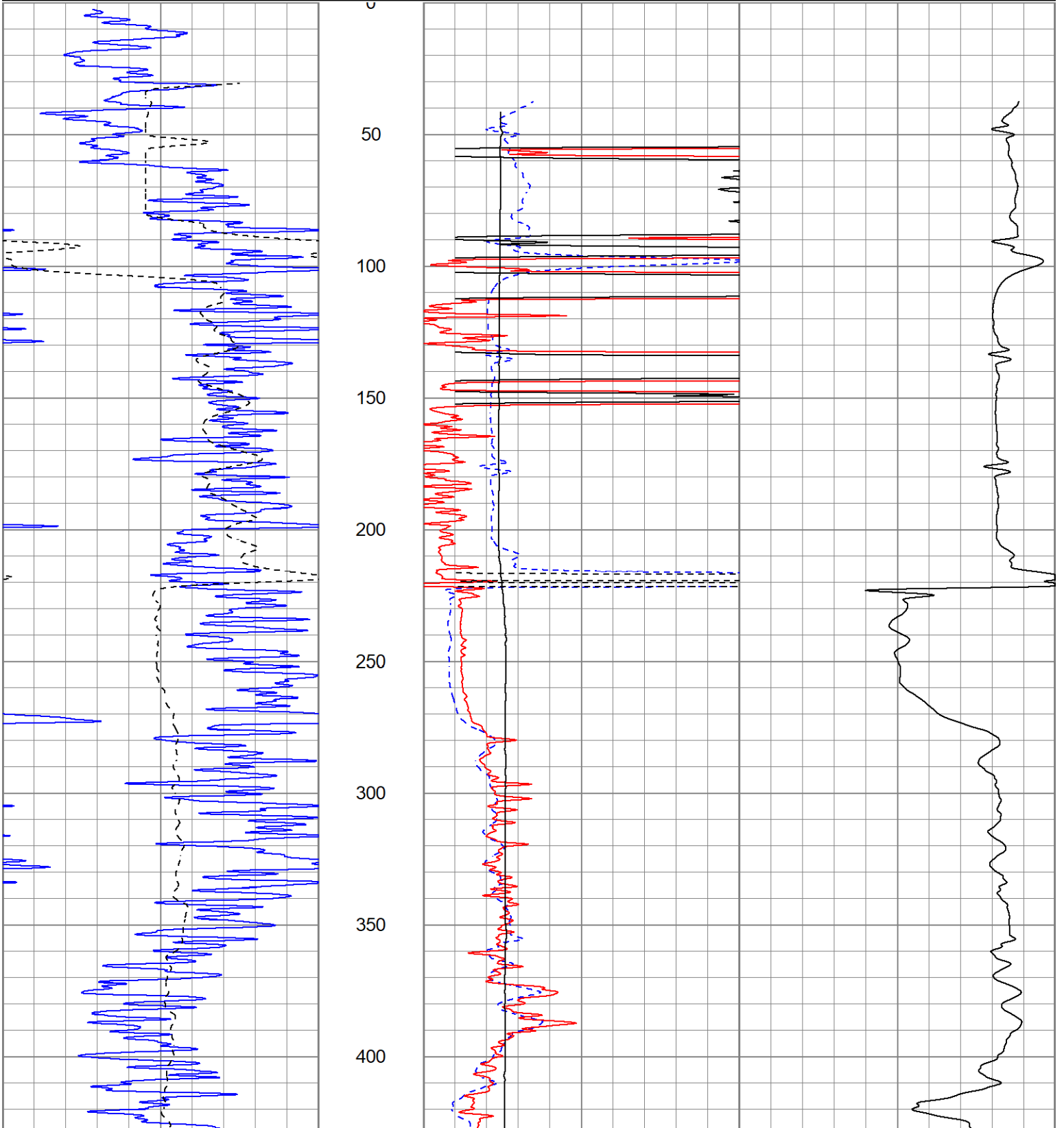
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 Dataset Pathname pass3.1
 Presentation Format kdrillinn
 Dataset Creation Sun Sep 25 15:43:26 2022
 Charted by Depth in Feet scaled 1:600

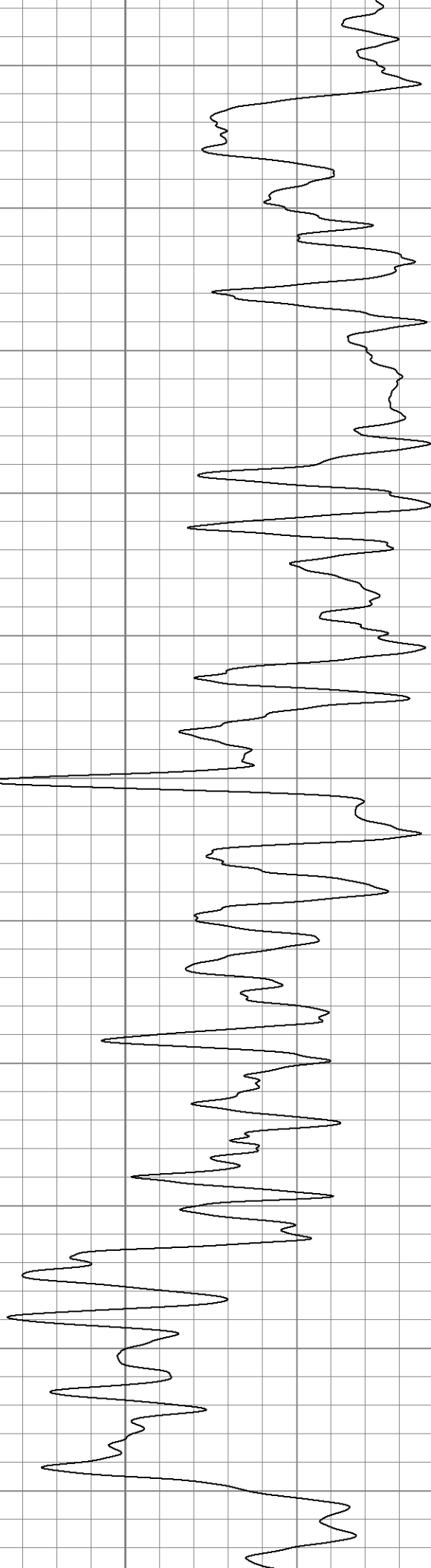
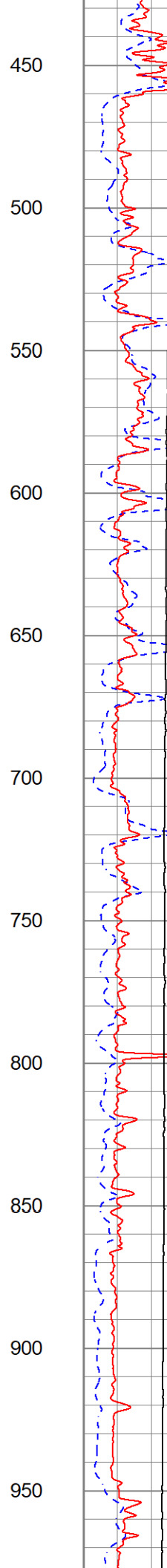
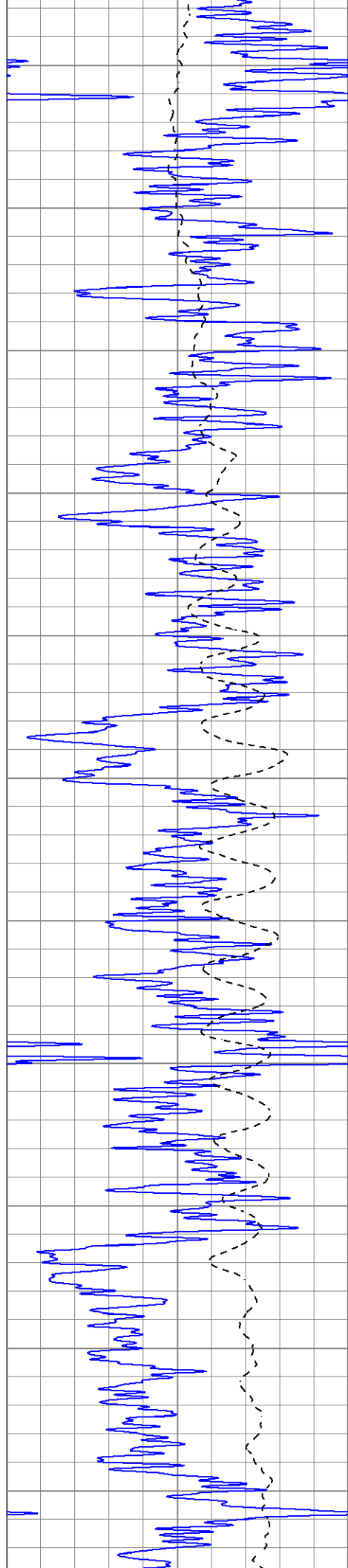
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-100	SP (mV)	100	10000	LTEN (lb)	0

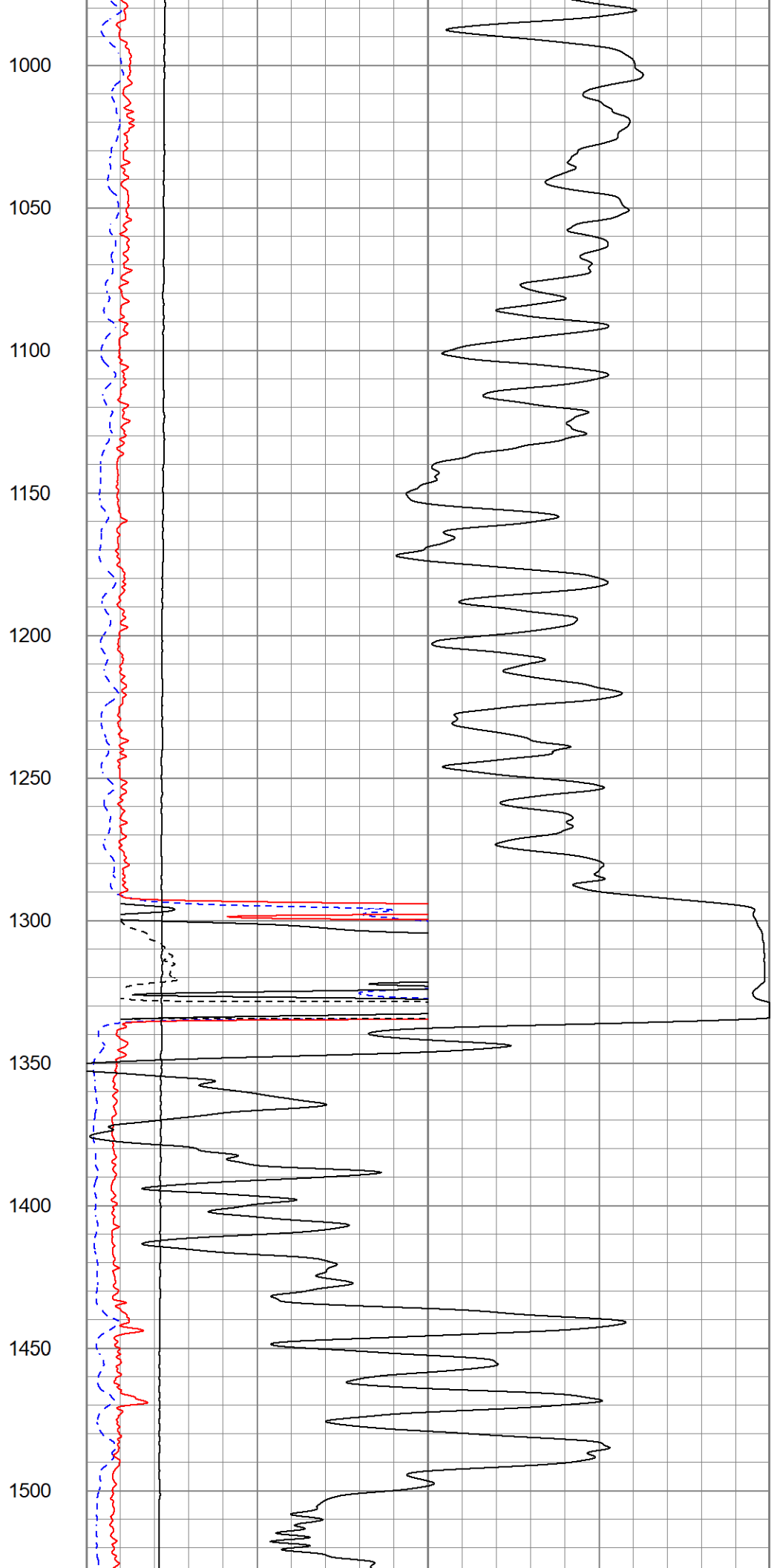
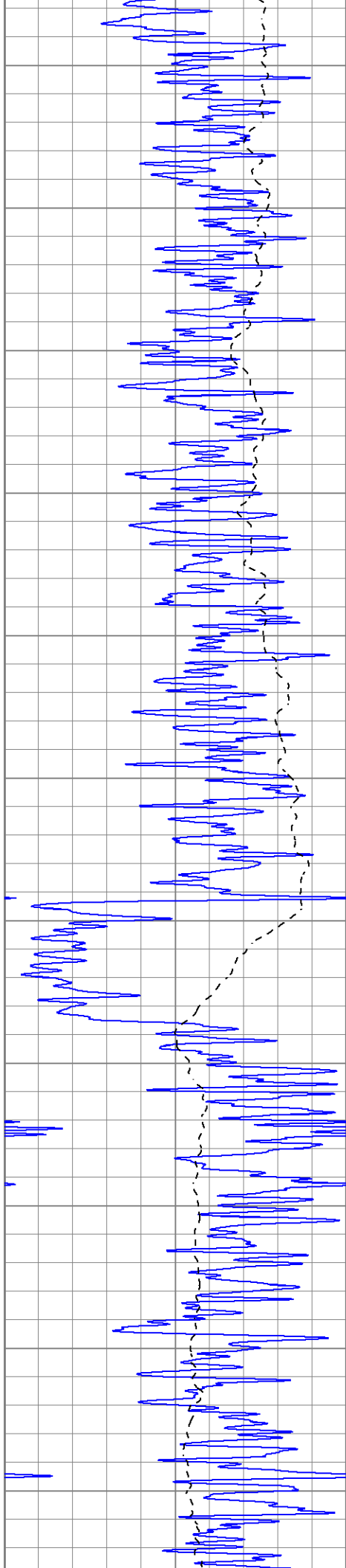
0	RILD (Ohm-m)	50			
0	RLL3 (Ohm-m)	50			

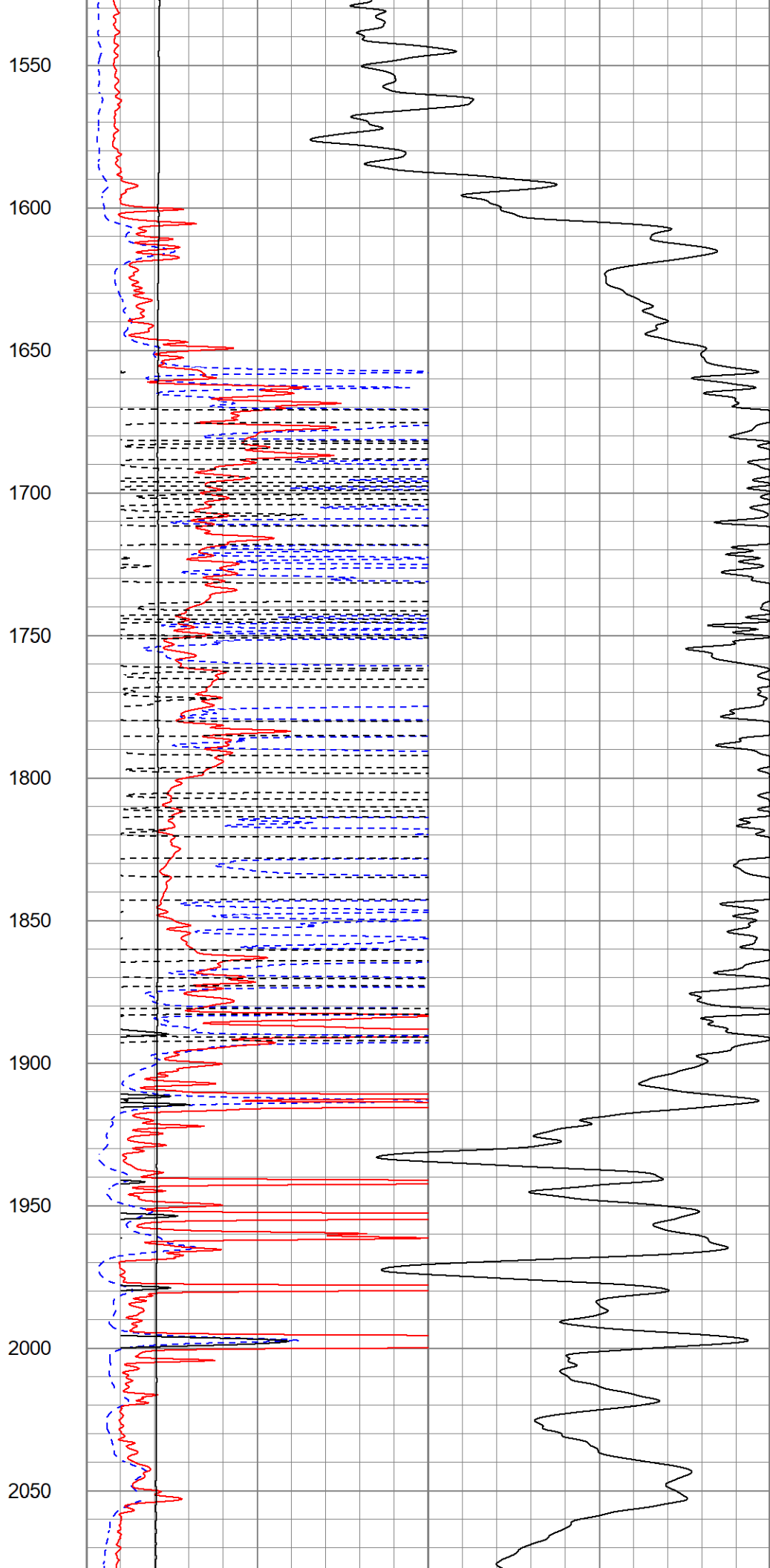
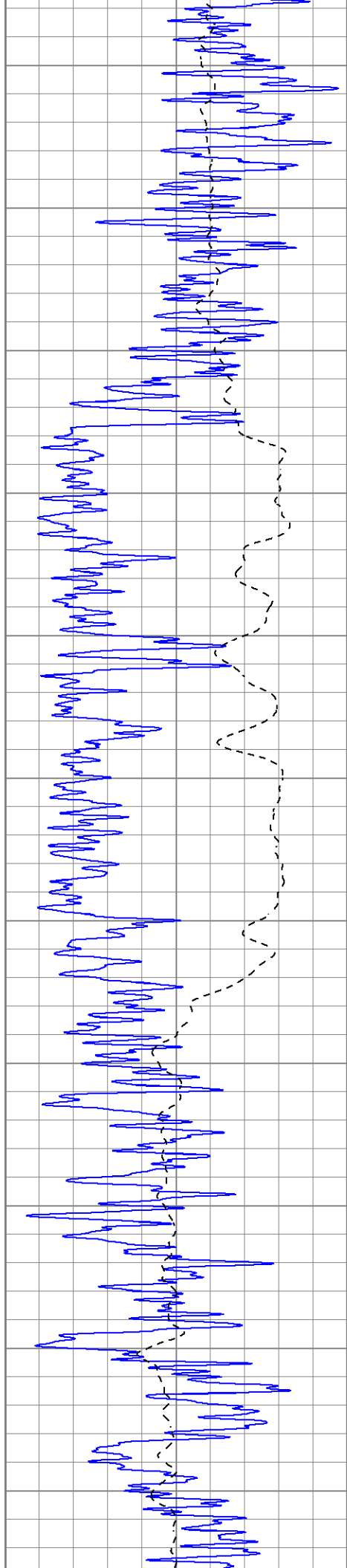
50	RILD x 10 (Ohm-m)	500			

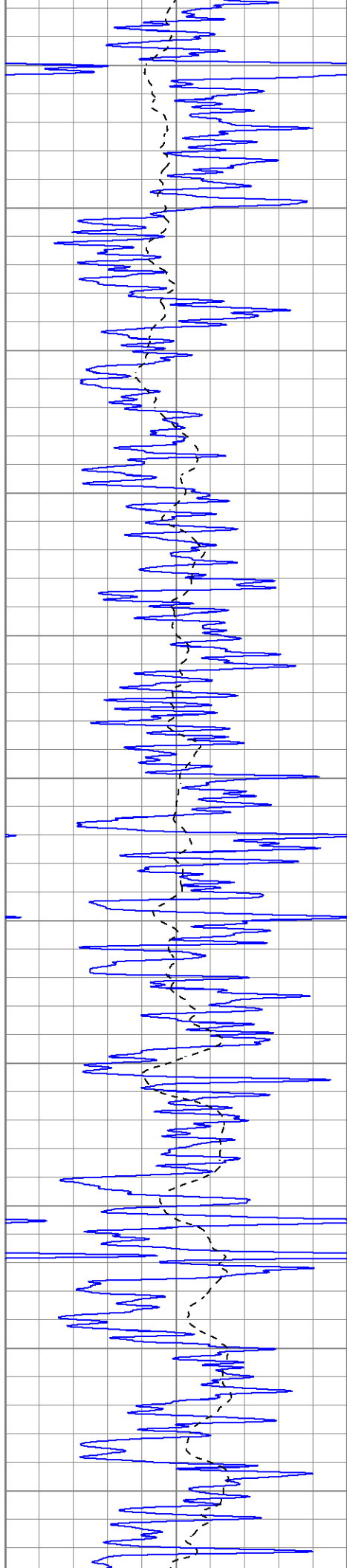
50	RLL3 x 10 (Ohm-m)	500			











2100

2150

2200

2250

2300

2350

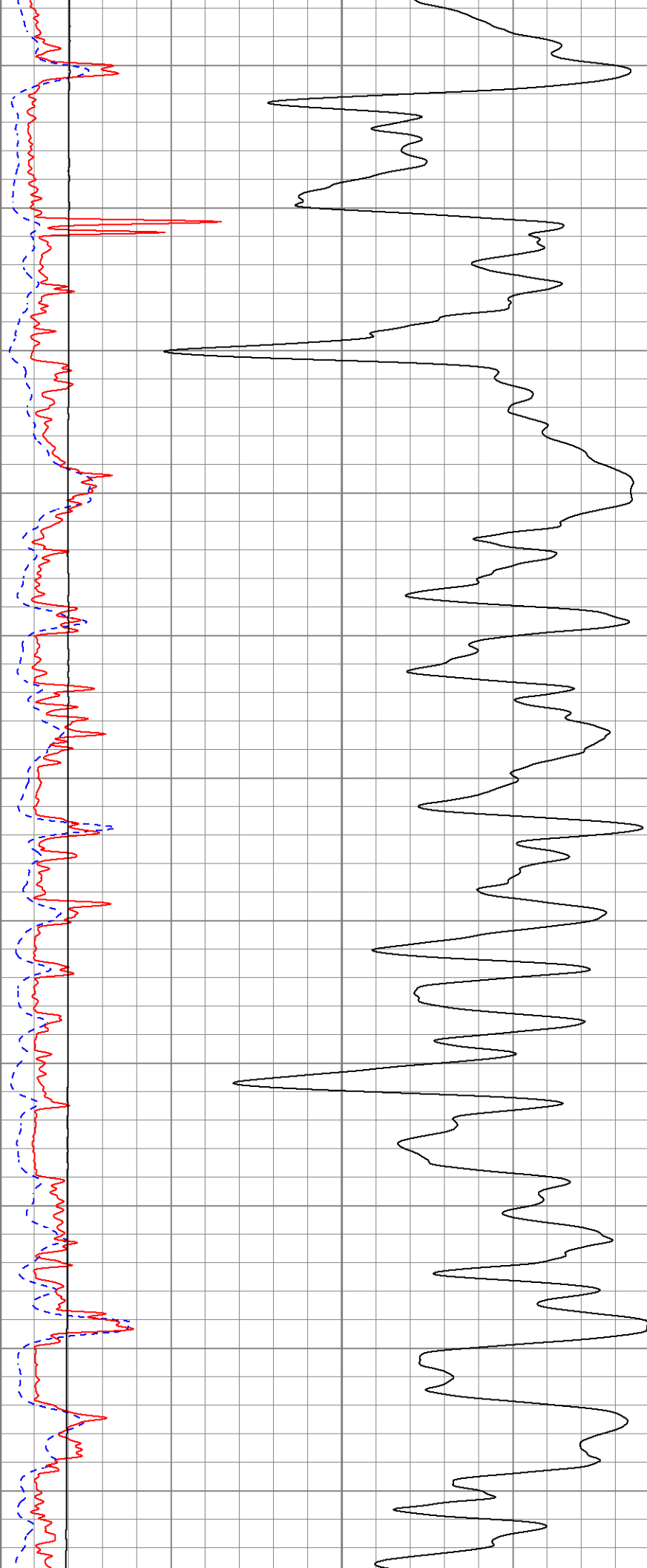
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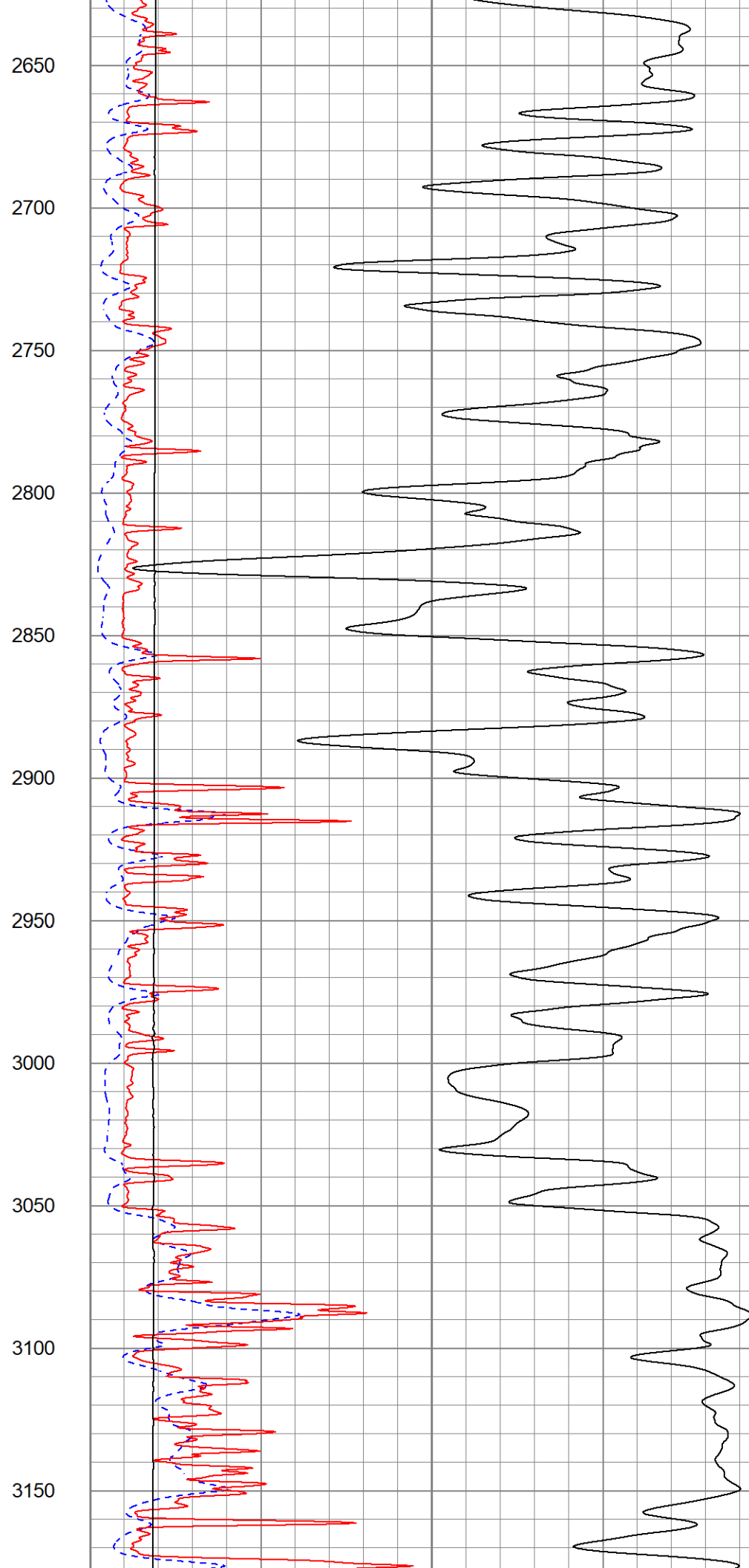
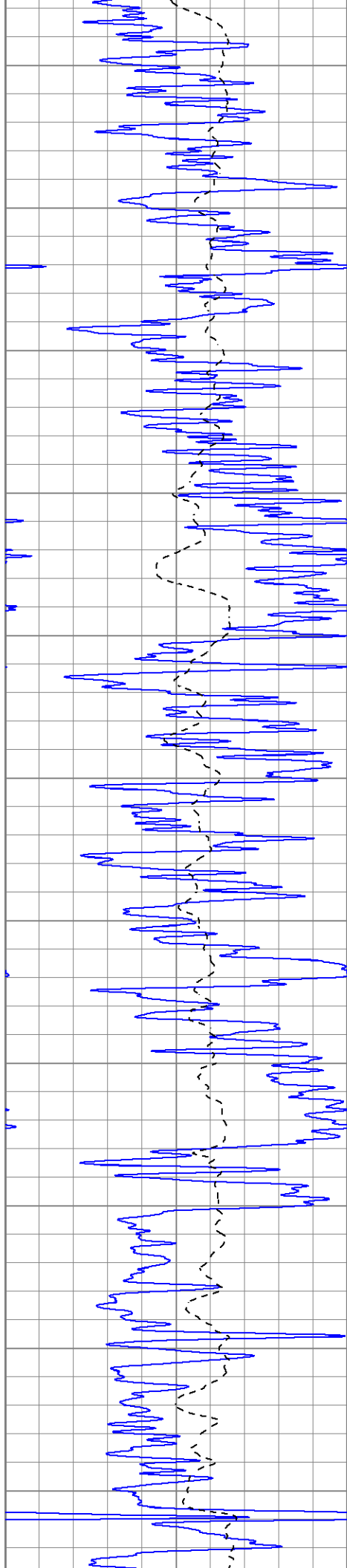
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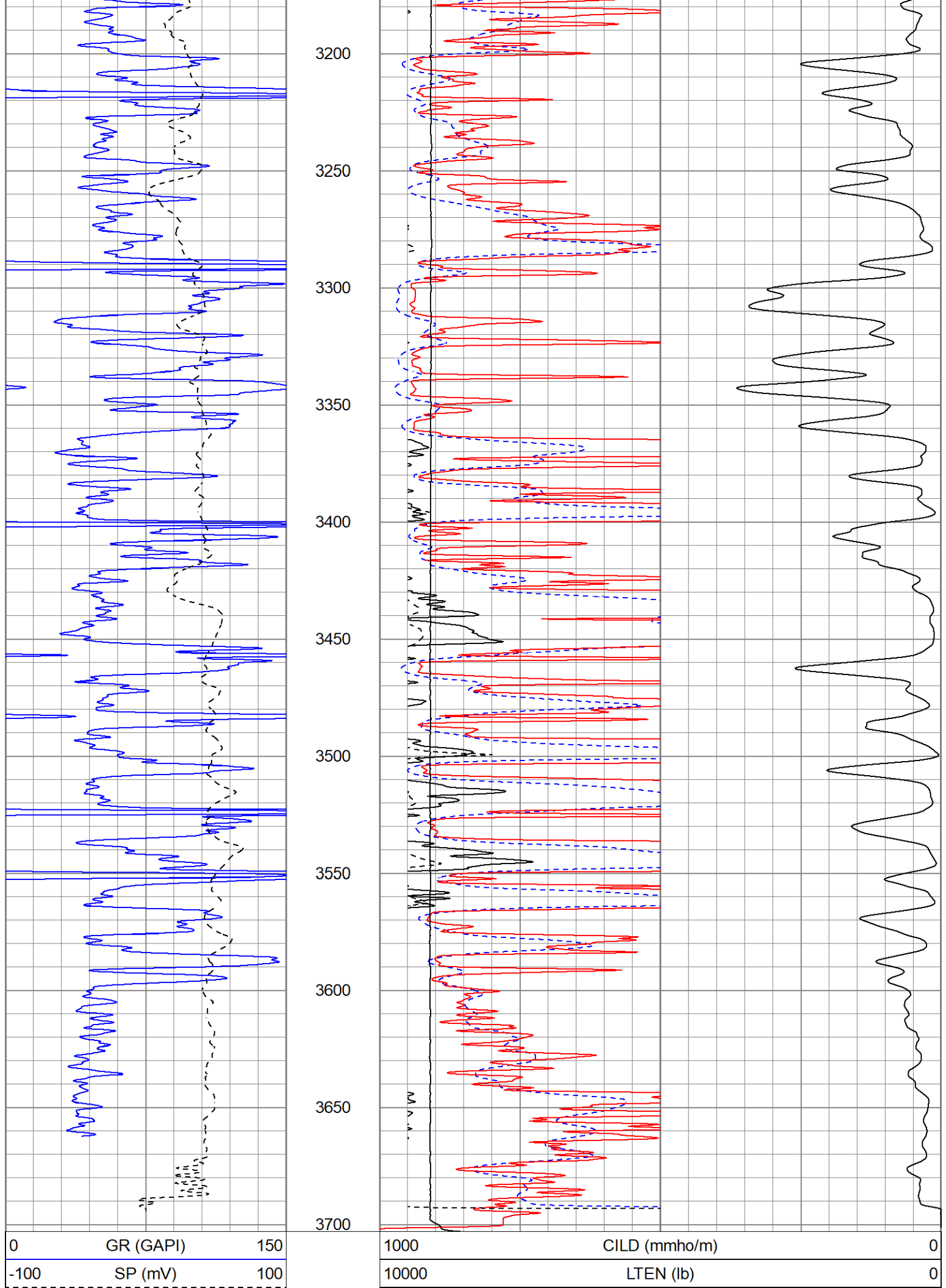
2500

2550

2600







0	RILD (Ohm-m)	50
0	RLL3 (Ohm-m)	50
50	RILD x 10 (Ohm-m)	500
50	RLL3 x 10 (Ohm-m)	500

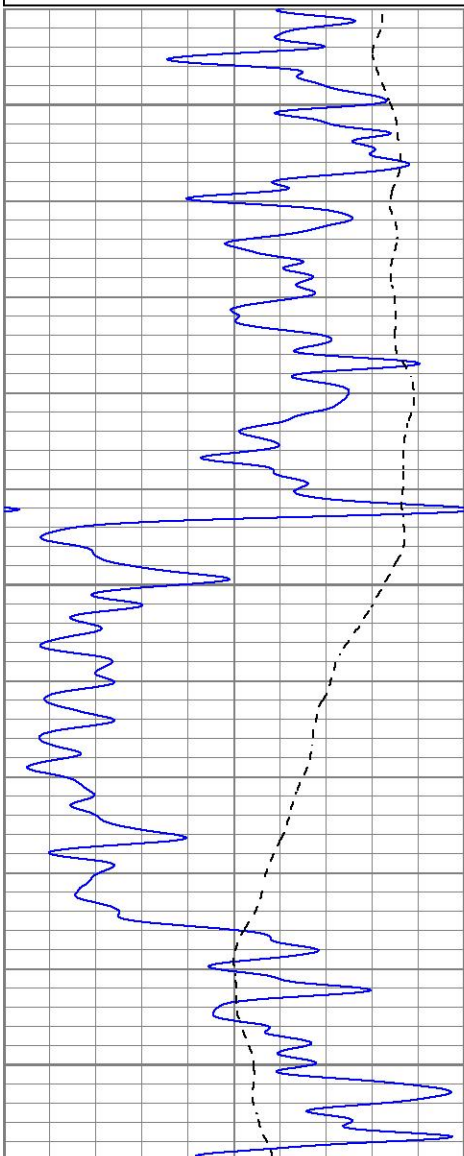


MAIN PASS

Database File jofsamuelson#9oh.db
 Dataset Pathname pass3.1
 Presentation Format kdil
 Dataset Creation Sun Sep 25 15:43:26 2022
 Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150
-100	SP (mV)	100

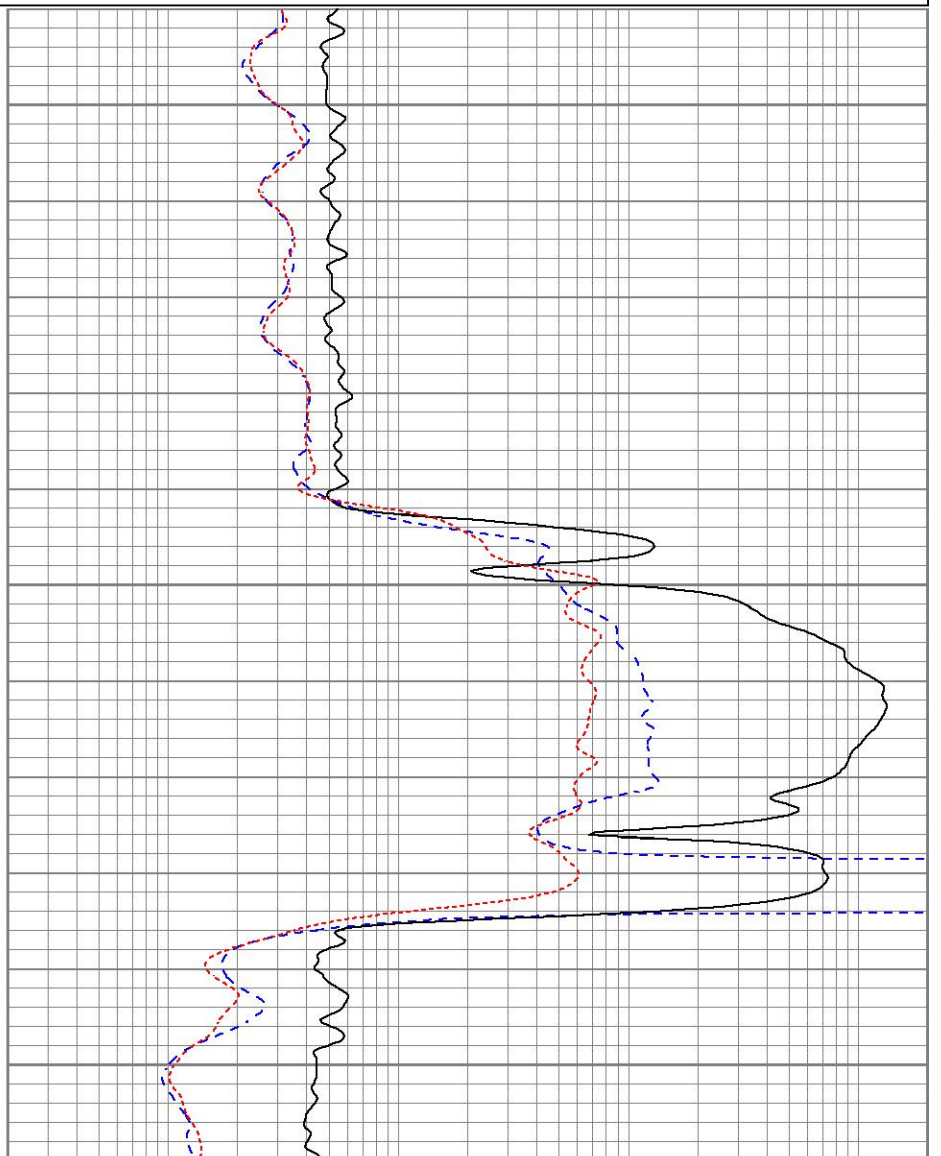
0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
0.2	RILM (Ohm-m)	2000



1250

1300

1350



0	GR (GAPI)	150
-100	SP (mV)	100

0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
0.2	RILM (Ohm-m)	2000

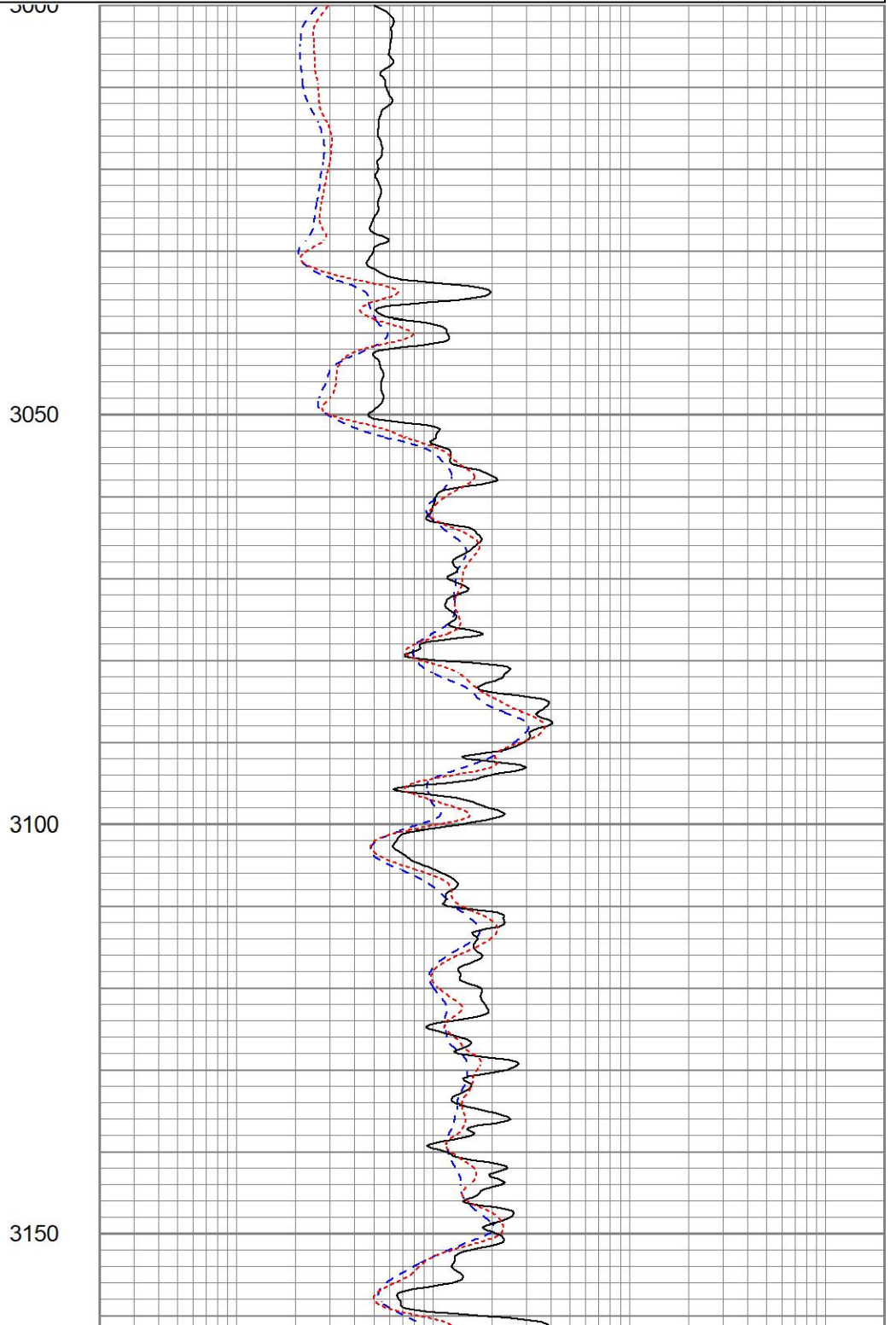
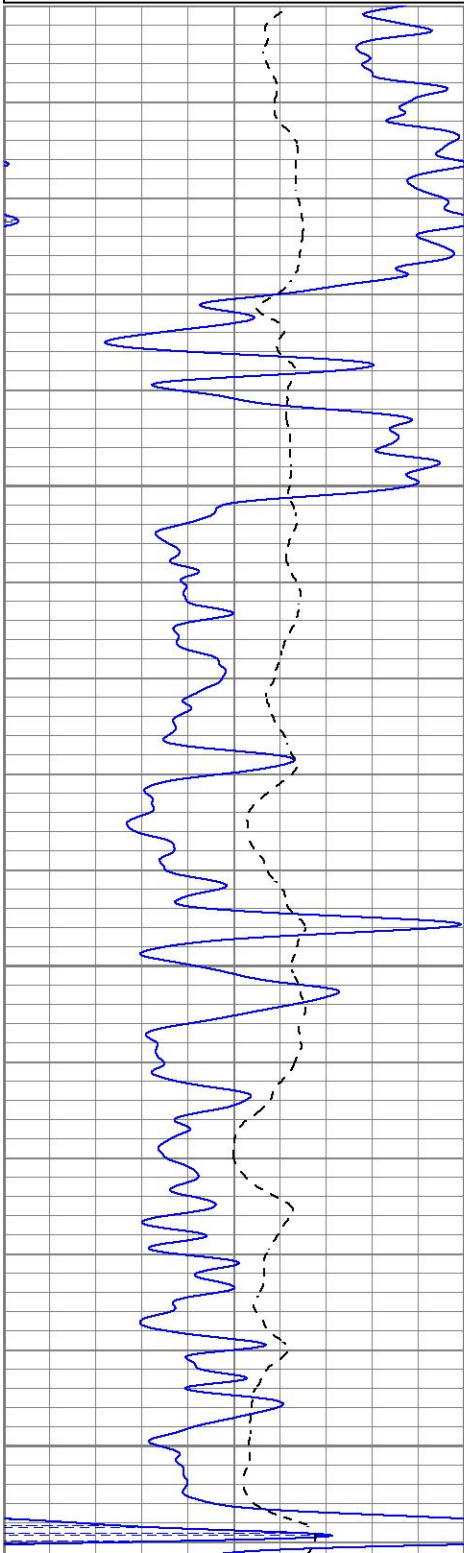


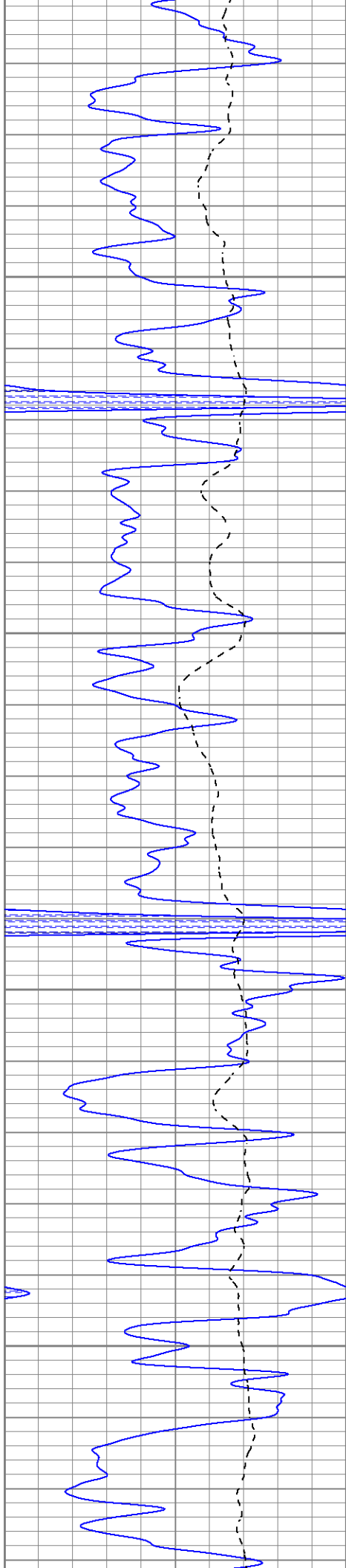
MAIN PASS

Database File jofsamuelson#9oh.db
Dataset Pathname pass3.1
Presentation Format kdil
Dataset Creation Sun Sep 25 15:43:26 2022
Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150
-100	SP (mV)	100

0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
0.2	RILM (Ohm-m)	2000



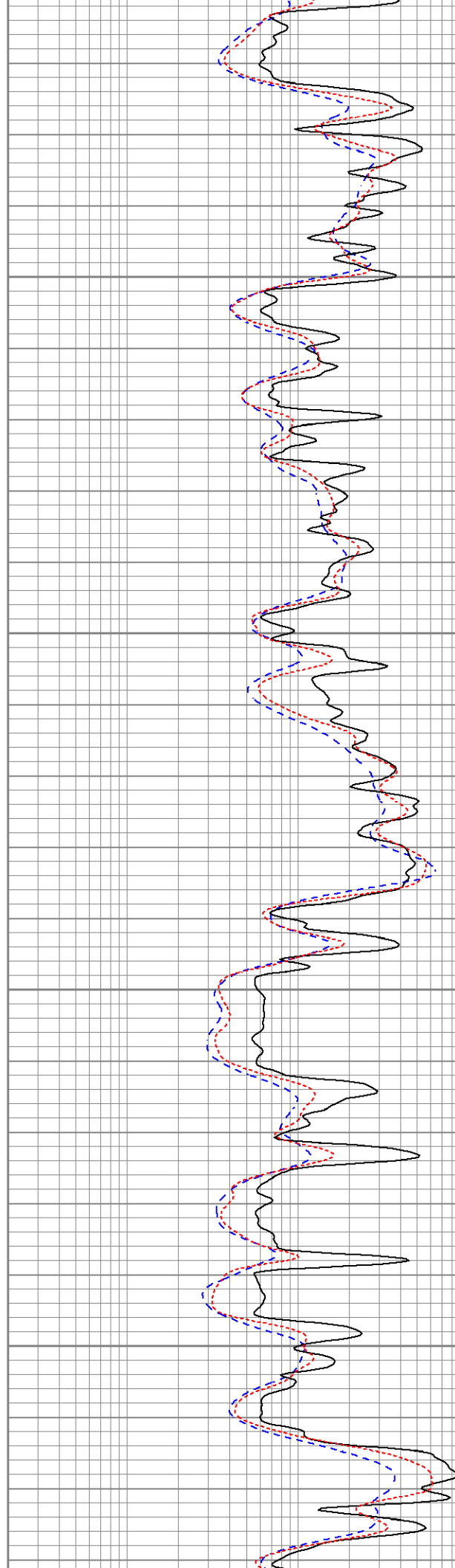


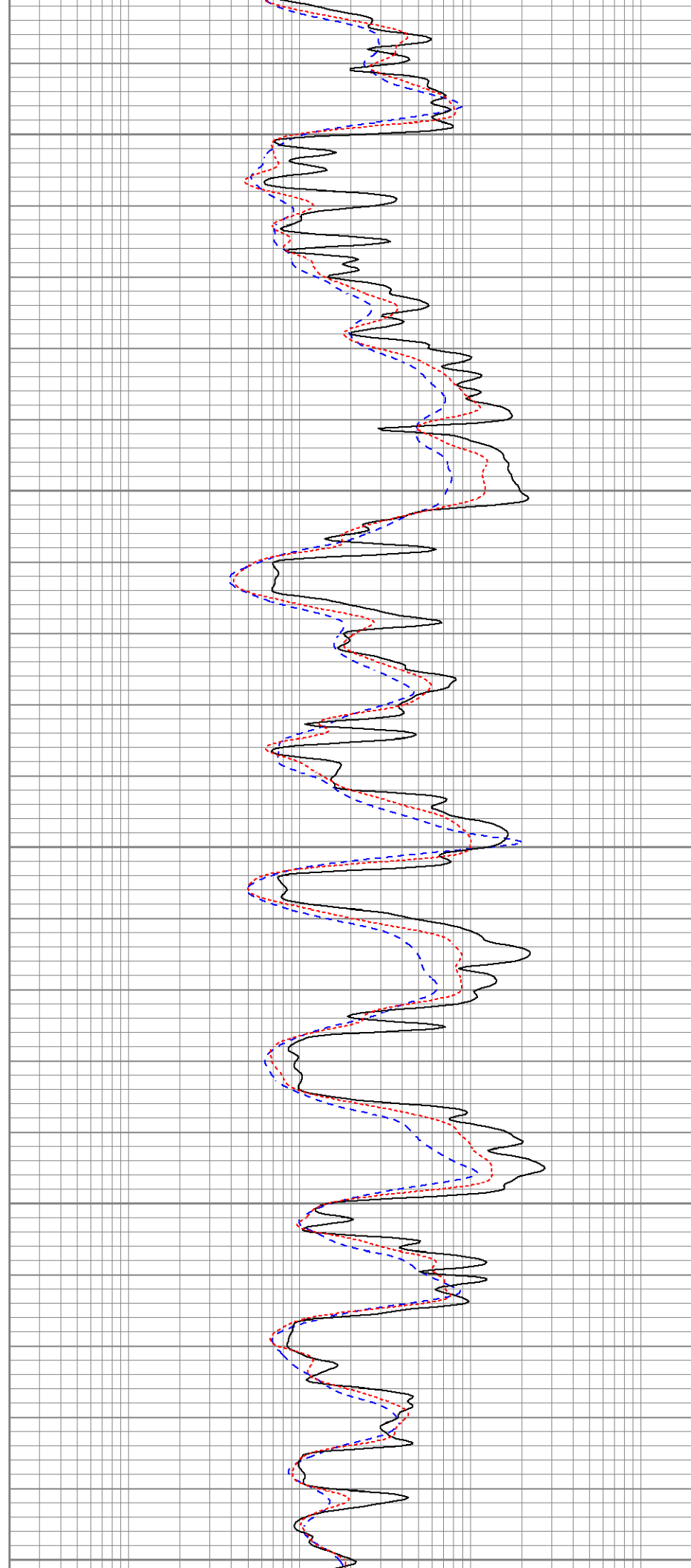
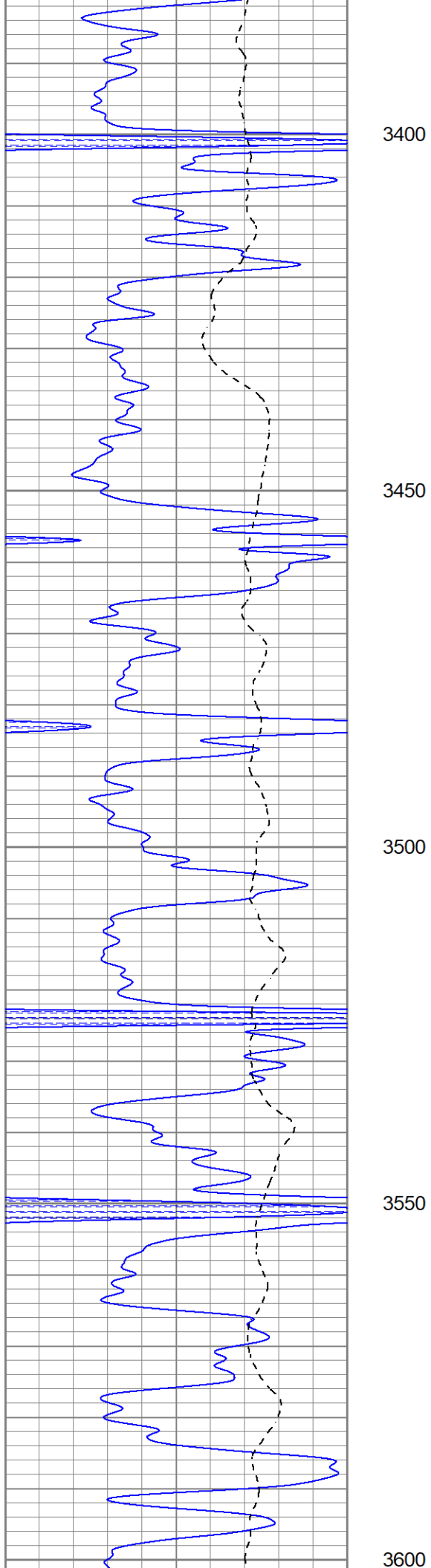
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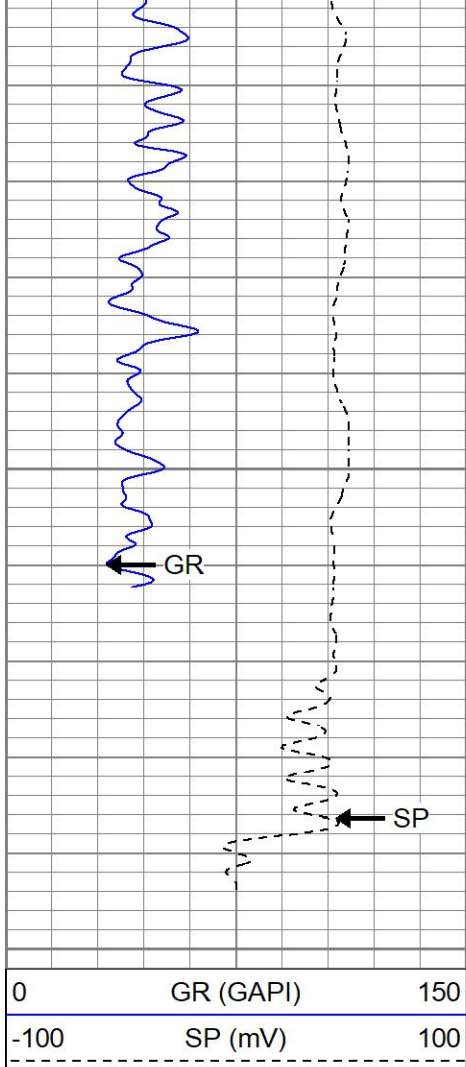
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3300

3350

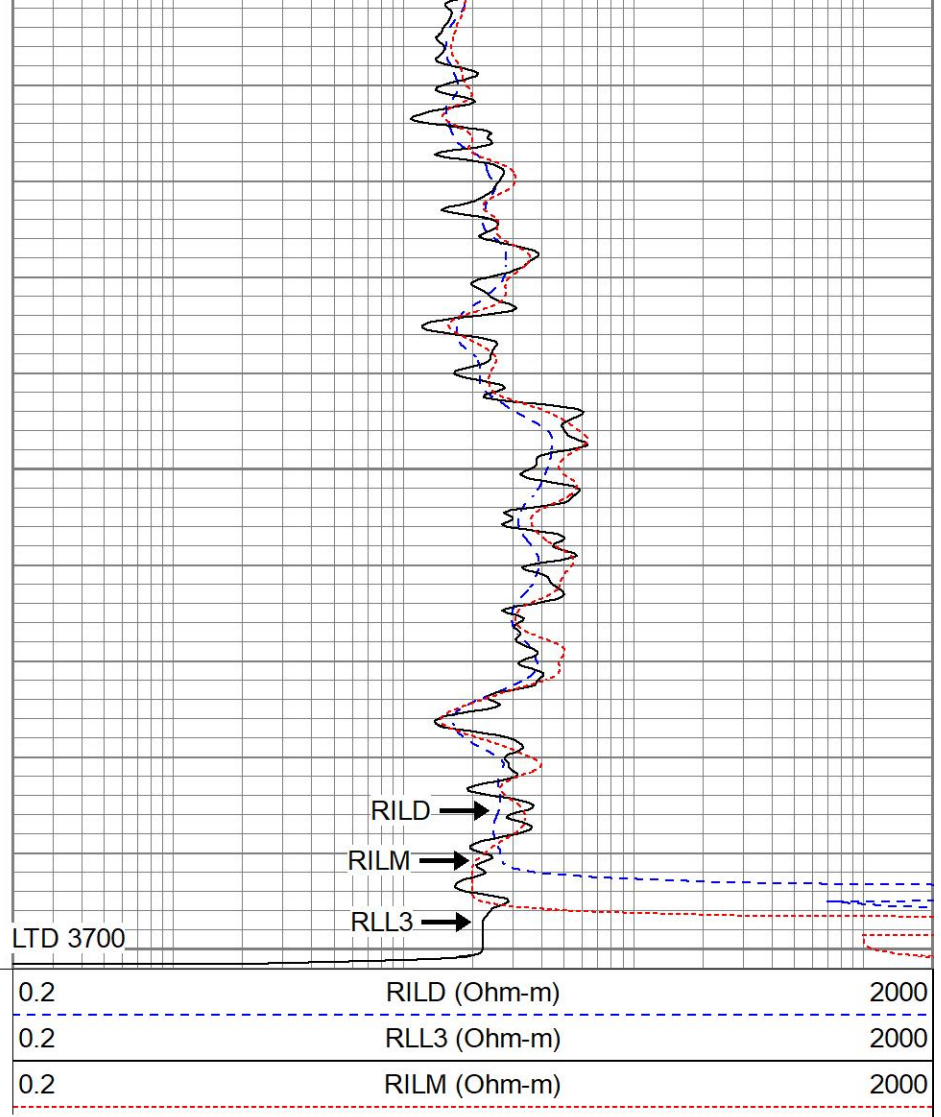






3650

3700



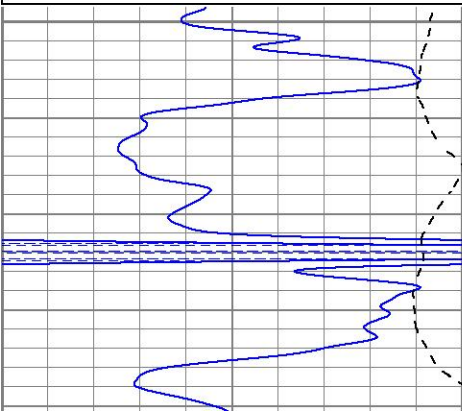
REPEAT SECTION



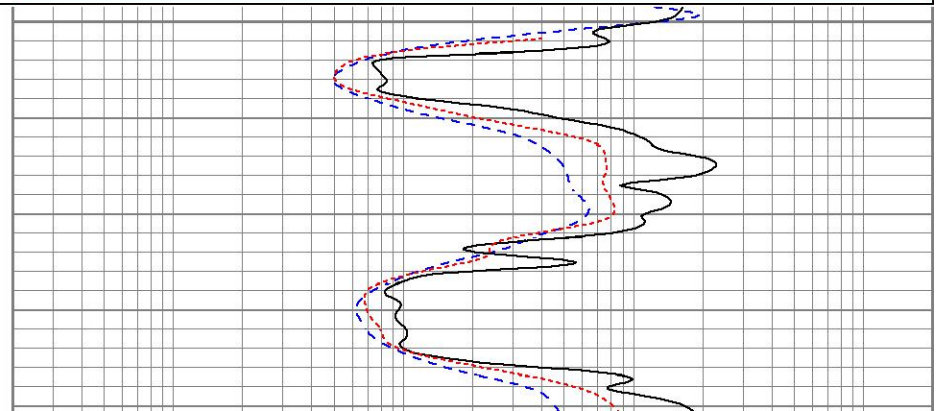
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 Presentation Format kdil
 Dataset Creation Sun Sep 25 14:56:50 2022
 Charted by Depth in Feet scaled 1:240

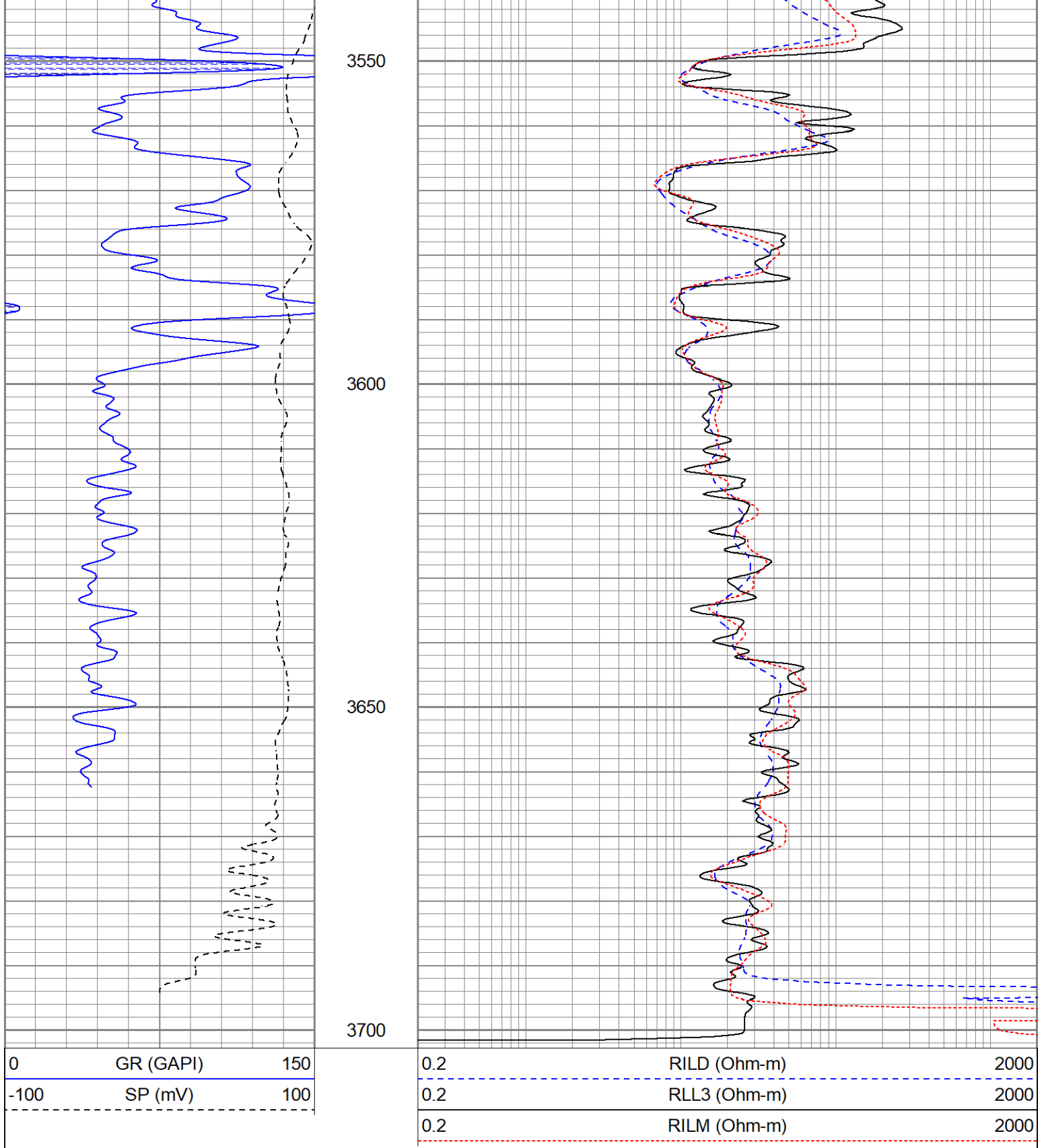
0	GR (GAPI)	150
-100	SP (mV)	100

3500



0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
0.2	RILM (Ohm-m)	2000





Calibration Report

Database File jofsamuelson#9oh.db
 Dataset Pathname pass2.1
 Dataset Creation Sun Sep 25 14:56:50 2022

Dual Induction Calibration Report

Serial-Model: 1842-ADM
 Surface Cal Performed: Mon Sep 20 22:00:42 2021
 Downhole Cal Performed: Mon Sep 20 22:00:24 2021
 After Survey Verification Performed: Mon Sep 20 22:05:52 2021

Surface Calibration								
Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.018	0.672	V	0.000	350.000	mmho/m	535.475	-9.896
Medium	0.003	0.769	V	0.000	400.000	mmho/m	522.607	-1.745
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.018	0.672	V	0.000	350.000	mmho/m	535.240	-9.549
Medium	0.003	0.768	V	0.000	550.000	mmho/m	718.637	-2.088

Downhole Calibration								
Internal:	Readings			References			Results	
	Zero	Cal		Zero	Cal		m	b
Deep	-0.219	349.905	mmho/m	-0.343	349.810	mmho/m	1.000	-3.124
Medium	-0.118	399.722	mmho/m	-0.226	399.745	mmho/m	1.000	-3.108
Shallow	2.536	0.025	V	500.000	2.000	Ohm-m	165.330	-1.504

After Survey Verification								
Internal:	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	-0.219	349.905	mmho/m	1.000	-3.124
Medium	0.000	0.000	mmho/m	-0.118	399.722	mmho/m	1.000	-3.108
Shallow	0.000	0.000	Ohm-m	500.000	2.000	Ohm-m	1.000	0.000

Admyr Lithodensity Calibration Report

Serial-Model:	1C-C
Source:	Blue2
Master Calibration Performed:	Tue Aug 30 10:20:37 2022

Master Calibration								
	Density			Far Detector		Near Detector		
Magnesium	1.670	g/cc		6362.49		3546.71	cps	
Aluminium	2.640	g/cc		1733.54		2362.69	cps	
Aluminium+Sleeve	2.617	g/cc		1657.01		2197.69	cps	
Spine Angle = 72.65			Density/Spine Ratio = 0.712					
	PE			NLITH		NHARD		
Magnesium	1.900	barn		5031.16		2670.10	cps	
Aluminium	2.400	barn		925.14		1260.20	cps	
Aluminium+Sleeve	5.000	barn		816.33		1216.63	cps	
M = 0.191			B = 0.171		R = 0.787			
	Size			Reading				
Small Ring	8.00	in		8.61	V			
Large Ring	14.30	in		12.40	V			

Neutron Calibration Report

Serial Number:	AD5139
Tool Model:	ADMY5139

Tool Model:	ADMY5139	
Performed:	(Not Performed)	
Calibrator Value:	1	NAPI
Calibrator Reading:	1	cps
Sensitivity:	1	NAPI/cps

Temperature Calibration Report

Serial Number:	WithMC			
Tool Model:	WMC			
Performed:	Fri Apr 19 12:15:04 2019			
	Reference		Reading	
Low Reference:	0.00 degF		0.00 degF	
High Reference:	1.00 degF		1.00 degF	
Gain:	1.00			
Offset:	0.00			
Delta Spacing	1			

Inclinometer Calibration Report

Performed:	Wed May 5 19:20:48 2021				
	Low Read.	High Read.	Low Ref.	High Ref.	
X Accelerometer	205.00	1843.00	-1.00	1.00	gee
Y Accelerometer	205.00	1843.00	-1.00	1.00	gee
Z Accelerometer					gee

Gamma Ray Calibration Report

Serial Number:	WithMC	
Tool Model:	WMC	
Performed:	Wed Jun 15 11:53:49 2022	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.1000	GAPI/cps