



DUAL INDUCTION LOG

Company C & G DRILLING, INC.

Well JOSEPH "A" #1

Field WILDCAT

County BUTLER State KANSAS

C & G DRILLING, INC.
JOSEPH "A" #1
WILDCAT
BUTLER
KANSAS

Location: API #: 15-015-24152-0000
1827' FSL & 3003' FEL
NW - SE - NE - SW

SEC 14 TWP 24S RGE 4E

GROUND LEVEL Elevation 1411

Permanent Datum KELLY BUSHING 9' A.G.L.
Log Measured From KELLY BUSHING
Drilling Measured From

Other Services
CDL/CNL
MEL
Elevation
K.B. 1420
D.F. 1418
G.L. 1411

Date	8/26/21
Run Number	ONE
Depth Driller	2590
Depth Logger	2588
Bottom Logged Interval	2586
Top Log Interval	00
Casing Driller	8 5/8"@212'
Casing Logger	212
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.6/77
pH / Fluid Loss	10.0/8.4
Source of Sample	FLOWLINE
Rm @ Meas. Temp	1.30@80F
Rmf @ Meas. Temp	.975@80F
Rmc @ Meas. Temp	1.56@80F
Source of Rmf / Rmc	MEASUREMENT
Rm @ BHT	1.00@103F
Time Circulation Stopped	8 HOURS
Time Logger on Bottom	3.45 A.M.
Maximum Recorded Temperature	103F
Equipment Number	922339
Location	HAYS, KANSAS
Recorded By	JEFF LUEBBERS
Witnessed By	BRANDON WOLFE

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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.

15-015-24152-0000

Comments

THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS
NEWTON, KS., 17E. ON 1ST. ST. TO "RIVER VALLEY RD.", 4S. TO "110TH", 2E. TO "OHIO ST.", 1S.,
1/2E., 1/2S. INTO

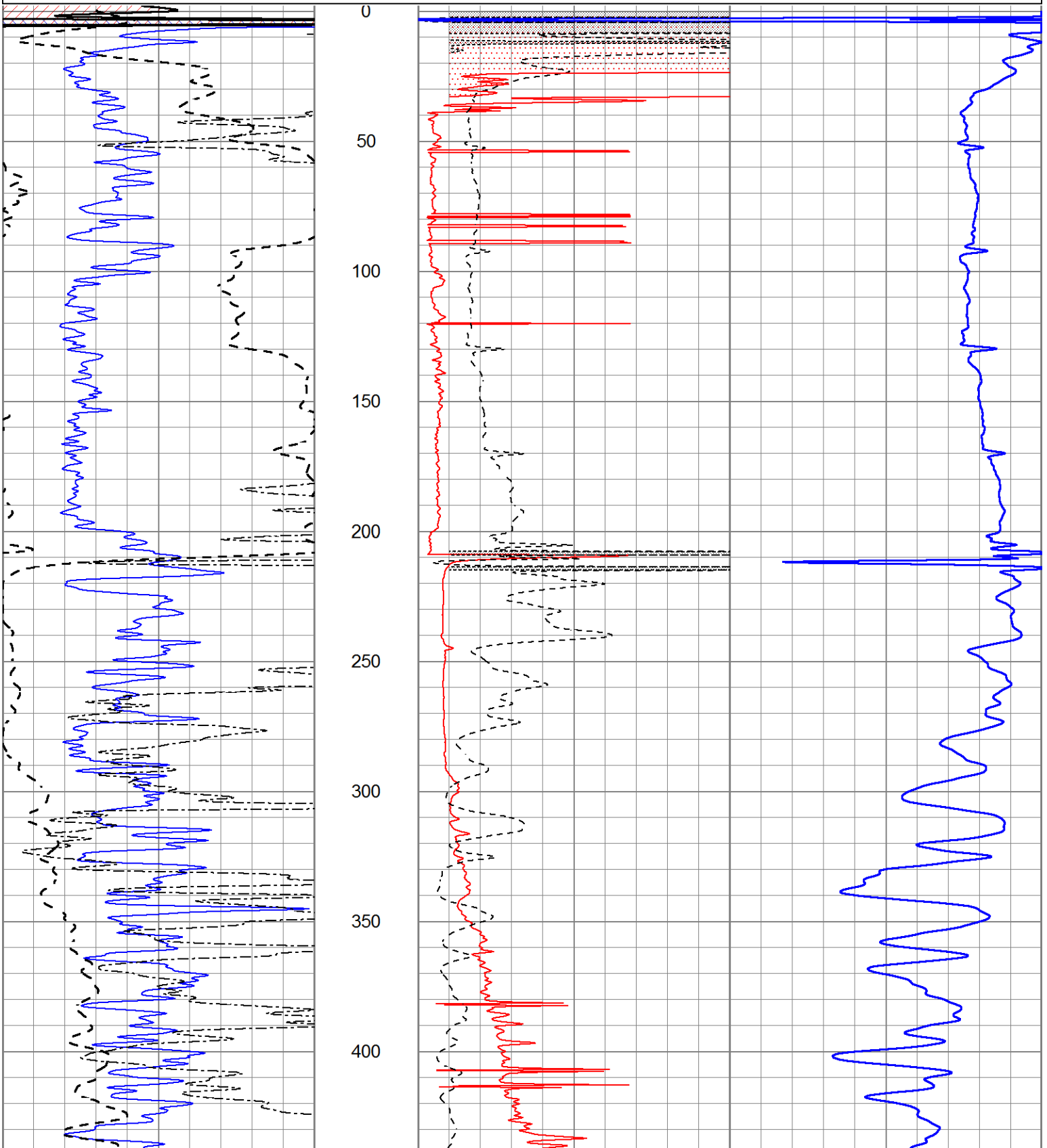


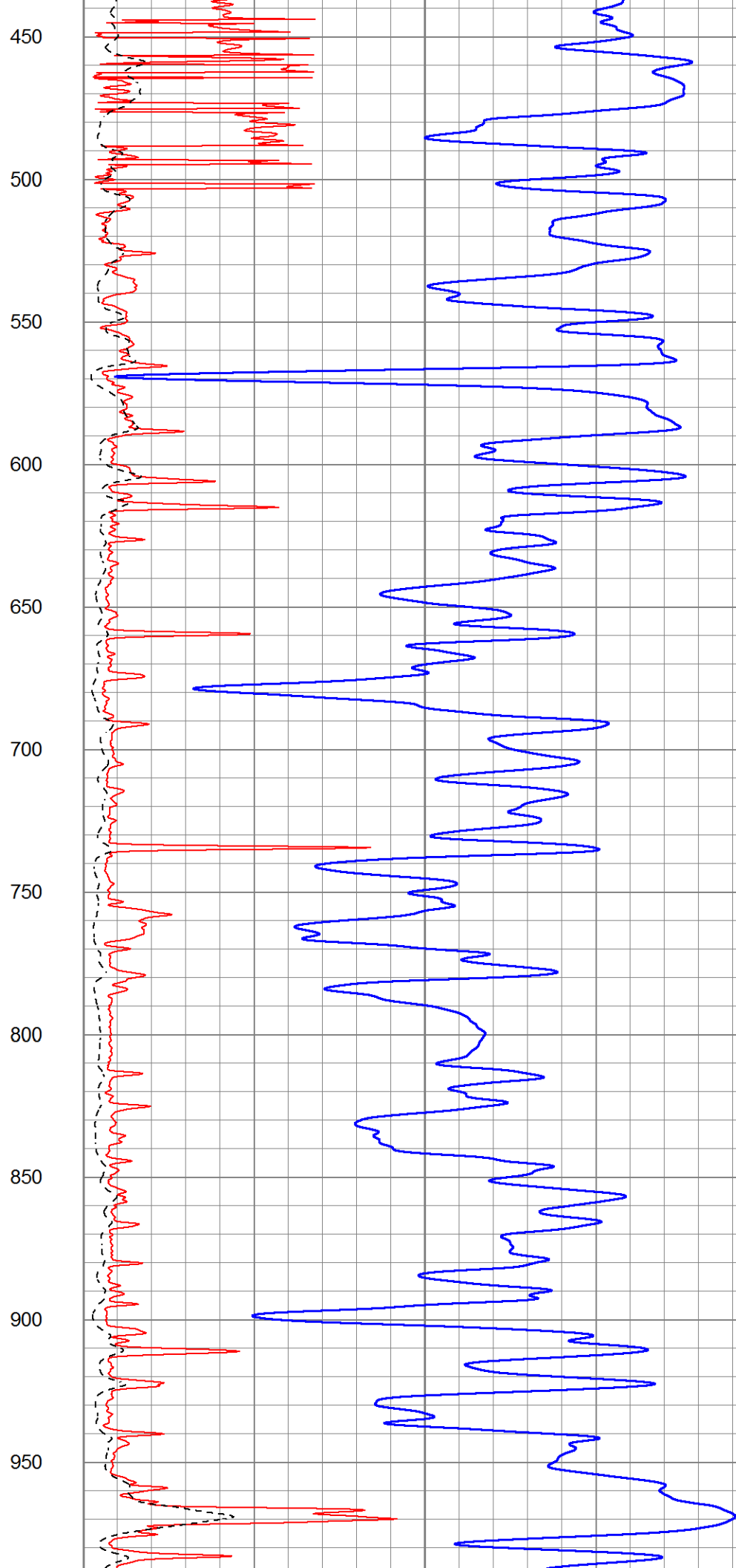
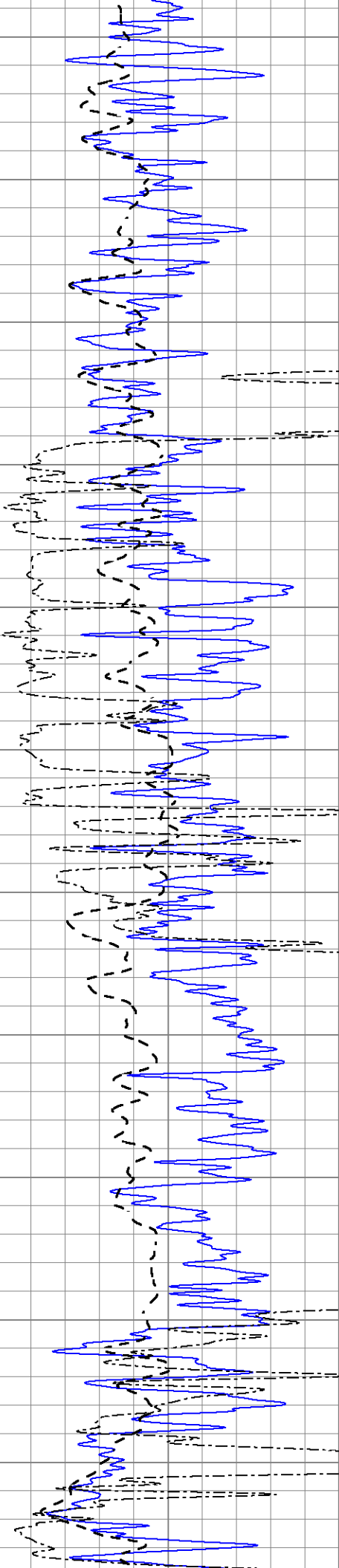
MAIN SECTION

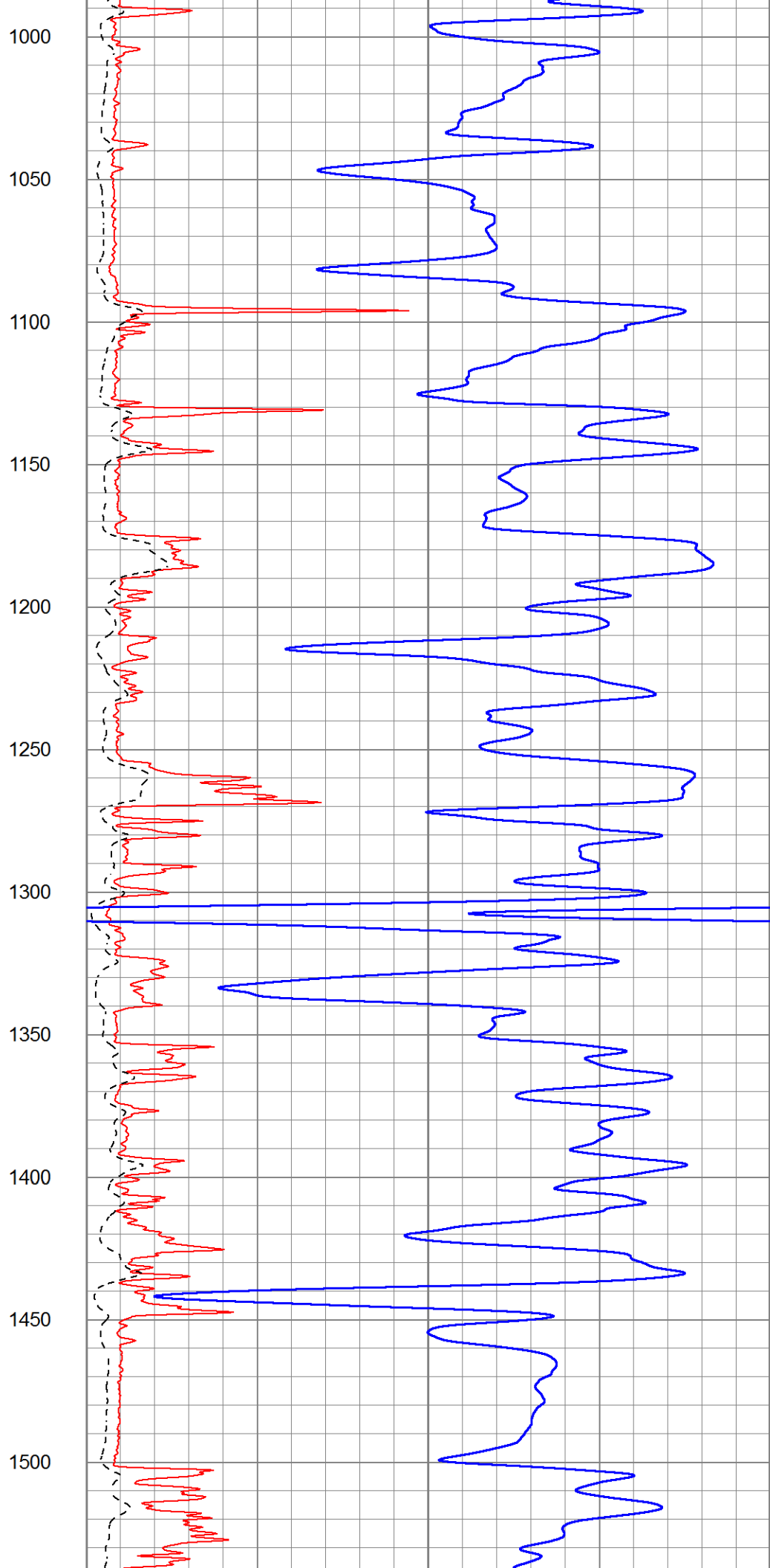
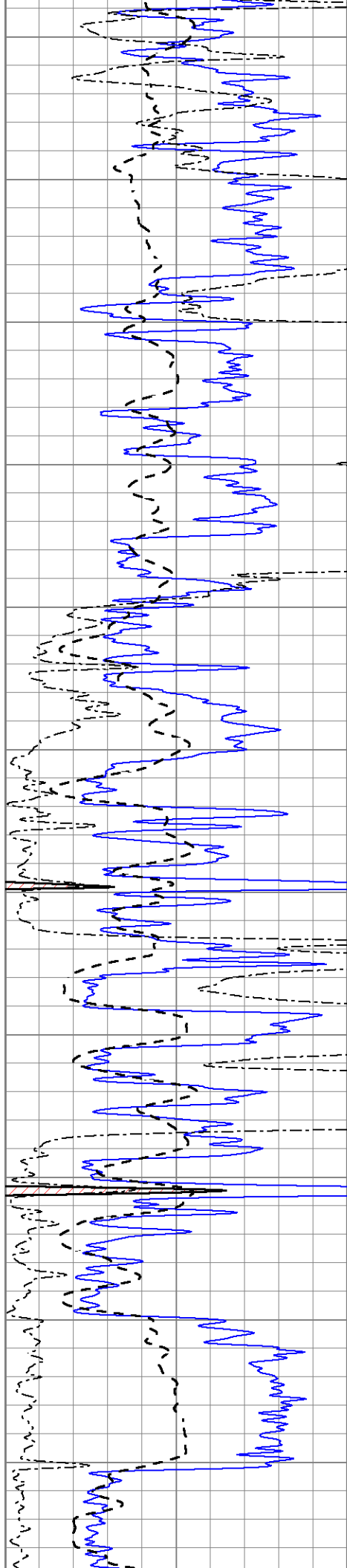
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 Dataset Pathname pass3.1D
 Presentation Format dil2
 Dataset Creation Thu Aug 26 05:32:33 2021
 Charted by Depth in Feet scaled 1:600

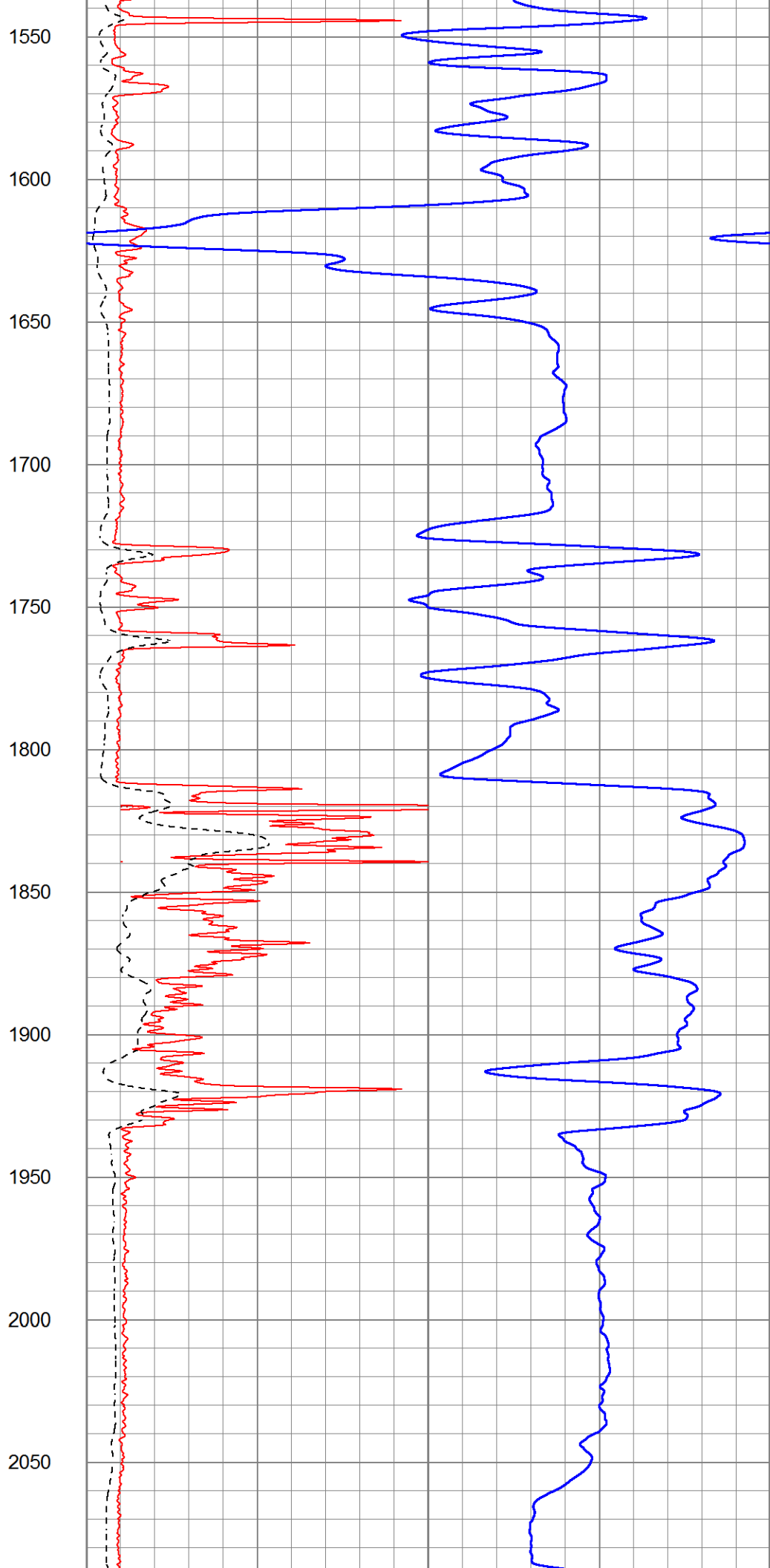
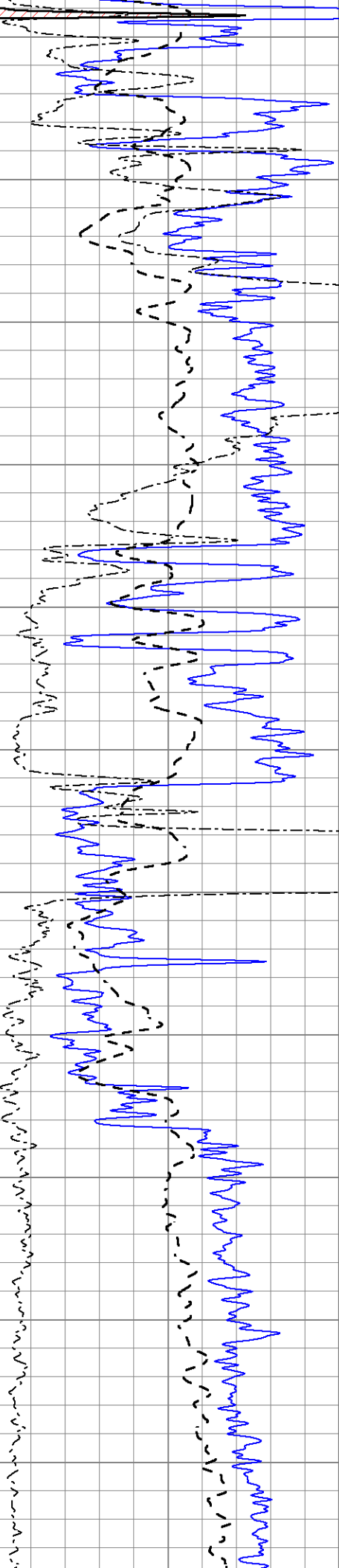
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-100	SP (mV)	100
0	RWA (Ohm-m)	1

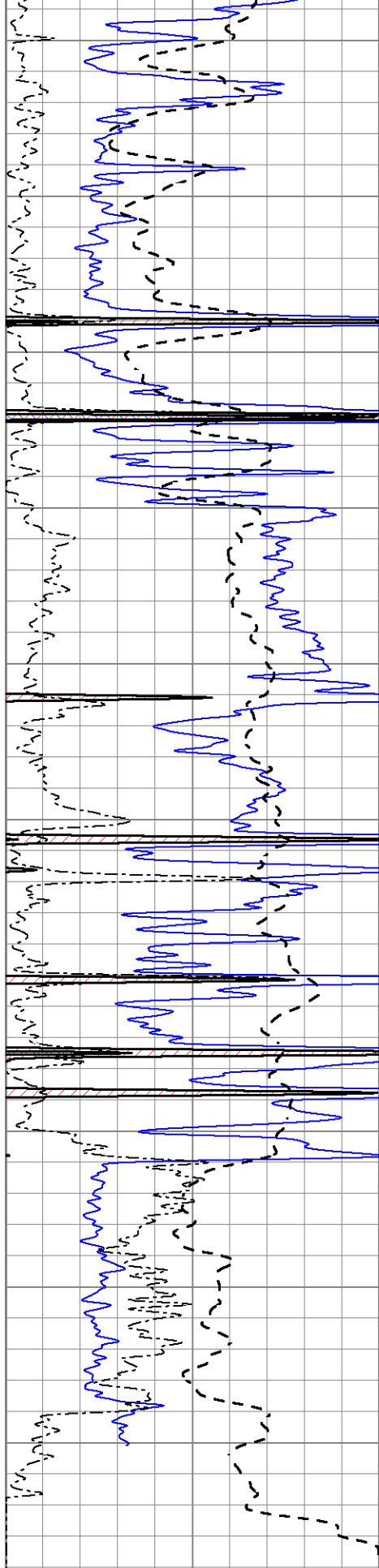
1000	CILD (mmho/m)	0
0	RLL3 (Ohm-m)	50
0	RILD (Ohm-m)	50
50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500



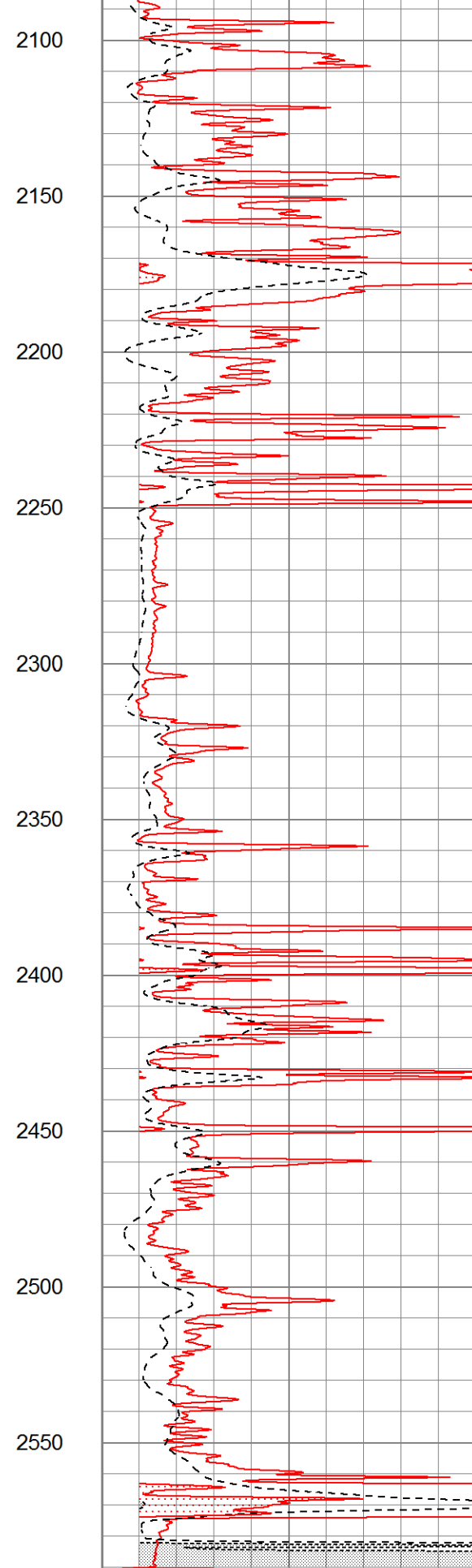




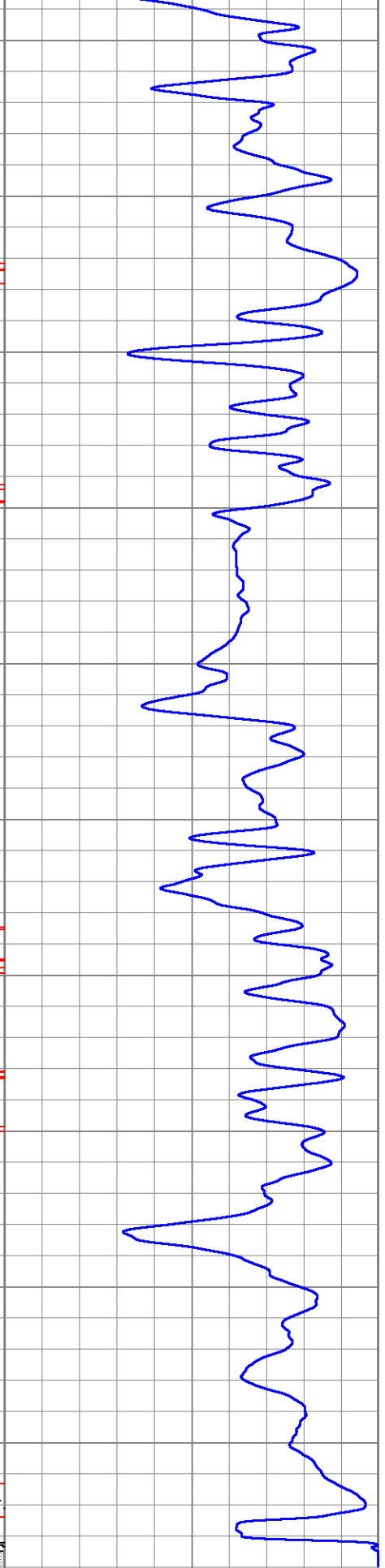




0	Gamma Ray (GAPI)	150
-100	SP (mV)	100
0	RWA (Ohm-m)	1



1000	CILD (mmho/m)	0
0	RLL3 (Ohm-m)	50
0	RILD (Ohm-m)	50
50	RILD X10 (Ohm-m)	500



0		0
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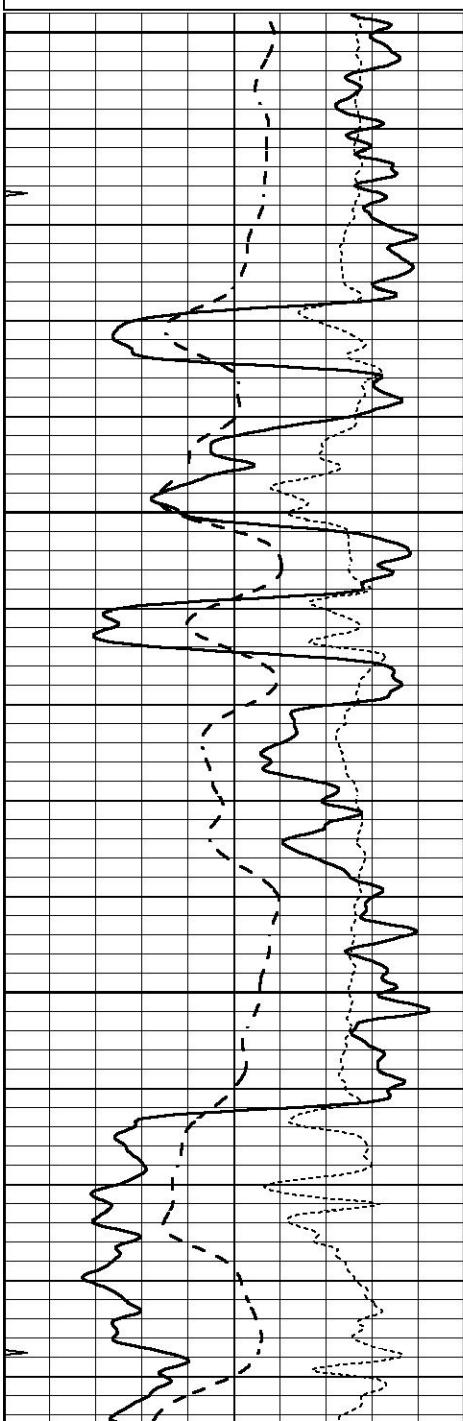


MAIN SECTION

Database File 5652ddn.db
 Dataset Pathname pass3.1D
 Presentation Format _dil
 Dataset Creation Thu Aug 26 05:32:33 2021
 Charted by Depth in Feet scaled 1:240

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

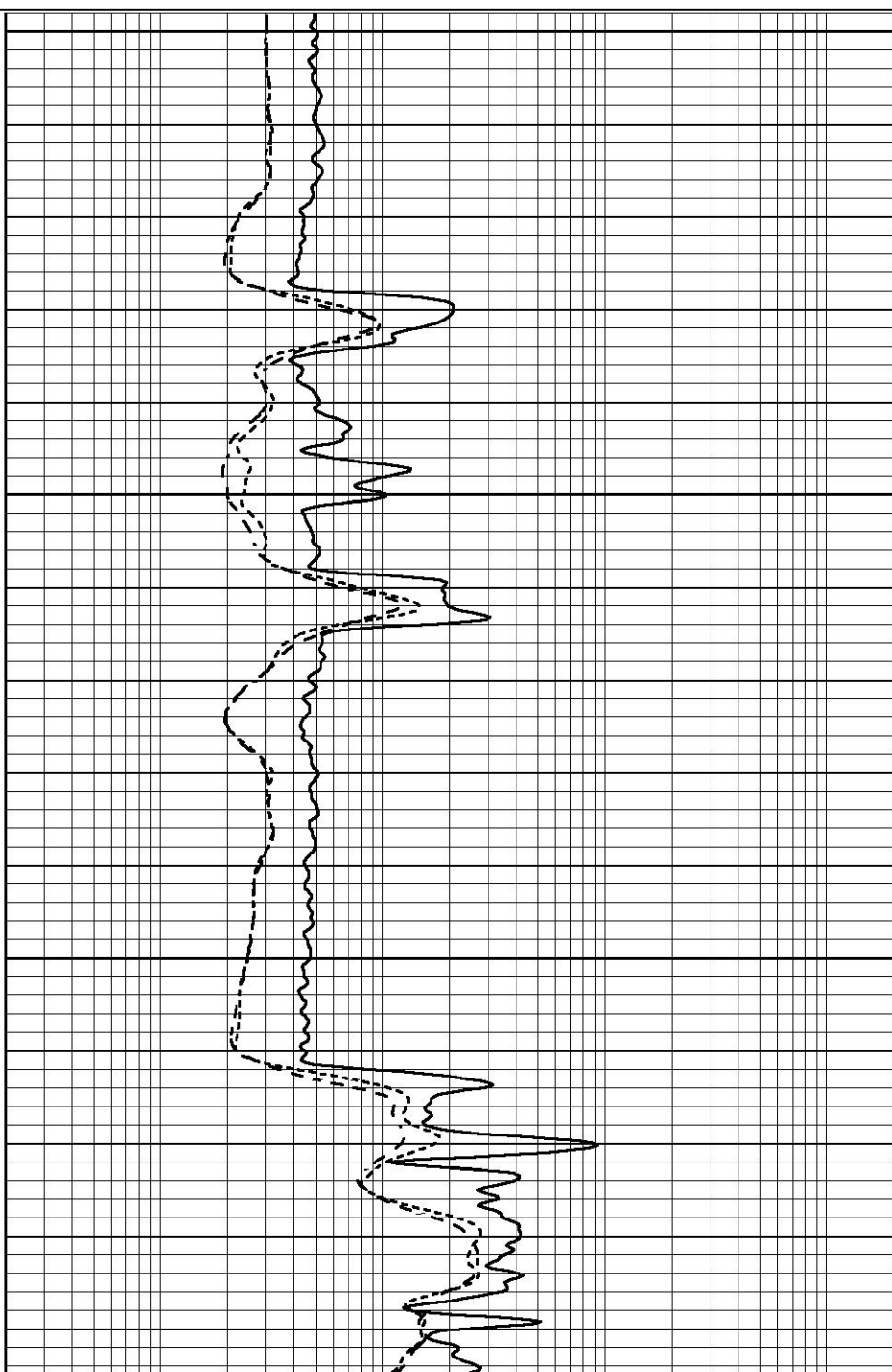
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

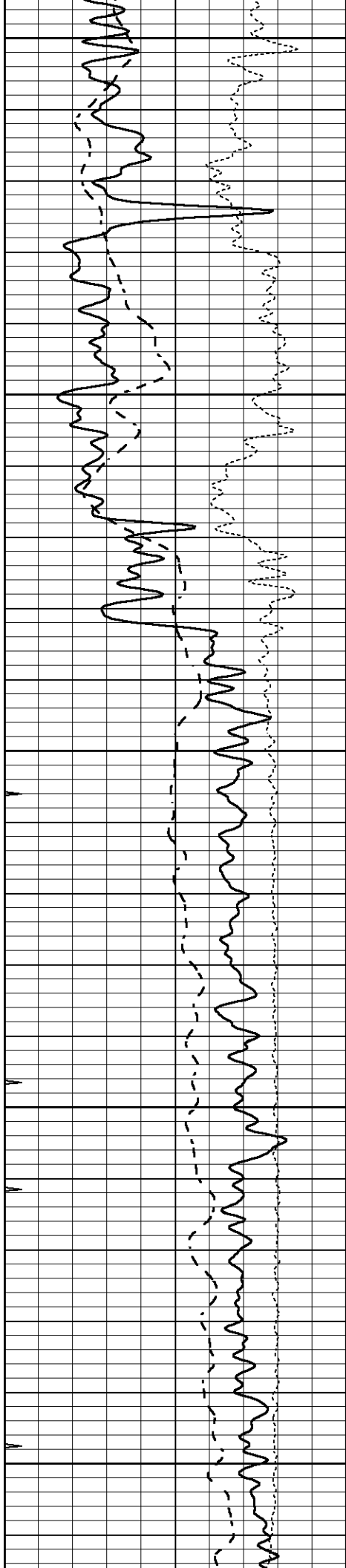


1700

1750

1800





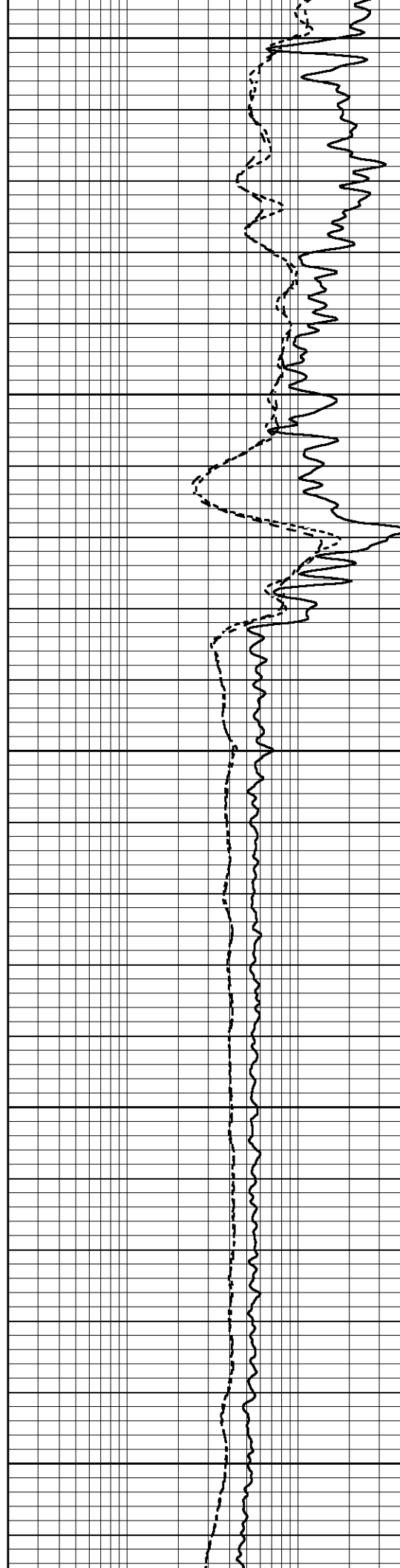
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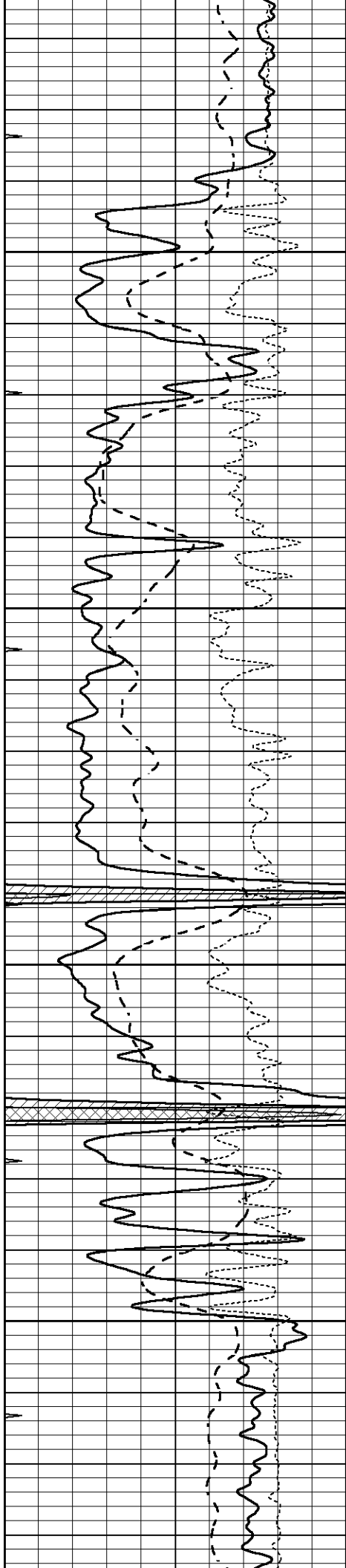
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1950

2000

2050



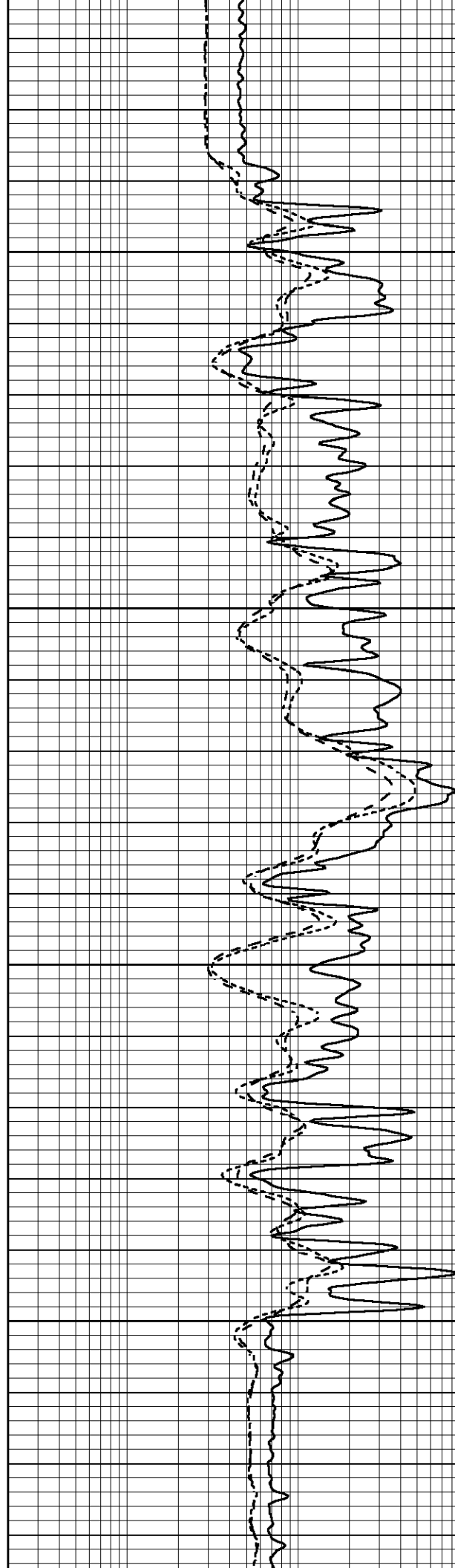


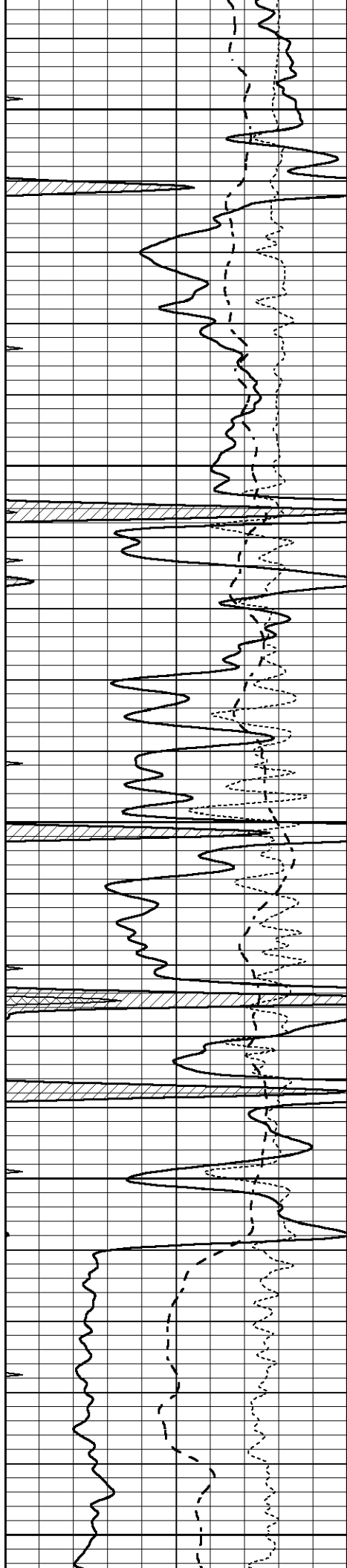
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2150

2200

2250





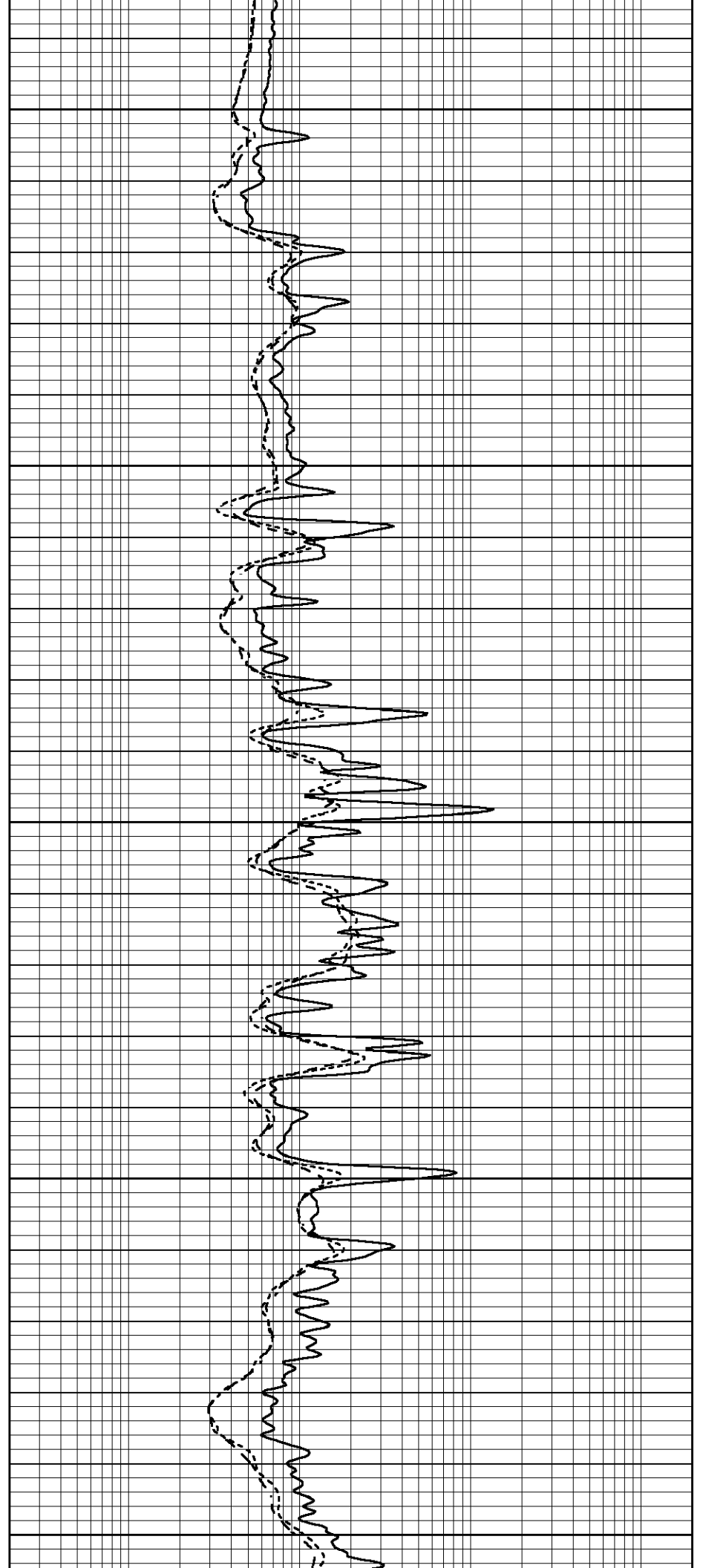
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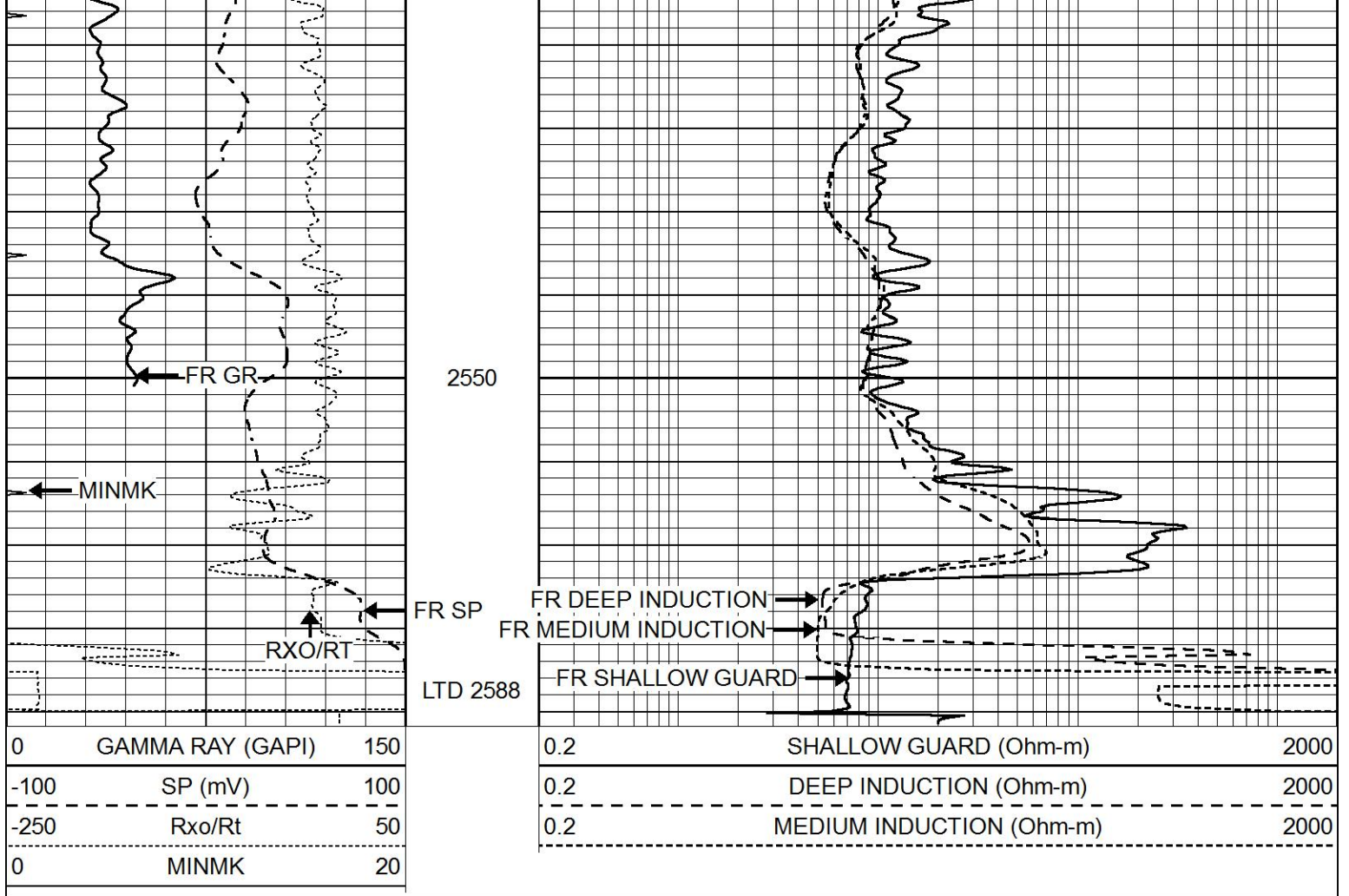
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2400

2450

2500

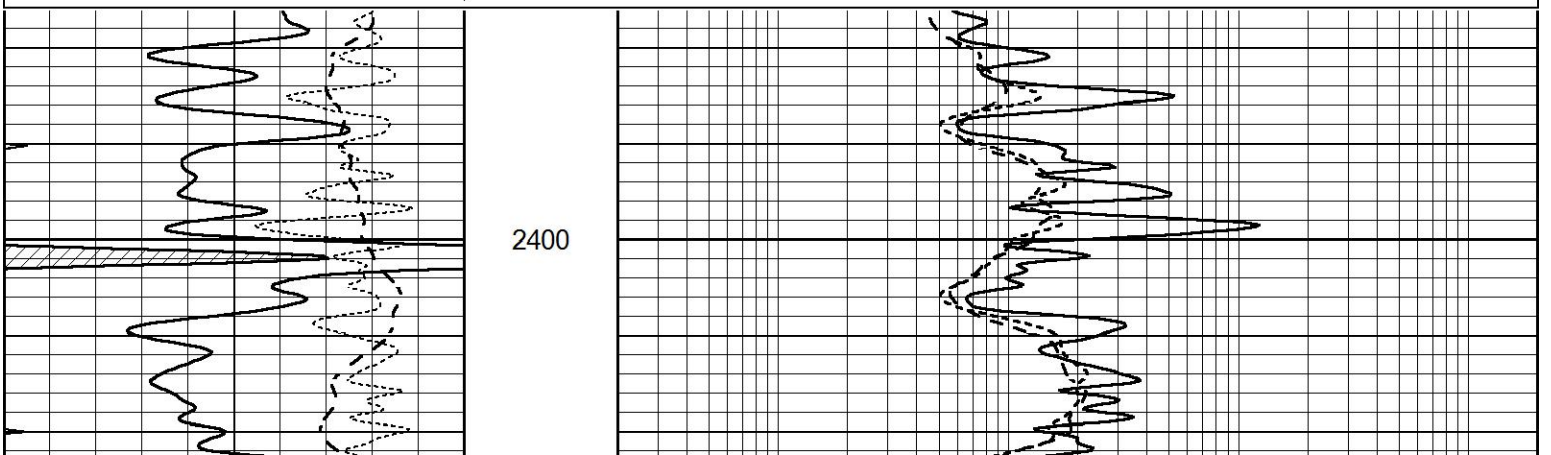


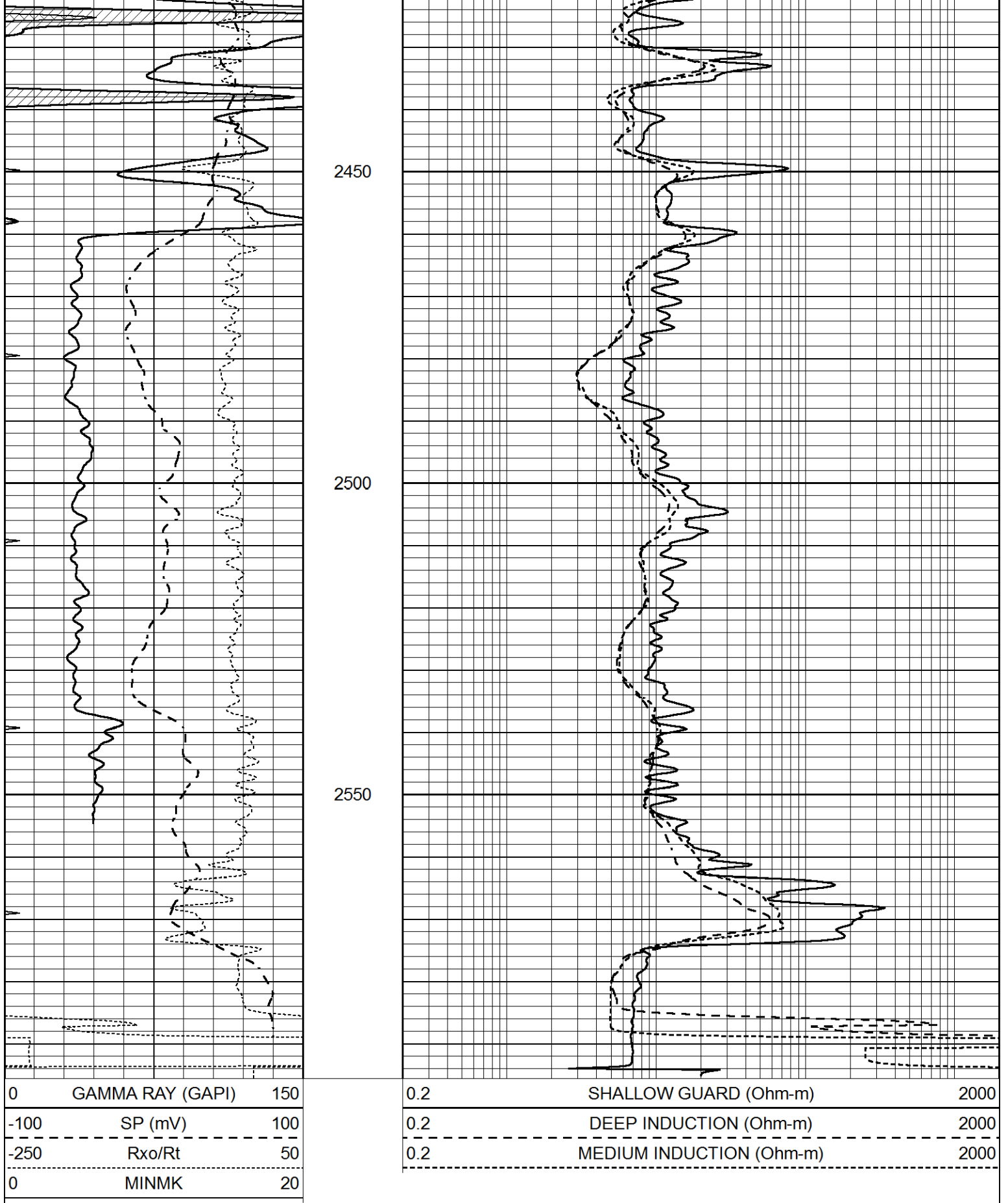


REPEAT SECTION

Database File 5652ddn.db
 Dataset Pathname pass2.1R
 Presentation Format _dil
 Dataset Creation Thu Aug 26 04:49:21 2021
 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			





Calibration Report

Database File 5652ddn.db
 Dataset Pathname pass3.1D
 Dataset Creation Thu Aug 26 05:32:33 2021

Serial-Model: PROBE7-DILG
 Surface Cal Performed: Thu Aug 26 04:11:57 2021
 Downhole Cal Performed: Thu Mar 12 11:45:10 2020
 After Survey Verification Performed: Thu Mar 12 11:45:00 2020

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop	V	Air	Loop	mmho/m	m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	650.000	-8.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	680.000	-52.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.011	0.610	V	0.000	400.000	mmho/m	667.135	-7.256
Medium	0.005	0.712	V	0.000	464.000	mmho/m	655.677	-3.102

Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	14.508	388.384	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	166.367	504.400	mmho/m	1.000	0.000
LL3		7.500	V		1400.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		4000.000	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		
		0.000	mmho-m		4000.000	mmho-m		

Litho Density Calibration Report
 Serial: 004 Model: PRB

Master Calibration

Performed Tue May 18 11:02:48 2021

	Background	Magnesium	Aluminum	Aluminum+Fe	
Window 1	1187.1	10004.0	3142.5	2810.8	cps
Window 2	1084.9	8556.6	2749.3	2502.4	cps
Window 3	923.1	5129.8	1819.8	1719.3	cps
Window 4	263.5	263.6	259.7	262.8	cps
Long Space	0.0	7471.7	1664.4	1417.5	cps
Short Space	1.5	984.9	645.6	561.2	cps
Rho		1.7100	2.5900	0.0000	g/cc
Pe		2.0000	2.7500	5.7900	
Rib Angle	: 44.3	Rib Slope	: 0.976	Density/Spine Ratio	: 0.564
Spine Angle	: 74.3	Spine Slope	: 3.555	Spine Intercept	: -15.6

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

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

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: Wed Aug 25 05:44:31 2021

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.2800 GAPI/cps