



DUAL INDUCTION LOG

Company	DARRAH OIL COMPANY, LLC.		
Well	McDONALD #5		
Field	SHAEFFER - ROTHGARN		
County	STAFFORD	State	KANSAS
Location:	API # : 15-185-24113-0000 2013' FSL & 1056' FEL SW - NW - NE - SE		
Permanent Datum	GROUND LEVEL	Elevation	1873
Log Measured From	KELLY BUSHING 10' A.G.L.	Other Services CDL/CNL/PE MEL/SONIC	
Drilling Measured From	KELLY BUSHING		
Date	8/19/22	SEC 3 TWP 21S RGE 13W	
Run Number	ONE	Elevation	
Depth Driller	3353	K.B. 1883	
Depth Logger	3354	D.F. 1881	
Bottom Logged Interval	3352	G.L. 1873	
Top Log Interval	00		
Casing Driller	8 5/8"@268'		
Casing Logger	268		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES N/A	
Density / Viscosity	N/A		
pH / Fluid Loss	N/A		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.320@80F		
Rmf @ Meas. Temp	.240@80F		
Rmc @ Meas. Temp	.384@80F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.233@110F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	10:00 P.M.		
Maximum Recorded Temperature	110F		
Equipment Number	922339		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	ROGER MARTIN		

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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.

15-185-24113-0000

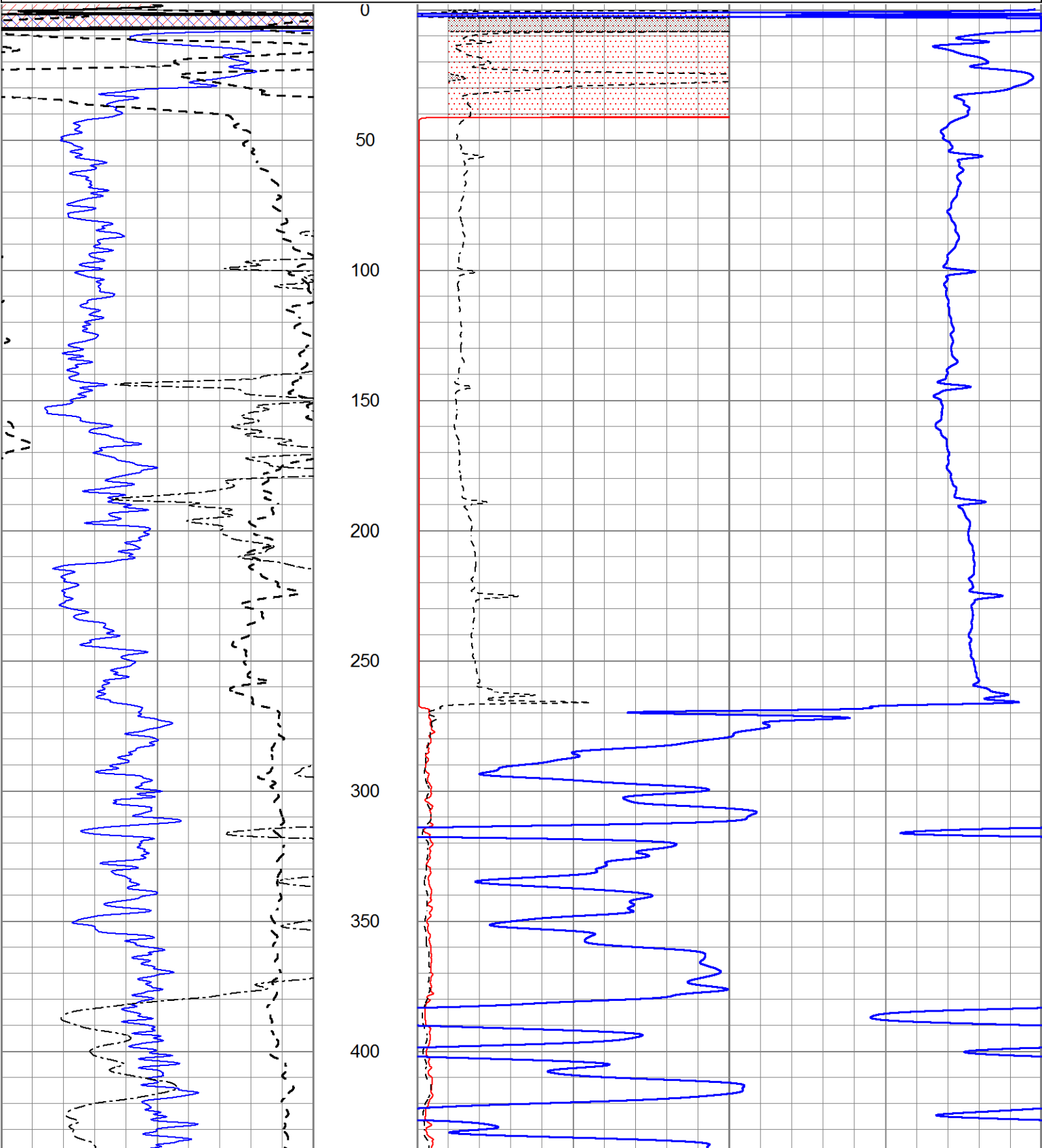
Comments

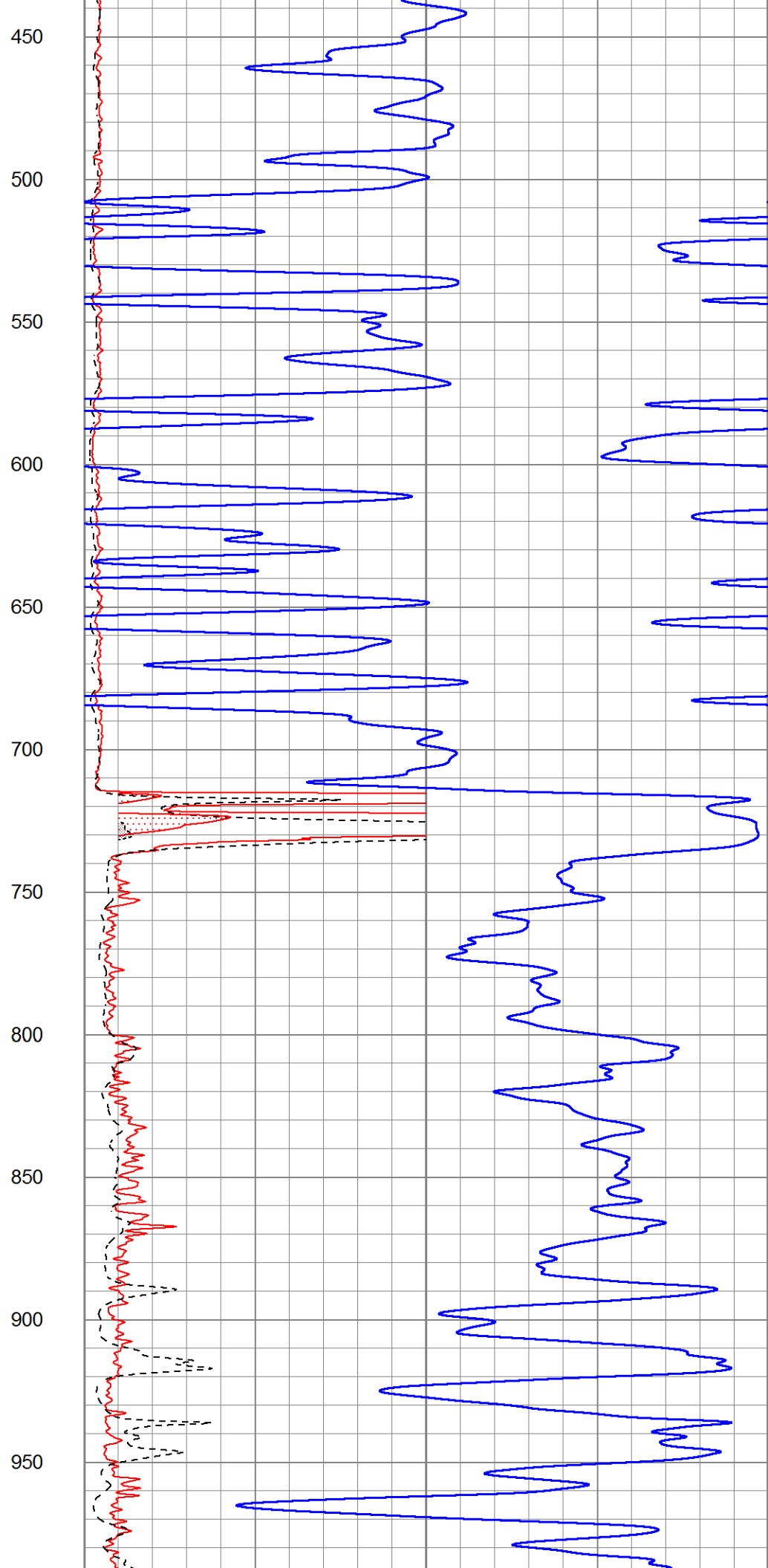
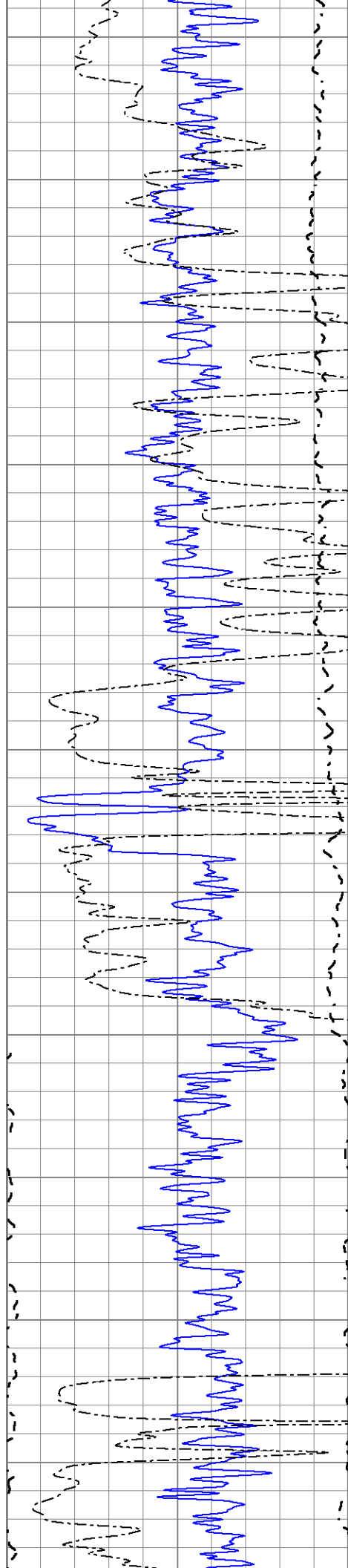
THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS
GREAT BEND, KS., 7S. ON HWY 281 TO COUNTY LINE, 1E., 1/2S., W. INTO

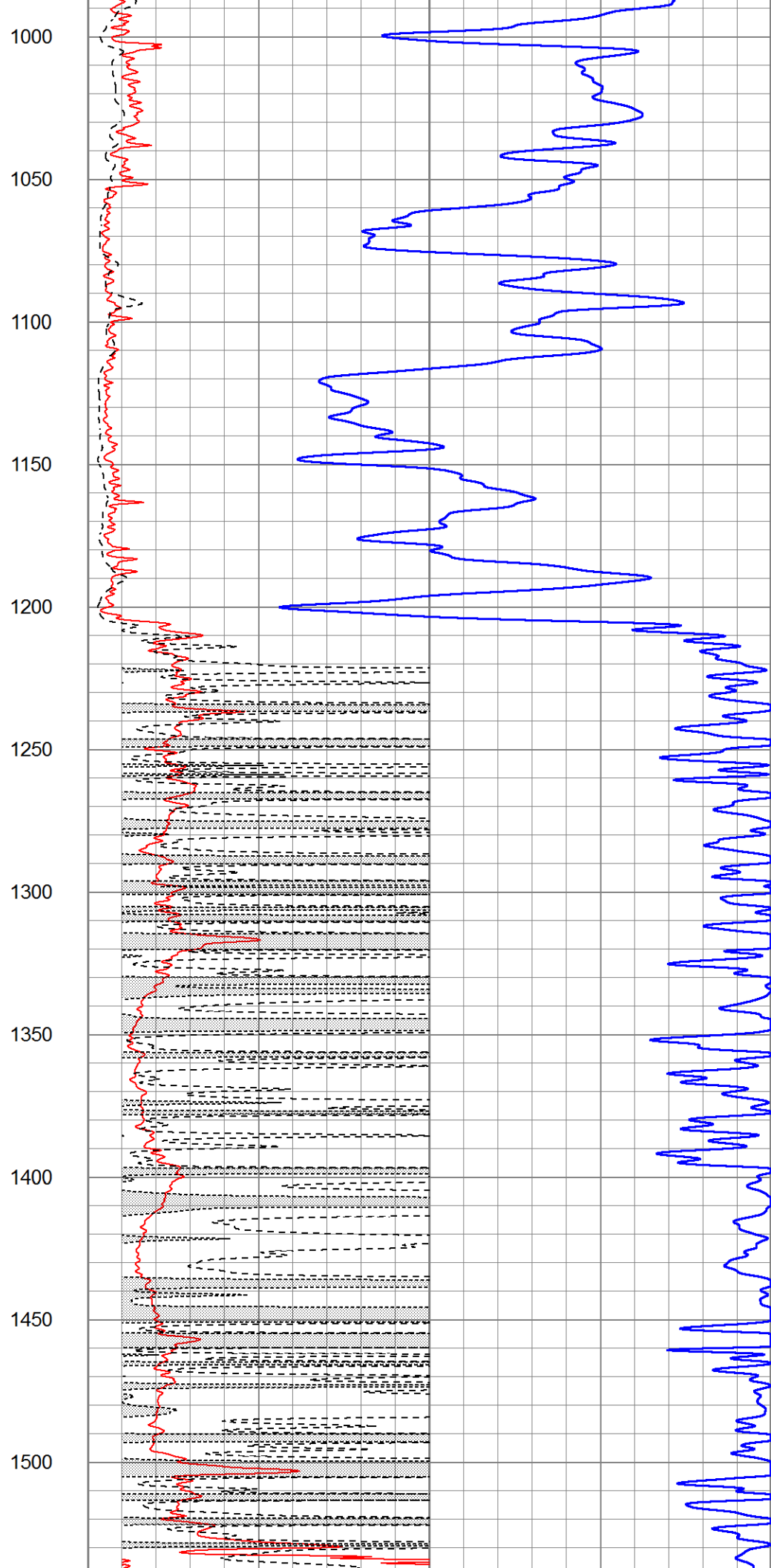
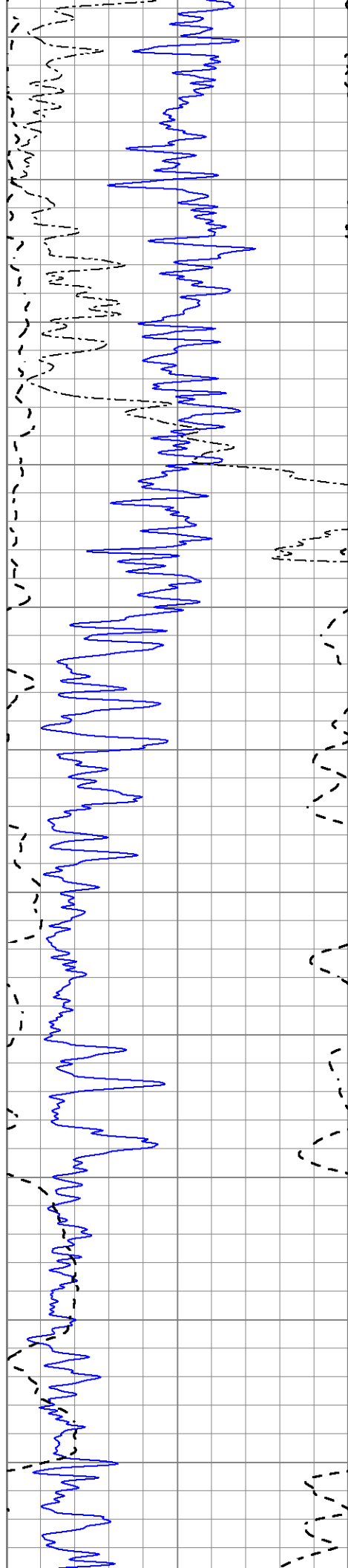


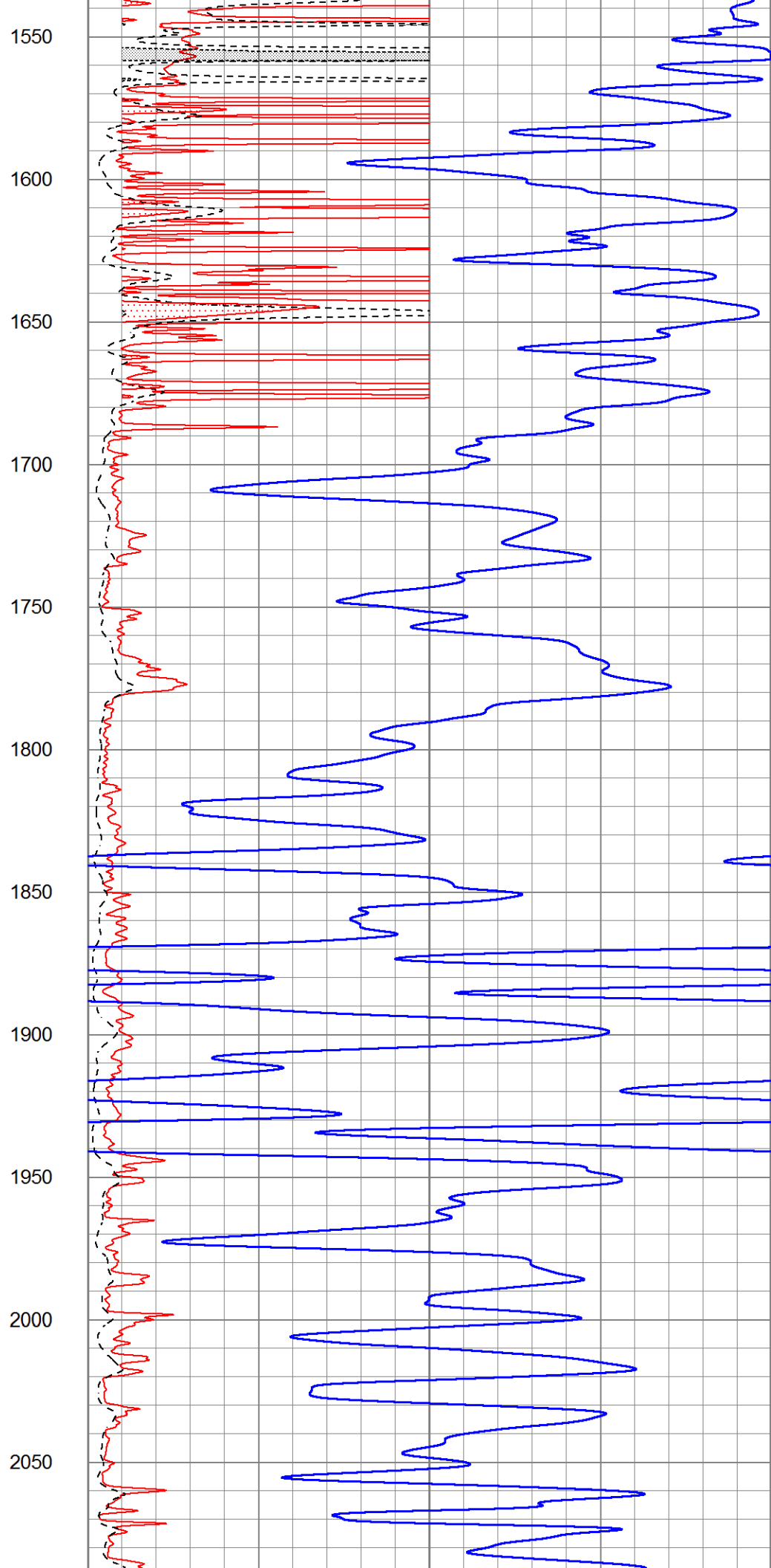
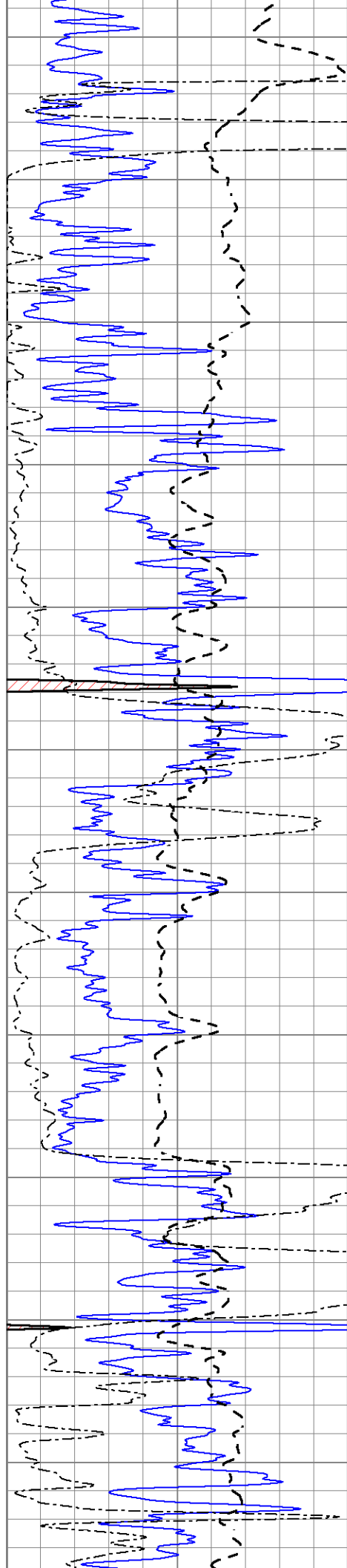
MAIN SECTION

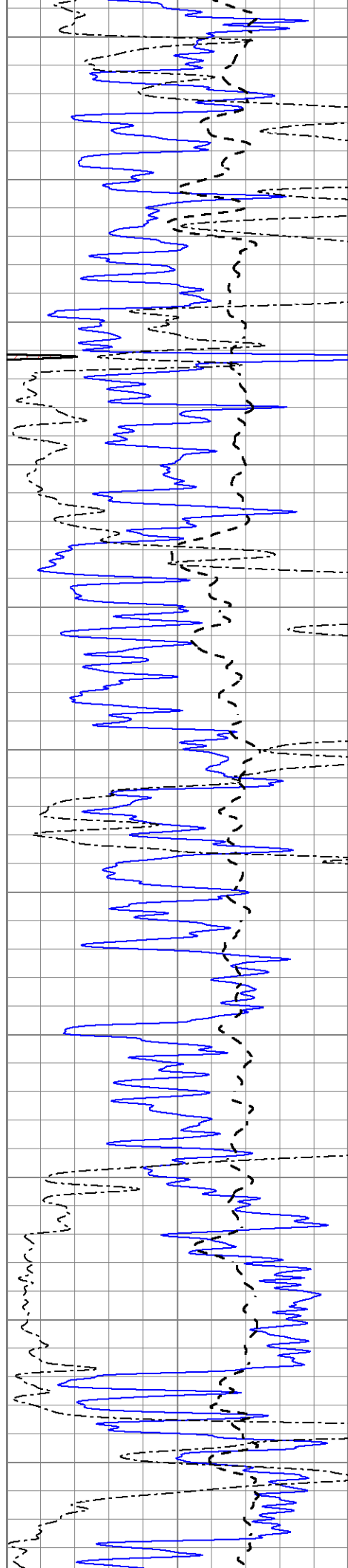
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-100	SP (mV)	100	0	RLL3 (Ohm-m)	50
0	RWA (Ohm-m)	1	0	RILD (Ohm-m)	50
			50	RILD X10 (Ohm-m)	500
			50	RLL3 X10 (Ohm-m)	500











2100

2150

2200

2250

2300

2350

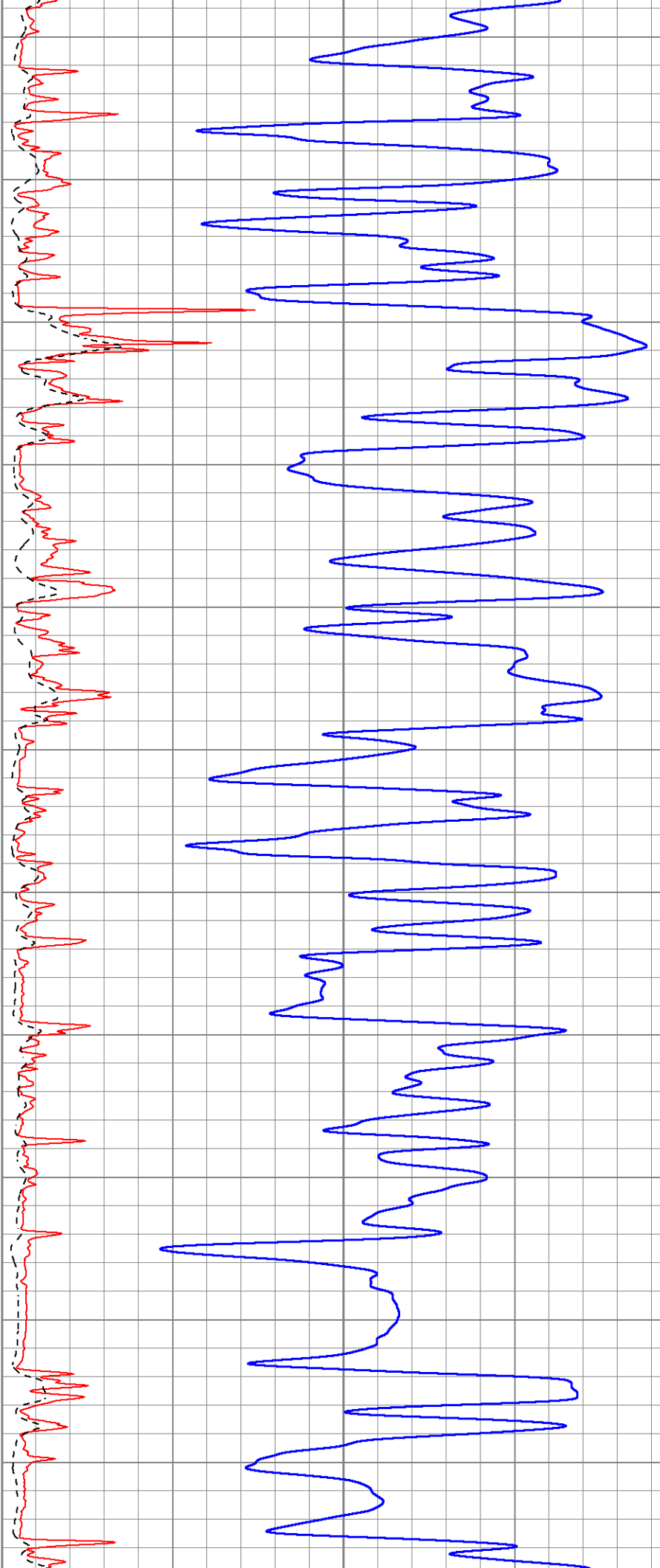
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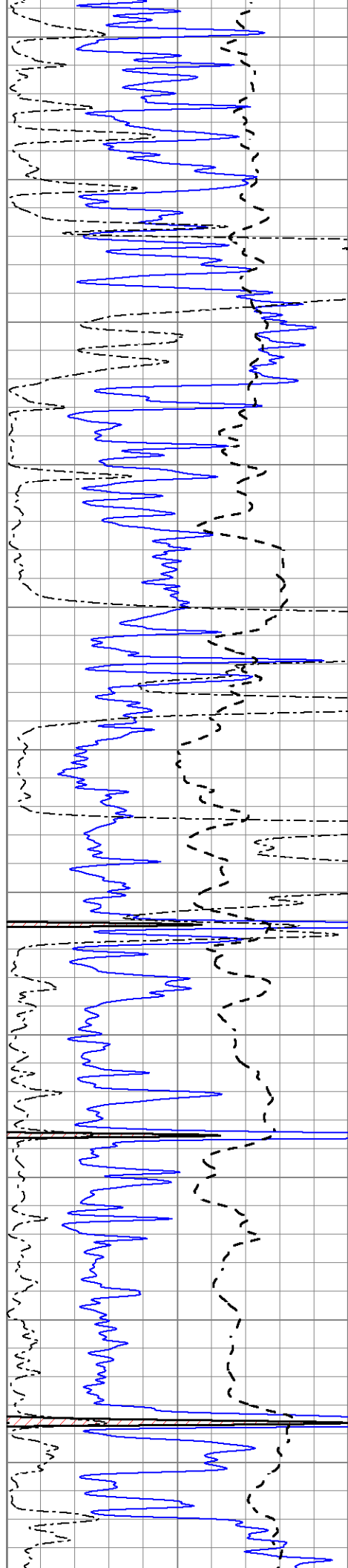
2450

2500

2550

2600





2650

2700

2750

2800

2850

2900

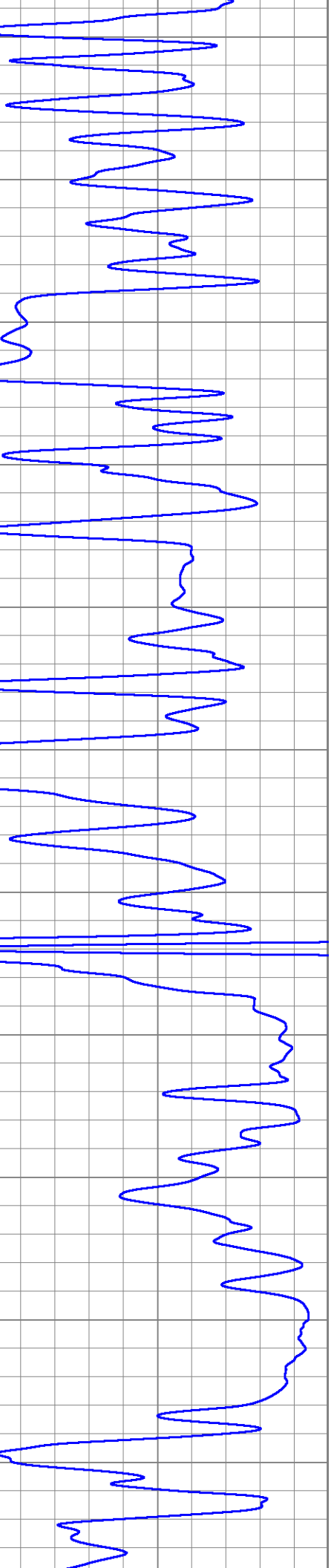
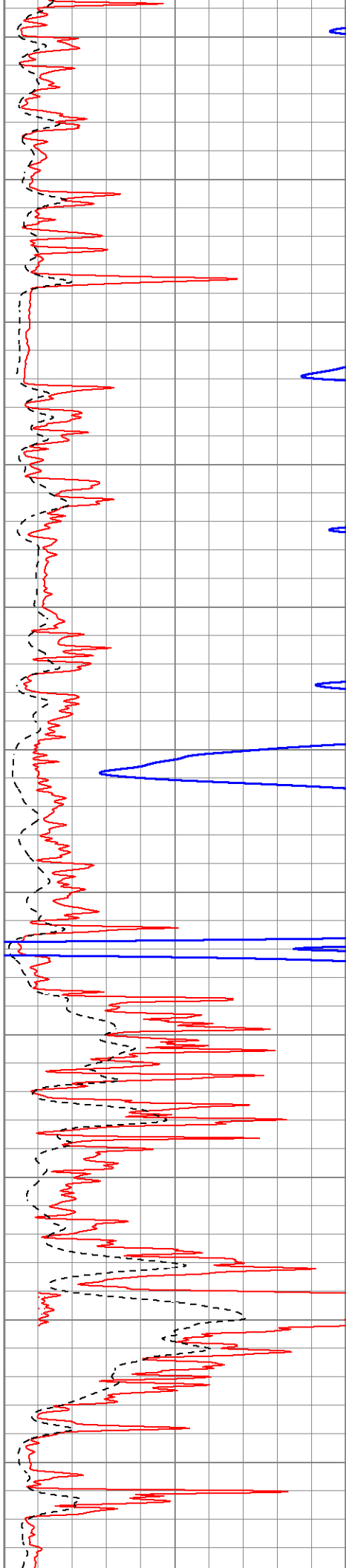
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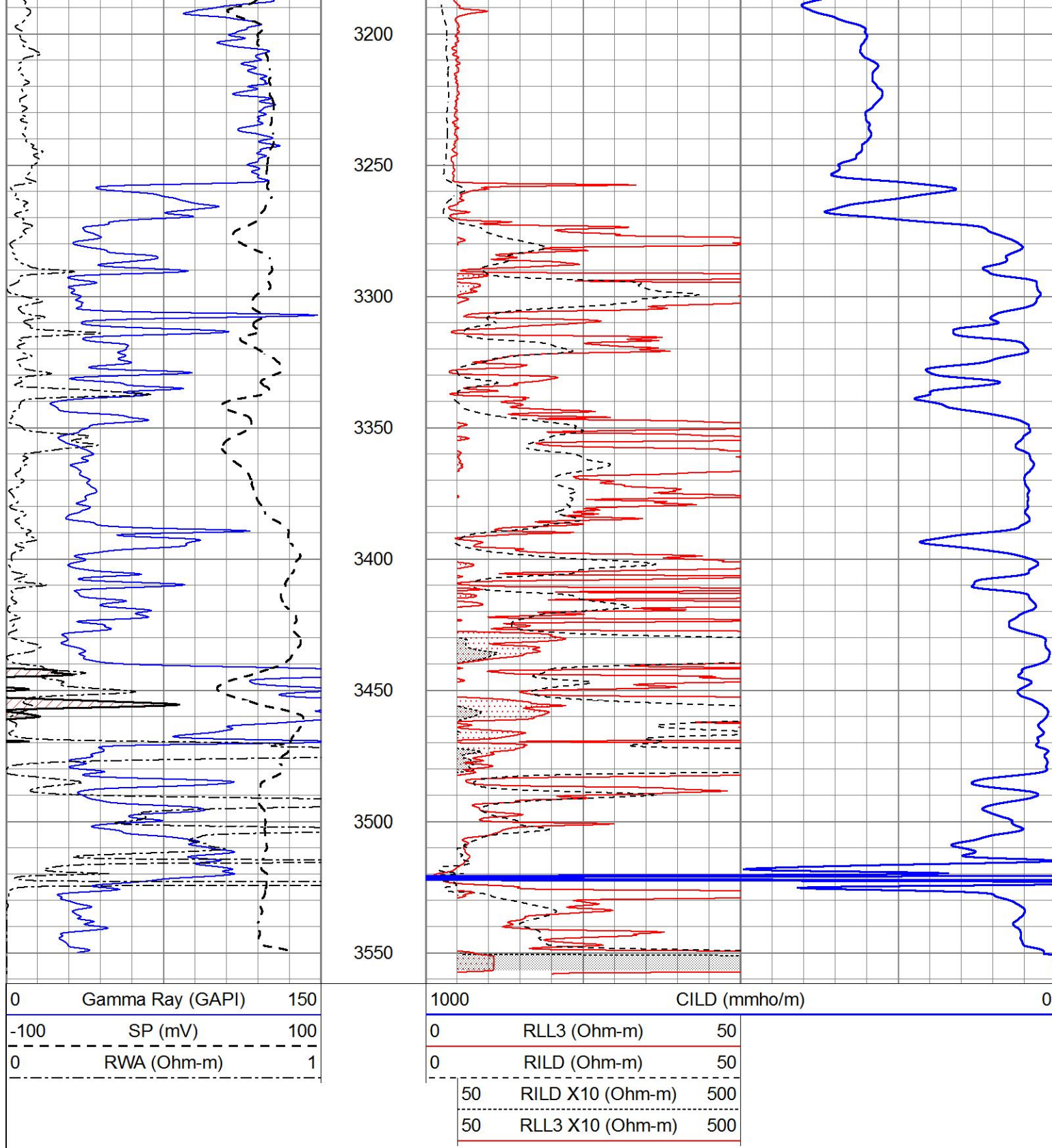
3000

3050

3100

3150

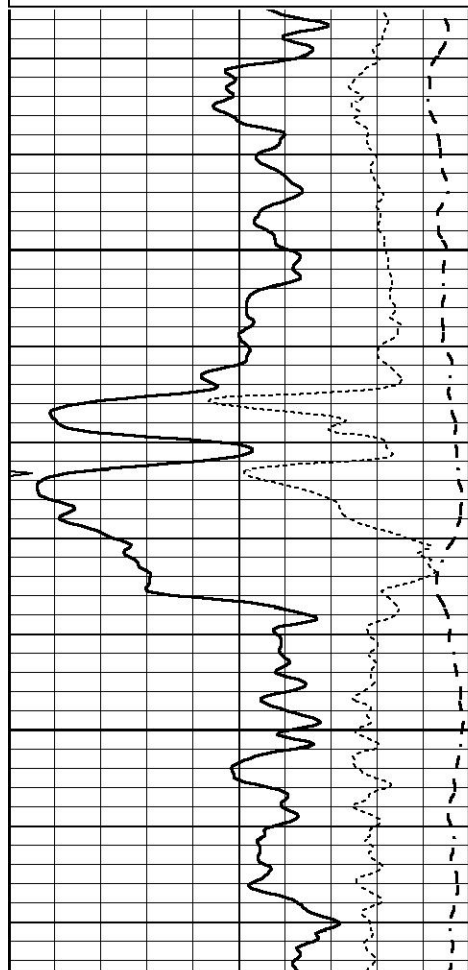




ANHYDRITE

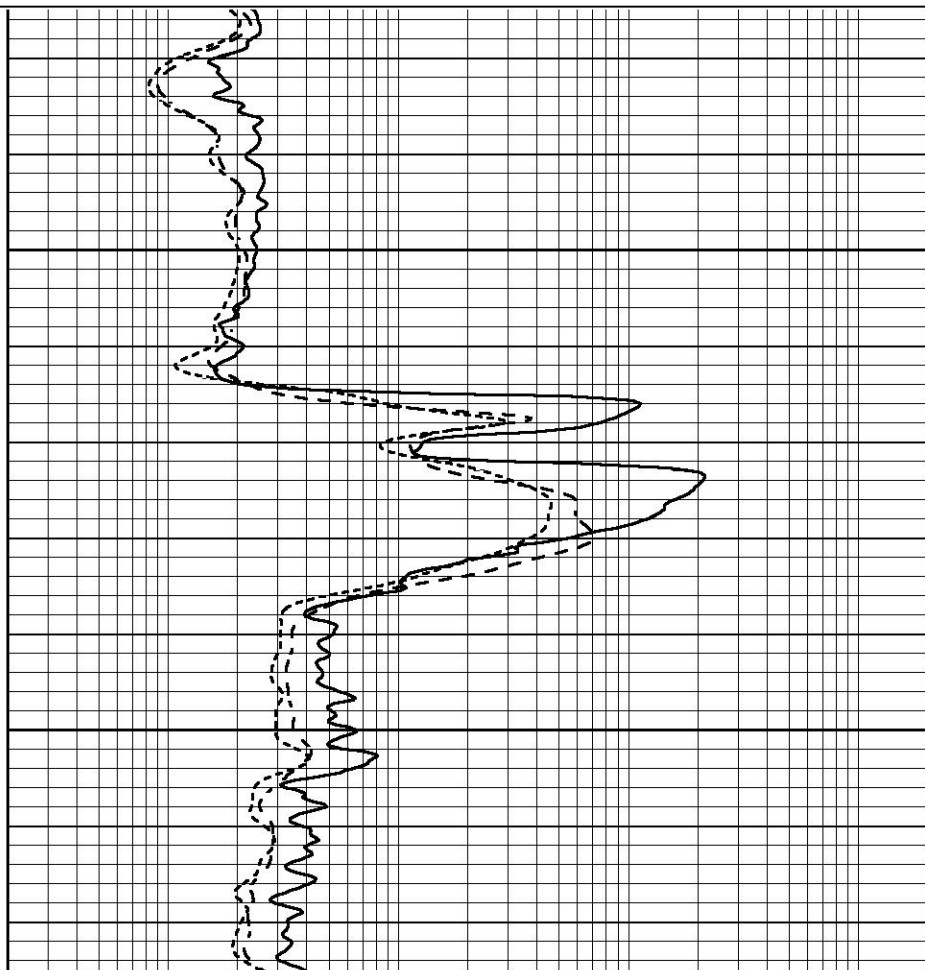
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 Dataset Pathname pass3.1A
 Presentation Format _dil
 Dataset Creation Sat Aug 20 00:53:06 2022
 Charted by Depth in Feet scaled 1:240

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



0	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



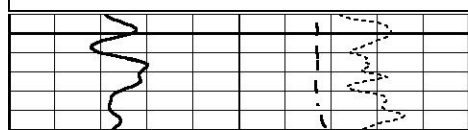
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



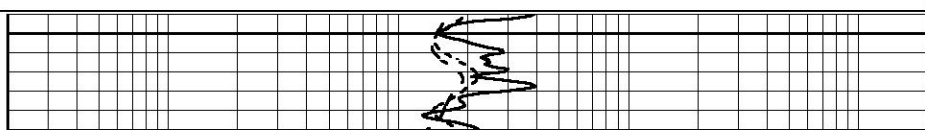
MAIN SECTION

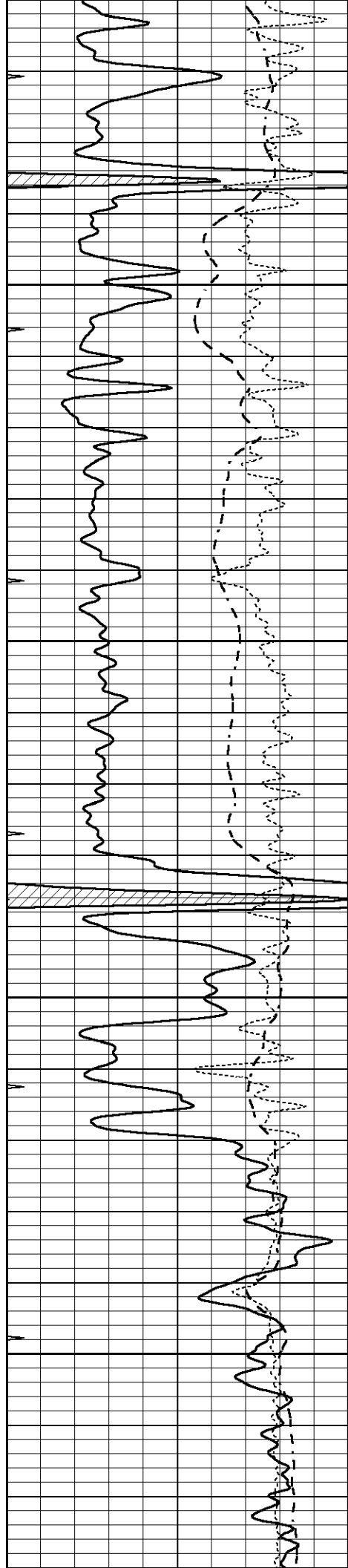
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 Presentation Format _dil
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 Charted by Depth in Feet scaled 1:240

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



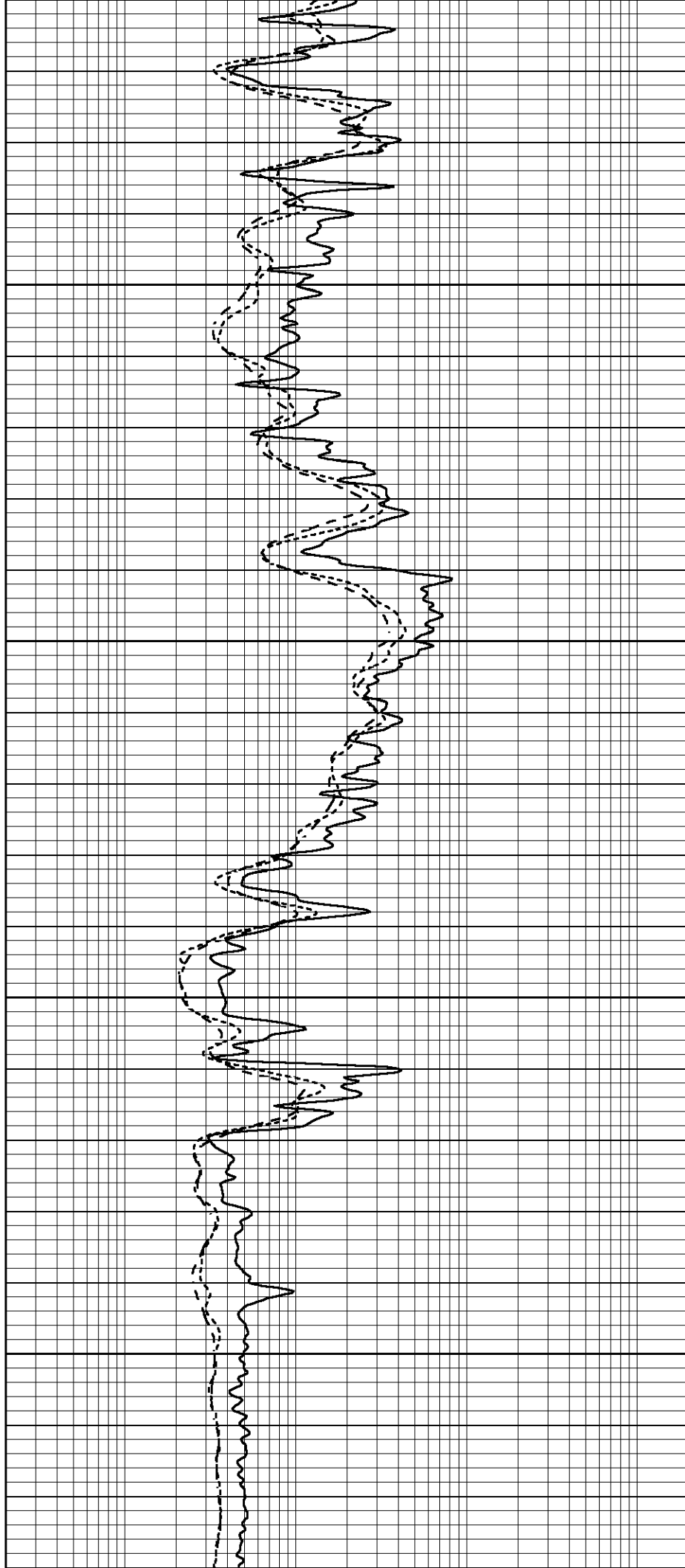


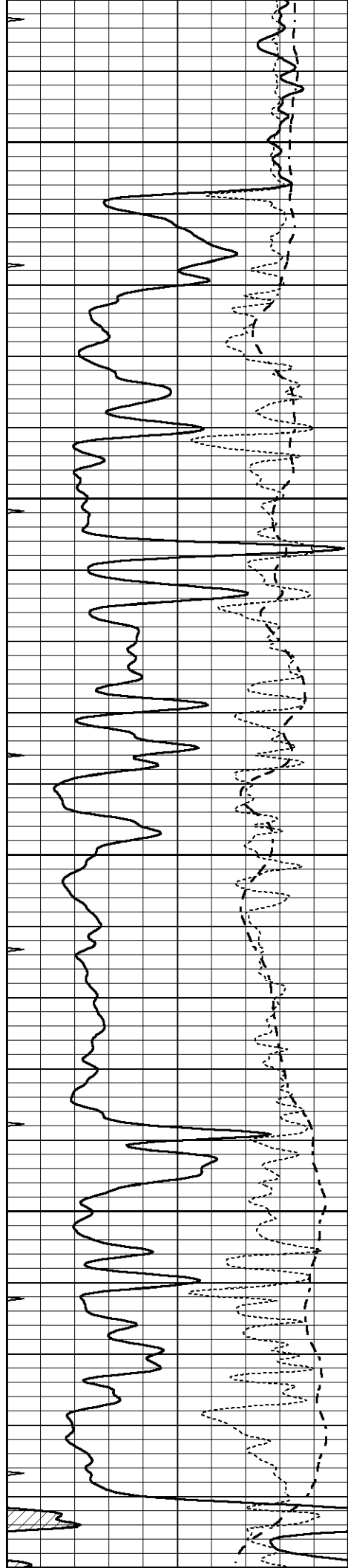
3050

3100

3150

3200





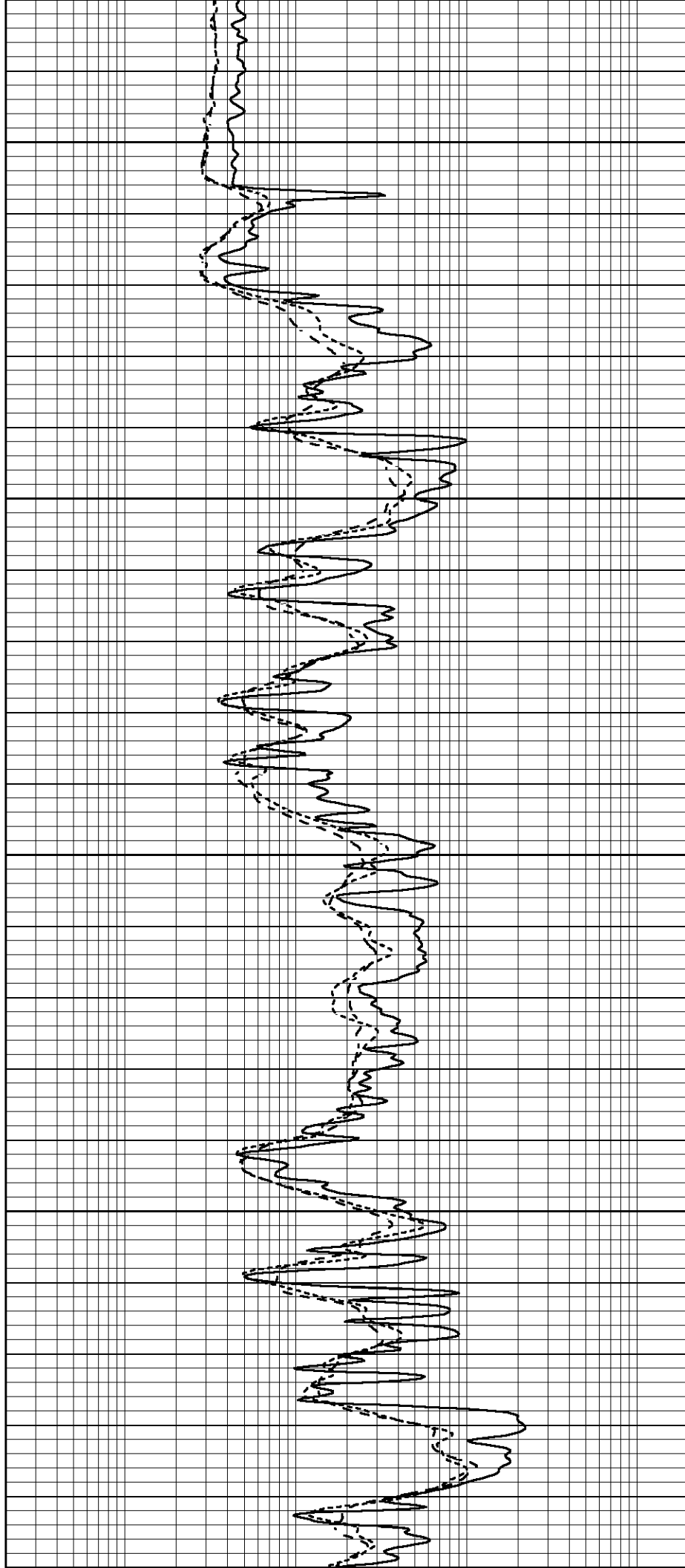
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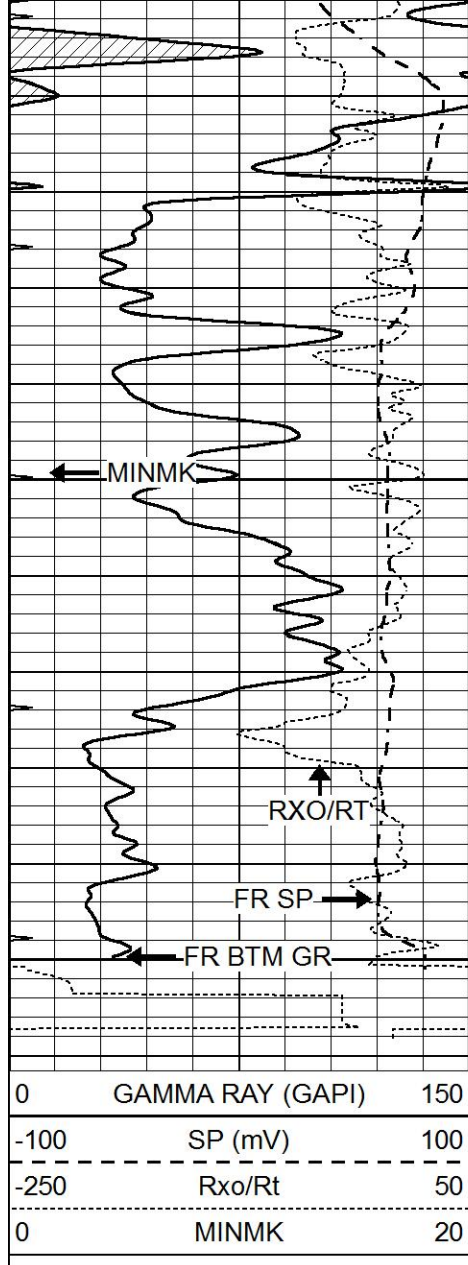
3300

3350

3400

3450



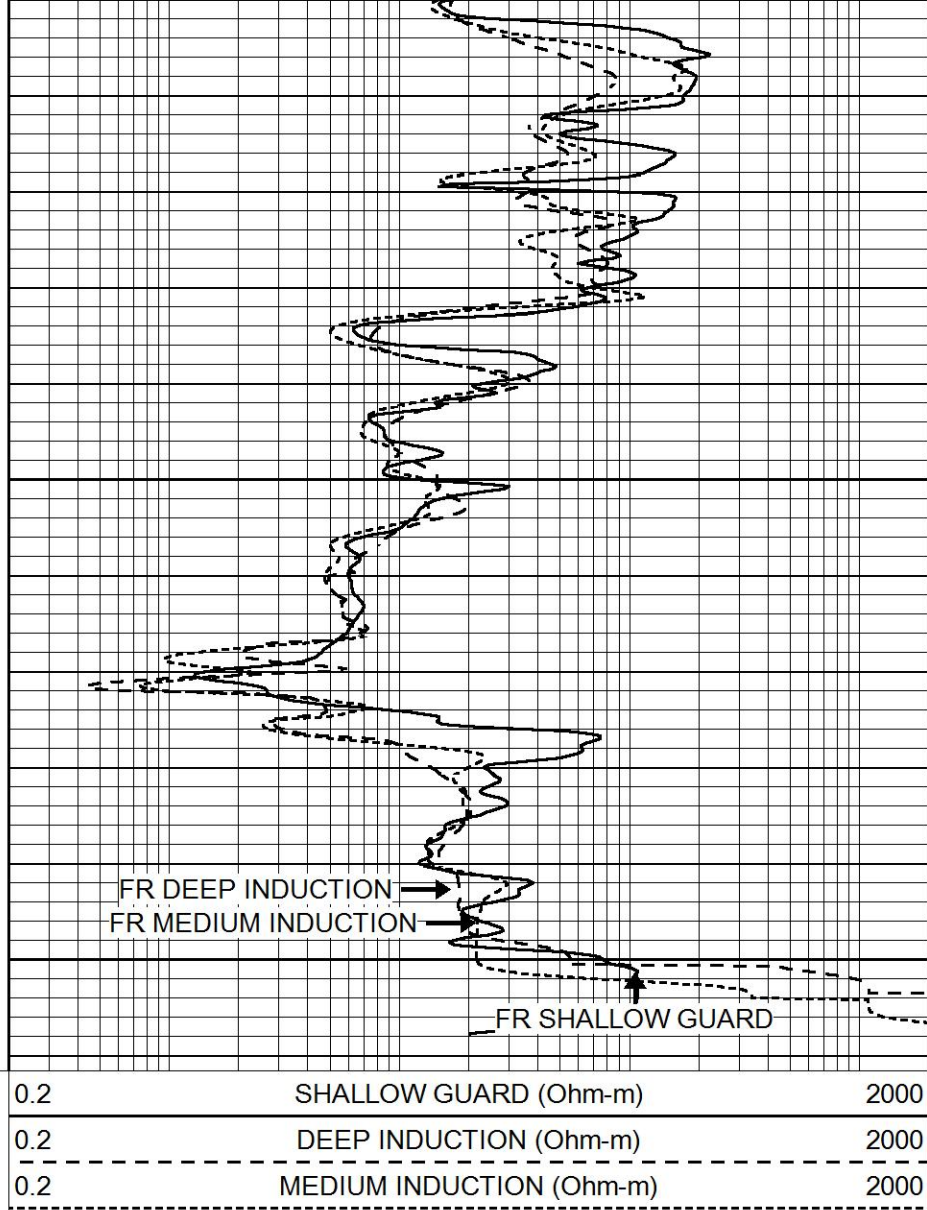


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3500

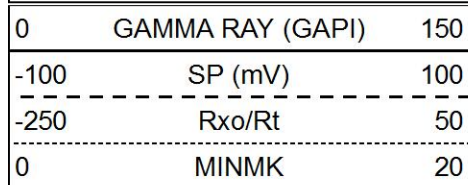
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LTD 3554

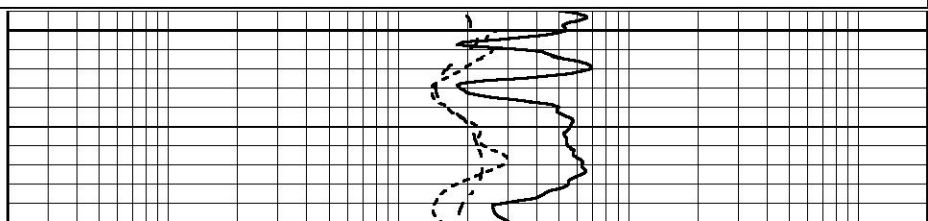
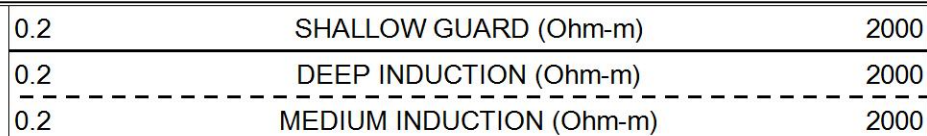


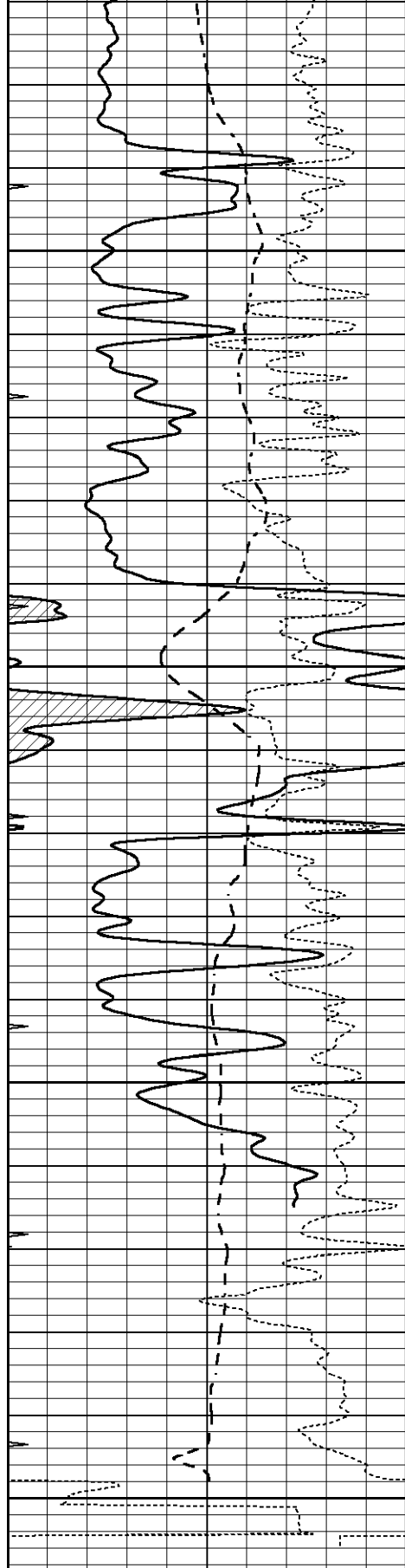
REPEAT SECTION

Database File 6906pe.db
 Dataset Pathname pass2.2R
 Presentation Format _dil
 Dataset Creation Fri Aug 19 23:11:02 2022
 Charted by Depth in Feet scaled 1:240



3350





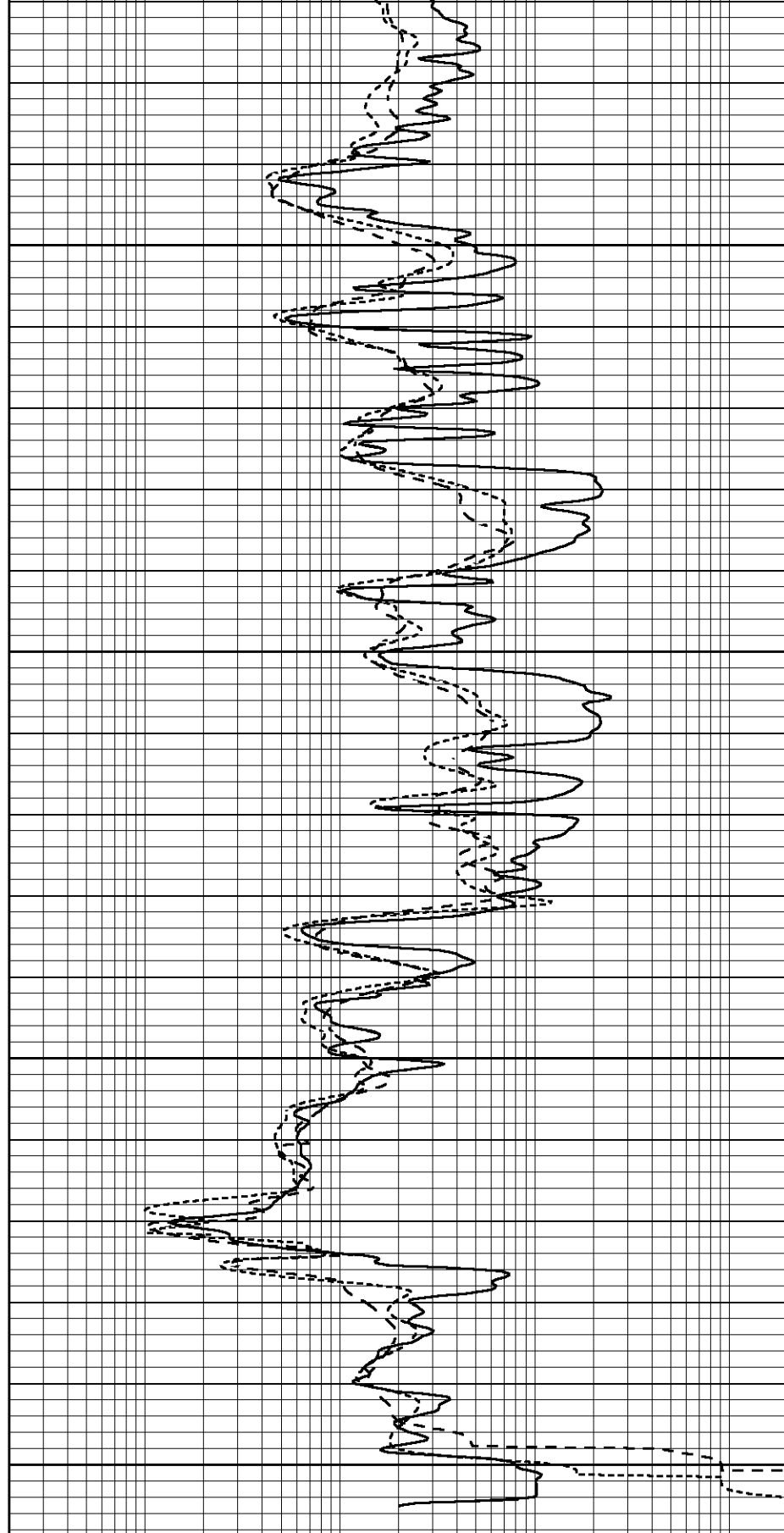
3400

3450

3500

3550

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

Dual Induction Calibration Report

Serial-Model:PROBE8-DILG
Surface Cal Performed:Fri Aug 19 23:13:09 2022
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	640.000	15.000
Medium	0.029	0.796	V	0.000	464.000	mmho/m	630.000	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			
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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 Aug 16 14:40:27 2022	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.3000	GAPI/cps