

DUAL INDUCTION LOG

Company	BIRD DOG OIL, LLC.	Company	BIRD DOG OIL, LLC.
Well	KELLER-GATES #2-17	Well	KELLER-GATES #2-17
Field	KENILWORTH WEST	Field	KENILWORTH WEST
County	STAFFORD	County	STAFFORD
State	KANSAS	State	KANSAS
Location:	API # : 15-185-24092-0000 1650' FNL & 330' FEL	Other Services DIL ML	
Permanent Datum	GROUND LEVEL	Elevation	1899
Log Measured From	KELLY BUSHING 8' A.G.L.	K.B. 1907 D.F. 1905 G.L. 1899	
Drilling Measured From	KELLY BUSHING		
Date	10/20/21		
Run Number	ONE		
Depth Driller	3910		
Depth Logger	3913		
Bottom Logged Interval	3893		
Top Log Interval	2900		
Casing Driller	8 5/8" @ 445		
Casing Logger	445		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	8.8/52		
pH / Fluid Loss	9.0/10.6		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.75@ 60F		
Rmf @ Meas. Temp	.56@ 60F		
Rmc @ Meas. Temp	.90 @ 60F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	.39@ 115F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	////		
Maximum Recorded Temperature	115F		
Equipment Number	1523		
Location	HAYS, KANSAS		
Recorded By	GUS PFANENSTIEL		
Witnessed By	JEFF LAWLER		

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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

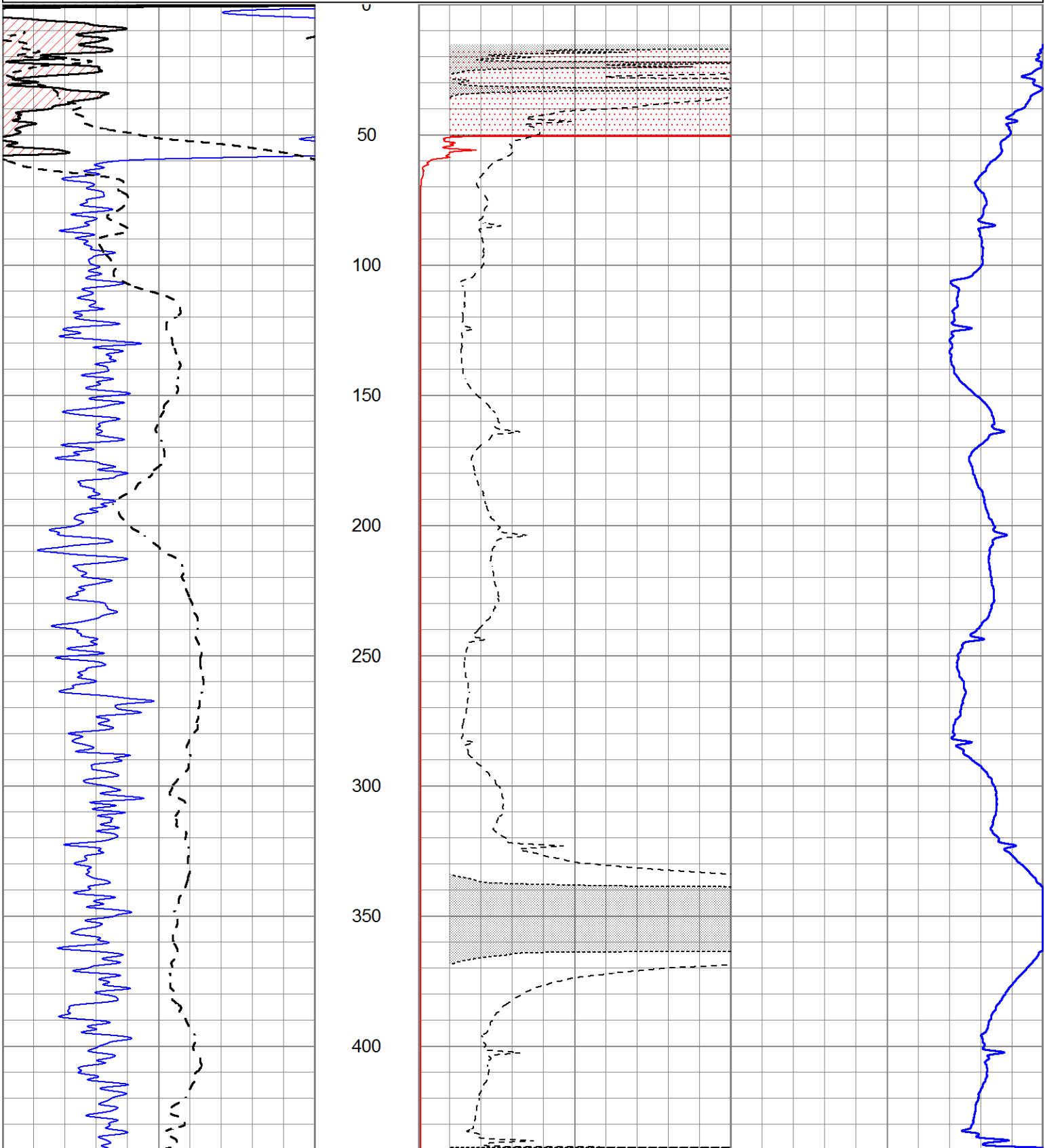
THANK YOU FOR USING ELI WIRELINE, HAYS, KS. (785) 628-6395

DIRECTIONS: SOUTH OF GREATBEND TO RD 130., 1 MILE WEST,
1/4 SOUTH, WEST INTO.

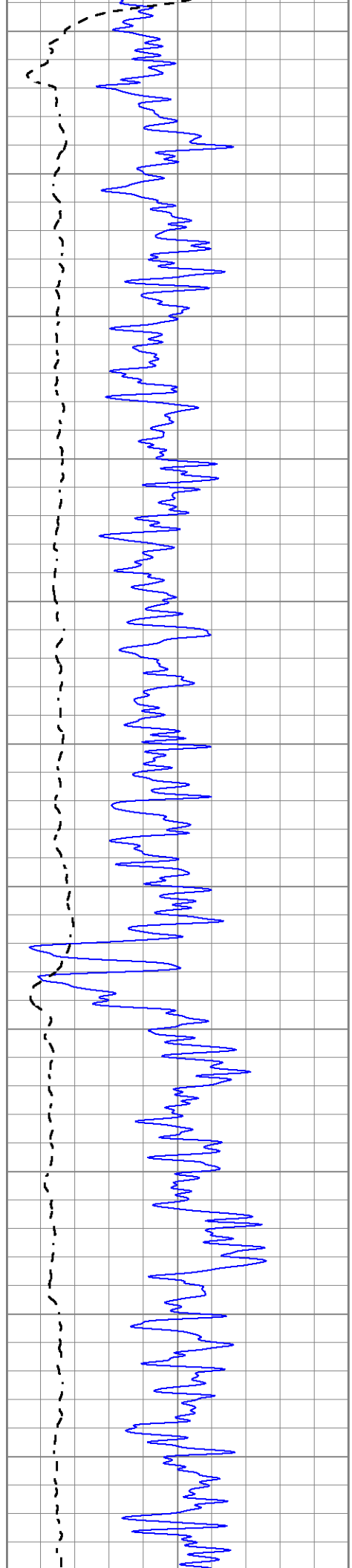
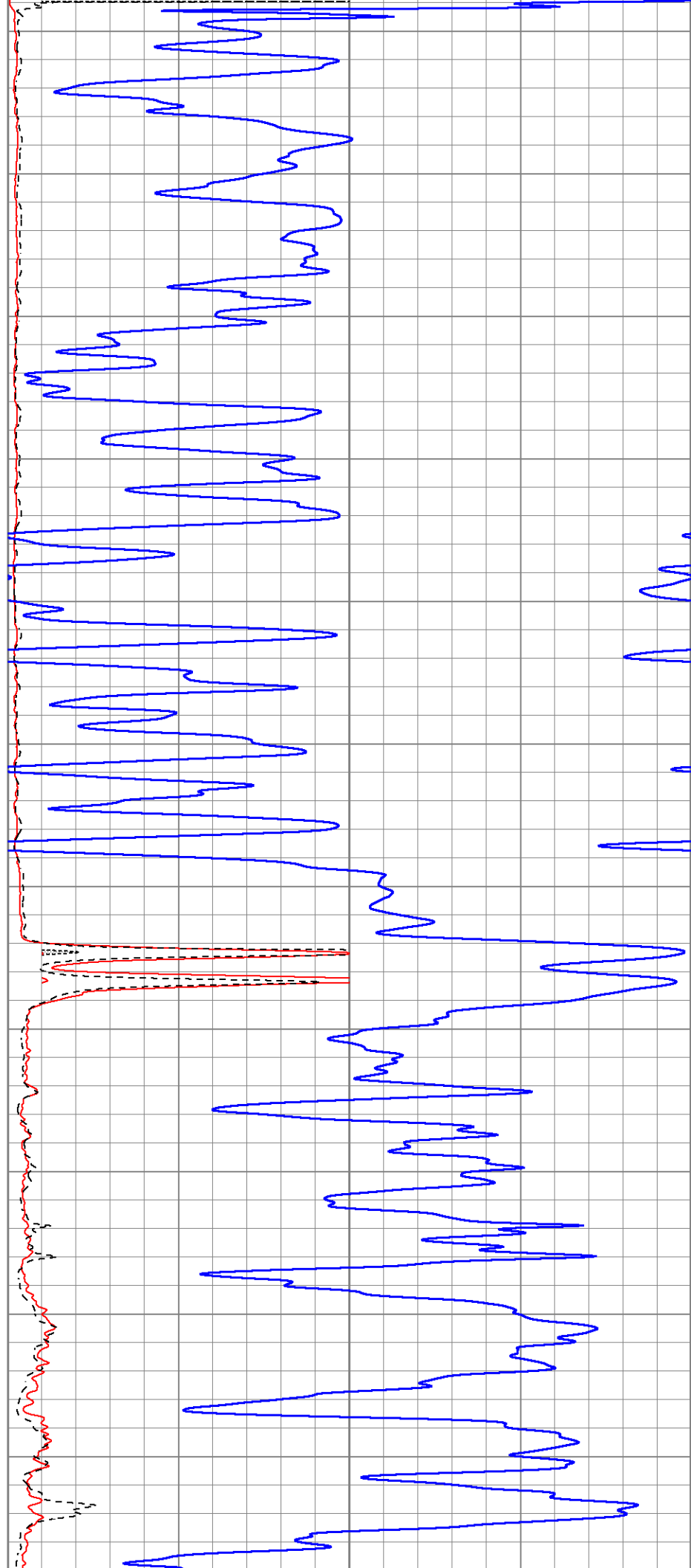


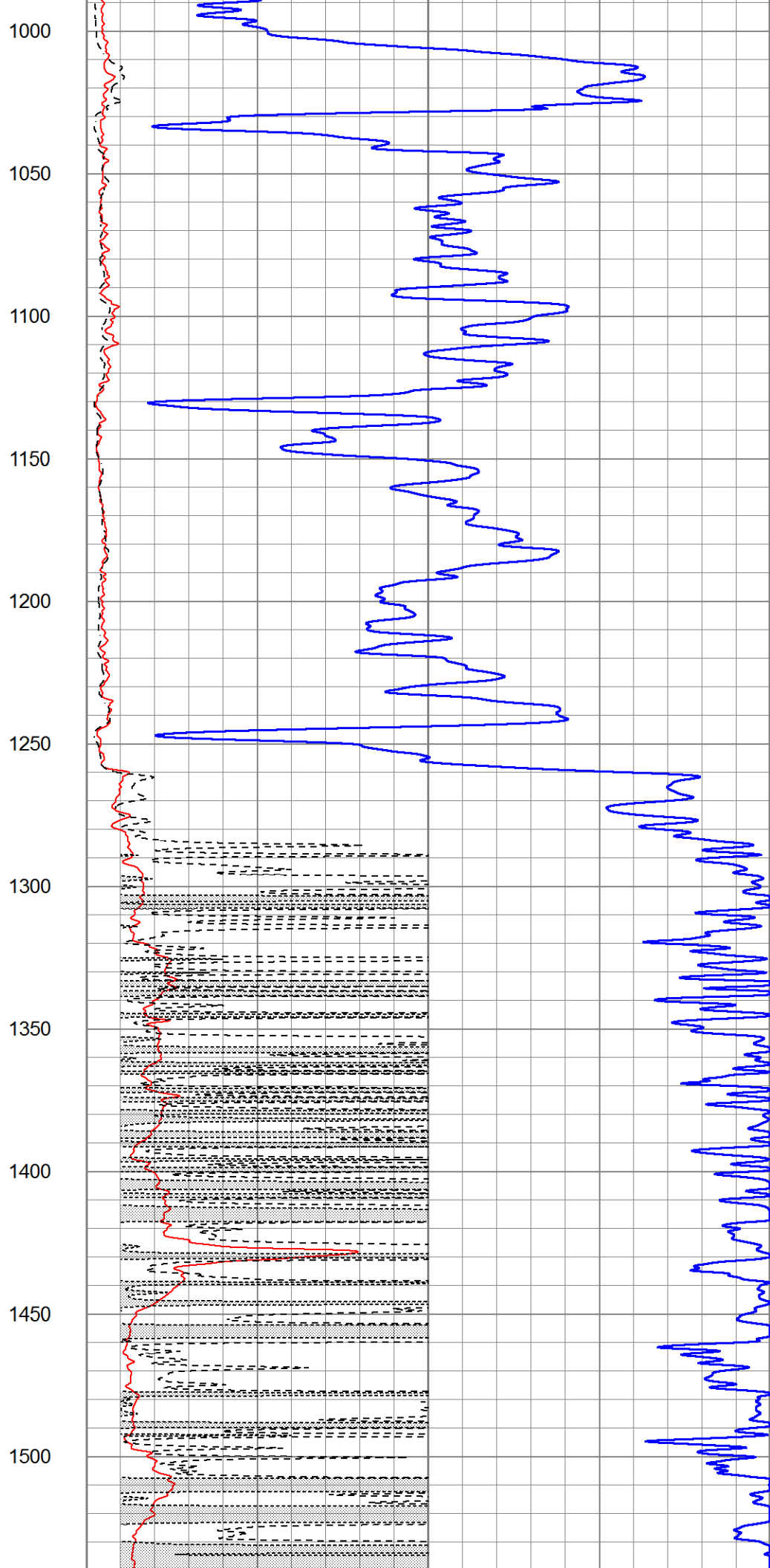
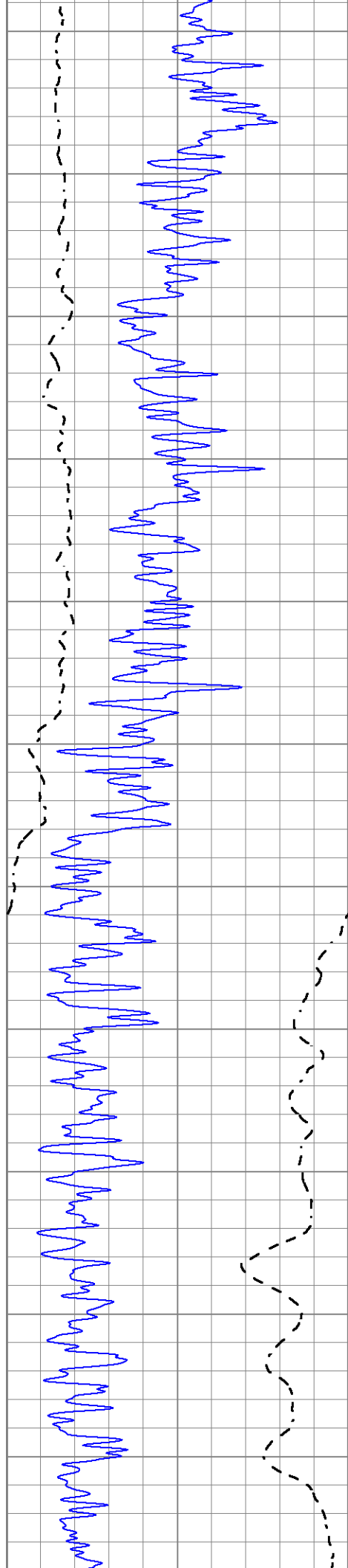
MAIN PASS

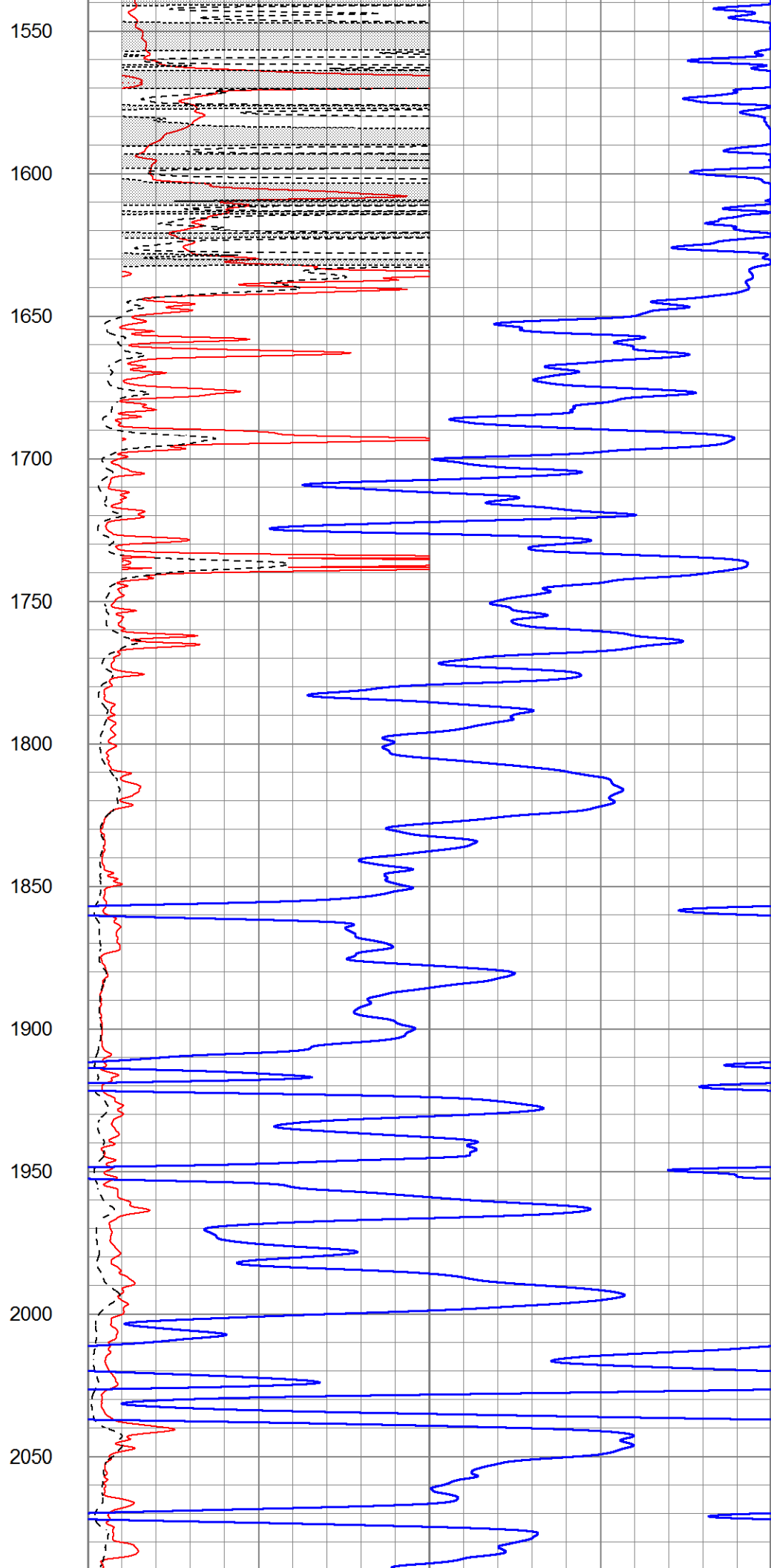
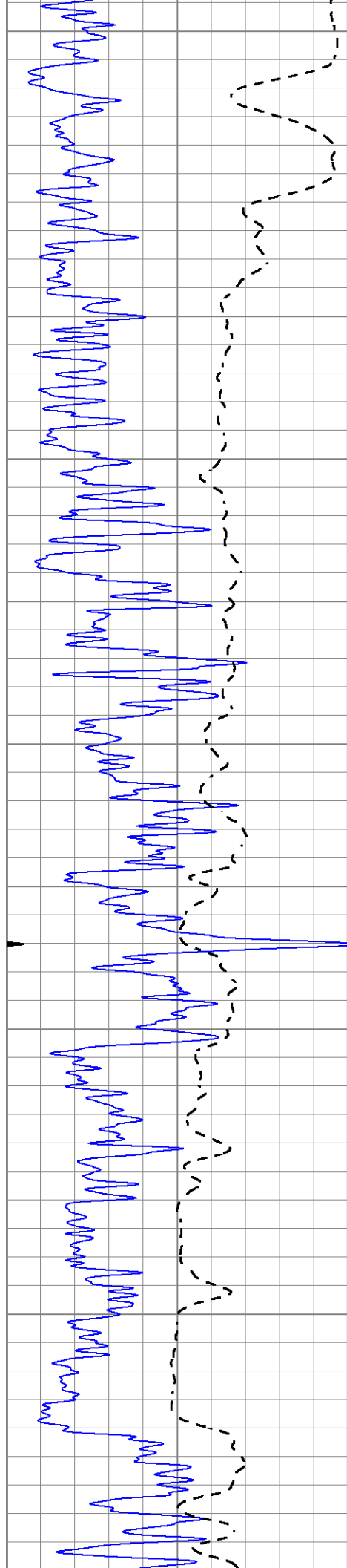
0	Gamma Ray (GAPI)	150	1000	CILD (mmho/m)	0
-100	SP (mV)	100	0	RLL3 (Ohm-m)	50
-----			0	RILD (Ohm-m)	50
			50	RILD X10 (Ohm-m)	500
			50	RLL3 X10 (Ohm-m)	500

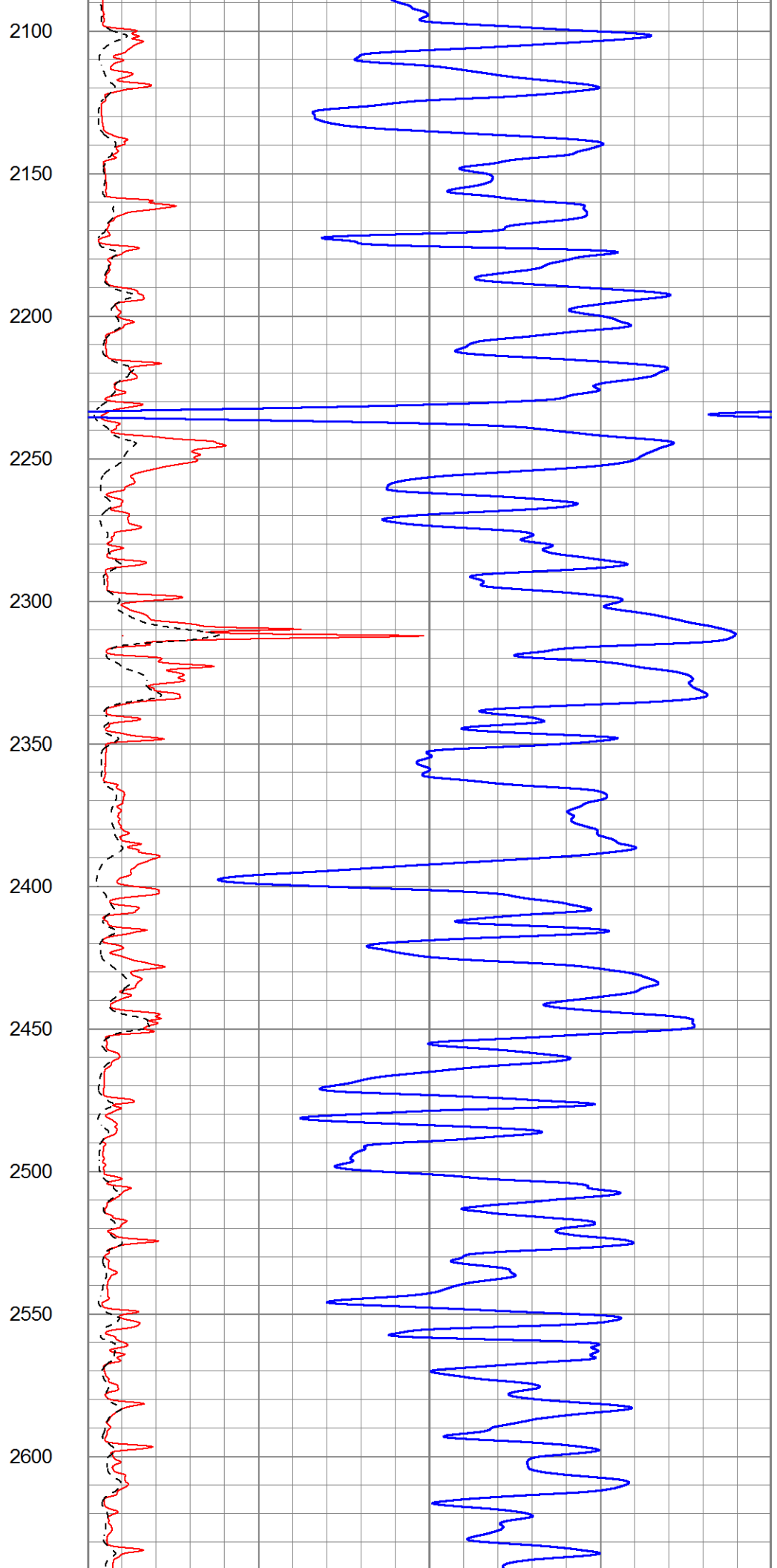
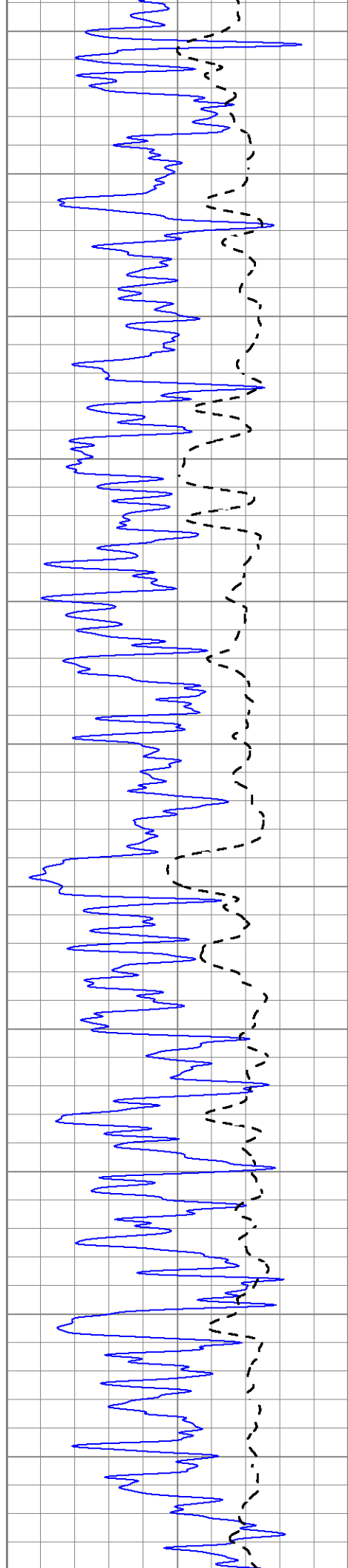


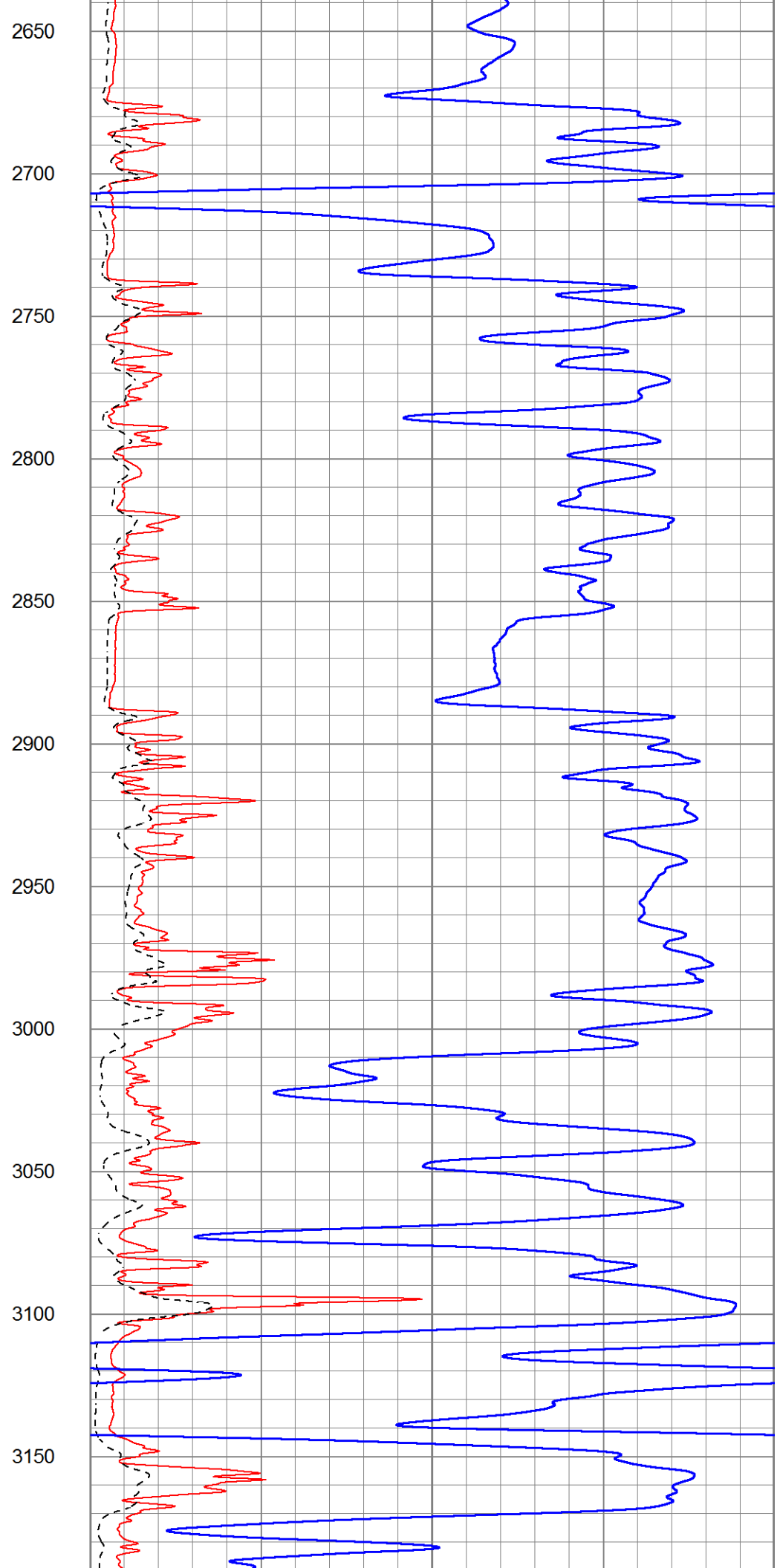
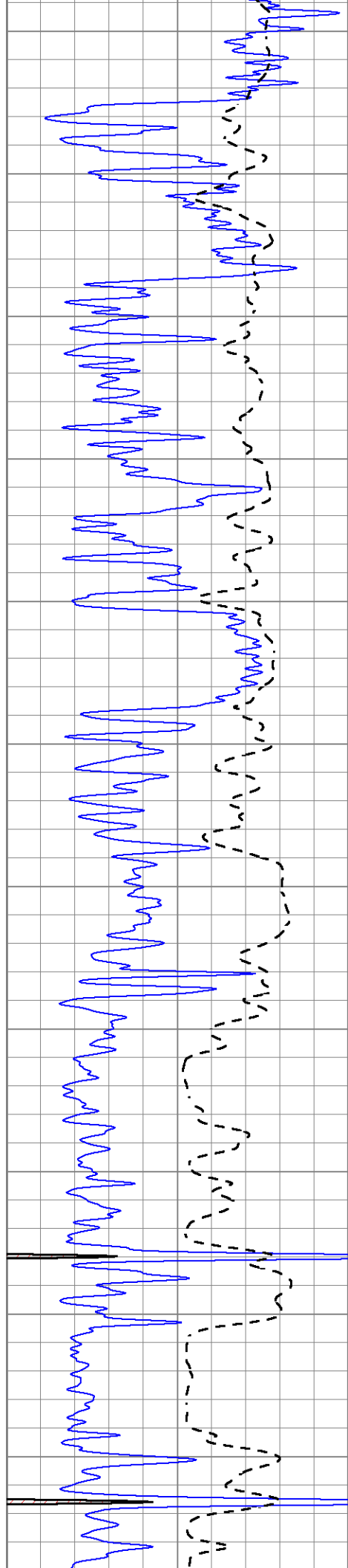
450
500
550
600
650
700
750
800
850
900
950

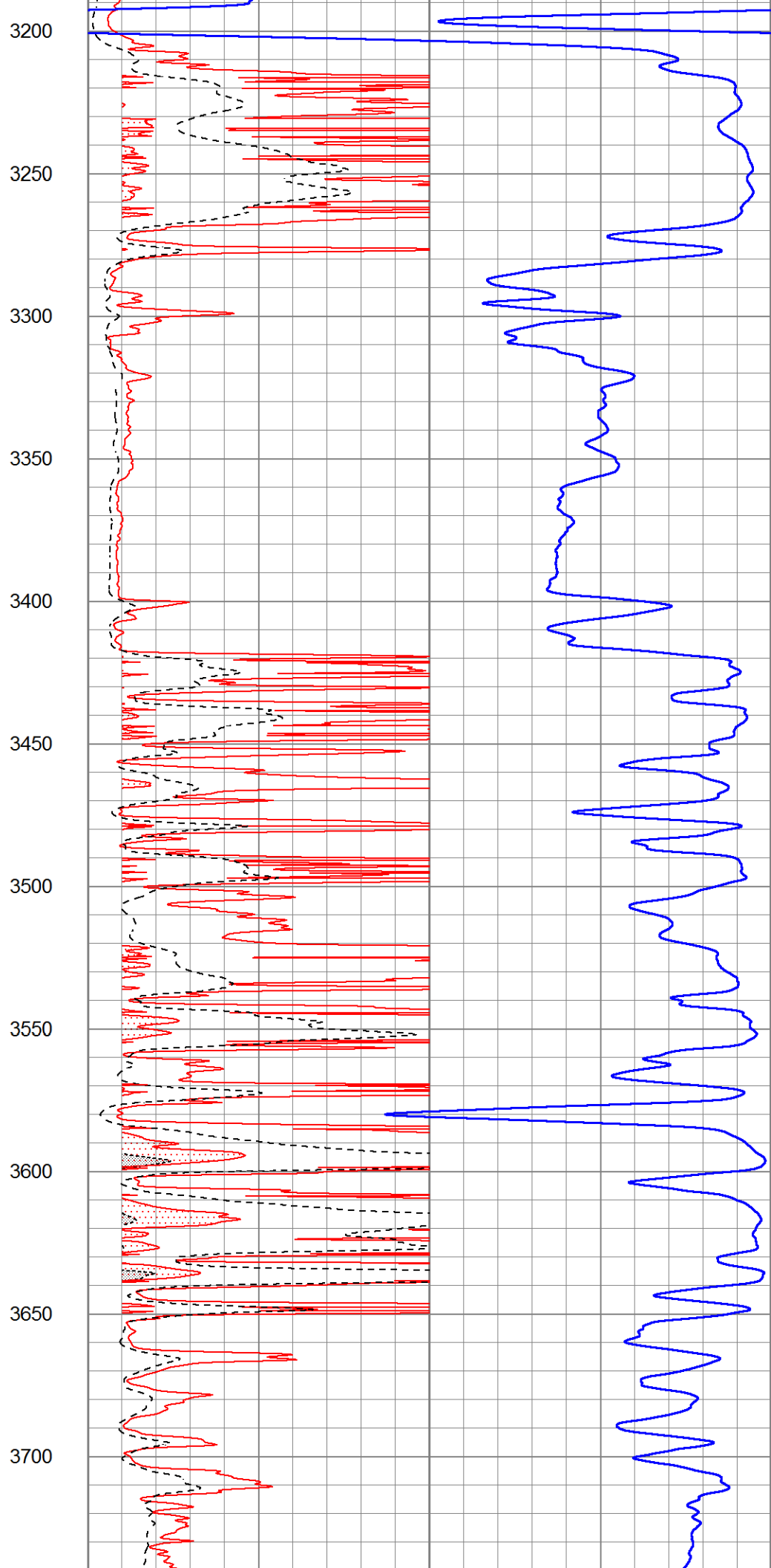
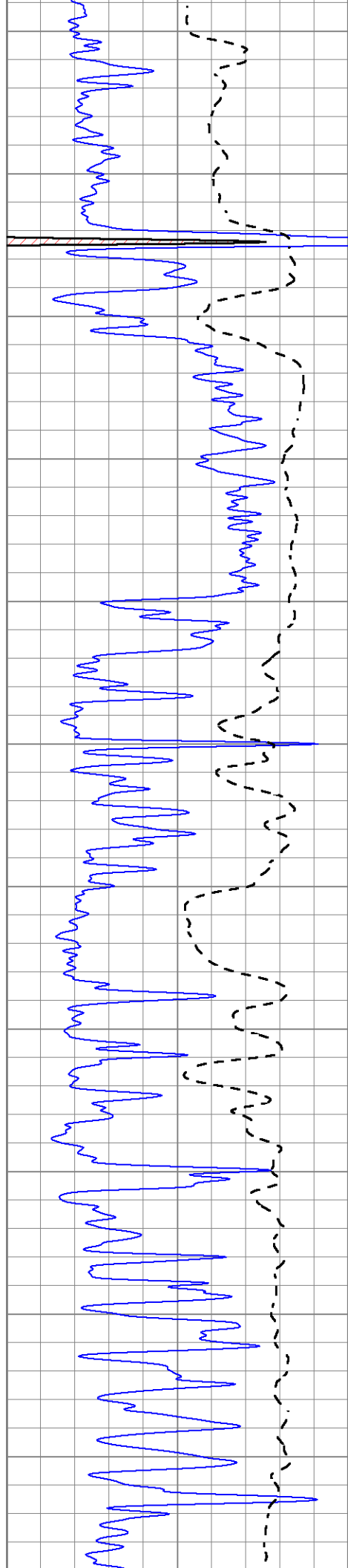


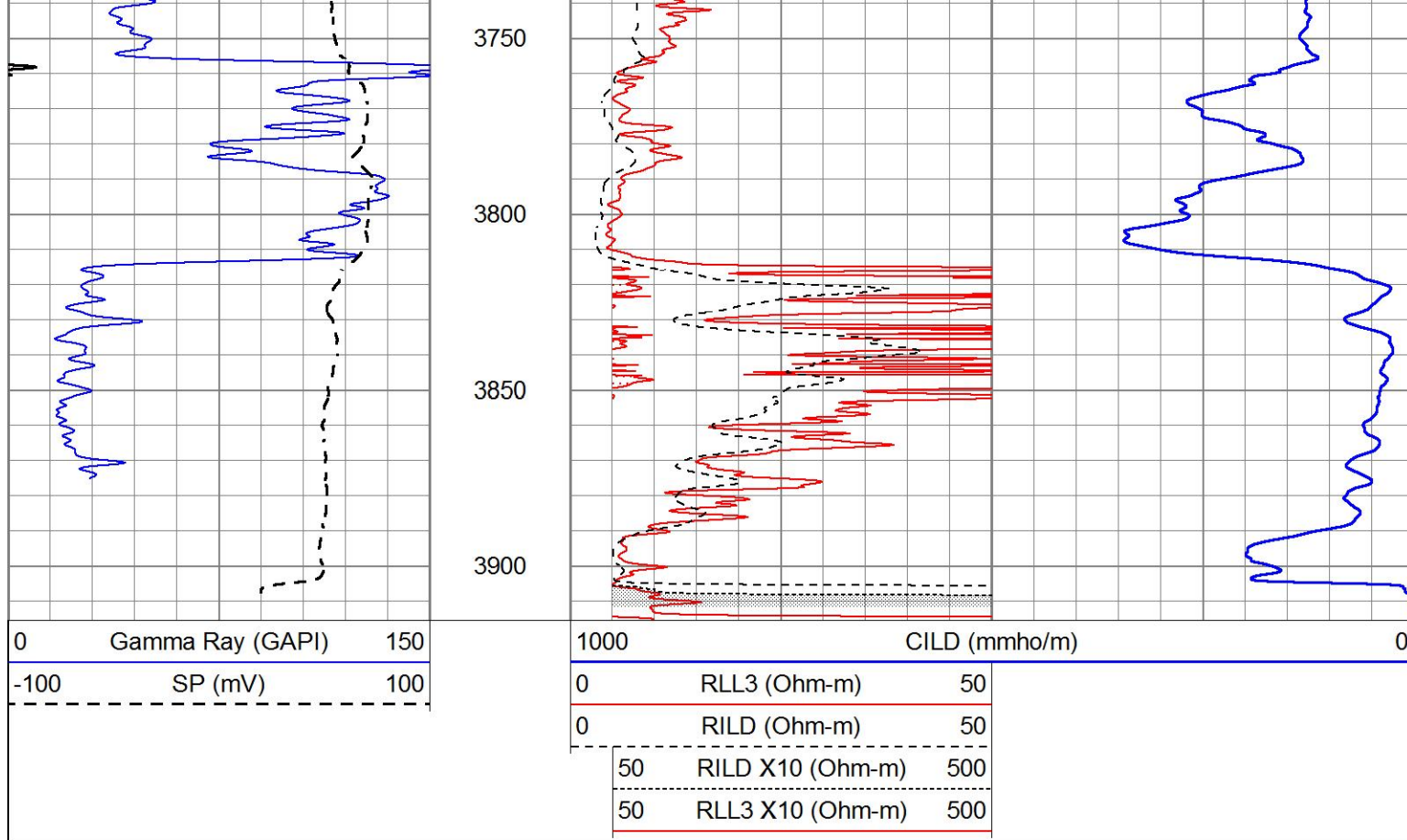








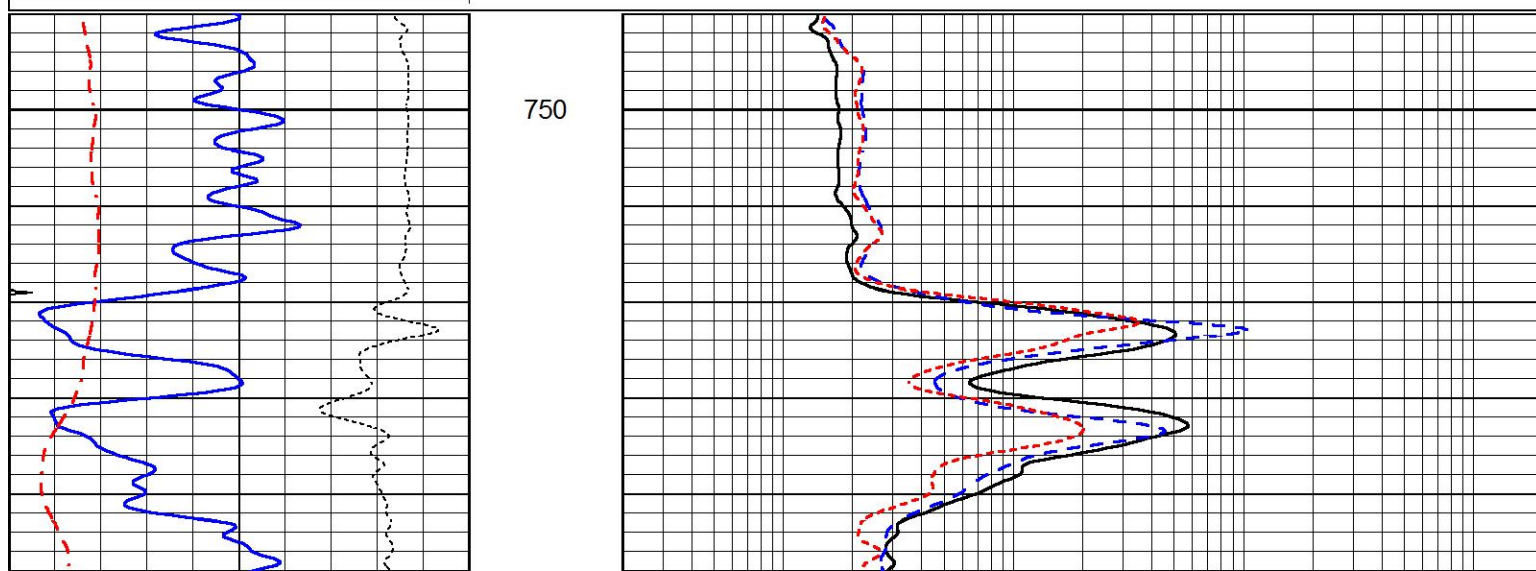


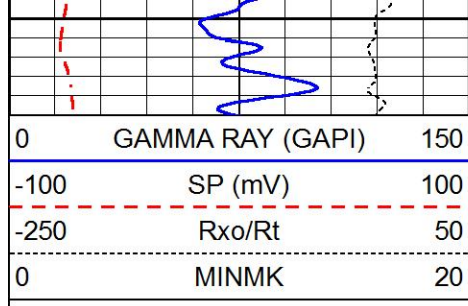


MAIN PASS

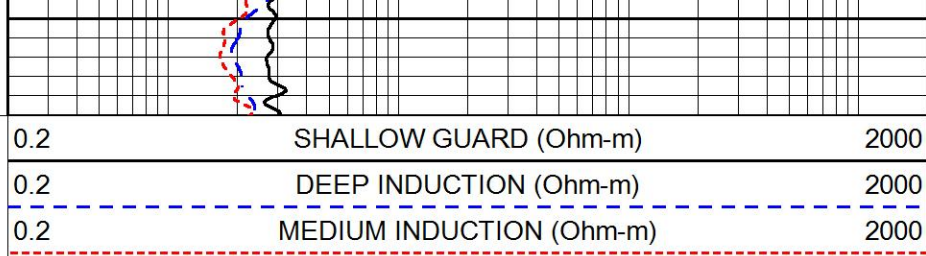
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 Dataset Pathname pass3.1
 Presentation Format _dil
 Dataset Creation Wed Oct 20 11:31:20 2021
 Charted by Depth in Feet scaled 1:240

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			



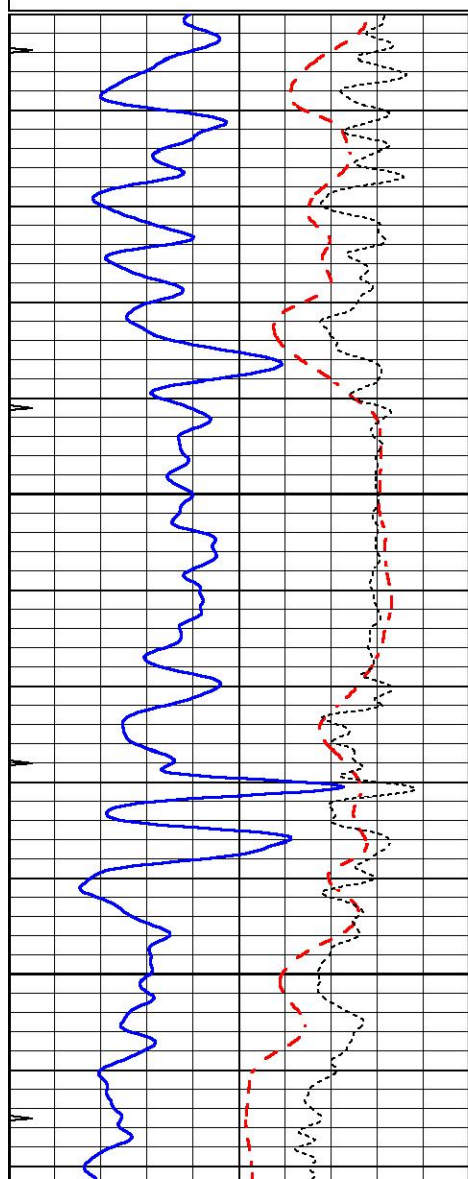
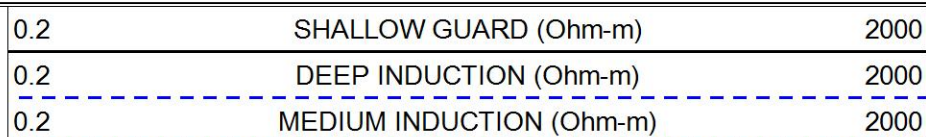
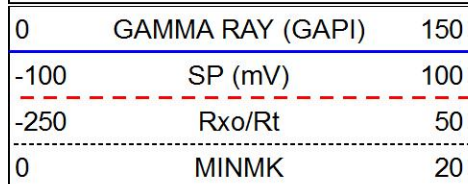


800



MAIN PASS

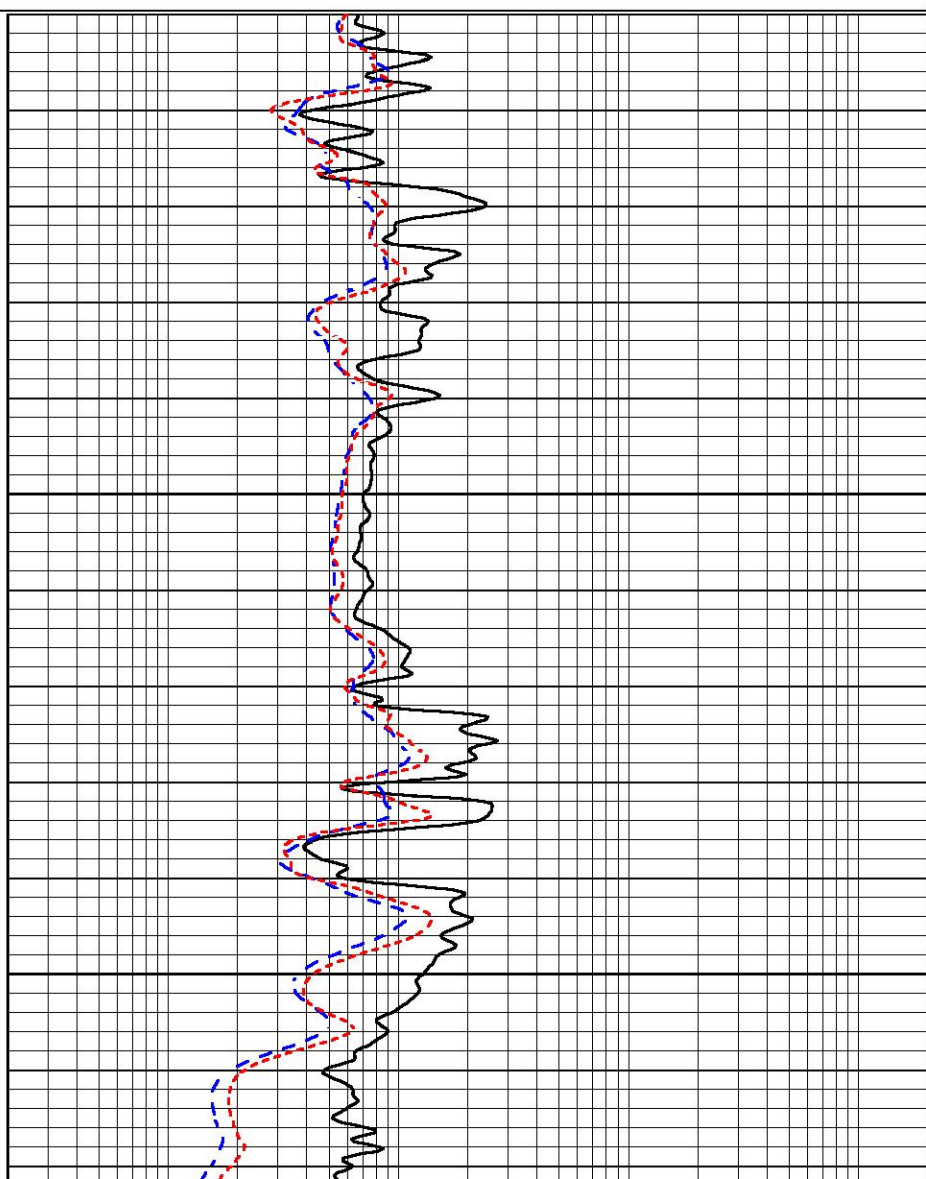
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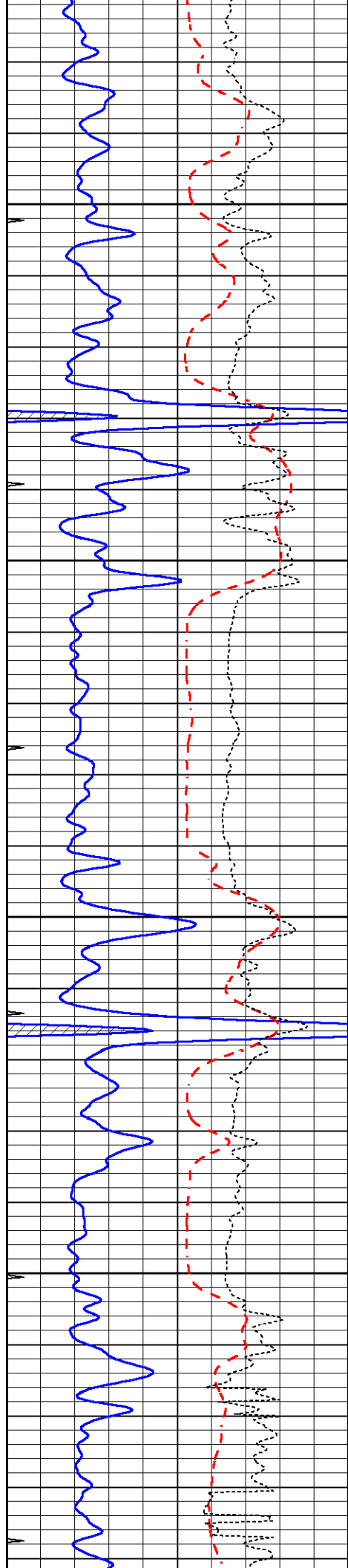


2900

2950

3000



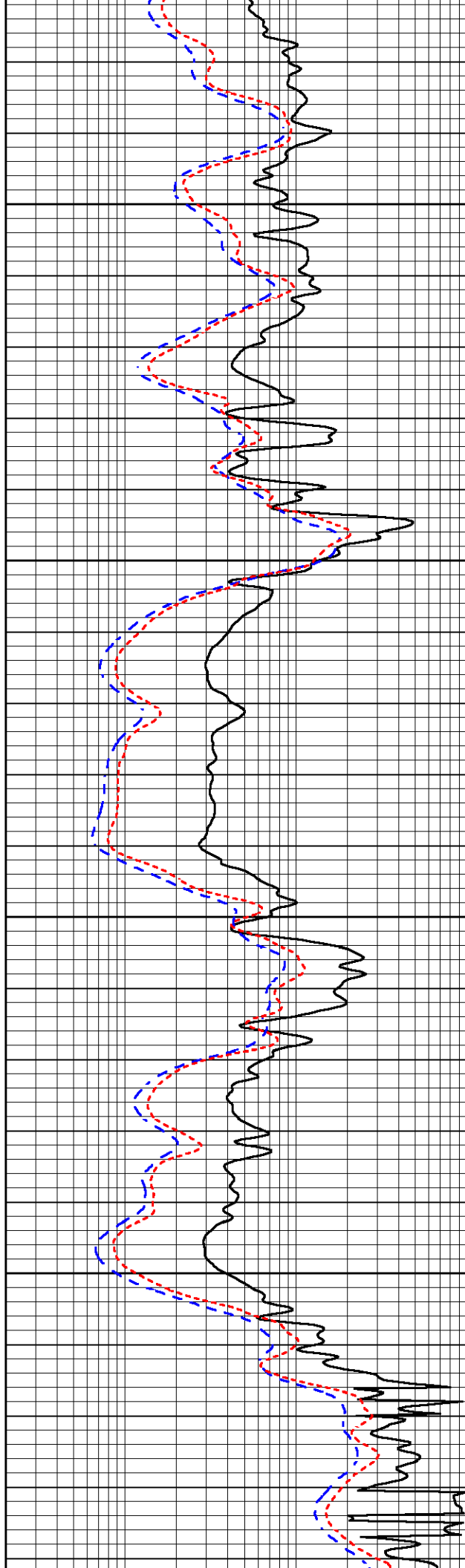


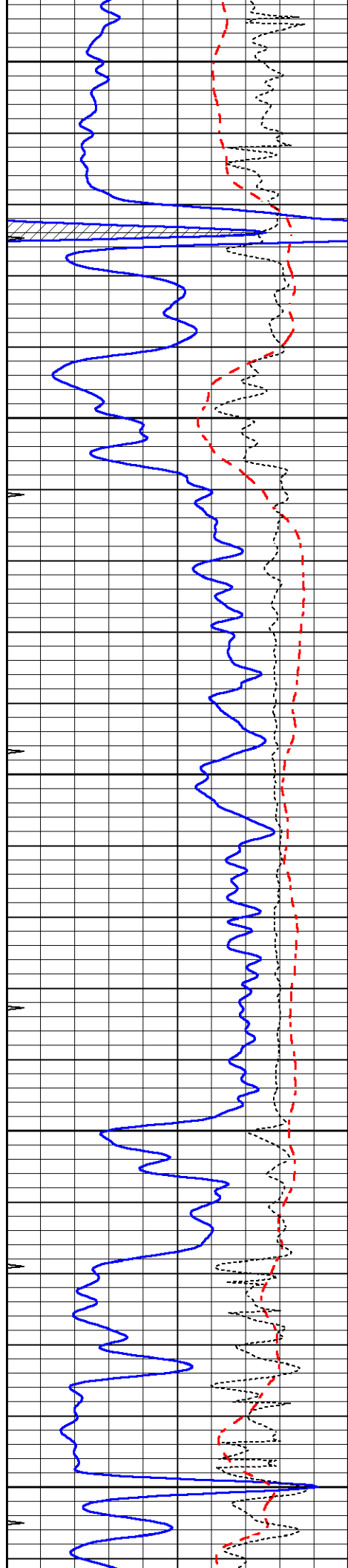
3050

3100

3150

3200





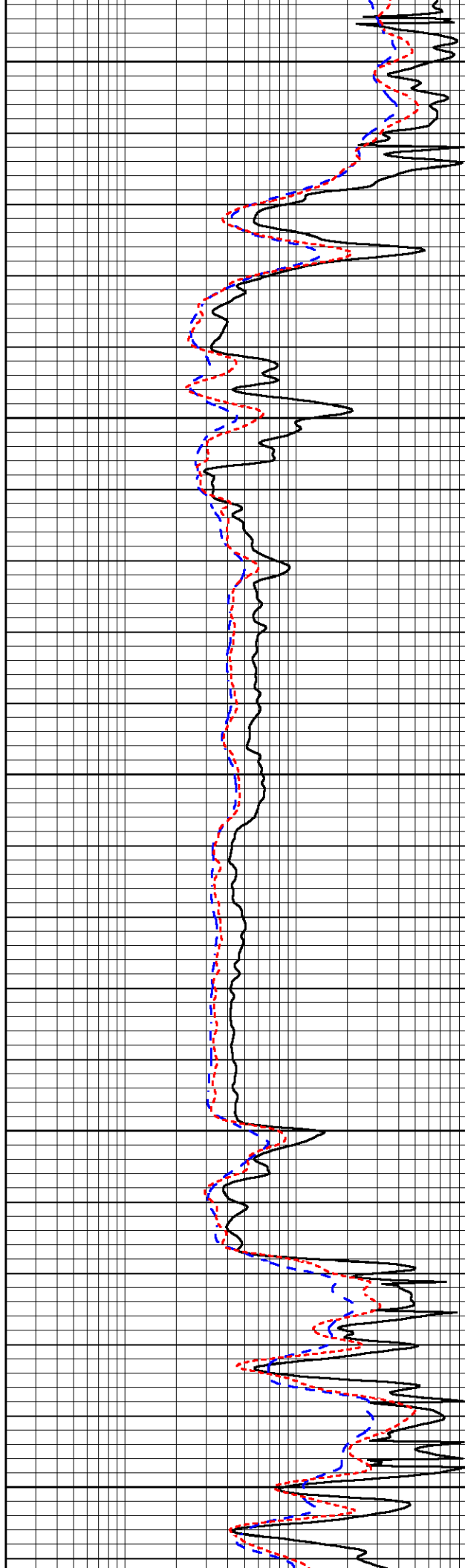
3250

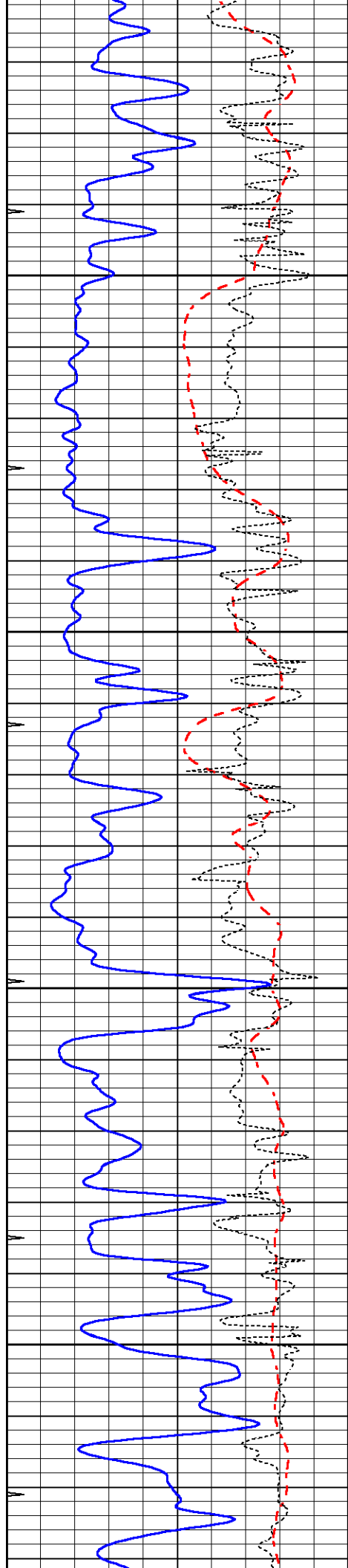
3300

3350

3400

3450



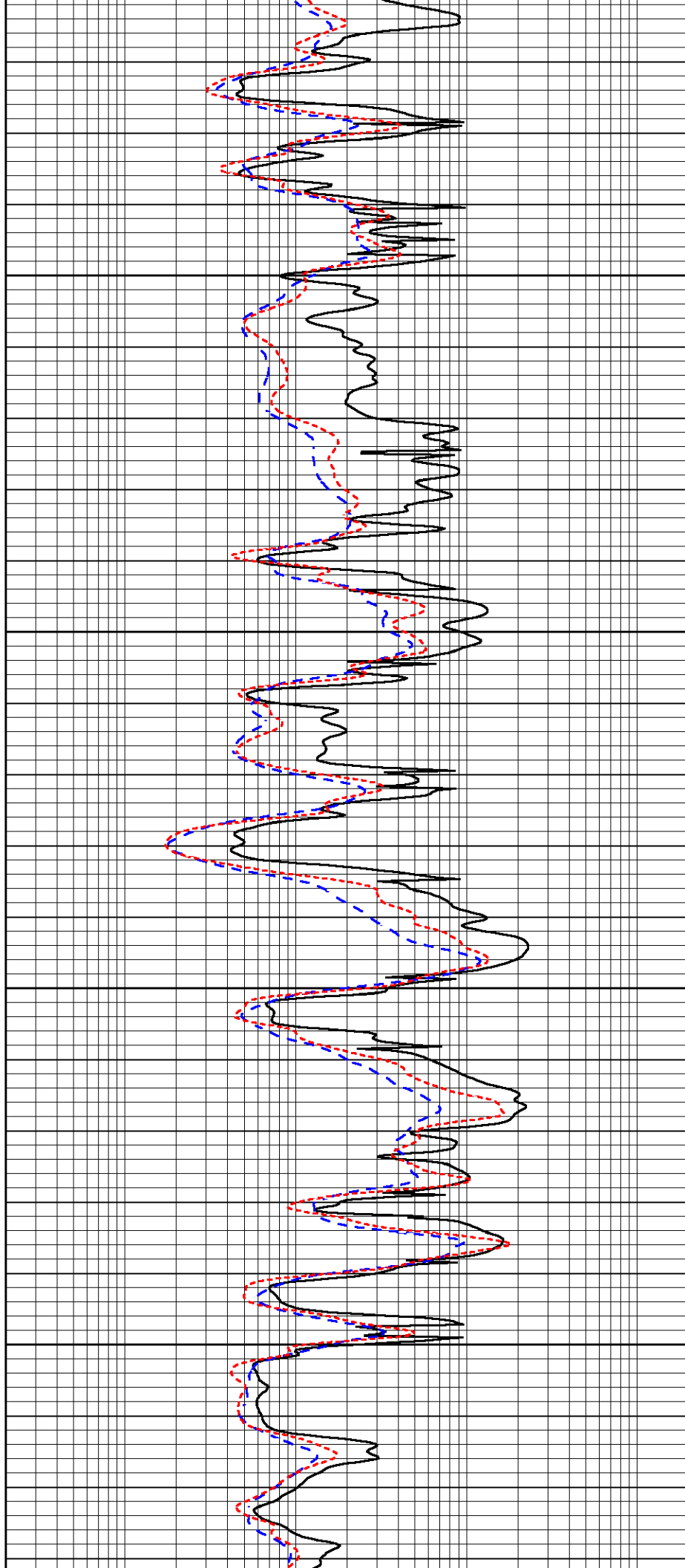


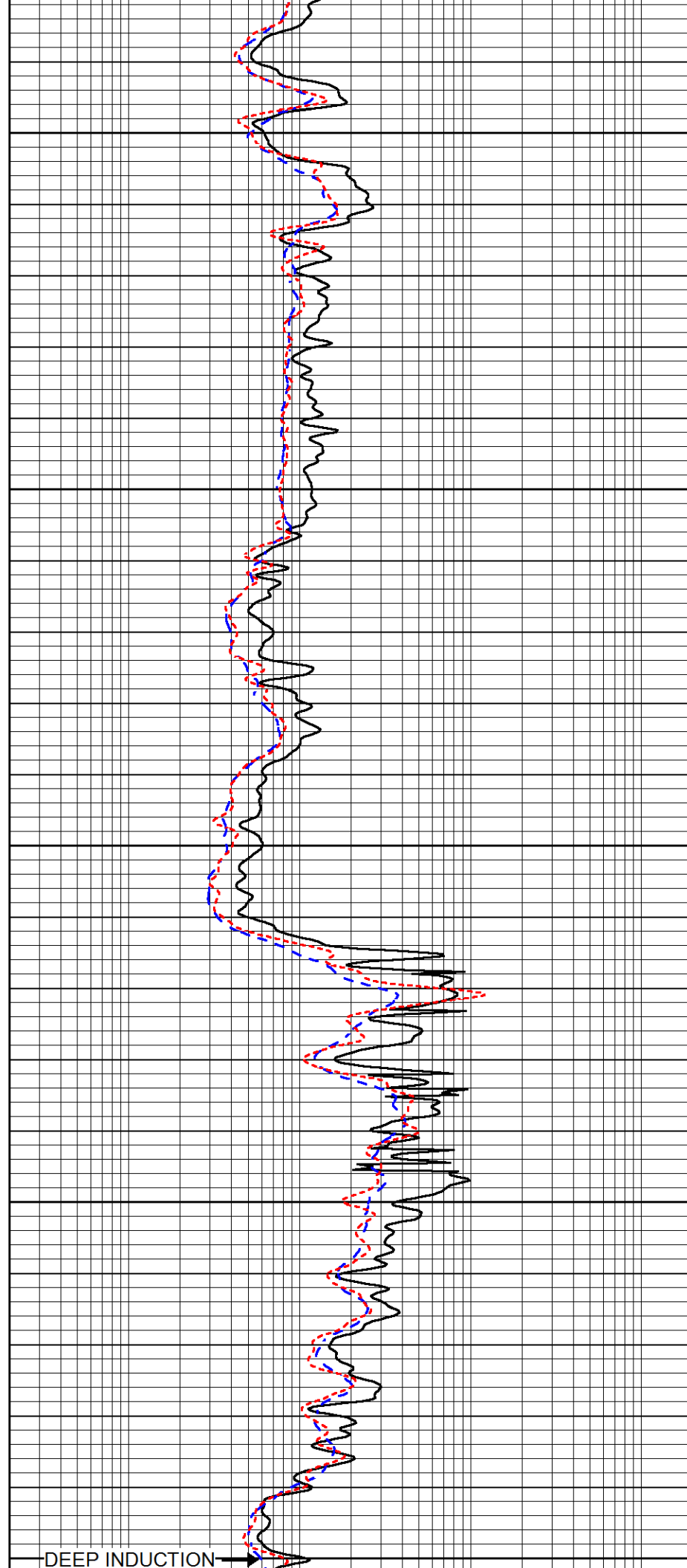
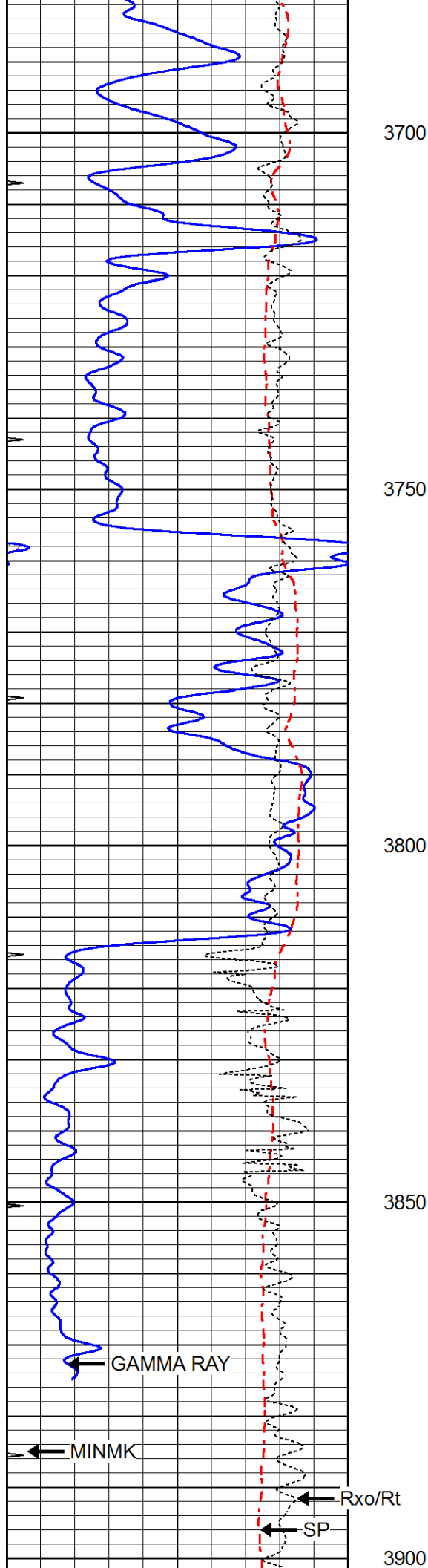
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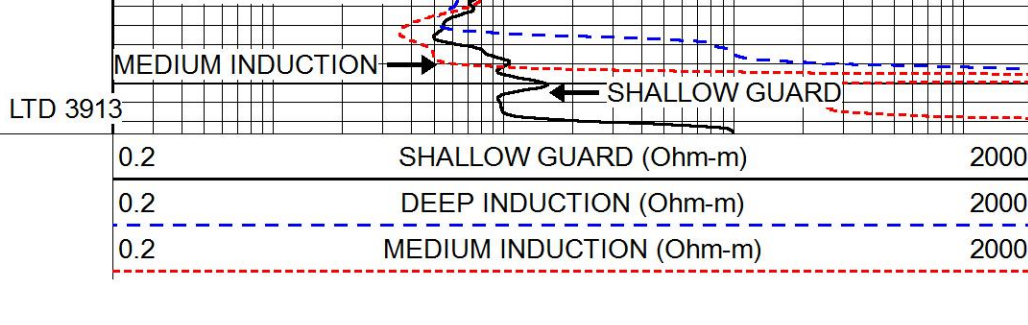
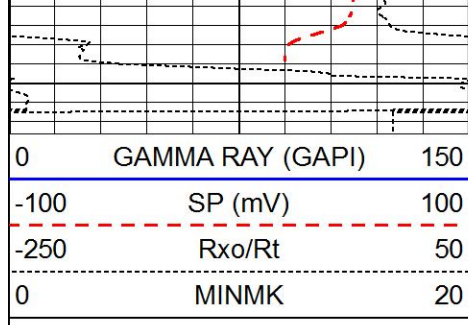
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3600

3650

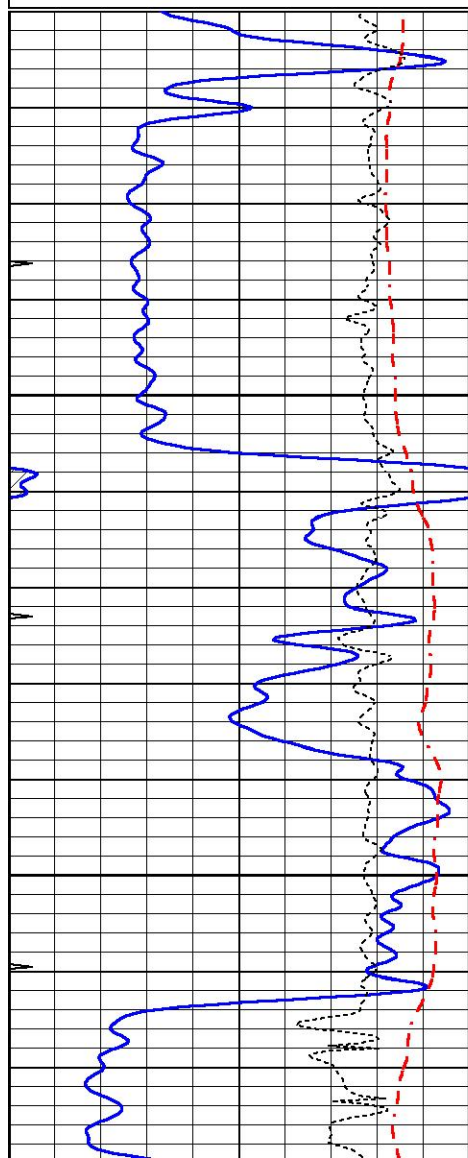
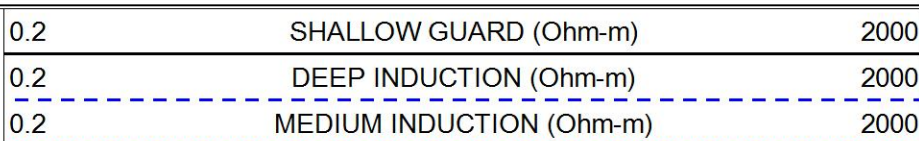
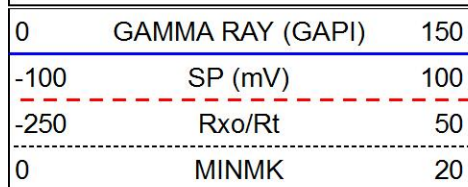






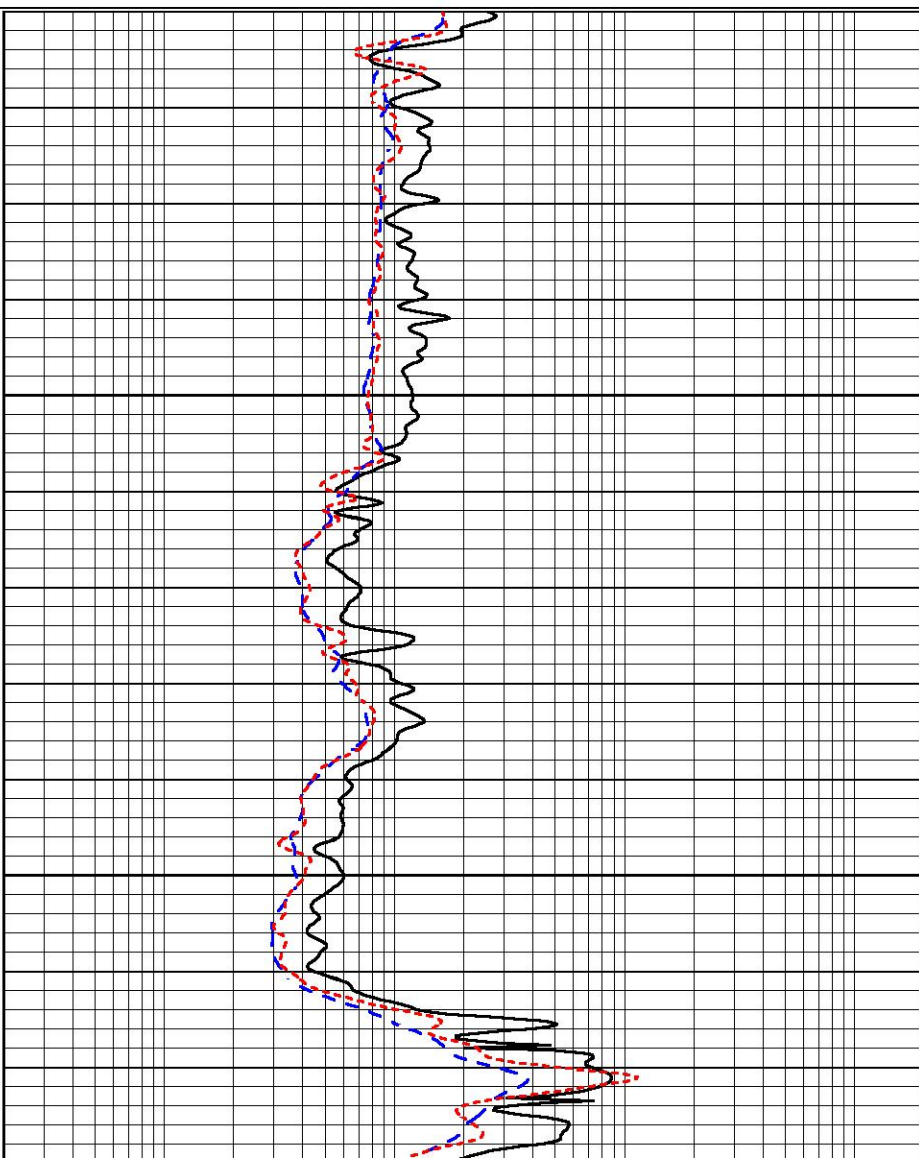
REPEAT SECTION

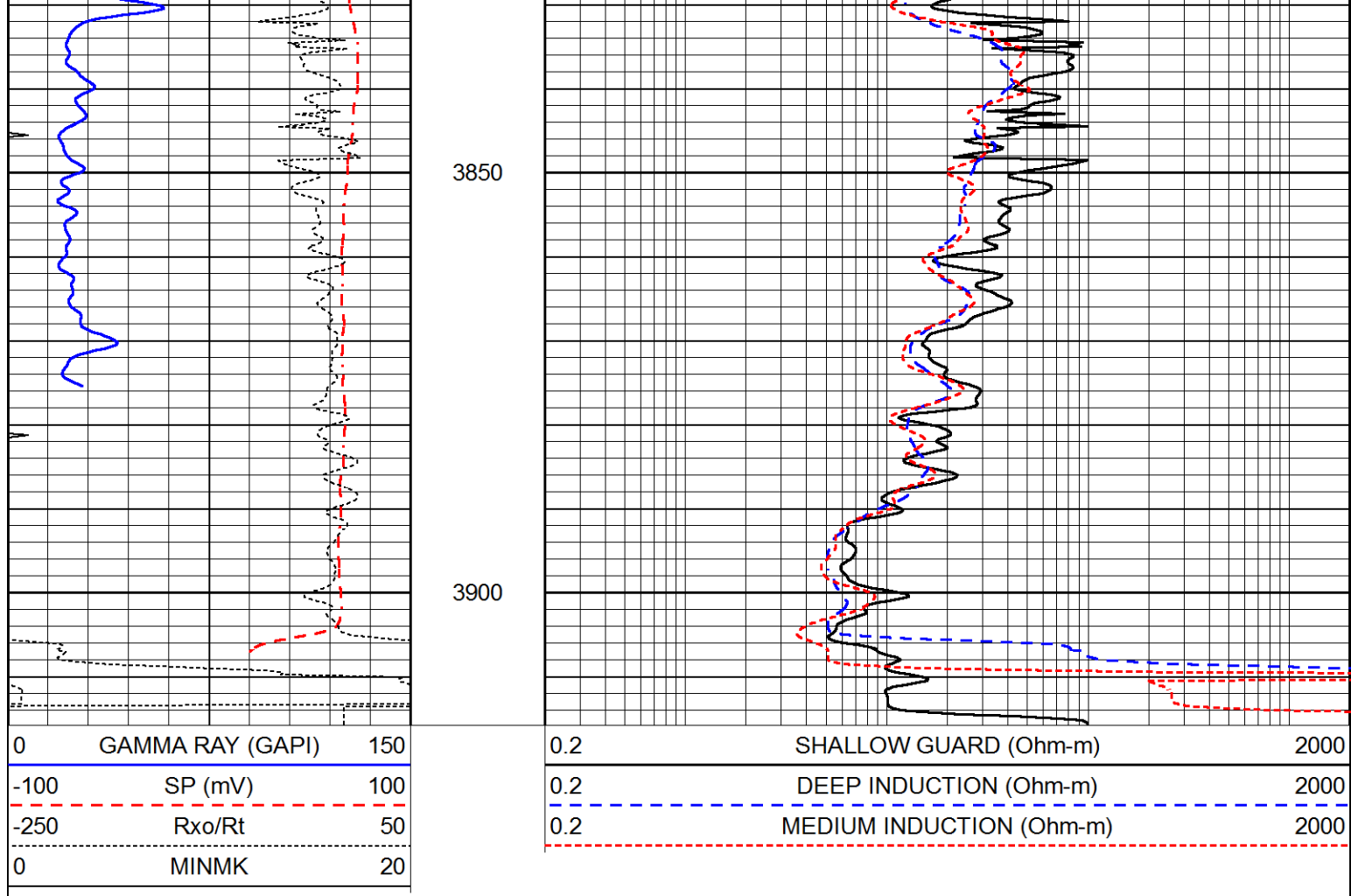
Database File 5888pe.db
 Dataset Pathname pass2.1
 Presentation Format _dil
 Dataset Creation Wed Oct 20 10:58:02 2021
 Charted by Depth in Feet scaled 1:240



3750

3800





Calibration Report									
Database File	5888pe.db								
Dataset Pathname	pass2.1								
Dataset Creation	Wed Oct 20 10:58:02 2021								
Dual Induction Calibration Report									
Serial-Model:				PROBE8-DILG					
Surface Cal Performed:				Fri Oct 01 14:24:33 2021					
Downhole Cal Performed:				Mon Sep 10 14:28:38 2018					
After Survey Verification Performed:				Mon Sep 10 14:28:40 2018					
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	0.000	
Medium	0.029	0.796	V	0.000	464.000	mmho/m	590.000	-15.000	
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: 002N Model: PRB								

Master Calibration			Performed Tue Mar 10 15:08:00 2020					
	Background		Magnesium		Aluminum		Aluminum+Fe	
Window 1	780.1		6981.9		2088.6		1871.2	cps
Window 2	718.6		5898.2		1813.8		1664.1	cps
Window 3	580.0		2989.5		1088.0		1039.1	cps
Window 4	172.8		175.7		175.3		173.5	cps
Long Space	0.0		5179.6		1095.2		945.5	cps
Short Space	1.1		1228.6		821.2		690.4	cps
Rho			1.7100		2.5900		0.0000	g/cc
Pe			2.0000		2.7500		5.7900	
Rib Angle	: 45.5		Rib Slope	: 1.016	Density/Spine Ratio		: 0.548	
Spine Angle	: 75.5		Spine Slope	: 3.857	Spine Intercept		: -18.9	

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:			6I					
Tool Model:			G					

CALIBRATION						
Detector		Readings		Target		Normalization
Short Space		1.00	cps	1.00	cps	1.0000
Long Space		1.00	cps	1.00	cps	1.0000
PRE-SURVEY VERIFICATION						
Detector		Readings		Measured	Target	
1)	Short Space		cps			
	Long Space		cps	pu		pu
2)	Short Space		cps			
	Long Space		cps	pu		
3)	Short Space		cps			
	Long Space		cps	pu		
POST-SURVEY VERIFICATION						
Detector		Readings		Measured	Target	
1)	Short Space		cps			
	Long Space		cps	pu		pu
2)	Short Space		cps			
	Long Space		cps	pu		pu
3)	Short Space		cps			
	Long Space		cps	pu		pu
Gamma Ray Calibration Report						
Serial Number:		GR6				
Tool Model:		OPEN				
Performed:		Thu Jul 30 20:04:35 2020				
Calibrator Value:		150.0	GAPI			
Background Reading:		0.0	cps			
Calibrator Reading:		276.0	cps			
Sensitivity:		0.7500	GAPI/cps			