



DUAL
INDUCTION
LOG

Company RL INVESTMENT, LLC.
Well BOLLIG "A" #3
Field GURK EAST
County GRAHAM State KANSAS

Location: API #: 15-065-24210-0000
1275' FNL & 550' FWL
SEC 17 TWP 10S RGE 25W
Permanent Datum GROUND LEVEL Elevation 2525
Log Measured From KELLY BUSHING 7' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
CDL/CNL
MEL
Elevation
K.B. 2532
D.F. 2530
G.L. 2525

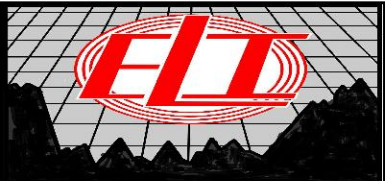
Date	12/7/21
Run Number	ONE
Depth Driller	4100
Depth Logger	4098
Bottom Logged Interval	4096
Top Log Interval	00
Casing Driller	8 5/8" @ 224
Casing Logger	224
Bit Size	7 7/8
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.3/47
pH / Fluid Loss	10.0/8.0
Source of Sample	FLOWLINE
Rm @ Meas. Temp	1.30 @ 62F
Rmf @ Meas. Temp	0.97 @ 62F
Rmc @ Meas. Temp	1.56 @ 62F
Source of Rmf / Rmc	MEASUREMENT
Rm @ BHT	0.68 @ 117F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	////
Maximum Recorded Temperature	117F
Equipment Number	3802
Location	HAYS, KANSAS
Recorded By	JASON CAPPELLUCCI
Witnessed By	RICHARD BELL

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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 SERVICES, HAYS, KS. (785) 628-6395
DIRECTIONS
ST. PETER, KS. - 3 WEST ON RD. M - 1/2 SOUTH - EAST INTO

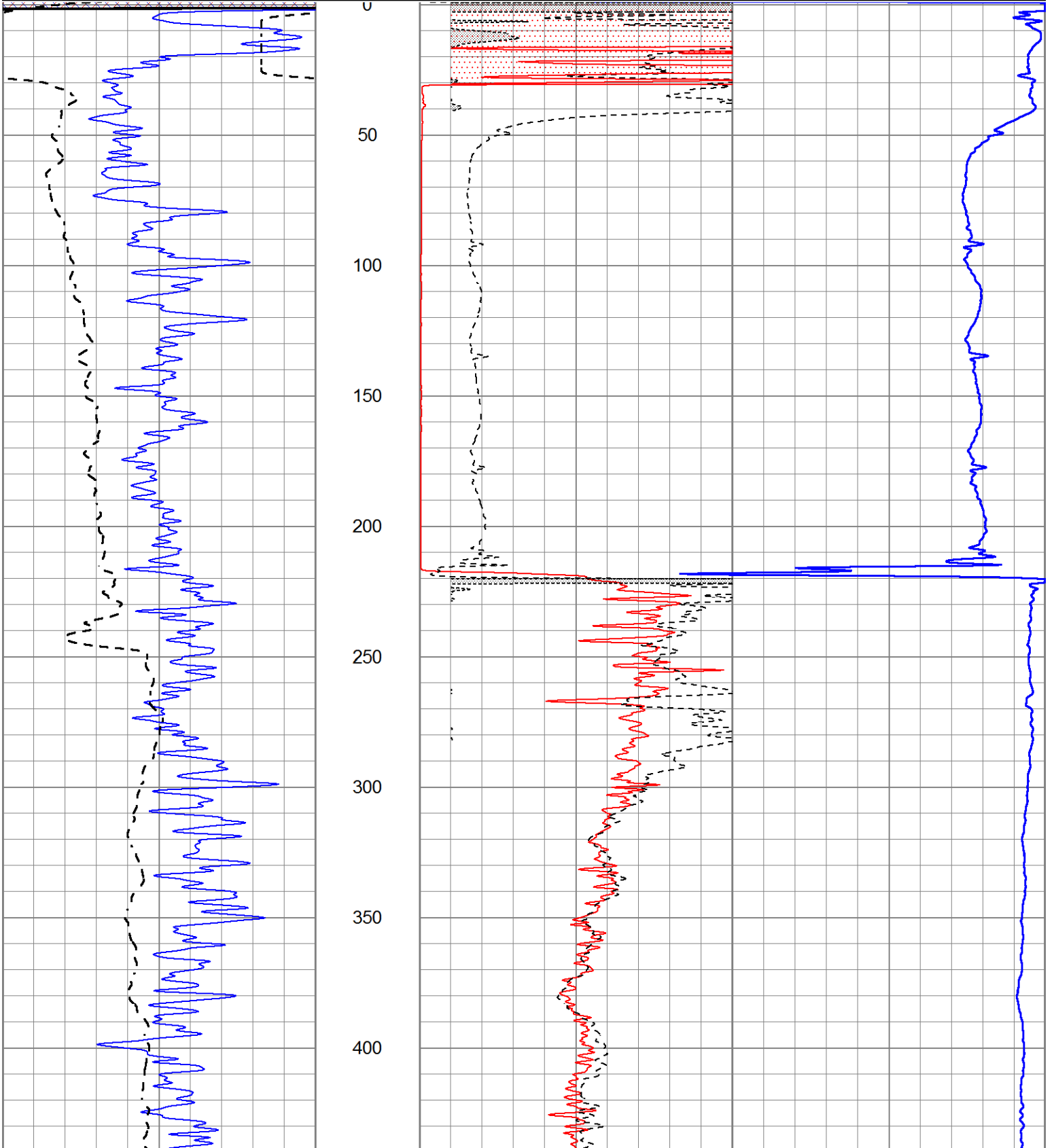


MAIN SECTION

Database File 6060ddn.db
 Dataset Pathname pass3.3
 Presentation Format _dil2
 Dataset Creation Tue Dec 07 15:49:05 2021
 Charted by Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150
-100	SP (mV)	100

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



450

500

550

600

650

700

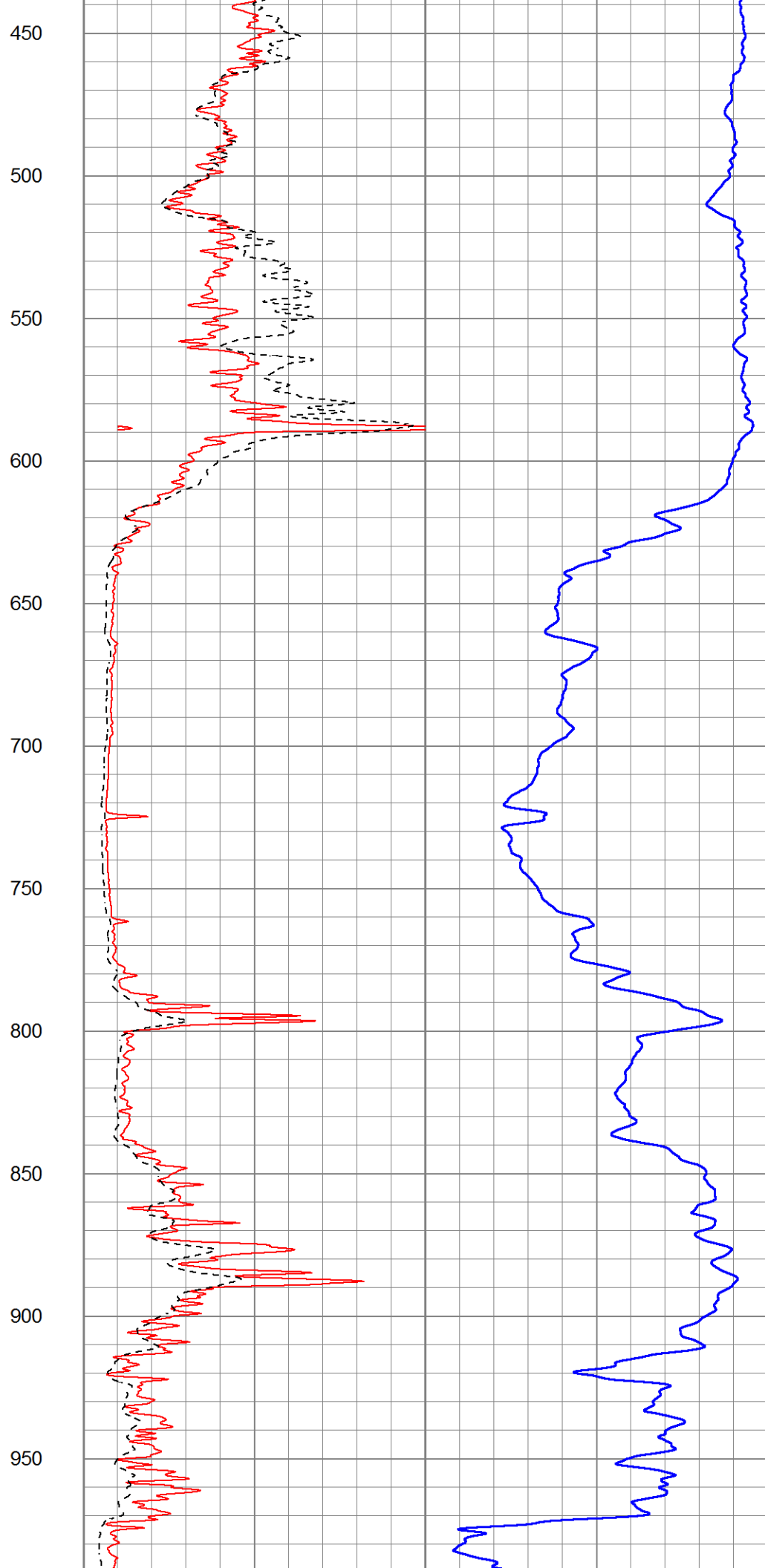
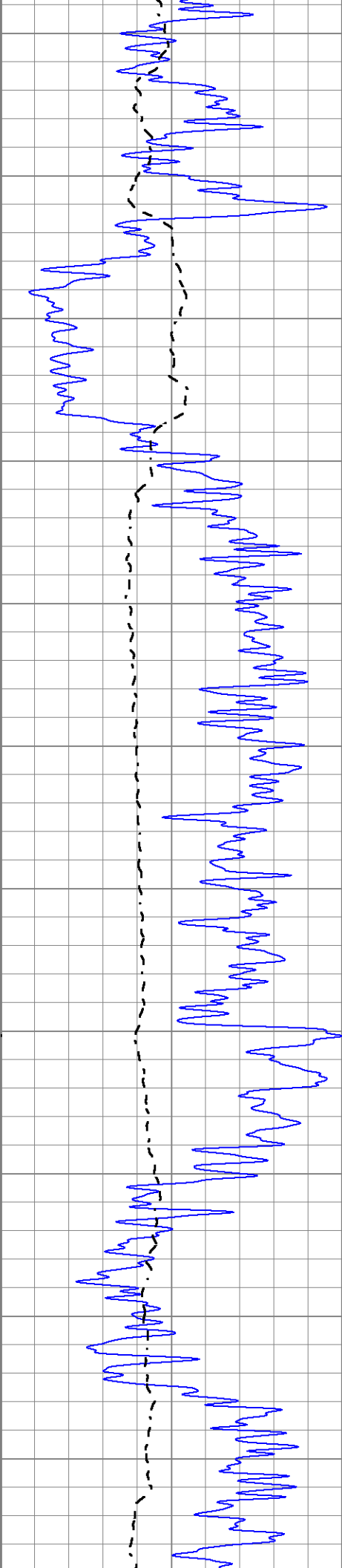
750

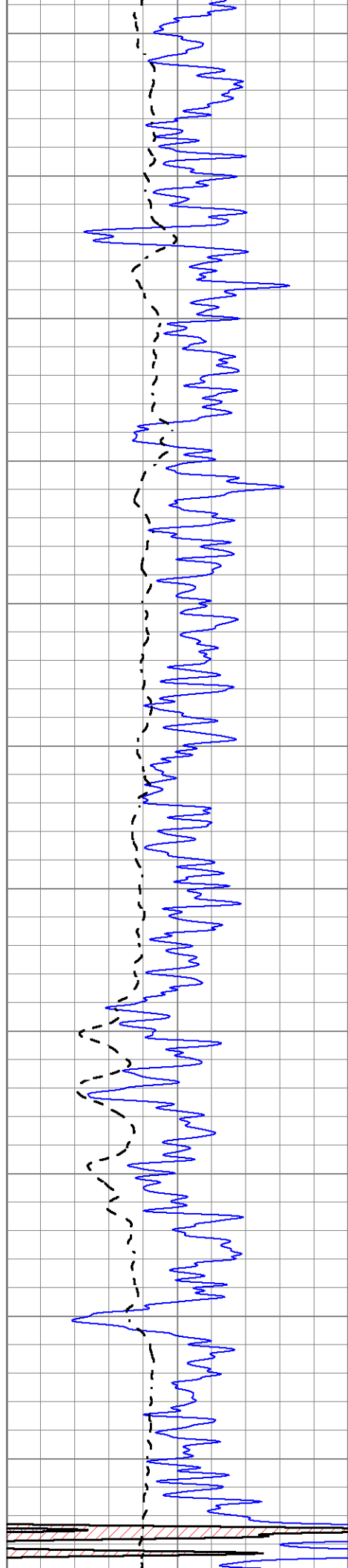
800

850

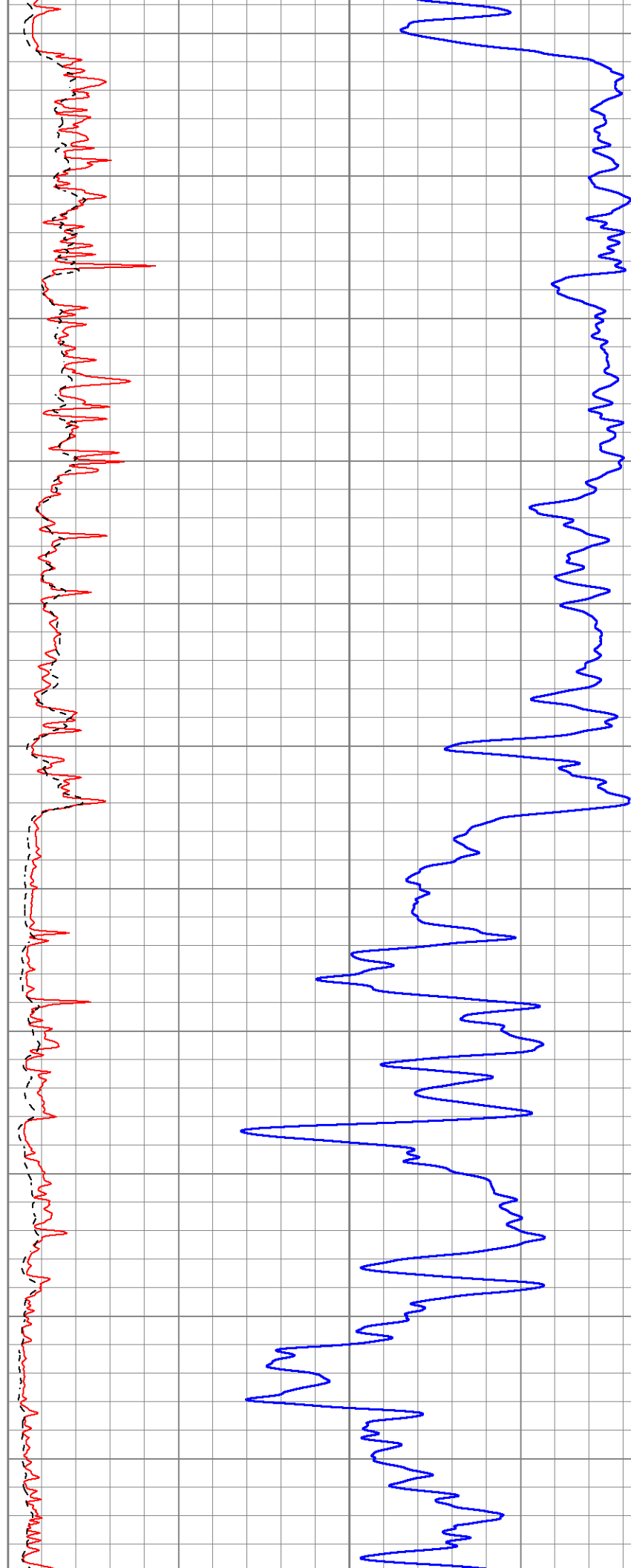
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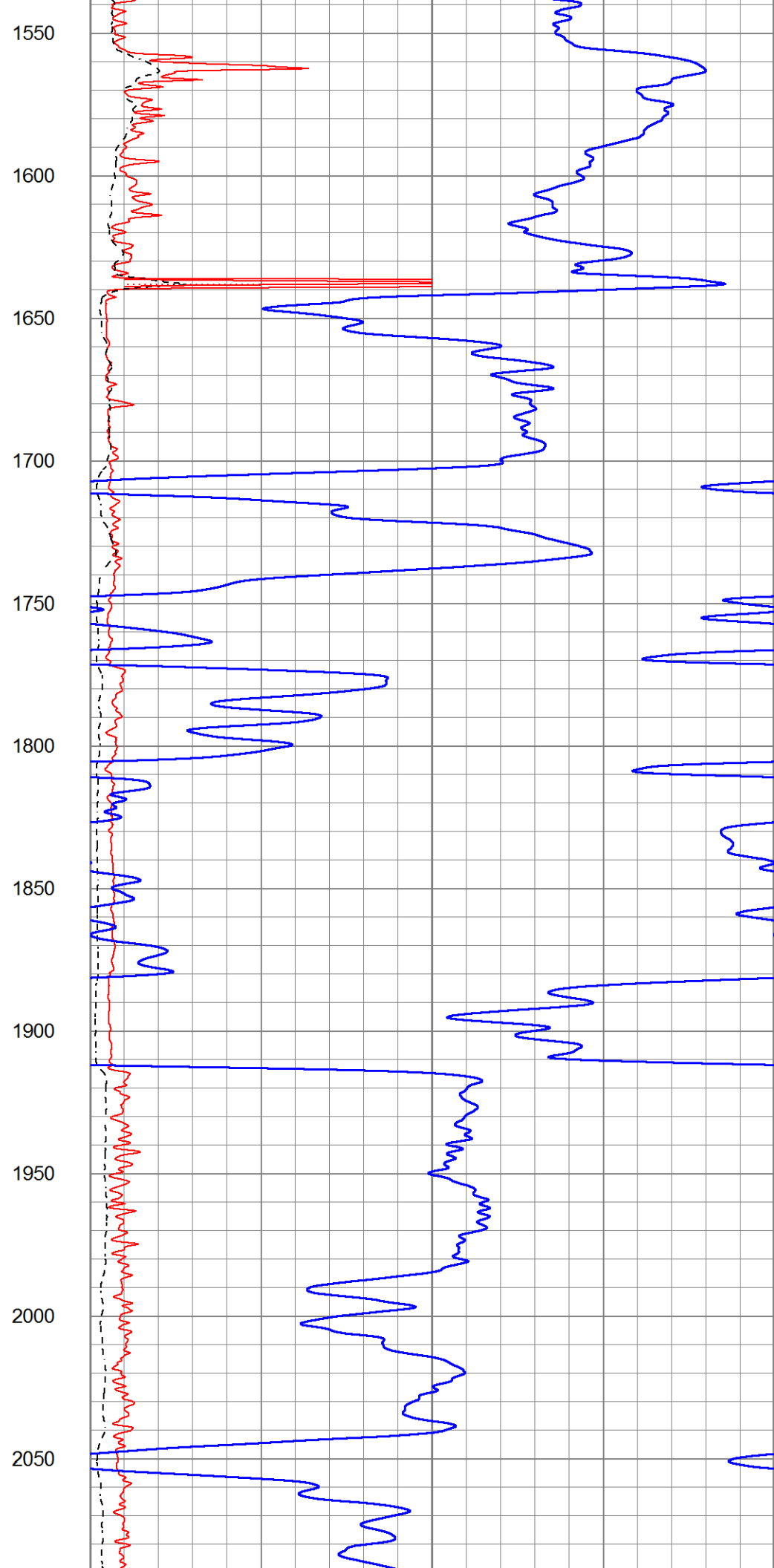
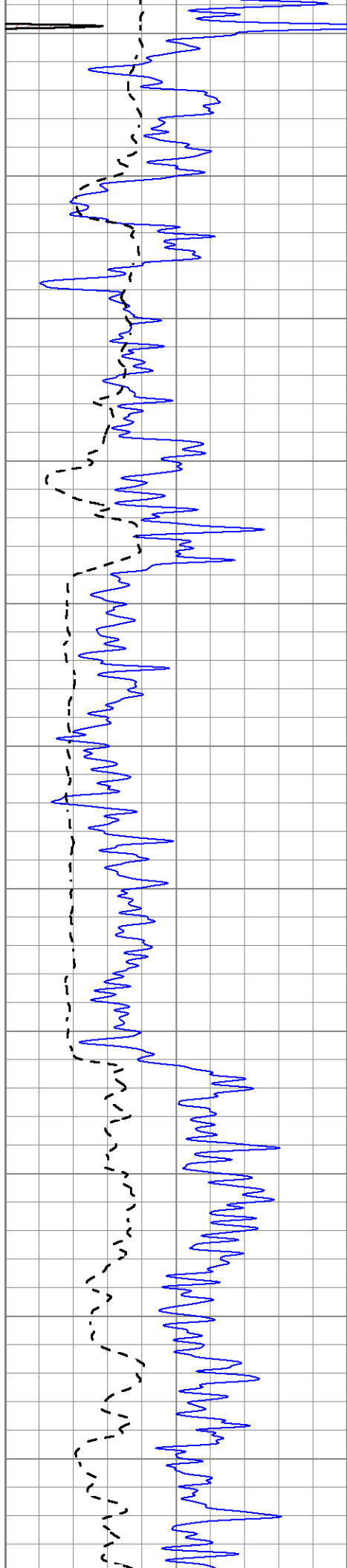
950



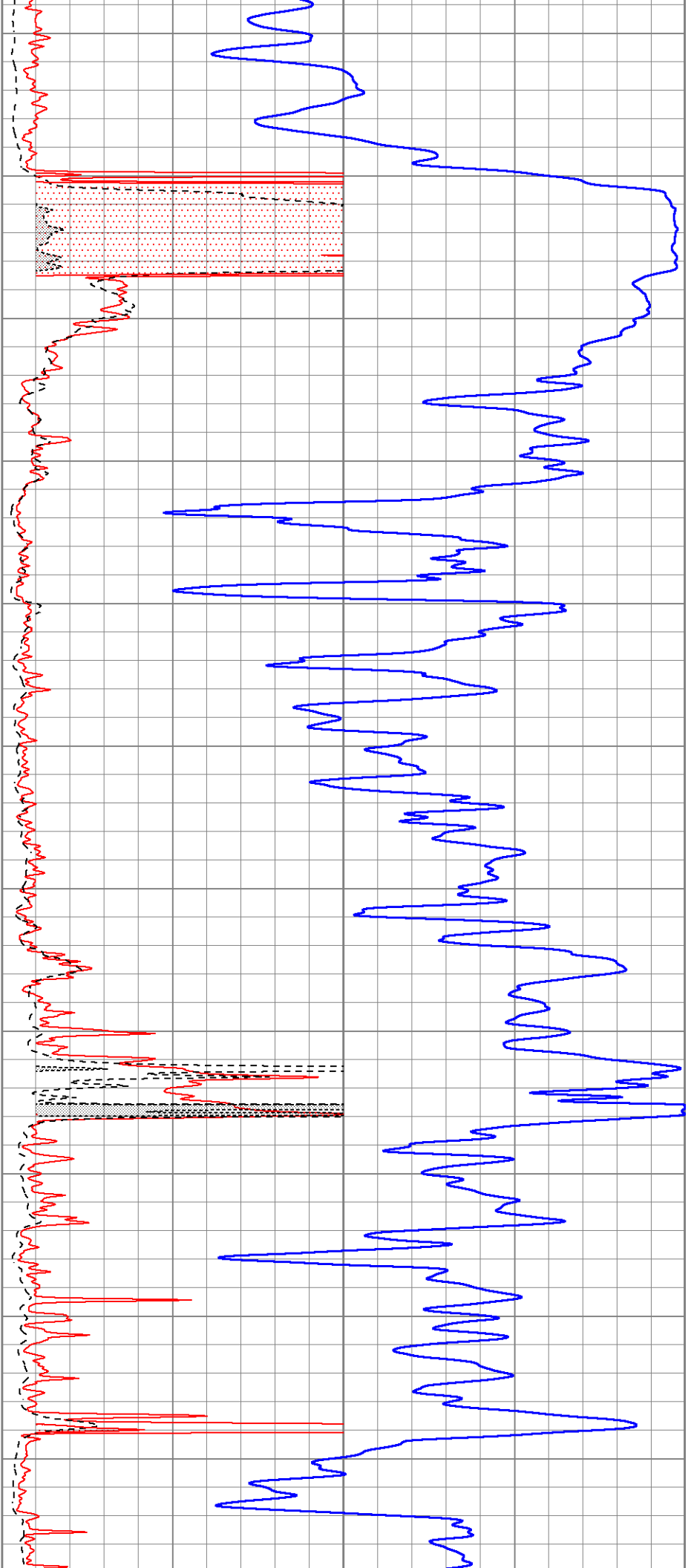
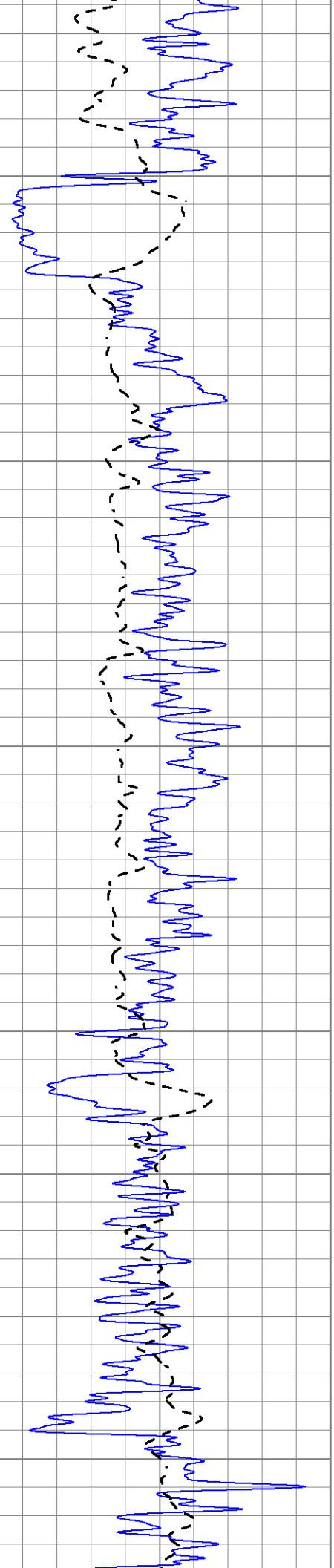


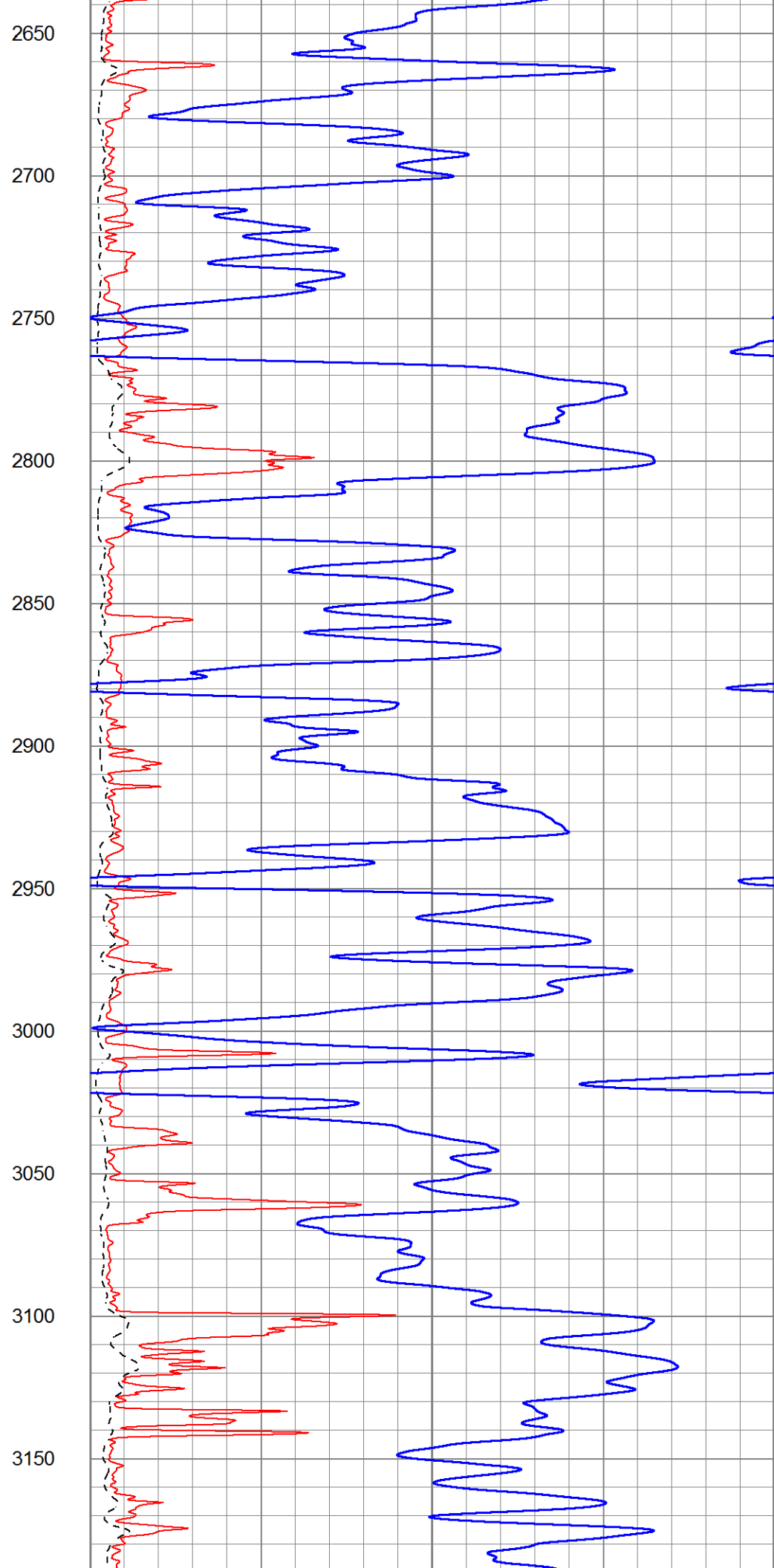
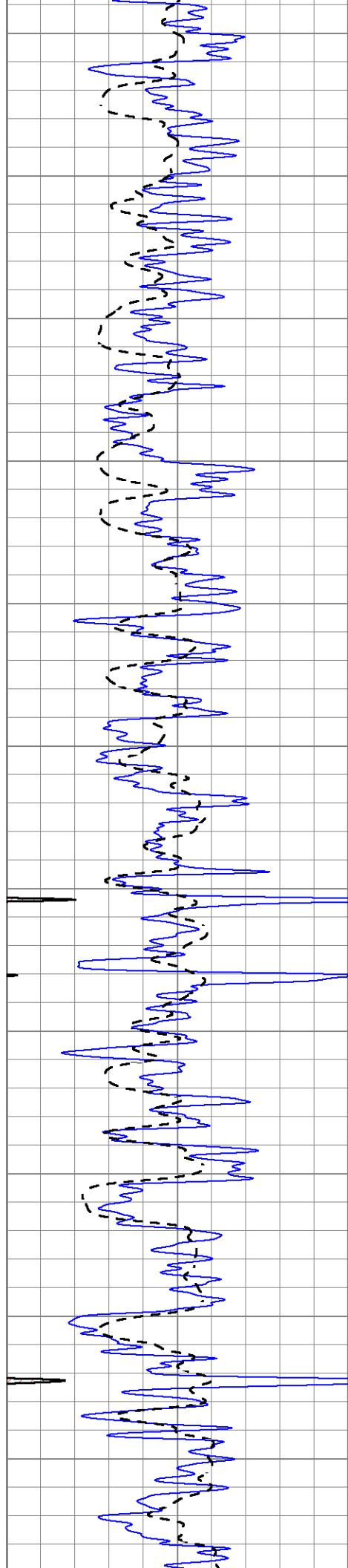
1000
1050
1100
1150
1200
1250
1300
1350
1400
1450
1500

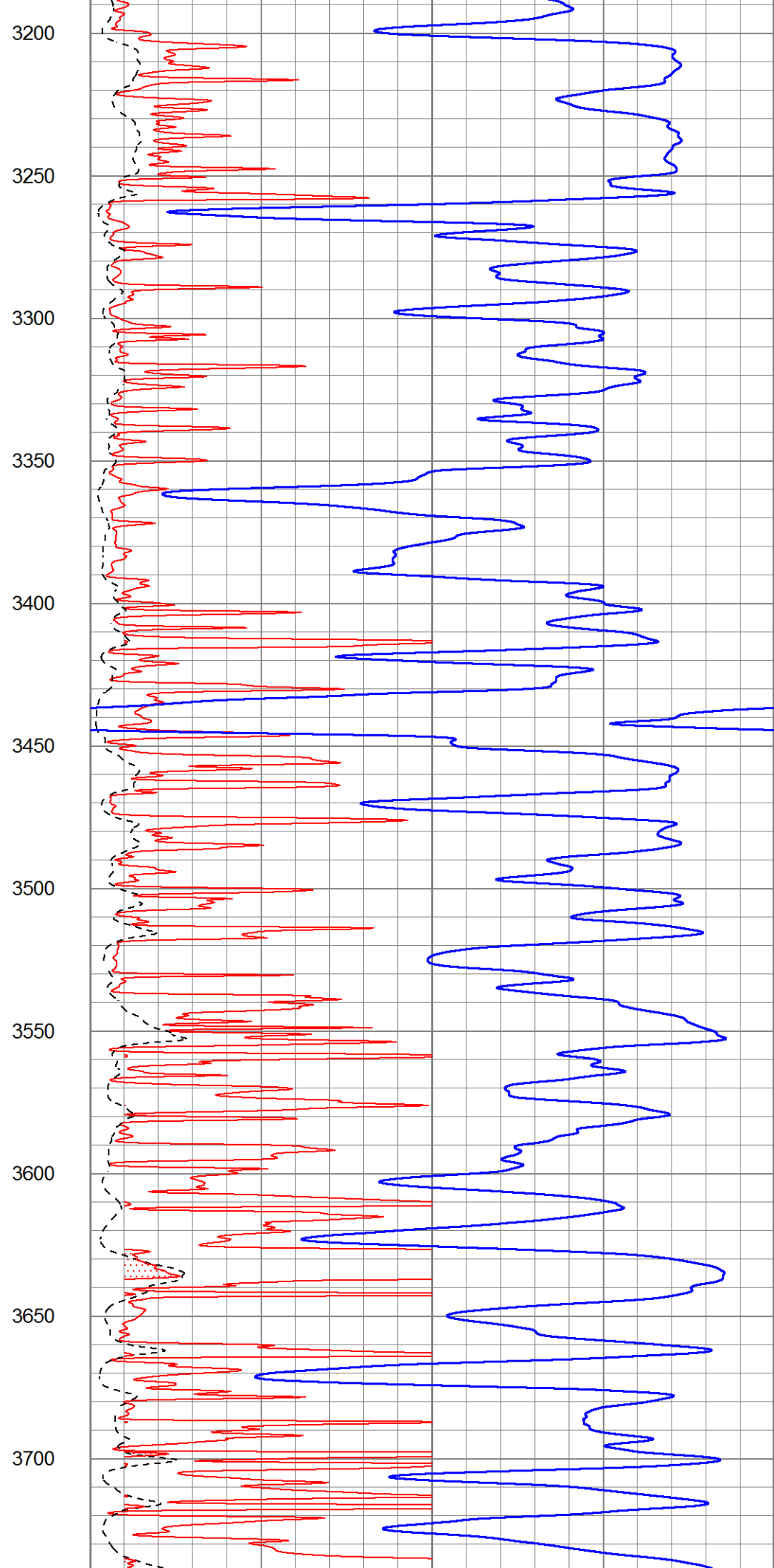
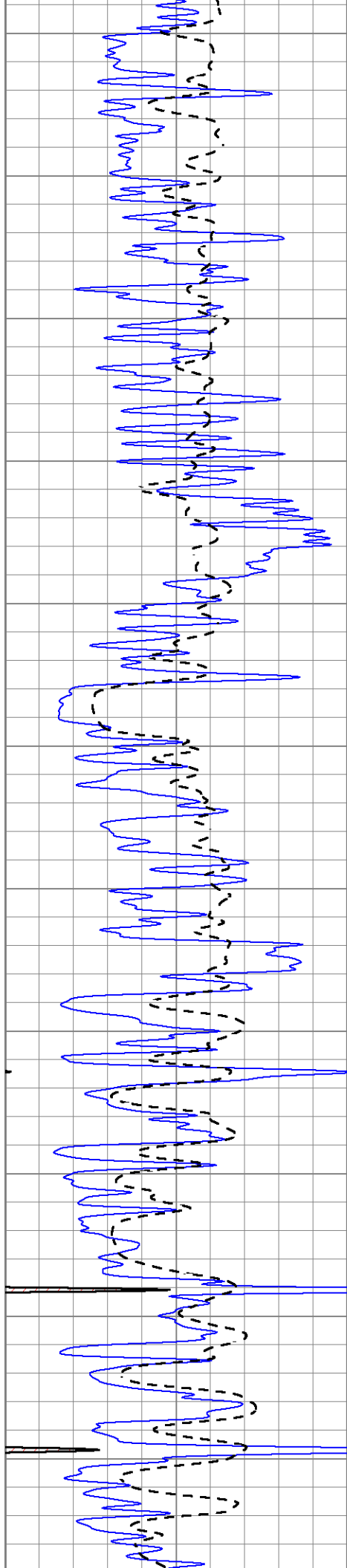


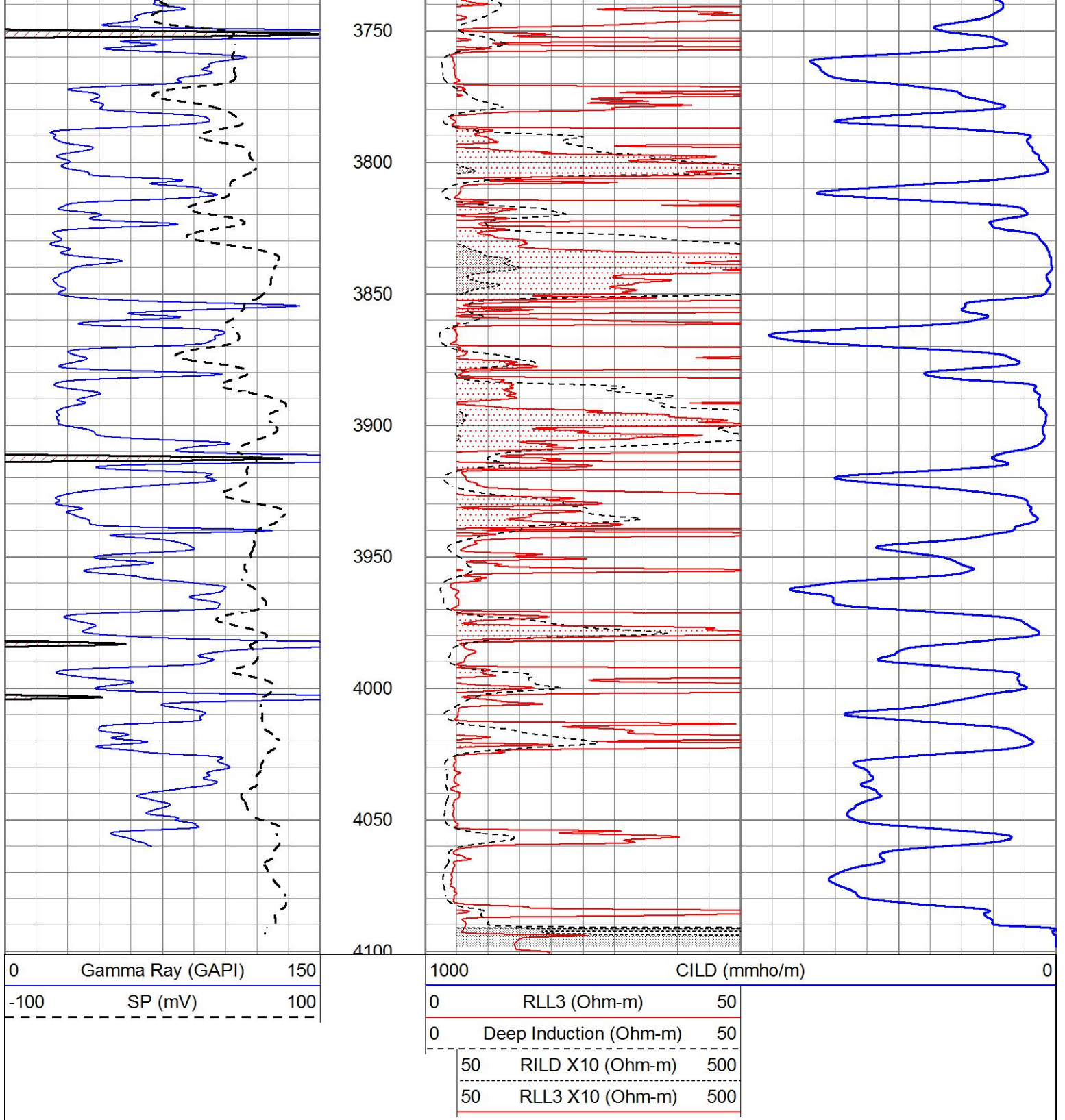


2100
2150
2200
2250
2300
2350
2400
2450
2500
2550
2600







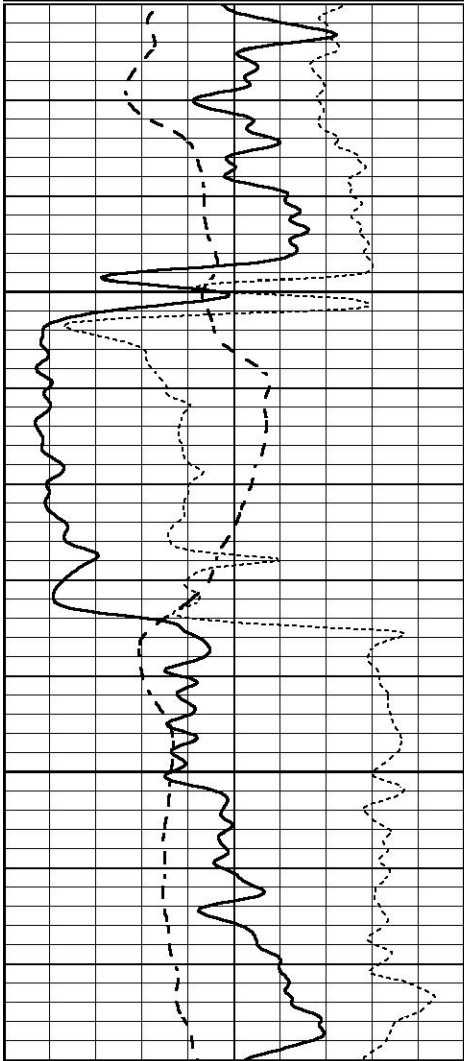


ANHYDRITE

Database File 6060ddn.db
 Dataset Pathname pass3.2
 Presentation Format _dil
 Dataset Creation Tue Dec 07 15:08:06 2021
 Charted by Depth in Feet scaled 1:240

-100	SP (mV)	100
-250	Rxo/Rt	50

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



2150

2200

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

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



MAIN SECTION

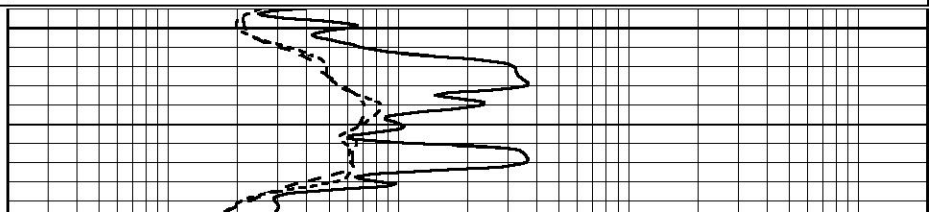
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 Dataset Pathname pass3.1
 Presentation Format _dil
 Dataset Creation Tue Dec 07 14:54:49 2021
 Charted by Depth in Feet scaled 1:240

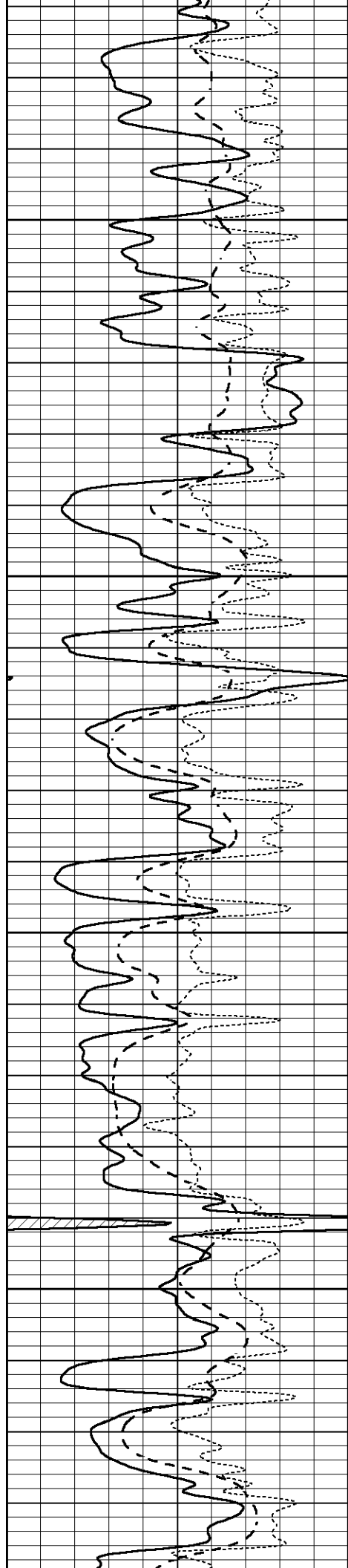
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

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



3450



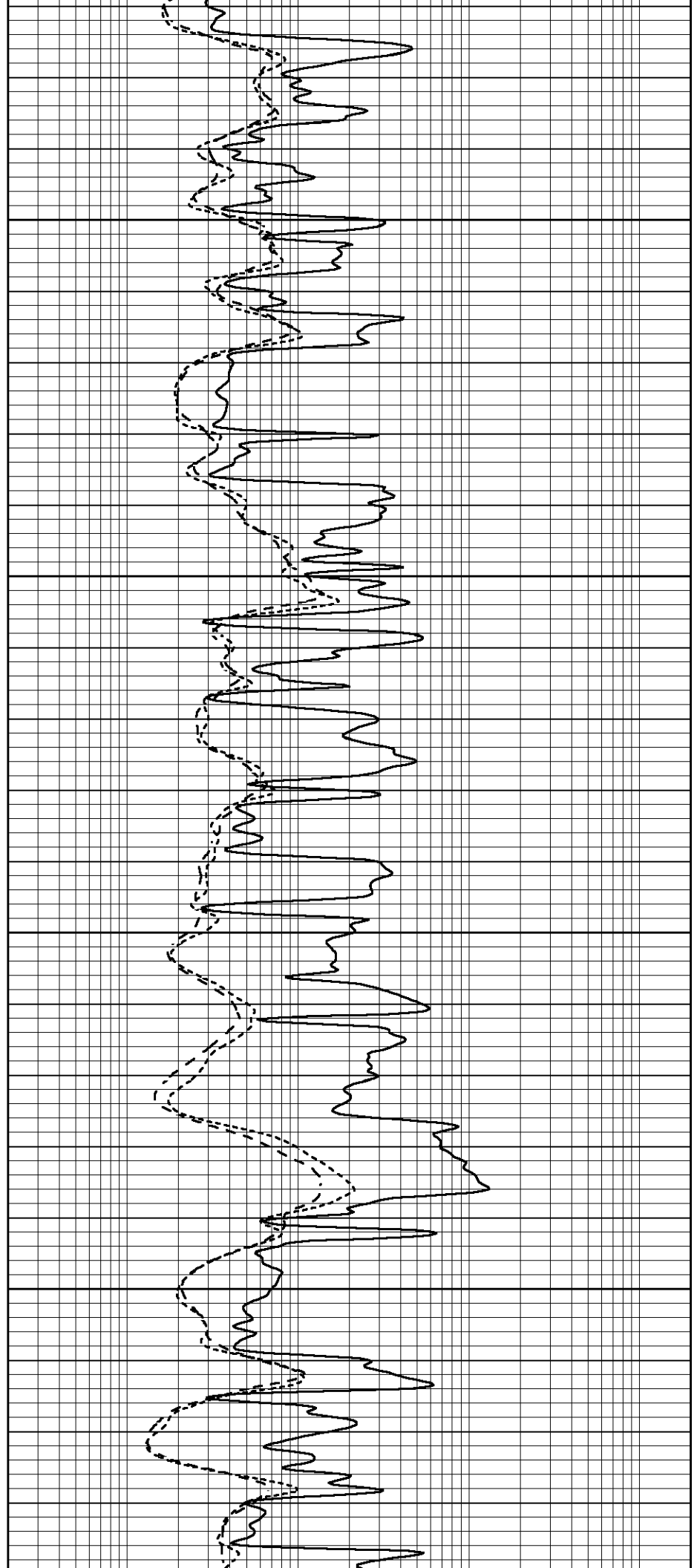


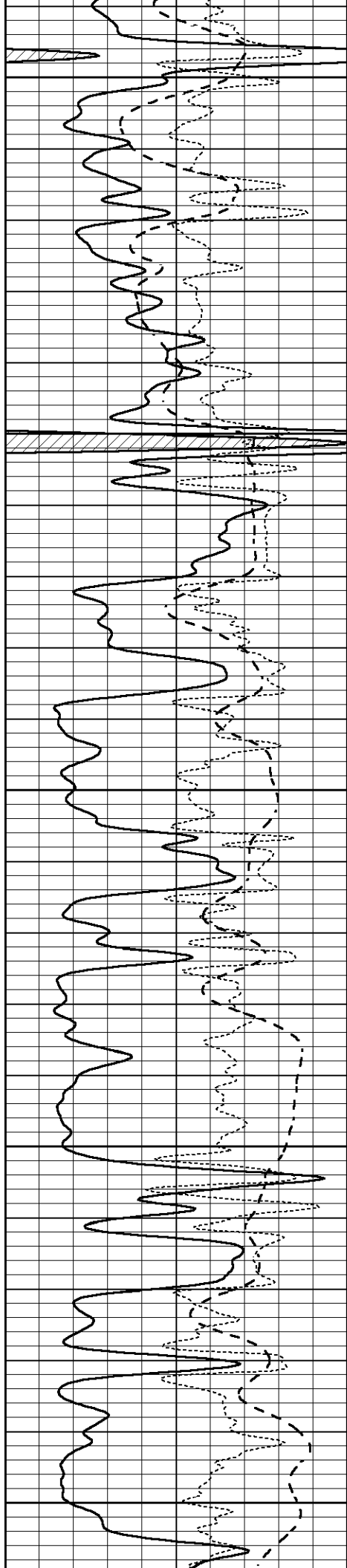
3500

3550

3600

3650





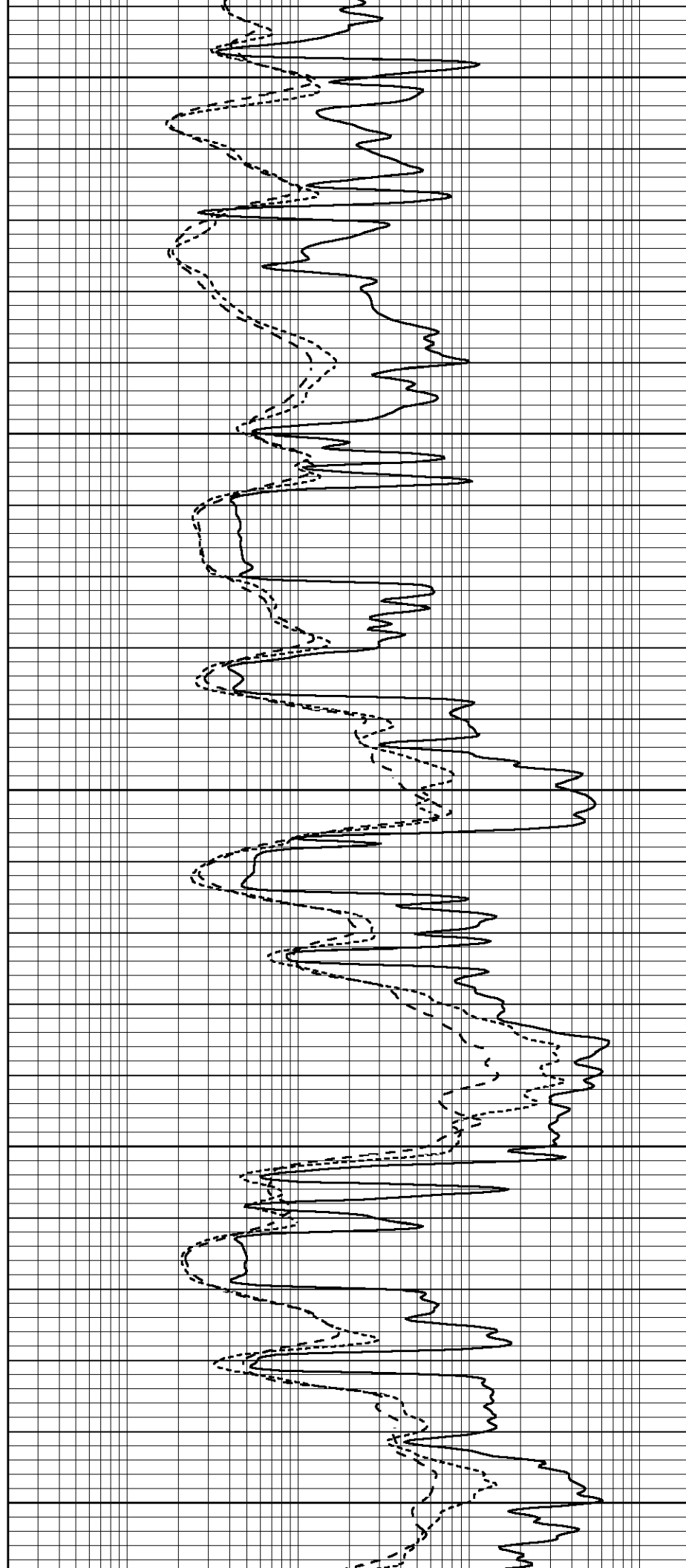
3700

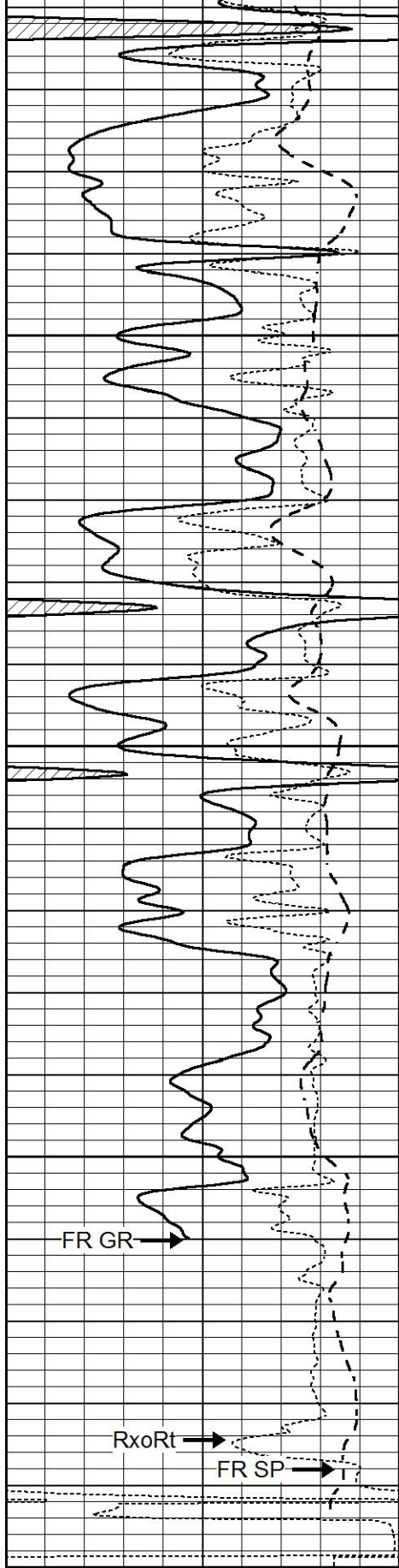
3750

3800

3850

3900





3950

4000

4050

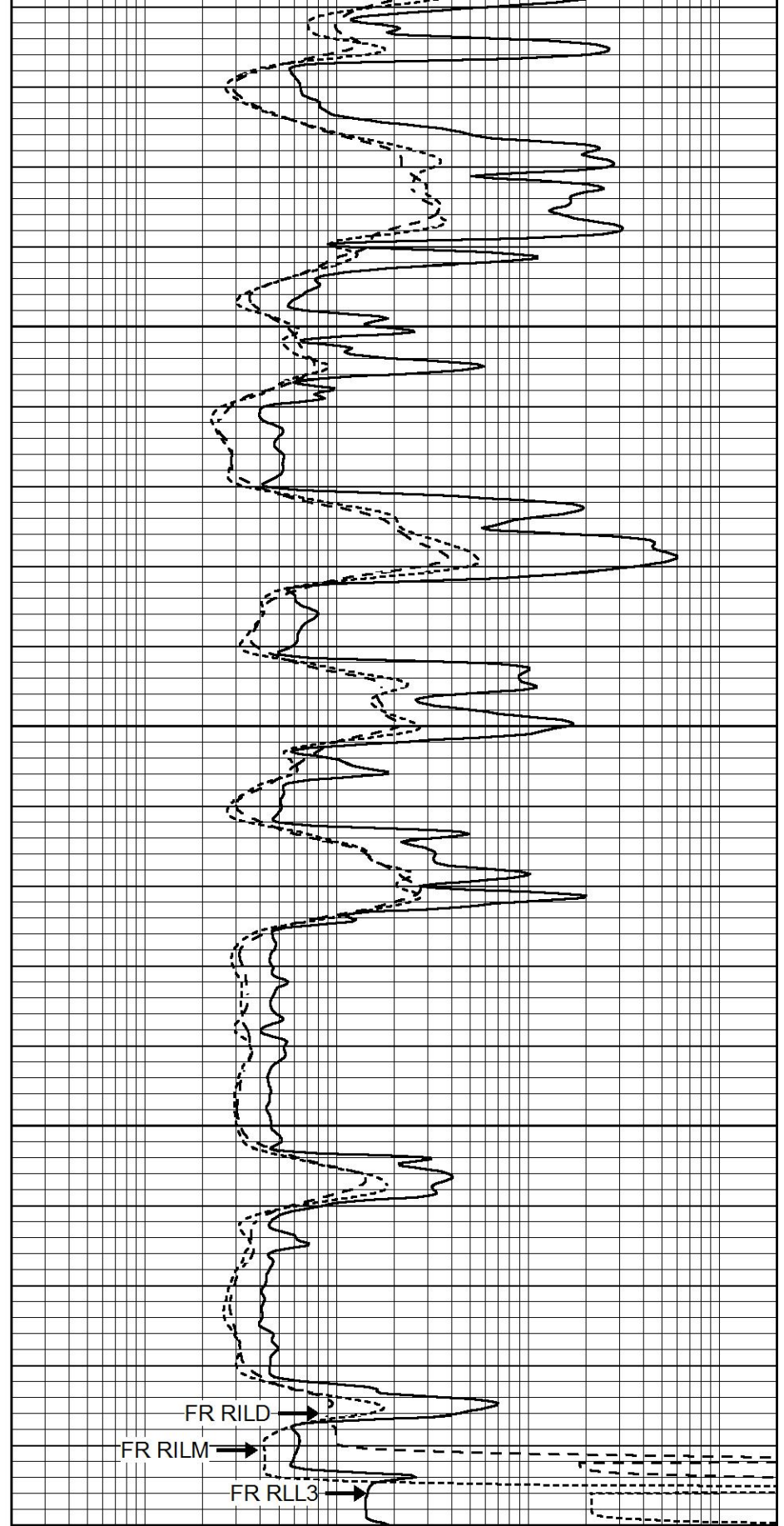
FR GR →

Rxo/Rt →

FR SP →

LTD 4098
4100

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



FR RILD →

FR RILM →

FR RLL3 →

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



MAIN SECTION

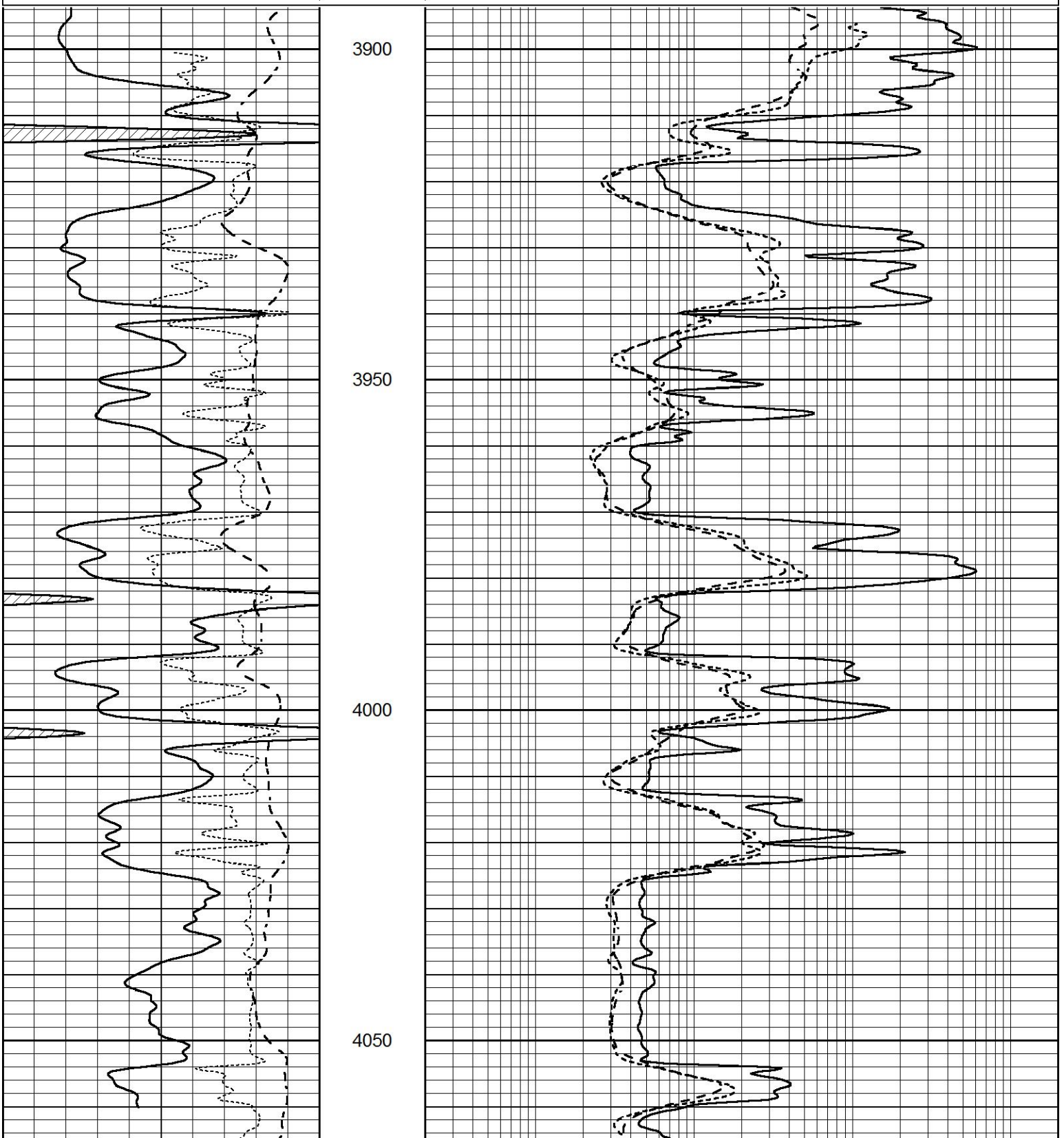


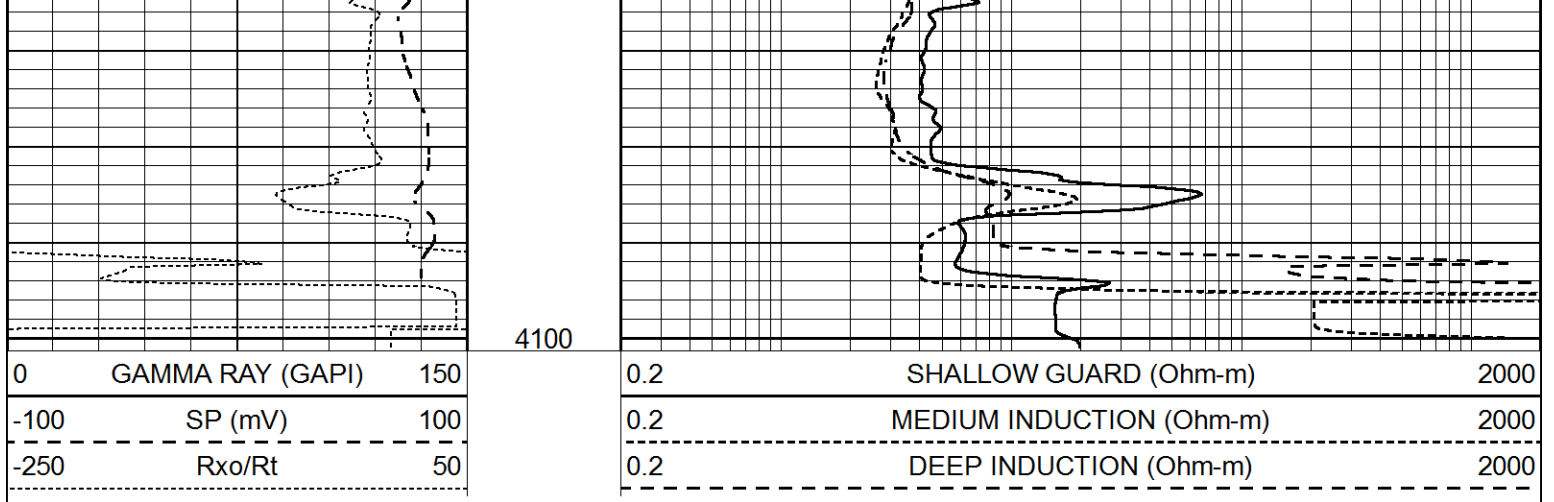
MAIN SECTION

Database File 6060ddn.db
Dataset Pathname pass2.1
Presentation Format _dil
Dataset Creation Tue Dec 07 14:53:33 2021
Charted by Depth in Feet scaled 1:240

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

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





Calibration Report

Database File 6060ddn.db
 Dataset Pathname pass2.1
 Dataset Creation Tue Dec 07 14:53:33 2021

Dual Induction Calibration Report

Serial-Model: FW1410-55-Probe
 Surface Cal Performed: Tue Feb 19 11:44:18 2019
 Downhole Cal Performed: Tue Feb 19 11:44:24 2019
 After Survey Verification Performed: Tue Feb 19 11:44:27 2019

Surface Calibration

Readings				References			Results	
Loop:	Air	Loop	V	Air	Loop	mmho/m	m	b
Deep	0.011	0.656	V	1.000	400.000	mmho/m	618.595	-5.524
Medium	-0.000	0.731	V	1.000	464.000	mmho/m	632.856	1.197
Internal:	Zero	Cal	V	Zero	Cal	mmho/m	m	b
Deep	0.007	0.649	V	0.000	400.000	mmho/m	623.784	-4.595
Medium	0.004	0.743	V	0.000	464.000	mmho/m	627.284	-2.251

Downhole Calibration

Readings				References			Results	
	Zero	Cal	V	Zero	Cal	mmho/m	m'	b'
Deep	-0.824	395.917	V	-0.976	397.550	mmho/m	1.004	-0.149
Medium	3.565	471.327	V	3.468	471.590	mmho/m	1.001	-0.099
LL3		7.503	V		1500.000	Ohm-m		
		0.001	V		20.000	Ohm-m		
		-7.481	V		3745.000	mmho-m		

After Survey Verification

Readings				Targets			Results	
	Zero	Cal	V	Zero	Cal	mmho/m	m'	b'
Deep	0.000	0.000	V	-0.824	395.917	mmho/m	1.000	0.000
Medium	0.000	0.000	V	3.565	471.327	mmho/m	1.000	0.000
LL3		0.000	V		1500.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		0.000	V		3745.000	mmho-m		

Litho Density Calibration Report

Serial: 140704
 Model: V4_10P

Master Calibration

Performed: Mon Dec 07 12:12:14 2020

	Background	Aluminum	Magnesium		
Window 1	557.73	5525.14	24361.20	cps	
Window 2	47.08	1245.09	5901.17	cps	
Window 4	239.06	1250.70	5456.76	cps	
Window 5	564.08	8300.56	16134.07	cps	
Window 6	44.21	1356.78	2705.40	cps	
Window 8	267.87	2686.97	5150.30	cps	
Bulk Density	-	2.6020	1.6830	g/cc	
Pe	-	3.0000	2.5070	b/e	
LS Alpha:	: -1.8719	SS Alpha:	: -0.8000	LS CPE:	: 1.1424
LS Beta:	: 135562.6841	SS Beta:	: 20128.7209	SS CPE:	: 1.5489

Before Survey Background Counts Verification

Performed: Wed Dec 31 18:00:00 1969

Window 1	0.00	cps
Window 2	0.00	cps
Window 4	0.00	cps
Window 5	0.00	cps
Window 6	0.00	cps
Window 8	0.00	cps

After Survey Background Counts Verification

Performed: Wed Dec 31 18:00:00 1969

Window 1	0.00	cps
Window 2	0.00	cps
Window 4	0.00	cps
Window 5	0.00	cps
Window 6	0.00	cps
Window 8	0.00	cps

Lithodensity Caliper Calibration

Performed: Mon Dec 07 12:12:14 2020

Results	Readings	References (in)		Gain	Offset
Low	High	Low	High		
5852.8	8972.7	8.0	14.0	0.0	-3.4

Before Survey Caliper Verification

Performed:

	Reference	Reading
Caliper (in)	_____	_____

After Survey Caliper Verification

Performed:

	Reference	Reading
Caliper (in)	_____	_____

Compensated Neutron Calibration Report

Serial Number: 080621PMC

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:	7	
Tool Model:	Probe1	
Performed:	Tue Jan 19 17:50:08 2021	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.5300	GAPI/cps