



SUPERIOR
WELL SERVICES
Black Lick, Pa.
Mercer, Pa.
Wooster, Oh.
Cleveland, Ok.
Trinidad, Co.

DUAL INDUCTION LOG

Company	XTO Energy Inc.		
Well	Apache Canyon 05-13		
Field	Purgatoire River		
County	Las Animas	State	Colorado
Location:	API # : 05 071 09131 00		Other Services CDL NEUTRON
SEC 5 TWP 34S RGE 67W			
Permanent Datum	Ground Level	Elevation	7994'
Log Measured From	Ground Level		
Drilling Measured From	Ground Level		
Date	2-21-08		
Run Number	One		
Depth Driller	2580'		
Depth Logger	2575'		
Bottom Logged Interval	2573'		
Top Log Interval	Surface Casing		
Casing Driller	8 5/8" @ 451'		
Casing Logger	451'		
Bit Size	7 7/8"		
Type Fluid in Hole	Water		
Density / Viscosity	///		
pH / Fluid Loss	///		
Source of Sample	///		
Rm @ Meas. Temp	///		
Rmf @ Meas. Temp	///		
Rmc @ Meas. Temp	///		
Source of Rmf / Rmc	///		
Rm @ BHT	///		
Time Circulation Stopped	11:00 A.M.		
Time Logger on Bottom	2:45 P.M.		
Maximum Recorded Temperature	117 DEG F		
Equipment Number	T697		
Location	Trinidad		
Recorded By	J. Cappellucci		
Witnessed By	Mr. Don Johnson		

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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

Well Directions:

1st Bosque Entrance to Cherry Canyon, Stay on main road,
all the way to top, at 4 way take left, through wooden fences,
go through 4 drive through locations and its your next drive through
location.



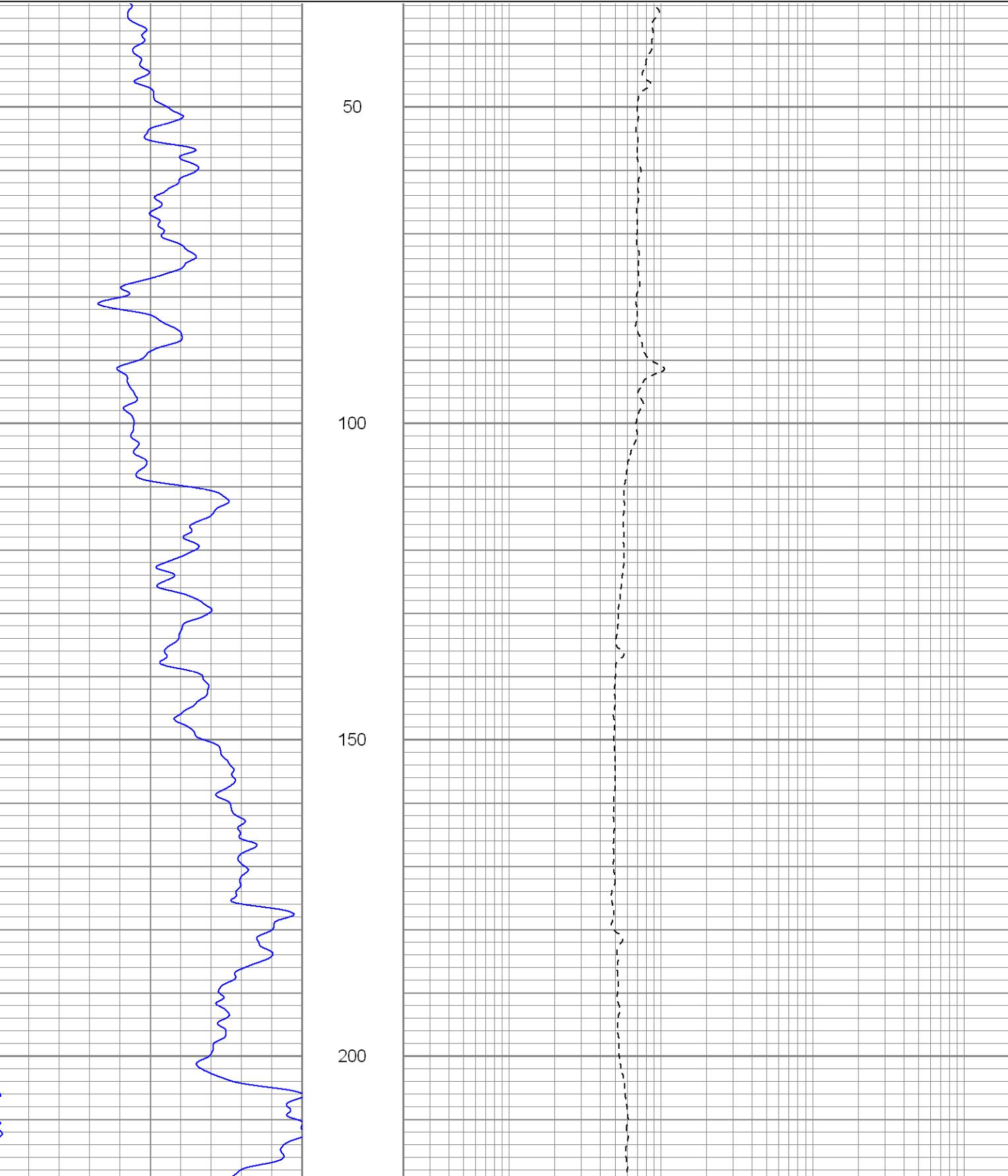
SUPERIOR

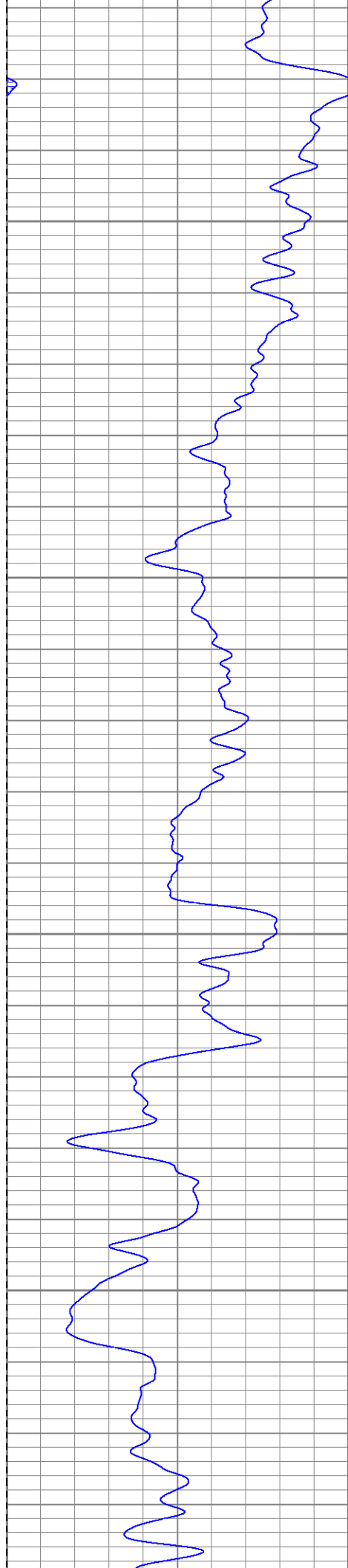
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Main Pass

Database File: xtoac0513.db
Dataset Pathname: pass4.1
Presentation Format: dil
Dataset Creation: Thu Feb 21 16:36:55 2008 by Calc Open-Cased 070814
Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200	0.2	RILM (Ohm-m)	2000
-200	SP (mV)	0	0.2	RILD (Ohm-m)	2000
			0.2	RLL3 (Ohm-m)	2000



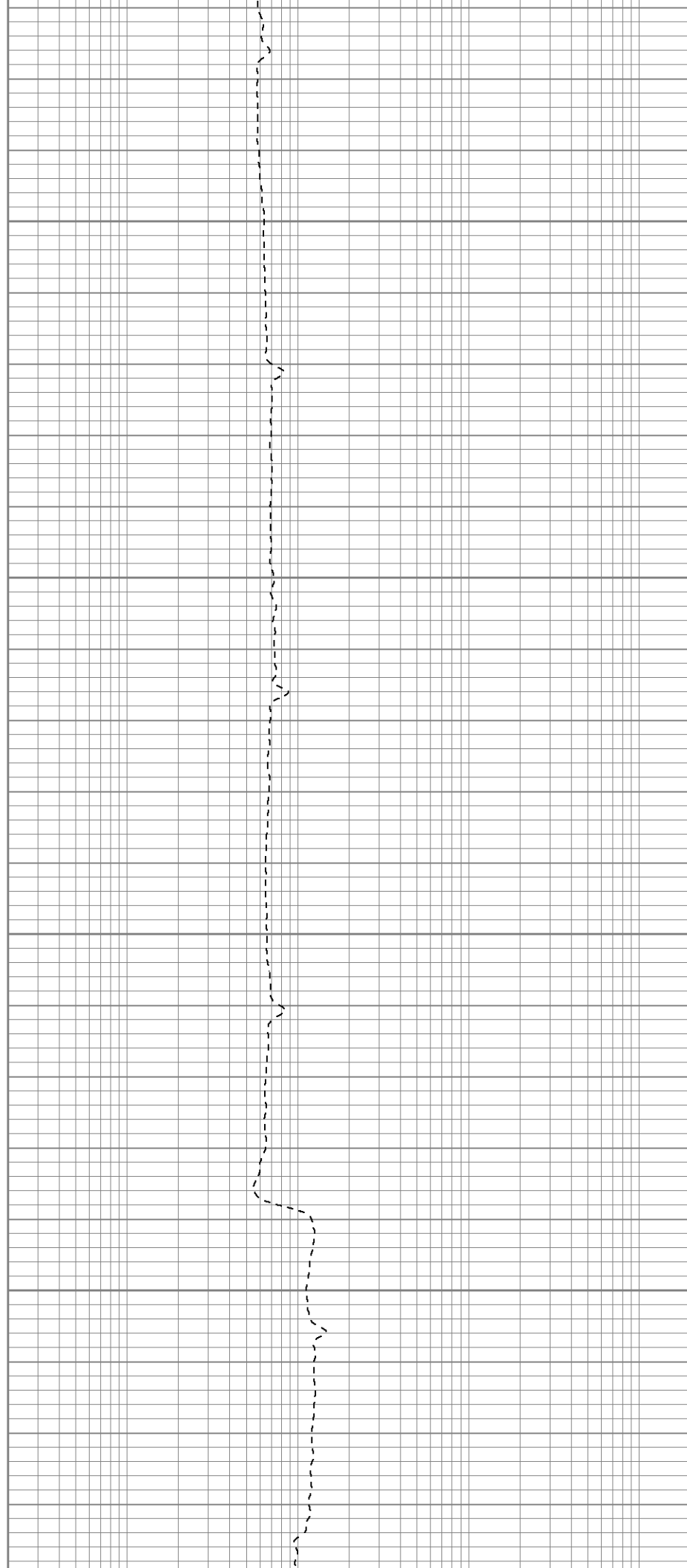


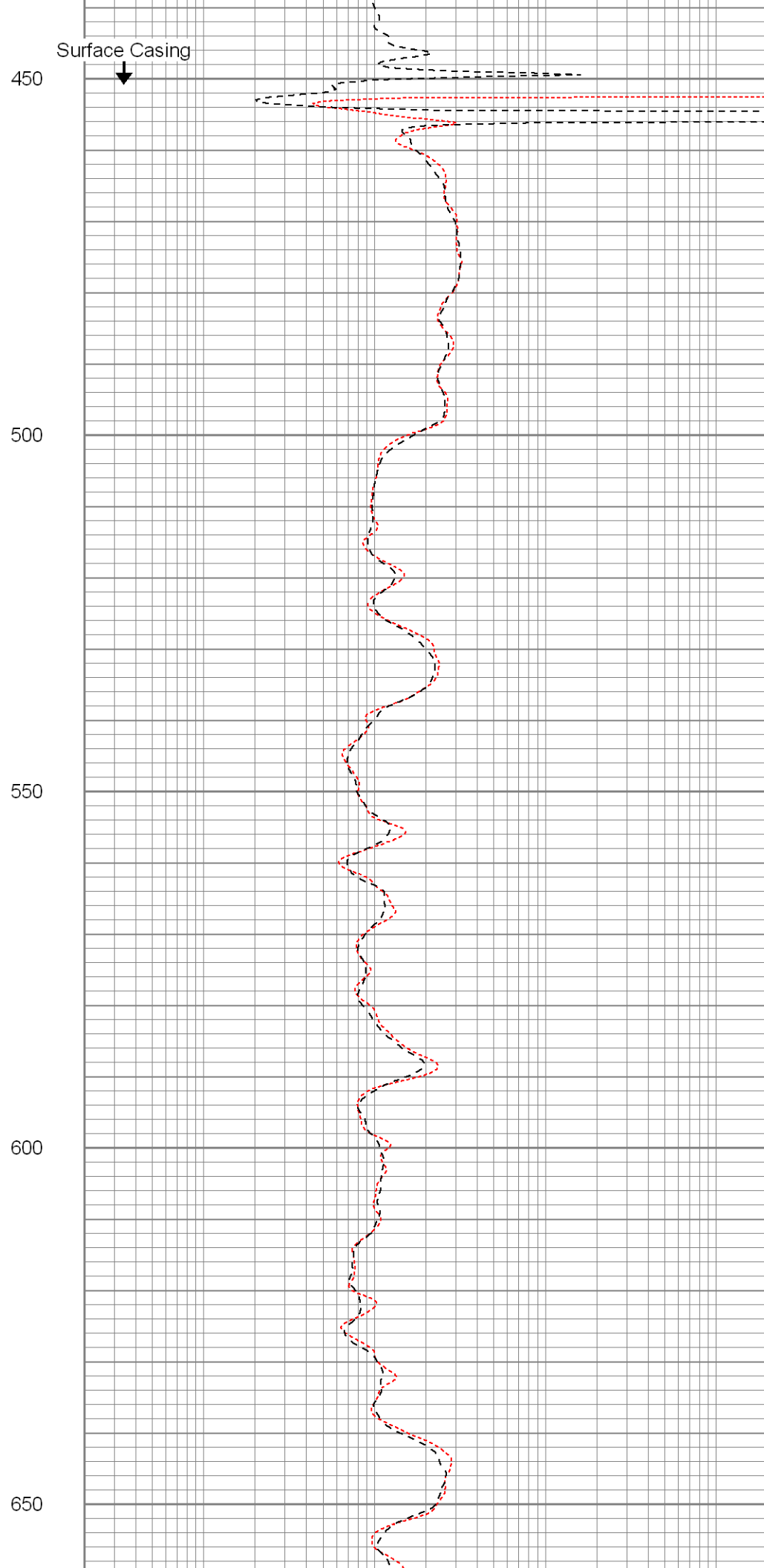
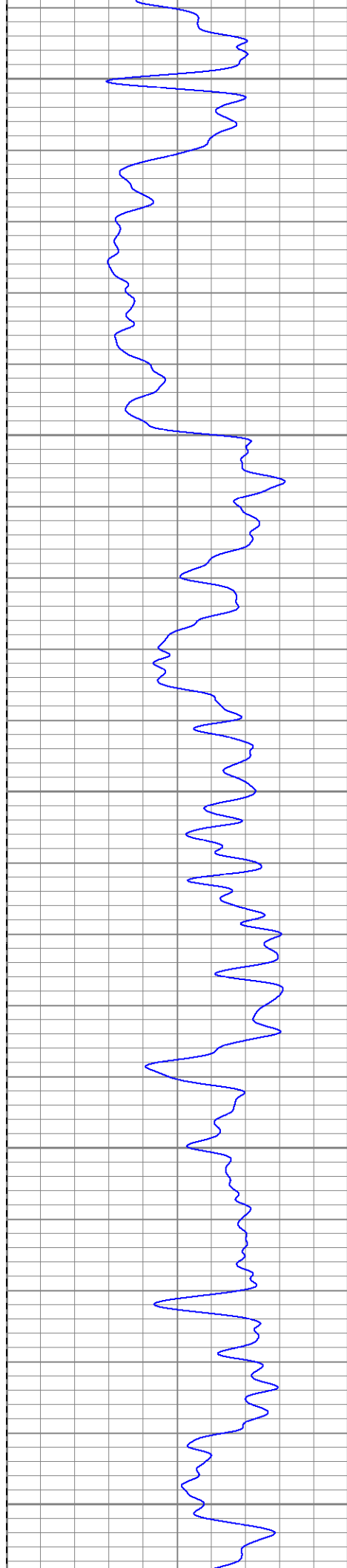
250

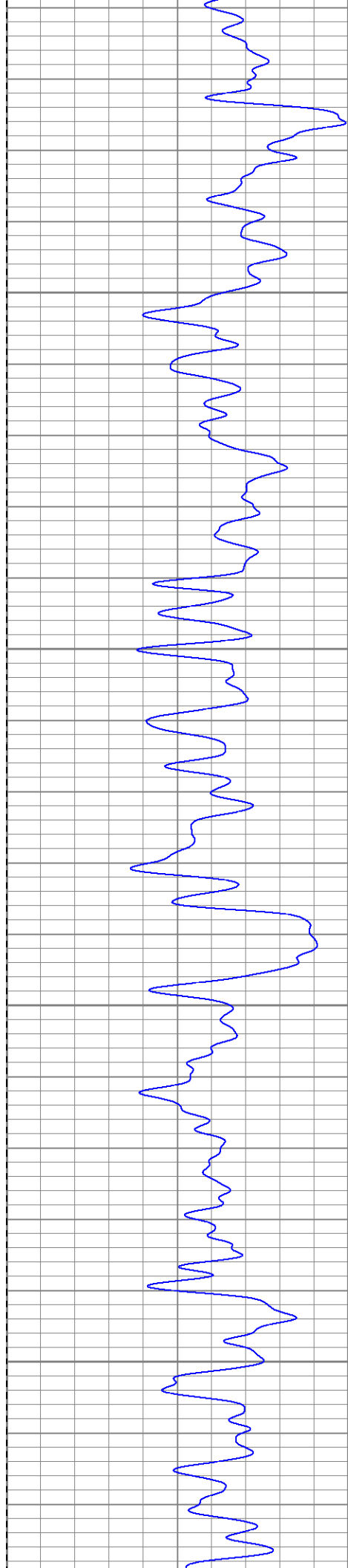
300

350

400





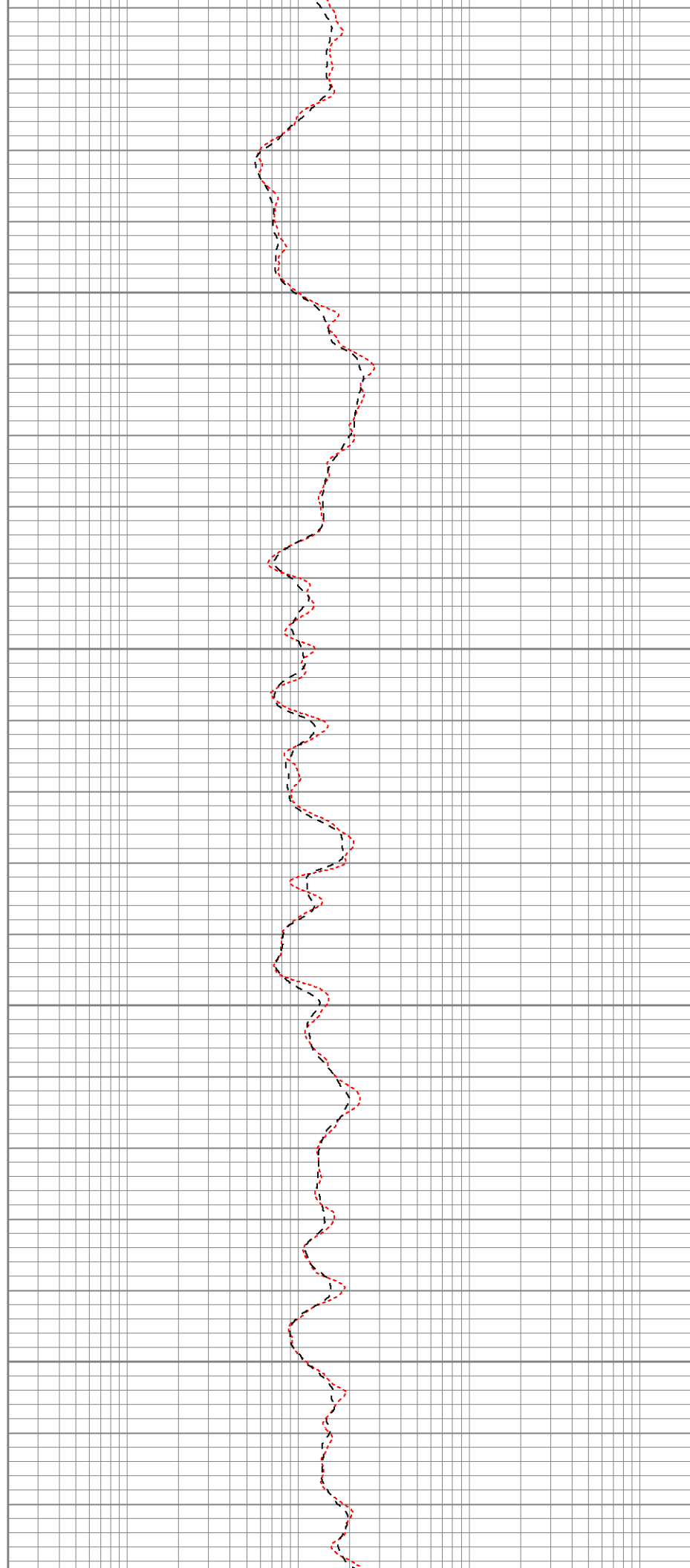


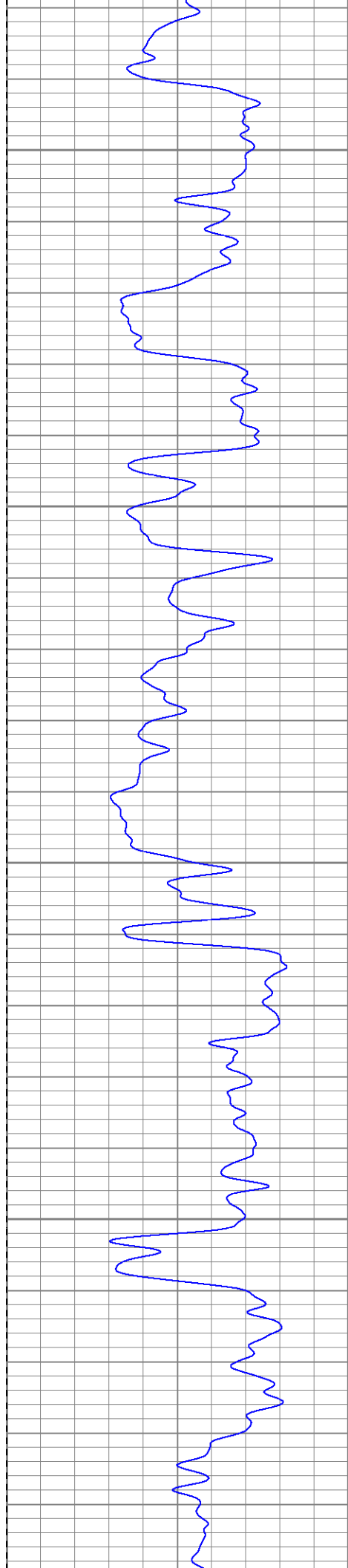
700

750

800

850



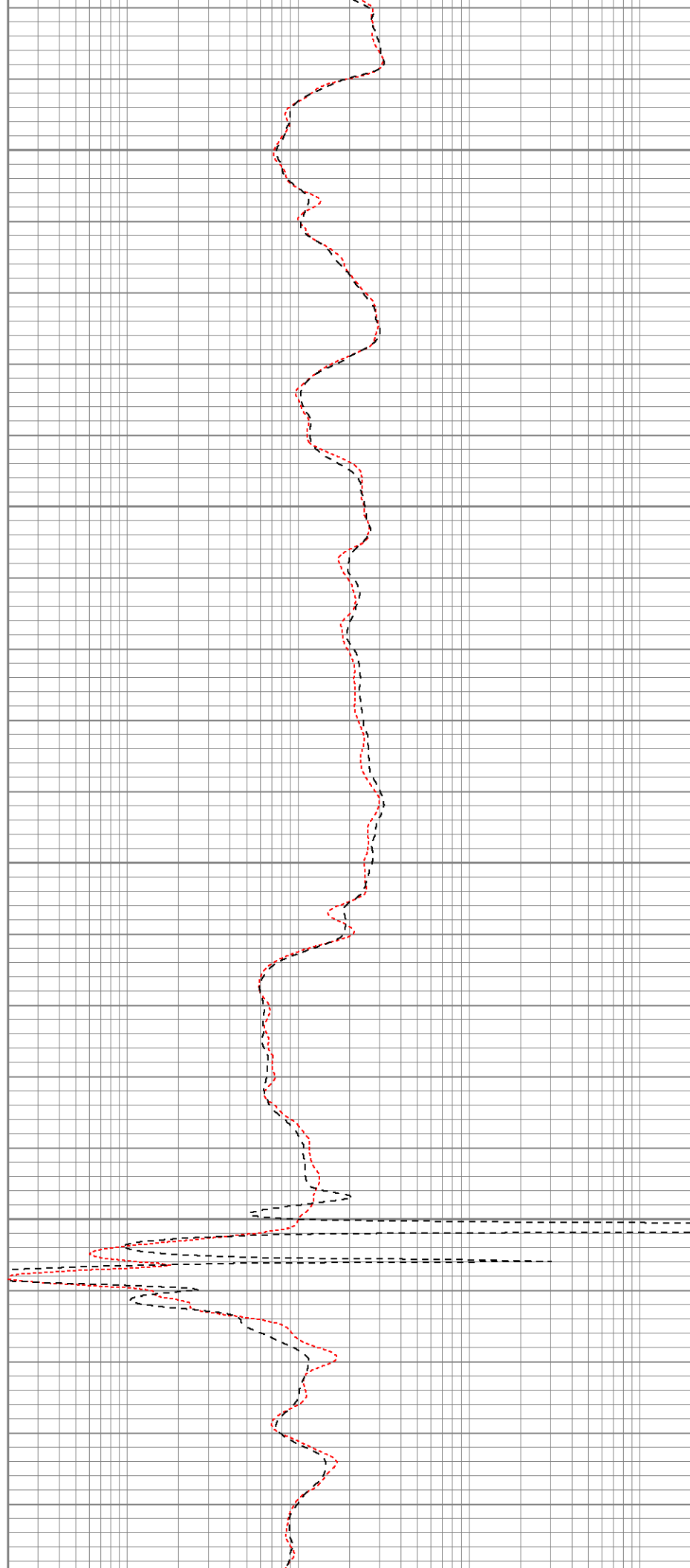


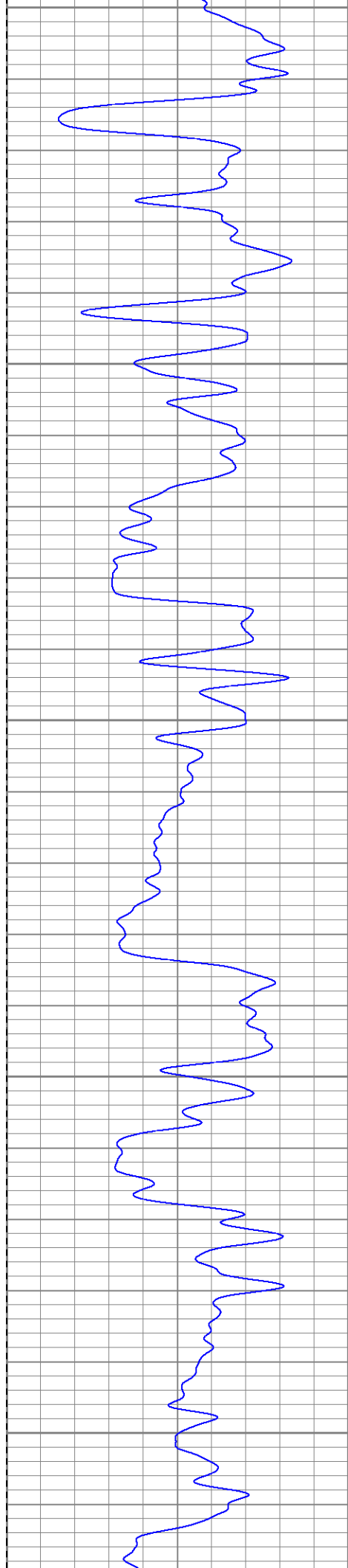
900

950

1000

1050





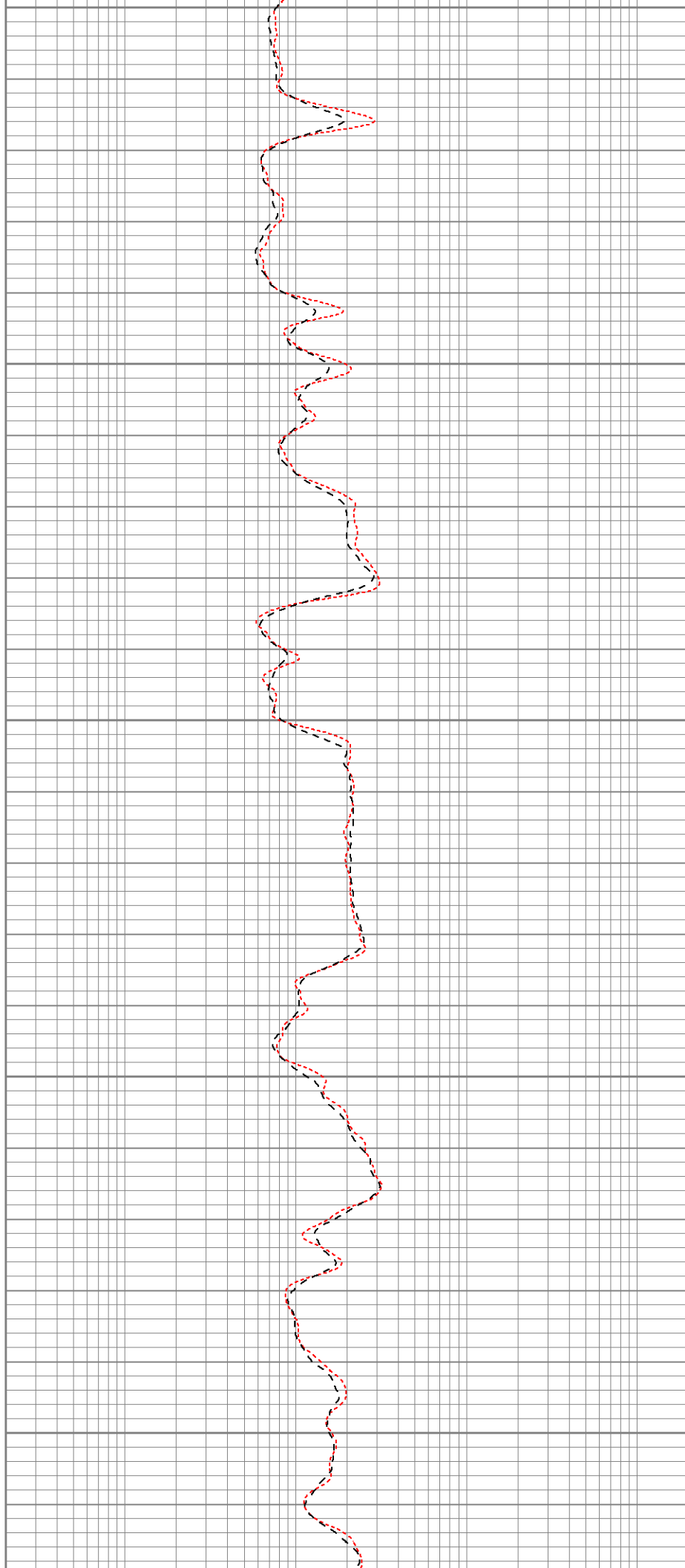
1100

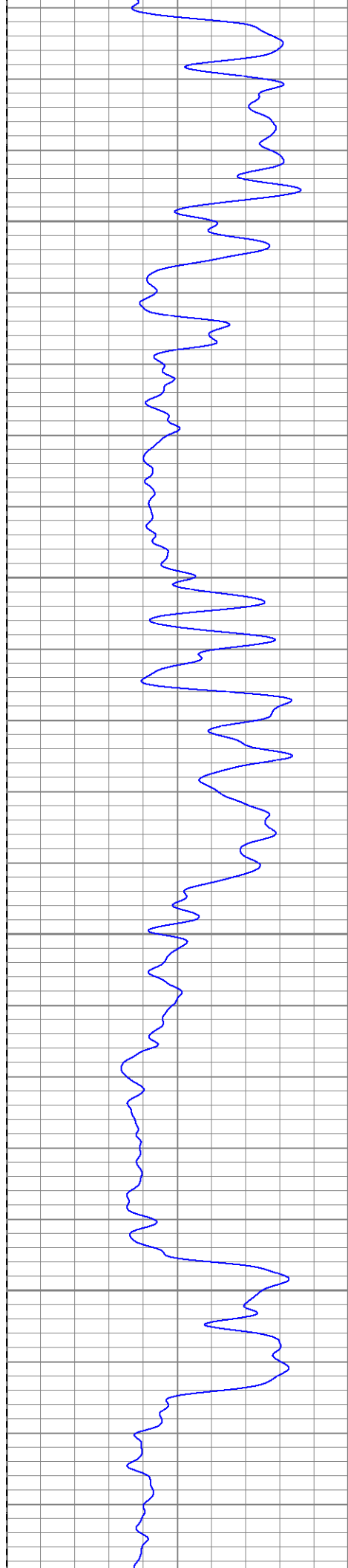
1150

1200

1250

1300



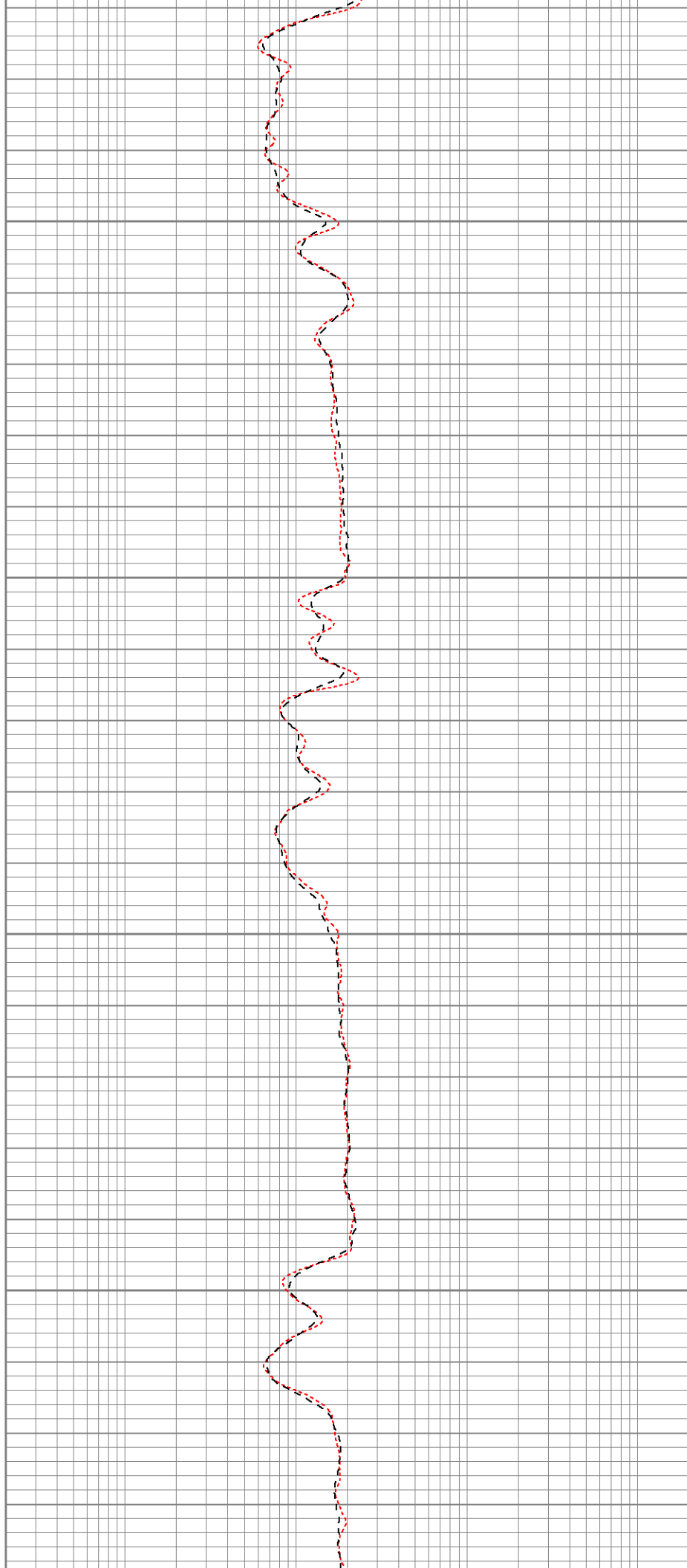


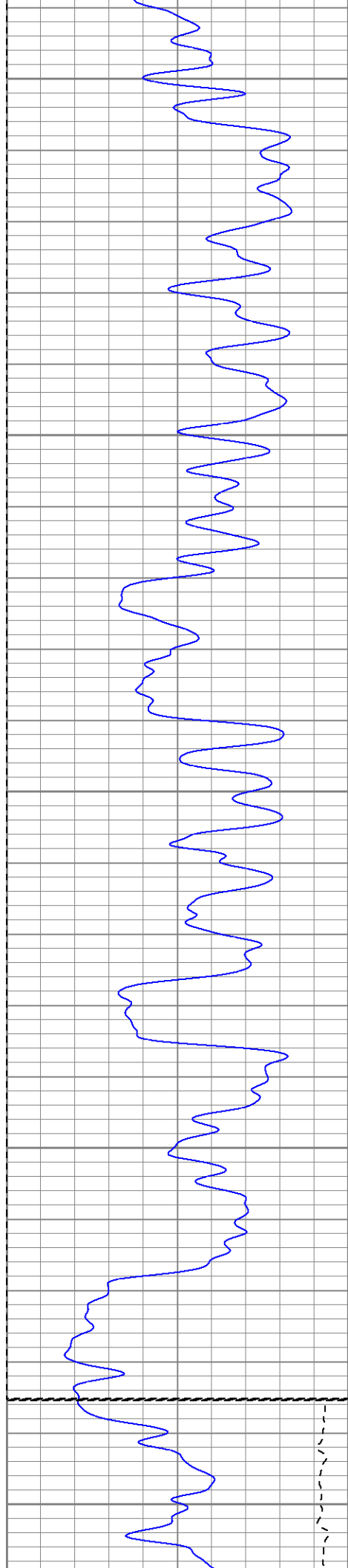
1350

1400

1450

1500





1550

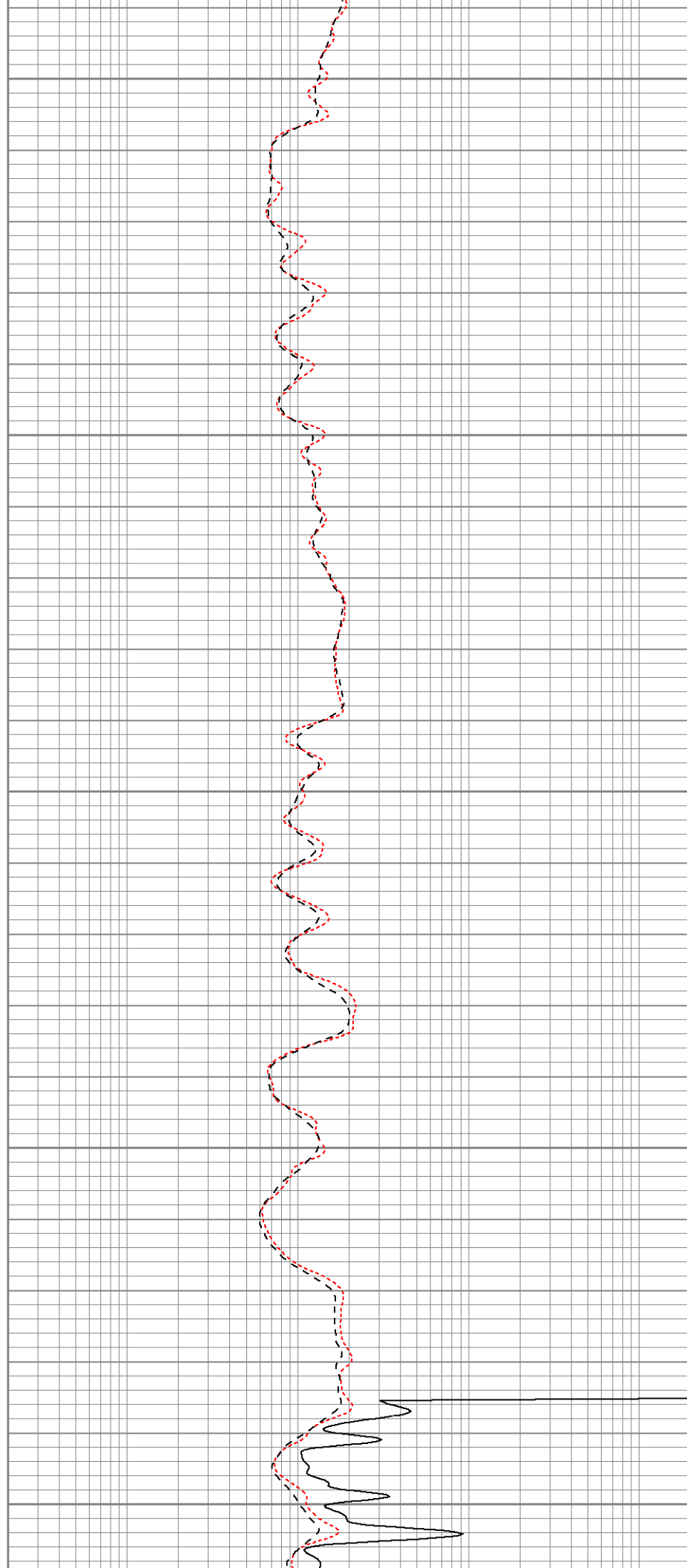
1600

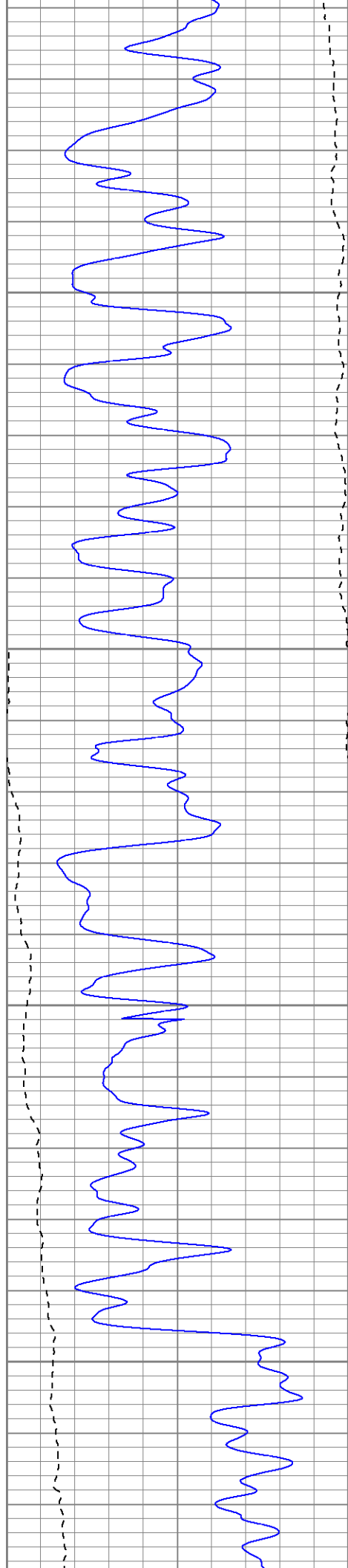
1650

1700

Fluid Level

1750



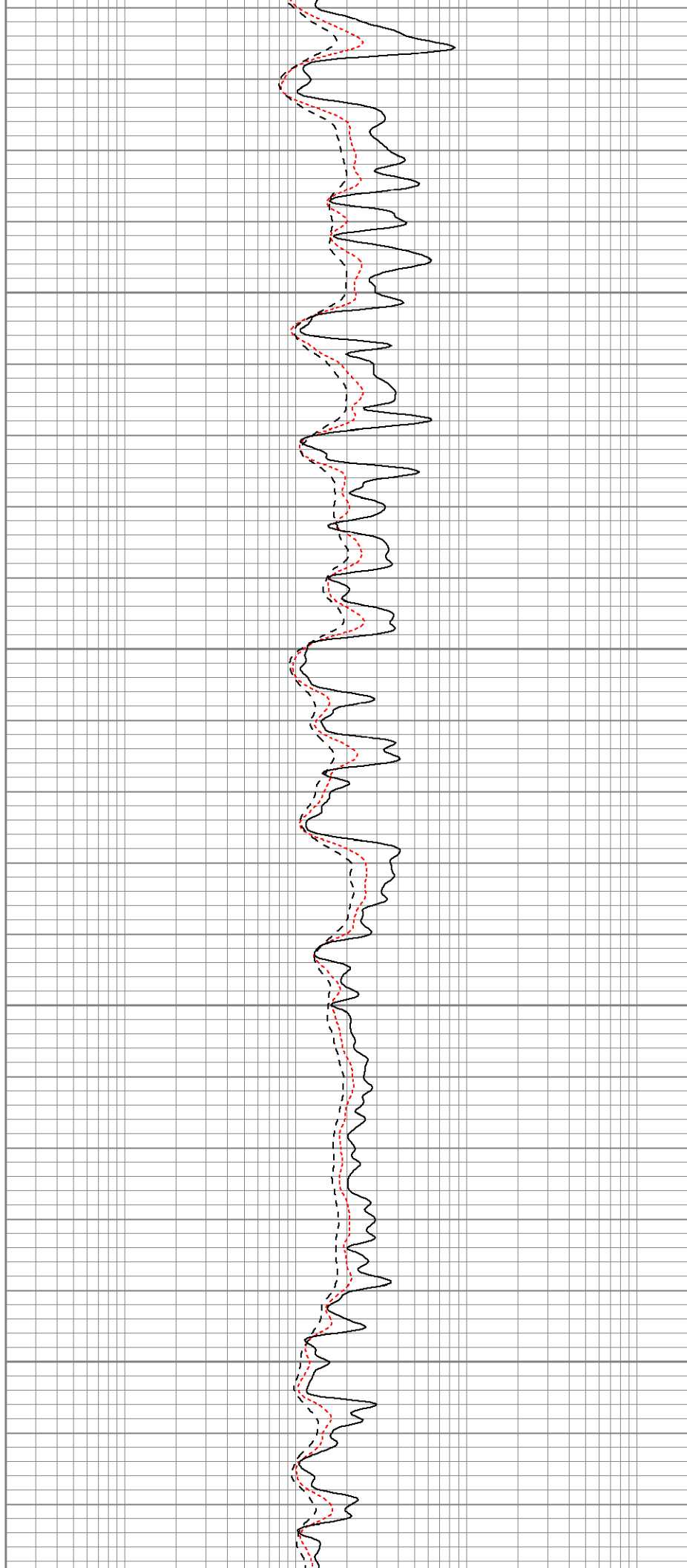


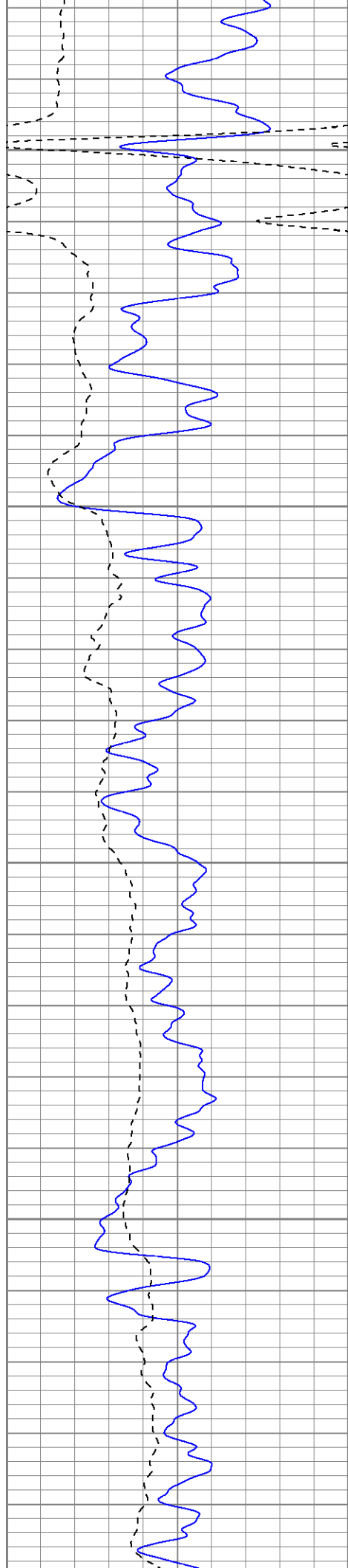
1800

1850

1900

1950



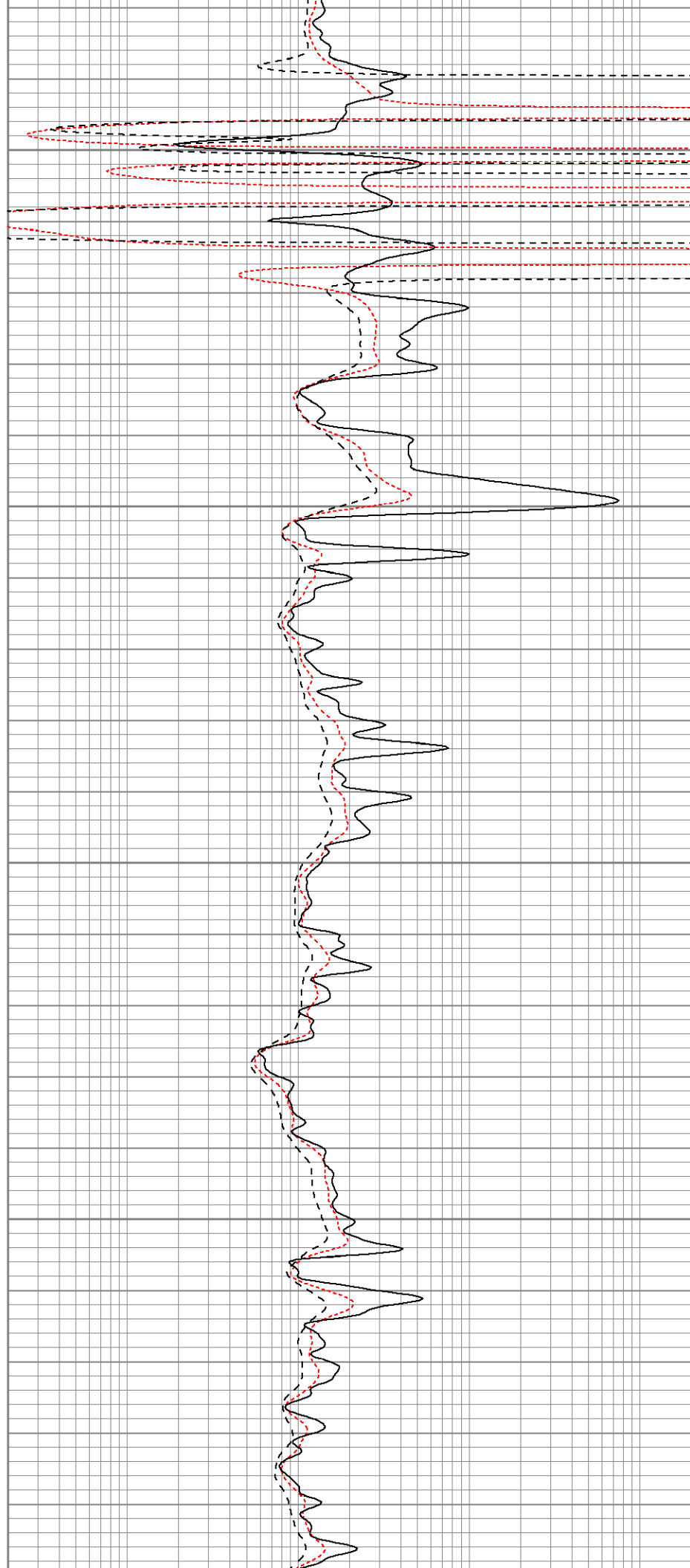


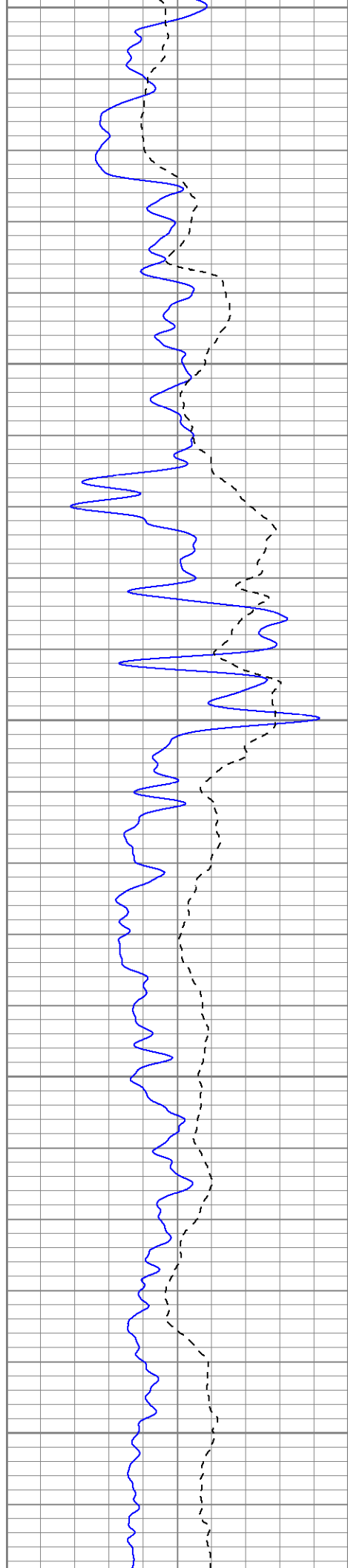
2000

2050

2100

2150





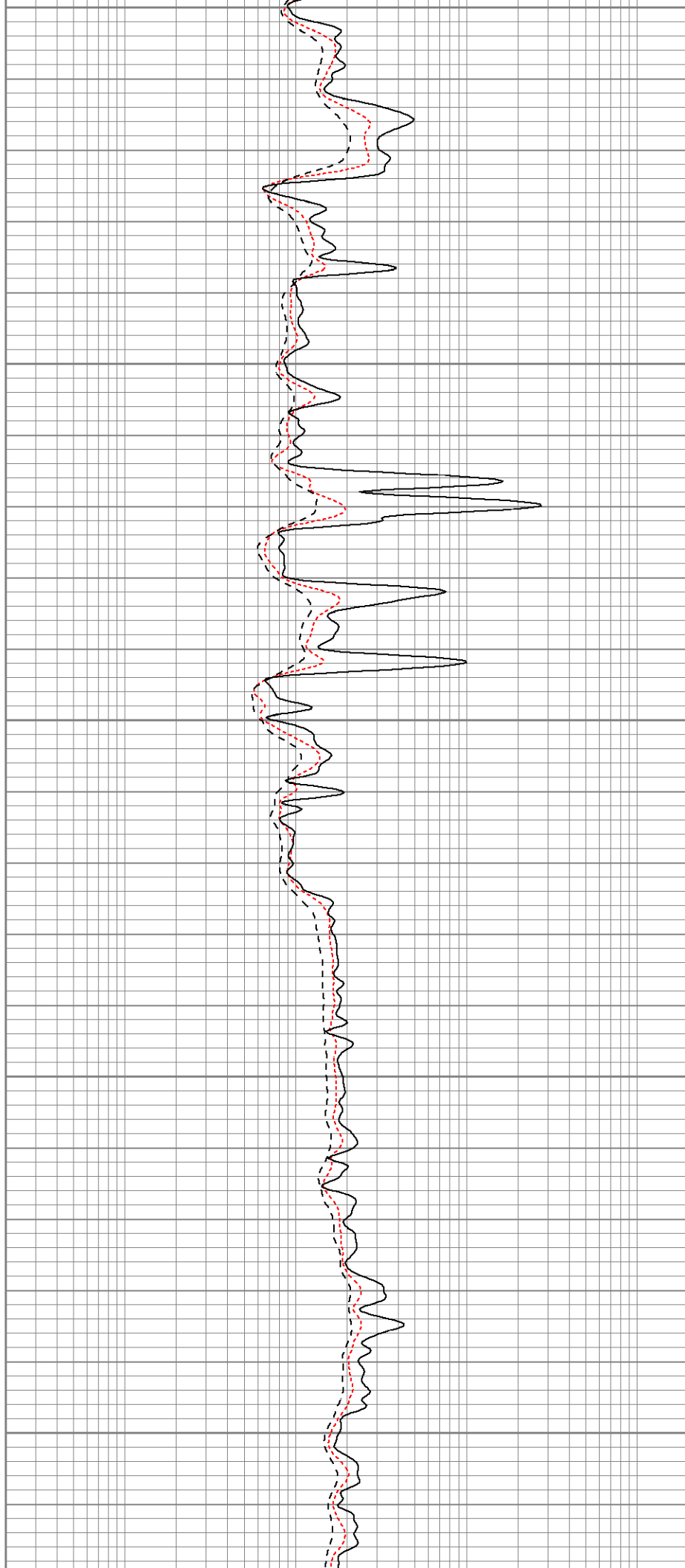
2200

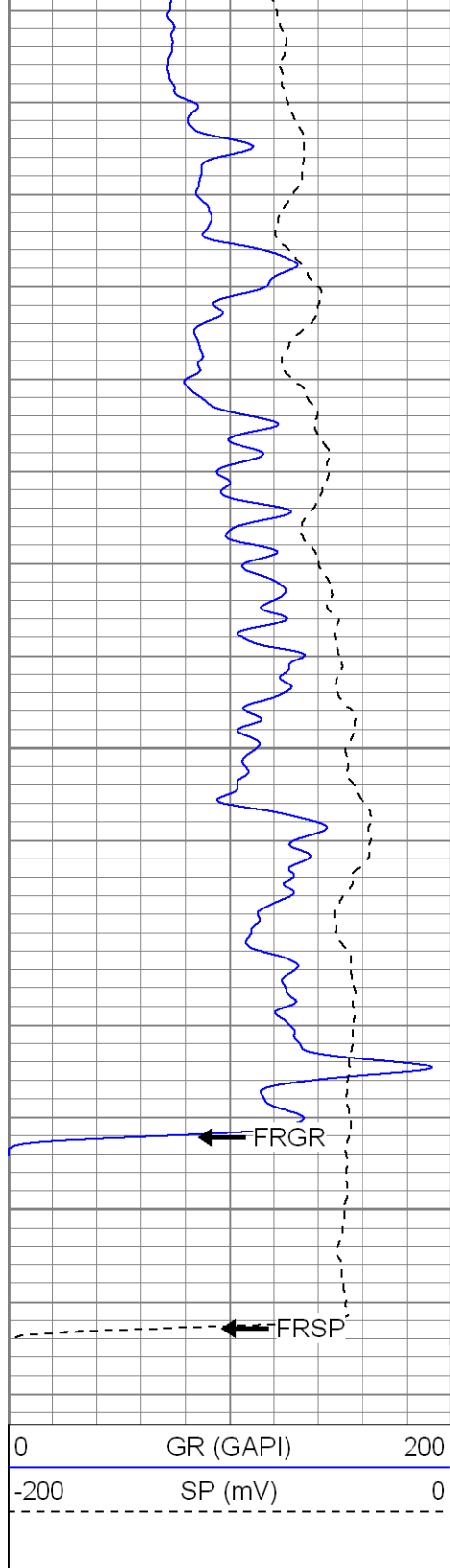
2250

2300

2350

2400

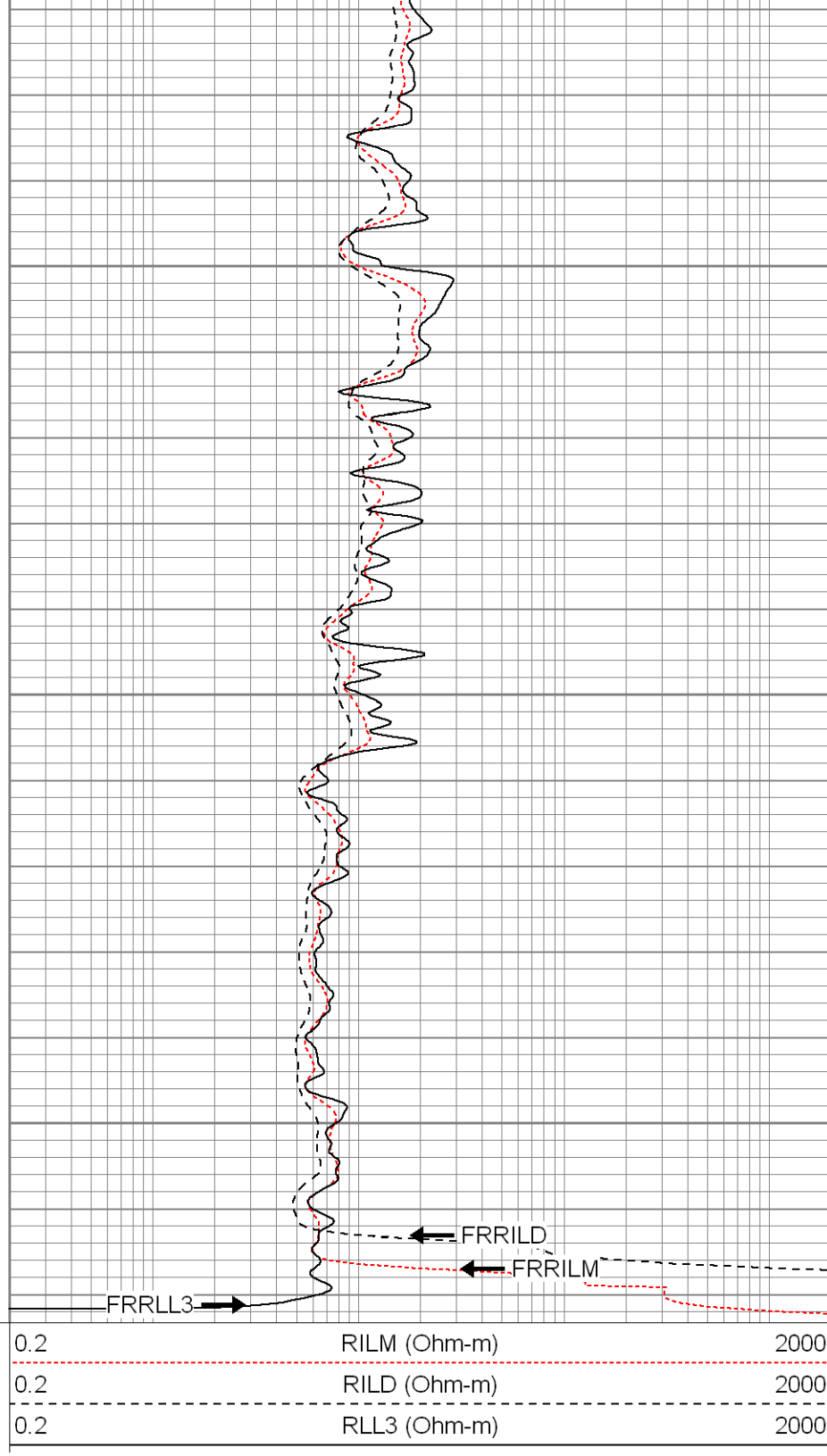




2450

2500

2550



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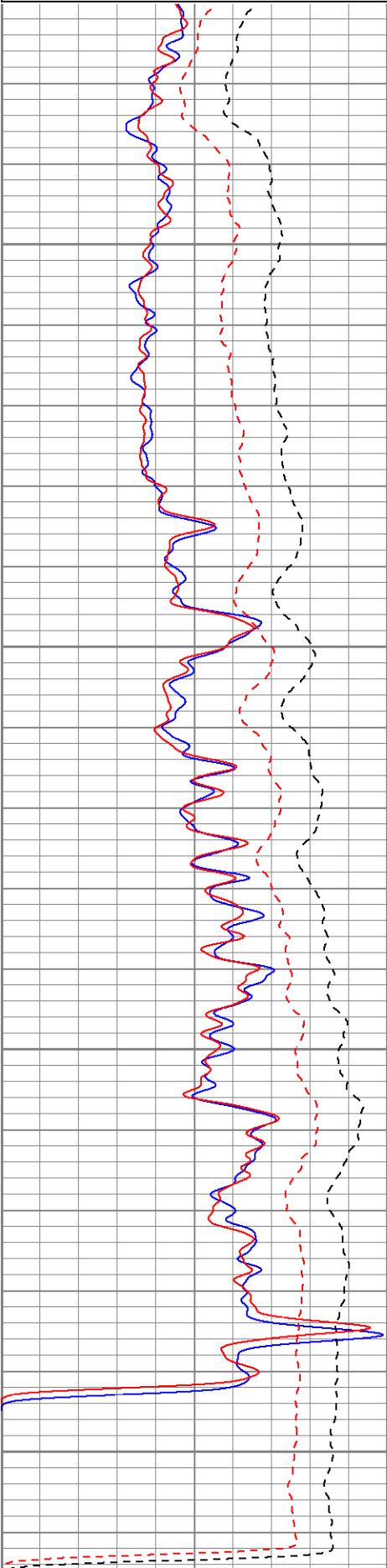
Repeat Pass

Database File: xtoac0513.db
Dataset Pathname: pass3.1
Presentation Format: dil
Dataset Creation: Thu Feb 21 15:22:54 2008 by Calc Open-Cased 070814
Charted by: Depth in Feet scaled 1:240

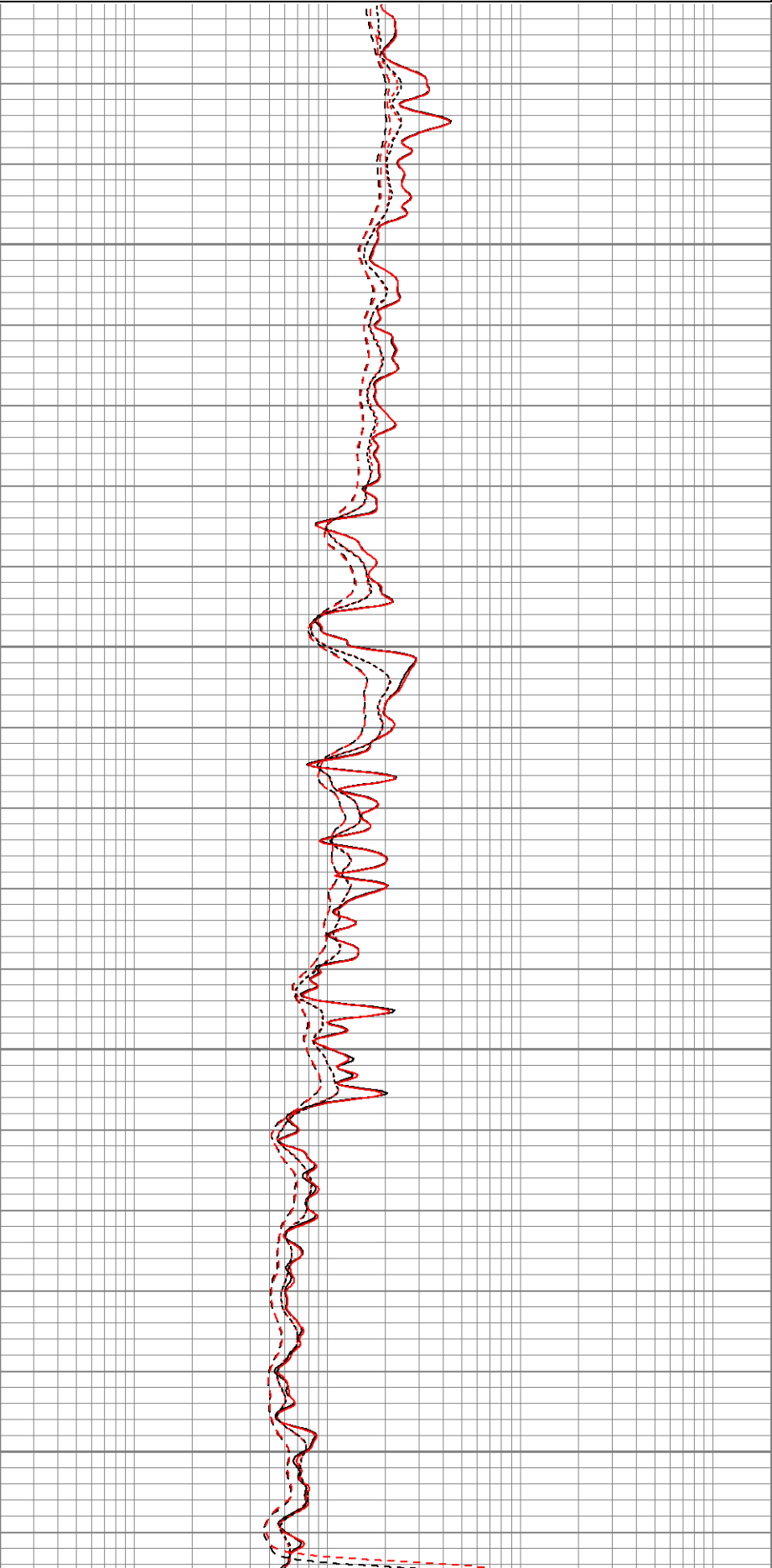
0 GR (GAPI) 200

0.2 RILM (Ohm-m) 2000

-200	SP (mV)	0
0	GR-repeat (GAPI)	200
-200	SP-repeat (mV)	0



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



0	GR (GAPI)	200
-200	SP (mV)	0
0	GR-repeat (GAPI)	200
-200	SP-repeat (mV)	0

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

Calibration Report

Database File: xtoac0513.db
Dataset Pathname: pass3
Dataset Creation: Thu Feb 21 14:46:02 2008 by Log Open-Cased 070814

Dual Induction Calibration Report

Serial-Model: 5375-G
Surface Cal Performed: Wed Feb 06 09:29:54 2008
Downhole Cal Performed: Wed Feb 06 09:31:14 2008

Surface Calibration

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.002	0.622	V	0.000	500.000	mmho-m	806.307	-1.737
Medium	0.005	0.745	V	0.000	550.000	mmho-m	742.812	-3.450
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.003	0.622	V	0.000	500.000	mmho-m	806.784	-2.176
Medium	0.005	0.745	V	0.000	550.000	mmho-m	743.382	-3.766

Downhole Calibration

Readings				References			Results	
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.241	500.512	mmho-m	0.438	500.143	mmho-m	0.999	0.197
Medium	0.213	550.041	mmho-m	0.313	549.891	mmho-m	1.000	0.100
Shallow	2.508	0.009	V	500.000	2.000	Ohm-m	125.000	-3.000

Compensated Density Calibration Report

Serial-Model: 2118-poilex
Source / Verifier: /
Master Calibration Performed: Tue Feb 19 13:14:22 2008

Master Calibration






	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	689.13	662.28	cps
Aluminum	2.590	g/cc	156.84	466.09	cps

Spine Angle = 76.65

Density/Spine Ratio = 0.578

	Size		Reading	
Small Ring	8.50	in	4.33	V

Large Ring	14.00	in	8.24	V
Gamma Ray Calibration Report				
Serial Number:	2000			
Tool Model:	P2000			
Performed:	Mon Feb 18 07:40:11 2008			
Calibrator Value:	1.0	GAPI		
Background Reading:	0.0	cps		
Calibrator Reading:	1.0	cps		
Sensitivity:	0.2700	GAPI/cps		
Neutron Calibration Report				
Serial Number:	5145			
Tool Model:	G			
Performed:	Wed Feb 06 10:21:29 2008			
Calibrator Value:	1200	NAPI		
Calibrator Reading:	1700	cps		
Sensitivity:	1	NAPI/cps		

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
NEU	36.75		None	0.75	1.50	5.00
			NEU-G (5145) Gearhart Epithermal	5.65	3.50	85.00
GR	31.05		GR-P2000 (2000)	3.67	3.25	40.00
			CDL-poilex (2118)	8.83	4.00	275.00
LSD	22.63		DIL-G (5375) Gearhart	20.80	4.00	345.00
DCAL	22.22					
SSD	22.05					
CILD	10.60		DIL-G (5375) Gearhart	20.80	4.00	345.00
SP	10.60					
CILM	6.89					
PLUG	1.70	