

**Single Induction
Log**

Company		Pioneer Natural Resources	
Well		Hunter 22-17	
Field		Purgatorie River	
County		Las Animas	
State		CO	
Location:		APL #: 05-071-09885-00	
SEC 17 TWP 33s RGE 67w		SE/NW	
Permanent Datum		Ground Level	
Log Measured From		Kelly Bushing	
Drilling Measured From		Kelly Bushing	
Elevation		7740	
CDNL		Other Services	
K.B. 7747		D.F. 7740	
G.L. 7740			
Date	27Oct2011		
Run Number	one		
Depth Driller	2565		
Depth Logger	2564		
Bottom Logged Interval	2561		
Top Log Interval	875		
Casing Driller	897		
Casing Logger	897		
Bit Size	7 7/8		
Type Fluid in Hole	foam		
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	8:30 pm		
Time Logger on Bottom	2am		
Maximum Recorded Temperature	//		
Equipment Number	590		
Location	Trinidad		
Recorded By	Patterson		
Witnessed By	B Vigil		

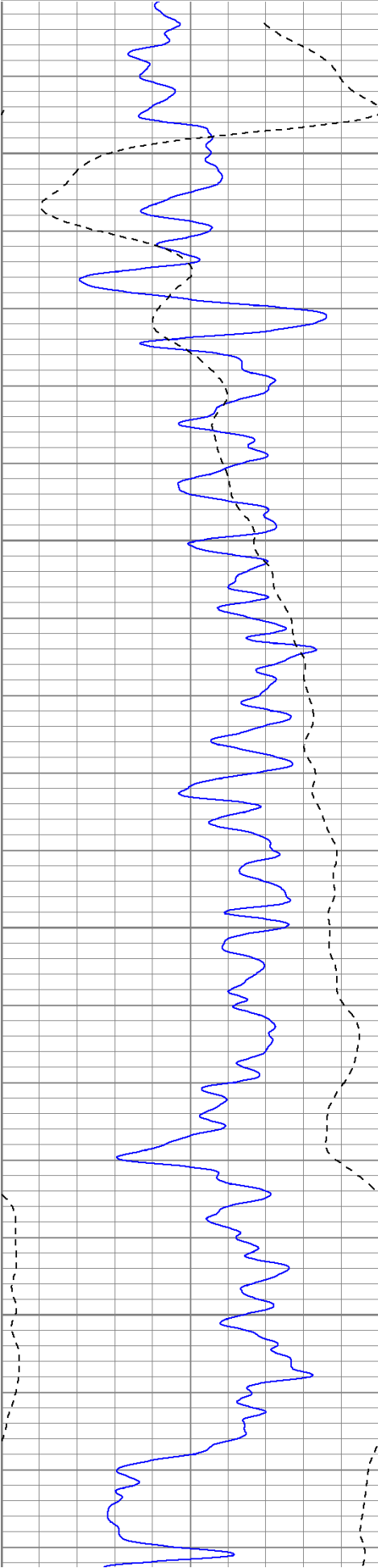
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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on 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

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

0.2	DIR (Ohm-m)	2000
0.2	SN (Ohm-m)	2000

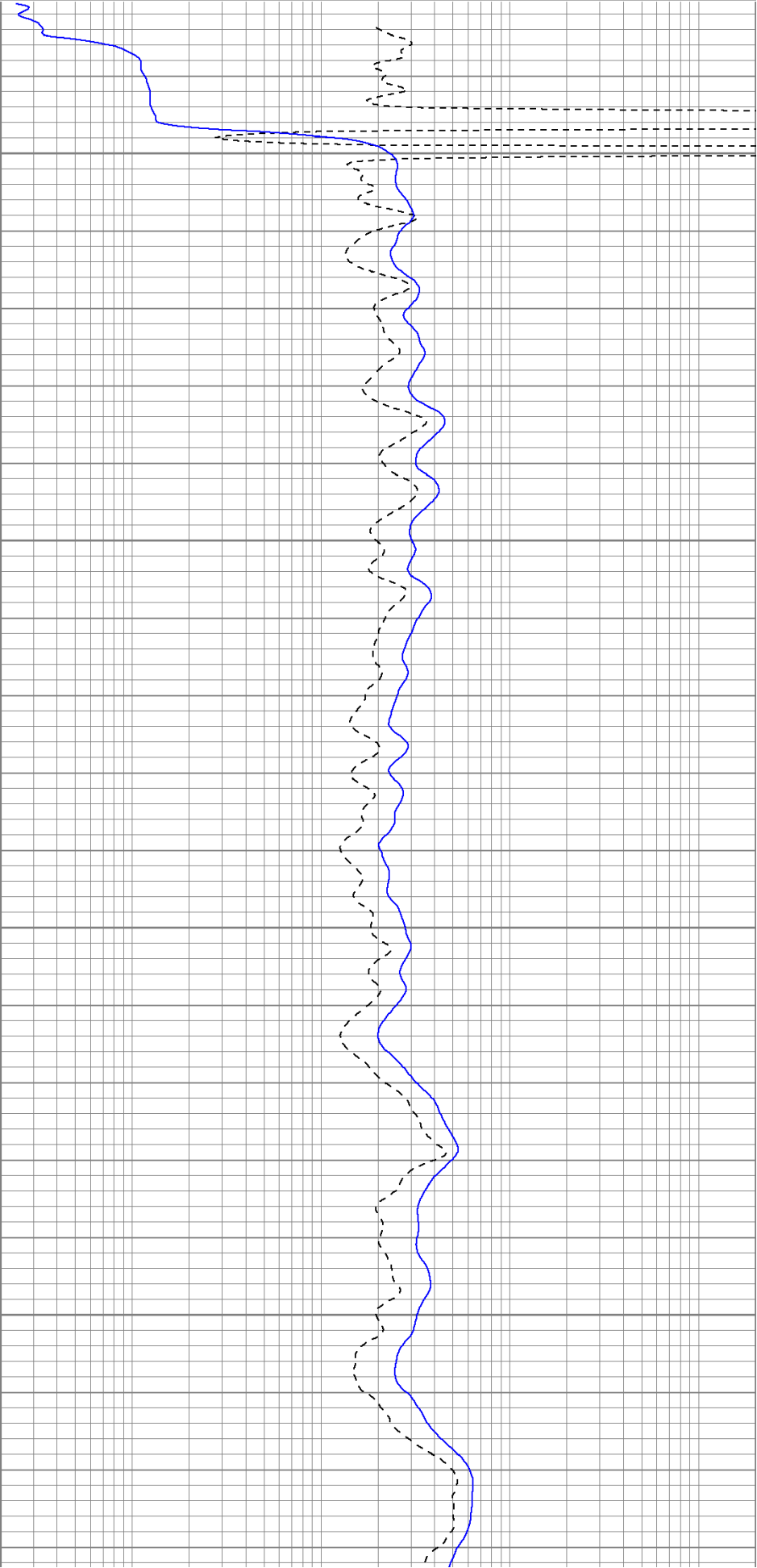


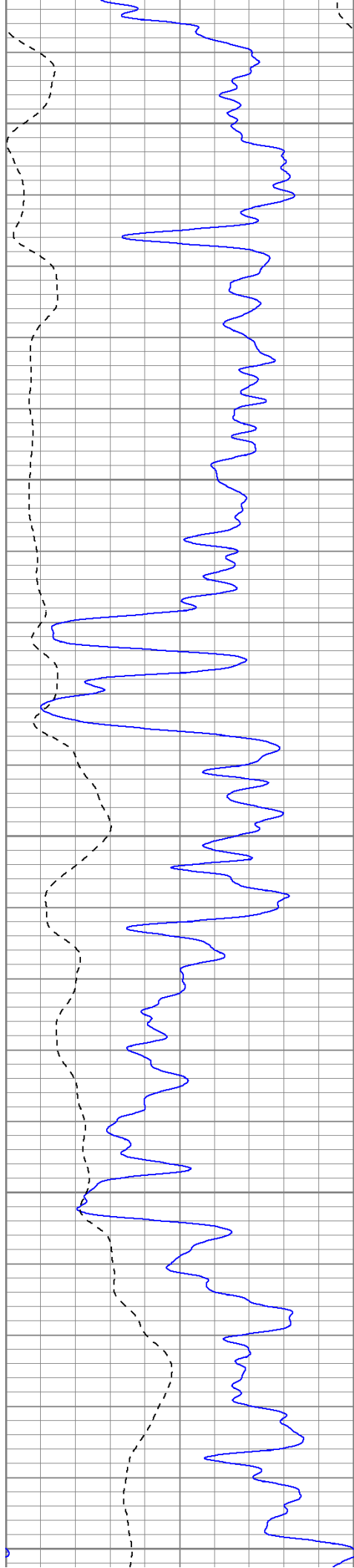
900

950

1000

1050





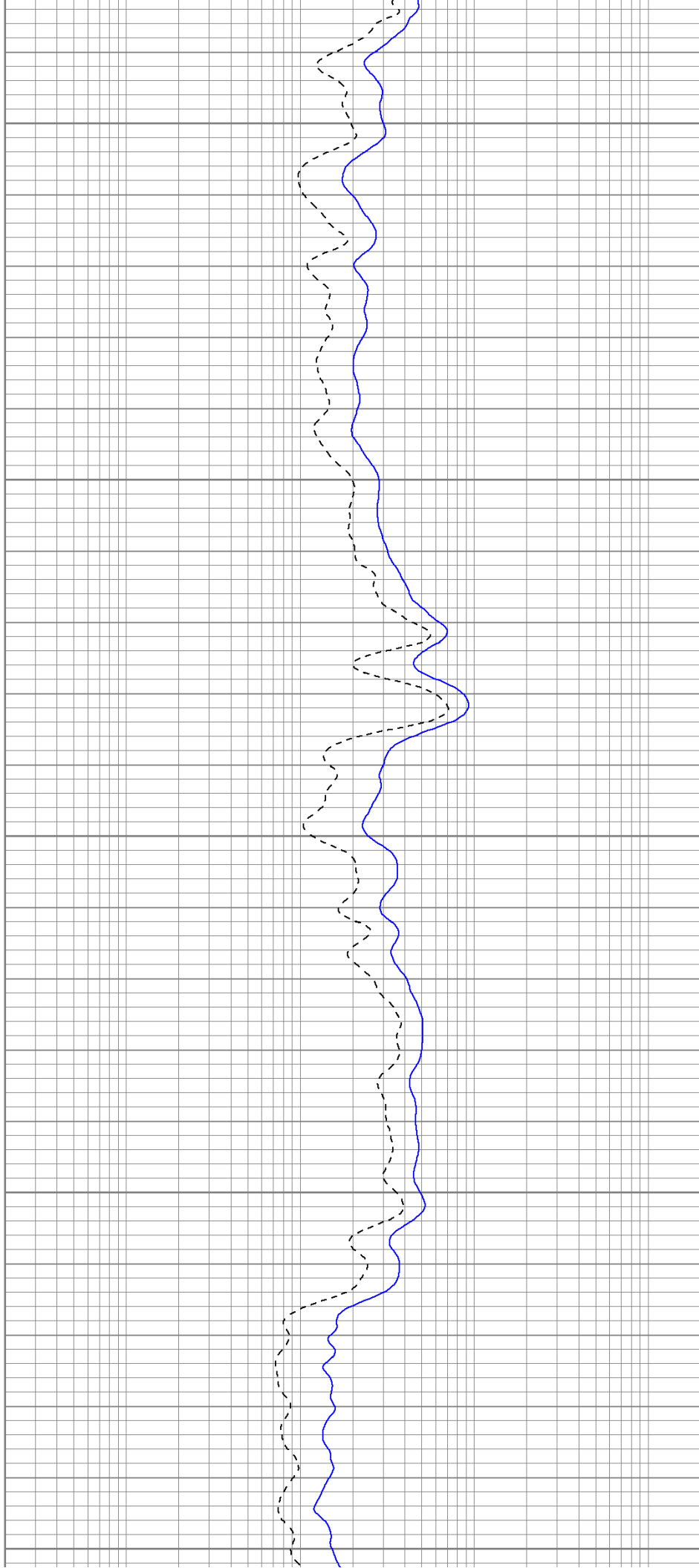
1100

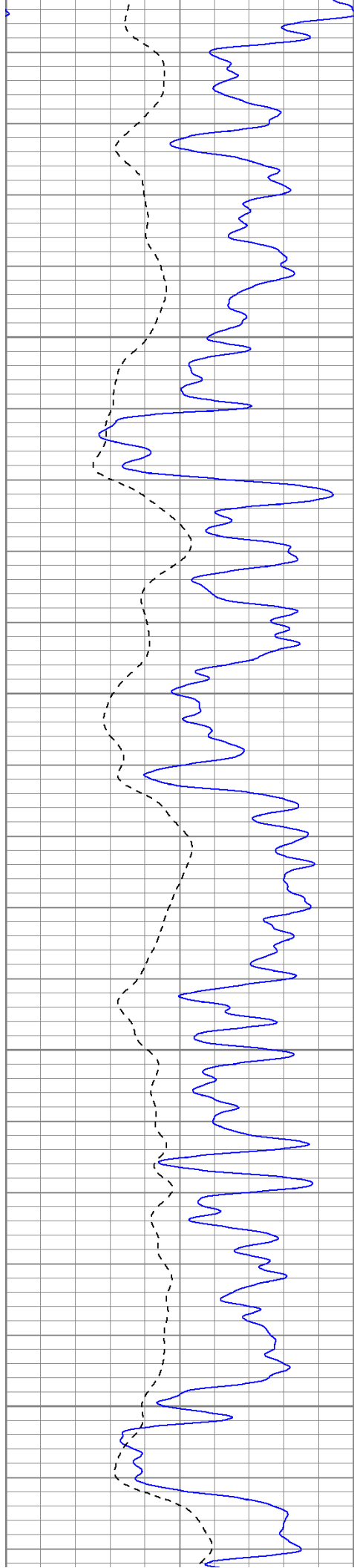
1150

1200

1250

1300



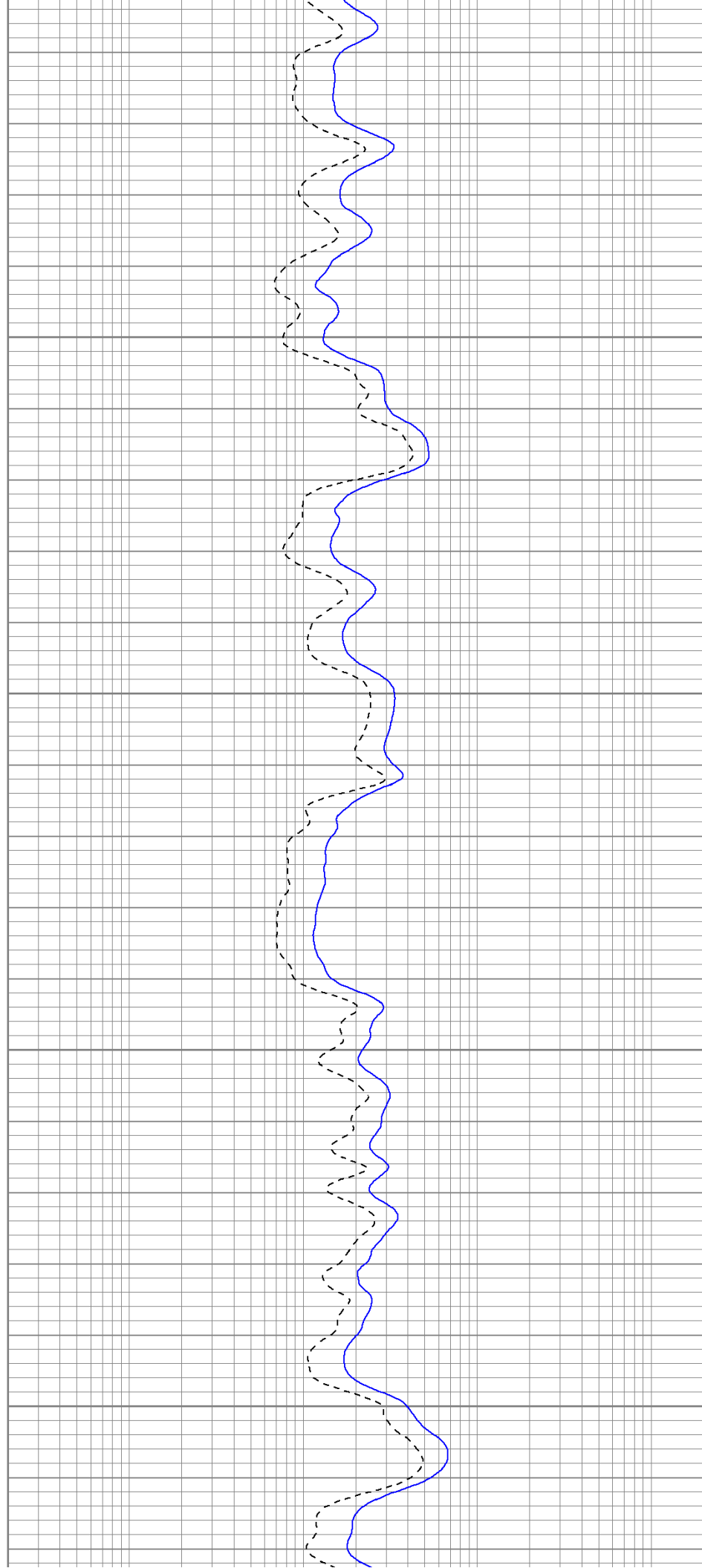


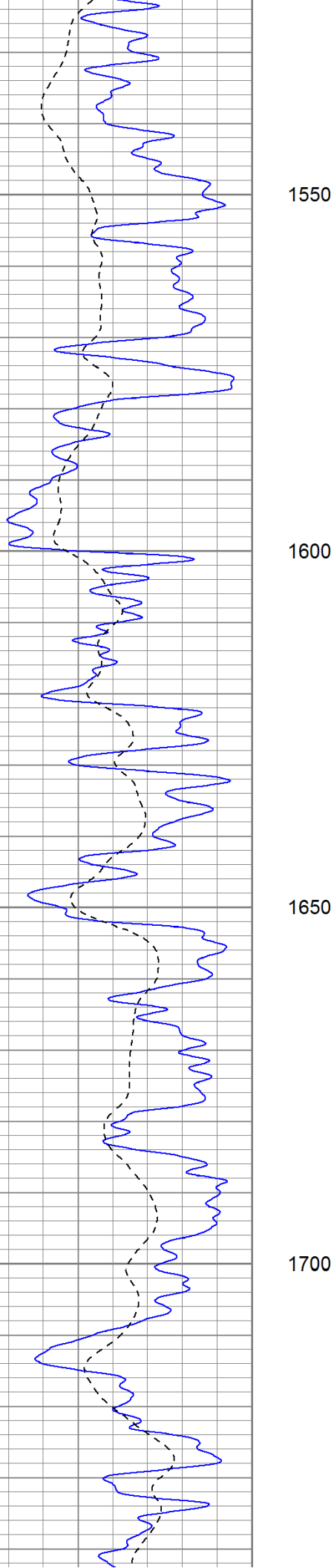
1350

1400

1450

1500





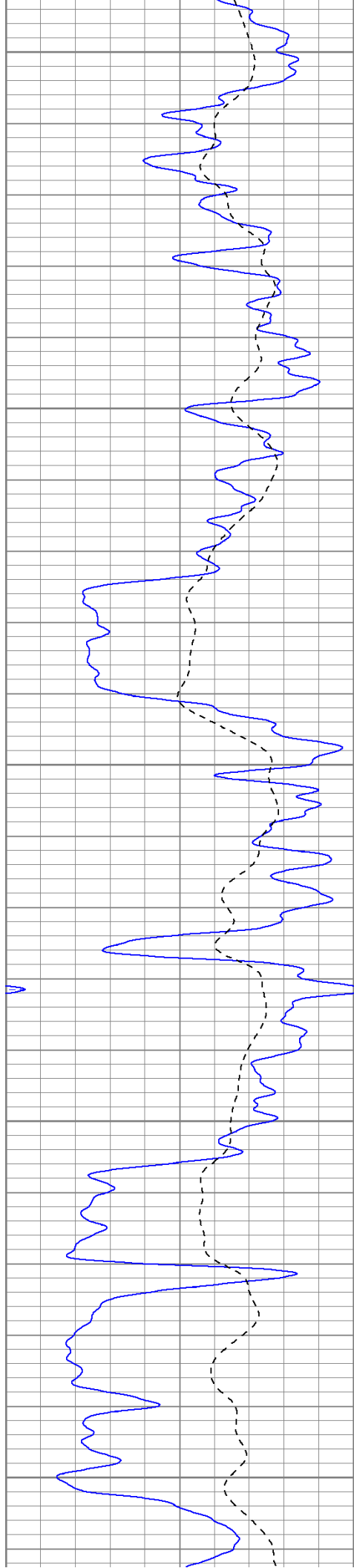
1550

1600

1650

1700





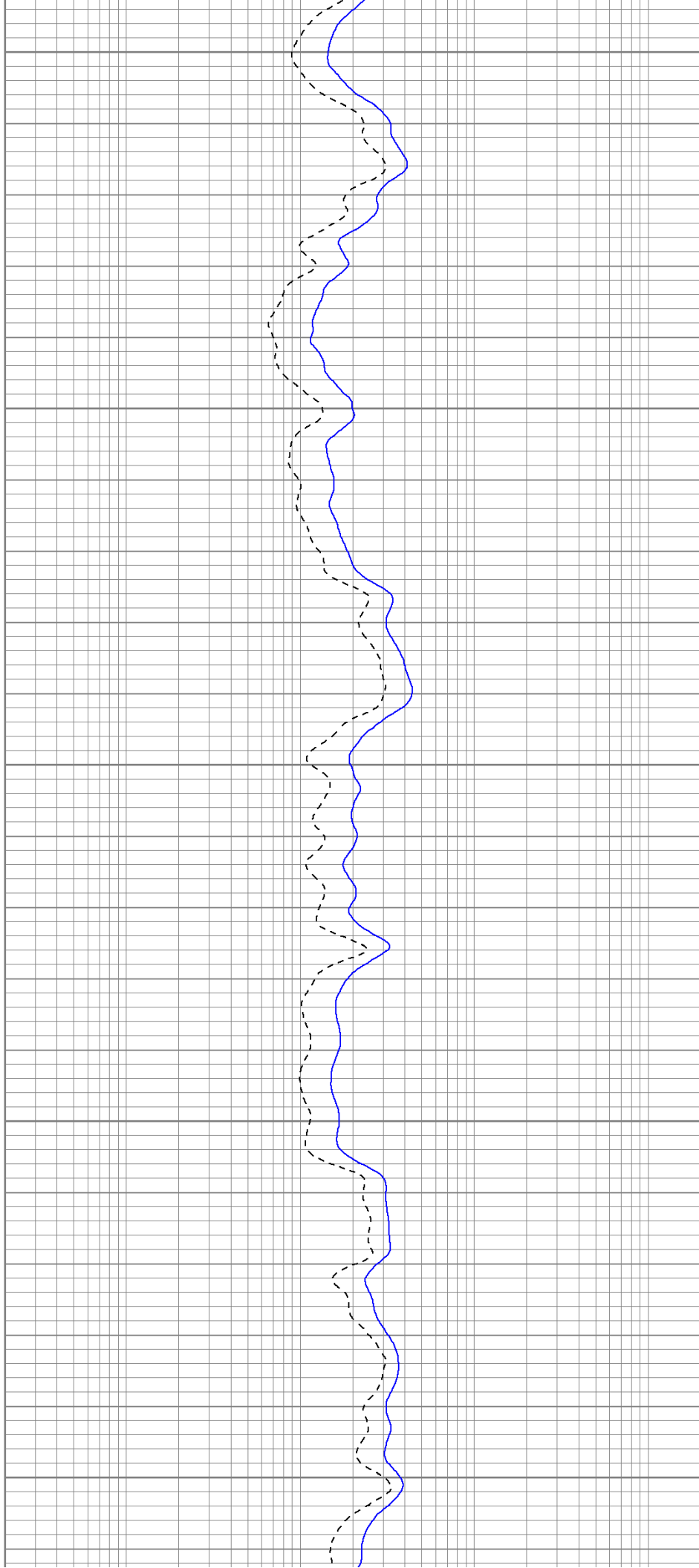
1750

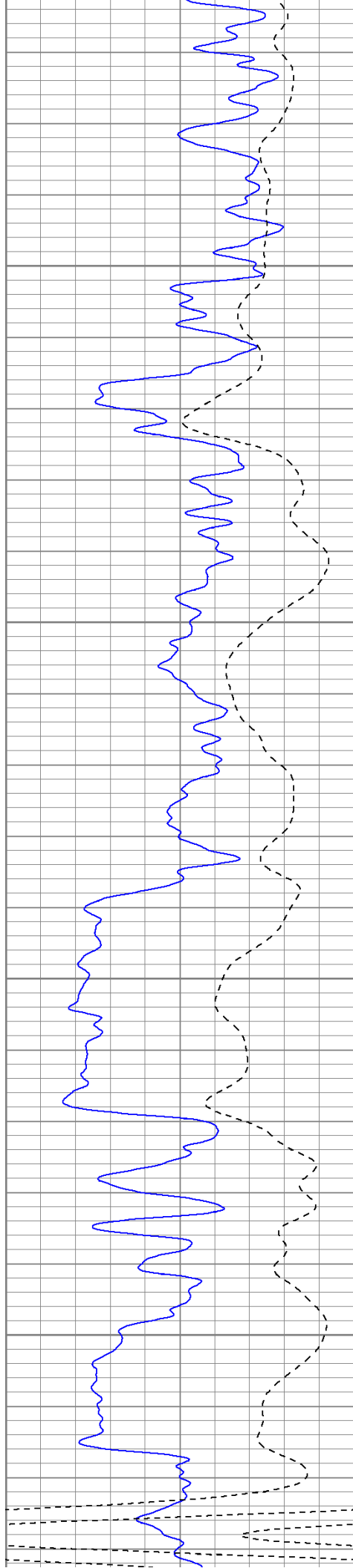
1800

1850

1900

1950



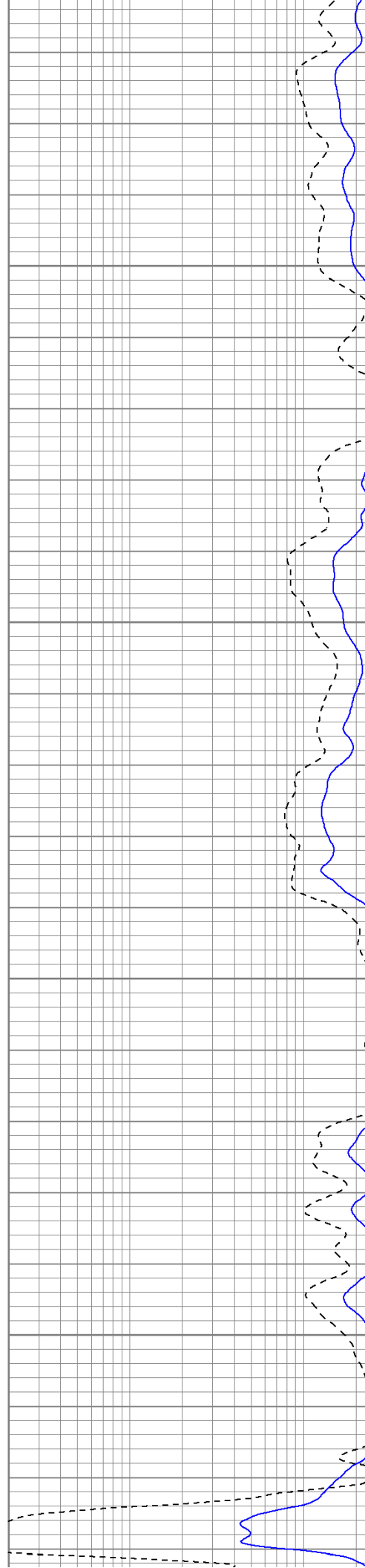


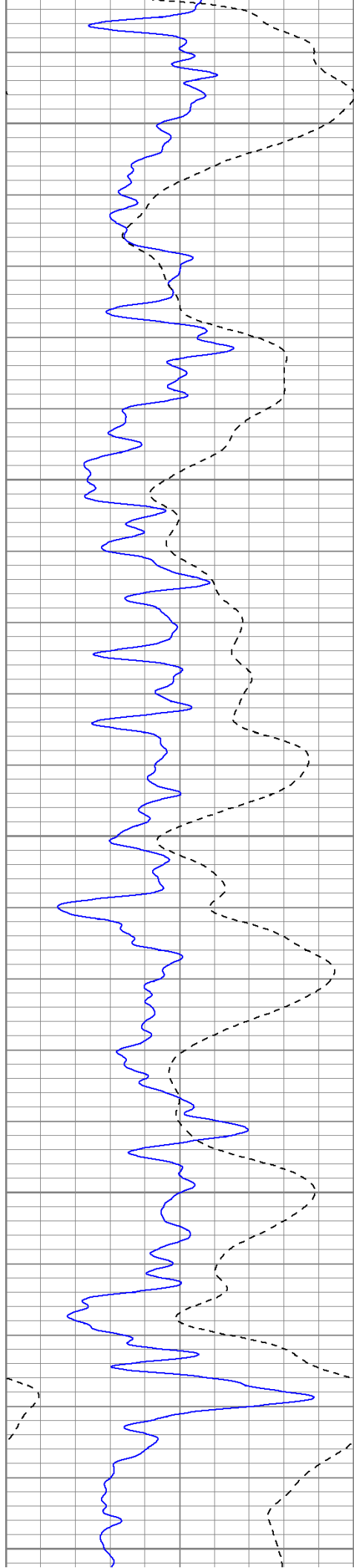
2000

2050

2100

2150





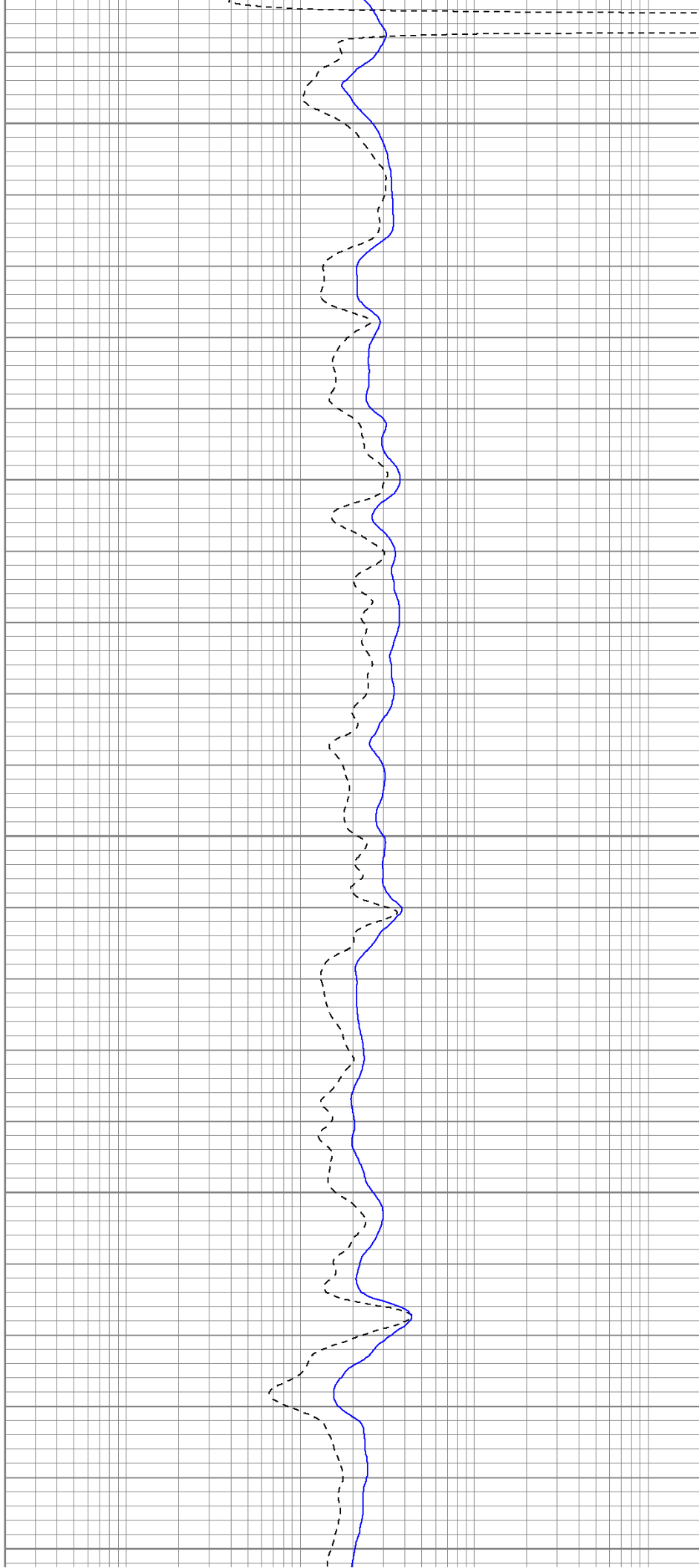
2200

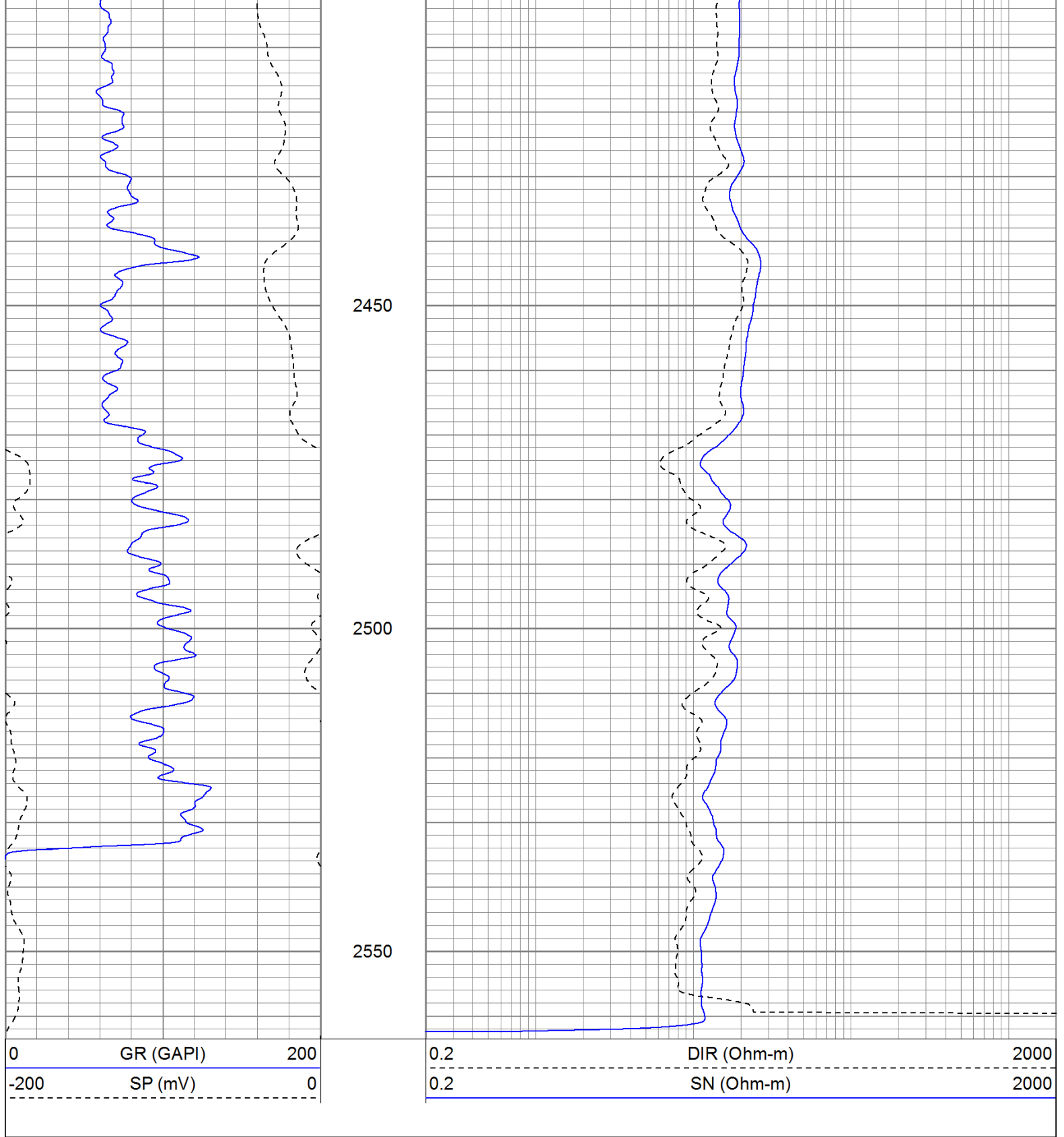
2250

2300

2350

2400

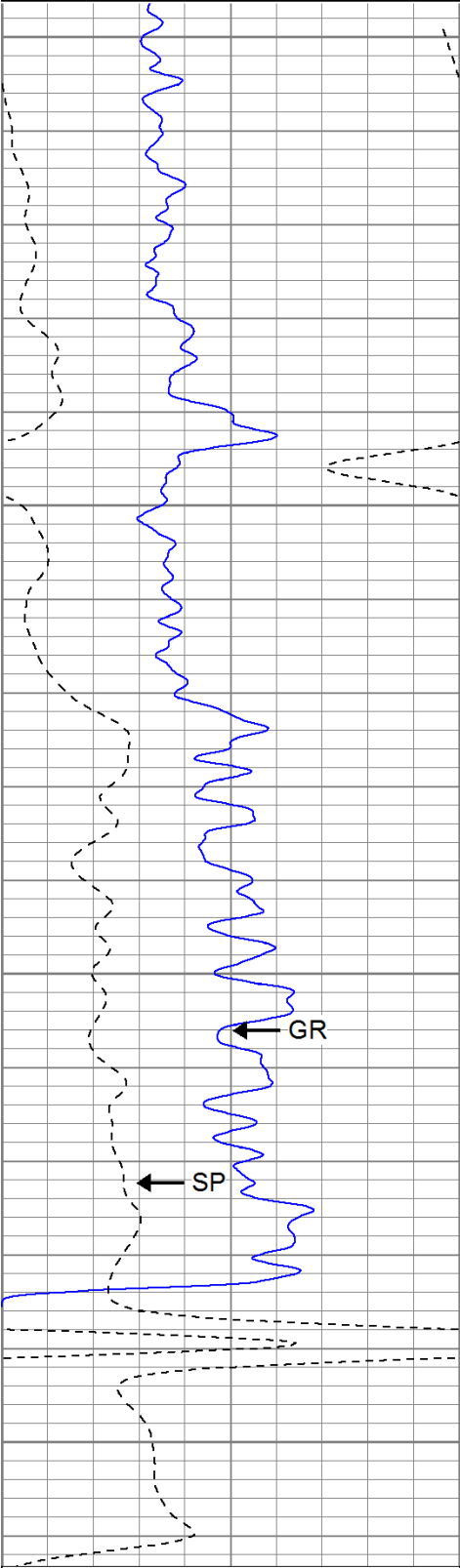




Repeat Section

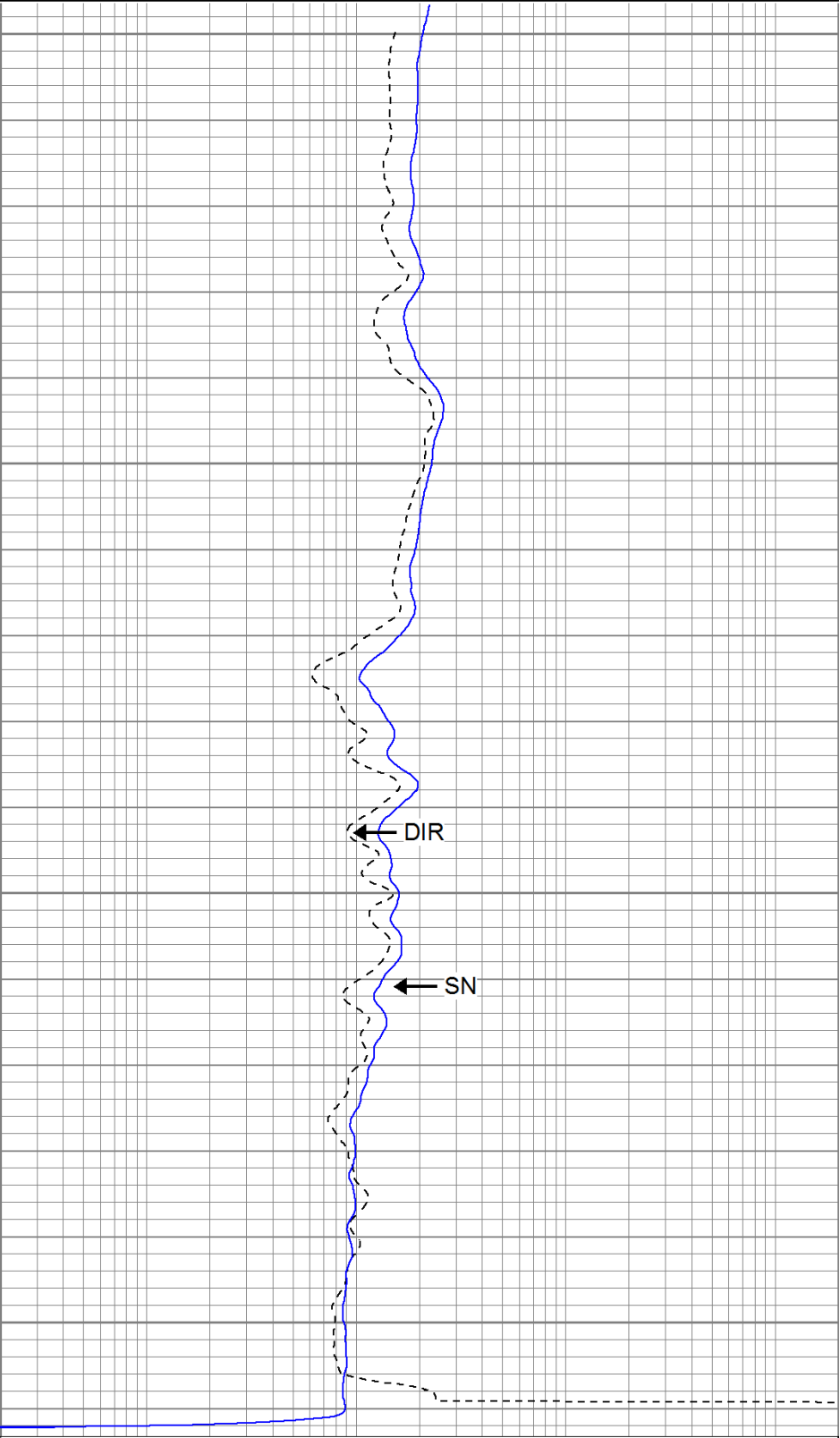
Database File: hunter22-17.db
Dataset Pathname: pass1.1
Presentation Format: iel
Dataset Creation: Thu Oct 27 13:16:43 2011 by Calc Open-Cased 110302
Charted by: Depth in Feet scaled 1:240

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



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

0.2	DIR (Ohm-m)	2000
0.2	SN (Ohm-m)	2000



0.2	DIR (Ohm-m)	2000
0.2	SN (Ohm-m)	2000

Calibration Report

Database File: hunter22-17.db
Dataset Pathname: pass1
Dataset Creation: Thu Oct 27 02:43:15 2011 by Log Open-Cased 110302

Induction Tool Calibration Report					
Serial Number:		701			
Tool Model:		Probe			
Downhole Cal Performed:		Wed Jun 08 22:14:25 2011			
Surface Cal Performed:		Wed Jun 08 22:14:40 2011			
After Survey Verification Performed:					
Surface Calibration:		Air	Loop		
Conductivity Reference:		0.000	500.000	mmho	
Conductivity Reading:		0.006	0.644	V	
Internal Reference:		Zero	Cal		
Conductivity Reference:		0.000	500.000	mmho	
Conductivity Reading:		0.007	0.643	V	
Downhole Calibration:		Internal Zero	Internal Cal		
Conductivity Reference:		0.703	499.163	mmho	
Conductivity Reading:		0.000	0.000	V	
Short Normal Reference:		0.000	20.000	Ohm-m	
Short Normal Reading:		0.005	0.214	V	
Results:		Gain	Offset		
Loop Conductivity:		783.886	-4.674		
Downhole Correction:		1.000	0.000		
Short Normal Resistivity:		95.281	-2.000		
After Survey Verification		Internal Zero	Internal Cal		
Conductivity Reading:		0.000	0.000	V	
Conductivity Result:		0.000	0.000	mmho	
Short Normal Reading:		0.000	0.000	V	
Short Normal Result:		0.000	0.000	Ohm-m	
Compensated Density Calibration Report					
Serial-Model:		901-2.75POH			
Source / Verifier:		/			
Master Calibration Performed:		Mon Oct 10 09:20:39 2011			
Before Survey Verification Performed:					
After Survey Verification Performed:					
Master Calibration					
	Density		Far Detector		Near Detector
Magnesium	1.710	g/cc	1001.79	578.48	cps
Aluminum	2.590	g/cc	180.36	300.39	cps
Spine Angle = 69.08			Density/Spine Ratio = 0.479		
	Size		Reading		
Small Ring	8.00	in	2.50	V	
Large Ring	16.00	in	4.57	V	
Before Survey Verification					
	Target		Measured		
	g/cc		g/cc		
	g/cc		g/cc		
	g/cc		g/cc		
After Survey Verification					
	Target		Measured		
	g/cc		g/cc		
	g/cc		g/cc		
	g/cc		g/cc		

g/cc

g/cc

Neutron Calibration Report

Serial Number: 803
Tool Model: 2.75POH
Performed: Mon Oct 10 09:27:42 2011

Calibrator Value: 1 NAPI

Calibrator Reading: 1 cps

Sensitivity: 1 NAPI/cps




Gamma Ray Calibration Report

Serial Number: 804
Tool Model: 2.75POH
Performed: Mon Oct 10 09:53:04 2011

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.6500 GAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
GR	29.58		None	0.75	1.50	5.00
			GR-2.75POH (804) Probe 2.75" Probe Open Hole Gamma Ray	3.73	2.75	43.00
NEU	24.04		NEU-2.75POH (803) Probe Epithermal	4.75	2.75	58.00
			CDL-2.75POH (901) Probe	8.43	2.75	106.00
LSD	16.21					
DCAL	15.94					
SSD	15.69					

DIC	6.24		IEL-Probe (701)	13.46	2.75	93.00
SP	2.25					
SN	1.71					
Dataset: hunter22-17.db: field/well/run1/pass1.1 Total Length: 31.11 ft Total Weight: 305.00 lb O.D. 2.75 in						