

COMPENSATED DENSITY NEUTRON LOG

Company	Pioneer Natural Resources	Company	Pioneer Natural Resources
Well	Turlington 22-28	Well	Turlington 22-28
Field	Purgatoire River	Field	Purgatoire River
County	Las Animas	County	Las Animas
State	Colorado	State	Colorado
Location:	APL #: 05 071 09820 00	Other Services	SIL
SEC 28 TWP 31S RGE 65W	2337' FNL & 1705' FWL		
Permanent Datum	Ground Level	Elevation	7132'
Log Measured From	Kelly Bushing 4' AGL		
Drilling Measured From	Kelly Bushing		
Date	7-19-11		
Run Number	One		
Depth Driller	1585'		
Depth Logger	1582'		
Bottom Logged Interval	1566'		
Top Log Interval	Surface Casing		
Casing Driller	8 5/8" @ 770'		
Casing Logger	770'		
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	2:30 A.M.		
Time Logger on Bottom	5:30 A.M.		
Maximum Recorded Temperature	90 DEG F		
Equipment Number	T590		
Location	Trinidad		
Recorded By	C. Sisneros		
Witnessed By	Mr. Derrick Berry		

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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

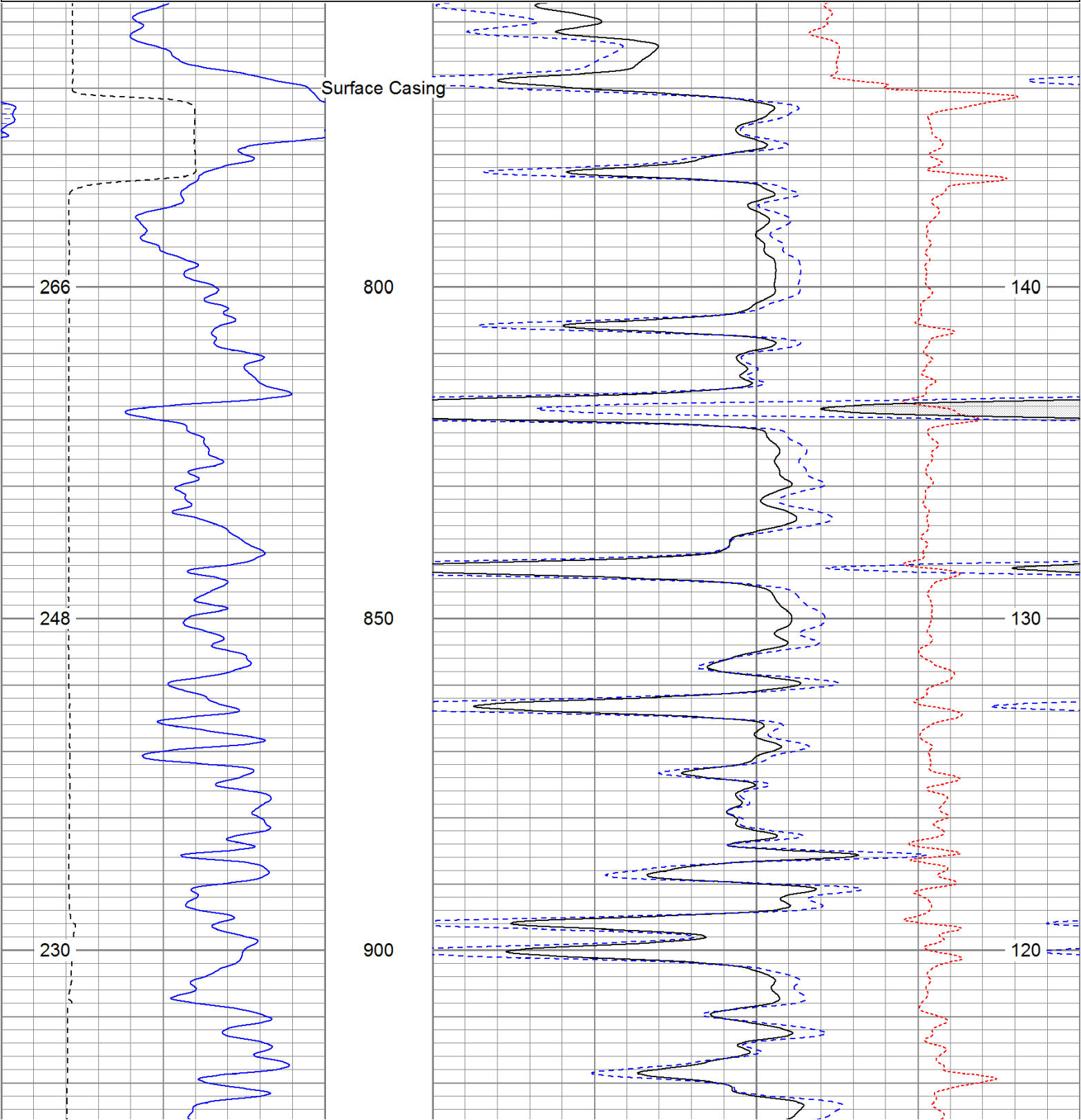
Density Porosity Presented On Sandstone Matrix.
ABHV Calculated For 5.5" Casing.

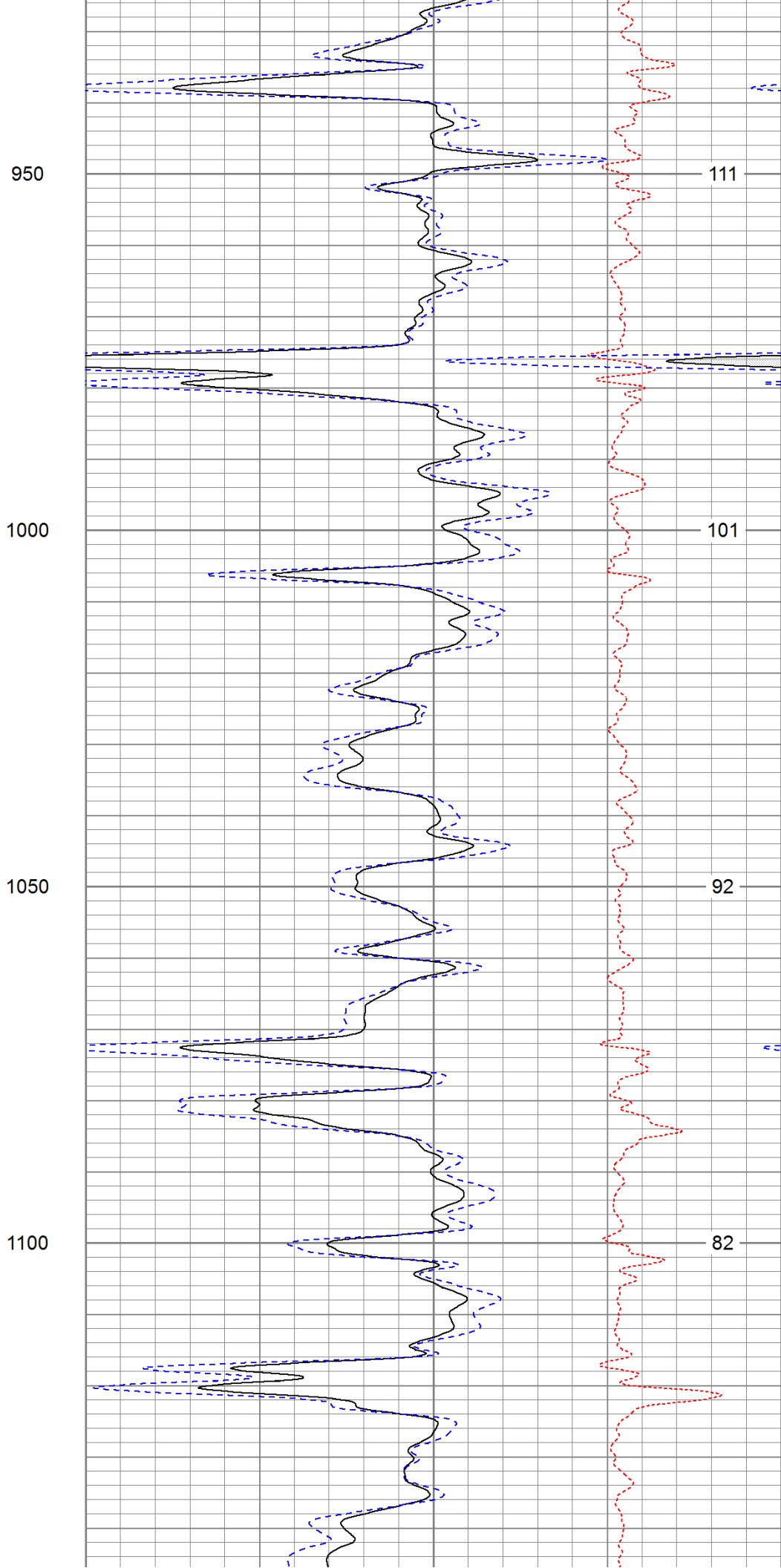
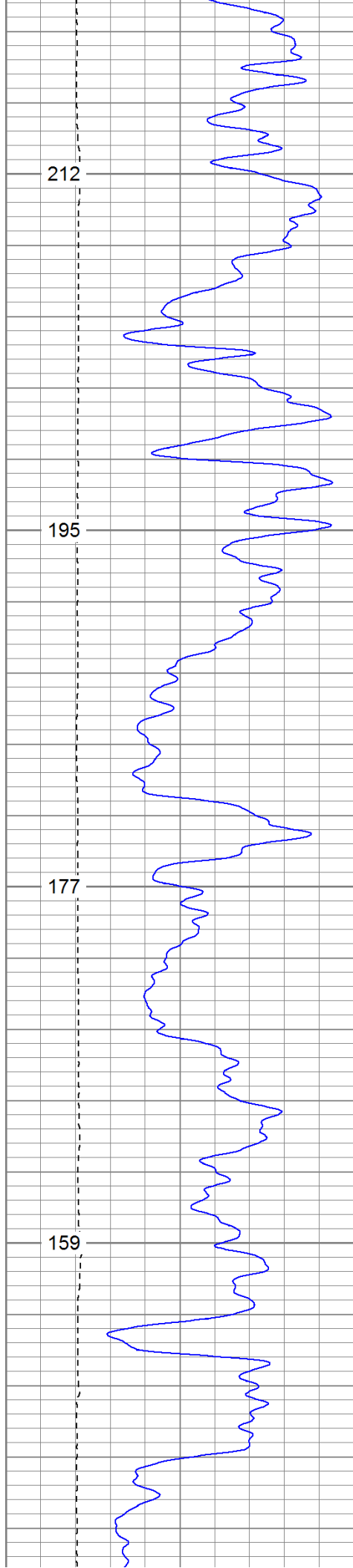
Directions:

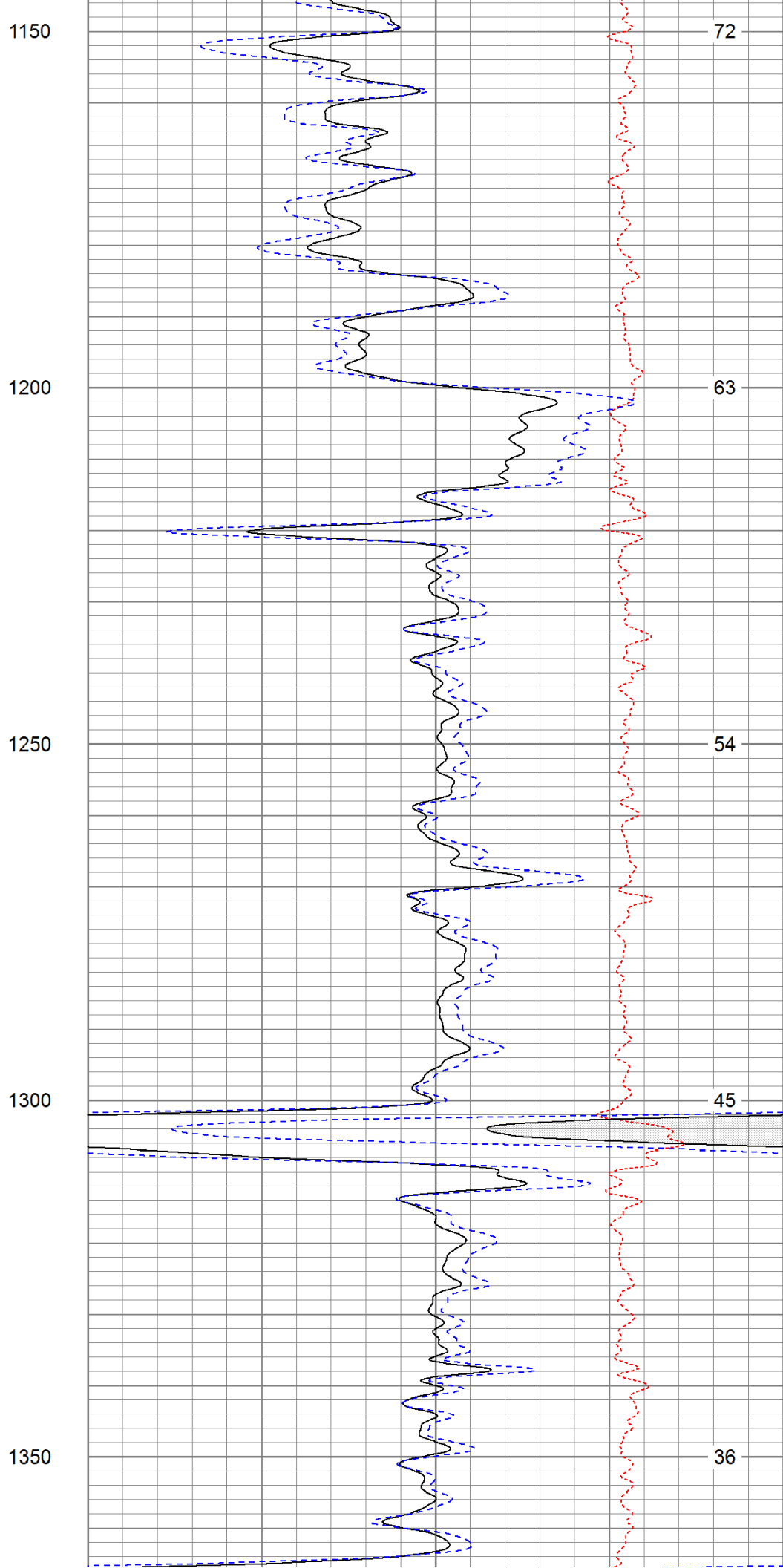
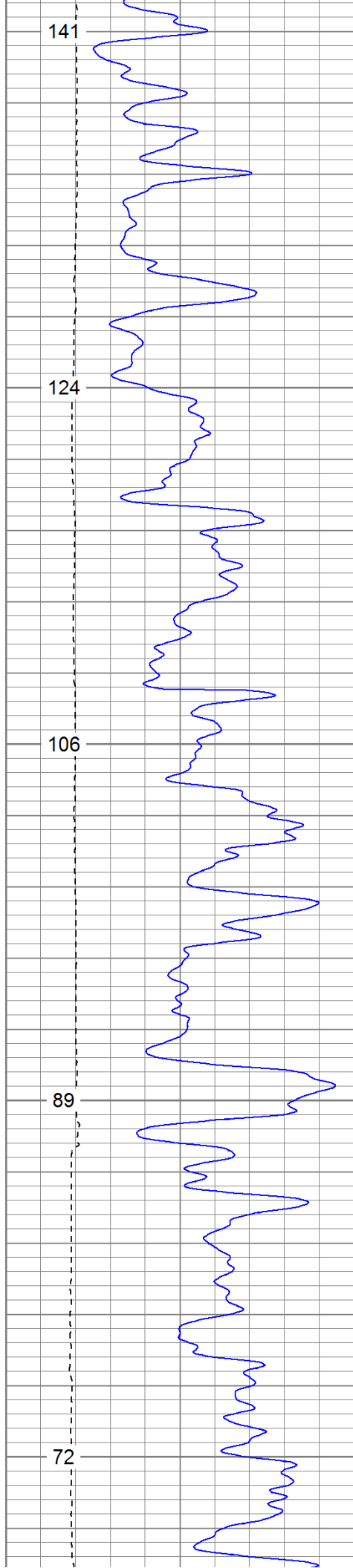
Ludlow to four corners, go left, fourth left, go thru gate, stay straight,
go thru second gate, 2nd left to location.

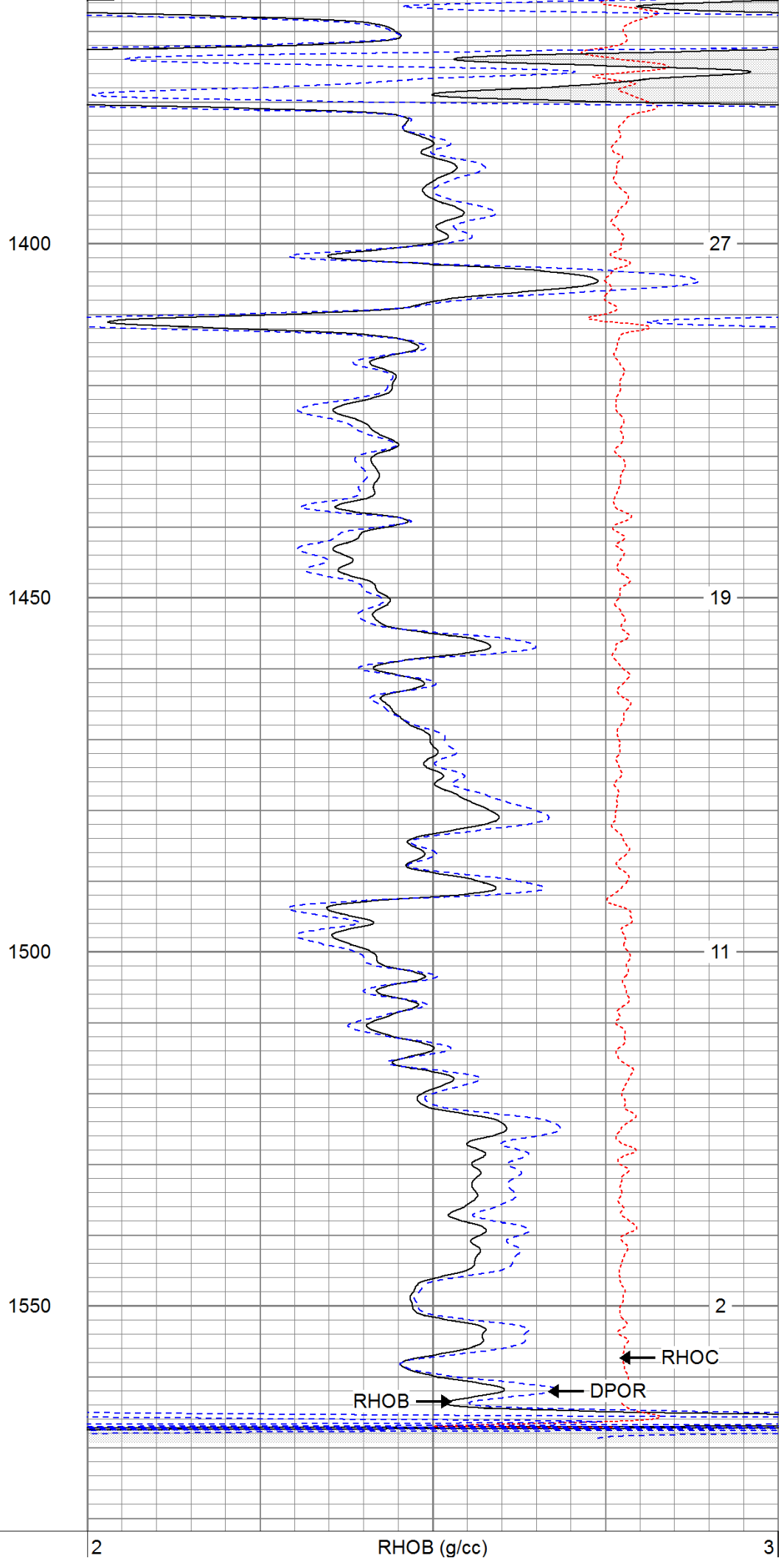
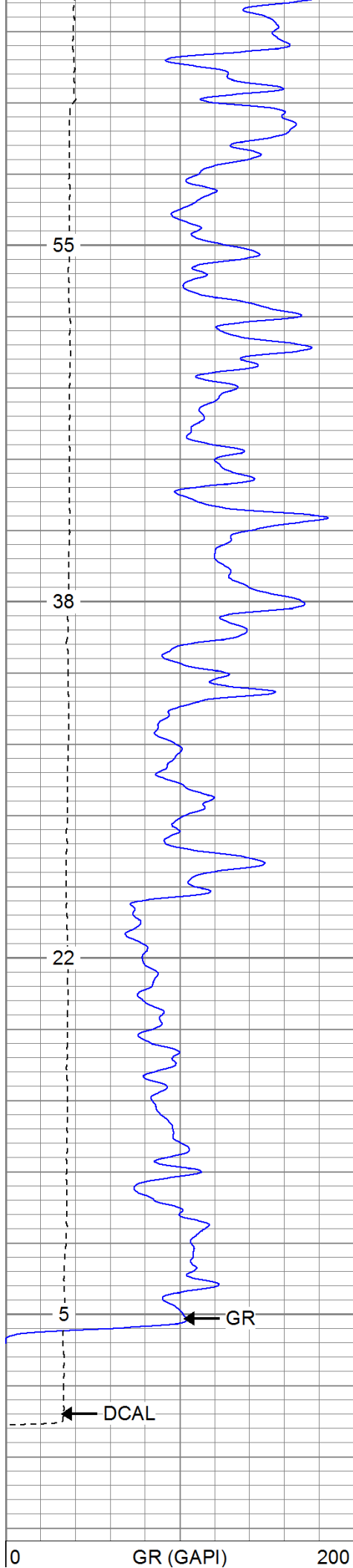
Database File: turlington.db
Dataset Pathname: pass2.1
Presentation Format: cdl
Dataset Creation: Tue Jul 19 06:07:13 2011 by Calc Open-Cased 110302
Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200	2	RHOB (g/cc)		3
6	DCAL (in)	16	1	RHOB (g/cc)		2
TBHV (ft3)			30	DPOR (pu)		-10
				-0.5	RHOC (g/cc)	0.5
				7000	LTEN (lb)	0
						ABHV (ft3)









6	DCAL (in)	16
TBHV (ft3)		

1	RHOB (g/cc)		2
30	DPOR (pu)		-10
	-0.5	RHOC (g/cc)	0.5
	7000	LTEN (lb)	0
			ABHV (ft3)

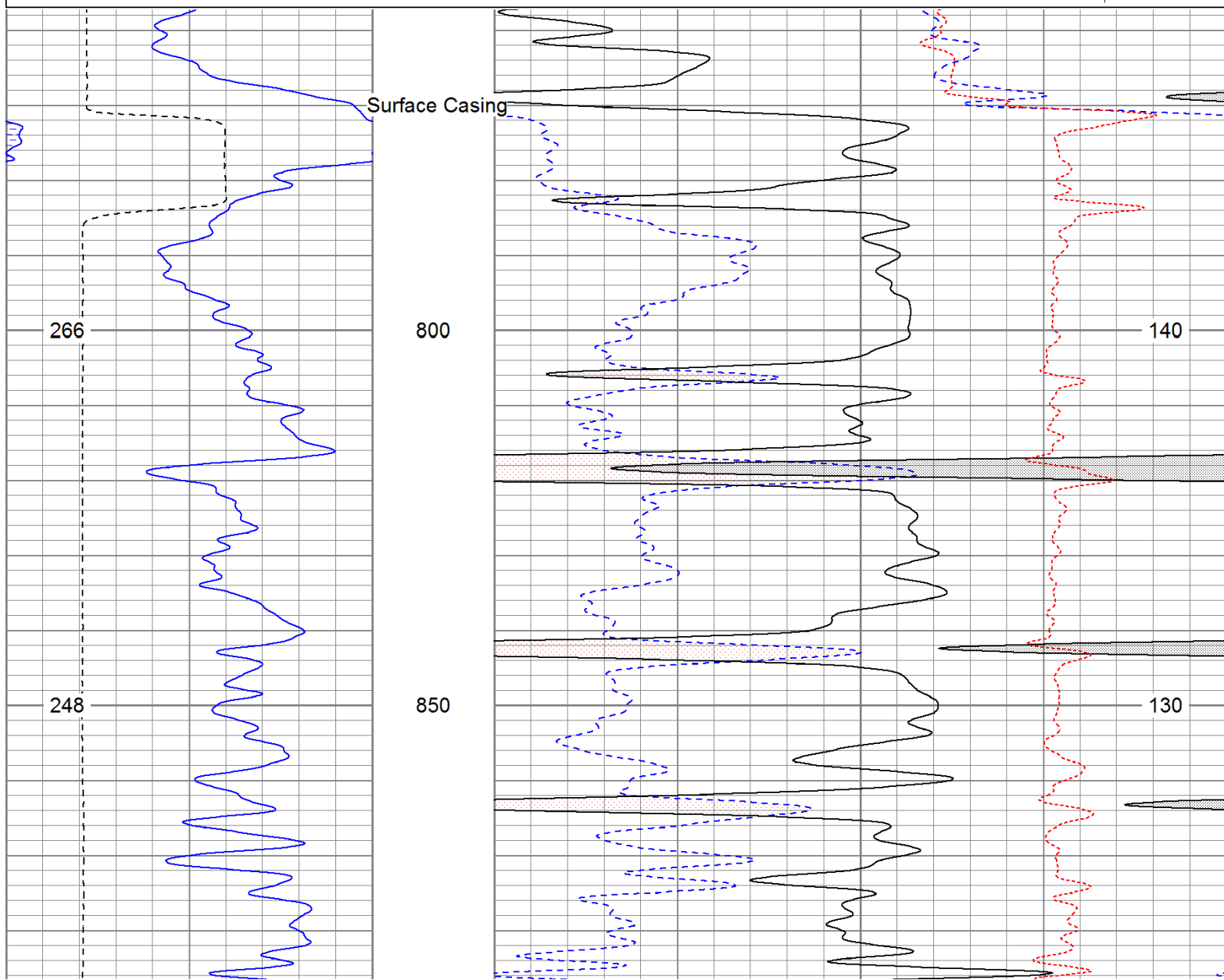


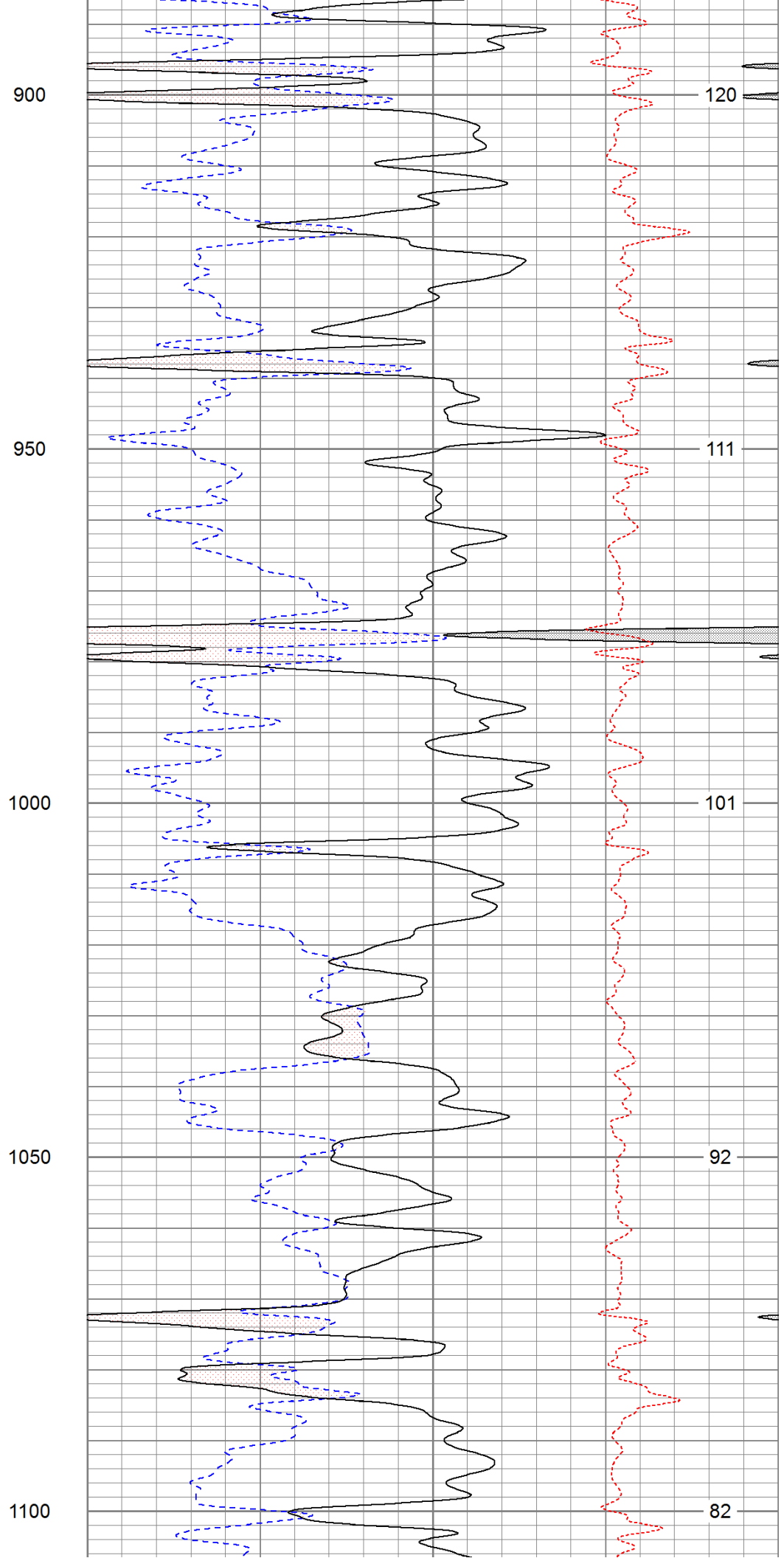
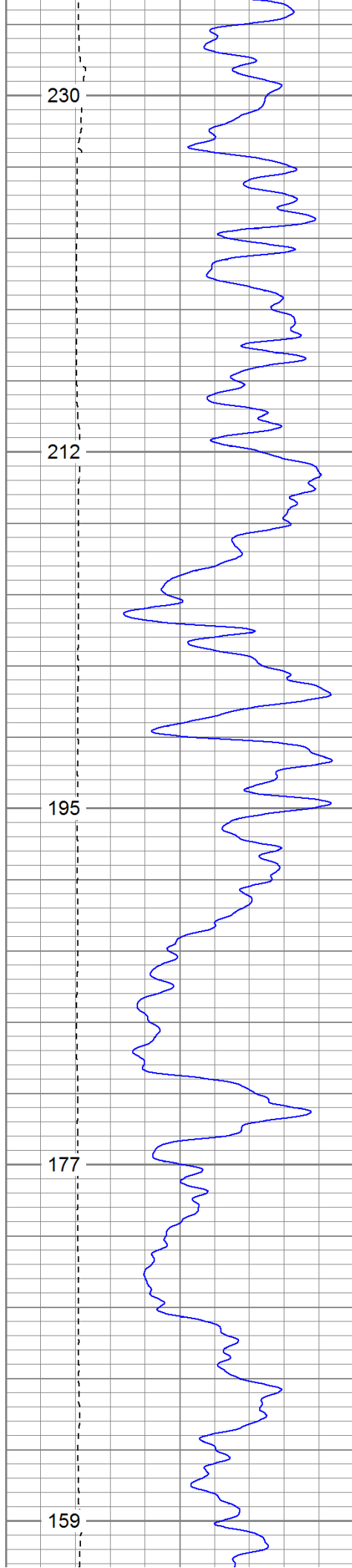
Main Pass

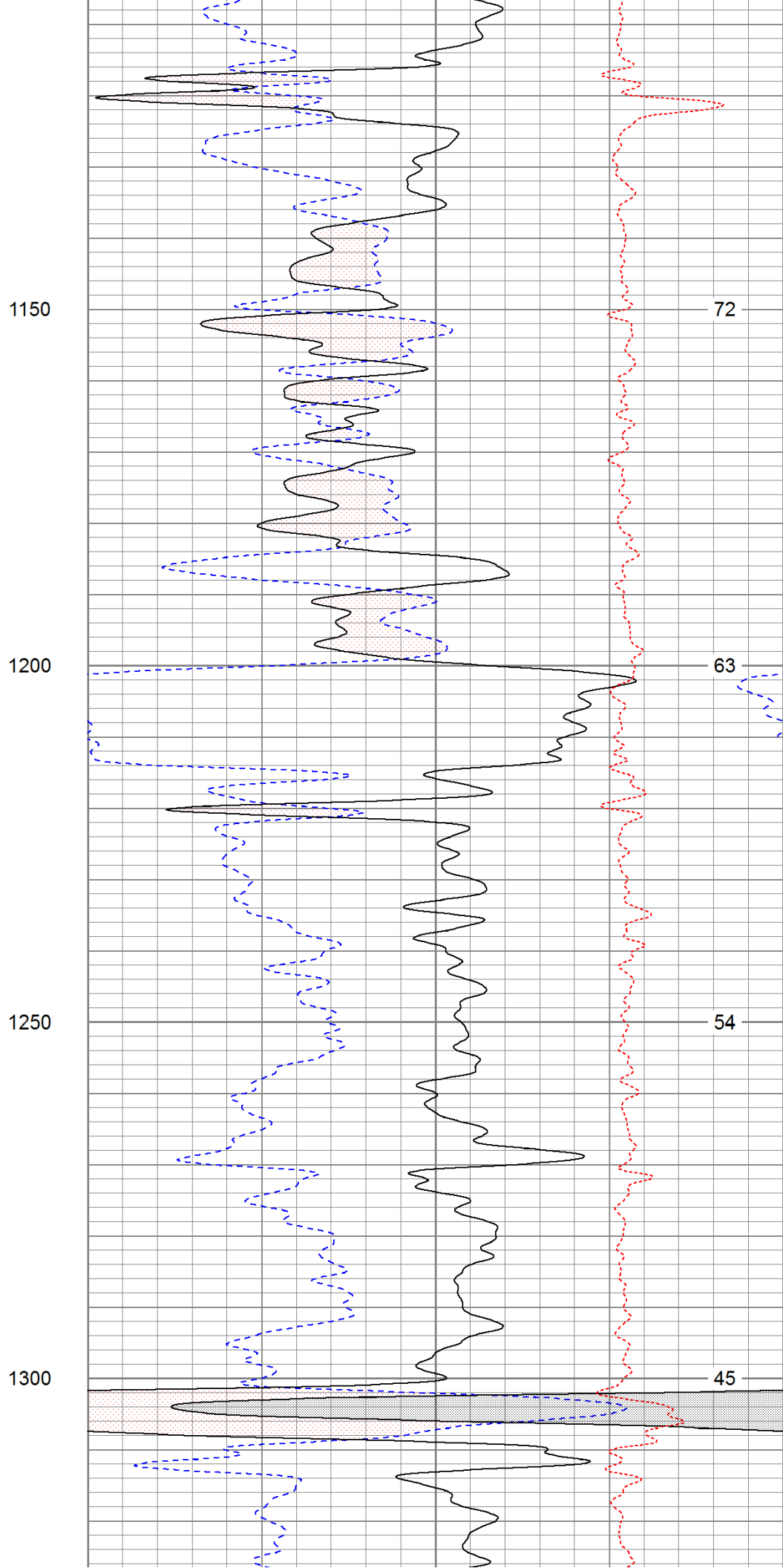
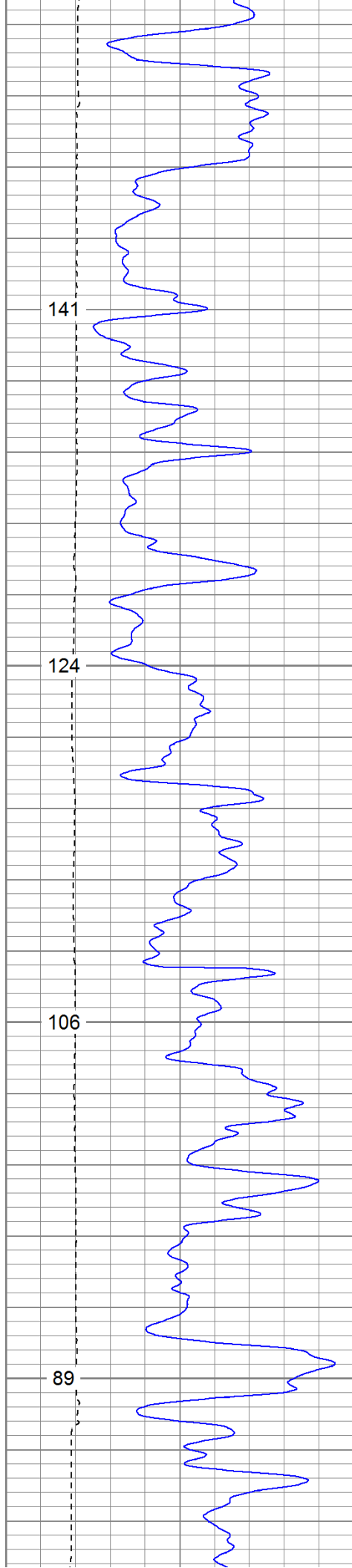
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 Presentation Format: cdnl
 Dataset Creation: Tue Jul 19 06:07:13 2011 by Calc Open-Cased 110302
 Charted by: Depth in Feet scaled 1:240

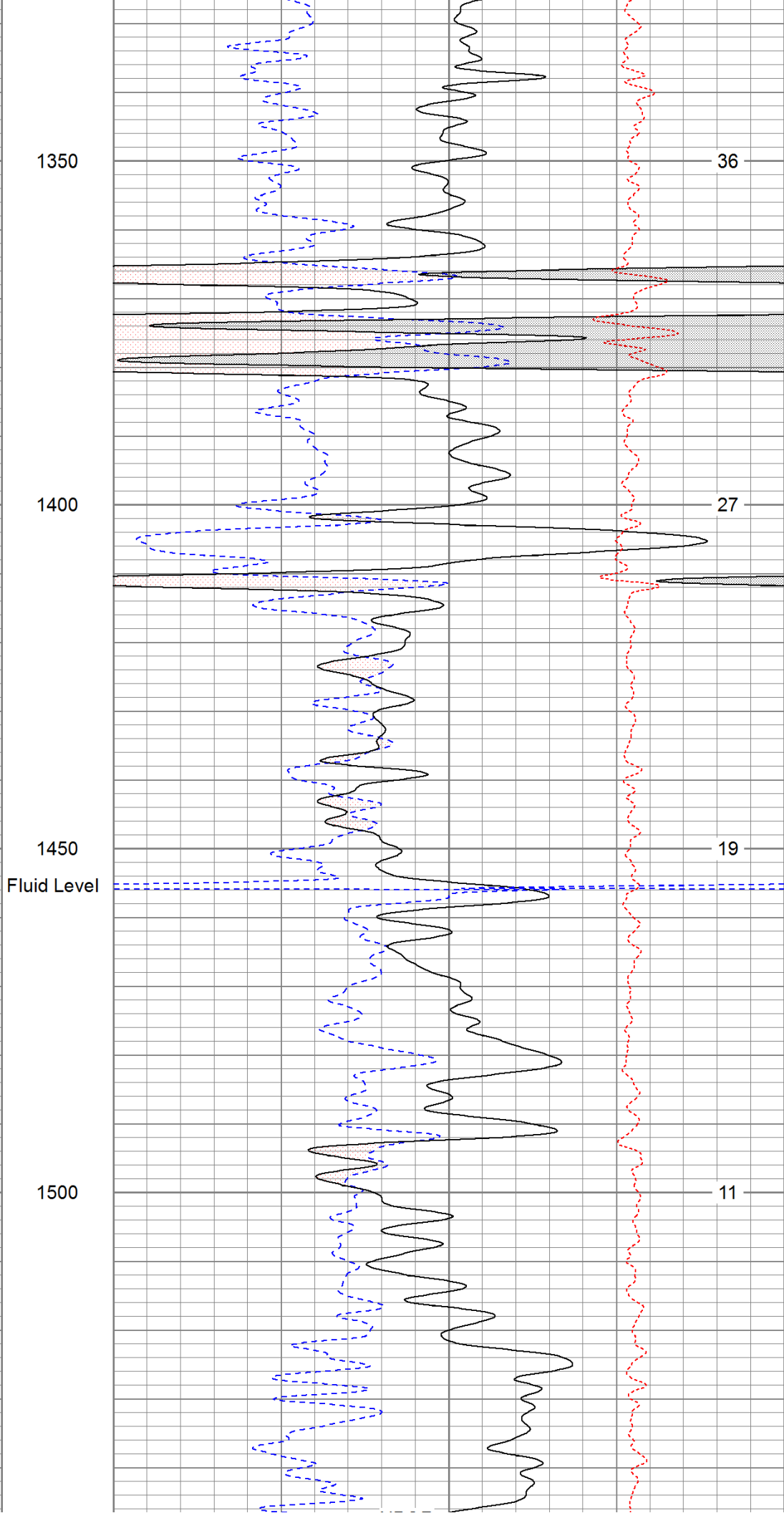
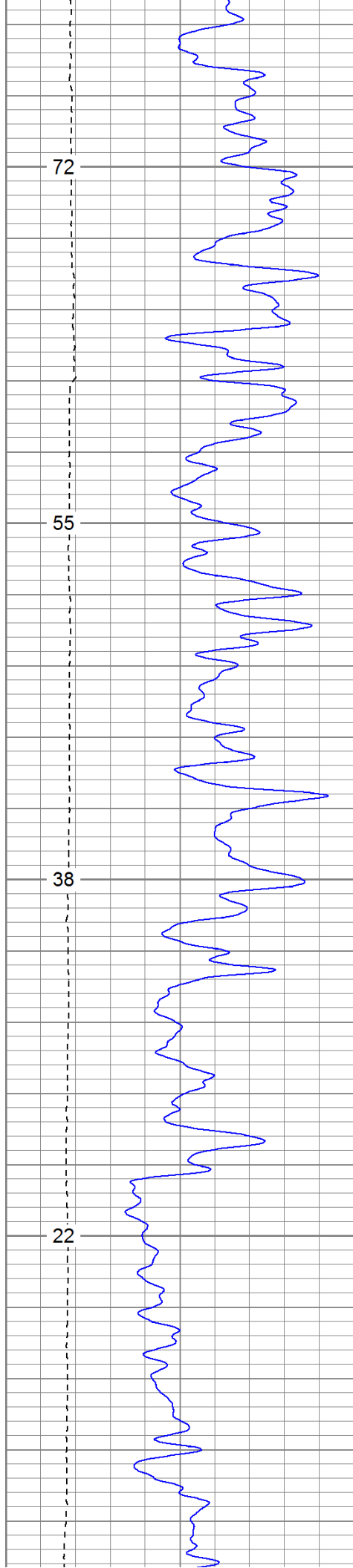
0	GR (GAPI)	200
6	DCAL (in)	16
TBHV (ft3)		

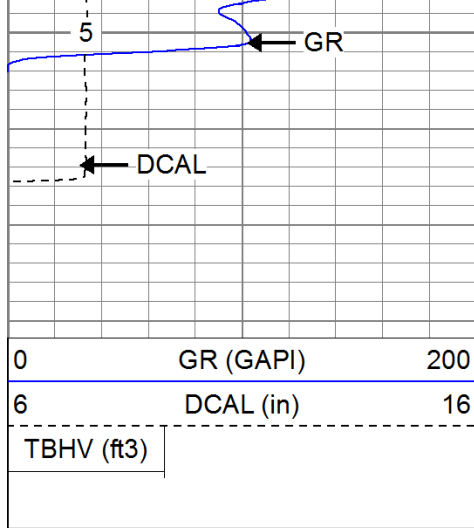
30	NPOR (pu)	-10
30	DPOR (pu)	-10
	-0.5	RHOC (g/cc)
		0.5
		ABHV (ft3)



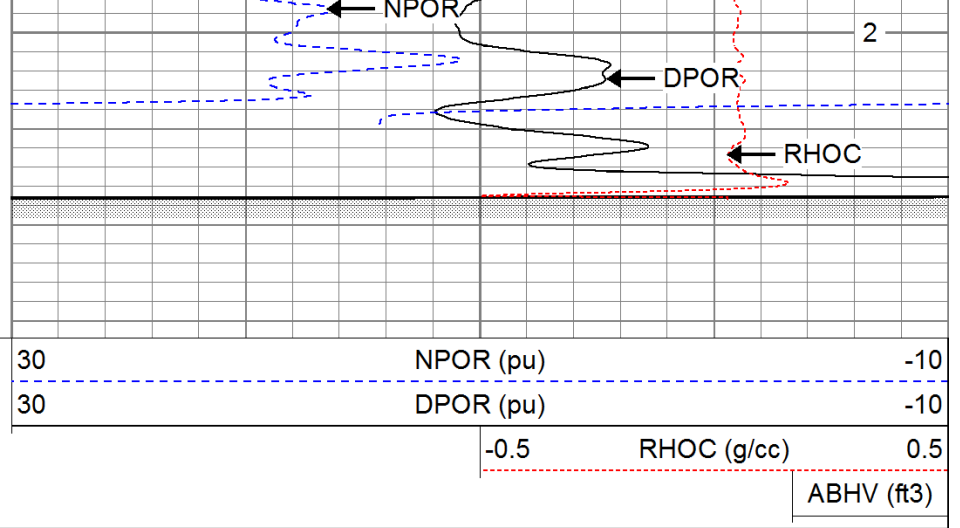






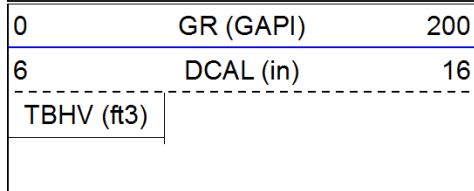


1550



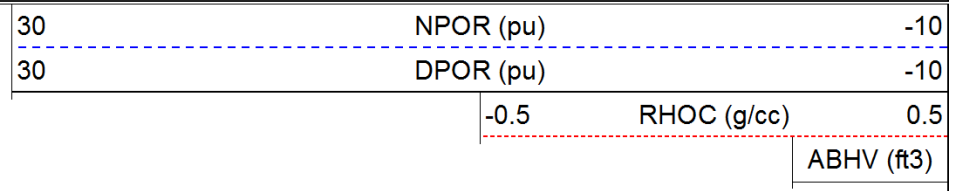
Repeat Pass

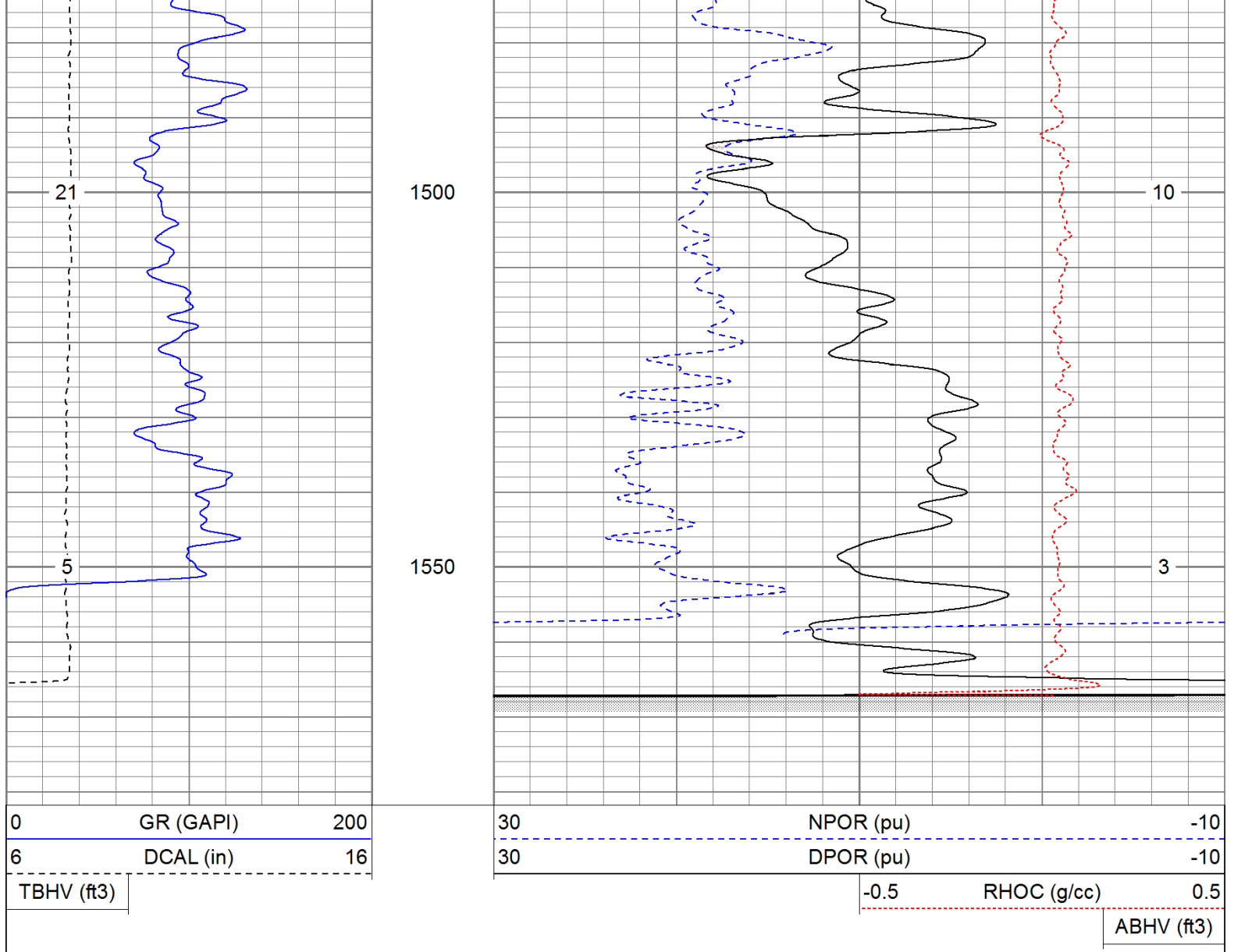
Database File: turlington.db
 Dataset Pathname: pass1.1
 Presentation Format: cdnl
 Dataset Creation: Tue Jul 19 06:04:18 2011 by Calc Open-Cased 110302
 Charted by: Depth in Feet scaled 1:240



1400

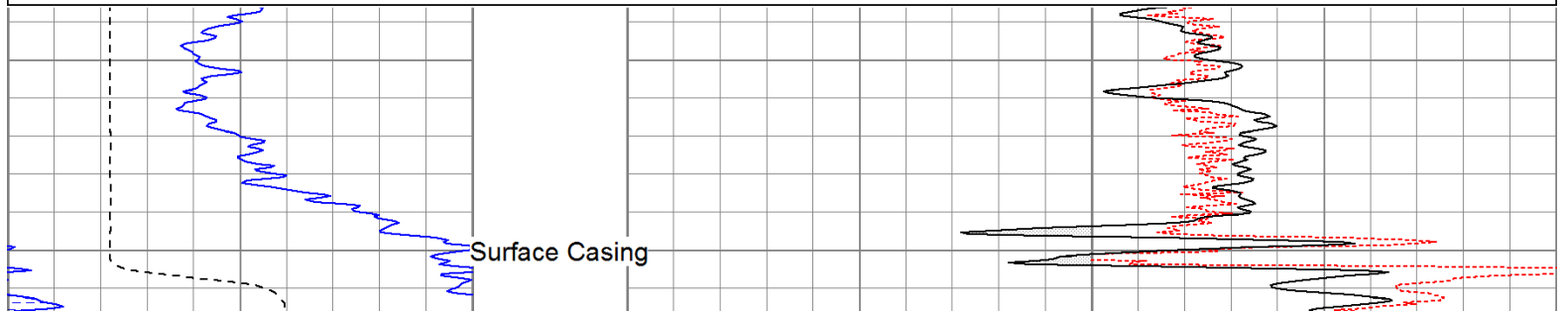
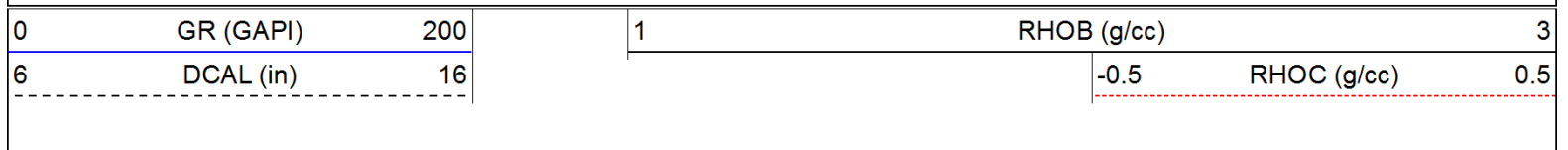
1450

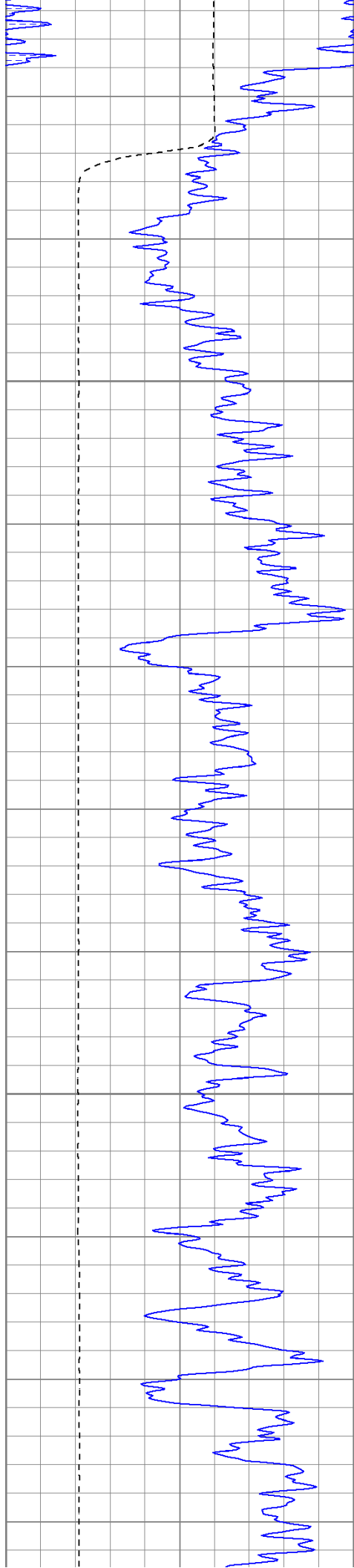




High Resolution Pass

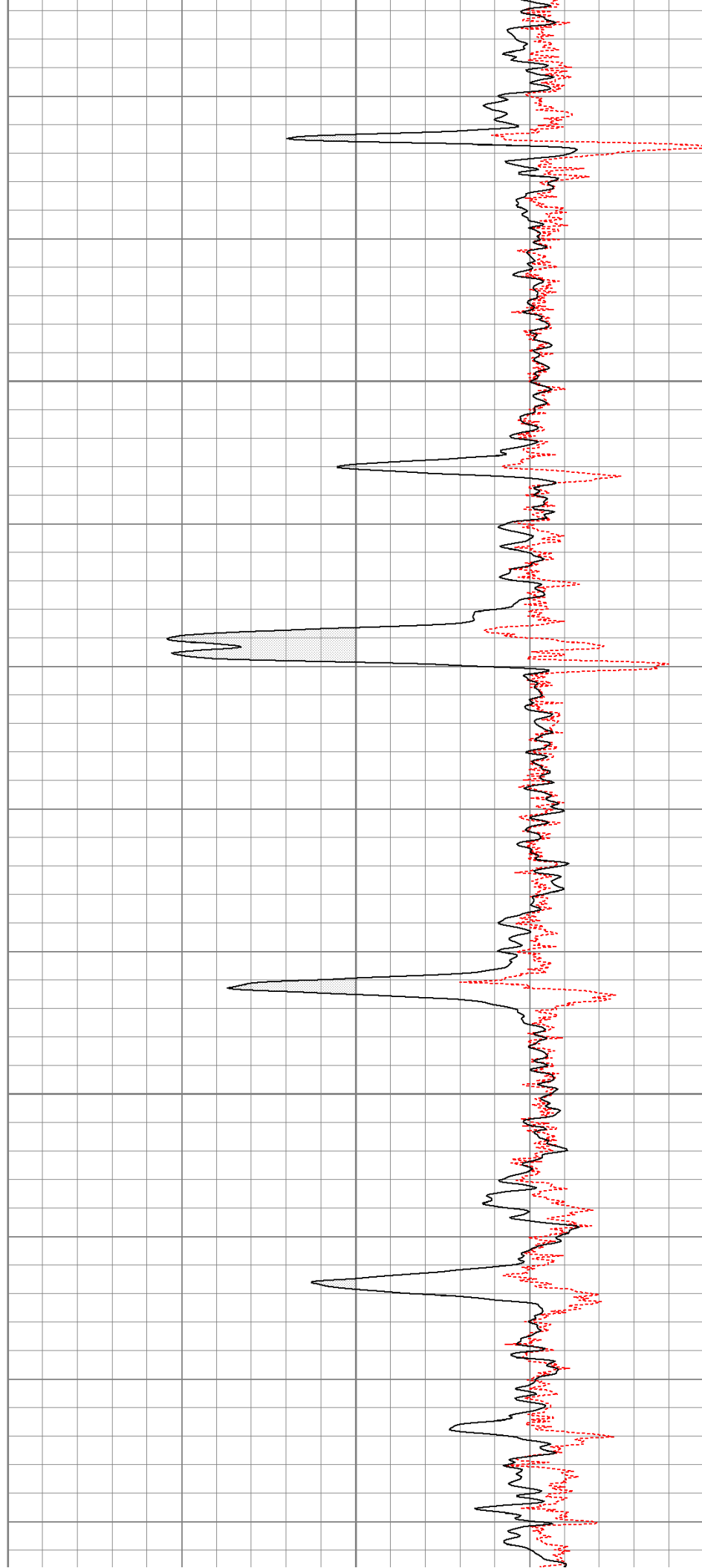
Database File: turlington.db
 Dataset Pathname: pass2.2
 Presentation Format: cdlhr
 Dataset Creation: Wed Jul 20 11:11:51 2011 by Calc Open-Cased 110302
 Charted by: Depth in Feet scaled 1:120

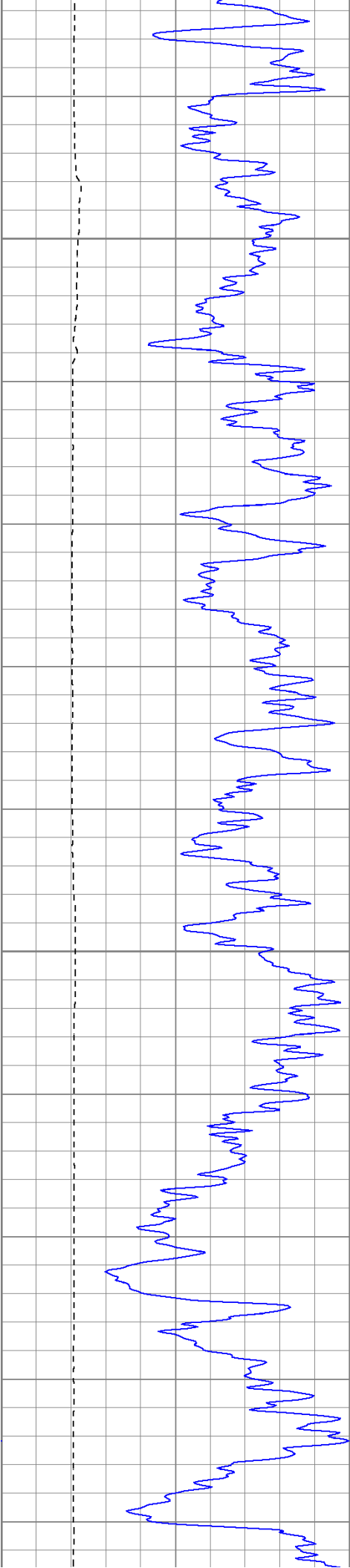




800

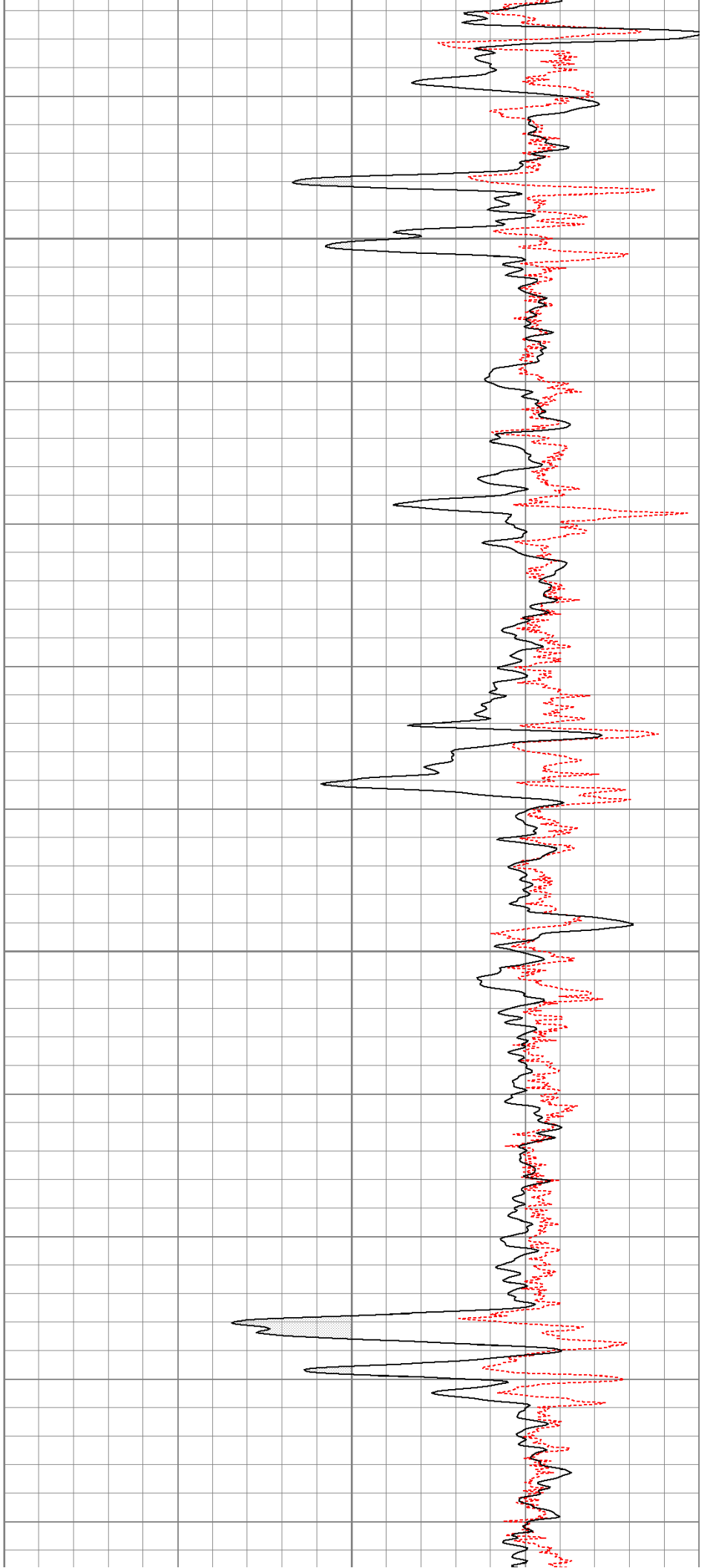
850

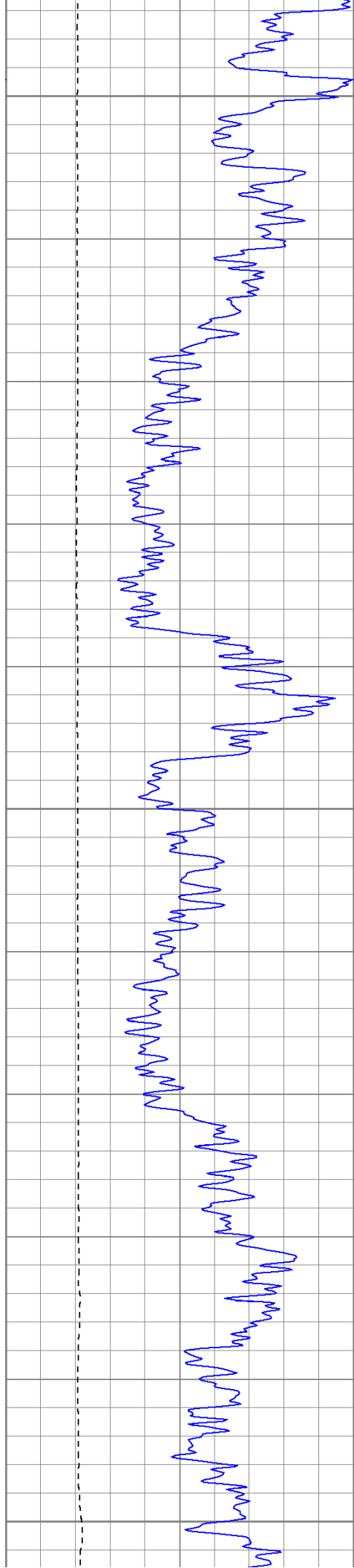




900

950

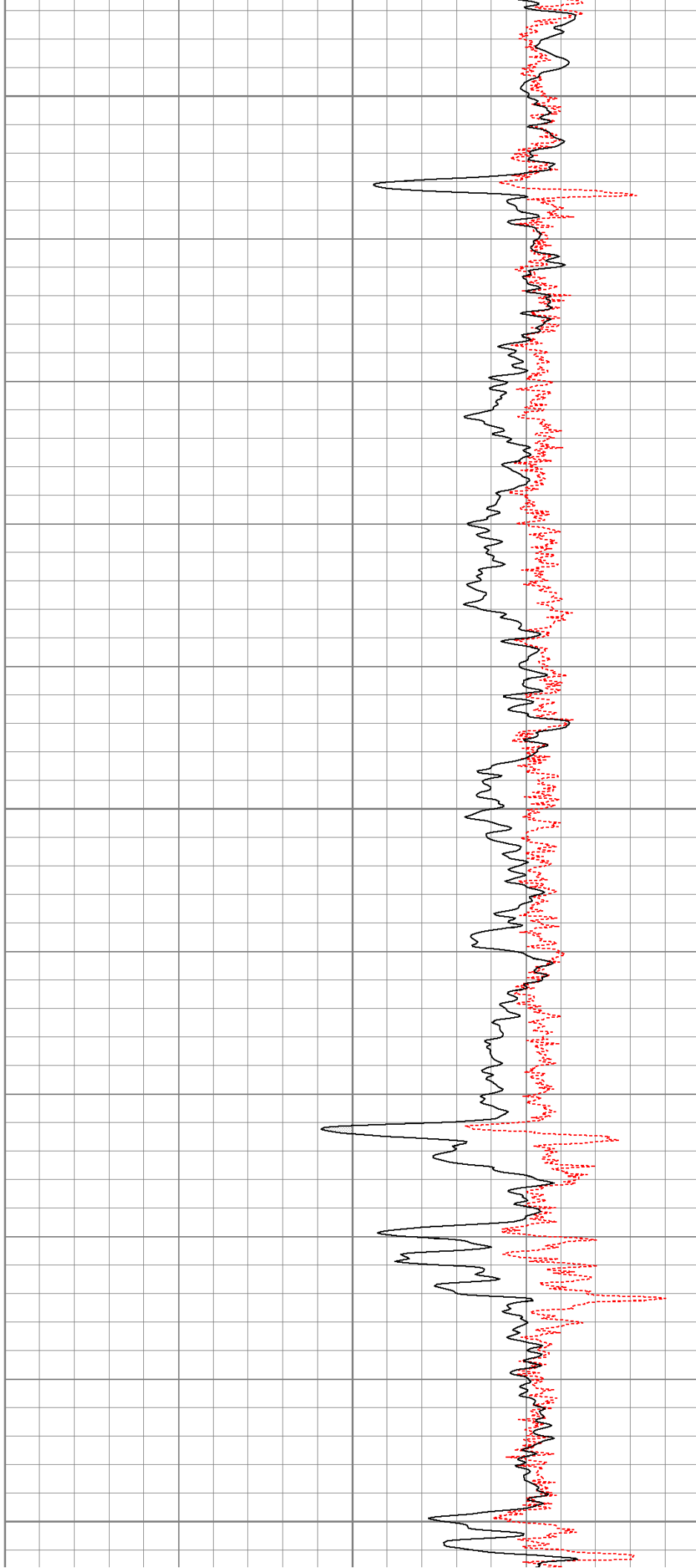


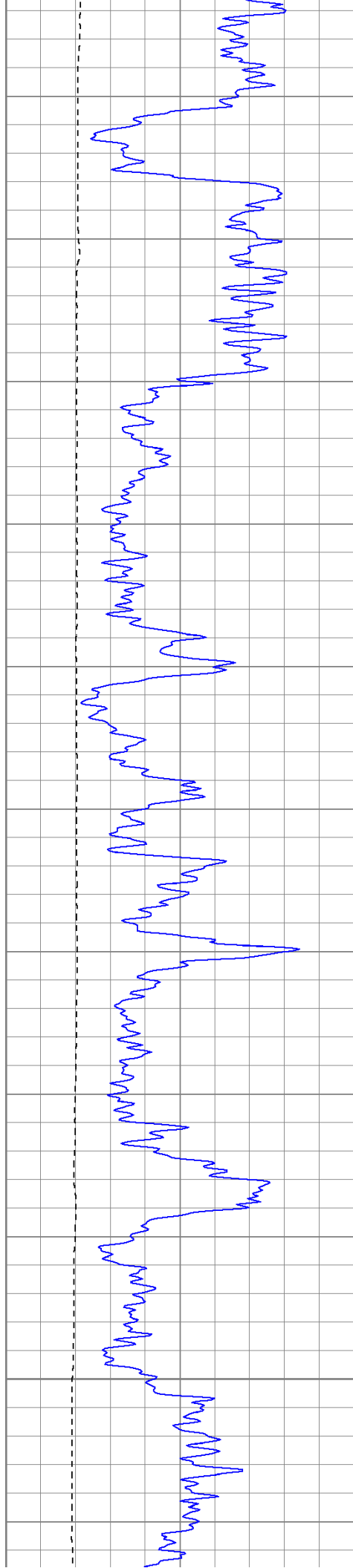


1000

1050

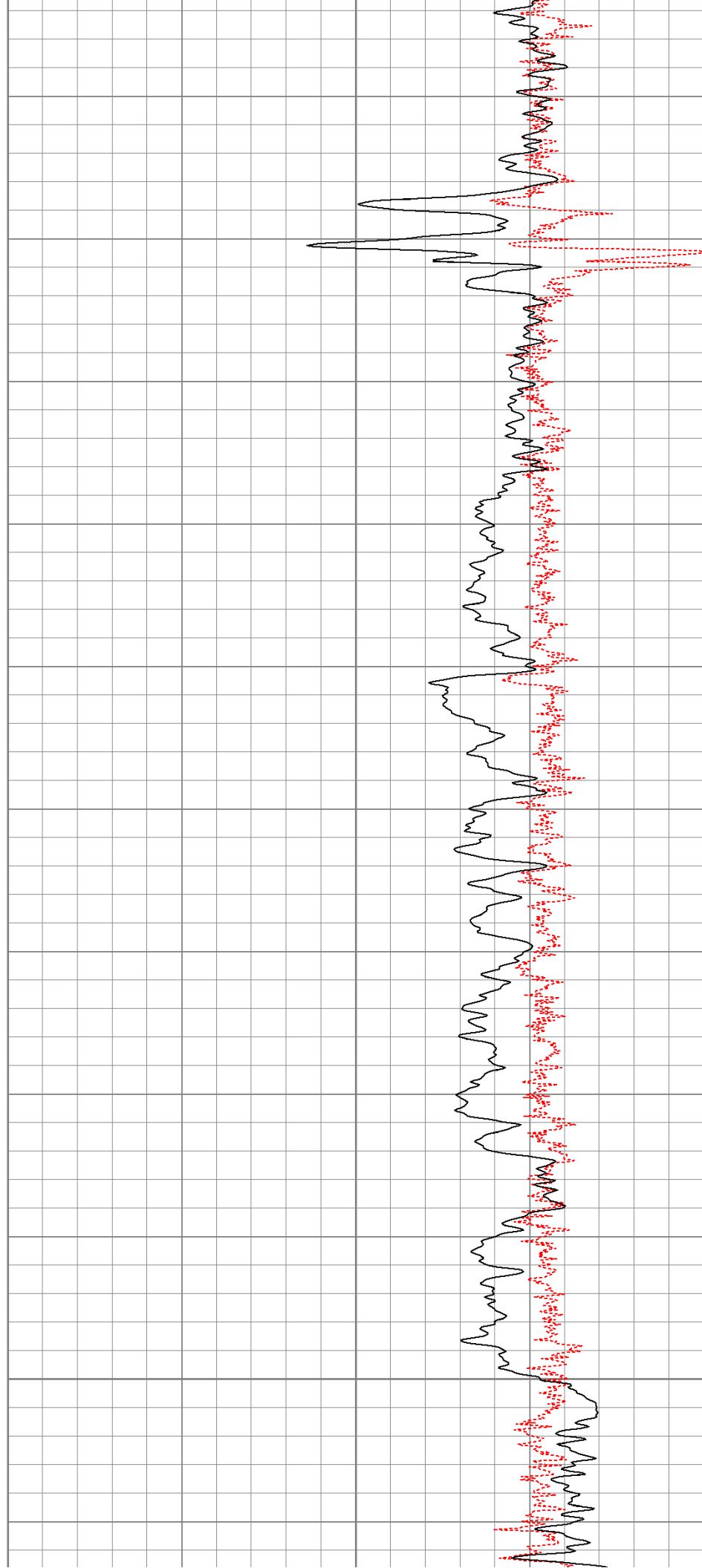
1100

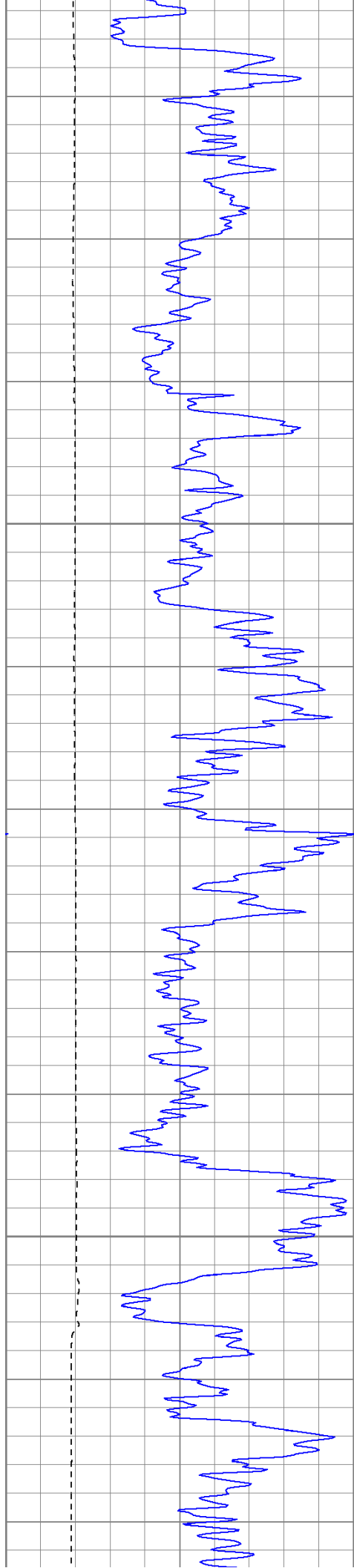




1150

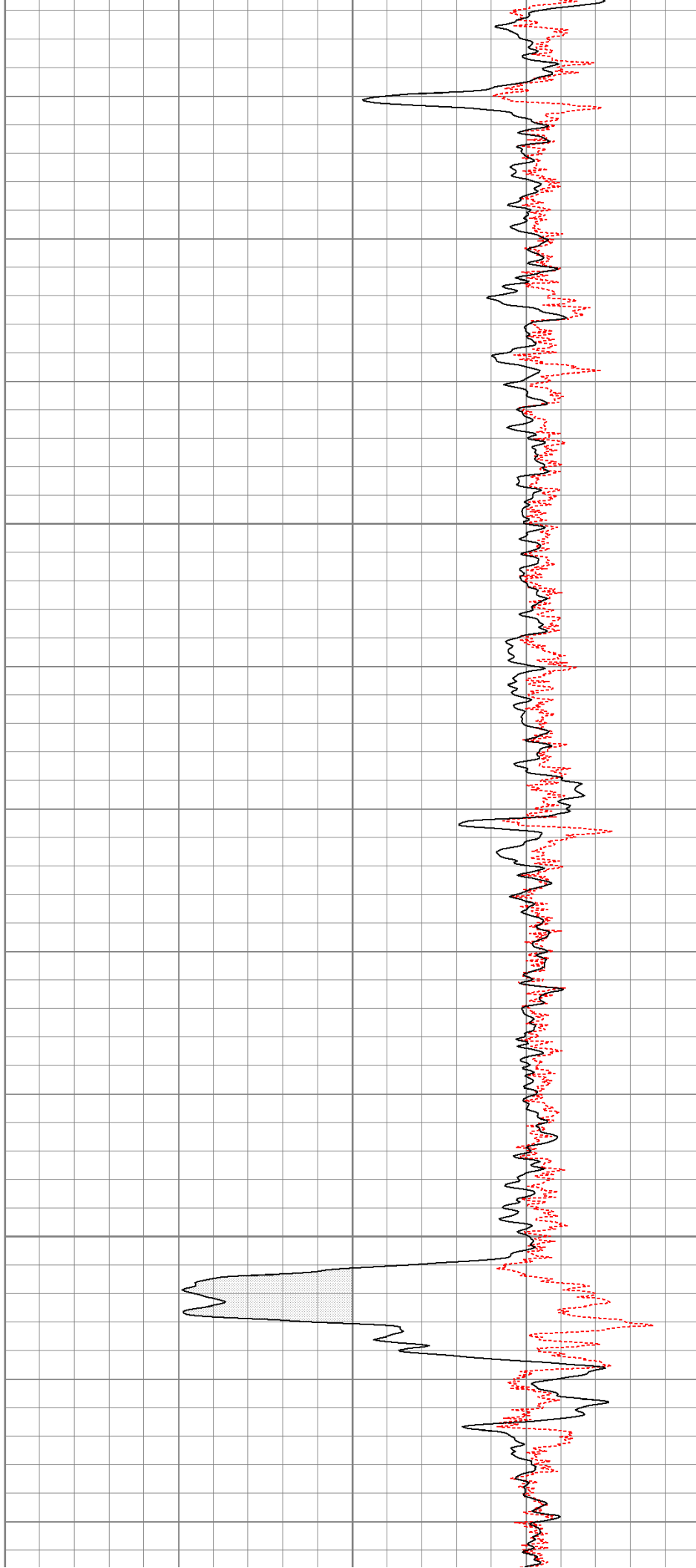
1200

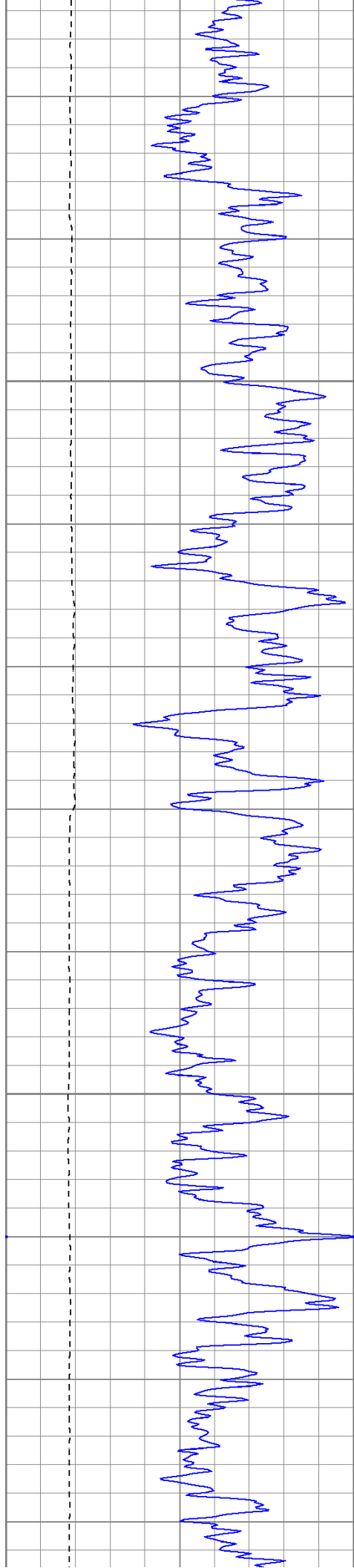




1250

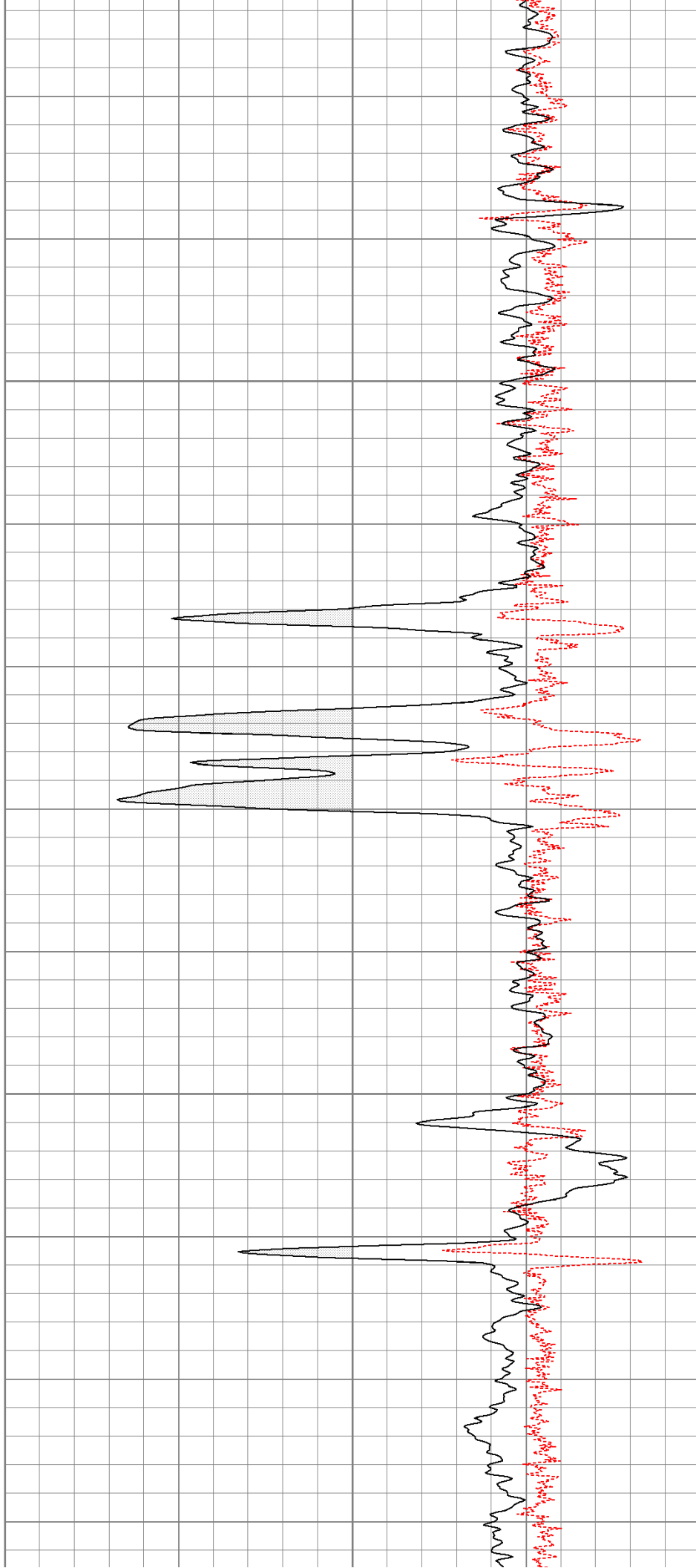
1300

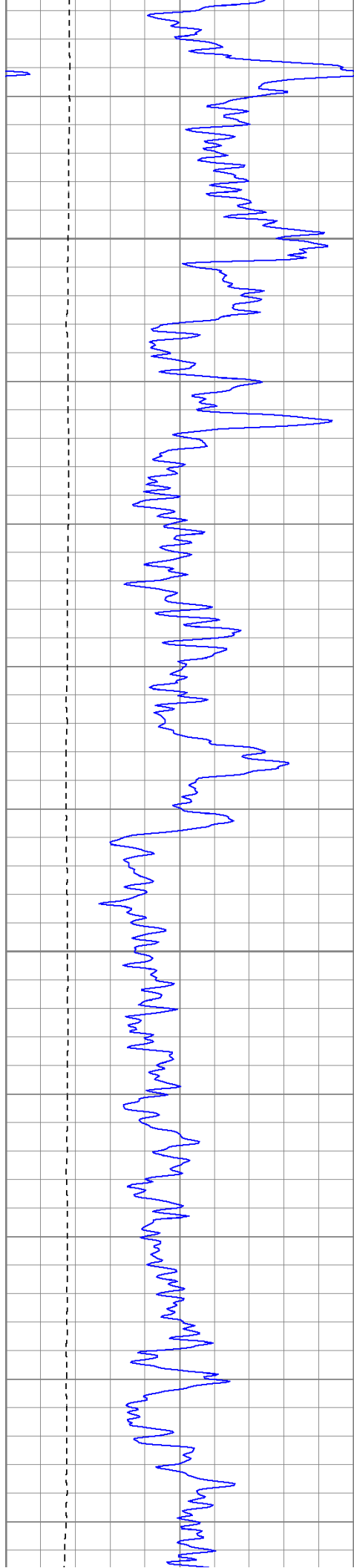




1350

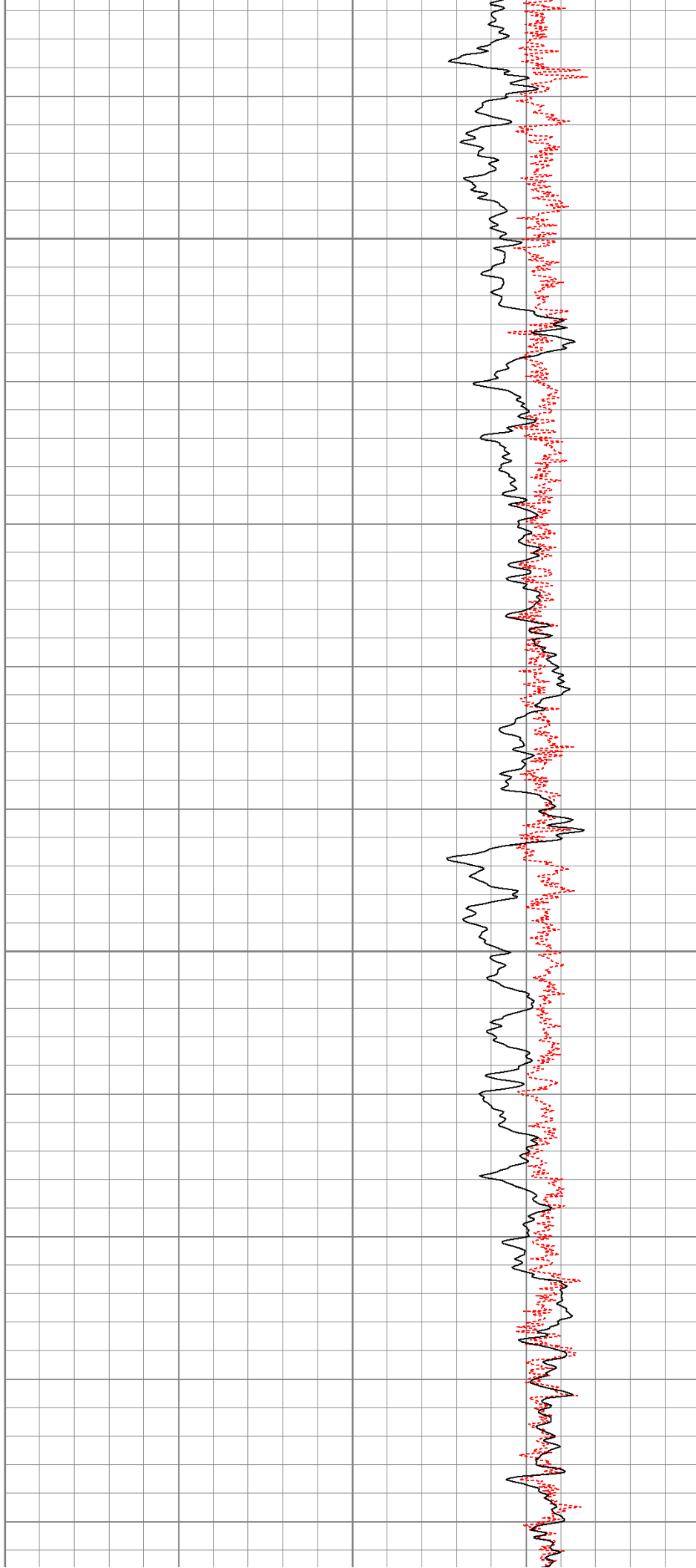
1400

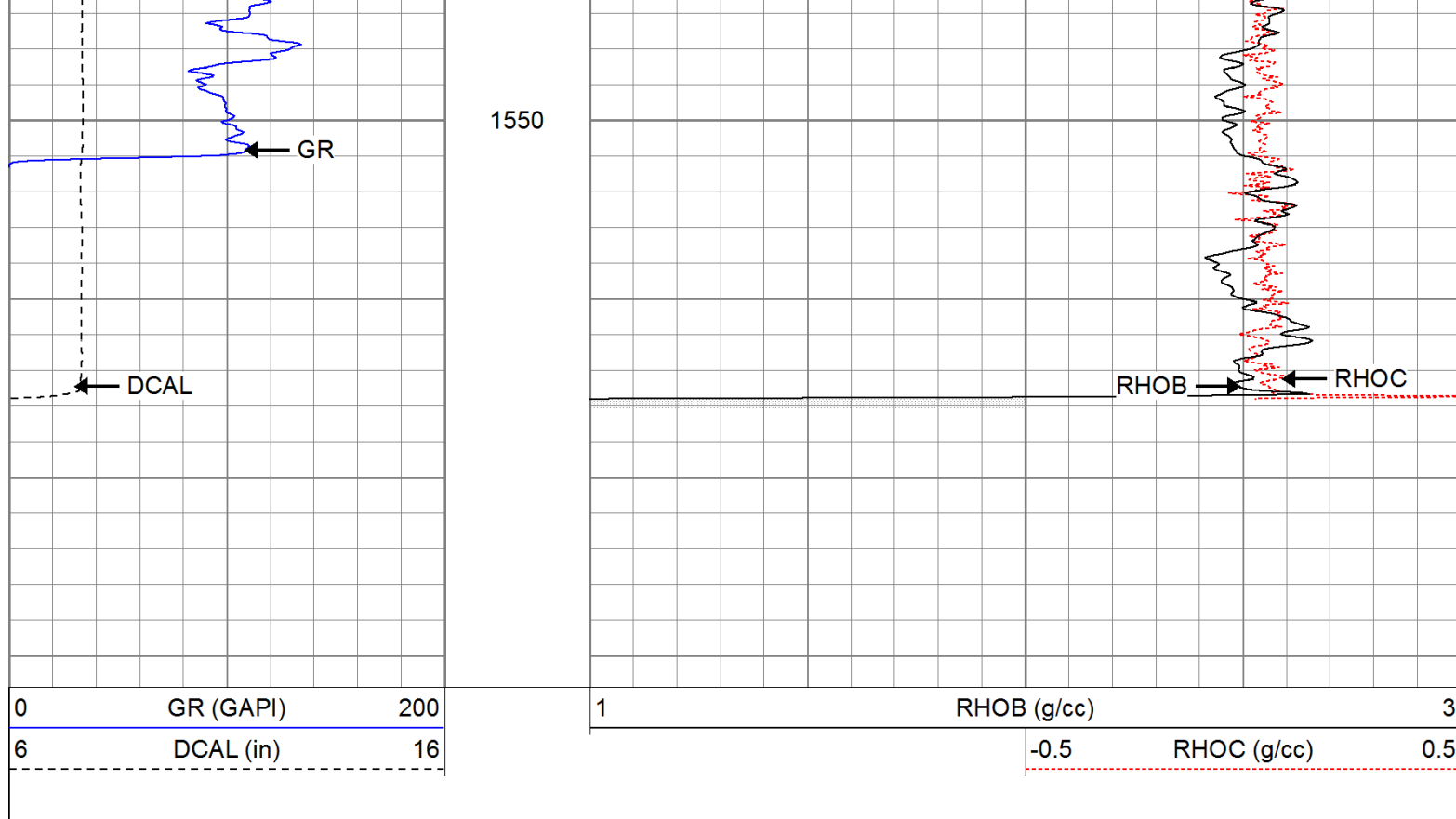




1450

1500





Calibration Report

Database File: turlington.db
 Dataset Pathname: pass1
 Dataset Creation: Tue Jul 19 05:26:19 2011 by Log Open-Cased 110302

Induction Tool Calibration Report

Serial Number: 903
 Tool Model: Probe
 Downhole Cal Performed: Sat Jun 18 15:02:12 2011
 Surface Cal Performed: Sat Jun 18 17:40:00 2011
 After Survey Verification Performed:

Surface Calibration:	Air	Loop	
Conductivity Reference:	0.000	500.000	mmho
Conductivity Reading:	-0.045	0.642	V
Internal Reference:	Zero	Cal	
Conductivity Reference:	0.000	500.000	mmho
Conductivity Reading:	0.006	0.641	V

Downhole Calibration:	Internal Zero	Internal Cal	
Conductivity Reference:	-0.702	499.904	mmho
Conductivity Reading:	-0.082	503.319	V
Short Normal Reference:	0.000	20.000	Ohm-m
Short Normal Reading:	0.006	0.233	V

Results:	Gain	Offset
Loop Conductivity:	728.211	32.770
Downhole Correction:	0.994	-0.621
Short Normal Resistivity:	88.245	-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

Serial-Model: 901-2.75POH
Source / Verifier: /
Master Calibration Performed: Wed Jun 08 09:11:26 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	8.05	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

Neutron Calibration Report

Serial Number:	803	
Tool Model:	2.75POH	
Performed:	Wed Jun 08 13:12:55 2011	
Calibrator Value:	1	NAPI
Calibrator Reading:	1	cps
Sensitivity:	1	NAPI/c

Gamma Ray Calibration Report

Serial Number:	804	
Tool Model:	2.75POH	
Performed:	Tue Jun 14 18:09:29 2011	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.6500	GAPI/

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

[illegible]