

SINGLE INDUCTION LOG

Company	Pioneer Natural Resources	Company	Pioneer Natural Resources
Well	Graham 32-22 Tr	Well	Graham 32-22 Tr
Field	Purgatoire River	Field	Purgatoire River
County	Las Animas	County	Las Animas
State	Colorado	State	Colorado
Location:	API #: 05 071 09874 00	Other Services	CDNL
SEC 22 TWP 32S RGE 66W	1949' FNL & 2565' FEL	Elevation	
Permanent Datum	Ground Level	Elevation	7513'
Log Measured From	Kelly Bushing 4' AGL	K.B. 7517'	
Drilling Measured From	Kelly Bushing	D.F. -----	
		G.L. 7513'	
Date	8-18-11		
Run Number	One		
Depth Driller	1970'		
Depth Logger	1958'		
Bottom Logged Interval	1956'		
Top Log Interval	Surface Casing		
Casing Driller	8 5/8" @ 725'		
Casing Logger	726'		
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	3:00 A.M.		
Time Logger on Bottom	6:30 A.M.		
Maximum Recorded Temperature	81 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

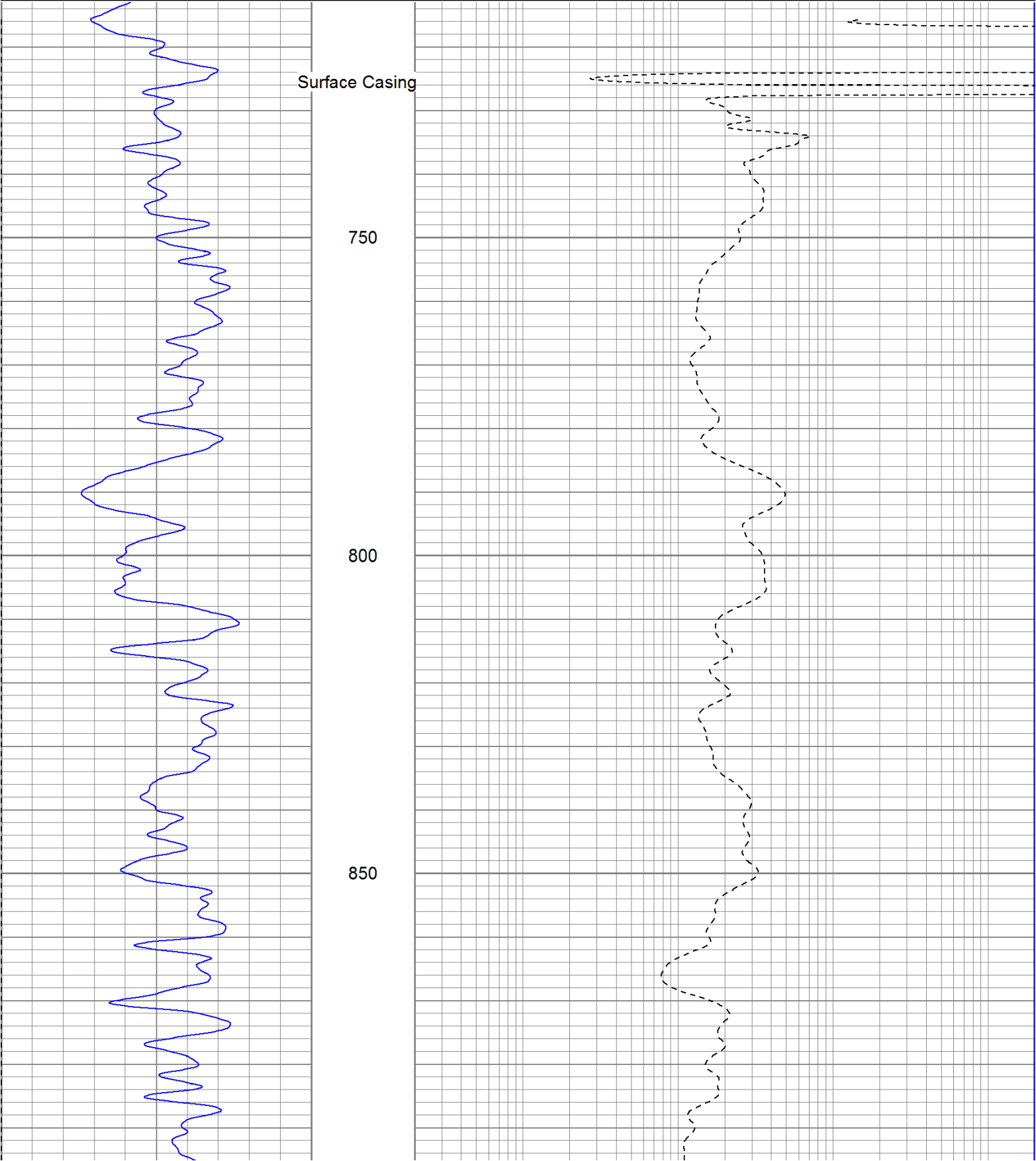
Directions:

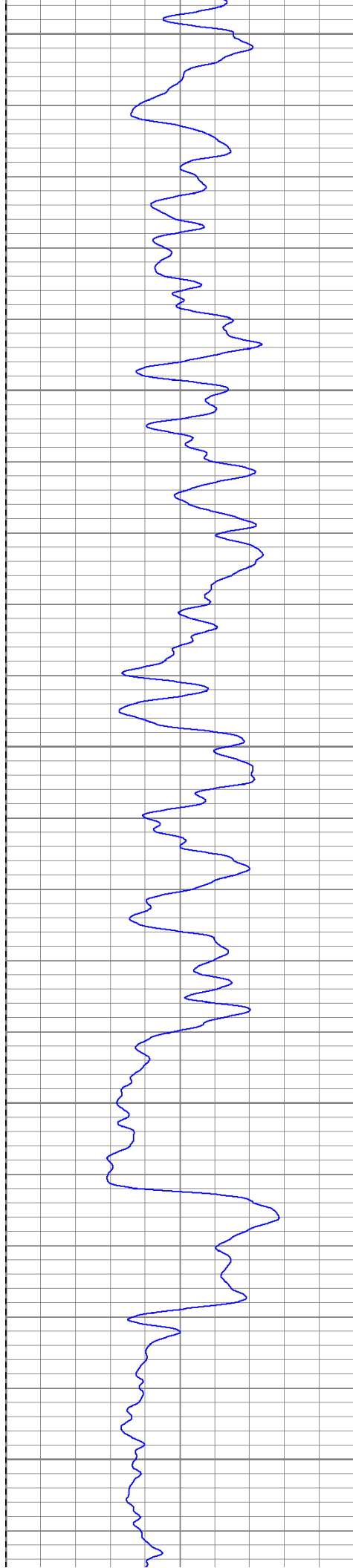
Bon Carbo, left at Post Office, follow main RD to Y @ C.R. 30.1 and State Wild Life Area, Stay Straight, right at Gourdins house, drive to Whispering Pines, after cattlegaurd its the 2nd left, go thru gate, follow rd and dead end on location.
Well is first on the right.

Database File: grahamtr.db
Dataset Pathname: pass2.1
Presentation Format: iel
Dataset Creation: Thu Aug 18 07:27:41 2011 by Calc Open-Cased 110302
Charted by: Depth in Feet scaled 1:240

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

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





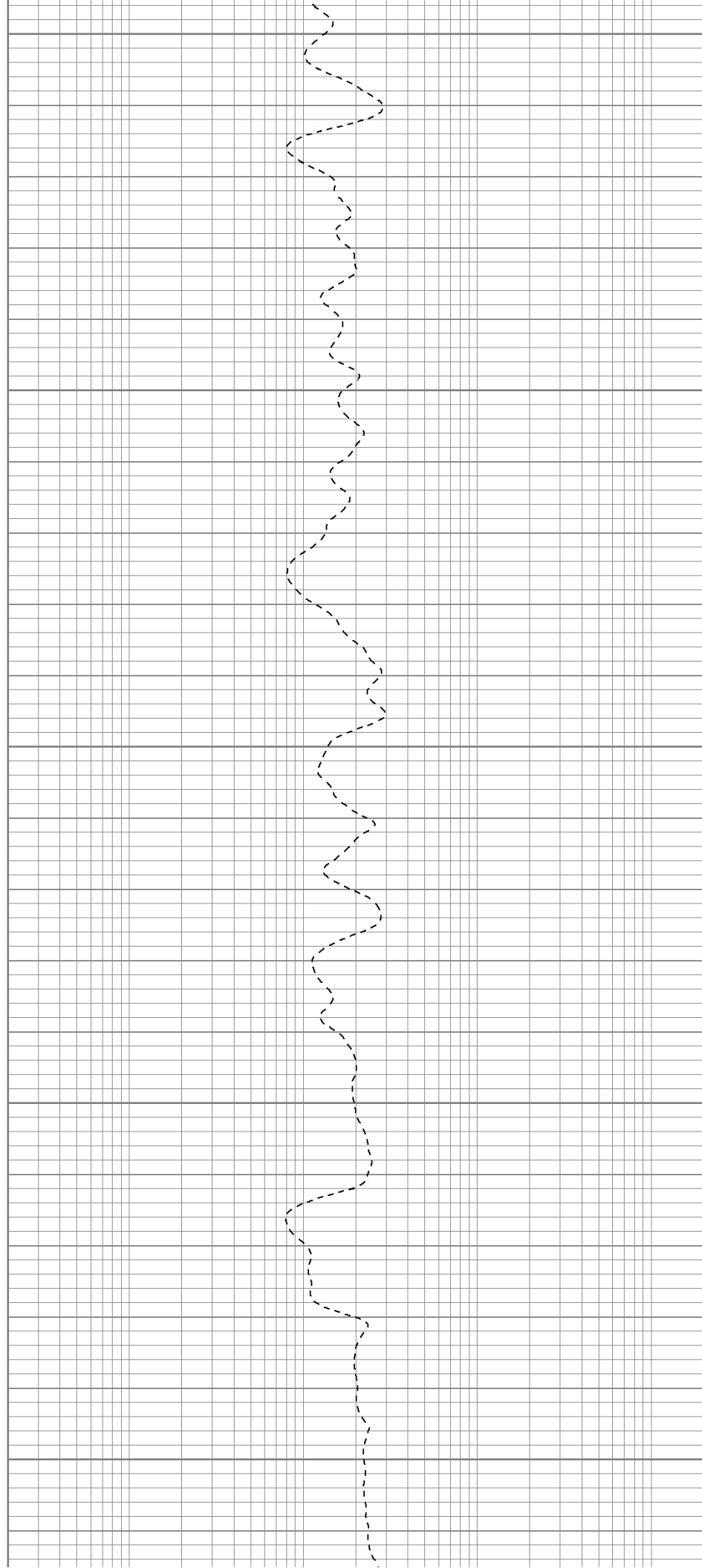
900

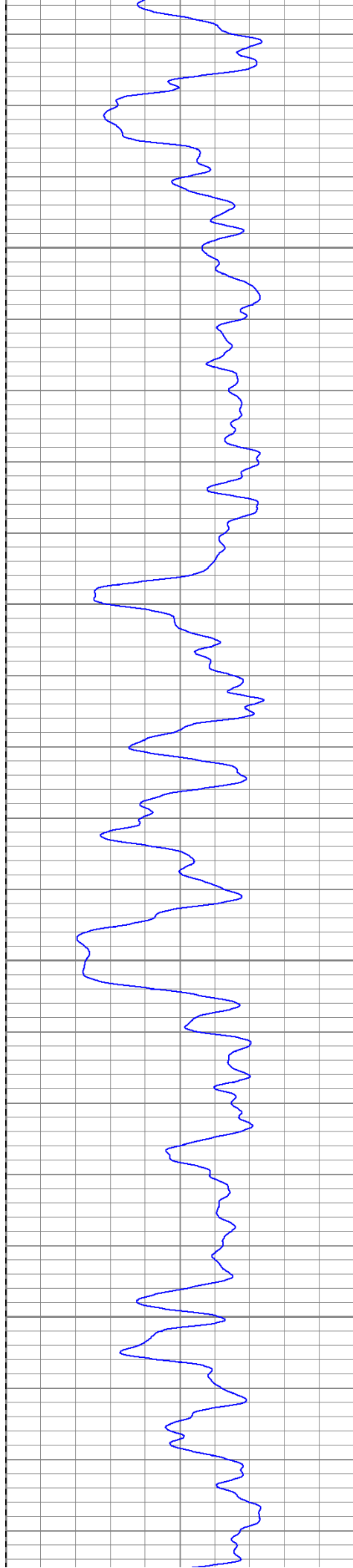
950

1000

1050

1100



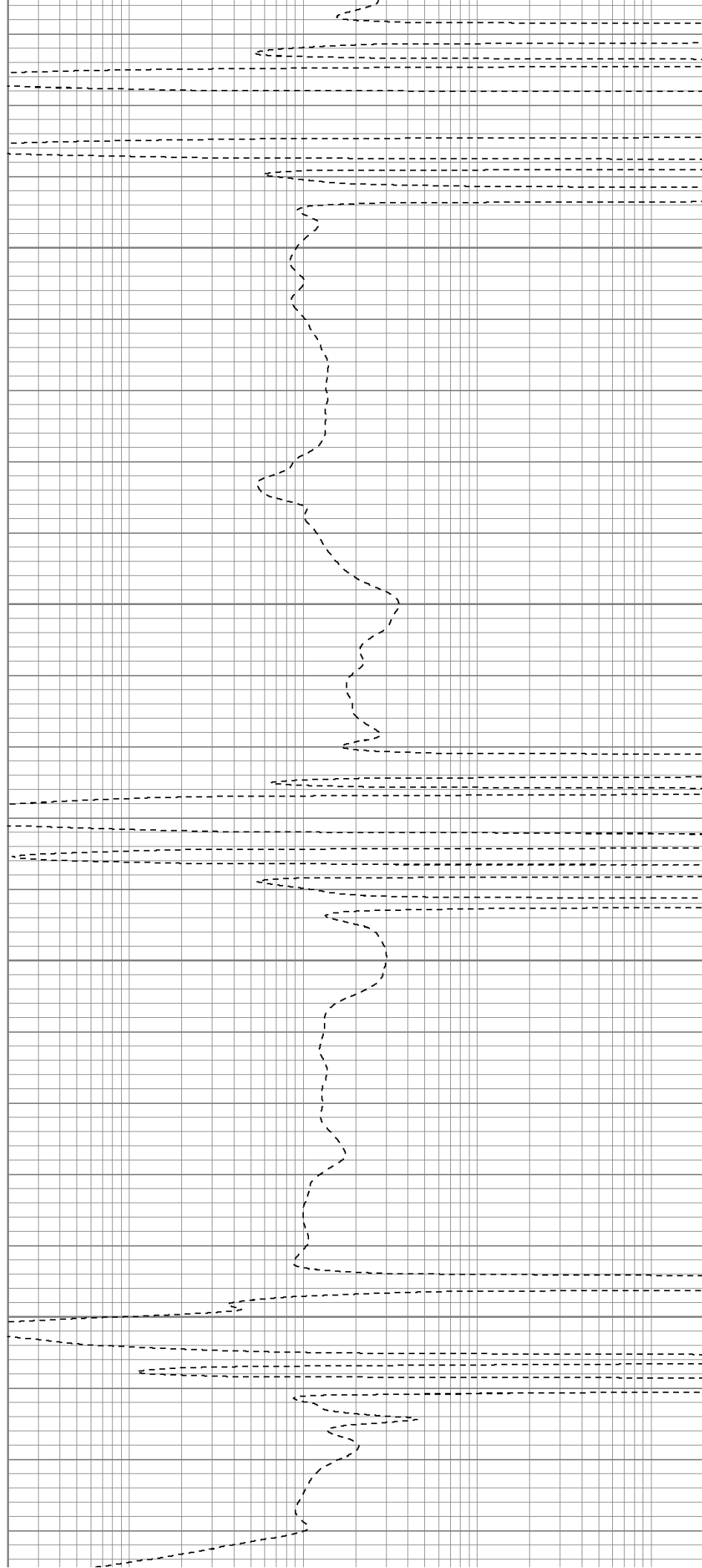


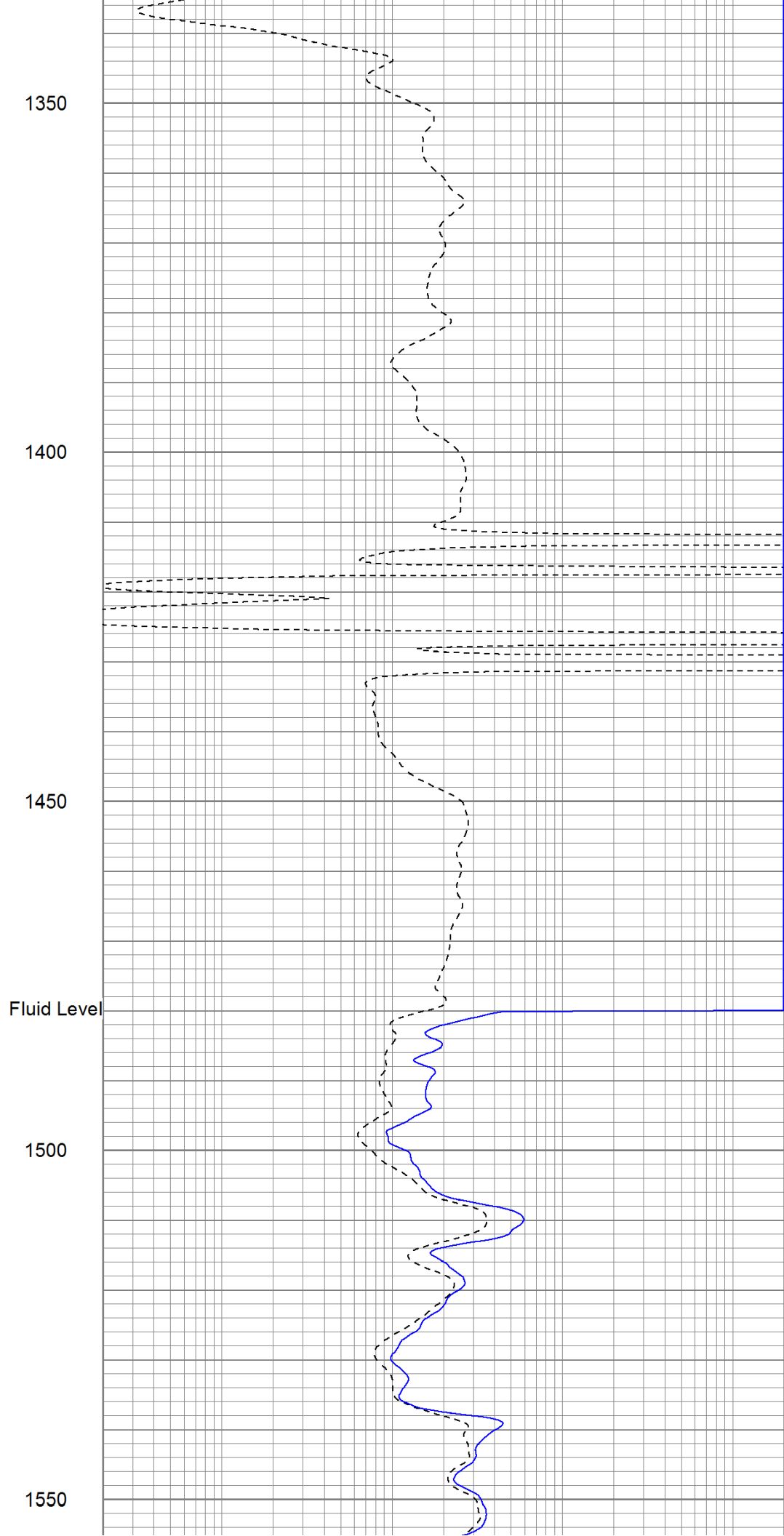
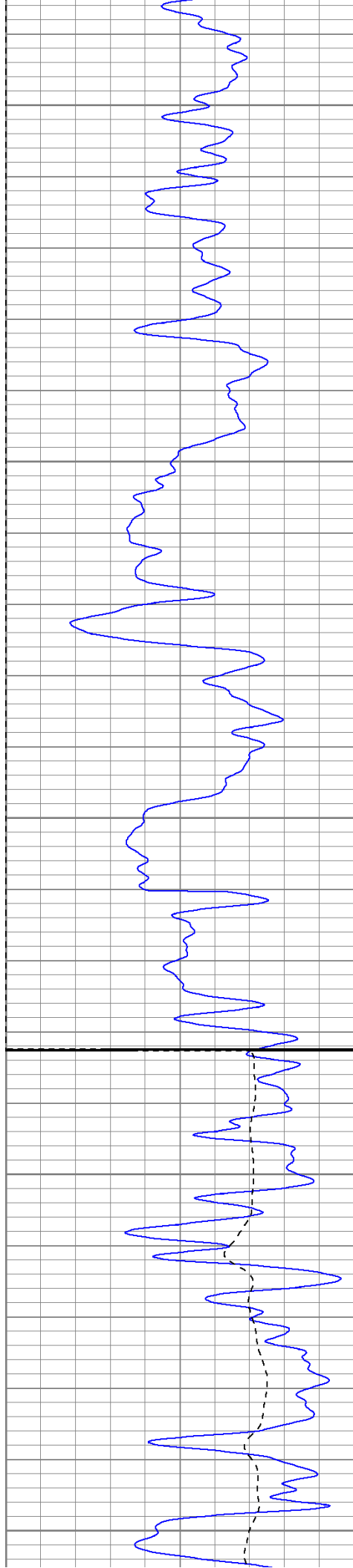
1150

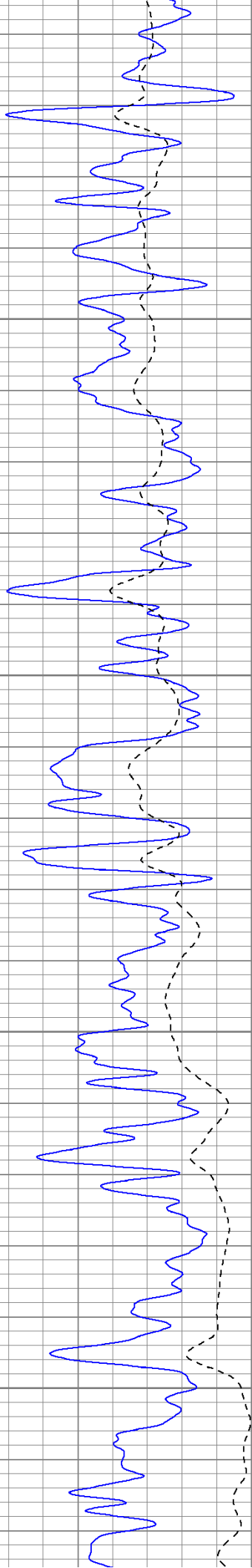
1200

1250

1300





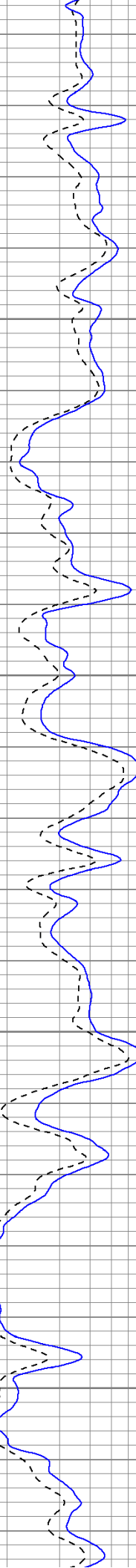


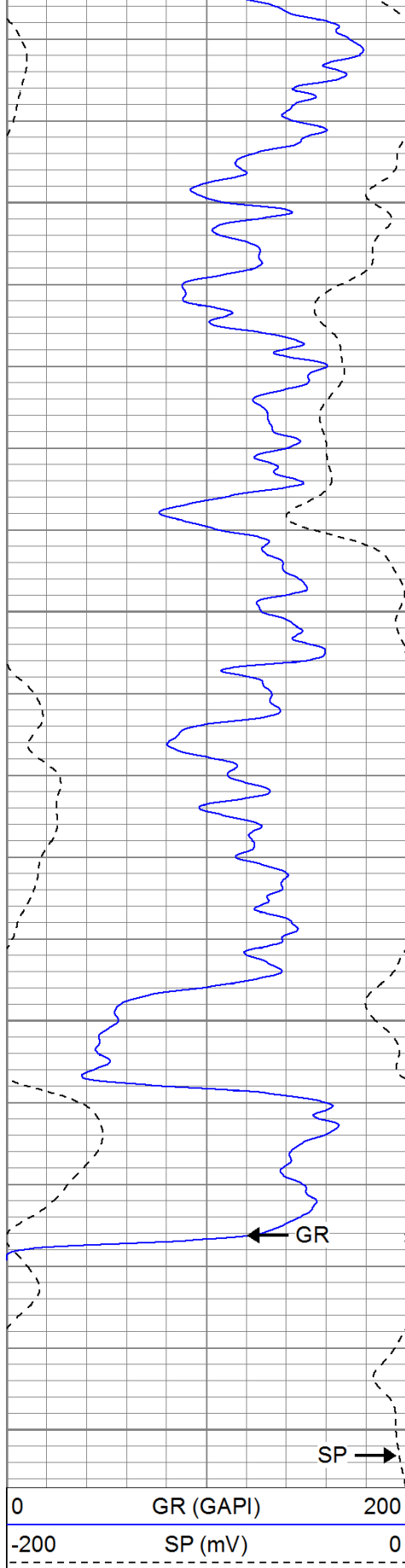
1600

1650

1700

1750



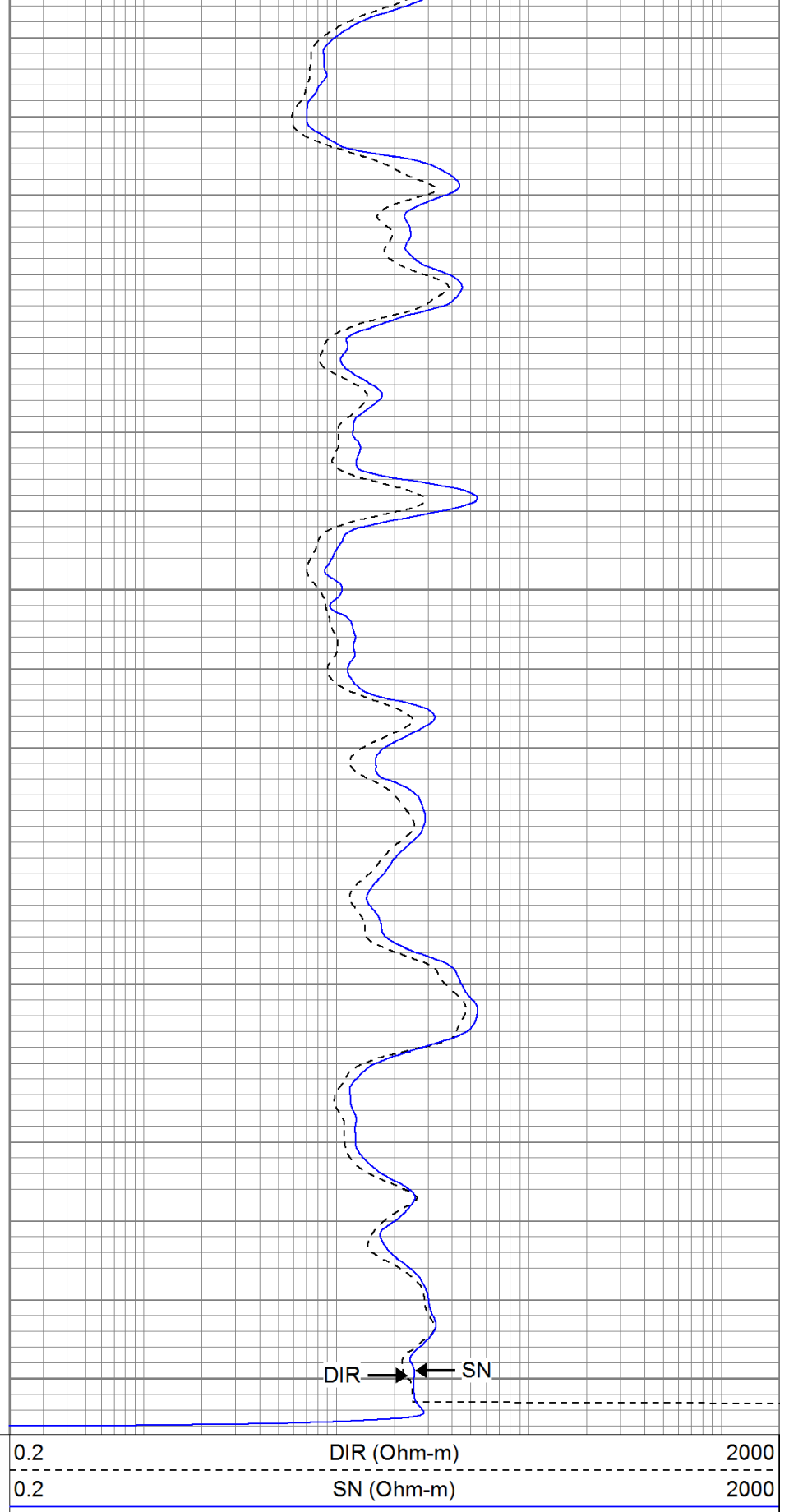


1800

1850

1900

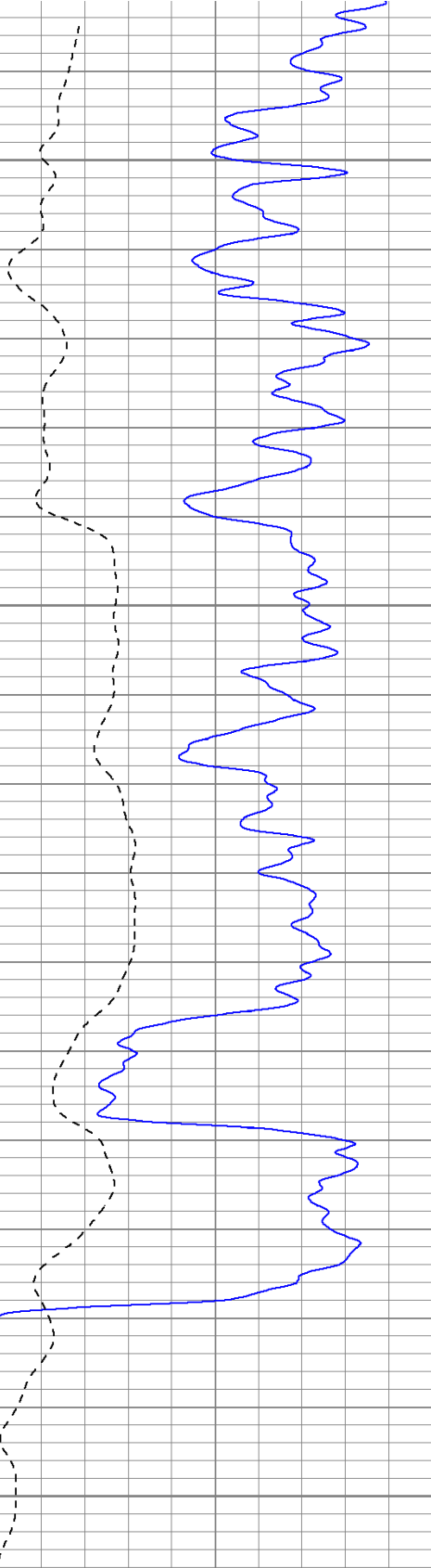
1950



Database File: grahamtr.db
Dataset Pathname: pass1.1
Presentation Format: iel
Dataset Creation: Thu Aug 18 07:31:41 2011 by Calc Open-Cased 110302
Charted by: Depth in Feet scaled 1:240

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

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

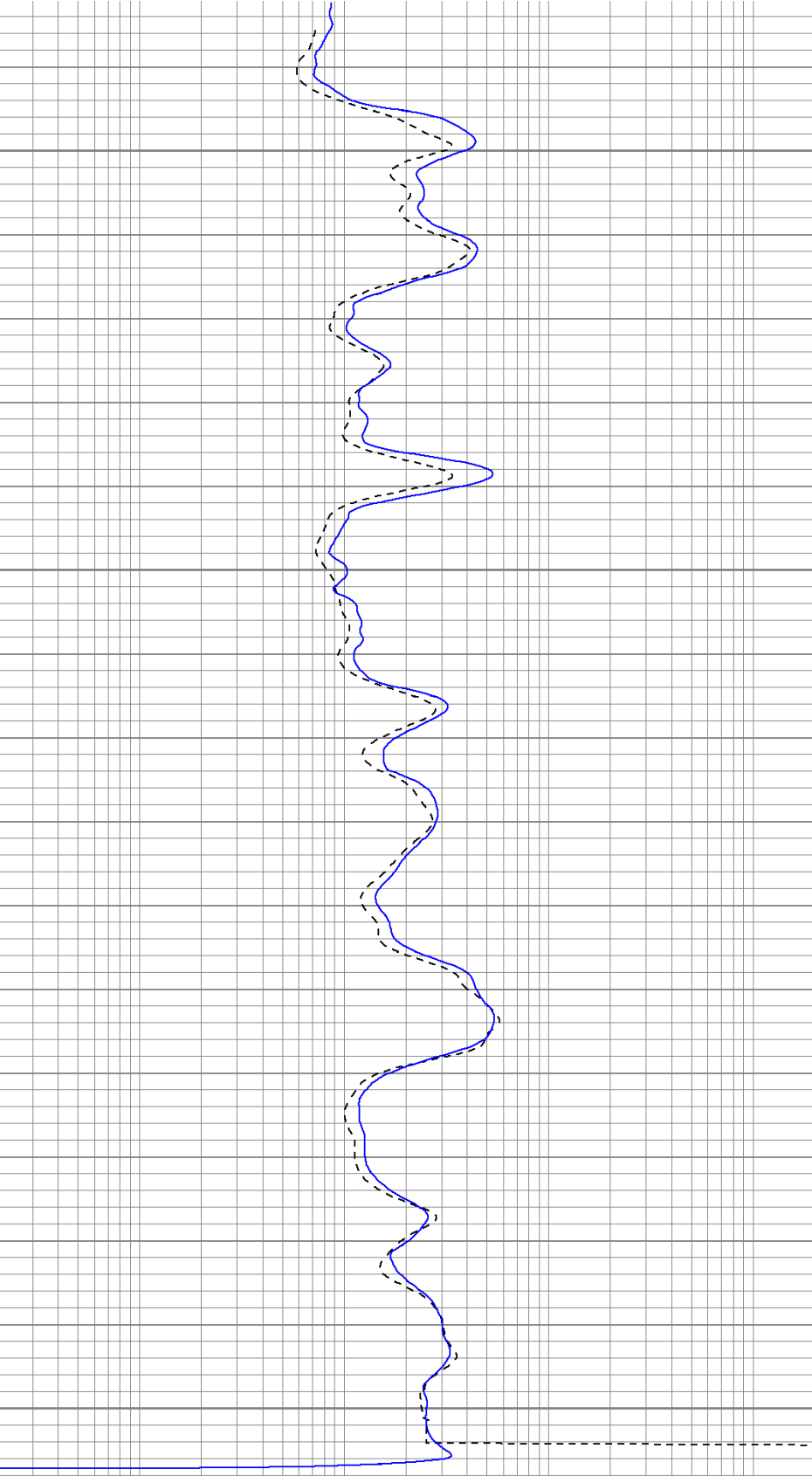


1800

1850

1900

1950



0 GR (GAPI) 200

0.2 DIR (Ohm-m) 2000

Calibration Report

```
Database File:      grahamtr.db
Dataset Pathname:  pass1
Dataset Creation:   Thu Aug 18 06:28:16 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	-3.000

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: 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	8.00	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
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/cps
Gamma Ray Calibration Report			
Serial Number:		804	
Tool Model:		2.75POH	
Performed:		Fri Aug 12 08:39:59 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
LSD DCAL SSD	16.21		CDL-2.75POH (901) Probe	8.43	2.75	106.00
	15.94					
	15.69					
DIC	6.24		IEL-Probe (903)	13.46	2.75	93.00
SP	2.25					
SN	1.71					

SN	1.71	<div></div>			
<div><div>Dataset:</div><div>grahamtr.db: field/well/run1/pass1</div><div>Total Length:</div><div>31.11 ft</div><div>Total Weight:</div><div>305.00 lb</div><div>O.D.</div><div>2.75 in</div></div>					