



# SINGLE INDUCTION LOG

Company	Pioneer Natural Resources	Company	Pioneer Natural Resources
Well	Brahms 12-24	Well	Brahms 12-24
Field	Purgatorie River	Field	Purgatorie River
County	Las Animas	County	Las Animas
State	CO	State	CO
Location:	API # : 071 09703 00 2329' FNL & 735' FWL	Other Services	CDL
Permanent Datum	SEC 24 TWP 33S RGE 67W	Elevation	
Log Measured From	Ground Level	K.B. 7438'	
Drilling Measured From	Kelly Bushing 4' Above G.L.	D.F. -----	
	Kelly Bushing	G.L. 7434'	
Date	12/7/09		
Run Number	one		
Depth Driller	2270'		
Depth Logger	2258'		
Bottom Logged Interval	2256'		
Top Log Interval	850'		
Casing Driller	880'		
Casing Logger	879'		
Bit Size	7 7/8"		
Type Fluid in Hole	dry		
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	7:00 a.m.		
Maximum Recorded Temperature	///		
Equipment Number	697		
Location	Trinidad		
Recorded By	Worley		
Witnessed By	Mr. Berry		

<<< Fold Here >>>

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

Wet Canyon, second right off black top, stay on main road, drive thru the Stage Coach, stay on main road up hill, drive thru the Cheryl, at Y go right, take second left to location.

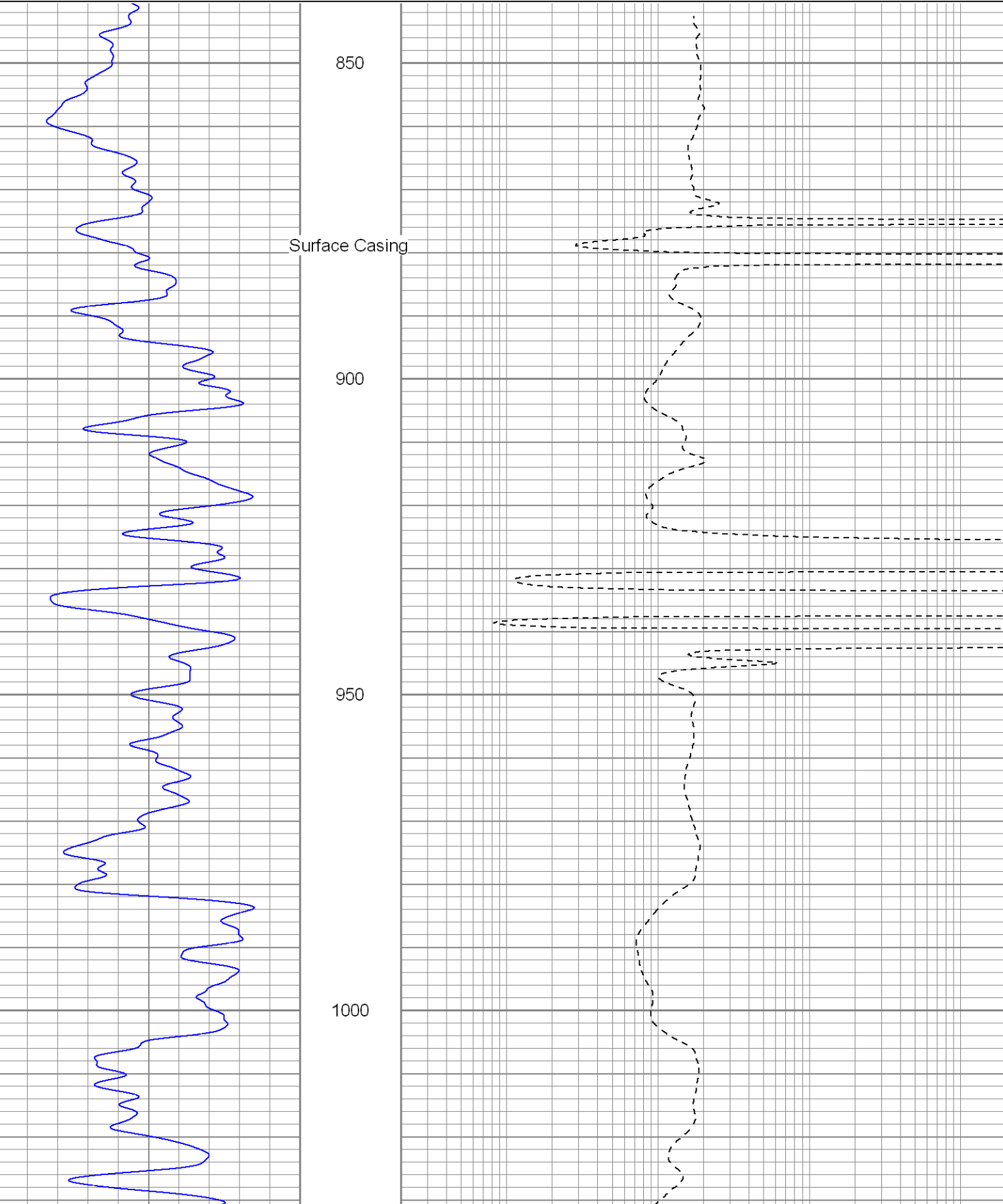
Well was dry.

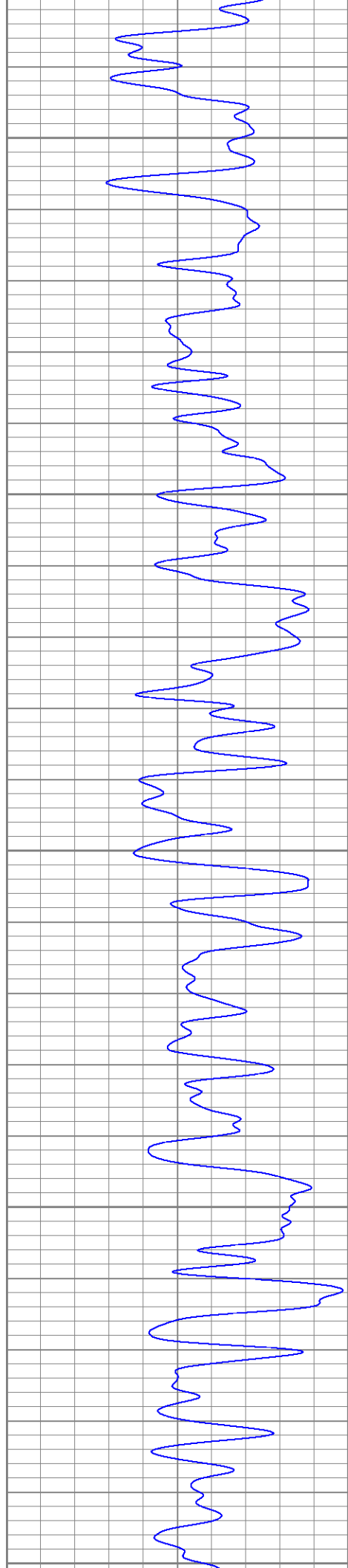


# Main Pass

Database File: brahmsdi.db  
Dataset Pathname: pass2.1  
Presentation Format: iel  
Dataset Creation: Mon Dec 07 10:01:14 2009 by Calc Open-Cased 071220  
Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200	0.2	DIR (Ohm-m)	2000
---	-----------	-----	-----	-------------	------





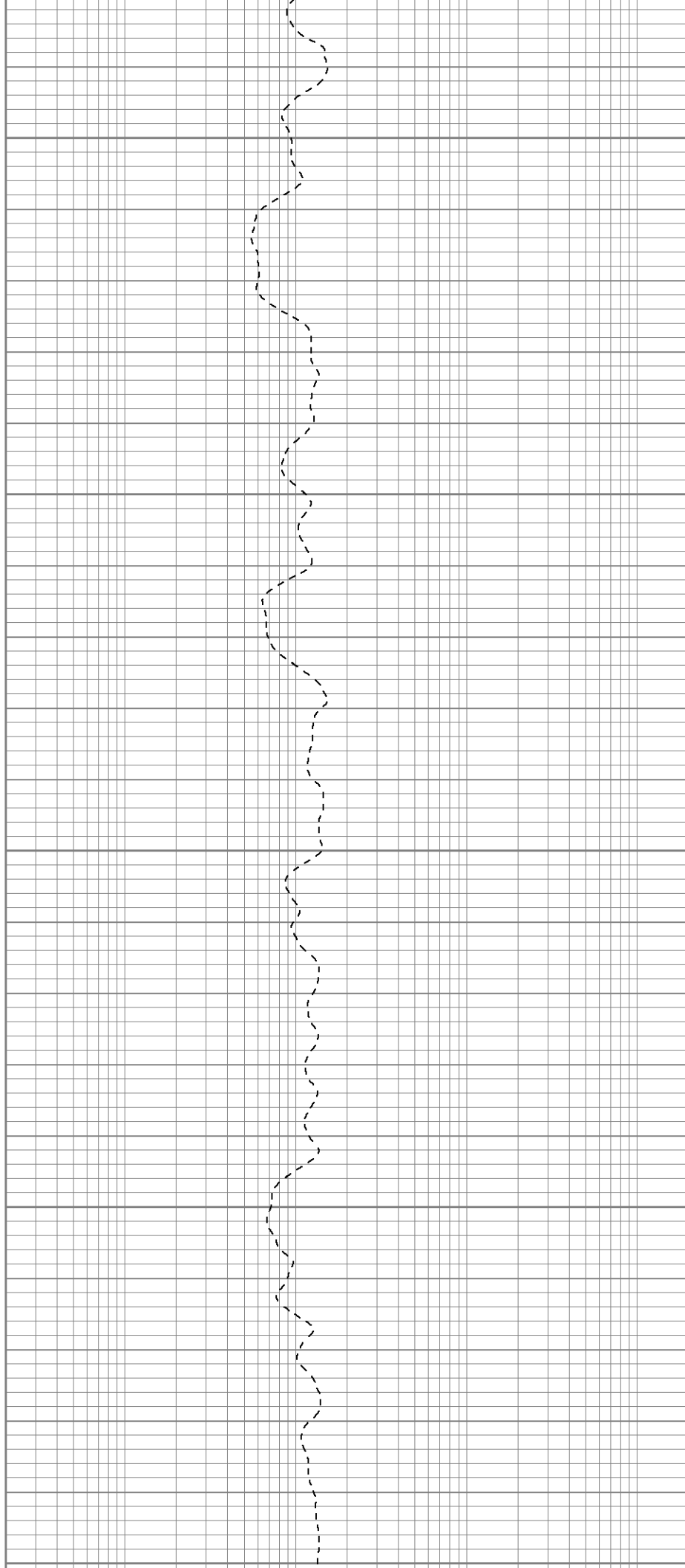
1050

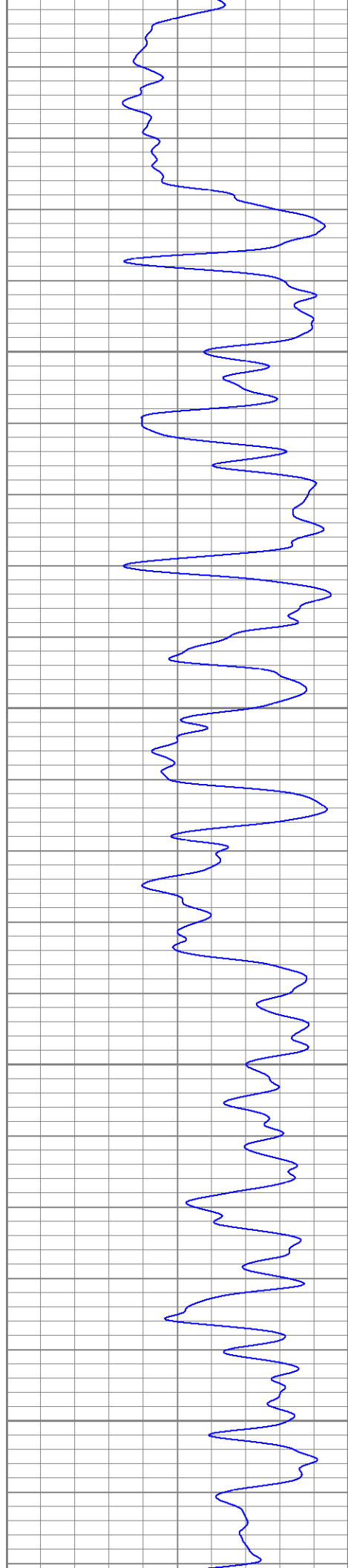
1100

1150

1200

1250





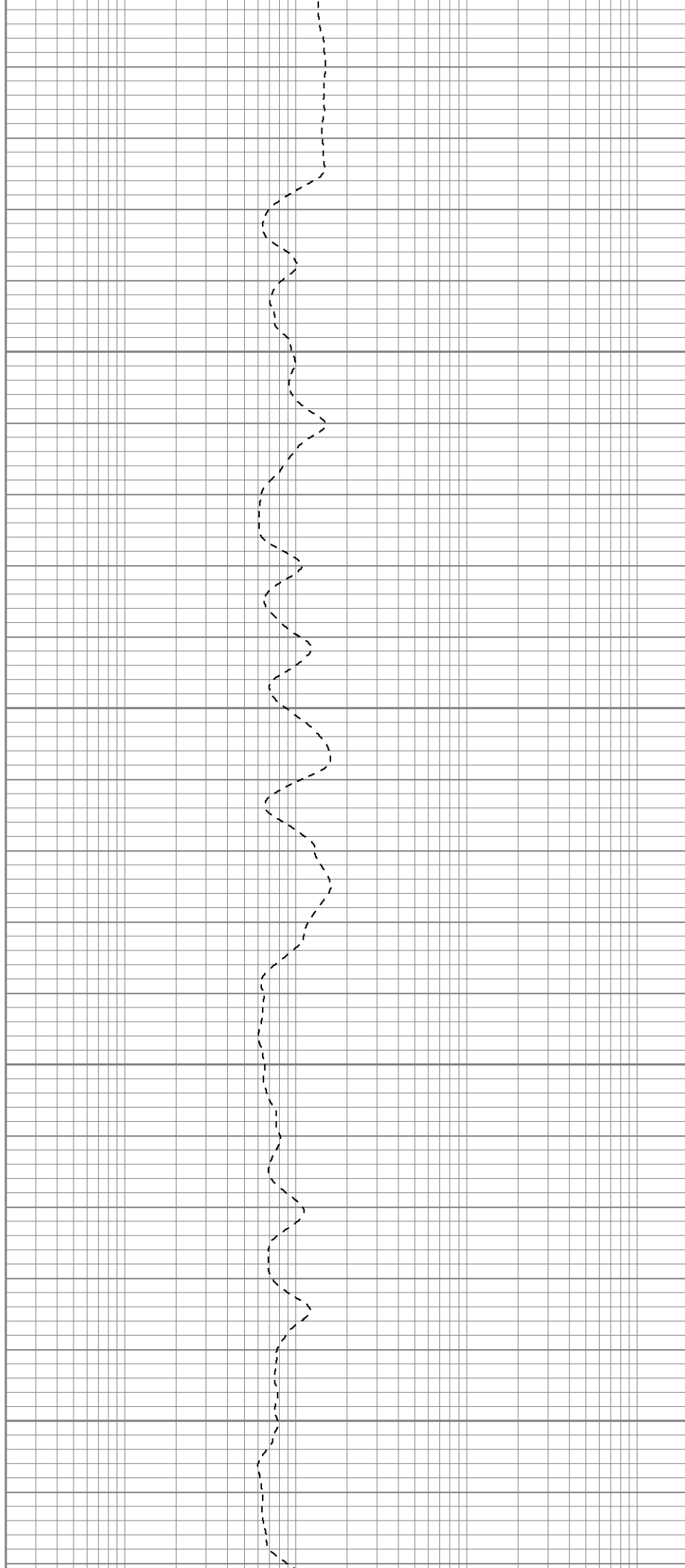
1250

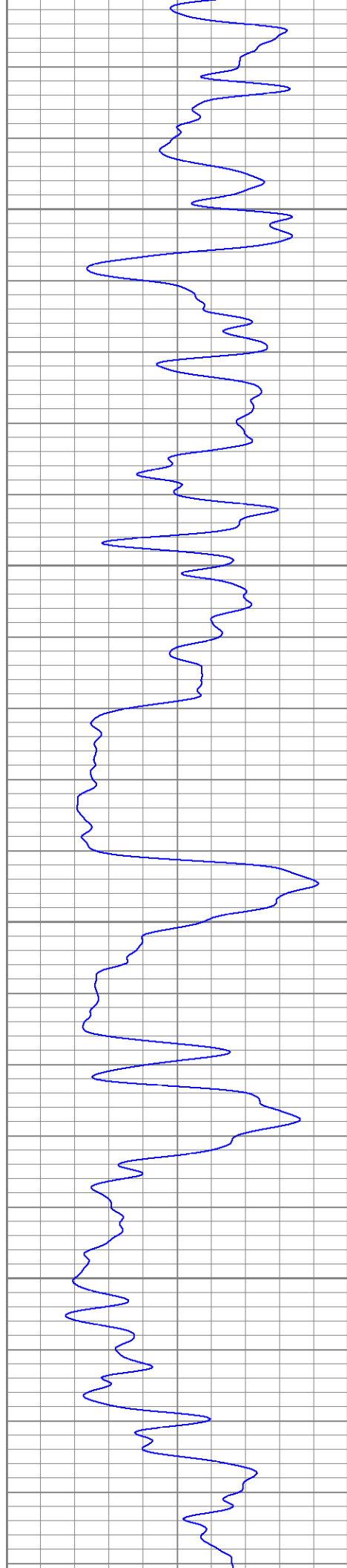
1300

1350

1400

1450



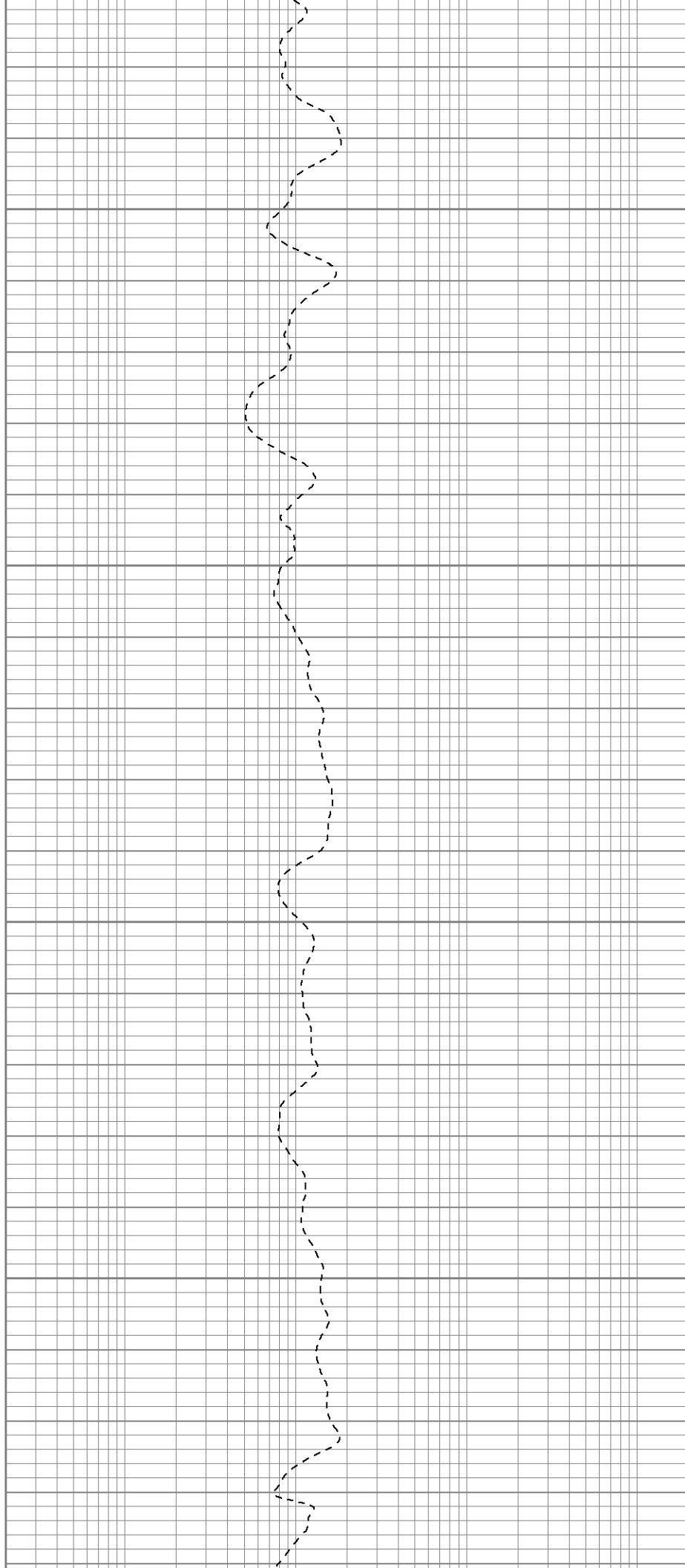


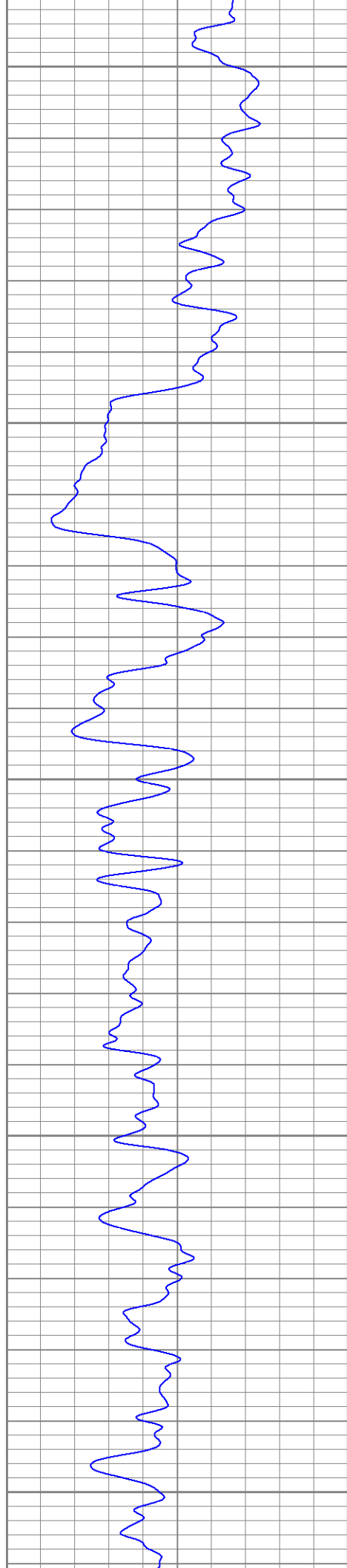
1500

1550

1600

1650





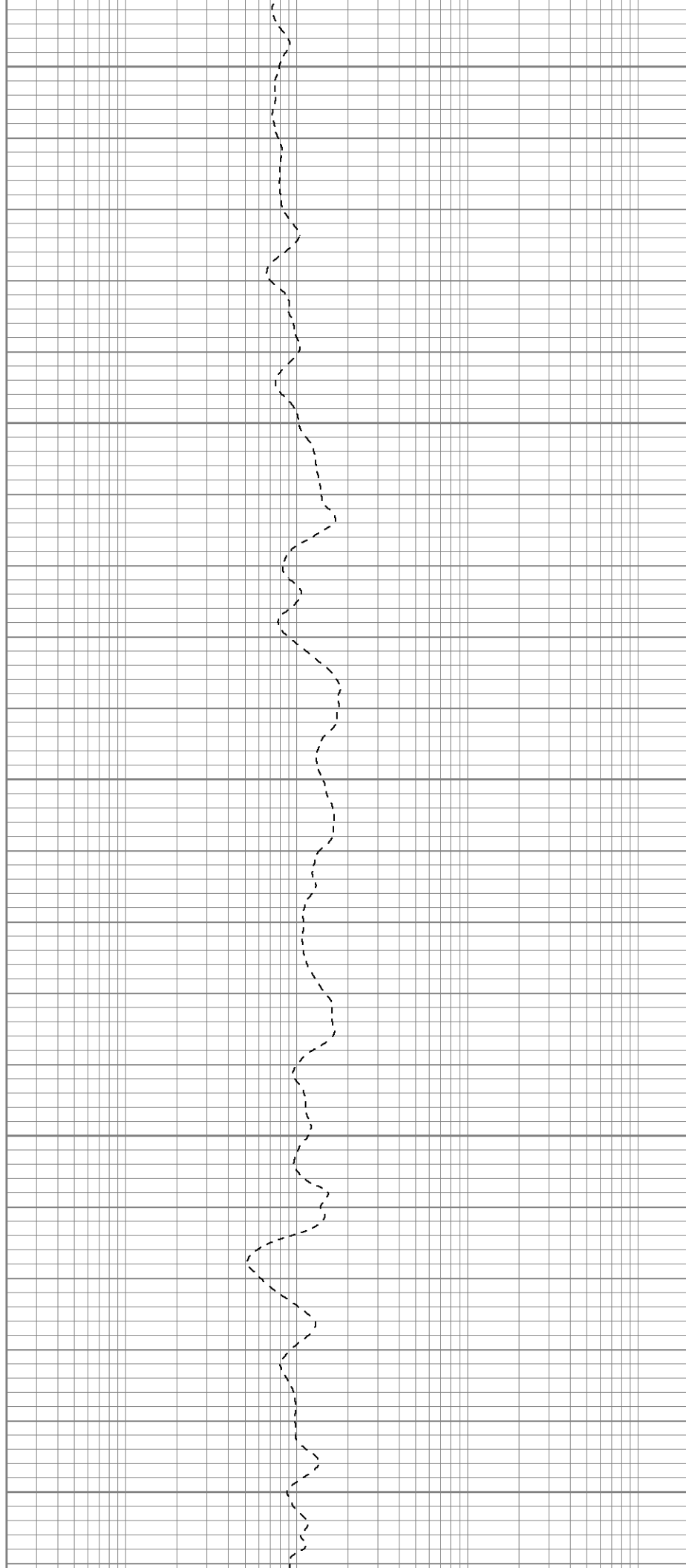
1700

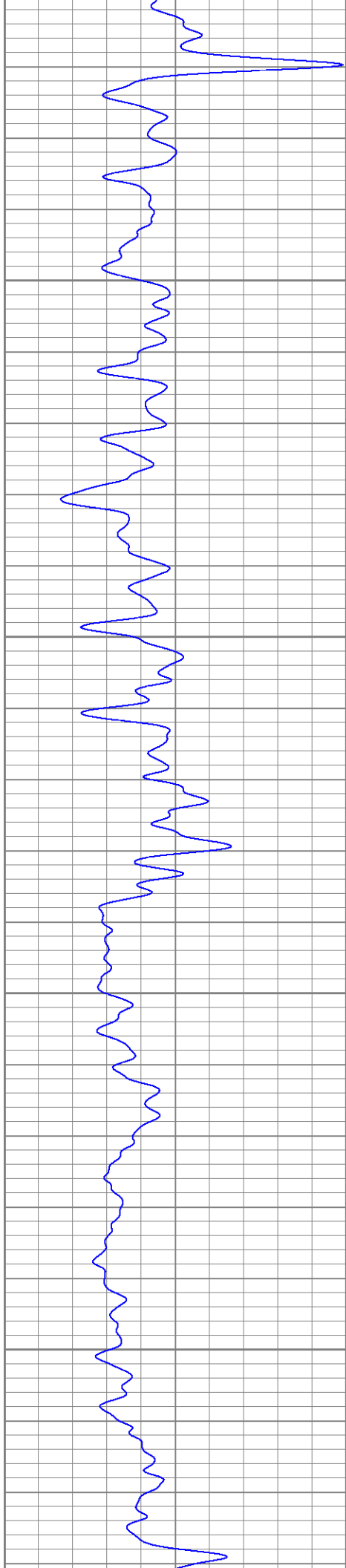
1750

1800

1850

1900



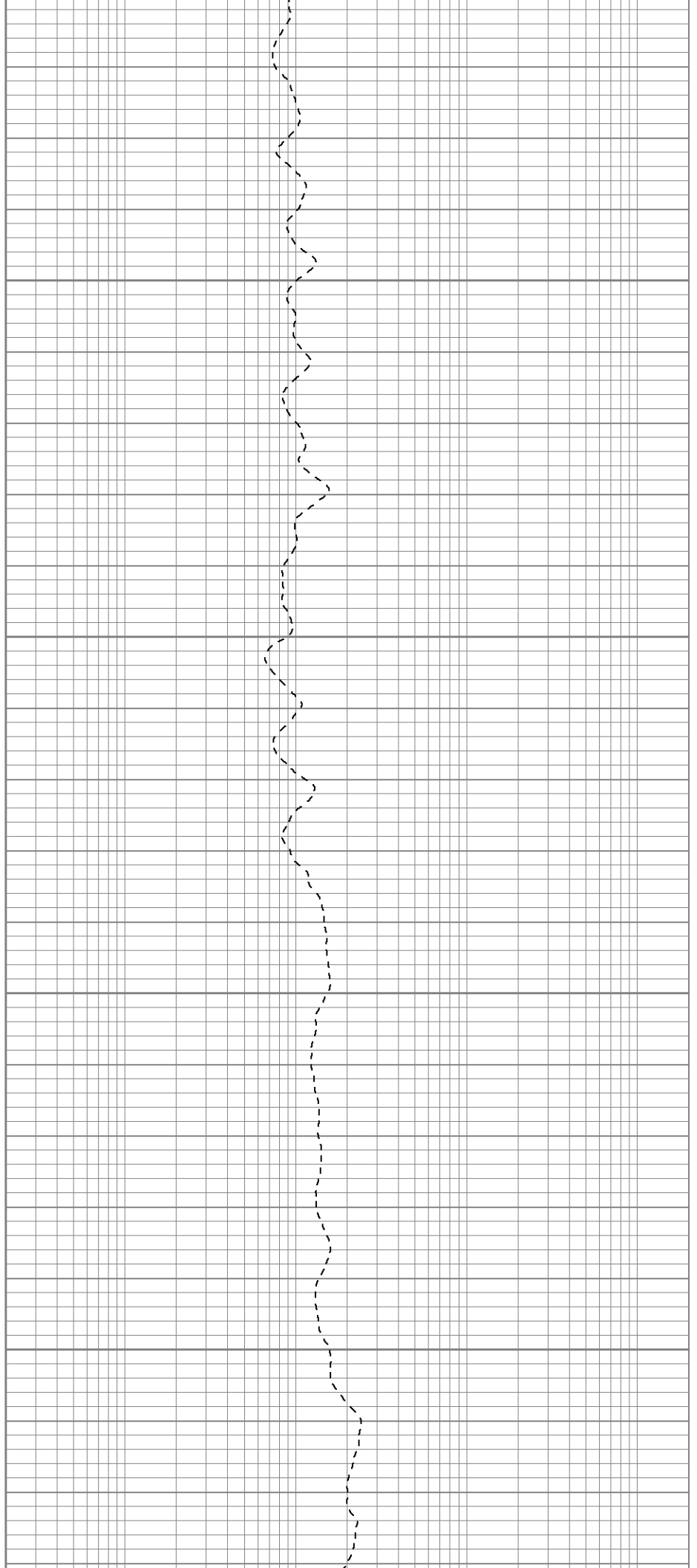


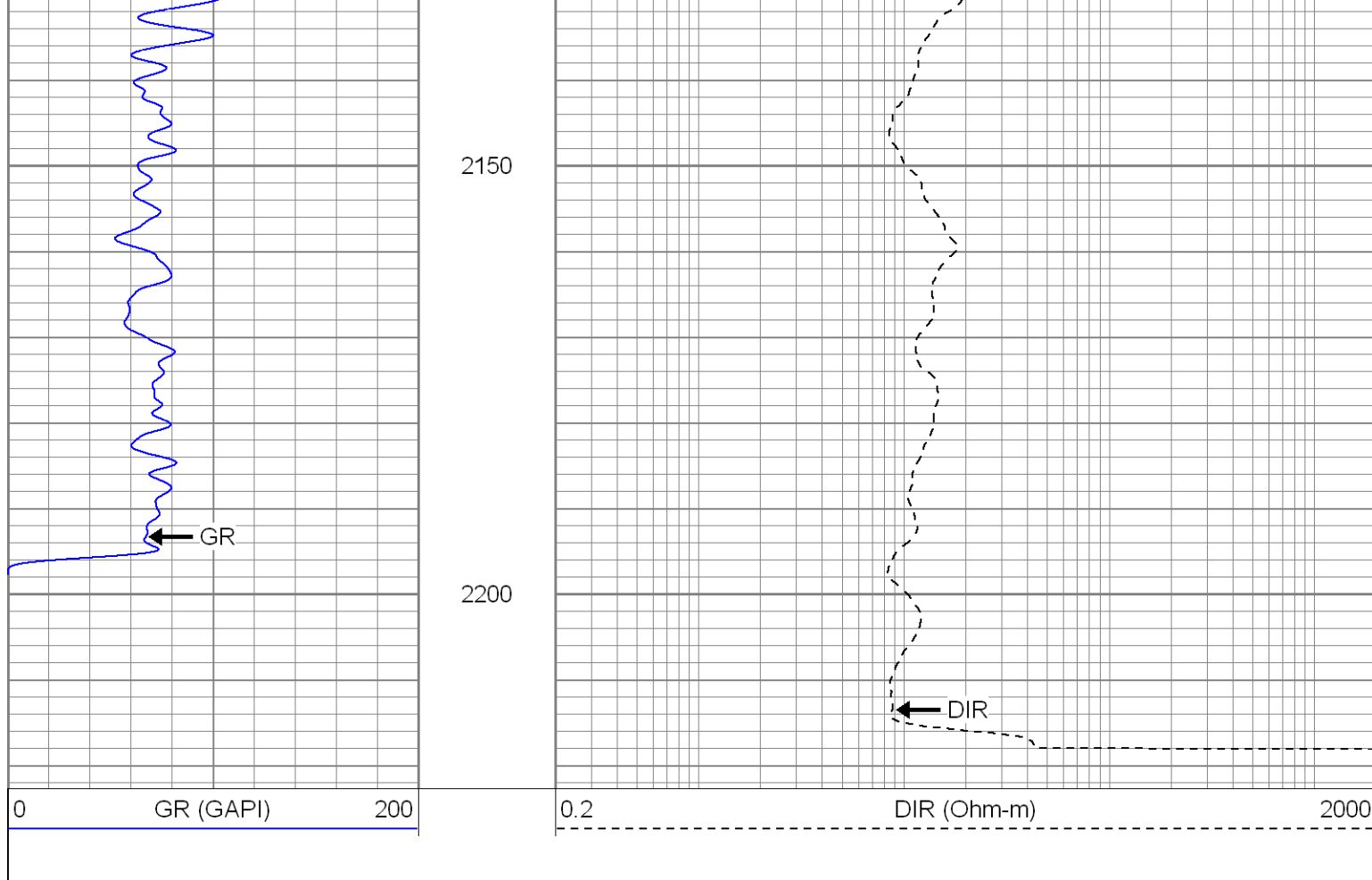
1950

2000

2050

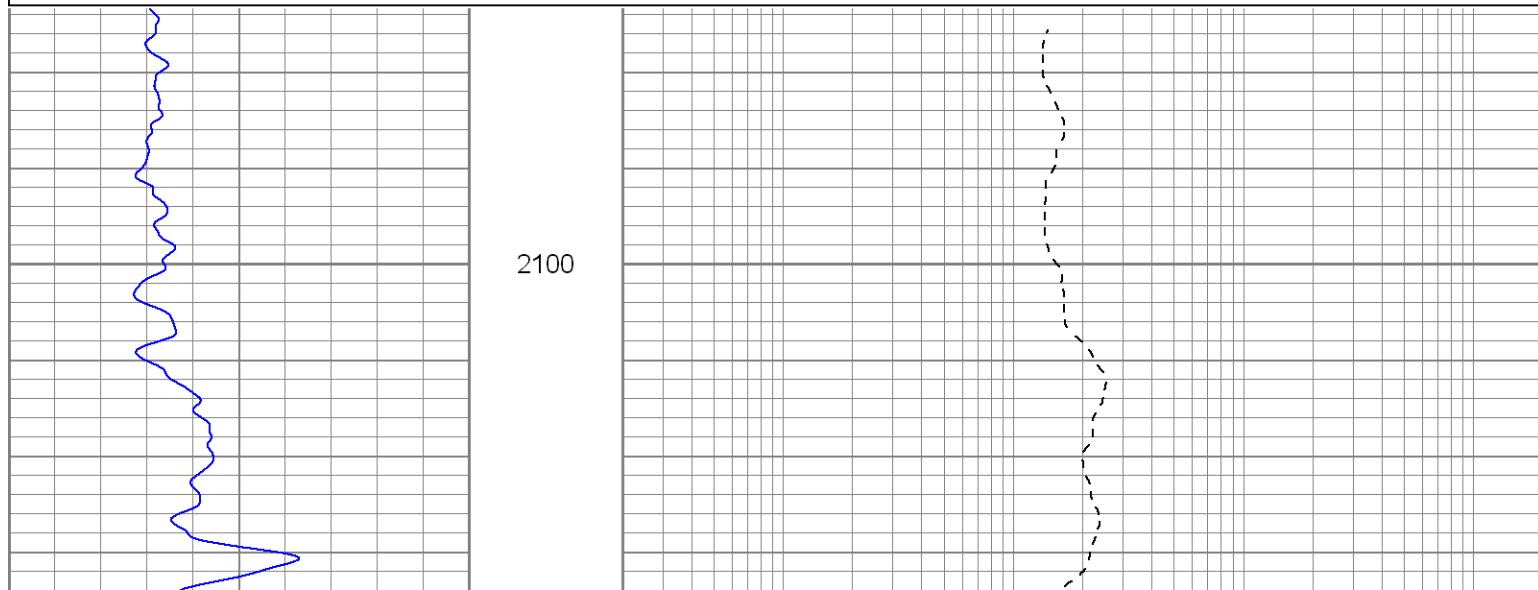
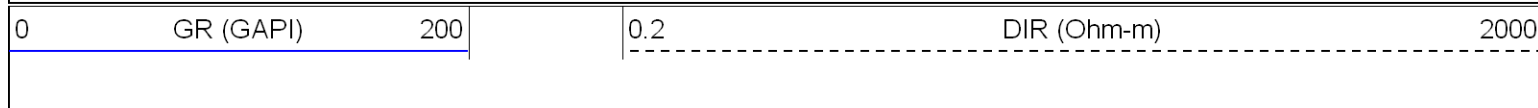
2100



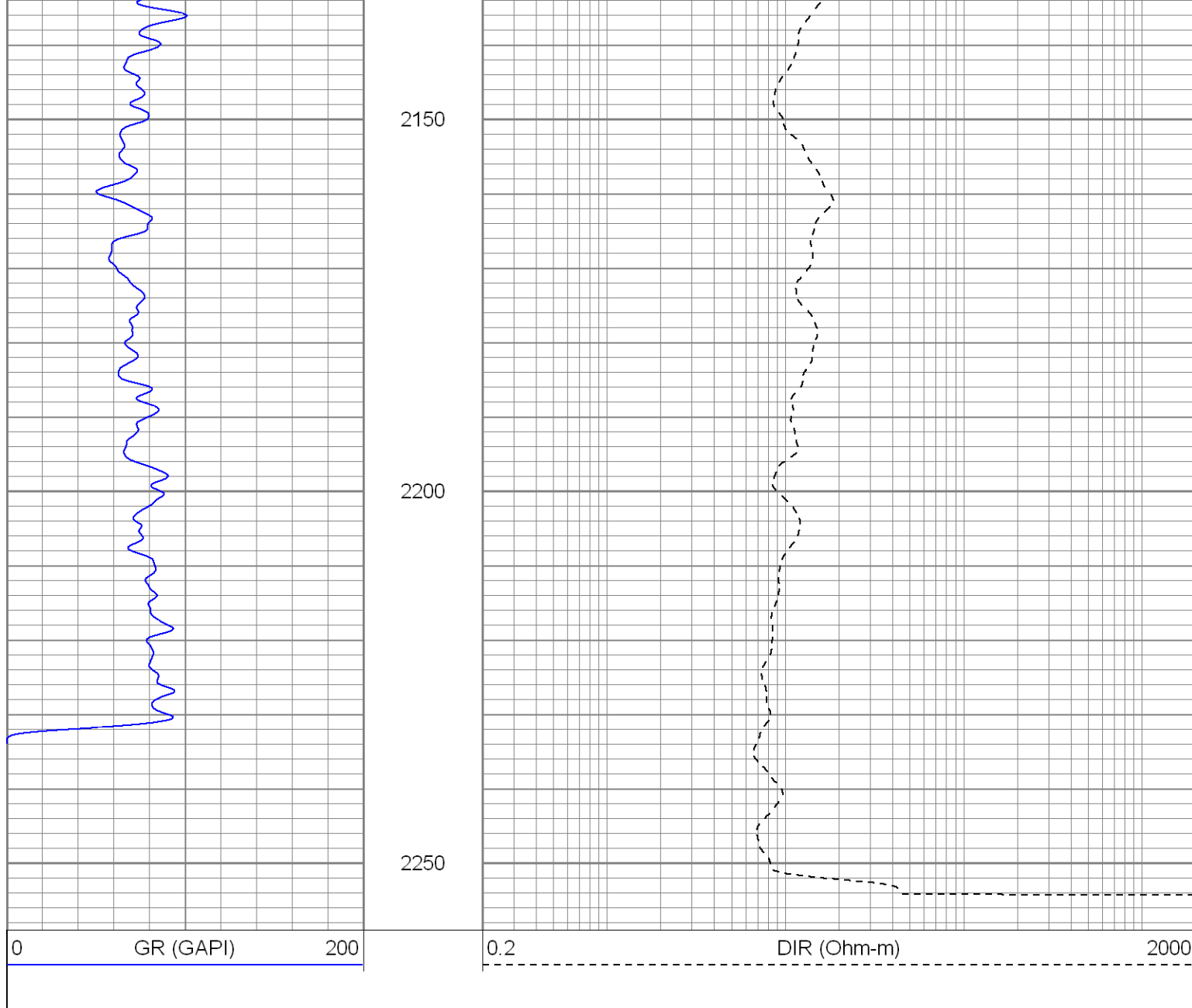


## Repeat Section

Database File: brahmsdi.db  
 Dataset Pathname: pass1.1  
 Presentation Format: iel  
 Dataset Creation: Mon Dec 07 10:17:54 2009 by Calc Open-Cased 071220  
 Charted by: Depth in Feet scaled 1:240







### Calibration Report

Database File: brahmsdi.db  
 Dataset Pathname: pass2  
 Dataset Creation: Mon Dec 07 06:52:41 2009 by Log Open-Cased 071220

### Induction Tool Calibration Report

Serial Number: 121  
 Tool Model: GL121  
 Downhole Cal Performed: Mon Dec 07 06:31:58 2009  
 Surface Cal Performed: Fri Dec 04 08:51:07 2009  
 After Survey Verification Performed:

Surface Calibration:	Air	Loop	
Conductivity Reference:	0.000	450.000	mmho
Conductivity Reading:	0.005	0.626	V
Internal Reference:	Zero	Cal	
Conductivity Reference:	0.000	500.000	mmho
Conductivity Reading:	0.009	0.631	V

Downhole Calibration:	Internal Zero	Internal Cal	
Conductivity Reference:	3.282	453.999	mmho
Conductivity Reading:	-1.663	456.644	V
Short Normal Reference:	0.000	17.000	Ohm-m

Short Normal Reading:		0.016	0.201	V
Results:	Gain		Offset	
	Loop Conductivity:		724.756	
	Downhole Correction:		-3.402	
	Short Normal Resistivity:		0.983	
		91.790	-1.449	



Compensated Density Calibration Report
----------------------------------------

Serial-Model:	2501DHT-DHT
Source / Verifier:	/
Master Calibration Performed:	Fri Dec 04 08:50:44 2009

Master Calibration					
	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	767.26	303.43	cps
Aluminum	2.590	g/cc	171.91	210.81	cps
Spine Angle = 76.32			Density/Spine Ratio = 0.572		
	Size		Reading		
Small Ring	8.00	in	6196.63		
Large Ring	14.00	in	10494.70		

Gamma Ray Calibration Report
------------------------------

Serial Number:	2001	
Tool Model:	OH	
Performed:	Fri Dec 04 08:49:38 2009	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.2500	GAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
GR	26.85		None	0.75	1.50	5.00
			GR-OH (2001) 2001	3.56	3.25	40.00
			CDL-DHT (2501DHT) Digital High Temp CDL Tool	9.69	4.00	201.00
LSD	18.31					
DCAL	18.02					
SSD	17.77					
HEADVOLT	16.00					

