

Patterson

**COMPENSATED DENSITY
NEUTRON
LOG**

Company	Pioneer Natural Resources	Company	Pioneer Natural Resources
Well	Black Rabbit 42-20 R	Well	Black Rabbit 42-20 R
Field	Purgatoire River	Field	Purgatoire River
County	Las Animas	County	Las Animas
State	Colorado	State	Colorado
Location:	API # : 05 071 08569 00 1556' FNL & 976' FEL	Other Services	SIL
Permanent Datum	SEC 20 TWP 32S RGE 65W	Elevation	
Log Measured From	Ground Level	K.B. 7356'	
Drilling Measured From	Kelly Bushing 4' Above G.L.	D.F. -----	
	Kelly Bushing	G.L. 7352'	
Date	10-22-05		
Run Number	Two		
Depth Driller	1790'		
Depth Logger	1792'		
Bottom Logged Interval	1790'		
Top Log Interval	Surface		
Casing Driller	8 5/8" @ 733'		
Casing Logger	733'		
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	4:00 A.M.		
Time Logger on Bottom	6:30 A.M.		
Maximum Recorded Temperature	98 DEG F		
Equipment Number	T720		
Location	Trinidad		
Recorded By	M. Norton		
Witnessed By	Mr. Tom Beardslee		

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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

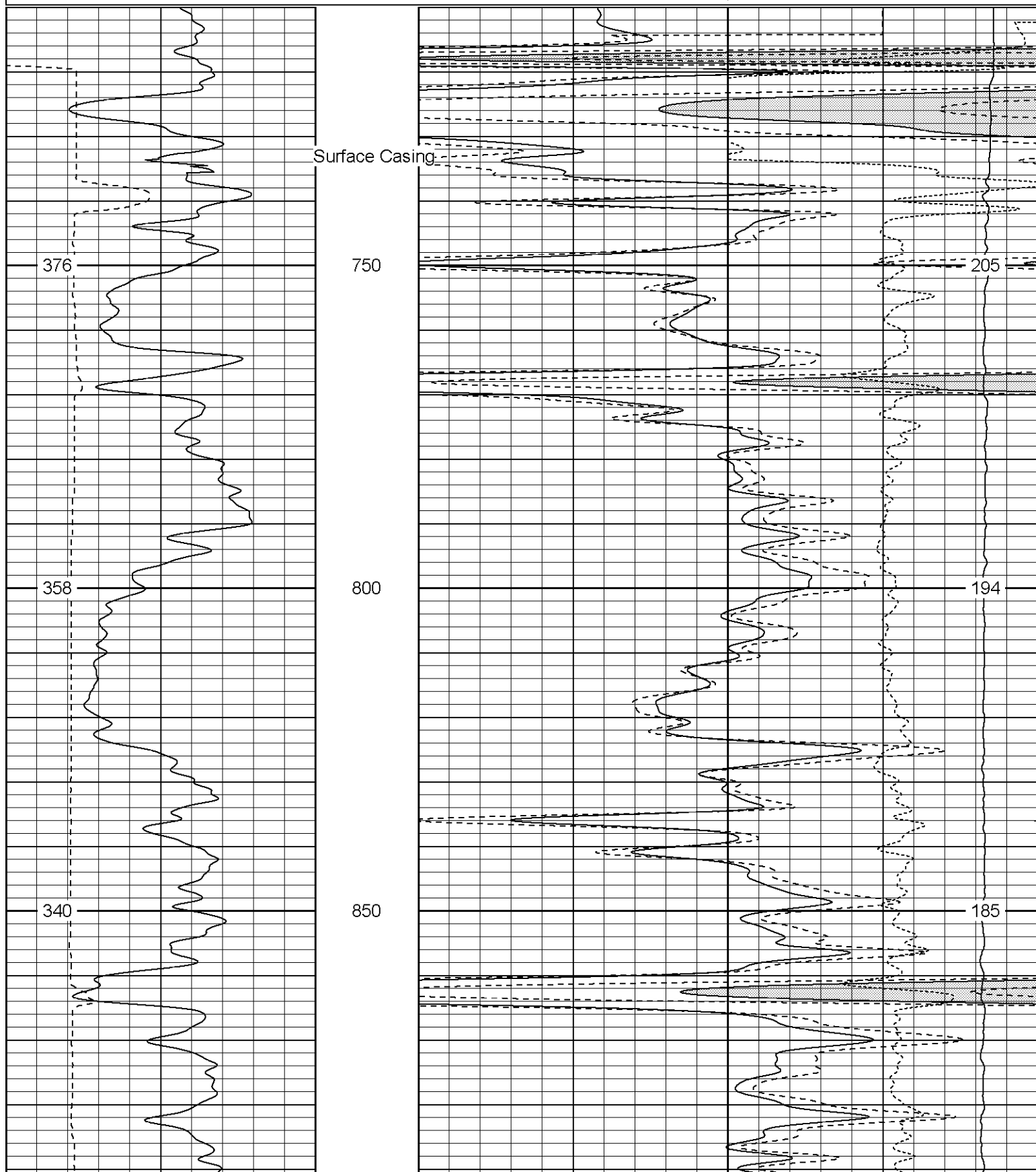
Neutron Density Porosity Presented On Sandstone Matrix.
ABHV Calculated For 5 1/2" Casing.
Well Directions:
Bon Carbo Right At Post Office, Right At The Tin Barn,
Second Left, First Location On The Left.

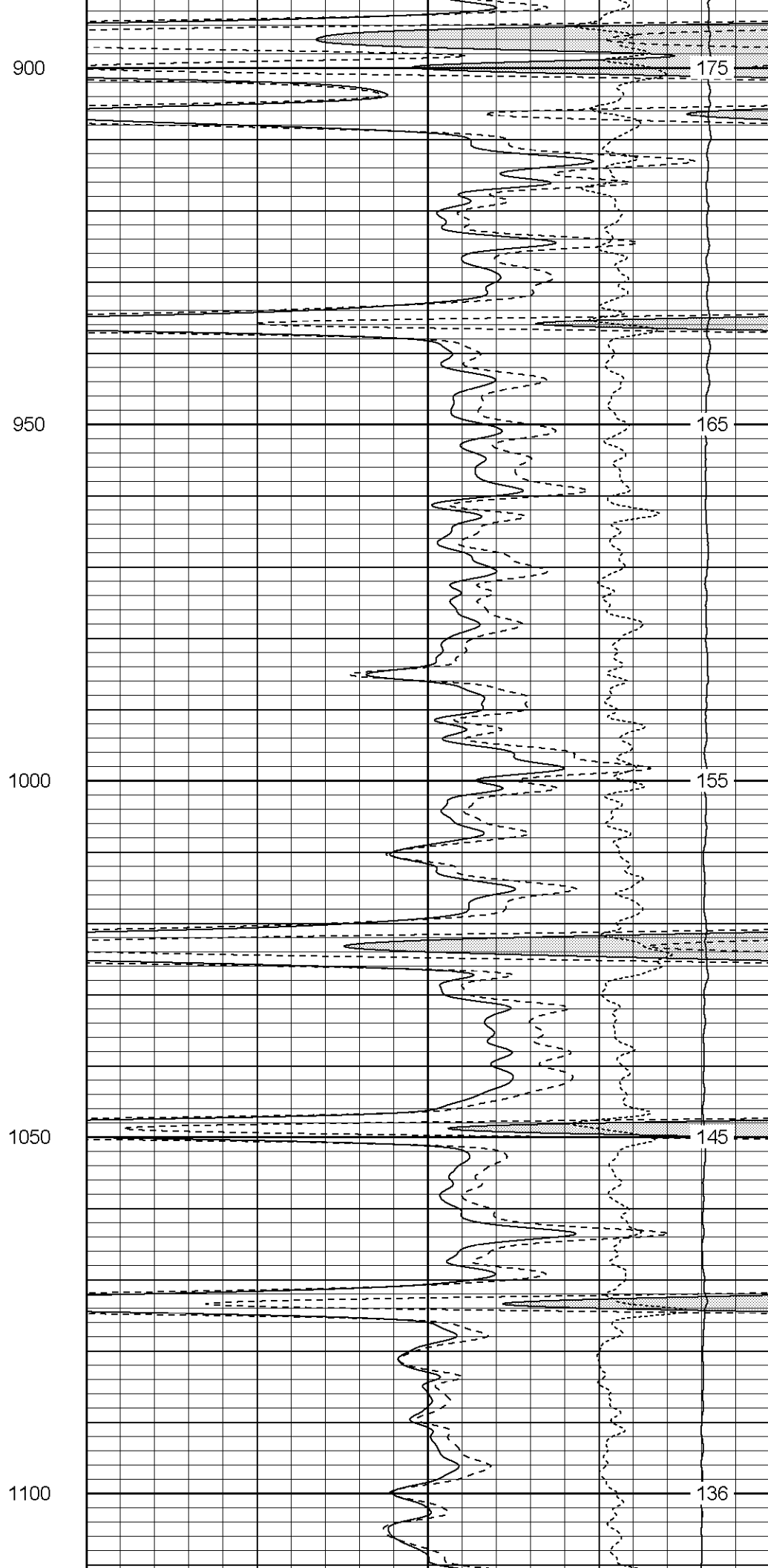
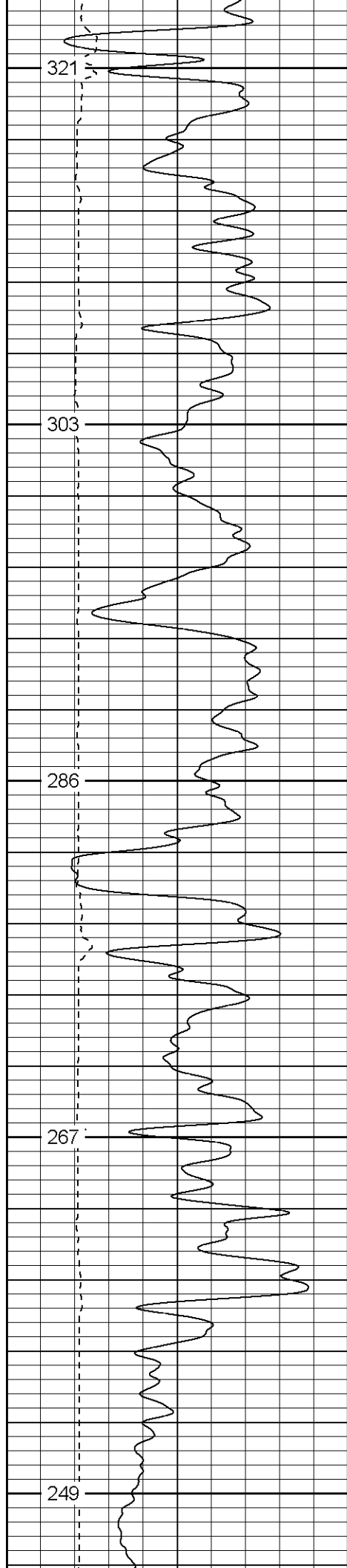
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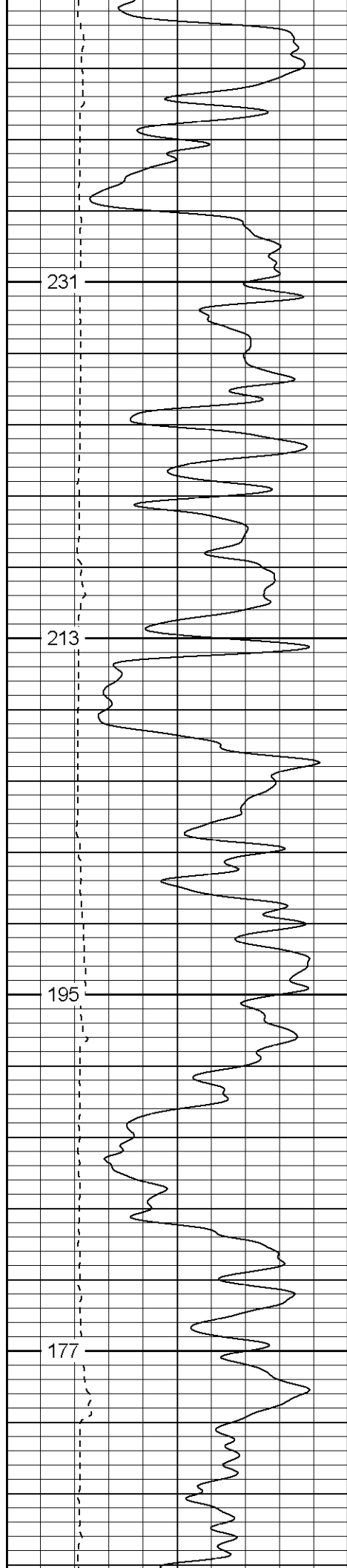
Main Pass

Database File: blackrabbitr.db
Dataset Pathname: pass4.1
Presentation Format: cdl
Dataset Creation: Sat Oct 22 07:48:51 2005 by Calc Warrior 7.0 STD Ope
Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200	1	RHOB (g/cc)	2
6	DCAL (in)	16	30	DPOR (pu)	-10
			-0.5	RHOC (g/cc)	0.5
			4000	LTEN (lb)	0





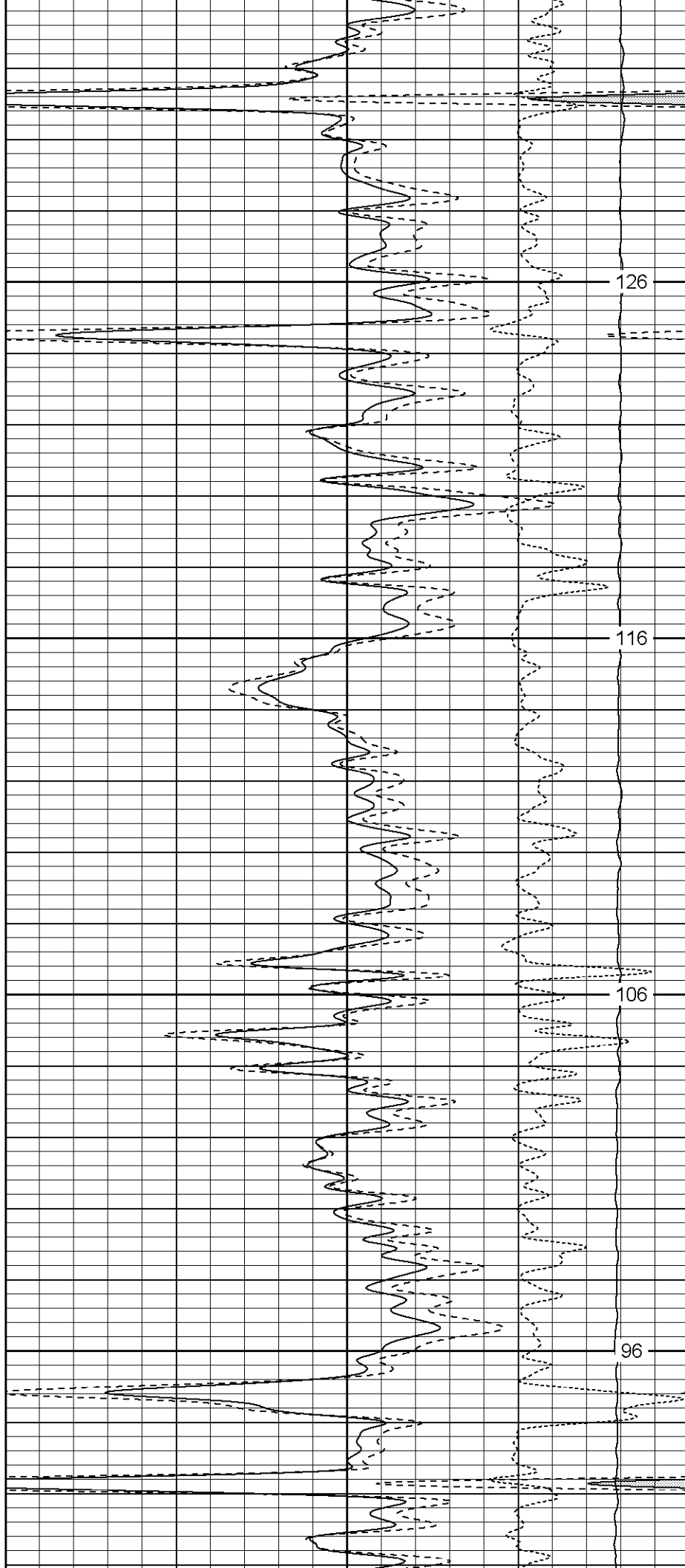


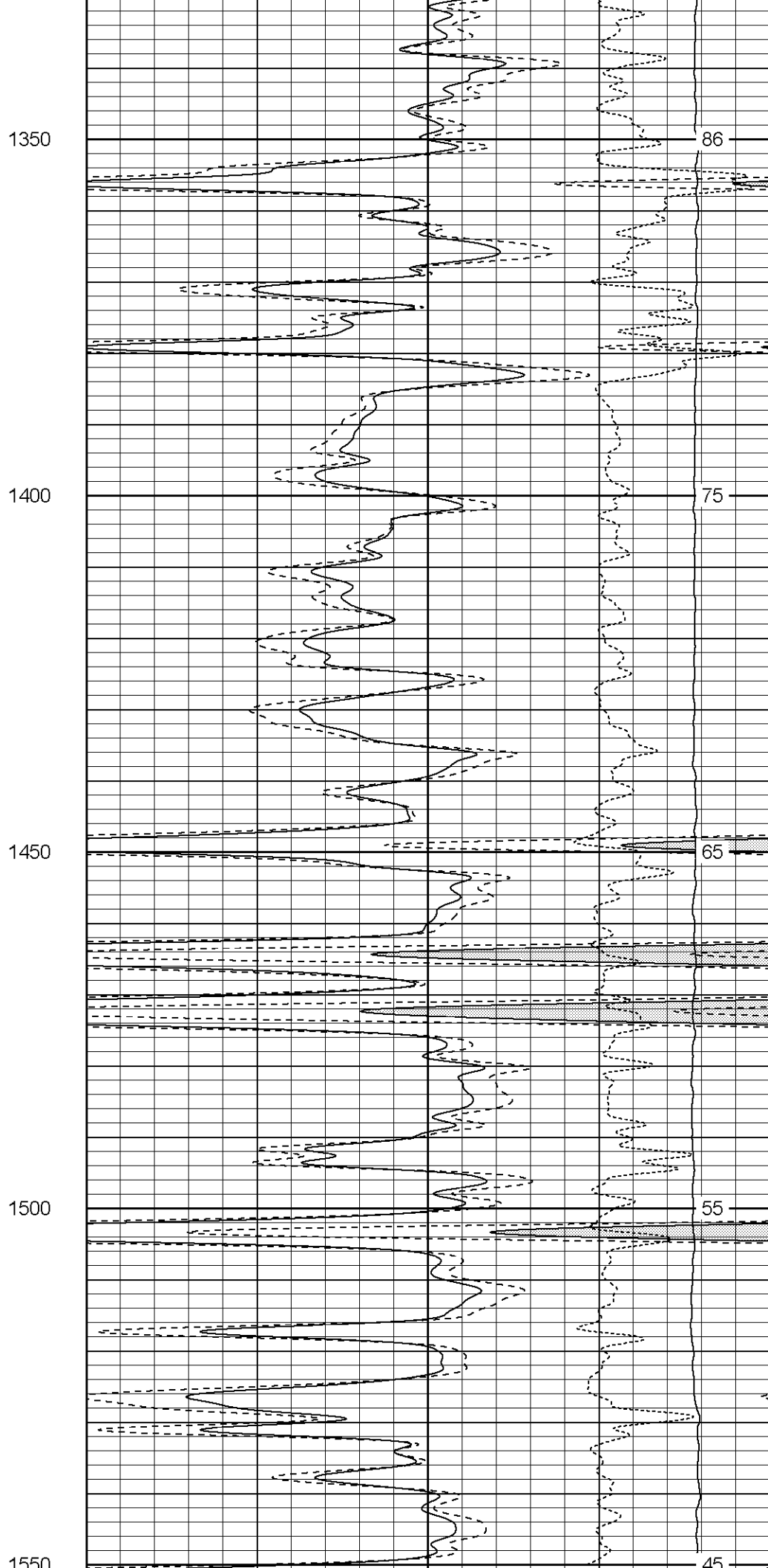
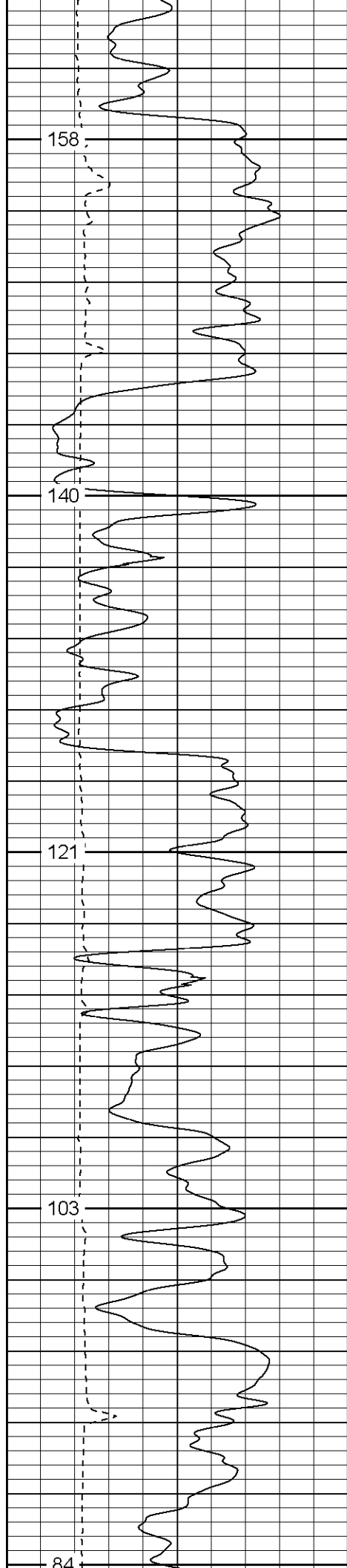
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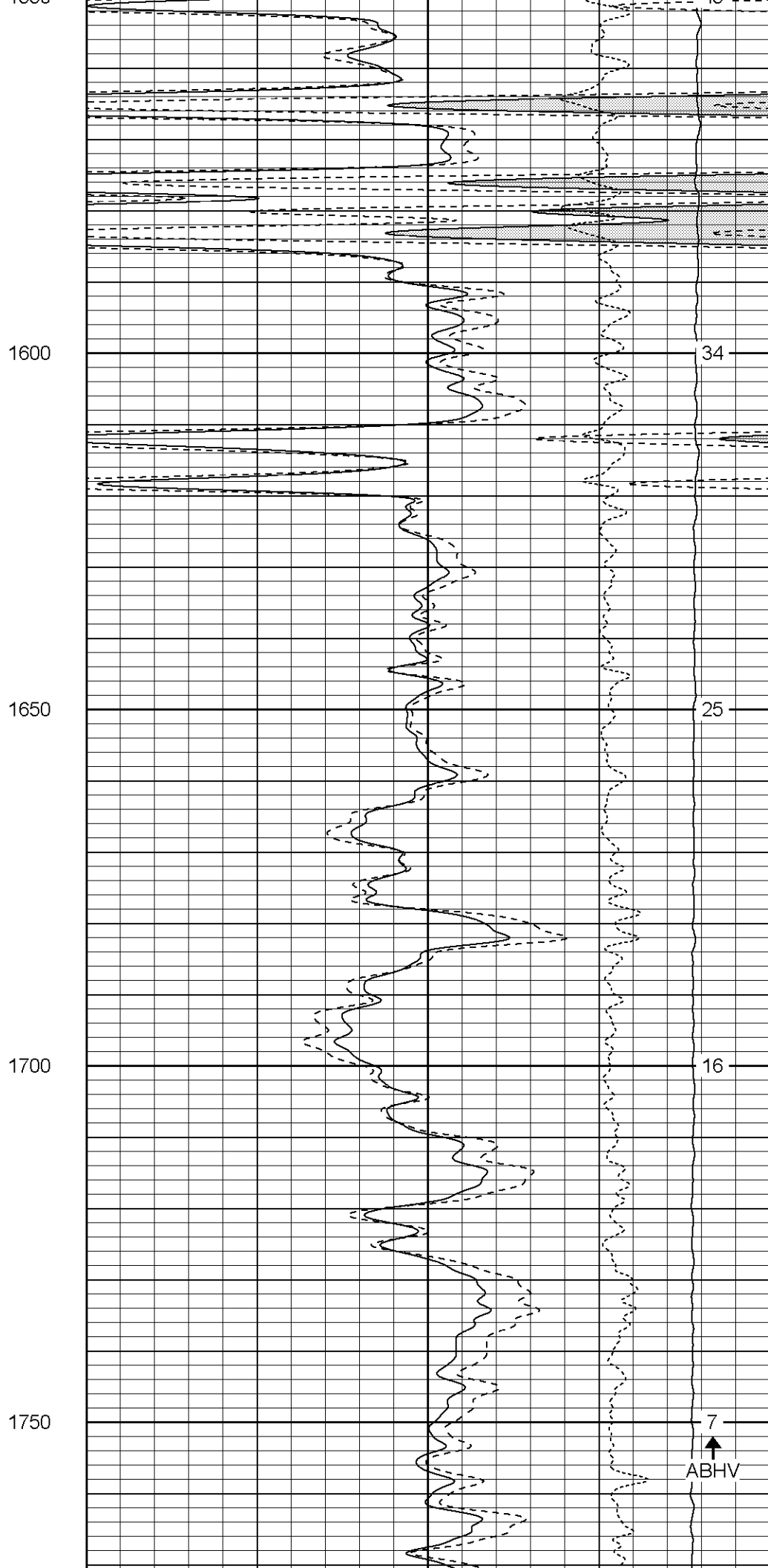
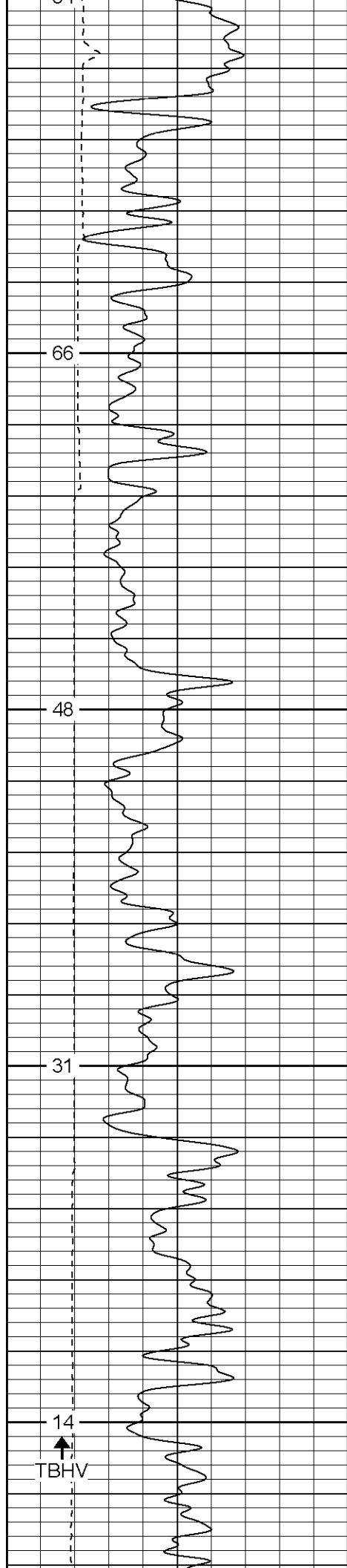
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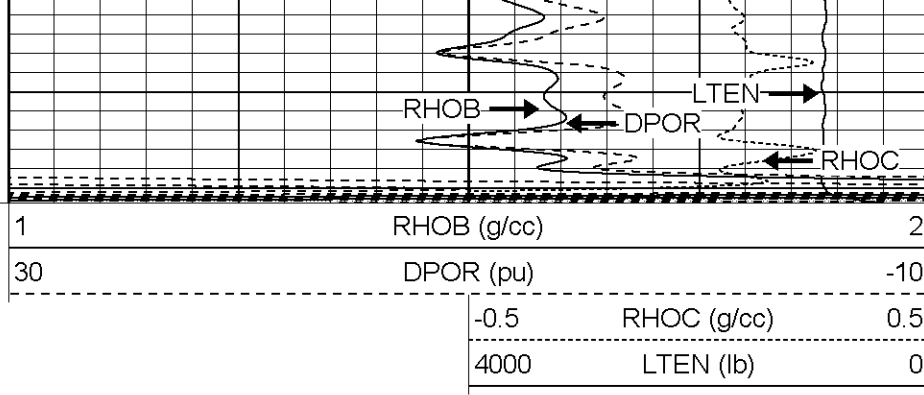
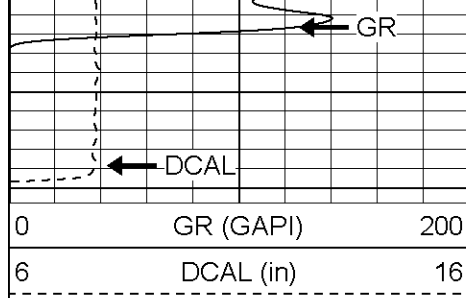
1250

1300





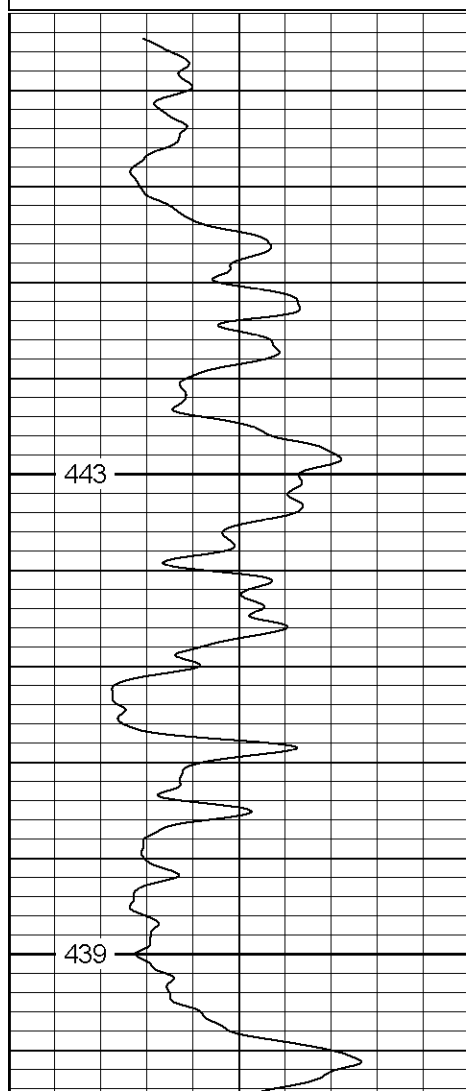
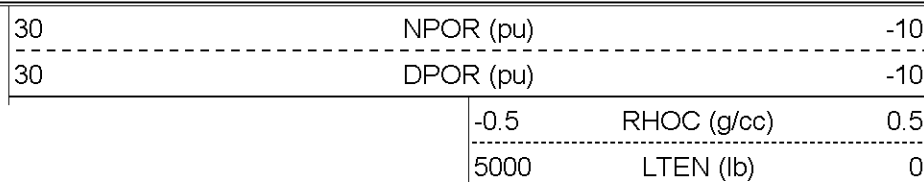




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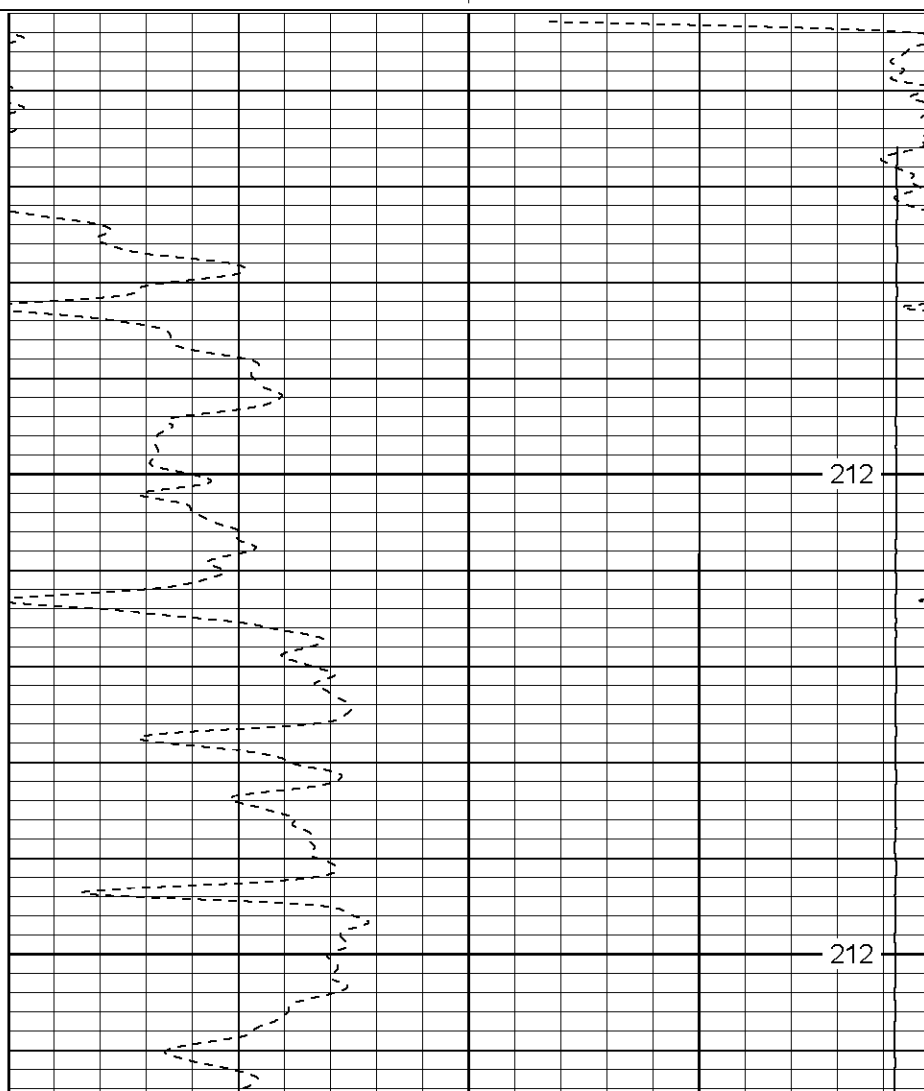
Main Pass

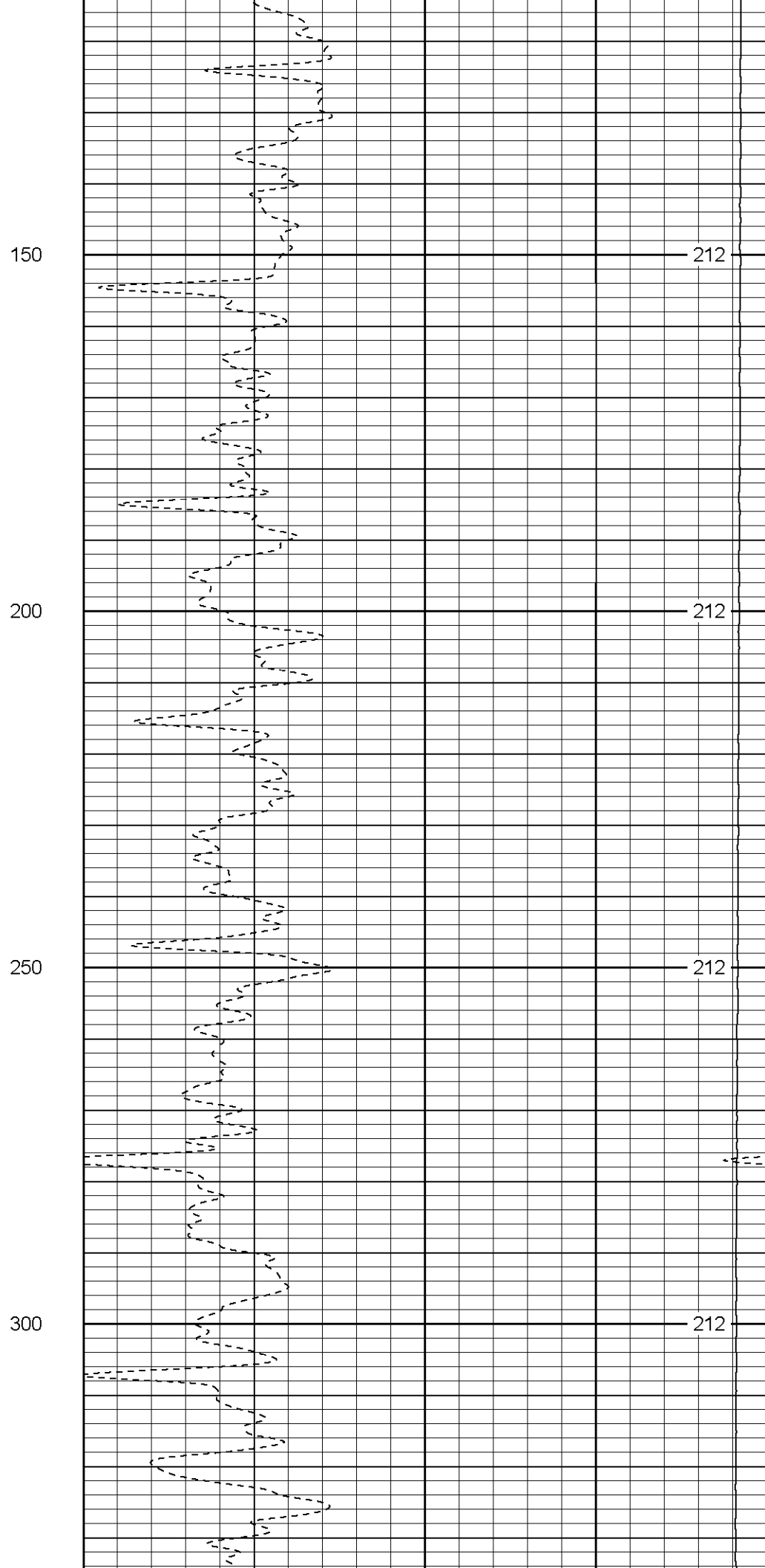
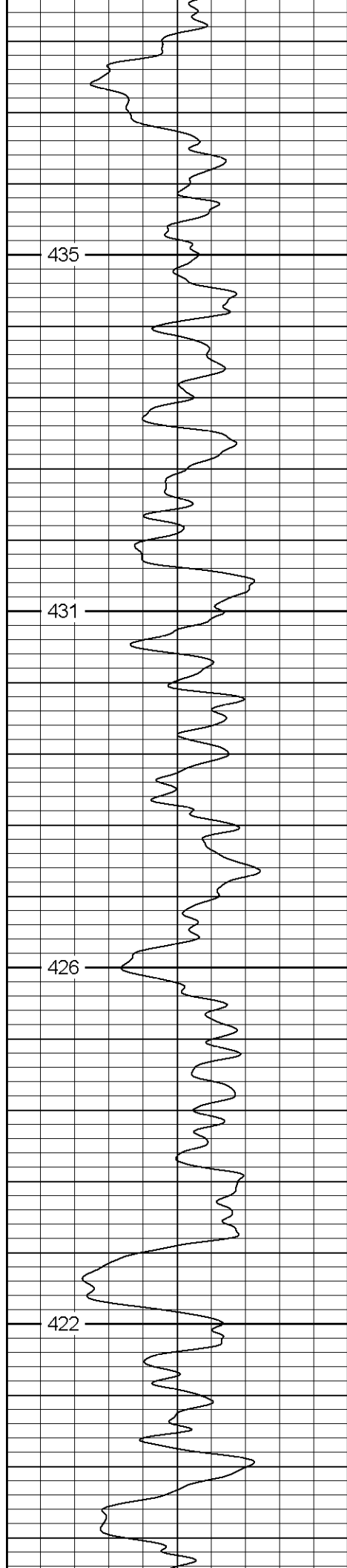
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Presentation Format: cdnl
Dataset Creation: Sat Oct 22 07:48:51 2005 by Calc Warrior 7.0 STD Ope
Charted by: Depth in Feet scaled 1:240

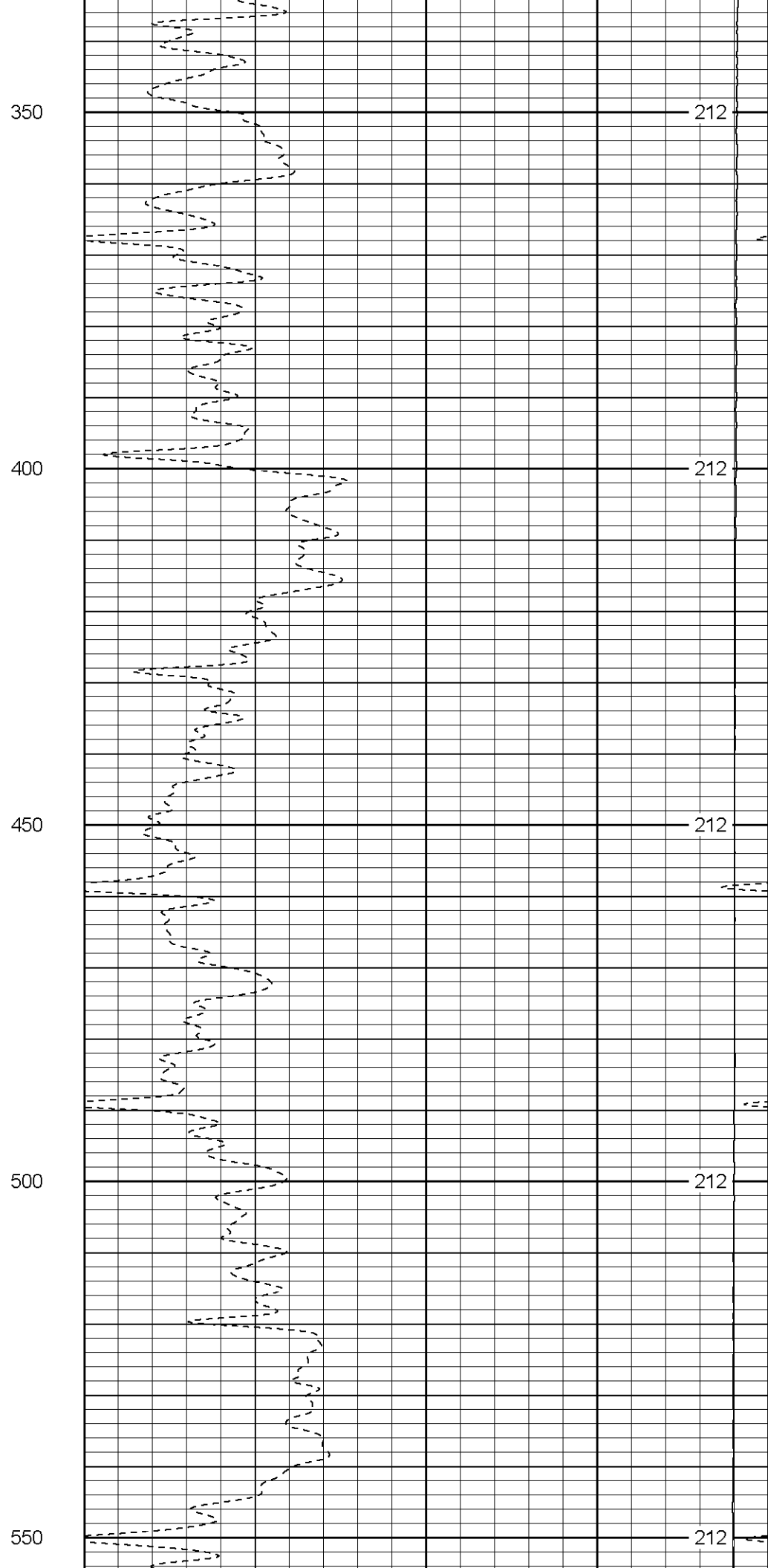
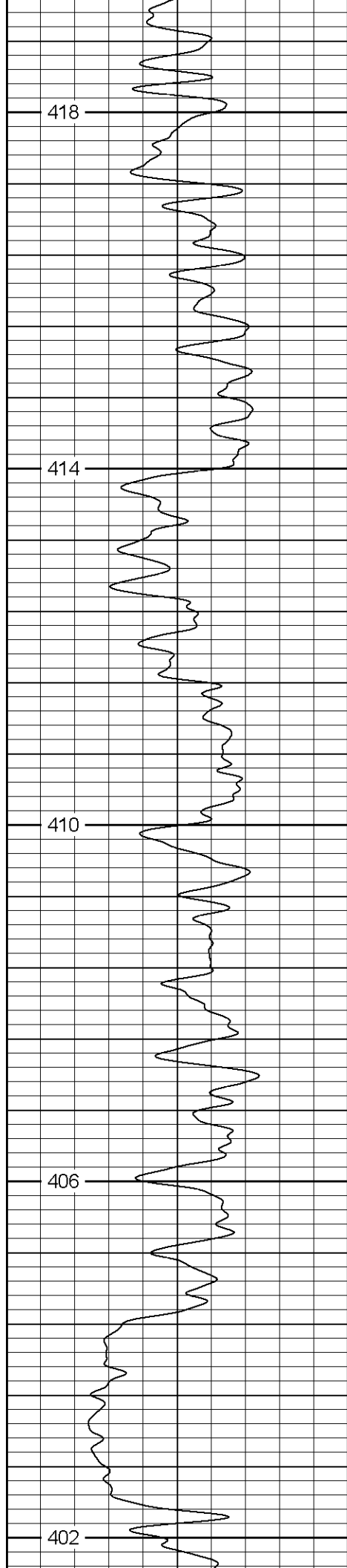


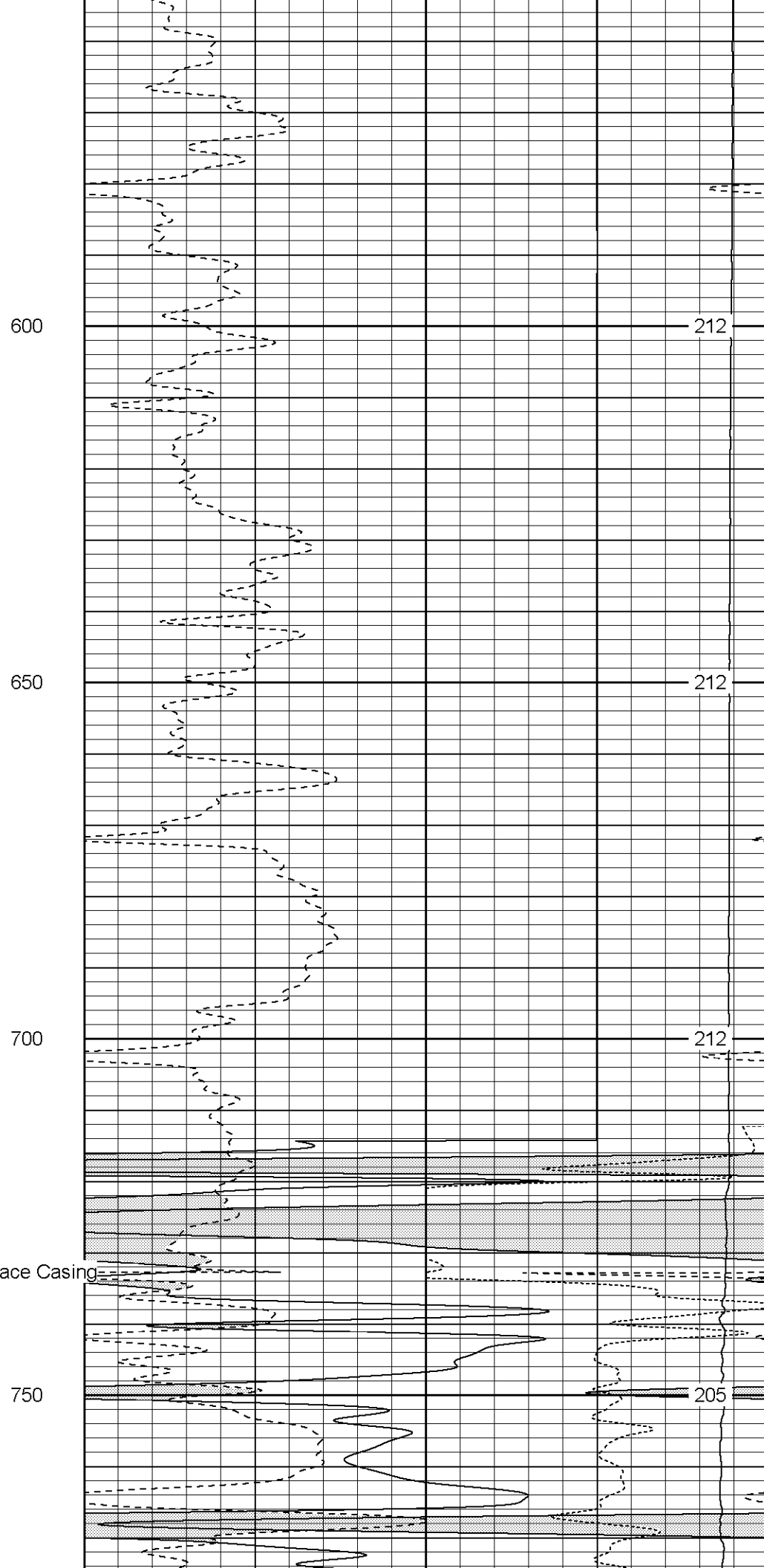
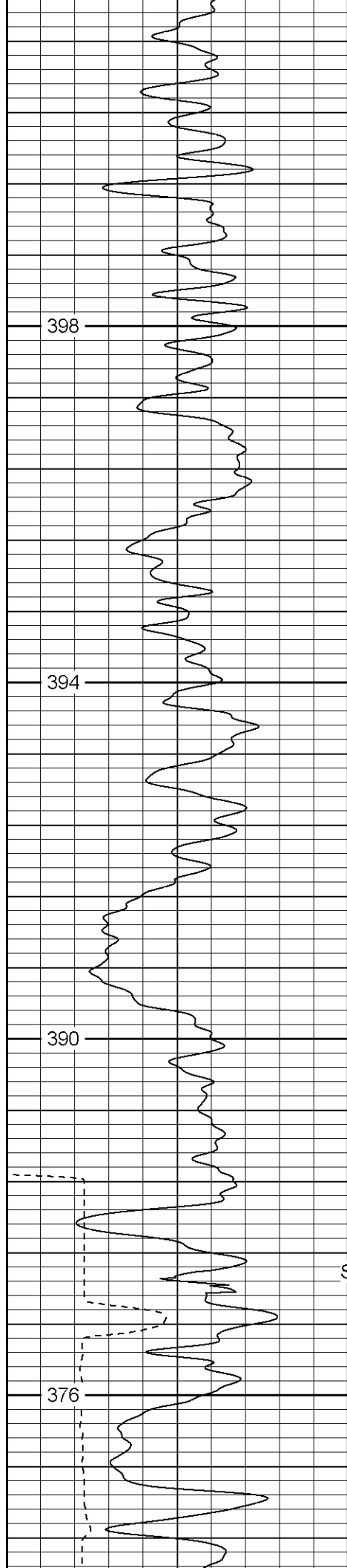
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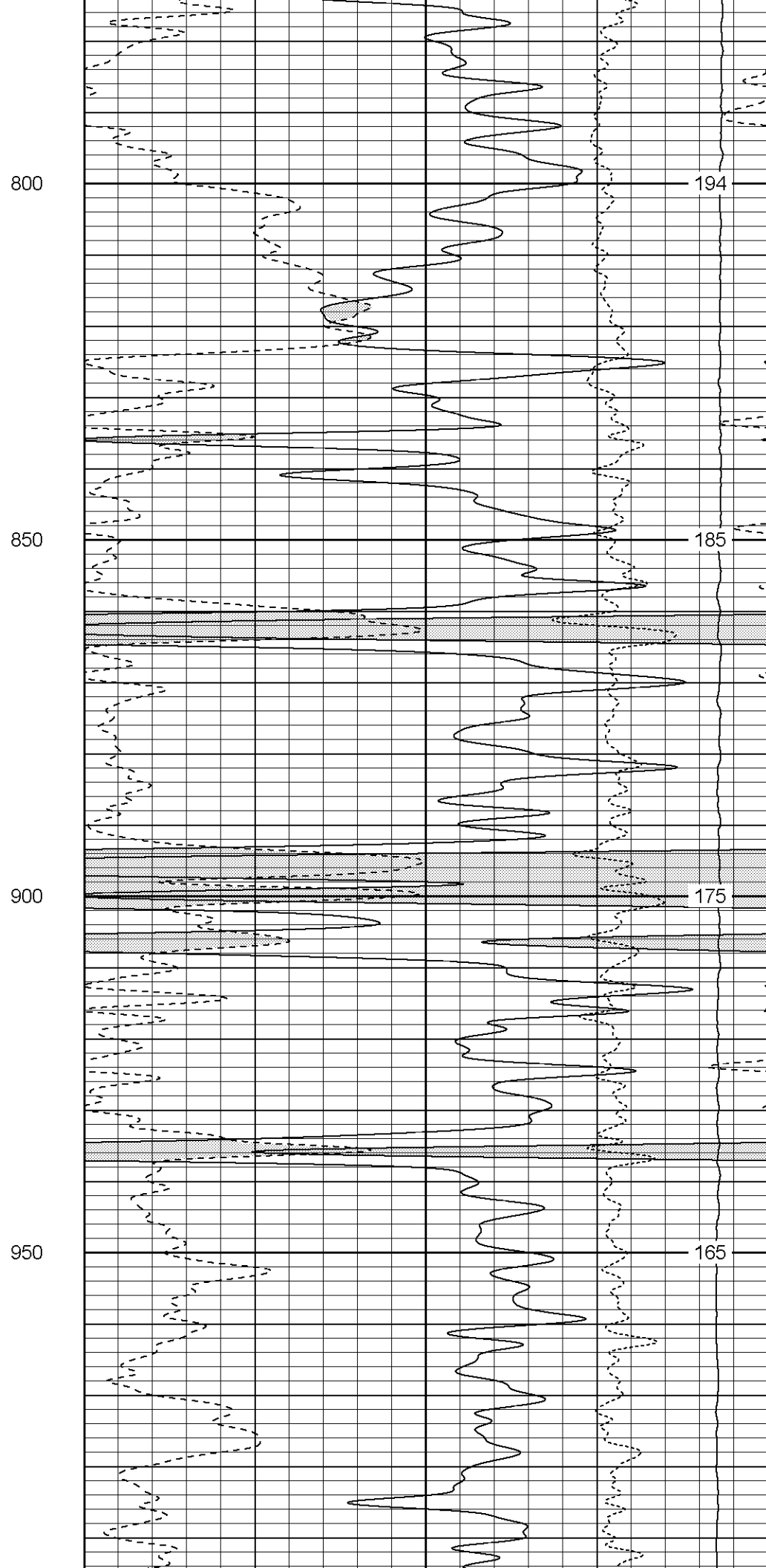
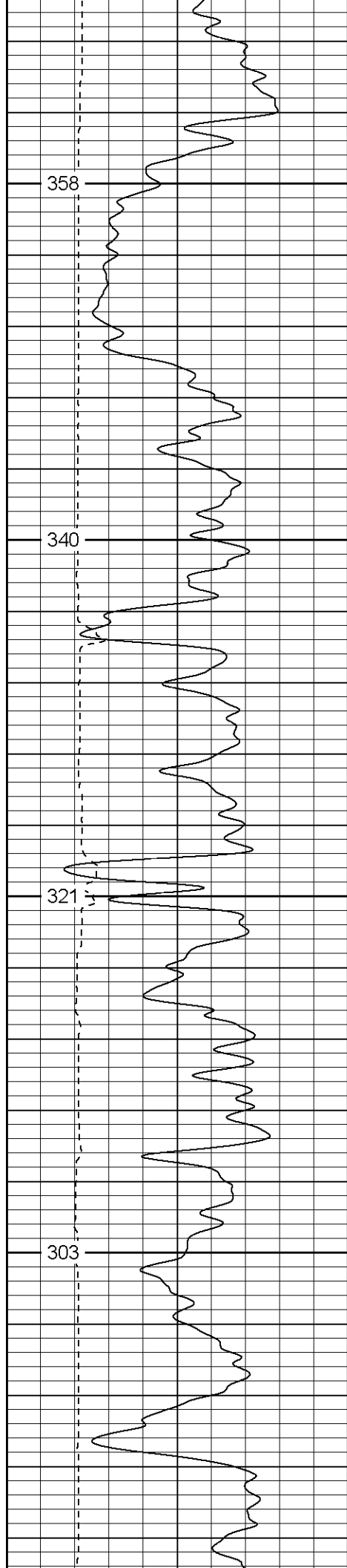
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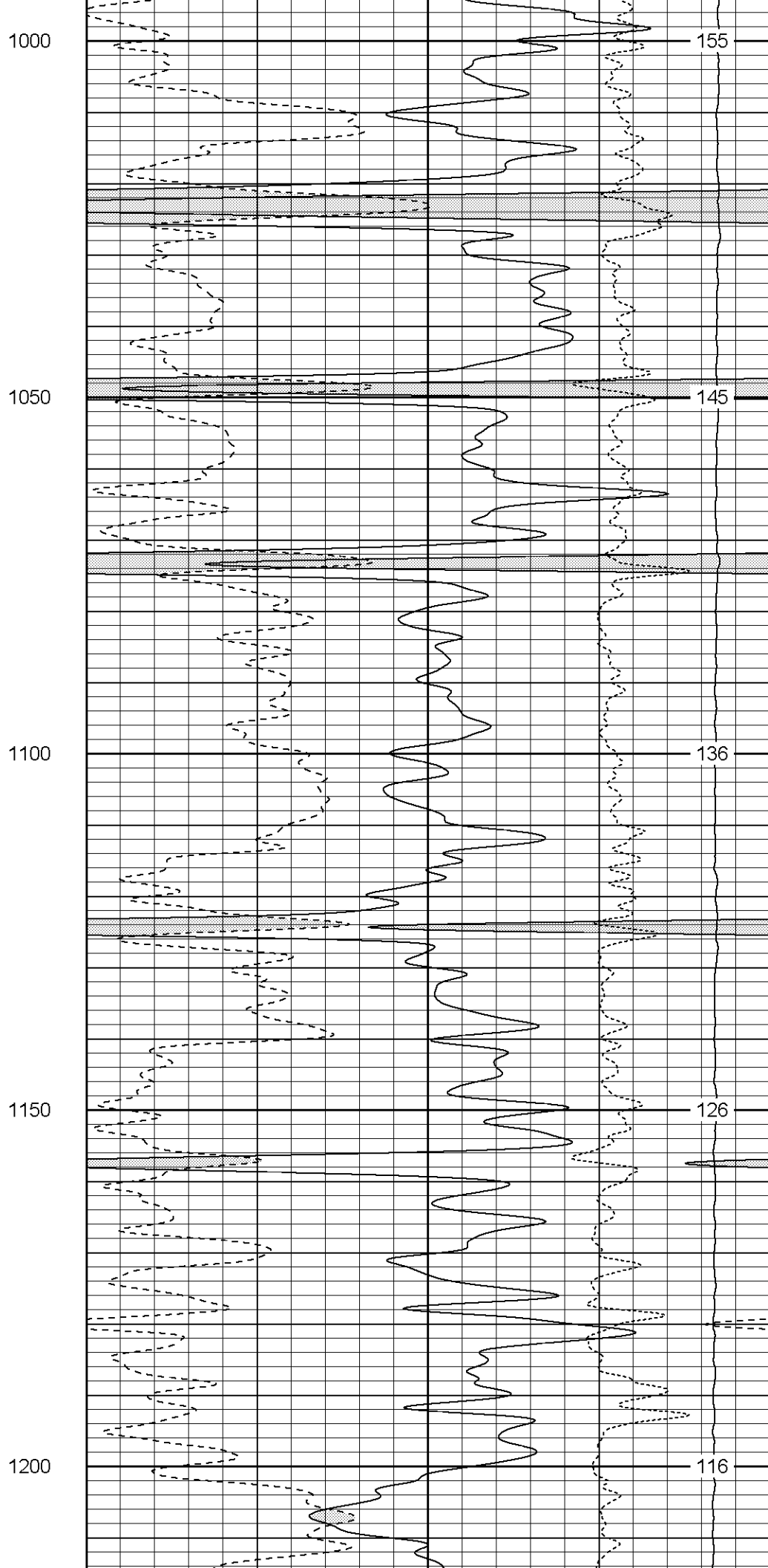
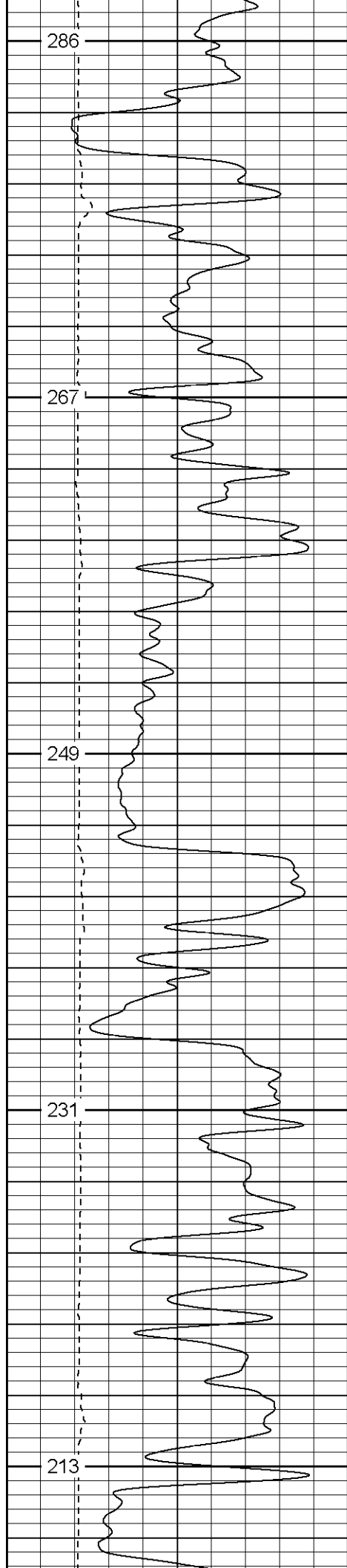


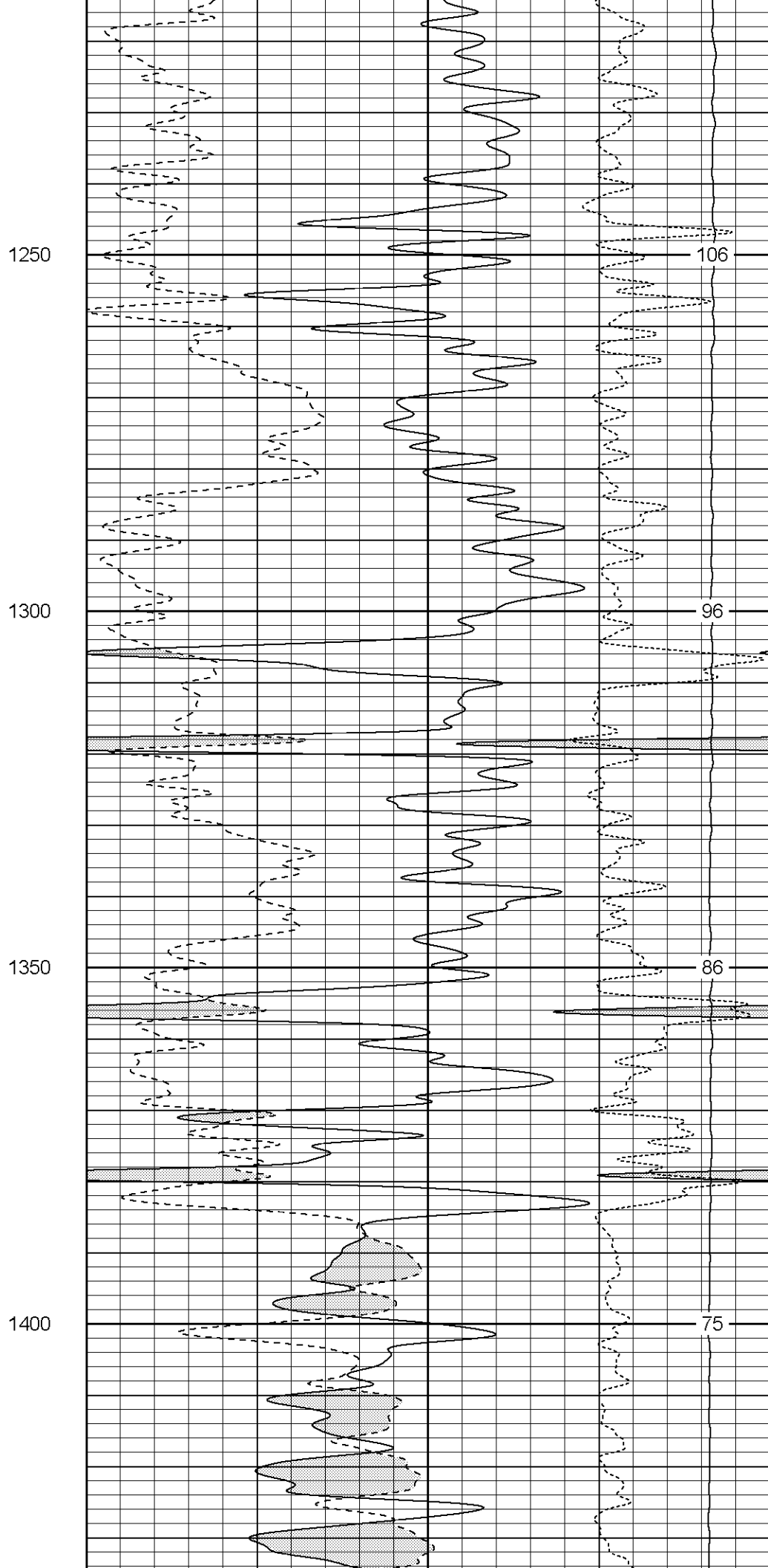
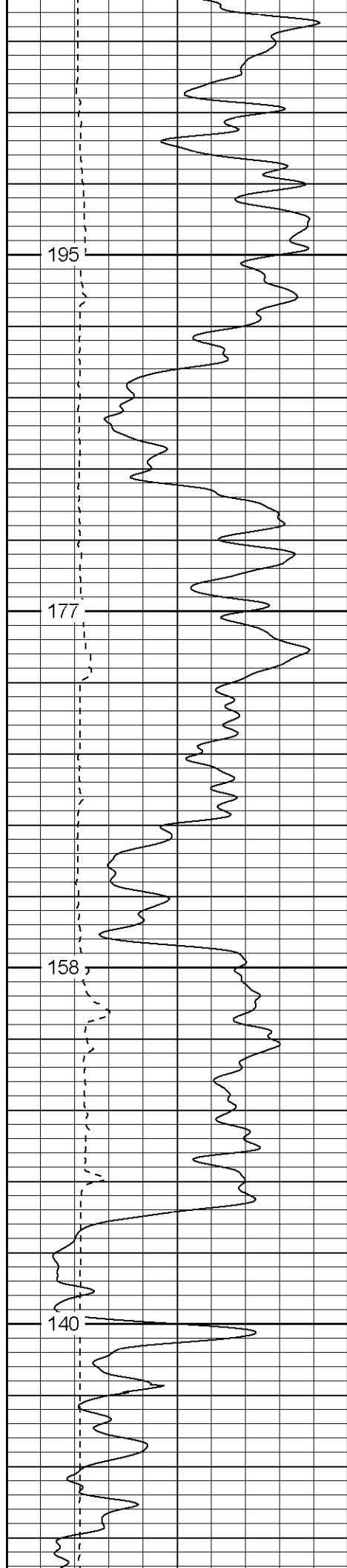


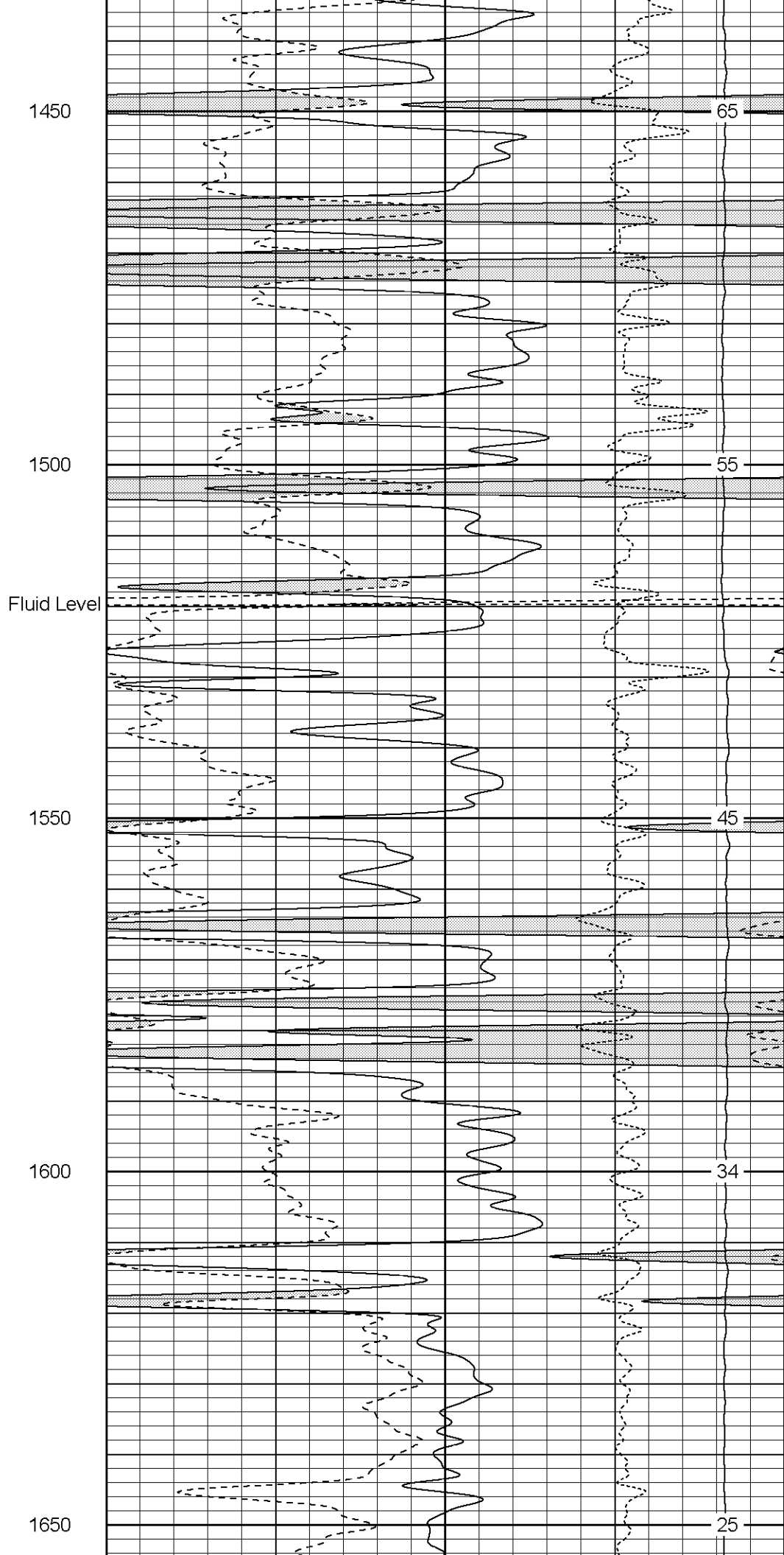
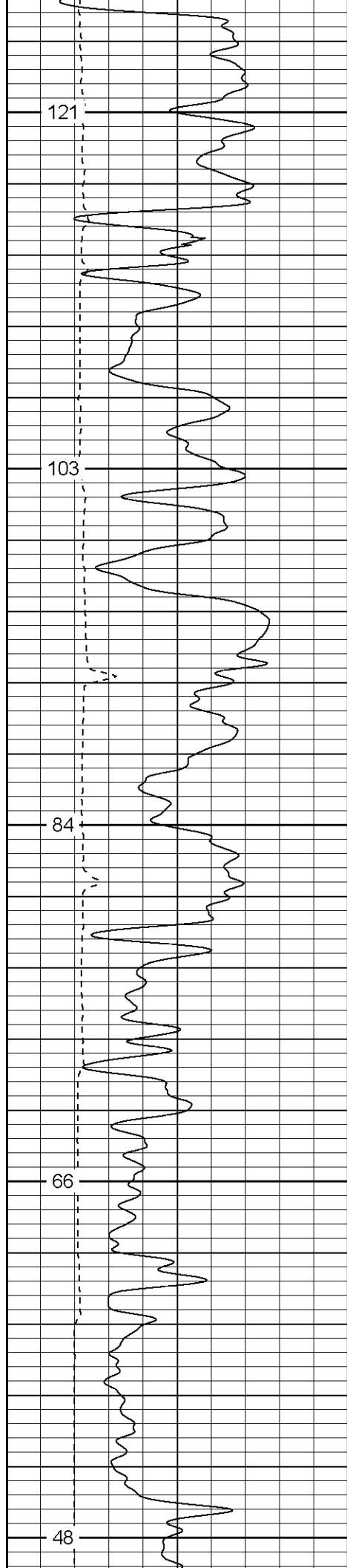


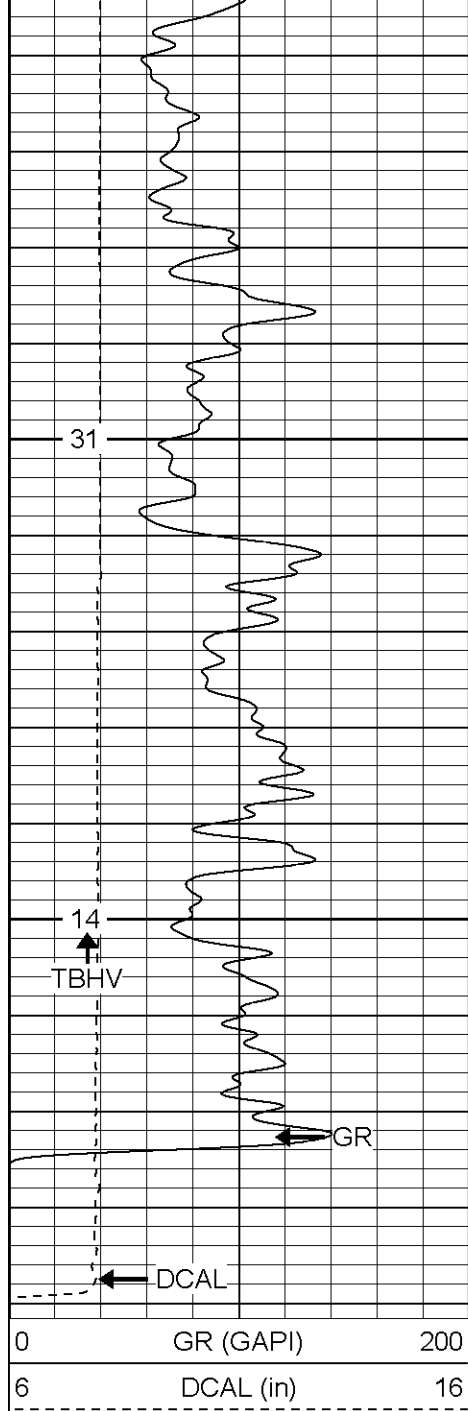






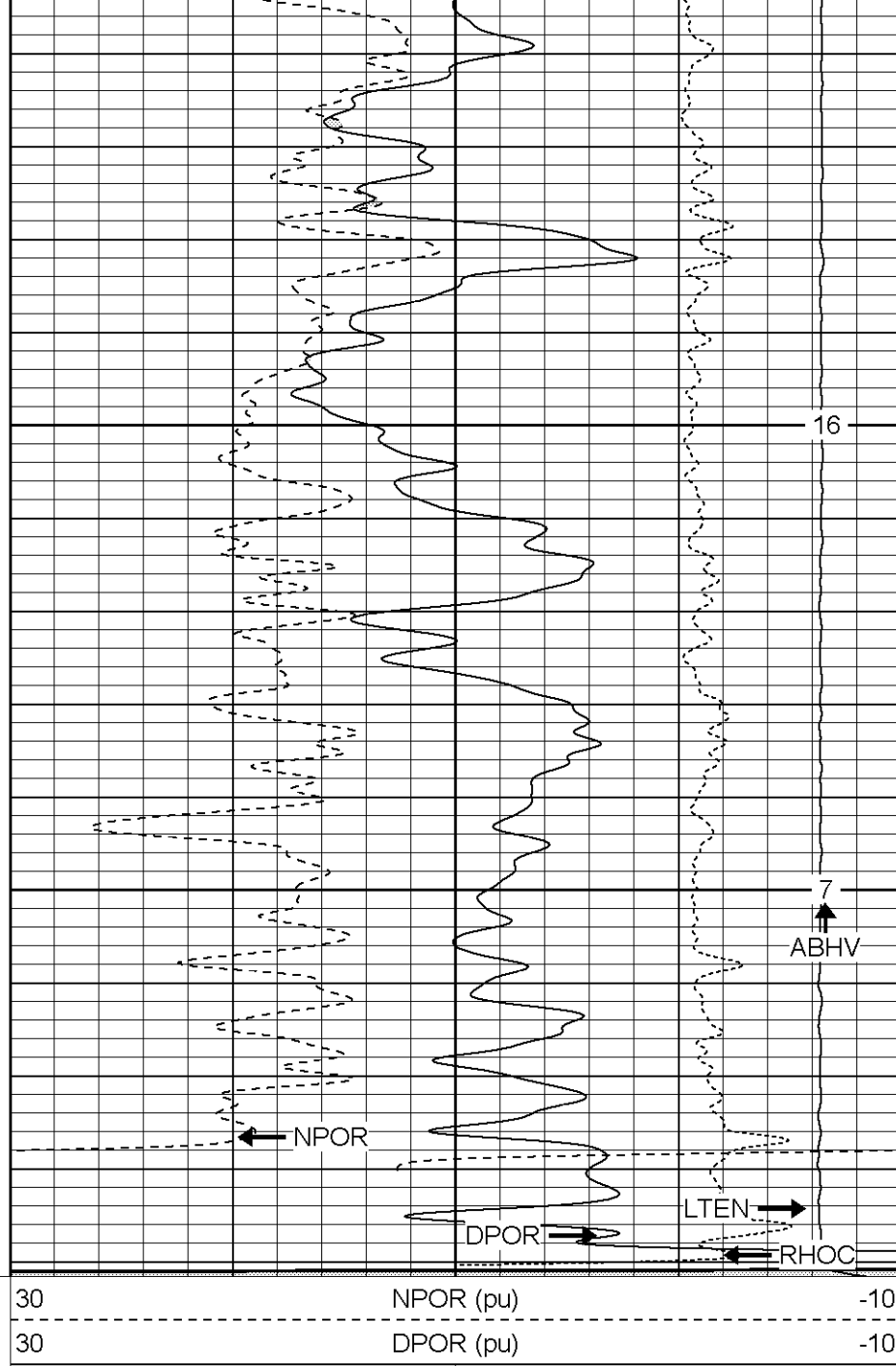






1700

1750



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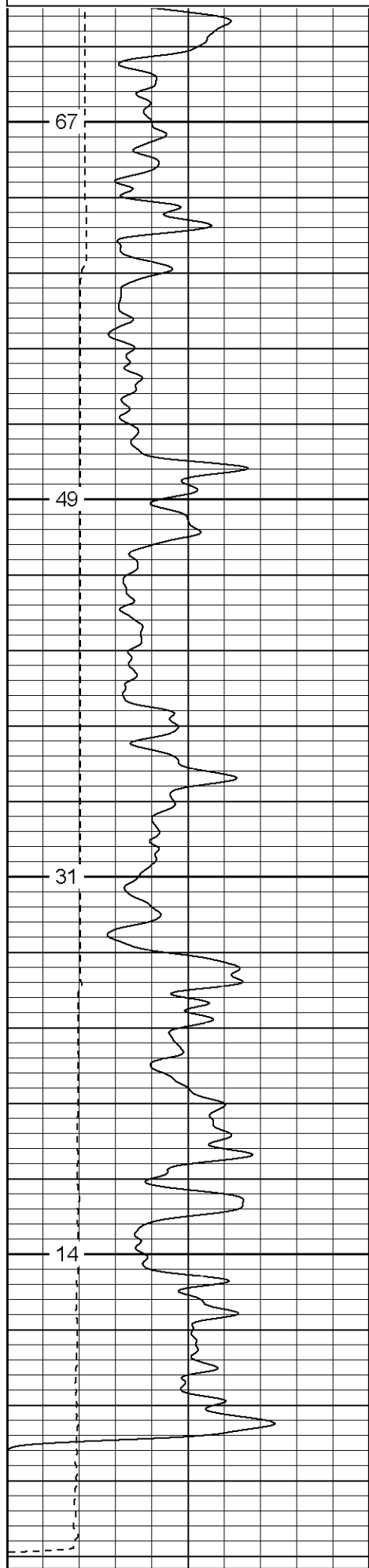
Repeat Section

Database File: blackrabbitr.db
 Dataset Pathname: pass3.1
 Presentation Format: cdnl
 Dataset Creation: Sat Oct 22 07:34:00 2005 by Calc Warrior 7.0 STD Ope
 Charted by: Depth in Feet scaled 1:240

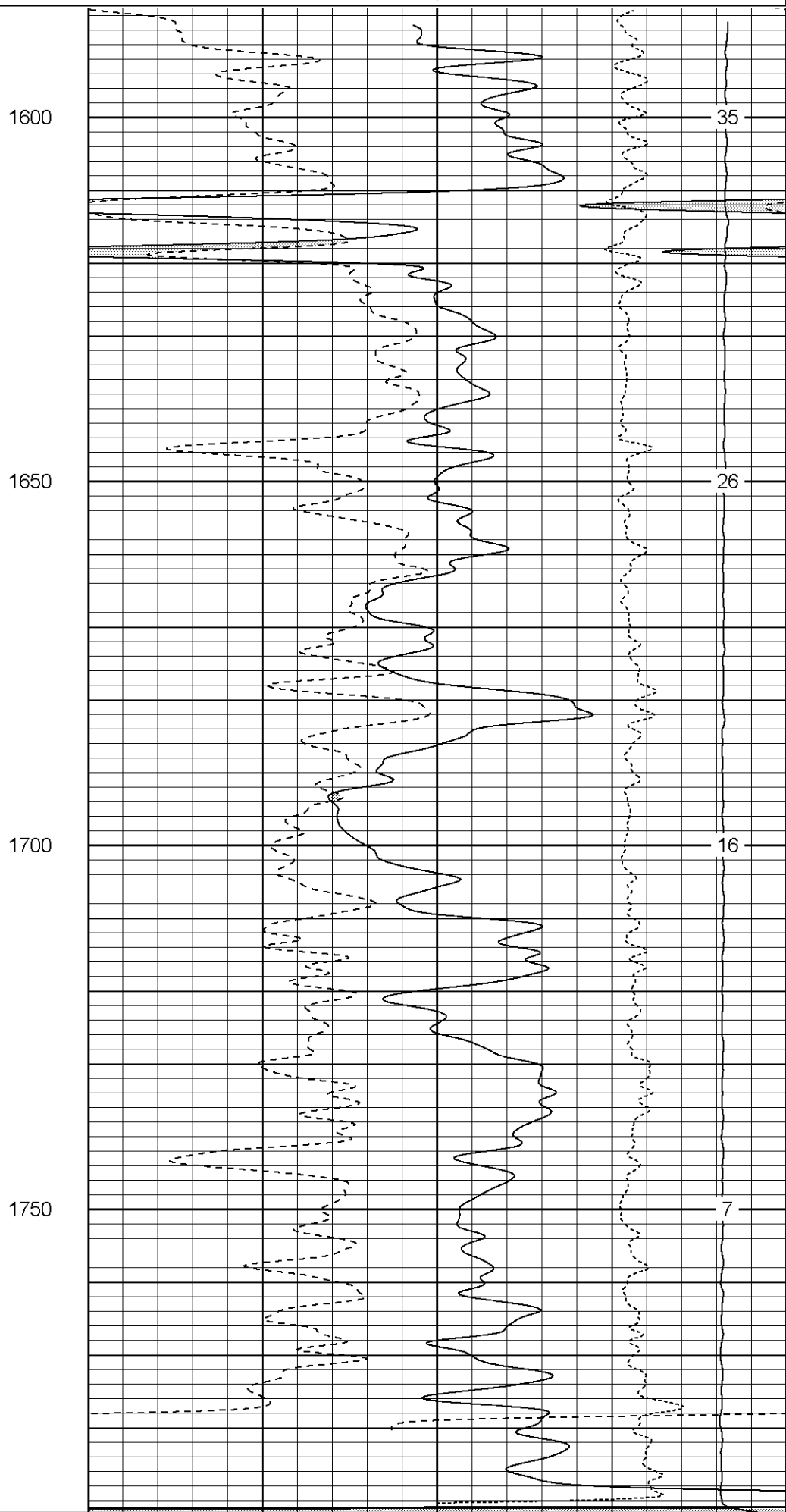
0	GR (GAPI)	200
6	DCAL (in)	16

30	NPOR (pu)	-10
30	DPOR (pu)	-10

-0.5	RHOC (g/cc)	0.5
5000	LTEN (lb)	0



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



30 NPOR (pu) -10
30 DPOR (pu) -10

-0.5	RHOC (g/cc)	0.5
5000	LTEN (lb)	0

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High Resolution Pass

Database File:
blackrabbitr.db

Dataset Pathname:
pass4.2

Presentation Format:
cdlhr

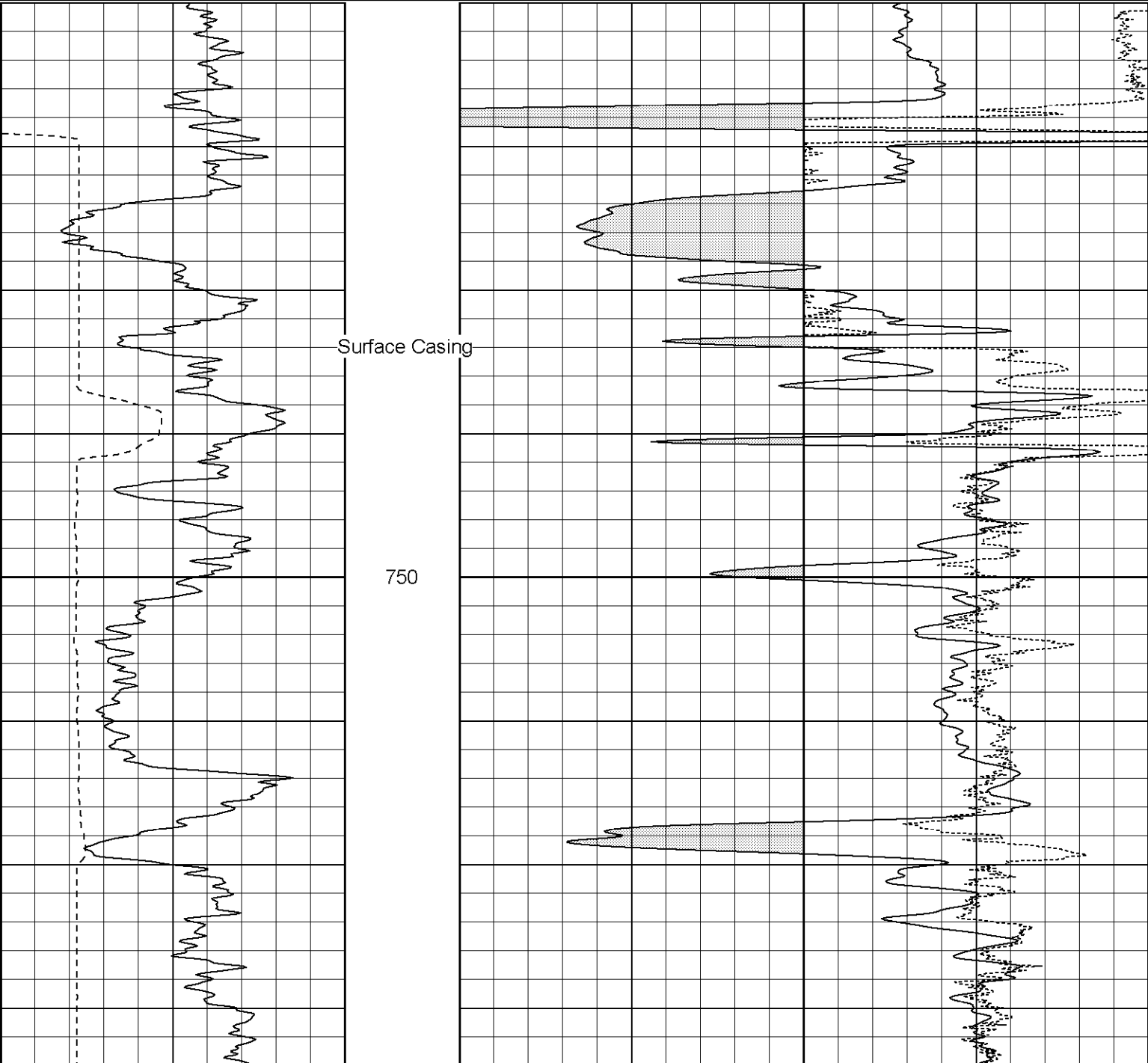
Dataset Creation:
Mon Oct 24 07:09:36 2005 by Calc Warrior 7.0 STD Ope

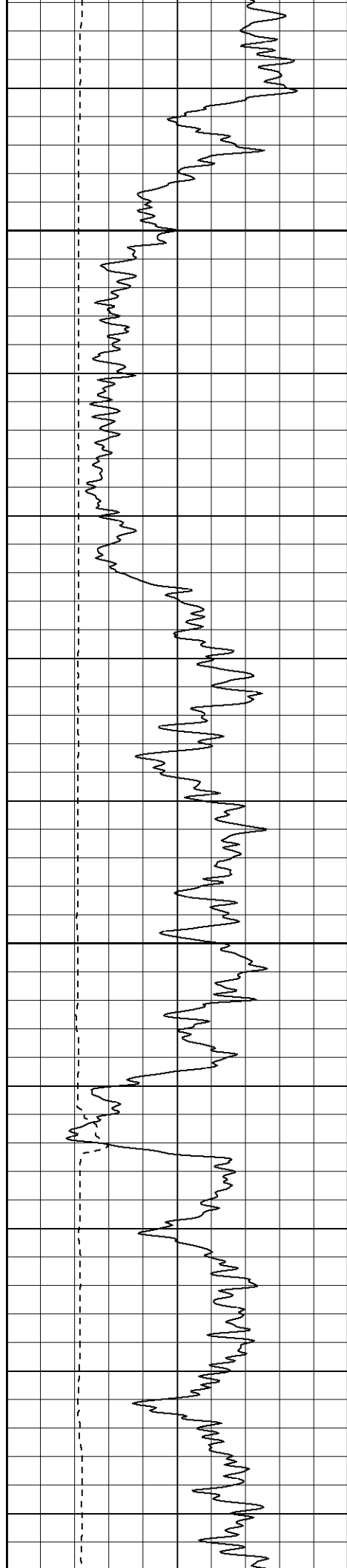
Charted by:
Depth in Feet scaled 1:120

0	GR (GAPI)	200	1	RHOB (g/cc)		3
6	DCAL (in)	16		-0.5	RHOC (g/cc)	0.5

Surface Casing

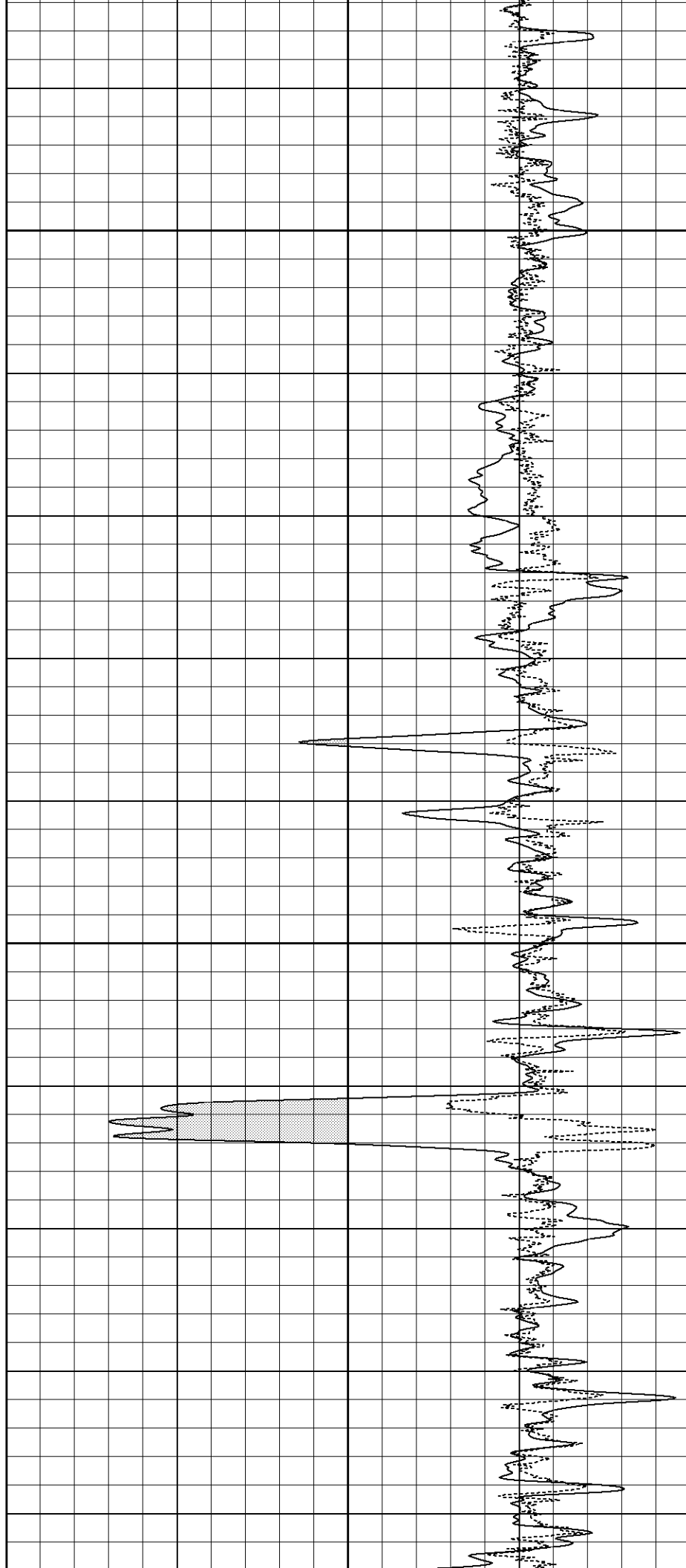
750

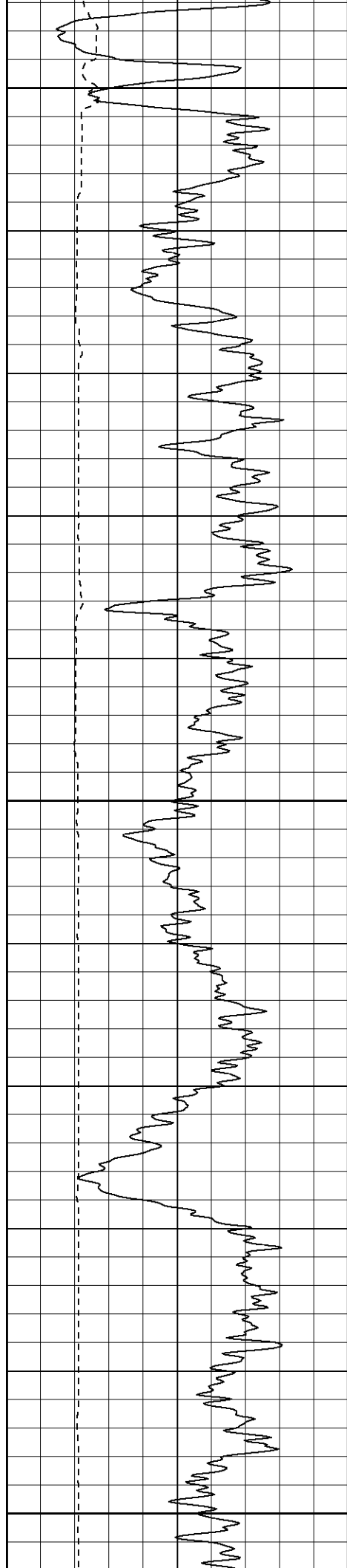




800

850

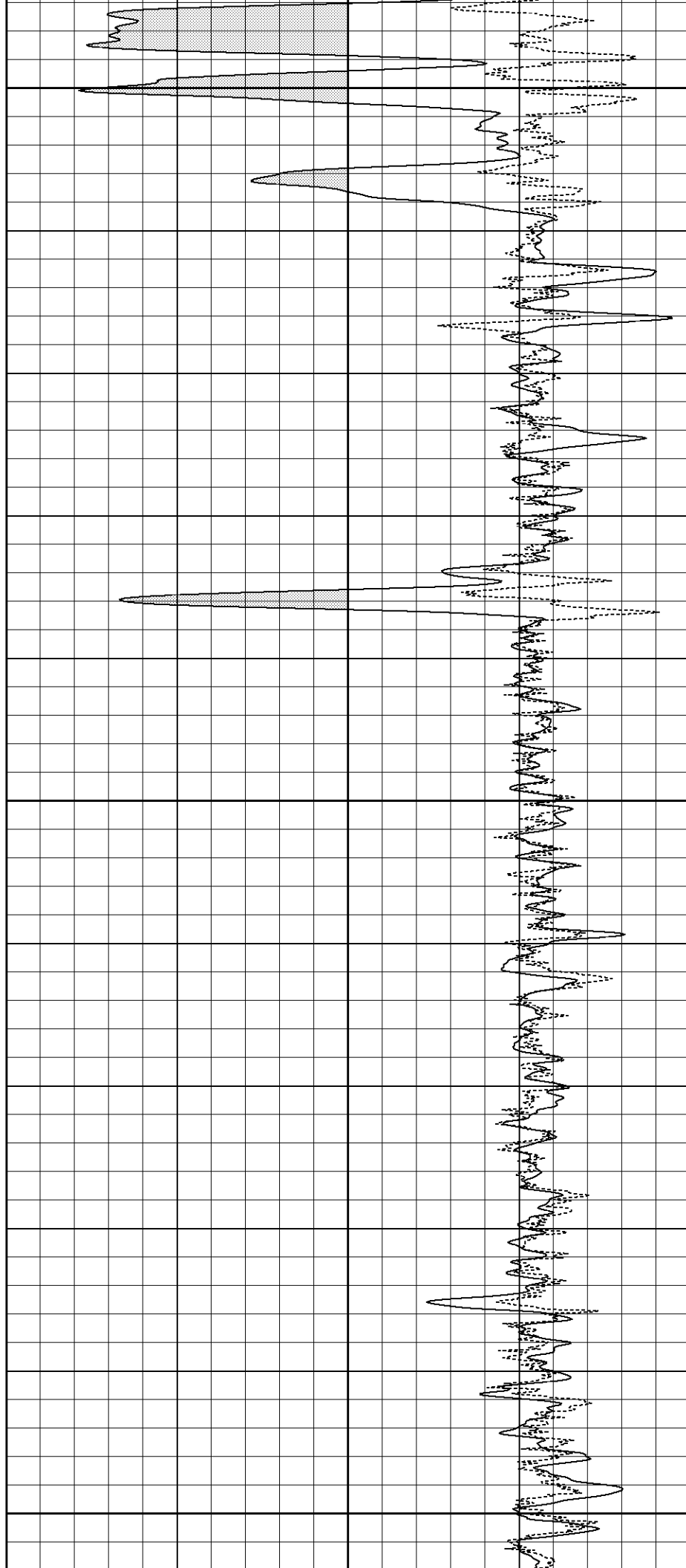


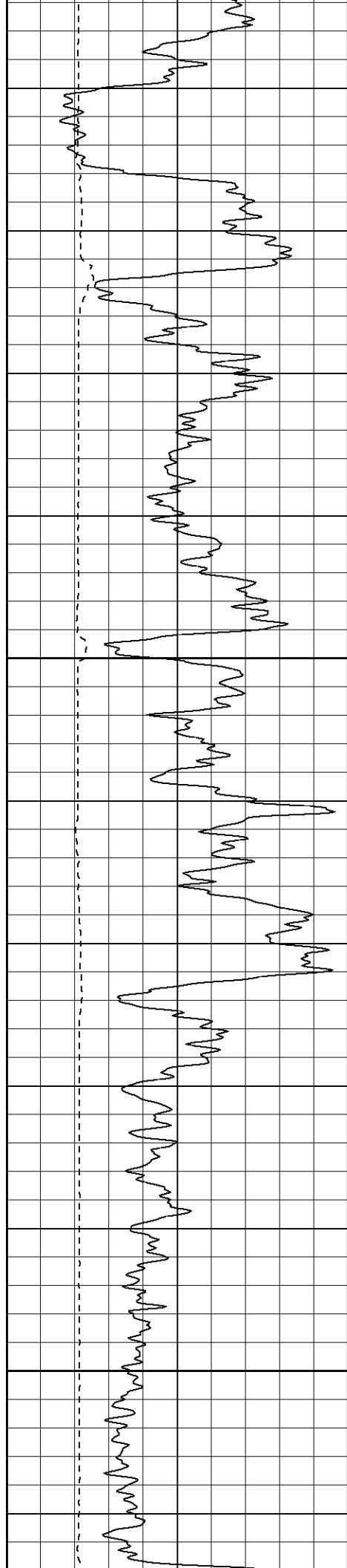


900

950

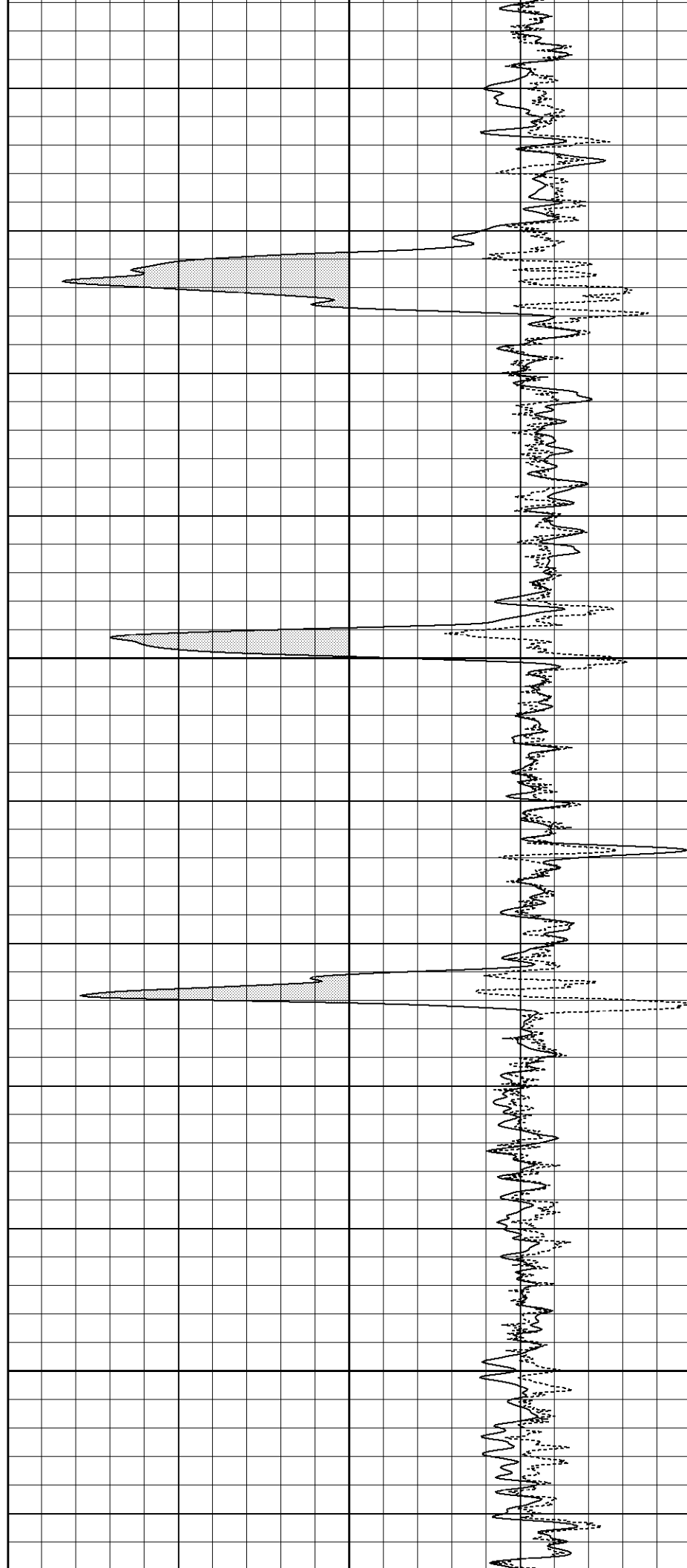
1000

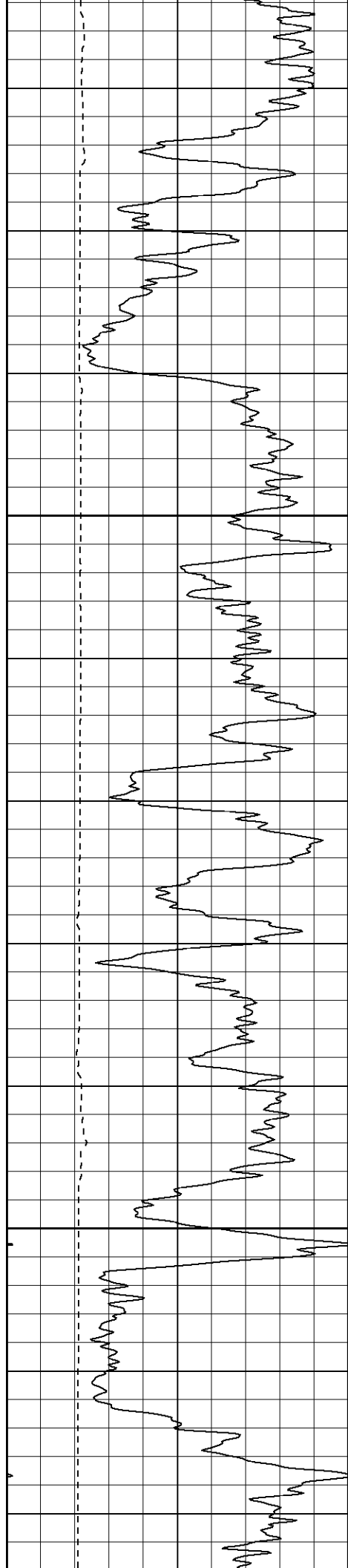




1050

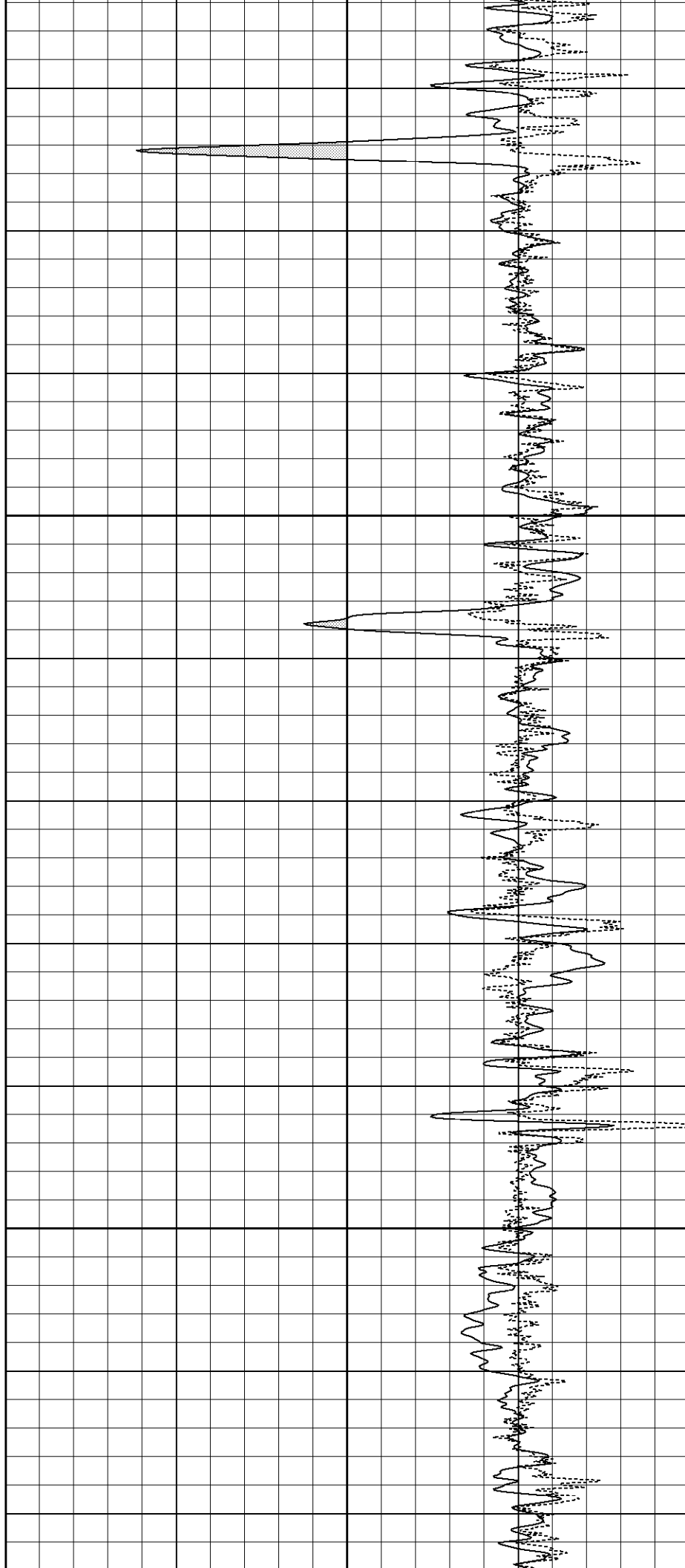
1100

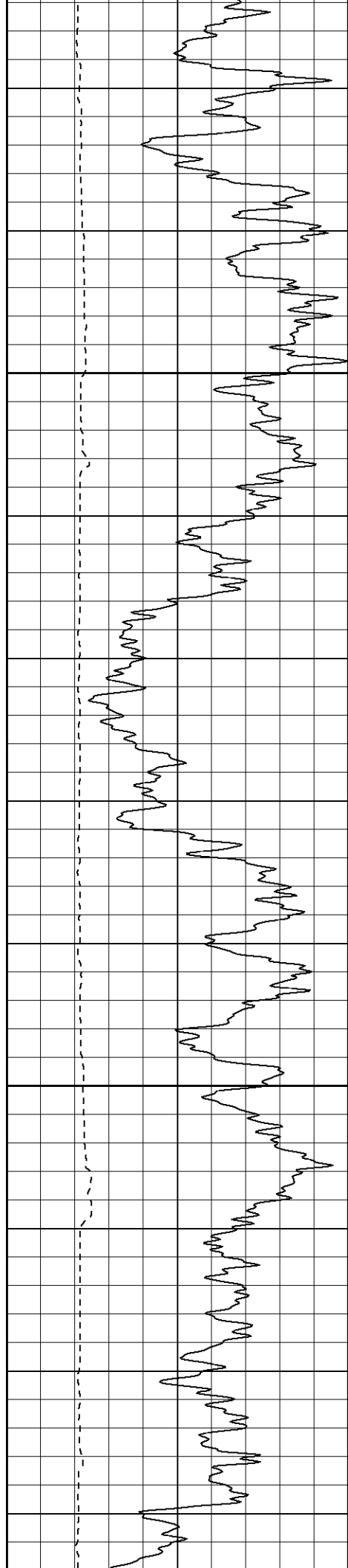




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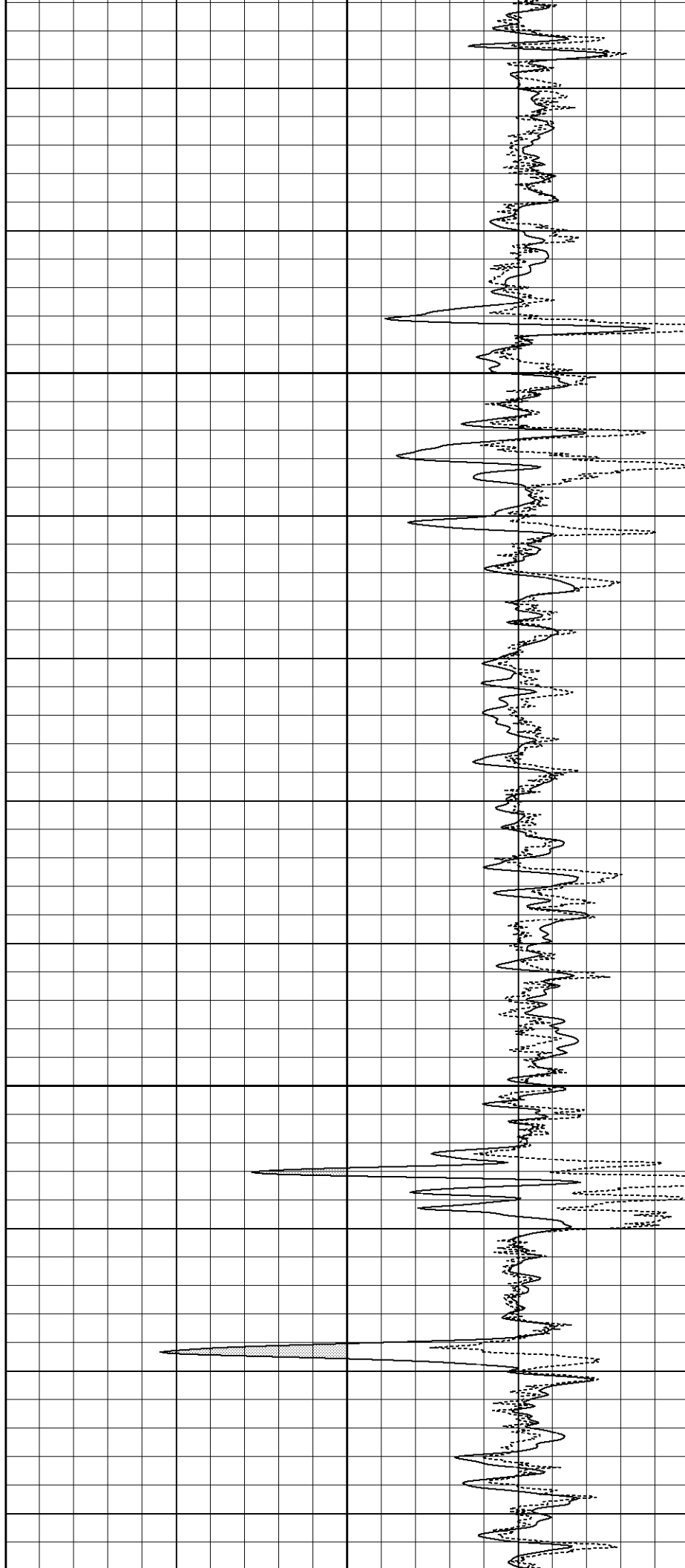
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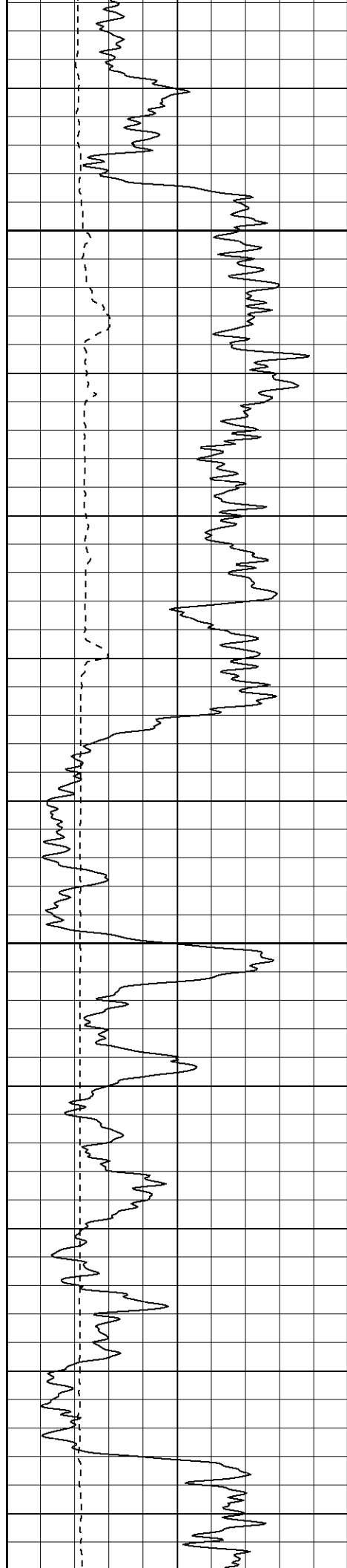




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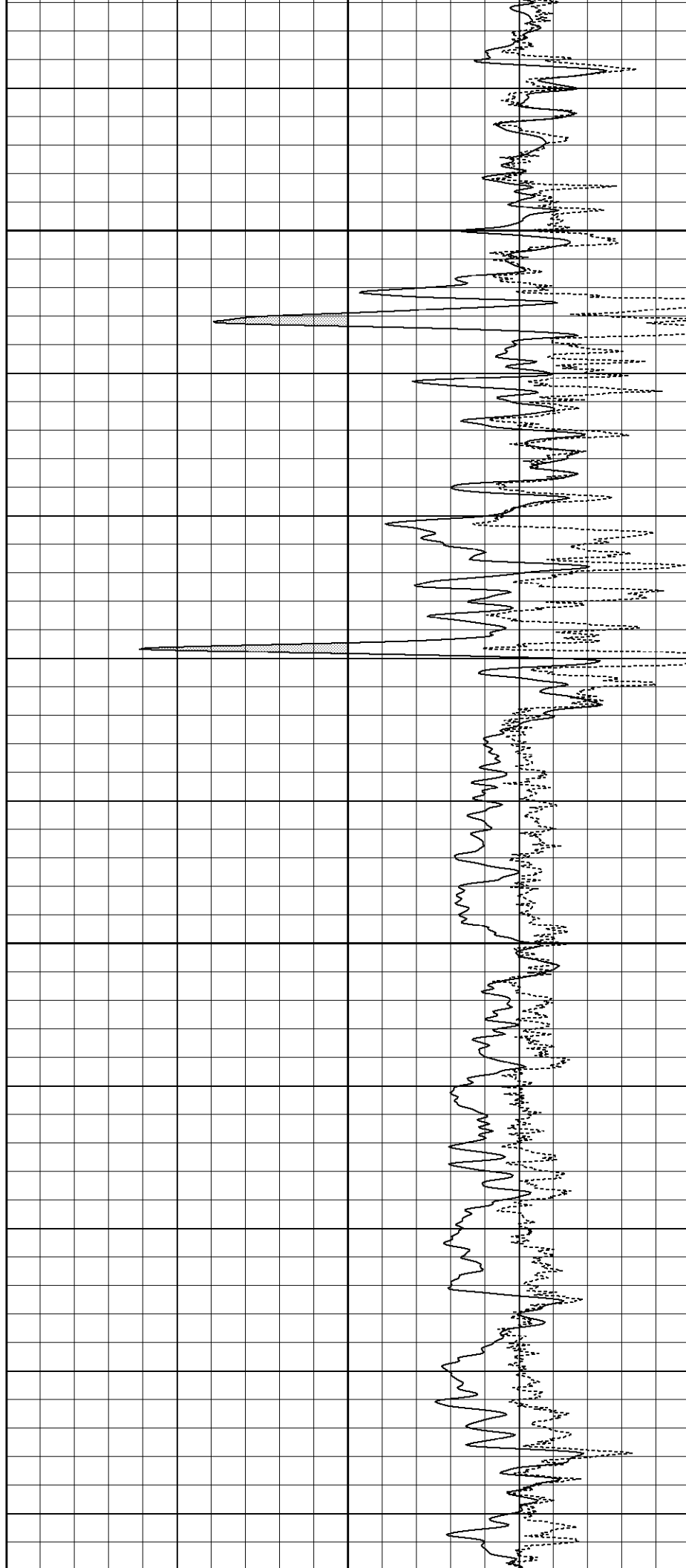
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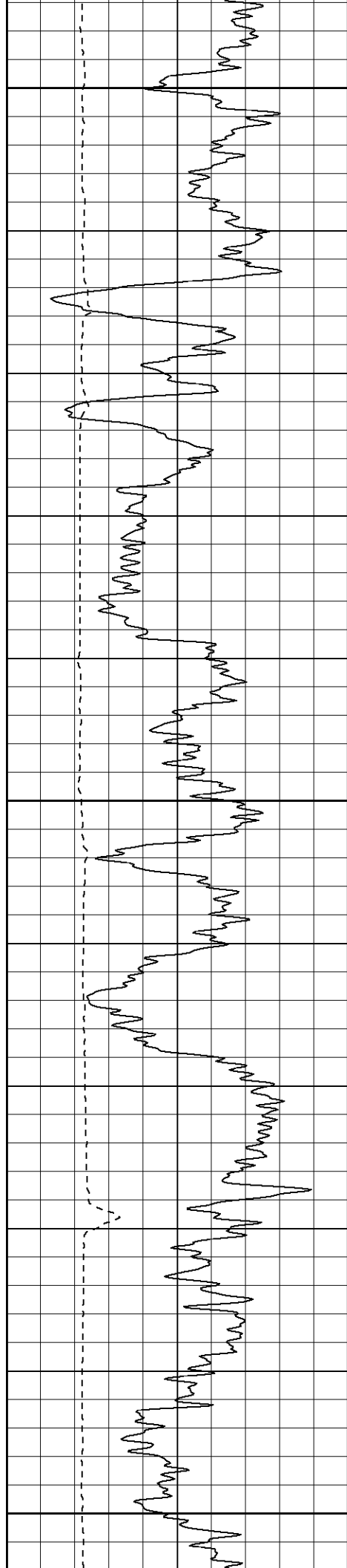




1350

1400

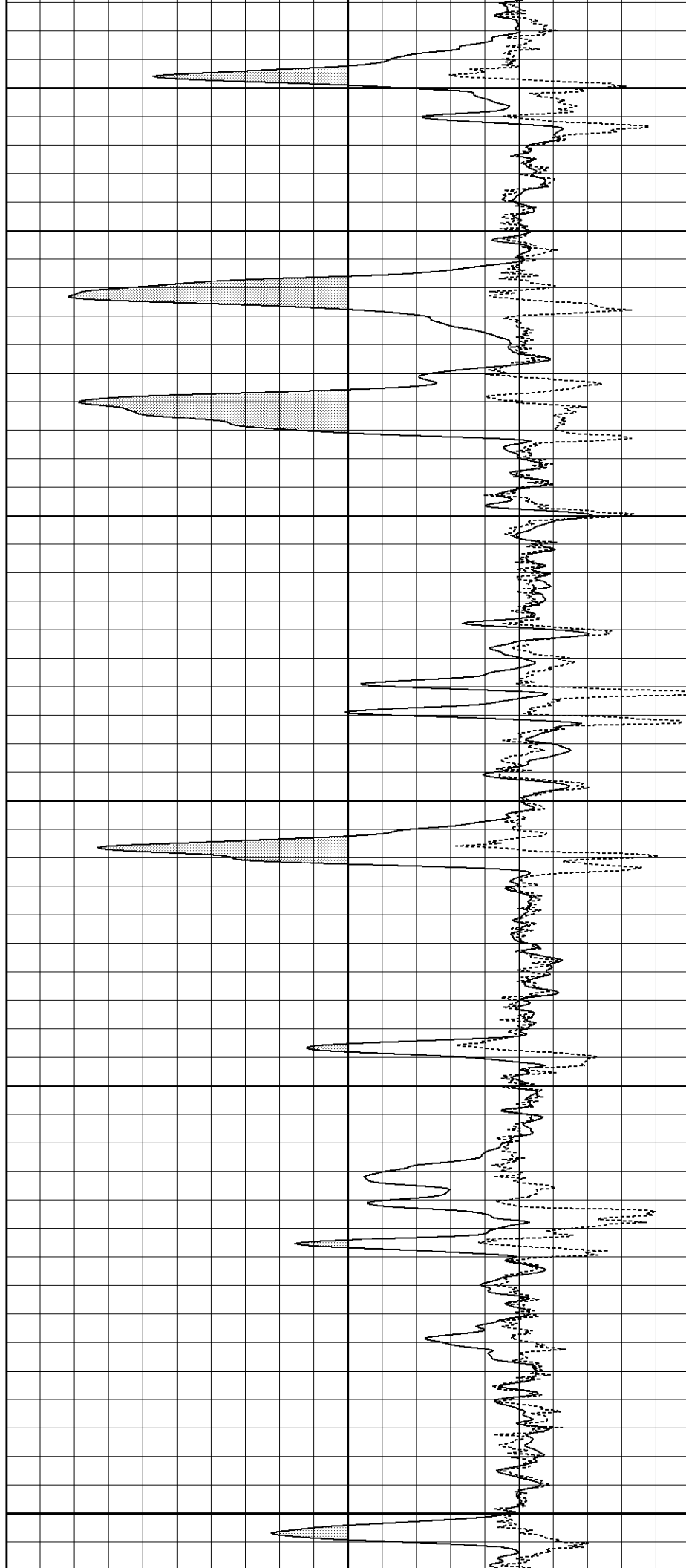


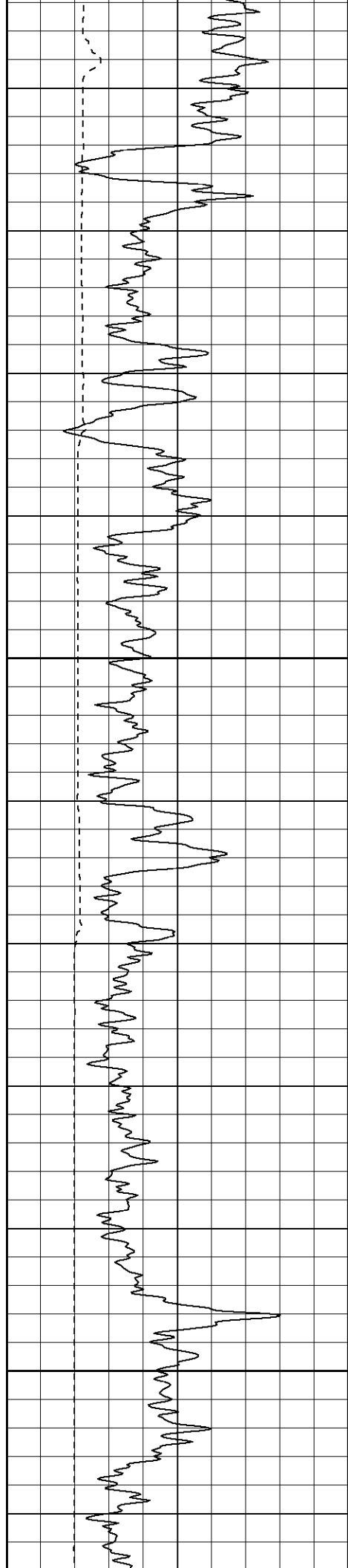


1450

1500

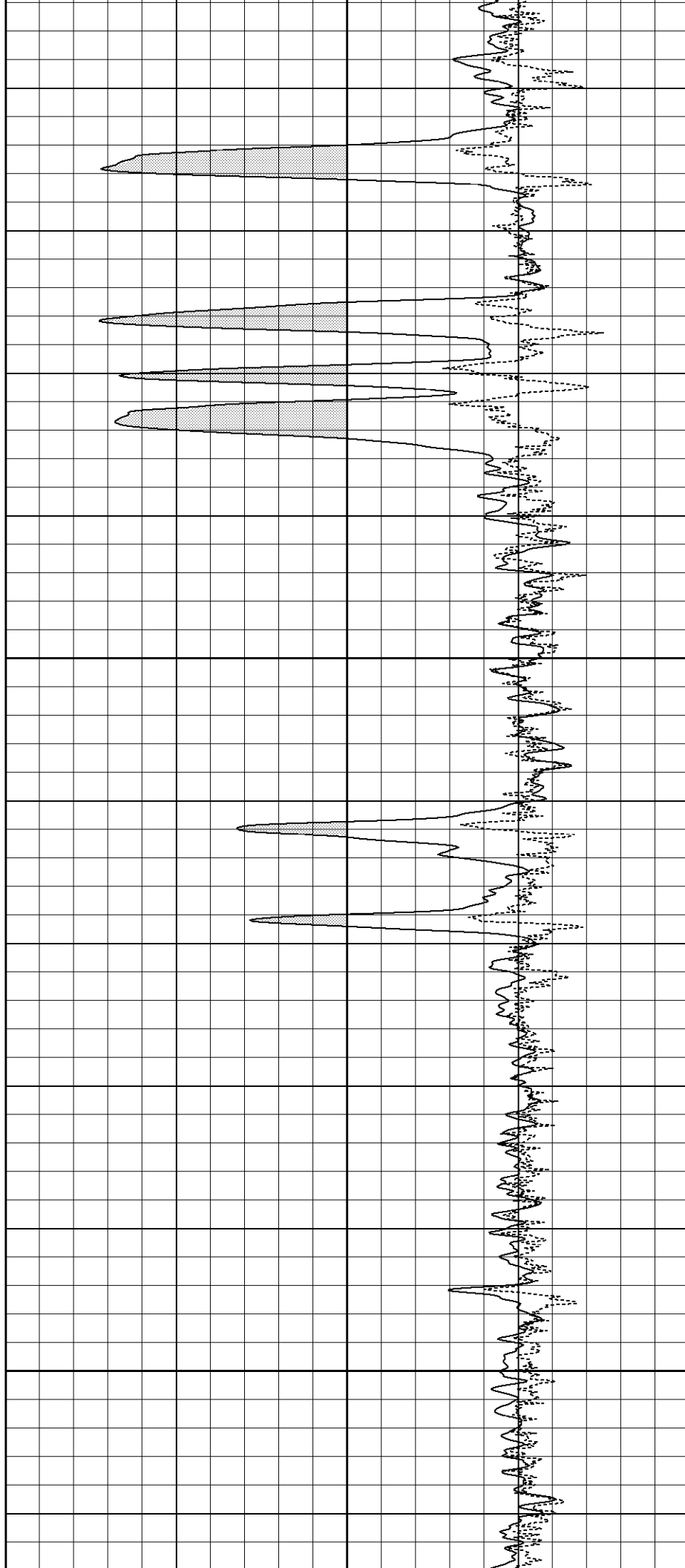
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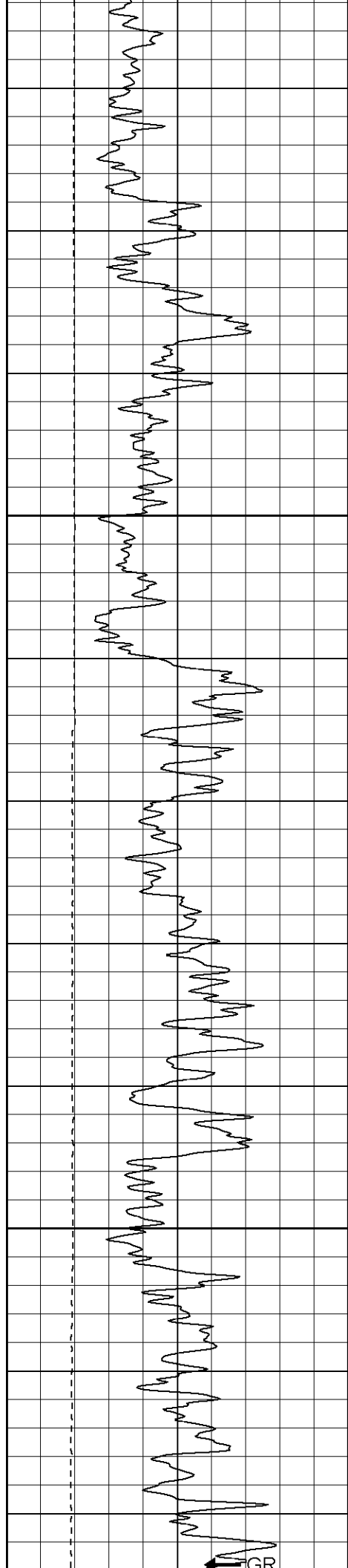




1600

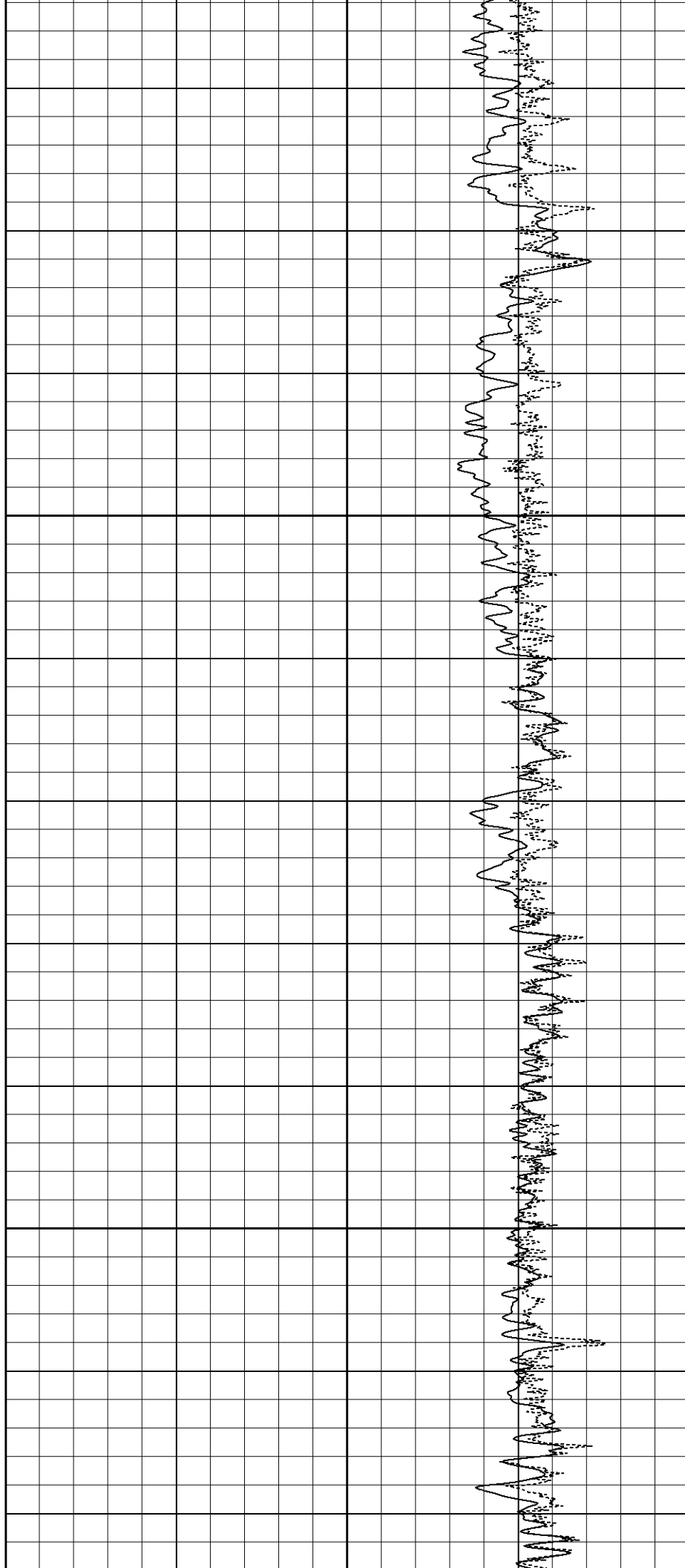
1650

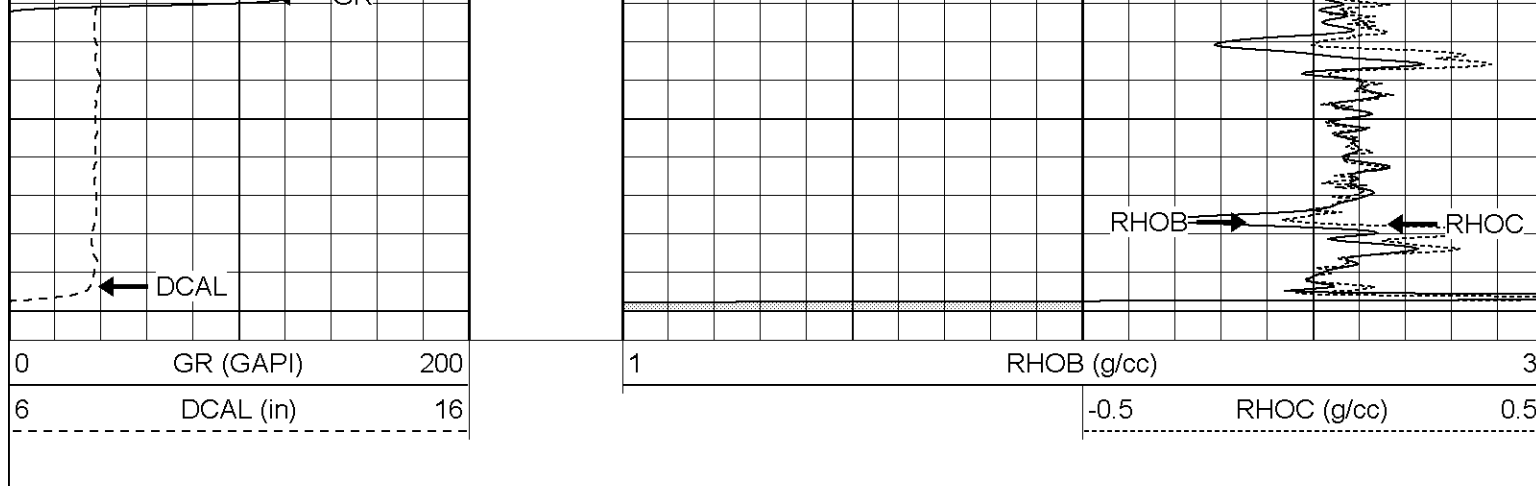




1700

1750





Compensated Density Calibration Report

Serial-Model: 2119-O
 Source / Verifier: csv-j12 / blks
 Master Calibration Performed: Mon Sep 26 14:31:57 2005

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1017.02	630.85	cps
Aluminum	2.590	g/cc	229.14	422.12	cps
Spine Angle = 74.91			Density/Spine Ratio = 0.570		
	Size		Reading		
Small Ring	7.85	in	3.80	V	
Large Ring	14.00	in	8.81	V	

Gamma Ray Calibration Report

Serial Number: 2119
 Tool Model: O
 Performed: Mon Oct 03 22:39:27 2005

Calibrator Value: 170.0 GAPI

Background Reading: 42.6 cps
 Calibrator Reading: 139.0 cps

Sensitivity: 1.0000 GAPI/cps

Neutron Calibration Report


Serial Number: 5138
 Tool Model: G
 Performed: Fri Oct 14 08:57:15 2005

Calibrator Value: 1 NAPI

Calibrator Reading: 1 cps

Sensitivity: 1 NAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
NEU	13.07					

GR	7.64		NEU-G (5138) Gearhart Epithermal	5.75	3.50	85.00
			GR-O (2119) Oilex	2.60	3.63	74.00
LSD	2.13		CDL-O (2119) Oilex	5.77	4.00	201.00
DCAL	1.79					
SSD	1.58					
Dataset: /field/well/run1/_plots/_jobs_cdl Total Length: 14.12 ft Total Weight: 360.00 lb O.D. 4.00 in						