

Patterson

**COMPENSATED DENSITY
NEUTRON
LOG**

Company Pioneer Natural Resources		Company Pioneer Natural Resources	
Well Tiaga 23-14 Tr		Well Tiaga 23-14 Tr	
Field Purgatoire River		Field Purgatoire River	
County Las Animas		County Las Animas	
State Colorado		State Colorado	
Location: 2272' FSL & 2121' FWL		API # : 05 071 08590 00	
SEC 14 TWP 32S RGE 66W		Other Services SIL	
Permanent Datum	Ground Level	Elevation	7633'
Log Measured From	Kelly Bushing 4' Above G.L.	K.B. 7637'	
Drilling Measured From	Kelly Bushing	D.F. -----	
		G.L. 7633'	
Date	11-02-05		
Run Number	Two		
Depth Driller	1410'		
Depth Logger	1405'		
Bottom Logged Interval	1403'		
Top Log Interval	Surface		
Casing Driller	8 5/8" @ 941'		
Casing Logger	942'		
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	5:00 A.M.		
Time Logger on Bottom	8:20 A.M.		
Maximum Recorded Temperature	78 DEG F		
Equipment Number	T720		
Location	Trinidad		
Recorded By	M. Norton		
Witnessed By	Mr. Tom Beardslee		

<<< 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

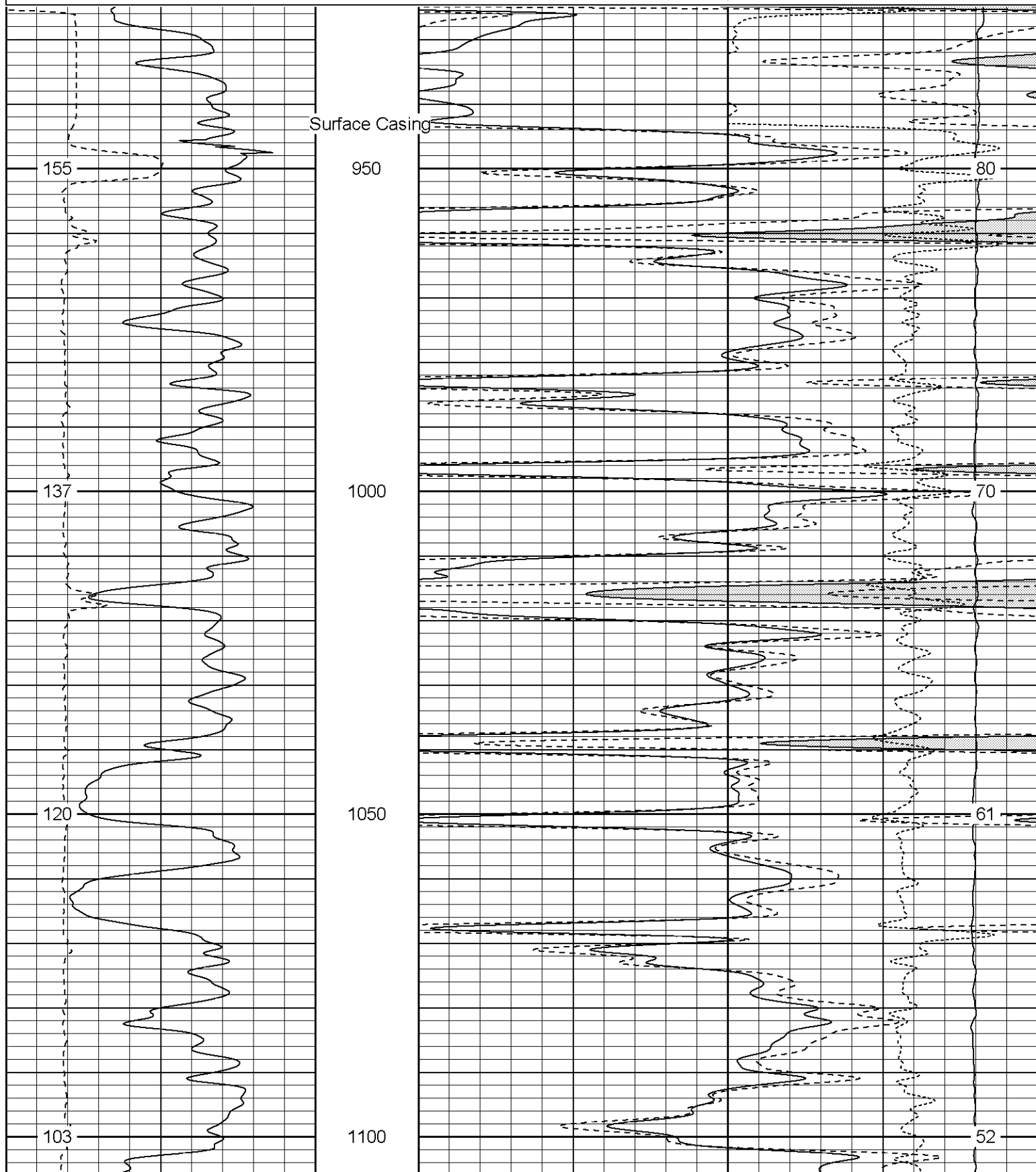
Neutron Density Porosity Presented On Sandstone Matrix.
ABHV Calculated For 5 1/2" Casing.
Well Directions:
Bon Carbo Right At Post Office, Left on County Road 51.0,At Y Left Thru The Trojan,
Stay On Main Road, At Y Right Thru Double Green Gate To Location.
Neutron Porosity Invalid From 1108' To 1035' Due To Foam.

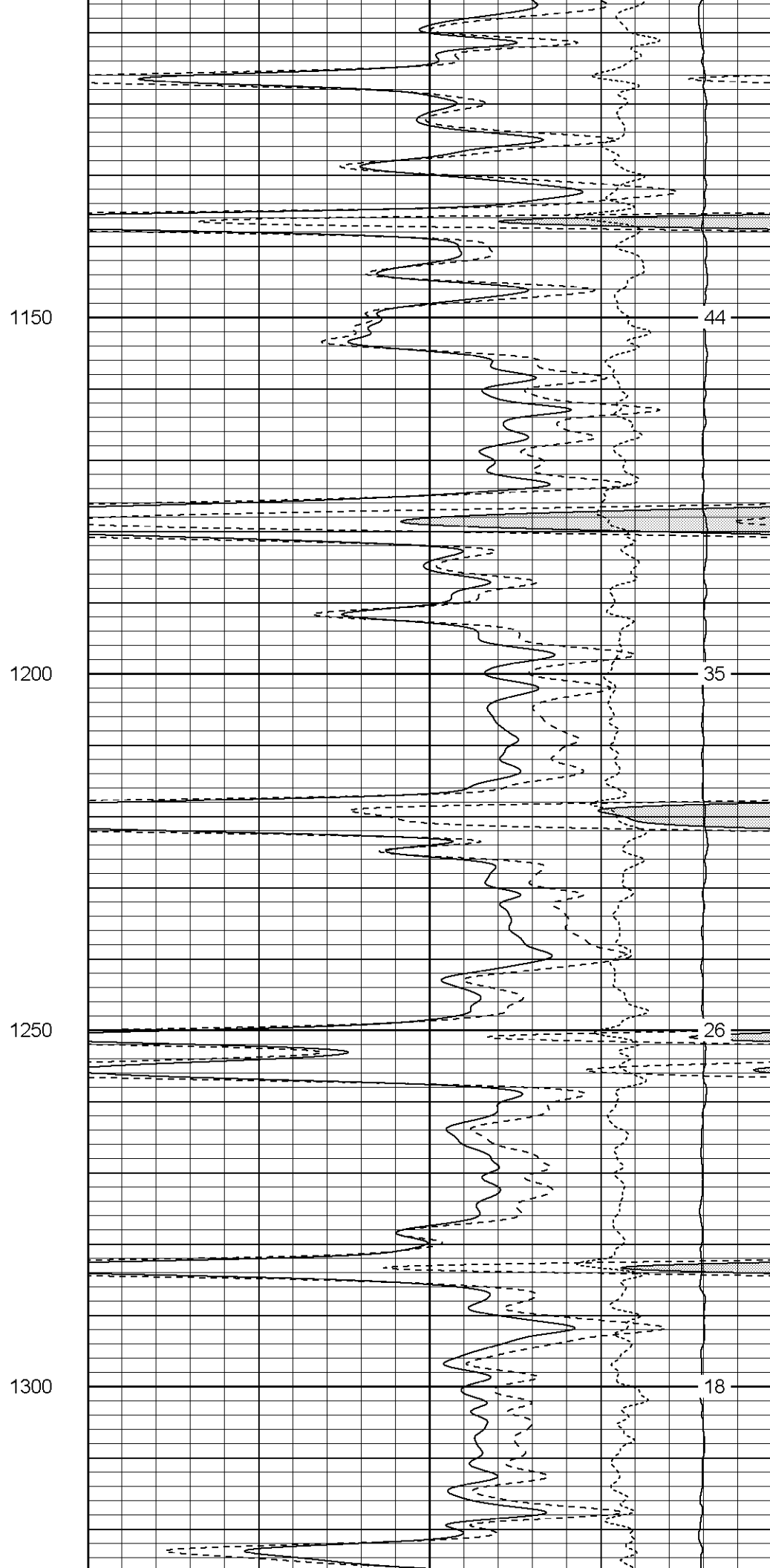
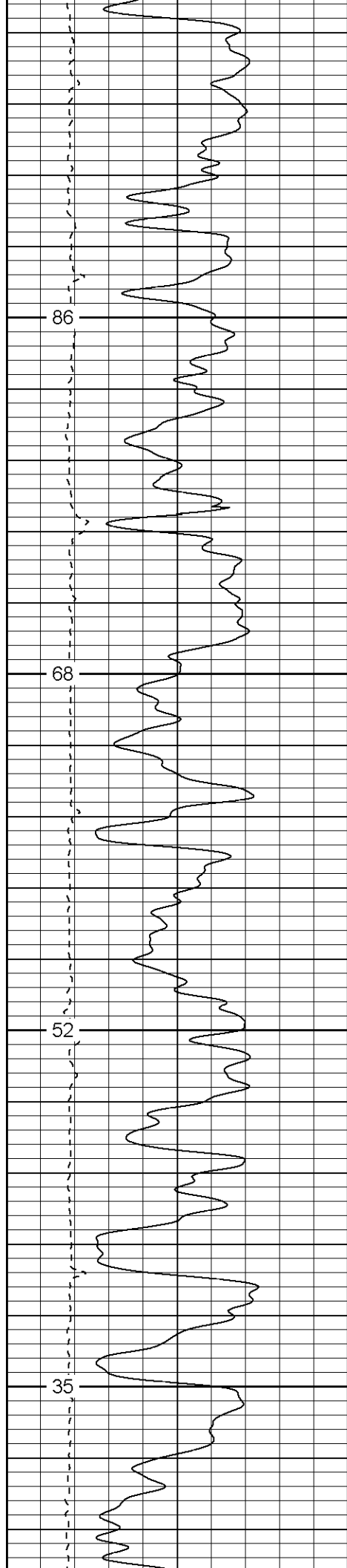
Patterson

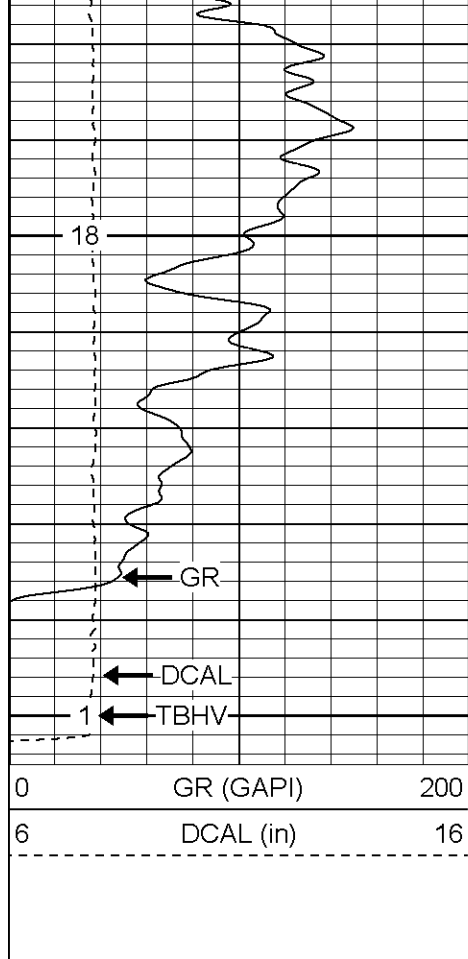
Main Pass

Database File: tiagatr.db
Dataset Pathname: pass4.1
Presentation Format: cdl
Dataset Creation: Wed Nov 02 09:17:55 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

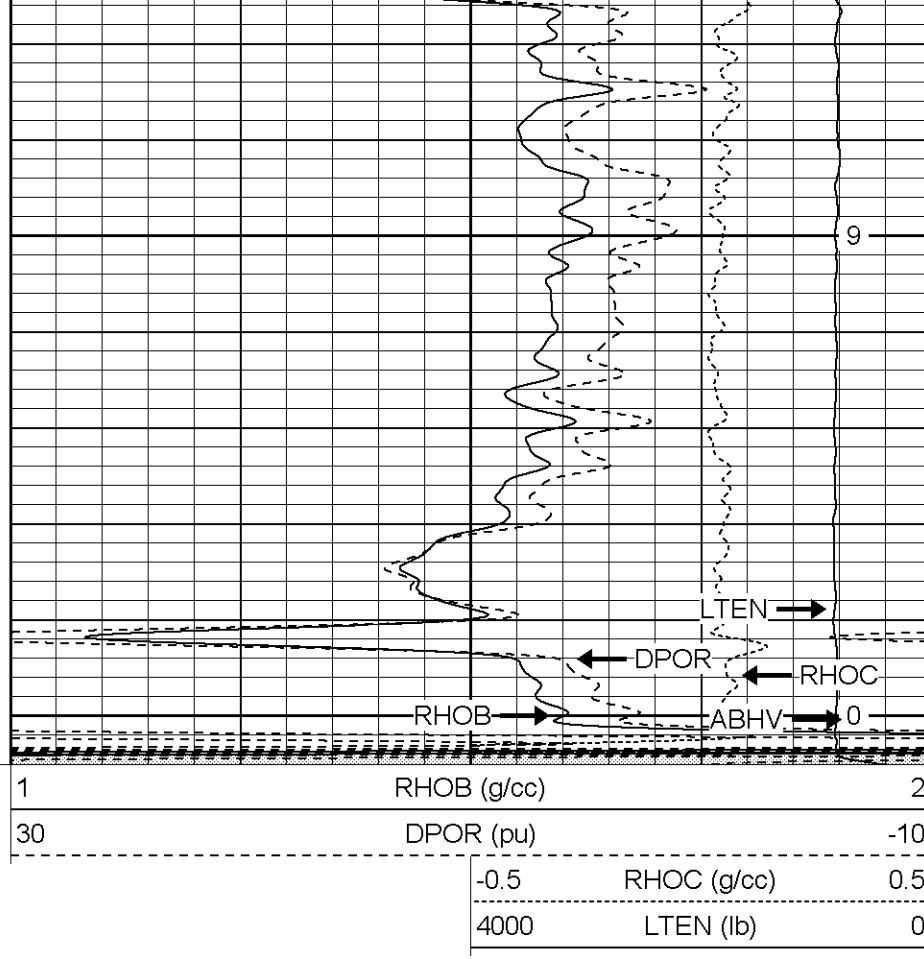






1350

1400



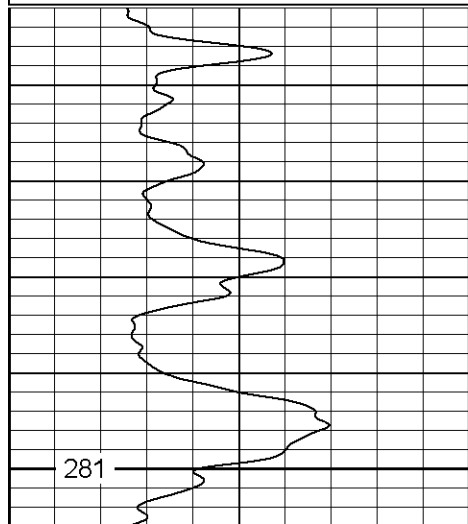
Patterson

Main Pass

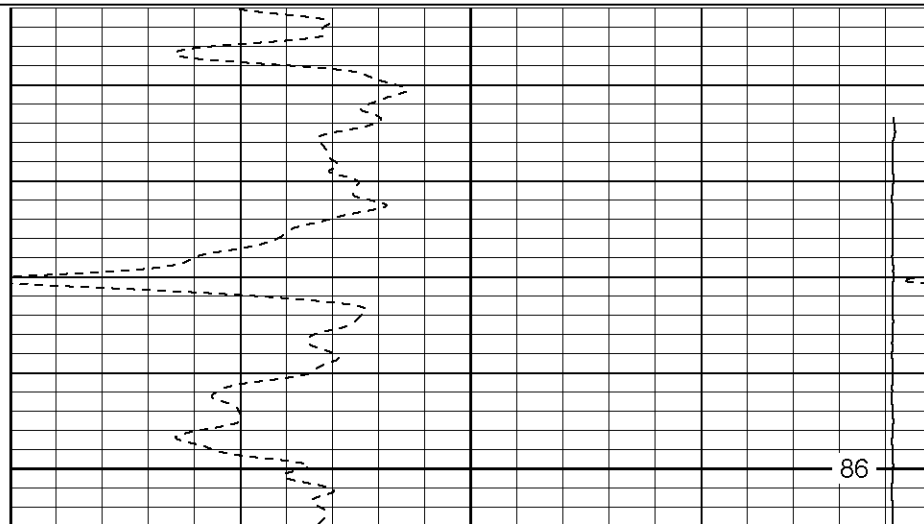
Database File: tiagatr.db
 Dataset Pathname: pass4.1
 Presentation Format: cdnl
 Dataset Creation: Wed Nov 02 09:17:55 2005 by Calc Warrior 7.0 STD Ope
 Charted by: Depth in Feet scaled 1:240

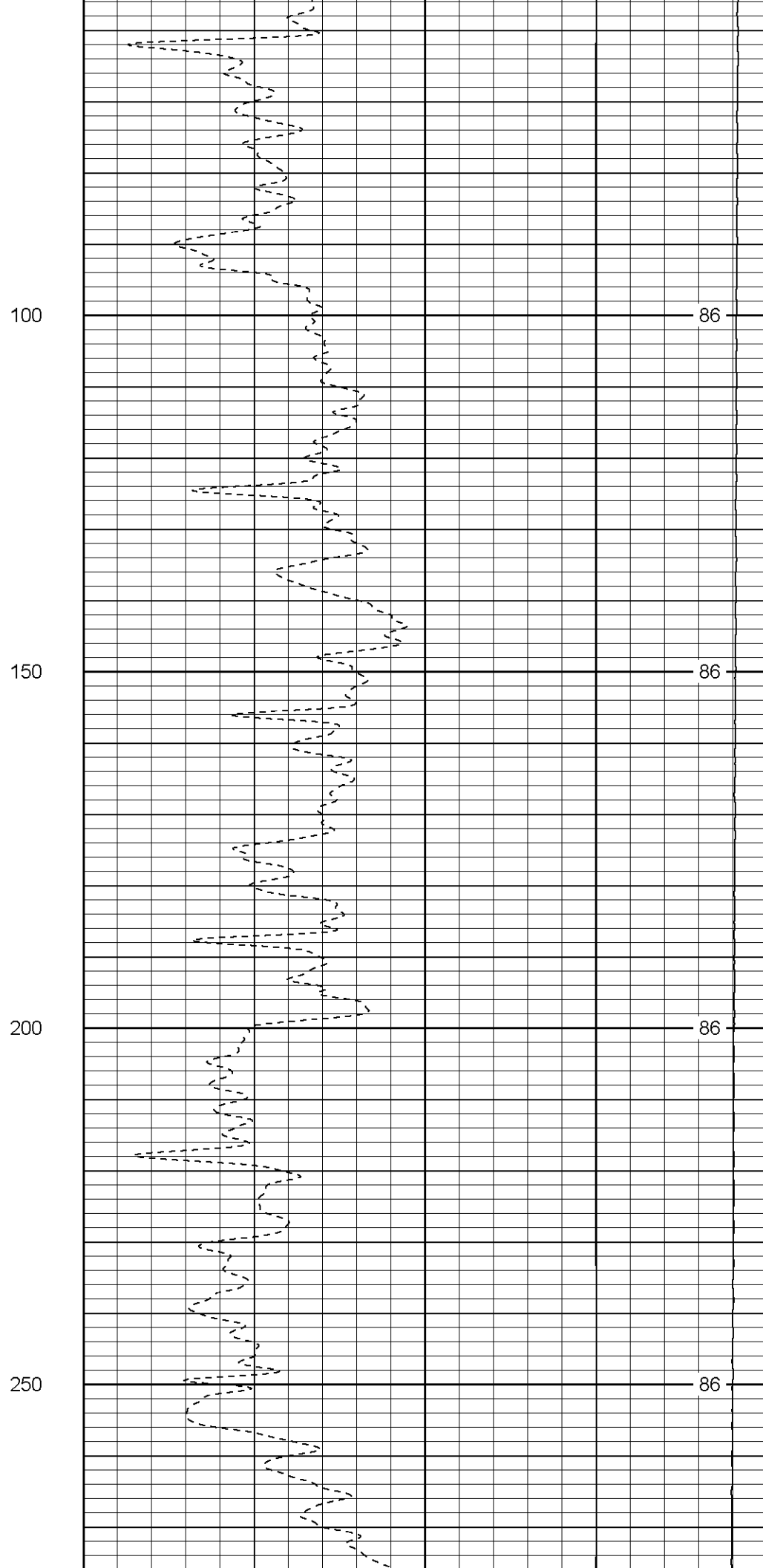
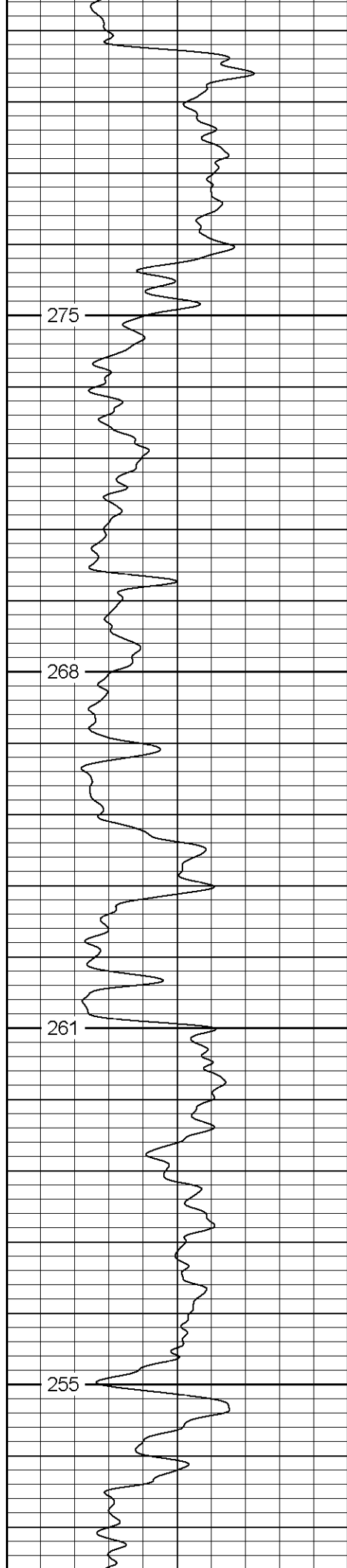
0	GR (GAPI)	200
6	DCAL (in)	16

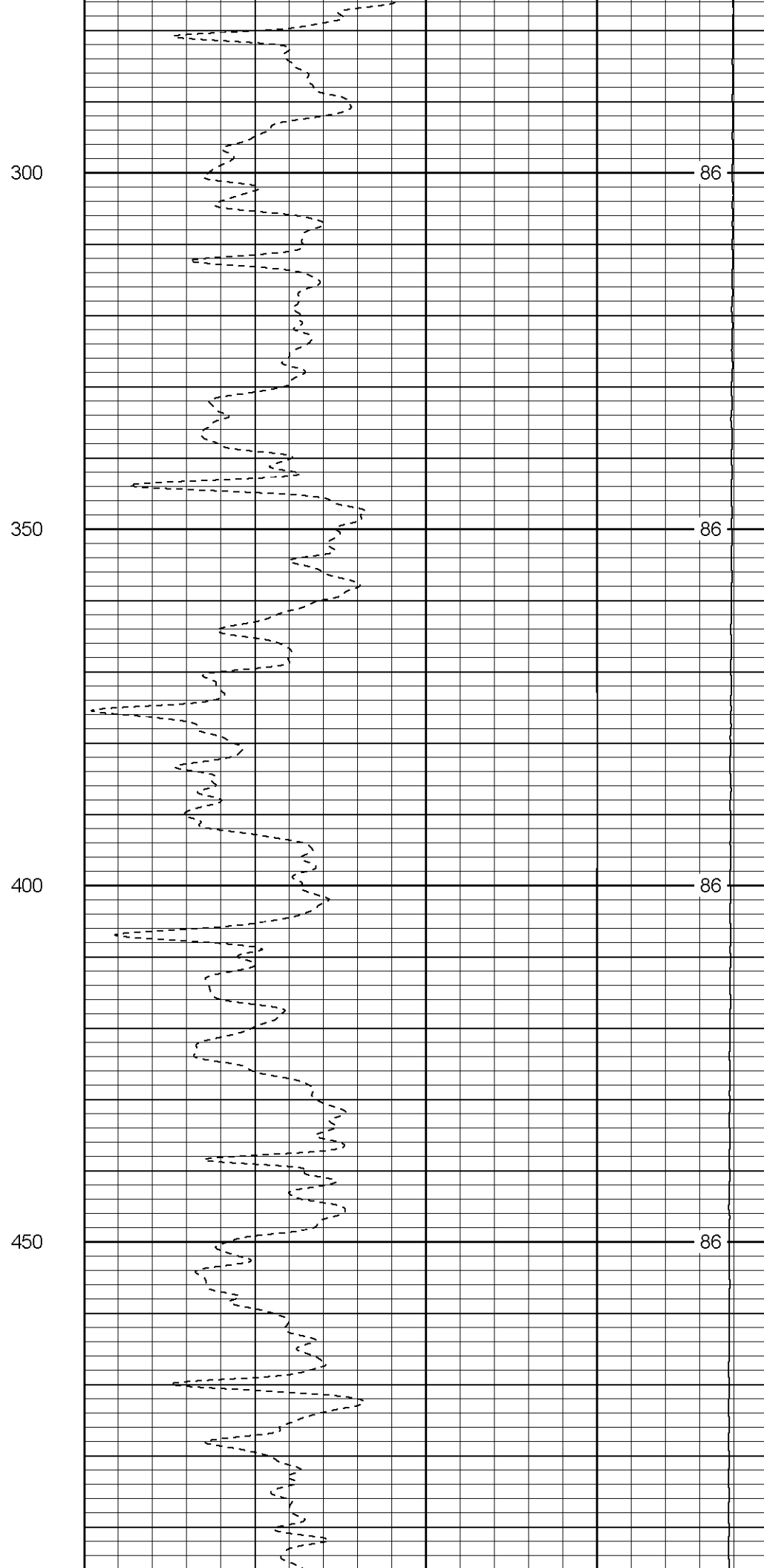
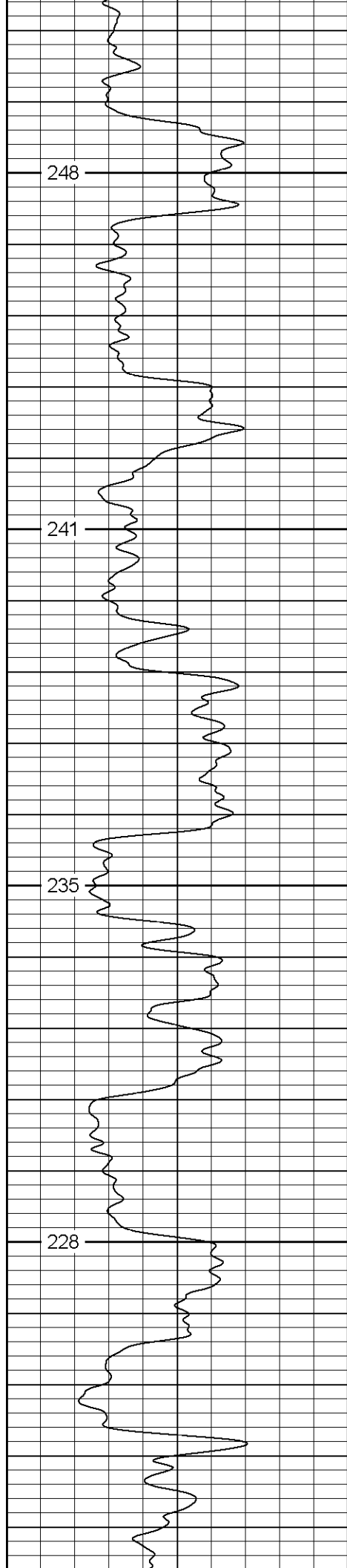
30	NPOR (pu)	-10
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
5000	LTEN (lb)	0

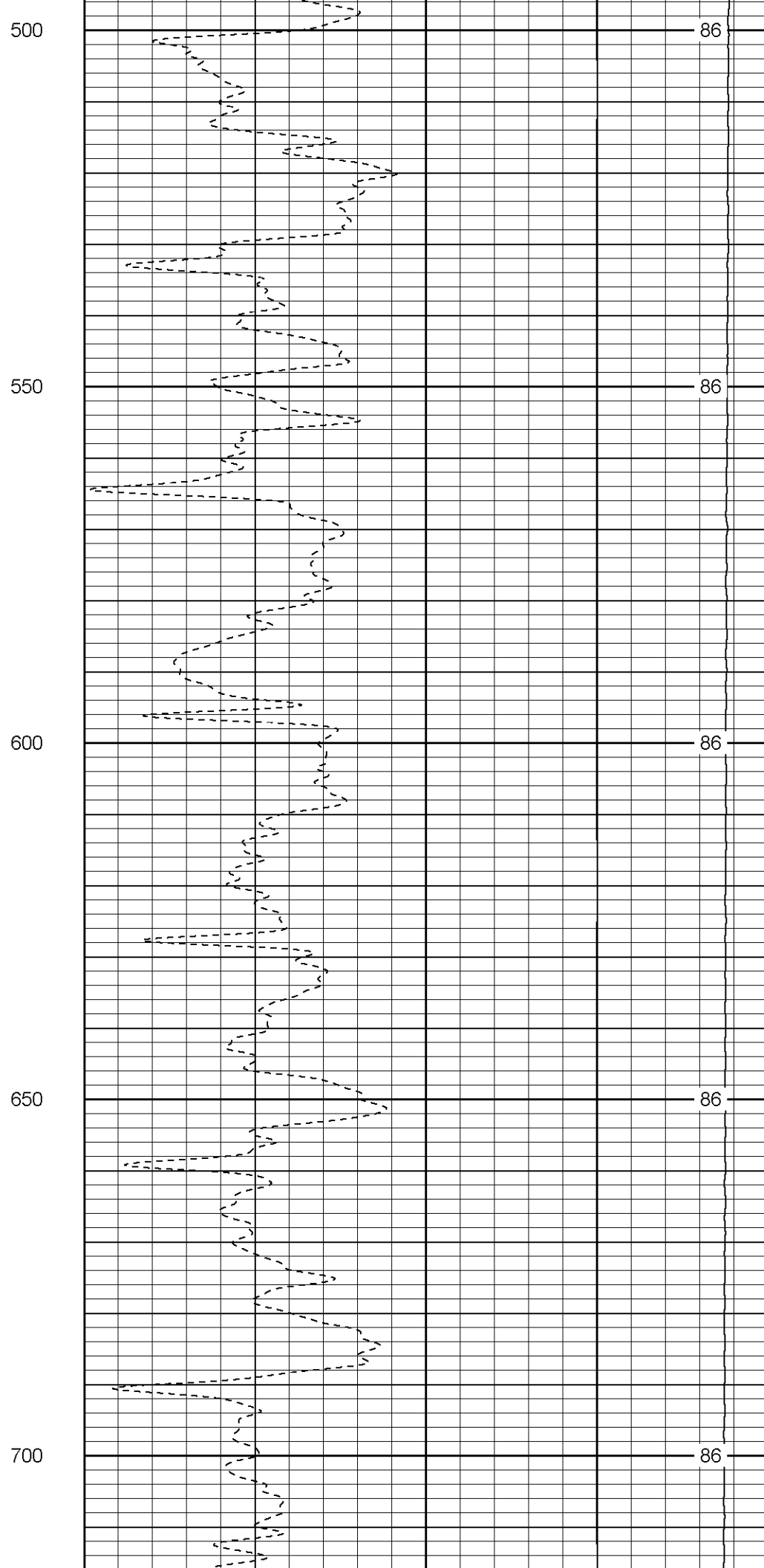
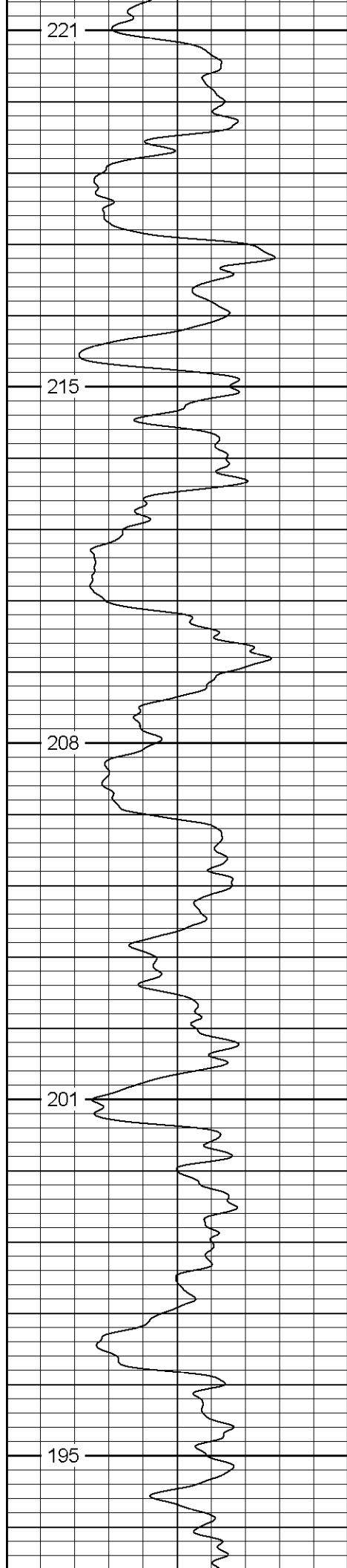


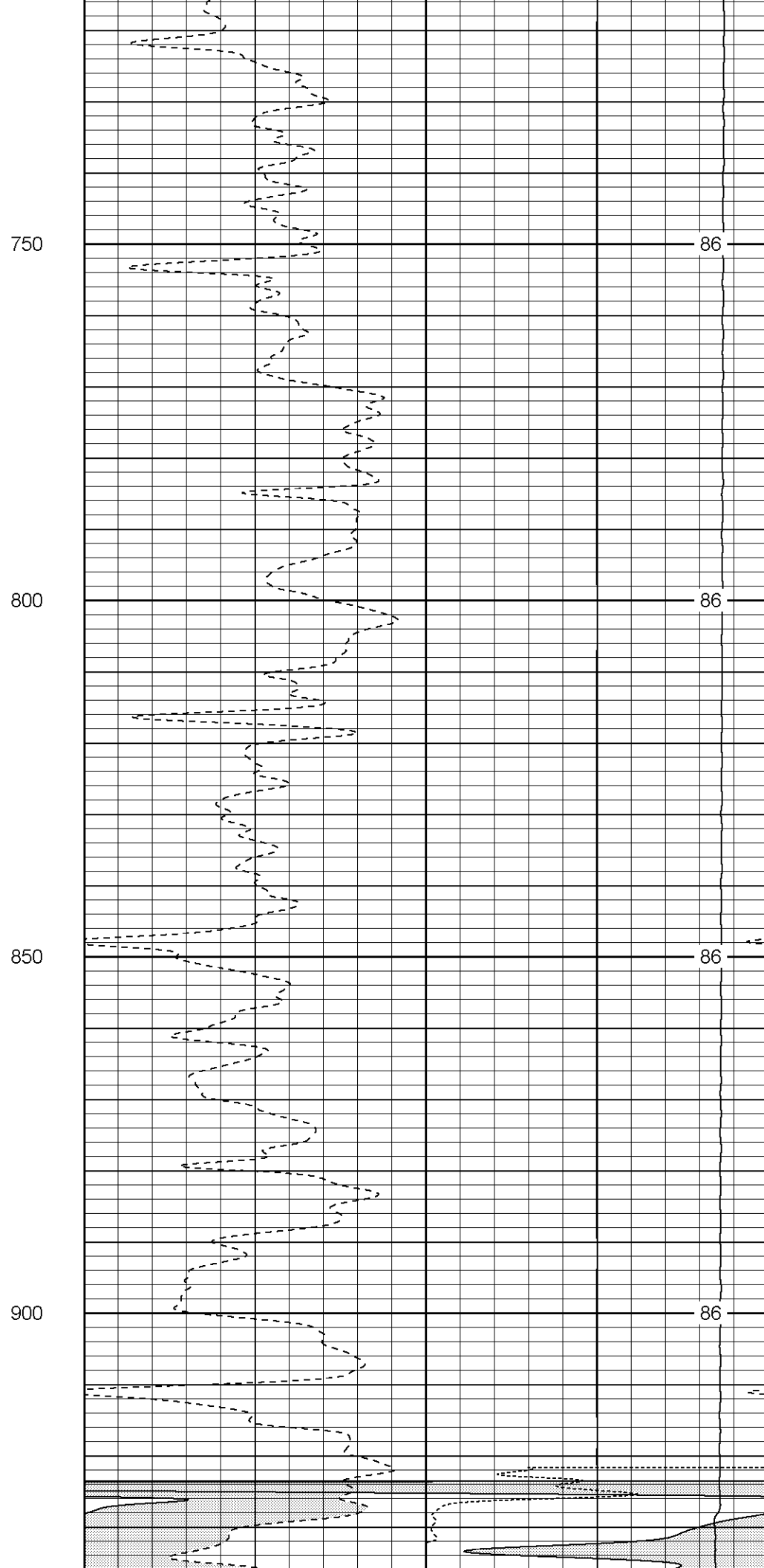
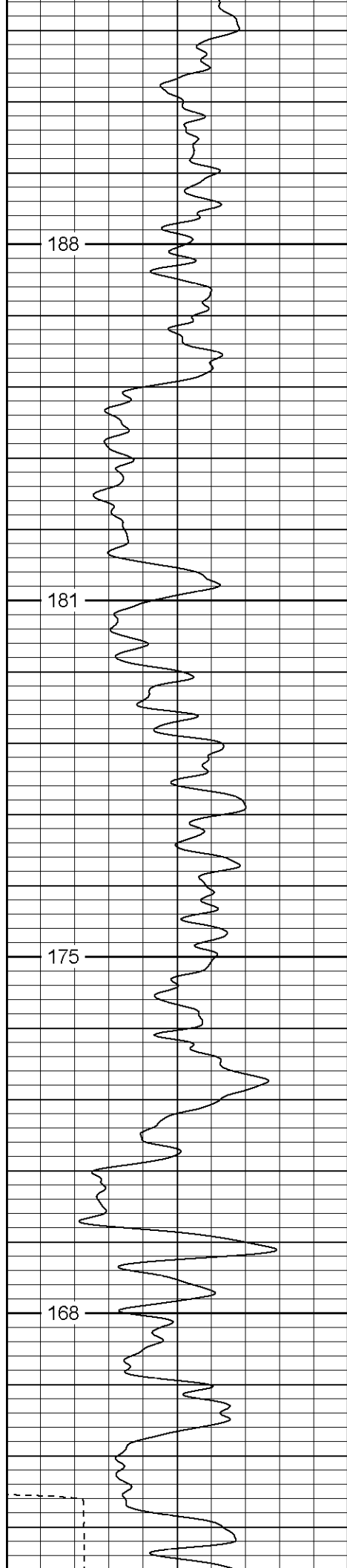
50

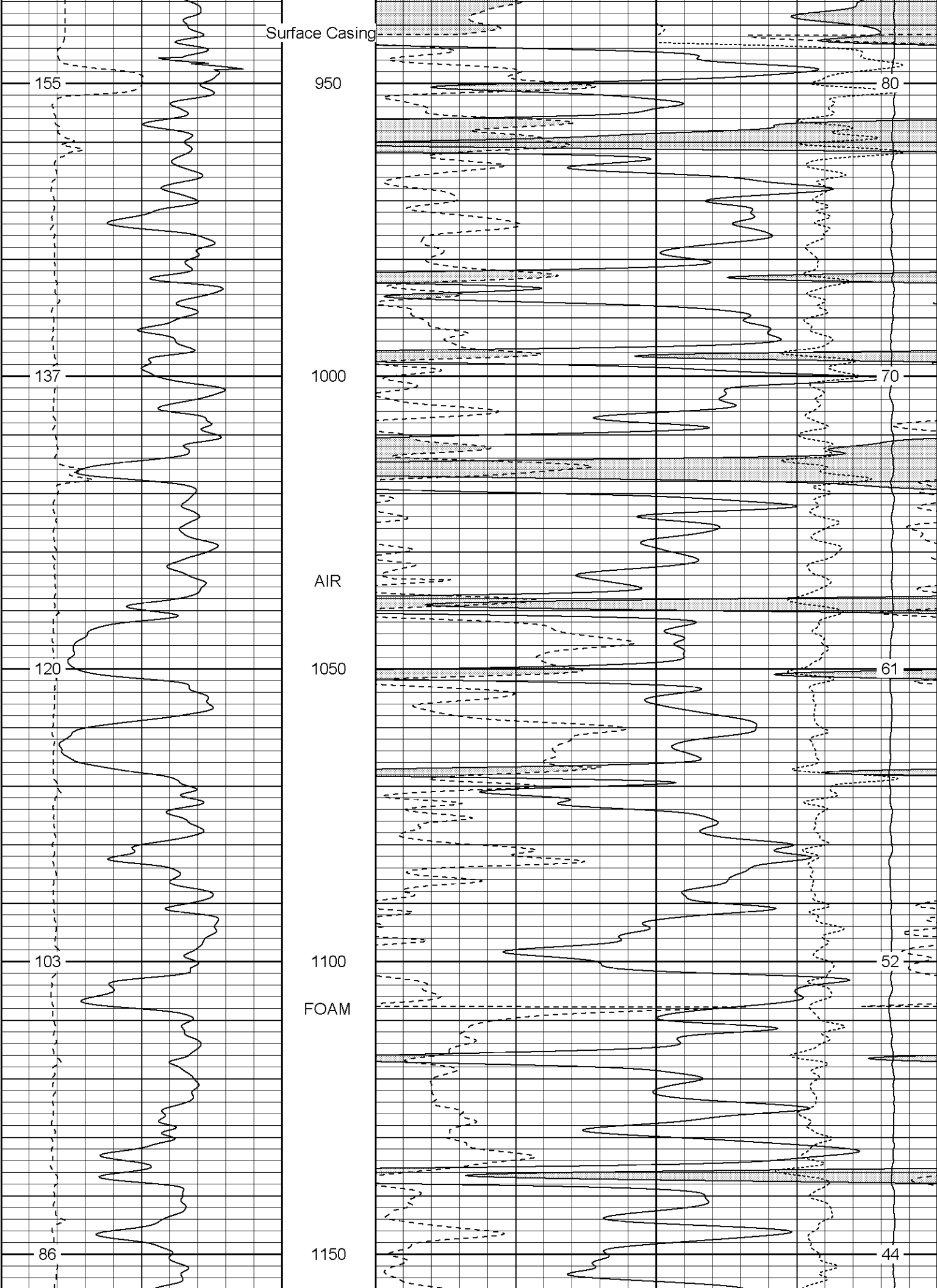


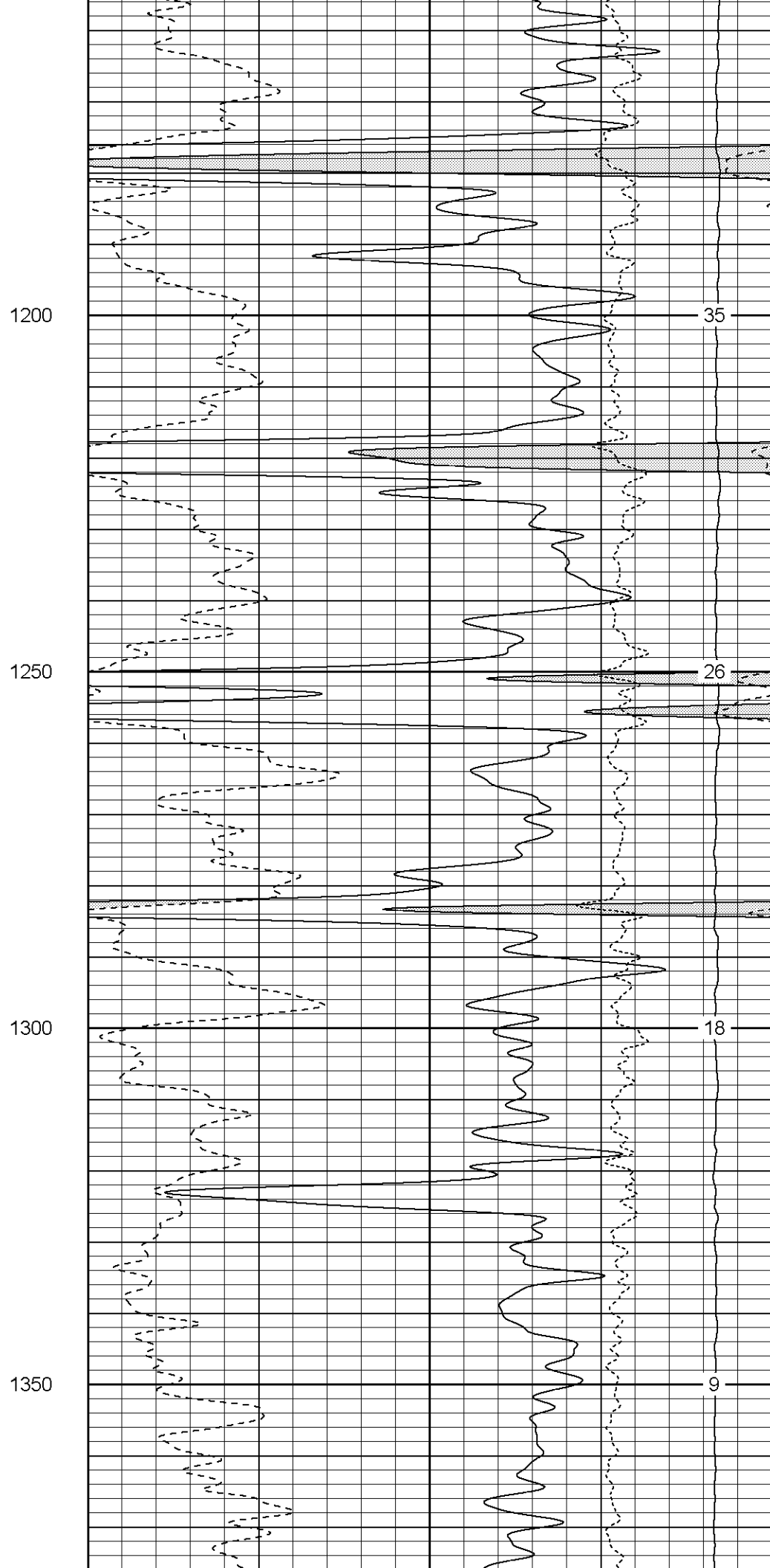
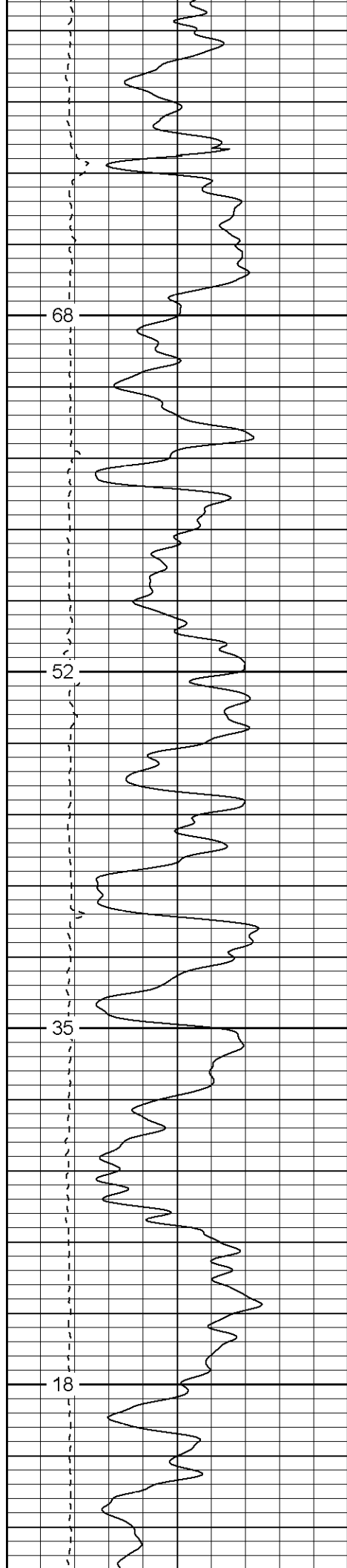


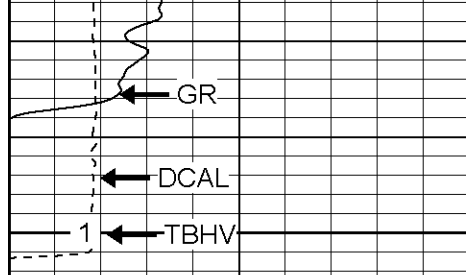






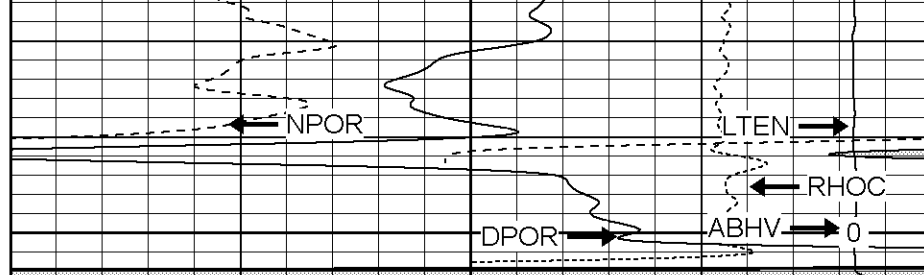






0	GR (GAPI)	200
6	DCAL (in)	16

1400



30	NPOR (pu)	-10
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
5000	LTEN (lb)	0

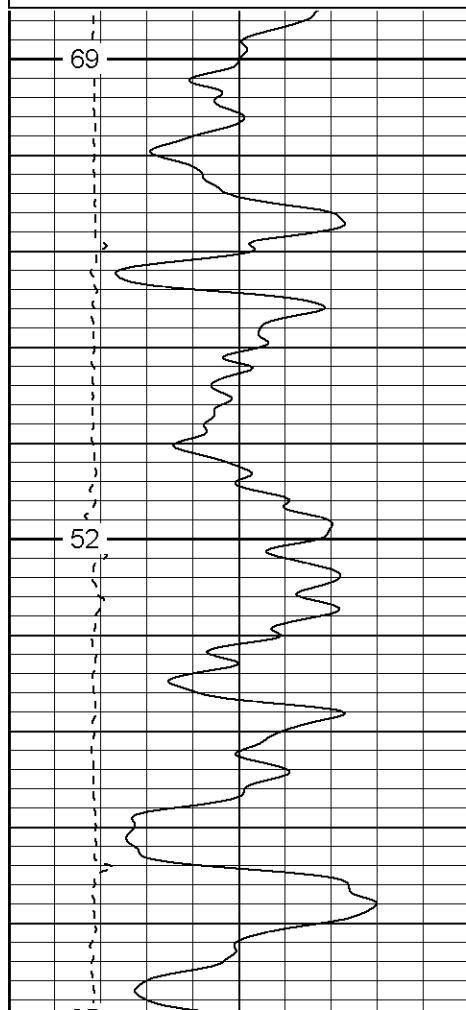
Patterson

Repeat Section

Database File: tiagatr.db
 Dataset Pathname: pass3.1
 Presentation Format: cdnl
 Dataset Creation: Wed Nov 02 09:03:50 2005 by Calc Warrior 7.0 STD Ope
 Charted by: Depth in Feet scaled 1:240

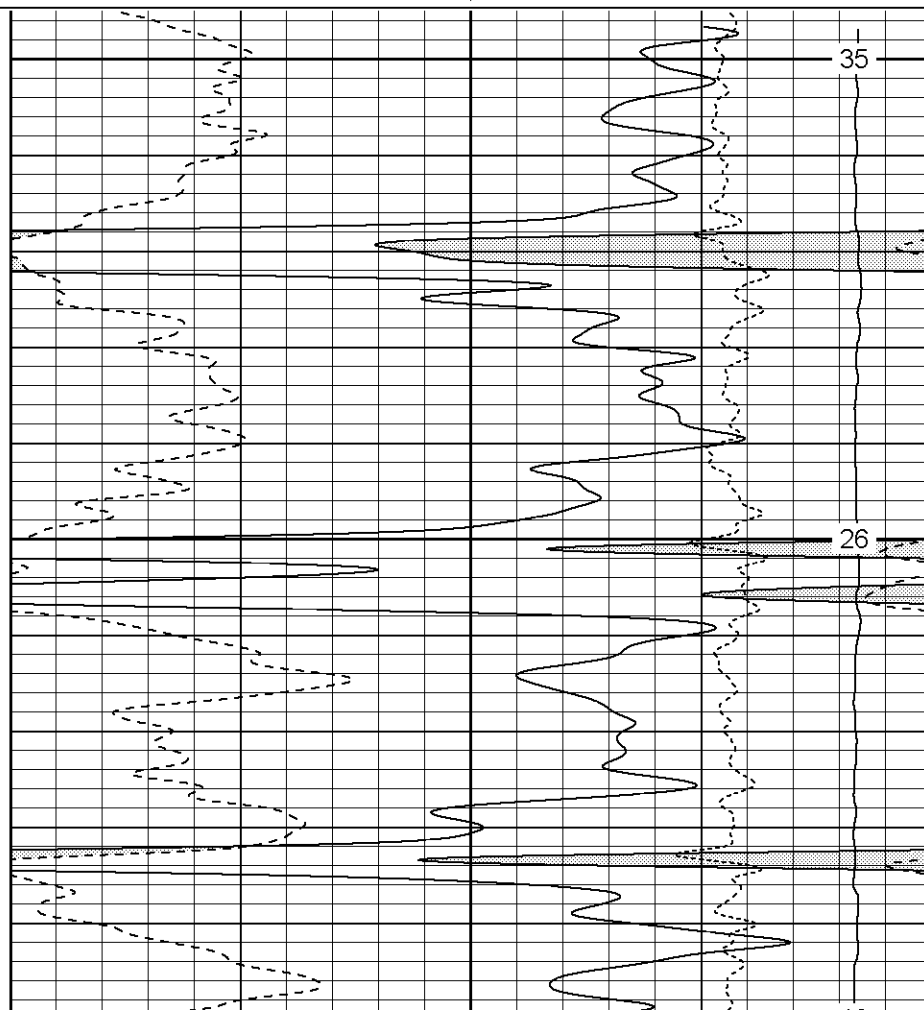
0	GR (GAPI)	200
6	DCAL (in)	16

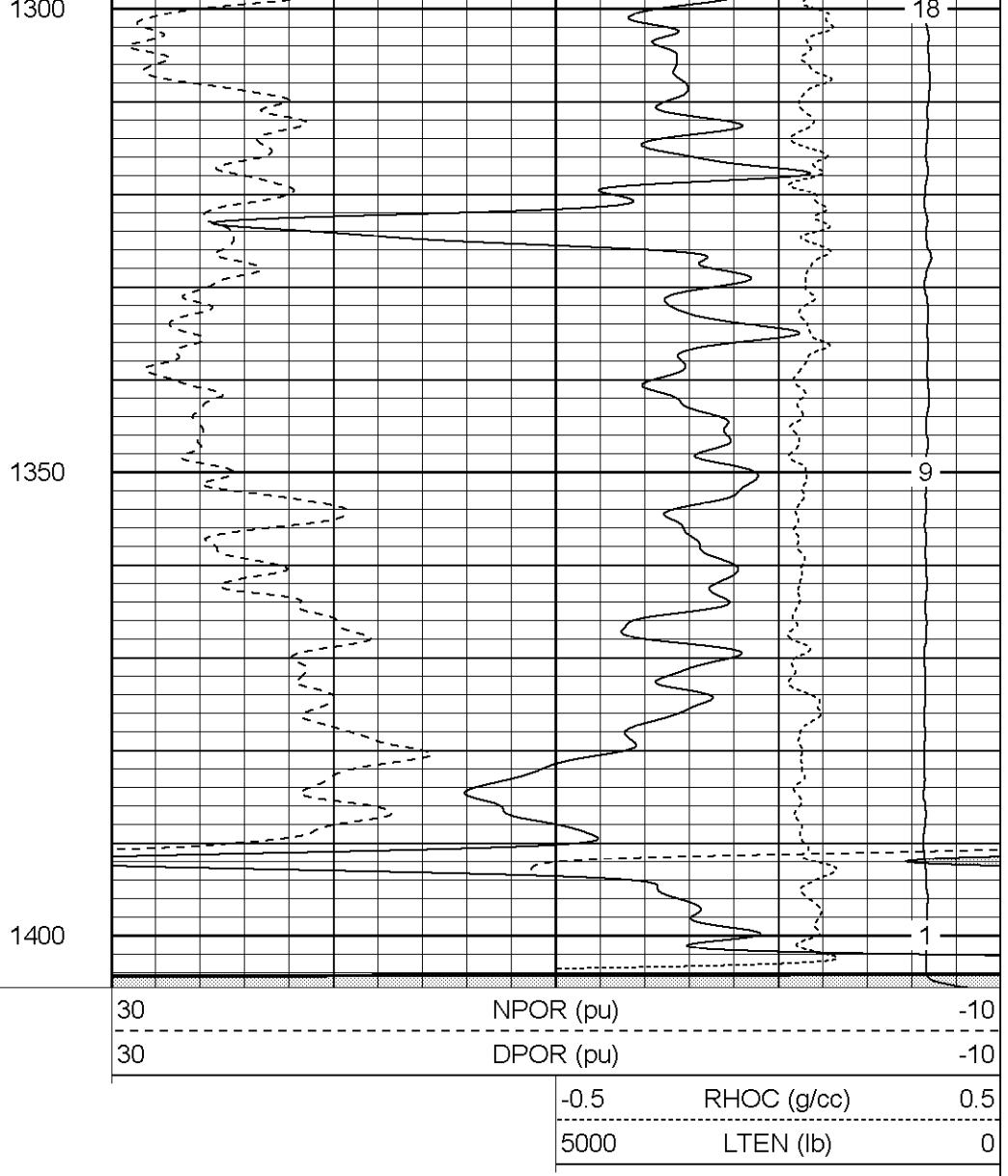
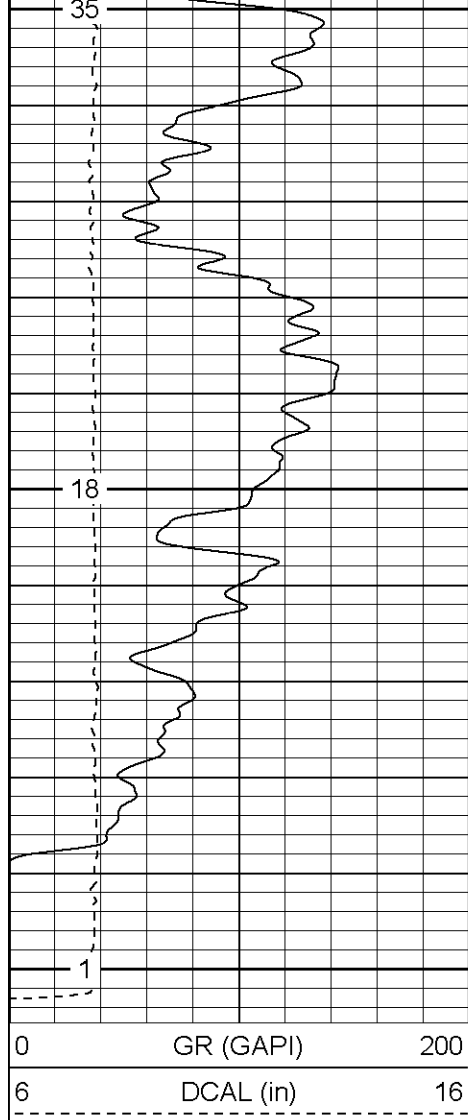
30	NPOR (pu)	-10
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
5000	LTEN (lb)	0



1200

1250



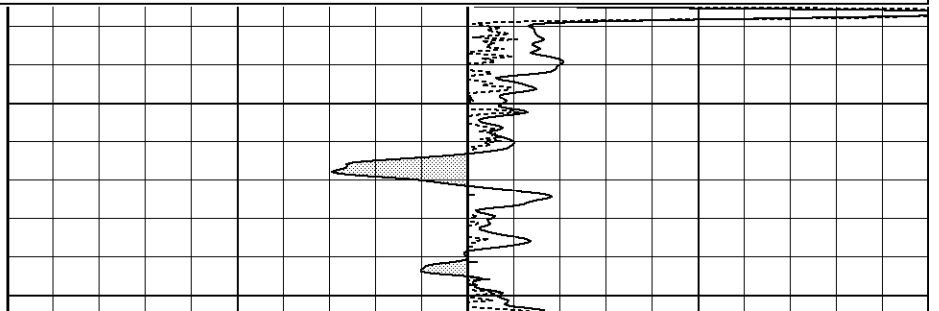
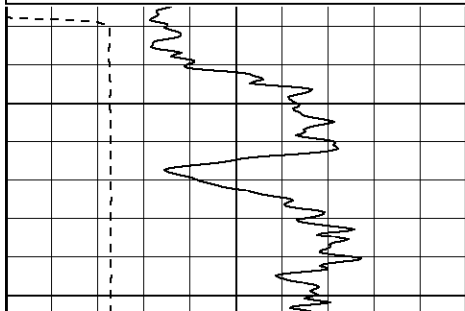


Patterson

High Resolution Pass

Database File: tiagatr.db
 Dataset Pathname: pass4.2
 Presentation Format: cdlhr
 Dataset Creation: Wed Nov 02 11:11:20 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

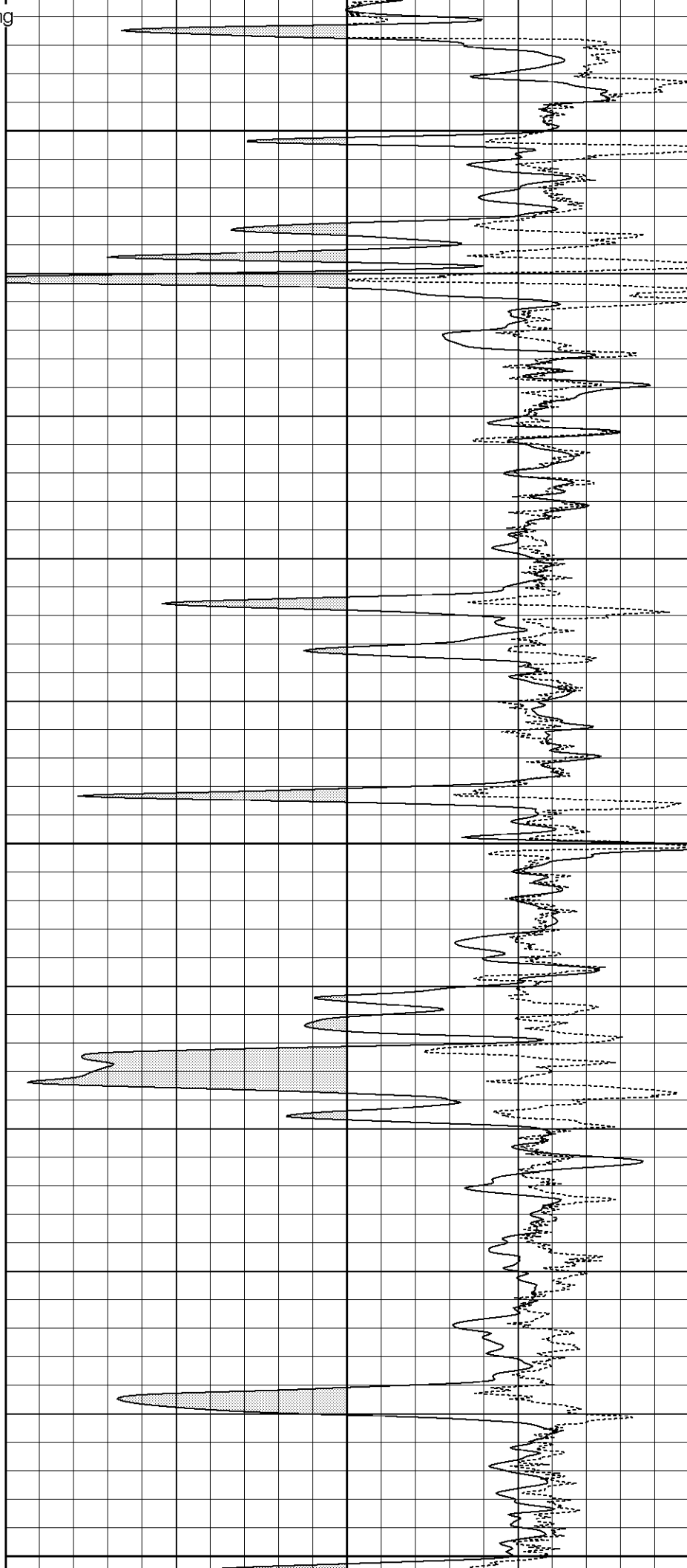
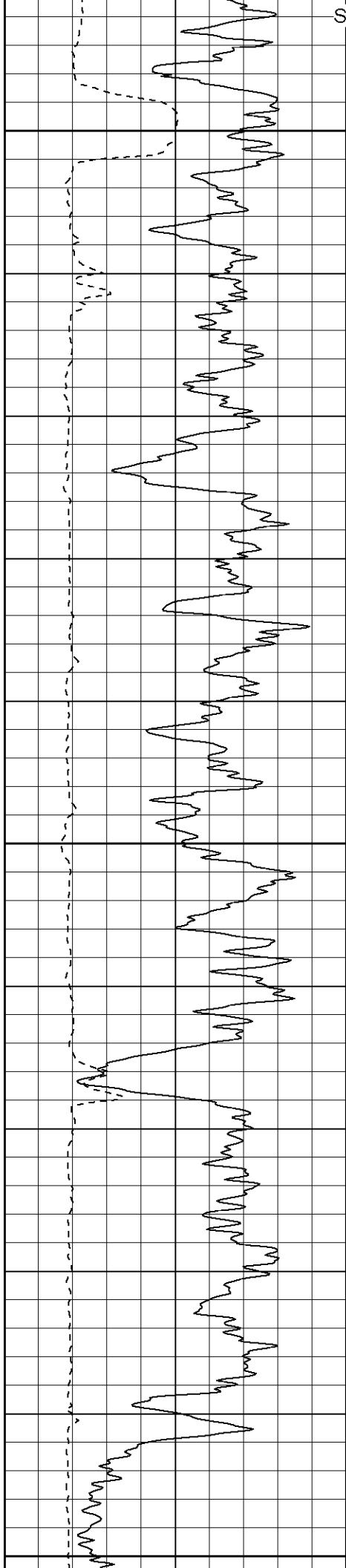


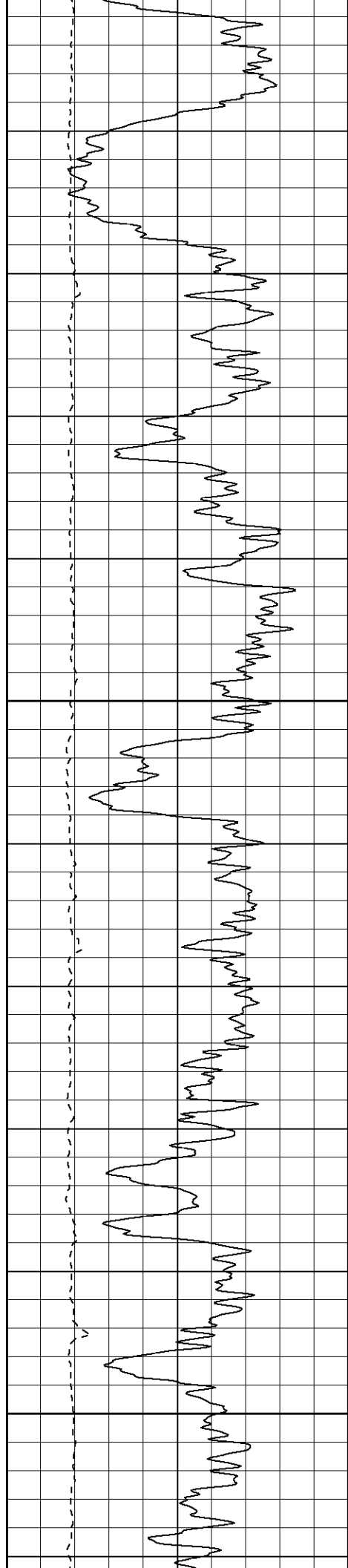
Surface Casing

950

1000

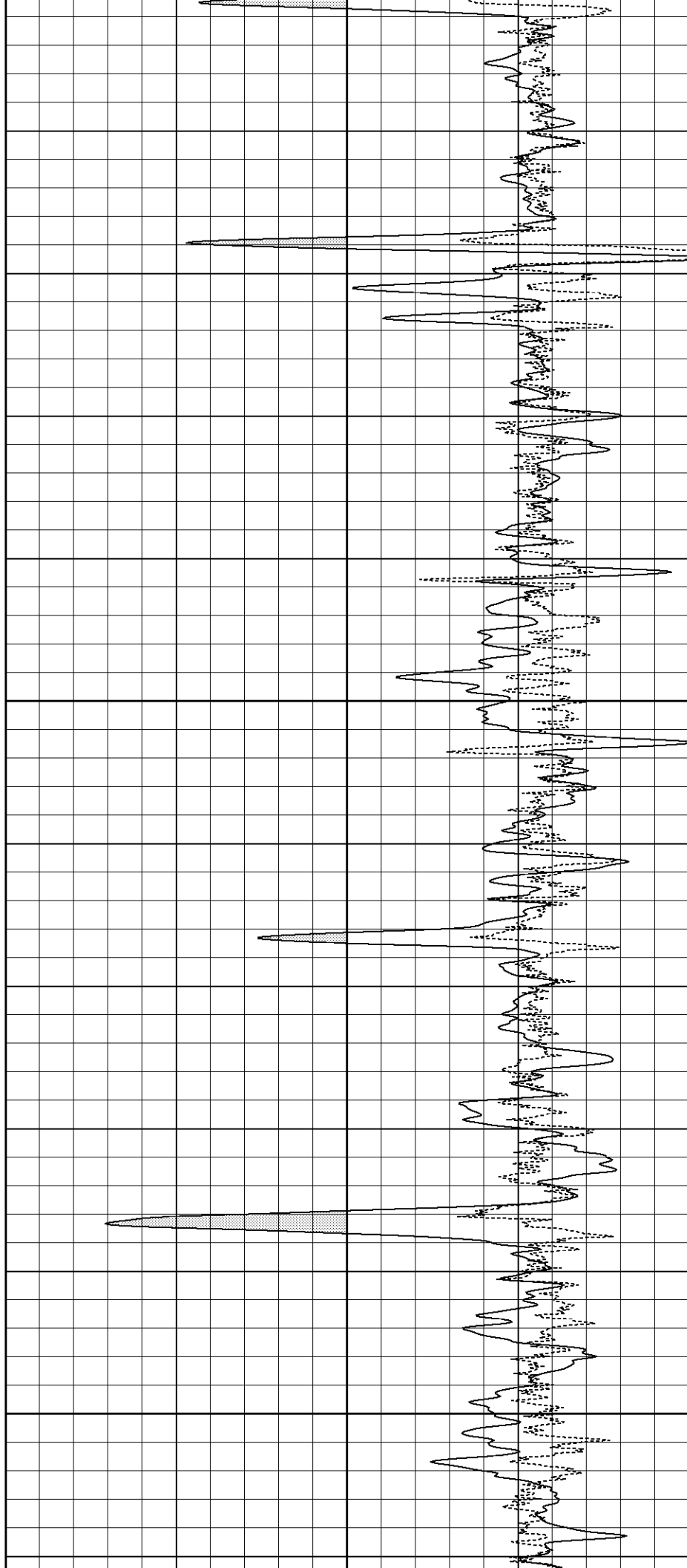
1050

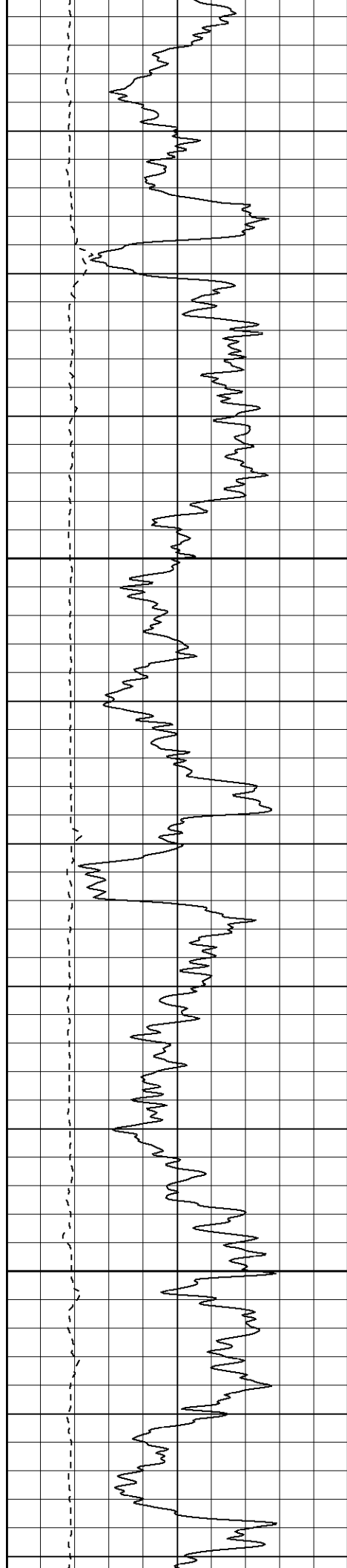




1100

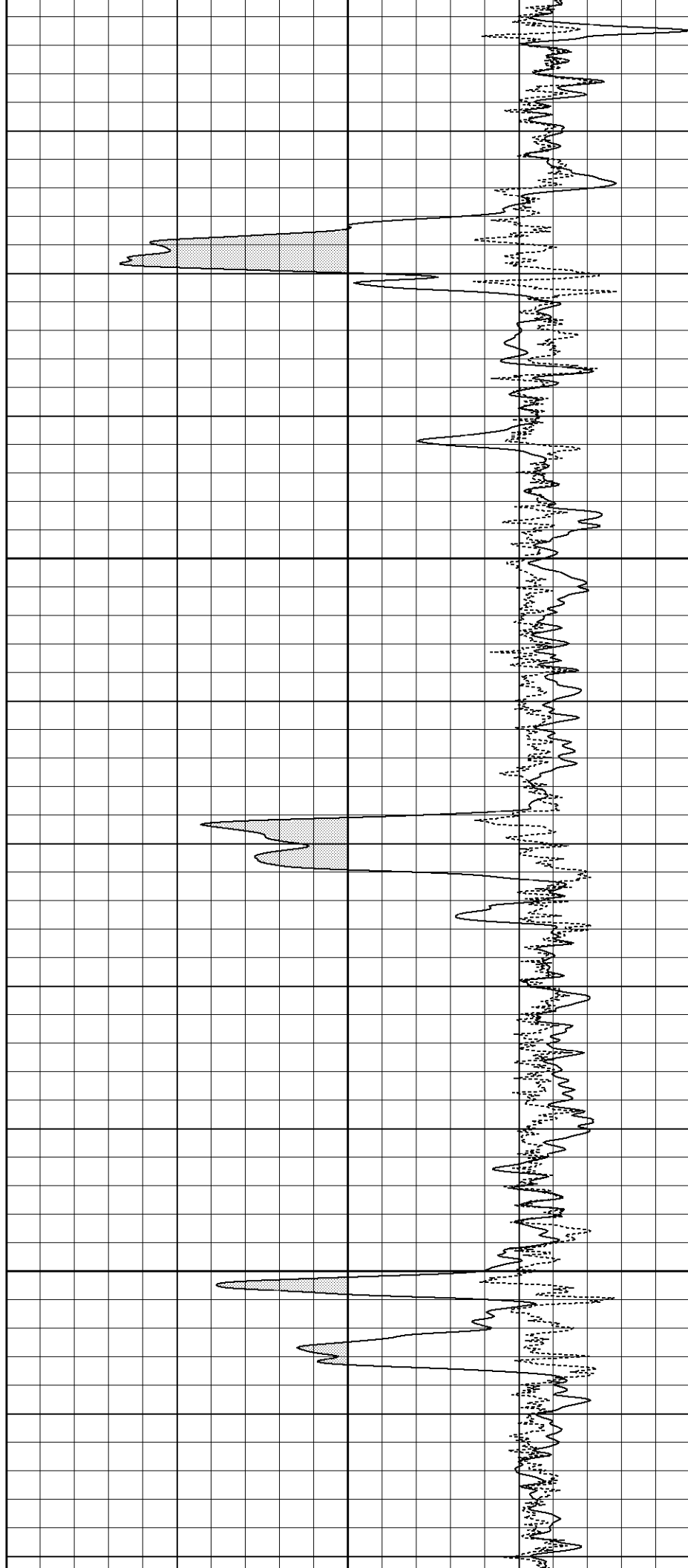
1150

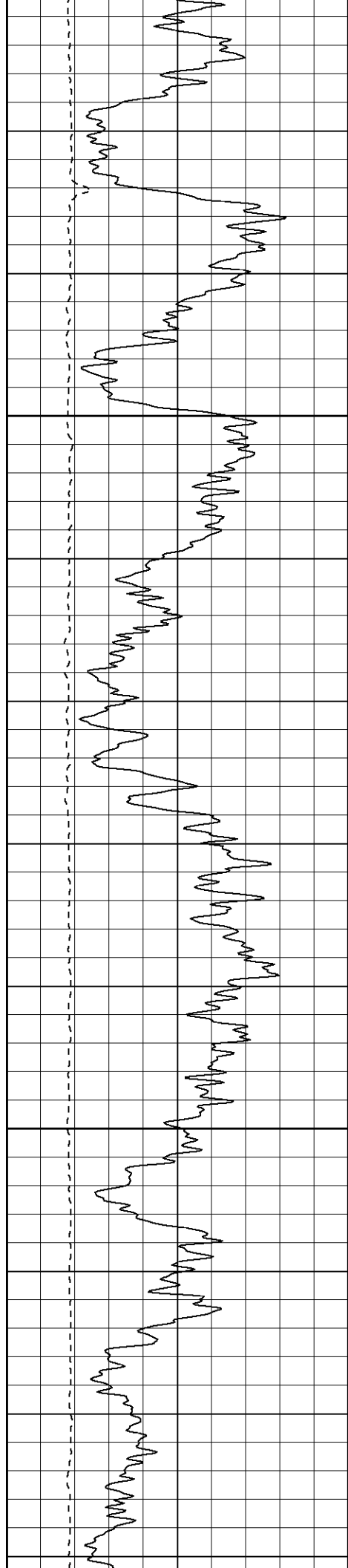




1200

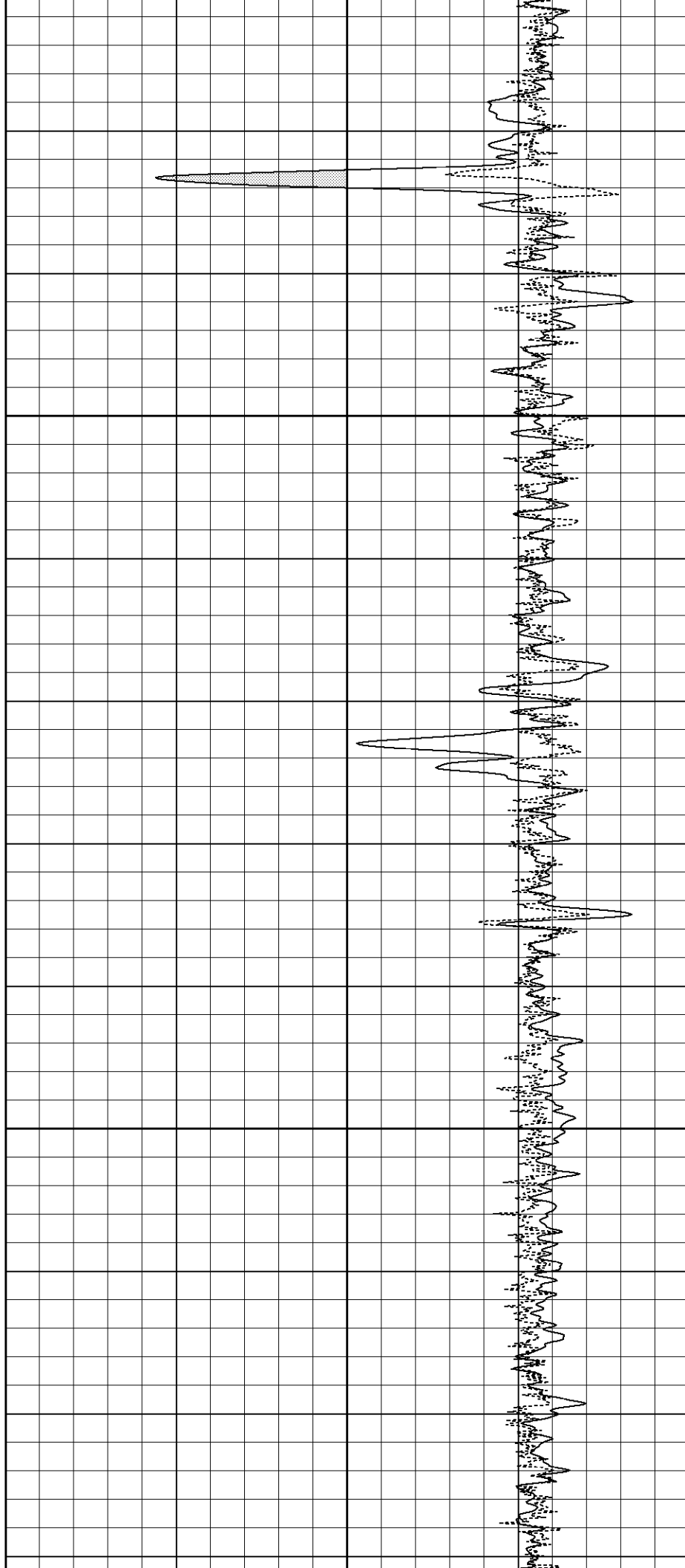
1250

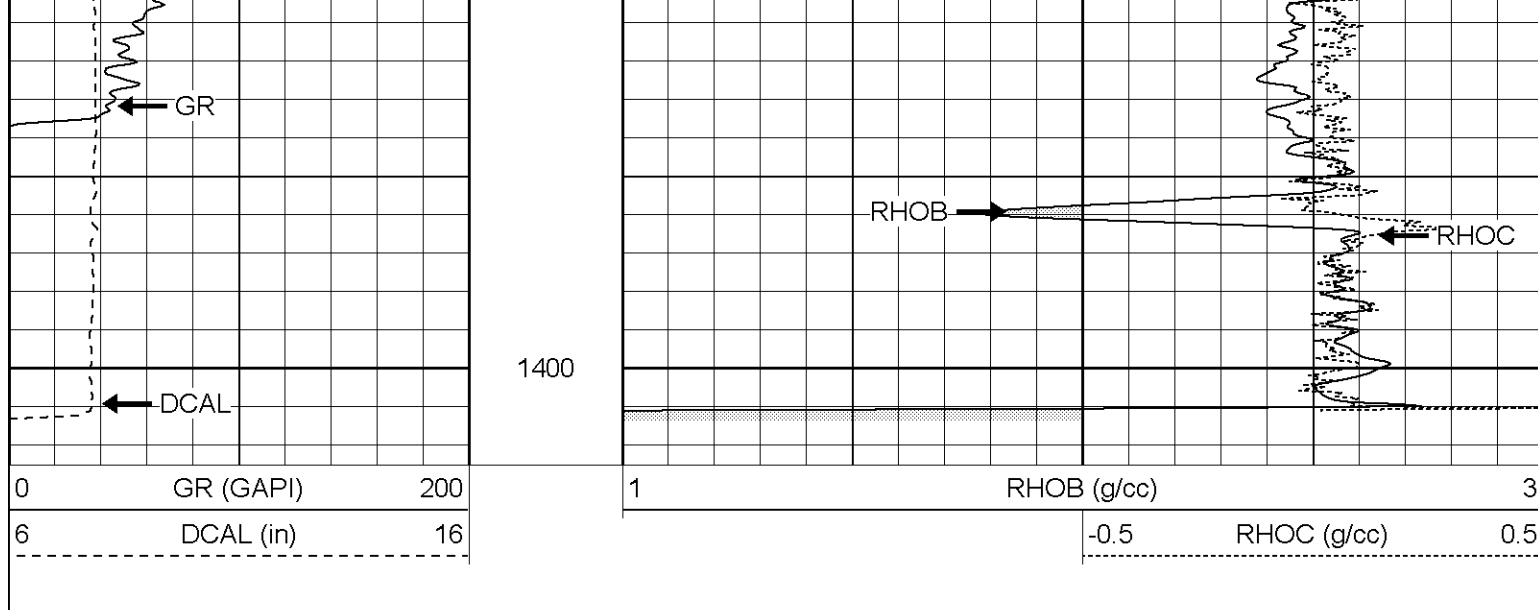




1300

1350





Compensated Density Calibration Report

Serial-Model: 2388-G
 Source / Verifier: csv-j12 / blocks
 Master Calibration Performed: Tue Nov 01 10:17:55 2005

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	845.17	475.81	cps
Aluminum	2.590	g/cc	193.44	333.27	cps
Spine Angle = 76.43			Density/Spine Ratio = 0.580		
	Size		Reading		
Small Ring	8.00	in	1.58	V	
Large Ring	14.00	in	4.71	V	

Gamma Ray Calibration Report

Serial Number: 2388OH
 Tool Model: D
 Performed: Wed Nov 02 08:17:24 2005

Calibrator Value: 170.0 GAPI

Background Reading: 55.0 cps
 Calibrator Reading: 201.0 cps

Sensitivity: 0.6000 GAPI/cps

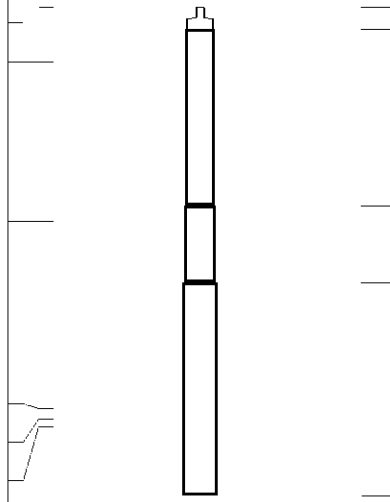
Neutron Calibration Report

Serial Number: 5138
 Tool Model: G
 Performed: Wed Nov 02 08:17:22 2005

Calibrator Value: 1 NAPI

Calibrator Reading: 1 cps

Sensitivity: 1 NAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
CHD	15.92		None	0.75	1.50	5.00
NEU	14.12		NEU-G (5138) Gearhart Epithermal	5.75	3.50	85.00
GR	8.92		GR-D (2388OH) Gearhart	2.50	3.63	74.00
LSD	2.83		CDL-G (2388) Gearhart	6.92	4.00	201.00
DCAL	2.50					
SSD	2.25					
Dataset: /field/well/run1/_plots_/_jobs_/cdl Total Length: 15.92 ft Total Weight: 365.00 lb O.D. 4.00 in						