



Weatherford

DETAIL SECTION

COMPANY

MURFIN DRILLING COMPANY INC.

WELL

ROGUE #10-25

FIELD

WILDCAT

PROVINCE/COUNTY LINCOLN

COUNTRY/STATE

U.S.A. / COLORADO

LOCATION

2367' FSL & 1804' FEL

SEC 25

TWP 9S

RGE 56W

Other Services

Latitude

Longitude

API Number 05-073-06736

Permanent Datum GL, Elevation 5299 feet

Log Measured From KB, 13.00 feet above Permanent Datum

Drilling Measured From KB

Date 07-FEB-2018

Run Number

ONE

Service Order

4558-205041941

Depth Driller

8187.00 feet

Depth Logger

7776.00 feet

First Reading

7773.00 feet

Last Reading

4200.00 feet

Casing Driller

475.00 feet

Casing Logger

478.00 feet

Bit Size

7.875 inches

Hole Fluid Type

CHEMICAL

Density / Viscosity

9.20 lb/USg 80.00 CP

PH / Fluid Loss

8.50 8.50 ml/30Min

Sample Source

FLOWLINE

Rm @ Measured Temp

1.39 @ 75.0 ohm-m

Rmf @ Measured Temp

1.11 @ 75.0 ohm-m

Rmc @ Measured Temp

1.67 @ 75.0 ohm-m

Source Rmf / Rmc

CALC CALC

Rm @ BHT

0.62 @168.0 ohm-m

Time Since Circulation

6 HOURS

Max Recorded Temp

168.00 deg F

Equipment / Base

13244 LIB

Recorded By

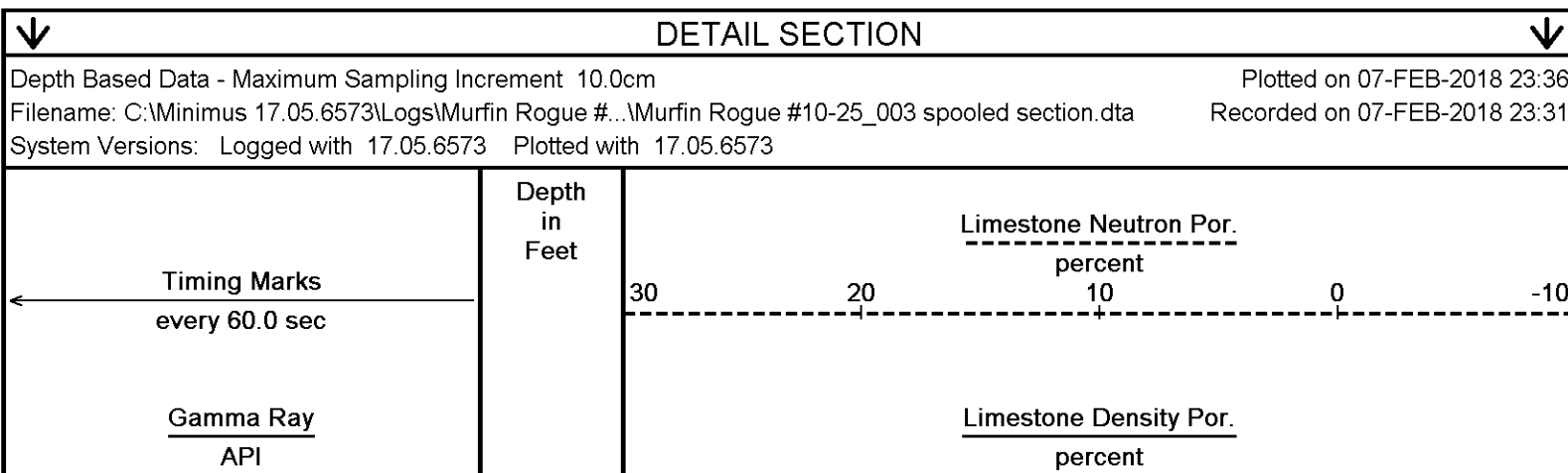
ADAM SILL

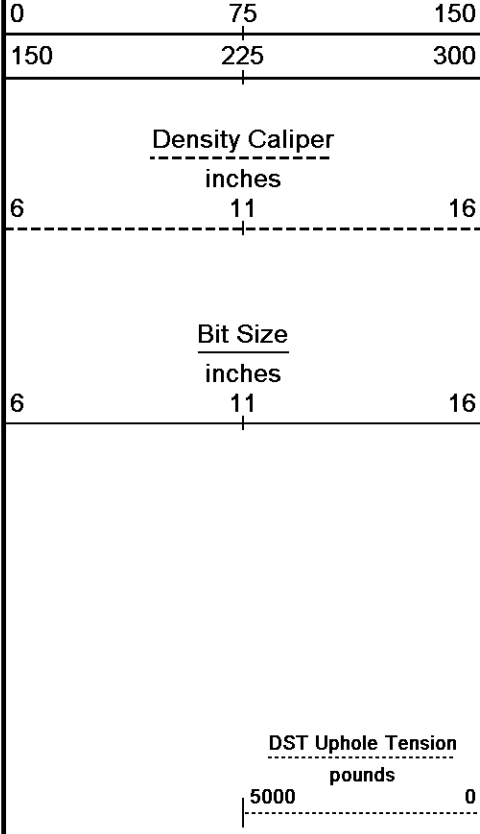
Witnessed By

GREG SMITH

Elevations:
KB 5312.00 feet
DF 5310.00
GL 5299.00

In interpreting, communicating or providing information and/or making recommendations, either written or oral, as to logs or test or other data, type or amount of material, or Work or other service to be furnished, or manner of performance, or in predicting results to be obtained, the Contractor will give the Company the benefit of the Contractor's best judgment based on its experience and will perform all such Work in a good and workmanlike manner. Any interpretation of test or other data, and any recommendation or reservoir description based upon such interpretations, are opinions based upon inferences from measurements and empirical relationships and assumptions, which inferences and assumptions are not infallible, and with respect to which professional engineers and analysts may differ. ACCORDINGLY ANY INTERPRETATION OR RECOMMENDATION RESULTING FROM THE SERVICES WILL BE AT THE SOLE RISK OF THE COMPANY, AND THE CONTRACTOR CANNOT AND DOES NOT WARRANT THE ACCURACY, CORRECTNESS OR COMPLETENESS OF ANY SUCH INTERPRETATION OR RECOMMENDATION, WHICH INTERPRETATIONS AND RECOMMENDATIONS SHOULD NOT, THEREFORE, UNDER ANY CIRCUMSTANCES BE RELIED UPON AS THE SOLE OR MAIN BASIS FOR ANY DRILLING, COMPLETION, WELL TREATMENT, PRODUCTION OR FINANCIAL DECISION, OR ANY PROCEDURE INVOLVING ANY RISK TO THE SAFETY OF ANY DRILLING ACTIVITY, DRILLING RIG OR ITS CREW OR ANY OTHER INDIVIDUAL. THE COMPANY HAS FULL RESPONSIBILITY FOR ALL DECISIONS CONCERNING THE SERVICES.



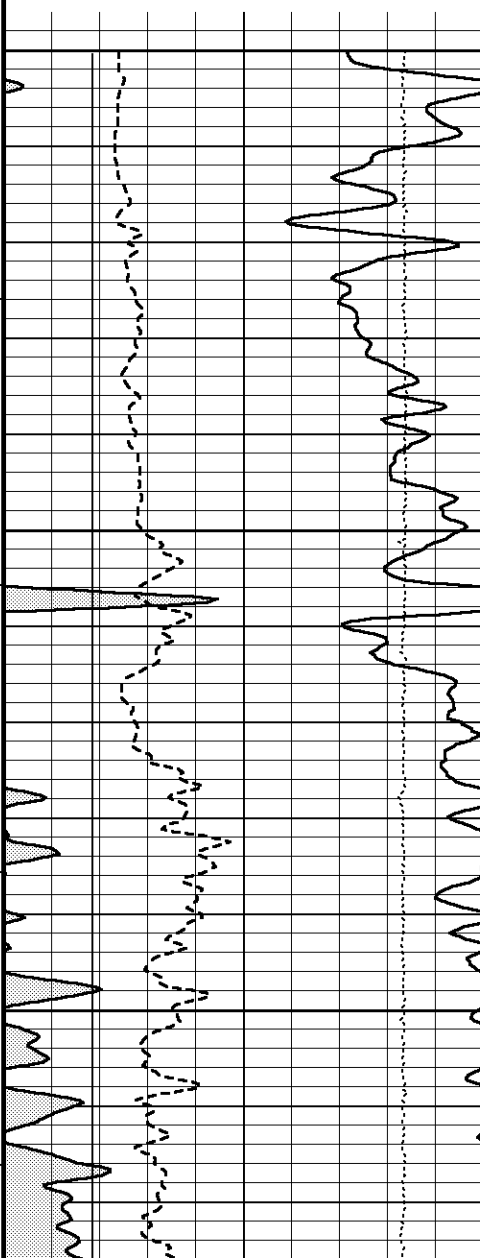


Borehole
Temp in
deg F

HVI
every
10 cu ft

Annular
Integral
every
10 cu ft

Replay
Scale
1:240



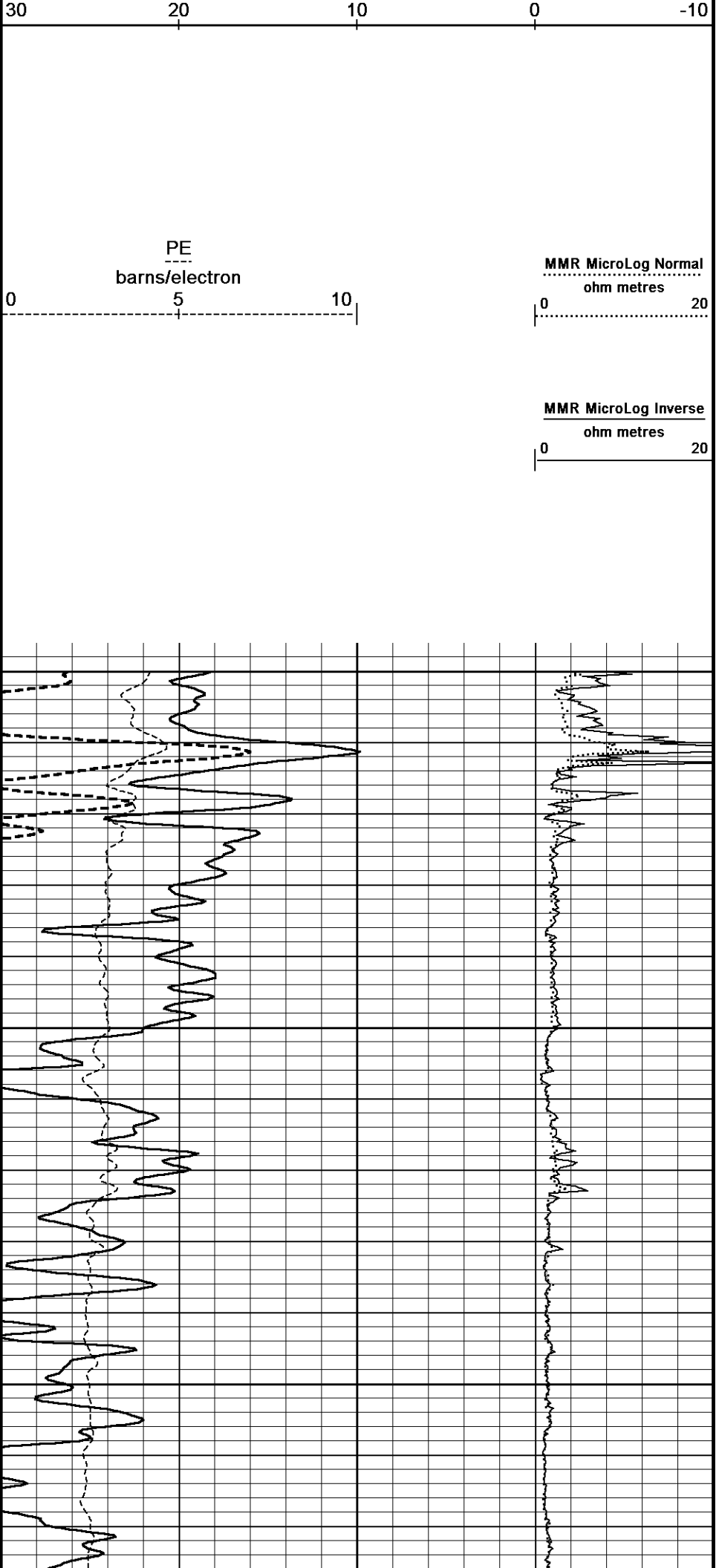
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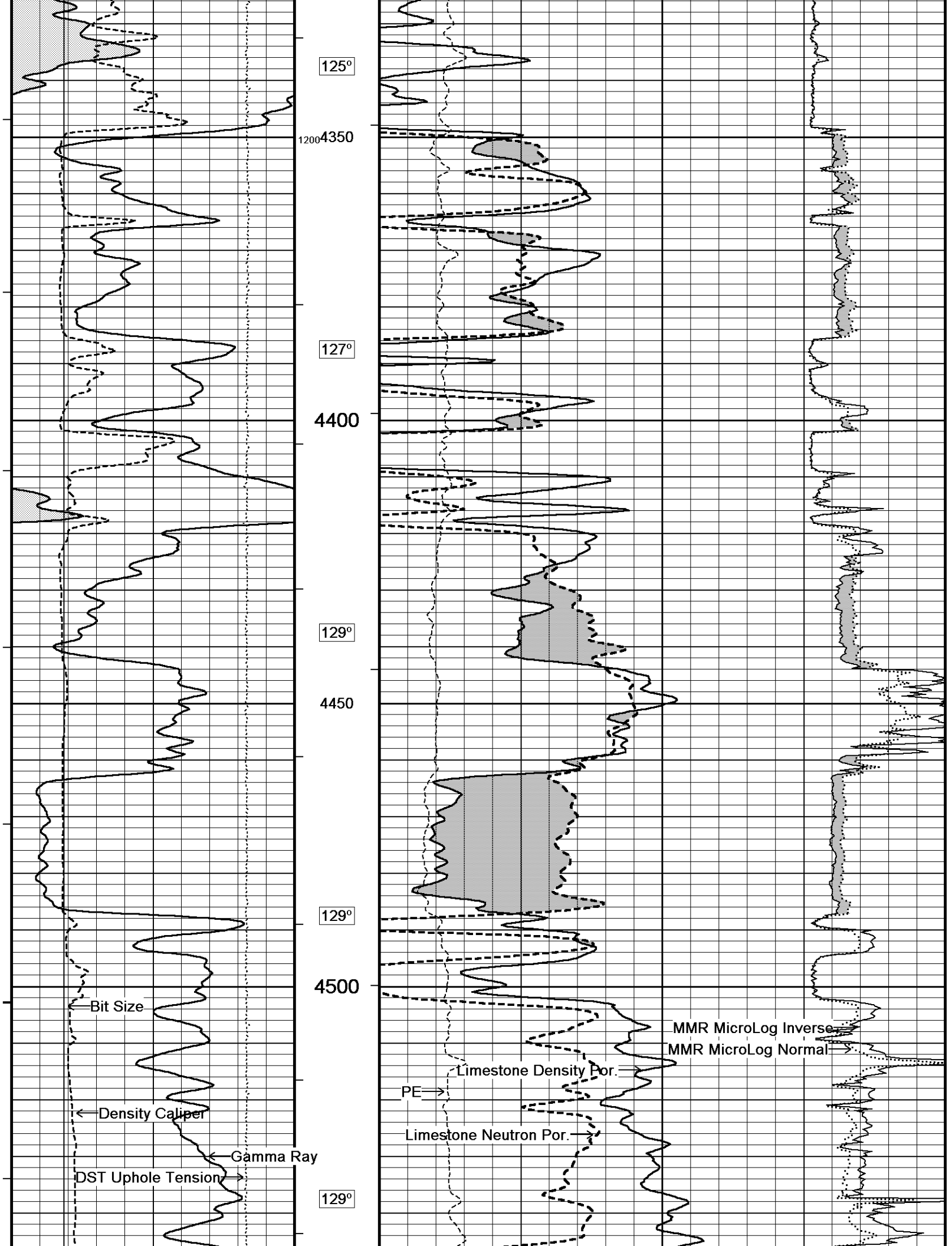
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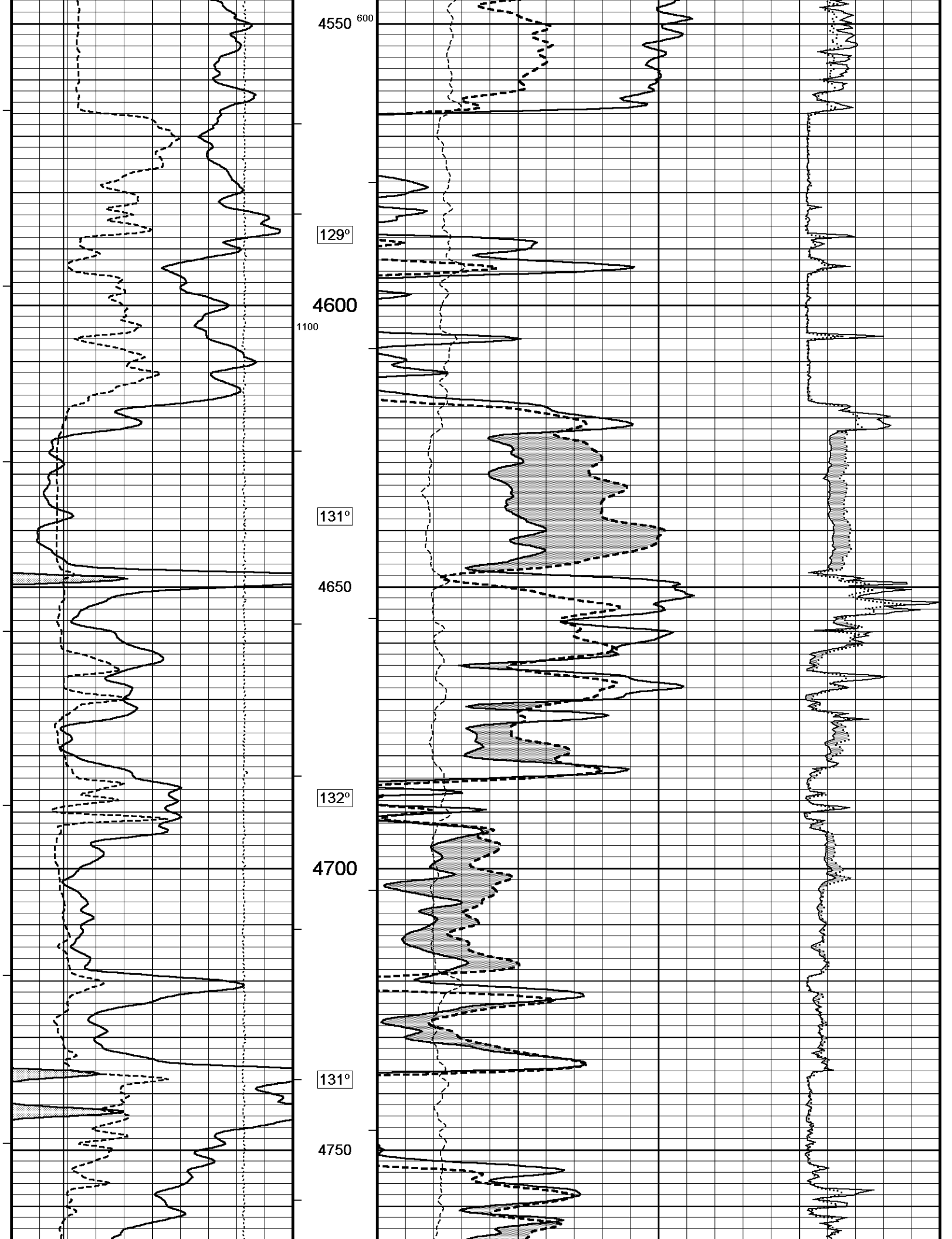
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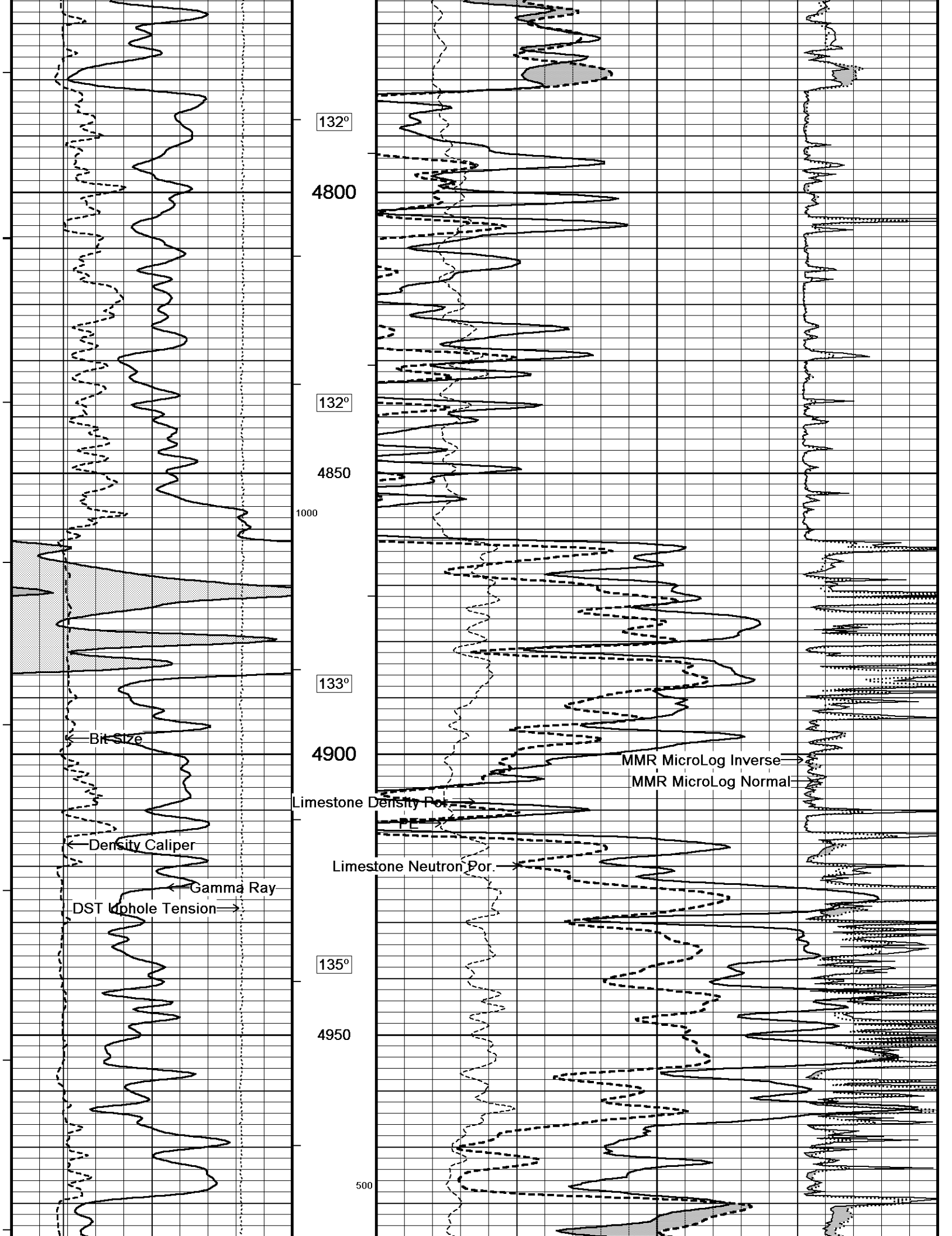
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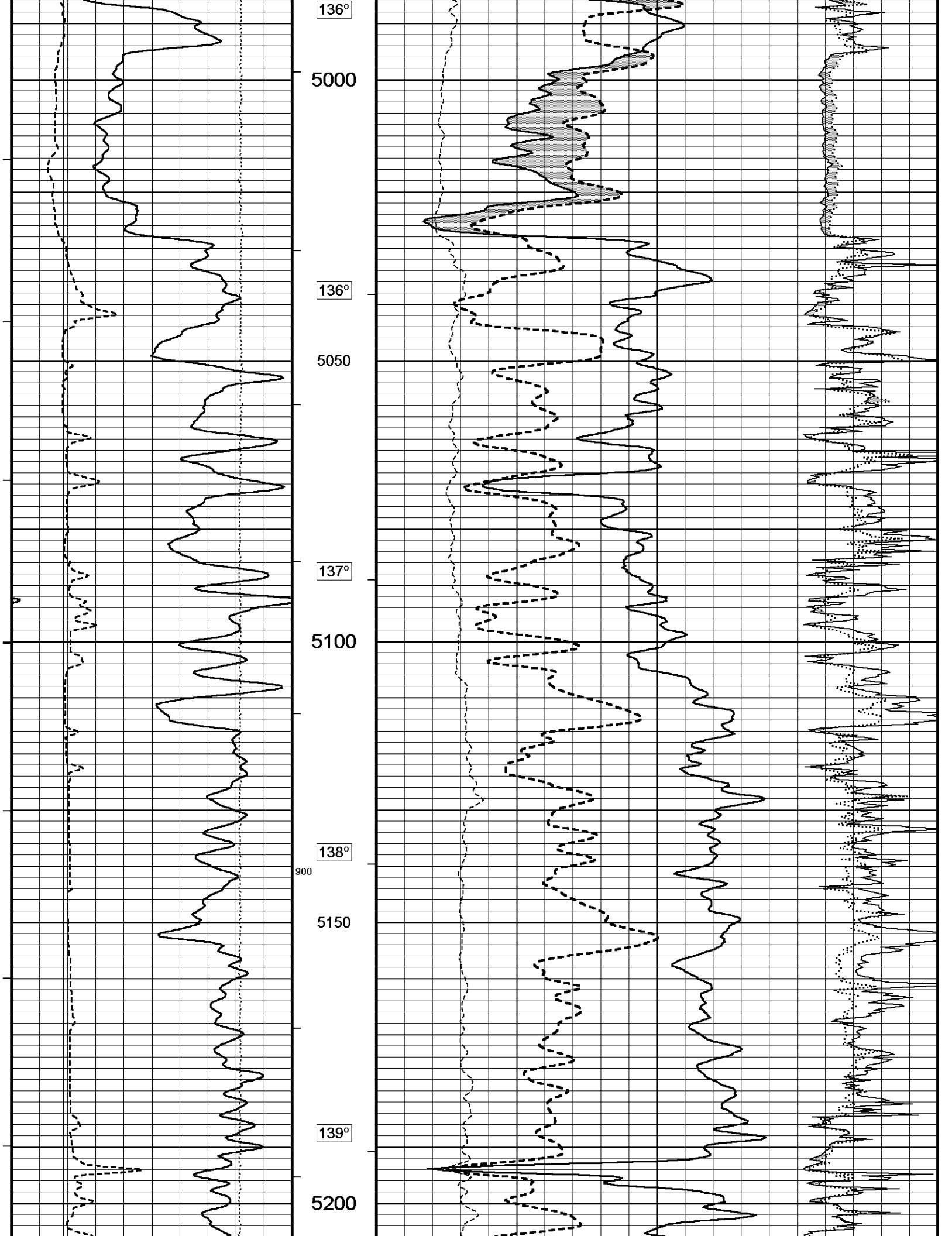
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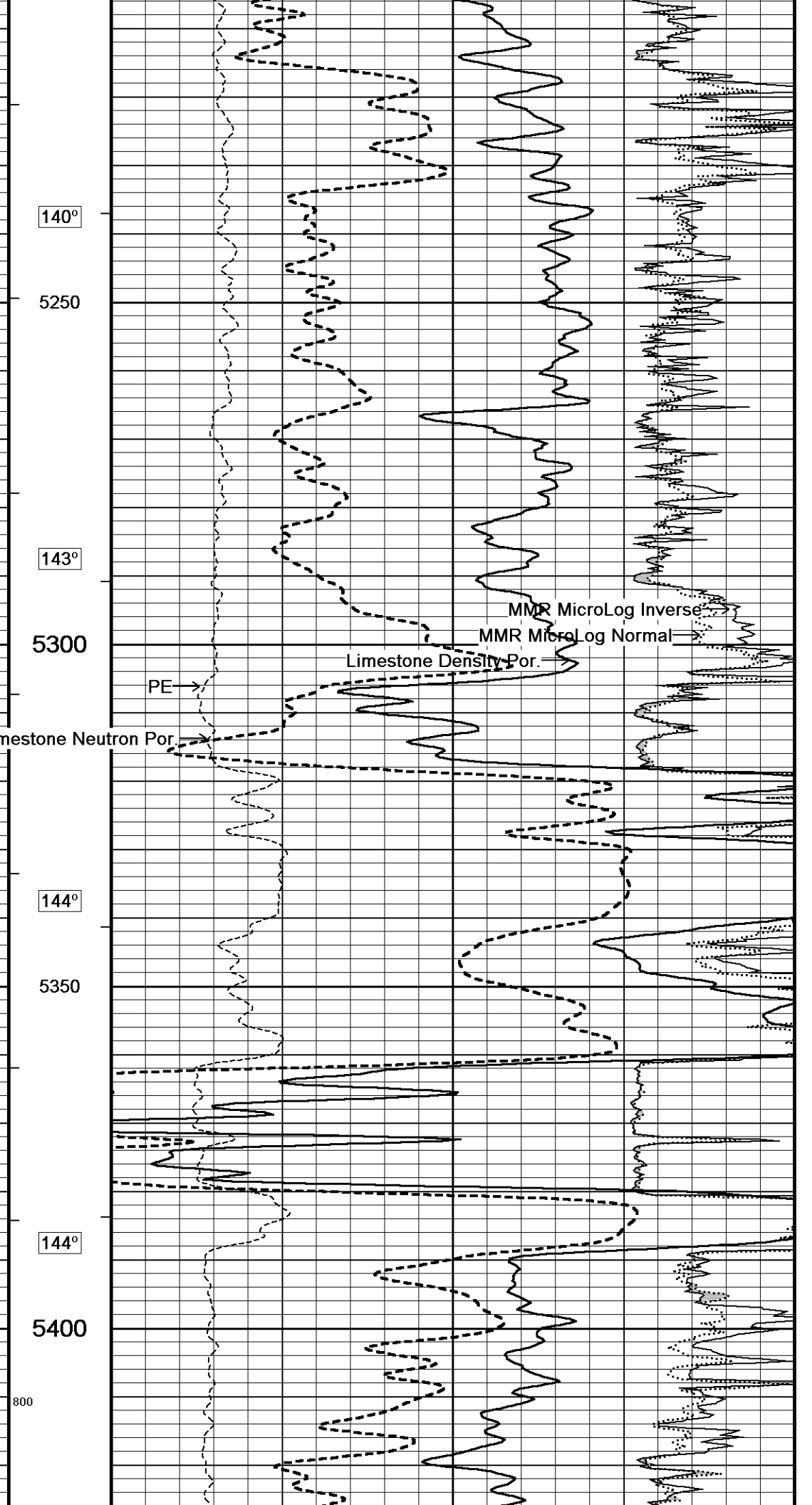
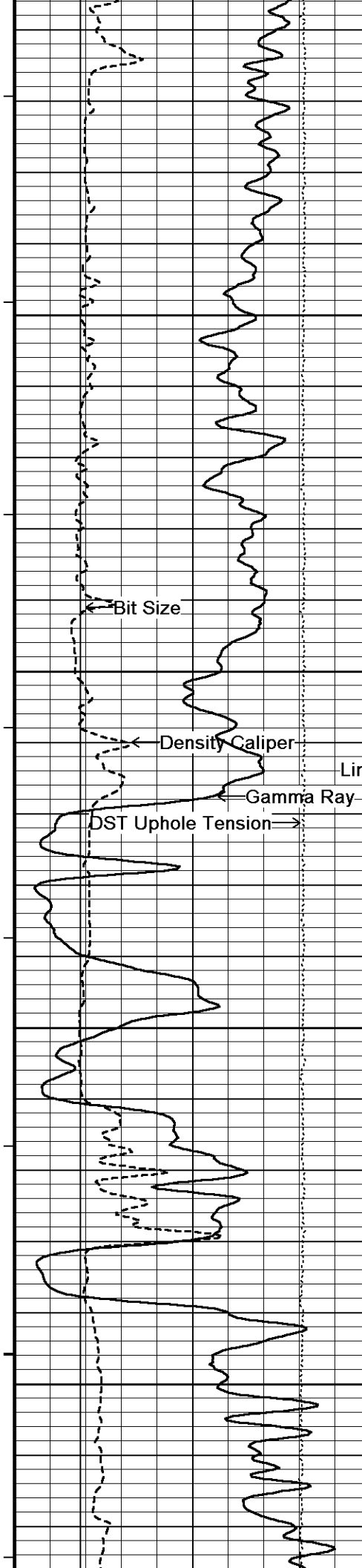


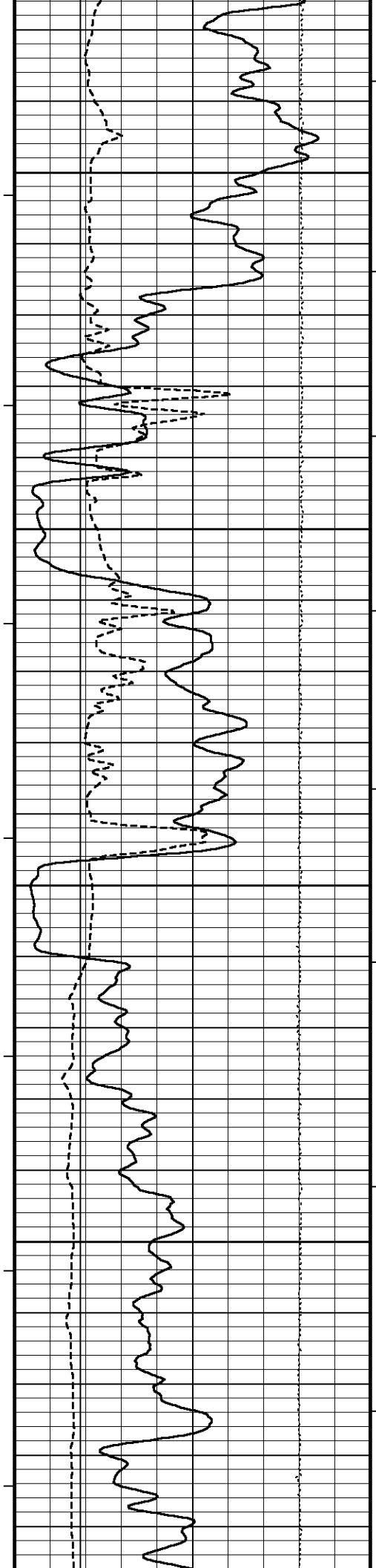












145°

5450

400

145°

5500

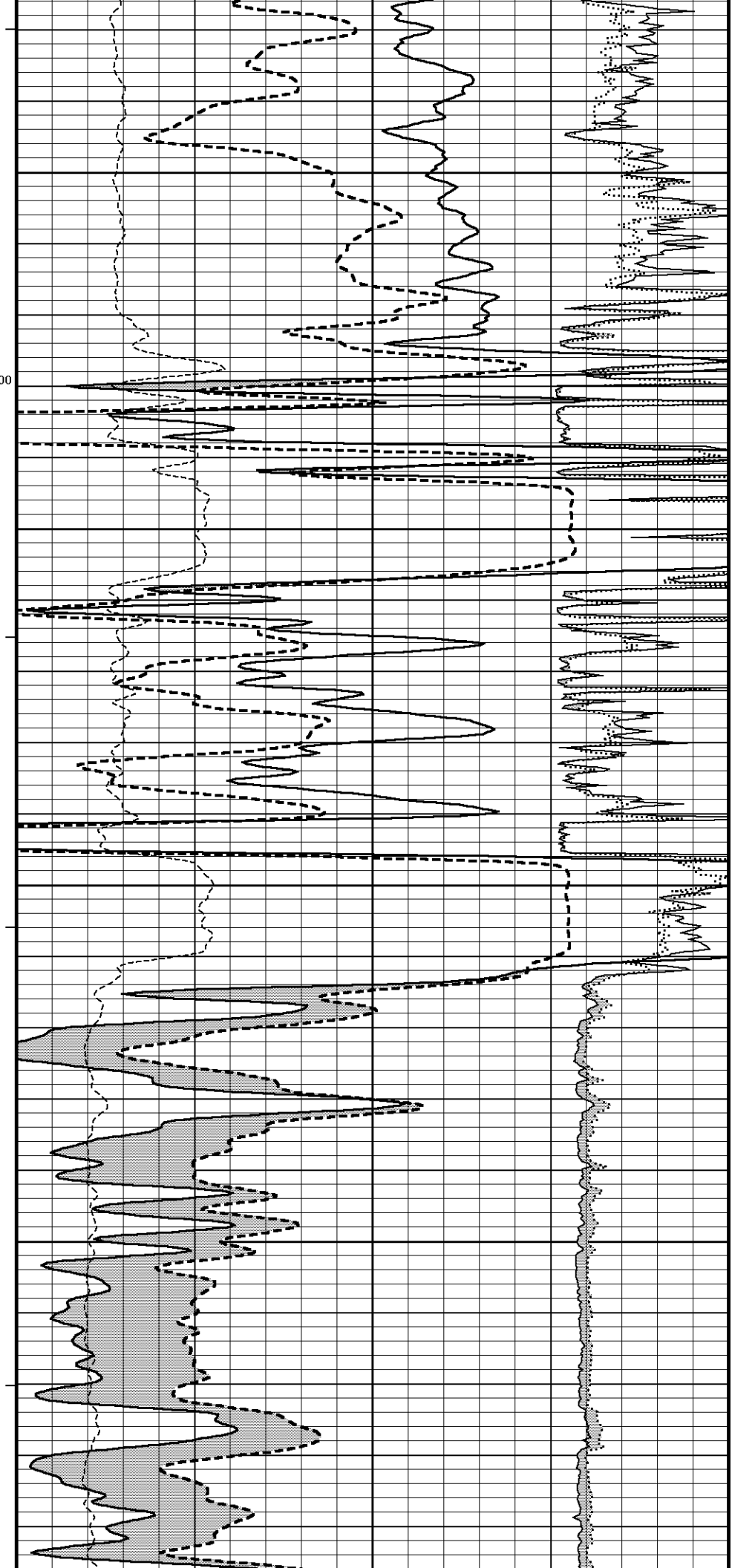
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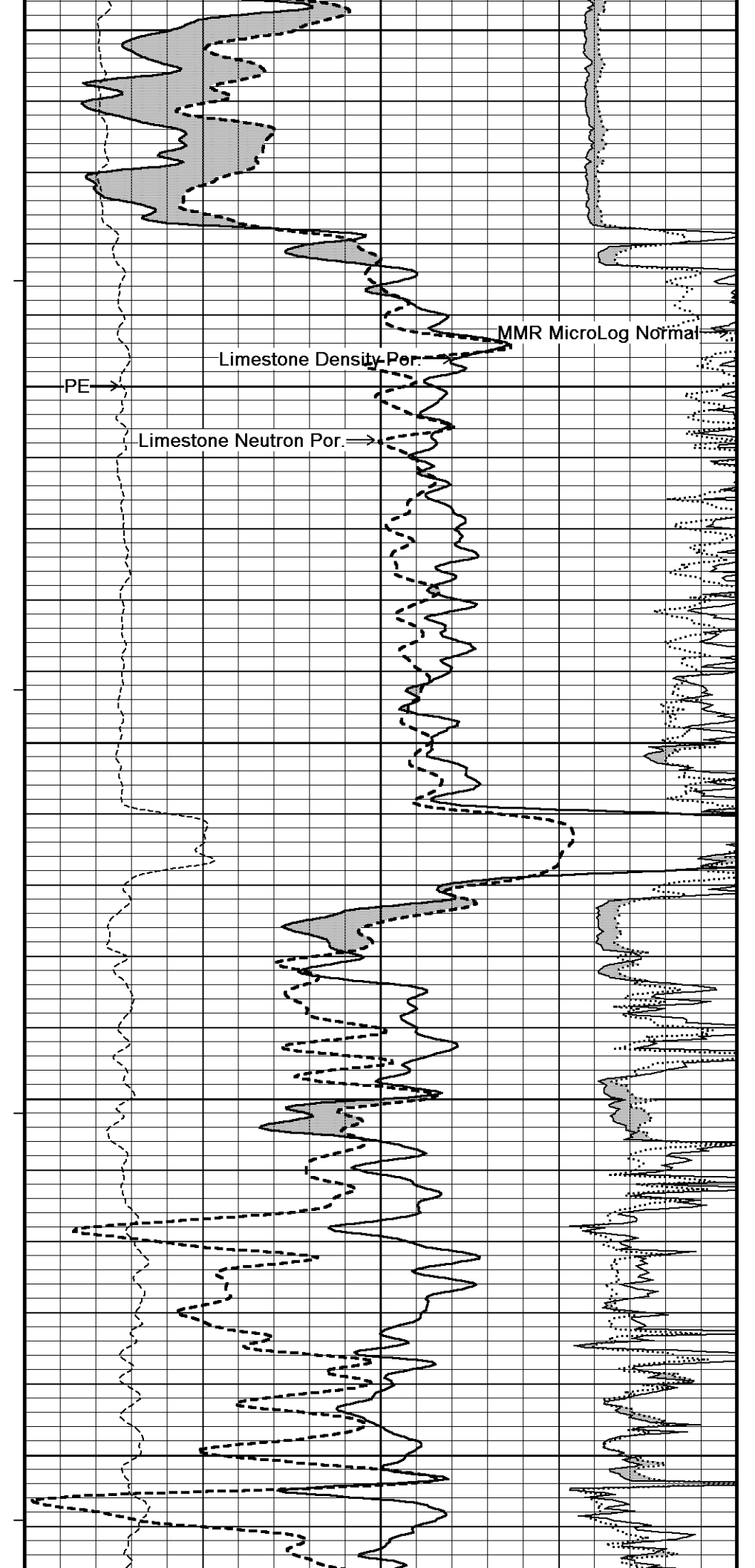
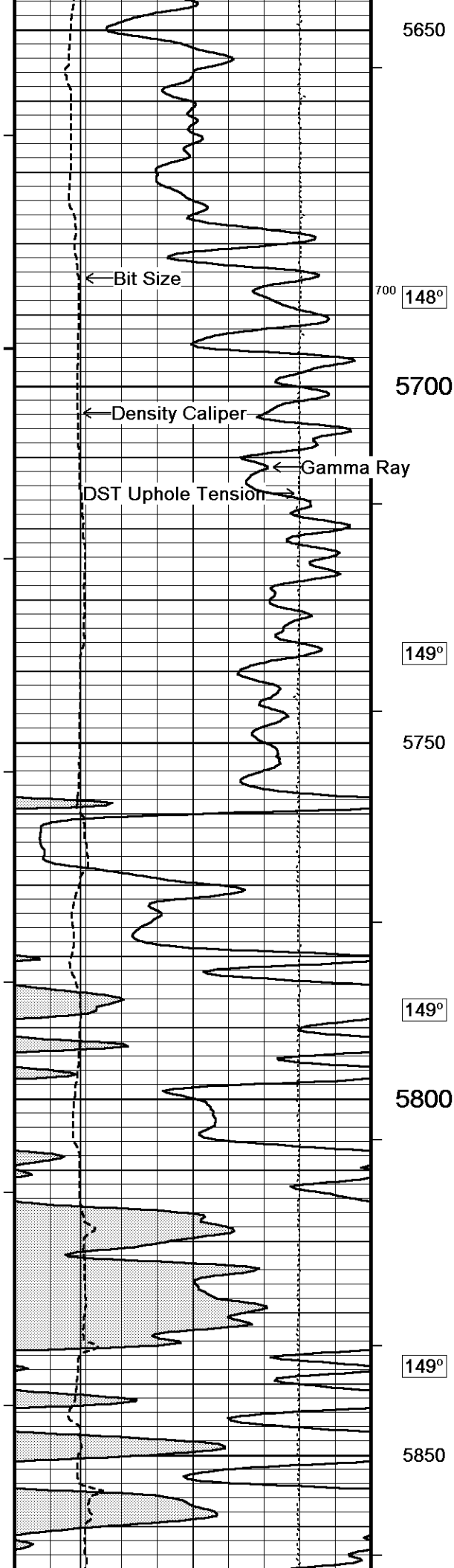
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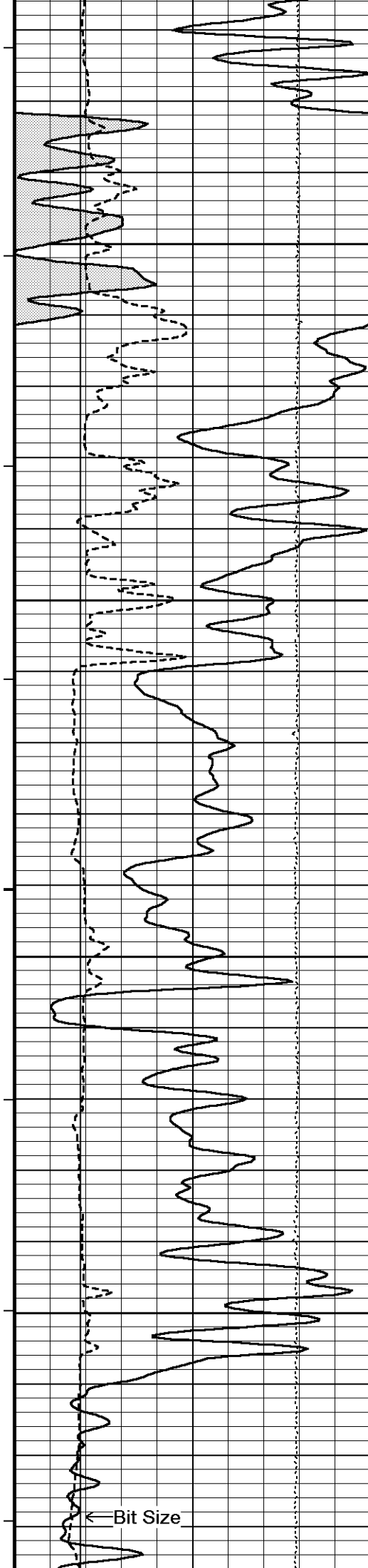
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5600

148°







150°

5900

151°

5950

600

152°

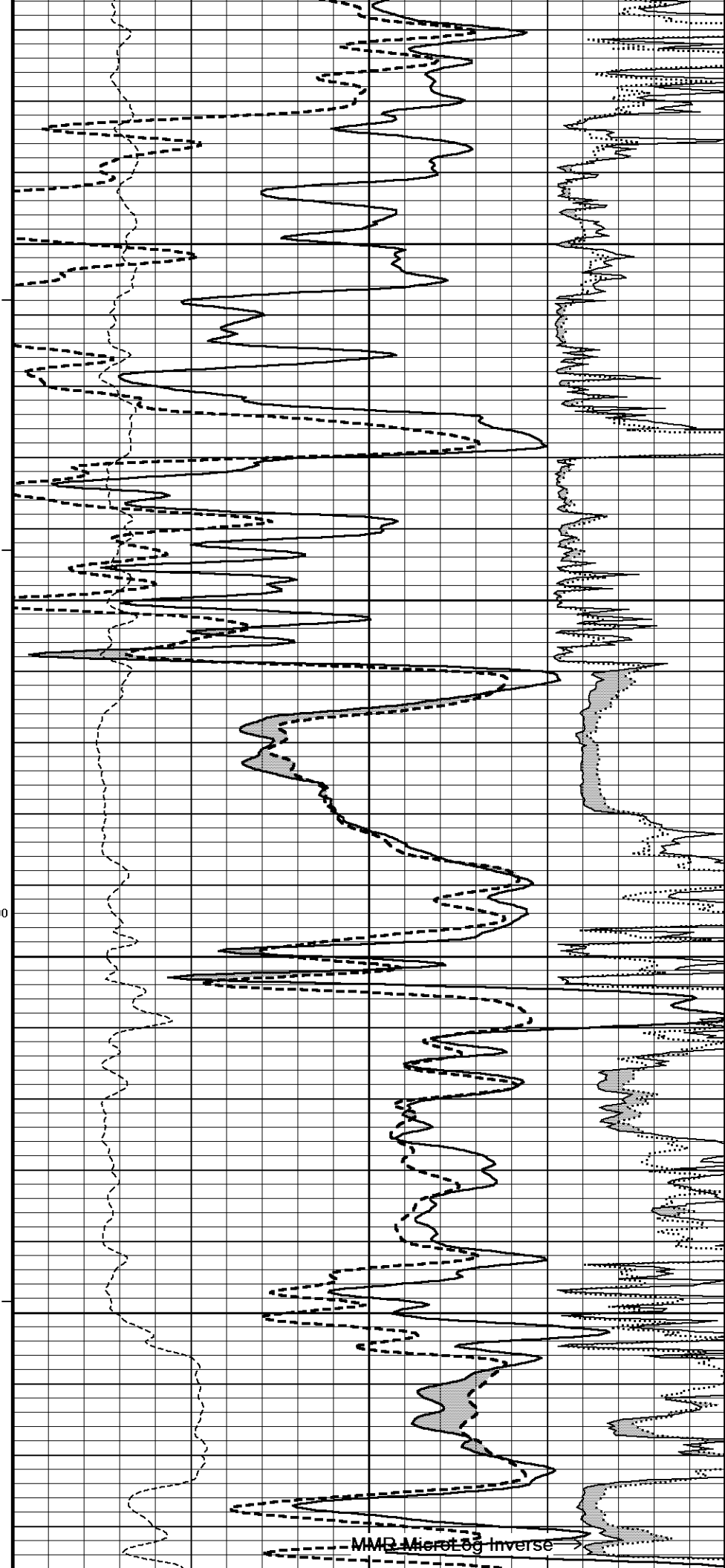
300

6000

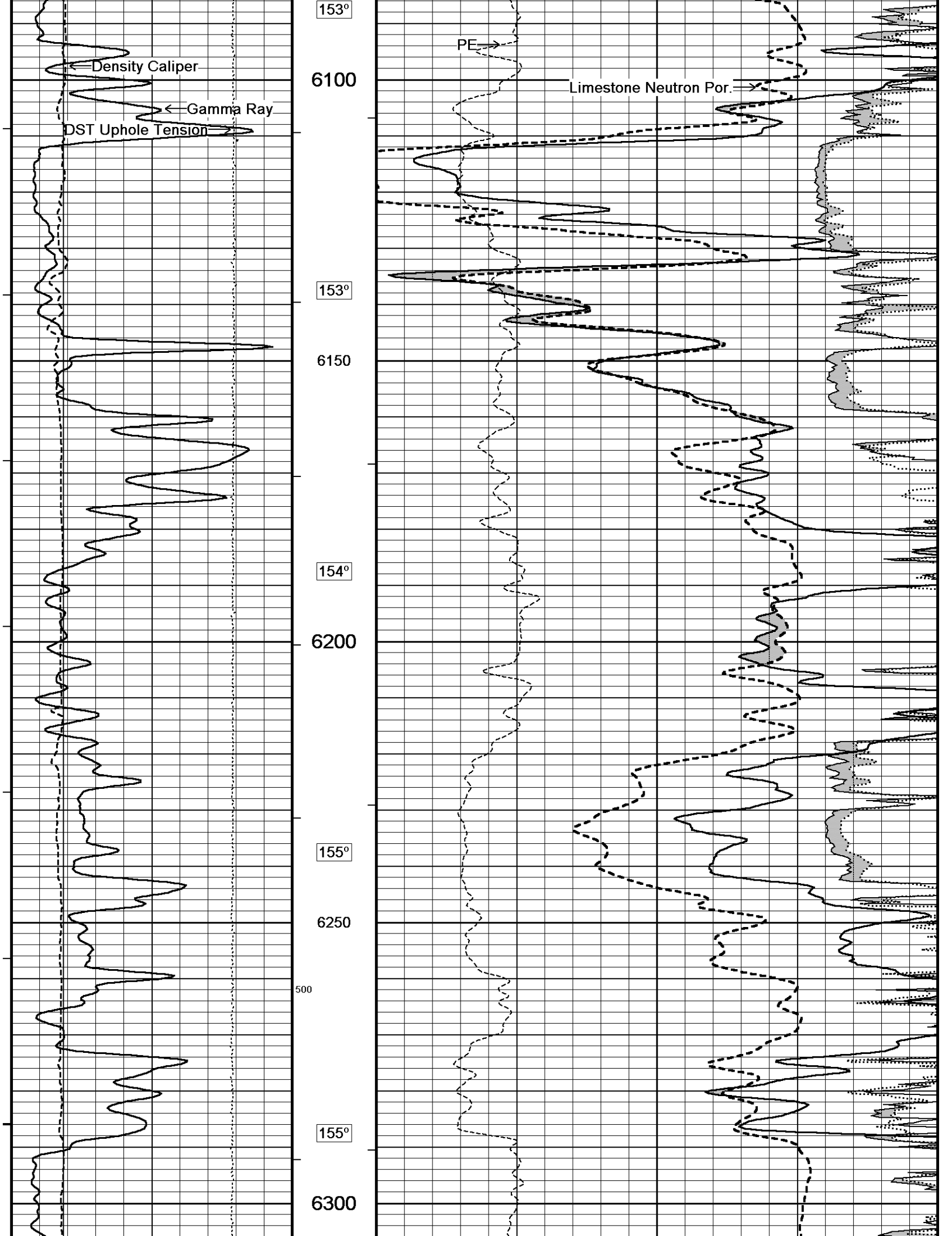
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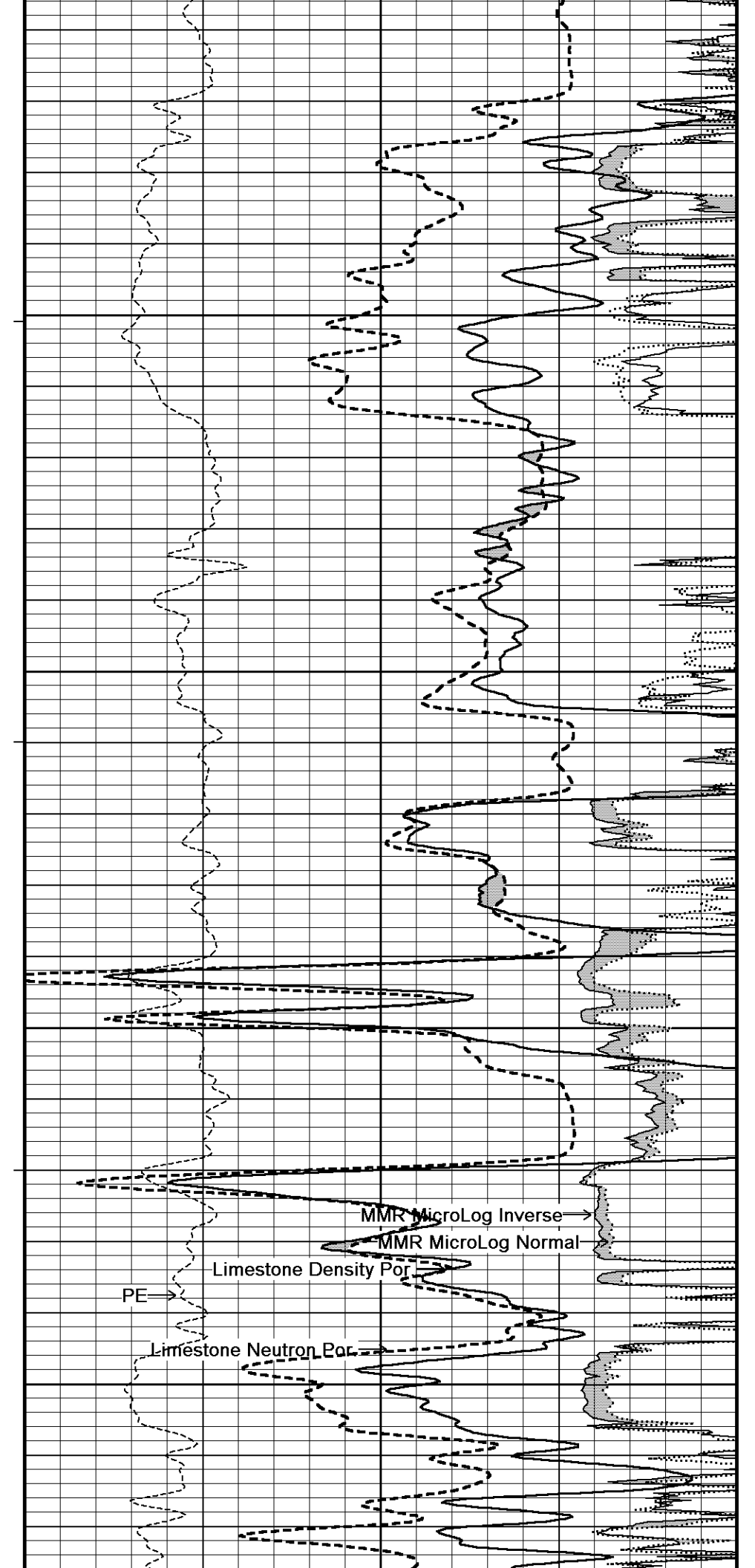
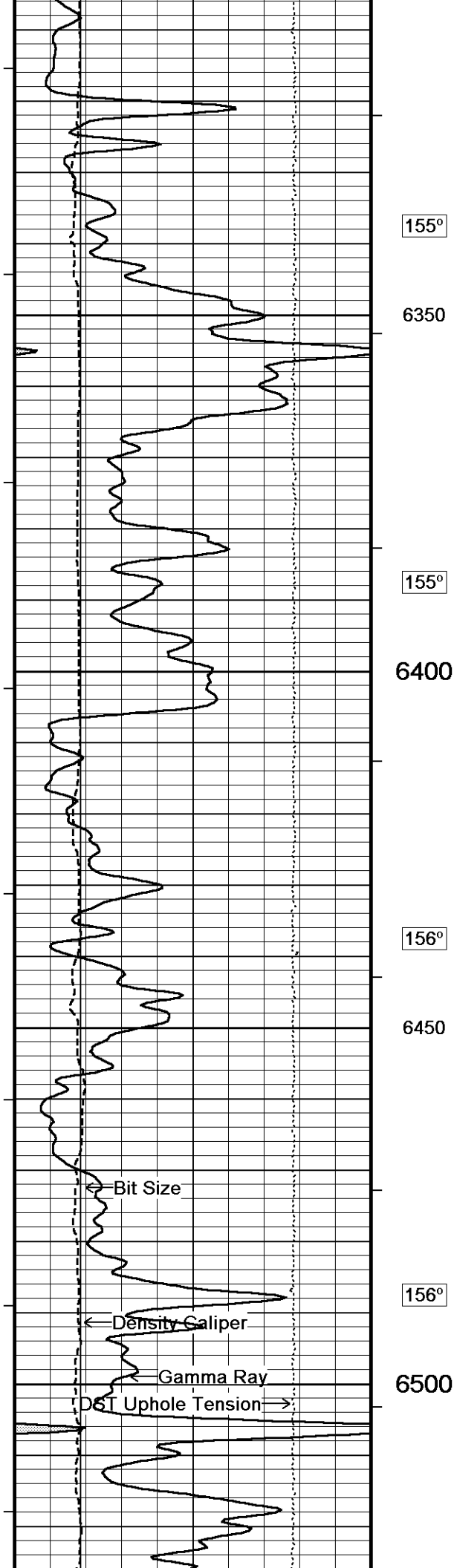
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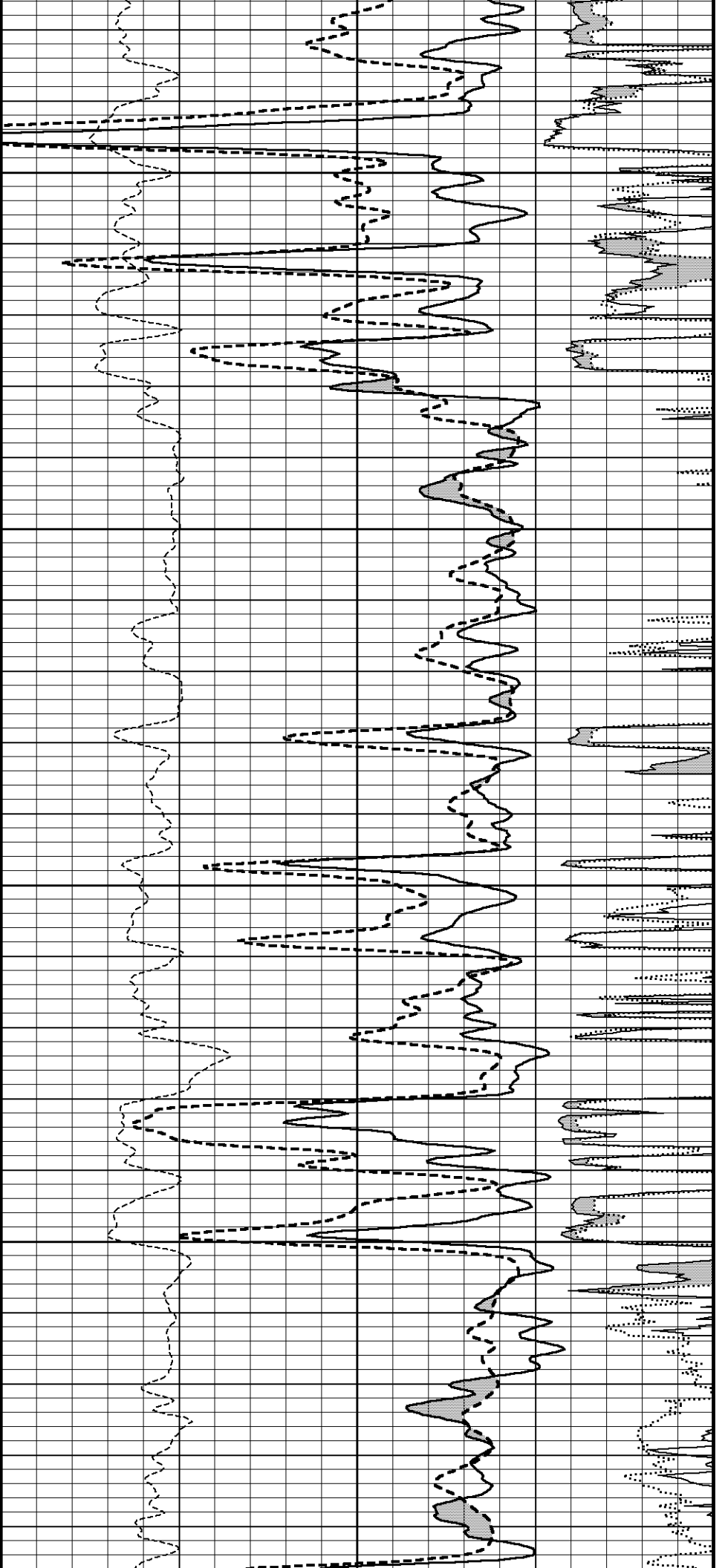
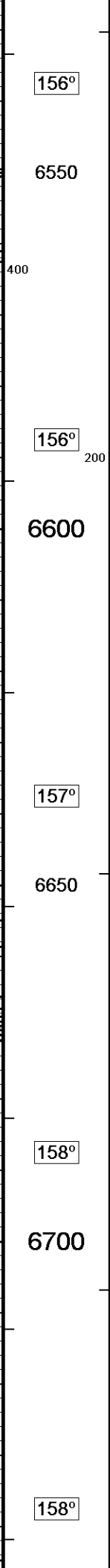
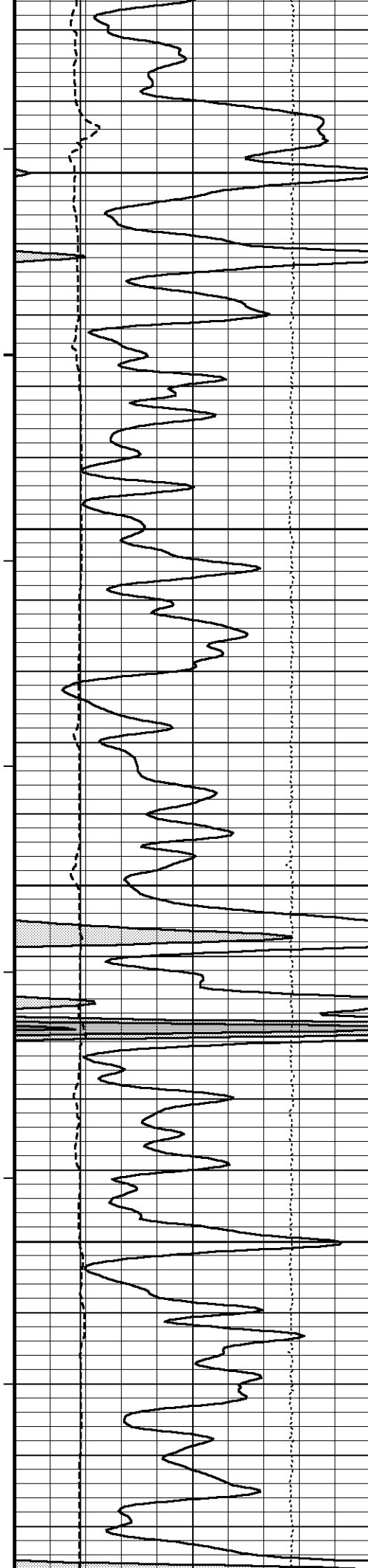
← Bit Size

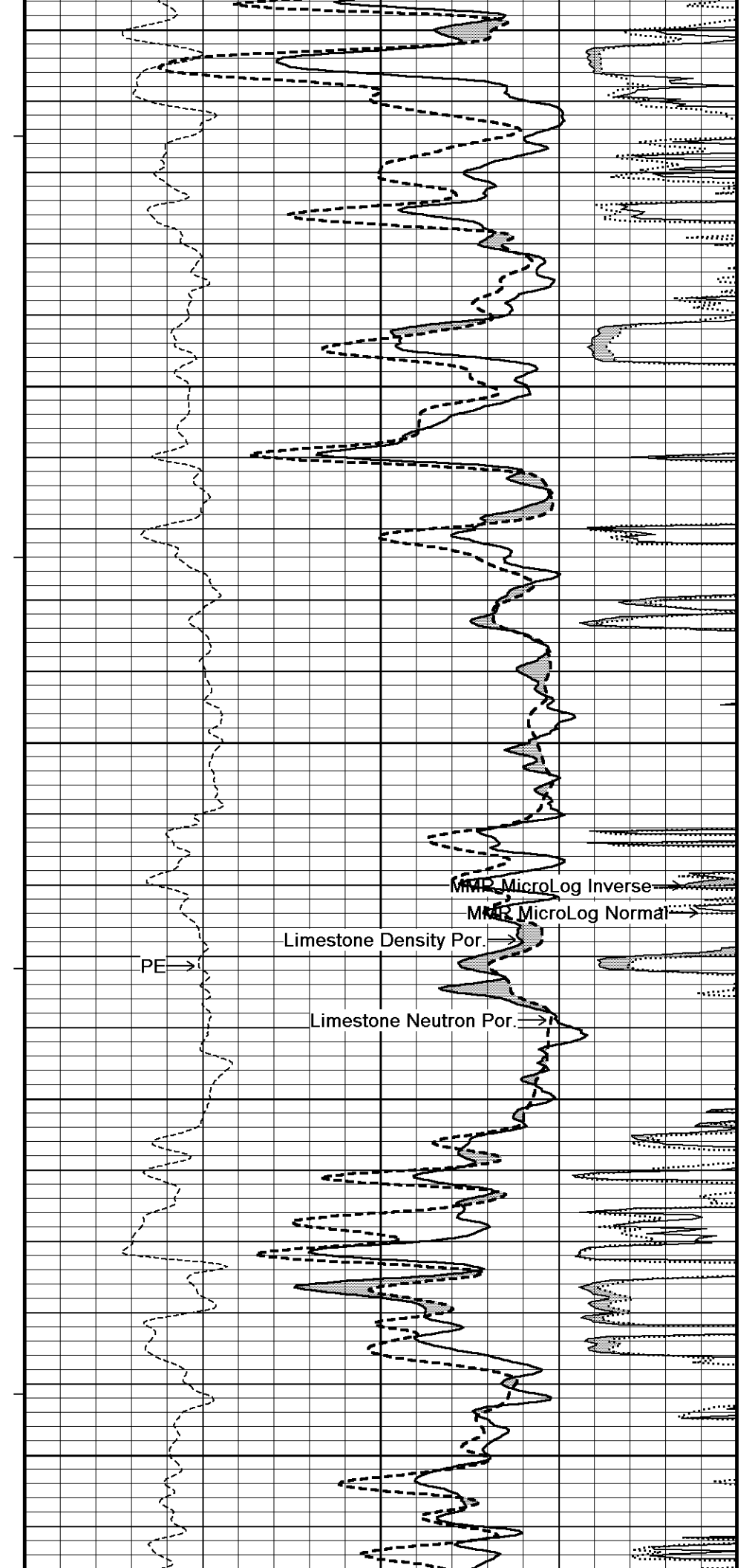
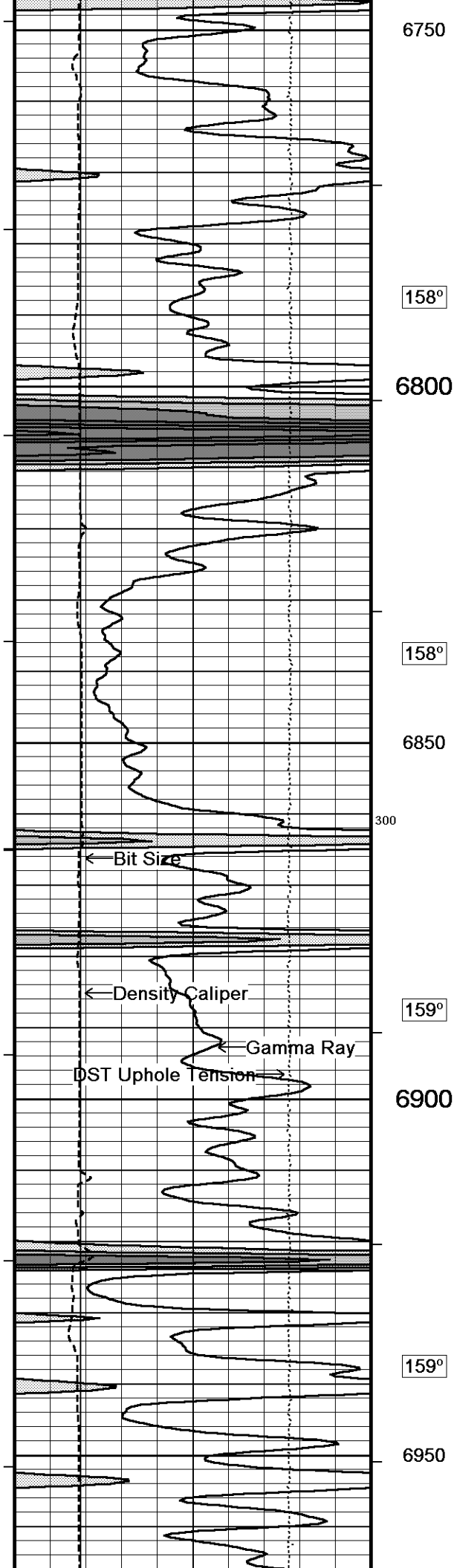


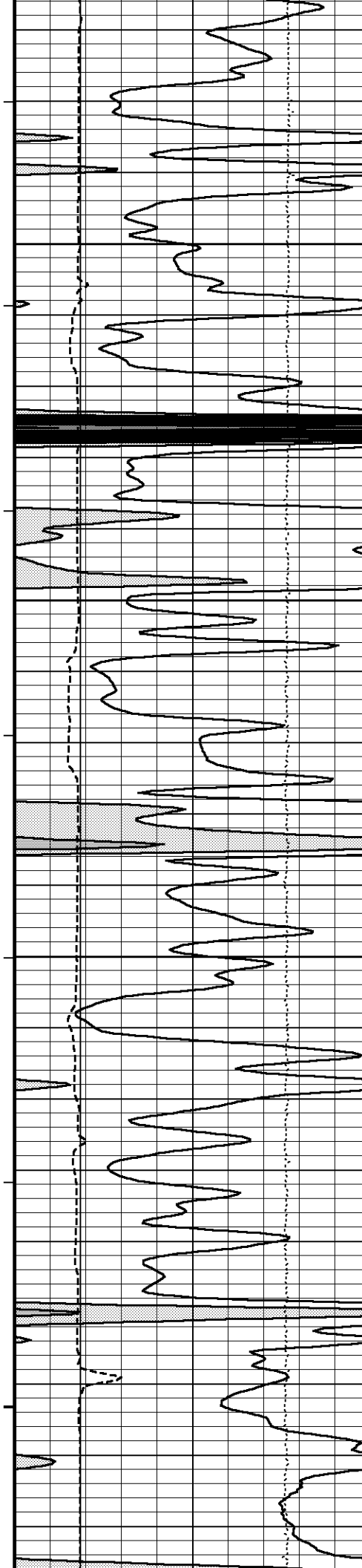
MMP MicroLog Inverse →











160°

7000

160°

7050

161°

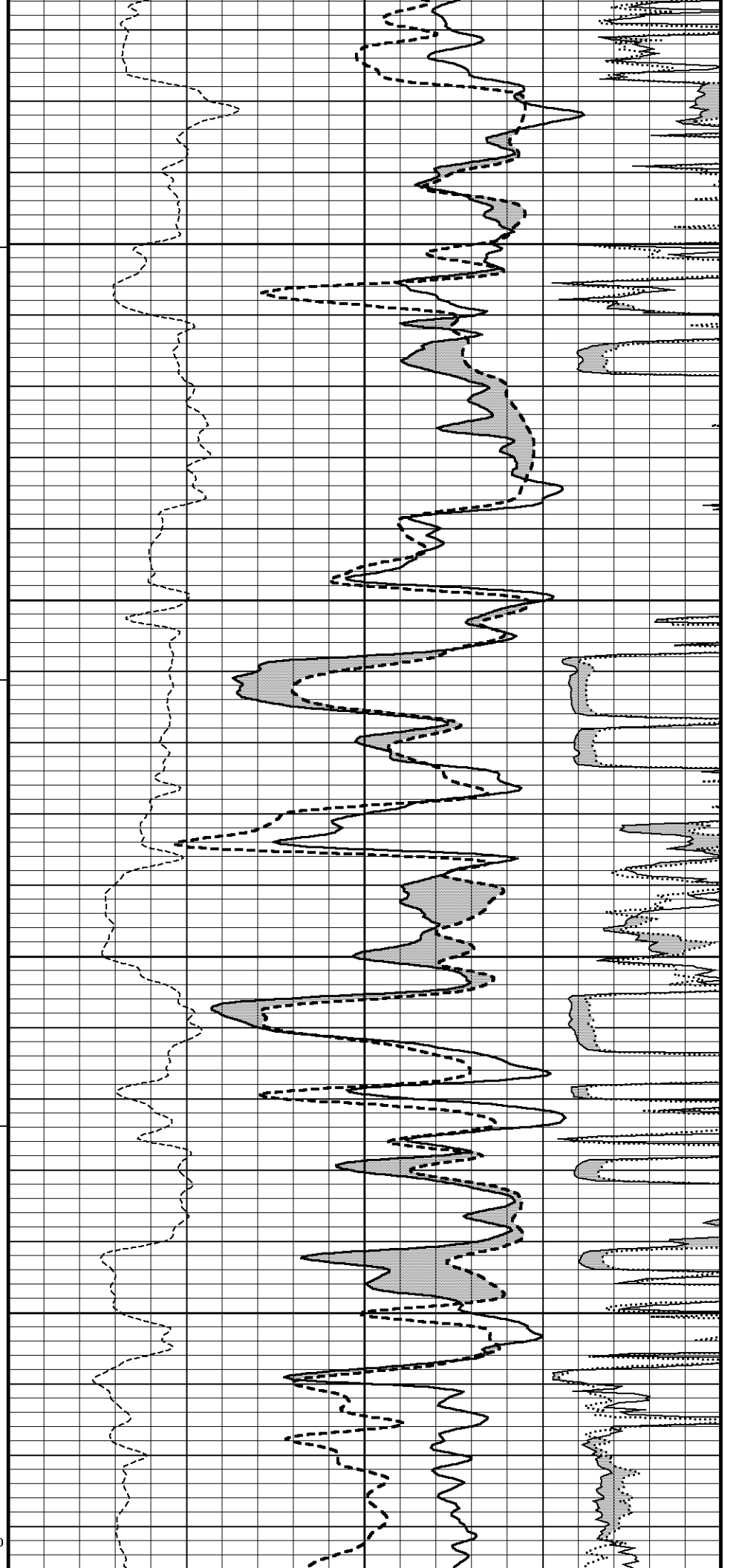
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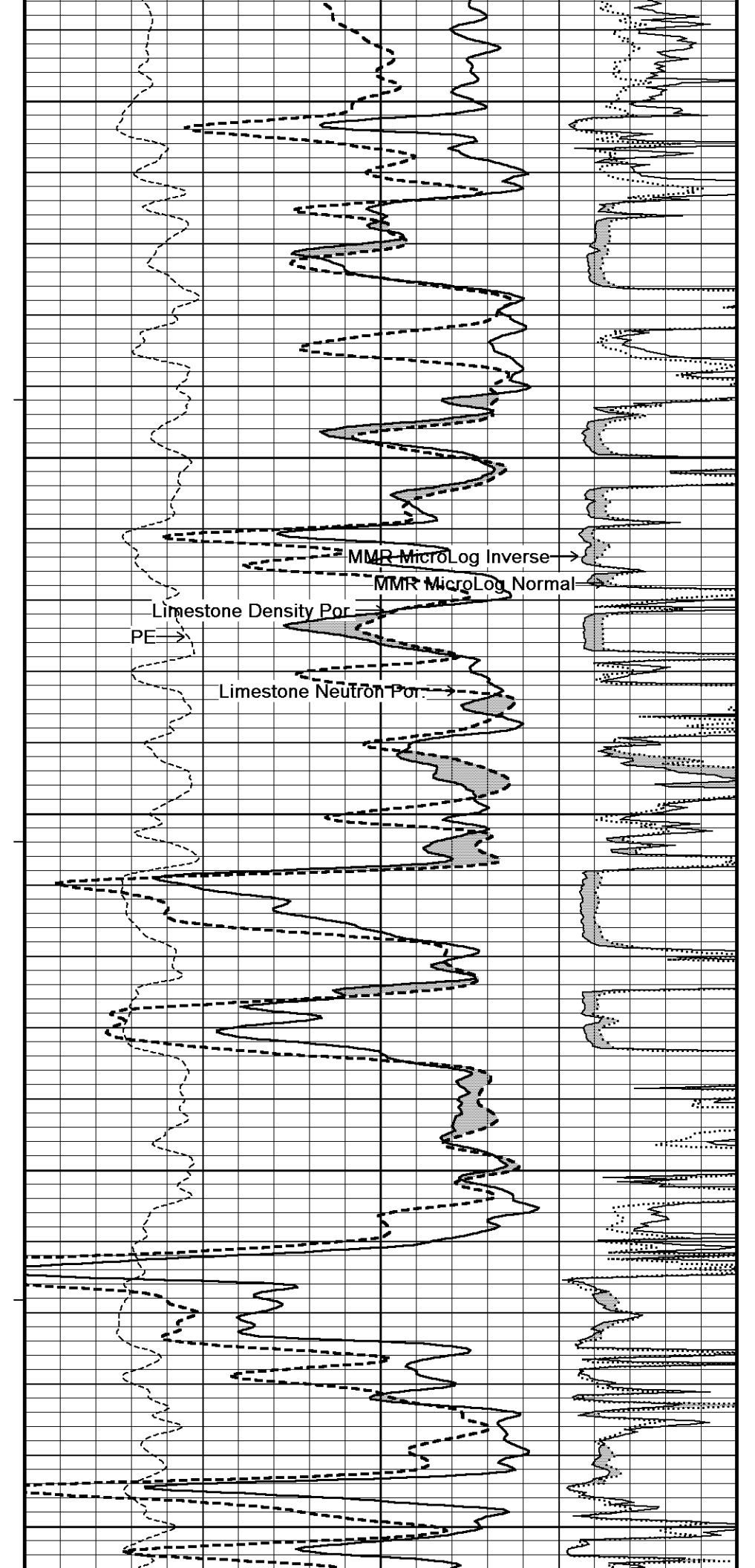
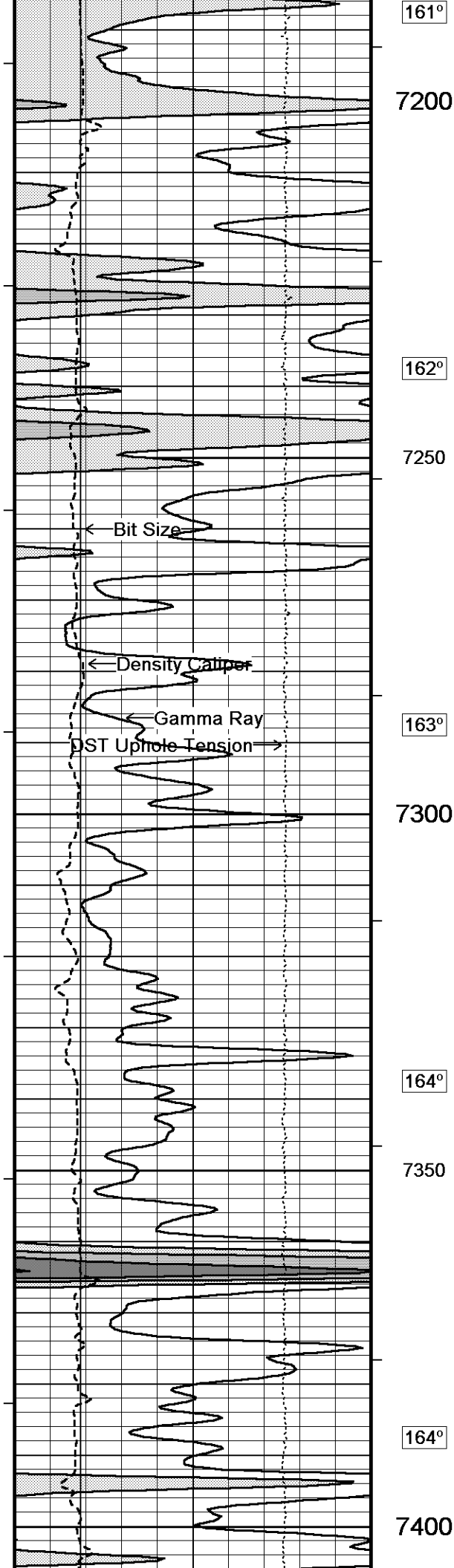
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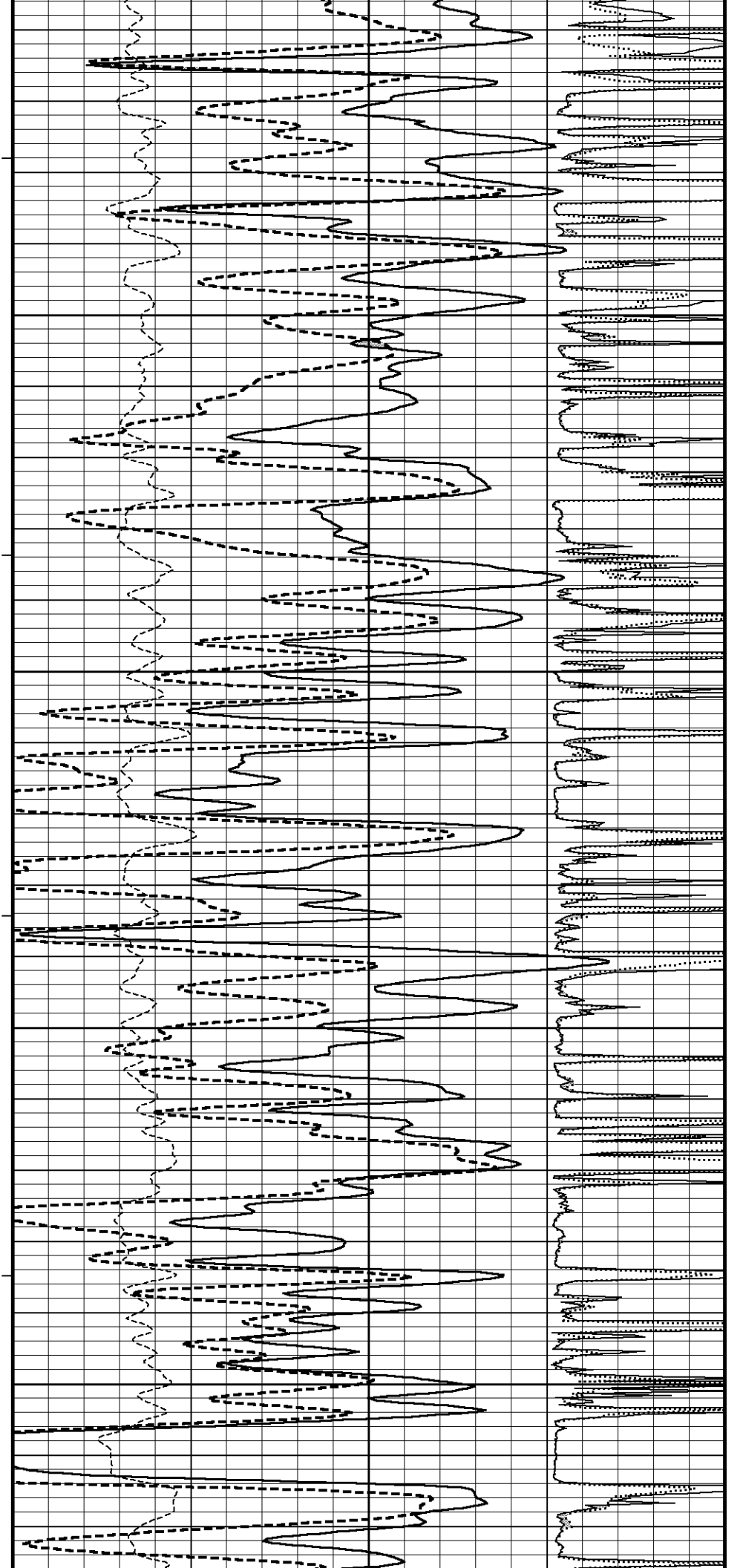
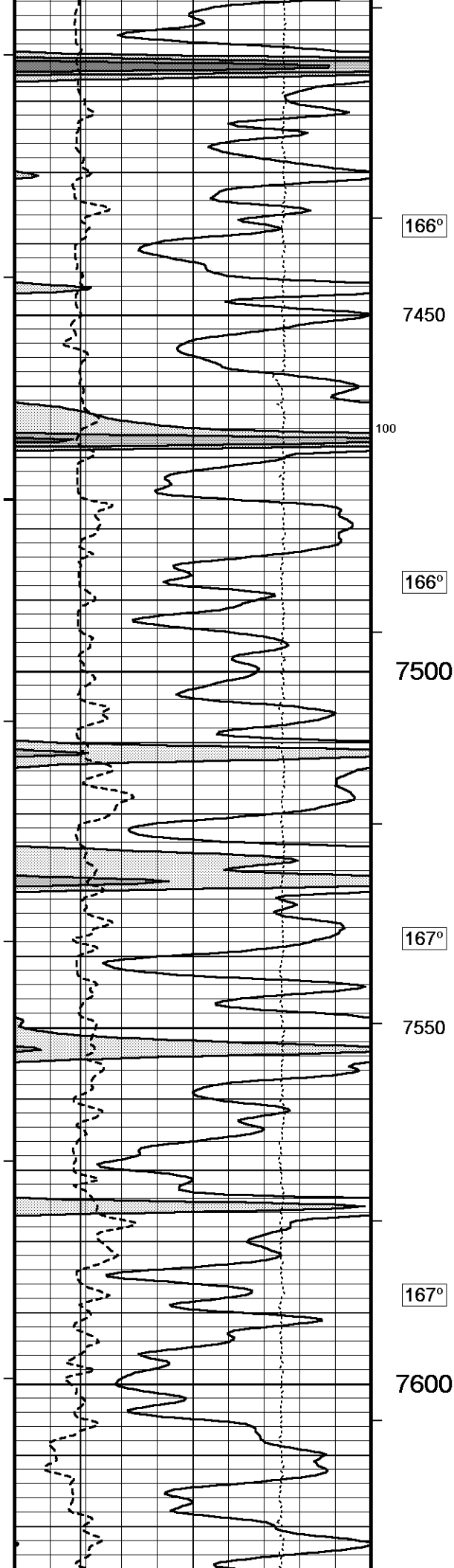
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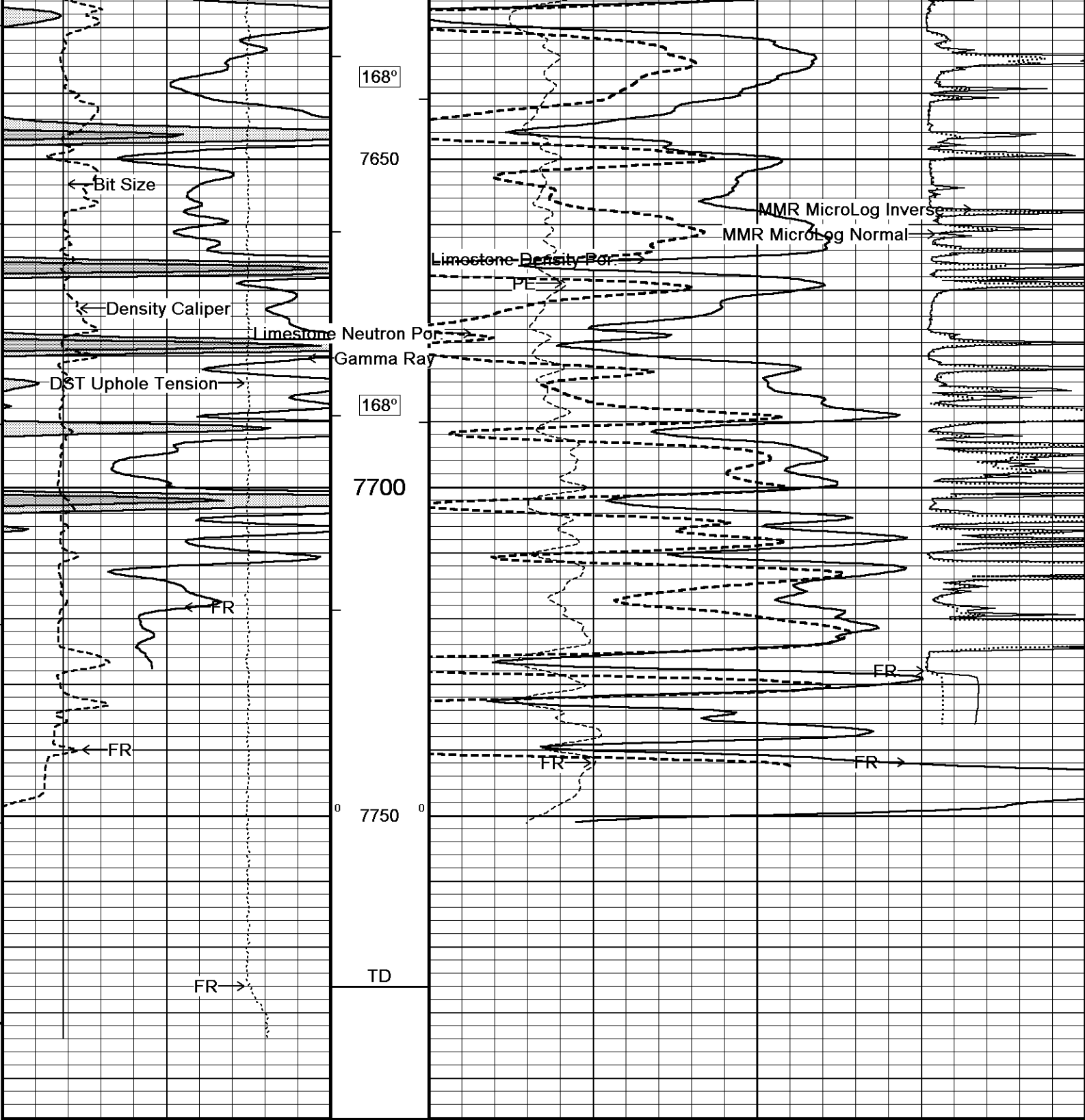
200

100









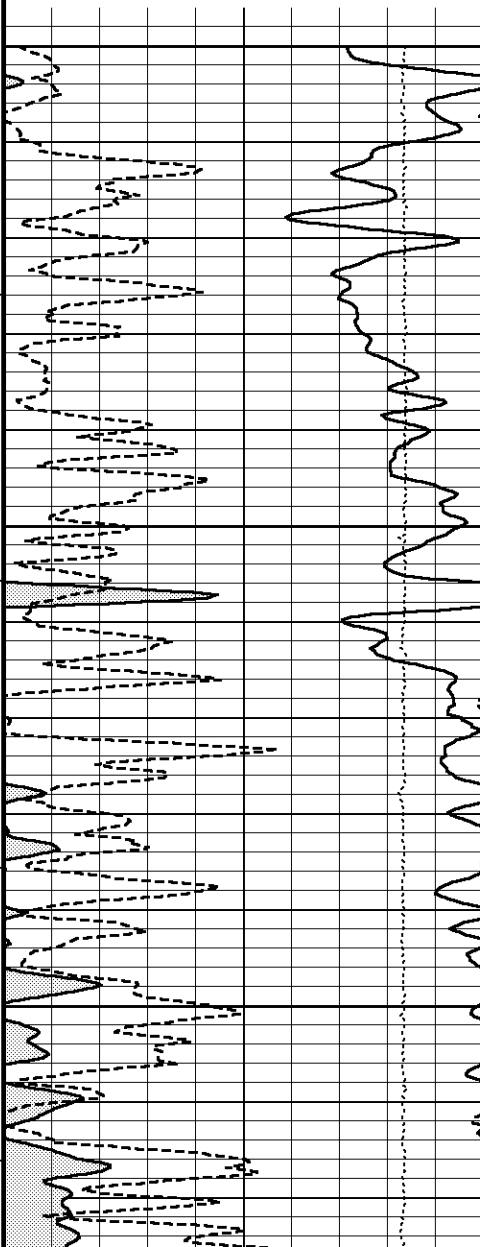
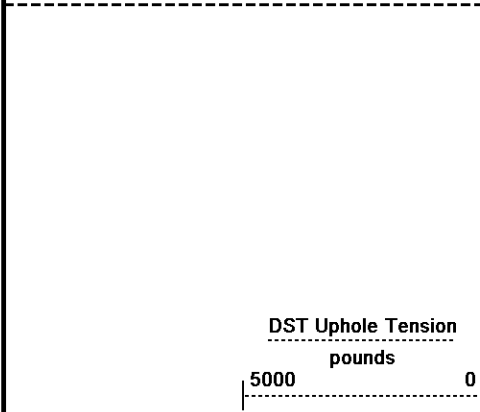
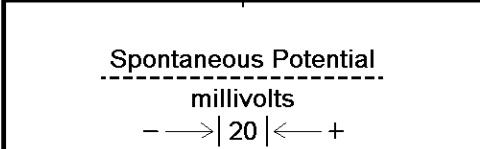
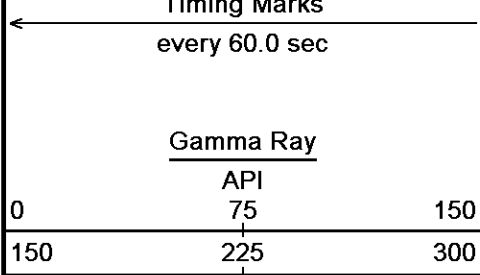
Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Minimus 17.05.6573\Logs\Murfin Rogue #...\Murfin Rogue #10-25_003 spooled section.dta
System Versions: Logged with 17.05.6573 Plotted with 17.05.6573

↑ DETAIL SECTION ↑

↓ DETAIL SECTION ↓

Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Minimus 17.05.6573\Logs\Murfin Rogue #...\Murfin Rogue #10-25_003 spooled section.dta
System Versions: Logged with 17.05.6573 Plotted with 17.05.6573

Timing Marker	Depth in Feet	Shallow FE ohm metres
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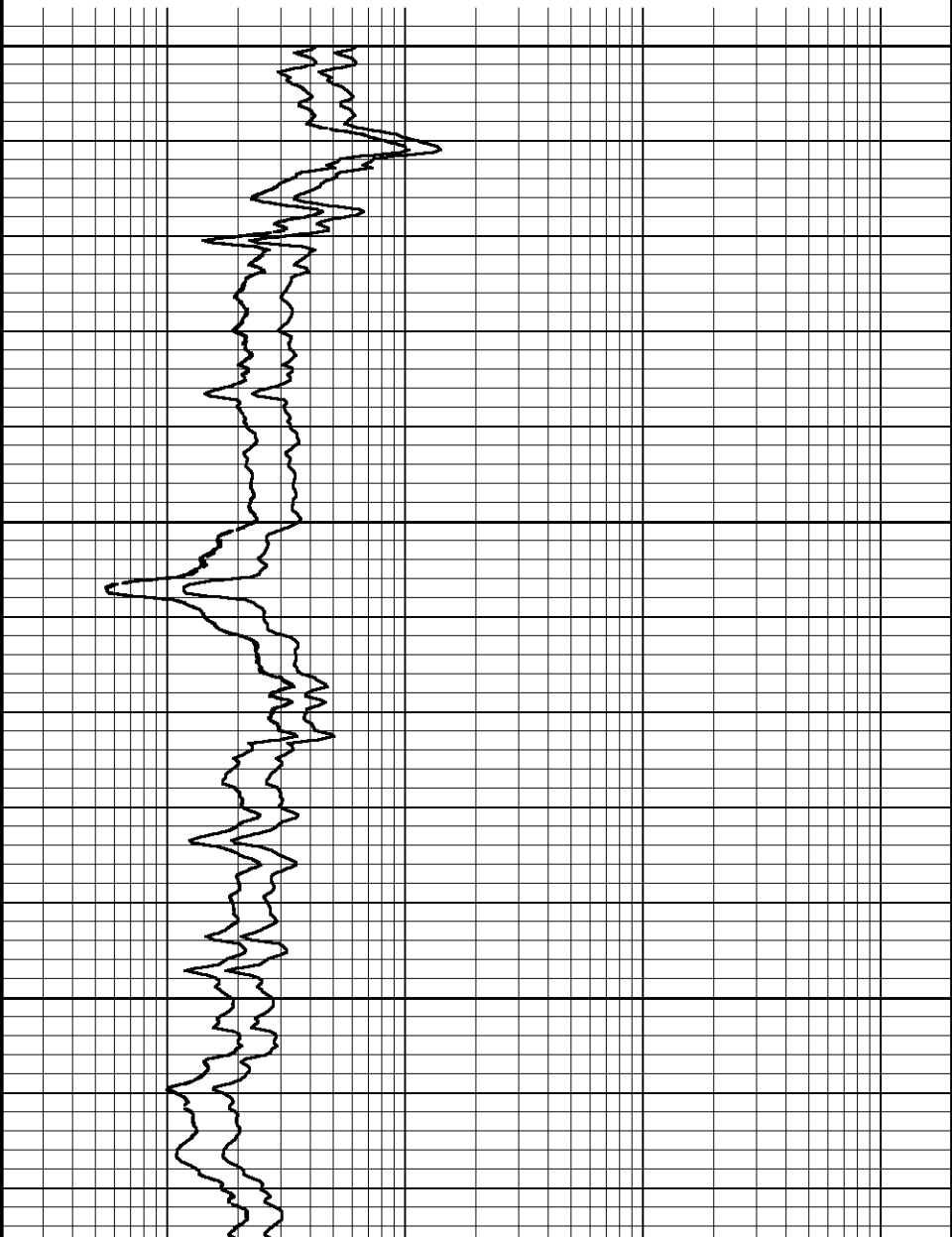
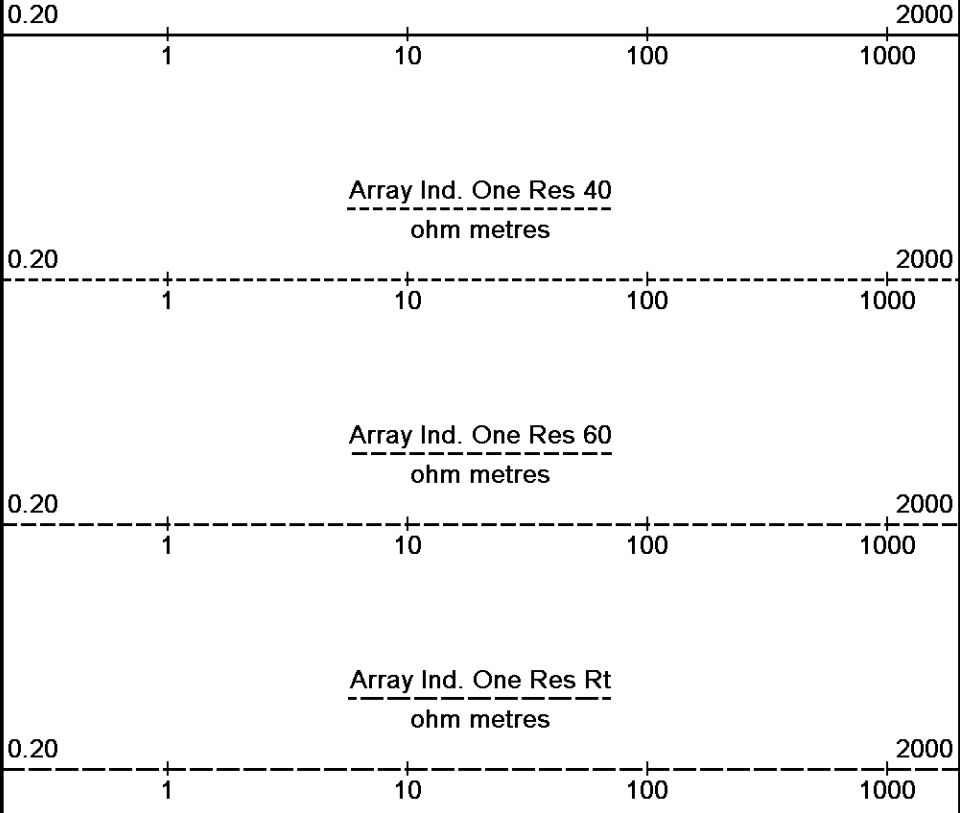


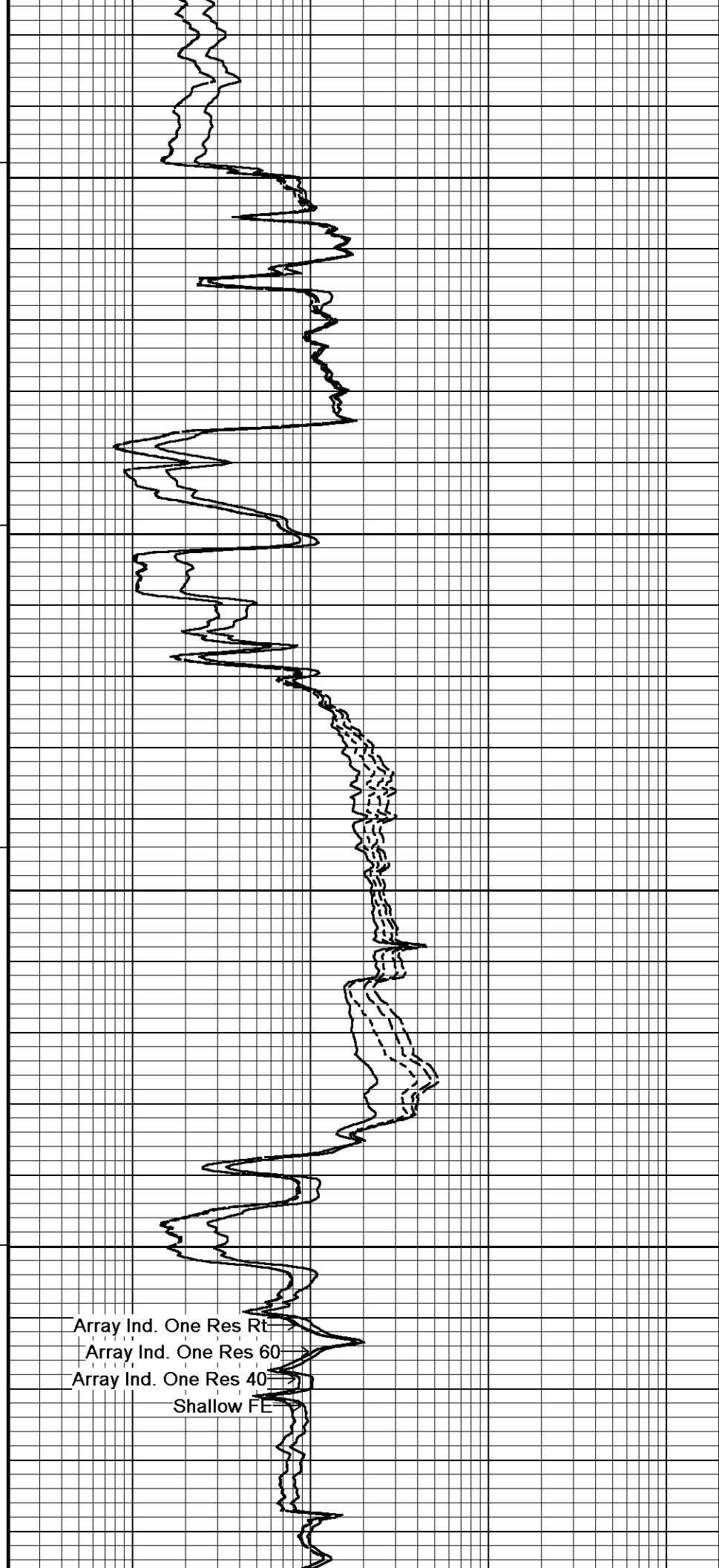
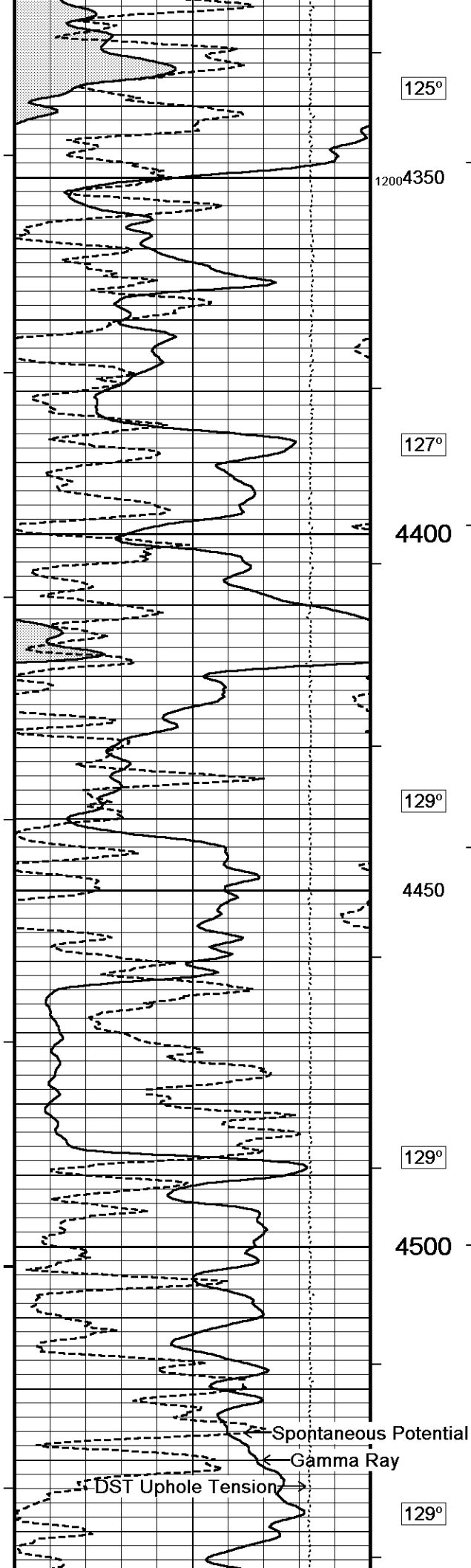
Borehole
Temp in
deg F

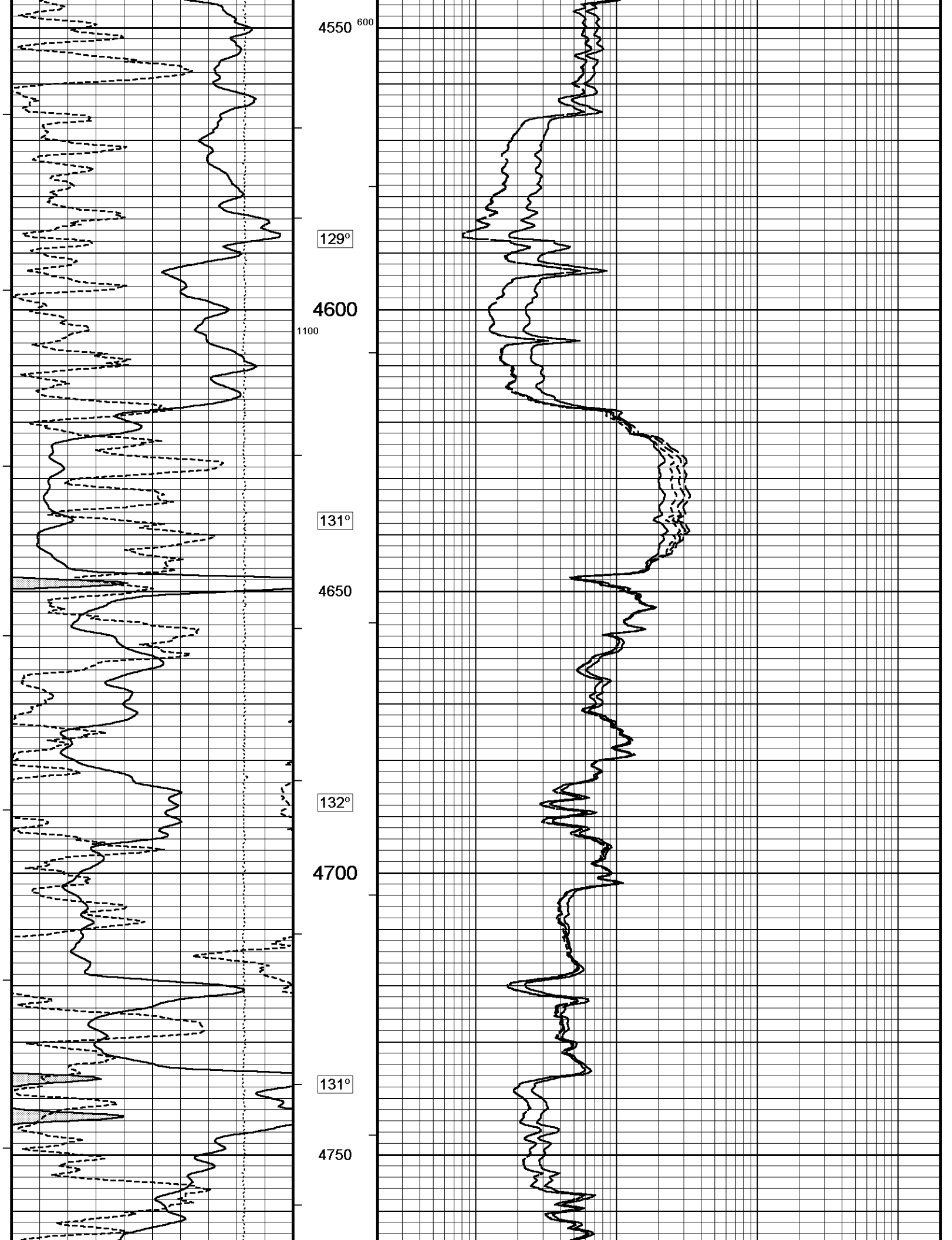
HVI
every
10 cu ft

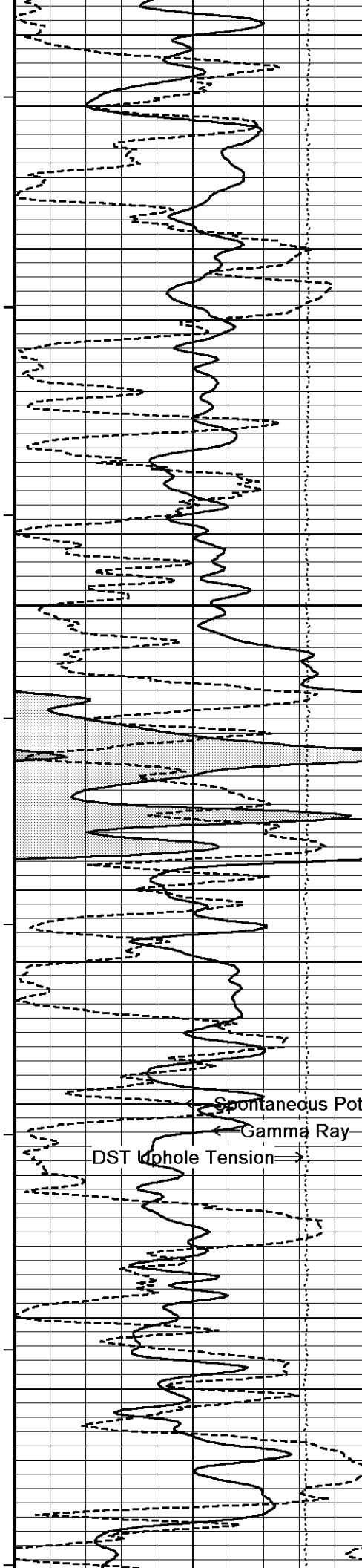
Annular
Integral
every
10 cu ft

Replay
Scale
1:240

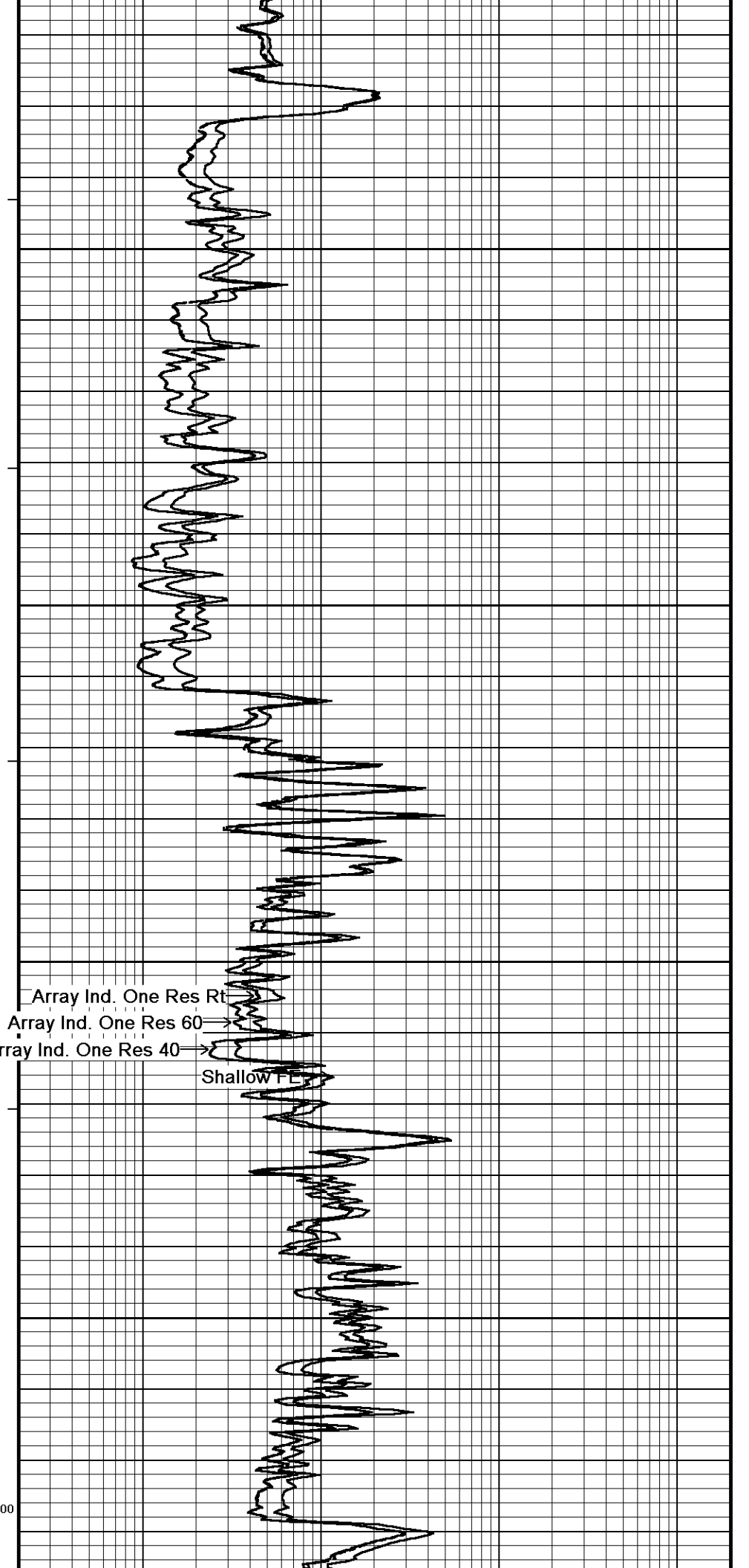




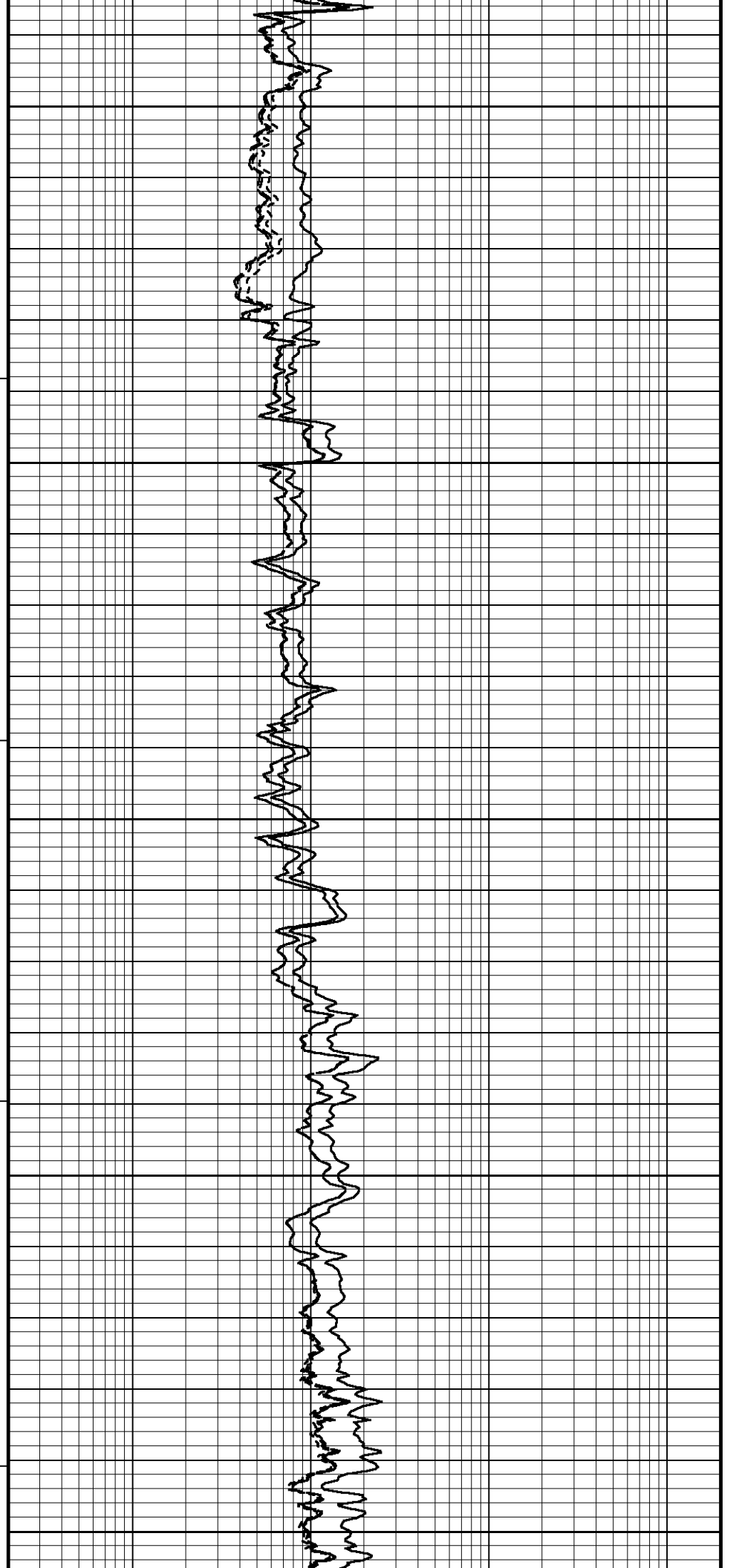
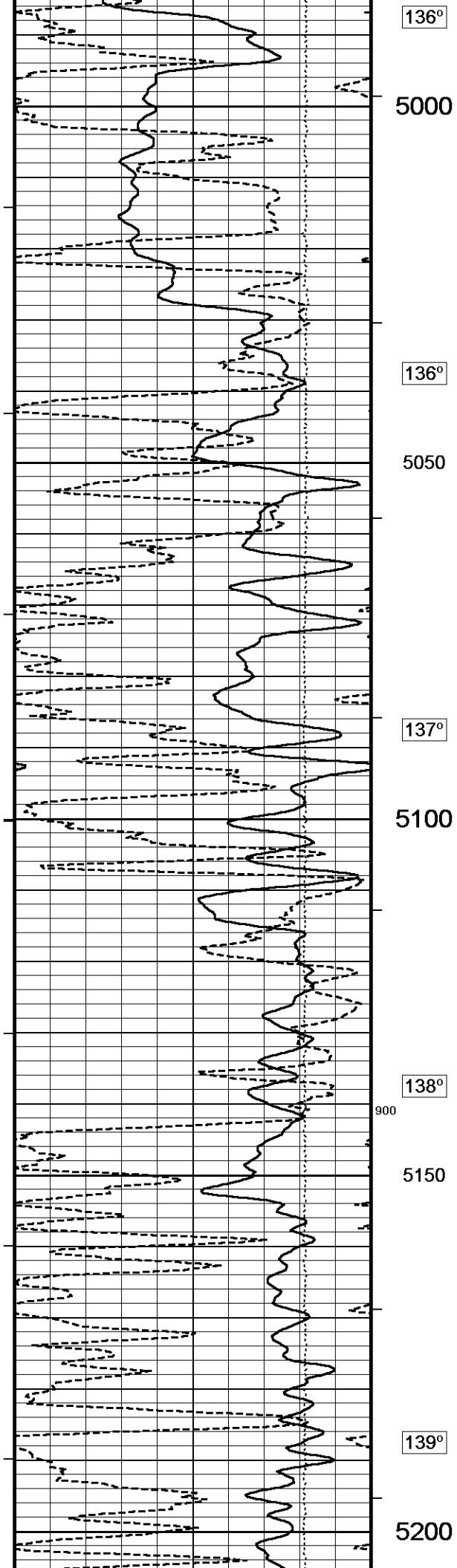


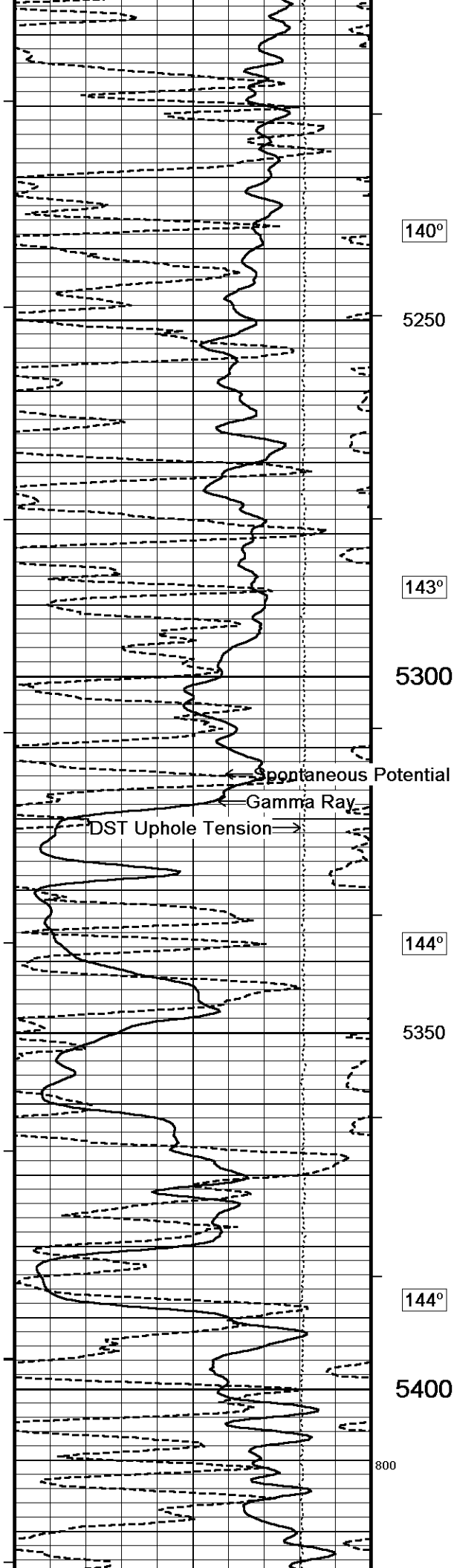


132°
4800
132°
4850
1000
133°
4900
135°
4950
500



Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow F.E.





140°

5250

143°

5300

Spontaneous Potential

Gamma Ray

DST Uphole Tension

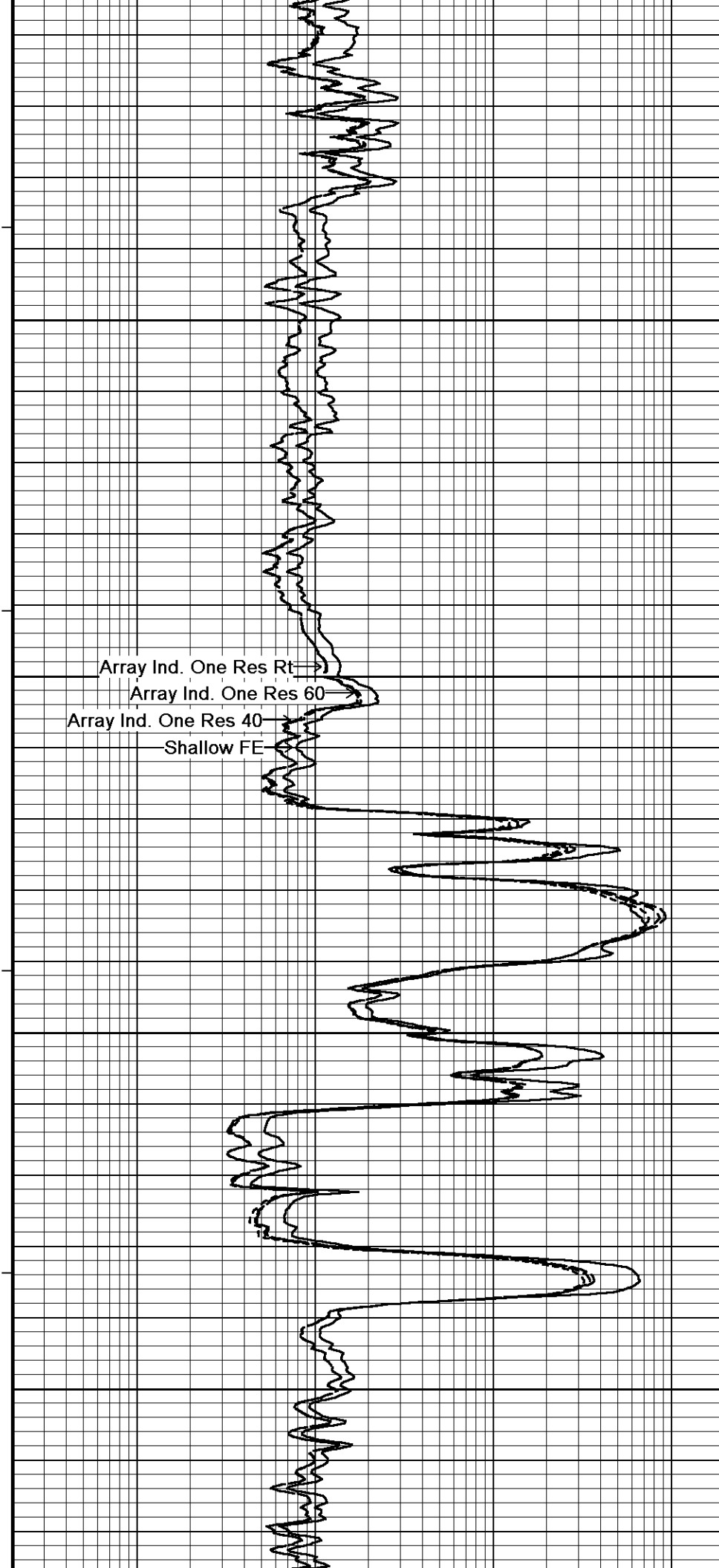
144°

5350

144°

5400

800

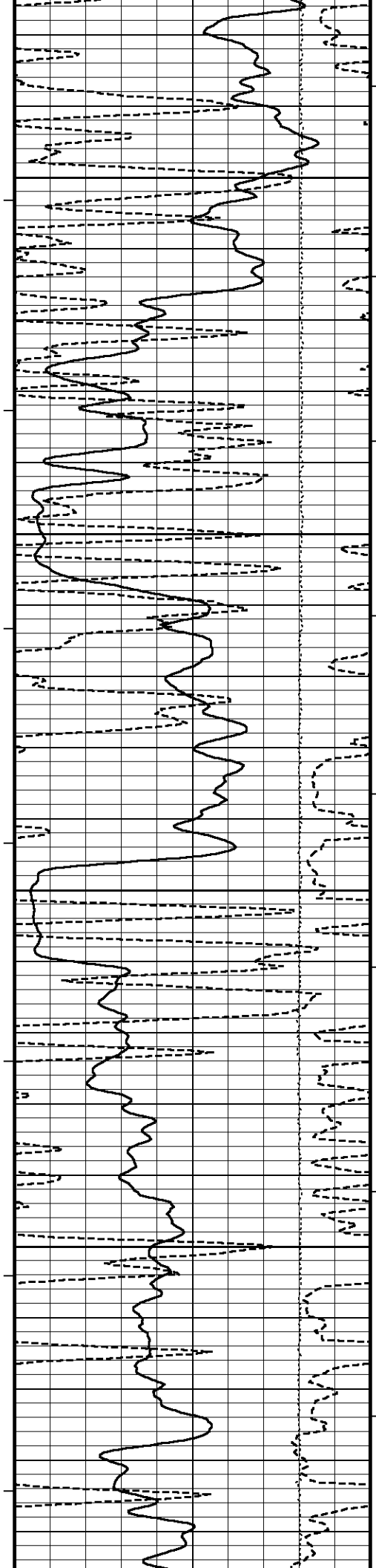


Array Ind. One Res Rt

Array Ind. One Res 60

Array Ind. One Res 40

Shallow FE



145°

5450

400

145°

5500

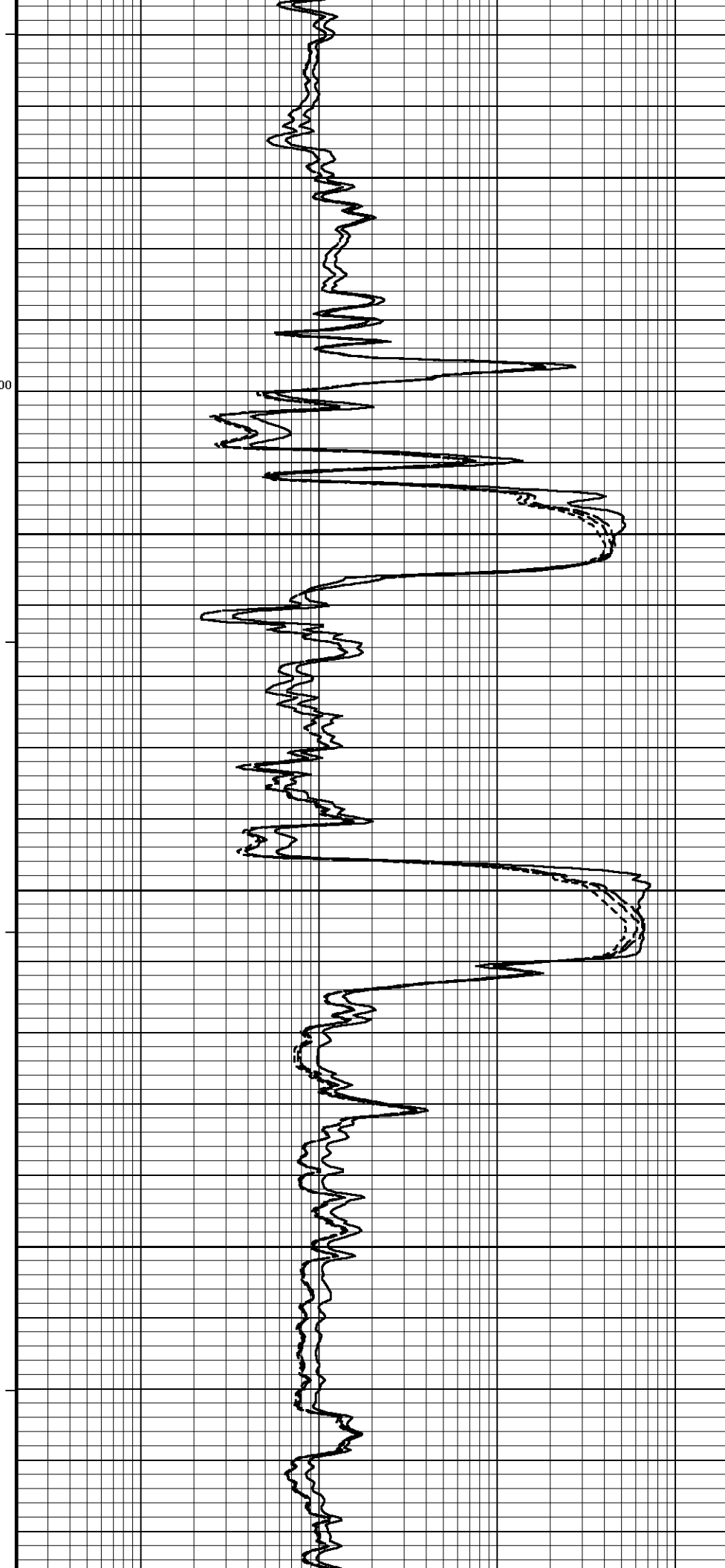
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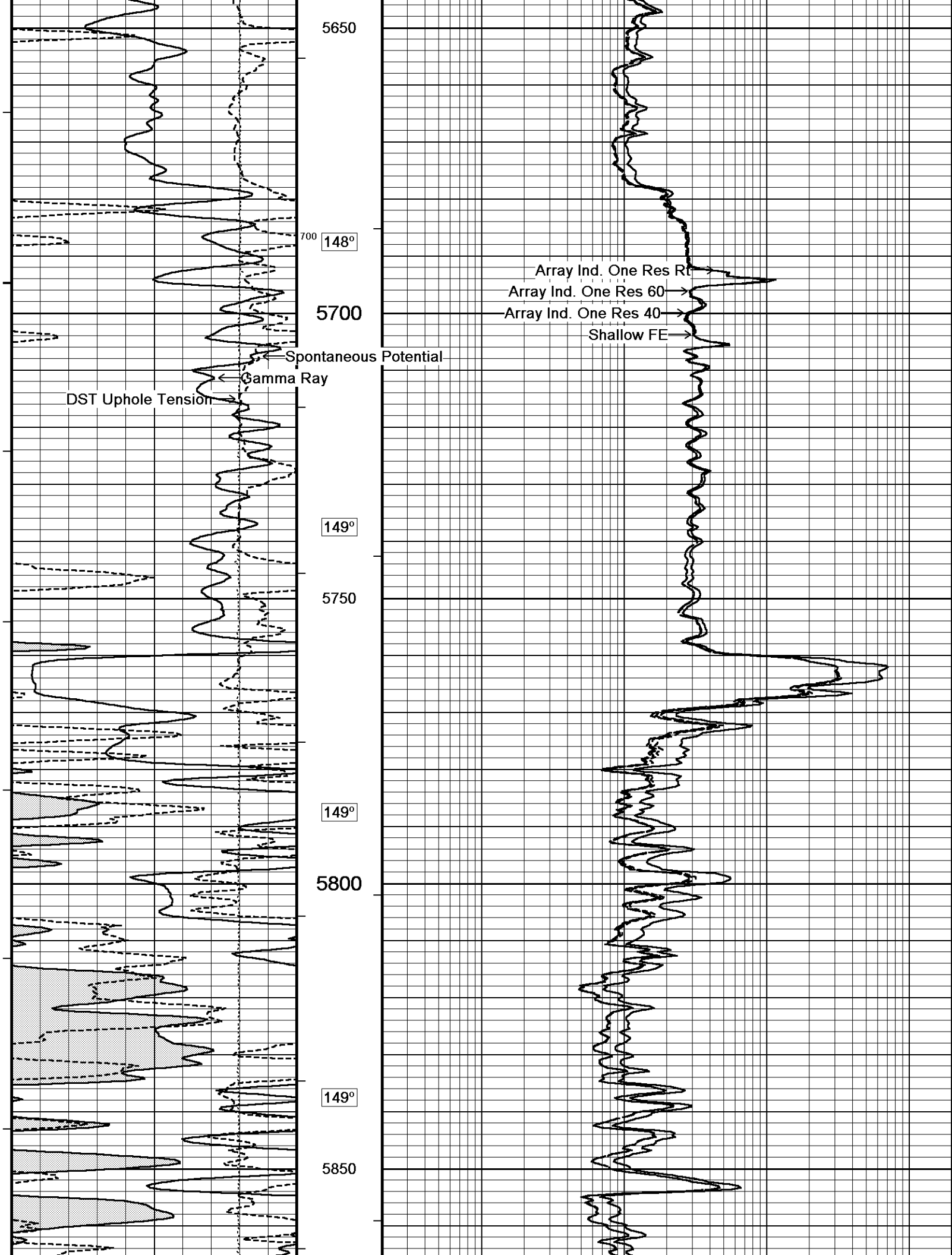
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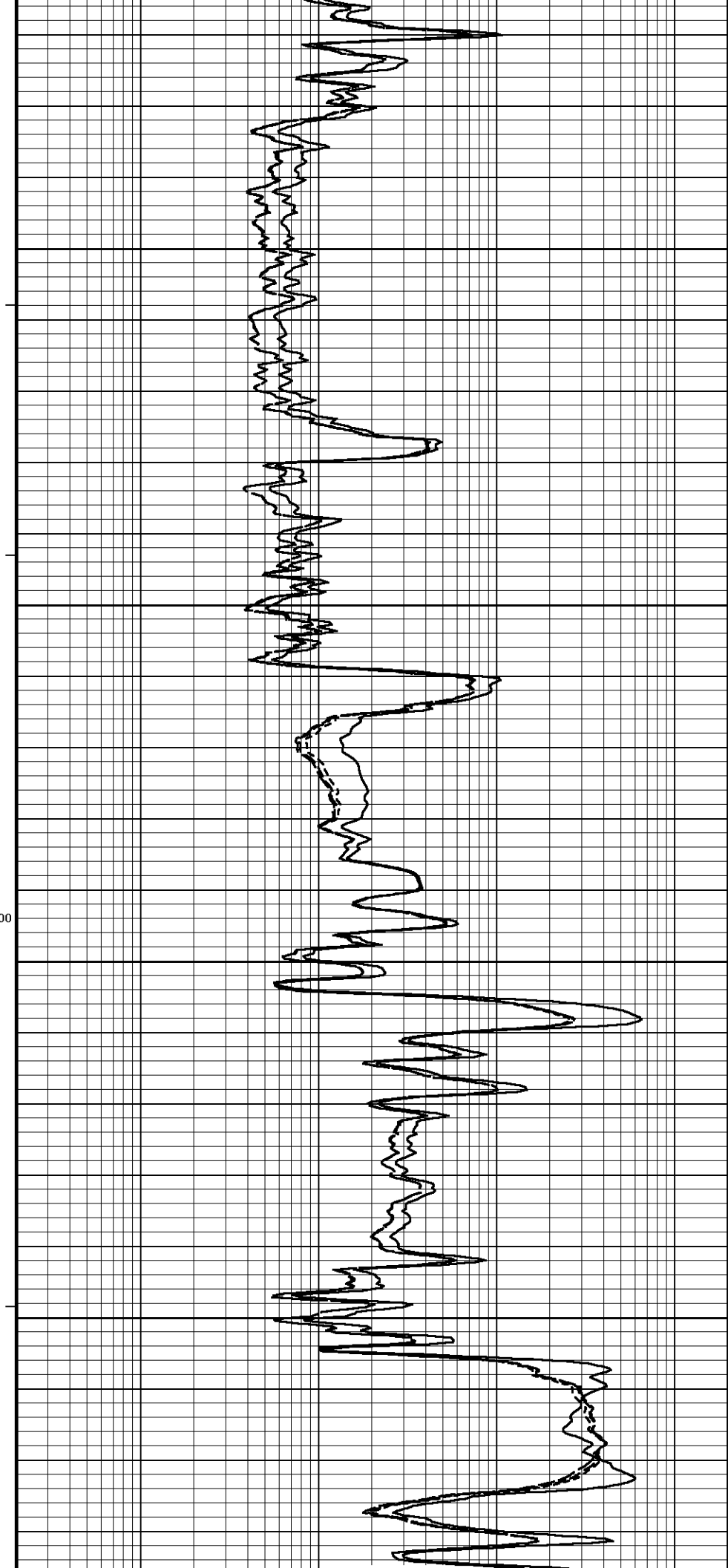
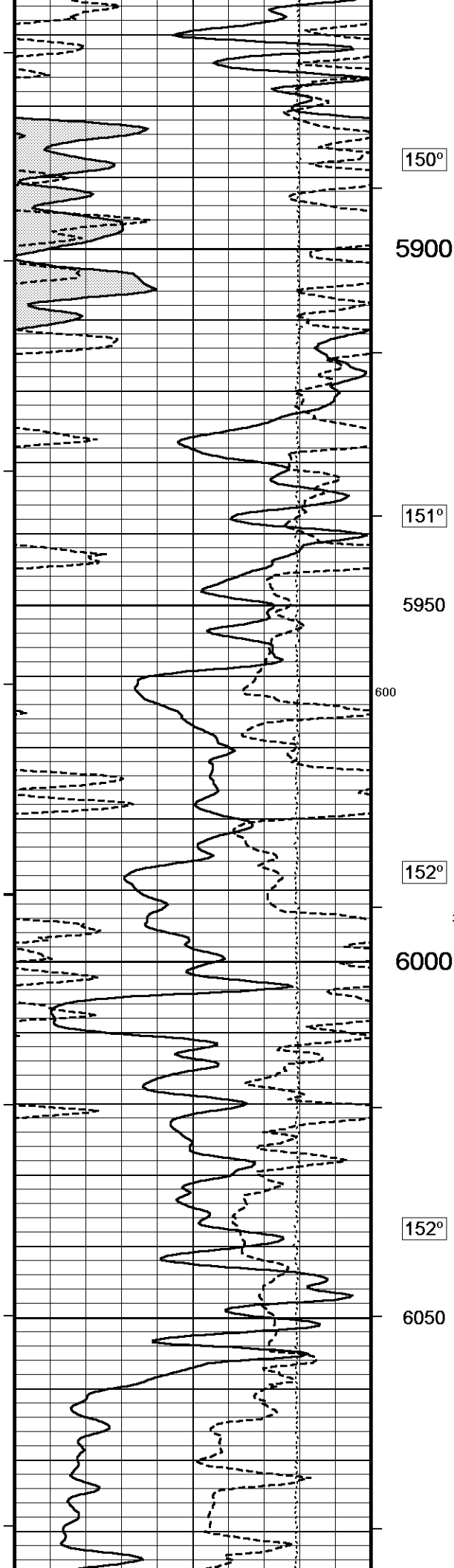
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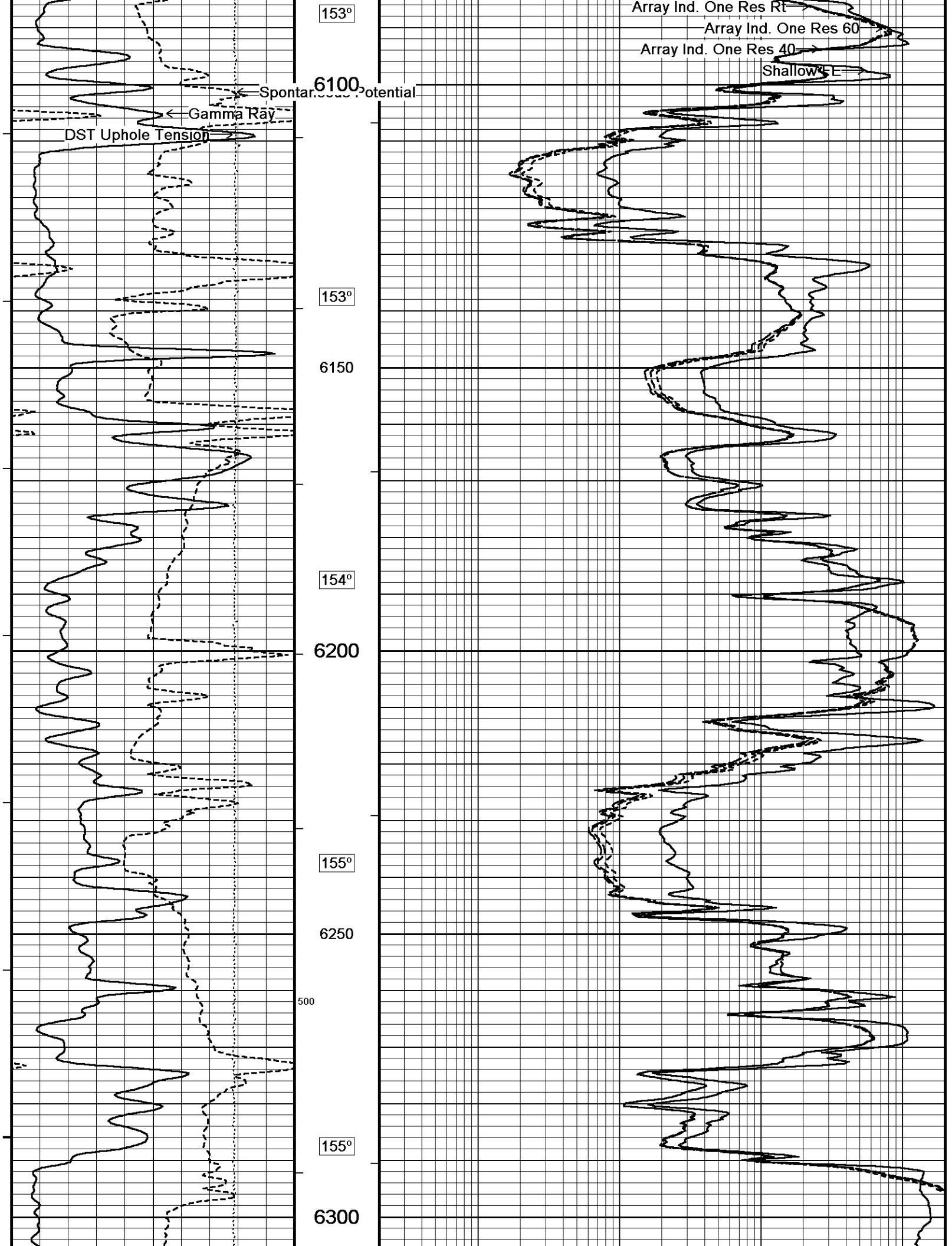
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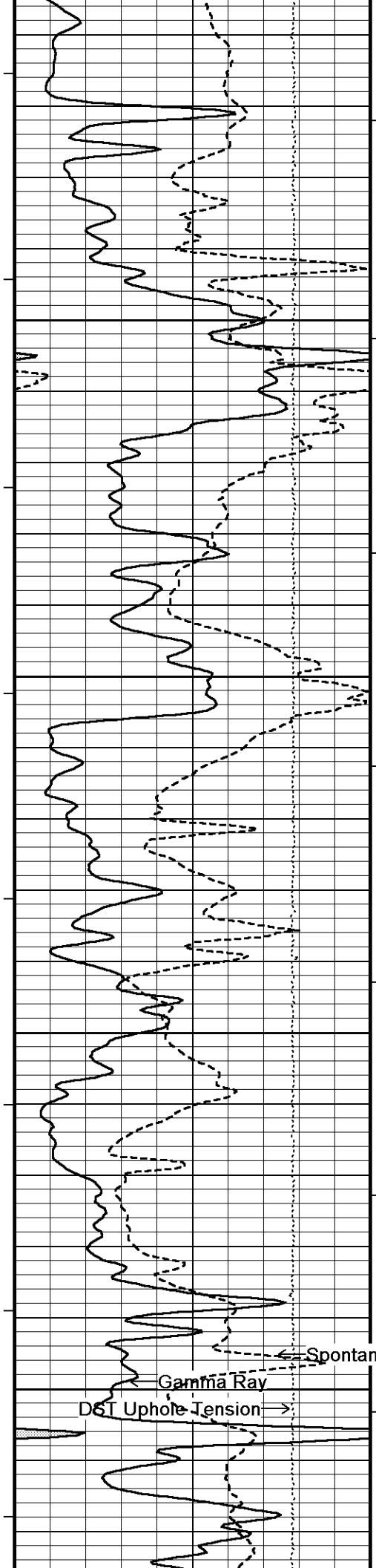
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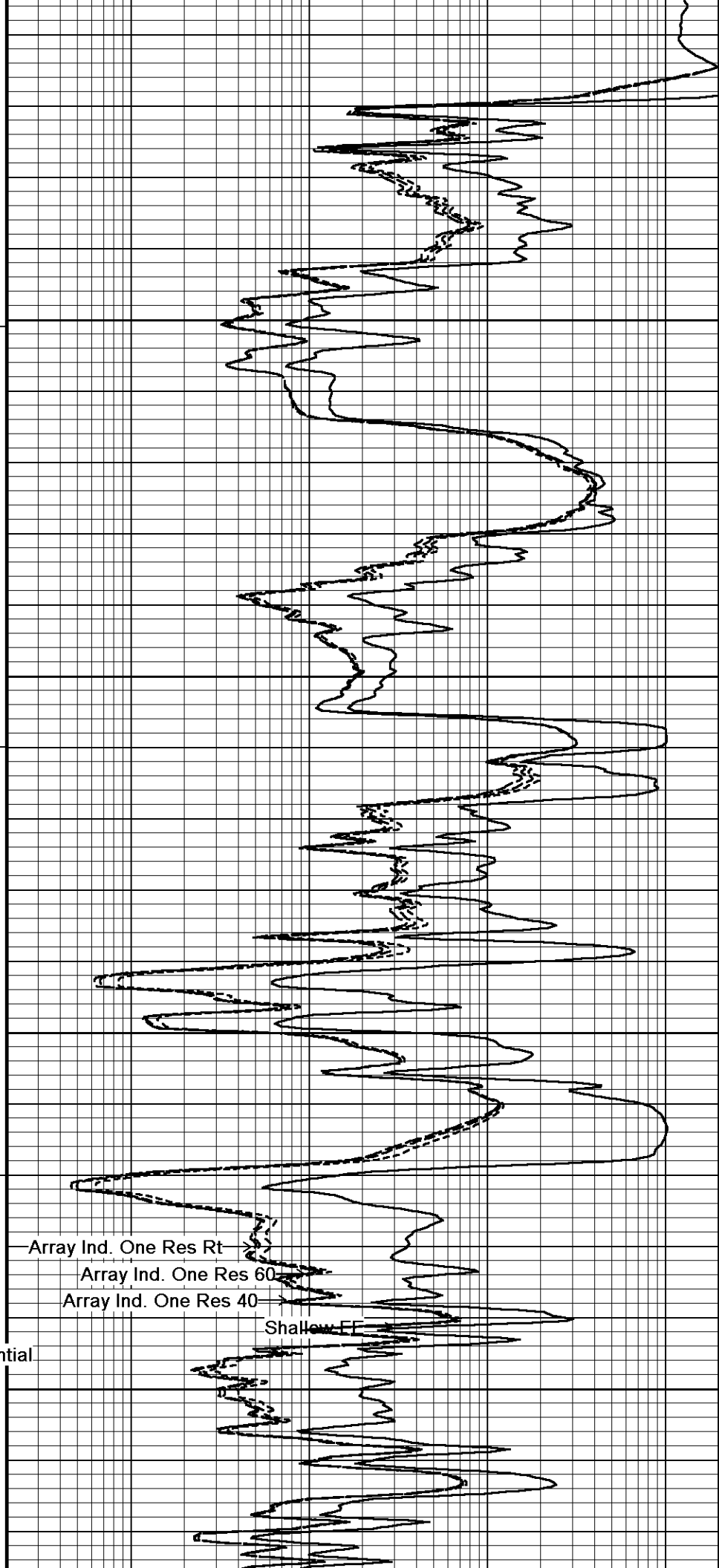




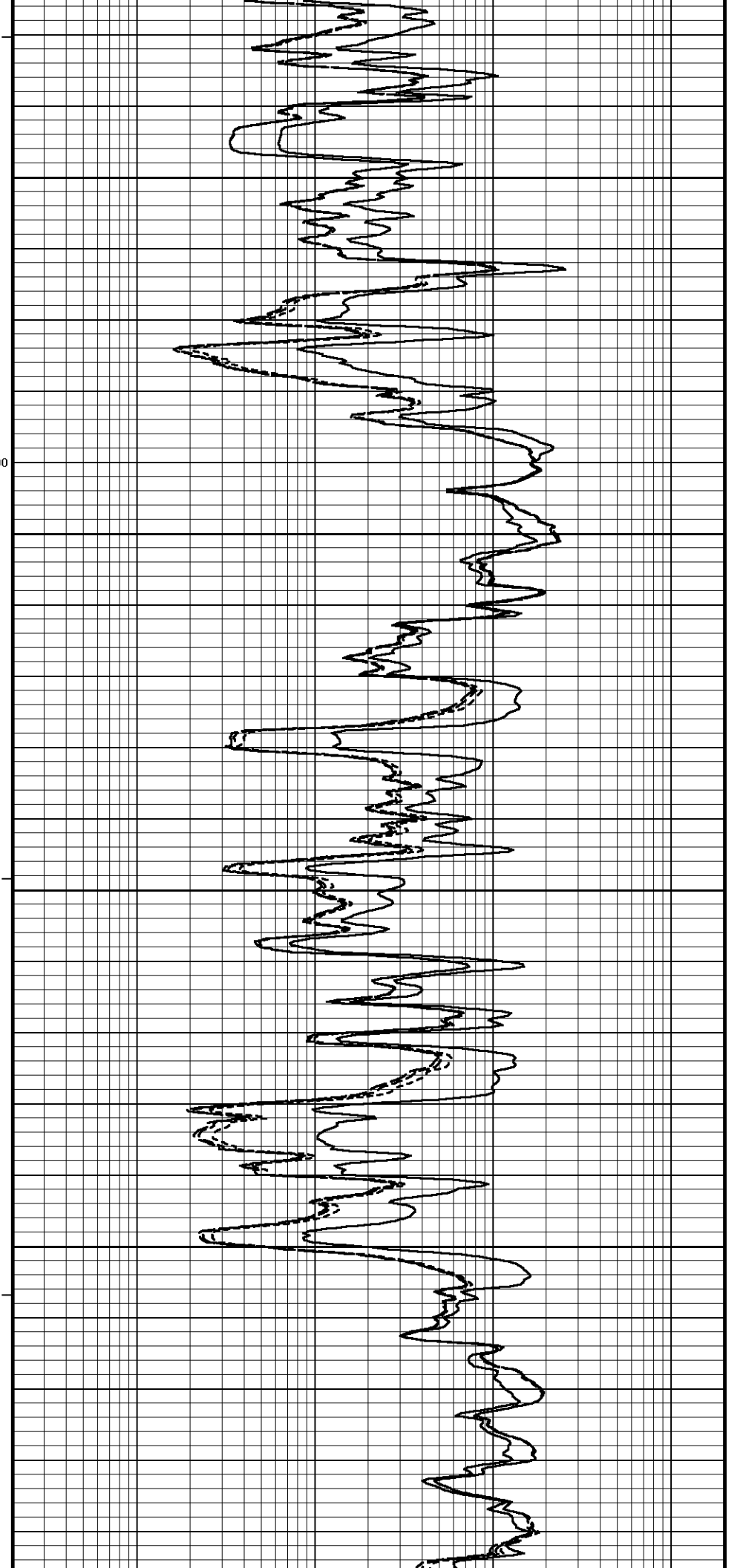
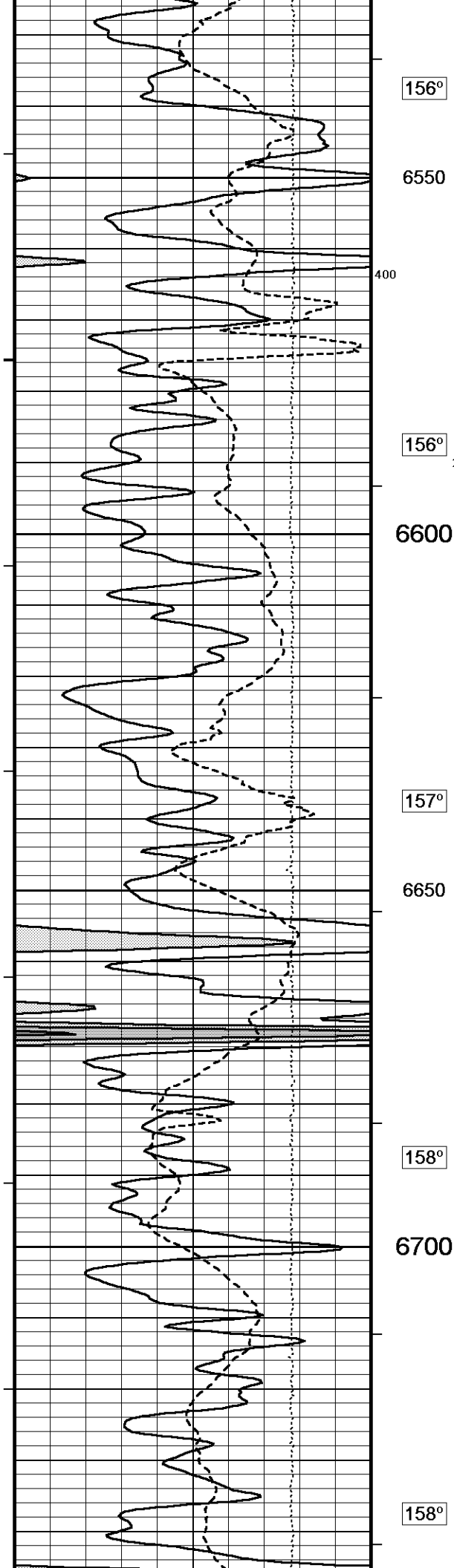


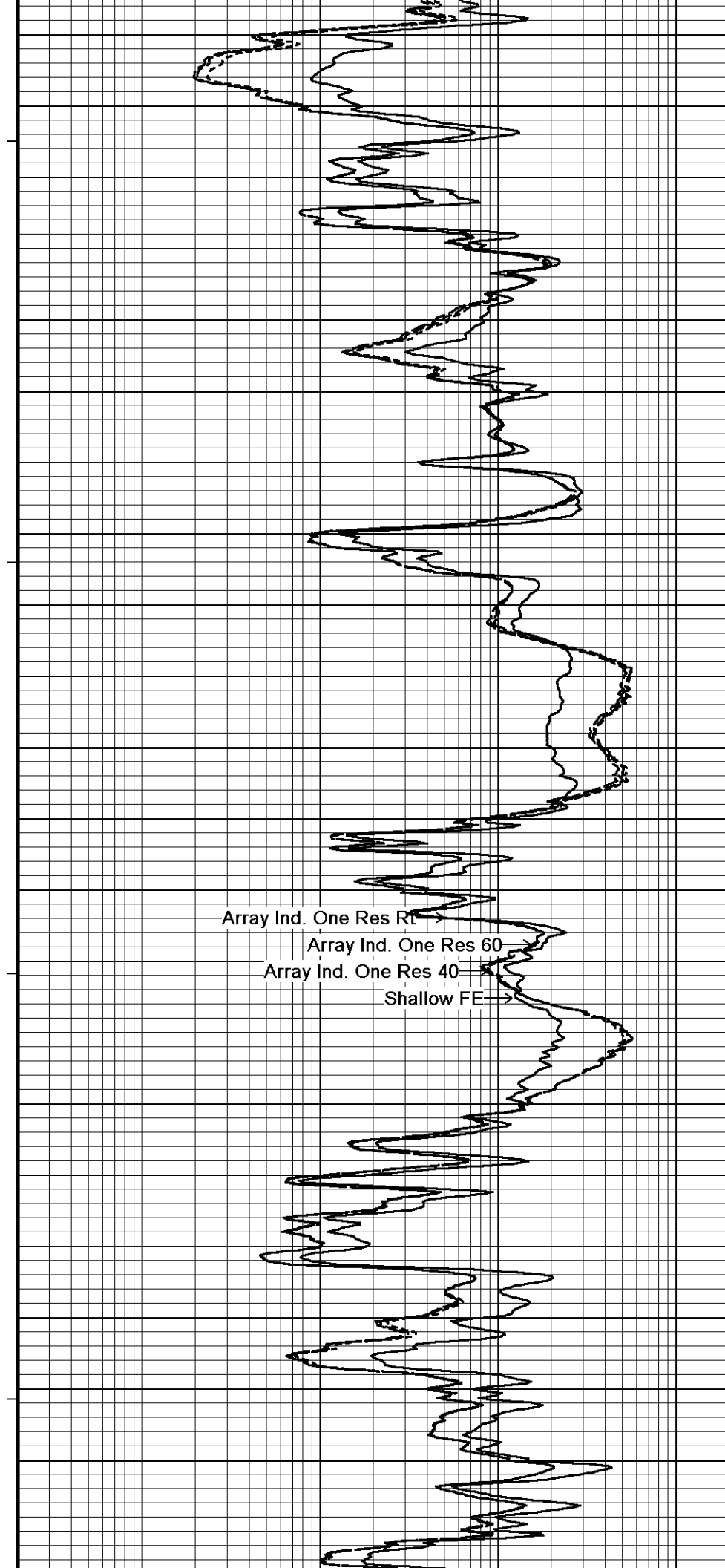
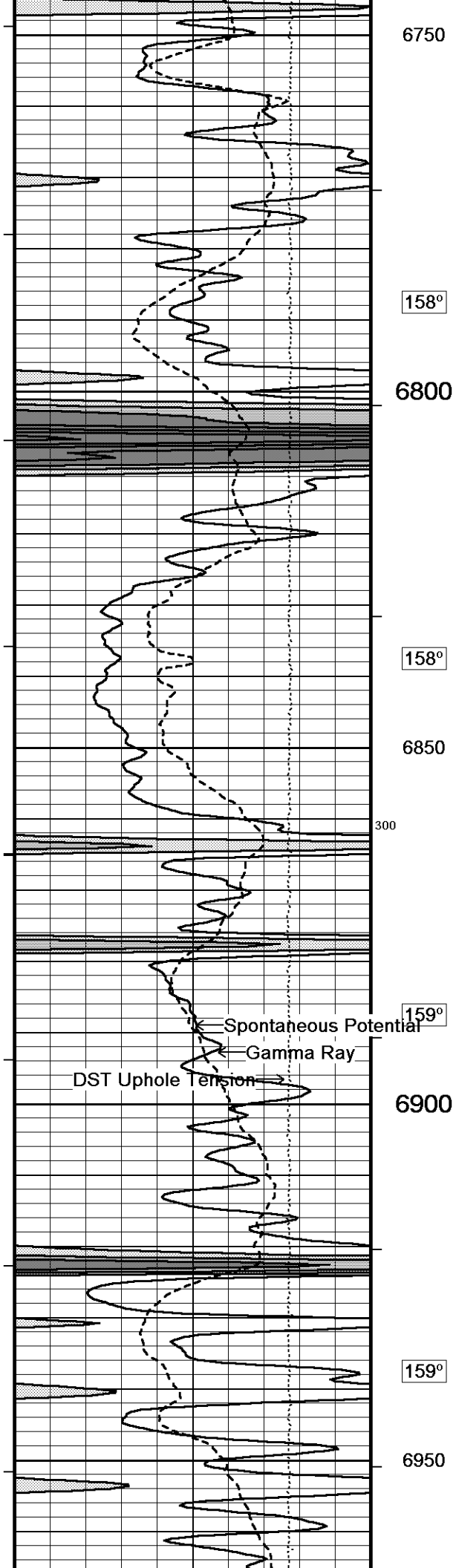


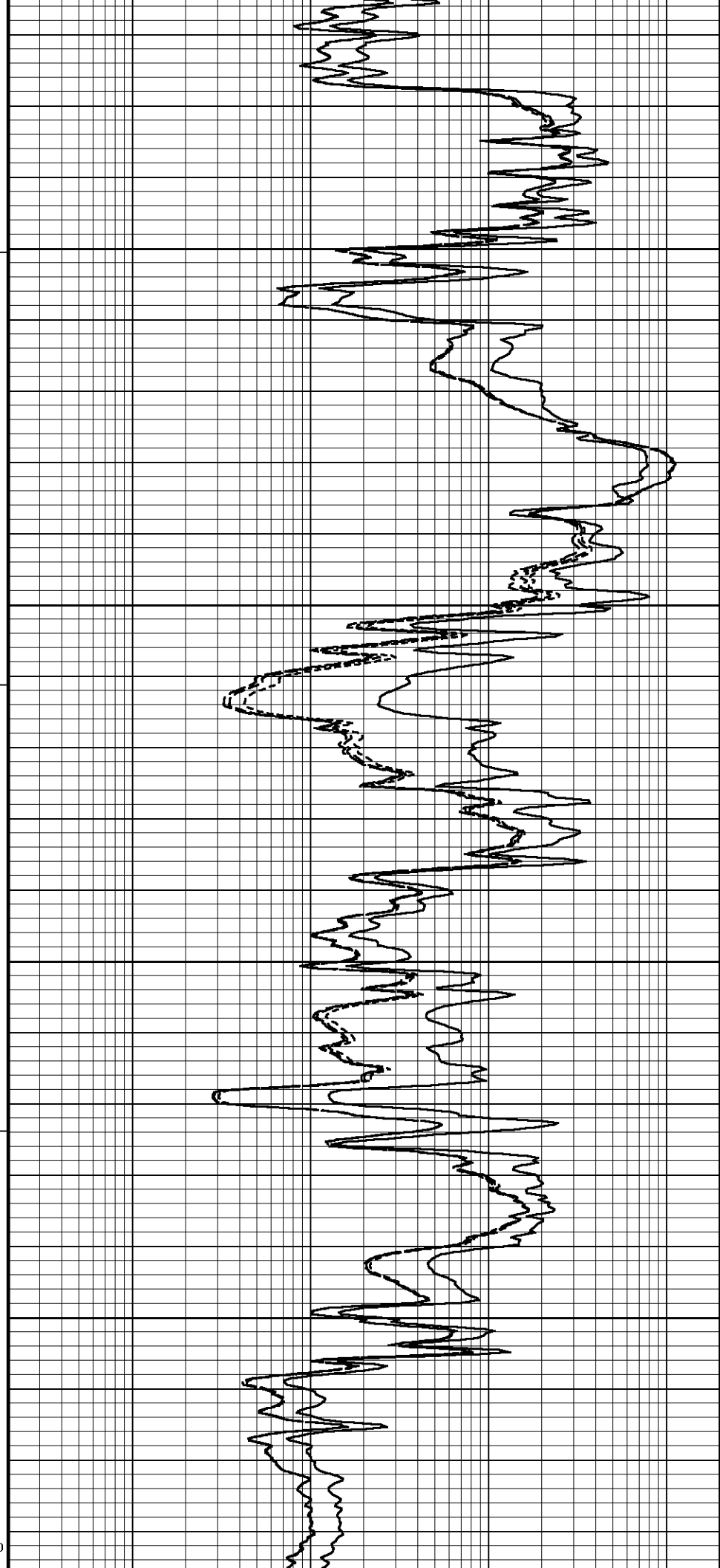
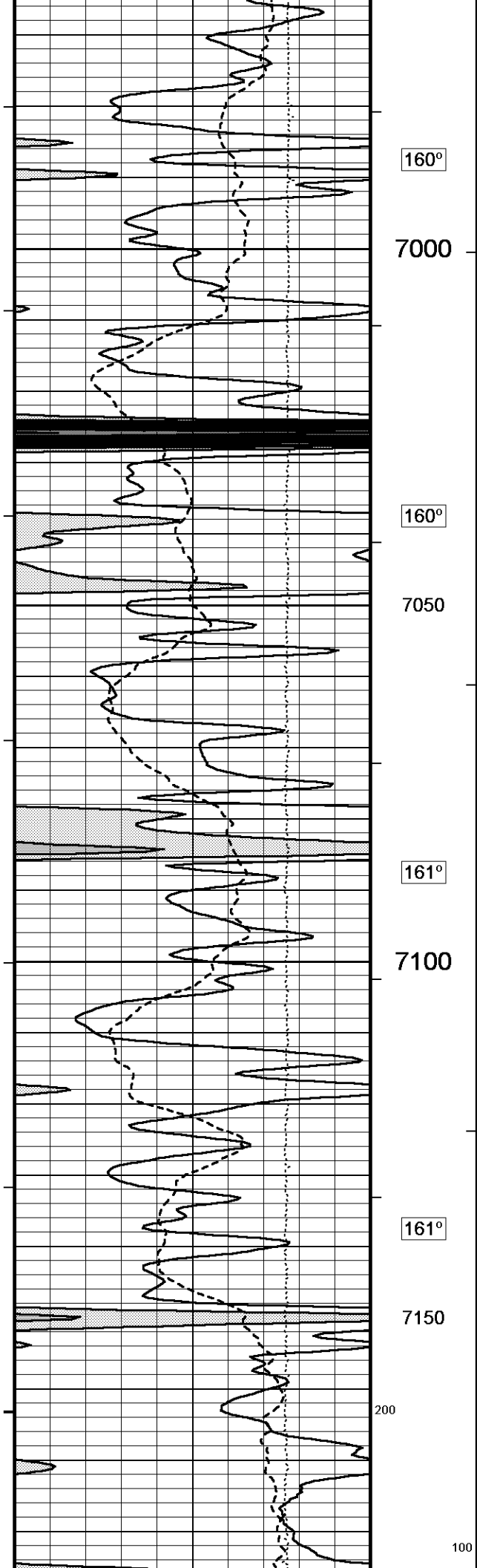
155°
6350
155°
6400
156°
6450
156°
6500

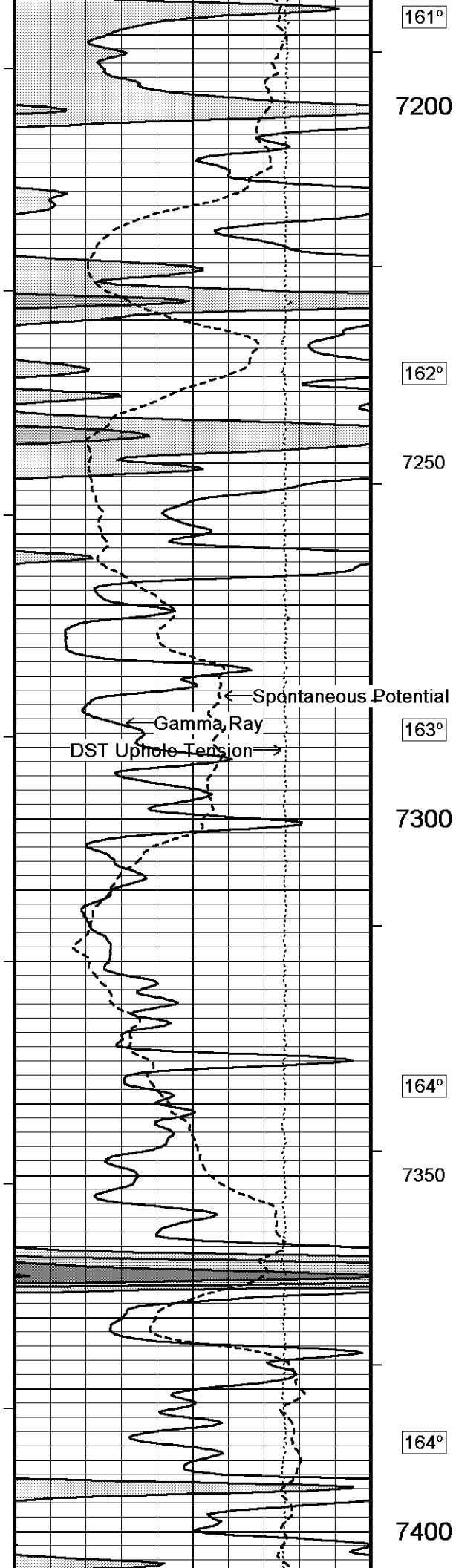


Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow FF

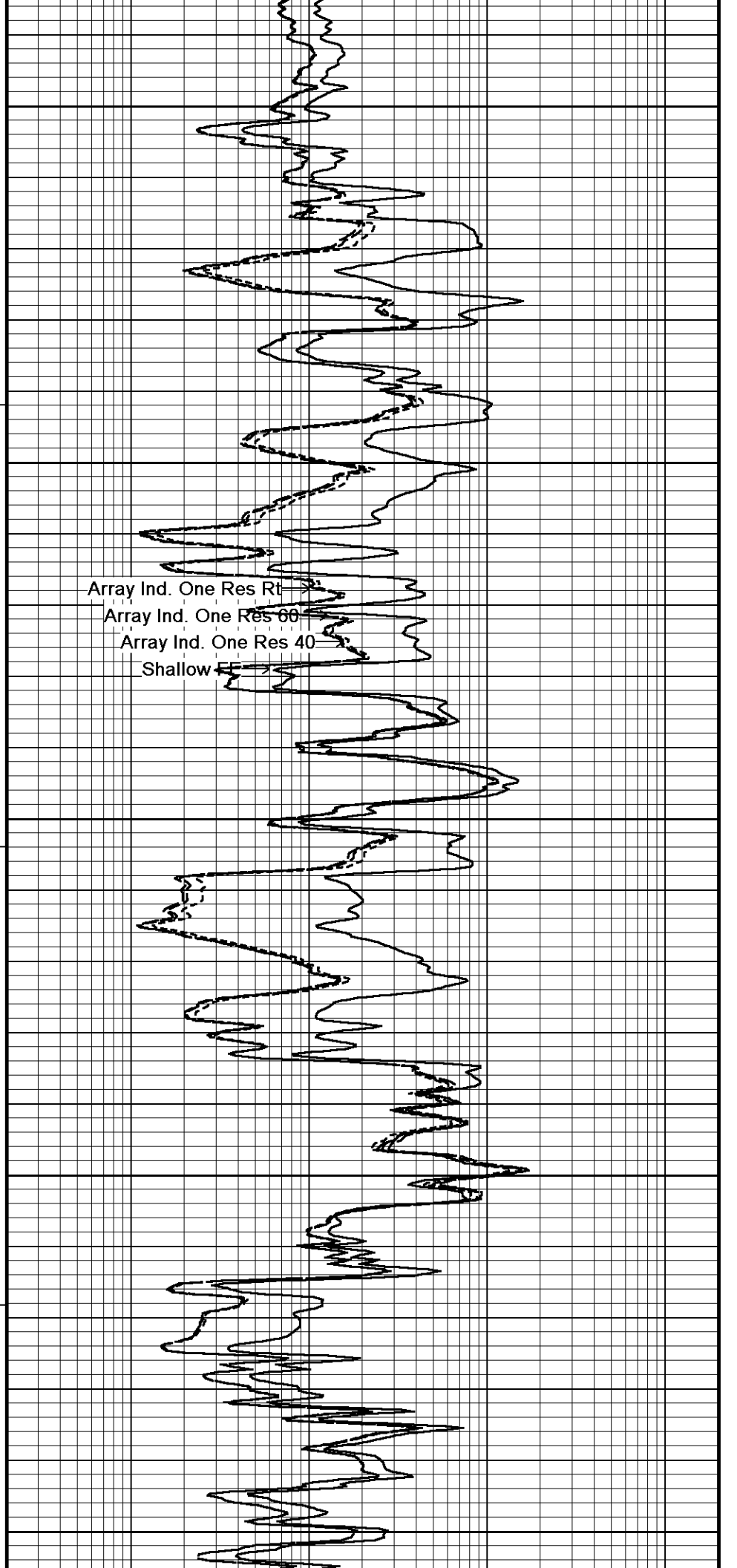


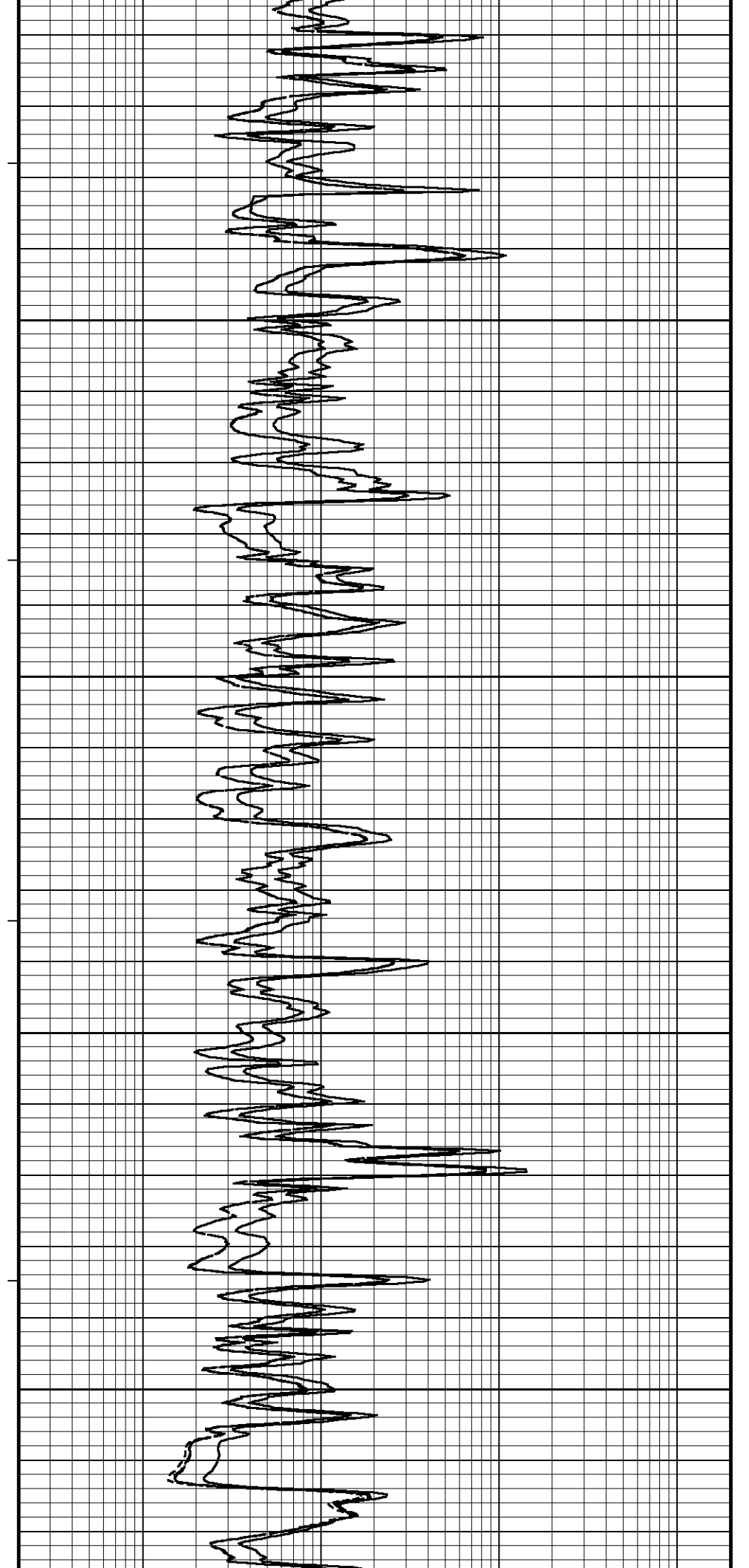
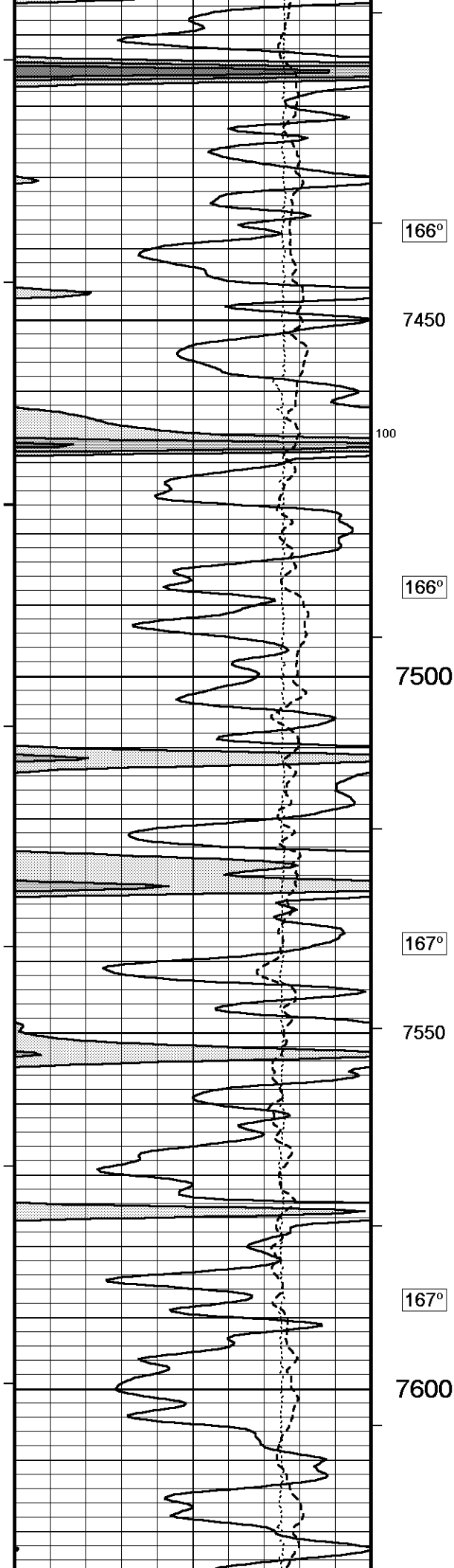


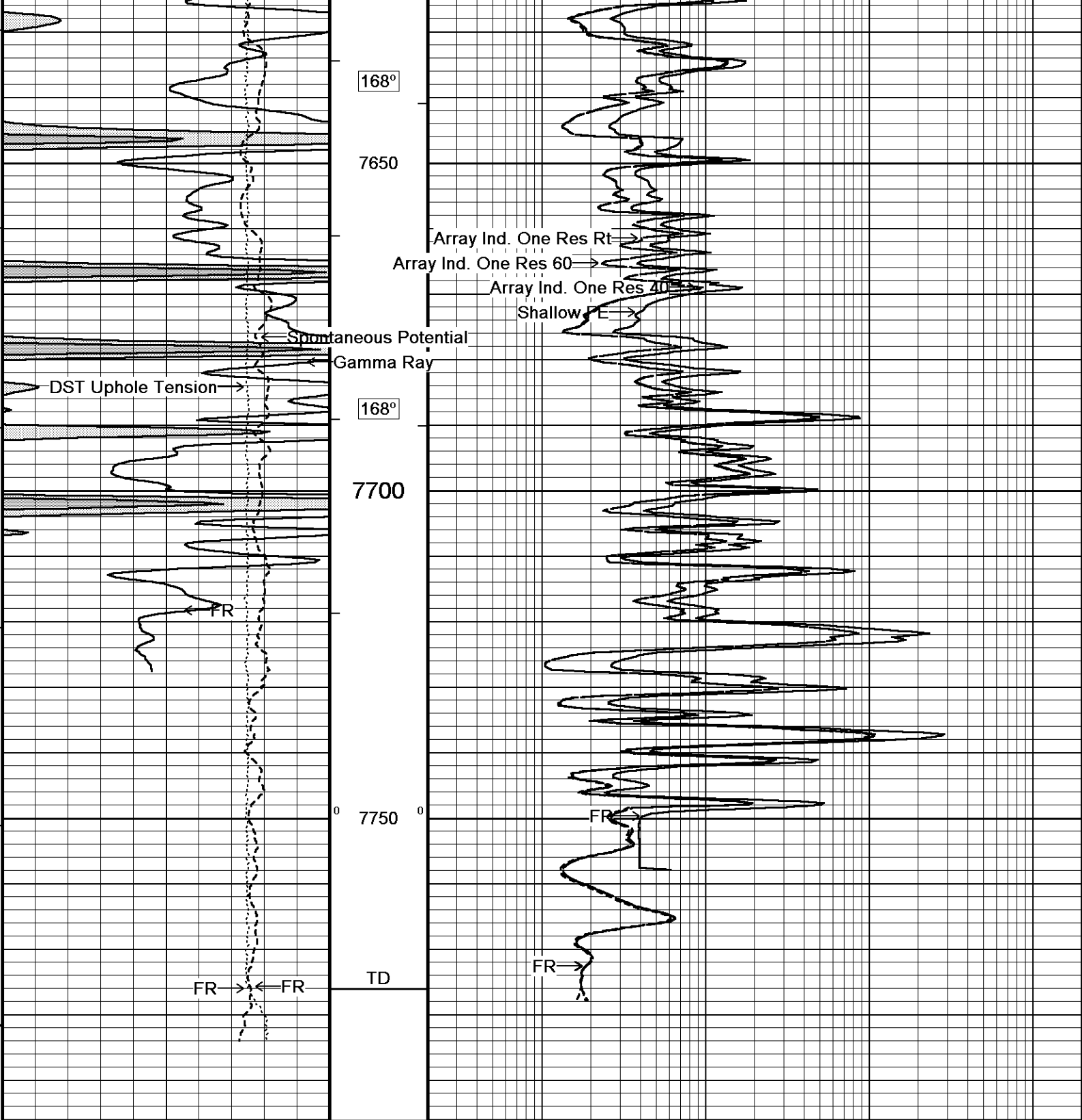




Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow FF







Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Minimus 17.05.6573\Logs\Murfin Rogue #10-25_003 spooled section.dta
System Versions: Logged with 17.05.6573 Plotted with 17.05.6573

Plotted on 07-FEB-2018 23:36
Recorded on 07-FEB-2018 23:31

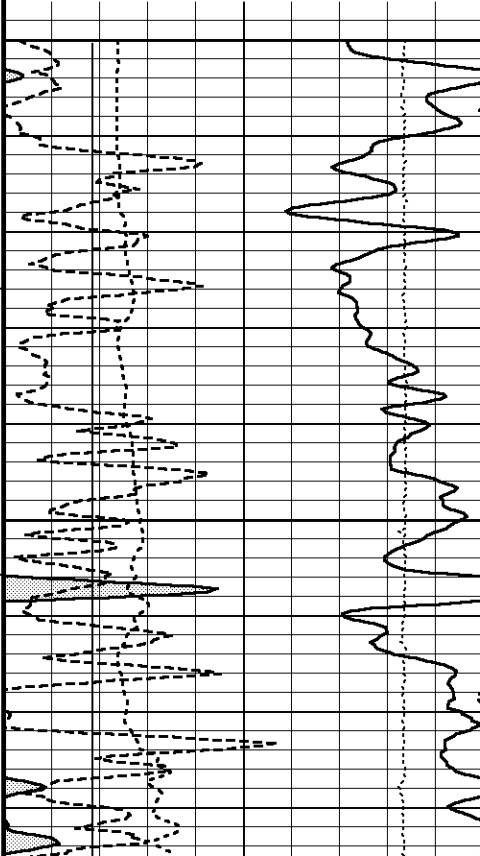
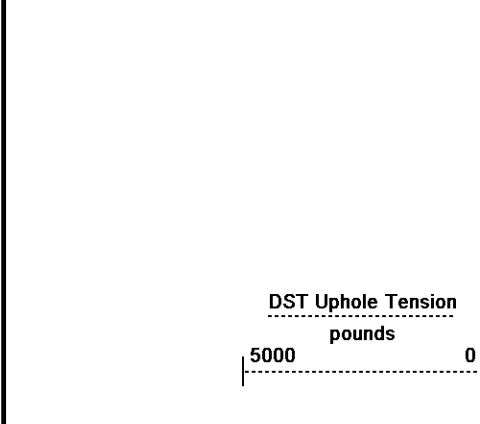
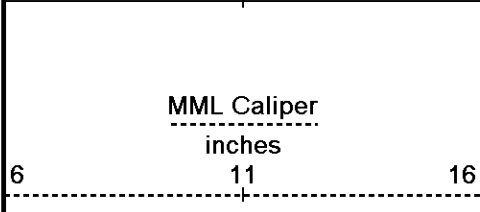
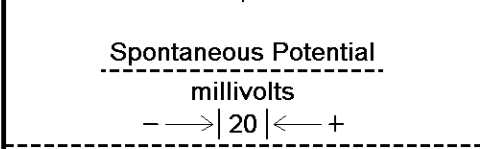
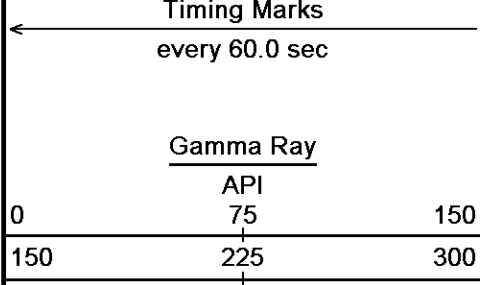
↑ DETAIL SECTION ↑

↓ DETAIL SECTION ↓

Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Minimus 17.05.6573\Logs\Murfin Rogue #10-25_003 spooled section.dta
System Versions: Logged with 17.05.6573 Plotted with 17.05.6573

Plotted on 07-FEB-2018 23:36
Recorded on 07-FEB-2018 23:31

Depth in Feet	MMR MicroLog Normal ohm metres
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Borehole
Temp in
deg F

HVI
every
10 cu ft

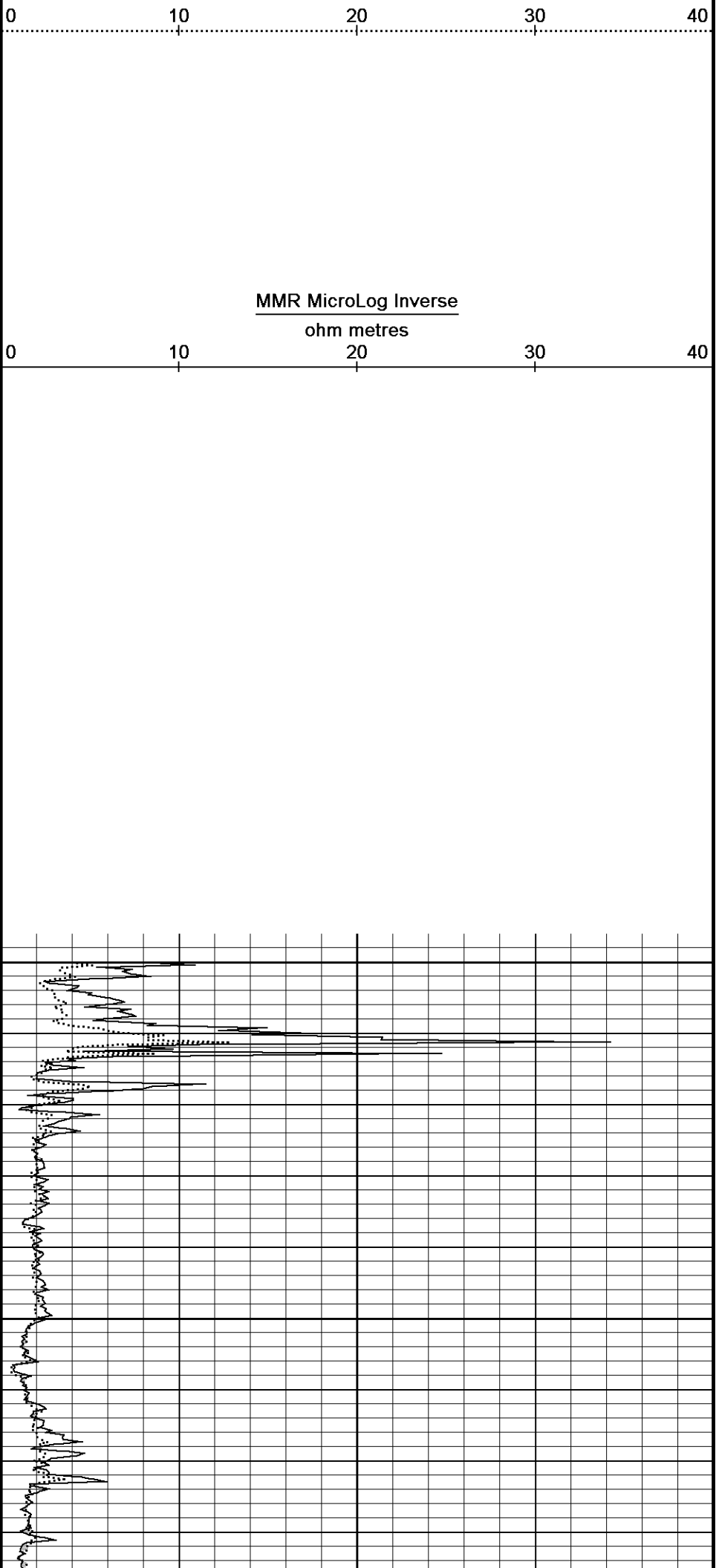
Annular
Integral
every
10 cu ft

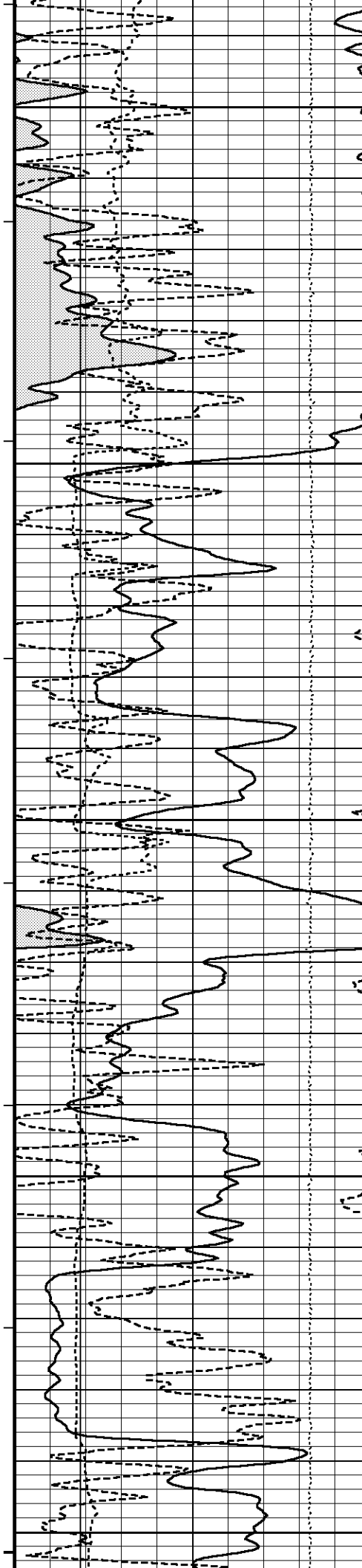
Replay
Scale
1:240

4200

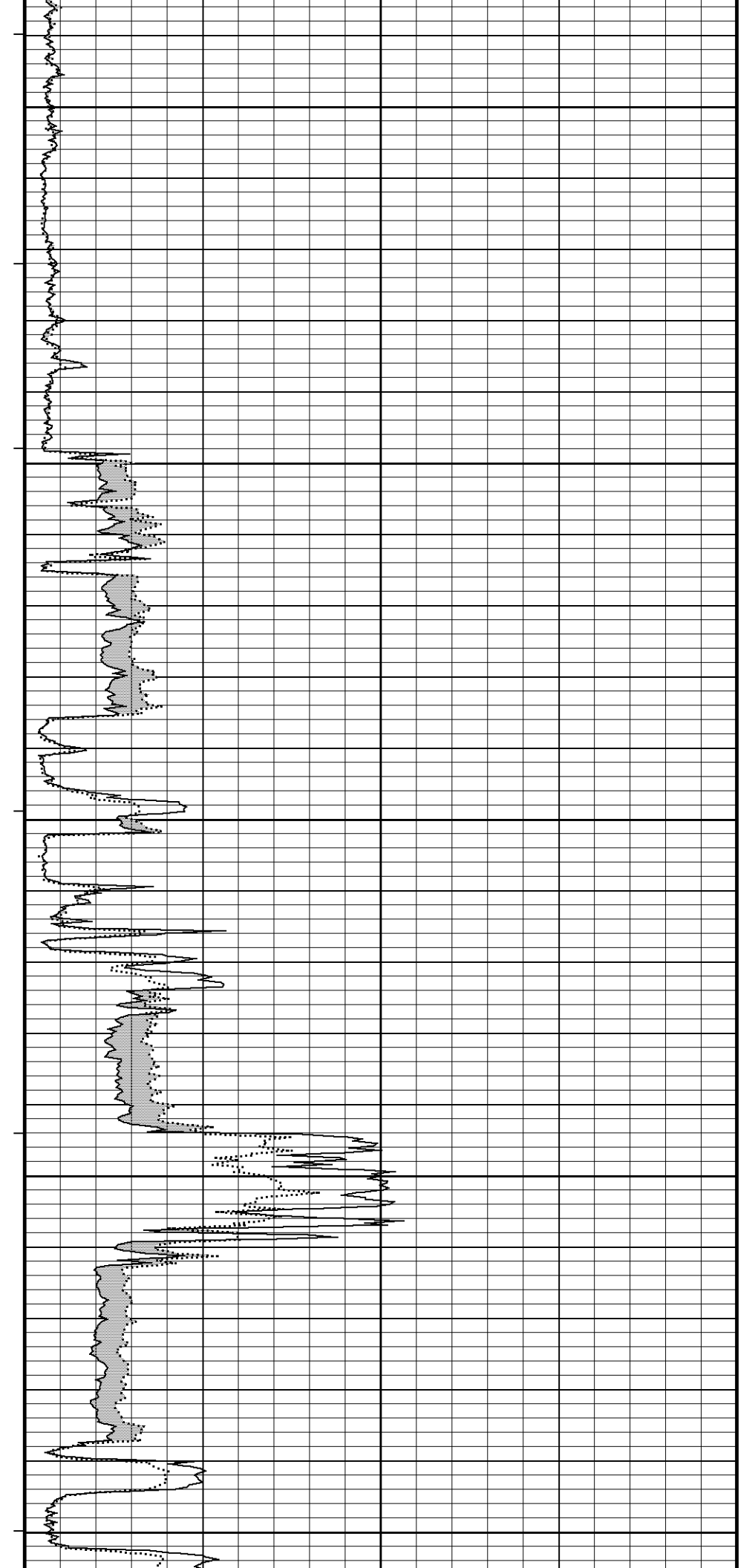
123°

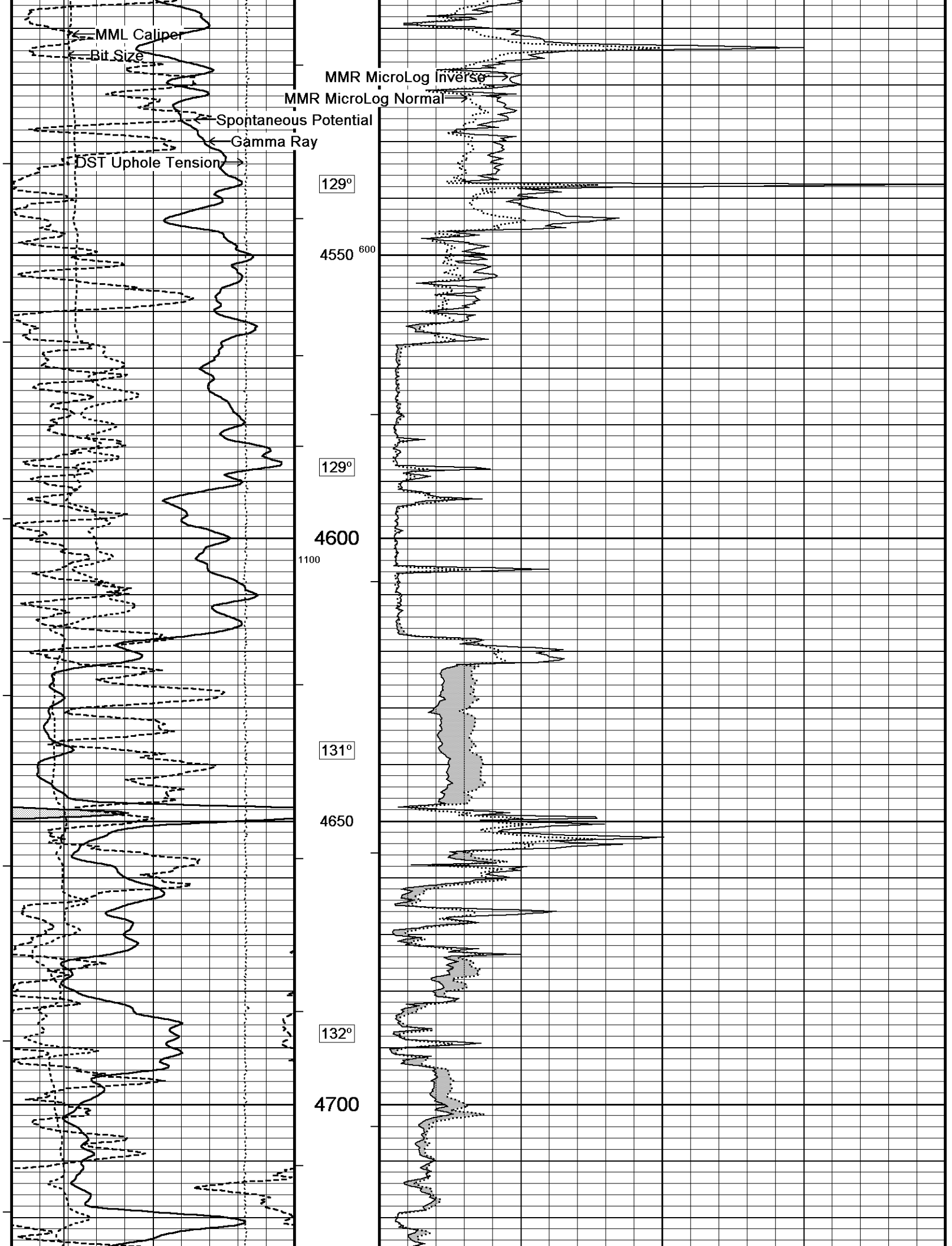
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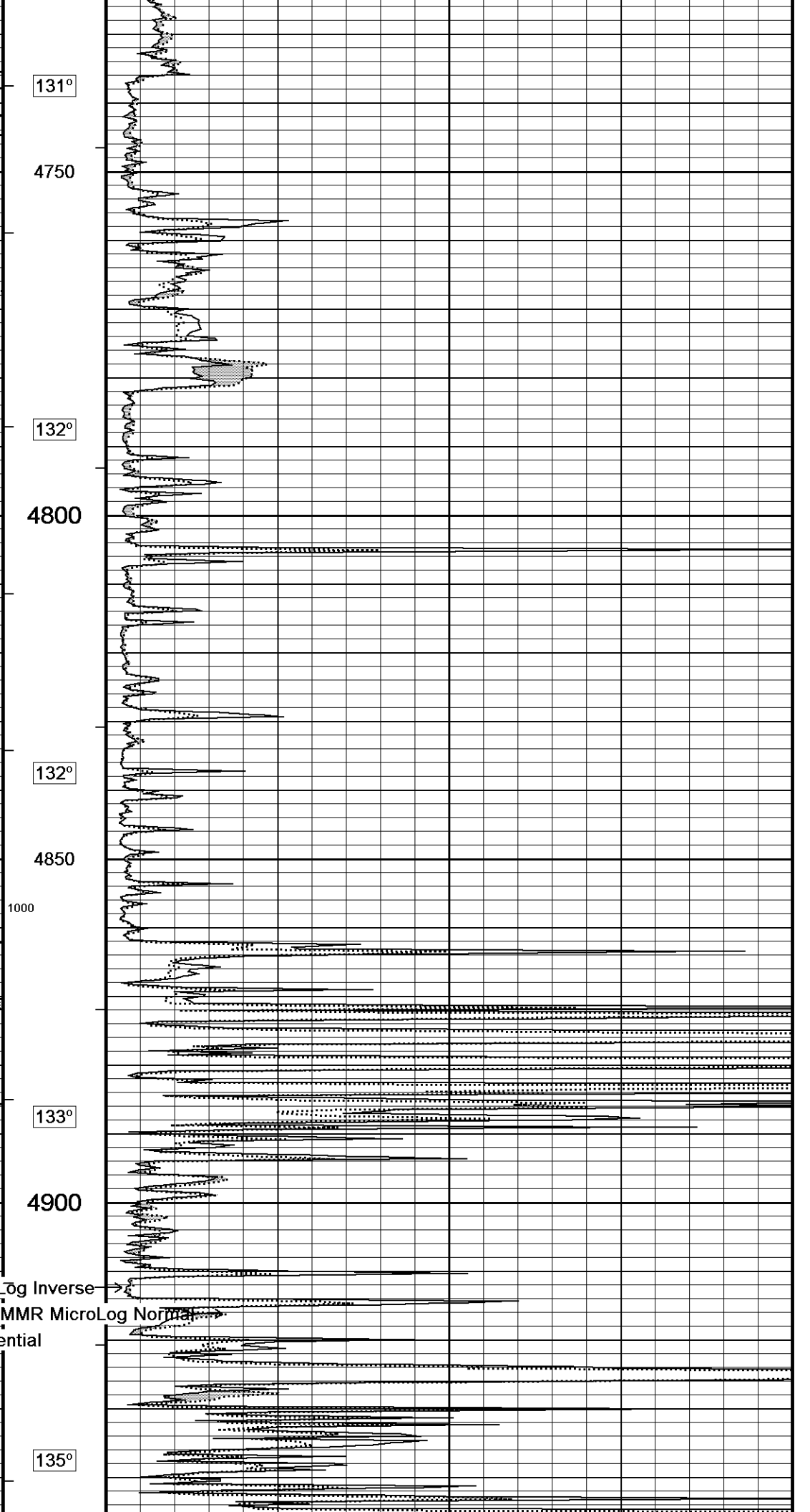
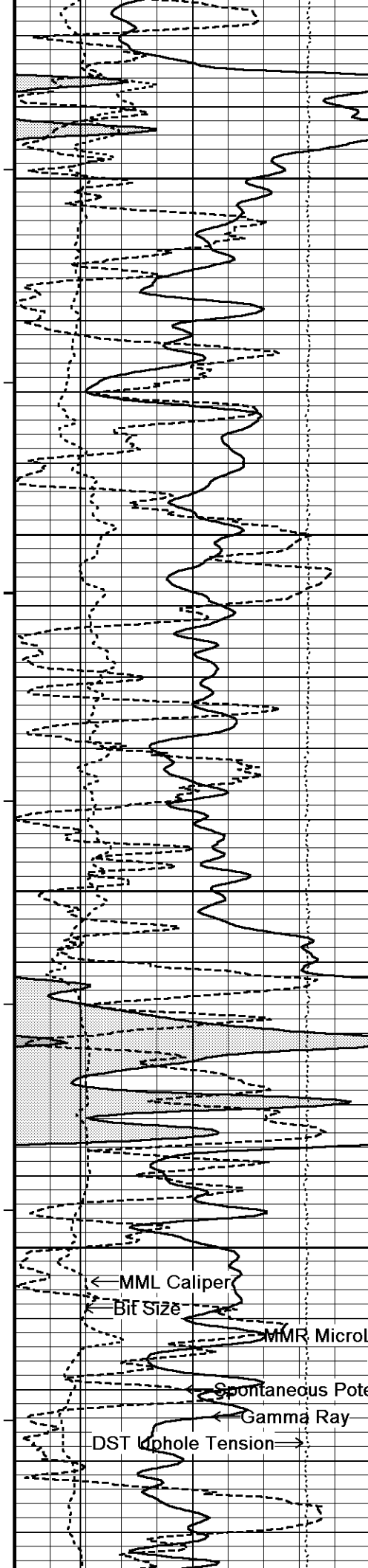




124°
4300
125°
1200 4350
127°
4400
129°
4450
129°
4500







131°

4750

132°

4800

132°

4850

1000

133°

4900

135°

← MML Caliper

← Bit Size

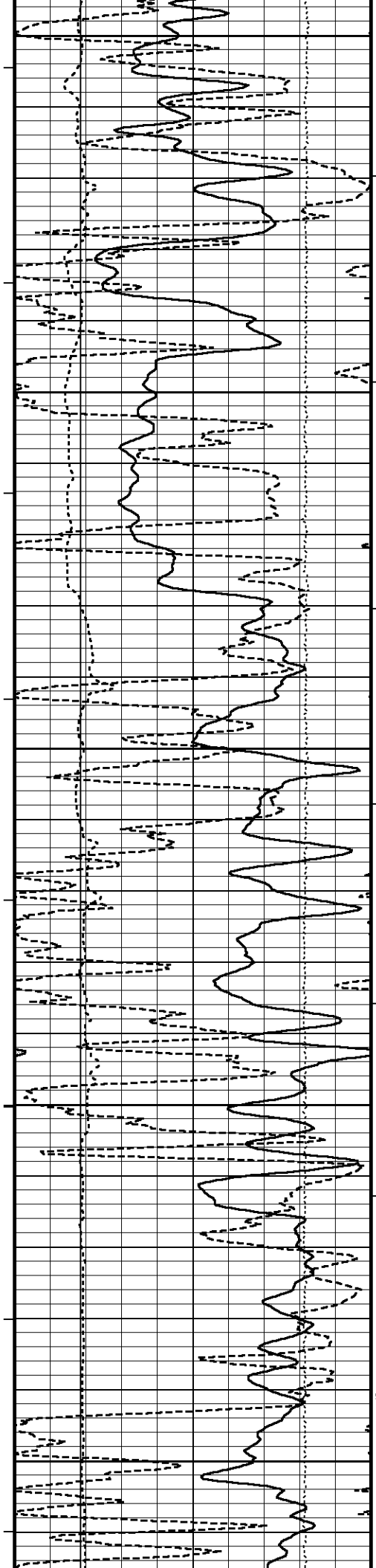
MMR MicroLog Inverse →

MMR MicroLog Normal →

← Spontaneous Potential

← Gamma Ray

DST Up-hole Tension →



4950

500

136°

5000

136°

5050

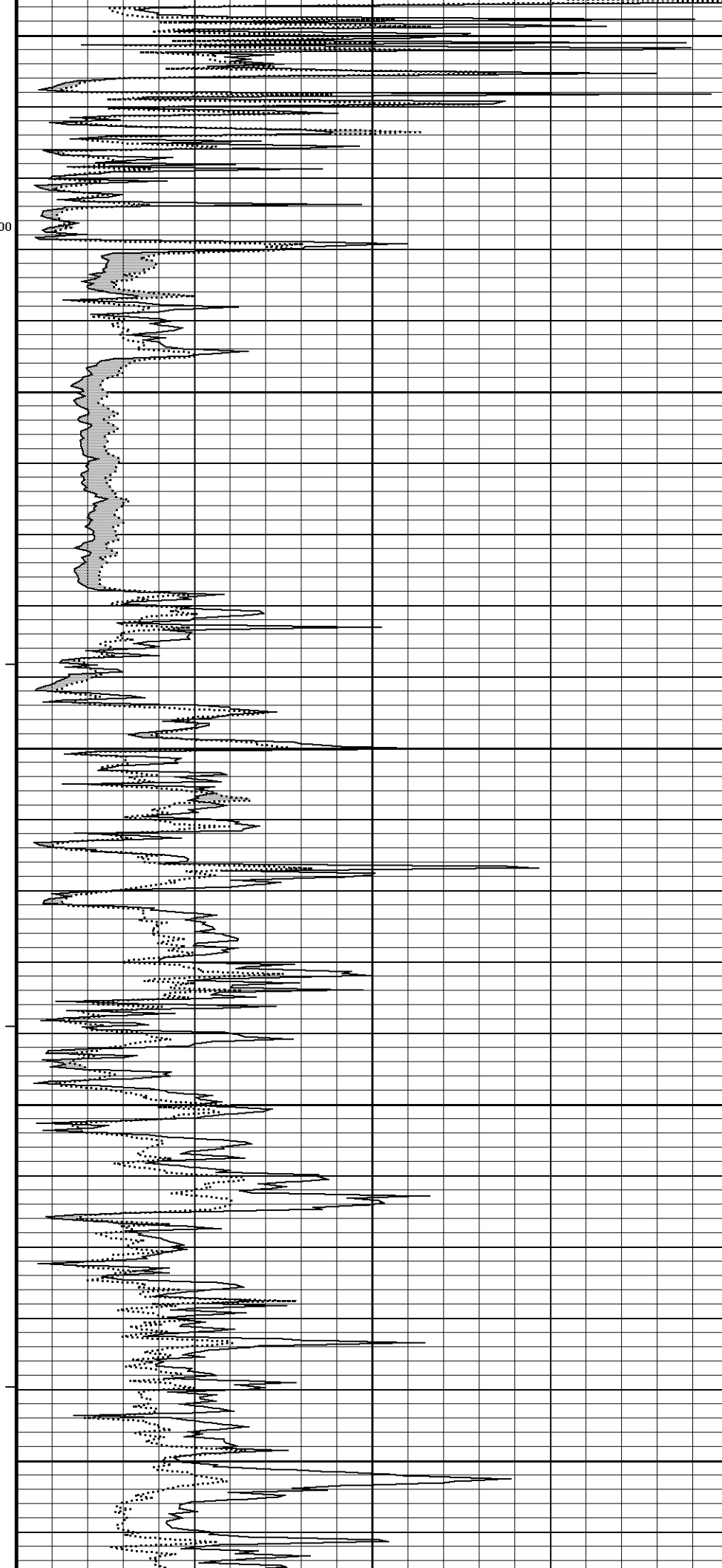
137°

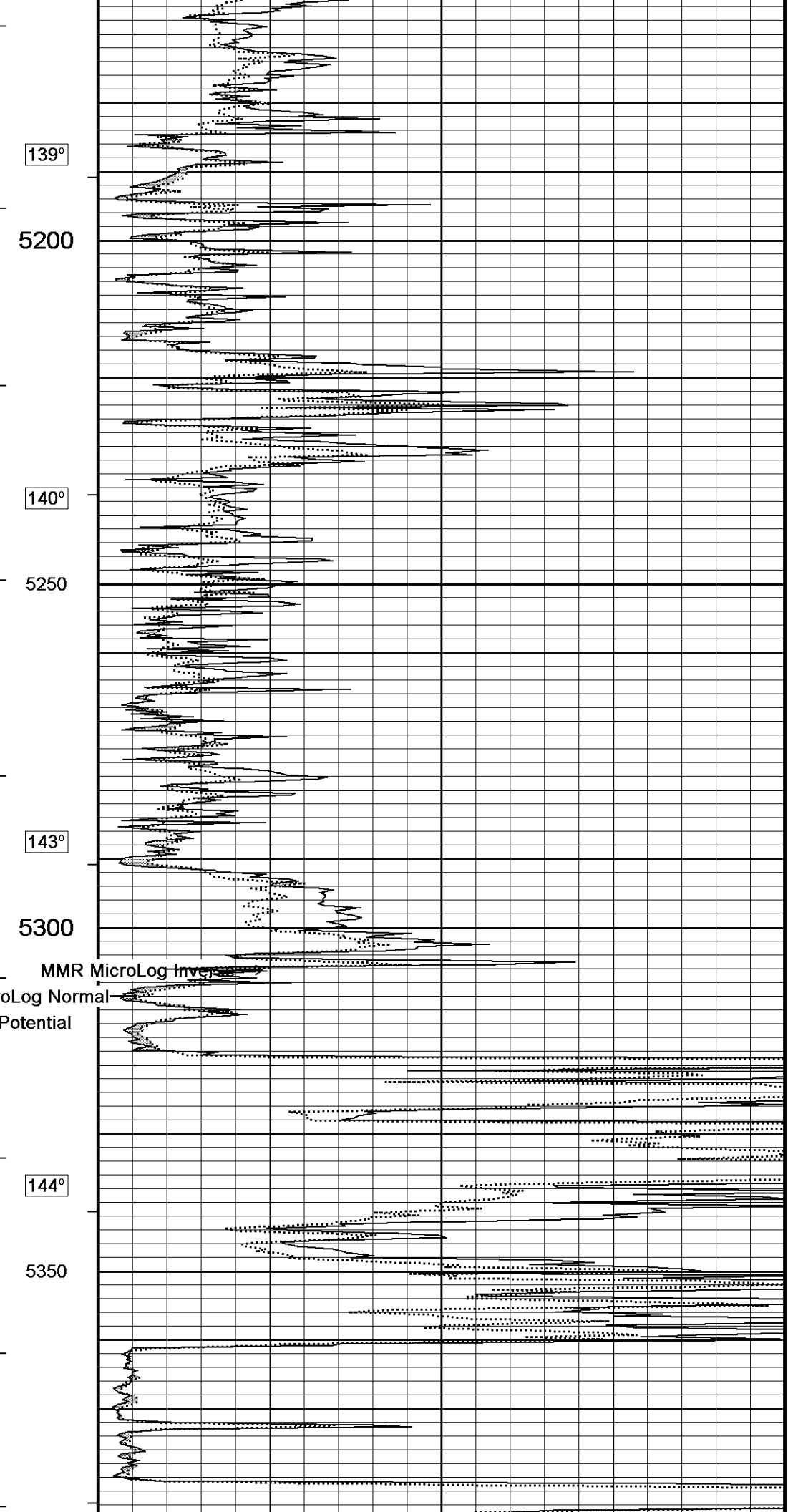
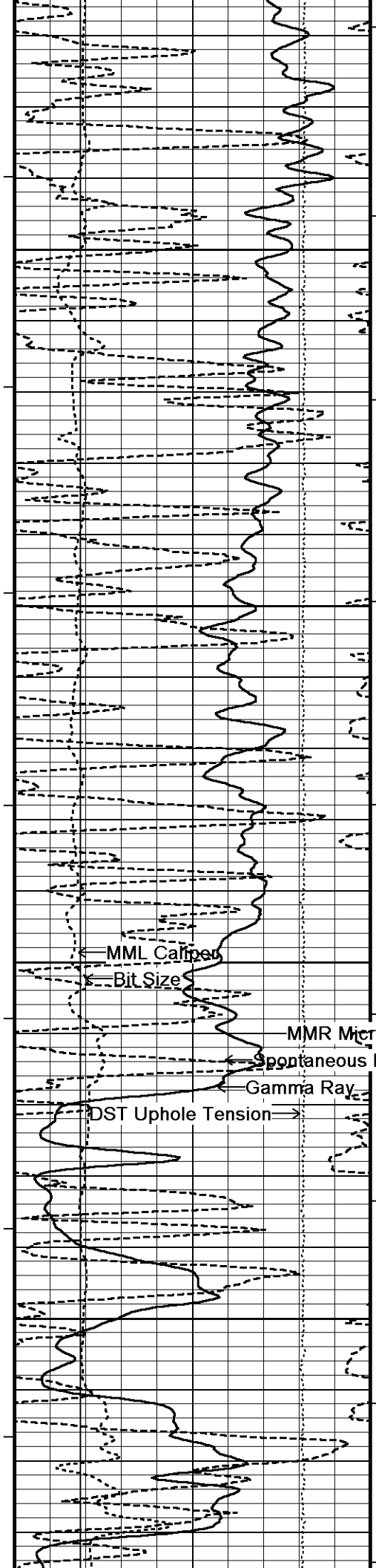
5100

138°

900

5150





139°

5200

140°

5250

143°

5300

144°

5350

MML Caliper

Bit Size

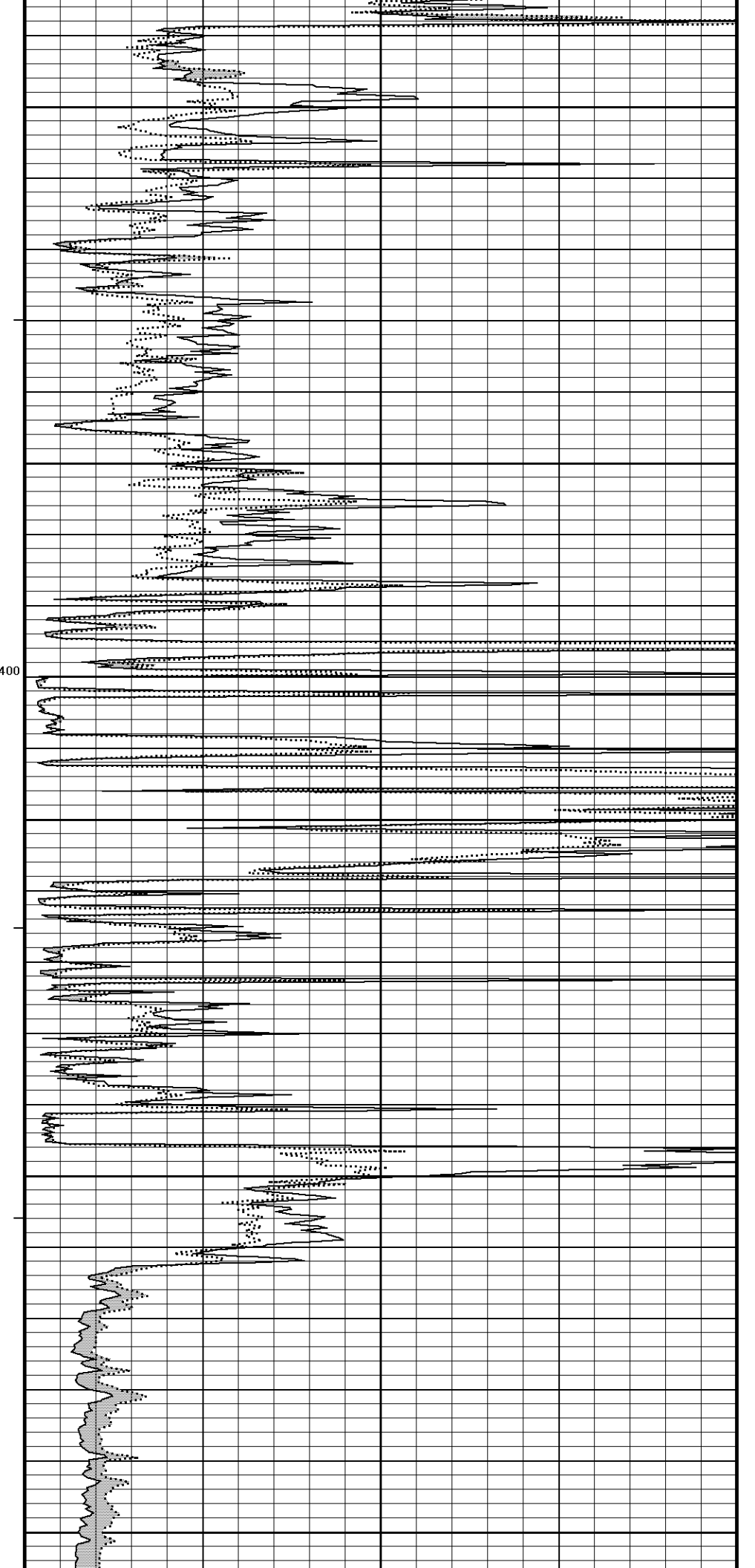
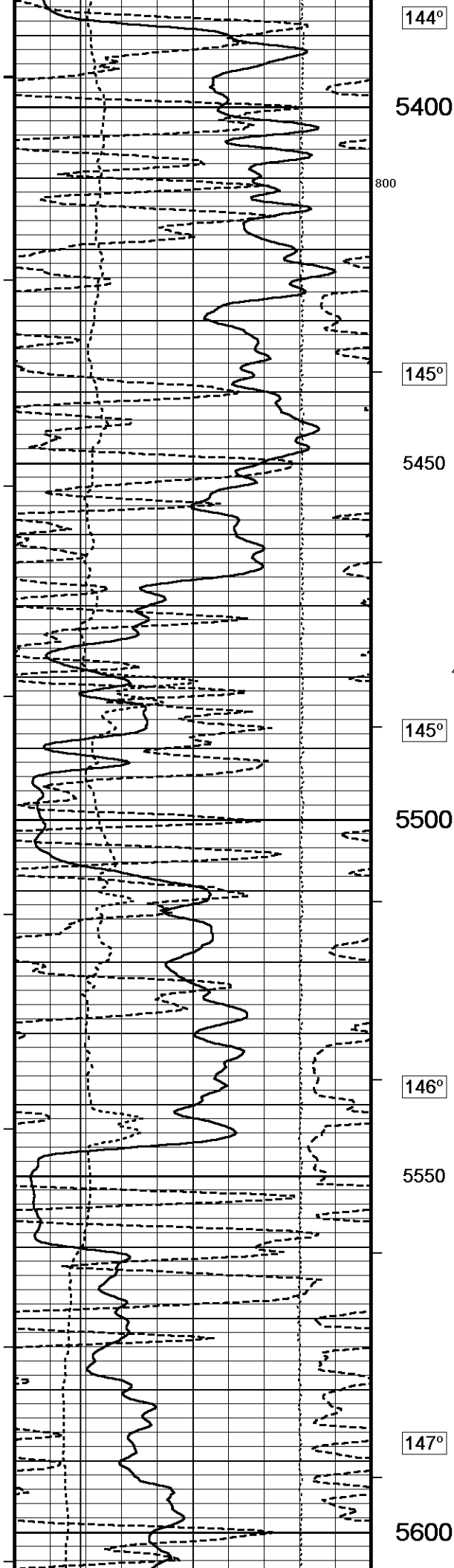
MMR MicroLog Normal

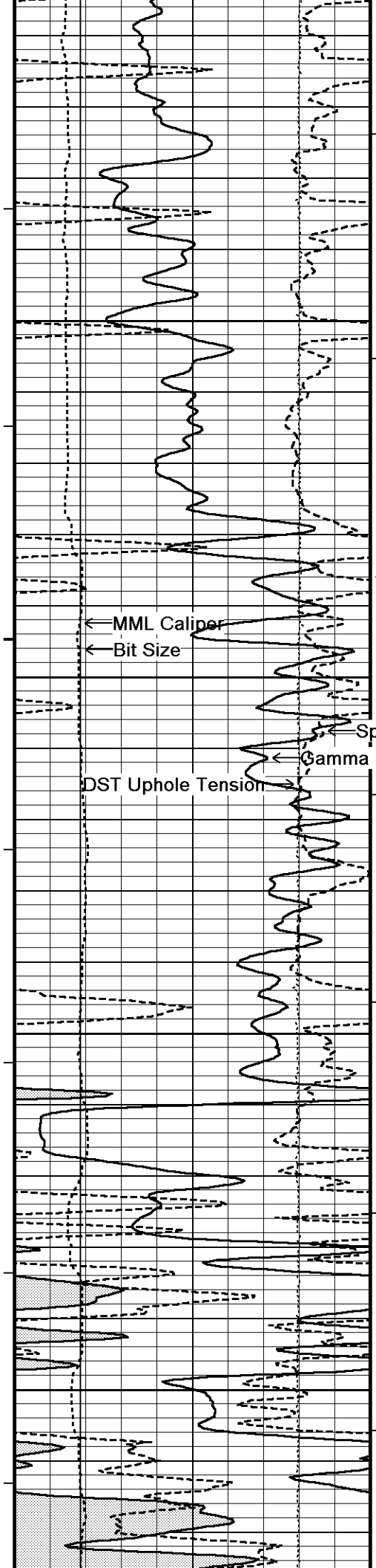
MMR MicroLog Inverse

Spontaneous Potential

Gamma Ray

DST Uphole Tension





148°

5650

700 148°

5700

149°

5750

149°

5800

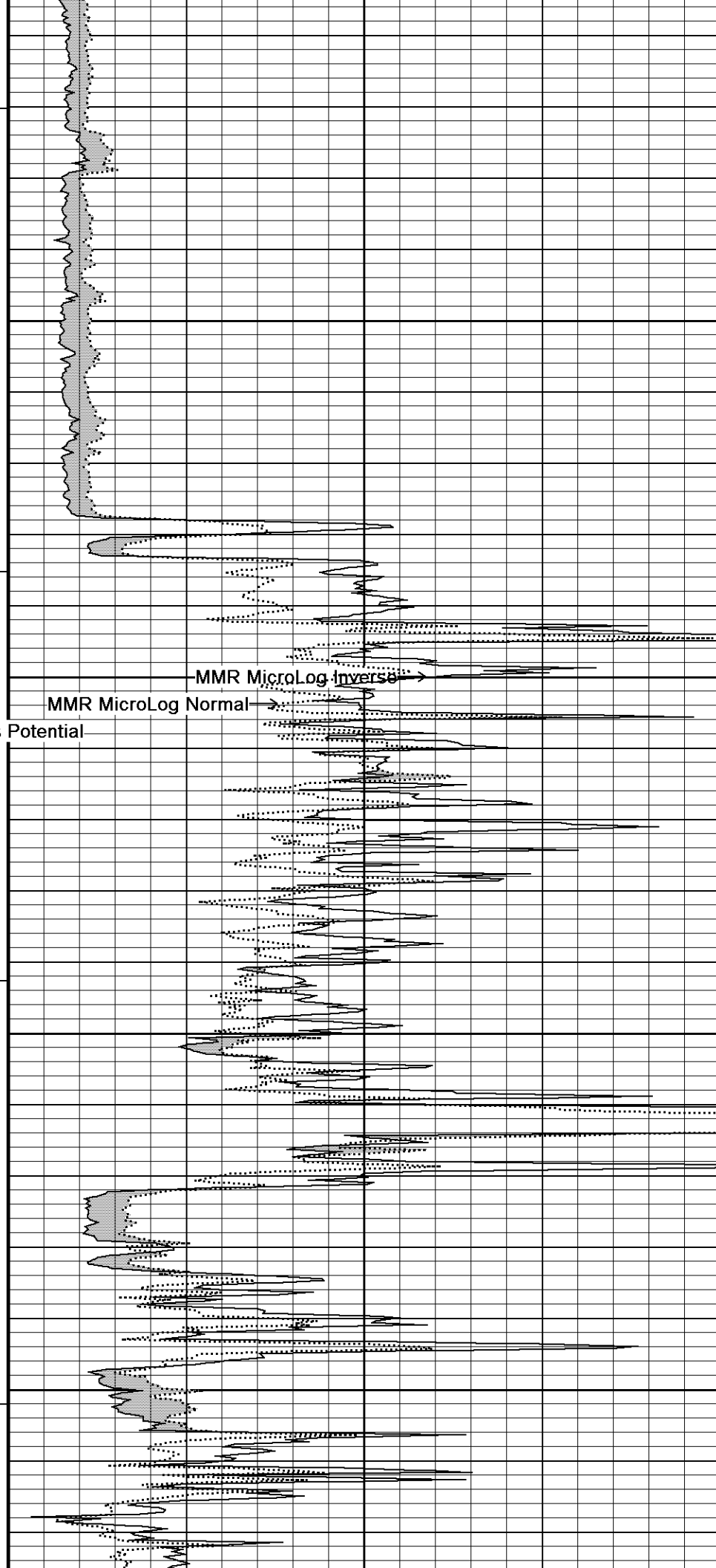
← MML Caliper

← Bit Size

DST Uphole Tension

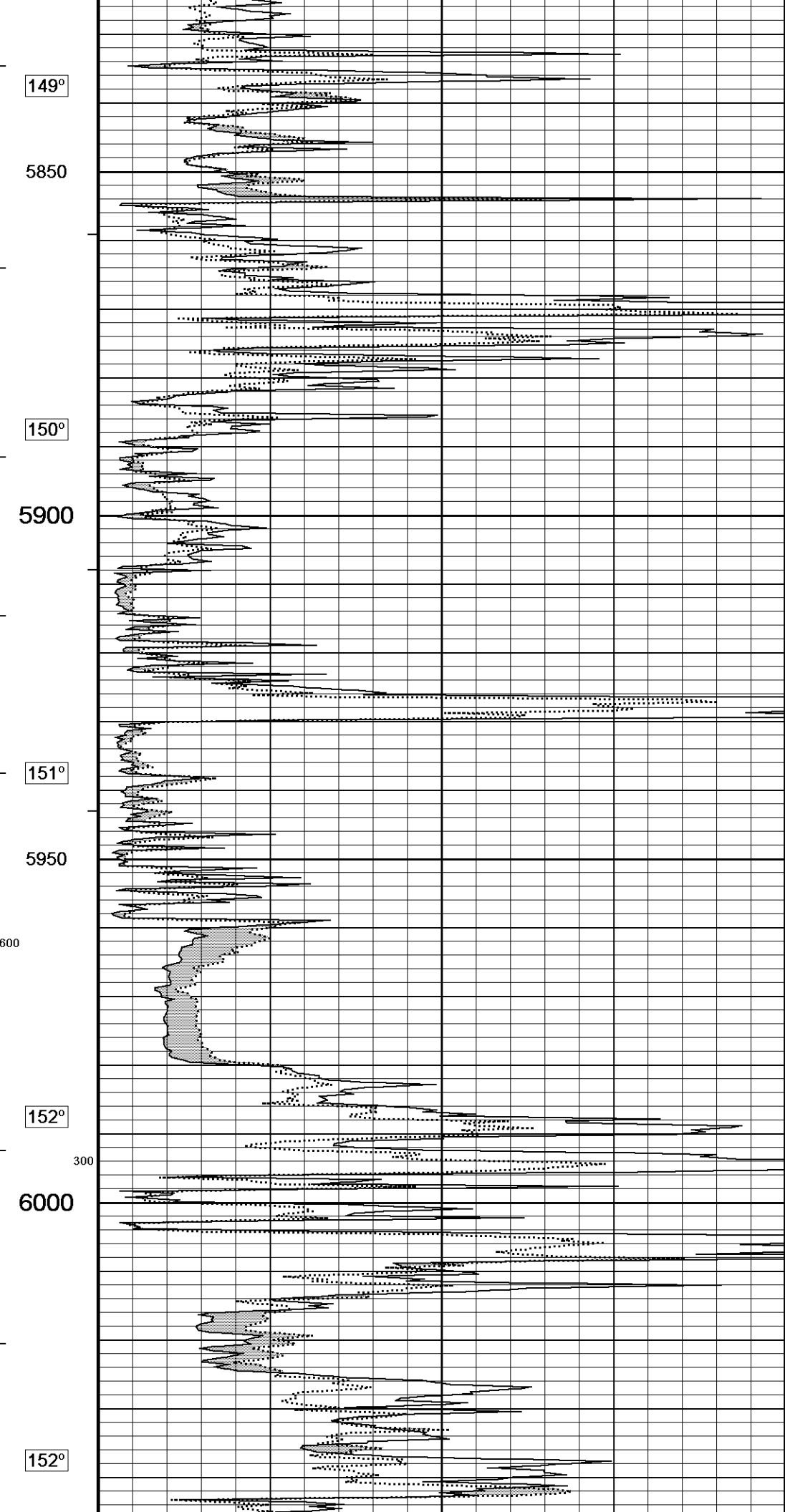
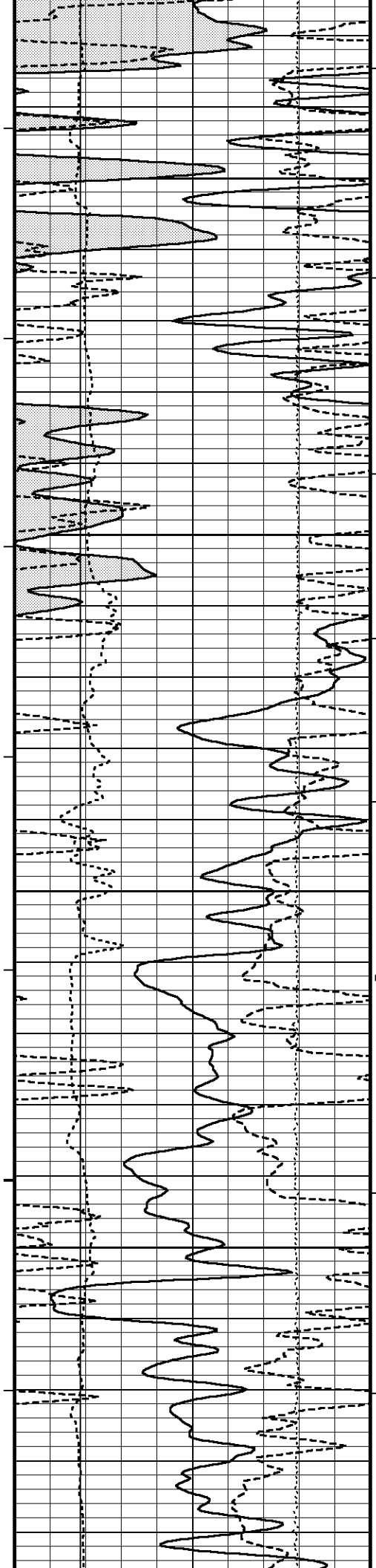
← Spontaneous Potential

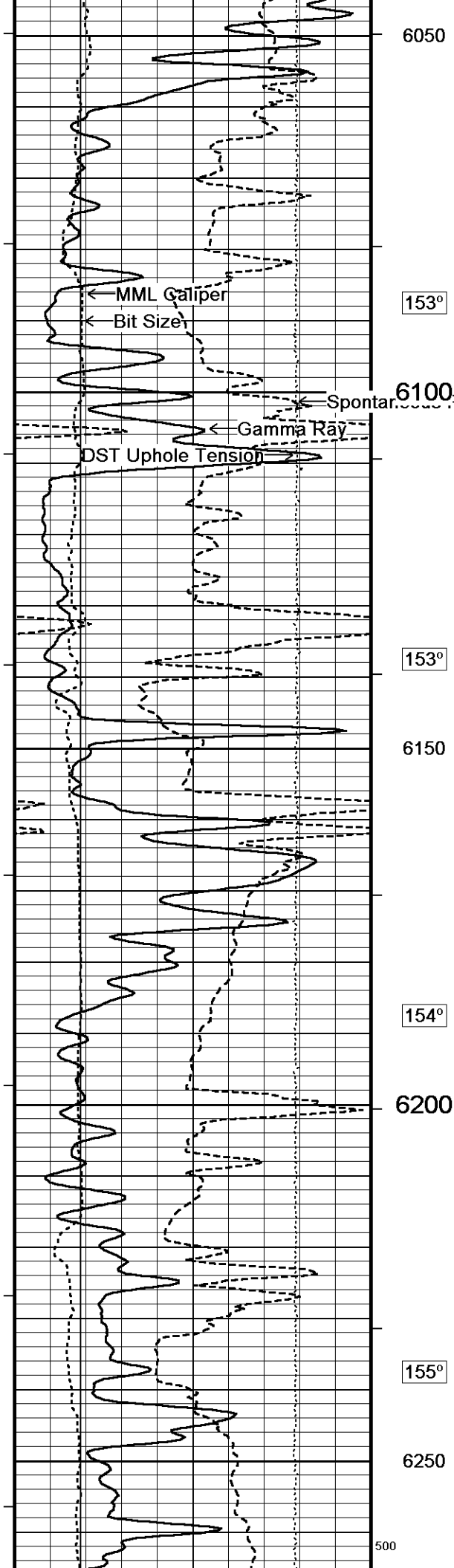
← Gamma Ray



MMR MicroLog Inverse

MMR MicroLog Normal





6050

153°

6100

153°

6150

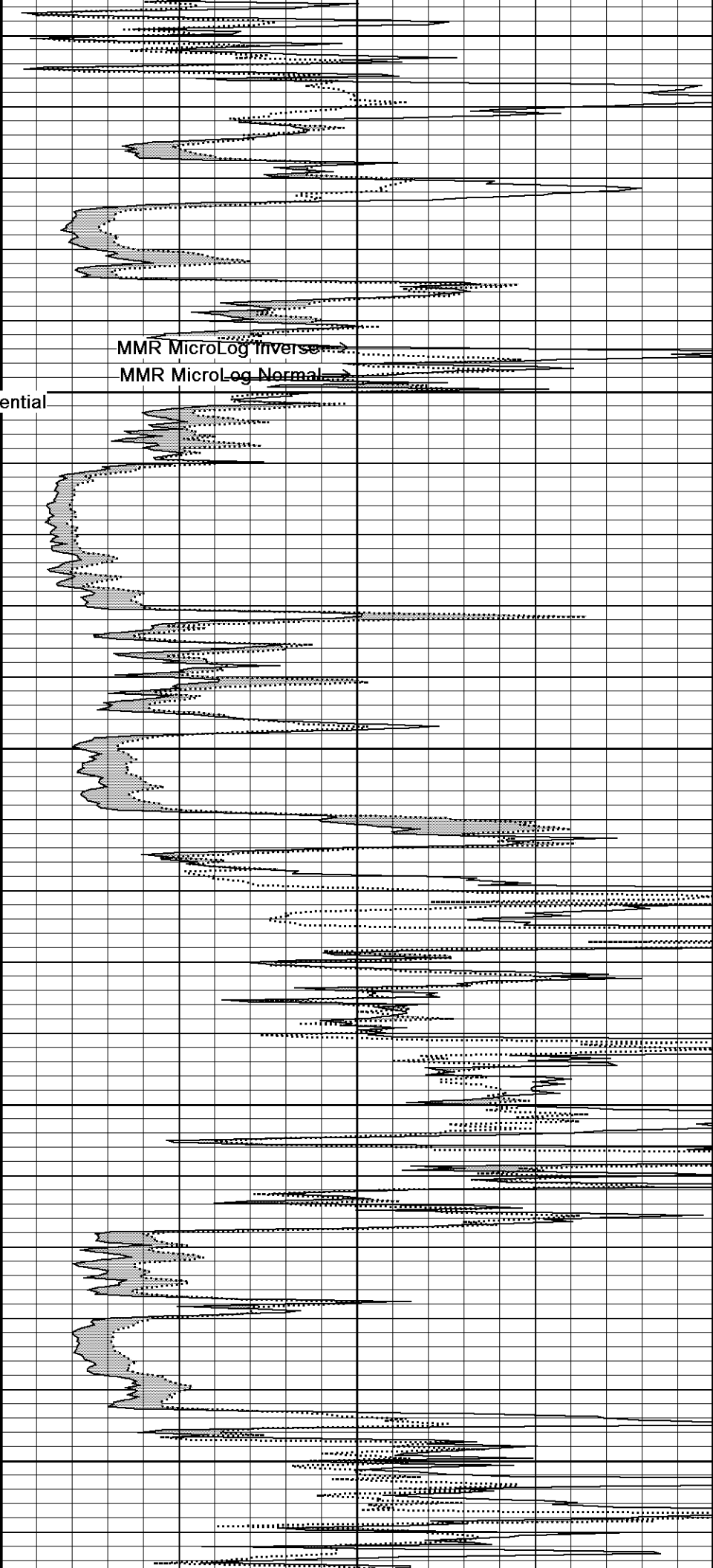
154°

6200

155°

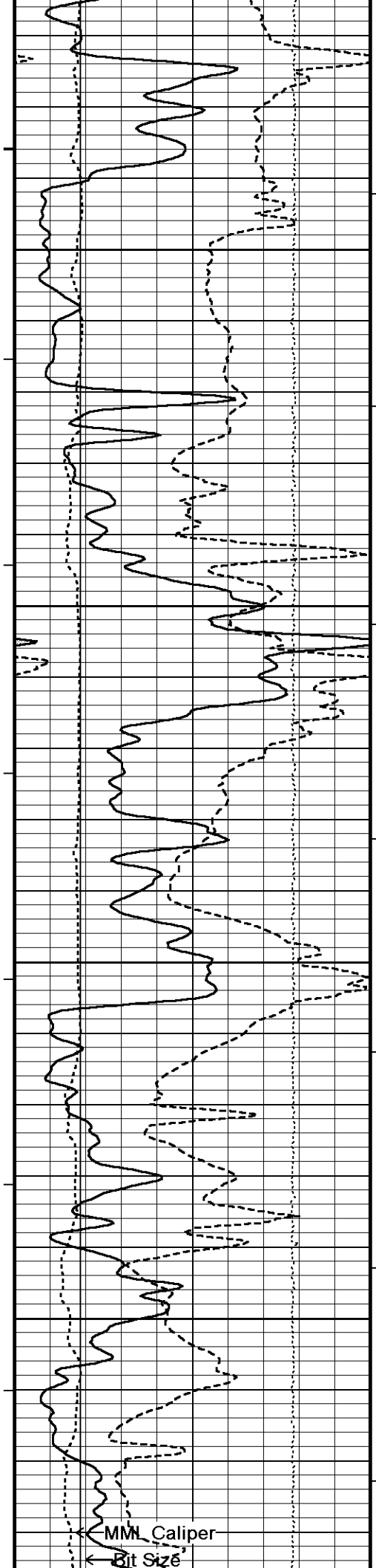
6250

500



MMR MicroLog Inverse

MMR MicroLog Normal



155°

6300

155°

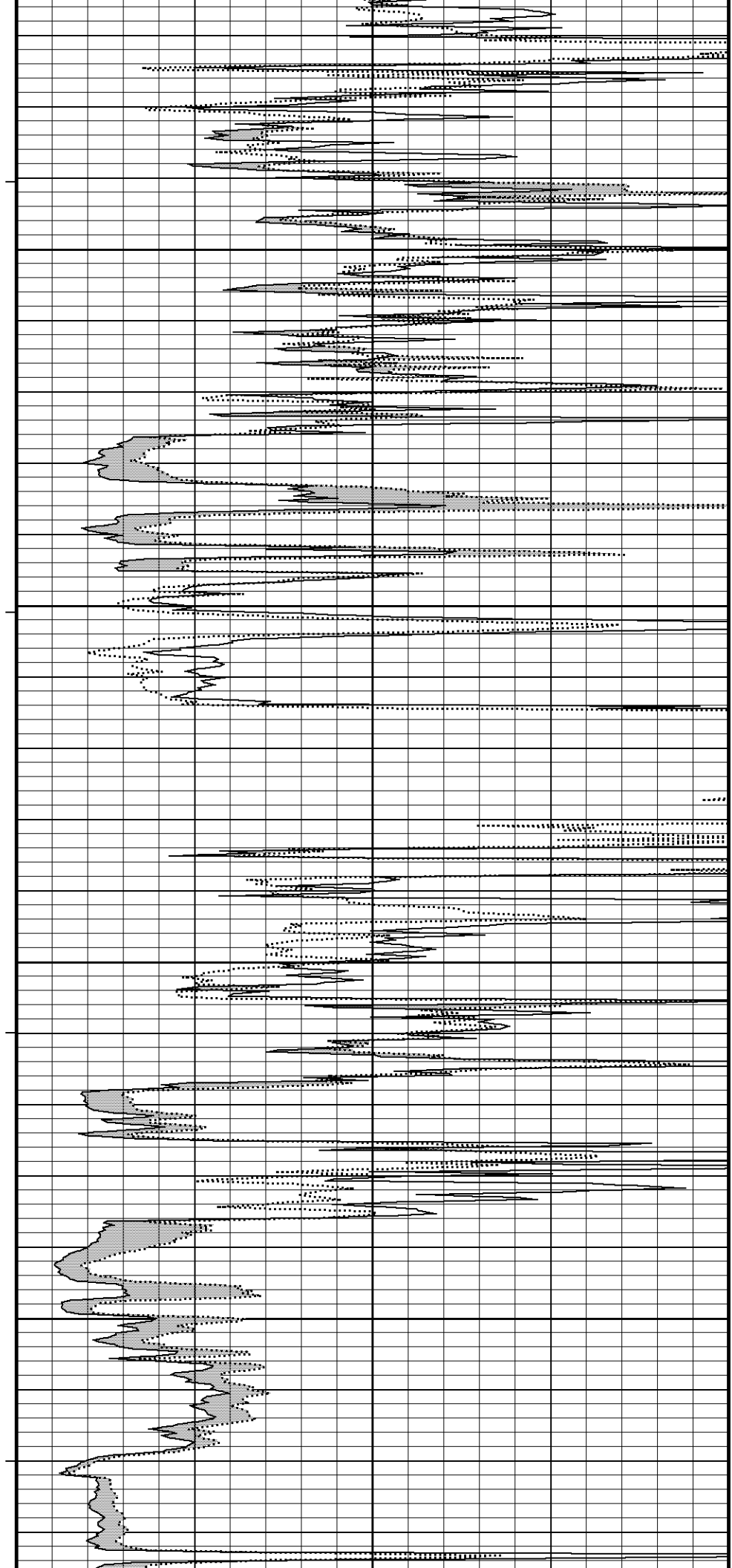
6350

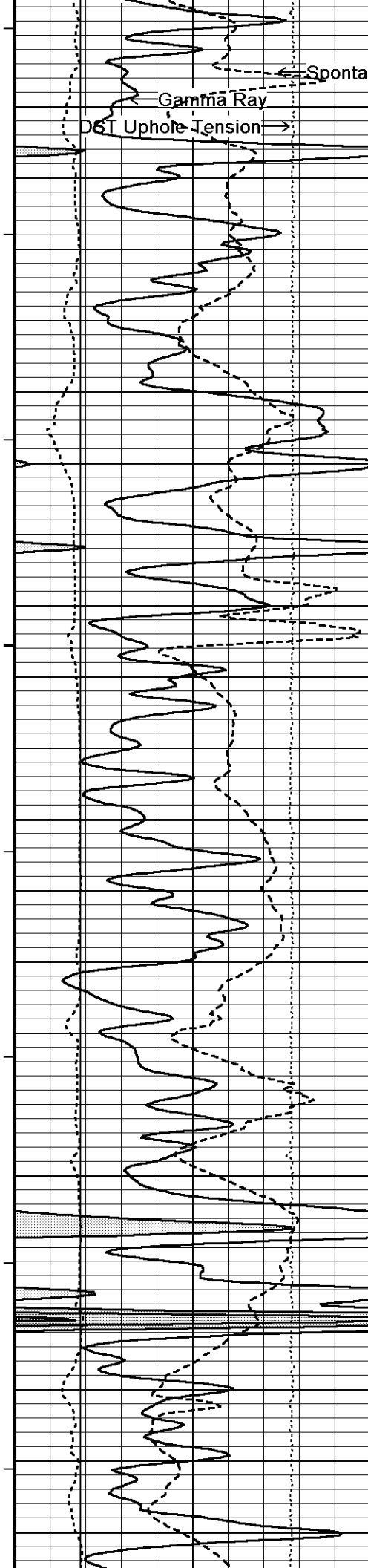
155°

6400

156°

6450





156°

6500

156°

6550

400

156°

200

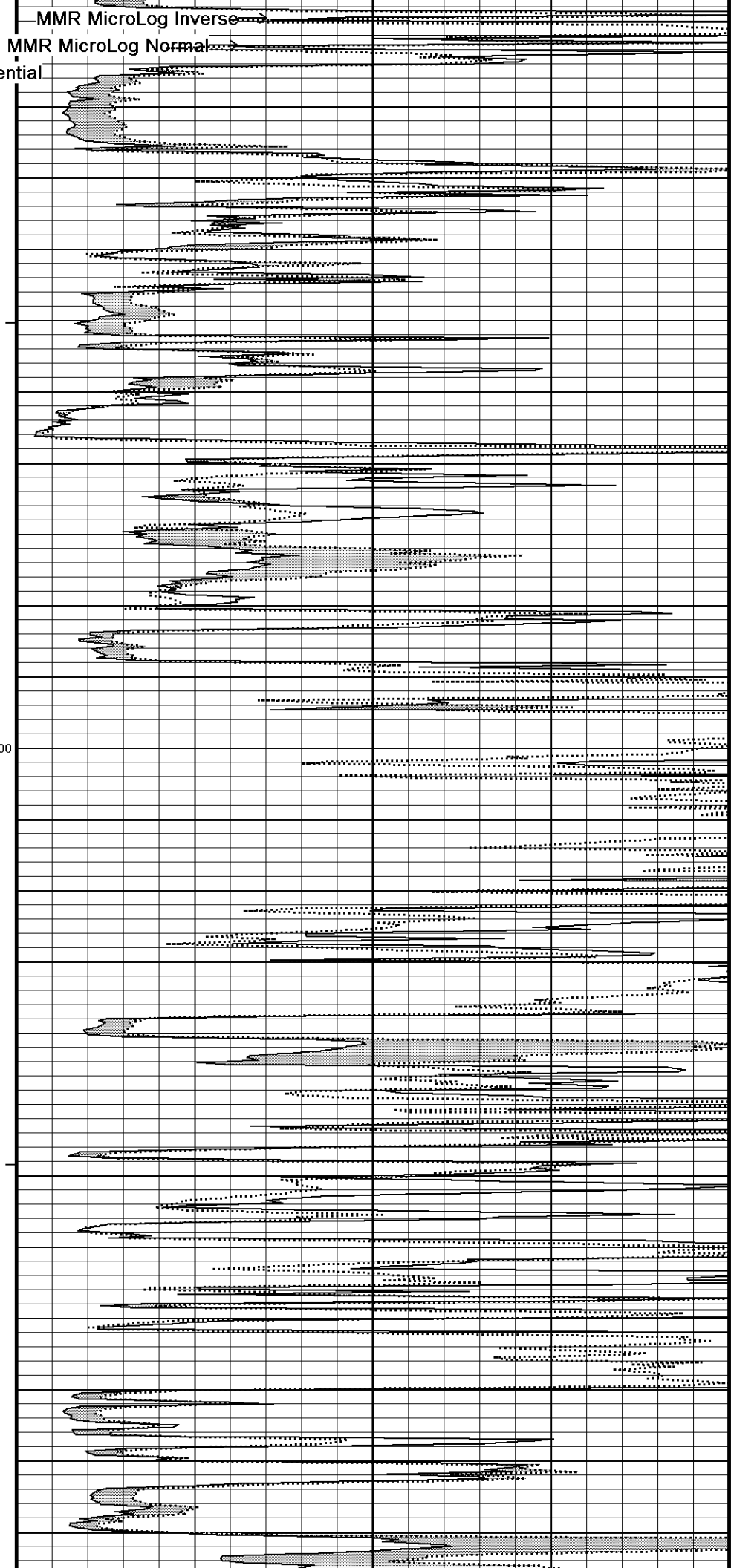
6600

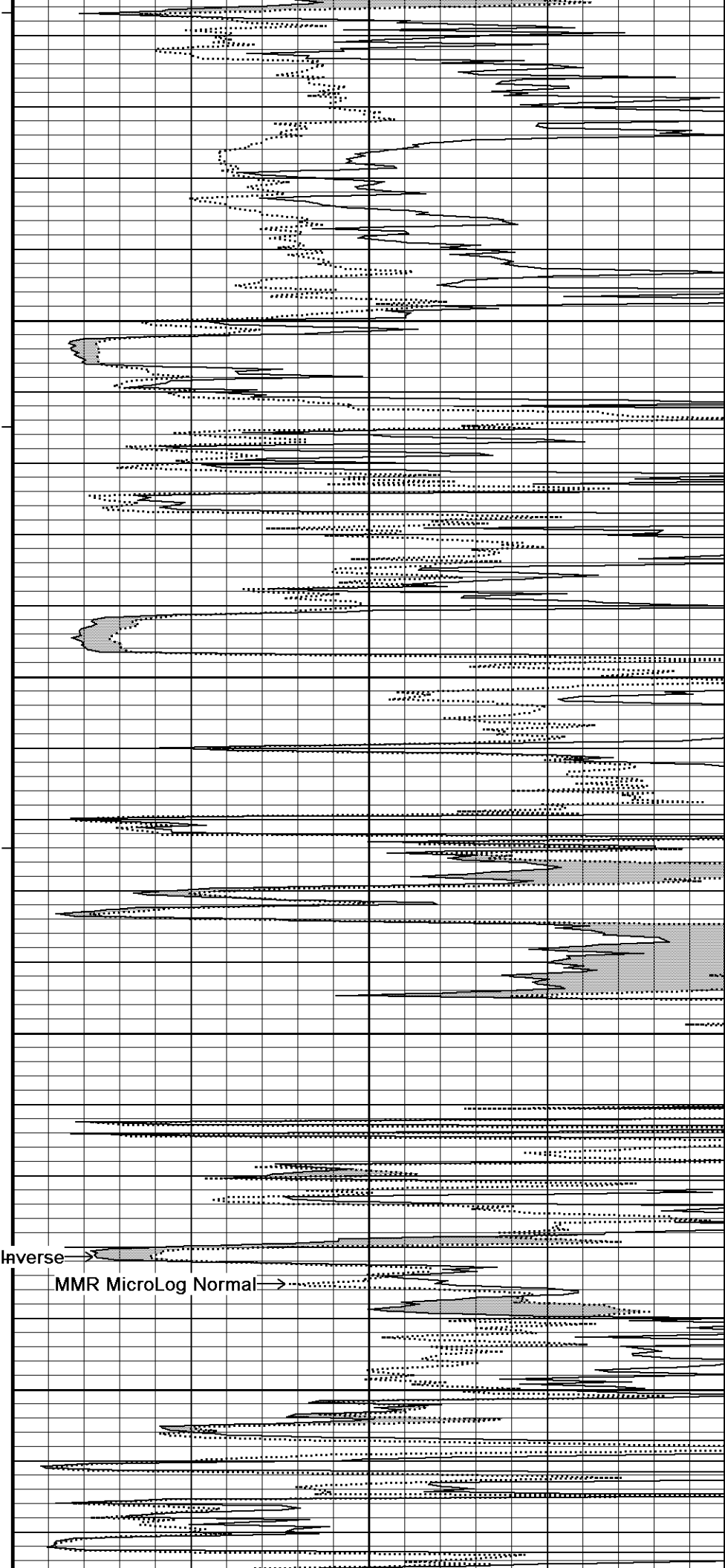
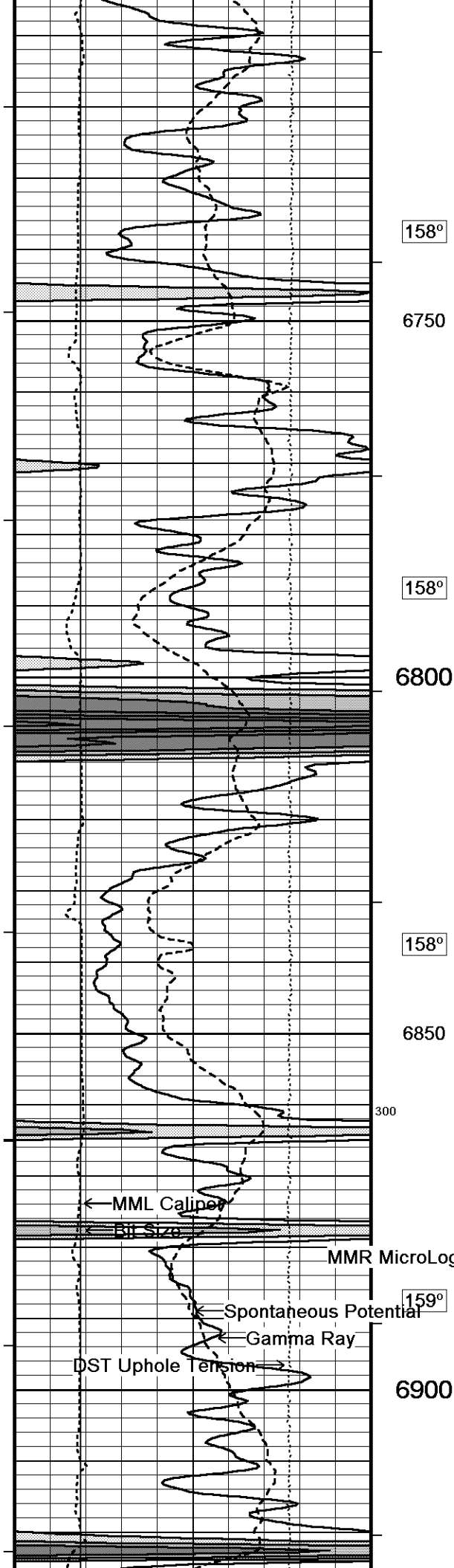
157°

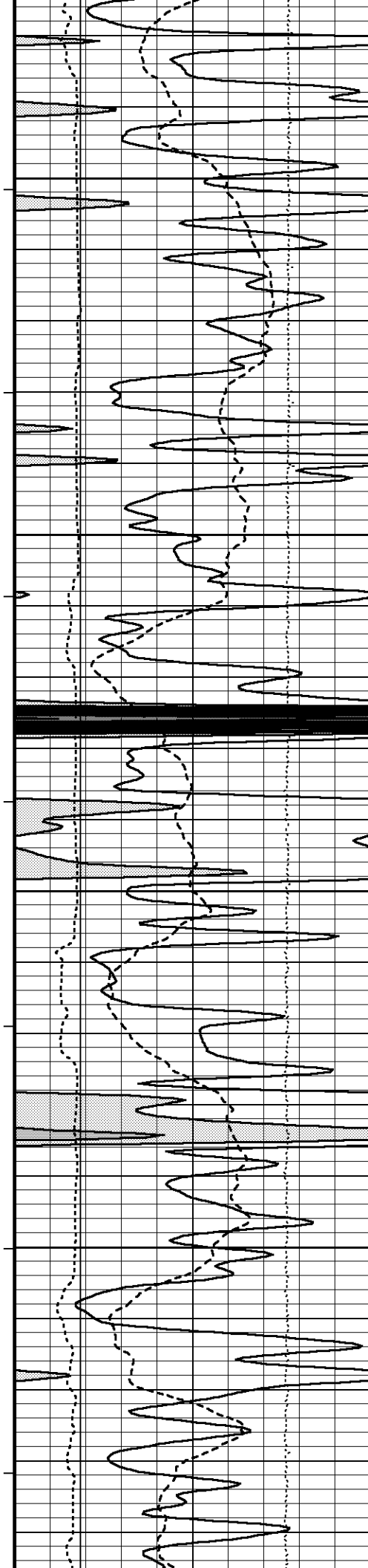
6650

158°

6700







159°

6950

160°

7000

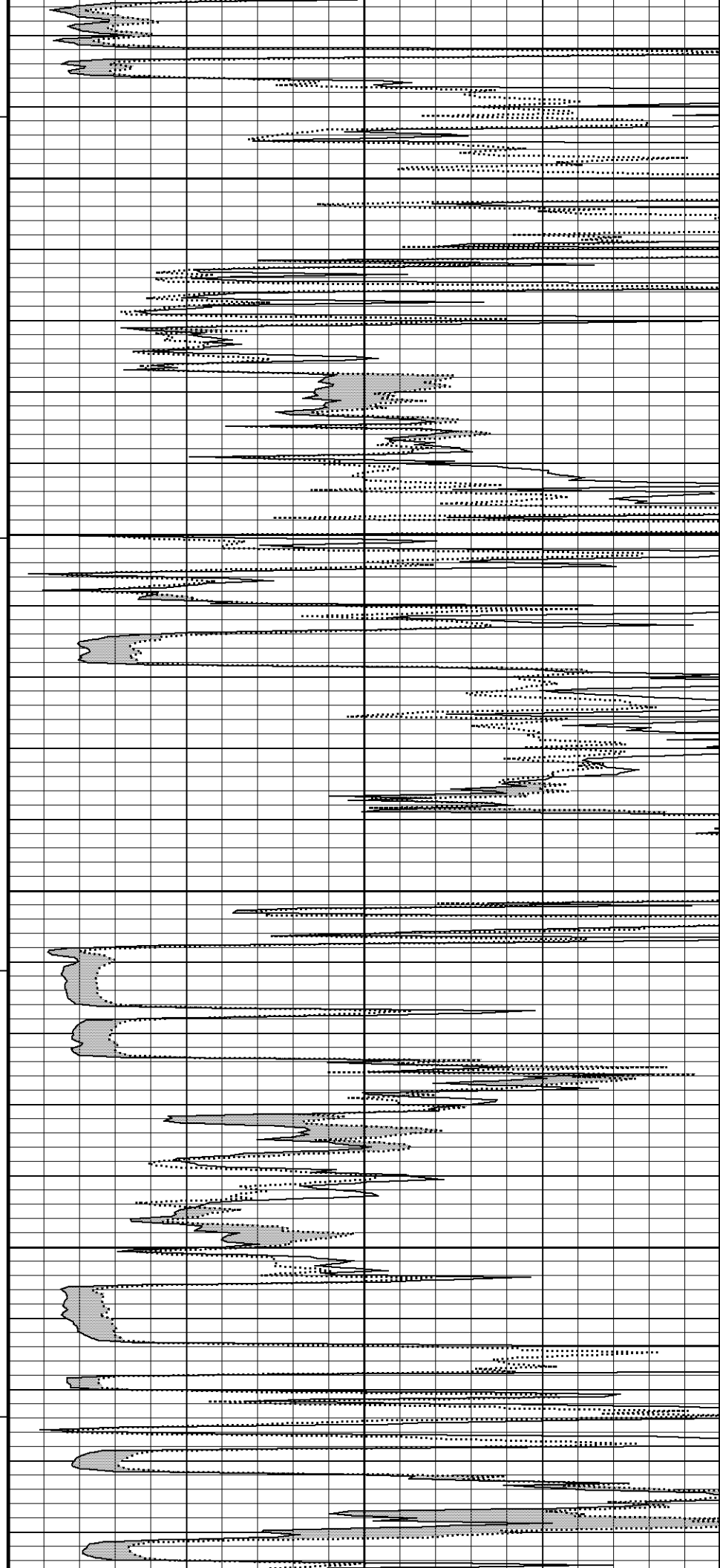
160°

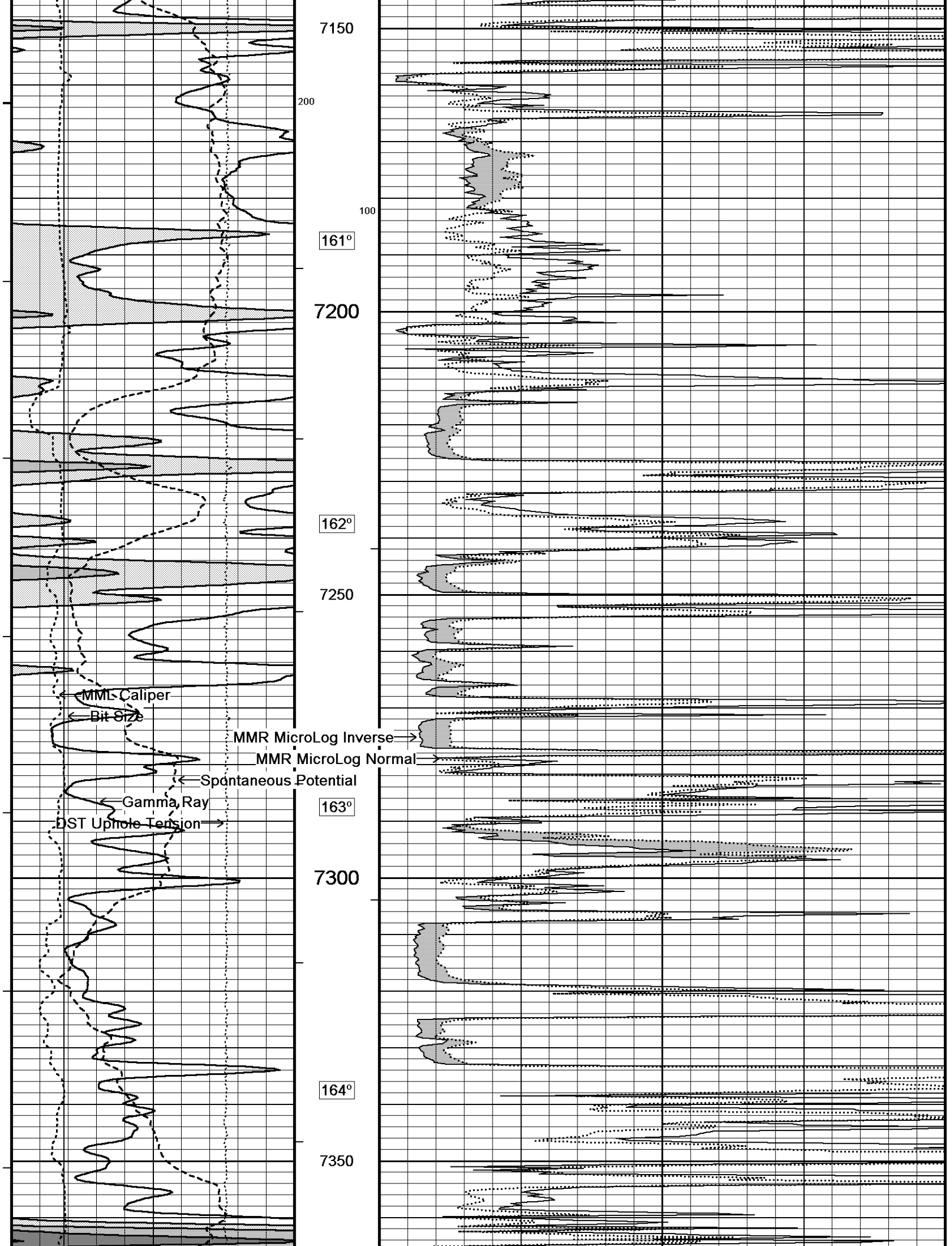
7050

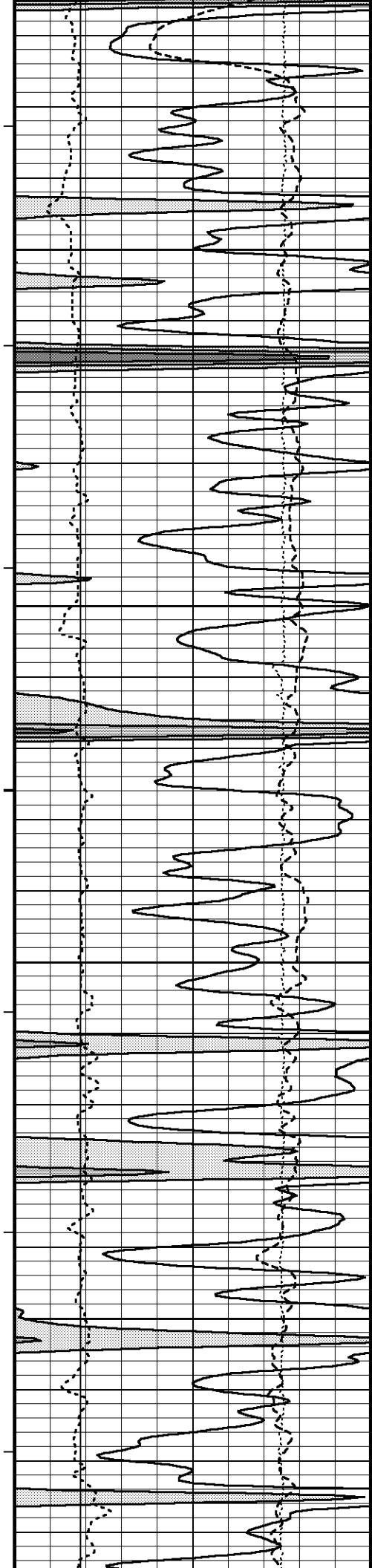
161°

7100

161°







164°

7400

166°

7450

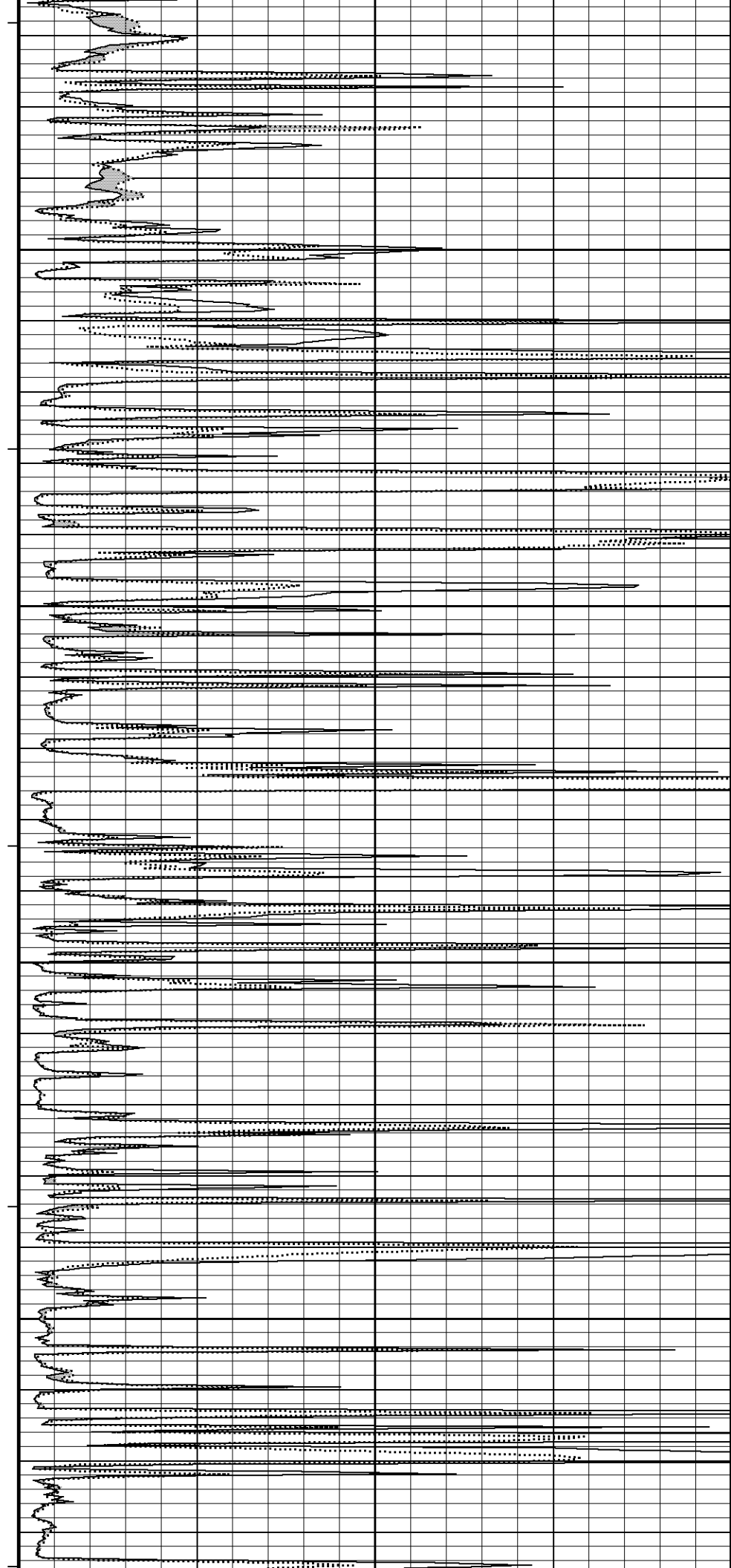
100

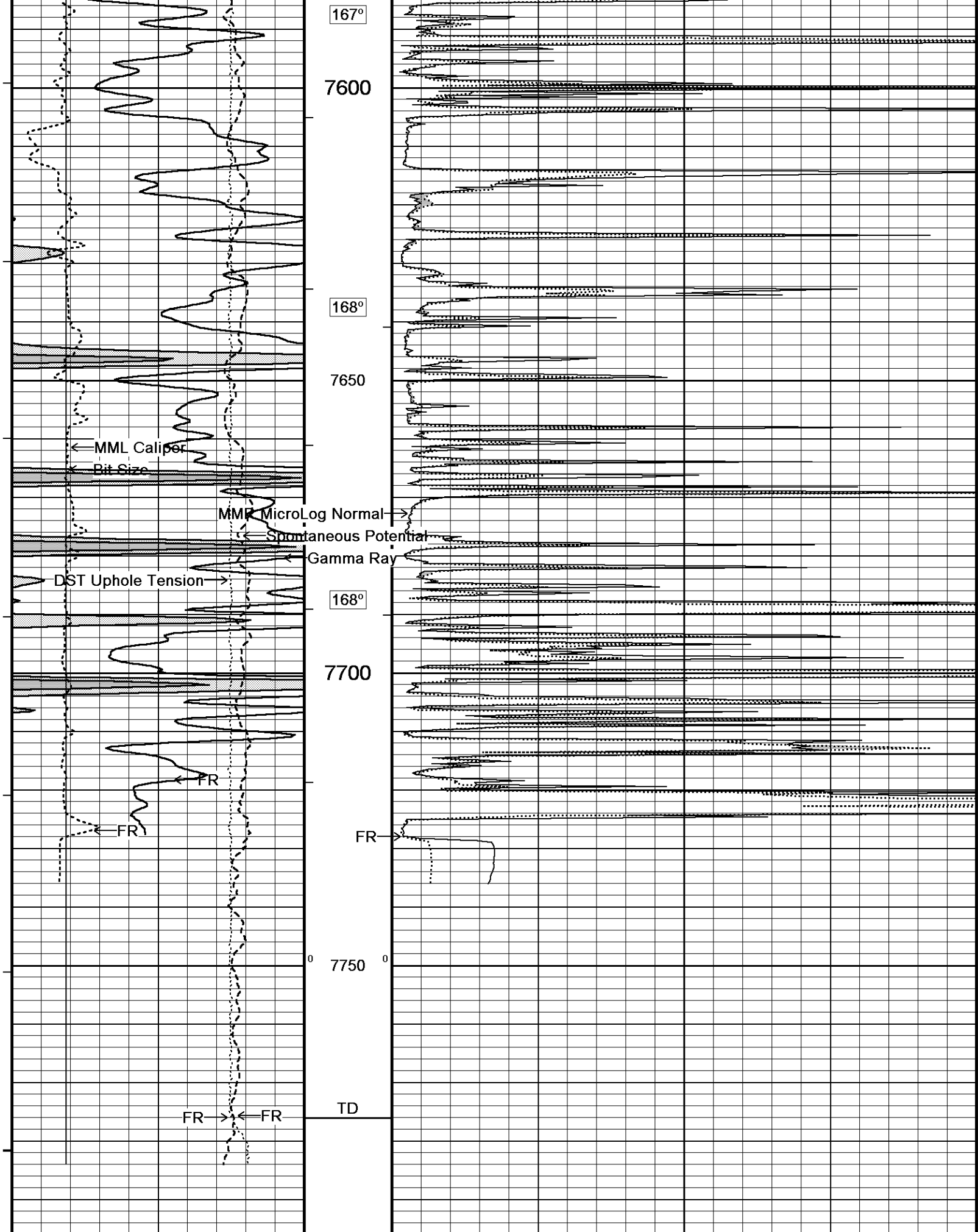
166°

7500

167°

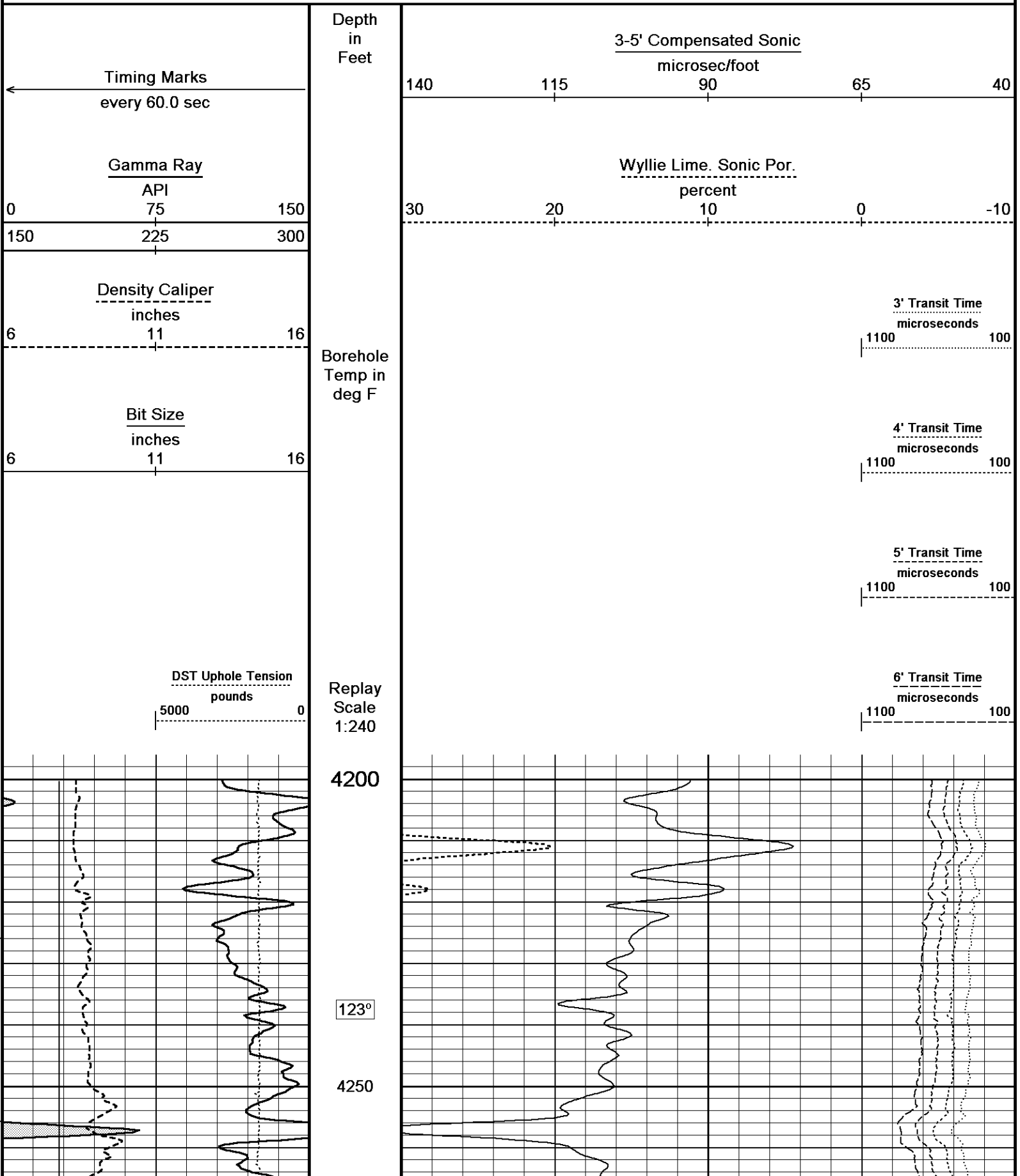
7550

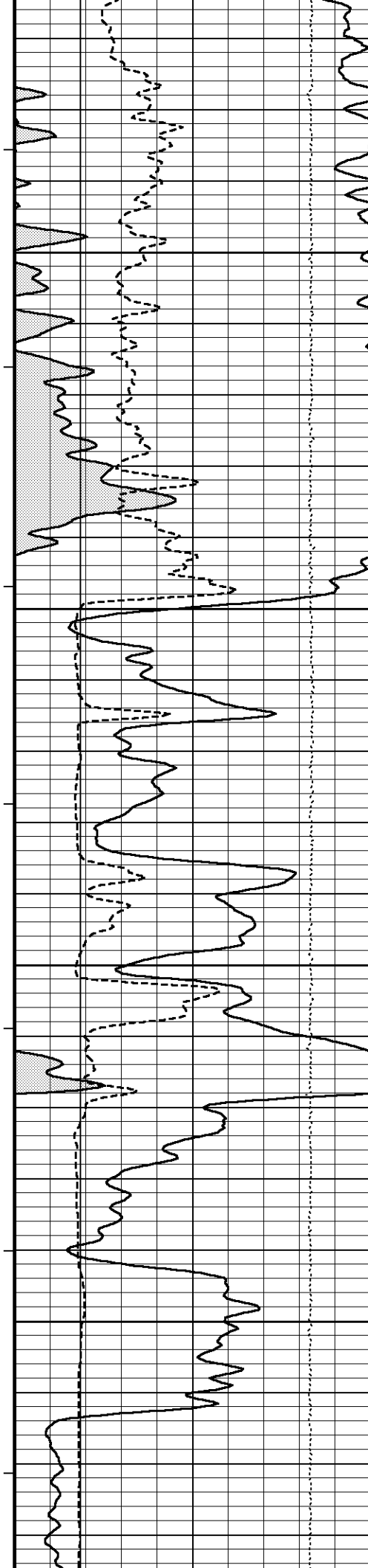




Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Minimus 17.05.6573\Logs\Murfin Rogue #...\Murfin Rogue #10-25_003 spooled section.dta
System Versions: Logged with 17.05.6573 Plotted with 17.05.6573

Plotted on 07-FEB-2018 23:36
Recorded on 07-FEB-2018 23:31





124°

4300

125°

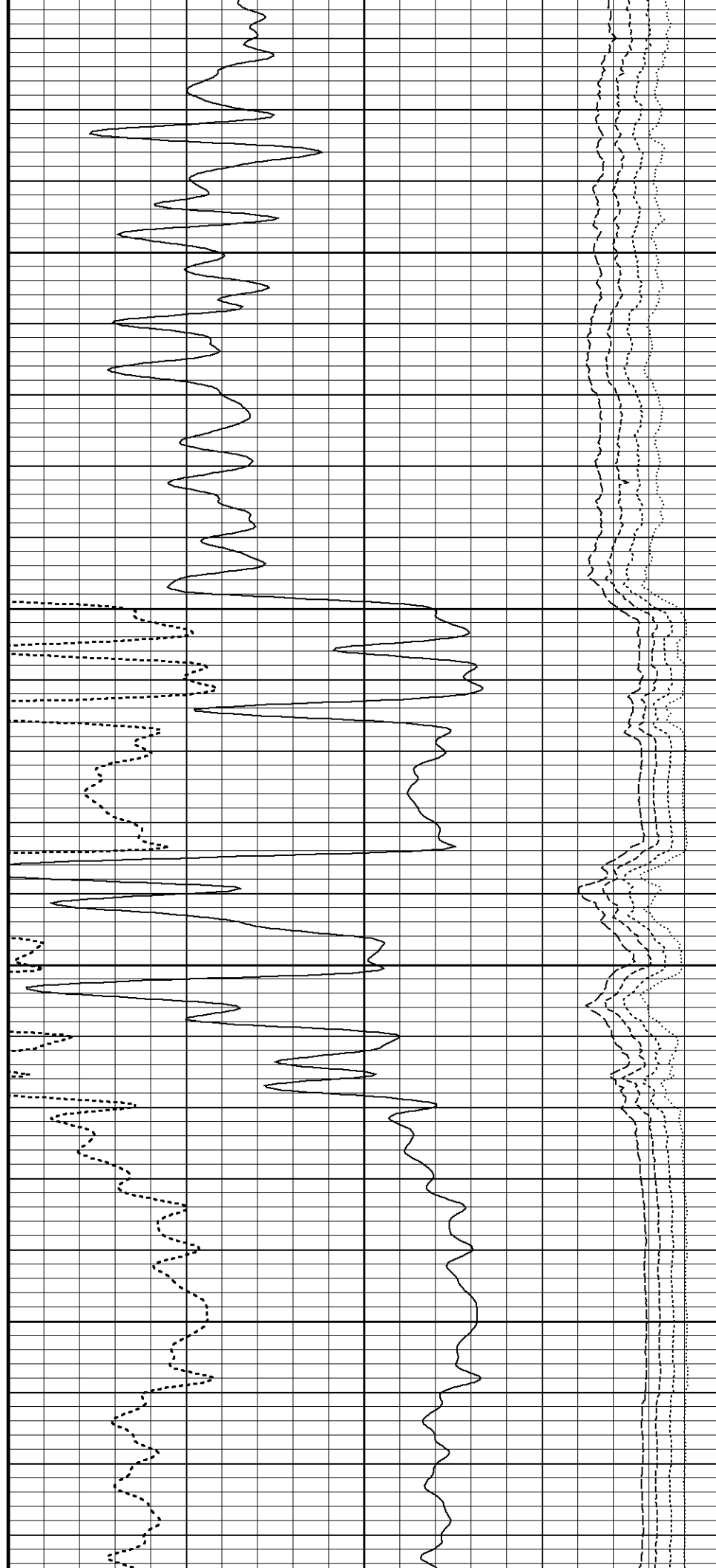
4350

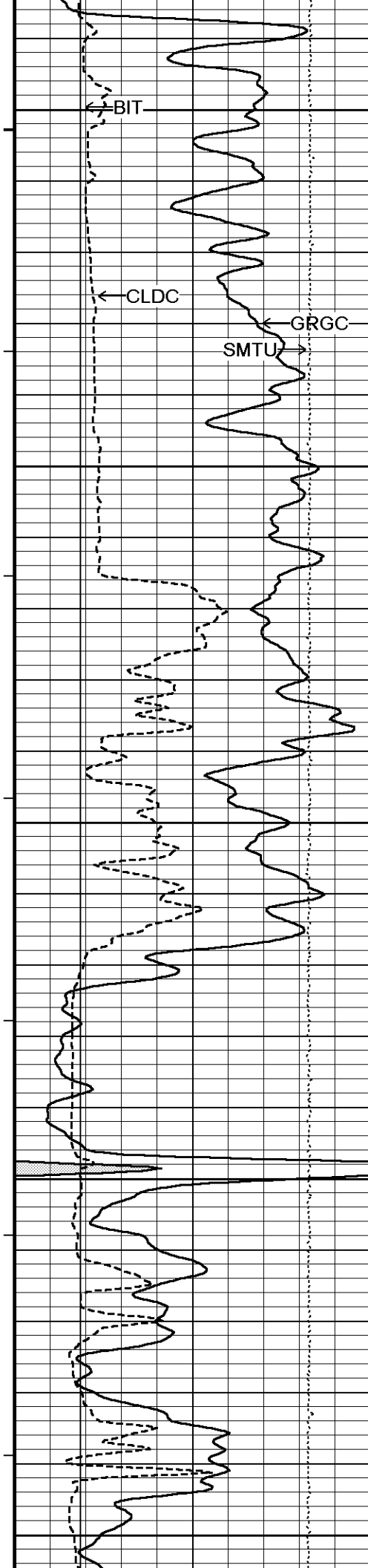
127°

4400

129°

4450





129°

4500

129°

4550

129°

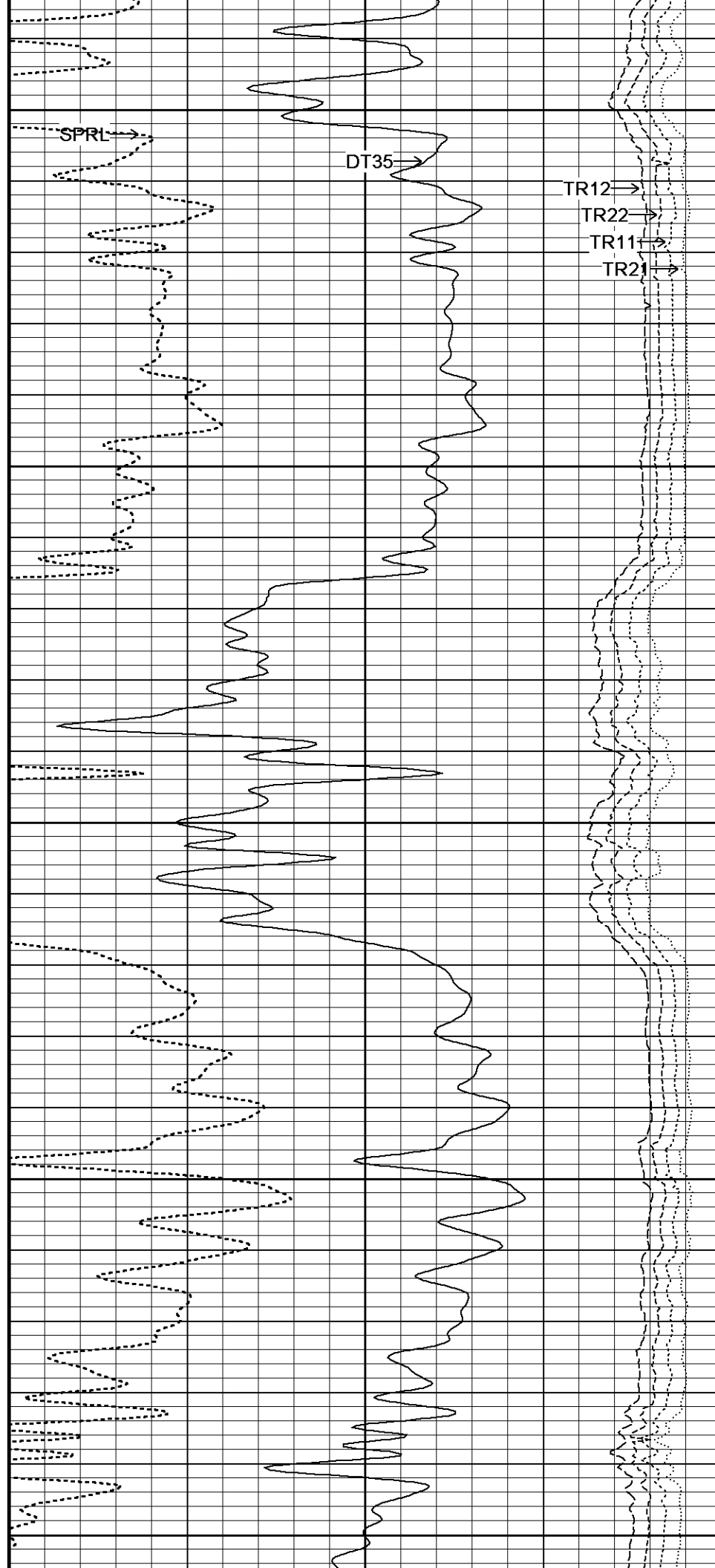
4600

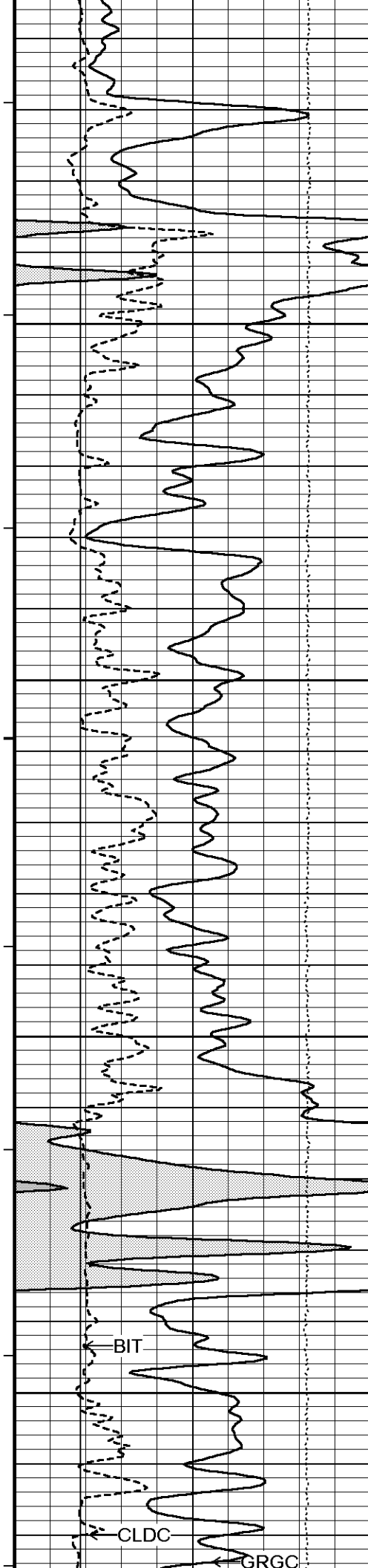
131°

4650

132°

4700





131°

4750

132°

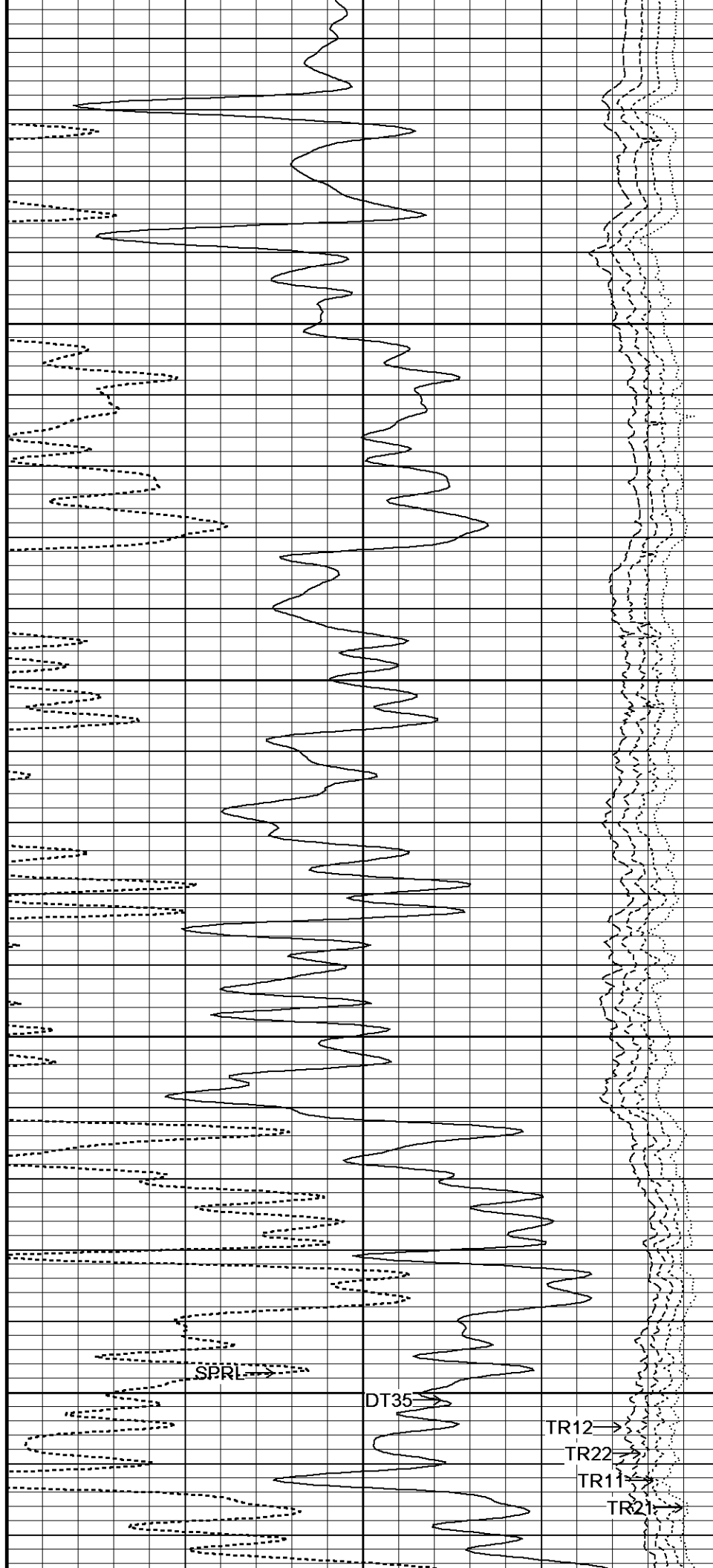
4800

132°

4850

133°

4900





135°

4950

136°

5000

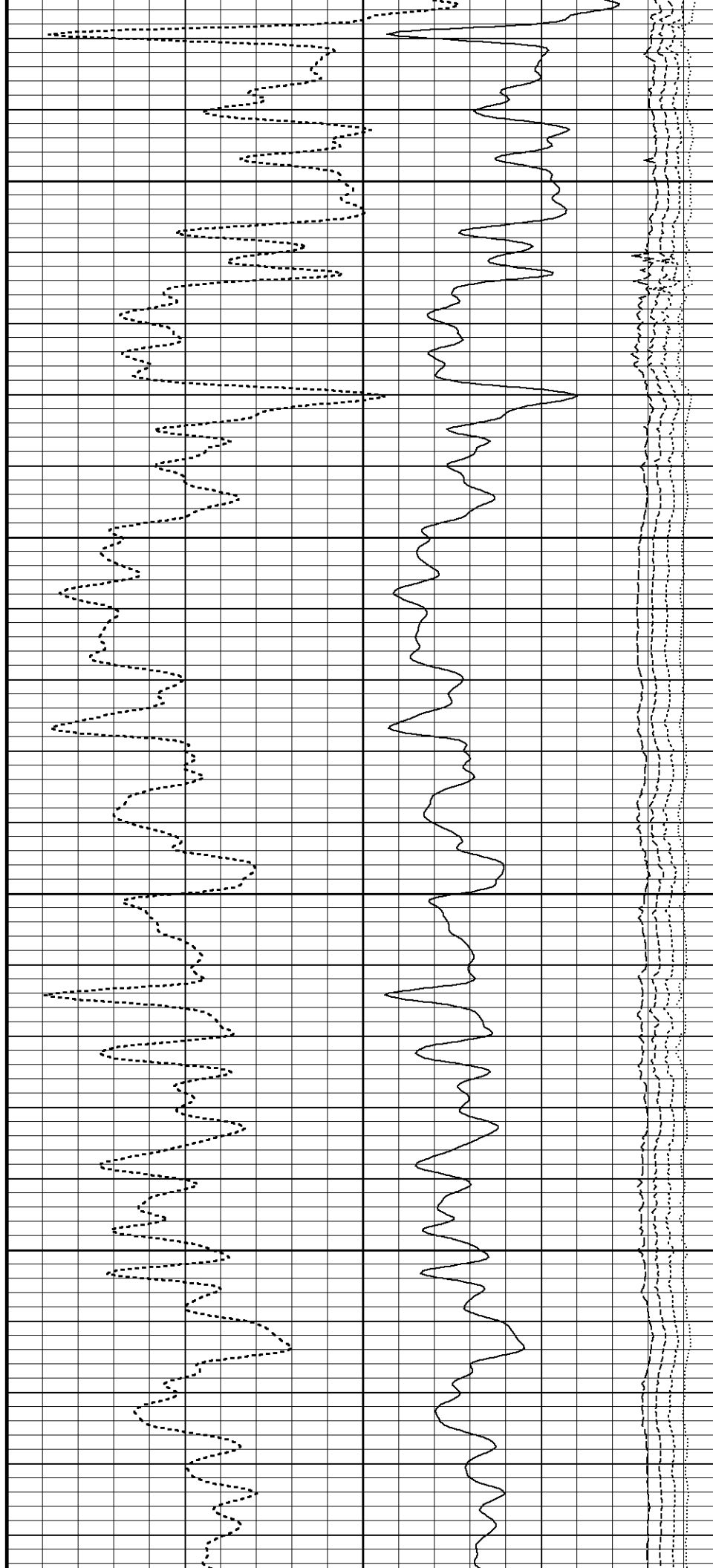
136°

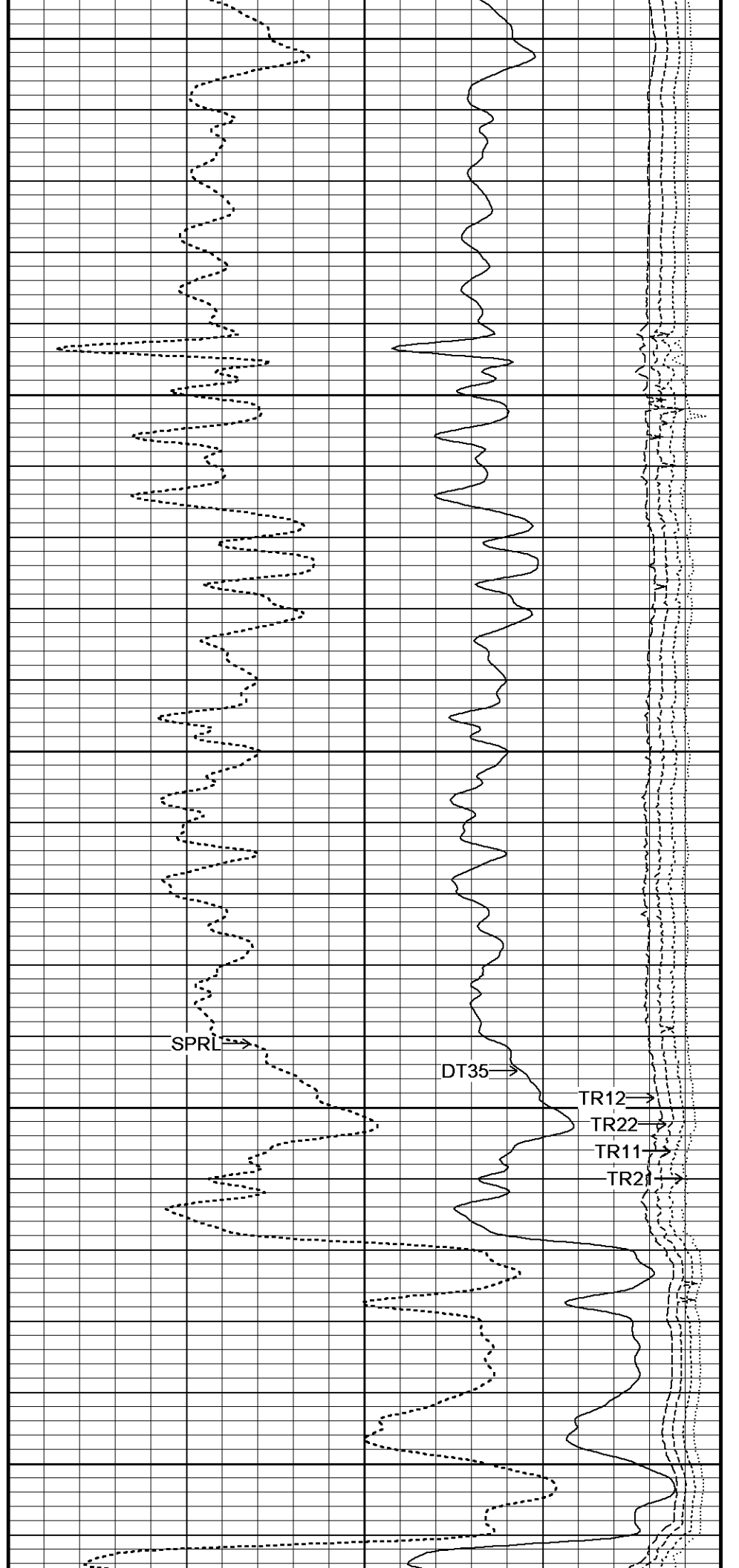
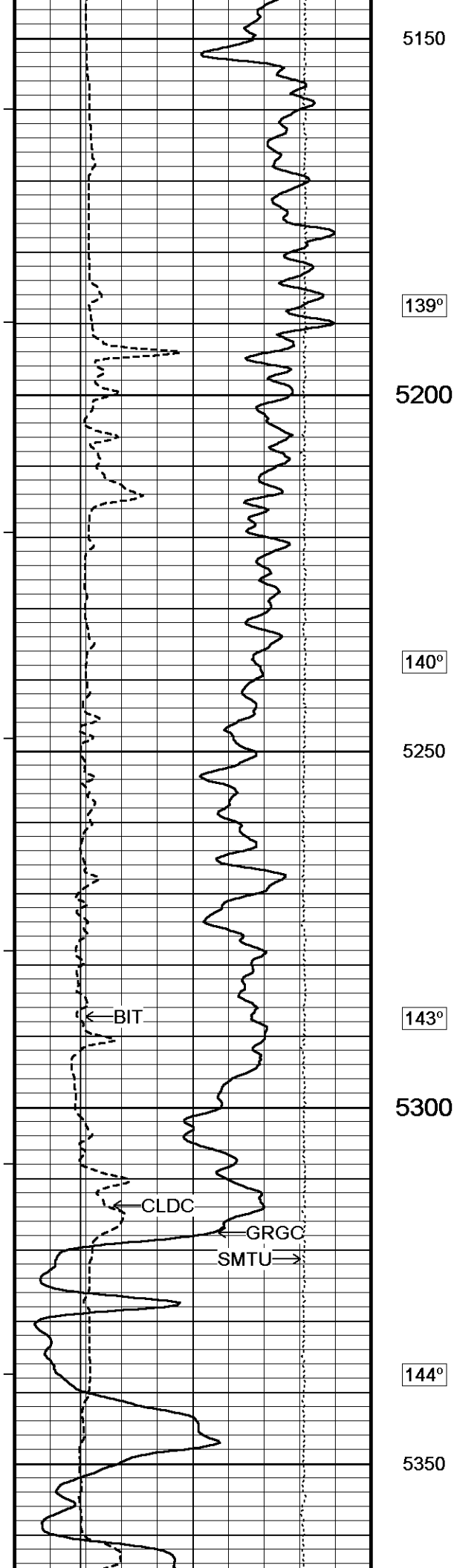
5050

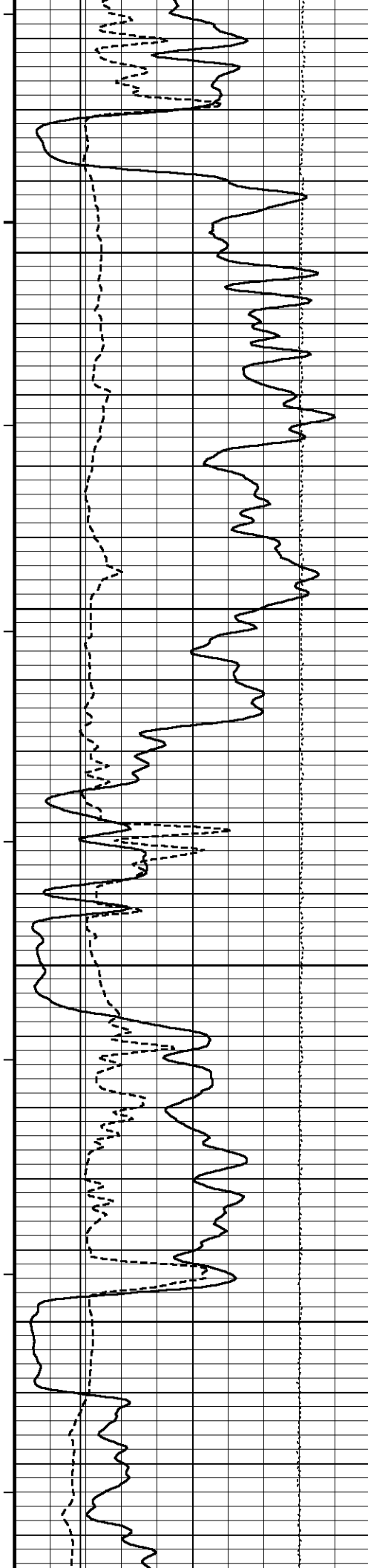
137°

5100

138°







144°

5400

145°

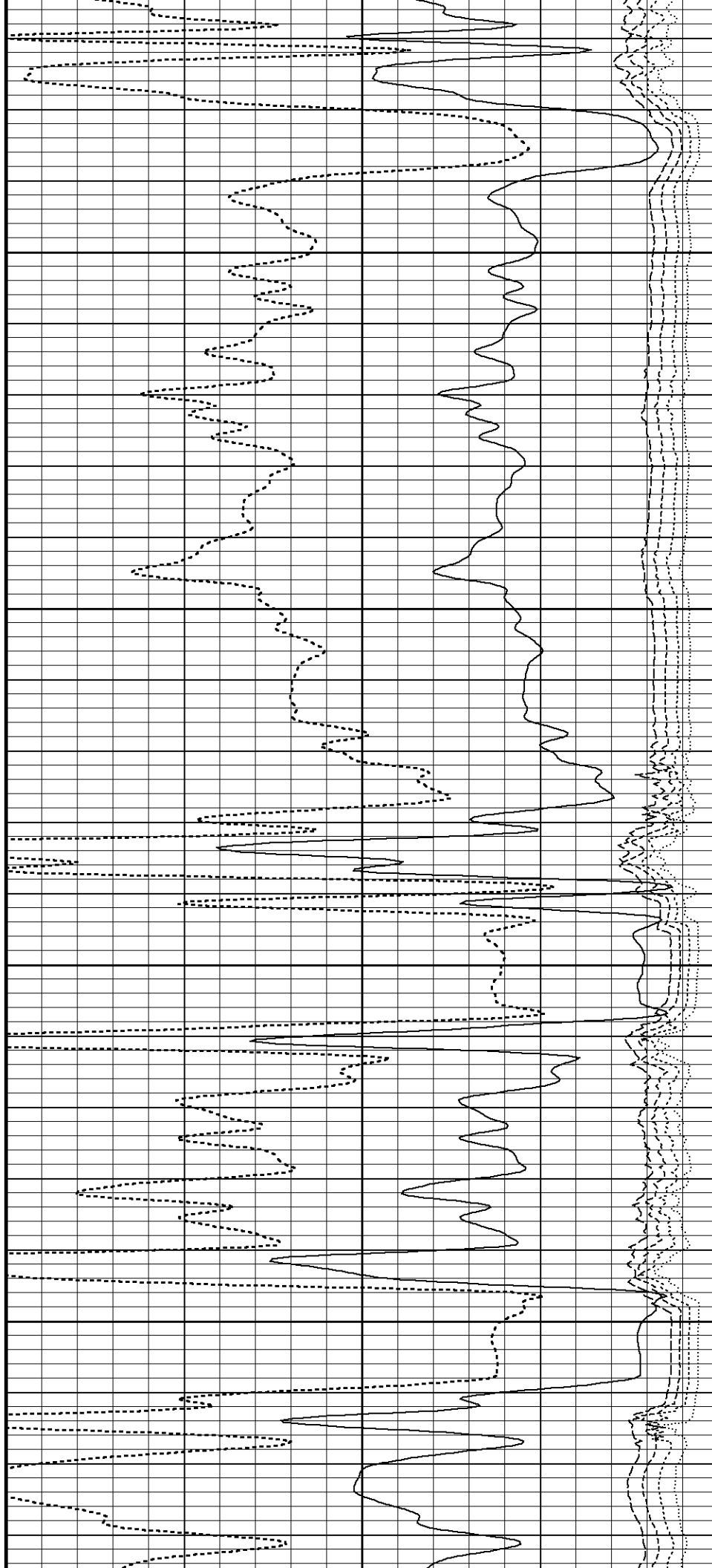
5450

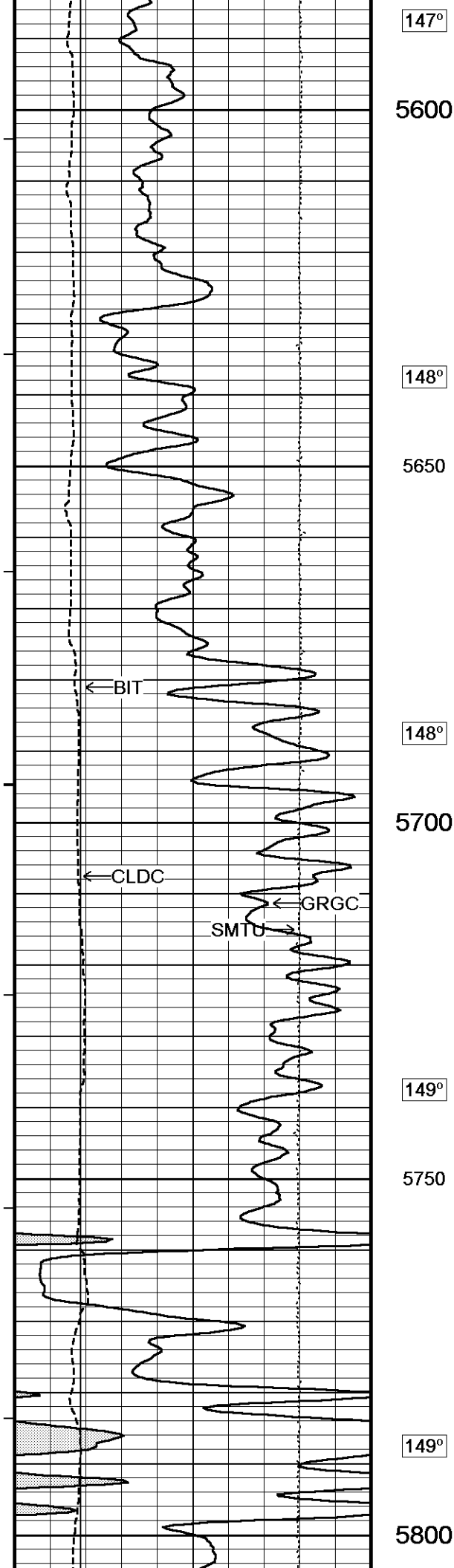
145°

5500

146°

5550





147°

5600

148°

5650

148°

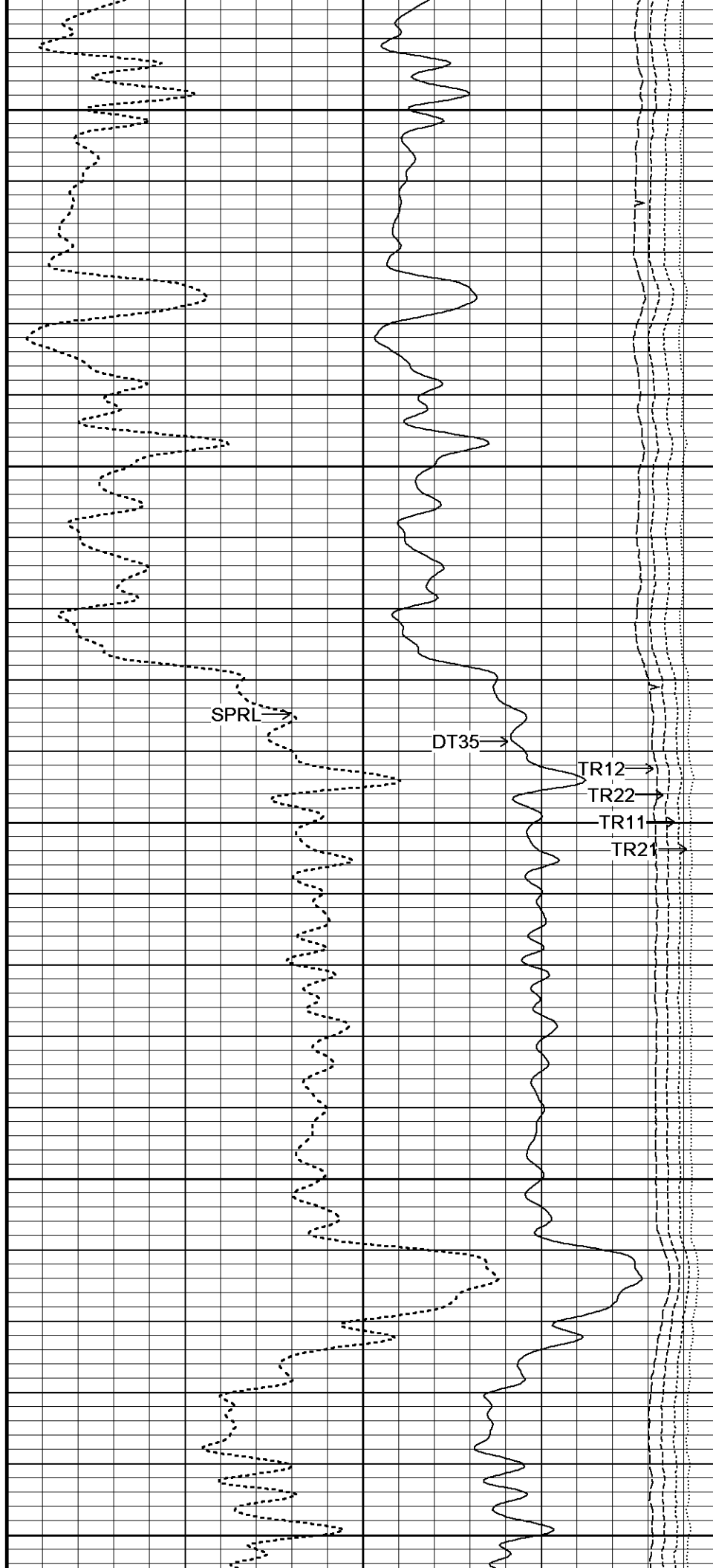
5700

149°

5750

149°

5800



SPRL

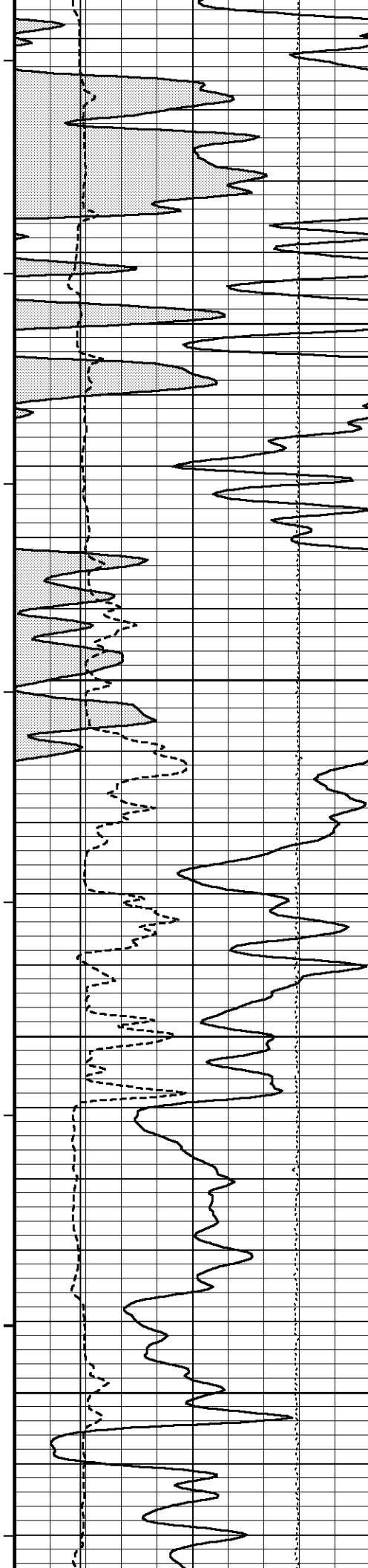
DT35

TR12

TR22

TR11

TR21



149°

5850

150°

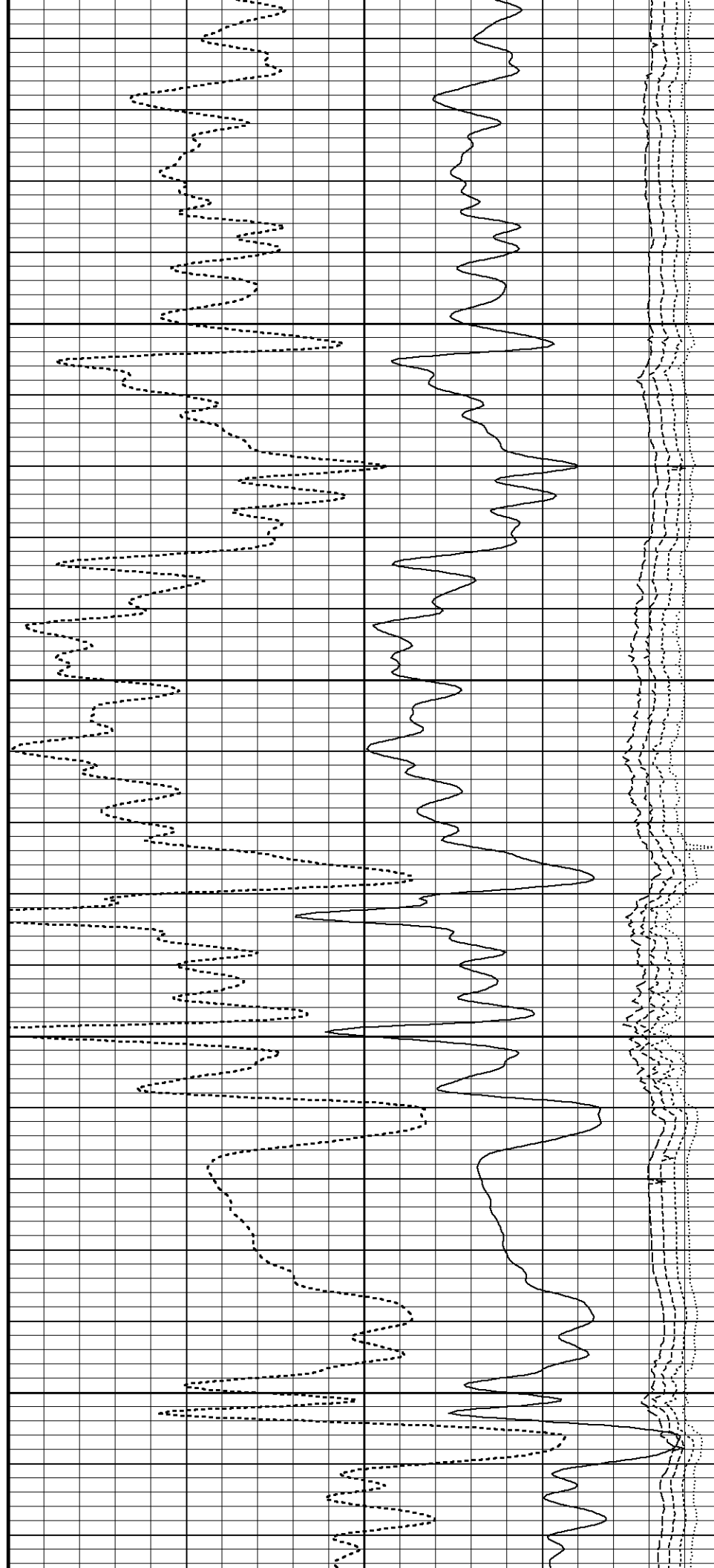
5900

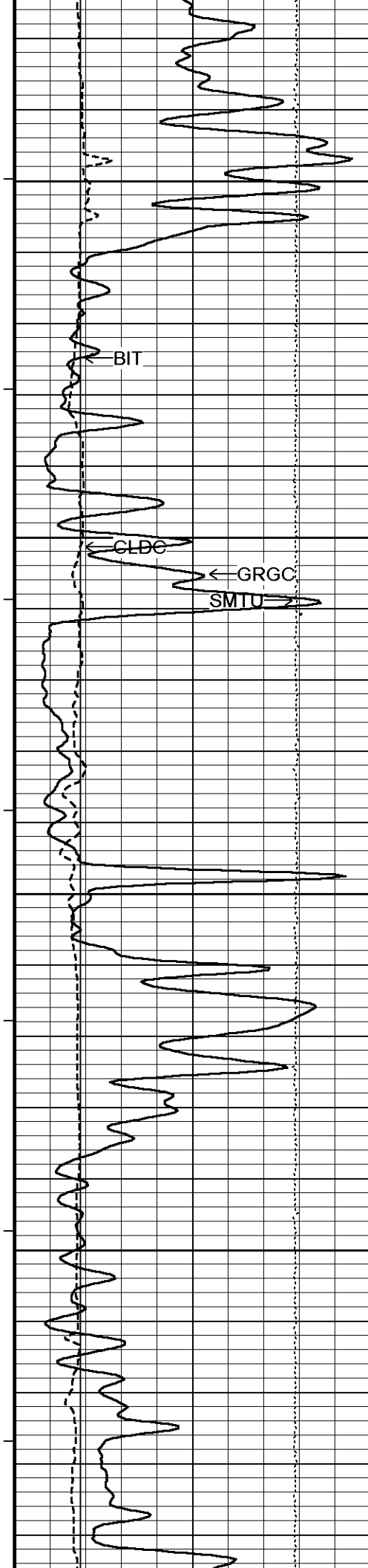
151°

5950

152°

6000





152°

6050

← BIT

153°

6100

← CLDG

← GRGC

SMTU →

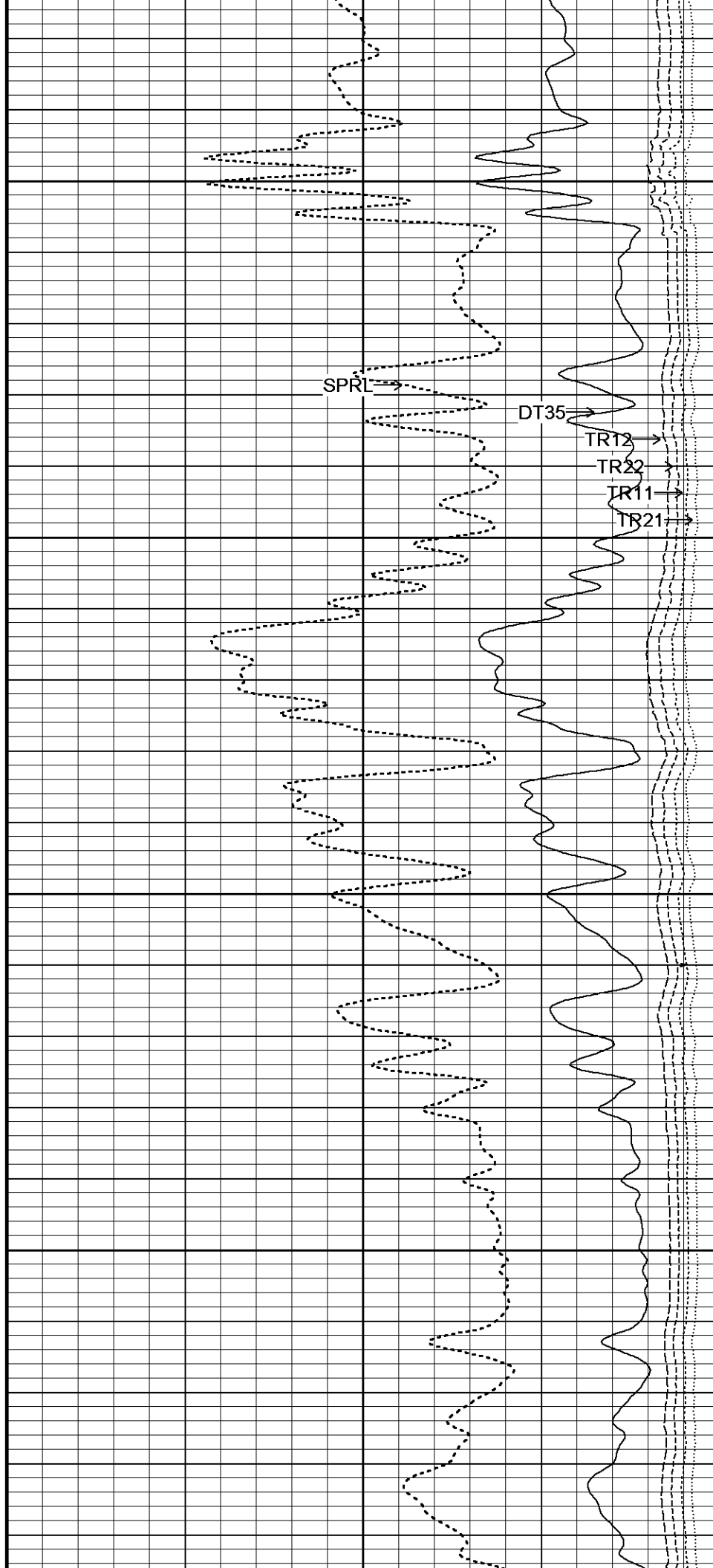
153°

6150

154°

6200

155°



SPRL →

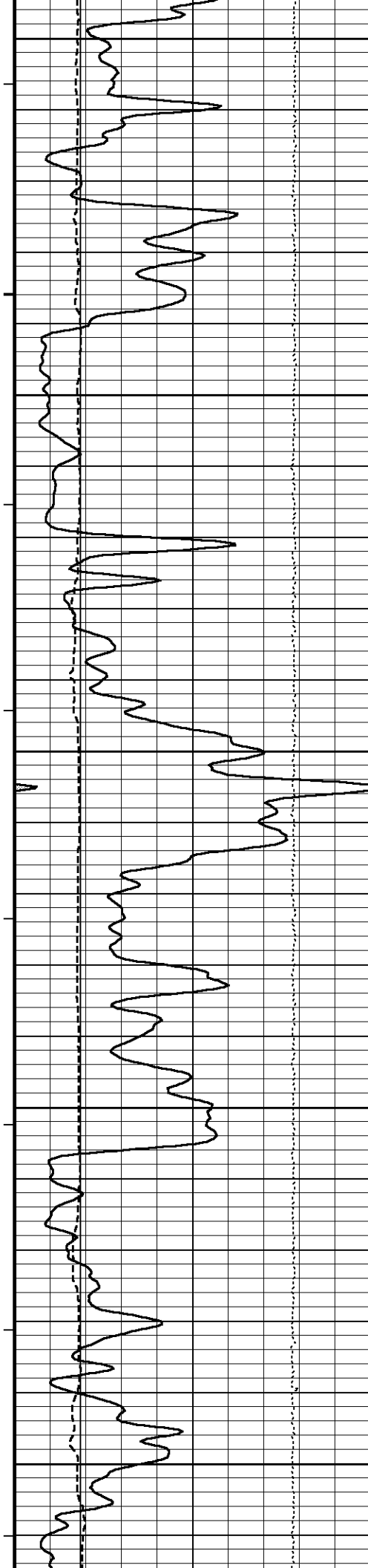
DT35 →

TR12 →

TR22 →

TR11 →

TR21 →



6250

155°

6300

155°

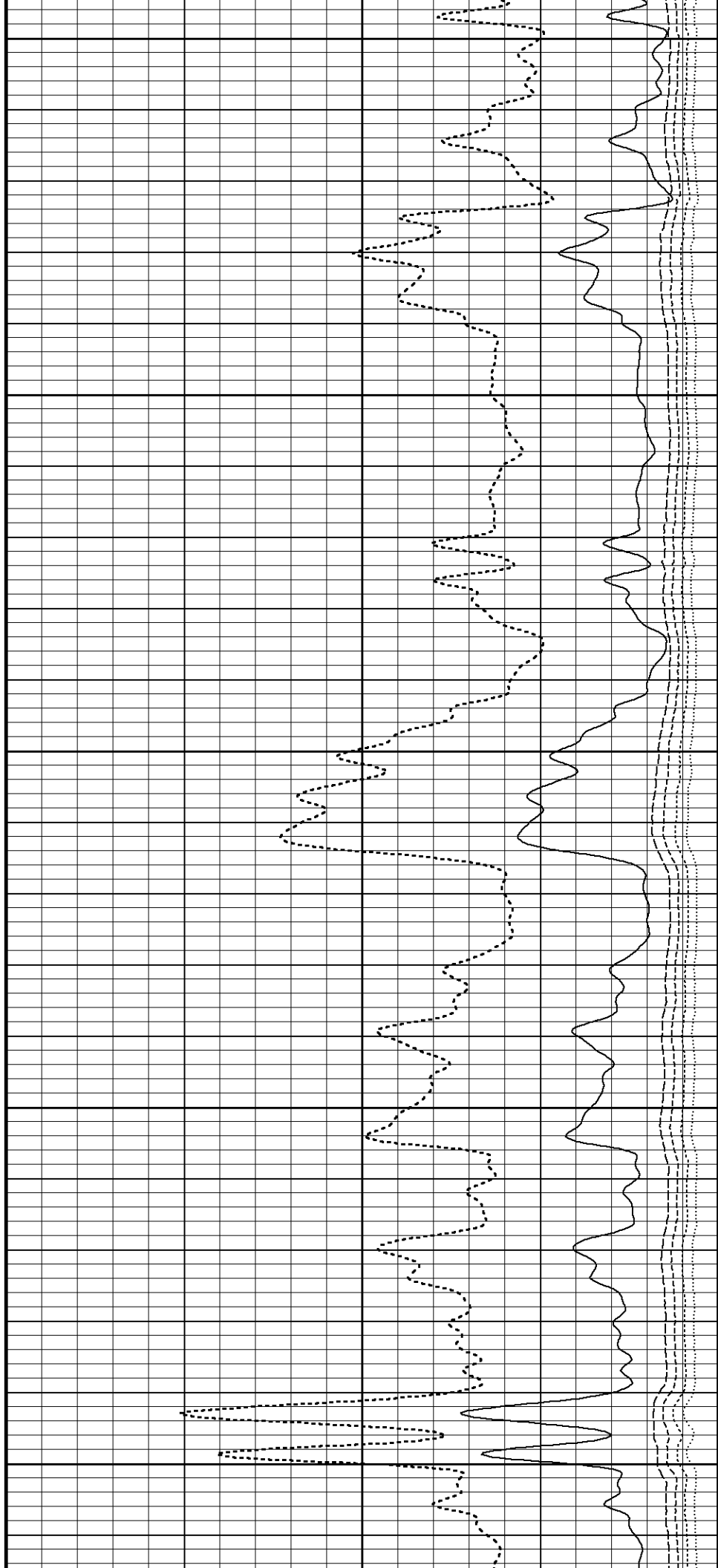
6350

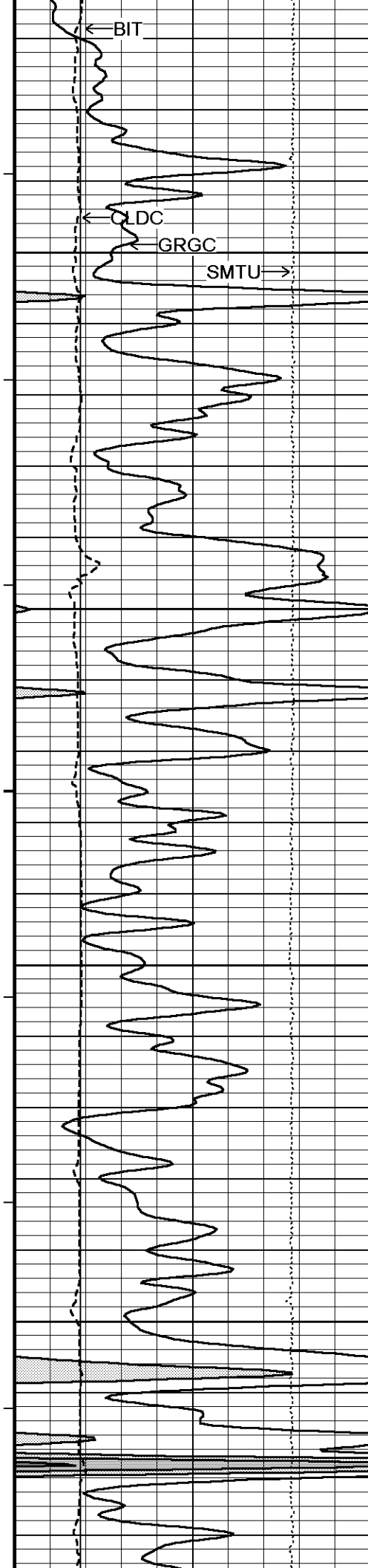
155°

6400

156°

6450





156°

6500

156°

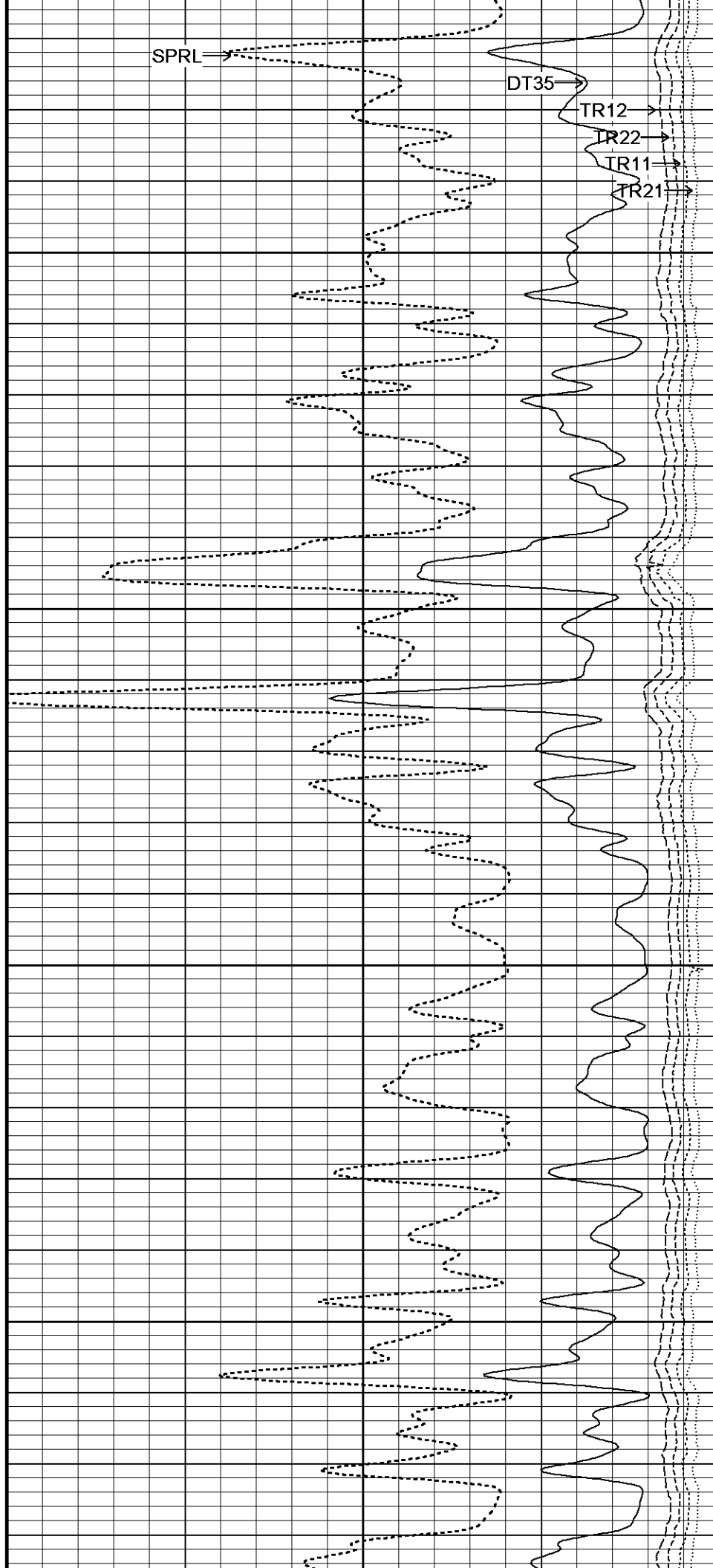
6550

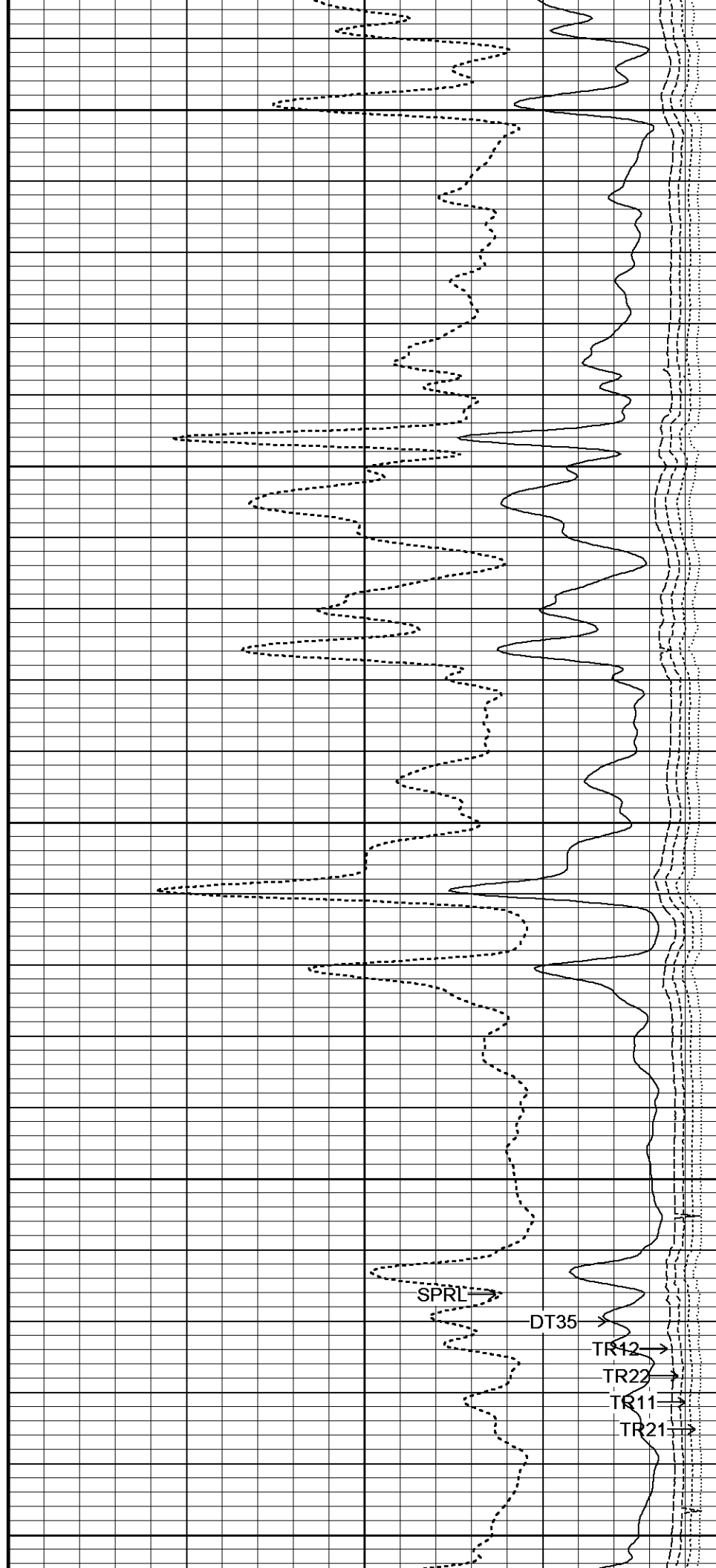
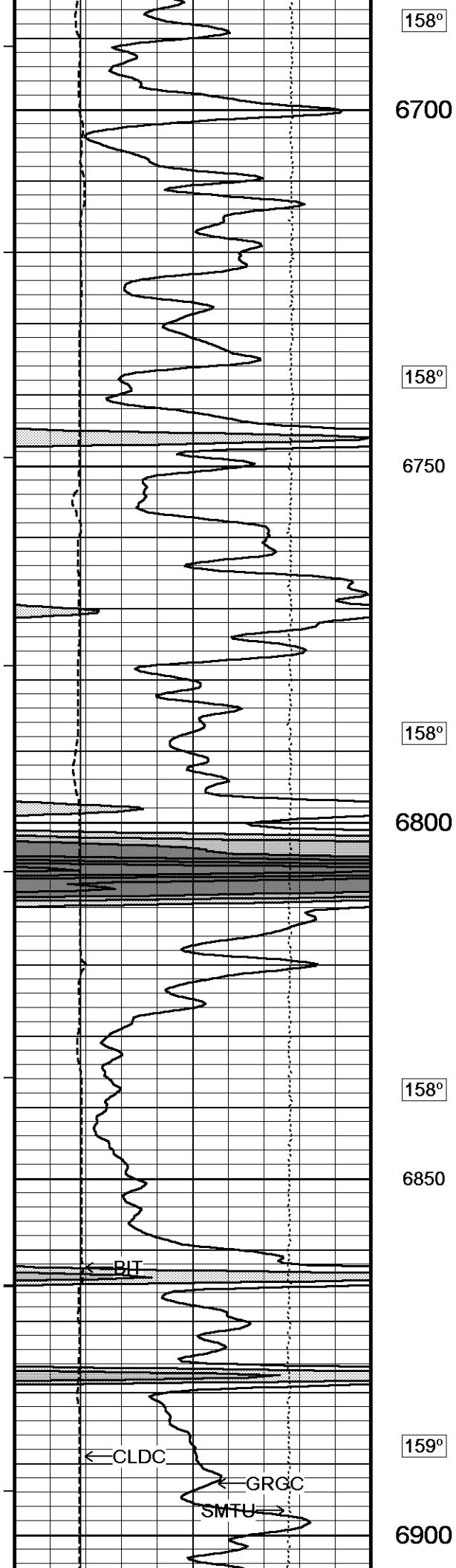
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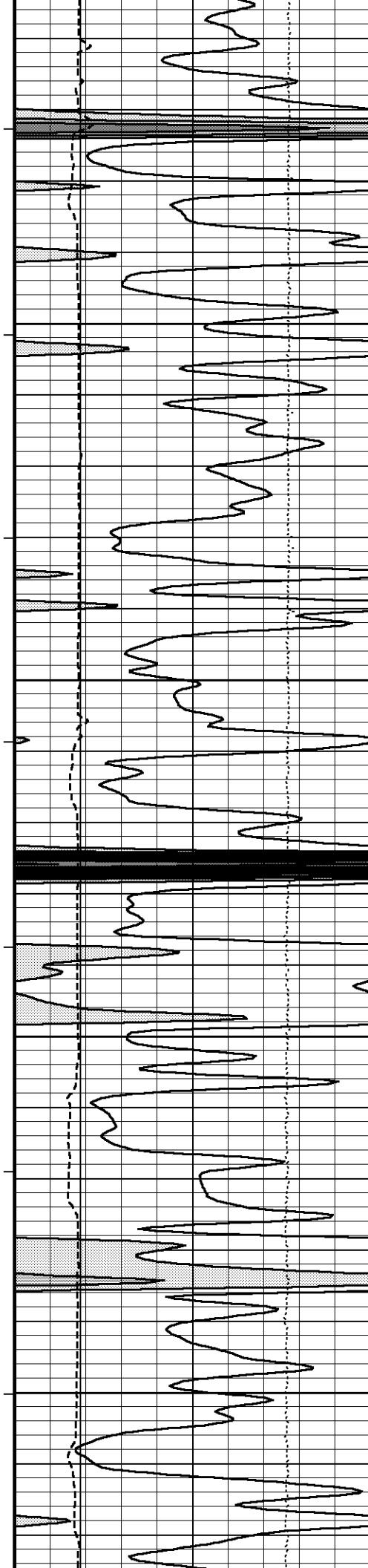
6600

157°

6650







159°

6950

160°

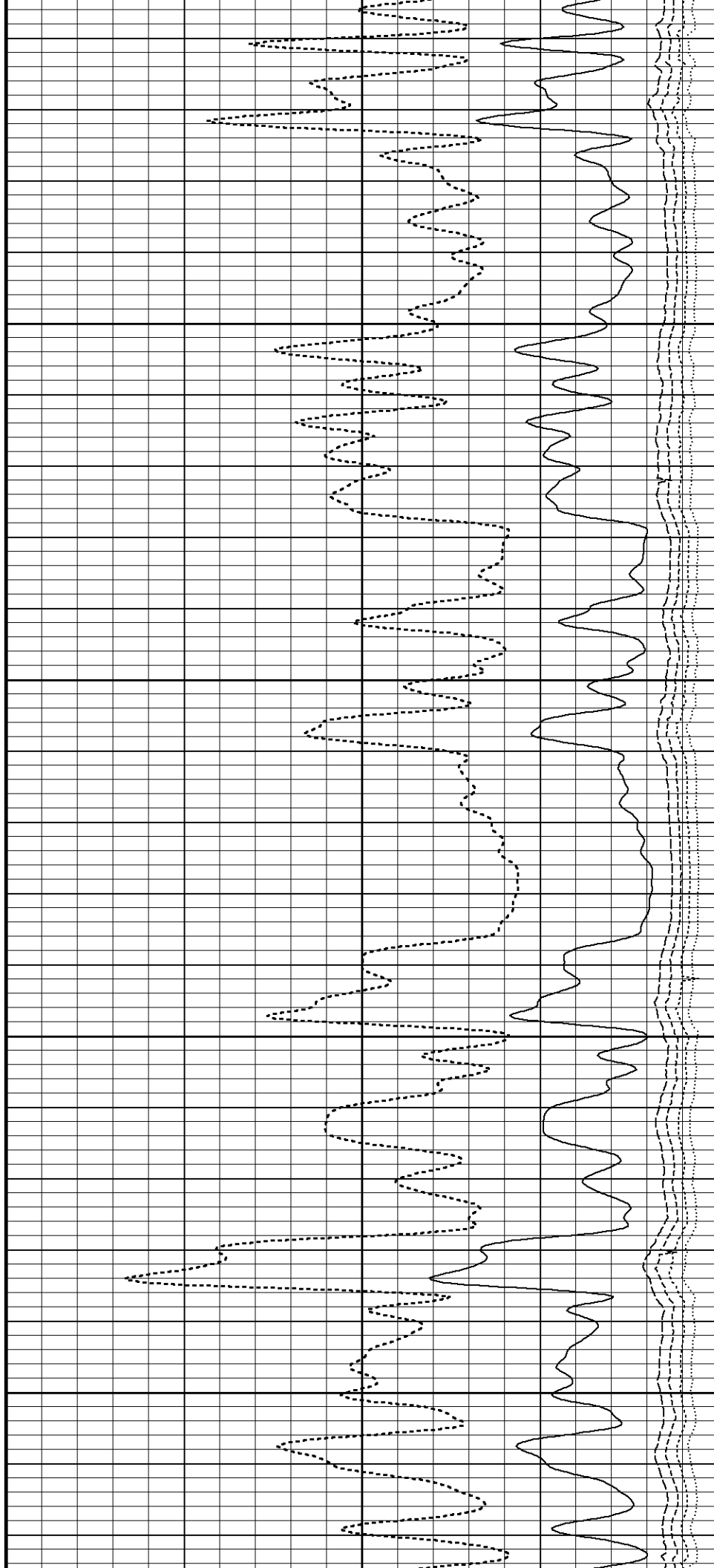
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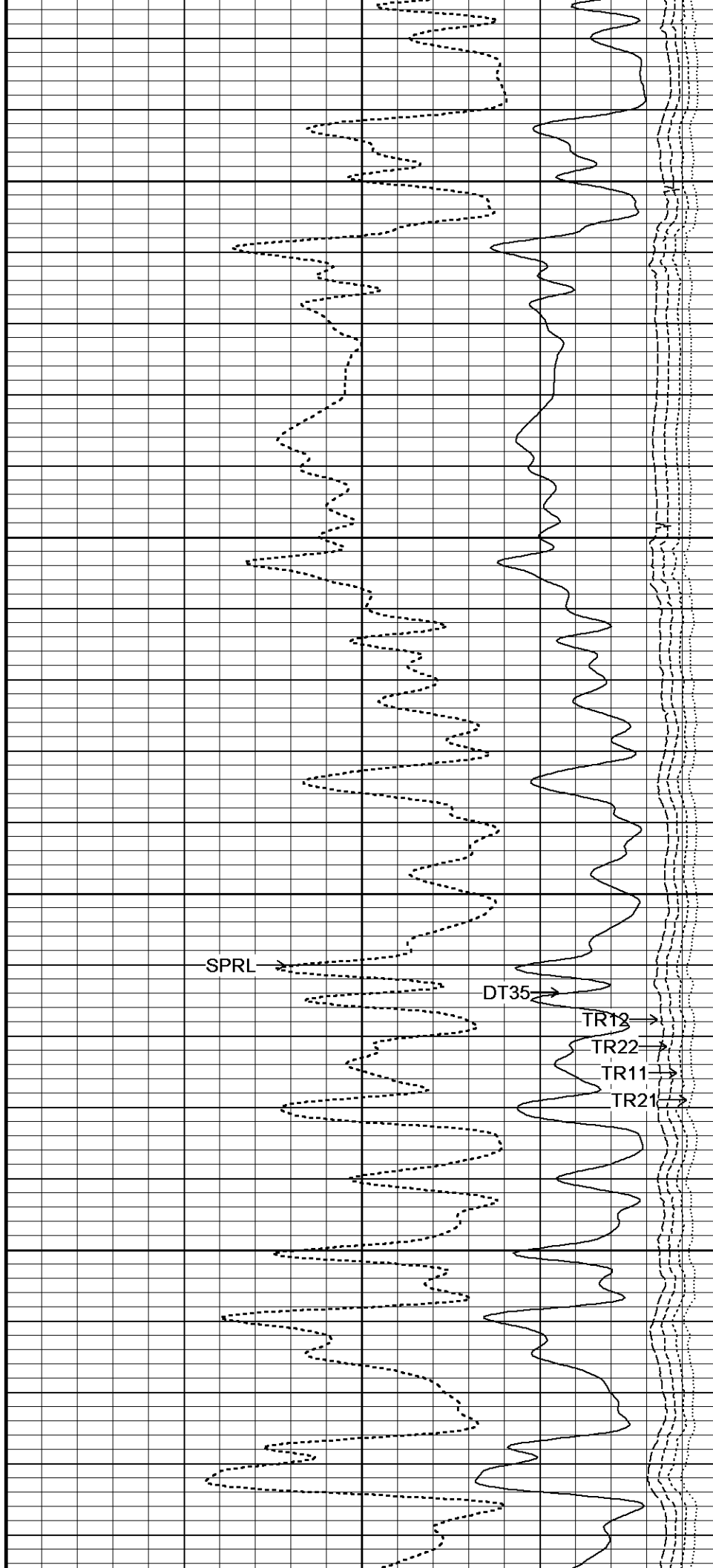
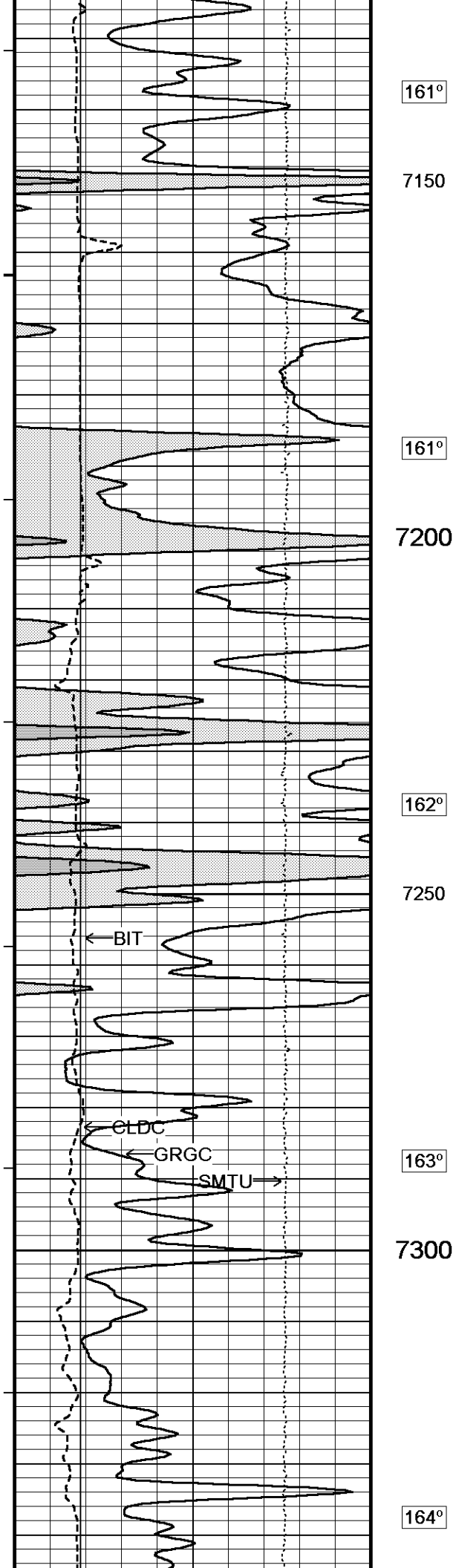
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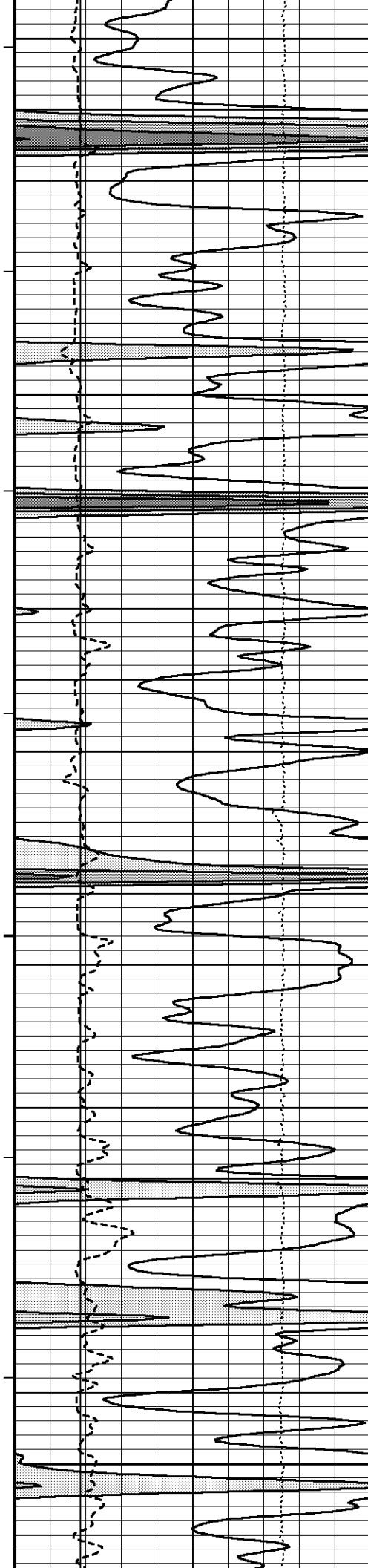
7050

161°

7100







7350

164°

7400

166°

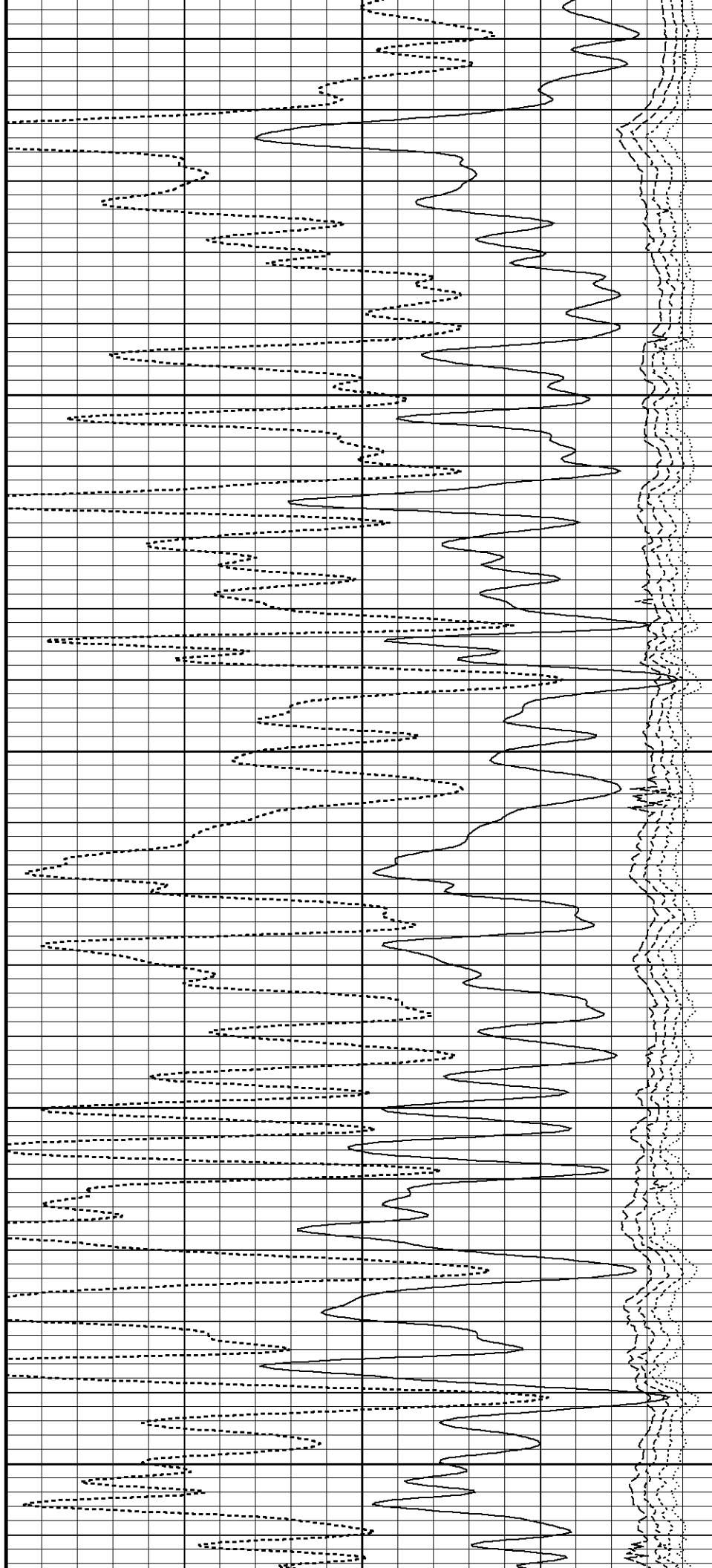
7450

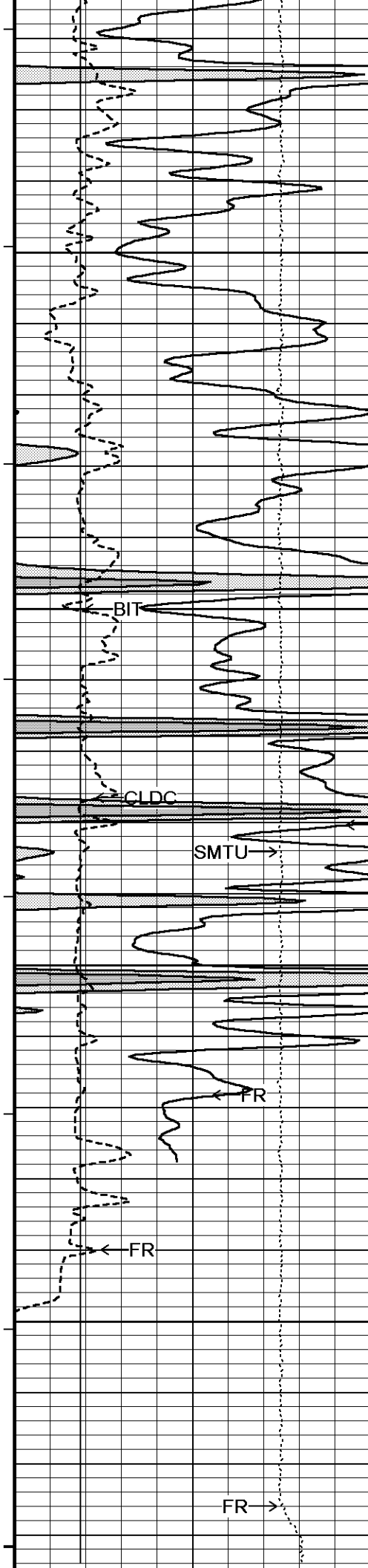
166°

7500

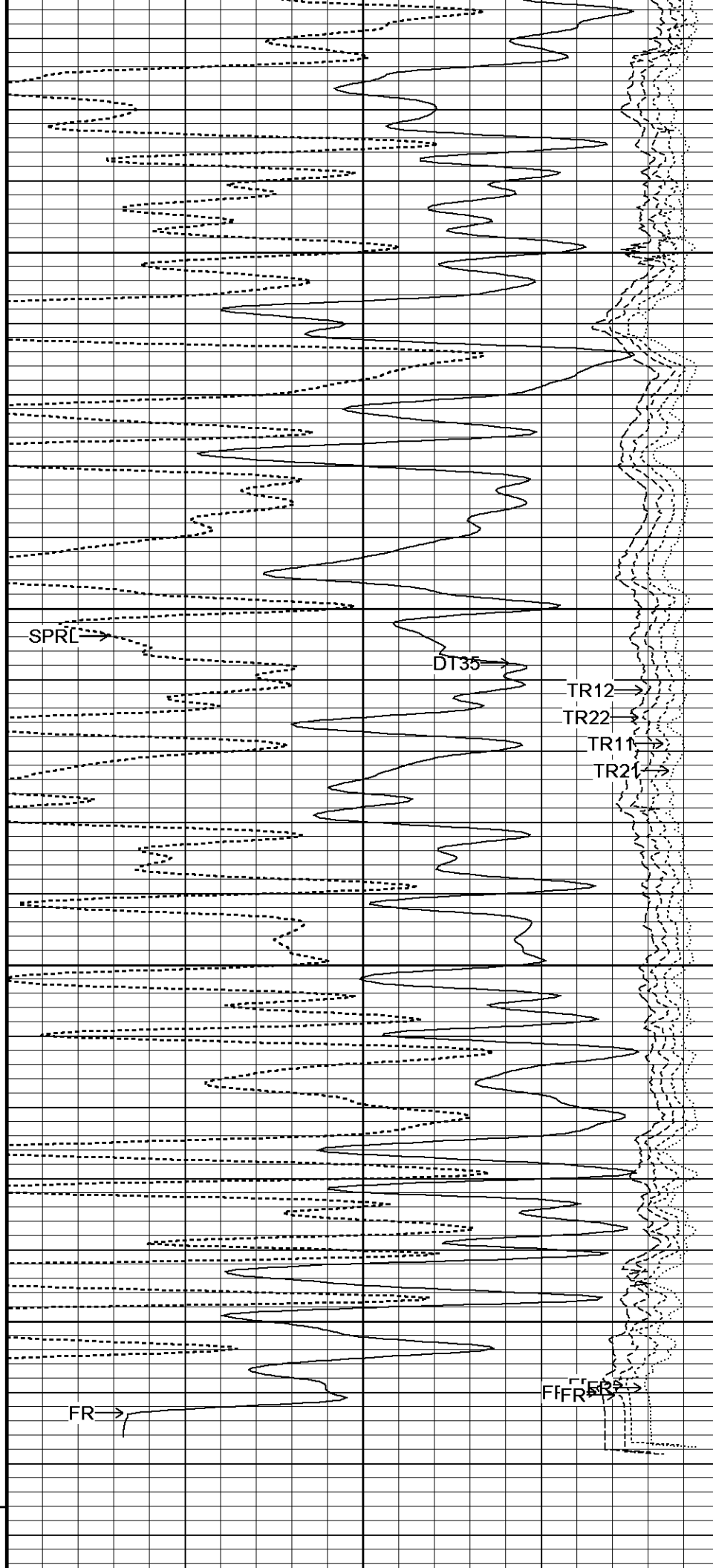
167°

7550





167°
7600
168°
7650
GRGC
168°
7700
7750
TD



↑ DETAIL SECTION ↑