COMPACT PHOTO DENSITY
COMPENSATED NEUTRON
MICRO RESISTIVITY LOG

Weatherford®

COMPANY	OXY USA INC
WELL	WILLIAMS I-2
FIELD	LEMON NORTH
PROVINCE/COUNTY	HASKELL
COUNTRY/STATE	U.S.A./KANSAS
LOCATION	536' FSL & 1668' FWL

40 Years of Wireline 1970 2010

SEC	TWP	RGE	Other Services
7	30S	33W	MAI/MFE MSS

API Number 15-081-21947
Permit Number

Permanent Datum G.L., Elevation 2960 feet
Log Measured From K.B. @ 13 FEET above Permanent Datum
Drilling Measured From K.B.

Elevations:	feet
KB	2973.00
DF	2972.00
GL	2960.00

Date	24-JUN-2011				
Run Number	ONE				
Depth Driller	5503.00	feet			
Depth Logger					
First Reading					
Last Reading	3800.00	feet			
Casing Driller	1833.00	feet			
Casing Logger	1831.00	feet			
Bit Size	8.750	inches			
Hole Fluid Type	CHEMICAL				
Density / Viscosity	8.80 lb/USg		40.00 CP		
PH / Fluid Loss	9.40		8.00 ml/30Min		
Sample Source	FLOWLINE				
Rm @ Measured Temp	0.63 @ 82.0	ohm-m			
Rmf @ Measured Temp	0.50 @ 82.0	ohm-m			
Rmc @ Measured Temp	0.76 @ 82.0	ohm-m			
Source Rmf / Rmc	CALC		CALC		
Rm @ BHT					
Time Since Circulation	7 HOURS				
Max Recorded Temp					
Equipment Name	COMPACT				
Equipment / Base	13025		LIB		
Recorded By	SHAWN NUTT				
Witnessed By	JOHN CARROL				
S.O.#/JOB#	3531128			LB11-140	

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 interpretations, and we shall not, except in the case of gross or wilful 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 in our price schedule.

5 INCH MAIN

Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\DOCUME~1\smithac\LOCALS~1\Temp\Weatherfo...\Williams I-2_002 spooled section.dta
System Versions: Logged with 11.03.2789 Plotted with 12.01.3513

Plotted on 24-JUN-2011 14:19
Recorded on 24-JUN-2011 13:23

Depth in Feet

Timing Marks
every 60.0 sec

Gamma Ray
API
0 75 150

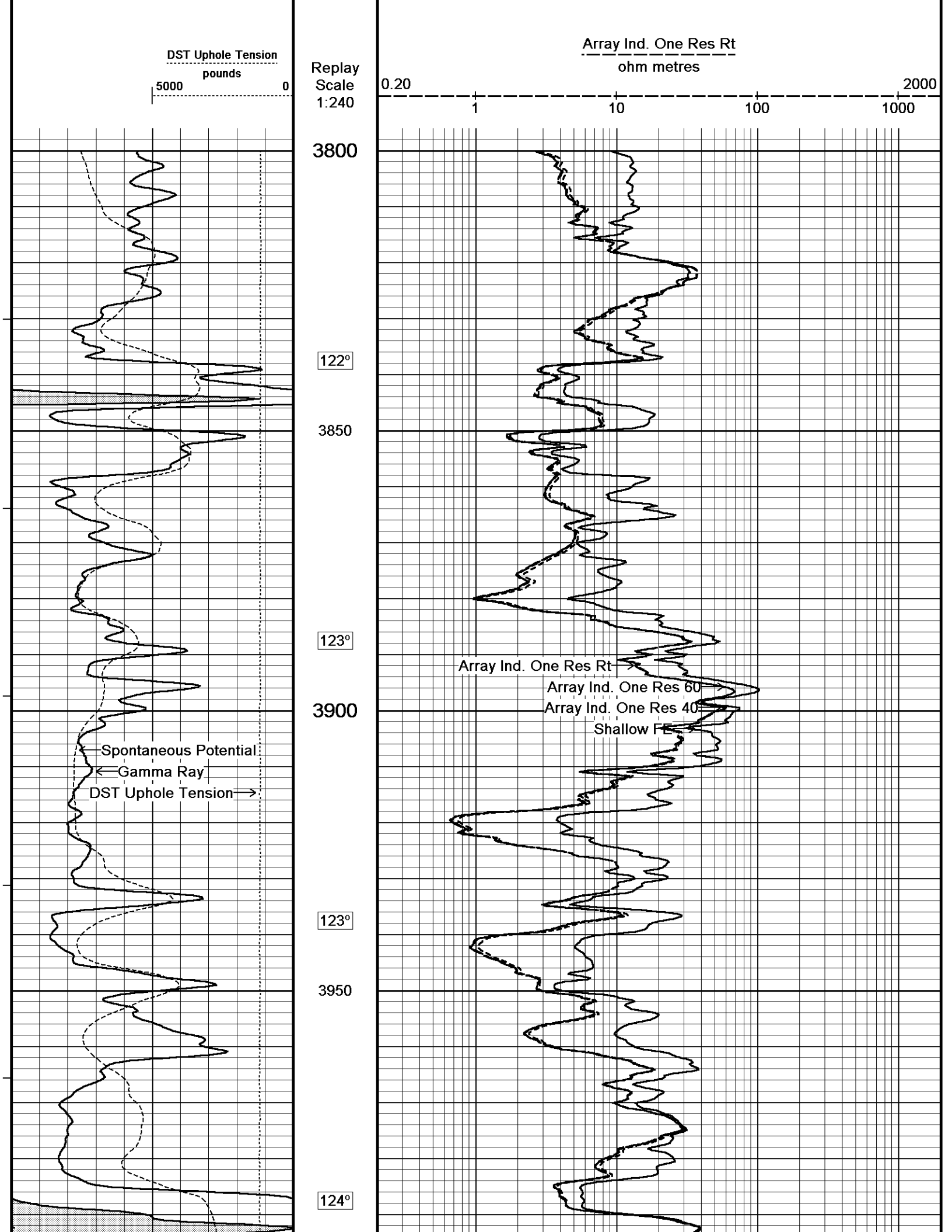
Spontaneous Potential
millivolts
– → | 20 | ← +

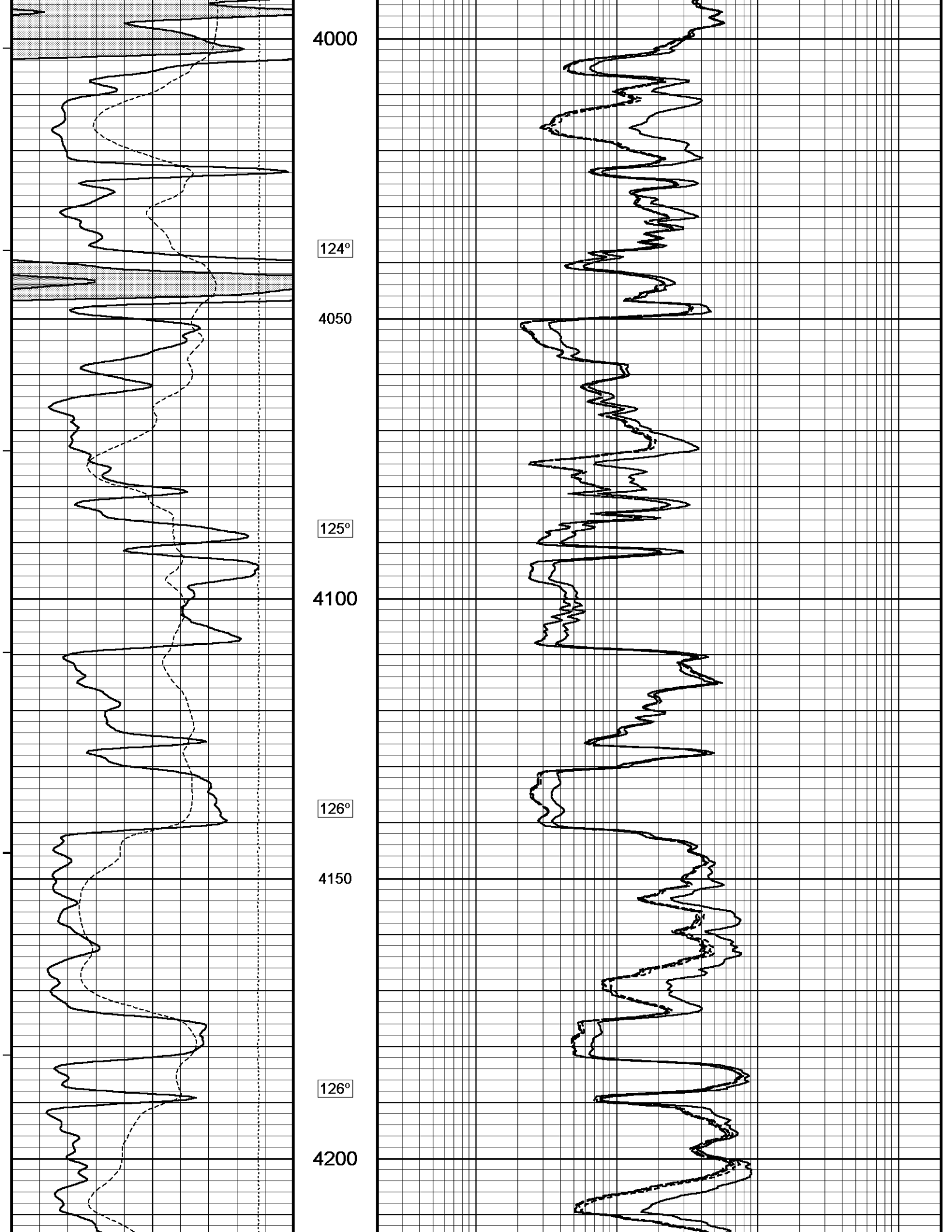
Borehole Temp in deg F

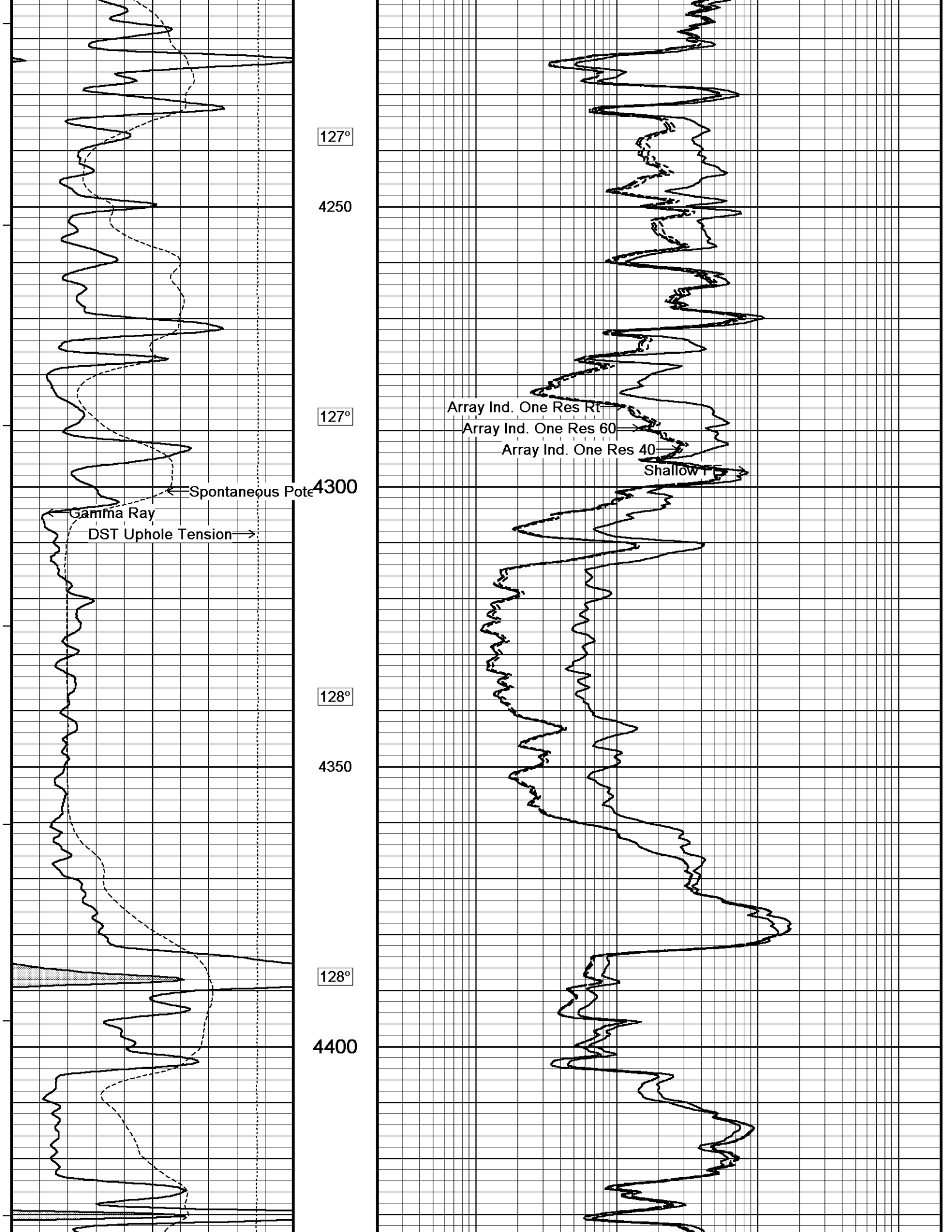
Shallow FE
ohm metres
0.20 1 10 100 1000 2000

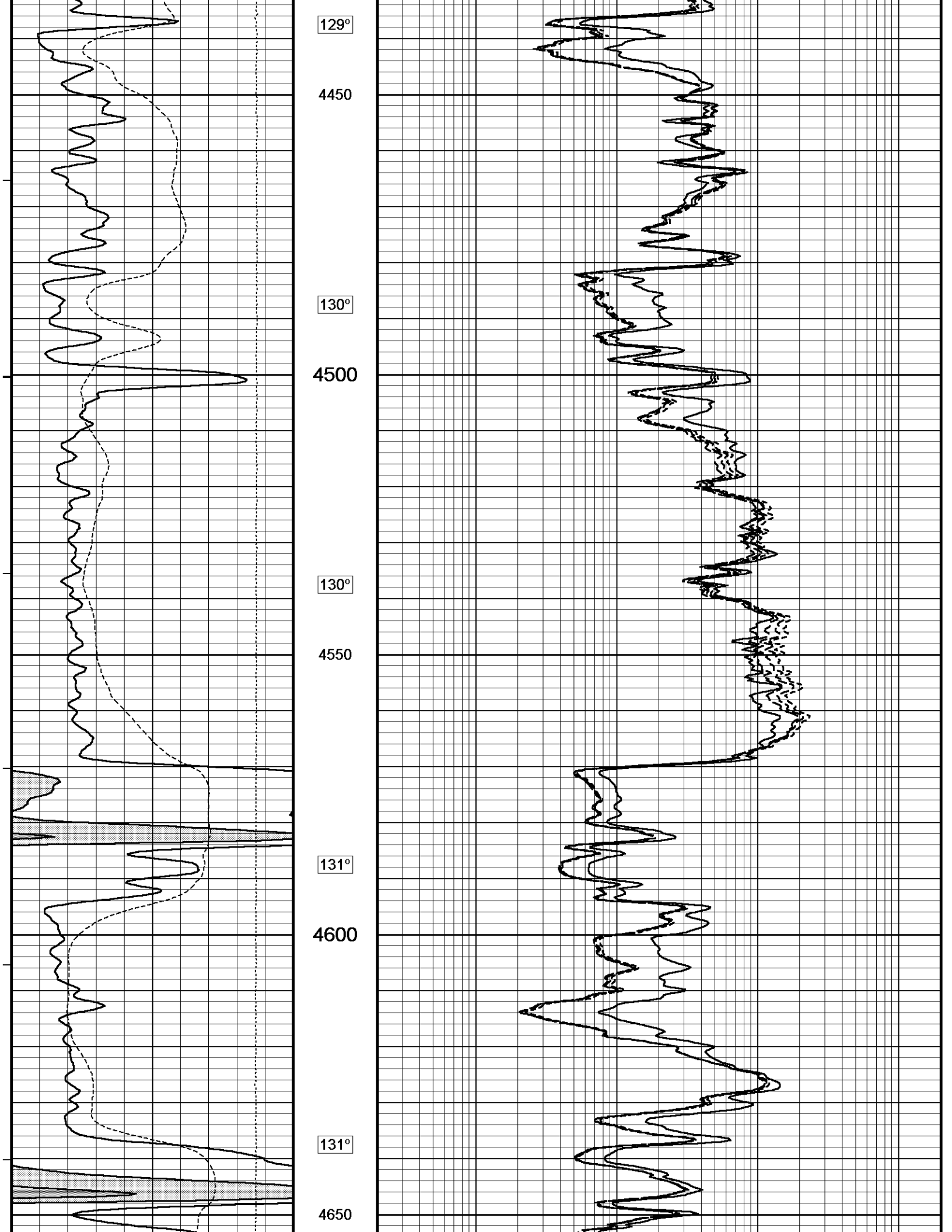
Array Ind. One Res 40
ohm metres
0.20 1 10 100 1000 2000

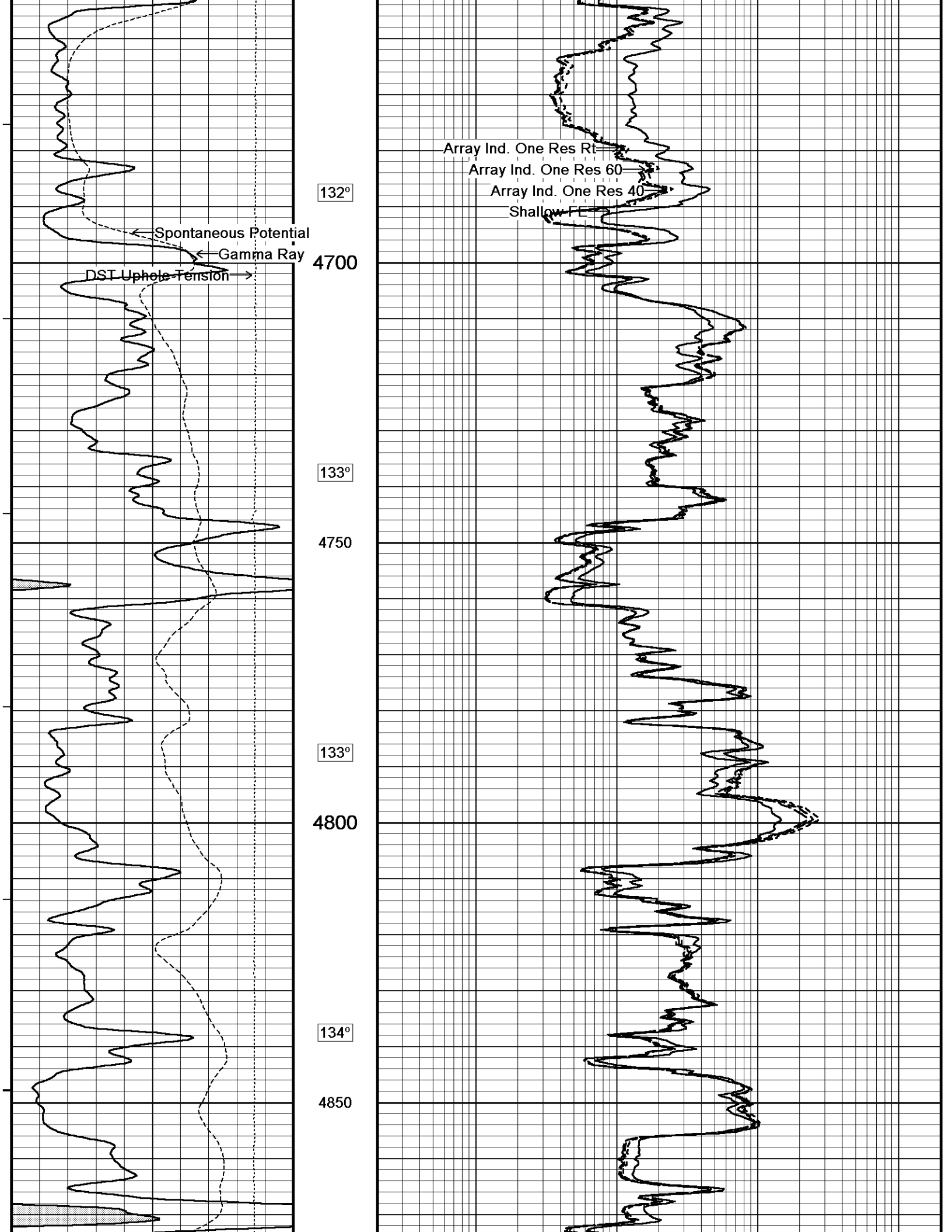
Array Ind. One Res 60
ohm metres
0.20 1 10 100 1000 2000

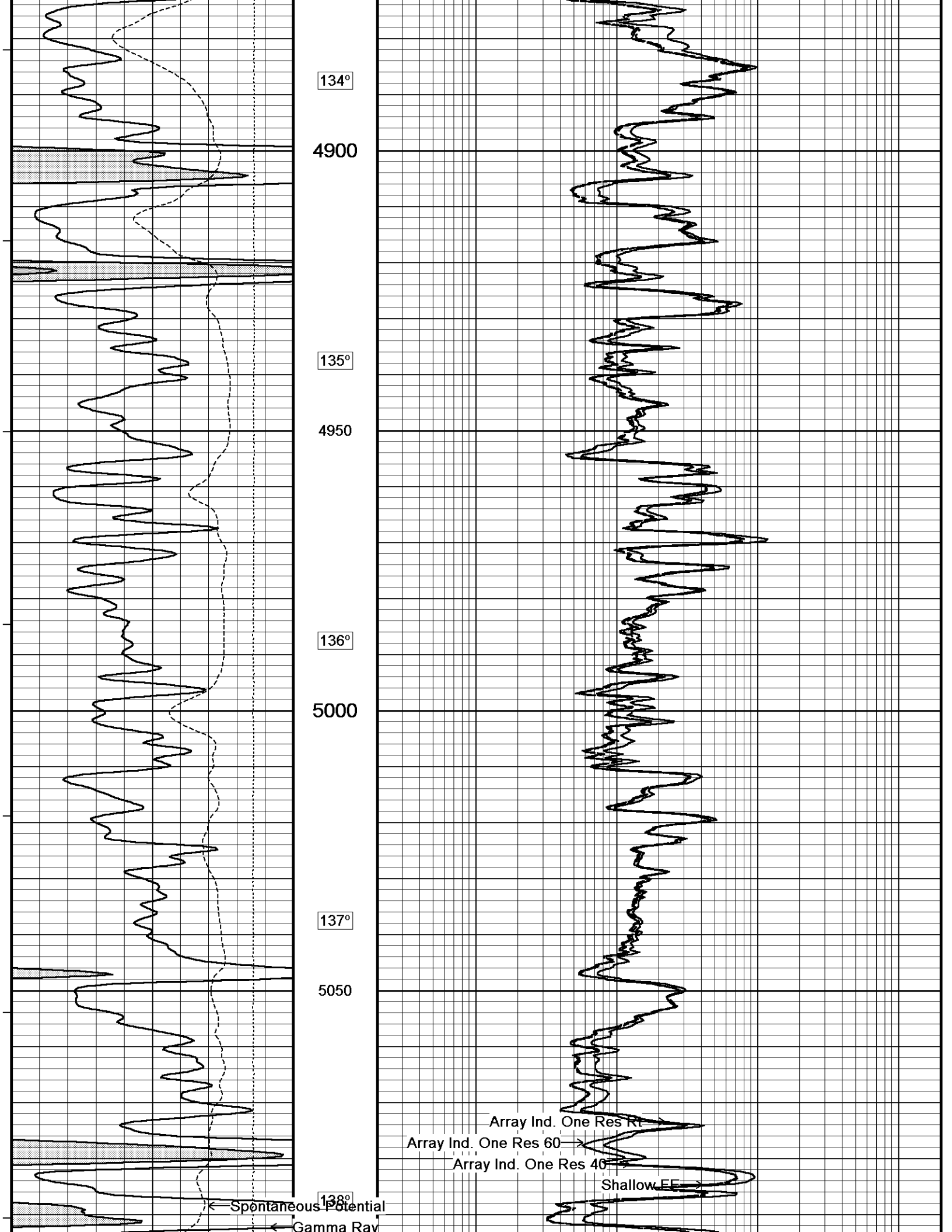

DST Uphole Tension
pounds
5000
0
Replay
Scale
1:240
Array Ind. One Res Rt
ohm metres
0.20
2000
1
10
100
1000
3800
122°
3850
123°
3900
123°
3950
124°
Spontaneous Potential
Gamma Ray
DST Uphole Tension
Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow Fo

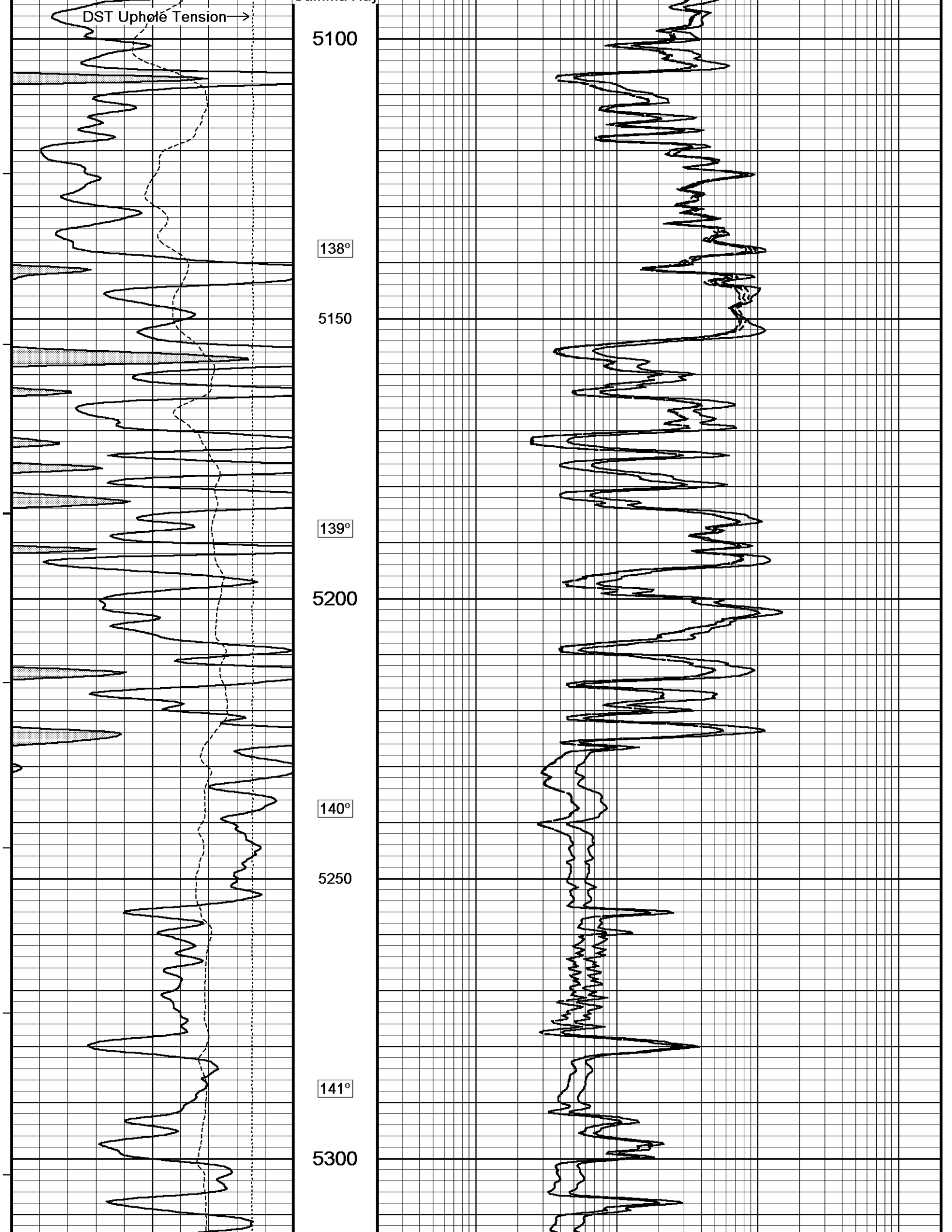

4000
124°
4050
125°
4100
126°
4150
126°
4200

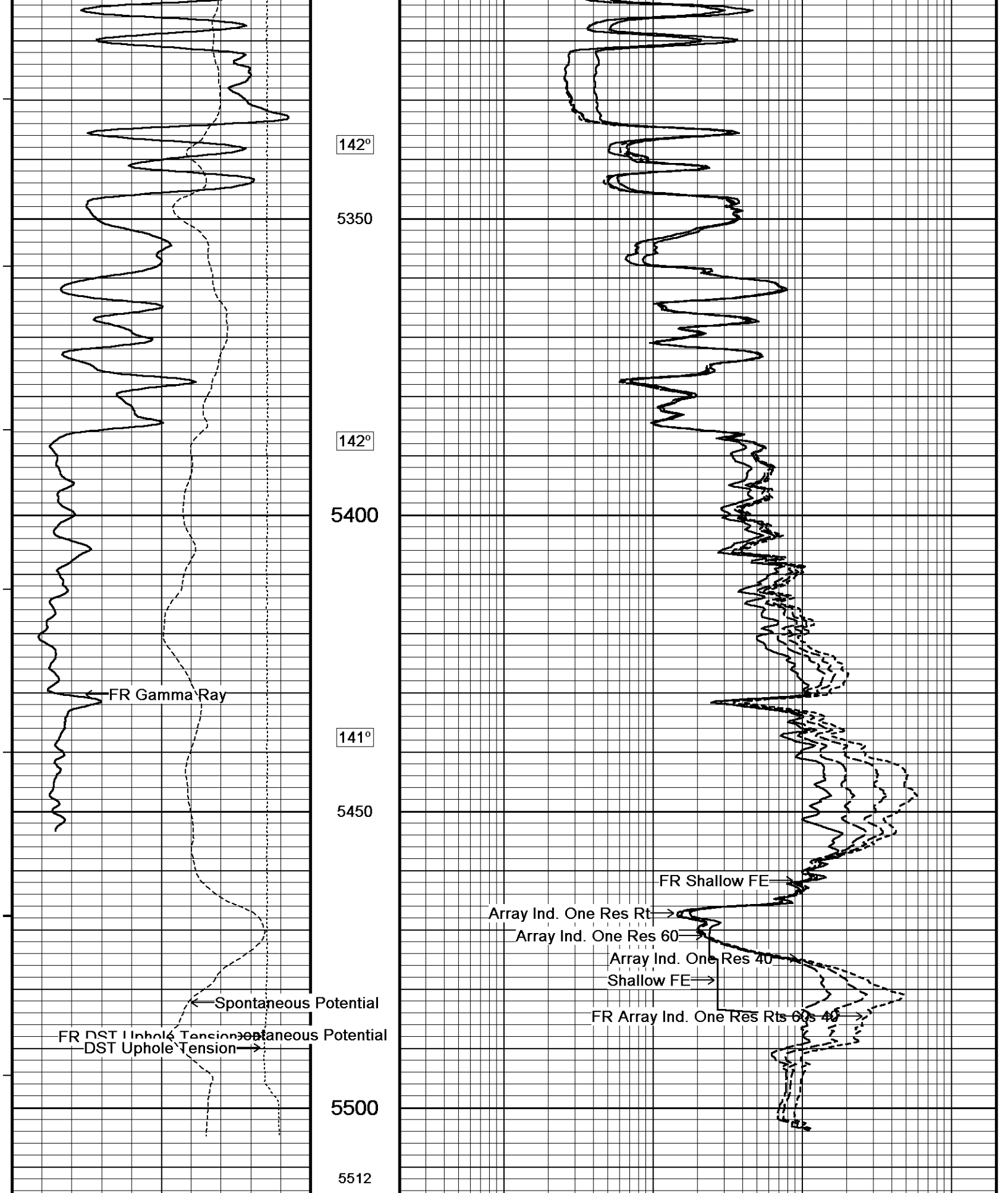

127°
4250
127°
Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow
4300
Spontaneous Pote
Gamma Ray
DST Uphole Tension
128°
4350
128°
4400


129°
4450
130°
4500
130°
4550
131°
4600
131°
4650


Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow FE
Spontaneous Potential
Gamma Ray
DST Uphole Tension
132°
4700
133°
4750
133°
4800
134°
4850


134°
4900
135°
4950
136°
5000
137°
5050
138°
Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow FE
Spontaneous Potential
Gamma Ray


DST Uphole Tension
5100
138°
5150
139°
5200
140°
5250
141°
5300



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Timing Marks
every 60.0 sec

Depth in Feet

Limestone Neutron Por.
percent
30 20 10 0 -10

Gamma Ray
API
0 75 150

Borehole Temp in deg F

Limestone Density Por.
percent
30 20 10 0 -10

Density Caliper
inches
6 11 16

HVI every 10 cu ft

PE
barns/electron
0 5 10

Density Correction
grams/cc
-0.25 0 0.25

Annular Integral every 10 cu ft

Bit Size
inches
6 11 16

Micro-normal
ohm metres
0 10

DST Uphole Tension
pounds
5000 0

Replay Scale 1:240

Micro-inverse
ohm metres
0 10

3800

122°

3850

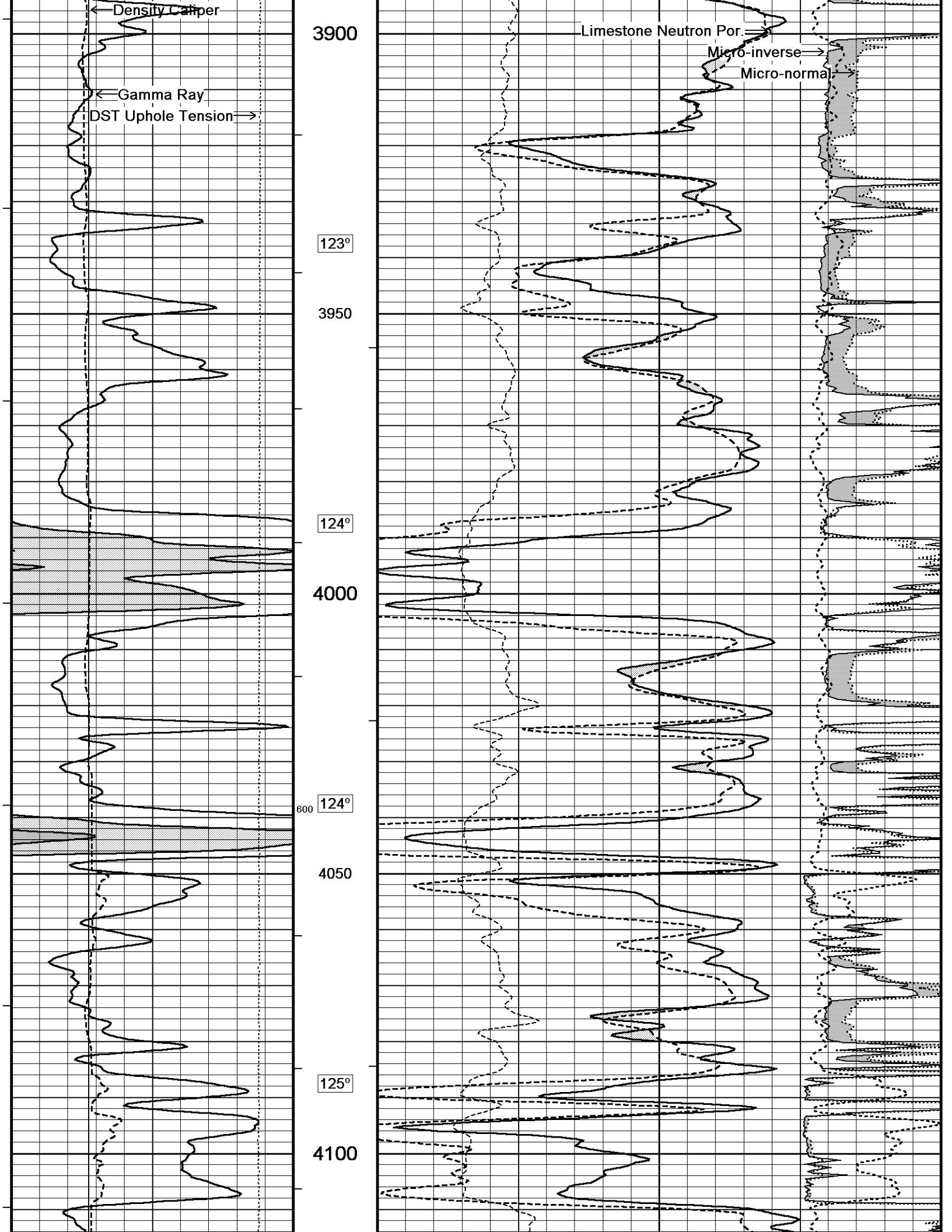
123°

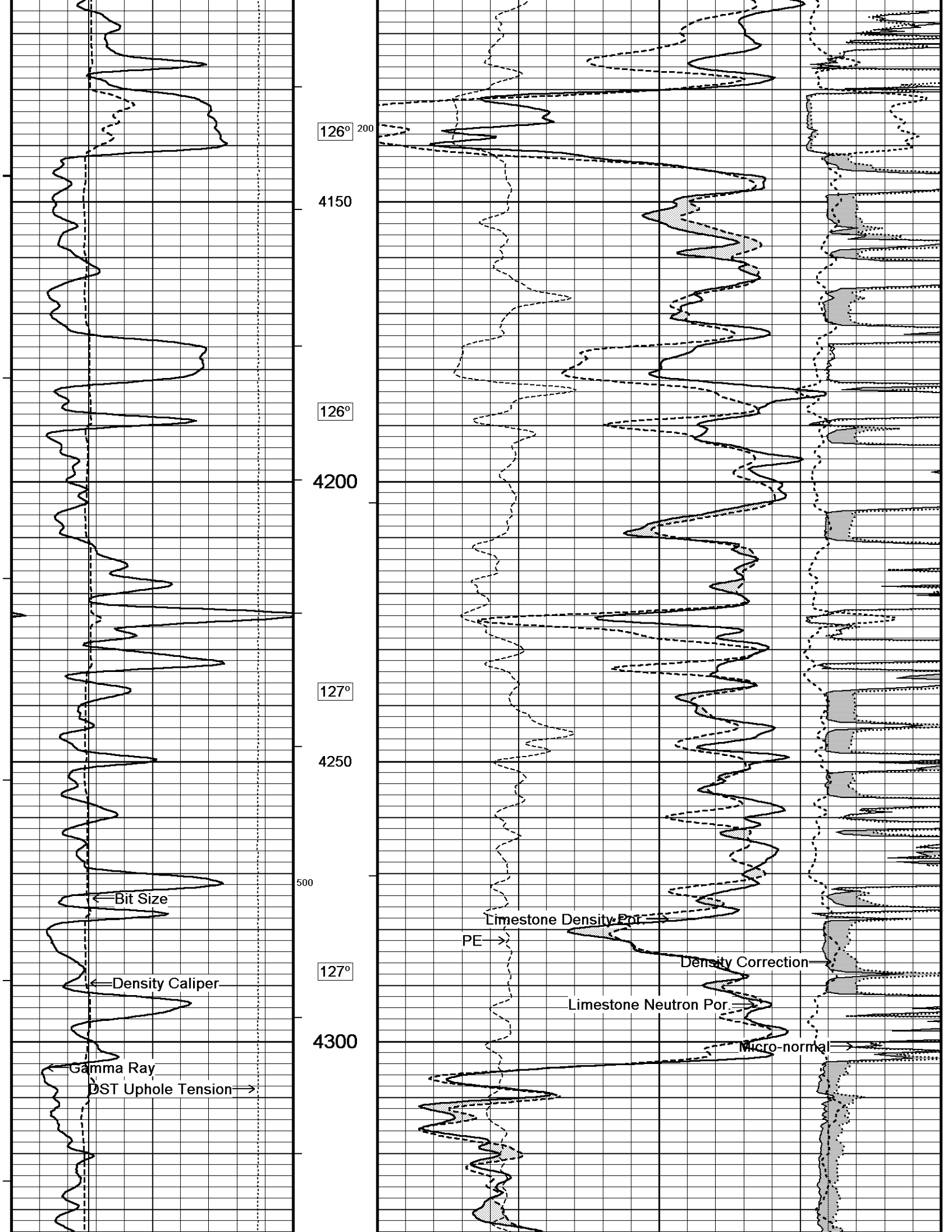
Bit Size

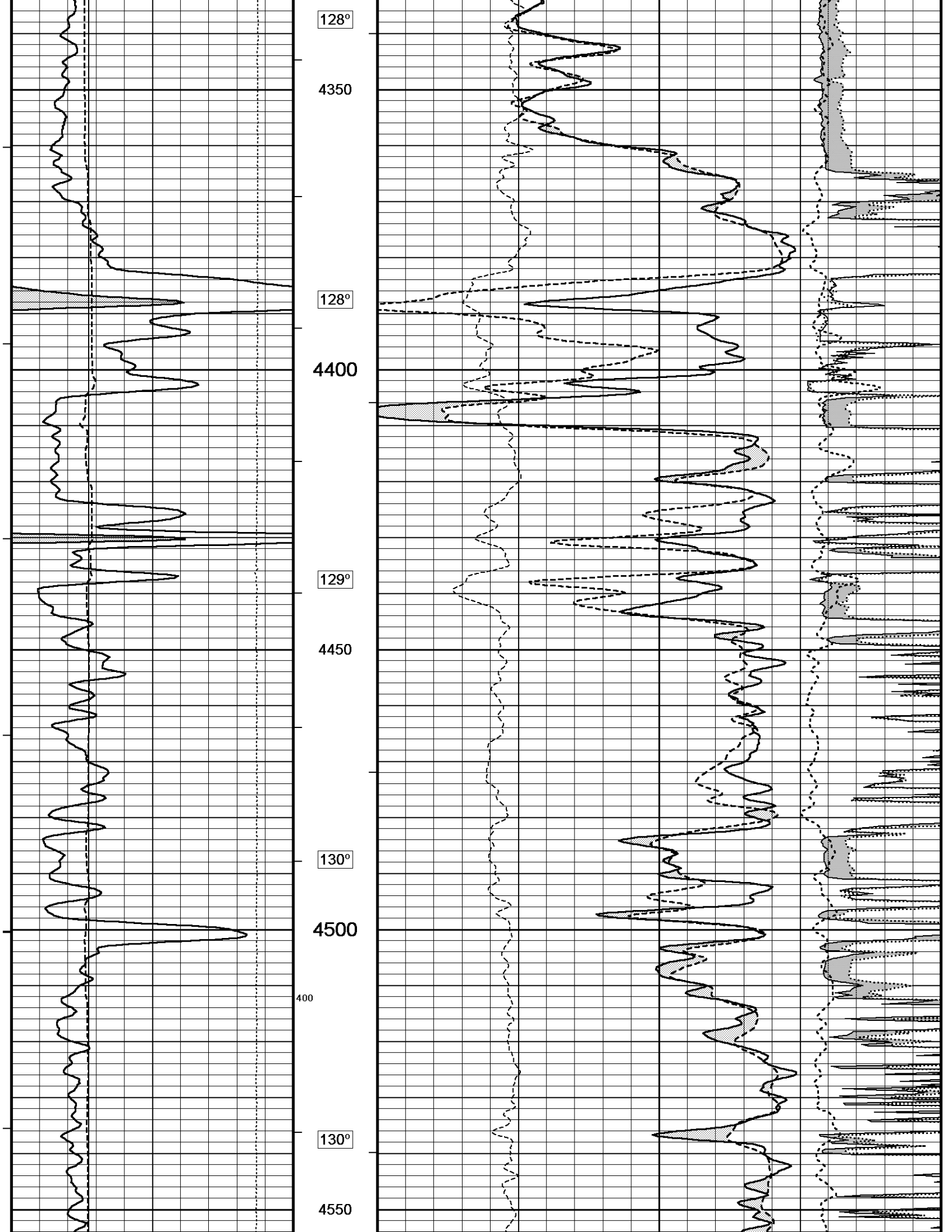
PE

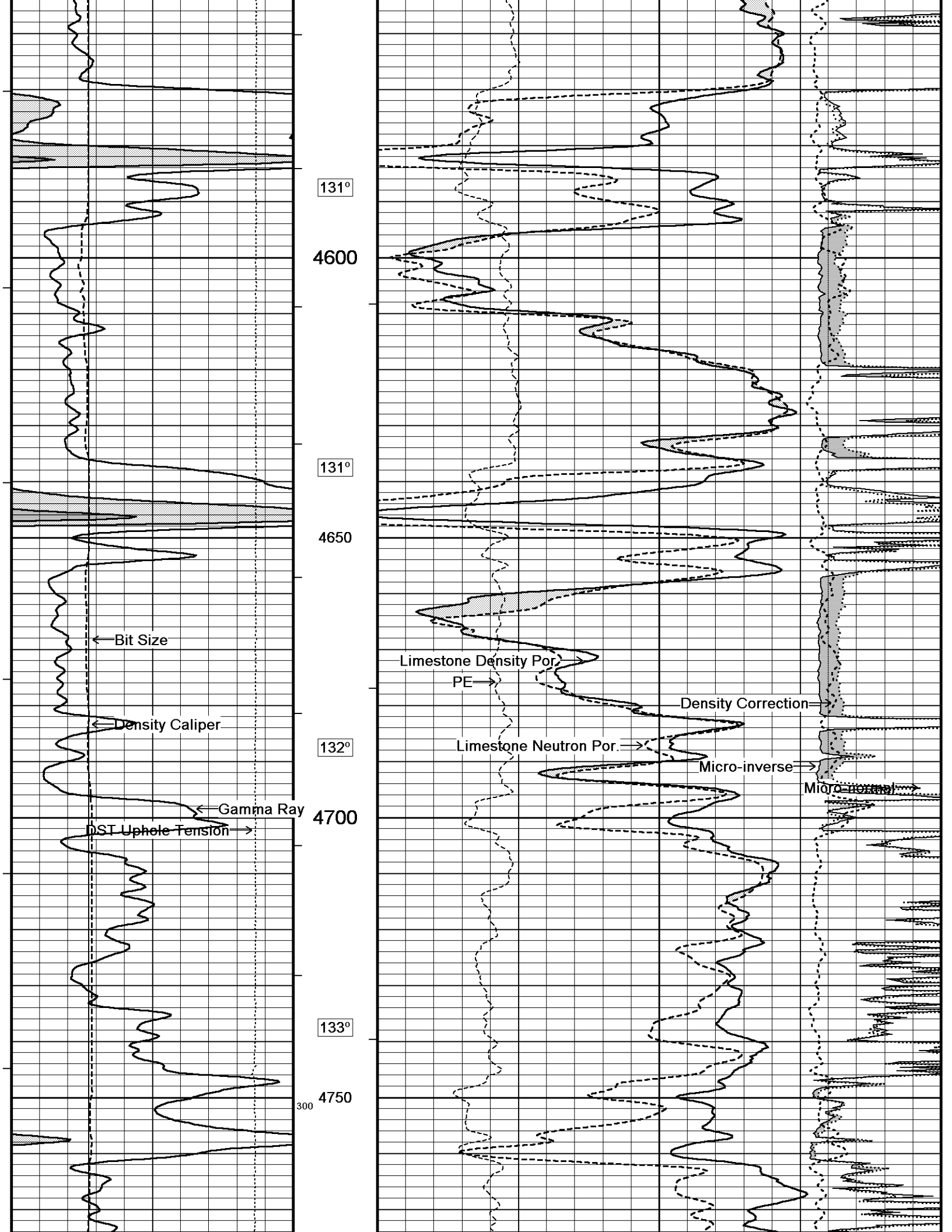
Limestone Density Por.

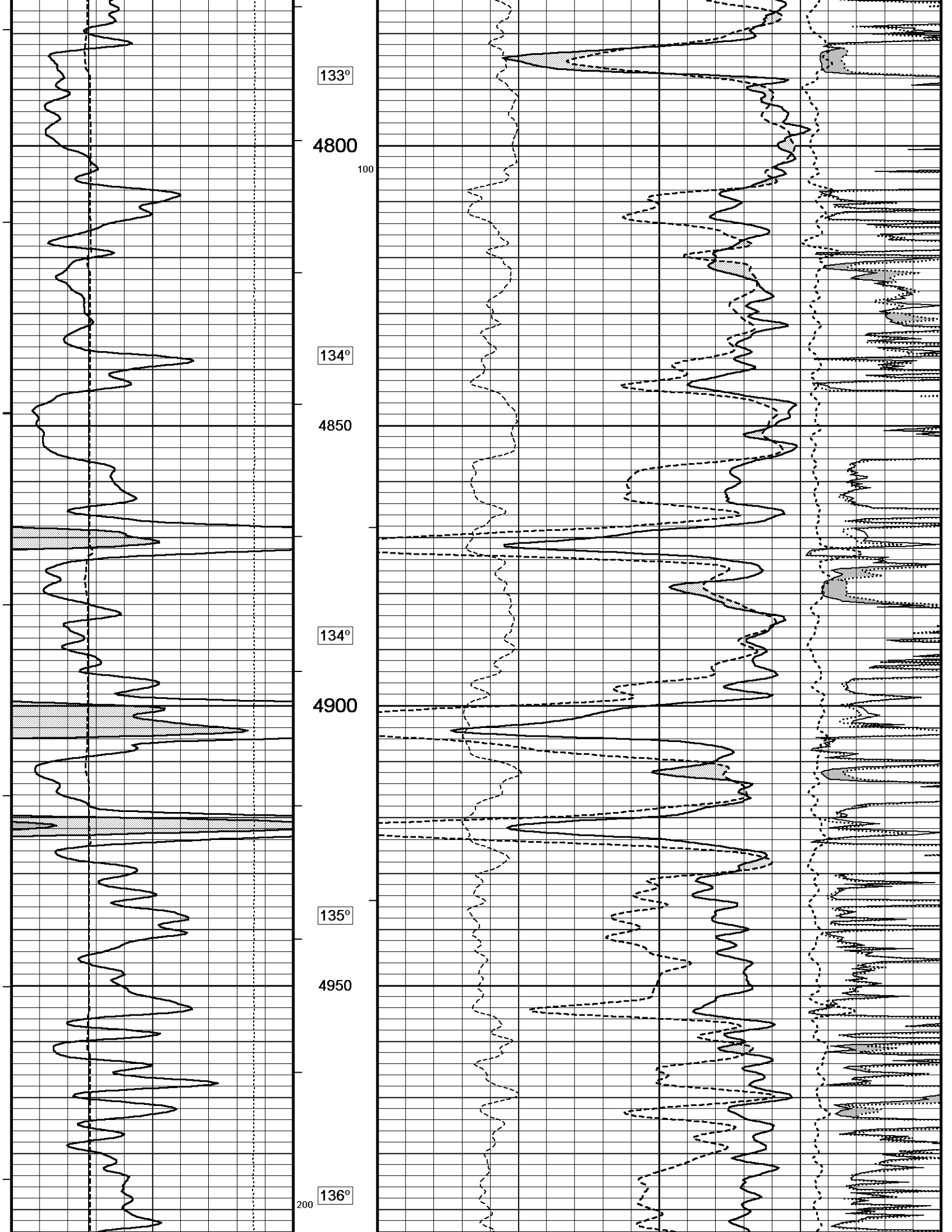
Density Correction

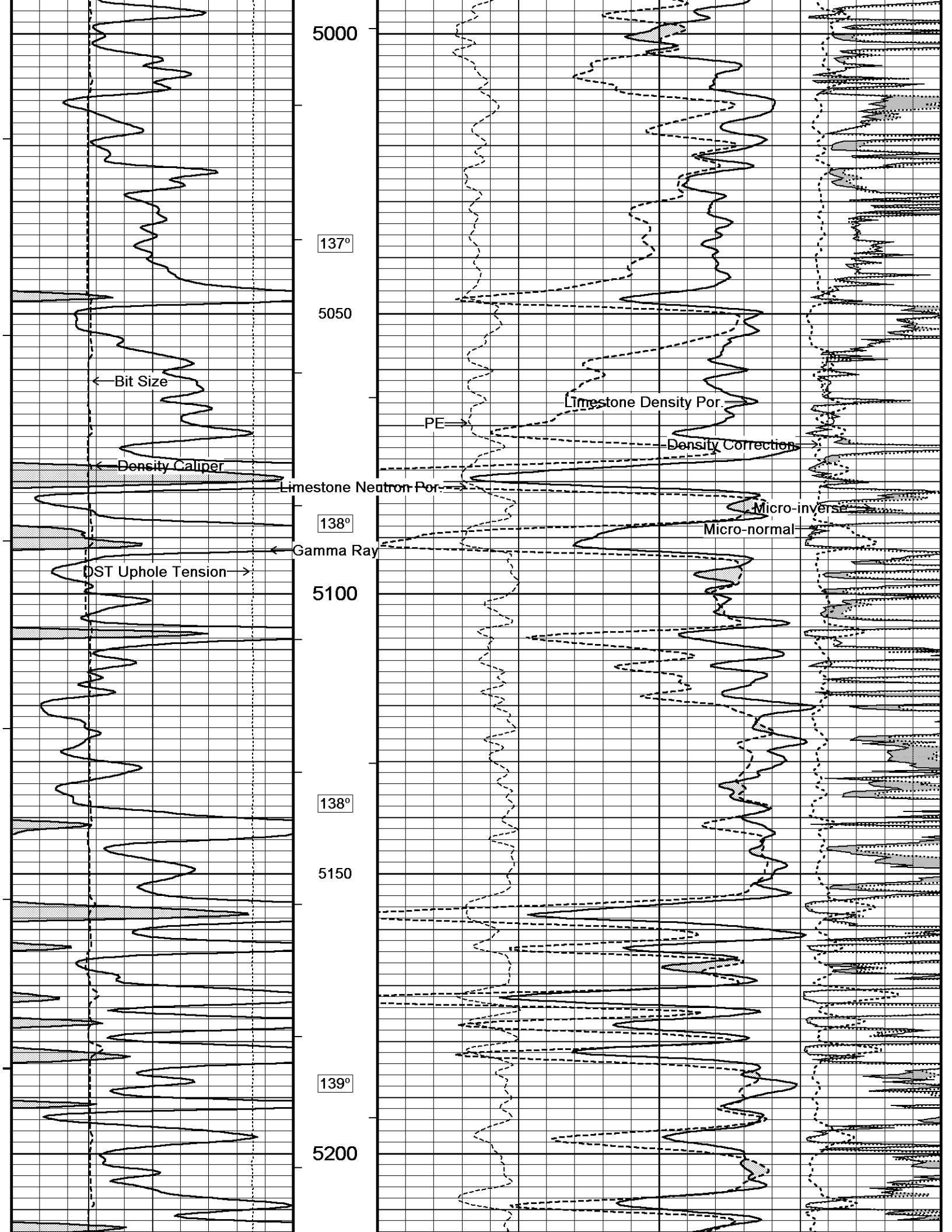

Density Caliper
Gamma Ray
DST Uphole Tension
Limestone Neutron Por
Micro-inverse
Micro-normal
3900
123°
3950
124°
4000
600
124°
4050
125°
4100

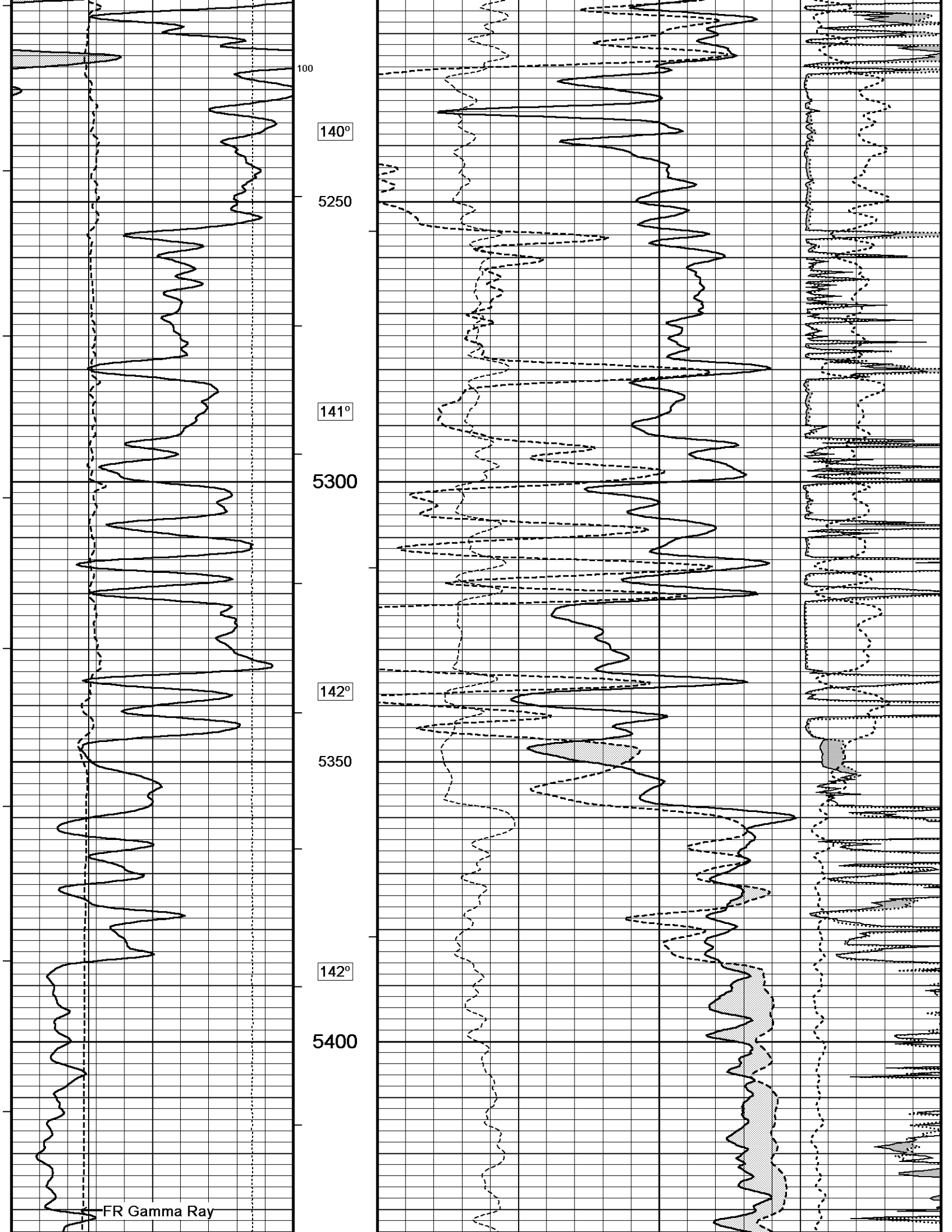

126°
200
4150
126°
4200
127°
4250
500
127°
4300
Bit Size
Density Caliper
Gamma Ray
DST Uphole Tension
Limestone Density Por
PE
Density Correction
Limestone Neutron Por
Micro-normal

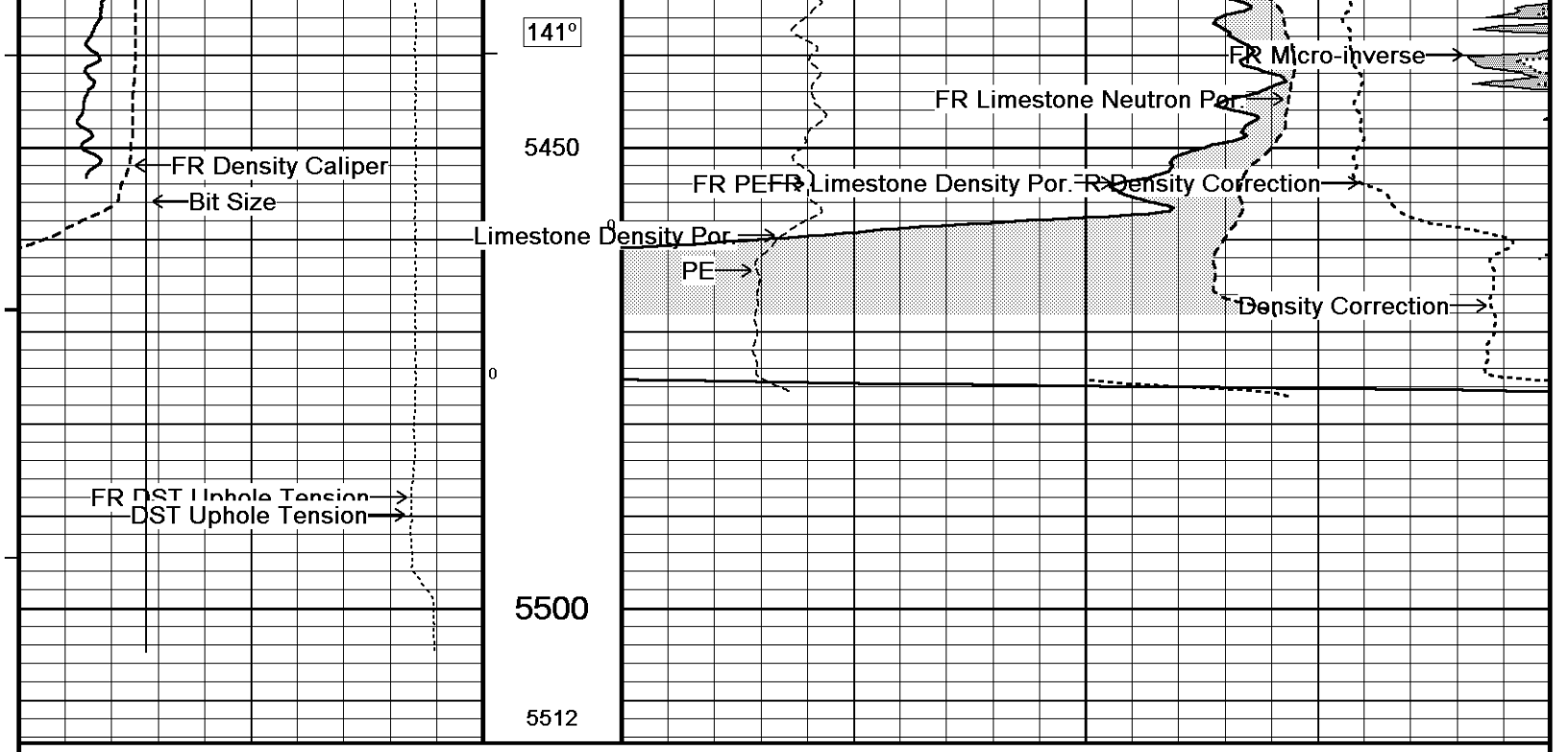

128°
4350
128°
4400
129°
4450
130°
4500
400
130°
4550


131°
4600
131°
4650
Bit Size
Density Caliper
132°
Gamma Ray
DST Uphole Tension
4700
133°
300
4750
Limestone Density Por.
PE
Density Correction
Limestone Neutron Por.
Micro-inverse
Micro-normal


133°
4800
100
134°
4850
134°
4900
135°
4950
136°
200


5000
137°
5050
Bit Size
Density Caliper
Limestone Neutron Por
138°
Gamma Ray
DST Uphole Tension
5100
138°
5150
139°
5200
Limestone Density Por
PE
Density Correction
Micro-inverse
Micro-normal


100
140°
5250
141°
5300
142°
5350
142°
5400
FR Gamma Ray



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Timing Marks
every 60.0 sec

Gamma Ray
API
0 75 150

Density Caliper
inches
6 11 16

Bit Size
inches
6 11 16

Depth in Feet

Borehole Temp in deg F

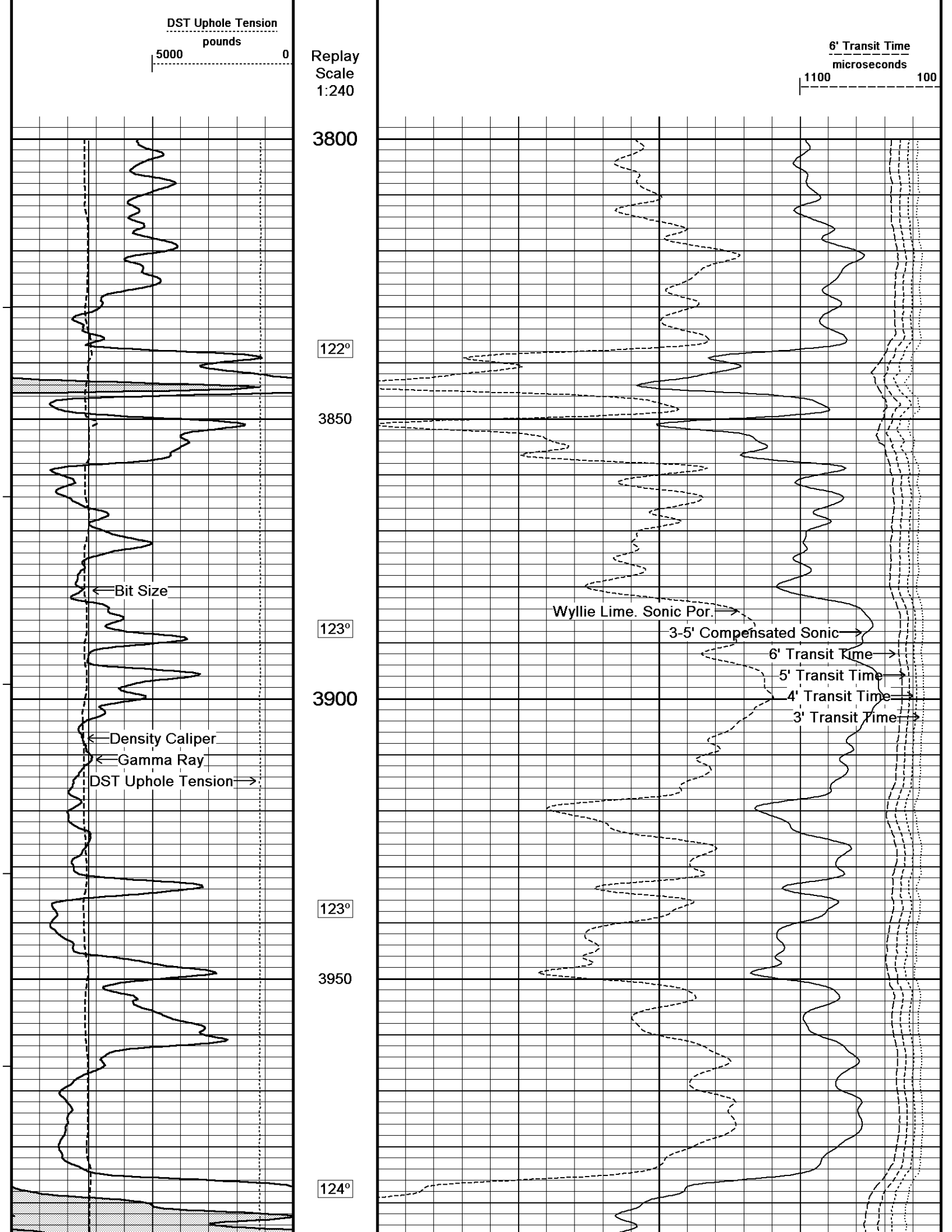
3-5' Compensated Sonic
microsec/foot
140 115 90 65 40

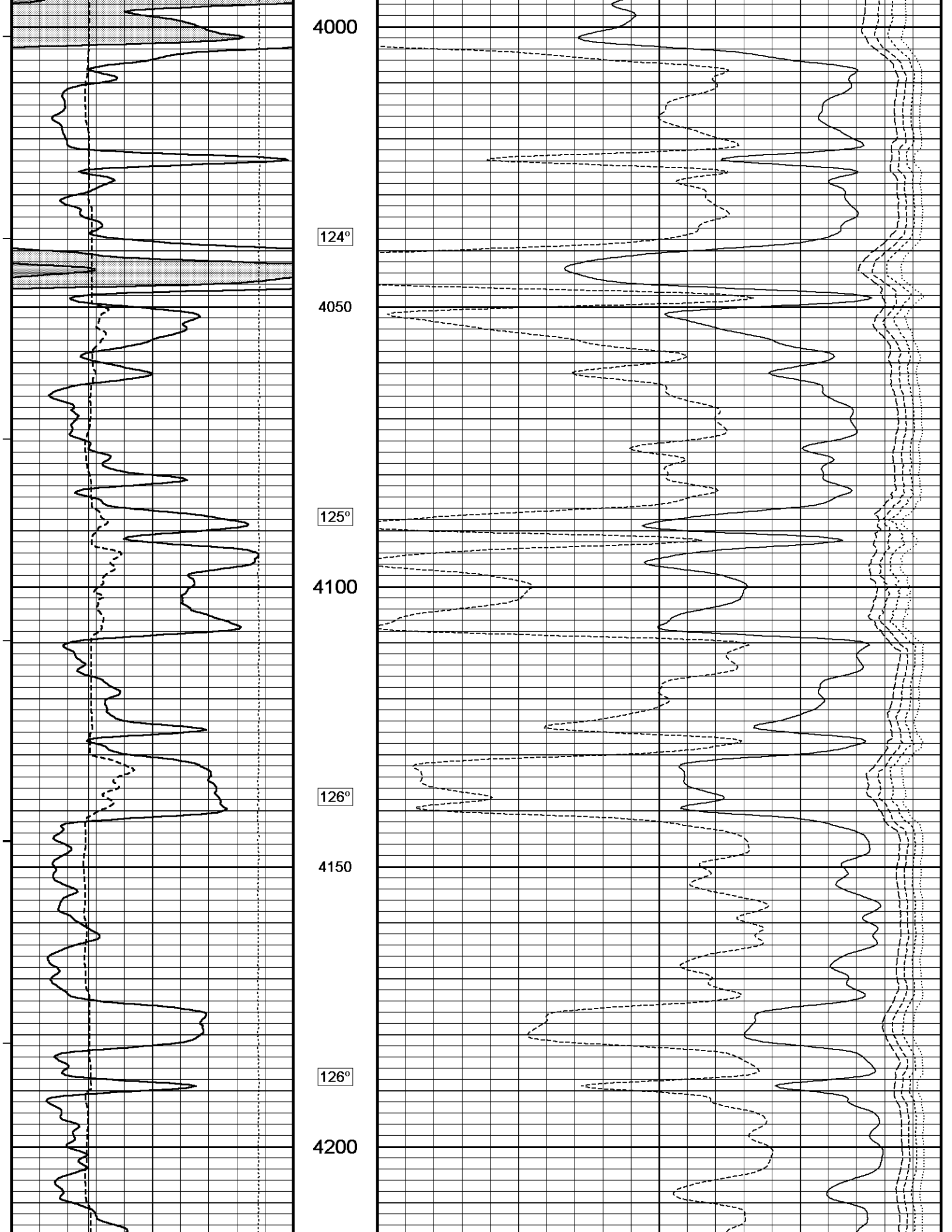
Wyllie Lime. Sonic Por.
percent
30 20 10 0 -10

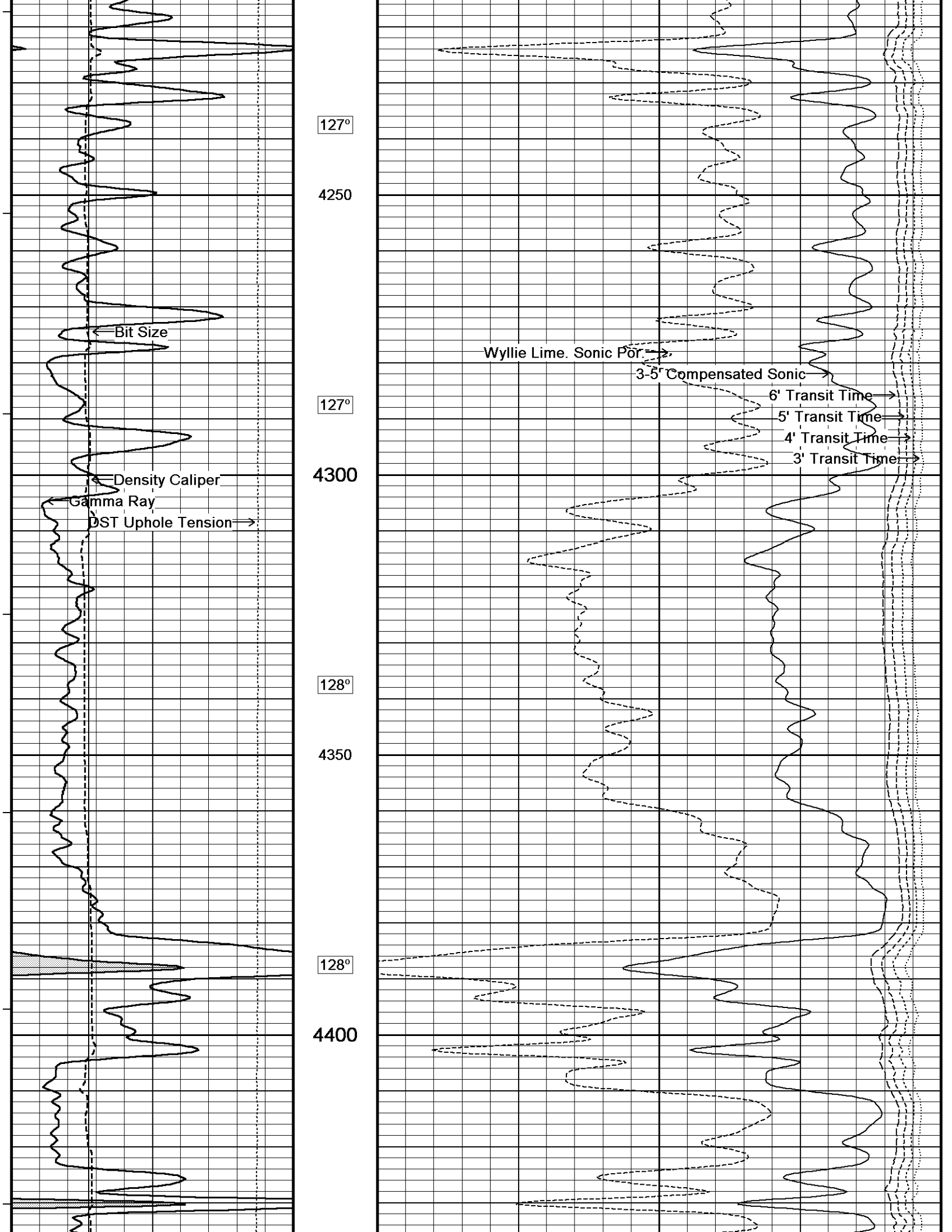
3' Transit Time
microseconds
1100 100

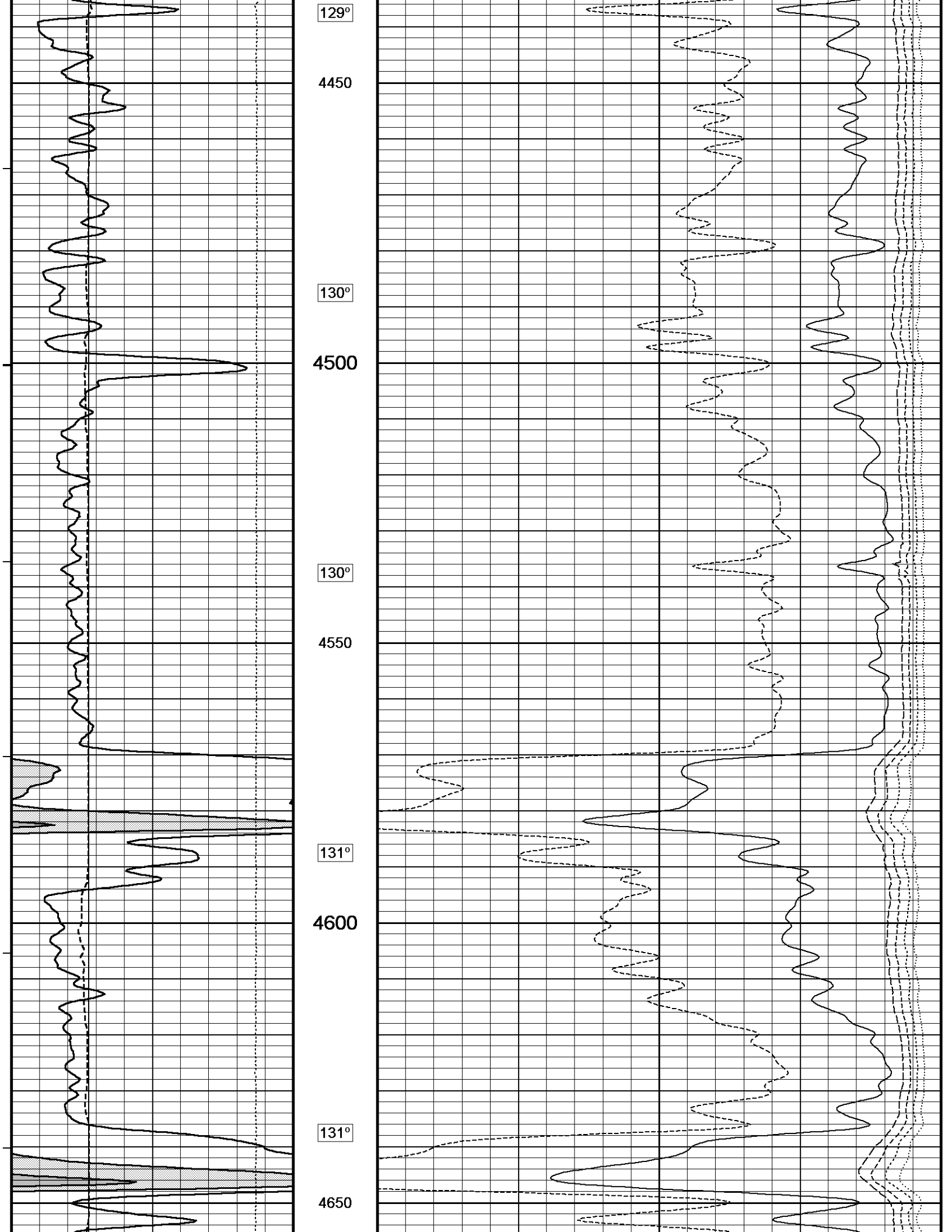
4' Transit Time
microseconds
1100 100

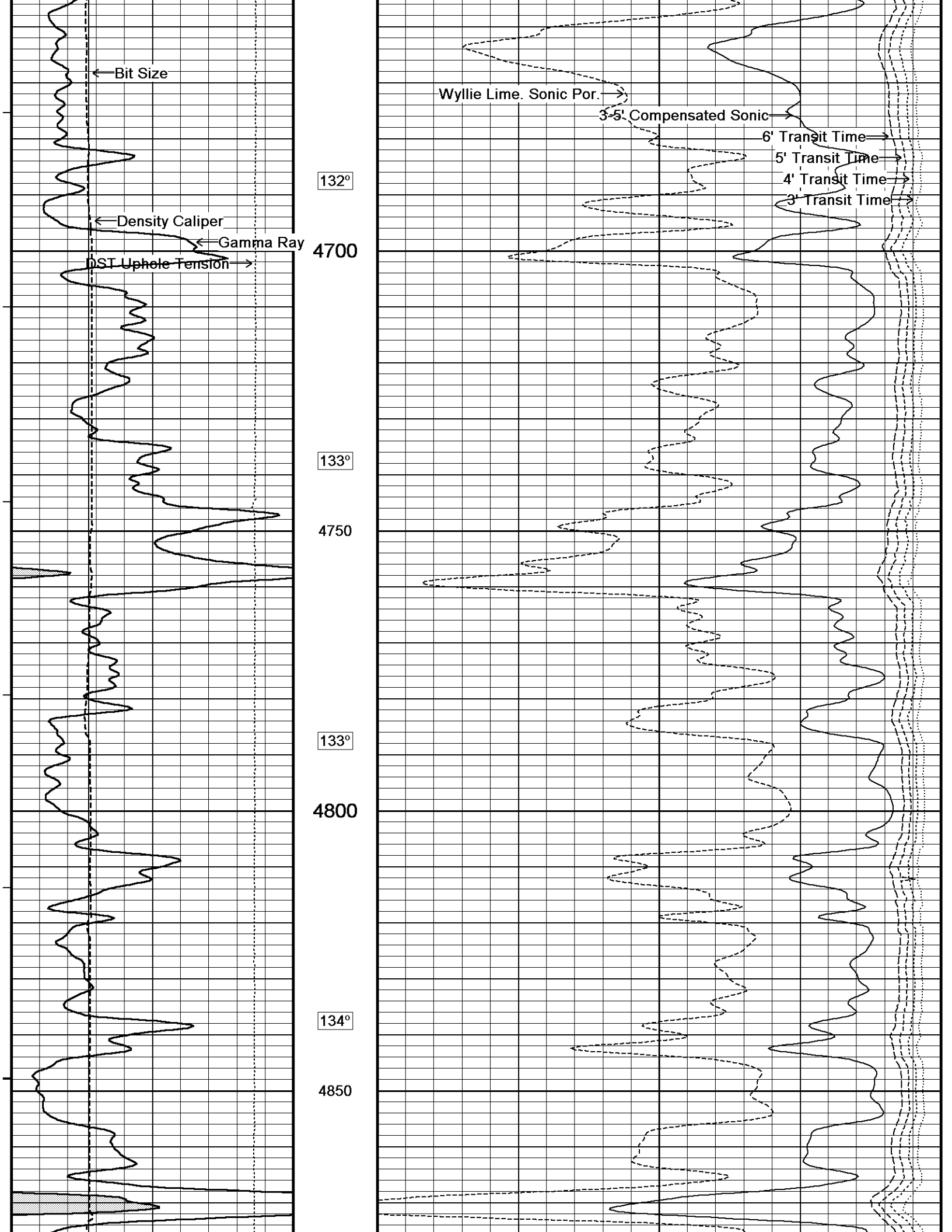
5' Transit Time
microseconds
1100 100

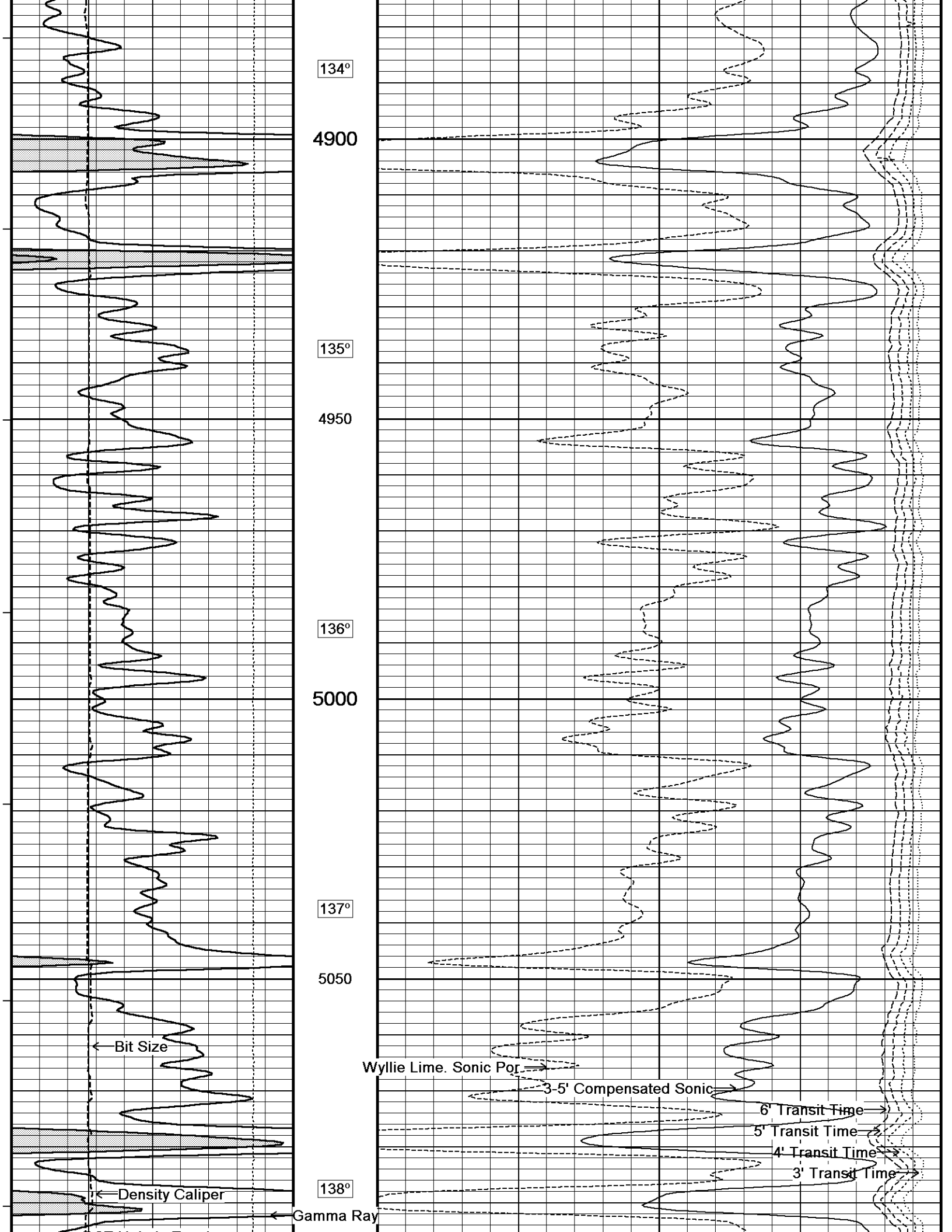

DST Uphole Tension
pounds
5000
0
Replay
Scale
1:240
6' Transit Time
microseconds
1100
100
3800
122°
3850
Bit Size
123°
Wyllie Lime. Sonic Por.
3-5' Compensated Sonic
6' Transit Time
5' Transit Time
4' Transit Time
3' Transit Time
3900
Density Caliper
Gamma Ray
DST Uphole Tension
123°
3950
124°

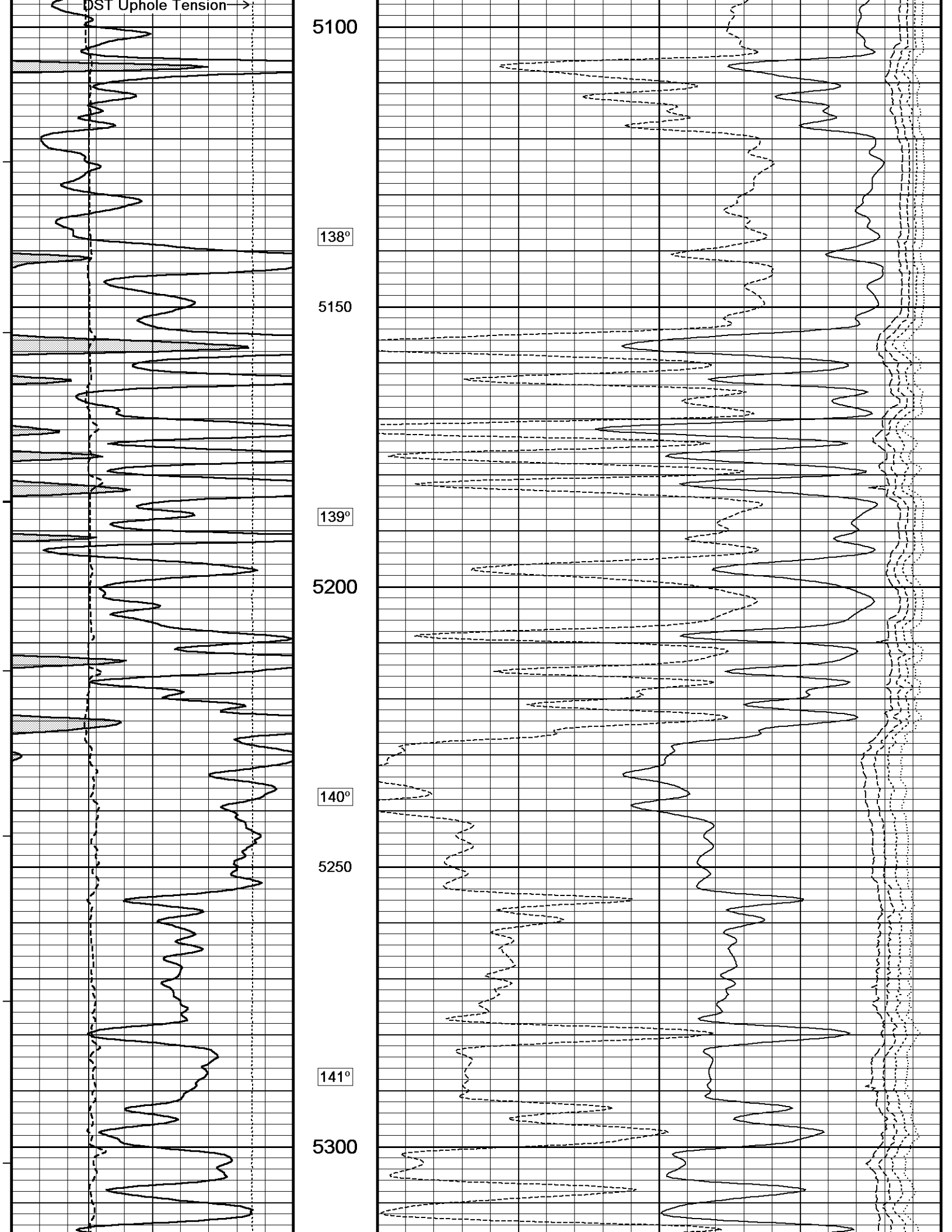

4000
124°
4050
125°
4100
126°
4150
126°
4200

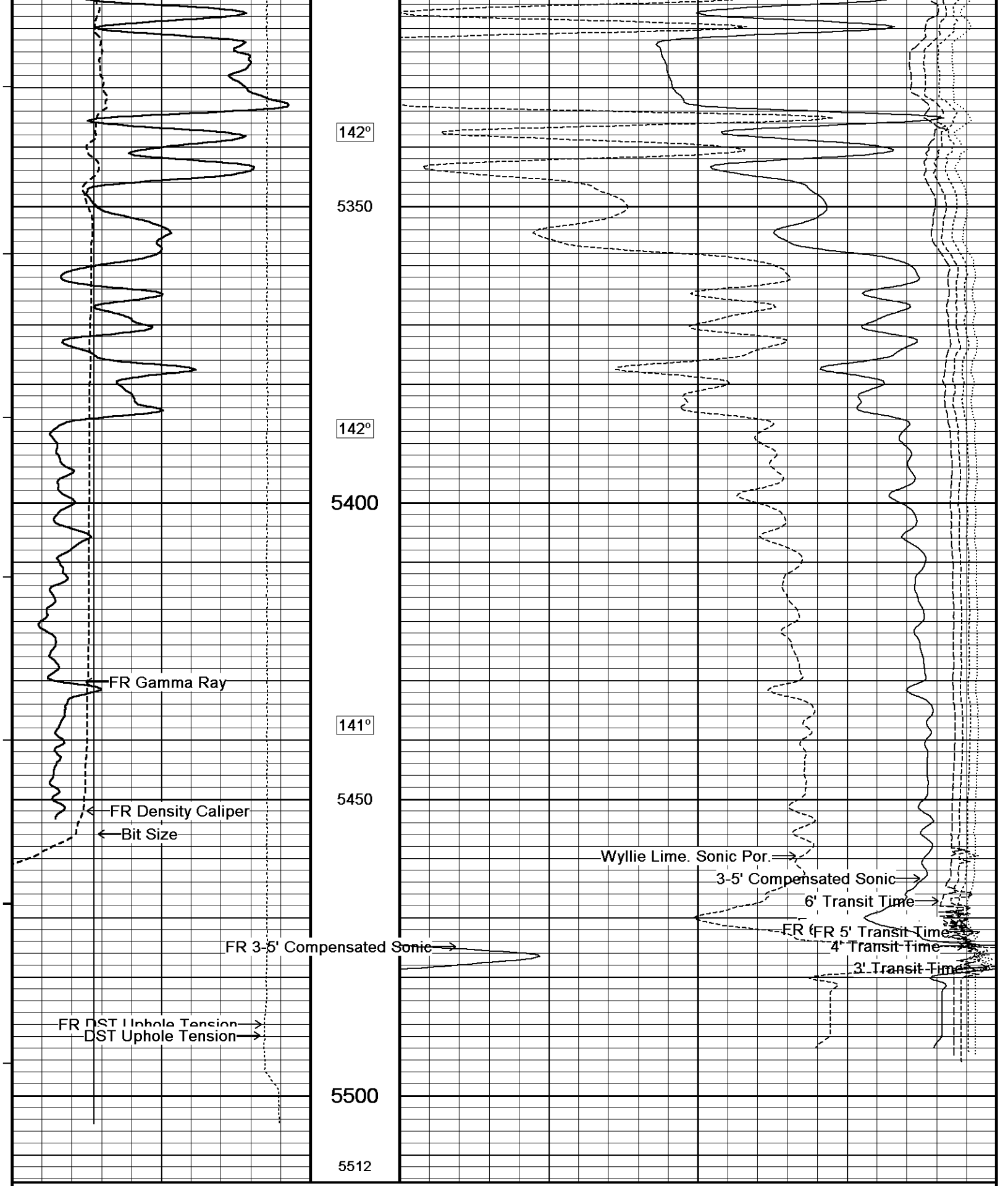

127°
4250
Bit Size
Wyllie Lime. Sonic Por.
3-5' Compensated Sonic
6' Transit Time
5' Transit Time
4' Transit Time
3' Transit Time
127°
4300
Density Caliper
Gamma Ray
DST Uphole Tension
128°
4350
128°
4400


129°
4450
130°
4500
130°
4550
131°
4600
131°
4650


Bit Size
Density Caliper
Gamma Ray
DST Uphole Tension
Wyllie Lime. Sonic Por.
3-5' Compensated Sonic
6' Transit Time
5' Transit Time
4' Transit Time
3' Transit Time
132°
133°
133°
134°
4700
4750
4800
4850


134°
4900
135°
4950
136°
5000
137°
5050
138°
Bit Size
Density Caliper
Gamma Ray
Wyllie Lime. Sonic Por
3-5' Compensated Sonic
6' Transit Time
5' Transit Time
4' Transit Time
3' Transit Time


DST Uphole Tension
5100
138°
5150
139°
5200
140°
5250
141°
5300



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