Weatherford®

MICRORESISTIVITY LOG

COMPANY	O'BRIEN ENERGY RESOURCES CORP.
WELL	VANDERPOOL #2-5
FIELD	UNNAMED
PROVINCE/COUNTY	MEADE
COUNTRY/STATE	U.S.A. / KANSAS
LOCATION	2755' FSL & 1101' FWL

SEC	TWP	RGE	Other Services
5	34S	28W	MPD/MDN
			MAI/MFE

API Number 15-119-21323
Permit Number

Permanent Datum G.L., Elevation 2360 feet
Log Measured From KB
Drilling Measured From K.B. @ 12 FEET

Elevations:	feet
KB	2372.00
DF	2370.00
GL	2360.00

Date	05-AUG-2012			
Run Number	ONE			
Depth Driller	6400.00	feet		
Depth Logger	6392.00	feet		
First Reading	6359.00	feet		
Last Reading	3000.00	feet		
Casing Driller	1493.00	feet		
Casing Logger	1488.00	feet		
Bit Size	7.875	inches		
Hole Fluid Type	CHEMICAL			
Density / Viscosity	1.08 g/c3	68.00 CP		
PH / Fluid Loss	10.50	5.20 ml/30Min		
Sample Source	FLOWLINE			
Rm @ Measured Temp	1.01 @102.0	ohm-m		
Rmf @ Measured Temp	0.81 @102.0	ohm-m		
Rmc @ Measured Temp	1.20 @102.0	ohm-m		
Source Rmf / Rmc	CALC	CALC		
Rm @ BHT	0.79 @131.0	ohm-m		
Time Since Circulation	4 HOURS			
Max Recorded Temp	131.00	deg F		
Equipment Name	COMPACT			
Equipment / Base	13057	LIB		
Recorded By	R. HOFFMAN			
Witnessed By	AUSTIN GARNER		ROGER PEARSON	
S.O. # / JOB #	3534569		LB12-203	

BOREHOLE RECORD

Last Edited: 05-AUG-2012 20:49

Bit Size inches	Depth From feet	Depth To feet
7.875	1488.00	6392.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	8.625	0.00	1488.00	24.00

REMARKS

Tools Ran: MCG, MML, MDN, MPD, MFE, MAI.
Hardware Used: MDN Dual Eccentralizer used. MPD 8 inch profile plate used. MFE and MAI 0.5 inch standoffs used.
2.71 g/cc Limestone Density Matrix used to calculate porosity.
All intervals logged and scaled per customer's request.
Tight pulls, washouts and borehole rugosity will affect data quality.
Total hole volume from TD to Surface casing = 1951 cu. ft.
Annular volume with 4.5 inch production casing TD to 3000ft = 399 cu. ft.
Service order: #3534569
Rig: Duke Drilling Rig #6
Engineer: R. Hoffman
Operator(s): B. Reeves

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.

10 INCH HI-RES

Depth Based Data - Maximum Sampling Increment 2.5cm
Filename: C:\Users\Joe\Weatherford PreView\0\O'Brien Vanderpool #2-5 Hi-Res.dta
System Versions: Logged with 13.02.6600 Plotted with 12.01.3513

Plotted on 25-SEP-2012 11:02
Recorded on 05-AUG-2012 17:20

Timing Marks
every 60.0 sec

Gamma Ray
API
0 75 150
150 225 300

Spontaneous Potential
millivolts
− | 20 | +

MML Caliper
inches
6 11 16

Bit Size
inches
6 11 16

DST Uphole Tension
pounds
5000 0

Depth in Feet

Borehole Temp in deg F

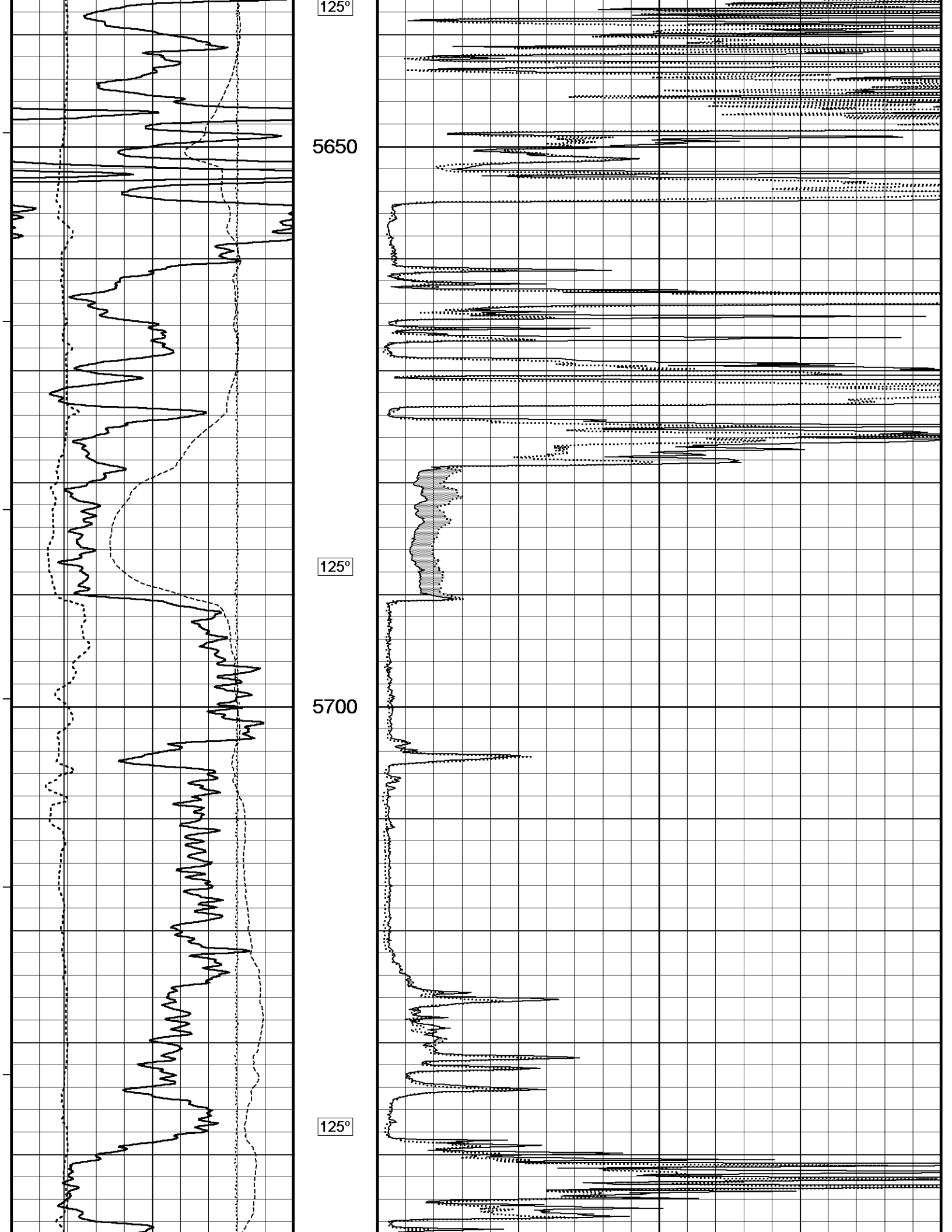
Replay Scale 1:120

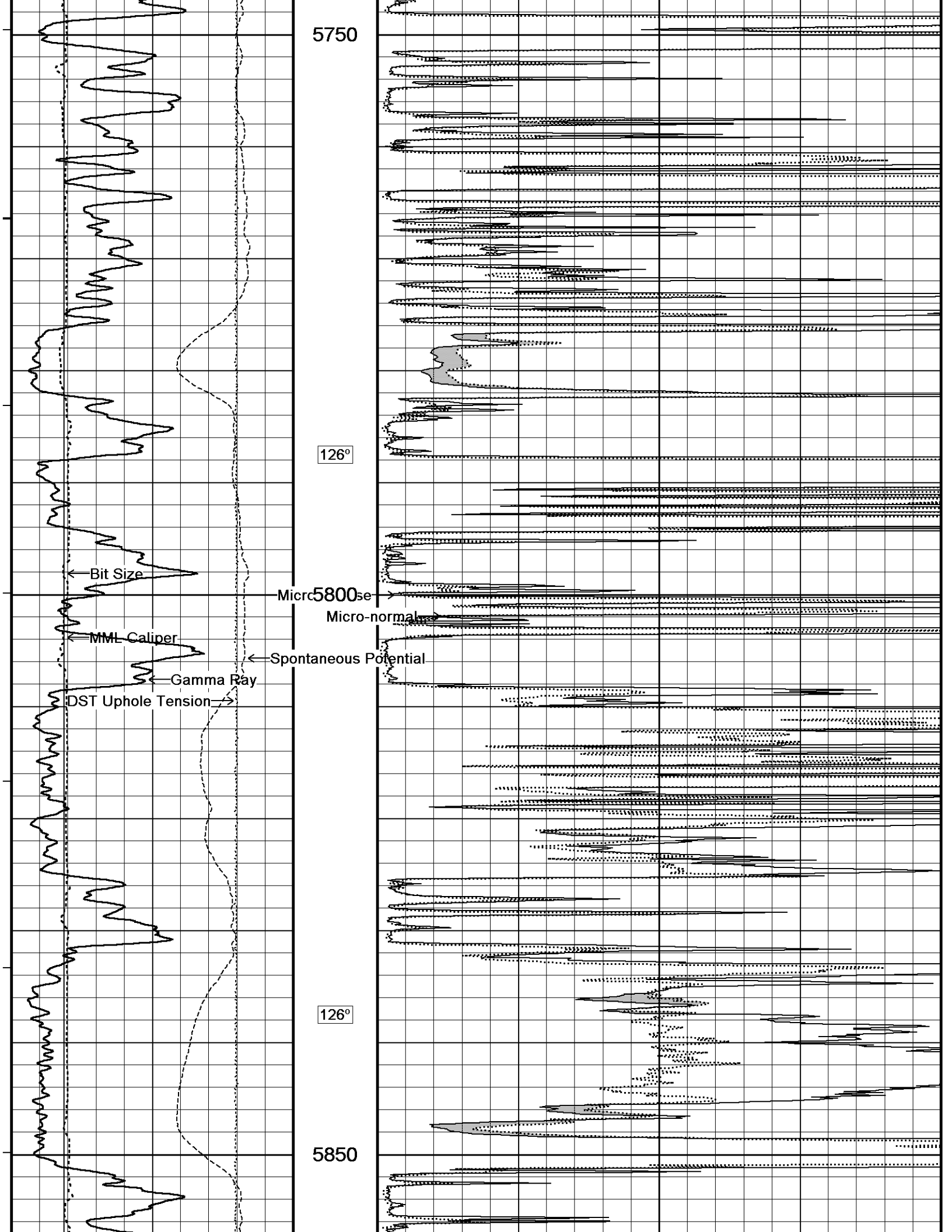
Micro-normal
ohm metres
0 10 20 30 40

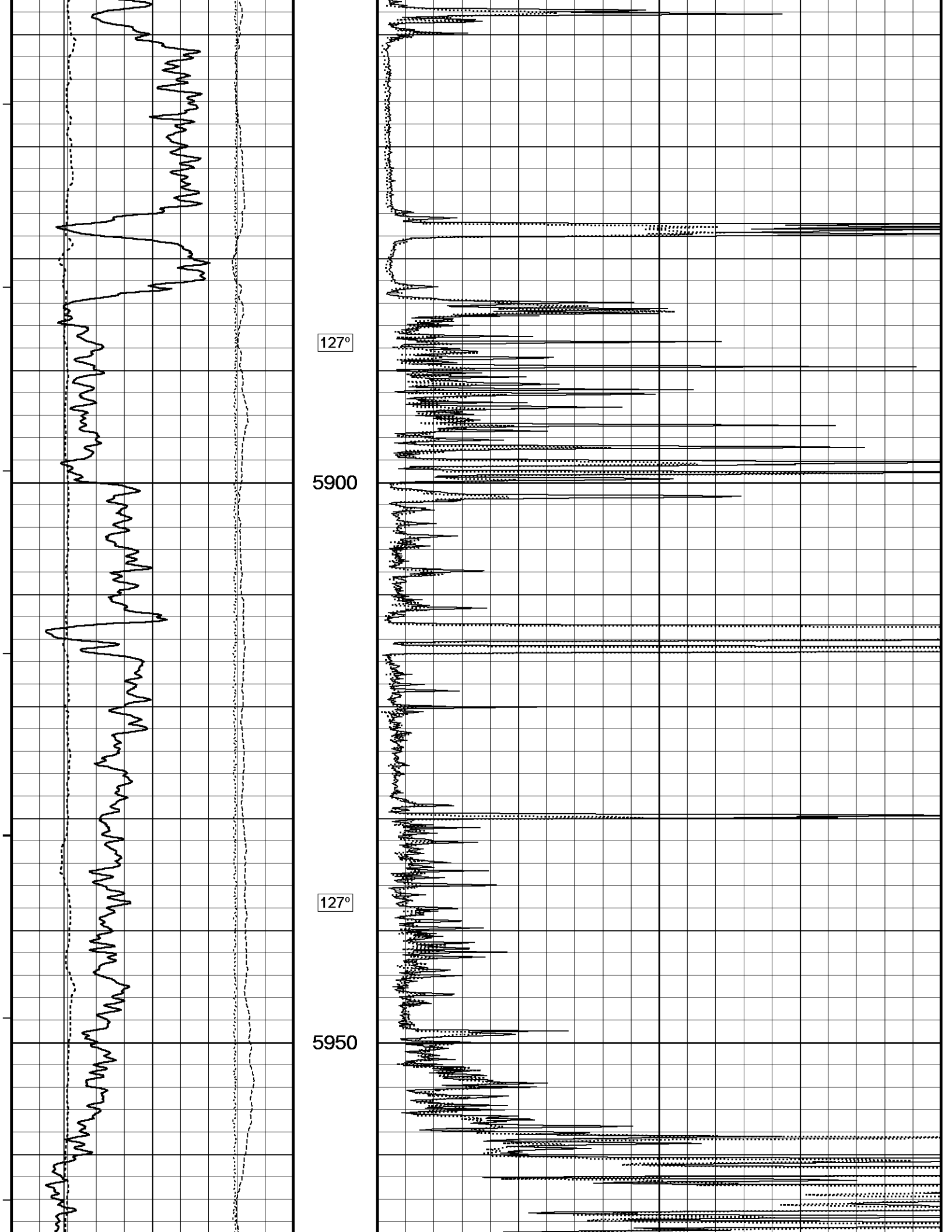
Micro-inverse
ohm metres
0 10 20 30 40

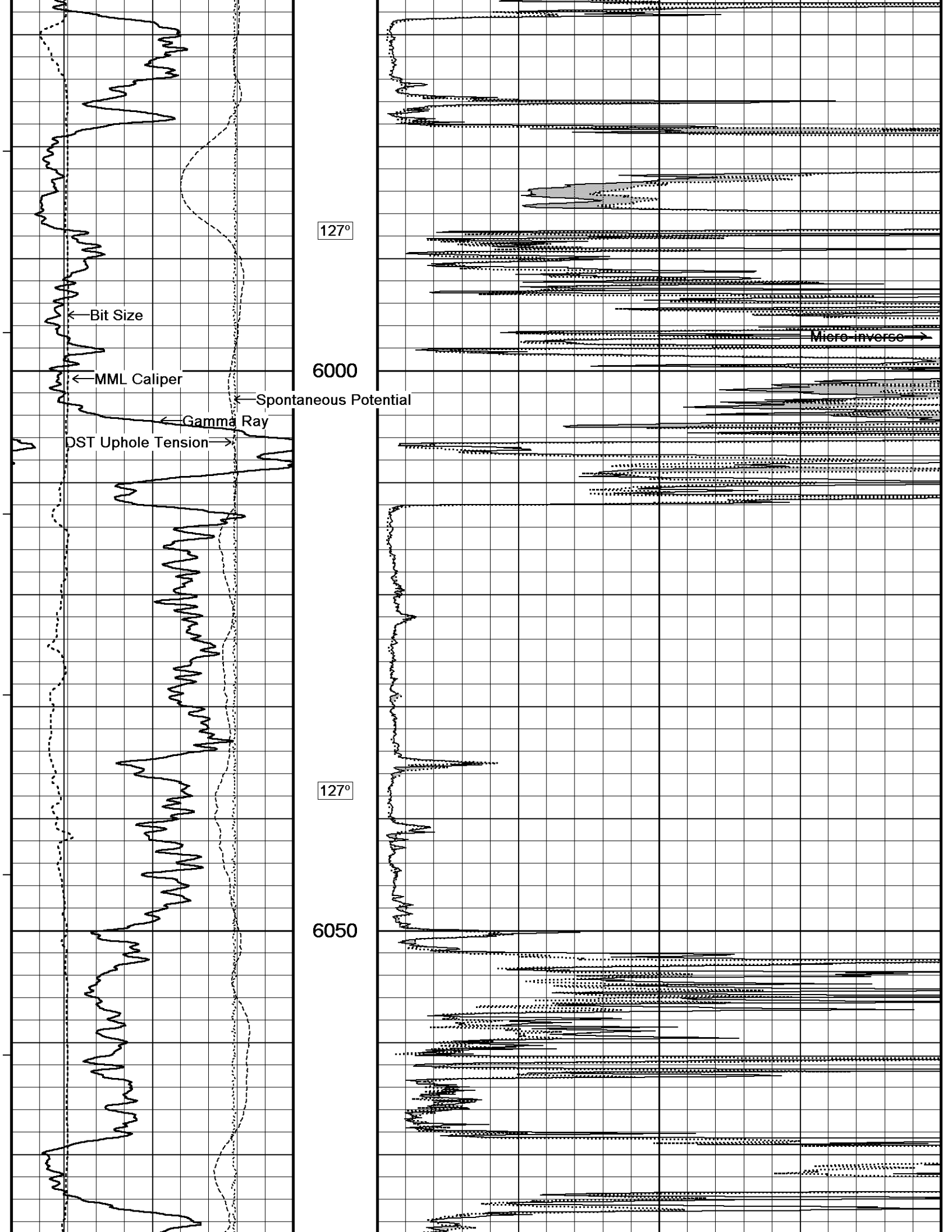
5600

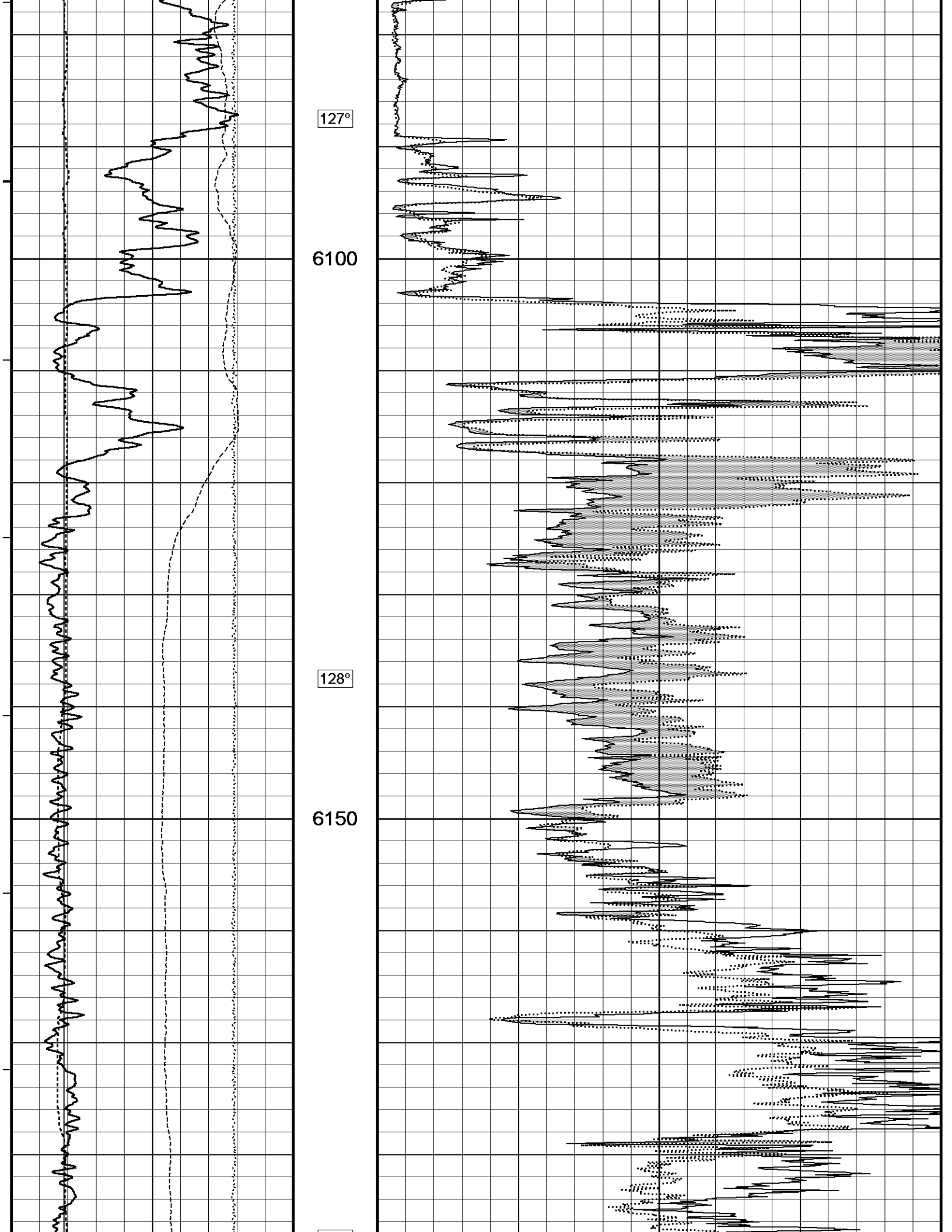
Bit Size
Micro-inverse
Micro-normal
MML Caliper
Spontaneous Potential
Gamma Ray
DST Uphole Tension

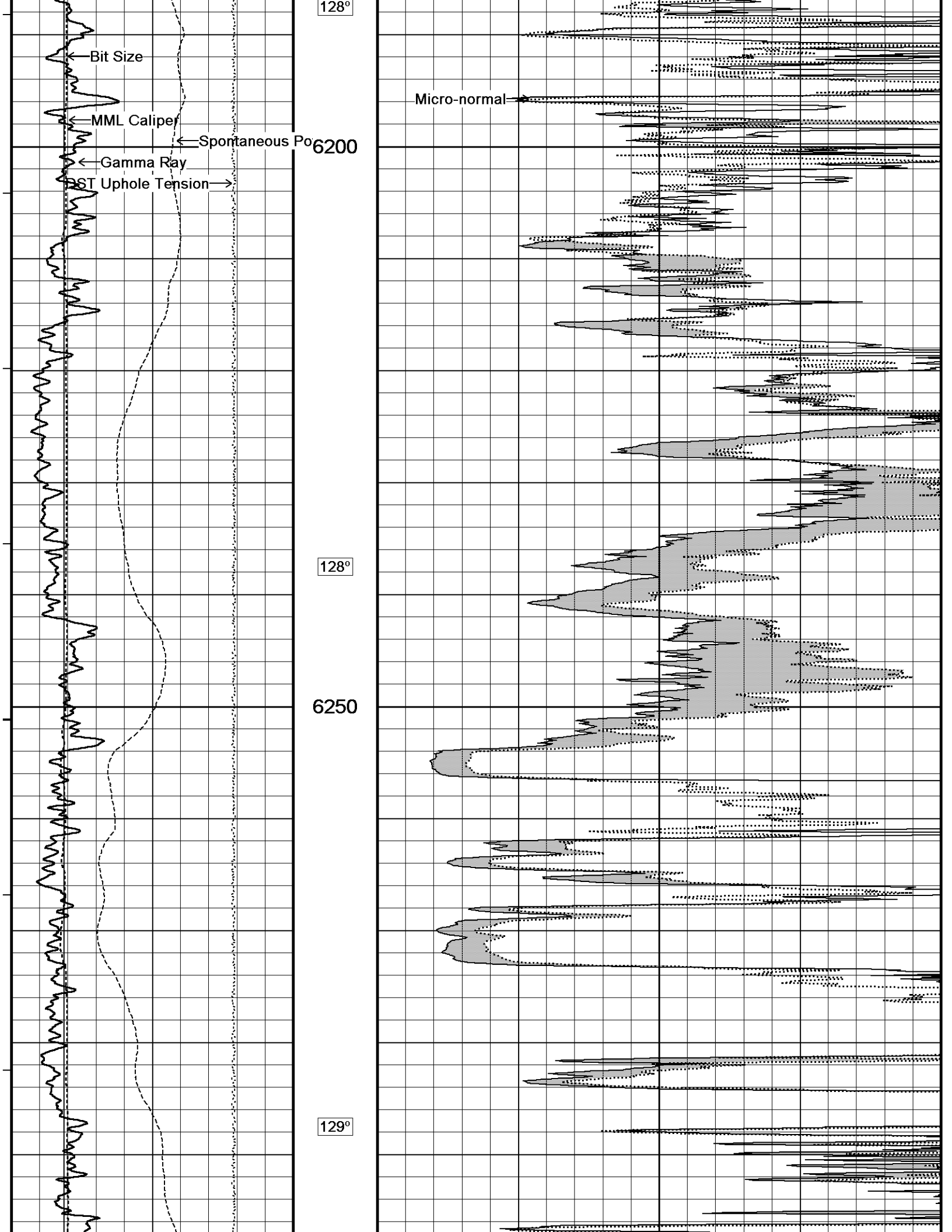

125°
5650
125°
5700
125°

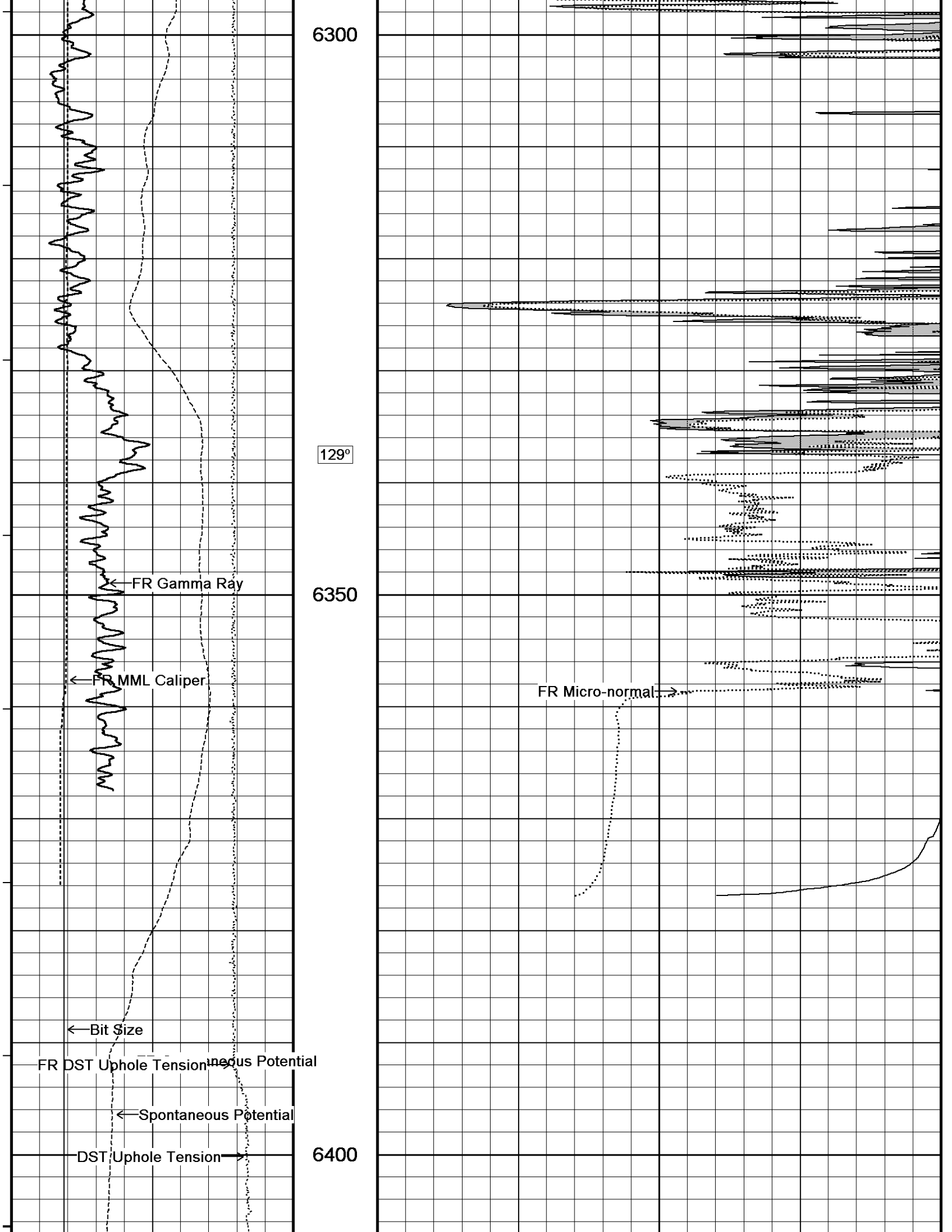

5750
126°
Bit Size
Micro
5800
se
Micro-normal
MML Caliper
Spontaneous Potential
Gamma Ray
DST Uphole Tension
126°
5850

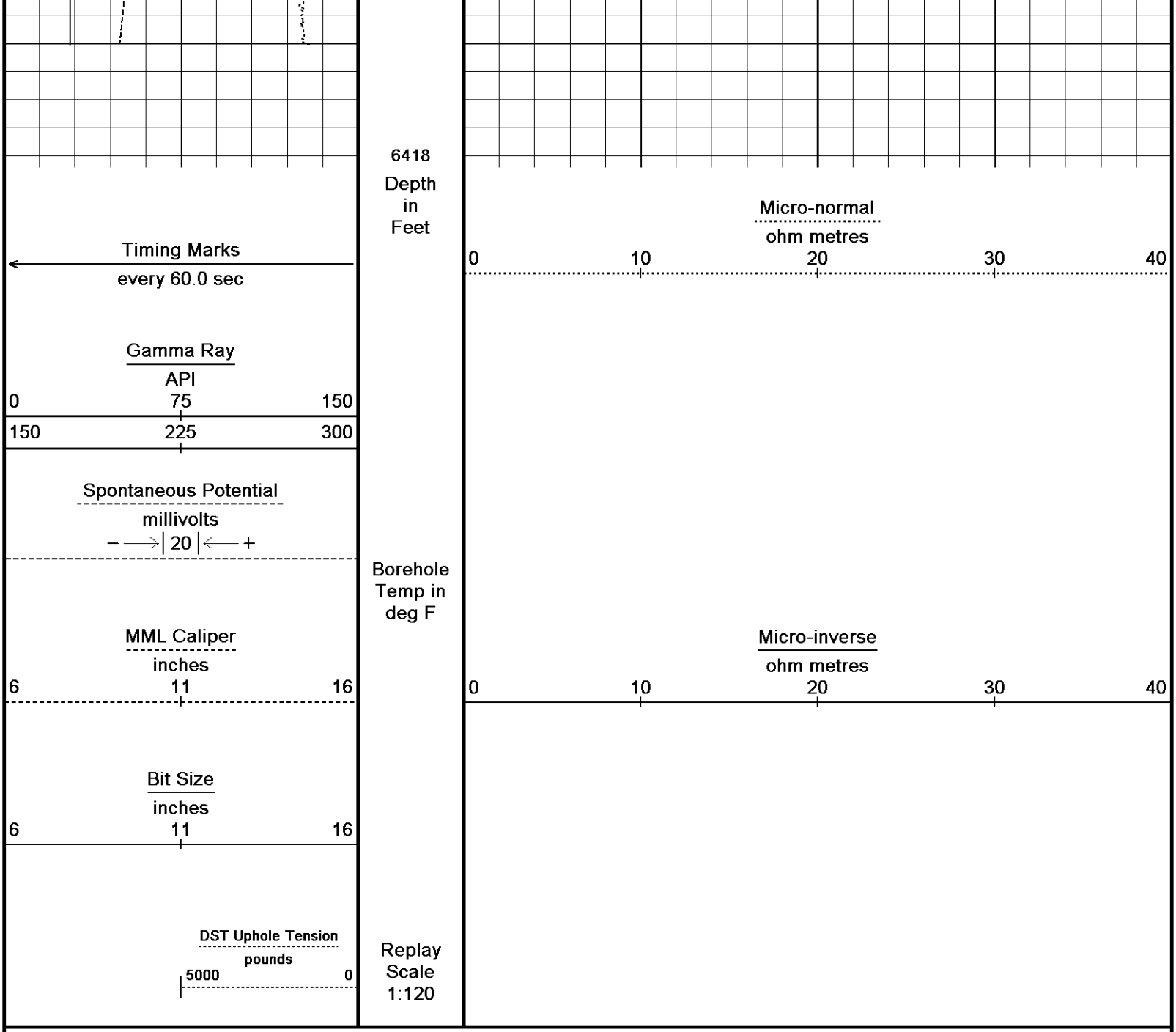

127°
5900
127°
5950


127°
Bit Size
Micro-inverse
6000
MML Caliper
Spontaneous Potential
Gamma Ray
DST Uphole Tension
127°
6050


127°
6100
128°
6150


128°
Bit Size
MML Caliper
Spontaneous Po
Gamma Ray
DST Uphole Tension
6200
Micro-normal
128°
6250
129°


6300
129°
FR Gamma Ray
6350
FR MML Caliper
FR Micro-normal
Bit Size
FR DST Uphole Tension
neous Potential
Spontaneous Potential
DST Uphole Tension
6400

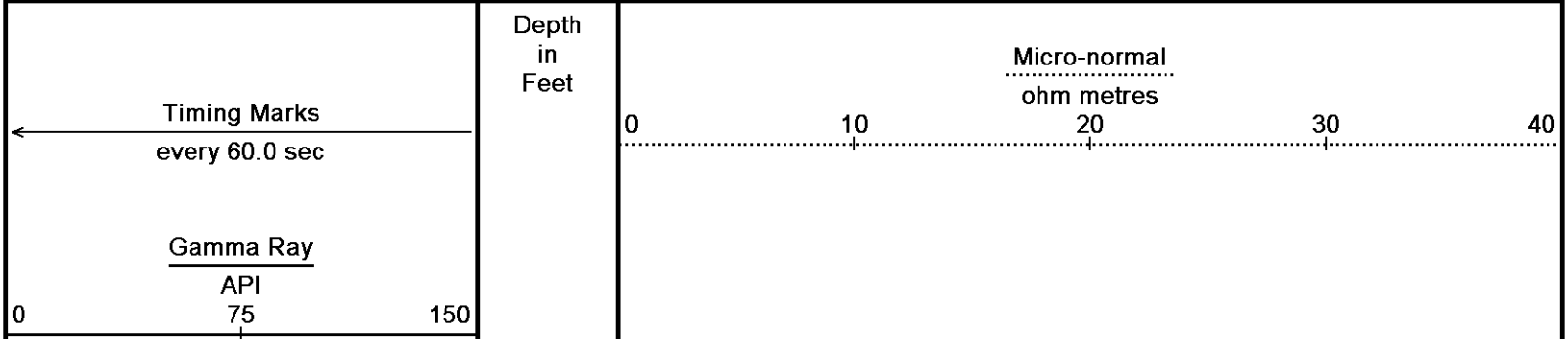


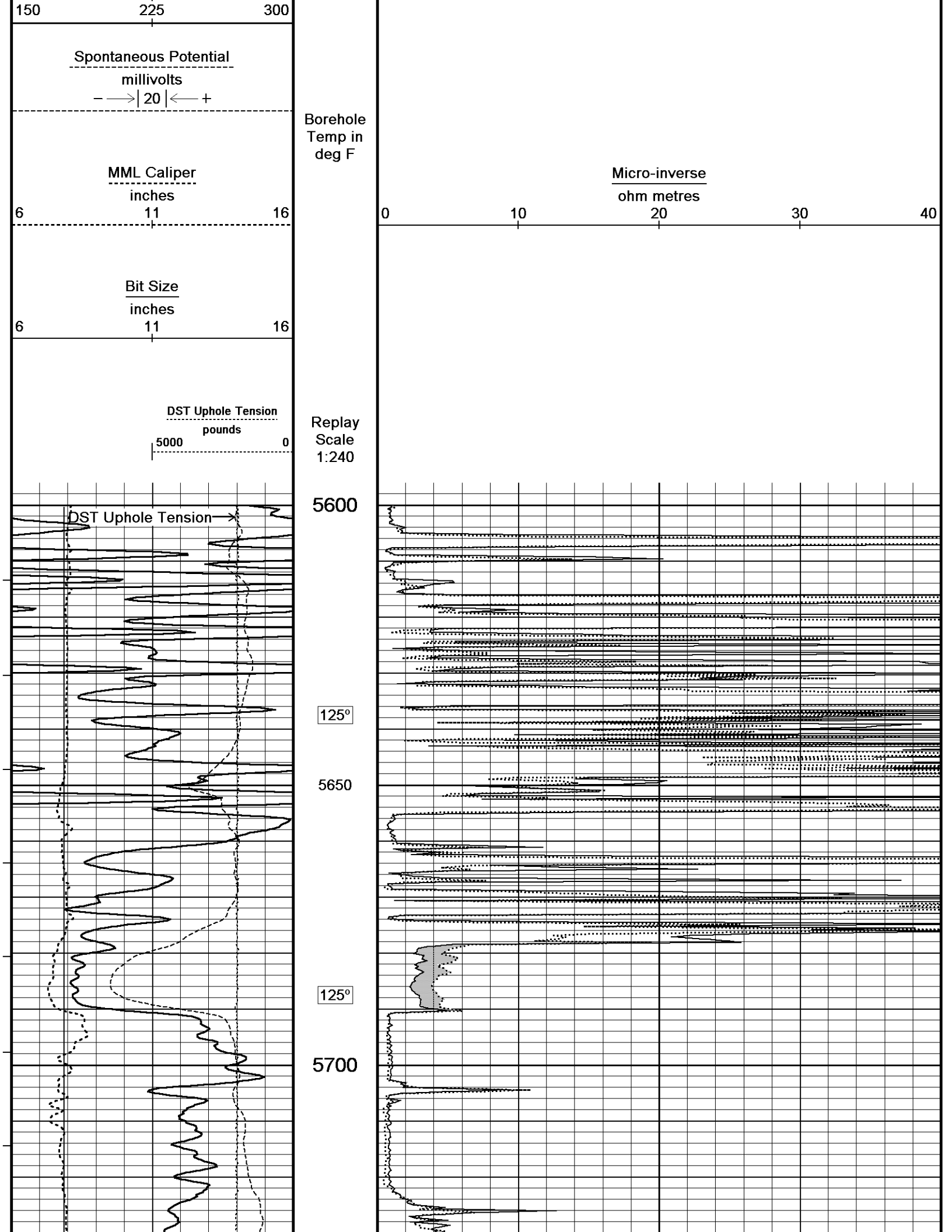
Depth Based Data - Maximum Sampling Increment 2.5cm — Plotted on 25-SEP-2012 11:02
Filename: C:\Users\Joe\Weatherford PreView\0\O'Brien Vanderpool #2-5 Hi-Res.dta — Recorded on 05-AUG-2012 17:20
System Versions: Logged with 13.02.6600 Plotted with 12.01.3513

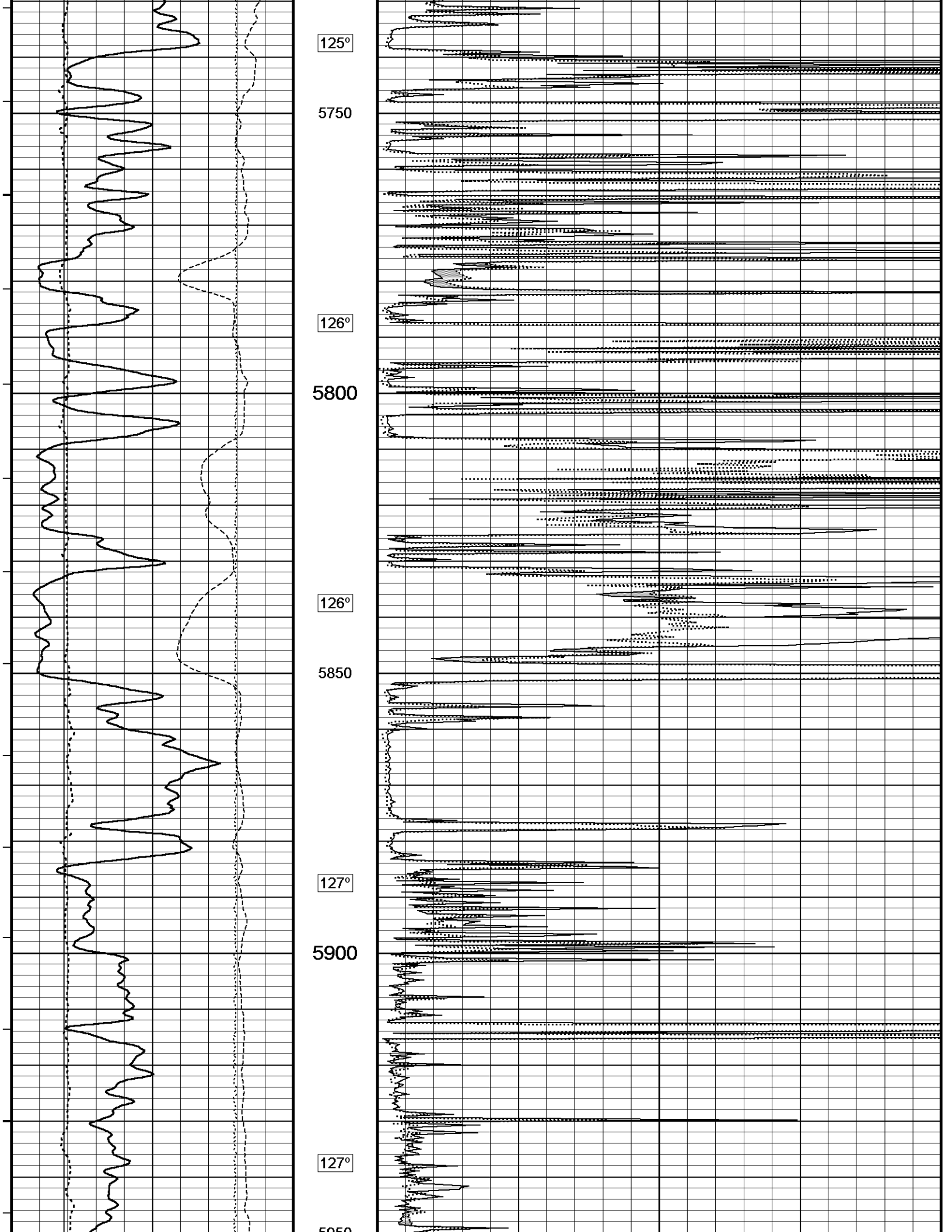
10 INCH HI-RES

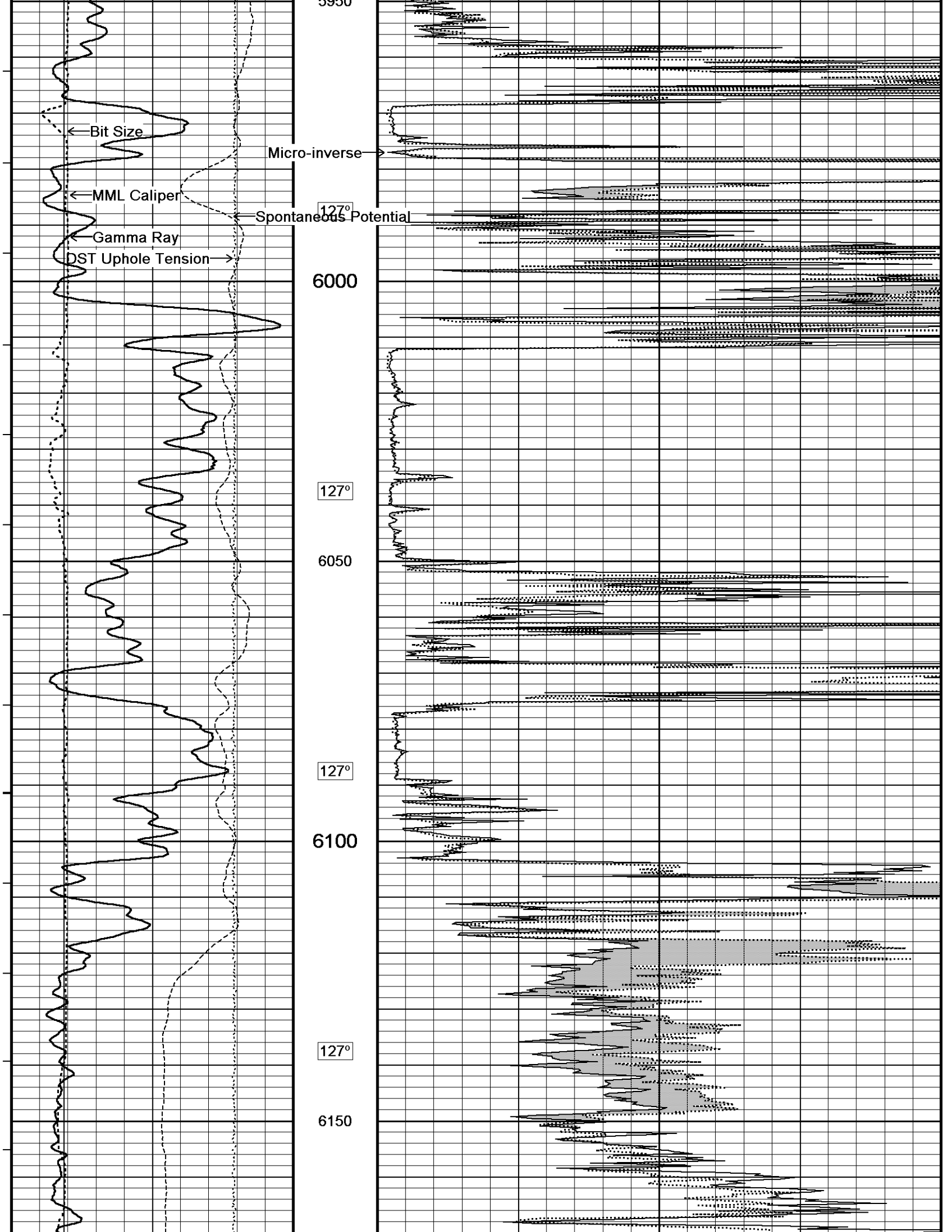
REPEAT SECTION

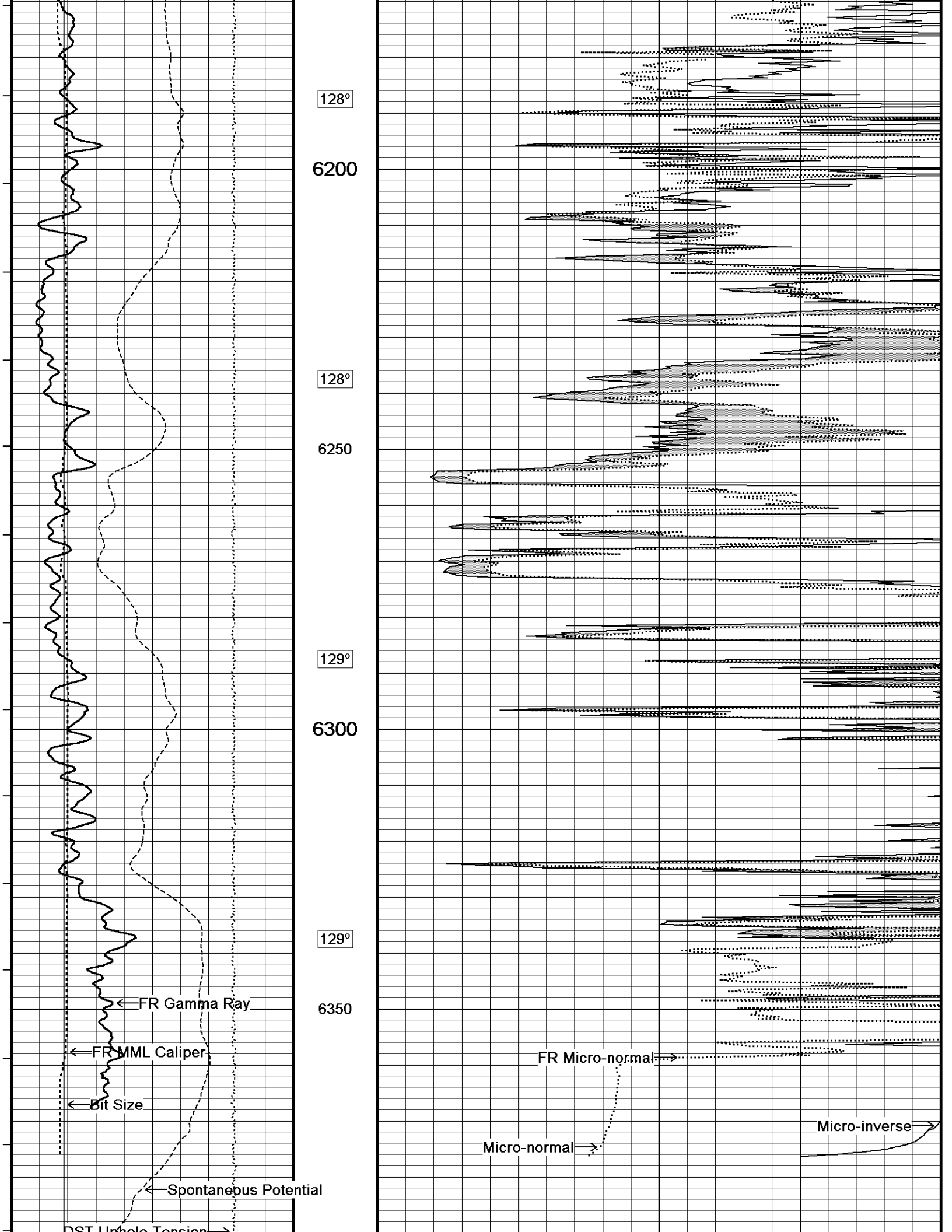
Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 25-SEP-2012 11:02
Filename: C:\Users\Joe\Weatherford PreView\0\O'Brien Vanderpool #2-5 Repeat.dta — Recorded on 05-AUG-2012 17:20
System Versions: Logged with 13.02.6600 Processed with 13.02.6600 Plotted with 12.01.3513




150
225
300
Spontaneous Potential
millivolts
– 20 +
Borehole Temp in deg F
MML Caliper
inches
6
11
16
Bit Size
inches
6
11
16
Micro-inverse
ohm metres
0
10
20
30
40
DST Uphole Tension
pounds
5000
0
Replay Scale 1:240
DST Uphole Tension
5600
125°
5650
125°
5700


125°
5750
126°
5800
126°
5850
127°
5900
127°


5950
Bit Size
Micro-inverse
MML Caliper
127°
Spontaneous Potential
Gamma Ray
DST Uphole Tension
6000
127°
6050
127°
6100
127°
6150


128°
6200
128°
6250
129°
6300
129°
6350
FR Gamma Ray
FR MML Caliper
Bit Size
Spontaneous Potential
DST Uphole Tension
FR Micro-normal
Micro-normal
Micro-inverse

FR DST Uphole Tension Spontaneous Potential

6400

6420

Depth
in
Feet

Timing Marks
every 60.0 sec

Gamma Ray
API
0 75 150
150 225 300

Spontaneous Potential
millivolts
− → | 20 | ← +

Borehole
Temp in
deg F

MML Caliper
inches
6 11 16

Bit Size
inches
6 11 16

DST Uphole Tension
pounds
5000 0

Replay
Scale
1:240

Micro-normal
ohm metres
0 10 20 30 40

Micro-inverse
ohm metres
0 10 20 30 40

Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 25-SEP-2012 11:02
Filename: C:\Users\Joe\Weatherford PreView\0\O'Brien Vanderpool #2-5 Repeat.dta
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REPEAT SECTION