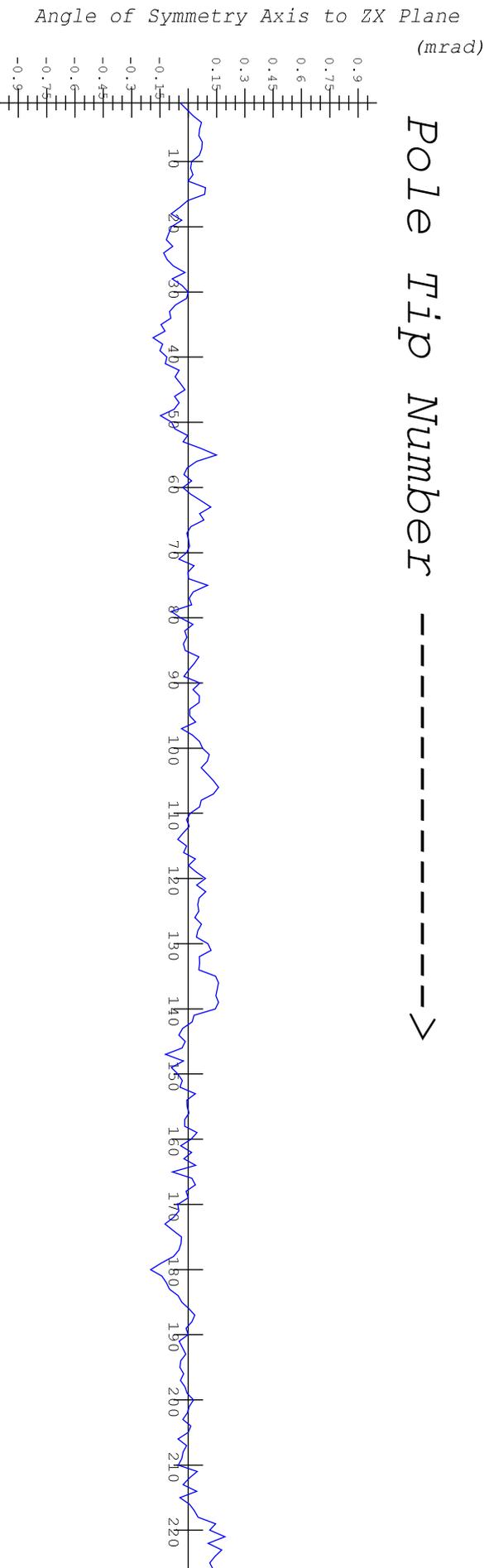


Pole Tip Number ----->



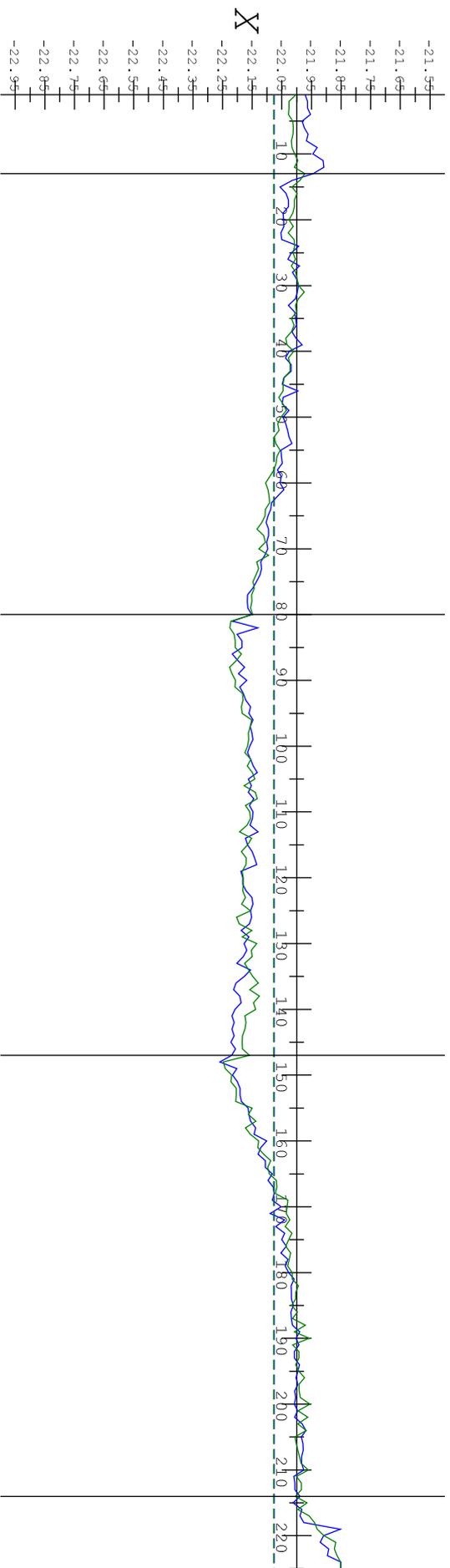
Symmetry Axis is the symmetry axis between the Upper and Lower Pole Tips
 Included Angle is the angle between the Upper and Lower Pole Tips



Undulator Pole Tip Angles
 Post Magnetic Alignment

DATE: 13-MAY-2009
 UNDULATOR #19
 DATASET # 0002
 PROGRAM VERSION 2.9

Pole Tip Number ----->

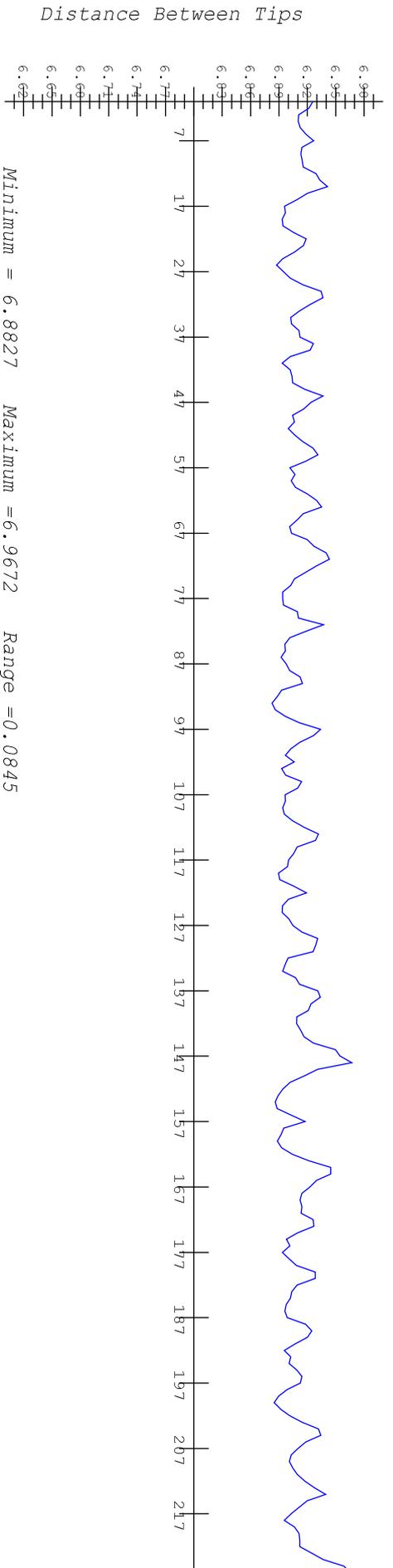


Undulator Pole Tip Location Post Magnetic Alignment

DATE: 13-MAY-2009
 UNDULATOR #19
 DATASET # 0002
 PROGRAM VERSION 2.9

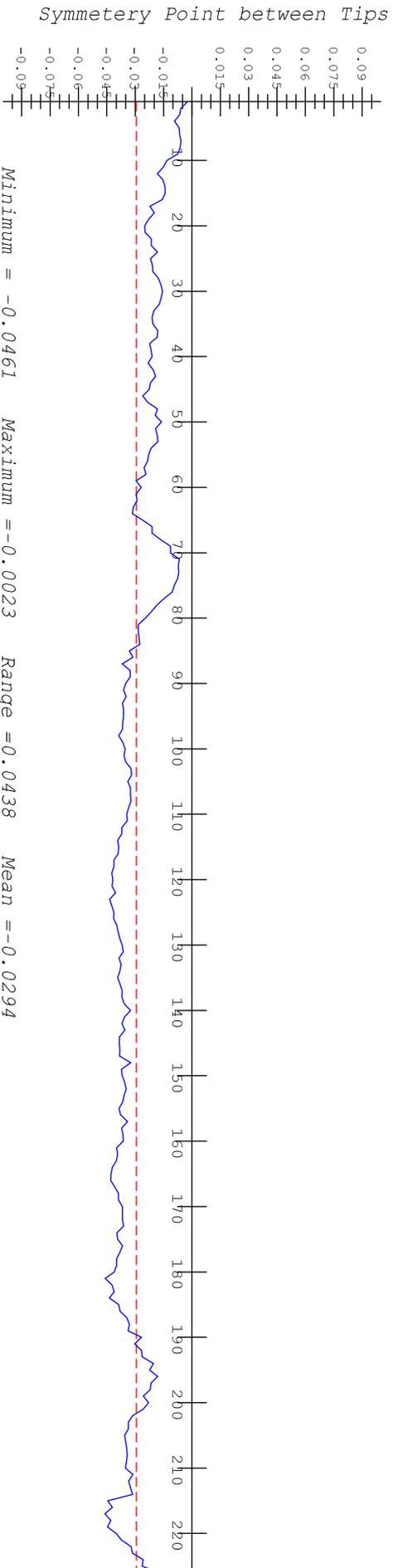
Green Solid = Point on front face of Upper Pole Tip 10mm above Magnetic C/L
 Green Dash = Mean value of all Upper Pole Tips 10mm above Magnetic C/L
 Blue Solid = Point on front face of Lower Pole Tip 10mm below Magnetic C/L
 Blue Dash = Mean value of all Lower Pole Tips 10mm below Magnetic C/L

Mean value Upper Pole Tips = -22.078
 Mean value Lower Pole Tips = -22.076



in mm

Pole Tip Number ----->



Symmetry Point is the symmetry point between the Upper and Lower Pole Tips were they intersect a YZ plane at the Magnetic C\L
 Broken Red line is Mean Value of Symmetry Points
 Distance Between Tips is the distance between the Upper and Lower Pole Tips were they intersect a YZ plane at the Magnetic C\L

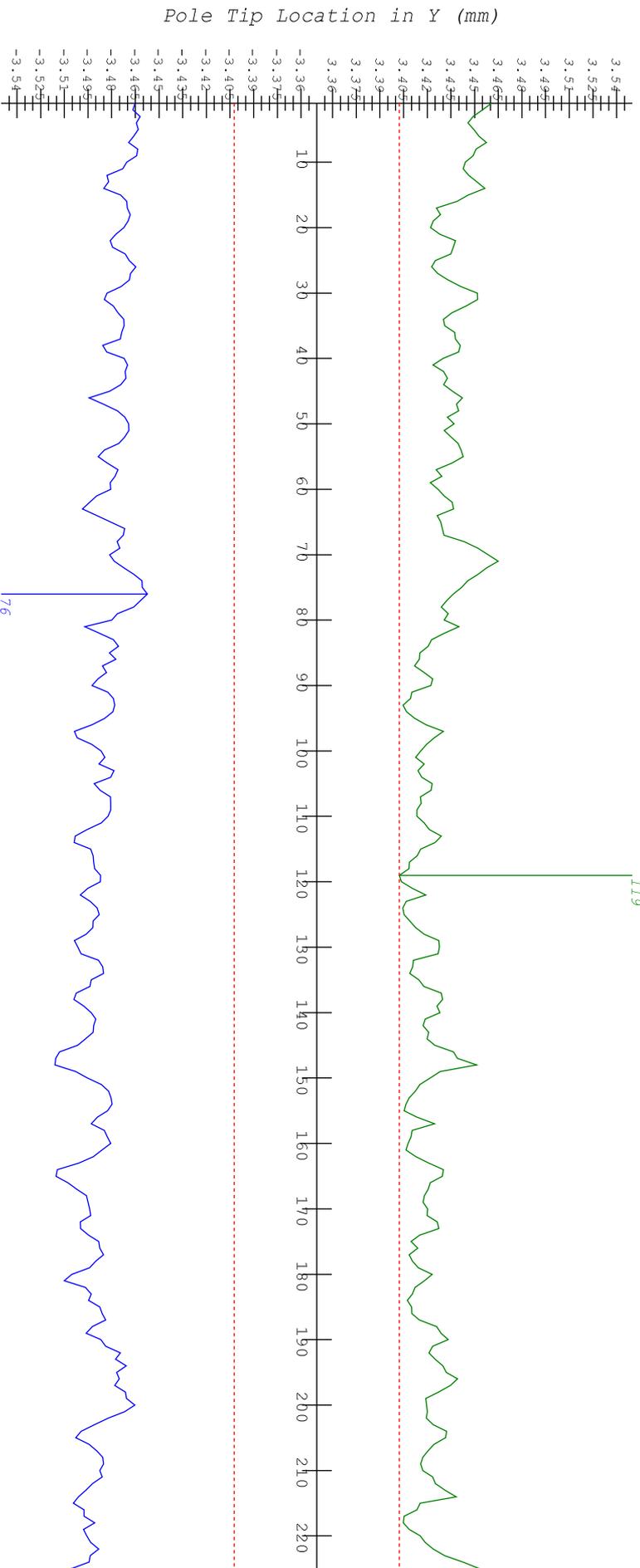


Undulator Pole Tip Location
 Post Magnetic Alignment

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 PROGRAM VERSION 2.9

Maximum Chamber Gap = 6.8046

Minimum = 3.4023 Maximum = 3.4652 Range = 0.0629



Minimum = -3.5160 Maximum = -3.4575 Range = 0.0585

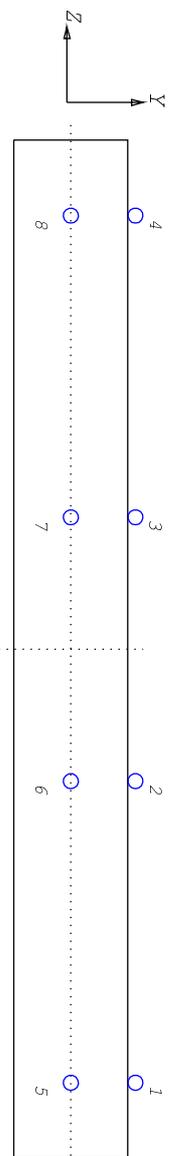
Pole Tip Number ----->

Green = The position of the Upper Pole Tips at Magnetic C\L
Blue = The position of the Lower Pole Tips at Magnetic C\L
Max. Chamber Gap = The maximum width vacuum chamber that will fit centered on the Magnetic C\L (2*Min. Dev. from C\L)



Undulator Pole Tip Location
Post Magnetic Alignment

DATE: 13-MAY-2009
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DATASET # 0002
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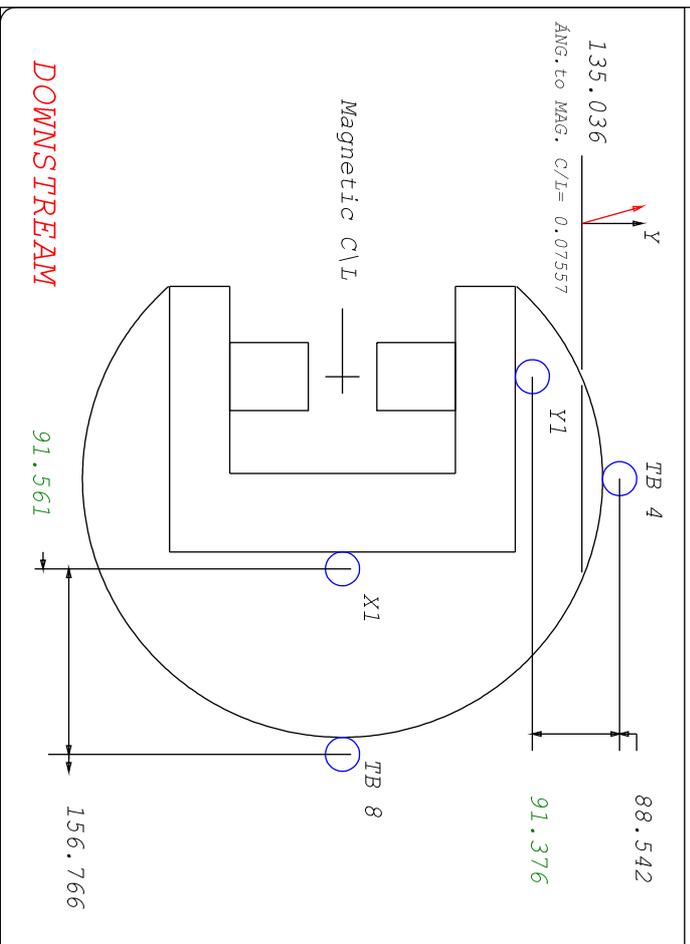
TOOLING BALL LOCATIONS

NUM.	X	Y	Z
1	0.1788	180.0740	-1558.278
2	-0.0981	179.8148	-584.6195
3	-0.3177	179.8705	591.2706
4	0.2432	179.9183	1562.1297
5	248.2955	-0.0043	1558.212
6	248.1842	-0.0555	-584.5737
7	248.1177	-0.0430	591.3141
8	248.3272	0.0146	1562.1808

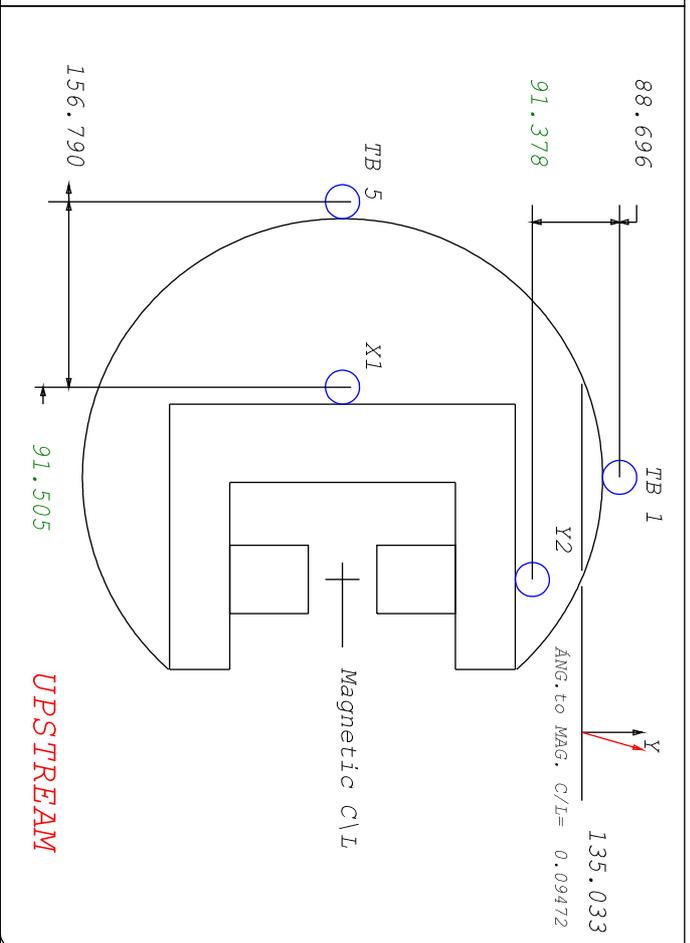
	C/L Offset	Length
Top Magnetic Structure	0.028	3381.141
Bottom Magnetic Structure	-0.028	3381.107
Strongback	0.280	3399.936

Dimensions in mm

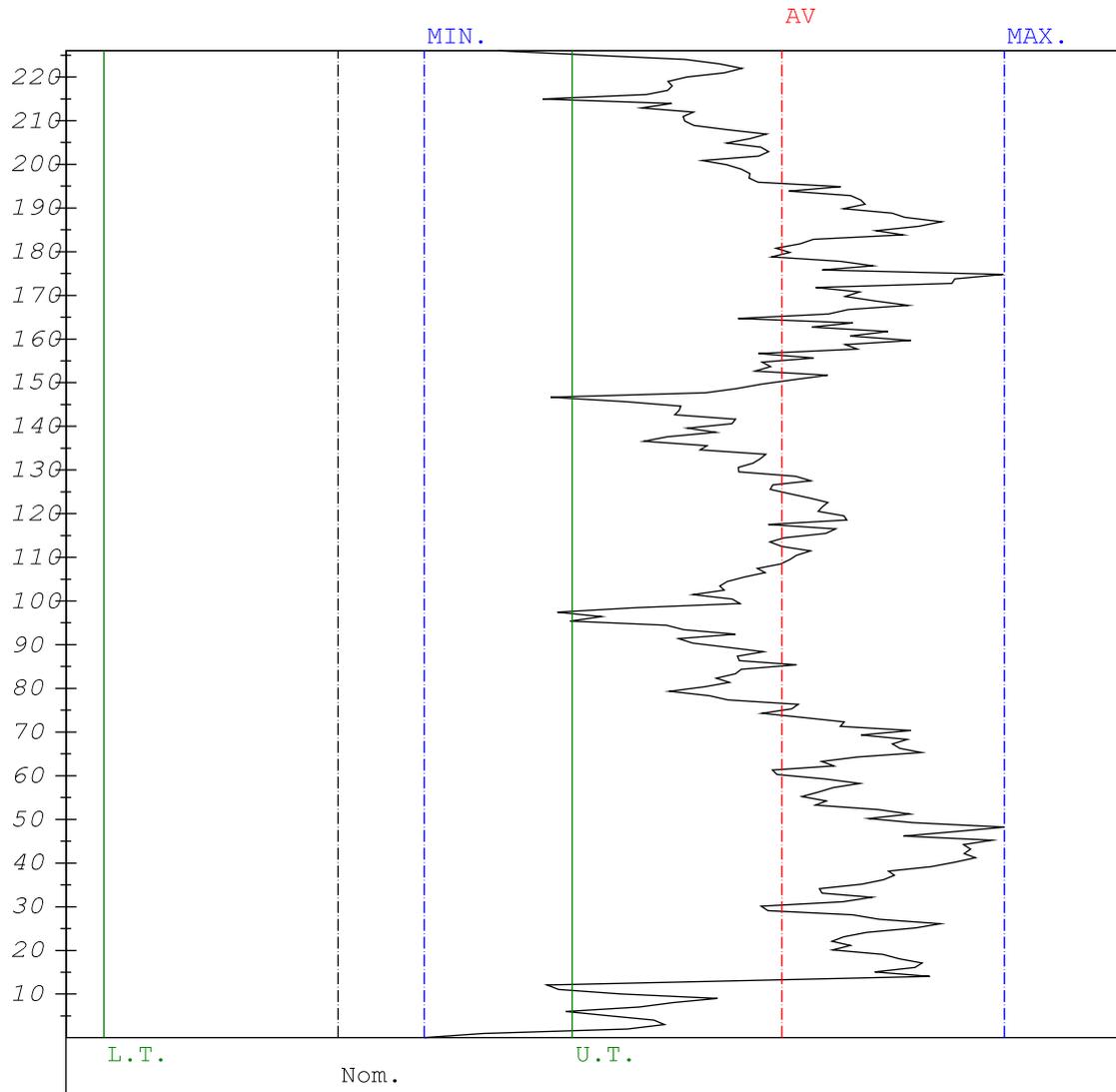
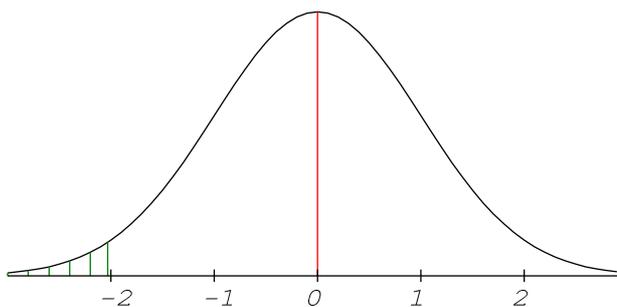
Angles in mrad



DOWNSTREAM



UPSTREAM



Nominal : 4.5000	Averag : 5.447	Cent.-Dev. : 0.947
Up. Tol. : 0.5	Maximum : 5.9221	U.Tol.Ex. > : 97.9 %
Low.Tol. : -0.5	Minimum : 4.6837	L.Tol.Ex. < : 0.0 %
Spl.Size : 226	Stand.-Dev.: 0.2203	In Tolerance: 2.1 %
Outlier : 0	Distribution : NOR	Dimension : mrad



Statistical Evaluation
Pole Tip Gap Angle
Post Magnetic Alignment

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PROGRAM VERSION 2.9