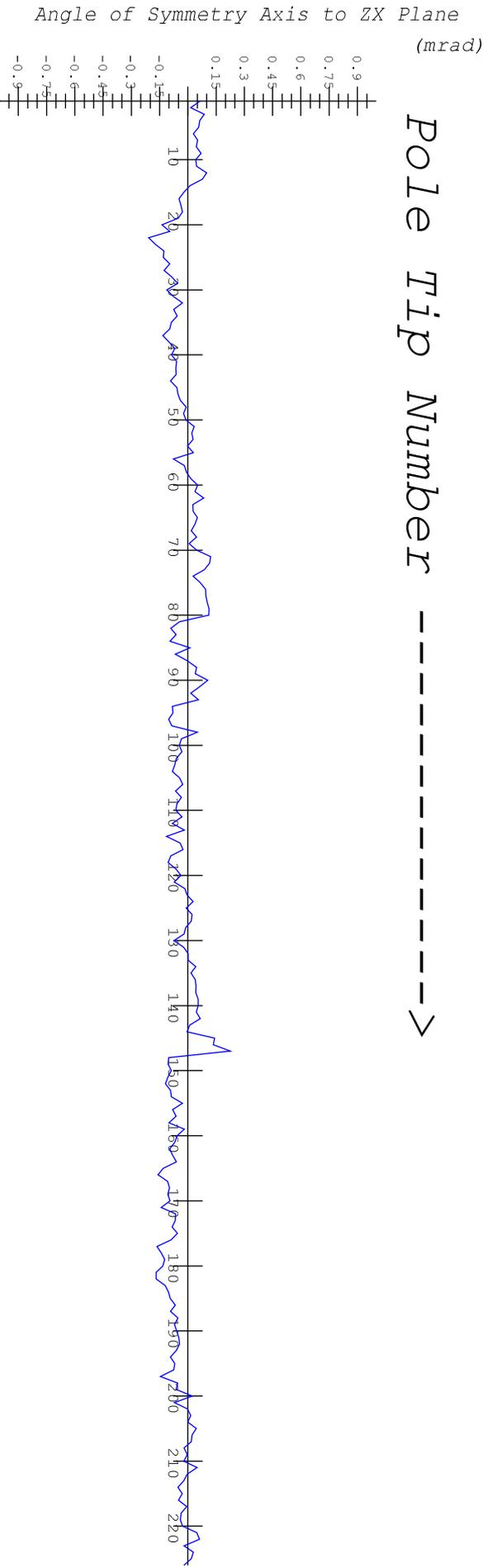


Pole Tip Number ----->



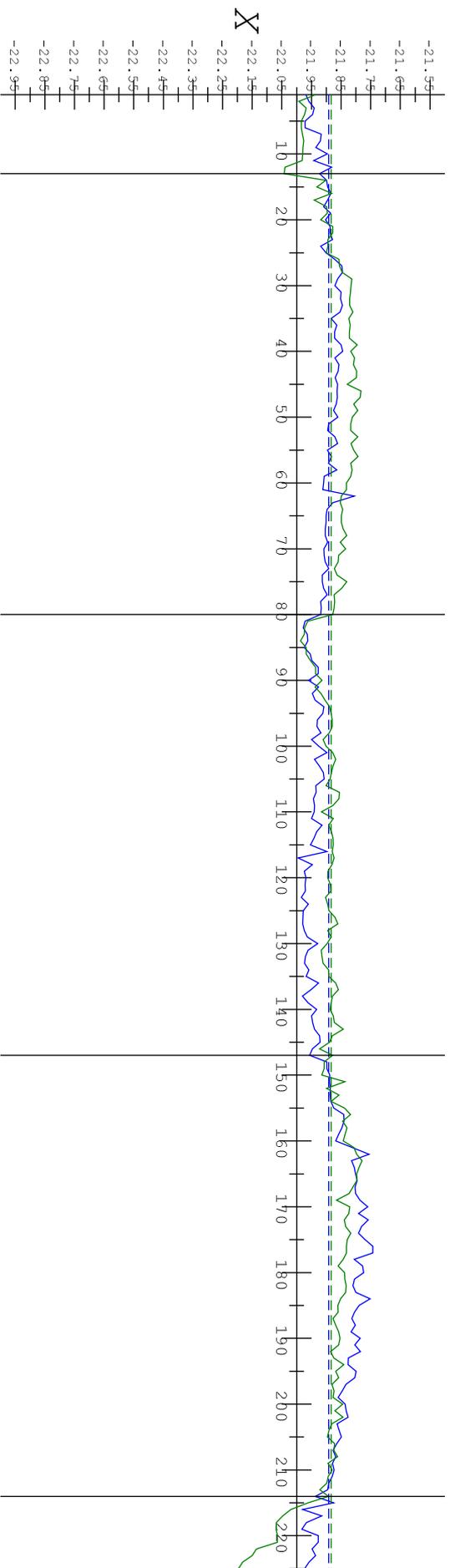
Symmetry Axis is the symmetry axis between the Upper and Lower Pole Tips
 Included Angle is the angle between the Upper and Lower Pole Tips



Undulator Pole Tip Angles
 Post Magnetic Alignment

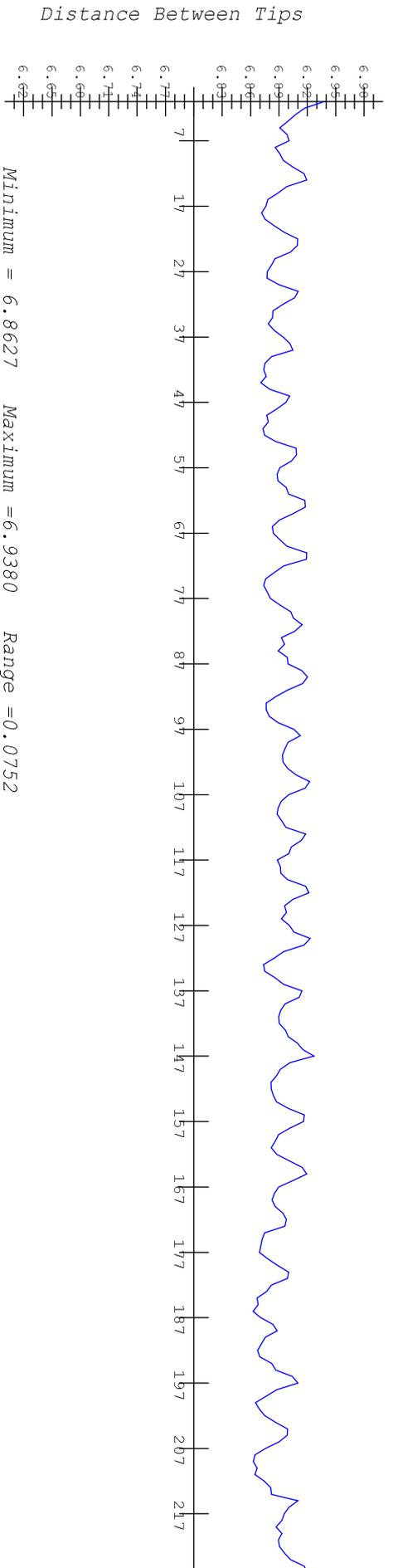
DATE: 03-JUN-2009
 UNDUULATOR # 13
 DATASET # 0021
 PROGRAM VERSION 2.9

Pole Tip Number ----->



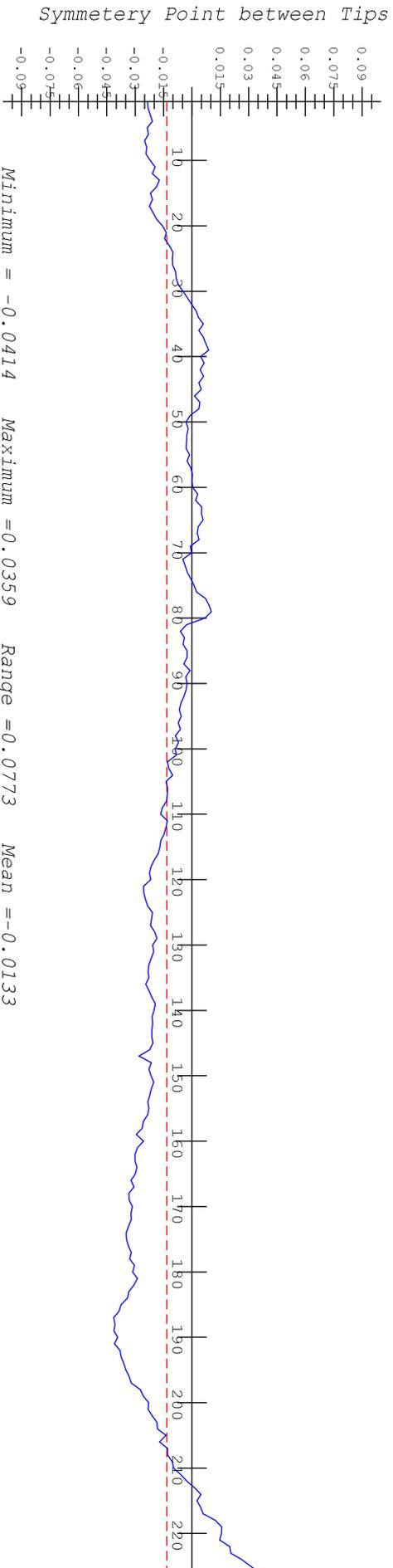
Undulator Pole Tip Location Post Magnetic Alignment

DATE: 03-JUN-2009
 UNDUULATOR # 13
 DATASET # 0021
 PROGRAM VERSION 2.9



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

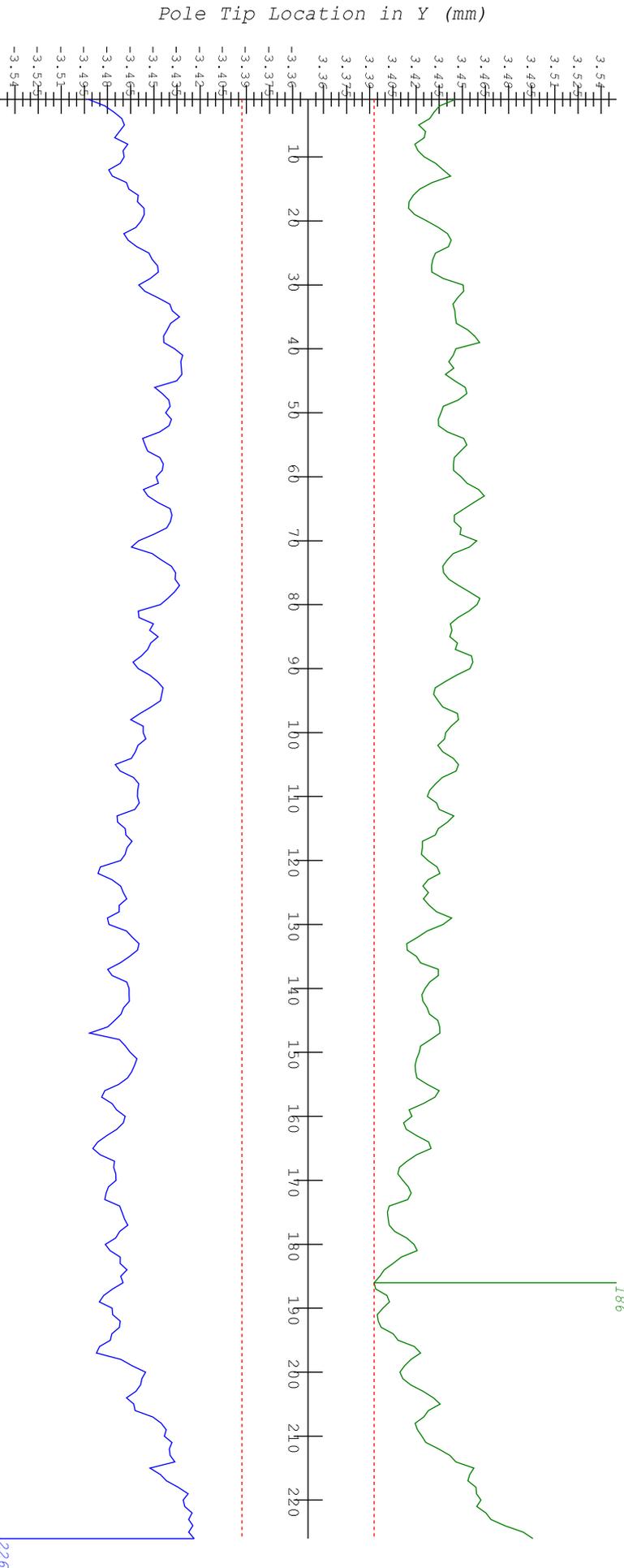


Undulator Pole Tip Location
 Post Magnetic Alignment

DATE: 03-JUN-2009
 UNDUULATOR # 13
 DATASET # 0021
 PROGRAM VERSION 2.9

Maximum Chamber Gap = 6.7856

Minimum = 3.3928 Maximum = 3.4957 Range = 0.1029



Minimum = -3.4924 Maximum = -3.4239 Range = 0.0685

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: 03-JUN-2009
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DATASET # 0021
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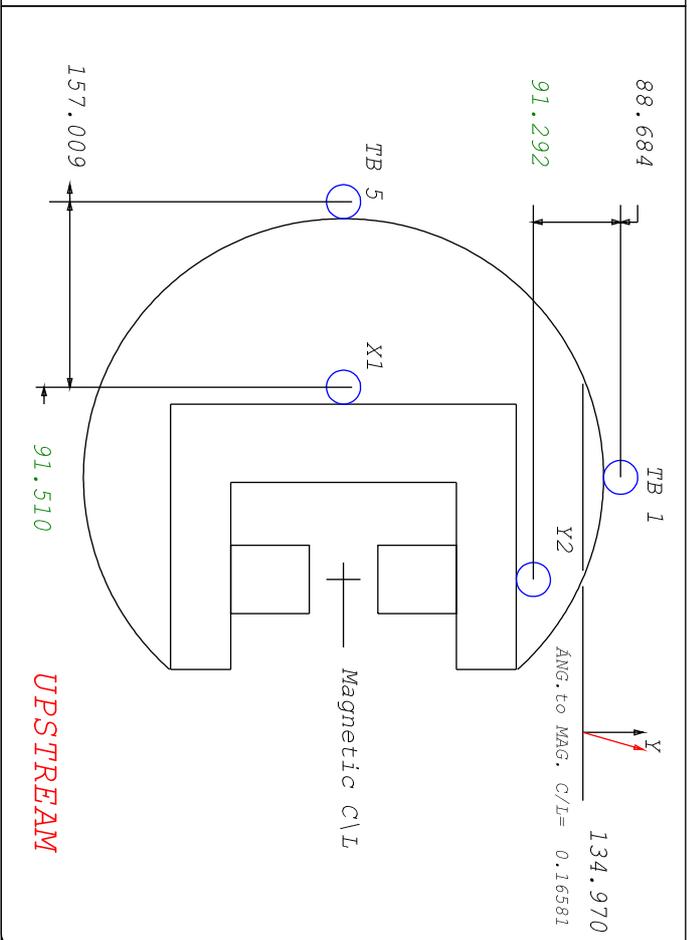
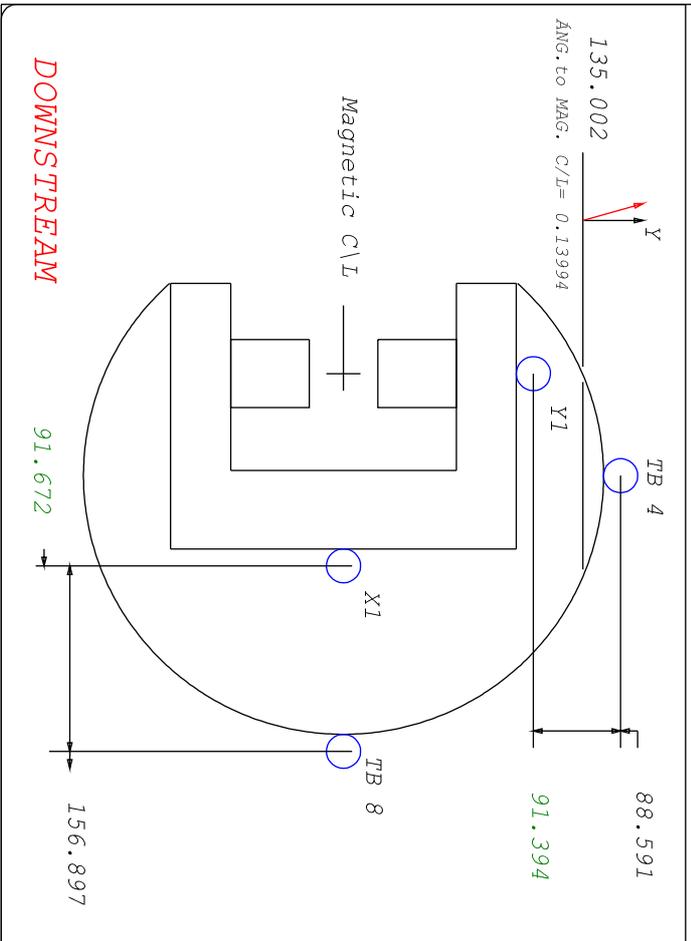
TOOLING BALL LOCATIONS

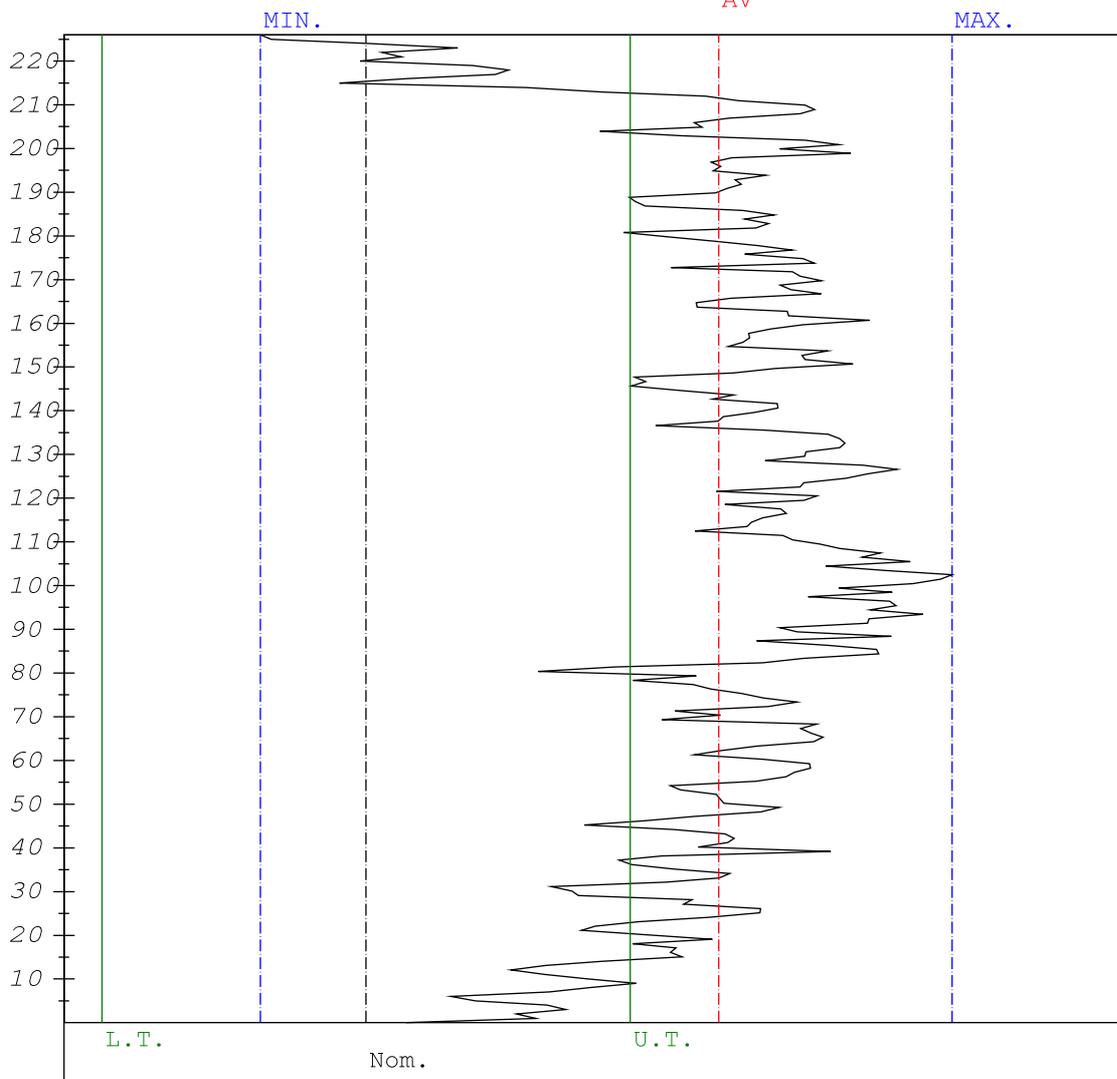
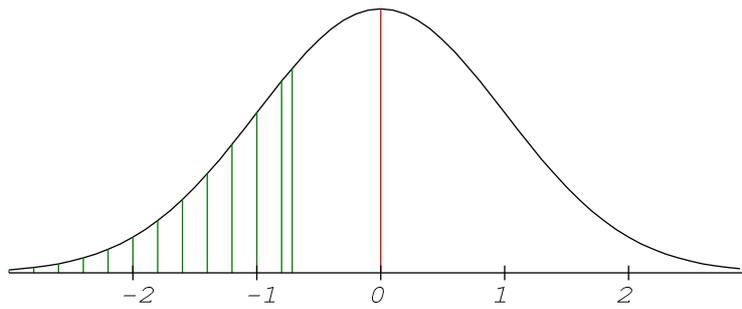
NUM.	X	Y	Z
1	0.1888	179.9761	-1558.291
2	0.3507	180.0052	-584.4572
3	0.2522	179.8896	591.3022
4	0.2090	179.9853	1562.0754
5	248.5186	0.0644	-1558.363
6	248.4934	-0.0369	-584.6070
7	248.5195	0.0326	591.3243
8	248.5686	-0.0723	1562.0867

	C/L Offset	Length
Top Magnetic Structure	-0.096	3381.059
Bottom Magnetic Structure	0.096	3381.283
Strongback	0.250	3399.786

Dimensions in mm

Angles in mrad





Nominal : 4.5000	Averag : 5.1678	Cent.-Dev. : 0.6678
Up. Tol. : 0.5	Maximum : 5.6096	U.Tol.Ex. > : 76.3 %
Low.Tol. : -0.5	Minimum : 4.3000	L.Tol.Ex. < : 0.0 %
Spl.Size : 226	Stand.-Dev.: 0.2345	In Tolerance: 23.7 %
Outlier : 0	Distribution : NOR	Dimension : mrad



Statistical Evaluation
 Pole Tip Gap Angle
 Post Magnetic Alignment

DATE: 03-JUN-2009
 UNDULATOR # 13
 DATASET # 0021
 PROGRAM VERSION 2.9