Jefferson Lab Alignment Group

Data Transmittal

TO: H. Egiyan, T. Whitlatch		**DATE:** 10 Nov 2016
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DETAILS: M:\align\DATA\Step2B\HallD\TAGGER\161108A

Below are the results of the Goniometer survey performed November 11th, 2016. The first table is the position and rotation angles of the three Goniometer stages. To determine these values one bolt hole was measured in several locations as each of the stages was rotated in an arc. A circle was then constructed to define position and rotation. Values are in millimeters and degrees. A positive X is to the beam left, a +Y is up and a positive Z is downstream.

AXIS	X	Y	Z	Rx from Y	Ry from Z	Rz from X
ROLL	-155.47	49.32	-4.36	269.9920	180.0140	
YAW	-155.86	60.38	18.47	180.0796		270.0664
PITCH	-203.56	-48.14	19.07		89.8276	359.9327

The next table shows the position of the foil target in several locations. The position was defined by a constructed circle through the four bolt hole locations of the foil frame. The first position is the location of the foil as it was found. The remainder of the locations are with the foil in the beamline and used in the calibration of the stage motor.

	X	Y	Z
FOIL1	-165.08	13.61	-9.48
FOIL_BL	-0.02	6.79	-9.68
FOIL_BL1	-0.02	-0.02	-9.69
FOIL_BL2	-6.82	13.59	-9.61
FOIL_BL3	-6.83	-0.02	-9.69