



Jefferson Lab Alignment Group

Data Transmittal

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Checked:

: A1928

DETAILS:

M:\align\DATA\Step2B\HALLA\PREX2019\190618A

Below are the final results of the PREX experiment assembly. The target locations were measured to the upstream face of the copper target ladder. Values are reported in a beam following system relative to the Hall A Center. A positive X is beam left, a positive Y is up and a positive Z is downstream.

	IDEAL FROM HALL A CENTER (mm)			FOUND BFS (mm)			ROTATIONS (Degrees)	
	X	Y	Z	X	Y	Z	rX (Pitch)	rY (Yaw)
PREX Tgt.	0.00	0.00	-1151.20				0.0000	0.0000
90_TGT_16				0.04	-4.93	-16.43	-0.1771	0.1327
90_TGT_15				-0.07	-4.36	-16.23	0.1346	0.0074
90_TGT_14				0.12	-3.72	-16.08	-0.0361	-0.0509
90_14_Carbon Hole				0.29	-2.98			
90_TGT_13				-0.10	-3.15	-16.11	-0.0398	-0.0074
90_TGT_9				-0.20	-0.66	-15.68	-0.0023	-0.0374
90_TGT_4				-0.07	1.68	-15.20	0.0649	0.0720
90_TGT_1				-0.12	2.33	-14.84	0.0666	0.1585
45_TGT_5				0.00	-1.93	-0.96	-0.3255	-0.8839
45_TGT_4				0.15	-1.72	5.33	-0.2242	-2.2232
45_TGT_3				0.08	-1.64	5.28	-1.4220	1.0885
45_TGT_2				0.27	-1.65	5.11	0.6747	0.1170
45_TGT_1				-0.03	-1.50	5.17	0.7826	-0.5469
45_1_Carbon Hole				-0.33	-1.74			



	IDEAL FROM HALL A CENTER (mm)			FOUND BFS (mm)			ROTATIONS (Degrees)		
	X	Y	Z	X	Y	Z	rX (Pitch)	rY (Yaw)	rZ (Roll)
Collimator	0.00	0.00	-245.59	0.06	-0.03	1.38	0.0177	-0.0034	0.0072
Septum	0.00	0.00	700.00	0.18	2.40	0.75	0.0176	-0.0063	0.0179
R. Q1 Col. Fids measured 5/21/19									
1	-348.37	90.74	1329.34	-0.78	0.36	0.04			
2	-399.51	0.00	1318.00	-0.31	0.60	-0.62			
3	-348.37	-90.74	1329.34	-0.21	0.54	-0.93			
4	-246.07	-90.74	1352.01	-0.11	0.54	-1.06			
5	-194.93	0.00	1363.35	-0.18	0.90	-1.08			
6	-246.07	90.74	1352.01	-0.26	0.66	-0.57			
L. Q1 COL. Fids measured 5/21/19									
1	246.07	90.74	1352.01	1.06	-0.22	0.14			
2	194.93	0.00	1363.35	0.57	-0.04	0.13			
3	246.07	-90.74	1352.01	0.19	-0.30	0.02			
4	348.37	-90.74	1329.34	0.18	-0.69	-0.07			
5	399.51	0.00	1318.00	0.69	-0.87	0.06			
6	348.37	90.74	1329.34	1.09	-0.65	0.06			