



Jefferson Lab Alignment Group

Data Transmittal

TO: B. Miller, S. Stepanyan

DATE: 05/20/2016

FROM: Kelly Tremblay

Checked: (cwg)

: B1718

DETAILS:

data: step2b\hallb\prad\1605 11a/12a/13a/13b

The Hall B beamline was surveyed between May 11th and May 13th, 2016, prior to the PRad run. The coordinates are in the Cebaf coordinate system (meters), distance to the hall B center (meters) and a beam following system (millimeters).

Target	Cebaf Coordinates [meters]			[meters]	beam following o/s [millimeters]		
	X [m]	Y [m]	Z [m]	to hall cen	dx [mm]	dy [mm]	dz [mm]
IHA2H00 **	-80.60013	103.35527	-384.46081	15.63399	0.13	0.01	-22.60
tar pump us	-80.60036	103.35362	-384.93897	15.15583	0.36	-1.64	
tar pump ds	-80.60077	103.35508	-385.26206	14.83274	0.77	-0.18	
Prad Tank **	-80.59960	103.35524	-385.64295	14.45185	-0.40	-0.02	3.15
PRAD TARGET **	-80.60028	103.35441	-385.64404	14.45076	0.28	-0.85	4.86
vac tank us	-80.60010	103.35451	-386.52941	13.56539	0.1	-0.75	
vac tank ds	-80.60020	103.35486	-390.74302	9.35178	0.2	-0.40	
beampipe	-80.59958	103.35555	-394.10703	5.98777	-0.42	0.29	-
beampipe	-80.60027	103.35483	-394.59214	5.50266	0.27	-0.43	-
IPM2H01 **	-80.60017	103.35538	-394.82408	5.27072	0.17	0.12	-
beampipe	-80.60031	103.35457	-396.46630	3.62850	0.31	-0.69	-
beampipe	-80.60083	103.35633	-401.54186	-1.44706	0.83	1.07	-
beampipe	-80.59982	103.35515	-401.57915	-1.48435	-0.18	-0.11	-
bp ds fwd car.	-80.59729	103.35692	-412.29840	-12.20360	-2.71	1.66	
bp us of Frascati1	-80.60240	103.35439	-414.94597	-14.85117	2.4	-0.87	
bp us of pairspec	-80.59756	103.35576	-417.30335	-17.20855	-2.44	0.50	
bp us Frascati2	-80.59686	103.35384	-418.98026	-18.88546	-3.14	-1.42	

(bp abbreviation for beampipe)

** Rotation values for the some of the above points are shown below. dYaw is the rotation from ideal with the + value being counter clockwise about the y axis; dPitch is the rotation about the x axis, + pitch is counter-clockwise about the x axis (physics beamline definition); dRoll is rotation about the z axis, + roll is clockwise about the z axis. Units are degrees.

Target	dYaw °	dPitch °	dRoll °
IHA2H00	-0.01461	-0.02922	0.13866
Prad Tank	-0.10772	-0.02464	-0.01547
PRAD TARGET	0.03552	-0.05013	0.00945
IPM2H01	-0.00458	0.00602	-0.02005