



Jefferson Lab Alignment Group

Data Transmittal

TO: Jay Benesch

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Checked:

L878

DETAILS:

Beam position monitors were located relative to various adjacent magnets in the accelerator's spreaders and recombiners. The as-found coordinate data of the adjacent magnets were used as a basis for these locations. The center position of the upstream and downstream ends of each bpm were calculated. The machine coordinates and the transverse beam locations, in the beam following system are shown. Note that the beamlines are pitched in these locations, and the actual dY values are the perpendicular distance from the upstream or downstream center of the bpm, to the DIMAD ideal beamline, not the true vertical difference.

Accuracy for this survey is difficult to determine, due to the length of time since the magnets used as control points have been aligned.

	Z (m)	X (m)	Y (m)		dX (mm bfs)	dY (mm bfs)
NE SPREADER						
IPM1S00_U	92.3415	80.5997	100.4167		-0.3	-11.1
IPM1S00_D	92.4722	80.5994	100.4597		-0.6	-11.9
IPM3S00_U	95.0492	80.6046	100.6761		4.6	-0.4
IPM3S00_D	95.1827	80.6033	100.7056		3.3	-0.9
IPM5S00_U	95.4603	80.5991	100.4676		-0.9	5.0
IPM5S00_D	95.5958	80.5991	100.4854		-0.9	4.5
SE RECOMBINER						
IPM1R10A_U	158.8093	-80.6002	100.5097		0.2	-8.5
IPM1R10A_D	158.6784	-80.5999	100.4654		-0.1	-8.2
IPM3R10A_U	160.6532	-80.6000	100.5437		0.0	1.2
IPM3R10A_D	160.5186	-80.6001	100.5138		0.1	0.9
IPM5R10A_U	161.7981	-80.6013	100.4839		1.3	2.1
IPM5R10A_D	161.6613	-80.6007	100.4649		0.7	2.7
SW SPREADER						
IPM2S00_U	-93.8628	-80.5988	100.3477		-1.2	-0.6

	Z (m)	X (m)	Y (m)		dX (mm bfs)	dY (mm bfs)
IPM2S00_D	-93.9969	-80.5994	100.3747		-0.6	-2.0
IPM4S00_U	-97.5536	-80.6017	100.7388		1.7	-0.4
IPM4S00_D	-97.6880	-80.6015	100.7636		1.5	-1.3
IPM6S00_D	-97.2618	-80.6015	100.4582		1.5	-2.2
IPM6S00_U	-97.3974	-80.6020	100.4742		2.0	-2.1
NW SPREADER						
IPM2R10A_U	-162.6703	80.5981	100.3680		-1.9	-2.2
IPM2R10A_D	-162.5361	80.5983	100.3421		-1.7	-2.5
IPM4R10A_U	-165.1266	80.5905	100.5352		-9.5	-4.2
IPM4R10A_D	-164.9923	80.5907	100.5109		-9.3	-4.5
IPM6R10A_U	-166.0994	80.6008	100.4737		0.8	-2.9
IPM6R10A_D	-165.9636	80.6005	100.4578		0.5	-2.7