



Jefferson Lab Alignment Group

Data Transmittal

TO: D. Kashy

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Checked:

B873

Details:

Below are the results of the Hall B HyCal Counter box survey performed on June 13, 2003. A right-handed coordinate system was established using a three-plane intersection off the edges of the bottom copper plate. The origin is fixed on the top of the upstream beam left corner. A + X is to the beam left, + Y is up, and + Z is downstream. The ideal X location of the beam left inside plate is -103.12mm.

TOP OF BOTTOM COPPER PLATE

Pt.	Z	X	Y
01	409.69	-153.12	0.01
02	402.23	-282.74	0.15
03	412.05	-417.30	0.26
04	405.26	-546.98	0.16
05	405.95	-682.26	0.06
06	402.64	-813.74	0.02
07	401.90	-952.42	-0.06
08	408.50	-1084.14	-0.14
09	398.02	-1214.62	-0.45
10	228.79	-161.23	-0.15
11	229.59	-284.85	-0.01
12	227.67	-364.52	0.05
13	215.85	-580.42	0.00
14	235.07	-651.99	0.02
15	202.80	-731.48	0.02
16	239.93	-960.92	0.02
17	245.36	-1093.66	0.01
18	229.55	-1219.36	-0.15
19	40.47	-157.51	-0.36
20	37.31	-288.27	-0.17
21	48.96	-424.36	-0.04
22	52.21	-557.56	0.01
23	53.03	-692.84	0.06
24	46.16	-812.87	0.02
25	48.40	-951.46	0.13
26	60.65	-1087.96	0.16
27	47.00	-1214.81	0.16

INSIDE OF LEFT COPPER PLATE

Pt.	Z	X	Y
100	34.49	-103.31	28.81
101	223.24	-103.09	35.73
102	395.57	-103.24	38.40
103	30.49	-103.57	278.13
104	213.26	-103.20	269.24
105	389.68	-103.19	270.85
106	45.07	-101.89	456.87
107	216.43	-102.96	475.03
108	381.26	-103.10	468.43
109	37.67	-102.99	618.46
110	212.45	-103.26	621.69
111	394.73	-103.18	601.57
112	39.27	-103.17	823.72
113	215.07	-103.12	816.31
114	388.88	-102.90	819.14
115	35.08	-103.31	1044.03
116	244.84	-103.13	1037.75
117	414.14	-103.20	1042.38
118	33.60	-103.10	1133.82
119	215.81	-103.01	1140.45
120	427.00	-103.13	1144.37

AVERAGE BEAM LEFT PLANE WITH POINT 106:	-103.10
AVERAGE BEAM LEFT PLANE WITHOUT POINT 106:	-103.16
ANGLE BETWEEN BOTTOM AND BEAM LEFT PLANES:	89.993°