



## Jefferson Lab Alignment Group

### Data Transmittal

**TO:** M. Seely

**DATE:** Apr 21 2005

**FROM:** J. Dahlberg

**Checked:**

**# :** B991

#### DETAILS:

Below are the results from the recent fiducialization performed on the Hall B polarized target chamber located in the EEL building. A +Z value is downstream, a +X is to the beam left, and a + Y is up.

Note: The coordinate system established for this fiducialization is based on the upstream beam pipe flange and the inside entrance window survey plug. This is different from the previous fiducialization which was based on the upstream beam pipe flange and a 10mm survey plug located in the downstream magnet flange. Based on the new fiducial values, the previous ideal target location as installed during the Aug, 2000 run would have been approximately 1.9 mm lower at the inside survey plug, and pitched upwards 0.22 degrees.

During the Aug, 2000 run, as noted in DT # B623, the target was set high 1.7 mm to correct for cool down motion. Therefore, after cool down, the target would have been set 1.9 mm low relative to ideal beam height.

LOCATION	DIA	Z	X	Y
Upst support pipe flange	406.39	-2346.02	3.40	-5.76
Upst beam pipe flange	113.49	-537.55	0.00	0.00
Upst Magnet flange	880.62	-280.88	-0.33	1.43
Dnst face survey plug	23.47	0.00	0.00	0.00
Inside dia coil	204.62	58.35	0.46	-0.05
Inside tgt frame	160.11	58.37	0.11	-0.31
Dnst magnet flange	682.25	271.72	-2.15	3.26
Dnst window flange	152.02	298.39	-2.28	3.18