Jefferson Lab Alignment Group
DATA TRANSMITTAL

TO: Phil Adderly **DATE:** April 1, 2002

FROM: James Dahlberg **Checked:** **#** L752

DETAILS:

Below are the results of the Injector girder survey performed on March 29, 2002. Included are the results from the pre-alignment and vacuum motion checks performed prior to installation. All measurements are in millimeters with a +X value to the beam left and a +Y value high. The pre-alignment vacuum effects and offsets are not taken into account in the as installed positions.

AS INSTALLED RELATIVE TO IDEAL BEAM CENTERLINE

COMPONENT	X	Y
Upstream BPM	-0.02	-0.72
Aperture 1 assembly	+0.16	-0.87
Middle BPM	-0.29	-0.96
Aperture 2 assembly	-0.57	-0.51
Downstream BPM	-0.08	+0.47

PRE - ALIGNMENT

COMPONENT	X	Y	CALIPER REF.
A1 small hole	0.00	-0.18	20.86
A1 med. hole	0.00	-0.11	30.83
A1 large hole	0.00	+0.26	40.90

The vacuum effect shifted the aperture A1 centerline +0.52 (beam left) and + 0.62 (up) relative to the assembly. The vacuum effect between the bellows flanges reduced the caliper distances by 0.36 mm.

COMPONENT	X	Y	CALIPER REF.
A2 small hole	+0.49	0.00	19.86
A2 med. hole	+1.07	0.00	29.79
A2 large hole	+0.63	0.00	39.86

The vacuum effect shifted the aperture A2 centerline –0.37 (beam right) and –0.38 (down) relative to the assembly. The vacuum effect between the bellows flanges reduced the caliper distances by 0.38 mm.