



Jefferson Lab Alignment Group

Data Transmittal

TO: T. Whitlatch

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Checked: MW

: D1625

DETAILS:

Data: Fid\HallD\TripletPolarimeter\150407a, 2B\HallD\150416a

Below are the results from the recent surveys carried out on the Hall D collimator cave polarimeter. The XY centerline is based on an average of 4 symmetric holes around the fixed detector with the Z = 0 at the downstream face of the fiberglass frame. Yaw and pitch angles are also to the downstream face as set in the beam line.

IDEAL MACHINE COORDINATE (Meters)

Z 383.06241 (derived from initial 2a alignment as installed)

X 80.60000

Y 104.70000

AS SET FROM IDEAL (Millimeters)

Z 0.05 downstream

X 0.02 beam left

Y 0.00

Yaw 0.0796 deg. counter clockwise looking from above.

Pitch 0.2642 deg. clockwise looking from beam right side.

Values listed for the target ladder are relative to the detector center (not as set in beam line). The Y values are calculated to the vertical centerline of the frame at the left side.

TARGET LADDER OFFSETS MEASURED IN LAB

Step count at 00

Center of ladder to downstream face of detector Z = -34.9 mm.

Bottom edge of ladder roll angle = 0.5921 deg. clockwise looking downstream.

Left side X 152.4 mm Y -1.7 mm

Step count 229

Left side X 112.8 mm Y -2.2 mm

Step count 413

Left side X 84.0 mm Y -2.5 mm

Step count 500

Left side X 66.2 mm Y -2.6 mm

Step count 580

Left side X 55.3 mm Y -2.7 mm