



Jefferson Lab Alignment Group

Data Transmittal

TO: A. Narayan

DATE: 19 Jun 2012

FROM: J. Dahlberg

Checked: JMS

: C1464

DETAILS:

Data: Step2b\BSY\QW9C\120529a, Fiduc\HallC\Qweak\110826a

Below are the results from the Line C Compton electron detector post run survey. The locations listed below are relative to the ideal machine coordinate of dipole MC3P03 which is 570 millimeters above the Compton beam. The values are derived from the original calibration data measured in August 2011 which has been transformed into the as-found position in the beam line. A +X is to the beam left, a +Z is downstream, and a +Y is up. Values are in millimeters. Included below are the constructed points at which the ideal beam center intersects the detector downstream from MC3P03.

DESCRIPTION

LOCATION

| | |
|--|--------------------------------|
| Bottom center of detector assembly (upper position). | X: 0.06, Y: -15.40, Z: 2334.74 |
| Bottom of P1 at EOT+ | Y: -161.73 |
| Bottom of P2 at EOT+ | Y: -158.86 |
| Bottom of P3 at EOT+ | Y: -157.82 |
| Bottom of P4 at EOT+ | Y: -154.94 |
| Bottom of P1 at EOT- | Y: 35.74 |
| Bottom of P4 at EOT- | Y: 42.07 |
| Bottom of P1 at home 7. | Y: -61.24 |
| Bottom of P2 at home 7. | Y: -58.95 |
| Bottom of P3 at home 7. | Y: -57.52 |
| Bottom of P4 at home 7. | Y: -54.91 |
| Bottom of P1 at home 7 repeat. | Y: -61.26 |
| Bottom of P4 at home 7 repeat. | Y: -54.92 |
| Bottom beam left side of P4 at home 7 roll check. | X: 14.32, Y: -54.87 |
| Bottom beam right side of P4 at home 7 roll check. | X: -13.40, Y: -55.59 |
| Bottom beam left side of P3 at home 7 roll check. | X: 15.72, Y: -57.49 |
| Bottom beam right side of P3 at home 7 roll check. | X: -16.49, Y: -57.75 |
| Bottom beam left side of P2 at home 7 roll check. | X: 17.49, Y: -58.91 |
| Bottom beam right side of P2 at home 7 roll check. | X: -14.02, Y: -59.63 |
| Bottom beam left side of P1 at home 7 roll check. | X: 10.23, Y: -61.18 |
| Bottom beam right side of P1 at home 7 roll check. | X: -6.59, Y: -61.37 |
| Right side of stack frame in running position. | X: -39.98 |
| Left side of stack frame in running position. | X: 39.88 |
| Bottom of P1 at running position. | Y: -149.49 |
| Bottom of P2 at running position. | Y: -147.35 |
| Bottom of P3 at running position. | Y: -145.81 |
| Bottom of P4 at running position. | Y: -143.15 |
| Bottom of P1 at running position repeat | Y: -149.53 |
| Bottom of P4 at running position repeat | Y: -143.18 |

**Jefferson Lab Alignment Group Data Transmittal
Continued**

Date : 04 Jan 2012

Transmittal # : C1464

DESCRIPTION**LOCATION**

| | |
|---------------------------|--------------------------------|
| Bottom of P1 at POS1 | Y: -145.56 |
| Bottom of P1 at POS1 +2mm | Y: -143.41 |
| Bottom of P4 at POS1 | Y: -139.17 |
| Bottom of P4 at POS1 +2mm | Y: -137.14 |
| Trans. central rod. | X: 0.26, Y: -49.88, Z: 2319.83 |
| EOT+2_P1 | Y: -162.61 |
| EOT+2_P4 | Y: -156.29 |

**LOCATIONS WHERE BEAM INTERSECTS THE DETECTOR DOWNSTREAM FROM MC3P03
CENTER**

DESCRIPTION**LOCATION**

| | |
|--|------------------------|
| Upstream outside frame at end of travel | Y: -158.44, Z: 2311.77 |
| Downstream side P4 in running position | Y: -151.80, Z: 2349.01 |
| Upstream frame in running position | Y: -157.95, Z: 2314.53 |
| Upstream side P1 in position 1, +2 millimeters | Y: -157.07, Z: 2319.49 |
| Downstream side P1 in position 1, +2 millimeters | Y: -156.56, Z: 2322.32 |
| Upstream side P4 in position 1, +2 millimeters | Y: -151.56, Z: 2350.37 |
| Downstream side P4 in position 1, +2 millimeters | Y: -151.06, Z: 2353.16 |