



Jefferson Lab Alignment Group

Data Transmittal

TO: T. Whitlach

DATE: 11/20/2020

FROM: Elena Balan

Checked: kjt

: D1991

DETAILS:

DATA\Step2B\HallD\TAGGER\Microscope\201120A

The Microscope (scintillators) near the Hall D tagger magnet were located on November 20th, 2020. The results are shown below.

The ideal and found coordinates are shown in meters relative to the CEBAF coordinate system. The beam following coordinates (bfs - millimeters) are also shown and are described as follows: Negative x is to the beam right from ideal beam looking downstream; positive y is the amount higher than beamline; negative z is amount upstream from ideal target. Positive yaw is the counter clockwise rotation about the Y axis; negative pitch is the clockwise rotation about the X axis (physics standard); positive roll is the clockwise rotation about the Z axis.

| Microscope | Cebaf Coordinate Location [meters] | | | Beam Following [millimeters] | | | Angular Position [degrees] | | |
|------------|------------------------------------|-----------|-----------|------------------------------|---------|---------|------------------------------|--------|--------|
| | X [m] | Y [m] | Z [m] | dX [mm] | dY [mm] | dZ [mm] | Yaw° | Pitch° | Roll° |
| Ideal | 79.43323 | 104.70000 | 306.52356 | - | - | - | -8.0500 | 0.0000 | 0.0000 |
| As-found | 79.43326 | 104.70023 | 306.52409 | 0.10 | 0.23 | 0.52 | -8.0533 | 0.0037 | 0.0017 |