

## Jefferson Lab Alignment Group

## **Data Transmittal**

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**DETAILS:**Data: Step2B\HallD\Target\210921A
Fiduc\HallD\TARGET\210921A

Below are the results from the Hall D beryllium target survey carried out on September 22nd, 2021. The target was surveyed in-place on the target cart first then the survey fiducials were updated to reflect the found center of the beryllium target.

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; negative y is the amount lower 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.

|                  | Cebaf Coordinate Location [meters] |           |           | Beam Following [millimeters] |         |         | Angular Position [ degrees ] |         |                   |
|------------------|------------------------------------|-----------|-----------|------------------------------|---------|---------|------------------------------|---------|-------------------|
| Beryllium Target | X [m]                              | Y [m]     | Z [m]     | dX [mm]                      | dY [mm] | dZ [mm] | Yaw <sup>o</sup>             | Pitcho  | Roll <sup>o</sup> |
| Ideal            | 80.60000                           | 104.70000 | 398.78983 | 1                            | ı       | -       | 0.0000                       | 0.0000  | 0.0000            |
| As-Set           | 80.59981                           | 104.70007 | 398.78845 | -0.19                        | 0.07    | -1.38   | -0.0070                      | -0.0060 | 0.0019            |