| Cyefferson Lall <br> Jefferson Lab Alignment Group Data Transmittal |  |  |
| :---: | :---: | :---: |
| TO: T. Whitlatch, E. Chudakov, A Somov, C.Keith | DATE: 09/22/2021 |  |
| FROM: Chris Gould | Checked: TPSIII | \# : D2006 |
| DETAILS:Data: Step2B\HalLDTTarget 1210921 A <br> Fiduc\HallD\TARGET\210921A <br> 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. |  |  |
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| 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 | $\mathbf{X}[\mathbf{m}]$ | $\mathbf{Y}[\mathbf{m}]$ | $\mathbf{Z}[\mathbf{m}]$ | $\mathbf{d X}[\mathbf{m m}]$ | $\mathbf{d Y}[\mathbf{m m}]$ | $\mathbf{d Z}[\mathbf{m m}]$ | Yaw $^{\mathbf{0}}$ | Pitch $^{\mathbf{0}}$ | Roll $^{\mathbf{0}}$ |
| Ideal | 80.60000 | 104.70000 | 398.78983 | - | - | - | 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 |

