## Jefferson Lab Alignment Group <br> Data Transmittal

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\# : U1949
DETAILS:

On November $1^{\text {st }}$, 2019 R28-3 was aligned to the previous as-found electrode position not to the design ideal. Beam following results are given relative to both the design ideal and to the as-found or "new ideal" position. In the BFS, a positive X is beam left, a positive Y is up and a positive Z is downstream.

| T-Electrode As-Set |  |  |  |
| :--- | :---: | :---: | :---: |
|  | $\mathbf{X}$ | $\mathbf{Y}$ | $\mathbf{Z}$ |
| UITF Machine Coordinates (M) | 10.67326 | 21.06645 | 31.46629 |
|  | rX (Pitch) | rY (Yaw) | rZ (Roll) |
| ROTATIONS | -0.1971 | -13.9069 | 0.0844 |
|  | $\mathbf{X}$ | $\mathbf{Y}$ |  |
| Beam Following to the Design Ideal 15deg Line (mm) | 8.95 | -0.35 |  |
|  | rX (Pitch) | rY (Yaw) | rZ (Roll) |
| ROTATIONS | -0.1752 | 1.0931 | 0.0820 |


| Beam following to New Ideal (as-found) |  |  |  |
| :--- | :--- | :--- | :--- |
|  | $\mathbf{X}$ | $\mathbf{Y}$ | $\mathbf{Z}$ |
| Beam Following (mm) | -0.09 | 0.53 | 0.22 |
|  | $\mathbf{r X}$ (Pitch) | rY (Yaw) | rZ (Roll) |
| ROTATIONS | -0.1164 | 0.0430 | 0.0547 |

The following BPM locations are relative to the As-Set position of R28-3 and the design ideal (15 degree).

| BFS RELATIVE TO AS-SET (mm) |  |  |
| :--- | ---: | ---: |
|  | $\mathbf{X}$ | $\mathbf{Y}$ |
| BPM1 | -2.81 | -1.68 |
| BMP2 | -20.86 | -1.24 |


| BFS RELATIVE TO DESIGN IDEAL (mm) |  |  |
| :--- | ---: | ---: |
|  | $\mathbf{X}$ | $\mathbf{Y}$ |
| BPM1 | 12.47 | -1.01 |
| BMP2 | 4.20 | 0.98 |

