

Jefferson Lab Alignment Group

Data Transmittal

TO: K. Surles-Law DATE: 12 Feb 2010

FROM: Chris Curtis Checked: #: L1263

Data: Step2B\ INJ\ 090727a

Below are the results from the July 27, 2009 as-found survey of the inverted gun in the injector. Coordinates are in the meters with 0, 0 at the center of the accelerator. The line through the gun flanges (GunUs and GunDs) forms an angle of 14.927 degrees with the north linac beamline. Offsets from this line are listed in millimeters, with a positive value to the beam left. The point at which this line intersects with the main beamline has been derived (INT PT). Distances from this point are also given.

| Target | Z (m) | X (m) | Offset (mm) | Dist from INT (m) |
|-----------------|------------------------|--------------------|--------------|-------------------|
| GUNUS | -263.2785 | 81.1284 | 0.0 | 2.051 |
| GUNDS GUNTOP | -262.8364 -263.0167 | 81.0106 81.0586 | | 1.594 |
| PFLGUS SOLUS | -262.6866 -262.2327 | 80.9708 80.8507 | +0.2 +1.0 | 1.439 0.969 |
| SOLDS | -262.1893 | 80.8393 | +1.2 | 0.924 |
| PFLGDS | -261.7869 | 80.7332 | +2.3 | 0.508 |
| INT PT | -261.2963 | 80.6000 | | |