Jefferson Lab Alignment Group

Data Transmittal

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FROM: Chris Gould	**Checked:** rtm	**# :** U1937

DETAILS:

M:\align\DATA\Step2B\UITF\190814A

On April 11th, 2019 it was determined that the as-found location of the UITF Gun provided the best results for the drive laser retro-reflection. It was also decided that all subsequent electrode installs should be aligned to this "new ideal". Below are the results of the recent T-Electrode installation. Positions are reported in both the UITF Machine Coordinate System and in a Beam Following System. Beam Following results are relative to the "Ideal" where a positive X is beam left, a positive Y is up and a positive Z is downstream.

T-Electrode As-Set			
	X	**Y**	**Z**
UITF Machine Coordinates (M)	10.67360	21.06624	31.46673
	rX (Pitch)	**rY (Yaw)**	**rZ (Roll)**
ROTATIONS	-0.2014	-13.8601	0.0652
	X	**Y**	
Beam Following Ideal 15deg Line (mm)	9.39	-0.56	
	rX (Pitch)	**rY (Yaw)**	**rZ (Roll)**
ROTATIONS	-0.1845	1.1399	0.0633

Deltas From New Ideal Established April 11th 2019			
	X	**Y**	**Z**
Beam Following (mm)	0.28	-0.17	-0.59
	rX (Pitch)	**rY (Yaw)**	**rZ (Roll)**
ROTATIONS	-0.0736	-0.0071	-0.01