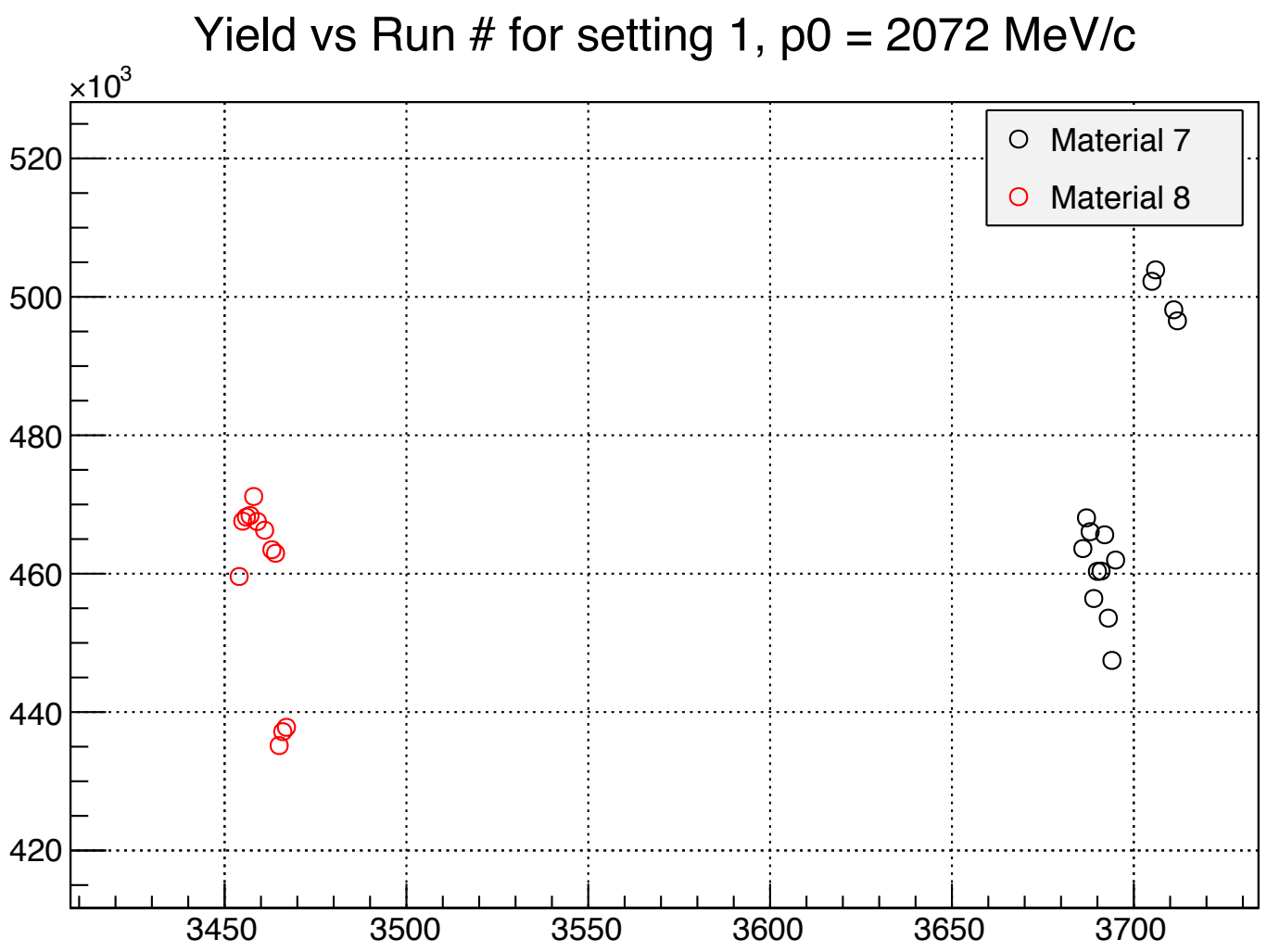
Variance in Scattering Angle

M. Cummings

3/26/14

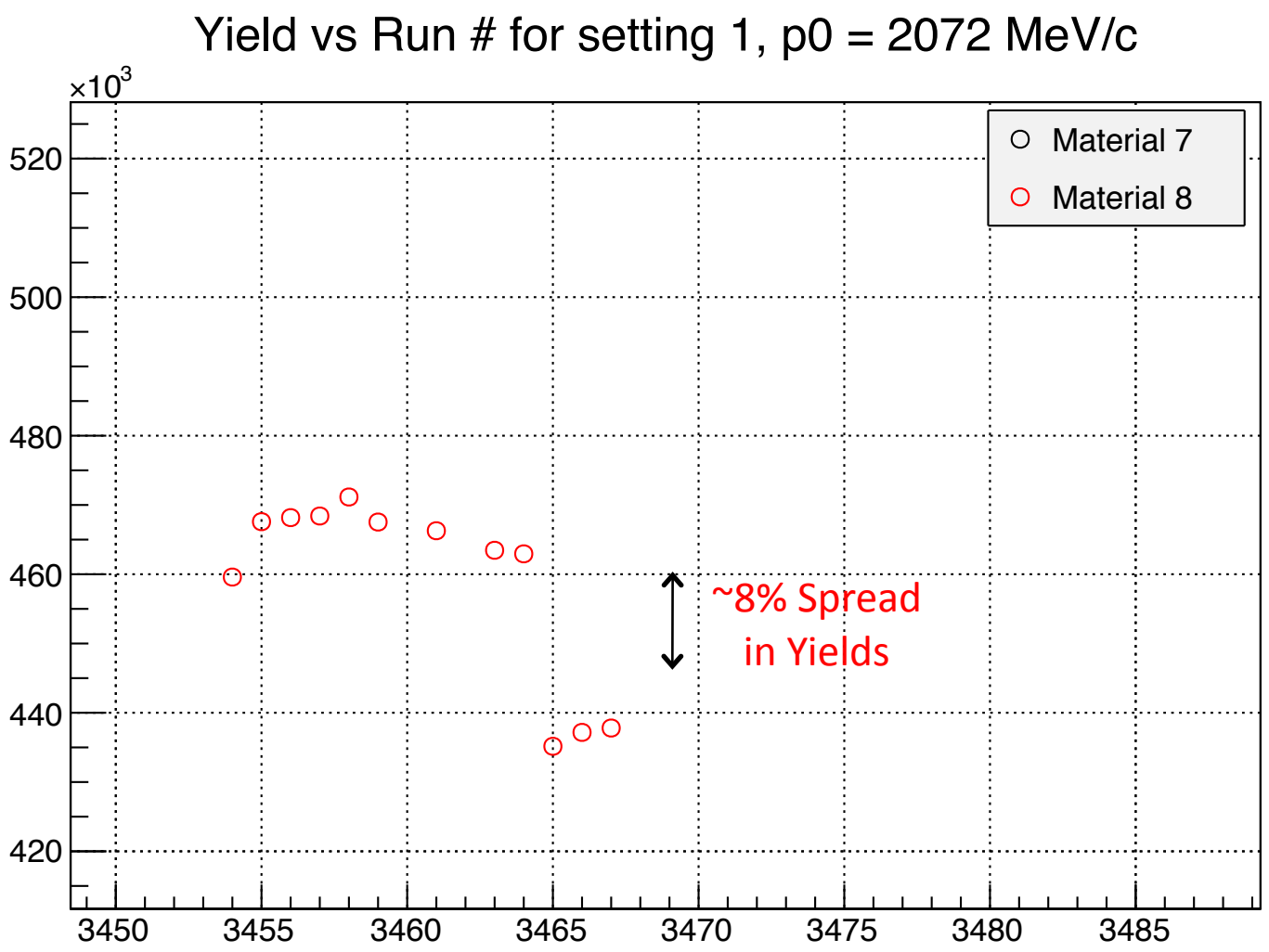
Inconsistent Yields

2.2 GeV, 2.5T, Transverse

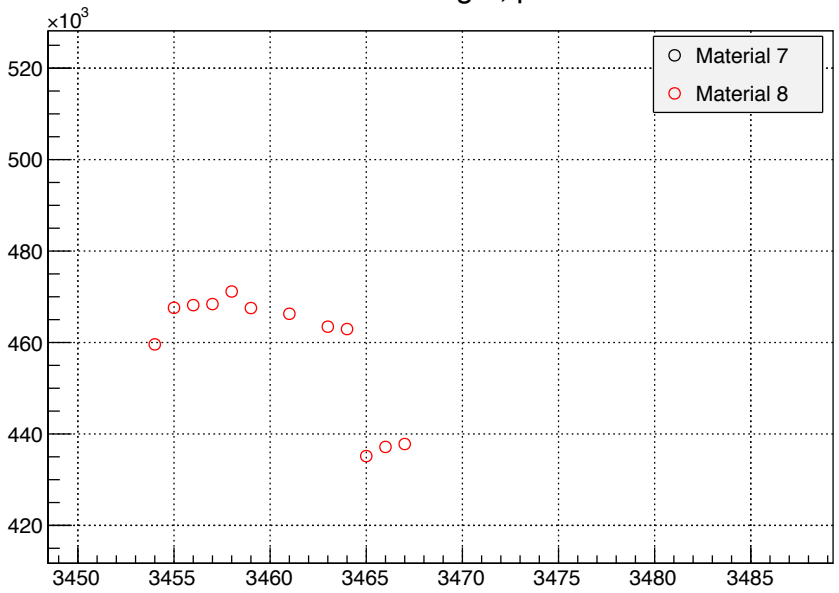


Inconsistent Yields

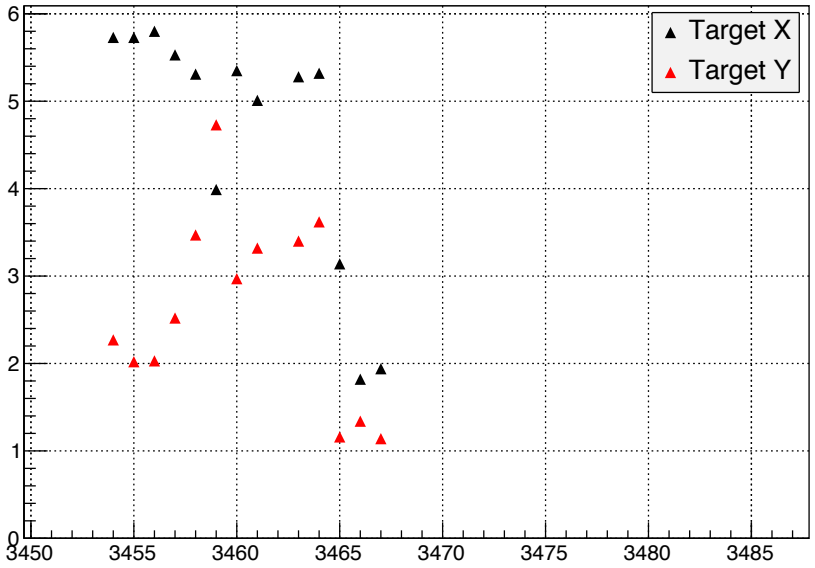
2.2 GeV, 2.5T, Transverse



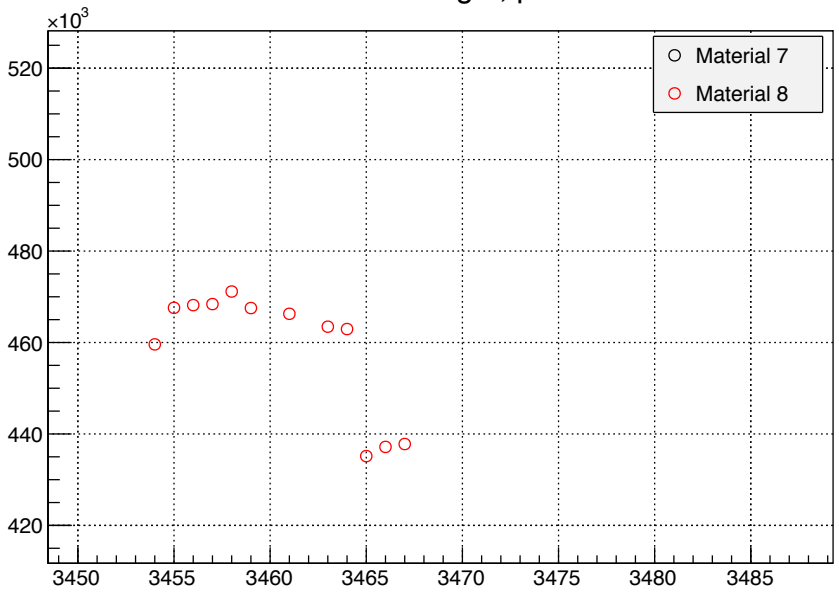
Yield vs Run # for setting 1, p0 = 2072 MeV/c



Beam Position vs Run #



Yield vs Run # for setting 1, p0 = 2072 MeV/c



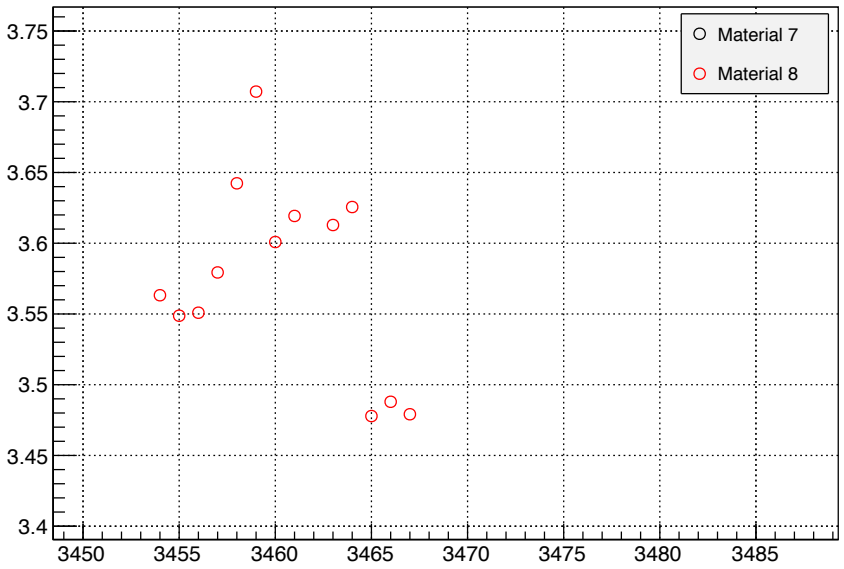
Incident Angle

$$\theta = \text{atan}\left[\frac{(y_{BPMB}-y_{BPMA})}{(z_{BPMB}-z_{BPMA})}\right]$$

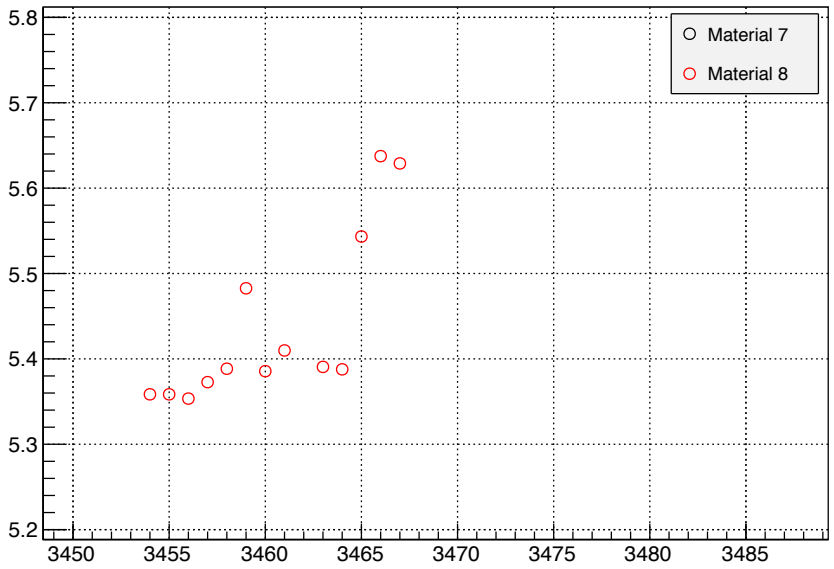
Scattering Angle

$$\theta = \text{atan}[(x-x_{tgt})/z]$$

Incident Angle (theta) vs Run #



Scattering Angle (theta) vs Run #



To Do

- Determine effect of varied scattering angle on yield
- Somehow correct for this?