



Inset Figure B: Results from the Western Superior transect. **(a)** Simplified tectonic map of the current sub-provinces crossed by Lithoprobe profiles. ER—English River terrane; KI—Keweenawan intrusives; WRT—Winnipeg River terrane. **(b)** Simplified interpretation along Line 2 (adapted from White et al., 2003; Musacchio et al., 2004). Numbers in mantle are P-wave velocities in km/s. **(c)** Migrated reflection seismic section for line 2. **(d)** Refraction velocity model superimposed on the reflection section. The lower crust and upper mantle are strongly anisotropic, consistent with relic oceanic lithosphere tectonically accreted at the base of the crust. **(e)** Location map of teleseismic results from Frederiksen et al. (2007). Red—active source corridor; map in (a) noted by the black box. 100 km-depth slice through P-wave tomographic model is displayed. **(f)** A–A' slice through Frederiksen et al. (2007) P-wave model shown in (e). Downgoing lithospheric slabs are not visible in the teleseismic model but may contribute to the overall high velocity of the western Superior province. The slow velocity region is attributed to the Nipigon Embayment (a branch of the 1.1 Ga Mid-Continent Rift).