

Davydov, V.I., et al., 2020, Radioisotopic and biostratigraphic constraints on the classical Middle–Upper Permian succession and tetrapod fauna of the Moscow syncline, Russia: *Geology*, <https://doi.org/10.1130/G47172.1>.

### **Supplemental figures and tables**

**Figure S1.** Prismatic zircon from the volcanic ash sample **16VD62**, Sukhoborka locality, Vetluga River, Nizhnyi Novgorod region, Russia

**Figure S2.** Stratigraphic logs of the Sukhoborka and surrounding localities and their correlation. The faunal identifications can be seen in Table S1. The radioisotopic data from the sample **16VD62** are in Table S2 and Figure S4.

**Figure S3.** Changhsingian-Induan stratigraphy and correlation of main stratigraphic sections along the Vetluga River. The logs numbers are the same as in Figure 1A,C. Each fossil's symbol in the logs associated with certain taxonomy in the supplemental text file *Biostrat\_log*. For the lithological symbols see Figure S2.

**Figure S4.** U-Pb concordia diagram illustrating results of single grain chemical abrasion ID-TIMS analysis for the dated ash sample from Sukhoborka, Changhsingian terrestrial succession in Vetluga River, Nizhnyi Novgorod region, Russia. Grey band represents the error envelope on the concordia curve based upon the decay constants and errors of Jaffey et al. (1971).

**Table S1.** Fossils identified below and above volcanic ash bed 16VD62. Different fossil groups highlighted by different colors. Position of all samples can be seen in Fig. S3. Number of specimens was counted in our study, while crosses mark occurrences from published sources.

**Table S2.** U-Pb isotopic data for zircon crystals from volcanic tuff sample 16VD62.

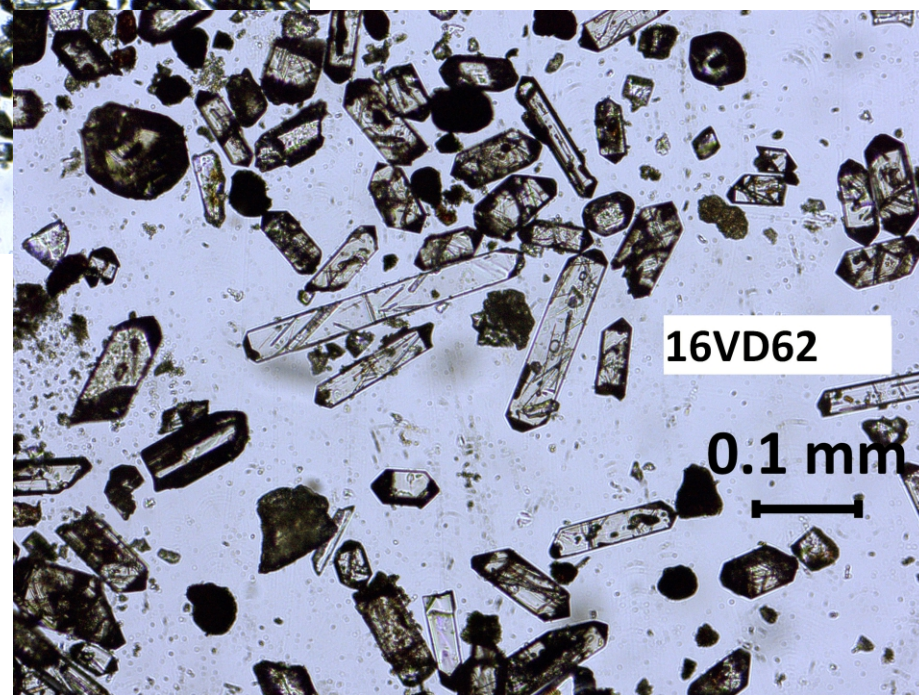
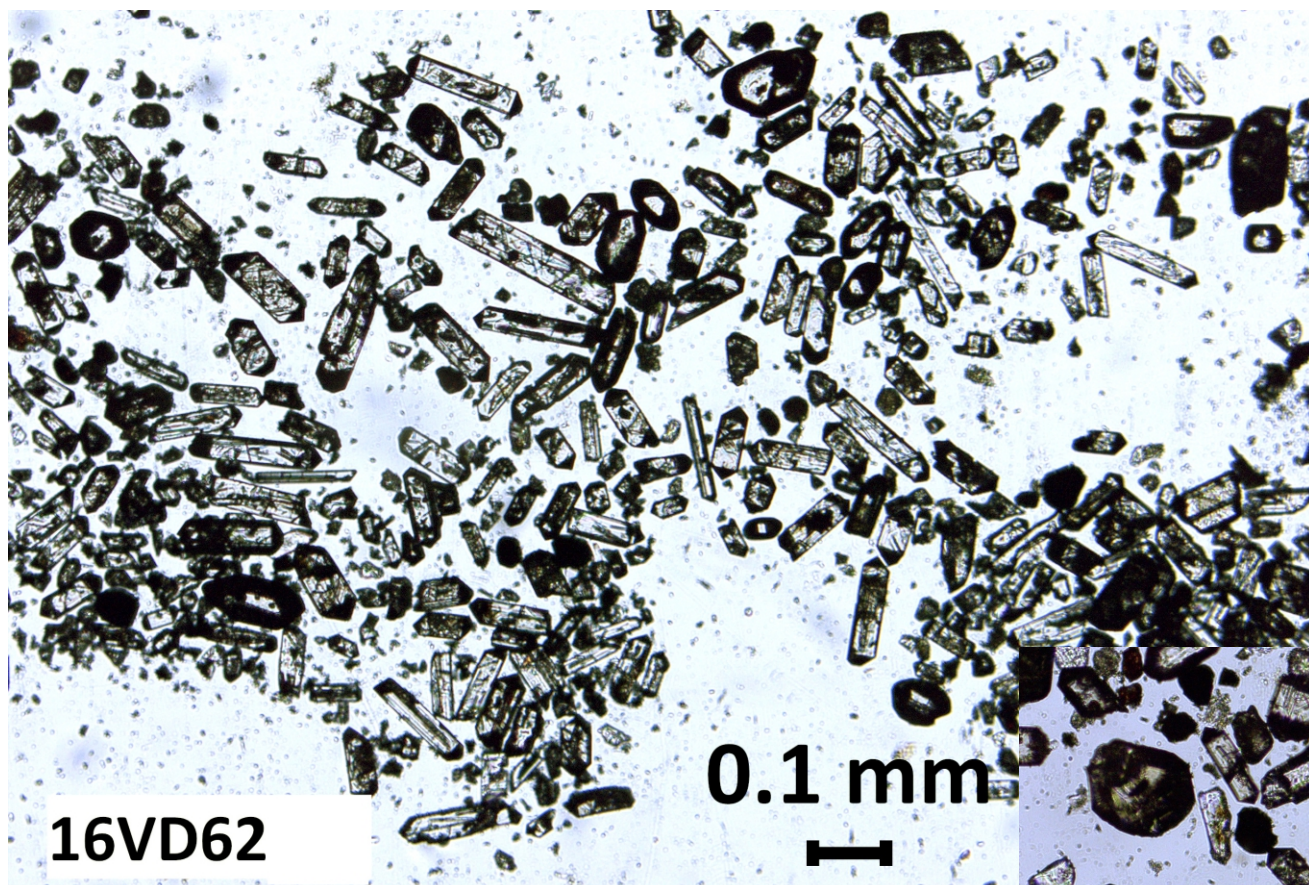


Figure S1 Davydov et al.  
Prismatic zircon from the volcanic ash sample 16VD62, Sukhoborka locality, Vetluga River, Nizhnyi Novgorod province, Russia

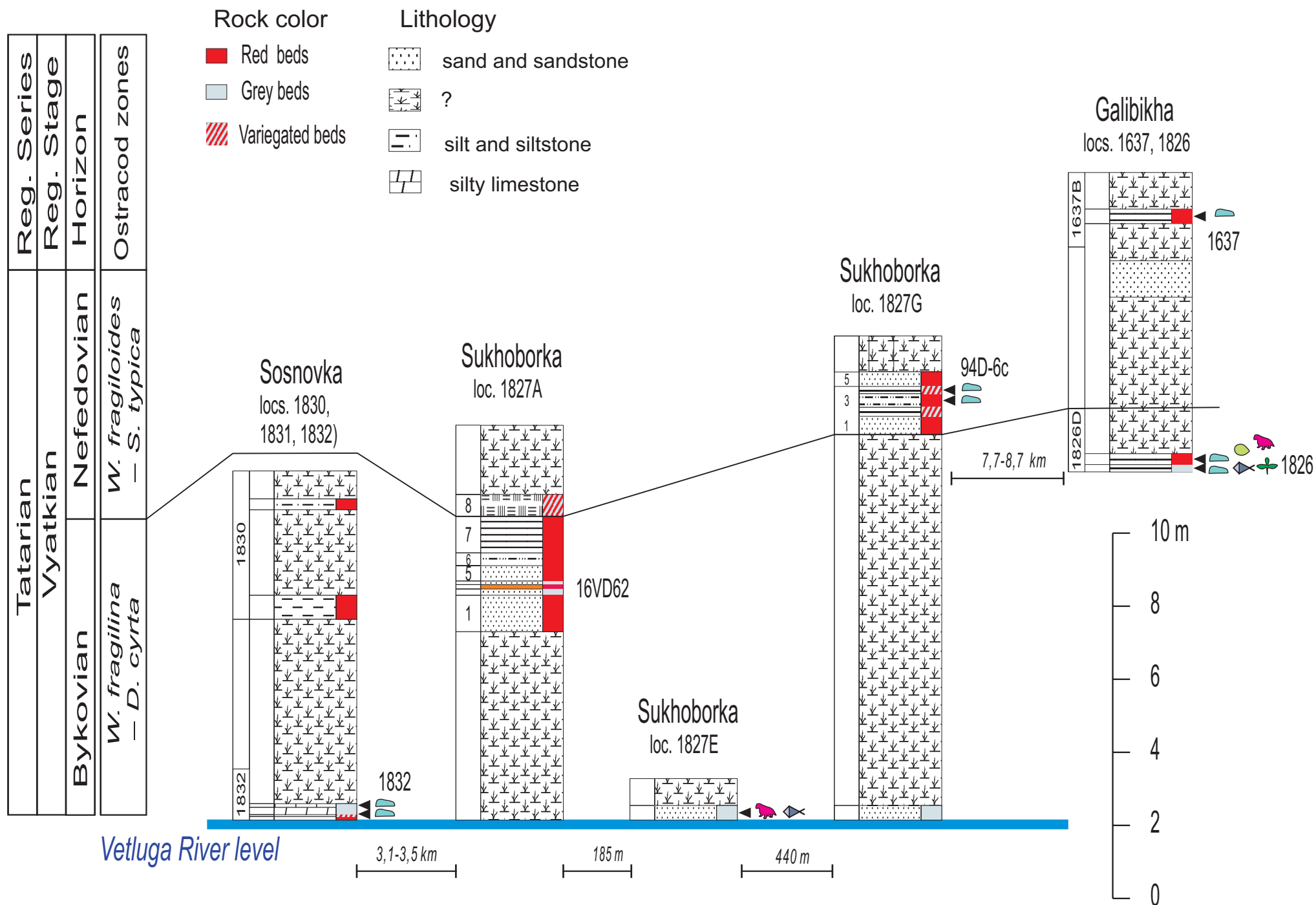


Figure S2



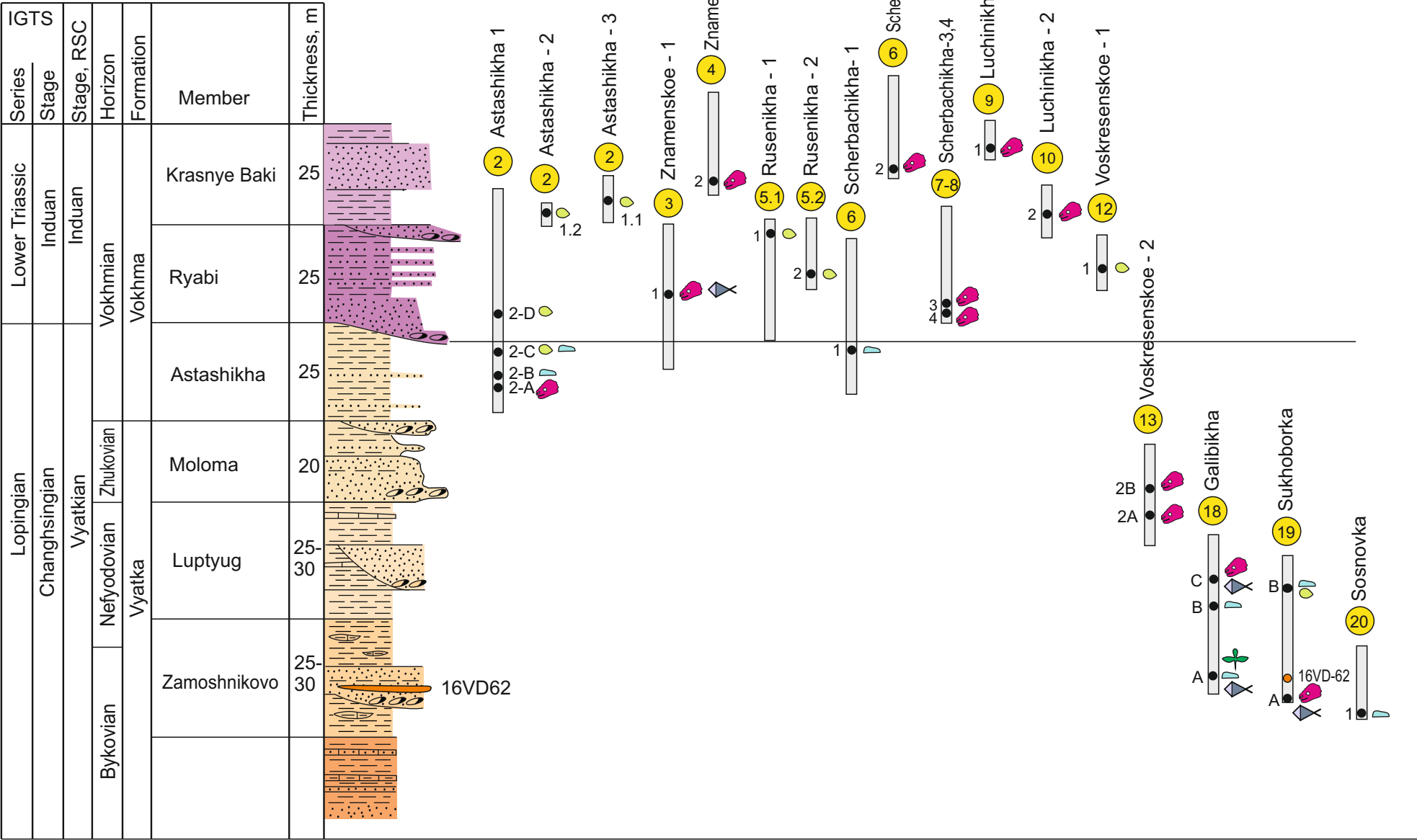


Figure S3. Davydov et al.

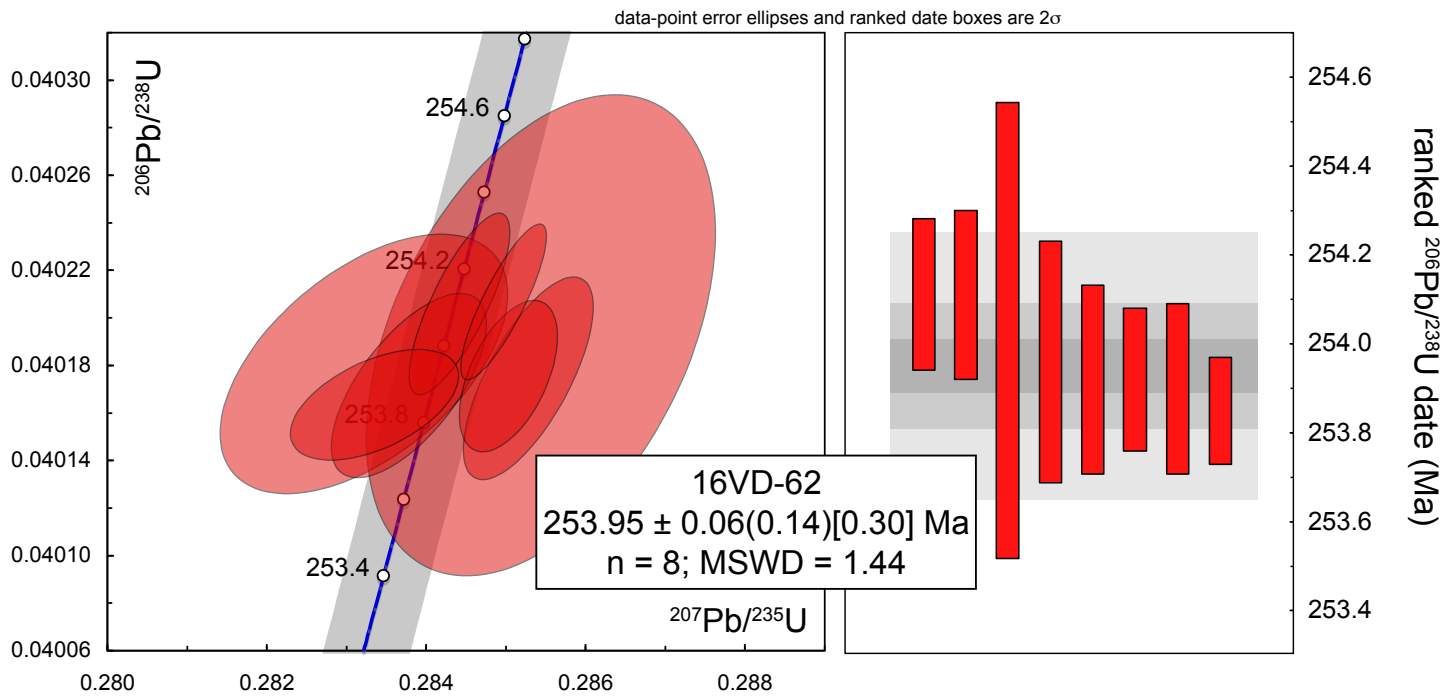


Figure S4