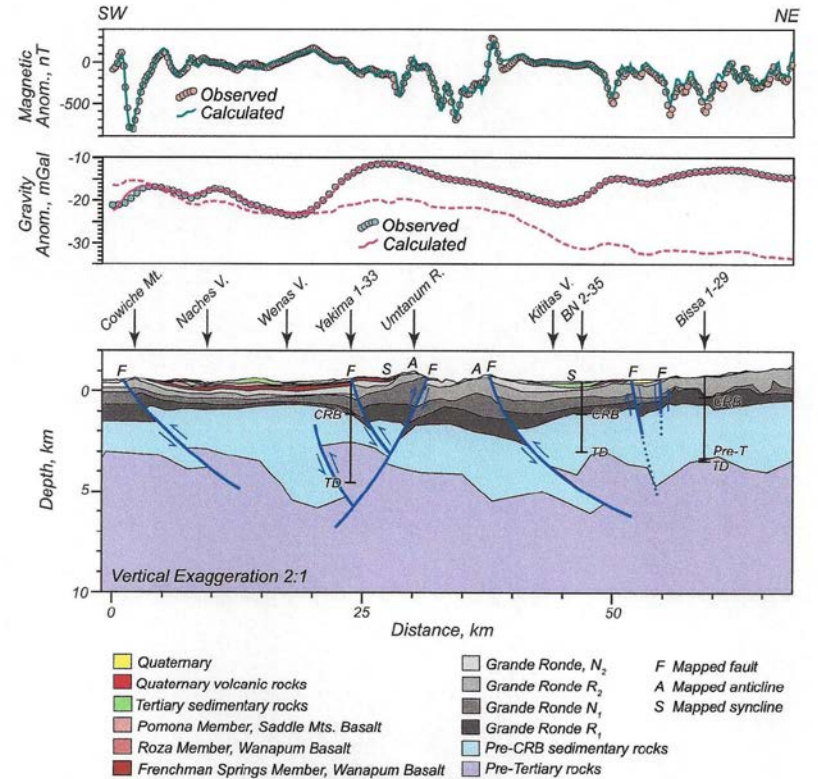


**Figure 4.** Generalized geology of the YFTB and surrounding regions, simplified from *Walsh et al.* [1987], *Schuster et al.* [1997], *Stoffel et al.* [1991], and *Dragovich et al.* [2002]. Black solid lines are faults of all types and ages, modified from the above references. Note that these faults differ from those shown on Figures 1, 2, 6, 7, 9, 10, and 20, which reflect Quaternary faults only (<http://earthquake.usgs.gov/hazards/qfaults>). Black dotted line indicates western limit of exposed Columbia River Basalt Group. Black dashed line shows extent of high-resolution aeromagnetic surveys discussed in text. Red line is location of gravity and magnetic model discussed in text and shown in Figure 20. Magenta symbols are deep exploratory boreholes [Reidel et al., 1989b] discussed in text. UR, Umtanum Ridge.



**Figure 20.** Crustal model across Umtanum ridge. Forward model is based on gravity and magnetic data constrained by geologic mapping and three deep exploratory boreholes. Model assumed infinitely extended in the directions perpendicular to the profile. Dashed gravity profile is calculated anomaly without pre-Tertiary interface. See Figures 4, 6, and 10 for profile location. See Table 1 for magnetizations and densities used. Well labels: CRB, base of CRBG; Pre-T, top of pre-Tertiary; TD, total depth of penetration.

Figure 1. Regional geologic map (“Figure 4”) and crustal model cross-section across Umtanum Ridge (“Figure 20”) reproduced from Blakely et al. (2011). The location of the crustal model cross-section shown in Figure 20 is indicated by the bold red line on Figure 4. Based on their interpretation of Yakima Fold Belt geology and recent geophysical data sets, Blakely et al. (2011) couple the faults within the Columbia River basalt (Yakima folds) to basement structures.