Supplemental Table S2. Calculated temperature based on major element compositions of augite and amphibole.

**Clinopyroxene temperatures\***

*Sample T (eqn 33) T (eqn 34) T (eqn 32d) n comments\**

 *Jd-DiHd Cpx satn T cpx only*

Rattlesnake Creek terrane cover sequence

92KM6 1095 ± 6 1072 ± 0 1166 ± 5 12 bulk rock

KM85B 1133± 17 1126 ± 0 1163 ± 10 8 bulk rock

BL136 1118 ± 8 1125 ± 0.7 1157 ± 4 6 bulk rock

Western Hayfork terrane

BL116B 1017 ± 15 1038 ± 0 1168 ± 22 5 melt calc from Amp

KM7D 1006 ± 16 1005 ± 0 1160 ± 7 6 melt calc from Amp

KM37C 987 ± 11 982 ± 0 1176 ± 14 3 melt calc from Amp

MMB903C 1079 ± 21 1078 ± 0 1167 ± 10 11 bulk rock

MMB672D 1172 ± 22 1123 ± 0 1159 ± 17 6 bulk rock

92OMB172A 1176 ± 89 1175 ± 0 1179 ± 8 12 bulk rock

92OMB211 1177 1154 1167 137 bulk rock

**Amphibole temperatures\*\***

*Sample T range ave n comments*

Western Hayfork terrane

KM35A 934-992 972 ± 21 5 detrital grains

KM35B 898-1024 966 ± 38 8 detrital grains

KM38 714-915 863 ± 62 7 detrital grains

MMB673 797-938 870 ± 49 9 detrital grains

BL116B 977-996 981 ± 7 9 phenocrysts in andesitic clast

KM37C 855-988 912 ± 55 8 detrital grains

KM7D 918-964 947 ± 17 4 detrital grains

Forks of Salmon pluton

KM46 820-915 895 ± 27 4

KM49C 830-913 884 ± 32 6

\*Equations from Putirka (2008). Clinopyroxene temperatures requiring melt compositions (equations 33 & 34) used either bulk-rock compositions or melt compositions calculated from amphibole major element contents (cf. Zhang et al., 2017).

\*\*Equation 5 from Putirka (2016).

Putirka, K.D. (2008) Reviews in Mineralogy and Geochemistry, 69, 61–120.

Putirka, K. (2016) American Mineralogist, 101, 841–858.