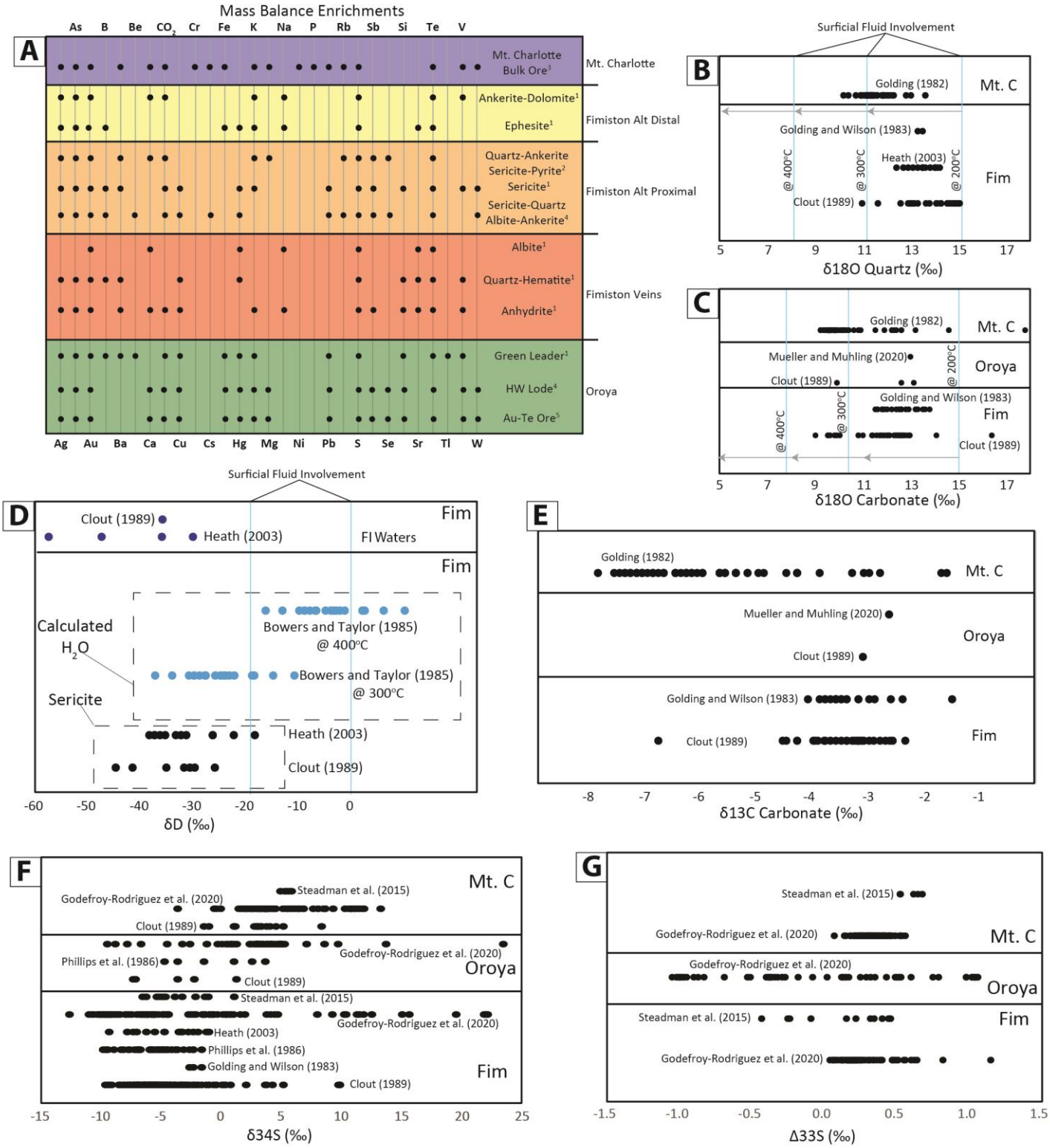
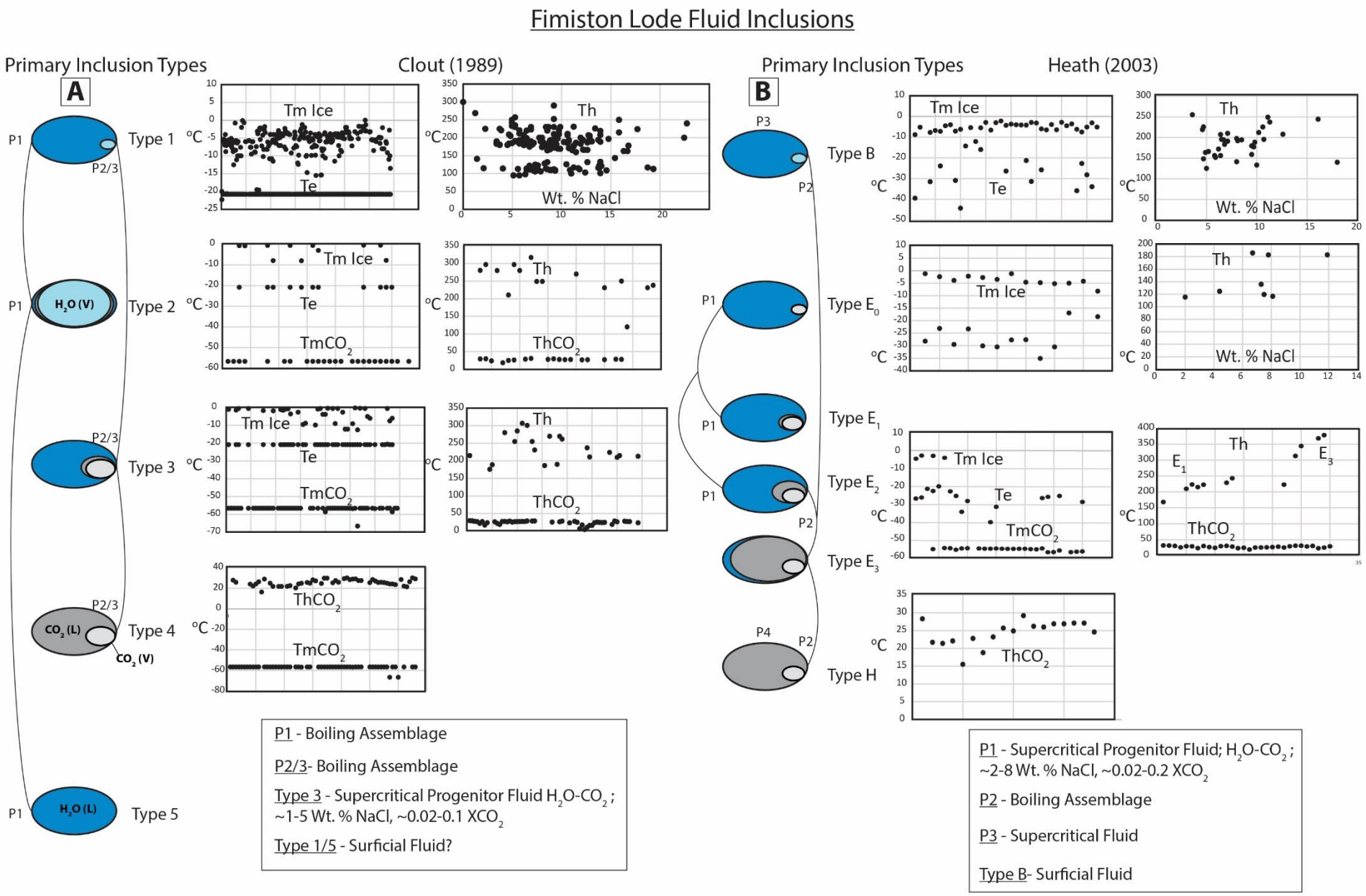
Electronic Appendix (EA) for Geologic Setting and Gold Mineralization of the Kalgoorlie Gold Camp, Yilgarn Craton, Western Australia; J.A. McDivitt, S.G. Hagemann, M.S. Baggott, and S. Perazzo.

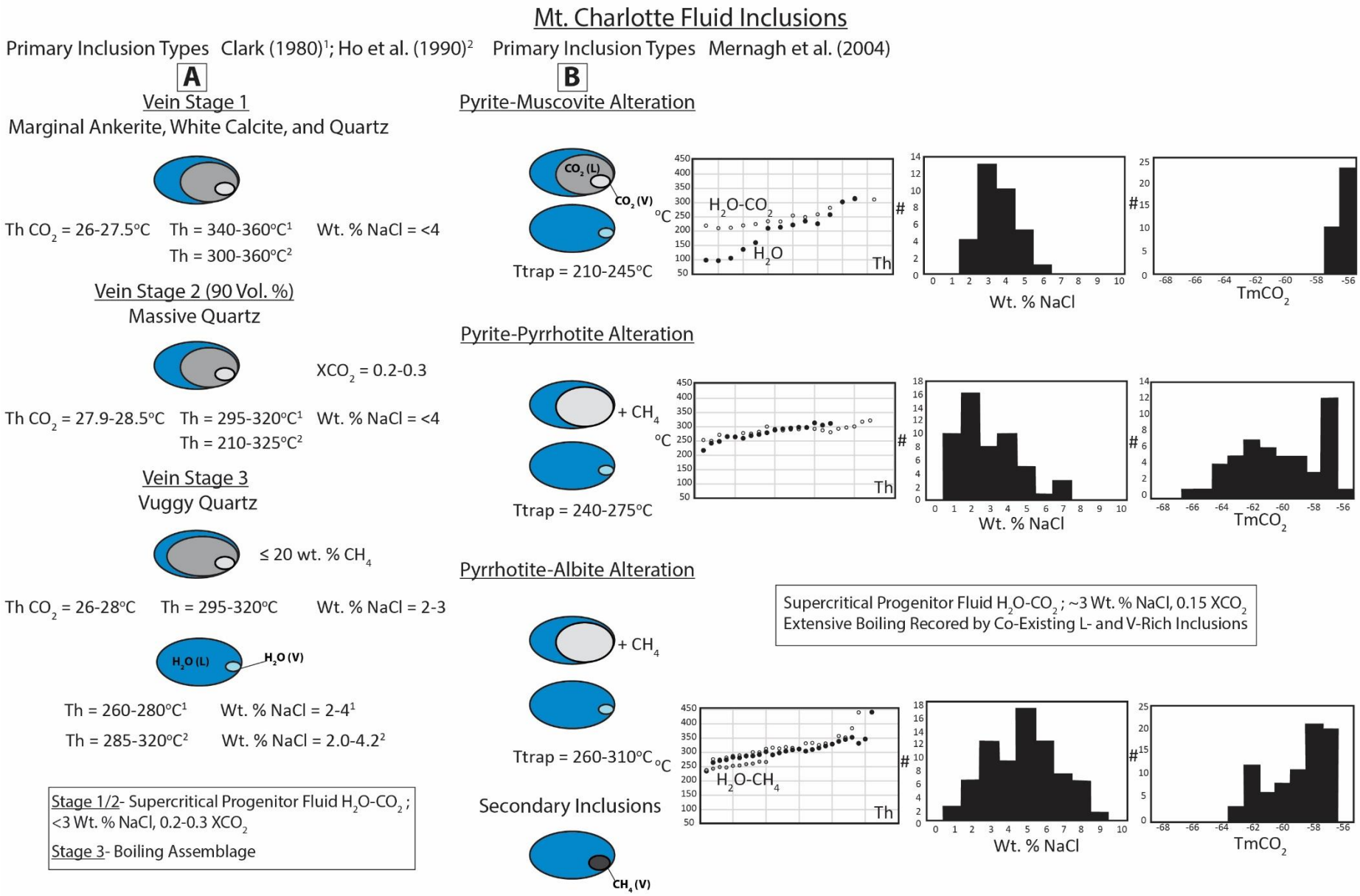
EA Part I. Geochemical Data Compilation



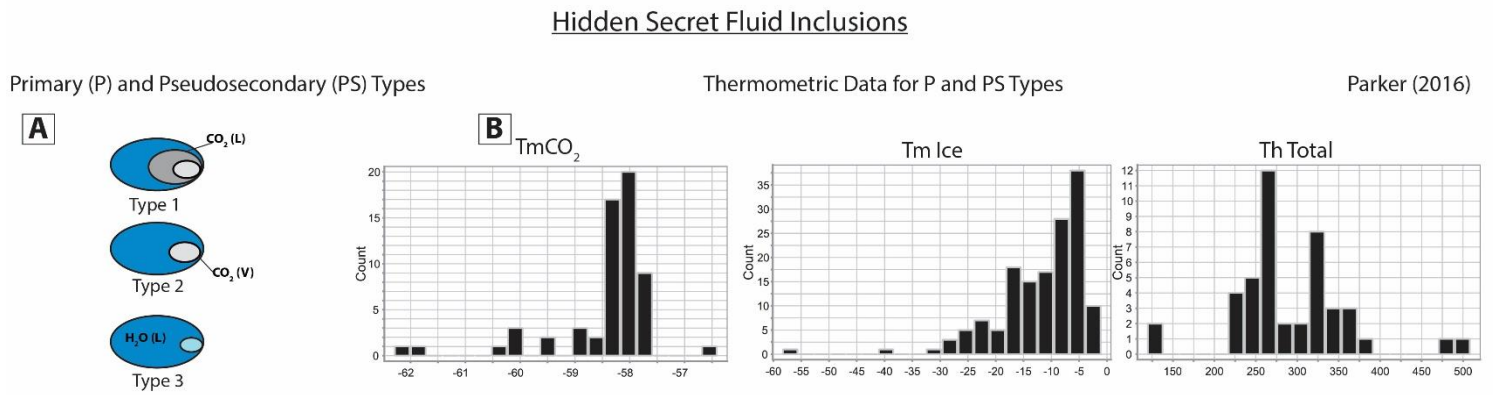
EA Figure 1. Geochemical data of mineralization. (**A**) Mass balance enrichments reported by Clout (1989)[1], Golding and Wilson (1983)[2], Mueller (2015)[3], Mueller (2020b)[4], and Mueller and Muhling (2020)[5]. (**B**) Oxygen isotope in vein quartz data ($\delta^{18}O$) and temperature-dependant fields for compositional ranges indicative of surficial fluid involvement (blue lines; Taylor, 1974) using the fractionation equation of Matsuhisa et al. (1979). (**C**) Oxygen isotope in vein carbonate data ($\delta^{18}O$) and temperature-dependant fields for compositional ranges indicative of surficial fluid involvement (blue lines; Taylor 1974) using the fractionation equations of Friedman and O'Neil (1977) and Zheng (1999). (**D**) Hydrogen isotope data (δD) from fluid inclusions and sericite. The blue lines demarcate a range where calculated fluid valued are isotopically compatible with the infiltration of low-latitude meteoric waters or seawater. (**E**) Carbonate isotope in vein carbonate data ($\delta^{13}C$). Sulphur isotope data from pyrite in mineralized zones is presented as $\delta^{34}S$ and $\Delta^{33}S$ in (**F**) and (**G**) respectively.



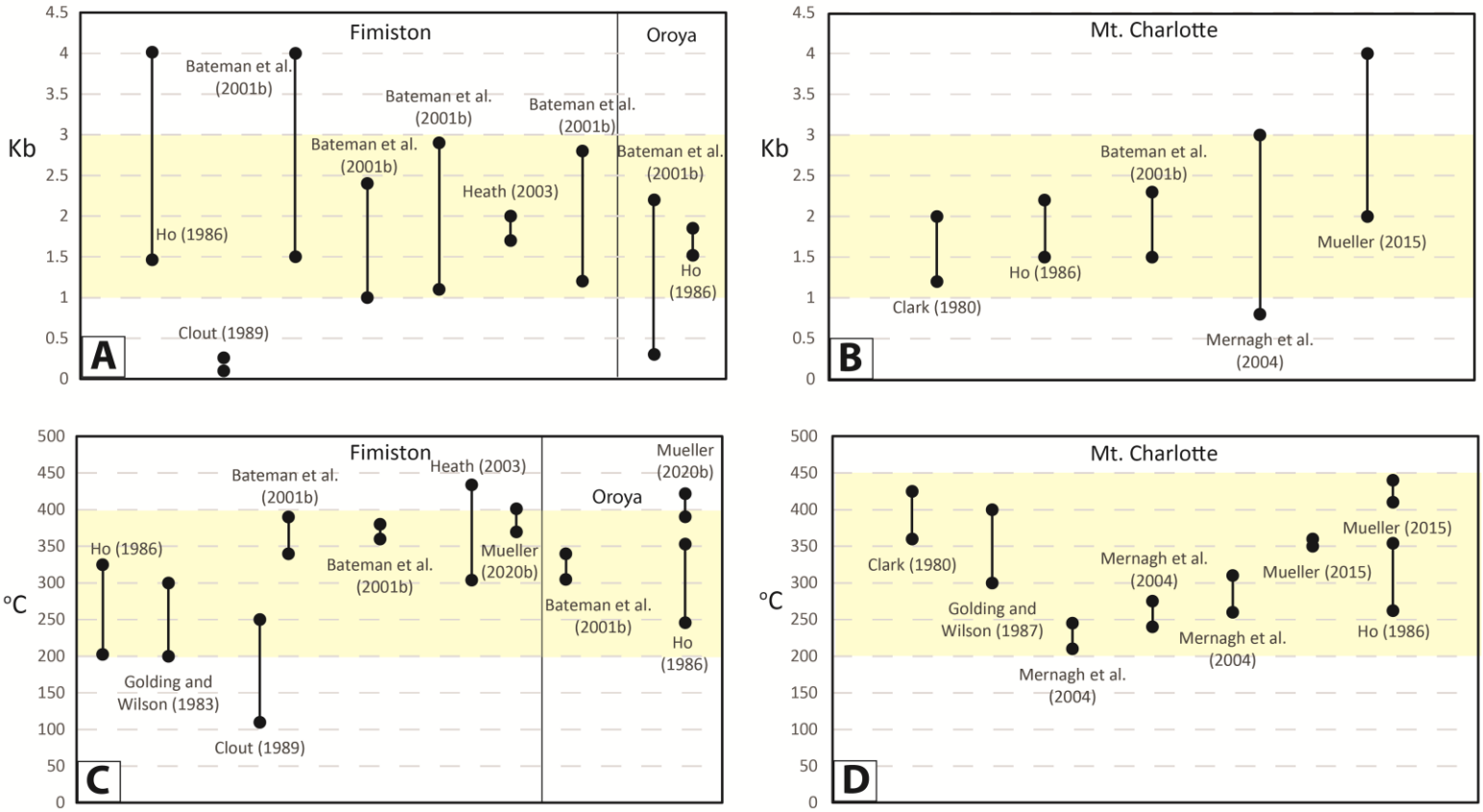
EA Figure 2. Summary of fluid inclusion data from Fimiston-type mineralization.



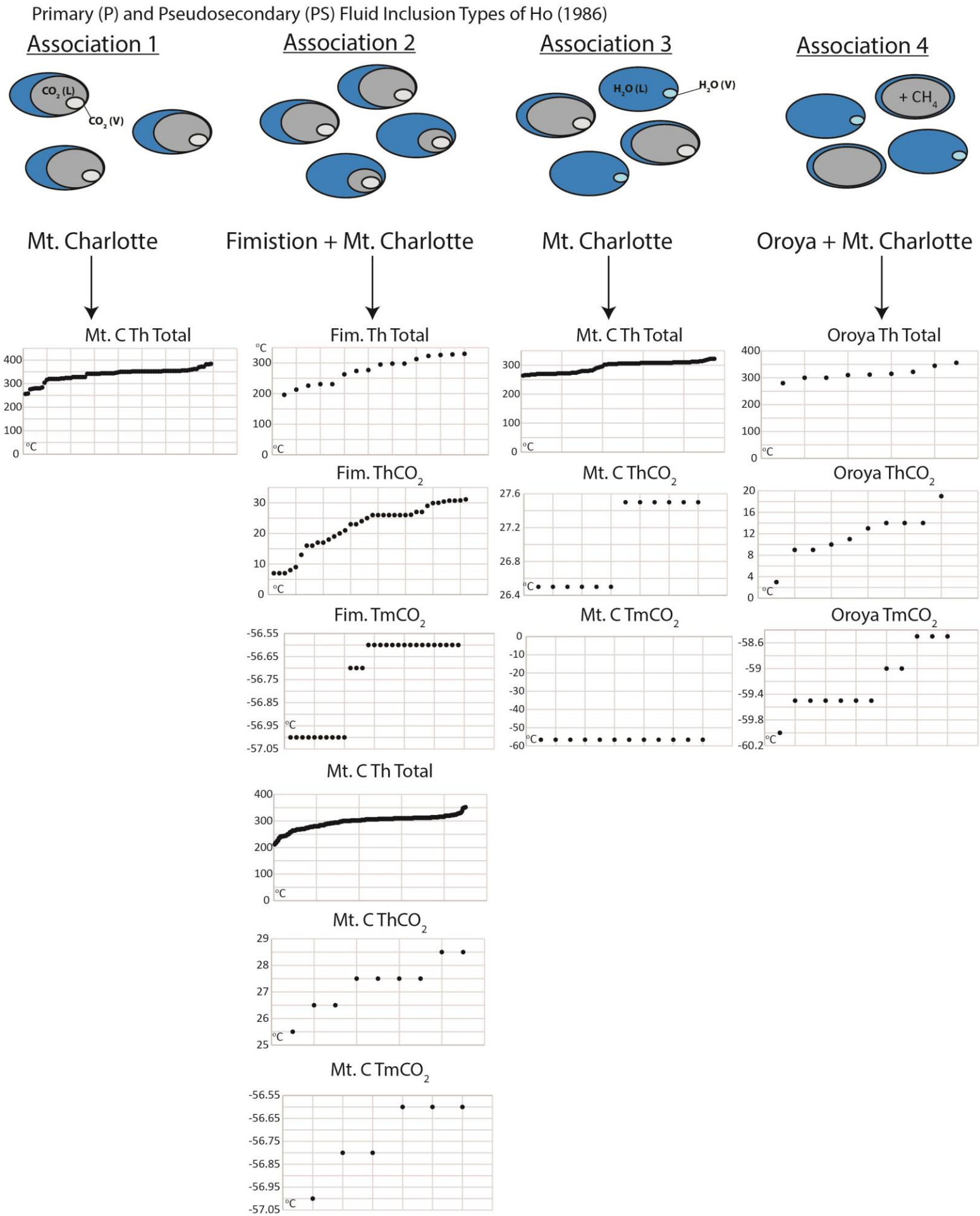
EA Figure 3. Summary of fluid inclusion data from Mt. Charlotte-type mineralization.



EA Figure 4. Summary of fluid inclusion data from the Mt. Charlotte-type mineralization.



EA Figure 5. Summary of P-T estimates for the various mineralization types.



EA Figure 6. Summary of fluid inclusion types and associations documented by Ho (1986) in Fimiston, Oroya, and Mt. Charlotte mineralization

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