

Description of Additional Supplementary Files

File Name: Supplementary Data 1

Description: A Supplementary Data table containing measured bulk chemistry, back-projected volatile contents, observed mineralogies, and calculated values (e.g., Delta CO₂, and equilibrium activity of CO₂) for 56 samples studied in detail.

File Name: Supplementary Data 2

Description: Supplementary Data table including 218 carbon and oxygen isotope analyses and corresponding latitude/longitude of each sample.

File Name: Supplementary Data 3

Description: A text file containing additions to the default thermodynamic database for Theriak-Domino. These additions allow calculations with full COH fluid mixing.