Thermodynamic analysis of a kagome spin liquid candidate TIAN-HENG HAN, University of Chicago, CRAIG BONNOIT, ROBIN CHISNELL, MIT, JOEL HELTON, NCNR NIST, YASU TAKANO, University of Florida, YOUNG LEE, MIT — Herbertsmithite ZnCu$_3$(OH)$_6$Cl$_2$—one of the most promising quantum spin liquid candidates—presents a promising system for studies of frustrated magnetism on an S=1/2 kagomé lattice. Following our recent success in crystal growth, specific heat has been measured at dilution fridge temperatures up to 18 T on a single crystal sample which gives further information on the low temperature phase. Additional analysis of the thermodynamic measurements on single crystal samples lends further hints on the intrinsic spin liquid physics.