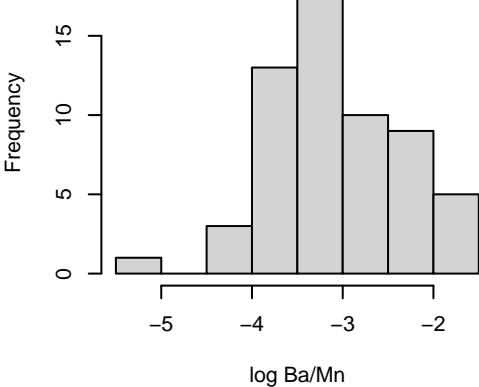
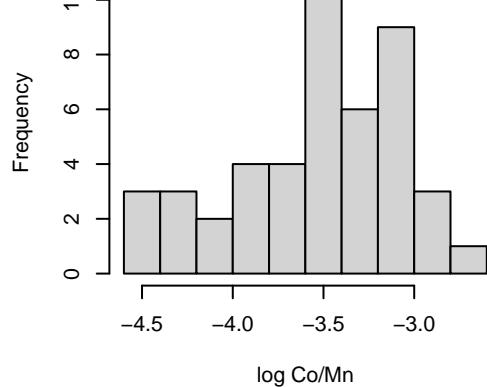


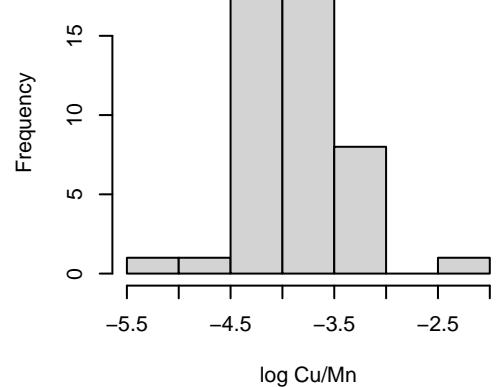
**W = 0.9705, p = 0.1543**



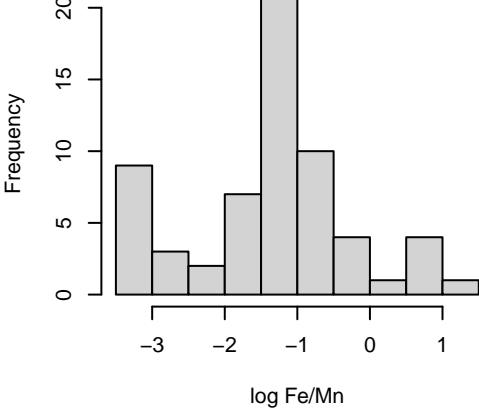
**W = 0.938, p = 0.01653**



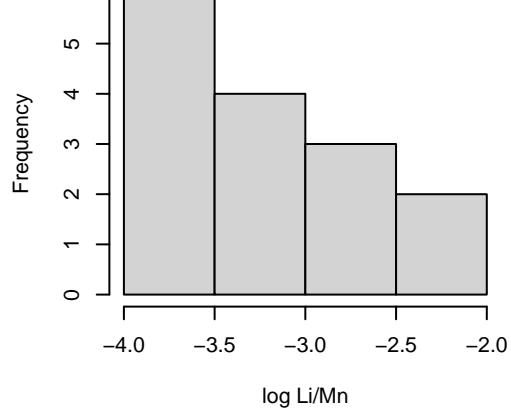
**W = 0.9654, p = 0.1663**



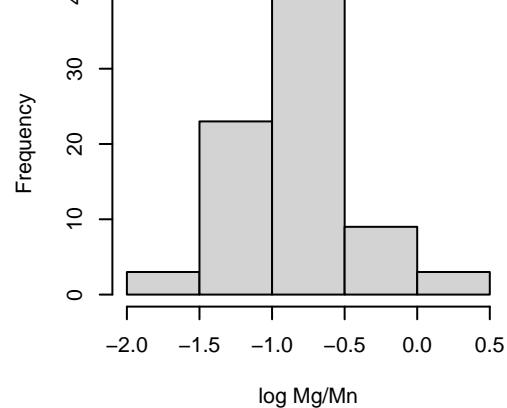
**W = 0.9335, p = 0.002323**



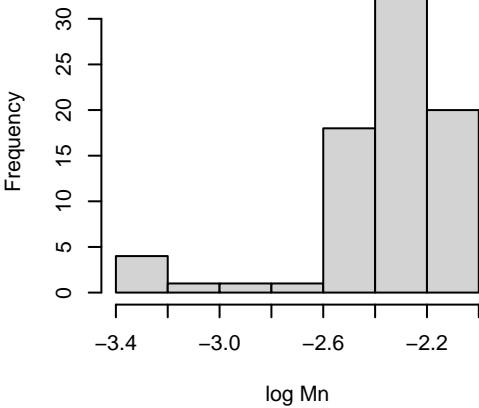
**W = 0.893, p = 0.07433**



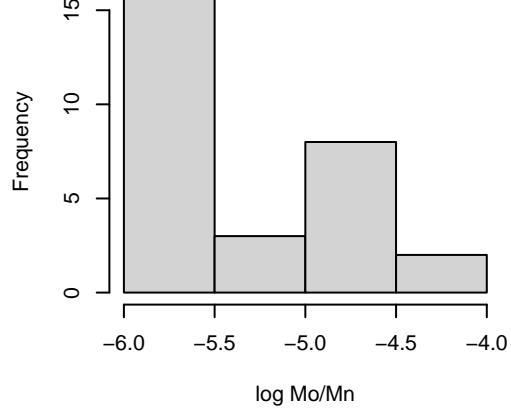
**W = 0.9707, p = 0.069**



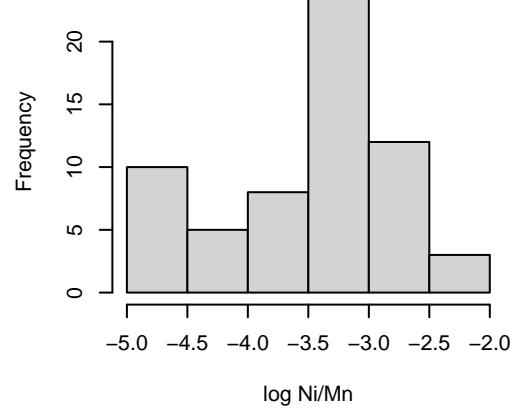
**W = 0.7555, p = 4.522e-10**



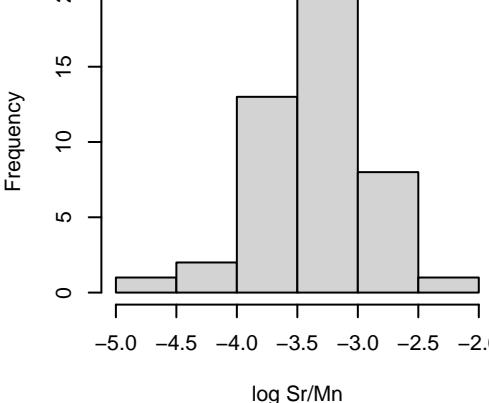
**W = 0.8763, p = 0.002775**



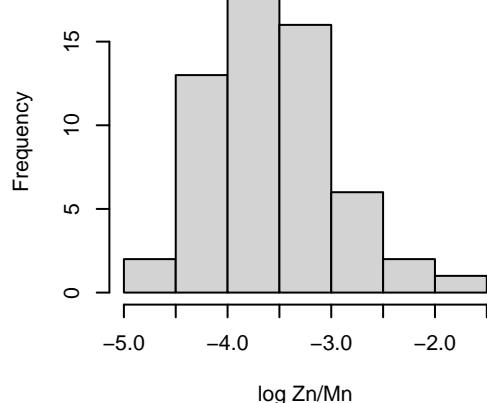
**W = 0.9256, p = 0.001056**



**W = 0.9806, p = 0.6447**



**W = 0.9693, p = 0.1488**



Supplementary Figure 3.  
Shapiro-Wilk test for the log normal distribution of moles per kg Mn and trace elements (Ba, Co, Cu, Fe, Li, Mg, Mo, Ni, Sr, Zn) normalized to Mn in carbonates. W values above 0.9 are indicative of a log normal distribution and p-values less than 0.05 indicate the null hypothesis can be rejected.