

Mineralogy Assignment

Unknown Minerals

Each student will be given a box of about 20 minerals that were found in the Smith geology collection. They may or may not have labels. If there is a label, it may or may not be correct. At least some of the labels are certainly wrong. Your task is to prepare these samples for addition to the teaching collection by identifying them, if possible, cleaning them, and labeling them clearly with your identification.

Some of the minerals will be easy to identify because they have a unique appearance. Others will have to be identified using optical mineralogy, x-ray diffraction, or EDS work. For each mineral, explain how you identified it and attach any data that you collected. It is up to you to decide what data are needed to make an identification. Please recommend whether the mineral should be in the museum collection (because it is a rare or an especially nice specimen), or if it should be in the teaching collection, or if it is of little value and should be discarded.

I will be happy to consult with you anytime about your samples and to give advice concerning their identification.

The first 10 minerals (you choose which ones) are due on 30 October. The rest are due on 4 December.