

Introductory Geology

Adopt-An-Outcrop

In a recent lab period, you investigated rock exposures and learned how to make systematic observations of outcrop properties (see separate handout: A Systematic Scheme for Field Observations). The guidelines you used to describe those exposures can be used to describe any other exposure that you may encounter in your experiences as a geologist. In this exercise, you have the opportunity to locate a different exposure in the Wellington region and do your own investigation. This will be “your” outcrop to study and report on! There are plenty to choose from, thanks to the hilly nature of the terrain, the sinuosity of the coastline, and the activities of the Wellington City Council and the Ministry of Works and Development. You may work on this project in a group of two or three; however, the report you submit should be your own.

Use the guide to field observations as a checklist for your field work. If you do not have a compass, you should still be able to estimate the direction of planar features in the rocks from the topography and the road patterns. Or, you can check out a compass from the geology department. Remember to describe the location of the exposure you examine and give its grid reference, GPS location (in UTM coordinates) or alternative map position.

Your report should be written from your field notes. It should contain a section called Observations and another called Interpretations. The report should be about three to four pages long. It should be accompanied by a sketch of the exposure you study. Attach your original field notes (or a photocopy of them) to the back of the report. Your report will be graded on the completeness of the observations and geologic descriptions, the logic of the interpretations, and the clarity of the writing. Be sure to describe the rock types completely. Describe what you see and don’t worry too much about whether you have found the “correct” term. Spend your time working on your own descriptions of specific rock features, rather than reading generalized accounts of the geology in library books.

After your report has been submitted and graded, you will have an opportunity to rewrite it, taking into account the comments that have been made. This rewrite is optional. If you choose to rewrite the paper, submit both the original and the rewrite together. Your final grade will be the average of the grades on the original paper and on the rewritten version.

Lab handout written by Mary Savina, 1987-1990, revised 2004.