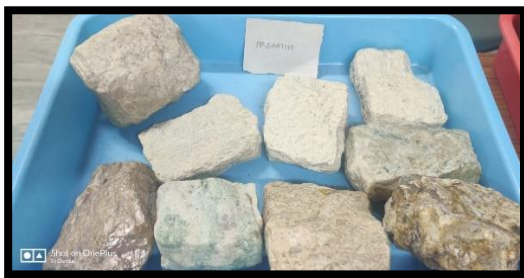


Engineering Geology Lab

Rocks



A rock is defined as an aggregate of minerals. It is also described as unit of earth's crust. Based on their origin, geologically rocks are classified into igneous rocks, Sedimentary rocks, metamorphic rocks.

Igneous rocks:

These are characterized by vesicular structure, amygdaloidal structure and Aphanitic structure if they are volcanic. If they are Hypabyssal or plutonic, they are dense, compact and exhibit interlocking texture.

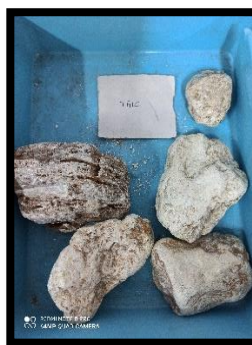
Sedimentary rocks:

Occurrence of normal or cross bedding, cementing material, fossils, ripple marks, mud cracks, tracks and trails and peculiar forms such as modular, concretionary, pisolitic, Oolitic, etc indicate that the rocks under study of sedimentary rocks.

Metamorphic rocks:

Occurrence of alignment of minerals (lineation, foliation) and metamorphic minerals indicate the rocks under the study of metamorphic group.

Minerals



A mineral may be defined as a natural, inorganic, homogenous, solid substance having a definite chemical composition and regular atomic structure.

Laboratory Study

In laboratories minerals are identified preferably by the method of study of physical properties.

Advantages.

- The unique advantage is that the minerals can be studied in the field itself.
- It does not require any additional requirements, chemicals or equipment.
- It involves no loss or wastage of minerals. Hence repetitive study is possible.
- Immediate inference is possible.
- It is the cheapest and simplest method.

Streak Plates



The colour of the mineral powder is called the streak of a mineral. This is tested by rubbing the mineral on streak plate (An unglazed white porcelain plate)

Magnifying Glass



A small magnifying glass used by geologists to take a closer look at rocks. Geologists use hand lenses to help identify minerals and fossils in rocks and also to take a closer look at rock textures and structures.

Microscope

A petrographic microscope is a type of optical microscope used in petrology and optical mineralogy to identify rocks and minerals in thin sections. The microscope is used in optical mineralogy and petrography, a branch of petrology which focuses on detailed descriptions of rocks.