Canada's Mineral Wealth

A mineral can be defined as a naturally occurring, pure, non-living substance found in the rocks of the earth. Most minerals are of little or no economic value, but some are enormously valuable and are so important that it is hard to imagine how we could live without them!

Types and Locations of Minerals

Metals and minerals: minerals that when refined yield the group of materials that we know as metals. Metallic minerals are mined for different reasons. For example, gold, silver, and platinum are highly valued for their beauty and relative rarity. Iron is mined for its strength where copper is mined because its properties meet a specific need such as copper wiring. Most metallic minerals (or metals) are associated with igneous rock, particularly the Precambrian Shield, which is often called “Canada’s Mineral Storehouse.” The shield covers much of Quebec and Ontario, consequently, these provinces produce nearly 50% of this country’s metallic minerals.

Industrial
Metals make up the most valuable category of minerals mined in Canada. However, non-metallic minerals, or non-metals, are also significant. The most important are gypsum, potash, salt, and asbestos. They are mainly used in industrial and manufacturing processes in their natural state, and are frequently referred to as industrial minerals. Non-metals are generally found in the sedimentary rocks of Nova Scotia, New Brunswick, Saskatchewan, and southern Ontario. They owe their origin to the ancient saltwater seas that once covered these regions. As the seas slowly evaporated, the salts in the water were deposited on the ocean floor in thick layers. Asbestos is an exception: it is contained in igneous rock which has been superheated, twisted, shredded, and squeezed to create a metamorphic mineral with fibrous characteristics.

Structural Minerals
Structural or building minerals include limestone, aggregate (sand and gravel) and clay. These rarely receive the glamorous attention accorded to gold or silver, yet as a group they are almost as valuable as non-metals, because they are the basic materials for the construction of most roads and buildings. When aggregate – sand and gravel – is mixed with cement, it becomes concrete. Deposits of aggregate and clay are found in every geological region of Canada, but are most numerous in areas where there was a lot of glacial deposition. Ontario – particularly southern Ontario, because of its geology and large urban and industrial base – dominates Canada’s production and consumption of structural minerals.

Diamonds in Canada’s North!!

The Ekati Diamond Mine is located in a remote Arctic tundra region near Lac de Gras in the Northwest Territories, approximately 200 km South of the Arctic Circle, approximately 300 km Northeast of Yellowknife, capital of the Northwest Territories, and 100 km North of the treeline, in an area of continuous permafrost.