



Rock

Sixth Edition

Talk

The Mining Cycle Prospecting

Prospecting is the process of looking for minerals like diamonds, gold, iron and sapphires. The very first step to exploring or mining in Nunavut is to get a prospecting licence.

A prospecting licence allows you to look for these kinds of minerals. Without a licence, no one can stake a mineral claim. Anyone 18 years or older can apply for a prospecting licence and it only costs five dollars!

Exploration

Exploration is the search for minerals.

Advanced Exploration and Development

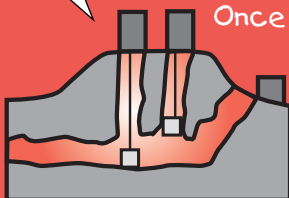
If a large amount of mineral is found, the person or company will study the site to see if it could make money as a mine. A water licence and land use permit may be required for advanced exploration, which can involve drilling, excavating and bulk sampling.

Indian and Northern Affairs Canada, the Government of Nunavut, Inuit organizations, the Nunavut Impact Review Board, the Nunavut Water Board, the Nunavut Planning Commission and others work together to make sure that measures are taken to protect the environment.

Operation

There are two types of mining: underground and open pit. Underground mining is when minerals are taken out of the ground from at least three metres (10 feet) deep. This is done by using tunnels and machines that burrow down into the ground. Open pit mining is when the minerals are mined from an open hole in the ground. Ice, vegetation and soil are removed in order to bring rock hosting the minerals to the surface. This is done using rock trucks, bull-dozers and drills.

Underground Mine



Once these minerals are gathered, either from underground or open pit mines, they are taken to a mill where they are crushed, separated, and the valuable mineral recovered. One recovery method to separate the mineral from rest of the rock is to melt it - this is called smelting.

Open Pit Mine



Abandonment

An abandonment and reclamation plan shows how a company will restore the environment back as close as possible to its original state once mining stops. Before a mine can go ahead, an abandonment and reclamation plan must be completed.

Did you know

that in Nunavut...

Inuit owned land is owned or administered by Inuit.

Crown land is administered by the Government of Canada (federal government).

Commissioner's land is owned or administered by the Government of Nunavut (territorial government).

Municipal land is owned or administered by the city or hamlet.

ONE COOL PROSPECT!
In the summer of 2002, Seemeega and Nowdluk Aqpiik of Kimmirut discovered the first Kimmirut sapphire when they were prospecting.

Contact Us

If you have a geology question you want answered, send an e-mail to: nuinfo@ainc-inac.gc.ca

Rock Talk is produced by Indian and Northern Affairs Canada, Nunavut Regional Office.

We welcome your questions, comments or suggestions. Please e-mail us at nuinfo@ainc-inac.gc.ca or phone (867) 975-4500.

Visit our Web site at: www.ainc-inac.gc.ca/nunavut



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