

# The AMD Experiment

Acid Mine Drainage is a process that occurs when sulfide rock mixes with air and water.



This is what Acid Mine Drainage looks like in Sudbury, Ontario.

## The AMD (Acid Mine Drainage) Experiment

**Step #1** Fill two jars with cool, clear Lake Superior water.

**Step #2** Place one handful of hard coffee beans in one of the jars.

**Step #3** Place other handful in a coffee grinder and grind for about 10 seconds.

**Step #4** Place the newly ground coffee into the other jar of clear water.

**Step #5** Place covers on both jars and shake each for about a minute.

**Step #6** Observe the liquid in the jar with the unground beans.

**Step #7** Observe the liquid in the jar with the ground beans.

### What you will need:

|                                   |   |
|-----------------------------------|---|
| Cool, clear Lake Superior water   |   |
| Coffee grinder                    | 1 |
| Two jars (with covers)            | 2 |
| Two handfuls of hard coffee beans | 2 |

### Cool, clear Lake Superior water



*You have just discovered the consequences of creating a huge amount of reactive waste from exposing sulfide rock to air and water. If the coffee beans were sulfide rock containing copper, nickel, or other metals, the Acid Mine Drainage process would have been unleashed. If waste from mining with sulfide elements is piled on the ground or in lakes - these elements will react with air and water and leach out into our ground and surface water.*

