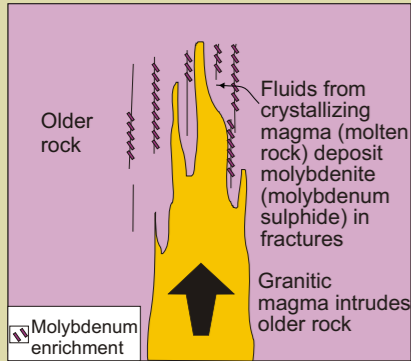


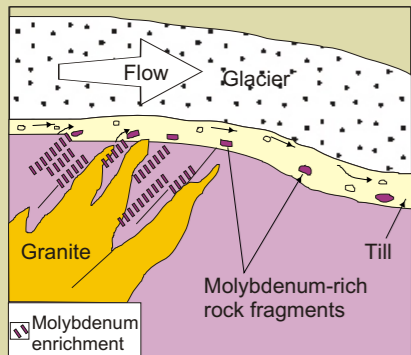
# Molybdenum in the environment



## Ancient origin of metal deposit

Molybdenum deposit forms 145 million years ago, 2 km below the Earth's surface.

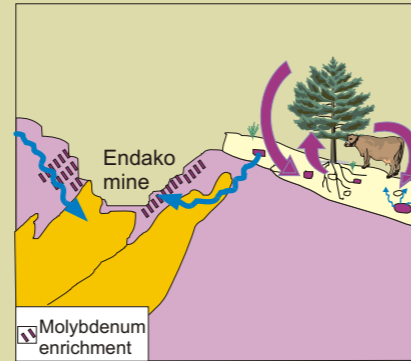
Uplift, faulting and erosion bring the deposit to the Earth's surface



## The Ice Age: scattering the metal

Erosion by glaciers spreads molybdenum-rich fragments across the landscape.

Figure 21a. Molybdenum dispersion with time



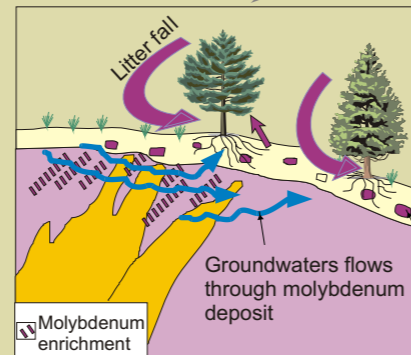
## Mining the riches

The molybdenum deposit is mined.

## Ranching / farming with metals in the environment

Cattle eat molybdenum-enriched forage, causing molybdenosis.

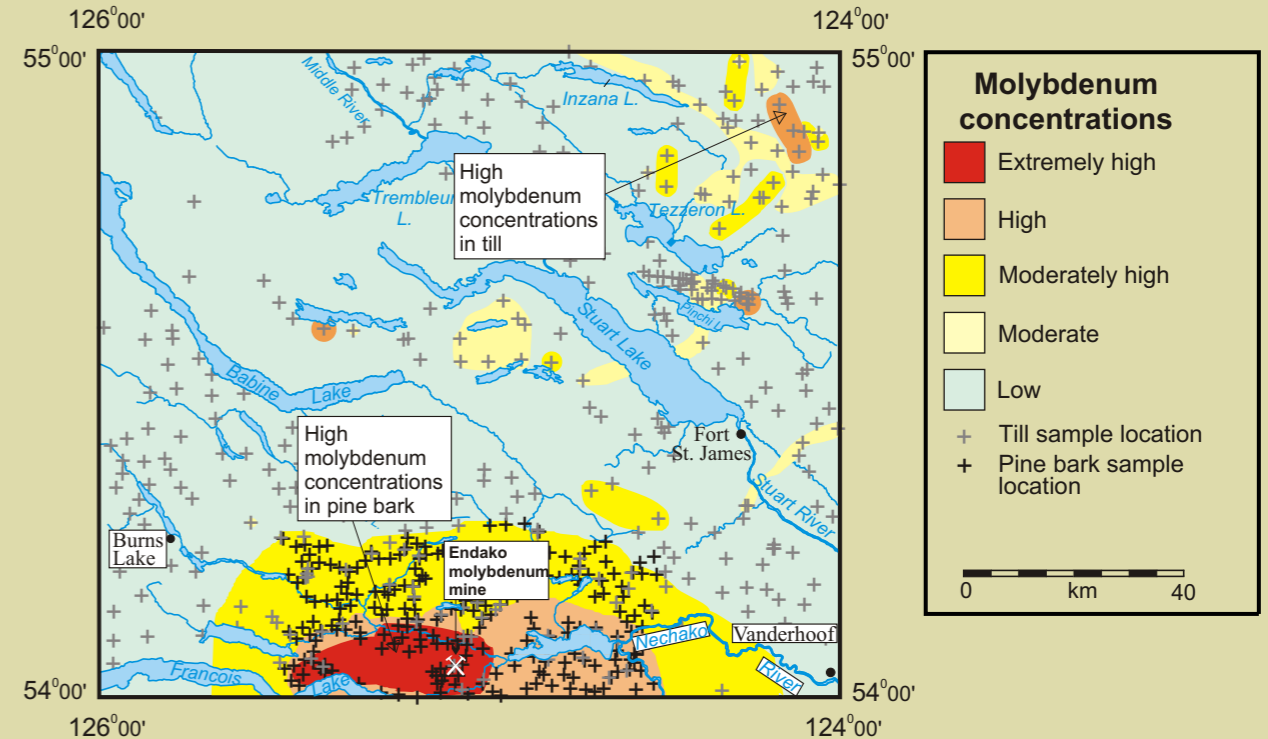
People arrive



## The last 12 000 years: metals on the move

Dispersion of molybdenum by ground water. Plants take up molybdenum, which is transferred to some animals as they graze.

Figure 21b. Molybdenum concentrations in till and pine bark



## MOLYBDENOSIS

Cattle that ingest too much molybdenum are unable to absorb sufficient copper from their food. Copper deficiency can cause growth and reproductive problems. This disorder is termed molybdenosis and can be treated by injecting the cow with a copper supplement.

Molybdenosis in cattle is linked to 1) soils with high molybdenum concentrations; 2) grazing on legumes (clover, pea-vine) rather than grass (grasses absorb less molybdenum than legumes); 3) alkaline soils, which