



— Alberta's Natural Resources —

MINING

Alberta has an abundance of natural resources with many hidden deep underground. For generations, Albertans have mined for these resources and built major industries in our province - especially mining for coal and oil sands resources.

We use these natural resources to create energy, produce gemstones and more!

Can mining natural resources be done in environmentally responsible ways? What is the future for mining in Alberta? Can we have an impact on the future of mining in Alberta?

This poster series will help answer all of these great questions!

Things We Mine in Alberta



Coal

In Alberta two main types of coal are mined - metallurgical (which is used to make steel) and thermal which is burned in electricity production.



Bitumen

This is the product when oil sands (a mixture of sand, water, clay and bitumen) are mined in the Fort McMurray area. Bitumen is then upgraded to produce synthetic crude oil.



Gravel

Naturally occurring deposits of (usually) small rocks that are mined and used for construction purposes. Sometimes larger rocks are crushed to make gravel.



Ammolite

An opal-like gemstone found primarily along the eastern slopes of the Rocky Mountains. It is made of the fossilized shells of ammonites, an extinct group of marine molluscs.



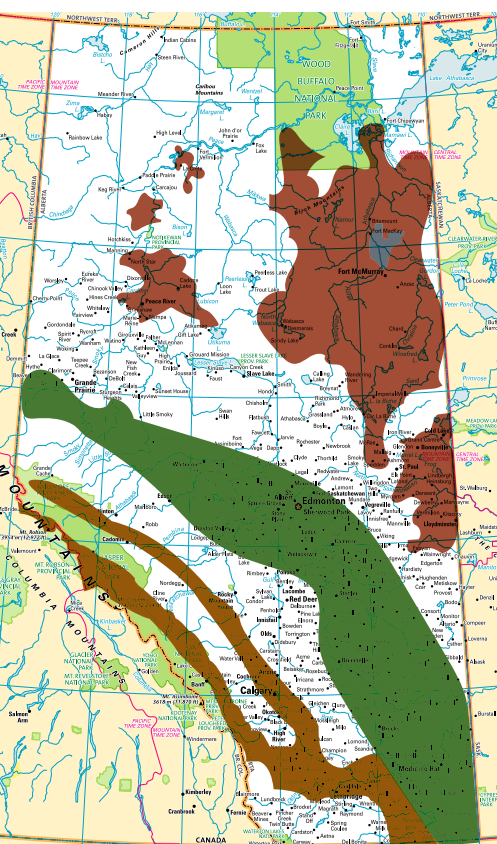
Diamond

Alberta is home to kimberlite deposits. Kimberlite is often an indicator that diamonds might also be present in the same formation. While we do not have a lot of diamonds found, exploration is growing.



Limestone

A sedimentary rock formed from ancient aquatic organisms. Limestone is mined in Alberta (mainly) to be used in the production of cement.



Coal and Oil Sands Deposits in Alberta

- Bituminous coal
- Sub-bituminous coal
- Oil sands recoverable using in situ techniques
- Oil sands mineable area



A long history

This image, taken in 1930 in Coal Valley, Alberta shows coal miners doing their mining in a slightly less high tech way compared to today.



MINING AND...

...the economy

Mining in Alberta contributes billions of dollars to the Alberta economy - employing more than 100,000 people in our province (including oil sands mining). Mining companies pay taxes and royalties, which are fees to the Alberta government for accessing the coal, bitumen, gravel, diamond and other ore being mined.

...careers

Whether it is careers in geology, environmental research, reclamation, engineering, heavy duty mechanics and truck driving - there are careers in mining. Not only that, some of the most high-tech work in Alberta - computer modeling, geographic information systems (GIS) mapping, even drone flying - are needed in Alberta's mining sector.

...the environment

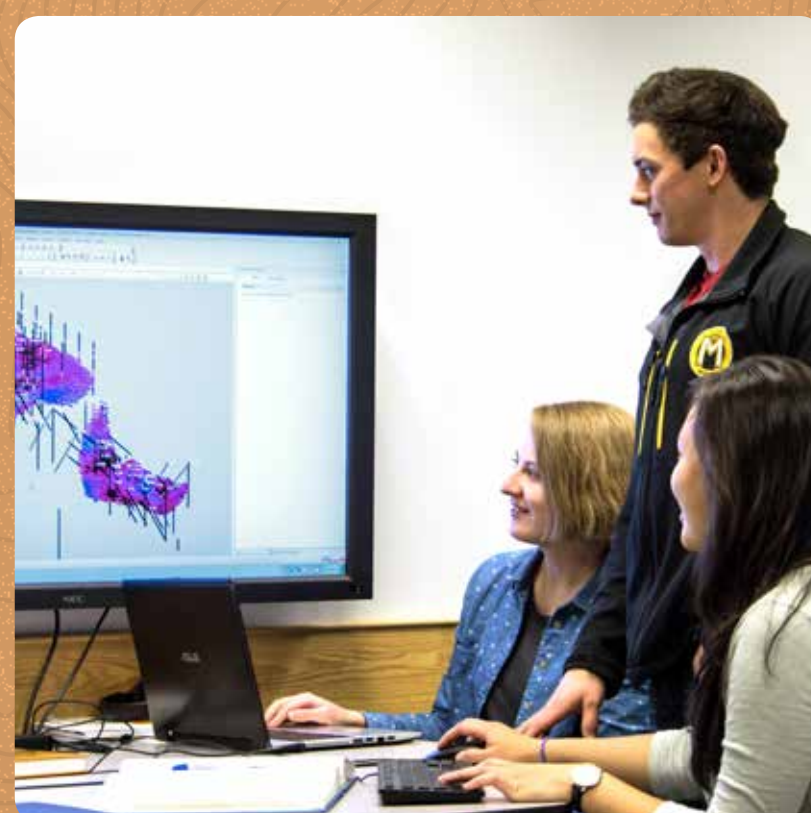
Like all of Alberta's natural resources industries, there is no question that mining has an environmental impact - especially the 'footprint' created during the mining process. It is important (and required) that mining companies ensure reclamation is considered before, during and after mining is completed. Since our natural resources belong to us, Albertans, it is important that we expect companies to reclaim the land. It is also important that we expect them to find ways to continuously improve techniques and technologies so our natural resources can be developed for generations to come, and that our environment remains healthy and sustainable.



**CAREER
DEEP DIVE**

Mining Engineers

Mining engineers design surface and underground mines, supervise the construction of mine shafts and tunnels in underground operations, and devise methods for transporting minerals to processing plants.



Did you know?



Some of the world's largest trucks are used in Alberta's oil sands mining operations. The tires alone are taller than two people, and cost about \$50,000 each. Oil sands miners are even testing autonomous (driverless!) heavy haulers!