

Positives and Negatives of Mining

By Sarah Collinge

Mining is the excavation of useful minerals that come from within the earth. Some examples of valuable minerals that can be mined are coal, copper, gold, and silver. We use these minerals every day!

The following chart shows some of the valuable minerals that are mined and their everyday uses.

MINERAL	USES
Coal	heat, electricity, batteries, disinfectants, medicine
Copper	computers, wire, pennies, radiation
Gold	electronics such as telephones, cell phones, home appliances, and computers; spacecraft; satellites; medical research; jewelry
Silver	cutlery, jewelry

The problem with mining is that it can be very harsh on the environment. For example, producing a single gold ring generates 20 tons of mine waste. The waste goes into the water, air, and land. Eventually, that waste affects people and animals.

However, mining is a necessity and can be beneficial for people too. Mining gives people jobs and helps the economy. Mining allows us to have and use the things we need for daily living and survival.

It is impossible to mine without damaging the environment. However, mining companies can strive to use safe mining methods that are more eco-friendly. This means they can choose to use mining methods that result in less pollution. They can also choose methods that have minimal effects on the land.

The following chart shows the gold mining methods used during the Yukon gold rush and their effects on the environment.

TYPE OF MINING	DESCRIPTION	EFFECTS ON THE ENVIRONMENT
Open Pit Mining	Is used to remove minerals near the surface by taking minerals from an open pit.	Huge chunks of land are removed that used to be the habitats of many different organisms. This causes animals to have to relocate. This endangers animals. Waste rock is left at the mine site in piles.
Gold Panning	Is used to remove minerals from a streambed.	Small amounts of sand and gravel are removed from streambeds, disrupting the habitats of many different organisms. Removal of sand may also change how the water flows.
Gold Panning with Sluice Boxes	Is used to remove minerals from streambeds more efficiently than simple panning. Water is poured through the sluice box to separate gold from silt.	Large amounts of sand and gravel are removed from streambeds, disrupting the habitats of many different organisms. This also destroys riverbanks and changes how the river flows. The murky water is dumped back into the stream, polluting clear-water streams. The waste rock left over is left at the mine site in piles.

Which gold mining method do you think has the least amount of impact on the environment?

References:

Geology.com. (2012). *Mineral uses, properties, descriptions*. Retrieved on March 29, 2012, from <http://geology.com/minerals/>.

Scribd Inc. (2012). *Mining and its effects on the environment*. Retrieved on March 29, 2012, from <http://www.scribd.com/doc/103246/Issue-Analysis-Mining-and-Its-Effects-on-the-Environment>.

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