# Inco Information Sheet

“Inco Limited is a Canadian-based global company and the world's second largest producer of nickel. Inco also produces copper, cobalt and precious and platinum-group metals. Based on the latest data filed by the company with the Government of Canada, Inco has also been identified as the worst mining polluter in Canada, emitting toxins at more than twice the rate of any other mining company in the country. While it produces three times as much nickel as its nearest competitor, Falconbridge, it emits more than 13 times as much environmental pollution.”

“The **Sudbury Mining and Processing Operations** is located in Sudbury, Ontario. This facility opened in 1902. It is the largest fully integrated mining, milling, smelting and refining complex in Canada and one of the largest in the world, employing 3,300 workers. Sudbury residents have raised many environmental concerns around toxic pollution in soil, water and air. Levels far in excess of environmental guidelines now have leaked into the soil in many areas. The pollution from Inco's operations covers hundreds of square kilometers. Major studies are currently underway to determine the extent and danger posed by this contamination to the ecosystem and human health, and Inco may be liable for huge monetary damages and/or remediation. In September 2003, Inco's unionized work force announced strong opposition to the current plan to address the pollution issues.

“The **Port Colborne Refinery**, located in Port Colborne, Ontario, has been in operation since 1918. Currently, the facility refines cobalt and precious metals, and packages and distributes finished nickel products. Between 1918 and 1984, the facility refined nickel, releasing approximately 16 million kilograms of nickel oxide; a substance identified as a known human carcinogen by the Canadian Government and the U.S. Environmental Protection Agency. The soil on properties has been found to contain nickel levels up to 55 times higher than government guidelines for human health. Recent testing by Inco has revealed that air inside homes had nickel concentrations of more than 290 times above current government standards. Inco is now the subject of government orders to clean up these properties, and a proposed $750 million class action lawsuit is currently before the courts.

“Inco alone accounts for 20% of all the arsenic emitted in North America, 13% of the lead and 30% of the nickel.”

## Sudbury Lakes Polluted by Mining

Approximately 19,000 lakes have been damaged by smelter emissions in the Sudbury area. Inco has several of its largest mining operations in and near Sudbury. “Zooplankton, phytoplankton, benthic invertebrates and sport fish such as lake trout, brook trout, walleye and smallmouth bass have been adversely affected by the increased acidity and metal concentrations. Fortunately, a number of factors have recently contributed to the health of these lakes. First, emission controls are decreasing the amount of sulfur dioxide that is raining down into the lakes. As a result, the lakes are becoming less acidic. Reclamation of upland areas is also having a positive effect on lake systems. By controlling the erosion of topsoil, concentrations of calcium and magnesium have been decreasing in lakes (Keller et al. 1995). The active application of lime into lakes is also improving water quality by reducing acidity. The amount of powdered limestone applied depends on the acidity levels. Lime applications are apparently essential for the reintroduction of aurora trout, a rare color variant of brook trout (Carborne et al.1998). This can be attributed either to the trout’s need for certain insects that were absent before liming or their intolerance to acidic conditions. Carbone et al. (1998), conducted a study in which lime was applied to lakes in the Sudbury region to observe the effects of changing acidity. Changes were observed in insect populations within five years. While some dragonflies increased due to decreased acidity, populations of other insects decreased from restoration efforts. This was attributed to increases in predatory fish species or changes away from acidic conditions which some organisms such as Diptera may prefer.”

The Sudbury region of Canada has been an example of how industry can have catastrophic effects on the environment. Fortunately, through the efforts of the multidisciplinary technical advisory committee, summer work crews, volunteer efforts, and industry itself, the region is now becoming an example of how degraded lands can be reclaimed.

(Dan Shaw, Reclamation Technologies at Sudbury, Canada)

**Pollution Stats for Inco**

Inco Central Mills site 2002

- 343,999 kg of pollutants released into the water in total
- National ranking for water releases in 2002 - 53

All Inco sites in Ontario 2002 results:

- 369,070 kg of pollutants in total
- National ranking for water releases by Inco in Ontario in 2002 – 41
- These included at least 15 different water pollutants

Information on Riparian Rights, which have been used by some citizens in Ontario and other places to take action against water polluters, can be found at: http://watergovernance.sites.olt.ubc.ca/files/2010/04/FS_Water_Rights.pdf