

Mining – The Big Picture



There is a lot more to mining than mines and processing. Mining has many important links to other industries and sectors in the economy, including banking, geology, transportation, remote sensing, mine construction, drilling technology, legal services, environmental management, and geochemistry ... just to name a few. In addition, mining research and development fuels innovation across a wide range of sectors including IT, communications, robotics and space mining. For example, it takes 37 minerals to turn on a personal computer.

One of the best approaches to understand the ‘big picture’ of mining is through the ‘cluster lense’:

A cluster is a concentration of inter-related organizations and institutions that drive wealth creation, primarily through innovation and the export of goods and services. Clustered industries mutually reinforce and enhance each other’s competitive advantage by acting as each other’s consumers, competitors, partners, suppliers and sources of research and development.

When we talk about mining, we are talking about a cluster of mineral-related organizations and institutions and allied industries. Together, they make up the Ontario mineral industry cluster and include exploration companies, major mine operators, service and equipment suppliers, the TSX, labour and education institutions, and associations as shown in Exhibit 1.

For almost a century, mining has been, and continues to be, an essential pillar of the province’s economy. The mining industry contributes enormously to Ontario’s prosperity and standard of living. Ontario companies are not just suppliers of commodities, but are also providers of technology, know-how, capital and also of world-leading safety and environmental practices. Today, Ontario is a world leader

Exhibit 1

Ontario Mineral Industry Cluster Key Participants

- Major operating mines
- Junior exploration companies
- Mine equipment suppliers
- Consulting firms
- Toronto Stock Exchange
- R&D
- Educational and vocational institutions
- Labour unions
- Environmental NGOs
- Aboriginal organizations
- Legal and insurance services
- Associations
- Government departments and ministries
- Mining media

in mineral exploration, mine production, environmental engineering and controls, mining finance, health and safety, and associated technologies. In the new economy, mining offers great and exciting opportunities. Exhibits 2 and 3 show that Ontario’s mineral industry cluster is an economic power house.

A recent University of Toronto study commissioned by the Ontario Mining Association (OMA) noted that, “a single new mine in Ontario can generate 2,280 jobs and contribute \$278 million to

the economy. More than 66 per cent of those jobs remain close to the mine site, totaling more than \$115 million in wages and \$220 million to local-area GDP gains.”

Ontario’s rich mineral endowment, coupled with the many new and expanded uses for minerals, provide unprecedented opportunities for mineral related industries and organizations, and for communities to expand, grow and prosper. Mining continues to be a key catalyst for sustainable growth in a number of ways: export dollars from mineral development generates new wealth and improves the international trade balance; mining related value-added products and services create high paying jobs; and mining provides economic opportunities in remote northern communities. In addition, the industrialization of the BRIC countries is expected to continue to fuel growth and the demand for commodities for many years.

Exhibit 2

Fast Facts about Mining

- In Ontario, mining provides 23,000 direct jobs, 75,000 indirect jobs, over \$1 billion in wages and salaries annually
- Historical metal production (since 1869) is valued at \$360 billion
- Value of total mineral production in 2006 was \$9.4 billion
- Mining is the largest private sector employer of Aboriginal people
- It has one of the highest economic multipliers of any industry in Ontario with economic spin off benefits throughout the province
- Ontario recorded over 300,000 claims in 2007 -- a new record and almost double the number of claims from eight years ago
- Ontario has led Canada in exploration spending since 2000, and with spending of more than \$500 million in 2007, should continue to lead Canada

Exploration serves as a building block to the rest of the mining-related activities. No exploration – no mine development – no need for equipment, machinery, technology. The list goes on. But, exploration is also characterized by high cost, high risk and uncertainty: only 1 in 10,000 exploration projects proceed to mining and production. Investor confidence is critical. Without the confidence of investors, exploration companies are unable to raise sufficient funds in the equity market to continue exploration. Therefore, both federal and provincial governments, together, provide access to high quality geoscience data, a stable regulatory environment and a competitive taxation framework to help contain risk and uncertainty. The flow-through share program has been instrumental in re-invigorating early stage investment in Ontario and throughout Canada. Advances in technology also lower the cost and increase the efficiency of exploration activity.

With the current level of increased exploration activity and the anticipated growing world-wide demand for commodities and know-how, all of the key elements are in place to see the Ontario mineral industry cluster grow and prosper well into the future. ∞

Exhibit 3

Wealth generated by the Golden Giant Mine – Thunder Bay, Ontario



- \$6.7 million ounces of gold produced
- \$3.2 billion in revenues generated
- \$1.9 billion in expenditures that support other industries
- \$400 million in salaries and wages
- \$660 million in corporate mining taxes
- \$23.8 million in local taxes
- \$1.5 million in direct donations to local charities
- 250 people employed in the last year of operation