# Royal Commission on Aboriginal Peoples

## Aboriginal Participation in the Minerals Industry: Part I

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## Executive Summary

Aboriginal people have always been involved in the minerals industry as prospectors and miners, whether it be the South American Indians, who mined gold and other metals, more than 500 years ago, or the Ojibway who mined copper north of Sault Ste. Marie, Ontario in the early 1800s.

Without getting too technical, this report has focused on the direct opportunities available to the Aboriginal community in exploration, development and environmental reclamation. To participate in the minerals industry, Aboriginal people can be employed in the industry, develop joint ventures in exploration, or collect income from mineral extraction through obtaining royalties. In addition, some may seek spin-off business development providing a service to the mine. However, an understanding of the industry components will do justice to ensure long term benefits for the individual and the community.

To become bigger players in the minerals industry, Aboriginal peoples should develop an understanding of where Canada, the provinces and even the local area is positioned within the mineral economy. More importantly, understanding Canada`s competitive edge in the global economy will provide impetus for the community to maintain an economic interest in the minerals industry.

The minerals and metals sector continues to be an important sector within the Canadian economy and more importantly, to the economies of various provinces and regions despite the uncertainty in the economy. The industry's direct activities provide employment to over 100,000 Canadians. Many more benefit indirectly from the spin-off businesses of mineral industry activities, particularly in the area of transportation, services and equipment supply. The mining sector, both directly and indirectly, is the economic backbone of many communities in the northern and isolated regions of the provinces and territories

Aboriginal people envision a time when they will play an important and active role in the minerals industry. By increasing their knowledge of prospecting, mineral exploration techniques, scientific surveys and interpretation and familiarity with mining, and the business components beyond current levels, Aboriginal communities will be able to transform this vision into reality. Often literacy and numeracy skills are barriers to realizing this. However, working with mining companies can assist the community in developing on reserve and community training facilities similar to those developed by the Tahltans of B.C. (apprenticeship program) and related college based programs such as in Saskatchewan (Saskatchewan Institute of Applied Science and Technology).

Aboriginal community members want employment. Community leaders are quite adamant that job opportunities in approved local mineral operations should be made available to community members. Many mining companies are making an effort to employ Aboriginal people, however the quality and level of work available to them has not always been adequate.

Environmental protection and the joint-management of the environment with mining companies by Aboriginal people are priority issues within the Aboriginal community. Traditional habitats, flora and fauna, (eg. salmon runs and the migration of wildlife) are considered extremely important to the livelihood of many community members. Though legislation currently exists to protect the environment, Aboriginal people are rarely invited to voice their concerns on environmental review boards and in mine planning.

The Crown, or the provinces in right of Canada, assume ultimate ownership of mineral rights on Aboriginal lands (Indian Reserves and comprehensive land claim settlement areas) A notable exception is where Aboriginal ownership exists in fee simple within the context of a comprehensive land claim settlement. To access minerals or

subsurface rights in both reserve lands and comprehensive land claim areas, the procedures are similar for both the Aboriginal and non-Aboriginal prospectors and mining company.

Specific funding for mineral exploration, development, market and feasibility studies is often difficult to obtain and the process for finding and applying for those sources that exist are time consuming. Rarely will a bank or any financial institution finance preliminary prospecting and exploration. As on-reserve residents have discovered collateral is a requirement when dealing with banks. Most mineral plays are not "tangible assets." All funds are considered high risk venture capital for mineral exploration. Often mining companies have established equity and a significantly developed network of financiers, for example, underwriting firms, that will fund most exploration and development activity. Newcomers to the exploration game must rely on government grants and joint ventures to sustain their activities.

This report offers a series a recommendations for government, aboriginal groups, labour, and mineral corporations. These recommendations will increase Aboriginal participation in the minerals industry as well as improve relations between Aboriginal groups, the government and mining industry.

Involving Aboriginal communities in the minerals industry is of benefit to all. It complements existing community economic growth and provides new growth opportunities. The long-term business development through the minerals industry will enhance community development initiatives by increasing employment and provide a source of training and development for Aboriginal communities. Advocating Aboriginal participation in the minerals industry by companies will not only improve relations, but it will also provide a more stable investment environment which will give mining companies the confidence to do business in Aboriginal territories.

# Royal Commission on Aboriginal Peoples

## Aboriginal Participation in the Minerals Industry

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# PREFACE

Relations and dialogue between the mining industry and Aboriginal peoples in Canada have varied widely, from non-existent to satisfactory, at both national and local levels. Mineral exploration and development has occurred in many parts of Canada on lands where Aboriginal peoples have maintained a use and affinity for thousands of years. Aboriginal communities have depended on the land for a warehouse of goods such as wildlife, plants, water and air for survival. In the past, certain mineral activities have had an impact on the traditional lifestyle for many Aboriginal peoples and affected traditional economic opportunities available for the communities.

Where mineral exploration and mining has occurred near a community, Aboriginal peoples have not always been adequately consulted nor invited to participate in environmental and infrastructure planning, given cash compensation, shared in business opportunity, nor offered opportunities in quality training and quality employment. Similarly, environmental organizations do not consult aboriginal peoples. In many cases, environmentalists lack the respect for community economic development goals and objectives, and hinder community well-being and economic growth.

Mining companies mine the minerals, vacate the land and leave Aboriginal peoples with an altered landscape which is not able to support traditional activities, let alone a traditional lifestyle. In some cases, this has been due to poor practices in environmental management and a lack of understanding regarding the importance of holistic management.

Through the Royal Commission on Aboriginal Peoples consultation, Aboriginal peoples and mining companies have the opportunity to share information, particularly the aspirations of Aboriginal peoples, the bottom line needs of mining companies and the role of governments. Recommendations and solutions to bind and improve relations between Aboriginal peoples, mining industry, and governments for the present and future generations, will develop out of dialogue and input on ways to improve relations.

The first phase of the analysis on the Canadian minerals industry and the current involvement of Aboriginal people is described in this report and was undertaken by Hans Matthews, an independent consultant at the time of writing. The second phase of the analysis (Part II), was undertaken by Price Waterhouse. This second phase consisted of a series of interviews with stakeholders, involved in various stages of the mining industry, in order to identify and understand the barriers to Aboriginal participation in the mining industry. Part II makes recommendations based on interviews with stakeholders. These recommendations focus on industry, government, Aboriginal demands on employment, education training needs, integration of Aboriginal and private sector attitudes to environmental management, and land management and business development.

# 1 Introduction

For more than 3,500 years, Aboriginal people in the Americas have participated in the minerals industry. Aboriginal people have always maintained an interest in working with metals, whether ornamental or as tools and weapons. They were the first organized mineral explorationists and miners in the Americas. In North America, Aboriginal peoples have mined native copper, nephrite, soapstone, and other minerals since time immemorial (Diamond Jenness, The Indians of Canada, 1934). Metal working civilizations first developed in present day Columbia with the Tihuanacas and Incas, as early as 1500 B.C., in Central America with the Mayans (300 A.D.), and in Mexico with the Aztecs and Toltecs (700 A.D.). Metals were discovered much later in North America. Eventually the use of metal minerals, exploration and mining moved northward into the United States and Canada. Aboriginal people mined copper around Lake Michigan (Sault Ste. Marie area, Ontario) in the early 1800s.

Common metals used by early Aboriginal peoples were gold, silver, copper and platinum. The use of iron was unknown. Platinum was used long before it was recognized by the Europeans. Metallurgical processes for extracting metal from rock were developed and methods to work metals were also discovered by these early miners. Interestingly, the American Indians were the first to make gold-copper, gold-platinum, and silver-copper alloys that were primarily used in religious objects (Habashi, CIM Bulletin, Vol. 85, 1992). Today Aboriginal people are still active and are becoming more active participants in the Canadian minerals industry.

As we come out of the recession and as new frontiers in mineral exploration move north in Canada, the effect of mineral activity,

whether it be exploration, development or mining, on Aboriginal peoples is becoming a more important issue. Mineral activities have direct and indirect implications on cultural and traditional practices, on the environment, economic and social development and resource management. The 1990s will see Aboriginal peoples having a greater stake in northern economic development. In many remote communities mineral activity far outweighs forestry as the dominant economic activity.

Relationships between industry and Aboriginal communities are developing, perhaps slower than anticipated because of the current slow down of the industry. In many cases, outstanding comprehensive land claims are a barrier to relationships being built between Aboriginal communities and industry. The enactment of such land claim agreements brings about the possibility of multiple legislation. Industry is concerned with the uncertainty land claims have on the investment of exploration and development dollars and on the length of time taken to negotiate settlements. Communities can however alleviate these concerns by attracting companies to their lands to form mutual investments.

New developments in talks surrounding Indian Act alternatives, such as those proposed by chiefs groups, pertaining to access and management of minerals, will eventually provide for greater opportunity for Aboriginal communities to participate on-reserve as full entrepreneurs in the minerals industry. However, due to their current size, many reserves have limited practical mineral potential and require effective management to protect the environment and avoid interference with long term housing and related developments. More opportunity may lie in participating in off reserve ventures beyond the influence of housing and other developments within the community.

Aboriginal peoples and communities have great concern over improving their socio-economic conditions by focusing on participating in economic development projects. The mining industry can form a vital component in this direction. Many communities are concerned with obtaining employment, education and training opportunities to become full partners in mineral development. Many wish to develop trust and sound business relationships with mining companies. Most important of all, protection of the environment and the traditional economies and community health are of upmost concern while mineral activities are ongoing. Better communication between mining companies and communities and the development of partnerships will provide the catalyst for community participation in the minerals industry.

Unfortunately, many relationships between Aboriginal groups and the mining industry are based on confrontation rather than cooperation. However, there are several excellent examples of good relationships between the mining industry and Aboriginal groups including a number of joint ventures. These joint ventures are being formed across Canada; from the Tahltan Nation/Homestake gold project, in the west, to Labrador where the Inuit have established a granite operation in conjunction with a number of European companies. More business partnerships are being developed.

All partnerships should promote cooperation in environmental management and promote opportunities for employment, training and business opportunities. This report will describe the mining industry in terms of it's significance to the Canadian economy, commodities sought and present markets, Aboriginal employment, training and education needs, environmental provisions, mineral access provisions and business opportunities. Case studies will be

presented which may be used by Aboriginal communities to explore different options whereby they can become full participants in the minerals industry.

# 2 Mineral Industry Profile

## a. The Nature of the Business

To become bigger players in the minerals industry, Aboriginal peoples should develop an understanding of where Canada, the provinces and even the local area is positioned within the mineral economy. More importantly, understanding Canada`s competitive edge in the global economy will provide impetus for the community to maintain an economic interest in the minerals industry.

The minerals and metals sector continues to be an important sector within the Canadian economy and more importantly, to the economies of various provinces and regions despite the uncertainty in the economy. The industry's direct activities provide employment to over 100,000 Canadians. Many more benefit indirectly from the spin-off businesses of mineral industry activities, particularly in the area of transportation, services and equipment supply. The mining sector, both directly and indirectly, is the economic backbone of many communities in the northern and isolated regions of the provinces and territories (Mining in Canada, Facts & Figures, 1992).

There are some 325 producing mines in Canada: at least 175 base metal and precious metal (predominantly gold) mines, more than 107 industrial mineral mines, 31 coal mines, five iron ore mines, four uranium mines and two rare metal mines. Mining and processing account for 12.3% of Canada's total exports, 1.1% of employment and 2.2% of our gross domestic product.

Mining is conducted in every region in Canada. While it is an important contributor to the economy of all regions, the value of the output from Ontario, Quebec and British Columbia is by far the greatest. Many of these operations are located within lands currently under comprehensive land claim negotiation. Mining across Canada differs not only by output, but by the commodities mined. For example, British Columbia, Ontario, the territories and Quebec largely produce base and precious metals, Alberta and Nova Scotia primarily produce coal and non-metals, uranium and potash are the major commodities mined in Saskatchewan, while in Newfoundland and Labrador iron ore and gold are the major commodities mined.

The mining industry includes firms involved in mineral exploration, mining or extraction of ore, milling or concentrating, smelting and refining, and processing of industrial minerals. A relative newcomer to the industry are environmental reclamation services. Many of the smaller firms, or "juniors," are concentrated in exploration. Many of industry's larger firms are active in all components, with operations in exploration, mining, milling or concentrating, smelting and refining. Several Canadian mining companies have operations in the U.S. and overseas.

While some of the larger companies have their own field exploration operations, most of the field work in contracted out to small, specialized companies, e.g., diamond drilling operations, airborne geophysics. A common trend to offset long term costs is to contract out exploration survey work and related professional work. In fact, many mining companies today have no field workers, tradespeople or technicians on permanent staff.

The life-cycle of an individual mine is characterized by three main phases: exploration, development/mining, and reclamation. It begins with the search for minerals, an activity that has been a source of adventure for generations of prospectors. Often the idea of discovering the "motherlode" lures many to participate in prospecting and is what often attracts the novice to the industry. Outdoors people such as hunters can be part time prospectors. The discovery of a mineral deposit is the culmination of a number of techniques that may include geological mapping, geophysical surveys, geochemical sampling and diamond drilling. The potential body of ore is defined through the process of exploration development, which may involve extensive surface and underground drilling, and bulk sampling. The dip, size, shape and grade of the body of ore will determine the mining method to be used in extracting the ore. This is the beginning of the second phase.

Exploration of the deposit continues as mining occurs. The object is to discover extensions of the body of ore, thereby increasing the life of the mine. However, mines have a finite life, and in the end all mines close. The final phase of the mine's life-cycle is reclamation, the process of returning the land to an environmentally-acceptable state.

### b. Mine Openings and Closures in 1992

Closures and suspensions of mining operations exceeded openings and re-openings in the years 1990 to 1992. In 1991 for example, 18 mining operations came in production, 14 of which were new openings. However, 33 mines were closed or suspended, primarily as a result of economic problems. The net effect on employment was a loss of more than 2,000 jobs. In 1992, eight mines opened and 25 closed. The net

effect on employment was a loss of more than 5,700 jobs. Despite the closures in recent years, Canada's overall mineral output has not fallen significantly (Price Waterhouse, Breaking New Ground, 1994).

Based on the records of mine openings and closures in 1988, there has been a rising trend of mine closures and a declining trend of mine openings. However, in the second half of 1992, a reversal occurred in these trends. Information available from Energy, Mines and Resources Canada at the beginning of 1993 indicates that this new trend likely will continue in 1993. With a larger number of planned openings than closures, and an improved general economy, the outlook for 1993 and 1994 appears to be brightening (Sully, adm - energy mines and resources, pers. comm., 1993).

While the trend in mine openings and closures appears to be reversing in 1993, industry stakeholders continue to be concerned about the remaining mineral reserve life of mines in Canada, many of which may be open for at most five more years. More than 3,500 employees could be affected by closures of these operations.

In earlier years, however, between 1986 and 1991, the country failed to attract a single new mining project with a capital cost of more than $250 million. By contrast, Australia had one, the United States two, Latin America five, and South Africa six. The number of smaller projects on the go during this period fell by 14% in Canada, but doubled in Australia (Globe and Mail, June 29, 1993).

Canadian based companies are relying more on foreign projects. The country's five biggest gold producers now earn more than half their revenues from foreign operations, compared with virtually nothing nine years ago. For example, noted gold producer American Barrick

is not investing in new exploration in Canada this year and Falconbridge, a nickel producer, has closed its exploration office in Vancouver.

Mining companies argue that Aboriginal land claims and new parks have limited the amount of land available for exploration. A multi-stakeholder committee, the Whitehorse Mining Initiative, set up to examine the mining industry's problems estimated that at least 12% of Canada is now out of bounds. If this trend continues, Canada will become more high risk for mineral investment as resource security may be uncertain.

An example of this impact has been felt in British Columbia where it typically takes four years to work through environmental assessment to develop a mine, compared with just six months in Chile. Investors of the rich Windy Craggy copper deposit in a scenic part of northern British Columbia made their first application for a mining licence in 1989.

Royal Oak Mines, which owns 40% of the deposit, records that at least 30 agencies, with interests ranging from archaeological sites and tourism to air pollution and wildlife habitats, have been drawn into the process. On June 22, 1993, a verdict was delivered: Windy Craggy will become part of a vast wildlife sanctuary.

New corporate taxes, especially in British Columbia and Ontario, have also discouraged mining. The effective marginal rate in British Columbia has climbed from 41% in 1985 to 51%. Mining people are especially annoyed at a growing assortment of taxes unrelated to their volatile profit margins. Cominco, a base-metals producer, has

threatened to abandon a $100 million conversion of one big lead smelter in Trail unless British Columbia eases it's regulatory requirements.

The most ambitious mining projects now under way are in parts of the country most positive and encouraging to the resources industry. Aur Resources Ltd., for example, is pushing ahead with work on a big copper-zinc-mine in Quebec, which offers some of the more generous tax breaks in the country, including a 133% tax write-off for money invested in mineral exploration. Dozens of companies have joined the rush for diamonds in the Northwest Territories.
This year, Dia-Met Minerals and BHP of Australia released drilling results which will lead toward the construction of North America's first diamond mine. "Canada is still a good place to invest," argues Hugo Dummett, BHP's director of exploration in North America, "but you have to pick your province." (Globe and Mail, June 29, 1993).

## c. Aboriginal Mining Activities

In many cases, mining operations and potential mineral occurrences are located in the vicinity of Aboriginal communities. More than 30% of Aboriginal communities are located within a 50 km radius of a producing mine (Warren Johnson, DIAND, ADM - Economic Development, personal communication, 1991). On-reserve mineral development has also played a significant role in providing wealth to community economic development.

### i) On-Reserve Mineral Development

Many reserve communities have undertaken some form of mineral activity ranging from grassroots exploration (prospecting) to production. There are approximately 2,360 Indian Reserves in Canada comprising 2,679,967 hectares. More than 3,515 Aboriginal people were employed on reserve in resource development activity (including forestry) (Stats Can. 1986).

In 1990, there were 24 reserves in the metallic mineral development stage, 21 in the non-metallic mineral development stage and at least 56 developing aggregate minerals as recorded by DIAND. Approximately 135 reserves show a good potential as a mineral prospect warranting exploration work. These reserves are situated near or on similar geological structures hosting producing mines, quarries and pits.

In 1990, there were 5 active sand and gravel permits and 7 active mineral leases. More than 390 permits and 79 mineral leases expired prior to 1990. Revenue from active permits and leases amounted to $5,416,000 in 1990. DIAND assisted in the funding for negotiation for 14 of these agreements totalling $458,200 (DIAND, Resource Development Directorate, 1991, unpublished).

## d. Value of Canadian Mineral Producers

The value of Canada's Mineral Production reached $35.4 billion in 1992. Canada is a major international trader of mineral commodities and much of the industry's economic performance is directly related to the economic prosperity of other countries, particularly the United States, Japan and the member countries of the European Economic

Community. Recessionary economic conditions have continued to slow these economies throughout 1991. Until fundamental recovery is experienced in these major consumers, demand for Canada's mineral and metal products will be less.

Mining is a cyclical business, responding to changes in both global and domestic economic conditions. At an industry level, exploration and development activities increase when commodity prices are high, and decrease when commodity prices decline. At an operational level, individual operations are responsive to current demand, sometimes suspending operations in depressed markets. This in the nature of the business of mining.

Generally, base metal (copper, lead, zinc) and many minor metal inventories rose in 1992, reaching their highest levels in years. The reasons vary, but relate mostly to an ease in demand caused by declining manufacturing in the military and the need by mines and refineries to sell daily output to maintain cash flows.

Persistently low metal prices are forcing mining companies to trim costs as they wait out the period of slow demand. The industry is cyclic responding to consumer demand. As is normal in slow periods, many producers are operating on a cash basis and reporting ever-greater accounting losses. High-cost producers are beginning to suspend or shut down operations. However, only when cash losses become negative will the large mining concerns begin seriously cutting production. In the meantime, they lose less by maintaining high production levels and, as a result, inventories are on the rise. Stockpiled ores can be processed when metal prices are favourable.

The federal department of Energy, Mines and Resources announced that the total value of Canada's mineral production in 1992 increased by 0.6%, or approximately $200 million from the 1991 level. Preliminary estimates show that the total value of production of all mineral commodities, including mineral fuels, increased from $35.2 billion in 1991 to $35.4 billion in 1992 (Mining Association of Canada, InfoMac, May, 1993).

Of the four mineral commodity groups (metals, nonmetals, structural materials and fuels), mineral fuels recorded the only increase in overall production value. A gain of approximately $900 million in the total value of mineral fuels production was partly offset by a decline of approximately $700 million in the total value of non-fuel mineral production.

Compared to 1991, 1992 results for individual commodities were mixed, as advances in the value of output of some minerals were offset by losses in others. Gains in overall production value were led by crude petroleum (+ $0.79 billion), zinc (+ $0.34 billion) and natural gas (+ $0.21 billion). Declines were led by gold (- $0.26 billion), coal (- $0.25 billion) and elemental sulphur (- $0.20 billion).

Excluding mineral fuels, the overall value of Canadian production declined from $15.3 billion in 1991 to $14.6 billion in 1992, a decrease of 4.4%. Based on production value, the top commodities in 1992 were: gold ($2.1 billion), copper ($2.1 billion), zinc ($1.7 billion), nickel ($1.7 billion), iron ore ($1.1 billion) and potash ($1.0 billion). Non-fuel minerals accounted for 41.2% of the total value of Canada's mineral production in 1992.

The total value of metallic mineral production fell by 2.5%, from $10.5 billion in 1991 and $10.2 billion in 1992. Gold and copper continued to be the two leading metals in Canada on the basis of their overall production values, although both metals showed reduced production levels.

The value of nickel production was estimated at slightly less than $1.7 billion. Total nickel production remained essentially unchanged from the previous year. However, nickel prices followed a declining trend, due to weak international markets and increased world supply.

The doubling of Russian nickel exports to the West distorted normal trade patterns. (Over a 2 year period, they rose to 140,000 from 70,000 tonnes, much of it at prices far less than the fair cost of Western production.) While the Russian producers and governments are forgoing much needed revenues on such sales and slowly reducing output, Western producers of these metals may, if the trend continues, be in for a few more years of low prices (The Northern Miner, Vol. 79, No. 15, June 14, 1993).

In world steel manufacturing, rationalization by many companies is proving to be un-economic. The effect is that work-in-process inventories are being reduced to minimum levels and world inventory requirements are being further lowered. However, low metal prices are allowing stainless steel usage and tonnage to grow to an estimated 11 million tonnes in 1993 from 10 million in 1990, substituting and finding new uses. This forecast growth, if it materializes, would use up an estimated 56,000 tonnes of nickel per million tonnes of stainless manufactured.

Gold production fell by 10.5% in 1992 as a result of a number of mine closures and reduced production at several operations. Gold prices remained low. Copper production declined by 4.6% due to a mine closure in British Columbia and reduced production at some locations, particularly in Quebec. Gold and copper production were each valued at approximately $2.1 billion.

Zinc placed third among the metallic minerals on the strength of a 10.2% increase in production combined with a higher average price in 1992. Compared with 1991, when prices declined significantly, the overall value of zinc production rose by 24.7% in 1992 to $1.7 billion. However recently, in June, 1993 the price of zinc has again tumbled forcing many mine to suspend or close operations. An example of this is the Sa Dena Hes Mine in the Kaska First Nation territory, Yukon, operated by Curragh Resources.

The value of the production of nonmetallic minerals, including asbestos, potash, salt and sulphur, declined by 7.7% from $2.4 billion in 1991 to $2.2 billion in 1992. Of the leading nonmetallic minerals, potash and elemental sulphur recorded gains in production levels, while asbestos and salt recorded decreases.

The value of structural materials production (including clay products, sand and gravel, stone, cement and lime) fell from $2.4 billion 1991 to $2.2 billion in 1992. Reduced production levels of structural material commodities were attributed to weak domestic activity in the non-residential construction sector.

Granite, used as building stone, is showing an increasing potential market in Pacific Rim countries. Canadian exports over the past four years have experienced steady growth in international markets with

significant growth of rough stock sales. Fifty percent of total Canadian exports of rough stock, of which 90 to 98% is quarried and shipped out of Quebec, are destined for the Pacific Rim Countries. The Labrador Inuit have begun granite exports to Europe from Nain, Labrador.

Overall, on a province-by-province basis, Ontario contributed the largest share of non-fuel mineral production, accounting for 32.2% of the total value, followed by Quebec (18%), British Columbia (12.7%), Saskatchewan (8.6%) and Manitoba (7.2%). The other provinces and territories accounted for the remaining 21.3% (InfoMAC Vol.5, No. 1, May 1993).

### e. Trends in Exploration and Development

The 1980s were not particularly successful for finding base-metal deposits in Canada. However, in response to favourable gold prices, record numbers of gold deposits and record quantities of gold were discovered in Canada during that time. This includes the major Hemlo gold deposit in Ontario, one of the largest gold deposits ever discovered in Canada. Hemlo, and several significant new gold deposits discovered in Quebec, Ontario and British Columbia more than tripled Canada's gold output to a record 177 tonnes in 1991, up from 51 tonnes in 1980.

More than 25 high-grade uranium deposits were discovered in Saskatchewan and the Northwest Territories during the 1980s. A number of them are exceptional deposits that should enable Canada to maintain its position as the world's leading uranium producer. With even a modest recovery in the price of uranium, Canada has the

potential to more than double its uranium output by the turn of the century.

Since 1985, two major Canadian projects have been announced for production. However, the number of projects worth less than US$250 million has declined by 14% since 1985 compared to the previous five years. Total mine investment generally declined during the 1980s and is not expected to recover in the short term. This decline could well be reversed in the second half of the 1990s with the possible development of several new mines. These include six new uranium mines in Saskatchewan and the Northwest Territories, the Windy Craggy copper deposit in northwestern British Columbia, two or three new nickel/copper mines in Sudbury, Ontario and various other promising metal deposits (Price Waterhouse, Human Resource Study of the Canadian Mining Industry, unpublished, 1993).

Expenditures on mineral exploration in Canada fell during the early 1970s and then increased steadily until 1981. Spending in the 1980s was variable. While overall, expenditures declined from 1.1 billion 1991 dollars in 1981 to 878 million 1991 dollars in 1989, there was a dramatic increase in 1987 and 1988. Exploration spending in 1987 and 1988 was strongly influenced by flow-through-share financing. Indeed, flow-through-share financing accounted for nearly 90% of expenditures on exploration in those years. Flow through financing provided tax benefits to the investor whereby 100% to 166% of the investment could be written off against income.

Flow-through-share funding was especially advantageous for junior companies. Junior companies were responsible for about 50% of expenditures in 1987 and 1988. In comparison, they contributed about

22% to expenditures in 1991. However, it is worth noting that their contribution from 1971 to 1983 was less than 22%.

Exploration expenditures in 1992 are forecasted to be about 494 million 1991 dollars, about the level of the mid 1970s. Data from a recent Price Waterhouse exploration survey (survey conducted in 1992 for Employment and Immigration Canada) confirm the decline in exploration spending. More than 70% of respondents indicated that funding for exploration had decreased over the last 5 years.

Canadian mining companies have a history of investing in foreign projects. Recently, there has been renewed interest in exploration in Latin American countries, particularly Chile and Mexico. While many companies directed a considerable portion of their exploration budgets at foreign projects in the 1970s, there was a tendency towards Canadian projects in the 1980s. Over the next few years, companies are expecting to increase the proportion of their budgets directed at foreign projects. Respondents to the Price Waterhouse exploration survey expect funding for exploration in Canada is expected to decrease further over the next 5 years, while funding for exploration in other countries is expected to increase in the same period. While much of the emphasis by Canadian mining companies outside of Canada has been aimed at seizing opportunities that have been known to exist but have been unobtainable, it appears as though the focus may shift to more exploration in 'virgin' areas (grassroots projects) in the future.

International exploration and development may provide opportunities for the export of Canadian consulting and contracting expertise. for example, the North American Free Trade Agreement facilitates temporary entry to the U.S. and Mexico of engineers, geologists,

geochemists, geophysicists, and technologists working in direct support of professionals in engineering, geology and geophysics (Article 1603, NAFTA).

Regardless of the downturn in investment in Canada by Canadian companies, approximately 23% of the world's grassroots exploration expenditures was to be targeted at Canada in 1991 and 18% in 1992, illustration of continued confidence in Canada's potential. In fact, Canada has consistently been among the world's top three or four exploration targets for the past three decades.

With Aboriginal communities developing a better understanding of the mining industry, combined with an improved Canadian mining industry, the industry could become a lucrative source of revenue which could be used to develop the community's economy and strengthen its culture. Employment and training are seen as key components of human resource development for the community. Environment protection linked into the growth of Aboriginal participation in the minerals industry is also seen as vital for future community development with forecasted growth of Canada's mining industry.

## 3 Education and Training

Aboriginal people envision a time when they will play an important and active role in the minerals industry. By increasing their knowledge of prospecting, mineral exploration techniques, scientific surveys and interpretation and familiarity with mining, and the business components beyond current levels, Aboriginal communities will be able to transform this vision into reality. Often literacy and numeracy skills are barriers to realizing this. However, working with mining companies can assist the community in developing on reserve and community training facilities similar to those developed by the Tahltans of B.C. (apprenticeship program) and related college based programs such as in Saskatchewan (Saskatchewan Institute of Applied Science and Technology).

In the field, whether it be exploration, prospecting and surveying, Aboriginal people can have a great opportunity to expand on the appreciation for working outdoors and develop hands-on training. With this activity complemented by government, and company prospecting and exploration training programs, many have been attracted to the mining industry. Some have become entrepreneurs selling and leasing properties to major mining companies. At times these payoffs are worth millions of dollars for the right discovery. One can quickly realize that both informal training and later college and university training in mineral related studies will greatly benefit the local community in incorporating the minerals industry as a vital component of their economy.

## a. Exploration Knowledge

All mines are discovered through various exploration techniques. Believe it or not, prospectors have found more mines than the most sophisticated exploration equipment available. For example in the Timmins area, Ontario more than 74% of the gold mines have been found exclusively through prospecting alone (Hodgeson, Geoscience Seminar, Toronto, 1984). Today's prospector, in his/her search for mineral wealth, still has a special brand of luck. However, the prospector has made a tremendous contribution to the development of mineral resources in Canada. Possibly two-thirds of the mineral finds discovered before 1970 were first observed by a prospector. And although geology, geophysics, and geochemistry are important aids in locating promising mineral localities, the actual discovery is still made by either finding ore naturally outcropping or by exposing ore by means of trenching, drilling, etc. So the prospector carefully examining each outcrop and boulder, especially if they are iron stained or altered-looking (gossans), has been responsible for finding ores worth many billions of dollars.

### i) Geophysical Surveys

Geophysics is the branch of science concerned with relationships between the earth phenomena and the forces producing them (Geo - the earth, Physika - the natural things). In the minerals exploration industry the word carries the connotation of procedures whereby various instruments can be used to detect or to quantify physical criteria related to earth materials. The data obtained may be translated into terms of Geology, Mineralogy, or Petrology; especially towards economic ends.

As the demand for minerals has expanded and the more easily discovered deposits have been exploited, the search for new sources has created a challenge. Rapid advances in instrumental technology have created the need for specialists in the field of geophysics, not only to design and construct more sophisticated instruments, but also to interpret instrument data into geological terms. Fortunately many of the instruments and procedures presently employed, especially the ground-operated ones, can be used by the ordinary or amateur prospector who is willing to take the time and trouble to understand the principles involved and apply them to his/her already extensive knowledge and understanding of nature.

Airborne techniques for both fixed-wing aircraft and helicopters operate on the same principles as ground instruments but are considerably more expensive and complex than their ground-based counterparts. The ordinary prospector generally does not become involved in their operation. The main application of airborne surveys is in covering large areas in a short time so as to outline 'targets' which then may be followed up with ground surveys. Helicopters have the additional advantages of being operable at near tree-top level thus eliminating the need for cutting survey lines (line-cutting), and they are particularly useful for surveys in water-covered or boggy terrain.
Geophysical methods may be conveniently grouped according to the phenomenon upon which they depend, for example: Gravity Methods, Magnetic Methods, Electrical Methods, Radiometric Methods, and Seismic Methods. These methods are described in detail in many text books and technical journals.

**ii) Geochemical Prospecting**

Geochemistry involves the application of the fundamental principles of chemistry to studies of naturally occurring earth materials and the geological environment in which they occur. Applied to prospecting, it is a tool that can be used in the search for economic deposits of minerals, especially the metals.

As the more easily detected deposits have been found and developed, the prospector has been obliged to use more sophisticated techniques to guide him to areas where mineral wealth is hidden perhaps several hundreds and even thousands of feet down. It is now commonplace to use a variety of techniques in each prospecting endeavour rather than to depend mainly on one. So then, geochemical prospecting should not be regarded as an entity but a one tool to be used in conjunction with visual and geophysical techniques were conditions permit.

A quantitative list of chemical elements comprising the earth's crust shows very small proportions of useful metals to be present, but fortunately these are not uniformly distributed. Through various geological processes many of them have been concentrated into mineral deposits some of which, under special conditions, may be mined and processed economically.

**iii) Showing Preparation, Initial Development, and Evaluation**

Generally speaking, a prospector will stake an area within which he or she has found some indication of mineralization worthy of further investigation. His/her endeavours are then directed toward preparing the showing for further work, performing low cost development work that may be credited as Assessment Work (a Mining Act regulation) to keep the claims, and making a preliminary

evaluation of the showing. This will enable him or her to prepare a report that should help in attracting investment and making a deal with a group or organization that is prepared to carry out the more extensive and costly investigation necessary to decide whether the prospect has the makings of a mining venture.

**iv) Field Mapping and Report Writing**

Field mapping and written reports concerning an exploration project should be linked in a comprehensive report. A complete report usually requires both a map to properly locate and depict the features of interest and a report to summarize and describe results to date and make recommendations for future work. For some areas it is more effective to include a highly summarized descriptive written report directly on the map sheet, thereby aiding more rapid correlation of mapping and report data. Small scale maps can also effectively be included as page size insertions in a report. The report is important to inform investors about the mineral potential of the property. Often the prospector will retain a geologist or registered engineer to write the report.

An exploration project report and map emphasize the information pertinent to the exploration objective. The type and objective of the exploration project determine the most suitable field mapping and report writing method.

Most prospectors and syndicate members are interested mainly in arranging options or leases for development work on their property. It is necessary for the prospector to emphasize economic factors as mineralization trends and possible extensions, the length and width of the observed mineralization, the location and type of sample taken

(channel, chip, grab, bulk, etc.), the length of the sample, the 'assay value' per ton in percent, ounces, etc., and also the value of the metal or minerals per ton (or metric equivalent), particularly if more than one metal or mineral is to be recovered.

### b. Trends in Skill Requirements

The major drivers behind changes in skill requirements in the mining industry have been 1) technological advances, 2) need to discover deeper mineral deposits, 3) environmental legislation, and 4) a change in management philosophy. As stated previously, equipment is becoming more sophisticated in the search for minerals. Similarly advances have been made in mining technology. In general, new technologies require increased troubleshooting, electronics, analytical and decision-making skills, particularly among operations/production workers. However, it is often these workers who are least likely to have the educational capacity to adapt easily to technological change. Overall, the mining industry requires people with a high level of education and a broader set of skills than currently exist.

#### i) Basic Academic Skills

Many managers in the industry suggest that the level of reading and math skills is a concern. Traditionally, in past decades, work in the mining industry was highly labour-intensive. Physical strength was a more valued attribute in workers than educational attainment. In many mining towns, it was not uncommon for young men to drop out of school to work in the mine as soon as they were legally permitted.

The reward was a well-paying job. The result is a workforce of which a large proportion lacks basic academic skills. Indeed, a 1989 study of adult literacy in Canada, conducted by Statistics Canada, found that only 50% of adults in "other primary industries have achieved "level 4" literacy skill level (i.e., meet most every day reading demands) compared to 63% of all adults. Fifteen percent of adults are at level 1 (i.e., have difficulty dealing with printed materials) and level 2 (i.e., can use printed materials for limited purposes only), compared to 21% of those in "other primary industries" (DIAND, unpublished report, 1992).

Getting the most out of any new technology is a function of many factors. The skills required to implement and utilize a technology are one factor. The process of adopting the technology is another. In the mining industry, workers are often involved in the selection (and sometimes the design) of technology, making the process of adoption more smooth. However, results from the Price Waterhouse (1992) mining survey suggest that a lack of fundamental skills has slowed the implementation of technological change in the industry. Nearly 50% of respondents reported that lack of literacy, numeracy and analytical skills hindered the introduction of technology in the workplace. Sixty-five percent indicated that lack of computer skills was also an impediment to technology change.

With the present status of basic skills, the introduction of new technologies is not however impeded. It may take workers longer to learn to operate a new process or piece of equipment than would normally take. As a result, the operation's performance does not reach potential as quickly as it should, and the operations competitiveness is reduced.

Lack of literacy and numeracy skills does not appear to be a problem in the exploration activities. Only about 10% of respondents to the Price Waterhouse (1992) exploration survey indicated that lack of literacy and numeracy skills interfered with the introduction of new technology.

**ii) Other Skill Requirements**

Environmental management is becoming more important in day to day operations in mineral exploration and mining. Aboriginal traditional resource and land management can play a key role in addition to those outlined by engineers and scientists. The environmental skills required in the industry vary widely from awareness of the impact of a particular process on the environment, to the ability to conduct research on the disposal of hazardous waste, for example. Some universities, community colleges and technical institutes have adopted the environmental movement by developing programs that focus on the environment. However, the industry is not expected to employ many environmental specialists. It is more likely to expect all employees to contribute in this area. Specialists may be contracted out for specific aspects of the mineral operation.

Operations today are citing as one of their major human resource challenges to "improve employee relations and involve employees in decision making." This requires a change in skills by all employees. Supervisors and managers need to learn how to communicate, build cohesive and effective working relationships, and coach. Workers need to learn how to work effectively in interdisciplinary groups, communicate, and analyze problems. This is especially realized by companies working in the vicinity of an Aboriginal community, where

the Aboriginal community members insist on joint decision making and land use planning.

A few operations are tackling the requirement for these skills by integrating them into their supervisory training and holding workshops for workers. There are some successes in the industry, but with a more competitive industry, other operations are struggling with the changes. Workers tend to be sceptical about such initiatives. Furthermore, these initiatives are sometimes perceived by unions as a means to circumvent the union or put more responsibility on workers without compensation (Price Waterhouse, Breaking New Ground, 1993). A change in the philosophy of managing requires a change not only in the way people manage, but a change in the structures that support the old ways of managing and doing business. The initiatives that are most successful are those that involve all levels of employees in their design and implementation.

### c. Trends in Technology

Advances in technological innovation in the mining industry have had, and will continue to have, an impact on the industry's employment levels and skill requirements. New exploration and mining techniques and technologies are changing jobs, and therefore changing the skills and knowledge people require and the way they learn their job. Many in industry express the following benefits for improving technologies:

- improve productivity significantly;
- reduce the number of operators required;

- require operators and tradespeople to have greater technical competence, e.g., electronics, science skills;
- require employees to have an understanding of the environmental implications of the processes and technologies they are using;
- require tradespeople to have skills in areas other than their own trade; and
- require expert systems specialists.

Some emerging technologies that are expected to affect either skill requirements or the level of employment, or both based on information gathered by Price Waterhouse, include, for example:

- **increase in computerized systems used** -- Widespread adoption of computerized systems in open pit mining is likely. Such systems lead to reduced production costs through more efficient use of plant equipment, and provide better linkage of equipment from the face to the processing plants. In fact, there is already extensive use of this technology. Productivity will be improved significantly by reducing the slack time getting information to operators. Furthermore, the use of computerized systems will mean fewer operators, and will require specialists in computer application programming and expert systems.
- **intelligent supervisory control systems** -- Adoption of "intelligent supervisory control systems" in milling operations is likely in the near future. These systems have a faster response and are more accurate than human operators; "operatorless" automation is likely to follow. This technology is expected to have a significant positive impact on productivity. Specialists in expert systems will be required. There will be fewer operators required; operators will require better knowledge and skills in applied science; and operators will need to be formally educated rather than trained on the job.
- **laser technology** -- Survey equipment based on laser technology will be widely adopted by the mining industry, both in underground and open-pit mining operations. There is considerable use of this technology. Laser technology is expected to increase the need for technical skills and

geological knowledge among operators, and may require more formal technical training.

- **plasma blasting underground** -- Plasma blasting has the potential to bring significant advantages to the industry by eliminating the drill-blast-muck cycle. This is a frequently used term meaning the ore body is drilled to accommodate explosives; secondly, the charge is set, hence, the blast, then broken ore muck is removed. Noranda Minerals is currently experimenting with this technology. Fewer mining operators will be required in the future. Plasma blasting is not expected to be widely adopted by the industry in the near future.

- **self-guided and remote mining vehicles** -- Self-guided and remote mining vehicles will be increasingly used by mining companies in dangerous mining situations, and in large-scale mining to reduce costs. Self-guided mining vehicles will reduce the number of operators required as operators will be able to operate more than one piece of equipment at one time.

- **leaching and oxidation in ore processing** -- The use of these metal extraction technologies will require operators to have the better knowledge and understanding of chemistry, metallurgy and environmental science; require technicians with better metallurgical skills; and require improved understanding of environmental issues among the entire extraction team. However, these technologies are limited in the application to mining in Canada because of the climate.

- milling and metallurgy of ore will require the knowledge of chemistry, metallurgy and environmental implications; technicians will require knowledge and understanding of environmental science and will require better metallurgical skills. The ultimate effort of this technology will have reducing hazardous affects on the environment.

Other emerging technologies will change the way the work is done, but are not expected to have a significant impact on skill requirements or levels of employment. For example:

- **geophysical techniques** -- Geophysical techniques of increasing variety and sophistication are expected to be used more widely in exploration programs. In some instances, data will be

recorded directly to diskette for computer assisted analysis. These techniques also permit more surveys to be conducted in a shorter period of time and provide more information for mine design and planning. New geophysical techniques may increase productivity, but they are not expected to require a significant change in skills or significantly affect the number of employees.

- **long-hole drilling in mining** -- Long-hole drilling in vertical bulk mining increases productivity. However, long-hole drilling is not applicable everywhere, for example, in cases of narrow irregular veins. Long-hole drilling is not expected to affect skill requirements or employment.

- **transport systems** -- There is potential for conveyor-based transport systems in open pit operations. Fewer truck drivers and maintenance personnel will be required. The impact on numbers may not be great because the technology is only applicable to very large mines that can absorb the capital investment required.

  The adoption of slurry transport would reduce the number of transport and maintenance workers required. However, the skill levels of transport workers likely would not be affected. Some clay producers are experimenting with this technology (Moose Factory, Koalin deposit).

Not all emerging technologies are applicable to all operations of the industry. Mining companies do not adopt new technologies just for the sake of having the latest technology. Technological change is expensive and the costs associated with purchasing, implementing and operating a new piece of equipment or process must be outweighed by the benefits. In general, new operations are more likely to be in a position to consider new technologies. However, new technologies are competing in a large used equipment market.

Companies considering new technologies need to determine the impact on skill requirements and employment levels in long-term human resource planning. Many companies planning to adopt new technologies are hiring skilled workers to meet this demand. There is no sense

hiring for skills that become obsolete. Training dollars are scarce and expenditures should be focused on those occupations where technology is making the greatest impact on skill requirements. Some workers will require new skills to perform their jobs, while others will need to be retrained as their jobs disappear. In other cases, it might not be feasible to train for the new skills. Instead, some companies opt for hiring short term specialists in mining operations. Exploration projects may be short lived depending on the success for discovery. These opportunities for the Aboriginal community are more immediate and plentiful.

### d. Training

Many provincial/territorial governments and mining organizations are aware of the need to instruct prospectors and the Aboriginal community on the methods and regulations surrounding mineral exploration. These courses not only provide preliminary training to those not familiar with the minerals industry but also advocate the importance of mining to local economies. These courses are open to all and are generally offered in remote centres throughout Canada.

Depending on the training program instruction in everything from staking a mining claim to negotiating the deal is taught at a reasonable cost and under flexible time schedules. Some training programs are accredited while others are strictly informal instruction.

### e. National Organizations

### i) Prospectors and Developers Association of Canada

Up until this current year, the Prospectors and Developers Association of Canada sponsored a series of courses prior to the association's annual convention. The courses were designed to provide general information on exploration and mining in Canada. However, in 1993 they decided to discontinue them, particularly since the Ministry of Northern Development and Mines offers mineral exploration classes in Toronto before the convention (pers. comm., Saley E,. Lawton, Prospectors and Developers Association of Canada, June 1993).

Over the last few years, the PDAC have offered short courses on mineral related topics, either before or after their convention.

Topics have included the following:

- Diamonds: Exploration, Sampling and Evaluation;
- New Mining Legislation in Canada;
- Computer Assisted Design - From Mapping to Mining;
- Sampling and Ore Reserves;
- The Finding, Development, and Financing of Canadian Mines; and
- Explained for Market Watchers and Brokers.

The importance of education, whether it be informal or formal, can not be more emphasized. To gain quality employment or to become a successful entrepreneur, knowledge of the mineral industry must be obtained. Education attainment will provide the skills necessary for the community to deal with mining companies on an equal basis. However, there are problems still facing the community. Many of which

will take the involvement and commitment of all stakeholders in the minerals industry. Some of the current issues are summarized below.

**ii) Canadian Executive Services Organization**

The Canadian Executive Services Organization (CESO) is a not-for-profit, non-governmental organization which provides the advisory services of 3,600 volunteers (with expertise in all types of industrial, managerial and technical areas) to Aboriginal businesses and communities in Canada and to overseas developing countries.

CESO was established over 25 years ago, and has recently completed a review of its activities which recommended several changes to its Aboriginal Services. In implementing these recommendations, the corporate structure of CESO has been altered to give CESO Aboriginal Services a separate corporate identity. It will have its own board of directors with a majority of Aboriginal members. More Aboriginal staff will be hired in management positions. The service will focus primarily on skills transfer which will assist Aboriginal peoples in their goal toward self-government and self-sufficiency.

CESO has 111 Volunteer Advisers on its roster who have expertise in mineral extraction and mining industries. Among these are a number who have experience in environmental concerns as they relate to the minerals industry. They have successfully carried out dozens of projects for clients on behalf of CESO.

## f. Issues Related to Aboriginal Education and Minerals Industry Training

**ISSUE: Education levels limit Aboriginal access to higher level employment and advanced business development:**

a) Cost of education

b) development of a skilled and knowledgable community.

c) community attraction to the minerals industry - How do you do this?

d) education in remote communities, means and ways?

e) transferability of attained skills to other sectors.

f) ways to obtain high end jobs.

Does the community have a long term human resource development strategy?

Is there a good diversity of skills, knowledge and professional education within the communities? What are the barriers to generate this skill level?

How can the Chief retain those skilled and educated members of the community in the community and not lose them to the city?

Would the creation of a central Aboriginal minerals advisory agency be the key to share skilled and qualified people?

Is the community aware that the minerals industry is comprised of four levels of activity?

- exploration
- development
- production
- reclamation

Can education increase the awareness of mining benefits and the need to develop a community position on infrastructure planning and environmental impact?

Can companies form joint training initiatives in the community that can be tapped as a future labour pool?

Regarding industrial minerals (sand, gravel and building stone) are communities aware of markets, technologies and sources of financing?

Can communities negotiate Permits to Prospect, Sand and Gravel Permits and Mineral Leases with long term objectives and profit?

# 4 Aboriginal Employment

## a) Aboriginal Employment Levels

Aboriginal community members want employment. Community leaders are quite adamant that job opportunities in approved local mineral operations should be made available to community members. Many mining companies are making an effort to employ Aboriginal people, however the quality and level of work available to them has not always been adequate.

Overall Aboriginal people fare poorly in the labour market compared to the Canadian population as a whole. Only 46.6% of all working age Aboriginal people are employed, compared to a 59.8% employment rate for other Canadians (Von Stein and Associates, 1992). Aboriginal people are more likely to be found in low-skill occupations, such as service and manual labour jobs. They are under represented in management, professions and skilled trades. Aboriginal women face a yet more serious situation, with an employment rate of 39.9% as compared to the 49.6% employment rate for all Canadian women, and median incomes that are 21.0% below those of all Canadian women (Von Stein and Associates, 1992).

In many cases, mining operations and potential mineral deposits are located in the vicinity of Aboriginal communities. More than 30% of all aboriginal settlements are located within 50 km of a producing mine. In the past, mining companies explored and developed deposits

with little reference to their impacts on local aboriginal communities, whether positive or negative. Companies neglected to communicate company intentions, and/or to obtain consent to operate on aboriginal lands.

Aboriginal employment in the metal mines sector is relatively greater than aboriginal representation in the workforce as a whole (4% vs 2%), and is in fact increasing slowly (EIC). These figures can be explained by the close geographic proximity of many mines to aboriginal communities. In such cases, aboriginal communities provide a convenient source of labour for the mine.

These figures are misleading in the sense that when the composition of the mine workforce is compared to the composition of the local or even regional workforce, instead of the national profile, the relative share of jobs held by Aboriginal persons in the mines is disproportionately low. This observation is supported by the results of a recent Price Waterhouse survey of employment in the mining industry.

Furthermore, much like the national profile, Aboriginal workers are over-represented in certain job categories, especially unskilled and semi-skilled labour (Table 1 below, p. 3.0-5). According to some employers, this concentration in certain job classifications and the lack of representation in others, especially at the professional and managerial levels, is reflective of local realities, e.g. the lack of educational achievement among local populations making recruitment and advancement difficult in the best of situations. Ironically, however, the same Price Waterhouse study has also revealed that low levels of formal educational achievement are symptomatic of the Canadian mining workforce as a whole and a potential problem for the

industry's future technological development and upgrading. [The lack of formal educational attainment should not be an excuse to avoid employing and training Aboriginal workers in the mining industry.]

Another point worth noting is that while the population of Canada is aging, the proportion of Aboriginal youth is growing. As of 1986, 50% of the aboriginal population was under the age of 25. This proportion is only expected to increase. The absolute numbers of Aboriginal people entering the rural workforce in coming years will also grow, placing additional pressure on rural industries and economies to absorb this increasing pool of youthful labour in productive, meaningful ways.

**ii) Employment Equity in Mining**

Only a small proportion of mining operations (i.e., those within federal jurisdiction) are affected by legislated employment equity. In the near future, however, Ontario and British Columbia will be implementing employment equity legislation, and mining operations in that province will be affected. With many mining companies headquartered in Ontario and British Columbia, employment equity issues will likely gain a higher profile.

For many mining companies, implementing employment equity will be a challenge. It may not be feasible for the demographic composition of a company's workforce to reflect the general Canadian labour force. A more feasible approach may be for a company's workforce to reflect that of the community in which the operation is located. Most head offices are located in large urban areas and have access to a more diverse workforce. Operations are generally located in rural and

remote locations, and the local labour force may include a large Aboriginal component.

However, the way in which mining operations recruit tends to inhibit such an initiative. Staff at operations form the pool for recruiting for many head office positions. Therefore, head offices are more likely to reflect the demographic composition of their operations than the community in which they are located. If recruiting at the operations level is targeted at experienced personnel, operations are simply drawing from the existing pool i.e., the industry workplace. Underlining this challenge is the fact that because of the current recession, there is relatively little recruiting occurring in the industry at present. Thus until operations begin to recruit for employment equity, head office gains will be slow.

**Aboriginal Workforce Participation by Occupational Classification**

| Classification | Aboriginal Peoples (%) |
|---|---|
| Management | 3 |
| Professionals | 1 |
| Semi-Professionals and technicians | 5 |
| Foremen/women | 5 |
| Clerical workers | 3 |
| Skilled crafts/Tradespersons | 12 |
| Semi-skilled manual workers | 49 |
| Other (inc. other manual workers, sales & service workers | 22 |
| **TOTAL (%)** | 100 |

Table 1

Some stakeholders suggested that education attainment of Aboriginal people is a barrier to recruitment and development. More and more Aboriginal youth are seeking post-secondary education. Indeed, many educational institutions have developed programs targeted to the needs of Aboriginal communities, for example Nicola Valley and the Saskatchewan Institute of Applied Science and Technology. Other institutions have developed programs to bridge the educational requirements for entry, for example, the University of Manitoba, Lakehead University and the University of Toronto. Overall, with most Aboriginal communities, attraction to the industry is a problem for any Aboriginal community. The keys to success in attracting and retaining Aboriginal employees include:

- visible and sustained support from senior management;
- establishing proactive communications, community relations and business participation to reduce barriers, develop mutual confidence, reaffirm commitment, and position the organization as an employer of choice;
- developing and implementing an integrated and extensive set of strategies from recruitment to training to progressive labour-management relations;
- mentoring, the existence of employee support groups, and availability of career counselling;
- a management accountability system; and
- the provision of cross-cultural training.

**i) Factors Influencing Employment Opportunity and Advancement**

Factors and considerations which impact on the ability of Aboriginal people to access jobs in the mining sector have been suggested by a variety of stakeholders, including:

- level of educational attainment or trade skills,
- community interest/aspirations vis-a-vis mining employment,
- willingness/ability of the potential employee to relocate,
- scheduling of work at the mine, and
- language of work.

These factors are generally acknowledged to be of concern to both the industry and Aboriginal communities. A recent survey of job skills and employment aspirations in northern Quebec, completed on behalf of the regional government and Makivik Corporation, to assess opportunities for participation in an expanding natural resource sector, confirms the legitimacy of these concerns vis-a-vis the local Inuit population.

What emerges from this study is an average profile of the interested potential employee as young, single, male, basically unilingual (Inuktitut), with limited formal education, and who is currently unemployed. This is the most mobile segment of the local population. Older, more established community members are often reticent to leave their families and communities for extended periods, and are concerned to be able to maintain a certain level of involvement in traditional hunting and fishing activities. Younger, better educated community members showed little interest in working at a mine. From a company perspective, the average profile presented would not normally reflect the image of the ideal candidate. For companies concerned with cost competitiveness and worker productivity, critical production and supervisory jobs will be reserved for those candidates, whether Aboriginal or not, who already have the appropriate background skills and experience. The integration of younger, less qualified

candidates into the mine's workforce will begin with non-critical, less skilled job functions.

### b. Developing a Skilled Workforce

The level of Aboriginal employment in the minerals industry is quite low as seen previously, generally less than 4% of the mining workforce, and at the low skill end of employment. To attain higher positions within mining operations many are enroling in apprentice and technology training programs. The Tahltan Nation in B.C. has realized this and currently has 16 apprentices working at three surrounding gold mines. This along with other case studies are described below in section 4.5.

Technological change, environmental legislation and a change in management philosophy are the major drivers behind changes in skill requirements in the mining industry. The industry requires a workforce with a higher level of education and a broader set of skills than currently exists to operate and maintain the equipment and processes. The current workforce is a mixture of labourers, semi-skilled operators, tradespeople and technicians, professionals and managers. The ratio of operators to tradespeople and technicians, traditionally weighted in favour of the operators, is shifting as fewer of the traditional operators are required.

- In 10 years, it is likely that most people in the industry will be more than 45 years old.
- Although many exploration and mine sites are near Aboriginal communities, Aboriginal people make up a relatively small proportion of the workforce of most operations.

Turnover in the mining industry is very low. Relatively fewer new mines are opening. This situation has several implications:

- Opportunities for workers to advance to higher-level positions are limited and, as a result, so too are opportunities to learn new skills.
- Many workers have limited "transferable" skills to take with them when the operation closes.
- Opportunities to hire Aboriginal people and younger employees are constrained.
- There is greater demand on the industry to upgrade and retrain its current workforce necessary skills.

**i) Creation of Partnerships**

A recent study by the Intergovernmental Working Group on the Minerals Industry, entitled Report on Native Participation in Mining (Phase II, 1992) discusses Aboriginal participation in the mining industry and describes "best case" histories involving Aboriginal participation. The study concludes that there is great potential for the development of mutually beneficial partnerships between mining companies and Aboriginal communities, with a willingness on behalf of the stakeholders to communicate ideas.

A relatively new initiative is the industry/Aboriginal organization partnership. Two such arrangements are described following:

- Recently, the Canadian Association of Petroleum Producers (CAPP) and the Canadian Indian Energy Corporation (CIEC) developed a Memorandum of Understanding and Statement of Principles which set a framework for the development of partnerships between oil companies and Aboriginal communities.

The agreement opens dialogue between both groups to seek ways oil and gas development can proceed while providing significant and lasting benefits to First Nations communities. It also addresses joint land management (i.e., securing access to lands) and training and employment opportunities for Aboriginals. Furthermore, the agreement provides a forum for regular meetings between the CAPP and the CIEC where issues such as human resource development can be discussed.

- The "Whitehorse Mining Initiative" provides another example of a developing partnership between the Aboriginal community and various other industry stakeholders. Within the initiative discussions focus on, among other issues, ways to improve employment and education opportunities for Aboriginal peoples while ensuring protection of the environment. The Whitehorse Mining Initiative will be developed into an accord in September, 1994.

A human resource manager at the Lupin Mine (Echo Bay), N.W.T. states that, "The bottom line in a successful native recruiting and employment program is very simple. In order for it to be successful, the company must realize that there is an innate prejudice against Indian and Inuit people in Canada. The company must be 100% behind the program and ensure that this commitment is understood by everyone in the company." (letter to the Mining Association of Canada, 1992).

Some representatives from Aboriginal communities have expressed an interest in developing an agreement of understanding with mining industry associations. Indeed, as stated above, one such vehicle may exist as part of the Whitehorse Mining Initiative which includes representatives from all four Aboriginal organizations. In addition, an association of Aboriginal minerals professionals, the Canadian Aboriginal Minerals Association (CAMA), was recently formed to provide input to Aboriginal communities and industry to facilitate this understanding. The association is working with Aboriginal leaders and communities to promote Aboriginal participation in the mining industry. In addition, the association advocates community

to community dialogue. At writing, it currently has a membership of approximately 65, which includes tribal councils and Aboriginal development corporations.

"Increasing Aboriginal participation in the mining industry will be one of the many avenues to communities in advancing our goals of self-sufficiency as we progress into Self-governing First Nations. The Assembly of First Nations commends and supports your efforts..." (National Chief of the Assembly of First Nations in a letter to a director of CAMA).

### c. Developing Partnerships

While there are examples of successful partnerships between mining companies and Aboriginal communities, they are relatively limited in number. That is not to say that mining companies are not interested in developing relationships with Aboriginal communities, but rather some companies may not know how to involve, communicate and work with Aboriginal communities to achieve a partnership. Indeed, of those respondents to the Price Waterhouse mining survey (1992) who reported their operations are near an Aboriginal community, nearly half of them did not indicate that they have a proactive strategy for recruiting, retaining and training Aboriginal employees. This is shown in Tables 5 and 6 below.

**Table 5: Relationships with Aboriginal Communities**

| Aboriginal Community Involvement | Mining (percent responses) | | | |
|---|---|---|---|---|
| | Not usually | Usually | Always | Total (%) |
| Communicate your activities/projects to the leaders of the community | 49 | 43 | 8 | 100 |
| Invite local community members to tour the operations | 44 | 41 | 15 | 100 |
| Visit the community to recruit potential employees | 64 | 26 | 10 | 100 |
| Consult the Aboriginal community in infrastructure and environmental planning | 56 | 26 | 18 | 100 |
| Provide employment opportunities for Aboriginals | 18 | 44 | 38 | 100 |
| Provide business opportunities for Aboriginal-owned companies | 58 | 22 | 20 | 100 |
| Provide pre-entry level training opportunities for Aboriginals | 74 | 16 | 10 | 100 |
| Provide cross-cultural training (e.g., traditions, language, etc.) for employees | 84 | 11 | 5 | 100 |

**Table 6: Relationships with Aboriginal Communities**

| Aboriginal Community Involvement | Exploration (percent responses) | | | |
|---|---|---|---|---|
| | Not usually | Usually | Always | Total (%) |
| Communicate your activities/projects to the leaders of the community | 25 | 43 | 32 | 100 |
| Invite local community members to tour the operations | 50 | 33 | 17 | 100 |
| visit the community to recruit potential employees | 49 | 32 | 19 | 100 |
| Consult the Aboriginal community in infrastructure and environmental planning | 38 | 36 | 26 | 100 |
| Provide employment opportunities for Aboriginals | 24 | 58 | 18 | 100 |
| Provide business opportunities for Aboriginal-owned companies | 43 | 44 | 13 | 100 |
| Provide pre-entry level training opportunities for Aboriginals | 79 | 12 | 9 | 100 |
| Provide cross-cultural training (e.g., traditions, language, etc.) for employees | 89 | 7 | 4 | 100 |

There are several success stories already and more will develop, if communications between mining companies and Aboriginal communities are undertaken in the spirit of partnership. Aboriginal communities are looking for expertise to develop their natural resources, as a component of their community economic development strategies. They also seek to improve the skills and education of their growing youth population. Mining companies have the know how and practical experience that is required to assist Aboriginal communities in the achievement of these goals. These issues likely will be a focus in negotiations for access to Aboriginal lands, including Aboriginal

comprehensive land clam settlement areas, by exploration and mining companies.

## d. Examples of Partnerships

### i) Northwest Territories

*Izok Lake and Point Lake Areas, Northwest Territories*

The advent of comprehensive land claims has promoted the participation of Aboriginal people in mining projects. At Izok Lake, approximately 250 km southeast of Coppermine, N.W.T., there are 13 to 15 million tonnes of lead, zinc, copper and silver deposits in the area. But Izok Lake might be only the first of up to 12 possible mining projects in the area. The value of near by mineral reserves is estimated at between $4 billion and $20 billion. Some of the land near Izok Lake will be owned by the Inuit under the Nunavut land claim agreement, with both surface and subsurface rights (Press Independent, Feb. 12, 1993).

Just south of the Arctic coast mineral deposits, lies the diamond rich Dogrib Nation. Analysts value the Point Lake discovery alone at up to $ 9 billion. Registered mining properties blanket the entire area from Mackay Lake north to Contwoyto Lake.

Both of these projects will bring a large number of jobs to these regions. While the bulk of these jobs will be for general labourers, a large number of highly skilled trades and management positions will need to be filled. MLA Kelvin Ng sees operations managed by Inuit

managers, supervisors and consultants. Inuit should occupy these positions as soon as operations commence to inspire other youth in the communities to fulfil management roles in the future. Unless Inuit become managers many will resort to lower skill jobs such as working in the mines and operating heavy equipment. According to Ng, accelerated education and training program must be set up in order to respond to this need.

Ted Blondin, chief negotiator of the Dogrib land claim, says mining companies are keeping regional leaders informed. When the diamond staking rush began in the Point Lake area, many companies failed to consult local communities. Staking companies and prospectors were coming in to the Dogrib territory staking enormous tracks of land, land containing burial sites, trap lines, and traditional campsites. Jobs were not offered to any of the Dogrib people. All employees were imported from the south (Northern Star, May 26, 1993).

Blondin says that 75% of their subsurface is staked. Blondin feels that to protect their land they must make joint venture agreements and urge mining companies to use local businesses wherever possible. As the Dogrib comprehensive land claim negotiations are finalized and more diamonds are found, a joint management and employment opportunities for the community are inevitable.
Mines that once provided employment to the Dogrib may soon reopen renewing employment opportunities. The Dogrib people are happy to hear that the Colomac Mine will be opening again under the ownership of Royal Oak Mines. They hope to discuss jobs, business and investment opportunities with Royal Oak (CBC, March 4, 1993).

**ii) Saskatchewan**

Saskatchewan has maintained a strong mining industry for the past several decades, particularly in the uranium mining sector. The Federation of Saskatchewan Indian Nations is negotiating for a stake in one of the three uranium mines proposed for northern Saskatchewan. Federation Chief Roland Crowe says the organization is moving toward a deal with Minatco, owners of an ore deposit containing 20 million kilograms of uranium oxide. Crowe sees this as an opportunity to develop spin-off businesses (Press Independent, March 26, 1993). In addition, the signing of the Treaty Entitlement Agreement, of May 1992, between FISN and DIAND may provide an opportunity for First Nations to gain control of land and resources.

The nearby community residents have concerns over companies expanding operations in the north and not involving the local Aboriginal workforce. Many community members are not opposed to uranium mine development, but believe that they should become co-managers in these projects because the mines are planned for areas where the Dene have fished and hunted for generations. The community believes that approval for these mines should be delayed until the Dene bands develop the expertise to become full partners with the mining companies. Mining companies have paid royalties to the provincial government, but very little of the benefits have gone to their communities (CBC/CBO May 20, 1993).

**iii) Yukon**

Many from industry view the settlement of land claims as a new frontier for negotiation and regulation. Yukon Chamber of Mines manager,

Robert McIntyre says the Yukon First Nations will end up with title to mineral rights amounting to four times the land that is presently staked for mining. He believes future partnerships between the mining companies and First Nations is inevitable. The involvement of First Nations will go beyond just jobs. It will be joint venture partnerships as a potentially significant economic benefit, and those bands that choose to develop mineral resources in the future are in a particularly good position by having vast amounts of land. The natural partnership will form with the mining company having the expertise and the Aboriginal group as the land holder (CHON FM, May 19, 1993).

According to the chair of the Council for Yukon Indians, Judy Gingell, the Yukon First Nations are going to become one of the biggest investors in the territories mining industry. The Council has participated in mines meetings with the federal, territorial and mining officials. Judy Gingell says that it has only been recently that native people have been fully consulted on mining or development (CHON FM, April 19, 1993).

Individual bands within the Yukon have concerns over the ethics currently used by many outside mining companies. When Tom Siddon, Minister of DIAND, visited the Yukon this past spring (1993), he had a meeting with representatives from the Ross River Dena Council. They expressed concern on how mining activity has affected them to the Minister. From the beginning, mining brought problems to the community. The area around the Faro Mine (Curragh Resources) used to be home to several families. They hunted, fished, and trapped around the Mine Mountain and Blind Creek. When mineral exploration started in the 1950s prospectors used the natives' knowledge of the area to find deposits. When development started, the families were

pushed out. A flood of non-native people through Ross River brought on a crisis. There was violence and mistreatment, as well as a dramatic jump in alcohol use and related deaths (CBC, May 6, 1993).

The Little Salmon Carmacks First Nation is involved in a mineral development with Western Copper and Casino Silver Mines at an early stage. Both the companies have promised that the community will be fully consulted prior to road construction and mine development. The Chief of the Tsawlnjik Dun says the First Nation should be informed throughout the entire exploration and development phases of the project. At the time this report was written, the proposed road was still a major concern. The band would like to formalize consultation through an economic development agreement, similar to the one the Kaska Nation reached with Curragh Resources in Watson Lake (Sa Dena Hes Mine). Funds to negotiate the agreement will be from the federal and Yukon governments (CHON FM, May 5, 1993).
The Tsawlnjik Dun realize developing the Williams Creek and Casino properties means building a road and installing power lines but the local people must be respected. Chief Eric Fairclough adds that they have fought road construction in the area 5 years ago and will do so again unless there is full consultation (CHON FM May 5, 1993).

One of the more famous recent cases of mine development is the Windy Craggy project straddling the British Columbia, Alaska, Yukon border. The Windy Craggy copper deposit lies in the Tatshenshini watershed, traditional territory of the Champagne-Aishihik First Nation. Chief Paul Birckel wants the B.C. land claim settled before any development can go ahead. Should the mine go ahead, the community is concerned with the effect of mine acid drainage on salmon (The Yukon News, April 14, 1993). Environmentalists have recently won legislation

designating the entire Tatshenshini watershed (B.C.) a provincial park (June 22, 1993).

*Sa Dena Hes, Yukon*

Previously known as the Mt. Hundere project, the Sa Dena Hes Mine in the Yukon has been cited by industry and Aboriginal groups as a well rounded model participation agreement. The mine was only in production for a short period between 1989 and 1993 due to depressed zinc prices, however the mine provided many opportunities for Aboriginal participation.

In 1989, Curragh Resources and Hillsborough Resources began developmental work on the Sa Dena Hes Mine project. The project is located within the Kaska First Nations traditional lands in the Watson Lake area near the Liard, Lower Post and Half Mile communities. Because of the uncertainty surrounding the settlement of the Council of Yukon Indians comprehensive land claim settlement the Bands were reluctant to enter into a formal relationship with Curragh to allow the project to go ahead. The Bands preferred to wait until the claim was settled. Persistence paid off and eventually the two parties began negotiations. The premise was that the communities considered the project a business "partner" opportunity.
Initial communication was sincere and maintained until operations ceased. The key was that the negotiators on either side remained in constant contact and trust and respect had been maintained. The final agreement was signed in 1991, one and a half years later. Funds for negotiating on behalf of the communities was paid for by the Department of Indian Affairs and Northern Development.

Curragh played a unique role as a trusted and respected party who showed a genuine interest in listening to the community concerns regarding traditional land-use. The final agreement provided nine key areas of agreement:

- participation in environmental planning
- scholarships ($25,000 a year)
- opportunity to purchase a 5% interest in the project (within 5 years of signing)
- compensation for damage to traplines and traditional uses based on a formula.
- employment at the mine
- contracts for road construction and att he site of the mine to promote local business development.
- resource joint management through committee participation every three months.
- protection of environment and traditions
- no smelter built in the Kaska territory

All of the terms were directed toward providing optimum benefit to the Aboriginal people while having the least negative impact on their livelihood and well-being. Effective communication was the key to understanding the effects of company actions on the local communities. Fortunately the Kaska peoples did not assume the right to exercise their option to purchase the 5%. It would have been a loss considering that the mine is currently closed because of depressed zinc prices (DIAND, Resource Development Directorate, 1991, unpublished).

The agreement between Curragh and the Kaska Dena provides for training and employment, participation on a management advisory committee, and

an option for equity participation. Curragh is currently working with the Ingenika and Kaska Dena to develop a similar agreement for the proposed Stronsay mine in northern B.C. Curragh benefits from such arrangements by having access to all local labour pools and by gaining an appreciation for aboriginal cultures and perspectives.

The Sa Dena Hes Agreement is one of the more well known agreements between a mining company (Curragh Resources) and Aboriginal people (Kaska Nation) where trust and respect for each others aspirations were fully included.

*The Tahltan Native Development Corporation has now become the largest native-owned and operated heavy construction company in Western Canada (B.C. Business - March, 1993)*

**i) British Columbia**

The Tahltan First Nation involvement in the minerals industry is nationally well known. Like many Aboriginal communities, they want mining companies to consult with them and to provide employment opportunities for the community.

*The Tahltan Case Study*

Native groups like the Tahltans are beginning to play a much more active role in British Columbia's resource-based economy.

The Tahltans' traditional territory encompasses a large area of land in northwestern British Columbia reaching into the Yukon. In 1988, an agreement with the Tahltan natives and Homestake Canada, through the North American Metals Corp, subsidiary, led to their participation in the Golden Bear project at Muddy Lake, northwest of Dease Lake, B.C.

The Tahltans participated in the construction of a 153 km access road to the gold mine and a contract for general maintenance and upgrading for the roadway, which is still in effect. They also shared in a contract with a non-native group for the construction of a settling pond dam and joint mining and ore hauling.

The Tahltan Native Development Corporation has now become the largest native-owned and operated heavy construction company in Western Canada. Jerry Asp is president. The following comments are based on personal communication with Jerry Asp.
"The Tahltans don't oppose development," he says. "But it's our belief that our people should be developed along with our resources."

When companies failed to involve the Tahltans, the band set up a road block on the reserve and apprehended $1,000,000.00 worth of equipment. Because the equipment was on the reserve, the R.C.M.P. and the B.C. government did not intervene.
The Tahltans kept the equipment for five (5) days. Once North American Metals realized Aboriginal had rights, they started negotiation in earnest.

From the deal, North American Metals received:

- a guaranteed route to its project;
- an interim - agreement which assured the mining company that the Tahltans would not use their aboriginal rights to block the mining project in court; and
- a local, stable workforce.

From the agreement, the Tahltans received:

- $30,000 cash to cover the cost of rerouting the proposed road;
- 1,500 machine hours of work per machine for 2 D8 caterpillar tractors on the actual construction of the road;
- a 20% guaranteed labour component, with built-in training at the Golden Bear Mine; and a
- 3 year upgrading and maintenance contract on the 160 km road.

Besides providing valuable work experience for Tahltan workers, the construction arm of the native corporation continues to offer certification and apprenticeship training to its employees which is applicable to many different industries.

At present, about 23% of Golden Bear Mine employees are Tahltan so the operation is a major contributor to the economic well-being of the Tahltans in the region. The employment benefits affect three remote centres: Dease Lake, Telegraph Creek and the Iskut area with a total population of approximately 1,500, two-thirds of whom are Tahltan.

The Tahltans have since diversified into house-building and heavy construction and are now investigating investment opportunities in commercial fishing and logging. A $20 million "micro-hydro" project with B.C. Hydro is currently in the negotiating stages.

This particular project will involve the construction of a small environmentally benign dam on a high mountain lake. The power will be generated by the 549 metre fall of water to the valley floor below, rather than from a high dam, and will supply the communities of Iskut, Telegraph Creek and Dease Lake.

With an astute investment policy and a number of successful projects completed, the Tahltan Native Development Corporation has earned a great deal of respect in the business community. The Tahltan Native Development Corporation is the first native construction company in Western Canada to be bonded by Reed Stenhouse.

The Tahltan Native Development Corporation has just completed a joint venture in the Eskay Creek area, the site of a major new gold discovery being developed by Homestake Canada. The Tahltans will be involved in all other future projects there.

During the construction stage, very few of their people worked at Golden Bear. The company used the excuse that the people responsible for building the mill were "Outside Contractors," therefore they had no control over their hiring policies.

Shortly after the mine was put into production, the major shares were sold to Homestake Mining. They became the operators of the mine, and were the ones responsible for implementing the hiring and training programs mentioned in their initial agreement.

The Tahltans asked the mining companies, Golden Bear, Cassiar, Cominco, etc. for possible employment opportunities that may accrue from mining operations, and more specific with Golden Bear exactly what employment opportunities would be available.

As well, the Tahltan Tribal Council commissioned a study called "Employment and Business Opportunities Related to Mining and Other Economic Development in the Region." This study was completed by Olav O. Naas.

The report identified the local labour force, those seeking work as well as those already employed in their area. The Tahltan Tribal Council expanded the local labour force report to include all people of Tahltan ancestry, who wished to be included. This report in now available to all resource developers who wish to work within the Tahltan territory.

Training initiatives were a major component of Tahltan development. Once the mining companies developed dialogue with the Tahltans about the employment opportunities, the Tahltan took steps to acquire the necessary training required to fill the upcoming jobs.

Basic upgrading was offered in all three Tahltan communities - Iskut, Dease Lake, and Telegraph Creek. Because Northern Lights College was not delivering appropriate programs, the Tahltans started their own training centre. The mining companies, such as Homestake, Cominco, and Corona each donated $20,000 each towards the purchase of computers, and other equipment for their training centre.

The first course they put on was Camp Cook training level II. It started with twelve(12) students and had ten (10) graduates. This was a 16-week training course. Six (6) weeks - classroom and kitchen work. Two (2) weeks at a mining camp, two (2) weeks classroom, two (2) weeks at a mining camp, two (2) weeks classroom.

This program went very well and the mining companies in the area - eg. Westmin at Stewart, B.C. Cassiar, Cominco, Corona and Golden Bear each took two students for their work placements.

After their courses were completed, every one of the students received job offers from the host companies. Two of these students have gone on to further their training, one as a chef and one is specializing in baking.

Golden Bear has initiated a number of training programs namely:

- Hired a training co-ordinator/operator (full-time) - provides some instruction on the job and also has occasional classroom seminars.
- Safety talk meetings - held monthly, covering such topics as lifting, eye protection, chemical handling, etc.
- Started an Emergency Response team training program for, environmental spill, fires, etc.
- Level 2 and 3 Supervisor courses (3 days) paid. These are for all employees at these levels. Held in Richmond, B.C.

The line of progression for mill workers is as follows:

- Mill Operator Trainee
- Mill Operator IV
- Mill Operator III
- Mill Operator II
- Mill Operator I

Chief Operator - certified

Since 1985, the Tahltan Nation Development Corporation has trained four heavy equipment operators, six truck drivers, two drillers, one blaster, three bookkeepers, four receptionists, one heavy duty mechanic and sixteen journeymen carpenters with five additional carpenters now indentured and one more heavy duty mechanic apprentice indentured.

There is high Tahltan participation in the local workforce. At the present the Tahltans make up almost 25% of the work force at Golden Bear Mine. They hold positions in the mill, office, kitchen, as equipment operators, underground miners and labours.

So, in two years and one month, one of their people has reached a very significant level at the Golden Bear Operations. The key to success was the attitude of the General Manager and the Mine Manager.

Problems are always going to appear - especially with a work force that is not used to working in an industrial society. As well, natives need a shop-Stewart type of person to talk to.

To address these concerns Jerry Asp suggests two solutions:

- Hire a native "assistant personnel manager" to look after native hiring and to keep track of promotions and training programs.
- Implement a 12 week pre-employment program to cover basic training skills such as truck driving, acquiring a drivers license, basic First Aid, carpentry, industrial labour orientation and possible underground labour training. This program should also have a life skills and native alcohol and drug component.

Based on the Tahltan experience, the key to partnership success is to know what you want from a deal before you go into the meetings. For example, the Tahltans knew they must come out of the deal with a heavy construction division of the Tahltan Nation Development Corporation. They involved the Federal government, the provincial government and the mining company, but they now own and operate the largest native heavy construction company in western Canada.

Aboriginal groups must be aware of the other party's interests before they make a deal.

An exploration company may make a deal with an Aboriginal community which does not adequately address resource extraction issues, since they know they will never be the operators of the mine. Any agreements reached must become part of any deal when the exploration company sells the property to a mine developer.

### e.Unions and Aboriginal Employment

As a deposit is developed and mining is in progress, unions may get involved to ensure that mine employees receive fair salaries and benefits. This often presents a new obstacle to Aboriginal employees who are used to dealing directly with the mine operator. Community negotiations with the company can often be offset by overriding conditions of the union and ultimately affect the Aboriginal community participation, particularly if there is an existing interim land-use agreement, such as at the Faro Mine (Yukon) and the Dona Lake Mine (Ontario).

#### ii) Faro Mine, Yukon

Curragh Resources operates a lead-zinc mine in the Yukon Territory near the Ross River First Nation within the Council of Yukon Indians comprehensive land claim settlement area. Employees at the mine site have been drawn from the First Nation community. Since the Steelworkers Union in Faro became involved in the mine both the United Steelworkers Union and the Ross River Dena Council cannot agree on the status of mining jobs for the native people. In 1993, they pursued

talks with Curragh about hiring and the development of a policy for native people. Though the union supports the employment of Native people, it does not support Curragh`s use of non-unionized native employees and contractors. The Ross River Dena want to do contract work for Curragh through their own non-unionized firms. The Union is working to have non-union contractors removed from the site and to keep the amount of contractors at the site at a minimum.

Add to this, the Union further states that it is unhappy with the conditions recently imposed on Curragh for it to maintain a loan guarantee to support the mine. The Yukon government has stated that Curragh must contract members of the local Aboriginal community. The Union states that requiring Curragh to hire workers from the Ross River First Nation interferes with the collective bargaining process. The Union insists that both the Union and the Ross River people were not consulted by the Yukon government in the loan guarantee process. The Faro operation provides income to band members with or without a union. Negotiations are on-going to determine whether or not the Faro operation can stay open, considering the current slump in base metal prices.

**iii) The Dona Lake Agreement and The USW**

The Dona Lake Mine Union Agreement is probably the most widely studied both by Aboriginal communities and mining companies and serves as an excellent case of how the introduction of unions can affect band members. However, the mine is expected to suspend operations 1993 because of depleting reserves of ore (Northern Miner, May, 1993).

The Dona Lake mine started producing gold in 1989. It is 23 km north of the Osnaburgh Reserve, in northern Ontario. In May of 1987, the

company which owns the mine, Placer Dome Inc., entered into an agreement with the Windigo Tribal Council (Dona Lake Agreement). The catalyst for the agreement was the insistence on an environmental review of the project by the band. This was seen by company officials as a delay in mine opening. Thus, the company approached the community to negotiate terms provided that the environmental assessment was called off. The agreement covers many aspects of interest to the community such as employment opportunities, mine impact on traditional economic activities, business possibilities, and environmental safeguards. Within the agreement, there is a way for on-going participation by natives as the project advances, principally through sub-agreements and working groups.

During the construction phase some 55 positions were filled by natives although some positions were for only a 2 month duration. Nevertheless, some 20% of the construction man-hours were carried out by natives.

During the production phase which started in January, 1989, there were approximately 100 people employed and it was expected that 20 positions be filled by members of the Windigo Tribal Council.

In terms of training, groups of selected candidates were sent to a training school in Red Lake, northwestern Ontario to learn basic skills. Some successful trainees were posted in either Campbell Red Lake Mines or at the Detour Lake Mine, near Timmins, Ontario, for practical underground mining or milling experience. The trainees were integrated into the Dona Lake mine workforce, with provisions for time off to pursue traditional hunting, trapping or fishing activities according to negotiable schedules.

The status of the Dona Lake Agreement vis à vis the Union appears to have been raised early in the bargaining process, but its relationship to the collective agreement was never satisfactorily resolved and "as time went by, this uncertainty appears to have become a serious impediment to progress at the bargaining table." There were several fundamental issues including:

- the status of the Dona Lake Agreement and the benefits it conferred on native workers (including work guarantees and preferential hiring practices);
- the right of the union to represent all workers and the question as to whether the general provisions of the Dona Lake Agreement or the more specific protection clauses of a typical collective agreement would prevail (and a reluctance on the part of the Union to defer to an Agreement in which it had no part);
- representation of the interests of native employees and their status in the standard employer-employee and collective bargaining relationship; and
- the company's position that the terms and conditions for native workers were already determined by the Dona Lake Agreement and that is was not prepared to consider any deviation from the Agreement even if the union proposal was more advantageous to native workers or that the Dona Lake Agreement would leave them with less protection in some areas than non-native workers.

The Collective Agreement resolved many of the issues raised above and included clauses referring to the Dona Lake Agreement:

- The Union acknowledges that the Company is bound to the Dona Lake Agreement;
- The Company will provide the Union, on an ongoing basis, with all documentation concerning the administration of the Agreement which relates to training, recruitment, and retention of native employees and will seriously consider recommendations from the Union regarding workplace experience of First Nations employees and their recruitment;

- The Company is entitled to give preference to native employees regardless of their seniority and to develop and implement special work schedules;

- Where the rights of native employees conflict with those of non-native employees, the rights of First Nations employees prevail;

- Native employees are to be given preference in all cases of vacancy, promotion, transfer or lay off, and recall, provided they have the ability to perform the work;

- In the disposition of any grievance affecting a native employee, the Native Personnel Coordinator will be notified and will liaise with Windigo and Osnaburgh and convey their recommendations and advice back to the Union and Company;

- First Nations employees will continue to earn seniority during any leave granted for traditional economic activities;

- The Company and Union will establish a review process to study the feasibility of providing physical facilities and equipment at the Mine which could be used for the viewing of high school upgrading television/video programs; and

- The Company shall forthwith pursue, under the Dona Lake Agreement, the establishment of a transportation system between the Mine site, Pickle Lake and Osnaburgh.

The fact that the Dona Lake Agreement was recognized by and incorporated into the Collective Agreement represents another area in which the Agreement set a precedent. There may not be other similar situations and all parties consider it significant that both the Collective Agreement and the Dona Lake Agreement co-exist.

It appears that native employees at the Dona Lake Mine gained considerably as a result of the Collective Agreement, without jeopardizing the benefits available to them through the Dona Lake Agreement. In absolute terms, the following are considered to be the main gains:

### An Increase in Wages

As a result of the Collective Agreement, all employees, including native employees, enjoyed an increase in the hourly rates. For most of the native employees who were employed in entry level labourer positions, the increase was quite substantial, approximating 15% per annum for the 2.8 years while the Collective Agreement was in negotiation/arbitration. Given that during the negotiation and arbitration period wage increases were suspended, for those native individuals who were employed during the period in which the Collective Agreement was imposed, the actual wage increase they experienced was substantial (Windigo Tribal Council, unpublished report, 1992).

### Improved Benefits

The Collective Agreement maintained all employee benefits in existence prior to its signing with exception of the Registered Pension Plan and Stock Purchase Plan. The Registered Pension Plan was replaced by the group RRSP Plan.

### Established Grievance Procedure

The Collective Agreement, however, firmly established employee rights and gave contractual standing to the process to be followed in the case of disputes and grievances. It also assured the employee representation on their behalf. Currently there is one grievance procedure underway. It concerns a request for traditional leave and has been in dispute since January 14, 1992.

In addition to the tangible benefits outlined above, there were other, minor impacts felt by both First Nations employees and the parties to the Agreement as a result of the Collective Agreement. Several individuals considered that the process of negotiation and signing the Collective Agreement affected the Dona Lake Agreement. The Mine was perceived to have reduced flexibility to resolve issues or negotiate workable solutions (Windigo Tribal Council, unpublished report 1993).

During the negotiation process, native employees at the Mine were negatively affected. The lack of agreement and progress among management and the union created considerable tension and stress in the workforce. This was for native employees, a problem given the discussions and disputes pertaining to the Dona Lake Agreement. The Agreement was considered by some non-native employees as not only being a significant cause for delay in signing the Collective Agreement, but also giving unfair privileges and priorities to native workers. This served to increase racial tension and to cause additional stress and hardship for the native employees. Since the signing of the Collective Agreement, some individuals observed that the Mine is less flexible than it was on such personnel policies as those pertaining to AWOL's (away without leave). It now strictly adheres to the provisions of the Collective Agreement whereas before there appeared to be more leniency regarding AWOLs and dismissals (Windigo Tribal Council, unpublished report, 1992).

The collective agreement with the employer is also quite unique with respect to the involvement of local aboriginal councils' pre-existing bilateral agreements. In collective bargaining, the Dona Lake Agreement takes precedent.

The United Steelworkers Union awarding an employment equity plan in a first agreement illustrates that employment equity must become a basic bargaining issue. First Nations groups should not have to wait years for a collective agreement that will address their needs and concerns. Employment equity must become part of first agreements for First Nations. The inclusion of this employment equity plan in a first agreement marks the beginning of acceptance of employment equity as a basic employee right and a proper subject of collective bargaining.

In summary, the overall picture for Aboriginal employment in the minerals industry is generally poor. Representation and quality of employment are key areas of concern. A list of issues and questions relating to these and other employment issues are listed below.

## f. Issues Related to Aboriginal Employment and Partnership Development

### ISSUE: Aboriginal peoples not given the opportunity to participate

a) consultation between companies and Aboriginal groups, especially in an institutionalized approach and mechanisms to ensure consultation, for example, joint committees and information flow in a more formal way are absent.

b) Invitations not offered to participate on boards (mine and environmental review boards).

c) Lack of trust and respect as a prerequisite for the consultation process, such as ignoring, industry seen as "trouble makers", credentials have to be questioned.

d) Failure of governments to consult Aboriginal groups, for example Windy Craggy.

Considering stereotypes and historical lack of Aboriginal participation in the minerals industry, why should a mining company approach the community? Can this problem be resolved in a sincere way and not just a sympathetic means?

Are the lack of community aspirations, the meaning of land claims and lack of government intervention to link "stakeholders" a problem hindering companies to involve Aboriginal communities in projects?

Are companies aware of local communities in the project area?

Do all companies understand or more importantly see reasoning behind roadblocks?

With the generally slower exploration period (1987 to present), have we seen the true interaction of conflicts similar to that of the forestry industry?

Many companies work to legislation, regulations and government policy. Would most companies resort to suing Bands as opposed communicating with Bands?

To many mining companies Aboriginal participation in the minerals industry has been unknown to rare; How can companies initiate communication?
Can companies be encouraged to communicate? Who requires them to communicate in the first place? Or must the community be the proponent?

Who should the company negotiate with within the community and how can this communication be maintained considering that many mines operate 5 to 10 years?

Can business to business, technical to technical, and corporate to corporate communication be encouraged to avoid misunderstandings?

Is joint participation on boards, committees and planning teams the ideal approach to maintain effective partnership (and communication)?

Environment Boards and Committees
Board of Directors

Can companies encourage outside participation by community members in national forums e.g. Prospectors and Developers Association of Canada (PDAC) or the Canadian Institute of Mining (CIM)?

Has the Mineral Potential documents published by DIAND benefited the communities?

**ISSUE: Aboriginal employment generally low skill and legislated:**

a) Employment equity legislation approach to Aboriginal employment has limitations and conflicts as opposed to voluntary employment which may make economic sense and improve attitudes towards employment.

With historic and contemporary participation in low skill, labour intensive jobs, what strategies can the community use to gain access to management positions in projects?

Role of the companies in training and support
Role of the governments in on reserve training programs
Role of the company in advance notice of skill requirements

Why do companies hire or even why should they hire Aboriginal employees, baring employment equity?

What are companies doing to recruit, retain and promote Aboriginal employees?

**ISSUE: Mobility of community members from site to site, community to the site.**

**ISSUE: Mechanism to ensure income goes to the community from mining operations lacking**

**ISSUE: Discrepancies between Corporate and Aboriginal cultural decision making**

a) alternative forms of accountability and decision making, for example, currently consensus and length of time to get consensus a problem for companies.

b) need to educate companies on Aboriginal decision making and educate communities on corporate culture.

c) need to preserve traditional economic base as a consideration in decision making.

d) lack of awareness of environmental activists of Aboriginal economic development interests, for example Windy Craggy.

How can a community form a consensus on participating in the minerals industry with an extreme diversity of interests in the community?

Role of the elder
Role of the university graduate
Role of the "on the fence" group
Role of Aboriginal leaders

Can the bad experiences be a lesson and not a detriment to further interest in the minerals industry?

How can internal jealousy be avoided, where some community members appear to benefit more than others?

Community counselling to avoid social problems has been a problem; How can all parties work on the social order within the community?

**ISSUE: Agreements, policies, programs between companies, governments and unions with the Aboriginal community are not always effective**

a) employment equity, small business agreements, and joint venture agreements, do they help the community to develop?

Is the government informing the mining companies of provisions and methods to implement these?

Are land claims perceived more as a threat to development as opposed to an opportunity to tap settlement leverage dollars and a local workforce?

## 2 Environment

Environmental protection and the joint-management of the environment with mining companies by Aboriginal people are priority issues within the Aboriginal community. Traditional habitats, flora and fauna, (eg. salmon runs and the migration of wildlife) are considered extremely important to the livelihood of many community members.

Though legislation currently exists to protect the environment, Aboriginal people are rarely invited to voice their concerns on environmental review boards and in mine planning. However this is slowly changing. For example, in British Columbia, the Tahltan Nation is involved in the mine assessment review board for mining operations in the Dease Lake area (Appendix and "Aboriginal Partnerships"). Both federal and provincial governments and the provinces have established environmental regulations which govern mineral activity throughout Canada, including Indian reserves. Regulations include the environmental assessment and reclamation of proposed mine sites.

### a. Environmental Regulations

Federal environmental regulations pertain in most cases to crown lands, Indian Reserves and territorial comprehensive land claim areas. The federal government's legislative framework for environmental protection and assessment includes: The Canadian Environmental Protection Act (CEPA); the Fisheries Act; and, the Environmental Assessment Review Process Guidelines Order (EARP Guidelines Order). The latter currently governs the federal

environmental impact assessment process. The mineral industry in Canada has expressed the most concern about the two latter statutes (Intergovernmental Working Group Report, 1992).

Provincial regulatory frameworks address environmental concerns within their respective jurisdictions. These include, but are not limited to, the following provincial statutes: Ontario's Environmental Protection Act, Environmental Assessment Act, Consolidated Hearings Act and Water Resources Act; British Columbia's Mine Development Assessment Act, Environment Management Act, and Environment and Land Use Act; and Quebec's Environment Quality Act. In addition, Alberta is engaged in a process to consolidate and streamline its environmental protection and assessment legislation in the Alberta Environmental Protection and Enhancement Act.

The other provinces and territories also have, or are enacting, legislation addressing environmental assessment and protection.

The federal and provincial environmental protection and assessment legislative regimes have a direct legal impact on mining companies. This impact includes: the general requirement to comply with protection standards, and provide prior planning and financing for mine closures and clean up/reclamation projects; adherence to the environmental assessment process; and the possibility of personal liability of directors, officers and certain employees for environmental offenses. Responsibility for the costs of cleaning up a contaminated site may be extended to anyone who owns or controls the source of contamination. This has implications for companies taking over properties that have already been mined, and which may contain mine waste.

## b. Federal Functions

### i) Environmental Assessment and Review Process (EARP)

An environmental assessment process may be involved at the federal level to evaluate development initiatives, such as mining, which may have significant environmental and related socio-economic effects. The concerns of native people, for example, about continued resource harvesting in a development area should merit review. This process applies to all departments, boards and agencies of the federal government who are responsible for the initial screening of all projects originating within their respective departments. EARP was also conceived as a planning process rather than a regulatory one, with a view determining environmental consequences before they occur. In this way appropriate measures can be designed to mitigate the adverse effects of any project. Federal departments, including Environment, Indian and Northern Affairs, and Energy Mines and Resources are expected to provide information and advice in their areas of expertise and in certain cases advocate protection of interests for which they are responsible (Centre for Resource Studies, Queen's University, 1990).

Where the environmental effects of a project appear to be significant, or public concern is high, an environmental assessment panel will convene a public review to allow for general participation. The panel, appointed by the Minister of the Environment, consists of approximately 4-6 members from both the private and public sector that are knowledgeable in the area of concern.

### ii) Federal Environmental Assessment Review Office (FEARO)

FEARO is the government's technical support agency set up to provide other government departments with procedural advice and guidelines, and negotiates provincial and territorial participation in an environmental review. FEARO also provides the Minister of the Environment with advice on environmental impact assessment matters, and administers funds for the Canadian Environmental Assessment Research Council. The Research Council was formed in 1984 to advise industry, governments, and universities on improving methods for environmental assessment. FEARO is also responsible for providing administrative support as well as other assistance when a review is undertaken by an Environmental Assessment Panel.

FEARO receives administrative support from Environment Canada but maintains an arm's length or independent relationship with Environment Canada department. In order to assist the public with participating in the panel review process FEARO also administers a fund contributed by the interested departments.

## c. Weaknesses of the Current Framework

### i) Some Provincial Examples

There are specific environmental regulations included in mining acts of Canadian provinces. Examples are Bill 56 in British Columbia, Bill 71 in Ontario, and Bill 130 in Quebec which all provide for mandatory submission of a mine reclamation plan and deposit of funds sufficient to carry out all reclamation activities.

Mining-specific regulations in Canada are coupled with broader environmental protection laws. Three examples of these environmental laws are: the Environmental Protection Act and the Ontario Water resources Act (Bill 220), in Toronto the Municipal Industrial Strategy for Abatement (MISA), and the Clean Air Program (CAP).

In the province of Ontario, Bill 220 provides the Province with the legal means to sue previous owners or persons who had control or were in charge of a property in the past, if the current owner or operator is insolvent. This means that mining operators who were not involved with an environmental problem can be sued by the province because they owned or controlled the property before the problem was identified. The liability implications of Bill 220 are very significant and have raised concerns within industry and banking circles. Amendments to this Bill are proposed (Shelley Martel, Ministry of Northern Development and Mining, speech, Prospectors and Developers Association of Canada, April, 1993).

Many bills are in the works as each province is working on regulations reflecting the concerns of its particular public. Three recent regulatory initiatives in Canada are: in the Province of Ontario, the Environmental Bill of Rights, in the Province of Alberta, the Environmental Protection and Enhancement Act and in the Province of British Columbia, Environment 2001. Alberta's proposed legislation is typical. It includes a formal environmental assessment process for major projects, a 25 year "lingering liability" for site clean-up and reclamation and hefty fines and/or jail terms.

Site reclamation, particularly where acid drainage from rock dumps is present, has been identified as one of the major issues facing the

mining industry. Acid is formed when sulphide waste rock is exposed to rain water and air producing sulphuric and other acids. Provinces are inaugurating legislation that calls for detailed pre-planning of mine reclamation, as well as for financial assurances that the plan will be carried out before surrender of the claim to the Crown. In some cases, the financial assurance may take the form of a cash trust fund. This legislative approach represents a major gain to the environment and to the Crown, but it has major financial implications for the sector. For example, Cameco Corp. in Saskatchewan must post a $550,000 bond before commencing work on the MacArthur River uranium project (Regina Leader Post, July 6, 1993).

### d.The Environmental Process on Reserve

Knowing the rules and the complexity of compliance, the mineral project operator should understand what is involved in the operation plan and reclamation process before any ground disturbance can be made. The first step, is to complete an environmental assessment of the project as required as stated previously under the "1984 Environmental Assessment and Review Process Guidelines Order" (EARP).

*The Guidelines Order States, Clause 3:*

> "The process shall.....early in the process as possible and before irrevocable decisions are taken,....."

A satisfactory Operational and Restoration Plan must be prepared by the company. The Operational and Restoration Plan describes fully and in detail the activities related to the mineral operation, such as land requirements, site conditions, development, extraction, processing, operation, progressive and final mine site rehabilitation and would include:

- a plan of the lay-out of the mine site area showing stages of excavation, stockpile locations of product, topsoil & overburden, list of products to be produced, height of the working faces, etc., and any provisions made regarding access (security and public safety), drainage, storage, dust abatement, noise, lights, haul routes and heavy traffic concerns, equipment, and environmental protection, etc.

- a plan for the progressive and final rehabilitation of the mine including the plans for slope reduction, re-contouring of rock dumps, re-applying topsoil, seeding, clean-up of the site, security, and monitoring of environmental impacts, etc.

The Operational and Restoration Plan provides the Minister(s), environment and/or DIAND's Environmental Officer with the information necessary to assess the environmental implications of the mineral operation on crown, including reserves, lands. It will also include the mitigating measures the company will carry out to correct any potential environmental concerns. If during the Environmental Screening the plan is found to be insufficient to complete the Environmental Screening Forms, the company would be requested to provide additional information.

After screening, the Operational and Restoration Plan will form part of the final terms and conditions of the permit. Furthermore, this plan will provide the guide by which the Ministers' representatives would judge the company's performance in completing its' commitment to the Band, if on reserve, and the Minister (DIAND, EARP June, 1991).

**e.Industry Concerns**

In Canada, power over environmental matters is shared by the federal, provincial and municipal governments, and this sharing of power creates a complex web of regulations that when complied with by mine operators cause delays in investment. An "all in one" approach would be preferred by many in the industry.

Both mining companies and Aboriginal groups have expressed concerns over the regulatory framework. The six key concerns of mining companies are:

1. Cost of compliance is likely to increase as companies are obliged to use "best available technology" which is often expensive.

2. Fines can reach several million dollars for non-compliance and this could escalate.

3. Use of legal counsel on environmental issues is becoming the norm and adds to the cost of conducting business.

4. Company directors and officers can be faced with extensive personal risk.

5. Failure to exercise due diligence when optioning a mineral property, particularly if it is a past-producer may expose a company in inherited liabilities.

6. Tougher regulations are often due to a poor public image created by industry. It is apparent by the outcome of the Mines Minister's Conference held in Halifax (1991) that surveys of the Canadian population highlight the perception that the mining industry is not doing enough about the environment. From the company's point of view, poor public image may produce depressed share prices.

These concerns illustrate what may happen to those who are stepping out of the theoretical baseline set by regulations.

## f.Remaining Issues

Both mining companies and Aboriginal communities can best be served by developing amicable dialogues in the environmental review process and reclamation of the mine site. In the 1990's, the regulation requirements surrounding environmental protection will bring Aboriginal communities and mining companies together at the table. Perhaps this forced communication will lead to greater opportunities for communities and lead to more benefits at all stages of a mineral operation. There are outstanding issues that have not been resolved. These are described below.

## g.Issues Relating to Environmental Management for the Community

**ISSUE: Participation in Environmental management opportunities are rare:**

a) the right to monitor all operations, for example, environment, mineral production, infrastructure development.

b) participation in environmental reviews, planning and assessment.

c) environmental protection and compensation.

d) integration of traditional knowledge.

Will the community be compromising it's position on traditional activities, such as hunting, trapping, and fishing, by entering into the mining business?

Can the community ensure that the environment is managed responsibly and with their best interests in mind?

Are communities aware of the extensive impacts of all phases of mineral activity on the entire eco-system including groundwater, flora and fauna, air pollution and noise pollution?

Are a full range of project projections examined and consideration given to potential land uses after mineral activity?

Does the community have a sufficient land base to warrant safe and responsible mineral development?

S:\\RCAP\\RCAP.5

3S:\\RCAP\\RCAP.6**Aboriginal Access to Minerals**

The Crown, or the provinces in right of Canada, assume ultimate ownership of mineral rights on Aboriginal lands (Indian Reserves and comprehensive land claim settlement areas) A notable exception is where Aboriginal ownership exists in fee simple within the context of a comprehensive land claim settlement. To access minerals or subsurface rights in both reserve lands and comprehensive land claim areas, the procedures are similar for both the Aboriginal and non-Aboriginal prospectors and mining company.

For lands located on Indian reserves and north of 60 degrees in the Yukon and the N.W.T., the Department of Indian Affairs and Northern Development (DIAND) administers access to mineral rights under provisions of the Indian Act and Indian Mining Regulations. Access to Aboriginal interest and owned lands in comprehensive land claims are subject to authorization by the local designated Aboriginal organization and regulated according to the provincial/territorial Mining Acts. Many in industry regard Aboriginal land claims as an uncertain jurisdiction and choose to wait until the rules of access are furthered clarified by governments.

The impact of mining project cancellations or delays on economic rent is estimated at about $1 million per year. This is based on their estimate of capital expenditures which are likely to be cancelled because of comprehensive land claims and current levels of mining royalties and taxes paid to the B.C. government.

This situation is different at the development stage of mining operations. Once preliminary exploration has been conducted, Aboriginal issues and comprehensive land claims increase the risk

associated with a mining project. A number of companies with mining projects planned for British Columbia expect difficulties arising from unsettled land claims. In some cases, a premium to invest in British Columbia rather than in another province or country is required to compensate for comprehensive claims (Price Waterhouse, Economic Value of Uncertainty Associated with Native Claims in B.C., 1990).

### a.Access to Land

Access procedures and the roles of the varying authorities are described in this section. Hopefully the procedures outlined and the problems associated with access in some situations can be better understood to promote mineral exploration for many communities.

### b.On Reserve: Mineral Access

Price Waterhouse (1990) studies indicate that access to Aboriginal comprehensive Land settlement areas or at least those currently being negotiated for example in British Columbia, can be problematic. Their survey of mining companies shows that 4 out of 11 survey participants with possible mining projects expect difficulties from unsettled land claims. Together these 4 projects represent $680 million in capital expenditures. Extrapolating these results and annualizing expected impacts, Price Waterhouse estimates that mining investments of about $100 million a year are likely to be affected by uncertainties related to comprehensive land claims in British Columbia. This represents some 12% of annual private and public

capital investment in the British Columbia mining industry. Based on survey results, about half of the projects affected are expected to experience delays of about three years. The other half are expected to be cancelled (Price Waterhouse, Economic Value of Uncertainty Associated with Native Claims in B.C., 1990).

### c.Ownership of Minerals

Reserve lands are lands set aside for the use and benefit of a band. However, the legal title to Reserve land does not rest with the band. Legal title rests with the Crown, either in the right of Canada or a province and title varies from province to province. The ultimate owner of Reserve lands and mineral resources located on Reserve lands depends on the existence of a federal-provincial agreement or the method by which a particular Reserve was created.

#### i)Newfoundland

By virtue of an agreement between the Government of Canada and the Government of Newfoundland, the federal Crown holds the title to Reserve land, except for existing hydro easements. The provincial Crown holds the title to all mineral and petroleum resources, except those capable of being used for construction (aggregates) or agricultural purposes.

#### ii)Prince Edward Island

There is no federal-provincial agreement governing the ownership of Reserve lands or mineral resources. Therefore, the title to mineral resources depends on the land title to each Reserve.

**iii)Nova Scotia and New Brunswick**

The federal Crown holds the title to all Reserve land except for those lands under public highways. By virtue of separate agreements between the provinces and Canada, (New Brunswick entered into an agreement with Canada in 1958 and Nova Scotia entered into a similar agreement in 1959) the provinces are recognized as the owners of the mineral resources located on Reserve lands. However, the provinces have transferred all benefits derived from the development of mineral resources to the bands, provided the bands do not absolutely surrender all rights and interest in the Reserve lands. Exploration and development of mineral resources on Reserve lands is governed by the Indian Mining Regulations.

**iv)Quebec**

In Quebec, in the absence of any federal-provincial agreement, the underlying title to Reserve land rests with the province. The Province claims complete jurisdiction over mineral development once a band surrenders it's interest in mineral resources.

In northern Quebec and the James Bay region the province holds the title to lands occupied by the Cree, Inuit and Naskapi by virtue of the Cree-Naskapi Act as well as the 1975 James Bay and Northern Quebec Agreement and the 1978 Northeastern Quebec Agreement. The bands have the exclusive use and benefit of the lands. The bands also have full ownership of soapstone deposits as well as the right to the use of aggregates. The province retains ownership of all other mineral resources.

**v) Ontario**

In Ontario, the 1924 Indian Lands Agreement govern the title to Reserve lands and mineral resources located on Reserve lands. The agreement covers all Reserves in Ontario with the exception of those lands located within the Treaty 3 area. Pursuant to the agreement the province holds the underlying title to Reserve lands. The agreement further provides that both bands and the provincial government are entitled to a 50% share of the benefits resulting from the exploration and development of mineral resources located on Reserves.

**vi) Prairie Provinces**

The 1930 Natural Resources Transfer Agreement provides that title to reserve lands rests with the federal Crown. The agreement also provides that the provinces hold the reversionary title to post-1930 Reserves if a band becomes extinct. Mineral resources are administered by the federal Crown for the benefit of the bands. Revenues derived from the exploration and development of mineral resources located on pre-1930 Reserves are to be shared by the bands and the provinces, however, the provinces have agreed to forego their share of the revenues.

**vii) British Columbia**

A number of agreements govern the title to Reserve lands. The federal Crown holds the title to Reserve lands while the province holds the reversionary title should a band become extinct. The federal Crown also holds the title to mineral resources except precious metals. By virtue of the 1943 British Columbia Indian Reserve Mineral Resources

Act and Agreement the revenues derived from the development of the base and precious mineral resources located on Reserve lands are to be equally divided between the province and bands.

**viii)The Territories**

All Indian settlements are on federal Crown land. The Indian interest in lands and mineral resources are being defined through the comprehensive claims process. This will be described in detail in the following section (see Aboriginal Comprehensive Land Claims).

## d.The Surrender/Designation Process

Reserve lands, and the minerals located on reserve lands, cannot be sold, leased nor any other interest in them granted until they have been surrendered/designated for that purpose, or unless otherwise specifically provided by the Indian Act. The surrender/designation process enables a band to voluntarily give up certain rights or interests in Reserve land to the Crown so that the Minister may dispose of the lands or any interest therein, in accordance with the wishes of the band. Section 37 to 41 of the Indian Act set out the provisions dealing with surrenders and designations.

The exploration and development of mineral resources located on Reserve lands are governed by the Indian Act, the Indian Mining Regulations, and in some cases provincial mining laws which do not conflict with the provisions of the aforementioned federal legislation.

Generally, the exploration and development of mineral resources located on Reserve lands will involve a two step process. Firstly, the minerals will be absolutely surrendered and secondly, the land to be mined will be designated for leasing.

Both steps, (ie. absolute surrender and designation for leasing) must be assented to by a majority of the electors of a band (Indian Act, s.39(1)). However, if a majority of the electors of a band do not vote at a first meeting or referendum, but a majority of those who did vote, voted in favour of the surrender or designation, then a second meeting or referendum will be conducted. If a majority of those voting at the second meeting or referendum vote in favour, then the surrender or designation will be deemed to have been assented to by a majority of the electors of the band (Indian Act. s. 39(3)). The surrender or designation must then be accepted by the Governor in Council.

**e.The Role of Indian and Northern Affairs Canada (DIAND)**

The department provides statutory management and administration services on the sale of on-reserve minerals through a mineral permit and lease system and provides non-statutory support services, such as mineral development advice to Community Economic Development Organizations, Tribal Councils, First Nations and private sector mining companies.

In 1991-1992, the department assisted Indian Bands in the negotiation and issued and administered 15 mineral agreements (10 sand and gravel permits, 1 limestone quarry lease, 1 gypsum mine lease and 3 uranium leases). Over $6 million in royalties have been generated from these agreements (DIAND, unpublished, Sept., 1992).

In 1991-1992, over 300 mineral development advisory and related activities were provided ranging from dealing with information on statutory requirements, commodity pricing, market potential, mineral development requirements and environmental assessment requirement and issues.

**i)Mineral Removal**

The department' s principal objective is to ensure that its statutory obligations are discharged with respect to the disposal of mineral resources under Reserve lands in accordance with the Indian Act, Indian Mining Regulations, and other applicable legal requirements.

**ii)Authority**

The mineral program of DIAND derives its authority from the Indian Mining Regulations and the following sections of the Indian Act:

| | | |
|---|---|---|
| ss 28 | re: | to occupy or use of reserve land |
| ss 37 to 41 | re: | the surrender process |
| ss 51/60 | re: | control and management of reserve land |
| ss 57 | re: | authority to make regulations |
| ss 58 | re: | sale of minerals with band consent |
| ss 93 | re: | penalty for unlawful removal |

Under the Indian Act a distinction is made between:

- unconsolidated minerals - via permit ss 28(2), ss 58(4)(b);
- consolidated minerals - via lease ss 53(1); and
- metallic minerals - via lease under ss 57(c), Indian Mining Regulations.

**iii)Summary of DIAND Activities**

In the pursuance of its mandate, DIAND is involved in a number of activities including:

- Permit and lease negotiation: negotiate terms and conditions and issue permits and leases for sale of minerals.
- Compliance monitoring: monitor activities to ensure terms and conditions of permits and leases are met.
- Operational and Restoration Plan and related EARP: ensure the environmental assessment responsibility is complied with.
- Prosecution of unlawful removals: at the request of the bands, initiate prosecution for unlawful removal of mineral resources.
- Policy Management: developing, implementing, and enforcing policies and programs.
- Resource Management: obtaining, planning, allocating, and controlling funds.
- Organizational Management: staffing, organizing, planning and directing staff.

### f. Permit and Lease Negotiation

Unconsolidated minerals are those minerals which are easily excavated and close to the surface such as sand and gravel, peat, and clay. Consolidated minerals are those minerals requiring more extensive underground or open pit mining and quarrying, such as gypsum and limestone. Metallic minerals, such as gold, silver, copper, etc., require extensive exploration and development normally obtained by underground mining or open pit methods. The distinctions have certain implications for the permitting/leasing process which must be followed.

The process is administered by DIAND headquarters, regions and districts according to delegated authorities. Permits over 100,000 cubic metres are administered by headquarters, under 100,000 cubic metres by regions and up to 10,000 cubic metres by districts.

The process to access minerals begin with a request for a mineral permit or lease made by a First Nation. The terms and conditions are negotiated between the First Nation, DIAND and a private mineral operator. In permits dealing with sand and gravel volume and quality of material is often assessed; as well, a market study is completed in support of the negotiations. A permit or lease is prepared and executed by region, district or HQ according to delegated authorities. A surrender/designation is required for metallic minerals and some consolidated minerals. Order in Councils are required for transactions involving a surrender or designation. The department ensures informed consent from the band before a permit or lease is issued.

The issuance of a permit or lease is based on successful negotiation, an acceptable "best deal" and the submission of a satisfactory Operational and Restoration Plan which describes the mineral operation and restoration details. This plan ensures that the departmental environmental assessment responsibility is met.

On average between 15 and 20 permits and leases are issued per year, several of which will last over 10 years (DIAND, pers. comm., 1993).

**i) Permits and Leases**

On-reserve sand and gravel is owned by the Crown but set aside for the use and benefit of Indians. Transactions which remove sand and

gravel from reserves need the approval of the owner, which in this case is the Crown. The Indian Act establishes the legal and regulatory framework governing the removal of sand and gravel from reserves, and DIAND must be involved in the process.

'Disposition' is the process of removing and sand and gravel from the reserve. A First Nation having sand and gravel and wishing to take advantage of a selling opportunity or long term development has two 'disposition' options.

A lease is required when:

- large volumes are to be extracted.
- major destruction of the surface may occur.
- large capital costs are involved
- long term development is desired.

Disposition by lease requires that the First Nation "surrender" or "Designate" its sand and gravel rights to the Crown. The Crown then enters into a lease with a third party to develop the project. Where third party developers are making substantial, long-term investments in a project, they frequently prefer to operate with a lease rather than a Permit. This will facilitate their access to financing and provide a more secure interest in the land (DIAND, pers. comm., 1993).

In other situations, a Sand and Gravel Permit is required. With Permits, the developer operates on First Nation land with the permission of the First Nation.

Leases and Permits both require the consent of the First Nation. With leases, consent of the 'First Nation members' is required. With

Permits, the consent of the 'band council' is necessary. With both Leases and Permits, First Nations can negotiate development terms with third parties and impose terms and conditions on the proposed developments.

When a First Nation develops its sand and gravel resources for use on its own reserve, a Permit is still required. This addresses the matters of insurance, restoration, safety and accountability for the sand and gravel resources.

The Minister responsible for DIAND issues sand and gravel Permits at the request of First Nations Band Councils. A Permit is a legal document issued to a Permit holder, which may be an individual or a company. The Permit holder could contract out the operation of the pit or run it directly. Even if the Permit holder is a community-owned company, the legal authority and responsibility between the First Nation and the Permit holder is separate and distinct.

The terms and conditions agreed to by the Minister and the Permit holder are described in the Permit. Before the Permit can be issued, a Band Council Resolution must be passed by the First Nation administration that authorizes and directs the Minister to issue a Permit. The First Nation, through its elected Band Council, determines and controls who develops, when and where sand and gravel development may occur on their lands.

A Band Council Resolution (BCR) requesting the Minister to issue a sand and gravel Permit must list specific terms and conditions to be incorporated into the Permit. By identifying these terms and conditions, the First Nation achieves a number of objectives. The BCR clearly states what the Minister and the Permit holder are

authorized to do and protects the First Nation by documenting their intended conditions. This documentation can minimize confusion and the potential for misunderstanding. It also familiarizes the First Nation with the concerns and issues that the Minister must address when preparing a sand and gravel Permit.

**ii)Compliance Monitoring**

The compliance monitoring is the responsibility of headquarters, regions and districts. As issuer, the department must ensure compliance with the terms and conditions of permits and leases. An annual on-site inspection and report is required for each agreement. The volume of material removed and the revenue paid requires verification by reviewing company records, and where necessary this should be done via independent verification through volume surveys and audits. The First Nation should participate in the annual inspection, receive a copy of the inspection report, and at least once a year receive a report on volume removed and revenue received. The environmental compliance aspects of the permit or lease should follow a similar process.
This activity is governed by the Crown's statutory responsibilities.

**iii)Unlawful Removal of Minerals**

Once a complaint is registered by a First Nation alleging an unlawful removal of minerals from reserve lands, DIAND would be responsible for investigating the complaint. The regional office department would review existing files for background information, such as past permits or leases, visit the site, estimate where possible quantity of material was removed, contact the company involved to encourage the use of a permit/lease, contact Justice Canada for advice, and as

required enforce the applicable legislation (Indian Act, ss 93). The department would work closely with the band to correct the situation. This activity is governed by the Crown's statutory responsibilities.

It is important that the impediments to mineral development be resolved so that the band can negotiate mineral business arrangements similar to those currently realized by the private sector off reserve. The Indian Act alternatives and other legislative and regulatory options may lead First Nations to take a more active role in managing mineral development on their lands.

Through the proposed First Nations Chartered Land Act, it may be possible, in the short term, to make minor improvements to the delegated authorities for unconsolidated minerals (sand and gravel). However, for metallic and other minerals it will likely take legislative changes before bands realize full participation of their resource potential (The Canadian Institute of Mining, Conference Proceedings:Land Development on First Nation Lands, 1993). An example of a sand and gravel operation on Reserve is summarized in the following section on the Sechelt Indian Band.

*The Sechelt Indian Band: Sand and Gravel Operation on Reserve*

The Sechelt Indian Band is located on the Sunshine Coast of British Columbia, just west of Vancouver. Sechelt Band land includes over 2,500 acres of land, much of which has very good mineral development potential.

Sechelt Aggregates Limited presented a proposal to mine the sand and gravel resources on Sechelt Indian Reserve #2 in the early 1970s. Sechelt Aggregates had explored the area and estimated that on the

Reserve land and adjacent Crown land there were gravel supplies to support between 30 and 40 years of production. An estimated 20 million ton deposit lay within the Reserve itself and an estimated 100 million tons of gravel lay on the adjoining Provincial Crown land. To sustain an economically viable operation, the gravel company needed access to both deposits. There was not enough gravel on the Reserve alone to justify building a processing plant and developing a major operation. As well, access through the Reserve was necessary to access the Provincial Crown gravel.

Under the restrictions of the Indian Act, the only practical way to proceed with the proposed sand and gravel operation on Reserve land was through a Band surrender of the land. This process would allow the Reserve land to be leased to the company for development. A number of steps are required which can delay the starting of operations.

Sechelt Aggregates and the Sechelt Indian Band signed the Option Agreement in March, 1984. Consent of the Federal Government, however, was also required before the Agreement could take effect and the Federal Government refused to sign the Agreement unless a surrender had been made.

The length of time for the surrender process was the problem. The Band wanted to wait until the company was certain they would be exercising their option before the Band surrender occurred. The Band Council felt it would be difficult to get members to vote to surrender their land for a development that was uncertain and possibly commencing five years from undergoing a surrender. At that time, under the terms of the prevailing Indian Act, once a Band surrender occurred, the land was no longer "Indian Reserve land" within the meaning of the Indian Act and it was felt that the Band Council lost

control over it. Hence, they were reluctant to surrender this piece of land unless development was definite. Included in the Option Agreement was a clause that stipulated if the Band electors did not vote in favour of the surrender, the Sechelt Indian Band would return all payments made to the Band to Sechelt Aggregates.

The Federal government, on the other hand, wanted the Sechelt Indian Band to surrender their land prior to entering into the Option Agreement. They were concerned about the possible legal ramifications if the Band voted not to surrender the land after the company had decided to exercise their option.

In 1986, the Sechelt Indian Band achieved self-government. This resulted in a partial elimination of the Indian Act as it affected the Sechelt Band. The federal Sechelt Indian Band Self-Government Act and the provincial Sechelt Indian Government District Enabling Act did not give the Sechelt Band a constitutionally entrenched and recognized right to self-government, but did provide the Band with the authority "to exercise and maintain self-government on Sechelt lands and to obtain control over the administration of the resources and services available to its members." With the new legislation, all rights, titles, interests, assets, obligations, and liabilities as they applied to Band land were vested with the Sechelt Indian Band. The Indian Act continues to apply except where it is inconsistent with the new legislation. The Sechelt Band became a legal entity (municipality), capable of entering into contracts, acquiring and holding property, expending or investing money, borrowing money, and suing or being sued. The Band was also granted title in fee simple to all of its reserve lands, along with the full power to dispose of these lands and resources in accordance with its constitution

(Intergovernmental Working Group on the Mineral Industry, Phase I, 1990).

### Benefits

The Sechelt Band has already received significant economic returns from this mineral development and these will continue for the life of the operation. In terms of financial benefits, the Sechelt Band collects a lease rental fee for the plant site, royalties for the sand and gravel and fees related to the off-loading facility in Trail Bay. Once Sechelt Aggregates starts extracting Crown gravel in Phase II, the Sechelt Band will get a transportation fee for gravel travelling across their lands. The royalties paid are being used by the Sechelt Band to further their economic development.

In addition to financial benefits, an Agreement was worked out between the Sechelt Band and the company which called for 20% of all jobs to be given to Sechelt Band members. In 1990, five Sechelt Band members received jobs in the operation and more jobs are expected as the development proceeds. To meet employment targets, the company agreed to post all job openings in the Band Office. The Band then supplied the company with eligible candidates. Given the appropriate skill level of many of the Sechelt Band members, special training was not necessary.

### Important Success Factors

Both the company and the Sechelt Indian Band believe that because of self-government, some hindrances of the Indian Act were avoided, which expedited the process and allowed the development to proceed. It was

only necessary for the company to reach an agreement with one party - the Sechelt Indian Band and not with the Minister (DIAND).

As well, both parties were committed to seeing the development happen. For the Sechelt Indian Band, an opportunity was presented for them to show that under self-government they could manage their own economic affairs for the benefit of everyone. For the company, the economic rewards of developing the resource were apparent (Intergovernmental Working Group on the Minerals Industry, Phase I, 1990).

## g.Indian Act Alternatives

Many communities have yet to undertake the steps taken by the Sechelt Band. Nationally, other groups would prefer to introduce new legislation that would allow them to opt out of certain provisions of the Indian Act. One such proposal is the "First Nations Chartered Land Act."

### i)First Nations Chartered Land Act

The proposed First Nations Chartered Land Act (the "Act") has been drafted by the Interim First Nations Land Board which is comprised of Chiefs of First Nations from British Columbia, Alberta, Manitoba and Ontario. The history as to how the Act has evolved is as follows:

- The original work of the group of chiefs was focused specifically on sections 53 and 60, pertaining to band management of lands, of the Indian Act. These are the sections by which bands have received delegated land authority from the federal government.

- The group initially came together to review the Department of Indian Affairs and Northern Development policy on which delegated land authority was based. After 18 months of review of this policy during 1989 and 1990, the Chiefs decided not to continue operating under the land administration sections of the Indian Act because of its "paternalism, ambiguity and inconsistency" (The Canadian Law Institute, Conference, June, 1993).

- In January, 1991, the Chiefs began to consider the components of new optional legislation which would provide the mechanism for management of reserve lands. In December, 1991, the Chiefs met with the Minister of Indian Affairs and identified 30 components as the basis for a new optional "First Nations Chartered Land Act." The Minister agreed to support the Chiefs' initiative in this regard.

- Throughout 1992, the Chiefs developed the technical wording for the proposed legislation. In December, 1992, the Chiefs' draft of the new optional Act was formally submitted to the Minister who agreed to present the Act to cabinet during 1993.

- A revised draft is currently under preparation. The Act continues to evolve as reaction and feedback is received from First Nations.

- The Act has not yet been presented to cabinet. Also, recent controversy surrounds the Act, based on feedback from First Nations.

**ii)Reaction of Aboriginal Groups**

The bands which are represented on the interim First Nations Land Board who have drafted the Act all have a history of delegated land management authority pursuant to sections 53 and 60 of the Act. Each of these bands therefore has previously expressed a desire for local control of land development. Any band which has been "commercially active" and is located close to the urban centres, would most likely be in support of having greater control of land development and the

financial benefits for their band which could be realized from such development.

The concerns and opposition to the draft Act seem to be revolve around the concern that bands who opt into the new legislation are somehow "putting their land at risk." Indeed, the Assembly of First Nations and the Union of B.C. Indian Chiefs are opposed to the legislation. Some of the stated reasons for such opposition as stated by these organizations are:

- "Bands risk losing their land base if they get into financial trouble;"
- the adoption of a Land Charter pursuant to the Act "will jeopardize treaty negotiations" as the Act is seen as a way of "bypassing the whole process of negotiations."

The opposition does not offer specific, substantive objections to the proposed Act.

**iii)Summary- First Nations Chartered Land Act**

- The proposed Act provides an optional mechanism for First Nations to opt out of the provisions of the Indian Act and adopt their own Land Charter which will provide local control over land use and development.
- The Act contemplates but does not provide any details on the establishment of a Chartered Land Registry which would record the title and other interests in and to Chartered Lands.
- Given that the Act has not yet been presented to cabinet and with the certainty of a federal general election later in 1993, it is unlikely that the Act will be dealt with by the current government. How high a priority it will be given by a new federal government is difficult to determine (The Canadian Institute of Mining, Conference Proceedings:Land Development on First Nation Lands, 1993).

## h.Off Reserve - Mining Claims

The provinces own and administer all public lands within their boundaries except Indian Reserves and National Parks, these being under the jurisdiction of the Federal Government. The principal statute concerning mines and the mineral industry of provinces are the respective Mining Acts.

Mineral rights to such public lands are allowed under a system of lease from the Crown upon completion of acceptable assessment work and certain other prerequisites. If production of minerals in quantity is achieved, a freehold may be acquired. Where the surface rights are available the applicant may elect to have them included in the lease but they may be used only in connection with mining operations. Where the surface rights are not available through the Crown, the prospector and miner must compensate the surface owner for any injury or damage caused to the surface rights.

### i)Lands Open for Staking

Generally speaking, all Crown Lands and all lands of which the minerals are reserved to the Crown are open to prospecting and staking if not already staked or leased or reserved by the Crown. Also included are lands where the mines, minerals, or mining rights have been forfeited to the Crown for non-payment of mining taxes, and subsequently have been declared open for staking. Where forfeiture or loss of rights for any valid reason has occurred, the lands, mining rights, or mining claims become open for staking the day following the forfeiture.

**ii)Lands Not Open for Staking**

Lands to which the mineral rights are already held or to which the mineral rights have already been staked and are held in good standing, are not open for staking. Lands reserved or set apart as a town site by the Crown, lands laid out into town or village lots on a registered plan by the owner, lands forming a railway property or right of way, or lands forming a road or road allowance may not be staked except with the consent of the provincial Minister responsible for mines. Lands set apart for summer resort or similar purposes by the Ministry of Natural Resources, or lands required for the development of water power or for highways or other purposes in the public interest, may not be staked except where the Minister certifies in writing that in his opinion discovery of valuable mineral its place has been made. Lands set apart for Provincial Parks may not be staked except as provided for in 'The Provincial Parks Act.'

Lands set apart as Indian Reserves are under the jurisdiction of the Federal Government (Canadian Aboriginal Minerals Association, Aboriginal Comprehensive Land Claims: A Brief Explanation For Mining Companies, 1993).

**i.Mineral Access in Aboriginal Comprehensive Land Claim Areas**

As we have seen so far, the minerals industry offers tremendous business opportunities for the private sector and Aboriginal communities. Among the significant characteristics of the industry is that capital investment in mineral exploration and mineral development is high risk. Thus, security of the investment is extremely important.

Mining companies want to know more about what comprehensive land claims are and Aboriginal communities want to know what other communities have negotiated under the comprehensive land claim process. An understanding by company operators of minerals lands tenure within Aboriginal settlement lands and Aboriginal community economic development aspirations is equally important.

This section provides an overview of the implications of Aboriginal comprehensive land claim settlements for mineral exploration and mining. More specifically, it addresses what comprehensive land claims are, and what reporting and working relationships are created between Aboriginal organizations/communities and mineral companies through comprehensive land claims settlement agreements. A summary of the status of settlement agreements in Canada is presented.

This section is also intended to improve understanding of the provisions relating to access to mineral rights on land claim areas. Hopefully, with increased understanding, initiatives will be taken by mining companies to communicate with Aboriginal communities in order to build mutual business opportunities in the minerals industry. In the report, it will become apparent that communication with communities is important to reduce uncertainty over exploring and developing minerals in Aboriginal land claim settlement areas.

**i)Overview of Aboriginal Comprehensive Land Claims**

Comprehensive land claims are defined as Aboriginal claims to lands where Aboriginal title has been asserted, based on Aboriginal traditional use, affinity and occupation. In addition, title to those lands were not given up through treaty or otherwise. By negotiating a land claim agreement, the Crown seeks to "remove the

burden" on the land. Aboriginal peoples receive defined rights and benefits in exchange for giving up further future claims. Thus, a land claim agreement is, in essence, a modern day treaty. However, comprehensive land claims contrast with the old Treaty system that gave Aboriginal peoples land and money. A comprehensive land claim agreement involves land and cash but also includes how these lands and adjoining lands will be managed. A complete system includes land use permits, access and entry provisions, environmental review, wildlife management, economic development, royalty sharing and may provide for the formation of local governments.

The bulk of Aboriginal "owned" lands include surface rights. Certain portions of these lands are held in fee simple interest, and can include subsurface rights. The land claim agreement provides for certainty and clarity of rights for all parties to ownership and use of lands and resources within the settlement area, including overall administration, and of rights for Aboriginal peoples to participate in decision making concerning the use, environmental management and conservation of land, water and resources. The agreement may provide for financial payments, compensation for wildlife or environmental damage, and a means for participating in economic opportunities through benefit and participation agreements.

Presently, there are 42 comprehensive claims at varying stages of negotiation. The majority of these claims is in British Columbia. All told, comprehensive land claims represent approximately 40% of Canada's landmass. An estimated $6 billion cash compensation is involved upon all claims being settled.

Since the federal policy for the settlement of comprehensive land claims was introduced in 1973, and as of November 1993, six settlements

have been concluded and entered into Acts of Parliament: the James Bay and Northern Québec Agreement (1975); the Northeastern Québec Agreement (1978); the Inuvialuit Final Agreement (1984); the Gwich'in Final Agreement (1992); Tungavik Federation of Nunavut (TFN) (June, 1993); and the Council for Yukon Indians (CYI) Umbrella Final Agreement (1993).

The following table provides a summary description for lands that are affected by these six agreements.

| Settlement Agreement | Area of Land |
|---|---|
| James Bay and Northern Québec (Québec) | 5,589 square kilometres of Category 1 lands (set aside for the James Bay Crees and Inuit of Fort George; consent to access required); 65,087 square kilometres of Category II lands (James Bay Cree and Inuit of Fort George have exclusive right of hunting, fishing and trapping; Québec jurisdiction continues over land; advised of access)(no mineral rights)<br><br>52 square kilometres of Category I lands (set aside for the Inuit of Québec; consent to access required); 90,650 square kilometres of Category II lands (Inuit have exclusive right of hunting, fishing and trapping; Québec jurisdiction continues over land; advised of access) |
| Northeastern Québec (Québec) | 326 square kilometres of Category 1-N lands (set aside for the Naskapis of Québec, consent to access required); 4,144 square kilometres of Category II-N lands (Naskapis have exclusive right of hunting, fishing and trapping; Québec jurisdiction continues over land; advised of access) |
| Inuvialuit (Western Arctic, N.W.T.) | 90,649 square kilometres of lands, including 12,950 square kilometres of mineral rights |
| Gwich'in (N.W.T., Yukon) | 22,329 square kilometres, including 6,065 square kilometres of mineral rights; 93 square kilometres of title to minerals only |
| TFN (Eastern Arctic, N.W.T.) | 353,610 square kilometres, including 36,257 square kilometres of subsurface rights |
| CYI (Yukon) | 25,900 square kilometres of Category A lands (ownership to surface only or mines and minerals only); 15,540 square kilometres of Category B lands (excludes mines and minerals but includes specific substances) |

This part of the report explores the impact on exploration and mining within these six settlement areas, including the process, regulations and reporting mechanisms to be followed.

### a. Surface and Subsurface Rights

All settlement agreements and all pending comprehensive land claims, other than the Québec agreements, include Aboriginal ownership of subsurface rights for some portions of the settlement lands. The procedure to access surface and/or minerals for the purposes of exploration, development and mining is described in each agreement. Subsurface rights give the affected First Nation the right to mines and minerals, including soapstone and aggregates, and the right to work mines and minerals, subject to the respective current provincial/territorial or federal mining acts.

For all land within the settlement area, whether it be surface owned, surface and subsurface owned and surrounding lands, mining companies have access to mineral rights and the right to mines and mineral deposits with notification to the affected community (or designated Aboriginal organization) and under the laws of general application (e.g., the respective mining acts). Maps indicating these areas can be obtained from the local mining recorder offices.

However, under some agreements, and depending upon the described category of the settlement lands, consent to access the surface of the land from the affected First Nation may be required. For example, under the TFN Agreement, a company wishing to stake mining claims on Inuit-owned lands must obtain consent of the Inuit, or failing this,

the company can obtain an entry order from the Surface Rights Tribunal. Similarly, under the James Bay and Northern Québec Agreement, access to Category I and II lands will be with the consent of the affected First Nation corporation or organization. However, access to Category III lands, all remaining lands in the settlement area, is less restrictive; the company deals directly with the province/territory.

#### i) Existing Rights: Third Party Interests

Third-party rights are properties or mining claims that existed prior to the vesting of Aboriginal ownership of lands (settlement). These land parcels are recorded and indicated on maps in the local mining recorders office. All agreements recognize existing third-party mineral rights (until they expire under the respective mining acts) in all categories of settlement lands. Third-party rights are recognized and referenced in the agreement and still administered by the province and/or Crown. Work filed under the requirements of the relevant mining acts will be shared with the Aboriginal community/organization.

### b. Access to Surface and Staking Requirements

Staking mining claims in areas where First Nations have rights to surface lands only can be conducted under the respective mining acts. However, as discussed previously, some agreements require consent to access the lands, and particular conditions may apply. For example, future exploration of minerals within Category I lands under the Québec agreements (i.e., Northeastern Québec Agreement and James Bay and Northern Québec Agreement) will only be permitted with the consent

of the affected First Nations. Exploration and mining are subject to Québec mining laws and regulations, and development is subject to review by the provincial Environmental Quality Commission.

To cross Aboriginal-owned lands and to access mining claims for conducting work, the company must notify or get consent from Aboriginal organization/board(s) and may be required to pay an entry fee. The undertaking of major development projects (e.g., in excess of $35 million in Nunavut) may be subject to socio-economic negotiations. These "participation" agreements ensure Aboriginal communities benefit from mining projects. Holders of mineral rights isolated within Aboriginal-owned lands wishing to explore, develop and produce minerals, may be expected to negotiate conditions related to participation, wildlife compensation and communication. This participation will often meet the needs of the local Aboriginal community.

Aboriginal communities, not unlike non-Native communities, often have economic development strategies. The minerals industry offers opportunities to build their economic bases. Participation agreements are designed to ensure the well being of the community through environmental security, employment, education, training, and economic development.

Communicating intentions to Aboriginal communities is imperative under most land claim settlement agreements. For example, under the TFN Agreement, a company wishing to develop minerals on Inuit land of significant size must negotiate an Inuit Impact Benefit Agreement (IIBA). The IIBA considers such factors as:

- Inuit hiring and training;
- business opportunities for Inuit;
- housing accommodation and recreation on project site;
- identification, protection and conservation of archaeological sites and specimens;
- particularly important Inuit environmental concerns and disruption of wildlife; and
- information flow, including liaison between Inuit and proponent regarding project management and Inuit participation and concerns.

The Inuvialuit Final Agreement also sets out the parameters for negotiating a participation agreement. Before exercising the right of access, a developer must have concluded a valid participation agreement with the Inuvialuit Land Administration (ILA) setting out the rights and obligations of the parties respecting the activity for which the access is being granted. The ILA has the right to negotiate with the developer/applicant an appropriate land rent (not to include royalty revenues) and a Participation Agreement that may include specific terms and conditions respecting the nature and magnitude of the land use for which the access is being sought. Many of the terms and conditions are similar to those in the TFN agreement.

Under the Inuvialuit Final Agreement, where the Inuvialuit dispose of new mineral rights on Inuvialuit lands, the ILA may set terms and

conditions with respect to the environment and safety that equal or exceed the standards provided for under the laws of general application.

Under the Gwich'in Final Agreement, any person having a right to explore, develop or produce minerals under Gwich'in lands has a right to access to Gwich'in lands and waters overlying such lands with the consent of the Gwich'in Tribal Council. In order to exercise the right to prospect for minerals and to locate claims, a holder is subject to notify the Gwich'in Tribal Council at least seven days prior to entry on such lands. If the Tribal Council fails to provide consent, the holder may approach the Surface Rights Board. Anyone wishing to engage in exploration and mineral development must enter into consultations with Gwich'in on several issues, including environmental impact of the activity and mitigative measures such as the impact on wildlife harvesting; location of camps and facilities and other related site specific planing concerns; maintenance of public order, e.g., liquor and drug control; and local Gwich'in employment and business opportunities, training and counselling for Gwich'in employees, working conditions and terms of employment.

In general, settlement agreements provide for access as long as there is no significant damage to the lands and no significant interference with First Nations' use of the lands.

**i) The Role of the Surface Right Board**

In all cases the communities (or designated Aboriginal organization) are the principle decision making body. However, in some cases where community decisions can not be made or are disputed, the regional surface rights board may make decisions regarding access and the

conditions for access. For example, under the TFN Agreement, mining operations exercising the right of access to minerals must receive consent from the Inuit community representative. Failing this, the holder may apply to the Surface Rights Tribunal for an entry order. This tribunal in the absence of an agreement will also determine compensation to be paid to Inuit, periodically review the compensation and terminate an entry order where lands are no longer being used for the purpose authorized.

Similarly, if a decision cannot be reached, the Surface Rights Board under the Gwich'in Final Agreement has jurisdiction over matters relating to surface entry and compensation. The Board can receive submissions for dispute resolution between holders of surface and subsurface rights, grant right of entry orders and attach conditions to entry orders, determine compensation for the use of the surface and for unforeseen damage resulting from entry, prescribe rules and procedures for any negotiations required by this agreement, review right of entry orders and terminate right of entry orders where lands are no longer used for the purpose authorized, and award costs. The Board will ensure that any access is by a suitable route least harmful to the Gwich'in communities.

Under the Council of Yukon Indians (CYI) Umbrella Final Agreement, an order of the Surface Rights Board is enforceable in the same manner as if it were an order of the Supreme Court of the Yukon. Amendments to the Yukon Quartz Mining Act and the Yukon Placer Act are to be made to conform with the provisions set out under the CYI Umbrella Final Agreement. The powers and responsibilities of the Board are similar to those of boards in other settlement areas.

### c. Implications for the Mining Industry

Some industry stakeholders are concerned about the impact that land claims may have on the industry. Those concerns have been fuelled by the comprehensive land claims process itself. Briefly, once a comprehensive land claim is accepted by the federal government, a framework agreement between governments and First Nations is negotiated. An agreement in principle is then negotiated, which, when finalized, is approved by Cabinet. The process for selecting the settlement lands begins once the agreement in principal has been established. Once the lands have been agreed upon, a final agreement is negotiated and drawn up for ratification by the governments involved and the First Nation body. The final step is legislation by Act of Parliament.

At some point between the agreement in principle and the final agreement, the First Nation body may request that the lands be withdrawn from disposition by Order in Council. No staking is allowed on lands that have been withdrawn. Indeed, it is within the interest of First Nations to prevent further claims staking in order to protect their potential mineral rights. However, exploration activities are not necessarily ceased. Indeed, the industry has asked First Nations not to suspend exploration activities while settlements are pending because it sends a message to the industry that development is not welcome. Thus, interim measures, allowing for exploration activities and providing for reporting mechanisms, negotiated by governments and First Nations, have been designed to protect Aboriginal rights and the rights of mineral holders while the comprehensive land claim is under negotiation.

Most industry stakeholders agree that the issue of land access and the working of mineral deposits centres around uncertainty over the settlement areas, particularly over land tenure, and the terms and conditions of the land claim agreements. Thus, some companies are less willing to invest in areas where land claims settlements have not been concluded or where negotiations are not at an advanced stage. In British Columbia, where some 30 comprehensive claims are under negotiation, a recent study conducted by Price Waterhouse in British Columbia concluded that comprehensive land claims do not seem to impact on exploration programs undertaken in that province.

**i) Summary**

The fundamental message in these agreements is that mining companies need to communicate project intentions to First Nations at the start of projects and work with them to co-manage resources as equal partners. Settlement agreements are designed to sustain the respect and consideration for the land and people involved. Thus, the industry would be well advised to err on the side of conscientiousness and consult with local First Nations communities out of that respect and consideration. In their negotiations, mining companies should consider the needs of the community and they can assist the community in meeting its plans and achieve goals. Underlining the requirements settlement agreements place on development are the laws of general application, such as the mining acts. They apply to the exploration and development of minerals in settlement area.

The messages to industry from Aboriginal communities are:

- Aboriginal peoples want development but want to share in benefits;

- Both parties want security and confidence to support development;
- Aboriginal groups have selected lands with mineral potential with the view to develop;
- Aboriginal groups have money to invest and claims may develop into mining projects;
- Defined set of rules to industry.

As industry stakeholders have pointed out, where claims have been settled and third-party rights thus protected, the industry's concerns have subsided. Indeed, uncertainty tends to be associated more often with the length of time exploration may be halted during the claims negotiation process, rather than with whether or not exploration and development will be allowed. It all comes down to understanding the local Aboriginal communities and working with them to see the projects are undertaken with Aboriginal participation. Forming the direct link between industry and the Aboriginal community may still be problematic as are other outstanding issues, as described below.

### d. Issues Relating to Aboriginal Access to Minerals

**ISSUE: Access to Minerals is burdened by legislation and uncertainty:**

a) Access to on-reserve lands hindered by :

i) length of time to process leases and permits under existing regulations,

ii) complexity and antiquity of legislation,

iii) fiduciary obligations on DIAND; and

iv) the surrender process,

v) limited size of reserves to sustain a balance of mineral development and housing (etc.);

vi) lack of Aboriginal ownership of mineral rights,

vii) present legislation outdated,

viii) inconsistencies in DIAND minerals management parameters, for example Six Nations vs. Sechelt.

ix) Federal Provincial Agreements requiring the sharing of proceeds with the respective provinces.

b) Access to Aboriginal lands which are off-reserve hindered by:

i) governance of Aboriginal owned minerals in comprehensive claim areas,

ii) mining companies express uncertainty over settlement area regulations, duplication of regulations, taxation, environmental regulations (who should the company ultimately be accountable to?).

iii) continuity in authority within the band/community to sustain the good faith of the mining deal.

What impact has the surrender process had on entering the minerals industry?

How has the Indian Act and Indian Mining Regulations hindered development?

Can the First Nations Chartered Lands Act promote mineral development on reserve?

Can 53-60 powers (transfer of land management to the Band) benefit and promote mineral development?

S:\\RCAP\\RCAP.6

## 2 S:\\RCAP\\RCAP.7Access to Capital for Exploration and Development

Specific funding for mineral exploration, development, market and feasibility studies is often difficult to obtain and the process for finding and applying for those sources that exist are time consuming. Rarely will a bank or any financial institution finance preliminary prospecting and exploration. As on-reserve residents have discovered collateral is a requirement when dealing with banks. Most mineral plays are not "tangible assets." All funds are considered high risk venture capital for mineral exploration. Often mining companies have established equity and a significantly developed network of financiers, for example, underwriting firms, that will fund most exploration and development activity. Newcomers to the exploration game must rely on government grants and joint ventures to sustain their activities.

### a. Financing Mineral Exploration

The prospector, in order to profit from his/her efforts in the mineral exploration business, usually requires knowledge of workable money raising and property selling techniques. Raising money is probably one of the most difficult aspects of mineral exploration and usually requires that the prospector have previous exploration experience. The art of raising money for an exploration project requires a well-conceived exploration proposal, salesmanship, and influential contacts. This knowledge can best be gained by working for mining companies and by searching out expert advice (27).

Prospectors frequently waste too much of their time in unsuccessful efforts to raise money and sell properties. The availability of a trusted advisor with business experience and knowledge of the regulations provides the full and part-time prospector with added security. At the start the prospector is advised to seek advice from the nearest Mining Recorder, Resident Geologist, or experienced exploration worker. All communities where people are interested in mineral exploration should consider the advantages of encouraging at least one member of their Chamber of Commerce to become knowledgeable in the mineral exploration business. Advice to the weekend prospector would be the need to inquire into the ownership of mining lands, how to obtain title to Crown Lands, the necessity of not disclosing the existence of the find before staking a suitable claim group, etc.

To be successful in financing an initial exploration project or selling a newly staked mineral showing, usually requires careful planning in addition to hard work and persistence. The prospector should know and understand the general rules of the business, so that his/her demands and proposals are reasonable with regard to the value of his/her project, thereby increasing his/her chances of raising exploration money or selling his/her showing.

Selecting a suitable exploration target of current interest to many exploration companies is most important. In addition, efforts to sell the exploration project or new showing should be directed to the most interested buyers. For example, some companies are mainly interested only in large tonnage-low grade deposits and have the large amount of working capital required to develop this type of property. Other companies may be interested and experienced only in a particular type of ore, such as uranium, silver, gypsum, or copper. The weekend

prospector usually has little time or money to formally visit the interested exploration companies, consultants, and brokers in nearby cities. However, efforts to advertise and sell can be performed by mail, with a view to encouraging company engineers or geologists to visit and inspect a new showing. If the mineral showing or exploration project cannot be sold after a reasonable length of time, it is usually best to start a new project. Rural prospectors, where possible, should try to arrange representation by an experienced consultant, thereby allowing themselves to continue regular employment.

A separate income is nearly always necessary for weekend prospectors. In general, care should be taken by the part-time prospector not to spend too much of his/her own money on any exploration project. Effective prospecting can be performed during evenings, weekends, and holidays, frequently at very low cost. It is important to emphasize the necessity for most casual weekend prospectors to maintain a steady source of income from a separate job, mining company retainer, or grubstake.

Prospecting can be performed as a full-time business by the independent operator with sufficient experience in staking marketable ground, discovering new showings, and financing new exploration projects. However, it is well to remember that to raise money a prospector usually requires previous experience with a mining company, have an established discovery record, or a new showing with interesting 'ore values'.

To discover a new mineral showing that can be sold for a profit is a very difficult and frequently arduous task usually requiring a years of search. However, mineral prospecting, whether considered as a

part-time hobby and recreation or as a full-time occupation, can provide the excitement of treasure hunting, combined with the satisfying knowledge that a new discovery will create many jobs. The chances of a major success are slim, but the effort is worthwhile because finding a new mine is equivalent to finding 100 to 1,000 new jobs in addition to acquiring personal fame and profit. Statistics indicate that one in 5,000 prospects may become a mine.

**i) Raising Money**

Probably the most difficult and uncertain aspects of mineral exploration are encountered in trying to raise money. Frequently energy and valuable time are wasted by capable prospectors in expensive, fruitless efforts, searching for adequate financing. Prospecting for a new showings is the most difficult type of prospecting, and raising money to prospect in a new area is correspondingly difficult. Raising money to prospect in the vicinity of a known showing in a favourable geological environment is a little less difficult. Some of the principal factors usually considered by backers before granting exploration money for prospecting are listed below:

- The experience, reliability, and record of the prospector;
- The marketability of the principal ore minerals sought;
- The exploration history of the search area;
- The exploration method to be employed;
- The amount of favourable geology and small mineral occurrences;
- The degree of optimism in the mining market and general economy;
- The amount of mutual trust between prospector and backer.

For certain special deposits, such as placer deposits, high-grade gold and silver veins, or massive zinc showings, the prospector may be able to develop a showing, sell high-grade concentrate, and retain 100% control until the size, merit, and potential of the property is determined, thereby enhancing his bargaining position prior to major financing. Usually, however, as soon as a new showing is discovered the prospector performs a minimum of low-cost work to determine as far as possible the length, width, and grade of the occurrence. A brief report and map describing the new occurrence is then compiled and forwarded to mining companies in an effort to arrange inspections of the showing and an option agreement concerning addition exploration work.

**ii) Grubstake**

Grubstake in varying amounts can be raised by experienced prospectors to cover salary and exploration expenses for a 3 to 6 month season to search for new discoveries. A grubstake agreement consists of a simple partnership between the financial backers and prospector. Usually the grubstake agreement contains a clause absolving the backers of any responsibility for the actions of the prospector, however, because a grubstake is a partnership all members do share responsibility for each other's actions. Grubstakes do not require registration with the Ontario Securities Commission.

To arrange a grubstake, a brief outline report covering in general terms the proposed exploration program, and including an estimate of expenditures and grubstake agreement, is forwarded to interested exploration companies and/or individuals. It is usually necessary for the prospector to be well known to at least one of the potential backers. The first contribution to a grubstake is often the most

difficult to acquire and is the most important as the size of this contribution and the donor's enthusiasm sets the standard for following contributors. Generally, if grubstakers or backers cannot be found after about 1 month, it is wise to start another project.

Should the prospector be successful and find or relocate a valuable mineral occurrence, efforts can then be made by the prospector and his/her backers either to raise more money to evaluate the showing, or option the showing to a mining company.

**iii) Prospecting Syndicates**

Syndicates are formed when more money is needed than a grubstake can provide. The syndicate members provide, for example, the money up to $100,000 for the purpose of prospecting or performing initial mining development work. Such an arrangement should be renewed, on a regular basis.

Participants in a syndicate are protected because their liability in any lawsuit is limited to the total assets of the syndicate. Therefore, there is no personal liability for the shareholders or participants (Deconcini, Yetwin and Lacy, pers. comm., 1990).

Since more money is generally involved in syndicates, the prospector or geologist that conceives, promotes, and manages the exploration project for a 5 to 25 percent interest is required to have more business and exploration experience than for a grubstake. However, with the grubstake method, it is necessary for the prospector or geologist to be the catalyst in selecting a good exploration project, promoting the financing, and managing the program. Depending upon the experience and nature of the prospector and backers, type of project,

and general economic conditions, it may require two weeks to a year to sell the program, raise the money, and actually form the syndicate. Raising money for initial exploration work is frequently more difficult but is simplified somewhat when the target mineral is currently popular and in economic demand.

Prospecting syndicates provide a satisfactory low cost and a relatively fast method of raising exploration money.

### b. Government Assistance

Probably a more convenient way to obtain exploration related funding is to apply to government programs. If one can withstand the scrutiny and long approval process, government program assistance is worth obtaining. However, considering the business involves establishing a network, the prospector is best using private and government sources.

#### i) Resource Access Negotiations (DIAND Program)

On-reserve Indian Band members apply for the RAN program.

The objective of the program is to assist Indian bands, Inuit and Innu communities to access business and employment opportunities and to attract investment in the natural resource and tourism sectors. As part of Canadian Aboriginal Economic Development Strategy (CAEDS), the Resources Access Negotiations, is a national program to assist Indian communities in negotiation activities with various government and non-government entities such as:

- provinces and other owners or users of off-reserve renewable and non-renewable resources, to gain access to off-reserve renewable and non-renewable resources
- developers of off-reserve resource projects near communities or reserves and related parties, to gain employment, business and other economic benefits from these projects
- other parties interested in community renewable and non-renewable resources, to sell, to lease, enhance, discover, develop, or generate other economic benefits from on-reserve renewable and non-renewable resources

The program will pay costs of technical and legal consultants; persons hired to negotiate on behalf of Indian communities, promotional and communications aids, community administration and coordination related to the project.

## c. Industry, Science and Technology Canada (ISTC)

### i) Aboriginal Business Development Program (ABDP)

The Aboriginal Business Development Program, falling under the jurisdiction of ISTC as part of the CAEDS, will assist entrepreneurs and communities to start up or expand viable commercial ventures such as in the mining sector.

This program replaces parts of Special ARDA and Northern Development agreements, the Native Economic Development Program and INAC's direct contributions to businesses.

Assistance is provided in the form of financial and development aid. Financial support can be offered for the following areas:

- development of business plans and feasibility studies
- establishment, expansion, modernization of businesses
- development of new products, service, or production processes
- business infrastructure (all of the above generally receive 30-40% of financing costs for a maximum of 60% in certain cases)
- marketing initiatives (up to 60% of costs)
- pilot projects and follow-up costs (up to 90% of costs)
- managerial, technical and entrepreneurial training (up to 75% of costs)
- economic studies, seminars, and promotion (up to 75% of costs)

**ii) FedNor**

FedNor is the federal economic development agency for Northern Ontario. With funding from Industry, Science and Technology Canada, it offers two programs which, although not specifically designed for natives, are available for business development. Although mining and other primary resource extraction operations do not qualify, service industries related to mining are eligible.

The Rural Small Business Programs offers grants for start-up and expansion for small businesses in rural areas. The program offers up to 75% financing for projects with capital costs ranging from $15,000 to $135,000. The maximum amount of funding available under this program is $100,000.

**iii) Canadian Aboriginal Economic Development Strategy (CAEDS)**

The Canadian Aboriginal Economic Development Strategy (CAEDS) has eight component programs, all designed to work together in support

of the goal of Aboriginal economic self-reliance. ISTC administers three of these programs.

**iv) Aboriginal Capital Corporations Program**

Aboriginal Capital Corporations (ACCs) are small, regional commercial lending institutions, owned and operated by Aboriginal people, making loans to young and start-up Aboriginal enterprises which have great difficulty in obtaining financing from conventional sources. ACCs are owned by one or more tribal councils, Aboriginal provincial associations, or by Aboriginal people of the area. Each is controlled by a board of directors and managed by a general manager with experience in commercial lending. ACCs are "developmental" lenders, taking an active interest in the success of their clients and supporting them with advice and flexible loan terms.

Repayments of principal since the inception of the institutions exceed $10 million for the three agricultural ACCs and $13 million for the general loan companies. These results demonstrate that the institutions have established their identity as revolving loan funds to their clientele and have established themselves as effective lenders.

**v) Joint Ventures Program**

The Joint Ventures Program is a new element in the array of services provided by ISTC. It is designed to encourage Aboriginal entrepreneurs to enter into business with non-Aboriginal private sector partners. Where significant developmental benefits accrue to the Aboriginal participant and where the joint venture partner is a well-established enterprise, the normal requirement for majority

Aboriginal ownership and control may be waived. In addition to the financial benefits, this "partnering" is designed to help Aboriginal entrepreneurs acquire managerial skills and expertise.

**vi) Aboriginal Business Development Program**

The Aboriginal Business Development Program gives Aboriginal individuals and communities improved access to the capital and support services they need to start up business ventures, acquire and/or expand existing businesses.

The Program operates on the assumption that only projects with strong potential to be commercially profitable will generate wealth and contribute to self-sufficiency. Experience also indicates that adequate project preparation and planning are as important to business success as project financing.

The Aboriginal Business Development Program brings together the best of what previously worked well, and adds a number of new features which were suggested during the extensive consultation process.

While most training and labour development initiatives under CAEDS are funded by EIC, the Aboriginal Business Development Program funds "project related management, technical and entrepreneurial training."

From September, 1989 to March 28, 1991 (18 months) a total of 789 projects have been approved, with total authorized assistance of $62,754,263. The majority of approved projects are small business (requiring less than $100,000 funding), primarily in the service and

retail sectors (for example, grocery stores, gas stations, restaurants, motels and construction firms).

Only 77 of the 789 projects, or 10% of the total projects received more than $100,000 and accounted for 65% of total authorized assistance. Of these, 24 projects, or 3% of the total, accounted for 50% of total authorized assistance with an average of $1,261,238. These larger programs are usually undertaken by community and development institutions.

The ABDP office at ISTC was unable to provide any breakdown of dollars spent on training as their information system does not track training activities separately. ISTC stated that ABDP's focus is on economic development; where training is necessary for a project to reach its development objectives, training dollars are included in the overall project budget (Van Stein and Associates, 1992).

## d. Provincial/Territorial Financial Incentives

### i) Yukon Mining Incentives Program

The Yukon Mining Incentives Program (YMIP) is designed to promote and enhance mineral prospecting, exploration and development activities in the Yukon. The program's function is to provide a portion of the risk capital required to locate and explore mineral deposits. Applicants are invited to submit prospecting and exploration proposals. Only well conceived, technically sound applications will receive funding and applicants are encouraged to consult with their district geologist.

The Yukon Mining Incentive Program contains three modules:

*Grassroots - Prospecting*

Qualified prospectors may apply for a contribution of up to $10,000 per year to cover basic operating expenses while searching for new mineral occurrences in the Yukon. Approved expenses are 100% reimbursed.

*Grassroots - Grubstake*

Companies or individuals providing prospectors with a grubstake (basic operating expenses while searching for new mineral discoveries in the Yukon) may apply for a contribution of up to $10,000 per person, per year. Approved expenses are 75% reimbursed.

*Target Evaluation*

Individuals, partnerships or junior companies undertaking basic exploration work directed at appraising the potential of an un-evaluated occurrence or target may apply for a contribution of up to $20,000 per year. The intent of this funding is to allow prospectors to evaluate new occurrences following discovery and to prepare them for option or sale. Approved expenses are 50% reimbursed.

The maximum grant available depends on the program. The Prospecting and Grubstake programs have a maximum of $10,000, the Target Evaluation program has a maximum of $20,000.
Funding is limited to one application per program. Only one application in the Grassroots Prospecting program, one in the

Grubstake program and one in the Target Evaluation program will receive a contribution per applicant during each fiscal year.

If your prospecting application and proposal are accepted, you may be eligible for an advance of up to $2,500 or 25% of your contribution. There are no advances on the Grassroots Grubstake or Target Evaluation modules.

Interim payments may be made every 30 days on any of the programs. Twenty-five per cent (25%) of your contribution will be held until an approved final report is received. The balance of the contribution will be paid after review and acceptance of your Final Report on the project.

### e. Overview of an Aboriginal Minerals Project: Granite (Labrador Inuit)

Torgaitujaganniavingit Corporation, Ten Mile Bay granite quarry located near Nain, Labrador is currently in operation. The corporation is owned by the Labrador Inuit Development Corporation (LIDC). This is a very remote location, and the quarry is an important long term opportunity for both the community and LIDC. The LIDC case study serves to illustrate how innovative joint venture investments can be made utilizing both private sector and government funds.

The quarry was established in 1991, with the initial site development and worker training being developed. Limited production utilizing primarily manual labour and techniques commenced successfully in 1991. Mechanical equipment is required to achieve commercial production levels.

The granite from these operations is in high demand on world markets due to its very high quality and the presence of Labradorite throughout the deposit. Labradorite is an attractive mineral sometimes used in jewellery and appears as scattered brightly coloured green to blue iridescent crystals throughout the rock, which itself is a matrix of white, grey, brown and black.

Development of the quarry was in conjunction with I.GRA, an Italian firm, and with the strong support of the Province of Newfoundland. A new partnership has been developed with Wibestone, a firm from Lichtenstein. (Fred Hall, Manager of Economic Development, Labrador Inuit Association, personal communication). In 1991, I.GRA was anxious to establish exclusive rights to market the stone on world markets, and a favourable agreement had been reached with the firm. The agreement was for the purchase of 100% of the quarry's production on beneficial payment terms, as well as technical and training assistance. I.GRA would provide the quarry with a derrick crane and diamond saw worth $400,000 for $2 per year for two years.

Both the province and I.GRA have provided considerable technical support to establish the quarry. Each has provided geologists, quarry and site development expertise, and training over the past season.

I.GRA is based in Italy and is part of the Bassini group of companies which operate in the dimension stone market. The related Bassini companies represent a vertical integration in the industry encompassing the development of quarries, to the processing and sale of finished stone. I.GRA Sas is a private limited partnership specializing in the stone block trade.

I.GRA has experience in assisting local organizations to establish quarries in new locations where there is no local expertise. The Nain workforce and provincial assistance provide a much better starting point than I.GRA has had in other locations.

Access to capital for mineral exploration and development has for many been problematic. The high risk nature of the business tied in with the success, or quite often the failure, is not an attractive investment for banks and federal government agencies. However, often when a business can provide greater diverse opportunity for the community as a whole through a joint venture with a mining company, financing may be available. Again, there is the problem of developing relations between the community and the company. More of these problems or issues are summarized below.

### f. Issues Relating to Access to Capital and Business Opportunities

**ISSUE: Access to Business Opportunities are not immediately available to the community:**

a) neither party is aware of each others economic development objectives and goals.

b) capital difficult to obtain for mineral exploration on reserve due to a lack of equity, collateral, ownership of minerals.

c) Banks will not fund exploration on reserve.

d) Minister must guarantee on reserve development for mining company, somewhat exclusive of direct input of the band.

e) mineral exploration is not a tangible product, therefore government (federal) will not fund exploration.

f) before business can be generated in minerals on reserve, land must be leased, hence surrendered.

**Off-reserve:** land can be considered equity for the community without the commitment of investing money in exploration/development, for example including Aboriginal owned lands in comprehensive land claim areas.

Opportunities may exist for projects which would be Aboriginal owned and operated located on Aboriginal lands which would take into account the interests of the community.

**Other businesses:** contracting services to mining companies difficult to obtain unless forced, access to business skills and negotiation skills lacking to secure on-going business opportunities.

How can land be used as equity considering that many communities lack capital and leverage to obtain equity positions in projects and companies?

Prospector type models
Syndicate agreements for land acquisition
Advance on equity arrangements through contract source capital
Security listings and underwriting
Land is equity

Is creative financing used to spin-off business opportunities and recycled to benefit community long range economic goals?

Is the industry looked at as a business and not merely a source for employment?

What is the level of dependence on government assistance? And why is this looked at as the sole source for most communities? Has the government created a dependence attitude for communities, ie., ISTC, CAEDS, AEP programs? Has the failure of government to provide venture capital been a hindrance?

Are financing avenues, e.g. use of underwriting, advance funding mechanisms known to communities?

Do communities have short, intermediate and long term economic development policies, strategies and objectives with the minerals industry as a component?

Do communities have an inventory of mineral potential and are they ready to react to a sudden flux of exploration activity in their area?

Do communities depend on outside consultants to lead their economic development direction? Do the consultants have mineral industry expertise including business skills?

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## 3 S:\\RCAP\\RCAP.8Maintaining Business Income From Mining

The crowning achievement of exploration is the discovery of a valuable mineral deposit. Once discovered, it is important to maintain income from the discovery and recover exploration costs. The most frequent way a mineral landowner achieves financial reward is to lease or sell his/her property to an operator and retain a royalty in production. But a poorly drafted royalty agreement may not provide the mineral landowner with the anticipated financial reward.

While the following description of considerations is limited, it covers most of the significant provisions that the mineral landowner should take into account when drafting a royalty agreement. Royalties are more complex in the metals exploration and mining industry compared to the Sand and Gravel operation (see "Access to Minerals - Shechelt Sand and Gavel")(PDAC Digest - Summer 1992). They include two basic types of royalties; net smelter return and net profits royalty. This section will focus on both types of royalties, provide insight into comprehensive land claim royalty provisions and provide an example of terms to negotiate in a sand and gravel operation.

### a. Royalty Income

#### i) Net Smelter Returns Royalty

A net smelter returns (NSR) royalty is based upon the amount of proceeds paid by a smelter or refinery to the seller of dore (semi-refined metal) or ore concentrates. It generally allows for the deduction of smelter and associated costs. The calculation of a net smelter returns royalty is relatively simple because of the limited number of factors that must be accounted for. Many NSR's vary from 1% to 10% depending on the operator. When fashioning a royalty of this kind in a mineral property lease or sale agreement, the mineral landowner (royalty holder) should consider the following factors:

*Terms of the Agreement*

If the property is leased, the initial term should be long enough to allow for thorough exploration and development of the property - perhaps ten years - but not so long as to constitute a virtual sale of the property. The lease should also allow for renewal terms, which should be permitted only so long as commercial production of minerals is currently occurring, and care should be taken in defining "commercial production" (PDAC Digest, Summer 1992).

*Advance Minimum Royalty*

To provide the mining company with an incentive to explore and develop the property, the lease or sale agreement should provide for payment of advance minimum royalties. Advance minimum royalties should increase each year, at least for a number of years, to an amount which will prohibit the operator from simply inventorying the property and not exploring as you want them to do. The advance minimum royalty payment should also be adjusted for inflation. In most cases, the operator will insist upon crediting advance minimum royalty payments

to payment of the production royalty which may become payable to the royalty holder.

*Production Royalty: Terms and Conditions*

The language establishing the net smelter returns production royalty, and the terms and conditions of its payment, form the heart of a well drafted royalty agreement. The royalty determination provisions should deal with the following items:

- Production Royalty Definition

  Because precious metals are generally sold by the operator but other minerals can be used on site in the mining and milling processes, it may be advantageous to differentiate the production royalty calculations between these two groups of minerals. The royalty holder should vigorously avoid any agreement to a cap or end price on the royalty, after payment of which the royalty would cease to exist. One never knows how much gold might be found. A typical net smelter returns production royalty clause contains the following provisions:

  (1) Precious Metals

  The agreement should set forth the percentage of net smelter returns to be paid to the royalty holder from the sale or other disposition of gold, silver, and platinum group. "Net smelter returns" usually means the gross proceeds payable to the operator by the smelter, less (i) various taxes to be agreed upon by the parties, but generally not taxes based upon income of the operator, the value of the property, the privilege of doing business, and other similarly based taxes; (ii) costs for transportation and insurance of dore, etc. from the mill to the smelter; and (iii) costs charged by the smelter to refine the dore, etc. A provision should be included to determine fair charges when the smelting is carried out in facilities owned or controlled by the operator. These charges should not exceed actual costs incurred by the operator.

  (2) All Minerals Other Than Precious Metals

  A similar definition is used for all other minerals other than precious metals, with the addition of a provision for

calculation of the production royalty on other minerals used by the operator that are not sold or otherwise disposed of.

**ii) Net Profits Royalty**

This form of income from a mineral operation is the reverse of the net smelter return where income to the prospector is based upon profits generated by the operation and not based on the proceeds realized from the smelter, for example, the bars of gold.

Considering the enormous costs to bring such operations into production, it could be several to tens of years before an operation makes a real profit. Thus the net profits royalty is beneficial to the mine operator because money is not paid out until there is a profit. The prospector loses because, he/she is dependent on the efficiency, skill, financial capabilities, equipment and facility availability, market conditions, and operating decisions that may not involve the best interest of the prospector. He/she has no control over the operation. The best deal in this situation boils down to good faith on the sides of both parties to ensure that a valuable deposit is discovered and that it is profitable.

## b. Royalty Income in Land Claim Areas

All comprehensive land claim agreements, other than the Québec agreements, address the issue of royalties. For example, the Nunavut agreement states that the government is to pay the Inuit 50% of the first $2 million and 5% thereafter of royalties that it receives from the production of resources on Crown land in the Nunavut Settlement Area. In comparison, the Inuvialuit Final Agreement calls for Canada to remit all royalties, fees, rentals, bonuses or other payments in

lieu of royalties, accruing from existing mineral rights. The Gwich'in Final Agreement calls for the government to pay 7.5% of the first $2 million of resource royalties and 1.5% of any additional resource royalties received by government in that year to the Gwich'in Tribal Council.

Under the CYI Umbrella Final Agreement, the First Nation is to receive a share of the Crown royalty from mining and minerals amounting to the total normally payable to the Yukon Territory, for Category A lands only. Otherwise, on remaining settlement lands, 50% of the first $2 million of resource royalties and 10% of any additional resource royalties received by the government in that year is payable to the Yukon First Nation.

### c. Income From Sand and Gravel

Previously, the Sechelt Sand and Gravel was described in terms of access and benefits to the community (see Access to Minerals). In general, Sand and Gravel operations can provide more immediate revenues.

Sand and gravel developments can provide community benefits in a variety of forms:

- royalty income for the First Nation -- Royalty payments from the development of a project are based on the amount of sand and/or gravel removed. Royalty rates are negotiated between the First Nation and the developers of the project. The royalties are determined in part from local prices, volume and the amount the developer can afford to pay. Provincial transportation departments and municipal governments are the largest bulk users of sand and gravel. Generally, they set the base market price

from which all others begin negotiations. In 1990, royalty rates ranged from $0.25 to $2.00 per cubic metre. The average royalty paid was approximately $1.00 a cubic metre. For a 100,000 cubic metre agreement a First Nation would expect between $25,000 and $200,000 in royalty payments paid over the agreed term.

- surface lease payments to the First Nation -- These are related to the land area used by the project developer. Surface rents are negotiated between the First Nation and the project developer, but tend to be based on the local value of lands and the size of area required for an operation. Rents may range from $5.00 up to $300 a hectare per year or more. High rent charges directly affect the operator's costs and profitability.

- bonus provisions -- These are typically one-time, lump sum payments made by the project developer to the First Nation in the form of one lump sum payment or on an agreed schedule of payments. Bonus provisions can ensure income to the First Nation, even if the developer chooses not to develop the deposit.

- taxation -- Taxation of interests in Indian lands may be possible. Taxing minerals or mineral production extracted from Indian reserves would depend on the by-laws in place pursuant to section 83 of the Indian Act.

- profits for the First Nation's development corporation, where the project developer is a such a corporation.

- employment and training opportunities for First Nation members. Sand and gravel developments may provide employment opportunities for First nation members in business, management, geology, engineering and related fields. Heavy equipment operators and drivers will also be in demand.

- a ready, low-cost supply of sand and gravel for roads and infrastructure on reserve.

- barter arrangements between businesses -- A First Nation may choose to receive a volume of processed aggregate, road improvements or some other form of trade as payment in return for their sand and gravel. Favourable agreements may be possible if a First Nation has identified a need for a paving project or a supply of road gravel stock-piled on reserve. Naturally, these are highly individual and unique occurrences and depend entirely on local conditions and circumstances

(Indian and Northern Affairs, The Development of On-Reserve Sand and Gravel: A Community Guide, 1991).

### d. Sustaining a Business Partnership

The following is extracted from a presentation made by Jerry Asp, President, Tahltan Development Corporation (Winnipeg, 1992), in regards to forming joint ventures with mining companies. The central theme of Mr. Asp's presentation was that joint ventures or partnerships work best when both parties understand what each partner is contributing. Mr. Asp had the following recommendations to encourage success of a joint venture:

- regular informal contact
- one consistent contact person from each organization
- hold regular (i.e. monthly) meetings where individuals from both organizations are encouraged to make inputs and suggestions to the meetings
- implement a formal decision making process with the appropriate checks and balances - a person, or persons, should be responsible for ensuring that decisions are being made at the regular meetings.

The question that comes to mind is, "Why would you want to go into a partnership or a joint venture?"

Two reasons:

(1) the potential partner has money, equipment, knowledge (employees) or bonding capabilities you need.

(2) the potential partner has an established business which is recognized by the mining company. In other words a "track record."

In the case which Mr. Asp presented, the Tahltan Development Corporation (TDC) had entered into a joint venture agreement with Grant Stewart Construction of Watson Lake, Yukon, to do a $1.5 million contract building settling ponds for the Golden Bear Mine, in 1989.

The TDC first assessed the strengths and weaknesses of both itself and the potential joint venture partner. They then determined what each partner could contribute to the joint venture.

The Tahltans have quickly realized that the mining industry has a lot to offer Aboriginal communities. Seizing the opportunity to participate in the industry has not only provided incomes for many of the community members but has developed a skill base. Whether it be heavy machine operation or mill supervision, the community has developed a strong base of skilled people with transferable employment skills. Beyond this, the Tahltans are now involved in construction and the development of hydro projects.

In summary, this section has revealed ideas to generate business income from a mineral operation. The case examples illustrate that community participation in the minerals industry can be a viable venture for community economic growth. Unfortunately, not all communities have the good fortune as the Tahltans to be in a mineral-rich area. Others are still struggling and learning from experienced communities similar to the Tahltans. Some issues remain outstanding.

## e. Issues Relating to Maintaining Income to the Community

ISSUE: Mechanism to ensure income goes to the community from mining operations lacking:

a) sharing in the economic rents and benefits especially outside the context of Aboriginal comprehensive land claim agreements.

b) cash compensation for damages, such as wildlife, access routes, etc.

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# 4 S:\\RCAP\\RCAP.10Conclusions

5 Aboriginal people have always been involved in the minerals industry as prospectors and miners, whether it be the South American Indians, who mined gold and other metals, more than 500 years ago, or the Ojibway who mined copper north of Sault Ste. Marie, Ontario in the early 1800s.

Without getting too technical, this report has focused on the direct opportunities available to the Aboriginal community in exploration, development and environmental reclamation. To participate in the minerals industry, Aboriginal people can be employed in the industry, develop joint ventures in exploration, or collect income from mineral extraction through obtaining royalties. In addition, some may seek spin-off business development providing a service to the mine. However, an understanding of the industry components will do justice to ensure long term benefits for the individual and the community.

The nature of the business is it's cyclic movement, from depressing lows to ecstatic highs, mainly in response to world metal prices and consumer demand. Riding the waves of success and failure within the industry has become the mainstay for many who are devoted to the industry. The romance of discovery, the motherlode of all motherlodes keeps many in industry, from the prospector to the mining company executive, interested.

With more than 325 mines in production, there are more than 100,000 people directly employed in mining operations in Canada. Mining occurs in most regions of Canada. Depending on the economy, environmental regulations and the uncertainty over the settlement of

comprehensive land claims, many in industry fear that the industry will recover at a slower pace. Aboriginal communities' control over lands in land claim areas, however, provides more optimism for the communities than for the mining companies. Aboriginal participation will accelerate as they become more experienced and skilled in the industry.

Aboriginal participation in the industry is perceived by most as primarily employment. As Aboriginal communities consider mineral activities as a business opportunity, the future will hold Aboriginal people employing Aboriginal people. Today, however, of the entire mining related workforce, approximately 4% are Aboriginal. More than 50% of these jobs are in semi-skilled manual work. Employment Equity legislation and employment provisions of land claim agreements, are providing greater opportunity, both in representation and job level, for Aboriginal employment in mining. For example, in the Inuvialuit, Nunavut and Council of Yukon Indian settlements, there are participation agreements provisions, requiring mining companies to hire the local workforce. Employment Equity has had a two-fold effect on Aboriginal employment. One, the company is mandated to reach target representation. Two, the Aboriginal employee is given exposure in the industry to develop skills. Unions have added support to Employment Equity legislation and complimented existing Aboriginal-company participation agreements. In many cases, skills acquired are transferable to, for example, hydro projects, government road contracts and other mines.

The development of partnerships between the company and Aboriginal community is seen by many community members as a means to learn more about the industry, develop dialogue to manage the environment, and gain income and equity positions in operations. Unfortunately, it

is one-sided. Companies rarely communicate project initiatives to the local community. The Aboriginal community is rarely invited to visit the operation, rarely informed of job opportunities, and rarely consulted in mine planning. Despite this there are 'best practice' examples scattered throughout Canada. Many communities should develop dialogue between each other, perhaps to understand the strategies involved in forcing the company to communicate with the community. Roadblocks, unfortunately are a last resort, but according to the Tahltan, are effective!

Education and training for Aboriginal people interested in pursuing business and employment opportunities in the minerals industry are extremely important. All levels from the prospector to the mine manager and company president require knowledge of innovations in exploration and mining technology. Mineral deposits are rarely found in surface showings today. Prospectors must develop the skills to "read the rocks" and be a good salesperson (business skill development) to be successful. Future discoveries will be deeper and more difficult to detect. Fluctuating metal prices force companies to minimize mineral extraction costs. Often new technologies compounded with the properly trained employees can help alleviate mine costs. Aboriginal people should focus their training in electronics, computer skills, science, engineering, environmental management (linked to traditional management) and related technologies. Training is offered at the community level by provincial governments, mining organizations and community colleges.

On-reserve mineral development, may increase Aboriginal participation in the industry, however, it is not always encouraged for several reasons. Many reserve communities are limited in size and have growing populations. With the average size of reserves in

Canada approximating 2,800 acres, effective land use planning, particularly for housing and infrastructure, is probably more important in the long term. Secondly, impediments of the Indian Act such as the surrender process, antiquated Indian Mining Regulations and the requirement to share royalties with the provinces, hinder on-reserve mineral activities.

The underlying concern for both mining companies and the Aboriginal community is access to subsurface mineral rights. The Crown, or the provinces in right of Canada, own mineral rights except where ownership (in fee simple) has been negotiated through a comprehensive land claim settlement. Reserve lands comprise 2,679,967 hectares of land, with mineral rights owned by the Crown. Settled comprehensive land claims make up more than 80,000 square kilometres of mineral rights, owned by Aboriginal groups. Access to minerals on reserve is subject to provisions of the Indian Act and the Indian Mining Regulations. Access to Aboriginal owned minerals in land claim areas is subject to local Aboriginal regulations and the overriding provincial/territorial mining acts. In both cases land use is jointly managed by the federal/provincial governments and Aboriginal organizations. Perhaps as Aboriginal communities establish self-government, ultimate control of mineral resources may lie with the community.

Environment and particularly the protection of the environment is of utmost concern to all Aboriginal communities. Communities consider the hinterland their "warehouse" of goods (primarily game). These goods are finite. If managed properly, they will be available for future generations. Mining activity has a historic problem with being environmentally disruptive to the wildlife, flora and water. If companies become more environmentally responsible and involve the

community in environmental impact and assessment reviews, environmental damage can be mitigated. Governments must also respect community aspirations. Mining to many communities can form a vital component of community economic development only when the environment and traditional pursuits can be protected.

Considering all the risks, whether it be environment, investment and the life of a mine to sustain incomes, capital to participate effectively is vital to many communities to become equal managers to minimize risk for the community. A rule of thumb in the mining industry is never invest your own money; Use other peoples' money. Financing the mineral exploration phase is probably the most lucrative level of activity for most Aboriginal entrepreneurs. This is nearly always obtained through "creative financing", such as grubstaking, syndication and joint ventures. The key is that in the minerals business, the property is the prospector's equity to secure or attract investment from companies and "wealthy" individuals. Banks will not fund preliminary prospecting and exploration. Governments will, in most cases, fund small exploration projects and negotiation expenses through established grants and contribution arrangements. Many of the provinces advocate prospecting.

In all cases, whether it be on the reserve, land claim or provincial/Crown lands, the "best deal" joint venture is imperative to ensure that the lucky prospector receives cash flow from his/her discovery. For most, the investment already made in developing the property to a "saleable" stage is a risk. The best deal will allow the prospector to recover this investment and hopefully enjoy future payoffs from mineral development and mining. Royalties must be negotiated. In addition, other benefits, such as employment, contracts, etc., can be negotiated providing long term benefits and

sustained growth for the community. There are many success stories, such as the Tahltans, B.C. and Sechelt for example.

No doubt with the current dynamics surrounding comprehensive land claims negotiations and a forecasted increase in mineral development activity in Canada, many more communities will have to make decisions about being active participants in the minerals industry. Community to community discussions regarding ways to share past best and worst experiences in the minerals industry will provide the catalyst to increase Aboriginal participation.

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# 6 Recommendations

Recommendations to increase Aboriginal participation in the minerals industry are described in this section. Recommendations are based on the previous literature review and informal discussions with Aboriginal community representatives, industry and government officials. They reflect the views of a small collection of information and practitioners of the minerals industry and those affected by industry activity. An attempt was made to keep a national scope, however, recommendations should be altered to accommodate the local community and region. A broad vision is proposed where a memorandum of understanding (MOU) be developed between Aboriginal communities and industry. Specific recommendations can form part of the MOU while communities may select their own recommendations in each of the areas of Workforce, Environment, Finance and Land Access issue areas. In proposing recommendations, specific recommendations have been grouped according to the role for each stakeholder including such groups as Aboriginal communities, labour, government, and mineral companies. The following recommendations should be adopted by the Royal Commission on Aboriginal Peoples:

## a. General Recommendations

Vision

Where mineral projects are wanted by the community, Aboriginal/Government/Company to design an effective agreement or MOU encompassing economic development, employment and education strategies at the beginning of projects.

1) Organization to organization consultation: Mining companies to communicate with communities prior to staking to protect investments and ensure Aboriginal participation. Limited to within traditional territory of Aboriginal community. Communication to be documented in letter or community presentation format;

2) The Mining Recorder to play a key role in ensuring communication link between mineral companies and Aboriginal communities. Mining Recorder acts as the information source for groups for information on location of Community and location for future work and projects. Mining recorder plays a pivotal role between all stakeholder groups. Information may be obtained through a 1-800 service or computer fax network;

3) All companies must report to the Mining Recorder on a monthly basis and similarly must communicate initiatives to the Aboriginal community in the form of community presentations. Mine Minister to ensure that monies are available through Mineral Development Agreements (Federal - Provincial) for groups to liaise/negotiate and communicate on a regular basis. Format to be decided by groups;

4) Aboriginal organizations are to establish an internal group of land users to identify areas where outside parties (specifically mining companies) have expressed an interest in working with the band;

5) Aboriginal organizations to establish an acknowledgement of correspondence to the company within an agreed time period; and

6) Community to establish an arms length organization to maintain decision making body within or throughout life of operation. ie. a band/community association/corporation.

*Required Processes:*

1) All planning boards for mine/mineral development project must have significant Aboriginal participation for projects within the traditional territory of Aboriginal community;

2) Aboriginal communities are regularly given the opportunity to present their position to the mining company's Board of Directors. Aboriginal communities to have representation on the Board of Directors of projects;

3) Consultation is to be between parties not individuals. Parties of an a greed upon minimum or quorum should be in attendance of all meetings. This ensures continuity should political/organizational change occur; and

4) A Memorandum of Understanding (MOU) to be established between government and Community ensuring regular meetings; communiques; news postings and senior federal and provincial government visits as a key consultation instrument.

## b. Workplace/ Workforce Recommendations

*All Parties:*

1) Aboriginal Community, government and companies to develop a joint 5 year employment plan commencing prior to feasibility stage including:

   - training,

- transferability and advancement methods of personnel
- graduated scale for hiring and schedule,
- regular skills upgrading,
- strategies to include the development of managers/technical staff after the first year of operation.
- schedules for regular meetings with Community education representatives and economic development representatives to develop Community-Company human resource strategy. Human Resource Development Canada (formerly EIC) Department and equivalent government departments at provincial level to fund the development of the strategy. Company to joint develop receive a tax benefit for costs of implementation (ie, Futures, Access programs, Pathways).

*Mineral Companies:*

1a) Exploration companies to develop a scholarship program offered to the community at a rate of a minimum of one student per year;

1b) Mining companies in development and production to support the apprenticeship of 5-10 students (or a negotiable amount reflecting the composition of the available workforce in the area);

2) Companies to take the 'adopt a community' approach ensuring the integration of human resource strategies with Community economic development strategies;

3) All companies to initiate a Community presentation/orientation at onset of exploration inviting Community members to participate in mine development by announcing/posting available employment and training. Company and community to take a consensus on site specific or Community specific training;

4) All companies are to offer training to a minimum of five Community members per year in a chosen aspect of the operation and obligated to hire the student at year end;

5) All company funds (designated and used), education initiatives are tax deductible similar to tuition provisions currently available to University and College students under the Income Tax act;

6) Company to provide a minimum of one year notification to community of the above recommendation;

7) Mining company should promote within its structure a liaison function at a senior level of management for an Aboriginal employee to ensure interaction takes place at a decision making level. The manager of the liaison function is an integral part of the decision making process; and

8) Mining companies anticipating involvement, or presently involved, with Aboriginal communities must promote Aboriginal awareness training for all staff including management.

*Aboriginal Community:*

1) Community council/organization to develop a human resource inventory, including university, college and other trained individuals and make available to company human resource staff;

2) Community to play a key role in orientation/preparation, guidance counselling, recruitment and promotion and retention;

3) Community to provide Aboriginal cultural awareness support and company to develop a corporate awareness strategy for Community. Community to make a timetable/schedule of Community meetings, traditional pursuits and seasonal events such as hunting, fishing, and harvesting activities available to companies at beginning of projects so that they may prepare a job-sharing strategy;

4) Community representatives to develop an inventory of programs/training offered within Community or beyond and support in acquiring funds through DIAND, Human Resource Development Canada (formerly EIC) and provincial sources; and

5) Education trust fund established by Community for skills updating, supplement University distance courses and equipment.

*Governments:*

1) Provincial government to fund relocation of mineral educators for Community workshops to introduce minerals industry concepts on an on-going basis; and

2) Government to lend support to company and community should operations cease.

*Labour*:

1) Mining Associations and unions must become proactive in recruiting, promoting and retaining Aboriginal candidates throughout their organizations if they are to succeed in working effectively with Aboriginal communities.

### c. Finance / Taxation Recommendations

1) All parties to develop joint working groups with participants in each group. These working groups will meet monthly during the life of the operation to share information on economic development and mine related planning., and financial assistance/sources;

2) Efforts will be made to broaden the sources for exploration and development funds through:

- provincial assistance programs to be applicable on reserve/community
- Canadian Aboriginal Economic Development Strategy (CAEDS) to be maintained under RAN (Resource Access Negotiations program) and applicable to all Aboriginal organizations and individuals.
- CAEDS to be expanded to implement phases two (ground exploration) to five (detailed diamond drilling) of Mineral Potential on Indian Lands program (DIAND Initiative).

- Special funding program established to support the assistance of a mineral development officer and a community liaison officer in the Aboriginal community/tribal council/association/organization.
- Establish special tax benefits to companies including Aboriginal joint venture exploration partners that will give operators the right to deduct 133% of exploration costs (similar to flow through scheme 1983-1988).
- one year tax holiday for operations having a 10% (minimum) Aboriginal employment rate in the first year of operation.
- provinces to allocate a minimum 10% of MDA (Mineral Development Agreement) budget to research and development in areas encompassing the traditional territory of a community.

3) On reserve metallic mineral development should also be subject to those guidelines as defined in section 58 (4)(b) of the Indian Act (minister may not require a surrender or designate for the purposes of non-metalic mineral development). The band will be able to negotiate directly while not losing reserve status;

4) Provinces to encourage the concept of mineral rights (staking) and the use of this as 'equity' and that joint venture partners can often assume assessment costs (ie. keep claim in good standing); and

5) Community to provide an inventory of Community based businesses/services and entrepreneurs to companies/mining recorders. Mining recorders to post directory in respective branch offices.

### d. Land Access Recommendations

1) All mining operations located within the traditional territory of an Aboriginal Community will pay a negotiated royalty net profit (or net smelter return) from the operation, subject to advance annual payments (to be negotiated) payable at the commencement of operations. This amount will be deductible once operation is in a position to pay out Net Profit Interest;

2) Future regulatory considerations/amendments to include input from Aboriginal organizations and such an organization will have a period to dispute proposals;

3) Aboriginal community will have the right to monitor financial performance of operations on an annual basis in a formal committee process;and

4) Community to inventory current traditional land-use with a committee of elders, anglers, hunters, and natural resource authorities from the community.

### e. Environment Recommendations

1) Provincial government, Company and Aboriginal Community to develop a 10 year land-use plan with environment mitigation procedures;

2) Land-use boards to be created with equal representation from federal and provincial governments, mineral companies and Aboriginal groups who will meet to review plans and assess

progress of implementation and if necessary propose amendments to present plan;

3) A formal bonding process be established as a trust account with the federal and provincial governments, companies and Aboriginal groups holding the joint account. Overriding principle of bond uses will be indoctrinated in a Memorandum of Understanding and if necessary enforced as an agreement. All interests accrued to the trust will be credited to the company and taxes waived;

4) Monitoring Boards will be established to both monitor implementation of plans, revenues, employment and social effects related the mineral operation;

5) Reclamation expenditures will be tax deductible at a rate of 133% once operations cease. This will apply to Aboriginal-owned companies who are retained to cleanup sites;

6) Elders are to be invited to mineral company planning sessions and invited to tour operations with other members of established boards/committees and related organizations;

7) Environmental groups to operate under the same guidelines as companies in consultation, education and practices while maintaining strong formal communication with elders and economic development person from communities.

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# APPENDIX A
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# APPENDIX B
# Provincial and Territorial Programs

Provincial/Territorial Programs

Northwest Territories

The Department of Energy, Mines and Petroleum Resources of the Government of Northwest Territories (GNWT) does not offer Prospecting Training Courses. Arctic College, over the past two years has offered numerous courses, funded internally as well as by Canada Employment and Immigration (Pathways to Success Program). The GNWT has shifted their focus towards providing a grubstake to NWT Prospectors, including some graduates of these courses (pers. comm., Martin Irving, Minerals, EMPR, GNWT).

Yukon

Yukon Economic Development does not offer prospector training programs. The Yukon Chamber of Mines coordinates basic and advanced prospecting courses each year.

The department does offer financial assistance to qualified prospectors through the Yukon Mining Incentives Program (YMIP). In addition, through the Information Element of the Canada/Yukon Mineral Development Agreement or through the Canada/Yukon Economic Development Planning Agreement they can provide funding to Yukon organizations for initiatives designed to communicate information about the mining industry (pers. comm. - Miriam McTiernan, Deputy Minister, Yukon Economic Development, June 3, 1993).

**Nova Scotia**

At present, the Department of Natural Resources offers only an elementary prospectors course, however, they are planning to prepare and offer an advanced prospecting course in the future.

The elementary prospecting course is available to the public. Since 1983, the Department has offered this prospecting course 16 times and has had 300 graduates.

Prospector assistance and training are financed through the Cooperation Agreement on Mineral Development (1992-1996). Prospectors must either show that they have taken a course or have experience in lieu of a course in order to qualify for prospector assistance. The present course qualifies an individual for the Prospector Assistance Program.

New Brunswick

For over 30 years, the Department of Natural Resources and Energy has offered prospecting courses and several hundred persons have had some basic training in prospecting. Prospecting courses offered by the Department are funded by a Mineral Exploration Stimulation Program (MESP). One or two courses a year may be offered depending on the demand.

In 1992, two courses offered in Fredericton and Bathurst were attended by 39 persons. The instructors are highly qualified consulting and staff geologists with wide experiences in mineral exploration. The course consists of six days spread over two weekends and costs each participant $50.00. Each participant receives a text "Prospecting in Canada," rock and mineral sets, and several maps. The course content comprises instruction in the principles of physical geology, identification of rocks and minerals, aerial photographs, geological, geochemical, geophysical, and topographic maps. Important aspects of mining legislation are also discussed (pers. comm. - Mavis Hurley, Deputy Minister Natural Resources and Energy, New Brunswick, June, 1993).

Newfoundland and Labrador

The Government of Newfoundland and Labrador has provided several prospectors grants to aboriginal peoples in Labrador to prospect for soapstone and labradorite as well as base metals. The Mineral Industry Assistance Program (Prospectors assistance) has also provided funding to the Labrador Inuit Development Corporation for the dimension stone quarry at Ten Mile Bay, near Nain (pers. comm. - Paul L. Dean, Assistant Deputy Minister, Department of Mines and Energy, Newfoundland, June 1993).

*Prospector Training - Description:*

The prospectors training component is designed to teach basic prospecting skills to eligible individuals. The program will cover up to 100% of the eligible costs incurred by an individual to attend this training program.
The training program will be held on an annual basis rotating between different areas of the province, as demand requires. Maximum number of registrants will be determined by yearly budgets. The duration of the course will be 10-14 days. Interested persons must submit an application for 'Prospector Training.'

British Columbia

In the past, the British Columbia Ministry of Energy, Mines and Petroleum Resources has sponsored introductory courses on prospecting in geology as well as an advanced course. The introductory course generally requires between 30 and 50 hours of class time whereas the advanced course requires approximately 200 hours, with a large field component.

Due to fiscal constraints, the Ministry has reduced its participation in prospectors' training. However, the Aboriginal Affairs Section, Land Management and Policy Branch, is considering the development of a mineral resources/prospecting course for First Nations. The Ministry is hoping to sponsor a course in 1993/94 (pers. comm. - John Allan, Deputy Minister, Ministry of Energy, Mines and Petroleum Resources, British Columbia, June 1993).

*Nicola Valley Institute of Technology (NVIT, BRITISH COLUMBIA)*

The Nicola Valley Institute of Technology was initiated in 1983 with 12 students and now serves over 300 students registered in a wide array of programs. It is one of the very few Canadian post-secondary institutions owned and controlled by First Nations people.

Directed by the demand from First Nations communities for a wide range of career opportunities, NVIT works closely with various Program Advisory Committees to develop programs and services that are enhanced by culturally relevant curriculum and activities.

*Natural Resource Technologies - Nicola Valley*

The primary objective of Natural Resource Technologies is to train students in the skills of natural Resource Management. A value system rooted in the traditional First Nations ethic of respect for the environment enhances the curriculum and delivery style. The Natural Resource Technology program provides quality training in the management and protection of our valuable forest, grasslands, range, fish, wildlife and wildland resources (8).

Alberta

Alberta has no incentive or assistance programs for mineral prospecting and no such programs are being considered (pers. comm. - Brian Hudson, Manager - Mineral Agreements, Alberta Energy/Mineral Resources Division, Alberta, June23, 1993).

Manitoba

Manitoba Ministry of Energy and Mines has been indirectly involved with prospecting courses, an example is one held at Flin Flon, June 12 to June 24, 1993. This 12-day, beginners course is being funded by the office of Employment and Immigration Canada in Flin Flon.

The Federal government has funded similar courses in the past in Manitoba to First Nations and northern communities, for example in 1987 at Leaf Rapids and Lynn Lake in 1989 and 1990 at the Pukatawagan First Nation. Also, in 1992 the Cross Lake First Nation, using Federal funding, contracted an extensive prospector training program (pers. comm. - David Tomasson, Deputy Minister

*Manitoba Ministry of Energy and Mines, Manitoba, June, 1993.*

The Department has assisted all these courses with technical support, i.e. liaison, advice and temporary instructors, maps, publications, legislation, logistics, etc. They are currently examining the possibility for offering these courses directly, but it may be difficult under current fiscal restraints.

Ontario

Ontario has two such prospector training programs presently ongoing within the Ontario Geological Survey. Firstly, a basic prospecting

course is normally run once a year by each of the thirteen Resident Geologists' offices. In 1992, prospecting courses were conducted in Red Lake, Marathon, Manitouwadge, Ignace, Thunder Bay, Wawa, Sault Ste. Marie, Timmins, Kirkland Lake, Temagami, Sudbury, Huntsville and Tweed. These courses were delivered in the evening over six to ten evenings. A schedule indicating dates and places of future courses for 1993/94, has not yet been compiled. A "Call on Us" indicates the location and phone numbers of our Resident Geologists' offices which could provide more information if you are interested in a course in a certain area. An outline for ten evening (three hours per evening) introductory prospecting course is also available. The length and content of these courses vary, depending on interest, etc.

Secondly, there is a specially funded program called "First Nation Prospecting Courses" that will be managed out the Red Lake office. This program will continue until March 31, 1994. The Lecturer has and will take prospecting classes into the First Nation communities in Northwestern Ontario. Ed Nabigon (the Lecturer) has two reports on classes and activities for the last year available (pers. comm., 1993).

Saskatchewan

The Government of Saskatchewan offers an annual 6-week Prospector's School jointly-sponsored by Saskatchewan Energy and Mines, the Saskatchewan Institute of Applied Science and Technology (SIAST) and Northlands Career College. It is normally held between the second week of April and the third week of May, and traditionally has been taught in La Ronge or Creighton. The 1993 school, however, was taught on a temporary "campus" set up on Indian Reserve No. 200 at Southend, Saskatchewan. Graduates of the course receive an accredited SIAST certificate. More importantly an effort is made, particularly by SIAST, to place the graduates in jobs with industry, (pers. comm. -

L.S. Beck, Executive Director, Geology and Mines, Saskatchewan Energy and Mines, Saskatchewan, June, 1993).

The course is intended to provide an overview of prospecting, staking, and developing mineral claims in the north. The aim of the school is to provide a local workforce and stimulate interest in the prospecting and exploration aspects of mineral development.

*Saskatchewan Institute of Applied Science and Technology (SIAST)*

SIAST has developed a future-oriented Education Equity policy and a plan that will improve equitable access to career-related education for all Saskatchewan adults. This plan makes SIAST education more accessible to women interested in non-traditional occupations, those who are of Aboriginal ancestry, and/or those who have a disability. Through the plan, special services and assistance are provided, in addition to the regular student services. Each SIAST campus in Saskatchewan has a Native Services Division to respond to the needs of students of Aboriginal descent.

Programs are offered from four major campuses, each with a number of smaller campuses. An individual may approach his/her career goals through a variety of options: competency based education; co-operative education; credit and non-credit programs; part-time continuing education; traditional semester programs; and work experience programs. These programs range from adult basic education and upgrading to high technology professional certification programs.

Aboriginal people have attended the programs and have graduated. The results are summarized below followed by a point form description of success factors and critical issues in designing the SIAST program:

Trainee Characteristics:

| Age | Trainees | Marital Status |
|---|---|---|
| 21-23 | 4 | |
| 24-26 | 5 | |
| 27-33 | 3 | |
| Total | 12 | Married 7 , Single 5 |

Education:

| Grade Level | Trainees |
|---|---|
| 9 | 5 |
| 10 | 4 |
| 11 | 1 |
| 12 | 2 |

*SIAST RECRUITMENT STRATEGIES*

- Identify Training Objectives
- Identify Education - Employment Prerequisites
- Identify Target Population
- Select Recruitment Communities
  - Maximization Pressure vs Equity
- Select Advertising Strategy
- Identify Contact Person
- Select Interview Strategy
- Conduct Interviews - Medicals - Tours
- Select Trainees - Alternates
- Inform all Candidates of Results
- Complete Documentation

*CRITICAL ISSUES*

1. Clearly Identify Client Objectives
2. Encourage Open - Clear Communication
3. Involve Training Department - Personnel Department
4. Involve Union in Planning & Communications
5. Inform - Involve Community Agencies
   - Outreach
   - Education Board
   - Housing Authority
6. Accommodations
7. Family Support - Adjustment
8. Cross Cultural Awareness
   - Consultants
   - Elder Counselling
   - Program Development
9. Clearly State Attendance - Discipline Policy and Enforce It
10. Monitoring
    - Performance of Trainers
    - Performance of Trainees
    - Issue Resolution

# Royal Commission on Aboriginal Peoples

## Aboriginal Participation in the Minerals Industry: Part II

### Interviews with Stakeholders

**August, 1993**

# Royal Commission on Aboriginal Peoples

## Aboriginal Participation in the Minerals Industry: Part II

### Interviews with Stakeholders

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Appendix A - Interview Guides
Appendix B - List of Interviews

# 1 Introduction

This report provides recommendations based on interviews with stakeholders in the Aboriginal minerals industry. The recommendations focus on industry, government, Aboriginal demands on employment, education training needs, integration of Aboriginal and private sector attitudes to environmental management, and land management and business development.

In August of 1993, the Royal Commission on Aboriginal Peoples asked Price Waterhouse to get first hand knowledge of issues affecting Aboriginal participation in the minerals industry. Hans Matthews' report entitled "Royal Commission on Aboriginal Peoples - Aboriginal Participation in the Minerals Industry - Part I" was used as the primary research document to derive interview questions. In particular, the issues were probed under the four broad categories of workplace, financing, lands, and environment.

# 1 Interview Process and Results

More than 17 representatives of mining companies, Aboriginal communities and government were interviewed as part of this study. With the exception of the government officials, respondents generally felt that it was a little sceptical to expect that there would be much change in the relationship between Aboriginal communities and mining companies in the short term. This is due to the fact that understanding (or lack thereof) by all parties of each other's objectives, goals, culture and future aspirations is the biggest barrier to Aboriginal participation in mining. Lack of understanding prevents effective communication and often results in a feeling of disrespect, distrust and even a little fear.

The common solution identified by respondents appears to be education, both in terms of culture and skills. Aboriginal communities are most in need of basic education, life skills, specific skills training and corporate awareness. Mining companies are in need of cultural awareness training, education on Aboriginal political issues, as well as decision making process of band councils.

The findings from this portion of the study clearly suggest that efforts must be made by all stakeholder, including Aboriginal groups, to ensure that the mining industry is able to remain competitive in an international marketplace. Many stakeholder are blocked by perception and misunderstanding of one another's goals and objectives. Aboriginal participation in the minerals industry can increase through greater communication and consultation of all parties. With communication and education, the present workplace, environmental and land access issues can be resolved and lead the

towards the betterment of Aboriginal communities and the mineral industry.

## a. Aboriginal Perspective

### i) Workplace/Workforce

*Aboriginal Involvement*

***The key to greater Aboriginal participation in mining is the <u>partnership</u> between Aboriginal communities and companies.***

*- Aboriginal Community Representative*

- Those Aboriginal representatives from Aboriginal communities interviewed suggest that the impact on the community differs with each mining operation. While some communities indicated that the mining operation had a positive impact on employment, other communities indicated that the mining operation had in fact hired very few people from the community. Most communities, however, mentioned that the mining operation had a negative impact on the environment and very little impact on business development within the community.

- The majority of Aboriginal peoples interviewed indicated that they had some form of involvement with mining companies. In most cases the involvement took the form of joint communication/consultation on the issues of mine development, and the environment in addition to providing a source of labour for the mine.

- Comments by Aboriginal community representatives suggest that mining companies do not involve Aboriginal communities in mining operations for a number of reasons including:

    - perceived lack of community aspirations;

- limited amount of established links between the stakeholders; and
- lack of communication; and
- lack of understanding of the Aboriginal culture ("fear and uncertainty" of the unknown).

Those interviewed highlighted the limited amount of established links between the stakeholder as the key reason for lack of Aboriginal participation in the mining industry. The lack of established or no links, results in a lack of communication and therefore a lack of understanding of the Aboriginal culture.

For the most part, respondents did not feel that land claims inhibited companies from interacting with Aboriginal communities. Community respondents indicated that in fact, land claims increased company awareness of the existence of communities and their proximity to mining operations.

- Aboriginal involvement in decision making through participation on joint boards was identified as the primary means for increasing Aboriginal-company interaction and for maintaining effective partnership. The key element is *involvement in decision making*. Community respondents indicated a need to be involved in making the decisions that affect the community rather than being informed of the a decision. Very few of the respondents indicated that they were a part of any such boards or councils with the exception of boards created during and for environmental assessment or review.

Community respondents also indicated that government sponsored interaction or mediation would prove useful.

- There appears to be interaction between Aboriginal communities and prospector's associations in some provinces, yet very little other interaction with mining related organizations or associations. Interaction with the Prospector's and Developers Association (PDAC) has in the past taken the form of joint sponsorship to the provincial government for participant funding.

- Many of the individuals we interviewed suggested that creating a network of mining companies and Aboriginal communities would be of great benefit to both the industry and Aboriginal communities. Membership or attendance at national meetings will provide communities with an opportunity to meet members of the mining industry and learn of new developments first-hand. Companies can encourage participation by providing financial support or incentives to Aboriginal communities attending the meeting and more importantly, by blending the mandates of the organization and community.

- Consultation is generally initiated by the company through the project manager or field manager. Aboriginal Communities indicated that although they may communicate with the company, they rarely have interaction with the President or representatives of the Board of Directors. Communities indicated that those people with whom they have interaction are not the decision makers within the company. One respondent pointed out that it was disrespectful for a company to send a field or project manager to meet with the Chief of

a nation. Communication, interaction or negotiation would be more effective if done with the decision makers from both parties.

- Aboriginal communities more involved (or advanced) in interaction and business dealings with mining companies and mining operations suggested that they could and would provide support and direction to those Aboriginal communities "just starting out." Establishing a stronger network of Aboriginal communities would encourage collective learning (learning from the mistakes and success of other communities.)

*Recruitment and Skills Development*

- Mining, in most communities is viewed as an opportunity for employing community members. Some communities have begun to view the industry as a means of establishing or further developing community-operated businesses. More remote communities in the north have particular opportunity to provide support services not otherwise available to mining companies.

- Respondents indicated that it is critical to help identify means for moving community members out of low skill jobs. The consensus appears to be that communities need to develop a human resource plan identifying what skills will be required in the next five years and how they are going to meet the requirements. In addition to the human resource plan, the respondents indicated that an economic development plan will help the community move towards a common goal. In some instances the government, Aboriginal community and company

work together to identify the skills required for future mining operations, thus allowing the community time to prepare its members. Community respondents suggested that working with company, the community will be better able to target key employment areas and the necessary skills.

***For the most part, the present system of learning is alien; Aboriginal people have a different style of learning.***

*- Aboriginal Leader*

- Communities acknowledged the role that companies can and should play in providing training and related support. Although some communities said that any initiative that company would take would be beneficial, others were more specific in their responses. Among those responses most commonly provided were:

    - providing pre-employment training in order to upgrade community members' literacy and numeracy skills;

    - providing developmental training for those community members wishing to undertake trades training or for those in need of updating; and

    - providing "life skills" training to community members in order to help them better adapt to and understand a new way of life.

  Some respondents also indicated that the community should be involved in providing the life skills training. They felt that a coordinated approach between a company and the community would be most effective.

- Most respondents felt that government does have a role in on-reserve training . Some respondents felt this role should be hands on in terms of developing the education infrastructure and by providing incentives to companies to set up training programs, while others felt that the community could take the lead role in training but that the government should provide them with advice and direction.

- Responses from Aboriginal communities with regard to present skill levels and training needs were polarized. In a number of communities, respondents indicated that community members possessed few basic skills and were in need of pre-employment training, life skills training and trades training. A number of other communities indicated that they possessed trade skills and were in need of more business skills (management, marketing, and finance/accounting) and more mining specific knowledge, and knowledge of mining legislation and the Indian Act.

***Young people want to come back to their community, but the jobs just aren't available.***

*- A number of Aboriginal Community Respondents*

- Respondents were in agreement with regard to the barriers for Aboriginal communities to generate the required skill levels. These include the lack of availability of educational institutions, and few or no available jobs. These factors play a large role in community members leaving the community and often not returning. In order to retain skilled community members community leaders need to address the problem of a lack of long term employment opportunities. Respondents noted

that this can be done by actively promoting the skills of community members and by developing ties or sharing work with other communities but that these need to be done in conjunction with long term human resource and economic development plans.

- A number of communities we spoke with seek outside advice and support in regard to mineral issues. In some cases, communities seek support to complement the skills of community members. One such example is to start a segment of a project using the skills of the community and bring in outside support when the project requirements exceed the knowledge and skills of the community. In a majority of cases however, communities lack the skills required and are compelled to bring in outside support in order to supplement the skills in the community. More often than not, the skills sought outside are technical skills, especially those dealing with mineral and processing expertise. Some communities also seek legal advice from outside sources.

- A key element in bringing in outside support is to identify who has the required skills and how to attract them. All respondents agreed that the creation of a mineral advisory agency staffed by and for Aboriginal people would be beneficial not only in trying to source outside support but also for advice and direction on both general and complex mining issues. One community respondent stressed that the agency should be representative of not only the distinctive sectors of the Aboriginal community in Canada, but also of the geographical differences in the country.

**i) Finance/Taxation**

- The majority of Aboriginal communities interviewed overwhelmingly indicated that their prime source of financing is through government funding, whether it be under the Resource Access Negotiations (RAN) program or the Canadian Aboriginal Economic Development Strategy (CAEDS). Commercial banks are not willing to provide financing for "un-proven" ventures, although they have provided financing once a venture has been proven successful. Very few communities indicated that they were in the position to enter into joint ventures. The few communities that are involved in joint ventures provide the labour while the company provides the capital.

- Communities expressed interest in the opportunities associated with raising capital through taxation. Some had explored this potential and indicated that they would be willing to go ahead.

**ii) Land Access**

- There appears to be a burgeoning interest in the mining of industrial minerals, and sand and gravel within Aboriginal communities. Not only due to the Indian Act legislation that allows mining and removal of the mineral without surrendering the land, sand and gravel operations are relatively low risk (due to stable prices and benign environmental effects) and usually require low capital investment requirements (due to little need for processing.)

***The Mineral Potentials documents are great as a starting point. They give the communities something to work with; but they are <u>only</u> a starting point.***

*- Aboriginal Community Respondent*

Some community members noted that it may be difficult for individuals in the community to develop any agreements with companies because agreements are made on behalf of the whole community. If the whole community is not interested in a sand and gravel operation, an opportunity may go unexplored.

***There is a fear of mining companies, that they will extract the minerals and just leave.***

*- Aboriginal Community Representative*

- In general all communities interviewed were familiar, and had used, the Mineral Potential documents produced by DIAND. Comments indicated that the Mineral Potential documents were helpful in indicating whether there was enough of mineral potential to warrant further exploration.

- Some Aboriginal communities indicated that they were facing a struggle within the community with regard to their involvement in the mining industry. This issue was particularly evident in those communities interested in uranium operations, although present in most communities regardless of the type of deposit.

**i) Environment**

- Although those respondents with whom we spoke understand that for each stage of mining activity, there is a different impact on the environment or land, the average community member does not. On the whole, community members think of all mining

activity in terms of mining development and production and anticipate the same environmental impacts.

***[When mining is discussed]..a big flag is raised with regard to the environment.***

*- Aboriginal Community*

- In all Aboriginal communities we interviewed, there appears to be a small minority not interested in becoming involved in mining, due mostly to fear of environmental damage. In many communities, there is an element of distrust that the land could not be returned to its pre-mining state.

- Communities asserted that their concerns for the environment would be best addressed by their involvement in the any form of environmental planning and monitoring. While some communities are actively involved in some form of environmental monitoring, many others are bystanders. Very few communities appear to have been directly involved in the environmental planning process with a company, although they are sought out for feedback on an environmental plan prepared by the company. Exceptions to this are the communities implicated in environmental hearings sponsored by the provincial government. Due to this, uranium mining companies have taken a stronger initiative to involve the Aboriginal communities in discussing the environmental plan for a mining operation.

  One respondent noted that it is essential for any community to ensure they are involved in the environmental planning phase of any operation. Simply monitoring the use of the land is insufficient. Being involved in the planning of land use ensures that Aboriginal concerns for traditional activities

and future land use will be addressed and that the land will be usable once mining operations cease.

- Aboriginal communities indicated that while there are a number of communities who actively plan the use of the land and are involved in land management, the majority of communities do not have a land use plan. Comments indicated that a land use plan was essential in promoting and ensuring "good" use of the land.

**i) General**

***Aboriginal communities must first decide what they want before entering into communication or negotiation with mining companies.***

*- Aboriginal Community Representative*

- One respondent asserted the no Aboriginal community should contemplate involvement with the mining industry until they address some of the more basic social and cultural issues such as education and training, infrastructure, and social problems. Without addressing these issues and integrating mineral activity with solutions to these problems, the community will approach the negotiating table not as an equal player and thus it will be unlikely that they will negotiate an equitable ("win-win") deal. Community leaders, government and companies, if they truly want Aboriginal participation in the mining industry, must work at addressing the social and cultural issues.

- Some communities interviewed commented that Aboriginal communities need to better "prepare" themselves for

involvement in the mining industry. Examples of such "preparation" include:

- learning about how the industry works, including the life-cycle of a mining operation;

- identifying the skills required for the industry and developing an educational plan for developing those skills within the community;

- identifying what support services are required for mining operations and developing economic plans for starting those businesses.

## a. Company Perspective

### i) Workplace/Workforce

*Recruitment and Employee Development*

***There is nothing to lose in involving Aboriginal communities and a whole lot to win***

*- Company Representative*

- While all companies interviewed stated they have interaction with Aboriginal communities at most stages of mining activity, the type interaction varies but is predominantly employment related. Interaction other than employment includes formal communication, and occasionally joint decision making on environmental issues. It appears that most companies inform Aboriginal communities of plans and decisions rather than

involving the community in designing the plan. A few companies indicated that they were involved in providing training to Aboriginal communities, both in terms of pre-employment and in terms of life-skills training. Most companies felt that they had successfully established relationships with Aboriginal communities and were able to address and resolve issues in the form of either regular/formal interaction or continual/informal interaction.

Formal or planned interaction is a less common form of interaction than informal interaction but takes the form of regularly scheduled meetings between the community and the company in order to discuss issues, problems and/or concerns.

Informal communication is more commonly how communication takes place. Informal communication takes the form of meetings in what is described as an "as-needed-basis." The communication may be frequent or infrequent depending on the magnitude of issues or problems that may arise during the life of a mining operation.

One company mentioned that they are in contact with the Aboriginal communities well before every new stage of the mining operation. The purpose of the contact is to identify what business and labour needs the mining operation will have. This gives the community time to prepare their businesses and time to prepare their community members.

- The majority of companies indicated that they regularly contacted Aboriginal communities when sourcing, selecting and

hiring employees. This is particularly the case when the mining operation is fairly remote and there is a community close by. Some companies are bound by provincial regulations requiring that a percentage of sourcing includes northern residents. Other companies commented that they try to hire from nearby communities because there is an economic benefit.

***Mining companies would love to have companies [Aboriginal companies] situated in the north to support their mining operations; its a matter of good business sense***

*- Company Representative*

- A number of companies indicated that they actively try to reduce turnover of Aboriginal employees. Retention of employees, they said, stems from understanding and addressing employees' needs. In an attempt to do so, a few companies with whom we spoke, have implemented cultural awareness programs which both Aboriginal and non-Aboriginal employees attend. These programs provide all employees with insight into the cultural differences they will encounter and techniques for addressing problems.

  Some companies also offer training in life-skills which aim at providing Aboriginal employees some of the skills (such as job skills, financial planning skills and personal skills) to help them better adapt (and understand) the working environment. One company offers life-skills training to community members with intent of hiring them in the future.

  Another method of retaining employees identified by both companies is the use of flexible workshifts. By allowing Aboriginal employees to schedule work around traditional activities such as hunting season, and by developing a

"fly-in/Fly-out" schedule that accommodates the needs of the Aboriginal employees, companies find that employees are much happier, will work harder and that they have less turnover.

- In the case of promotions, few companies mentioned having advancement programs targeted specifically at Aboriginal employees. One company has developed a system where an Aboriginal employee takes over as "acting" supervisor, for example, in order to allow them to try a job before being promoted into a job. In this way, the employee and the company can determine if the employee is "right" for the job.

- When company representatives were asked why companies should involve an Aboriginal community in mining many answered that not only was it economically smart to hire local businesses and local people, but that it also ensures that the community is aware of what is going on. Also, it allows the company to educate the community and secure their interest in the project. Others simply answered, "Why not?"

*Involvement*

- Most of the companies commented that they felt hindered from involving Aboriginal communities in their activities because the company is not familiar with community activities, there are limited links between companies and communities and that in general companies do not have a sense of what type of relationship they can have with Aboriginal communities. Most companies still see Aboriginal communities as providers of labour rather than as potential business/joint venture partners or contractors. A few companies noted that land

claims were threatening to some companies and could serve to hinder interaction.

- Companies were split on whether or not they thought that joint partnership on boards or committees would be beneficial. Some companies indicated that they would prefer to deal with the community on a one-to-one basis even though the onus would remain with the company to initiate it. Others felt that boards or committees used in the planning of projects would take away the "ability of the company to plan in confidence" but that public notice to committees would be essential in ensuring that all practices are accepted and known to the community. Other company representatives saw value in having both parties work together on the planning of a project and the resolving of issues.

- Companies indicated that they believe communication is generally initiated by the company and takes place between the company project leader and the Chief. Most companies noted that it would be beneficial for the company to communicate with the Chief and an assigned community member with specific skills.

- Most companies identified the ideal communication policy as being regular and structured communication with communities over the life of the mining operation.

- All companies interviewed remarked that they consult with Aboriginal communities at least to some extent on the issues of infrastructure and environmental planning. Some of the companies consult with the communities to a great extent

**i) Finance/Taxation**

- Land claims present concern for most companies as they represent an element of uncertainty. Many companies noted that they do not mind if Aboriginal communities hold title to the land or if the land is crown land, but they ultimately need and want to know who they are dealing with and the process they need to follow. Land claims can delay mining operation indefinitely without a predictable conclusion and companies mentioned that they are not willing to allocate development dollars to a project in order to "wait and see" what the outcome will be.

**ii) General**

- In general, companies commented that they do not want a large amount of government intervention. The government should provide clear and consistent information and direction on policies and legislation without getting involved in their application or implementation. One respondent noted that the government should "stop changing the rules all the time," as companies make plans and business decisions based on one set of rules and then the rules change.

## b. Government Perspective

**i) General**

- In almost all jurisdictions interviewed, there appears to be very little tracking of Aboriginal inquiries regarding mining, although most jurisdictions indicated that they felt there had been an increased interest in the mining industry by Aboriginal communities. They attributed this to the increased attention mining is receiving due to land claim issues but also to the increased awareness in some communities of the economic opportunities available in mineral industry.

***There is a need for good will on the part of the companies. You can't legislate "good will".***

*- Aboriginal Respondent*

- Efforts to increase Aboriginal involvement in the mining industry, for the most part, seem to be intertwined with provincial activities to increase mining. In a large number of jurisdictions, programs are aimed at developing a healthy mining economy in the particular jurisdiction. The theory behind this is that an increase in mining activities in the province will translate into an increase in Aboriginal participation in mining. In a few of the jurisdictions, these programs are coupled with an approach that fosters Aboriginal participation

- All government officials interviewed agreed that there is a role for government in increasing Aboriginal participation in the mining industry. There was however, a difference in how respondents saw the role being played out.

  In some jurisdictions, the role was described as a liaison role. Government officials, would act as intermediaries in

order to encourage and facilitate communication between Aboriginal communities and companies.

In other jurisdictions, the government becomes a partner and takes on specific responsibilities (such as providing the training) with the Aboriginal community.

Finally, a few jurisdictions see government's role as a provider of tools and information, without a structured and formal role to play in ensuring that interaction/communication occurs. This "hands-off" approach does not mean that government is not involved, but rather places the burden of responsibility on the shoulders of the Aboriginal community and the company.

One government official pointed out that a different approach and role is required for every community, based on its level of economic development and ability to create the appropriate plans and structures.

### a. Stakeholder Suggestions

Specifically stakeholders alluded to certain actions that may be taken, including:

*A role for Aboriginal leaders and communities*

- Aboriginal leaders, before getting involved in the mining industry, may encourage companies to meet with the community and make presentations as a means of dispelling concerns of

community members, becoming more informed on the industry and developing a network in the mineral industry.

- The community should develop an inventory of community skills and university graduates and make it available to the company's human resources group, in order to assist them in hiring community members.

- Aboriginal leaders should interact with national associations to ensure that the associations are aware of the Aboriginal perspective and mandate. Aboriginal leaders should also encourage their members to become members of appropriate mining-related associations in order to better develop a mining network.

- Aboriginal communities should provide Aboriginal culture awareness instruction and support to companies and the company should develop corporate awareness strategies instruction for the community members.

- Aboriginal Communities should keep an inventory of community based business and services and provide them to companies.

- Aboriginal Communities should develop a land use plan and integrate it with the company plans. At very least, the community should develop an inventory of current traditional uses of land and communicate priority areas to the company.

- Aboriginal Communities should develop a human resource plan and work with the mineral company to maintain and implement the plan. Plan should outline skills necessary for future

exploration, development, and mining projects and future stages of present mining projects.

- Aboriginal Communities should interact with one another in an effort to share skilled community members.

*A role for the mineral company:*

- Companies should communicate recruiting needs to communities in advance of the project in order to allow the community to prepare their community members.

- Companies should communicate mining-related business needs to community in advance of exploration and development.

- Company Presidents should interact with community Chiefs on negotiations, other communication and interaction may be delegated other company and community representatives at equal levels.

*A role for government:*

- Mine recorders (or equivalent) should provide companies with the location of Aboriginal communities in the vicinity of the operations and provide information regarding contact names and a directory of community based businesses.

- Government should make available professional staff and technical information to communities as a part of community training initiatives.

*General role:*

- A minerals advisory association should be developed to provide advice and assistance to Aboriginal communities. The association should be staffed by skilled Aboriginal people with experience in the mining industry.

# APPENDIX A

## Interview Guides

# Aboriginal Community Guide

## A WORKPLACE/WORKFORCE ISSUES

### Involvement

A Are there mining operations in your area? Yes/No > 50 KM, < 50 KM

B In your opinion, have these had a positive (+) or negative (-) impact on:

employment (+) (-)
education (+) (-)
environment (+) (-)
business (+) (-)

C Why do you think companies do not involve Aboriginal communities in mining operations more than they do? (probe for....

perceived lack of community aspirations?
land claims issues?
limited amount of established links between the stakeholder?
lack of communication?
past confrontation (past experiences)?

D What would you recommend to encourage greater interaction between the community and the mining company? (probe for...

Joint councils
Joint participation on boards or committees

Interaction initiated/mediated by government
(government sponsored)
Others (please specify)

_____
_____

_____
_____

E Do you believe that joint participation on boards, committees and planning teams is an appropriate approach in maintaining effective partnership (and communication)?

Yes/No

F If not, what approach might prove more effective in your opinion?

G What Boards or Committee(s) are you apart of?

Government:

_____
_____

Private Sector:

_____
_____

H Do you think established networks with other mining interests (ie mining companies, promoters, Aboriginal organizations, academics) is beneficial?

Yes/No

I How can companies encourage participation by community members in national forums (e.g. Prospectors and Developers Association, Canadian Institute of Mining and Metallurgy, Minerals Outlook Conference)?

financial incentives?
by invitation?
explain mandate of national organization?
integrate community mandate/organization's mandate
sponsorship - prospecting display, investing sessions, workshops

J Who do you or have you dealt with in a mining company?

Board of Directors
President
Field manager
Project Manager
Promoter

K In you opinion, was the experience positive? Why, Why not?

L Who do you think is the most appropriate person to deal with in a mining company/organization?

**Recruitment and Skills Development**

M Are there opportunities to access business development or employment from proposed or established mining projects?

YES/NO

N What would you recommend as an approach to help community members move out of low skill jobs (in order to gain access to management positions)?

economic development strategy/plans of community
long term Human Resource strategy
establish joint education facility (training institute)
joint venture with local education authority /university / college

O What have you or your community done specifically?

P What should be the function of the companies in training and support? (probe for...

communicating company activities projects to the leaders of the community?
inviting local community members to tour the operations?
visiting the community to recruit potential employees?
providing employment opportunities for Aboriginal community members?
providing business opportunities for Aboriginal-owned companies?

providing pre-entry level training opportunities for Aboriginal community members?
using summer employment of students as a part of developing work experience
long term recruitment strategy
informing community leaders of long term employment needs
holding workshops

Q If a company was to undertake five (or three) of your suggestions, how should they prioritize? What are the most important?

R What should be the function of governments in on-reserve training programs?

providing incentives for companies to set up training programs
developing the educational infrastructure
providing guidance/support to community leaders in setting up training programs

S What skills are presently available within your community? (to a great extent, to some extent, to a limited extent, not at all)

trade skills
computer skills
scientific/technical skills
knowledge of the mineral industry
legal/negotiating skills

T What specifically would your community need in terms of education?

literacy skills
math skills
trade skills
computer skills
scientific/technical skills
knowledge of the mineral industry
knowledge of the impact of mining operations on the community
knowledge of Indian Act legislation
knowledge of Federal/Provincial Mining Act

U What are the barriers to generate this skill level?

availability of educational programs (centres of education)
no jobs in the area, or jobs available to members of the community
no interest among community members
no role models

V How can the community keep those skilled and educated members of the community in the community and not lose them to the city? Please rank in terms of effectiveness. (Scale: very effective, somewhat effective, not at all effective)

provide long term employment opportunities in the community
develop ties with industry in neighbouring communities
promote skills of community members
work sharing with other communities / tribal councils

W Does your community depend on outside advice/support to lead their economic development direction?

Yes/No

X In what ways do you use outside advice

to add advice and support in a negotiating situation
to represent the interests of the community

Do your advisors have mineral industry experience either as engineers, mangers, lawyers?

Yes/No

Y Do you support the creation of an Aboriginal minerals advisory agency to be the key to share skilled and qualified Aboriginal people?

Yes/No

Z What role would you see for this agency?

AA To your knowledge, has your council, or any member of your community expressed interest in setting up a sand, gravel or building stone operation?

Yes/No

BB If there were employment opportunities available, how far would community members willing to commute or travel?

< 20 KM
21-50 KM
>50KM

## B FINANCE/TAXATION ISSUES

A What is your prime source of capital for mining development?

Government Source
Commercial Banks
Joint Venture Capital
Foreign Investment
Other

B Are community representatives familiar with raising capital through negotiations with companies? ie:

Prospector type models
Syndicate agreements for land acquisition
Advance on equity arrangements through contract source capital
Security listings and underwriting
Land is equity

C Has your community explored the potential of raising capital through taxation?

Yes/No

C **LAND ACCESS**

A Has your community negotiated Permits to Prospect, Sand and Gravel Permits and Mineral Leases ?

Yes /No

B Are you aware of the Mineral Potential documents produced by DIAND?

Yes/No

C If yes, to what extent have you made use of Mineral Potential documents published by DIAND? (Scale: to a great extent, to some extent, to a limited extent)

D In your community, is consensus sought on mineral development?

Yes/No

E Is the surrender process a problem for your community entering the minerals industry?

D **ENVIRONMENT**

A In your opinion, what level of impact do the following activities have on the land? (Scale: High Medium Low)

| | Land |
|---|---|
| exploration | H M L |
| development | H M L |
| production | H M L |
| reclamation | H M L |

A To what extent is your community willing to allow mining on your land (ie exploration, development)? ( Scale: Not at all, To a limited extent,To some extent,To a great extent, as long as the traditional activity can reoccur once operations cease, Do not know)

B Are you presently jointly planning or monitoring the environment with a company?

Yes/No

C How can community concerns for the environment be best addressed?

understanding the impact of the mining operations
involvement in the decision making regarding the land/environment
made aware of the decisions made (without direct participation) regarding the land/environment
integration of traditional management in minerals operations

D Do you have a land-use plan?

Yes/No

## Company Guide

### A WORKPLACE/WORKFORCE ISSUES

#### Recruitment and Employee Development

A Is your exploration, mineral development or mine operation near an Aboriginal community (communities)?

Yes/No/Unknown

B What level of interaction ( eg communication, hiring etc...) do you have with Aboriginal communities in the following (Scale: High, medium, low)

| | |
|---|---|
| staking/exploration | h m l |
| development | h m l |
| production | h m l |
| reclamation | h m l |

A Does your company or organization have an established relationship with an Aboriginal community? Yes/No

B To what extent do you work with Aboriginal communities for sourcing, selecting and hiring of employees? (Scale: regularly (as a matter of course), frequently, infrequently, have not yet done so)

C Is your company actively involved in recruiting Aboriginal Employees?

Yes/No

Is your company actively involved in reducing turnover of Aboriginal Employees?

Yes/No

Is your company actively involved in promoting Aboriginal Employees?

Yes/No

D Do you?

communicate your activities projects to the leaders of the community?
invite local community members to tour the operations?
visit the community to recruit potential employees?
provide employment opportunities for Aboriginal community members?
provide business opportunities for Aboriginal-owned companies?
provide pre-entry level training opportunities for Aboriginal community members?
provide cross-culture training (e.g., traditions, language etc...) for employees?
use summer employment of students as a part of developing work experience/long term recruitment strategy
undertake joint ventures with Aboriginal communities

E Considering stereotypes and historical lack of Aboriginal participation in the minerals industry, why should a mining company approach the community?

_____
_____

_____
_____

_____
_____

**Involvement**

F In your experience, is your company hindered from involving Aboriginal communities in projects a cause of ..

perceived lack of community aspirations?
land claims issues?
limited amount of established links between the stakeholder?
not familiar with community attitudes
language barrier
communities are foreign to most companies
never had to deal with communities before, why should we now?

G Is joint participation on boards, committees and planning teams the appropriate approach in maintaining effective partnership (and communication)?

H What other methods have you considered?

_____
_____

_____
_____

I Should companies encourage outside participation by community members in national forums ( e.g. Prospector and Developer's Association of Canada Canadian Institute of Mining and Metallurgy?)

Yes/No

J In your past experience, or with regard to your present operations, is it your company or the community who initiates communication?

Company
Community

K Who should the company negotiate with within the community?

Community leaders (Chief, Elders)
Assigned community members with specific skills
Outside "consultants"

L Who should the band/community representative negotiate with in your company?

_____
_____

M Who has the decision-making power in the community?

Chief
Council
Community (consensus)

N What communication policy should be recommended or maintained over the life of the operation?

_____
_____

What do you use?

_____
_____

O To what extent do you consult with the Aboriginal community in infrastructure and environmental planning? (Scale: Not at all, To a limited extent, To some extent, To a great extent, Do not know)

B **FINANCE/TAXATION**

A Are land claims perceived more as a threat to development?

Yes/No

B Are land claims perceived as an opportunity to tap settlement leverage dollars and a local workforce?

Yes/No

C **OTHER ISSUES**

A What level of support do you receive from governments with regard to: (Scale: high, medium, low, none)

information regarding regulations/legislation
information regarding joint ventures
implementing employment equity initiatives
information regarding aboriginal communities in proximity to mining operations
financial incentives

## Government Guide

A **GENERAL QUESTIONS/ISSUES**

A Are you familiar with the On-Reserve Mine Legislation? Yes/No

B What Aboriginal specific programs or strategies does your government make available to Aboriginal Communities to assist them in mineral training and business development? (please list)

_____
_____

_____
_____

_____
_____

C Since inception, on average how many Aboriginal communities have applied to each of these programs?

D What percentage of applicants to your general mineral programs are Aboriginal?

E Has there been an increase (or decrease) in inquiries by Aboriginal communities in the last 12 months?

Increase
Decrease

F How many mining companies have inquired about Aboriginal communities this past fiscal year?

_____

G Does your government provide a liaison function between company and Aboriginal communities? Yes/No

H If yes, please describe this liaison function?

I Is there a duplication of regulations that make it difficult for companies to work in land claim areas (provincial, federal and land claim agreement)?

J Has your government funded Aboriginal participation under mineral development agreements (MDAs) Yes/No

K Can you describe what the funding was used for?

L _____

# APPENDIX B

## List of Interviews

The following is a list of the people interviewed in the course of conducting this assignment.

- ✓ Steve Williams
  Chief
  Six Nations First Nations

- ✓ Vivian Bomberry
  Executive Assistant
  Six Nations First Nations

- ✓ Gerald Bobiwash
  Public Works/Housing Coordinator
  Mississuaga First Nations

- ✓ Jerry Asp
  President
  Tahltan Nation Development Corporation

- ✓ Chesley Andersen
  Vice President
  Inuit Tapirisat of Canada

- ✓ Fred Hall
  Managing Director
  Labrador Inuit Development Corporation

✓ Lyle Bear
President
Inter-Provincial Association for Native Employment and
Native Education Officer
Cogema Resource Ltd.

✓ Norman MacCallum
Native Liaison Officer
Esso Resources

✓ Vince Robillard
Native Liaison Officer
Cameco Corporation

✓ Maureen Jensen
President
Noble Peak Resources

✓ Doug Willy
Human Resources Manager
Echo Bay Mines Limited

✓ Jane Forrester
Director Metallic Minerals Branch
Saskatchewan Energy and Mines
Government of Saskatchewan

✓ Charles Recollet
Native Liaison Officer
Ministry of Northern Development and Mines
Government of Ontario

✓ Ed Huebert
Acting Director, Marketing Branch
Department of Energy and Mines
Government of Manitoba

✓ Anne Currie
Acting Manager of Aboriginal Affairs
Land Management and Policy Branch
Ministry of Energy, Mines and Petroleum Resources
Government of British Columbia

✓ Josephine Harris
Acting Public Involvement Coordinator
Mine Review and Permitting Branch
Ministry of Energy, Mines and Petroleum Resources
Government of British Columbia

✓ Karen Klassen
Mine Recorder
Department of Energy, Mines and Petroleum Resources
Government of the Northwest Territories