.63(00522(E)

0 0 ш Σ П ш L 0 Œ 1 ш ¥ Œ 4 Σ

CA1 EA616 96M32

DOCS

Canada



OPPORTUNITIES IN MEXICO: MINING EQUIPMENT AND SERVICES





Market Profile - Mexico

Opportunities in Mexico: Mining Equipment and Services was developed jointly by the Department of Foreign Affairs and International Trade (DFAIT) and Prospectus Inc. This market profile was made possible through the support of the Toronto office of Baker & McKenzie.

This market profile is designed to provide an overview of the market for mining equipment and services in Mexico. Although efforts have been made to avoid errors and inaccuracies in this document, it is not intended to be used as the only source of market information on this sector. We encourage the reader to use this publication as one of several resources for commercial dealings with Mexico.

Any errors, omissions or opinions found in this market profile should not be attributed to the Government of Canada nor to Baker & McKenzie. Neither the authors, the publishers nor the collaborating organizations will assume any responsibility for commercial loss due to business decisions made based on the information contained in this book.

© Minister of Supply and Services, March 1996 Catalogue No. E73-9/42-1995E ISBN 0-662-23801-X

All rights reserved. No part of this publication may be reproduced, reprinted, stored in a retrieval system or transmitted in part or whole, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise without the prior written permission of the publishers and the Crown.

Published by Prospectus Inc.

Printed in Canada.

Disponible en français.

OPPORTUNITIES IN MEXICO:

MINING EQUIPMENT AND SERVICES

Dept. of External Affairs Min. des Affaires extérieures

DEC 17 1997

RETURN TO DEPARTMENTAL LIBRARY SUPPLIES A LA BELLOS PEGGE DU VENISTARE





With more than fifty offices in 27 countries, Baker & McKenzie is the largest law firm in the world. In Mexico, the firm has had a very significant presence since 1961. In Mexico City, the firm operates locally under the name Bufete Sepulveda and in all other locations in Mexico the firm is known as Baker & McKenzie. The firm currently has offices in the cities of Juárez, Mexico City, Monterrey, and Tijuana, with expansion plans to the other growing industrial regions in Mexico. A substantial percentage of all foreign companies establishing operations in the maquiladora regions have retained the services of Baker & McKenzie to assist them in all aspects of their endeavours in this regard.

The lawyers in the firm combine expertise in Mexican law with an understanding of the business environment and governmental process in Mexico. The firm enjoys an excellent reputation in business and government circles as one of the leading Mexican firms dealing with international and domestic business transactions. The lawyers from the four Mexican offices regularly meet with their Canadian counterparts to discuss coordination of business activities in the North American context and to encourage trade and investment activities between Canada and Mexico. Partners from the Mexican offices serve on a number of domestic and international bodies as representatives of both national business organizations and the Mexican government. Partners from the Mexican offices regularly advise the Mexican government on international business matters including the recent NAFTA negotiations.

The Toronto office, in existence since 1962, is an integral part of the North American practice of the firm which includes nine offices in the United States and four in Mexico.

The areas of firm's expertise in Canada and Mexico include:

- Administrative Law
- Banking and Finance
- Corporate and Commercial
- Customs
- Environmental Law
- Foreign Investment and Maquiladora Law
- Health Law

- Immigration
- Intellectual Property
- International Trade
- Labour and Employment Law
- Real Estate, Tax and Transportation
- Tax Law

The Baker & McKenzie offices in Canada and Mexico work to assist Canadian companies to find the right partner to enable them to establish or expand business activities in Mexico. Whether a company's objective is to raise capital, establish a joint venture or strategic alliance, or begin exporting to the Mexican market, Baker & McKenzie offers a coordinated approach to ably facilitate entry to the Mexican market.



Roy Kusano (416) 865-6903

Paul Burns (416) 865-6912

Allan Turnbull (416) 865-6923

Mexico



THE NORTH AMERICAN FREE TRADE AGREEMENT (NAFTA)

The NAFTA expands Canada's free-trade area of 270 million people into a market of 360 million — a market larger than the population of the 15 countries of the European Union and one with a total North American output of \$7 trillion.

Mexico is Canada's most important trading partner in Latin America. Two-way merchandise trade with Mexico exceeded \$5.5 billion in 1994 and is expected to exceed \$7 billion by the end of the decade.

Canadian direct investment in Mexico is growing rapidly, increasing from \$452 million in 1992 to over \$1.2 billion in 1994.

This guide has been prepared with the problems inherent to the new exporter in mind. However, it is not exhaustive. The differing circumstances, interests and needs of individual companies will influence their strategies for the Mexican market.

Further assistance can be obtained by addressing requests to the International Trade Centres (see Where To Get Help) or contact the InfoCentre at:

Tel.: 1-800-267-8376 or (613) 944-4000 Fax: (613) 996-9709 FaxLink: (613) 944-4500 InfoCentre Bulletin Board (IBB): 1-800-628-1581 or (613) 944-1581 Internet: http://www.dfait-maeci.gc.ca

TABLE OF CONTENTS

FULL SPEED AHEAD		1
THE MINING SECTOR		. 9
History		9
Sector Overview	•	10
Modernization		11
Marketing		12
Foreign Trade		13
Precious Metals		14
Gold		14
Silver		14
Non-ferrous Metals		15
Copper		15
Zinc		16
Lead		16
Non-metallic Minerals		17
MINERALS RELATED TO THE STEEL INDUSTRY		18
Steel Industry		18
Coal and Coke		19
Manganese		20
Manganese		. 20
Customers		20
Competition		24
Competitive Factors		25
The result of the second of th		07
TRENDS AND OPPORTUNITIES		27
Land Reform		28
Opportunities in Remote Sensing		28
Product Opportunities		29
Consulting Opportunities		29
THE REGULATORY ENVIRONMENT		30
Mining Law		31
Foreign Investment Law		31
Standards and Labelling		32
Duties		32



MARKET ENTRY STRATEGIES	33
Financing	34
WHERE TO GET HELP	35
Canadian Government Departments and Services in Canada	35
Department of Foreign Affairs and International Trade (DFAIT)	35
Department of Industry (DI)	37
Revenue Canada	38
Canadian International Development Agency (CIDA)	39
Atlantic Canada Opportunities Agency (ACOA)	39
Western Economic Diversification Canada (WD)	39
Export Development Corporation (EDC)	40
National Research Council (NRC)	41
Key Contacts in Canada	41
Sponsoring Organizations	41
Business and Professional Associations	41
Mexican Government Offices in Canada	42
Mexican Banks with Offices in Canada	43
Canadian Government Departments and Services in Mexico	43
Key Contacts in Mexico	44
Mexican Government Departments	44
Business and Professional Associations	45
Major Mexican Mining and Metallurgical Companies	46
Trade Publications	48



FULL SPEED AHEAD

After decades of protectionism and heavy regulation, the Government of Mexico has taken the brakes off the mining sector, and is actively encouraging the exploitation of the nation's mineral resources.

Mexico's mining sector has arguably been the biggest beneficiary of the nation's broad economic reforms. Deregulation has opened up tens of thousands of hectares of mineral reserves to development. Privatization policies have transferred responsibility for mineral exploitation to the private sector. New ownership laws have opened the door to foreign investors, while restrictions on the repatriation of dividends have been eliminated. At the same time, liberalized trade has boosted mineral exports.

The mining industry has been one of the few sectors to benefit from the December 1994 devaluation of the peso. For the most part, sales are in dollars while costs are in pesos. These factors have combined to create a boom in mineral development that has been led by foreign investment.

The international mining community has long been aware of the wealth and variety of Mexico's mineral reserves. But until recently, development opportunities were limited by tight regulation and heavy taxation as well as severe restrictions on foreign ownership and management of mining companies.

The development of the mining sector was one of the first priorities of the administration of President Carlos Salinas, which assumed office in December 1988. In 1989, mining royalties imposed by the government were reduced by 25 percent, and a plan to phase them out entirely was announced.

The following year, a five-year National Program for the Modernization of the Mining Industry was implemented. The key policy tools were an expansion of areas open to mining and a streamlined system for granting concessions. The measures included the reclassification of millions of hectares of federal mining reserve lands. A number of tax changes were especially favourable to small- and medium-sized mining companies. The domestic mining industry responded, through the Cámara Minera de México (CAMIMEX), Mexican Mining Chamber, with announcements of US \$2 billion in new investments between 1990 and 1994.

The biggest change came in September 1992 when a new mining law reinterpreted Article 27 of the Mexican Constitution, which established state ownership of all mineral reserves. The new law created a much larger role for the private sector, setting the stage for wholesale privatization of state-owned mining companies. It further deregulated mining reserves and encouraged both domestic and foreign investment in the mining industry.



The law allows direct foreign investment, with up to 100 percent ownership for an initial 12-year period. During this time, investors enjoy substantial tax concessions but they must subsequently reduce their ownership to less than 50 percent as required by the 1993 investment law.

"Strategic" minerals, previously reserved for the government, are now open to private exploitation. Regulations that required all gold and silver to be sold to the government were rescinded. The law extends the term of exploitation concessions to 50 years, and grants exploration concessions for a nonrenewable six-year period. Moreover, it allows exploration and mining of the continental shelf. Finally, the law brings greater flexibility to mining management, eliminates excessive regulation, and further stimulates small- and medium-scale mining production.

In December 1994, the administration of President Ernesto Zedillo took the liberalization process even further. The Secretaria de Energía, Minas e Industria Paraestatal (SEMIP), Secretariat of Energy, Mines and State-owned Industries, was dismantled. Energy policy was assigned to a new energy secretariat but mining responsibilities were shifted to the Secretaria de Comercio y Fomento Industrial (SECOFI), Secretariat of Commerce and Industrial Development. The new mining division of SECOFI has a mandate to further develop the sector. These moves have been positively received by the international mining community. Some industry observers have projected that US \$6 billion will be invested in the mining sector over the next six years.

Canadian companies were quick to take advantage of these emerging opportunities and are among the leaders in developing partnerships with Mexican firms. According to media reports, the two largest mining developments currently underway involve Canadian Eldorado and Extall Resources. Other large Canadian companies active in Mexico include Cominco, Noranda and Placer Dome. Still, Canadian investment in Mexican mining was only about US \$50 million in 1994, which is very small compared to Canadian involvement in Chile's mining sector.

While a large proportion of the mining industry is still controlled by Mexican companies, many of them are starved for capital and eager to set up technological partnerships with foreign firms. Partly as a result of their rapidly expanding presence, Canadian equipment suppliers are now eroding the traditional market share enjoyed by American companies. Significant opportunities are expected to continue in this sector in the foreseeable future.



THE MINING SECTOR

The mining sector has been transformed over only a few years from a stagnant network of state enterprises to a rapidly-expanding industry dominated by the private sector.

HISTORY

Mining has always been one of Mexico's most important industrial activities. Gold and silver mines date back to pre-Columbian times. The Spanish began exploiting these resources in 1519, and by the 18th century, Mexican silver represented almost 60 percent of world production. Copper and sulphur resources were developed in the 17th century, and during the 18th century, mining activities expanded to include lead, mercury, alum, tin and iron.

Following the Mexican War for Independence (1810-1821), there was an influx of foreign capital, mostly from the United States, Britain and France. By 1880, mining was Mexico's fastest-growing industry. Growth was fostered by new technologies, electrification and vertical integration.

The revolution of 1910 severely disrupted all industrial production, including mining. The 1917 Constitution imposed stringent controls over foreign participation in the Mexican economy. All subsoil resources, including minerals and petroleum, were declared state property. The government implemented enduring protectionist policies designed to promote domestic investment and to discourage imports.

During the 1950s, the mining industry began to diversify. At that time there were some 2,000 mines in operation. A new mining law proclaimed in 1961 continued the policy of majority domestic ownership and imposed a two-thirds domestic ownership requirement for strategic resources. In the 1970s, Mexico began to expand its production of non-metallic minerals, including celestite, barite, salt and cement.

The reforms of the early 1990s have radically changed the industry, and rapid expansion is expected for the foreseeable future. The opportunities are all the greater because after decades of restrictive policies, only about one-quarter of Mexico's mineral reserves have been fully surveyed.



New exploration and development, combined with the revitalization of old mines by new investors, will create substantial opportunities for Canadian suppliers of equipment and services for the mining industry. The increasing environmental sensitivity that is emerging in Mexico is also likely to create niche markets for investment in new equipment and mining methods. Canadian experience in environmentally appropriate mining techniques is recognized and likely to be a substantial advantage.



SECTOR OVERVIEW

Government policies have succeeded in increasing the rate of mining production growth. The value of mineral production rose by more than 24 percent in 1994 to reach \$9.6 billion pesos. Although the rate of growth declined during 1995 as a result of the economic crisis brought about by the devaluation of the peso, the industry continues to outperform the overall economy. Observers believe that the devaluation will benefit the mining industry, because it is heavily export oriented. Mining exports increased by 68 percent in the first eight months of 1995, more than double the increase for all exports.

In addition to the effects of the new mining regulations, export demand has been stimulated by the North American Free Trade Agreement (NAFTA), the Mexico-Costa Rica Free Trade Agreement, and the Group of Three Free Trade Agreement between Mexico, Colombia and Venezuela.

Total production of the mining industry in 1993 was 2.5 million tonnes according to estimates by the U.S. Department of Commerce. The fastest growing mineral products were coal, gypsum, copper and lead. The market for mining equipment is expected to grow 9 percent per year for the next three years. Demand for imported machinery and equipment should grow an average of 12 percent per year during the next three years.

During the first three quarters of 1995, the real value of mineral production in Mexico rose by almost 10 percent over the same period a year earlier. Precious metal production increased by 19 percent. Non-metallic minerals and those related to the steel industry were up by 13.4 percent and 7.4 percent, respectively.





Rank	Product	Percentage of World Production
First	Celestite*	29.8
	Silver	15.8
Second	Bismuth**	33.3
	Cadmium	13.0
	Fluorite	8.5
Third	Antimony	2.5
Fourth	Arsenic	9.4
Fifth	Lead	5.8
	Graphite	4.2
Sixth	Zinc	5.7
Seventh	Molybdenum	2.4
Eighth $ angle$	Salt	3.9
Ninth	Manganese	1.3
Tenth	Gypsum	3.2
	Sulphur***	1.7

^{*} Not including the former USSR. The volume of celestite is expressed with a 43.88 percent strontium content.

Source: Cámara Minera de México (CAMIMEX), Mexican Mining Chamber.

MODERNIZATION

In 1992, the Secretaria de Energía, Minas e Industria Paraestatal (SEMIP), Secretariat of Energy, Mines and State-owned Industries, announced that it would borrow US \$1.4 billion from the World Bank to be used over the next two years to encourage foreign investment and to modernize the mining industry. Modernization, as defined by SEMIP, included reducing governmental impediments, decentralizing regulation, releasing state-owned lands and providing low-interest capital.



^{**} Nat including American production.

^{***} Including all forms of sulphur.

The modernization plan included the release of additional land for private mining. According to the *Secretaria de Comercio y Fomento Industrial (SECOFI)*, Secretariat of Commerce and Industrial Development, by mid-1995 only 0.5 million hectares were still reserved for the state, compared with 13.5 million hectares in 1990. The borrowed funds were also used to encourage the development of small- to medium-sized mines, defined as those under 2,500 tonnes per day. According to one *SEMIP* official, however, companies seeking land, exploration and development permits have been mostly major Canadian and American firms.

In January 1995, President Zedillo announced a new mining development program called the *Plan Sexenal de Inversión de la Industria Minera Nacional*, Six Year Plan for Investment in the Mexican Mining Industry. The objective of the plan is to promote private investment of at least US \$5 billion over the next several years. This plan promises to stimulate investment by reducing regulation even further, and by accelerating land reforms. It will speed up the process of issuing permits for the use of explosives by the *Secretaría de la Defensa Nacional (SDN)*, Secretariat of National Defence, and it will decentralize the procedures for obtaining environmental approvals. The government is committed to an ongoing dialogue with industry representatives to develop more practical regulations. Officials of the mining chamber say that the top priorities for the next round of discussions include removal of the water tax of \$1.30 pesos per cubic metre and elimination of the 1.8 percent tax on assets.

The 1995 report of the Cámara Minera de México (CAMIMEX), Mexican Mining Chamber, notes that the progress of mining modernization has been facilitated by the conciliatory stance taken by the Sindicato Nacional Minero y Metalúrgico de la República Mexicana, Mexican National Mining and Metallurgy Union. This is the principal trade union in the sector.

MARKETING

Mexico has no established commodity market. Sales of minerals are generally arranged through established private networks and industry associations. The industry associations publish information on the demand and supply of key minerals. The larger mineral producers have direct contacts with the key industrial users of their products. Smaller mining companies sometimes sell through distributors, but the trend is towards direct sales.



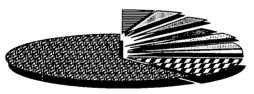
FOREIGN TRADE

Official trade statistics do not clearly identify mining equipment. Some estimates show the import market growing by 12 percent annually.

There are no reliable statistics regarding Mexican imports of mining equipment and services. The Harmonized System (HS) of commodity classifications used for international trade data does not separate most mining equipment from similar products used in other industries. Moreover, trade data excludes services. Canada's exports of mining technology are heavily weighted towards consulting and other services.

The U.S. Department of Commerce has produced estimates based on HS categories that include the major types of mining equipment. According to this data, Mexico's imports of mining-type equipment increased by 16 percent to reach US \$135 million in 1993. Imports for 1994 were projected to increase by 12 percent and this pace of growth was expected to continue for the medium term. The United States claimed 62 percent of the market for these products in 1993. Recently, Japanese and Canadian companies have been investing in Mexican mining operations by importing equipment from their own countries. Canada had a 4 percent import market share in 1993.

IMPORT MARKET SHARES, 1993 PERCENTAGE



US 62%

JAPAN 7%

BRAZIL 5%

GERMANY 4%
CANADA 4%
UK 3.90%

Source: United States Department of Commerce

SPAIN 2.50%
OTHERS 11.90%

•

MINING INDUSTRY EQUIPMENT MARKET US \$ MILLIONS

	1991	1992	1993
Import market	98.3	116.1	1,34.0
Local production	89.6	85.3	86.4
Exports	4.7	6.2	8.4
Total market	192.6	207.6	228.8

Source: United States Department of Commerce



PRECIOUS METALS

In spite of Mexico's long tradition as a source of silver and gold, precious metal resources have never been fully exploited.

Fairly Law 1111

PRECIOUS METALS PRODUCTION, KILOGRAMS



Source: Secretaría de Comercio y Fomento Industrial (SECOFI), Secretariat of Commerce and Industrial Development.

GOLD

The gold deposits that Canadians and Americans have long exploited throughout the Rocky Mountains extend southward into Mexico's Sierra Madre. But since the development of Mexico's deposits have been held back by government polices, they remain relatively unexploited. The same policies that encouraged domestic ownership also restricted imports of modern technology. The new mining law has changed this situation. More than 120 mining companies from Canada and the United States have opened offices in Mexico during the past two years. According to media reports, some 60 Canadian companies are either already engaged in the Mexican mining sector or are carrying out feasibility studies.

In 1994, gold production rose by 32 percent to reach 14.6 tonnes, largely due to several new projects that went into production during the year. Most Mexican gold mines are open-pit mines that leach gold from ore using a cyanide solution. Small- to medium-sized operations are common. The Moris Gold property, operated by Vancouver-based Manhattan Minerals Corp., 300 kilometres west of Chihuahua, is typical. A pre-feasibility study estimated mineable reserves at 4.3 million tonnes of oxide ore. Concentration is reportedly about 0.06 ounces of gold per ton. Assuming a 75 percent recovery rate and an eight-year mine life, total gold recovery is estimated at 191,000 ounces.

The main states producing gold in Mexico are Sonora, Durango and Guanajuato, which together accounted for 71 percent of production in 1994. Sonora alone produced 29 percent of the total.

SILVER

Mexico is the world's leading producer of silver, accounting for about 16 percent of global production. Output in 1994 was 2,334 tonnes, a 3.4 percent decline from the year before. A large proportion of silver production is exported. The U.S. is the main export market, receiving some 60 percent of Mexico's silver exports over the last five years. Japan is a also a major customer. According to the *Consejo Mexicano de Inversion (CMI)*, Mexican Investment Board, the nation's reserves are sufficient to ensure a continuing dominant position in world production.



The government recently announced that a portion of the national pension system, the *Sistema de Ahorro para el Retiro (SAR)* will be used to acquire silver reserves, to protect the fund's purchasing power. This will lead to increased demand and higher prices for silver.

The main states producing silver are Zacatecas, with 42 percent of production, followed by Durango, Chihuahua and Guanajuato. The four states account for 80 percent of national production.

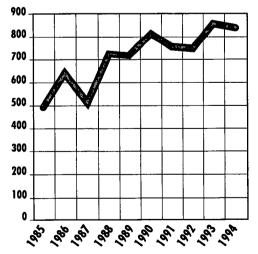
Two companies, Minera Fresnillo and Minera Real de los Angeles, are responsible for almost one-third of all Mexican silver production. Minera Real de los Angeles is jointly owned by Empresas Frisco and Canada's Placer Dome.

Silver is normally associated with lead, zinc and copper, and most of the larger operators produce more than one mineral. For example, in 1991, *Minera Real de los Angeles* produced about 30 metric tonnes of silver, 41,000 tonnes of lead and 39,000 tonnes of zinc.

Non-ferrous Metals

Non-ferrous metals dominate Mexico's mining sector, accounting for close to half of all mineral production.

Non-ferrous Industrial Metals Production, '000s of tonnes



Source: Secretaría de Comercia y Fomento Industrial (SECOFI), Secretariat of Commerce and Industrial Development.

COPPER

Mexico's copper production increased slightly in 1994 to reach 305,487 tonnes, which was more than 3 percent of total world production. Mexico's raw copper production has shown an annual average increase of 3.6 percent over the past decade. Capacity has been increased to meet growing demand from Mexico's export-oriented industries, particularly the *maquiladora* companies. Mexico is also a net exporter of refined copper.

The two most important copper mines are *La Caridad* and *Cananea*, with estimated mineable ore reserves of roughly 3 billion tonnes. Both companies are owned by *Grupo Industrial Minera México*, which produces 40,000 tonnes of copper per day.



Copper oxide mining typically involves an open-pit mine and the use of solvents to extract copper that is then transformed into sheets, a process known as solvent-extraction/electro winning or S-Ex. S-Ex mining can be developed to utilize recycling procedures and lined containment and waste areas. In the past, copper mining has been responsible for serious environmental damage in Mexico.

The state of Sonora produced 86 percent of the national copper output in 1994. Zacatecas and Chihuahua followed with 5.2 percent and 3.9 percent respectively.

ZINC

Mexico is the world's sixth largest zinc producer. Production in 1994 totalled 358,953 tonnes, which was almost 6 percent of the world's production of newlymined zinc. Approximately half of Mexico's zinc production is exported to the United States, Japan and Belgium in the form of either zinc metal or zinc concentrates.

The largest zinc-producing state is Chihuahua, with 38 percent of production, followed by Zacatecas and San Luis Potosí. The three states produce 81 percent of the national total.

There are only two plants in Mexico that treat zinc concentrates to produce zinc metal. Their combined capacity totals almost 220,000 tonnes per year. Both refineries recover sulphur dioxide for the production of sulphuric acid, cadmium and other byproducts.

LEAD

Mexico is a major supplier of lead to the world market and ranks seventh amongst world producers. Production volume was 163,836 tonnes in 1994, a drop of about 10 percent from the year before. The industry exports more than 60 percent of lead production, of which approximately one-third goes to the U.S., and the remainder to Belgium, Italy, Japan, Spain and the countries of the former Soviet Union.

Mexico's smelter and refinery capacity is the largest in Latin America. About 60 percent of domestic consumption of lead is for the manufacture of batteries and 14 percent is for pigments.

Chihuahua produced 46 percent of Mexico's lead in 1994, followed by Zacatecas with 32 percent.



NON-METALLIC MINERALS

Non-metallic Minerals Production, '000s of tonnes



Source: Secretaría de Comercio y Fomento Industriol (SECOFI), Secretariat of Commerce and Industrial Development. Non-metallic minerals are emerging as a key subsector of the mining industry, although they still account for only 12 percent of mineral production.

Traditionally Mexico's mineral production was concentrated in metallic minerals such as silver, copper, lead and zinc. As the industry has developed, several important non-metals have been exploited. Nonetheless, non-ferrous metals still account for more than 46 percent of Mexico's mineral production by value, while non-metals make up only about 12 percent.

Production of non-metallic minerals continues to grow as both domestic and international demand increase. Many of the non-metallic minerals produced in the country are used in the manufacturing industry, which is currently experiencing an export boom. The growth of this sector has also been bolstered by extensive reserves, the relatively small investment required, and the labour-intensive nature of this type of mining.

Mexico is the world's top producer of celestite. This mineral is used primarily to produce strontium carbonate for the manufacture of colour television picture tubes, X-ray equipment and ceramic magnets. As a result, Mexico is the principal supplier of colour televisions to the United States. With production estimated at about 50,000 tonnes annually, the country leads the world in the production of this mineral, accounting for around 39.1 percent of world production.

Most Mexican exports of celestite are destined for the American and Japanese markets, and projected world demand for strontium carbonate is leading several Mexican companies to expand their processing capacity.

Mexico is among the top ten countries in the world producing fluorite, graphite, salt, gypsum and sulphur. In most cases, roughly half of the country's annual production of these minerals is exported.

Mexico produced 282,988 tonnes of fluorite in 1993, of which about 40 percent was exported. Substantial investments have recently been made to expand the industry's present installed capacity. Production increased by 15.7 percent in 1994. The enforcement of global restrictions on the production of chlorofluorocarbons (CFCs) is leading to the development of substitutes with an increased fluorite content. This will provide a significant boost to Mexico's flourite industry.

Mexico is the world's eighth largest producer of salt, with about 4 percent of world production. Output in 1994 was about 7.5 million tonnes. About 80 percent of production comes from the *Compañía Exportadora de Sal* which operates a large mine in Baja California. This company is 51 percent owned by the government and 49 percent by Mitsubishi. This is the last government holding in the mining industry. Industry observers believe that this exception to the privatization program is due to political sensitivity concerning Japanese exploitation of Baja California.

Although Mexico remains among the world's top ten sulphur producers, output has fallen steadily for the past decade. 1994 production was 876,897 tonnes, down 3.2 percent from the year before. Peak production was in 1987 with output of 2.3 million tonnes. *Petróleos Mexicanos (PEMEX)*, the national oil company, produced almost all of Mexico's sulphur in 1994.

MINERALS RELATED TO THE STEEL INDUSTRY

The privatization and modernization of the steel industry is creating an expanding market for iron, metallurgical coal, coke and manganese.

STEEL INDUSTRY

The Mexican steel industry has undergone drastic changes in recent years. In 1982, the government began to relax its control over steel production by privatizing more than 50 steel production facilities. It converted others to different uses and closed down the least efficient. The newly-privatized steel companies have modernized and increased efficiency. Production increased by 11 percent in 1994 to reach 10.2 million tonnes.

As in other industries, the devaluation of the peso has sharply cut domestic demand while stimulating exports. According to an executive of HYLSA, a major steel producer, domestic demand for steel has fallen by as much as a quarter in 1995. HYLSA exported 6 percent of its production in 1994, but expected to export 25 percent in 1995. Total steel production is projected to increase by 5 percent during 1995, leading to an increase in demand for iron, coal and other minerals.



Altos Hornos de México (AHMSA) is the largest steel producer in Mexico, with more than one-quarter of the nation's production. It also accounts for 90 percent of total production of metallurgical coal and two-thirds of coke production. HYLSA, the other major player in the industry, is owned by the Mexican conglomerate, Grupo Alfa.

Iron ore production was 5.5 million tonnes in 1994. Four companies dominate iron mining in Mexico. They include *Grupo Acerero del Norte, HYLSA, Siderúrgica Lázaro Cárdenas Las Truchas (SICARTSA)* and *Peña Colorada*. The *Peña Colorada* mine alone produces more than one-third of Mexico's iron ore.



MEXICAN STEEL PRODUCERS PRODUCTION AND MARKET SHARES, 1994

Company	'000s tonnes	Percentage
Altos Hornos de México (AHMSA)	2,490	24.3
HYLSA	. 2,181	21.3
ACERIAS	2,043	19.9
Siderúrgica Lázaro Cárdenas Las Truchas (SICARTSA)	1,761	17.2
IMEXA .	1,345	13.1
Tubos de Acero de México (TAMSA)	427	4.2
Total		100.0

Source: Cámara Minera de México (CAMIMEX), Mexican Mining Chamber, 1995.



COAL AND COKE

The principal producers of metallurgical coal in Mexico are Grupo Acerero del Norte, Grupo Industria Minera México and Siderúrgica Lázaro Cárdenas Las Truchas (SICARTSA). Minera Carbonífera Río Escondido (MICARE) is the largest producer of thermal coal.

Total coal production increased by 12 percent in 1994 to reach 6.4 million tonnes. Coke production increased slightly to just under two million tonnes.

This production was insufficient to meet domestic requirements. In 1994, 293,000 tonnes of coal and 584,000 tonnes of coke were imported. The import balance shifted sharply towards coal, with coke imports falling by 21 percent. Canada was the principal supplier of coal. Mexico exports small quantities of coal and coke, mostly to Guatemala.

Recoverable reserves of metallurgical coal in Mexico are estimated at around 650 million tonnes, mostly located in the Coahuila region. Only three of the 20 known coal beds in Coahuila are considered economically mineable.



MANGANESE

Mexico ranks eighth worldwide in manganese production and is one of two nations in the western hemisphere with major deposits of this mineral. The country's proven reserves are about ten million tonnes. Production in 1994 was 91,272 tonnes, a 21 percent reduction from the year before. According to the *Cámara Minera de México (CAMIMEX)*, Mexican Mining Chamber, the drop was the result of inventory adjustments. As Mexico's steel industry expands, the demand for manganese will increase because it is an essential ingredient for the production of high-grade steel.

Minera Autlán is the leading producer. This is a former state-owned enterprise that was privatized in 1991. The company has extensive mining operations and also refines manganese oxide nodules and manganese dioxide for battery use. The company's operations are located mainly in the state of Hidalgo.

CUSTOMERS

Large Mexican-owned mining groups dominate the industry, increasingly in partnership with foreign companies.

Private mining companies have gradually replaced government-owned enterprises as the most important customers for mining equipment and services. The Government of Mexico has now sold most of its holdings in the mining and metalworking sector to private-sector operators.

In early 1994 there were a total of 15,000 mines in Mexico operated by 800 companies. The bulk of mining activity is controlled by a small number of corporate groups. The number of mining companies in the *Expansión 500* list of Mexico's largest companies grew from seven in 1994 to 12 in 1995.

The largest mining group in Mexico is *Grupo Industrial Minera México*, which has about 14,000 employees and almost \$4 billion pesos in annual sales. According to media reports, the company exports 55 percent of its sales, and is 100 percent Mexican owned. Sales increased by 31 percent in 1994. *Grupo Industrial Minera México* owns *Mexicana de Cobre, Mexicana de Cananea*, *Grupo Industrial Minera México*, S.A. and *Zinc de México*. It also has holdings in *Minerales Metálicos del Norte* and *México Desarrollo Industrial Minero*.





LARGEST USERS OF UNDERGROUND MINING EQUIPMENT

Luismin	Cía. Minera la Cuesta
Peñoles	Cía. Minera Río Colorado
Empresas Frisco	Cía. Minera Peña Blanca
Compañía de Plata	Cobre de México
Cía. Minera Fresnillo	Corporación de Empresas Mineras
Cía. Internacional Minera	Corporación Industrial Minera
Cía. Minera Astumex	Corporación Industrial San Luis
Cía. Minera Autlán	Exploración Minera Independencia
Cía. Minera Bacatete	Exploraciones El Dorado
Cía. Minera de San José	Explormin
Cía. Minera la Concordia	Grupo Industrial Minera México

Source: United States Department of Commerce, 1994.



LARGEST USERS OF OPEN-PIT MINING EQUIPMENT

Altos Hornos de Mexico (AHMSA)	Cía. Minera Comonfort
Avíos de Acero	Cía. Minera Bolañitos
Cía. de Real del Monte y Pachuca	Cía. Minera la Negra y Anexas
Empresas Luismin	Cía. Minera la Perla
Peñoles	Cía. Minera Montana de Manganeso
Empresas Frisco	Cía. Minera Pal
Cía. International Minera	Las Encinas
Cía. Minera Autlán	La Encantada
Cía. Minera de San José	Metalver
Cía. Minera la Concordia	Mexicana de Cananea
Cía. Minera la Cuesta	Mexicana de Cobre
Cía. Minera Río Colorado	Minera Arauco
Cía. Minera Peña Blanca	Minera Capela
Cobre de México	Minera Cerro del Fraile
Corporación de Empresas Mineras	Minera Coronado
Corporación Industrial Minera	Minera Gold Fields de México
Corporación Industrial San Luis	Minera Guadalupe
Exploración Minera Independencia	Minera María
Exploraciones el Dorado	Minera la Encarnación
Explormin	Minera del Nipe

Source: United States Department of Commerce, 1994.





NEW MINING INVESTMENTS, 1995 US \$ MILLIONS

Grupo Industrial Minera México	283.10
Grupo Real del Monte	156.20
Grupo Peñoles	128.00
Empresas Frisco	35.00
Exploraciones El Dorado	29.42
Materias Primas Monterrey	11.66
Cía. Exportadora de Sal	11.30
Industrias Luismin	9.50
Minas de Bacis	7.80
Cía. Minera de Sabinas	5.00
Fluorita de México	4.35
Cía. Minera del Cubo	4.06
Consorcia. Minera. Benito Juárez-Peña Colorada	4.00
Neg. Mra. Sta. Ma. de la Paz y Anexas	3.95
Materiales Industrializados	3.79
Las Encinas	3.55
Minera Hecla	2.90
Minera Tayahua	2.75
Minera Autlán	2.72
Cía. Minera Mexicana de Avino	2.60
Macocozac	2.59
Cía. Minera Caopas	2.50
Cía. Minera las Cuevas	2.32
Baramin	2.01
Cía. Minera Constelación	2.00
Total	723.07

Source: Cámara Mineria de México (CMM), Mexican Mining Chamber.



Several other groups have foreign partners, and others operate individual mines as joint ventures. For example, *Industrias Luismin* has joint ventures with Teck Resources and *CAMBIOR*. *Empresas Frisco* is owned by *Grupo Carso*, a huge Mexican conglomerate, but it has a joint venture with Cominco. One of the few remaining large Mexican government holdings in the mining sector is the *Compañía Exportadora de Sal*, which is 49 percent owned by Mitsubishi Corp.

The larger companies are vertically integrated and include facilities for extracting, processing, smelting and refining. The smaller firms are limited mainly to extraction, with very few processing facilities.

The Canadian mining companies moving into Mexico represent a considerable market opportunity because they are familiar with Canadian-made equipment.

LARGEST MINING COMPANIES, 1995 US \$ MILLIONS

,	Sales	Employees
Grupo Industrial Minera México	3,885,239	13,573
Industrias Peñoles	2,457,802	7,924
Met-Mex Peñoles	1,773,864	2,134
Empresas Frisco	628,148	1,670
Cía. Minera Fresnillo	496,772	1,770
Minera del Norte	333,740	1,266
Cía. Minera Autlán	295,075	1,576
Cía. Exportadora de Sal	259,443	1,015
Cía. Minera las Torres	125,847	955
Minera Bismark	72,609	332
Minera Capela	30,584	16
Unión Minera del Sur	23,393	n/a

Source: Expansión, August 1995.



COMPETITION

Import penetration for mining equipment is approaching two-thirds of the domestic market

The modernization of the Mexican mining sector has caused a steady increase in import penetration in the equipment market. According to estimates by the U.S. Department of Commerce, import penetration for mining equipment rose from 53 percent in 1991 to more than 63 percent in 1993. The import share was projected to increase, with imports growing faster than domestic production for at least the next three years.

There are about 20 manufacturers of mining machinery and equipment in Mexico. In 1993 they produced more than US \$86 million worth of equipment, of which US \$8.4 million worth was exported. Domestic production is limited to light and technologically less-sophisticated equipment and parts. Some mining companies, including *Grupo Industrial Minera México* and *Grupo Peñoles* operate their own manufacturing shops which make spare parts and minor machinery. Firms from the United States are the most important competitors for more advanced equipment.

MAJOR MEXICAN MINING EQUIPMENT FIRMS

Alta Tecnología México Americana	Manufacturer of mineral processing machinery and distributor of sorting machines. Represents Acker Drill Company, Inc.
Altzairu	Distributor of parts for mining equipment.
Amsco Mexicana	Manufacturer of parts for ball mills and <i>quijada</i> , crank shaft, breakers.
Atmos	Distributor of pulverizers and parts for mining equipment. Represents Pennsylvania Crusher Corporation.
C-E Raymond	Distributor of sorters, rotary dryers, coolers, and pulverizers.
Empresas Fullermex	Distributor of powder machines, conveyors and related equipment. Represents Fuller Company.
Euzkadi	Distributor of conveyor belts.
Grupo Industrial Minera México	Internal "production shop" operated by major mining group. Distributor of open pit mining equipment. Represents ASARCO.
continued on next page	



Inmaco	Distributor of drilling mining equipment. Represents Acker Drill Company.
Longyear de México	Sells boring and sinking machinery.
Maquinaria Intercontinental	Manufacturer and distributor of mining machinery.
Msa de México	Distributor of trucks, safety equipment and tunnel boring machinery. Represents Tamrock Driltech, Mine Safety Appliances Company, and Wagner Mining Equipment.
Maquinaria y Mantenimiento	Distributor of pneumatic elevators and conveyors, and mining trucks.
Minco Mexicana	Manufacturer and distributor of mineral sorting machines, jaw crushers, polishing machines, rock breaking machines, tower cranes, percussion drilling machines and overhead travelling cranes. Linked with Swedish-owned Grupo Svedla.
Neumática la Paz	Manufacturer of parts for perforating machines.
Productos Industriales de Parral	Manufacturer of rubber coverings for pumps and cyclones.
Pettibone de México	Manufacturer and distributor of self-propelled trucks, crushing machines and pneumatic elevators and conveyors. Suspended operations in 1995.
Simec Moly	Manufacturer of steel bags.
Skega	Manufacturer of ball mills.
Tecmut	Distributor of process steel equipment.
Valpaco	Manufacturer of loaders.

Source: Department of Foreign Affairs and International Trade (DFAIT), 1994, and interviews, 1995.



COMPETITIVE FACTORS

The United States is the principal competitor for mining equipment in Mexico. American companies enjoy a good reputation for quality and have demonstrated a long-term commitment to the market. Proximity to the market is also an advantage, especially for providing good after-sales service.



On the other hand, American companies have not kept pace with European and Japanese competitors in terms of pricing or attractive financing. In general, American-based companies are not regarded as being as culturally sensitive as some other competitors, and many of them have failed to produce technical literature in Spanish. Some mining companies have had to hire bilingual technicians to learn about American equipment and then train their operators. As in other sectors, Canadian suppliers are considered good business partners by Mexican companies, partly because of cultural factors.

Mining companies from all over the world are presently evaluating investments in the mining sector. Many of them are expected to import mining equipment from their own countries. The very active participation of Canadian mining companies in Mexico may be a competitive advantage for Canadian equipment suppliers.

BEST-KNOWN FOREIGN BRANDS OF MINING EQUIPMENT

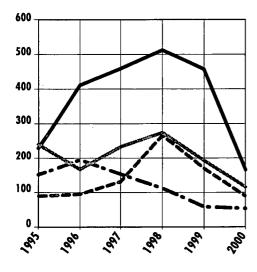
Komatsu	Dresser
Caterpillar	Tamrock
Secoma	Ramsco
P&H (Homice and Segger)	American Smelting
Pheldoge	Kenecott
Wagner	Atlas Copco
Getman	Euclid
Clark	Robbins

Source: Interviews with mining equipment buyers, 1995.



TRENDS AND OPPORTUNITIES

PROJECTED INVESTMENT IN THE MINING SECTOR, US \$ MILLIONS



——•Exploration

New projects

Growth in operational capacity and efficiency
 Acquisition and replacement of equipment

Source: Cámara Minera de México (CAMIMEX), Mexican Mining Chamber. Privatization is creating new opportunities in such areas as mine development, equipment supply, remote sensing and consulting

The most important trend driving the market for mining equipment has been the rapid privatization and deregulation of the industry. All but one of the formerly state-owned mining companies have been sold to the private sector. As late as 1991, the Mexican government was the largest operator of mines. Several major mining operations have been privatized including the following:

Azufrera Panamericana

■ Compañía Exloradora del Istmo (CEDI)

Roca Fosfórica Mexicana (ROFOMEX)

Comisión de Fomento Minero (CFM)

■ Minera Carbonífera Río Escondido (MICARE)

Consorcio Minero Benito Juárez-Pena Colorada

At the time they were privatized, these companies were suffering from liquidity problems, obsolete equipment, and falling production. The only remaining government investment in the mining industry is its 51 percent interest in Compañía Exportadora de Sal.

The newly privatized mining companies have invested heavily to modernize their operations and to expand. According to statistics published by the *Cámara Minera de México (CAMIMEX)*, Mexican Mining Chamber, its member companies will invest US \$723 million in 1995 alone, and this level of investment is expected to continue for several years. Reportedly, 55 percent of the total is for improvements or expansion of existing facilities, and the rest is for exploration and the development of new projects.

The release of millions of hectares of mining reserves previously held for the exclusive use of government-owned mining companies is also driving new investment in the industry. The largest source of new investment is the United States, followed by Canada. France, China and Japan are among the other countries actively pursuing these opportunities.



LAND REFORM

The Zedillo administration is expected to accelerate the process of land reform begun by the government of former president Carlos Salinas. Recent amendments to the Mexican Constitution changed the system of land tenure to allow longer-term property rights, but the previous administration was slow to implement these reforms.

Mexico's system of *ejidos*, units of communally-owned land, was one of the cornerstones of the new constitution enacted during the Mexican revolution. The recent reforms are among the most radical of the sweeping economic reforms that began in the late 1980s. Indeed, the changes have been blamed for much of the political unrest in the state of Chiapas.

The ejidatorios are given the right to exploit land, but they do not own it. They cannot sell it, rent it, or use it as collateral. The rights to ejidos have been officially assigned by the Secretaría de Agricultura, Gandería y Desarrollo Rural (SAGAR), Secretariat of Agriculture, Livestock and Rural Development. Some of the land assigned as ejdial has been formerly private land occupied by squatters.

Amendments to the Mexican Constitution in 1992 changed the system of land tenure to allow longer-term property rights. Although this is usually regarded as an agricultural policy, it has important implications for industrial users of land. In particular, *ejidos* can now be divided among their holders or combined. It is expected that this will leave them in a better position to negotiate deals with private mining companies for surface rights, even though the mining concessions themselves must be purchased from the state.



OPPORTUNITIES IN REMOTE SENSING

The Consejo de Recursos Minerales (CRM), Mineral Resources Council, has a mandate to conduct the geological survey of Mexico. But so far the CRM's activities have primarily involved cataloguing mining concessions. Mexico does not have a comprehensive inventory of its mineral resources. The government has estimated that no more than one-fifth of the nation's territory has been systematically explored. Given the sheer size of the unexplored territory, there is considerable potential for multi-spectral scanning and other remote sensing technologies.

Although sales to the government offer considerable potential, so far the demand for remote sensing services has come from individual mining companies. Only the largest firms have access to this technology.

Mining companies interviewed for this study were asked to identify the most respected surveying companies operating in their sector. The companies mentioned were Kenecott, Placer Dome, Eldorado, Teck, DHP and *Minería Heda*.



(1)

PRODUCT OPPORTUNITIES

Mining company buyers interviewed for this study were asked to identify mining equipment with particular potential for foreign suppliers. The products they mentioned as being primarily imported included the following:

- scooptrams
- payloaders
- locomotives
- stationary and portable compressors
- perforadoras de pierna or montados sobre orugas, caterpillar mounting
- diamond perforating equipment
- contrapoceras, counter well driller
- pumps
- molinos de bolsa y/o martillo, ball mill
- flotation cells
- classifiers
- reactive feeders
- laboratory equipment, especially scales, stoves, *crisoles*, melting pot, spectophotometers

Most of the mining company officials believed that Canada was a potential source of all of this equipment.

CONSULTING OPPORTUNITIES

The majority of mining operators interviewed for this profile said that they had used foreign consulting firms, including several from Canada. While foreign firms are regarded as more costly, they also have a much better reputation for technical expertise than do Mexican firms. Those interviewed mentioned exploration, research, equipment setup, environmental control and advice on innovative production techniques as areas where they sought foreign help.

Several companies cited the need for bilingual technicians who can train Mexican staff. Areas of particular need are training in equipment operation, laboratory procedures and the use of remote sensing equipment. Consultants who can assist with waste management and environmental impact analysis were also mentioned.

Some consulting firms are involved in the selection of equipment, particularly used equipment, from the countries in which they are based. Canadian firms enjoy a good reputation among buyers, and tend to be relatively well known to them. This finding contrasts with other Mexican sectors where Canada enjoys a generally good reputation, but individual companies are little known.



THE REGULATORY ENVIRONMENT

The shift of mining responsibilities from the Secretariat of State-owned Industries to the Secretariat of Commerce and Industrial Development is expected to escalate the deregulation process.

In early 1995, the government of Ernesto Zedillo announced that the Secretaría de Energía, Minas e Industria Paraestatal (SEMIP), Secretariat of Energy, Mines and State-owned Industries, would be dismantled. Mining is now part of the mandate of the Secretaría de Comercio y Fomento Industrial (SECOFI), Secretariat of Commerce and Industrial Development. SECOFI has set up a new mining division to handle this responsibility.

The duties of the new mining division are set out in an Executive Decree dated December 28, 1994. Among other things, they include:

- formulating and conducting national policy for the mining sector
- fostering utilization of mineral resources
- granting mining contracts, concessions, assignments, permits and authorizations

Most observers believe that this reorganization will accelerate the modernization process throughout the mining sector.

The Consejo de Recursos Minerales (CRM), Mineral Resources Council, has a mandate to conduct the geological survey of Mexico and to maintain an inventory of mineral resources. With the help of financing from the World Bank, the CRM has implemented a computerized geographical information systems (GIS) designed to provide information on mining properties. The database includes historical information covering 150,000 current and expired concessions. This data will allow more effective evaluation of potential projects, particularly since it includes the names of previous concession holders.

Chambers and associations in the mining industry include the Cámara Minera de México (CAMIMEX), Mexican Mining Chamber, which acts as a communication and consulting channel between mining companies and the federal government. Other major associations are the Asociación Mexicana del Cobre (AMECOBRE), Mexican Copper Association and the Asociación de Ingenieros de Minas Metalurgistas y Geólogos de México (AIMMGM), Association of Mining Engineers, Metallurgists and Geologists of Mexico.





The Mexican Constitution assigns ownership of all subsoil mineral resources to the public. This has been reinterpreted over the years by a series of mining laws. The 1961 Mining Law required that all mining companies be majority owned and managed by Mexican citizens. A new mining law enacted in 1975 increased government control over the industry. It limited foreign ownership to 34 percent where concessions on national reserves or the production of certain strategic minerals were involved. Exploitation of oil and gas, phosphate rock, potassium, sulphur and uranium was reserved for the Government. In practice, many other minerals were also exploited exclusively by state-owned enterprises. The rules were liberalized slightly in 1990 by a new regulation of the Secretaría de Energía, Minas e Industria Paraestatal (SEMIP), Secretariat of Energy, Mines and State-owned Industries, that allowed the use of trusts to expand foreign ownership.

Mexico's current mining law came into force in September 1992, and it was followed by new mining regulations in early 1993. The new law creates a much larger role for the private sector. It allows direct private investment, with up to 100 percent ownership, in all mining activities including exploration. It also provides greater security for holders of exploration and exploitation concessions. The list of strategic minerals reserved for the state has been drastically cut, although oil and gas remain exclusively in the hands of *Petróleos Mexicanos (PEMEX)*, the national oil company.

The term of exploitation concessions has been increased from 25 to 50 years. These concessions are renewable, but not transferable. Exploration concessions are now good for six years but are not renewable. Any company can approach the government with a petition to explore or exploit mineral resources. If there are no competing petitions, concessions are awarded on a first-come, first-served basis. In developed areas, or where the government has already proven reserves, mining concessions are typically allocated by competitive tenders. Awards are based on the financial and technical strength of the bidders. Canadian and American companies have been the most favoured. Concessions are available for minerals on the continental shelf as well as in the subsoil.

Under the new law, it is no longer necessary to obtain concessions for ore preparation plants, although producers must still comply with a series of reporting requirements and conform to specific technical and environmental standards.

FOREIGN INVESTMENT LAW

The changes to the mining law have been reinforced by a new law to promote Mexican investment and regulate foreign investment. This law was published in the *Diario Oficial*, Official Gazette, in March, 1993. Article 5 specifies that foreign individuals and corporations can hold up to 49 percent of operations engaged in the exploitation and use of ordinary concessions and 34 percent of special



concessions for the exploitation of national mining reserves. Foreigners may participate in the management of such enterprises only up to the limit of their equity participation.

These restrictions are overridden by other provisions of the mining law that allow the temporary majority ownership of new mining ventures. The law allows up to 100 percent foreign ownership for an initial 12-year period. During this period investors enjoy substantial tax concessions, but they must subsequently reduce their ownership to less than 50 percent.

The Dirección General de Inversión Extranjera, National Commission of Foreign Investment, has the power to increase the allowed foreign participation in cases where this is judged to be "in the interest of the country's economy". Inmigrados, foreigners who have been granted permanent immigrant status, have the same rights as Mexican citizens, unless they are associated with "foreign centres of economic decision making".

STANDARDS AND LABELLING

Mexico's general labelling law, which sets out specific content requirements for product labels, exempts capital goods. Many products are subject to official technical standards known as *Normas Oficiales Mexicanas (NOMs)*, official standards. Some *NOMs* include their own labelling requirements, in addition to technical requirements. Products covered by *NOMs* must be tested in Mexico and must be accompanied by a certificate of compliance when they enter Mexico.

Technically, compliance with the certification requirements is the responsibility of the importer. But in most cases, assistance from the exporter will be required. The regulations change frequently, and exporters should verify whether equipment is covered by a *NOM* before the shipment leaves Canada.

DUTIES

Imports of mining equipment are subject to an ad valorem duty, which is being phased out under the North American Free Trade Agreement (NAFTA). Prior to the implementation of the NAFTA, the maximum duty was 20 percent. The duties have already been eliminated for several types of equipment, including pneumatic conveyors, coal cutters, as well as crushing and grinding machines. Most other types of mining equipment will be duty free by the end of 1997. A few categories, including pit-head winding gear, and most cranes, will be duty free by 2002. All types of equipment are subject to a 15 percent value-added tax.



Special valuation provisions are in place for used equipment. Used machinery and parts are first valued according to the current cost of comparable new equipment. Some form of written certification of this value is required. Then the value is reduced by a percentage based on the age of the equipment.

CUSTOMS VALUATION FOR USED MINING EQUIPMENT PERCENTAGE REDUCTION FROM THE VALUE OF EQUIVALENT NEW EQUIPMENT

Age	Percentage Reduction
1 – 4 years	. 10
4 – 8 years	20
8 – 12 years	30
12 – 15 years	40
15 + years	50

MARKET ENTRY STRATEGIES

Marketing strategies are changing as private mining companies take over as the engine of development in the mining sector.

Traditionally, imported mining equipment has been distributed in Mexico through local agents or representatives. Some large mining companies prefer to buy directly from foreign manufacturers. Buyers say this is the best way to ensure that service requirements are met, especially where used equipment is involved. Some major equipment suppliers maintain permanent sales facilities in Mexico, and have equipment on display. Recently, some European and Japanese equipment manufacturers have been inviting Mexican buyers to tour facilities in their home countries.

Some suppliers advertise in business magazines and industry trade journals. Although many buyers speak English, they may not fully understand technical specifications. Consequently, all printed materials, including brochures and specification sheets, should be prepared in Spanish. Videotapes are also a common tool for demonstrating equipment that cannot be displayed in Mexico.



Companies using Mexican agents usually arrange for the agent to visit Canada to become thoroughly familiar with the company's offerings and service capabilities. Especially for the more technical products, providing solid technical support for the agent is essential.

Commissions for Mexican agents and representatives in the mining equipment sector range from 10 to 15 percent. In the current market, Canadian companies that can provide attractive credit terms will have the best chance of success.



FINANCING

The economic crisis brought on by the devaluation of the peso in December 1994 has had a devastating effect on Mexican capital markets. Nonetheless, mining companies are among those with the best access to credit, because their products are sold in international markets and they usually have hard currency earnings. In addition, the status of mining as an exporting industry makes it eligible for government-backed loans.

For example, the *Banco Nacional de Comercio Exterior (Bancomext)*, Mexican Foreign Trade Commission, provides loans to companies that can demonstrate that the technology they import will promote exports. Also, *Nacional Financiera (NAFIN)*, National Development Bank, backs loans for new technology from commercial banks.

Sales of expensive equipment are usually made using irrevocable letters of credit (IL/C), which can be arranged through Canadian banks. Increasingly, however, small- to medium-sized Mexican companies are looking for extended credit terms.



WHERE TO GET HELP

CANADIAN GOVERNMENT DEPARTMENTS AND SERVICES IN CANADA

Pakis.

DEPARTMENT OF FOREIGN AFFAIRS AND INTERNATIONAL TRADE (DFAIT)

DFAIT is the Canadian federal government department most directly responsible for trade development. The InfoCentre should be the first contact point for advice on how to start exporting. It provides information on export-related programs and services, acts as an entry point to DFAIT's trade information network, and can provide copies of specialized export publications and market information to interested companies.

InfoCentre

Tel.: 1-800-267-8376 or (613) 944-4000

Fax: (613) 996-9709 FaxLink: (613) 944-4500 InfoCentre Bulletin Board (IBB): 1-800-628-1581 or (613) 944-1581 Internet: http://www.dfait-maeci.gc.ca

The Latin America and Caribbean Branch promotes trade with Mexico. There are several trade commissioners at the Embassy of Canada in Mexico City, as well as in the satellite offices in Monterrey and Guadalajara. Trade commissioners can provide a range of services including introducing Canadian companies to potential customers in Mexico, advising on marketing channels, assisting those wishing to participate in trade fairs, helping to identify suitable Mexican firms to act as agents, and compiling strategic business intelligence on potential foreign customers.

Latin America and Caribbean Branch

Department of Foreign Affairs and International Trade Lester B. Pearson Building 125 Sussex Drive

Ottawa, ON K1A 0G2 Tel.: (613) 996-5547 Fax: (613) 996-6142

INTERNATIONAL TRADE CENTRES

International Trade Centres have been established across the country as a convenient point of contact to support the exporting efforts of Canadian firms. The centres operate under the guidance of DFAIT and all have resident trade commissioners. They help companies determine whether or not they are ready to export, assist firms with market research and planning, provide access to government programs designed to promote exports, and arrange for assistance from the trade commissioners in Ottawa and trade officers abroad. Contact the International Trade Centre nearest you:

Newfoundland International Trade Centre

P.O. Box 8950 Atlantic Place 215 Water Street Suite 504

St. John's, NF A1B 3R9 Tel.: (709) 772-5511 Fax: (709) 772-2373

Prince Edward Island

International Trade Centre

P.O. Box 1115

Confederation Court Mall

134 Kent Street Suite 400

Charlottetown, PE C1A 7M8

Tel.: (902) 566-7400 Fax: (902) 566-7450

Nova Scotia

International Trade Centre P.O. Box 940, Station M 1801 Hollis Street Halifax, NS B3J 2V9 Tel.: (902) 426-7540 Fax: (902) 426-2624

New Brunswick

International Trade Centre

1045 Main Street

Unit 103

Moncton, NB E1C 1H1 Tel.: (506) 851-6452 Fax: (506) 851-6429



Ouebec

International Trade Centre

5 Place Ville-Marie Seventh Floor

Montreal, PQ H3B 2G2 Tel.: (514) 496-4636 Fax: (514) 283-8794

Ontario

International Trade Centre Dominion Public Building

1 Front St. West Fourth Floor

Toronto, ON M5J 1A4 Tel.: (416) 973-5053 Fax: (416) 973-8161

Manitoba

International Trade Centre

PO. Box 981

330 Portage Avenue

Eighth Floor

Winnipeg, MB R3C 2V2 Tel.: (204) 983-4540 Fax: (204) 983-2187

Saskatchewan

International Trade Centre The S.J. Cohen Building 119-4th Avenue South

Suite 401

Saskatoon, SK S7K 5X2 Tel.: (306) 975-5315 Fax: (306) 975-5334

Alberta

*Edmonton office is also responsible for Northwest Territories International Trade Centre

Canada Place 9700 Jasper Avenue

Room 540

Edmonton, AB T5J 4C3 Tel.: (403) 495-2944

Fax: (403) 495-4507

International Trade Centre

510-5th Street S.W. Suite 1100

Calgary, AB T2P 3S2 Tel.: (403) 292-6660

Fax: (403) 292-4578

British Columbia

*Vancouver office is also responsible for the Yukon International Trade Centre 300 West Georgia Street

Suite 2000

Vancouver, BC V6B 6E1 Tel.: (604) 666-0434 Fax: (604) 666-8330

WORLD INFORMATION NETWORK FOR EXPORTS (WIN EXPORTS)

WIN Exports is a computer-based information system designed by DFAIT to help Canada's trade development officers abroad match foreign needs to Canadian capabilities. It provides users with information on the capabilities, experience and interests of more than 23,000 Canadian exporters. To register on WIN Exports, call (613) 996-5701, or fax 1-800-667-3802 or (613) 944-1078.

PROGRAM FOR EXPORT MARKET DEVELOPMENT (PEMD)

PEMD is DFAIT's primary export promotion program. It supports a variety of activities to help Canadian companies expand into export markets.

PEMD shares up to 50 percent of eligible expenses. Program financial assistance is a repayable contribution, not a grant, and must be approved in advance. Funded activities include:

- Market Development Strategies, which consist of a package of support for visits, trade fairs, and market support initiatives, under one umbrella of the company's marketing plan.
- New to Exporting Companies, which provides a vehicle for these companies to seek out individual export opportunities, either through a market identification visit or participation in an international trade fair.
- Capital Projects Bidding for specific projects outside
 Canada involving international competition/formal bidding procedures.
- Trade Association Activities undertaken by non-sales national trade or industry associations on behalf of their member companies.

Support is provided for certain types of government-planned activities, such as outgoing trade missions of Canadian business representatives and incoming missions to Canada of foreign business persons and officials who can influence export sales. For general information, call the InfoCentre at 1-800-267-8376. For applications for assistance, call the International Trade Centre nearest you.



International Financing

DFAIT helps Canadian exporters interested in pursuing multilateral business opportunities financed by international financing institutions (IFIs). Canadian exporters and trade associations can access market data, obtain a better understanding of the competition, and determine if an IFI-funded market opportunity is practical and worth pursuing. DFAIT can provide information and advice on the availability of Canadian government-funded assistance programs and can assist companies in developing effective export marketing. For further information, contact:

International Financing Division

Department of Foreign Affairs and International Trade Lester B. Pearson Building 125 Sussex Drive Ottawa, ON K1A 0G2

Tel.: (613) 995-7251 Fax: (613) 943-1100

TECHNOLOGY INFLOW PROGRAM (TIP)

Managed by DFAIT and delivered domestically by the National Research Council, TIP is designed to help Canadian companies locate, acquire and adopt foreign technologies by promoting international collaboration. The Department of Industry (DI) also helps in program promotion. TIP officers respond to requests to identify technology sources and opportunities for cooperation between Canadian and foreign firms. The Program also helps Canadian firms make exploratory visits abroad to identify and gain first-hand knowledge of relevant foreign technologies, as well as how to negotiate to acquire them. For information, call (613) 993-5326.

INVESTMENT DEVELOPMENT PROGRAM

The Investment and Technology Bureau (TID) promotes Canada as an attractive, competitive destination for business investment to potential foreign investors. It actively encourages investments that take the form of new plant and equipment, joint ventures or strategic partnerships. The Bureau is especially interested in attracting investment that introduces new technology into Canada, which is key to creating new jobs and economic opportunities. It also helps Canadian companies to find international investment partners and to access international sources of capital and technologies. TID provides support to the chief executive officers of Canadian subsidiaries of multinationals which are seeking to attract manufacturing and R&D mandates to Canada. It also

monitors and analyzes investment trends and perceptions of Canada as an investment site. TID works closely with the "geographic" branches of DFAIT and the investment counsellors at Canadian missions around the world, as well as with provincial and municipal authorities, and professional and business organizations. For more information, contact:

Investment and Technology Bureau (TID)
Department of Foreign Affairs and International Trade
Lester B. Pearson Building
125 Sussex Drive
Ottawa, ON K1A 0G2

Tel.: (613) 995-4128 Fax: (613) 995-9604

100 Sec. 12.4

DEPARTMENT OF INDUSTRY (DI)

DI was created with a broad mandate to make Canada more competitive by fostering the growth of Canadian businesses, by promoting a fair and efficient marketplace for business and consumers, and by encouraging commercial ventures in scientific research and technology. In the area of small business, it has been given specific responsibility to:

- develop, implement and promote national policies to foster the international competitiveness of industry; the enhancement of industrial, scientific and technological development; and the improvement in both the productivity and efficiency of industry;
- promote the mobility of goods, services, and factors of production within Canada;
- develop and implement national policies to foster entrepreneurship and the start-up, growth and expansion of small businesses;
- develop and implement national policies and programs respecting industrial benefits from procurement of goods and services by the Government of Canada; and
- promote and provide support services for the marketing of Canadian goods, services and technology.

The regional offices of DI work directly with Canadian companies to promote industrial, scientific and technological development. They help clients recognize opportunities in a competitive international marketplace by providing services in the areas of business intelligence and information as well as trade and market development. DI also promotes and manages a portfolio of programs and services.



The following are areas in which DI regional offices have special competence:

- · access to trade and technology intelligence and expertise;
- entry points to national and international networks;
- · industry-sector knowledge base;
- co-location with International Trade Centres connected to DFAIT and Canadian posts abroad;
- · client focus on emerging and threshold firms; and
- business intelligence.

For more information, call (613) 941-0222.

Metal and Mineral Processing Branch

Department of Industry 235 Queen Street Ninth Floor, East Tower Ottawa, ON K1A 0H5 Tel.: (613) 954-3135 Fax: (613) 954-3079

Business Service Centre

Department of Industry 235 Queen Street First Floor, East Tower Ottawa, ON K1A 0H5 Tel.: (613) 952-4782 Fax: (613) 957-7942

NAFTA Information Desk

Department of Industry 235 Queen Street Fifth Floor, East Tower Ottawa, ON K1A 0H5 Fax: (613) 952-0540

THE BUSINESS OPPORTUNITIES SOURCING SYSTEM (BOSS)

BOSS is a computerized databank that profiles over 25,000 Canadian companies. It lists basic information on products, services and operations of use to potential customers. The system was established in 1980 by the Department of Industry (DI) in cooperation with participating provincial governments. BOSS was originally established so that trade commissioners posted around the world by DFAIT could find Canadian companies that might be able to take

advantage of foreign market opportunities. Today, more than 11,000 domestic and international subscribers use the system, not only to locate Canadian suppliers, but also to obtain market intelligence and identify market opportunities. The majority of subscribers are Canadian companies. For more information, call (613) 954-5031.

MARKET INTELLIGENCE SERVICE (MIS)

MIS provides Canadian businesses with detailed market information on a product-specific basis. The service assists Canadian companies in the exploitation of domestic, export, technology transfer and new manufacturing investment opportunities. The intelligence is used by Canadian businesses in decisions regarding manufacturing, product development, marketing and market expansion. A request for information can be custom-tailored to meet each client's particular need. Previously-published customized reports are also available on request. The database is updated quarterly and annually MIS is offered free of charge by fax, letter or telephone. For more information, contact:

Strategic Information Branch

Department of Industry 235 Queen Street First Floor, East Tower Ottawa, ON K1A 0H5 Tel.: (613) 954-5031

Fax: (613) 954-1894

REVENUE CANADA

Revenue Canada, Customs Program Branch provides a NAFTA Help Desk telephone line with service available in Spanish. Revenue Canada publications and customs notices are available by calling or faxing the NAFTA Information Desk. For more information, contact:

NAFTA Spanish Help Desk

Tel.: (613) 941-0965

NAFTA Information Desk

Revenue Canada, Customs Programs Branch 191 Laurier Avenue West Sixth Floor Ottawa, ON KIA 0L5

Tel.: 1-800-661-6121, or (613) 941-0965

Fax: (613) 952-0022



Canadian International Development Agency (CIDA)

An important possible source of financing for Canadian ventures in Mexico is the special fund available through CIDA under the Industrial Cooperation Program (CIDA/INC). This program provides financial contributions to stimulate Canadian private-sector involvement in developing countries by supporting long-term business relationships such as joint ventures and licensing arrangements. INC supports the development of linkages with the private sector in Mexico by encouraging Canadian enterprises to share their skills and experiences with partners in Mexico and other countries. A series of INC mechanisms help enterprises to establish mutually beneficial collaborative arrangements for the transfer of technology and the creation of employment in Mexico.

There are five INC mechanisms that help eligible Canadian firms to conduct studies and that provide professional guidance and advice to potential clients. Where a project involves environmental improvement, technology transfer, developmental assistance to women, job training or job creation, early contact with CIDA's Industrial Cooperation Division is suggested. An important CIDA criterion is that the project creates jobs in Mexico without threatening jobs in Canada. In fact, most CIDA-assisted projects have produced net increases in Canadian jobs. For more information, contact:

Industrial Cooperation Division

Canadian International Development Agency 200 Promenade du Portage Hull, PQ K1A 0G4 Tel.: (819) 997-7905/7906

Tel.: (819) 997-7905/7906 Fax: (819) 953-5024

ATLANTIC CANADA OPPORTUNITIES AGENCY (ACOA)

Atlantic Canadian companies seeking to develop exports to Mexico may be eligible for assistance from the ACOA. The Agency works in partnership with entrepreneurs from the Atlantic region to promote self-sustaining economic activity in Atlantic Canada.

ACOA provides support to businesses as they look to expand existing markets through the development of marketing plans. Efforts include monitoring trade opportunities arising from global economic change, communications efforts to promote the region, trade missions and associated activities, as well as better coordination with federal and provincial bodies that influence trade and investment opportunities. For more information, contact:

Atlantic Canada Opportunities Agency

Blue Cross Centre 644 Main Street P.O. Box 6051 Moncton, NB E1C 9J8 Tel.: 1-800-561-7862

Tel.: 1-800-561-7862 Fax: (506) 851-7403

WESTERN ECONOMIC DIVERSIFICATION CANADA (WD)

WD is responsible for federal economic development activities in Western Canada. The Department works in partnership with the western provinces, business, industry associations and communities to stimulate the western Canadian economy.

WD's "New Directions" program will work to enhance the export position of western companies by boosting their competitiveness in domestic and global markets.

The Department no longer provides repayable loans to individual companies, but seeks new innovative partnerships within both the public and private sectors. These partnerships will address the needs of small- and medium-sized enterprises for information, business services and capital, particularly for high growth industries critical to Western Canada's economic diversification.

One of WD's new products focused on export development is the International Trade Personnel Program. This federal-provincial initiative links export-focused western firms with recent post-secondary graduates. The program accomplishes two important socio-economic goals: it gives companies the extra person-power they need to penetrate new markets, and it gives recent graduates valuable work experience. Under the new program, the length of export-development projects may vary from one to three years. Approved projects will be eligible for assistance ranging from C \$7,500 for one year, to a maximum of C \$37,500 per graduate over the 3 year period. For more information, contact:

Western Economic Diversification Canada

The Cargill Building 240 Graham Avenue Suite 712 P.O. Box 777 Winnipeg, MB R3C 2L4 Tel.: (204) 983-4472

Fax: (204) 983-4472



EXPORT DEVELOPMENT CORPORATION (EDC)

EDC is a customer-driven, financial services corporation dedicated to helping Canadian businesses succeed in the global marketplace. EDC provides a wide range of risk management services, including insurance, financing and guarantees to Canadian exporters and their customers around the world.

EDC's products fall into four main categories:

- export credit insurance, covering short- and medium-term credits;
- performance-related guarantees and insurance, providing cover for exporters and financial institutions against calls on various performance bonds and obligations normally issued either by banks or surety companies;
- foreign investment insurance, providing political risk protection for Canadian investments abroad; and
- export financing, providing medium- and long-term export financing to foreign buyers of Canadian goods and services.

EDC has established relationships with leading commercial and public sector institutions in Mexico and Latin America. Exporters can call (613) 598-2860 for more information.

Smaller exporters, with annual export sales under C \$1 million, should call the Emerging Exporter Team at 1-800-850-9626.

Exporters in the information technology sector can call EDC's Information Technologies Team at (613) 598-6891.

For information on the full range of EDC services, contact any of the following EDC offices:

Ottawa Export Development Corporation

151 O'Connor Street Ottawa, ON K1A 1K3 Tel.: (613) 598-2500 Fax: (613) 237-2690

Vancouver

Export Development Corporation

One Bentall Centre 505 Burrard Street Suite 1030

Vancouver, BC V7X 1M5 Tel.: (604) 666-6234 Fax: (604) 666-7550 Calgary

Export Development Corporation

510-5th Street S.W.

Suite 1030

Calgary, AB T2P 3S2 Tel.: (403) 292-6898 Fax: (403) 292-6902

Winnipeg
*office also serves
Saskatchewan

Export Development Corporation

330 Portage Avenue

Eighth Floor

Winnipeg, MB R3C 0C4 Tel.: (204) 983-5114 Fax: (204) 983-2187

Toronto

Export Development Corporation

National Bank Building

150 York Street Suite 810 P.O. Box 810

Toronto, ON M5H 3S5 Tel.: (416) 973-6211 Fax: (416) 862-1267

London

Export Development Corporation

Talbot Centre 148 Fullarton Street Suite 1512

London, ON N6A 5P3 Tel.: (519) 645-5828 Fax: (519) 645-5580

Montreal

Export Development Corporation

Tour de la Bourse 800 Victoria Square Suite 4520 P.O. Box 124

Montreal, PQ H4Z 1C3 Tel.: (514) 283-3013 Fax: (514) 878-9891

Halifax

Export Development Corporation

Purdy's Wharf, Tower 2 1969 Upper Water Street

Suite 1410

Halifax, NS B3J 3R7 Tel.: (902) 429-0426 Fax: (902) 423-0881



NATIONAL RESEARCH COUNCIL (NRC)

Canadian companies hoping to succeed in the Mexican marketplace may require additional technology to improve their competitiveness. The NRC works with Canadian firms of all sizes to develop and apply technology for economic benefit. The Council manages the Industrial Research Assistance Program (IRAP), a national network for the diffusion and transfer of technology.

The IRAP network supports the process of developing, accessing, acquiring, implanting and using technology throughout Canadian industry. IRAP has been in existence for 50 years and has acquired a reputation as one of the most flexible and effective federal programs. IRAP takes advantage of an extensive network of more than 190 different locations within approximately 90 communities across Canada, including numerous provincial technology centres, the NRC's own laboratories and research institutes, federal government departments, and technology transfer offices in Canadian universities. For further information, contact:

Industrial Research Assistance Program

National Research Council Montreal Road **Building M-55** Ottawa, ON K1A 0R6

Tel.: (613) 993-1770 Fax: (613) 952-1086

KEY CONTACTS IN CANADA

Sponsoring Organizations

BAKER & MCKENZIE

Baker & McKenzie is one of the largest international law firms with offices in 35 countries. They presently have four offices in Mexico, in the cities of Juárez, Mexico City, Monterrey and Tijuana. In addition to providing legal advice, the firm's offices in Canada and Mexico work to assist Canadian companies to find the right partner to enable them to establish or expand their activities in Mexico. For more information, contact:

Baker & McKenzie Barristers & Solicitors

BCE Place 181 Bay Street Suite 2100 Toronto, ON M5J 2T3 Tel.: (416) 865-6910/6903 Fax: (416) 863-6275

BUSINESS AND PROFESSIONAL Associations

Mining Equipment Manufacturers Association of Canada (MEMAC)

116 Albert Street Suite 701 Ottawa, ON K1P 5G3 Tel.: (613) 232-7213 Fax: (613) 232-7381

Canadian Association of Mining Equipment and Services for Export (CAMESE)

345 Renfrew Drive Suite 101 Markham, ON L3R 9S9 Tel.: (905) 513-0046

Fax: (905) 513-1834

Canadian Council for the Americas (CCA)

The Council is a non-profit organization formed in 1987 to promote business interests in Latin American as well as Caribbean countries. The CCA promotes events and programs targetted at expanding business and building networking contacts between Canada and the countries of the region.

The Canadian Council for the Americas

Executive Offices 360 Bay Street Suite 300 Toronto, ON M5H 2V6 Tel.: (416) 367-4313 Fax: (416) 367-5460

Canadian Exporters' Association

Suite 250 Ottawa, ON K1P 6B9 Tel.: (613) 238-8888 Fax: (613) 563-9218

99 Bank Street



(D)

Canadian Manufacturers' Association

75 International Boulevard Fourth Floor Etobicoke, ON M9W 6L9 Tel.: (416) 798-8000 Fax: (416) 798-8050

The Canadian Chamber of Commerce

55 Metcalfe Street Suite 1160 Ottawa, ON K1P 6N4 Tel.: (613) 238-4000 Fax: (613) 238-7643

Forum for International Trade Training Inc.

155 Queen Street Suite 608 Ottawa, ON K1P 6L1 Tel.: (613) 230-3553 Fax: (613) 230-6808

Language Information Centre

240 Sparks Street RPO Box 55011 Ottawa, ON K1P 1A1 Tel.: (613) 523-3510

Open Bidding Service

P.O. Box 22011 Ottawa, ON K1V 0W2 Tel.: 1-800-361-4637 or (613) 737-3374 Fax: (613) 737-3643

Canadian Standards Association

178 Rexdale Blvd. Rexdale, ON M9W 1R3 Tel: (416) 747-4000 Fax: (416) 747-4149

Standards Council of Canada

45 O'Connor Street Suite 1200 Ottawa, ON K1P 6N7 Tel.: (613) 238-3222 Fax: (613) 995-4564

MEXICAN GOVERNMENT OFFICES IN CANADA

The Embassy of Mexico and Mexican consulates can provide assistance and guidance to Canadian companies in need of information about doing business in Mexico. For more information, contact:

Embassy of Mexico

45 O'Connor Street Suite 1500 Ottawa, ON K1P 1A4 Tel.: (613) 233-8988 Fax: (613) 235-9123

Mexican Consulate in Ottawa

45 O'Connor Street Suite 1500 Ottawa, ON K1P 1A4 Tel.: (613) 233-6665 Fax: (613) 235-9123

OTHER MEXICAN CONSULATES GENERAL IN CANADA

Consulate General of Mexico

2000 Mansfield Street Suite 1015 Montreal, PQ H3A 2Z7 Tel.: (514) 288-2502/4916 Fax: (514) 288-8287

Consulate General of Mexico

199 Bay Street
Suite 4440
P.O. Box 266, Station Commerce Court West
Toronto, ON M5L 1E9
Tel.: (416) 368-2875/8141/1847
Fax: (416) 368-8342

Consulate General of Mexico

810-1139 West Pender Street Vancouver, BC V6E 4A4 Tel.: (604) 684-3547/1859 Fax: (604) 684-2485



MEXICAN FOREIGN TRADE COMMISSIONS

Banco Nacional de Comercio Exterior (Bancomext) is the

Mexican Foreign Trade Commission and has offices in

Canada. It offers credits, export guarantees and counselling
services to Mexican companies seeking to do business in

Canada.

MEXICAN BANKS WITH OFFICES IN CANADA

Banco Nacional de México (Banamex), Banco de Comercio (Bancomer), and Banca Serfin are private-sector banks which offer specialized services through their international trade information centres. The centres participate in a computerized communications network with access to numerous economic, governmental and financial databases throughout the world. These banks are located throughout Mexico and maintain offices in Toronto.

Banco Nacional de México (Banamex)
1 First Canadian Place
Suite 3430
P.O. Box 299
Toronto, ON M5X 1C9
Tel.: (416) 368-1399
Fax: (416) 367-2543

Banco de Comercio (Bancomer) The Royal Bank Plaza South Tower Suite 2915 P.O. Box 96 Toronto, ON M5J 2J2 Tel.: (416) 956-4911 Fax: (416) 956-4914

Banca Serfin
BCE Place
Canada Trust Tower
161 Bay Street
Suite 4360
P.O. Box 606
Toronto, ON M5J 2S1
Tel.: (416) 360-8900
Fax: (416) 360-1760

CANADIAN GOVERNMENT DEPARTMENTS AND SERVICES IN MEXICO

TRADE AND ECONOMIC DIVISION THE EMBASSY OF CANADA IN MEXICO

The Trade and Economic Division of the Canadian Embassy in Mexico can provide vital assistance to Canadians venturing into the Mexican market. The trade commissioners are well-informed about the market and will respond in whatever measures possible to support a Canadian firm's presence in Mexico.

Note: to telephone Mexico City, dial 011-52-5 before the number shown. For contacts in other cities in Mexico, consult the international code listing at the front of your local telephone directory for the appropriate regional codes.

Trade and Economic Division
The Embassy of Canada in Mexico
Schiller No. 529
Apartado Postal 105-05
Col. Polanco
11560 México, D.F.
México

Tel.: 724-7900 Fax: 724-7982

Canadian Consulate

Edificio Kalos, Piso C-1 Local 108-A Zaragoza y Constitución 64000 Monterrey, Nuevo León México

Tel.: 344-3200 Fax: 344-3048

Canadian Consulate

Hotel Fiesta Americana Local 30-A Aurelio Aceves No. 225 Col. Vallarta Poniente 44110 Guadalajara, Jalisco México Tel.: 616-6215 Fax: 615-8665



KEY CONTACTS IN MEXICO

MEXICAN GOVERNMENT DEPARTMENTS

Secretariat of Commerce and Industrial Development

Secretaría de Comercio y Fomento Industrial (SECOFI) Sub-Secretaría de Promoción de la Industria y el Comercio Exterior

Insurgentes Sur No. 1940 - P.H.

Col. Florida

01030 México, D.F.

México

Tel.: 229-6560/6561, 229-6100

Fax: 229-6568

Secretariat of Commerce and Industrial Development **Bureau of Standards**

Secretaría de Comercio y Fomento Industrial (SECOFI)

Dirección General de Normas

Av. Puente de Tecamachalco No. 6

Col. Lomas de Tecamachalco

53950 Tecamachalco, Estado de México

México

Tel.: 729-9300

Fax: 729-9484

Secretariat of Commerce and Industrial Development

Secretaría de Comercio y Fomento Industrial (SECOFI)

Dirección General de Minas

Morena No. 811, Piso 2

Col. Narvarte

03020 México, D.F.

México

Tel.: 639-4700

Fax: 639-9814

National Oil Company

Petróleos Mexicanos (PEMEX)

Av. Marina Nacional No. 329

Col. Huasteca

11311 México, D.F.

México

Tel.: 725-2200, 250-2611

Fax: 625-4385

Houston Purchasing Offices

Petróleos Mexicanos (PEMEX)

3600 South Gessner, Suite 100

Houston, TX 77065

U.S.A.

Tel.: (713) 978-6269

Fax: (713) 978-6298

Secretariat of Energy

Secretaría de Energía (SE)

Insurgentes Sur No. 552

Col. Roma Sur

06769 México, D.F.

México

Tel.: 564-9789/9790/9629, 584-4304/2962

Fax: 564-9769, 574-3396

Secretariat of the Environment, Natural Resources and **Fisheries**

Secretaría del Medio Ambiente, Recursos Naturales y Pesca

(SEMARNAP)

Periférico Sur No. 4209

Col. Jardines en la Montaña

14210 México, D.F.

México

Tel.: 628-0602/0605

Fax: 628-0643/0644

National Development Bank

Nacional Financiera (NAFIN)

Insurgentes Sur No. 1971, Piso 13

Col. Guadalupe Inn

01020 México, D.F.

México

Tel.: 325-6000, 661-7165/4044

Fax: 325-6042, 661-8418

Mexican Trade Commission

Banco Nacional de Comercio Exterior (BANCOMEXT)

Av. Camino a Santa Teresa No. 1679

Piso 12, Ala Sur

Col. Jardines del Pedregal

01900 México, D.F.

México

Tel.: 652-8422/8620, 227-9008, 327-6000

Fax: 652-9408



BUSINESS AND PROFESSIONAL Associations

Mexican Investment Board

Consejo Mexicano de Inversión (CMI) Paseo de la Reforma No. 915 Col. Lomas de Chapultepec 11000 México, D.F. México

Tel.: 202-7804 Fax: 202-7925

Mexican Mining Chamber

Cámara Minera de México (CAMIMEX) Sierra Vertientes No. 369 Col. Lomas de Chapultepec 11000 México, D.F. México

Tel.: 540-6788/6380 Fax: 540-6061

Mexican Copper Association

Asociación Mexicana del Cobre (AMECOBRE) Sonora No. 166, Piso 1 Col. Hipódromo Condesa 06100 México, D.F. México Tel.: 207-2254, 553-4191/4441

Fax: 286-7723

National Cement Chamber

Cámara Nacional del Cemento (CANACEM) Leibnitz No. 77 Col. Anzures 11590 México, D.F.

México

Tel.: 533-0132/3402 Fax: 208-9359, 520-8452

Association of Mining Engineers, Metallurgists and Geologists of Mexico

Asociación de Ingenieros de Minas, Metalurgistas y Geólogos de México (AIMMGM) Jaime Torres Bodet No. 176 Col. Santa María la Rivera 06400 México, D.F. México

Tel.: 547-1094 Fax: 547-0707

National Chamber of Silver and Jewellery Industry

Cámara Nacional de la Industria de Platería y Joyería (CNIPYJ)

Revnosa No. 13

Col. Hipódromo Condesa 06100 México, D.F.

México

Tel.: 516-1771 Fax: 516-1067

Mexican Aluminium Institute

Instituto Mexicano del Aluminio (IMEDAL) Francisco Petrarca No. 133, Piso 9 Col. Polanco 11560 México, D.F. México

Tel.: 531-2614/7892 Fax: 531-3176

National Chamber of the Iron and Steel Industry

Cámara Nacional de la Industria del Hierro y del Acero

(CANACERO) Amores No. 338 Col. del Valle 03199 México, D.F. México

Tel.: 543-4443 Fax: 687-0517

Fund for Mining

Fideicomiso Minero Av. Puente de Tecamachalco No. 26 Col. Lomas de Chapultepec 11000 Méxioco, D.F. México

Tel.: 540-3400/6660 Fax: 540-0342

Confederation of Industrial Chambers

Confederación de Cámaras Industriales (CONCAMIN) Manuel María Contreras No. 133, Piso 1

Col. Cuauhtémoc

06500 México, D.F.

México

Tel.: 592-0529, 566-7822/7972 Fax: 535-6871/546-1424

Mexican Confederation of National Chambers of Commerce

Confederación de Cámaras Nacionales de Comercio

(CONCANACO)

Balderas No. 144, Piso 3

Col. Centro

06079 México, D.F.

México

Tel.: 709-1559

Fax: 709-1152

National Chamber of Manufacturing Industry

Cámara Nacional de la Industria de Transformación

(CANACINTRA)

Av. San Antonio No. 256

Col. Ampliación Nápoles

03849 México, D.F.

México

Tel.: 563-3400

Fax: 598-9467

National Association of Importers and Exporters of the Mexican Republic

Asociación Nacional de Importadores y Exportadores de la

República Mexicana (ANIERM)

Monterrey No. 130

Col. Roma

06700 México, D.F.

México

Tel.: 564-8618/9218

Fax: 584-5317

National Chamber of Commerce of Mexico City

Cámara Nacional de Comercio de la Ciudad de México (CANACO)

Paseo de la Reforma No. 42

Col. Juárez

06030 México, D.F.

México

Tel.: 592-2677/2665

Fax: 705-7412, 592-3571

The Canadian Chamber of Commerce in Mexico

Cámara de Comercio de Canadá en México

c/o Bombardier

Paseo de la Reforma No. 369, Mezzanine

Col. Juárez

06500 México, D.F.

México

Tel.: 729-9903, 207-2400

Fax: 208-1592

SELECTED MEXICAN MINING AND METALLURGICAL COMPANIES

Mexicana de Cobre, S.A.

Av. Baja California No. 200

Col. Escandón

06760 México, D.F.

México

Tel.: 264-7066

Fax: 264-5623

Nacional de Cobre (NACOBRE)

Poniente 134 No. 719

Col. Industrial Vallejo

02300 México, D.F.

México

Tel.: 567-1144

Fax: 368-9949

Minera Carbonífera Río Escondido (MICARE)

Ramón Cepeda No. 306 Norte

Col. Buenavista

26040 Piedras Negras, Coahuila

México

Tel.: 3-3856

Fax: 3-3796/3362

HYLSA, S.A. de C.V.

Jaime Balmes No. 11

Torre D, Piso 3

Col. Los Morales

11510 México, D.F.

México

Tel.: 728-9909

Fax: 728-9291

Grupo Industrial Minera México, S.A. de C.V.

Av. Baja California No. 200

Col. Roma Sur

06760 México, D.F.

México

Tel.: 564-7066

Fax: 264-7664

Grupo Alfa

Av. Gómez Morín No.1111

Col. Carrizalejo

66254 Garza García, Nuevo León

México

Tel.: 335-3535

Fax: 335-8135



Grupo Carso

Av. de las Palmas No. 265 Col. Lomas de Chapultepe 11000 México, D.F.

México Tel.: 520-8838

Fax: 520-8838 ext.124

Siderúrgica Lázaro Cárdenas Las Truchas, S.A. (SICARTSA)

Francisco J. Mújica No. 1

Col. Centro

60950 Ciudad Lázaro Cárdenas, Michoacán

México Tel.: 2-0602 Fax: 2-2320

Tubos de Acero de México (TAMSA)

Campos Eliseos No. 400

Col. Polanco

11560 México, D.F.

México

Tel.: 282-9900 Fax: 282-9964

Barita de Santa Rosa, S.A. de C.V.

Av. Topo Chico No. 570

Col. Anáhuac

San Nicolás de los Garza, Nuevo León

México Tel.: 376-5466 Fax: 352-2490

Empresas Frisco, S.A.

Jaime Balmes No. 11

Torre C, Piso 5

11510 México, D.F.

México

Tel.: 626-7799 Fax: 395-8685

Aluminio

Bosques de Ciruelos No. 130, Piso 5

Col. Boques de las Lomas

11700 México, D.F.

México

Tel.: 596-6139

Fax: 596-7545

Industrias Peñoles

Río de la Plata No. 48, Piso 15

Col. Cuauhtémoc

06500 México, D.F.

México

Tel.: 286-8133/3555 Fax: 286-2367 Minas de San Luis, S. A. de C.V. Monte Pelvoux No. 220, Piso 8

Col. Lomas de Chapultepec

11000 México, D.F.

México

Tel.: 229-5800

Fax: 202-6604

Peña Colorada

Av. del Trabajo No. 1000

Col. Tapeixtles

28876 Colima, Manzanillo

México

Tel.: 6-5550/65000 through 23

Fax: 6-5083

Compañía Minera Fresnillo, S.A. de C.V.

Prolongación Av. Hidalgo s/n

Col. Centro

99000 Fresnillo, Zacatecas

México

Tel.: 2-1270

Fax: 2-0752

Fluorita de México, S.A.

Av. Parque No. 245, Apartado 54

26340 Melchor Muzquiz, Coahuila

México

Tel.: 6-1111/1413

Fax: 6-1112

Grafitos Mexicanos, S.A. de C.V.

Bulevar Eusebio Kino No. 410, Apartado 339

Col. Pitic

83150 Hermosillo, Sonora

México

Tel.: 14-4449/15-7207

Fax: 14-6136

Compañía Real del Monte y Pachuca, S.A. de C.V.

Venustiano Carranza No. 106

Col. Las Cajas

42000 Pachuca, Hidalgo

Tel.: 3-4900/4101

Fax: 5-0107

A 19

TRADE PUBLICATIONS

Minería monthly c/o Cámara Minera de México (CAMIMEX) Sierra Vertientes No. 369 Col. Lomas de Chapultepec 11000 México, D.F. México

Tel.: 540-6788/6380 Fax: 540-6061

Transformación monthly

National Chamber of Manufacturing Industry c/o Cámara Nacional de la Industria de Transformación (CANACINTRA) Av. San Antonio No. 256 Col. Ampliación Nápoles 03849 México, D.F.

México Tel.: 563-3400 Fax: 598-9467

Expansión monthly Sinaloa No. 149, Piso 8 Col. Roma Sur 06700 México, D.F. México

Tel.: 207-2176, 524-8130 Fax: 208-4253, 511-6351 Business Mexico Lucerna No. 78 Col. Juárez 06600 México, D.F. México Tel.: 724-3800 Fax: 703-2911/3908

Industria monthly
Confederation of Industrial Chambers
clo Confederación de Cámaras Industriales (CONCAMIN)
Manuel María Contreras No. 133, Piso 1
Col. Cuauhtémoc
06597 México, D.F.
México
Tel.: 592-0529, 566-7822
Fax: 535-6871/546-1424



HELP US TO SERVE YOU BETTER

We are interested in your views on this publication. Please take a few minutes to respond to the questions below.

1. What is your overall opinion of this publication?	7. In your opinion, was there important information missing from
□ very useful	this publication?
□ useful	□ yes — please specify:
☐ moderately useful ☐ not useful	
- nor assini	
2. Please provide your assessment of each of the following	
aspects of this publication.	8. Are there any issues relevant to the subject of this publication
 a) Quality of text discussion (mark one only): 	that you would like to have seen covered in more detail?
□ excellent	
□ good □ fair	
□ poor	O. Please offer any augmentions for improving the part varsion of
b) Presentation of information (mark one only):	 Please offer any suggestions for improving the next version of this publication.
= excellent	
□ good	
	10. Will this publication assist you in your business development?
c) Use of graphics and other visual aids (mark one only):	□ yes □ no
contractions of the contraction	11 a) Dogs your company surrently expert?
□ fair	11. a) Does your company currently export? — Yes, go to 11 b)
□ poor	□ No, go to 11 c)
O 16 this sublication was undated undered and universal in the	b) If yes, to which foreign markets?
3. If this publication were updated, revised and re-issued in the future, would you be interested in receiving a copy?	□ U.S.A. □ Europe □ Japan
yes, very interested	□ Mexico □ Latin America
probably interested	□ Other (please specify)
☐ no, not interested ☐ not sure	c) If not, are you planning to export within
□ Hot Sure	the next 12 months?
4. How did you find the structure and format of this publication?	☐ Yes, where?
clear and easy to follow	□ U.S.A. □ Europe □ Japan □ Mexico □ Latin America
\square confusing and difficult to follow	Other (please specify)
5 For your purposes, did this publication provide a sufficiently complete treatment of the subject(s) reviewed?	12. What is the approximate size of your company?
u yes, definitely	under \$1 million
□ to some extent	☐ \$1 to 5 million ☐ \$5 and \$10 million
□ no □ can't say/don't know	over \$10 million
_ can t say, with t know	To discuss this evaluation may we contact you? If so,
6. This publication would have been more useful to me if it had	Name:
(mark all that apply):	Company:
provided more qualitative information	Address:
 □ provided less quantitative information □ made greater use of graphs, charts and tables 	Tel.: Fax.:
□ contained a longer textual discussion	
contained a shorter textual discussion	Please return the completed survey by fax
 used more examples, case studies, company profiles 	to (613) 996-6142 or to the address below:
	Latin America and Caribbean Branch
	Department of Foreign Affairs and International Trade



Department of Foreign Affairs and International Trade Lester B. Pearson Bldg., 125 Sussex Drive Ottawa, Ontario K1A 0G2

OPPORTUNITIES IN MEXICO: MINING EQUIPMENT AND SERVICES



V





[]**‡**[

Department of Foreign Affairs and International Trade

Ministère des Affaires étrangères et du Commerce international

Latin America & Carlbbean Branch

InfoCentre

Fax: (613) 996-9709

FaxLink: (613) 944-4500

Toll free: 1-800-267-8376

Telephone: (613) 944-4000

/b ____

Bulletin Board 1-800-628-1581

(IBB):

(613) 944-1581