

MARKET OPPORTUNITIES IN GUYANA FOR CANADIAN MINING COMPANIES

Prepared by Natacha Bustros, IMBA

under the FOCAL Program

Department of Foreign Affairs and International Trade Latin America and Caribbean Trade Division

Guyana, July 1996

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EXECUTIVE SUMMARY

GENERAL INFORMATION

- The main components of the Guyanese mining industry are bauxite, gold and diamonds.
- OGML (Omai Gold Mines Limited) is the largest mining company in Guyana in any sector.
- In 1993, there were a total of 9,836 mining company employees.
- The Guyanese mining industry is the source of products with a relatively low added value, since there are no smelting or refining plants.
- In 1991 and 1993 respectively, 10% and 2.3% of total imports to Guyana were accounted for by capital spending related to the mining sector.
- The maximum permitted foreign participation in the equity of a mining company is 95%.
- After 10 years of production, the government may acquire an additional 20% to 30% interest in a foreign mining company.
- 50% of mining sector exports are to North America (1991).
- The President of Guyana and the Guyana Geology and Mines Commission are jointly responsible for the country's geological heritage and the **related** legislation.
- 60% of world gold production is used for industrial purposes.

THE CANADIAN MINING SECTOR

- The forestry sector is the largest source of Canadian export revenues; the mining industry is in second place.
- Canada's trade surplus associated with the mining sector was C\$11.7 billion in 1994.
- 80% of Canadian mining output is exported.

THE CANADIAN MINING SECTOR (cont'd)

- In 1994, the mining sector represented 4% of GNP or C\$14.5 billion. ■
- In 1994, Canada was the fourth largest world gold producer and ranked third for aluminum production.

CONTRIBUTION OF THE MINING SECTOR TO THE GUYANESE ECONOMY

- The value of Guyana's mining output rose by 32% between 1988 and 1995.
- The 11% decline in the value of Guyanese mining output between 1994 and 1995 was due to the temporary (6-month) closure of OGML because of an accidental cyanide spill.
 - The Guyanese GNP was G\$4,677 million in 1995 (1988 constant dollars).
 - The mining industry's contribution to GNP remained stable at 10% between 1988 and 1995.

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THE BAUXITE INDUSTRY IN GUYANA

- The problems associated with the bauxite industry in Guyana are in the areas of high costs of production and transportation as well as inefficient government management of operations (Linmine and Bermine).
- Because the Demerara and Berbice rivers are fairly shallow, the maximum capacity of vessels for bulk bauxite shipments is 22,000 tons.
- A deep layer of overburden must be removed before reaching the ore deposit.
- China has become a major competitor in the bauxite industry despite very poor quality.
- International bauxite buyers now give greater importance to price than to quality.
- Other current and future international competitors: former USSR, Hungary, Africa.
- The bauxite mining companies were nationalized during the 1970s.

THE BAUXITE INDUSTRY IN GUYANA (cont'd)

- There are three bauxite mining companies: Linden and Bermine, managed by the State and Aroaima, the result of a joint venture agreement between Reynold's and the Guyanese government.
- □ 2,000,000 tons of bauxite were produced in 1995.
- re The Guyanese government is looking to privatize Linmine and Bermine
- 3,000 direct jobs are linked to bauxite mining (1995).
- The foreign participation rate is estimated at 41%.
- Bauxite is exported to the United States, Japan, Germany, Britain and, last, Canada.
- 🖙 Exports are worth G\$10,986 million.

THE GOLD INDUSTRY IN GUYANA

- Mining and sales of Guyanese gold are managed by the Guyana Gold Board (GGB).
- Guyana represents a potential for approximately 10 major gold deposits (10 to 12 million ounces of gold each) surrounded by about a dozen satellite deposits (2 million ounces of gold).
- 🖙 3 types of organizations: small, medium-sized and large mining companies.
- 290,000 ounces of gold were produced in 1995.
- Some local miners operate on a clandestine basis to avoid being forced to sell their production to the GGB; they thus obtain better prices on the market.

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- The foreign participation rate is estimated at more than 75%.
- Solution and a second to Canada.
- Exports are valued at G\$13,426 million (1995).

MINING SECTOR EQUIPMENT

- Multinational companies are having some economic and social impact on Guyanese society.
- Adaptability of products and services to the specific needs of mining companies is a key factor in selecting a supplier.
- Source of the second se
- The Guyanese mining industry spends little on research and development.
- Three activity areas associated with mining operations: (1) excavating and drilling, (2) milling and hauling, (3) infrastructures and services.
- The mining sector incurs heavy capital spending at the initial stage of operations, while the replacement market is much smaller.
- Canadian exports to Guyana ¹ 1994: C\$1,137,668 1995: C\$2,113,085
- Imports by Guyana (1994) ²
 Total: G\$4,307,574,858
 Canada: G\$137,017,953
- Canadian provinces exporting mining machinery and equipment to Guyana: Ontario, British Columbia, Alberta, Quebec.

THE GUYANESE MARKET

- Two customer groups for mining sector equipment:
 (1) retailers: mainly serving small mining companies
 - (2) mining companies: use a tender call process for their purchases

² <u>Source</u>: Bureau of Statistics, Guyana.

Source: Statistics Canada, Canada.

THE GUYANESE MARKET (cont'd)

- Becisive variables for the purchase of mining sector products and services:
 - © worker safety
 - © equipment robustness
 - © equipment effectiveness
 - © brand reputation
 - © product quality
 - © experience in similar climates
- Spending habits of consumers of mining sector products and services:
 - purchases for specific needs
 - high degree of brand loyalty
 - ongoing concern for standardization
 - use of two or three key suppliers or alternatively adoption of a contingency plan
- One problem associated with access to the Guyanese market is related to the management, award and period of prospecting and mining licences. Owing to inadequate controls, it is difficult to determine when a prospecting company becomes an operating company.
- Image: Market access:
 - develop a good network of contacts to facilitate access to the market
 - consult mining industry publications on a regular basis
 - buy some shares in a mining company

LEGAL CONSIDERATIONS, TRANSPORTATION, TAXES AND CUSTOMS

- A national environmental protection agency was established on June 5, 1996.
- The corporation income tax (2%) is scheduled to be abolished in January 1997.
- Solution of the consumption tax on certain mining equipment.
- Solution Canadian equipment is shipped from the port of Houston.
- Customs duties from 0 to 20% for mining equipment and machinery imports.
- Consumption taxes of 0 to 30% on mining equipment and machinery imports.

LEGAL CONSIDERATIONS, TRANSPORTATION, TAXES AND CUSTOMS (cont'd)

- Canadian exporters may qualify for exemptions from the taxes due on their products, with the approval of the government departments in question.
- The consignee of exported equipment has 30 days to claim its property, after which storage charges are applicable or the goods are sold by public auction.
- There are three incorporation methods: sole proprietorship, partnership (not popular) and limited company.
- There is a Canada-Guyana double taxation agreement.
- There is a 6.25% dividend tax for foreign mining companies, unless they invest an equivalent amount in other mining prospecting projects in the country or unless they have an agreement to the contrary with the Guyanese government.

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¹ The Annexes are contained in another document entitled "Market Opportunities in Guyana for Canadian Mining Companies - Annexes".

Under the Department of Foreign Affairs FOCAL program and to meet the academic requirements of the International Master's in Business Administration of the University of Ottawa, we have completed a study of business opportunities for Canadian suppliers of mining sector products and equipment. Our research results are presented on the pages that follow. We trust that this report will be useful to Canadian companies interested in expanding their activities to the Guyanese market or further developing them there. We have taken great care in writing this report in order to provide correct and accurate information. We sometimes encountered problems regarding the availability and reliability of information provided. However, while we do not exclude the possibility of unintentional errors on our part, we are fully confident that the conclusions set out in this report are valid.

SECTION A: PORTRAIT OF THE SECTOR

1. DESCRIPTION OF THE SECTOR AND ITS PRODUCTS

1.1 SECTOR COMPONENTS

The purpose of this study is to identify market opportunities for Canadian companies in various subsectors of the Guyanese economy. We will focus our efforts on identifying business opportunities for industrial sector equipment and machinery. This sector includes the following areas of activity: agriculture, manufacturing industry, forestry, and the mining and other industries. However, we will spend more time on identifying opportunities for the mining sector. We will begin by considering the case of gold and will then analyse the operations of the bauxite industry.

1.2 SPECIFIC DATA

1.2.1 Number of establishments

The main components of the Guyanese mining industry are bauxite, gold and diamonds. It would be extremely difficult to accurately estimate the number of establishments operating in the mining sector. However, from the map presented in Annex A, we note that a large number of deposits have been identified to date. We are also aware that a large number of prospecting and operating licences are currently in circulation (see Annex F). In all categories, we therefore believe that several thousand mining concerns are established throughout the country.

1.2.2 Size of firms

The size of mining firms can be measured in terms of production volume or operating area. In the first case, the classification will relate to production in ounces, tonnes or carats of gold, bauxite and diamonds respectively. On the other hand, the size of firms may be based on the surface area of the mining site. However, although there is normally a direct relationship between production volume and site size, it must be noted that some firms are exceptions to this rule. This is specifically the situation with Linden Mining Enterprise Ltd, whose scale of operation does not compare well in recent years with its annual production. Thus, some mining firms have very little impact on the sector as a whole, while others are by themselves the main source of revenue for the Guyanese government. We could mention here the Canadian company Omai Gold Mines Limited (OGML), which has been operating since 1993 and has increased the gross national product by about 25%. In addition, the Aroaima company (representing American interests) is responsible for the bulk of total national bauxite production.

1.2.3 Number of jobs attributable to the sector

It would be difficult to estimate with any certainty the number of jobs attributable to mining operations in Guyana. This is because, on the one hand, many individuals operate on a clandestine basis in order to avoid paying the taxes that would otherwise be due. Furthermore, statistical data with this degree of detail are seldom available: sometimes only aggregate data are compiled and their collection method may sometimes be dubious. It should be said, however, that according to the results of a survey of Guyanese households by the Bureau of Statistics, 9,836 individuals were employed by a mining company in 1993. At that time, this number represented 4% of the total labour force, which was then estimated to be 245,492, according to the same agency. However, according to other sources, the total labour force in 1991 was 300,000 (The World Fact Book). Since this discrepancy cannot be explained in terms of any major occurrence, we conclude that it is currently impossible to provide an accurate picture of the employment situation in the mines because of differing methodologies.

1.2.4 Pay rates

Guyanese labour legislation and its enforcement are the responsibility of the Ministry of Labour, Human Services and Social Security. There is no national minimum wage. Where applicable, pay rates are instead based on the type of job held. Furthermore, where the law prescribes a minimum wage, this is customarily ignored by employers. No institution exists with a mandate to enforce the legislation. As a result, the compensation received by workers is for all practical purposes left to the judgment of the individual employer. In the public sector, however, the following rates are in effect:

Table 1: Minimum public sector salaries

Employment area	Minimum salary
Public administration ¹	\$6,380 per month
Restaurants, stores, bakeries and movie theatres	\$740 per week
Pharmacies, gas stations, supermarkets and hardware stores	\$1,340 per week
Sawmill and forestry industry	\$1,146 per week
Textile and clothing factories	\$1,678 per week

Source: Guyana Office for Investment (GO-INVEST), 1994

Private sector salaries are considerably higher than those in the public sector. They therefore greatly exceed the statutory minimums.

We should also point out that according to The World Fact Book, the officially observed minimum daily wage was G\$43.04 in 1990 and G\$106.74 the following year, representing an increase of 148%.

As regards taxation rates, the first \$15,000 per month is not taxable but any amount above that figure is taxed at 33.3%. Until last January, the non-taxable threshold was \$12,000, but tax policies have since been revised for the benefit of the poorest workers. As a result of this reform, 20,000 taxpayers became exempt from any income tax on their wages.

1.2.5 Union organization

To establish whether a firm may or may not unionize, a poll is normally conducted by the Ministry of Labour, Human Services and Social Security. If the poll results indicate that a majority of the firm's employees want to be unionized, the employer must comply with the workers' request and grant this legitimate right. However, employees can unionize without a preliminary poll, with the agreement of the employer.

¹ The minimum salary of government services employees was recently raised. Between January 1993 and January 1995, the minimum monthly pay increased from G3,137 to G6,380, an increase of more than 100%.

The Guyanese legislation in this area applies to all employment categories regardless of the activity sector.

1.2.6 Number of production workers

Since we were unable to determine with any accuracy the number of workers whose jobs are with a mining firm, we cannot say what proportion is associated with production. We can say, however, that mining operations are basically production activities. Most of the personnel employed by this industry will therefore be assigned to production whether the firm is small, medium-sized or large. It should be noted, however, that small firms employ a larger proportion of their resources on production, since they invest little or no money in research and development or other activities not directly related to production.

1.2.7 Added value

The mining industry generates high added value products. The purpose of research and development in this sector is not only to develop more efficient mining methods but also to increase the concentration of final products and their use. Professor Pang's studies (1994) have shown that by slightly increasing the purity of minerals like iron, copper and bauxite, the selling price of the product with medium added value could be up to 20 or 30 times higher than the price of the ore. For example, we could mention copper exports from Chili. In that country, exports of copper bars have grown consistently in recent years while exports of the unrefined ore have declined substantially. Chilean tax policies are the cause of these developments, since they have encouraged production of a medium added value product at a higher price. According to Pang's recommendations, export taxes should be used as incentives to develop added value products.² Thus, with a minimum of related investment, Guyana could substantially increase its export revenues. We should bear in mind, however, that so far there is no smelting plant or refinery for bauxite and gold. Therefore, the added value of Guyana's mining products is relatively low.

² PANG, E.-S., Guyana: Mineral Development Strategy, Mineral Policy Assessment and Recommendations, Colorado School of Mines, Golden, Colorado, November 1994, p. 29.

1.2.8 Productivity

Before actual mining begins, a long exploratory investigation must first be undertaken. When a mineral stratum is identified, specialists, geologists and geophysicists estimate the tonnage and ore concentration. For this purpose, they use complex processes that enable them to measure the total volume of the deposit. They then multiply this result by the average density of the ore body to determine the total weight of extractable ore. At this stage it is possible to put a financial value on the mineral deposit. If its value is greater than the cost of mining, processing and marketing the product, the deposit then becomes a mine. The mine's productivity will depend on a number of factors, including the depth, content and concentration of the ore deposit. It will normally be measured in terms of the ratio of the quantity of waste rock extracted from the mine to the weight of ore. This is known as the stripping ratio. Openface mining therefore requires that the cost of extracting waste rock does not exceed the value of the underlying ore.

1.2.9 Research and development costs

Since data are not available we cannot express an opinion on the research and development costs of the mining sector overall. However, according to the Guyana Geology and Mines Commission, only the large corporations, which are mainly foreign, spend money in this area.

1.2.10 Capital costs

Mining operations require large investments in heavy machinery and equipment. These items are imported, since they are not manufactured in Guyana. Tables 1(a), (b) and (c) in Annex B set out the capital costs incurred between 1970 and 1994. In 1991, products valued at G\$1,408.3 million were imported solely for the mining sector. Based on the average exchange rate during this period, G\$111.8000/US\$ (see Table 2 in Annex B), we can establish that these costs represented more than US\$12 million. This is 25% of the total capital costs for this year and 10% of total imports, which are estimated at G\$34,275 million. In 1993, of a total of G\$21,456 million, capital costs in the mining sector were G\$1,464 million, representing 2.3% of total imports. This substantial difference is due to the fact that OGML acquired its equipment in 1991. These imports were therefore recorded in that year, which may result in a bias in interpreting these statistics.

1.2.11 Foreign participation rate

The foreign participation rate is very high, since the Guyanese government or local entrepreneurs do not have sufficient financial resources for large-scale mining operations. Foreign multinationals usually enter into a joint venture agreement with local interests, specifically because of legal constraints that limit their participation in the equity of a mining business to 95%. At the initial operating stage, the Guyanese government will normally own 5 to 10% of the foreign company's assets. Then after 10 years of production, it can purchase a 20 to 30% additional interest in the company.

1.2.12 Concentration of firms

The physical concentration of firms is the natural result of the terrain. Miners set up their operations where the greatest potential has been identified. The maps provided in Annex A indicate the location of Guyana's various mineral resources. It should be noted that the Guyana Shield has great potential that has not yet been fully exploited.

1.2.13 Hierarchical structure

The structure of mining firms is essentially horizontal. This is because a mine must, for all practical purposes, be self-sufficient. Mining sites are often located in places remote from the rest of the population. Therefore, a company must be able to count on... itself (!) to meet its employees' needs. In addition, given the isolation from the rest of the population, the personnel employed by these companies live as a "large family". As a result, hierarchical barriers are much reduced.

1.2.14 Volume of contracting and subcontracting

We are unable to express a view on the volume of contracting and subcontracting by the mining sector as a whole, since data are not available. However, we can say that it increases in direct proportion to the size of the mining firm, measured in terms of annual production.

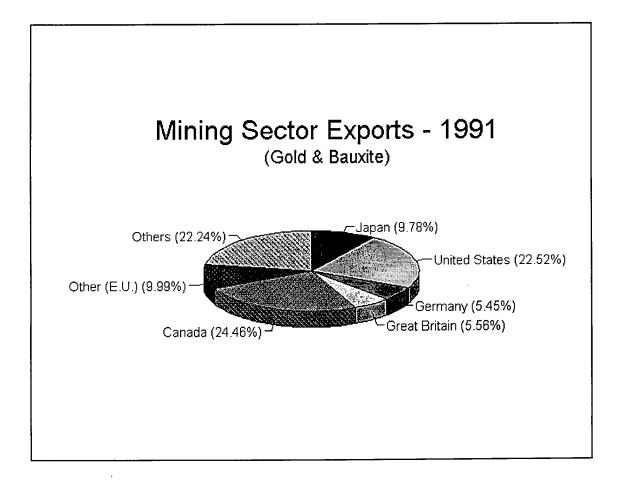
1.2.15 Direction of exports

Tables 3(a), (b), (c) and (d) presented in Annex B indicate the value of exports (in G\$) for the major locally fabricated products. This information tells us that most mining sector exports go to North America (1991), which accounts for about 50% of the total volume. A high proportion also goes to the countries of the European Union (EU), but only 6% of the mining sector's total production is attributable to trade with the United Kingdom, the former colonial power in

Guyana. Last, Japan, a country poor in natural resources, imports about 10% of Guyanese mining production.

These facts are illustrated in the chart below.

Chart 1: Mining sector (gold and bauxite) exports in 1991 ³



Source: Bureau of Statistics, 1995

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³ The detailed statistical data on mining sector exports by country, presented in the above chart for 1991, are the most recent available.

For a more detailed picture of the situation of the Guyanese mining industry, the reader should refer to Section B of this report and consider gold and bauxite separately. By totalling export volumes for these two products, we have introduced a bias in the interpretation of the statistics. According to the information set out in Tables 3 (Annex B), all local gold production is exported to Canada. The other importers of Guyanese mining products (United States, Europe, Japan and other countries) are therefore involved exclusively in trade relating to bauxite.

1.2.16 Sectoral organizations and groups

A number of organizations and groups are directly or indirectly responsible for managing the Guyanese mineral heritage. The following list will interest mining companies attracted by the geological potential of the rich Guyanese subsoil.

CANADIAN HIGH COMMISSION

High and Young Streets, Kingston Georgetown, Cooperative Republic of Guyana Tel. : (592-2) 72081 Fax : (592-2) 58380

Image: GUYANA ENVIRONMENTAL PROTECTION AGENCY ⁴

c/o Office of the President New Garden Street, Bourda Georgetown, Cooperative Republic of Guyana Tel. : (592-2) 51330 Fax : (592-2) 69969

IN GUYANA GEOLOGY AND MINES COMMISSION (GGMC)

Upper Brickdam, Stabroek Georgetown, Cooperative Republic of Guyana Tel. : (592-2) 52862 Fax : (592-2) 52274

INCLUSIONAL BUREAU OF STANDARDS

77 W Hadfield Street, Werk En Rust

⁴ This agency was established last June. So far the agency has no official office, but information can be obtained from the Office of the President.

Georgetown, Cooperative Republic of Guyana Tel. : (592-2) 56226 Fax : (592-2) 57455

GUYANA NATURAL RESOURCES AGENCY

41 Brickdam, Stabroek

Georgetown, Cooperative Republic of Guyana

Tel. : (592-2) 66549

Fax : (592-2) 71211

GUYANA OFFICE FOR INVESTMENT (GO-INVEST)

190 Camp Street, Lacytown
Georgetown, Cooperative Republic of Guyana
Tel. : (592-2) 50658
Fax : (592-2) 50655

MINISTRY OF FINANCE

Main Street, Kingston Georgetown, Cooperative Republic of Guyana Tel. : (592-2) 71114 Fax : (592-2) 61284

MINISTRY OF FOREIGN AFFAIRS

254 South Road, Bourda
Georgetown, Cooperative Republic of Guyana
Tel. : (592-2) 56739
Fax : (592-2) 59192

MINISTRY OF LABOUR, HUMAN SERVICES AND SOCIAL SECURITY

Homestretch Avenue, Durban Park

Georgetown, Cooperative Republic of Guyana

Tel. : (592-2) 60489

Fax : (592-2) 53477

MINISTRY OF PUBLIC WORKS, COMMUNICATION AND REGIONAL DEVELOPMENT⁵

⁵ Unlike most countries rich in mineral resources, Guyana has no Ministry of Energy and Mines. Under the 1989 *Mining Act*, the Ministry of Public Works, Communication and Regional Development is responsible for establishing development policies for the mining sector.

Wight's Lane, Kingston Georgetown, Cooperative Republic of Guyana Tel. : (592-2) 61875 Fax : (592-2) 56954

MINISTRY OF TRADE, INDUSTRY AND TOURISM

229 South Road, Lacytown Georgetown, Cooperative Republic of Guyana Tel. : (592-2) 68695 Fax : (592-2) 54310

GFFICE OF THE PRESIDENT 6

New Garden Street, Bourda Georgetown, Cooperative Republic of Guyana Tel. : (592-2) 51330 Fax : (592-2) 69969

STATISTICAL BUREAU

Fax

Ave of the Republic, Stabroek Georgetown, Cooperative Republic of Guyana Tel. : (592-2) 60982

: (592-2) 62036

A list of the groups, organizations and companies specifically associated with the gold and bauxite industries is presented in Section B of this chapter.

1.3 MAJOR SUBSECTORS AND SPECIFIC PRODUCTS

In principle, the mining sector is divided into three major categories: diamonds, bauxite and gold. Of these three components, the last two apparently offer the greatest medium- and long-term potential for Guyana. In fact, between 1993 and 1994, annual diamond production fell by 31% from 43,784 carats to 30,295 carats (Table 4, Annex B). Since this industry is officially in decline, we will concentrate on identifying opportunities for Canadian firms working in the other two parts of this industrial sector.

⁶ The President of Guyana and the Guyana Geology and Mines Commission are jointly responsible for the national geological heritage and the related legislation.

We should point out, however, that Guyana's geological potential extends well beyond these three major resources. There are also:

Industrial minerals	:	Kaolin, silica sand, mica, ilmenite, columbite-tantalite, manganese, etc.
<u>Common metals</u>	:	Copper, lead, zinc, tungsten, molybdenite, nickel
Ferrous metals	:	Iron (magnetite and laterite)
Radioactive ore	:	Uranium
Semi-precious stones	:	Amethyst, green quartz, black pearl, agate, jasper.

1.4 USE OF PRODUCTS

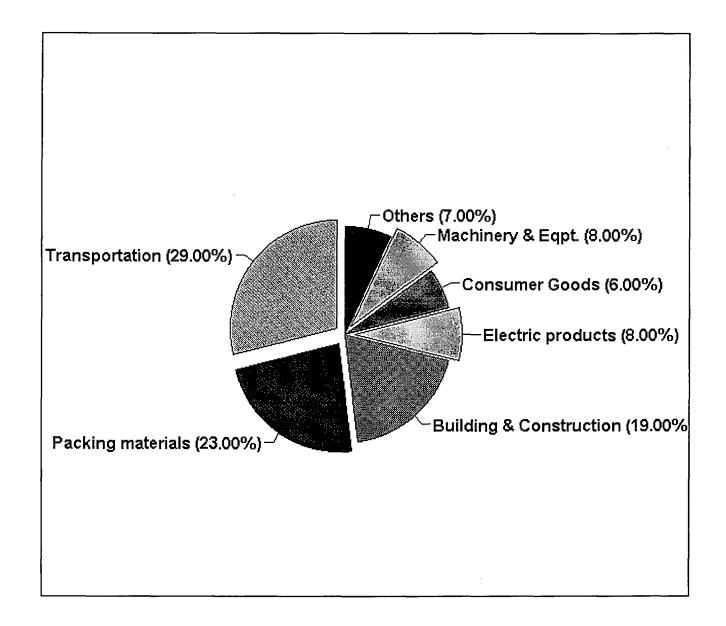
Gold and bauxite are used for two different purposes related to their very nature. For example, gold is valued for "its rarity, lustrous beauty, ductility, high resistance to corrosion, and conductivity."⁷ It is used mainly to manufacture coins and jewels. But gold is also used in telephone plugs, automobile air bags, compact disks and communications satellites. In addition, some companies gild the windows of their buildings to reduce air conditioning costs.

Worldwide, about 60% of gold production is apparently used for industrial purposes, principally in jewelry. In Canada, these figures would be 85%, and 6% for electronics-related uses.

Aluminum, produced from bauxite, is used in the manufacture of a wide variety of consumer products and capital goods. The major markets for aluminum in pure form or as an alloy are the transportation industry, packaging, and the construction and building sector. The following chart shows the breakdown among the major aluminum markets by relative importance.

⁷ **COUTURIER, G.**, <u>Gold</u>, Natural Resources Canada, Nonferrous Commodities Division, October 1995.

Chart 2: Major aluminum markets



Source: Statistics Canada, 1995

It should be added that North American consumption is the highest on the world scale, representing 33% of the total aluminum demand of countries in the western hemisphere.

Worldwide, it is estimated that more than 90% of bauxite production is used to make aluminum. However, this is not true of Guyana, since only a small proportion of Guyanese bauxite is used for this purpose. Because of its chemical composition, Guyanese bauxite is suitable for the manufacture of industrial metals and chemicals with a high alumina content and a relatively low iron and silica content. Guyanese bauxite-derived products are shown in the following table.

Table 2: Use of Guyanese bauxite-derived products

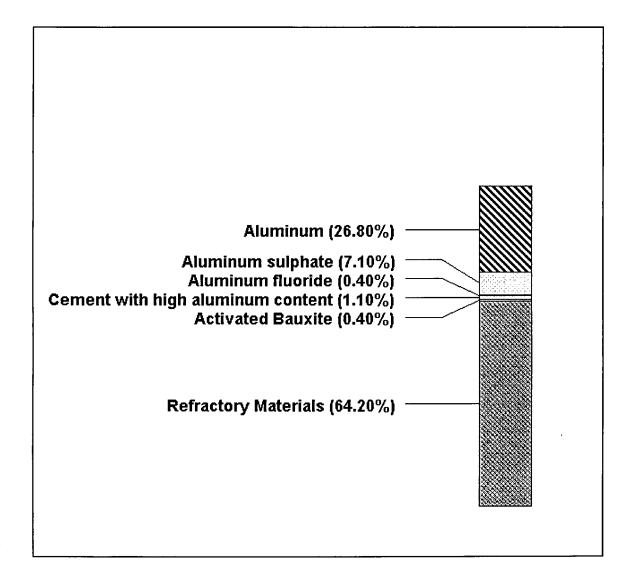
Derived product	Use
Aluminum sulfate	Water treatment and papermaking
Aluminum fluoride	Basis of various chemical compounds
Refractory materials	Insulation of high-temperature furnaces
Abrasives	Metal grinding and polishing
Activated bauxite	Chemical catalyst
Cement with a high alumina content	Cement with special chemical characteristics

Source: The Guyana Bauxite Industry Years of Achievement, BIDCO, 1991

Guyanese bauxite (calcined and chemical) is used for all the above-mentioned applications in 80% of cases.

The chart below sets out the uses of Guyanese bauxite based on final use in the industrial sector.

Chart 3: Use of Guyanese bauxite



<u>Source</u>: Based on information presented in *The Guyana Bauxite Industry Years of Achievement, BIDCO*, 1991

1.5 THE SECTOR'S IMPORTANCE IN THE TOTAL ECONOMY

Tables 5(a) and (b) in Annex B present a list of Guyana's major exports between 1974 and 1995. The statistical data enable us to appreciate the importance of the mining sector in the total economy. We can see that the combined value of exports of bauxite and gold - Guyana's two major mineral resources - are a very important component of total exports. Statistics concerning the total volume of exports in the mining sector and the sector's contribution to the total economy are presented in the following table.

	TOTAL (US\$ M)	MINING SECTOR (US\$ million)			CONTRIBUTION (%)			
		Bauxit e	Gold	Total	Bauxit e	Gold	Total	
1974	232.2	77.7		77.7	33.5		33.5	
1975	329.6	106.6		106.6	32.3		32.3	
1976	272.8	113.3		113.3	41.5		41.5	
1977	255.7	129.8		129.8	50.8		50.8	
1978	290.1	130.2		130.2	44.9		44.9	
1979	288.8	128.2		128.2	44.4		44.4	
1980	382.9	188.0		188.0	50.0		50.0	
1981	340.7	152.6		152.6	44.8		44.8	
1982	232.4	94.3		94.3	40.6		40.6	
1983	187.8	73.0		73.0	38.9		38.9	
1984	213.5	92.3	4.4	96.7	43.2	2.1	45.3	
1985	205.5	98.0	4.0	102	47.7	1.9	49.6	
1986	221.7	81.7	14.5	96.2	36.9	6.5	43.4	

Table 3: Mining sector exports as a percentage of total exports ⁸

⁸ This table is based on the data presented in Tables 5(a) and 5(b) of Annex B. Totalling gold and bauxite exports gave us the "total" exports of the mining sector. Then, by dividing this number by total exports, we could determine the sector's contribution to the total volume of exports.

	TOTAL (US\$ M)	MINING SECTOR (US\$ million)			CONTRIBUTION (%)			
		Bauxit e	Gold	Total	Bauxit e	Gold	Total	
1987	266.4	86.3	17.0	103.3	32.4	6.4	38.8	
1988	229.6	82.1	18.4	100.5	35.8	8.0	43.8	
1989	224.4	75.9	6.8	82.7	33.9	3.0	36.9	
1990	250.1	80.4	17.7	98.1	32.1	7.1	39.2	
1991	254.4	82.3	21.4	103.7	32.4	8.4	40.8	
1992	363.5	97.1	24.6	121.7	26.7	6.8	33.5	
1993	404.0	91.1	99.8	190.9	22.6	24.7	47.3	
1994	447.4	79.8	128.0	207.8	17.8	28.6	46.4	
1995	478.9	82.9	94.7	177.6	17.3	19.8	37.1	

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Source: Bureau of Statistics and other government agencies, 1995

Chart 1 in Annex C sets out the evolution of this industrial sector between 1974 and 1995 compared with all exports.

1.5.1 Brief history

Geological prospecting in Guyana began in 1868, when C.B. Brown and J.G. Sawkins, commissioned by the British government, surveyed the whole country to identify geological deposits. Sawkins retired two years later, but his colleague continued the work, concentrating mainly on resources in the interior in the depths of the tropical jungle. On completion of this work, Brown wrote a report which was to open the door to mineral prospecting and the discovery of gold and diamonds.

The mining sector has therefore existed in Guyana for a very long time and the country was known as "El Dorado" because of its rich subsoil. Europeans, driven by the potential for quick riches through the gold trade, soon made known Guyana's geological wealth. These gold prospectors and fortune hunters settled in the country and colonized it. However, their mining operations remained undeveloped and relatively small. They were known as "pork-knockers" or "garimpeiros". The most prosperous operations during this time were those of the Germans, who operated the German Syndicate Mines between 1896 and 1907, during which time they

mined 38,780 ounces of gold in Guyana. However, their operations eventually proved too expensive. The manual gold mining process they used involved long and difficult work for a low return. Their productivity was therefore too low and they ceased to operate their mine. Only many years later, in 1985, did modern mining activity begin in Guyana.

Bauxite mining operations began in 1917 after the work of Harrison on laterites led to the identification of bauxite deposits. Bauxite quickly became a major contributor to the Guyanese economy because of its many uses. During the 1970s, the country became the world leader in production of this ore. At that time Guyana had about 75% of the world market share and a highly enviable reputation for the quality of its product. However, in the 1980s, Guyanese bauxite production declined substantially until it represented no more than 45% of the world volume. This considerable reduction was due to many factors, including nationalization of the mining sector, excessive regulation, stagnant economic planning, undue government interference in business management and xenophobic trade policies. In addition, the country was isolated from the rest of the world and was unable to invest to diversify and modernize its production or to develop an added value manufacturing process. In short, Guyana now apparently produces between 20 and 25% of the world supply of bauxite.

1.5.2 Product life cycle

According to marketing theories, the life cycle of a product falls into five major phases: launch, growth, refinement, maturity and decline.

In our opinion, bauxite has reached the mature stage, while gold is still at the refinement stage. It is very difficult to accurately determine the life cycle position of these products, since the mining industry is itself cyclical. However, the evolution of gold prices on international markets seems to indicate that the commodity still has a strong market potential. According to Chart 2 (Annex C), the price of gold rose by about 40% between 1991 and 1995, representing an average annual increase of 8%. Since market prices are determined by supply and demand, we can conclude from this observation that the gold market is continuing to grow.

In the case of bauxite, we believe that this ore has reached its mature stage. Bauxite and aluminum prices have been falling since 1988 on world markets and the demand for these commodities is static.

1.5.3 Classification of mining sector products

GOLD

Gold falls into the luxury product class. This explains why most of the world production - if not all, as in the case of Guyana, for example - is exported to the developed countries. First-world countries have the resources to buy this commodity although they do not always have the geological wealth of the producing countries.⁹ However, it is expected that in future years the gold producing countries will consume more of these luxury products on which they depend, which are mined from their soil but traditionally exported to wealthier consumers.

⁹ We should note that the costs associated with operating mining sites may discourage this type of investment. We should also point out that first-world savings are associated mainly with services rather than production industries.

BAUXITE

Bauxite is the ore from which aluminum is made. Aluminum has many uses, for example in the manufacture of parts for automobiles, aircraft and bicycles, in house building and for common domestic use. It is therefore a widely used product. However, in view of technological innovations and continual improvements in manufacturing processes, aluminum could also be described as a fashionable product. Use of this metal is continually growing and, more than ever before, it is found in a wide variety of products. Aluminum has more than 23,000 uses in the United States, Western Europe and Japan.¹⁰ Since Guyana has no smelting plants, it confines itself to bauxite mining and does not produce aluminum. The entire production is therefore exported to foreign countries, where aluminum and other alloys and metals are obtained from processing and additional chemical treatment. These products are then re-exported to Guyana in various forms.

2. SIZE OF THE ENTIRE MARKET

2.1 EXTENT OF THE SECTOR

To assess the extent of the mining sector and its importance to the Guyanese economy, we will compare the export revenues of this industry with total revenues. The table below will enable us to gain a better evaluation of the extent of the mining industry and the money it injects into the local economy.

¹⁰ PANG, E.-S., Guyana Mineral Development Strategy: Mineral Policy Assessment and Recommendations, Colorado School of Mines, Golden, Colorado, November 1994, p. 29.

		1988	1989	1990	1991	1992	1993	1994	1995
Gold	value	18.4	6.8	17.7	21.4	24.6	99.8	128.0	94.7
	%	8.0	3.0	7.1	8.4	6.8	24.7	28.6	19.8
Bauxite	value	82.1	75.9	80.4	82.3	97.1	91.1	79.8	82.9
	%	35.8	33.8	32.1	32.4	26.7	22.5	17.8	17.3
Sugar	value	71.2	86.4	79.9	89.8	134.1	116.3	116.4	125. 5
	%	31.0	38.5	31.9	35.3	36.9	28.8	26.0	26.2
Rice	value	13.9	11.7	13.7	18.0	35.0	33	55.6	76.5
	%	6.0	5.2	5.5	7.1	9.6	8.2	12.4	16.0
Shrimp	value	23.1	22.9	23.5	18.6	13.0	11.4	13.1	2.7
	%	10.1	10.2	9.4	7.3	3.6	2.8	2.9	0.6
Lumber	value	2.8	2.9	4.5	4.0	3.7	4.5	7.9	8.3
	%	1.2	1.3	1.8	1.6	1.0	1.1	1.8	1.7
Molasses	value	0.2	0.1				1.4	0.6	0.4
·	%	0.1	0.0				0.4	0.1	0.1
Rum	value	8.3	7.0	10.6	2.6	7.0	9.3	11.5	3.9
	%	3.6	3.1	4.2	1.0	1.9	2.3	2.6	0.8
Other	value	9.6	10.7	19.8	17.7	48.9	37.2	34.5	84.0
	%	4.3	4.9	8.0	6.9	13.5	9.2	7.8	17.5
Total	value	229.6	224.4	250.1	254.4	363.4	404	447.4	478. 9
	%	100	100	100	100	100	100	100	100

Table 4: Export revenues (US\$ million and %)

<u>Sources</u>: Bank of Guyana, Bureau of Statistics, Guyana Geology and Mines Commission and other government agencies

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The two major resources of the mining sector are gold and bauxite. The table above indicates that these two products have been among the three largest sources of revenue for the Guyanese economy since at least 1988.

2.2 COMPARATIVE ANALYSIS OF THE CANADIAN MARKET

Canada is divided into five geological regions: the Precambrian Shield, the Prairies, the Cordillera, the Appalachians and the Arctic. These regions are themselves divided into geological provinces depending on the types of rocks and ores they contain.

The Precambrian Shield

This region covers more than half of the total area of Canada and is the major source of various metals. Thus, in the Shield area, a mineral stratum known as the greenstone belt is regarded as one of the richest regions on the globe as regards its potential mineral resources.

Prairie Region

The Prairies are the location of relatively young rock formations and most of the metals found there are the result of sedimentation and evaporation processes. The region is therefore an unlikely source of gold. On the other hand, the Prairies offer great potential for coal, potassium, gypsum, salts and clays. They also contain huge reserves of natural gas and petroleum.

Cordillera Region

The rock structure of British Columbia and the Yukon provides characteristics favourable to metallic and non-metallic mineral deposits. The Cordillera also has the richest gold-bearing deposits in Canada. One example is the Eskay Creek mine in northwestern British Columbia, whose deposits are so concentrated (34 grams of gold per tonne of rock) that they are sent directly to a smelting plant for processing to extract the gold.

Appalachian Region

The Appalachian Region is especially rich in lead and zinc, but it also has extensive mineral deposits of all sorts. In the late 19th century, Nova Scotia was the most important gold producing province in Canada. Today, only a single gold mine remains in the Appalachian Region: Hope Brook on the south-west coast of Newfoundland. However, other large mining companies have developed, specifically in the gypsum, coal, potassium and asbestos sectors.



The Arctic

The Arctic Region, also known as the Innuitian Region, covers an area of 1.3 million square kilometres. In recent years, interest in this geological region has grown substantially and many studies have been conducted with a view to identifying its mineral wealth.

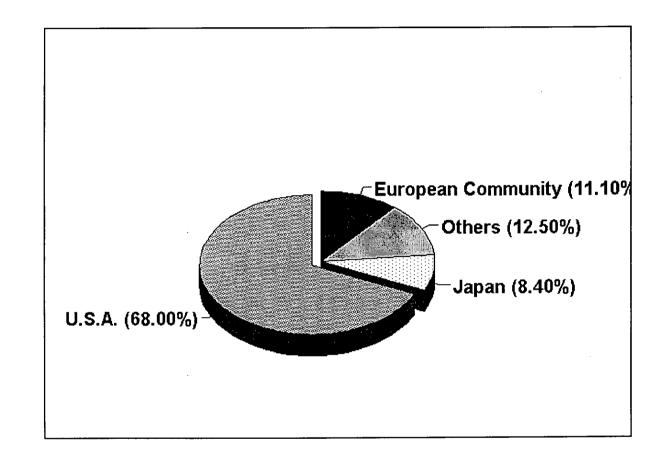
Apart from Prince Edward Island therefore, every Canadian province is a producer of mineral resources. It should be noted that the most important are Ontario, Quebec, British Columbia and Saskatchewan.

2.2.1 Annual sales

After the forest industry, the mining sector is the largest source of export revenues for Canada. In 1994, this industry generated a trade surplus of \$CAN11.7 billion, representing 14.6% of all Canadian metal and mineral product exports. The great majority of these exports are destined to the United States, which represents 68% of the total export volume. Next come revenues attributable to trade with the countries of the European Union (11.1%), followed by Japan (8.4%).

It should be noted that 80% of Canadian mineral production is exported.

Chart 4: Canadian exports of metal and mineral products (1994)



Source: Statistics Canada, 1995

2.2.2 Contribution to the economy

There are more than 200 operating mines across Canada. In 1994, the mining sector represented approximately 4% of the gross national product, or \$CAN14.5 billion. It has many direct and indirect spinoffs. For example, the mining industry is said to employ some 80,000 people and to be indirectly responsible for 300,000 additional jobs in the procurement and services sectors.

It should also be pointed out that, unlike its Guyanese counterpart, the Canadian mining sector is basically a national industry, since it is 70% controlled by local interests.

2.2.3 Growth rate

Canada's performance by comparison with other mineral producing countries can vary from one year to the next, depending on the price of these commodities, which are subject to world supply and demand fluctuations. Canada's ranking will therefore vary on the basis of its annual mineral production. In 1993, Canada was the world leader in zinc, uranium and potassium production. The same year, it ranked second in the production of nickel, asbestos, cadmium, selenium and indium. The country ranked third in aluminum and magnesium production and fourth for gold, copper and gypsum and, finally, fifth for silver production. In 1994, Canada's total gold production was estimated at \$2.5 billion or 145.5 tonnes, making it the fourth largest world producer.

In general, if we wish to express a view regarding the growth of this sector in Canada, we could refer to the 1994 statistics, according to which the ratio of prospecting projects by small mining companies compared to those undertaken by large operating mines was 8:1. In other words, for each large operating mine in Canada, there were eight other prospecting companies looking for new sites. It should be borne in mind, however, that mineral resources are not renewable. Furthermore, research has shown that reserves are declining. A number of Canadian mines will close during the next few years and will not be replaced by mines of comparable size, because of a failure to identify mining areas of sufficient extent or a sufficient number of ore deposits. In 1992 and 1993, for example, 44 Canadian mines ceased operations permanently or temporarily, while only 24 mines opened during the same years. These closures resulted in the loss of 6,450 jobs, and it is anticipated that many other Canadian mines will close by the year 2000. Additional factors are Canadian regulation and government incentives, which have been in decline in recent years. With the growth of international competition, the Canadian regulatory framework must remain competitive in order to attract investment to the mining sector.

2.2.4 Product similarities and differences

The major difference between Canadian gold and Guyanese gold relates to their degrees of purity. Canadian gold is 99% pure, while Guyanese gold is exported with a maximum purity level of 95%. These bars are then exported to Canadian refineries, where they are refined to almost pure metal.

However, the basic difference between the Canadian and Guyanese mining sectors relates to the potential for Canadian firms to generate added value products, unlike their Guyanese counterparts. As a result of this competitive advantage, Canadian firms can achieve higher profit margins on the sales of these commodities and also enhance the perceived and actual qualities of mining products. In addition, although the mining industry is of vital importance to the Guyanese economy, it remains relatively insignificant on the world scale. As a result, Guyana is incapable of achieving economies of scale or scope, unlike Chile or Canada, for example. Expertise, technological innovation, research and development are therefore limited by the relatively small size of this sector.

3. TRENDS

3.1 SECTOR GROWTH

The mining industry is expanding to a quite remarkable degree within the Guyanese economy. The production of this sector increased in terms of value (G\$) by 32% between 1988 and 1995. However, as indicated by the data in the following table, the growth of the sector has not been consistent. The performance of the mining industry has been subject to market conditions and other imponderables, such as the closure of the OGML company in August 1995. This also explains the 11% fall in mineral production between 1994 and 1995. During the same period, bauxite production increased by 67%, while a drop of 74% was recorded for other mineral products, including principally gold.

Table 5: Gross National Product (G\$ million)

(1988 constant dollars)

	198	198	199	199	199	199	199	1995
	8	9	0	1	2	3	4	
Agriculture, Forestry and	936	909	784	881	1,09	1,16	1,30	1,41
Fishing	397	391	308	379	5	0	2	2
- Sugar cane	58	64	42	67	576	575	598	595
- Rice (raw)	186	186	195	195	75	93	103	140
- Other crops	94	94	66	55	193	203	215	233
- Cattle industry	121	102	102	113	54	60	69	84
- Fishing	80	72	71	72	109	112	120	132
- Forestry					88	117	195	228
Mining	360	266	314	381	337	502	535	474
- Bauxite	300	210	262	317	209		237	395
- Gold, diamonds and	60	56	52	64	128		298	79
other products								
Manufacturing industry	460	426	370	409	488	505	533	583
- Sugar	126	124	98	120	183	182	190	188
- Rice (processed)	23	25	17	27	30	36	41	54
- Other products	311	277	255	262	275	286	302	341
Construction	246	241	246	251	256	265	318	349
Services	1,59	1,58	1,60	1,59	1,61	1,67	1,76	1,85
- Distribution	8	0	5	7	6	2	5	8
- Transportation and	290	278	287	301	316	338	358	376
communications	299	284	290	290	299	317	344	375
- Housing and rental								
- Financial services	65	65	66	66	66	66	72	77
- Government services	185	194	200	200	204	214	231	249
- Other services	634	634	634	609	597	597	609	621
	125	125	128	131	134	139	151	160
Total	3,60	3,42	3,31	3,51	3,79	4,10	4,45	4,67
	0	2	9	9	2	4	2	7

Source: Bureau of Statistics and Bank of Guyana, 1995

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Last, it should be added that the mining industry's contribution to the gross national product remained relatively stable between 1988 and 1995 at 10%. In 1993, a record year for national gold production, 12.2% of the gross national product was associated with mining. Had it not been for the temporary closure of OGML, the mining sector's contribution to the Guyanese economy as a whole would have been even larger. It is projected that in future years this sector will have a greater impact on the economy as a whole, due largely to anticipated growth in gold mining activities.

3.2 TECHNOLOGICAL CHANGES

Mining firms are now high technology companies. We have come a long way from the time of the "pork-knockers", during which gold prospecting and mining were essentially manual in nature. Today, mineral prospecting is extremely difficult and much more complex than in the past. Large amounts are sometimes invested with no guaranteed results.

As a result of technological innovations, modern prospecting techniques have developed greatly. They now employ satellites and computer programs known as Geographic Information Systems (GIS), which can help identify potentially valuable areas on the basis of geological data and deduction. With these tools, it is possible to identify any sudden change in the type of rock, an abnormally magnetized area when compared with the surrounding regions, or a sudden change in soil chemical composition. These anomalies can conceal mineral deposits, since at these locations mineral concentrations are greater than the average for the earth's crust as a whole.

In addition, with the new information technology, prospectors can now determine accurately the latitude and longitude of the mineral strata identified, simply by pushing a button. Using a portable global positioning system (GPS), the prospector can estimate with greater certainty and accuracy the potential yield of a site. With the information thus collected, a feasibility study can be conducted to estimate the probable yield by comparison with the operating, mining and marketing costs associated with a mining enterprise.

Geophysical technology has developed greatly in recent years, and this is due mainly to the explosion in scientific activity following the end of the Second World War. Magnetic data storage, optical fibre and portable computers are all tools facilitating mining prospecting, since a large volume of data can now be processed on the site itself. Geophysical research makes it possible to measure five major properties: magnetic and electrical fields, gravity fields, radiation and rock density. This science, which is one of the three components of prospecting (geological, geophysical and geochemical deduction) uses highly sophisticated and accurate tools to discover ore deposits.

As regards milling operations, the process is now controlled by computers and programmable automatons (PLC or Programmable Logic Controllers). There are also certain expert systems which attempt to imitate the reasoning of processing plant operators.

3.3 CONTRACTING AND SUBCONTRACTING

We are not in a position to determine changes in contracting and subcontracting trends for the mining sector in particular, because of a lack of available data. However, we can say that in general, the companies have long sought to employ professionals with an increasing degree of specialization. As a result, some employees found themselves at a disadvantage when the processes they had implemented for many years were suddenly changed. In a context of personnel cutbacks or with the advent of new technologies, this has resulted in many problems. Employees highly effective in their initial functions could not perform well when assigned to other duties, and so forth. Today, the trends seem contradictory, since the companies are looking for employees who are both specialists and generalists. In our opinion, therefore, in the case of highly specialized or support services, subcontracting will tend to increase. In support of this statement, we can refer to the new concept of the "virtual corporation". Under this arrangement, a firm will concentrate solely on the essential part of its business mission. All associated and support activities will be subcontracted, thus increasing the flexibility of the parent company as regards production volume. Furthermore, through this process of disengagement, the virtual company avoids the inherent responsibilities of an employer during periods of personnel cutbacks. With the increasing popularity of this type of organization, it would seem that contracting and subcontracting levels will tend to increase in future years for firms in the mining sector.

3.4 CAPITAL-LABOUR RATIO

According to CAMESE (Canadian Association of Mining Equipment and Services Exporters), about 50% of the assets of a mining company are related to services, while the other half represents machinery and equipment.

Furthermore, the percentage of employees associated with production is in decline, in view of the massive investment in high-technology equipment and continuous innovation. The mining industry is now undoubtedly a high-technology industry. As a result, the capital-labour ratio is tending to increase as science and research and development activities progress. It should be borne in mind that the mining sector is a capital-intensive industry and a knowledge-based industry.

3.5 COST STRUCTURE AND COMPETITIVENESS

According to a report published in 1994 by the Colorado School of Mines,¹¹ Guyana has all the required potential to rank among the 10 most important mineral production countries by the year 2000. Factors favouring explosive development of this industrial sector include great geological wealth, an experienced workforce and a long mining tradition. However, these factors alone are insufficient to attract foreign investment. The fact is that 40 mineral producing countries are pursuing the same goal, and implementation of new investment incentives by the Guyanese government would not in themselves be enough to release the country's potential. The chronic absence of roads and infrastructures could permanently compromise Guyana's future as it relates to development of its mining industries. At one time, Guyana was in a highly enviable position on world markets because of its bauxite production. Today, those prosperous times seem to have ended. The main players are now Australia, Brazil, Papua-New Guinea and Jamaica; these four countries have more than two thirds of the world's identified bauxite deposits.

¹¹ PANG, E.-S., Guyana Mineral Development Strategy: Mineral Policy Assessment and Recommendations, Colorado School of Mines, Golden, Colorado, November 1994.

The following table presents the list of major bauxite producers between 1981 and 1991.

	1981	1984	1988	1989	1991
Australia	25,441	31,537	36,370	38,583	40,503
Papua-New Guinea	12,822	14,738	17,859	17,547	17,054
Jamaica	11,606	8,735	7,409	9,395	11,509
Brazil	4,463	6,433	7,726	7,834	10,414
USSR	6,400	6,200	5,900	5,750	4,800
India	1,955	2,078	4,013	4,335	4,835
China	1,800	2,500	3,500	3,800	3,000
Suriname	4,125	3,375	3,434	3,457	3,136
Yugoslavia	3,249	3,347	3,034	3,252	2,542
Hungary	2,914	2,994	2,906	2,643	2,037
Greece	3,218	2,296	2,533	2,602	2,134
Guyana	2,396	2,485	1,774	1,340	2,204
Sierra Leone	616	1,041	1,403	1,548	1,288
France	1,828	1,530	978	720	183
Other	5,567	3,108	3,225	4,138	5,164
Total	88,400	92,397	102,06 4	106,94 4	110,80 3

Table 6: World bauxite production between 1981 and 1991 (000 tonnes)

Source: Metalistatistik, Mineral Commodity Summaries

One of Guyana's major problems relating to its bauxite industry is high production and shipping costs. Guyanese bauxite is shipped by boat from exit points on the Demerara and Berbice rivers

where the draft is 30 and 18 feet respectively, thus limiting maximum vessel capacity to 22,000 tonnes. By contrast, the capacity of Jamaican and Australian ports is from 40,000 to 50,000 tonnes, or twice the capacity of Guyanese ports. Since the cargo load is reduced by 50%, European and North American buyers favour bauxite from competing countries, despite inferior quality. Production costs associated with Guyanese bauxite are also higher than those of the Australian and Jamaican competitors, since the deposits are much deeper. The ore is about 100 feet below the surface at Berbice and about 250 feet at Linden. By contrast, Jamaican and Australian bauxite deposits are less than 10 feet deep. The costs of removing waste rock are therefore much higher.

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In recent years, China has also been making itself felt as a major competitor. Chinese bauxite is of much lower quality than Guyanese bauxite, but this is counterbalanced by its highly competitive prices.

As a result of more intense competition and high production costs, Guyana's position on the world market has worsened, but the decline of the bauxite industry has also appeared in a decline in the perceived quality of the product. There has also been a decline in bauxite prices on world markets.

Following the end of the cold war, new producing countries penetrated this market and they are now making themselves felt as serious competitors. In 1991, the aluminum manufacturing capacity of the former USSR was more than 2,000,000 tonnes per year, or one ninth of world production, which was then estimated at 18 million tonnes. Russia is actively seeking to attract foreign investment and the relatively low costs of its mining industry are certainly a competitive advantage from the western point of view. It is also expected that Hungary and some African countries will also become major international competitors. Accordingly, with the entry of these new competitors, bauxite and aluminum prices will continue to fall while production will increase. At the same time, the Guyanese bauxite industry will continue to decline, since the production volume will fall, but without any effect on the associated costs. Consequently, Guyana's share of the world market will drop to between 2 and 3% (Eul-Soo Pang, 1994).

Another important factor for the measurement of a country's competitiveness is its political stability. According to a political risk classification proposed by Eul-Soo Pang, Guyana was in Group C in August 1994 and ranked 22nd in terms of political stability. In other words, this country represents an average risk as regards safety and return on the capital of foreign investors (Table 6, Annex B). Given the highly competitive world context, the competitive advantage of a mineral producing country will be determined by production costs, tax incentives to investment and clear signs of political stability. Guyana must therefore adapt its government policies to the new market realities in order to increase its competitiveness.



3.6 COMPANY SIZE

Company size is of vital importance in the sector, given that mining equipment and processes vary considerably depending on the scale of operations. Thus, the production of some companies is so small that it is difficult to measure its impact on total production. The size of mining companies in Guyana is likely to grow in future years. Small miners will no longer have a place in the sector, in view of the high performance and productivity of larger organizations.

3.7 INFLUENCE OF MULTINATIONALS

Multinational companies are having some impact on the sector as a whole, both as regards economic spinoff effects and as regards social impacts. An example is the case of OGML, which has become a yardstick for gold mining. In his 1996 budget speech, the Minister of Finance said that sustainable economic development in Guyana should be through the establishment of new "OMAIs" in the mining sector. This is certainly an indication of the influence of this firm in Guyanese society.

Another example is the accidental spill of cyanide by OGML into the Essequibo river. This occurrence in August 1995 led to such a debate that strict environmental standards and measures will be applied in future. Until this incident, there was no environmental legislation, in other words there was no legal authority that could hold OGML responsible for paying reparations and compensation for the harm caused to riverside populations, neighbouring communities, wildlife and plant life. Despite the absence of any legal obligation, OGML acted responsibly and compensated the populations in the affected area. OGML has also invested large amounts to educate the public and familiarize it with these chemicals. However, this accident made the Guyanese government realize the need to establish a legal framework to avoid ecological disasters and compel the companies to act responsibly when they endanger the environment.

In addition to their social mission, the multinationals are also major economic players. Without exception, they generate substantial economic spinoffs. To fully appreciate this fact, it must be borne in mind that Guyana is a "developing" country. It has, of course, a wealth of natural resources. However, the investments required to exploit them are so large that the costs are beyond the capacity of local companies. This is especially true of the mining sector where the capital costs required may be enough to discourage any local investment, since the financial resources are not available. When a foreign company sets up in Guyana, it contributes foreign capital, expertise and employment: these are all positive spinoffs for Guyana and benefits for the multinational companies, which take their generous share of profit.

Last, the multinational companies also play the part of marketers of mining sector equipment. According to the Guyana Geology and Mines Commission, machinery purchases are based on the experience of competitors and their satisfaction level. Although this is not the only factor influencing the decision-making process, an entrepreneur will be strongly inclined to purchase a Caterpillar power crane if he has already seen it operating on a competitor's site. Since the multinationals' operations depend on foreign machinery, they contribute to the marketing of these equipment brands.

3.8 ADAPTABILITY TO SPECIFIC NEEDS¹²

Adaptability to the specific needs of the mining companies is a key factor in awarding a contract to a specific supplier of products, equipment or services. For example, not one of the 200 Canadian mines share common characteristics. They are all different in size, in the number of personnel they employ and in their technologies. Many variables can influence the choice of a mining method. The size, shape and depth of the ore deposit are all factors that must be taken into account in setting up a mining operation. In Guyana, there are two main types of operation, the first alluvial or concentrated on the shores of water sources, and the other consisting of hard rock mining. The latter category includes only two companies: OGML and Pereira Mining Company, a local firm. Each of these two types of operation uses different tools. Small and medium-size alluvial mining companies use mainly pumps and hoses, which are the essential types of equipment required to conduct their operations.

In matching the needs of a mining company and the services available, we must bear in mind that use of a certain mining method <u>may rule out a mineral-bearing region</u> because of operating costs that are too high when compared with the possible profits. It should be noted, however, that it has sometimes been possible to convert initially valueless mineral bodies into profitable mines through technical developments resulting in mining methods that are much cheaper and better adapted to the specific nature of the mineral deposits.

Another factor that must be considered and which relates to adaptability to the needs of mining companies is establishing whether the mine is open-face or underground. In the first case, there

¹² General note:

The steering wheel on most automobiles in Guyana is on the right, since automobiles drive on the left as in the United Kingdom. We would therefore have assumed that the steering wheels of trucks on mining sites would also have been on the right in order to facilitate driving. However, this adaptation has not been made. On the other hand, the all-terrain vehicles on these sites have specifications designed for the climatic conditions and terrain of the South American countries.

are really no constraints regarding the size of trucks and their maximum load capacity. On the other hand, in the case of an underground mine, it is necessary to consider the size of the mine entrance (or wellhead) and the stability of the rock structure. Mining the deposit and shipping it to a processing location may then become a hazardous business. This is why planning is important. For example, in an open-face mine, the buckets of load-haul-dump vehicles can have a capacity of 40 or 60 m³, compared with 0.5 to 8 m³ in the case of underground mines. Similarly, the high speed electric trucks used to haul rock can carry up to 150 tonnes of rock in open-face mining. In an underground mine, the wellhead will limit the capacity of these electric trucks. It should be pointed out, however, that there is little underground mining in Guyana. There are surface, alluvial (or placer deposits) and open-face mines. The latter form of mining is the cheapest.

Computer software used in mining is adapted to the specific operations of each mining company. The software must reflect the specific nature of the deposits, their shape and concentration, the physical constraints of the mine and the purity desired.

Last, it should be added that services are also specific to each mining company. A feasibility study attempts to identify probable and anticipated yields of a specific site. This study makes it possible to place a financial value on an ore body and to estimate the costs associated with removing the ore from its parent rock. Thus, adaptability to specific needs is a crucial factor in the decision-making process.

3.9 IMPACT OF ENVIRONMENTAL AND HEALTH STANDARDS

We are all familiar with the famous saying "An ounce of prevention is worth a pound of cure", and Guyana is no exception to this. In practice however, preventive measures are seldom implemented. The environmental issue is a flagrant example of this. A national environmental protection agency was not established until June 5, 1996 following passage of a bill in Parliament a month before. This parliamentary motion was the direct result of the events of August 1995, when OGML was found liable for an accidental spill of toxins into the Essequibo river. Although the members of the agency's executive committee have not yet been appointed, according to an article in the *Guyana Chronicle*, the national newspaper (see Annex H), the board of directors should be established soon.

The agency, whose official launch coincided with World Environment Day, has two objectives. First, it seeks to educate the public by promoting sound environmental practices and, second, it will penalize offenders. The government, aware of the harm caused to Guyanese wildlife and plant life through irresponsible exploitation of mineral and forest resources, has indicated its intention to increase environmental requirements in order to ensure sustainable national

economic development. New investments will be especially subject to enforcement of these recent amendments. The business community must therefore deal with this new reality.

3.10 PUBLIC POLICIES

In 1994, a minimum 2% corporation income tax was introduced by the government in office. However, to encourage investment, this tax is to be abolished as of January 1, 1997, for non-commercial organizations.

In addition, to fulfil its 1995 election promises, the government has adopted a series of private sector incentives. Thus, in 1995, the consumption tax was abolished on equipment, materials and key machinery in the production and construction sectors. In addition, according to the private sector commission, more than US\$131 million was invested by Guyanese companies in 1995 and it is anticipated that an additional US\$110 million will be injected into the Guyanese economy during the year.

3.11 MARKET STRUCTURE

The market structure will undoubtedly change in order to release all Guyana's economic potential. Government incentives will definitely contribute to increasing mining sector investment. It is also anticipated that small companies will develop their operations further in order to benefit from the economies of scale and scope enjoyed by medium-sized and large mining companies. In addition, the reputation and success of the multinational companies in bauxite and ore mining, and especially OGML in the latter case, will help to encourage the development of large scale operations.

SECTION B: DEFINITION OF THE SUBSECTORS

In this section of the report, we will analyse the subsectors associated with the mining industry. We will begin by describing the current situation of gold and bauxite mining activities and will then turn to the future prospects of these industrial subsectors.

1. DESCRIPTION OF THE SUBSECTORS

To facilitate mining prospecting in Guyana, cartographers and geophysicists surveyed the entire country and produced maps identifying mineral-bearing regions. Because of its geological differences, Guyana is divided into two main regions: the North and the South. Most of the infrastructures and population are located in the North of the country, which also offers the greatest known mining potential, as opposed to Southern Guyana, which is relatively underdeveloped and underpopulated.

1.1 Specific characteristics of the subsectors

GOLD

Guyanese gold mining and sales are managed by the Guyana Gold Board or GGB, the organization through which all trading (sales and purchases) in this ore must be done. However, under the 1981 Act some exceptions are possible and GGB may authorize individuals or companies to import or export gold in compliance with contract clauses. Thus, foreign companies are authorized to operate in Guyana and undertake commercial activities with foreign partners, provided they comply with local tax policies and pay their government royalties. These royalties take the form of sales of a percentage of production. Any surplus, i.e. the bulk of production, is then sold or exported as the foreign producer wishes.

BAUXITE

Unlike gold, the bauxite industry is the traditional preserve of the Guyanese government. During the wave of nationalization in the 1970s, no large gold mining companies existed as yet. This area of activity therefore escaped the government's grip. Bauxite, by contrast, occupied a prime position in the Guyanese economy, which explains the appropriation of bauxite mines by the state. Today, the government is promoting privatization of the undertakings still under its control. It is therefore anticipated that management of the two bauxite mines still under government control will soon be transferred to private interests.

1.2 <u>Number of operations</u> GOLD

Since 1993, prospecting licences have been issued to companies and individuals interested in gold prospecting. At present, more than 200 licences have been issued for a three-year period with a possible extension. Accordingly, many prospecting licences will expire in the near future. The Guyana Geology and Mines Commission estimates that about 20% of these licencees will be granted a mining licence in order to profit from the results of their preliminary investigations. This suggests certain opportunities for Canadian machinery, especially since the goal of the Guyanese government is to attain sustainable economic development through high production levels.

According to MiningPro File, there are currently about 400 shore pumps installed and several thousand "garimpeiros" assigned to gold production. It should also be pointed out that more than 40 geological sites have been identified and mapped for their gold, silver, copper or other mineral potential. Guyana therefore has the potential for at least ten major sites, each with gold deposits of 10 to 12 million ounces. Each of these sites would be surrounded by about a dozen smaller satellite deposits from which up to two million ounces of gold could be mined. OGML would be only one of these satellite deposits. ¹³

BAUXITE

Three companies are operating in this mining area: Linden Mining Enterprise Ltd (or Linmine), Berbice Mining Enterprise (or Bermine) and Aroaima Mining Company (or Aroaima), which is the most active company in Guyana. The data presented in the table below provide an indication of the size of these corporations in terms of their total production.

	1989	1990	1991	1992	1993	1994	1995
Linmine	665	767	716	391	407	211	197
Bermine	656	657	631	516	465	322	157
Aroaima			870	1,406	1,216	1,560	1,633
Total	1,321	1,424	2,217	2,313	2,088	2,093	1,987

Table 7: Annual bauxite production (000 tonnes)

¹³ PANG, E.-S., Guyana: Mineral Development Strategy, Mineral Policy Assessment & Recommendations, Colorado School of Mines, Golden, Colorado, November 1994, p. 31.

<u>Source</u>: Guyana Geology and Mines Commission & BIDCO (Bauxite Industry Development Company), 1995

<u>Linmine</u>

This company has apparently incurred losses for some years. However, the official accounts of its financial health differ. According to some sources, Linmine made a profit during its last year of operation (!) ... One thing is certain: Linmine's production volume declined by 70% between 1989 and 1995, representing an average annual decline of about 12%. Thus, although this company has experienced fairly major structural adjustments (resulting in layoffs) it remains a company with extremely expensive management. Linmine's operations are fully integrated, its technology is obsolete and the workforce is much too large for each operating area (Eul-Soo Pang, 1994). In addition, Linmine is also facing problems associated with the location of its ore deposits. Drilling operations are apparently far too complex because of the depth of deposits. Linmine is accordingly operating at only 5% of its capacity, which is the reason for the exorbitant cost of production and lack of profits.

It should be pointed out that when Linmine began operations, it was owned by the Canadian company Alcan until the firm was nationalized in 1971. The present government would now like to privatize Linmine. Alcan expressed an interest in this mining site two years ago. However, a feasibility study indicated that it would not be profitable for Alcan to purchase Linmine and it has therefore postponed its return to Guyana to a later date.

<u>Bermine</u>

Bermine, like Linmine, is a state-owned undertaking. However, Bermine's bauxite is of better quality than Linmine's. This undertaking's site is relatively more worked out, which partly explains the low production volume. However, the main reason for Bermine's problems is related to inefficient state management. Shipping costs are also high. A shortage of ready cash means that Bermine cannot invest in site modernization or research and development in order to develop cheaper mining processes. Bermine is therefore deadlocked, and in order to avoid possible bankruptcy the company's management is seeking a partnership with a foreign company, possibly a Canadian company.

<u>Aroaima</u>

Bermine's problems have resulted in a market opportunity for Aroaima. By producing chemical quality bauxite, even in small quantities, Aroaima has taken over some of the customers of the state firm struggling with management problems.

Aroaima is a company based on the "virtual corporation" format. In other words, all activities not directly associated with bauxite production (services, accounting, transportation, waste management, etc.) are subcontracted. Aroaima therefore does not employ many permanent workers, which gives it flexibility in managing its operations. It can easily adjust its production volume to demand fluctuations, whether downward or upward.

A final point is that according to BIDCO, Aroaima pays no taxes to the government, although it enjoys no legal exemption.

1.3 <u>Company size</u>

GOLD

Curiously enough, the size of gold mining companies is determined by the operating surface area rather than the company's annual production. The Guyana Geology and Mines Commission therefore proposes the following classification for small, medium-sized and large firms.

Table 8: Classification of firms by operating area

Company size	Operating area
Small company	Up to 27.5 acres
Medium-sized company	Up to 1,200 acres
Large company	500 to 12,000 acres

Source: Guyana Geology and Mines Commission, 1995.

In view of the degree of overlapping observed in the foregoing classification, it would be quite difficult to objectively quantify the number of firms operating in each of the above categories. However, if we proposed as an alternative a classification based on production volume, we would very soon realize that even the total production of all the local firms, regardless of their operating area, is less than half the production of OGML. This firm began operations in Guyana in 1993 and has since become a major contributor to the gross national product. The following table provides an indication of the size of its operations compared with annual gold production.

	1988	1989	1990	1991	1992	1993	1994	1995
GGB	18,802	17,284	38,713	59,254	79,583	87,096	99,153	92,434
OGML						222,676	276,464	197,080
Total	18,802	17,284	38,713	59,254	79,583	309,772	375,617	289,514

Table 9: Comparative gold production between 1988 and 1995 (ounces)

Source: Bureau of Statistics and State Planning Commission, 1995

Total production for 1995 was approximately 290,000 ounces, or 30% below objectives. This poor performance was due to the temporary closure of OGML. But despite the suspension of its operations, OGML's gold production for 1995 represented 68.1% of total production. Its contributions for 1993 and 1994 were 71.9% and 73.6% respectively. Furthermore, according to the Honourable Bharrat Jagdeo, Minister of Finance, gold production objectives for 1996 were set at 360,000 ounces.

In light of this information, we can conclude that there is really only one large gold mining company in Guyana. In addition, some small Canadian mining companies operate in Guyana; the main ones are Altai, ADEX, Aurex, Blue Ribbon, Cathedral, Canarc, Exall, Minrich, Sutton-Romanex and Toscana.

It is also important to note that many local mining companies have long reported gold production volumes below the true volumes.¹⁴ These are apparently much higher than the volumes officially reported in the statistics. The reason for these practices is readily explicable in terms of the trade policies in effect under the socialist government and the constraints faced by local mining companies. It should be borne in mind that they must sell all their production to the GGB. The purchase price of gold remained unchanged for a long period and did not reflect actual market conditions. In other words, the mining operators were required to sell all their production volume, in order to sell the surplus directly on the market and thus ensure a profit greater than they would otherwise have realized. The opportunity cost they had to pay by selling to the GGB therefore did not encourage good relations between that agency and the private companies. These

¹⁴ In Annex H, an article from the *Guyana Chronicle* reports on the progress of a prosecution for gold smuggling.

difficult conditions and policies hostile to the entrepreneur therefore contributed to introducing biases in the statistical estimate of local production.

The price of gold today fluctuates in accordance with market conditions. In other words, since the price of gold now floats, local mining operators can sell their production to the GGB and benefit from price variations.

As previously indicated, foreign companies are required by law to sell a percentage of their production to the GGB unless they have made a different agreement with the President (who is personally responsible for managing Guyana's gold resources) and with GGB officials. There is still no large foreign company in this area, other than OGML, which has a special agreement with the government, which holds 5% of the company's equity. Under the agreement, OGML is free to export its entire production. Other Canadian companies have indicated their intention of developing Guyana's geological potential and are planning to manage operations whose size will be comparable with OGML's operation. This therefore seems to indicate that there will be definite opportunities for Canadian products and services.

BAUXITE

Since 1990, bauxite production by local companies has fallen considerably. For a long time, this natural resource generated a high proportion of government revenue. But because of the nationalization of mining firms, the lax government approach, inefficient management and restrictive policies relating to development of this sector of the Guyanese economy, the bauxite industry has not expanded as it might have in another context. Gold and sugar have now become the main sources of income for the Guyanese economy and a large part of the credit for this is due to OGML in the case of gold.

During the 1970s the mining sector was one of a number of sectors to be nationalized, and this led to the departure of many foreign companies established in the country, which therefore abandoned management of their operations to the state. For example, this was the situation of the Canadian company Alcan and its American counterpart, Reynold's. Today, management of mining firms is to return to the private sector. This new era of privatization has therefore brought foreign interests back to Guyana. Reynold's is again established in Guyana through a joint venture agreement under the name of Aroaima, a very prosperous bauxite mining company.



1.4 Number of jobs generated by the subsector

GOLD

For the reasons indicated in Section A of this chapter, we cannot provide specific data on the employment situation in Guyanese gold mines. A very large number of firms and individuals are operating in this subsector, and since there are many clandestine operations no official statement is possible. However, with regard to the operations of OGML, we can say that the company employs some 900 Guyanese and 100 Canadians. These figures sometimes vary, in view of the occasional launching of specific projects requiring additional labour. It is also anticipated that expansion of the OGML mine will lead to hiring of 500 more Guyanese.

BAUXITE

The number of jobs directly linked to bauxite mining is apparently about 3,000. During the last year, 1970 individuals were employed by Linmine, 730 were employed by Bermine and 300 were working for Aroaima. Detailed information on the job situation at Linmine in April 96 is provided in Annex B, Table 7.

1.5 Pay rates

GOLD

Here again, we are not in a position to determine the wages of employees in gold mines. Because of disparities associated with the size of firms and their operations, we cannot form a clear judgement on average pay without the risk of error. Furthermore, under Guyanese law there is no minimum wage for this type of employment. We know, however, that the major company in this area (OGML) offers one of the highest compensation rates in the country. Thus, the minimum daily wage at OGML was set at G\$1,700 (for a worker at the bottom of the pay scale) while the monthly average is G\$65,000. Hours of work are normally from 6:00 a.m. to 6:00 p.m. or 6:00 p.m. to 6:00 a.m., representing a 12-hour day for the mine employee. Employees will work these shifts for 14 straight days, after which they will be off for one week. This type of organization is relatively standard worldwide. The working hours of clerical personnel are normally 40 hours a week, from Monday to Friday.

BAUXITE

According to BIDCO, the regulatory authority for Guyanese bauxite mining, the average compensation of employees in this industrial subsector is between G\$30,000 and G\$40,000 per month for employees with specific skills and G\$15,000 for labourers. These rates apply to

both the state enterprises, Bermine and Linmine. Aroaima offers hourly compensation between G\$156 and G\$196 for local employees. These wages correspond quite closely with the national average for this industry.

1.6 Union organization

GOLD

We cannot make any statements regarding the unionization rate in Guyanese gold mines, since the disparities between companies are too great.

BAUXITE

The salaried workers in the three bauxite mining companies established in Guyana are all unionized. The unionization rate for Linmine employees is 86% and it is 80% for Aroaima personnel. On the other hand, almost all Bermine employees are unionized, since the union membership rate is 97% of the labour force.

1.7 Added value

GOLD

Large scale gold production is a new phenomenon in Guyana. It is only since the arrival of OGML that gold has been ranked among the export products generating the largest commercial revenues for the country. It seems likely that as the industry continues to develop, Guyana will eventually establish a refinery. It would then be able to export a product with a medium or high added value, resulting in higher profits associated with trade in this precious metal.

BAUXITE

Bauxite, like the other industrial minerals, is considered a resource generating a high added value since, because of its relatively low mining costs, it can easily be used as a basis for developing new mineral products with a high added value. This ore could therefore contribute to the country's technological and manufacturing development. ¹⁵ However, there is still no smelting plant in the country, which impacts negatively on Guyana's competitive position. However, it should be mentioned that Alcan has already operated a small alumina refinery at

¹⁵ Source: *Solid Minerals*, produced and published by the Guyana Geology and Mines Commission.

Linden. Since production volume was low, operations were expensive and the final product of poor quality, this plant closed down in 1982.

1.8 Productivity

GOLD

The Guyanese Shield is a geographical region extending from Venezuela to French Guyana and offering a very large gold potential. This area was long underexploited but in the 1990s it has become one of the major mineral strata of worldwide interest, especially with regard to gold. In terms of productivity, it must be pointed out that the ore content can vary considerably from one deposit to another. For example, there is the case of Roraima Gold Corporation, a company operating several mines in Guyana. The average ore content varies between 0.4 grams of gold per tonne (Imotai) and 9.34 grams per tonne (Quartzone). The productivity of the operating sites (or the stripping ratio) will therefore also vary with on the ore content.

It should be noted that not all gold mining companies calculate the stripping ratio in the same way, which further complicates comparisons.

BAUXITE

As in the case of gold, we can measure the productivity of a bauxite site in terms of the stripping ratio. This varies considerably from one company to another.

<u>Table 10</u>: **Bauxite companies stripping ratio** (approximation)

Mining company	Stripping ratio
Linmine	1:10
Bermine	1:2
Aroaima	1:1
Average	1:1.875

Source: BIDCO, 1996

As indicated by the data in the table above, the situation of Linden is apparently the most difficult by far.

1.9 Research and development spending

GOLD

According to the Guyana Geology and Mines Commission, there is very little research and development investment when compared with the number of firms involved in gold mining. However, given the very large number of small and medium-sized mining companies in this activity subsector, we can easily explain this situation in terms of a lack of financial resources, since in the circumstances most personnel are assigned to production.

BAUXITE

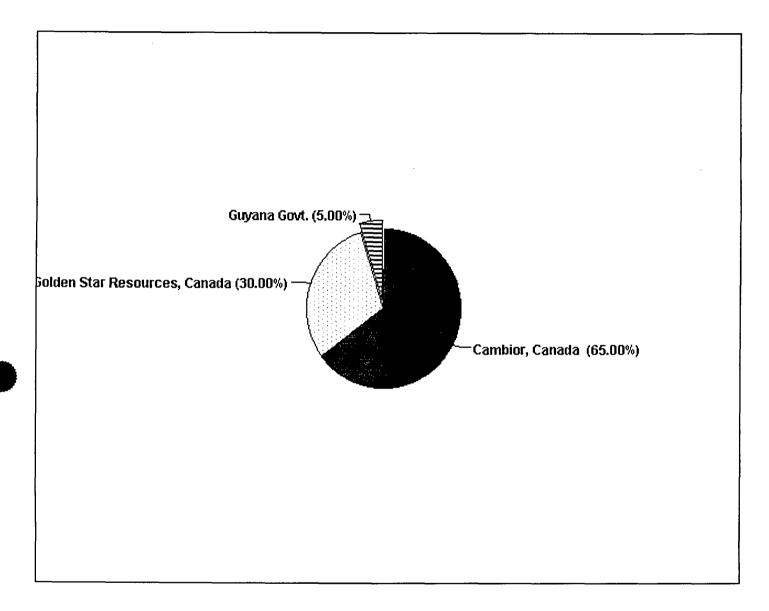
The state bauxite mining undertakings spend nothing on research and development. It should be explained, however, that there is a bureau specifically for this purpose. The government would like to believe that the activities of this division are of some importance but this is not so. It was established in September 1974 with the goal of improving manufacturing processes and introducing new ones, studying the properties of the products in order to improve their quality and developing new ones. The result of the research and development activities was production of aluminum sulfate (also known as alum) and kaolin on a commercial basis. The fact remains, however, that, according to BIDCO, this aspect of bauxite mining is little developed in Guyana.

1.10 Foreign participation rate

GOLD

OGML is an essentially Canadian company which has been established in Guyana since 1993. This company was established when two Canadian companies and the Guyanese government combined their resources in a joint venture agreement.

Chart 5: Share capital of OGML



Source: Cambior, 1995

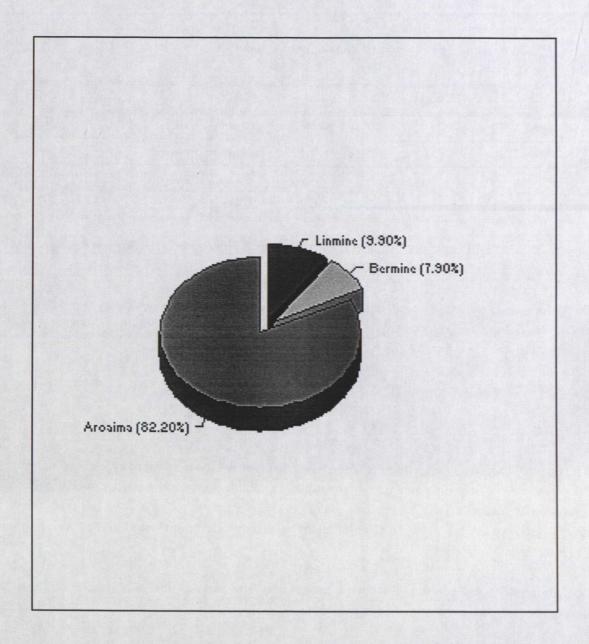
OGML is the only large organization involved in gold mining in Guyana. Based on its total gold production, compared with the production of the industry as a whole (see Table 9), we can say that the foreign participation rate was about 70% in 1995. ¹⁶ This percentage is likely to increase with the expansion of OGML's activities, the increase in its productivity and the arrival of other foreign companies, including several Canadian companies. For example, the Canadian giant Placer Dome has indicated its intention to operate a gold mine in Guyana in the near future. This announcement followed the official visit of the President of Guyana to Canada last June. (Please see Annex H.)

BAUXITE

Table 7 in Chapter 1, Section B, 1.1.1 presents the data concerning bauxite production by the three companies in this area of operation. As the statistics show, the Aroaima company alone was responsible for more three quarters of total national production in 1995.

¹⁶ Given the existence of small and medium-sized foreign mining companies in Guyana, we can conclude that the foreign participation rate is probably greater than 75%.

Chart 6: Comparative production of bauxite, 1995



Source: Compiled from information obtained from the Guyana Geology and Mines Commission & BIDCO, 1995

The following table provides an indication of the growth of this company between 1989 and 1994 in terms of its total production compared with all annual production.

	1989	1990	1991	1992	1993	1994	1995
Linmine	50.3	53.9	32.3	16.9	19.5	10.1	9.9
Bermine	49.7	46.1	28.5	22.3	22.3	15.4	7.9
Aroaima			39.2	60.8	58.2	74.5	82.2
Total	100	100	100	100	100	100	100

Table 11: Comparative production of bauxite companies (%)

Source:	Compiled from the data in Table 7, Chapter 1, Section B, 1.2, Guyana Geology and
	Mines Commission & BIDCO, 1995

This information allows us to conclude that the foreign participation rate is very high. In fact, since the Guyanese government is a 50% shareholder in this company, overall foreign participation can therefore be estimated at 41% ¹⁷ for the bauxite industry.

1.11 Company concentration

GOLD

The rich gold deposits in Northern Guyana have attracted a large number of investments to the river areas. In order to mine gold from the rock, these mining enterprises have installed powerful pumps on the banks to drain sand and gravel. When washed with a mercury solution, these host rocks release their gold. The fine particles released are then collected and subsequently refined and cast into bars.

Most operations associated with gold production are carried out near rivers by small entrepreneurs. Using a pump, hoses and mercury as a solvent means there is little need for

¹⁷ This figure was obtained by dividing Aroaima's total production (1,633,000 tonnes) by two. Thus, the first 816,500 tonnes of bauxite could be attributed to the Guyanese government (50% shareholder) and the other 816,500 tonnes to the American company Reynold's (also a 50% shareholder). Since the combined production of Linmine and Bermine is attributable to the government (since they are state enterprises), the foreign participation rate measured at 41% corresponds to the ratio between 816,500 tonnes and 1,987,000 tonnes (total national production).

highly expensive investment in sophisticated machinery and equipment. However, this method results in severe environmental harm, and the use of mercury endangers the animal and plant life of the neighbouring shoreline communities.

The gold mining process used by OGML is very different from the process of the small mining companies. OGML is located on the west bank of the Essequibo river. Unlike the small and medium-sized operations, the OGML process uses a leading edge technology and is dependent on a large amount of heavy machinery. OGML also uses a cyanide solution to release the gold particles in the ore. This chemical compound is used for 90% of world gold production.

The maps provided in Annex A indicate the geographical locations of the gold and bauxite deposits.

BAUXITE

As shown by the maps provided in Annex A, the three bauxite mines are located in northeastern Guyana.

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1.12 Volume of contracting and subcontracting

GOLD

With regard to the small gold mining companies, we can determine that contracting or subcontracting levels are nil. Their operations are on such a small scale that they do not need subcontractors. In addition, the level of skill required is relatively low. On the other hand, use of subcontractors is necessary in the case of large-scale operations like those of OGML. For example, we can cite the following activities:

- Catering service (Sodexho, a Canadian company)
- Basic store (Sodexho, a Canadian company)
- Air transportation (Guyana Airways, a Guyanese company)
- Surface transportation (a Guyanese company)
- Mine expansion project (Blaise, Quebec contractors)
- Gasoline supply (Esso, an American company)
- Truck maintenance service (MACORP, a Guyanese company)
- Pest control services (Rentokil, a Guyanese company)

As regards surface transportation, we wish to point out there is a definite market potential for Canadian companies. OGML uses a local company for road links between the head office in Georgetown and the mine, which is more than four hours distant. During an interview, OGML management expressed its dissatisfaction with the quality of the services. OGML indicated that

the road links did not run on time and the service was unreliable. This company might therefore use Canadian services if this business opportunity is attractive to surface transportation subcontractors.

As regards air transportation, OGML always uses a subcontractor and is definitely not considering buying its own aircraft to provide its own air connections. In addition, OGML seemed generally satisfied with the services provided by Guyana Airways.

BAUXITE

Linden and Bermine, the two mining companies under government control, are fully integrated and all support services are provided by these companies themselves. On the other hand, Aroaima operates on the virtual corporation principle, as we previously indicated. In other words, there is a very high level of subcontracting.

1.13 Direction of exports

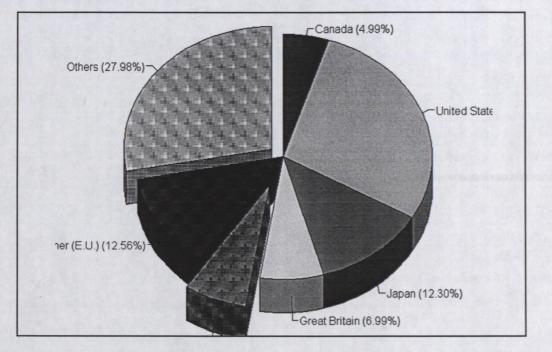
GOLD

All gold production is exported to Canada. The 95% pure gold (OGML) is sent directly to the Royal Canadian Mint refinery. The Canadian refinery then removes 99% of the impurities from the gold and it is then sold to jewellers and dealers, banks and other industries. Local miners are required to sell all their production - in the case of those who report it - to the Guyana Gold Board, the organization which manages subsequent sales. In 1993, total exports were 278,634 ounces and the total in 1994 was 359,519 ounces (Bureau of Statistics).

BAUXITE

As indicated by Tables 3(a) to (d) in Annex B, Guyana is involved in trade associated with bauxite, mainly with the United States, Japan, Germany and the United Kingdom and, last, with Canada.

Chart 7: Guyanese bauxite exports in 1991¹⁸



Source: Bureau of Statistics, 1995

¹⁸ The detailed statistical data on mining sector exports by country presented in the above chart for 1991 are the most recent available.

1.14 <u>Subsector organizations and groups</u>

The leading organizations and groups in the mining sector will be essentially the same as for the identified subsectors: gold and bauxite. However, certain associations and companies are exclusively involved in managing one or other of these mineral resources. A list of these organizations is provided below.

GOLD

Gold and Diamond Miners Association

350 A New Market Street
Georgetown, Cooperative Republic of Guyana
Tel. : (011-592-2) 52217
Fax : (011-592-2) 51828

Guyana Gold Board

68 Brickdam Street, Stabroek Georgetown, Cooperative Republic of Guyana Tel. : (011-592-2) 53148 Fax : (011-592-2) 54963

Omai Gold Mines Limited (OGML)

176 D Middle Street, North Cummingsburg
Georgetown, Cooperative Republic of Guyana
Tel. : (011-592-2) 65898
Fax : (011-592-2) 66468

Roraima Mining Company Limited

122 Aubrey Braker St, South Ruimveldt Park
Georgetown, Cooperative Republic of Guyana
Tel. : (011-592-2) 69906
Fax : (011-592-2) 69906

BAUXITE

Aroaima Mining Company

93 A Duke Street, Kingston
Georgetown, Cooperative Republic of Guyana
Tel. : (011-592-2) 58923
Fax : (011-592-2) 57894

Berbice Mining Enterprise

134 Church Street, South Cummingsburg
Georgetown, Cooperative Republic of Guyana
Tel. : (011-592-2) 66418
Fax : (011-592-2) 66572

BIDCO (Bauxite Industry Development Co.)

66 Peter Rose Street, Queenstown Georgetown, Cooperative Republic of Guyana Tel. : (011-592-2) 57780 Fax : (011-592-2) 67514

Linden Mining Enterprises Ltd

McKenzie, Linden Georgetown, Cooperative Republic of Guyana Tel. : (011-592-2) 74114 Fax : (011-592-2) 74103

2. SIZE OF SUBSECTORS

The following summary table provides data concerning the size of each of the subsectors studied.

Table 12: Indicators associated with the size of the subsectors (1995)

	GOLD	BAUXITE
Exports (volume)	275,305 ounces	1,971,063 tonnes
Exports (value)	G\$13,425,501,000	G\$10,986,375,000

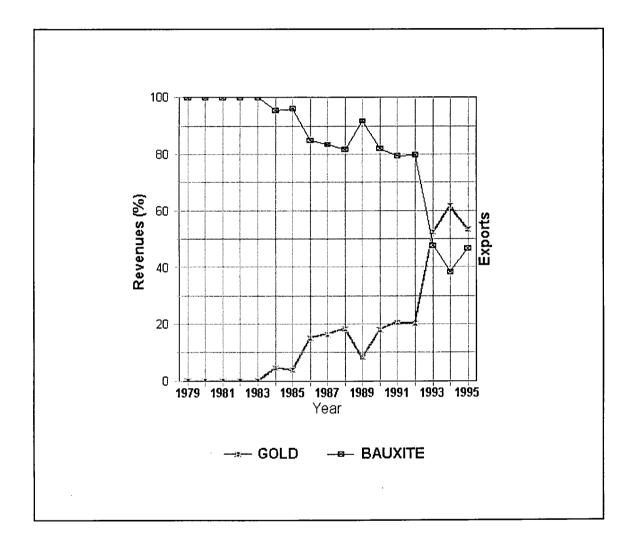
Source: Bureau of Statistics, GGB, Guyana Mining Enterprise

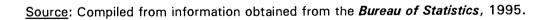
Given that gold and bauxite are the only two components of the mining sector (the other mining industries are insignificant for Guyana), we can estimate the relative importance of each of the two subsectors. Thus, in 1995, gold represented 55% of the total export revenues of the mining sector, compared with 45% for bauxite.¹⁹

The following chart sets out the changes in the respective contributions of these two industries to mining sector export revenues.

¹⁹ According to the data collected in Table 3, Chapter 1, Section A, 1.5, the proportions are 46.7% and 53.3% for bauxite and gold respectively. The data regarding exports of these two commodities differ slightly from one source to another. However, the proportions remain substantially similar.







3. TRENDS AND PROSPECTS

GOLD

According to the Guyana Geology and Mines Commission, gold production increased by approximately 374% between 1992 and 1994, to reach a total of 375,000 ounces during that record year. Growth recorded between 1988 and 1992 was 323%. In addition, a number of investment incentives have been introduced in this sector. Gold mining is therefore expanding fast in Guyana.

The Guyana Geology and Mines Commission also expressed its views on anticipated future developments relating to medium-sized and large mining companies as regards gold production. The Commission's projections are presented in Table 8 of Annex B.

BAUXITE

According to the Guyana Geology and Mines Commission, the operating area of bauxite companies should remain relatively unchanged until the year 2000. These statements are confirmed by the following table.

Table 13: Projected area of mining sites (acres)

	MEDIUM-SIZED		LARGE FIRMS	
	FIRMS	Including bauxite	Excluding bauxite	Bauxite alone
1995	3,100	10,400	1,100	9,300
1996	3,600	10,500	1,100	9,400
1997	4,200	10,600	1,200	9,400
1998	4,800	10,700	1,300	9,400
1999	5,500	10,800	1,400	9,400
2000	6,300	11,400	1,800	9,600

Source: Guyana Geology and Mines Commission, 1995.

Thus, between 1995 and 2000, the operating area of the large bauxite firms should increase by about 3% or an annual average of 0.6%. However, despite this low projected growth in the size of sites, bauxite production should increase considerably over the same period, in view of greater productivity and ongoing technological developments.

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SECTION C: IMPACT OF IMPORTS

1. THE SECTOR AS A WHOLE

1.1 VOLUME OF IMPORTS IN THE SECTOR

For all practical purposes there are no imports of gold or bauxite. Guyana produces these two commodities mainly for the purpose of generating export revenues. In other words, Guyana is not a direct consumer of these resources at the production stage at which they are exported.

However, the equipment used in the mining firms is almost all exported. Guyana does not manufacture the machinery or equipment required for mining and therefore imports these resources.

We have already referred to the volume of imports and their percentage in relation to the sector as a whole. Please refer to Chapter 1, Section 1.2.10.

1.2 SOURCE OF IMPORTS

Most equipment is imported from the United States and Europe, and especially from the United Kingdom, in view of the special trade links between Britain and its former colony.

The machinery used by OGML was purchased in late 1991. The Caterpillar equipment was ordered via Quebec suppliers (Hewitt Equipment) although the cranes and trucks were sent from the port of Houston. At that point in time, OGML was able to use a Canadian supplier, since Caterpillar then had no Guyanese distributor.

Since that time, the Guyanese company MACORP has become a distributor for this brand and because of the purchase contract with Caterpillar, OGML must now use this local firm. When the time came to purchase its machinery, OGML used the normal tender call process. Bids were received only from a Japanese company (Komatsu) and an American company (Caterpillar), which secured the contract with OGML. At the present time, no Canadian company manufactures the type of equipment required for OGML's operations, at least with regard to heavy machinery. There are of course Canadian retailers of Caterpillar products. However, in view of the large purchases involved, it is very much in the interests of OGML to go directly to the supplier rather than incur the additional costs associated with a retail purchase. Retailers make a profit margin on the selling price which is automatically passed on to the consumer

when the sale is made. It would therefore not be justified for OGML to obtain its American machinery from a Canadian retailer.

In the area of bauxite mining, the Guyanese companies also obtain most of their heavy machinery and equipment from Caterpillar, through the local supplier, MACORP. Some equipment is also purchased from Japan (Komatsu) and the fleet also includes Fiat and Astral trucks from Italy.

It must be borne in mind, however, that mining company operations are supported by much more than heavy machinery. There are three major areas of activities associated with mining operations. First, there are the excavation and drilling activities for which large trucks are well suited. Next, there are the milling and extraction operations supported by leading edge technology, computers, generators and other types of equipment. Last, there are also infrastructures and services. Although Canada does not build large trucks, we can still rely on Canadian expertise in the mining sector to deliver services, infrastructures and leading edge equipment.

1.3 TRADE BALANCE IN THE SECTOR

If we consider the entire mining sector from the point of view of the trade in gold and bauxite, the trade balance is definitely positive, since all production is exported.

On the other hand, if we consider industrial equipment - which is the subject of the present study - we find that the trade balance indicates a large deficit owing to the major capital costs resulting from mining operations.

1.4 TRENDS

Since we have no specific information on the source of machinery and equipment imports, we are unable to identify any trends in this regard. However, we can assume that in view of the purchasing behaviour of the Guyanese in this activity sector, the local mining operations will follow the example of OGML and Aroaima when they make purchasing decisions in the gold and bauxite sectors respectively.

2. IMPORTS BY SUBSECTOR

We do not have information specific or recent enough to determine the volume of imports by subsector. However, in light of the information in Section 1.2.10 of Chapter 1 (see Table 1(a)

in Annex B), we can deduce that a high proportion of imports under the "Capital Costs" heading was attributable to gold mining in 1991. The mining sector requires large initial investments, while the replacement market is relatively insignificant. It is therefore to be expected that during the initial phase of operations a mining company will allocate large amounts to machinery and equipment purchases and the infrastructures required to conduct its operations. This was the situation with OGML in 1991 when it was making its initial purchases. We were unable to obtain detailed information regarding Guyanese imports by sector and subsector. However, as indicated by Table 1(a) (Annex B), subsequent capital costs declined substantially in 1993. This confirms that the renewal market is much less important. There may therefore be major fluctuations from year to year in the capital costs incurred in the mining sector.

SECTION D: CANADIAN EXPORTS IN THE SECTOR

In order to estimate the volume of Canadian exports of mining sector machinery and equipment, we have used data obtained from Statistics Canada, which provided us with a detailed list of Canadian machinery and equipment in all sectors to Guyana (see Annex B, Table 9). However, we were unable to obtain specific information on exports relating solely to the mining sector. We have therefore had to use our judgement to establish which of the listed items would be included in the present study. We also relied on the lists of processes and equipment used in bauxite and gold mines (see Annex E).

As regards the calculation of market shares attributable to Canadian exports, we have prepared a list of machinery and equipment imported by Guyana in this activity sector. We then compared the results with the value of exports from Canada. This allowed us to measure their size in relation to the total market.

We are aware that the statistical data presented below do not necessarily reflect the actual situation. We may have failed to include certain items or we may have considered others that should have been excluded. In addition, some Canadian exports to Guyana are not included as such in the statistics. In order to reduce shipping costs, some products are exported from Canada via the United States and Venezuela, for example. In such cases, these Canadian exports are not recorded for Guyana but for other countries - the United States or Venezuela in this case - from which the products are subsequently re-exported. Last, we should add that some of the equipment appearing in the tables below may have been used in areas other than the mining sector. In other words, this factor adds an additional bias.

1. CANADIAN EXPORTS TO GUYANA IN THE MINING SECTOR

Table 14: Canadian exports associated with the mining sector (1994 and 1995)

			1994			1995	
CODE	ІТЕМ	From	Value (C\$)	Qty	From	Value (C\$)	Qty
84.02.90.00	Parts of steam or vapour generating boilers, nes	ON	267,459	n/a			-
84.13.70.00	Centrifugal pumps, nes				ON	17,910	2
84.13.81.00	Pumps, nes	BC	15,575	1			
					ON	2,681	3
84.13.91.00	Parts of pumps for liquids, whether or not fitted with a measuring device	ON	4,722	n/a			
		QC	32,371	n/a			
84.19.90.00	Parts of machinery for the treatment of materials involving a change of temperature	ON	8,912	n/a			
84.27.20.00	Self-propelled trucks, nes				BC	100,014	1
		ON	70,592	3			
84.28.39.00	Continuous-action elevators and conveyors for goods, nes	ON	16,919	2			
84.29.11.00	Track-laying bulldozers and angledozers				BC	114,040	1
84.29.51.00	Front-end shovel loaders	ON	22,173	1			
84.29.52.00	Mechanical shovels and excavators with a 360° revolving superstructure	-			BC	141,205	1
84.29.59.00	Self-propelled excavators, nes				ON	9,000	n/a
84.30.41.00	Self-propelled boring or sinking machinery, nes	-			BC	320,717	n/a
		QC	49,065	n/a	QC	148,132	n/a
84.31.20.00	Parts of fork-lift trucks and other works trucks fitted with lifting or handling equipment	ON	4,768	n/a			
84.31.39.90	Parts of lifting, handling, loading or unloading machinery, nes				ON	41,693	n/a



			1994	<u></u>		1995	
CODE	ITEM	From	Value (C\$)	Qty	From	Value (C\$)	Qty
84.31.43.00	Parts of self-propelled or non-self-propelled boring or sinking machinery			-	AB	22,618	n/a
		BC	28,418	n/a	BC	30,879	n/a
		ON	31,127	n/a	ON	305,847	n/a
				-	QC	65,788	n/a
84.31.49.00	Parts of trains, works trucks, loaders and other construction machinery	BC	5,758	n/a	BC	4,898	n/a
		ON	28,544	n/a			
		QC	2,500	n/a			
84.59.61.00	Numerically controlled milling machines for removing metal, nes	-	-	-	ON	6,787	1
84.74.10.00	Sorting, screening, separating or washing machines for stones, ores, etc.	ON	181,000	n/a	-		
84.74.20.00	Crushing or grinding machines for stones, ores, etc.	-	_	-	BC	7,016	n/a
84.74.90.20	Parts of crushing or grinding machines	ON	3,064	n/a		-	
		QC	147,139	n/a	-	-	-
84.79.89.00	Machines and mechanical appliances having individual functions, nes	ON	76,561	n/a		-	
84.79.90.00	Parts of machines and mechanical appliances having individual functions, nes			-	AB	4,510	n/a
		ON	35,672	n/a	ON	35,000	n/a
		-		-	QC	3,610	n/a
85.04.31.00	Electric transformers having a power handling capacity not exceeding 1 kVA, nes	-		-	ON	684	1
85.04.32.00	Electric transformers having a power handling capacity exceeding 1 kVA but not exceeding 16 kVA, nes	ON	17,120	8			-
85.04.33.00	Electric transformers having a power handling capacity exceeding 16 kVA but not exceeding 500 kVA, nes	ΟΝ	11,254	10			-
85.04.40.00	Static converters, electric	AB	319	n/a	AB	370	n/a
		-		-	ON	85,285	n/a
85.08.10.00	Drills of all kinds for working in the hand, with self-contained electric motor			-	ON	7,809	28
85.08.80.00	Tools, nes, for working in the hand, with self-contained electric motor	ON	2,338	16			

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			1994			1995	
CODE	ІТЕМ	From	Value (C\$)	Qty	From	Value (C\$)	Qty
85.08.90.00	Parts of tools for working in the hand, with self-contained electric motor				BC	8,202	n/a
85.15.90.00	Parts for electric laser/ultrasonic etc. soldering/cutting machines, nes, for hot spraying of metals	ON	6,155	n/a			
85.37.10.00	Boards, consoles, etc. for electric control, for a voltage not exceeding 1,000 V	QC	9,250	n/a	QC	256,256	n/a
		ON	8,599	n/a			
85.37.20.00	Boards, consoles, etc. for electric control, for a voltage exceeding 1,000 V	QC	12,572	n/a			-
85.38.10.00	Boards, consoles, etc. for No 85.37, not equipped with their apparatus				QC	10,234	n/a
85.43.30.00	Machines and apparatus for electro-plating, electrolysis or electrophoresis	ON	2,272	n/a			
86.09.00.00	Containers specially designed and equipped for carriage by one or more modes of transport	QC	1,450	n/a			
87.01.20.00	Road tractors for semi-trailers (truck tractors)				ON	20,000	2
87.01.90.20	Wheeled tractors, used, nes				BC	44,802	1
		ON	34,000	5	ON	134,802	12
87.04.22.00	Diesel/semi-diesel engine trucks, g.v.w. exceeding 5 tonnes but not exceeding 20 tonnes				BC	100,968	1
87.04.31.00	Spark-ignition internal combustion piston engine trucks, g.v.w. not exceeding 5 tonnes				AB	10,500	4
					BC	10,147	1
					ON	34,566	3
TOTAL		n/a	1,137,668	n/a	n/a	2,113,085	n/a

n/a: not applicable

nes: not elsewhere specified

Source: Statistics Canada, 1996

<u>N.B.</u>: Equipment such as converters and electric generators are not used exclusively in the mining industry. Nonetheless, we have decided to consider them, since they are used extensively in mines. We could give the example of OGML, which generates more electrical power on its mining site than the national power company for the entire city of Georgetown.

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2. MARKET SHARE ATTRIBUTABLE TO CANADIAN EXPORTS

For this part of the report, we referred to Guyanese import statistics for 1994 obtained from the Bureau of Statistics. We decided not to compare them with the information in the previous table, since the harmonized codes are a little different. It would therefore have been very difficult to match the data provided by the two statistics agencies. We have therefore prepared a list of Guyanese imports of mining sector equipment and machinery. We then totalled the figures so obtained. Of this total, we isolated the data relating to trade transactions with Canada, which allowed us to estimate the penetration rate of Canadian firms in bilateral trade with Guyana.

Table 15: Guyanese imports of certain key mining sector items

Code	ltem	Qty (kg)	Value (G\$)
84.13.700	Centrifugal pumps, nes	9,191	9,032,134
	Canada	949	875,793
u i	United States	1,730	2,997,403
	Brazil	3	21,787
	Trinidad and Tobago	1,990	1,714,212
	Germany	65	648,457
	Italy	200	167,406
	United Kingdom	954	1,803,076
	China	3,300	804,000
84.13.810	Pumps, nes	178,104	390,738,43
	Canada	5,869	5,438,535
	United States	111,955	198,237,03
	Brazil	320	1,058,993
	Panama	80	1,168,368
	Dominica	1,080	637,510
	Montserrat	10	50,000
	St Lucia	1	3,000
	Trinidad and Tobago	2,476	2,375,760

Code	Item	Qty (kg)	Value (G\$)
	Suriname	5	7,000
	Germany	295	821,576
	Italy	15	351,537
	Netherlands	16,510	11,062,536
	United Kingdom	37,589	165,750,438
	Denmark	120	9,783
	Japan	697	1,684,751
	China	1,020	1,059,282
	India	4	10,219
	Singapore	58	1,012,117
84.13.919	Parts of pumps, nes	57,804	84,093,957
	Canada	3,463	1,471,562
	United States	44,391	43,536,057
	Brazil	345	1,187,477
	Dominica	8	15,204
	Aruba, Curaçao and Saba	70	410,538
	France	22	39,892
	Germany	205	747,672
	Italy	15	41,054
	Netherlands	225	4,677,120
	United Kingdom	6,909	28,895,000
	Japan	2,079	2,839,402
	China	66	33,366
	India	5	142,916
	Australia	1	56,697
84.27.200	Self-propelled works trucks, nes	48,623	20,281,502
	United States	32,223	15,840,884
	United Kingdom	16,400	4,440,618
84.29.110	Bulldozers and angledozers, crawler type	62,590	6,942,018
<u>ar a transmaaa</u>	United States	20	130,241

Code	Item	Qty (kg)	Value (G\$)
	Netherlands	70	682,856
	United Kingdom	62,500	6,128,921
84.29.190	Bulldozers and angledozers, nes	159,131	79,942,192
	Canada	3,000	3,586,955
	United States	71,211	60,156,136
	Aruba, Curaçao and Saba	10,000	824,475
	Netherlands	17,800	7,305,947
	United Kingdom	32,454	4,794,910
	Nepal	16,050	1,494,919
-	Taiwan	8,616	1,778,850
84.29.200	Graders and levellers, nes	220,028	30,667,963
	United States	173,562	19,410,417
	United Kingdom	38,500	9,095,354
	Japan	7,966	2,162,192
84.29.510	Front-end shovel loaders	532,241	171,223,626
	United States	285,284	84,771,764
	St Vincent and Grenadines	16,454	1,755,400
	Trinidad and Tobago	9,500	3,402,743
	Aruba, Curaçao, Saba	25,000	1,532,151
	Netherlands	9,420	562,800
	United Kingdom	182,430	26,426,084
	Singapore	4,153	52,772,684
84.29.520	Shovels and excavators with a 360° revolving superstructure	144,078	26,421,278
	United States	44,038	6,500,978
	United Kingdom	100,040	19,920,300
84.29.590	Self-propelled excavating machinery, nes	376,051	103,011,096
	United States	180,366	20,955,342
	Trinidad and Tobago	18,000	8,166,582
	Aruba, Curaçao and Saba	8,000	549,651
	United Kingdom	112,282	18,751,186

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Code	Item	Qty (kg)	Value (G\$)
	South Korea	16,000	13,233,588
	Nepal	10,950	1,065,503
	Singapore	30,453	40,289,244
84.30.100	Pile-drivers and pile-extractors	438	3,115,308
	United States	438	3,115,308
84.30.390	Rock cutters and tunneling machinery	814	2,510,230
	United States	808	2,504,230
	United Kingdom	6	6,000
84.30.410	Boring or sinking machinery, nes, self-propelled	85	338,284
	Canada	50	38,978
	United States	20	269,871
	United Kingdom	15	29,435
84.30.490	Boring or sinking machinery, nes	820	1,989,292
	Canada	165	767,420
	United States	655	1,221,872
84.30.500	Machinery, nes, self-propelled	77,154	28,057,432
	Canada	62	10,258,219
	United States	76,997	17,635,273
	Brazil	25	130,940
	United Kingdom	70	33,000
84.30.600	Machinery, nes, not self-propelled	755	1,626,046
	United States	45	16,500
	United Kingdom	710	1,609,546
84.31.100	Parts of pulley tackle, other lifting machinery, etc.	26,803	45,482,140
	Canada	4,760	16,574,096
	United States	18,460	17,695,384
	United Kingdom	8	2,000
	Switzerland	2,560	4,911,212
	Japan	555	926,059
	South Korea	425	3,309,106

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Code	Item	Qty (kg)	Value (G\$)
	Singapore	35	2,064,283
84.31.200	Parts of fork-lift and other works trucks fitted with lifting equipment	6,967	102,269,827
	Canada	14	33,440
	United States	2,105	7,881,547
	Trinidad and Tobago	2	86,376
	Italy	4,330	87,054,920
	United Kingdom	436	1,735,041
	Singapore	80	5,478,503
84.31.310	Parts of lifts, skip hoists or escalators	94,485	69,228,073
<u>- 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2</u>	Canada	18	7,267
	United States	93,866	10,063,706
	Brazil	118	139,044
	France	140	335,727
	Germany	24	14,844
	United Kingdom	294	58,436,186
	Singapore	25	231,299
84.31.390	Parts of lifting, handling, loading or unloading machinery, nes	94,948	325,918,256
	Canada	268	745,688
	United States	88,287	287,752,772
	Belgium	130	1,209,764
	Germany	890	18,014,183
	Italy	4,330	11,964,776
	Netherlands	275	1,380,051
	United Kingdom	668	4,728,165
	Portugal	100	122,857
84.31.410	Parts of buckets, shovels, etc.	8,944	14,369,486
<u>ana ang ang ang ang ang ang ang ang ang </u>	United States	6,888	13,271,241
	Netherlands	60	373,198
	United Kingdom	1,996	725,047
84.31.420	Bulldozer or angledozer blades	1,245	206,684

Code	Item	Qty (kg)	Value (G\$)
	United States	20	12,518
	Trinidad and Tobago	1,000	26,640
	United Kingdom	150	139,341
	Japan	75	28,185
84.31.430	Parts of boring or sinking machinery, whether or not self-propelled	185,348	308,113,752
	Canada	659	13,039,163
	United States	24,042	32,079,471
	Germany	143,808	201,689,662
	Italy	45	214,612
	United Kingdom	16,794	61,090,844
84.31.491	Parts of bulldozers, excavators and other machinery, nes	53,262	82,480,640
	Canada	7,835	3,963,850
	United States	35,070	64,147,684
	Brazil	290	264,261
	St Vincent and Grenadines	203	134,000
	Trinidad and Tobago	480	239,309
	Suriname	3,000	490,000
	Italy	110	160,797
	United Kingdom	6,269	13,022,480
	Faeroe Islands	5	58,259
84.31.499	Other parts of machinery, nes	153,014	91,687,219
	United States	152,774	89,339,262
	Brazil	4	50,652
	Italy	19	143,363
	United Kingdom	217	2,153,942
84.50.500	Other machinery, nes, self-propelled	77,154	28,057,432
	Canada	62	10,258,219
	United States	76,997	17,635,273
· · · · · · · · · · · · · · · · · · ·	Brazil	25	130,940
	United Kingdom	70	33,000

Code	Item	Qty (kg)	Value (G\$)
84.74.100	Sorting, screening, separating or washing machines for stone, ores, etc.	203,541	11,735,652
	United States	203,226	8,187,442
	United Kingdom	315	3,548,210
84.74.200	Crushing or grinding machines for stone, ores, etc.	35,755	72,462,872
	Canada	1	7,909
	United States	9,456	59,090,924
	Netherlands	23,010	8,980,989
	United Kingdom	3,288	4,383,050
84.74.800	Other machinery for working stones or minerals, nes	255,640	316,847,889
	Canada	6,004	1,739,095
	United States	4,751	10,632,463
	Venezuela	12,000	11,241,871
	United Kingdom	1	10,000
	Portugal	25,042	14,386,334
	Japan	207,842	278,838,126
84.74.900	Parts of stone or mineral working machinery, nes	1,731,906	678,359,570
	Canada	44,347	45,795,292
	United States	1,662,989	619,742,342
	Trinidad and Tobago	500	138,600
	Aruba, Curaçao and Saba	350	1,948,595
	United Kingdom	9,490	9,159,195
	South Korea	14,230	1,575,546
84.79.810	Machinery for treating metal, etc.	148	90,581
	United States	130	75,581
	United Kingdom	18	15,000
84.79.820	Mixing, grinding, etc., machines having individual functions	4,765	9,664,081
	Canada	17	14,000
	United States	4,246	9,54 6 ,796
	France	100	7,600

Code	Item	Qty (kg)	Value (G\$)
	Japan	402	95,685
84.79.890	Machines and mechanical devices, nes, having individual functions	4,197	5,630,699
	Canada	397	1,693,743
	United States	1,367	2,315,910
	United Kingdom	1,408	825,591
	Japan	1,025	795,455
84.79.900	Parts of machines and mechanical appliances, nes, having individual functions	1,527,299	268,814,301
	Canada	28	646,996
	United States	459	1,856,671
	Germany	80	49,364
	United Kingdom	68	845,294
	Japan	2	487
	South Korea	1,526,662	265,415,489
85.04.300	Transformers, electric, nes	111,853	78,634,588
	Canada	553	757,846
	United States	71,493	47,441,220
	Brazil	520	227,637
	Venezuela	6,672	7,115,160
	Panama	185	139,159
	Antigua and Barbuda	4	23,084
	St Lucia	8	6,000
	Trinidad and Tobago	378	517,944
	Puerto Rico	13	4,300
	Germany	400	191,616
	Italy	2	1,134
	Netherlands	200	112,353
	United Kingdom	3,525	4,195,448
	Japan	17,496	9,504,738
	China	2,684	3,216,572

Code	Item	Qty (kg)	Value (G\$)
	Hong Kong	1,280	1,831,464
	India	1	15,327
	South Korea	21	55,008
· · ·	Taiwan	6,418	3,278,578
85.04.400	Static converters	1,608	5,632,917
	Canada	224	350,504
	United States	1,075	3,802,610
	Brazil	73	65,532
	Italy	7	26,290
	United Kingdom	172	682,094
	Japan	7	131,054
	India	50	574,833
85.04.900	Parts of transformers, static converters and inductors	3,051	8,365,376
	Canada	875	4,457,986
	United States	1,247	1,292,837
·	Trinidad and Tobago	318 <u></u>	1,250,451
	United Kingdom	611	1,364,102
85.08.100	Drills of all kinds, hand-held, with self-contained electric motor	5,502	13,166,208
	Canada	187	86,561
	United States	4,247	11,158,514
	Mexico	220	707,062
w	Barbados	3	17,852
	Jamaica	3	1,200
	Trinidad and Tobago	10	8,095
	Germany	2	5,3 39
	Netherlands	217	137,220
	United Kingdom	567	867,881
	Portugal	45	166,484
	Sweden	1	10,000
85.08.800	Tools, nes, hand-held with self-contained electric motor	24,594	13,752,669

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Chapter	1:	Sector	Overview	
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Code	Item	Qty (kg)	Value (G\$)
	Canada	288	717,676
	United States	23,288	10,935,249
	Mexico	220	1,446,150
	Jamaica	3	1,000
	Netherlands	8	1,000
	United Kingdom	516	476,208
	Portugal	271	175,386
85.08.900	Parts of tools, hand-held, with self-contained electric motor	3,710	6,384,865
	Canada	112	83,574
	United States	1,468	4,143,701
	Brazil	2,000	1,649,641
	Mexico	75	81,373
	Barbados	2	336
	Jamaica	5	800
	United Kingdom	33	400,384
	Portugal	15	25,056
85.15.900	Parts of electric, laser, ultrasonic, etc. machines for soldering/cutting, nes, for metals	2,774	10,002,025
	Canada	1	1,000
	United States	1,962	5,543,384
	Panama	30	9,380
	Trinidad and Tobago	68	518,024
	Germany	640	3,752,000
	Netherlands	5	40,394
	United Kingdom	68	137,843
85.37.000	Boards, panels, consoles, etc., for distribution of electricity	45,291	27,204,422
<u></u>	Canada	67	52,450
	United States	2,556	7,046,444
	Barbados	3	107,975
	Trinidad and Tobago	3,269	2,942,099

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Code	Item	Qty (kg)	Value (G\$)
	France	243	63,599
	Netherlands	53	23,570
	United Kingdom	38,927	16,801,812
	Japan	158	139,200
	Singapore	15	27,273
85.38.100	Boards, panels, etc., not equipped with their apparatus	2,013	1,646,717
	Canada	12	500
	United States	375	1,171,014
	Trinidad and Tobago	1,154	62,292
	United Kingdom	457	409,911
	New Zealand	15	3,000
86.09.000	Containers specially designed and equipped for carriage by one or more modes of transport	1	1,777
	United States	1	1,777
87.01.200	Road tractors for semi-trailers (truck trailers)	173,639	27,271,327
aa baasa amma doolar kuu	United States	48,239	19,294,934
	United Kingdom	125,400	7,976,393
87.04.100	Dumpers designed for off-highway use	28,117	4,711,951
	Canada	3	13,000
	United States	44	1,128,506
	United Kingdom	28,070	3,570,445
87.04.211	Dumper trucks, gross vehicle weight not exceeding 5 tonnes, diesel/ semi-diesel, use approved by a competent authority	47,011	8,851,854
	United States	5,350	2,295,270
	Antigua and Barbuda	4,000	864,500
	United Kingdom	32,504	4,129,284
	Japan	5,157	1,562,800
87.04.219	Dumper trucks, gross vehicle weight not exceeding 5 tonnes, diesel/ semi-diesel	1,037,081	239,350,608
	Canada	17,538	6,681,353

Chapter	1: Sector	Overview
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Code	Item	Qty (kg)	Value (G\$)
	United States	202,407	56,346,466
	Montserrat	3,800	253,929
	France	20,260	21,476,034
	Netherlands	18,391	2,907,979
	United Kingdom	500,212	59,110,780
	Czechoslovakia	28,000	4,355,000
	Japan	242,623	87,435,667
	Iran	2,320	670,000
	Taiwan	1,530	113,400
87.04.221	Dumper trucks, gross vehicle weight exceeding 5 tonnes but not exceeding 20 tonnes, diesel/semi-diesel, use approved by a competent authority	39,494	5,931,901
	United Kingdom	39,494	5,931,901
87.04.229	Dumper trucks, gross vehicle weight exceeding 5 tonnes but not exceeding 20 tonnes, diesel/semi-diesel	1,019,944	273,918,525
	Canada	12,660	5,900,650
	United States	159,034	39,505,510
	Trinidad and Tobago	5,700	3,736,189
	France	80,000	78,549,807
	United Kingdom	637,782	103,130,378
	Japan	124,768	43,095,991
87.04.239	Dumper trucks, gross vehicle weight exceeding 20 tonnes, diesel/semi-diesel	76,655	35,643,552
	United States	17,533	2,415,477
	Germany	7,980	1,474,000
		42,264	28,953,675
	United Kingdom	72,207	20,000,070
	United Kingdom Japan	8,878	2,800,400
87.04.311			
87.04.311	Japan	8,878	2,800,400

Code	Item	Qty (kg)	Value (G\$)
87.04.319	Spark ignition trucks, nes	257,756	96,218,487
	Canada	2,322	958,633
	United States	84,262	51,215,714
	Brazil	8,012	8,065,462
	Jamaica	1,400	1,401,145
	United Kingdom	129,303	18,638,695
	Japan	32,457	15,938,838
87.04.321	Spark ignition trucks, gross vehicle weight exceeding 5 tonnes, use approved by a competent authority	7,000	500,000
<u> </u>	United Kingdom	7,000	500,000
87.04.329	Spark ignition trucks, gross vehicle weight exceeding 5 tonnes, nes	128,084	25,444,919
<u></u>	United States	22,924	8,228,948
	United Kingdom	100,100	11,024,054
	Japan	5,060	6,191,917
87.04.900	Trucks, nes	120,849	32,581,167
	United States	115,949	32,190,405
	United Kingdom	4,900	390,762

Source: Bureau of Statistics, 1994.

<u>Summary</u>

 Total imports
 :
 G\$4,307,574,858

 Imports from Canada
 :
 G\$137,017,953

The above table indicates that total Guyanese imports for 1994 were approximately G\$4.3 billion, of which G\$137 million was attributable to Canadian exports. We can therefore conclude that the market share of Canadian exports is 3.2%.

3. TRENDS

We cannot express a definite view concerning Canadian export trends in the mining sector. For this, we would have had to collect data over several years. However, we note that between 1994 and 1995 the nominal value of Canadian exports increased by 84% from C\$1.7 million to C\$2.2 million.

Furthermore, four Canadian provinces are involved in trade with Guyana associated with the mining industry. The provinces in question are Alberta, British Columbia, Quebec and Ontario; the most significant mining activity in Canada takes place in the latter three provinces.

	1994		1995	
	value (C\$)	(%)	value (C\$)	(%)
Alberta	319	0.0	37,998	1.8
British Columbia	49,751	4.2	882,888	40.9
Ontario	868,720	74.1	747,460	34.6
Quebec	254,347	21.7	490,135	22.7
Total	1,173,137	100	2,158,481	100

Table 16: Canadian mining sector exports by province

Source: Compiled from information obtained from Statistics Canada, 1996

In 1994, most Canadian mining sector exports originated in Ontario, which held about three quarters of the Canadian market share. However, we noted a decline of 14% between 1994 and 1995 in the nominal value of exports from Ontario. In parallel, other provinces like British Columbia and Alberta recorded phenomenal growth in their exports. The positive changes posted were 1,674% and 11,811% respectively. Quebec's share also grew by 93% during this period. Accordingly, with the development of the mining sector, the last visit by the President of Guyana to Canada and the interest of Canadian entrepreneurs in Guyana, we believe that trade between the two countries should grow substantially in future years.

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SECTION A: PORTRAIT OF THE CLIENTELE

The main factors influencing development of the mining sector are government policies, the economic situation and the geophysical features of a country. These are the decisive variables for establishing a mining project. Since the mining sector is a cyclical industry, it does not generate a constant flow of sales for the suppliers of goods and services associated with this area of activity, which is based on the prospecting and mining projects of the mining companies. From one year to the next, therefore, the sales of a supplier may fluctuate greatly, in accordance with the number and size of projects under way during the period in question. It should be borne in mind that the mining sector is a capital-intensive industry with very large initial costs, while expenses associated with the replacement market are much smaller, given the long service life of the equipment.

1. CHARACTERISTICS OF THE CLIENTELE

The clientele of the suppliers of mining sector products and services can basically be divided into two major groups: retailers and mining companies.

Retailers

The main target of mining equipment and product retailers is small mining companies, who can thus obtain the machinery they need to conduct their operations by visiting the retailers directly. There, they can select the models and brands they want from a relatively limited product range. The brands available in the store (or from a catalogue) are the most popular and best known.

Mining companies

When a mining prospecting or operating company undertakes a mining project, it usually employs a tender call process in order to identify the suppliers of the associated equipment and services. These suppliers must be able to provide a wide range of services in order to meet the requirements of the contracting companies. The suppliers therefore often use subcontractors in order to broaden their range and better meet their clients' needs.

In an ideal situation, tenders are issued at the exploration stage. During this period, the mining companies have already estimated the value of the mineral deposit and have made a decision regarding their intention to mine it. At this point in time, they also know the most appropriate



Chapter 2: Market Dynamic

type of mining for the characteristics of the deposit and can begin to develop the logistical support they need for their operations.

2. DECISIVE VARIABLES FOR PURCHASES

After meeting with a number of resource persons in the mining sector, we concluded that there are six main decisive variables for the purchase of mining sector equipment.

- Sector Worker safety
- © Equipment robustness
- Equipment effectiveness
- Srand reputation
- Product quality
- © Experience in similar climates

Worker safety

Mining companies attach great importance to selecting the machinery employed on site. Workers must be able to operate in a safe environment for mining operations. An accident is always unfortunate and the mining companies try to avoid them as much as possible.

Equipment robustness

Mining is a capital-intensive industry and initial investments are extremely large. Furthermore, given the size of those expenses, entrepreneurs wish to capitalize their investments over several years. Mining sector machinery and equipment normally has a service life equal to or longer than the mine operating period. These capital costs can then be written off over a long period (up to 20 years or more). For example, when the Valdes Creek mine in Alaska closed down, some of the equipment was shipped to a gold mine in Guyana.

Equipment effectiveness

The purpose of mining sector research and development is to increase the efficiency and performance of the mining companies. They are therefore constantly on the lookout for technological innovations with a view to better performance. Equipment effectiveness is therefore a decisive variable for the purchase of machinery.

Brand reputation

The brand reputation is especially important for heavy machinery purchases such as bulldozers and conveyors. Given their high price, it is natural that a mining company will go for "sure value". Caterpillar is the world leader in this regard.

Product quality

In order to avoid accidents or other failures associated with mining, the companies are looking for quality products. This is a way for them to limit the additional costs associated with possible repairs of faulty machinery.

Experience in similar climates

A company's experience in climates similar to Guyana's is a decisive factor for purchases, especially in the case of the services associated with mining. Suppliers of goods and services who have this experience will be able to cope with the following realities: tropical climate, high humidity, heavy rainfall, intense sunlight, etc.

3. CONSUMER SPENDING HABITS

As previously indicated in this report, the equipment used in the mining industry has a long service life, and most purchases are normally made for specific purposes at the initial stage of the project.

Buyers of mining sector products and equipment demonstrate a high degree of brand loyalty, in accordance with their ongoing concern for standardization, which allows the consumer to achieve economies of scale. A certain number of parts must be held in inventory for possible repairs or to replace worn parts. It is extremely expensive to hold and manage an inventory of this kind and the situation becomes even more complex when different equipment brands are used on site. This is therefore a justification for using a specific supplier. It should be pointed out, however, that standardization is sometimes less attractive if one competing company's tender is especially attractive. In other words, a customer will adopt the alternative solution if the initial supplier's prices are much better than competitors' prices.

Apart from the concern of mining companies for standardization, customers tend to buy a certain product line of the same brand out of the concern for complementarity and compatibility. This also allows them to reduce the costs associated with buying mining sector products.

Chapter 2: Market Dynamic

Most customers normally have two or three main options regarding the choice of suppliers of products, equipment and services. And if they are unable to reach an agreement with one supplier they implement their contingency plan and turn to other suppliers listed among their alternatives.

Last, we should point out that marketing is hardly developed in Guyana. Accordingly, buyers rely mainly on the experience of their competitors to make their choices regarding the brand and type of products for their firm.

4. PURCHASING DECISION

Those who use a mining sector product, equipment or service are not its buyers, except in the case of a small mining company or small operation. Accordingly, those individuals do not make the purchasing decisions. In other words, equipment acquisitions are based on studies and recommendations by the company engineering department. Based on the recommendation of these specialists, management will release the funds required to purchase the equipment.

At the initial operational stage, the contractors issue recommendations and purchase products. If we take the example of an electrical power plant on the site, the engineering consulting firm engaged by the mining company will be responsible for assessing the company's needs and then installing a system adequate for the operation's needs.

According to a document prepared by the Department of Foreign Affairs and International Trade (*Mining: Equipment and Services Directory*, September 1994), a number of Canadian companies have already supplied mining sector equipment and services to Guyanese companies. In addition, many others have indicated their interest in the Guyanese market. Some have also indicated their wish to conclude joint venture agreements or other types of partnership with local firms.

In this section of the report, we will provide a list of Canadian suppliers of products and services used by mining companies, that have already dealt with foreign or local firms established in Guyana. We will also see how they respond to their consumers' needs and who are their direct competitors. We have prepared this list from the information provided to us by these companies.

SECTION B: ANALYSIS OF THE COMPETITION

CANADIAN COMPANIES ACTIVE IN GUYANA

State A.T.S. Electro-Lube International Inc.

This company manufactures automatic bearing lubricants for equipment and machinery used in the mines. Although A.T.S. Electro-Lube has not yet exported its product to Guyana, it is undertaking a marketing offensive by periodically mailing information brochures on its product and its specifications.

🖙 Bradley W.M. Manufacture

Bradley W.M. Manufacture is a company specializing in drilling products. This company is active in many regions of the world, including Guyana. Bradley W.M. Manufacture is looking for agents and distributors for its mining prospecting products in order to increase its presence on the American continent.

See C.F. Gleeson & Associates Ltd.

This consulting firm has already worked in Guyana, where it made its expertise available to Canadian companies wishing to set up in the country. However, Gleeson & Associates has not done any consulting work relating to Guyana in recent years.

🖙 EHA Engineering Ltd.

This company carried out a feasibility study for Exall Resources, a Canadian mining company established in Guyana.

Section International Consultants Ltd

This organization provides consulting services for mining companies. It produced a report on Guyanese gold deposits for the ROMANEX company based in Vancouver. During the last 12 months, its total world exports were approximately C\$3 million. With regard to Guyana in particular, this contract has generated total sales of C\$100,000 for Excalibur International Consultants Ltd over the last five years.

Gemcom Services Inc.

This firm develops and distributes computer software with applications in the mining sector and prospecting. Gemcom Services Inc has supplied computer software to two companies established in Guyana: Golden Star Resources and OGML. Total sales for Guyana in 1995 were US\$14,120, to which a further US\$3,000 must be added for technical support services. GEMCOM products are shipped directly to Guyana by courier.

Starnischfeger Corp. of Canada Ltd.

This Canadian company supplies mining equipment and services and spare parts. Harnischfeger Corp. of Canada Ltd. specializes in surface or open-face mining equipment. The OGML project generated sales for this company. Sales revenues from the Guyanese market vary from year to year but average US\$1,000,000 per year. Guyana is therefore a market of less importance for this company, since its total production is estimated at US\$10,000,000.

Competitors: many

IST J. Kaehne & Associates Ltd.

This dynamic company has some interest in Guyana, both in the mining sector and in other areas requiring electrical engineering services. J. Kaehne & Associates Ltd. has provided its services to the Cathedral Gold, El Dorado Kaburi and OGML mining companies. OGML generated sales of C\$2,000,000 at the project initial stage. Over the last five years, Guyana has also been the source of revenues on the order of half a million dollars a year. This market therefore represents about 15% of the total sales of J. Kaehne & Associates Ltd. It should be noted, however, that the importance of the mining industry to the operations of this company is declining. The energy sector now represents 60% of their total sales, compared with 40% for the mining sector. Previously, 75% of the Company's sales were attributable to the mining industry.

Competitors: - Monenco AGRA Inc.

- Kilborn Engineering Pacific Ltd.
- SNC-Lavalin Inc.20

²⁰ SNC-Lavalin is a competitor in markets other than Guyana.

🖙 <u>Schneider Canada Inc.</u>

Schneider Canada Inc. provided services and electrical equipment in Guyana in connection with the OGML project. In addition, a number of commercial projects with Guyana should soon be completed. This firm is especially competitive in the distribution of medium voltage (40 kV - 1 kV) and low voltage (600 V) products. These products are specially designed to meet the specific needs of consumers. Schneider Canada Inc. supplies electrical distribution and control services to the mining sector on an intermittent basis, since the equipment and services sold have a service life that may continue until the mine's resources are exhausted.

Competitors: - ABB

- Siemens
- GE
- Cutler Hammer

🖙 <u>Svedala Industries Canada Inc.</u>

This company's activities are highly dependent on the world development of the mining industry. Their Stephens-Adamson product line was designed to meet needs for transportation and processing of bulk materials. This company has been very active in the Guyanese mining sector, especially during the initial phase of development of Linmine's activities. Thereafter, Svedala Industries Canada Inc. continued to supply the Guyanese bauxite industry until the recent decline in this activity area. Despite the decline in bauxite mining, however, the company is still receiving some orders from Linmine and Bermine. The OGML project generated sales in excess of C\$10,000,000 for *Svedala Industries Canada Inc.* during the initial development phase. At that time, the company supplied ore crushing, milling and pulverizing machines and conveyors. With the subsequent expansion of mine operations, the company made additional sales of C\$2,000,000.

Competitors: International, not much competition in Canada

OTHER CANADIAN COMPANIES ACTIVE IN GUYANA

ALLIS MINERAL SYSTEMS FALCON CONCENTRATORS INC. GEONEX AERODAT INC. GOLDER ASSOCIATES LTD. HY-G MANUFACTURING INC. INGERSOLL-DRESSERPUMPCANADA INC. JKS BOYLES INC. KRETSCHMAR INT'L GEOSCIENCE LONGYEAR CANADA INC. MET-CHEM CANADA INC. MILLER TECHNOLOGY INC. PAJARI INSTRUMENTS LTD. R.E.G. MINING PARTS & EQUIPMENT CO. SMART TURNER STATICON LTD. STEPHENS-ADAMSON CANADA T.M. ENGINEERING LTD. TELEDYNE CANADA MINING PRODUCTS TRANSCONTINENTALENGINEEREDPROD. WALTER DOW ASSOCIATES LTD. WESTCOAST DRILLING SUPPLIES LTD. WILSON MACHINE COMPANY LTD.

OTHER COMPANIES ACTIVE IN GUYANA (MINING SECTOR)

A-C PUMPS CANADA A-C PUMPS (ITT) ACRISON INTERNATIONAL AIR MOVING PRODUCTS **AIR SYSTEM SUPPLIES** AJAX MAGNETHERMIC ALLIED ALPHA-LAVAL LTD. ANI ANI A BACUS ATLAS COPCO BEDARCO MCGRUER INC. BERKELEY **BICO BADGER** BLAIS **BRIGGS & STRATON** CATERPILLAR CHAMCO INDUSTRIES CHAMPION PNEUMATIC CO. CLEAN GAS SYSTEM CONVEYOR ENG. DEISTER CONCENTRATOR CO. DELKOR TECHNIK LTD.

DENVER DINGS DINGS MAGNETIC GROUP DRUMMOND WELDING DUCON ERIEZ MAGNETICS FIAT FIRST THERMAL SYSTEMS FLYGT FONTAINE FOURNIER GALIGHER GARDNER DENVER GE (GENERAL ELECTRIC) HARRISON R. COOPER HAYWARD GORDON H. M. FLUID HTH HEATECH HYDRO DYNAMICS ICL ENGINEERING LTD. IDI ENGINEERING INDUSTRIAL PUMPS INGERSOLL RANDITS RAMSEY

Chapter 2: Market Dynamic

ITT A-C PUMPS JOHNSON PUMP CANADA J.P. CANADA **KAVERIT STEEL** KENWORTH KINERGY CORPORATION KOBELCO KOMATSU KONE **KREBS ENGINEERING** LES INDUSTRIES FOURNIER LOCHHEAD HAGGERTY MACK TRUCKS MASSEY-FERGUSON MCLELLAN EQUIPMENT MERRICK MINE & MILL ENGINEERING MINERAL DEPOSITS MINERAL TECHNOLOGIES NEW YORK BLOWER NORDBERG NUTECH SYSTEMS **ORENSTEIN & KOPPEL (O & K)** OMAI CONSTRUCTION OMAI GOLD MINES OMI CRANES **OSNA EQUIPMENT** P&H PARTEK PATRICK GARNEAU PEERLESS PEERLESS PUMPS **PROTECTIVE TECHNOLOGIES** PULLIFT **RAMSEY CANADA ROBBINS MEYERS ROBIN NERON** RONAN SIHI SIMPLICITY MATERIALS

SPENCER STANCO STRUCTURES G.B. SULLAIR CORPORATION TARBY **TECHNEIQUIP** TEREX TEXMARC CONVEYOR CO. THUNDERBIRD INDUSTRIES TRANE UNIFIELD UNITED AIR SPECIALISTS UNIVERSAL ENGINEERING UNIVERSAL FAN VALLEY SURPLUS WARMAN INTERNATIONAL WARTSILA CULLEN DIESEL WESTECH ENGINEERING WESTPRO WILDEN WORTHINGTON (INGERSOLL DRESSER)

CANADIAN COMPANIES INTERESTED IN GUYANA

ACME ANALYTICAL LABORATORIES	KILBORN ENGINEERING PACIFIC LTD.
LTD.	KRUPP CANADA INC.
AGRA EARTH AND ENVIRONMENT	LAKEFIELD RESEARCH
ASSAYERS CORPORATION INC.	LYNX GEOSYSTEMS INC.
CHEMEX LABS LTD.	NAT'L COMPRESSED AIR CANADA LTD.
COLUMBIA CHROME INDUSTRIES LTD.	NAUTILUS INT'L CONTROL & ENG. LTD.
CORRIGAN INSTRUMENTATION LTD.	NELSON MACHINERY & EQUIPMENT
DIMATEC INC.	LTD.
EXACTRA	NEW ERA ENGINEERING CORP.
FAB-RITE SERVICES LTD.	PEARSON, HOFMAN & ASSOCIATES
FRONTIER EQUIPMENT LTD.	LTD.
GEOTERREX	PHOENIX PISTON HYDRAULICS INC.
GOLDEN HILL VENTURES LTD.	Q.M. INDUSTRIES LTD.
GROUPE LAPERRIÈRE & VERREAULT	QUANTEC CONSULTING INC.
ONTARIO INC.	RAHNMET '92
HBT AGRA LTD.	ROSCOE POSTLE ASSOCIATES INC.
HOBIC BIT INDUSTRIES CORP.	RST INSTRUMENTS
JOHN T. HEPBURN LTD.	SCANDINAVIAN GRINDING MILL
KAMLOOPS PRECISION MACHINING LTD.	SYSTEMS
	SURRETTE BATTERY COMPANY LTD.
	WIRE ROPE INDUSTRIES LTD.

Please refer to Annex G for a complete list of Canadian companies interested in Guyana or already active on the Guyanese market.

SECTION A: PROMISING OPPORTUNITIES BY PRODUCT

In the previous chapter, we provided a list of Canadian companies active in Guyana or interested in this promising market. Given the anticipated growth of the mining sector in the local economy, there is no doubt that business opportunities exist for Canadian companies. We will therefore present in the table below a list of potential suppliers by mining sector product. It should be borne in mind that the various stages of mining each require equipment with specific functions and uses.

The following list was taken from a document published by the Department of Foreign Affairs and International Trade (*Directory of Canadian Exporters: Mining Equipment and Services*, September 1994). The companies in the list are those that have expressed an interest in the markets of South America, including Guyana.²¹

²¹ South America includes the following countries: Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Falkland Islands, French Guyana, Guyana, Paraguay, Peru, Suriname, Uruguay, Venezuela.

BULK MATERIALS HANDLING

1. Conveyors

Belt cleaners

Corrigan Instrumentation Ltd., Ontario Krupp Canada Inc., Alberta R.A.S. Industries Ltd., British Columbia Redwood Plastics Corp., British Columbia Scandura Canada, Ontario Stephens-Adamson Canada, Ontario Transcontinental Engineered Products Ltd., British Columbia

Belt splicing and vulcanizing equipment

Industrial Rubber Co., New Brunswick

Belt tensioning equipment

FMC of Canada Ltd., Ontario
Krupp Canada Inc., Alberta
R.A.S. Industries Ltd., British Columbia
Stephens-Adamson Canada, Ontario
Transcontinental Engineered Products Ltd., British Columbia
Vibrotech Equipment Inc., Quebec

Belts

Industrial Rubber Co., New Brunswick Krupp Canada Inc., Alberta Scandura Canada, Ontario Stephens-Adamson Canada, Ontario Transcontinental Engineered Products Ltd., British Columbia

Drive pulleys and idlers

Cloutier's Machine Shop Ltd., Ontario Fab-Rite Services Ltd., British Columbia FMC of Canada Ltd., Ontario **Krupp Canada Inc., Alberta** R. A. S. Industries Ltd., British Columbia **Stephens-Adamson Canada, Ontario Transcontinental Engineered Products Ltd., British Columbia** Vibrotech Equipment Inc., Quebec

Drives

FMC of Canada Ltd., Ontario
Krupp Canada Ltd., Alberta
R. A. S. Industries Ltd., British Columbia
Startco Engineering Ltd., Saskatchewan
Stephens-Adamson Canada, Ontario
Transcontinental Engineered Products Ltd., British Columbia
Vibrotech Equipment Inc., Quebec
Wilson Machine Company Ltd., Duebec
Wismer & Rawlings Electric Ltd., British Columbia

Installations

Baycar Steel Fabricating Ltd., Ontario Bharti Laamanen Mining Inc., Ontario Cloutier's Machine Shop Ltd., Ontario Delta Catalytic Constructors Ltd., British Columbia Equipements Tardif Inc., Quebec FMC of Canada Ltd., Ontario **Kilborn Engineering Pacific Ltd., British Columbia Krupp Canada Inc., Alberta** MacIsaac Mining and Tunelling Company, Ontario Plant Assistance Services Inc., Ontario R. A. S. Industries Ltd.. British Columbia **Stephens-Adamson Canada, Ontario Transcontinental Engineered Products Ltd., British Columbia** Vibrotech Equipment Inc., Quebec



Rope, wire

Wire Rope Industries Ltd., Quebec

2. Crushers

Cone and gyratory crushers

Allis Mineral Systems, Ontario AMSCO Cast Products Inc., Quebec ESCO Ltd., British Columbia Krupp Canada Inc., Alberta Metacor International, Quebec Rahnmet '92, Ontario

Control systems

Allis Mineral Systems, Ontario Krupp Canada Inc., Alberta Startco Engineering Ltd., Saskatchewan Wismer & Rawlings Electric Ltd., British Columbia

Hammer mills

Allis Mineral Systems, Ontario AMSCO Cast Products Inc., Quebec Highland Foundry Ltd., British Columbia Krupp Canada Inc., Alberta

In-pit crushers

Allis Mineral Systems, Ontario AMSCO Cast Products Inc., Quebec Krupp Canada Inc., Alberta Rahnmet '92, Ontario

Jaw crushers

Allis Mineral Systems, Ontario

AMSCO Cast Products Inc., Quebec Continuous Mining Systems Ltd., Ontario ESCO Ltd., British Columbia Highland Foundry Ltd., British Columbia Krupp Canada Inc., Alberta Rahnmet '92, Ontario

Mobile crusher units

Allis Mineral Systems, Ontario AMSCO Cast Products Inc., Quebec Krupp Canada Inc., Alberta Rahnmet '92, Ontario

Rock breakers

Teledyne Canada Mining Products, Ontario

Roll crushers

Allis Mineral Systems, Ontario AMSCO Cast Products Inc., Quebec Krupp Canada Inc., Alberta

Wear parts and accessories

Boundary Equipment Co. Ltd., Alberta ESCO Ltd., British Columbia Highland Foundry Ltd., British Columbia Krupp Canada Inc., Alberta Rahnmet '92, Ontario Wabi Iron & Steel Corp., Ontario

3. Feeders and feeder breakers

Bharti Laamanen Mining Inc., Ontario
Équipements Tardif Inc., Quebec
FMC of Canada Ltd., Ontario
Krupp Canada Inc., Alberta
Stephens-Adamson Canada, Ontario
Transcontinental Engineered Products Ltd., British Columbia
Vibrotech Equipment Inc., Quebec

4. Material storage

Abrasion-resistant linings

Boundary Equipment Co. Ltd., Alberta Drummond Welding & Steel Works Ltd., Quebec **Krupp Canada Inc., Alberta** Limpact International Ltd., Ontario Metacor International, Quebec Redwood Plastics Corp., British Columbia Wabi Iron & Steel Corp., Ontario

Bin level indicators

Gedco Controls, Ontario Milltronics, Ontario Stephens-Adamson Canada, Ontario

Bins, chutes, hoppers and accessories

Baycar Steel Fabricating Ltd., Ontario Cloutier's Machine Shop Ltd., Ontario Coast Steel Fabricators Ltd., British Columbia Drummond Welding & Steel Works Ltd., Quebec FMC of Canada Ltd., Ontario **Krupp Canada Inc., Alberta** MacIsaac Mining and Tunelling Company, Ontario Metacor International, Quebec Plant Assistance Services Inc., Ontario Redwood Plastics Corp., British Columbia **Stephens-Adamson Canada, Ontario** Wabi Iron & Steel Corp., Ontario

5. On-line weighing and monitoring systems

Blackbox Automation Inc., Ontario Krupp Canada Inc., Alberta Milltronics, Ontario

6. Stackers and reclaimers

Coast Steel Fabricators Ltd., British Columbia Krupp Canada Inc., Alberta Mac Isaac Minng and Tunelling Company, Ontario Softac Systems Ltd., British Columbia Stephens-Adamson Canada, Ontario Transcontinental Engineered Products Ltd., British Columbia

ENVIRONMENT

1. Audits

Monenco AGRA Inc., Alberta

2. Diesel engine exhaust cleaners

Diesel Controls Ltd., Ontario Engine Control Systems Ltd., Ontario Frontier Equipment Ltd., British Columbia Miller Technology Inc., Ontario

3. Environmental control

Equipment

3-L Filters Ltd., Ontario AGRA Earth and Environment, Ontario Citland Canada Ltd., Ontario Diesel Controls Ltd., Ontario Ellett Industries Ltd., British Columbia FMC of Canada Ltd., Ontario Groupe Laperrière & Verreault Ontario Inc., Ontario HBT AGRA Ltd., Alberta Jasmetech Metal Technologies Inc., Quebec Logan Drilling Ltd., Nova Scotia M & I Door Systems Ltd., Ontario Petro Drilling Company Ltd., Nova Scotia Research-Cottrell Canada Ltd., Ontario Schauenburg Industries Ltd., Ontario Transcontinental Engineered Products Ltd., British Columbia Turbotak Technologies Inc., Ontario William R. Perrin Ontario Ltd., Ontario

Services

AGRA Earth and Environment, Ontario Bharti Laamanen Mining Inc., Ontario Chagnon International Ltd., Quebec Chemex Labs Ltd., British Columbia Citland Canada Ltd., Ontario Davy International Canada Ltd., Ontario Engine Control Systems Ltd., Ontario Fenco MacLaren Inc., Ontario Geomatics International Inc., Ontario Golder Associates Ltd., British Columbia Good fellow Consultants Inc., Ontario HBT AGRA Ltd., Alberta INCO Exploration and Technical Services, Ontario Jan H. Reimers and Associates Inc., Ontario Jasmetech Metal Technologies Inc., Quebec Kilborn Engineering Pacific Ltd., British Columbia Klohn-Crippen Consultants Ltd., British Columbia Kretschmar International Geoscience Corp., Ontario Lakefield Research, Ontario Lupien, Rosenberg & Associates Inc., Quebec Met-Chem Canada Inc., Quebec Norecol, Dames and Moore Inc., British Columbia **ORTECH** Corp., Ontario Petro Drilling Company Ltd., Nova Scotia Research-Cottrell Canada Ltd., Ontario Roche Ltd., Groupe-Conseils, Quebec Rocvent Inc., Ontario SENES Consultants Ltd., Ontario SIDAM (1992) Inc., Groupe minier, Quebec Steffen, Robertson & Kirsten (Canada) Inc., British Columbia

4. Environmental monitoring

Equipment

3-L Filters Ltd., Ontario AGRA Earth and Environment, Ontario Canterra-Drill Systems, Alberta Citland Canada Ltd., Ontario Corrigan Instrumentation Ltd., Ontario Crone Geophysics & Exploration Ltd., Ontario Elsag Bailey Inc., Ontario Geonics Ltd., Ontario HBT AGRA Ltd., Alberta Logan Drilling Ltd., Nova Scotia Petro Drilling Ltd., Nova Scotia Picodas Grour Inc., Ontario Research-Cottrell Canada Ltd., Ontario RMS Instruments, Ontario

Services

AGRA Earth and Environment, Ontario

Associated Mining Consultants Ltd., Alberta Bharti Laamanen Mining Inc., OntarioChagnon International Ltd., Quebec Citland Canada Ltd., Ontario Davy International Canda Ltd., Ontario Dighem, Ontario Elsag Bailey Inc., Ontario Engine Control Systems Ltd., Ontario Fenco MacLaren Inc., Ontario Geomatics International Inc., Ontario Golder Associates Ltd., British Columbia Goodfellow Consultants Inc., Ontario HBT AGRA Ltd., Alberta INCO Exploration and Technical Services, Ontario Kilborn Engineering Pacific Ltd., British Columbia Klohn-Crippen Consultants Ltd, British Columbia Lakefield Research, Ontario Luplen, Rosenberg & Associates Inc., Quebec Lynx Geosystems Inc., British Columbia

Met-Chem Canada Inc., Quebec

Norecol, Dames and Moore Inc., British Columbia ORTECH Corp., Ontario Paterson, Grant & Watson Ltd., Ontario Petro Drilling Company Ltd., Nova Scotia Picodas Group Inc., Ontario Research-Cottrell Canada Ltd., Ontario Roche Ltd., Groupe-Conseils, Quebec SENES Consultants Ltd., Ontario Steffen, Robertson & Kirsten (Canada) Inc., British Columbia

5. Environmental remediation

Equipment

3-L Filters Ltd., Ontario

AGRA Earth and Environment, Ontario Citland Canada Ltd., Ontario Cominco Engineering Services Ltd., British Columbia Geonics Ltd., Ontario HBT AGRA Ltd., Alberta Jasmetech Metal Technologies Inc., Quebec Logan Drilling Company Ltd., Nova Scotia Petro Drilling Company Ltd., Nova Scotia Research-Cottrell Canada Ltd., Ontario William R. Perrin Ontario Ltd., Ontario

Services

AGRA Earth and Environment, Ontario Bharti Laamanen Mining Inc., Ontario Chagnon International Ltd., Quebec Citland Canada Ltd., Ontario Cominco Engineering Services Ltd., British Columbia Davy International Canada Ltd., Ontario Delta Catalytic Constructors Ltd., British Columbia Elsag Bailey Inc., Ontario Engine Control Systems Ltd., Ontario Fenco MacLaren Inc., Ontario Geomatics International Inc., Ontario Golder Associates Ltd., British Columbia Goodfellow Consultants Inc., Ontario HBT AGRA Ltd., Alberta INCO Exploration and Technical Services, Ontario Jasmetech Metal Technologies Inc., Quebec Kilborn Engineering Pacific Ltd., British Columbia Klohn-Crippen Consultants Ltd., British Columbia Lakefield Research, Ontario Lupien, Rosenberg & Associates Inc., Quebec Lynx Geosystems Inc., British Columbia Met-Chem Canada Inc., Quebec Neill and Gunter Ltd., New Brunswick Norecol, Dames and Moore Inc., British Columbia **ORTECH Corp.**, Ontario Petro Drilling Company Ltd., Nova Scotia Research-Cottrell Canada Ltd., Ontario Roche Ltd., Groupe-Conseils, Quebec SENES Consultants Ltd., Ontario SIDAM (1992) Inc., Groupe minier, Quebec Steffen, Robertson & Kirsten (Canada) Inc., British Columbia

6. Impact assessment

Monenco AGRA Inc., Alberta Neill and Gunter Ltd., New Brunswick

7. Mine closure services

AGRA Earth and Environment, Ontario

Associated Mining Consultants Ltd., Alberta Bharti Laamanen Mining Inc., Ontario BLM Mincon Inc., Ontario Chagnon International Ltd., Quebec Citland Canada Ltd., Ontario Cominco Engineering Services Ltd., British Columbia Dynatec International Ltd., Ontario Fenco MacLaren Inc., Ontario Geomatics International Inc., Ontario Golden Hill Ventures Ltd., Yukon Territory Golder Associates Ltd., British Columbia HBT AGRA Ltd., Alberta INCO Exploration and Technical Services, Ontario Kilborn Engineering Pacific Ltd., British Columbia Klohn-Crippen Consultants Ltd., British Columbia Lakefield Research, Ontario Met-Chem Canada Inc., Quebec Norecol, Dames and Moore Inc., British Columbia ORTECH Corp., Ontario Research-Cottrell Canada Ltd., Ontario Roche Ltd., Groupe-Conseils, Quebec SENES Consultants Ltd., Ontario Steffen, Robertson & Kirsten (Canada) Inc., British Columbia

8. Tailings dams

Golden Hill Ventures Ltd., Yukon Territory

EXPLORATION

1. Aerial mapping services

Eagle Mapping Service Ltd., British Columbia Geonex Aerodat Inc., Ontario Geoterrex, Ontario

2. Assaying

Equipment

Chemex Labs Ltd., British Columbia Corrigan Instrumentation Ltd., Ontario Geonics Ltd., Ontario T. M. Engineering Ltd., British Columbia

Services

Acme Analytical Laboratories Ltd., British Columbia Assayers Corporation Inc., Ontario Chemex Labs Ltd., British Columbia Lakefield Research, Ontario Sherritt Inc., Alberta SIDAM (1992) Inc., Groupe minier, Quebec XRAL Laboratories, Ontario

3. Data interpretation services

Excalibur International Consultants Ltd., Ontario Geomatics International Inc., Ontario Geonex Aerodat Inc., Ontario Pearson, Hofman & Associates Ltd., Ontario

4. Diamond drilling

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Equipment

Diaset Products Ltd., British Columbia Hobic Bit Industries Corp., British Columbia JKS Boyles Inc., Ontario

Services

Diaset Products Ltd., British Columbia Dynatec International Ltd., Ontario Petro Drilling Company Ltd., Nova Scotia

5. Drilling

Equipment

Alberta Wire Cloth Inc., Alberta Bradley W. M. Manufacture, Quebec Canterra-Drill Systems, Alberta Connors Drilling Ltd., British Columbia Diaset Products Ltd., British Columbia Dimatec Inc., Manitoba Drillex International of Canada Inc., Ontario Fordia Ltd., Quebec Frontier Equipment Ltd., British Columbia JKS Boyles Inc., Ontario Logan Drilling Ltd., Nova Scotia Midnight Sun Drilling Co. Ltd., Yukon Territory Reedrill Inc. / Gardner-Denver, Ontario Westcoast Drilling Supplies Ltd., British Columbia

Services

Alberta Wire Cloth Inc., Alberta Connors Drilling Ltd., British Columbia Diaset Products Ltd., British Columbia Drillex International of Canada Inc., Ontario Dynatec International Ltd., Ontario Fenco MacLaren Inc., Ontario Logan Drilling Ltd., Nova Scotia Midnight Sun Drilling Co. Ltd., Yukon Territory Westcoast Drilling Supplies Ltd., British Columbia

6. Exploration software

Crone Geophysics & Exploration Ltd., Ontario Dighem, Ontario Excalibur International Consultants Ltd., Ontario Gemcom Services Inc., British Columbia Geonex Aerodat Inc., Ontario Geonics Ltd., Ontario Geostat Systems International Inc., Quebec Lynx Geosystems Inc., British Columbia M. Slinn Engineering, British Columbia Paterson, Grant & Watson Ltd., Ontario Quantec Consulting Inc., Ontario Roscoe Postle Associates Inc., Ontario Sander Geophysics Ltd., Ontario SIDAM (1992) Inc., Groupe minier, Quebec

7. Feasibility studies

AGRA Earth and Environment, Ontario

Associated Mining Consultants Ltd., Alberta Bharti Laamanen Mining Inc., Ontario Citland Canada Ltd., Ontario Cominco Engineering Services Ltd., British Columbia Davy International Canada Ltd., Ontario Drillex International of Canada Inc., Ontario EHA Engineering Ltd., Ontario Falcon Concentrators Inc., British Columbia Fenco MacLaren Inc., Ontario GeoQuest International, Ontario HBT AGRA Ltd., Alberta Hillsborough Resources Ltd., Ontario Kilborn Engineering Pacific Ltd., British Columbia Klohn-Crippen Consultants Ltd., British Columbia Kretschmar International Geoscience Corp., Ontario Lynx Geosystems Inc., British Columbia MacIsaac Mining and Tunelling Company, Ontario

Met-Chem Canada Inc., Quebec New Era Engineering Corp., Yukon Territory Nisymco Inc., Quebec Pearson, Hofman & Associates Ltd., Ontario R. L. Moxham Associates, Ontario Roche Ltd., Groupe-Conseils, Quebec Roscoe Postle Associates Inc., Ontario SIDAM (1992) Inc., Groupe minier, Quebec Steffen, Robertson & Kirsten (Canada) Inc., British Columbia Watts, Griffis and McOuat Ltd., Ontario

8. Geochemical surveying

Equipment

A. G. O. Environmental Electronics Ltd., British Columbia
Frontier Helicopters, British Columbia
Geonics Ltd., Ontario
Petro Drilling Company Ltd., British Columbia
RST Instruments, British Columbia

Services

C. F. Gleeson & Associates Ltd., Ontario
Fenco MacLaren Inc., Ontario
Geomatics International Inc., Ontario
GeoQuest International, Ontario
Kretschmar International Geoscience Corp., Ontario
Pearson, Hofman & Associates Ltd., Ontario
R. L. Moxham Associates, Ontario
RST Instruments, British Columbia
SIDAM (1992) Inc., Groupe minier, Quebec
XRAL Laboratories, Ontario

9. Geological surveying

Equipment

A. G. O. Environmental Electronics Ltd., British Columbia
Citland Canada Ltd., Ontario
Diaset Products Ltd., British Columbia
Dighem, Ontario
Frontier Helicopters, British Columbia
Gem Systems Inc., Ontario
Geonics Ltd., Ontario
Longyear Canada Inc., Ontario
National Compressed Air Canada Ltd., Ontario
Pajari Instruments Ltd., Ontario
Picodas Group Inc., Ontario
RMS Instruments, Ontario
Sander Geophysics Ltd., Ontario
W. Sodin (Gravity) Ltd., Ontario

Services

Acme Analytical Laboratories Ltd., British Columbia AGRA Earth and Environment, Ontario Associated Mining Consultants Ltd., Alberta C. F. Gleeson & Associates Ltd., Ontario Citland Canada Ltd., Ontario Diaset Products Ltd., British Columbia Dighem, Ontario Geomatics International Inc., Ontario GeoQuest International, Ontario Golder Associates Ltd., British Columbia Kretschmar International Geoscience Corp., Ontario Longyear Canada Inc., Ontario New Era Engineering Corp., Yukon Territory Pajari Instruments Ltd., Ontario Paterson, Grant & Watson Ltd., Ontario Pearson, Hofman & Associates Ltd., Ontario R. L. Moxham Associates, Ontario Roche Ltd., Groupe-Conseils, Quebec **Roscoe Postle Associates Inc., Ontario**

Sander Geophysics Ltd., Ontario SIDAM (1992) Inc., Groupe minier, Quebec Trueman Consulting Ltd., British Columbia W. Sodin (Gravity) Ltd., Ontario Watts, Griffis and McOuat Ltd., Ontario

10. <u>Geophysical surveying</u> *Airborne services*

Geoterrex, Ontario

Equipment

Citland Canada Ltd., Ontario Crone Geophysics & Exploration Ltd., Ontario Dighem, Ontario **National Compressed Air Canada Ltd., Ontario** Petro Drilling Company Ltd., Nova Scotia **Quantec Consulting Inc., Ontario** RMS Instruments, Ontario SAGAX Géophysique Inc., Quebec Sander Geophysics Ltd., Ontario

Services

Citland Canada Ltd., Ontario Crone Geophysics & Exploration Ltd., Ontario Dighem, Ontario **Excalibur International Consultants Ltd., Ontario Geoterrex, Ontario** Paterson, Grant & Watson Ltd., Ontario Petro Drilling Company Ltd., Nova Scotia **Quantec Consulting Inc., Ontario** SAGAX Géophysique Inc., Quebec Sander Geophysics Ltd., Ontario SIDAM (1992) Inc., Groupe minier, Quebec

11. Geotechnical services

John D. Smith Engineering Associates Ltd., Ontario

12. Ground survey control

Eagle Mapping Service Ltd., British Columbia

13. Ore reserve estimates

Associated Mining Consultants Ltd., Alberta Bharti Laamanen Mining Inc., Ontario Cominco Engineering Services Ltd., British Columbia Davy International Canada Ltd., Ontario Geomatics International Inc., Ontario GeoQuest International, Ontario Geostat Systems International Inc., Quebec Hillsborough Resources Ltd., Ontario Kilborn Engineering Pacific Ltd., British Columbia Lynx Geosystems Inc., British Columbia Met-Chem Canada Inc., Quebec New Era Engineering Corp., Yukon Territory Pearson, Hofman & Associates Ltd., Ontario R. L. Moxham Associates, Ontario Roche Ltd., Groupe-Conseils, Quebec **Roscoe Postle Associates Inc., Ontario** SIDAM (1992) Inc., Groupe minier, Quebec Steffen, Robertson & Kirsten (Canada) Inc., British Columbia Trueman Consulting Ltd., British Columbia

14. Reverse circulation rotary drilling services

Dynatec International Ltd., Ontario Midnight Sun Drilling Co. Ltd., Yukon Territory

15. Rock mechanics

John D. Smith Engineering Associates Ltd., Ontario

GENERAL

1. Air compressors

Portable

B. McDowell Equipment Ltd., Ontario
Canterra-Drill Systems, Alberta
Continuous Mining Systems Ltd., Ontario
Drillex International of Canada Inc., Ontario
Miller Technology Inc., Ontario
Rocvent Inc., Ontario
Rotair Industries Ltd., British Columbia

Stationary

B. McDowell Equipment Ltd., Ontario
Rocvent Inc., Ontario
Rotair Industries Ltd., British Columbia
Transcontinental Engineered Products Ltd., British Columbia

2. Blasting

Anfo loaders and carriers

B. McDowell Equipment Ltd., Ontario
Baycar Steel Fabricating Ltd., Ontario
MacIsaac Mining and Tunelling Company, Ontario
Miller Technology Inc., Ontario

Anfo mixers and chargers

Miller Technology Inc., Ontario

Blast monitoring equipment

Bharti Laamanen Mining Inc., Ontario BLM Mincon Inc., Ontario **RST Instruments, British Columbia**

Detonators, exploders and fuses

KNJ Dion Enterprises Inc., Quebec SEAR Search & Rescue Equipment Ltd., British Columbia

Explosives

SEAR Search & Rescue Equipment Ltd., British Columbia

3. Boilers, package

Coast Steel Fabricators Ltd., British Columbia

4. Construction management

Delta Catalytic Constructors Ltd., British Columbia Kilborn Engineering Pacific Ltd., British Columbia Monenco AGRA Inc., Alberta Roscoe Postle Associates Inc., Ontario

5. Electrical equipment

Switchgear products

Patton & Cooke Ltd., British ColumbiaSchneider Canada Inc., Ontario6. <u>Custom metal products</u>

Metacor International, Quebec Nor-Arc Steel Fabricators, Ontario

7. Financial analysis

Roscoe Postle Associates Inc., Ontario

8. Generators

Simpson Power Products Ltd., British Columbia

9. Ion exchange - Condensate polishers, demineralizers

EIMCO Process Equipment, Ontario

10. Machinery

Bearings, shaft couplings

Q. M. Industries Ltd., British Columbia

Braking systems

Johnson Industries Ltd., British Columbia

Custom fabrication

Earl's Industries Ltd., British Columbia Ellett Industries Ltd., British Columbia

Repair and overhaul

Kamloops Precision Machining Ltd., British Columbia Nelson Machinery & Equipment Ltd., British Columbia Nor-Arc Steel Fabricators, Ontario

11. Mine automation

Hinz Consulting Ltd., Saskatchewan

12. Mine development

Golden Hill Ventures Ltd., Yukon Territory John D. Smith Engineering Associates Ltd., Ontario Monenco AGRA Inc., Alberta

13. Mine management consulting

Associated Mining Consultants Ltd., Alberta Bharti Laamanen Mining Inc., Ontario Cominco Engineering Services Ltd., British Columbia

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Davy International Canada Ltd., Ontario Dynatec International Ltd., Ontario Falcon Concentrators Inc., British Columbia Fenco MacLaren Inc., Ontario Hillsborough Resources Ltd., Ontario Kilborn Engineering Pacific Ltd., British Columbia New Era Engineering Corp., Yukon Territory Norecol, Dames and Moore Inc., British Columbia Roche Ltd., Groupe-Conseils, Quebec SIDAM (1992) Inc., Groupe minier, Quebec Steffen, Robertson & Kirsten (Canada) Inc., British Columbia Walter Dow Associates Ltd., Ontario

14. Mine management systems

Jasmetech Metal Technologies Inc., Quebec

15. Mining contracting

Golden Hill Ventures Ltd., Yukon Territory

16. Piping systems

Van Ingen Services Ltd., British Columbia

17. Procurement services

Citland Canada Ltd., Ontario Hillsborough Resources Ltd., Ontario Kilborn Engineering Pacific Ltd., British Columbia Monenco AGRA Inc., Alberta Nelson Machinery & Equipment Ltd., British Columbia

18. Pumps

Acid

Groupe Laperrière & Verreault Ontario Inc., Ontario Ingersoll-Dresser Pump Canada Inc., Ontario Smart Turner, Ontario Toyo Pumps North America Corp., British Columbia Wabi Iron & Steel Corp., Ontario

High head

Frontier Equipment Ltd., British Columbia Ingersoll-Dresser Pump Canada Inc., Ontario Smart Turner, Ontario Toyo Pumps North America Corp., British Columbia Wabi Iron & Steel Corp., Ontario

Metering

Groupe Laperrière & Verreault Ontario Inc., Ontario Limpact International Ltd., Ontario

Solids handling

BLM Mincon Inc., Ontario Groupe Laperrière & Verreault Ontario Inc., Ontario Industrial Rubber Co., New Brunswick Ingersoll-Dresser Pump Canada Inc., Ontario Smart Turner, Ontario Toyo Pumps North America Corp., British Columbia Wabi Iron & Steel Corp., Ontario

Submersible

B. McDowell Equipment Ltd., Ontario
Ingersoll-Dresser Pump Canada Inc., Ontario
Toyo Pumps North America Corp., British Columbia
Wabi Iron & Steel Corp., Ontario



Water

Ingersoll-Dresser Pump Canada Inc., Ontario

Wear-resistant, lined

Groupe Laperrière & Verreault Ontario Inc., Ontario Industrial Rubber Co., New Brunswick Ingersoll-Dresser Pump Canada Inc., Ontario Kamloops Precision Machining Ltd., British Columbia Metal 7 Inc., Quebec Redwood Plastics Corp., British Columbia Toyo Pumps North America Corp., British Columbia Wabi Iron & Steel Corp., Ontario

19. Rock breaker booms

Earl's Industries Ltd., British Columbia

20. Software

Custom designed

Canmet, Ontario Northern Computer Systems Inc., Ontario

Health and safety monitoring

Northern Computer Systems Inc., Ontario

Mine modelling

Gemcom Services Inc., British Columbia Kilborn Engineering Pacific Ltd., British Columbia M. Slinn Engineering, British Columbia

Process simulation

Canmet, Ontario Gemcom Services Inc., British Columbia Geostat Systems International Inc., Quebec

Production control

Canmet, Ontario Northern Computer Systems Inc., Ontario

21. Structures

Britco Structures Ltd., British Columbia Jasmetech Metal Technologies Inc., Quebec Weatherhaven Resources Ltd., British Columbia

22. Surveying equipment

Face profiling equipment

Optech Systems Corp., Ontario

Laser guidance systems

Blackbox Automation Inc., Ontario Marland Enterprises Inc., British Columbia

Laser surveying

BLM Mincon Inc., Ontario

Stope surveying

Optech Systems Corp., Ontario

23. Vehicle components

Attachments for heavy machinery

IMAC Design Group Ltd., British Columbia

Bearing lubricant

A. T. S. Electro-Lube International Inc., British Columbia

Diesel engines/powertrain components

B. McDowell Equipment Ltd., Ontario Engine Control Systems Ltd., Ontario Frontier Equipment Ltd., British Columbia

Other parts and accessories

LHD Equipment Ltd., Ontario

Refuelling systems

Matt's Manufacturing Inc., Alberta

Rims, wheels

Rimex Supply Ltd., British Columbia

Suspension units

Columbia Chrome Industries Ltd., British Columbia

Tire inflating products

Exactra, Ontario

Tires, off-highway

Industrial Rubber Co., New Brunswick

24. Waste handling systems

J. F. Fitzpatrick Industries Inc., Ontario

25. Winches

Pullmaster Winch Corp., British Columbia Timberland Equipment Ltd., Ontario

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MINERAL PROCESSING

1. Assaying and sampling

Equipment

Corrigan Instrumentation Ltd., Ontario Falcon Concentrators Inc., British Columbia Heath & Sherwood (1964) Ltd., Ontario T. M. Engineering Ltd., British Columbia

Services

Acme Analytical Laboratories Ltd., British Columbia Assayers Corporation Inc., Ontario Chemex Labs Ltd., British Columbia EHA Engineering Ltd., Ontario Falcon Concentrators Inc., British Columbia Lakefield Research, Ontario New Era Engineering Corp., Yukon Territory Pearson, Hofman & Associates Ltd., Ontario Sherritt Inc., Alberta SIDAM (1992) Inc., Groupe minier, Quebec

2. Autoclaves

Drummond Welding & Steel Works Ltd., Quebec Ellett Industries Ltd., British Columbia Sherritt inc., Alberta

3. Classification

Centrifugal classifiers

Falcon Concentrators Inc., British Columbia

Cyclones

Highland Foundry Ltd., British Columbia Industrial Rubber Co., New Brunswick

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Wabi Iron & Steel Corp., Ontario

Hydraulic classifiers

Groupe Laperrière & Verreault Ontario Inc., Ontario

Mechanical classifiers

EIMCO Process Equipment, Ontario

4. Cranes and hoists

Norelco Industries Ltd., British Columbia

5. Filtration and thickening

Belt filters

EIMCO Process Equipment, Ontario Groupe Laperrière & Verreault Ontario Inc., Ontario William R. Perrin Ontario Ltd., Ontario

Centrifuges

Falcon Concentrators Inc., British Columbia

Clarifiers-thickeners

EIMCO Process Equipment, Ontario FMC of Canada Ltd., Ontario Groupe Laperrière & Verreault Ontario Inc., Ontario William R. Perrin Ontario Ltd., Ontario

Disk and drum filters

EIMCO Process Equipment, Ontario Groupe Laperrière & Verreault Ontario Inc., Ontario

Filter cloth and accessories

Alberta Wire Cloth Inc., Alberta

Pressure filters

3-L Filters Ltd., Ontario Drummond Welding & Steel Works Ltd., Quebec EIMCO Process Equipment, Ontario William R. Perrin Ontario Ltd., Ontario

6. Flotation equipment

Agitators and mixers

Metal 7 Inc., Quebec Scandinavian Grinding Mill Systems Inc., Ontario

Air flotation units

Baycar Steel Fabricating Ltd., Ontario Coast Steel Fabricators Ltd., British Columbia EIMCO Process Equipment, Ontario

Column flotation units

Cominco Engineering Services Ltd., British Columbia Groupe Laperrière & Verreault Ontario Inc., Ontario

Conditioners

Scandinavian Grinding Mill Systems Inc., Ontario

Mechanical flotation units

Baycar Steel Fabricating Ltd., Ontario EIMCO Process Equipment, Ontario Groupe Laperrière & Verreault Ontario Inc., Ontario Scandinavian Grinding Mill Systems Inc., Ontario

7. Grinders

Autogenous, semi-autogenous

Allis Mineral Systems, Ontario Boundary Equipment Co., Alberta Rahnmet '92, Ontario Scandinavian Grinding Mill Systems Inc., Ontario

Grinding media

Moly-Cop Canada, British Columbia Scandinavian Grinding Mill Systems Inc., Ontario

Impact mills

Allis Mineral Systems, Ontario Highland Foundry Ltd., British Columbia

Mill linings and accessories

Allis Mineral Systems, Ontario

AMSCO Cast Products Inc., Quebec Heath & Sherwood (1964) Ltd., Ontario Highland Foundry Ltd., British Columbia Industrial Rubber Co., New Brunswick Limpact International Ltd., Ontario Rahnmet '92, Ontario Scandinavian Grinding Mill Systems Inc., Ontario Wabi Iron & Steel Corp., Ontario

8. Kilns and dryers

Allis Mineral Systems, Ontario Ellett Industries Ltd., British Columbia FMC of Canada Ltd., Ontario Scandinavian Iron & Steel Corp., Ontario

9. Metallurgical engineering

Pilot plant testing

Hy-G Manufacturing Inc., British Columbia Lakefield Research, Ontario

Plant design

AGRA Earth and Environment, Ontario

Associated Mining Consultants Ltd., Alberta Citland Canada Ltd., Ontario Cominco Engineering Services Ltd., British Columbia Corrigan Instrumentation Ltd., Ontario Davy International Canada Ltd., Ontario EHA Engineering Ltd., Ontario Ellett Industries Ltd., British Columbia Hy-G Manufacturing Inc., British Columbia INCO Exploration and Technical Services, Ontario J. Kaehne & Associates Inc., British Columbia Jan H. Reimers and Associates Inc., Ontario Kilborn Engineering Pacific Ltd., British Columbia Lakefield Research, Ontario Met-Chem Canada Inc., Quebec Neill and Gunter Ltd., New Brunswick New Era Engineering Corp., Yukon Territory Nisymco Inc., Quebec Plant Assistance Services Inc., Ontario Roche Ltd., Groupe-Conseils, Quebec Scandinavian Grinding Mill Systems Inc., Ontario Sherritt Inc., Alberta

SIDAM (1992) Inc., Groupe minier, Quebec Walter Dow Associates Ltd., Ontario

Process design and improvement

AGRA Earth and Environment, Ontario Associated Mining Consultants Ltd., Alberta Bharti Laamanen Mining Inc., Ontario Citland Canada Ltd., Ontario Cominco Engineering Services Ltd., British Columbia Corrigan Instrumentation Ltd., Ontario Davy International Canada Ltd., Ontario EHA Engineering Ltd., Ontario Ellett Industries Ltd., British Columbia INCO Exploration and Technical Services, Ontario J. Kaehne & Associates Ltd., British Columbia Jan H. Reimers and Associates Inc., Ontario Jasmetech Metal Technologies Inc., Quebec Kilborn Engineering Pacific Ltd., British Columbia Lakefield Research, Ontario Met-Chem Canada Inc., Quebec Monenco AGRA Inc., Alberta New Era Engineering Corp., Yukon Territory Nisymco Inc., Quebec Plant Assistance Services Inc., Ontario Roche Ltd., Groupe-Conseils, Quebec Scandinavian Grinding Mill Systems Inc., Ontario Sherritt Inc., Alberta SIDAM (1992) Inc., Groupe minier, Quebec Watts, Griffis and McOuat Ltd., Ontario

10. Pipework

Steel

Drummond Welding & Steel Works Ltd., Quebec Ellett Industries Ltd., British Columbia Équipements Tardif Inc., Quebec Metacor International, Quebec Scandinavian Grinding Mill Systems Inc., Ontario Van Ingen Services Ltd., British Columbia

Wear-resistant, lined/polyurethane

Boundary Equipment Co. Ltd., Alberta Drummond Welding & Steel Works Ltd., Quebec Elasto-Valve Rubber Products Inc., Ontario Metacor International, Quebec Redwood Plastics Corp., British Columbia

11. Pond/pad liners

Industrial Rubber Co., New Brunswick Klohn-Crippen Consultants Ltd., British Columbia

12. Process control equipment

Analysers and samplers

Elsag Bailey Inc., Ontario

Control systems

Elsag Bailey Inc., Ontario Milltronics, Ontario Softac Systems Ltd., British Columbia, British Columbia

Laboratory equipment and pilot plants

Jasmetech Metal Technologies Inc., Quebec Lakefield Research, Ontario

Metal detectors

Corrigan Instrumentation Ltd., Ontario Softac Systems Ltd., British Columbia

Particle size monitors

Elsag Bailey Inc., Ontario

13. Reagents and chemicals

Flotation reagents

Lakefield Research, Ontario Sherritt Inc., Alberta

Hydrometallurgical reagents

Jasmetech Metal Technologies Inc., Quebec Sherritt Inc., Alberta

Reagent handling and feeders

Jasmetech Metal Technologies Inc., Quebec Limpact International Ltd., Ontario

14. Screening and sizing

Rotary trommel

Earl's Industries Ltd., British Columbia

Screen docks, metal

Allis Mineral Systems, Ontario Boundary Equipment Co. Ltd., Alberta Groupe Laperrière & Verreault Ontario Inc., Ontario Highland Foundry Ltd., British Columbia Major Wire Industries Ltd., Quebec Scandinavian Grinding Mill Systems Inc., Ontario Wabi Iron & Steel Corp., Ontario

Screen docks, polyurethane and rubber

Allis Mineral Systems, Ontario Boundary Equipment Co. Ltd., Alberta

Screening machines

Alberta Wire Cloth Inc., Alberta Allis Mineral Systems, Ontario Équipements Tardif Inc., Quebec Groupe Laperrière & Verreault Ontario Inc., Ontario Metal 7 Inc., Quebec Separator Engineering Ltd., Ontario T. M. Engineering Ltd., British Columbia Vibrotech Equipment Inc., Quebec

Screening machine wear parts and accessories

Allis Mineral Systems, Ontario

15. Separation, dry

Electrostatic, magnetic

Metacor International, Quebec

Pneumatic

Metacor International, Quebec Scandinavian Grinding Mill Systems Inc., Ontario

16. Separation, wet

Centrifugal concentrators

Falcon Concentrators Inc., British Columbia Hy-G Manufacturing Inc., British Columbia Knelson Gold Concentrators Inc., British Columbia Metacor International, Quebec Scandinavian Grinding Mill Systems Inc., Ontario

Cones and spirals

Highland Foundry Ltd., British Columbia Scandinavian Grinding Mill Systems Inc., Ontario

Dense medium

EIMCO Process Equipment, Ontario

Magnetic, high intensity

Scandinavian Grinding Mill Systems Inc., Ontario

Mobile processing plants

Cominco Engineering Services Ltd., British Columbia EIMCO Process Equipment, Ontario Knelson Gold Concentrators Inc., British Columbia

Tables

Boundary Equipment Co. Ltd., Alberta Scandinavian Grinding Mill Systems Inc., Ontario

17. <u>Tanks</u>

Cloutier's Machine Shop Ltd., Ontario Coast Steel Fabricators Ltd., British Columbia Drummond Welding & Steel Works Ltd., Quebec Ellett Industries Ltd., British Columbia Metacor International, Quebec Nor-Arc Steel Fabricators, Ontario

SMELTING AND REFINING

1. Concentrate preparation

Fluidization

Groupe Laperrière & Verreault Ontario Inc., Ontario

Hearth roasting

Highland Foundry Ltd., British Columbia Wabi Iron & Steel Corp., Ontario

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Roasting, sintering and pelletizing

Groupe Laperrière & Verreault Ontario Inc., Ontario Wabi Iron & Steel Corp., Ontario

Rotary kilns

Ellett Industries Ltd., British Columbia Highland Foundry Ltd., British Columbia Wabi Iron & Steel Corp., Ontario

Suspension or flash roasting

Wabi Iron & Steel Corp., Ontario

2. Evaporative cooling

Turbopak Technologies Inc., Ontario

3. Hydrometallurgical engineering services

Sherritt Inc., Alberta

4. Pyrometallurgical engineering

Plant design

Cominco Engineering Services Ltd., British Columbia Davy International Canada Ltd., Ontario J. Kaehne & Associates Ltd., British Columbia Jan H. Reimers and Associates Inc., Ontario Kilborn Engineering Pacific Ltd., British Columbia Neill and Gunter Ltd., New Brunswick Nisymco Inc., Quebec SIDAM (1002) Inc., Groupe minier, Quebec

Process design and improvement

Cominco Engineering Services Ltd., British Columbia Davy International Canada Ltd., Ontario J. Kaehne & Associates Ltd., British Columbia Jan H. Reimers and Associates Inc., Ontario Kilborn Engineering Pacific Ltd., British Columbia Nisymco Inc., Quebec ORTECH Corp., Ontario SIDAM (1992) Inc., Groupe minier, Quebec

5. Refining equipment

Anode handling equipment

Cominco Engineering Services Ltd., British Columbia John T. Hepburn Ltd., Ontario Wabi Iron & Steel Corp., Ontario

Scrap washers

Cominco Engineering Services Ltd., British Columbia

Starter sheets

Cominco Engineering Services Ltd., British Columbia Limpact International Ltd., Ontario

Tankhouse equipment

Cominco Engineering Services Ltd., British Columbia John T. Hepburn Ltd., Ontario

6. Smelting furnaces and converters

Heath & Sherwood (1964) Ltd., Ontario Wismer & Rawlings Electric Ltd., British Columbia

SURFACE MINING

1. <u>Alluvial mining</u>

Bucket-line dredges

AMSCO Cast Products Inc., Quebec ESCO Ltd., British Columbia Krupp Canada Inc., Alberta Metacor International, Quebec Wabi Iron & Steel Corp., Ontario

Cutter/suction dredges

ESCO Ltd., British Columbia **Krupp Canada Inc., Alberta** Toyo Pumps North America Corp., British Columbia Wabi Iron & Steel Corp., Ontario

2. Ancillary vehicles

Crawlers and wheeled dozers/crawler loaders

Leon-Ram Enterprises Inc., Saskatchewan Miller Technology Inc., Ontario Phoenix Piston Hydraulics Inc., Alberta Thomas Equipment Ltd., New Brunswick

Graders

Miller Technology Inc., Ontario Phoenix Piston Hydraulics Inc., Alberta

Remote control

Blackbox Automation Inc., Ontario

Utility vehicles, rough terrain, cranes, etc.

Canterra-Drill Systems, Alberta Coast Steel Fabricators Ltd., British Columbia Matt's Manufacturing Inc., Alberta Miller Technology Inc., Ontario Motivation Industrial Equipment Ltd., Ontario Sellick Equipment Ltd., Ontario Thomas Equipment Ltd., New Brunswick

3. Boom assemblies

Earl's Industries Ltd., British Columbia

4. Drilling equipment

Blasthole drills

Continuous Mining Systems Ltd., Ontario Drillex International of Canada Inc., Ontario Harnischfeger Corp. of Canada Ltd., British Columbia Midnight Sun Drilling Co. Ltd., Yukon Territory National Compressed Air Canada Ltd., Ontario Reedrill Inc. / Gardner-Denver, Ontario Tamrock EJC Canada Ltd., Ontario Westcoast Drilling Supplies Ltd., British Columbia Wilson Machine Company Ltd., Quebec

Blasthole drill consumables

Atlas Specialty Steels, Ontario

Drillex International of Canada Inc., Ontario National Compressed Air Canada Ltd., Ontario Reedrill Inc. / Gardner-Denver, Ontario Sandvik Rock Tools, Quebec Saxum Canada Inc., Ontario Westcoast Drilling Supplies Ltd., British Columbia Wilson Machine Company Ltd., Quebec

Drill inclination equipment

Canterra-Drill Systems, Alberta Drillex International of Canada Inc., Ontario Logan Drilling Ltd., Nova Scotia Midnight Sun Drilling Co. Ltd., Yukon Territory Reedrill Inc. / Gardner-Denver, Ontario Tamrock EJC Canada Ltd., Ontario

Pitwall dewatering

Dynatec International Ltd., Ontario

Rock boring equipment

Miller Technology Inc., Ontario

5. Haulage vehicles

Off-highway tow trucks

Hercules Equipment Ltd., British Columbia

Off-highway trucks, articulated

Canterra-Drill Systems, Alberta Chagnon International Ltd., Quebec Knight Trailer Company Inc., British Columbia Tamrock EJC Canada Ltd., Ontario

Off-highway trucks, bottom dump

Chagnon International Ltd., Quebec Knight Trailer Company Inc., British Columbia

Off-highway trucks, rear dump, electric

Canterra-Drill Systems, Alberta Chagnon International Ltd., Quebec Knight Trailer Company Inc., British Columbia

Off-highway trucks, rear dump, mechanical

B. McDowell Equipment Ltd., Ontario
Canterra-Drill Systems, Alberta
Chagnon International Ltd., Quebec
Challenger Manufacturing Ltd., British Columbia
Knight Trailer Company Inc., British Columbia
Tamrock EJC Canada Ltd., Ontario

Vehicle automation

Blackbox Automation Inc., Ontario Knight Trailer Company Inc., British Columbia Wenco International Mining Systems Ltd., British Columbia

6. Impact breakers

AMSCO Cast Products Inc., Quebec Highland Foundry Ltd., British Columbia Miller Technology Inc., Ontario Teledyne Canada Mining Products, Ontario

7. Mining engineering

AGRA Earth and Environment, Ontario Associated Mining Consultants Ltd., Alberta Bharti Laamanen Mining Inc., Ontario Citland Canada Ltd., Ontario Cominco Engineering Services Ltd., British Columbia Davy International Canada Ltd., Ontario Fenco MacLaren Inc., Ontario Golder Associates Ltd., British Columbia Hillsborough Resources Ltd., Ontario J. Kaehne & Associates Ltd., British Columbia John D. Smith Engineering Associates Ltd., Ontario John T. Hepburn Ltd., Ontario Kilborn Engineering Pacific Ltd., British Columbia Klohn-Crippen Consultants Ltd., British Columbia M. Slinn Engineering, British Columbia MacIsaac Mining and Tunelling Company, Ontario Met-Chem Canada Inc., Quebec Monenco AGRA Inc., Alberta New Era Engineering Corp., Yukon Territory Nisymco Inc., Quebec Pearson, Hofman & Associates Ltd., Ontario Plant Assistance Services Inc., Ontario Roche Ltd., Groupe-conseils, Quebec **Roscoe Postle Associates Inc., Ontario** SIDAM (1992) Inc., Groupe minier, Quebec Walter Dow Associates Ltd., Ontario Watts, Griffis and McOuat Ltd., Ontario

8. Monitoring and control

Pit design and simulation software

BLM Mincon Inc., Ontario
Citland Canada Ltd., Ontario
Gemcom Services Inc., British Columbia
Geostat Systems International Inc., Quebec
M. Slinn Engineering, British Columbia
Roche Ltd., Groupe-conseils, Quebec

Vehicle dispatch and monitoring systems

Blackbox Automation Inc., Ontario Hinz Consulting Ltd., Saskatchewan Wenco International Mining Systems Ltd., British Columbia

9. Opencast and open pit mining excavators

Bucket-wheel excavators

AMSCO Cast Products Inc., Quebec B. McDowell Equipment Ltd., Ontario Boundary Equipment Co. Ltd., Alberta Coast Steel Fabricators Ltd., British Columbia ESCO Ltd., British Columbia Krupp Canada Inc., Alberta

Continuous surface miners

Boundary Equipment Co. Ltd., Alberta

Draglines

AMSCO Cast Products Inc., Quebec B. McDowell Equipment Ltd., Ontario Boundary Equipment Co. Ltd., Alberta ESCO Ltd., British Columbia Harnischfeger Corp. of Canada Ltd., British Columbia

Hydraulic excavators

B. McDowell Equipment Ltd., Ontario Boundary Equipment Co. Ltd., Alberta

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ESCO Ltd., British Columbia Fab-Rite Services Ltd., British Columbia Harnischfeger Corp. of Canada Ltd., British Columbia Phoenix Piston Hydraulics Inc., Alberta

Mining shovels, electric

AMSCO Cast Products Inc., Quebec Boundary Equipment Co. Ltd., Alberta ESCO Ltd., British Columbia Fab-Rite Services Ltd., British Columbia Harnischfeger Corp. of Canada Ltd., British Columbia

Rope, wire

Wire Rope Industries Ltd., Quebec

Slope hoisting systems

John T. Hepburn Ltd., Ontario

Wheel loaders

B. McDowell Equipment Ltd., Ontario
Boundary Equipment Co. Ltd., Alberta
Leon-Ram Enterprises Inc., Saskatchewan
Miller Technology Inc., Ontario
Phoenix Piston Hydraulics Inc., Alberta
Thomas Equipment Ltd., New Brunswick

10. Shovel buckets, blades and wear parts

AMSCO Cast Products Inc., Quebec Baycar Steel Fabricating Ltd., Ontario ESCO Ltd., British Columbia **Fab-Rite Services Ltd., British Columbia Harnischfeger Corp. of Canada Ltd., British Columbia** Highland Foundry Ltd., British Columbia IMAC Design Group Ltd., British Columbia Limpact International Ltd., Ontario MacIsaac Mining and Tunelling Company, Ontario Valley Blades Ltd., Ontario

SECTION B: ACCESS

Canadian firms in the mining sector normally look for a local agent in order to sell their products and/or services. The second type of alliance or contact sought, in order of preference, is joint ventures, followed by distributors.

Canadian companies are very interested in the South American countries. This geographical region attracts 63% of the total number of firms active on these markets. ²² The South American countries of greatest interest to Canadians are Chile (41%), Venezuela (26%), Peru (23%), Brazil (19%), Argentina (15%) and Colombia (15%). These countries are also included in the 15 countries in which Canadian companies are most active. Guyana is of interest to 11% of these firms. It should be noted that interest is measured here in terms of the number of firms involved in trade with these countries, as opposed to the volume of their exports.

Despite their interest in the Guyanese market, many Canadian firms could never become established in Guyana or involved in trade with this country, given the difficulty in obtaining information possibly leading to identification of a business opportunity. We have already determined that the ideal time to sell mining sector products and services is the exploratory phase. During this period, the supplier can already begin to plan its sales, based on its evaluation of the anticipated needs of the mining company. However, it will have to overcome two major problems. The first relates to management of the licence granting process. This is often inefficient and the controls are lax. This means that not all companies are listed. There is also an additional problem relating to the inability of the authorities responsible for managing the mining heritage to specify the point in time when a project reaches the operational phase. However, for a company with a genuine interest in Guyana, there are several ways to get around these obstacles. The key to success lies in establishing contacts. We therefore recommend that potential suppliers keep abreast of current developments at least once a month. A number of Canadian mining companies are operating in Guyana and these should be the basis for a good business network. In addition, a number of trade publications, such as The Northern Miner, are excellent information sources. The Internet is also an efficient way to obtain information. For example, the Asian Development Bank has set up a Web site listing mining projects and their progress. We must, however, issue a warning concerning the sometimes misleading publications available to mining entrepreneurs. Mining companies sometimes add ore

²² The Department of Foreign Affairs and International Trade, in cooperation with CAMESE, listed a total of 293 Canadian companies in the mining sector in 1994. Of this total, 184 were then active in South America.

to the sample provided for laboratory analysis. As a result, the deposit is identified as having a content superior to its actual content, thus increasing the value. In other words, the price of shares in this mining company will rise substantially on the basis of fraudulent analyses. The shareholders will make money until the fraud is discovered and the mining product and service supplier will have spent time and money in vain in pursuing a non-existent business opportunity. It is therefore important for the supplier to be well acquainted with the people he is dealing with and obtain references as required.

Another way to obtain information is to purchase some shares in a mining company. These are inexpensive (\$0.50 per share) and automatically put the owner on the company's mailing list. The shareholder thus receives accurate information periodically and is kept abreast of all major developments concerning the mining company's operations.

SECTION C: DISTRIBUTION AND SHIPMENT

Most equipment shipped to Guyana arrives in the country by ship from the port of Houston in Texas. The route includes a stage on the Demerara[??] River as far as Lied, where the goods are transhipped. They are then carried by truck through the tropical forest to their final destination or to a barge or ferry. If necessary, the equipment is carried to the far shore to the consignee.

Canadian heavy machinery is usually shipped partly assembled to the United States (Houston). Given the large size of this equipment, transportation laws require that it be accompanied by a large convoy, which would result in heavy costs. The shipping costs and the related problems would therefore not justify selling this machinery, since no profits would be made. Heavy equipment from Canada is therefore assembled in the United States or even in Guyana itself. For example, Canadian electrical equipment is put together into a complex assembly and the electrical system is made up of a large number of components. Under industry practice, the contracting company assembles a pilot plant in Canada, which resembles the plant intended for Guyana in every way. Then after the project is tested and its performance evaluated and corrections made as required, the electrical power plant is gain assembled to facilitate shipping. On reaching its destination, the electrical power plant is again assembled in accordance with the plans and the experience gained in Canada with the pilot project.

Logistics

The mining industry has three main components: mining, processing and logistics. The latter component is of vital importance for the management of a mining company. Its influence was made clear to us during an interview with the management of OGML. Logistics is the most important aspect in this activity area, since mining and processing depend on it.

SECTION A: CUSTOMS AND CUSTOMS TARIFFS

To encourage investment in the mining sector, a number of incentives have already been established in the area of customs and applicable tariffs. In addition, with the elimination of tariff barriers - as a result of market globalization - it is also anticipated that export taxes will eventually be completely abolished. In the meantime, the following tariffs are still in effect for key mining sector machinery and equipment. A consumption tax is also applicable to imported goods.

1. TARIFFS

<u>Table 17</u>: Customs tariffs and consumption taxes on certain key mining sector equipment

Code	Item	Tariff (%)	Tax (%)
84.02.001	Steam or vapour generating boilers, nes	5	free
84.02.009	Parts of steam or vapor generating boilers, nes	5	free
84.13.70	Centrifugal pumps, nes	5	10
84.13.81	Pumps, nes	5	10
84.13.919	Parts of pumps for liquid, nes	5	10
84.19.90	Parts of machinery for the treatment of materials involving a change of T ^o	5	10
84.27.20	Self-propelled works trucks, nes	5	free
84.29.11	Bulldozers and angledozers, crawler type	5	free
84.29.19	Bulldozers and angledozers, nes	5	free
84.29.20	Graders and levellers	5	free
84.29.51	Front-end shovel loaders		free
84.29.52	Shovels and excavators with a 360° revolving superstructure		free
84.29.59	Self-propelled excavating machinery, nes	5	free
84.30.10	Pile-drivers and pile-extractors	5	free
84.30.31	Self-propelled rock cutters and tunneling machinery	5	free

Chapter 4: Regulatory Framework

Code	Item	Tariff (%)	Tax (%)
84.30.39	Rock cutters and tunneling machinery	5	free
84.30.41	Boring or sinking machinery, nes, self-propelled	5	free
84.30.49	Boring or sinking machinery, nes	5	free
84.30.50	Machinery, nes, self-propelled, for the treatment of metals/ore deposits	5	free
84.30.60	Machinery, nes, non-self-propelled, for the treatment of metals/ore deposits	5	free
84.31.10	Parts of the goods of tariff item 84.25	5	10
84.31.20	Parts of fork-lift and other works trucks fitted with lifting equipment	5	10
84.31.31	Parts of lifts, ship hoists or escalators	5	10
84.31.39	Parts of lifting, handling, loading or unloading machinery, nes	5	10
84.31.41	Parts of buckets, shovels, etc.	5	10
84.31.42	Bulldozer or angledozer blades	5	10
84.31.43	Parts of boring or sinking machinery, whether or not self-propelled	5	10
84.31.491	Parts of bulldozers, excavators and other machinery, nes	5	10
84.31.499	Other parts of machinery, nes	5	10
84.59.001	Milling machines, nes, numerically controlled for removing metal		free
84.74.10	Sorting, screening, separating or washing machines for stone, ores, etc.	5	free
84.74.20	Crushing or grinding machines for stone, ores, etc.	5	free
84.74.90	Parts of crushing, grinding, sorting, screening, separating or washing machines for stone/ores	5	free
84.79.89	Machines and mechanical appliances having individual functions, nes	5	10
84.79.90	Parts of machines and mechanical appliances having individual functions, nes	5	10
85.04.30	Electric power transformers, nes	5	free
85.04.40	Electric static converters	5	30
85.08.10	Drills, hand-held, with self-contained electric motor	5	30
85.08.80	Hand tools with self-contained electric motor	5	30
85.08.90	Parts of hand tools with self-contained electric motor	5	30
85.37.00	Boards, panels, etc. for the distribution of electricity	15	10
85.38.10	Boards, panels, etc. under tariff item 85.37, not equipped with their apparatus	20	10
86.09.00	Cargo containers designed to be carried by one or more modes of transport	5	10

Code	Item	Tariff (%)	Tax (%)
87.01.20	Road tractors for semi-trailers (truck tractors)	5	free
87.01.909	Wheeled tractors, used, nes	5	free
87.04.10	Dumpers designed for off-highway use	10	30
87.04.211	Trucks (max 5 tonnes), compression ignition (diesel/semi-diesel), approved	5	30
87.04.219	Trucks (max 5 tonnes), compression ignition (diesel/semi-diesel)	10	30
87.04.221	Trucks (5 to 20 tonnes), compression ignition (diesel/semi-diesel), approved	5	30
87.04.229	Trucks (5 to 20 tonnes), compression ignition (diesel/semi-diesel)	10	30
87.04.239	Trucks (exceeding 20 tonnes), compression ignition (diesel/semi-diesel)	10	30
87.04.311	Spark ignition trucks, approved	5	30
87.04.319	Spark ignition trucks, nes	10	30

Source: Tariff Schedule, 1994 & Various amendments, 1994-5.

Although the customs tariffs and consumption taxes presented in the above table are applicable, mining companies can obtain exemptions with the approval of the government departments in question. When special agreements are made, customs tariffs or consumption taxes may be eliminated.

2. PROCEDURE

When exported goods arrive in Guyana, responsibility for them is normally assumed by a customs broker, who sees to it that the appropriate documentation is provided and the required forms completed. It should be noted that in many cases the agents are themselves brokers and provide these customs clearance services (John Fernandes or Tecmarine, for example, for shipments by sea). However, if the exporter decides to undertake these procedures itself, it will have to be aware of the national requirements. Examples of completed forms and blank copies are provided in Annex D, to familiarize vendors with Guyanese procedures. However, we would like to bring the following points to the attention of Canadian exporters.

WORK SHEET

<u>Rot #</u>

This is the rotation number assigned to any international vessel or aircraft for commercial freight.

<u>D.O.R.</u>

"D.O.R." is an abbreviation for "Date of Report", the date of arrival at the destination.

F.O.B. Value on Invoice

Most business transactions with Guyana are on a C.I.F. (Cost, Insurance, Freight) basis. If, however, it is an F.O.B. (Free on Board) export, the exporter must enter the value of the goods shipped in the currency in which the transaction took place.

Frt. Ins. & Other Costs

This space is reserved for the value of the cargo and the insurance. Sometimes the goods are not insured. By government order, however, it is now mandatory to enter insurance of a minimum of 1% of the F.O.B. value of the goods. This rule was recently introduced by the value of goods evaluation committee and the Guyanese Customs and Excise Department.

C.I.F. Value

"C.I.F. Value" represents the total of the amounts on the two previous lines.

Rate of exchange

The official exchange rates for imports and exports of goods are 134 G\$/US\$ and 97 G\$/C\$. Customs duties must be paid in local currency, which accounts for the need to convert at the rate in effect.

<u>Item 1</u>

This part of the form is for details of the goods exported, using the international harmonized code. It should be noted that different items can be entered under the same number, provided

they can be grouped under the item description. It is therefore unnecessary to consider them separately.

FORM C72 (A), (B)

These two forms are complementary and Part B (Continuation Sheet) is only the continuation of the main form. Most of the information requested can be retranscribed from the Work Sheet. However, we would like to provide the following explanations to clarify or facilitate understanding of the customs documents.

<u>Regime</u>

The (import/export) regime is especially important for completing the form. Various codes are applicable. Further information is provided in Annex D.

Country of Origin

The code for Canada is "CAN". This is used to identify the origin of the exported goods.

Chapter 4: Regulatory Framework

B/L or AWB No.

"B/L or AWB No." is an abbreviation for Bill of Lading or Air Waybill No. It is mandatory for these documents to accompany the goods, and they are required by the Customs and Excise Department to clear the goods shipped. (An example is provided in Annex D).

Once the goods reach their destination, the consignee has 30 days to claim its property. If this deadline is not met, the goods are sold by auction after three months. However, if the goods are to be re-exported to another destination, they can be stored for 90 days subject to the deposit of an amount covering 100% of the applicable customs duties.

SECTION B: TECHNICAL STANDARDS

In view of its status as a so-called "developing" country, Guyana is highly dependent on the international organizations for loans and other types of financial liquidity. However, these favours are normally subject to conditions. Thus, when the Guyanese government requests a certain sum of money to implement a mining project, an organization such as the International Monetary Fund will in return require compliance with specific standards, usually North American or European standards. Restrictions of this kind are more and more common. Recipient countries have therefore decided to adopt these standards, whether or not on a voluntary basis. Accordingly, most of the mining equipment and machinery shipped to Guyana will already have been approved by such associations as the CSA (Canadian Standards Association), ANSI (American Standards Institute), ISO (International Standards Organization), BS (British Standards), OSHA (Occupational Safety and Health Association), IEEE (Institute of Electrical and Electronic Engineers) and/or UL (Underwriters Laboratories).

A list of these standards applicable in Canada for various mining sector products is provided below.

Standard Number	Area of application
CAN3-C13-M83	Instrument Transformers
CAN3-C13.1-M79	Capacitor Voltage Transformers
CAN3-C17-M84	Alternating Current Electricity Metering
CAN3-C155-M84	Shunt Capacitors for AC Power Systems
CAN3-C235-83	Preferred Voltage Levels for AC Systems, 0 to 50,000 V
CAN3-Z107.54-M85	Procedure for Measurement of Sound and Vibration Due to Blasting Operations
CAN3-Z271-M84	Safety Code for Suspended Powered Platforms
CAN/CSA-C2-M91	Single-Phase and Three-Phase Distribution Transformers, Types ONAN and LNAN
CAN/CSA-C22.2 No.0.392	Test Methods for Electrical Wires and Cables
CAN/CSA-C22.2 No.4-M89	Enclosed Switches

Table 18: Canadian and international standards relating to the mining sector

Chapter 4: Regulatory Framework

Standard Number	Area of application
CAN/CSA-C22.2 No.5.1-M91	Moulded Case Circuit Breakers
CAN/CSA-C22.2 No.5.2-M90	Moulded Case Switches
CAN/CSA-C22.2 No.48-M90	Nonmetallic Sheathed Cable
CAN/CSA-C22.2 No.49-92	Flexible Cords and Cables
CAN/CSA-C22.2 No.96-M92	Portable Power Cables
CAN/CSA-C22.2 No.108- M89	Liquid Pumps
CAN/CSA-C22.2 No.122- M1989	Hand-Held Electrically Heated Tools
CAN/CSA-C22.2 No.126- M91	Cable Tray Systems
CAN/CSA-C22.2 No.130.1- M90	Heat-Tracing Cable Systems for Use in Industrial Locations
CAN/CSA-C22.2 No.157-92	Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations
CAN/CSA-C22.2 No.165-92	Electric Boilers
CAN/CSA-C22.2 No.239- M91	Control and Instrumentation Cables
CAN/CSA-C22.2 No.241-	IEEE Standard for Cable joints for Use with Extruded Dielectric Cable Rated
M91	5,000 V Through 46,000 V and Cable joints for Use with Laminated Dielectric
(IEEE 404)	Cable Rated 2,500 V Through 500,000 V
CAN/CSA-C22.2 No.242-92	IEEE Standard Test Procedures and Requirements for High-Voltage Alternating-
(IEEE 48)	Current Cable Terminations
CAN/CSA-C49.1-M87	Round Wire, Concentric Lay, Overhead Electrical Conductors
CAN/CSA-C68.1-92	Impregnated Paper-Insulated Metallic-Sheathed Cable, Solid Type
CAN/CSA-C88-M90	Power Transformers and Reactors
CAN/CSA-C156.1-M86	Ceramic and Glass Station Post Insulators
CAN/CSA-C156.3-M86	Test Methods for Station Post Insulators
CAN/CSA-C227.2-88	Three-Phase, Live-Front, Pad-Mounted Distribution Transformers
CAN/CSA-C227.3-M91	Low-Profile, Single-Phase, Dead-Front, Pad-Mounted Distribution Transformers
CAN/CSA-C411.1-M89	AC Suspension Insulators
CAN/CSA-G4-92	Steel Wire Rope for General Purpose and for Mine Hoisting and Mine Haulage
I	

Chapter 4: Regulatory Framework

Standard Number	Area of application
CAN/CSA-M421-93	Use of Electricity in Mines
CAN/CSA-M422-M87	Fire-Performance and Antistatic Requirements for Conveyor Belting
CAN/CSA-M423-M87	Fire-Resistant Hydraulic Fluids
CAN/CSA-M427-M91	Fire-Performance and Antistatic Requirements for Ventilation Materials
CAN/CSA-M430-90	Roof and Rock Bolts, and Accessories
CAN/CSA-Z94.1-92	Industrial Protective Headwear
CAN/CSA-Z94.3-92	Industrial Eye and Face Protectors
CAN/CSA-Z107.32-M86	Test Procedure for the Measurement of Sound Emitted from Construction, Forestry, and Mining Machines to the Operator Station and Exterior of the Machine
CAN/CSA-Z195-M92	Protective Footwear
CAN/CSA-Z256-M87	Safety Code for Material Hoists
CAN/CSA-Z259.1-95	Safety Belts and Lanyards
CAN/CSA-Z275.3-M86	Occupational Safety Code for Construction Work in Compressed Air

Source: CSA Catalogue 1996, December 1995

SECTION C: BUSINESS LAW

1. FORMATION OF A FIRM

There are three main ways for Guyanese companies or foreign companies established in Guyana to form a firm: individual business or sole proprietorship, partnership and limited company. The financial risk associated with the first form of organization is extremely high, since the proprietor assumes unlimited liability for his firm's financial obligations. An individual enterprise is also the simplest way to form a firm and does not involve a long process to set it up. In fact, the procedures can be completed in a single day, through a registration under the *Business Name Registration Act 95.1 Laws of Guyana*. Limited companies are governed by the 1995 *Companies Act*. The owners of such firms benefit from limited liability. In other words, their personal assets cannot be seized to pay creditors in the case of a bankruptcy. We should add that in order to incorporate a limited company, the owners will have to consult a lawyer who will ensure completion of the appropriate actions and procedures. Unlike the two other types of firm formation, partnerships are uncommon in Guyana.

2. TAX SYSTEM

Under a Canada-Guyana double taxation agreement, Canadian investors can become established in Guyana and operate their businesses without being subject to unnecessary taxation. In other words, this agreement avoids excessive taxation of the profits of Canadian companies. This is therefore an additional incentive to setting up operations in Guyana.

For further information on taxes in force, please refer to Annex D.

3. INVESTMENT AND PARTNERSHIPS

Management of the exploitation of Guyana's mineral resources is governed by the 1989 Mining Act, which came into force in 1992 and covers all mineral reserves other than petroleum. When a company sets up in the Guyanese mining sector, it must negotiate all the contract terms before undertaking any prospecting activities. A typical agreement will consist of the following:

a mining prospecting licence for three years covering an area of 50 km²;

- © conversion of the expired prospecting licence into a 20-year mining licence;
- ☆ a commitment by the mining company to operate in such a way as to generate production of US\$1.5 million over a three-year period;
- $\label{eq:phi}$ the firm is entitled to terminate its operations at the end of any year.

Bilateral relations between Canada and Guyana are excellent, which must inevitably contribute to facilitating investments and partnership agreements between these two countries. It should be borne in mind that it was a Canadian initiative that led to Guyana's receiving international aid in the 1980s, at a time when the country was in a deep economic slump. The least expensive form of partnership for a Canadian company would be to identify an agent or distributor for the purpose of exporting mining products and equipment. Little use has so far been made of franchising. It should be noted that there is also a strong demand for joint venture agreements, which allow the Canadian entrepreneur to remain in control and closely supervise management of its operations.

4. REPATRIATION OF PROFITS

Foreign investors are subject to a 6.25% dividend tax in order to limit to some extent the repatriation of operating profits. However, this "constraint" can be avoided if the foreign company elects to invest an amount equivalent to the tax in other mining prospecting projects in Guyana, in compliance with the Mining Act.

CHAPTER 5: MAIN RESOURCE PERSONS

CANADIAN GOVERNMENT

STANDARDS COUNCIL OF CANADA

Customer Service Division 45, O'Connor Street, Suite 1200 Ottawa, Ontario K1P 6N7 CANADA Tel. : (613) 238-3222 Fax : (613) 995-4564 Contact : Fadly Barsoum, Information Officer

CANADIAN HIGH COMMISSION

Young and High Streets (P.O. Box 10880) Georgetown Cooperative Republic of Guyana Tel. : (592-2) 72081 Fax : (592-2) 58380 Contact : Lyris Primo, Commercial Officer

BEPARTMENT OF FOREIGN AFFAIRS AND INTERNATIONAL TRADE

Latin America and Carribean Trade Division Lester B. Pearson Building 125 Sussex Drive Ottawa, Ontario K1A 0G2 CANADA Tel. : (613) 943-8807 Fax : (613) 943-8806 Contact : **Tom Bearss**, International Trade Officer

Resources Canada

Mining Sector 460 O'Connor Street Ottawa, Ontario K1A 0E4 CANADA Tel. : (613) 947-6580 Fax : (613) 952-7501 Contact : Gilles Couturier, Senior Economist, Precious Metals

GOVERNMENT OF GUYANA

13P	HIGH COMMISSION FOR GUYANA				
	151, Slater Street, Suite 309				
	Ottawa, O	Ottawa, Ontario			
	K1P 5H3	СА	NADA		
	Tel.	:	(613) 235-7249		
	Fax	:	(613) 235-1447		
	Contact	:	Ms. Jennifer L. Wills, First Secretary		

POTENTIAL CUSTOMERS

AGRO PARTS MINING EQUIPMENT 236 W 1/2 South Road Lacytown, Georgetown Cooperative Republic of Guyana Tel. : (592-2) 61280 Fax : (592-2) 61280

AMATUK TRADING CO. LTD. 23

149 Pike Street Kitty, Georgetown Cooperative Republic of Guyana Tel. : (592-2) 78579 Fax : Non disponible

■ AQUATIC PROTECTION PRODUCTS ²⁴

2 Charles Street Charlestown, Georgetown Cooperative Republic of Guyana Tel. : (592-2) 59749 Fax : (592-2) 59749

Among a wide range of products, Aquatic Protection Products sells water pumps used in the mining sector, imported from the United States under the "Briggs & Stratton" trademark. The CEO of this firm is Mr. Salim Khan.

This company imports mining sector machinery and equipment which it purchases in batches solely from the United Kingdom. In other words, Amatuk submits an overall tender in response to the needs of a specific mining company. Mr. Jahman Persaud (Director of Amatuk's Mines Division) has indicated genuine interest in Canadian and American products. He is planning to take a trip soon to explore the potential for dealing with North America. His major customers are small and medium entrepreneurs. He sells good quality new, used or reconditioned products. During a telephone discussion, he indicated that "Berkeley" brand pumps are very well known to Guyanese consumers. However, they are too expensive (US\$3,500) for most local entrepreneurs, given their relatively small incomes. There would therefore be a definite potential for pumps of a competing brand.

S CAMS

132 Regent Road Bourda, Georgetown Cooperative Republic of Guyana Tel. : (592-2) 59074 Fax : Not available

CENTRAL GARAGE OF GUYANA LTD.

7 Avenue of The Republic Robbstown, Georgetown Cooperative Republic of Guyana Tel. : (592-2) 62401 Fax : (592-2) 57896

CROWN MINING SUPPLIES

163 Crown Street Queenstown, Georgetown Cooperative Republic of Guyana Tel. : (592-2) 64213 Fax : (592-2) 54768

JOHIL COMMERCIAL & TRANSPORT AGENCY

27 North Road Bourda, Georgetown Cooperative Republic of Guyana Tel. : (592-2) 75350 Fax : Not available

Caracteristic sector of the se

59 Grant 1806 Crabwood Creek Corentyne Cooperative Republic of Guyana Tel. : (592-39) 2449 Fax : Not available

Chapter 5: Main resource persons

MACORP MACHINERY CORPORATION OF GUYANA

26 Providence Village East Bank Demerara Cooperative Republic of Guyana Tel. : (592-65) 4887 Fax : (592-65) 4885

In addition to retailers of mining products and equipment, the mining companies established in Guyana are also important potential customers (see Annex F).

SECTOR EXPERTS AND AGENTS

BANKS AND OTHER CREDIT INSTITUTIONS

BANK OF BARODA

10 Avenue of the Republic Stabroek, Georgetown Cooperative Republic of Guyana Tel. : (592-2) 64005 Fax : (592-2) 72627

BANK OF GUYANA

Avenue of the Republic Stabroek, Georgetown Cooperative Republic of Guyana Tel. : (592-2) 63251 Fax : (592-2) 72965

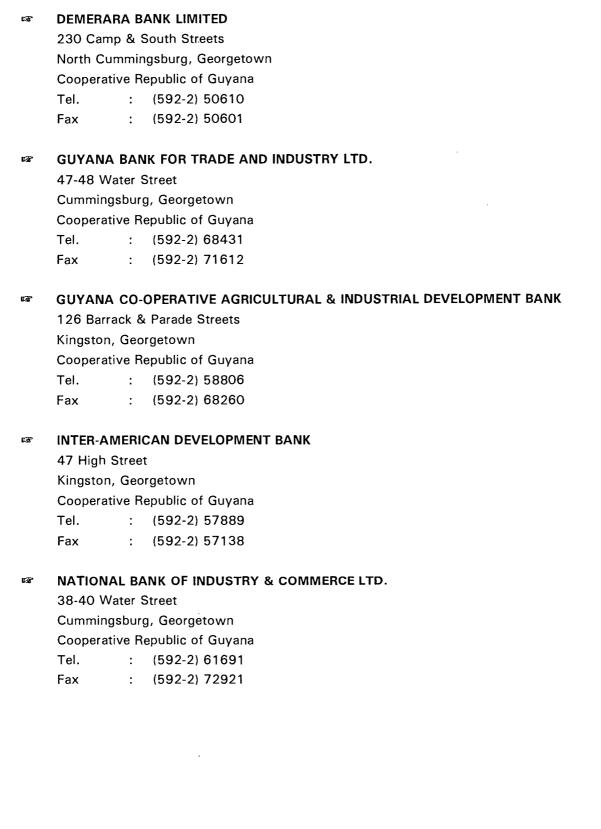
SANK OF NOVA SCOTIA

Regent & Hincks Streets Robbstown, Georgetown Cooperative Republic of Guyana Tel. : (592-2) 62633 Fax : (592-2) 57985

STATES CITIZENS BANK (GUY) LTD

201 Camp & Charlotte StreetsNorth Cummingsburg, GeorgetownCooperative Republic of GuyanaTel.: (592-2) 61705Fax: (592-2) 61719

Chapter 5: Main resource persons



LEGAL FIRMS

BOSTON & BOSTON

2 Croal Street Stabroek, Georgetown Cooperative Republic of Guyana Tel. : (592-2) 58248 Fax : (592-2) 59905

CAMERON AND SHEPHERD

2 Avenue of the Republic (P.O. Box 10109) Newtown, Georgetown Cooperative Republic of Guyana Tel. : (592-2) 62671 Fax : (592-2) 67809

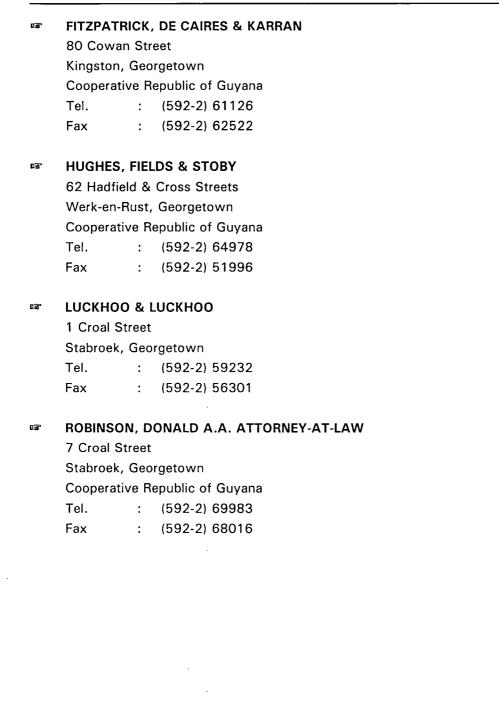
CHAPMAN & TROTMAN

228 South Street Lacytown, Georgetown Cooperative Republic of Guyana Tel. : (592-2) 65043 Fax : (592-2) 70994

CLARKE & MARTIN

7 Brickdam & Manget Place Stabroek, Georgetown Cooperative Republic of Guyana Tel. : (592-2) 64055 Fax : (592-2) 63907

Chapter 5: Main resource persons



ACCOUNTING FIRMS

BARCELLOS, NARINE & CO.

 106 Lamaha Street

 (P.O. Box 10829)

 North Cummingsburg, Georgetown

 Tel.
 : (592-2) 58915

 Fax
 : (592-2) 65340

BISHESWAR & CO.

212 Camp StreetNorth Cummingsburg, GeorgetownCooperative Republic of GuyanaTel.: (592-2) 62078Fax: (592-2) 62079

BOB DHORAY & CO.

185 Charlotte & King StreetsLacytown, GeorgetownCooperative Republic of GuyanaTel.: (592-2) 68508Fax: (592-2) 68508

CHRISTOPHER L. RAM & CO.

157 C Waterloo Street Cummingsburg, Georgetown Cooperative Republic of Guyana Tel. : (592-2) 60322 Fax : (592-2) 54221 .

Ľ3₽	DELOITTE & T	TOUCHE			
	77 Brickdam				
	Brickdam, Geo	orgetown			
	Coooperative	Republic of Guyana			
	Tel. :	(592-2) 63226			
	Fax :	(592-2) 57578			
GP	JACK A. ALLI	, SONS & CO.			
	145 Crown &	Oronoque Streets			
	Queenstown, Georgetown				
	Cooperative R	epublic of Guyana			
	Tel. :	(592-2) 62904			
	Fax :	(592-2) 53849			
137	KPMG PEAT N	IARWICK			
	65 Main Stree	t			
	Kingston, Geo	rgetown			
	Cooperative Republic of Guyana				
	Tel. :	(592-2) 78825			
	Fax :	(592-2) 78824			
137	L. A. ATHERL	Y & CO.			
	64 Brickdam				
	Stabroek, Georgetown				
	Cooperative R	epublic of Guyana			
	Tel. :	(592-2) 58981			
	Fax :	(592-2) 51059			
13	PRICE WATER	HOUSE			
	145 Crown St	reet			
	Queenstown, Georgetown				
	Cooperative R	epublic of Guyana			
	Tel. :	(592-2) 62904			
	Fax :	(592-2) 53849			

W. N. JAMES ASSOCIATES

64 Middle Street Lacytown, Georgetown Cooperative Republic of Guyana Tel. : (592-2) 61218 Fax : (592-2) 75653

CONSULTING FIRMS

CHC JAMES & CO LTD

 42 Robb Street
 Bourda, Georgetown
 Cooperative Republic of Guyana
 Tel. : (592-2) 62409
 Fax : (592-2) 62409
 Contact : Clarence James, Director

COLORADO SCHOOL OF MINES

 1500 Illinois Street

 Golden, Colorado

 80401
 USA

 Tel.
 : (303) 273-3000

 Fax
 : (303) 674-6631

 Contact
 : Dr Eul-Soo Pang, Ph. D.

Image: Consulting Geologists and Mining Profiles

1835 Alkire Street Golden, Colorado 80401 USA Tel. : (303) 232-1553 Fax : (303) 232-1553 Contact : **Dr Fred Barnard**, Consultant

INSTITUTE OF APPLIED SCIENCE AND TECHNOLOGY

UG Compound

Turkeyn,	Geor	getown
Tel.	:	(592-22) 4214
Fax	:	(592-22) 4229

Contact : Roshandeen Habibullah, Director

VANGUARD CONSULTING LTD.

Box 172 101-1184 Denman Street Vancouver, British Columbia V6G 1M9 CANADA Tel. : (604) 681-3234 Fax : (604) 681-4166 Contact : David Koffin, President

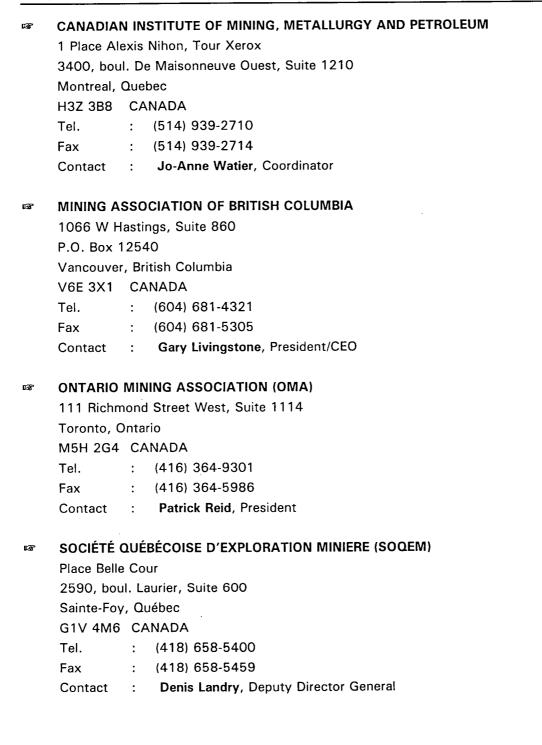
ASSOCIATIONS

1 37	4th INT'L	SYN	1POSIUM ON MINE PLANNING AND EQUIPMENT SELECTION
	Calgary, A	lber	ta
	CANADA		
	Tel.	:	(403) 691-6426
	Fax	:	(403) 241-9460
	Contact	:	Dr. Raj Singhal
	Dates	:	October 31 to November 3, 1995
		CVN	ADOCULA ON MINE DIANNING AND FOLIDMENT SELECTION

5th INT'L SYMPOSIUM ON MINE PLANNING AND EQUIPMENT SELECTION Sao Paulo, Brazil

Tel.	:	(55-11) 818-5322
Fax	:	(55-11) 818-5721
Contact	:	Prof. Wildor Hannies
Dates	:	October 22 to 25, 1996

1 4	MINING A	ASSOCIATION OF CANADA	
	350 Spar	ks Street, Suite 809	
	Ottawa, C	Dntario	
	K1R 7S8	CANADA	
	Tel.	: (613) 233-9391	
	Fax	: (613) 233-8897	
	Contact	: George C. Miller, President	
LGP	CANADIA	N ASSOCIATION OF MINING EQP'T AND SERVICES EXPORTERS (CAMESE)	
	345 Renfr	rew Drive, Suite 101	
	Markham,	, Ontario	
	L3R 9S9	CANADA	
	Tel.	: (905) 513-0046	
	Fax	: (905) 513-1834	
	Contact	: R. Spencer Ramshaw, Market Analyst	
5	"KEEP MI	NING IN CANADA" CAMPAIGN	
	Mining As	ssociation of Canada	
	1 Eglintor	Avenue East, Suite 700	
	Toronto, (Ontario	
	M4P 3A1	CANADA	
	⊤el.	: (416) 480-7342	
	Fax	: (416) 483-4945	
	Contact	: Eileen Wykes, Coordinator	
6	MACHINE	RY AND EQUIPMENT MANUFACTURERS ASSOCIATION OF CANADA	
	116, rue /	Albert, Suite 701	
	Ottawa, C	Intario	
	K1P 5G3	CANADA	
	Tel.	: (613) 232-7213	
	Fax	: (613) 232-7381	
	Contact	: Lloyd Beverly, President	



BUSINESS SERVICES

ALLIANCE OF MANUFACTURERS AND EXPORTERS CANADA

75 International Boul., Suite 400
Toronto, Ontario
M9W 6L3 CANADA
Tel. : (416) 798-8000
Fax : (416) 798-8050
Contact : Stephen Van Houten, President

CANADIAN IMPORTERS ASSOCIATION INC.

210 Dundas Street West, Suite 700

Toronto, Ontario

M5G 2E8 CANADA

Tel. : (416) 595-5333

Fax : (416) 595-8226

Contact : Donald McArthur, President

BERBICE CHAMBER OF COMMERCE AND DEVELOPMENT ASSOCIATION LTD.

5-19 Coburg Street

P.O. Box 19

New Amsterdam, Berbice

Tel. : (592-3) 2880

Fax : (592-3) 4151

Contact : Ramaish Nauth, President

SECTOR PERIODICALS

TRADE PERIODICALS COVERING THE SECTOR

CIM Bulletin ICM

The Canadian Mining and Metallurgical Bulletin Canadian Institute of Mining, Metallurgy and Petroleum Tour Xerox 3400, boul. De Maisonneuve Ouest, Suite 1210 Montreal, Quebec H3Z 3B8 CANADA

I The Hard Rock Analyst

Vanguard Consulting Ltd. Box 172 101-1184 Denman Street Vancouver, British Columbia V6G 1M9 CANADA

TRADE MAGAZINES SPECIALIZING IN BUSINESS ISSUES

CanadExport
 Department of Foreign Affairs and International Trade
 125 Sussex Drive
 Ottawa, Ontario
 K1A 0G2 CANADA

We hope that this document has enabled you to define your interests in the Guyanese market with greater precision. There is no doubt that business opportunities exist for Canadian mining companies. In addition, as we have indicated in the report, relations between Canada and Guyana are excellent and Canadian entrepreneurs should build on this advantage to conclude business agreements that benefit both the host country and Canada. Furthermore, relations between the two countries were further cemented by the recent official visit to Canada by the President of Guyana. We therefore hope that this favourable environment will result in greater cooperation between Canada and Guyana and even more, with all the Latin American and Caribbean countries.

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Fred Barnard, Consultant, Colorado

Colleen Braithwait, OGML, Public Communications

Réjean Gourde, OGML, Vice-President/CEO

John Clarke, OGML, Mine Superintendent

Ralph Hammond, OGML, Director of logistics and procurement

Jerry Kaehne, J. Kaehne & Associates, President

Eric Konigsmann, OGML, Plant Director

Lyris Primo, Canadian High Commission in Guyana, Commercial Officer

Vivananban Rangarajan, BIDCO

Stanhope Williams, OGML, Public Communications

William Woolford, Guyana Geology and Mines Commission

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- ANNEX A: MAPS
- **ANNEX B:** STATISTICAL TABLES
- **ANNEX C:** STATISTICAL GRAPHS
- ANNEX D: CUSTOMS PROCEDURES
- **ANNEX E: MACHINERY AND EQUIPMENT**
- **ANNEX F: EXPORT PERMITS**
- ANNEX G: SYLLABUS OF COMPANIES
- ANNEX H: ADDITIONAL INFORMATION

ANNEX A: MAPS

Map 1: Map of Guyana

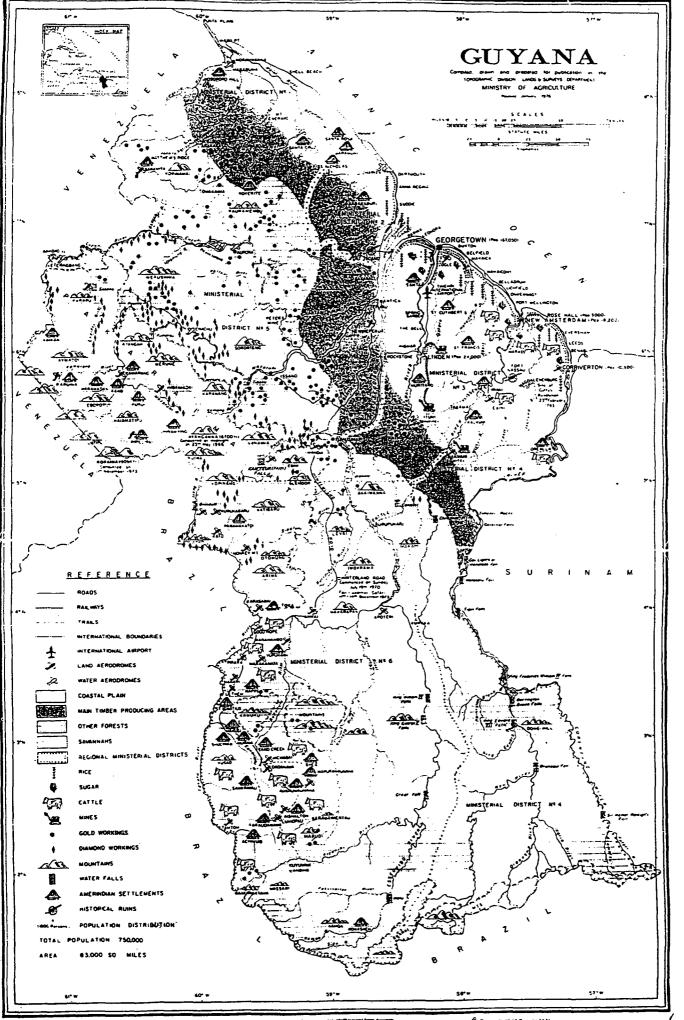
Map 2: OMAI Gold Project

ANNEXE A: CARTES

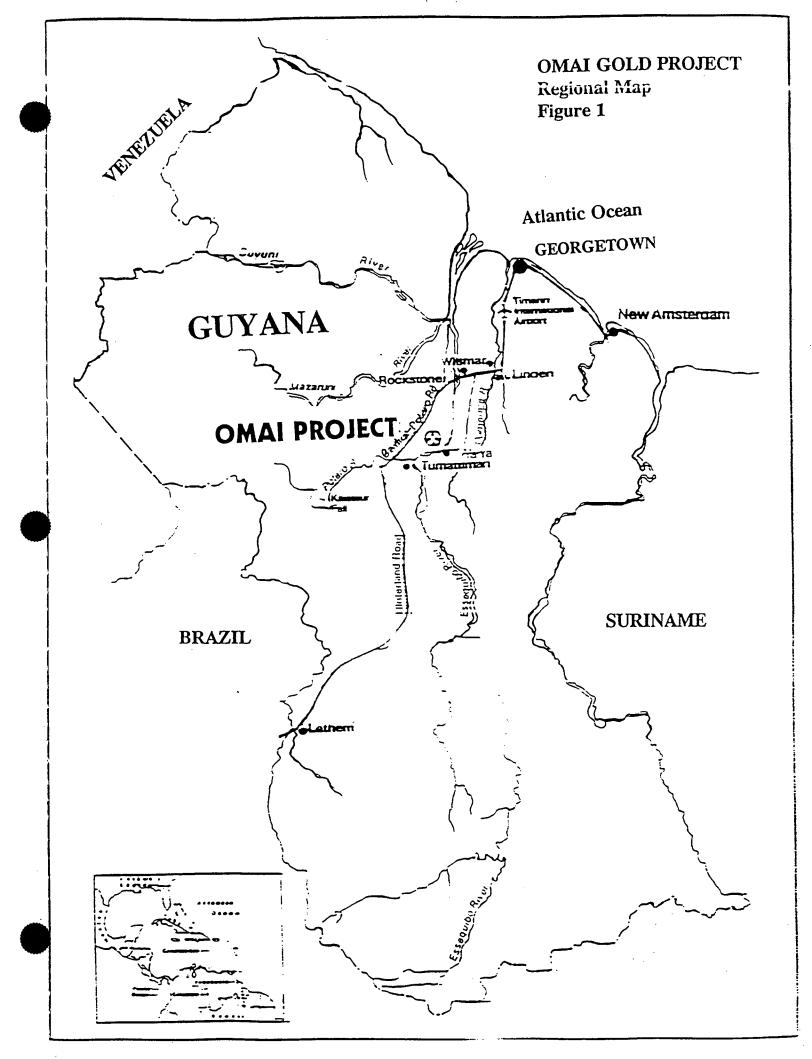
Carte 1: Carte géologique de la Guyane

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Carte 2: Le projet OMAI



6 cm ent of Guyana 1976



ANNEX B: STATISTICAL TABLES

Imports by End Use (c.i.f.) (M\$G Table 1(a): Table 1(b): Imports by End Use (Summary) (M\$ G) Table 1(c): Imports by End Use (Summary) (M\$ US) Table 2: Rate of Change (G\$/US\$) Destination of Major Exports for 1991 Table 3(a): Table 3(b): Destination of Major Exports for 1992 Table 3(c): Destination of Major Exports for 1993 Table 3(d): Destination of Major Exports for 1994 Table 4: Diamond production between 1993-1994 Domestic Exports (G\$M) Table 5(a): Table 5(b): Domestic Exports (US\$M) Table 6: Classification of political risk associated with top 40 producers of mineral resources Table 7: April 1996 - Manpower Summary (Linmine) Table 8: Table 9: Canadian Exports from Guyana (1995)

Tableau 1(a): Importations de la Guyane selon l'usage final (millions G\$)

				C	ONSUME	R GOOD	s			INTERMEDIATE GOODS CAPITAL GDODS														
					BLE	SEMI- DURABLE		DURABLE											1		,			
Period	Total	Total	Food for House- holds	Bev. & Tob.	Other	Cloth. 8 Foot- wear	Other	Motor Cars	Other	Total	Fuels & Lubri- cants	Foods For Indus- try	Chemi- cals	Tex- tiles	Parts & Acces- somes	Other	Total	Agrı.	(Indus- trial	Trans- port	Min- ing	Build- ing	Other	Misc.
						7.5		42.2	12.6	79.0	23.0	7.7	15.0	15.0	••••••••••••••••••••••••••••••••••••••	17.5	96,6			67.3		26.2	3.1	
1970	268.2 267.2	92.6 102.6	30 3 j 35.2 j		•	7.5	•	42.2 46.4	13.3	86.3	23.0	9,3	22.4	13.8	0.0	17.5	78.3			50,4	•	20.2	2.8	
1971 1972	207.2	102.0	33.4			7.9		49.9	15,9	100.7	28.1	9.1	25.3	20.7		17.5	90.1			60.0		25.8	4.3	
1973	372.5	121.6	40.2			8.1		51.8	21.5	144.0	48.2	17.1	33,7	23.9	0.6	20.5	106.9			72.7		29.2	5.0	
1974	567.0	108.0	44.1	3.3	21.9	10.4	13.2	4.9	10,2	311.0	103.5	40.8	37.8	26.2	23.7	79.0	143.0	7.5	4.1	21.3	25.1	43.6	41.4	5.0
1975	810.61	131.6	48.2	4.2	28.8	15.1	18.7	7.3	9.3	414.1	135.0	51.8	46.5		48.9	100 0	260.6	26.2	9,8	43.9	51.1	72.1	57.5	4.3
1976	927.5	185.3	56.8	6.1	36.0	19.1	20.2	11.9	15.2	450.3	137.5	68.2	46.8	42.8	53.4	101.6	303.0	10.3	16,4	48.0	47.4	91.8	89.1	8.9
1970	800.3	142.9	84.9	2.6	32.9	15.2	13.2	6.2	7.9	411.0	160.4	51.4	38.8	27.2	46.2	87.0	222.4	2.5	22.0	54.0	38.7	52.6	52.8	24.0
1976	711.1	130.9	62.6	1.9	32.9	11.7	12.4	2.3	7.1	421.1	169.9	48.8	42.6	27.6	43.6	88.6	153.6	2.9	29.2	15.7	18.9	45.2	41.7	5.5
1979	609.8	147.2	62.2	2.8	38.6	12.2	18.7	4.1	8.6	511.5	230.0	64.1	39.0	29.4	49.9	99,1	146.0	5.6	9.9	21.8	19.3	51.8	37.6	5.1
1980	1010.4	130.0	62.3	5.2	24.8	11.4	10.1	8.9	9,3	682.3	360.8	65.4	36.2	29.9	70.0	120.2	193.4	20.0	9.5	23.0	32.1	32.4	76.4	4.7
1981	1207.6	180.9	65.4	4.4	33.1	18.2	17.9	11.5	12.4	850.9	430.7	65.6	62.0	37.2	101.2	154.2	187.3	20.6	19.2	30.3	10.2	58.2	48.8	8.5
1982	842.4	111.0	36.9	2.6	18.8	18.9	8.6	8.2	16.8	584.7	328.5	35,5	45.6	13.6	74.3	87.2	138.6	11.9	27.7	22.8	28	38.5	36.9	8.1
1983	738.3	65.2								534.7	319.5					215.2	131.3	•••						7.1
1984	811.5	84.6	24.3	4.2	27.1	9.7	4.8	7.6	6,9	615.8	412.6	16.7	45.8	12.4	48.6	· 79.7	103.3	16.8	7.8	10,9	4.4	29.5	34.1	7.8
1985	959.6	93.5	17.5	4.2	30.1	8.7	9.9	12.4	10.7	694.1	432.4	14.4	51.8	8,1	95.5	92.1	160.4	26.2	16.1	24.0	20.2	35.6	38.3	11.6
1986	1030.0	110.0								711.0	314.0					397.0	203.0							8.0
1987	2590.0	262.0								1781.0	769.0	•.				1012.0	521.0			···				28.0
-1988	2158.0	216.0			·					1487.0	738.0					749.0	431.0							22.0
1969	7012.0	702.0								3737.0	2034.0					1703.0	2498.0					.]		75.0
1990	12290.0	1467_0								5123.0	2788.0	.,				2335.0	5520.0							180.0
1991	34274.9	8566.5	979.6	362.5	464.5	980.0	1256.8	1324.1	1221.0	12132.6	7507.0	102.4	385.0	141.5	2981.6	1015.1	13928.8	2763.3	2470.3	2502.3	3487.6	1408.3		1825.0
1992	55319.6	10634.1								19561.2	9859.3					9721.9	22492.8				.			2811.7
1993	61378.0	13059.7	3404.8	348.6	1789.7	1008.5	645.3	1242.6	4620.2	26663.1	10232.6	1784.5	3144.8	701.0	4181.5	6618.7	21456.1	4789.8	2042.1	5974.0	1463.7	2378.8	4807.7	197.1
1994	70000.6	15260.5							,	30173.1	11382.6					18790.5	17194.9							7372.1
1995	74911.5	•	[i			<u>.</u>							1	L	<u></u>							L

IMPORTS BY END-USE (c.I.f.) (G\$ MILLION)

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Source: Statistical Bureau

Tableau 1(b): Sommaire des importations de la Guyane selon l'usage final (M G\$)

IMPORTS BY END-USE (Summary) (c.i.f) (G\$ MILLION)

[Other		7
Period	Total	Consumer	Fuel &	Inter-	Capital	Misc.
	Imports	Goods	Lubricants	mediate	Goods	Imports
1974	567.0	108.0	103.5	207.5	143.0	5.0
1975	810.6	131.6	135.0	279.1	260.6	4.3
1976	927.4	165.3	137.5	312.7	303.0	8. 9
1977	800.3	142.9	160.4	250.6	222.4	24.0
1978	711.1	130.9	169.9	251.2	153.6	5. 5
1979	809.8	147.2	230.0	281.5	146.0	5.1
1980	1010.4	130.0	360.6	321.7	193.4	4.7
1981	1207.6	160.9	430.7	420.2	187.3	8.5
1982	842.4	111.0	328.5	256.2	138.6	8.1
1983	738.3	65.2	319.5	215.2	131.3	7.1
1984	811.5	84.6	412.6	203.2	103.3	7.8
1985	959.6	93.5	432.4	261.7	160.4	11.6
1986	1030.0	110.0	314.0	397.0	203.0	6.0
1987	2590.0	262.0	769.0	1012.0	521.0	26.0
1988	2156.0	216.0	738.0	749.0	431.0	22.0
1989	7012.0	702.0	2034.0	1703.0	2498.0	75.0
1990	· 12290.0	1467.0	2788.0	2335.0	5520.0	180.0
1991	34274.9	6588.5	7507.0	4625.6	13928.8	1625.0
1992	55319.8	10634.1	9859.3	9721.9	22492.8	2611.7
1993	61376.0	13059.7	10232.6	16430.5	21456.1	197.1
1994	70000 .6	15260.5	11382.6	18790.5	17194.9	7372.1

Source: Statistical Bureau

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Tableau 1(c):

Sommaire des importations de la Guyane selon l'usage final (M G\$)

IMPORTS BY END-USE (Summary) (c.i.f) (US\$ MILLION)

Period	Total Imports	Consumer Goods	Fuel & Lubricants	Other Inter- mediate	Capital Goods	Misc. Imports
						•
1974	222.4	42.4	40.6	81.4	56.1	2.0
1975	317.9	51.6	52.9	109.5	102.2	1.7
1976	363.7	64.8	53.9	122.6	. 118.8	3.5
1977	313.8	56.0	62.9	98.3	87.2	9.4
1978	278.9	51.3	66.6	98.5	60.2	2.2
1979	317.6	57.7	90.2	110.4	57.3	2.0
1980	396.2	51.0	141.4	126.2	75.8	1.8
1981	. 431.3	57.5	153.8	150.1	66.9	3.0
1982	280.8	37.0	109.5	85.4	46.2	2.7
1983	246.1	21.7	106.5	71.7	43.8	2.4
1984	213.6	22.3	108.6	53.5	27.2	2.1
1985	223.2	21.7	100.6	60.9	37.3	2.7
1986	239.5	25.6	73.0	92.3	47.2	1.4
1987	265.5	26.9	78.8	103.7	53.4	2.7
1988	215.6	21.6	73.8	74.9	43.1	2.2
1989	256.8	25.7	74.5	62.4	91.5	2.7
1990	310.9	37.1	70.5	59.1	139.6	4.6
1991	306.5	58.9	67.1	41.4	124.6	14.5
1992	442.7	85.1	78.9	77.8	180.0	20.9
1993	483.8	102.8	80.7	129.5	169.2	1.6
1994	504.0	110.4	82.3	135.9	124.4	53.3

Source: Statistical Bureau

(G\$/US\$)

	GUYANA	
YEAR	PERIOD	PERIOD
	ENDED	AVERAGE
1970	2.0053	2.0034
1971	2.0417	1.9779
1972	2.2194	2.0866
1973	2.2433	2.1062
1974	2.2190	2.2269
1975	2.5500	2,3554
1976	2.5500	2.5500
1977	2 5500	2.5000
1978	2.5500	2.5000
1979	2.5500	2 5000
1980	2.5500	2.5000
1981	3 0000	2.8125
1982	3 0000	3.0000
1983	3 0000	3,0000
1903	4 1500	3.8316
1985	4.1500	4.2519
1985	4.1300	4.2724
1987	10.0000	9,7558
1987		
	10.0000	10.0000
1989	33.0000	27.1588
1990	45.0000	39.5333
1991	122,7500	111.8000
1992	126.0000	125.0000
1993	130.7500	130.1600
1994	142.5000	138.2333
1995	140.5000	141.9025
1994		
Mar.	132,7500	131.8800
Jun.	132.7500	131.8800
Sep.	141.2500	141.4100
Dec.	141.2500	141.2500
Dec.	142.5000	142.3000
1995	·	
Jan.	142.7500	142.6900
Feb.	143.0000	142.8300
Mar.	143.5000	143.3500
Apr.		
	143.2500	143.2800
May	143.7500	143.7200
Jun.	143.7500	143.7500
Ju!.	142.5000	142.9400
Aug.	139.7500	140.9400
Sep.	140.2500	140.2200
Oct.	139.5000	139.9500
Nov.	139.5000	138.9300
Dec	140.5000	140.2300

Source: Bank of Guyana

Tableau 3(a): Destination des exportations guyanaises en 1991

GUYANA: DESTINATION OF MAJOR EXPORTS FOR 1991 (I.a.b.) (G\$)

				MAJ	OR INDUSTRALI	SED COUNTRIES							
PRODUCTS	TOTAL EXPORTS		<u>NON -</u>	E. E. C.		•	E. E. C	2		CARICOM	C.M.E.A. 1)	REST OF	
		TOTAL	U.S.A	CANADA	JAΡΛΝ	TOTAL	<u> </u>	GERMANY	OTHERS			THE WORLD	
Sugar	10,474,198,000	-	-	-	-	10, 474, 198,000	10, 474, 198,000	-	-	-	-	-	
Rice	2,102,834,777	-	-	-	-	1,618,601,650	73,492,965		1,545,108,685		17, 986, 139		
Bauxile	8,952,905,796	4,084,235,418	2,536,552,557	446,302,354	1,101,380,507	2,364,030,034	625,799,052	613,741,230	1,124,489,752	-	73, 845, 897	2,430,794,447	
Goid	2,308,202,000	2,308,202,000		2,308,202,000	-	-	-	-	-	-	-	-	
Diamond	152,537,858	65, 521, 138	65, 521, 138	-	-	87,016,720	- 1	-	87,016,720		-	-	
Rum & Other Spirits	286,185,454	223,430,717	31,750,998	191,679,719		59,673,847	59,67 3,8 47	- '	-	3,080,890	-	-	
Nuerai Sprits	17,265,533	-		-	-	14, 803, 306	14,803,306	-	-	2,462,227	-	-	
Bottled Products	4,981,205	· -	-	-	-	-	-	-	-	4,961,205	-	-	
Timber	456,765,181	83, 999, 219	63, 278, 908	720,313	-	172,689,434	170,971,690	-	1,717,744	213,229,913	6,846,615	- 1	
Drugs & Pharmaceuticais	140,754,000	20,609,000		3,815,000	-	6,637,000	6,637,000	- 1	-	106,854,000	-	6,654,000	
Wiidille & Aquarum Fish	75, 418, 509	50, 567, 189		72,708	6,458,028		8,095,340	6,431,694	10, 263, 736		-	- 1	
Manufacturing	466,455,429	128,950		128,950	-	147,920	-	-	147.920		31,772,252	4,952,688	
Textle & Ciothing	232,528,826	178,269,965	66,254,713	1 12,015,252	-	2,575,923	2,309,186	266,735	-	50, 937, 588	743,350	-	
Food & Beverages	92,210,444	4,293,026	1,274,119	341,164	2,677,743		721,332	-	53, 728, 113		-	300	
Other Exports	137,408,839	44,769,584	44, 446, 280	323,304	-	91, 111,064	38, 470, 474	124,000	52, 516, 590		-	190,000	
Fish	623,197,836	211,991,044	207,060,428	4,930,616	-	23,944,174	-	-	23,944,174	323,064,230		64, 178, 386	
Strimp Products	2,028,229,490	1,909,070,271	1,775,530,019	926,509	132,613,743	5,672,653	-	-	5,872,653	108,400,622	-	2,885,944	
Tctal	2 <u>8,</u> 549,657, 177	9,165,087,521	4,850,499,611	3,069,457,689	1,245, 130,021	15,000,541,940	1 1, 475, 172, 194	620,563,659	2,904,806,087	1,726,477,502	131,194,253	2,526,555,961	

Source: Guyana Rice Export Board, Guyana Sugar Corporation, Guyana Mining Enterprise, Guyana Gold Board, Guyana Forestry Commission, Ministry of Agriculture (Fisherles Division), Demerara Distillerles Limited, Carlobean Molasses Company Limited and Bank of Guyana.

1) Council lor Mutual Economic Assistance (Socialist Countries).

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Tableau 3(b): Destination des exportations guyanaises en 1992

GUYANA: DESTINATION OF MAJOR EXPORTS FOR 1992 (1.o.b.)*

	TOTAL		MAJOR INDUSTRALISED COUNTRIES										
PRODUCTS	EXPORTS		NON -	<u>E.E.C.</u>			<u> </u>	CARICOM	REST OF				
		TOTAL	U.S.A.	CANAOA	JAPAN	TOTAL	<u>U.K.</u>	GERMANY	OTHERS	·	THE WORLD		
Sugar	16,596,700,000	-				-							
Rice	4,307,661,654	-		·		-							
Bauxte	12,083,087,795	-		(<u></u>		-							
Gold	3,092,747,629	-				- 1							
Diamond	384,669,511	-				-			•••				
Timber	468, 135, 6 13	-				_							
Mohsses	-	-				-	1						
Shrimp	1,627,994,622					_			***				
Fish& Fish Products	867,347,726	-				_			•••				
Rum & Other Spirits	861,526,210	· _	1]	1				•••				
Fruits & Vegeta bies	69,7 17,000	_				_							
Widife	161,256,000	_	1						***				
Pharmateuticais	668,417,000	-		•••			•••		•••				
Garments & Clothing	6 19, 130,000	-	····	•••									
Personal Effects	1,609,000	<u> </u>		•••	•••		1 A		•••				
Freezers, Cookers &	1,009,000			•••		-			·				
Refildgerators	140,336,000	-				_							
Wood Products	60,756,000	-		•••		-			•••				
Handloat	5,296,000	-		••.									
Nibbi Furniture	11, 108,000	-) (•••		-			•••				
	306,242,000	_	·	•••		_			•••				
Prepared Foods Other	3,066,640,040	-		•••		-			•••		•••		
Unior	3,000,840,040	-		•••		-				·			
Totai	45,423,000,000	_	-	-	_	-	-	-		_	_		

Source: Guyana Sugar Corporation, Guyana Rice Export Board, LINMINE, BERMINE, Guyana Gold Board, Omai Gold Mines, Guyana Geology & Mines, Guyana Forestry Commission, Caribbean Molasses Company and Statistical Bureau

Tableau 3(c): Destination des exportations guyanaises en 1993

GUYANA: DESTINATION OF MAJOR EXPORTS FOR 1993 (I.o.b.)* (G\$)

	TOTAL			1		Γ					
PRODUCTS	TOTAL EXPORTS		NON -	E.E.C.			E. E. C.			CARICOM	REST OF
		TOTAL	U.S.A.	CANADA	JAPAN	TOTAL	U.K.	GERMANY	OTHERS		THE WORLD
Sugar	14,800,727,177	1,698, 198,7 15	642,273,921	1,055,924,794	-	12,533,656,034	12,533,656,034	_	_	568,872,428	
Rice	4, 144, 478, 889			-	-	1,321,952,596	326,636,079	-	995.3 16.5 17	7 17,797,222	-
Bauxte	11,548,706,440	-				-					2, 104,729,07
Gold	12,739,589,895	12,739,589,895	-	12,739,589,895	-	-	-	_			•••
Diamond	508,418,460	35,851,865	35,226,815	625,050	-	47 1,77 8,962	-	- 1	47 1,778,962	_	787,633
Timber	568, 109,911	103,545,155	99,345,385	5 15,278	3,684,492	18 1,897,885	130,052, 107	-	51,845,778	182.870.750	99,796,121
Molasses	180,093,559	35,665,257	35,665,257	-	-	42,553,404	42,553,404	-	-	101.874.898	
Shrimp	1,446, 16 1,644	-				-					
Fish & Fish Products	706,596,945	-				-				•••	
Rum & Other Spirits	1, 183, 15 1, 158	-				-					•••
Fruits & Vegetables	69,547,051	-				-	·				•••
Widlife	91,381,579	- []			-					•••
Pharmaceuticals	109,269,398	-				- 1					•••
Garments & Clothing	761,466,397	-				- 1					•••
Personal Effects	3,863,299	-									
Freezers, Cookers &											•••
Refridgerators	127,460,263	- '		•	•	-					
Wood Products	49,380,108	-				. –					
Handicraft	14,8 12,767	-	`			-					•••
Nibbi Furniture	10,0 13,926	-				-					
Prepared Foods	369,954,553	-				-					
Other	2,726,480,647	-				-					· •••
Total	52, 159,664,066	14,6 12,850,887	8 12,5 1 1,378	13,796,655,017	3,684,492	14,551,838,881	13,032,897,624	-	1,5 18,94 1,257	1,57 1,4 15,298	2,205,3 12,825

Source: Guyana Sugar Corporation, Guyana Rice Export Board, LINMINE, BERMINE, Guyana Gold Board, Omai Gold Mines, Guyana Geology & Mines, Guyana Forestry Commission, Caribbean Molasses Company and Statistical Bureau.

Tableau 3(d): Destination des exportations guyanaises en 1994

				M	AJOR INDUST	RALISED COUNTRIES	S					
PRODUCTS	TOTAL EXPORTS		NON · E	E.E.C.			E. E. C	CARICOM	REST OF			
		TOTAL	U.S.A.	CANADA	JAPAN	TOTAL	U.K.	GERMANY	OTHERS		THE WORLD	
Sugar	0 16,127,713,856	332927567 2,544,198,091	875,895,303	1,668,302,766	•	13,250,568,198	•	-	13,250,588,198	332,927,587	•	
Rice Bauxite	7,331,861,896 11,038,454,846	•	-	•	•	2,258,889,735	702,177,901	•	1,554,691,634	469,921,126	4,605,091,035	
Gold	17,502,543,741	17,502,543,741	•	17,502,543,741	•		•	•	•		•	
Diamond Timber	362,603,250 1,042,918,344	55,365,512 148,831,226	55,365,512 148,110,546	- 720,680	•	185,592,704 140,645,366	- 139,355,028	•	185,592,704		121,845,034	
Molasses	63,437,040			-	•	*		•	1,290,338	359,051,490 63,437,040	394,390,262	
Shrimp Fish & Fish Products	1,601,912,820 502,234,739	•				•						
Rum & Other Spirits	1,547,923,012	-			•••					•		
Fruits & Vegetables Midilfe	125,375,848 44,778,301				•••	-						
Pharmaceuticais	65,474,477	•			•••	•	•••	•••				
Garments & Clothing Personal Effects	749,324,737 3,791,171	:			•••		••• •••		•••	•		
Freezers, Cookers & Refridgerators	79,438,450											
Nood Products	2,082,774,948							••• •••				
Handicraft Nibbi Fumiture	18,544,574 19,700,305	•				•					•••	
Prepared Foods	451,555,773					•		•••				
Dther	740,190,396	-										
Total	61,702,570,524	20,250,938,570	1,079,371,361	19,171,567,209	•	15,833,696,003	841,532,929	-	14,992,163.074	1,225,337,223	5,121,126,331	

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GUYANA: DESTINATION OF MAJOR EXPORTS FOR 1994 (f.o.b.)* (G\$)

Source: Guyana Sugar Corporation, Guyana Rice Export Board, LINMINE, BERMINE, Guyana Gold Board, Omai Gold Mines, Guyana Geology & Mines, Guyana Forestry Commission, Caribbean Molasses Company and Statistical Bureau.

Tableau 4: Production mensuelle de diamants entre 1993 et 1994

Production de diamants (en carats)						
	1993					
Janvier	7,761					
Février	79					
Mars	2,800					
Avril	6,705					
Mai	0					
Juin	6,456					
Juillet	2,261					
Août	4,288					
Septembre	1,922					
Octobre	6,059					
Novembre	5,126					
Décembre	327					
Total	43,784					
	1994					
Janvier	3,597					
Février	2,889					
Mars	3,168					
Avril	2,297					
Mai	659					
Juin	5,710					
Juillet	420					
Août	521					
Septembre	2,433					
Octobre	3,534					
Novembre	2,711					
Décembre	2,356					
Total	30,295					

Source: Bureau de la statistique, 1994

DOMESTIC EXPORTS (f.o.b.) (G\$ MILLION)

PERIOD	TOTAL	BAUXITE	SUGAR	RICE	S.∹RIMP	TIMBER	MOLASSES	RUM 2)	GOLD	OTHER
1974	592.0	198.2	284.8	49.0	8.2	5.4	9.9	11.5	-	25.0
1975	840.5	271.9	413.1	84.8	10.4	9.7		16.7	-	28.3
1976	695.2	288.8	258.7	73.6	12.9	9.7	6.0	12.8	-	32.7
1977	651.8	331.0	185.7	66.8	12.3	9.1	5.8	8.8	-	32.3
1978	739.9	332.0	234.6	96.0	12.4	10.9	8.9	11.6	-	33.5
1979	736.6	326.8	230.6	80.8	17.6	14.3	13.1	15.1	_	38.3
1980	976 .5	479.5	307.6	87.5	7.8	16.2	12.3	20.5	-	45.1
1981	953.6	427.4	305.9	110.0	2.7	15.6	12.9	20.6	-	58.5
1982	696.9	282.8	263.6	60.7	2.6	14.8	6.3	14.0	-	52.1
1983	563.3	218.9	214.6	64.9	4.2	13.2		10.8		34.4
1984	811.5	350.9	271.5	81.6	4.7	14.7		21.6	16.6	46.4
1985	882.9	421.6	282.3	56 6	18.3	17.9		29.6	17.2	37.4
1986	953.3	351.4	356.2	57.2	23.9	17.7		32.4	62.3	47.2
1987	2596.5	ត41.0	910.8	155.2	265.8 1)			94.5	165.8	112.2
1988	2295.8	820.5	712.2	139.1	231.1	28.2		82.5	184.0	96.0
1989	6123.2	2021.5	2342.0	367.4	608.9 006 1	89.1		209.7	193.1	290.1
1990	10207.9	3172.1	3219.6 10474 2	513.2	906.1	181.4 456.7		393.8 308.7	993.5 2308.2	826.3 1920.2
1991	28549.9	8952.9 12083.0	16598.7	2102.7 4307.9	2026.3 1628.1	456.7		861.5	3092.8	6382.8
1992	45423.0	1.1548.7	14800.7	4307.5	1446.2	400.2 568.1	180 1	1183.2	12739.6	5548.6
1993 1994	52159.7 61702.6	11038.5	16227.7	7331.9	1801.9	1042.8	63.4	1547.9	.17502.5	5146.0
1995	67674.9	11986.7	17573.0		388.1	1035.7	46.5	559.3	13425.5	12417.7
1990									•	
1st Qtr	1816.8	682.7	654.3	133.2	149.6	9.2		95.2	33.3	58.6
2nd Qtr	2172.9	695.0	503.7	195.0	347.2	54.5		25.0	209.4	142.3
3rd Qtr	2493.6	886.8	751.0	71.8	216.5	34.0		4.3	305.6	223.6
4th Qtr	3724.6	907.6	1310.6	113.2	192.8	83.7	0.4	269.3	445.2	401.8
1991 1st Qtr	4070.6	1746.8	6'40.0	168.3	383.9	44.9		20.3	478.0	388.4
2nd Qtr	7653.8	2505.5	2427.0	754.4	573.5	150.5]	166.5	596.8	479.6
3rd Qtr	7422.7	2637.9	2513.2	448.4	544.5	118.9		15.0	558.5	586.3
4th Qtr	9402.8	2062.7	4694.G	731.6	524.4	142.4	-	106.9	674.9	465.9
1992										
1st Qtr	9364.6	3152.1	3672.3	647.0	497.6	103.0		219.3	488.0	585.3
2nd Qtr	9151.7		2698.7	797.5		72.1	-	194.1	745.2	1141.1
3rd Qtr 4th Qtr	12769.6 14137.1	3106.6 2754.7	4655.5 5572.2	1089.4 1774.0	416.2 280.9	154.4 138.7		176.6 271.5	805.6 1054.0	2365.3 2291.1
1993										
1st Qtr	9025.9	2780.7	1916.4	788.3	251.8	137.1	42.5	280.7	1404.0	1424.4
2nd Qtr	12229.3	2973.6	2391.4	949.9	263.8	132.2		394.7	2854.7	2261.0
3rd Qtr	14873.5	3281.3	4714.4	1156.5	429.1	177.5		212.0	3946.6	921.4
4th Qtr	16031.0	2513.1	5778.5	1249.8	501.5	121.3	94.9	295.8	4534.3	941.8
1994*					400.0				2470.4	094.0
1st Qtr	12020.5	2613.4	2792.2	1342.4	436.0	136.4		238.9 271.2	3470.4 4788.9	984.8 1112.2
2nd Qtr	13381.8	2432.3	1608.1	2307.2	485.9	353.3 313.7		271.2	4/68.9	1310.4
3rd Qtr 4th Qtr	16367.5 19932.8	3051.7 2941.1	5355.3 6472.1	952.0 2730.3	458.1 421.9	239:4	1	778.2		1738.6
1995 *										
1st Qtr	13286.5		2833.2		388.1	216.3		261.4		1848.4
2nd Qtr	16297.6	2836.5	4538.0			349.8		297.9		.514.5
3rd Qtr	14937.9		3494.2			245.6		·	3363.1	2793.9
4th Qtr	23152.9	3234.0	6707.6	4271.4	L	224.0	14.0		1441.0	7260.9

Source: Bank of Guyana and Statistical Bureau

From 1987 figures include exports from non-residents.
 Includes Neutral Spirit.

Tableau 5(b): Exportations domestiques (millions US\$)

DOMESTIC EXPORTS (f.o.b.) (US\$ MILLION)

PERIOO	TOTAL	BAUXITE	SUGAR	RICE	SHRIMP	TIMBER	MOLASSES	RUM 2)	GOLO	OTHER
1974	232.2		111.7	19.2		2.1				9.8
1975	329.6		162.0	33.3		3.8		6.5	-	11.1
1976	272.8		101.5	28.9		3.8				12.8
1977	255.7		72.8	26.2				3.5	-	12.7
1978	290.1		92.0 90.4	37.6 31.7		4.3 5.6		4.5 5.9	-	13.1
1979	288.8 382.9		120.6	34.3		6.4			-	15.0 17.7
1980	382.9 340.7		109.3	39.3		5.6			-	20.9
1981 1982	232.4	94.3	87.9			4.9			-	20.5
1983	187.8		71.5	20.2		4.4		3.6		11.5
1984	213.5					3.9			4.4	12.2
1985	205.5		65.7			4.2		6.9	4.0	8.7
1986	221.7					4.1		7.5	14.5	
1987	266.4		93.4		27.3 1)				17.0	
1988	229.6			13.9		2.8			18.4	
1989	224.4			11.7		2.9		7.0	6.8	107
1990	250.1		79.9			4.5		10.6		
1991	254.4		89.8	18.0	18.6	4.0		2.6	21.4	177
1992	363.5	97.1	134.1	35.0	13.0	3.7		7.0	24.6	48.9
1993	404.0		116.3	33.0		4.5		9.3	99.8	37.2
1994	447.4		116.4	55.6	13.1	7.9		11.5	128.0	34.5
1995	47 <u>8.9</u>	82.9	125.5	76.5	2.7	8.3	0.4	3.9	94.7	84 0
1990 1st Qtr	54.9	20.7	19.8	4.0	4.5	0.2		2.9	1.0	1.8
2nd Qtr	56.9					1.6		1.6	0.0	4.1
3rd Qtr	55.5					0.8		0.1	6.8	5.0
4th Qtr	82.8		29.1	2.5		1.9		6.0	9.9	8.9
1991										
1st Qtr	55.3		11.4	2.3	5.2	0.6		0.3	6.5	5.3
2nd Qtr	61.2	20.1	19.4	6.0	4.6	1.2		1.3	4.8	3.8
3rd Qtr 4th Qtr	61.1 76.8	21.7 16.8	20.7 38.3	3.7 6.0	4.5 4.3	1.0 1.2		0.1 0.9	4.6 5.5	4.8 3.8
	70.0	10.0	30.5	0.0	4.5	1.2	_	0.5	J.J	5.0
1992 1st Qtr	75.6	25.4	30.0	5.3	4.0	0.8		1.8	3.9	4,4
2nd Qtr	73.0		21.7	6.5	3.5	0.8		1.6	5.9	8.6
3rd Qtr	102.6		38.1	8.9	3.3 3.3	1.2		1.4	6.5	18.1
4th Qtr	112.2			14.4	2.2	1.1	-	2.2	8.3	17.1
1993										
1st Qtr	71.9	22.1	15.1	6.4	2.0	1.1	0.3	2:2	11.2	11.
2nd Qtr	90.1	23.6	18.9	7.5	2.1	1.0		3.1	22.6	11.
3rd Qtr 4th Qtr	117.2	25.9	37.1 45.2	9.2 9.9	3.4 3.9	1.4		1.7	31.1	7. 7
•	124.8	19.5	40.2	9.9	3.9	1.0	0.7	2.3	34.9	
1994* 1st Qtr	91.2	19.7	21.1	10.7	3.3	1.1	0.1	1.8	26.2	7.
2nd Qtr	94.8	17.5	11.9	17.4		2.7	0.2	1.9	34.3	
3rd Qtr	116.3		37.9	7.1	3.2	2.3		2.4	33.8	
4th Qtr	145.1	21.1	45.5	20.4	2.9	1.8		5.4	33.7	
1995*		10.0	-							
1st Qtr	<u>93</u> 6	16.3	20.2	9.8 22 7	2.7	1.6		1.8	28.2	12
2nd Qtr 3rd Qtr	115.9	19.7 23.8	31.8			2.6		2.1	32.5	
4th Qtr	106.3 163.1	23.8	25.0 48.5	11.1 31.9		2.5 1.6			23.7 10.3	20 47

Source: Statistical Bureau and some Government Agencies NB: Quarters do not add to annual amounts due to different weights used.

<u>Tableau 6</u>: Classification du risque politique associé aux 40 premiers pays producteurs de ressources minières

	Contexte macroéconomique	Environnement légal	Régime fiscal	Environnement commercial	Réglementation minière & géologique	Moyenne
Chili	10	10	10	10	10	10
Australie	10	10	10	10	10	10
Botswana	9	9	10	9	8	9
Canada	9	9	8	10	9	9
Malaisie	10	7	7	10	9	9
Thaïlande	10	8	88	9	8	8.6
Indonésie	10	7	8	8	9	8.4
Pérou	10	9	9	6	7	8.2
Mexique	10	8	8	7	8	8.2
Argentine	10	7	9	9	7	8
GROUPE A						8.8
Bolivie	7	8	7	6	10	7.6
Kazakhstan	7	6	8	7	9	7.4
Turquie	6	7	7	8	9	7.4
Ghana	5	7	8	7	9	7
Jamaïque	6	7	7	7	8	7
Guinée	7	6	7	7	7	7
Namibie	7	6	6	7	7	6.6
Zambie	6	7	6	5	7	6.2
Afrique du Sud	7	6	5	5	8	6.2
GROUPE B						6.2
Costa Rica	5	5	6	6	6	6
Guyane	5	6	5	6	6	5.6
Honduras	5	4	4	8	7	5.6
Sierra Leone	6	6	4	6	6	5.6
Zaïre	6	6	4	5	7	5.6
Mali	5	6	5	6	6	5.6
Mauritanie	5	6	4	6	7	5.6
Suriname	5	5	3	7	7	5.4
Brésil	5	2	4	8	8	5.4
Équateur	5	5	4	6	6	5.2
GROUPE C						5,6
Angola	2	3	3	4	6	3.6
Tanzanie	2	3	2	4	5	3.4
Chine	2	2	3	4	5	3.2
Russie	2	1	2	3	5	2.6
Vietnam	2	1	3	3	3	2.4
Albanie	1	2	2	1	3	2
Myanmar	2	2	2	1	3	2
Mozambique	2	2	1	2	2	1.8
Mongolie	2	0	1	1	2	1
Iran	2	1	1	0	1	1
GROUPE D	1					2.3

Source: Eul-Soo Pang, août 1994.

Risk Table by Eul-Soo Pang

The risk table is built by Eul-Soo Pang. The following five groups of variables are weighed: (a) macroeconomic fundamentals include - exchange and interest rates; inflation, revenues, money supplies, debt-export ratio; (b) legal framework - foreign ownership, restrictions on exit, joint venture regulations, right of expatriating capital and profits; (c) fiscal regimenumber of taxes, corporate tax rates, royalties, capital gain tax, windfall & additional tax; (d) business environment - social and physical infrastructure, mining tradition & mentality; and (e) geology & mining regulations, environmental rules.

Each one of these five categories is rated numerically, using the Price model, with 10 being risk-free and 0 being the most risky.

Data for the variables come from the following sources: country's mining, environmental codes, foreign investment laws; U.S. Bureau of Mines commodity summaries; USGS country reports; US Department of State country reports; annual and quarterly reports of central banks; World Bank's world tables; IMF debt tables; Bank of America's country forecast and outlook; International Business Communications's Survey; the Economist's Country Forecasts; American Bureau of Metals Statistics; and proprietary data generated by Eul-Soo Pang in the fields.

- Group A : at least four of the above five categories are good to excellent (8 to 10)
- <u>Group B</u> : three of the five criteria are good (6.5 to 7.9)
- <u>Group C</u> : two of the five categories are good to fair (5 to 6.4)
- <u>Group D</u>: one of the five criteria is good and basically accepts foreign investment but cannot offer the safety and profitability of capital (0 to 4.9).

MANPOWER - APRIL 1996										
	Staff Technic			nnical	ical Industrial			sual	Total	
DIVISION	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget
Mining	92	101	2	4	609	696	12	15	715	816
Processing	41	43	0	0	319	297	24	2	384	342
Product Quality	13	11	1	2	56	65	0	3	70	81
Maintenance	9	9	0	0	46	58	0	0	55	67
Service Shops	10	12	0	2	133	147	10	0	153	161
Power	12	15	1	1	133	142	1	2	147	160
Administration	37	40	19	22	225	254	0	0	281	316
Finance	60	76	3	5	96	132	4	2	163	215
Marketing	2	3	0	0	0	0	0	0	2	3
TOTAL	276	310	26	36	1,617	1,791	51	24	1,970	2,161

Tableau 7: Situation de l'emploi chez Linmine par département en avril 1996

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Source: BIDCO, 1996

Abbréviations

PP : Permis de prospection

PO : Permis d'opération

PA : Production additionnelle (en onces)

	1995	1996	1997	1998	1999	2000
PP aux moyennes entreprises	1,650	1,900	2,200	2,500	2,900	3,300
PO aux moyennes entreprises	-	-	38	44	50	58
PA des moyennes entreprises	– .	_	456,000	528,000	600,000	696,000
PP aux grandes entreprises	30	40	44	48	53	58
PO aux grandes entreprises	-	_	1	1	1	1
PA des grandes entreprises			100,000	100,000	100,000	100,000
Production annuelle locale	105,000	110,000	116,000	128,000	134,000	141,000
Production annuelle de OGML*	270,000	300,000	300,000	300,000	300,000	300,000
Production totale estimée	385,000	410,000	972,000	1,056,000	1,134,000	1,273,000

Les estimations précédentes sont basées sur les hypothèses suivantes:

Moyennes entreprises

- PP : Croissance annuelle estimée à 15%
- PO: 2% des PP conduiront à l'octroi d'un PO

Production additionnelle moyenne estimée à 12,000 onces / an par PO

Grandes entreprises

PP : Croissance annuelle estimée à 10%

PO: 2.5% des PP conduiront à l'octroi d'un PO

Production additionnelle moyenne estimée à 100,000 onces / an par PO

Croissance annuelle de la production locale estimée à 5%

* Production annuelle moyenne de OGML après l'expansion du site

5010100	IIS Canadierino	s en provenance de la Guyane /				
nadian	exports from G	uyana				
		Description	Unit of		Value	Quantity
			measure	Province	(Cdn \$)	Quantity
'ear	HS Code		INMB	ON	17,910	
95		Centrifugal pumps nes	NMB	ON	2,681	
95	84138100	Pumps nes Bakery ovens, including biscuit ovens, non-electric	NMB	ON	13,900	
95	84172000	Refrigerators, household type, absorption-type, electrical	NMB	ON	300	
95	84182200	Reingerators, nouseriou type, absolption ypo, occurrent		ON	126,346	
95	84186900	Refrigerating or freezing equipment nes Mach for fil/clos/seal/etc.btle/can/box/ bag or ctnr nes, mach for aerating bev	NMB	QC	17,534	
95	84223000	Mach for fivelos/seavere bue/carboor bag or can nos, maxing the barry	NMB	BC	100,014	
95	84272000	Self-propelled works trucks nes	NMB	BC	114,040	
95	84291100	Buildozers and angledozers, crawler type	NMB	BC	141,205	
95	84295200	Shovels and excavators with a 360 revolving superstructure		ON	9,000	
95	84295900	Self-propelled excavating machinery nes		BC	320,717	
95	84304100	Boring or sinking machinery nes, selfpropelled		QC	148,132	
95	84304100	Boring or sinking machinery nes, selloppelled		ON	41,693	
95	04242000	Darte of lifting handling loading or unloading machinery, nes		AB	22,618	
95	84314300	Parts of boring or sinking machinery, whether or not self-propelled		BC	30,879	
95	84314300	Parts of boring or sinking machinery, whether or not self-propelled		ON	305,847	
95	04244200	Date of boring or sinking machinery, whether of hot self-property		QC	65,788	
95		To the sine or einking machinery whener or not sen-property		BC	4,898	
95	84314900	Parts of cranes, work-trucks, shovels, and other construction machinery	NMB	ON	7,500	
95	04000400	Doubley incubators and brooders		ON	73,422	
95	04200040	And when a bodicultural machinery, nes, incligermination plant		AB	82,860	
95	84381010	Machinery for the mig of macaroni, spagnetti or sim prous, nes		ON	160,787	
95	A 40 4000			ON	8,575	
95		The stream and for the mit of contectionery, COCO2 OF CITYCOMIC		ON	8,850	
- 95				ON	2,603	
			NMB	ON	6,787	
95 95			NMB	ON	6,840	
95			NMB `		1,831	
95	A 474000	All and as autout units whether of not Described what his rest of a system of		ON	2,711	
		La deve dete emergino machines and units ultitori, hes		ON	13,013	
95				BC	7,016	
95		to the second and the machines for earth stone ores or other minimum as allos and			4,510	
95				AB	35,000	
95	and the second distance of the second se	To the high a machanical anniance new naving individual to both		ON	3,610	
95	8479900	0 Parts of machines & mechanical appliance nes having individual functions		QC		
95	8479900	U Parts of machines a mechanical applied de mechanical applied de		BC	6,688	·······
95	the second	0 Machinery parts, non-electrical, nes 0 Transformers electric power handling capacity not exceeding 1 KVA, nes	NMB	ON	684	
95		O Transformers electric power nationing capacity net energy		AB	370	
95		0 Static converters, nes		ON	85,285	
95 95	8504400	0 Static converters, nes	NMB	ON	7,809	
95	8508100	0 Drills, hand-held, with self-contained electric motor		BC	8,202	
95	8508900	0 Parts of hand tools with self-contained electric motor	NMB	AB	98,206	
95	8517100	0 Telephone sels	NMB	ON	69,892	
95 95 95	8517100			AB	16,058	
95	4447000	Since of alactrical apparatus for line telephone of line telegraphy		ON	45,835	
95			NMB	AB	351	
95		0 Headphones, earphones and combined microphone/speaker sets		ON	2,738	

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Page 1

95	85299000	Parts suitable for use solely or princ with the app of headings 85.25 to 85.28		QC	60,417	S/
95		Electrical app for switching or protec elec circuits, nut exceed 1,000 V, nes		AB	6,600	S/
95		Boards, panels, including numerical control panels, for a voltage à 1,000 V		Toc	256,256	S/
95		Boards, panels, etc for goods of heading no. 85.37, not equipped with their app		<u>oc</u>	10,234	S/
95		Insulated (including enamelied or anodised) winding wire of copper	KGM	ON	4,942	750
95		Electric conductors, for a voltage not exceeding 80 V, fitted with connectors		AB	1,068	S/
95	85444900	Electric conductors, for a voltage not exceeding 80 V, nes		ON	2,450	S/
95		Road tractors for semi-trailers (truck tractors)	NMB		20,000	
95		Tractors, wheeled, used, nes	NMB		82,000	
95		Automobiles with reciprocating piston engine displacing not more than 1000 cc	NMB	BC	13,866	
95		Diesel powered trucks with a GVW exc five tonnes but not exc twenty lonnes	NMB	BC	100,968	· · • • • • • • • • • • • • •
95		Gas powered trucks with a GVW not exceeding five tonnes	NMB	BĈ	10,147	
95		Other parts and accessories for motor vehicles	······	ON	34,009	S
95		Other parts and accessories for motor vehicles		QC	6,1 15	S
95		Parts for spark-ignition type engines nes	• • • • • • • • • • • • • • • • • • • •	ON	547	
95		Refrigerating or freezing equipment nes	•••••••••••••••••••••••••••••••••••••••	PE	54,352	S
95		Parts of harvesting, threshing and other agricultural and mowing machinery		ON	13,177	s
95		Automatic typewriters and wordprcessing machines		ON I	3,978	S
95		Cash registers	NMB	ÖN	8,619	3
95		Digital auto data process mach onto in the same housing a CPU input & output			and a second	
				and the second s	3,884	S
95		Digital process units whether or not presented with the rest of a system etc		ON	97.614	<u>S</u>
95		Input or output units, whether or not presented with the rest of a system etc	NMB	ON	15,267	
95		Parts and accessories of typewriters and word-processing machines, o/t cases	·····		2,009	S
95		Parts and accessories of automatic data processing machines & units thereof		ON	6,527	S
95		Telephone sets	NMB	ON	59,668	2,50
95		Parts of electrical apparatus for line telephone or line telegraphy		ON	3,160	S
95		Tractors, wheeled, used, nes	NMB	BC	44,802	
95	87019020	Tractors, wheeled, used, nes	NMB	ON	52,802	
95		Gas powered trucks with a GVW not exceeding five tonnes	NMB	AB	10,500	
95		Gas powered trucks with a GVW not exceeding five tonnes	NMB	ON	34,566	
95		Other parts and accessories for motor vehicles		ON	4,000	S
95		Motorcycles with reciprocating piston engine displacing > 250 cc to 500 cc	NMB	ON	13,574	
94	84029000	Parts of steam or vapour generating boilers nes		ON	267,459	S
94	84135000	Reciprocating positive displacement pumps nes	NMB	QC	10,479	
94	84138100	Pumps nes	NMB	BC	15,575	
94	84139100	Parts of pumps for liquid whether or not fitted with a measuring device		ON	4,722	S
94		Parts of pumps for liquid whether or not fitted with a measuring device		QC	32,371	S
94		Bakery ovens, including biscuit ovens, non-electric	NMB	ON	40,896	
94		Refrigerators, household type, nes	NMB	ON	200	· · · · · · · · · · · · · · · · · · ·
94		Freezers of the upright type, not exceeding 900 capacity	NMB	ON	300	
94		Oth refrig/freez chests, cabinets, disply counter, show-cases, ref/freez furn		ON	200	
94		Machinery for making hot drinks or for cooking or heating food, non domestic		ON	33,927	
94		Parts of machinery, plant and equipment of heading No 84, 19		TON T	8,912	
94	84733000	Constant weight scales, including hopper scales		ON	24,642	
94		Weighing machinery, nes	······································	ON	840	
		Self-propelled works trucks nes	NMB	ON	70,592	
94 94		Cont-action elevators/conveyors for goods/mat nes		ON		
			NMB		16,919	
94		Front end shovel loaders	NMB	ON	22,173	
94	84304100	Boning or sinking machinery nes, selipipelled	· · · · · · · · · · · · · · · · · · ·		49,065	
94	84312000	Parts of fork-lift and other works trucks fitted with lifting equipment		ON	4,768	
94	84314300	Parts of boring or sinking machinery, whether or not self-propelled		BC	28,418	

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Page 2

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94	84314300 Parts of boring or sinking machinery, whether or not self-propelled		ON T	31,127	
94	84314900 Parts of cranes, work-trucks, shovels, and other construction machinery		BC	5,758	SIC
94	84314900 Parts of cranes, work-trucks, shovels, and other construction machinery		ON	28,544	SIC
94	84314900 Parts of cranes, work-trucks, shovels, and other construction machinery		<u>ác</u>	2,500	S/C
94	84331900 Mowers, powered, lawn, nes	NMB	ON	36,300	3
94	84335100 Combine harvester threshers	NMB	ON	15,000	1
94	84339000 Parts of harvesting, threshing and other agricultural and mowing machinery		ON	797	S/C
94	84362900 Poultry-keeping machinery, nes	NMB	ON	11,000	111
94	84369910 Parts of forestry machinery, nes, inclipts of germination plant		QC	3,067	S/C
94	84379000 Pts of clean/sort mach etc for seed/gm etc mill/wrkg of cereais etc exc f-type		ON	19,433	S/(
94	84381020 Bakery machinery, nes		ON	210,911	S/
94	84386000 Machinery for the preparation of meat or poultry		ON	1,325	SI
94	84435000 Printing machinery nes		ON	10,720	S/
94	84659900 Mach-tis for working wod/crk/bne/hrd rubber/hrd plas or sim hrd mat etc nes	NMB	ON	3,000	
94	84663000 Dividg heads & other spec attach for mch for use with mch or hdg 84,56 to 84.65		ON	121,100	S/C
94	84712000 Digital auto data process mach ontg in the same housing a CPU input & output		BC	7,309	S/C
94	84719100 Digital process units whether or not presented with the rest of a system etc		BC	7,137	SIC
94	84719100 Digital process units whether or not presented with the rest of a system etc		ON	1,401	S/0
94	84719200 Input or output units, whether or nut presented with the rest of a system etc	NMB	BC	7,319	
94	847 19200 Input or output units, whether or not presented with the rest of a system etc	NMB	ON T	14,534	23
94	847 19200 Input or output units, whether or not presented with the rest of a system etc	INMB	ac	12,097	
94	847 19300 Storage units, whether or not presented with the rest of a system	NMB	ON	930	12
94	84733000 Parts and accessories of automatic data processing machines & units thereof		BC	1,296	ŠĪ
94	84733000 Parts and accessories of automatic data processing machines & units thereof		ON	45,798	<u>S/(</u>
94	84733000 Parts and accessories of automatic data processing machines & units thereof			18,822	S/
94	84741000 Sorting/screening/separating or washing mach for stone/ores or other min etc	····	ON -	181,000	
	84749020 Pts of crushing or grinding machines	·····	ON	والمتحديات فسيتكسبون وتقاط ويرقشون فتشرك والمتحويين ومعمدات المرابع والم	S/
the same sector of the same sect	84749020 Pts of crushing or grinding machines	•••• •=• ••==••••••		3,064	
94	84798900 Machines & mechanical appliances nes having individual functions			147,139	Ś/
94 94	84799000 Parts of machines & mechanical appliances has having individual functions	·····		76,561	SI
			ON	35,672	S/
94	848 18000 Taps, cocks, valves and similar appliances, nes		ON	2,285	SI
94	84819000 Parts of taps, cocks, valves or similar appliances 84828000 Bearings, balt or roller, nes, including combined ball/roller bearings		<u>ON</u>	2,739	S/
	84833000 Bearings, ball of roller, hes, inclouning combined ballroller bearings 84833000 Bearing housings, not incorporating ball or roller bearings; plain shaft bearings		ON ON	1,287	<u>S/</u>
94 94	84836000 Clutches and shaft couplings (including universal joints)	· · · · · · · · · · · · · · · · · · ·		21,631	<u>S/</u>
94	85043200 Transformers electric power handling capacity > 1 KVA but à 16 KVA, nes	NMB		3,834	SI
	85043300 Transformers electric power handling capacity > 16 KVA but a 500 KVA	NMB	ON ON	17,120	
94				11,254	1(
94	85044000 Static converters, nes		AB	319	SK
94	85088000 Tools, nes, hand-held, with selfcotained electric motor	NMB	ON	2,338	16
94	85099000 Parts of electro-mech dom appliances with self-contained electric motor	· • • • • • • • • • • • • • • • • • • •	ON	4,105	S/
94	85159000 Pts of electric/laser/ultrasonic mach etc for weld/cut nes or hot spray of met		ON	6,155	S/(
94	85167900 Electro-thermic appliances, domestic, nes	NMB	ON	25,000	50
94	85171000 Telephone sets	NMB	AB	33,183	32
94	85173000 Telephonic or telegraphic switching apparatus		AB BC	22,408	<u> </u>
94	85174000 Apparatus, for camer-current line systems, nes			230	
94	85174000 Apparatus, for carrier-current line systems, nes		ON	645	Si
94	85179000 Parts of electrical apparatus for line telephone or line telegraphy		AB	18,175	S
94	85179000 Parts of electrical apparatus for line telephone or line telegraphy		ON	53,606	S
94	85183000 Headphones, earphones and combined microphone/speaker sets	NMB	AB	1,209	20
94	85242300 Recorded magnetic tapes, of a width exceeding 6.5 mm		ON	7,120	S
94	85242300 Recorded magnetic tapes, of a width exceeding 6.5 mm		QC	1,022	SI

94	85249000 Recorded media for sound or other similarly recorded phenomena, nes		BC		<u>-</u>
94	85252000 Transmission apparatus, for radioteeph incorporating reception apparatus		BC		5/0 S/0
the second s	85281000 Television receivers including video monitors and video projectors, colour	····	ON	1,711	5/ S/
94	85318000 Electric sound or visual signalling apparatus, nes				
94				3,200	S/
94	85366900 Electrical plugs and sockets, for a voltage not exceeding 1,000 volts 85369000 Electrical app for switching or protec elec circuits, not exceed 1,000 V, nes		AB	1,146	S/(
94				39,526	S/
94	85371000 Boards, panels, including numerical control panels, for a voltage & 1,000 V 85371000 Boards, panels, including numerical control panels, for a voltage & 1,000 V		ON	8,599	S/
94	0537 1000 boards, pariets, including numerical control pariets, for a voltage a 1,000 v		QC	9,250	S/(
94	85372000 Boards, panels, including numerical control panels, for a voltage > 1,000 V			12,572	<u>S/</u>
94	85399000 Parts of electric filament or discharge lamps, UV or IR lamps and arc-lamps	· · · · · · · · · · · · · · · · · · ·		6,000	S/
94	85433000 Machines & apparatus for electroplating, electrolysis or electrophoresis		ON	2,272	S/
94	85441100 Insulated (including enamelied or anodised) winding wire of copper	KGM	ON	3,628	75
94	85444100 Electric conductors, for a voltage nol exceeding 80 V, fitted with connectors		AB	1,776	S/
94	86090000 Cargo containers designed to be carried by one or more modes of transport		QC	1,450	S/
94	87019020 Tractors, wheeled, used, nes	NMB		34,000	
94	87032220 Automobiles, used, w reciprocating piston engine displacing > 1000 cc to 1500 cc	NMB	ON	4,831	
94	87032440 Automobiles, used with reciprocating piston engine displacing > 3000 cc	NMB	ON	2,000	، بين <u>ين المنتشرين بالاميانيات المسمورة .</u>
94	87083900 Brake system parts nos for motor vehicles		ON	5,125	S/
94	87087000 Wheels Including parts and accessories for motor vehicles		ON	1,532	S/
94	87089200 Mufflers and exhaust pipes for motor vehicles		ON	463	S/
94	87089990 Other parts and accessories for motor vehicles		ON	68,135	<u>S/</u>
94	87149900 Bicycle parts nes	·····	ON	5,000	S/
94	84691000 Automatic typewriters and wordprcessing machines		ON	11,518	S/
94	84691000 Automatic typewriters and wordprcessing machines		QC	3,904	SI
94	84693100 Typewriters, non-electric, weighing not more than 12 kg, excluding case	NMB	ON	2,760	1
94	84719100 Digital process units whether or not presented with the rest of a system etc		ÖN	55,303	S/
94	84719100 Digital process units whether or not presented with the rest of a system etc		QC	14,053	S
94	84719200 Input or output units, whether or not presented with the rest of a system etc	NMB	ON	21,526	4
94	84719300 Storage units, whether or not presented with the rest of a system	NMB	ON	1,109	
94	84721000 Office duplicating machines	NMB	ON	8,625	1
94	84731000 Parts and accessories of typewriters and word-processing machines, o/L cases		ON	1,003	S/
94	84733000 Parts and accessories of automatic data processing machines & units thereof		ON	1,812	S/
94	84824000 Bearings, needle rollsr		ON	661	S/
94	84834000 Gears and gearing, ball screws, gear boxes, speed changers/torque converters		ON	27,222	S/
94	84841000 Gaskets of metal sheeting combined with other material		ON	3,117	S/
94	85073000 NickeLcadmium electric accumulators	NMB	ON	231	
94	85174000 Apparatus, for carrier-current line systems, nes	· · · · · · · · · · · · · · · · · · ·	ON	621	S/
94	85249000 Recorded media for sound or other similarly recorded phenomena, nes		ON	766	S
94	85444100 Electric conductors, for a voltage not exceeding 80 V, fitted with connectors	,	ON	1,881	S/
94	87081000 Bumpers and parts for motor vehicles		ON	9,710	S
94	87089990 Other parts and accessories for motor vehicles		ON	22,759	S
94	87115000 Motorcycles with reciprocating piston engine displacing more than 800 cc	NMB	ON	6,000	
94	85444100 Electric conductors, for a voltage not exceeding 80 V, fitted with connectors		ON	1,881	S
94	87081000 Bumpers and parts for motor vehicles	••••••••••••••••••••••••••••••••••••••	ON	9,710	S/
94	87089990 Other parts and accessories for motor vehicles		ON	22,759	S/
94	87115000 Motorcycles with reciprocating piston engine displacing more than 800 cc	NMB		6,000	
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ANNEX C

Graph 1: Exports in the mining sector (1974-1995)

Graph 2: Gold prices between 1974-1995

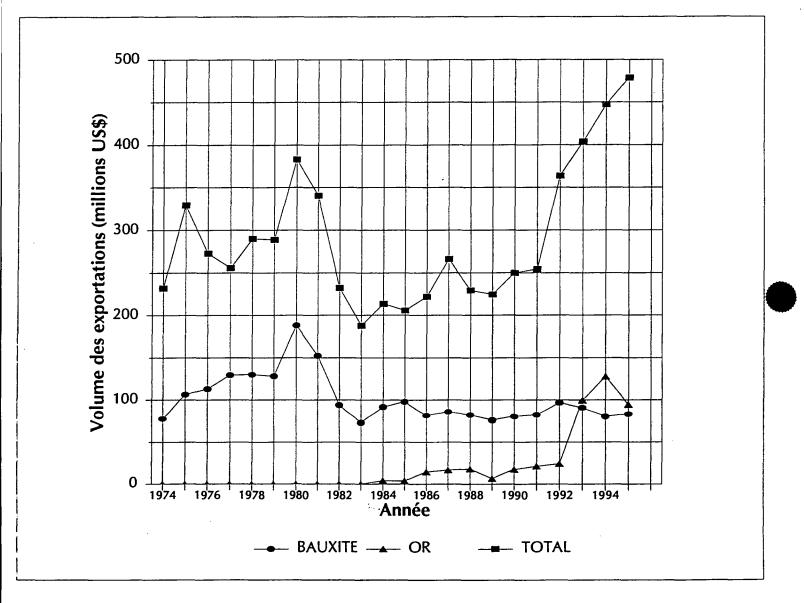


ANNEXE C: DONNÉES STATISTIQUES - GRAPHIQUES

Graphique 1: Exportations reliées au secteur minier (1974-1995)

Graphique 2: Évolution du prix de l'or entre 1986 et 1995

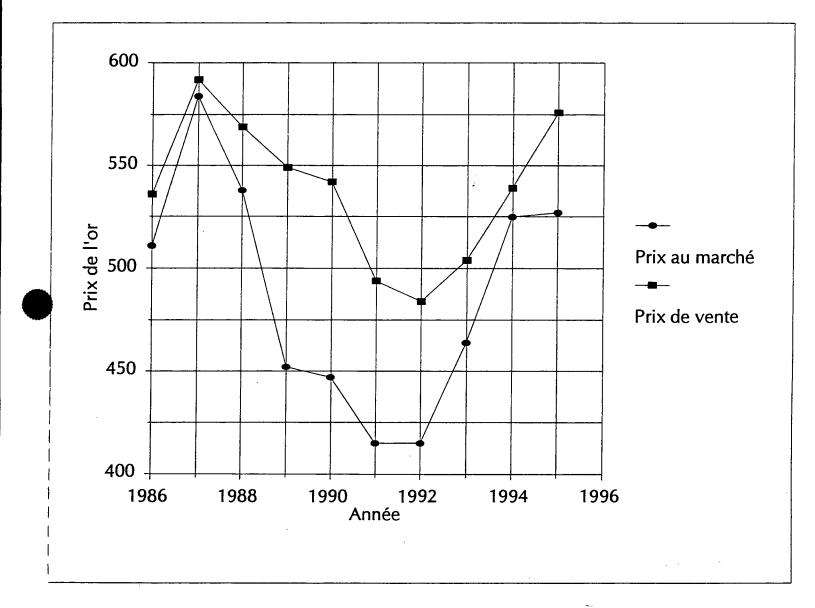




Source:

Compilé à partir d'informations recueillies auprès du Bureau de la statistique et autres agences gouvernementales, 1995





Source: Cambior, Rapport annuel 1995

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* SAMPLES OF CUSTOMS FORMS

ANNEXE D: PROCÉDURES DOUANIÈRES

137

Formulaire C72 complété et traité "Customs Declaration (Import/Export)" Airwaybill de la compagnie Minco Sales Corporation s Facture de la compagnie Minco Sales Corporation 68 Formulaire vierge "Work Sheet" ß Formulaire C72 vierge (recto) s Formulaire C72 vierge (verso) is Formulaire C72(a) vierge "Continuation Sheet" R**P Customs Regime Codes** æ Transport Codes & Transit Shed Codes R**P** Duty Tax Codes & Duty Tax Base s

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1001 Franklin	-		2929	N.W. 73 STREET			
Garden City, N	y 11630 ·		- MIAM	I, FLORIDA 33147			
				Ir Waybli at 1 originals and have the same validity			
Consignos's Name and Address	The Consider Land	une Numbe 28 - 12					
Berbice Mining Berbice Guyana			A life spread that the goods described havin are accepted in appending order and condition tescapt as noted for carriage SUBJECT TO THE CONDITIONS OF CONTRACT ON THE SUPPER'S ATTENTION IS DRAWN TO THE NOTICE - 1.200 THE SUPPER'S ATTENTION IS DRAWN TO THE NOTICE - CONCERVING CARRIERS' LEATATION OF LIABL'TY Shipper may increase such binitation of flability by declaring a higher value for namege and paying a suppremental sharpe if required at flability by declaring a higher value for namege and paying a suppremental sharpe if required				
Issuing Certier's Agent Name and City	~ <u></u>		Accounting Information				
Berbice Mining P.O. Box 63, N							
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	<u>b71296</u>	·		emount to be insured in figures in box marked 'amount of insuran			
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LAPARKAN

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TELEX: 229337 (516) 741-6755 P.O. BOX 7597

INVOICE

FAX: (516) 741-8764

MINCO SALES CORPORATION

1001 FRANKLIN AVENUE . GARDEN CITY, N.Y. 11530-7597

MARKS BERBICE MINING ENTERPRISE LTD. BERMINE u BIDCG BUILDING P.O. 84178 BME-KK MADE IN U.S.A. 71 MAIN STREET GEORGETOWN, GUYANA PKG. NO. 1/2 • ATE INVOICE NO. CUSTOMER ORDER NO. OUR DROER NO. ł JULY 8, 1996 27-248 84178 BME-KK 8427 erms of Payment NET 30 DAYS COMPLETE ITEM NO. QUANTITY DESCRIPTION PRICE TOTAL SHIPMENT 1 EA. 4 N 6765 1 CYLINDER HEAD \$3,128.71 \$3,128.71 2 24 EA. 5M 4169 CAM FOLLOWER 37.86 908.64 EX-FACTORY \$4,037.35 INLAND FREIGHT, PREPARATION & DELIVERY 285.00 TOTAL F.O.B. LAPARKAN AIRWAYS \$4,322.35 MIAMI, FLORIDA. DOMESTIC PACKED PACKING SPECIFICATIONS GROSS WEIGHT/KILOS MEASUREMENTS CUBIC FEET ONE CARTON: 23 LBS./10.43 16 X 17 X 5 0.79 ONE CRATE : 428 LBS./194.13 44 X 49 X 13 16.22 TOTAL WEIGHT: 451 LBS. TOTAL PIECES: 2. CERTIFIED TRUE AND CORRECT -- MADE IN U.S.A. MINCO SALES CORPORATION

BY: Prisso

REPUBLIC OF GUYANA

CUSTOMS & EXCISE DEPARTMENT	WORK SHEL		
IMPORTER'S NAME:		No.	
DECLARANT'S NAME:		Ref No	0.
VESSEL / AIRCRAFT:		Rot #	D.O.R.
F. O. B. VALUE ON INVOICE (FCY) =			CONVERSION FACTOR:
FRT. INS. & OTER COSTS (FCY) =	<u></u>	TOTAL	CHARGES (FCY) ÷ BY TOTAL F.O.B. (FCY). ie
C. L.F. VALUE (FCY) =			
RATE OF EXCHANGE =			
C. I. F. VALUE (G S) =		ratio	
DESCRIPTION	ITEM 1	ITEM 2	ПЕМ 3
INVOICE VALUE (FCY)			
FRT. INS & CHGS (FCY)			
C. I. F. (FCY)			
RATE OF EXCHANGE			
CUSTOMS VALUE (GS) (BOX 33)			
	ITEM 4	ITEM S	ПЕМ 6
INVOICE VALUE (FCY)			
FRT. INS & CHGS (FCY)			
C. I. F. (FCY)			
RATE OF EXCHANGE			
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REPUBLIC OF GUYANA CUSTOMS & FXCISE DEPARTMENT



CUSTOMS DECLARATION (IMPORT/EXPORT)

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FORM C72

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NOTICE OF EXPORTATION UNDE		CERTIFICATE OF SHIPMENT The packages mentioned overleaf have been (a) received on board.	
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by virtue of special/General Bond # Bond in force.	date	PROPED OFFICER DATE (c) shipped, satisfied	
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RECEIPT INTO WAREHOUSE		RELEASE/DELIVERY ORDER	
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Continued on Continuation Sheet No.

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REPUBLIC OF GUYANA CUSTOMS & EXCISE DEPARTMENT



CUSTOMS DECLARATION (IMPORT/EXPORT)

FORM C72 CONTINUATION SHEET

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1	conditions and requirements attaching to	the use of the		LX BROUGHT FORWARD						• .:	÷.		
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WARMING: It is an offence under the Custome Act, Chepter 12:01 to make a false declaration. Sevure penalties may be applied in cases where false declarations are made.

CUSTOMS REGIME CODES

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These codes are alpha-numeric, the alpha codes are: C, E, R, S.

These codes are defined as follows:

C	 HOME USE
Е	 EXPORTS
S	 SUSPENSE
R	 RE-EXPORTS

The numeric codes indicate the sub-groups of the above described types of transactions. The Regimes to be identified on the Customs Declaration are as follows:

		•
C4	••••	Goods entered for Home Use
C5	••••	Temporary Importation
C6	• • • •	Re-Importation
C9	• • • •	Destruction of Goods
El	• • • •	Outright Exportation
E2	••••	Temporary Exportation
R3	••••	Re-Exportation
S7	• • • •	Warehousing or other premises under Customs Fiscal Control
S 8	• • • •	Transit or Transhipment

TRANSPORT CODES

The mode of transport is the method by which the goods are imported into or exported from Guyana. The transportation codes are as follows:

CODE		MODE OF TRANSPORT
01		Sea
02		Railway
03		Road
04	•••••	Air
05	••••	Parcel Post
06	••••	Multimodal
07	••••	Inland Waterway
09		Unknown

TRANSIT SHED CODES

.

CODE		NAME OF TRANSIT SHED
MUN		MUNESHWAR LIMITED
JFL	• • • • • •	JOHN FERNANDES LIMITED
GNE		GUYANA NATIONAL ENGINEERING CORPORATION
GNS		GUYANA NATIONAL SHIPPING CORPORATION
GAC		GUYANA AIRWAYS CORPORATION
DDL		DEMERARA DISTILLERS LIMITED
JFC		JOHN FERNANDES CONTAINER YARD
TIM		TIMEHRI AIRPORT TRANSIT SHED
DIH	• • • • • •	BANKS D.I.H LIMITED
SPR		SPRINGLANDS
NAM	• • • • • •	NEW AMSTERDAM
LIN		LINDEN
SUF		SUFFERANCE WHARF
LOC	• • • • • •	LAND OF CANAAN

DUTY TAX CODES

CODE	TYPE OF CHARGE	ABBI	REVIATION
01	Import Duty		Imp. Duty
02	Warehouse Rent & Charges	• • • • •	W/R Charges
03	Export Duties	• • • • • • •	Exp. Duty
14	Imported Consumption Tax	• • • • • •	Imp. C/Tax
18	Stamp Duty	• • • • • • •	St. Duty
20	Environmental Tax		Ev. Tax
17	Departmental Fines	• • • • • • •	D. Fines

Note: Only the code and abbreviation are to be used on the declaration and, the abbreviation must be printed.

DUTY TAX BASE

CODE	DESCRIPTION	ABBR	EVIATION
24	Cost, Insurance & Freight	••••	C.I.F
25	Free on Board	• • • •	F.O.B
26	Per Metric Carat	• • • •	P.M.C
27	Per Tonne (1000 kg)	••••	P.Tn
28	Per Metre3	••••	мз
29	Per 100 Litre		Litre
30	Per Unit (Piece)		Unit
31	Per Tonne (Gross)	• • • •	G. T.

32 Cumulation of Duty & Value Ass.V. Note: Only the code and abbreviation are to be entered on the declaration.

TAXATION

The New Tax Structure as as January, 1993

1. The tax bands were abolished and a single rate of tax at 33 1/3 % was introduced for individuals.

New Measures:

- 2. (a) The annual deduction for individual taxpayers was increased to \$120.000. The 1/3 deduction was withdrawn.
 - (b) The deduction of G\$120,000 (per annum) shall be apportioned in the same ratio as the earning period of the income bears to a full year. For example, if the income was earned in three months, the equivalent of three months deduction (i.e. one fourth (¹/₄) of the G\$72,000 = G\$18,000) would be deducted in computing the chargeable income.
 - (c) Chargeable income is the income remaining after deducting the allowance for wear and tear, previous years' trade losses and land development expenditure.
 - (d) Total income from employment includes all allowances and prerequisites whether in money or otherwise except those specifically exempted by the Income Tax Act, Chapter 81:01.
 - (e) Individuals (whether resident or not) with income below G\$120,000 do not have to file Income Tax Returns.

3. WITHHOLDING TAX

- (a) Interest earned on savings accounts held by both resident individuals and companies would be subject to a fifteen percent (15%) withholding tax, which will be deducted at source and remitted to the Commissioner of Inland Revenue. This interest will no longer form part of the tax-payer's total income for Income Tax and Corporation Tax purposes.
- (b) Organizations and persons who have been exempted from withholding Tax upon application to the Commissioner of Inland Revenue, will be issued with a notification which will authorise the commercial banks or other financial

institutions not to deduct any withholding tax from interest earned on their savings account.

- (c) Withholding tax paid on interest by non-residents is 15% of the gross amount of the payment.
- (d) Withholding tax on gross distribution is levied at a rate of 15%.
- (e) Withholding tax on gross payments except in the case of payments being interest is levied at a rate of 10%.

4. Corporation Tax (effective from Year of Assessment 1993).

Limited liability Companies are no longer required to pay Income Tax on their profits. Rather, Corporation Tax at 35% will be charged. The rate of Corporation Tax payable by Commercial companies is 45 %

5. (a) <u>Consumption Taxes (Remigrants)</u>

1

- i. Personal and household effects of returning Guyanese will now attract a duty of five percent (5%).
- (b) <u>Consumption Taxes</u>
- i. Consumption taxes are levied on finished factory and imported products. Finished products which are intended for export are exempt. The most common of the higher bands of consumption tax will be reduced from 45 to 30 percent.
- ii. Consumption tax on cars of 1600 cc will be reduced from 50 percent to 30 percent.

Source: Customs and Excise (Con. Tax Dept.) Tel:56932-9 Contact: Mr I. Ally / Mr Khan

Capital Gains Tax

A capital gains tax is assessed on net chargeable gains at 20% of the assets once the value exceeds G\$1,000.

PROI	PERTY TAX (First Schedule)	Rate per cent
(1)	For a person other than a company \$5,000.000 of net property	on the first nil
	For every dollar of the next 5,000.000 of net property	1/2
	for every dollar of the remainder of net property	3/4
FOR	A COMPANY:	
	For every dollar of first 500,000 of net property	nil
	for every dollar of next 5,000.000 of net property	1/2
	for every dollar of the remainder of net property	3/4
EXEM	IPTION:	

G\$10,000 - 100,000
G\$10,000 - 100,000
G\$10,000 - 100,000
G5,000 - 50,000

N.B: The price for a Travel Tax Ticket has been increased from \$1,000 to \$1,500.

The Travel Voucher Tax on Airline Tickets has been increased to 15% of the cost of the ticket.

A ten percent (10%) Room Tax on hotel accommodation has been introduced.

Several fee, licences and penalties administered by the Licence Revenue Division have been increased.

Source: Inland Revenue Department. Tel: 02-60842 Contact: Ms Atherly

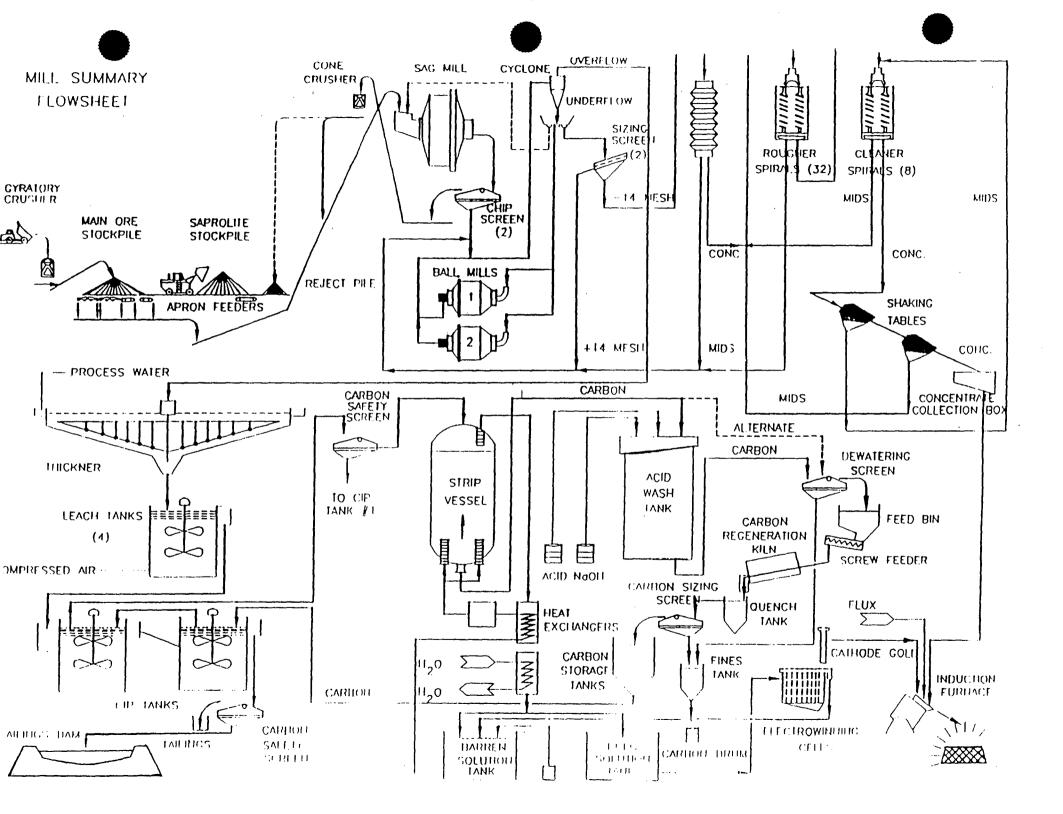
Update: Research Assistant (IDS) Guyana Manufacturing & Industrial Development Agency, 27th May,993



- * Mill Summary Flow Chart
- * Equipment List (1)
- * Equipment List (2)
- * Equipment List (3)

ANNEXE E: ÉQUIPEMENTS ET MACHINERIE

- ☞ Mill Summary Flow Sheet
- 🖙 Equipment List (1)
- 🖙 Equipment List (2)
- 🖙 Equipment List (3)



APPENDIX 2: MINING EQUIPMENT

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List of mining equipment as of May 1995. We believe this to be a generally accurate reflection of the current situation.

Equipment	No. Units	Available	ldled	Remarks
O&K1310 bucket wheel syste O&K1302 bucket wheel syste		1	- 1	Rehabilitated 1994
Terex S 24 C scrapers	7	5	2	
BE 1300W dragline	1	1	-	Rehabilitated 1994
BE 1260W dragline	1	-	1	
BE 480W dragline	2	1	1	At N.Dorabece mine
Cat 769C haulage trucks	4	4		
71RB dragline	2	1	1	
22RB dragline	1	1		
Demag H55N backhoe	2	1	1	
Komatsu PC 650 backhoe	1			
Cat 245 backhoe	1			
Cat D10N bulldozer	1	1		
Fiat FD30B/FD40 bulldozer	11	3	8	
Komatsu D355A bulldozer	3	3		
Cat 14G/16G graders	2	2		
Komatsu 825 grader	1	-	1	
Komatsu WA600 loader	4	4		
Gardner Denver RDC16B dril	2	1	1	
Hazelton drainage pumps	14	14		
Various trucks	6	6		
Cranes and forklifts Auto cars 6 6	4	4		

Cost-Code Supplier P.O. Contract Equip.# **Equipment Description** No No. ROBIN NERON 5 HP 591-25173 591-E-108 2110-3300 130-61-001 AIR COMPRESSOR & RECEIVER - DUMPVALVE JOHNSON PUMP CANADA 350 HP 591-F-019 3000-3500 591-24642 COOLING WATER PUMP (GENERATOR) 130-65-001 JOHNSON PUMP CANADA 350 HP 591-24642 591-F-019 3000-3500 130-65-002 COOLING WATER PUMP (GENERATOR) 591-24642 591-F-019 3000-3500 FLYGT 50 HP MAKE UP WATER PUMP (OMAI RIVER) 130-65-003 50 HP 591-24642 591-F-019 FLYGT 130-65-004 MAKE UP WATER PUMP (OMAI RIVER) 3000-3500 PEERLESS PUMPS 75 HP 593-35447 593-F-001 2120-3500 130-65-005 SEDIMENTATION POND 593-35447 593-F-001 75 HP 130-65-006 SEDMENTATION POND 2120-3500 PEERLESS PUMPS JOHNSON PUMP CANADA HOLDING POND TRANSFER PUMP 3000-3500 150 HP 130-65-007 591-25173 591-F-108 2110-3300 ROBIN NERON 130-69-001 AIR RECIEIVER - DUMP VALVE 2110-3300 **ROBIN NERON** 591-25173 591-F-108 130-69-002 AIR RECIEIVER - DUMP VALVE 591-F-039 MACHINERY CORP. 591-23149 CATERPILLAR GENSET - SER# 9RC00179 150-19-009 3000-3191 591-E-039 591-23149 150-19-010 CATERPILLAR GENSET - SER# 9RC00180 3000-3192 MACHINERY CORP. 591-F-039 3000-3193 MACHINERY CORP. 591-23149 CATERPILLAR GENSET - SER# 9RC00181 150-19-011 591-23149 591-F-039 3000-3194 MACHINERY CORP. 150-19-012 CATERPILLAR GENSET - SER# 9RC00182 591-F-039 591-23149 3000-3195 MACHINERY CORP. 150-19-013 CATERPILLAR GENSET - SER# 9RC00184 591-F-039 MACHINERY CORP. 591-23149 150-19-014 CATERPILLAR GENSET - SER# 9RC00186 3000-3196 591-F-039 591-23149 3000-3197 MACHINERY CORP. 150-19-015 CATERPILLAR GENSET - SER# 9RC00183 STEPHENS ADAMSON 100 HP 591-23413 591-F-009 2030-3015 460-18-001 APRON FEEDER #1 (6'0 X 20'0) VFD 591-F-009 100 HP APRON FEEDER #1 (6'0 X 20'0) VFD 2030-3015 STEPHENS ADAMSON 591-23413 460-18-002 591-F-020 460-25-001 BELT SCALE CONV #2-2 2030-3350 STEPHENS ADAMSON 591-F-020 460-25-003 CALIBRATION CHAIN.BELT SCALE CONV #2-2 2030-3350 STEPHENS ADAMSON 1 HP 460-41-001 CONVEYOR #2-2 RECLAIM 2030-3450 STEPHENS ADAMSON 125 HP 591-23966 591-F-25 60 HP 591-23966 591-F-25 2030-3450 STEPHENS ADAMSON 460-41-002 **CONVEYOR #2-3 MILL FEED** 591-23604 591-F-008 200 HP 2020-3410 STEPHENS ADAMSON 460-46-001 STACKER 591-24240 591-F-041 2030-3810 PATRICK GARNEAU 2 HP 460-55-001 TUNNEL VENT FAN (NEW TUNNEL) 460-55-002 TUNNEL VENT, FAN EXISTING TUNNEL 2030-3810 PATRICK GARNEAU 2030-3600 FOURNIER 2 HP 591-25616 591-F-045 460-84-001 **CONVEYOR #2-2 DISCHARGE CHUTE** 2030-3600 FOURNIER 591-25616 591-F-045 460-84-002 FEED CHUTE, APRON FEEDER #1 591-F-045 591-25616 460-84-003 FEED CHUTE, APRON FEEDER #2 2030-3600 FOURNIER 591-25616 591-F-045 460-84-004 **DISCHARGE CHUTE, APRON FEEDER #1** 2030-3600 FOURNIER 591-F-045 591-25616 460-84-005 **DISCHARGE CHUTE, APRON FEEDER #2** 2030-3600 FOURNIER 591-25616 591-F-045 460-84-006 DISCHARGE, COLLAR STOCKPILE 2030-3600 FOURNIER 591-25616 591-F-045 DISCHARGE, COLLAR STOCKPILE 2030-3600 FOURNIER 460-84-007 591-F-045 591-25616 460-84-008 FINE CHUTE, APRON FEEDER #1 2030-3600 FOURNIER 591-F-045 591-25616 460-84-009 FINE CHUTE, APRON FEEDER #1 2030-3600 FOURNIER 591-F-045 460-84-010 **CONVEYOR #2-7 DISCHARGE CHUTE** 2040-3600 FOURNIER 591-25616 460-84-011 591-25616 591-F-045 CONVEYOR #2-7. SHUTTLE 2040-3450 FOURNIER 591-25616 591-F-045 460-84-012 CONV #2-7 / 2-8 SHUTTLE DISCH CHUTE 2040-3600 FOURNIER 591-25616 591-F-045 460-84-013 CONV #2-7 / 2-3 SHUTTLE DISCH CHUTE 2040-3600 FOURNIER 470-10-001 2040-3027 ANI A BACUS SAG MILL 591-F-037 470-10-002 591-23146 INCHING DRIVE SAG MILL & BALL MILLS 2040-3027 ANI A BACUS 125 HP 591-F-043 470-10-003 CONE CRUSHER NORDBERG 350 HP 591-24012 2040-3047 470-10-004 BALL MILL #1 AND DRIVE 2040-3037 ANI/GE 5200 HP 591-23150 591-F-038 591-F-038

2040-3039

ANI/GE

Cost-Code

Supplier

•

470-10-005

BALL MILL #2 AND DRIVE

Edulp.#

Equipment Description

. .

591-23150

52000 HP

Contract

No.

P.Q

No:

Equip,#	Equipment Description	Cost-Code	Supplier		P.O. No.	Contrac No.
470-11-001	SCREEN#1, SAG MILL DISCHARGE	2040-3700	SIMPLICITY	40 HP		591-F-01
470-11-002	SCREEN#2, SAG MILL DISCHARGE	2040-3700	SIMPLICITY	40 HP		591-F-01
170-15-001	METAL DETECTOR, CONV #2-5	2040-3350	ITS RAMSEY		591-24011	591-F-02
470-22-001	CYCLONE PACK #1, BALL MILL	2040-3050	TECHNEIQUIP		591-23793	591-F-01
470-22-002	CYCLONE PACK #2, BALL MILL	2040-3050	TECHNEIQUIP		591-23793	591-F-01
470-24-001	SCRUBBER AND FAN	2080-3600	CLEAN GAS SYSTEM		591-24238	591-F-02
470-25-001	BELT SCALE, CONV #2-4	2040-3350	STEPHENS ADAMSON			591-F-02
470-25-002	CALIBRATION CHAIN, CONV 2-4	2040-3350	STEPHENS ADAMSON			591-F-02
70-32-001						
170-32-001	MAGNET TRAMP METAL BELT, CONV #2-4 MAGNET TRAMP METAL BELT, CONV #2-5	2040-3450 2040-3450	ERIEZ MAGNETICS ERIEZ MAGNETICS	5 HP	591-24010 591-24010	591-F-02 591-F-02
		2040-0400		U LIF	331-24010	0019-02
70-41-001	CONVEYOR #2-4, SCREEN O' SIZE	2040-3450	STEPHENS ADAMSON	15 HP	591-23966	591-F-02
70-41-002	CONVEYOR #2-5, CRUSHER FEED	2040-3450	STEPHENS ADAMSON	15 HP	591-23966	591 -F-0 2
70-41-003	CONVEYOR #2-5A (SHUTTLE) CRUSH FEED	2040-3450	STEPHENS ADAMSON	5 HP	591-23966	591-F-02
70-41-004	CONVEYOR #2-6, CRUSHER DISCHARGE	2040-3450	STEPHENS ADAMSON	7.5 HP	591-23966	591-F-02
70-41-005	CONVEYOR #2-7, RECYCLE	2040-3450	STEPHENS ADAMSON	15 HP	591-23966	591-F-02
70-41-006	CONVEYOR #2-8, REJECT PILE	2040-3450	STEPHENS ADAMSON	5 HP	591-23966	591-F-02
70-44-002	55/10 TON BRIDGE CRANE, GRINDING AREA	2040-3010	KONE		591-24102	591-F-01;
70-44-003	WINCH FEED CHUTE - SAG MILL RETRACT	2040-3010	PULLIFT		591-25119	591-F-12
70-53-001	COLD GENERATOR	0100 0000	TOANE			
70-53-002	COLD GENERATOR	2100-3980	TRANE TRANE		591-25118	591-F-08
70-53-003	AIR CONDITIONER (DIFFUSER)	2100-3980		5 UD	591-25118	591-F-08
70-53-004	AIR CONDITIONER (DIFFUSER)	2100-3980 2100-3980	TRANE TRANE	5 HP 5 HP	591-25118	591-F-089 591-F-089
70-53-005	AIR CONDITIONER (DIFFUSER)	2100-3980	TRANE	5 HP	591-25118 591-25118	591-F-08
70-53-006	AIR CONDITIONER (DIFFUSER)	2100-3980	TRANE	5 HP	591-25118 591-25118	591-F-08
70-53-007	AIR CONDITIONER (DIFFUSER)	2100-3980		5 HP	591-25118 591-25118	591-F-08
70-53-008	AIR CONDITIONER (DIFFUSER)	2100-3980	TRANE	5 HP	591-25118	591-F-089
70-53-009	AIR CONDITIONER (DIFFUSER)	2100-3980	—	5 HP	591-25118	591-F-089
70-53-010	AIR CONDITIONER (DIFFUSER)	2100-3980		5 HP	591-25118	591-F-08
70-53-011	AIR CONDITIONER (DIFFUSER)	2100-3980	TRANE	5 HP	591-25118	591-F-089
70-55-001	COOLING FAN, SAG MILL MOTOR (26000CFM)	2040 2027			504 24240	501 E 04
70-55-002	COOLING FAN, SAG MILL MOTOR (2000CFM)	2040-3027 2040-3027	PATRICK GARNEAU PATRICK GARNEAU	40 HP 40 HP	591-24240	591-F-04
70-56-001	AIR MAKE UP UNIT	2040-3310	TRANE	1 HP	591-24240 591-25118	591-F-041 591-F-089
70-63-001						
70-63-002	SLURRY PUMP #1 SAG MILL DISCHARGE SLURRY PUMP #2 SAG MILL DISCHARGE	2040-3500	HYDRO DYNAMICS	75 HP	591-24639	591-F-021
70-63-003	CYCLONE FEED PUMP, BALL MILL #1	2040-3500 2040-3500	HYDRO DYNAMICS	75 HP	591-24639	591-F-021
70-63-004	CYCLONE FEED PUMP, BALL MILL #2	2040-3500	HYDRO DYNAMICS HYDRO DYNAMICS	350 HP 350 HP	591-24639 591-24639	591-F-021 591-F-021
	-		#			
70-64-001	SUMP PUMP #1 SAG MILL AREA	2040-3500	DENVER/SALA [SVEDALA]	25 HP	591-24216	591-F-035
70-64-002	SUMP PUMP #2 SAG MILL AREA	2040-3500	DENVER/SALA [SVEDALA]	40 HP	591-24216	591-F-035
70-64-003	SUMP PUMP #3 SAG MILL AREA	2040-3500	DENVER/SALA [SVEDALA]	40 HP	591-24216	591-F-035
0-64-004	SUMP PUMP #4 BALL STORAGE	2040-3500	DENVER/SALA (SVEDALA)	7.5 HP	591-24216	591-F-035
70-64-005	SUMP PUMP #1 BALL MILL AREA	2040-3500	DENVER/SALA [SVEDALA]	25 HP	591-24216	591-F-035
70-64-006	SUMP PUMP #2 BALL MILL AREA	2040-3500	DENVER/SALA [SVEDALA]	25 HD	591-24216	591-F-035

Equip. #	Equipment Description	Cost-Code	Supplier		P.O. <u>No.</u>
470-65-005	PUMP CIRCULATING, A/C UNIT	2100-3980	TRANE	5 HP	5 91-25118
470-65-006	PUMP CIRCULATING, A/C UNIT	2100-3980	TRANE	5 HP	591-2 5 118
470-66- 001	LUBE UNIT ASSEMBLY, SAG MILL	2040-3027	ANI	75/125 HP	5 91-23146
470-66-010	LUBE UNIT ASSEMBLY, #1 BALL MILL	2040-3037	ANI	75 HP	591-23146
470-66-012	LUBE UNIT ASSEMBLY, #2 BALL MILL	2040-3039	ANI	75 HP	591-23146
470-66-023	HYDR. PUMP, RELEASE CONE CRUSHER	2040-3037	VALLEY SURPLUS	15 HP	591-24012
470-69-001	AIR RECEIVER CLUTCH SAG	2040-3310	ANI		5 91-23146
470-69-00 2	AIR RECEIVER CLUTCH BALL MILL	2040-3310	ANI		591-23150
470-69-005	AIR RECEIVER CLUTCH BALL MILL	2040-3310	ANI		591-23150
470-82-001	PUMP BOX #1, SAG MILL DISCHARGE	2040-3600	FOURNIER		591-24656
470-82-002	PUMP BOX #2, SAG MILL DISCHARGE	2040-3600	FOURNIER		591-24656
470-82-003	SPLITTER BOX, BALL MILL FEED	2040-3600	FOURNIER		591-24656
470-82-004	DIVERTER BOX, SAG DISCHARGE	2040-3600	FOURNIER		591-24656
470-82-005	PUMP BOX, BALL MILL DISCHARGE B.M. #1	2040-3600	FOURNIER		591-24656
470-82-006	PUMP BOX, BALL MILL DISCHARGE B.M. #2	2040-3600	FOURNIER		591-24656
470-84-0 01	RETRACTABLE FEED CHUTE, SAG MILL	2040-3600			591-23146
470-84-002	SAG MILL BALL FEED HOPPER	2040-3600	FOURNIER		591-25616
470-84-003	SAG MILL SCREEN O/SIZE CHUTE	2040-3600	FOURNIER		591-25616
470-84-004	CONV. #2-4, DIS.CHUTE/MAGNET #1REJECT	2040-3600	FOURNIER		591-25616
470-84-005	CONV. #2-5 DIS. CHUTE/CRUSHER FEED CHUTE	2040-3600	FOURNIER		591-25616
470-84-006	CONVEYOR #2-6 DISCHARGE CHUTE	2040-3600	FOURNIER		591-25616
470-84-007	CONE CRUSHER BYPASS CHUTE	2040-3600	FOURNIER		591-25616
470-84-008	DISCHARGE SHUTTLE CHUTE, CONV. #2-5A	2040-3600	STEPHENS-ADAMSON		591-25616
470-84-009	CONE CRUSHER DISCHARGE CHUTE	2040-3600	FOURNIER		591-25616
470-84-010	CONVEYOR #2-3, DISCHARGE CHUTE	2040-3600	FOURNIER		591-25616
470-84-011	BALL FEED HOPPER, BALL MILL #1	2040-3600	FOURNIER		591-25616
470-84-012	BALL FEED HOPPER, BALL MILL #2	2040-3600	FOURNIER		591-25616
470-84-013	DISCH. CHUTE/TROMMEL COVER, B/MILL #1	2040-3600	FOURNIER		591-24656
470-84-014	DISCH. CHUTE/TROMMEL COVER, BMILL #2	2040-3600	FOURNIER		591-24656
470-84-021	CONV. #2-5 BELT MAGNET #2 REJECT CHUTE	2040-3600	FOURNIER		591-25616
470-84-022	BALL STORAGE GATE 65 & 75 MM BALL	2040-9020	FOURNIER		591-25616
470-84-023 470-84-024	BALL STORAGE GATE 65 & 75 MM BALL BALL STORAGE GATE 130 MM BALL	2040-9020 2040-9018	FOURNIER FOURNIER		591-25616 591-25616
470-92-001 470-92-004	LINER HANDLER, SAG MILL LINER HANDLER BALL MILL	2040-3055 2040-3055	MCLELLAN EQUIPMENT MCLELLAN EQUIPMENT	25 HP 25 HP	591-24015 591-24015
470-00 004	GEAD SODAY SAC MILL	2040 200-	63H		501 004 /0
470-99-001	GEAR SPRAY, SAG MILL	2040-3027.	ANI		591-23146
470-99-002 470-99-003	GEAR SPRAY, BALL MILL #1 GEAR SPRAY, BALL MILL #2	2040-3037 2040-3039			591-23150 591-23150
	CLASS OF INT ; DALL WILL #2	2040-3039	ANI		J91-23 (90
480-11-001 480-11-002	SIZING SCREEN #1, GRAVITY FEED SIZING SCREEN #2, GRAVITY FEED	2050-3710 2050-3710	SIMPLICITY SIMPLICITY	30 HP 30 HP	591-23491 591-23491
	Canto Concert #2, Gravit I FEED	20000/10			201-20491
480-29-001	TRASH MAGNET	2040-3450	DINGS	1.5 HP	591-23605
480-34-001	CONCENTRATING CONE	2050-3075	MINERAL TECHNOLOGIES		591-23719
480-34-002	CONCENTRATING CONE	2050-3075	MINERAL TECHNOLOGIES		591-23719
480-34-003	CONCENTRATING CONE	2050-3075	MINERAL TECHNOLOGIES		591-23719

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BR8-061 FEED PLANP, CONCENTRATOR CONE 200-300 HYDRO DYNAMICS 60 HP 591-2433 591-621 BR8-062 FIED PLANP, SPIRULS 200-300 HYDRO DYNAMICS 30 HP 591-2433 591-621 BR8-064 FIURP, GRAUTY TALLINGS 200-300 HYDRO DYNAMICS 30 HP 591-2433 591-621 BR8-064 SIMP PLANP, GRAUTY TALLINGS 200-300 DENVERSILA 5 HP 591-2416 591-7435 BR8-061 SIMP PLANP, SECURITY AREA 200-300 DENVERSILA 5 HP 591-2616 591-7435 BR8-061 HORD DYNAMICS 200-300 DENVERSILA 5 HP 591-2616 591-7435 BR8-061 HAW POLY, CONCENTRATE BIN 200-300 FOURNER 591-32616 591-7435 BR8-061 HAW POLX, SRAUTY TALS 200-300 FOURNER 591-32616 591-7435 BR8-061 HAW POLX, SRAUTY TALS 200-300 FOURNER 591-3266 591-7437 BR8-061 FOURNER 200-300 FOURNER 591-3465 591-7437 BR8-061 <th>180-35-001</th> <th>SPIRAL BANK WITH DISTRIBUTOR</th> <th>2050-3080</th> <th>MINERAL TECHNOLOGIES</th> <th>6</th> <th>591-23720</th> <th>591-F-016</th> <th></th>	180-35-001	SPIRAL BANK WITH DISTRIBUTOR	2050-3080	MINERAL TECHNOLOGIES	6	591-23720	591-F-016	
BB-3-003 FEED PLAME STRALLS 2209-3500 FIDDE D'MANICS 15 HP 591-2623 591-621 BD-3-003 PLAME, GRAVITY TALLINGS PLAME 2209-3500 HYDRO D'MANICS 30 HP 591-2623 591-621 BD-3-003 SUMP PLAME, GRAVITY AREA 2009-3500 DENVERISALA 25 HP 591-2623 591-603 BD-4-001 SUMP PLAME, GRAVITY AREA 2009-3500 DENVERISALA 5 HP 591-2623 591-7-035 BD-4-001 SUMP PLAME, GRAVITY AREA 2009-3500 DENVERISALA 5 HP 591-26216 591-7-035 BD-4-002 PORTABLE GOLD CONCENTRATE BIN 2009-3500 FOURNER 591-26216 591-7-045 BD-4002 PORTABLE GOLD CONCENTRATE BIN 2009-3500 FOURNER 591-2626 591-7-047 BD-4003 PORTABLE, GOLD CONCENTRATE BIN 2009-3500 FOURNER 591-2626 591-7-047 BD-4004 PORTABLE, GOLD CONCENTRATE BIN 2009-3500 FOURNER 591-26456 591-7-047 BD-4004 PARME, FEED 2009-3500 FOURNER 591-26456 591-7-04	80-36-001	SHAKING TABLE	2050-3085	DEISTER	1.5 HP	591-23637	591-F-017	
80-83-00 PARF, GRAVITY TALINGS 200-300 HYDRO DYNAMICS 31 HP 591-2439 591-7-021 80-83-04 SHAGING TABLE, TALINGS PURP 200-300 PUNPR, DYNAMICS 11 HP 591-2439 591-7-021 80-84-001 SUMP PUNP, GRAVITY AREA 200-300 DENVERSALA 51 HP 591-2216 591-7-025 80-84-001 SUMP PUNP, GROVITY AREA 200-3000 FOURNER 591-22616 591-7-045 80-84-001 PORTABLE GOLD CONCENTRATE BIN 200-3000 FOURNER 591-2616 591-7-045 80-84-002 PUNP BOX, GRAVITY TALIS 200-3000 FOURNER 591-2616 591-7-047 80-84-002 PUNP BOX, GRAVITY TALIS 200-3000 FOURNER 591-2641 591-7-047 80-84-004 PUNP BOX, GRAVITY TALIS 200-3000 FOURNER 591-2641 591-7-047 80-84-004 PUNP BOX, GRAVITY TALIS 200-3000 FOURNER 591-2641 591-7-047 80-84-004 FOURNER 200-3000 FOURNER 591-2641 591-7-047 80-84-004 GRAVITY SCR	80-63-001	FEED PUMP, CONCENTRATOR CONE	2050-3500	HYDRO DYNAMICS	60 HP	591-24639	591-F-021	
BB-3-304 SHAKING TABLE, TALINGS PUMP 2550-3500 HYDRO DYNAMICS 1 HP 591-24236 591-F-021 BB-4-401 SUMP PUMP, GRAVITY AREA 2050-3500 DENVERISALA 25 HP 591-24216 591-F-035 BB-4-401 SUMP PUMP, SECURITY ROOM 2050-3500 DENVERISALA 5 HP 591-24216 591-F-035 BB-4202 PORTABLE GOLD CONCENTRATE BIN 2050-3500 FOURNER 591-2616 591-F-045 BB-4202 PORTABLE GOLD CONCENTRATE BIN 2050-3500 FOURNER 591-2616 591-F-045 BB-4202 PUMP BOX, CONC, FEED 2050-3500 FOURNER 591-2686 591-F-047 B-42040 PUMP BOX, GRAVITY FALS 2050-3500 FOURNER 591-2686 591-F-047 B-42040 FEED BOX - GRAVITY SCREEN 2050-3500 FOURNER 591-2686 591-F-047 B-42040 FULE, GRAVITY SCREEN O'SEZ SCREEN #1 2050-3500 FOURNER 591-2486 591-F-047 B-44001 CHUTE, GRAVITY SCREEN O'SEZ SCREEN #1 2050-3500 FOURNER 591-24865 591-F-047	80-63-002	FEED PUMP, SPIRALS	2050-3500	HYDRO DYNAMICS	15 HP	591-24639	591-F-021	
B0-84-801 SUMP PLMP, GRAVITY AREA 2069-3500 DENVERSALA 25 HP 591-24216 591-7435 B0-84-802 SUMP PLMP, SECURITY ROCM 2050-3500 DENVERSALA 51 HP 591-24216 591-7435 B0-84-802 SUMP PLMP, SECURITY ROCM 2050-3500 FOURNER 591-26216 591-7435 B0-84-003 PUMP B0X, CONCENTRATE BIN 2050-3500 FOURNER 591-26216 591-7435 B0-82-003 PUMP B0X, CONCENTRATE BIN 2050-3500 FOURNER 591-26216 591-7435 B0-82-005 PUMP B0X, CONCENTRATE BIN 2050-3500 FOURNER 591-2645 591-747 B0-82-005 PUMP B0X, CRAVITY TALS 2050-3500 FOURNER 591-747 B0-82-005 FEED B0X - GRAVITY SCREEN 2050-3500 FOURNER 591-747 B0-82-007 FEED B0X - GRAVITY SCREEN 0522 SCREEN 22 2050-3500 FOURNER 591-747 B0-82-007 FEED B0X - GRAVITY SCREEN 0522 SCREEN 22 2050-3500 FOURNER 591-747 B0-82-007 FOURNER 591-74265 591-747 <td< td=""><td>80-63-003</td><td>PUMP, GRAVITY TAILINGS</td><td>2050-3500</td><td>HYDRO DYNAMICS</td><td>30 HP</td><td>591-24639</td><td>591-F-021</td><td></td></td<>	80-63-003	PUMP, GRAVITY TAILINGS	2050-3500	HYDRO DYNAMICS	30 HP	591-24639	591-F-021	
B364-002 SUMP PLMP, SECURITY ROOM 2000-3500 DENVERVALA 5 HP S91-2416 S91-2436 B424-002 PORTABLE GOLD CONCENTRATE BIN 2050-3600 FOURNER S91-25616 S91-2456 B424-002 PORTABLE GOLD CONCENTRATE BOX 2050-3600 FOURNER S91-2616 S91-2465 B424-001 PLMP BOX, SIRPAL FEED 2050-3600 FOURNER S91-2466 S91-2467 B424-001 PLMP BOX, SIRPAL FEED 2050-3600 FOURNER S91-2466 S91-2467 B424-001 PLMP BOX, SIRPAL FEED 2050-3600 FOURNER S91-2465 S91-7-47 B424-001 PEED BOX - GRAVITY SCREEN 2050-3600 FOURNER S91-2465 S91-7-47 B424-001 CHUTE, GRAVITY SCREEN OVSZE SCREEN \$1 2050-3600 FOURNER S91-2465 S91-7-47 B44-001 CHUTE, GRAVITY SCREEN OVSZE SCREEN \$1 2050-3600 FOURNER S91-24656 S91-7-47 B44-001 CHUTE, GRAVITY SCREEN OVSZE SCREEN \$1 2050-3600 FOURNER S91-24565 S91-7-47 B44-001 CHUTE, GRAVITY SCREEN	80-63-004	SHAKING TABLE, TAILINGS PUMP	2050-3500	HYDRO DYNAMICS	1 HP	591-24639	591-F-021	
80-82-001 PORTABLE GOLD CONCENTRATE BIN 2050-3600 FOURNER 591-25616 591-7-445 80-82-002 PORTABLE GOLD CONCENTRATE BIN 2050-3600 FOURNER 591-25616 591-7-445 80-82-002 PORTABLE GOLD CONCENTRATE BIN 2050-3600 FOURNER 591-25616 591-7-445 80-82-003 PUMP BOX, CONC., FEED 2050-3600 FOURNER 591-24666 591-7-447 80-82-005 SURGE TAKK SHAGING TABLE FEED 2050-3600 FOURNER 591-24665 591-7-447 80-82-005 SURGE TAKK SHAGING TABLE FEED 2050-3600 SURPLICTY 591-24665 591-7-447 80-82-006 FEED BOX - GRAVITY SCREEN 2050-3600 SURPLICTY 591-24665 591-7-447 80-84-000 CHUTE, GRAVIT SCREEN OSEZ SCREEN #1 2050-3600 FOURNER 591-24656 591-7-447 80-44-001 CHUTE, GRAVIT SCREEN OSEZ SCREEN #2 2050-3600 FOURNER 591-24656 591-7-447 80-44-001 CHUTE, GRAVIT SCREEN OSEZ SCREEN #2 2050-3600 FOURNER 591-24656 591-7-447 80-44-001	80-64-001	SUMP PUMP, GRAVITY AREA	2050-3500	DENVER/SALA	25 HP	5 91-24216	591-F-035	
BA2-002 PORTABLE GOLD CONCENTRATE BOX 2050-3800 FOURNEER 591-25616 591-7-045 BA2-002 POMP BOX, CONC, FEED 2050-3800 FOURNEER 591-2616 591-7-047 BA2-002 PUMP BOX, CONC, FEED 2050-3800 FOURNEER 591-2465 591-7-047 BA2-003 PUMP BOX, CRAVITY TALLS 2050-3800 FOURNEER 591-2465 591-7-047 BA2-004 PUMP EOX, CRAVITY TALLS 2050-3800 FOURNEER 591-2465 591-7-047 BA2-005 PUMP EOX, CRAVITY SCREEN 2050-3800 SMPLICITY 591-2465 591-7-047 BA2-004 FEED BOX - GRAVITY SCREEN 2050-3800 FOURNEER 591-2465 591-7-047 BA4-001 CHUTE, GRAVITY SCREEN O'SZE SCREEN #2 2050-3800 FOURNEER 591-2465 591-7-047 BA4-004 CHUTE, GRAVITY SCREEN O'SZE SCREEN #2 2050-3800 FOURNEER 591-2465 591-7-047 BA4-004 CHUTE, GRAVITY SCREEN O'SZE SCREEN #2 2050-3800 FOURNEER 591-2465 591-7-047 BA4-004 CHUTE, GRAVITY SCREEN SZE SCREEN #2	80-64-002	SUMP PUMP, SECURITY ROOM	2050-3500	DENVER/SALA	5 HP	591-24216	591-F-035	
BB-2-003 PUMP BOX, CONC, FEED 2050-3600 FOURNIER 591-2665 591-7-045 B-22-004 PUMP BOX, SPIRAL FEED 2050-3600 FOURNIER 591-2665 591-7-047 B-22-005 PUMP BOX, SPIRAL FEED 2050-3600 FOURNIER 591-2665 591-7-047 B-22-007 MAGNETIC SEPARATOR DISCHARGE BOX 2050-3600 FOURNIER 591-2665 591-7-047 B-22-007 MAGNETIC SEPARATOR DISCHARGE BOX 2050-3600 FOURNIER 591-2465 591-7-047 B-22-007 MAGNETIC SEPARATOR DISCHARGE BOX 2050-3600 FOURNIER 591-2465 591-7-047 B-24-007 FEED BOX - GRAVITY SCREEN 2050-3600 FOURNIER 591-2465 591-7-047 B-44-001 CHUTE, GRAVITY SCREEN 171 2050-3600 FOURNIER 591-2465 591-7-047 B-44-004 CHUTE, GRAV.TY SCREEN 171 2050-3600 FOURNIER 591-2465 591-7-047 B-44-040 CHUTE, GRAV.TY SCREEN 171 2050-3600 FOURNIER 591-2465 591-7-047 B-44-040 CHUTE, GRAV.TY SCREEN MOREER 205	80-82-001	PORTABLE GOLD CONCENTRATE BIN	2050-3600	FOURNIER		591-25616	591-F-045	
BD-82-064 PUMP BOX, SPIRAL FEED 2050-3800 FOURNIER 591-24655 591-7-047 BD-82-005 RCRAY TY TALS 2050-3800 FOURNIER 591-24655 591-7-047 BD-82-005 MAGNETIC SEPARATOR DISCHARGE BOX 2050-3800 FOURNIER 591-24655 591-7-047 BD-82-005 MAGNETIC SEPARATOR DISCHARGE BOX 2050-3800 FOURNIER 591-24655 591-7-047 BD-82-005 MAGNETIC SEPARATOR DISCHARGE BOX 2050-3800 FOURNIER 591-24655 591-7-047 BD-82-007 MAGNETIC SEPARATOR DISCHARGE BOX 2050-3800 FOURNIER 591-24655 591-7-047 BD-84-001 CHUTE, GRAVITY SCREEN O'SIZE SCREEN #1 2050-3800 FOURNIER 591-24655 591-7-047 BD-84-001 CHUTE, GRAV. SCREEN UVERSIZE SCREEN #1 2050-3800 FOURNIER 591-24655 591-7-047 BD-84-004 CHUTE, GRAV. SCREEN UVERSIZE SCREEN #1 2050-3800 FOURNIER 591-24655 591-7-047 BD-84-004 CHUTE, GRAV. SCREEN UVERSIZE SCREEN #1 2050-3800 FOURNIER 591-24655 591-7-047 <td< td=""><td>80-82-002</td><td>PORTABLE GOLD CONCENTRATE BOX</td><td>2050-3600</td><td>FOURNIER</td><td></td><td>591-25616</td><td>591-F-045</td><td></td></td<>	80-82-002	PORTABLE GOLD CONCENTRATE BOX	2050-3600	FOURNIER		591-25616	591-F-045	
D0-2-005 PUMP BOX, GRAVITY TALS 2050-3800 FOURNER 591-24655 591-24255 591-24255 591-24255 591-24255 591-24255	80-82-003	PUMP BOX, CONC. FEED	2050-3600	FOURNIER		591-25616	591-F-045	
80-82-006 SURGE TANK SHARING TABLE FEED 2050-3600 FOURNIER 591-24655 591-647 80-82-007 MAGNETIC SEPARATOR DISCHARGE BOX 2050-3600 FOURNIER 591-2465 591-647 80-82-007 FEED BOX - GRAVITY SCREEN 2050-3600 SIMPLICITY 591-2465 591-647 80-82-007 FEED BOX - GRAVITY SCREEN 2050-3600 FOURNIER 591-24656 591-647 80-82-007 CHUTE, GRAVITY SCREEN O'SIZE SCREEN #1 2050-3600 FOURNIER 591-24656 591-647 80-84-001 CHUTE, GRAVITY SCREEN O'SIZE SCREEN #1 2050-3600 FOURNIER 591-24656 591-647 80-84-001 CHUTE, GRAVITY SCREEN UVERSIZE SCREEN #2 2050-3600 FOURNIER 591-24656 591-647 80-84-001 CONE DISTRIBUTOR 2050-307 MINERAL TECHNOLOGIES 591-24719 591-601 80-83-001 PUMP #1, PROCESS WATER 2040-3500 HYDRO DYNAMICS 150 HP 591-601 90-83-001 PUMP #1, PROCESS WATER 2040-3500 HYDRO DYNAMICS 150 HP 591-601 90-83-001 PUMP #1, PROCESS WATER 2040-3500 HYDRO DYNAMICS 150 HP 5	80-82-004	PUMP BOX, SPIRAL FEED	2050-3600	FOURNIER		591-24656	591-F-047	
D02-2007 MAGNETIC SEPARATOR DISCHARGE BOX 2050-3800 FOURNER 591-2465 591-7-017 D02-2009 FEED BOX - GRAVITY SCREEN 2050-3800 SIMPLICITY 591-22491 591-7-013 D02-2009 FEED BOX - GRAVITY SCREEN 2050-3800 SIMPLICITY 591-24656 591-7-017 D02-4001 CHUTE, GRAVITY SCREEN 075/22 SCREEN #1 2050-3800 FOURNER 591-24656 591-7-047 D04-4001 CHUTE, GRAVITY SCREEN 075/22 SCREEN #1 2050-3800 FOURNER 591-24656 591-7-047 D04-4001 CHUTE, GRAVIT SCREEN 075/22 SCREEN #1 2050-3800 FOURNER 591-24656 591-7-047 D04-4002 CHUTE, GRAVIT SCREEN 079/22 SCREEN #1 2050-3800 FOURNER 591-24656 591-7-047 D04-4004 CHUTE, GRAVIT SCREEN 079/22 SCREEN #1 2050-3800 FOURNER 591-24656 591-7-047 D04-4004 CHUTE, GRAVIT SCREEN 079/22 SCREEN #2 2050-3800 HYDRO DYNAMICS 150 HP 591-24639 591-7-021 D04-3002 PUMP #1, PROCESS WATER 2040-3500 HYDRO DYNAMICS 150 HP 591-24639 591-7-021 D043-001 PUMP #1, PROCESS WATER TANK <td>80-82-005</td> <td>PUMP BOX, GRAVITY TAILS</td> <td>2050-3600</td> <td>FOURNIER</td> <td></td> <td>591-24656</td> <td>591-F-047</td> <td></td>	80-82-005	PUMP BOX, GRAVITY TAILS	2050-3600	FOURNIER		591-24656	591-F-047	
Diabactors FEED BOX - GRAVITY SCREEN 2050-3000 SIMPLICITY 591-23491 591-7-013 Diabactors SIMPLICITY S91-23491 S91-7-013 S91-7-013 Diabactors SIMPLICITY S91-23491 S91-7-013 Diabactors CHUTE, GRAVITY SCREEN O'SIZE SCREEN #1 2050-3600 FOURNIER S91-24656 S91-7-047 Diabactors CHUTE, GRAVITY SCREEN UVERSIZE SCREEN #1 2050-3600 FOURNIER S91-24656 S91-7-047 Diabactors CHUTE, GRAV. SCREEN UVERSIZE SCREEN #1 2050-3600 FOURNIER S91-24656 S91-7-047 Diabactors CHUTE, GRAV. SCREEN UVERSIZE SCREEN #1 2050-3600 FOURNIER S91-23719 S91-7-047 Diabactor CUNE STRIBUTOR 2050-3075 MINERAL TECHNOLOGIES S91-24639 S91-7-021 Diabactor PUMP #1, PROCESS WATER 2040-3500 HYDRO DYNAMICS 150 HP S91-24639 S91-7-021 Diabactor PUMP #1, PROCESS WATER 2040-3500 HYDRO DYNAMICS 150 HP S91-24639 S91-7-021 Diabactor PUMP #1, PROCESS WATER	80-82-006	SURGE TANK SHAKING TABLE FEED						
B082-2009 FEED BOX - GRAVITY SCREEN 2050-3600 SIMPLICITY 591-23491 591-F-013 B084-001 CHUTE, GRAVITY SCREEN O'SIZE SCREEN #1 2050-3600 FOURNIER 591-24655 591-F-047 B084-001 CHUTE, GRAVITY SCREEN UVERSIZE SCREEN #1 2050-3600 FOURNIER 591-24655 591-F-047 B084-001 CHUTE, GRAV. SCREEN UVERSIZE SCREEN #1 2050-3600 FOURNIER 591-24656 591-F-047 B084-001 COUR DISTRIBUTOR 2050-3600 FOURNIER 591-24656 591-F-047 B0-87-001 CONE DISTRIBUTOR 2050-3600 HYDRO DYNAMICS 150 HP 591-24639 591-F-021 B0-83-001 PUMP #1, PROCESS WATER 2040-3500 HYDRO DYNAMICS 150 HP 591-24639 591-F-021 B0-83-005 PUMP #3, PROCESS WATER 2040-3500 HYDRO DYNAMICS 250 HP 591-24635 591-F-021 B0-83-005 EXISTING PUMP, THICK UFLOW, HP MODIF. 2040-3500 HYDRO DYNAMICS 250 HP 591-24635 591-F-021 B0-84-001 SUMP PUMP, PROCESS WATER TANK 2040-3500 FOURNIER <td>80-82-007</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	80-82-007							
0.84-001 CHUTE, GRAVITY SCREEN O'SIZE SCREEN #1 2050-3600 FOURNIER 591-24656 591-F-047 0.84-002 CHUTE, GRAVITY SCREEN O'SIZE SCREEN #2 2050-3600 FOURNIER 591-24656 591-F-047 0.84-002 CHUTE, GRAV, SCREEN UVERSIZE SCREEN #2 2050-3600 FOURNIER 591-24656 591-F-047 0.84-001 CHUTE, GRAV, SCREEN UVERSIZE SCREEN #2 2050-3600 FOURNIER 591-24656 591-F-047 0.84-001 CONE DISTRIBUTOR 2050-3007 MINERAL TECHNOLOGIES 591-24639 591-F-047 0.63-002 PUMP #1, PROCESS WATER 2040-3500 HYDRO DYNAMICS 150 HP 591-24639 591-F-021 0.63-002 PUMP #2, PROCESS WATER 2040-3500 HYDRO DYNAMICS 150 HP 591-24639 591-F-021 0.63-004 EXISTING PUMP, THICK UFLOW, HP MODIF. 2040-3500 HYDRO DYNAMICS 250 HP 591-24216 591-F-021 0.63-005 EXISTING PUMP, THICK UFLOW, HP MODIF. 2040-3500 DENVER SALA 7.5 HP 591-24216 591-F-021 0.64-001 SUMP PUMP, PROCESS WATER TANIK 2040	80-82-008							
0044-002 CHUTE, GRAVITY SCREEN 0'SIZE SCREEN #2 2050-3600 FOURNIER 591-24656 591-F-047 0044-003 CHUTE, GRAV. SCREEN U'VERSIZE SCREEN #1 2050-3600 FOURNIER 591-24656 591-F-047 0044-004 CHUTE, GRAV. SCREEN U'VERSIZE SCREEN #2 2050-3600 FOURNIER 591-24656 591-F-047 0047-001 CONE DISTRIBUTOR 2050-3600 HVDRO DYNAMICS 150 HP 591-24656 591-F-021 0043-002 PUMP #1, PROCESS WATER 2040-3500 HYDRO DYNAMICS 150 HP 591-24639 591-F-021 0043-002 PUMP #2, PROCESS WATER 2040-3500 HYDRO DYNAMICS 150 HP 591-24639 591-F-021 0043-002 PUMP #2, PROCESS WATER 2040-3500 HYDRO DYNAMICS 150 HP 591-24639 591-F-021 0043-001 EXISTING PUMP, THICK UFLOW, HP MODIF. 2040-3500 HYDRO DYNAMICS 250 HP 591-24216 591-F-021 0044-001 SUMP PUMP, PROCESS WATER TANK 2040-3500 HORNO DYNAMICS 250 HP 591-24236 591-F-035 0-942-001 PROMARY LEACH CIRCUIT SAMPLER 2060-3500 FOURNIER 591-24236 591-F-035	80-82-009	FEED BOX - GRAVITY SCREEN	2050-3600	SIMPLICITY		591-23491	591-F-013	
0044-003 CHUTE, GRAV. SCREEN UVERSIZE SCREEN #1 2050-3800 FOURNIER 591-24656 591-F-047 0044-004 CHUTE, GRAV. SCREEN UVERSIZE SCREEN #2 2050-3075 MINERAL TECHNOLOGIES 591-24656 591-F-047 00-87-001 CONE DISTRIBUTOR 2060-3075 MINERAL TECHNOLOGIES 591-24639 591-F-014 00-87-001 PUMP #1, PROCESS WATER 2040-3500 HYDRO DYNAMICS 150 HP 591-24639 591-F-021 00-83-002 PUMP #2, PROCESS WATER 2040-3500 HYDRO DYNAMICS 150 HP 591-24639 591-F-021 00-83-002 PUMP #2, PROCESS WATER 2040-3500 HYDRO DYNAMICS 150 HP 591-24639 591-F-021 00-83-001 PUMP #2, PROCESS WATER 2040-3500 HYDRO DYNAMICS 250 HP 591-24639 591-F-021 00-83-001 EXISTING PUMP, THICK UFLOW, HP MODIF. 2040-3500 HYDRO DYNAMICS 250 HP 591-24216 591-F-021 00-83-001 SUMP PUMP, PROCESS WATER TANK 2040-3500 FOURNIER 591-24216 591-F-047 00-84-001 SUMP PUMP, PROCESS WATER TANK 2040-3500 FOURNIER 591-24216 591-F-047 <tr< td=""><td>80-84-001</td><td>•</td><td></td><td></td><td></td><td></td><td></td><td></td></tr<>	80-84-001	•						
0044-004 CHUTE, GRAV. SCREEN UVERSIZE SCREEN #2 2050-3800 FOURNIER 591-24556 591-7-047 0047-001 CONE DISTRIBUTOR 2050-3005 MINERAL TECHNOLOGIES 591-23719 591-F-014 0047-001 PUMP #1, PROCESS WATER 2040-3500 HYDRO DYNAMICS 150 HP 591-2439 591-F-021 0043-002 PUMP #2, PROCESS WATER 2040-3500 HYDRO DYNAMICS 150 HP 591-2439 591-F-021 0043-004 EXISTING PUMP, THICK UFLOW, HP MODIF. 2040-3500 HYDRO DYNAMICS 250 HP 591-24216 591-F-021 0043-004 EXISTING PUMP, THICK UFLOW, HP MODIF. 2040-3500 HYDRO DYNAMICS 250 HP 591-24216 591-F-021 0044-001 SUMP PUMP, PROCESS WATER TANK 2040-3500 DENVER SALA 7.5 HP 591-24216 591-F-037 0-82-001 PRICESS WATER TANK 2040-3600 FOURNIER 591-24216 591-F-047 0-94-001 SUMP PUMP, PROCESS WATER TANK 2040-3600 FOURNIER 591-24216 591-F-047 0-19-002 PRIMARY LEACH CIRCUIT SAMPLER 2060-3500 HARRISON COOPER 591-24216 591-F-045 0-19	80-84-002	•						
00-87-001 CONE DISTRIBUTOR 2050-3075 MINERAL TECHNOLOGIES 591-23719 591-F-014 00-83-001 PUMP #1, PROCESS WATER 2040-3500 HYDRO DYNAMICS 150 HP 591-24639 591-F-021 00-83-002 PUMP #2, PROCESS WATER 2040-3500 HYDRO DYNAMICS 150 HP 591-24639 591-F-021 00-83-003 PUMP #3, PROCESS WATER 2040-3500 HYDRO DYNAMICS 250 HP 591-24639 591-F-021 00-83-005 EXISTING PUMP, THICK UFLOW, HP MODIF. 2040-3500 HYDRO DYNAMICS 250 HP 591-24639 591-F-021 00-64-001 SUMP PUMP, PROCESS WATER TANK 2040-3500 HYDRO DYNAMICS 250 HP 591-24656 591-F-047 0-82-001 PROCESS WATER TANK 2040-3500 DENVER SALA 7.5 HP 591-24656 591-F-047 0-90-401 SUMP PUMP, PROCESS WATER TANK 2040-3500 HARRISON COOPER 591-24656 591-F-047 0-19-002 PRIMARY LEACH CIRCUIT SAMPLER 2060-3500 HARRISON COOPER 591-24656 591-F-035 0-31-001 AGITATOR, LEACH TANK #1	80-84-003	•						
0-63-001 PUMP #1, PROCESS WATER 2040-3500 HYDRO DYNAMICS 150 HP 591-24639 591-F-021 0-63-002 PUMP #2, PROCESS WATER 2040-3500 HYDRO DYNAMICS 150 HP 591-24639 591-F-021 0-63-003 PUMP #2, PROCESS WATER 2040-3500 HYDRO DYNAMICS 150 HP 591-24639 591-F-021 0-63-004 EXISTING PUMP, THICK UFLOW, HP MODIF. 2040-3500 HYDRO DYNAMICS 250 HP 591-24639 591-F-021 0-63-005 EXISTING PUMP, THICK UFLOW, HP MODIF. 2040-3500 HYDRO DYNAMICS 250 HP 591-24216 591-F-021 0-64-001 SUMP PUMP, PROCESS WATER TANK 2040-3500 DENVER SALA 7.5 HP 591-24216 591-F-047 0-82-001 PROCESS WATER TANK 2040-3600 FOURNIER 591-24239 591-F-047 0-9202 PRIMARY LEACH CIRCUIT SAMPLER 2060-3500 HARRISON COOPER 591-24239 591-F-035 0-31-001 AGITATOR, LEACH TANK #1 2060-3500 HARWARD GORDON 125 HP 591-24216 591-F-035 0-44-001 SUMP PUMP, LEACH AREA 2060-3500 DENVER SALA 25 HP 591-24335 <	80-84-004	CHUTE, GRAV. SCREEN UVERSIZE SCREEN #2	2050-3600	FOURNIER		591-24656	591-F-047	_
0-63-002 PUMP #2, PROCESS WATER 2040-3500 HYDRO DYNAMICS 150 HP 591-24539 591-F-021 0-63-003 PUMP #3, PROCESS WATER 2040-3500 HYDRO DYNAMICS 150 HP 591-24539 591-F-021 0-63-004 EXISTING PUMP, THICK UTLOW, HP MODIF. 2040-3500 HYDRO DYNAMICS 250 HP 591-7-021 0-63-005 EXISTING PUMP, THICK UTLOW, HP MODIF. 2040-3500 DENVER SALA 7.5 HP 591-24216 591-F-035 0-64-001 SUMP PUMP, PROCESS WATER TANK 2040-3500 DENVER SALA 7.5 HP 591-24216 591-F-047 0-64-001 PROCESS WATER TANK 2040-3500 FOURNIER 591-24239 591-F-047 0-64-001 PROCESS WATER TANK 2040-3500 HARRISON COOPER 591-24239 591-F-047 0-19-001 PRIMARY LEACH CIRCUIT SAMPLER 2060-3500 HARRISON COOPER 591-24239 591-F-035 0-31-001 AGITATOR, LEACH TANK #1 2060-3500 DENVER SALA 25 HP 591-24216 591-F-035 0-44-001 SUMP PUMP, LEACH AREA 2060-3500 DENVER SALA 25 HP 591-23435 591-F-035 0-44-001	80-87- 00 1	CONE DISTRIBUTOR	2050-3075	MINERAL TECHNOLOGIES	:	591-23719	591-F-014	
0-63-003 PUMP #3, PROCESS WATER 2040-3500 HYDRO DYNAMICS 150 HP 591-24639 591-F-021 0-63-004 EXISTING PUMP, THICK UFLOW, HP MODIF. 2040-3500 HYDRO DYNAMICS 250 HP 591-7035 0-63-005 EXISTING PUMP, THICK UFLOW, HP MODIF. 2040-3500 DENVER SALA 7.5 HP 591-24216 591-F-035 0-64-001 SUMP PUMP, PROCESS WATER TANK 2040-3600 FOURNIER 591-24656 591-F-047 0-64-001 PROCESS WATER TANK 2040-3600 FOURNIER 591-24636 591-F-047 0-64-001 PROCESS WATER TANK 2040-3600 FOURNIER 591-24656 591-F-047 0-19-001 PRIMARY LEACH CIRCUIT SAMPLER 2060-3600 HARRISON COOPER 591-24638 591-F-035 0-31-001 AGITATOR, LEACH TANK #1 2060-3090 HARWARD GORDON 125 HP 591-24216 591-F-035 0-44-001 SUMP PUMP, LEACH AREA 2060-3600 DENVER SALA 25 HP 591-24216 591-F-035 0-44-001 CHUTE TRASH SCREEN DISCHARGE 2060-3600 STRUCTURES G.B. 591-23435 591-F-018 0-41-001 CARBON TAILINGS CATCH SCREEN	90-63-001	PUMP #1, PROCESS WATER	2040-3500	HYDRO DYNAMICS	150 HP	591-24639	591-F-021	
0-63-004 EXISTING PUMP, THICK UFLOW, HP MODIF. 2040-3500 HYDRO DYNAMICS 250 HP 0-63-005 EXISTING PUMP, THICK UFLOW, HP MODIF. 2040-3500 HYDRO DYNAMICS 250 HP 0-64-001 SUMP PUMP, PROCESS WATER TANK 2040-3500 DENVER SALA 7.5 HP 591-24216 591-F-035 0-82-001 PROCESS WATER TANK 2040-3500 DENVER SALA 7.5 HP 591-24236 591-F-047 0-9-001 PRIMARY LEACH CIRCUIT SAMPLER 2060-3500 HARRISON COOPER 591-24239 591-F-050 0-19-002 PRIMARY LEACH CIRCUIT SAMPLER 2060-3500 HARRISON COOPER 591-24239 591-F-031 0-31-001 AGITATOR, LEACH TANK #1 2060-3500 HARRISON COOPER 591-24216 591-F-031 0-64-001 SUMP PUMP, LEACH AREA 2060-3500 DENVER SALA 25 HP 591-24216 591-F-035 0-44-001 SUMP PUMP, LEACH AREA 2060-3600 STRUCTURES G.B. 591-24216 591-F-018 0-44-001 CHUTE TRASH SCREEN DISCHARGE 2060-3600 STRUCTURES G.B. 591-23435 591-F-018 0-41-001 CARBON TAILINGS CATCH SCREEN 2060-3750 OSNA E	90-63-002	PUMP #2, PROCESS WATER	2040-3500	HYDRO DYNAMICS	150 HP	591-24639	591-F-021	
0-63-005 EXISTING PUMP, THICK UFLOW, HP MODIF. 2040-3500 HYDRO DYNAMICS 250 HP 0-64-001 SUMP PUMP, PROCESS WATER TANK 2040-3500 DENVER SALA 7.5 HP 591-24216 591-F-035 0-82-001 PROCESS WATER TANK 2040-3600 FOURNIER 591-24216 591-F-047 0-9-001 PRIMARY LEACH CIRCUIT SAMPLER 2060-3500 HARRISON COOPER 591-24239 591-F-050 0-19-002 PRIMARY LEACH CIRCUIT SAMPLER 2060-3500 HARRISON COOPER 591-24239 591-F-031 0-31-001 AGITATOR, LEACH CIRCUIT SAMPLER 2060-3500 HAYWARD GORDON 125 HP 591-23638 591-F-031 0-64-001 SUMP PUMP, LEACH AREA 2060-3500 DENVER SALA 25 HP 591-24216 591-F-035 0-64-001 SUMP PUMP, LEACH AREA 2060-3500 DENVER SALA 25 HP 591-24216 591-F-035 0-62-001 TANK #1, LEACH 2060-3600 STRUCTURES G.B. 591-23435 591-F-018 0-84-001 CHUTE TRASH SCREEN DISCHARGE 2060-3700 STRUCTURES G.B. 591-24013 591-F-018 0-11-001 CARBON TALLINGS CATCH SCREEN 2060	90-63-003	-				591-24639	591-F-021	:
0-64-001 SUMP PUMP, PROCESS WATER TANK 2040-3500 DENVER SALA 7.5 HP 591-24216 591-F-035 0-82-001 PROCESS WATER TANK 2040-3600 FOURNIER 591-24236 591-F-047 0-19-001 PRIMARY LEACH CIRCUIT SAMPLER 2060-3500 HARRISON COOPER 591-24239 591-F-050 0-19-002 PRIMARY LEACH CIRCUIT SAMPLER 2060-3500 HARRISON COOPER 591-24239 591-F-050 0-31-001 AGITATOR, LEACH TANK #1 2060-3500 HAYWARD GORDON 125 HP 591-24216 591-F-035 0-64-001 SUMP PUMP, LEACH AREA 2060-3500 DENVER SALA 25 HP 591-24216 591-F-035 0-82-001 TANK #1, LEACH 2060-3600 STRUCTURES G.B. 591-23435 591-F-018 0-84-001 CHUTE TRASH SCREEN DISCHARGE 2060-3600 STRUCTURES G.B. 591-23435 591-F-018 0-11-001 CARBON TAILINGS CATCH SCREEN 2060-3750 OSNA EQUIPMENT 1.1 HP 591-24013 591-F-044 0-11-002 KITERSTAGE SCREEN #1, CIP TANK #1 2060-3730 OSNA EQUIPMENT 15 HP 591-23796 591-F-023	90-63-004							
0-82-001 PROCESS WATER TANK 2040-3600 FOURNIER 591-24656 591-F-047 0-19-001 PRIMARY LEACH CIRCUIT SAMPLER 2060-3500 HARRISON COOPER 591-24239 591-F-050 0-19-002 PRIMARY LEACH CIRCUIT SAMPLER 2060-3500 HARRISON COOPER 591-24239 591-F-050 0-31-001 AGITATOR, LEACH CIRCUIT SAMPLER 2060-3500 HARRISON COOPER 591-23638 591-F-031 0-44-001 SUMP PUMP, LEACH AREA 2060-3500 DENVER SALA 25 HP 591-24216 591-F-035 0-42-001 TANK #1, LEACH 2060-3500 DENVER SALA 25 HP 591-24216 591-F-035 0-42-001 TANK #1, LEACH 2060-3600 STRUCTURES G.B. 591-23435 591-F-018 0-44-001 CHUTE TRASH SCREEN DISCHARGE 2060-3600 STRUCTURES G.B. 591-23435 591-F-018 0-11-001 CARBON TALLINGS CATCH SCREEN 2060-3750 OSNA EQUIPMENT 1.1 HP 591-24013 591-F-043 0-11-001 CARBON TALLINGS CATCH SCREEN 2060-3730 OSNA EQUIPMENT 15 HP 591-24013 591-F-023	80-03-005	EAISTING PUMP, THICK UFLOW, HP MODIF.	2040-3500	HYDRO DYNAMICS	250 HP			
0-19-001 PRIMARY LEACH CIRCUIT SAMPLER 2060-3500 HARRISON COOPER 591-24239 591-F-050 0-19-002 PRIMARY LEACH CIRCUIT SAMPLER 2060-3500 HARRISON COOPER 591-24239 591-F-050 0-31-001 AGITATOR, LEACH TANK #1 2060-3090 HAYWARD GORDON 125 HP 591-23638 591-F-031 0-64-001 SUMP PUMP, LEACH AREA 2060-3500 DENVER SALA 25 HP 591-24216 591-F-035 0-82-001 TANK #1, LEACH 2060-3600 STRUCTURES G.B. 591-23435 591-F-018 0-84-001 CHUTE TRASH SCREEN DISCHARGE 2060-3600 STRUCTURES G.B. 591-23435 591-F-018 0-11-001 CARBON TAILINGS CATCH SCREEN 2060-3750 OSNA EQUIPMENT 1.1 HP 591-24013 591-F-044 0-11-002 INTERSTAGE SCREEN #1, CIP TANK #1 2060-3730 OSNA EQUIPMENT 15 HP 591-23796 591-F-023	90-64-001	SUMP PUMP, PROCESS WATER TANK	2040-3500	DENVER SALA	7.5 HP	591-24216	591-F-035	
0-19-002 PRIMARY LEACH CIRCUIT SAMPLER 2060-3500 HARRISON COOPER 591-24239 591-F-050 0-31-001 AGITATOR, LEACH TANK #1 2060-3090 HARRISON COOPER 591-23638 591-F-031 0-64-001 SUMP PUMP, LEACH AREA 2060-3500 DENVER SALA 25 HP 591-24216 591-F-035 0-82-001 TANK #1, LEACH 2060-3600 STRUCTURES G.B. 591-23435 591-F-018 0-84-001 CHUTE TRASH SCREEN DISCHARGE 2060-3600 STRUCTURES G.B. 591-23435 591-F-018 0-11-001 CARBON TAILINGS CATCH SCREEN 2060-3750 OSNA EQUIPMENT 1.1 HP 591-24013 591-F-044 0-11-002 INTERSTAGE SCREEN #1, CIP TANK #1 2060-3730 OSNA EQUIPMENT 15 HP 591-23796 591-F-023	90-82-001	PROCESS WATER TANK	2040-3600	FOURNIER		591-24656	591-F-047	
0-31-001 AGITATOR, LEACH TANK #1 2060-3090 HAYWARD GORDON 125 HP 591-23638 591-F-031 0-64-001 SUMP PUMP, LEACH AREA 2060-3500 DENVER SALA 25 HP 591-24216 591-F-035 0-82-001 TANK #1, LEACH 2060-3600 STRUCTURES G.B. 591-23435 591-F-018 0-84-001 CHUTE TRASH SCREEN DISCHARGE 2060-3600 STRUCTURES G.B. 591-23435 591-F-018 0-11-001 CARBON TAILINGS CATCH SCREEN 2060-3750 OSNA EQUIPMENT 1.1 HP 591-24013 591-F-044 0-11-002 INTERSTAGE SCREEN #1, CIP TANK #1 2060-3730 OSNA EQUIPMENT 15 HP 591-23796 591-F-023	00-19-001	PRIMARY LEACH CIRCUIT SAMPLER	2060-3500	HARRISON COOPER		591-24239	591-F-050	
0-64-001 SUMP PUMP, LEACH AREA 2060-3500 DENVER SALA 25 HP 591-24216 591-F-035 0-82-001 TANK #1, LEACH 2060-3600 STRUCTURES G.B. 591-23435 591-F-018 0-84-001 CHUTE TRASH SCREEN DISCHARGE 2060-3600 STRUCTURES G.B. 591-23435 591-F-018 0-11-001 CARBON TAILINGS CATCH SCREEN 2060-3750 OSNA EQUIPMENT 1.1 HP 591-24013 591-F-044 0-11-002 INTERSTAGE SCREEN #1, CIP TANK #1 2060-3730 OSNA EQUIPMENT 15 HP 591-23796 591-F-023	00-19-002	PRIMARY LEACH CIRCUIT SAMPLER	2060-3500	HARRISON COOPER		591-24239	591-F-050	
0-82-001 TANK #1, LEACH 2060-3600 STRUCTURES G.B. 591-23435 591-F-018 0-84-001 CHUTE TRASH SCREEN DISCHARGE 2060-3600 STRUCTURES G.B. 591-23435 591-F-018 0-11-001 CARBON TAILINGS CATCH SCREEN 2060-3750 OSNA EQUIPMENT 1.1 HP 591-24013 591-F-044 0-11-002 INTERSTAGE SCREEN #1, CIP TANK #1 2060-3730 OSNA EQUIPMENT 15 HP 591-23796 591-F-023	00-31-001	AGITATOR, LEACH TANK #1	2060-3090	HAYWARD GORDON	125 HP	591 -2363 8	591-F-031	
0-84-001 CHUTE TRASH SCREEN DISCHARGE 2060-3600 STRUCTURES G.B. 591-23435 591-F-018 0-11-001 CARBON TAILINGS CATCH SCREEN 2060-3750 OSNA EQUIPMENT 1.1 HP 591-24013 591-F-044 0-11-002 INTERSTAGE SCREEN #1, CIP TANK #1 2060-3730 OSNA EQUIPMENT 15 HP 591-23796 591-F-023	00-64-001	SUMP PUMP, LEACH AREA	2060-3500	DENVER SALA	25 HP	591-24216	591-F-035	
0-11-001 CARBON TAILINGS CATCH SCREEN 2060-3750 OSNA EQUIPMENT 1.1 HP 591-24013 591-F-044 0-11-002 INTERSTAGE SCREEN #1, CIP TANK #1 2060-3730 OSNA EQUIPMENT 15 HP 591-23796 591-F-023	0-82-001	TANK #1, LEACH	2060-3600	STRUCTURES G.B.		591-23435	5 91-F-018	
0-11-002 INTERSTAGE SCREEN #1, CIP TANK #1 2060-3730 OSNA EQUIPMENT 15 HP 591-23796 591-F-023	0-84-001	CHUTE TRASH SCREEN DISCHARGE	2060-3600	STRUCTURES G.B.		591-23435	591-F-018	
			2060-3750	OSNA EQUIPMENT	1.1 HP	591-24013	591-F-044	
0-11-003 INTERSTAGE SCREEN #2, CIP TANK #1 2060-3730 OSNA EQUIPMENT 15 HP 591-23796 591-F-023			2060-3730	OSNA EQUIPMENT	15 HP	591 -23796	591-F-023	1
	0-11-003	INTERSTAGE SCREEN #2, CIP TANK #1	2060-3730	OSNA EQUIPMENT	<u>15 HP</u>	591-23796	591-F-023	
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Equip.#	Equipment Description	Cost-Code	: Supplier		P.O.	Contrac
					<u>No.</u>	No.
510-11-004	INTERSTAGE SCREEN #1, CIP TANK #2	2060-3730	OSNA EQUIPMENT	15 HP	501 22705	E04 E 00
510-11-005	INTERSTAGE SCREEN #1, CIP TANK #2	2060-3730		15 HP	591-23796 591-23796	591-F-023
510-11-006	INTERSTAGE SCREEN #1, CIP TANK #3	2060-3730		15 HP	591-23796	591-F-02 591-F-02
510-11-007	INTERSTAGE SCREEN #2, CIP TANK #3	2060-3730		15 HP	591-23796	
510-11-008	INTERSTAGE SCREEN #1, CIP TANK #4	2060-3730		15 HP	591-23796	591-F-02
510-11-009	INTERSTAGE SCREEN #2, CIP TANK #4	2060-3730		15 HP	591-23796	591-F-02: 591-F-02:
510-11-013	CARBON RECOVERY SCREEN	2060-3750		2 HP	591-23790	591-F-02
		2000-0100	CONTR EQUIPMENT	2 116	331-23432	591-6-022
510-31-001	AGITATOR, CIP TANK #1	2060-3090	HAYWARD GORDON	60 HP	591-23638	591-F-03
510-31-002	AGITATOR, CIP TANK #2	2060-3090	HAYWARD GORDON	60 HP	591-23638	591-F-03
510-31-003	AGITATOR, CIP TANK #3	2060-3090	HAYWARD GORDON	60 HP	591-23638	591-F-03
510-31-004	AGITATOR, CIP TANK #4	2060-3090	HAYWARD GORDON	60 HP	591-23638	591-F-03
510-63-003	TAILINGS PUMP 1ST STAGE MODIF.	2060-3500	OWNER	450 HP		
510-63-004	TAILINGS PUMP 1ST STAGE MODIF.	2060-3500	OWNER	450 HP		
510-63-005	TAILINGS PUMP 2ND STAGE	2060-3500	HYDRO DYNAMICS	500 HP	591-24639	591-F-02
510-63-006	TAILINGS PUMP 2ND STAGE	2060-3500	HYDRO DYNAMICS	500 HP	591-24639	591-F-02
510-63-007	TAILINGS PUMP 3RD STAGE	2060-3500	HYDRO DYNAMICS	500 HP	591-24639	591-F-02
510-63-008	TAILINGS PUMP 3RD STAGE	2060-3500	HYDRO DYNAMICS	500 HP	591-24639	591-F-021
•			•	00011	051-24005	001-1-02
510-64-0 01	SUMP PUMP #1, CIP AREA	2060-3500) DENVER SALA	20 HP	591-24216	591-F-03
				2011	557-24210	
510-65-001	RECLAIM WATER BOOSTER PUMP	2060-3500	ITT A-C PUMPS	20 HP	591-24215	591-F-029
510-65-002	RECLAIM WATER BOOSTER PUMP	2060-3500	ITT A-C PUMPS	20 HP	591-24215	591-F-029
510-65-003	COOLING WATER PUMP (PROCESS)	2060-3500	ITT A-C PUMPS	15 HP	591-24215	591-F-029
510-65-004	COOLING WATER PUMP (PROCESS)	2060-3500	ITT A-C PUMPS	15 HP	591-24215	591-F-029
510-65-00 5	SPENT WATER PUMP	2060-3500	ITT A-C PUMPS	50 HP	591-24215	591-F-029
510-65-006	GLAND WATER PUMP (LOW PRESSURE)	2060-3500	ITT A-C PUMPS	15 HP	591-24215	591-F-029
510-65-007	GLAND WATER PUMP (HIGH PRESSURE)	2060-3500	ITT A-C PUMPS	25 HP	591-24215	591-F-029
510-65-008	GLAND WATER PUMP (HIGH PRESSURE)	2060-3500	ITT A-C PUMPS	25 HP	591-24215	591-F-029
510-68-001	CARBON ADVANCE PUMP, CIP TANK #1	2060-3500	HYDRO DYNAMICS	10 HP	591-24242	591-F-030
510-68-002	CARBON ADVANCE PUMP, CIP TANK #2	2060-3500	HYDRO DYNAMICS	7.5 HP	591-24242	591-F-030
510-68-003	CARBON ADVANCE PUMP, CIP TANK #3	2060-3500	HYDRO DYNAMICS	7.5 HP	591-24242	591-F-030
510-68-004	CARBON ADVANCE PUMP, CIP TANK #4	2060-3500	HYDRO DYNAMICS	7.5 HP	591-24242	591-F-030
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510-82-001	CIP TANK #1	2060-3600	STRUCTURES G.B.		591-23435	591-F-018
510-82-002	CIP TANK #2	2060-3600	STRUCTURES G.B.		591-23435	591-F-018
510-82-003	CIP TANK #3	2060-3600	STRUCTURES G.B.		591-23435	591-F-018
510-82-004	CIP TANK #4	2060-3600	STRUCTURES G.B.		591-23435	591-F-018
510-84-001	LAUNDER U/S, CARBON RECOVERY SCREEN	2060-3600	FOURNIER		591-24656	591-F-047
510-84-002	LAUNDER O/S, CARBON RECOVERY SCREEN	2060-3600	FOURNIER		591-24656	591-F-047
510-84-003	LAUNDER O/S&U/S, CARBON CATCH SCREEN	2060-3600	FOURNIER		591-24656	591-F-047
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530-33-001	STRIP SOLUTION HEATER	2070-3110	HTH HEATECH		591-24253	591-F-118
540-10-001	LIME SLAKING BALL MILL (4'X7')	2080-3170	WESTPRO	50 HP	591-24243	591-F-122
540-18-001	SCREW FEEDER, LIME BALL MILL	2080-3170	STANCO	1 HP	591-24241	591-F-024
540-30-001	BIN ACTIVATOR LIME	2080-3600	STANCO		591-24241	591-F-024

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Store Control Control <thcontrol< th=""> <thcontrol< th=""> <thcon< th=""><th>Equip, #</th><th>Equipment Description</th><th>Cost-Code</th><th>Supplier</th><th></th><th>P.O. No.</th><th>Contra No.</th></thcon<></thcontrol<></thcontrol<>	Equip, #	Equipment Description	Cost-Code	Supplier		P.O. No.	Contra No.
Second Construction Monoralit Hoist (ELEC), 2 Tonnes CAPACITY 2080-3500 STANCO 2 HP 591-24241 591-542 Second Construction Sump Pump, Reagents 2080-3500 DENVER SALA 15 HP 591-24211 591-2421 591-2421 591-542 Second Construction 2080-3500 STANCO 10 HP 591-2421 591-542 591-2421 591-542 Second Construction 2080-3500 STANCO 10 HP 591-2421 591-5424 591-542 591-542	540-31-001	AGITATOR, CYANIDE MIX TANK	2080-3090	HAYWARD GORDON	3 HP	591-23638	591-F-03
Sector of all and control (LEC), FORME DENTIFY Control and con	540-31-002	AGITATOR, LIME TANK	2080-3170	HAYWARD GORDON	20 HP	591-23638	591-F-0
Sector of the function function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of the function Sector of function Sector of the function Sector of the function Sector of the function Sector of function Sector of function Sector of function Sector of function<	540-44-001	MONORAIL HOIST (ELEC), 2 TONNES CAPACITY	2080-3600	STANCO	2 HP	591-24241	591-F-0
Construction Distribution 2000-3500 STANCO 10 HP 591-24241 591-70 540-67-002 PUMP, LME DISTRIBUTION 2000-3500 STANCO 10 HP 591-24241 591-70 540-67-002 PUMP, CYA, TRANS, TANK, CENTRIF, 80 USGPM 2000-3500 STANCO 5 HP 591-24241 591-74 540-67-007 METERING PUMP, CYA, TRANS, TANK, CENTRIF, 80 USGPM 2000-3500 STANCO 5 HP 591-24241 591-74 540-76-001 EYE WASH AND SHOWER, LOWER LEVEL 2010-0050 STANCO 591-24241 591-74 540-76-002 EYE WASH UPPER LEVEL 2010-0050 STANCO 591-24241 591-74 540-76-002 EYE WASH UPPER LEVEL 2010-0050 STANCO 591-24241 591-74 540-82-001 MIX TANK (2 MIDIA, X 3.05M HIGH), CYANIDE 2000-3090 STANCO 591-24241 591-74 540-82-001 MIX TANK (2 MINGH, LIME, LIME STORAGE 2000-3170 STANCO 591-24241 591-74 540-84-001 PUMPBOX, LIME MILL DISCHARGE 2000-3170 STANCO 591-24241 5	540-64-001	SUMP PUMP, REAGENTS	2080-3500	DENVER SALA	15 HP	591-24216	591-F-0
Sed-7005 PUMP, LIME DISTRIBUTION 2080-3500 STANCO 10 HP 591-24241 591-70 Sed-67005 PUMP, CYA TRANS.TANK, CENTRIF. 80 USGPM 2080-3500 STANCO 5 HP 591-24241 591-70 Sed-67006 METERING PUMP, CYANIDE (2-10 USGPM) 2080-3500 STANCO 5 HP 591-24241 591-70 Sed-67007 METERING PUMP, CYANIDE (2-10 USGPM) 2080-3500 STANCO 5 HP 591-24241 591-70 Sed-67007 METERING PUMP, CYANIDE (2-10 USGPM) 2080-3500 STANCO 591-24241 591-70 Sed-67-007 METERING PUMP, CYANIDE (2-10 USGPM) 2080-3500 STANCO 591-24241 591-70 Sed-67-007 METERING PUMP, CYANIDE (2-10 USGPM) 2080-3500 STANCO 591-24241 591-70 Sed-67-007 METERING PUMP, CYANIDE (2-10 USGPM) 2080-3500 STANCO 591-24241 591-70 Sed-82-001 MIX TANK (2.81M DIA, X.3.05M HIGH), CYANIDE 2080-3090 STANCO 591-24241 591-70 Sed-82-001 MIX TANK (2.81M DIA, X.4.9 M HIGH, LIME STORAGE 2080-3170 ST	540-67-0 01	DISCHARGE PUMP, LIME BALL MILL	2080-3500	STANCO	10 HP	591-24241	591-F-0
Sector Construct Funk Strukt Central Strukt Strukt Strukt Strukt <th< td=""><td>540-67-002</td><td>PUMP, LIME DISTRIBUTION</td><td>2080-3500</td><td>STANCO</td><td>10 HP</td><td>591-24241</td><td>591-F-0</td></th<>	540-67-002	PUMP, LIME DISTRIBUTION	2080-3500	STANCO	10 HP	591-24241	591-F-0
Sede-7000 Folk, FORT, NAR, GLATIN, GLATIN, SCHOM 2000-3500 STANCO 5 HP 591-24241 591-F-0 540-67:007 METTERING PUMP, CYANIDE (2-10 USGPM) 2080-3500 STANCO 5 HP 591-24241 591-F-0 540-76-001 EYE WASH AND SHOWER, LOWER LEVEL 2010-0050 STANCO 5 91-24241 591-F-0 540-76-002 EYE WASH UPPER LEVEL 2010-0050 STANCO 591-24241 591-F-0 540-76-002 EYE WASH UPPER LEVEL 2010-0050 STANCO 591-24241 591-F-0 540-82-001 MIX TANK (2.81M DIA, X.3.05M HIGH), CYANIDE 2080-3090 STANCO 591-24241 591-F-0 540-82-002 TANK (10 X 14), CYANIDE (HOLDING) 2080-3070 STANCO 591-24241 591-F-0 540-82-003 BIN, LIME FEED (STORAGE) 2080-3170 STANCO 591-24241 591-F-0 540-82-004 BIN, LIME FEED (STORAGE) 2080-3170 VESTRO 591-24241 591-F-0 540-84-001 PUMPBOX, LIME MILL (LIME) 2080-3170 WESTPRO 591-24241 591-F-0 540	540-67-003	PUMP, LIME DISTRIBUTION	2080-3500	STANCO			591-F-0
Sector 2000 METERING PUMP, CYANDE (2:10 USGPM) 2000 3500 STANCO 5 HP 591-24241 591-F-0 540-67-007 METERING PUMP, CYANDE (2:10 USGPM) 2080-3500 STANCO 591-24241 591-F-0 540-67-007 METERING PUMP, CYANDE (2:10 USGPM) 2080-3500 STANCO 591-24241 591-F-0 540-67-002 EYE WASH AND SHOWER, LOWER LEVEL 2010-0050 STANCO 591-24241 591-F-0 540-62-001 MIX TANK (2.81M DIA, X 3.05M HIGH), CYANIDE 2080-3090 STANCO 591-24241 591-74241 591-F-0 540-82-002 TANK (10 X 14), CYANIDE (HOLDING) 2080-3090 STANCO 591-24241 591-F-0 540-82-003 TANK (7.7 MIA, X 4.8 M HIGH, LME STORAGE 2080-3170 STANCO 591-24241 591-F-0 540-82-004 BIN, LIME FEED (STORAGE), 3500 KG CAPACITY 2080-3170 STANCO 591-24241 591-F-0 540-84-001 PUMPBOX, LIME MILL (LIME) 2080-3170 WESTPRO 591-24241 591-F-0 540-89-002 BAG BREAKER, CYANIDE 2080-3100 STANCO 591-24241 <td< td=""><td>540-67-005</td><td>PUMP, CYA.TRANS.TANK, CENTRIF. 80 USGPM</td><td>2080-3500</td><td></td><td></td><td></td><td>591-F-0</td></td<>	540-67-005	PUMP, CYA.TRANS.TANK, CENTRIF. 80 USGPM	2080-3500				591-F-0
S40-76-001 EYE WASH AND SHOWER, LOWER LEVEL 2010-0050 STANCO 591-24241 591-7-0 540-76-002 EYE WASH UPPER LEVEL 2010-0050 STANCO 591-24241 591-7-0 540-76-002 EYE WASH UPPER LEVEL 2010-0050 STANCO 591-24241 591-7-0 540-82-001 MIX TANK (2.81M DIA, X 3.05M HIGH), CYANIDE 2080-3090 STANCO 591-24241 591-7-0 540-82-001 TANK (10 X 14), CYANIDE (HOLDING) 2080-3090 STANCO 591-24241 591-7-0 540-82-003 TANK 4.7 M DIA, X 4.9 M HIGH, LIME STORAGE 2080-3170 STANCO 591-24241 591-7-0 540-82-004 BIN, LIME FEED (STORAGE), 3500 KG CAPACITY 2080-3170 STANCO 591-24241 591-7-0 540-84-001 PUMPBOX, LIME MILL DISCHARGE 2080-3170 WESTPRO 591-24241 591-7-0 540-84-001 PUMPBOX, LIME MILL DISCHARGE 2080-3170 WESTPRO 591-24241 591-7-0 540-84-001 PUMPBOX, LIME MILL LINE 2080-3170 WESTPRO 591-24241 591-7-0 540-99002 BA	540-67-006	METERING PUMP, CYANIDE (2-10 USGPM)	2080-3500	STANCO			591-F-0
Construct Construct <thconstruct< th=""> <thconstruct< th=""> <thc< td=""><td>540-67-007</td><td>METERING PUMP, CYANIDE (2-10 USGPM)</td><td>2080-3500</td><td>STANCO</td><td>5 HP</td><td>591-24241</td><td>591-F-0</td></thc<></thconstruct<></thconstruct<>	540-67-007	METERING PUMP, CYANIDE (2-10 USGPM)	2080-3500	STANCO	5 HP	591-2424 1	591-F-0
School 2 Elever and the second and the se	540-76-001	EYE WASH AND SHOWER, LOWER LEVEL	2010-0050	STANCO			591-F-0
Science 2001 Hink Hold, Communication, Original Processing 2080-3090 STANCO 591-24241 591-F-0 Science 2002 TANK (10 X 14), CYANIDE (HOLDING) 2080-3090 STANCO 591-24241 591-F-0 Science 2003 TANK (4) X 14), CYANIDE (HOLDING) 2080-3170 STANCO 591-24241 591-F-0 Science 2004 BIN, LIME FEED (STORAGE), 3500 KG CAPACITY 2080-3170 STANCO 591-24241 591-F-0 Science 2005 STANCO 591-24241 591-F-0 STANCO 591-24241 591-F-0 Science 2006 BIN, LIME FEED (STORAGE), 3500 KG CAPACITY 2080-3170 WESTPRO 591-24241 591-F-0 Science 2007 FEED CHUTE BALL MILL (LIME) 2080-3600 STANCO 591-24241 591-F-0 Science 2008 Science 2080-3600 STANCO 591-24241 591-F-0 Science 2009-001 BAG BREAKER, CYANIDE 2080-3600 STANCO 591-24241 591-F-0 Science 2009-002 BAG BREAKER, LIME 2080-3600 STANCO 591-24241 591-F-0 Science 200 COMPR	540-76-002	EYE WASH UPPER LEVEL	2010-0050	STANCO		591-24241	591-F-0
Construct TANK (0.7. M DIA, X 4.9 M HIGH, LIME STORAGE 2080-3170 STANCO 591-24241 591-F-0 S40-82-004 BIN, LIME FEED (STORAGE), 3500 KG CAPACITY 2080-3170 STANCO 591-24241 591-F-0 S40-82-004 BIN, LIME FEED (STORAGE), 3500 KG CAPACITY 2080-3170 STANCO 591-24241 591-F-0 S40-82-004 PUMPBOX, LIME MILL DISCHARGE 2080-3170 WESTPRO 591-24241 591-F-0 S40-82-002 FEED CHUTE BALL MILL (LIME) 2080-3170 WESTPRO 591-24241 591-F-0 S40-99-001 BAG BREAKER, CYANIDE 2080-3600 STANCO 591-24241 591-F-0 S50-61-002 COMPRESSOR #1 2040-3310 ATLAS COPCO 100 HP 591-24014 591-F-0 S50-61-003 COMPRESSOR #2 2040-3310 ATLAS COPCO 100 HP 591-24014 591-F-0 S50-61-003 COMPRESSOR #3 2040-3310 ATLAS COPCO 100 HP 591-24014 591-F-0 S50-61-004 AIR DRYER AND FILTERS (INSTR AIR) 2040-3310 ATLAS COPCO 100 HP 591-24014	540-82-001	MIX TANK (2.81M DIA. X 3.05M HIGH), CYANIDE	2080-3090	STANCO			591-F-0
Stock 2003 Frank Str. M. DEC ACLS MITHIGH, LINE OFFICIAL Construct of the stress of t	540-82-002	TANK (10 X 14), CYANIDE (HOLDING)	2080-3090	STANCO			
Stores 2001 Diff, Elle F 220 (1910) (201	540-82-003	TANK 4.7 M DIA. X 4.9 M HIGH, LIME STORAGE	2080-3170	STANCO			
540-84-001 PUMPBOX, LIME MILL DISCHARGE 2080-3170 WESTPRO 591-24241 591-F-0 540-84-002 FEED CHUTE BALL MILL (LIME) 2080-3170 WESTPRO 591-24241 591-F-0 540-99-001 BAG BREAKER, CYANIDE 2080-3600 STANCO 591-24241 591-F-0 540-99-002 BAG BREAKER, LIME 2080-3600 STANCO 591-24241 591-F-0 550-61-001 COMPRESSOR #1 2040-3310 ATLAS COPCO 100 HP 591-24014 591-F-0 550-61-002 COMPRESSOR #2 2040-3310 ATLAS COPCO 100 HP 591-24014 591-F-0 550-61-003 COMPRESSOR #2 2040-3310 ATLAS COPCO 100 HP 591-24014 591-F-0 550-61-003 COMPRESSOR #3 2040-3310 ATLAS COPCO 100 HP 591-24014 591-F-0 550-61-005 COMPRESSOR #4, LEACH AIR 2040-3310 ATLAS COPCO 100 HP 591-24014 591-F-0 550-69-001 AIR RECEIVER 1000 GAL. CAPACITY-PLINT. AIR 2040-3310 DRUMMOND WELDING 591-25442 591-F-1 <td>540-82-004</td> <td>BIN, LIME FEED (STORAGE), 3500 KG CAPACITY</td> <td>2080-3170</td> <td>STANCO</td> <td></td> <td></td> <td></td>	540-82-004	BIN, LIME FEED (STORAGE), 3500 KG CAPACITY	2080-3170	STANCO			
540-84-002 FEED CHUTE BALL MILL (LIME) 2080-3170 WESTPRO 591-24241 591-F-0 540-99-001 BAG BREAKER, CYANIDE 2080-3600 STANCO 591-24241 591-F-0 540-99-002 BAG BREAKER, LIME 2080-3600 STANCO 591-24241 591-F-0 550-61-001 COMPRESSOR #1 2040-3310 ATLAS COPCO 100 HP 591-24014 591-F-0 550-61-002 COMPRESSOR #2 2040-3310 ATLAS COPCO 100 HP 591-24014 591-F-0 550-61-003 COMPRESSOR #3 2040-3310 ATLAS COPCO 100 HP 591-24014 591-F-0 550-61-003 COMPRESSOR #3 2040-3310 ATLAS COPCO 100 HP 591-24014 591-F-0 550-61-004 AIR DRYER AND FILTERS (INSTR AIR) 2040-3310 ATLAS COPCO 100 HP 591-24014 591-F-0 550-61-005 COMPRESSOR #4, LEACH AIR 2040-3310 ATLAS COPCO 100 HP 591-24014 591-F-0 550-69-001 AIR RECEIVER 1000 GAL. CAPACITY-PLNT. AIR 2040-3310 DRUMMOND WELDING 591-25442 591-F-1 560-69-002 AIR RECEIVER 1000 USGAL. CAPACITY-INSTR. A				STANCO		591-24241	591-F-0
540-99-001 BAG BREAKER, CYANIDE 2080-3600 STANCO 591-24241 591-F-0 540-99-002 BAG BREAKER, LIME 2080-3600 STANCO 591-24241 591-F-0 550-61-001 COMPRESSOR #1 2040-3310 ATLAS COPCO 100 HP 591-24014 591-F-0 550-61-002 COMPRESSOR #1 2040-3310 ATLAS COPCO 100 HP 591-24014 591-F-0 550-61-002 COMPRESSOR #2 2040-3310 ATLAS COPCO 100 HP 591-24014 591-F-0 550-61-002 COMPRESSOR #3 2040-3310 ATLAS COPCO 100 HP 591-24014 591-F-0 550-61-003 COMPRESSOR #3 2040-3310 ATLAS COPCO 100 HP 591-24014 591-F-0 550-61-004 AIR DRYER AND FILTERS (INSTR AIR) 2040-3310 ATLAS COPCO 1 KW 591-24014 591-F-0 550-61-005 COMPRESSOR #4, LEACH AIR 2060-3310 ATLAS COPCO 200 HP 591-24014 591-F-0 550-69-001 AIR RECEIVER 1000 GAL. CAPACITY-PLINT. AIR 2040-3310 DRUMMOND WELDING 591-25442 591-F-1 550-69-002 AIR RECEIVER 1000 USGAL. CAPACI	540-84-001	PUMPBOX, LIME MILL DISCHARGE	2080-3170				
Stores of the bit bit bit bit bit bit bit bit bit bit	540-84-002	FEED CHUTE BALL MILL (LIME)	2080-3170	WESTPRO		591-24241	591-F-0
550-61-001 COMPRESSOR #1 2040-3310 ATLAS COPCO 100 HP 591-24014 591-F-0 550-61-002 COMPRESSOR #2 2040-3310 ATLAS COPCO 100 HP 591-24014 591-F-0 550-61-003 COMPRESSOR #3 2040-3310 ATLAS COPCO 100 HP 591-24014 591-F-0 550-61-003 COMPRESSOR #3 2040-3310 ATLAS COPCO 100 HP 591-24014 591-F-0 550-61-004 AIR DRYER AND FILTERS (INSTR AIR) 2040-3310 ATLAS COPCO 100 HP 591-24014 591-F-0 550-61-005 COMPRESSOR #4, LEACH AIR 2060-3310 ATLAS COPCO 100 HP 591-24014 591-F-0 550-69-001 AIR RECEIVER 1000 GAL. CAPACITY-PLNT. AIR 2060-3310 DRUMMOND WELDING 591-25442 591-F-1 550-69-002 AIR RECEIVER 1000 USGAL. CAPACITY-PLNT. AIR 2040-3310 DRUMMOND WELDING 591-25442 591-F-1 600-65-001 TRANSFER PUMP #1, POND 2/POND 1 2110-3500 J.P. CANADA 300 HP 591-24015 591-F-0 600-65-003 TRANSFER PUMP #3, POND 2/POND 1 2110-3500 J.P. CANADA 300 HP 591-24015 591-F-	540-99-0 01	BAG BREAKER, CYANIDE	2080-3600	STANCO		591-24241	591-F-0
Construction Construction<	540-99-002	BAG BREAKER, LIME	2080-3600	STANCO		591-24241	591-F-0
Construct Construct <t< td=""><td>550-61-001</td><td>COMPRESSOR #1</td><td>2040-3310</td><td>ATLAS COPCO</td><td>100 HP</td><td>591-24014</td><td>591-F-0</td></t<>	550-61-001	COMPRESSOR #1	2040-3310	ATLAS COPCO	100 HP	591-24014	591 -F-0
Construction Construction<	550-61-002	COMPRESSOR #2	2040-3310	ATLAS COPCO	100 HP	591-24014	591-F-0
Construction Construction<	550-61-003	COMPRESSOR #3	2040-3310	ATLAS COPCO	100 HP	591-24014	591-F-0
550-69-001 AIR RECEIVER 1000 GAL. CAPACITY-PLNT. AIR 2040-3310 DRUMMOND WELDING 591-25442 591-F-1 550-69-002 AIR RECEIVER 100 USGAL. CAPACITY-PLNT. AIR 2040-3310 DRUMMOND WELDING 591-25442 591-F-1 600-65-001 TRANSFER PUMP #1, POND 2/POND 1 2110-3500 J.P. CANADA 300 HP 591-24015 591-F-0 600-65-002 TRANSFER PUMP #2, POND 2/POND 1 2110-3500 J.P. CANADA 300 HP 591-24015 591-F-0 600-65-003 TRANSFER PUMP #3, POND 2/POND 1 2110-3500 J.P. CANADA 300 HP 591-24015 591-F-0	550-61-004	AIR DRYER AND FILTERS (INSTR AIR)	2040-3310	ATLAS COPCO	1 KW	591-24014	591-F-0
550-69-002 AIR RECEIVER 100 USGAL. CAPACITY-INSTR. AIR 2040-3310 DRUMMOND WELDING 591-25442 591-F-1 600-65-001 TRANSFER PUMP #1, POND 2/POND 1 2110-3500 J.P. CANADA 300 HP 591-24015 591-F-0 600-65-002 TRANSFER PUMP #2, POND 2/POND 1 2110-3500 J.P. CANADA 300 HP 591-24015 591-F-0 600-65-003 TRANSFER PUMP #3, POND 2/POND 1 2110-3500 J.P. CANADA 300 HP 591-24015 591-F-0 600-65-003 TRANSFER PUMP #3, POND 2/POND 1 2110-3500 J.P. CANADA 300 HP 591-24015 591-F-0	550-61-005	COMPRESSOR #4, LEACH AIR	2060-3310	ATLAS COPCO	200 HP	591-24014	591-F-0
600-65-001 TRANSFER PUMP #1, POND 2/POND 1 2110-3500 J.P. CANADA 300 HP 591-24015 591-F-0 600-65-002 TRANSFER PUMP #2, POND 2/POND 1 2110-3500 J.P. CANADA 300 HP 591-24015 591-F-0 600-65-003 TRANSFER PUMP #3, POND 2/POND 1 2110-3500 J.P. CANADA 300 HP 591-24015 591-F-0 600-65-003 TRANSFER PUMP #3, POND 2/POND 1 2110-3500 J.P. CANADA 300 HP 591-24015 591-F-0	550-69-001	AIR RECEIVER 1000 GAL. CAPACITY-PLNT. AIR	2040-3310	DRUMMOND WELDING			591-F-1
600-65-002 TRANSFER PUMP #2, POND 2/POND 1 2110-3500 J.P. CANADA 300 HP 591-24015 591-F-0 600-65-003 TRANSFER PUMP #3, POND 2/POND 1 2110-3500 J.P. CANADA 300 HP 591-24015 591-F-0	550-69-002	AIR RECEIVER 100 USGAL. CAPACITY-INSTR. AIR	2040-3310	DRUMMOND WELDING		591-25442	591-F-1
600-65-003 TRANSFER PUMP #3, POND 2/POND 1 2110-3500 J.P. CANADA 300 HP 591-24015 591-F-C	600-65-001	TRANSFER PUMP #1, POND 2/POND 1	2110-3500	J.P. CANADA	300 HP		591-F-0
	600-65-002	TRANSFER PUMP #2, POND 2/POND 1	2110-3500	J.P. CANADA			591-F-0
500-92-001 RECLAIM WATER PUMP BARGE, POND #2 2110-3500	600-65-003	TRANSFER PUMP #3, POND 2/POND 1	2110-3500	J.P. CANADA	300 HP	591-24015	591-F-0
			2110-3500				

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Omai Gold Mines Limited. Revised March 12, 1996

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Equipment Description

Cost-Code Manufacture

P.O. Spare Parts

Omai Gold Mines Limited. Revised March 12, 1996

Equip. #

Equip. #	Equipment Description	Cost-Code	Manufacture	P.O.	Spar Parts
AREA 13 - PO	OTABLE WATER SYSTEM				Faits
13-65-016	Pump, Portable (Omai River)	3000-3500	Flygt		
13 -65-01 9	Pump, Spent Water	3000-3500	A-C Pumps Canada		
13-65-022	Pump, Gland Seal Water	2060-3500	A-C Pumps Canada		
13-65-023	Pump, Gland Seal Water	2060-3500	•		
13 -65-02 6	Pump, Process Cooling Water	3000-3500	A-C Pumps Canada		
13-65-027	Pump, Process Cooling Water	3000-3500	A-C Pumps Canada		
13-6 5-0 32	Pump, Spent Water	3000-3500	A-C Pumps Canada		
13-6 5-0 36	Pump, Fire Water, Diesel	3000-3500	Layne and Bowler		
13-65-037	Pump, Portable (Omai River)	3000-3500	Flygt		
13-66-001	Pump, 20 HP Main Supply (P-10)	2230 3340			
13-66-002	Pump, 20 HP Main Supply (P-11)	2230 3340			
13-66-003	Pump, 10 HP Camp Supply (P-1)	2230 3340			
13-66-004	Pump, 10 HP Camp Supply (P-2)	2230 3340			
13- 66-0 05	Pump, 10 HP Camp Supply (P-3)	2230 3340			
13-66-006	Pump, 10 HP Manifold Booster (P-5)	2230 3340			
13-66-008	Pump, Fire Booster 5 HP (P-15)	2230 3340			
13 -66-0 09	Pump, 30 HP Fire (P-14)	2230 3340			
13-66-010	Pump, Chlorinator 38 GPD (P-6)	2230 3340			
13 -66-0 11	Pump, Chlorinator 24 GPD (P-7)	2230 3340			
13-66-012	Pump, 2 HP RR Tank 2 to RR Tank 1 (P-8)	2230 3340			
13-66-013	Pump, 2 HP RR Tank 2 to RR Tank 1 (P-9)	2230 3340			
13-66-014	Pump, HP Essequibo River Diesel (P-20)	2230 3340			
13-66-015	Pump, HP Essequibo River (P-17)	2230 3340			
13-66-016	Pump, HP Essequibo River (P-16)	2230 3340			
13-66-017	Pump, Subms. Annaconda Well 5 HP (P-19)	2230 3340			
13-66-018	Pump, Portable Annaconda Well (P-18)	2230 3340			
1 3-66-0 19	Pump, 20 HP Main Supply (P-12)	2230 3340			
13-66-020	Pump, 20 HP Main Supply (P-13)	2230 3340			
13-67-001	Filter, Acid Neutrilizer ANF1	2230 3340			
13-67-002	Filter, Carbon CF1	2230 3340			
13-67-003	Filter, Carbon CF2	2230 3340			
13-67-004	Filter, Tannin TF1	2230 3340			
13-67-005	Filter, Tannin TF2	2230 3340			
1 3-82-04 6	Tank, Fresh/Fire Water	3000-3500			
REA 15 - GI	INSETS				
15-19-000	Bus, Electrical Main Powerhouse	3000 3350			
1 5-19-0 01	Generator #1, Diesel	3000 3181	Wartsila Cullen Diesel	(1001	K1204
15-19-002	Generator #2, Diesel	3000 3182		(1001	K1204
15-19-003	Generator #3, Diesel	3000 3183		(1001	K1204
15- 19-0 04	Generator #4, Diesel	3000 3184		(1001	K1204
15- 19-00 5	Generator #5, Diesel	3000 3185		(1001	K1204
5-19-006	Generator #6, Diesel	3000 3186		(1001	K1204
15- 19-0 07	Generator #7, Diesel	3000 3187		(1001	K1204

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Equip. #	Equipment Description	Cost-Code	Manufacture P.O. Spare Parts
AREA 15 - G	ENSETS		
15- 19-0 16	Genset, Black Start	3000 4010	
15-1 9-0 17	Genset, Camp Standby	3000 4010	
15- 20-0 01	Welder, Small Shop	3000 3340	
15 -20-0 02	Welder, Large Shop	3000 3340	
15- 20-0 03	Washer, Electric High Pressure	3000 3340	
15-20-004	Washer, Gasoline High Pressure	3000 3340	
15-20-005	Water Pump, 1Ÿ" Honda, Portable	3000 3340	
15-61-010A	Compressor, #1 Air High Pressure	3000 3310	Ingersoll Rand
15-61-012	Compressor, Shop Air	3000 3310	Sullair Corporation
15-64-001	Pump, Sump	3000 3500	
15 -64-0 02	Pump, Sump	3000 3500	
15-64-003	Pump, Sump	3000 3500	
15-64-004	Pump, Sump	3000 3500	
15-64-005	Pump, Sump Portable	3000 3500	
15-65-001	Pump, Make Up Water	3000-3500 /	
15-66-001	Pump, Lube Oil Transfer	3000 3500	
15-66-002	Pump, Lube Oil Supply	3000 3500	
15-66-003	Pump, Waste Oil Transfer	3000 3500	
15-66-004	Pump, Waste Oil Return	3000 3500	
15-66-005	Pump, Leak Fuel Transfer	3000 3500	
15-66-006	Pump, Fuel Transfer #1	3000 3500	
15-66-007	Pump, Fuel Transfer #2	3000 3500	
15-66-008	Pump, Fuel Transfer #3	3000 3500	
15-66-009	Pump, Potable Water #1	3000 3500	
15-66-010	Pump, Potable Water #2	3000 3500	
15-66-011	Pump, Waste Oil Transfer (Portable)	3000 3500	
15-66-012	Pump #1, Coolant Pond	3000 3500	
15-66-013	Pump #2, Coolant Pond	3000 3500	
15-66-014	Pump, Diesel Fire	3000 3500	
15-69-003	Receiver, Power House Air	3000 3310	Chamco Industires
<u>AREA 23 - SI</u>	CURITY		
23-10-001	C.C.T.V., Security System	2100-3940	
AREA 24 - L4	ABORATORY		
24-10-001	Crusher, Jaw #1	2210 3340	Bico Badger
24-10-002	Crusher, Jaw #2	2210 3340	Bico Badger
24-10-003	Crusher, Jaw #3	2210 3340	-
24-10-004	Crusher, Jaw #4	2210 3340	
24-24-001	Filter, Air	2210 3340	United Air Specialists
24-24-002	Scrubber, Assay Lab	2210 3340	•
24-55-011	Fan, Air Filter	2210 3340	United Air Specialists
24-61-038	Compressor, Assay Lab	2210 3340	Air Moving Products
24-61-039	Pump, Vacuum Assay Lab	2210 3340	
	•		
24-64-001	Pump, Sump Assay Lab Area	2210 3340	Galigher
24-68-039	Pump, Vacuum	2210 3340	Sihi

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Equip.#	Equipment Description	Cos	t-Code	Manufacture	P.O.	Spare Parts
AREA 45 - C	RUSHING PLANT					
45-10-001	Crusher, Gyratory Primary	2020	3000	Allis Minerals	k1024	
45-17-001	Rock Breaker, Hydraulic	2020	3160	Teledyne		
45-18-002	Feeder, Apron	2 02 0	3005	Stephens Adamson		
45-41-001 45-41-001A	Conveyor, Belt #1 Conveyor (Clean Up), Apron Feeder		3400 3400	Transcontinental Eng. Omai Construction	k1046	k1244
45-44-011	Crane, 50/5 Ton	2020	3010	P&H		
45-55-012	Scrubber & Fan	2020	3155	Ducon		
45-61-006 45-61-006A 45-61-009	Compressor, Air @115 PSI Compressor, Air Compressor, Air (Back up)	2020	3310 3310 3310	Sullair Corporation Champion Pneumatic Co. Ingersol Rand	-	
45-64-007	Pump, Sump 3"	2020	3500	Galigher		
45-84-022 45-84-030 45-84-031 45-84-032	Chute, Discharge, Conveyor #1 Chute, Ore Pocket Chute, Feed, Conveyor #1 Chute, Feed, Apron Feeder	2020 2020	3600 ² 3600 3600 3600			
AREA 46 - CO	DARSE ORE STOCKPILE					
46-18-002 46-18-003 46-18-009 46-18-010 46-18-011 46-18-012 46-18-013	Feeder, Apron; (Reclaim Tunnel) Feeder, Apron; (Saprolite Hopper) Feeder, Vibrating Feeder, Vibrating Feeder, Vibrating Feeder, Vibrating Feeder, Apron; (Reclaim Tunnel)	2030 2030 2030 2030 2030	3015 3015 3015 3015 3015 3015 3015 3015	Universal Eng. Universal Eng. Kinergy Corporation Kinergy Corporation Kinergy Corporation Kinergy Corporation Machinery & Equipment	k1020 k1020 k1018 k1018 k1018 k1018 k1018 k1041	k1203 k1203 k1216 k1216 k1216 k1216 k1216
46-25-002 46-25-003 46-25-101	Scale, Belt; Conveyor #3 Scale, Belt; Conveyor #2 Storage Reel, Chain; Motorized	2030	3400 3400 3400	Merrick Merrick Merrick		
46-41-002 46-41-003	Conveyor, Belt #2 48" Conveyor, Belt #3 48"		3400 3400	Transcontinental Eng. Transcontinental Eng.	k1046 k1046	[•] k1244 k1244
460-46-001	Conveyor, Radial Stacking 48"	20 20	3410	Stephens-Adamson	591-2360	4
46-55-013	Fan, Reclaim Tunnel Ventilation	2030	3400	Air System Supplies		
46-84-003 46-84-033 46-84-035 46-84-035 46-84-036 46-84-037 46-84-038 46-84-039 46-84-040 46-84-041 46-84-042 46-84-043 46-84-044	Hopper, Emergency Saprolite Reclaim Chute, Reclaim Discharge Collars Chute, Vibrating Feeder Feed Chute, Vibrating Feeder Feed Chute, Vibrating Feeder Feed Chute, Vibrating Feeder Feed Chute, Vibrating Feeder Discharge Chute, Vibrating Feeder Discharge Chute, Vibrating Feeder Discharge Chute, Vibrating Feeder Discharge Chute, Vibrating Feeder Discharge		3600 3600 3600 3600 3600 3600 3600 3600	·		
46-84-0 45 46-84-046	Chute, Vibrating Feeder Discharge Chute, Apron Feeder Discharge	2030	3600 3600			

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Equip. #	Equipment Description	Cost-Code	Manufacture	P.O.	Spare Parts	
AREA 46 - COARSE ORE STOCKPILE						
46-84-047	Chute, Apron Feeder Fines	2030 3600				
46-84-048	Chute, Apron Feeder Feed	2030 3600				
46-84-049	Chute, Apron Feeder Discharge	2030 3600				
46-84-050	Chute, Apron Feeder Fines	2030 3600				
46-84-051	Chute, Conveyor #3 Feed	2030 3600				
46-84-052	Chute, Reclaim Feeder Fines	2030 3600				
46-99-003	Nuclear Level Indicator	2030 3350	Ronan			
AREA 47 - GI	RINDING CIRCUIT					
47-SE-001	Iron Worker - Fab Shop	2040 0000				
47-SE-002	Band Saw - Fab Shop	2040 0000				
47-SE-003	Drilling Machine - Fab Shop	2040 0000				
47-01-001	Eye Wash Stations					
47-01-002	Kit, Oxygen Therapy					
47-01-003	Washer, High Pressure		Partek			
47-10-002	Mill, SAG	2040 3025	Allis Minerals			
1D091	Motor, 7500 H.P (SAG Mill)	\$	General Electric			
47-10-003	Crusher, Short Head Cone	2040 3045	Nordberg	K1002	K1209	
47-10-004	Mill, Ball #1	2040 3030	Allis Minerals			
1D150	Motor, 4000 H.P (#1 Ball Mill)	2040 3350	General Electric			
47-10-005	Mill, Ball #2	2040 3035	Allis Minerals			
1D165	Motor, 4000 H.P (#2 Ball Mill)	2040 3350	General Electric			
47-10-102	Lube Unit, SAG Mill	2040 3025	Allis Minerals			
47-10-102	Lube Unit, Ball Mill #1	2040 3030	Allis Minerals			
47-10-105	Lube Unit, Ball Mill #2	2040 3035	Allis Minerals			
47-10-106	Lube Unit, Short Head Cone Crusher	2040 3045	Nordberg			
47-11-001	Screen, SAG Mill Discharge #1	2040 3700	Simplicity Materials	k1022	k1237	
47-11-002	Screen, SAG Mill Discharge #2	2040 3700	Simplicity Materials	k1022	k1237	
47-15-001	Magnet, Belt, Tramp Metal	2040 3400	Dings	k1016	k1217	
47-15-002	Magnet, Tramp Metal	2040 3400	Dings			
47-19-000	Electrical, Power Distribution	2040 3350				
47-22-015	Cyclone Pac, 6 Units	2040 3050	Krebs Engeneering	K1009	K1214	
47-22-016	Cyclone Pac, 6 Units	2040 3050	Krebs Engeneering	K1009	K1214	
47-22-001	Cyclone #1	2040 3050	Krebs Engeneering	K1009	K1214	
47-22-002	Cyclone #2	2040 3050	Krebs Engeneering	K1009	K1214	
47-22-003	Cyclone #3	2040 3050	Krebs Engeneering	K1009	K1214	
47-22-004	Cyclone #4	2040 3050	Krebs Engeneering	K1009	K1214	
47-22-005	Cyclone #5	2040 3050	Krebs Engeneering	K1009	K1214	
47-22-006	Cyclone #6	2040 3050	Krebs Engeneering	K1009	K1214	
47-22-007	Cyclone #7	2040 3050	Krebs Engeneering	K1009	K1214	
47-22-008	Cyclone #8	2040 3050	Krebs Engeneering	K1009	K1214	
47-22-009	Cyclone #9	2040 3050	Krebs Engeneering	K1009	K1214	
47-22-010	Cyclone #10	2040 3050	Krebs Engeneering	K1009	K1214	
47-22-011	Cyclone #11	2040 3050	Krebs Engeneering	K1009	K1214	
47-22-012	Cyclone #12	2040 3050	Krebs Engeneering	K1009	K1214	
47-22-013	Cyclone #13	2040 3050	Krebs Engeneering	K1009	K1214	
47-22-014	Cyclone #14	2040 3050	Krebs Engeneering	K1009	K1214	
47-25-001	Scale, Belt, Conveyor #4	2040 3400	Merrick	k1026	k1208	
47-32-001	Detector, Tramp Metal	2040 3400	Ramsey Canada	k1052	k1239	
47-41-004	Conveyor, Belt #4 .48"	2040 3400	Omai Gold Mines	k1054	k1240	
47-41-005	Conveyor, Belt #5 48"	2040 3400	Omai Gold Mines	k1054	k1240	
47-41-005A	Conveyor, Shuttle (Cone Crusher) 30"	2040 3400	Omai Gold Mines			
47-41-006	Conveyor, Belt #6 48"	2040 3400	Transcontinental Eng.			
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Equip. #	Equipment Description	Cost-Code	Manufacture	P.O.	Spare Parts
AREA 47 - G	RINDING CIRCUIT			<u></u>	
47-41-007	Conveyor, Belt #7; Portable Stacker 30"	2040 3400	Texmarc Conveyor co.		
47-44-002	Crane, 40 Ton	2040 3010	Kaverit Steel	k1044	k1236
47-44-003	Crane, 5 Ton (Millwright Shop)	2040 3010	OMI Cranes		
47-55-012	Fan, Motor Cooling (SAG Mill)	2040 3025	Air System Supplies		¥-
47-61-005	Compressor, Air, Fab Shop c/w Receiver	2040 3310	Gardner Denver	k1036	
47-63-001	Pump, Slurry #1 (SAG Mill Discharge)	2040 3500	Warman International	k1040	
47-63-002	Pump, Slurry #2 (SAG Mill Discharge)	2040 3500	Warman International	k1055	k1228
47-63-003	Pump, Slurry #1 (Primary Cyclone Feed)	2040 3500	Warman International	k1055	k1228
47-63-004	Pump, Slurry #2 (Primary Cyclone Feed)	2040 3500	Warman International	k1055	k1228
47-63-005	Pump, Slurry, Cyclone Feed - Standby	2040 3500	Warman International	k1055	k1228
47-64-002	Pump, Sump (SAG Mill Area)	2040 3500	Galigher 6"	k1059	k1223
47-64-003	Pump, Sump, Feed End (Ball Mill Area)	2040 3500	Galigher 6"	k1059	k1223
47-64-008	Pump, Sump, Discharge End (Ball Mill Area)	2040 3500	Galigher 6"	K1203	K1203
47-69-003	Receiver, Air; SAG Mill Clutch	2040 3310	Allis Minerals		
47-69-004	Receiver, Air, Ball Mill Clutch	2040 3310	Allis Minerals		
47-69-005	Receiver, Air, Ball Mill Clutch	2040 3310	Allis Minerals		
47-70-001	Breaker, Harmonic Filter SAG Mill	2040 3350			۰.
47-70-002	Breaker, Bypass SAG Mill	2040 3350			
47-70-003	Breaker, LCI SAG Mill	2040 3350			
47-70-004	Breaker, Vacuum 4160V #1 Ball Mill	2040 3350			
47-70-005	Breaker, Vacuum 4160V #2 Ball Mill	2040 3350			
47-82-001	Pumpbox, SAG Mill Discharge #1	2040 3500			
47-82-002	Pumpbox, SAG Mill Discharge #2	2040 3500			
47-82-003	Pumpbox, Ball Mill Discharge #1	2040 3500			
47-82-004	Pumpbox, Ball Mill Discharge #2	2040 3500			
47-84-004	Chute, SAG Mill Feed	2040 3600	Transcontinental Eng.		
47-84-005	Hopper, Ball Feed to SAG Mill	2040 3600	-		
47-84-006	Chute, Ball Feed to SAG Mill	2040 3600			•
47-84-007	Chute, Screen #1 O/Size Discharge	2040 3600			
47-84-008	Chute, Screen #2 O/Size Discharge	2040 3600			
47-84-010	Chute, Feed to Conveyor #4	2040 3600	Conveyor Eng.		
47-84-011	Chute, Feed to Conveyor #5	2040 3600	-		
47-84-012	Chute, Feed to Conveyor #7	2040 3600	Transcontinental Eng.		
47-84-013	Chute, Discharge From Conveyor #7	2040 3600	Transcontinental Eng.		
47-84-014	Hopper, Grinding Ball Feed	2040 3600	-		
47-84-015	Hopper, Grinding Ball Feed	2040 3600			
47-84-025	Chute, Flop Gate; SAG Mill Discharge	2040 3600			
47-84-027	Chute, Ball Mill #1 Discharge	2040 3600			
47-84-028	Chute, Ball Mill #2 Discharge	2040 3600			
47-84-056	Chute, Cone Crusher Discharge	2040 3600			
47-87-002	Splitter Box, Ball Mill Pumpbox Feed	2040 3600			
47-92-001	Liner Handler, SAG Mill	2040 3055	Mc Lellan Equipment	k1015	k1215
47-99-001	Nuclear Level Indicator	2040 3600	Ronan		
47-99-002	Nuclear Level Indicator (Top)	2040 3600	Ronan		
47-99-004	Nuclear Density Gauge (#1 Ball Mill Disch.)	2040 3350	Ronan		
47-99-005	Nuclear Density Gauge (#2 Ball Mill)	2040 3350	Ronan		

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Equip. #	Equipment Description	Cost	-Code	Manufacture	P.O.	Spare
	RAVITY CIRCUIT					Parts
<u>AREA 40 - G</u>	KAVIII CIRCUII					
48-11-003	Screen, Gravity Sizing	2050		Osna Equipment	k1033	k1225
48-11-004	Screen, Gravity Sizing	2050	3710	Osna Equipment	k1033	k1225
48-15-001	Separator, Magnetic Drum	2050	3800	Dings Magnetic Group		
4 8-19-0 03	Sampler, Primary; Gravity Circuit Feed	2050	3960	Harrison R. Cooper		
48-19-005	Sampler, Primary; Gravity Circuit Tail	2050	3960	Harrison R. Cooper		
48-19-016	Sampler, Secondary; Gravity Circuit Feed	2050	3960	Harrison R. Cooper		
48-19-017	Sampler, Secondary; Gravity Circuit Tail	2050	3960	Harrison R. Cooper		
48-34-001	Cones, Concentrator, Primary	2050	3075	Mineral Deposits		
48-35-001	Spirals, Rougher	2050	3080	Mineral Deposits	k1014	k1211
48-35-003	Spirals, Cleaner	2050		Mineral Deposits	k1014	k1211
48- 36-0 04	Table, Deister Concentrating	2050	3085	Deister Concentrator Co.		
48-41-008	Conveyor, Belt #8 Gravity Circuit	2050	3400 /	Transcontinental		
	•		-			
48-63-008	Pump, Slurry; Cone Feed	2050		Warman International		
48-63-010	Pump, Slurry; Rougher Spiral Feed	2050		Warman International		
48-63-012	Pump, Slurry; Gravity Tails	2050		Warman International		ļ
48-63-020	Pump, Slurry; Deister Table Feed (Refinery)	2050		Warman International		
48-63-022	Pump #1, Slurry	2050	3500	Allis Minerals		
48-64-004	Pump, Sump, Gravity Area	2050	3500	Galigher		
48-82-006	Pumpbox, Cone Feed c/w Diverter Box	2050	3500		÷.,	
48-82-007	Pumpbox, Rougher Spiral Feed	2050	3500			
48- 82-0 08	Pumpbox, Gravity Tails	2050	3500			
48-82-009	Pumpbox, Cleaner Spirals Feed	2050	3500			
48-84-016	Hopper, Surge; Concentrating Table Feed	2050 3	3600			
48-84-058	Chute, Oversize; Gravity Screen	2050				
48-84-059	Chute, Undersize; Gravity Screen	2050				
48-84-060	Chute, Oversize; Gravity Screen	2050				
48-84-061	Chute, Undersize; Gravity Screen	2050				
48-85-004		2050	2600		1	
48-85-004 48-85-005	Launder, Sizing Screen Oversize	2050				
48-85-005	Launder, Sizing Screen Undersize	2050		Mineral Descrite		
	Launder, Cone Concentrate	2050		Mineral Deposits		
48-85-007	Launder, Cone Tails	2050 3	3000	Mineral Deposits		
48-87-004	Distributor, Feed; Primary Cone	2050		Mineral Deposits		
48-87-0 05	Distributor, Primary Rougher Spiral	2050 3		Mineral Deposits]
48-87-006	Distributor, Rougher Spiral Feed	2050 3		Mineral Deposits		
48-87-008	Distributor, Cleaner Spiral Feed	2050 3	3600	Mineral Deposits		
48-88-001	Collection Box, Conc. Table Concentrate	2050 3	3600	Mineral Deposits		
48-99-006	Nuclear Density Gauge (Gravity Feed)	2050	3350	Ronan		
4 8-9 9-007	Nuclear Density Gauge (Gravity Cone Conc.)			Ronan		. [
48-99-008	Nuclear Density Gauge (Gravity Concentrate)			Ronan		
IFT-1230A	#1 Cyandie Flow Meter					
1FT-1230B	#2 Cyanide Flow Meter					
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Equip. #	Equipment Description	Cost-Code	Manufacture	P.O.	Spare Parts
AREA 49 - TH	IICKENER				
49-26-001	Mechanism, Drive & Lift; Thickener	2040 3065	Westech Engineering	k1030	k1213
49-63-022 49-63-023	Pump, Slurry; #1 Thickener Underflow Pump, Slurry; #2 Thickener Underflow	2040 3500 2040 3500	Warman International Warman International		
49-65-001 49-65-001A	Pump, Process Water #1 Pump, Process Water - Temporary	2040 3500 2040 3500	A-C Pumps Canada Warman International		
<u>AREA 49 - TF</u>	IICKENER				
49-82-011 49-82-012 49-82-040	Feedbox, Thickener Tank, Process Water Tank, Thickener	2040 3600 2040 3600 2040 3600	Les Industries Fournier		
49-99-009	Nuclear Density Gauge (Thickener U/Flow)	2040 3000	Ronan		
AREA 50 - LE		2000 3350	Rohan		
50-11-006	Screen, Linear Trash	2060 3700	Delkor Technik Ltd.	64000	k1231
		4		k1023	
50-19-001 50-19-015	Sampler, Primary; Leach Circuit Feed Sampler, Secondary; Leach Circuit Feed	2060 3600 2060 3600	Harrison R. Cooper Harrison R. Cooper	k1060 k1060	k1220 k1220
50-31-001	Agitator, #4 Leach Tank	2060 3090	Hayward Gordon		
50-31-002	Agitator, #3 Leach Tank	2060 3090	Hayward Gordon		
50-31-003	Agitator, #2 Leach Tank	2060 3090	Hayward Gordon		
50-31-004	Agitator, #1 Leach Tank	2060 3090	Hayward Gordon		
50-63-001	Pump, Portable; Leach & CIP Tanks	2060 3500			
50-64-006	Pump, Sump; Leach Drainage Area	2060 3500	Galigher	k1059-1	
50-82-013	Tank, #1 Leach	2060 3600	Les Industries Foumier		
50-82-014	Tank, #2 Leach	2060 3600	Les Industries Fournier		
50-82-015	Tank, #3 Leach	2060 3600	Les Industries Foumier		
50-82-016	Tank, #4 Leach	2060 3600	Les Industries Fournier		
50-84-057	Chute, Linear Trash U/Size	2060 3700			
<u> AREA 51 - CI</u>	<u>P AREA</u>				
51-11-007	Screen, Carbon Recovery	2060 3750	Osna Equipment	k1033	k1225
51-11-008	Screen, NKM	2060 3730	Osna Equipment	K1007	K1226
51-11-009	Screen, NKM	2060 3730	Osna Equipment	• ¹	
51-11-010	Screen, NKM	2060 3730	Osna Equipment		
51-11-011	Screen, NKM	2060 3730	Osna Equipment		
51-11-012	Screen, NKM	2060 3730	Osna Equipment		
51-11-013 51-11-014	Screen, NKM	2060 3730	Osna Equipment		
51-11-015	Screen, NKM Screen, NKM	2060 3730 2060 3730	Osna Equipment Osna Equipment		
51-11-016	Screen, NKM	2060 3730	Osna Equipment		
51-11-017	Screen, NKM	2060 3730	Osna Equipment	K1007	K1226
51-11-018	Screen, NKM	2060 3730	Osna Equipment	111007	
51-11-019	Screen, NKM	2060 3730	Osna Equipment		
51-11-021	Screen, NKM	2060 3730	Osna Equipment		
51-11-020	Screen, Linear Carbon Safety	2060 3750	Deikor Technik Ltd.		
51-19-002	Sampler, Primary; CIP Circuit Tails	2060 3600	Harrison R. Cooper		
<u>51-19-014</u>	Sampler, Secondary; CIP Circuit Tails	2060 3600	Harrison R. Cooper		

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Equip. #	Equipment Description	Cost-Code	Manufacture	P.O.	Spare
<u>AREA 51 - C</u>	IP AREA				Parts
51-31-005	Agitator, CIP Tank	2060 3090	Hayward Gordon	k1034	k1210
51-31-006	Agitator, CIP Tank	2060 3090	Hayward Gordon	k1034	k1210
51-31-007	Agitator, CIP Tank	2060 3090	Hayward Gordon	k1034	k1210
51-31-008	Agitator, CIP Tank	2060 3090	Hayward Gordon	k1034	k1210
51-31-009	Agitator, CIP Tank	2060 3090	Hayward Gordon	k1034	k1210
51-31-010	Agitator, CIP Tank	2060 3090	Hayward Gordon	k1034	k1210
51-31-011	Agitator, CIP Tank	2060 3090	Hayward Gordon	11004	K12.0
	•		·		
51-63-024	Pump, Slurry; Tailings Single Stage	2060 3500	Warman International		
51-63-025	Pump, Slurry; Standby Tailings	2060 3500	Warman International		
51 -63-0 26	Pump, Tailings Booster	2060 3500	Warman International		
51-63-027	Pump, Tailings Booster (Pit)	2060 3500			
51-68-001	Pump, Loaded Carbon Transfer Tank	2060 3500	Warman International	k1056	k1227
51-68-002	Pump, #1 CIP Carbon Advance	2060 3500	Warman International	k1056	k1227
51-68-003	Pump, #2 CIP Carbon Advance	2060 3500	Warman International	k1056	k1227
51-68-004	Pump, #3 CIP Carbon Advance	2060 3500	Warman International	k1056	k1227
51-68-005	Pump, #4 CIP Carbon Advance	2060 3500	Warman International	k1056	k1227
51-68-006	Pump, #5 CIP Carbon Advance	2060 3500	Warman International	k1056	k1227
51-68-007	Pump, #6 CIP Carbon Advance	2060 3500	Warman International		
51-64-008	Pump, Sump; Tailings Area	2060 3500	Warman International	k1056	k1227
51-64-009	Pump, Sump; CIP Area	2060 3500	Warman International		
51-64-010	Pump, Sump CIP Tails	2060 3500	Galigher		
51-82-017	Tank, Loaded Carbon Surge	2060 3600			
51-82-018	Tank, #1 CIP	2060 3600	Les Indust. Fournier		
51-82-019	Tank, #2 CIP	2060 3600	Les Indust, Fournier		
51-82-020	Tank, #3 CIP	2060 3600	Les Indust, Fournier		
51-82-021	Tank, #4 CIP	2060 3600	Les Indust. Fournier		
51-82-022	Tank, #5 CIP	2060 3600	Les Indust. Fournier		
51-82-023	Tank, #6 CIP	2060 3600			
51-82-024	Pumpbox, CIP Tails	2060 3600	Les Indust. Fournier		
		2000 3000	Les madst. i Danner		
<u>AREA 52 - C/</u>	ARBON REGENERATION AREA				:
52-11-023	Screen, Carbon Dewatering, #1 Kiln	2070 3700	Osna Equipment		
52-11-024	Screen, Carbon Sizing	2070 3700	Osna Equipment		
52-11-025	Screen, Carbon Dewatering, #2 Kiln	2070 3700	Osna Equipment		,
52-31-001	Mixer, Caustic Tank	2070 3600			
52-31-002	Mixer, Acid Tank	2070 3600			
52-31-011	Agitator, Carbon Attrition	2070 3600	Hayward Gordon		
52-33-003	Kiln #1, Carbon Regeneration	2070 3095	Lochhead Haggerty		
52-33-004	Kiln #2, Carbon Regeneration	2070 3097	Lochhead Haggerty		
52-42-002	Screw Conveyor, #1 Kiln Feed	2070 3095	Lochhead Haggerty		
52-42-003	Screw Conveyor, #2 Kiln Feed	2070 3097	Lochhead Haggerty		
52-44-008	Hoist, Fresh Carbon	2070 3600			
E0 EE 007			the base of F		
52-55-007	Fan, Exhaust; #1 Regeneration Kiln	2070 3095	Universal Fan		1
52-55-014	Fan, Exhaust; #2 Regeneration Kiln	2070 3097	Universal Fan		
52-55-015	Fan, Exhaust; #2 Regeneration Kiln	2070 3097			
52-62-002	Blower, Kiln Combustion Air	2070 3095	Spencer		

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Equip. #	Equipment Description	Cost-Code	Manufacture	P.O.	Spare
	· · · · · · · · · · · · · · · · · · ·	Cost-Code	Manufacture		Parts
<u>AREA 52 - C</u>	ARBON REGENERATION AREA				
52 -65-00 9	Pump, Acid Wash; Circulation/Drain	2070 3500	A-C Pumps (ITT)		
52-66-003	Pump, Fuel Oil; Kiln	2070 3095	Lochhead Haggerty		
52-67-002	Pump, Acid; Barrel Type	2070 3500	Industrial Pumps	k107 1	k1222
52-67-003	Pump, Caustic Soda; Barrel Type	2070 3500	Industrial Pumps	k1071	k1222
52-67-004	Pump, Caustic Transfer	2070 3500	A-C Pumps (ITT)	k1071	k1222
52-67-005	Pump, Acid Transfer	2070 3500	A-C Pumps (ITT)		
52-68-013	Pump, Transfer; Acid Wash Carbon	2070 3500	Warman International		
52-68-014	Pump, Discharge; Attrition Tank	2070 3500	Warman International		
52-68-015	Pump, Discharge; #1 Quench Tank	2070 3500	Warman International		
52-68-016	Pump, Distribution; Regeneration Carbon	2070 3500	Warman International		
52 -68- 017	Pump, Sump; Acid Area	2070 3500	Warman International		
52-68-018	Pump, Sump; #1 Regeneration Area	2070 3510	Warman International		
52-68-020	Pump, Sump; #2 Regeneration Area	2070 3500	Warman International		
52-68-021	Pump, Discharge; #2 Kiln Quench Tank	2070 3500			
52-82-030	Tank, Acid Wash	2070 3600	ICL Engineering Itd.	k1073	
52-82-031	Tank, #1 Carbon Fines/Water Receiving	2070 3600			
52-82-032	Tank, Carbon Attrition	2070 3600	Lookhood Lloosowy		
52-82-033 52-82-034	Tank, #1 Carbon Quench	2070 3600	Lochhead Haggerty		
52-82-034	Tank, Regenerated Carbon Storage Tank, Caustic Mix/Storage	2070 3600			
52-82-035	Tank, Acid Mix/Storage	2070 3600 2070 3600			
52-82-048	Tank, #2 Carbon Fines/Water Receiving	2070 3600			
52-82-049	Tank, #2 Carbon Quench	2070 3600	Lochhead Haggerty		
52-84-020	Chute, Carbon Kiln Discharge	2070 3600	Lochhead Haggerty		
AREA 53 - 57	TRIPPING AREA				
53-19-006	Sampler, Barren Strip Solution	2070 3600			
53-19-008	Sampler, Pregnant Strip Solution	2070 3600			
53-51-001	Boiler, Solution Heater	2070 3110	First Thermal Systems	k1017	k1230
53-52-001	Heat Exchanger, Primary	2070 3105	Alpha-Laval Ltd.		
53-52-002	Heat Exchanger, Primary	2070 3105	Alpha-Laval Ltd.	K1011	K1206
53-52-003	Heat Exchanger, Secondary	2070 3105	Alpha-Laval Ltd.	K1011	K1206
53-65-003	Pump, Strip Feed Solution	2070 3500	A-C Pumps (ITT)		
53-65-004	Pump, Strip Feed Solution	2070 3500	A-C Pumps (ITT)		
53-65-00 5	Pump, Electrowinning Cell Feed	2070 3500	A-C Pumps (ITT)		
53-65-006	Pump, Booster Water	2070 3500	A-C Pumps (ITT)		
53-65-029	Pump, Strip Vessel Drain	2070 3500	A-C Pumps (ITT)		
53-67-001	Pump, Barrel; Caustic Soda	2070 3500	Industrial Pumps		
53-68-010	Pump, Stripped Carbon Transfer	2070 3500	Warman International		
53-68-011	Pump, Stripped Carbon Transfer	2070 3500	Warman International		
53-68-012	Pump, Sump; Strip Area	2070 3500	Warman International		
53-82-025	Tank, Barren Strip Solution	2070 3600	Les Industries Fournier		
53-82-026	Tank, Pregnant Strip Solution	2070 3600	Les Industries Fournier		
53-82-027	Tank, Clean Water Surge	2070 3600			
53-83-001	Vessel, Pressure Carbon Strip	2070 3100	Bedarco Mc Gruer Inc.	k1019	k1242
53-83-002	Vessel, Pressure Carbon Strip	2070 3100	Bedarco Mc Gruer Inc.		

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Equip. #	Equipment Description	Cost-Code	Manufacture	P.O.	Spare Parts
<u>AREA 54 - RE</u>	EAGENT AREA				
54-21-001	Mixer, Acrison Unit #1	2080 3090	Acrison International		
54-21-002	Mixer, Acrison Unit #2	2080 3090	Acrison International		
54-21-002		2000 0000			1
54-31-013	Agitator, Lime Mixing	2080 3090	Hayward Gordon		
	•	0000 0470	Linuard Cordon		
54-31-014	Agitator, Lime Holding/Distribution	2080 3170	Hayward Gordon		
54-31-015	Agitator, Cyanide Mixing	2080 3090	Hayward Gordon		
54-31-016	Agitator, Flocculant Mixing #1	2080 3090	Hayward Gordon		
54-31-017	Agitator, Lime Slaking	2080 3170	Allied		
54-31-018	Agitator, Flocculant Mixing #2	2080 3090	Hayward Gordon		
54-44-009	Hoist, Reagent	2080 3600			i
54-44-010	Hoist, Keagent Hoist, Lime Area	2080 3600			
54-44-010	Hoist, Lime Area	2000 3000			
54-55-001	Fan, Exhaust, Cyanide Mix Tank	2080 3090	New York Blower		
54- 63- 026	Pump, Lime Transfer	2080 3500	Warman International		
54-63-027	Pump #1, Lime Distribution	2080 3500	Warman International		
54-63-028	Pump #2, Lime Distribution	2080 3500	Warman International		
54-63-029	Pump, Lime Slaker Transfer	2080 3500	Warman 1.5 x 1		
54-64-009	Pump, Sump; Reagent Area	2080 3500	Galigher		
54-65-033	Pump, Cyanide Transfer	2080 3500	A-C Pumps (ITT)		
54-65-034	Pump, Cyanide Distribution	2080 3500	A-C Pumps (ITT)		
54-65-035	Pump, Cyanide Distribution	2080 3500	A-C Pumps (ITT)		
				14047	1.4049
54-66-001	Pump #1, Diesel Oil Transfer	2080 3500	H.M. Fluid	k1047	k1248
54-66-002	Pump #2, Diesel Oil Transfer	2080 3500	H.M. Fluid	k1047	k1248
54-67-004	Pump, Barrel; Caustic Soda	2080 3500	Industrial Pumps		
54-67-005	Pump, Flocculant Metering	2080 3500	Robbins Meyers		
54-67-006	Pump, Flocculant Transfer #1	2080 3500	Robbins Meyers		
54-67-007	Pump, Flocculant Transfer #2	2080 3500	Tarby		
54-07-007	Fump, Flocculant Mansler #2	2000 3300	Taby		
54- 82-03 5	Tank, Lime Mixing	2080 3090			
54-82-036	Tank, Lime Holding/Distribution	2080 3090			
54-82-037	Tank, Diesel Oil Storage	2080 3090			
54-82-039	Tank, Flocculant #1	2080 3090			
54-82-041	Tank, Cyanide Mixing	2080 3090			
54-82-042	Tank, Cyanide Holding/Distribution	2080 3090			
54-82-043	Tank, Lime Slaking	2080 3090			
54-82-044	Tank, Flocculant #2	2080 3090	IDI Engineering		
		0000 0000	-		
54-84-054	Hopper, Lime Feed Bag Breaker	2080 3090			
54-84-055	Hopper, Cyanide Feed Bag Breaker	2080 3090			
<u>AREA 55 - C(</u>	OMPRESSORS				
55-20-002	Dryer, Instrument Air	2040 3310	Sullair	k1029	k1251
	•	AAAA 6840	Quillete	4007	L1040
55-61-001	Compressor #1, Leach @ 50 PSI	2060 3310	Sullair	k1037	k1249
55-61-002	Compressor #2, Leach @ 50 PSI	2060 3310	Sullair	k1037	k1249
55-61-003	Compressor #2, Plant Air @ 115 PSI	2040 3310	Sullair		
55-61-004	Compressor #3, Instrument Air @ 115 PSI	2040 3310	Sullair		
55-61-007	Compressor #3, Leach @ 50 PSI	2060 3310	Sullair	k1037	k1249
55-61-008	Compressor #1, Plant Air @ 115 PSI	2040 3310	Sullair		
				k1029-1	
55-69-001	Receiver, Plant Air	2040 3310	Chamco Industries	k1029-1 k1029-1	

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Equip. #	Equipment Description	Cost-Code	Manufacture	P.O.	Spare Parts
AREA 57 - R	EFINERY			<u> </u>	
5 7-20-0 01	Dryer/Oven	2090 3120			
57 -33-0 01	Fumace, Induction	2090 3120	Ajax Magnethermic	k1048	
5 7-36-0 01	Table, Deister Concentrating	2090 3115			
5 7-38-0 01	Cell, Electrowinning #1	2090 3115	Mine & Mill Engineering	k1028	k1223
57 -38-0 02	Cell, Electrowinning #2	2090 3115	Mine & Mill Engineering	k1028	k1223
57-38-003	Cell, Electrowinning #3	2090 3115	Mine & Mill Engineering	k1028	k1223
57-38-101	Rectifier #1	2090 3350	Mine & Mill Engineering	k1028	k1223
57-38-102	Rectifier #2	2090 3350	Mine & Mill Engineering	k1028	k1223
57-38-103	Rectifier #3	2090 3350	Mine & Mill Engineering	k1028	k1223
5 7-39-0 01	Detector, Metal	2090 3350	Protective Technologies	k1067	
5 7-44-0 07	Hoist, 1 Ton	2090 3800	-		
5 7- 5 3-0 02	Fan, Ventilation (Fresh Air)	2090 3800	Nutech Systems	k1064	k1235
57-55-002	Fan, Ventilation (Exhaust)	2090 3800	Air System Supplies	k1069	
57-55-003	Fan, Ventilation (Exhaust); Electrowinn. Cell	2090 3800	Air System Supplies	k1069	
57-55-004	Fan, Ventilation (Exhaust), Electrowinin. Cen				
57-55-005			Air System Supplies	k1069	
	Fan, Ventilation (Fresh Air)	2090 3800			
57-55-008	Fan, Ventilation (Exhaust)	2090 3800	Air System Supplies	k1069	
5 7-55-0 09	Fan, Ventilation (Exhaust)	2090 3800	Air System Supplies	k1069	
5 7-62-0 03	Blowers, Air Cooled Furnace	2090 3800			
57-63-023	Pump, Deister Table Tails (Refinery)	2090 3500	Allis Minerals		
5 7-65-0 07	Pump, Tails; Electrowinning Cell	2090 3500	A-C Pumps (ITT)		
57-65-008	Pump, Air	2090 3500	Wilden		
57-65-011	Pump, Hydraulic; Furnace Tilting	2090 3500			
57-65-012	Pump, Cooling; Closed Air/Water	2090 3500			
5 7-75-0 01	Power Pack, Furnace	2090 3350			
57-82-028	Pumpbox, Electrowinning Cell Tails	2090 3500			
5 7-82-0 29	Tank, Cathode Sludge Wash Table	2090 3500			
<u>AREA 60 - RE</u>	CLAIM WATER				•
60-65-014	Pump, Reclaim Water	2110 3130	Peerless	k1062	
60-65-015	Pump, Reclaim Water	2110 3130	Peerless	k1062	
60-65-024	Pump, Diesel Cooling	3000 3500	Fontaine	k1051	k1238
60-65-025	Pump, Diesel Cooling	3000 3500	Fontaine	k1051	k1238
6 0-82-0 50	Barge, Reclaim	2110 3130	Blais		
AREA 65 - PO	PRTABLE CRUSHING				
65-10-006	Crusher, Jaw 42 x 30	2140 3001	Kobelco		
65-10-007	Crusher, Short Head Cone 5Y	2140 3002	Nordberg		
65-10-007A	Crusher, Cone 3'	2140 3002	Nordberg		
65-11-025	Screen, Vibrating; Sizing 4' x 16'	2140 3700	Thunderbird Industries		
	Feeder, Vibrating Grizzly 46" x 16'	2140 3020	Thunderbird Industries		
65-18-014	reder, worading Grizzly 40 X 10				
65-18-014 65-32-002	Detector, Tramp Metal	2140 3400			
	Detector, Tramp Metal	2140 3400	Thunderbird Industries		
5-32-002		2140 3400 2140 3400	Thunderbird Industries Thunderbird Industries		

. 41 M M M M

. Q. K.

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Equip. #	Equipment Description	Cost-Code	Manufacture P.O. Spare Parts
<u>AREA 65 - PO</u>	ORTABLE CRUSHING		
65-41-012 65-41-013 65-41-014 65-41-015 65-41-016 65-41-017	Conveyor, Belt #6 30" (Screen Feed) Conveyor, Belt #7 24" (Scrn. O/Size Stacker) Conveyor, Belt #8 24" (Scrn. U/Size Stacker) Conveyor, Belt #4 30" (5Ÿ' Crusher Disch.) Conveyor, Belt #5 30" (Fixed Stacker) Conveyor, Sand Screw	2140 3400 2140 3400 2140 3400 2140 3400 2140 3400 2140 3400	Thunderbird Industries Thunderbird Industries Thunderbird Industries Omai Omai
65-61-009	Compressor, Air	2140 3002	Ingersol Rand
65 -99- 001	Sandscrew, 36" x 25'	2140 3700	Thunderbird Industries
<u>AREA 70 - M</u>	INE		
70-65-001 70-65-002 70-65-003 70-65-004 70-65-005 70-65-006 70-65-007 70-65-008 70-65-009 70-65-010	Purnp, Water (Pit Dewatering) Pump, Water (Pit Dewatering) Pump, Submersible 15H.P. Tsurumi Pump, Submersible 87 H.P. Flygt Pump, Submersible 87 H.P. Flygt Pump, Submersible 87 H.P. Flygt Pump, Submersible 100 H.P. Toyo Pump, Submersible 100 H.P. Toyo Pump, Submersible 100 H.P. Tsurumi Pump, Submersible 30 H.P. Flygt	1020-7700 1020-7700	Worthington (Ingersoll Dresser) Worthington(Ingersoll Dresser)

Revision No. 2

Page 12

ANNEX F: EXPORT PERMITS

* List of Names and Addresses (prospecting licenses)

* List of Names and Addresses (prospecting permits - medium scale

* Guyana: List of Mining Companies

ANNEXE F: PERMIS D'EXPLORATION ET D'EXPLOITATION

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- List of Names and Addresses (Prospecting Licences)
- Example 2 List of Names and Addresses (Prospecting Permits Medium Scale)
- Guyana (List of mining companies)

LIST OF NAMES AND ADDRESSES

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Prospecting Licences

NAMES	ADDRESSES	TELEPHONE NO.	FAX NO.
Alphonso, Alfro	13-15 University Gardens, Turkeyen	592-2-42331	
Canadian Int. Mining Investment Co. Ltd	17 Courida Park, East Coast Dem.	592-022-5644	
Caribbean Resources Limited	Houston, East Bank Demerara	592-2-67308	592-2-62782
Carter, J.W.	185 Eping Avenue, Bel Air Park Georgetown	592-2-51448	
Carter, Richard J.	45 Second Avenue, Subryanville	592-2-51448	
Case Dev. Co. ltd.	267 New Market St. Cummingsburg G/town	592-2-61418	592-2-61411
Cathedral Gold Corporation	279 Foreshaw Street, Queenstown, G/town	592-2-62082/- 62083-4	
CANARC Guyana Ltd	48 Eping Avenue, Bel Air Park, Georgetown	592-2-59084	592-2-59085
Correia, M.O. Snr	158 Charlotte Street, Lacytown, Georgetown	592-2-75570/ 75575	
Dookie, Edris	'A' 16-17 Shamrock Gardens, E. C. Dem.	592-022-2305 022-4252/3	592-022-3348
Caribbean Basic [.] Industries Limited	74 High Street, Kingston, Georgetown	592-2-53188	592-2-74881
Edgeworth Const.	15 Malgre Tout, West Bank Demerara	592-2-5856/ 72401	
Enachu Diamond Traders	24 Howes Street, Charlestown, G/town	416-368-3949	416-368-5146
Exall Resources	8 King Street, East Suite 1705 Toronto, Ontario, Canada MC IR5	595-05-278	592-05-278
Essequibo Timbers	First Avenue, Bartica, Essq. River.		

NAMES	ADDRESSES	TELEPHONE NO.	FAX NO.
Exploration Brex Inc.	1700 rue de L' Hydro C.P. 547, VAL D'OR Quebec, J9P 4P5 Canada	(819)825-9065	819-825-1199
George Hicks Minings Company	c/o Huges, Fields & Stoby, Hadfield Sts. Georgetown	592-2-57656	
Golden Star Res. Ltd.	56 High Street, Kingston Georgetown	592-2-64617/ 64989	
Granbar Company Ltd	268 Foreshaw Street Queenstown, Georgetown	592-2-58668	592-2-58702
H.G.B. Ventures	P.O. Box 35, Artiene, Texas, U.S.A.	915-677-6663	915-677-6663
Kretchmar International Geoscience Corp.	PR#1 Severn Pine Crescent Waslago Ontario, Canada	705-689-8515	705-689-5361
Mazda Limited	19 Water Street, Georgetown	592-2-63220/ 62347	
Minrich Inc.	1 Croal Street, P.O. Box 10294	592-2-59232	
North American Resources Limited	17 Courida Park East Coast Demerara	595-022-5165	
Omai Gold Mines Ltd	176 'D' Middle Street. Georgetown	592-2-54588	592-2-66468
Oratop Development Inc.	1001 Bay Street Suite, 1809, Toronta, Ontario M5S 3A6	416-862-7168	

NAMES	ADDRESSES	TELEPHONE NO.	FAX NO.
Pegasus Gold Incorporated	94 Laluni Street Queenstown, Georgetown	592-2-53935	592-2-53935
Pereira Mining . Company Ltd	83 Premniranjan Place, Prashad Nagar, Greater Georgetown	592-2-77220	
Roraima Mining Co. Ltd	122 Aubrey Barker St. South Ruimveldt Park Greater Georgetown	592-2-74334	592-2-69906
Romanex (Guyana) Exploration Ltd	117 Cowan Street Kingston Georgetown	592-2-66275	592-2-53526
Tanahamas Gold Mining Company Ltd.	Grant 1803, Lot 21-22 Section 'A' Crawwood Creek Corentyne, Berbice	592-039-2781	
Toscana Resources Ltd	55-56 Oleander Gardens East Coast Demerara.,	592-2-2481	592-2-2481
Vieira, Wayne	17 Houston Estate, East Bank Demerara	592-2-63414	
Earl Ward Associates Limited	c/o Christopher L. Ram & Company, 157 "C" Waterloo Street, Georgetown.	592-2-60322	

LIST OF NAMES AND ADDRESSES

Prospecting Permits (Medium Scale)

Arrow Consolidated 1. and Mining Enterprise Georgetown. 2. Adams, Claude . 3. Adams, Eugene & Bang. 4. Alphonso, Alfro 5. Alli, Raymond J. Georgetown. 6. Adams, Timothy C. 7. Alphonso, Clinton 8. Adams, Theodore E. 9. Adams, Timothy 10. Agrippa, Leonard 11. Adams, Linda 12. Austin, Lynette 13. Alphonso, Michael 14. American-Guyana-Amerindian 15. Alexander, James 16. AMPA Investments Ltd

Α

51 'G' Sheriff Street Campbellville,

100 'A' Barima Ave, Bel Air Park.

25 North Street, Lacytown, Etering

13-15 University Gardens, East Coast Demerara.

15 Station Street, Kitty,

281 Lamaha Gardens, Georgetown.

'A'-36 Barima Avenue, Bel Air

'A' 89 Duncan Street, Bel Air Park.

231 Lamaha Gardens, Georgetown.

114 Thomas Street, Georgetown.

59 Church Road, Subryanville.

373 North East La Penitence

'A' 67 Ireng Place, Bel Air Park

42 Garnett Street, Georgetown.

26 Shirley Field Ridley, Square

194 Kaieteur Road, Bel Air Park.

17.	Adams, Royston & Raymond	59 Church Road, Subryanville
18.	Ades, R. R.	158 Charlotte Street, Georgetown
19.	Alli, Raymond & Maraine R.	51 Station Street, Kitty, Georgetown
20.	Alphonso, Franklin, et al	4 Ogle Public Road, East Coast Demerara
21.	Adams, Royston	59 Church Road, Subryanville
22.	Alam, Gilbert	% J.P. Santos, Charity, Pomeroon.

В

23.	Burnette, Albert	Saxacally, Essequibo
24.	Baird, Simone	Arakaka, North West District
25.	Boters, Abraham & Jardin, Stanislaus	227 South Road, Bourda
26.	Bacchus, David	19 Dadanawa Street, Section K Campbellville
27.	Barakat, Samuel F.	1 Hadfield Street, Georgetown
28.	Blair, Arnold	23 Susat Drive, triumph, East Coast Demerara.
29.	Belle Christopher	52 First Street, Bartica
30.	Bacchus, Royston	232 Munipuri Street, Prashad Nagar
31.	Bernard, Viburt	'A' 16-17 Shamrock Gardens, East Coast Demerara.

32. Baptiste,	, Errol &	Adam	Terrence
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33. Blennman, Richard & Blair, Stephen

34. Boodhoo, Chandra

- 35. Bowman, Anthony
- Balkissoon, Satrohan 36.
- 37. Bel, Leonard
- 38. Bearam, Neville
- 39. Bend, M.
- 40. Baird, Sabina
- 41. Bowman, Prince
- 42. Baychu, Ronald H.
- 43. Baptiste, Errol et al

Correia, M.O. (Snr.) 44.

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- 45. Correia, M.C. Holdings Ltd
- 46. Cheddie, Ganesh

47. Chan, W.F.

48 Cameron, Roland 2 Miles Bartica & 19 Second Avenue, Bartica

50 Sheriff Street, Campbellville

Parika, East Bank Essequibo

Lovelylass, West Coast Berbice

16 Seaforth Street, Campbellville

13 Mon Repos, East Coast Demerara

33 Durban Street, Lodge

50 Sheriff Street, Campbellville

23 Roxanne Burnham, Gardens

Lovelylass, West Coast Berbice

57 Second Street, Cottonfield, Essequibo Coast

2 Miles Bartica, & 19 Second Avenue

158 Charlotte Street, Georgetown 159 Charlotte Street, Georgetown 27 Pouderoyne, West Bank Demerara 84 Garnett Street Lamaha Gardens

3 Farm Village, East Bank Essequibo

49 .	Chand's Int. Corp.	9 Camp and Hadfield Street, Georgetown
50.	Citadel Mining Company	24 'D' George Street, Freeburg
51.	Carneiro, Jonas D.	208 Charlotte and Alexander Street
52.	Chan, Joseph	127 Robins Place, Bel Air Park
53.	Charles Bausman	Perseverance, East Coast Demerara
54.	Correia, Clara	27 Gordon Street, Kitty & 31 Belvoir Court, Bel Air Spring, Georgetown
55.	Charles, John	35 Third Avenue, Bartica
56.	Chand, Anil	9 Camp and Hadfield Street, Georgetown
57.	Chand, Arjune	4 - 5 Main Road & Wapping Lane, New Amsterdam
58.	Cameron, David & Williams M.	80 Cowan Street, Kingston, Georgetown
59.	Carrington, Gilbert	106 Campbell Avenue, Georgetown
60.	Chicherie, Nandlall	Bush Lot Village
F		
61.	Fraites, Dennis & Vibert	55 New Garden Street, Queenstown.
62.	Fredtkou, Albert	1273 Cane View Avenue, South Ruimveldt Park

63.

64.

65.

Fraser, Egbert

Fraser, Ronald

Fung-Fook, Raymond

T

Reliance Village

202 Almond Street, Queenstown.

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93 - 94 Zeskendren, Mahaicony, East Coast Demerara.

G

66.	Guypride Development Co. Ltd.
67 <u>.</u>	Gomes, Bernadine & Browne, Cleveland
68.	Gokul, Michael
69.	Greenston Mining &
70 .	Giddings, Gregory
	·
71.	Greenheart Enterprise Ltd
72.	Golden Arrow Mining Ent.
73.	Giddings Industrial Development
74.	Gribaker Mining Ent. Ltd
75.	Griffith, Keith
76.	Gibson, Maurice
77.	Gregory Giddings
78.	Griffith, Edward
	١
79 . [·]	Greaves, Bobby & Anthony V
80.	Godette, Vernon

Η

81. Hergoy, Kurt

200 Almond Street, Queenstown

Eteringbang & Arakaka, North West District

3 - 19 Area 'D' Sophia

24 George Street, Freeburg

42 'A' New Providence, East Bank Demerara

. 148 South Ruimveldt Park

9 David Street, Kitty, Georgetown

42 'A' New Providence, East Bank Demerara

9 David Street, Kitty, Georgetown

9 David Street, Kitty, Georgetown

147 Lamaha Gardens, Georgetown

231 Camp Street, South Cummingsburg, Georgetown

Plot '7' Meadow Brook, Gardens, Georgetown.

2230 Festival City, North Ruimveldt

Monkey Jump

10 'A' Kersaint Park, La Borne Intention, East Coast Demerara

82.	Hopkinson, Edward	267 Republic Park, East Bank Demerara
83.	Hector, Steve	266 Cedar Court, Lamaha Gardens
84.	Hassan, Sheikh S.	17 Courida Park, East Coast Demerara
85.	Henry, Leroy	3554 Postal Housing Scheme, North Ruimveldt
86.	Harding, Patrick	105 New Garden Street, Queenstown
87.	Hopkinson, Allan	7 Fifth Avenue, Bartica
8 9.	Stuart E.B. Hughes	6 Earls Avenue, Subryanville
90.	Hector, Elaine D.	266 Cedar Court, Lanaha Gardens, Georgetown
91.	Hector, Peter	93 Fourth Avenue, Subryanville
92.	Herygoy, Kurt, De Santos	10 'A' Kersaint Park, La Bourne, and Bernard, W.Intention
93.	George Hicks Mining Co. Ltd.	185 'A' Eping Avenue, Subryanville
94.	Harding, John	107 Second Street, Alberttown
95.	Henry, Rupert & Milo Derrick	106 Regent Street, Bourda
T		

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96.	I.D.I Engineering Ltd	1 Hadfield Street
97.	Interterra Resources Ltd	343 Middle Street, North Cummingsburg

K

98. Lugard Mortima Klass

Farm Village, East Bank Essequibo

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a solo bies

99.	Kaburi Development Co. Ltd.	% Richard E. Fields, Hadfield Chambers, 62 Hadfield and Cross Street.
100.	Khan, Mohamed Ayube	28 Fourth Avenue, Bartica
101.	Kusial, Paramanan	120 East Meten-Meer-Zorg
102.	King, Stephen	8 Stewartville, West Coast Demerara
L		
103.	Lawrie, John	10 Kersaint Park, La Bourne Intention,
104.	Lucian, Desmond et al	16 Durban & Henry Streets, Werk-en-Rust
105.	Lim, Herman	Timehri Road, East Bank Demerara
106.	Larpakan Interior Development Co. Ltd.	25 Thomas Street, Kitty, Georgetown
107.	Lowe, James	179 Charlotte Street, Cummingsburg
108.	Lester, Waddington et al	52 Sherrif and Garnett Streets
109.	Lewis, Owen et al	231 Almond Street, Queenstown
110.	Lissone, Frank & Cameron Martin	105 Brickdam, Stabroek, Georgetown
Μ		
111.	Mohabeen, J. Limited	159 Regent Road, Bourda, Georgetown

112.

Mining Engineering Enterprises Ltd.

1, 2, an d 3 Rahaman's Park, Houston, East Bank D Demerara.

113.	Mansell, Anthony	'A' 161 Duncan Street, Bel Air Park
114.	Matthews, Roland	177 Shubasant St. Prashad Nagar
115	Marcus, Dabria	127 Akawini Street, Section 'K' Campbellville
116.	Minex	3 - 19 Area 'D' Sophia
117.	Murray, Andrew & Vansluytman Gordon	105 Second Street, Alberttown
118.	Murray, Andrew	105 Second Street, Alberttown
119.	Marcus, Winston Munroe & Norman D.H. Monroe	305 Republic Park, East Bank Demerara
120.	Waini Resources Company Limited	3 - 19 Area 'D' Sophia, Georgetown
121.	Mrs. Bibi F.B. Sanchoo	41 Main Street, Anns Grove Village, East Coast Demerara.
122.	Rupert Henry & Derrick Milo	106 Regent Road, Bourda, Georgetown
123.	Krishna Singh & Totaram Singh	53 Groenveldt, Leonora, West Coast Demerara
124.	Gray Sobers	14 Grove Housing Scheme, East Bank Demerara
125.	John Van Sertima, Gold and Diamond Mining Association	54 Hadfield Street, Stabroek
126.	Mekdeci Mining Company	19 Water Street, Georgetown
127.	Mohamed, Kedar & Okleema	8 Fourth Avenue, Bartica
128.	Malead, Trenton et al	Mahdia, Potaro
1 2 9.	Mingo, Mortimer	45 Topira Crescent, Richmond Hill, Linden
1 3 0.	Macedo, Victor & Frank	224 Peter Rose St, Alberttown

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- 131. MK Gold & Diamond Ent.
- 132. Monroe, Earl

133. Mendonca, Jerome & Sears Malcolm

134. Mohamed, Saeed

Ν

135. Nelson, Lambert

136. Nelson, Keith

137. Nelson, Lyttleton

138. Nelson, Orin

139. Nichols, Courtney et al

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140. Obermuller, Oric et al

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P

141. Pieire, Dicley

142. Plymel, Shrimattie

143. Pereira, Julio

250 South Road & Oronoque Street

519 East Ruimveldt, Housing Scheme

70 Brickdam, Stabroek

10 Leonora, Public Road, West Bank Demerara.

Cottage, Mahaicony, East Coast Demerara

Cottage, Mahaicony, East Coast Demerara

Cottage, Mahaicony, East Coast . Demerara

Cottage, Mahaicony, East Coast Demerara

13 Burnham Drive

2575 Kaikan Street, North Ruimveldt

30 Queens Street, Kitty, Georgetown

220 'B' Camp Street, Georgetown

46 Buxton Railway Line, East Coast Demerara

144.	Phillips, John	119 John Smith Street, Campbellville
145.	Persaud, Cecil	Land of Canaan, East Bank Demerara
146.	Primus, Vincent	14 Hadfield Street, Georgetown
147.	Pestano, Francis	l First Street, Bartica
148.	Peters, Errol	63 Bushlot Village, East Coast Demerara
149.	Peter, Alex & Oscar	Reliance, Essequibo
150.	Persaud, Samuel	36 - 3rd Avenue, Bartica
152.	Peters, Mandrekar	4 Area 'L' Bel Air, Greater Georgetown
152.	Pang, Richard & Blenman Richard	50 Sheriff Street, Campbellville

T

Q

153. Quail, John 62 Anira Street, Queenstown

R

154.	Reece, Ronald	25 Bel Air, Lamaha Gardens
156.	Ramnarran, Alieen	25 Meadow Bank, East bank Demerara
157.	Robertson, Sylvenia	7 Rebecca's Lust, Mahaicony, East Coast Demerara
158.	Rodney, Hector & Wong, Jeffrey	44 Russel Street, Georgetown

10

159.	Ram	kumar,	Deodat
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160. Deonarine, Ramdass

161. Rodrigues, Richard

162. Roshanali, Ramjan

163. Rodney, Hector & Jeffrey Hong

164. Rambarran, Harry

165. Robertson, Bernard & Roshawne

166. Ramsammy, Arnold & Liliylth

S

167.	Small, Elaine	
168.	W Mining Company	
169.	Sparrow, Frederick	
170.	Sobers, Gray	
		ì
171.	Singh, Lalbahadur	I,
172.	Smartt, Leslie	
173.	Shanks, George L.	

174. Sanchoo, Bibi E.B.

3 - 19 Area 'D' Sophia

10 Hope, East Coast Demerara

'B' 248 South Road, Bourda

25 Meadow Bank, East Bank Demerara

44 Russel Street, Georgetown

26 Soesdyke, East Bank Demerara

7 Rebecca's Lust, East Coast Demerara

7 Highdam, Mahaicony, East Coast Demerara

266 Cedar Court, Lamaha Gardens

24 George Street, Freeburg

65 David Street, Kitty, Georgetown

14 Grove Housing Scheme, East Bank Demerara

42 Garnett Street, Newtown

Belmonte, Mahaica, East Coast Demerara

1192 Canje Pheasant Lane, South Ruimveldt Park

41 Main Street, Anns Grove, East Coast Demerara

175.	Smartt, Leslie	Belmonte, Mahaicony, East Coast Demerara
176.	Shanks, L. George	1192 Canje Pheasant Lane, South Ruimveldt Park
177.	Stuart, Royston	52 James Town, Mahaica, East Coast Demerara
178.	Sobers, Leslie	86 North Haslington, East Coast Demerara
179.	Samuels, Mansal	160 Lamaha Gardens, Georgetown
180.	Stoll, Egbert	60 Hadfield Street, Georgetown
181.	Singh, Sirpaul	38 Croal Street, Stabroek
182.	Smith, Wayne & Donna	18 Meten-Meer-Zorg, West Coast Demerara
183.	Seepersaud, Suraka	30 Broad and Lyng Streets, Charlestown
184.	Shew, Sase Naraine	29 First Avenue, Bartica
185.	Hector Stewart and Stephen Willie	11 North Road. Lacytown
1 8 6.	Sankar, Herman	Fort Island, Essequibo River
Ŧ		

X

187. Tumering, Mining & Investment Company Limited 19 Dandanawa Street, Section 'K' Campbellville 188. Tiwari, Ameshwari 'C' 99 Albert Street, Alberttown 189. Trim, Cecil Mocha, Pomeroon 190. Tamesar, Derika 5 Area 'Q' Port Mourant, Berbice

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191.	Vieria, Wayne	17 Houston Estate, East Bank Demerara
192.	Vansluytman, Neil	108 Third Street, Alberttown, Georgetown
193.	Vieira Michael	1 Houston Estate, East Bank Demerara
194.	Van-De-Cruize, Cheryl	109 West Ruimveldt, Housing scheme
195.	Vieira, Joseph & Paula	Houston Estate, East Bank Demera
196.	Vansluytman, Gordon & Murray, Andrew	105 Second Street, Alberttown
197.	Van Sertima, John	54 Hadfield Street, Stabroek
198.	Vieira, Francis A.	18 Houston Estate, East Bank Demerara
W		

199. White, Winston et al ł Wallerson, Linden & 200. Ramnarine, Rickey ١, 201. Walker, Felix 202. Woolford, Leslie 203. Williams, Joan Williams, Cheryl 204. Williams, Joseph 205.

ara

5 Plantation, hope, Moon Park, West Coast Berbice

115 - 4th Avenue Bartica

48 William Street, Campbellville

41 Russel Street, Georgetown

61 Durban Street, Lodge

61 Durban Street, Lodge

78 Hadfield and Breda Streets, Georgetown

13

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206. Yansen, Ian & Daniels, Victor

Y

125 Light Street & Fourth Streets, Alberttown

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GUYANA

1. Romanex (Guyana) Ltd. 117 Cowan Street Kingston, Georgetown. Phone: 592-2-58381; 592-2-66275 Fax: 592-2-53526 Local Contact:Mr. Maurice Hamilton Canaadian Contact: Mr. J. Michael Kenyon, M.Sc. P.Geol. President & Director Sutton Resources Ltd. 205-10711 Cambie Road Richmond, British Columbia V6X 3G5 Phone: 604-276-2576 Fax: 604-278-8837 Involved in gold exploration- to be completed by end of 1995. 2. Canarc Guyana Resources Eping Avenue Bel Air Park, Georgetown. Phone: 592-2-59084 Fax: 592-2-59085 Local Contact: Mr. William Yeomans Canadian Contact: Mr. Christian C. Mariott, P.Geo. Exploration Manager Canarc Resource Corpn. Suite 800- 850 West Hastings Street Vancouver, British Columbia V6c 1E1 Phone: 604-685-9700 Fax: 604-685-9744 Gold exploration with local company- Roraima Mining Co. Ltd. 3.Interterra Menex Outfitters 1st Floor 343 Middle Street Georgetown. Phone: 592-2-50342 Local Contact: Mr. Victor Wilson **Operations Manager** Canadian Contact: Mr. Carlton Gibson Director Interterra Project Outfitters 50- 10551 Shellbridge Way Richmond, B. C. Phone: 604-278-2044 Fax: 604-278-4499 Gold exploration contractors. 4.Caribbean Mining Development & Investment Co. Ltd. (COMDICO) 85 Premirajan Place Prashad Nagar

Georgetown. Phone: 592-2-77819 Fax: 592-2-78271 Local Contact: Mr. Bayah Joachim Canadian Contact: Mr. John Campbell Western Premium 10th Floor 900 West Hastings Street Vancouver, B.C. V6C 2B3 Phone: 604-688-8042 Fax: 604-684-9959 Involved in exploration and development. Invested about US\$750,000 to date. 5.Golden Star Resources Ltd. 37 High Street Kingston, Georgetown. Phone: 592-2-64989 Fax: 592-2-58735 Local Contact: Mr. Hilbert Shields MSC Vice President & Manager 6.Cathedral Gold Corpn. 420-355 Burrard Street Vancouver, B.C. V6C 2G8 Phone: 604-684-4659 Fax: 604-687-4030 Canadian Contact: Mr. R. Michael Jones President, C.E.O. Involved in gold exploration 7.Exall Resources Ltd. 65 David Street Kitty, Georgetown. Phone: 592-2-72723 Fax: 592-2-74493 Local Contact: Mr. Fred Sparrock Canadian Contact: Mr. 8 King Street East Suite 1705 Toronto, Ontario M5C 1B5 In the process of setting up diamond mining plant. Should begin operations by the end of this year. 8.KWG Resources Inc. 630 Rene Lenesque West Suite 3200, Montreal. 9.Oratop Devp.Int'l 1001 Ray Steul, Suite 1809 Toronto, Ontario. 10. Adex Mining Corp P.O. Box 204 Suite 1107 Scotia Plaza

40 King Street, W. Toronto. M5H 3Y2 11. Altai Resources Inc. 65 David Street Kitty, Georgetown. Phone: 592-2-72723 Fax: 592-2-74493 Local Contact: Mr. Fred Sparrock Canadian Contact: Mr.Niyazi Kacira Ph.D. P.Eng.MBA. President P.O. Box 10294 100 Wellington Street West Commercial Union Tower Toronto, Dominion Centre Toronto, Ontario M5K 1J5. Company has applied for properties. Should start gold e exploration sometime in September, 1995. 12. Guyana Granite Products Ltd. Teperu/Itabu Quarries Phone: 592-2-62644 Local Contact: Mr. Hardy L. Madsen, Manager Canadian Contact: Mr. George D. L. Ferguson President Edgeworth Construction Int'l Ltd. 100 Commerce 1, 260 Harvey Avenue Kelowna, B.C. V1Y 7S5 Phone: 604-763-2902 Fax: 604-763-5578

GGPL is a 50/50 joint venture between the government of Guyana and Edgeworth to operate the Teperu/Itabu quarries with investment of over Cdn\$8m within the first 5 years of operations. The plant was recently commissioned.

ANNEX G: SYLLABUS OF COMPANIES

ANNEXE G: SYLLABUS DES COMPAGNIES

A.T.S. Electro-Lube International Inc. Acme Analytical Laboratories Ltd. AGRA Earth and Environment Allis Mineral Systems Assayers Corporation Inc. Bradley W. M. Manufacture C. F. Gleeson & Associates Ltd. Chemex Labs Ltd. Columbia Chrome Industries Ltd. Corrigan Instrumentation Ltd. Dimatec Inc. EHA Engineering Ltd. Exactra Excalibur International Consultants Ltd. Fab-Rite Services Ltd. Falcon Concentrators Inc. Frontier Equipment Ltd. Gemcom Services Inc. Geonex Aerodat Inc. Geoterrex Golden Hill Ventures Ltd. Golder Associates Ltd. Groupe Laperrière & Verreault Ontario Inc. HBT AGRA Ltd. Harnischfeger Corporation of Canada Ltd. Hobic Bit Industries Corporation Hy-G Manufacturing Inc. Ingersoll-Dresser Pump Canada Inc. J. Kaehne & Associates Ltd. JKS Boyles Inc. John T. Hepburn Ltd. Kamloops Precision Machining Ltd.

Kilborn Engineering Pacific Ltd. Kretschmar International Geoscience Corp Krupp Canada Inc. Lakefield Research Longyear Canada Inc. Lynx Geosystems Inc. Met-Chem Canada Inc. Miller Technology Inc. National Compressed Air Canada Ltd. Nautilus Int'l Control & Engineering Ltd. Nelson Machinery & Equipment Ltd. New Era Engineering Corp. Pajari Instruments Ltd. Pearson, Hofman & Associates Ltd. Phoenix Piston Hydraulics Inc. Q. M. Industries Ltd. Quantec Consulting Inc. Rahnmet '92 R. E. G. Mining Parts & Equipment Co. Ltd Roscoe Postle Associates Inc. **RST** Instruments Scandinavian Grinding Mill Systems Inc. Schneider Canada Inc. Smart Turner Staticon Ltd. Stephens-Adamson Canada Surrette Battery Company Ltd. T. M. Engineering Ltd. Teledyne Canada Mining Products Walter Dow Associates Ltd. Westcoast Drilling Supplies Ltd. Wilson Machine Company Ltd.

A.T.S. Electro-Lube International Inc.

Export Contact Mr. Roxanne Orlitzky Export Contact 21 - 7228 Progress Way Delta, BC V4G 1H2 Tel: 604-946-1308 Fax: 604-946-0427

Equipment/Services

GENERAL

Vehicle Components Bearing lubricant

Company/Product

A.T.S. Electro-Lube International Inc. is a manufacturing company based in Delta, British Columbia. A.T.S. manufactures the patented "Electro-Luber" lubricant dispensers for industrial bearings. "Electro-Luber" lubricant dispensers are completely self contained, fully automatic units which dispense lubricant at a rate which is specified by the end-user. "Electro-Luber" dispensers are a safe, cost effective method of dispensing lubricant to lubrication points.

The Electro-Luber dispensers are designed to work in temperatures ranging from - 40C to 55C. The Electro-Luber is available in two sizes, the 125cc Mini-Luber and the 475cc Jumbo-Luber. The unit is the ideal method of reaching hard to get at or dangerous places and provides continuous application of lubrication. Its continuous lubrication seals out contaminants and flushes away wear material and oxided lubricant while providing a replenishing supply of fresh lubricant to protect moving parts.

The standards met by the product include:

Canada:	CIA, Intrinsically Safe, Hazardous Locations
USA:	UL, Hazardous Locations
European Std:	EN50 014 EN50 020
France:	INERIS, EEX IA I
Germany:	EEx ib I, Certificate of Conformity BVS
Australia:	MDA Exia, Explosion Protected, Intrinsically Safe

Since 1982 A.T.S. has developed an international network of distributors and commissioned sales personnel in over forty countries world-wide. A.T.S. is a rapidly expanding company with sales in excess of 6 million dollars in 1993. Export sales accounted for approximately 85% of this total revenue. A.T.S. Electro-Lube International Inc. would like to extend this network of customers, distributors and commissioned sales representatives. Any companies or individuals involved in plant maintenance or the lubrication of industrial bearings would be of interest.

Geographic Marketing Activity				Alliances/Contacts Sought	
Ac	tive	Inter	ested		
Caribbean Central America	South America South Asia	Abu Dhabi Bahrain	Iran Iraq	Agents	
North America Pacific Southem Africa	South East Asia Western Europe	Czech Republic Egypt Hungary	Poland Russia Former Yugoslavia	Distributers	

Acme Analytical Laboratories Ltd.

)	Export Contact	Equipment/Services		
	Mr. Dean Toye President	EXPLORATION	MINERAL PROCESSING	
	852 E. Hastings St. Vancouver, BC V6A 1R6	Assaying Services Geological Surveying Services	Assaying and Sampling Services	
	Tel: 604-253-3158 Fax: 604-253-1716			

Company/Product

Acme Analytical Labs has proudly been in the analytical field since 1971, serving all types of geologists and mining/exploration companies. The firm's singular goal is to provide accurate analysis alongside quality service.

Acme has the instruments, knowledge and computer technology to provide its clients with accurate and quick service. To meet clients' analytical requirements, Acme has, in house: 8 ICP Emission Spectrometer units for geochemical analysis and multi-element assays; 9 Atomic Absorption (AA) Spectrometers for geochem gold; 2 AAs for cold vapour mercury analysis; 8 fire assay furnaces for precious metal analysis; and a Leco Induction furnace for simultaneous determination of sulphur and carbon. The firm is capable of handling 5000 samples a day.

Acme's qualified personnel are dedicated to the pursuit of excellence; the firm has been commended internationally for its services throughout the industry.

The firm can provide results via mail, fax, modem and diskette. Its 24-hour modem system allows its clients to obtain their data instantly anytime, anywhere throughout the world.

Acme's prices are very competitive as it wishes to pass on as much savings to its clients as possible.

In addition to its Vancouver Laboratory, Acme now offers services in Santiago, Chile for the expanding mining industry in South America. For potential clients located in South America, Gerald Hayes, the lab manager in Santiago, will be pleased to discuss analytical needs.

	Ge	ographic Marketing	Alliances/Contacts Sought	
	Active			
C	Argentina Australia Chile zechoslovakia Denmark Germany Norway	Peru Sweden Taiwan Venezuela United Kingdom United States Yugoslavia	Worldwide	Joint Ventures

AGRA Earth and Environment

Export Contact	Equipment/Services		
Mr. John Sparling Principal Consultant	ENVIRONMENTAL	MINERAL PROCESSING	
2233 Argentia Rd. Mississauga, ON L5N 2X7	Control Equipment & Services Mine Closure Services Monitoring Equipment & Services Remediation Equipment & Services	Metallurgical Engineering Process design and improvement Plant design	
		SURFACE MINING	
Tel: 905-858-3333 Fax: 905-858-8013	EXPLORATION	Mining Engineering	
	Feasibility Studies	UNDERGROUND MINING	

Company/Product

Development

Mining engineering services

Geological Surveying Services

AGRA Industries Limited (AGRA) is one of Canada's largest engineering and environmental consulting firms, employing over 5,000 people in more than 140 offices in Canada, the United States, the Caribbean, Europe, Russia, South America, Africa, Asia, and Southeast Asia. Founded more than 30 years ago, AGRA has annual revenues of approximately \$600 million and is a publicly held company whose shares are traded on the Toronto and Montreal Stock Exchanges.

AGRA Earth and Environmental (AGRA E and E) is dedicated to being a recognized provider of superior environmental and engineering services aimed at enhancing its clients' competitive, financial, regulatory, and technical divisions. Among other areas, AGRA E and E provides advice in: environmental impact assessment and baseline studies; environmental audits of industrial, commercial, and institutional facilities and their operations; assessment and compliance monitoring of industrial emissions to air and water; and development and implementation of remediation, reclamation, and decommissioning plans for industrial facilities and affected environments.

AGRA is also committed both in Canada and overseas to long term protection of the environment through principles of sustainable development, habitat conservation, and hazard reduction strategies. Overseas, AGRA assists government officials and scientists in technology transfer, training programs, and in the effective strengthening of environmental infrastructure, monitoring, and enforcement requirements.

Geographic Marketing Activity			Alliances/Contacts Sought
Acti	ve	Interested	
Argentina	Iran	Africa, North	Contractors
Barbados	Japan	Africa, East	
Bermuda	Korea, South	Africa, West	Direct Sales
Bolivia	Malaysia	Caribbean, Eastern	
Cayman Islands	Mexico	Caribbean, Northern	Joint Ventures
Chile	Philippines	Central America	
China	Russia	South Asia	Partnerships
Columbia	Singapore	South-East Asia	
Czech Republic	Tanzania		
Dominican Republic	Thailand		
Ecuador	Trinidad-Tobago		
Grenada	United States		
India	United Kingdom Venezuela		

Allis Mineral Systems

Export Contact	Equipment/Services		
Beny See Hoye Manager, Marketing	BULK MATERIALS HANDLING	MINERAL PROCESSING	
······································	Crushers	Grinders	
16777 Hymus Blvd. Kirkland, QU	Cone & gyratory Control systems Hammer mills	Autogenous, semi-autogenous Impact mills Mill linings & access.	
H9H 3L4	In-pit Jaw crushers	Kilns & Dryers Screening & Sizing	
Tel: 514-694-9400	Mobile crusher units	Screen docks, metal	
Fax: 514-694-9413	Roll crushers	Screen docks, polyurethane & rubber	
		Screening machines Wear parts & access.	

Company/Product

Allis Mineral Systems, a division of Svedala Industries Canada Inc., (a subsidiary of Svedala Industri AB, Sweden) formerly operated and exported under the names of Allis Chalmers Canada Inc. and Boliden Allis Canada.

With over 100 years of experience, superior engineering and technical expertise complemented with constant research and development, Svedala Industries Canada provides services and equipment to projects in Canada and throughout the world.

Products supplied by Allis Mineral Systems include crushing and screening equipment (gyratory crushers, cone crushers, vertical shaft impact crushers, jaw crushers, vibrating screens), grinding equipment (SAG mills, vertically stirred mills, ball rod and pebble mills, vibrating ball mills), and pyro systems (rotary kilns, conditioning drums, rotary dryers, solid waste handling).

Other products within the Svedala Group in Canada include Denver-Sala pumps and process equipment, Stephens-Adamson bulk material handling products, and Trellex wear-resistant rubber products for the process industry.

Allis Mineral Systems Canada has exported equipment worldwide, including China, India, the Philippines, Korea, Ireland, Peru, Chile and Guyana.

Allis Mineral Systems would like to establish contact with mining companies and engineering, metallurgical, and pulp and paper consultants involved in development of new projects who would benefit from the various process operations that Allis can provide.

Geographic Marketing Activity		Alliances/Contacts Sough
Active	Interested	Contractors
Chile	Argentina	Direct Sales
China	Hong Kong	
Guyana	Peru	
India	Russia	
Ireland	Venezuela	
Korea, South		
Papua New Guinea		
Philippines		

Assayers Corporation Inc.

Export Contact	Equipment/Services	
Mr. Eric Xiao Controller	EXPLORATION	
Controller	Assaying Services	
1301 Fewster Drive	MINERAL PROCESSING	
Mississauga, ON L4W 1A2	Assaying and Sampling Services	
Tel: 905-602-8236 Fax: 905-602-8239	Company/Product	

Assayers Corporation Inc. (ACI) is one of the largest companies in the assaying industry. The company consists of seven operating divisions conveniently located to serve a broad range of exploration and production mining sites in Canada, the western U.S., and South America.

All seven divisions of ACI have long established excellent reputations in the mining and exploration industry. These are:

Min-En Laboratories	North Vancouver,	B.C.,	founded in 1972
TSL Laboratories	Saskatoon,	Saskatchewan,	founded in 1981
Swastika Laboratories	Swastika,	Ontario,	founded in 1928
Laboratories Assayers	Rouyn-Noranda,	Quebec,	founded in 1937
Technical Services Labs.	Mississauga,	Ontario,	founded in 1948
Assayers Laboratories	Elko,	Nevada,	founded in 1975
Min-En Labs de Venezuela	Tumeremo,	Venezuela,	founded in 1993

Continuous growth and maintenance of an emphasis on high quality results and efficient turnaround, makes ACI confident that its reputation of supplying "Assaying as good as gold" will continue to reflect its service philosophy.

ACI prides itself on being the leader of advanced technology application in the industry. It has capitalized on the technical strength of its people in chemistry, geochemistry, and computer science to provide more services at less cost to clients.

The following is a summary of services provided by the company:

Sample Presentation:	Customized preparation; Pulp and metallic method; Bulk sample handling	
Traditional Assay Services:	Fire assay for precious metals; Classical wet chemical; Geochemical scans; Atomic absorption;	
Special Assay Services:	Check assays; Control or shipment assays; umpire assays;	
ICP Related Analysis:	Multi-element scans; Geochem scans; Whole rock analysis; Water scans; Ferrous and non-	
-	ferrous alloy analysis;	
Sallom/Russon Depresentation	: Supervision for the weighing and sampling of ore concentrates and witnessing the	
Sellers/Duyers Representation		

unpacking, weighing, melting, re-weighing and sampling of mine gold bars.

Geographic Marketing Activity		Alliances/Contacts Sought
Active	Interested	Joint Ventures
Mexico Peru United States Venezuela	China, People's Republic South America	

Bradley W.M. Manufacture

Export Contact	Equipment/Services
Mr. Richard Poliquin Marketing Manager	EXPLORATION
Markeung Manager	Drilling Equipment
270 Industrial Blvd. C.P. 1300 Rouyn-Noranda, QU J9X 6E4	
Tel: 819-797-1771 Fax: 819-797-9289	

Company/Product

Bradley W.M. Manufacture is a private Canadian company which was incorporated in 1974. The manufacturing facilities are situated in Rouyn-Noranda, Quebec. Four other sales offices are located in Val d'Or, Quebec, Timmins, Ontario, Sudbury, Ontario and Delta, British Columbia. An affiliated company, Bradley Manufacturing (U.S.A.) Inc. of Salt Lake City, Utah also distributes the firm's products in the United States. The company makes a constant effort to apply all the technological developments that affect the diamond drilling industry to its products. Moreover, research and development activities for certain items of its product line place the company at the forefront of the industry.

Bradley W.M. Manufacture offers a wide range of diamond drilling products that are used in mining exploration programs. The company manufactures and/or distributes the complete line of "down-the-hole" equipment used in the industry.

The company has substantial export activities with the United States, South America, Southeast Asia, Australia and Western Europe. Its export sales network is based on the presence of agents and distributors in several key areas throughout the world.

The markets mentioned above still have great potential which Bradley intends to develop. The company is also exploring the market possibilities in Mexico, Central America and the Far East countries. Bradley would like to work with local agents to develop these markets as it did in the areas in which it is already deeply involved.

	Geographic Mar	keting Activity		Alliances/Contacts Sought
Α	ctive	Inter	ested	
Australia	Ireland	Algeria	iran	Agents
Belgium &	Jamaica	Bolivia	Malaysia	
Luxembourg	Mali	Brazil	Morocco	Distributors
Burundi	Mexico	China	Philippines	
Chile	Panama	Colombia	Singapore	
Cyprus	Peru	Ecuador	South Africa	
France	Thailand	Honduras	Surinam	
Germany	Tunisia	India	Zambia	
Greece	United Kingdom			
Guatemala	United States			
Guyana	Venezueia			
Iceland	Zimbabwe			
Indonesia				

C.F. Gleeson & Associates Ltd.

E	xport Contact	
Dr. C. Presid	F. Gleeson lent	
Lakes	Box 10 hore Dr. his, ON K0	
Tel: Fax:	613-652-4594 613-652-1223	

Equipment/Services

EXPLORATION

Geochemical Surveying Services Geological Surveying Services

Company/Product

C.F. Gleeson & Associates Ltd. was incorporated under federal charter in 1970. The firm's chief function is to provide consulting, research and management services in mineral exploration to government and industry.

The company has carried out extensive geochemical-geological exploration work throughout Canada for many mining companies as well as for the federal and provincial governments. Particular efforts have been concentrated in the Cordillera (British Columbia and Yukon Territory), the Appalachians (the Gaspé, Eastern Townships, and Maritimes), and the Precambrian Shield (Ontario, Quebec, Saskatchewan, and Manitoba). C.F. Gleeson has worked on many commodities, including base and precious metals, uranium, molybdenum, tungsten, diamonds and tin.

The company has been in the forefront of technical developments in regional geochemical surveys and particularly in developing and testing new geochemical methods applicable to glaciated terrains. Dr. Gleeson developed an overburden till sampling technique that has proven to be an invaluable geochemical exploration aid in areas of thick glacial cover. Mineral exploration programs involving a variety geochemical methods have been carried out successfully in tropical (Malaysia, Jamaica) and arid (Niger, Guinea, Saudi Arabia, Zambia, Burkina Faso and Algeria) environments.

C.F. Gleeson and Associates has consulted on and managed a multitude of mineral exploration programs in North America, Europe, Africa, South America and Asia. The list of the company's clients is extensive and includes Lac Minerals, The World Bank, Soquem, Inco, Chevron, Digitech, and Cominco, to mention a few.

it 🛛	Alliances/Contacts Sought		rketing Activity	Geographic Ma	
			tive	Act	
		Sweden	Mexico	Finland	Argentina
		Tanzania	Mongolia	Ghana	Australia
		Thailand	Niger	Greece	Botswana
		United States	Norway	Guatemala	Brazil
		Venezuela	Portugal	Guyana	Bulgaria
l		Western Sahara	Puerto Rico	India	Burkina Faso
:		Yemen	Russia	Indonesia	Cameroon
		Zambia	Saudi Arabia	Ireland	Costa Rica
		Zimbabwe	South Africa	Jamaica	Cuba
			Spain	Malaysia	El Salvador

Chemex Labs Ltd.

Export Contact Equipment/Services Mr. Lloyd Twaites **ENVIRONMENTAL** MINERAL PROCESSING Director, Marketing **Control Services** Assaying & Sampling Services 212 Brooksbank Ave. **EXPLORATION** North Vancouver, BC V7J 2C1 Assaying Equipment & Services Tel: 604-984-0221 Fax: 604-984-0218

Company/Product

Founded in Vancouver, Canada over 25 years ago, Chemex has grown to be a world leader in assay and geochemical analytical services. With facilities throughout North America and a new laboratory in Asia, the company is well positioned to serve an international roster of clients.

While serving many industries, Chemex is primarily involved in providing the mining and exploration industry with assay and geochemical analytical services. The firm's ability to assess and certify the true economic worth of mining deposits, anywhere in the world, has proven to be a valuable asset for companies seeking international financing for mine development.

The firm's reputation for superior analyses derives from a number of interrelated factors. Advanced technologies, outstanding quality assurance, great customer support, and especially experienced, dedicated personnel – from senior management to technical specialists in every Chemex laboratory.

Chemex analyses have helped to develop mine sites and geological prospects throughout North America and in many locations around the globe. Chemex has assayed nickel laterite deposits from Burundi, assessed rare earth element prospects in Kenya, and routinely performs umpire assays on copper concentrate from Chile. Depending on the needs of a project, Chemex may provide contract personnel or on-site training for client staff.

In addition to assay and geochemical work, Chemex today is alive in coal and commodities analyses, environmental testing, and cargo shipment verification. The firm also offers consulting and custom services, including the design and development of laboratory facilities in remote areas.

Geographic Mark	eting Activity		Alliances/Contacts Sought
ctive	Inter	ested	
Papua New Guinea Thailand Venezuela United States	China Greenland Honduras Ireland Jamaica Kazakhstan	Laos Malaysia Oman South America Spain Turkey	Agents
	<u>ctive</u> Papua New Guinea Thailand Venezuela	Papua New Guinea China Thailand Greenland Venezuela Honduras United States Ireland Jamaica	tive Interested Papua New Guinea China Laos Thailand Greenland Malaysia Venezuela Honduras Oman United States Ireland South America Jamaica Spain Kazakhstan Turkey

Columbia Chrome Industries Ltd.

Company/Product

Columbia Chrome Industries Ltd. (CCIL) is a British Columbia-based company which has been in the hydraulic cylinder remanufacturing business for over 25 years. The company was one of the first companies to offer worldwide one-stop shopping service to heavy equipment users by combining the chrome plating, disassembly/assembly, honing, polishing, machining and welding trades under one roof. This service offers cost, time, and quality advantages.

In North America, the concept of hydraulic component rebuilding is well established mainly as a result of the growth of CCIL. The firm's main customers come from the mining, forestry, transportation and construction industries. Major Canadian mines such as Highland Valley Copper, Westar, Fording, Quintette, and many others are among CCIL's satisfied customers.

CCIL has 21 facilities worldwide including joint ventures in Malaysia, Thailand, Indonesia, Papua New Guinea, India, and Colombia. The firm has had direct sales of turnkey hard chrome plants in Chile and Colombia.

Geograph	ic Marketing A	Alliances/Contacts Sought	
Active	Intere	ested	Joint Ventures
Australia Colombia Indonesia Malaysia Papua New Guinea Thailand United States	Abu Dhabi Argentina Brazil Chile Costa Rica Ecuador Former Yugoslavia Guyana India Iraq Ireland	Italy Kuwait Mexico Oman Peru Poland Russia South Africa Turkey United Arab Emirates Venezuela Yemen	

Corrigan Instrumentation Ltd.

	Export Contact	Equipmen	nt/Services
	Mr. Stephen Young Sales Engineer	BULK MATERIALS HANDLING	EXPLORATION
	59 Sinclair Ave.	Conveyors Belt Cleaners (Metal Detector)	Assaying Equipment MINERAL PROCESSING
	Georgetown, ON L7G 4X4		Assaying and Sampling Equipment
-	Tel: 905-873-0668 Fax: 905-877-4191	Monitoring Equipment	Metal Detectors

Company/Product

Corrigan Instrumentation Ltd. is a privately owned Canadian manufacturer of equipment for industrial measurement and quality control. In addition, Corrigan is Canada's leading manufacturer of security screening x-ray and metal detector systems.

MetalTramp Metal Detectors for use on conveyors in materials handling and industrial processes, to ensure
quality of product and to protect equipment from damage.

Analyzers Satmagan (for SATuration MAGnetic Analyzer) measures the percentage of magnetic material in a sample. It is frequently used in mining and smelting operations to measure iron content in process samples.

Cyancor free cyanide analyzer for the gold mining industry is an on-line process control instrument that continually measures the free cyanide in the gold recovery process. This results in a substantial saving in the cost of cyanide, as well as environmental improvements in the mine tailings.

Corrigan Instrumentation Ltd. currently markets its products from its location in Georgetown, Ontario, either directly to customers or through agents and distributors in some countries. Corrigan is seeking to expand its network of representative agents (particularly in the USA and South America) with individuals possessing experience and contacts in the mining and bulk materials industries.

Geog	Alliances/Contacts Sought		
Active	2	Interested	
Australia	Mexico	Worldwide	Agents
Belgium and Luxembourg	Peru		-
Chile	Philippines		Distributors
Finland	South Africa		
France	Sweden		
India	United States		

Dimatec Inc.

Export Contact		Equipment/Services
Mr. Ivor Perry President & General	EXPLORATION	UNDERGROUND MINING
Manager	Drilling Equipment	Drill Consumables Drill bits Drill steel, rods, couplings, etc.
180 Cree Cres. Winnipeg, MB R3J 3W1		
Tel: 204-832-2828 Fax: 204-832-4268		

Company/Product

Dimatec Inc. is a private Canadian company which was incorporated in January 1988. Dimatec Inc. is centrally located in Winnipeg, Manitoba, Canada to service Canadian, U.S. and international customers. Dimatec Inc. offers high quality diamond drilling tools and drilling supplies to the exploration/mining industries. Products include impregnated and surface set comp bits, casing shoes, reamer shells, core barrel parts, and specialty drill rods.

Dimatec's operations are organized as a diamond products manufacturing unit and a machining services division. Dimatec Inc. is absolutely committed to the notion that customer service must be top priority. To ensure the customer receives "on-time" quality products, Dimatec has developed a Quality System that conforms to ISO 9002 (Registered August 26, 1992). Dimatec impregnated diamond core bits are manufactured with carefully selected grades of high quality synthetic diamond and metal powders. These materials are accurately blended together to provide a uniform distribution of diamond throughout the matrix to maintain a constant rate of penetration and bit load throughout the tool life.

Dimatec Inc. has implemented a simple, effective matrix selection system for diamond impregnated core bits. This is based on the "MOHS" rock hardness scale. Dimatec's number coding system corresponds with the hardness of the formation being drilled.

Dimatec is continuously conducting research and development in actual field evaluations and with an in-house reduced scale core drill which allows simulation of the drilling process with actual core samples provided from the job site.

Dimatec's products are presently being supplied to various parts of Canada, U.S.A., Mexico, Central America, South America, and Europe with good success.

	Geographic Marketing Activit	ty	Alliances/Contacts Sought
	Active	Interested	
Columbia	Singapore	Worldwide	Distributors
Costa Rica	Surinam		
Greece	United Kingdom		
Honduras	United States		
Indonesia			

EHA Engineering Ltd.

Export Contact Mr. AI S. Hayden President P.O. Box 2711 Station "B' Toronto, ON L4E 1A7

 Tel:
 416-460-3048

 Fax:
 not available

Equipment/Services

EXPLORATION

Feasibility Studies

MINERAL PROCESSING

Assayers and Sampling Services Metallurgical Engineering Process design & improvement Plant design

Company/Product

EHA Engineering Ltd. (EHA) is a private Canadian firm of professional metallurgical engineers offering consulting services in the fields of mineral processing and hydrometallurgy. The company was formed as a partnership in November 1985 and was incorporated in January of 1990. Through associated firms, EHA can also offer geological and sampling services, and metallurgical testwork capability.

EHA offers a full range of services in the above fields. Experience includes the processing of ores and materials for the recovery of arsenic, beryllium, cobalt, copper, diamonds, gold, graphite, lead, magnesium, molybdenum, nickel, platinum/palladium, rhenium, silver, strontium, tungsten, uranium, vanadium and zinc. The following summary outlines the types of activities undertaken:

- <u>Process Development</u> Services are offered in the area of process development, including the management and supervision of metallurgical testwork programs and the development of comprehensive process design criteria.
- <u>Feasibility Studies</u> EHA conduct the surface and metallurgical portions of pre-feasibility/feasibility studies. Capital cost estimates can be performed to pre-feasibility or feasibility standards. A proprietary computerbased cost estimating system is used. In cooperation with associated firms and other specialists, complete pre-feasibility or feasibility studies can be undertaken.
- <u>Technical Evaluations</u> EHA engineers conduct detailed technical and economic evaluations of new or competing processes and/or equipment, and extensive related information is maintained on file.
- <u>Project Audits</u> Technical and cost audits of existing operations are performed on behalf of owners, prospective purchasers/investors or financial institutions.

EHA has worked and is currently working on projects in South America. Experience has also been gained on earlier projects in Australia, Europe and Africa. Contact is sought with mining/metallurgical companies engaged in the development/improvement of new hydrometallurgical/milling projects where process design, project control or research assistance is required.

Geographic M	larketing Activity	Alliances/Contacts Sought
Active	Interested	Clients
Guyana	Worldwide	Cilents

Exactra

Export Contact

Mr. Maurice Robitaille President

74 Ashbrook Way Brampton, ON L6Y 4R3

Tel:905-456-0218Fax:905-456-3452

Equipment/Services

GENERAL

Vehicle Components Tire inflating products

Company/Product

Exactra is a family owned organization that was established in 1989, in Brampton, Ontario. The operation consists of a plant located in Mississauga, Ontario and a sales and marketing office in Brampton. Exactra management offers thirty-six years of hands-on experience in the mining and construction sectors.

Specializing in large bore and super large bore applications, Exactra manufactures its products to T.R.A. standards to be fully compatible with the other major manufacturers. In addition to offering a complete line of high quality tire valves and inflating devices, Exactra has the ability to custom manufacture to specific requirements. Exactra presently supplies to the O.E.M. and replacement markets in Canada, the U.S.A., and Australia.

Exactra also offers complete consulting services to mining and construction operations in which it has thirty-six years experience.

Exactra would like to establish a distributor network in various countries, particularly where mining activities are present. Exactra has the ability to communicate in English, French, and Spanish.

Geographic Marketing Activity		Alliances/Contacts Sought	
Active	Intere	ested	
Australia	Argentina	Indonesia	Agents
United States	Brazil	Japan	
	Chile	Mexico	Distributors
	China	Peru	
	Columbia	Puerto Rico	
	Costa Rica	Russia	
	French Guiana	South Africa	
	Guyana	United Kingdom	
	India	Venezuela	

Excalibur International Consultants Ltd.

Export Contact J.B. Boniwell President 10 Hurontario St. Mississauga, ON L5G-3G7

Tel:905-271-1043Fax:905-271-7259

Equipment/Services

EXPLORATION

Data Interpretation Services Exploration Software Data processing products Geophysical Surveying Services

Company/Product

Excalibur International Consultants is a firm of consulting geophysicists operating largely in the realm of mineral exploration, most specifically for metals and industrial minerals. The firm is also extending its services into site engineering and environmental measuring and monitoring surveys. Its experience is lengthy and worldwide in scope.

The group particularly offers independent opinion, notably with respect to survey design, operational supervision, and management and the interpretation of data. It has made a specialty of reconciling geophysics to geology and offering ideas about mineral control and probability of occurrence. As a result, it has an above-average track record for discovery of new mineral deposits.

Excalibur International is headquartered in Mississauga, Ontario and presently employs 3 people. A wholly owned subsidiary, Excalibur Geoscience International Inc., supplies data processing and plotting facilities, both to the parent company, and independently to the outside market. The two companies are physically close in location, and personnel often combine their skills when a geophysical input to a data handling project is required, or an interpretation of a given data set has been mandated.

Such combination of geophysical expertise and processing capabilities offers, in a rather unique way, a powerful ability to undertake interpretation of a wide range of situations in geology where outcrop control is minimal.

	Geographic Marketing Activity		Alliances/Contacts Soug
	Active	Interested	
	Australia	Ghana	
	Guyana	Malawi	
1	Fanzania	Namibia	
Unit	ed Kingdom	Sierra Leone	
		Yemen	
		Zimbabwe	

Fab-Rite Services Ltd.

Export Contact	Equipment	t/Services
Mr. Mike Kozinuk General Manager	BULK MATERIALS HANDLING	UNDERGROUND MINING
	Drive Pulleys & Idlers	Underground Storage Bunker conveyors
405 Slater Rd. Cranbrook, BC	SURFACE MINING	Chutes & chute control mechanisms
V1C 4Y5	Opencast & Open Pit Mining Excavators Hydraulic excavators	
Tel: 604-489-5328 Fax: 604-489-4215	Mining shovels, electric Shovel Buckets, Blades, and Wear Parts	

Company/Product

Fab-Rite Services Ltd. is a C.W.B. Div. 2.1 certified steel fabrication, machine, and installation company, servicing the forestry, mining and related industries throughout western Canada and northwestern U.S.A. With its fully equipped facility, consisting of welding machines, lathes, milling machines, shear, breaks, rolls, presses and specialized equipment, Fab-Rite Services Ltd. can service its customers totally in-house from the final design stage to completion of installation.

Fab-Rite Services Ltd. has a complete installation crew and equipment team consisting of management, millwrights, welders and fabricators. Along with its cranes, mobile welding trucks, and other support equipment it can supply a complete installation package.

Since its inception in 1981, Fab-Rite Services Ltd. has grown to today's capabilities by offering well built and installed products at competitive prices and by having compiled an experienced management and support team which ensures that valued customers receive the quality and service they expect.

Services:

Design Fabrication Hydraulic Rebuilds

Products:

Blow Pipe Bumer Parts Drives Chip Bins Conveyors Installations Machining Material Handling Cranes

Cyclones Demag and Idler Parts Feeders Flat Backs Hydraulic Pumps Hydraulic Cylinders Mill Repairs Welding

Manufacture and Supply of Industrial Plastics Roll Cases Rotary Hog Structural Steel Support Structures Transfer Decks

Geographic Marketing Activity

<u>Active</u>

Australia United States Mexico Nicaragua Panama South America

Interested

Alliances/Contacts Sought

Agents

Distributors

Joint Ventures

Falcon Concentrators Inc.

	Export Contact	Equipmer	nt/Services
	Mr. Steve McAlister President	EXPLORATION	MINERAL PROCESSING
		Feasibility Studies	Assaying and Sampling Equipment
	9807 - 196 A St. Langley, BC	GENERAL	Services Classification
	V3A 4P8	Mine Management Consulting	Centrifugal classifiers Filtration and Thickening
	Tel: 604-888-5568		Centrifuges
1	Fax: 604-888-5282		Separation, Wet Centrifugal concentrators

Company/Product

Development of the Falcon Concentrator was initiated in 1980 and the first commercial unit was commissioned in 1986. Since 1986, the Falcon company has continued to develop new machines for an ever-expanding process application base. Testing, maintenance and manufacturing facilities are located near Vancouver, British Columbia. The company is managed and operated by professional engineers, operations, and mechanical design personnel to provide unique hands-on support for the Falcon Concentrator.

The Falcon Concentrator separates materials based on differential specific gravity in a high gradient centrifugal field. Material is fed to the Falcon Concentrator in slurry form into a high speed rotor mechanism. The feed material migrates up the concentrating zone where the desired specific gravity concentrate is retained and the reject gangue travels out of the rotor and reports tailings. The concentrate is recovered from the rotor automatically, or manually, at predetermined intervals. The concentrate grade/recovery relationship, for a given feed type, can be modified by feed hydraulics, rotor geometry and the rate of concentrate collection. The patented design is simple: there are few moving parts which are easily accessed for preventative maintenance and the process surfaces are rubber covered for maximum wear resistance. Features include up to 300 G centrifugal feed, no process water added, and minimal operator attention.

Geographic Ma	Geographic Marketing Activity	
Active	Interested	Agents
Australia	Brazil	Distributors
Ecuador	China	
Guyana	Indonesia	
Mexico	Kazakhstan	
Sweden	Malaysia	
Tadzhikistan	Mongolia	
United States	New Zealand	
	Papua New Guinea	
	Philippines	
	Uzbekistan	

Frontier Equipment Ltd.

Export Contact

Terry Sumner Vice-President

1 - 7504 Vantage Place Delta, BC V4G 1A5

Tel:604-946-5531Fax:604-946-8524

ENVIRONMENT

Diesel Engine Exhaust Cleaners

EXPLORATION

Drilling Equipment

GENERAL

High Head Pumps Vehicle Components Diesel engines/powertrain components

Equipment/Services

UNDERGROUND MINING

Electrical Equipment Motors & generators Power transmission equipment Production Drilling Drill rigs

Company/Product

Frontier Equipment supplies core and auger drilling machinery to the exploration, geotechnical, mining and environmental industries. Additionally, Frontier designs and builds diesel, natural gas and biogas engine\generating systems from 200 kw to 2.5 Mw. Frontier specializes in high pressure pumping systems for mining and exploration. The firm is interested in exporting worldwide and has exported to the noted countries.

Geographic Ma	rketing Activity	Alliances/Contacts Sought
Active	Interested	Agents
Chile	Central America	Contractors
French Guyana	East Africa	
Mexico	Europe	Distributors
Peru	Middle East	
Romania	North Africa	
Saudi Arabia	Pacific	
Venezuela	South America	1
	South East Asia	

Gemcom Services Inc.

Export Contact	Equipmer	nt/Services
Mr. Peter J. Franklin President	EXPLORATION	SURFACE MINING
	Exploration Software	Monitoring & Control Pit design & simulation software
901 - 580 Hornby St. Vancouver, BC	GENERAL	
V6C 3B6	Software Process simulation	
Tel: 604-684-6550 Fax: 604-684-3541	Underground mine modelling	Company/Product

GEMCOM Services Inc. specializes in easy-to-use, practical PC-based software tools for the geological, exploration and mining industries. GEMCOM software is an accepted standard for all aspects of exploration, geological and mining computing, from the management of drillhole data to orebody modelling, mine planning and production control. GEMCOM offers a complete range of PC-based software systems for use in the earth resource industries. Designed with simplicity and practicality in mind, these systems provide exploration and mining professionals with time-saving tools that will help them to make informed decisions about their projects. Some of the GEMCOM software systems available include:

PC-XPLOR GEO-MODEL	> >	data analysis and management system for all exploratory/development information an interactive graphics system for geometric and geological modelling of orebodies and surface topography
GEM-SOLID	>	three dimensional solids modelling of orebodies and mine designs
PC-MINE	>	designed for the evaluation of orebodies and for mine planning
MINE-SURVEY	>	a mine survey and mapping application system

In the years since GEMCOM was formed, the company has grown into one of North America's foremost developers of computer software for the mineral industry, now boasting well over 1300 licenses in 44 countries around the world.

GEMCOM's market strategy is to market, promote and sell its earth resource products to the appropriate industries worldwide. To achieve this aim GEMCOM has identified seven main strategic regions for marketing. These are: (1) North America, (2) Australasia, (3) Spanish and South America, (4) Portuguese South America, (5) Europe (Scandinavia), (6) Southern Africa, and (7) South East Asia. With the exception of North America, GEMCOM is also involved in agency arrangements in order that the company continue expanding its market influence throughout the world. GEMCOM is interested in collaborating with chief engineers/geologists involved in exploration/mining endeavours, mine planners, surveyors and other professionals in need of effective time-saving software tools, and companies interested in agency opportunities within the earth resource industries.

Geographic Marketing Activity			Alliances		
	Active		Intere	sted	
Argentina Australia Botswana Brazil Burkina Faso Chile China Costa Rica Dominican Rep. Ecuador Fiji Finland French Guiana Germany Ghana	Guyana India Iran Ireland Jamaica Indonesia Malaysia Mauritania Mexico Namibia Nepal New Zealand Oman Papua New Guinea	Peru Philippines Portugal South Africa Spain Surinam Sweden Taiwan Tunisia United Kingdom United States Venezuela Zaire Zimbabwe	Angola Central & Eastern Europe Columbia Cuba El Salvador Former Soviet Union France Greece Guatemala Honduras Israel Italy Laos	Mozambique New Caledonia Nicaragua Norway Panama Saudi Arabia Sierra Leone Thailand Turkey United Arab Emirates Uruguay Vietnam Yemen Zambia	Agents

Geonex Aerodat Inc.

Export Contact

Mr. Mario Steiner President

3883 Nashua Dr. Mississauga, ON L4V 1R3

Tel:905-671-2446Fax:905-671-8160

Equipment/Services

EXPLORATION

Aerial Mapping Services Data Interpretation Services Exploration Software

Company/Product

Geonex Aerodat is an airborne survey company that specializes in geophysics. Geonex Aerodat currently operates up to 7 complete helicopterborne geophysical systems and has flown more than 500,000 line kilometres of helicopterborne EM in the past 4 years alone. In addition to the helicopter services, Geonex Aerodat operates up to 4 fixed-wing aeromagnetic/radiometric systems. Helicopterborne geophysical projects have been conducted for mineral exploration, engineering and environmental applications. The company has been charged with the task of locating objects as small as 5 gallon drums and as large as porphyry copper deposits and regional structural features. In addition to these targets, Geonex Aerodat has been actively involved in the Slave province, N.W.T. in the search for kimberlites. During the past field season alone, Geonex Aerodat has located over 40 kimberlite pipes for its clients.

Geonex Aerodat's helicopter geophysical services include 4 and 5-frequency HEM, magnetometer, radiometer VLF-EM and gamma-ray spectrometry. Since Geonex Aerodat has been traditionally able to operate all of its sensors simultaneously, surveys have rarely been carried out with one instrument type only.

As Geonex Aerodat has pioneered the use of electronic navigation systems for helicopter geophysics, it continues this commitment to positional excellence and have acquired numerous Global Navigation Systems that utilize satellite positioning techniques. Since 1988, Geonex Aerodat has flown airborne geophysical surveys using GPS as a navigation aid. With more satellites available, the operation window increases, enabling Geonex Aerodat to offer differential GPS positioning to all its clients.

Geonex Aerodat is well experienced in the processing of large data sets, and has recently completed recompilation, merging, and presentation of the entire Spanish airborne magnetic database. This project partially entailed re-digitization, extraction from raw digital tapes, flight path corrections, levelling and IGRF corrections. The entire project entailed repossessing 95,500 line kilometres and included four different surveys.

Geonex Aerodat currently works through the world through its network of agents. Agents include:

Chile	Quantec Geofisica	Santiago
Brazil	Geomag S.A.	Sau Paulo
Venezuela	Geoexpert	Caracas
Spain	I.G.T.	Madrid
Saudi Arabia	International Agencies and Commerce Ltd.	Jiddah

	Geographic Market	ting Activity	Alliances/Contacts Sought	
ł	Active	Interested		
Aruba Germany Ghana Indonesia Iran	Malaysia Mexico South America Spain UnitedStates	Worldwide	Agents	

Geoterrex

Export Contact

613-731-0453

Mr. J.D. Rowe Manager, Marketing

2060 Walkley Rd. Ottawa, ON K1G 3P5 **Tel:** 613-731-9571

Fax:

Equipment/Services

EXPLORATION

Aerial Mapping Services Geophysical Surveying Services (Airborne & Ground)

Company/Product

Geoterrex was founded in 1966 to provide high quality exploration geophysical services to the oil and mining industries. Since its inception, Geoterrex has specialized in airborne and ground geophysics using all methods applied to data acquisition, processing and interpretation.

As part of the CGG Group, Geoterrex is adequately prepared to supply ground and airborne survey crews around the world. Main offices are located in Ottawa (Canada), Sydney (Australia) and Paris (France), with representation through the CGG Group in Houston, Mexico, Quito, Buenos Aires, Rio de Janeiro, Caracas, London, Madrid, Port-Gentil, Cairo, Jiddah, Singapore, Jakarta, and elsewhere in the world.

Airborne Geophysics

As a world leader in airborne geophysics, Geoterrex specializes in the following techniques:

- Electromagnetics, utilizing GEOTEM^R, the most powerful time-domain system currently available
- High resolution aeromagnetics, using optically pumped cesium vapour magnetometers
- Spectrometry
- · Software controlled digital data acquisition systems, designed in-house
- Integrated navigation systems for Doppler, GPS and various other radio navigation networks
- In-field quality control and data processing using microprocessing systems

Ground Geophysical Surveys

All types of ground geophysical methods are used on a routine basis for mining, oil and ground water exploration, civil engineering, and environmental surveys. These include TDEM for conductor mapping, specialized reflection and refraction seismics for gas reservoir studies, coal seam surveys, and potash deposit definition.

Processing and Interpretation

Data processing is performed using Geoterrex in-house developed software covering all methods. The Ottawa, Sydney and Paris processing centres are all equipped with identical facilities, with ample combined capacity to handle any size project.

Geographic Marketing Activity		Alliances/Contacts Sought	
Ac	tive	Interested	
Australia Botswana Burkino Faso Canary Islands Cote D'Ivoire Cuba Gabon	Greenland Mali Namibia Niger South America United States Zimbabwe	Worldwide	Joint Ventures

Golden Hill Ventures Ltd.

Export Contact	Equipment/Services
Mr. Jon Rudolph President	ENVIRONMENT
riesident	Mine Closure Services Tailings Dams
30 Laberge Rd. P.O. Box 4689	GENERAL
Whitehorse, YK Y1A-3V7	Mine Development
	Mining Contracting
Tel: 403-668-7807 Fax: 403-668-7762	

Company/Product

Golden Hills Ventures Ltd. is a private Canadian company incorporated in 1980. Its head office is located in Whitehorse, Yukon Territory, Canada. The company is a heavy equipment contractor involved in mining exploration, mine development, open pit mining, road construction, and water and sewer installations. The company has affiliate companies in Alaska (Spectrum International), the Caribbean (International Horizons), and South America (Constructora Horizont sur S.A.).

Golden Hills Ventures owns a large fleet of heavy earth moving equipment. The firm has completed many contracts for many major mining companies and engineering firms. These projects have included tailings dams, airports, mill site preparations, access roads, open pit stripping, and exploration work. Golden Hills has worked in extremely remote regions that required the use of Sikorsky helicopters and Hercules aircraft.

Golden Hills is currently involved in a major water and sewer installation in Belize, Central America. The company also has contracts in Venezuela at this time and is interested in obtaining contracts in any of the Central or South American countries.

Golden Hills is interested in any earthwork related projects from exploration trenching to open pit mining. The company is willing to joint venture with local companies in order to combine its experience and expertise with the knowledge of local contractors.

Geographic Marketing Activity		Alliances/Contacts Sought
Active	Interested	Contracts
Belize	Central America China Eastern Caribbean Kazakhstan Kirgizistan Northem Caribbean Papua New Guinea Russia South America South East Asia Southern Africa Venezuela	Joint Ventures

Golder Associates Ltd.

Export Contact	Equipment/Services	
Mr. Allan E. Moss Principal	ENVIRONMENTAL	EXPLORATION
	Control Services Mine Closure Services	Geological Surveying Services
500 - 4260 Still Creek Dr. Burnaby, BC	Monitoring Services Remediation Services	SURFACE MINING
V5C 6C6		Mining Engineering
Tel:604-298-6623Fax:604-298-5253		
	Company/Product	t

Golder Associates is an employee-owned international group of consulting companies providing comprehensive engineering services in the geotechnical field. Founded in 1960, the company has offices throughout the United States, Canada, Europe, the United Kingdom, and Australia. The worldwide staff exceeds 1,400 people including more than 700 geotechnical engineers, geologists and hydrogeologists. Golder Associates Ltd., (the Canadian company), maintains 16 offices across Canada and employs over 400 people. The network of offices and staff provide the benefit of local experience, supported by the skill, capability and experience of the international group when highly specialized services are required.

The principal fields of mining consulting include rock mechanics, mining, soil mechanics, foundation engineering, engineering geology, hydrogeology, surface hydrology, contaminant waste engineering, earthquake engineering, and mine closures.

Overall, the firm's complete areas of expertise include geotechnical engineering, materials engineering, environmental management, environmental restoration, environmental and socio-economic assessments, surface and underground mining geotechnics, surface and ground water management, waste management, project management, and quality assurance.

The scope of services is flexible and comprehensive, ranging from site reconnaissance and subsurface exploration, through data analysis and engineering design, to specification review and on-site quality assurance. Clients include national and international mining corporations, federal, provincial/state and municipal agencies, architects and consulting engineers, private businesses, and individuals. Golder Associates has the experience and techniques to provide cost-effective and innovative solutions to complex technical problems and carry this commitment from design through construction throughout North America and around the world.

Geographic Marketing Activity		Alliances/Contacts Sought
Active	Interested	Joint Ventures
East Africa Central America Former Soviet Union Hungary North America Northern Caribbean Pacific Qatar South America South East Asia Turkey Western Europe	Worldwide	Strategic Alliances

Groupe Laperrière & Verreault Ontario Inc.

Export Contact	Equipment/Services		
Mr. Viren K. Mody	ENVIRONMENT	SMELTING & REFINING	
Manager, Chemical, Mineral & Food	Control Equipment	Concentrate Preparation Fluidization	
174 West St. South	GENERAL	Roasting, sintering, &	
Onilia, ON	Pumps	pelletising	
L3V 6L4	Acid		
	Metering	UNDERGROUND MINING	
Tel: 705-325-6181	Solids Handling	Production & Service Equipment	
Fax: 705-325-3363	Wear-resistant lined	Mine doors	
Company/Product	MINERAL PROCESSING Classification Hydraulic classifiers Filtration and Thickening Belt filters Clarifiers-thickeners Disc and drum filters Flotation Equipment Column flotation units Mechanical flotation units Screening & Sizing Screen docks, metal	Skips & cages Underground Storage Feeders Underground Transport, Rail Mounted Mine cars, tube & wagon Mine car handling equipment Winding & Hoisting Headframes & cages Loading & shaft station equipment	

GL&V Ontario Inc. is a wholly owned subsidiary of the Canadian company "Groupe Laperrière & Verreault Inc." (GL&V) of Trois-Rivières, Quebec. GL&V is a public limited company whose shares are traded on the Montreal Stock Exchange under the name of "Laperrière LV". GL&V bought all the assets of Dorr-Oliver Canada in September 1990 and changed its name to GL&V Ontario Inc. GL&V Ontario is also a licensee of Dorr-Oliver Incorporated of Connecticut, USA.. GL&V Ontario has its marketing, engineering, research and development, and manufacturing facilities in Orillia, Ontario which is approximately 130 kilometres north of Toronto.

GL&V Ontario serves the chemical, mineral, food, pulp and paper processing, environmental control, underground mining, and related industries. GL&V Ontario offers more than a century's experience in designing, manufacturing and supplying specialized equipment and in providing economic solutions to process problems involving the technology of solids/liquids dynamics and to the handling of ores in underground mines. GL&V Ontario has implemented a Total Quality Program designed explicitly to ensure quality control and standards monitoring and to meet high quality requirements of customers. The equipment offered for mineral processing and underground mining operations consists of skips, cages, mine cars, sheaves, classifiers, cyclones, screens, flotation cells, flotation columns, vacuum and pressure filters, thickeners, clarifiers, fluid bed calciners/roasters/dryers, and heavy duty slurry pumps.

The company's management structure is distinctively geared to an aggressive marketing approach in order to stimulate sales, especially in export markets. So successful were the company's efforts that exports were over 40% of the total business secured in the mineral processing and underground mining fields last year.

	Geographic Mark	keting Activity		Alliances Sought
Active		Interested		
Chile Cuba	Argentina Australia	Colombia Ecuador	Indonesia Papua New Guinea	Agents
Jamaica Mexico	Bolivia Brazil China	Guatemala Guyana India	Philippines Russia Venezuela	
Peru United States	China	India	venezueia	

HBT AGRA Ltd.

Export Contact	Equipmer	nt/Services
Mr. Mike Berezowski Manager, Business Dev't &	ENVIRONMENT	UNDERGROUND MINING
Marketing	Control Equipment & Services	Development
	Mine Closure Services	Mining engineering services
	Monitoring Equipment & Services	Shaft sinking equipment
221 18th St. S.E.	Remediation Equipment & Services	Ground Support
Calgary, AB		Rock bolts
T2E 6J5	EXPLORATION	Rock bolting equipment
		Shotcreting equipment
Tel: 403-248-4331	Feasibility Studies	Steel arches
Fax: 403-248-2188		Steel props
	Company/Product	

HBT AGRA Limited is a leading consulting firm in Canada specializing in geotechnical, geological and materials engineering, as well as in the building, environmental and chemical sciences. In operation continuously since 1950, it is now a whollyowned subsidiary of AGRA Industries Limited, a diversified Canadian public company. HBT AGRA, with a total staff of over 600, operates from 30 permanent offices in Canada and the United States. The company maintains state-of-the-art laboratories and has mobile field laboratories for testing in remote areas.

Internationally, the company has permanent offices in Tanzania and Moscow and has also expanded its base into the U.S.A. through acquisition. It now has 3 sister companies located in the U.S.A. :

(1) RZA AGRA (offices in Washington, Oregon, Northem California, Alaska, Hawaii) engages primarily in geotechnical and environmental engineering, but has specialist expertise in contaminant remediation, including treatment of contaminated groundwater.

(2) SHB AGRA (offices in New Mexico, Texas, Utah, Nevada, Arizona, Colorado, Mexico City) has extensive experience in providing geotechnical and environmental engineering services to the mining, construction, and drilling industries.

(3) M & T AGRA (offices in southem California) is a well established geotechnical engineering firm and is also involved in providing geological engineering and environmental services on a variety of projects in California.

In 1991, the AGRA Earth & Environmental Group was formed, consisting of HBT AGRA and the three sister companies. The AGRA Earth & Environmental Group has a total staff of about 1200 and provides earth and environmental services covering all of North America and international locations. HBT AGRA Limited represents the Canadian and international operations of the Group.

	Geographic Ma	arketing Activity		Alliances/Contacts Sought
	Active		Interested	
Argentina	Hungary	Singapore	Worldwide	Agents
Barbados	India	St. Lucia		
Belize	Indonesia	St. Vincent		Joint Ventures
Bolivia	Japan	Surinam		
Brazil	Kazakhstan	Switzerland		Teaming
Cayman Islands	Korea, South	Taiwan		
Chile	Malaysia	Tanzania		Working Relationships
China	Mexico	Thailand		
Costa Rica	Netherlands	Trinidad		
Czech Republic	Panama	Ukraine		
Ecuador	Philippines	United Kingdom		
Ethiopia	Poland	United States		
Hong Kong	Russia	Venezuela		

Harnischfeger Corp. of Canada Ltd.

Export Contact

Mr. Mark W. Hardwick Managing Director

12391 No. 5 Rd. Richmond, BC V7A 4E9

Tel:604-271-5115Fax:604-271-6242

Equipment/Services

SURFACE MINING

Drilling Equipment Blasthole drills Opencast & Open Pit Mining Excavators Draglines Hydraulic excavators Mining shovels, electric Shovel Buckets, Blades & Wear Parts

Company/Product

Harnischfeger Corp. of Canada, Ltd. ("Harcan") is a wholly-owned subsidiary of Harnischfeger Industries Inc. With warehouses located in Richmond and Sparwood, British Columbia, Hinton, Alberta, and Cornwall, Ontario, Harcan is positioned to supply parts and services to the surface mining industry in Canada. Harcan is looking for opportunities to provide equipment to C.D.C. financed mining ventures.

Harcan entered the Canadian market in 1959, selling electric mining rope shovels. Subsequently, Harnischfeger acquired walking dragline and large rotary blasthole drill lines, and its customer base was significantly increased.

Harcan currently distributes repair parts for mining shovels, blasthole drill and walking draglines to approximately fifty mining customers across Canada. Harcan also provides engineering technology, repair service, and maintenance service on all of its products. With the development of a new hydraulic excavator product line, Harcan now offers hydraulic faceshovels and backhoes to the mining and quarry industries.

Harcan's current market share of electric surface mining shovels over the last five years is estimated at 75%, and it continues to grow. The company is continuing to promote the newer dragline and rotary blasthole drill lines, and, based on market forecasts, foresees a strengthening market in the future.

Harcan is currently focusing on establishing a field services business in order to provide a variety of high quality mechanical and electrical services to the western Canadian mining Industry.

Alliances/Contacts Sought	Geographic Marketing Activity	
Joint Ventures	Interested	Active
	Argentina	Guyana
	Chile	India
	Cuba	Jamaica
	French Guiana	
	Kazakhstan	
	Peru	
	Russia	
	Surinam	
	Venezuela	

Hobic Bit Industries Corporation

E	xport Contact
Mr. An	thony Graham
Presid	ent
	1791 Hammersmith Way ond, BC C6
Tel:	604-241-0086
Fax:	604-241-0087

Equipment/Services

EXPLORATION

Diamond Drilling Equipment

UNDERGROUND MINING

÷.

Drill Consumables Drill bits

Company/Product

Hobic is a manufacturer of quality diamond set tools such as diamond core bits, reamer shells and casing shoes. These products are used by the mining and oil industries when drilling to explore for minerals and oil deposits.

Hobic is a young and dynamic company founded in 1986 and is a privately owned Canadian company. The personnel at Hobic have experience in both the oil and mining industries going back to the early 1950's. Their expertise in designing, engineering and manufacturing diamond set drilling tools has placed Hobic in the forefront of drill bit technology. Using sophisticated, proprietary fumacing techniques and experts in powder metallurgy has enabled Hobic to manufacture a broad range of matrices to achieve the best possible bonds for everyday drilling demands. Hobic's manufacturing plant and head office is in Vancouver, British Columbia. Sales offices in eastern Canada and the United States service North and South America and overseas markets.

Hobic uses natural diamonds, synthetic diamonds and polycrystalline diamonds to manufacture a wide range of drill bits, core bits and sidetrack bits for the oil field industry. These bits are made in various designs and sizes for both on-shore and off-shore drilling. Hobic design engineers will work directly with customers on specific designs and special projects. Hobic's oil field bits have an unsurpassed reputation in the industry and have been the comerstone of Hobic's success.

After many successful years making bits for the petroleum industry, Hobic diversified into manufacturing diamond applications for mineral exploration. The synergy between the two production processes and the experience of Hobic personnel has helped establish its bits with the leaders in the industry. Hobic is gaining the same reputation in mineral exploration products as it has already established in the oil industry.

Hobic currently markets its products to mining, drilling and exploration companies throughout Canada and the United States with minor sales to South America, Africa, Australia, Europe, and the Pacific Rim countries. Hobic is keen to establish agents and distributors throughout the world who are well connected in the diamond drilling industry.

Geographic Marketing Activity		Alliances/Contacts Sought
Active	Interested	Agents
Australia Chile United States Uruguay	Worldwide	Distributors

Hy-G Manufacturing Inc.

Export Contact

Mr. Don Bremner President

6080 196th St. Langley, BC V3A 5X3

Tel:604-533-9220Fax:604-590-0810

Equipment/Services

MINERAL PROCESSING

Metallurgical Engineering Plant design Plant testing Separation, Wet Centrifugal concentrators

Company/Product

Hy-G has been in the concentrator and test plant business for about ten years (since 1985). The company was the first to design and market test plants, and continues to produce the largest variety of test plants, as well as the largest concentrators of this type. Products are primarily centrifugal concentrators and test plants, and services include testing and evaluation of placer gravels, and, in some cases, the testing of ground lode ore. Historically, Hy-G has produced the best performing concentrator and test plant equipment of this type.

Hy-G markets six sizes of concentrators and two sizes of test plants., and has also made concentrators on a special order basis for particular situations. Its test plants are, in effect, small complete placer plants which are designed specifically for the accurate evaluation of placer gravels.

Hy-G is also associated with a company which produces a different type of concentrator, that has been successfully used in primarily mill circuits, due to the fact that it requires a much finer infeed; it has the ability to recover extremely fine gold. Between the two types of concentrators, there is virtually no gravity concentration problem that Hy-G cannot solve - one type of concentrator requires back pressure water, whereas the other type does not, which is usually an advantage in mill circuits.

Hy-G will design and supply turn key plants if requested and is always looking for new markets and suitable dealers.

Geographic Marketing Activity <u>Active</u>		Alliances/Contacts Sought
		Agents
Africa Argentina Australia Chile Costa Rica Ecuador	Guyana Mexico Philippines United States Venezuela Vietnam	Distributors

Ingersoll-Dresser Pump Canada Inc.

Export Contact

Mr. Peter G. Williams, P.Eng Manager, Marketing/Mining

15 Worthington Dr. Brantford, ON N3T-5M5

Tel:519-753-7381Fax:519-753-0845

Equipment/Services

GENERAL

Pumps

Acid High head Solids handling Submersible Water Wear-resistant, lined

Company/Product

Ingersoll-Dresser Pump Canada Inc. (IDP) is part of a joint venture between Ingersoll-Rand and Dresser Industries. It combines the strengths of the two companies with the brand names Ingersoll-Rand, Pacific, Worthington, Jeumont-Schneider, Pleuger, Western Land Roller, Scienco and Sier-Bath.

IDP makes pumps for all services, and is the only pump company which can offer a pump for virtually every service in mining, from lube oil to slurry, and from water supply to water treatment and disposal. IDP is a leader in pumping technology and materials technology. The firm's knowledge in pumps and pumping systems is unequalled.

IDP produces pumps for all aspects of the mining/mineral processing industry. Types of pumps available include:

water supply slurry chemicals power house horizontal, vertical and sump dewatering froth water treatment fuel oil

IDP markets its products through IDP sales offices located throughout the world, and through an extensive network of distributors and agents. This sales network ensures that after sales support is locally available.

Geographic Marketing Activity		Alliances/Contacts Sought
Active	Interested	Agents
Africa Asia Caribbean Central America Europe Middle East Russia South America Ukraine United States	Worldwide	Distributors

J. Kaehne & Associates Ltd.

Export Contact	Equipment/Services		
Mr. Jerry Kaehne President	MINERAL PROCESSING	SURFACE MINING	
	Metallurgical Engineering Process design & improvement	Mining Engineering	
225 - 4259 Canada Way Burnaby, BC	Plant design		
V5G-1H1	SMELTING & REFINING		
Tel: 604-435-9444 Fax: 604-435-9440	Pyrometallurgical Engineering Process design & improvement Plant design		

Company/Product

J. Kaehne & Associates Ltd. (JKA) is a Canadian consulting engineering company located in Burnaby, British Columbia.

Incorporated in 1986, the company provides professional electrical and instrumentation engineering, design, and project management services to industries such as power generation, power transmission and distribution, mining and mineral processing, materials handling, chemical and petrochemical, oil and gas, and pulp and paper. JKA services cover all aspects of industrial project development from initial project evaluation through detailed design, construction and commissioning to operation.

JKA is currently working in Chile, South America and has completed projects in Guyana, Papua New Guinea, Australia, Canada, and the United States. With its international character, the company is able to provide services in English, Spanish and Chinese.

J. Kaehne & Associates Ltd. would like to establish ties with companies and government agencies interested in joint ventures projects in the Americas, Pacific Rim and Caribbean. Agents representing companies from those regions are also of interest.

Geographic Mai	keting Activity	Alliances/Contacts Sought
Active	Interested	Agents
Australia	Asia/Pacific	Joint Ventures
Chile	Caribbean	
Colombia	Central America	
Guyana	South America	
Malaysia		
Mexico		
Pakistan		
Papua New Guinea		
Peru		
Surinam		
United States		
Tongo Island		

JKS Boyles Inc.

E	xport Contact
	anley D. Stewart President, Export
P.O. E	cKeown Ave. Iox 197 Bay, ON H2
Tel: Fax:	705-472-3320 705-472-6843

Equipment/Services

EXPLORATION

Diamond Drilling Equipment Drilling Equipment

Company/Product

JKS Boyles was formed in 1984 when JR Smith Canada purchased the Boyles operation from Dresser. With JKS MIT, which originated in Holland in 1888, and Boyles, formed in the USA in 1895, the company offers two centuries of experience in the mineral exploration industry. JKS Boyles has three locations in Canada to serve the domestic market as well as a subsidiary in the UK and an association with Universal Drilling Rigs in Australia. JKS Boyles has agents and distributors in over 60 countries and a history of exporting to over 110 countries.

JKS Boyles offers the world's largest range of surface, underground and portable diamond drilling rigs along with a complete line of accessories and downhole equipment such as drill rods, corebarrels, casing, diamond bits, water swivels, lifting and lowering equipment, and high pressure water and mud circulation pumps.

With two manufacturing plants in North Bay, Ontario, Canada, and assembly and some manufacturing in the UK, JKS Boyles is ready to service the mineral exploration drilling industry in all parts of the world.

JKS Boyles would be interested in making direct contact with customers, including diamond drilling contractors as well as mining companies and government departments that carry out their own drilling operations. JKS Boyles also welcomes distributor inquiries in countries where it is not currently active.

	Geographic Mar	keting Activity		Alliances/Contacts
	Activ	<u>'e</u>		Sought
Algeria	Dominican Republic	Liberia	Philippines	Agents
Argentina	Ecuador	Malaysia	Portugal	5
Australia	El Salvador	Morocco	Sierra Leone	Direct Sales
Bangladesh	Ethiopia	Namibia	Singapore	
Belgium and	France	Jamaica	South Africa	Distributors
Luxembourg	Germany	Japan	South Korea	
Belize	Ghana	Jordan	Spain	
Bolivia	Greece	Kenya	Surinam	
Botswana	Guatemala	Liberia	Swaziland	
Brazil	Guyana	Malaysia	Tanzania	
Burundi	Hong Kong	Morocco	Thailand	
Cameroon	Indonesia	Namibia	Tunisia	
Chad	Iran	New Zealand	United Kingdom	
Chile	Ireland	Niger	United States	
China	Jamaica	Nigeria	Venezuela	
Colombia	Japan	Pakistan	Zaire	
Costa Rica	Jordan	Panama	Zambia	
Cote D'Ivoire Cuba	Kenya	Peru	Zimbabwe	

John T. Hepburn Ltd.

Export Contact	Equipment/Services			
Mr. Donald L. Eckhart G.M., Mechanical Division	SMELTING & REFINING	UNDERGROUND MINING		
	Refining Equipment Anode handling equipment	Production & Service Equipment Scraper winches & access. (large)		
7450 Torbram Rd. Mississauga, ON	Tankhouse equipment	Underground Transport, Rail-Mounted Monorail systems		
L4T 1G9	SURFACE MINING	Winding & Hoisting Headframes & cages		
Tel: 905-671-2200	Mining Engineering	Mine hoisting ropes & accessories		
Fax: 905-671-0499	Opencast & Open Pit Mining Excavators Slope hoisting systems	Winders & hoists Winding control equipment		
	Company/Product			

John T. Hepburn Limited was established over 88 years ago in Toronto, Canada as a designer and builder of derricks, cranes and other material handling equipment. Hepburn has been a recognized leader in the supply of quality specialty machinery to industrial and governmental customers since that time.

Hepbum designs and manufactures winders from the smallest single drum shaft sinking hoist to large double drum production winders 4.5 meter in diameter to Koepe friction winders with 12,000 kW drives. Hepbum also manufactures sheaves, either head frame type for ground mounted winders, or in sets as deflectors for tower mounted Koepe hoists.

To its own engineering expertise, Hepburn has added the engineering assets of world class winder companies - Canadian Ingersoll-Rand Company, Westinghouse, Fullerton Hodgart and Barclay, and Ottumwa Iron Works. In support of these many installations, Hepburn offers parts and field service anywhere in the world, as well as upgrading and rebuilding services for winders which can be done in the field or in its own shops.

Hepbum can also assist in upgrading drives, control systems and braking systems in older hoists where production or service requirements change. Hepburn engineering is available to assist mining companies in the selection of the proper type and size of mine winders and sheaves for any particular application from slope to vertical shaft, from shallow shafts to 3000 meters or more.

Hepburn has produced much equipment for the mining processing industry including automated stripper cranes for plating tankhouses, hot metal cranes for smelters, tanks for mills, casting wheels for smelters, and material handling systems.

The Hepbum Quality Control System is externally audited and an extensive procedure manual, an inspection program, and in-house non-destructive testing ensure the high quality of its products.

Engineering and manufacturing is carried out in a 25,000 sq. metre facility located in Mississauga, Ontario adjacent to the Toronto International Airport. Railway sidings into the buildings allow transport of finished heavy machinery to the nearby Port of Toronto or other Canadian or U.S. ports for shipment overseas.

Geographic Marketing Activity				Alliances/Contacts Sought
Ac	tive	Interes	ted	
Brazil	Mexico	Afghanistan	South America	Agents
Chile	Peru	Cuba	South East Asia	
Ghana	Taiwan	Former Soviet Union	Southern Africa	Distributors
India	United States	Iran	Tanzania	
Indonesia	Venezuela	Malawi	Zaire	Joint Ventures
Korea, South		Pacific	Zambia	

Kamloops Precision Machining Ltd.

Export Contact

Mr. Eric Dean Manager, Customer Service

1860 Kelly Douglas Rd. Kamloops, BC V2C 5S5

Tel:604-828-8708Fax:604-372-9800

Equipment/Services

GENERAL

Machinery Repair & overhaul Pumps Wear-resistant, lined

Company/Product

Kamloops Precision Machining Ltd. is a private company which was incorporated under provincial charter in 1991. The company has its office, manufacturing and service centres in Kamloops, BC, with its engineering affiliate Fulton Engineering in Vancouver. For the past 15 years the principals of Kamloops Precision Machining have been extensively involved in large-scale mining and mineral processing equipment overhaul, repair and component manufacturing.

The company provides long-life replacement shaft sleeves for mineral process pumps that have proven to generate significant cost savings for the user.

In-plant comparative trials have demonstrated outstanding wear-life in highly abrasive slurries. These characteristics benefit the maintenance staff by reducing frequency of sleeve change-outs, pump downtime, and cost of replacement sleeves. The high wear-resistance of this product also reduces the need for ongoing pump packing adjustments, further reducing manpower and maintenance requirements. The relatively low initial cost of the sleeve is soon recovered and major cost-savings continue for thousands of operating hours. Kamloops Precision Machining manufactures long-life shaft sleeves for all original equipment manufacturers.

Kamloops Precision Machining currently supplies its long-life shaft sleeves to major Canadian mining companies and has recently enjoyed successful US exports to Alaska. Kamloops Precision Machining is also interested in establishing contact with potential distributors who are presently supplying complimentary product lines to medium and large mining customers.

Geogr	Geographic Marketing Activity		
Active	Inter	ested	
United States	Argentina Australia Bolivia Chile	China Guyana Peru South Africa	Distributors

Kilborn Engineering Pacific Ltd.

Fax:	604-669-0847		6
Tei:	604-669-8811		_
400 - 1380 Burrard St. Vancouver, BC V6Z 2B7			
Mr. Ga Vice-F		[(

Export Contact

Equipment/Services

BULK MATERIALS HANDLING Conveyor Installations

ENVIRONMENT Control Services Mine Closure Services Monitoring Services Remediation Services

EXPLORATION

Feasibility Studies Ore Reserve Estimates

GENERAL Construction Management Mine Management Consulting Procurement Services Software, Underground Mine Modelling MINERAL PROCESSING Metallurgical Engineering Plant design Process design & improvement

SMELTING & REFINING Pyrometallurgical Engineering Plant design Process design & improvement

SURFACE MINING Mining Engineering

UNDERGROUND MINING Mining Engineering Services

Company/Product

Kilbom Engineering Pacific Ltd. is an employee-owned engineering firm specializing in project management, engineering, international procurement and construction management to the mining industry worldwide. As a member of the Kilbom Group of Companies, the staff has access to an additional 700 engineers, designers and technicians in offices across Canada and in the United States, Chile, Peru, Brazil and Indonesia. Its international staff provides multiple language capabilities.

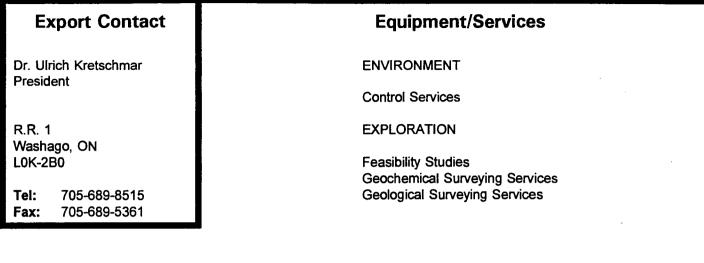
Kilbom provides a full complement of engineering disciplines and services for undertaking every stage of project development, from initial planning, feasibility analysis and final design to implementation and monitoring. Kilbom has undertaken mining projects primarily in precious and base metals, industrial minerals and coal in over 55 countries. The original Kilbom company was founded over 45 years ago to serve the needs of the mining and mineral processing industries. Mining remains the principle expertise of the Kilbom Group. From its roots in the mineral processing industry, Kilbom has expanded its services to include:

chemical production electrical transmission & distribution food processing heavy civil manufacturing material handling municipal petroleum and petrochemical transportation utilities waste/effluent management/ treatment

Kilbom is interested in providing consulting, engineering and management services to mining companies looking to improve/expand their operations or develop new projects. The company offers expertise in remote site development and the infrastructure required to support a remote operation, such as townsites, power generation, operations camps and water supply. A leading designer of gold plants, The Kilbom Group has taken over 28 mills into production in the last 10 years including the highly acclaimed American Barrick Goldstrike Mill.

Geographic Marketing Activity			Alliances Sought	
	Active		Interested	
Australia	Kirgizistan	Singapore	Worldwide	Contractors
Bolivia	Malaysia	South East Asia		
Brazil	Mexico	Sri Lanka		Direct Sales
Brunei	Nicaragua	Taiwan		
Chile	Pakistan	Thailand		Joint Ventures
China	Panama	United States		
Cuba	Papua New Guinea	Uruguay		
Indonesia	Peru	Uzbekistán		
Ireland	Philippines	Venezuela		·
Kazakhstan	Russia	Vietnam		

Kretschmar International Geoscience Corp



Company/Product

Kretschmar International Geoscience (KIGC) is a privately owned Canadian geological consulting company, incorporated in Ontario in 1985. The company has offices in Washago, Ontario and Georgetown, Guyana. KIGC is able to provide base, precious and industrial mineral exploration services and exploration research.

KIGC specializes in industrial minerals, including diamonds. Through associates and subsidiaries, KIGC is able to provide innovative beneficiation technology for industrial minerals. A subsidiary of KIGC is currently marketing silica sand in the Caricom countries and throughout North America. KIGC has recently developed a granite quarry in Southern Ontario and has expertise in building stone development from the quarry stage to the processing and marketing of final products. KIGC is carrying out a feasibility analysis for a gold mine in Guyana. KIGC is a versatile consulting company, able to provide project management, base-line environmental services, financial modelling, feasibility analyses and provides an unique combination of expertise, persistence, perspective, reliability and independence.

KIGC can operate in English, French, German and Spanish and has a worldwide network of contacts in the resource sector.

Geographic M	Geographic Marketing Activity	
Active	Interested	Agents
Belize Burundi Guyana Kenya	Argentina Australia Brunei Chile Cuba Czech Republic Fiji French Guyana Germany Namibia Slovak Republic Solomon Islands Tahiti Venezuela	Joint Ventures

Krupp Canada Inc.

Export Contact	Equipment/Services		
Mr. Ramsis Shehata	BULK MAT	ERIALS HANDLING	
President 405 - 1177 11th Ave. S.W. Calgary, AB T2R 0G5 Tel: 403-245-2866 Fax: 403-245-5625	Conveyors Belt tensioning equipment Belt cleaners Conveyor belting Conveyor drives Conveyor installations Drive pulleys & idlers Crushers	Feeders & Feeder Breakers Material Storage Abrasion-resistant linings Bins, chutes, hoppers, & accessories On-Line Weighing & Monitoring Systems Stackers & Reclaimers	
Company/Product	Cone & gyratory crushers Crusher control systems Hammer mills In-pit Jaw crushers Mobile crusher units Roll crushers Wear parts & accessories	SURFACE MINING Alluvial Mining Bucket-line dredges Cutter/suction dredges Bucket-Wheel Excavators	

Based in Calgary, Alberta, Krupp Canada Inc. has in-house facilities and is capable of designing and supplying complete systems. Krupp has a competent and knowledgable engineering staff with many years' experience in all disciplines of materials handling equipment design. Along with covering the needs of Canada's mining industry, Krupp also designs, fabricates and exports equipment for projects outside of Canada. The company is currently supplying two conveyor systems for a project in northern Chile. Krupp's continued involvement with organizations such as CIDA and the EDC has provided it with the knowledge and experience necessary to carry out work on projects outside North America. Krupp has assisted in feasibility studies for projects in countries such as Russia, Brazil, Chile, China and India, to name a few. The product line of equipment encompasses, but is not limited to, the following areas:

Conveying Systems	design and supply of several 6000 HP conveyor systems handling runs of mine material
	at capacities up to 15,000 tonnes per hour.
Crushing Systems	design and supply of several fixed semi-mobile and mobile crushing plants for various
0 7	locations in Canada with capacities up to 6000 mtph.
Storage and Reclaimation	design and supply of the world's largest circular stacker/scraper reclaimer with a track
Systems	diameter of 130 m handling coal at a reclaiming rate of 1200 mtph in New Brunswick. A
-	dome structure encloses the equipment and the 120,000 tonne stockpile.
Stackers	design and supply of several radial and travelling stackers with capacities up to 10,000
	mtph.
Shiploaders and Shipunloaders	design and supply of a travelling shiploader handling coal at a capacity of 7,000 tonnes
	per hour.

Members on staff are proficient in English, German, Italian, Spanish, French and Russian. Krupp's many years of experience in the fields of materials handling has allowed it to form a diverse and well established product line. Krupp Canada Inc. is interested in dealing direct with owners and operators in any region of the world. Additionally, it would be pleased to form joint ventures with other suppliers and project management organizations. Krupp believes that its equipment may be best utilized in the expanding markets of South America, Asia and Russia.

	Geographic Marke	ting Activity	Alliances/Contacts Sought
A	<u>\ctive</u>	Interested	
Chile China India	Surinam Venezuela	Worldwide	Joint Ventures

Lakefield Research

Equ	ipment/Services
ENVIRONMENT	MINERAL PROCESSING
Control Services	Assaying & Sampling Services
Mine Closure Services	Laboratory Equipment & Pilot Plants
Monitoring Services	Metallurgical Engineering
Remediation Services	Pilot plant testing Process design & improvement
EXPLORATION	Plant design
	Reagents & Chemicals
Assaying Services	Flotation reagents
	ENVIRONMENT Control Services Mine Closure Services Monitoring Services Remediation Services EXPLORATION

Company/Product

For over fifty years Lakefield Research has been a testing facility for the mining and mineral processing industries in process development and generation of engineering design criteria. Lakefield is capable of a complete analysis of an ore sample, defining the best method of extraction, and providing appropriate reports for the design of an operating plant. Lakefield prides itself on its ability to provide fast accurate solutions to problems. Lakefield is recognized as the company best able to handle complex ores.

Areas in which services are provided include:

Complete metallurgical testing, bench and pilot plant, through mineral processing, hydrometallurgy, mineralogy, analytical, research and development, environmental, mine waste, remediation, water, wastewater, acid mine drainage, mine closure, and recycling.

Lakefield's business has grown steadily and it now provides 50% of its services to clients around the world. Changes and additions of departments have expanded capabilities and created additional opportunities in foreign countries. Lakefield opened a new office and laboratory in Santiago, Chile in 1993.

Lakefield continues to be an innovative leader in the development and application of new processing technologies, flowsheet design, reagent and process equipment developments. The firm's experience base includes over 5,000 projects from 75 countries.

Lakefield is well established in the North American market. The firm is interested in expanding its foreign client base through possible acquisitions, joint ventures, or agent assistance on a commission basis.

Geo	graphic Marketing A	Activity	Alliances/Contacts Sought
Acti	ve	Interested	
Australia Dominican Republic Ghana India Israel Mexico Saudi Arabia	Sierra Leone South America Thailand United States Western Europe Yemen Zimbabwe	Worldwide	Agents Joint Ventures

Longyear Canada Inc.

Export Contact

Mr. Ronald G. Shortt Manager, Export Sales

1111 Main St. West P.O. Box 330 North Bay, ON P1B-8H6

Tel:705-474-2800Fax:705-474-2373

Equipment/Services

EXPLORATION

Geological Surveying Equipment Services

Company/Product

The Longyear company has been actively involved in the North American mineral exploration industry for over 100 years. Considered a world leader in surface and underground contract drilling services and equipment, the company is well known for its product lines of diamond core drills, wireline drill rods, and a complete range of diamond bits, drilling tools and pumps.

In 1930, Longyear established a head office and manufacturing plant in North Bay under the incorporated name of Canadian Longyear Limited. The present North Bay manufacturing plant was built in 1946, expanded in 1956 and again in 1970. A contract drilling division was established in 1946 and is presently housed in a modern warehouse/repair facility a short distance from the main plant in North Bay. In 1979, Canadian Longyear amalgamated with Longyear Diamond Products Canada Limited to form Longyear Canada Inc.

The name Longyear is synonymous with technical contributions to the mineral exploration industry. Two major innovations which Longyear introduced to the market are: 1) a complete functional wireline coring system initially introduced in the early 1950's; and 2) a range of impregnated diamond drill bits in 1980. These developments spearheaded a revolutionary industry conversion from conventional drilling methods.

In 1986, Longyear transferred all production capacity from the original US company in Minneapolis to the Canadian plant in North Bay. Longyear Canada is the company's world mining headquarters and provides products and contracting services to the mining industry worldwide. Longyear's international corporate headquarters is located in Salt Lake City, Utah. Other Longyear companies are operating in Australia, Chile, the Federal Republic of Germany, France, Spain, Mexico, the Netherlands, New Zealand, the Philippines, and the United Kingdom.

A complete network of affiliates, agents and distributors is presently in place throughout the world.

Geographic Ma	rketing Activity	Alliances/Contacts Sought
Act	ive	
Africa Asia/Pacific Central America Cuba Dominica Dominican Republic Europe	Jamaica Middle East North America Puerto Rico South America Ukraine	Agents

Lynx Geosystems Inc.

Export Contact

Mr. Garth Kirkham Manager, Sales & Marketing

400 - 322 Water St. Vancouver, BC V6B-1B6

Tel:604-682-5484Fax:604-669-3659

Equipment/Services

ENVIRONMENT

Monitoring Services Remediation Services

EXPLORATION

Exploration Software Feasibility Studies Ore Reserve Estimates

Company/Product

Lynx Geosystems Inc. is a privately owned Canadian corporation based in Vancouver, British Columbia. The company has specialized in the development and support of computer modelling technology for the geosciences since 1979. The three dimensional modelling technology incorporated in most of its software was developed initially for the mineral industry and supported by an international client base. The modelling technology has subsequently been enhanced for general application within the geosciences.

Lynx is a world leader in geoscience and mining systems. The 200+ client list includes major mining companies, environmental consultants, government agencies, and research institutions.

Lynx currently has two mining software packages: MMS for the UNIX environment and PC-based microLYNX Plus. Both have been in use at large mining corporations such as CVRD in Brazil, Hepworth in the U.K., and COMINCO in B.C., Canada.

Lynx also provides consulting services in the mining and environmental fields, with an extensive portfolio of customers that use its services on a project basis.

The company's primary international marketing objective is to increase its share of the North American and European markets. For this purpose it is currently seeking joint venture partnerships with consultants, and hardware and software companies with complementary technologies.

Geographic Ma	rketing Activity	Alliances/Contacts Sought
Active	Interested	Agents
Australia	Europe	Distributors
Brazil	North America	
Chile	Worldwide	Joint Ventures
India		
Peru		
South Africa		
Turkey		
United States		
Zambia		
Zimbabwe		

Met-Chem Canada Inc.

Export	Contact
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Mr. Don Jue

401 - 425 boul. de Maisonneuve ouest Montreal, QU H3A 3G5

Tel:514-288-5211Fax:514-288-7937

ENVIRONMENT

Control Services Mine Closure Services Monitoring Services Remediation Services

EXPLORATION

Feasibility Studies Ore Reserve Estimates

Equipment/Services

MINERAL PROCESSING

Metallurgical Engineering Plant design Process design & improvement

SURFACE MINING

Mining Engineering

Company/Product

MET-CHEM Inc. was formed in 1969. MET-CHEM is an internationally recognized engineering consultant in mining, minerals processing, coal and coke processing, iron and steel making, steel finishing, bulk handling port facilities, environmental management, and information technology. The company also has considerable international experience in feasibility studies and project management.

Project experience includes technical assistance to increase pellet plant production in Venezuela, mine and transport planning for an open-cast coal mine in India, and a rehabilitation master plan for a bauxite mine in Guyana. The company has an extensive network of distributors with an equally extensive service language capacity.

	Beographic Marketing Activity Alliances/Co		Alliances/Contacts
Active	Inter	ested	Sought
Bangladesh China Guinea Guyana India Malawi Mexico Pakistan Peru Thailand Turkey USA Venezuela	Argentina Australia Bahrain Bolivia Brazil Burkina Faso Chile Columbia Cote-d'Ivoire Czech Republic Egypt Indonesia Iran Jamaica Jordan Kazakhstan Kuwait Laos Madagascar	Malaysia Mali Mauritania Mauritius Philippines Rwanda Russia Saudi Arabia Singapore South Africa South Korea Surinam Syria Tunisia Ukraine United Arab Emirates Vietnam Zimbabwe	

Miller Technology Inc.

•	Export Contact	Equipme	nt/Services
	Mr. Mike Mulligan Manager, Exports	ENVIRONMENT	UNDERGROUND MINING
		Diesel Engine Exhaust Cleaners	Coal Face Equipment Drives, gears, & transmissions
	R.R. #3	GENERAL	Development
	North Bay, ON		Drill rigs & jumbos, hydraulic &
	P1B 8G4	Air Compressors, Portable	pneumatic
		Blasting	Electrical Equipment
	Tel: 705-476-4500	Anfo loaders & carriers	Power transmission equipment
	Fax: 705-476-8811	Anfo mixers & chargers	Ground Support
•		SURFACE MINING	Rock bolting equipment & machines Shotcreting equipment
		Ancilliary Vehicles	Production Drilling
		Crawlers & wheeled dozers/crawler	Drill rigs

loaders Graders Utility vehicles, etc. Drilling Equipment Rock boring equipment Impact Breakers Opencast & Open Pit Mining Excavators Wheel loaders Shotcreting equipment Production Drilling Drill rigs Underground Vehicles Underground graders Utility vehicles Vehicle automation Winding & Hoisting Winding control equipment Winders & hoists

Company/Product

Miller Technology Inc. was established in 1979 as an engineering design consulting service for underground diesel powered service and support vehicles. The Mine Kart design and concept evolved from this start-up with over 100 units currently in service in underground mines throughout Canada, the United States, and several international operations. The strength of the product lies in the design concept of "keep it simple": allowing for easy access for servicing and maintenance plus availability. Since the start up of Miller Technology Inc., other concepts and ideas have evolved, to the point where the company now provides a full range of service vehicles for the underground mining market. New products other than service vehicles also have been designed, manufactured and sold to a wide range of users.

The expertise developed has been in underground mining equipment. The full product range of equipment is designed and manufactured at Miller's North Bay, Ontario facility. To maintain its position, Miller will be constantly sourcing and developing new ideas and concepts to meet the industry's future requirements.

Miller is the winner of the "1993 Award for Excellence" for company of the year. One to fifty employees are currently being certified under 9002 ISO standards as well as the Canadian Welding Bureau.

Geographic Marketing Activity			Alliances/Contacts Sought	
Active	Intere	ested		
Mexico New Guinea	Central America Cuba	Russia South Africa	Agents	
United States	Ghana India	South America South East Asia	Distributors	
	Middle East Pacific Pakistan	Western Europe Zimbabwe	Joint Ventures	

National Compressed Air Canada Ltd.

Export Contact	Equipm	ent/Services
Mr. Dave Keddie President	EXPLORATION	UNDERGROUND MINING
Tresident	Geological Surveying Equipment	Development
1165 Fewster Dr.	Drilling Equipment & Services	Drill rigs & jumbos, hydraulic & pneumatic
Mississauga, ON L6T 2L7	GENERAL	Mining contracting Raise borers
	Air Compressors	Raise/Tunnel boring accessories
Tel: 905-625-7321	Portable	Drill Consumables
Fax: 905-6291271	Stationary	Drill bits Drill steel, rods, couplings
	SURFACE MINING	Production Drilling Drill rig alignment systems
	Drilling Equipment	Drill rigs
	Blasthole drills	Drilling services
	Blasthole drill consumables	Production & Service Equipment

Drill inclination equipment

Company/Product

Compressors

National Compressed Air Canada Ltd. (NCA) manufactures screw compressor packages for exploration, mining and stationary applications, as well as specialized drilling equipment. NCA offers compressor packages with diesel, electric, gasoline and hydraulic drive for numerous applications. Specialized compressor configurations include man-pack portable systems, helicopter and aircraft portable systems, and deck mounted PTO compressors for existing drill rigs. Experience with the mining and exploration sectors has given the firm a unique understanding of the design necessary to meet rigorous applications.

The underground reamer drill manufactured by NCA is capable of hole diameters for 4-1/2" to 24" at depth of 600' in hard rock. This unit is unique since it is capable of drilling 4-1/2" to 17-1/2" holes by remote control, looking up 90 degrees.

NCA would like to set up agents to distribute its various compressor packages.

NCA is also looking at a joint venture in the contracting business drilling 24" diameter holes, slot raises and production drilling.

Alliances/Contacts	Geographic Marketing Activity	
Agents	Interested	Active
Distributors	Dominican Republic	Chile
	India	Iran
Joint Venture:	Indonesia	South Africa
	Pacific	United Kingdom
	Pakistan	Yemen, South
	Philippines	
	South America	
	Saudi Arabia	
	Western Europe	

Nautilus Int'l Control & Engineering Ltd.

Export Contact

Mr. Jason Hart President

6881 Russell Ave. Burnaby, BC V5J 4R8

Tel:604-430-8316Fax:604-430-1962

Equipment/Services

UNDERGROUND MINING

Communications Equipment Video Electrical Equipment Telemetry & remote control equipment Underground Transport, Rail-Mounted Vehicle automation

Company/Product

Based in Burnaby, British Columbia, Nautilus International is a private Canadian company that concentrates on the design and manufacturing of a wide range of radio/TV remote control and monitoring systems as well as communications and autornatic guided systems for use in mines, railways, construction and industrial equipment, off shore installations, and many other applications.

Nautilus International was incorporated in 1978 and currently employs a team of 30 highly skilled professional engineers, programmers, technicians and production personnel.

Having developed the Canadian and American markets Nautilus is now focusing on enlarging its markets in Australia and South America where its products have been successfully introduced.

Nautilus would like to establish contact with the following:

Mining companies

Companies that manufacture or supply mining, railway, crane and industrial equipment

Engineering and Consulting companies who offer services to mining, railways, ports, airports or other industries that may need remote control and communication systems are also of interest.

Geo	ographic Marketing Ac	Alliances/Contacts Sought	
Active	Intere	ested	
Australia Brazil	Central and Eastern Europe	New Caledonia Papua New Guinea	Agents
Chile United States	China Former Soviet Union	South America South East Asia	Distributors
	Kenya Mexico Mozambique	Western Europe Zambia Zimbabwe	Joint Ventures

Nelson Machinery & Equipment Ltd.

Export Contact

Mr. Andrew Greenwood President

1470 Rupert St. North Vancouver, BC V7J 1E9

Tel:604-985-5331Fax:604-985-2074

Equipment/Services

GENERAL

Machinery Repair & Overhaul Procurement, Equipment

Company/Product

Nelson Machinery and Equipment Ltd. specializes in the sale of second hand equipment for mining and mineral processing. The company conducts liquidations of closed mines, and maintains a computerized database of surplus equipment located at numerous mine sites throughout North America.

The company has used equipment available for virtually all aspects of the mining and mineral benificiation process, including equipment for underground mining and tunnelling, surface mining, material handling, crushing, grinding, separating, concentrating, filtering, pumping, dewatering, drying and loading. Complete plants can often be matched or adapted to a purchaser's needs. Equipment and plants usually become surplus not because of obsolescence or breakdown but because of changes in a process or depletion of an orebody. The pool of used surplus equipment allows purchasers to make savings in both cost and delivery time when compared to the purchase of new equipment. Nelson Machinery and Equipment can offer items on an "as is" basis, subject to the buyers inspection and approval, or alternatively on a "reconditioned" basis. The company also sells surplus and new parts for many types of mining equipment.

In addition to equipment sales, the company offers various services including appraisals of used equipment and complete plants. Goods are accepted for consignment sale on a commission basis.

Export sales are conducted through the head office located in North Vancouver (Spanish spoken). The company has a 16 acre equipment storage yard, warehouse and shop facility at Savona, in central B.C.

Nelson Machinery and Equipment maintains contact with mining companies and equipment dealers throughout the world and welcomes enquiries from buyers and sellers of used and surplus mining related equipment.

Geographic Marketing Activity		Alliances/Contacts Sought
Active	Interested	Suppliers
Australia Chile Ecuador Mexico Philippines United States	Worldwide	

New Era Engineering Corp.

Export Contact	Equipment/Services		
Mr. Randy Clarkson, P.Eng President	EXPLORATION	MINERAL PROCESSING	
	Feasibility Studies Geological Surveying Services	Assaying & Sampling Services	
P.O. Box 4491 Whitehorse, YK	Ore Reserve Estimates	Metallurgical Engineering Plant design Process design & improvement	
Y1A 2R8	GENERAL	SURFACE MINING	
Tel: 403-668-3978 Fax: 403-668-3978	Mine Management Consulting	Mining Engineering	

Company/Product

New Era Engineering is a private Canadian corporation that has its office in the heart of Canada's alluvial gold mining industry: Whitehorse, Yukon. New Era is a world authority on alluvial gold recovery due to its revolutionary development of radioactive gold particles (radiotracers) for the evaluation of the gold recovery efficiency of sluiceboxes, jigs, centrifugal concentrators and drills. New Era's radiotracer technology provides a very rapid, accurate and safe method to assess and improve the efficiency of virtually any gold saving device.

New Era has conducted alluvial testwork in its laboratory and at dozens of operating alluvial mines in North America. New Era has used its extensive experience to manage alluvial exploration programs and evaluate the feasibility of several alluvial deposits. The company has designed several high-volume alluvial gold recovery plants including its famous portable "Z" sluicebox. New Era is involved in alluvial mine planning and reclamation. The company also designs settling ponds and other methods to control sediment-laden water discharges.

New Era's radiotracer technology and gold recovery designs are in use from Alaska to New Zealand and from Papua, New Guinea to Ghana. New Era would like to assist clients in northem South America, Africa, Australia, China and Russia to evaluate and improve their alluvial gold recovery technology.

Geographic Ma	Geographic Marketing Activity	
Active	Interested	
		Agents
Armenia	Worldwide	
Costa Rica		Contractors
Guatemala		
New Zealand		Direct Sales
United States		
Venezuela		

Pajari Instruments Ltd.

Export Contact

Ms. Sharon R. Keetch Chief Administrative Officer

P.O. Box 820 Orillia, ON L3V 6K8

Tel:705-325-3222Fax:705-325-8789

Equipment/Services

EXPLORATION

Geological Surveying Equipment Services

Company/Product

Pajari Instruments Ltd. develops, manufactures and services surveying instruments that determine the direction, and thereby the position and depth of holes bored into the earth. These instruments are of a unique design that offers advantages in ease of use and low operating costs without compromising accuracy, reliability or longevity. A full range of accessories for surveying boreholes of any size, depth or configuration is available. Directional borehole surveying instruments are mainly used in the mineral exploration, mining, tunnelling, site engineering, water well and quarrying industries.

Pajari Instruments Ltd. also provides technical services in directional borehole surveying that can range from accessing the equipment and methods for a project, education of operating staff through to computation, storage and plotting of the data. Projects requiring the development of new or specialized instrumentation can also be accommodated. Pajari Instruments Ltd. has over 48 years of design, manufacturing and technical service experience in this field.

A radically different micromechanical instrumentation for determination of inclination and tool-facing in wedging, directional drilling, and other tool orientation operations has recently been introduced. Survey sites through bits, rods or hoses as small as 23 mm (0.90") with no maximum size limitation can be accommodated without compromising accuracy, ease of use or time constraints.

The company operates manufacturing, sales, rentals, service and research facilities in Orillia, Ontario, Canada. The products have over 95% Canadian content.

Pajari Instruments Ltd. products are in use throughout the world and are available through agents or representatives in many countries or directly from the Orillia location. A subsidiary company located in Burt, N.Y. serves American customers.

	Geographic M	larketing Activity		Alliances/Contacts Sought
	E	Active		
Argentina	Ecuador	Lesotho	Spain	Agents
Australia	Egypt	Mexico	Turkey	
Belgium	France	Netherlands	United Kingdom	Distributors
Bolivia	Ghana	Peru	United States	
Botswana	Guyana	Portugal	Venezuela	
Brazil	Honduras	Saudi Arabia	Zaire	
Chile	Ireland	Seychelles Islands	Zambia	
Columbia	Italy	South Africa	Zimbabwe	

Pearson, Hofman & Associates Ltd.

Export Contact	Equipment/Services	
Dr. William N. Pearson President	EXPLORATION	MINERAL PROCESSING
	Data Interpretation Services Feasibility Studies	Assaying & Sampling Services
1620 - 11 King St. West Montreal Trust Tower	Geochemical Surveying Services Geological Surveying Services	SURFACE MINING
Toronto, ON M5H 1A3	Ore Reserve Estimates	Mining Engineering
Tel: 416-367-4330 Fax: 416-367-5693		

Company/Product

Dr. William N. Pearson, P.Geo. a consulting geologist with over 20 years of experience in the mining industry and a former partner in the geological and mining consulting firm of Derry, Michener, Booth & Wahl, formed Pearson, Hofman and Associates Ltd. (PHA) in 1990. From its office in Toronto PHA provides comprehensive geological, computing and project management services to the international mining industry. PHA has been a leader in applying modern computer technology to provide innovative and cost-effective solutions to geological and mining problems.

Since its inception, PHA has carried out projects for over 40 major and junior mining companies, government agencies and consulting firms. Projects completed have been located in Canada, Central and South America and Africa and include ore reserve estimation, reserve audits, independent project reviews and valuations, compilation of surface and underground exploration and mining data, qualifying reports for underwritings on the Toronto Stock Exchange, expert testimony in litigation, digitizing of geological and mineral deposits data for G.I.S., and preparation of 2-D and 3-D colour graphic presentation material.

PHA specializes in assembling teams of professionals including mining engineers, metallurgists and environmental geoscientists of the highest calibre for exploration, mining and rehabilitation projects. The firm is committed to maintaining a high standard of reporting and client service at a competitive price.

PHA would like to establish contact with geological and mining consulting firms who would be interested in joint ventures or who can supply contractors for work on overseas exploration and development projects for Canadian-based clients.

Geographic M	Geographic Marketing Activity		Geographic Marketing Activity Alliances/Contac	
Active	Interested	Contractors		
Honduras Mexico Zimbabwe	Botswana Central America Ghana Indonesia Kazakhstan Mozambique Namibia South America Tanzania Turkey Uzbekistan	Joint Ventures		

Phoenix Piston Hydraulics Inc.

Export Contact Mr. Gerald W.C. McLaughlan President P.O. Box 712 2308 4th St. Nisku, AB T0C 2G0 403-955-3575 Tel: 403-955-3397

Fax:

Equipment/Services

SURFACE MINING

Ancilliary Vehicles Crawlers & wheeled dozers/ crawler loaders Graders **Opencast & Open Pit Mining Excavators** Hydraulic excavators Wheel loaders

Company/Product

Phoenix and its predecessor company commenced operations in 1984 from its base in Edmonton, Alberta, Canada. A subsidiary with full plant facilities commenced operations in 1993 in Santiago, Chile. The company specializes in rebuilding high pressure hydraulic piston pumps and motors used on mobile equipment. Rebuilding generally offers substantial cost savings when compared with new replacements.

PLoenix operates from two state-of-the-art facilities in Canada and Chile. Both plants are equipped with large test benches that enable the company to test the largest hydraulic pumps at maximum flow and pressure. Plant staff have years of experience in remanufacturing these complex high pressure units. Repairs are also performed on large gear boxes including the propel and swing transmissions used on mining shovels. The plants are stocked with a large inventory of rebuilt exchange units and spare parts ensuring customer machine downtime is kept to a minimum. Hydraulic repairs are performed on mobile equipment used in the mining, forestry, construction and marine industries.

Phoenix markets its specialized services to mining operations throughout North and South America. Sales representatives are located in Colombia, Brazil, Chile and Peru. Phoenix is interested in establishing distributors or direct contacts in South Africa and Australia.

Geographic Mar	Geographic Marketing Activity	
Active	Interested	Agents
Brazil	Argentina	Distributors
Chile	Australia	
Colombia	Brazil	Joint Ventures
United States	Congo	
	Ecuador	
	French Guiana	
	Guyana	
	Mexico	
	Peru	
	South Africa	
	Venezuela	
	Zaire	

Q.M. Industries Ltd.

Export Contact

Mr. Don Yorstor President

Equipment/Services

GENERAL

Machinery Bearings, shaft couplings

990 Industrial Way Prince George, BC V2N 2K8

Tel:604-563-3604Fax:604-563-7810

Company/Product

Q. M. Industries Ltd. is a private Canadian company founded in 1951. The company has built a reputation in northern British Columbia as a supplier to the forest and mining industries. The company operates from Prince George and Vancouver. The Prince George plant is also the head office. Q.M. specializes in manufacturing heavy duty spherical roller bearings in steel housings and flexible shaft couplings.

The Prince George plant employs 35 people and is equipped with modern numerically-controlled machine tools. The spherical roller bearings are mounted in cast or forged steel housings with triple lip seals. The line of shaft couplings is used mostly for high-torque heavy duty applications to 8000 hp. Q.M. has distributors across Canada and in the United States.

Q.M. would like to set up distributors or appoint agents in countries with a focus on resource industry. Q.M.'s products, due to a heavy duty nature, are especially applicable to areas with rough service conditions. The company has the capacity to communicate in French, Spanish, Mandarin, Cantonese, Shanghaiese, Japanese, Italian and German.

Geographic Marketing Activity			Alliances/Contacts Sought	
Active		Interested		
United States	Aruba Australia	Honduras Hungary	Philippines Poland	Agents
	Belarus	Indonesia	Siberia	Distributors
	Belize	Kampuchea	Sierra Leone	
	Bonaire	Malaysia	South Africa	
	Brazil	Mexico	South America	
	Brunei	Mongolia	South East Asia	
	Central America	Netherland Antilles	Surinam	
	Chile	New Zealand	Tadzhikistan	
	China	New Caledonia	Tahiti	
7	Columbia	New Hebrides	Thailand	
	Costa Rica	Nicaragua	Ukraine	
	Czech Republic	Nigeria	Uruguay	·
	Ecuador	Pacific	Venezuela	
	El Salvador	Panama	Vietnam	
	Former USSR	Papua New	West Africa	
	French Guyana	Guinea	Zimbabwe	
	Ghana	Paraguay		
	Guatemala	Peru		

Quantec Consulting Inc.

E	xport Contact
Mr. Je	ean Legault
Presid	lent
101 K	Box 580 ing St. pine, ON C0
Tel:	705-235-2166
Fax:	705-235-2255

Equipment/Services

EXPLORATION

Exploration Software Geophysical Surveying Equipment Services Underground Services

Company/Product

Quantec is a privately owned Canadian company which was incorporated under the Ontario provincial charter in 1986. The company has offices in Waterdown and Timmins, Ontario but provides services throughout Canada. Quantec is the owner of a U.S. subsidiary 'Quantech Consulting Incorporated', which was incorporated in the State of Nevada in 1988, and has an active office in Reno, Nevada providing services to the southwestern United States. Quantec also controls Extec Development Corporation, which was incorporated in Ontario in 1993 to continue research and development in deep exploration technology.

Quantec has completed more than 500 projects throughout Canada and around the world. The company provides complete project management and services for deep exploration projects. The company has experience in data acquisition from the high arctic deserts to equatorial tropical rainforests, sea level to 5,000 m and from -50C to +40C. The company is a world leader in high power transmission and high resolution reception of geophysical data in applications for mining, oil, geothermal, ground water, and environmental assessment.

Quantec has proprietary technology in post acquisition data processing that is designed to allow the interpretation and integration of geophysical (surface, borehole and underground) and geological data on a project scale. This technology, referred to as the Integrated Data Platform (IDP), is an interactive object oriented framework that supports full database functionality through custom scientific graphic user interfaces.

Products/Services

Deep Exploration Ground Geophysical Technology and ServicesProjectSurface, Borehole and Underground SurveyingSurveyMining, Oil, Geothermal, Groundwater and EnvironmentalData AElectromagneticsData PInduced PolarizationInterpretMagneticsInteractGravityDatabaHigh Resolution SeismicTrainingIntegrated Data PlatformIntegrated

Project Management Survey Design Data Acquisition Data Processing Interpretation Interactive Software Database Training

Quantec would like to establish contact with international mining companies that have deep exploration requirements, especially in the areas of current mining infrastructure where the economics of deep exploration are supported by the extended life span of these assets.

Geographic Marketing Activity		Alliances/Contacts Sought	
Active	Interested	Joint Ventures	
China Mongolia Portugal Spain	Worldwide		(

Rahnmet '92

Export Contact	Equipmer	nt/Services
Mr. Richard Ranger Manager, Technical Product	BULK MATERIALS HANDLING	MINERAL PROCESSING
P.O. Box 478 141 Regina St. North Bay, ON P1B 8H2	Cone & gyratory In-Pit Jaw crushers Mobile crusher units Wear parts & accessories	Autogenous, semi-autogenous Mill linings & accessories
Tel: 705-474-0410 Fax: 705-476-6790		
	Company/Product	

Rahnmet '92 produces bronze bushing and steel parts for cone and jaw crushers at its plant in North Bay, Ontario. There are several crusher models such as Nordberg, Allis Chalmers, Traylor and Telsmith for which Rahnmet produces parts.

Rahnmet has a reputation for its top quality products and its technical knowledge on the operation of crushers. Rahnmet's field representatives are called on extensively to trouble shoot on problems customers have with their crushers.

Rahnmet is currently the only company in Canada which manufactures the bronze bushings for cone crushers.

The bronze bushings for the cone crushers are marketed throughout Canada, U.S. and other overseas locations.

The bronze bushing market is very unique for Rahnmet because the type of cone crushers manufactured are used throughout the world and are all manufactured to the same standard sizes which allows parts to be in inventory to supply any geographical area without concern about dimension differentials.

The plan at Rahnmet '92 is to expand the firm's marketing capabilities in South America, Mexico, the Pacific Rim and Australia by selling its products through a manufacturer agent or a manufacturer of a related product who markets a given area. Priority is to come into contact with more people and businesses to help market products worldwide.

Geographic N	Geographic Marketing Activity	
Active	Interested	Agents
Dominican Republic France Puerto Rico Singapore United Kingdom United States	Central Africa Central America Central and Eastern Europe East Africa Former Soviet Union Middle East North Africa North America Pacific South America South Asia South East Asia Southern Africa West Africa Western Europe	Distributors

R.E.G. Mining Parts & Equipment Co. Ltd.

Export Contact	Equipme	nt/Services
	UNDERGR	OUND MINING
Mr. Mark Garofolo	Development	Underground Transport, Rail-Mounted
'Dwner	Drill rigs and jumbos	Locomotives, battery
	Raise climbers	diesel
	Production & Service Equipment	electric trolley &
1197 O'Neil Dr. West	Scrapper winches & accessories	pantograph
Garson, ON	Tugger hoists	Mine cars, tubes and wagons
P3L 1L5	Production Drilling	Underground Vehicles
	Drills, hand held	Articulated dump trucks
Tel: 705-693-7900	Underground Transport, Rail-Mounted	LHD's
Fax: 705-693-1772	Locomotive batteries	Utility vehicles
	-	Ventilation

Fans, auxiliary Fans, main ventilation

Company/Product

R.E.G. Mining Equipment has been in operation for over twelve years and is mainly involved in the purchase of used mining equipment for the purpose of reselling to end users in a reconditioned state. The company is located in Garson (Sudbury), Ontario which is the centre of mining in Canada. Major client mining operations include INCO and FALCONBRIDGE whose Sudbury mines are within minutes of R.E.G.'s office. Other major customers include PLACER DOME, LAC MINERALS, AMERICAN BARRICK, as well as many smaller companies. R.E.G. enjoys a good relationship with its clients as indicated by continued repeat orders for equipment. Perhaps one reason for the firm's success is that it provides warranties with good back-up service.

Even with the present difficult economic climate in Canada, R.E.G. has managed to grow and last year moved to larger premises and a new 5,000 square foot rebuild shop is now being added. Six acres of land is fully used to store all equipment for customer inspection.

The company has shipped equipment all across Canada, from the frozen Arctic to both coasts, and to many locations in the United States. In the past year R.E.G. was fortunate to receive new orders destined for Chile, Peru, Bolivia, Venezuela and Guyana.

R.E.G. is able to accommodate most customer needs for a large variety of equipment, from products as large as mine hoists and ball mills to the smallest orders such as air tuggers and pneumatic pumps and tools. Through its computerized updating system, R.E.G. has files on most available equipment in Canada.

Geographic Ma	Geographic Marketing Activity	
Active	Interested	Agents
Bolivia	Argentina	1
Chile	Australia	
Guyana	Brazil	
Mexico	China	
Peru	Columbia	
Philippines	Costa Rica	
Singapore	Indonesia	
United States	Korea, South	
Venezuela	Pakistan	
	Vietnam	

Roscoe Postle Associates Inc.

Export Contact	Equipment/Services	
Mr. Hrayr Agnerian Consulting Geologist	EXPLORATION	GENERAL
	Exploration Software	Construction Management
	Feasibility Studies	Financial Analysis
1210 - 55 University Ave.	Geological Surveying Services	
Toronto, ON M5J 2H7	Ore Reserve Estimates	SURFACE MINING
		Mining Engineering
Tel: 416-947-0907		
Fax: 416-947-0395		
	Company/Product	

Roscoe Postle Associates Inc. (RPA) was established in 1985 as an independent firm of geological and mining consultants based in Toronto, Ontario. Professional personnel have extensive experience in many countries, and have carried out consulting assignments for numerous North American and international companies and financial institutions. A brief description of RPA's services is as follows:

Estimation and verification of ore reserves

Using the most appropriate technique for the deposit. RPA will issue a report classifying the reserves to comply with the necessary regulatory requirements.

Valuation of exploration properties

Involves a detailed technical review of the property and an assessment of the potential for further exploration.

Valuation of mining properties

Involves technical due diligence and net present value by discounted cash flow techniques.

Conceptual mine design and cost estimation

At the prefeasibility stages of mining projects.

Financial analysis of mining projects

Provides a forecast of expected future operations and a cash flow summary of the project.

Technical review and monitoring of mining projects

By engineers and geologists who have extensive experience in mine operations and mining geology.

Computer aided management of technical data

Covering a wide range from drafting (AUTOCAD) to database management to open pit design. These services are tailored to fit the requirements of a specific project and to address particular requests.

Management of exploration projects and administration of mineral properties.

Geographic Marketing Activity		Alliances/Contacts Sought
Active	Interested	Agents
Chile	Africa	
Cuba	Former Soviet Union	
Peru	Southeast Asia	
United States		

RST Instruments

Export Contact	Equ	ipment/Services
Mr. Robert Straghan President	EXPLORATION	GENERAL
5 - 200 Golden Dr. Coquitlam, BC V3K 6M8	Geochemical Surveying Equipment Services	Blast Monitoring Equipment
Tel: 604-941-4848 Fax: 604-941-4175		

Company/Product

RST Instruments is an established private Canadian manufacturer of innovative geotechnical instrumentation. Incorporated since 1977, the company has offices in both the U.S. and Canada and maintains agent representation worldwide. RST Instruments is a recognized leader in manufacturing a comprehensive line of geotechnical instrumentation. The company continues to research and develop innovative instruments to meet demanding and dynamic geotechnical applications. Company products are used primarily for monitoring field performance. Computer aided design enhances production of data gathering tools for mining, engineering, construction and environmental inclustries.

RST Instruments manufactures products at its Coquitlam, B.C. headquarters. The company consults with clients to identify application-specific challenges and then utilizes computer aided design to manufacture the necessary instrument and readout system. Further post-purchase technical assistance is provided. RST views its position within the industry as the dynamic leader in innovative engineering information accumulation systems.

Mining applications of RST products include monitoring of slope stability, load, pressure, stress, strain, sheer movement, deformation, and borehole packing. In addition to these tangible, and largely application-specific products, RST offers industry-leading technical assistance to clients.

The company utilizes the highest quality of materials in the manufacture of its products and supports the building process with a fully computerized factory. It holds a patent for its Snap Seal inclinometer casing and is recognized as producing the top-rated water level meter. Furthermore, RST is recognized as the manufacturer of the most accepted pneumatic piezometers worldwide.

RST Instruments intends to establish business contacts with mining companies who have geotechnical and environmental supply requirements.

Geographic Marketing Activity		Alliances/Contacts Sought
Active	Interested	Agente
Australia	Argontino	Agents
	Argentina	Distributer
China	Brazil	Distributors
Malaysia	Chile	
Singapore	Guyana	
United States	Mexico	
United Kingdom		

Scandinavian Grinding Mill Systems Inc.

Export Contact	Equipment/Services	
	MINERAL	PROCESSING
Mr. Dennis Fenton CEO	Flotation Equipment Agitators & mixers Conditioners Mechanical flotation units	Metallurgical Engineering Process design & improvement Pipework, Steel Screening & Sizing
200 - 2916 South Sheridan	Grinders	Screen docks, metal
Way	Autogenous, semi-autogenous	Separation, Dry
Oakville, ON	Grinding media	Pneumatic
L6J 7J8	Mill linings & accessories	Separation, Wet
	Kilns & Driers	Centrifugal concentrators
Tel: 905-897-7469	Metallurgical Engineering	Cones & spirals
Fax: 905-897-6924	Plant design	Magnetic, high intensity Tables
	Commony/Droduct	

Company/Product

Scandinavian Grinding Mill Systems Inc. is an Ontario-based company that was formed in 1987 to supply grinding mills to the mining, cement, and coal industries. The company has 23 years of continuous experience in grinding mill design and systems analysis of large shell-supported mills, gearless drive technology, very large SAG mill designs, and a unique technology in the design of long (D/L ratio -5.0) triple compartment mills.

Scandinavian Mills' experience is not limited to grinding mill design but includes mill failure analysis, competitive bidding on new projects, and international experience in torsional vibration analysis and investigation of gear failures. Scandinavian Mills has used innovative designs for rotating equipment such as kilns, dryers, debarking drums, and tar tumblers. Raw mills with large diameter chambers and efficient drying capabilities are also a feature of Scandinavian's mill design and include shell support and large openings (if required). Screw conveyors and jacking cradles for aligning the mill are eliminated.

	Geogra	Interested	Agents	
	Geogra	phic Marketing Activity	Alliances/Contacts Sought	
	CONSULTING SERVICES	Scandinavian Mills offers reporting of field fair implementation of torsional assurance, and investigation of the second		•
	PROCUREMENT AND REHABILITATION OF USED EQUIPMENT	Field service by experienced staff in dismantling All new components are made to Scandinavian	2	
	TORSIONAL VIBRATION ANALYSIS TECHNOLOGY	Over the past decade, investigations of drive train compressors, and fans and appraisal of drive train numerous technical publications and case histor	ain installations internationally has led to	
	REPAIR TECHNOLOGY	Field services include reports, implementation of of new components.	repairs, and inspection and quality control	
.	MILL DESIGN	Scandinavian Mills offers ball mills to the mining Viking Series, covering shell supported ball mills shell supported SAG mills and pebble mills. Sca mill manufacturing specifications and inspection, and clear, concise manuals.	s, wet overflow and grate mills, rod mills, andinavian Mills provides comprehensive	

Worldwide

Agents

Joint Ventures

Schneider Canada Inc.

Export Contact	Equipment/Services	
Mr. Rob Squire Export Contact	GENERAL Electrical Switchgear Products	UNDERGROUND MINING Electrical Equipment
6675 Rexwood Rd. Mississauga, ON L4V-1V1		Controls, switches & boxes Electrical distribution packages Motor control gear Starters Transformers
Tel: 905-459-8805 Fax: 905-454-3603		

Company/Product

Schneider Canada evolved in June, 1993 from the amalgamation of Federal Pioneer Limited, Square D Canada, Freeborn Industries, Merlin Gerin Canada, Telemechanique Canada, Jeumont Schneider and Schneider Canada Service. The predecessor companies date back to 1946. Prior to this amalgamation, some of the individual companies had been exporting from Canada for approximately 30 years. The firms' products are found in all five inhabited continents and include mining and related applications in Peru, Guyana, Chile, Indonesia, Philippines, Jamaica and others. Depending on the equipment and application, Schneider has supplied equipment to meet CSA, UL, NEMA, ANSI, and IEC standards.

Electrical distribution equipment provided includes circuit breakers, switches, panelboards, ground fault relays, switchboards, switchgear, substations, distribution and power transformers, starters, contactors, drives, industrial controls, and automation (equipment.

Within the new association, Schneider has access to local representation and operations in most countries of the world. Schneider uses this local presence to good effect in marketing products and coordinating commercial activities. While Schneider Canada's operational language is English, the company also does business routinely in French and Spanish.

Geographic Mar	Geographic Marketing Activity	
Active	Interested	
Australia Barbados Bermuda Central America Hong Kong India Iraq Jamaica Pakistan Saudi Arabia South America South East Asia Taiwan Trinidad-Tobago United Kingdom United States	Abu Dhabi Algeria Colombia China Kazakhstan Kirgizistan Morocco Quatar Russia Syria Yemen	

Smart Turner

Export Contact

Mr. Neil P. Flanagan Manager, International Sales

191 Barton St. East, P.O. Box 2027 Hamilton, ON L8N 3S8

Tel:905-727-1901Fax:905-727-8656

Equipment/Services

GENERAL

Pumps Acid High head Solids handling

Company/Product

Smart Turner is a Canadian company with over 100 years of experience in the design and manufacture of heavy duty industrial and municipal pumps and mixers.

The product range includes ANSI B73.1 and standard end suction, double suction, multistage, vertical sump, nonclog, refuse, and vertical cantilever centrifugals. Also available is a new line of rotary lobe pumps. Sizes range from 1.0 in to 12.0 discharge, while materials vary from cast irons and steels to a full selection of corrosion resistant alloys including bronzes, stainless steels, hastelloys and titaniums.

The quality and performance of Smart Tumer's product is ensured by manufacturing quality assurance programs to CSA Z299.3 and .4, and pump testing to the standards of the Hydraulic Institute, all performed at the Hamilton, Ontario design and manufacturing facility.

Smart Tumer's in-depth knowledge and commitment is an assurance of sound design, competent application, quality workmanship and superior service.

Geographic Ma	rketing Activity	Alliances/Contacts Sought
Active	Interested	Agents
Brazil Colombia Guyana New Zealand Puerto Rico United States	Worldwide	Distributors

Staticon Ltd.

Export Contact

Mr. Don Newman Manager, Sales

5 - 390 Tapscott Rd. Scarborough, ON M1B 2Y9

Tel:416-291-3723Fax:416-291-3871

Equipment/Services

UNDERGROUND MINING

Underground Transport, Rail-Mounted Locomotive batteries/chargers Monorail D.C. power supplies

Input

Company/Product

Incorporated in 1964, Staticon Limited is an established Canadian company specializing in the design, manufacture and applications of essential DC and AC power equipment. Over 75,000 Staticon power modules and systems are in service worldwide. A burgeoning world market for infrastructure, automation and telecommunications translates into a growth industry for requisite power systems. Staticon's mission is to increase its world market participation as a provider of power solutions with the high product quality and entrepreneurial spirit characteristic of the firm to date. Stationary power products encompass a complete spectrum of applications requiring a wide range of power. Staticon provides standard AC-DC, DC-DC; and DC-AC power conversion modules, AC conditioners, and ancillary transfers. Supervisory and distribution modules configure a variety of optimum power systems. Such systems, designed and manufactured by Staticon and used with current battery technology, provide complete power solutions. The motive power products provided are industrial battery chargers for use with electric lift trucks, personnel carriers, emergency plant vehicles, mine vehicles, and automatic conveyor systems. Staticon products are available for either 60 hz or 50 hz AC operation.

AC Ups and Power Conditioners

	Ao ops and i ower oonalioners	
	Telecommunications DC Power	
DC	Station Auxiliary DC Power	AC
	Motive Power Battery Chargers	
Lift Truck Battery Chargers	Inverter Ups-Sys	tems
Mine-Loco Battery Chargers	Inverter Standby	Systems
Rail Road Float-Charge Rectifiers	Inverters 60 and	50 Hz
Utility Float-Charge Rectifiers	Frequency Conve	erters for Fixed and Variable I
Communication Rectifiers	AC-Line Regulat	or-Conditioners
Communication Power Plants	High Speed or N	Io-Break Transfer Systems
DC/DC Converters	Ground Leakage	Monitors
Cemf Cells	Specialty Transfe	ormers
Industrial Power Rectifiers		
Electro Plating Rectifiers		
Electro Phoresis Rectifiers		

Staticon's market base includes power utilities, telecommunications networks, transportation companies, resource industries, m nufacturers, financial institutions, and governments of all levels. Staticon products are often chosen for critical applications in harsh environments and remote sites and are in service in many countries in the Americas, Europe, Indo-China, the Middle East, Africa and Indonesia. Product applications include airports, computer installations, generating stations, hospitals, lumber and paper mills, manufacturing plants, microwave and radio stations, military installations, mines, pipelines, refineries, satellite earth stations, and ships.

	Geographic N	larketing Activity		Alliances/Contacts Sought	
	Active		Interested		
Bahrain China Guyana	India Israel	Korea, South Thailand	Mexico	Distributors	

Stephens-Adamson Canada

Export Contact

Mr. Larry D. Bronson Manager, Business Development

P.O. Box 5900 30 Franklin St. Belleville, ON K8N 5C8

Tel:613-962-3411Fax:613-962-9792

Conveyors Belt cleaners Belt tensioning equipment Conveyor belting Conveyor drives Drive pulleys & idlers Installations Feeders & Feeder-Breakers Material Storage

BULK MATERIALS HANDLING

Bin level indicators Bins, chutes, hoppers, & accessories Stackers & reclaimers UNDERGROUND MINING

Equipment/Services

Production & Services Equipment Skips and cages Underground Storage Bunker conveyors Chutes & chute control mechanisms Feeders Winding & Hoisting Skips

Company/Product

Stephens-Adamson is wholly owned by Svedala Industries Canada Inc. which has its head office in Belleville, Ontario. This company has operated in Canada under the name Stephens-Adamson since 1928 and has branch offices in major Canadian cities. All export sales management is from head office.

A major portion of the firm's business is derived from export sales. Stephens-Adamson concentrates on bulk materials handling systems for shiploading ports and has considerable experience in coal handling systems.

Stephens-Adamson currently has agents in Japan for the marine industry and agents in the Caribbean. It is company practice to appoint agents on a project by project basis as appropriate.

Stephens-Adamson is recognized as a company capable of supplying turnkey systems for bulk materials handling equipment.

Ge	ographic Marketing Act	livity	Alliances/Contacts Sought
	Active	Interested	Agents
Australia Denmark Ireland Israel Jamaica Japan Mauritania	Mexico Norway Puerto Rico South America South Korea Trinidad-Tobago United States	Worldwide	Direct Sales Joint Ventures

Surrette Battery Company Ltd.

Mr. David Surrette President	1
Station Rd. P.O. Box 2020 Springhill, NS B0M 1X0	
Tel: 902-597-3767 Fax: 902-597-8447	

Equipment/Services

UNDERGROUND MINING

Underground Transport, Rail-Mounted Locomotives, battery

Company/Product

Surrette Battery Company Limited is a manufacturer of lead acid batteries for a variety of applications including commercial, deep cycle, industrial, mining, marine, railroad and solar. The company is totally Canadian owned and has manufacturing facilities which were established in Springhill, N.S. in 1959.

In addition to serving Canadian markets, the company is actively involved in selling its product line in the United States as well as in other countries. The company's success in the United States has been with its line of high quality marine type batteries for commercial and pleasure craft.

Surrette Battery is a major player in mine locomotive batteries in Northem Quebec and Ontario. This product is available wet or dry charged. The battery can be supplied as a completed product or as components.

The company markets under the trade names "Surrette" and "Rolls". The "Rolls" name is used in the United States. The "Surrette" marine line is marketed across Canada and the Caribbean. The "Rolls" line is marketed on the east and west coasts of the United States.. The product is well known in the industry and is considered to be the leader.

The company has recently introduced a non-breakable diesel starting marine and solar battery with a simplified cell replacement system. The product is built with both an outer and an inner container, which ensures that, if the outer container should crack, no leakage will occur. The outer protective lid guarantees that neither dirt nor water will cause short circuits with the cell linkage. Each cell has its own container which simplifies cell replacement in the event of cell failure. The new design is available in four popular 6 volt sizes, six 8 volt and one 12 volt size.

Geographic	Alliances/Contacts Sought	
Active	Interested	Agents
Chile	Central America Eastern Caribbean	Distributors
	Northem Caribbean South America	Joint Ventures

T.M. Engineering Ltd.

Export Contact	Eq	uipment/Services
Mr. Tony Mariutti President	EXPLORATION Assaying Equipment	MINERAL PROCESSING Assaying & Sampling Equipment Screening Machines
8560 Baxter Place Burnaby, BC V5A 4T2		- - -
Tel: 604-421-5500 Fax: 604-421-0012		

Company/Product

T. M. Engineering is a private company incorporated in 1973. The company is located in Burnaby, BC, where all business operation and manufacturing take place. The company's main product line is ore sample preparation equipment.

The TM Rhino Jaw Crusher is second to none for its continuous, reliable and efficient performance. It is designed to crush rocks as large as 5" X 7" down to -10 mesh in a single pass. Its superior design enables this extremely fine grinding while creating minimal dust and noise. TM Engineering also has a complete line of vibratory ring pulverizers for satisfying all pulverizing needs with a choice of either a unique self-adjusting clamping system or an automatic pneumatic clamping system. The pneumatic system is basically maintenance free with no mechanical parts to wear out and its ease of operation makes it extremely attractive. TM's range of pulverizers allows for grinding anywhere from 20 grams up to 4 kgs of material, along with long lasting trouble free service.

For over 20 years, the company has been successfully exporting 50% and more of its total production. TM Engineering is in the forefront of this industry by continually incorporating, in its products, new technological innovations through its research and development, with recent efforts particularly dedicated to automation.

The company currently markets its various sample preparation equipment directly to mining operations and laboratories throughout North America as well as in South America, Africa, and Asia. It would like to continue to expand into these areas through qualified distributorships and in areas of undeveloped markets.

Geo	graphic Marketing Acti	vity	Alliances/Contacts Sought
Ac	tive	Interested	
Costa Rica Ghana Guyana Indonesia Jamaica Malawi	Malaysia Mali Mexico Turkey United States Venezuela	Worldwide	Agents Dealerships Direct Sales

Teledyne Canada Mining Products

Export Contact	Equipment/Services		
Mr. B. (Dave) Pal V.P., International	BULK MATERIALS HANDLING	UNDERGROUND MINING	
Business Development	Crushers Rock breakers	Production & Service Equipment Rock breakers	
P.O. Box 130		Underground Vehicles	
35 N. Elgin St. Thombury, ON	SURFACE MINING	Utility vehicles	
NOH 2PO	Impact Breakers		
Tel: 519-599-2015 Fax: 519-599-6803			

Company/Product

Teledyne Canada Mining Product (TCMP), a division of Teledyne Specialty Equipment, has been an international supplier of specialized equipment to the mining, construction and quarry industries for over 30 years. The company's capabilities include CAD engineering, CNC precision machining, heat treating, fabricating (Canadian Welding Bureau certified), and assembling.

The company's products provide innovative solutions and a wide range of applications. Typical applications include:

- Hydraulic breakers for construction, trenching and demolition and for breaking oversize in the open pit mining and quarries.
- Stationary Rock Breakers (Pedestal Mounted Hydraulic Breaker Systems) for breaking oversize in grizzlies and primary crushers
- Mobile Rock Breakers for breaking oversize in the grizzlies and drawpoints of underground mines
- Mobile Equipment for mine utility applications such as scissors lifts, service vehicles, AN/FO loading trucks, crane trucks, fuel/lube trucks, shotcrete trucks, etc.
- Mobile Scalers for mechanized scaling

The company has extensive international experience with qualified distributors in Australia, Thailand, Chile, Mexico, Peru, India, Saudi Arabia and Zimbabwe.

TCMP would like to establish contacts with mining companies and competent distributors wishing to deal with these quality products and services.

Geog	raphic Marketing Activ	vity	Alliances/Contacts Sought
Act	live	Interested	
Australia	Puerto Rico	Worldwide	Distributors
China	Saudi Arabia		
Ghana	South America		
Indonesia	Thailand		
Iran	Tunisia		
Israel	United States		
Morocco	U.S. Virgin Islands		
Papua New Guinea	Zimbabwe		

Walter Dow Associates Ltd.

Export Contact	Equipment/Services	
Mr. W. (Bill) Marshall President	GENERAL	SURFACE MINING
	Mine Management Consulting	Mining Engineering
2256 Lakeshore Blvd. West Toronto, ON	MINERAL PROCESSING	UNDERGROUND MINING
M8V 1A9	Metallurgical Engineering Plant design	Mining Engineering Services
Tel: 416-236-8880 Fax: 416-236-9160		

Company/Product

Walter Dow formed his consulting business in 1947 and in 1954 it became Walter Dow & Co. Ltd. In 1984 the company name was changed to Walter Dow Associates Ltd. and remains an all Canadian employee-owned corporation. Over the years Walter Dow Associates has been involved in the design of installations in mines, metallurgical plants, cement plants, pulp and paper plants, petrochemical plants, aggregate plants, water treatment/sewage plants, environmental control facilities and power generation facilities. Description of services is as follows:

- Feasibility Studies
- Electrical/Instrumentation/Mechanical/Civil/Structural Engineering and Design
- Tendering and Procurement
- Studies and Reports
- Bills of Material
- Start-up and Assistance
- Expediting and Inspection
- Preparation of Contract Documents and Specifications
- Insurance and Legal Investigation
- Supervision of Construction
- Construction Management
- Equipment Evaluation and Appraisal Reports
- Scheduling, Estimating and Cost Control

Walter Dow Associates Ltd. has performed consulting engineering design services across Canada and internationally in Europe, Africa, South and Central America, the USA, the Middle East, Australia, New Zealand and the Caribbean. The head office of Walter Dow Associates Ltd. is located in Toronto, Ontario, Canada.

Walter Dow Associates Ltd. is interested in pursuing and developing engineering/design sales worldwide. Contact with agents and/or distributors in the engineering/design market would be welcome. Walter Dow Associates Ltd. would also entertain licensing arrangements with overseas companies seeking to broaden or strengthen their engineering/design services.

Geographic Marketing Activity			Alliances/Contacts Sought	
Activ	<u>/e</u>	Interested		
Africa	Ghana	Worldwide	Agents	
Australia	Greenland		-	
Caribbean	India		Distributors	
Central America	Middle East			
Dominican Republic	Philippines		Joint Ventures	
European Common	South America			
Market Countries,	South Africa			
(EEC)	United States			

Westcoast Drilling Supplies Ltd.

Export	Contact
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Ms. Coleen Morgan Controller

6 - 2351 Simpson Rd. Richmond, BC V6X 2R2

Tel:604-278-4954Fax:604-278-4914

EXPL	ORATION	

Drilling Equipment & Services

SURFACE MINING

Drilling Equipment Blasthole drills Blasthole drill consumables

Equipment/Services

UNDERGROUND MINING

Development Drill rigs & jumbos Drill consumables Drill bits Drill steel, rods, couplings, etc. Ground Support Rock bolting equipment

Production Drilling Drill rigs Drilling services

Company/Product

Westcoast Drilling Supplies Ltd. is a private Canadian company incorporated in 1978. The head office is in Richmond, B.C. with agents in Kamloops, B.C., Whitehorse, Yukon and Mexico City. The company caters to the overall drilling industry as a manufacturer and a manufacture's agent.

The company supplies all drilling needs for exploration work, mining, construction, open pit and geotechnical work. It also provides a consulting service to drilling contractors. The company's main strength is in drilling fluids and putting drilling programs together for mining companies.

Westcoast Drilling Supplies Ltd., as a specialty company in its field, ships to customers worldwide including: Tanzania, Ghana, Chile, Venezuela, Guyana, South Korea, New Zealand, and Australia.

The company welcomes inquiries from firms that are interested in handling its products.

Geographic Marketing Activity			Alliances/Contacts Sought	
Ac	live	Interested		
Australia Bolivia	Panama Saudi Arabia	Greenland Mexico		
Chile Ghana	South Africa Tanzania	Mongolia Surinam		
Guyana Korea, South New Zealand	United States Venezuela	Tunisia		

Wilson Machine Company Ltd.

Export Contact	Equipment/Services		
Mr. Peter Wilson Manager, Marketing	BULK MATERIALS HANDLING	UNDERGROUND MINING	
	Conveyor Drives	Coal Face Equipment Drives, gears & transmissions	
2299 Lapierre St. Lasalle, QU	SURFACE MINING	Electrical Equipment Power transmission equipment	
H8N 1B7	Drilling Equipment Blasthole drills	Production & Service Equipment Scraper winches & accessories	
Tel: 514-365-4101 Fax: 514-365-7511	Blasthole drill consumables		

Company/Product

Wilson Machine Co. Ltd. commenced operations in April 1913 in Montreal. Started as a general machine shop by the Wilson family, the company has now grown to a manufacturing firm with 100+ employees, that specializes in gear-based and custom machinery. Wilson Machine employs skilled and trained personnel in the manufacturing, engineering, administration and management fields. To this day the company remains as a privately held Canadian corporation.

Wilson Machine is active in many equipment markets including steel mill, marine, mining, defence, aerospace, and pulp and paper, to name a few. In-house engineering capabilities permit Wilson to produce specialized machinery to customer's specifications. In addition to producing complete gearboxes and machinery, Wilson fabricates open gearing from either samples or drawings, and can perform complete overhauls or rebuilds on your existing gearboxes and machinery.

Over the past five years, Wilson Machine has undergone a major upgrading of manufacturing facilities to include the latest in numerical control technology. The major facilities include:

Gear cutting Gear profile grinding lathe (CNC and engine) CNC Machining centres boring mills (vertical and horizontal) milling machines welding and fabrication shop surface and cylindrical grinding

In addition to the above, Wilson has specialized computerized gear checking equipment made by MAAG in Switzerland which is used as part of its quality assurance system. Due to the involvement in defence and aerospace work, Wilson Machine has implemented a thorough quality assurance system which meets CSA Z299.3, MIL-I-45208, and NATO AQAP-4. The quality assurance system has been audited by the Canadian government as well as many U.S. and Canadian prime contractors.

Wilson looks forward to being of service to you in the future.

Geogr	Alliances/Contacts Sought	
Active	<u>Interested</u> Brazil	Agents
Guyana	Chile Colombia	Distributors
	Mexico Venezuela Worldwide	Joint Ventures

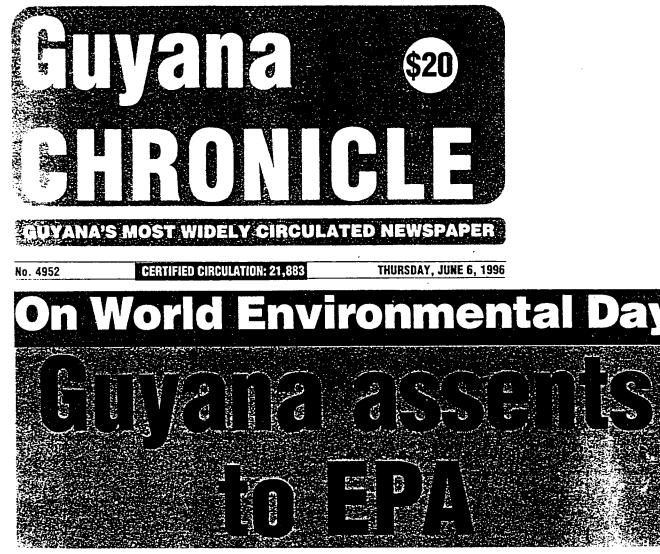
ANNEX H: ADDITIONAL INFORMATION

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ANNEXE H: INFORMATIONS ADDITIONNELLES

	Guyana	Assents	to	EPA,	Guyana	<u>Chronicle</u>
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- Gold Scam Update: Legal Minds Combing Documents, Guyana Chronicle
- Major New Canadian Gold Investments Likely Here, Guyana Chronicle
- Placer Dome Coming Back, <u>Stabroek News</u>
- Caterpillar Firm Plans To Be More Aggressive, Guyana Chronicle
- Firms Near Accord On New Miing Exploration, Guyana Chronicle



BY NIVEDTA KOWLESSAR

PRIME Minister, Mr Sam Hinds formally launched a national Environmental Protection Agency (EPA) yesterday, stating, emphasis will be placed on training and recruiting staff for monitoring and enforcement.

The launching followed passage of the Environmental Protection Act in Parliament on May 6.

Hinds gave formal assent for the new establishment at a special ceremony to mark World Environment Day at the National Cultural Centre in Georgetown.

He said the body will absorb the current Environmental Unit, based at the Office of the President and a full board of directors will be named shortly. An inter-agency committee is also to be activated.

The structure and composition of the EPA are based on many consultations, like the process which led to the passing of the legislation, Hinds explained.

Representatives of Government agencies, the private sector, Non-Governmental Organisations (NGO's) and technical experts have examined the tasks to be carried out in different sectors, the staff and resources necessary, and ways in which co-operation with sectoral agencies can be best arranged.

The Prime Minister noted these considerations cannot be regarded as absolute but provide a guide for the way in which the agency is to be built.

Its wide range of functions will require considerable staff and facilities, and it will not be possible to obtain all of it immediately.

The body is expected to grow in strength gradually and steadily, and Hinds said strenuous efforts will be made to recruit new staff and where necessary, there will be parttime appointments.

Emphasis is to be placed on recruiting and training staff for monitoring and enforcement and hinterland residents will be specially included, he explained.

Simultaneously, a wide scale environmental education and public awareness programme will be maintained to encourage self-monitoring and environmentally sound behaviour.

Laboratory facilities will be developed for monitoring.

Hinds thanked the Inter-American Development and World Banks, and the United Nations Development Programme for support in the preparatory work leading to the launching and said the authorities look forward to their continued assistance during the testing period ahead.

He added that continuous work has to be done to develop regulations to support the legislation and said legal experts will work closely with the private sector and NGO's to make the resolutions broadly acceptable.

"The Government of Guyana is fully committed to pursue a path of sustainable development. As a nation, we need to rapidly accelerate the growth of our economy and for this, the utilisation of our natural resources is vital."

Hinds noted several (turn to centre pages)



Guyana assents to EPA

(from page one) pressures to restrain investments. some of which have been based on low levels of expertise and overall capacity to effectively monitor the operations, especially in forestry and mining.

But some people have taken positions based on inadequate information and misrepresentations

"We recognise that operations in forestry and mining in Guyana (and) other countries of the world, have led to various degrees of environmental degradation.

"Certain attitudes and practices of operators require that a strong system of monitoring be put in place to limit the damage which may arise from these operations." he told a big gathering of schoolchildren, members of the diplomatic corps and other officials.

Hinds added that Guyana, like many other developing countries, must rapidly create the very strong monitoring capacity required.

The country welcomes assistance to overcome the shortage of trained personnel, inadequacy of relevant staff and the inability to properly equip agencies which bear the responsibility for monitoring and enforcement, he stated

Recognising these limitations, the authorities have been approaching new investments with great caution, especially in the forestry sector.

But steps are being taken to strengthen the capacity of key agencies like the Guyana Forestry Commission, which is receiving assistance from the British-based Overseas Development Administration.

While this is taking place, the conditions for the new investments and the nature of exploratory leases have been established, the Prime Minister explained.

New investments will, therefore, be made in an organised way and under strict conditions, aimed at ensuring sustainability.

With the passing of the Bill. a comprehensive approach to environmental protection has been developed, as it requires environmental impact assessments as a condition for permitting certain operations.

The legislation also establishes procedures for their review and identifies polluting activities as offences and provides for appropriate penalties.

Hinds said the EPA will not operate in isolation and a number of special working groups will be set up to support its efforts and staff.

He encouraged individuals and organisations to give meaningful assistance to it, especially in its stage of infancy.

In addition, the Government is establishing a National Protected Areas System (NPAS) with support from the World Bank's Global Environment Facility (GEF).

Hinds said the lack of expertise or incapacity must not hinder the development thrust of countries, and the more developed states need to assist those least developed to build their capacity to ensure development proceeds on a sustainable basis.

"A new relationship is necessary," he observed, adding, Guyana has been making a serious effort to contribute to the global effort of promoting sustainable development

On March 15, Parliament approved the establishment of the Iwokrama Rainforest Centre, giving legal status to a programme for which almost 1M acres of pristine tropical rainforest have been set aside.

The site is expected to serve as a huge, open laboratory to give scientific basis to the concept of sustainable utilisation of the resources of the forest.

Emphasis will be placed on the real and potential uses of the resource, for example, in producing pharmaceuticals, its role in slowing the rush of rainfall to the rivers and oceans, and as the lungs of the world to remove carbon dioxide and supply oxygen to the atmosphere.

World Environment Day coincided with Iwokrama Foundation Day and GEF Chairman and Chief Executive Office. Dr Mohamed El-Ashry delivered a special lecture. titled *Global Environmental Security.

Environmental Advisor to the President, Mr Navin Chandarpal and Co-ordinator of Environmental Affairs, Office of the President, Dr Lake Chatarpal also spoke at the ceremony.

Calypsonians 'Tempest' and 'Ayambo' did a special song and Ms Rosamund Addo recited a fitting poem during the programme.

It was held under the global theme of 'Our Earth, Our Habitat, Our Home'.

The Guyana Chronicle Tuesday, June 4, 1996

Legal minds combing documents

add seam unalle

LEGAL authorities are combing a stack of documents including valuable Customs records on gold exports into the United States, originating from Guyana. But sources say the billion-dollar scam probe is far from over. "There is enough basis to launch a (further) investigation with a view to prosecution," sources said yesterday, but cautioned that the inquiry remains "at the stage of discovery" and will likely take a long time.

Senior Finance Minister, Mr Bharrat Jagdeo told reporters Friday that United States Ambassador, Mr David Hobbs Thursday afternoon submitted "a huge pile of documents" to him.

The some 200 papers covering several years, including recently, were passed over to the Director of Public Prosecutions, Mr Ian Chang for scrutiny.

Sources said the Customs' records from various American ports of entry are being sifted to determine which offer evidence for "the best chances of success".

Noting "documents can't be put on irial" sources observed that the Government has to secure enough hard-core evidence to build a proper case against those Guyanese individuals fingered in the probe.

"It is a selective process," a source declared.

Uncovering this paper trail could lead to persons being charged with Customs violations.

However sources pointed out that some investigative muscle will be first needed to do this, with the supporting involvement of the Guyana Gold Board, the Customs and Excise Department and the Immigration authorities.

"There are enough grounds for such a (full-scale) investigation" a source argued, but pointed to the complexities of the case entailing identifying and establishing linkages among courier, supplier and financier.

Big operators fingered in the racket have since taken a 'back track' route in their illegal trade.

Jagdeo allowed there are such diversions, telling journalists at the GTV 10 briefing, the illegal gold trade is continuing "but not through traditional routes."

"We are always concerned that there is a route through (turn to centre pages)

Legal minds combing documents

(from page one)

Trinidad" since "when we were tooking at numbers in one year, (that country) exported about US\$20M worth of gold."

Trinidad is not a gold producer and investigators believe the raw item being channelled through the twin-island state, emanates from South American producers Guyana and Venezuela.

Last year, linkages surfaced with the continental states, including Chile and Bolivia.

In one instance, some 2,000 pounds of the yellow metal was ferried overseas over a threemonth period.

A list with the names of the alleged smugglers was compiled by the United States Department

of Commerce at the request of the Guyana Government and copies were forwarded to Head of the Presidential Secretariat. Dr Roger Luncheon: Presidential Adviser, Navin Chandarpal and Infand Revenue Commissioner. Khurshid Sattaur.

Officials uncovered the scheme during routine tax checks, which showed the commodity was being shipped to agents in the United States, without being officially declared here.

The Guyana Gold Board is the only local agency licensed to trade in gold.

Recently, Head of the Presidential Secretariat. Dr Roger Luncheon said the Government is "vigorously trying" to gather evidence in the scam.

The United States authori-

TUESDAY, JUNE 4, 1996

ties including personnel from the Justice Department and Customs "have been cooperating fully with this administration in the pursuit of specific, valid (and) reliable information that I presume are thought necessary, (before relevant) steps (can) be taken to address these breaches", Le had reported. (Indranie Deolall)



PLACER Dome, one of Canada's largest mining companies, has again expressed strong interest in major gold investments in Guyana.

The renewed interest came at a meeting in Toronto yesterday between President Cheddi lagan and the company's Chairman. Mr Robert Franklin, the Guyana Information Services GilSi reported.

The agency said Placer Dome is interested in a 51 per cont equity-interest in suitable properties and will finance and develop sites identified by the Government and found to be economically viable.

Representatives from the Vancouver-based Placer Dome Inc, and International Business Investments (IBI), another major exploration and investment firm, are expected to jointly visit Guyana shortly at the invitation of the Guyana Head of State.

The expressions of intent and the invitation to visit Guyana were announced at a press briefing yesterday morning attended by President Jagan, Franklin and Mr Edward Lai, President of International Busi-

ness investments.

President Jagan, on the last of a 12-day visit to Canada, told the press briefing "Guyana needs more development of its resources."

In this regard, the President said, "we welcome Placer Dome whose wide experience and knowledge of the gold industry should help to develop one of the country's main resources." GIS said.

Franklin said he was pleased to have the support and cooperation of the Guyana Government. "We believe that there is potential for large scale deposits in Guyana," he said.

Lai said Guyana offers "excellent proposals" for gold mining and was "very excited by this opportunity which gives us great access to Guyana's considerable gold reserves."

Placer Dome was in Guyana some years ago and left in 1989 without making any investment. Interest in Guyana was renewed recently with the improved prospects for gold operations in Guyana, GIS said.

Yesterday, the President also

met with the L'Association Miniere du Canada (Canadian Mining Association) which comprises representatives of Cambior, Golden Star, Price Waterhouse, and a dozen other big mining companies, some of which are already investing in the gold sub-sector in Guyana.

During the meeting with heads of the top mining outfits. Dr Jagan reiterated the Government's commitment to foreign private investment and assured potential investors of conducive political, economic and legislative climate for such investments.

The President repeated the Government's policy to create a level playing field for all investors in mining, remove red tape in the processing of applications, adhere to environmental laws, respect the right of workers and the indigenous peoples, uphold free access to foreign exchange and repatriation of profits, transparency in all transactions and mutually beneficially business projects for mvestors and Guyana.

There was support for the Government's efforts to put in place a comprehensive mining policy and request that investors also be involved in the process.

The President assured the gathering that such consultations will take place. GIS sate

While in Toronto, the President also met with Head of the UNAMCO. Mr. Date Kanagalingam and discussion several areas of mutual interest

(turn to centre pages)

Canadian gold investments...

(from page one)

Interest in the forestry sector. Dr Jagan welcomed UNAMCO's proposal to establish a medium-sized saw miliplywood plant and housing complex, and he promised to take measures to expedite the applications.

Yesterday evening, the President was scheduled to meet with Guyanese in Kitchener, a city west of Toronto, and home to about 15,000 Guyanese.

He is expected home today.

Vol. 10 No. 173 TUESDAY JUNE 25, 1996 - PRICE \$20.00

Placer Dome coming back

SIX years after it pulled out of the search for gold at Omai, the huge Canadian mining firm Placer Dome has signalled renewed interest in mineral deposits here.

This was announced yesterday by President Cheddi Jagan at a press conference in Toronto. Canada which he shared with top officials of Placer Dome and another major exploration and investment firm. International Business Investments (IBI):

A statement from the Guy and mornation Services (GIS) (jesberday said that Placer Dome exbressed "strong interest in major investments in Guyana' tollowing a meeting between Dr Jagan and the company's Chairman Robert Franklin.

President fagan was quoted as telling the press conference "we welcome Placer Dome whose wide experience and knowledge of the gold industry should help to develop one of the country's main resources".

Franklin was quoted as saying "we believe that there is potential for large scale deposits in Guyana".

IBI Chief Executive Officer Edward Lai told the press conference that Guyana offers "excellent proposals" for mining and his company is "very excited by this opportunity which gives us great access to Guyana's considerable gold reserves"

The GIS statement said that Placer Dome is interested in 51% equity in suitable properties and will finance and develop sites identified by the government and found to be viable commercially.

Placer Dome officially

pulled out of Guyana in May 1990 citing what it termed an unattractive profit of margin at the Omai mine it was surveying in a joint venture with Golden Star Resources Limited (GSR). Placer Dome had just completed a pre-feasibility study on the Omai property and had told Stabroek News then that the US\$20M the company had planned to sink into Omai could be profitably deposited in a bank earning interest. The company also cited the price of gold on the international market at that time and the size of the deposit at Omail Place: Dome had invested CDN\$8M in Omai.

GSR disagreed with Placer Dome's prognosis for Omai and hired another company, Fluor, to undertake a feasibility study. On completion, GSR and another large Canadian mining firm. Cambior Inc established Omai Gold Mines Limited which began commercial operations in 1993.

The GIS statement also said, that the President yesterday metwith L'Association Miniere du Canada which included representatives of Cambior, GSR. Price Waterhouse and other large mining companies.

The President - who was on a 12-day visit to Canada - reiterated at the meeting his government's commitment to foreign private investment. GIS said. That statement added that Dr. Jagan repeated the government's piedge not to pationalise foreign entities and his commitment to create a level playing field.

GIS said that there was also

Turn to Page 9

Placer Dome coming back

From Page 1

support for the government's efforts to put in place a comprehensive mining policy and a request for investors to be involved. Dr Jagan assured the gathering that such consultations will take place. Overseas mining companies have urged the Guyana Government to put together an overall mining policy.

While in Toronto, the President also met with head of the Małaysian firm, UNAMCO, Dato V Kanagalingam, and discussed forestry-related issues. The release said that UNAMCO's plans to set up a medium size sawmill, plywood plant and housing complex were welcomed by the President who promised to speed up the applications. UNAMCO has a forestry concession here.

The President was scheduled to end his visit to Canada last evening at a meeting with Guyanese in Kitchener, a city west of Toronto. He is due back home today.

Caterpillar firm plans to be more aggressive

BY ALLISON BUTTERS

THE Machinery Corporation of Guyana Limited (MACORP), which lost a recent bid to supply additional power to the GEC. using its renowned Caterpillar sets, plans to compete "more aggressively" on the local scene in the future.

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MACORP General Manager, Mr Jairo Piedrahita at a press conference, yesterday at the company's Providence, East Bank Demerara office, acknowledged the Government's choice of the Finnish company, Wartsila Diesel to provide 22MW sets to be installed at the GEC Kingston power station

He said Caterpillar engines can operate at lower speeds (750 RPM) but the quotation of 1000 RPM was used in its bid because officials were thinking of the GEC's planned conversion from 50Hz to 60Hz.

Flanked by Finance Manager, Mr. Bertrand Dhurjon, Piedrahita said: "We (MACORP/Caterpillar) participated in a 22MW bid. We lost the bid."

He explained that the firm's last proposal for the GEC (Guyana Electricity Corporation) project was late -May 3, 1996.

And although Caterpillar's engines can work at 750 RPMs/ 50Hz, the firm quoted a speed of 1000 RPMs, he said.

"We will be there more aggressively in the future." Piedrahita declared.

Following the announcement of the Wartsila choice. Prime Minister Sam Hinds responded to charges in some marters about the valuation and selection process.

constatement Naturday, to

dismissed speculation of possible misuse of public funds and political misconduct and said there was "no basis for imagining any form of corruptior."

Hinds explained the crateria used, from the first adventsement for tenders in 1993, and outlined certain features of the Emnish generating sets, scheduled to be fully operational by yearch

According to the Prime Minister, among the factors considered was the offer for financing that the bidder was able to commit to at the time of the evaluation.

The factors used in ranking the proposals for technical merit were: type of equipment; number of units proposed; fuel and lube oil consumption; operation and maintenance proposals, including the costs per KW hour and the proposed contractor and delivery dates.

Other factors studied included down payments, financial terms offered and the total cost per KW hour averaged over the life of the installation.

At the end of the process MACORP was rated second.

Piedrahita yesterday said Caterpillar's product is of superior standards, which the company is proud of and added that its track record in Guyana to date is good.

He declined to talk about prices contained in his company's proposal.

However, in his statement, Hinds had said the offers of free rental and the gift of a nuclear of sets would have in effect reduced the MACORP price from US\$19M to US\$17M, just pelow the Wartsila price of \$U\$17.6M.

Hinds, however, pointed out that the Caterpiller sets run at 1000 RPM, much higher than the 750 RPM is the Wartsila sets selected, and will higher than the Wartsila second 900 RPM priced at 15834-255.

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The Guyana Chronicle, Friday, July 12, 1996

Firms near accord exploration

BY ROBERT BAZIL

GOLDEN Star Resources Limited and the Barama logging firm are on the verge of signing an agreement for gold and diamond exploration in the North West District.

Prime Minister Sam Hinds, who made the announcement at a press briefing yesterday, said parts of the land being looked at by Golden Star are entirely or partially within the forestry concession Barama has in the area.

President Cheddi Jagan recently called for maximum use of land to speed up development of the country's resources.

In 1993, Golden Star sought permission from the Guyana Geology and Mines Commission (GGMC) to conduct geological and geographical surveys for gold and diamonds over certain tracts in northwestern Guyana.

This permission was granted by the Prime Minister on January 14, 1994, after which the company embarked on a work programme, officials explained yesterday.

As the programme progressed, it became clear that difficulties could arise on multiple land use issues because some of the land is located within the Barama timber concession.

These issues include the use of infrastructure such as bridges and roads, and medical facilities, the officials said.

However, the primary concern was environmental matters explicitly mentioned in the Forest Management Plan the Barama Company Limited (BCL) was required to submit to the Guyana Forestry Commission (GFC) as part of its agreement with the Government.

Prime Minister Hinds said these conditions were intended to cover the efficient management of the company's logging operations, to avoid or minimise degradation of the environment because of over-harvesting or unnecessary destruction of unusable timber resources.

BCL created mechanisms to fulfill this objective, the more important being the establishment of its Block Management System, biodiversity reserves and research plots administered by the Edinburgh Centre for Tropical Forests.

According to Hinds, for-

estry companies are operating ir forested areas, but there is also a need for firms going there to explore for minerals.

"The average situation is that, may be, five per cent of an area in the hinterland or anywhere would yield minerals sufficient to make an economic venture, and we need to have an arrangement with the mineral companies to explore all of Guyana, essentially, and from time to time where they do find potentially or finally a mine....we have to make arrangements for that," he explained.

He said the Barama agreement with the Government includes a clause under which the firm has first refusal - the right to put a proposal for any kind of mineral development within (turn to centre pages)

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DEAL near: Prime Minister Sam Hinds and others at the briefing yesterday.

Firms near accord on new mining exploration

(from page one)

the areas of the Timber Sales Agreement (TSA). The Prime Minister noted that persons who enter into a TSA usually have some longterm commitments to the area where there are environmental issues and relationships with the local people, particularly Amerindians.

In November 1995, the GGMC published in the Official Gazette its intention to grant prospecting licences to Golden Star Resources Limited to explore for gold and diamonds in the North West District.

On January 22, 1996 Golden Star was informed approval had been granted for issuing nine prospecting licences, including those gazetted in November 1995.

Subsequent to this, Barama submitted a formal petition to President Cheddi Jagan on January 11, 1996 objecting to the intended granting of five prospecting licences to Golden Star for properties within its concession, officials said.

The primary grounds to the objection were that exploration activities within the concession would compromise BCL's ability and legal right to beneficially utilise the timber resources, and also compromise the integrity of its sustainable harvesting and environmental programmes put in place as stipulated in its agreement with the Guyana Government.

Since then a resolution of the problem has been sought through the intervention of the Prime Minister who chaired a meeting between the management of both companies early last month.

Discussions have reportedly reached the point where protocols governing the environmental and operational aspects of the agreement are being finalised.

Officials said these talks are continuing in an atmosphere of cooperation and good faith with the understanding that a mutually acceptable solution would be for the benefit of all parties involved.

The parties hope the imminent signing of the proposed agreement will signal the beginning of a new phase in the extractive industry, where companies in timber and mineral extraction could collaborate and co-exist in a manner befitting of responsible corporate citizens while at the same contributing to the development of Guyana.

Among those at yesterday's briefing were Executive Director of Golden Star Resources, Mr Hilbert Shields and other officials and GGMC Commissioner, Mr Brian Sucre and his Deputy, Mr William Woolford.

Golden Star Resources is one of the shareholders in the Omai gold mine, owned largely by another Canadian firm, Cambior. (ROBERT BAZIL)

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