

Sherritt Gordon Mines Limited Annual Report 1978





Sherritt Gordon Mines Limited, a public corporation with over 15,000 shareholders, was incorporated in Ontario, Canada in 1927. The Company owns and operates two mines in Manitoba which produce copper and zinc concentrates. At its refinery complex in Alberta the Company produces nickel and cobalt metal, fertilizers, chemicals and a wide variety of fabricated metal products, which are sold in Canada and around the world. Extensive research, development and engineering work on metallurgical processes and products is carried out at the Alberta location.

Annual Meeting 2:30 p.m. Friday. April 20, 1979 Commerce Hall, Commerce Court Toronto, Ontario

evening. Mining from the open pit will be phased out by 1981 at which time the production rate from the underground mine will be 2,500,000 tons of ore per

1978 at a Glance

(figures in thousands except per share figures and employees)

1978	1977
\$ 15,700	\$ 4,166
\$ 1.23	\$.33
\$.50	\$.15
\$ 69,463	\$ 70,174
\$ 26,892	\$ 14,176
\$ 179,982 49,247 2,150	\$ 144,298 36,165 1,929
\$ 231,379	\$ 182,392
73,959	75,723
82,113	77,254
22,718	18,165
1,381	696
5,171	5,332
448	369
2,157	2,111
	\$ 15,700 \$ 1.23 \$.50 \$ 69,463 \$ 26,892 \$ 179,982 49,247 2,150 \$ 231,379 73,959 82,113 22,718 1,381 5,171 448

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Report of the Directors

After two difficult years, earnings increased dramatically in 1978 because of improved results in all our operating divisions. Earnings in 1978 were \$15,700,000 (\$1.23 per share) compared to \$4,166,000 (33¢ per share) in 1977. Gross income of \$231,000,000 was a record and represented a 27% increase over 1977. Total costs and write-offs in 1978 rose 15% to \$203,000,000. Working capital declined only slightly as funds available from operations were adequate to cover the \$21,500,000 capital program at Ruttan as well as the \$6,400,000 in dividends (50¢ per share) declared in December, 1978.

With the exception of nickel, markets for most of our products strengthened in 1978. Of particular significance was the dramatic rise in the cobalt price, caused by the troubles in central Africa, and the improvement in the copper market, where world demand finally outpaced supply. The declining Canadian dollar also had a substantial impact on sales and has certainly improved our overall competitive position. We benefited from greater export revenues expressed in Canadian funds and from improved domestic sales due to the higher cost of imports. The resultant increase in cash flow will assist materially in the expansion of Sherritt's domestic activities.

Our Mining Division returned to a profitable position in 1978

aided by a higher copper price and a strong operating performance.

At Ruttan, mining and milling costs per ton were lower than in 1977. Total costs, including freight, treatment, and capital write-offs, were lower than in the previous year by about 9¢ per pound of copper. The underground development program proceeded at an accelerated pace throughout the year. Blasthole drilling preparatory to production has been in progress for approximately two months. With the commissioning of the 1350 level crusher and the extensions of the conveying system, the underground production rate will build up throughout 1979 to 4,500 tons per day at year end. Unit operating costs competitive with existing western-world producers are expected during the transition from open pit to underground mining. The Ruttan underground orebody increases in copper and precious metals content at depth, along with a lessening of zinc grade.

At Fox Mine, increased tonnage in 1978 was offset by lower copper and zinc head grades. Despite the higher copper price and only marginally increased unit operating costs, the lower grades resulted in a net loss after write-offs.

Although mineral exploration efforts were reduced in 1978, an expanded program in the area of our existing mines and infrastructure is planned for 1979.

Fertilizer operations again made a major contribution to earnings as revenues and profits rose over 1977. Production and sales were at record levels. Our western Canadian markets continue to grow despite major plant additions by other fertilizer producers. Our own plant is operating at capacity, and expansion is under active consideration. We are in the final stages of negotiation with our gas supplier under which the bulk of our gas requirements for the next five

years will be met at an annually increasing cost.

Integrated nickel and cobalt refining operations also recorded higher sales and profits in 1978. We are entirely reliant on external sources of nickel and cobalt feeds for these operations. During 1978 a major, long-term nickel feed contract was negotiated with Inco Metals Company which ensures the continued, viable operation of our refinery using Canadian material.

Currently, despite extremely depressed nickel markets, we are operating just above a break-even basis on nickel. When nickel sales improve Sherritt can elect to take additional feed quantities, thereby improving operating efficiency and boosting revenue potential.

Cobalt refining operations benefited from the dramatic rise in prices during 1978. With additional feed supplies and some marginal improvements to our plant and process, production was 13% above 1977. Our total cobalt revenues quadrupled as our average sales price more than doubled and our physical sales volume doubled over the previous year. With our knowledge of cobalt sources of supply, technology and markets, we are in a strong position to capitalize on opportunities related to cobalt, a metal in growing demand.

Agreement in principle has been reached to acquire a majority 60% interest in Spectra-Flux, Inc., a small U.S. company manufacturing cobalt/samarium magnets. Autoclave Engineers, Inc., a major user of cobalt/samarium magnets, has retained a 40% interest in Spectra-Flux. This

acquisition, when combined with the recent purchase of cobalt/rare earth alloy powder technology from Canadian General Electric Company Limited, gives Sherritt an effective entry into this rapidly expanding business area.

Fabricated metal products sales revenue increased over 1977 with nickel strip shipments to the Royal Canadian Mint showing the greatest growth. Largely because of an improved product mix, including more cobalt-based products, profits increased significantly over 1977.

Net technology costs were substantially reduced by concentration on work for third parties on a fee basis. Process development work continued on the Key Lake uranium project. Active interest in Sherritt's direct pressure-leaching technology by many outside companies is highlighted by the first commercial application for zinc concentrate by Cominco Ltd. at Trail, British Columbia.

Sherritt has been successful in achieving a degree of diversification in its resource activities while concentrating on areas where its expertise can be applied profitably. This diversification has been essential in maintaining a positive earnings record over the past few years when the market for copper, our main product, was severely depressed. In 1978, when all our business activities improved, gross revenues came 24% from copper, 21% from nickel, 20% from fertilizers, 13% from zinc, 9% from fabricated metal products, 8% from cobalt, 3% from precious metals and 2% from other sources. Looking to future years we can see opportunities for continued growth for Sherritt in all our business

We view 1979 as a year when the currently improved profitability of our operations should continue. There is even reason to expect a modest strengthening in nickel markets, our weakest area in

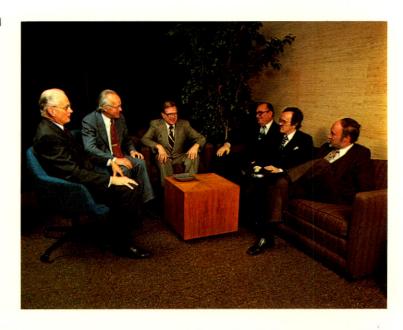
1978. Higher average copper prices are expected although some weakness could materialize if the United States economy slows down. The average LME copper price to date in 1979 has been about 8¢ U.S. higher than the price used to estimate fourth quarter sales. As a result, 1979 revenues will include a significant upward adjustment reflecting the final pricing of 1978 copper sales. We should benefit materially in 1979 from the very difficult decision made over a year ago to proceed with underground development at Ruttan. Roughly one quarter of Ruttan production will come from underground in 1979 causing a substantial increase in copper production. We anticipate continuing strength in our fertilizer markets although our sales will be restricted by our production capacity. The relative value of the Canadian dollar will continue to be a major factor affecting our operating results. Capital expenditures for the vear are estimated at \$20,000,000, somewhat below the \$27,000,000 spent in 1978. Most of the planned expenditures are at Ruttan, completing the original underground capital program, now estimated at \$36,000,000, and the deepening of the exploration shaft to outline the orebody to 3,000 feet. In an effort to provide some protection against the rising cost of energy and feedstock for our Alberta operations, we plan to become active in the oil and gas industry in western Canada. As a major consumer

of natural gas and sulphur, and a company increasingly involved in the economy of Alberta, we consider diversification into oil and gas advisable.

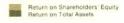
A reorganization was recently completed in an effort to strengthen and coordinate our marketing activities and also to place greater emphasis on growth opportunities for your Company, Alan E. Gallie was appointed Assistant to the President. Mr. Gallie has more than forty years of experience at Sherritt in the Mining and Marketing Divisions. Joseph A. Fraser was appointed Vice-President, Marketing, Mr. Fraser will direct the marketing of all mine, refinery and fertilizer products from the Company's Edmonton office. Robert R. Topp was appointed Vice-President, Corporate Development, to lead the diversification activities planned by your Company. Neil Colvin has been appointed General Manager, Alberta Operations. H. Mel Bilkey, who was Vice-President and General Manager, Alberta Operations, has left Sherritt to accept the position of Vice-President of Marinduque Mining & Industrial Corporation in the Philippines. Mr. Bilkey will manage the nickel mine and refinery on Nonoc Island and we know he will be of great assistance to Marinduque. Because of our investment in Marinduque he will also be benefiting Sherritt.

The Directors take pleasure in thanking all Sherritt employees for their contributions during the past two difficult years. It is nice to have you on board now that the lights have been turned on in our tunnel.

On behalf of the Board of Directors,



Return on Shareholders' Equity and Total Assets (%)



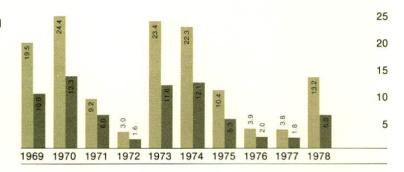


Photo above, left to right:
Robert D. Lindberg, Vice-President, Mining;
David D. Thomas, President and Chief
Executive Officer; J. A. Fraser,
Vice-President, Marketing;
V. N. Mackiw, Executive Vice-President;
Kenneth J. Harvey, Vice-President,
Finance; Robert R. Topp, Vice-President,
Corporate Development.

David Wilhomas

David D. Thomas, President Toronto, Canada February 26, 1979

Ruttan Mine Review

Ten years ago the Ruttan Mine was discovered. This year the transition from open pit to underground commences. The underground development program at Ruttan was the Company's major capital project under way during 1978-1979. It seems a fitting time to review the history of the mine and consider the significance of the changes taking place in Sherritt's largest operation.

On July 15, 1968, Sherritt's aircraft equipped for geophysical reconnaissance flew over what is now known as the Ruttan property. During the fall and winter of 1968/1969 this flight information was compiled and interpreted. From a mass of data several interesting anomalies were chosen in the Rusty Lake area, approximately 60 miles southeast of Lynn Lake. All these anomalies were scheduled to be drilled in the spring and summer of 1969.

The Ruttan anomaly, of top priority, was drilled in April, 1969. The first hole was started on April 3 and on April 5 intersected good grades of copper and zinc of such widths that Sherritt realized it must have at least a small orebody. Extensive drilling in 1969 indicated Sherritt probably had the biggest orebody in its history.

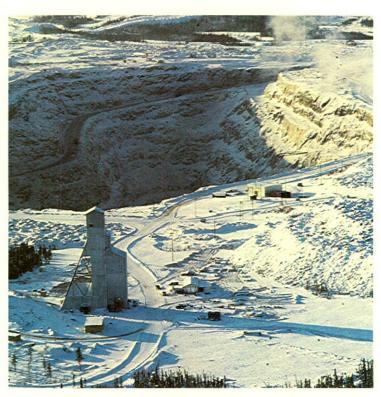
The year 1970 was extremely busy with Fox Mine coming on stream and Ruttan being explored and developed. By March, 15 miles of access road had been built from the Churchill River to the drill site. In the first quarter of 1970 a 10,000-ton sample was removed from the top of

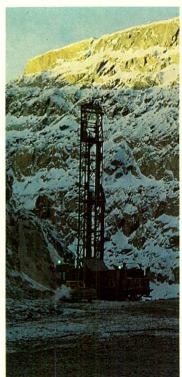
the orebody and hauled to the Lynn Lake mill for a pilot run. A feasibility study was prepared and in November of that year a contract was let to strip the open pit. Discussions were also initiated that year with the Manitoba Government regarding a hydro line to supply our electrical needs and negotiations commenced for a new town to service the mine.

On April 16, 1971, Premier E. Schreyer announced in the Manitoba Legislature that an agreement had been signed with Sherritt to build a new town named after Leaf Rapids on the Churchill River. On December 29, 1971, eight families moved into their homes in the new community.

The construction of the plant, the town and 81 miles of road continued through 1971 and 1972. The northern bush resounded with the noise of heavy equipment and transport trucks moving millions of pounds of cement, steel, equipment and lumber for a new mine and townsite over a road that was not yet really a road and whose surface was certainly not the kind for use by transport trucks. On April 9, 1973, the concentrator started its trial run and on April 21 trucks arrived at Lynn Lake with the first Ruttan concentrate. That was just four years from discovery of the orebody - a tremendous achievement under difficult conditions and a tribute to all the personnel involved.

Although the first families moved into Leaf Rapids in December, 1971, the water and sewer systems were not commissioned until April, 1972. A temporary school was opened in August, the post office and bank opened in September and street lights were installed in December. The residents of Leaf Rapids elected a seven-member Local Government District Advisory Committee in May, 1973 and a mayor and council in October, 1974. The town of Leaf Rapids is still regarded by many as a model northern community. It has been visited by town planners from many parts of the

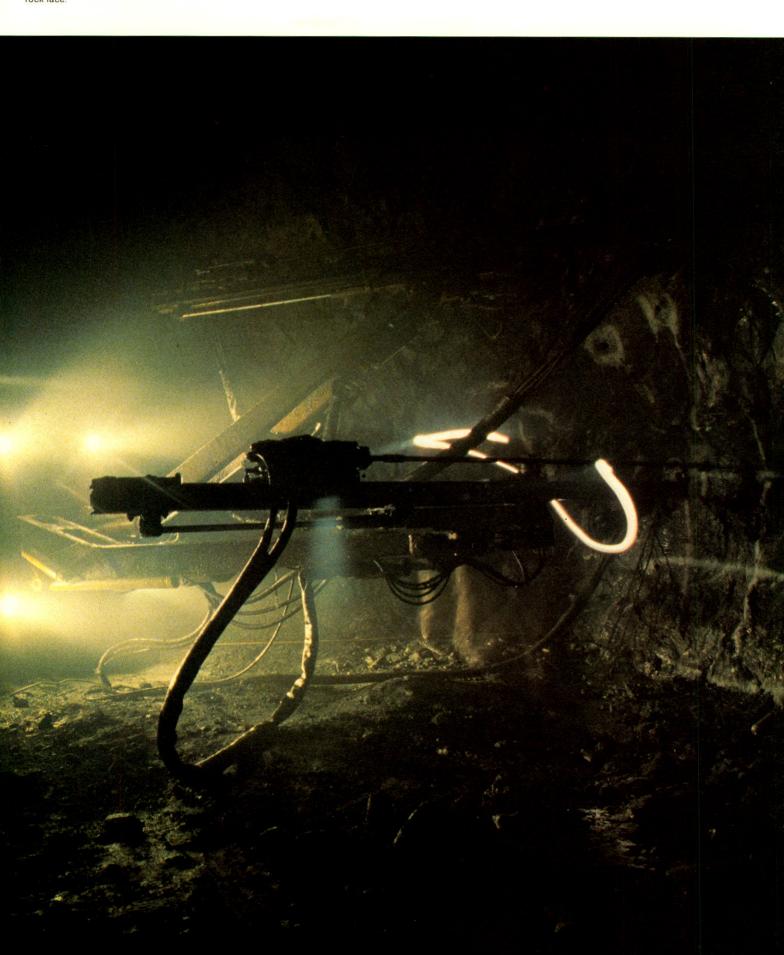


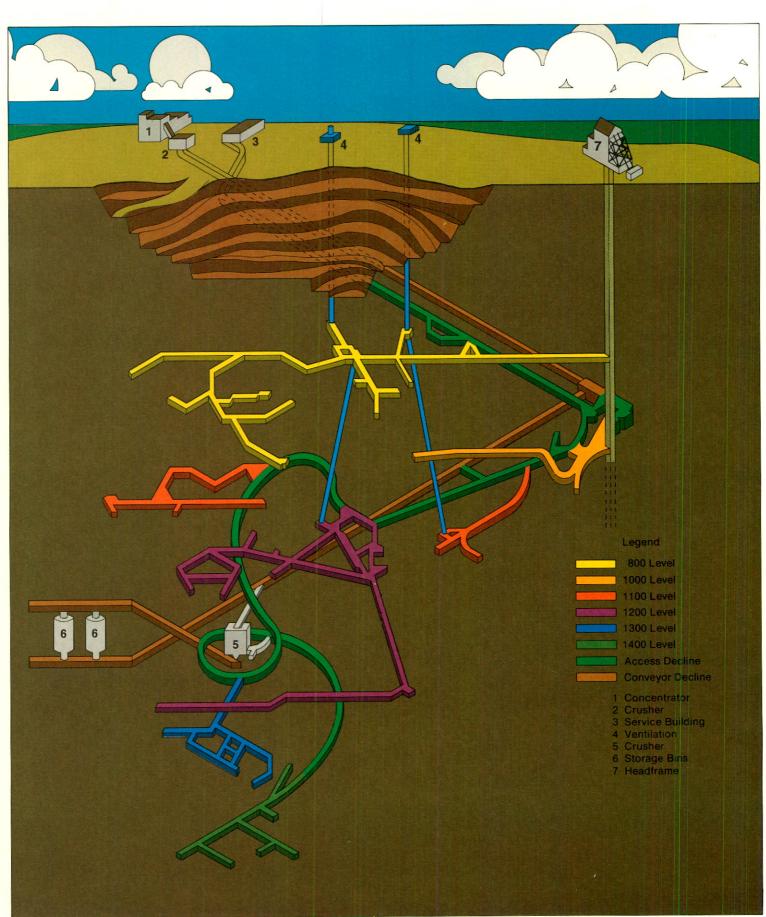




Top: The headframe of the new service shaft for the Ruttan underground mine with the open pit in the background. Bottom left: One of three 80-ton mobile rotary-drill rigs used at Ruttan Mine to drill blastholes for primary breaking of ore and waste in the open pit. Bottom right: The 10-cubic-yard bucket on one of the large electrically powered shovels which load broken ore or waste into 85-ton trucks for transport from the open pit.

A mobile drill jumbo and operator at work in a development drift heading at Ruttan underground. Holes, two inches in diameter and about 12 feet long, are drilled, charged with explosives and blasted to advance the opening into the rock face.





world and today is the home of 2,400 people.

The year 1974 was Ruttan's first full year of operation. Despite the fact that much of the equipment had to be modified to make it operate in the frigid northern Manitoba climate and the reality of bringing in untrained crews, 10,500,000 tons of rock were moved, about 93% of the target for that year. At the same time an unpleasant fact became apparent. This orebody was not nearly as homogeneous as the Fox orebody. Our tonnage milled in 1974 was 3,358,000 tons or 95% of forecast, but the head grades of copper and zinc were considerably below our expectations.

In 1975, because of a serious fault in the rock on the northwest wall of the pit, an extra million tons of waste had to be removed at the north end of the pit before it was deemed safe to sink this end of the pit any farther. Since most of our high-grade copper was in this section, mill feed that year contained less than 1% copper.

During 1974 and 1975 the first phase of underground development proceeded slowly, hampered by a shortage of experienced miners. The conveyor system down to the 1000 level was operative in the second quarter of 1975 and has been conveying development muck satisfactorily ever since. Footwall drifts were driven to allow for initial detail drilling of the orebody between the 600 and 1000 levels. This drilling indicated that some surface holes had deviated to a great degree, leading to orebody interpretation problems.

With the information obtained in 1976 from a new surveying device and some additional drilling, the ore reserves from the pit bottom to the 1400 level were reestimated at 14,000,000 tons grading 1.91% copper and 0.98% zinc (since recalculated at 16,900,000 tons grading 1.83% copper and 1.20% zinc). A feasibility study was prepared in 1976 to develop the mine down to the 1400 level. This program was approved by the

Board of Directors in January, 1977.

In November, 1977 the pit mining plan was revised to raise the pit bottom by over 100 feet and reduce the pit size and stripping ratio. The ore lost to open pit mining will be recovered from underground.

During 1979 and 1980 the Ruttan Mine will be a combined open pit and underground operation. Commencing in 1981, with the pit mined out, a 2,500,000-ton production rate will be maintained from underground. Present indications are that ore below 1400 feet will ensure a continuing strong future for the Ruttan Mine.

Strong copper markets in 1973 and 1974 allowed Ruttan to earn a reasonable return in those years on its substantial capital investment. In the years 1975 through 1977 low metal prices placed a tremendous strain on the operation and the decision in 1977 to proceed with underground operations was a difficult one as basically the mine had only broken even during 1975 and 1976 and had suffered a loss in 1977. The mine returned to a profitable position in 1978, aided by higher copper prices and a strong operating performance. We are confident that with the higher average copper grade of our underground operations, the projected operating costs and the positive long-term outlook for copper, as evidenced by recent market developments, Ruttan will make a major contribution to Sherritt's results in future vears.







Top: A portion of the 7,000' long, threesection conveying system at Ruttan. Broken ore and waste are transported from the new 1350 level crusher to surface at an average rate of 800 tons per hour.

Middle: A 50' diameter thickener for dewatering zinc concentrate in the Ruttan concentrator.

Bottom: The service shaft headframe, shown here in the late afternoon sunlight, is the same one which served the Lynn Lake Mine. It was dismantled, moved to Ruttan and reconstructed in 1978.

Mining

Operations

Ruttan Mine Ruttan tonnage mined and milled in 1978 just exceeded the target of 2,500,000 tons and was 2% above 1977. This increase, combined with a slightly higher head grade, resulted in a 4% increase in copper production compared to 1977. Zinc production was 20% below 1977 due to an overestimation of the zinc contained in the west section of the pit. Improved copper prices and effective operational control returned Ruttan operations to a profitable basis in 1978 after a substantial loss in 1977. The 1977 trend toward improved open pit equipment availability continued through 1978 and tended to offset the impact of increased haulage

distances.

An intensive development and construction effort during the year has brought the underground mine to the final completion stage. The first major conveyor section below the 1000 level was commissioned and the total conveying system from the 1350 level crusher station to surface will be in operation in the first quarter of 1979. The new service shaft is complete to the 1000 level and will be

equipped to handle men and supplies from surface by the end of February, 1979. The main ventilation system, capable of supplying 800,000 cfm of heated air to the underground workings, will be commissioned early in 1979. These essential services will improve the effectiveness of our underground work force.

Longhole drilling and blasting crews, trained at Fox Mine, have been working in the first stope area scheduled for production. Pre-production development is continuing at an accelerated pace between the 800 and 1400 levels. All major engineering estimates were completed in 1978, and stope planning and design is continuing. Detail drilling in the areas available has confirmed estimated grades and increased tonnages from those projected during the initial studies of the underground mine.

The deep drilling program, initiated in 1977, was stopped in the second quarter of 1978; there were problems in directing the holes to the desired target areas below the 2000 level. Nevertheless, this drilling indicated a change in the strike of the ore zone below the 2000 level, and established that the ore zones continue to at least the 2600 level. Based on the results of this drilling program we have decided to deepen the service shaft to the 2240 level. Drifts will be established on the 1800 and 2200 levels to permit detailed diamond drilling of the ore zones between the 1400 and

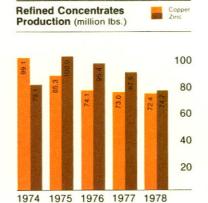
Ruttan Mine	1978	1977
Ore milled (tons)	2,543,000	2,487,000
% copper	1.17	1.13
% zinc	1.57	1.95
Copper contained in		
concentrate (lbs.)	52,268,000	50,341,000
Zinc contained in		
concentrate (lbs.)	62,276,000	78,250,000
Fox Mine	1978	1977
Ore milled (tons)	964,000	890,000
% copper	1.31	1.46
% zinc	1.79	1.93
Copper contained in		
concentrate (lbs.)	22,349,000	24,042,000
Zinc contained in		
concentrate (lbs.)	25,206,000	24,841,000

2600 levels. Additional deep exploration drilling will be done to test the extension of the ore zone to about 3200 feet. The deep drilling intersections to date have been insufficient to permit any ore reserve calculation below the 2000 level. We are also not yet in a position to recalculate the reserve block from the 1400 to 2000 levels, which is still based on the original surface drill results.

Mill performance was satisfactory in 1978 and copper concentrate grade increased to 27% from 25% in 1977. The crushing system responded well to the maintenance schedule instituted early in the year.

Fox Mine

Tonnage mined and milled was 8% higher than 1977 production. Both copper and zinc head grades were lower than in 1977. The combined result of volume and grade variations was a 10% decline in copper production and a slight increase in zinc production. As a measure of operational efficiency, the 1978 cost per ton mined and milled was only marginally higher than 1977. Despite a higher copper price, the weaker Canadian dollar and an effective operating performance, Fox Mine had a







small loss for the year 1978 because of the decreased head grades.

The majority of this year's development was related to stope access and preparation. However, in November, work was initiated to deepen the decline from the 2400 to 2500 level. Two stations will be established at the lower level to facilitate diamond drilling of the mineralized zone down to the 3450 elevation. Based on results of this exploration and other drilling conducted in 1978, studies will be undertaken to determine the optimum method of developing and mining the ore zone below the 2400 level.

A stoping method employing 61/2" diameter blastholes was successfully introduced at Fox Mine this year. Significant savings in stope development and drilling costs have resulted from this change. Overall mine production reached a record high of 3,827 tons per operating day, largely attributable to a stable and effective work force.

The Lynn-Fox operations received the Region Four Ryan Safety Award for outstanding safety performance in 1977 and are strong contenders for the award in 1978.

Lynn Lake shops continue to assume a large share of the

total repair and rebuild work for the two operating mines.

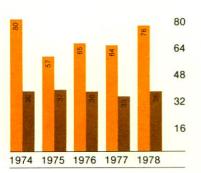
Markets

Copper

There was a significant improvement in the free-world balance for copper in 1978. The year witnessed frequent disruptions to supply because of political instability and labour unrest in several producing countries. Consumption, which improved by 4% over 1977, outstripped production by about 400,000 metric tons. The improvement was reflected in prices which rose gradually during 1978 to an LME average of 62¢ U.S. for the year compared to 59¢ U.S. in 1977. Reflecting the current tight market there has been a sharp increase in the LME price in early 1979 to a level of over 90¢ U.S. Roughly 85% of Sherritt's copper is sold based on LME prices. With the weaker Canadian dollar, the average price realized for Sherritt's copper sales in 1978 was 76¢ Canadian compared to 64¢ Canadian in 1977.

During the second half of 1978 there was a major shift of refined metal inventories from producer to consumer. In addition, large exports of concentrate to the Eastern Bloc served to ease the concentrate oversupply situation and it now appears that production and consumption are in reasonable balance. The European smelters in particular have been operating at reduced

Average Price Received -Copper, Zinc (¢ per lb.)



Ore Reserves			1978			1977
(figures in thousands except percentages)	Tons	% Copper	% Zinc	Tons	% Copper	% Zinc
Ruttan Mine (undiluted))					
Open pit	2,601	1.43	1.64	5,019	1.37	1.78
Underground						
to 1400 level	16,880	1.83	1.20	16,130	1.80	1.18
1400 to 2000 level	9,290	1.82	1.09	9,290	1.82	1.09
Total underground	26,170	1.82	1.16	25,420	1.81	1.15
Total ore reserves	28,771	1.79	1.20	30,439	1.74	1.25
Fox Mine (undiluted) Underground						
to 3000 level	6,333	1.79	2.22	7,093	1.83	2.12

Copper, Zinc and Precious Metals Sales Revenue		
(figures in thousands)	1978	1977
Copper	\$56,101	\$48,595
Zinc	29,161	25,605
Precious metals	7,845	6,305
Total	\$93,107	\$80,505

rates and if this continues prices should remain close to current levels. Sherritt realized an average price of 36¢ on its 1978 zinc sales compared to 33¢ in 1977. This increase was due solely to the weaker Canadian dollar as the price in U.S. dollars was lower on average in 1978 than in 1977. Our inventories of zinc concentrate and metal,

accumulated over the past two years, were substantially reduced by year end and are now at nominal levels. A contract has been signed with Hudson Bay Mining and Smelting Co., Limited under which they will refine and market the total zinc output from our Ruttan and Fox Mines for the next five years. An existing contract covering the Ruttan Mine zinc concentrate was terminated on a satisfactory basis.



Metal Refining

Operations

Refined nickel production during 1978 amounted to 26,920,000 pounds, roughly the same as in 1977. The nickel refinery operated at 70% of capacity in line with existing market demands. Close control of costs helped maintain a marginally profitable operation. In May, Sherritt signed a longterm agreement with Inco Metals Company to purchase nickel feed for the refinery, replacing feed from Australian mines no longer in operation. As a result we experienced no shortfall in nickel feed supply during 1978 and will be able to optimize future refining operations in line with market conditions. Production of copper sulphide, a by-product of nickel refining, decreased by about 40% to 1,500,000 pounds because of a reduced copper content in the 1978 feed material.

In contrast to nickel, cobalt production reached a record level of 1,145,000 pounds, 13% above the previous year's output. With the continuing strong demand for cobalt metal a number of improvements to our present plant are being made in order to increase production in 1979. Sufficient cobalt feed materials have been obtained to ensure maximum production from our existing facilities for the next few years. We are actively pursuing the acquisition of longer term supplies of cobalt feed material which could

justify a major expansion of our cobalt refining facilities.

Markets

Nickel World nickel consumption in 1978 increased substantially over that of the previous three years. This, together with widespread production cutbacks, caused a considerable reduction in the large producer inventories. Despite the general improvement in supplydemand balance, prices fell steadily throughout the year as major producers attempted to retain their market share. By the end of the year nickel was

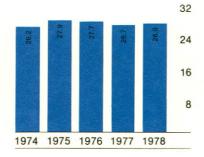
While Sherritt's nickel sales volumes increased by 25% in 1978, our average realized nickel price was lower than last year despite the positive impact of the weaker Canadian dollar.

selling at early 1974 prices.

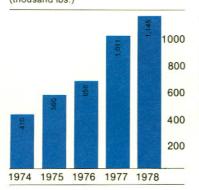
Cobalt

Disruptions in production and delivery of cobalt from central

Refined Nickel Production (million lbs.)



Refined Cobalt Production (thousand lbs.)





Nickel and Cobalt Sales Revenue				
(figures in thousands)		1978		1977
Nickel	22,718 lbs.	\$ 47,383	18,165 lbs.	\$ 39,156
Cobalt	1,381 lbs.	18,777	696 lbs.	4,323
Total		\$ 66,160		\$ 43,479

Africa, coupled with strong demand from consumers, led to an extremely active cobalt market this year. When producers were unable to meet demand and were forced to allocate metal, a vigorous merchant market emerged at premium prices, which in turn forced up producer prices. Our volume of cobalt sales doubled while our average sales price more than doubled over the 1977 price. In 1979 most of our cobalt production will be on a toll basis with the refined metal being returned to the suppliers of the feed material. We expect to retain sufficient cobalt to supply our Canadian customers at the producer price. Any additional cobalt will be sold at market-related prices.

Photo above: Large horizontal autoclaves at Fort Saskatchewan in which nickel concentrate is leached at elevated temperature and pressure.

Fabricated Metal Products

Operations

Total production of fabricated metal products was 5,057,000 pounds or 6% below the record production attained in 1977. The rolling mill facility was expanded to allow production of wider, 8" strip, which fully meets the specifications of the Royal Canadian Mint. This enabled the production of record quantities of highquality strip at more than twice the volume produced in 1977. The pilot facility for producing Nickel-Bonded-Steel (N-B-S*) coinage blanks was expanded to a production unit which, while still small, is capable of

* Sherritt trademark

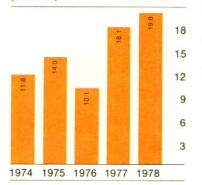
higher productivity and better quality control. Technology and equipment were purchased from Canadian General Electric Company Limited for producing cobalt/rare earth magnetic materials. The production facility is now being started up at Fort Saskatchewan.

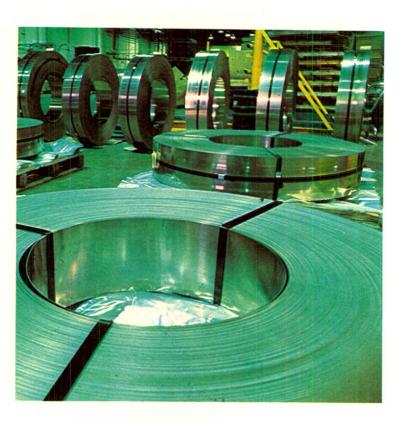
Markets

While sales of fabricated metal products at 5,171,000 pounds were 3% lower than in 1977, revenue reached a record level of \$19,800,000, a 9% increase over the previous year. Sales of nickel strip to the Royal Canadian Mint for Canadian coins were much higher than last year, whereas the export of nickel coinage blanks declined.

The Sherritt Mint completed an order for N-B-S coins for EI Salvador and commenced production of N-B-S blanks for Colombia. Sales volume of medals and tokens was slightly less than in 1977 but the number of orders increased and revenue was higher by 25% as more gold and silver medals were struck. The Sherritt Mint was selected as the Official Mint of the XI Commonwealth Games; the gold, silver and bronze victory medals were struck as well as a number of other presentation and commemorative medallions. Shipments of special metal and composite powders to customers were slightly lower than in 1977 due to slack demand in the first half of 1978 but revenue increased by 5%. A considerable backlog of orders is on hand for 1979 delivery.

Fabricated	Metal	Products	Sales	
(\$ millione)				





Fabricated Metal Products Production		
(figures in thousands of pounds)	1978	1977
Nickel products	4,624	4,681
Cobalt products	38	27
Alloy, composite and other metal products	395	173
Custom fabricated nickel products	_	474
Total	5,057	5,355

Fabricated Metal Products Sales Revenue					
(figures in thousands)		1978		1977	
Nickel products	4,750 lbs.	\$ 16,470	4,642 lbs.	\$ 15,831	
Cobalt products Alloy, composite and other metal	55 lbs.	809	22 lbs.	196	
products Custom fabricated	366 lbs.	2,514	159 lbs.	1,637	
nickel products	_	_	509 lbs.	482	
Total	5,171 lbs.	\$ 19,793	5,332 lbs.	\$ 18,146	

Photo above: Coils of pure nickel strip ready for shipment to the Royal Canadian Mint for the production of Canadian coins.

Fertilizers and Chemicals

Operations

Production of all types of fertilizers in 1978 was a record 415,000 tons, 8% higher than in 1977. Despite the record production, inventories were at a low level all year and difficulties were experienced in supplying the requirements of our dealer organization, especially during the busy spring season. Our present fertilizer plants are now operating at maximum rates and it is unlikely that production can be further increased without a major expansion. A considerable tonnage of low-profit product was purchased during 1978 to supplement our production.

Construction of the new urea granulation plant was completed at the end of the first quarter and produced high-quality urea granules at full capacity throughout the rest of the year.

A fully automated fertilizer order processing system (OPS) was developed and put into service early in the year. This computerized system provides complete information on product inventories and orders on hand and assists in shipment scheduling. The OPS system is the first on-line computer application at Sherritt and is unique to the fertilizer industry in western Canada.

Production of both hydrogen sulphide and carbon disulphide by our subsidiary, Thio-Pet Chemicals Ltd., increased over 1977 due to strong market demand.

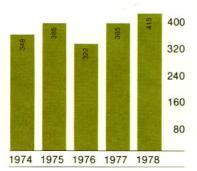
Markets

Fertilizer sales volume in 1978 was 448,000 tons with sales revenue exceeding \$47,000,000. Both are records. Profit per ton has decreased each year during the past three years as increasing costs have outpaced prices.

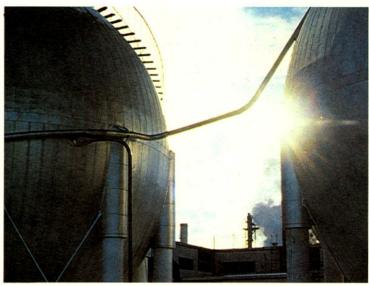
Revenue from sales of chemicals was \$2,200,000 in 1978 and was 27% higher than in 1977. Profits increased significantly over the previous year.

In our market area the outlook for fertilizers in 1979 remains strong. With major nitrogen capacity coming on stream in 1977 in southern Alberta we had expected a deterioration in prices because of surplus product. This has not happened and it would appear that the market has absorbed the extra production. Shortages of both nitrogen and phosphate fertilizers could occur in the spring of 1979.

Fertilizer	Production
(thousand	tons)







Fertilizer and Chem	ical Sales Re	evenue		
(figures in thousands)		1978		1977
Fertilizers				
Nitrogen	314 tons	\$ 29,484	274 tons	\$ 22,867
Phosphate	134 tons	17,545	95 tons	11,547
	448 tons	47,029	369 tons	34,414
Chemicals	27 tons	2,218	23 tons	1,751
Total		\$ 49,247		\$ 36,165

Top photo: Granular fertilizer products are stored in huge buildings awaiting sale in the busy spring season.

Bottom photo: Spherical storage tanks for ammonia. Sherritt markets ammonia for direct use as a nitrogen fertilizer and also uses it for the production of metals and other fertilizers.

Development

Product Development

The Research Centre assisted in the successful start-up and operation of the N-B-S coinage blank plant. A research program has been started to further develop and improve the cobalt/rare earth alloy powder technology purchased from Canadian General Electric Company Limited. Research on composite powders for hightemperature abradable seals for turbine engines reached the development stage with consistently good results reported by engine manufacturers. Research on atomized powders and dispersion-strengthened alloys progressed well under Government-sponsored programs.

Process Development

Sherritt's process for direct pressure leaching of zinc concentrate with simultaneous production of elemental sulphur, successfully piloted in a joint venture with Cominco Ltd. during 1977, was developed further this year and is now being considered for commercial application by several zinc producers. The process will undergo its first commercial application at Trail, B.C. where Cominco is constructing a zinc pressureleaching plant which is expected to start up in 1981. Sherritt was involved in a process development study jointly sponsored by the Province of New Brunswick and the Federal Government which showed that our concept of direct pressure leaching of zinc concentrate is applicable to complex zinc-lead bulk

concentrates. Sherritt has retained the right to license the zinc process technology on a world-wide scale.

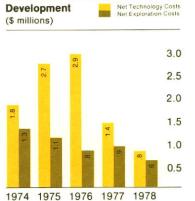
Process development work involving pressure leaching of uranium ores received high priority. Intensive work continued throughout the year to develop a process for the treatment of Key Lake uraniumnickel ore for Uranerz **Exploration and Mining** Limited, operator of the joint venture with Saskatchewan Mining Development Corporation and Eldorado Nuclear Ltd. Sherritt is also assisting Anglo American Corporation of South Africa Limited in the design of a pressure-leaching system for South African uranium ore.

Our hydrometallurgical processes for the production of nickel and cobalt also continue to receive attention. A number of potential licensing opportunities are being explored.

Mineral Exploration

Due to the depressed state of the base metal industry in 1977 the exploration budget was sharply curtailed in 1978. Net expenditures on exploration were \$596,000 in 1978 compared to \$879,000 in 1977.

Our joint venture projects with the Manitoba Government terminated in 1978 although Manitoba Mineral Resources Ltd. has taken over the Government's interest in three of the projects and additional work will be done on these in 1979. We entered joint ventures with two other mining







companies in 1978 and have made some similar agreements for 1979.

Most of our airborne and ground geophysics and follow-up diamond drilling was done in Manitoba around the existing mines. In view of changes already made, and anticipated additional amendments to the Manitoba Mineral Disposition Regulation, it is our intention to expand these activities considerably in 1979.

Top: The scanning electron microscope in the Research Centre at Fort Saskatchewan is used for examining the surfaces of various materials such as fine metal powders.

Rettom: Elasks containing solutions for

Bottom: Flasks containing solutions for analysis. The Sherritt analytical department performs thousands of analyses a year for research, quality control and operating purposes.

Technology Licensing

Personnel

Revenue in 1978 from technology licensing amounted to \$1,207,000, a drop of 25% from 1977, reflecting lower operating rates at licensed plants.

Production of nickel, in the form of powder briquettes, and mixed nickel-cobalt sulphides, by Marinduque Mining & Industrial Corporation in the Philippines was 41,295,000 pounds in 1978, equivalent to 55% of plant capacity. Cobalt production in mixed sulphides amounted to 2,660,000 pounds, about 12% over 1977. Nickel production was about 15% below 1977 due to depressed market conditions. This created a tight financial situation for the project. However, Marinduque's arrangements for substantial refinancing, the sharp rise in the price of cobalt, and current operating improvements should prove of great benefit to the project.

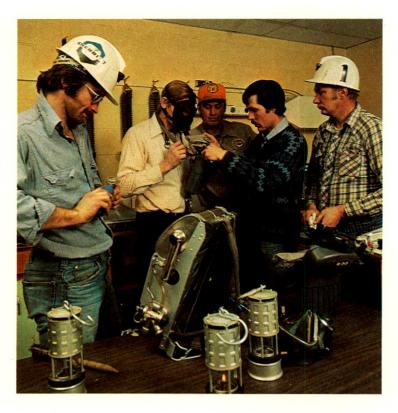
On the nickel laterite project of P.T. Pacific Nikkel Indonesia a limited number of supporting studies were performed. This project is still in abeyance pending improvement in nickel market conditions. At year end Sherritt employed 2,157 people, 46 more than the previous year. A further increase is anticipated during 1979 primarily because of the simultaneous operation of the open pit and underground mines at Buttan.

Recruiting for the Manitoba mining operations became more difficult as the year progressed and intensive advertising and interviewing programs are presently in progress in eastern Canada. Some increase in turnover was evident in the Alberta operations but we have been able to keep the work force at an adequate level.

Representatives of Sherritt and Local 530 of the Canadian Chemical Workers' Union negotiated a new labour agreement effective May 1, 1978 covering hourly-rated employees at Fort Saskatchewan. The new contract covers a period of two years and provides 8% annual wage increases as well as improvements in life and disability insurance benefits.

The three-year agreement with Locals 5757 and 8144 of the United Steelworkers of America covering hourly-rated employees in Manitoba will expire May 31, 1979; negotiations for a renewal will commence in March.

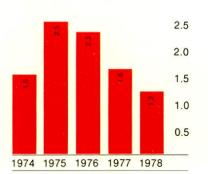
Marinduque Mining & Industrial Corporation in the Philippines reduced its requirements for technical assistance during the year; by year end only eight Sherritt employees were on long-term assignment at the Surigao Nickel Project on Nonoc Island.



Personnel	1978	1977
Mining and Milling	1,170	1,131
Metals, Fertilizers and Research	938	929
Corporate Office	49	51
Total	2,157	2,111
Total	2,157	2,1

Photo above: Safety instruction at Fox Mine. Comprehensive safety training is an important factor in the award-winning safety performance of Fox miners.

Technology Licensing Revenue (\$ millions)



as at December 31, 1978 with 1977 figures for comparison (thousands of dollars)

Assets	1978	1977
Current		
Cash, including interest-bearing deposits	\$ 10,545	\$ 1,559
Accounts receivable	20 700	35,681
Trade Other	39,799	404
Inventories (note 2)	68,875	72,145
Insurance and other prepaid items	455	238
	120,159	110,027
Fixed (note 3)		
Property, plant and equipment	195,135	180,139
Less accumulated depreciation	106,881	99,267
	88,254	80,872
Unamortized development costs	34,442	26,906
	122,696	107,778
Other	Sold State of the	
Employee housing and other loans	5,596	4,796
Investments at cost less amounts written off (note 4)	10,115	10,338
Patents at cost less amounts written off	813	745
Unamortized foreign exchange loss (note 6)	4,283	489
	20,807	16,368
	\$263,662	\$234,173
Liabilities and Shareholders' Equity		
Current	6 4 501	\$ 10.357
Bank indebtedness (note 5)	\$ 4,501 36,196	
Bank indebtedness (note 5) Accounts payable	\$ 4,501 36,196	24,496
Bank indebtedness (note 5) Accounts payable Dividends payable		\$ 10,357 24,496 1,915 3,085
Bank indebtedness (note 5) Accounts payable	36,196 —	24,496 1,915
Bank indebtedness (note 5) Accounts payable Dividends payable Income and mining royalty taxes	36,196 — 9,999	24,496 1,915 3,085 39,853
Bank indebtedness (note 5) Accounts payable Dividends payable	36,196 — 9,999 50,696	24,496 1,915 3,085 39,853 57,764
Bank indebtedness (note 5) Accounts payable Dividends payable Income and mining royalty taxes Long-Term Debt (note 6) Deferred Income Taxes	36,196 — 9,999 50,696 62,621	24,496 1,915 3,085 39,853 57,764
Bank indebtedness (note 5) Accounts payable Dividends payable Income and mining royalty taxes Long-Term Debt (note 6)	36,196 — 9,999 50,696 62,621 31,411	24,496 1,915 3,085 39,853 57,764 27,020
Bank indebtedness (note 5) Accounts payable Dividends payable Income and mining royalty taxes Long-Term Debt (note 6) Deferred Income Taxes Shareholders' Equity (note 7) Capital Capital stock	36,196 — 9,999 50,696 62,621 31,411	24,496 1,915 3,085 39,853 57,764 27,020
Bank indebtedness (note 5) Accounts payable Dividends payable Income and mining royalty taxes Long-Term Debt (note 6) Deferred Income Taxes Shareholders' Equity (note 7) Capital	36,196 — 9,999 50,696 62,621 31,411	24,496 1,915 3,085 39,853 57,764 27,020
Bank indebtedness (note 5) Accounts payable Dividends payable Income and mining royalty taxes Long-Term Debt (note 6) Deferred Income Taxes Shareholders' Equity (note 7) Capital Capital stock	36,196 — 9,999 50,696 62,621 31,411	24,496 1,915 3,085 39,853 57,764 27,020 12,769 25,789 38,558
Bank indebtedness (note 5) Accounts payable Dividends payable Income and mining royalty taxes Long-Term Debt (note 6) Deferred Income Taxes Shareholders' Equity (note 7) Capital Capital stock	36,196 — 9,999 50,696 62,621 31,411 12,784 25,864	24,496 1,915 3,085 39,853 57,764 27,020 12,769 25,789
Bank indebtedness (note 5) Accounts payable Dividends payable Income and mining royalty taxes Long-Term Debt (note 6) Deferred Income Taxes Shareholders' Equity (note 7) Capital Capital stock Contributed surplus	36,196 — 9,999 50,696 62,621 31,411 12,784 25,864 38,648	24,496 1,915 3,085 39,853 57,764 27,020 12,765 25,789 38,558

Approved by the Board:

W. E. P. DeRoche, Director

David D. Thomas, Director

The accompanying notes are an integral part of the financial statements.

Consolidated Statement of Earnings

for the year ended December 31, 1978 with 1977 figures for comparison (thousands of dollars)

	1978	197
Gross Income		
Metal sales	\$179,982	\$144,298
Fertilizer and chemical sales	49,247	36,165
Technology licensing and other income	2,150	1,929
	231,379	182,392
Costs and Expenses		
Operating costs	180,337	153,405
Technology	808	1,394
Exploration	596	879
Selling and administration	4,536	4,565
Interest	3,740	4,062
Depreciation and amortization	11,824	10,759
Foreign exchange loss-net (notes 1b and 6)	934	935
	202,775	175,999
Earnings Before Taxes	28,604	6,393
Income taxes — current	8,513	1,677
 deferred 	4,391	550
Mining royalty taxes		-
	12,904	2,227
Net Earnings	\$ 15,700	\$ 4,166
Earnings Per Share	\$ 1.23	\$.33
Dividends Per Share	\$.50	\$.15

Consolidated Statement of Retained Earnings

for the year ended December 31, 1978 with 1977 figures for comparison (thousands of dollars)

	1978	1977
Balance at beginning of the year	\$ 70,978	\$ 68,727
Net earnings	15,700	4,166
· · · · · · · · · · · · · · · · · · ·	86,678	72,893
Dividends	6,392	1,915
Balance at end of the year	\$ 80,286	\$ 70,978

Consolidated Statement of Changes in Financial Position

for the year ended December 31, 1978 with 1977 figures for comparison (thousands of dollars)

	1978	1977
Working capital was obtained from		
Operations for the year		
Net earnings	\$ 15,700	\$ 4,166
Items not affecting working capital		
Depreciation and amortization	11,329	10,793
Deferred income taxes	4,391	550
Foreign exchange loss (note 6)	1,063	
· · · · · · · · · · · · · · · · · · ·	32,483	15,509
ssue of income debentures		57,275
ssue of capital	90	72
	32,573	72,856
Working capital was used for	建设设施设施	
Expenditures on capital and deferred assets		
Mining	23,049	8,642
Refining and fabricating	656	210
Fertilizer	2,264	5,138
Research and patents	325	121
Employee housing, loans and investments	598	65
	26,892	14,176
Dividends	6,392	1,915
Reduction of First Mortgage Bonds		24,731
	33,284	40,822
ncrease (Decrease) in working capital	(711)	32,034
Norking capital at beginning of the year	70,174	38,140
Working capital at end of the year	\$ 69,463	\$ 70,174

Notes to Consolidated Financial Statements

December 31, 1978

1. Summary of Significant Accounting Policies

a) Principles of Consolidation

The consolidated financial statements include the accounts of Sherritt Gordon Mines Limited and its active subsidiary companies, Sherritt Fertilizers, Inc., Sherritt Gordon Airtransport Limited, Michipicoten Iron Mines Limited, and Thio-Pet Chemicals Ltd.

b) Translation of Foreign Currencies

Transactions in foreign currencies are translated into Canadian dollars at rates prevailing at the time of such transactions, except that current assets, current liabilities and long-term debt are translated at the rate of exchange at year end.

The retroactive change in accounting policy with respect to long-term debt, which was previously translated at historical rates, has had no significant effect on the prior year's earnings.

c) Revenue Recognition

Revenues from metals contained in mine concentrates are recognized in the month of production and are subject to adjustment on, or prior to, settlement to reflect changes in settlement quantities and metal market prices. Revenues from other products are recognized at the time of shipment.

d) Inventory Valuation

Mine production is valued at estimated net realizable value. Other finished products, raw materials, material in process, and operating supplies are valued at the lower of average cost and net realizable value.

e) Exploration and Development Costs

Costs of exploring for new ore occurrences are charged to income in the period in which they are incurred. Development costs relating to a new ore occurrence are deferred until production commences after which only development costs of a capital nature are deferred.

f) Depreciation and Amortization

Depreciation of plant and equipment costs and amortization of development costs and patents are charged to income as follows:

- Ruttan Mine and Fox Mine: depreciation and amortization of the assets of the mines are charged to operations using the unit of production method based on metallic content of the estimated recoverable ore reserves.
- ii) Lynn Lake: this mine was shut down in June, 1976. The remaining Lynn Lake assets are recorded at estimated salvage value.
- iii) Metal and Chemical: depreciation is provided on a straight-line basis over the estimated useful lives of the assets.
- iv) Patents: amortization is provided on a straight-line basis over the lives of the patents.
- g) Income Taxes

The Company follows the tax allocation method of providing for income taxes. Taxable income may be different from reported earnings before income taxes to the extent that capital cost allowances and development expenditures claimed for tax purposes differ from depreciation and amortization recorded. The difference between the taxes calculated as payable each year and those charged against earnings on the tax allocation method is accumulated and carried forward in the balance sheet under the heading Deferred Income Taxes.

The provision for income taxes also reflects two significant reductions of tax caused by statutory items not directly related to income, namely inventory allowance and investment tax credit. In addition the provision reflects the non-deductibility for income tax purposes of interest on Income Debentures.

2. Inventories (thousands of dollars)	1978	1977
Concentrates	\$ 13,927	\$11,356
Refined metal products	21,934	25,674
Fertilizers and chemicals	2,720	5,163
Raw materials and materials in process	21,098	20,666
Operating supplies	9,196	9,286
	\$ 68,875	\$72,145

3. Fixed Assets (thousands of dollars)

	Proper	ty, Pla	nt and E	Unamortized		
	Cost	Depr	eciation	Net Cost	Development Costs	Total
Ruttan Mine	\$ 60,696	\$	13,360	\$ 47,336	\$ 29,961	\$ 77,297
Fox Mine	18,598		9,726	8,872	4,481	13,353
Lynn Lake Metal and	20,092		19,103	989		989
Chemical	95,749		64,692	31,057	_	31,057
	\$ 195,135	\$	106,881	\$ 88,254	\$ 34,442	\$ 122,696

4. Investments at Cost Less Amounts Written Off (thousands of dollars)

	Common P	ercentage		
	Shares	Owned	1978	1977
Marinduque Mining &				
Industrial Corporation	9,414,877	11	\$ 6,752	\$ 6,752
P.T. Pacific Nikkel				
Indonesia (including				
loans and advances)	11,378	8	3,314	3,537
Other companies			49	49

\$10,115

\$10,338

The investments in Marinduque Mining & Industrial Corporation and P.T. Pacific Nikkel Indonesia are considered to be of a long-term nature and are valued on the basis of historical cost.

The quoted market value of the investment in Marinduque shares at December 31, 1978 was \$8,375,000 Canadian. Nickel and copper production comprise the bulk of this company's business.

There is no quoted value for shares of P.T. Pacific Nikkel Indonesia. The company was formed to evaluate the potential for development of a nickel orebody in Indonesia. This evaluation is continuing, but no decision has been taken to bring the orebody into production. Sherritt discontinued additional financial participation in 1974 and its equity participation has been diluted as a result of continued financial support by the other shareholders since that time.

5. Bank Indebtedness

Certain receivables and inventories of the Company have been pledged as security for bank indebtedness.

6. Long-Term Debt

The Income Debentures in the amount of \$52,800,000 U.S. were issued in 1977 as part of a refinancing, at which time the First Mortgage Bonds then outstanding were repaid.

Interest — varies with the rate of interest charged by the lender for U.S. dollar loans made to its prime commercial borrowers. At December 31, 1978 this rate was 7.525%. The interest is not an allowable deduction for income tax purposes.

Repayment — in 28 quarterly payments of \$1,100,000 U.S. commencing September 30, 1980 with the balance due September 30, 1987. There is a requirement for additional principal repayments when profits are above a minimum cumulative level. The debentures may be repaid at any time without penalty, can be converted to Canadian funds or to term notes, and are secured by a fixed charge on Ruttan Mine and a floating charge on all other assets of the Company.

The carrying value of long-term debt is determined using the rate of exchange at year end. The unrealized loss on exchange is being amortized over the life of the debt of which \$1,063,000 (1977: nil) has been included in the determination of net income for the year ended December 31, 1978 and the unamortized balance of \$4,283,000 (1977: \$489,000) is carried forward as a deferred charge.

Interest on long-term debt	1978	1977
Interest on Income Debentures Interest on First Mortgage Bonds	\$ 3,680,000	\$ 663,000 1,348,000
	\$ 3,680,000	\$ 2,011,000

7. Shareholders' Equity

Capital

Shares authorized and issued

Authorized

14,000,000 combined total Class A and Class B participating special shares, par value \$1 each 100 common shares, par value \$10 each

Issued and fully paid	Number of Shares	Amount
Class A		
January 1, 1978	7,396,000	\$ 7,396,000
Issued for cash	15,000	15,000
Exchanged for Class B	(55,000)	(55,000)
December 31, 1978	7,356,000	7,356,000
Class B		
January 1, 1978	5,373,000	5,373,000
Issued in exchange for Class A	55,000	55,000
December 31, 1978	5,428,000	5,428,000
	12,784,000	\$12,784,000

During 1978, 15,000 Class A shares were issued under the Employee Share Purchase Plan for a cash consideration of \$90,000 or \$5.93 per share. The par value of these shares of \$15,000 has been credited to capital stock and the balance of the consideration of \$75,000 to contributed surplus.

The Class A and Class B shares are voting shares, rank equally in all respects and are exchangeable one for the other. The 1977 tax legislation changes permitted the Directors to declare that tax-deferred dividends be paid from 1971 capital surplus on hand (as defined by the Income Tax Act of Canada). These tax-deferred dividends were paid on Class B shares in 1977 and 1978 and were equal to the dividends paid on Class A shares. The payment of tax-deferred dividends is no longer possible after December 31, 1978.

8. Pension Plans

The Company maintains separate plans for salaried and hourly employees. At December 31, 1978, the actuarially computed value of pension benefits under the Salaried Employees' Pension Plan exceeded the assets of the pension fund by \$2,260,000. Annual pension costs determined at regular intervals by independent actuaries are funded currently and include provision for current service costs and for funding of past service costs over a period not exceeding fifteen years.

The Hourly Employees' Pension Plan is a money-purchase arrangement whereby the Company contributes amounts equal to the employee contribution. There are no unfunded liabilities relating to this plan.

The total cost of employee pension plans charged against earnings for the year ended December 31, 1978 amounted to \$1,414,000 (1977: \$1,163,000).

9. Employee Share Purchase Plan

Under the Employee Share Purchase Plan eligible employees are entitled to subscribe for shares of the Company and to pay for such shares by payroll deduction over a period of 24 months at a price per share equal to the lesser of the average market price on the original offering date (June 20, 1977 and June 19, 1978), or the average market price on the completion date of purchase. At December 31, 1978 there were outstanding purchase agreements with employees having an aggregate value of \$265,000.

10. Commitments and Guarantees

Lease Commitments

The Company is committed to payments for leased equipment and business premises through to 1983 in the amount of approximately \$4,210,000. Annual commitments for the next five years are as follows:

1979	\$2,140,000
1980	\$1,030,000
1981	\$ 770,000
1982	\$ 250,000
1983	\$ 20,000

Ruttan Mine

Underground development of the Ruttan Mine to the 1400 level is nearing completion. During 1978 \$21,500,000 was spent and a further \$6,500,000 is committed to complete this project, the final cost of which is estimated at \$36,000,000 exclusive of financing charges.

Townsites and Government

Certain expenditures incurred by the Province of Manitoba and the Local Government Districts of Leaf Rapids and Lynn Lake for the

development of the townsites and certain provincial highways are being amortized over periods up to 1995 through charges to the Company of approximately \$695,000 annually in addition to normal municipal taxes. The Company has guaranteed the repayment of the debts incurred on account of these expenditures, which obligations total \$8,400,000.

The Company has also guaranteed employees' mortgage indebtedness in these townsites amounting to approximately \$6,300,000.

Manitoba Hydro

Under agreement with Manitoba Hydro for the supply of power, the cost (incurred by Manitoba Hydro) of certain transmission lines to the Company's mining properties is being paid by the Company over periods up to the year 2013. The unamortized balance of the cost of these lines amounts to \$2,000,000 at December 31, 1978.

11. Anti-Inflation Program

During the year the Company was subject to, and complied with, the provisions of the Anti-Inflation Program enacted by the Government of Canada to provide for the restraint of profit margins, prices, dividends and compensation in Canada. This program ended December 31, 1978.

12. Remuneration of Directors and Officers

In 1978 the direct remuneration of Directors and senior Officers of the Company was \$582,000 (1977: \$533,000).

13. Quarterly Financial Information (unaudited)

(thousands of dollars except net earnings per share)

	First	Second	Third	Fourth	V
1978	Quarter	Quarter	Quarter	Quarter	Year
Gross income	\$60,223	\$60,592	\$48,970	\$ 61,594	\$231,379
Earnings before taxes	4,352	6,040	6,669	11,543	28,604
Net earnings	2,591	3,411	3,513	6,185	15,700
Net earnings per					
common share	\$.20	\$.27	\$.27	\$.49	\$ 1.23
1977					
Gross income	\$ 52,173	\$ 53,355	\$31,806	\$45,058	\$182,392
Earnings (Loss) before					
taxes	4,235	5,457	(2,138)	(1,161)	6,393
Net earnings (loss)	2,687	2,793	(1,291)	(23)	4,166
Net earnings (loss) per					
common share	\$.21	\$.22	\$ (.10)	\$ -	\$.33

14. Comparative Figures

Comparative figures for 1977 have been adjusted to reflect the change in accounting policy on the translation of long-term debt, the separate disclosure of foreign exchange gains and losses and the reclassification of chemical sales, to conform to the presentation adopted for the current year.

Auditors' Report

To the Shareholders of Sherritt Gordon Mines Limited:

We have examined the consolidated balance sheet of Sherritt Gordon Mines Limited as at December 31, 1978 and the consolidated statements of earnings, retained earnings and changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these consolidated financial statements present fairly the financial position of the Company as at December 31, 1978 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year, after giving retroactive effect to the change in the method of translation of long-term debt referred to in Note 1 to the consolidated financial statements.

Deloitle Haskons & Sells

Deloitte Haskins & Sells Chartered Accountants

Toronto, Canada February 9, 1979

Ten-Year Record 1969-1978

(figures in thousands except per share figures)

	1978	1977	1976	1975	1974	1973	1972	1971	1970	196
Operating Information										
Ore Milled (tons)										
Ruttan Mine	2,543	2,487	2,661	3,341	3,358	1,871			_	
Fox Mine	964	890	832	1,007	1,008	963	946	1,022	389	
Lynn Lake Mine		-	197	352	432	676	995	1,158	1,090	1,258
Production										
Copper (lbs.)	73,895	75,489	76,009	87,005	100,399	72,101	41,474	60,534	30,816	13,238
Zinc (lbs.)	74,695	87,477	95,369	99,953	79,102	48,380	8,986	9,605	163	-
Nickel (lbs.)	26,920	26,688	27,708	27,937	26,172	30,262	37,321	33,111	35,918	30,02
Cobalt (lbs.)	1,145	1,011	658	560	410	616	809	561	803	668
Fertilizer (tons)	415	385	322	385	349	362	372	327	280	28
Financial Information										
Revenue from sales	\$ 229,229	180,463	179,428	191,479	192,958	124,092	72,861	73,958	90,889	66,292
Technology licensing and other	\$ 2,150	1,929	3,634	3,873	2,128	941	1,365	1,464	1,420	932
Costs and expenses	\$ 190,951	165,240	166,086	166,787	141,934	92,128	61,517	60,798	55,760	41,765
Depreciation and amortization	\$ 11,824	10,759	9,680	10,017	12,571	9,234	7,563	7,852	6,048	6,032
Income and mining royalty taxes	\$ 12,904	2,227	3,165	7,390	17,535	2,685	55	(1,995)	13,000	8,500
Net earnings before										
extraordinary items	\$ 15,700	4,166	4,131	11,158	23,046	20,986	5,091	8,767	17,501	10,927
Per share	\$ 1.23	.33	.32	.88	1.81	1.65	.40	.73	1.54	.96
Extraordinary items	\$ -			-			2,784	1,270	1,658	
Net earnings for the year	\$ 15,700	4,166	4,131	11,158	23,046	20,986	2,307	7,497	15,843	10,927
Per share	\$ 1.23	.33	.32	.88	1.81	1.65	.18	.62	1.39	.96
Dividends	\$ 6,392	1,915	4,460	7,010	9,555	8,918	6,370	7,231	6,818	4,545
Per share	\$.50	.15	.35	.55	.75	.70	.50	.60	.60	.40
Capital expenditures	\$ 26,892	14,176	6,180	11,513	14,527	20,791	30,963	11,737	12,795	14,715
Cash flow from operations	\$ 32,483	15,509	14,605	25,156	45,519	29,383	12,570	16,006	25,235	19,813
Working capital	\$ 69,463	70,174	38,140	38,472	36,409	24,779	27,375	28,968	19,365	15,387
Long-term debt	\$ 62,621	57,764	24,731	29,564	34,194	41,881	36,333	13,196	17,788	20,039
Shareholders' equity	\$ 118,934	109,536	107,213	107,437	103,289	89,798	77,730	81,793	65,048	56,023
Return on Shareholders' equity	13.2%	3.8%	3.9%	10.4%	22.3%	23.4%	3.0%	9.2%	24.4%	19.5%
Ore Reserves										
Ruttan Mine										
Tons	28,771	30,439	32,047	43,600	45,900	49,100	51,000	51,000	51,000	12,900
% copper	1.79	1.74	1.73	1.45	1.45	1.46	1.47	1.47	1.47	1.44
% zinc	1.20	1.25	1.25	1.45	1.52	1.60	1.61	1.61	1.61	2.61
Fox Mine										
Tons	6,333	7,093	7,836	8,700	10,700	11,800	13,300	14,500	13,100	11,300
% copper	1.79	1.83	1.95	1.92	1.95	2.03	2.01	1.99	1.84	1.96
% zinc	2.22	2.12	2.10	2.08	2.07	2.15	2.23	2.35	2.70	2.74

Directors and Officers

Divisions

Directors

W. E. P. DeRoche Chairman of the Board Partner, Blake, Cassels & Graydon

Edward L. Donegan Partner, Blake, Cassels & Graydon

Vice-President, Operations, **Newmont Mining Corporation**

Robert D. Lindberg Vice-President, Mining

V. N. Mackiw **Executive Vice-President**

Plato Malozemoff Chairman of the Board and Chief Executive Officer, **Newmont Mining Corporation**

J. H. Parliament **President Newmont Mines Limited**

David D. Thomas President and Chief Executive Officer

J. E. Thompson President. **Newmont Mining Corporation**

Officers

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President and Chief Executive Officer

V. N. Mackiw **Executive Vice-President**

J. A. Fraser Vice-President, Marketing

Kenneth J. Harvey Vice-President, Finance

Robert D. Lindberg Vice-President, Mining

Robert R. Topp Vice-President. Corporate Development

Alan E. Gallie Assistant to the President

Frank I. Piper Secretary

Ian A. Shaw Treasurer

Peter S. Bleach Controller

Mining and Milling Division Lynn Lake, Manitoba

J. A. MacLellan General Manager, Manitoba Operations

D. J. Libby Manager, Ruttan Operations

R. C. McCombe Manager, Fox Operations

Metal and Chemical Division Fort Saskatchewan, Alberta

Neil Colvin General Manager, Alberta Operations

B. W. Kushnir Manager, Production

A. H. Lee Manager, **Fabricated Metal Products**

Manager, Administration

D. G. Maschmeyer Manager, Projects and Pilot Operations

J. W. Gulyas Manager, Engineering and Planning

Research Centre Fort Saskatchewan, Alberta

H. Veltman

M. A. Clegg Manager, New Product Research

D. R. Weir Manager, New Process Research

Marketing Division

J. A. Fraser Vice-President, Marketing Edmonton, Alberta

Rex F. Pearce Marketing Director, The Sherritt Mint

R. M. Garvey Manager, Metal Marketing Toronto, Ontario

J. M. Nichols Manager, Fertilizer Marketing Edmonton, Alberta

Auditors

Deloitte Haskins & Sells, Toronto

Blake, Cassels & Graydon, Toronto

Transfer Agents
Canada Permanent Trust Company, Canada Morgan Guaranty Trust Company of New York

Bankers

Canadian Imperial Bank of Commerce, Morgan Guaranty Trust Company of New York

Corporate Office Commerce Court West

Toronto, Canada