

Annual Report 1983

herritt Gordon Mines Limited owns and operates an integrated metallurgicalchemical complex at Fort Saskatchewan, Alberta, where it manufactures nitrogen and phosphate fertilizers and other chemicals, refines nickel and cobalt and produces various fabricated metal products, principally from nickel and cobalt. The company's new world-scale ammonia and urea plants started up in mid-1983. Sherritt owns and operates two mines in northern Manitoba which produce copper and zinc concentrates containing gold and silver, actively engages in mineral exploration and participates through joint ventures in oil and gas exploration. In addition, the company derives revenue from licensing its metallurgical technology and providing contract research and engineering services.

1983 1982 (S thousands) 337,083 274,748 **Total Revenue** 4,836 (708)Net Earnings (loss) Increase (decrease) in working capital 48,267 (56,477)67,916 239,940 Capital Expenditures

Sherritt's new worldscale ammonia urea fertilizer plant began production in May, 1983. With a maximum annual output of 500,000 tonnes, the plant took three years to build and cost 370 million dollars.

(Cover) The CO<sub>2</sub>
absorber of the new
ammonia plant and the
steam pipes which
bracket it form a hi-tech
sculpture. Operator Jim
French (left) and
Supervisor Terry
Higgins use portable
radios to relay
messages.

#### **Annual Meeting**

Monday, April 16, 1984, at 2:30 p.m. Commerce Hall, Commerce Court Toronto

## Report of the Directors

hile 1983 was only marginally profitable, it was a year of dramatic change for Sherritt. The company has evolved over the years from a base metal mining company to an integrated resource company. The fertilizer business, originally developed as an offshoot of our refining operations, has become the company's largest single source of sales revenue. By year end, with improving market conditions, the new world-scale nitrogen fertilizer complex in Alberta was operating above rated capacity.

A general strengthening of economic conditions, continuation of more reasonable interest rate levels and a substantial injection of new equity into the company during 1983 are all factors which led us to feel encouraged about our present position and the outlook for the immediate future. However, these feelings have been somewhat modified by the deterioration of copper and nickel prices in the latter half of the year.

While the outlook for Sherritt's fertilizer business is encouraging, and the nickel refining and some of the fabricating activities remain profitable, our concerned attention has turned again to the mining side of Sherritt. The very discouraging performance of copper markets has again produced a sizeable loss in our mining operations. In view of its financial commitments in other areas Sherritt is unable to fund the major depth development program at the Ruttan Mine and is therefore seeking outside financing.

Earnings for 1983 amounted to \$4,836,000. After preferred share dividends a profit of 1¢ per common share was recorded (1982 — a per share loss of 29¢ before unusual items or 52¢ after unusual items).

Revenues for the year amounted to \$337,083,000, an increase of 23% over 1982. The higher revenues result from increased fertilizer sales reflecting start-up of the new ammonia and urea plants during the year, higher volumes of nickel shipments and higher production from our mining operations which were shut down for four months during 1982.

Prices realized on both nitrogen and phosphate fertilizers in 1983 were slightly lower than 1982, while refinery products, nickel and

cobalt, showed declines. Average prices for mine products, copper, zinc, gold and silver, increased modestly over 1982 although copper declined again in the second half of 1983.

Fertilizer and chemical operating profits after depreciation charges and before interest costs increased to \$22,740,000 from \$18,302,000 in 1982. Profit after allocation of interest costs was \$4,913,000. Interest costs were capitalized in 1982. Sales volumes of nitrogen fertilizers increased 53% as the new production facilities came on stream near mid-year. Phosphate fertilizer sales volumes also increased about 25%. The market outlook improved dramatically during 1983 and there is increasing confidence that the huge expansion in Alberta nitrogen capacity can be absorbed in the marketplace.

Metal refining showed an operating profit of \$8,693,000 after an operating loss of \$2,337,000 in 1982. Although realized prices were lower for the year, feed material costs declined proportionately and our unit refining costs were lower, reflecting cost reduction measures as well as increased levels of production. Current year operations were also favorably affected by the fact that metal inventories were written down to a severely depressed market value at the end of 1982.

Fabricated metal products operating profit amounted to \$2,326,000 compared to \$2,781,000 in 1982. Specialty powder activities continue to provide a source of increasing profitability. Rolling mill operations on the other hand experienced declining volumes for coinage products at extremely competitive prices resulting in a break-even operation.

Our Technology Group, comprising Research, Development and Engineering, maintained strong activities in the field of product and process development and can look back on a profitable year. Several new products, including wear-resistant materials and specialty metal powders, reached the market and two process plants employing our hydrometallurgical technology were started up, resulting in increased revenue from technology licensing.

Mining operations posted an operating loss of \$7,021,000. This is a substantial improvement over the \$13,223,000 operating loss recorded for 1982 when the mining division was shut down for 15 weeks due to persistently low metal prices. Costs were again tightly controlled and most of our operating targets met. A significant improvement in metal prices is essential if our mines and most

other base metal mines in Canada are going to continue to operate and return to even a

modest level of profitability.

The mine deepening program at Ruttan has commenced. After completion of this program, now estimated to cost \$30,000,000, better ore grades combined with higher throughput will make Ruttan an extremely competitive operation. However, for the next two years, lower grades of ore, higher operating costs and depressed copper prices have forced us to initiate the shutdown of the Ruttan operations effective in early June 1984. We plan to use a substantial number of the affected employees on the capital development and exploration programs, if we can obtain outside financing to help fund such programs.

Depreciation and amortization costs charged against earnings for the year have doubled to \$22,842,000. The level of income taxes for the year is low (approximately 6% of earnings before tax) representing the effect of statutory allowances for inventory, investment tax credits and other allowances not directly related to earnings before tax. In addition, tax audits and assessments for the period 1973-1980 were finalized during the year and we were able to reverse income taxes which had previously been provided against some potential tax liabilities.

Working capital at December 31, 1983 amounted to \$55,983,000, an increase of \$48,267,000 during the year. Cash flow from operations added \$28,678,000 to working capital, double the previous year. Working capital was also increased by \$78,262,000 from two separate issues of equity capital. Most of this new equity was required to complete the fertilizer expansion, and pay preferred dividends amounting to \$4,654,000 and common dividends of \$960,000 (4.5¢ per common share).

At a Special Meeting of Shareholders held on October 17, 1983 approval was given to an increase in share capital by the authorization of an additional 5,000,000 shares without par value. Approval was also given to convert the existing common shares into no par value shares to comply with the new Ontario Business Corporations Act, 1982.

On March 28, 1983 Sherritt issued 3,586,000 common shares to the public and a concurrent sale of 2,356,000 shares was made to Newmont Mining Corporation both at a price of \$8.75 per share.

On October 18, 1983 Sherritt issued a further 2,500,000 common shares through a

private placement at a price of \$11.65 per share. Newmont Mining Corporation did not participate in this issue, and its interest in Sherritt was thereby reduced from 39.7% to 35.0%

Shortly after the end of the year we finalized the various tests required in order to limit the security for the project long-term loan and demand operating credit to charges on the new plant facilities and the inventory and receivables of the company's total nitrogen fertilizer business. The entire project long-term loan and demand operating credit are now on a limited recourse basis.

Normally a forecast of market outlook and business conditions should be included in a directors' report. Over the past few years we have become very conscious of the frailties of not just our own forecasts but most others as well. We are also conscious of the fact that ongoing improvements in metal markets will depend almost completely on the continuation of the current economic recovery. The general economic environment is extremely sensitive to current high levels of nominal and real interest rates. The international financial situation remains delicate and the level of government deficits in North America is clearly unacceptable.

Given this economic scenario we are reluctant to predict the course of the current economic recovery. We can state, however, that with our present mix of products and activities and our improved balance sheet we are in a considerably stronger position today than a year ago to capitalize on opportunities and to withstand economic and market forces beyond our control.

Although salaries and wages were under constraint at Sherritt in 1983, there was no constraint on the effort put forward by Sherritt people. It was a challenging year and all employees rose to it. For the information of our shareholders we have incorporated in this annual report a special section on our expanded fertilizer business.

On behalf of the Board of Directors.

David D Thomas,

David D. Thomas, President February 17, 1984

#### **Fertilizers at Sherritt**

The new plant encompasses 15 hectares (37.5 acres) and incorporates the latest in energy-efficient fertilizer production technology.

(Below) Routine checks are carried out by Operator Bill Harwood-Lynn in the demineralization section.

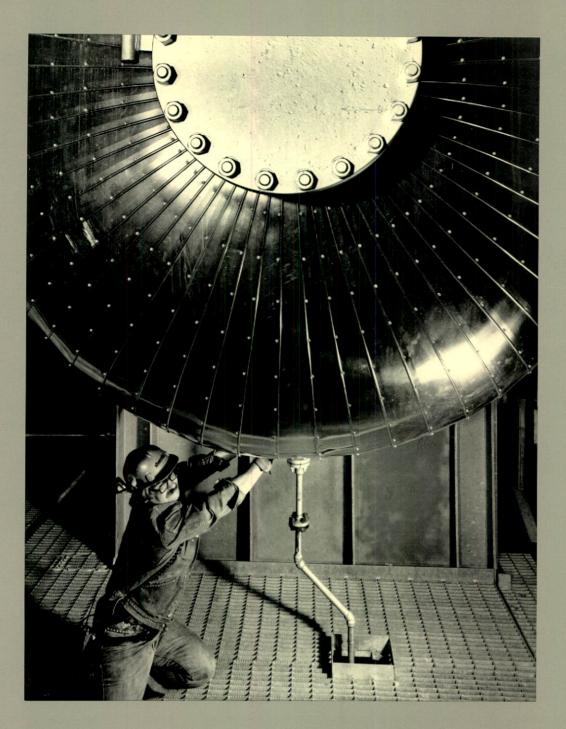
or a number of years now Sherritt has enjoyed the benefit of diversification. Our fertilizer business, which is the company's principal non-base metal activity, has in recent years accounted for between 20% and 30% of total sales revenues. It has represented a much larger share of total profits, though, and has helped Sherritt through the deep base metal trough of the mid-1970's and early 1980's.

There have been a number of reasons for Sherritt's healthy earnings levels in fertilizers: they include plant location, feedstock advantage, marketing expertise and production efficiency. It's been a good business for Sherritt. In fact, in the late 1970's our greatest problem was that we were increasingly short of product as western Canada markets grew and we reached maximum capacity from our existing plants.

In 1980, following Sherritt's most profitable year ever, board approval was obtained for construction of a world-scale







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(Left) Operator Terry Dunn tightens a fitting in a low-pressure steam drum in the new urea building.

Control Room Operators
Don Kofluk and Jim
Krucik use computerized equipment to
monitor operations
throughout the
ammonia and urea plants.

nitrogen fertilizer complex at Fort Saskatchewan, Alberta. In mid-1983 the new plants were completed and brought on stream. After some initial start-up problems both the ammonia and urea plants are now operating above capacity. As a result, Sherritt's nitrogen fertilizer capacity has tripled and total annual fertilizer capacity has increased from 400,000 tonnes to 850,000 tonnes. It is interesting to follow the course of a project of this size, the challenge of constructing the plants, the market planning, the arrangement of feedstock supplies and the negotiation of the complex financing package. All these activities took a tremendous amount of time over the past three years. During that period, unfortunately, base metal prices did not perform up to expectations and Sherritt found itself in a marginal profit position. To make matters worse, interest rates rose sharply. There was increasing concern that the sheer size of the investment in the new nitrogen facilities, combined with deteriorat-







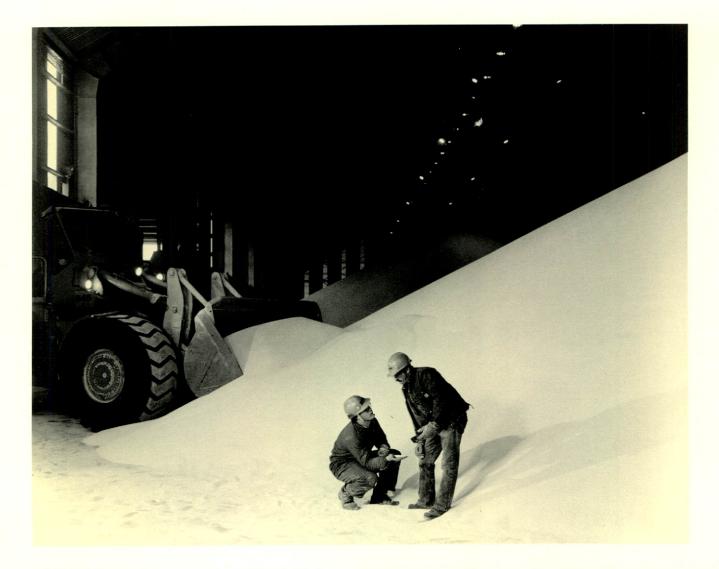
(Left) Ted Armstrong, Public Relations Department, amongst the maze of piping and steel in the new ammonia plant.

Operators Kim
Haverstock and Cary
Treasure are
surrounded by dunelike mounds of urea
granules in the
cavernous new urea
plant load-out storage
area.

ing economic conditions, could severely impair Sherritt's financial viability.

In 1983 a number of things turned around for Sherritt. Interest rates declined, taking some pressure off our cash flow. The business recovery gathered steam and stock markets strengthened, providing an opportunity for two sizeable common share issues, increasing our working capital and reducing debt by close to \$80,000,000.

Equally important, in the latter part of 1983 we witnessed a real turnaround in fertilizer markets. A combination of factors, including government incentives for reduced planting in the United States, the summer drought, lower interest rates and stronger business confidence, all combined to point to much increased demand for fertilizers in the U.S. with some spill-over of this effect in western Canada. Prices have already moved up substantially in Gulf Coast markets. In western Canada, demand and prices have held up reasonably well over the past few



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years, so price increases in western Canada, as a result of U.S. and offshore price movements, are expected to be more moderate.

The export market, particularly the U.S. Corn Belt, is important to us. While Sherritt has reduced its market exposure by arranging long-term contracts for a substantial part of its new production. Alberta nitrogen production in total has increased 50% in 1983 alone, and is highly dependent on export markets. This very recent turnaround in the U.S. has come at an opportune time. It should allow Sherritt to continue operating its old nitrogen plants as well as running its new facilities at capacity. It is encouraging to note that in the first half year of operations, profits on fertilizers were more than sufficient to cover the heavy depreciation charges on the new plants, as well as the interest costs on the project financing.

The outlook for this business, which will account for 40% of Sherritt's total revenues in 1984, is encouraging. We are located in the middle of a fast growing market for our nitrogen products. We have one of the most energy efficient ammonia plants in the world. We have extremely competitive gas costs, in both western Canadian and North American terms. We have access to major export markets in which we can compete effectively if Canadian energy policies sufficiently reflect market realities.

Finally, we believe the year 1983 was a critical year in Sherritt's history, a year of completion and start-up of the company's largest capital project, and a year when Sherritt moved towards becoming a better balanced company with more stable growth prospects.

# **Review of Operations**

#### Fertilizers and Chemicals

**Operations** 

Sherritt's new world-scale ammonia and urea plants came on stream in May and June 1983 respectively. The output of the new ammonia plant was initially limited to about 70% of capacity because of a deficiency in the steam turbine drive for the synthesis gas compressor. By year-end, however, daily production was about 107% of rated capacity. Start-up of the new urea plant progressed satisfactorily, and the output was limited primarily by the availability of ammonia and carbon dioxide from the new ammonia plant. By year-end the new urea plant was also operating at about 107% of its rated capacity. To meet the strong demand for the nitrogen fertilizers, Sherritt's old ammonia plant was kept operating at full capacity and the old urea plant was operated to meet demand.

Total marketable nitrogen and phosphate products manufactured were 583,000 tonnes, or 62% more than in 1982, reflecting the start-up of the new plants. Sherritt's phosphate production facilities were shut down in September and will remain down for two years. During this period, Sherritt's requirement for phosphate fertilizer will be provided by Esso Chemical Canada under a tolling agreement. Sherritt will, in turn, convert Esso's ammonia into a tonnage of urea equivalent to the tonnage of phosphates provided by Esso.

Natural gas is a major cost component in the manufacture of ammonia and urea. Sherritt has long-term contracts for about three-quarters of its total gas requirements which average 75 million cubic feet per day. The remaining gas is currently purchased on a spot basis. With a continuing weak natural gas market in Alberta, Sherritt was able to improve on some of its contract arrangements during 1983. The company is examining alternatives for the long-term supply of its remaining gas requirements.

Cash flow from specialty products of Thio-Pet Chemicals Ltd. continued at nominal levels. Competition from low-priced imports and loss of a major customer due to shutdown could result in lower revenue levels in 1984.

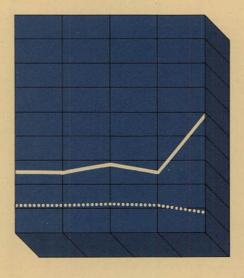
#### Markets

Total fertilizer sales in western Canada for the 1982-83 sales season to the end of June 1983 were up approximately 5% from the previous season. Sherritt's sales were increased by the same amount. Some early shortfalls in production from the new plants were offset by increased product purchases.

We completed the sales season to the end of June 1983 with minimum inventories. In the July-December period our western Canadian agricultural sales were up 45% over the fall of 1982, led by ammonia and urea, which are representing an increasing percentage of total nitrogen fertilizer volumes in western Canada. Sherritt's Saskatchewan sales were up sharply, assisted by our new ammonia storage facilities at Watson, Saskatchewan.

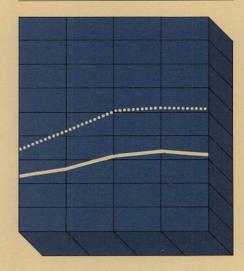
#### Fertilizer Production

	1979	1980	1981	1982	1983			
	(thousand tonnes)							
Nitrogen	253	251	284	251	498			
• • • Phosphates	106	101	113	108	85			
Total	359	352	397	359	583			



Average Price Received — Fertilizers

	1979	1980	1981	1982	1983
	(S per to	nne)			
Nitrogen-	118	132	159	172	163
• • • Phosphates	173	209	252	262	254



Market demand turned around sharply in the U.S. in the fall of 1983 following the dual impact of the Payment-In-Kind Program and the summer drought. Sherritt's U.S. sales volume also increased substantially in the last half of 1983. Our agricultural sales increased by 27% over the previous season as we were able to establish dealer outlets in North Dakota and Montana where we previously had no representation. The outlook for the further expansion in these areas in the coming spring season is excellent.

We anticipate a heavy demand through the spring season of 1984 and sales will be up substantially from

#### Fertilizer and Chemical Sales Revenue

		1983		1982
	SELECTION SECTION	869.0	(figures in	thousands)
Fertilizers Nitrogen Phosphates	486 tonnes 125 tonnes	\$ 79,224 31,849	317 tonnes 100 tonnes	\$ 54,517 26,241
Chemicals	611 tonnes 14 tonnes	111,073 3,545	417 tonnes 13 tonnes	80,758 3,563
Total	625 tonnes	\$114,618	430 tonnes	\$ 84,321
Average Prices (\$/tonne) Nitrogen Phosphates		163.16 254.35		171.81 261.97

a year ago. However, with plans in both the United States and Canada to seed record acreages, we could again see grain surpluses in the 1984-85 sales season.

While fertilizer prices in the U.S. were depressed in the past few years, prices in western Canada remained relatively strong. The recent upsurge in Gulf Coast prices is not, as a result, expected to be duplicated in western Canada, although some strengthening is anticipated.

#### **Metal Refining**

#### **Operations**

Nickel production at our Fort Saskatchewan refinery expanded to 44.3 million pounds, which was 14% higher than the previous year, and set a new record for the third consecutive year. With the higher nickel volume unit operating costs were reduced. Cobalt production of 1.87 million pounds was 8% more than in the previous year.

#### Markets

In 1983 western world nickel consumption increased by about 22%, reversing three successive years of decline. Sherritt's nickel sales volumes and revenues increased from 1982 despite lower prices. Adequate

#### Metal Refining Sales Revenue

		1983		1982
ACCRECATE VALUE OF STREET			(figures in	n thousands)
Nickel	43,234 lb.	\$105,609	36,188 lb.	\$ 99,825
Cobalt	763 lb.	5,768	753 lb.	8,243
Copper, precious metals and custom refining		6,007		4,415
Total		\$117,384	A THE REST	\$112,483

long-term supplies of nickel feed enabled production to increase in line with increased sales.

Cobalt prices declined in 1983 as the African producers tried to recover market share. Cobalt production at Sherritt was limited by feed material supplies.

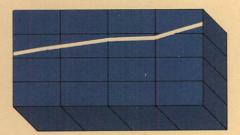
#### **Fabricated Metal Products**

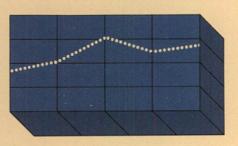
#### Operations

Rolling mill production was 38% lower than in 1982 due to a low demand for coinage products. Specialty

#### Refined Nickel and Cobalt Production

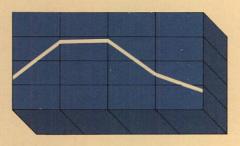
	1979	1980	1981	1982	1983
	(milli	on lb.)			
Nickel	32.0	35.8	38.2	38.7	44.3
	(thou	sand lb.,	)		1917
• • • Cobalt	1,333	1,526	2,014	1,729	1,871

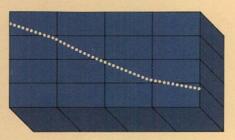




#### Average Price Received — Nickel and Cobalt

	1979	1980	1981	1982	1983
	(\$ pe	rlb.)		534	
Nickel	2.65	3.41	3.46	2.76	2.44
• • • Cobalt	34.35	27.28	18.12	10.95	7.56





products volume increased 27% and greater emphasis on product quality improved our competitive position.

#### Markets

The demand for coinage materials deteriorated further in 1983, resulting in extreme price cutting as suppliers scrambled for the small volume available. Some export

Fabricated Metal Products Sales Revenue

			1983	mail of	1982
				(figures in	thousands)
Nickel products	1,976 lb.	8	8,262	3,072 lb.	\$ 14,668
Cobalt products	11 lb.		131	11 lb.	194
Alloy, composite and					
other metal products	585 lb.		7,577	394 lb.	5,994
Total	2,572 lb.	\$	15,970	3,477 lb.	\$ 20,856

coinage business was obtained during the year, primarily to maintain employment for our core group of highly-skilled workers. Unfortunately, this market situation will probably continue in 1984 and some workforce reduction has been necessary.

Our medallion and token business continued to grow as we strengthened our marketing presence in eastern Ontario and Quebec.

Our specialty powders sold primarily to the aerospace and other high technology industries expanded during the year. Several new markets have been targeted with good possibilities for growth in the specialty area.

Sales of TUFFSTUDDS™, our wear-resistant specialty product, doubled during 1983. The market for Sherritt TUFFSTUDDS was considerably expanded in North America during 1982, and was extended to South Africa. In addition, field tests were conducted in Holland and West Germany. The quality of the studs was improved with new compositions and designs to meet the varied service conditions arising in the expanding market.

#### Technology

#### Product Development

Product development effort was focused on abrasion-resistant materials (TUFFSTUDDS), magnetic materials and materials for turbine engine abradable seals. Several new specialty products reached the marketing stage including new grades of TUFFSTUDDS, new alloy composite powders, ultrafine metal powders, magnetic alloys and aureate coinage.

Significant progress was made in research on samarium-cobalt magnetic alloys and ways to exploit this new technology are under study. Exploratory research continued in a number of promising areas.

#### Process Development

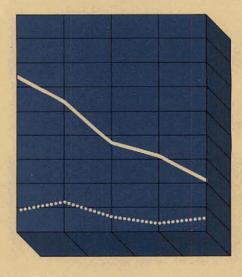
Interest in Sherritt's hydrometallurgical technology has remained strong and, as a result, numerous potential projects are being pursued with most of them being related to either matte leaching, refractory gold ore treatment by pressure oxidation, or pressure leaching of zinc sulphide concentrate.

#### Technology Licensing

Our revenue from technology licensing in 1983 was \$4.1 million, or a 57% increase from the previous year. During August 1983, Impala Platinum Holdings Ltd. cobalt refinery in South Africa and Kidd Creek

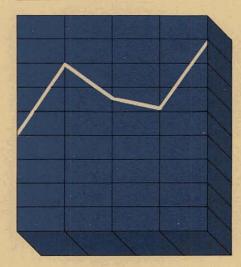
#### Fabricated Metal Production

	1979	1980	1981	1982	1983
	(thou	sand lb.	)		J.P. VI
Nickel	6,461	5,493	3,718	3,268	2,068
• • • Cobalt and Other	866	1,242	670	377	598
Total	7,327	6,735	4,388	3,645	2,666



Technology Licensing Revenue

1979	1980	1981	1982	1983
(\$ mi	llion)			
2.0	3.5	2.8	2.6	4.0



Mines Ltd. zinc pressure-leaching plant in Timmins, Ontario, came on stream. Both these plants employ Sherritt's technology.

#### Mining

**Operations** 

In 1983 the combined results of slightly higher prices realized for all metals, higher production from both mines and continuation of cost control measures, reduced losses significantly from 1982 levels. Both mines produced positive cash flows in 1983.

At the Ruttan Mine production averaged 5,740 tons per scheduled day. Mill feed grade averaged 1.62% copper and 0.73% zinc compared to 2.16% copper and 0.14% zinc in 1982 when ore was processed only from the west lens. Copper metallurgy was good at 94.4% recovery with concentrate grading 27.5%. Zinc metallurgy was better than forecast for the low head grades at 69.7% recovery and a 51.4% zinc concentrate grade.

Productivity (tons milled per shift per person) in 1983 was 42% higher than 1981, the last full year of

#### Ore Reserves

Tons	% Cu.	% Zn.
(tonna	ige figures in t	housands)
23,143	1.48	1.17
3,767	1.54	1.30
(1,531)	1.62	0.83
(1,428)	1.62	0.73
23,951	1.47	1.23
16,267	1.72	1.06
7,684	0.94	1.62
23,951	1.47	1.23
1,910	2.34	1.58
_	0.01	.11
(611)	2.10	1.94
1,299	2.47	1.57
	(1,531) (1,531) (1,428) 23,951 16,267 7,684 23,951 1,910	(tonnage figures in t 23,143

Ore reserves of Ruttan Mine are stated on a diluted geological basis before provision for future mining losses, whereas reserves of Fox Mine are stated after provision for future mining losses.

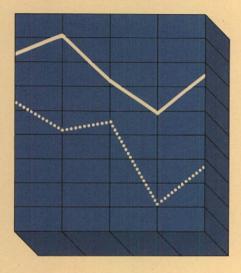
production. Operating costs averaged \$25 per ton milled compared to \$27 per ton milled during the eight full months of operation in 1982.

However in 1984 and 1985 mineable grades above the 1400-foot level are only 1.41% copper and 1.07% zinc. Production costs per pound of copper will be significantly higher in these two years due to the lower grades, higher treatment costs under a new smelting and refining agreement and greatly increased power rates under our hydro contract. This increase in costs, together with the current depressed price for copper, has forced us to intitiate the shutdown of the Ruttan operations effective in early June.

In May 1983, capital was approved by the Board to deepen the shaft by 650 feet and to develop the mine between the 1400 and 2600-foot levels. The deepening program is estimated to cost \$30,000,000 over the next two and one-half years including contingencies, escalations and provisions for exploration of two areas where earlier drilling produced encouraging results. Diluted geological reserves at the 2600-foot level are 7200 tons per vertical foot at 1.74% copper and 0.83% zinc. The exploration program to be done from the 2800-foot level will further delineate the potential of the main orebody and will involve 1300 feet of drifting and

# Concentrate Production in Payable Pounds

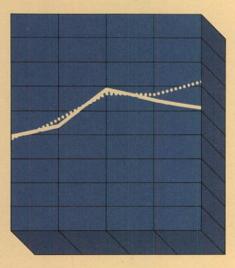
	1979	1980	1981	1982	1983		
THE PARTY OF THE P	(figures in millions)						
- Copper	73.6	80.7	62.6	49.0	65.3		
• • • Zinc	53.0	41.5	45.0	10.3	27.4		



#### Cash Production Costs

	1979	1980	1981	1982	* 1983		
(\$ per ton milled)							
Ruttan	19.70	22.08	29.21	27.07	25.07		
• • • Fox	18.85	23.18	28.69	28.21	31.20		

\* Excludes costs incurred during shutdown period



25,000 feet of diamond drilling. Several intersections from previous drilling to the 3000-foot level indicated there is a high potential for a new ore source at depth.

Previous drilling from surface also had located the west anomaly 3500 feet west of the main orebody and indicated the potential for a significant tonnage of

#### Production

	1983	1982
Ruttan		
Ore milled (tons)	1,428,000	865,000
% copper	1.62	2.16
% zinc	.73	.14
Copper contained in concentrate (lb.)	43,690,000	35,796,000
Zinc contained in concentrate (lb.)	14,554,000	
Fox Mine		
Ore milled (tons)	611,000	471,000
% copper	2.10	1.76
% zinc	1.94	1.77
Copper contained in		
concentrate (lb.)	23,812,000	15,270,000
Zinc contained in		
concentrate (lb.)	16,745,000	11,443,000

material that could average 1-2% copper and 2-4% zinc at depth. This target area should be explored from the 2200-foot level and the program would involve 3500 feet of drifting and 25,000 feet of diamond drilling.

By year-end the shaft was completed to within 100 feet of the final depth. After 1985 total mineable reserves down to the 2600-foot level will be about 12,500,000 tons with an average grade of 1.62% copper and 1.09% zinc. Mining plans after 1985 are based on a seven-day week and 2,000,000 tons per year. Unit costs beyond 1985 are projected to decline significantly and once again make the Ruttan Mine very competitive with nearly all North American producers.

At the Fox Mine 611,000 tons at 2.10% copper and 1.94% zinc were mined and milled in 1983 compared to 471,000 tons at 1.76% copper and 1.77% zinc for the 37-week operating period in 1982. Copper metallurgy was in line with forecast at 92.9% recovery and 26.6% concentrate grade. Zinc concentrate grades and recoveries were also as expected at 51.9% and 70.5% respectively. Further improvements in zinc metallurgy are anticipated in 1984 after the installation of a zinc regrind mill in the first quarter of the year.

The average operating cost per ton milled was \$31 compared to \$28 for the eight full months of operation in 1982.

The installation of the borehole hoisting system was completed in May and exceeded rated capacity by the end of August. Mineable reserves totalling 1,299,000 tons at 2.47% copper and 1.57% zinc are scheduled to be mined out by the end of 1985.

#### Markets

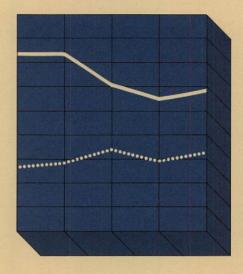
The average LME copper price in 1983 of 72¢ U.S. was only marginally higher than in the previous year. There was modest strength in the second quarter, but

#### Mining Sales Revenue

Mining Sales Ret	enue	1983		1982
		THE RESERVE	(figures i	n thousands)
Copper	65,318 lb.	\$ 56,904	48,974 lb.	\$ 40,825
Zinc	27,430 lb.	13,928	10,260 lb.	4,508
Precious metals				
Gold	16 oz.	8,073	11 02.	5,053
Silver	375 oz.	4,913	231 oz.	2,425
THE RESERVED IN		12,986		7,478
Total		\$ 83,818		\$ 52,811

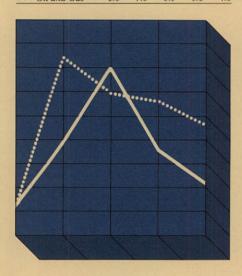
#### Average Price Received — Copper and Zinc

	1979	1980	1981	1982	1983
	(¢ per	lb.)	MAR IN		
- Copper	110	111	90	83	87
• • • Zinc	41	43	52	44	51



#### **Exploration Expenditures**

	1979	1980	1981	1982	1983
	(S mi	llions)	ALC: Y		The
Mineral	1.3	3.9	7.0	3.6	2.2
Oil and Gas	13	7.5	5.9	5.6	45



soft demand and excessive production caused further world inventory increases and as a result prices weakened in the second half of the year. The strong U.S. dollar put further downward pressure on copper as well as precious metals. In contrast, zinc prices were sharply higher in 1983 with restricted production and improved demand.

Sherritt is finalizing a four-year agreement with Hudson Bay Mining & Smelting Co. Limited for the sale and treatment of all copper and zinc concentrates from Ruttan and Fox Mines.

#### **Exploration and Development**

Mineral Exploration

A feasibility study was completed on the Agassiz gold property early in the year which indicated the property could be viable at a gold price of about \$500 U.S. per ounce but more confidence in reserves was required. By mid-year approval was received under a New Employment Expansion and Development Program for a drilling and drifting program to confirm reserves at depth and in the zone east of the main orebody where sporadic high-grade intersections have been encountered at several locations. By year-end the program was in full operation employing 53 people. During the first half of 1984 up to four drills will be working on the property; however, it is unlikely that sufficient information will be available to calculate ore reserves before the end of the second quarter of 1984.

The Cargill phosphate property was maintained on a care and maintenance basis throughout the year. In December 1983 the option to purchase the property was exercised, after preliminary feasibility studies on the mining of higher grade material produced encouraging economics despite the current low phosphate prices used in the study.

Sherritt entered into an agreement with Roxmark Mines Limited under which it acquired 500,000 shares for \$200,000 and supplied some technical personnel for the exploration of the gold potential of the former Magnet Mine near Geraldton, Ontario. In the Lynn Lake area activities were limited to ground geophysics, mapping and staking of gold properties.

Oil and Gas Exploration

During 1983 Sherritt participated in the drilling of four wells in Alberta, one of which has been completed as a gas well and three were dry holes. The gas well is located on farm-in lands contiguous to an earlier discovery in the Hoadley area of Alberta. Absolute open flow tests through production casing from the two gas-bearing reservoirs totalled 5 million cubic feet per day. Significant quantities of natural gas liquids were also present. Sherritt has a 47.5% working interest subject to a gross overriding royalty.

The Victor gas field commenced production in April 1983 and averaged 3 million cubic feet per day during the year. Production was limited due to the presence of condensates in excess of pipeline specifications. This problem will be rectified in early 1984 by installing a hydrocarbon dew point control facility. Production should then increase to 5 million cubic feet per day. Sherritt has a 35.6% working interest in this field.

Sherritt's interest in proven and probable reserves, net of royalties, at the end of 1983 is estimated by independent consulting firms at 16.8 billion cubic feet of natural gas and 470,000 barrels of oil and natural gas liquids. Sherritt held working interests in 310,000 acres of petroleum and natural gas rights in Alberta, Saskatchewan and northeast British Columbia at the end of 1983.

Expenditures on oil and gas exploration in 1983 totalled \$4,499,000 about 20% below 1982 expenditures. Sherritt's 1984 program will be held to a similar level.

#### Personnel

The labor agreement at Fort Saskatchewan is with the Energy and Chemical Workers Union and covers approximately 560 hourly paid employees. Sherritt has enjoyed an excellent relationship with this union for many years, and in October management and union representatives signed a 12-month extension of the labor agreement. Under the terms of the extension hourly paid employees received a 3% increase in October 1983, the first since May 1982, and will receive a 5% increase in April 1984. The extended contract will expire March 31, 1985.

Staffing of the new fertilizer plant was completed during the year, with about 90% of the positions being filled by existing Sherritt employees. An operator progression system has been incorporated into the new plant, whereby hourly rates are based on the incumbent's education, experience and time on the job. The formal education portion of this program has been partially funded by a Canada Manpower grant under the Critical Trade Skills Training Program.

During the year, Sherritt staff conducted several seminars for outside organizations with respect to the handling and transportation of hazardous materials. One such seminar, dealing with rail transportation of ammonia, was conducted for the Canadian Transportation Commission.

Employment in mining, milling and exploration stabilized in 1983. In August, Sherritt concluded an agreement with the federal and Manitoba governments under the New Employment Expansion and Development Program. The agreement provides approximately \$1.1 million for exploration, drilling and drifting on the Agassiz property. This project is currently employing 53 people who have exhausted their Unemployment Insurance Benefits.

Another agreement was concluded in November under section 38 of the Unemployment Insurance Act. Under this program the federal government will contribute \$500,000 toward the cost of labor and materials for road construction, land clearing, trenching and drilling on the Cargill property at Kapuskasing, Ontario. Section 38 programs restrict employment to individuals who are eligible for Unemployment Insurance Benefits, and will provide slightly more than 1500-man weeks of employment over a 12-month period.

Personnel	1983	1982
Fertilizers, Chemicals and Metals	870	860
Research	87	84
Mining, Milling and Exploration	762	745
Corporate Office	53	53
	1772	1742

Consolidated Balance Sheet
as at December 31, 1983
(with December 31, 1982 figures for comparison)
Sherritt Gordon Mines Limited
(thousands of dollars)

Assets		1983	1982
Current	Cash, including interest-bearing deposits	\$ 5,530	\$ 364
	Accounts receivable	53,723	51,428
	Inventories (note 2)	68,476	77,952
	Prepaid expenses	1,996	3,180
		129,725	132,924
Fixed (note 3)		497,205	453,254
Other	Investments (note 4)	5,049	7,086
	Employee housing and other loans	5,180	6,151
	Deferred foreign exchange loss (note 6)	4,405	1,052
	Patents and non-producing assets	1,217	1,298
		15,851	15,587
		\$642,781	\$601,765
Liabilities and Shareholders' Equity			
Current	Bank indebtedness (note 5)	s –	\$ 63,242
	Accounts payable	53,535	54,944
	Dividend payable	1,163	
	Income and mining taxes	2,904	4,102
	Current portion of long-term liabilities	16,140	2,920
		73,742	125,208
Long-term Liabilities (note 6)		251,185	237,204
Provision For Future Income and M	lining Taxes	42,746	42,910
Shareholders' Equity	Stated capital (note 7)	110,012	75,378
	Contributed surplus (note 7)	71,168	26,359
	Retained earnings	93,928	94,706
		275,108	196,443
		\$642,781	\$601,765

Approved by the Board of Directors: Edward L. Donegan, Director David D. Thomas, Director

			1983		1982
Revenue		\$3	37,083	\$2	274,748
Costs and expenses	Operating costs	2	277,796	2	249,300
	Interest (note 9)		18,060		186
	Technology		1,774		1,322
	Exploration		2,619		2,864
	Selling and administration		8,868		8,917
	Depreciation and amortization		22,842		11,273
	Income and mining taxes (note 10)		288		(1,411)
<b>全社任务工作员</b> (1970年) 1970年		3	32,247	2	272,451
Earnings before unusual items			4,836		2,297
Unusual items net of tax		\$		\$	(3,005)
Net earnings (loss)		\$	4,836	\$	(708)
					( 20)
Earnings (loss) per common share	Before unusual items	\$	.01	\$	(.29)
(note 7)	After unusual items	\$	.01	\$	(.52)
Dividends per common share		\$	.045	\$	.04

# Consolidated Statement of Retained Earnings for the year ended December 31, 1983 (with 1982 figures for comparison) (thousands of dollars)

		THE REAL PROPERTY OF THE PARTY
	1983	1982
Balance at beginning of the year Net earnings (loss)	\$ 94,706 4,836	\$101,913 (708)
	99,542	101,205
Dividends — Common — Preferred	960 4,654	515 5,984
	5,614	6,499
Balance at end of the year	\$ 93,928	\$ 94,706

# Consolidated Statement of Changes in Financial Position for the year ended December 31, 1983 (with 1982 figures for comparison) (thousands of dollars)

		1983	1982
Working capital was obtained from	Operations	State of the state of	THE RESERVE
	Net earnings (loss)	\$ 4,836	\$ (708
	Items not affecting working capital		
	Depreciation and amortization	22,842	11,273
	Future income and mining taxes	1,000	(1,442
	Unusual items		4,950
		28,678	14,073
	Issue of common shares	78,262	151
	Increase in long-term liabilities	26,768	177,525
	Other items	4,229	1,133
		137,937	192,882
Working capital was used for	Fixed assets		
	Fertilizers and chemicals	61,752	232,372
	Metal refining	604	1,008
	Fabricated metal products	56	331
	Mining	4,645	3,641
	Oil and gas	859	2,588
		67,916	239,940
	Dividends	5,614	6,499
	Reduction of long-term liabilities	16,140	2,920
		89,670	249,359
Increase (decrease) in working capital		48,267	(56,477
Working capital at beginning of the year	r	7,716	64,193
Working capital at end of the year		\$ 55,983	\$ 7,716
Analysis of increase (decrease)			
in working capital (Decrease) increase in current assets	Cash, including interest-bearing deposits	\$ 5,166	\$ 18
(Decrease) increase in current assets	Accounts receivable	2,295	(14,193
	Income and mining taxes recoverable		(13,097
	Inventories	(9,476)	(17,920
	Prepaid expenses	(1,184)	1,908
		(3,199)	(43,284
Decrease (increase) in current liabilities	s Bank indebtedness	63,242	(20,689
	Accounts payable	1,409	11,598
	Dividend payable	(1,163)	
		1 100	(4,102
	Income and mining taxes	1,198	(4,102
	Current portion of long-term liabilities	(13,220)	(4,102
			(13,193

### **Notes To Consolidated Financial Statements**

#### 1. Summary of Significant Accounting Policies

a) Presentation of Financial Statements

The consolidated financial statements include the accounts of Sherritt Gordon Mines Limited and its subsidiary companies.

b) Translation of Foreign Currencies

Transactions in foreign currencies are translated into Canadian dollars at rates prevailing at the time of such transactions. Current assets, current liabilities and long-term liabilities are translated at the rate of exchange at year end. Long-term liabilities are hedged by future revenue streams and exchange gains or losses are deferred and included in earnings as the liabilities are paid.

c) Revenue Recognition

Revenue is recognized at the time of shipment except for revenue from metals contained in mine concentrates which is recognized in the month of production and is subject to adjustment on, or prior to, settlement to reflect changes in settlement quantities and market prices.

d) Inventory Valuation

Finished products (excluding mine concentrates), raw materials, materials in process, and operating supplies are valued at the lower of average cost and net realizable value. Mine concentrates are valued at estimated net realizable value.

e) Exploration and Development Costs

Minerals — Costs of exploring for new ore occurrences are charged to earnings 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.

Oil and gas — Costs of exploring for oil and gas are accounted for using the full-cost method under which costs incurred in acquiring, exploring and developing properties are capitalized. The costs capitalized are limited to the present value of estimated future net revenues from proven and probable reserves plus the estimated value of unproven properties.

f) Fixed Assets

Fixed assets are stated at cost which includes capitalized interest incurred on major projects during the period of construction.

Depreciation of plant and equipment costs and amortization of development costs are determined as follows:

(i) Fertilizer and chemical plants — fertilizer plants brought into production in 1983 on a unit of production method based on estimated productive lives of twenty years. Other plants on a straight-line method over their estimated useful lives.

(ii) Metal refining and fabricated metal plants — on a straight-line method over their estimated useful lives.
(iii) Mining — on a unit of production method based on metallic content of the estimated recoverable ore reserves under mining plans currently in effect.
(iv) Oil and gas — on a unit of production method based on the energy equivalent of estimated recoverable proven and probable reserves.

g) Income and Mining Taxes

The company follows the tax-allocation method of providing for income and mining taxes. Taxable income may be different from reported earnings before taxes principally because 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 using the tax-allocation method is accumulated and carried forward in the balance sheet under the heading provision for future income and mining taxes.

#### 2. Inventories

(thousands of dollars)	1983	1982
Fertilizers and chemicals	\$11,906	\$10,788
Refined metal products	18,657	23,069
Mine concentrates	9,868	12,251
Raw materials and materials in process	8,133	13,886
Operating supplies	19,912	17,958
	\$68,476	\$77,952

#### 3. Fixed Assets

	Pro	Property, plant and equipment				
(thousands of dollars)	Cost	Accumulated depreciation	Net cost	and exploration costs	Total	
Fertilizers and chemicals	\$448,828	\$ 56,116	\$392,712	s –	\$392,712	
Metal refining	39,093	29,694	9,399		9,399	
Fabricated metal products	16,583	6,058	10,525		10,525	
Mining	96,661	62,090	34,571	. 30,784	65,355	
Oil and gas				19,214	19,214	
1983	\$601,165	\$153,958	\$447,207	\$49,998	\$497,205	
1982	\$538,866	\$134,818	\$404,048	\$49,206	\$453,254	
	THE RESIDENCE OF THE PARTY OF T	The same of the sa	THE RESERVE THE PERSON NAMED IN	I I The second second second		

#### 4. Investments 1983 1982 (thousands of dollars) Marinduque Mining and Industrial Corporation 5.875.377 common shares - quoted market value \$1,828,000 (1982: 9,021,177 common shares - quoted market value \$6,470 \$4.214 \$4.852.000) BowRio Resources Limited 600,000 common shares - no quoted 600 market value 600 235 16 Other companies \$5,049 \$7,086

These investments are carried at cost.

#### 5. Bank Indebtedness

The company has bank operating lines of credit of \$90,000,000 which are secured by a fixed and floating charge on the company's assets (with the exception of certain mineral and oil and gas properties and investments), and a \$40,000,000 fertilizer project operating line of credit, the security for which is described in note 6.

6. Long-term Liabilities

(thousands of dollars)	1983	1982
Project Loan — fertilizer expansion		
U.S. dollars \$212,474,000		
(1982: \$136,029,000)	\$264,405	\$167,234
Canadian dollars	-	67,050
	264,405	234,284
Deduct current portion	13,220	
	\$251,185	\$234,284
Other Long-term Liabilities		
Petroleum and natural gas rights	2,920	5,840
Deduct current portion	2,920	2,920
		2,920
Total Long-term Liabilities	\$251,185	\$237,204

#### Project Loan

Financing for the fertilizer expansion completed in 1983 was provided through a project loan by two Canadian chartered banks. The loan agreement provides for both a long-term loan and an operating line of credit. The banks' recourse with respect to 90% of the long-term loan and all of the operating line of credit is limited to the realization of their security which is a charge on the new plant facilities and the inventories and receivables of the company's nitrogen fertilizer business. The balance of the long-term loan is a general obligation of the company and is secured by a fixed and floating charge on the company's assets (with the exception of certain mineral and oil and gas properties and investments). Subsequent to the end of the year, the banks agreed to increase the limited recourse debt to include all of the long-term loan.

Repayment of the long-term loan will be in twenty semi-annual instalments commencing March 31, 1984. Scheduled repayments of the loan over the next five years are — 1984: \$13,220,000; 1985: \$15,864,000; 1986: \$18,508,000; 1987: \$21,152,000 and 1988: \$23,796,000. There is provision for deferral of certain repayments of the long-term loan if cash flows from the project and existing nitrogen fertilizer business are insufficient to meet scheduled repayments. There is also provision for limited prepayments when such cash flow exceeds scheduled repayments.

Interest rates vary with short-term market rates or may be fixed at rates agreed with the lenders. At December 31, 1983 the composite rate on the total amount outstanding was 11.38% (1982: 12.22%).

Under the terms of the project loan agreement, the company is required to meet certain financial covenants dealing with current ratio, debt/equity ratio and interest coverage ratios. These covenants which must be complied with either quarterly or annually were met by the company for 1983.

Special Term Loan

In 1983, the company entered into an agreement with its bankers for a term loan facility of \$50,000,000 secured by a fixed and floating charge on the company's assets (with the exception of certain mineral and oil and gas properties and investments). These funds have not been drawn down to date and are available until February 10, 1985.

Deferred Foreign Exchange Loss

In 1983, the company adopted the new recommendations of the Canadian Institute of Chartered Accountants on foreign currency translation which provide for recognition of future foreign currency revenue streams as a hedge of a foreign currency liability. The unrealized loss on exchange on the project loan, amounting to \$4,405,000 at December 31, 1983, is therefore recorded as a deferred charge and will be included in earnings as loan repayments are made. Previously, the company had amortized unrealized exchange gains or losses to income over the remaining life of the liability, and the balance of the project loan at December 31, 1982 was recorded net of the unamortized exchange loss at that date amounting to \$1,052,000. The adoption of the recommendations does not materially affect the results of either the current or prior years. The 1982 balance sheet comparative figures for the project loan and the deferred foreign exchange loss have been restated to conform with the presentation adopted in 1983.

#### 7. Stated Capital and Contributed Surplus

(thousands of dollars)

Authorized capital 25,000,000 common shares, without par value (1982: 20,000,000 common shares, par value \$1 each) 7,500,000 preferred shares, without par value

Issued and fully paid	Number of shares	Stated capital	Contributed surplus
Common			
January 1, 1983	12,878,570	\$ 12,878	\$ 26,359
Issued for cash			
March 28 - public issue			
@ \$8.75 per share	5,941,523	5,942	44,797
October 18 - private placement			
@ \$11.65 per share	2,500,000	28,562	-
Employee share purchase plan at prices averaging \$8.72			
per share	16,290	130	12
December 31, 1983	21,336,383	47,512	71,168
Preferred Series "A"	3,125,000	62,500	-
		\$110,012	\$ 71,168

Effective July 29, 1983, the common shares of the company were deemed to be changed from par value shares into shares without par value to comply with the requirements of the Ontario Business Corporations Act, 1982. At a special general meeting of shareholders held on October 17, 1983 the authorized capital of the company was increased by the creation of an additional 5,000,000 common shares without par value.

Share issue expenses and underwriting commissions deducted from the proceeds of shares issued during the year amounted to \$2,994,000 less future income

taxes of \$1,181,000. The net proceeds from shares issued prior to July 29, 1983 in excess of par value were credited to contributed surplus.

The series "A" Preferred Shares provide for a cumulative floating rate dividend, payable quarterly on the stated capital amount. The dividend rate varies with the interest rate charged by a Canadian bank to prime commercial borrowers. At December 31, 1983 the dividend rate was 7.39% (1982: 7.78%). The shares are redeemable in whole or in part at any time at the company's option, after July 1, 1991 at the holder's option, and commencing July 1, 1985 at a rate of \$3,125,000 per annum. The redemption price per share cannot exceed the amount paid up plus accrued dividends.

Earnings per common share are calculated after deducting dividends on preferred shares. The weighted average number of common shares outstanding during the year was 17,941,844 (1982: 12,861,519).

#### 8. Employee Share Purchase Plan

Under the Employee Share Purchase Plan employees with one year of service are entitled to subscribe, up to a maximum of five percent of annual compensation, for common shares of the company and to pay for them 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 dates (July 12, 1982 and June 20, 1983), or the average market price on the completion dates of purchase. At December 31, 1983 there were outstanding purchase arrangements with employees having an aggregate value of \$1,063,000 (1982: \$891,000).

#### 9. Interest

Interest expense comprises:

(thousands of dollars).	1983	1982
Interest on current bank indebtedness	\$ 2,240	\$ 5,320
Interest on long-term liabilities	29,362	19,997
	31,602	25,317
Capitalized interest on major projects		
during construction	13,542	25,131
Interest expense - net	\$18,060	\$ 186
		THE RESERVE AND ADDRESS OF THE PERSON NAMED IN

#### 10. Income and Mining Taxes

Income and mining taxes charged against earnings reflect a number of adjustments to the statutory rates of taxes payable as follows:

(thousands of dollars)		1983	1982
Combined federal and provincial income taxes			
at a basic rate of 51.3%	\$	2,629	\$ 454
Inventory allowance	(	1,008)	(1,250)
Investment tax credits and other allowances		(556)	215
Reduction of tax provisions of prior years		(696)	
Other adjustments		(81)	242
Federal and provincial income taxes		288	(339)
Manitoba mining tax		-	(1,072)
	\$	288	\$(1,411)

At December 31, 1983 depreciation and exploration and development expenditures charged against earnings exceeded the amounts claimed for Manitoba mining tax purposes by approximately \$30,000,000. In addition the company has investment tax credits of approximately \$19,500,000 available for application against Canadian federal income tax liabilities. These credits may be carried forward to future years but if unutilized will expire over the period 1986 to 1988.

The potential income and mining tax benefits which may arise from the above items will be recorded in the accounts if and when realized.

#### 11. Pension Plans

The company maintains pension plans for salaried and hourly-paid employees.

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 total cost of employee pension plans charged against earnings for the year ended December 31, 1983 amounted to \$957,000 (1982: \$878,000).

At December 31, 1983 unfunded liabilities for past service costs under these pension plans amounted to \$3,410,000 (1982: \$4,170,000).

#### 12. Commitments and Guarantees

Lease Commitments

The company is committed to payments under operating leases for equipment and business premises through to 1992 in the amount of approximately \$11,640,000. Annual payments for the next five years are — 1984: \$2,060,000; 1985: \$1,880,000; 1986: \$1,500,000; 1987: \$1,460,000 and 1988: \$1,430,000. Townsites and Government

Certain expenditures incurred by the Province of Manitoba and the Local Government District 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 \$700,000 annually in addition to normal municipal taxes. The company has guaranteed the repayment of the debts incurred on account of these expenditures, which obligations totalled \$6,510,000 at December 31, 1983.

Manitoba Hydro

Under agreements with Manitoba Hydro, the cost incurred by them of certain transmission lines to the company's mining properties is being paid by the company over periods up to the year 2016. The company's obligation under these agreements amounted to \$1,380,000 at December 31, 1983.

#### 13. Quarterly Financial Information (unaudited)

(thousands of dollars exce	pt ed	arnings	pe	er share)						
		First Quarter		Second Quarter		Third Quarter		Fourth	Year	
1983	Q							uarter		
Revenue	\$6	7,667	\$	109,103	\$7	0,464	\$8	39,849	\$337,083	
Earnings (loss) Earnings (loss)		2,468		8,162	(	5,516)		(278)	4,836	
per common share	s	.10	\$	.42	s	(.42)	\$	(.09)	\$ .01	
1982										
Revenue	\$7	8,902	\$	80,383	\$4	4,105	\$	71,358	\$274,748	
Earnings (loss)										
before unusual items		510		3,910	(	4,191)		2,068	2,297	
(Loss) earnings		510		3,910	(	4,191)		(937)	(708	
(Loss) earnings per common share										
Before unusual items	\$	(.08)	\$	.18	\$	(.45)	\$	.06	\$ (.29	
After unusual items	\$	(.08)	\$	.18	\$	(.45)	\$	(.17)	\$ (.52	

Management is responsible for the preparation of the accompanying consolidated financial statements of the company in accordance with generally accepted accounting principles, and for other financial and operating information, which information is consistent with the financial statements presented in this annual report.

Systems of internal control are maintained by the company to provide reasonable assurance of the completeness and accuracy of the financial information. These systems include the delegation of authority and segregation of responsibilities among qualified personnel in accordance with operating and financial policies and procedures.

The board of directors appoints an audit committee which meets at least twice a year with representatives of the company's financial department and the company's independent auditors. The committee reviews the company's accounting policies, systems of internal control and the scope and results of the independent auditors' examination of the company's financial statements.

The independent auditors who are appointed by the shareholders examine and report on the financial statements of the company in accordance with generally accepted auditing standards. Their report to the shareholders of the company is set out opposite.

The consolidated financial statements in the annual report have been reviewed and approved by the board of directors and the audit committee.

February 17, 1984

To the Shareholders of Sherritt Gordon Mines Limited:

We have examined the consolidated balance sheet of Sherritt Gordon Mines Limited as at December 31, 1983 and the consolidated statements of earnings, retained earnings, changes in financial position and segmented information 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, 1983 and the results of its operations, the changes in its financial position and the segmented information for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Deloitte Haskins & Sells Chartered Accountants

Toronto, Ontario January 24, 1984

#### Reporting the Effects of Changing Prices

The Canadian Institute of Chartered Accountants has issued recommendations for reporting certain effects of changing prices on an enterprise, as well as changes in the general purchasing power of the dollar. The disclosures are to be provided in the form of supplementary information and do not change the basic historical cost financial statements.

The basis of these supplementary disclosures, which is termed 'current cost accounting', attempts by various methods, including the use of price indices, to restate the value of inventories and fixed assets in current dollars and to use the restated amounts to determine cost of sales and depreciation in a "current cost" statement of earnings.

These reporting recommendations are not part of generally accepted accounting principles, nor are they required under the Ontario Securities Act. They are an attempt to measure and report upon the impact of changing prices on a business operation, and are still in the experimental stage.

The management of the company considers the preparation of the information to be costly, subjective in nature and of questionable value in terms of its significance. Because of the doubtful value of providing this information, it is not included in this Annual Report.

The company will continue to monitor developments in this area of financial reporting.

## **Consolidated Statement of Segmented Information**

for the year ended December 31, 198. (with 1982 figures for comparison) (thousands of dollars)

Industry Segments	and	Fertilizers Chemicals	Me	tal Refining		Fabricated I Products		Mining		Other	С	onsolidated
	1983	1982	1983	1982	1983	1982	1983	1982	1983	1982	1983	1982
Sales to customers Inter-segment sales	\$114,618 —	\$ 84,321 -	\$117,384 5,579	\$112,483 10,307	\$15,970 —	\$20,856 —	\$83,818 -	\$ 52,811 -	\$ 5,293 —	\$ 4,277_	\$337,083	\$274,748
Total revenue	\$114,618	\$ 84,321	\$122,963	\$122,790	\$15,970	\$20,856	\$83,818	\$ 52,811	\$ 5,293	\$ 4,277		
Operating profit (loss)	\$ 22,740	\$ 18,302	\$ 8,693	\$ (2,337)	\$ 2,326	\$ 2,781	\$ (7,021)	\$ (13,223)	\$ 3,386	\$ 2,975	\$ 30,124	\$ 8,498
Interest	\$ 17,827	\$ 53	s 134	\$ 78	S 12	\$ 19	\$ 87	\$ 36	\$ -	s –	\$ 18,060	\$ 186
	\$ 4,913	\$ 18,249	\$ 8,559	\$ (2,415)	\$ 2,314	\$ 2,762	\$ (7,108)	\$ (13,259)	\$ 3,386	\$ 2,975	\$ 12,064	\$ 8,312
Costs not allocated to segments Exploration General corporate expenses Income and mining taxes											2,619 4,321 288	2,864 4,562 (1,411)
Earnings before unusual items											\$ 7,228 \$ 4,836	\$ 6,015 \$ 2.297
Identifiable assets	\$431,806	\$382,990	\$ 56,883	\$ 59,268	\$20,572	\$26,534	\$95,826	\$100,972	\$37,694	\$32,001	\$642,781	\$601,765
Capital expenditures	\$ 61,752	\$232,372	\$ 604	\$ 1,008	\$ 56	\$ 331	\$ 4,645	\$ 3,641	\$ 859	\$ 2,588	\$ 67,916	\$239,940
Depreciation and amortization	\$ 9,865	\$ 2,697	\$ 849	\$ 867	\$ 738	s 382	\$10,914	\$ 7,096	\$ 476	\$ 231	\$ 22,842	\$ 11,273

# Notes to Consolidated Statement of Segmented Information

1. Industry Segments

Sherritt has four major areas of business: fertilizers and chemicals, metal refining, fabricated metal products and mining. The rest of the company's activities are designated as "other".

Fertilizers and Chemicals

At Fort Saskatchewan, Alberta, about 17 miles northeast of Edmonton, Sherritt produces nitrogen and phosphate fertilizers as well as sulphuric acid, hydrogen sulphide, carbon disulphide, and xanthates. Feedstock consists of natural gas, acquired locally for nitrogen fertilizers and phosphate rock, acquired mainly from Florida for phosphate fertilizers. Sherritt's fertilizer products are marketed mainly in the prairie provinces of Canada and the northwestern United States. Some modest amounts are shipped to other export markets.

Metal Refining

At Fort Saskatchewan, Sherritt also operates a nickel refinery and a cobalt refinery. The refinery feedstock is either purchased or custom refined on a fee basis. The nickel and cobalt metal is sold worldwide, in the form of briquettes, plates, or powder. Some of the refined nickel and cobalt is sold internally for further processing or fabrication.

Fabricated Metal Products

Sherritt's fabricated metals facilities, also at Fort Saskatchewan, produce a range of special metal powders, strip and sheet products and coinage blanks. The Sherritt Mint produces a variety of coins and medallions. Most of these fabricated products are marketed in North America. Coinage products are produced to order for a number of central banks throughout the world.

Mining

The headquarters of Sherritt's mining operations are in Lynn Lake, Manitoba, about 500 air miles due north of Winnipeg. Currently operating properties are Fox Mine, about 28 miles southwest of Lynn Lake, and Ruttan Mine, about 80 miles southeast of Lynn Lake. Both properties are copper/zinc mines, yielding gold and silver as by-products. The copper and zinc concentrates produced at the two mines are shipped to Canadian refineries for further

processing. The refined copper and zinc are sold mainly in North America and Europe.

Other

Included in this category are technology licensing and research services conducted at Fort Saskatchewan, oil and gas activities and transactions of a corporate nature.

2. Geographic Segments

There are no significant foreign geographic segments in which company operations are conducted.

3. Inter-segment Sales

Inter-segment sales of metal from the metal refining segment to fabricated metal products are accounted for at prices comparable to those realized on sales to unaffiliated customers.

4. Export Sales

Direct export shipments, principally to customers in the United States and Europe, amounted to \$46,168,000 (1982: \$36,330,000). In addition, a major portion of metal refinery and mine production output, while sold to Canadian customers, is ultimately shipped to destinations outside of Canada.

#### 5. Interes

Interest on the fertilizer project loan is allocated to fertilizers and chemicals. Interest on current bank indebtedness is allocated to industry segments based on receivables and inventories.

# Ten-Year Record 1974-1983 (figures in thousands except share prices and per share figures)

	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974
Decidentian	1505	1502	1301	1,500	2313	1570	*8.11	1010		
Production Fertilizers (tonnes)										
Nitrogen	498	251	284	251	253	249	240	233	229	209
Phosphates	85	108	113	101	106	94	109	59	120	108
Nickel (lb.)	44,275	38,724	38,232	35,792	32,018	26,920	26,688	27,708	27,937	26,172
Cobalt (lb.)	1,871	1,729	2,014	1,526	1,333	1,145	1,011	658	560	410
Fabricated metal products (lb.)	2,666	3,645	4,388	6,735	7,327	5,057	5,355	2,763	3,887	4,455
Payable metals in concentrates										
Copper (lb.)	66,222	49,785	63,527	81,228	74,687	73,895	75,489	76,009	87,005	100,399
Zinc (lb.)	27,430	10,260	44,991	41,473	52,959	74,695	87,477	95,369	99,953	79,102
Gold (oz.)	17	11	16	21	17	19	21	22	25	29
Silver (oz.)	375	231	365	499	406	473	479	484	555	749
Financial Information		THE DE		0-10 E	STEEL!	11 224	1 11/10			
Revenue										
Fertilizers and chemicals	\$114,618	\$ 84,321	\$ 87,492	\$ 66,690	\$ 55,328	\$ 49,247				
Metal refining	117,384	112,483	117,832	120,978	90,857	67,843				
Fabricated metal products	15,970	20,856	26,447	34,223	34,584	20,277				
Mining	83,818	52,811	91,048	133,085	119,579	91,862				
Other	5,293	4,277	3,851	4,912	4,226	2,150				
Total	\$337,083	\$274,748	\$326,670	\$359,888	\$304,574	\$231,379	\$182,392	\$183,062	\$195,352	\$195,086
Operating profit (loss) Fertilizers and chemicals	\$ 22,740	\$ 18,302	\$ 21 049	s 20,709	S 17,744	\$ 16,777				
Metal refining	8,693	(2,337)	19,556	20,607	26,379	11,132				
Fabricated metal products	2,326	2,781	746	5,751	11,119	4,722				
Mining	(7,021)	(13,223)	(25,521)	14,317	18,956	2,906				
Other	3,386	2,975	1,959	2,533	4,889	1,377				
	70 124	0.400	10.600	67.017	70.007	76.014	14 670	14 706	26,521	48,804
Total	30,124	8,498	18,688	63,917	79,087	36,914	14,638	14,706		
Interest	18,060	186	3,068	5,369	4,842	3,740	4,062	4,004	4,127	4,931
Exploration	2,619	2,864	7,209	9,212	1,661	596	879	802	1,082 2,764	1,349
General corporate expense Income and mining taxes	4,321 288	4,562 (1,411)	5,084 537	4,534 16,713	4,463 27,155	3,974 14,179	3,304 2,227	2,604 3,165	7,390	17,535
	0 1075			0.000.000	0 10 000	0 14 405	0 1166	0 4171	0 11 150	\$ 23,046
Earnings (loss) before unusual items	\$ 4,836	\$ 2,297	\$ 2,790	\$ 28,089	\$ 40,966	\$ 14,425	\$ 4,166		\$ 11,158	
Per Share	.01	(.29)	(.07)	2.19	3.20	1.13	.33	.32	.88	1.81
Unusual items	4 976	(3,005)	(11,118)		40,966	14,425	4,166	4,131	11,158	23,046
Net earnings (loss) Per Share	4,836	(.52)	(.94)		3.20	1.13	.33	.32	.88	1.81
Dividends Common	s 960	\$ 515	\$ 3,208	\$ 10,257	s 15,360	s 6,392	s 1,915	s 4,460	s 7,010	\$ 9.555
Per Share	.045	.04	.25	.80	1.20	.50	.15	.35	.55	.75
Preferred	4,654	5,984	3,713	-	-	-	-	-	-	-
			****			0.000	0.14.170	0 6100	0 11 517	0 14 500
Capital Expenditures	\$ 67,916 22,842	\$239,940 11,273	\$118,868 13,683	\$ 31,080	\$ 16,115 12,043	\$ 26,892 11,824	\$ 14,176 10,759	\$ 6,180 9,680	\$ 11,513 10,017	\$ 14,527 12,571
Depreciation	22,042	11,275	13,003	14,332	12,043	11,024	10,755	5,000	10,017	12,011
Cash flow from operations	\$ 28,678	\$ 14,073	\$ 31,067	\$ 46,144	\$ 57,346	\$ 32,483	\$ 15,509	\$ 14,605	\$ 25,156	\$ 45,519
Working capital	55,983	7,716	64,193	34,689	89,615	66,183	70,174	38,140	38,472	36,409
Long-term liabilities	251,185	237,204	61,547		59,106	62,621	57,764	24,731	29,564	34,194
Shareholders' equity	275,108	196,443	203,499	156,069	141,405	115,668	109,536	107,213	107,437	103,289
Invested capital	569,039	476,557	309,398	194,510	235,671	209,686	193,857	158,438	163,145	159,935
Return on shareholders' equity†	2.1%	1.1%	1.6%	18.9%	31.9%	12.8%	3.8%	3.8%	10.6%	23.9%
Return on invested capital†	2.8%	0.6%	1.1%	14.0%	20.5%	9.0%	3.2%	3.7%	8.2%	16.8%
Share price - high	\$14.00	\$ 8.88	\$18.13	\$19.38	\$14.13	\$ 8.75	\$ 6.88	\$ 8.25	\$ 7.88	\$15.63
- low	\$ 7.50	\$ 4.10	s 7.00	\$11.13	\$ 7.75	\$ 4.30	\$ 4.05	\$ 5.00	\$ 4.80	\$ 4.10
Ore Reserves++						ALC: EL AL				
Ruttan Mine										
Tons	23,951	23,143	24,809	25,037	27,045	28,771	30,439	32,047	43,600	45,900
% Copper	1.47	1.48	1.51	1.71	1.74	1.79	1.74	1.73	1.45	1.45
% Zinc	1.23	1.17	1.17	1.18	1.18	1.20	1.25	1.25	1.45	1.52
Fox Mine					TELLIFIC	A TOWN				7-75-1
Tons	1,299	1,910	2,608	5,411	5,917	6,333	7,093	7,836	8,700	10,700
% Copper	2.47	2.34	1.94	1.78	1.77	1.79	1.83	1.95	1.92	1.95
% Zinc	1.57	1.58	1.59	2.29	2.21	2.22	2.12	2.10	2.08	2.07

<sup>†</sup> Returns are calculated on average shareholders' equity and average invested capital using net earnings before extraordinary and unusual items. Return on invested capital is calculated on net earnings before extraordinary and unusual items adjusted for interest on long-term debt.

<sup>††</sup> Ore reserves are stated on a diluted basis from 1981 to 1983 and undiluted from 1973 to 1980. Reserves for Ruttan Mine for the years 1982 and 1983 include material excluded from mine plans.

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#### Listing

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