YEAR IN SUMMARY

885869

Myra Falls

onstruction of the Premier Gold Project, including a mill and related facilities, was started early in 1988 and continued throughout the year. Gold and silver production started in the spring of 1989.

Westmin and its joint venture partners have also continued an active exploration program at this new project to expand the ore reserve base beyond the original 10.5 year mine life. Plans for 1989 call for a continuing high level of exploration activity, with an approved budget of \$3.2 million.

The Premier Gold Project is expected to cost approximately \$92 million including working capital and the cost of ore stockpiling. During 1988 Westmin secured a low interest gold loan of \$44 million which will fund substantially all of its share of the capital and development costs.

Mill expansion at the Myra Falls Operations was completed mid-year, and mine development continued to progress towards full utilization of the new 4,000-tonne production capacity. However, the mine expansion has proved to be a challenge and the development schedule has not progressed as rapidly as planned. This resulted in deficiences in the number of workplaces and shortfalls in the grades and production levels. Despite these problems, there was a 26 per cent increase in the milling rate in 1988 compared to 1987, and together with higher prices for zinc and copper, the Myra Falls Operations enjoyed record levels of revenue and cash flow.

88 Annual Rept

Mining Division revenues for 1988 increased to \$114.3 million in 1988, a 32 per cent increase above \$86.5 million in 1987. Myra Falls revenues escalated sharply from \$80.4 million to \$98.9 million in 1988. Operating profit from coal and industrial minerals went up to \$11.3 million compared to \$6.1 million in 1987.

Cash flow from the Myra Falls Operations was up substantially to \$34.8 million in 1988 from \$26.5 million in 1987 while mine operating profit rose to \$15.3 million from \$10.3 million in 1987.

> Mining Properties in Canada



MYRA FALLS OPERATIONS

The Myra Falls Operations are located near the south end of Buttle Lake in Strathcona Park. A 90 km highway provides access from Campbell River, British Columbia.

4000-Tonne-Per-Day Expansion Program

The 4,000-tonne-per-day Mine, Mill and Plant Expansion Program, initiated in April of 1987, neared completion in 1988. Several mining delays affected production during the last half of the year. Although tonnages in excess of 4,000 tonnes per day were reached, this rate of production could not be sustained during the third and fourth quarters. Production is expected to average approximately 3,800 tonnes per day in 1989.

H-W Mine Operation

The H-W Mine produced 1,135,619 tonnes of ore during 1988 as compared to 898,242 tonnes in 1987; an increase of 26 per cent. However, underground development fell behind schedule during the summer and with fewer working areas available, zinc and silver grades suffered and insufficient ore was available to support the mill's new 4,000 tonne capacity.

Several production-oriented improvements are in progress including the adoption of a revamped preventative maintenance system to curb unscheduled equipment problems. An intensive exploration and stope development program is to be implemented in 1989 to meet production targets and increase ore reserves.

1987	Since Start-up
1,089,796	9,170,609
17.6	53.8
_	11.4
82.4	34.8
361	7,417
3,019	1,236
89.8	96.6
2.20	2.16
40.1	81.0
2.46	1.83
0.36	0.78
4.91	6.58
100,222	584,760
23.3	24.3
87.1	85.0
86,508	943,148
50.3	52.2
81.2	81.5
	50.3

Myra Falls Operations



Lynx Mine Operations

Production during 1988 was 119,505 tonnes as compared to 191,554 tonnes in 1987. The decline reflects the decreasing number of production workings at the Lynx Mine. The ramp access for the "S" Zone orebody below the 15 Level workings is progressing and ore entry is expected by June. The Lynx Mine is scheduled to produce 124,800 tonnes of ore during 1989.

Horizontal development will continue at an accelerated pace to ensure the timely availability of diamond drill stations throughout 1989.

Milling

The milling rate for 1988 averaged 3,467 tonnes per day compared with 3,019 tonnes for 1987. Although head grades for silver and zinc were slightly lower, production of zinc concentrates was up to 96,640 tonnes in 1988 compared to 86,508 in 1987. Production of copper concentrate was up to 118,790 tonnes from 100,222 in 1987.

Power

The Thelwood hydro unit has been inoperable since October of 1988 because

of a cave-in in the penstock tunnel. Restoration of the tunnel, which includes approximately 240 m of underground ramps, shotcreting and the installation of two concrete plugs, was completed. The unit was back in operation by March, 1989. The Tennent hydro complex operated satisfactorily throughout the year. During the temporary shut-down of the Thelwood hydro plant, additional diesel units were brought in to supplement the power supply for the Myra Falls Operations.

Mine Exploration

As of January 1, 1989, total ore reserves show a net loss of 419,800 tonnes in comparison with January 1, 1988. Tonnage depletion due to production was largely offset by additions to reserves through ore definition and exploration drilling.

An aggressive, diamond drilling program will continue in 1989. It will focus on the ore definition of the H-W Mine's north ore lenses and projected westerly extensions. Diamond drilling will also be used to explore to the east and south of the known H-W orebodies.

At the Lynx Mine the North and South Flank regions of the H-W Horizon will be tested from at least six major drill

Nine

	Proven & Probable Reserves	Au	Ag	Cu	РЬ	Zn
Mine	Tonnes	g/tonne	g/tonne	%	%	%
H-W Mine	10,799,200	2.33	33.90	2.48	0.34	5.03
Lynx Mine	261,600	2.63	77.01	1.37	0.78	7.61
Price Mine	209,500	1.23	53.14	1.10	1.07	8.31
Total Proven & Probable	11,270,300	2.32	35.26	2.43	0.36	5.15
	Possible Reserves					
Mine	Tonnes					
H-W Mine	798,400	1.95	21.51	1.16	0.20	5.64
Lynx Mine	33,000	2.58	75.05	1.35	0.78	7.60
Total Possible	831,400	1.98	23.64	1.17	0.22	5.72
Combined Total: Proven, Probable & Possible (January 1, 1989)	12,101,700	2.30	34.46	2.34	0.35	5.19
Combined Total: Proven, Probable & Possible (January 1, 1988)	12,521,500	2.40	37.68	2.40	0.36	5.28

Total Geological Reserves as of January 1, 1989

locations. Drilling will also be carried out on the westerly extension of the high-grade zinc ore of the "S" zone type.

Environment

Water quality monitoring for the Buttle Lake Drainage System indicated a "levelling off" in the rate of improvement during 1988. The quality consistently met the Federal guidelines for the protection of fresh-water aquatic life established in 1987.

A laboratory developed process to reduce or eliminate acid generation of sulphide bearing waste rock was field tested in 1988. Tests included the monitoring of waste rock test piles and the compiling of geochemical and hydrological information from the open pit waste dump. Continued monitoring and additional trial applications are planned during 1989.

Reclamation of several previously disturbed areas continued with surface recontouring and seeding.

An external audit, conducted for Westmin by an independent international environmental consultant, confirmed compliance with all pollution control permits and environmental legislation.

Health and Safety

Westmin continues to place major emphasis on safety and numerous safety-related improvements were implemented in 1988. In June, a Company-Union administered Employee and Family Assistance Program was initiated. Results, to date, have been extremely encouraging.



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The silver market mirrored the performance of gold in 1988, averaging US \$6.53 per ounce in the London markets, down US \$0.50 per ounce from 1987. Total available supplies of silver from primary and secondary sources more than offset a good level of industrial demand. Investment demand, however, declined over the year. The volume of stocks remains high. Reaction to the potential for a sharp reduction in Peruvian silver exports only provided a short-lived rally at mid-year.

The outlook for the precious metals in 1989 is mixed. Positive factors for the gold and silver markets would include higher oil prices, higher labour costs, and capacity constraints which could apply inflationary pressure to the economy. On the other side, higher interest rates and moderating economic growth in 1989 would take much of the upside potential out of the bullion markets.

Myra Falls Operations

1 tonne = 2,204.6 lbs.1 oz. = 31.1035 g

Payable	metal cont	tent of c	oncentra	tes-1	988
Copper	26,068	tonnes	57,470	(lbs.	× 1000)
Zinc	39,947	tonnes			
Lead	37	tonnes	82	(lbs.	× 1000)
Gold	1,364,450	grams	43,870	ounce	es 👘
Silver	25,283	kg	812,903	ounce	es 👘

London Spot Silver Price

Monthly Averages 1983–1988 US (\$) Per Troy Ounce



Western World Copper Metal Stocks



Western World Zinc Metal Stocks

Month-End Stocks 1983–1988 000's MT Zinc Metal 1,500



etroleum division

Through a strategy of market diversification, the Petroleum Division quickly adapted to the highly competitive marketing environment which evolved in 1988, securing a balanced mix of spot and direct long-term sales.