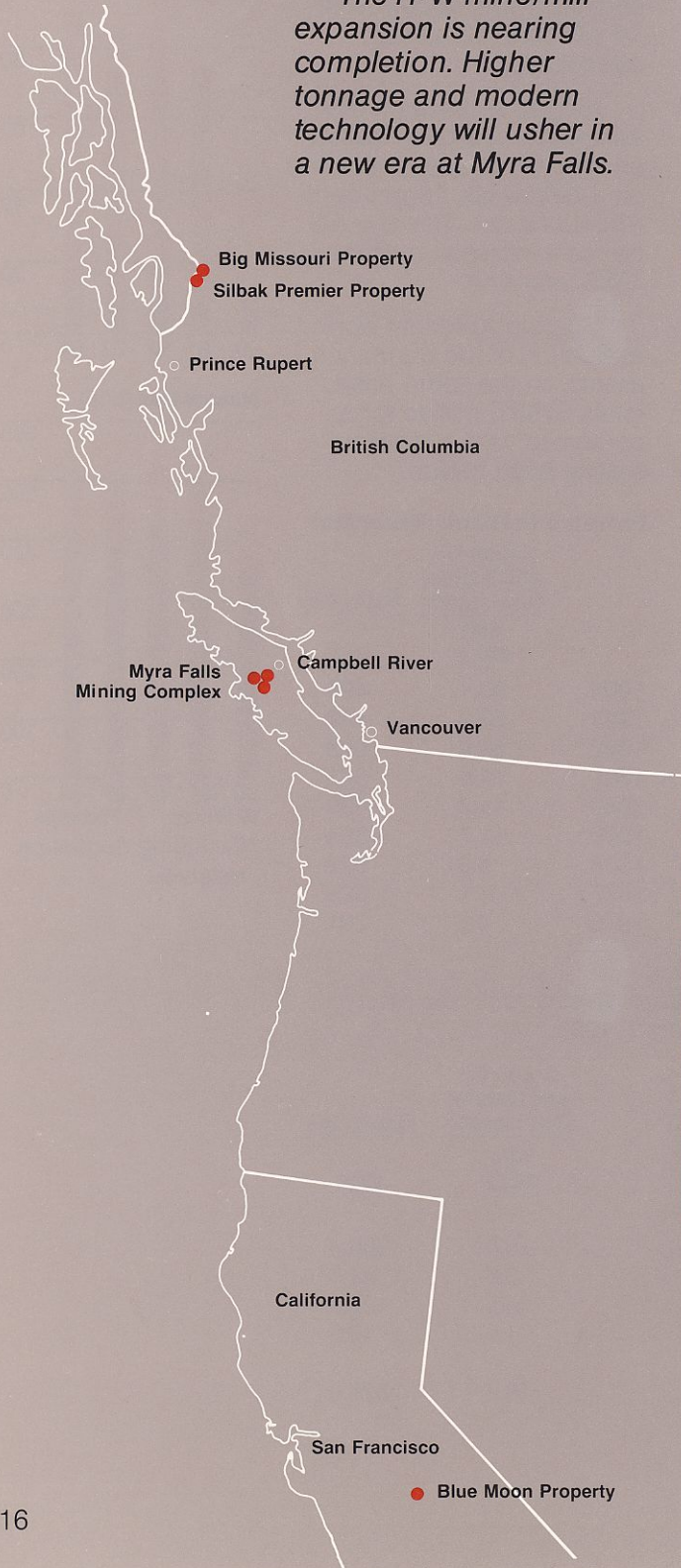


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# Mining Division

*The H-W mine/mill expansion is nearing completion. Higher tonnage and modern technology will usher in a new era at Myra Falls.*



● Areas of Activity

● Blue Moon Property

## Reserves

In every respect, Westmin's reserves of oil and natural gas show significant improvement over year-ago figures.

According to estimates prepared by McDaniel and Associates Consultants Ltd., Westmin's reserves of proven crude oil and natural gas liquids increased 18.5 per cent to 12.8 million barrels, while the combined total of 90.1 million barrels proven and probable is 7.4 per cent above year-ago levels.

This is before the January 1, 1985 effective date for acquisition of Sundance Oil Company production and reserves. Sproule Associates Limited place these reserves at 5.5 million barrels proven and 6.1 million barrels proven plus probable.

The Westmin reserves, combined with the Sundance interests, results in a 69.4 per cent increase in proven reserves to 18.3 million barrels, while proven plus probable increases 14.7 per cent to 96.2 million barrels.

A similar trend develops for natural gas. Westmin's own proven reserves increased by just over four per cent to 402.6 bcf, while proven plus probable was up about one per cent to 496 bcf.

The Sundance acquisition adds 127.3 bcf of proven gas to bring the total to 529.9 bcf or a 37.1 per cent increase over 1983 year-end figures. Proven plus probable rises by 140 bcf to 636 bcf or 29.3 per cent above year-ago levels.

Westmin's own gas reserves are located mainly in Alberta with Saskatchewan gaining in importance over the last two years. At year-end, approximately 52 per cent of the Company's gas reserves were dedicated and producing; 34 per cent were dedicated and shut-in, with 14 per cent remaining undedicated.

McDaniel places a present worth of \$426.6 million on Westmin's own reserves on a before tax, 15 per cent discount basis. This is a 5.3 per cent increase over the 1983 year-end.

Sproule's present worth evaluation of the Sundance assets, on the same basis, totals \$158.6 million for a combined total of approximately \$585 million.

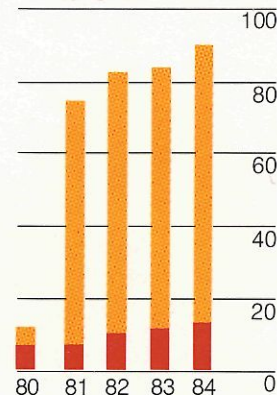
### Proven & Probable Reserves\*

	Crude Oil and Natural Gas Liquids	Sales Gas
	MM BBLs	BCF
1984	90.1	496
1983	83.9	492
1982	82.6	522
1981	74.5	501
1980	11.7	439
1979	11.7	384
1978	5.9	328
1977	4.1	325
1976	4.1	291

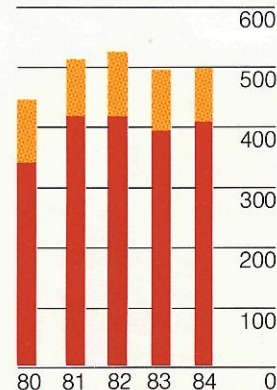
The following table shows the status of Westmin's proven reserves from December 31, 1983 to January 1, 1985.

Reserves Status	Crude Oil and Natural Gas Liquids	Sales Gas
	MM BBLs	BCF
• December 31, 1983	10.8	386.4
• Additions — 1984	3.6	32.5
• Acquisitions (Sundance)	5.5	127.3
• Sales — 1984	1.6	16.3
<b>Reserves Status</b>		
• January 1, 1985	18.3	526.0

### Reserves\* Crude Oil and Natural Gas Liquids (MMBBLs)



### Natural Gas (BCF)



\*Excluding Sundance reserves.

Diamond drilling to further define ore reserves continued throughout 1984. A total of 77,000 feet was completed to the end of December. Information is currently being integrated into an initial production plan and for the purposes of updating reserve data. Drilling results indicate ore grades will be above original expectations, above original expectations. However, at the present time, drill indicated geological reserves for the H-W orebody remain unchanged from 1982 and are as calculated in the accompanying table.

### Surface Construction

The new Shop/Warehouse and Office/Dry buildings were completed in July and occupied by the project construction staff. By year-end the mile-long overland ore conveyor was essentially complete, and the new 3000 ton per day concentrator was fully enclosed with mechanical/electrical installations in progress. The crusher, fine ore bins, grinding mills, flotation cells, filter and loadout mechanical installation were substantially complete, with electrical furnishings well under way. Construction of fresh and reclaim water and backfill handling systems were initiated and are scheduled for completion in early 1985.

### Infrastructure

As part of the expansion program, Westmin is upgrading the storage and shiploading facilities in Campbell River. Additional sources of hydro electric power are also being developed in order to meet the increased requirements of the expanded production facilities and to reduce the reliance on supplementary diesel power. At Tennant Lake, the existing

dam has been raised to increase the water storage capacity so that additional power will be available throughout the year. On Thelwood Creek, an adjacent watershed, a completely new system is under development. The new facilities, including an 8.5 megawatt generator, are expected to be fully operational by late March 1985.

### Environmental Control

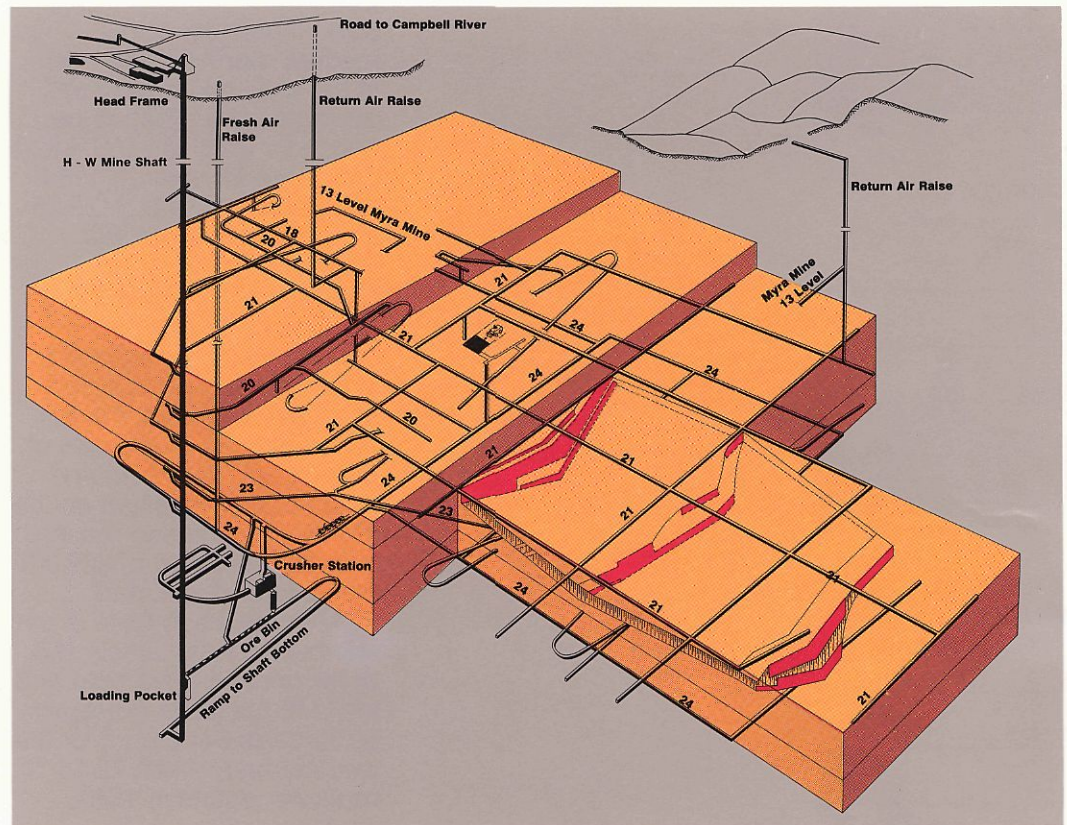
Construction has proceeded on a number of new environmental facilities in conjunction with the expansion program at Myra Falls. The first of a two stage on-land tailings disposal area was completed in early July. Construction of the second stage began in August and by the end of December the starter embankment, inclusive of underdrainage control systems, was complete. With

the commissioning of the initial stage of the new on-land disposal system in July, tailings deposition into Buttle Lake ceased.

The water collection and treatment system initiated in early 1983 continues to perform satisfactorily and government monitoring has confirmed that these and other improvements at the mine site have resulted in a significant improvement in water quality at Buttle Lake. This trend is expected to continue.

### H-W Reserves

Tons	Grade				
	Gold oz/ton	Silver oz/ton	Copper %	Lead %	Zinc %
15,232,000	0.07	1.1	2.2	0.3	5.3

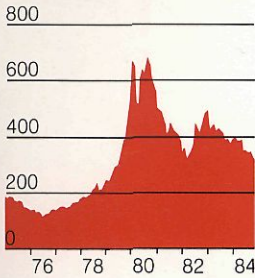


Multi-dimensional rendering of underground development at the new H-W mine.

■ Ore Zones

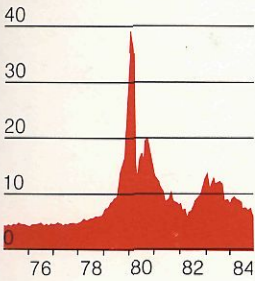
### Gold (U.S.\$./Troy oz.)

■ London p.m. fix



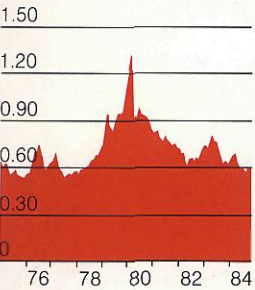
### Silver (U.S.\$./Troy oz.)

■ Handy & Harman



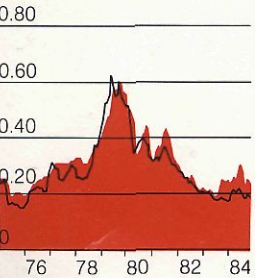
### Copper (U.S.\$./lb.)

■ L.M.E.



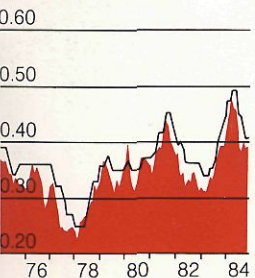
### Lead (U.S.\$./lb.)

■ U.S. Producer  
— L.M.E.



### Zinc (U.S.\$./lb.)

■ L.M.E.  
— Foreign Producer



## Marketing

*Strong economic growth in the United States combined with steadily improving trends in Japan and Europe had a favourable impact on base metal consumption, causing a sizeable reduction in refined metal stocks.*

The improved market fundamentals were, however, overshadowed by the effect on metal prices of the strong rise in the value of the U.S. dollar.

With the exception of zinc, dollar denominated prices proved quite disappointing, falling below the previous year's levels. Demand for concentrate remained firm with the Company selling its full production in North America and Japan.

### Gold and Silver

The gold and silver markets remained relatively quiet throughout the year. A modest increase in industrial demand for both metals was offset by the decline in speculative interest as the stronger U.S. dollar, lower inflation rates and declining oil prices caused investors to look elsewhere for potential gains. Following some modest improvements early in the year, prices declined, averaging U.S. \$360.45 per ounce for gold and U.S. \$8.14 per ounce for silver in 1984 compared with U.S. \$425.18 and U.S. \$11.44 in 1983.

### Copper

Consumption grew by nine per cent in response to increased economic activity in the United States, Europe and Japan. A continuation of price related cutbacks and closures kept pressure on the physical market and resulted in a net drawdown of 429,000 metric tons in LME and COMEX stocks. In spite of the improved fundamentals, U.S. dollar prices did not hold and the LME quotation averaged 62.50 cents per pound for the year compared with 72.15 cents per pound in 1983.

### Zinc

Consumption rose 2.1 per cent to 4.7 million tons, the highest level since 1979. Prices increased throughout the first half of the year, with U.S. Producers quoting up to 53.5 cents per pound in May and June and European Producers quoting \$1090 per ton (49.5 cents/lb). Demand and prices subsequently weakened and at year-end prices were 45 cents per pound and \$900 per metric ton (40.8 cents/lb) respectively. Demand for zinc has begun to firm and with reduced inventories, the outlook for 1985 remains positive.

### Lead

The lead market fundamentals showed modest improvement during the year due to improved consumption trends and strike-related production losses. While U.S. Producer Prices reached a peak of 32 cents during the second quarter, softening of demand combined with the strong U.S. dollar resulted in deterioration and by year-end, U.S. Producer and LME prices were 21 cents and 18.7 cents per pound, respectively.

### Payable Metals

(000's)	1984*	1983
Gold (oz.)	12	17
Silver (oz.)	542	781
Copper (lb.)	3,610	4,814
Lead (lb.)	3,273	4,195
Zinc (lb.)	24,373	28,317

\*Reflects effects of strike which eliminated production for entire first quarter.

Operations at the Myra Falls, Vancouver Island, mine-site in 1984 were highlighted by continued productivity improvements in mining, the delineation of additional ore reserves in the new West 'G' Zone of the Lynx mine and continued development and construction of the new H-W mine and mill complex, now scheduled for completion in the second quarter of 1985.

The completion schedule and production were adversely affected by the 4-1/2 month strike which lasted throughout the entire first quarter of 1984. Settlement was reached on March 27 and the new collective agreement extends to August 31, 1986.

Metal prices were generally disappointing in 1984. However, management rose to the challenge and redoubled its efforts to maintain an economically viable operation.

Improved mining and processing techniques are being applied at the Myra Falls operation and successful exploration efforts have resulted in the expansion of ore reserves at the Lynx mine and at two of the Company's most important exploration joint venture properties, Silbak-Premier and Blue Moon.

Completion of the H-W expansion should lead to very significant increases in cash flow as production climbs three-fold to 3,000 tons per day. Much more efficient trackless mining methods and the new modern mill will combine to sharply reduce costs.

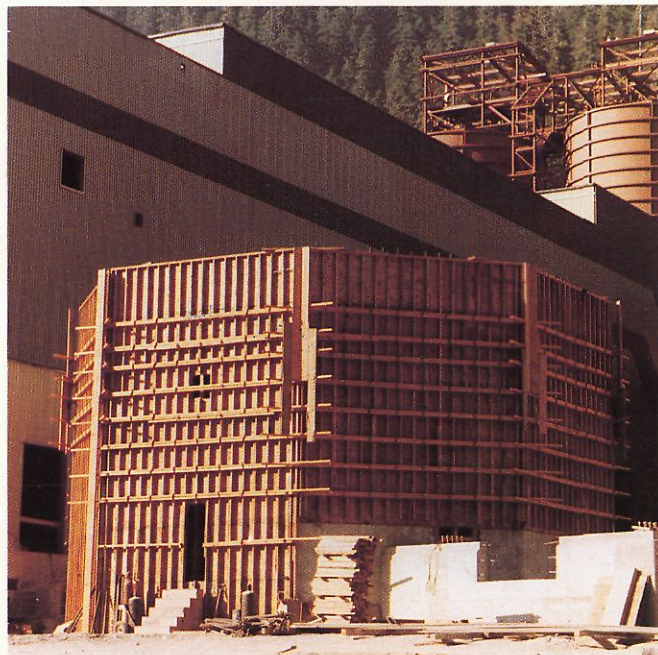
## Production

Productivity improvement programs continued in 1984 with the upgrading of the ore transportation system on level 15 of the Lynx mine and with the phasing in of mechanized bulk mining methods in some portions of the mine to replace the more costly cut-and-fill production method. The effectiveness of these programs was reflected in a slight reduction in costs per ton of ore despite rising costs of labour and fuel.

In support of ongoing operations and in preparation for the H-W mine, modular training programs for miners and training courses for all levels of staff, continued throughout 1984.

Steady progress in the safety and health programs was reflected in a three per cent reduction in accident frequency and a 55 per cent reduction in accident severity. Lost time accidents were reduced to 6.4 per 200,000 employee hours, the lowest this year for underground mines in British Columbia.

Total production for the year was 26,122 tons of zinc concentrate, 6,545 tons of copper concentrate and 4,424 tons of lead concentrate. Mill throughput of 224,470 tons of ore was 18 per cent below 1983 levels and well below normal as a result of the labour disruption which ended on March 27, 1984. The Lynx mine produced 72 per cent of the ore milled, with the remaining ore coming from Myra.



New Myra Falls mill and storage bins under construction.

## Production

		1984	1983
<b>Ore Milled</b>	— tons	224,470	273,787
<b>Daily Average</b>	— tons	905	928
<b>Source of Ore (%)</b>	— Lynx	72	77
	— Myra	28	23
<b>Head Grade</b>	— Gold (oz/ton)	0.07	0.08
	— Silver (oz/ton)	3.08	3.53
	— Copper (%)	1.02	1.10
	— Lead (%)	1.03	1.08
	— Zinc (%)	7.42	7.45
<b>Mill Recovery</b>	— Copper (%)	78.4	79.2
	— Lead (%)	77.9	77.7
	— Zinc (%)	84.2	83.5
<b>Concentrate Production</b>	— Copper (tons)	6,545	8,755
	— Lead (tons)	4,424	5,704
	— Zinc (tons)	26,122	32,244

## H-W Project

Completion of the expansion at the Myra Falls, Vancouver Island minesite is now expected in the second quarter of 1985, due to the labour dispute and delays in the underground development program.

The delays have led to capital and development expenditures above budget and they are now expected to total \$250 million. H-W ore is now being stockpiled in anticipation of mill start-up which is scheduled to begin early in the second quarter.

Financing for the project was arranged by a consortium of three banks on a limited recourse basis. Once completion tests have been achieved, financing will revert to a non-recourse basis.

## Mine Development

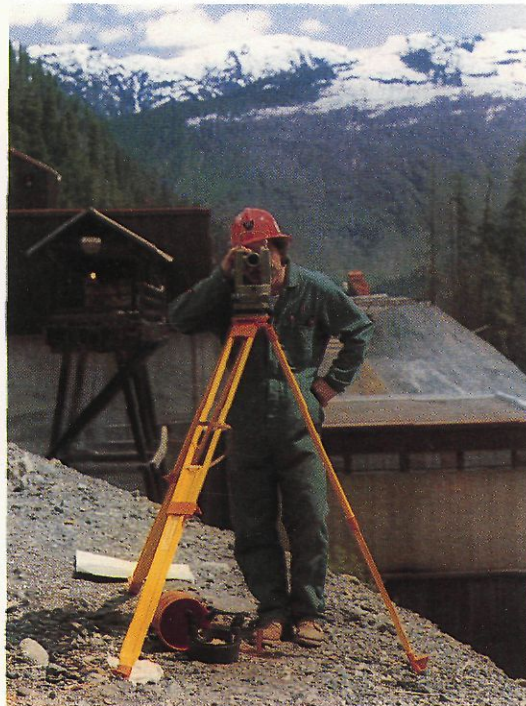
With the sinking of the H-W shaft essentially complete in 1983, mine development concentrated on further delineation of ore reserves, lateral development of the 20, 21 and 24 levels plus associated vertical development and infrastructure.

The main waste pass system between 20 and 24 levels and the main fresh air raise between 21 and 24 levels were completed in July. The ore pass system was completed in September, excavation of the coarse and fine ore underground bins was completed in November, and the crusher room excavation and one of the two fresh air ventilation raises to surface were near completion at year-end. Installation of permanent mechanical/electrical facilities commenced in January 1985.

## Development

Emphasis is being placed on developing proven ore reserves in the West 'G' Zone of the Lynx mine and in 1984, this program resulted in the upgrading of 90,800 tons of reserves to the proven classification. An aggressive development schedule is planned for the West 'G' Zone in 1985 and it should be possible to transfer 150,000 tons of indicated reserves to the proven category. With no development work at the Myra and Price mines in 1984 and only marginal extension of reserves in the Lynx 'S' and East 'G' Zones, there was a net decrease of 125,100 tons in proven reserves after allowing for tonnages milled during the year.

Total proven and indicated reserves as of January 1, 1985 are as follows:



	Proven Reserves Tons	Grade				
		Gold oz/ton	Silver oz/ton	Copper %	Lead %	Zinc %
Lynx Mine	512,600	.067	2.11	1.05	0.82	7.60
Myra Mine	14,300	.095	5.33	0.84	1.21	5.85
Price Mine	231,000	.036	1.55	1.10	1.07	8.31
<b>Total</b>	<b>757,900</b>	<b>.058</b>	<b>2.00</b>	<b>1.06</b>	<b>0.90</b>	<b>7.78</b>
	<b>Indicated Reserves</b>					
Lynx Mine	349,000	.079	2.74	0.90	0.87	7.74
	For comparison, total proven reserves as of January 1, 1984 were:					
	883,000	.060	2.10	1.00	0.90	7.70