

Eighth Annual Report
Falconbridge Nickel Mines
Limited

*For the Year Ending
December 31st, 1936*

Falconbridge Nickel Mines Limited

Falconbridge - Ontario



PRESIDENT

J. GORDON HARDY

VICE-PRESIDENTS

THAYER LINDSLEY

HALSTEAD LINDSLEY

SECRETARY and TREASURER

NORMAN F. PARKINSON

DIRECTORS

J. GORDON HARDY

HALSTEAD LINDSLEY

THAYER LINDSLEY

W. S. MORLOCK

NORMAN F. PARKINSON

H. WHITTINGHAM

MINE MANAGER

ERNEST CRAIG, Falconbridge, Ontario

CONSULTING METALLURGIST

ANTON GRONNINGSATER

TRANSFER AGENTS and REGISTRARS

TORONTO SHARE TRANSFER COMPANY, LIMITED

25 King St. West, Toronto

AUDITORS

CLARKSON, GORDON, DILWORTH & NASH

Toronto

FALCONBRIDGE NICKEL MINES LIMITED

Report of Directors

Toronto, 8th February, 1937.

To the Shareholders of
Falconbridge Nickel Mines, Limited.

The Directors present herewith the Annual Report for 1936, together with the audited statement of Accounts and Balance Sheet as of December 31st.

It was a year of continued progress in your Company's affairs, distinguished by an ambitious expansion of your mining, smelting and refining facilities, based on a concurrent substantial increase in your property's ore-reserves.

Earnings of \$1,873,607.05, or 55.6c per share, were made after provision for taxes, depreciation and deferred development, which provisions totalled \$966,817.57. Dividends of 30c per share, in the total amount of \$1,001,234.50, were paid.

In spite of an expensive shutdown of your smelting plant in September—by fire-destruction of the Government plant supplying power—the semi-processed stocks at the Refinery permitted the upkeep of production, and sales again recorded a high point, with 11,252,893 pounds of nickel, 5,149,215 pounds of copper, and precious metals to the value of \$160,658.49, being disposed of. Stocks were maintained in sufficiency and the new year was entered into with the largest backlog of orders in our history.

Mine development replaced the tonnage of ore extracted during the year, and in addition disclosed over one million tons more, so that ore-reserves now stand at over five million tons. It also showed ore-existence at 1,750 feet in depth, or over 500 feet deeper than the lowest horizon at which present ore-extraction is being carried out. Work in 1937 is scheduled to develop this deeper level, as also to sink the No. 1 shaft to 2,200 feet depth, and investigate the ore-occurrence at that horizon.

The very extensive construction programs, both at Falconbridge mine and smelter and at the Refinery in Norway, brought capital expenditures for 1936 to a total of \$2,140,624.14—much the greatest in our history. This was financed from our own resources, largely sales of securities from our portfolio which realized \$1,606,423.38 against their cost of \$1,170,687.61. The corresponding profit on these sales shows in the Profit and Loss Statement. The new equipment embraced in this expansion program has now gone into successful operation, and indicates a capacity for treating 36,000 tons monthly.

Labour and supply costs have gone up, and from January 1st, 1937, the price of nickel has had a ten per cent drop in markets outside of North America. To some extent this is offset by increased copper prices. Happily our expansion program was effected in the lower range of costs, so that your Company is equipped to confidently face the new conditions.

To the teamwork displayed by your employees, and by your sales-agents, your Directors attribute the measure of prosperity achieved and its insurance for the future.

On behalf of the Board,

J. GORDON HARDY,

President.

FALCONBRIDGE NICKEL MINES LIMITED

EIGHTH ANNUAL REPORT YEAR 1936

Falconbridge, Ontario, January 18th, 1937

Mr. J. Gordon Hardy, President,
and the Board of Directors,
Falconbridge Nickel Mines, Limited.

Dear Sirs:

Please receive herewith my report on operations at Falconbridge for the year 1936. Actual running time suffered a serious set-back in September when one of the Hydro plants supplying us with power was destroyed by fire, but otherwise the year was without special incident insofar as production was concerned, other than the unavoidable disturbances inflicted by the heavy construction program under way.

MINE DEVELOPMENT

Combined development footages completed on all levels during the year were as follows:

Drifting and Cross-Cutting (including Slashing)	14,157 feet
Raising (including Slashing)	1,408 feet
Ore Passes (including Slashing)	1,613 feet
Fill Passes including Slashing)	976 feet
Diamond Drilling	3,046 feet
Station Cutting	103,632 cu. feet
Shaft Sinking	400 feet
Shaft Raising	170 feet

Of the total of 14,157 feet of drifting and cross-cutting, 5,078 feet were along the ore zone on the different levels, the remainder being haulage drives. The 500 and 1,200 levels accounted for the major portion of the footage in ore and on the former the east drift was advanced to a point 2,816 feet east of the No. 5 Shaft. From the extreme west face of this level—west of No. 1 Shaft—to the above east face, the distance opened on the ore-zone totals 6,960 feet, much the greater proportion of which presents commercial ore. The year's advance measured 1,216 feet and was in payable, though low-grade ore. Generally speaking, the 500 level has been driven in a horizon of lower-than-average ore, but was selected as our spearhead for eastern advance from reasons of convenience.

On the 1,200 level—the other locale of special attention—the east drift from the No. 5 Shaft was advanced 1,179 feet and the west drift 1,467 feet. The latter connected with the No. 1 Shaft. This 1,200 level has now been opened a total distance along the ore-zone of 3,990 feet, of which 95% is in ore of good width and grade.

Other development footage in ore included 306 feet east on the 200 level and 367 feet west on the 1,000 level, both from No. 5 Shaft and in ore of average grade and width.

No. 5 Shaft was deepened 400 feet to a total of 1,813 feet. A large part of the year's work was applied to establishing stations and connections to the ore-zone from this shaft, the 650, 825 and 1,000 levels particularly, together with provisional stations on the 1,575 and 1,750 levels. Ore passes were also completed in this area from the 325 to the 1,200 levels, together with a loading-pocket for the skips on the 1,350. A crusher station was excavated and equipped on the 1,200 and was put into operation. Ample pumping capacity and sump storage was installed on this level—although the total water so far being handled only amounts to some 100 gallons per minute.

In the old No. 1 Shaft area, the new fill-pass system was completed from the 750 level to surface and filling of the old stopes commenced. The Shaft itself was deepened to the 1,200 and a connection provided with the No. 5 Shaft at that horizon.

A gradual increase in the amount of ore from cut-and-fill stopes took place during the year, until at present over 60% of the production is obtained by this method of stoping. This has resulted in a lessening of drawings from the old shrinkage stopes, with consequent little change in the broken ore reserves now reported.

ORE PRODUCTION

Mining activities for production during the year can be summarized as follows:

Broken Ore Reserves December 31st, 1935	387,337 tons
Ore Broken in Stopes during 1936	256,051 tons
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	643,388 tons
Less: Trammed from Stopes 1936	307,203 tons
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Broken Ore Balance December 31st, 1936	336,185 tons

Additionally, ore production came from development work, so that the tonnage delivered to the rockhouse and Ore-Dressing plant tabulates as follows:

Ore Trammed from Stopes 1936	307,203 tons
Ore from Development 1936	54,538 tons
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	361,741 tons
Less: Waste reject underground	4,270 tons
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Total delivered to Rockhouse, 1936	357,471 tons

Crushing and hand-sorting was there applied to the latter tonnage, with a rejection as waste of 26,983 tons, or 7.5%. The balance of 330,488 tons was transported to the Reduction Plant bins for treatment.

ORE RESERVES

The accompanying map will show the areas developed in 1936 which are now included in the ore reserves. Much the greater amount, of course, comes from the East Orebody in the No. 5 Shaft area and, as a whole, averages lower in grade than the old No. 1 Shaft workings. Departure from this condition is shown on the 1,200 or bottom level, where widths and ore-grades compare satisfactorily with the No. 1 Shaft exposures. It will be noted that no allowance has been made in the reserves below the 1,200 for ore exposed on that level. The figures we would present are as follows:

Ore Reserves as of December 31st, 1935	4,059,475 tons
New Ore added in 1936	1,633,342 tons
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	5,692,817 tons
Less: Ore Drawn during 1936	361,741 tons
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Ore Reserves as of December 31st, 1936	5,331,076 tons

(Averaging 1.81% Nickel and 0.88% Copper)

REDUCTION PLANT

The Reduction Plant was in operation 332.64 days in 1936. Suspension of operations was forced through the failure of power-supply when the Stinson generating station of Hydro was destroyed by fire in September. The opportunity was then taken to rush to completion the smelter extensions that were part of our 1936 expansion program and the consequent increased smelting capacity was thus made available when power service was resumed in October. The

definite trend in our metallurgical practice of eliminating waste-rock by mechanical concentration rather than by hand-sorting is evidenced by the increased proportion of ore milled, and this in turn permits the profitable treatment of lower grade ore.

The year's results show as follows:

Total Ore Treated		327,783 tons
Made up of: Milling Ore	126,782 tons	
Smelting Ore	201,001 tons	
Matte Produced		10,244.2 short tons
Nickel in Matte		5,682.5 short tons
Copper in Matte		2,644.4 short tons
	Nickel	Copper
Metals recovered per ton treated	34.67 lbs.	16.13 lbs.
Metallurgical Losses per ton treated	3.35 lbs.	2.36 lbs.
Indicated grade of Ore treated	38.02 lbs.	18.49 lbs.
Equal to	1.90%	0.92%

CONSTRUCTION

The centralization of all ore hoisting at No. 5 Shaft entailed a heavy construction program to provide crushing, ore dressing, transportation and storage facilities to replace those necessarily abandoned through the change. This program was augmented by provision for a substantial increase in smelter capacity so designed as to fit in with any future step-up.

By the installation of additional motors, speeds and capacities of the No. 5 Shaft hoists were increased. The surface plant consists, first, of a secondary crushing plant fed from the receiving bin at No. 5 Shaft; this is connected to the main ore dressing plant, which is equipped for screening, magnetic separation and fine-crushing, by a conveying system 1,300 feet in length. A series of distributing conveyors deliver the various products to storage bins, which have a total capacity of 8,000 tons. Further conveyors transport ore from the bins to the concentrator. There is also provided ample storage capacity for coke and fluxes. All of this construction was completed and the various units operating early in December.

Adjustments and increases at the smelter embraced the erection of an 18 x 300 foot reinforced concrete chimney, a new dust chamber and flue system. Sintering capacity was increased, the building altered, a gas exhausting and dust collecting system installed and a new flue constructed. The smelter building was extended, a new converter installed and one existing converter moved and enlarged. The blast furnace was extended and an additional furnace blower installed. Haulage equipment was provided for waste slag and some 2½ miles of standard gauge railway constructed.

GENERAL

In the townsite, five new dwellings were erected and some extensions made to the sewer and water systems. The completion of a club house with accommodation for around 125 men, including kitchen and dining rooms furnished with the most modern equipment, served to extend and improve living facilities for single employees.

It is again my pleasure to give due acknowledgment to the good work and loyalty displayed by all our employees.

Respectfully Submitted,

E. CRAIG,
Mine Manager.

FALCONBRIDGE

and its Wholly

FALCONBRIDGE NIKK

Consolidated Balance Sheet with Comparative Figures

	ASSETS	31st December 1936	31st December 1935
Current Assets:			
Cash on hand and in banks in Canada, United States and Norway		\$ 565,129.26	\$ 931,646.41
Accounts Receivable—Trade		89,101.65	40,982.52
—Sundry		20,788.86	19,909.39
Securities at cost:			
Investments—Miscellaneous		696,404.74	1,447,866.54
(Market value \$1,179,644)			
Investment in Associated Companies' shares		50,255.50	40,255.50
(Market value \$218,380)			
		<u>\$ 1,421,680.01</u>	<u>\$2,480,660.36</u>
Inventory:			
Refined Metals at cost		\$ 317,379.02	\$ 283,224.90
Matte on hand and in process at cost		759,944.17	606,185.06
		<u>\$ 1,077,323.19</u>	<u>\$ 889,409.96</u>
Property Account:			
Mine, Smelter and Refinery Buildings, Machinery and Equipment		\$ 6,257,837.06	\$4,117,212.92
Less: Depreciation written off		2,230,336.67	1,690,696.02
		<u>\$ 4,027,500.39</u>	<u>\$2,426,516.90</u>
Mining Properties and Claims		2,875,110.25	2,856,434.27
		<u>\$ 6,902,610.64</u>	<u>\$5,282,951.17</u>
Deferred Expenditures, Supplies, etc.:			
Mine Development Expenditures less amounts written off to Mining Operations		\$ 370,001.17	\$ 328,140.47
Broken Ore in Stopes		131,989.26	152,475.99
Mining and Refinery Supplies, etc.		248,855.38	188,435.57
Prepaid Expenses and Deferred Charges		71,692.36	48,382.70
		<u>\$ 822,538.17</u>	<u>\$ 717,434.73</u>
Raffineringsverket Aktieselskap:			
Special Advance recoverable as a tonnage charge on custom metals as and when refined, less repayments		\$ 75,196.46	\$ 111,825.91
Deposit with Municipality of Kristiansand re power supply		75,270.00	75,270.00
		<u>\$10,374,618.47</u>	<u>\$9,557,552.13</u>

AUDITORS' REPORT

We have audited the accounts of Falconbridge Nickel Mines Limited for the year ending on December 31, 1936, and of the results of their operations for the year ending on that date. The accounts and Mr. A. Lyng, auditor, on the audit which they have conducted of the accounts and operating results of Falconbridge Nikkelverk Aktieselskap have been incorporated in the consolidated balance sheet and surplus. Subject thereto we report that in our opinion the above consolidated balance sheet and surplus are correct and on a basis consistent with the preceding year, so far as the accounts are concerned. We have received all the information and explanations we have required.

Toronto, Canada, 8th February, 1937.

MINES LIMITED

ed Subsidiary

VERK AKTIESELSKAP

, 31st December, 1936

or 31st December, 1935

	LIABILITIES	31st December 1936	31st December 1935
Capital Stock:			
Authorized 5,000,000 shares No Par Value			
Issued at 31st December, 1935	3,337,007 shares	\$ 7,034,320.94	
Issued during 1936 for properties	500 shares	4,075.00	
	<u>3,337,507 shares</u>	<u>\$ 7,038,395.94</u>	<u>\$7,034,320.94</u>
Current Liabilities:			
Accounts Payable		\$ 126,313.91	\$ 204,928.46
Wages Payable		62,405.06	56,540.77
Unclaimed Dividends		1,905.97	1,705.44
Reserve for Taxes		251,000.00	246,000.00
		<u>\$ 441,624.94</u>	<u>\$ 509,174.67</u>
Interest on Raffineringsverket Aktieselskap advance not taken into revenue		\$ 94,725.72	\$ 86,557.20
Earned Surplus		\$ 2,799,871.87	\$1,927,499.32

On behalf of the Board:

J. Gordon Hardy, Director.

T. Lindsley, Director.

\$10,374,618.47

\$9,557,552.13

THE SHAREHOLDERS

d 31st December, 1936, and have examined the report of Mr. Oscar Boman, State authorized
ur company's wholly owned subsidiary, Falconbridge Nikkelverk Aktieselskap. The assets,
the above consolidated balance sheet and in the consolidated statements of earnings and
related consolidated statements of earnings and surplus have been drawn up in accordance
exhibit a true and correct view of the state of the combined companies' affairs as at 31st
g to the best of our information, the explanations given us and as shown by the books. We

CLARKSON, GORDON, DILWORTH & NASH, Chartered Accountants.

FALCONBRIDGE NICKEL MINES LIMITED

and its Wholly Owned Subsidiary

FALCONBRIDGE NIKKELVERK AKTIESELSKAP

Consolidated Earnings Statement

For the Year Ended 31st December, 1936

With Comparative Figures for the Year 1935

	1936	1935
Metal Sales (Gross)	\$5,366,754.14	\$4,829,719.90
Less: Selling and Delivery Expense and Foreign Exchange Adjustment	187,941.96	189,347.33
	<u>\$5,178,812.18</u>	<u>\$4,640,372.57</u>
Add: Increase in Metal Inventories	187,913.23	81,631.89
	<u>\$5,366,725.41</u>	<u>\$4,722,004.46</u>
Operating Costs—Mining, Smelting, Refining, etc.	\$2,946,594.69	\$2,337,040.20
Administrative and General Expense	100,118.68	75,296.37
	<u>\$3,046,713.37</u>	<u>\$2,412,336.57</u>
Operating Profit before providing for Taxes, Deferred Development and Depreciation	\$2,320,012.04	\$2,309,667.89
Non-Operating Revenue	84,676.81	94,268.37
	<u>\$2,404,688.85</u>	<u>\$2,403,936.26</u>
Provision for Taxes	242,789.52	246,819.19
	<u>\$2,161,899.33</u>	<u>\$2,157,117.07</u>
Profit for the Year before providing for Deferred Development and Depreciation	\$ 178,735.50	\$ 135,772.05
Deferred Development written off	545,292.55	437,159.40
Depreciation	<u>\$ 724,028.05</u>	<u>\$ 572,931.45</u>
	<u>\$1,437,871.28</u>	<u>\$1,584,185.62</u>
Profit on Sale of Securities	435,735.77	184,372.53
	<u>\$1,873,607.05</u>	<u>\$1,768,558.15</u>
Net Profit for the year transferred to Consolidated Earned Surplus		

Consolidated Earned Surplus Account

For the Year Ended 31st December, 1936

With Comparative Figures for the Year 1935

	1936	1935
Balance at beginning of year	\$1,927,499.32	\$1,156,610.94
Net Profit for year as above	1,873,607.05	1,768,558.15
	<u>\$3,801,106.37</u>	<u>\$2,925,169.09</u>
Dividends Paid	1,001,234.50	997,669.77
	<u>\$2,799,871.87</u>	<u>\$1,927,499.32</u>
Balance at end of year		

New York, N.Y., January 5th, 1937.

Mr. J. Gordon Hardy, President,
and the Board of Directors,
Falconbridge Nickel Mines, Limited.

Dears Sirs:

I beg to submit the following report for the fiscal year ending December 31st, 1936:

Ore Dressing Plant, Mill and Smelter were extended during the year to take care of a 25% increase in production. In connection with the new shaft there was built a new ore dressing plant containing some new features for preparing and grading the ore for the further steps in mill and smelter. Handsorting is practically done away with. The new plant will permit treatment of lower grade ore than before and should therefore mean a better utilization of the mine. The enlarged smelter was started at the beginning of October, but the new ore dressing plant was only started in December. While it therefore is too soon to express a definite opinion about what the partly new and partly extended plant will do, it looks as if it will fulfill expectations both as to capacity and metallurgical efficiency.

The production of nickel in matte was slightly higher than last year, as the increased production during the last two months made up for the loss of production from a power breakdown in September, and from unavoidable interference with operations during the changeover to the new shaft and new ore dressing plant.

The Refinery was extended during the year for ample capacity to handle the 25% increase in smelter capacity. While most of the construction work was finished before the end of the year, and the production somewhat increased as far as available matte supply permitted, it will be some time in the new year before the increased matte production at the smelter will have shown up fully in increased nickel production.

Custom matte was received regularly at the rate of 1,000 long tons nickel annually.

The Refinery operated steadily without any interruptions of consequence and the starting up of the extensions gave no particular trouble. The quality of the products was maintained.

For the year 1936, the amount of metals in matte received from the Smelter, the Refinery production, the metals in process and metals in matte on hand at the end of the year is set out in the following table:

	Ni. Lbs.	Cu. Lbs.
Metals in Falconbridge Matte Received, Less Refining Losses	10,812,300	4,987,446
Produced in Marketable Form During the Year	11,226,108	5,005,902
Metals in Process of Refining at End of Year	2,032,352	491,287
Metals in Matte On Hand at End of Year	530,320	236,349

Respectfully submitted,

ANTON GRONNINGSATER,
Consulting Metallurgist.

Dividends Paid by Falconbridge Nickel Mines Limited

Dividend Number	Record Date	Dividend Per Share	Total
1 to 11 inclusive, prior to 1936		82½c	\$2,712,452.76
12	Mar. 10, 1936	7½c	250,280.38
13	June 4, 1936	7½c	250,317.93
14	Sept. 10, 1936	7½c	250,317.89
15	Dec. 4, 1936	7½c	250,318.30
Total			\$3,713,687.26

COMPARATIVE SUMMARY OF OPERATIONS AND EARNINGS

Year	Tons Treated	Net Sales	Gross Profit After Taxes
1930	71,626	\$ 68,726.89	
1931	109,520	1,211,229.95	\$ 173,652.18
1932	123,306	2,787,917.78	1,014,378.90
1933	232,661	2,808,328.92	1,505,396.93
1934	272,923	4,001,551.55	1,924,251.00
1935	302,510	4,640,372.57	2,341,489.60
1936	327,783	5,178,812.18	2,597,635.10

Year	Net Profit after Taxes, Def. Development and Depreciation	Capital Expenditures	Net Current Assets, inc. Metal Inventories (at cost or lower) and Accts. Receivable; less Tax Reserve and not including Broken Ore
1930		\$332,823.92	\$ 858,598.15
1931	\$ 10,530.69	100,557.43	1,114,484.64
1932	762,420.54	354,496.51	1,685,891.59
1933	1,122,999.28	642,383.03	1,826,058.38
1934	1,415,886.03	205,702.27	2,417,024.75
1935	1,768,558.15	705,617.50	2,860,895.65
1936	1,873,607.05	2,140,624.14	2,057,378.26

N.B.—Both Gross and Net Profit figures in the above tabulations are influenced by security sales, which showed profits in 1934 of \$17,597.42, in 1935 of \$184,372.53 and in 1936 of \$435,735.77.

