

MIRAMAR MINING CORP  
Form 6-K  
January 17, 2003

**FORM 6K**

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

Report of Foreign Issuer

Pursuant to Rule 13a-16 or 15d-16 of  
the Securities Exchange Act of 1934

For the month of: **January, 2003**

Commission File Number: **0-25672**

**MIRAMAR MINING CORPORATION**  
(Translation of registrant's name into English)

**311 West First**  
**North Vancouver, British Columbia**  
**Canada V7M 1B5**  
(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F

Form  Form  
20-F X 40-F

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): \_\_\_\_\_

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): \_\_\_\_\_

Indicate by check mark whether by furnishing the information contained in this Form, the registrant is also thereby furnishing the information to the Commission pursuant to rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes  No

If Yes is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b) 82

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**SIGNATURE**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

SIGNATURE

**MIRAMAR MINING CORPORATION**

(Registrant)

By: /s/ A. David Long  
A. David Long, Corporate SecretaryDated: January 14, 2003

January 09, 2003

NEWS RELEASE 02-23

MAE - TSE  
MNG - Amex***Feasibility Study Completed for Doris North Project at Miramar's Hope Bay Project***  
*Study Outlines High Grade, Low Cost, High Return Development Scenario*

VANCOUVER Miramar Mining Corporation (MAE-TSE, MNG-AMEX) announced today that its Board of Directors has received and accepted an independent feasibility study for the proposed initial development of the high grade Doris North deposit at the Hope Bay project in Nunavut, Canada and instructed management to continue permitting efforts and to consider financing alternatives for the project. Production is targeted for early 2005, subject to a production decision following the granting of the required permits.

The building of a mine on the Doris North deposit would be a major milestone in the advancement of the Hope Bay project, said Tony Walsh, Miramar's President & CEO. We believe Doris North provides potential for high grade, high return, and low risk gold production commencing approximately two years from now. We further believe this operation would generate significant cash flow at current gold prices, which we plan to use to continue the exploration and development of the Hope Bay belt.

**Summary of Feasibility Study on Doris North Zone, Hope Bay Project**

<b><u>Assumptions</u></b>		<b><i>Base Case</i></b>	
Gold price (US\$/oz)	\$ 305	\$ 325	\$ 345
Exchange Rate (C\$/US\$)	1.575	1.575	1.575
Gold Price (C\$/oz)	\$ 480	\$ 512	\$ 543
<b>Production</b>			
Ore Milled (tonnes)		467,157	
Daily Throughput (tonnes/day)		668	
Operating Life (years)		2	
Diluted Grade (g/t gold)		21.9	
Metallurgical Recovery (%)		94.9%	
Total Gold Recovered in 2 years (oz)		311,693	
Cash Operating Cost (US\$/oz)		\$ 109	
Total Cost (US\$/oz)		\$ 190	
Capital Costs (C\$ millions)	(39.3)	(39.3)	(39.3)
Net Pre-Tax Cash Flow* (C\$ millions)	59.7	69.3	79.0
Pre-Tax Rate of Return on Investment*	117%	136%	155%
Payback Period* (months)	6.6		

\*100% equity basis, pre-tax but after operating costs, capital costs and an assumed 1.8% royalty (the minimum royalty payable to the NTI, an Inuit Corporation).

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The Study utilizes a gold price of US\$325 per ounce and is prepared on the basis of developing the facilities with a longer term operation in mind, resulting in a decision to purchase rather than rent or lease the power plant and mining equipment, increasing the capital cost. In addition, Miramar has elected not to use contract mining, also increasing the capital cost. Further, the mill has been designed for a maximum throughput of 800 tonnes per day, even though the Study contemplates an average throughput of 668 tonnes per day, as this will accommodate possible future increases in throughput. The higher initial capital cost reduces the rate of return versus leasing and renting equipment, but increases the cash generated by the project, warranting the greater investment in initial capital.

### **Feasibility Study**

#### **Objectives**

Miramar's objective in completing a feasibility study on the Doris North area is to facilitate the rapid development of low cost, high return gold production on the Hope Bay belt that would generate significant cash flow to fund the continued exploration and development of the Hope Bay belt. Miramar is focused on the development of a small, high grade operation to meet these objectives and to ensure that the proposed development is within the Company's financial capabilities.

Miramar's objective is to use the development of the Doris North area as a springboard for the development of the substantial additional resources already defined on the rest of the Hope Bay belt, said Mr. Walsh. We have a healthy balance sheet and have strong expressions of interest for project financing of this development, should we elect to go that way.

#### **Quality Assurance**

Following detailed in fill drilling, site specific geotechnical evaluations and detailed metallurgical process testing carried out during 2002; Miramar commissioned a feasibility study (the Study) in September 2002 that was undertaken by independent consultants Bateman Engineering, SRK Consulting and Nuna Logistics. The Study is based on reviews by the independent consultants of existing project files prepared for or by Miramar; estimates of mineral resources prepared by Miramar's geologic staff in Vancouver and audited by Mike Michaud P. Geo. of SRK; estimates of mining manpower, mining costs, and production schedule prepared by independent consultant Lyle Morgenthaler P.Eng and Miramar's staff at the Con Mine and audited by Dr. Chris Page P.Eng; general and administrative costs developed by Miramar and reviewed by SRK's Ken Reipas P.Eng; surface infrastructure and logistics designs and costs prepared by Nuna Logistics and reviewed by Court Smith P.Eng.; review of the economic model by SRK, along with in-house data and estimates prepared by SRK.

In compliance with National Instrument 43-101, the results of the Study are detailed in a technical report that will be available at <http://www.sedar.com> for review within 30 days of the date of this news release.

#### ***Doris North Development Plan***

As contemplated in the Study, mining of the Doris North Zone would be entirely by underground methods and commence with the development of ramp access. Mining resources defined within the Study comprise the Doris Hinge and portions of the Central and Lakeshore veins in the limbs of the Doris Hinge. In addition, approximately 9,000 tonnes grading 19.5 g/t gold stockpiled at the Boston deposit would be hauled to the mill for processing and this is included in the Study.

Underground mining would be carried out by a combination of mechanized cut and fill and open stoping, assuming a minimum mining width of 2.5m and external dilution averaging 17% at zero grade. Mine engineering has been advanced to a point well beyond what is considered normal for a feasibility study. The entire deposit has been planned and scheduled, all required waste and on-ore development has been laid out and individual stopes engineered with ore and grade release schedules. Costs and productivity estimates utilize experience from Miramar's Yellowknife operations, adjusted to site specific conditions.

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Ore would be hauled from underground by truck to a crusher located adjacent to the portal that would feed a modular mill pre-constructed off site and transported to site in assembled units. Due to the modular nature of the mill, it requires no foundations but would be set on bedrock and compacted fill and covered with a Sprung structure similar to those used at a number of other arctic locations. The ore would undergo conventional crushing and grinding with an integrated gravity gold recovery circuit followed by flotation and cyanidation of flotation concentrates, with gold doré produced on site.

### *Infrastructure & Logistics*

Waste rock would largely be used for civil construction projects such as a 4.8km permanent access road to a barge off-loading area on the coast 3.7km to the north, a barge landing site, an airstrip, and for tailings dam construction. Tailings are proposed to be deposited sub-aqueously in a small lake to the east of the Doris Lake, locally known as Tails Lake. The majority of these contemplated activities are located on land on which the Inuit retain both surface and sub-surface rights.

This mine would be the first in Canada built on wholly Inuit owned surface and mineral rights, and so is a significant development in Nunavut's effort to encourage mining in the North, said Mr. Walsh. We look forward to working with the various stakeholders in Nunavut affected by this project and believe this could be the beginning of a productive relationship built around the Hope Bay belt.

As contemplated in the Study, all equipment, bulk supplies and materials would be moved to site by barge from Hay River, although alternatives are being investigated. Other supplies and personnel will be transported to and from site by aircraft. Camp facilities for up to 90 personnel would be constructed, with employees retained on a fly-in, fly-out basis, with hiring from Yellowknife and from the local communities of Cambridge Bay, Taloyoak, Gjoa Haven and Bathurst Inlet in the West Kitikmeot region. Total employment by the project could reach 150.

### *Estimated Capital Costs*

Capital cost estimates were developed by each of the Feasibility participants for their respective areas of responsibility. Bateman Engineering developed the cost associated with the process plant and power plant, Nuna Logistics developed cost for the site preparation plan as developed by SRK and Miramar developed the capital cost for mining and miscellaneous. Contingencies are included in the individual cost centres.

<u>Cost Centre</u>	<u>Estimated Capital Cost (C\$ Millions)</u>
Process Plant & Buildings	\$17.75m
Site Preparation	\$13.58m
Power Plant	\$3.80m
Underground Equipment	\$2.46m
Miscellaneous	<u>\$1.68m</u>
<b>Total</b>	<b><u>\$39.26m</u></b>

The total estimated capital requirement of \$39.2 million represents the total capital required over the life of the project. This includes all anticipated lease/purchase costs for both the mill buildings and the power plant for a 36 month term. The estimated initial, pre-production capital requirements total C\$32 million excluding bonding, preproduction development and working capital which are addressed in the Feasibility Study financial model.

### *Estimated Operating Costs*

Operating cost estimates have been developed by Bateman for the process plant and power plant, by Lyle Morgenthaler P.Eng. (audited by Chris Page P.Eng.) for mining and by Miramar for site services and general and administration. The table below provides a summary of the estimated operating costs over the full project life.

<u>Cost Centre</u>	<u>Estimated Operating Cost</u>	<u>Estimated Operating Cost</u>
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	<u>(C\$ Millions)</u>	<u>(C\$ per tonne milled)</u>
Mining	\$20.88m	\$44.71/t
Milling	\$18.88m	\$40.42/t
General & administration	<u>\$13.92m</u>	<u>\$29.81/t</u>
<b>Total</b>	<b><u>\$53.68m</u></b>	<b><u>\$114.94/t</u></b>

### *Opportunities*

The Study is based solely on mining in the Doris North area and there is significant potential to extend the mine life through the development and mining of other resources in the Hope Bay belt. The most immediate opportunity is the mining of the balance of the Doris deposit, primarily in the Doris Connector and Doris Central areas. Prior to inclusion of the Doris Connector and Doris Central areas into a mining scenario, additional in fill drilling would be required to define a mineral reserve. These two deposits could be developed with minimal additional surface disturbance and with limited capital, utilizing the same infrastructure proposed for the Doris North Zone.

Opportunities to mine Doris Central or Connector were not considered in the economics of the Study but did factor into the project design, including mill and infrastructure sizing. Now that the study is complete, Miramar plans to embark on a Preliminary Assessment for the development of the Doris Central and Doris Connector areas, targeting production of approximately 250,000 to 300,000 ounces of gold over a three to three year period at cash costs of under US\$200 per ounce. Insufficient drilling has been completed to allow a complete evaluation of the potential of Doris Central or for considering mining of Doris Connector at this time. Underground access from the Doris North workings extending south to Doris Central would enable detailed underground drilling of these areas, and additional exploration along this prospective trend, a significant section of which lies under the lake.

Assuming the Preliminary Assessment is positive, we plan to complete the exploration of Doris Central and Doris Connector as soon as we have underground access and then begin for the preparation of a feasibility study. said Mr. Walsh.

Significant additional resources are also contained in the Boston and Madrid areas that could also be contemplated as mill feed in future years. The mill and facilities are designed for a 10-year life and therefore allow for an extension of operations beyond the two-year life of the Doris North Zone.

### *Development Schedule*

Based on a cost-benefits analysis of a single major mobilization in 2004 versus a two stage mobilization in 2003 and 2004, Miramar has elected to develop Doris North with a single major mobilization in the summer of 2004. This assumes ongoing permitting activities support a fourth quarter 2003 production decision and placement of orders for the mill, followed by air-supported mobilization of the underground mining equipment required for ramp development in late first quarter of 2004. Once permits are in place, underground development would commence in mid-2004, with the major equipment and supplies mobilization scheduled for the third quarter of 2004 to allow site construction to begin late third quarter

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2004. Process plant operations would then begin in the first quarter of 2005. This is approximately three months later than previously announced, but improves the project rate of return by deferring the major mobilization by one year and reducing equipment standby charges.

### *Permitting Progress*

Miramar filed a preliminary project description with the Nunavut Impact Review Board (NIRB) and the Nunavut Water Board (NWB) in March 2002, based on which NIRB issued guidelines for the preparation of a draft environmental impact statement (EIS) under Part 5 of the Nunavut Land Claims Agreement. With the completion of the feasibility study, Miramar anticipates filing of the draft EIS by the end of January 2003,

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which will initiate the formal review process by NIRB and NWB, including public hearings in local communities.

Provided there are no delays in the permitting process, Miramar anticipates permits could be issued by third quarter 2003, allowing construction to commence and major equipment to be ordered by year end, and operations to commence in early 2005.

### **Hope Bay Project**

As announced on November 28 and December 9, 2002, Miramar has approved a major exploration program for Hope Bay in 2003 including 43,000 metres of core drilling at a total cost of up to \$17.5 million. The major targets are the Deformation Zone trend at Madrid and the deep potential at Boston. Drilling is planned to commence in February and results will be announced as warranted.

Prior to the 2002 drilling, as announced on January 15, 2002, the Hope Bay project has measured and indicated resources of 3.36 million tonnes grading 15.4 g/t gold for a contained 1.66 million ounces, plus an additional inferred 6.7 million tonnes grading 12.3 g/t gold, for an additional inferred contained 2.65 million ounces of gold. An updated resource for the Doris and South Patch deposits is currently in progress and will be released in early 2003.

### ***Additional Information***

Maps and diagrams detailing some of the matters described herein are attached to this news release. If you are missing these illustrations, please download this news release from Miramar Mining's website at <http://www.miramarmining.com/>, to which they are attached, or contact us at the numbers listed below. All other information previously released on the Hope Bay Project is also available on these websites.

### ***Forward Looking Statements***

Statements relating to planned work at the Hope Bay project and the expected results of this work including the proposed development of the Doris North project, are forward-looking statements within the meaning of the United States Private Securities Litigation Reform Act of 1995. Forward looking statements are statements that are not historical facts and are generally, but not always, identified by the words expects, plans, anticipates, believes, intends, estimates, projects and similar expressions, or that events or conditions will, would, may, could or might occur. Information inferred from the interpretation of drilling results and information concerning mineral resource estimates may also be deemed to be forward looking statements, as it constitutes a prediction of what might be found to be present when and if a project is actually developed. These forward-looking statements are subject to a variety of risks and uncertainties which could cause actual events or results to differ materially from those reflected in the forward-looking statements, including, without limitation: uncertainties related to raising sufficient financing to fund the planned work in a timely manner and on acceptable terms; uncertainties related to the accuracy of the assumptions made in the principal parameters related to the development of the Doris Hinge Zone; changes in planned work resulting from weather, logistical, technical or other factors; the results of work not fulfilling expectations and not realizing perceived potential; uncertainties involved in the interpretation of drilling results and other tests; the possibility that required permits may not be obtained on a timely manner or at all; risks related to fluctuations in gold prices; the probability that capital and operating costs may be higher than

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currently estimated and may preclude commercial development or render operations uneconomic; the possibility that the estimated recovery rates may not be achieved; accidents, equipment breakdowns and labour disputes or other unanticipated difficulties or interruptions; the possibility of cost overruns or unanticipated expenses in the work program and other risks and uncertainties, including those described in the Miramar's Annual Report on Form 20-F for the year ended December 31, 2001 and Reports on Form 6-K filed with the Securities and Exchange Commission.

Forward looking statements are based on the beliefs, estimates and opinions of Miramar's management on the date the statements are made. Miramar undertakes no obligation to update these forward-looking statements of management's beliefs and estimates or opinions or other factors should they change.

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All resource estimates reported in this disclosure are calculated in accordance with the Canadian National Instrument 43-101 and the Canadian Institute of Mining and Metallurgy Classification system. These standards differ significantly from the requirements of the United States Securities and Exchange Commission, and resource information reported in this disclosure may not be comparable to similar information reported by United States companies. The terms Resource(s) does not equate to reserves and normally may not be included in documents filed with the Securities and Exchange Commission. Resources are sometimes referred to as mineralization or mineral deposits .

This news release has been authorized by the undersigned on behalf of Miramar Mining Corporation.

*For further information contact:  
Anthony P. Walsh  
President & CEO  
Miramar Mining Corporation  
Tel: (604) 985-2572 Fax: (604) 980-0731  
Toll Free: 1-800-663-8780  
Email: info@miramarmining.com*

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**Doris North Development Plan: Surface Infrastructure**

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**Doris North Development Plan: Surface Infrastructure**

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**Three dimensional projection of the Doris North deposit showing mail haulage, Hinge, Central Vein (CV) and Lakeshore vein (LV)**

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**Three dimensional projection of the Doris North deposit showing the Hinge, Central Vein (CV) and Lakeshore Vein (LV)**

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