

Chapter 4

Section 4.09

Ministry of Northern Development and Mines

Mines and Minerals Program

Follow-up to VFM Section 3.09, 2005 Annual Report

Background

The Mines and Minerals Program/Division of the Ministry of Northern Development and Mines is responsible for the administration of the *Mining Act*, which sets out the Ministry's responsibilities for all phases of mining in the province, from exploration to mine development, operation, and closure. The purpose of the Act is to encourage prospecting, claims staking, and exploring for the development of mineral resources, as well as to minimize the impact of these activities on public health and safety and the environment through the rehabilitation of mining lands.

The Ministry provides province-wide geological maps, on-line access to geoscience information, and geological advisory services in field offices throughout the province, and promotes Ontario mining development opportunities in domestic and international markets. During the 2006/07 fiscal year, the Ministry employed approximately 210 staff (200 in 2004/05) and spent \$29.8 million (\$35.5 million in 2004/05) to carry out these and other program activities.

In 2005, we found that, largely owing to the quality of the maps and advisory assistance it provides, the Ministry was generally seen by its stakeholders

as contributing to the success of the mining industry in Ontario. However, we also found that the Ministry did not have adequate procedures to ensure compliance with legislation and its internal policies or to measure and report on its effectiveness in building a competitive and sustainable minerals sector in the province. For instance:

- To maintain a mining claim in good standing, the holder must perform certain exploration work, referred to as assessment work, and must report this to the Ministry. We found that the Ministry's review of assessment reports was not sufficient to ensure that all claimed exploration expenditures were actually incurred.
- We noted several cases where claims were forfeited because the required assessment work had not been carried out to keep the claims in good standing, and the same people who had their claims forfeited reclaimed the lands as soon as they became open for staking. A situation where a claim-holder can in effect indefinitely retain mining rights by continually reclaiming them after they are forfeited—without performing the required assessment work—is contrary to the intent of the *Mining Act*.

- To keep geological information sufficiently current and relevant, the Ministry has determined that it needs to map all areas of significant mineral potential over a 20-year period, or about 15,000 square kilometres annually. However, because of difficulties in completing mapping projects on a timely basis and resourcing and capacity issues, in recent years the Ministry had been mapping only about 8,000 square kilometres annually. In addition, the Ministry did not have a project management system to periodically report on the status of active mapping projects against targeted completion time frames.
- As of March 2005, closure plans, which commit mine owners to providing financial assurance sufficient to rehabilitate mine sites and return them to their former state without harmful effects on the environment, were not in place for 18 of the 144 mine sites that were required to have them. Also, the Ministry was not periodically reviewing whether the closure-cost estimates and financial assurances are still sufficient to properly rehabilitate the mines.
- At the time of our audit, the Ministry had identified more than 5,600 abandoned mine sites and had estimated that 4,000 of these sites were potentially hazardous to the environment and public health. The Ministry did not have the information needed to assess the risk of water and soil contamination around these abandoned sites.

Current Status of Recommendations

According to information received from the Ministry of Northern Development and Mines, significant progress has been made in addressing some

of the recommendations we made in our *2005 Annual Report*. However, for several other recommendations, additional work was still under way at the time of our follow-up. For the most part, the Ministry was expecting this work to be completed by March 31, 2008. The current status of actions taken on each of our recommendations as reported by the Ministry is as follows.

MINERAL EXPLORATION

Staking Mining Claims

Recommendation

To more efficiently and effectively manage the mine claim-staking system, the Ministry should assess the costs and benefits of a map-based staking system and consider implementing such a system in Ontario.

Current Status

At the time of our follow-up, the Ministry had completed a Mineral Development Strategy and had assessed the costs and benefits associated with an electronic map-based staking system to replace the current system whereby each claim is physically marked by wooden or metal stakes being planted in the ground. The benefits identified included a significant reduction in claim boundary disputes, an increase in claim-staking activity, and a more accurate claims database. In light of such benefits and as part of a broader strategy to minimize conflicts between prospectors staking claims and surface rights holders, the Ministry was proceeding with a map-based staking system for southern Ontario and, pending a revision to the regulation under the *Mining Act* that the Ministry was working on, was hoping to have the system operational by spring 2008.

Mining-claim Assessment Work

Recommendation

To ensure that holders of mining claims are actively prospecting and exploring land for the development of mineral resources, the Ministry should:

- *develop procedures to ensure that all assessment files are reviewed for reasonableness;*
- *review the adequacy of the number of files selected for detailed expenditure verification and consider implementing a random selection process;*
- *assess whether the current level of inspections and prosecutions provides an effective deterrent to filing false information to retain mining rights; and*
- *consider disqualifying holders of forfeited claims from re-staking the same land until an appropriate period of time has passed.*

Current Status

In January 2007, the Ministry revised its policies and procedures for reviewing mining-claim assessment work. The Ministry advised us that now all files received by the Geoscience Assessment Office are reviewed to assess the reasonableness of the technical content and reported exploration costs. When an assessment report meets the requirements of the Assessment Work regulation under the *Mining Act* and the reported expenditures are judged to be reasonable with respect to current industry standards, the Ministry credits the expenditures to the claim as assessment work. If a submission does not meet the technical requirements or the required expenditures are not reasonable, the report is subjected to a more detailed review by the Ministry before any assessment credits are allowed.

The Ministry also stated that it had implemented a risk-based process that uses various criteria for selecting files for additional expenditure verification and detailed review of technical deficiencies. The Ministry informed us that, during the 2006/07 fiscal year, up to 10% of submissions were selected

for detailed review through a random and targeted selection process. The Ministry judged such a percentage to be adequate (as compared to half of 1% reported in our *2005 Annual Report*) and was continuing to monitor the review process to ensure that the number of files being reviewed is adequate.

The Ministry had carried out a review of its current level of inspections and prosecutions to ensure that its procedures are deterring claim-holders from filing false information. In addition, to reduce the level of risk, the Ministry had developed an inspection work plan and provided additional resources to increase the number of inspections carried out. The Ministry also completed a review of its regulatory and administrative practices and determined that 97% of all submissions were in compliance with legislation and ministry policies.

The Ministry completed a review of the 19,081 claims forfeited from 2000 to 2006 and found that 354 of these claims were re-staked within one week of forfeiture. The Ministry also found that 199 of the 354 were re-staked by the same claim holders. As a result of this review, the Ministry determined that the risk posed by this issue (that is, of claims being re-staked without assessment work being done) is minimal and that, for the most part, the re-staking of claims is a normal part of the exploration process and, according to the Ministry, is allowed in most jurisdictions in Canada. The Ministry therefore determined that no further action was required on this issue at the time of our follow-up. Meanwhile, the Ministry would continue to monitor the occurrences of re-staking and, if they begin to increase, would determine the necessary corrective action.

Ontario Geological Survey

Recommendation

To ensure that the Ontario Geological Survey provides, in a timely manner, the geological maps that

are essential to encouraging mineral exploration in the province, the Ministry should:

- assess the costs and benefits of a program that would achieve the mapping of all areas of significant mineral potential within the recommended 20-year cycle and, based on this review, develop an overall mapping plan;
- enhance its process for project evaluation and selection to include appropriate documentation and assessment of the availability of the financial and staff resources necessary to complete the projects; and
- develop a project management system to better monitor the status of projects, help ensure that projects are completed on a timely basis, and enable timely action where projects are falling significantly behind.

Current Status

The Ministry informed us that it had assessed the costs and benefits of implementing a program that would achieve the mapping of all areas of significant mineral potential and determined that achieving the recommended 20-year cycle would cost an additional \$3 million a year over that cycle. The Ministry also determined, through an analysis involving users of geoscience information, that the benefit to Ontario of providing timely mapping information would be approximately \$300 million over the long term. Accordingly, to help achieve a complete mapping within the 20-year cycle, the Ontario Geological Survey (OGS) developed a rolling three-to-five-year mapping plan that is reviewed annually by the Minister's OGS Advisory Board. The Ministry informed us that this plan ensures that its strategic public-policy priorities are met while maintaining flexibility to respond to the short-term geoscience needs of clients.

The Ministry also informed us that it had revised its project evaluation and selection process to ensure that project files include appropriate documentation, such as a formal explanation of decisions, a risk assessment, and three budget scenarios with

financial and staffing implications. The Ministry implemented this revised process during the 2006/07 project-planning cycle and advised us that it would continue to revise and improve the process on an ongoing basis.

The Ministry indicated that, to better monitor the status of mapping projects, its project management system had been enhanced by implementing project-milestone tracking and by clarifying the reporting responsibilities of OGS staff and outside partners. The Ministry indicated that it would continue to monitor project milestones to ensure that project delays are identified and the necessary corrective action taken to keep mapping projects on schedule.

Investment Marketing

Recommendation

To enhance the province's attractiveness as a mining investment jurisdiction and help facilitate domestic and foreign investment in the mining industry, the Ministry should:

- review the marketing strategies employed in other jurisdictions to help determine the potential costs and benefits of an expanded marketing program for Ontario;
- assess the feasibility of enhancing its investment leads database to help improve its investment marketing efforts; and
- develop an investment marketing plan that includes a full analysis of the costs and expected benefits of the proposed initiatives.

Current Status

The Ministry informed us that it had collected and analyzed marketing information from other Canadian jurisdictions, as recommended. This analysis helped the Ministry develop benefit indicators, such as increased awareness of Ontario's business climate, increased exploration expenditures, and increased capital investment. The Ministry advised us that it would collect information from

its planned marketing events to test the indicators and ensure that it receives value for the marketing expenditures it makes, but that at least two to five years of data will be required before trends and assumptions relating to an expansion of marketing can be reliably established. In the interim, the Ministry, in conjunction with the Ministry of Economic Development and Trade, would be annually assessing the overall marketing strategy and reviewing results and benefits.

To help enhance its investment leads database as recommended, the Ministry acquired customer relationship software that is intended to help the Ministry manage investment leads and contacts, target contacts for specific marketing events, and target contacts that will be surveyed to obtain feedback on marketing events.

The Ministry informed us that it developed a new strategic marketing plan in the 2006/07 fiscal year that is based on the factors that influence investment decisions. As part of this plan, the Ministry participated in relevant marketing events held outside Ontario during January and February of 2007. Following these events, the Ministry evaluated the cost and anticipated benefits of the marketing plan's proposed initiatives and made the necessary changes to its 2007/08 marketing plan to improve its investment marketing efforts.

Investment Incentive Programs

Recommendation

To help achieve the full benefits of its investment incentive programs, the Ministry should ensure that the success of each program in achieving its goals is evaluated so that this information will be available in planning future incentive initiatives.

Current Status

The Ministry informed us that it had introduced a number of programs to promote mineral investment and development, including Operation Treasure Hunt and the Ontario Mineral Exploration

Technologies program. The Ministry commissioned a survey relating to Operation Treasure Hunt when the program ended and concluded that it had met its objective of attracting mineral investment and exploration to Ontario. A preliminary evaluation of the Ontario Mineral Exploration Technologies program was completed in March 2005, the results of which became part of the Ministry's ongoing monitoring of the business process and documented evaluation of each program's success.

The Ministry also informed us that it would use the new business process developed from the lessons learned in past incentive initiatives to monitor and evaluate the Far North Geological Mapping Initiative—a new three-year investment-attraction program announced in the 2005 Ontario Budget. Because the first geoscience projects for this program began in May 2006, results will not be available to assess until at least March 2008. The Ministry indicated that the final report on this program would be due by March 31, 2010. The results of these reviews, measured against the planned goals and benefits, will be used to evaluate the success of the program's geoscience projects, and the results of that evaluation will be used to develop future incentive initiatives.

ENVIRONMENTAL PROTECTION

Ontario's Living Legacy

Recommendation

To help balance the economic benefits of mining activities with the protection of the environment, the Ministry should:

- *resolve the status of the remaining mining lands designated as forest reserves within and adjacent to protected areas; and*
- *work with the Ministry of Natural Resources to ensure that any mining activities within designated areas take into consideration the protection of any known environmentally sensitive natural resource.*

Current Status

In its response to this recommendation in our 2005 *Annual Report*, the Ministry indicated that the status of remaining mining lands designated as forest reserves was almost resolved—public input on the proposed solutions for the lands was still pending. At the time of our follow-up, the Ministry of Natural Resources, which administers the site regulation process whereby solutions for the lands are proposed, was still going through the public review process and consultations with First Nations regarding the proposed solutions. The status of 10 of the 66 remaining sites had still not been dealt with. According to the Ministry, when the status of these 10 remaining sites will be resolved depends largely on the progress made during the consultation process.

The Ministry informed us that it was continuing to work with other provincial and federal regulatory agencies to ensure that any mineral exploration, and possible mining, is carried out in a manner that meets existing legislative requirements and minimizes the impact to known environmentally sensitive natural resources.

Rehabilitation of Operating Mines

Recommendation

To help ensure that all mining lands are rehabilitated so that each site is restored to either its former condition or another suitable use and that sufficient funds will be available to finance the cleanup, the Ministry should:

- *ensure that closure plans are in place for all mine sites as required by the Mining Act;*
- *implement a standardized review process to ensure that all the requirements for closure plans are completed;*
- *develop a risk-based approach to its mine-rehabilitation inspection process, keep accurate records of all inspections performed, and*

enhance inspection documentation to demonstrate that all applicable Mine Rehabilitation Code requirements have been met;

- *review periodically whether the closure-cost estimates and financial assurances are still sufficient to properly close out the mine; and*
- *evaluate the adequacy of the current forms of self-assurance to mitigate the risk that the taxpayer will have to pay to clean up mine sites.*

Current Status

At the time of our 2005 audit, closure plans for 18 sites were outstanding. By the time of our follow-up, six had been submitted, leaving 12 still outstanding. The Ministry indicated that it would pursue the resolution of these outstanding closure plans through legal and procedural means available under the *Mining Act*.

The Ministry informed us that, to ensure that the requirements for closure plans are completed, it had implemented a procedural checklist for reviewing closure plans, along with a checklist for the information and documentation required for closure plans.

With respect to the process and documentation for mine-rehabilitation inspection, the Ministry had developed risk-assessment factors and an inspection form that incorporates the standards, procedures, and requirements of the Mine Rehabilitation Code of Ontario. In addition, the Ministry was working on an electronic version of this form so that inspection staff can file their reports electronically from field locations. To ensure that inspection information is provided in a timely manner, inspection staff had been directed to file their reports within one month of the inspection.

At the time of our follow-up, the Ministry was still reviewing the options with respect to establishing a regular review process for determining whether closure-cost estimates and financial assurances are still sufficient to properly close out a mine. Since, according to the Ministry, establishing such

a process would require a change in a regulation under the *Mining Act*, it would, as an interim measure, send a letter every January to all mining companies reminding them of the requirement to file a “Notice of Material Change” when closure costs change. The information from these notices should help the Ministry determine whether amendments to the closure plans, the closure-cost estimates, and/or financial assurances are required. The Ministry was expecting that any changes to its procedures to monitor closure-cost estimates and the adequacy of financial assurance to properly close out mines would be in place by March 31, 2008.

Companies whose bonds are rated Triple B or higher meet the corporate financial test established in the *Mining Act* and do not have to provide financial assurance for the first half-life of the mine. For the second half-life of the mine, companies are to provide the Ministry with one of the other types of financial assurance allowed by the *Mining Act* (for example, cash, pledge of assets, or letter of guarantee). At the time of our follow-up, the Ministry had reviewed the adequacy of this current self-assurance mechanism and also indicated that the companies that provided such self-assurance for closure costs continued to meet the required financial test. To ensure that the risk of taxpayers having to pay mine cleanup costs is minimized and that companies continue to meet the requirements of the Act for financial assurance, the Ministry advised us that it also periodically monitors the credit ratings of the companies using the corporate financial test.

Abandoned Mines Rehabilitation Program

Recommendation

To more effectively manage the rehabilitation of abandoned mines in the province and to protect public health, public safety, and the environment, the Ministry should:

- *ensure that information on all abandoned mines is entered into the Abandoned Mines Information System;*
- *assess the potential for chemical contamination at each site; and*
- *develop a long-term strategy for managing, monitoring, and rehabilitating abandoned mine sites that includes an updated estimate of the funds required, a priority ranking of all sites based on risk, and the expected time frame to complete the rehabilitation, given the anticipated level of funding.*

Current Status

The Ministry informed us that all the pertinent information from the site assessments performed for abandoned mines in 2000 had been entered into the Abandoned Mines Information System at the time of our follow-up. Also, the system contained all the information available to the Ministry to date on chemical contamination of abandoned mine sites. The Ministry had determined that 96 abandoned mine sites, which had facilities for treating or disposing of tailings (that is, waste) that resulted from mineral processing, required additional assessment. As a result, the Ministry hired a consultant to review these sites for chemical contamination. The work started in January 2007 and the consultant’s report is due back to the Ministry by March 31, 2008.

As part of a long-term strategy for managing, monitoring, and rehabilitating abandoned mine sites, the Ministry had started work on a priority ranking system to categorize mine sites based on their risk to public health and safety and the environment. The Ministry was planning to complete this ranking system by March 31, 2008. With the resulting information on abandoned mine risk, along with the information gathered on chemical contamination of abandoned mines, the Ministry was hoping to be in a better position to update the estimate of funds required and determine the expected time frame for rehabilitating abandoned

mine sites. However, the Ministry also told us that it may be difficult to provide a firm estimate of funds required to rehabilitate abandoned mine sites because of the number of variables that are outside the Ministry's control, such as future cleanup costs, and the possible return to the Crown of additional abandoned mine sites that are currently privately held if the private owner becomes insolvent or is dissolved.

REVENUE COLLECTION

Recommendation

To help ensure the receipt of all the funds it is entitled to from the taxes and rents levied on mining lands, the Ministry should:

- *pursue outstanding accounts on a timely basis;*
- *charge the prescribed interest rate for overdue rent on leases and licences;*
- *on a timely basis, initiate procedures to revoke the mining rights of owners that have not paid the required taxes and rents; and*
- *review the appropriateness of fees charged for mining rights.*

Current Status

At the time of our follow-up, the Ministry had completed a review of the taxes and rents levied on patented, leased, and licensed mining lands and indicated that it was following up on all outstanding accounts that were more than two years in arrears. In April 2006, the Ministry developed a two-year action plan to collect taxes that were in arrears on 2,472 lands. By December 2006, taxes levied on 1,857, or 75%, of these lands had been paid or satisfactorily resolved. The Ministry was planning to have all the cases of unpaid taxes resolved by March 31, 2008. In addition, the Ministry had pursued the registered holders of land that had rents outstanding, and as of March 31, 2007, had either collected the amounts in arrears or terminated the holders' mining rights and forfeited them to the Crown.

The *Mining Act* allows for interest to be collected on overdue rent on leases and licences at prescribed rates. The Ministry indicated at the time of our follow-up that it was seeking a legal opinion and working with the Ministry of Finance to determine what an appropriate interest rate would be and what its options were for collecting such interest. The Ministry noted that the interest-rate provision could be introduced as early as March 31, 2008, depending on the extent of computer programming required, the results of discussions with other ministries, and the amount of work involved in client education.

At the time of our follow-up, the Ministry was upgrading and enhancing its information database and revenue-collection system to enable it to initiate procedures to revoke the mining rights of owners that have not paid the required taxes and rents on a timely basis. It expected to complete this work by January 2008.

The Ministry informed us that it had also completed a review of the fees charged for mining rights in other Canadian jurisdictions and had determined that Ontario's fees are consistent with those charged elsewhere. The Ministry indicated that it continuously reviews its fees and would make recommendations to change, via regulation, the amounts charged, if necessary, while still ensuring that amounts charged do not adversely affect Ontario's business and competitive climate.

MEASURING AND REPORTING ON PROGRAM EFFECTIVENESS

Recommendation

The Ministry should develop more comprehensive indicators for measuring and reporting on the Mines and Minerals Program's effectiveness in ensuring that Ontario's mining sector is healthy, competitive, and sustainable and in minimizing the impacts of mining activities on public health and safety and the environment.

Current Status

The Ministry introduced two new performance measures for the 2007/08 fiscal year: the dollar value of new investment in Ontario's exploration and mining industries, and the percentage of funding provided for the Abandoned Mines Rehabilitation Program that is used for remedial work. However, we noted that the Ministry still did not have indicators for measuring its performance in certain other areas, such as in minimizing the impacts of mining activities on public health and safety and the environment.