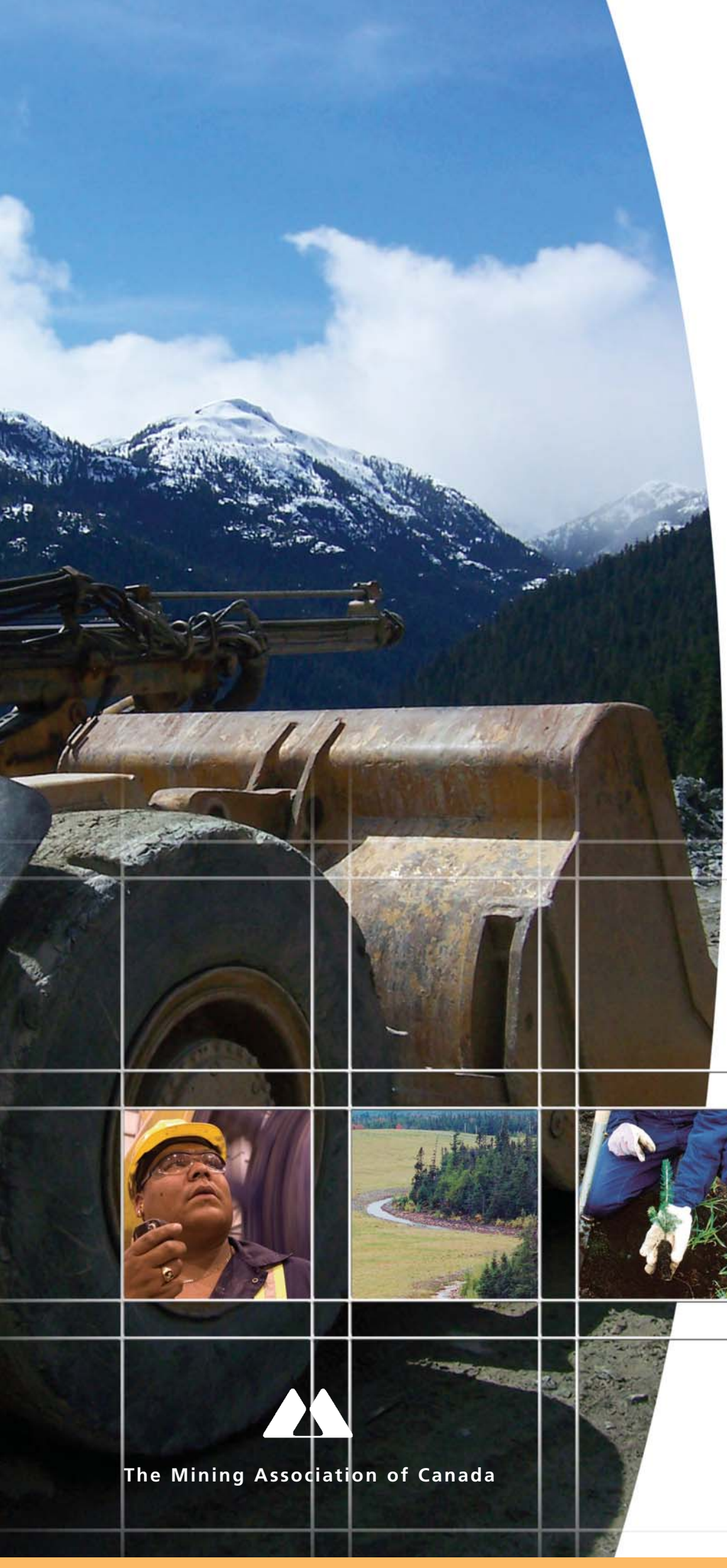


Towards Sustainable Mining

Progress Report

2006

The Mining Association of Canada

Table of Contents

The Mining Association of Canada again showcases the photography of one of its own—Pierre Gratton, Vice President of Sustainable Development and Public Affairs. This report contains photos Pierre took throughout Canada while attending mine tours, taking time out from business meetings or simply travelling.

Pierre resisted the pressure to go digital for many years. Last year on Father's Day, however, his daughter presented him with a Panasonic digital camera. He hasn't looked back since.

CD-ROM

To facilitate data access and searching, TSM assessment results and detailed bulletins are provided in Acrobat PDF format on the CD-ROM at the back of this report.

Cover: A panoramic view from Lynx 5 Level at Breakwater Resources' Myra Falls operation on Vancouver Island. Mount Thelwood in Strathcona Provincial Park rises in the distance. Photo by Sharlene Henderson.

President's Message

It's a historic moment for the Towards Sustainable Mining initiative. This year, for the first time, MAC members are having their performance externally verified against the TSM performance indicators. This step affirms our members' commitment to transparency, accountability and continuous improvement. It also makes MAC the first mining association in the world to respond to the expectations of its communities of interest by implementing external verification in a consistent way across its membership. All member companies are using the same methods to evaluate performance against the same criteria.

Besides taking this giant step, TSM made great progress on other issues throughout the year. To add to the performance elements already in place—tailings management, energy use and greenhouse gas emissions management, external outreach and crisis management planning—TSM initiative leaders worked with MAC's Community of Interest Advisory Panel to develop two new performance areas: Aboriginal relations and biodiversity. Their hard work included holding two multi-stakeholder workshops and developing draft policy frameworks for each area. The draft framework on mining and Aboriginal relations was adopted by the MAC Board of Directors in November 2006 and is going through more consultation with Aboriginal communities and organizations in 2007. The draft framework on mining and biodiversity protection was adopted by the MAC Board in June 2007.

This report takes a detailed look at our progress and performance in the past year. It also describes how we have benefited from the invaluable advice of our Community of Interest Advisory Panel on the design and implementation of TSM.

As always, you will find thorough reporting of the industry's releases to the environment, including information on our efforts to reduce greenhouse gases. Detailed release data are provided in the bulletins on the CD-ROM at the back of this report and on MAC's website ***www.mining.ca***. Also provided are updates on the industry's key research initiatives, MITHE-RN and MEND, both of which are improving our understanding of how to address the industry's environmental and health impacts.

This year we present four feature articles that illustrate the mining industry's commitment to TSM and sustainable development. One article showcases the collective efforts of MAC's oil sands members to work with their communities of interest towards a sustainable approach to oil sands development. In another article, Breakwater Resources describes the operation and closure of Nanisivik, Canada's first mine north of the Arctic Circle. A third article looks at a unique partnership between BHP Billiton and the Kitikmeot Inuit Association that concentrates on traditional Inuit knowledge. And a fourth piece features Suncor Energy's collaborative approach to research on reclamation and biodiversity issues.

I hope you find this year's report interesting and informative. As always, your comments are important to us. I encourage you to complete the feedback card at the end of this report and urge you to contact us directly if you have any questions.

Sincerely,

Gordon R. Peeling
President and CEO

Gordon R. Peeling

President and CEO
The Mining Association of Canada

Towards Sustainable Mining

Doug Horswill

Chair
TSM Governance Team

Senior Vice President
Teck Cominco Limited

A Letter from the Chair of the TSM Governance Team

In 2006 I had the pleasure of taking on the role of Chair of the TSM Governance Team. Since 1998 the Governance Team has led the development of TSM, even before the initiative had a name. I have been a member of the team since the beginning and have seen TSM evolve into a credible initiative that has earned the support of MAC members and the admiration of others inside and outside the mining industry.

The challenge today for the Governance Team is to ensure that TSM maintains its momentum. That means tackling a critical set of emerging issues: implementing external verification, developing new performance elements such as Aboriginal relations and biodiversity, strengthening the TSM brand to enhance its strategic value to MAC members and looking at ways to extend the reach of TSM beyond Canada's borders.

In 2005 MAC won the Globe Foundation's Award for Environmental Performance. Our challenge in 2006 was to make sure this prestigious achievement was not our high-water mark, but rather a sign of things to come. As it turned out, 2006 was another year of major accomplishments, starting with the implementation of TSM's external verification system.

Over the past two years, TSM initiative leaders from member companies have worked to design a verification system that does the following:

- verifies that MAC members' assessments reflect actual company performance
- assists members in developing the capacity to monitor and self-assess TSM implementation
- ensures that MAC members and their communities of interest can rely on the reported results

Initiative leaders reviewed a range of verification systems in use or under development by MAC members and other industry associations in mining and non-mining sectors. Several auditing and verification professionals were consulted or were actively involved in the design. In addition, the Community of Interest (COI) Advisory Panel was regularly consulted on all elements of the system. Initiative leaders were able to incorporate much of the panel's advice.

The resulting TSM verification system is based on a layered approach. Three elements combine to give MAC members and their communities of interest confidence in the integrity of reported company performance:

- verification of company self-assessments by an external verifier
- letter of assurance from a CEO or authorized officer confirming the verified results (to be published on MAC's website)
- annual post-verification review of two or three member companies' performance by the COI Advisory Panel

In the areas of Aboriginal relations and biodiversity, we have made considerable progress. MAC's Board of Directors adopted a draft policy framework on Aboriginal relations in 2006, which outlines members' specific commitments concerning mining development that may impact Aboriginal communities. A similar framework on mining and biodiversity was approved this year. This is an issue that my company, Teck Cominco, takes a strong interest in as we finalize our own code of practice in this area.

As TSM evolves and deepens, MAC members are taking a hard look at how our Canadian system might expand to other countries we operate in. Some companies, such as Inmet Mining Corporation, have already decided to apply TSM to all their international properties. Others are weighing this option against other international approaches that might make a better fit. Either way, all MAC members are committed to making sure the guiding principles of TSM underpin our actions worldwide.

I hope you enjoy reading this year's report and that you appreciate the hard work so many people have put into the development and implementation of TSM. I want to thank MAC's Board of Directors, TSM initiative leaders, key MAC committees, members of the COI Advisory Panel and the countless others who worked diligently this past year to help the Canadian mining industry succeed responsibly. I welcome your comments on what you learn about our industry's progress and encourage you to fill out the feedback card in this report.

Sincerely,

Doug Horswill
Chair, TSM Governance Team

A Report on TSM Progress 2006

This article reports on members' results under the TSM performance indicators over the past year. It also reports on the implementation of an external verification system, progress on Aboriginal relations and biodiversity, TSM communications and the work of the Community of Interest Advisory Panel.

The path forward

Launched in 2004, TSM was made a condition of membership by the MAC Board of Directors in November of that year. Since then MAC members have taken some important steps:

- reported annually against performance indicators for tailings management, energy use and greenhouse gas emissions management, external outreach and crisis management planning
- developed and implemented an external verification system for TSM performance
- established and worked with the 14-member Community of Interest Advisory Panel
- developed policy frameworks for Aboriginal relations and biodiversity

This work on the TSM initiative earned MAC the Globe Foundation Award for Environmental Performance in 2005.

Now, in moving forward, a key objective is to encourage mining companies that do not belong to MAC to adopt TSM, its guiding principles and its obligations.

TSM performance indicators

From the outset, MAC members identified the need for performance indicators to provide a consistent framework for evaluating and reporting on industry performance against the TSM guiding principles. Indicators help ensure that reporting is relevant to communities of interest. By reporting on tailings management, energy use and greenhouse gas (GHG) emissions management, external outreach and crisis management planning, MAC members are providing their communities of interest and the public with important information about their performance in these critical areas.

Aerial photo on flight from Fort Good Hope to Norman Wells, Northwest Territories

As you review the results below, you may want to consult the list of performance indicators provided in PDF format on the CD-ROM included with this report. You will also find full assessment protocols for each performance element on MAC's website **www.mining.ca** and more detail about the TSM results on the CD-ROM.

The performance indicators were amended and improved again in 2006. The second year of self-assessment had identified a few areas where wording was still unclear or unduly subjective. With the exception of Indicators 3 and 6 for energy use and greenhouse gas emissions management, comparability with 2005 results is reliable.[1]

As you review the results that follow, you may want to consult the list of performance indicators provided in PDF format on the CD-ROM included with this report.

Interpreting TSM Indicators

The TSM performance indicators mostly measure the quality and comprehensiveness of management systems in four performance areas. They provide the public with a window on the industry's performance but by no means a complete picture. Readers are encouraged to review the environmental and greenhouse gas release data published in this report, as well as to consult member companies' reports for more information on their performance.

1 Energy use and GHG management Indicators 3 and 6 were modified so that now, to achieve Level 3, facilities must have and meet an intensity target. To achieve Level 5, the facility must have and meet a rate of improvement target. Last year a rate of improvement target of 1 percent per year was required to achieve Level 3 in each indicator, which proved problematic and unworkable for many sites.

As in previous years, the indicators for three elements—tailings management, energy use and greenhouse gas emissions management, and external outreach—are supported by a ranking system and clear criteria for evaluating performance and monitoring progress. For each indicator there are five levels of performance, with criteria for each level. In general, the levels represent the following degrees of activity:

Level 1	No systems in place; activities tend to be reactive; procedures may exist but are not integrated into policies and management systems.
Level 2	Procedures exist but are not fully consistent or documented; systems/processes are planned and being developed.
Level 3	Systems/processes are developed and implemented.
Level 4	Integration into management decisions and business functions.
Level 5	Excellence and leadership.

Performance assessment takes place at the facility level, where it is most meaningful. A reporting facility selects the level that best represents its performance and is expected to justify the level with evidence. Only one level can be chosen for each indicator, and it can be chosen only if all criteria for that level and all preceding levels have been met. MAC sees Level 3 as representing a good performance under each indicator. In some cases, Level 3 presents a realistic stretch target for member companies.

Regardless of which level a facility reports at, the facility is assumed to be in compliance with all legal and regulatory requirements. The measurement system, in keeping with the TSM guiding principles, has been designed to help MAC members improve their performance by moving beyond minimum regulatory standards towards good practices worldwide.

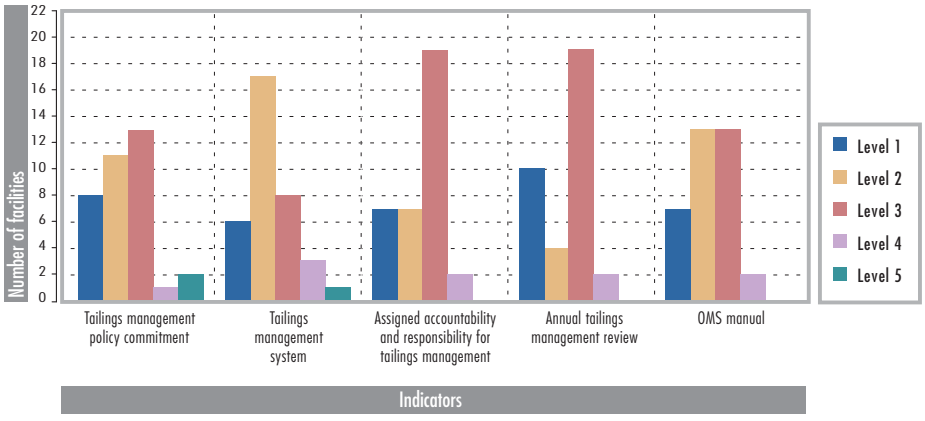
In the case of crisis management planning, both head offices and facilities assess their performance against criteria by answering yes/no (met requirements/did not meet requirements).

The results

The graphs that follow show data from the performance assessments of 16 member companies' operating facilities (in the case of crisis management planning, companies report at both the corporate and the facility level). Only member companies with operating facilities in Canada are expected to report. In total, just 3 member companies with operating facilities did not report in 2006. Of them, 2 are new members, having joined in 2006, and are expected to report next year.

Tailings Management	Energy Use and Greenhouse Gas (GHG) Emissions Management	External Outreach	Crisis Management Planning
Tailings management policy and commitment	Energy use and GHG emissions management systems	Community of interest (COI) identification	Crisis management preparedness
Tailings management system	Energy use and GHG emissions reporting systems	Effective COI engagement and dialogue	Review
Assigned accountability and responsibility for tailings management	Energy intensity performance target	COI response mechanism	Training
Annual tailings management review	GHG emissions intensity performance target	Reporting	
OMS (operation, maintenance and surveillance) manual			

Tailings Management Assessments



Tailings Management Facility Assessments: 35 facilities

Of the 16 reporting companies, 10 have had their results externally verified; 2 are participating in TSM for the first time, so external verification was not expected. Because of special circumstances, 4 companies deferred verification for one year. The results of all companies whose facility results have been externally verified are posted on MAC's website ***www.mining.ca/www/Towards_Sustaining_Mining/index.php*** or may be viewed on the CD-ROM included with this report.

The graphs in this section show overall performance across MAC membership on an aggregate basis. Because of the new reporters this year, the totals have changed, making a direct comparison with 2005 results a challenge. Only the 2006 results are reported here; however, a comparison of facilities that reported in both 2005 and 2006 is provided on the CD-ROM and is referred to in the following text.

1. Tailings management

The results for tailings management were positive, with better results in 2006 for all five indicators. As in 2005, the strongest indicators were for assigned accountability and annual tailings management review. This is important, since it demonstrates that the highest management levels recognize the importance of managing what is typically a mining facility's most significant environmental and safety risk. Nevertheless, more work is required to ensure that all MAC member facilities obtain Level 3 or better for each indicator.

Companies submitting TSM Assessments (16):

Albian Sands Energy Inc.*

Barrick Gold Corporation

BHP Billiton Diamonds Inc.*

Breakwater Resources Ltd.

CVRD Inco Limited*[1]

Diavik Diamond Mines Inc.*

Dynatec Corporation

HudBay Minerals Inc.*

Inmet Mining Corporation*

Iron Ore Company of Canada*

North American Palladium Ltd.

Qubec Cartier Mining Company

Suncor Energy Inc.*

Syncrude Canada Ltd.*

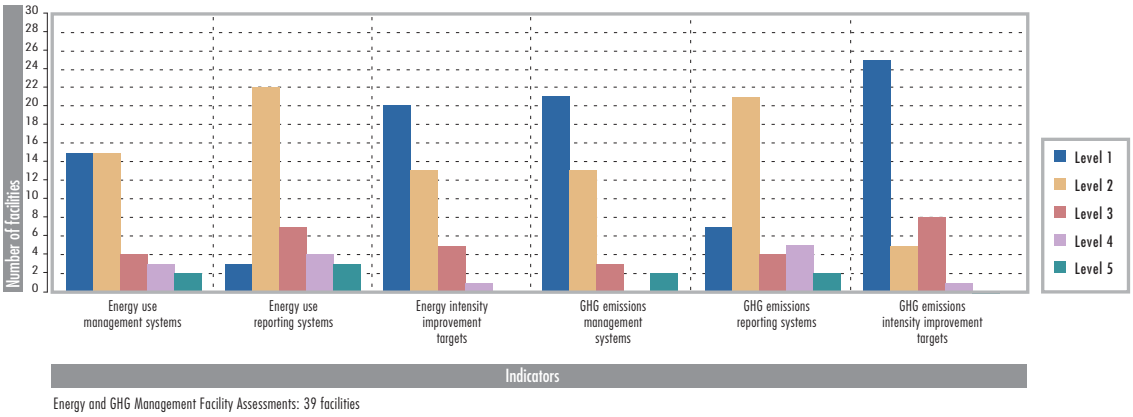
Teck Cominco Limited *

Xstrata

* Indicates externally-verified results. Results for these companies are provided on the CD-ROM included with this report.

[1] Verified results do not include Voisey's Bay Nickel, a new reporter within CVRD Inco.

Energy Use and Greenhouse Gas (GHG) Emissions Management Assessments



Energy and GHG Management Facility Assessments: 39 facilities

Impact of External Verification on Facility Results

The introduction of external verification this year was expected to have a negative impact on TSM performance results—that is, results were expected to decline. Interestingly, this does not appear to have been a major factor, except possibly for crisis management planning, where head office performance fell. This positive outcome shows that facilities are conducting their self-assessments rigorously prior to the arrival of the verifier. It also demonstrates that TSM is working as designed—facilities are identifying opportunities for performance improvement from one year to the next and are acting on them.

2. Energy use and greenhouse gas (GHG) emissions management

Energy use and GHG emissions management remains the weakest overall performance area on an aggregate basis. This year's performance was roughly equivalent to last year's, though a comparison of 2005 and 2006 reporters indicates a small improvement in GHG emissions management and GHG reporting. One reporter, BHP Billiton Diamonds, obtained Level 3 or better for all six indicators in this area—an achievement that will likely be of interest to other facilities.

3. External outreach

Results for external outreach were very positive. The number of facilities at Level 3 or better increased for each indicator in 2006. Among facilities that reported in both 2005 and 2006, performance improved significantly for COI identification, COI engagement and dialogue, and COI reporting. From the outset of TSM, MAC members have underscored the importance of establishing and maintaining good relationships with their communities of interest. With this year's results, their efforts to improve performance are beginning to bear fruit.

It is noteworthy that several facilities achieved superior results in this performance area. Albian Sands, Suncor and Syncrude achieved Level 5 for all four indicators, while Diavik was just short of this mark, with Level 4 for the COI response mechanism indicator and Level 5 for the others.

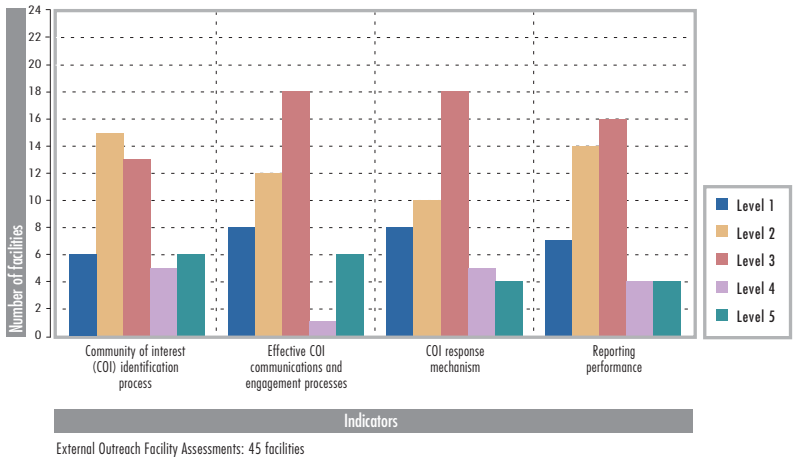
4. Crisis management planning

The indicators under crisis management planning set the bar high. Head offices and facilities must meet all criteria for each indicator to answer "yes."

Results this year show a decline in performance at the corporate office level, with fewer head offices reporting "yes" than in 2005. The decline is most evident when head offices that reported in both 2005 and 2006 are compared (see CD-ROM for details).

Results at the facility level, however, are more encouraging. In 2006 the same number of facilities responded "yes" to the first indicator on crisis management preparedness, while the results for review and training improved, the former quite significantly (25 "yes" versus 18 in 2005). In a comparison of identical facilities between 2005 and 2006, results for the first indicator declined slightly, while the second and third improved and remained the same respectively (see CD-ROM for details).

External Outreach Assessments



External Outreach Facility Assessments: 45 facilities

It will be important for MAC members to consider these results and seek to understand the reasons for the decline at the head office level, the improvement at the facility level and the steps required to continuously enhance this critical performance area.

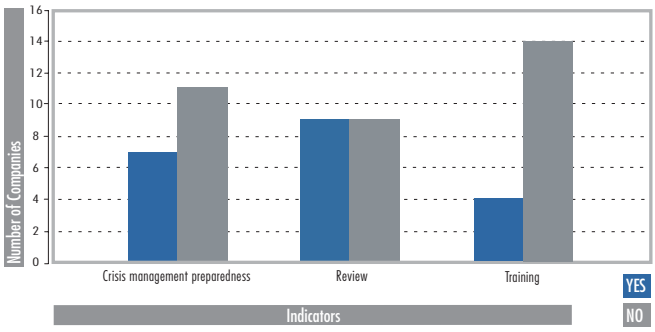
Implementing external verification

In the first two years of TSM reporting, the results published in the *TSM Progress Report* were based on self-assessments. MAC's Board of Directors felt that self-assessment was a necessary first step to familiarize companies with the TSM indicators and the reporting process.

Workshops continue to be held for member companies to deepen their understanding of TSM and the self-assessment process. However, the Board has recognized that it is crucial to assure MAC members and their communities of interest that reported results are consistent and accurate. As a result, this year, for the first time, ten MAC members externally verified their 2006 self-assessment results. In later years, companies will verify on a rotating three-year basis, with one-third of members externally verifying their results each year. New MAC members have three years to fully implement the self-assessment and external verification system.

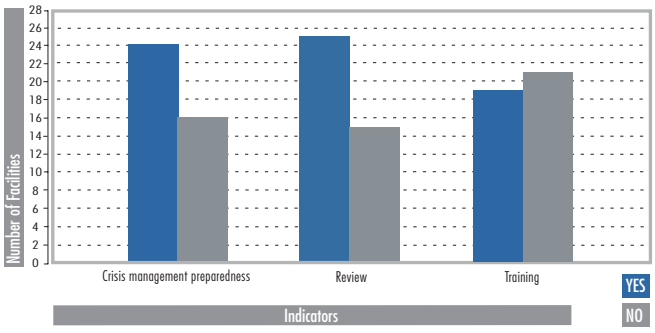
Making sure that external verification was implemented effectively, fairly and transparently involved taking a few key steps. First, since companies hire their own verifiers, terms of reference for verification service providers (VSPs) were developed. Drafted in consultation with the Community of Interest (COI) Advisory Panel, the terms of reference establish minimum qualifications and conditions for those interested in supplying verification services. They spell out the degree of independence of VSPs (for instance, a VSP cannot verify an area for which he or she has provided consulting services within the past two years) as well as the skills and experience required. The terms of reference are posted in the TSM section of MAC's website ***www.mining.ca/www/Towards_Sustaining_Mining/index.php***, as is a full description of the TSM verification system.

Crisis Management Planning Assessments
Corporate-Level Reporting



Crisis Management Planning Corporate Assessments: 18 companies

Crisis Management Planning Assessments
Facility-Level Reporting



Crisis Management Planning Facility Assessments: 40 facilities

One condition in the terms of reference is that all potential VSPs attend a MAC verification workshop. Designed to ensure that external verification is consistent, these workshops educate VSPs about the goals of TSM, members' expectations for external verification, methods of conducting verification and key terms involved. Four workshops were held in the fall of 2006: two in Toronto, one in Calgary and one in Montreal (in French). A fifth was held in Vancouver for KPMG staff in early 2007. Two members of the COI Advisory Panel attended the workshops as observers.

In total, over 60 individuals qualified as VSPs. (Their names, affiliations and contact information are posted on MAC's website.) Any questions that emerged later, as the VSPs conducted their verifications, were referred to MAC for clarification.

Dancing in Fort Good Hope, Northwest Territories

Aboriginal relations and biodiversity

MAC also made progress during the year on two new performance elements, Aboriginal relations and biodiversity. Expert workshops on both areas in September and October 2006 contributed to the drafting of policy frameworks.

The draft Aboriginal framework, adopted by the MAC Board in November 2006, outlines members' commitments regarding mining developments that may impact Aboriginal communities. The framework was adopted as a draft because MAC will continue to consult Aboriginal communities and organizations in 2007. The framework is available in the TSM section of MAC's website ***www.mining.ca/www/Towards_Sustaining_Mining/index.php***. It is accompanied by a report from the expert workshop and related materials.

A similar framework on mining and biodiversity was adopted in June 2007. This framework outlines members' commitments on integrating biodiversity considerations into mine planning, operations and closure. The biodiversity framework and workshop report is available in the same section of MAC's website.

TSM communications

MAC's Board of Directors wants TSM to become a respected brand that denotes a commitment to sustainable development, transparency and continuous improvement. Communications outreach was therefore critical this past year and will continue to be a priority in the year to come.

In early 2006 MAC sponsored a well-attended panel discussion on mining and sustainability at the Globe Conference in Vancouver. The panel included MAC members, a representative of the COI Advisory Panel (Elizabeth May) and the president of the International Council on Mining and Metals (Paul Mitchell).

MAC also attended a number of trade shows and conferences in 2006 to communicate with the industry and the public about TSM and MAC members' commitments. In early 2007 MAC introduced TSM to Peru at a workshop on mining and indigenous peoples. With interest in TSM spreading beyond Canada's borders, a new TSM brochure is now available in English, French and Spanish.

The COI Advisory Panel

The COI Advisory Panel brings together representatives from Aboriginal and labour organizations, communities where the industry is active, environmental and social NGOs and the financial community, along with senior mining industry representatives.

The panel met twice in 2006, on March 8 and September 27, with conference calls on specific issues between meetings. The panel discussed and advised on a range of issues, including the TSM verification system and the new performance elements for Aboriginal relations and biodiversity, and participated in workshops on

both topics. As well, two panel members attended the training workshops for VSPs. For more information, see the panel's meeting reports on MAC's website **www.mining.ca**.

In a separate statement in this *TSM Progress Report,* the COI Advisory Panel presents its views on the progress of TSM and the challenges facing Canada's mining industry. As well, one panel representative, Brenda Kelley of the Canadian Environmental Network, recently completed a three-year assessment of TSM for her organization. The report is posted on MAC's website.

Next steps

Over the next year, with support from the COI Advisory Panel, MAC will continue to work on the new performance areas of biodiversity and Aboriginal relations. In the second half of 2007, MAC will convene a meeting of TSM initiative leaders, members of the COI Advisory Panel and VSPs to evaluate the external verification process and look at ways of refining it. In September the COI Advisory Panel will conduct its first post-verification review of two or three member companies' performance.

Recognizing Good Performance

This year MAC honoured the following facilities, which achieved Level 3 or better for all indicators in a performance area (for tailings management, energy use and GHG emissions management, and external outreach) or reported "yes" for all indicators under crisis management planning. The results must have been externally verified for the facility to receive this recognition.

Tailings	Energy and Greenhouse Gas (GHG) Emissions	External Outreach	Crisis Management Planning
■ Diavik Diamond Mines Inc. (Level 4) ■ Hudson Bay Mining and Smelting Co. Limited (Level 3) ■ Inmet Mining Corporation ● Copper Range Company (Level 3) ● Norbec (Level 3) ● Samatosum (Level 3) ● Sturgeon Lake (Level 3) ● Winston Lake (Level 3)	■ BHP Billiton Diamonds Inc. (Level 3)	■ Albian Sands Energy Inc.—Muskeg River Mine (Level 5) ■ Diavik Diamond Mines Inc. (Level 4) ■ Suncor Energy Inc. (Level 5) ■ Syncrude Canada Ltd. (Level 5) ■ Teck Cominco Limited—Highland Valley Copper (Level 3) ■ Hudson Bay Mining and Smelting Co. Limited (Level 3) ■ Inmet Mining Corporation ● Copper Range Company (Level 3) ● Norbec (Level 3) ● Pyhäsalmi Mine (Level 3) ● Samatosum (Level 3) ● Sturgeon Lake (Level 3) ● Winston Lake (Level 3)	■ Albian Sands Energy Inc. (corporate) ■ Albian Sands Energy Inc.—Muskeg River Mine ■ Diavik Diamond Mines Inc. ■ Hudson Bay Mining and Smelting Co. Limited ■ Inmet Mining Corporation ● Çayeli Mine ● Copper Range Company ● Norbec ● Samatosum ● Sturgeon Lake ● Winston Lake ■ Iron Ore Company of Canada—Labrador City ■ Iron Ore Company of Canada—Sept-Îles ■ Syncrude Canada Ltd. ■ Teck Cominco Limited (corporate)

TSM Community of Interest Advisory Panel Members

Chief Jim Boucher
Fort McKay First Nation

Richard Briggs
Canadian Auto Workers

Charles Campbell
United Steelworkers of America

Ginger Gibson
University of British Columbia

Larry Haber
City of Kimberley

George Hakongak
Nunavut Tunngavik Incorporated

Brenda Kelley
Canadian Environmental Network

Soha Kneen
Inuit Tapiriit Kanatami

Christy Marinig
Timmins Economic Development Corporation

Elizabeth May
Green Party of Canada (formerly with Sierra Club of Canada)

Allan Morin
Métis National Council

Alan Penn
Cree Regional Authority

David Scott
CIBC World Markets

Chief Darren Taylor
Assembly of First Nations

Statement from the Community of Interest Advisory Panel

The Community of Interest (COI) representatives who sit on The Mining Association of Canada's COI Advisory Panel are pleased to provide an update of the panel's work assisting MAC to implement the Towards Sustainable Mining initiative and to apply the performance indicators that support this initiative.

This year we made progress on verification, issued some challenges to the industry and identified new areas to press forward on during the coming year.

MAC, following consultation with the COI Advisory Panel, has developed a mechanism for formal verification of the TSM performance indicators for individual companies. Verification is a means of confirming the transparency and credibility of the information and procedures that companies use in evaluating their own performance. With verification, we also hope to improve the transparency and credibility of the indicators themselves. During the year, some panel members participated in a series of MAC-organized workshops for verification service providers, in which verifiers learned about the process of externally verifying the TSM indicators.

Last year the panel issued a challenge to MAC to develop a policy on biodiversity. We were pleased to send a few of our members to a well-attended multi-stakeholder workshop on that topic in Ottawa (October 15–16, 2006). The workshop, held in collaboration with ICMM (International Council on Mining and Metals), offered guidance for making biodiversity objectives one of the TSM performance indicators.

We also challenged MAC to engage more deeply with Aboriginal issues. To that end, panel members took part in a MAC workshop on Aboriginal issues in Fort McKay, Alberta (September 27, 2006). The workshop provided an opportunity to review a broad range of issues involving relationships between Aboriginal governments and communities and the mining industry. The results are being used to develop guidance for MAC members on relationships with Aboriginal governments and communities. The panel has taken note that incorporating Aboriginal traditional knowledge and addressing the changing standards of consultation are subjects of continuing interest and need to be explored further.

MAC has developed draft policies to address Aboriginal relations and biodiversity issues. We look forward to seeing MAC formalize these policies and intend to closely follow how industry responds.

Three new members—Wabush Mines, Cameco Corporation and Tahera Diamond Corporation—recently joined MAC and should be reporting their TSM performance indicators in the coming year. We welcome the participation of the uranium mining sector, now represented in MAC's membership. The absence of the coal mining sector is a continuing concern.

We view the TSM initiative as an evolving process, and we expect to learn, along with the mining industry, from the experience acquired year to year in developing and using the TSM performance indicators. It is important that the indicators, which are based on self-assessment by participating companies, be as transparent as possible in the eyes of communities of interest. Supporting information that helps explain the self-assessments will remain very important in this initiative.

There are some themes that we believe need further attention in the coming year, including tailings management, water use and recycling, and issues related to mine close-out and restoration. One of the most important themes, in the view of the COI representatives, is the development and application of indicators that adequately reflect companies' efforts to communicate and work with nearby communities. It is in this general context that we expect MAC to continue to work on Aboriginal community relations and to address consultation and communication issues involving this constituency.

This past year brought climate change to the top of the environmental agenda. We see reporting on greenhouse gas emissions and energy intensity as key, and we will continue to work actively in these areas. Reporting in both areas should be comprehensive enough that we can better understand what the industry is doing, and can do, to reduce the energy intensity of its operations.

We recognize that in some cases, companies may reduce the energy intensity of their operations even though expansion of those operations results in an overall increase in energy use and GHG emissions. For these reasons, it is important for those using the performance indicators to understand the nature of what is being reported.

We commend those mining companies that have taken a leadership role and made the extra effort to follow the TSM process. We look forward to another busy and productive year ahead.

Collaboration

Key to Tackling Oil Sands Infrastructure Crunch

Thanks to newspaper features and national newscasts from Fort McMurray, Alberta, most Canadians have at least some appreciation of the challenges posed by the dramatic growth of the oil sands industry.

What gets less ink and less airtime is the ongoing effort to find solutions.

The route to these solutions is collaboration—at least for the Regional Municipality of Wood Buffalo, the country's fastest-growing municipality and home to most of Canada's oil sands deposits. There, industry, public services, local government and local stakeholders are coming together to wrestle with some big issues. One of them is convincing government to invest in desperately needed infrastructure.

This investment was the focus of the Wood Buffalo Business Case 2005, an overview of the region's urgent need for public infrastructure and a five-year plan for the funding required to address the area's rapid, sustained growth. The business case, spearheaded by the Athabasca Regional Issues Working Group (RIWG), a non-profit industry-led association, outlined nine recommendations. Among them were more timely transfer of crown lands to the municipality, funding to address the region's critical infrastructure gaps, and better funding formulas and planning mechanisms to address high-growth regions in the province.

The business case went before Alberta's standing committee on energy and sustainable development in April 2005, successfully raising the government's awareness of these issues. In fact, the Alberta government released its own report on oil sands development, which acknowledged the need for special planning and support for growing regions like Fort McMurray.

More recently, the government announced nearly $400 million to address growth-related issues in the region, including support for new water and wastewater treatment facilities, affordable housing and health care. This is in addition to several previous funding announcements: over $700 million for highway improvements, a $136 million interest-free loan to Wood Buffalo and over $600,000 for new schools.

"I'm thrilled that the government of Alberta has recognized that Fort McMurray is unique and has responded to our needs," says Heather Kennedy, president of RIWG. "I now feel more confident that Fort McMurray will be a world-class city that matches the oil sands resource. I look forward to continuing to work with RIWG and our local leaders to ensure we have a sustainable community."

Kennedy, who is also Vice President of Operational Excellence at Suncor, believes the business case was so effective largely because of the collaboration that went into it.

Besides RIWG, which is funded by 24 members, 17 of them oil sands developers, other contributors were the Regional Municipality of Wood Buffalo, the Northern Lights Health Region, Keyano College and the three local school districts.

"RIWG also prepared a business case in 2002, but we did that on our own," says Kennedy. "The 2005 effort was strengthened by the input from other stakeholders. As an industry group, RIWG does a good job compiling growth projections for indicators such as oil sands production, jobs and capital expenditures. The other stakeholders were able to contribute a much wider perspective by speaking to the gaps in public infrastructure and civic services and how those gaps are going to constrain oil sands development. As a result of this input, we were able to mount a stronger advocacy effort, and we're starting to see the results."

Heather Kennedy is President of RIWG, and VP, Operational Excellence at Suncor Energy Oil Sands

SECTION 1

Managing Releases and Materials

Processing plant under construction at Snap Lake

Summary of Industry Progress

For over two decades, MAC members have been steadily reducing the substances their operations release to the air and water. Better controls, new technologies and more sophisticated monitoring techniques all contribute over time to better environmental performance. Release levels may vary from year to year, influenced by changing production levels, for example. But the trend is clearly toward significant, meaningful reduction in the releases of key substances.

The graphs and tables below show members' releases to air and water in 2005 against the base year. Detailed tables on members' greenhouse gas releases are provided in the separate "Greenhouse Gas Progress Report" on the CD-ROM at the back of this report. Information on the Metal *Mining Effluent Regulations* and environmental effects monitoring is also provided in PDF format on the CD-ROM or at ***www.mining.ca***.

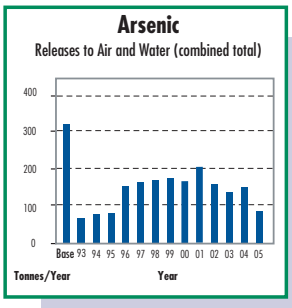
Reductions Achieved to 2005

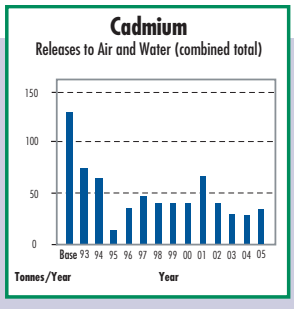
Arsenic	75%
Cadmium	76%
Copper	64%
Hydrogen Sulphide	85%
Lead	89%
Mercury	94%
Nickel	71%
Zinc	87%

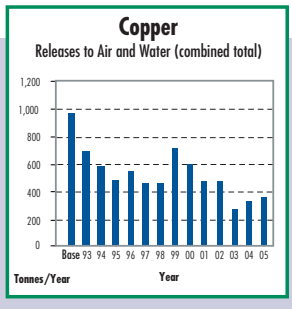
Releases of Minerals and Metals

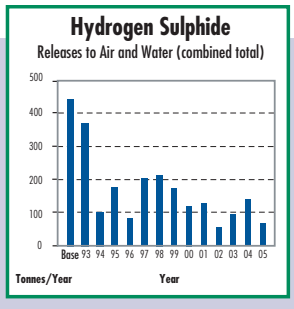
The following are the major substances commonly released by our industry. In 2005 releases of lead was at its lowest recorded level despite rising production, while mercury releases were 94 percent below base year levels. These results reflect concerted action by the industry to reduce releases of these substances. Hydrogen sulphide, arsenic and zinc releases also declined from the previous year, while copper, nickel and cadmium releases increased slightly.

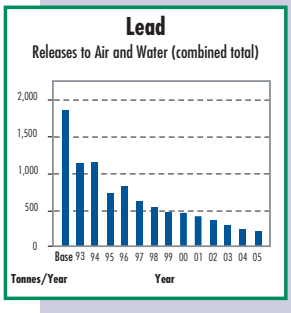
MAC members continue to be involved in community risk assessments—multi-stakeholder processes designed both to determine how releases from historic operations affect human health and the environment and to develop mitigation strategies. At the same time, MAC is a major sponsor of the Metals in the Human Environment Research Network (MITHE-RN), which examines the connection between metals in the environment and the potential for adverse effects on humans (see article in this report).

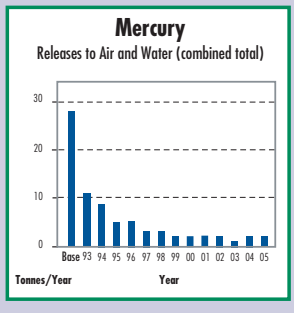


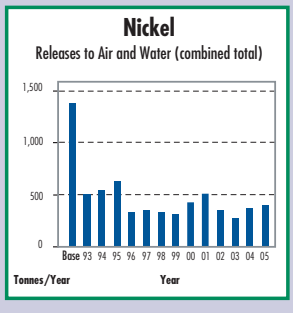


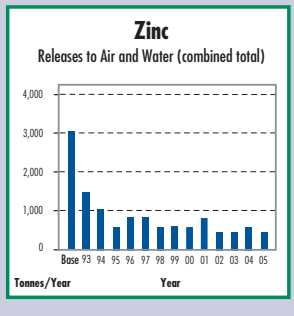












Cutting Sulphur Dioxide Releases in Sudbury

MAC members are committed to reducing releases of sulphur dioxide (SO_2) and have made steady progress over the years. Sulphur dioxide is probably best known as a precursor for acid rain, which occurs when SO_2 oxidizes and mixes with water in the atmosphere to produce sulphuric acid. There are also health risks associated with SO_2. High levels contribute to breathing problems and increased difficulty for people with respiratory and cardiovascular diseases.

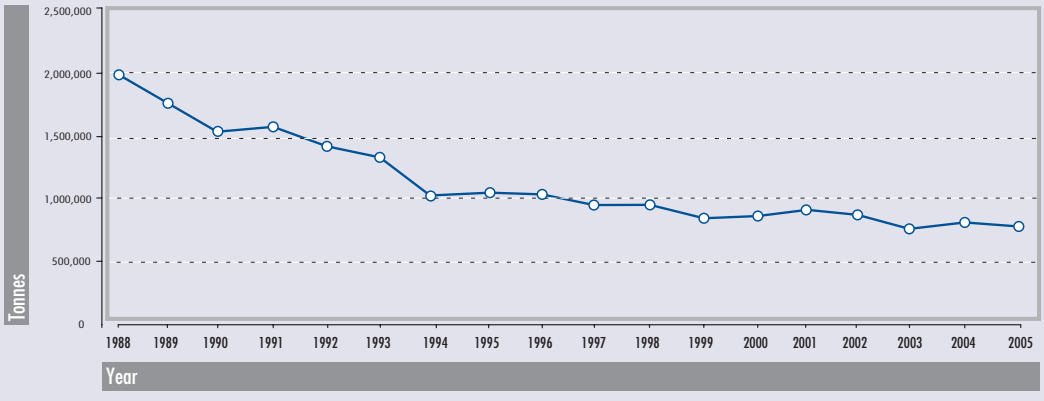
Reductions in SO_2 typically come about gradually, on a year-to-year basis, through better process controls. However, in some years the reductions are sizeable, often as a result of new technology.

One example of such technological change took place in 2006, when CVRD Inco announced it would commission a new, state-of-the-art $115 million facility that would cut SO_2 emissions from its Sudbury operations by 34 percent. Using unique fluid bed roaster off-gas scrubbing technology, the project aimed to reduce allowable emissions from the current regulatory limit of 265 kilotonnes to 175 kilotonnes a year.

The project was completed by the end of December 2006 (too late for its impact to be recorded in the chart below). Besides lowering SO_2 emissions, the project should end up decreasing total emissions of nickel, copper, arsenic and lead by 80 to 100 tonnes per year. In fact, CVRD Inco expects to cut total metal emissions at its Copper Cliff smelter by 80 percent over 1988 levels, and reduce overall SO_2 emissions by 90 percent compared to 1970.

For more information on CVRD Inco's SO_2 abatement project, visit the company's website **www.inco.com**.

Sulphur Dioxide Releases 1988–2005 from MAC Member Smelters, Refineries and Oil Sands Operations



A view of Frame Lake, Yellowknife, Northwest Territories

SECTION 2 Research Partnerships to Improve Performance

Scientific research is critical to the mining industry's environmental and social performance. So is traditional knowledge.

Testing for concentration of metals in effluent

For many years the mining industry has contributed to MITHE-RN, a research network that aims to improve our understanding of the sources and effects of metals in the environment, as well as their relationship to human health. Another program, MEND, and related international partnerships have brought Canada's mining industry closer to finding solutions to the critical environmental challenge of acid rock drainage.

As well, the mining industry has been forging more partnerships with Aboriginal people and communities. By improving our understanding of traditional knowledge, these partnerships make it possible to better manage and mitigate our impacts on wildlife and the environment. A 12-year research partnership between BHP Billiton and the Kitikmeot Inuit Association is featured below.

Mine Environment Neutral Drainage (MEND)

An example of Canadian global leadership

The original MEND program (1989–1997) and its successor, MEND 2000 (1998–2000), contributed enormously to understanding acidic drainage and its prevention, and to increasing the transfer of information and technology. Nonetheless, acidic drainage is still the most serious environmental issue facing the mining industry, government and the public, with potential liability reaching hundreds of millions of dollars.

The current MEND program is administered by a small secretariat at CANMET, part of Natural Resources Canada. It is highly respected both in Canada and abroad. Canada is currently the only country in the world addressing acidic drainage and metal leaching through a focused research program directed by a multi-stakeholder committee from industry, government and non-government organizations.

From 2003 to 2007, MEND has made great progress in addressing priorities such as closure management, verification of technologies, metal leaching, passive treatment, early prediction, sludge management, cold temperature effects and paste backfill. In 2006 MEND continued to transfer information through its newsletter (*The MEND Monitor*) and website **http://mend.nrcan.gc.ca**.

MEND is part of a global alliance for acidic drainage research that also includes the International Network for Acid Prevention (INAP), the US Acid Drainage Technology Initiative, the Australian Centre for Minerals Extension and Research, the South African Water Research Commission and the Partnership for Acid Drainage Remediation in Europe. This alliance allows for better global sharing of information, pooling of resources and leveraging of funds. The synergies created by this global alliance further underscore the importance of the MEND program.

During 2006 the global alliance and INAP made tremendous progress towards developing a global guide to acid rock drainage. The guide will consolidate current good practices in the management of contaminants produced by sulphide mineral oxidation, and will address how the production of these contaminants can result in ARD, neutral mine drainage and saline mine drainage. The guide will be a practical "how to" summary and a state-of-the-art reference for the mining industry, regulators, NGOs and the public. For more information on the global guide, visit INAP's website **www.inap.com.au**.

A more detailed bulletin is available on this topic. See the CD-ROM or ***www.mining.ca****.*

Metals in the Human Environment Research Network (MITHE-RN)

Third year of national metals research network

The Metals in the Human Environment Research Network (MITHE-RN) continues to build on the scientific knowledge developed by its predecessor, the NSERC-sponsored Metals in the Environment Research Network (MITE-RN), which ran from 1999 to 2004. The current network is led by Dr. Beverley Hale, University of Guelph, and its secretariat is managed by Dr. Len Ritter, Executive Director of the Canadian Network of Toxicology Centres.

Now into its third year, MITHE-RN addresses key uncertainties that hamper site-specific risk assessments of metals in surface environments. Dust, soil and food are the main routes by which humans are exposed to metals. It is therefore important to measure and characterize the metals present in these routes, looking specifically at their speciation and bioavailability. The network also recognizes that the health of aquatic and terrestrial ecosystems is a critical part of human health.

MITHE-RN's research program covers three themes: aquatic ecosystems, soils and plants, and foods and ingested particles. These themes represent a cascade of effects along food webs, from the lowest life forms to the highest consumers. Under each theme, the research projects are driven by the same three objectives:

- distinguishing the magnitude and roles of natural background and human-related metal inputs in biotic exposure to metals
- estimating the bioavailable fraction of metals in the exposure media, thus better quantifying the true exposure concentration
- determining the factors that influence the bioavailability of metals in media so that predictive models can be developed to help create site-specific metals criteria

For more information, visit the MITHE-RN website ***www.mithe-rn.org***.

A more detailed bulletin is available on this topic. See the CD-ROM or ***www.mining.ca***.

Water sampling for testing water quality

A Mining–Inuit Partnership Centred on Traditional Knowledge

A First in Canada

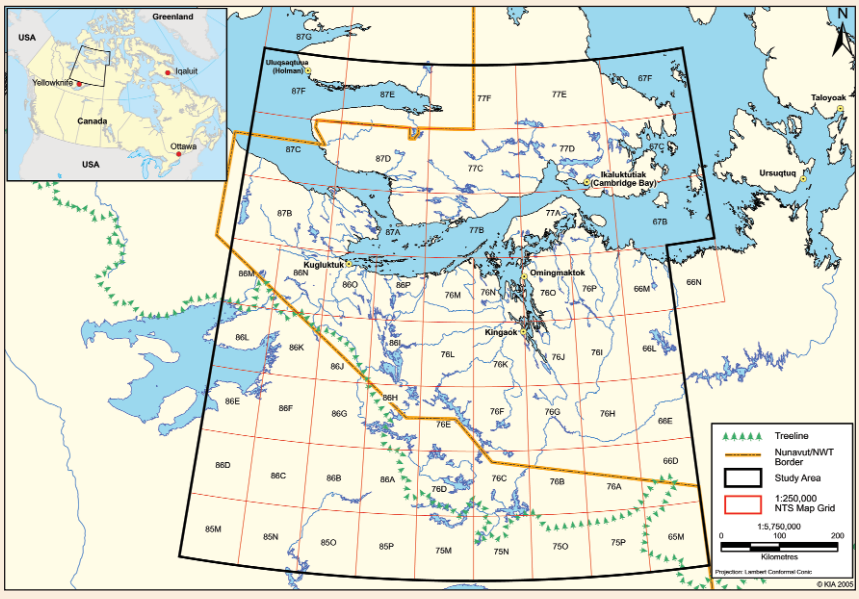
For 12 years now, traditional Inuit knowledge has been at the heart of a unique project involving BHP Billiton and the Kitikmeot Inuit Association. These partners, along with Rescan, an environmental consulting firm, have created a database to capture the ecological knowledge of the Inuit from the western Kitikmeot region.

The GIS-based database contains information about the Slave Geological Province, some 720,000 square kilometres of Arctic tundra that covers parts of Nunavut and the Northwest Territories. The information was collected so that traditional Inuit knowledge could be incorporated into environmental screening processes, as well as into environmental management at BHP Billiton's EKATI diamond mine.

The project, known as the NTKP, or *Naonayaotit* Traditional Knowledge Project (Naonayaotit is Inuit for "seeking knowledge"), will benefit the Inuit of western Kitikmeot in two ways. First, it will help inform future decision making about their traditional territory. Second, it will preserve hundreds of years of Inuit knowledge for generations to come.

The idea for the NTKP came in 1996, during the environmental assessment for the EKATI diamond mine in the Northwest Territories. The environmental review board required the mine to give traditional knowledge equal consideration alongside scientific and engineering knowledge when developing the mine. This requirement was a first in Canada.

As a result, BHP Billiton staff and consultants worked with elders and community members from the Kitikmeot Inuit Association to develop a framework for collecting traditional knowledge and a platform for storing, querying and graphically retrieving the knowledge. The partnership they formed continues today, as BHP Billiton works with the Inuit owners of this knowledge to build capacity that will make the project a sustainable and integral part of environmental management at the EKATI mine.



The NTKP's first major product was an atlas of place names in 2004. The second was a series of 13 reports on topics such as heritage and culture, wildlife and land use, water quality and Inuit opinions on exploration, research and development. The third major product is the GIS database, a valuable tool for Inuit land managers.

As the NTKP has progressed, the Inuit and BHP Billiton have worked together to solve problems related to environmental management at EKATI. To begin with, the two parties developed methods acceptable to both Aboriginal groups and government for removing fish from lakes that had to be drained before mining. Then, as part of BHP Billiton's Wildlife Effects Monitoring Program, Inuit hunters helped develop a system that tracks wolverine presence near the mine.

More recently, the Inuit have spent several years at EKATI evaluating how caribou move in and around the mine site. The result is a series of experimental *inokhok* fences that steer herds of caribou around the site. The Inuit will continue to monitor these fences and study their effectiveness.

As the owner of the NTKP, the Kitikmeot Inuit Association will benefit from the database when making decisions that affect traditional Inuit lands. And resource developers will benefit as well. Like BHP Billiton, they can turn to the database for invaluable information on how to design and manage resource activities to minimize their ecological effects.

Placing inokhok fences to steer caribou herds around the mine site

Improving Responsible Mine Management

SECTION 3

Canada is the only country in the world to address, comprehensively and through a multi-stakeholder process, the mining industry's legacy of orphaned and abandoned mines. The National Orphaned/Abandoned Mines Initiative (NOAMI) continues to make great progress, and its work in 2006 is featured here.

The ongoing implementation of Canada's *Metal Mining Effluent Regulations (MMER)* and environmental effects monitoring (EEM) programs is helping to minimize the environmental footprint of mining. This section looks at the latest progress. Also, in two feature stories, new MAC member Breakwater Resources recounts the operation and closure of Nanisivik, Canada's first mine north of the Arctic Circle, while Suncor describes its involvement in the Boreal Habitat Conservation Initiative, a collaborative research program supporting the company's reclamation activities.

Rick Meyers, MAC's Vice President, Diamonds, in front of DeBeers's Snap Lake adit

Orphaned/Abandoned Mines in Canada

Progress continues

For the past several years, MAC has been working with others to find solutions to the legacy of orphaned and abandoned mines in Canada, including the associated liabilities, human health concerns and clean-up costs.

The National Orphaned/Abandoned Mines Initiative (NOAMI) accomplished a great deal in 2006. A major achievement was the release of a guidance document to help jurisdictions develop funding options for rehabilitating sites. *Rehabilitating Abandoned Mines in Canada: A Toolkit of Funding Options* fulfills a recommendation from a 2005 NOAMI workshop.

The NOAMI advisory committee met in Whitehorse in August 2006, just before the Energy and Mines Ministers' Conference there. In the mines ministers' action plan, released following the conference, the ministers agreed to encourage their jurisdictions to integrate data sets as a way of contributing to the national inventory of orphaned and abandoned mines. The ministers also endorsed NOAMI's efforts to develop a best practices tool kit that will address the legacy issues associated with managing orphaned and abandoned sites.

A multi-stakeholder workshop on October 26 and 27, 2006, explored best, emerging and innovative practices for managing orphaned and abandoned mines. Held in Winnipeg, the workshop attracted over 100 delegates from Aboriginal groups, NGOs, the mining industry and federal, provincial and territorial governments. The report on the workshop proceedings, the presentation material and the workshop's recommendations for producing a best practices tool kit are all available on CD-ROM from the NOAMI secretariat (at CANMET, part of Natural Resources Canada).

NOAMI's 2007 priorities are to review and analyze the funding options document and the recommendations from the best practices workshop. It will also assess the results of jurisdictional reviews of current legislation and policies across the country. From there, NOAMI plans to develop a best practices guide for managing orphaned and abandoned mines in Canada.

Implementing Environmental Effects Monitoring (EEM)

A new tool for improving environmental performance

The *Metal Mining Effluent Regulations*, promulgated under the federal *Fisheries Act*, came into force in 2002. In addition to regulating water releases, the *MMER* also require environmental effects monitoring programs to be implemented at mine sites to determine whether mine effluent affects fish, fish habitat or the usability of fisheries resources.

Tailings facility at Myra Falls, north of Campbell River, British Columbia

EEM programs consist of two parts. Part 1 involves studies on effluent characterization, water quality monitoring and sublethal toxicity testing, with an annual reporting requirement. Part 2 focuses on biological monitoring, including fish surveys, benthic invertebrate community surveys (to assess impacts on fish habitat) and surveys of mercury tissue levels in fish (to assess impacts on the usability of fisheries resources).

When the EEM program was being developed, Environment Canada agreed to review its effectiveness about three years after it began, once the first phase of biological monitoring was finished. To meet this commitment, Environment Canada established the metal mining EEM review team, a group of experts from the federal government, industry, and environmental and Aboriginal groups.

The team's mandate was to review the first phase of EEM and provide Environment Canada with recommendations for improving the effectiveness, efficiency and scientific/technical defensibility of the EEM program. The team's key tasks were as follows:

- to review all aspects of the EEM program and identify what worked and where problems arose
- to identify and assess possible solutions to the problems
- to identify questions to be addressed in the national assessment of the first phase of monitoring the metal mining EEM data

The review team initially met in January 2006. By April 2007 the team's report, with recommendations for improvement, was nearing completion.

EEM is an important tool to help the mining industry anticipate, prevent and mitigate any potential adverse impacts on aquatic ecosystems from metal mine effluent discharges. The past year's efforts strengthen this tool.

A more detailed bulletin is available on this topic. See the CD-ROM or ***www.mining.ca****.*

Breakwater Resources Ltd.

Doing the Right Things Right

After 27 years of operation, the Nanisivik mine closed in 2002. Canada's first mine north of the Arctic Circle, Nanisivik was a remarkably successful endeavour from which other northern operations have learned a great deal. Final closure and reclamation activities are being carried out this year.

The Nanisivik Church, being relocated to the community of Arctic Bay. "It was a place where we joined in fellowship, where we celebrated joyous events, and when tragedy struck, we came together to support each other and mourn our loss." (Nanisivik resident)

Mining is a non-renewable resource activity. Unlike in other businesses, where closure often means failure, closure and reclamation of a mine is a measure of success. Once the ore is exhausted, mining is finished. This is the nature of all non-renewable resource industries. Mining, oil, gas and other sectors proceed through a series of planned stages and inevitably, if they are successful, reach the closure and reclamation stage. The Nanisivik mine reached this final stage in October 2002.

Nanisivik was Canada's first mine north of the Arctic Circle. It opened in 1975, and contrary to the opinion of many who thought the climate and remote location would be its undoing, operated successfully for 27 years.

In such a remote location, mining faces special challenges. At 74 degrees latitude, Nanisivik has a mean annual temperature of -15°C. Permafrost extends 600 metres below the earth's surface. Sea ice sets up in Strathcona Sound in late September and forms a 2-metre-thick barrier to shipping until the following summer. In early November the sun slips below the horizon for the last time until early February, when it crests the horizon again.

Originally introduced (and welcomed) in the North as a 10-year project, Nanisivik operated for more than twice its planned life expectancy. Its long life is a testament to the responsible management of the resource, a focus on increasing reserves through continued exploration and a commitment to maintaining feed grades at sustainable levels over the longer term (as opposed to "high-grading" for increased short-term profit). Extending the mine life was seen as the right thing to do.

Rather than being built as a fly-in mining camp, Nanisivik was constructed as a townsite, where Southerners and Inuit lived as neighbours. In time, the townsite became a community. Miners brought their families, and raised and schooled their children. They gathered together in the "dome" at lunch for communal meals. They worked and played together. They celebrated grand events such as the annual Midnight Sun Marathon, which for more than 20 years brought runners from all over the world to test their skills on the roadway linking Arctic Bay and Nanisivik. Small things became cause for gatherings and celebrations. Residents came together for school Christmas pageants, Mother's Day, the spring carnival and the return of the sun in February.

Southern children studied cultural inclusion in their classrooms and learned how to scrape a seal skin, light a kudlik, build a snow house. Inuit children learned to swim, identify tree species and make maple sugar. Many adults from the South learned the traditions of their Inuit neighbours, and in doing so developed a love for the outdoors and a respect for the land. Many Inuit people learned vocations and trades—transferable job skills as

Doing the Right Thing

Finger post signs put up by workers at the Nanisivik mine point to their home communities.

Canada's newest territory, Nunavut, began to develop. People came to the community of Nanisivik for a few years and stayed for 10, 15 or even 20. Building a community was seen as the right thing to do.

As Canada's first Arctic mine, Nanisivik pioneered many practices that paved the way for other development. The first deepwater port in the Canadian Arctic was built at Nanisivik, and it remains the only facility of its type in Nunavut. A gravel jet airstrip was constructed, the first in the region, and modifications were made to aircraft to prevent loose material from entering the turbines. "Dry drilling" technology was tested and used at Nanisivik to avoid issues with water on a rock face that remained at -11°C all year. Frozen core dam technology was chosen for tailings storage, an engineering methodology adapted directly from nature. Water recycling accounted for all of the mill's process water requirements. Discharge water quality limits were set at half the Canadian guidelines to respect the pristine and sensitive Arctic ecozone.

By these measurements, the development and operations phase of Nanisivik was a success. And as the project winds down, final reclamation activities in 2007 will continue this success by continuing to do the right things.

The guiding principles of the closure and reclamation plan were to return the land to its pre-mining use and to leave no unacceptable risk to human health or the environment. To this end, the planning phase involved conducting a human health ecological risk assessment (HHERA), which included surveying the residents of Arctic Bay, the local community. The survey called upon local traditional knowledge to identify former and intended uses of the land, and possible receptors of any risk from areas disturbed by mining activities.

The findings from the HHERA were integrated with Phase I, II and III environmental site assessments, and ultimately the information was used to identify and delineate remediation targets. At the end of the day, more than 2.5 million tonnes of material will have been handled to return the land to its pre-mining use. All underground mine access will be backfilled, surface infrastructure will be removed and surface areas will be contoured to blend in with the natural surroundings.

The guiding principles of the closure and reclamation plan were to return the land to its pre-mining use and to leave no unacceptable risk to human health or the environment.

Useable material, tools, equipment and infrastructure (where permitted by the government of Nunavut) is being salvaged, transported and donated to Arctic Bay. Throughout the reclamation process and during the post-closure monitoring period (at least five years), local residents will make up the largest proportion of the workforce.

Closure and reclamation of a mine is generally a sombre event, perhaps more so in the case of Nanisivik, where the community will cease to exist. It is somehow ironic that this concluding activity is the final milestone of a successful operation—that through this ultimate step, the right things have been done right.

Research and Collaboration

Key to Success in the Oil Sands

One cornerstone of Suncor's reclamation success is our use of monitoring and research for continuous improvement. Sharing what we have learned ensures that both people and the environment benefit.

Each year we conduct monitoring programs to make sure our reclamation sites are performing the way they should. Parameters such as soil, vegetation and wildlife are monitored over the short and long term.

"It's not just about putting millions of seedlings in the ground—wiping your hands clean and saying 'okay, now we've reclaimed the land,'" says Suncor reclamation coordinator Leo Paquin. "The most important part of any reclamation program is the ongoing monitoring of the work you've already done. While we have a long way to go in terms of the size of our reclaimed areas, we know that the quality of the land we have reclaimed is improving every year based on ongoing monitoring and research."

For Suncor, research means collaboration. One example is the work carried out at Suncor's constructed trenches wetlands research facility. The research being done here is part of an integrated program involving many Canadian universities. By working with others on projects like this, Suncor can examine complex interrelationships using an integrated approach. The research we do will improve wetlands reclamation for all oil sands operators.

In some cases, Suncor's collaboration goes beyond the company's oil sands borders. One such example is the Boreal Habitat Conservation Initiative. Involving Suncor, the Alberta Conservation Association (ACA), and the Alberta government, the initiative focuses on Winagami Lake, a bird watcher's paradise 20 kilometres north of High Prairie in northwestern Alberta's Peace Country.

The ACA has been working since 1985 to preserve and reclaim Winagami Lake's overgrazed shoreline. In 2003 Suncor invested $200,000 in a pilot project to purchase 480 acres of privately owned, environmentally sensitive lakeshore property. Building on the pilot's success, the Suncor Energy Foundation made an additional three-year $1 million commitment to help the ACA identify and acquire ecologically significant parcels of boreal habitat for public conservation.

To date, the ACA has secured around 950 acres—more than 80 percent of the Winagami Lake shoreline—and other land purchases are pending. The conserved lands are expected to become part of the provincial park system.

The Boreal Habitat Conservation Initiative is guided by an advisory group made up of ACA and Suncor employees. Suncor's Ron Clarke is co-chair of the committee.

"The collaborative approach really works," says Clarke. "Suncor's objective is to offset our environmental footprint. We're making strides towards that and have also gained valuable input from the ACA. This gives us a much broader perspective when considering operations and assets, and by working

together we have created a platform for future responsible development. At the same time, we've been able to help out the ACA with much-needed funding and given them a perspective on the issues faced by industry. Both groups use a pragmatic, consultative approach that leads to win-win results."

Research

SECTION 4 Highlights of Company Actions

Albian Sands Energy Inc.

Albian Sands Energy operates the Muskeg River mine 75 kilometres north of Fort McMurray, Alberta, on behalf of the owners of the Athabasca Oil Sands Project—Shell Canada, Chevron Canada Resources and Western Oil Sands.

The lease on which the Muskeg River mine is located contains more than 5 billion barrels of minable bitumen, equal to about twice the amount of conventional oil reserves remaining in Alberta. When operating at its design capacity, the mine produces 155,000 barrels of bitumen a day.

As an operating company within the booming Regional Municipality of Wood Buffalo, Albian is deeply committed to economic, environmental and social responsibility, and supports projects and activities that further the company's commitment to sustainable development.

Economic sustainability

Albian spends about $150 million annually with companies in the Regional Municipality of Wood Buffalo, and over $50 million on business with Aboriginal suppliers, many from the nearby community of Fort McKay. In addition, Albian's new offices in Fort McKay and downtown Fort McMurray allow the company to keep in close contact with the community and deal with stakeholders every day.

Albian is also committed to hiring locally. Currently, over 60 percent of Albian's team members live in the Regional Municipality of Wood Buffalo.

Environmental sustainability

Albian takes a best practices approach to environmental management. In 2004 the company became the first oil sands mining operation to achieve ISO 14001:1996 certification, awarded to companies with proven environmental management systems. In June 2005 Albian was certified under ISO's new, more rigorous standard (ISO 14001:2004). Today, Albian remains the only oil sands company to have achieved this prestigious accreditation.

Proven management systems enable Albian to meet its environmental goals even as the company grows. Continuing to reduce fresh water use, helping to manage the cumulative effects of oil sands development and applying new technology are all part of Albian's commitment to sustainable mining. In addition, ongoing and meaningful involvement with multi-stakeholder groups remains an important part of the company's environmental management strategy. Albian is an active member of the Cumulative Environmental Management Association, the Wood Buffalo Environmental Association and the Regional Aquatics Monitoring Program.

Albian is also committed to using technology in innovative ways to meet environmental challenges. In 2006 the company became involved in the Earth Observation Project. This entails working with the European Space Agency to establish baselines, using satellite imagery, to map reclamation areas and regional changes.

Social sustainability

Albian successfully completed its first major maintenance turnaround in May 2006, and on April 18, 2007, celebrated 5 million person-hours without a lost-time injury. This is a proud accomplishment for an operation with over 3,000 construction workers on site and in the next phase of growth. Ensuring that everyone comes home safely continues to be a top business priority.

Albian is also committed to helping manage any infrastructure impacts associated with the region's rapid growth. For example, in Fort McMurray the company has teamed up with Keyano College on several educational and community initiatives, including a significant investment in Keyano's Sport and Wellness Centre, a new recreational facility available to the whole community. Albian has been a champion supporter of Keyano College's environmental technology program and in 2005 became the lead contributor to the Aboriginal entrepreneurship certificate program. Albian is also a principal supporter of Leadership Wood Buffalo, a community-focused program to identify and develop future leaders in the region.

For more information, visit Albian's website ***www.albiansands.ca****.*

Barrick Gold Corporation

Since entering the business in 1983, Barrick has grown each year to become an international leader in gold mining. At the end of 2006, with the acquisition of Placer Dome early in the year, the company had twenty-six operating mines and seven advanced exploration and development projects on five continents: North America, South America, Africa, Australasia and Asia (Russia/Central Asia).

Barrick has two operating mines in Canada: Eskay Creek mine in northern British Columbia and the Hemlo joint venture located on the north shore of Lake Superior in southern Ontario. Barrick also has one active closure project, the Nickel Plate mine in south central British Columbia. The company's head office is in Toronto.

Corporate social responsibility (CSR) has long been a priority within Barrick. This is evidenced by the executive and board committees that focus on CSR; the CSR Charter, developed in 2004; and policies that promote environmental excellence, a focus on safety and ethical behaviour.

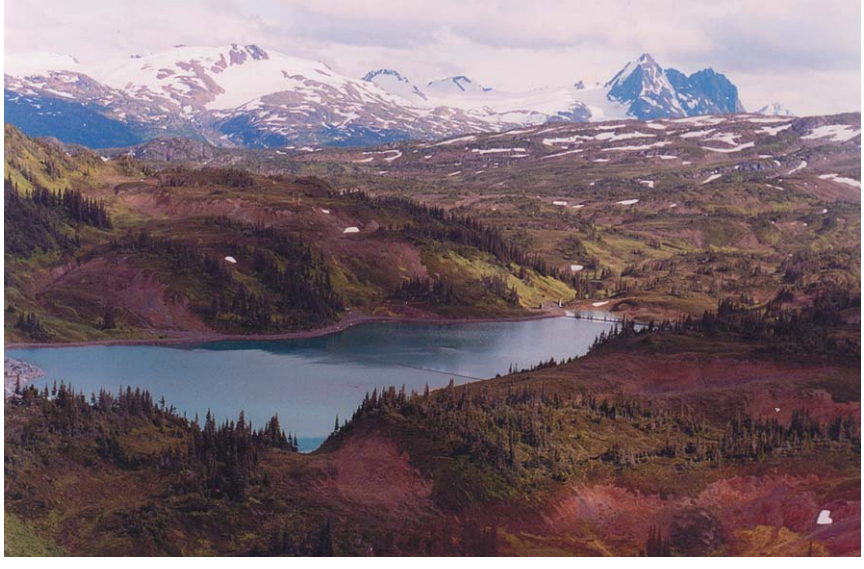
The CSR Charter defines Barrick's overall commitment to the communities where it operates and to society as a whole. Barrick developed its Community Engagement and Sustainable Development Guidelines in 2006 to outline in more detail the principles, standards and approaches applied to communities under the CSR Charter. The guidelines have been disseminated throughout the company, providing direction for community interaction and engagement with guiding principles and suggested best practices at all operations. Within the guidelines are five community management standards to be applied at the company's mines during various phases of mine life.

In 2006 Barrick introduced the Barrick Health System throughout the company. This system builds on the Barrick Safety and Health System, which was implemented in 2003 with the goal of optimizing employee health and well-being.

To further support the company's systems of environmental practice, Barrick developed an environmental management system standard late in 2005. The standard consists of fifteen principles. Each principle contains a statement of the environmental conduct expected of each operation, followed by the systems, practices or procedures required to meet the standard. Existing environmental management systems were assessed for compliance with the Barrick standard at all operations in 2006. Full implementation begins in 2007.

Externally, Barrick participates in a number of voluntary initiatives that focus on good corporate citizenship. These include the United Nations Global Compact, Transparency International, the International Network for Acid Prevention, the Carbon Disclosure Project and the International Cyanide Management Institute. Barrick is also a signatory to the Australian Minerals Industry Code for Environment Management and MAC's TSM guiding principles.

For more information, please visit Barrick's website ***www.barrick.com****.*



Albino Lake caption

Highlights of Company Actions

BHP Billiton Diamonds Inc.

The EKATI diamond mine, operated by BHP Billiton Diamonds Inc. is a joint venture between BHP Billiton (80 percent) and founding geologists Charles Fipke and Stewart Blusson (10 percent each).

Located about 300 kilometres northeast of Yellowknife, the EKATI mine operates in an area of continuous permafrost. The claim block covers 344,000 hectares in the subarctic tundra, with a land lease area of 10,960 hectares. Access to the mine is primarily by air, though a 400-kilometre ice road is built and operated for three months in winter to allow bulk supplies to be trucked to the site.

In 2006 BHP Billiton Diamonds employed about 700 people; another 900 contractors provided a variety of support services. Most employees work at the mine site. In addition, there are offices in Yellowknife and Vancouver and an exploration office in Kelowna. During this reporting period, the EKATI mine produced 3.2 million carats of high-quality diamonds.

BHP Billiton aspires to cause zero harm to people, host communities and the environment. It also strives to embrace leading industry practices through its sustainable development policy. EKATI has both an internal and an external auditing process to help the company improve its compliance with management standards. The company's environment management system was recommended for ISO 14001 registration in 2003 and was re-registered in 2004, 2005 and 2006.

Recognition

During the year BHP Billiton Diamonds was recognized internally for its "Zero Incident Process" training activities. This training helps individuals make safe and environmentally friendly choices. The company was also named one of Canada's top 100 employers for 2006.

Past awards include the Canada Export Award for Community Impact and the 2005 Environment Award for the Naonayaotit Traditional Knowledge Project, a GIS database that contains ecological knowledge of the local Inuit (see feature on page 16). Globally, UK business leaders recognized BHP Billiton as company of the year in 2005 at the Business in the Community National Awards for Excellence.

These accomplishments are due to the staff and contractors who make the EKATI diamond mine a safe, productive place to work. The company is proud to be recognized as a leader in building business success on the values of sustainable development and responsible business practice.

Reclamation

EKATI operations disturbed an additional 6 hectares during the past year. This brings the total site disturbance requiring rehabilitation to 2,008 hectares.

The waste produced by kimberlite processing and diamond production includes both coarse material, which is trucked to reject stockpiles, and fine processed kimberlite, which is pumped to the Long Lake containment facility for disposal. Field studies are underway to find an appropriate method for rehabilitating the fine tailings disposal site, including possible revegetation using native plants.

Water management

The total volume of fresh water used by the EKATI mine for this reporting period was 114 megalitres. In addition to fresh water, mineral processing on site used 6,441 megalitres of recycled water from the Long Lake containment facility. EKATI's water management strategy aims to maximize the use of recycled water through the process plant, eliminating the need for fresh water in processing.

EKATI has two storage locations for water affected by mining: the Long Lake containment facility, near the main camp; and King Pond, near the Misery pit. All releases complied with the effluent quality requirements in EKATI's water licence.

Energy

For this reporting period the mine used approximately 122,900 megawatt hours of self-generated electricity. About 46 percent of this was used by the process plant and 28 percent by the underground operations.

EKATI has a conservation plan, the Energy Smart Program, which is driven by employee suggestions. In the past fiscal year, the mine met its savings target of 2 million litres of diesel fuel. Many energy efficiency initiatives, some of which were suggested by employees, have been incorporated into the underground office building.

EKATI continues to investigate the feasibility of installing a wind farm, which would consist of six one-megawatt wind generators.

BHP Billiton Diamonds Inc.

Waste management

All waste oil produced by EKATI is now burned on site during the cold months to heat the mine air in the underground operations. This measure eliminates the need to send this hazardous material to southern Canada for processing. EKATI transports used engine filters, vehicle batteries, waste grease, used dry cell batteries and waste glycol over the winter ice road to be processed or recycled by registered contractors.

Air emissions

Air quality is monitored regularly at the EKATI mine to provide operational air quality data.

Environmental studies

EKATI conducts a number of environmental studies, including the following:

- Bear surveys
- Wolverine genetics study
- Aerial caribou surveys
- Caribou behaviour studies
- Wolf surveys
- Panda diversion channel study
- Long Lake containment facility studies
- North American breeding bird survey
- Upland breeding bird survey
- Raptor surveys
- Aquatic effects monitoring study

Community consultation

The EKATI diamond mine's consultation process has evolved as a result of various voluntary agreements—socio-economic, environmental, and impact and benefit agreements—negotiated before or at the time of the mine's startup. Each agreement specifies a consultation schedule, and these schedules govern the company's meetings with stakeholders. Meetings are held in various communities to provide updates, and the mine staff is occasionally invited to make presentations on specific topics.

Stakeholders are encouraged to express their concerns or suggestions directly to the site management. Any complaint or query is directed to the responsible person on site, and feedback is given directly to the person who made the initial contact. All concerns are taken seriously and treated confidentially.

Voluntary codes and industry initiatives

BHP Billiton is a signatory to several voluntary initiatives, including MAC's TSM initiative, the Australian Minerals Industry Code for Environmental Management and the Australian Greenhouse Gas Challenge. The mine is committed to implementing the principles of these initiatives through its health, safety, environment and community management systems, goal and targets, and through its performance indicators.

Caption?

Highlights of Company Actions

Breakwater Resources Ltd.

Breakwater Resources Ltd. is an international mineral resource company involved in acquiring, exploring, developing and mining base metal and precious metal deposits. Breakwater currently has seven mining projects, including two in production in Canada: the Myra Falls operation, 90 kilometres north of Campbell River, British Columbia, and the Langlois mine, 200 kilometres north of Val-d'Or, Quebec. Breakwater also has two Canadian mines in the reclamation phase: the Bouchard-Hébert mine northwest of Rouyn-Noranda and the Nanisivik mine on the northern tip of Baffin Island.

Breakwater's business vision is to bring value-added opportunities to its shareholders. This vision includes integrating corporate social responsibility into all aspects of the business. Breakwater recognizes that true value-added growth and sustainable development are synonymous, and will occur only within the privilege of social licence.

Breakwater is a member of Canadian Business for Social Responsibility (CBSR), a business-led, non-profit learning organization. CBSR provides candid counsel to Canadian companies as they formulate business decisions that, in the group's own words, "improve performance and contribute to a better world." Collectively, CBSR members generate $350 billion, or 37 percent, of gross annual business revenue in Canada.

With the support of CBSR, Breakwater is improving its community investment practices. Dedicated individuals are conducting outreach programs aimed at the people living around the company's operations to identify community needs, quantify the benefits of current engagement, identify gaps that can be met and provide sustainable benefits for stakeholders.

TSM reporting

This is the first year Breakwater is formally reporting under the TSM initiative. Although internal monitoring and external auditing of sustainability practices were already in place at Breakwater, the company is participating in TSM because it believes this extra level of self-regulation can only bring added value. Through peer support and networking with the other TSM reporting companies, Breakwater has strengthened its commitment and added to industry's voice the message that "we are doing the right things."

For 2006 Breakwater is reporting on its Myra Falls mine. The Langlois mine, which resumed operations in December 2006, will report in 2007. Breakwater's longer-term TSM objective is to include its international operations in reporting.

Myra Falls

The Myra Falls operation is unique in Canada, and likely internationally, in that it functions completely within the confines of Strathcona Provincial Park on Vancouver Island. Established in 1911, Strathcona is British Columbia's oldest provincial park, covering 231,000 hectares of pristine wilderness. The largest park and the only significant area of protected wilderness on Vancouver Island, Strathcona plays a large role in conservation. Nestled in the centre of the park is the Myra Falls operation, with a relatively small footprint of 180 hectares.

The mine operates under permits issued by BC Parks, under the authority of the provincial Ministry of Environment and the Park Act, and is regarded as a "long-term resident" of the park. As stated in the park's master plan, "The presence of an active mine in a provincial park presents mine and Park managers with many challenges, and many opportunities for cooperation." Clearly, operating within a park carries with it great social responsibilities and moral obligations. Myra Falls has maintained that privilege for more than 30 years—a testament to the awareness of those sensitivities and the commitment of park stakeholders to sustainable development.

Myra Falls sets a strong standard of environmental performance. High permit compliance, coupled with environmental effects monitoring, has made environmental management an integral part of the mine's standard operating practices. Enhancing fish habitat, monitoring elk and lakes, upgrading hiking trails, promoting reduce/reuse/recycle initiatives and launching energy conservation drives—these are just some of the projects the mine has been involved in.

As part of Myra Falls' outreach, managers attend regular meetings of the Strathcona Park Public Advisory Committee. The committee was established by BC Parks to ensure public participation in operations and to bring forward recommendations on environmental stewardship. The free-flowing, constructive dialogue that has developed between the committee and Myra Falls is key to the symbiotic relationship between mine and park.

The Myra Falls operation currently employs 440 people. That makes it the second-largest private employer in the Campbell River area and a large part of the region's economy. A long-time United Way supporter, the mine also sponsors youth recreational teams and community events.

Breakwater Resources Ltd.

Reclamation

Breakwater practises progressive reclamation at all its operations. This is recognized as the most financially efficient strategy, as well as the best practice from an environmental stewardship point of view. Progressive reclamation is included in the company's annual mine plans and is thus tracked via operating budgets. Progressive efforts are also monitored externally through the asset retirement obligations for publicly traded companies.

Breakwater has two Canadian operations in full reclamation: Bouchard-Hébert and Nanisivik.

The known mine reserves at Bouchard-Hébert were exhausted in February 2005, in line with the life-of-mine plan. A three-phase reclamation plan is now in place.

Phase one (completed in 2006) involved closing all the underground workings, backfilling the open pit, removing acid-generating waste rock piles and covering the surface tailings deposit.

Phase two will consist of removing all surface infrastructure (salvaging any assets identified for reuse or recycling) and contouring and revegetating the land. Phase two will proceed once near-field exploration programs are completed and there is no further use for the site as a mineral-processing centre. This strategy is in keeping with corporate sustainability practices.

Phase three will include a minimum of five years of post-closure monitoring to ensure that the site becomes stable and that no negative impacts to human health or the environment are expected.

The Nanisivik mine will complete phase two of its reclamation plan in 2007 and will begin phase three monitoring in 2008. (See the feature on Nanisivik on page 19.)

More information on Breakwater Resources is available on the company's website ***www.breakwater.ca****.*

Breakwater Resources Ltd. Myra Falls Operation

Highlights of Company Actions

CVRD Inco Limited

Inco Limited was purchased in 2006 by Brazilian iron ore producer Companhia Vale do Rio Doce (CVRD), forming the subsidiary company CVRD Inco. This strategic move has given CVRD, the world's largest producer of iron ore, greater competitiveness in this surging metals market.

CVRD Inco is now a mining and metals company that is the world's second-largest producer of nickel and also a producer of copper, cobalt and precious metals. CVRD Inco has three nickel mining operations in Canada, an expanding nickel operation in Indonesia and an integrated operation under development in New Caledonia. In addition to mining, CVRD Inco produces a variety of finished metals and patented products from its facilities in Canada, the United States, England, Wales, China and Japan.

CVRD Inco strives to meet new health, safety and environmental (HSE) challenges at all its operations, new and existing. The company's performance in these areas is being driven to higher levels by MAC's TSM initiative, the reporting standards set by the Global Reporting Initiative and the company's own evolving requirements for improved HSE management systems. CVRD Inco's TSM self-assessment results for 2006 underwent an external verification and can be viewed on the CD-ROM included in this report. CVRD Inco's overall performance is detailed in the company's annual environmental, health and safety progress reports, available at ***www.inco.com***.

To effectively manage HSE data on a global level, CVRD Inco has deployed one standard HSE management system. In 2006 the company's operation at Voisey's Bay, Labrador, and the hydromet facility at Argentia, Newfoundland, began using this system to effectively manage HSE incidents. Future implementation at operations in Sudbury, Ontario, and Thompson, Manitoba, will ensure that all Canadian operations are using the corporate standard for HSE management.

Marking a significant achievement in workplace safety, the Garson mine in Sudbury was awarded the Ryan Trophy for safety by the Canadian Institute of Mining, Metallurgy and Petroleum. This award exemplifies a commitment to safety that will benefit both the employees and the business of CVRD Inco.

On September 30, 2006, CVRD Inco and the World Wildlife Fund-Canada signed a partnership agreement to advance sustainability. The agreement outlines a five-year $1 million partnership to undertake sustainability projects at various operating sites. The partnership is based on three objectives: conserving Canadian species at risk that are of national and global importance, developing a conservation stewardship approach for the company in Canada, and scoping and exploring work of a similar nature internationally.

In Sudbury and Thompson, CVRD Inco continues to focus on the impact of emissions, especially controlling emissions during periods of poor atmospheric dispersion. Several initiatives took place in the past year. In Sudbury, a new SODAR instrument for determining mixing heights, inversions and wind velocity in the atmosphere is set to enhance decision making for smelter production cutbacks. The company is determined to improve this area further in 2007. Also in Sudbury, CVRD Inco took significant preventative measures against emissions, commissioning the wet gas cleaning plant for the fluid bed roaster project in September. This is the final component of a project that should greatly reduce sulphur dioxide emissions and help lower emissions of dust and metals.

At the refinery in Port Colborne, Ontario, a lithium ion cathode material pilot plant has been approved. The pilot plant will serve as a research tool to improve the production of material used in lithium ion batteries and to generate samples for technical partners and potential customers to evaluate.

A novel hydrometallurgical process for recovering nickel, cobalt and copper from concentrate continues at the company's demonstration plant in Argentia, Newfoundland. The process does not involve a prior smelting step; as a result, it should cost about 30 percent less than conventional smelting and should not produce the emissions normally associated with smelting and refining.

Land use and reclamation remains a major focus at all CVRD Inco operations. At Voisey's Bay, for instance, progressive reclamation work began in 2006, and research continued into the propagation of indigenous grass seed for reclamation projects.

Diavik Diamond Mines Inc.

The Diavik diamond mine is built on a 20-square-kilometre island in Lac de Gras, 300 kilometres northeast of Yellowknife. The project is a joint venture between Diavik Diamond Mines Inc. (60 percent) and Aber Diamond Limited Partnership (40 percent). Diavik Diamond Mines Inc. is a wholly owned subsidiary of Rio Tinto plc of London, England, and Aber Diamond Limited Partnership is a wholly owned subsidiary of Aber Diamond Corporation of Toronto. Diavik is the mine operator.

The Diavik diamond mine is expected to produce over 100 million carats of diamonds from three ore bodies (kimberlite pipes) over a life of 16 to 22 years. Mining the ore, which is located under the shallow water of Lac de Gras, requires building dikes. The first dike, which surrounds two of the three ore bodies, was completed in 2002, enabling Diavik to begin commercial production in 2003. The dike around the third ore body was completed, and the water within it removed, in 2006. Pre-stripping of the overburden began in late December 2006, and ore is scheduled for release in late 2007.

Diavik's vision is to be Canada's premier diamond producer, creating a legacy of responsible safety, environmental and employee development practices and enduring community benefits. Diavik is committed to MAC's Towards Sustainable Mining initiative. The company's TSM self-assessment for 2006 was subjected to an external verification, and the results are available on the CD-ROM included in this report.

Diavik remains committed to protecting the ecological integrity of the local environment through adaptive management and custom prevention programs. Diavik certified its environmental management system to ISO 14001 standards in 2005, and recertified to 2004 standards in 2006. The company's product-sorting facility was also recertified under ISO 9001 (to 2000 standards). Diavik has also launched several Six Sigma business improvement processes to maximize the efficiency of its operations.

Diavik open pit, Northwest Territories

During 2006 Diavik continued its construction of fish habitat within the A154 dike. This early work is part of the progressive reclamation that will prepare the mine site for eventual closure and will help ensure that there is no net loss of fish habitat. A fish health and palatability study, which combines scientific and traditional Aboriginal knowledge and measures fish health over the mine life, continued during 2006 at the seasonal camp Diavik built for such work.

Diavik supports a number of research programs on topics related to reclamation:

- till cover stability
- revegetation
- planning for PKC (tailings) closure
- disposal alternatives for sludge from the water treatment plant
- country rock test piles

A small portion of the country rock in the area has very low sulphide content, with very low acid-generating potential. Following the precautionary principle, Diavik has developed a research program, in partnership with several universities and research institutes, to manage this rock. Waste rock is classified into three types, ranging from low to relatively high sulphur content. Rock with the highest potential is placed in the centre of country rock piles and surrounded by medium- and low-grade, virtually clean granitic rock. Permafrost enters the central core, helping to eliminate contact with water and air and thus removing any acid-draining potential. This research is expected to bring the mining industry a new understanding of how waste rock piles work.

Diavik takes a comprehensive approach to community engagement. This approach provides a high level of community transparency because of its unique community-based advisory boards on socio-economic and environmental issues, and its focus on Aboriginal participation in agreement implementation committees. This cooperative approach enables the Diavik diamond mine to foster significant local and Aboriginal community participation and benefits. These efforts contribute to the collective goal of a positive legacy, for the community and the environment, when the mine eventually closes.

More detail is available in Diavik's annual sustainable development report and other resources at ***www.diavik.ca****.*

Highlights of Company Actions

Dynatec Corporation

Dynatec Corporation is a growing company with extensive mining and metallurgical expertise. It has developed this expertise as a leading service provider to the global mining industry for over 25 years.

Dynatec's Mining Services Division has completed over 1,000 mining contracts on behalf of clients. The division's expertise extends to all aspects of the mining business, including full mine development and operation. Its capabilities have been successfully applied to the large-scale production of gold, nickel, copper and other base and precious metals in North America and around the world.

Dynatec's Metallurgical Technologies Division is a recognized leader in applying pressure hydrometallurgy. This technology uses chemical reactors known as autoclaves to conduct chemical reactions at high temperatures and pressures. This technology and related processes have proven highly successful in extracting and recovering a variety of metals from metal-bearing materials. In fact, the division has commercialized more than 40 circuits that use autoclaves in over 20 client operations on 6 continents, including some 15 circuits involved in producing nickel and cobalt.

Now Dynatec is focusing on opportunities to own and operate mineral assets that involve the production of nickel and other base and precious metals, and that also draw on the company's mining and metallurgical experience. The company currently has three main growth assets in its portfolio.

The first is the Ambatovy nickel project in Madagascar, expected to become one of the world's largest nickel producers. Its unit operating costs are forecast to be among the lowest in the industry, and its project life is estimated as at least 27 years. Annual production capacity should total 60,000 tonnes of nickel and 5,600 tonnes of cobalt. Construction is set to begin around the middle of 2007, with mechanical completion expected by early 2010. The project will make use of Dynatec's hydrometallurgical expertise. Testing has shown that the laterite ore at Ambatovy is highly amenable to the proprietary processes and technologies of the Metallurgical Technologies Division. The division has played a lead role in advancing the project, including designing the project flowsheet as part of the feasibility study.

Second, with 20.5 million common shares, Dynatec is the largest shareholder in FNX Mining Company. FNX produces nickel, copper, platinum, palladium and gold at two mines near Sudbury, Ontario (McCreedy West and Levack). FNX is also pursuing other development properties and exploration targets, including the Levack footwall discovery announced in early 2005. Besides its ownership interest, Dynatec provides FNX with mine production, development and construction services under a two-year mining services contract that extends to the end of 2007.

Finally, Dynatec is involved in the pilot production of natural gas through a coal-bed methane lease arrangement in West Virginia. The lease covers 42,053 acres, which contain an estimated 65 billion cubic feet of gas-in-place. The pilot program, which should finish in 2007, is being carried out to confirm the economic viability of the field and to assess its potential value. The company's aim is to ultimately sell the asset.

Caption

HudBay Minerals Inc.

HudBay Minerals Inc. (HudBay), an integrated mining company, is Canada's third-largest producer of copper and zinc metal and North America's third-largest producer of zinc oxide. The company also produces about 100,000 ounces of gold and 1 million ounces of silver a year. A member of the S&P/TSX Composite Index, HudBay reported revenues in excess of $1 billion in 2006.

HudBay's operations include three mines in northern Manitoba, operated by the company's wholly owned subsidiary, Hudson Bay Mining and Smelting (HBMS), and a zinc mine and concentrator in the Balmat district of New York state. HudBay's principal processing facilities are located near the Manitoba mines and include two concentrators, a copper smelter and a zinc plant. The company also refines copper at the White Pine copper refinery in Michigan and produces zinc oxide at the Zochem facility in Ontario. The metals and zinc oxide produced by HudBay are marketed and sold to customers by the agent Considar Metal Marketing, located in Toronto and 50 percent owned by HudBay.

HudBay had its 2006 TSM reporting externally verified by Managed Process Consulting Inc. The company's TSM improvements during the year focused on external outreach. Although HudBay's activities with its communities of interest were as plentiful in 2006 as in 2005, the process was formalized in 2006. Examples of COI engagement during the year included meetings between Hudson Bay Exploration and Development Company Limited (HBED) and various Aboriginal groups, the annual meeting with Zochem neighbours and ongoing consultations with local municipalities and the public regarding the Flin Flon tailings project.

Expansion of the Flin Flon tailings impoundment system began in 2006 and is expected to proceed through 2008. The project will result in longer water retention time and greater capacity for storing tailings, and will also lessen the possibility of wind-blown tailings dust. The work is being completed in conformance with MAC's tailings management guidelines as well as the requirements of ISO 14001:2004.

HBMS, including its exploration subsidiary (HBED) and its zinc oxide division (Zochem), maintained certification to the ISO 14001:2004 environmental management systems standard in 2006. The Balmat operation was certified on March 12, 2007, and the White Pine copper refinery is expected to be certified later in 2007.

Improvements in energy consumption and greenhouse gas emissions continued through the year. Most of the improvements came from controlling the amount of heavy fuel oil and propane consumed in the copper smelting process at HBMS. During a rebuild of the reverberatory furnace at the Flin Flon smelter, the four main heavy fuel oil burners were replaced with new burner arrangements, with new nozzles and atomizing hardware. This change, along with the new refractory, has reduced heavy fuel oil consumption at HBMS by 10 to 15 percent.

HudBay realized several other environmental achievements at its operations in 2006. In April the federal government gazetted a notice requiring HBMS to prepare and begin implementing a pollution prevention plan for specific toxic substances released from the Flin Flon metallurgical complex. The company met this requirement. HBMS will now provide the government with annual progress reports until the plan is fully implemented, no later than December 31, 2015.

Mercury emissions from the main stack at HBMS's smelting operation improved by nearly 31 percent in 2006. This improvement was the result of reducing zinc contamination of the copper feed generated by the Flin Flon concentrator. Mercury is associated with zinc, so reducing zinc in copper concentrate means less mercury contamination in smelter feed.

HBMS's Konuto Lake mine in northern Saskatchewan ceased production in late 2005, and decommissioning work began in the spring of 2006. All buildings and infrastructure were removed; the surface settling sump that had collected mine water was drained and capped; a portal plug was installed; concrete caps were placed on raises; and mine site capping and contouring was completed.

Work began in 2006 to secure the necessary environmental approvals to obtain a bulk exploration sample from the Bur Zone project near Snow Lake. The sample will help determine the feasibility of the project becoming an operational mine, pending further approvals.

For more information on HudBay and its operations, including annual sustainability reports, visit the company's website ***www.hudbayminerals.com****.*

Highlights of Company Actions

Inmet Mining Corporation

Since the *TSM Progress Report* began in 2004, Inmet Mining Corporation has reported its facility-by-facility performance against the TSM indicators for its operations worldwide, including for its 18 percent share in Ok Tedi Mining Limited in Papua New Guinea. The company has also reported the performance of its closed properties. Inmet has done this to demonstrate that it applies a consistent standard to all operations, regardless of their location or operating status. Inmet believes that detailed, facility-by-facility assessments help to improve performance.

In 2006 Inmet continued to incorporate TSM targets into the safety, environment and community affairs targets at its operations, and it reported on the progress made. Although the company did not meet all the targets, it did continue to improve its systems, hence its TSM assessments.

Inmet introduced a formal mine waste management policy for the company and its subsidiaries that sets out commitments for managing tailings and other mine waste. The greatest strides occurred at Inmet's closed properties, which saw upgrading of their management systems and OMS manuals. For 2007 Inmet has reiterated its commitment to improve management systems and OMS manuals at Pyhäsalmi (Finland) and Troilus (Quebec).

During 2006 the company improved its emergency preparedness and response systems by reviewing the plans at Troilus and Copper Range (Michigan). Troilus has had a comprehensive emergency preparedness and response plan in place for many years. The plan was upgraded in 2006 to align it more closely with the MAC template; however, it does not yet meet all of MAC's requirements. Training was performed at all closed properties in 2006, improving this aspect of emergency response at three of the properties. There was no crisis simulation at the corporate office in 2006, although the company did update its crisis management plan and conduct staff training.

Inmet's performance under the TSM community dialogue indicators was generally good. The company's closed property team has now performed dialogue at all locations and has upgraded its community dialogue assessments to level 3 for all indicators at all properties. This is a big achievement and a further sign of Inmet's commitment to the TSM principles. At the Las Cruces development property in Spain, Inmet upgraded dialogue with nearby communities as construction activities ramped up. Formal dialogue plans were developed and implementation began at Çayeli (Turkey) and Pyhäsalmi.

Inmet recognizes that its performance in the TSM area of energy and greenhouse gas management needs to improve. Çayeli and Pyhäsalmi both have basic energy management and reporting systems in place, and both have energy intensity performance targets. In 2007 it will be important to learn more about best practices in energy management in order to better manage this important area and to reduce operating costs. Greenhouse gas management also requires improvement, as only basic reporting systems are in place.

Inmet's 2006 self-assessments were externally verified for all properties except Las Cruces and Ok Tedi. Operations and closed property staff submitted documentation electronically to the external verifier, MPC Inc. Outstanding questions were clarified by teleconference; there were no site visits. The verification was comprehensive, covering all aspects of all indicators at all locations.

As a result of the verification, only one self-assessment was changed: the crisis management training indicator for the corporate office was changed from "yes" to "no." Inmet conducted training in 2006 but did not complete a simulation exercise.

Overall, Inmet considers the verification process to have been successful. It helped to further educate the company's operations about TSM. Inmet believes that having to change only one indicator attests to the staff's objectivity in evaluating performance.

Iron Ore Company of Canada

IOC is the largest iron ore producer in Canada and one of the world's leading suppliers of iron ore pellets and concentrates. With customers around the globe, IOC is one of the few pellet manufactures worldwide that can meet very specific chemistry requirements. The company employs about 1,700 people. Its major shareholder is Rio Tinto, a mining group active in over 40 countries.

IOC's Labrador City location began operations in 1962 and is the site of the mine, concentrator and pelletizing plant. The companies wholly owned railway, the Quebec North Shore & Labrador (QNS&L), transfers the finished products along a 418-kilometre railroad from Labrador City to the deep-water seaport in Sept-Îles, Quebec. The port is ranked first in the world for transshipment of merchandise and handles over 250 vessels each year. All of IOC's facilities operate 24 hours a day, 365 days a year.

IOC is focused on sustainable development and is spurred on by the tremendous opportunities granted by the communities in which it operates. The company knows that its actions must be responsible and aligned with the evolving priorities of those communities to achieve long-term success.

IOC's approach is in line with MAC's Towards Sustainable Mining initiative, which the company actively supports. In the past IOC was involved in developing the TSM guiding principles and external outreach indicators. Today the company participates actively in refining the current TSM indicators and shaping future ones that will meet the needs of MAC members.

For the TSM process, 2006 was a pivotal year. The four existing indicators were fine-tuned and the external verification process began. Two developing indicators, Aboriginal relations and biodiversity conservation, also moved ahead through multi-stakeholder workshops in which IOC participated.

Before going through an external verification of its 2006 performance, IOC hired a consulting firm involved with TSM to unofficially verify the company's self-assessment under the four performance indicators. The company wanted some internal assurance that its self-assessment was in line with the external verification system under development at the time. It also wanted to develop an action plan to improve current performance. In the end, IOC's self-assessment and the unofficial verification results matched very closely, with just a few minor differences. This gave IOC confidence in the validity of the TSM self-assessment and external verification processes. At the request of TSM's Community of Interest Advisory Panel, IOC delivered a presentation comparing the two sets of results.

The past year was a very successful one for IOC. The company exceeded many of its production records and made some major advancements in environmental and social performance. IOC's Sept-Îles facility joined Labrador City in being certified to ISO 14001.

A comprehensive closure plan was finalized late in 2006, and a variety of biodiversity studies were conducted to learn more about the land that IOC operates on or is adjacent to.

IOC also participated in a number of projects with local communities. For instance, the company sponsored a hazardous waste collection and disposal day, when community members could bring old batteries, waste oil, paint and other substances for proper segregation and disposal. As a follow-up to IOC's Tailings to Biodiversity initiative, a wetland education program was developed. Grade 4 students from the J R Smallwood Middle School took part in a classroom session followed by a field trip to IOC's tailings area, where they observed the flora and fauna and helped plant aquatic sages along the shoreline to enhance the area's wetlands and biodiversity.

For more information on IOC's environmental and social performance and to see its sustainable development reports, visit the company's website ***www.ironore.ca****.*

Caption?

Highlights of Company Actions

North American Palladium Ltd.

North American Palladium is Canada's only primary producer of platinum group metals. The company's Lac des Iles open-pit and underground mine, located 85 kilometres northwest of Thunder Bay in northern Ontario, is among the largest palladium mining operations in the world today.

About half the palladium produced by Lac des Iles is used to help reduce harmful substances such as hydrocarbons, carbon monoxide and nitrous oxides in vehicle exhaust emissions. The unique autocatalytic properties of platinum group metals make them a natural choice to convert harmful emissions into benign elements such as carbon dioxide, nitrogen and water vapour.

North American Palladium is committed to maintaining the highest integrity in its corporate responsibilities towards resource development and environmental stewardship. The company has recognized environmental management as an important priority and has incorporated environmental considerations into all its mine expansion, operation and closure planning. It is also committed to operating in compliance with all evolving regulatory requirements. Lac des Iles mine relies on an environmental management system to monitor, identify and minimize all activities that could adversely impact the natural environment.

As a new member of The Mining Association of Canada, North American Palladium has begun to adhere to the TSM guiding principles. This year the company has decided to concentrate on the areas of tailings management and external outreach. In the short time the mine has participated in TSM initiatives, it has made considerable headway. By adapting its existing environmental management system to suit the TSM assessment protocol, North American Palladium is looking towards a bright future and the continual improvement of its sustainable mining practices.

Mill at North American Palladium mine

Québec Cartier Mining Company

QCM is a leading producer of iron ore products in North America. The company operates an open-pit mine and a crusher/concentrator facility capable of producing 16 million metric tonnes of iron ore concentrate annually at Mont-Wright in northern Quebec. QCM also operates an iron ore pellet plant with an annual production capacity of 9.5 million metric tonnes at Port-Cartier, Quebec, on the north shore of the St. Lawrence River. The deep harbour at Port-Cartier operates year-round and can accommodate ships carrying up to 188,000 tonnes of ore. QCM also owns a 416-kilometre railway that links the mine site to the port.

Over the last decade, QCM has made major investments in improving water effluent quality. For the past two years, all of the company's regulated effluents have been in compliance with federal and provincial legislation. Other major projects, involving washing facilities and used water, have been approved by the Board of Directors and will be realized in the next few years.

QCM continues to be active in defining the contents of its initial "depollution attestation"—the permit under Quebec's Industrial Waste Reduction Program (PRRI) in which an establishment declares its normal discharge levels and outlines measures for lowering them. This is done in a joint committee that includes members of the Quebec Mining Association and the Quebec Ministry of Sustainable Development, Environment and Parks (MSDEP).

A subcommittee has now been created to determine how the PRRI applies to pellet plants, and in 2006 the Quebec government provided training to mining industry and regional MSDEP officials. The next step is to write the depollution attestation permit.

QCM's pellet plant uses about 30 percent less energy per tonne of production than its Brazilian competitors. In keeping with Kyoto objectives, the plant contributes considerably to reducing net emissions from pellet production at the global level.

As a member of The Mining Association of Canada, QCM adheres to the TSM guiding principles. In 2006 the company's priorities included designing an extensive corporate crisis management system.

As well, QCM developed an environmental management system that is based on the ISO 14001 model and that includes energy management. The Port-Cartier operation should be certified in 2007.

To prepare for the upcoming new air quality regulations at both the provincial and federal levels, QCM is working to improve the company's understanding of air issues by conducting regional air sampling, environmental and engineering studies and modelling. This work will help identify the most efficient and appropriate solutions.

Highlights of Company Actions

Suncor Energy Inc.

In 1967 Suncor Energy made history by tapping the oil sands to produce the first commercial barrel of synthetic crude oil. Since then Suncor has grown into four major business divisions with more than 5,500 employees. The core oil sands business is supported by conventional natural gas production in western Canada and by downstream refining, marketing and retail businesses in Ontario, Colorado and Wyoming.

Suncor recovers bitumen from the oil sands near Fort McMurray in northern Alberta and upgrades it to refinery-ready feedstock and diesel fuel. With total production surpassing the one billion barrel mark and enough reserves to sustain production for the next 50 years, the company remains a leader in oil sands development.

In 2006 Suncor received regulatory approval to construct a third oil sands upgrader, the centrepiece of the company's plans to expand oil sands production to more than half a million barrels per day from 2010 to 2012. Regulators also approved Suncor's associated plans to develop the Steepbank mine extension, a key element in supplying bitumen to future upgrading operations.

To Suncor, being a sustainable energy company means managing business in a way that enhances the social and economic benefits to society, while striving to minimize the environmental impacts associated with resource development. For example, as the company responsibly develops the oil sands, it is also investing in biofuels and zero-emission wind energy.

Here are some other examples of sustainability in action at Suncor.

- Suncor's proposed Voyageur South mining operation includes plans for mobile ore-preparation equipment instead of a truck-and-shovel mining system. With this new technology, Suncor expects to reduce noise pollution and air emissions, in particular nitrogen oxide (NO_x) emissions.
- Water withdrawal intensity at Suncor's oil sands operation declined approximately 47 percent between 2000 and 2006. This reduction reflects the increased use of recycled water from tailings systems in the company's bitumen extraction and upgrading operations.
- Suncor continued its program of introducing low-NO_x equipment into the mine fleet. Between 2000 and 2006, NO_x emissions and emission intensity at the oil sands facility decreased about 8 percent and 59 percent respectively.
- The Suncor Energy Foundation worked with the Alberta Conservation Association to establish the Boreal Habitat Conservation Initiative. Under this three-year agreement, the two groups are identifying and securing ecologically significant boreal habitat, which will be turned over to Alberta Parks for ongoing stewardship and management. More than 950 acres of boreal forest have been protected to date.
- The Suncor Energy Foundation also supports Project Webfoot, a national wetland and environmental education program run by Ducks Unlimited Canada to enhance the wetland ecosystem of Suncor's Crane Lake reclamation area.
- Suncor is collaborating with the Regional Municipality of Wood Buffalo on waste management. Suncor and the Suncor Energy Foundation gave the municipality funding to develop a public awareness and education campaign about recycling and waste management. The results so far are encouraging. In 2006 Wood Buffalo residents recycled 91 percent more material than in 2005.
- Suncor launched its Environmental Excellence initiative in 2006, to instill a conservation ethic among employees and to eliminate the wasteful use of energy, water and other resources. Environmental Excellence is modelled after Suncor's successful Journey to Zero initiative, which aims to eliminate workplace injuries.

Suncor is planning changes that will improve performance under several TSM indicators. In 2007 the company expects to finalize the OMS (operation, maintenance and surveillance) manuals currently under development for its two most recent tailings ponds. As well, changes at the oil sands operation should improve Suncor's energy use rankings for 2007. Early in the year Suncor introduced an energy management strategy, which includes plans for current, near-term and long-term initiatives to improve energy efficiency and reduce waste. One immediate outcome is that for 2007 Suncor has established energy intensity targets, one of the criteria that affected the company's 2006 energy use ranking.

For more information on Suncor's sustainability performance, see the 2005 sustainability report and the 2006 climate change report, both available at ***www.suncor.com****.*
For printed copies of current and previous reports, call 1-800-558-9071 or email info@suncor.com.

Syncrude Canada Ltd.

Syncrude is a leader in Canada's oil sands industry, producing 15 percent of the nation's crude oil requirements. The company operates technologically advanced oil sands mines, extraction and upgrading facilities, and utilities plants at its two sites north of Fort McMurray, Alberta. Syncrude completed a major expansion in 2006, which increased production capacity to 350,000 barrels of crude oil a day.

Syncrude's commitment to superior environment, health and safety (EHS) performance has been strengthened and streamlined with the implementation of an EHS management system that identifies risks, then documents and implements controls to mitigate against those risks.

Here are some of the company's accomplishments in 2006.

- Syncrude took the first major step in reducing sulphur dioxide emissions with the completion of its upgrader expansion project. As a result, in 2006 sulphur dioxide emissions were more than 20 percent lower per barrel than in 2005. Work continues on another initiative to incorporate sulphur reduction technology into existing operations by 2009. These two projects will cut sulphur dioxide emissions and particulates by 50 percent from current approved levels, even though the company's production will increase by about 50 percent.
- Freshwater intake from the Athabasca River decreased by over 25 percent. This reduction is due to better management of the recycled water pond system as well as water conservation initiatives throughout the operation. A site-wide water management program continued in 2006, helping Syncrude achieve its lowest raw water intake since 1990, less than half the regulatory licence limit. Currently, over 80 percent of Syncrude's water needs are met by a continuous recycling system. Syncrude does not inject any water into reservoirs, nor does it discharge any process-affected water into river systems.

Syncrude Mildred Lake Operation

- The company reclaimed another 267 net hectares of land, bringing the total reclaimed to 4,624 hectares—22 percent of the land disturbed to date. The reclamation rate continues to exceed the disturbance rate at the Mildred Lake base mine. Reclamation has also progressed significantly at the Aurora mine, despite its being in operation for only six years. Reforestation continued in 2006 with more than 506,000 tree and shrub seedlings planted, bringing the total planted to more than 4 million.
- Syncrude continued to operate the Beaver Creek Wood Bison Ranch in partnership with the Fort McKay First Nation. Syncrude was once again a winner at the annual bison show for the quality of its 300-bison herd.
- The Canadian Council for Aboriginal Business once again recognized Syncrude with the Gold Level Progressive Aboriginal Relations award. During the year Syncrude launched *Your Future Counts*, an interactive DVD on the job opportunities available to Aboriginal youth if they pursue their education.
- Syncrude continued to work with regional stakeholders to manage the social and environmental effects of oil sands development. Independent multi-party groups continued to gather and share scientific data to better understand human and industrial impacts on air, land and water.
- The company awarded $73,500 in grants to non-profit organizations that its employees volunteer for. Syncrude also has a community investment program that makes strategic investments in education and lifelong learning; environment, health and safety; science and technology; local community development; arts and culture; and recreation.

For more information about Syncrude, or to see the company's 2005 sustainability report, visit **www.syncrude.com**.

Highlights of Company Actions

Teck Cominco Limited

As stated in Teck Comincos 2006 sustainability report, *This Is Our Future*, the pursuit of sustainability is central to the core values that drive the company's approach to business. At Teck Cominco, the capacity to make meaningful contributions to sustainable development is multi-faceted. The company's sustainability strategy focuses on continuously improving performance in five areas:

- generating wealth and prosperity
- applying the best corporate governance practices
- demonstrating excellence in safety, health and environmental performance
- driving technological innovation and optimizing the utility of products
- fostering sustainable communities

By participating in the TSM initiative, Teck Cominco is improving performance in four key areas: tailings management, crisis management planning, external outreach, and energy use and GHG emissions management.

Teck Cominco is reporting 2006 results for three facilities: Hemlo Gold Operations in Ontario (50 percent ownership with Barrick Gold), Highland Valley Copper in British Columbia and Trail Metallurgical Operations, also in British Columbia. Only the self-assessments for Highland Valley Copper and Trail underwent external verification by Managed Process Consulting Inc. Verification of the Hemlo assessments was delayed until the ISO 14001 certification process currently in progress is completed in 2007.

In response to a generally low performance on energy use and GHG emissions management, Teck Cominco will focus considerable attention on these areas in 2007. The company is expecting to achieve Level 3 in all performance areas at its Canadian facilities. Goals for 2007 include appointing a corporate energy leader, setting targets for energy efficiency and reductions in GHG emissions intensity, and implementing strategies to meet these targets.

Teck Cominco updated its Code of Sustainable Conduct in 2007 to incorporate a commitment to "promote the efficient use of energy and material resources in all aspects of our business." As part of this commitment, on-site evaluations of energy efficiency programs were completed in March 2007 at Trail and Highland Valley Copper. Projects to improve energy management and reduce GHG emissions are being designed and will be implemented by year end.

Another component of the Code of Sustainable Conduct involves incorporating biodiversity conservation into all activities—an emerging area for TSM. Teck Cominco is pleased to recognize the centennial of the founding of one of its predecessor companies by transferring 890 hectares of land in the Fort Shepherd Flats area, south of Trail, to The Land Conservancy. Besides protecting a valuable ecosystem and wildlife area, the transfer will include a $1 million ecological gift from Teck Cominco to The Land Conservancy. The latter will work with the Trail Wildlife Association to manage and protect the site.

In addition to its TSM commitments, Teck Cominco has expanded the scope of its public reporting, and for the second year is following the Global Reporting Initiative's G3 Guidelines. The company's report, which incorporates more information on the challenges and achievements of reaching sustainability goals, can be found on the Teck Cominco website ***www.teckcominco.com***.

Teck Cominco continues to actively participate in refining the TSM initiative and developing new performance benchmarks. The company is fortunate that Doug Horswill, Senior Vice President of Environment and Corporate Affairs, is providing leadership as chair of the TSM Governance Team.

The Mackenzie River, Northwest Territories

Xstrata Copper Canada

Xstrata Copper Canada has operations in Montreal East and Rouyn-Noranda, both in Quebec, and in Timmins, Ontario. These operations have a long and proud history in their communities. Together, they employ some 2,880 people and contribute to the annual economy in many ways:

- $282 million in wages and benefits
- more than $5 million in employee training
- more than $100 million in capital projects
- more than $230 million spent on regional goods and services
- about $470,000 to community programs through donations and sponsorships
- more than $9 million in taxes to local governments

Kidd Mining and Metallurgical

The Kidd Creek operations in Timmins produce copper, zinc, indium, silver and sulphuric acid. The operations are organized into two independent business units: Kidd Mining and Kidd Metallurgical. Kidd Mining mines the ore body at Kidd Creek, while Kidd Metallurgical is further establishing itself as a custom-feed processing facility. Kidd Metallurgical's facilities are located 27 kilometres southeast of the mine site and consist of a copper smelter and refinery, a concentrator, an integrated zinc roaster and refining plant, a cadmium plant, an indium plant and two sulphuric acid plants.

Horne smelter

The Horne smelter is located in Rouyn-Noranda. This custom copper smelter uses both copper concentrates and precious metal–bearing recyclable materials as its feedstock to produce a 99.1 percent copper anode.

Canadian Copper Refinery

Located in Montreal East, the Canadian Copper Refinery refines anode copper from the Horne, CVRD Inco and Altonorte smelters, as well as other unrefined copper and precious metals from Xstrata and third-party sources.

Performance

Since 2002 Xstrata Copper has reduced its rate of employee lost-time injury by 70 percent and its rate of disabling injury by 71 percent. In 2006 alone, the disabling injury rate at the Kidd Metallurgical site was 46 percent better than in 2005.

Emissions from the smelters are a continuing challenge, and the company has invested significant effort and money in improving performance. These investments have not only resulted in progress, but have made Xstrata Copper Canada a leader in this area in Xstrata Copper's global business unit.

At the Horne smelter, after getting feedback from the community and approval from the Quebec environment ministry, Xstrata Copper Canada developed a three-year action plan and committed $20 million to reducing fugitive arsenic emissions. The company then presented the plan to the citizens' committee established several years earlier to encourage dialogue with residential neighbours, many of whom live right next door to the smelter.

The Horne smelter was named 2006 Business of the Year by the Rouyn-Noranda Chamber of Commerce. The operation was recognized for its economic and social contributions to the region, including its capital investments, community outreach and more than $52 million spent on local goods and services.

Finally, the Quebec government approved the company's rehabilitation plans for residential, commercial and industrial land near the closed mine and smelter at Murdochville, Quebec. Under these plans, Xstrata Copper Canada will remediate soil on more than 500 individual properties by 2009.

Xstrata Nickel

Xstrata Nickel, a commodity business unit of Xstrata plc, a major global mining group, was created in August 2006 following the acquisition of Falconbridge Limited. With operations in Canada, the Dominican Republic and Norway, as well as a portfolio of growth projects, Xstrata Nickel is the world's fourth-largest nickel producer. It is based in Toronto and employs about 5,000 people, including contractors.

Canadian operations consist of the Sudbury operations in Ontario, which include underground mines and a mill in Onaping, a smelter in Falconbridge and a mine near Timmins; and the Raglan operation, which includes mining and concentrator facilities in northern Quebec. The Sudbury operations (with the exception of the Montcalm mine near Timmins) and the Raglan mine are registered to the ISO 14001 environmental management standard.

Xstrata Nickel is a proponent of the TSM protocols and frameworks and is committed to reporting performance against TSM requirements. The TSM guiding principles align with Xstrata Nickel's vision of achieving sustainable growth through safe, environmentally and socially responsible practices, and of operating ethically, responsibly and openly by working with all communities of interest.

Xstrata Nickel looks for opportunities to integrate the TSM protocols, frameworks and verification elements with the company's sustainability framework. This framework includes health, safety, environment and community management standards that convey the intent and requirements of such elements as biodiversity conservation, community engagement and risk management.

A key objective for Xstrata Nickel is enhancing the sustainable development of communities throughout the life cycle of business activities, while identifying and managing community risks and opportunities. Throughout its operations and projects, Xstrata Nickel seeks

external dialogue and stakeholder engagement as a way of creating effective partnerships.

This principle is evident in the company's involvement in the Sudbury Soils Study, one of the largest human health and ecological risk assessment studies ever conducted in Canada. The study began in 2001, after elevated levels of nickel, cobalt, copper, lead and arsenic were found in soils in the Greater Sudbury area. Partners in the study include CVRD Inco and local, provincial and federal governments. Final results should be shared with the public in 2007. At the time of writing, the Sudbury and District Medical Officer of Health believes there is no expected immediate risk to human health due to the level of metals in the soil. The company is promoting external dialogue with the community through open houses, and an independent observer is in place. More information is available on the Sudbury Soils Study website ***www.sudburysoilsstudy.com***.

Fostering the socio-economic development of host communities through job creation and social involvement programs helps Xstrata Nickel contribute to the long-term sustainability of those communities. For example, in April 2006 the Raglan mine presented a profit-sharing cheque for $9.3 million to the Makivik Corporation, an economic body that manages the heritage funds of the Inuit of Nunavik.

The Makivik Corporation is one party to the Raglan Agreement, signed in 1995 with the Raglan mine and nearby communities. The agreement addresses environmental protection and mitigation as well as dispute resolution.

It also gives procurement priority to competitive Inuit businesses and employment priority to local Inuit people. As well, the agreement contains commitments to create training programs for Inuit workers. The overall goal is to improve quality of life based on priorities determined by the communities themselves.

Climate change is a complex and challenging global issue, and Xstrata Nickel strives to be part of the solution. At the company's Canadian operations collectively, 2006 energy consumption and greenhouse gas emissions decreased by 1 percent each from the previous year. However, energy intensity and greenhouse gas intensity increased by 1 percent each over the same period.

In one notable example of savings, the Sudbury smelter identified energy savings from furnace off-gases and reduced coke consumption, thus lowering energy consumption and greenhouse gas emissions by 5 percent from 2005 to 2006.

Similarly, over the same period at Raglan, energy consumption at the underground Katinniq mine decreased by 5 percent due to better consumption monitoring. Additional projects at Raglan are planned for 2007, including increased monitoring across all facilities, reductions in ambient indoor heating and lighting requirements, and setting reduction targets throughout the operation. The Raglan operation will also investigate wind power as a viable energy source.

Xstrata Nickel will continue to identify process improvements and energy efficiency measures across all its operations in order to reduce both air pollutants and greenhouse gas emissions.

For more detail on the company's sustainability performance, see the 2006 Xstrata Nickel Sustainability Report, available at ***www.xstrata.com***.

Xstrata Zinc Canada

Xstrata plc is currently the largest global zinc producer in the world. Xstrata Zinc Canada (XZC) manages the North American operations of the company's zinc business unit and is the largest producer of zinc metal in North America, serving all zinc end-use sectors.

XZC's mining and metallurgical operations are located throughout eastern Canada and include the following:

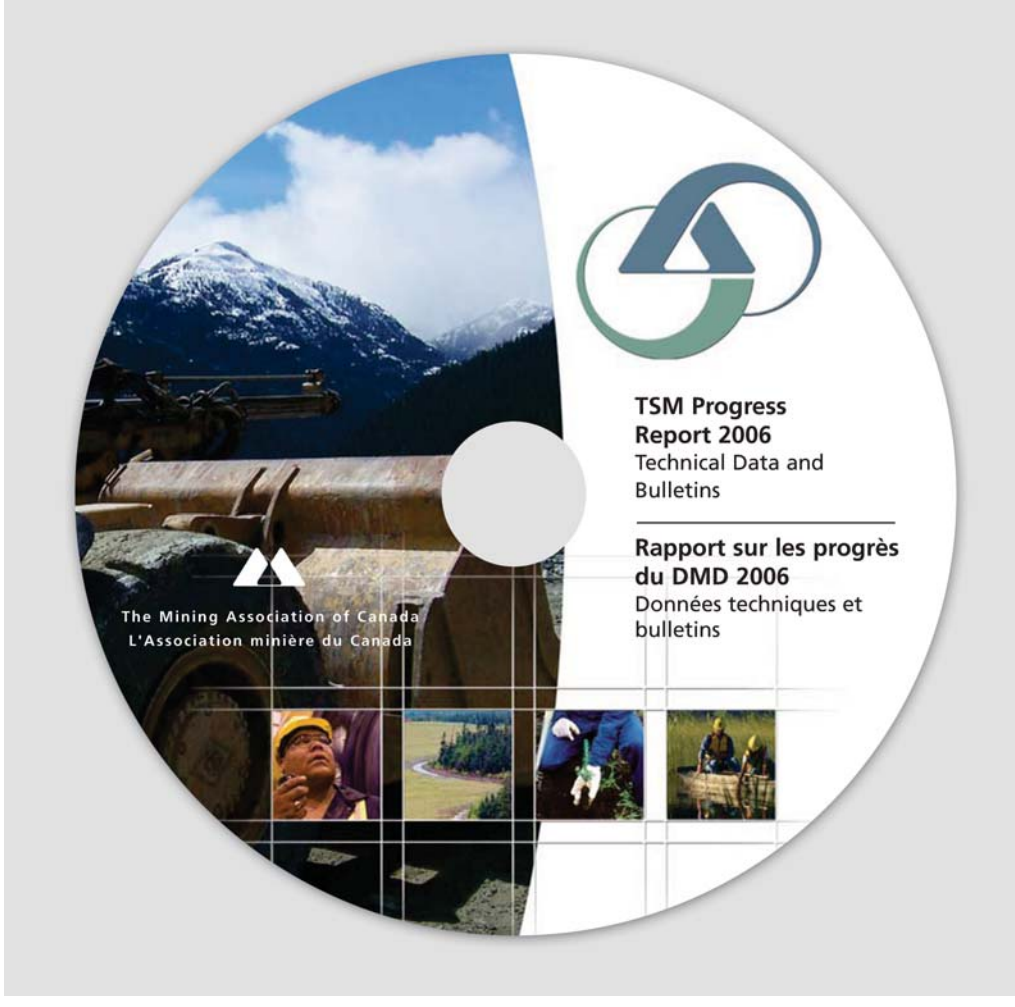
- Brunswick mine, Bathurst, New Brunswick
- Brunswick smelter, Bathurst, New Brunswick
- General Smelting, Lachine, Quebec
- Kidd Creek smelter, Timmins, Ontario
- Noranda Income Fund, CEZ refinery (25 percent interest), Valleyfield, Quebec
- Perseverance mine project (Matagami, Quebec)

XZC is also North America's largest supplier of zinc products, with an output capacity of over 420,000 tonnes of refined zinc. The main end uses for zinc are batteries, construction (galvanized steel and zinc die castings), chemicals, consumer products, pharmaceuticals, infrastructure and transportation equipment. XZC's zinc refineries produce zinc in commodity and value-added shapes and alloys, including specialized zinc powders for manufacturing alkaline batteries.

Each of XZC's facilities has an environmental, health and safety management system in place that was implemented during the former ownership by Falconbridge. The facilities are now actively integrating their former systems into the Xstrata plc HSEC (health, safety, environment, community) management standard, which encompasses 17 elements.

Key HSEC initiatives that have taken place include the following:

- a 46 percent reduction in energy intensity at the CEZ refinery through converting fuel to hydrogen gas, a byproduct of a neighbouring chemical plant
- a comprehensive reclamation program to manage closed mines
- extensive community engagement on operational performance and closure planning
- development of biodiversity programs at each facility



The Mining Association of Canada

is the national organization of the Canadian mining industry. It comprises companies engaged in mineral exploration, mining, smelting, refining and semi-fabrication. Member companies account for the vast majority of Canada's output of minerals and metals.

The Association's functions are to promote the interests of the industry nationally and internationally, to work with governments on policies affecting minerals, to inform the public and to promote cooperation between member firms to solve common problems. MAC works closely with provincial and territorial mining associations, and other industry groups across Canada and internationally.

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