

An aerial photograph of a vast, green landscape. The scene is dominated by rolling hills and valleys. Large sections of the land are covered in dense, dark green evergreen forests. Other areas are open, grassy fields in various shades of green. A winding road or railway line cuts through the lower part of the image. In the background, there are some rocky outcrops and a small structure. The overall atmosphere is one of a natural, undisturbed environment.

**sherritt**

Sherritt International Corporation  
2010 CORPORATE SOCIAL RESPONSIBILITY REPORT

## ABOUT SHERRITT

Sherritt is a world leader in the mining and refining of nickel from lateritic ores with projects and operations in Canada, Cuba, Indonesia and Madagascar. The Corporation is the largest coal producer in Canada and is the largest independent energy producer in Cuba, with extensive oil and power operations across the island. Sherritt licences its proprietary technologies and provides metallurgical services to mining and refining operations throughout the world. The Corporation's common shares are listed on the Toronto Stock Exchange under the symbol "S".

Products from Sherritt's metal refinery are sold in international metal markets. The Corporation's coal is sold directly to power plants in Canada for electrical generation and into international markets. Electricity and oil are produced in Cuba and sold locally. Other fossil fuel products are sold into local and international markets.

### HIGHLIGHTS

	2010	2009
Revenue (\$ millions)	<b>1,771.1</b>	1,474.9
EBITDA (\$ millions)	<b>632.0</b>	495.4
Net earnings (\$ millions)	<b>214.0</b>	85.7
Nickel produced (tonnes)	<b>33,972</b>	33,599
Cobalt produced (tonnes)	<b>3,706</b>	3,721
Coal produced (millions of tonnes)	<b>38.6</b>	39.3
Net oil production (boepd)	<b>11,956</b>	13,214
Electricity generation (GWh)	<b>2,067</b>	2,167

NOTE: All value figures are in Canadian dollars unless otherwise noted. All volume measurements represent 100% of operations. No adjustment is made to reflect joint venture ownerships.

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## SHERRITT'S CSR VISION

Sherritt maintains a long-term commitment to responsible practice by integrating environmental, safety and community considerations into decision-making and building lasting relationships with our workforce, communities and governments. We take a pragmatic and localized approach to sharing the benefits of our business, while minimizing the adverse impacts of development.

### SHERRITT'S COMMITMENT

**WORKFORCE:** To consider the health, safety, well-being and professional development of our workforce in all decision-making;

**COMMUNITIES:** To ensure local communities near our operations and offices benefit socially and economically from our business;

**GOVERNMENTS:** To build and maintain meaningful and productive relationships with local, regional and national governments in jurisdictions where we operate;

**THE ENVIRONMENT:** To practise responsible and forward-looking environmental stewardship at all operations;

**SHAREHOLDERS:** To be a low-cost operator across all segments of our business and to grow through increased productivity and profitability;

**PARTNERS:** To maintain an open relationship with all our partners and to share with them our success, expertise and experience; and

**CUSTOMERS:** To provide the highest quality of products and the best services possible.

## ABOUT THIS REPORT

Sherritt International's Corporate Social Responsibility (CSR) Report provides an update on the progress made in the Corporation's sustainability performance and achievements during the 2010 calendar year. The CSR Report focuses on key areas of interest for Sherritt's stakeholders – the environment, communities and its workforce.

The Report's main focus is on the primary operations and projects of the Corporation during 2010. Data has generally been included for either all available years or for the 2006 to 2010 period.

This Report reviews Sherritt's performance as a socially responsible corporation. Sherritt has made, and will continue to make, adjustments to its reporting in response to regulatory changes and economic circumstances. Further, as a result of certain methodology changes or corrections, some of the comparative information from prior years has been updated.

All material information contained in this Report has been compiled from publicly disclosed information derived from Sherritt's ongoing, established information gathering processes. Sherritt collects such information internally for the purpose of the safe, efficient operation of its business, as well as for regulatory compliance.

All data presented has been internally verified for accuracy and reliability. Some data, such as that produced for regulatory compliance, is both internally verified and reviewed by the appropriate government agency to ensure that our operations are in compliance with relevant regulations. Data on greenhouse gas (GHG) emissions from operations that are large final emitters of GHGs in Alberta has been externally verified by an independent third party as required by provincial regulation.

The Corporation determines materiality of information, both tracked and reported, based on its commitment to observe the applicable laws and regulations governing its activities, and for the purpose of meeting its internal requirements for responsible operations. Information may change from one report to another as a reflection of changes in those requirements.

Certain data presentations and comparisons may not meet all the direct needs of all stakeholders. Further reference should be made to the Corporation's 2008 and 2009 CSR Reports or to Sherritt's website at [www.sherritt.com](http://www.sherritt.com). Readers are encouraged to contact Sherritt at [responsibility@sherritt.com](mailto:responsibility@sherritt.com) with enquiries about the Corporation's reporting.

## MESSAGE TO STAKEHOLDERS

**In 2010, Sherritt continued its strong CSR performance. At Sherritt, that is our normal way of operating and it translates into ensuring that we do things the right way. It is simply good business and represents our pragmatic approach to operating our business in a responsible manner while sharing the benefits of its success.**

The right way at Sherritt is the safe, responsible way that values our workforce, our communities and the environment in which we operate. This attitude is reflected in our strong record for safety at our operations, our long-term relationships with both governments and communities in jurisdictions that host our operations and in the care with which we treat the environment around those operations. Sherritt has always operated in this way and continues to do so at all our projects and operations.

We demonstrate our commitment to responsible operation in many ways. We make sure that our workforce is safe by ensuring that our operations have all appropriate safety procedures in place, that the equipment that they are asked to use is properly maintained and that both the workforce and the company are aware of possible hazards so they can be avoided. Sherritt is proud to again report exceptionally low incidence of workplace injury in 2010 at its operations.

In 2010 the Genesee mine was again awarded the John T. Ryan award for safe operations. Also in 2010, Genesee passed its 22nd year with no recordable lost time injuries. Genesee is not alone in reporting good safety results. Sherritt's other coal mines reached milestones of operation free of lost time injuries ranging from one year to 15 years. Our Metals operation at Moa in Cuba passed two million exposure hours with no lost time injury and the Ambatovy Project reached 16 million exposure hours without

a lost time injury. These are major accomplishments and I congratulate all of our operations for continuing to place safety as a priority in their work.

Despite these good results and our best efforts, I regret to report that we suffered a fatality in Madagascar when an employee of one of our subcontractors jumped from a moving vehicle while being transported home from work. The investigation that followed resulted in additional training and procedures for worker transport. A single fatality is unacceptable to Sherritt and redoubles our focus on ensuring a safe operating environment in all our businesses.

We work in our communities to ensure that the benefits of our operations are shared fairly. The long-term nature of our businesses means that we strive to be responsible and respected members of the community. We consult with stakeholders, contribute to the well-being of the communities and the governments around us, and work to ensure that the physical and economic environment remains healthy.

Our care for the workforce, the communities and the environment has been of critical importance as we have moved forward to complete construction of the Ambatovy Project in Madagascar. It continues to be critical as the Project transitions through commissioning to operations in 2011. Ambatovy has given us the opportunity to show our true colours with established responsible operations from the start.

The resource industry is by nature a long-term investment for both the company and its host communities. Making the right start can make the difference between success and failure. Our positive experiences in Madagascar will now be deployed in Indonesia where Sherritt is undertaking work that would result in us acquiring a controlling position in the Sulawesi Nickel Project in that country. Initial process development and resource delineation has already started and will be coupled with a well-defined stakeholder engagement process and environmental program.

Sherritt is proud of its history of sustainable operations and responsible community relations. We will continue to reflect that history in our dynamic future opportunities and in established operations wherever they are located.



**Ian W. Delaney**  
Chairman and Chief Executive Officer  
Sherritt International Corporation

City of Fort Saskatchewan, Alberta, Canada, beside Sherritt's metals refinery



## Sherritt's Approach to CSR and Governance

**Sherritt maintains a long-term commitment to responsible business practices at its operations. The Corporation integrates environmental, safety and community considerations into its decision-making and builds positive and lasting relationships with its local workforce, communities and governments.**

This commitment to responsibility remains at the core of Sherritt's operating strategies and actions.

To be successful, Sherritt understands that it must continue to be accepted in its host communities and maintain its commitment to responsible and safe behaviour.

The Corporation's strong focus on sustainability is one reason Sherritt has been recognized four years in a row by *Corporate Knights* magazine as one of the Best 50 Corporate Citizens in Canada.

### CORPORATE GOVERNANCE

Sound corporate governance is recognized at Sherritt as essential to the Corporation's integrity and to the promotion and protection of its shareholders' interests. Governance at Sherritt is embedded in the comprehensive structure of its Board of Directors and its committees (Board),

Board mandates and Corporate and Divisional policies. These policies include a strict business ethics policy. The Corporation's governance system is the responsibility of the Board, which includes responsibility for fair reporting and ethical and legal corporate conduct.

Sherritt's Board has appointed an independent Lead Director who is responsible for ensuring that the Board operates independently of management and that its independent directors have adequate opportunities to meet without management present. In this way, the Board is properly informed and engaged in oversight of the Corporation's business activities through its committee structure. All committees are composed entirely of independent directors.

Several of the Board's standing committees oversee areas of the Corporation's business that directly

impact CSR-related issues. Prominent among these are the Environment, Health and Safety (EH&S) Committee and the Audit Committee.

The Board's EH&S Committee assists the Board in its oversight of EH&S issues. Functional oversight is provided by the Corporate Director of EH&S. This position reports to the Corporation's Senior Vice-President, General Counsel and Corporate Secretary and has direct line accountability to the EH&S Committee. The Corporate Director of EH&S informs the Board of health and safety results, any environmental concerns, and other material issues within the Divisions each quarter. Division leaders participate in EH&S Committee meetings, which allows the Board direct access to EH&S information at both the operating and corporate levels of the organization.

New bulk port facility at Toamasina, Madagascar



In addition to reporting quarterly to the Board of Directors on all material issues relating to the environment and health and safety within the Corporation, the Corporate Director of EH&S coordinates company-wide reporting with EH&S management within each Division. The Corporate Director ensures that Sherritt's policies on the environment and on the health and safety of our workforce and communities are properly reflected in all Divisions. The Corporate Director is also responsible for ensuring that the Corporation is aware of the current and potential regulatory issues pertaining to the environment that may have an impact on Sherritt's operations.

The Board EH&S Committee reviews the Corporation's EH&S reports, ensures that appropriate corporate policies and procedures relating to EH&S activities are in place in all Divisions of the Corporation, and that both internal and third-party audits of EH&S programs are routinely conducted.

The Board's Audit Committee reviews both financial and non-financial information regarding the Corporation and its operations. The Chief Internal Auditor is directly accountable to the

Audit Committee. A key tool used by the Board in its oversight is the Risk Assessment (RA) Report. The Chief Internal Auditor produces the RA Report annually for the Audit Committee as a comprehensive review of the business, financial, legal, operational, and strategic risks facing the Corporation. Where necessary, Internal Audit consults with third-party specialists for further insights into these risks.

The RA Report provides an assessment of potential risks, and indicates a level of concern for each, based on gravity and probability. It provides the Board with an independent source of information for use in discussions with senior management. This Report, and its assessment by the Board, also provides a basis for planning Internal Audit's activities in the following year.

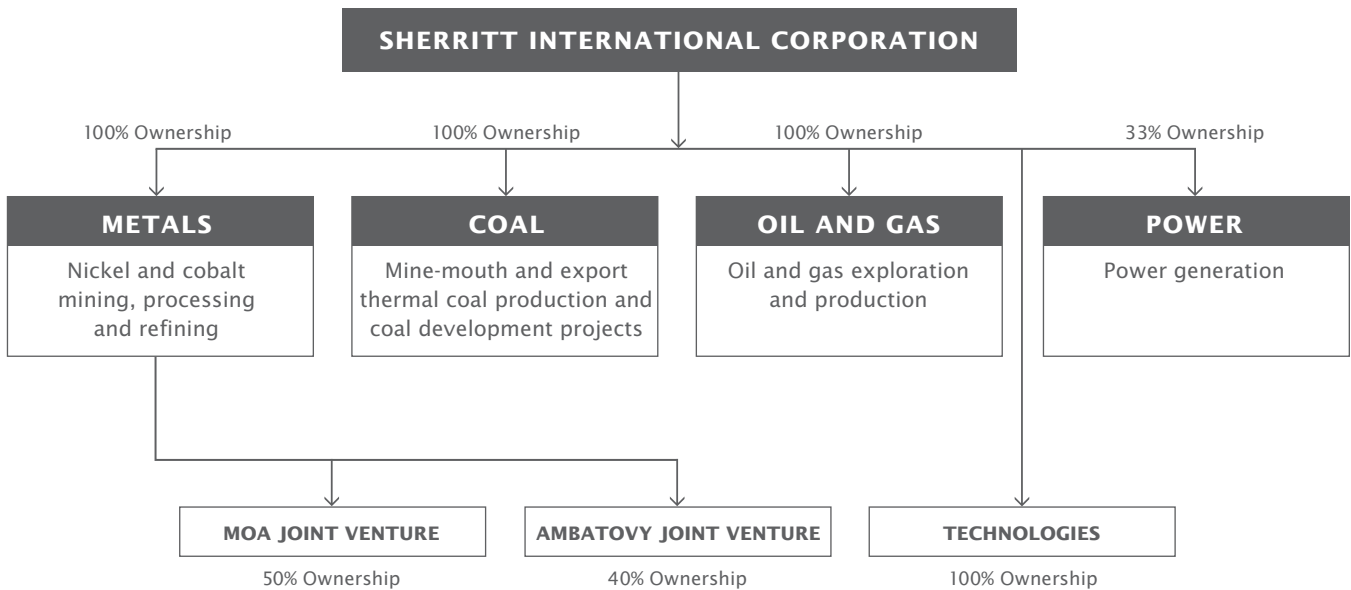
Risks assessed or accounted for include those associated with commodity markets, project development, transportation, political and economic impacts, financial changes, technologies, access to resources and availability of required workers. A range of risks associated with different stakeholders are included, as are governance, security and operational issues. An extensive list and discussion

of possible risks can be found in the Corporation's Annual Information Form on [www.sedar.com](http://www.sedar.com) or [www.sherritt.com](http://www.sherritt.com).

### KEY CHALLENGES

Sherritt considers all areas of its business to be important. However, there are a number of key areas on which the Corporation is particularly focused from a CSR perspective and which are also considered important from a stakeholder perspective, as identified in Sherritt's 2010 RA Report. These areas include:

- the continued assurance that appropriate and effective environmental management and health and safety management are maintained throughout the Corporation (see EH&S paragraphs in the Organization section on page 7);
- the need to maintain an effective knowledge base of current and potential environmental legislation and regulations that may affect Sherritt's operations (see EH&S paragraphs in the Organization section on page 7);



- the need to ensure that Sherritt’s workers maintain the skills and knowledge required to do their jobs properly and safely (see Training section on page 27);
- the need to maintain an effective CSR presence in Madagascar as construction on the Ambatovy Project continues, in order to facilitate positive community relations and prepare for a smooth transition from the construction phase to the pre-commissioning and commissioning phases of the Project (see page 21); and
- the need to maintain a clear understanding of the Corporation’s position in, impact on, and reliance on the communities in which it operates (see Organization section below).

**PERFORMANCE TARGETS**

Sherritt remains committed to its workforce, communities, governments, environment, shareholders, partners

and customers. However, at this time, it generally has not published targets for performance measurement. For some indicators, the target is simply zero or as low as possible, while for others the basis is compliance with regulations, permits and/or licences.

**ORGANIZATION**

In late 2010, planning began on ways to increase the Corporation’s ability to monitor the impact of operations on their host communities and governments. Overall CSR policy direction and support are provided by the Corporate Office, which coordinates the dissemination and reporting of CSR information – targets, rules and performance – to Sherritt’s Divisions. The Divisions are responsible for CSR as it pertains to their operations. The Corporate Office also manages its own CSR budget and coordinates preliminary CSR work for new projects. Support for CSR initiatives in Cuba and Madagascar is provided by CSR-dedicated staff in the respective countries, who work

directly with local stakeholders and with the relevant operating Divisions. Through its Divisions – Metals, Coal, Oil and Gas, Power and Technologies – Sherritt has operations in six countries around the world.

Sherritt Metals produces nickel and cobalt for international markets and fertilizer for Canadian agricultural markets.

Most of Sherritt Coal’s production comes from Canadian mine-mouth prairie operations, located close to the electric power plants that they supply. Some higher grade coal is produced at mountain mines and is transported by train to Canada’s Pacific coast for shipment to international markets.

Oil produced in Cuba is sold to the Cuban state. Cuba’s national oil company provides gas to Sherritt Power’s Energas Joint Venture, which produces electricity that it sells to the Cuban state.



Coal hauler passing over the highway at the Paintearth mine in Alberta, Canada



Sherritt Technologies provides technical assistance to the Corporation's operating Divisions and licences its proprietary technologies to other companies worldwide.

The Corporation's operations and locations include:

#### Metals

- Ambatovy Joint Venture, Madagascar
- Moa Joint Venture, Fort Saskatchewan, Alberta, and Moa, Cuba
- Sulawesi, Indonesia (under development)

#### Coal

- Bienfait, Saskatchewan
- Boundary Dam, Saskatchewan
- Coal Valley, Alberta
- Genesee, Alberta \*
- Highvale, Alberta \*\*
- Obed Mountain, Alberta
- Paintearth, Alberta
- Poplar River, Saskatchewan
- Sheerness, Alberta
- Whitewood, Alberta \*\*

#### Oil and Gas

- Cuba, various sites
- Pakistan, various sites
- Spain, various sites

#### Power

- Ambohimanabola II (near Antananarivo), Madagascar
- Boca de Jaruco, Cuba
- Puerto Escondido, Cuba
- Varadero, Cuba

#### Technologies

- Fort Saskatchewan, Alberta

Each of Sherritt's operations manages a variety of local risks to an acceptable level of overall business risk. Some of these risks are associated with environment, health and safety, and with community relations activities. Sherritt recognizes the inherent risks associated with working in the natural resource industry and seeks to minimize them, according to a defined set of policies and procedures within Sherritt's corporate framework.

The health and safety of the workforce and people in surrounding communities is of prime importance to Sherritt and appropriate structures are in place to maintain their safety. The Corporation works to ensure that all operations are in compliance with their operating licences and permits.

Additional information on the Board's corporate governance practices and organization can be found on the Corporation's website ([www.sherritt.com](http://www.sherritt.com)), in its annual Management Information Circular and in its Annual Information Form (available at [www.sedar.com](http://www.sedar.com) and [www.sherritt.com](http://www.sherritt.com)).

\* Sherritt owns 50% of the equipment and facilities at Genesee. Sherritt is responsible for all equipment operation and maintenance.

\*\* Highvale and Whitewood mines are operated by Sherritt with Sherritt staff on a contract basis. Whitewood operations ceased in the second quarter of 2010, with reclamation activities continuing.

# ENVIRONMENT



*Ponds at the reclaimed Gregg River mine site in Alberta, Canada*



## 95% COMPLETE

Reclamation of the 1,300-hectare former Gregg River mine site in Alberta is 95% complete. Sherritt is in discussions with several government agencies and other companies regarding the possible establishment of a reclamation research centre at Gregg River.

## ENVIRONMENT

### Sherritt's Approach to Environment

Sherritt is committed to practising responsible and principled environmental stewardship at all of its operations. Production of natural resource commodities inevitably impacts the environment. The challenge is to ensure that those impacts are minimized and, to the extent possible, remediated where they occur. Sherritt is successfully meeting that challenge (Figure A-1/Appendix A).

Sherritt's broad global presence means that its operations are located in a number of different jurisdictions with differing rules, regulations and reporting requirements. Each of the Corporation's Divisions also faces different operating conditions, requiring specific environmental strategies. The Divisions work with local experts to merge their knowledge and insight with internationally recognized methods. This generates a unique approach for each jurisdiction within Sherritt's environmental operating integrity management system.

**“Sherritt's commitment to stakeholders includes practising responsible and forward-looking environmental stewardship at all of its operations.”**

## PERFORMANCE

Sherritt has honoured its commitment to act in a responsible and sound manner in 2010. The Corporation largely operates within its operating approvals; however, any exceedances, which occur from time to time, are noted in Table A-1/Appendix A.

TARGET/GOAL	RESULT
<p><b>1. Keep GHG emissions intensity static or lower while increasing production capacities</b></p>	<p><b>Metals</b> Intensities over the past few years have fluctuated close to the average of the baseline target years of 2003 to 2005.</p> <p><b>Coal</b> The continuing increase in haul distances at all mines has made this a difficult target to achieve. This target will be revised to reflect what is attainable in the future.</p>
<p><b>2. Continue compliance with local regulations for GHG emissions</b></p>	<p>Both Metals and Coal have continued to comply with GHG regulations by contributing to the Climate Change and Emissions Management Fund (see Alberta in Appendix B).</p>
<p><b>3. Secure registration of projects eligible for Clean Development Mechanism (CDM) – under Kyoto Protocol provisions</b></p>	<p>With the recommencement of construction of the 150 megawatt (MW) Boca de Jaruco Combined Cycle Project, the CDM application process has been re-initiated. A draft of the project design document was submitted to the United Nations Framework Convention on Climate Change (UNFCCC) for approval in 2010. A number of deficiencies were identified in the application, which management is now addressing. The remaining steps in the approval process are expected to be completed by early 2012. This CDM project is expected to be operational in early 2013.</p>
<p><b>4. Receive Certified Emission Reduction credits (CERs) for each registered CDM project on a regular basis</b></p>	<p>The Varadero Combined Cycle Project was approved under the CDM in 2007. The approval process for CERs relating to the period January–June 2008 was initiated in 2010. Due to revisions to the required monitoring process, issuance of these CERs has been delayed. Issuance is expected in late 2011.</p>
<p><b>5. Annual reclamation levels in Canada and Cuba to remain consistent with previous year's performance</b></p>	<p>Sherritt's Moa Nickel Joint Venture continued to work with the Cuban authorities to ensure that reclamation was at appropriate levels.</p> <p>Although the area of completed reclamation by Coal in 2010 was lower than in 2009, the area levelled increased by about 30%. Generally, levelling is the component of land reclamation that requires the majority of effort.</p>
<p><b>6. Continue to report environmental events as required by operating permits and licences</b></p>	<p>All of the Divisions follow the reporting requirements for their operations to remain in compliance with operating permits and licences.</p>
<p><b>7. Maximize metal recycled from Gregg River reclamation project and from operations</b></p>	<p>The amount of reclaimed metal in 2010 was higher than in 2009 as sites continue to dispose of surplus equipment. Recycled material from Gregg River was maximized.</p>
<p><b>8. Continue to work with joint venture partners to expand GHG reporting in the future</b></p>	<p>All GHG reporting required by regulatory authorities was met in 2010. Sherritt will continue to work with partners to expand GHG reporting.</p>
<p><b>9. At the Ambatovy Project mine site, collect nitrogen oxide (NOx), sulphur oxide (SOx) and particulate matter data in air monitors to compare with data to be collected after operations begin</b></p>	<p>Monitors were installed in 2010 in preparation for start-up of operations.</p>

Reclaimed land at the Moa Joint Venture in Moa, Cuba



## Land

Sherritt recognizes that the land entrusted to it is a valuable and irreplaceable resource, as demonstrated by its record of reclamation and remediation over the years.

### Metals

Within Sherritt's Metals Division, the Moa Joint Venture in Cuba continues to reclaim mined areas while managing the remaining nickel resource available to the Cuban state for future mining. In 2010, a total mined area of 74 hectares (ha) was reclaimed, well in excess of the 46 ha that was disturbed by the mining operations during the same period. Over the past five years, the total area disturbed was 226 ha while 336 ha of land – or almost 1.5 times the disturbed area – was reclaimed (Figure A-2/Appendix A).

The Ambatovy Project (Ambatovy) in Madagascar has provided a new opportunity for Sherritt to demonstrate its commitment to the land through reclamation and forest conservation initiatives. Madagascar is the fourth largest island in the world and Ambatovy is currently the largest project of its kind in the country.

To ensure environmental issues are managed appropriately in Madagascar, Ambatovy follows several significant international guidelines and standards, including those established by the International Finance Corporation (IFC) of the World Bank, the Equator Principles, the Business and Biodiversity Offset Program (BBOP) and the principles of the International Council of Mining and Metals. This is in addition to the comprehensive Malagasy environmental policy and programs under the country's decree on compatibility of investments with the environment (known as the MECIE decree).

Ambatovy is committed to reclamation and revegetation of land affected by the Project, in keeping with the surrounding context and international practice. Surface changes to land not dedicated to future infrastructure will

be returned to configurations similar to the original state. Recontouring and replanting continued along the slurry pipeline route as sections were completed in 2010.

In the forested mountain area where the mine is located, the total expected mine footprint will be about 1,800 ha, with some land remaining undisturbed until at least halfway through the life of the mine. Some forest areas overlying the ore body will be left undisturbed as offsets, in order to preserve examples of the characteristic habitat type found on this substrate and to assist with future reclamation. Areas that are mined early are expected to be fully reclaimed before the end of the mine's life. The entire mine footprint will be reclaimed following conclusion of operations. The total forest area to be reclaimed after construction and mining (mine site, slurry pipeline, etc.) is expected to be around 2,400 ha.

NET IMPACT OF MINING ACTIVITIES ON FORESTED AREAS

Forest/Land Areas	Land to Be Used (ha)	Land to Be Reclaimed (ha)	Land to Be Conserved (ha)
Mine Footprint	1,800	1,800	0
Slurry Pipeline	600	600	0
Roads/Infrastructure	100	0	0
Mine Conservation Forest	0	0	4,900
On-Site Offsets	0	0	300
Ankerana Offset (BBOP area)	0	0	6,800
Sub-Totals	2,500	2,400	12,000
Net Gain			11,900

Beyond its footprint, Ambatovy remains committed to supporting other forest areas in Madagascar, including a 4,900 ha Mine Conservation Forest and management area (Mine Conservation Forest) around the mine footprint.

The conservation areas in the mine region and at Ankerana will be managed in collaboration with national and international organizations to conserve endemic plants, fauna and aquatic resources and to offset residual impacts. An objective of the Project’s conservation program has been to minimize the threat to the forest from illicit harvesting for timber and illegal hunting. The endemic animals, including rare lemurs, were being hunted for food.

The Project has quantified the net impact of mining activities on forested areas to be used and reclaimed following project closure. Reclamation plans have been established for the slurry pipeline route and other construction areas using best available methodologies. These, along with lessons learned in their application, will be used for the larger reclamation areas.

The plant site and tailings area are located on coastal industrial land or nearby scrub land. The plant is expected to occupy about 321 ha while the tailings area is expected to be approximately 1,200 ha. Although there is not the same heightened concern for unique habitat in these locations as there is for the highland

forest areas, proper care is still taken for responsible use and later reclamation of land upon Ambatovy’s closure.

Ambatovy is supporting similar conservation efforts in the Ankerana offset area, 71 kilometres (km) north of the mine. The 6,800 ha of Ankerana Forest, plus the Mine Conservation Forest and site offsets, provide a total combined area of 12,000 ha of newly protected land (see Table above). This area is over six times the mine footprint area and five times the approximately 2,400 ha of total forest land that will be reclaimed after operations are complete. The small amount of land that is not reclaimed represents the area occupied by legacy infrastructure, such as roads that will remain for the beneficial use of the communities, resulting in a net gain of 11,900 ha of conserved land, most of which will be forested.

The area of the Ankerana offset (BBOP) was previously reported as 11,600 ha. A review conducted in 2010 determined that this figure was too high, possibly due to a cartographic error, and that the true area of remaining forest is 6,800 ha. Nevertheless, the Project will achieve a net gain of conserved land.

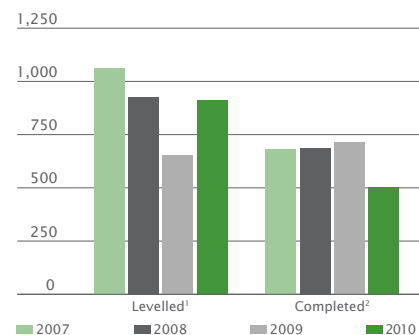
In addition, together with local partners, Ambatovy is supporting conservation of the Analamay-Mantadia Corridor lying between the mine area and the Mantadia National Park to the east. The Analamay-Mantadia Corridor is linked to the

Ankeniheny-Zahamena Corridor (CAZ), which runs northward along the northern section of Madagascar’s eastern mountain region and represents one of the major forested areas on the island. The Project’s slurry pipeline has been constructed to avoid impacting parts of the forest corridor by diverting its route or by drilling underneath forested hills to avoid impacting corridor continuity. Ambatovy is also working to re-establish connectivity in the Analamay-Mantadia Corridor and CAZ corridors through partnerships with government and local non-governmental organizations (NGOs).

**Coal**

At Sherritt Coal’s prairie coal mines in Canada, land from mined areas continues to be reclaimed progressively as operations move forward along the coal beds.

SHERRITT COAL LAND RECLAMATION (hectares)



<sup>1</sup> Levelled land has been returned to the contour specified by provincial standards and in mining licences.

<sup>2</sup> Completed land has been levelled, contoured, topsoiled and established with vegetation.

Inspecting new vegetation on reclaimed land at the Paintearth mine in Alberta, Canada



## 912 HECTARES LEVELLED

In 2010, Sherritt's coal mining operations levelled 912 hectares of land in reclamation and completed 501 hectares after disturbing 1,160 hectares.

Reclamation is a different challenge at the mountain mines (Coal Valley and Obed Mountain mines), where the coal seams are in rocky outcrops rather than in flat beds. Mining operations must follow the coal along the seam, moving farther from the load-out point and restricting reclamation opportunities until the entire seam is either exhausted, the boundary of the mineral lease is reached, or the coal is no longer economic to mine.

Over the past five years, Sherritt Coal continued to advance its reclamation program. In 2010, Sherritt Coal levelled and contoured 912 ha of formerly mined land and completed (levelled, contoured and topsoiled with vegetation) 501 ha of land. The areas completed have generally been increasing in recent years (Figure A-3/Appendix A).

By the end of 2010, Sherritt Coal's operations had completed reclamation activities on approximately 73% of the total area disturbed since operations began. Most of Sherritt's operating mines have reclaimed over 80% of the land disturbed by mining and the closed Gregg River mine has been almost entirely reclaimed (Figure A-4/Appendix A).

### Oil and Gas

In Cuba, Sherritt's Oil and Gas Division routinely mitigates the impacts of oil exploration and recovery activities when operations have ended. Drill sites are cleaned, topsoil replaced and the land is returned to conditions similar to what was there before drilling commenced. When this work is completed, the land is returned to the Cuban state in accordance with operating permits.

### Biodiversity

Sherritt operates in different industrial sectors and in different countries, which adds to the challenge in caring for the distinct ecologies around each facility.

Sherritt's commitment to protecting sensitive ecosystems is demonstrated by its respect for biodiversity across all its operations. In 2010, Alberta regulators asked Sherritt to represent the coal industry on an initiative to help regenerate the Athabasca rainbow trout population in the province. Over the next three to five years, Sherritt will work with the government and other industries to develop a full recovery plan for this species of trout population.

Sherritt's commitment is particularly strong at the Ambatovy Project in Madagascar, a country well known for its sensitive biodiversity.

### AMBATOVY'S UNIQUE ECOSYSTEM

As a reflection of Ambatovy's commitment to environmental management and transparency, a Scientific Consultative Committee on biodiversity was established in 2009. The Committee comprises 14 independent national and international scientists renowned for their expertise in biodiversity, conservation and environmental management. The Committee convenes every six to 12 months for an external evaluation of the implementation of Ambatovy's biodiversity management program and to make recommendations for the conservation of Madagascar's unique biodiversity. The most recent meeting, in November 2010, provided guidance for biodiversity and conservation programs in 2011.

Each part of the Project operates within a unique ecosystem with its own biological characteristics. Ambatovy's policy recognizes these differences and sets a goal of causing

*Typical example of rainforest to be protected*



no net harm from operations, with an objective of a longer-term net gain in biodiversity. Unavoidable impacts will be mitigated and responsible closure procedures will be maintained. Part of this process is the documentation and preservation of a variety of different species found on the sites (Figure A-5/ Appendix A).

As noted, Ambatovy is working to protect the Ankerana Forest offset area, an offshoot of the main Ankeniheny-Zahamena Forest Corridor located 71 km to the north of the mine, as part of its offsetting commitments under the BBOP framework. This project area spans 6,800 ha of intact rainforest threatened by traditional slash-and-burn agriculture and hunting.

Communities in the area will receive environmental awareness training and support for alternative livelihood practices that do not threaten the forest. In particular, agronomists will work with these communities to develop more sustainable farming techniques to replace the population’s dependence on slash-and-burn agriculture and illegal hunting.

The Malagasy government has officially protected the Ankerana Forest, currently on a temporary basis, as a sector of the Ankeniheny-Zahamena Forest Corridor within the Malagasy protected areas network. This will allow the integration of the Ankerana Project into national conservation planning.

Please visit the BBOP website below for access to a detailed case study on Ambatovy’s pilot project and more information on BBOP.

**PROTECTING LOCAL FLORA AND FAUNA**

A portion of the Mine Conservation Forest is habitat to rare species of flora and fauna. Ambatovy is implementing scientific conservation actions for targeted species, including lemurs and critically endangered frogs and fish. In this activity, Ambatovy is undertaking an adaptive management approach, using analytical processes to learn from the outcomes of operational programs and to continuously improve and enhance management policies and practices.

Based on an extensive botanical inventory, Ambatovy, with the help of the Missouri Botanical Garden, has identified plant species known to exist only within the mine footprint and one or two other sites in Madagascar. These plants are categorized as Species of Concern (SOC).



*One of many Madagascar lemur species*

For these SOCs, as a precautionary measure, Ambatovy's comprehensive conservation program includes whole-plant salvaging, seed collection, plant propagation, and the development of living collections for progressive rehabilitation of the mine footprint. In parallel with the offsite conservation efforts, Ambatovy supports searches for viable populations of SOCs in the Mine Conservation Forest. This search effort is ongoing and has resulted in the progressive reduction in the number of species requiring offsite conservation. The number of SOCs still requiring special salvaging has been reduced to eight species from 173, and is expected to reach zero as the offsite surveys continue.

Ambatovy continued to support programs in 2010 that help ensure the continued viability of populations of fauna affected by the Project. Main activities include pre-clearance species inventories and salvaging and relocating live animals to conservation forest refuge areas.

Between 2007 and 2010, the program relocated more than 14,000 animals including 54 reptile species and 55 amphibian species. This program will continue until forest clearing operations have been completed.

A specific conservation program has been developed for the Golden Mantella frog, *Mantella aurantiaca* (IUCN CR), a critically endangered frog and a flagship species for Ambatovy's conservation efforts. Ambatovy has supported regional surveys to identify the distribution

of the frog population and its critical habitats, and the steps required to maintain viable populations in the mine area.

Endemic fish species tend to be located in streams draining from catchments with intact forest and where barriers such as waterfalls prevent invasion by exotic species. This makes them especially vulnerable to local extinction and requires careful conservation of even the smallest streams. Ambatovy's fish management program endeavours to maintain the viability of these populations in streams affected by the mine and slurry pipeline using best available practices.

Pre-construction surveys were conducted on the habitat of targeted fish species and aquatic systems in watercourses located at both the mine site and along the route of the slurry pipeline. These surveys helped determine baseline conditions and outline environmental procedures for construction. To minimize the impacts on aquatic systems, stringent mitigation measures were imposed on contractors during construction. Endemic fish and their habitats continue to be monitored regularly in the mine area and in water courses crossing the sections of the slurry pipeline where endemic fish species occur.



### Tracking local lemurs

As part of a lemur management program deployed in the Mine Conservation Forest, over 200 individual lemurs of 11 species were equipped with radio collars from 2007 to 2009. Technicians use radio-tracking to monitor lemur behaviour both during and after forest clearing, to determine whether the lemurs are able to migrate out of impacted areas and establish new viable home ranges over time. State-of-the-art biomedical monitoring systems assess trends in animal health. Canopy-level lemur bridges, installed over trails and roads cut for mining activities, promote habitat connectivity and allow lemurs to move safely over mine roads. A community-level assessment has helped evaluate local hunting pressures on wildlife and promote local awareness of the need to end illegal wildlife hunting.

Since 2009, a total of 35 newborn lemurs have been observed within Ambatovy's conservation areas: six *Indri indri* (local name: babakoto), 14 *Propithecus diadema* (simpona), 11 *Avahi laniger* (fotsifé) and four *Eulemur fulvus* (varika mavo). Sixteen of these newborn lemurs came from groups that were moved to special refuge areas when their original habitat was disturbed.

Lake Wabamun, Alberta, Canada, near the Highvale mine



## Water

**Water use at Sherritt operations is controlled to minimize both the amount drawn from the environment and any potential downstream impacts. Following its use, water is treated in accordance with approved operating permits and licences, where applicable, before it is returned to the environment. For example, no liquid is discharged directly to the environment at the Fort Saskatchewan refinery. Instead, all liquids are sent to the Alberta Capital Region Wastewater Treatment Plant for processing.**

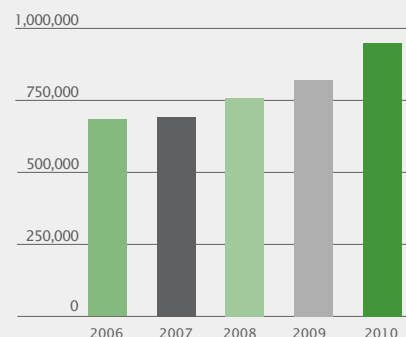
In Madagascar, water is extracted from the Mangoro River, for use in mine operations, and the Ivondro River, for use in processing operations. In both cases, extraction rates are well below 1% of the total annual river flow. At the mine, water is pumped into the ore preparation facility to transport ore to the plant via a 220 km slurry pipeline. Storm water runoff is collected in three separate sedimentation ponds to prevent contamination of downstream water catchments.

Water runoff collection ponds and flow allowances are designed to meet the World Bank suspended solids concentration threshold of 50 milligrams per litre or less, based on a 1-in-10 year storm event. Hydrological studies during the environmental assessment determined that this method will properly control and maintain seasonal water flows off the mine site. Annual water requirements for ore processing at the mine represent about 0.3% of the mean annual flow of the Mangoro River.



Athabasca River beside the Obed Mountain mine

Energas S.A. power plant in Varadero, Cuba

2010 CANADIAN GHG EMISSIONS  
(tonnes of CO<sub>2</sub>e)

## Air

Sherritt is conscious of the potential impacts that its operations may have on the surrounding atmosphere. The Corporation takes great care to ensure that all applicable regulations with respect to air quality are properly followed.

### CLIMATE CHANGE

Climate change has become an increasingly high-profile issue in recent years. Like many large industrial companies, Sherritt is affected by legislation associated with GHG reductions in some jurisdictions. The Province of Alberta has implemented a GHG emission reduction regulation that is applicable to large GHG emitters in the province. A discussion of climate change background and legislation that may affect the Corporation is provided in Appendix B.

Currently one Sherritt Coal mine and the Sherritt Metals refinery operation in Alberta are subject to this regulation. Sherritt reports 2010 GHG results for its Canadian facilities but does not yet provide reporting on facilities outside of Canada (Figure A-6/Appendix A).

### Metals

In Sherritt Metals, the Fort Saskatchewan site reports GHG emissions under Alberta Environment and Environment Canada reporting

regulations. These regulations identify some types of GHG emissions that companies are not required to report, specifically industrial process emissions not subject to GHG emissions reduction. The data in Figure A-6/Appendix A includes both types of GHG emissions (separately identifying industrial process emissions) to provide a figure for total GHG emissions for the site.

For the 2010 compliance period in Alberta, reportable GHG emissions at the Fort Saskatchewan site were 20,120 tonnes of carbon dioxide equivalent (CO<sub>2</sub>e) over the provincial government's targeted 12% reduction level. A purchase of 20,120 credits from the Climate Change and Emissions Management Fund (the Fund) was required to meet compliance requirements, for a total cost of \$301,800. It is anticipated that the Fort Saskatchewan site will continue to comply with this regulation by contributing to the Fund for the next several years, as it reviews practical and economic alternatives.

### Coal

At Sherritt Coal, expanded operations in 2010 resulted in a total GHG emissions increase in absolute terms. Contributing factors include the first full year of operations for the reopened Obed Mountain mine, the commissioning of the Bienfait activated carbon plant, and the increasingly longer haul distances from coal faces to the power plants, wash plants and rail loading facilities.

In Alberta, for the 2010 compliance period, the Coal Valley mine was the only Sherritt Coal operation to exceed the 100,000 tonne emissions threshold established under the Alberta regulation. In 2010, the mine was 28,020 tonnes above the required target, primarily due to increasingly long haul distances, increased coal consumption in the coal preparation plant dryer, and lower than historic yields in coal processing. Coal Valley met compliance levels by purchasing 28,020 Fund credits for a total cost of \$420,300.

In Saskatchewan, Sherritt Coal operates the Poplar River, Boundary Dam and Bienfait coal mines, as well as a char plant at Bienfait. In addition, construction of an activated carbon plant at Bienfait was completed in 2010. Successful passage of proposed Saskatchewan GHG legislation (see Appendix B) would likely impact Sherritt's operations at the Boundary Dam and Bienfait mines. Until there is greater clarity around this legislation, it is difficult to identify its potential impact on Sherritt's operations.

### Mitigating Actions

Any eventual costs related to emissions targets in the Corporation may be partially offset by credits earned through internal measures and research and development or emissions reduction projects. In addition to projects such as clean coal research at Fort Saskatchewan, Sherritt continues to operate an emissions reduction project that uses waste exhaust heat to generate power for Energas facilities in Varadero, Cuba. The environmental benefits achieved through the reduction of GHG emissions at the Energas operations were recognized by the granting of CDM status for the Energas project under the provisions of the Kyoto Protocol. In November 2010, Sherritt sold 163,409 carbon credits from the June–December 2007 monitoring period on behalf of its partners for over \$2.7 million.

A summary of CDM credits, including estimates for those not issued before the end of 2010, is indicated in Figure A-1/Appendix A. Sherritt will request issuance of additional credits in 2011. More than 1.5 million voluntary credits identified in earlier Sherritt CSR reports are unlikely to be recovered due to the passage of time and are therefore no longer included in the Corporation's calculations.

Sherritt's Technologies Division has initiated projects that may allow for reduction or diversion of GHGs. These projects include programs developed by the Corporation's Clean Coal and Hydrocarbon Technology Group that may result in new coal products which would make it easier for customers to meet their GHG emission targets. The development of clean coal technology could provide an additional revenue source for the Corporation.

### OTHER AIR

The Sherritt Metals refinery at Fort Saskatchewan is a hydrometallurgical plant that uses heat, pressure and chemistry to refine metal products. Some emissions, such as steam and the GHGs previously reported, are a normal result of this process. Other gases that are used or produced on-site are controlled in systems designed to prevent their accidental release. The refinery is subject to certain emission limits, as per the operating approval from the province.

In 2010, reported nitrogen oxide (NO<sub>x</sub>) levels were slightly lower than in 2009. Levels of sulphur oxides (SO<sub>x</sub>) in 2009 were low due to cycles in mechanical maintenance and on-stream timing. In 2010, SO<sub>x</sub> levels were more consistent with historic values as production levels in the acid plant returned to normal. The higher total particulate matter (TPM) from 2007 onward was primarily due to an increase in particulates from the ammonium sulphate granulation plant. In 2010, an increase in TPM resulted in two stack limit exceedances at the granulation plant. Both were reported to Alberta Environment and an investigation and remedial actions are underway (Figure A-7/Appendix A).

In 2010, 36,207 tonnes of industrial carbon dioxide (CO<sub>2</sub>) were supplied from the Fort Saskatchewan site and turned into the production of a liquid CO<sub>2</sub> product for use in the oilfield

service industry. This gas is part of the "industrial process emissions" shown in Figure A-6/Appendix A, so this disposition does not reduce reported GHG emissions for federal and provincial regulations. However, the new facility contributes to the overall reduction in total site GHG emissions and reflects a full year of operation.

The Sherritt Metals operation at Moa, Cuba produces GHGs and other emissions primarily in two areas. The first is from the operation of mine haul trucks and other mobile mining equipment. The second is primarily from the production of steam, sulphuric acid and hydrogen for plant operations.

Sherritt has made progress in efforts to reduce emissions associated with the operation of the Moa Joint Venture. Previous improvements to catalysts in both acid plants at Moa reduced SO<sub>x</sub> emissions by 50% in 2009. No further catalyst changes have been made.

In Madagascar, air quality monitors have been installed within the perimeter of the mine and plant sites and now provide continuous monitoring of the ambient air. These monitors measure nitrogen dioxide (NO<sub>2</sub>), sulphur dioxide (SO<sub>2</sub>), particulate matter and total dust.

Sherritt Coal operations do not normally produce high levels of air emissions from coal use. The coal drying operations at the Coal Valley mine and the operation of the char plant at the Bienfait mine have resulted in reportable SO<sub>x</sub> emissions. The large open pit mining operations primarily produce dust rather than other emissions. The use of modern mining equipment and large draglines minimize the emissions produced through burning hydrocarbons to move large volumes of overburden and coal (Figure A-7/Appendix A).

# COMMUNITY



*Using one of the community wells provided in Madagascar*

Dance students from the National Ballet school in Havana, Cuba with donated ballet slippers



## 350 PAIRS OF SHOES

Sherritt helped ship over 350 pairs of surplus ballet shoes from Canada's National Ballet school to the students of the National Ballet school in Havana, Cuba.

## COMMUNITY

### Sherritt's Approach to Community

Sherritt works diligently with stakeholders to maintain its social licence, which is fundamental to its long-term business strategy and to its shareholders.

The Corporation is actively engaged in furthering the well-being and prosperity of the communities in which it conducts business by building enduring relationships for mutual benefit. Stakeholders in Canada, Cuba and Madagascar are consulted on a regular basis, with a focus on developing cooperative programs. The same approach is taken with all major new projects. Sherritt works with all levels of government and with local communities to understand the issues associated with its operations, tailoring its plans to appropriately fit local needs. Sherritt employees dedicate their time and resources to many local community programs, as well as to leadership participation in various industry initiatives.

### PERFORMANCE

#### TARGET/GOAL

Sherritt will track its various community activities and measure the impact of operations on communities

#### RESULT

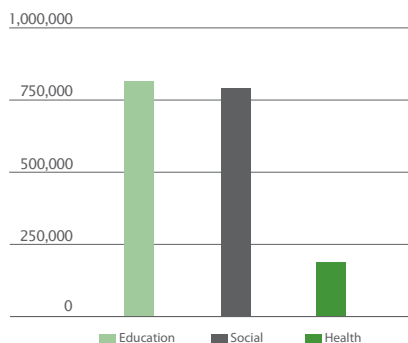
Sherritt continues to work on improving reporting in this area. The Corporation continues to evaluate external tracking mechanisms for possible future use.

Sherritt's operations are located in and near communities of many different sizes. The Corporation recognizes its important role in these communities.

**“Sherritt ensures the local communities near its operations and offices benefit socially and economically from the Corporation’s business.”**

## Local Economic Benefits

2010 DONATIONS AND SPONSORSHIPS (\$)



Communities near Sherritt’s operations and offices benefit economically from its presence. In 2010, Sherritt’s operations for all Divisions in Canada and Cuba contributed over \$430 million to the economies of their local communities in the form of wages paid to workers and staff. In 2010, the operations at Fort Saskatchewan purchased over \$20.6 million in goods and services from regional businesses and paid over \$3.6 million to the city and the region in taxes and fees. The Corporation places an equal priority on building and maintaining meaningful relationships with local, regional and national governments in all the jurisdictions in which it operates.

Sherritt continues to offer financial support for local youth organizations and educational institutions. Employees collect toys and goods for local distribution at Christmas, help nearby towns install seasonal decorations, plough snow, organize community events and supplement local fire crews. Sherritt offers first aid in emergencies and employees participate in local government. These are services and assistance that Sherritt has provided for many years.

In Cuba, Sherritt continued its support of public transit in Moa. Funding was provided to buy spare parts for buses that were given to the city by Sherritt in past years. Their continued operation is a benefit to the community at large.

The Moa Joint Venture continued to play a significant role in the community in 2010 by leading or participating in a number of community initiatives such as:

- repair of a medical waste incinerator for the main Moa hospital;
- construction of a public washroom for the Rolo Monterrey neighbourhood;
- construction of a sheltered bus stop on the main road between the Rolo

Monterrey neighbourhood and the centre of Moa;

- participation in the construction of two small bridges within the city; and
- installation of a fence at the Frank Pais de la Playa School.

Elsewhere in Cuba in 2010, Sherritt continued its CSR Program in consultation with Cuban local authorities to provide assistance where it was most needed. Public lighting projects continued for improved public safety, along with new investments in public sanitation, food safety and infrastructure repair. Sherritt also continued to provide materials for the reconstruction of health facilities and provided fresh vegetables and produce to a seniors’ residence in Havana.

Strategic social investments and partnerships with local communities and local technical experts provide a solid foundation for sustainable development and ensure a collaborative relationship. Such is the case in Madagascar, where intensive consultations with key stakeholders help ensure that Ambatovy initiatives benefit the country and its people.

## The Ambatovy Project – Investing in Madagascar

**2,084**

businesses registered as potential suppliers.

**64** SMMEs

(Small, Medium and Micro Enterprises) received training in health and safety, procurement and quality control by the end of 2010.

The Ambatovy Project’s social investments include sponsorships, charitable donations, education and health programs, which are integrated into regional planning, vocational training and professional development, as well as a wide variety of other sustainable development projects. Ambatovy processes an average of 20 requests for donations per month as part of its support to neighbouring communities. Ambatovy’s commitment to sustainable

development is demonstrated by its effective stakeholder consultation and management in which CSR team members participate in round table discussions at regional levels to identify health and education needs. Ambatovy’s philosophy is to be a vehicle for development not a driver of it. Ambatovy also envisions that over the lifespan of the Project, its investments will significantly improve the standard of living for thousands of Malagasy people.

Ambatovy's substantial investment in transportation infrastructure will benefit local communities for years to come. Its investments include construction or upgrading of almost 100 km of public access roads. Some of these roads, which had been closed since 1969, now have bus services for the first time. As a result, 11 rural communities have easier access to markets and social services. A dirt road from the port in Toamasina was upgraded and extended to create an 11 km paved route to the main highway that allows public truck transport to by-pass the city centre. This reduces congestion in Madagascar's most

important port city and provides more direct access to the Project plant site.

Ambatovy has also constructed a vocational training centre, clinics, a primary school, access to water, and has assisted with the rehabilitation of numerous public structures.

Sherritt and the Ambatovy Project have also continued earlier work begun to raise the capacity of the local economies. The communities in the mountain and coastal areas in which Ambatovy's facilities are located are economically and socially impacted by the Project. The 220 km slurry pipeline from

the mine site to the coastal processing plant has the potential to negatively impact multiple communities along the way. Programs are in place to ensure that any such impacts are mitigated through such initiatives as rehabilitated rice fields or water wells and pumps. Many of these communities benefit from the roads built for slurry pipeline construction through better access to land and markets.

Ambatovy maintains strong relations with its stakeholders, consulting them on opportunities, planning and decisions, listening to their perspectives, and openly explaining the Corporation's position, practices and results.

## Ambatovy – supporting local business initiatives

Another substantial outcome of stakeholder consultation is the Ambatovy Local Business Initiative (ALBI), established to fulfill Ambatovy's buy locally, hire locally policy. ALBI provides support to local businesses and entrepreneurs through training, mentoring and other capacity building programs designed to help them improve the quality and competitiveness of their products and to advance in local markets.

ALBI works closely with the Project's Purchasing, Supply and Contracts Services to identify local companies capable of responding to company and market needs, maximizing local procurement for a much-needed impetus to the Malagasy economy and entrepreneurs. ALBI has already assisted in employment-generating enterprises that include uniform manufacturing, drum and pallet fabrication, egg production, and agricultural produce marketing. By the end of 2010, more than 500 local businesses had been given purchase orders across 54 different sectors of activity.

Various initiatives, in and near Project areas, to promote agricultural production include advice and technical support to farmers on how to improve their fruit, vegetable and livestock products. In addition, farmers are linked to three bulk purchasing centres to supply produce under quality control to Ambatovy's catering service. As of 2010, an estimated 5,000 farmers from the regions of Atsinanana and Alaotro Mangoro (40% of them women) and another 3,000 farmers mainly from Antananarivo Antsirabe, supply the Project with over 125 tonnes of fruit and vegetables per month.

ALBI's focus on recycling plant site waste has also supported local business activities and the community. Each month,

the plant site generates more than 600 cubic metres of residual wood from construction and packaging. In 2010, wood distributed by ALBI to communities near the site was transformed into benches, tables, cupboards, and other items for municipal schools.

In 2011, the Project will transition from the construction to operational phase and the majority of workers recruited for construction will see their contracts come to an end. As a result, Ambatovy is supporting a number of programs to assist demobilized workers.

Two Redeployment Centres – one near the plant site and one near the mine site – were established to assist demobilized workers to gain access to new jobs, specialized training or other income-generating activities through ALBI. The Ambatovy Project also provided support for the rehabilitation and expansion of Regional and District Employment Offices in Toamasina and Moramanga. Run by the Ministry of Labour, these offices support job placement and assist local businesses to meet their hiring needs.

Inaugurated in 2010, the Agricultural Training Centre (Centre de formation d'Ambatovy – CFA) helps interested demobilized workers and the rural population affected by Project activities to improve their skills and knowledge in small-scale agribusiness. Located near the plant site, the CFA offers courses in agriculture, livestock, accounting and business administration. More than 900 people (40% women) received agricultural training and a further 6,000 farmers have already registered for training over the next three years.



In line with standards set by international financial institutions, the Ambatovy Project has tried wherever possible to avoid or at least minimize impacts to ensure a positive total net economic impact on these communities. Wherever the local population has been affected, Ambatovy has compensated them for any lost or damaged assets. This is clearly demonstrated in the resettlement villages.

Ambatovy has set up a comprehensive grievance mechanism that offers various communication channels for submission of grievances. These channels include a dedicated email address, a toll-free

telephone number, and face-to-face meetings with a member of the grievance mechanism team.

Through emphasis on public consultation across all levels, Ambatovy aims to achieve and maintain a greater level of transparency, efficiency, sustainability, and public involvement in all areas where it is active. In 2010, Ambatovy hosted town hall meetings for communities living along the slurry pipeline to learn about Project activities and key issues, to ask questions and to address any significant matters of concern. More than 7,300 village residents participated in these information sessions.

In October 2010, Ambatovy opened an Information Centre in Moramanga, near the mine site, to provide information on Project activities for the general public – a second information centre in Toamasina opened in 2011 along with a mobile information kiosk. The centre in Moramanga also offers four computers that visitors can use to research employment internet sites. At the end of 2010, almost 600 people had already visited the centre and in 2011, the Project will host organized visits to it from schools in the area.

## Community Well-being



*Malagasy students using donated books*

Ambatovy is still active in the two resettlement villages, Marovato and Vohitrambato, which are growing and progressing well – newlyweds are building new homes, fields are being cultivated and schools are active, adding to the dynamism of these communities. In 2010, Ambatovy began working with the communities to create Villager Associations, which will enable a progressive transfer of community management to the villagers themselves.

Ambatovy continues to support improved enrollment, retention and achievement rates in primary schools, following construction of a primary school in Vohitrambato and resettlement

of Marovato families a short distance from their original local school. In 2010, enrollment reached 82% of eligible children at the new school in Vohitrambato and 100% in Marovato, up from just 33% in both villages prior to resettlement.

Likewise, Ambatovy is supporting mobilization of the community in healthcare. More than two-dozen village residents have become volunteer health promoters, after receiving training provided by Ambatovy. They now educate community members on common illnesses, reproductive health, general hygiene, HIV/AIDS prevention, and routine vaccinations. By the end of 2010, 73% of children under five in the new villages had completed their vaccinations on time. This represents major progress – prior to resettlement, none of the children had completed their routine vaccinations.

There are currently 37 local health volunteers in Vohitrambato (35) and Marovato (2). The health centre in Vohitrambato offers the villagers and neighbouring communities preventative healthcare through monitoring of child nutrition, vaccinations, prenatal

care and family planning. Its remedial care in 2010 included more than 2,400 consultations to address respiratory and digestive illnesses, diarrhea, fevers, and trauma. Infants under five years of age remain the most vulnerable group, comprising 42% of patients seen.

In a commitment to sustainability, Ambatovy is implementing several health initiatives. To date, the Project has collaborated with five local organizations to promote better hygiene practices. Over 50 pumps and wells have been installed along the slurry pipeline for 10 communes affected by runoff and sedimentation from the Project's construction work. Following the installation of the pumps a local NGO, SAFJKM, trained over 200 commune and village residents on maintenance and repair work as well as reinforcing their management capacity. Forty-four hand pumps and six pedal pumps were installed in the relocation villages to provide the population with access to clean drinking water. In addition, three block buildings were built, each containing a public washing area fed by a water tank, two public washrooms and a public refuse area.

Ambatovy is committed to fighting the spread of HIV/AIDS in nearby communities and among its workforce by building awareness and other prevention-related activities. The Project has introduced an HIV/AIDS awareness campaign consisting of: awareness and understanding, access to condoms, and voluntary testing. As part of its World AIDS Day observance at the end of 2010, Ambatovy sponsored events in three urban centres, reaching more than 20,000 people with prevention messages.

A well-known Malagasy singer held a concert sponsored by Ambatovy, in which he communicated HIV prevention messages between songs.

Support to the education infrastructure remains a key priority for the Project. Together with UNICEF, Ambatovy has sponsored the training of school teachers and administrators as part of Madagascar’s Contract for School Success Program. So far, the Ambatovy/UNICEF team has received 237 action plans and trained 299 school principals. These action

plans will affect some 43,600 students across 19 communes.

Ambatovy’s archaeology team has coordinated excavations and monitoring in each of the Project infrastructure sites (mine, slurry pipeline, tailings, and port-to-plant). In order to document the archaeological sites and artifacts discovered over the course of the construction phase, the archaeology team undertook a major cataloguing effort in 2010, which was 55% completed by the end of the year.

### Stakeholder Support

Sherritt is affiliated with a number of different organizations that operate locally, nationally or internationally (Figure A-9/Appendix A). Sherritt is proud to support and be affiliated with these organizations, each of which plays a role in our success. Affiliation may take many forms, such as Sherritt’s presentation of the Sherritt Hydrometallurgy Award at the Canadian Institute of Mining and Metallurgy’s Annual Hydrometallurgy

Section Meeting. The award is usually presented annually to recognize significant contributions in the field of hydrometallurgy.

Sherritt also supports the Extractive Industry Transparency Initiative (EITI). EITI is an initiative supported by a coalition of governments, companies civil society groups, financial institutions and investors to improve the transparency and accountability of all payments made by companies

in the extractive industries to governments. Madagascar has been a candidate country since 2008 and, as at the end of 2010, continues work on the preparation of its final validation report for the EITI board. Ambatovy fully supports this initiative and takes part in collaborative meetings and transparency sensitization campaigns together with the Madagascar government, other mining companies, and civil society.

### Community Investment



*Sherritt provided assistance to the Shock Trauma Air Rescue Society (STARS) in Alberta, Canada*

An integral part of Sherritt’s social commitment is its community investment program. This commitment exists at the Corporate office, as well

as at the Division and Country offices. Every year funds are allocated to uses which are of benefit to the community and which reflect Sherritt’s objectives as a socially responsible corporation. These funds are additional to funds for required community programs or training costs associated with the Ambatovy Project in Madagascar or the Corporation’s other operations.

Sherritt has revised its community investment to focus on three main sectors – education, health and social programs – with a long-term target of about one-third of the total investment to each, though single year results

will not always reflect this. In 2010, the Corporation continued to invest in communities by supporting the work of many charities and organizations. The primary focus on education continued, with just over \$800,000 in donations and educational assistance provided. In addition, Sherritt presents an annual Prize in Mining Engineering at Queen’s University to encourage excellence. Social causes (including environmental, infrastructure and arts investments) were the Corporation’s second largest area for community investment, receiving just under \$800,000. The balance (about \$200,000) went to various health initiatives (Figure A-10/Appendix A).

# WORKFORCE



*Workers at the Ambatovy Project in Madagascar*

Ambatovy Project trainees at the Ambatovy Training Centre



## WORKFORCE

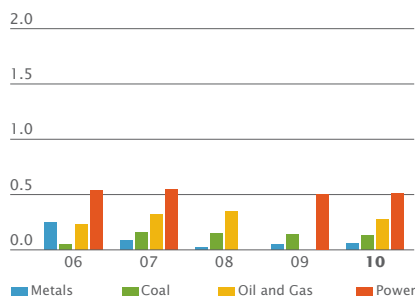
### Sherritt's Approach to Workforce

Sherritt's workforce – including both direct employees and contract staff – reflects the many different nationalities that span the globe. The Corporation's employee relations programs reflect this diversity. Sherritt is committed to protecting the health, safety and well-being of its workforce and to the professional development of its employees (Figure A-11/Appendix A).

#### PERFORMANCE

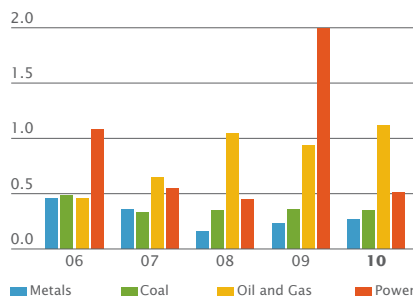
TARGET/GOAL	RESULT
1. Target of zero for Lost Time Injury (LTI) and less than 0.75 for Total Recordable Injury (TRI) data	The Corporation once again came very close to zero LTIs for 2010 and was well below the TRI target.
2. Achieve zero fatalities at all operations and projects	Although there were no fatalities among Sherritt's direct employees in 2010, regrettably a single fatality was reported by a subcontractor at the Ambatovy mine as a result of a transportation accident.
3. Conduct the next employee engagement survey in 2010	An employee engagement survey is now planned for fourth quarter 2011. The scope of the survey is under review.

LOST-TIME INJURY (LTI) INDEX<sup>1</sup>  
(12-month rolling average as at December 31, 2010)



<sup>1</sup> The LTI Index is calculated by multiplying the number of total LTIs by 200,000 and then dividing by total exposure hours. This index provides a measure that is comparable across industries and businesses of varying size.

TOTAL RECORDABLE INJURY (TRI) INDEX<sup>2</sup>  
(12-month rolling average as at December 31, 2010)



<sup>2</sup> The TRI Index is calculated by multiplying the number of TRIs by 200,000 and then dividing by the total exposure hours. This index provides a measure that is comparable across industries and businesses of varying size.

**0.07** LTI

Lost Time Injury Index

**0.29** TRI

Total Recordable Injury Index

**8.8** YEARS

Average employee years of service, excluding Cuban nationals

## SAFETY

Sherritt's operations are underscored by strong core values. With a firm commitment to the safety of its people, Sherritt's goal is to ensure each of its workers around the world returns home safely each night.

In 2010, Sherritt's 12-month rolling average LTI and TRI indices were 0.07 and 0.29, respectively. We remain vigilant in our efforts to reduce workplace injuries through increased training and, most importantly, through the efforts of each one of our employees to not just look after their own safety but also the safety of their colleagues (Figure A-12/Appendix A).

Sherritt's safety results compare well with other companies in its industrial sectors. In Alberta, the Mining and Petroleum Development sector reported a 2010 LTI level of 0.40. Nevertheless, the Corporation continues to strive to reduce the frequency of injuries even further. Sherritt uses an LTI index target of zero and a TRI index target of less than 0.75 against which to measure safety performance each year.

As always, zero is the only acceptable target for fatalities at Sherritt operations. The Corporation had no fatalities among its direct employees in 2010; however, a fatality was reported by a subcontractor engaged

by Ambatovy. The subcontractor's employee was fatally injured after jumping from a moving vehicle while workers were being transported from the mine to their local town. A team of safety managers from Sherritt conducted a thorough investigation of the incident and additional training and safety procedures were introduced to prevent recurrence of such an incident.

### Metals

In December 2010, the Fort Saskatchewan site achieved a milestone of 1 million hours worked without an LTI by employees and contractors combined. The operation in Moa achieved 2 million hours in the fourth quarter just prior to the occurrence of an LTI.

### Coal

In 2010, the CIM awarded Sherritt Coal's Genesee mine the John T. Ryan Safety Trophy for its outstanding safety record in the previous year. This marked the tenth time that Genesee has either shared this award or won it outright since 1995 and Genesee's strong safety record continued in 2010.

At the end of 2010, several of Sherritt Coal's mines had achieved significant safety milestones. These were Boundary Dam, Bienfait and Whitewood mines (six years with no LTI), the Sheerness mine (15 years) and the Genesee mine (22 years).

## TRAINING

Sherritt's focus on skills training, professional development and staff retention has enabled the Corporation to maintain an experienced, stable workforce, with a consistently low turnover rate. Sherritt continues to encourage both new accreditations for its workers as well as regular upgrades to worker skill sets. This highly skilled workforce helps the Corporation maintain its competitive advantage.

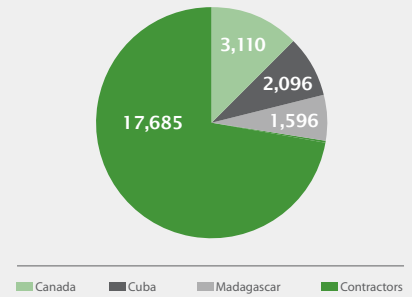
In 2010, the number of employees and contract workers increased substantially. This was mainly due to construction and pre-commissioning activity within the Ambatovy Project in Madagascar. The contract complement will decrease over time as the Project's construction phase is completed. This is typical of a large-scale construction project and Project demobilizing teams have been assisting workers to ease the transition.

Sherritt is keenly aware of the need for a solid talent management structure that ensures a steady supply of skilled leaders who can meet its business needs, both today and in the future. In 2010, Sherritt initiated the design of a new program to develop and enhance leadership capacity. Its goal is to create a learning and development infrastructure that offers development opportunities to personnel across the

Workers at Sherritt's Oil and Gas operations in Cuba



2010 EMPLOYEE AND WORKFORCE OVERVIEW (\$)



Corporation. This customized, multi-faceted program was launched in June of 2011.

Also in 2011, all Divisions will begin to implement a unified set of performance attributes developed in 2010 which more closely align to business needs and apply consistent definitions, metrics and evaluations. This will support a broader view of talent resources across the organization and support cross-functional development opportunities.

Sherritt Metals created a separate Training and Development group at the Fort Saskatchewan site in 2010 to address training needs for work currently performed, as well as to enhance leadership talent and workforce specialization. Previously, each department was responsible for its own training needs. The Training and Development team is composed of senior operations personnel and is currently focused on delivering regulatory training and updating site progression systems. The focus is forward-looking, as the training programs must anticipate longer-term specialized needs in each department. This structured learning will serve Sherritt well in the future, accommodating incidental training required by personnel from Cuba, Madagascar and other Metals projects.

**Ambatovy's Workforce Requirements**

In Madagascar, the Ambatovy Project is committed to maximizing national employment and developing a highly skilled local workforce. Thousands of Malagasy employees have already received construction, technical and administrative training. Investing in such programs ensures that Malagasy workers and managers will be able to assume positions of progressively increasing responsibility during the operations phase.

Ambatovy's Training Department has taken a hybrid approach that combines self-taught training, computer-based learning and traditional instructor-led classes. Through this approach, employees can continually develop skills on the job, allowing for significant professional growth. In order to meet the training needs of each department, Ambatovy now has four training centres, 27 classrooms and more than 230 computers that are used to train an average of 250 employees and subcontractors per day.

In all, training facilities teach a wide range of trades and skills, including:

- Pipefitting
- Electrical
- Welding
- Millwright
- Boiler making

- Instrument Technologies
- Port Operations
- Languages (English, French, Malagasy)
- Office software (word processing, etc.)
- Information Technology (IT)
- Management/Supervision skills
- Health & Safety

The Ambatovy Training Centre was inaugurated in 2010 and comprises two fully equipped workshops, five classrooms and an office. This centre is dedicated to the training of maintenance technicians and operators. Courses provide technical training and help transfer skills to all newly hired national maintenance technicians in various trades. By the end of 2010, 107 maintenance technicians were trained in various fields. Combined with 2009 levels, a total of 222 maintenance technicians have been trained to date. In addition, 32 Port Operators received maintenance cross-training and more than 355 maintenance employees/technicians received "Vendor Specific" training.

A total of 504 operators are needed to support operations in the three main areas: Pressure Acid Leach, Refinery and Utilities. In preparation for start-up, operations training began in earnest in 2010. At the end of December 2010, 328 operators had received training and were already fully integrated in the Operations Team.

## Training initiatives

The year 2010 was a pivotal one for health and safety and Permit to Work training at the Ambatovy Project. More than 10,000 employees and subcontractors received new site induction and Pre-Operational Verification and Testing.

The Project recently implemented an environmental policy governing industrial health and safety. Ambatovy is committed to working towards Occupational Health and Safety Assessment Series (OHSAS) 18001 certification for its safety management system. OHSAS 18001 is the highest international standard for occupational health and safety; Ambatovy hopes to have this standard in place in 2011.

Employees may also develop their knowledge and skills through extra-curricular courses including languages, IT, and customer service. In 2010, the number of courses available for employees more than doubled. Many personnel have already received training in planning, which will help them step into management roles in the future.

Two online courses were also developed in 2010 by the Content Production Team: interactive customer service training, rolled out to the Supply Chain Management

Team, and a guide to the Enterprise Management System. Maintenance employees who need to create work requests and manage tools are the target audience for the latter course. Both allow self-paced learning.

As part of the Project's commitment to maximize local recruitment, 2011 will see the launch of a new training initiative, the Technical Excellence Program, developed for technical college graduates aged 17 to 22, in the region of Atsinanana. The course will consist of 18 months of training and a two-month internship. At the end of the course, graduates are expected to gradually take over from experienced national staff, who, in turn, will move up to replace foreign workers. Between 2011 and 2015, Ambatovy plans to train 219 operators for work at the plant site.

Other training targets for 2011 include the construction of a health and safety simulator to provide employees with the appropriate facilities for comprehensive health and safety training across several work-related dimensions; development of an e-learning curriculum; system-related training for administration, and vendor specific training for maintenance.

### Cuban Workforce

The Oil and Gas and Power Divisions maintain a longstanding program for training Cuban workers. When the Energas Joint Venture was first established, it introduced new technologies to the Cuban power industry. This meant that there was a local shortage of qualified and available workers for the newly created positions. Consequently, the Corporation put programs in place to properly train power workers. In 2003, the program became more formalized and an affiliation was developed with the Northern Alberta Institute of Technology (NAIT) in Edmonton, as well as the Southern Alberta Institute of Technology in Calgary.

This training program is managed in Cuba for Cuban trainees. Equivalency tests are issued by a Cuban training school on behalf of the Cuban state. All employees are encouraged to continue their training on a regular basis. As a result, at the end of 2010 the Sherritt Oil and Gas and Power Divisions included 10 Cuban employees working to obtain accreditation as Instrumentation Technicians, Millwrights or electricians that would see them earn an equivalent certification to that of a Canadian Journeyman. Another 10 Cubans are being trained as Gas Plant Operators and 12 are completing various levels of the Power Engineering course. Every operator is required to be tested and signed off every two years on all Standard

Operating Procedures to become a qualified operator.

Sherritt's Oil and Gas and Power Divisions also provide training in blow-out prevention, hydrogen sulphide safety, first aid, fire fighting, defensive driving, modern safety management, mechanics, Workplace Hazardous Materials Information System (WHMIS), fall prevention, food handling, leadership and motivation, decision-making and other areas. In all, Energas employees received a total of 308 days of training in 2010, in addition to any apprenticeship training undertaken. These students received 206 certifications for their work. Oil and Gas employees received a total of 726 training days in 2010 and 434 certificates were issued.

**“Sherritt considers the health, safety, well-being and professional development of its employees in all business decisions.”**

# APPENDIX A

## ENVIRONMENT

### FIGURE A-1 – ENVIRONMENT OVERVIEW

Key Indicator		2010
Carbon Credits (tonnes of CO <sub>2</sub> e) from Energas in Cuba	Clean Development Mechanism (CDM) Credits: Issued to Dec 31, 2010	<b>166,744</b>
	Reported (submitted for approval, not issued)	<b>177,037</b>
	Recorded but not yet submitted	<b>488,219</b>
	Total recorded to Dec 31, 2010	<b>832,000</b>
Land Reclaimed (ha)	Canada	<b>501</b>
	Cuba	<b>74</b>
	Madagascar	<b>0</b>
	Total	<b>575</b>
Environment Reports (number of reports filed in Canada for Canadian operations)	Reported*	
	Fort Saskatchewan:	
	Air	<b>2</b>
	Land	<b>0</b>
	Water	<b>0</b>
	Coal:	
	Air	<b>1</b>
Land	<b>2</b>	
Water	<b>5</b>	
Metal Recycled (tonnes) – Canadian sources only		<b>3,978</b>
Oil Recycled (litres) – Canadian sources only		<b>1,066,771</b>
Sulphur Reclaimed (tonnes) – Canadian operations only		<b>&gt;40,000</b>

\* "Reported" shows the number of times reports were required due to exceedance of our operating approvals. At Sherritt's Coal operations, high precipitation events resulted in high levels of suspended solids in water being discharged from the mine site. This contributed to three of the water events while the other two were related to the operation of domestic water systems. The two land reports were related to spills of deleterious substances; these were contained on land and the materials were recovered for disposal at regulated facilities. The one air report was an administrative item related to mandatory dust suppression not being operational. No impact on air quality was observed. Fort Saskatchewan had two stack limit exceedances for total particulate matter at the Ammonium Sulphate Granulation Unit.

### FIGURE A-2 – MOA MINE RECLAMATION \*

(ha)	2010	2009	2008	2007	2006
Affected*	<b>46</b>	48	45	36	51
Reclaimed	<b>74</b>	85	82	68	27

\* Data for 2009 has been revised from 49 ha in the previous Report. Data from 2008 increased from 42 ha to include additional serpentine areas not previously included.

### FIGURE A-3 – LAND RECLAMATION AT SHERRITT COAL'S MINES

(ha)	2010	2009	2008	2007	2006
Levelled *	<b>912</b>	643	928	1,064	981
Completed **	<b>501</b>	694	688	682	563

\* Levelled: the return to contour specified as the Provincial standard, as outlined in mining licences.

\*\* Completed: levelled, contoured, and topsoiled with established vegetation.



**FIGURE A-4 – SHERRITT COAL’S TOTAL RECLAMATION ACHIEVEMENT**

Mine	Surface disturbed	Approximate total reclaimed*	
	to Dec 31, 2010 Ha	Ha	Percent
Bienfait	2,539	1,975	<b>78%</b>
Boundary Dam	8,544	7,213	<b>84%</b>
Coal Valley	5,207	2,010	<b>39%</b>
Obed Mountain	1,830	438	<b>24%</b>
Paintearth	3,941	3,245	<b>82%</b>
Poplar River	5,562	4,762	<b>86%</b>
Sheerness	4,242	3,305	<b>78%</b>
Gregg River **	1,300	1,236	<b>95%</b>
<b>Total</b>	<b>33,165</b>	<b>24,184</b>	<b>73%</b>

\* Completed with vegetation

\*\* The Gregg River mine ceased operation in 2000 and has been in reclamation since then.

**FIGURE A-5 – INVENTORY OF SPECIES PROTECTED**

Species	2010	2009	2008	2007
<b>Lemurs</b>				
Number of species inventoried to date *	<b>16</b>	13	16	0
Number of lemurs tagged with microchip identification	<b>0</b>	40	216	249
Number of lemurs fitted with radio collars	<b>0</b>	45	66	98
<b>Birds</b>				
Number of species inventoried to date	<b>115</b>	109	86	0
Number of eggs recovered from clearing operations to date	<b>77</b>	49	36	0
Number of eggs recovered that hatched	<b>73</b>	48	35	0
Number of birds relocated from clearing operations to date	<b>122</b>	80	61	0
<b>Amphibians and Reptiles</b>				
Number of Mantella frog sites discovered to date	<b>12</b>	4	5	0
Number of reptiles recovered from clearing operations	<b>2,828</b>	1,873	874	6,674
Number of amphibians recovered from clearing operations	<b>1,047</b>	617	142	2,585
<b>Fish</b>				
Number recovered for captive breeding program	<b>912</b>	812	901	0
<b>Flora</b>				
Number of orchid species protected in orchid park	<b>82</b>	80	40	0
Number of orchid plants transplanted to orchid park	<b>3393</b>	930	730	0

\* No new species have been found in the mine area. The increase from the previous report is due to changes in assessing taxonomies. This also caused a revision of the 2009 number from 12 to 13.

**FIGURE A-6 – SHERRITT'S CANADIAN GHG EMISSIONS BY OPERATION**

(tonnes of CO <sub>2</sub> e)	2010	2009	2008	2007	2006
Fort Saskatchewan Industrial Process Emissions *	<b>71,617</b>	70,078	78,641	51,976	67,715
Fort Saskatchewan Refinery **	<b>223,433</b>	239,280	213,634	210,874	211,531
Bienfait mine, Activated Carbon and Char Plants	<b>226,794</b>	126,647	119,437	116,631	111,352
Boundary Dam mine	<b>50,083</b>	50,314	46,175	42,419	42,342
Coal Valley mine	<b>198,072</b>	195,640	174,439	153,086	148,340
Genesee mine	<b>55,056</b>	48,642	51,556	42,197	39,385
Obed Mountain mine	<b>41,329</b>	18,043	0	0	0
Paintearth mine	<b>31,250</b>	26,375	24,982	24,431	23,897
Poplar River mine	<b>20,877</b>	20,369	17,470	20,289	14,197
Sheerness mine	<b>29,504</b>	25,880	30,314	31,135	24,834
Sherritt Total	<b>948,015</b>	821,268	758,648	693,038	683,593

\* Industrial process emissions are those associated with such things as chemical reactions, which are not required as part of annual reporting to regulators.

\*\* Emissions reported to regulators (total emissions less industrial process emissions).

**FIGURE A-7 – SHERRITT'S CANADIAN AIR EMISSIONS****Metals – Fort Saskatchewan Site**

(tonnes)	2010	2009	2008	2007	2006
NOx	<b>1,556</b>	1,620	2,017	2,288	2,568
SOx	<b>194</b>	92	219	184	98
TPM	<b>183</b>	168	135	160	63

Note: Data will not match NPRI database because NOx and SOx data are below the applicable NPRI reporting threshold levels. NOx levels in 2009 and 2010 are lower due to updated measurement data and revised calculations.

**Coal – All Locations**

(tonnes)	2010	2009	2008	2007	2006
NOx	<b>315</b>	251	260	274	261
SOx	<b>674</b>	559	523	501	462
TPM *	<b>16,612</b>	22,033	21,011	19,960	263

\* TPM at Coal increased in 2007 due to inclusion of road dust in the calculations from that year onwards.

## COMMUNITY

## FIGURE A-8 – SOCIAL INITIATIVES FOR MALAGASY COMMUNITIES

TARGET/ACTION	RESULT
1. Create database of businesses registered as possible suppliers	2,084 businesses were registered by the end of 2010.
2. Certify 1,000 project trainees	By the end of 2010, more than 10,900 people had successfully completed training and were certified; most were hired by the Project or its contractors.
3. Achieve local Malagasy employment of 55% for operating staff	At the end of 2010, nationals filled over 65% of overall construction phase staff levels, and about 84% of operations staff.
4. Provide assistance to SMMEs	More than 500 SMMEs across 54 sectors have been given purchase orders by Ambatovy. 64 SMMEs received training in health and safety, procurement and quality control by the end of 2010.
5. Secure local procurement with value of at least \$100 million	Ambatovy signed more than \$74 million in new local contracts in 2010.

## FIGURE A-9 – AFFILIATIONS AND MEMBERSHIPS IN 2010

	Organization
<b>Industry Organizations</b>	Alberta Chamber of Resources Canadian Clean Power Coalition Canadian Fertilizer Institute Northeast Capital Industrial Association (NCIA) Saskatchewan Mining Association Lignite Energy Council The Coal Association of Canada The Cobalt Development Institute The Nickel Institute The Canadian Industry Selenium Working Group
<b>Trade Associations</b>	Alberta Construction Owners Association Alberta Mine Safety Association Alberta Petro-Chemical Safety Council Canadian Institute of Mining, Metallurgy and Petroleum Construction Safety Association Safe Saskatchewan
<b>Non-Governmental or Community Organizations</b>	Canadian Business for Social Responsibility Canadian Council on Africa Canadian Land Reclamation Association Conference Board of Canada, Business Council on Sustainability Ducks Unlimited Extractive Industry Transparency Initiative (EITI) – through Madagascar EITI with a local partner Fort Air Partnership (FAP) UNICEF Madagascar Conservation International World Conservation Society Northeast Region Community Awareness and Emergency Response (NRCAER)

**FIGURE A-10 – COMMUNITY INVESTMENT**

Sector	2010	2009
Education	<b>\$ 815,587</b>	\$ 913,052
Health	<b>187,620</b>	261,476
Social	<b>791,165</b>	764,500
Sherritt Total*	<b>\$ 1,794,373</b>	\$ 1,939,028

\* These totals exclude obligatory community investment and training costs.

**WORKFORCE****FIGURE A-11 – EMPLOYEE AND WORKFORCE OVERVIEW**

Key Indicator	December 31, 2010	
Workforce Composition	Canada	<b>3,110</b>
	Cuba	<b>2,096</b>
	Madagascar	<b>1,596</b>
	Other Locations	<b>15</b>
	Total	<b>6,817</b>
	Contractors	<b>17,685</b>
	Total	<b>24,502</b>
Average employee years of service*		<b>8.8</b>
Lost Time Injury (LTI) Index		<b>0.07</b>
Total Recordable Injury (TRI) Index		<b>0.29</b>
Fatalities	Sherritt Direct Staff	<b>0</b>
	Contractor Staff**	<b>1</b>
Union Relations (Canadian Operations)	Number of Collective Bargaining Agreements	<b>8</b>
	Number of unionized employees	<b>1940</b>
Awards for employee dependant scholarships		<b>\$ 586,000</b>

\* Length of service data not available for Cuban nationals.

\*\* Ambatovy Project contractor construction staff, operating outside of Sherritt supervision.

**FIGURE A-12 – SHERRITT SAFETY STATISTICS**

Lost Time Injury (LTI) Index	2010	2009	2008	2007	2006
Metals *	<b>0.06</b>	0.05	0.02	0.09	0.25
Coal	<b>0.13</b>	0.14	0.15	0.16	0.05
Oil and Gas	<b>0.28</b>	0.00	0.35	0.32	0.23
Power	<b>0.51</b>	0.50	0.00	0.55	0.54
Sherritt Total	<b>0.07</b>	0.06	0.04	0.21	0.16

\* Data for Metals includes contractor staff to reflect Ambatovy construction.

Total Recordable Injury& (TRI) Index	2010	2009	2008	2007	2006
Metals *	<b>0.27</b>	0.23	0.16	0.36	0.46
Coal	<b>0.35</b>	0.36	0.35	0.33	0.48
Oil and Gas	<b>1.12</b>	0.94	1.04	0.65	0.46
Power	<b>0.51</b>	1.99	0.45	0.55	1.08
Sherritt Total	<b>0.29</b>	0.28	0.21	0.38	0.47

\* Data for Metals includes contractor staff to reflect Ambatovy construction.

**FIGURE A-13 – SHERRITT COAL WINNERS OF CIM JOHN T. RYAN TROPHY**

Mine	Year Awarded
Genesee mine	<b>2010</b>
Sheerness mine	<b>2009</b>
Genesee and Paintearth mines	<b>2008</b>
Genesee mine	<b>2006</b>
Paintearth mine	<b>2005</b>
Genesee and Sheerness mines	<b>2004</b>
Genesee and Paintearth mines	<b>2003</b>
Poplar River mine	<b>2002</b>
Sheerness mine	<b>2001</b>
Genesee mine	<b>2000</b>
Genesee and Paintearth mines	<b>1999</b>
Genesee and Paintearth mines	<b>1998</b>
Genesee, Sheerness and Paintearth mines	<b>1997</b>
Genesee mine	<b>1996</b>

## APPENDIX B

Sherritt International Corporation follows key legislative and policy matters that have the potential to impact our business and our communities, including:

### CLIMATE CHANGE – BACKGROUND

The Kyoto Protocol (Kyoto), which came into force in 2005 under the United Nations' Framework Convention on Climate Change (UNFCCC), bound most of the world's developed nations to specific reductions of greenhouse gas (GHG) emissions. The Kyoto compliance period for these reductions took effect on January 1, 2008 and continue until December 31, 2012. Canada committed to cutting its overall GHG emissions to an average of 94% of 1990 levels averaged over the five-year compliance period from 2008 to 2012.

### GHG Legislation

In December 2009, a conference of the parties to the UNFCCC was held in Copenhagen to develop a successor to Kyoto but no legally binding agreement was reached. A number of leading nations, including the United States, China, Brazil and India, entered into a non-binding agreement referred to as the Copenhagen Accord, which called on countries to voluntarily submit mitigation targets by January 31, 2010.

The current Canadian federal government responded by proposing to reduce emissions by 17% below 2005 levels by 2020. This is consistent with targets currently being considered by U.S. legislators but was different from the proposed framework the government released in April 2007.

The April 2007 proposal called for GHG emissions to be reduced by 18% per unit of output (intensity reduction) from 2006 levels by 2010 and an annual 2% reduction thereafter until 2020. If implemented, this intensity reduction target would have affected Canada's largest industrial sectors, including some of the Corporation's facilities, most of the facilities in Canada from which the Corporation ultimately obtains power, and some industrial sectors to which the Corporation provides its products. Draft regulations for implementing this framework have been repeatedly delayed and are not yet in place.

Since late 2008, Canada's Minister of the Environment has consistently indicated that its regulatory framework will be coordinated with the U.S. regulatory approach for a North American cap-and-trade system. It remains unclear if and when any U.S. legislation will be finalized.

At the time of this Report it appears reasonable to think that any GHG emissions regulation in North America based on an emissions trading system will involve fixed cap-and-trade rather than intensity-based systems. Most major U.S. legislative proposals introduced in 2009 and 2010 have been in favour of this system. It is likely that a fixed cap-and-trade system would result in generally higher compliance costs for regulated entities than would be the case with the 2007 intensity-based system proposed by Canada's federal government.

### Alberta

In the absence of federal legislation, Alberta implemented its Specified Gas Emitters Regulation in 2007. This was the first regulation in Canada requiring that industries reduce GHG emissions. Under this regulation, beginning in July 2007 any existing facility emitting 100,000 tonnes or more of GHGs per year is required to reduce its emissions intensity by 12% from a baseline set for the facility. New facilities are accommodated with progressive reductions during early years of operation, after which they are considered established and become subject to the full reduction. The GHG emissions are measured in tonnes of carbon dioxide equivalent (CO<sub>2</sub>e), which is calculated by converting all GHG emissions into an equivalent volume of carbon dioxide.

In 2009, the Government of Alberta introduced a further regulation that lowered the threshold for reporting to 50,000 tonnes of CO<sub>2</sub>e. The requirement for reduction under the original emitter's regulation, however, continues to apply only to facilities emitting over 100,000 tonnes per year.

The Alberta regulatory scheme provides regulated entities with three options to comply with the reduction in emissions intensity: (i) improve the energy efficiency and emissions of their operations; (ii) buy carbon credits in the Alberta-based offset system; or (iii) pay \$15 into the Climate Change and Emissions Management

Fund (the Fund) for every tonne over their reduction target. Facilities can also choose a combination of these options. The Fund is mandated to invest in projects and technology to reduce GHG emissions in Alberta.

### **Saskatchewan**

On May 20, 2010, Saskatchewan's Management and Reduction of Greenhouse Gases Act received Royal Assent. Although not yet proclaimed in force, the Act is designed to enable the province to meet its stated target of reducing emissions by 20% from 2006 levels by 2020 and fostering innovation of low-carbon technologies. As currently proposed, regulations under the Act would require regulated emitters (those emitting at least 50,000 tonnes of CO<sub>2</sub>e per year) to reduce emissions from a baseline year by 2% per year from 2010 to 2019. Subject to further consultation and agreement and the Act and regulations being brought into force, several mechanisms would be established for emitters to reach compliance levels.

### **Other Provincial and Regional Initiatives**

The Province of Quebec implemented a carbon tax in October 2007 and signed a memorandum of understanding with Ontario to establish a joint GHG emissions cap-and-trade initiative in 2008. British Columbia implemented a carbon tax in July of 2008.

Ontario, British Columbia and Quebec have each passed legislation enabling the provincial governments to regulate GHG emissions through cap-and-trade mechanisms and to participate in the Western Climate Initiative – a regional collaboration of Canadian provinces and American states which continues to work towards developing a cap-and-trade mechanism at a sub-national level.

### **Risks and Opportunities of Climate Change**

As it is unclear at this time what shape regulation will ultimately take, it is not yet possible to estimate the extent to which such regulation will impact the Corporation's operations. However, the Corporation's Canadian operations involve large facilities which may be materially affected by the setting of emissions targets. This could have an adverse effect on the Corporation's business, results of operations and financial performance.

Sherritt's operations also require large quantities of power, and future impacts on power producers or on the production of coal, oil and gas or other products may also add to the Corporation's operating costs.

The increased regulation of GHG emissions may also reduce the demand for the Corporation's products. With respect to Sherritt Coal, existing utilities customers produce a significant amount of electricity for the regions

they serve, and it is expected that they will continue to operate due to the ongoing and increasing demand for electricity. If, however, the power plants which the Corporation supplies are subjected to requirements to reduce GHG emissions, then the electric utility companies may seek to reduce the amount of coal consumed, or achieve compliance through technical or other processes. Any reduction of the Corporation's customers' use of coal, restrictions on the use of coal, fuel substitution or major capital investment will have an impact on the business of electric utility companies and will negatively impact the Corporation's ability to extend existing contracts or to grow new coal sales with these utility companies.

To better understand and anticipate the potential impacts and opportunities associated with climate change, the Corporation conducts meetings with regulators at both the federal and provincial levels and closely monitors the regulatory activities of these governments.

## GLOSSARY AND ACRONYMS

The following are brief explanations of certain terms and abbreviations used in this document.

**ACTIVATED CARBON** – a form of highly porous carbon that can easily absorb gases, vapours and colloidal particles. It is made by distillation of solid material having high carbon content such as coal, wood and peat, followed by heating the resultant product to high temperatures with steam or CO<sub>2</sub>.

**ALBI** – Ambatovy Local Business Initiative is a program to increase the capacity of the local economy to provide labour and material resources to industry through the encouragement of development improvements and organization.

**BBOP** – Business and Biodiversity Offset Program is a defined program that provides for measureable conservation outcomes to offset significant or persistent adverse impacts of capital project development. The BBOP program is a partnership of companies, governments and civil society groups. The BBOP secretariat function is provided by Forest Trends and the Wildlife Conservation Society. Additional information can be found at: <http://bbop.forest-trends.org>

**BIOAVAILABILITY** – An indication of how readily chemicals are absorbed by other organisms in the environment.

**BIODIVERSITY** – The biological diversity in an environment as indicated by the number of different species of plants and animals.

**CAP-AND-TRADE (FOR GHGs)** – A market-based system for managing and reducing industrial GHG emissions. In such a system, government gives emitters “allowances” which limit or cap the amount of GHGs they can emit. Emitters that reduce their emissions below their limit have “surplus” allowances that they can sell, trade or bank as credits for future use.

**CARBON CREDITS** – A calculated quantity representing either a reduction of carbon dioxide equivalents (measured in tonnes of CO<sub>2</sub>e) or an emission level below what is required under law. To be an effective credit, it must be verified under a recognized methodology and appropriately registered with a recognized third party.

**CLEAN DEVELOPMENT MECHANISM (CDM)** – CDM is a mechanism provided in the Kyoto Protocol to enable companies to produce tradable registered carbon credits (called certified emission reductions or CERs) through development of emission-reduction projects in developing countries.

**CHAR** – the product derived from heating lignite coal at high temperature in the absence of air. It is used to produce barbecue briquettes.

**CIM** – Canadian Institute of Mining and Metallurgy.

**CO<sub>2</sub>/CO<sub>2</sub>e** – CO<sub>2</sub> is the chemical formula for carbon dioxide. CO<sub>2</sub>e signifies the carbon dioxide equivalent of a GHG, using the Global Warming Potential of each gas.

**GHG** – greenhouse gas can be any of the six commonly used gases that are known to have the potential to add to global warming. These are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF<sub>6</sub>). Some of these have sub-categories. Each GHG has a global warming potential (GWP) in relation to CO<sub>2</sub>.

**GLOBAL WARMING POTENTIAL** – The global warming potential (GWP) is an index that compares the relative potential of the greenhouse gases to contribute to global warming over 100 years, i.e. the additional heat/energy which is retained in the Earth’s ecosystem through the release of this gas into the atmosphere. The additional heat/energy impact of all other greenhouse gases are compared with the impacts of carbon dioxide (CO<sub>2</sub>) and referred to in terms of a CO<sub>2</sub> equivalent (CO<sub>2</sub>e), i.e. carbon dioxide has been designated a GWP of 1, methane has a GWP of 23, and nitrous oxide has a GWP of 310. A complete list of GWP multipliers may be found at: [http://unfccc.int/ghg\\_data/items/3825.php](http://unfccc.int/ghg_data/items/3825.php).

**GW** – gigawatt is a standard unit of measure for electricity, equivalent to one million kilowatts.

**HA (ha)** – hectares; one hectare is equivalent to 10,000 square metres or 2.47 acres.

**HECTARES** – see HA above.

**IFC** – International Finance Corporation, a part of the World Bank Group, established in 1956 to promote sustainable private sector investment in developing countries.



**LTI** – Lost Time Injury. The LTI Index is a standardized method to allow comparison of data among companies of different sizes. The total number of LTIs in a period is multiplied by 200,000 (the average number of exposure hours in 100 years) and then divided by the total number of exposure hours in the period.

**NGO** – Non-governmental organization.

**NOX (NOx)** – Nitrogen Oxide.

**NPRI** – National Pollution Release Inventory – Environment Canada’s annual inventory of air, land and water emissions, disposals and transfers as reported under current regulations.

**PM** – Particulate Matter (commonly airborne dust) measured at different levels, often by particle size.

**SMME** – Small, Medium and Micro Enterprises.

**SOX (SOx)** – Sulphur oxide (SOx = SO<sub>2</sub> + SO<sub>3</sub>) emissions.

**TPM** – Total Particulate Matter which includes all sizes of particles.

**TRI** – Total Recordable Injury. The TRI Index is a standardized method to allow comparison of data among companies of different sizes. The total number of TRIs in a period is multiplied by 200,000 (the average number of exposure hours in 100 years) and then divided by the total number of exposure hours in the period.

**UNICEF** – United Nations Children’s Fund.

**UNFCCC** – United Nations Framework Convention on Climate Change is technically an international treaty, supported by a United Nations Secretariat that works to consider what can be done to reduce global warming. (See [http://unfccc.int/essential\\_background/items/2877.php](http://unfccc.int/essential_background/items/2877.php))

**WESTERN CLIMATE INITIATIVE** – A collaboration of independent jurisdictions that are committed to working together to tackle climate change at a regional level.

**WHMIS** – Workplace Hazardous Materials Information System – Canada’s national hazard communication system. (See [www.hc-sc.gc.ca/ewh-semt/occup-travail/whmis-simdut/index-eng.php](http://www.hc-sc.gc.ca/ewh-semt/occup-travail/whmis-simdut/index-eng.php))

## CAUTIONARY STATEMENT ON FORWARD-LOOKING INFORMATION

This CSR Report contains certain forward-looking statements containing such words as “believe”, “expect”, “plan”, “forecast”, “likely”, “may”, “will”, “could”, “should”, “anticipate”, “projected”, “continue” and similar words or phrases. Similarly, statements with respect to expectations concerning production, capital expenditures, commodity demand, risks, corporate objectives and plans or goals, are or may be forward-looking statements. These forward-looking statements are based on current expectations, assumptions and projections, are subject to inherent risks and may not prove to be accurate. The Corporation cautions readers of this CSR Report not to place undue reliance on any forward-looking statements and disclaims any obligation to update or revise any forward-looking statements whether as a result of new information, future events or otherwise, except as required by applicable law.

The Corporation’s 2010 Annual Information Form (AIF) contains a caution regarding forward-looking statements, which is incorporated by reference herein. The reader of this CSR Report is encouraged to review that caution on page ii of the AIF for a complete discussion of forward-looking statements. The AIF also contains risk factors, commencing on page 79, to which the Corporation is subject. The reader is encouraged to review these risk factors.



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