

# SUPPLYING A SUSTAINABLE FUTURE





Sherritt International Corporation is committed to providing a safe and rewarding workplace, operating ethically, demonstrating environmental responsibility, engaging stakeholders and benefitting communities. We will meet or exceed the standards where we operate and continuously improve performance.

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# **SUPPLYING A SUSTAINABLE FUTURE**

Sherritt's products have a role to play in global plans for a sustainable future for all. So, where do Sherritt's products end up? What is unique about them? What are the opportunities? **Scroll down the page to learn more.** 

Sherritt's products have important roles to play in a sustainable future. Each contributes to the development of goods and services which can provide a safe, healthy, secure existence for all. Our products are used widely, in thousands of applications, in the global marketplace.

More and more, in their efforts to ensure a responsible supply chain, customers want to know how we conduct our business. Sherritt expects this interest to grow, and is prepared for the evolution occurring in supply chain relationships.

At Sherritt, we are committed to ensuring that we operate sustainably and that we are not creating undue environmental, social, and economic harm in the areas in which we operate. How is Sherritt responding to the challenge sustainability presents when mining and refining non-renewable resources?



**LEVELS OF GOVERNMENT** 

ENSURING THE SURVIVAL OF A VIABLE BUSINESS



#### 345 million tonnes

345 million tonnes of  $CO_2$  emissions could be eliminated due to increased fuel efficiency in aviation as the result of improving aerodynamics and engine design, using nickel-containing parts.

#### 25–35 years



The average life of nickel-containing products is in the range of 25–35 years, and for some applications such as roofs and cladding this can go up to 100 years. Nickel-containing materials and products are necessary for sustainability.

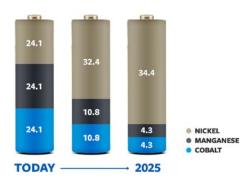


e than 70%

More than 70% the world's supply of nickel is unsuitable for battery production; however, 100% of Sherritt's Class I nickel briquettes and cobalt is suitable for batteries, including hybrid and electric vehicles.



# ELECTRIC VEHICLE BATTERIES WILL INCREASINGLY RELY ON NICKEL



#### **CHANGES DRIVEN BY:**

Cobalt supply constraints Commodity pricing environment Surging end-product demand

# <30% OF ALL NICKEL IS SUITABLE FOR ELECTRIC VEHICLE (EV) BATTERIES

It is impossible to meet the demands of a developing world without nickel and cobalt. Batteries, which rely on nickel and cobalt, are becoming ever increasingly important for storing renewable energy and supporting the global goal of sustainability.

While the first nickel battery has been around for more than a century, the last three decades have seen extraordinary changes in how batteries are made and used. New applications – from storing solar energy to powering electric vehicles – have emerged.

These new applications, in turn, are pushing the limits of battery capacity and power, resulting in greater demands for higher purity metals. Enter Class I nickel.

Unlike nickel pig iron which is high in iron content, Class I nickel is purer and amenable to battery production – particularly for the fast-growing electric vehicle market.

It is expected that carmakers will invest \$100 billion in electric vehicles by 2020. Each of these cars will be powered by batteries made from cobalt and nickel.

Sherritt produces nickel and cobalt in briquette form, the most suitable for battery production.



PICTURED HERE IS THE HELIX BRIDGE IN SINGAPORE, MADE FROM NICKEL-CONTAINING STAINLESS STEEL.

THE CORROSION RESISTANT PROPERTIES OF STAINLESS STEEL ARE EXCELLENT FOR THE HUMID CLIMATE.

# 65% OF NICKEL PRODUCED GLOBALLY IS USED TO MANUFACTURE STAINLESS STEELS

Building infrastructure to last is becoming increasingly topical as cities and countries are burdened with the high costs of maintaining things like hospitals and highways, some of which are not even that old but were built with materials not suited for the intensity of use, the geography, or other factors.

For bridges, in particular, the use of carbon steel rebar has led to the deterioration of concrete over time. The worst corrosion occurs in regions where road salt is heavily used or in areas near to salt water, but nickel-containing stainless steel rebar prevents damage to structures caused by rebar corrosion. Stainless steel rebar is used in ever increasing amounts today both in North America and around the world. While stainless steel is more expensive, its selective use can be justified financially when all the costs of maintaining the structure over its life are considered.

In Edmonton, the provincial capital of Alberta, Canada (about 30kms southwest of Sherritt's Fort Site), with a metropolitan population of over one million, a new ring road around the city was completed in 2016, with the Northeast Anthony Henday Drive portion being 27km of 6 or 8 lane highway. Winter is especially hard on the roads in Edmonton. The average daily temperature in January is -10.4°C, with an annual snowfall of about 124cm. Large amounts of salt, both sodium and the more corrosive calcium chloride, are applied to keep the roads as free from ice as possible. In 2011, Type 2304 (S32304) stainless steel was specified for a trial for one highway interchange on the ring road. The success of that venture led to the specification of Type 2304 rebar for a major portion of this new section, reported to be in the region of 6,000 tonnes. Perhaps in 75 years or so, a Life Cycle Assessment will be done of one of these Edmonton bridges, leaving no doubt that the engineers in charge made the right decision.



DID YOU KNOW? SHERRITT'S FORT SASKATCHEWAN REFINERY WAS THE FIRST FERTILIZER PRODUCER IN ALBERTA.

TO LEARN MORE ABOUT HOW FERTILIZER FACTORS IN TO THE NICKEL AND COBALT PRODUCTION PROCESS, SEE THIS INFOGRAPHIC.

# 370,000 METRIC TONNES OF FERTILIZER IS PRODUCED BY SHERRITT EVERY YEAR

## **DID YOU KNOW?**

According to Fertilizer Canada, by 2050, the world will need to increase food production by 70 percent. Without fertilizer, global food production would be half of current levels, requiring farmers to grow more food on land that is increasingly under pressure from development. Sherritt's nickel refineries in Fort Saskatchewan, Alberta and Ambatovy in Madagascar produce ammonium sulphate fertilizer as a by-product, which is then sold to Canadian, East African (including Malagasy), and Asian farmers. A saleable by-product means less waste from the refining process and more food on the table for people around the world.

\* This number fluctuates from year-to-year depending on nickel production



OUR EXCELLENT CRISIS PREPAREDNESS RESULTED IN MINIMAL IMPACTS OF HURRICANE IRMA, WHICH MADE LANDFALL IN 2017, AND ALLOWED SHERRITT TO QUICKLY MOBILIZE TO PROVIDE POST-STORM SUPPORT IN THE COUNTRY AND BRING THE POWER SUPPLY BACK ONLINE.

# 15% OF CUBA'S GRID ENERGY IS GENERATED BY ENERGAS

Sherritt's Cuban power business operates through a one-third interest in Energas S.A. The remaining two thirds interest is held equally by two Cuban agencies: Union Cubapetroleo (CUPET) and Union Electrica (UNE). Did you know that raw natural gas that would otherwise be flared is supplied to Energas by CUPET free of charge? The processing of raw natural gas produces clean natural gas, used to generate electricity, as well as by-products such as condensate and liquefied petroleum gas. The Energas facilities, which are comprised of the two combined cycle plants at Varadero and Boca de Jaruco, produce electricity using steam generated from the waste heat captured from the gas turbines.

In 2007, the unit at our Varadero facility was granted Clean Development Mechanism status under the provisions of the Kyoto Protocol by the United Nations Framework Convention on Climate Change. We have recently built another combined cycle-unit at a different facility in Cuba that is eligible for this designation. Not only does this investment provide the Cuban grid with muchneeded energy for the Cuban people, but we have also received numerous carbon credits.

Energas' electrical generating capacity is 506 MW.



THE GLOBAL NICKEL-RELATED CO<sub>2</sub> EMISSIONS ARE REDUCED BY ONE-THIRD THANKS TO NICKEL RECYCLING (SOURCE: THE NICKEL INSTITUTE)

# 57% OF ALL HISTORICALLY MINED NICKEL STILL IN USE<sup>1</sup>

While demand for nickel is expected to grow over time, nickel is also recyclable and amongst the most valuable of the common non-ferrous metals, giving a commercial imperative to recycling and reuse.

Not only does the nickel-containing stainless steel used in the building and construction industry contain a high percentage of both post-consumer and post-industrial recycled content, at the end of its long, useful life in a building application it is 100% recyclable. Stainless building components can be repeatedly recycled back into similar products with no loss of quality.

1 Nickel Institute



IN 2018, BUILDING ON OUR UNIQUE EXPERTISE IN METALS PROCESSING, SHERRITT SUCCESSFULLY COMPLETED PILOT TESTING OF AN INNOVATIVE PROCESS TO UPGRADE ALBERTA BITUMEN AT A LOWER COST. READ MORE HERE.

# 35+ COMMERCIAL OPERATIONS WORLDWIDE HAVE USED SHERRITT TECHNOLOGY

## **DID YOU KNOW?**

Sherritt is one of the best known companies for technological innovation in the mining industry, and certainly one with the longest history in Canada. In the 1940s, we began to experiment with new techniques for ore processing at the University of British Columbia. This effort ultimately led to the commercialization of our hydrometallurgical processes for the recovery of metals (including nickel, cobalt, gold, copper, zinc and others). Sherritt's madein-Canada technology is currently licensed to 35 different processing facilities around the world.

Our leadership in developing and applying such technologies contributes to the industry's innovation agenda, which helps to improve operating efficiencies and, by doing so, reduces environmental impacts. These efforts help drive down production costs of base metals like nickel, whose anti-corrosive, long-lasting characteristics are essential for developing green infrastructure, such as highly durable water-distribution lines -- which have the potential to materially reduce water-loss rates that are as high as 50% in the developing world and 20% in developed countries.



# SHERRITT PRODUCED 13,500 BOPD IN CUBA IN 2017

Sherritt explores for and produces oil and gas primarily from fields in Cuba (where we are the largest independent oil producer in the country). During our more than 20-year history, we have developed an expertise and proven ability to find, develop and produce oil in Cuba's complex fold and thrust-belt reservoir. All of our wells are directionally drilled and are located along the northern coast between Havana and Cardenas.

Sherritt produces about one-third of all oil produced in Cuba. In doing so, we contribute to the well-being of Cubans.

SHERRITT'S CUBA COMMUNITY INVESTMENT PROGRAM COMMITS APPROXIMATELY \$500,000 CDN A YEAR TO COMMUNITIES SURROUNDING OUR OPERATIONS, AND HAS DONE SO FOR OVER A DECADE.



SHERRITT IS AN ACTIVE MEMBER OF THE NICKEL INSTITUTE, COBALT INSTITUTE, AND FERTILIZER CANADA – INDUSTRY GROUPS THAT SUPPORT AND PROMOTE THE RESPONSIBLE PRODUCTION AND USE OF THESE RESOURCES.

# MINING AND REFINING: PART OF A RESPONSIBLE SUPPLY CHAIN

Mining and oil and gas companies often represent the very beginning of a supply chain for everything from cars to medical equipment to plastics to electronics and everything in between.

Customer expectations for mining companies today are growing when it comes to demonstrating high standards for environmental and social performance; all while mining and processing minerals efficiently and safely.

Sherritt produces high purity nickel and cobalt in low and mid-risk jurisdictions. Consumers can feel confident that we do so in accordance with applicable laws, regulations, and the highest ethical standards. To support this further, Sherritt became a member of the Mining Association of Canada in 2017 and is implementing the globally recognized Towards Sustainable Mining program, which includes environmental and social protocols, especially the new Child and Forced Labour protocol. Since 2013, Sherritt has been a signatory of the Voluntary Principles and we publicly report on our performance each year. For a number of years, Sherritt has supported the development of UNICEF's Child Rights and Security Checklist through participation in the Working Group.

Sherritt's Five-Year Sustainability Goals, drafted in 2017 and launched at the beginning of 2018, include a goal to be recognized as a "supplier of choice" for responsibly produced, high-quality products. We will continue to report on our progress publicly with the intention of being transparent.



"We have reason to be optimistic about the future. 2017 was marked by a dramatic increase in the price of cobalt and increasing optimism about nickel. The current financial outlook is better than we have seen in several years. The position Sherritt finds itself in today is a testament to the hard work of our employees to improve safety performance, lower costs, and deliver high quality products. When I think about a sustainable future, I know Sherritt's products will have a role to play."

- David Pathe, President and Chief Executive Officer

The theme of this year's report is "Supplying a Sustainable Future." At Sherritt, creating sustainable prosperity for all is at the core of our Purpose as a company.

Sherritt's products have important roles to play in a sustainable future. Each contributes to the development of goods and services which can provide a safe, healthy, and secure existence for all. It is impossible to go through their normal day without interacting with products that have been created with nickel, cobalt, oil, gas and electricity.

As a natural resource miner and refiner, we have a responsibility to do so in a way in which we are **creating value for our shareholders and the communities in which we operate, while mitigating undue environmental and social impacts**. We expect to be a responsible operator ourselves, but, more than ever, our internal and external stakeholders demand that of us too.

In 2017, there were changes both locally and globally that affect our businesses. Changing customer expectations around responsible supply chain are having knock on effects in many industries, including ours, where the expectations to demonstrate responsible operations is even greater. Alberta developed and announced new climate regulations over the course of the year. In Cuba, former President Raúl Castro announced he would not seek another term and in April 2018 we saw President Miguel Díaz-Canel assume leadership in the country. Our focus is carrying out our Strategic Priorities and staying true to "Our Purpose and Our Promises", which includes a promise to be agile. In the face of continuous change, we aim to position ourselves to take advantage of new opportunities as they arise.

# 2017 SUSTAINABILITY PERFORMANCE

The safety of our employees and local communities is of utmost importance to me. Safety is a core value of the company and I am personally committed to ensuring that everyone goes home safely at the end of the day. I am pleased that Sherritt's safety performance continues to be peer-leading. Over a three-year period, Sherritt's total recordable injury frequency (TRIF) decreased by 33%, while our lost time injury frequency (LTIF) decreased by 14%. In 2017, we met our TRIF target of less than 0.28 injuries per 200,000 work hours, but did not achieve our LTIF target of less than 0.11 injuries per 200,000 work hours.

However, we are not content at simply being best in class. We set challenging targets for continuous improvement. We acknowledge much work remains to be done with respect to safety culture and fatality prevention at our sites. I believe this work is never finished.



Our President and CEO shares some of his thoughts on sustainability in this video.

**Our 2017 Sustainability Report – which covers the** period between January 1 and December 31, 2017 **describes Sherritt's** sustainability approach and performance for the year. This report was prepared in accordance with the Global **Reporting Initiative's** Standards (Core Option), which is widely considered industry best practice. As required by GRI, Sherritt has notified GRI of the use of the standards and made them aware of the publication of this report.

Once again, Sherritt's operations were subject to major storm events: Cyclone Enawo in Madagascar and Hurricane Irma in Cuba. Both storms had serious local impacts; however, our emergency preparedness resulted in limited impacts to our operations. We supported local disaster relief in the days and weeks after the storms including: supplying potable water, materials to rebuild homes, and equipment for road repairs in Cuba and meals for relief workers, repair work at local schools, hospitals and roads, and donation of flight time to fly reconnaissance during the days after the storm in Madagascar. In both cases, donations were made to United Nations agencies conducting relief activities on the ground.

There are many things within our control as a company, but the occurrence of storms is not one of them. We can, however, control how we prepare and respond to them and I am very proud of the work Sherritt has done and continues to do on this front.

Throughout the year, we did not experience any high-severity environmental incidents. Our greenhouse gas emissions dropped by 4% over the previous year, thanks in large part due to the investment that was made at Moa for a new acid plant, which, in addition to making the operation more efficient and self-sufficient, also reduced the need to burn additional fossil fuels.

During the year, through community investment, taxes and royalties, local procurement and wages, we contributed more than \$840 million in economic benefits to host communities and countries in 2017. Sherritt and its joint-venture employees reported over 6,000 volunteer hours in our local communities.

In 2017, Sherritt formally joined the Mining Association of Canada and as such, is committed to implementing the Towards Sustainable Mining (TSM) program. We have built our management system based on the globally recognized program for a number of years, but this represents one more step in holding ourselves accountable to a level of performance in sustainability that is quickly becoming the expectation of our stakeholders.

Continuing our journey to being a more diverse and inclusive workforce, Sherritt joined Catalyst in 2017 and signed the Catalyst Accord 2022. We are proudly supporting the inaugural International Women in Resources Mentorship Programme and remain committed to the 30% Club of Canada. I personally believe that an inclusive and diverse organization is a strong organization and we aim to be an industry leader on this front.

#### **TODAY & LOOKING AHEAD**

2018 sustainability priorities for Sherritt include:

- Continuing our journey to zero harm through building a strong safety culture and implementing best-practice standards;
- Beginning to implement our five-year enterprise-wide sustainability goals;
- Implementing MAC's Towards Sustainable Mining initiative at our divisions and continuing to develop our own Sustainability Framework; and
- Continuing to implement our diversity and inclusion plan globally.

**David V. Pathe** President and Chief Executive Officer Sherritt International Corporation For commentary from David Pathe on Sherritt's 2017 financial and operational performance, please read his annual letter to shareholders.

# OUR APPROACH

Our approach to running a sustainable mining and energy business is grounded in a deep commitment to our guiding principles, as outlined in Our Purpose and Our Promises:

# **Our Purpose**

To be a low-cost nickel producer that creates sustainable prosperity for employees, investors and communities.

# **Our Promises**

The principles that we incorporate into our everyday decision-making at both the corporate and operational levels include: integrity, agility, safety and sustainability, continuous learning and innovation, and shared prosperity.

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AWARDS & RECOGNITION

# **OUR COMMITMENT TO SUSTAINABILITY**

Mining and energy companies use a range of terms to describe their approaches to:

- Ensuring the safety and health of their employees and communities
- Protecting the environment
- Interacting with a wide range of stakeholders
- Providing benefits to local communities
- Respecting human rights
- Establishing respectful and productive relationships with all levels of government
- Ensuring the survival of a viable business

At Sherritt, "sustainability" covers these interrelated and increasingly important aspects of our business.

We are committed to providing a safe and rewarding workplace, operating ethically, demonstrating environmental responsibility, engaging stakeholders and benefitting communities. We will meet or exceed the standards where we operate and continuously improve performance.

This commitment underpins our aspiration to be a recognized industry leader in sustainability management and performance.



# GOVERNANCE

Our Board of Directors and management team are critical to carrying out our commitment to sustainability.

## **BOARD OF DIRECTORS**

Our Board of Directors has delegated responsibility for sustainability-related matters to its Environment, Health, Safety and Sustainability (EHS&S) Committee. The Committee's mandate is to oversee, monitor and review sustainability policies, management systems, programs and performance.

Specific areas of focus for the Committee include environment, health, safety, security, crisis management, community development, stakeholder engagement, indigenous relations, government relations, business integrity, human rights, and employee engagement and development.

This Committee meets at least four times per year, visits all operating sites regularly, and receives information from corporate and divisional management on a quarterly basis, or more often if required. The Committee Chairperson reports to the Board on significant issues. Refer to this link to review the full mandate of the EHS&S Committee.

EHS&S oversight is also within the respective board and executive mandates of each of the three joint ventures that Sherritt is involved in. There are dedicated environment, health and safety committees at the board level for the Ambatovy and Moa joint ventures. Experienced Sherritt executives serve on these committees. At Energas, EHS&S matters are also reviewed by the Board, which has directors from Sherritt's senior management team.

BOARD GENDER DIVERSITY	
Male	75%
Female	25%*

\* Compared to an industry average of 7% female Directors

#### **MANAGEMENT STRUCTURE**

In 2017, the new positions of Director, Environment, Health, Safety, and Sustainability (EHS&S) and Manager, Sustainability were created at our Toronto Corporate office. The Corporate team is responsible for health, safety, sustainability and environmental matters. Reporting to our Chief Operating Officer (COO), the Director develops strategy and standards, oversees performance and reporting, and assists our operating sites in the identification and management of material sustainability aspects, issues and risks. The Director, supported by the Manager, works closely with the management team at all divisions, which are responsible for operating sites, to ensure a practical and coordinated approach to EHS&S is in place across our business interests. Both positions support the divisions in their implementation of Towards Sustainable Mining.

Each division is led by a senior executive who also reports to our COO. These individuals are accountable for all operational matters of their respective operating sites, including sustainability. To ensure ongoing and timely management of this broad discipline, we have senior employees at each division with responsibility for health and safety, security, environment, stakeholder relations, and other sustainability functions. Specific roles and team structures at divisions vary, based on the operating environment and related risks at their respective sites. "It is an exciting time in nickel and cobalt markets. As the world innovates for a low carbon future with the development of high tech batteries that require cobalt and nickel in ever increasing quantities, customers are now looking to miners and refiners that demonstrate social and environmental responsibility to supply these materials. Sherritt is well positioned to meet these demands with over 90 years in the business of producing of high-quality nickel and cobalt using leading edge technology, all to the highest ethical standards."

- Tim Baker, Chair, Environment, Health, Safety and Sustainability Committee of the Board

# SUSTAINABILITY FRAMEWORK

We uphold our commitment to sustainability through our sustainability framework, which provides a focused and practical approach to prioritizing sustainability issues, risks and opportunities, and to managing performance. The framework consists of a core commitment and a series of issue-specific commitments, which fall under the four pillars below: Providing a Safe and Rewarding Workplace, Operating Ethically, Demonstrating Environmental Responsibility, and Engaging Stakeholders and Benefitting Communities. Our commitments are supported by an integrated management system that sets company-wide standards for planning, implementation, measurement, reporting and assurance of sustainability efforts.

#### **PROVIDING A SAFE AND REWARDING WORKPLACE**

#### **HEALTH AND SAFETY**

We are committed to providing a safe workplace. Our ultimate goal is zero harm. Zero harm means zero fatalities, no injuries and no work-related illnesses among employees and contractors.

#### **PUBLIC SAFETY**

Maintain public safety around our sites through risk management, active communication and ongoing community engagement.

#### **REWARDING WORKPLACE**

Provide a rewarding workplace that engages and develops our workforce, compensates workers competitively, and offers them exposure to world-class operations, projects, processes and people.

## **OPERATING ETHICALLY**

#### **BUSINESS ETHICS**

Foster a culture and environment that support and require ethical conduct.

#### **HUMAN RIGHTS**

Operate our business in a way that respects human rights as set forth in the Universal Declaration of Human Rights.

#### DEMONSTRATING ENVIRONMENTAL RESPONSIBILITY

## TAILINGS MANAGEMENT

Design and operate tailings management facilities – throughout the mine lifecycle – to meet or exceed applicable regulatory and company standards.

#### **BIODIVERSITY AND LAND**

Achieve no net loss, or preferably a net gain, of biodiversity for greenfield projects and significant expansions of current operations; and practice progressive reclamation as part of normal operations at all mines, working with local jurisdictions.

#### WATER

Manage water responsibly by optimizing water use, addressing water-related risks to future operational viability and growth, and engaging communities on the use of, and impacts to, shared water resources.

#### **ENERGY AND CLIMATE CHANGE**

Monitor and track energy use and greenhouse gas emissions at each site and identify opportunities to reduce impact; and understand and mitigate the potential impacts of climate change on our assets.

#### ENGAGING STAKEHOLDERS AND BENEFITTING COMMUNITIES

#### STAKEHOLDER ENGAGEMENT

Engage stakeholders early on and throughout the asset lifecycle; and build relationships based on mutual trust, respect and transparency.

#### TRANSPARENCY

Provide stakeholders with timely and accurate information on the impacts and benefits of our mining- and energy-related activities and management practices.

#### **COMMUNITY BENEFITS**

Contribute to a lasting improvement in quality of life in the communities where we operate.

#### **MANAGEMENT SYSTEMS**

Sherritt has taken an enterprise-wide approach to managing sustainability, which includes developing an integrated system that consists of a series of sustainability standards for the entire company. These standards are developed collaboratively between the corporate office and the divisions. Given the innate differences of the operating environments in Canada, Cuba and Madagascar, the divisions are afforded flexibility in the way in which they implement these standards at their operating sites.

Specific requirements in the standards reflect our experience, our risk profile and industry best practice. As new members of TSM, we are making efforts to align with the requirements of the Mining Association of Canada's (MAC) Towards Sustainable Mining (TSM) protocols. As a member of the Voluntary Principles on Security and Human Rights (VPSHRs) Initiative, we are working to apply the Principles at our operating sites. We are also a Supporting Company of the Extractive Industries Transparency Initiative (EITI), the requirements of which we apply in Madagascar, an EITI Candidate Country. Our approach to crisis management is informed by the Incident Command System (ICS) and the United Nations' Awareness and Preparedness of Emergencies at the Local Level (APELL) Programme. In Madagascar, our biodiversity management program aligns with the principles of the Business and Biodiversity Offsets Programme (BBOP).

## **TOWARDS SUSTAINABLE MINING (TSM)**

In 2017, Sherritt joined the Mining Association of Canada (MAC), and as such, is required to implement the TSM program – a series of sustainability management protocols – at its Canadian operations. As Sherritt is committed to leadership in sustainability and continuous improvement, the company plans to implement TSM at all divisions and target Level A conformance.

Sherritt is working with MAC and the Canadian government to familiarize the governments and/or industry associations of our countries of operation with the TSM program, so that they may consider national adoption of the program, similar to what has been done in Finland, Botswana, Argentina and most recently, the Philippines.

The first year of public, facility-level reporting for Sherritt will be in 2021 for the 2020 reporting year.

## We are currently carrying out a multi-year plan to develop and implement the following corporate standards for sustainability management:

Air Management	Energy and GHG Emissions	Security and Human Rights
Anti-Corruption Biodiversity and Land	Fatality Prevention	Significant Potential
Management	Grievance Management	Incidents
Community Investment	Health and Safety	Stakeholder Engagement
Crisis Management	Indigenous Relations	Tailings Management
	Mine Closure	Waste Management
		Water Management

# MATERIALITY

In 2017, we conducted a thorough update of our assessment of the material (priority) sustainability aspects of our business. The last major update had occurred in 2012, with a review and minor updates occurring approximately every two years after that. The 2017 assessment involved identifying the sustainability issues of greatest interest to Sherritt's stakeholders and those which could have the greatest impact on Sherritt's business. We defined a list of key sustainability topics, conducted interviews, surveys and desktop-based research, and then ranked stakeholder interest and business impact scenarios, which were then validated by Sherritt's senior management and at a workshop of key Sherritt sustainability personnel.

Those aspects with the highest combined ranking of expected business impact and stakeholder interest are considered "material" for Sherritt and are addressed through our sustainability framework and management system. Issues that were material to the business were largely unchanged from the last update in 2015; however, some issues were re-categorized based on changing nomenclature in sustainability. It is expected that changes in the materiality assessment may lead to minimal updates to our sustainability framework in 2018.

The following table maps our material issues against the four pillars of our sustainability framework and details the boundary of impact for each material issue.

Material Issue	Issue Boundary (Internal/external) Where do the impacts occur?	Who is the issue material to?	Where is the issue most material?
Health and Safety	Internal	<ul><li>Employees/contractors</li><li>Government (regulators)</li><li>Communities</li></ul>	Company-wide
Public Safety	Internal/ external	<ul> <li>Employees/contractors</li> <li>Government (regulators, local authorities, first responders)</li> <li>Communities</li> </ul>	Company-wide
Security	Internal/ external	<ul> <li>Employees/contractors</li> <li>Government (regulators, local authorities, first responders)</li> <li>Communities</li> </ul>	Company-wide (focus at Ambatovy)
Talent Management	Internal	Employees/contractors	Company-wide

OPERATING ETHICALLY			
Material Issue	Issue Boundary (Internal/external) Where do the impacts occur?	Who is the issue material to?	Where is the issue most material?
Economic Performance	Internal/ external	• Financial community (shareholders)	Company-wide
		<ul><li>Employees/contractors</li><li>Communities</li></ul>	
		<ul> <li>Business partners</li> <li>Governments (host jurisdiction)</li> </ul>	
Business Conduct	Internal/ external	<ul> <li>Financial community (shareholders)</li> <li>Communities</li> <li>NGOs/civil society</li> </ul>	Ambatovy
Country Risks	Internal/ external	<ul><li>Government</li><li>NGOs/civil society</li><li>Communities</li></ul>	Ambatovy, Moa, OGP
Human Rights	Internal/ external	<ul><li>NGOs/civil society</li><li>Customers/suppliers</li></ul>	Company-wide
Responsible Supply Chain	Internal/ external	<ul><li>Customers/suppliers</li><li>NGOs/civil society</li></ul>	Company-wide
Transparency	Internal/ external	<ul><li>Financial community</li><li>Communities</li><li>NGOs/civil society</li></ul>	Company-wide

## DEMONSTRATING ENVIRONMENTAL RESPONSIBILITY

Material Issue	Issue Boundary (Internal/external) Where do the impacts occur?	Who is the issue material to?	Where is the issue most material?
Energy and GHG Emissions	Internal/ external	<ul> <li>Government (regulators)</li> <li>Financial community (shareholders)</li> <li>Communities</li> <li>NGOs/civil society</li> </ul>	Company-wide
Air and Other Emissions	Internal/ external	<ul><li>Government (regulators)</li><li>Communities</li></ul>	Company-wide
Tailings	Internal/ external	<ul> <li>Government (regulators)</li> <li>Communities</li> <li>NGOs/civil society</li> </ul>	Ambatovy and Moa
Climate Change	Internal/ external	<ul> <li>Government (regulators)</li> <li>Financial community (shareholders)</li> <li>Communities</li> <li>NGOs/civil society</li> </ul>	Company-wide
Environmental Liabilities, Closure and Reclamation	Internal/ external	<ul><li>Government (regulators)</li><li>Communities</li><li>NGOs/civil society</li></ul>	Ambatovy and Moa
Land and Biodiversity	Internal/ external	<ul> <li>Government (regulators)</li> <li>Communities</li> <li>NGOs/civil society</li> </ul>	Ambatovy and Moa
Water	Internal/ external	<ul> <li>Financial community</li> <li>Government (regulators)</li> <li>Communities</li> <li>NGOs/civil society</li> </ul>	Ambatovy and Moa

# INGAGING STAKEHOLDERS AND BENEFITTING COMMUNITIES

Material Issue	Issue Boundary (Internal/external) Where do the impacts occur?	Who is the issue material to?	Where is the issue most material?
Community Development	Internal/ external	<ul><li>Government (regulators)</li><li>Communities</li><li>NGOs/civil society</li></ul>	Company- wide (focus at Ambatovy, Moa, OGP)
Economic Benefits	Internal/ external	<ul><li>Government (regulators)</li><li>Communities</li><li>NGOs/civil society</li></ul>	Company- wide (focus at Ambatovy, Moa, OGP)
Indigenous Relations	Internal/ external	NGOs/civil society	Company-wide

Commentary on a broader set of material issues and risk factors that affect Sherritt – including U.S. sanctions on Cuba – can be found in our 2017 Annual Information Form.

# SUSTAINABILITY GOALS

## **FIVE-YEAR SUSTAINABILITY GOALS**

Created in 2017 and to be formally launched in 2018, Sherritt now has six five-year sustainability goals to drive our sustainability strategy, focus divisional efforts, and deliver tangible results to improve sustainability performance. These goals will:

- Align the enterprise by focusing on sustainability priorities that are shared across Sherritt's business;
- Address existing and emerging industry-wide issues and societal concerns;
- Clearly link Our Purpose & Our Promises, Strategic Priorities, and the Sustainability Framework;
- Drive improved performance across the business;
- Demonstrate our commitment to sustainability excellence; and,
- Align with the Sustainable Development Goals (SDGs).

The goals are as follows:



Achieve Level A requirements in Towards Sustainable Mining (TSM) protocols across all operations



Strengthen safety culture, behaviour and performance



Improve water, energy and emissions management across operations



Create community benefit footprints that support local priorities and the SDGs



Be recognized as a "supplier of choice" for responsibly produced, high-quality products



Improve diversity at all levels throughout the company

In 2018, Sherritt's divisions will focus on developing programs and indicators to meet the goals with considerations for local context. In future years, performance against these goals will be reported in the Performance section of this report.

#### SUSTAINABLE DEVELOPMENT GOALS

The United Nations' Sustainable Development Goals (SDGs) consist of 17 ambitious targets to address global issues, and to ensure a sustainable and resilient future for the world by 2030. The success of the SDGs depends on the participation of a range of actors – governments, corporations, communities and non-governmental organizations.

## Our Role to Play

The nature of the work of the natural resources sector has social, economic and environmental impacts on the jurisdictions where projects and operations are located. As a responsible company, Sherritt seeks out opportunities not only to mitigate and, where possible, avoid its impacts, but also to make a positive contribution to its host countries on both a national and community level. Highlighting how our processing requirements and end products contribute to the SDGs is important; however, so is taking responsibility for and acknowledging the impacts of our activities on the broader development agenda. (To better understand the sustainability issues and challenges most material to Sherritt, please review our materiality analysis.)

# **Our Priorities**

We believe that as a Canadian company operating internationally, we have the ability to make meaningful progress against relevant Sustainable Development Goals. To understand more fully where Sherritt was having the greatest impact, we started with our materiality assessment, which gave us the basis of our priorities. We then lined the SDGs up against our enterprise risk management results, our sustainability framework and Towards Sustainable Mining. We then aligned the SDGs with our fiveyear sustainability goals, which will guide our overall sustainability strategy for the next five years.

The interactive chart below displays our priorities and what they mean to Sherritt.



# WHAT IT MEANS

Healthy, happy communities and employees make for a successful and stable operating environment. Sherritt has a responsibility as a local employer in Canada, Madagascar and Cuba to ensure employees return home from work safely every day.

LEARN MORE

## **GOOD HEALTH AND WELL-BEING**

Ensure healthy lives and promote well-being for all, at all ages



# WHAT IT MEANS

Sherritt is committed to advancing stronger gender representation at the board and senior management levels. We are also working to develop, train and promote women from diverse backgrounds throughout the company. In our communities, we will support education and careers for girls and women, as well as safety and economic empowerment.

#### LEARN MORE

## **GENDER EQUALITY**

Achieve gender equality and empower all women and girls



## WHAT IT MEANS

Water is essential for life, but is also a requirement for natural resource extraction and processing activities. Sherritt works hard at water management and ensuring local communities have a healthy supply and sanitation. The nickel we produce is used as a key input for sustainable water storage and distribution infrastructure around the world.

#### LEARN MORE

#### **CLEAN WATER AND SANITATION**

Ensure access to affordable, reliable, sustainable and modern energy for all



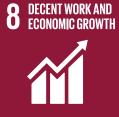
# WHAT IT MEANS

Sherritt seeks out opportunities not only to produce clean energy that supports our host countries' needs, but also to lessen the impacts of our energy use. In Cuba, we are the largest independent power producer.

LEARN MORE

#### AFFORDABLE AND CLEAN ENERGY

Ensure access to affordable, reliable, sustainable and modern energy for all



# WHAT IT MEANS

Sharing the economic benefits of our activities with employees, host communities and countries, business partners and investors is not only responsible but essential to our growth strategy. We believe in supporting local employment and procurement in countries in which we operate, and this is evidenced in our results.

#### LEARN MORE

#### **DECENT WORK AND ECONOMIC GROWTH**

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all



## WHAT IT MEANS

Sherritt's approach to environmental management is to avoid impacts wherever we reasonably can, and to minimize, manage and remediate those that occur. Our award-winning approach to biodiversity management at Ambatovy, and our focus on sustainable mining and refining positions Sherritt as a global leader in this area.

## LEARN MORE

#### **LIFE ON LAND**

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss



## WHAT IT MEANS

In all our businesses, healthy, mutually beneficial partnerships are required for us to succeed. We have a history of strong partnerships with employees, communities, host countries, investors and business partners in each of the jurisdictions where we operate.

LEARN MORE

#### **PARTNERSHIPS FOR THE GOALS**

Strengthen the means of implementation and revitalize the global partnership for sustainable development

# **AWARDS & RECOGNITION**

In recent years, Sherritt has been honoured by several organizations for performance in environmental, health, safety and sustainability. Awards include:

- United Nations' Green Star Award for emergency response and preparedness
- Syncrude Award for Excellence in Sustainable Development by Canadian Institute of Mining (CIM)
- Nedbank Capital Sustainable Business Award for biodiversity management in Madagascar

In 2017, we were proud to be named as one of Corporate Knights' Future 40 Sustainability Leaders in Canada, be shortlisted to the Canadian Museum of Nature's Nature Awards for our commitment to biodiversity, and for our 2016 Sustainability Report to be awarded Best Corporate Social Responsibility Report Among Companies with Revenue Between \$250 Million and \$2.5 Billion, Best CSR Report Photography and Design, and Best CSR Report Interactive Online Experience by the ASPC's international report competition.

Two of Sherritt's employees were recognized for their achievements in industry in 2017:

Jeremy Teeuwsen, Manager of Operational Excellence at the Fort Site, was the recipient of a CIM-Bedford Canadian Young Mining Leader Award, which recognizes workers 39 years of age or under for exceptional achievement, as well as their potential for future leadership in various sectors of mining, including: corporate performance, operations, finance, technical services and innovation, marketing and trading, as well as services and support functions.

Jennifer Prospero, Sustainability Manager at Sherritt's corporate office, was named a Top 30 Under 30 Sustainability Leader in Canada by Corporate Knights magazine.

Finally, in 2017, Fort Site employee James Budac, Manager, Process Technology, was named the 70th president of Canadian Institute of Metallurgy's Metallurgy and Materials Society (MetSoc).

## **CASE STUDY**

# PROMOTING ROAD SAFETY TO CHILDREN AND YOUTH IN CUBA

Sherritt is committed to the health and safety of our employees and the communities around our operations.

# PROVIDING A SAFE AND REWARDING WORKPLACE

Sherritt's operations are built on a zero harm health and safety culture. We work hard to minimize operational risks to our workforce and nearby communities, and engage with these important stakeholders regularly on matters of safety, security and emergency response. More broadly, employee engagement and development remain top priorities in ensuring we attract and retain the people critical to our business and its success.

## In 2017, we:

- Achieved peer-leading safety performance over a three-year period; the total recordable injury frequency (TRIF) decreased by 33%, while the lost time injury frequency (LTIF) decreased by 14%.
- Met our TRIF target of less than 0.28 injuries per 200,000 work hours, but did not achieve our LTIF target of less than 0.11 injuries per 200,000 work hours due to an increased number of incidents in the Moa JV and Energas divisions.
- Activated our crisis management plans twice for major storms Cyclone Enawo and Hurricane Irma; experienced no loss of life or major property damage in either case.
- Signed the Catalyst Accord, which calls on companies to increase the average percentage of women on boards and women in executive positions in corporate Canada to 30% or more by 2022.

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# **HEALTH AND SAFETY**

#### **MANAGEMENT APPROACH**

Our health and safety management approach has historically been decentralized, with each division/operating site applying its own expertise and experience to identifying hazards and risks, implementing controls, monitoring performance, and assigning appropriate accountabilities. We are now establishing enterprise-wide standards, aligned with international best practice, as part of our commitment to continuous improvement, operational excellence and a stronger safety culture.

To clearly articulate our expectations for health and safety performance across the business, we have identified the need for a general health and safety standard, which will be based on the requirements of Towards Sustainable Mining, and specific fatality prevention standards – such as Light Vehicles, Heavy Mobile Equipment, Working at Heights, and Confined Spaces, among others – which have been or are currently being implemented. We also have a Significant Potential Incident Standard in place. It requires tracking and specific management actions for any workplace incident that, under slightly different circumstances, could have resulted in a fatality.

The full suite of health and safety standards is being developed and implemented, in accordance with our multi-year implementation schedule.

In addition to implementing standards, we conduct safety culture assessments at our operating sites, and track a series of leading indicators designed to increase hazard awareness, improve performance and strengthen safety culture. These indicators include leader walks around sites to set the tone from the top, proactive health and safety communication activities, workplace inspections and training hours. At the corporate level, we monitor health and safety performance through regular executive reviews, peer comparisons and independent assessments.

We are working to embed these initiatives deep within the organization. Ultimately, experience has taught us that everyone must take ownership of safety and be comfortable having safety-related conversations as a matter of course in their everyday activities.

Sherritt launched an enterprise-wide Operational Excellence (OE) program in 2015. OE is a business-improvement process that focuses on team-based problem solving and process improvement, leading to meaningful results, including a safer, more efficient workplace. To date, more than 200 employees from the corporate office, Moa, Fort Saskatchewan and Ambatovy have participated in OE events, including 50 project teams focusing on areas such as logistics, maintenance and production. Examples of the types of results achieved through OE so far include:

- Rearranging the leach maintenance shop at the Fort Saskatchewan site to reduce the walking distance for millwrights undertaking pump repairs from 2.35 km per repair to 0.45 km
- Reduction of truck refuelling times at Moa to save approximately \$500,000 per year
- Identification of business improvements that could result in cost savings valued at \$24 million for Ambatovy



CASE STUDY ALIGNING WITH LEADING EXTERNAL SAFETY STANDARDS

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CASE STUDY SAFETY CULTURE ASSESSMENTS

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OE projects will continue as part of the company's overall objective to create a safer, more efficient workplace. Refer to this case study for more information on those that occured in 2017.

#### PERFORMANCE

#### Fatalities

In 2017, Sherritt's divisions did not experience any fatalities. 2013 was the last year we reported zero community and/or work-related fatalities.

We continue to focus on building a strong safety culture, including removing or reducing fatal risks at the sites and unsafe behaviours. Our target continues to be achieving zero harm for our employees, contractors, and community members in the areas in which we operate throughout 2018.

# Lost Time and Recordable Incidents

During the year, we reported 17 lost time incidents (which are recorded when a worker misses at least one shift following a workplace injury) and 35 recordable incidents (which include injuries resulting in death, lost time, restricted work, medical treatment beyond first aid, or loss of consciousness) across the company. These statistics mark a slight increase over 2016 performance.

Our overall safety performance in 2017 continued to be peer-leading, with a lost time incident index (total number of lost time injuries per 200,000 work hours) of 0.12 (compared to 0.11 in 2016) and a total recordable incident index (total number of recordable injuries per 200,000 work hours) of 0.26 (compared to 0.25 in 2016), both of which are peer- and industry-leading results.

35 0.20 30 LTI INDEX\* (ALL SHERRITT) 0.15 25 NUMBER OF LTIS 20 0.10 15 INUAL I 0.05 5 0 0.00 2013 2014 2016 2017 2015

## LOST TIME INCIDENT (LTI) INDEX

\* LTI index = # LTI \* 200,000/SUM (exposure hours for the year)

"We are committed to everyone - employees, contractors and community members – going home healthy and without injury every day. Every individual has a role to play in this, and by making a personal commitment to our own safety and that of our co-workers and neighbours, we will achieve safety together. We must work to continually improve. A safe operation is also an excellent operation."

- Steve Wood, Chief Operating Officer



#### **TOTAL RECORDABLE INCIDENT (TRI) INDEX**



#### \* TRI rate = # TRI \* 200,000/SUM (exposure hours for the year)

Ambatovy and the Fort Site have had site safety rules implemented for a number of years. In 2017, Moa developed the "Golden Rules for Safety" and rolled them out to employees through training and awareness. During the course of the year, OGP made progress on developing their own "Cardinal Rules for Safety", which are subject to approval by the joint venture partner and expected to be disseminated in 2018.

## Significant Potential Incidents

Sherritt records significant potential incidents (SPIs) – defined as actual or near-hit incidents that, under different circumstances, could have reasonably resulted in at least one fatality – in conformance with our standard, which had been developed in 2015. There were 31 SPIs reported over the course of the year, which is comparable to the 29 reported in 2016. They were investigated in the same manner as fatalities. Detailed investigations to identify the cause(s) of each incident were completed, and actions to prevent recurrence were identified and implemented. The most common types of SPIs in 2017 continued to be related to light vehicles, heavy mobile equipment and working at heights. As a result, we are focusing on efforts to identify and strengthen critical controls in these areas at all our operating sites. Examples of specific SPIs from the year include:

- A civilian light vehicle crossed the centre line in Cuba and collided with a company vehicle.
- A bulldozer operating on site rolled over.
- An employee worked on an electrical box without isolating the electrical supply.
- An employee fell through poorly maintained scaffolding without proper fall protection equipment.
- A truck reversed with poor visibility and no spotter, nearly colliding with an employee.



Oil & Gas and Power adheres to the good management practices of Towards Sustainable Mining's Safety and Health Protocol.

## **CASE STUDY**

# ALIGNING WITH LEADING EXTERNAL SAFETY STANDARDS

As a member of the Mining Association of Canada (MAC), Sherritt adheres to MAC's Towards Sustainable Mining (TSM) program, whose best-practice principles are integrated into the company's sustainability standards. Oil & Gas and Power (OGP) has made excellent progress in conforming to TSM's Safety and Health Protocol at its energy-production facilities in Cuba.

OGP completed a gap analysis of its practices relative to the Safety and Health Protocol in 2014, and developed a short-term action plan to address gaps and reach a B Level in TSM's grading system for protocol conformance by the end of 2015. In July 2015, OGP engaged Deloitte to verify progress and identify areas for improvement. One of the biggest challenges was documentation – although OGP had many of the required practices in place, the practices often were not formally documented.

During 2017, the application of TSM's Safety and Health Protocol was further evaluated by Deloitte. The focus was on identifying any gaps in OGP's performance, as well as highlighting improvements made since the last review. There were significant improvements to a number of indicators at each division. For example:

- "Training & Behaviour" improved from a C level to A at O&G;
- "Policy & Commitment" improved from a C level to A at Power/Energas; and,
- "Performance" improved from a C level to A at Power/Energas.

Site management continues to demonstrate a commitment to instilling a safety culture at the operations, as evidenced by such programs as Field Level Audit Cards, regular safety statistic updates and communications, detailed analysis of performance matrix and statistics, increased employee involvement and an obvious positive response from operators and employees, noted by the Deloitte auditors. OGP has not only strived to meet the TSM protocol standards but also committed to improving the implementation and effectiveness of its health and safety systems more broadly.



Safety culture assessments provided valuable insights including: employee sentiment towards the company and control of critical risks.

#### CASE STUDY

# SAFETY CULTURE ASSESSMENTS

As a result of the four fatalities in 2015, management introduced a strategic focus on fatality prevention and commissioned an independent external assessment of the safety culture at each operating site.

The assessments provided valuable insights into factors that contribute to the safety culture at each site: employee sentiment towards the company, accountability for safety at the line-management level, leadership interactions in the field and control of critical risks. A key learning was that most safety systems and tools are similar around the world. Safety culture comes from the leaders.

Some common findings include: senior leaders have not been role modelling the desired behaviours; there is some confusion over what safety work should be done by various roles; capability gaps exist with front-line leaders; there is a sense of comfort with the status quo; management of low-probability/ high-consequence events can be improved; and simple hazard-assessment and communication tools are inconsistently used.

In response, each site has developed an action plan to drive safety culture improvements. Actions include: role modelling safety behaviours by leaders; clarifying authorities and accountabilities; improving governance programs; conducting leadership training; requiring that leaders spend more time in the field; increasing the focus on significant potential incidents; and improving usage of hazard-assessment tools.

# **PUBLIC SAFETY**

#### **MANAGEMENT APPROACH**

As good neighbours, it is critical to us that we ensure our operations, transportation activities and other business practices avoid unintended or adverse effects on the public. We follow the regulations of our operating jurisdictions, strive to meet the expectations of nearby communities and regularly engage and collaborate with local stakeholders on health and safety-related risk awareness and emergency preparedness.

There are natural links between public safety and effective community engagement. Through engagement, we work to understand public concerns and safety risks, evaluate steps we can take to reduce risk, help clarify misunderstandings and dispel misinformation, and, when appropriate, collaborate with communities on initiatives that make all of us safer. Through these efforts, we contribute to building a strong safety culture in the communities near our operating sites.

One of the most important ways we protect both communities and our business is through effective emergency preparedness and response planning. At our operating sites, we develop plans, grounded in scenario/risk assessments, to protect the public, the environment and infrastructure, in the event of a significant incident. We also implement actions to limit the severity of impacts, should an incident occur.

In Madagascar and Canada, Sherritt is responsible for leading emergency response efforts at its sites, while in Cuba we support our joint venture partners and the government authorities who take the lead in responding to operational emergencies. Refer to this case study for more information on the Cuban approach. Whenever possible, we coordinate closely with emergency responders in both preparedness and response activities, and we regularly conduct joint training exercises with them.

In 2017, Sherritt developed an enterprise-wide Crisis Management Standard that includes emergency response. The standard is influenced by Canadian and international practices, including the Mining Association of Canada's Towards Sustainable Mining (TSM) Crisis Management Planning Protocol, the Incident Command System's (ICS) management approach, and the United Nations Awareness and Preparedness of Emergencies at the Local Level (APELL) Programme.

#### PERFORMANCE

## **Emergency Response Planning and Training**

All operating sites have up-to-date emergency response plans in place, and conducted some form of crisis/emergency preparedness training in 2017.

Every site has established timelines to review emergency response plans and conduct training exercises at least annually, and to ensure plans are up to date and applicable, and response teams are prepared.

The Fort Site focused on the delivery of Incident Command System (ICS) training levels 100, 200 and 300 throughout the course of the year. In December, a tabletop exercise was conducted utilizing the ICS and Incident Management Team (IMT)



CASE STUDY EMERGENCY PREVENTION AND PREPAREDNESS – CUBA'S EXPERIENCE

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CASE STUDY OPERATIONAL EXCELLENCE

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training. The last full-scale emergency simulation exercise took place at the Fort Site in October 2016, which involved more than 50 emergency responders, the municipality of Fort Saskatchewan, neighbouring facilities, and the Northeast Region Community Awareness Emergency Response association (a mutual aid emergency response group).

In August, Ambatovy conducted a simulation exercise to test the Emergency Response Plan. The scenario involved a dam break at the Tailings Management Facility, which caused the activation of the Prefectural Emergency Response Team, and included participation of many local and regional stakeholders, including: National Office for Disaster Risk Management, Ministry of Defence, Ministry of Health and others. Ambatovy provided financial and logistical support for first responder training for emergency situations at the mine site for members of the Regional Committee for Industrial Risk Management. It is with this group and the National Office for Disaster Risk Management that the APELL Programme is implemented and monitored.

In Cuba, multiple training exercises occurred in 2017 at our Moa mine site, as well as our Oil & Gas and Power facilities. At Boca and Puerto Escondido, man down and fire drill training was completed. Exercises such as these are part of the regular preparedness training in the event of an incident. These drills also inform any updates needed to plans.

# Post-Incident Community Support

In 2017, once again, there were two storm events that presented a threat to the health and safety of our employees, operating sites and the surrounding communities.

Category 4 Tropical Cyclone Enawo made landfall in northeast Madagascar in early March and then moved south as a tropical depression, causing widespread flooding in the eastern half of the country. An estimated 81 deaths resulted, and more than 430,000 people were affected. Ambatovy made \$200,000 of the Social Investment Fund available for recovery projects, and Ambatovy's partners, including Sherritt's corporate office, donated tens of thousands of dollars directly to on-the-ground relief efforts, which included providing those affected with clean drinking water, shelter and access to basic services. In addition, Ambatovy made an aircraft available for transporting relief supplies and employees volunteered their time to help clear up local communities impacted by the cyclone. In partnership with Medair, Ambatovy's partners made a donation to reconstruct and rehabilitate refuge buildings in the hardest hit region.

A very powerful storm, Hurricane Irma, travelled east to west across Cuba September 7–10, 2017. Once again, the preparation and response actions of the Cuban Civil Defense authority and our partner, Cubaniquel, prevented fatalities and serious injuries in the country and at our Moa JV and OGP sites on both ends of the island. There was serious property damage across the country as a result of high winds and flooding, and reports of up to 10 deaths. Damages to homes, hospitals, and the agriculture and tourism sectors were widespread, and costs were initially estimated to be more than \$2.2 billion (USD). The hurricane's path largely avoided Moa, but did impact all OGP sites. However, impacts to operations were minimal, as all sites were prepared in accordance with the Hurricane Readiness Procedures Manual, which incorporated lessons learned from previous storms. Both Moa and OGP responded on



CASE STUDY WELDER TRAINING AT AMBATOVY PAGE 41 the ground by clearing debris, providing clean drinking water, assisting in equipment repair, and, in the case of OGP, re-establishing normal power operations for the Cuban energy grid in a timely manner. In addition, Sherritt donated \$50,000 to the United Nations Development Programme (UNDP) and the World Food Programme (WFP) to aid relief efforts and worked directly with the Cuban government to donate materials for reconstruction.

# Stakeholder Awareness and Collaboration

Our operating sites continue to engage with local communities on risk awareness and emergency response.

While many of us associate the plague with the Middle Ages, it remains active in Madagascar. Annual outbreaks are not uncommon. In fact, in 2017, there was an occurrence of the pneumonic form of the infection, and it affected rural and urban areas in the country. To aid in efforts in tempering the spread of the infection, Ambatovy donated personal protective equipment – including masks, gloves and goggles – to the University Hospital in Analakininina. This helped to ensure that medical staff and patients were well protected. In addition, Ambatovy provided regular information updates to employees and monitored them for signs of fever and other symptoms. In addition, following road construction in the regional capital Alaotra Manoro, Ambatovy organized road safety training for taxi drivers and installed roads signs and safety markings as part of an initiative financed through the Social Investment Fund. In addition, public fire prevention awareness was conducted in the areas surrounding the mine and plant sites.

In Moa, we proceeded with the refurbishment of two public health clinics near the mine site. Permits were issued in 2016. Construction will continue into 2018, when it is anticipated one or both of the clinics will be opened to the community.

The Fort Saskatchewan site continued participating in key multi-stakeholder forums related to crisis and emergency preparedness. Our team there works actively with the Northeast Region Community Awareness Emergency Response (NRCAER) association. In 2017, through NRCAER, Sherritt provided Dangerous Goods training to the local Fort Saskatchewan RCMP detachment, resulting in increased awareness of safety risks associated with industrial sites. We also work with Life in the Heartland on building community awareness about operational risks. It is common practice for the employees at the site to meet with local authorities and first responders to update emergency scenario plans and response procedures.



Cuba's National Civil Defense, the institution responsible for disasterrelief planning, has effectively implemented a preparedness system for disasters that was commended by the UN.

#### CASE STUDY

# EMERGENCY PREVENTION AND PREPAREDNESS – CUBA'S EXPERIENCE

We have preparedness and response plans at all our sites to protect local communities, the environment and our business from emergencies. In Cuba, we work with state agencies to coordinate response planning.

Cuba is geographically situated in the path of hurricanes that can have devastating impacts. Studies indicate that more than two million of the country's 11 million people are vulnerable to disasters, such as flooding, the rupture or overflow of dams, collapsed housing or landslides. In addition, increased seismic activity has been recorded in the eastern region of the island, near the Moa mine site.

These factors have led to the accumulation of expertise in Cuba for managing hurricanes and other disasters – from preparation to response to recovery – that has been recognized by international organizations. For example, after examining Cuba's approach, Oxfam America suggests that strengthening community capacity, coordinating local actors and investing in social capital – which Cuba does significantly – are determinate factors in effectively reducing the risks of a catastrophic event.

Cuba's National Civil Defense, the institution responsible for disaster-relief planning, has effectively implemented a preparedness system for disasters, including hurricanes, earthquakes, fires, floods, storm surges and other possible events. This system includes an early-warning mechanism, which entails ensuring the correct behaviour of citizens when it comes to following instructions, preparing for evacuation and other important measures that are essential to preserving lives.

The success of Cuba's disaster preparation and mitigation efforts is confirmed by results. While material losses have been high, the number of casualties has been minimal (e.g., in November 2001, five people died in Hurricane Michelle, which was the most powerful storm to hit the island since 1944), largely due to the well-coordinated efforts of National Civil Defense leadership, the Ministry of Public Health, local government institutions, and local and national media. Educating the public about hurricanes is an ongoing priority, with TV programming, national drills, workshops, seminars, instruction and competitions for schoolchildren, and, for first responders, continuing reviews and procedural updates.

This was underscored during 2016's Category 4 Hurricane Matthew. The response by the Cuban Civil Defense in the prevention of loss of life was commended by then-UN Secretary-General, Ban Ki-moon. It was demonstrated again in 2017 with the arrival and impact of Hurricane Irma.

The Cuban system of preparation and evacuation is based on a few fundamental principles, namely:

- Citizen engagement participation of civilians in preparing for natural disasters through training and education
- Coordination disaster-relief plans are crafted with the participation of government leaders, civilian defence personnel, community organizations and local political leaders
- Maintaining social services Cuba provides vital resources so that hospitals, schools and other institutions remain open during a natural disaster
- Vulnerability identification each municipality identifies citizens and infrastructure deemed vulnerable, thus easing the evacuation process
- Protecting/assuring property the Cuban government helps citizens protect personal items during evacuations and ensures that damaged property will be replaced at no cost

These factors have helped ensure that our mining and energy businesses in Cuba operate in an environment where emergency response capacity is well developed and well integrated into the risks facing the most vulnerable members of the community across the island.



We are using one of our most valuable resources to come up with solutions and improvements for our business: our employees.

# CASE STUDY OPERATIONAL EXCELLENCE

Operational Excellence (OE) is a business-improvement process that focuses on team-based problem solving and process improvement, leading to meaningful results, including a safer, more efficient workplace. To date, more than 200 employees from the corporate office, Moa, Fort Saskatchewan and Ambatovy have participated in OE events, including 50 project teams focusing on areas such as logistics, maintenance and production.

In 2017, a project was undertaken at the Fort Site to reduce steam venting through optimizing equipment operation. The Fort Site has a large and complex steam system that includes multiple steam generators with differing levels of steam pressure; a large number of process steam users; and a variety of steam turbine drives around the site. A project was identified to reduce energy consumption and net greenhouse gas emissions by reducing the amount of low-pressure steam vented to the atmosphere. During winter and summer operation, steam demands can be quite different and require different operating strategies. Through optimizing these operating strategies in three of the site production units, the steam vent has been significantly reduced. The projected savings for 2018 are over 15,000 tonnes of steam, with total cost savings of over \$300,000 and an associated estimated greenhouse gas emissions reduction of 2,500 t CO<sub>2</sub>e.

In November, Sherritt undertook a five-day OE session targeting health and safety at the mine site at Moa. Over 25 employees from all areas of the site, including mining, maintenance, and production, as well as four Sherritt staff from Canada attended the event. The exercise focused on leadership interactions, sharing of experiences, and awareness-building around unsafe behaviours occurring on site. As a result of the event, front-line supervisors at Moa are now more actively engaged in curtailing unsafe work as it occurs.



Ensuring employees have access to adequate training will set Ambatovy up for long-term success.

#### CASE STUDY

# WELDER TRAINING AT AMBATOVY

In order to fill up the lack of certified welders in Madagascar and to meet the company's needs, Ambatovy set up a specific training program to train Malagasy employees according to international standards. "The job of a welder requires very specific skills and qualifications," said Menja Rakotonirina, Mechanical and Lifting Training Coordinator at the Ambatovy Training Center. "Ambatovy's welder training program allows the company to have the technicians required for the operations, and to develop highly skilled national workers. As a reminder, during the construction of the pipeline, Ambatovy had to bring in hundreds of foreign skilled welders due to the lack of local competencies."

Ambatovy's welder training program complies with international standards and provides national welders with the same level and quality of training they can receive abroad. To date, 37 national employees have been training and qualified as certified welders with different specializations.

At Ambatovy, apprentice welders must undergo a three-month basic training course before going to the field to gain experience. Then, they can apply for certification for specific welding tasks with the certification body. "Training welders is one of the most costly training programs due to the high cost of welding equipment and consumables," said Menja Rakotonirina.

The certification of welders is very expensive, but is necessary to comply with international standards. Certification, once obtained, must be renewed every two years by an independent body.

# SITE SECURITY

### **MANAGEMENT APPROACH**

We are committed to safeguarding our people, assets, reputation and the environment, while respecting the rights of the public. We have an enterprise-wide policy that outlines our principles for creating a safe and secure business environment and for conducting security operations in compliance with local, national and international legal requirements, security standards and law enforcement principles.

Our management approach to site security involves identifying, understanding and minimizing security threats and risks; working with local law enforcement authorities to respond appropriately to security incidents; investigating incidents and complaints and taking actions to minimize the probability of recurrence; and implementing relevant international principles, including the Voluntary Principles on Security and Human Rights (VPSHRs).

We are a member of the Voluntary Principles Initiative. Our decision to formally join the Initiative was based on our investment in Madagascar, a country with governance concerns, high rates of poverty and potential for community-company conflict. To mitigate these risks, we wanted to formally align our policies and Ambatovy's security operations with the highest international standard for security and human rights. We have an enterprise-wide security policy and management system for meeting the requirements of the Voluntary Principles. The system – which supports flexible application to account for the disparate risks and realities of each of our operating environments – is based on the following procedures for governing our behaviour and response to different security incidents:

- Entering agreements with private security service providers
- Entering agreements with public security forces
- Reporting and investigation of security-related incidents
- Use of force
- Protection of providers of confidential information
- Apprehension and transfer of suspects to public custody

Ambatovy and Fort Saskatchewan have implemented much of the Voluntary Principles requirements, and the other divisions/operating sites will endeavour to address gaps over the next few years. Application in Cuba requires a more nuanced and phased approach, including familiarizing our joint venture partners and the Cuban government with the Voluntary Principles before determining how best to move forward. As a new member of the Mining Association of Canada in 2017, MAC member companies that rely upon private or public security forces have committed to implementing a human rights and security approach consistent with the VPs and based on a determination of risk at mining facilities that they control. Furthermore, MAC members with international mining operations will report on their implementation annually in MAC's *TSM Progress Report*.

Our operating sites employ full-time and contract security personnel. We believe that competence and training are the most important elements of effective security management and we evaluate all personnel carefully before selecting them for security detail. To ensure that our interactions with the public are respectful, we provide valuesand expectations-based training, including security and human rights training, to our



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security personnel. At Ambatovy, we have a memorandum of understanding, which was recently reviewed and updated, with the public security force, and require security and human rights training for public security officials who patrol our sites.

### PERFORMANCE

### Security Incidents

In 2017, the theft of fuel and other materials at Ambatovy was the only noteworthy security concern across Sherritt. However, while the severity of incidents did not increase, there was a notable increase in the number of incidents at Ambatovy overall. This is partially the result of a change in approach by new security management and improvements in reporting across the sites, including a new web based incident management system, but it remains an ongoing security issue to be monitored and managed as a result of operating in a country where poverty rates are high. In 2017, Ambatovy recorded 305 thefts, up from 109 in 2016.

Our operations in Cuba and Canada – two jurisdictions with well-established systems of governance – did not record any significant security incidents in 2017.

# Security and Human Rights

In 2017, there were no security incidents involving allegations or claims of human rights' abuse anywhere across Sherritt. Ambatovy's security and human rights training results remained comparable to 2016: 75% of full-time security personnel, 90% of contract security personnel, and 100% of public security officials based near our operations were trained. In 2017, new private security contracts were issued with the Voluntary Principles embedded into those contracts. Throughout the year, Ambatovy also participated in security- and human rights-related workshops, training sessions and awareness-building events with other members of the Voluntary Principles Initiative, including Search for Common Ground, and the International Committee of the Red Cross. Learn more about Ambatovy's efforts to conform to the Voluntary Principles on Security and Human Rights (VPSHR) in this case study.

At Fort Saskatchewan, security officers continued to receive basic human rights training through the provincial licensing process in Alberta. The site also trained 100% of its security personnel on the Voluntary Principles, as well as private security contractors and emergency services personnel. In 2017, Fort Site's security personnel completed additional training in non-physical conflict resolution. As well, requirements related to Voluntary Principles were incorporated into the contract with its private security provider.

In 2017, Sherritt staff met with Cuban government officials to present the Voluntary Principles and received no objections to engage directly with the state-run security provider to introduce them to the initiative.

Sherritt's divisions continued to use standardized tools for conducting a site-level gap analysis against the company's Security and Human Rights Standard and implementing plans to address identified gaps. The Standard is part of Sherritt's broader Sustainability Framework Implementation Plan for designing and implementing company-wide minimum standards across sustainability-related functions, including security.

Our 2017 annual report to the Voluntary Principles on Security and Human Rights is available online.



Ambatovy has incorporated Voluntary Principles on Security and Human Rights (VPSHR)-related requirements into its private and public security provider agreements.

### CASE STUDY

# IMPLEMENTING THE VOLUNTARY PRINCIPLES IN MADAGASCAR

At Ambatovy, we began to implement the Voluntary Principles on Security and Human Rights (VPSHR) in 2009. Since then, Ambatovy has taken a series of proactive steps to bring the site into greater conformance with the VPSHR. In 2012 and 2013, Ambatovy conducted third-party rights risk assessments that mapped out human rights– and security-related risks to both our company and our stakeholders. The results of the risk assessments have been used to strengthen existing policies and procedures as well as to develop new systems and programs to prevent and mitigate the identified risks.

Ambatovy's contracts with its private security providers include required compliance with the Voluntary Principles. A tender is due for completion in Q1 2018 and Ambatovy commits to incorporating the Voluntary Principles more prominently in the new contract with the private security provider by outlining clear expectations regarding training and screening requirements. Ambatovy will enter a memorandum of understanding with Madagascar's Gendarmerie nationale, in line with the Voluntary Principles requirements for security arrangements with public security providers. The MOU is due to be signed in early 2018. Such requirements include pre-employment screening and comprehensive training on security and human rights and the use of force.

In 2017, Ambatovy held meetings with various stakeholders to discuss the Voluntary Principles throughout the year. These included the Office of the United Nations High Commissioner for Human Rights, the International Committee of the Red Cross (ICRC), and Search for Common Ground. In its meeting with the ICRC, Ambatovy discussed opportunities to organize Voluntary Principles training for representatives of the Gendarmerie, police, and civil society organizations over the next couple of years. This would include refresher training for gendarmes before their deployment to Ambatovy sites to ensure they have recent training on human rights and the use of force principles. Ambatovy has sponsored a number of third-party training workshops on the Voluntary Principles for public security in the past, and is looking to work with the ICRC to organize two to three large training sessions a year with representatives of the Gendarmerie, police, civil society and other groups interested in security and human rights issues.

At the national level, Ambatovy works with other Voluntary Principles Initiative member companies and governments to promote the VPSHR with the Malagasy government.

In 2016, Ambatovy signed an umbrella agreement with the regional authorities around its operations and the United Nations System in Madagascar to work together to contribute to the social and economic development priorities of the regions, including the promotion and integration of the company's commitment to human rights-related principles – such as the VPSHR, among others – in order to effectively analyze and address human rights risks. During the year, Ambatovy held meetings with the Office of the United Nations High Commissioner for Human Rights and the Madagascar Defense Minister to communicate its commitment to the Voluntary Principles and discuss plans for Voluntary Principles–related initiatives in 2018.

For more information on Ambatovy's efforts, you can find Sherritt's 2017 annual report to the Voluntary Principles on Security and Human Rights online.



We are proud to support the globally successful UNICEF program for road safety.

### CASE STUDY

# PROMOTING ROAD SAFETY TO CHILDREN AND YOUTH IN CUBA

Sherritt is committed to the health and safety of our employees and the communities around our operations. That is why we are thrilled to partner with UNICEF once again in support of Principle 4 of the Children's Rights and Business Principles – ensuring the protection and safety of children in all business activities. As part of the partnership announced on April 3, 2018, Sherritt over three years will support UNICEF's Child Road Traffic Injury Prevention Program to promote road safety among young people in Cuba.

Road safety is a priority for both the company and the country of Cuba, as unintentional injuries caused by road accidents are the leading cause of mortality among youth and adolescents.

The program builds on UNICEF's extensive experience with road safety, which is a key component of its current Country Programme (2014-2018) and which has already shown successful results at the national level and in La Havana and Santiago de Cuba provinces. With Sherritt's support, and in collaboration with Cuba's Ministries of Health and Education, the National Road Safety Commission and local governments, the program will expand its reach to the provinces of Matanzas and Holguin, including in Moa and Cárdenas where Sherritt operates.

This intention of the program is to:

- Increase families' awareness of the prevention of road accidents through social and behaviour change communication initiatives.
- Strengthen road safety education of children and adolescents, with emphasis on those most vulnerable.
- Strengthen policies to protect children by ensuring experience and best practices are shared among institutions, mass organizations, professionals on road safety, and child victims of road accidents.
- Support Sherritt's deep commitment to social responsibility and direct engagement on issues affecting children.

This partnership builds on years of mutually beneficial collaboration between Sherritt and UNICEF in Madagascar. Sherritt and UNICEF are proud to partner again to work towards the achievement of SDG 3.6 – to halve the number of global deaths from injuries and road traffic accidents by 2020. For more information about the history of this relationship, click here.

Credit: UNICEF Cuba/Gonzalo Bell

# **EMPLOYEE RELATIONS**

### **MANAGEMENT APPROACH**

Our business cannot operate and thrive without a dedicated, experienced and engaged workforce. We are committed to listening to and understanding the needs and challenges of our employees; taking action to improve the workplace; and supporting employees in reaching their potential. (For the purpose of this report, employee relations include employee engagement, talent development, labour rights, workplace diversity, and protection against workplace discrimination and harassment.)

Effective and regular two-way communication with employees is the foundation of our employee relations programs. Every two years, we conduct an employee survey to evaluate engagement across the business. Questions touch on leadership, culture, behaviours, professional development, and communication, among other areas. Senior managers in the corporate office and divisions are held accountable for implementing plans to address key findings.

Ensuring the right programs are in place to support employee development at all levels is crucial for Sherritt's long-term success and succession planning. In spite of the challenging commodity price environment, we remain committed to employee training and development. We provide a range of technical, management and leadership training in Canada, Cuba and Madagascar. Whenever possible, we leverage opportunities to bring different groups together to build cross-organizational networks and strengthen our shared values and culture.

Our compensation programs are aligned with Our Purpose and Our Promises, fostering a company-wide culture of accountability and pay-for-performance compensation. All salaried employees are eligible for an annual short-term incentive award expressed as a percentage of their base salary. The award is based on companywide, divisional and individual performance, and the amounts vary depending on the annual performance of each component. Performance goals are established at the beginning of the year, and are assessed quantitatively and qualitatively. Organizational performance is communicated quarterly, and each manager is accountable for providing individual performance feedback to immediate team members.

Across our company, we have both unionized and non-unionized workforces. We recognize and encourage the right to engage in free association and collective bargaining. As with all of our relationships, we strive for productive and mutually beneficial outcomes in our discussions with employees and organized labour representatives. When labour grievances do occur, we investigate and work to reach an acceptable solution for all parties concerned. In certain cases, we may opt for third-party arbitration. Once grievances have been resolved, the management team evaluates all of the issues that were raised and determines what process improvements, if any, can be made to ensure we learn from each one.

We have a policy for workplace discrimination and violence prevention. There are discrete policies on human rights, business ethics and diversity that meet legal requirements and best practices. We are committed to continuous improvement in these areas, with a growing focus on diversity and inclusion. In Cuba, all national

"Just as we are focused on strengthening our balance sheet, we are also focused on strengthening our organization. Diverse and inclusive workplaces are stronger, more resilient workplaces. Through a thorough organizational design review and a focus on improving gender metrics at all levels, we believe we will position Sherritt to function better."

- David Pathe, President and Chief Executive Officer workers are hired through an employment agency and can report any issues of discrimination. The agency will undertake an investigation in conjunction with management. Any actions taken are governed by the same types of standards that would apply in Canada.

# PERFORMANCE

# **Employee Engagement**

Sherritt conducted an employee engagement survey in 2017. The participation rate was 77%. When comparing results with previous surveys, the divisions made an overall improvement in engagement for our front-line employees. In most groups, we also saw an improvement in employees' assessment of "Manager Effectiveness", which has been an area of focus for the company. The next survey is scheduled for 2019, but one of our priorities for 2018 is to look at a new approach to gathering employee feedback that will allow us to measure employee engagement much more frequently.

# Organized Labour, Grievances and Strike Action

Approximately 380 of Sherritt's employee base is unionized. At our Fort Saskatchewan site, unionized employees are represented by Unifor Local 530A. (Sherritt and Unifor have had an effective partnership for more than 60 years without a labour interruption.) In April 2016, a new three-year agreement came into effect. In Cuba, all organized labour considerations are mandated by the Cuban state and many of the systems and tools that are common in other jurisdictions, including collective bargaining, are not employed there.

Our Fort Saskatchewan site resolves all grievances per the process described in the Collective Agreement and the Labour Relations Act of Alberta. This site has not had an arbitration heard by a third party for more than 15 years.

A process that began in previous years to put a collective bargaining process in place at Ambatovy advanced in 2017. In May, a collective bargaining framework was signed with the Works Council Members, and a list of employee aspirations was received in October 2017. Management is currently analyzing each request in preparation for the first collective bargaining session in the first quarter of 2018.

Our Fort Saskatchewan site received 30 grievances relating to labour practices in 2017, an increase over last year. Nineteen of the 30 grievances were resolved during the calendar year and those that were not will be managed in accordance with the procedures set out in the collective agreement.

At Ambatovy, eight grievances relating to working conditions were reported in 2017, which is comparable to the previous two years of reporting. Four complaints were against a supervisor or co-worker, three cases related to health and safety, and one case regarded a job evaluation. All eight cases were addressed and resolved during the calendar year.

There were no work stoppages as a result of labour unrest in 2017.

# Workplace Diversity

	Canada (FS, Commercial and Technologies, Calgary OGP and Corporate offices)		Cuba (Moa and OGP) <sup>1,2</sup>		Madagascar (Ambatovy)			Other <sup>3</sup>	Total					
	Male	Female	Unknown	Male	Female	Unknown	Male	Female	Male	Female	Unknown	Male	Female	Unknown
Permanent	676	164	_	525	65	1,931	2,940	437	6	11	-	4,147	677	1,938
Full-time	669	158	_	525	65	1,931	2,940	437	6	11	-	4,140	671	1,931
Part-time	7	6	_	-	-	_	-	_	-	_	7	7	6	7
Temporary <sup>4</sup>	6	7	54	5	0	-	7	528	-	-	2	8	535	56

1 Includes the office in Havana

2 Includes Sherritt and GNC employees at Moa, as well as employees of the entities which make up the Oil & Gas and Power businesses (including Energas)

3 "Other" includes our Bahamian marketing office, which services the Moa JV, and OGP Spain

4 Temporary employees included consultants or positions currently filled by contractors

# **Employee Diversity**

	Canada (Fort Site and Corporate)	Cuba (Moa and OGP) <sup>1</sup>	Madagascar (Ambatovy)
Employee average age	45	50	37
Women in workforce (%)	19.5%	11%	13%
Women in management (%)	17%	0%	14%

Note: Sherritt does not currently define or track employee ethnicities and thus, has not included these metrics.

1 Includes Sherritt employees and Cuban Local National employees

Fourteen percent of Sherritt's workforce is female. In our Canadian locations (Fort Saskatchewan, Calgary and Toronto), our workforce is 19.5% female. At Ambatovy, 13% of workers are female. In Cuba, our main workforce is contracted by the state and thus, Sherritt is not involved in hiring decisions.

Although our overall gender-diversity percentage is at the upper end of the mining and energy sectors, we remain committed to building a highly inclusive culture, in order to attract and retain a diverse workforce.

In 2016, our President and CEO joined the "30% Club Canada", whose goal is to ensure that at least 30% of board seats in the country are held by women by 2019. In 2017, Sherritt also became a member of Catalyst Canada and signed the Catalyst Accord 2022, pledging to increase the average percentage of women on boards and women in executive positions in corporate Canada to 30% or more by 2022. We conducted an analysis of both our internal environment and the broader industry to set a current-state baseline for diversity and inclusion at Sherritt. This analysis helped to identify challenges and opportunities, which were used to inform a two-year plan to establish the groundwork for a more diverse and inclusive work environment. In 2017, we established a company-wide Diversity and Inclusion Steering Committee, as well as local working groups to better support initiatives at the site level, and began a full review of policies, programs and processes to identify any potential bias.

# CASE STUDY

# SUPPORTING CHILDREN AND YOUTH IN MADAGASCAR

Youth involvement is one of the cornerstones of the HIV/AIDS and sexually transmitted infection awareness campaigns that Ambatovy oversees in communities near our operating sites.

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As a public company, our overarching responsibility is to operate profitably and take advantage of opportunities to grow our business. This allows us to keep our commitments to our shareholders, employees, contractors, host-country governments and communities. Making a profit, however, is not done at any cost. To ensure that we protect our business and reputation, we commit to conducting all activities with integrity and the highest standards of responsible conduct. This includes avoiding actual and perceived conflicts of interest, having zero tolerance for corruption of any form, and respecting the rights of all people with whom we interact. We do this by rigorously implementing our Business Ethics Code, Anti-Corruption Policy and Human Rights Policy, and by ensuring that we have the systems and programs in place to bring effect to our expectations.

PERATING ETHICALLY

# In 2017, we:

- Were named to Corporate Knights' Future 40 Responsible Corporate Leaders in Canada.
- Did not receive any human rights-related grievances across Sherritt.
- Recorded, managed and closed 12 reportable concerns related to business conduct.
- Participated in the launch of UNICEF's Child Rights and Security Handbook, an implementation companion to the Child Rights and Security Checklist, of which Sherritt and Ambatovy were key stakeholders in the development of the tools.

# IN THIS SECTION

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# **ECONOMIC PERFORMANCE**

### **MANAGEMENT APPROACH**

Nickel and cobalt prices showed signs of recovery in 2017 following several years of challenging market conditions. Nickel prices improved by 27% while cobalt prices were up 130% in 2017 on a year-over-year basis. The gains were largely driven by improved supply-demand market conditions and the growing understanding that nickel and cobalt play key roles in the manufacture of batteries needed for the burgeoning electric vehicle market.

In 2017, Sherritt had net earnings of \$293.8 million, up from a net loss of \$378.9 million for 2016. The improvement was largely due to non-cash gains associated the restructuring of the Ambatovy joint venture (JV) and the reduction of Sherritt's ownership interest from 40% to 12% in exchange for the elimination of \$1.4 billion of debt from the company's balance sheet. Excluding the impact of the JV restructuring, Sherritt incurred an adjusted loss of \$317.1 million in 2017, compared to an adjusted net loss of \$427.9 million for 2016.

Consistent with recent years, Sherritt's focus in 2018 will centre on three strategic priorities:

- Preserve liquidity and build balance sheet strength
- Optimize opportunities in Cuban energy business
- Uphold global operational leadership in finished nickel production from laterites

### PERFORMANCE

Please refer to our 2017 Annual Report for detailed information on our economic performance last year and an overview of how we plan on executing against our 2018 strategy.



**2017 ANNUAL REPORT** 

# **BUSINESS CONDUCT**

#### **MANAGEMENT APPROACH**

Our business conduct is a reflection of the values that are the foundation of our company. Our Purpose and Our Promises describe our guiding principles and how we expect them to be lived every day as we carry out our business. Our Business Ethics Code provides clear guidance to our workforce on what it means to act with integrity. It covers conflicts of interest, fraud and corruption, fair dealings, protection and proper use of the company's assets, compliance with regulatory requirements, disclosure, confidentiality, and reporting mechanisms available to employees and contractors. Sherritt's Policy Committee, made up of senior executives from various key functions, is responsible for reviewing and approving new and revised policies.

Globally, there has been a recent focus on eliminating corruption within companies, and between businesses and all levels of government. Many countries have passed anti-corruption legislation, imposing significant monetary and incarceration penalties for corrupt practices. Investigative activities by law enforcement agencies have also increased significantly, bringing effect to legislation.

As a Canadian company, we are subject to the Canadian Corruption of Foreign Public Officials Act (CFPOA), as well as anti-corruption laws in Madagascar and Cuba. The CFPOA prohibits Canadian business interests from making or offering improper payment of any kind to a foreign public official – or anyone acting on his or her behalf – where the ultimate purpose is to obtain or retain a business advantage.

Our Anti-Corruption Policy prohibits the violation of the CFPOA and other applicable anti-corruption laws. All divisions, groups and offices must undergo anti-corruption training and log all government meetings and payments. In Madagascar, governmental and commercial corruption presents a significant risk, whereas in Canada and Cuba, it does not. As such, we provide additional training, awareness-building and controls at Ambatovy, where all suppliers with standard contracts must also sign and adhere to our Anti-Corruption Policy.

Sherritt is very supportive of the transparent reporting of payments to governments. We are a Supporting Company of the Extractive Industries Transparency Initiative (EITI), to which we report in Madagascar. Visit this website to review EITI Madagascar's latest report, which was published in 2015. In 2017, Madagascar began the process for Validation against the EITI Standard. For more information on Validation, visit the EITI website. We have also developed a process for meeting the public reporting obligations of Canada's Extractive Sector Transparency Measures Act (ESTMA), the requirements of which are very similar to those of EITI. Sherritt's first Extractive Measures Transparency Act Report is now available online. The report, which is a requirement of the Government of Canada, covers certain payments that Sherritt made to all levels of government in Canada and abroad in 2017. Additional commentary on transparency reporting can be found on the Community Development page.



CASE STUDY ROLLING OUT ANTI-CORRUPTION TRAINING

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#### CASE STUDY

AWARD FOR EXCELLENCE IN SUSTAINABLE DEVELOPMENT AT AMBATOVY

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### PERFORMANCE

# **Ethical Conduct**

In 2017, 26 reportable concerns were submitted through the Whistleblower system. Of the 26 reportable concerns, 13 were deemed to warrant an investigation and 12 were subsequently closed. These were investigated internally by Internal Audit and/ or Management. The concerns were mainly related to allegations of fraud within the company, such as inappropriate business relationships with vendors and conflicts of interest. The remaining reportable concerns that were not investigated were deemed to be HR matters and were not investigated further.

Upon commencing employment with Sherritt, all employees are required to review and sign off on their understanding and acceptance of our Business Ethics Code.

# Anti-Corruption

We overhauled our Anti-Corruption Policy in 2015, and made a subsequent update in 2017. Training sessions were held across the company to familiarize employees with the requirements and to address their questions. The training provided a valuable opportunity to clarify what constitutes corruption and conflict of interest. Trainers emphasized that the most important action an employee can take if faced with an uncomfortable situation is to ask for assistance from the person responsible for overseeing the anti-corruption program in his or her workplace.

One hundred percent of our entire eligible workforce was trained by the end of 2016, and subsequent refresher training for the updated policy occurred in 2017. As part of the training, employees had to sign the policy to demonstrate their understanding and commitment to the principles.

In Cuba, only expatriate employees and a small number of Cuban nationals who work directly for Sherritt were required to take the training, given the nature of our joint venture relationships and our agreement with the state-run agency that provides our operations with workers.

Since the beginning of 2017, all new employees (nationals and expatriates) at Ambatovy are required to complete the SkillMine anti-corruption module as part of their onboarding program, within 6 months of their employment commencement date. At the end of 2017, 92% of new employees had completed the online module. The remainder have been advised to complete the module in 2018. In addition, Ambatovy has made it a priority to ensure suppliers were aware of the contents of the policy by rolling out a "train the trainer" program for suppliers. As of 2017, Ambatovy trained 274 contract workers from more than 100 suppliers as part of the program. These "trainers" have gone on to train more than 8,600 contract workers on our policy.

Performance commentary on transparency reporting can be found under Community Development.



Sherritt is committed to conducting its business in accordance with applicable laws, regulations, and the highest ethical standards.

# CASE STUDY ROLLING OUT ANTI-CORRUPTION TRAINING

In 2016, Sherritt continued training Sherritt employees on the updated Anti-Corruption Policy and, by the end of the year, 100% of our entire eligible workforce received anti-corruption training, and 65% of Ambatovy employees received refresher training.

Based on feedback from the 2012 training, which consisted of group presentations followed by a question-and-answer session, Sherritt used a more nuanced platform that took into account the different cultural and situational pressures facing its workforce. An interactive training module that summarizes the key points of Sherritt's policy, together with questions regarding how to correctly respond to situations where the potential for corruption or fraud exists, was completed by all of Sherritt's employees based in North America, as well as expatriate employees located elsewhere.

It was agreed, however, that the language and examples used in the general anti-corruption training might not be accessible for employees and contractors unfamiliar with a North American or European work environment. To address this issue at our operation in Madagascar, Ambatovy's Head of Learning and Development prepared a Malagasy-language interactive web-based training tool, featuring video vignettes of culturally relevant situations. The Ambatovy training required employees to watch each vignette and guide a fictional employee to respond correctly to circumstances where the potential for corruption or fraud existed. The vignettes included such situations as an employee being pressured by a friend to secure a job, and a vendor offering a gift to an employee if that person "overlooked" the fact that the vendor had not passed a safety audit. The vignettes were developed to resemble a well-liked style of Malagasy theatre and used well-known Malagasy actors.

Expatriates at Ambatovy were also required to complete this additional training, so that both national and expatriate workers would have a common starting point for further conversations about corruption and how employees should respond to difficult situations. Employees and contractors who took part in the training had positive feedback and tended to respond correctly to the content-based questions. After incorporating feedback obtained during the training, a revised policy was drafted in 2016 and finalized in early 2017.



Ambatovy's award-winning approach to sustainable mining includes an extensive biodiversity management program.

#### **CASE STUDY**

# AWARD FOR EXCELLENCE IN SUSTAINABLE DEVELOPMENT AT AMBATOVY

We were very pleased to have won the Syncrude Award for Excellence in Sustainable Development for our sustainability work at the Ambatovy Joint Venture in Madagascar in 2015. The award, issued by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), acknowledges companies or individuals who are "active seekers of sustainability solutions".

Sherritt was recognized for successfully implementing a range of sustainable mining solutions at Ambatovy, including a biodiversity management program that targets "no net loss"; a "buy locally, hire locally" policy that is supported by several leading-edge initiatives; agricultural skills training for more than 18,000 people from local communities; developmental partnerships with international organizations, such as the World Bank, UNICEF and the Red Cross; and innovative archeological and retrenchment programs.

"Winning this award is an important achievement, as sustainable mining is core to our business," said Sherritt's President and Chief Executive Officer, David Pathe. "It is a proxy for good management and something that all our stakeholders have come to expect. We are very proud of the work in Madagascar, and I congratulate the entire team at Ambatovy that works tirelessly to ensure we are creating lasting benefits wherever we operate."

# **HUMAN RIGHTS**

### **MANAGEMENT APPROACH**

Understanding and expectations related to human rights in the mining and energy sectors began to evolve 15 to 20 years ago as companies increasingly turned their attention to countries that are less developed. Many of these countries were – and continue to be – characterized by weak governance and respect for the rule of law, extreme poverty, low-cost labour, a lack of business regulations, and less-than-ideal mechanisms to protect the human rights of their citizens. These and other factors would contribute to instances of conflict in natural resource development – often involving communities, companies, governments and security officers – as a means of resolving the grievances of local residents.

The work of Professor John Ruggie, on behalf of the United Nations, defined a practical human rights framework, known as the United Nations Guiding Principles on Business and Human Rights, which outlines the roles for state and business actors in the protection of human rights. It also identifies "access to remedy" for anyone with a human rights complaint as the single most important element for business to maintain its social license.

Although human rights issues do not currently represent a top risk at Sherritt, they are an inherent risk to all mining and energy production sites. To manage this risk, we are aligning with international best practices and expectations regarding human rights. We developed an enterprise-wide policy that commits to upholding the Universal Declaration of Human Rights, along with other international principles.

The primary human rights-related considerations for Sherritt include access to remedy; the interaction between security personnel and communities near our operation in Madagascar (addressed under Site Security); labour rights (addressed under Employee Relations); and children's rights in Madagascar.

At Sherritt, remedies for complaints, up to and including potential human rights violations, are provided through the community grievance mechanisms in place at the site level. Grievance mechanisms are processes to receive, acknowledge, investigate and respond to community complaints. These are valuable early-warning systems that can resolve sources of friction between stakeholders and companies, and can, over time, build trust. We have incorporated best-practice guidance from a number of sources into our recently developed Grievance Mechanism Standard, to ensure it is both practical and credible. A few examples of the types of community grievances we have received in recent years include: impacts to livelihoods during construction of Ambatovy, allegations of inappropriate hiring or contracting practices, and environmental impacts of operation and/or construction activities.

Currently, we have a formal community grievance mechanism in place at Ambatovy. It includes an external grievance committee, comprising respected members of local communities, that meets quarterly to review the grievance management process and resolutions, and to provide feedback and suggestions for improvement to management.

At our site in Fort Saskatchewan, we have a long-established informal process for responding to complaints from external parties and are in the process of finalizing the implementation of Sherritt's Grievance Mechanism Standard. In Cuba, there is



CASE STUDY SUPPORTING CHILDREN AND YOUTH IN MADAGASCAR

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a state-run system where citizens can file complaints against an entity, organization or enterprise whose activities they feel are adversely affecting their well-being. Commissions are set up to investigate grievances and develop action plans to address them. Sherritt's management team, or that of our Cuban partners, participates in the process to address any grievances related to our operations.

Our Human Rights Policy also articulates our commitment to the Convention on the Rights of the Child. Violation of children's rights is a fairly low risk in Canada and Cuba, but in Madagascar this risk is more significant. At Ambatovy, we have a zerotolerance policy for child exploitation that the entire workforce must sign. This policy was drafted with the support of UNICEF, in response to an incident that occurred at Ambatovy several years ago. Refer to this blog posting for more information. We also support youth-led peer awareness campaigns on child exploitation issues and HIV/AIDS in Madagascar. All contracts or agreements awarded to local suppliers include clauses requiring the strict respect of international rules towards child labour. Ambatovy's Local Business Initiative regularly verifies that these requirements are upheld.

Human rights issues, including the exploitation of children in the mining industry, are something Sherritt takes very seriously. Sherritt does not mine cobalt in conflict areas. By monitoring third-party feed sources, Sherritt ensures cobalt mined from any conflict area does not enter our supply chain at any point.

### PERFORMANCE

# Third-party Review

In 2016, the United Nations Development Programme conducted a due-diligence review of Ambatovy, including questions on human rights, in order for Ambatovy to enter into a new partnership agreement with the United Nations System. Ambatovy passed the review and the agreement was signed in November 2016. No further thirdparty human rights assessments were undertaken at Sherritt's sites in 2017.

# Human Rights Grievances

There were no human rights-related grievances reported at any of our operating sites in 2017. (Other types of grievances are captured and explained under Employee Relations and Stakeholder Engagement.)

# Children's Rights

At Ambatovy, where risks to children are higher because of the operating jurisdiction, we have been particularly engaged with the Child Rights and Business Principles to help put a child rights lens on work with contractors and suppliers in the supply chain. As of 2017, more than 9,000 suppliers have committed to following our children's rights requirements, which include zero-tolerance towards child sexual exploitation and child labour, among other concerns. Any supplier found to be in violation of these contractual requirements would be immediately terminated. In 2017, Ambatovy staff undertook a refresher four-part training session on the Child Rights and Business Principles to be able to reinforce that messaging throughout Ambatovy's policy reviews and contract renewals with vendors in 2018.

Sherritt continued to participate in the UNICEF Canada-led Child Rights and Security Working Group established to focus on security-related impacts on children caused by the extractive sector. Other contributors include UNICEF, the Government of Canada, several global mining and energy companies, international non-governmental organizations, and other governments. In 2017, the Working Group published the Child Rights and Security Checklist, designed to assist governments and companies in assessing the degree to which their security frameworks respect children's rights, and in early 2018, the Child Rights and Security Handbook, an implementation companion to the checklist, was launched.

We continue to provide assistance to child-protection networks near our mine and plant sites in Madagascar in developing funding proposals for international donors. See this case study for more on our work to support children and youth in Madagascar.



Youth-related initiatives are part of Ambatovy's Zero Tolerance Program, established to protect children and fight against child sexual exploitation.

#### **CASE STUDY**

# SUPPORTING CHILDREN AND YOUTH IN MADAGASCAR

Youth involvement is one of the cornerstones of the HIV/AIDS and sexually transmitted infection awareness campaigns that Ambatovy oversees in communities near our operating sites. Ten kiosks, constructed in partnership with the United Nations Children's Fund (UNICEF), provide local youth with a space to gather, exchange information and provide one another with support. The kiosks are managed by 20 peer educators – all trained by Ambatovy – who share information about HIV/AIDS and sexually transmitted infections. The kiosks are now under the management of the Regional Direction of Youth, which supports and coaches the young peer educators.

In 2017, Ambatovy funded refresher training for the peer educators in the area around our operations and provided some equipment for the kiosks, like musical instruments and games.

These youth-related initiatives are part of Ambatovy's Zero Tolerance Program, established to protect children and fight against child sexual exploitation. All Ambatovy personnel, as well as contractors, have signed a policy document to affirm their commitment to this important effort.

Also in partnership with UNICEF, Ambatovy constructed four eco-friendly schools, and provided support for the development of an environmental education program. VOAHARY VOAKAJY, a local non-governmental organization, is now operating the schools, teaching environmental and conservation courses to students in the surrounding area. More than a thousand students have benefitted from this program to date.



# CASE STUDY

# PROTECTING THE SMALLEST INHABITANTS WHERE WE OPERATE

In April 2017, Ambatovy reintroduced more than 1,500 Golden Mantella (*Mantella Aurantiaca*), an endemic and endangered frog species, in the breeding ponds located in the conservation areas surrounding the mine site in partnership with Mitsinjo Association.

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We understand that mining and energy production involve disturbing the natural environment. Our overriding approach to demonstrating environmental responsibility is to avoid impacts wherever we reasonably can, and ensure that any we create are minimized, managed and remediated. In this way, we can limit our impacts, while seeking innovative ways to support environmental protection.

# In 2017, we:

- Achieved zero high-severity environmental incidents across the business.
- Improved environmental reporting and transparency for waste and water by adding new indicators on impacts.
- Achieved an overall reduction of 4% in Scope 1 and 2 greenhouse gas emissions compared to 2016.
- Moa achieved a 13% reduction in energy consumption due to the new acid plant in operation.

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# TAILINGS MANAGEMENT

### **MANAGEMENT APPROACH**

Sherritt produces two broad types of waste: mining waste and solid waste. Mining waste generally includes waste rock and tailings, produced as processing by-products. Solid waste consists of hazardous waste and non-hazardous waste. Hazardous wastes are identified by their chemical and physical properties, and their classification, handling, disposal and storage requirements are prescribed in regulations. Non-hazardous solid waste consists of materials that we use and produce that can be disposed of in municipal landfills, and is not considered material for the purposes of this report.

We design and operate our tailings management facilities (TMF) in Cuba and Madagascar to meet or exceed all applicable regulatory requirements in those jurisdictions. Ambatovy's tailings management facility was also designed to meet the requirements of the Canadian Dam Association, the International Commission on Large Dams, and the Mining Association of Canada's Towards Sustainable Mining (TSM) Tailings Management protocol.

Following the recent tailings dam failures in Brazil and Canada – including our own pond failure at the Obed Mountain mine in Alberta in October 2013 – we began drafting an enterprise-wide Tailings Management Standard in 2017, which will be finalized in 2018. The standard aligns with TSM's Tailings Management Protocol. This standard will provide additional rigour in supporting our operating sites in fulfilling our commitment to designing, constructing, operating, decommissioning and closing all tailings facilities in such a manner that all structures are stable, all solids and water are managed within designated areas, and all management practices conform with regulatory requirements, sound engineering principles and good practice. This standard will also take into account lessons learned from a post-mortem review of the Mount Polley tailings pond failure conducted by the Mining Association of Canada and the latest guidance from the International Council on Mining & Metals.

#### PERFORMANCE

2017	Ambatovy	Fort Saskatchewan	Моа	Oil & Gas and Power
Total amount of				
overburden, rock, tailings		Not		Not
and sludge (tonnes)	27,200,453	applicable	14,380,826	applicable

At our mining operation in Moa, we continued to work with our Cuban partners and industry experts to improve tailings and water management to better align with international best practice. As a new member of the Mining Association of Canada, we will be applying MAC's Tailings Management Protocol at Moa and at Ambatovy.

The tailings management facility at Moa is regularly reviewed internally and by third parties for structural integrity and effectiveness of management systems. Based on 2017 assessments, the facility is currently operating to design specifications. We continue to work with our joint venture partners to ensure employees have the required skills to manage the facility effectively. As it is nearing capacity, we have retained an internationally respected engineering firm to design an extension that



AMBATOVY'S TAILINGS MANAGEMENT FACILITY will ensure we can continue to store tailings there until 2022. Permitting and detailed design work for the first stage of the extension was approved in 2016. Construction began in 2017 and will continue into 2018. The extension will also be subject to the Tailings Management Protocol.

We also began investigating options for tailings management so that we can continue to support mining operations in Moa in 2022 and beyond. Throughout this process, we will strive to minimize environmental impacts and meet international good-practice standards in tailings management.

At Ambatovy, the tailings management facility is a long-term construction project that involves the continuous raising of the perimeter dams to meet capacity needs. Construction in 2017 focused on installing seepage recovery systems. In 2018, engineering will be completed on the pumping capacity increase. Once construction is complete, the TMF will provide sufficient storage capacity for the remaining mine life, which is approximately 30 years.

There are no tailings produced at the Fort Saskatchewan or Oil & Gas and Power sites.

# Update on Remediation of Obed Containment Pond Breach

As we reported in previous sustainability reports, on October 31, 2013, a breach occurred due to a geotechnical slump, in an on-site water containment pond at the Obed Mountain mine, then owned by Sherritt, that resulted in a significant release of mud, clay, coal particles and approximately 670,000 m<sup>3</sup> of water into nearby creeks and the Athabasca River. We quickly mobilized our response team, working with regulatory bodies, and began engaging extensively with First Nations and local stakeholders to keep them informed and to address their concerns. After the sale of our coal operations to Westmoreland Coal Company in April 2014, we retained the environmental remediation and financial obligations associated with the breach, and have continued to work co-operatively with the Alberta regulator to address the impacts of the incident. Read more about it here.

In 2017, we continued environmental monitoring of water quality, soil and sediment quality, fish habitat, wildlife, and vegetation and wetland resources. Past reports indicate that the breach and the resulting release of polluted water and sediments had measurable but minor effects on fish and fish habitat in the nearby creek, and that there are no residual effects on water and sediment quality in any of the nearby creeks or in the Athabasca River.

Over the course of the year, final remediation designs were prepared, and these were submitted to the regulator in early 2018. Once approved, planned remediation work will occur over the course of the year with the intent to conclude by year-end.

A more detailed account of our response and remediation activities can be found on www.obed.ca.

# **BIODIVERSITY AND LAND**

#### **MANAGEMENT APPROACH**

Sherritt's operations are found in diverse locations, ranging from primary forests to island environments to industrial zones. Our approach to managing biodiversity is tailored to the context of each operating site. At assets found in highly sensitive ecosystems, such as our Ambatovy mine in Madagascar, we follow a strict mitigation hierarchy: avoid impacts where possible, minimize any unavoidable impacts, repair any damage, and provide offsets (e.g., positive management interventions such as restoration of degraded habitat for residual impacts) wherever necessary.

This mitigation hierarchy, which forms the foundation of Ambatovy's biodiversityrelated work, was designed by the Business and Biodiversity Offsets Programme (BBOP), a multi-stakeholder initiative that seeks to develop best practice in biodiversity protection for developers of large greenfield projects. Ambatovy has been an active supporter of BBOP since its inception in 2006.

Ambatovy's approach to conservation also conforms to the requirements of Madagascar's regulator, the National Environment Office, and with the International Finance Corporation (IFC) Performance Standards on Environmental and Social Sustainability (2012 version), which includes a discrete standard on biodiversity conservation and sustainable natural resources management.

In 2009, Ambatovy established a Scientific Consultative Committee on biodiversity as part of its commitment to transparency and to apply international conservation expertise to its biodiversity management activities. The Committee includes 14 national and international independent scientists renowned for their expertise in biodiversity, conservation, and environmental management. The Committee convenes at least every two years – most recently at the end of 2017 – to facilitate an external evaluation of Ambatovy's implementation of the biodiversity management program and to make recommendations for the conservation of Madagascar's unique biodiversity to management.

In Canada and Cuba, environmental baseline studies and impact assessments are conducted and biodiversity management plans are implemented, as required by regulation. However, the breadth and depth of our work at Ambatovy has demonstrated to us the value of developing a standard approach for addressing biodiversity considerations across the rest of the company. As members of the Mining Association of Canada, we will be implementing the Towards Sustainable Mining Biodiversity Conservation Management Protocol at all operations where it is applicable. In addition, we are developing a minimum standard for biodiversity and land management as part of our sustainability framework that aligns with TSM and provides additional guidance to Sherritt's divisions. It will be practical and risk based, and will provide us with a consistent set of requirements for identifying and managing biodiversity impacts.



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#### CASE STUDY

PROTECTING THE SMALLEST INHABITANTS WHERE WE OPERATE

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# Land Management

We recognize that the land entrusted to us is a valuable resource. We work with authorities and other organizations to manage and reclaim the land during active mining and once operations have ceased. This is demonstrated by our longstanding record of reclamation and remediation activities, which have been covered in previous sustainability reports. Our active mining properties in Cuba and Madagascar progressively rehabilitate land and regularly monitor progress against rehabilitation plans with the regulatory authorities in both jurisdictions.

The Fort Saskatchewan site manages land issues within its government-approved operating permit, which includes discrete requirements for soil management. Our Oil & Gas operating sites in Cuba routinely mitigate any impacts of oil exploration and recovery activities when operations have ended. Drill sites are cleaned, topsoil is replaced and the land is returned to conditions similar to those that existed before drilling commenced. In accordance with the requirements of our operating permits, the land will be returned to the Cuban state after the expiry of the term of the contract.

### PERFORMANCE

# Ambatovy's Biodiversity Management System

In 2017, the Ambatovy Environmental Management System (AEMS), including the Biodiversity Management System (ABMS) – which operationalizes many of the principles mentioned in the preceding description of our biodiversity management approach – was externally audited to assess whether the plans were being implemented according to their original design criteria. Data collection and validation were found to be acceptable; and additional focus will now be on data integration and dissemination for the AEMS. Coaching on the implementation of the management system was provided to stakeholders, including universities, non-governmental organizations, and offset site managers.

# Species of Concern

Ambatovy has commitments to protect and conserve species of concern (SOC) within the lands under its direct control. Our mining operation is located within the Ambatovy-Analamay forest, and our mine lease is subdivided into the mine footprint, which contains our active operations, and the surrounding conservation zone.

The Ambatovy-Analamay forest area is within the Torotorofotsy Ramsar Convention site, which is an internationally significant wetland. The forest area forming our lease comprises 21.5 km2 of high biodiversity value, featuring 1,700 species of vascular plants and 336 species of vertebrates. Within this area, we have identified nine priority species, of which four are considered to be endangered, according to criteria established by the International Union for the Conservation of Nature (IUCN), and six are SOC. We are responsible for the inventory and monitoring of a total of 109 SOC and the four endangered species, as well as retrieving all orchid species.

In 2017, we continued to introduce SOCs into the mine zone, and salvaged SOCs from the clearing zone directly in the mine footprint. Thanks in large part to this type of work, we were awarded the Syncrude Award for Excellence in Sustainable



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Development at the Canadian Institute of Mining, Metallurgy and Petroleum's annual convention in 2015. Read this case study to learn more.

### **Invasive Species**

One of the most significant potential threats to areas of high biodiversity is the introduction of non-native, exotic and invasive species, which can rapidly adjust to new conditions and have an adverse effect on native biodiversity.

We have processes in place to monitor and control invasive species at the Ambatovy mine, plant and port sites. The following occurred in 2017:

- Norway rats: Extensive capture activities took place in 2016; however, the program was put on hold in 2017 due to the planned program and the outbreak of the pneumonic plague coinciding in timing and location. For safety reasons, the program has been scheduled for 2018.
- Crayfish: Crayfish control occurred at two sites during the year. Apart from capturing the crayfish in collaboration with local villagers, who are trained as capturers, we also organize campaigns to raise awareness about the crayfish and its impacts on agriculture, habitat and biodiversity.
- Invasive and exotic plants: An exotic species removal program took place over 11 hectares at the mine site, and three hectares of that were planted with native tree species.
- Asian toads: There was a continued effort to remove Asian toads within the site footprint and the surrounding area. The toads are believed to have been introduced via an unidentified container from Southeast Asia at the Port of Toamasina, which is located near our plant site.

### Response to Concerns over the Introduction of the Asian Toad

In 2015, two international non-governmental organizations approached Sherritt about the introduction of invasive Asian toads to Madagascar. They suggested that Ambatovy's shipping activities through the port may have inadvertently introduced the species and requested that we take a leading role in the overall response. We have examined this issue critically, and while our assessment does not support their conclusion, we have responded to their queries formally and have had several constructive discussions on this topic with representatives from these and other concerned organizations and institutions.

During the timeframe that the toad is speculated to have arrived in Madagascar, Ambatovy accounted for less than 5% of the Port of Toamasina's total traffic – and that percentage is even lower for shipments coming from the toad's zone of origin, according to our records and those we obtained from Madagascar's customs office.

Nevertheless, as a responsible actor that cares deeply about biodiversity management, we are committed to supporting the Government of Madagascar's leadership in addressing this significant threat. We have joined the government's national committee, which is comprised of several stakeholders, to mitigate the impacts of the Asian toad. We also entered into a memorandum of understanding with Madagascar's National Environment Office to carry out a joint eradication program that goes well beyond the scope of our own efforts to date. We appreciate the growing urgency to take broader measures and are hopeful that our contributions will lead to lasting results.

In 2017, eradication efforts were focused on the mine and plant sites, as well as the surrounding area. Ambatovy's staff also supported communication efforts and education regarding toad eradication to nearby communities.

In 2018, on the recommendation of Ambatovy's Scientific Consultative Committee, the company plans to contract an invasive species specialist to better advise how Ambatovy can support broader eradication efforts of the Asian Toad population.

# Conservation Partnerships and Collaboration

Ambatovy is involved in two important partnerships with civil society organizations to assist in managing the offsets we have created to compensate for our disturbances. We engaged Conservation International to manage the Ankerana forest – our 5,715 ha offset that is located some 70 km northeast of the mine site. Ambatovy also has an agreement with Asity Madagascar, which is associated with BirdLife International, to manage the Torotorofotsy wetlands. We feel that these respected civil society organizations bring both credibility and additional expertise in managing biodiversity. Both the Ankerana and Torotorofotsy offsets are important demonstrations of our commitment to evolving international best practice and to protecting and enhancing the rich biodiversity that surrounds the mine area and beyond. In 2017, Ambatovy continued to support both managing parties financially and technically for conducting site patrols, developing income-generating activities, and carrying out awareness campaigns – all of which are necessary to maintain the habitat quality of the sites.

Refer to this case study for more information about Ambatovy's partnership with Mitsinjo Association regarding a breeding program for a threatened, endemic frog species.

### **Biodiversity Management at Moa**

Our open pit nickel mine near Moa, Cuba, is located approximately 15 km north of Alejandro de Humboldt National Park, a UNESCO World Heritage site particularly known for its extensive suite of endemic species of flora. Moa Joint Venture has long partnered with the Cuban authorities for the restoration and protection of these lands. For more information, refer to this case study.

In 2017, the reforestation program in the park concluded. In 2018, Moa will support the government by undertaking monitoring activities of the reforested area. In addition, Moa received recognition from the environmental regulator, CITMA, for their achievements.

### **Biodiversity Management Elsewhere**

In Canada, our refinery's impacts on biodiversity are minimal, given that it is located in an industrial zone within the city limits of Fort Saskatchewan. Our energy operations in Cuba also have minimal impacts on biodiversity, given the small footprint and nature of our activities. In 2017, no significant conservation activities were required or undertaken at these sites.

It is worth mentioning that our Block 10 oil drilling program, which began in 2016, is taking place adjacent to a protected mangrove site. To minimize our impacts, we are conducting the program from a previously disturbed footprint, while working in close consultation with Cuba's environmental regulator.

# Land Management

In 2017, both Ambatovy and the Moa site practiced progressive reclamation in accordance with their operating permits and commitments. The total amount of disturbed land in 2017 was higher than 2016 and rehabilitated land during the year was about 50% less. This was mainly due to increased clearing activity for mining at Ambatovy, and rehabilitation work related to Hurricane Matthew that occurred at Moa in 2016. There were no changes to the operational footprint of the Fort Saskatchewan refinery. In Cuba, our energy business was awarded a new production sharing contract (Block 6A); however, no drilling activity took place there, pending an anaylsis of available geological and geophysical information. The Corporation's PSC for Block 2 (Varadero West), which expired in November 2017, has reverted to the Cuban government as per our operating agreement, and as such, there was also no meaningful change in land disturbed and rehabilitated for OGP.

In 2016, the Fort Saskatchewan site submitted an updated soil management plan to meet the regulatory requirements of Alberta. Throughout 2017, the Fort Site engaged with a technical expert to refine the plan, and recommendations are expected in 2018.

The table below shows the amount of land (owned or leased, and managed for production activities or extractive use) disturbed or rehabilitated.

2017	Ambatovy	Fort Saskatchewan	Moa²	Oil & Gas and Power	Total
Total amount of land newly					
disturbed within 2017 (ha)	168.5	0	51	2	221.5
Total amount of land newly					
rehabilitated within 2017 to				Not	
the agreed end use (ha)	5	0	15	applicable	19



At Moa, we are committed to reclamation of areas disturbed by our mining activities, but also the rehabilitation of a nearby park reserve that was historically impacted.

#### **CASE STUDY**

# REHABILITATION AND RECLAMATION IN MOA, CUBA

Decades before Cuba's Alejandro de Humboldt National Park became a UNESCO World Heritage site in 2001, the state-owned predecessor of the Moa Joint Venture received a concession to develop a mineral deposit within the park. Preliminary, small-scale exploration work was carried out on this deposit, once in the 1970s and again in the 1990s. In the mid-1990s, the Cuban government declared the park to be a protected area, requiring any type of mining or industrial activities to cease.

Absolutely no exploration work of any kind has been carried out in the park since then. In 2008, the Moa Joint Venture officially relinquished its concession. About three years later, at a meeting with Cuba's National Council of Hydrographic River Basins, the Joint Venture agreed to evaluate the best approach to rehabilitating the impacted areas and to include this work in its annual environmental management plans going forward. Around that same time, the Park Authority was commissioned to carry out an impact assessment.

This collaboration ultimately led to the development of a long-term biodiversity management plan to restore the impacted areas in the park. This plan was executed collaboratively by the Moa Joint Venture, Cuban regulatory agencies and the Park Authority. It encompassed soil conservation; the creation of hydro regulation channels to restrain floodwater and prevent erosion; reforestation of endemic species such as the ocuje (Calophyllum antillanum), which is prized for producing a very hard, durable wood, and the Cuban oak; as well as other areas. In 2017, the rehabilitation work in Alejandro de Humboldt National Park concluded.

In addition to this important conservation work in the park, our reclamation team in Moa has been working for many years on restoring areas in and around the mine site, to meet the requirements outlined in our environmental permit. This restoration work includes testing new methods for erosion control and different plant species for survivability. The soil around Moa is quite acidic, meaning that not all vegetation can flourish there, but our highly educated team on the ground is experienced in reforestation and reconstruction for such areas.



At our Ambatovy mine in eco-diverse Madagascar, even the smallest species are cared for, including the endemic Golden Mantella frog.

#### CASE STUDY

# PROTECTING THE SMALLEST INHABITANTS WHERE WE OPERATE

In April 2017, Ambatovy reintroduced more than 1,500 Golden Mantella (*Mantella Aurantiaca*), an endemic and endangered frog species, in the breeding ponds located in the conservation areas surrounding the mine site in partnership with Mitsinjo Association. After being bred at the "Toby Sahona" Center in Analamazaotra-Andasibe, the frogs were released into their new viable habitats in the Rural Communes of Andasibe, Ambohibary and Morarano. They will be subject to a three- to five-year follow-up monitoring program until a reproductive generation is reached.

For this program, Ambatovy works closely with different national and international partners as well as the Independent Engineers mandated by the project's lenders. This work contributes to our objective of achieving no net loss, and preferably a net gain, in biodiversity and the environment while strengthening our commitment to being a sustainable and responsible company in Madagascar. The reintroduction of the Golden Mantella frogs into the wildlife was covered extensively by the local and national media. A real success story for Ambatovy!



Employees across the company worked together to mark Sherritt's inaugural Sustainability Month in June.

### **CASE STUDY**

# KICKING OFF ANNUAL SUSTAINABILITY MONTH GLOBALLY

In 2017, in celebration of Sherritt's 90th anniversary and in an effort to broadly share Sherritt's commitment to sustainability and our performance, we launched the first ever Sustainability Month in June. All of Sherritt's divisions participated.

Sustainability Month aligned with World Environment Day (WED), celebrated globally on June 5. Last year's theme was "Connecting People to Nature". Our divisions took the theme to heart and thought of innovative and fun ways to connect employees to the work we do and the communities around our operations.

Examples of the types of initiatives and events that took place:

- A nature walk in the area surrounding our Fort Site to learn about the natural flora and fauna and environmental monitoring activities taking place;
- A sustainability-themed book club where employees read Your Brain on Nature: The Science of Nature's Influence on Your Health, Happiness and Vitality, by Eva Selhub and Allan Logan, and then got together to discuss;
- A volunteer day to plant local wildflowers in a park and bird sanctuary along Toronto's waterfront;
- Planting a commemorative tree in Havana to mark 90 years in operation;
- A children's art competition in Moa, Cuba;
- Sustainability-themed lunch-and-learn sessions across the company;
- Over 150 employees planted native trees and plants like Eucalyptus and Acacia at the mine and plant sites at Ambatovy; and
- Sherritt's corporate office opened the Toronto Stock Exchange.

In 2018, Sherritt will once again be participating in Sustainability Month and World Environment Day. The theme this year is "Beat Plastic Pollution". To learn about WED, click here.

# WATER

### **MANAGEMENT APPROACH**

As the global population swells, the demand for fresh water continues to grow and societal concerns about water quality and availability increase. We understand and share these emerging concerns, which are common across the company.

Water is central to our metallurgical process for producing nickel, and we manage it carefully. Where feasible, process water is recycled or reused within the process itself. Runoff is controlled through diversions and catchments to minimize any release to the environment. For each operating site, we conduct baseline studies, assess risks and engage stakeholders to inform them of our water management planning.

Pumping water for use in our processes takes a considerable amount of energy, and we are continually taking steps to identify how we can optimize our practices and minimize the amount of water and energy we use.

We also conduct monitoring to help ensure that we are not unduly contaminating surface water or groundwater resources with our process discharges. There are stringent regulatory water quality limits that apply to our discharges to protect the receiving environment, and our monitoring programs are designed to comply with the emission limit values in each jurisdiction, and to help us detect any unanticipated problems and manage risk beyond regulatory obligations.

Our approach to water management varies across our operations, depending on technical requirements, local climate, water bodies and stakeholder interests. Building on the range of water management practices and initiatives in place, we are working towards the development of a corporate Water Standard that will apply across the company.

# PERFORMANCE

#### Water Use

2017	Ambatovy	Fort Saskatchewan	Моа	Oil & Gas and Power	Total
Total water withdrawal (m³)	26,771,382.5	2,800,000	14,040,000	5,299,603	48,891,247.5

Note: There was a reporting error in 2016, which was corrected with the inclusion of "Saltwater" as an indicator component in 2017.

Ambatovy reported 26.7 million m<sup>3</sup> of water consumption in 2017, which is comparable to prior years. Water for our processes is withdrawn from a variety of sources at the mine, plant and port facilities, including the Ivondro River, the Mangoro River, Antsahalava Creek and groundwater wells. Potable water for the plant site originates from wells at the facility. Our water withdrawal is monitored quarterly by the regulator.

Erosion and silting of the Mangoro River unrelated to Ambatovy's mining activities, from which Ambatovy draws water for mining operations, is a risk we take seriously. It is in our interest to ensure the long-term viability of the river, and so, in 2017, Ambatovy continued collaborating with PRODAIRE, a development project that promotes an integrated approach to rural development and environmental protection. This two-year collaboration, which began in 2016, involves local villages, and will bring greater focus to reforestation and the prevention of riverbank erosion in the impacted areas. It is expected that this work will continue in 2018.

Our Fort Saskatchewan site withdraws water from the North Saskatchewan River under provincial licenses for use in our processes. We purchase potable water from the local municipality. The total water withdrawal for the Fort Saskatchewan site in 2017 was slightly higher than previous years: 2.8 million m<sup>3</sup>, including 2.7 million m<sup>3</sup> taken from the river and 0.1 million m<sup>3</sup> of purchased potable water. We report our water withdrawal monitoring results to the provincial regulator on a monthly basis. Process effluent and stormwater (snowmelt/rainwater) that we collect on our site are treated to meet the contractual water quality guidelines. This water is then transferred to the municipal wastewater collection system, where it is treated further and then discharged into the surrounding environment along with wastewater from the wider municipality.

Our Moa site in Cuba withdrew approximately 14 million m<sup>3</sup> of water for its processes in 2017. This is in line with water withdrawal for the previous two years. Water is collected in our adjacent reservoir and treated before use.

Oil & Gas and Power reported a total water withdrawal in 2017 of 5.3 million m<sup>3</sup>. Water is drawn primarily from saltwater sources and some municipal sources. Oil & Gas service rigs use recycled water only, resulting in a net effect of zero on the water supply.

# Water Quality

In 2017 at Ambatovy, there continued to be elevated concentrations of manganese in water that we discharge from our tailings management facility that sometimes exceeded the regulated limit established by Madagascar's environmental agency. Manganese at low concentrations poses only aesthetic concerns; that is, it imparts a discolouration to drinking water. At higher concentrations, it can have adverse health effects. To safeguard public health, we commissioned a permanent potable water supply system to be installed. This was completed in 2017 and handed over to the local community. We also provided regular water-quality updates to residents and the regulator. Based on the findings of a root cause analysis of the issue, we continued to implement corrective actions - as per the Manganese Action Plan, which was finalized in 2016 - including building up tailings beaches to reduce the manganese before discharge and installing a permanent pumping house in order to regain compliance with our permit requirements. The Plan has been reviewed externally. In 2017, we installed interceptor wells and drainage systems to capture water before it enters the surrounding environment, and recirculate it for treatment. Our efforts will continue in consultation with the regulator.

At Fort Saskatchewan, we monitor water quality at several locations within the site's treatment system, and review the results to ensure compliance before the release of water into the municipal collection system. We reported our water-quality results to the municipality monthly and to the Alberta regulator on an annual basis. There were no non-compliance events sourced to Sherritt during the year.

In 2017, Sherritt continued to participate in the Capital Region Water Management Framework's Steering Committee through the Northeast Capital Industrial Association (NCIA). The goals of the framework are to maintain or improve the quality of the water in the North Saskatchewan River, manage impact on water quantity, and implement a water management framework that is science-based and world-class.

When we invested in Moa more than 20 years ago, we inherited a legacy water management issue, which has affected water quality in a nearby river. Over the years, we have been working with our Cuban partners and the regulatory agency to address this issue. In 2017, we agreed to a phased approach to developing long-term treatment options for water management. The first phase, to be implemented in 2018-2019, involves relocation of effluent discharge to support the rehabilitation of the river.

There were no significant water-quality issues recorded at Oil & Gas and Power in 2017.

# **ENERGY AND CLIMATE CHANGE**

#### **MANAGEMENT APPROACH**

We operate an energy-intensive business. Energy consumption is a major input to our processes across the company, and energy-related costs one of our largest unit operating costs. These realities mean that we are motivated to reduce energy consumption and maximize efficiencies at every stage of our production cycle, from mining and oil recovery through to processing, refining and shipping finished products, and generating electricity. Concerns about the possible impacts of climate change on the planet and on our business increase the urgency of this issue for us, and affirm our role in contributing to global efforts to reduce greenhouse gas (GHG) emissions.

We have evaluated our management approach to energy and climate change against the requirements of the Mining Association of Canada's Towards Sustainable Mining Energy and Greenhouse Gas Emissions Management Protocol and are developing a corporate standard.



CASE STUDY CONSTRUCTION OF THE NEW ACID PLANT AT MOA

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# Air Quality

Broadly speaking, managing air quality around our operations is an important element of our environmental programs company wide. We are conscious of the potential impacts of our operations and take great care to ensure that all applicable air quality regulations are properly followed.

Air emissions generally comprise two types of sources. The first type includes specific discharges of gases from our process stacks and vents – such as sulphur oxides  $(SO_x)$ , hydrogen sulphide  $(H_2S)$  and nitrogen oxides  $(NO_x)$ . When emitted into the air, these compounds can pose risks to human health and lead to environmental degradation. The second type of air emission includes small airborne particles generated from activities in the open environment, called particulate matter (PM). PM is predominantly produced as a result of traffic on unpaved roads at our facilities, excavation activities at our mines, and fertilizer production at our refineries. We have strict safeguards in place at all sites to minimize the risk of air releases and regularly review and revise processes to minimize the release of PM through our activities.

## PERFORMANCE

# GHG Emissions and Energy Consumption

2017	Ambatovy	Fort Saskatchewan	Моа	Oil & Gas and Power	Total
Scope 1 GHG emissions					
(kt CO <sub>2</sub> e)	1,808	349	610	1,507	4,274
Scope 2 GHG emissions					
(kt CO <sub>2</sub> e)	0	59	49	0	108

GHG emissions at Ambatovy, for the mine, plant and port facilities, were estimated at a combined total of 1,808 kilotonnes (kt) of  $CO_2$  equivalent during 2017, representing a 4% decrease over 2016 emissions. As there is a lack of large-scale power available in Madagascar, the use of coal for power generation at Ambatovy accounts for the



#### CASE STUDY

CLEAN DEVELOPMENT MECHANISM CREDITS IN CUBA

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majority of the GHGs produced. Ambatovy consumed 14,386,003 gigajoules (GJ) of energy in 2017 from a mix of coal-fired power plant and fossil fuel burned. The large increase over previous years is the result of improved reporting around coal and fossil fuel consumption for plants and mobile equipment. In 2017, Ambatovy continued to take steps to reduce the use of light vehicles on site and optimize the use of electric vehicles as a means of reducing emissions. Refer to this case study to learn more.

Fort Saskatchewan reported GHG emissions of 349 kt of  $CO_2$  equivalent in 2017, which is in line with 2016 emissions, and 64 kt  $CO_2$ e higher than the legislated limit. Accordingly, the Fort Saskatchewan site will be purchasing 64 kt of credits for its 2017 emissions to comply with provincial regulations. Fort Saskatchewan recorded total energy consumption (including purchased electricity) of 5,033,000 GJ in 2017, which is a slight decrease over previous years.

In 2017, the Fort Site conducted a significant amount of stakeholder consultation, regarding the development of new provincial GHG regulations in Alberta. Sherritt advocated for a science-based approach that gives fair consideration to energy intensive trade-exposed businesses like ours. In December 2017, the Government of Alberta released the Carbon Competiveness Incentive Regulation, which came into effect on January 1, 2018. As such, 2017 GHG emissions reported enclosed are not subject to the new regulation. This new regulation sets the requirements regarding GHG reporting and outlines new compliance obligations for the Fort Site. In 2017, Sherritt purchased emissions credits to achieve regulatory compliance.

At Moa, we produced 610 kt of  $CO_2$  equivalent during 2017; this amount represents a 2% reduction over the previous year. We consumed a total of 6,580,145 GJ of energy in 2017, including generated and purchased electricity. This represents a 13% reduction over the previous year. Moa was able to achieve these reductions due to the completion of a 2,000 tonnes/day sulphuric acid plant in 2016, which allows us to produce more of our own acid as an input to our process and reduce the amount of acid we need to import. 2017 was the first full year of operation for the acid plant.

Oil & Gas and Power (OGP) reported the production of 1,507 kt of CO<sub>2</sub> equivalent during 2017 from its Boca de Jaruco, Puerto Escondido and Varadero facilities. This is historically consistent with what was reported in previous years. Our Oil & Gas and Power operations reported energy usage of 31,744,608 GJ. OGP also flared 104,355 e<sup>3</sup>m<sup>3</sup> of hydrocarbons associated with its oil production processes during the year. OGP's preventative maintenance program ensures optimal operation of our equipment, and we conduct quarterly monitoring of any emissions from our key sources to verify proper combustion. As our Oil & Gas operations have additional reporting metrics under the Global Reporting Initiative, please refer to the Performance section for this information.

Since 2007, Energas has generated well over one million Clean Development Mechanism (CDM) credits at the Varadero combined cycle power generation facility in recognition of its low GHG emissions relative to other sources of electricity in Cuba. While there are many benefits to the program, the relative administrative costs are significant and, due to Sherritt's financial constraints, our participation has diminished in recent years. Read this case study for more information on our efforts to obtain CDM credits over the last few years.



CASE STUDY SUSTAINABLE TRANSPORTATION ON SITE

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Scope 2 emissions refer to indirect emissions generated from the purchase of electricity. The majority of power consumed by Sherritt is generated on site, due to the remote nature of our operations and/or the limited availability of grid power in host jurisdictions. Therefore, Scope 2 emissions will always be of a lower order than those of Scope 1. Beginning in 2018, Scope 2 emissions associated with the Fort Site will be subject to a compliance obligation under the new Albertan GHG regulations.

# Air Quality

In 2017, Sherritt experienced four reportable air quality-related incidents: three at Ambatovy and one at Fort Saskatchewan. This represents a 50% reduction over 2016, mainly as a result of targeted repair work to the Pressure Acid Leach (PAL) at Ambatovy that resulted in a significant reduction in H2S emissions. All reported emissions were due to short-term exceedances in normal operating conditions or equipment failures with no identified off-site air quality impact. No employees or community members were harmed while these incidents occurred or while they were addressed.

2017	Ambatovy	Fort Saskatchewan	Моа	Oil & Gas and Power
Air emissions – NO <sub>x</sub>	Not reported	1,381 tonnes	1,304 tonnes	5,836 tonnes
Air emissions – SO <sub>x</sub>	Not reported	76 tonnes	12,091 tonnes	21,751 tonnes
Air emissions – TPM	Not reported	91 tonnes	Not calculated	Not applicable

Note: In Madagascar, our current monitoring system records air emissions as a concentration rather than a total mass, and we base our ambient air quality observations at ground level, so we are unable to normalize these data across Sherritt at this time.

Our sources of emissions to the atmosphere are regulated under requirements in the various jurisdictions where we operate. In Madagascar, our current monitoring system records air emissions as concentration rather than as a total mass and we base our ambient air quality observations at ground level, so we are unable to normalize these data across Sherritt. Ambatovy emissions include:  $SO_2$  from the acid plant, ammonia from refinery scrubbers and vents,  $H_2S$  from the mixed-sulphide and hydrogen sulphide plants, NOx from fossil fuel use (from gensets, the coal-fired power plant and mobile equipment), and PM with a diameter of less than 10 microns from stockpiles, the power stacks and roads.

Our 2017 emissions at Fort Saskatchewan are consistent with historical levels. Most of the NOx and SOx emissions come from our utility generation (natural gas combustion) and fertilizer production (ammonia and sulphuric acid production) activities. Ammonia is released primarily from ammonia scrubbers in the metals refinery, which uses an ammonia-based leaching process. The PM is generated primarily from the production of ammonium sulphate fertilizer and from traffic on unpaved roads. Additional information on air quality in Fort Saskatchewan can be found on the Fort Air Partnership website.

In Cuba, Moa's NOx and SOx emissions are generated from the sulphuric acid plant and the powerhouse. The 2017 volumes represented a further reduction from 2016, due to the operation of the acid plant and operating at lower rates in the powerhouse. OGP's NOx emissions continued to show a decrease from the previous year, due to the optimal operation of the equipment at our OGP facilities; however, the increase in SOx is attributable to an ongoing service issue with the sulphur plant. This will not be an issue in 2018.



The new acid plant in Moa was built on time and on budget – and most importantly, very safely.

#### **CASE STUDY**

# CONSTRUCTION OF THE NEW ACID PLANT AT MOA

In 2016, the Moa Joint Venture completed construction and commissioning of the third acid plant for producing sulphuric acid in Moa.

The project was delivered within the established construction timeline and budget of US\$65 million. It also represents the Joint Venture's first capital project to be fully financed by a Cuban financial institution.

"We were pleased to complete this expansion project and to see it start up successfully on time and on budget," said David Pathe, Sherritt's President and Chief Executive Officer. "The third acid plant delivers significant cost savings and reduces fuel consumption. The safety record during construction and commissioning was impressive. A 0.48 lost time injury rate with over 1.2 million exposure hours speaks to the high standards upheld by the Cuban construction workforce."

The new plant resulted in a 20% reduction in emissions between August and December 2016, due to the double-absorption process, and is poised to result in a reduction of up to 100 kilotonnes of  $CO_2e$  annually in the future. In 2017, Moa experienced the first full year of operations of the acid plant. The new plant resulted in significant fuel savings and the site experienced a 2% drop in Scope 1 GHG emissions and a 13% reduction in energy consumption as a result.



Energas Varadero's combined cycle facility produces lower GHG emissions for each gigawatt hour (GWh) of electricity than other facilities.

## CASE STUDY

# CLEAN DEVELOPMENT MECHANISM CREDITS IN CUBA

Energas S.A., the electricity generating joint venture enterprise operated by Sherritt in Cuba, installed a system that uses waste exhaust heat to generate steam and produce electricity (called a combined cycle generating unit) at its Varadero facility in 2003. In 2007, this unit was granted Clean Development Mechanism (CDM) status under the provisions of the Kyoto Protocol by the United Nations Framework Convention on Climate Change (UNFCCC). While the international framework containing the rules governing the CDM expired in 2012, the continuance of the CDM post-2012 has been supported through a commitment by certain regional and domestic emission-trading markets to allow entities to use Certified Emission Reductions to meet their compliance obligations under these systems.

Energas Varadero facility produces lower GHG emissions for each gigawatt hour (GWh) of electricity than other facilities, contributing to the reduction of GHG emissions in Cuba. By the end of 2014, 1,533 kilotonnes of carbon dioxide emission reductions had been documented for the Kyoto credits. Of these, only 343.12 kilotonnes' worth of credits have been issued, mainly due to delays in verification and approvals. An additional 638.39 kilotonnes have been approved and are ready for issuance, with 184.78 in the approval process for future issuance. At the end of that same year, a further 366.78 kilotonnes covering the reporting periods of 2012 (172.21 kilotonnes), 2013 (127.16 kilotonnes) and 2014 (67.41 kilotonnes) were documented on a preliminary basis.

The first Energas CDM project at Varadero was approved to receive credits over a seven-year monitoring period. To continue receiving CDM credits, Energas must apply to the UNFCCC for renewal for the Varadero facility. We will make a decision on whether to proceed with this renewal on the basis of current economics, revised processes and any benefits or drawbacks associated with the registration of our second facility that would qualify: the recently built Boca de Jaruco combined cycle power generation site.



Investing in efficient and sustainable transportation leads to many cost, environmental and safety benefits for our sites.

# CASE STUDY SUSTAINABLE TRANSPORTATION ON SITE

Since 2015, Ambatovy has made an effort to switch out diesel fueled trucks and busses for environmental vehicles. Now, Ambatovy has 95 electrical busses and trailers, pick-ups and other vehicles in service, which has allowed them to remove over 400 diesel pick-ups from use. For example, Ambatovy uses electric busses for transporting workers and stakeholders around the plant site in Madagascar, rather than having one to four employees use trucks. The benefits of electric transportation are many. The busses are inexpensive to run and maintain, as they do not consume any diesel or lubricants, but instead use electricity produced at the plant. They save the company on fuel and maintenance costs. Electrical vehicles do not create harmful emissions, and use solar panels to extend their charge. Maintenance is limited to keeping the busses clean, greasing the suspension and checking the battery water levels on a weekly basis. Electrical busses are also safer since their speed is limited to 30 km/hour and their large windows ensure that oncoming vehicles maintain a high degree of visibility, so drivers can clearly spot nearby pedestrians and other potential road hazards.

This emission-reducing initiative has already yielded a range of cost, safety and environmental benefits for the operations.

At our Fort Site, employees have been using bicycles to get from one area of the plant to another for years. There are approximately 200 bicycles on site at any given time, which are cared for and maintained by the site's Maintenance department. The bikes provide an alternative mode of transport for our employees on site, and employees are able to move efficiently and safely.

# ENVIRONMENTAL LIABILITIES, CLOSURE AND RECLAMATION

## **MANAGEMENT APPROACH**

The reputation of the mining sector has been affected by the historical mismanagement of mine properties that closed before regulations were in place to address closure and associated costs. We take seriously our responsibility to provide adequate financial resources to address the closure of our properties once reserves have been depleted.

Regulations have been strengthened around the world. As part of the permitting process, mining and energy companies are now required to prepare closure plans with associated cost estimates, and to provide host governments with financial assurance to cover the costs of environmental remediation in case the company is no longer able to complete the work. In addition to these regulatory requirements, international accounting and securities exchange rules require public companies to account for the reasonably expected liabilities associated with the closure of mining and energy properties. These estimates, like those provided to host governments, are based on the closure plans and assumptions contained therein.

We comply with regulatory requirements regarding closure planning and related environmental rehabilitation obligations, cost estimates, and financial assurance in each of the jurisdictions where we operate. We also meet the requirements of the Ontario Securities Commission, which obliges publicly listed companies in Ontario to estimate and disclose their environmental rehabilitation provisions. We review these provisions on a quarterly basis. Whenever possible, we engage in the progressive reclamation of our properties over the life of the operation, rather than initiate such activities at the time of closure.

## PERFORMANCE

The current estimate of Sherritt's share of total anticipated future closure and reclamation costs to be incurred over the life of the company's various assets and investments is approximately \$95.3 million (excluding operating expenses). The decrease in anticipated costs over 2016 is mainly a result of changes in estimates rather than the completion of rehabilitation obligations.

In 2017, we continued to carry out our environmental liability obligations related to the containment pond breach at the Obed mine, a non-operational coal mine in Alberta that we owned at the time of the incident in 2013. Our remediation work is described under Tailings Management.

# **Closed Properties**

As part of our acquisition of Dynatec Corporation in 2007, we inherited three nowclosed assets from Highwood Resources Ltd.:

1. **Mineral King**, a former lead-zinc and barite mine and processing facility near Invermere, British Columbia. In 2014, Sherritt completed the reclamation work plan as required by the provincial regulator. Portals for accessing the mine were covered and secured, coverage of the tailings pond with topsoil was completed, access roads were pulled back, and designated areas were seeded and fertilized. A 2015 inspection by British Columbia's regulator required additional work on the portals and surface depression. The work was originally planned for 2017, but was delayed due to weather. It is expected to occur now in 2018. Once reclamation is complete and approved by the government, we intend to transfer future liability to the new property owner in 2019.

- 2. **Parsons**, a former barite mine and processing facility near Parson, British Columbia. In 2014, we completed the regulator's reclamation work plan, which involved: a general clean-up, monitoring, seeding, and the removal of an invasive species. Once vegetation is re-established and land certification requirements are met, we will take steps to release the property to the provincial government. We expect the release of the bond and the return of the property to the government to occur in 2018.
- 3. **Canada Talc**, a former talc mine in Madoc, Ontario, and processing facility near Marmora, Ontario, and associated claims areas. In 2012, remediation of the mine was completed and the processing facility was sold. The Ontario regulator retained a security deposit for further surface and groundwater sampling and geotechnical monitoring, which continued in 2017. Sherritt expects to be in a position to release the security and begin the sale of the property by 2019.

# **Current Operations**

All of our mining assets that are currently operational have more than 20 years of resources and production capacity in their lifecycles. Each has up-to-date closure plans that meet host jurisdiction regulations and cost estimates that we believe reasonably and appropriately address the liabilities at each site.

In 2017, Ambatovy continued its work on a mine restoration strategy, including developing comprehensive cost estimates. The operation also engages in planning discussions on a quarterly basis with our finance department about projected environmental rehabilitation obligation costs.

At Fort Saskatchewan, our closure plan incorporates a set of robust considerations, which account for both likely and unlikely obligations that we may need to address, and our current cost estimates cover the reasonable obligations.

For our OGP operating sites, all assets will revert back to the Cuban state for closure, as outlined in our permits and related agreements.

For information on our reclamation activities in 2017, please refer to Performance in Biodiversity and Land.

# ENGAGING STAKEHOLDERS AND BENEFITTING COMMUNITIES

CASE STUDY

## **SPIRIT OF SHERRITT PROGRAM**

In 2017, Sherritt's Fort Site implemented the Spirit of Sherritt program, which is composed of two initiatives: the Giving Program and the Volunteer Program.

Effective stakeholder engagement enables us to build and strengthen social license. It is crucial for building mutual understanding, support and benefits with host communities, governments, workers and business partners. For mining and energy companies like ours to be truly sustainable, we must establish and maintain productive relationships with our stakeholders and maximize the shared benefits of our activities. That is what contributes to long-term prosperity and positions those that do it well to be the partner of choice.

We take a thoughtful, sincere and ethical approach to engaging stakeholders and catalyzing the development of sustainable communities. We recognize that a significant part of our role is to help build human and institutional capacity wherever we operate so that local communities can achieve their development goals.

# In 2017, we:

- Participated in more than 1,300 community meetings and 260 government meetings across Sherritt.
- Recorded a more than 18% drop in the number of community grievances filed compared to the previous year, due in large part to successfully addressing the longer-term impacts of Ambatovy's construction activities and reaching operations stage.
- Recorded four incidents with the potential to affect our social license, one of which was an environmental incident. The remainder involved worker and public safety incidents or near hits. Ten such incidents were recorded in 2016.
- Implemented enterprise-wide standards for stakeholder engagement and community investment.
- Signed a three-year partnership with UNICEF in Cuba on road safety for children.
- Our operations generated more than \$840 million in economic benefits to host communities and countries.

# IN THIS SECTION

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# STAKEHOLDER ENGAGEMENT

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# COMMUNITY DEVELOPMENT

# **STAKEHOLDER ENGAGEMENT**

## **MANAGEMENT APPROACH**

Stakeholder engagement is critical for establishing a mutual understanding of one another's needs, interests, aspirations and concerns. That perspective is a key input for making decisions to support business objectives related to growth, risk management and operational excellence, and for collaborating to address local stakeholder priorities. Simply put, constructive stakeholder relationships are essential to securing and maintaining our social license to operate and creating mutually beneficial outcomes.

Our approach to stakeholder engagement is to systematically identify our stakeholders and engage with them through ongoing dialogue to share information about our business, respond to questions, listen to their observations and act on their concerns, as appropriate.

In general, we prioritize our level of engagement with different stakeholder groups based on their proximity to – and interest in – our activities and their ability to influence our business. At the operational level, the practical outcome of this prioritization is that our workforce, business partners, local communities and host governments tend to be our most important stakeholder groups. The diagram below shows our key stakeholder groups at both the corporate and operational levels.

SHERRITT'S KEY STAKEHOLDER GROUPS					
EMPLOYEES AND THEIR REPRESENTATIVES	COMMUNITIES	GOVERNMENT			
FINANCIAL COMMUNITY	<b>BUSINESS PARTNERS</b>	CUSTOMERS AND SUPPLIERS			
NGOs/CIVIL SOCIETY	MEDIA	INDUSTRY PEERS AND ASSOCIATIONS			

Our engagement tactics vary based on the nature of the interaction and the stakeholder groups involved. For instance:

- We engage regularly with local communities and employees through formal meetings and town halls, small-group and one-on-one interactions, surveys and grievance mechanisms.
- We work closely with our business partners through governance bodies and ongoing discussions to address material issues and opportunities.
- Our procurement and marketing teams are in constant communication with our suppliers and customers, to ensure smooth operations and customer satisfaction.



CASE STUDY SPIRIT OF SHERRITT PROGRAM



# CASE STUDY AMBATOVY'S SOCIAL

INVESTMENT FUND (SIF)

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- Our investor relations department manages proactive and reactive interactions with investors, analysts and media, always in accordance with securities requirements.
- We meet with government officials in our home country and operating jurisdictions to build relationships, manage regulatory affairs and advocate on policy issues of importance.
- We manage partnerships with developmental non-governmental organizations and respond to advocacy groups, as needed.
- We take an active role in various industry associations, to advance sectorwide concerns, align with broader expectations, gain a broader perspective on industry, and contribute to innovation.

## Corporate Standards to Support Stakeholder Engagement

We have specific requirements for engaging investors, media, government and employees; however, to ensure there is a consistent approach to stakeholder engagement across the company, our Stakeholder Engagement Standard applies enterprise wide. The standard describes our expectations for stakeholder identification and mapping, annual engagement planning, engagement processes and practices, how to record dialogue, and how to respond to feedback and views received from stakeholders. We also have a complementary Indigenous Relations Standard that sets out our commitment to building mutually beneficial relationships with indigenous peoples affected by our activities in a way that recognizes and respects their unique rights and cultural attributes.

An important aspect of engaging with our stakeholders and building social license is listening and responding to community concerns and incidents. Our ongoing community relations activities are designed to capture and resolve most of these issues before they escalate. But for those issues that do, it is important to have a credible community grievance mechanism in place. As described under Human Rights, all sites have some type of mechanism in place. We have a company-wide Grievance Mechanism Standard to provide clear expectations on how we collect, classify, investigate, respond to and close out operational-level community grievances.

## **Diverse Operating Environments**

Although we see the value of taking a structured and consistent approach to stakeholder engagement at all of our sites, the breadth and depth of engagement activities will vary greatly, given the disparate nature of each of our operating environments. Our Fort Saskatchewan refinery has been in operation since 1954 and is located within the city limits of a well-developed urban area near Alberta's capital. The refinery is situated within an industrial zone with several other heavyindustry businesses. Local residents are familiar with the nature of industrial activities, including their benefits and potential risks. Because of this level of awareness and understanding, and our mature relationships in the community, we can take a practical and targeted approach to our engagement activities with the community, government and industry. Watch this video to learn more about life in Fort Saskatchewan. In Cuba, we have two longstanding joint ventures with state-owned entities, and have an economic association with the government to operate our Oil & Gas business. As such, our engagement is focused on our partners and the central government. For community investment initiatives, we work closely with provincial and municipal governments and with donors and non-governmental organizations that have a presence on the island. We see opportunities to build on our good relations with the government to ensure our evolving approach to engagement aligns with the Cuban operating environment, which itself is becoming more accessible to foreign investors.

A robust stakeholder engagement program takes place at Ambatovy, given its size and location in the biodiverse and impoverished country of Madagascar. Ongoing dialogue through several channels with local residents, the host government and a variety of civil society organizations has been, and continues to be, important in building mutual understanding, managing expectations, and earning and maintaining our social license.

#### PERFORMANCE

## **Community Relations**

	Ambatovy	Fort Saskatchewan	Моа	Oil & Gas and Power	Total
Number of community					
meetings	1,337	26	5	4	1,372

We continue to engage regularly with the communities near our operating sites in all of our jurisdictions. We took part in 1,372 community meetings in 2017, and are pleased to report that there were no significant community incidents or disruptions during the year.

Ambatovy held a total of 1,337 community meetings during the year. Significant themes included Ambatovy's operations, impacts and benefits to Madagascar; local governance; royalties' distribution planning; human rights; grievance management; resettlement and land use around the mine; rumours and misinformation; public health and safety awareness; water quality; community-based environmental conservation; and security awareness. The higher than normal number of community meetings in 2017 is attributed to both the national election expected in late 2018 and post-cyclone support. See here for more information on the impacts of Cyclone Enawo in 2017.

Fort Saskatchewan participated in a total of 26 community meetings in 2017. This participation included direct engagements with municipal authorities, educational institutions, charitable organizations and industry, open houses, and multi-stakeholder meetings such as those led by the Northeast Capital Industrial Association. These interactions provide us with insights into the cultural, social, political and industrial fabric of the community, as its aspirations and concerns evolve. In 2017, engagements were also framed around the Operating Approval renewal process. The permit renewal was submitted to provincial regulators in early 2018.

We also make special efforts to stay connected with former employees. As the refinery has been operating for more than 60 years, there are many multi-generational

families of workers – as well as "alumni" – living in the area who remain interested in the company and who serve as our informal ambassadors. For many years, we have been contributing to the Sherritt Seniors' Club, whose membership consists of Sherritt retirees based in Fort Saskatchewan. They take tremendous pride in their years at Sherritt and are among the company's greatest ambassadors. As a token of appreciation, Sherritt supports an annual Club dinner, where senior management gets the opportunity to interact informally with this important stakeholder group, and provides an update on the company.

In Cuba, we participated in 9 meetings involving municipal and provincial authorities in Moa and the communities near our Oil & Gas and Power facilities. Meetings primarily related to the planning, execution and review of community development projects. Much like Fort Saskatchewan, Moa is an industrial town. Most of the local population works in the mining industry in some way. Throughout the year, the Moa Joint Venture supports – and participates in – cultural, sporting and other community events in Moa. There is also a weekly newsletter produced by workers at the Moa site that has been in circulation since 1979 and is very well read by the local community.

## **Community Grievances**

In 2017, Ambatovy received 82 community grievances. Of the 82 grievances received, 74 related to impacts on society, predominantly rice fields impacted by construction activities, and a few were linked to other livelihood impacts, land acquisition and other issues. In response to the key issue of impacted rice fields, Ambatovy worked to restore rice paddies, where possible, and compensate farmers for their losses. The remaining eight grievances were environmental or operational in nature.

Last year, Sherritt received 116 community grievances. We attribute this decrease to the success of face-to-face consultations, significant progress on the completion of rice field restoration (which was a considerable issue during construction), as well as the increasing maturity and stability of our operations.

No other community-related grievances were reported across the organization.

In 2017, Sherritt progressed in implementing our Grievance Standard across the company. The Standard is intended for use by Sherritt's sites and mandates processes that receive, investigate and manage concerns or complaints raised by local external stakeholders, in line with Sherritt's commitment to build trust-based relationships and maintain its social license to operate.

## **Government Relations**

In 2017, government relations activities focused on building key relationships and addressing regulatory and political risks and opportunities in the jurisdictions where we operate. Throughout the year, we met regularly with high-ranking representatives of national, provincial, regional and local governments, state-owned enterprises, diplomatic missions and multilateral organizations. Priorities included:

- Engaging in and broadening relationships with the Cuban government and stateowned companies to advance mutually beneficial projects, secure approvals for regulatory matters, and support Cuba's developmental priorities
- Addressing governance challenges in Madagascar to ensure laws and regulations are respected and remain stable and predictable, especially in the lead-up to the 2018 presidential election campaign
- Advocating for climate change regulations in Alberta that are science based and fair to trade-exposed industries
- Continuing discussions with the regulator on the Fort Saskatchewan site's operating permit renewal
- Advocating for approvals of community development projects and funding for Cuba and Madagascar, including disaster-relief initiatives
- Building and maintaining relationships with the Alberta and Canadian governments
- Encouraging stronger Canada-Cuba and Canada-Madagascar relations

Additional information on our political and regulatory risks can be found in our 2017 Annual Information Form, including an overview of how we are affected by the U.S.'s Cuba embargo and the Helms–Burton Act, which, among other things, prohibit us from doing business in the U.S. or with American entities.

# Partnerships

Partnerships with non-governmental organizations (NGOs) and other civil society organizations continue to play a key role in our approach to addressing stakeholder issues and opportunities. Over the years, we have enjoyed mutually beneficial relationships with NGOs in Madagascar, Canada and Cuba. In 2017, we had more than 40 active partnerships with local, national and international NGOs and civil society organizations. The vast majority of these partnerships involved our work at Ambatovy in Madagascar, in particular to support environmental conservation and management. For a complete list of Ambatovy's active partnerships, visit the Partnerships page on Ambatovy's website.

In 2016, Ambatovy partnered with the United Nations in Madagascar, signing a joint declaration to co-operate in areas of common interest, including social and economic development priorities of the Alaotra-Mangoro and Atsinanana regions and improving the standard of living of local populations. Both parties have worked in the fields of child protection education, HIV/AIDS awareness and prevention, and emergency preparedness for a number of years.

"We are very pleased with our ongoing collaboration with Ambatovy, because the involvement of the private sector is essential in the sustainable development of Madagascar."

– Violet Kakyomya, United Nations Resident Coordinator in Madagascar Building on years of collaboration with UN agencies in Madagascar and Canada, Sherritt supported the UN's relief efforts (UNDP and the World Food Programme, for example) in Cuba and Madagascar following Cyclone Enawo and Hurricane Irma in 2017. We were also thrilled to partner with UNICEF Canada to deliver a road safety program in Cuba, where the leading cause of death among young people is traffic accidents. The partnership, announced publicly in early 2018, provides three years of funding for the initiative. Read more about it here.

Read more about Sherritt's involvement in the recently launched Child Rights and Security Checklist here.

In 2017, Ambatovy also made progress on the three significant NGO partnerships that it entered into in 2015. Two involved Conservation International and Asity Madagascar (which is associated with BirdLife International) in conservation work in biodiversity offset areas that Ambatovy is responsible for (refer to Biodiversity and Land Management for more information). In 2017, Ambatovy continued with their partnership with Search for Common Ground (SFCG), a well-respected peacebuilding and conflict transformation NGO. The original partnership agreement was centered on accomplishing two primary objectives:

- To enhance the capacity of Ambatovy staff and local community members to engage in constructive, solution-oriented dialogue, in order to build trust and improve mutual comprehension among both groups so they can work through issues of concern more effectively, and
- To strengthen stakeholder understanding of the role of local authorities and communities in advancing good governance, and the role of government and other actors (NGOs, industry, etc.) in building sustainable communities and supporting participatory development, with the aim of enhancing the broader capacity for achieving community development aspirations.

A Phase II with SFCG was negotiated over 2016, and signed in early 2017. The focus of SFCG's work in 2017 was more specifically on the impending presidential election in Madagascar in 2018, while supporting the original mission of the partnership noted above. The SFCG partnership work also expanded geographically, to work in the areas of the pipeline and Toamasina.

# Multi-Stakeholder Initiatives and Associations

In 2017, we participated in over 20 multi-stakeholder initiatives and industry associations to engage in constructive dialogue and/or strategic activities with stakeholders that share a common interest in the issues that matter to our business. Below is a list of the groups we participated in last year. Significant topics that they pursued included application of voluntary standards, understanding and influencing regulatory developments in various jurisdictions, sharing and developing best practices, improving governance in the sector, identifying emerging trends, opportunities and risks, and broadening networks and perspectives.

- American Chamber of Commerce in Madagascar (G, \$)
- Business and Biodiversity Offsets Programme (C, S, \$)
- Business Council of Canada
- Calgary Petroleum Club
- Canadian Council on Africa (G)
- Chambre des Mines de Madagascar (G, S, C)
- Cobalt Institute (G, S, C)
- Devonshire Initiative (S)
- Diadem Group
- Extractive Industries Transparency Initiative (G, S, C)
- Fertilizer Canada (S, C)
- Fort Air Partnership
- Fort Saskatchewan Chamber of Commerce
- Groupement des Entreprises de Madagascar
- Groupement des Entreprises de Toamasina
- London Benchmarking Group Canada
- Mining Association of Canada (G, S, C)
- Nickel Institute (G, S, C)
- Northeast Capital Industrial Association (G, S, C)
- Northeast Region Community Awareness and Emergency Response (G, S, C)
- Prospectors & Developers Association of Canada (C, S)
- Syndicat des Industries de Madagascar (C)
- Voluntary Principles Initiative (S)
- Western Canadian Shippers' Coalition
- G Held a position on the governance body in 2017
- C Participated in projects or committees in 2017
- $\$  Provided substantive funding beyond routine membership dues in 2017
- S Views membership as strategic



Pictured here, Fort Site employees participate in one of many events to support the annual employee-driven United Way fundraiser.

# CASE STUDY SPIRIT OF SHERRITT PROGRAM

In 2017, Sherritt's Fort Site implemented the Spirit of Sherritt program, which is composed of two initiatives: the Giving Program and the Volunteer Program.

The Giving Program allows employees to apply for a \$250 donation to a charity for which they have volunteered a minimum of 40 hours of their personal time. The Volunteer Program allows eligible employees to use a maximum of one work day per year to volunteer during work hours. A number of criteria must be satisfied in order to qualify, and exclusions exist for individuals, religious or political organizations or activities, and for-profit initiatives, for example.

Over the course of the year, Sherritt's Fort Site donated \$3,000 in recognition of employees who volunteered 1,608 hours of their own time to non-profit and charitable causes in their local communities (outside of work hours), and 96 hours of company time. Examples of places employees volunteered in 2017 include: youth sports, learning for people with disabilities, the local humane society and Habitat for Humanity. Employees have been supportive of the program. "When I heard that Sherritt was doing this program, I was as proud of my company as I have ever been," said Mark Armstrong, Maintenance. "I give both my personal time and money to do what I can and it makes me so proud to know that my company supports me in my efforts. Sherritt has been good to me and I really feel it is a company that cares about its employees and communities."



Pictured here is the completed public market in Moramanga at the inauguration in 2017.

# CASE STUDY AMBATOVY'S SOCIAL INVESTMENT FUND (SIF)

The purpose of Ambatovy's Social Investment Fund (SIF) is to provide or improve infrastructure and other public services in the areas around our operations in Madagascar. The SIF was a one-time payment of \$25 million associated with Ambatovy's community obligations as a result of receiving its operating permits. In co-operation with the regulators, 17 projects were identified to be funded out of the SIF. At this stage, 10 projects have been completed, five are underway, and two have not started yet.

In 2017, two large, public markets in Moramanga and Brickaville were completed. Markets are very important to the local culture and economy. They provide space for community communication and safe, permanent space for economic exchanges. Moramanga now has the biggest permanent market in Madagascar. Two gensets were donated to the city of Toamasina, which will improve the power capacity for the surrounding area and lessen the likelihoods of blackouts. The fund was also used to improve 1.4 km of roadway in a municipality that was in poor repair and greatly impeding access issues. The road is considered an important tool of development, and has greatly shortened travel time for people who work and go to school in the area.

Previously, in 2016, Ambatovy used the SIF to renovate the Technical and Vocational High School in Toamasina, where the plant site is located. This project involved renovating workshops for carpentry, metal structure, building and public works, general mechanics and auto mechanics. In addition, building electricity and sanitary facilities were upgraded for staff and students. It is expected that the renovation of these workshops will help students to gain highly relevant hands-on experience and new skills; it will also support the employability of graduates when they enter the job market.

# **COMMUNITY DEVELOPMENT**

#### **MANAGEMENT APPROACH**

Now more than ever, stakeholders – from local communities to host-country governments and civil society organizations – expect to experience tangible benefits and increases in their standard of living from natural resource extraction and processing. This is particularly true in jurisdictions where economic development has been lagging, infrastructure is lacking and human development indices are low.

Within the industry, there is recognition that mining and energy companies have a role that extends beyond the simple provision of returns to shareholders. For a company to be truly sustainable, it must build broad social license and demonstrate that it delivers a net-positive benefit to local communities and to society as a whole. That is why benefitting people and helping catalyze the development of sustainable communities is so important to us.

Managing the expectations of local stakeholders, particularly in less-developed jurisdictions, is paramount, especially as we struggle with the low commodity price environment. When a large business enters an undeveloped jurisdiction, there are often expectations that it will solve many, if not all, of the area's inherent socio-economic challenges. We are committed to helping improve the lives of people near our operations, but we rely on host-country governments to discharge their obligations regarding basic services, particularly in the areas of health, education and infrastructure.

Because of the diverse operating contexts of each of our sites, the range of community development priorities varies dramatically. Community needs differ significantly from Canada to Cuba to Madagascar. As such, we have adopted a flexible approach to community development, while at the same time establishing companywide guidance that ensures our values and expectations are preserved. In each jurisdiction, our investment decisions strive to support:

- Socio-economic development
- Public health and safety
- Natural and cultural heritage

In addition, our Community Investment Standard aligns with evolving good practice to maximize the value of our contributions, both to the recipients and to our business. (The standard was assessed by London Benchmarking Group (LBG) Canada as part of the design process.) It requires that we establish employee-led community investment review committees (CIRCs) at divisional/site and corporate levels to provide governance and oversight of decision-making. We take great care to avoid real or perceived conflicts of interest and to ensure spending complies with our business ethics and anti-corruption policies. All community investment reporting is now assured by LBG Canada on an annual basis.

"Ambatovy demonstrates a strong commitment to community engagement, both at senior management and technical staff levels."

- Hilde Demain, Country Manager, Search for Common Ground



CASE STUDY LOCAL BUSINESS INITIATIVES AT AMBATOVY PAGE 96



CASE STUDY ROYALTIES GOVERNANCE AT AMBATOVY

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## PERFORMANCE

## Economic Benefit Footprint

When evaluating the overall financial impact that our presence delivers at local and national levels, we measure our economic benefit footprint, which includes payment of taxes, royalties and regulated fees to governments; the procurement of goods and services at the local and national levels; payment of local salaries, wages and employment benefits; and community investment spending. In 2017, our operations generated more than \$840 million in economic benefits to local communities and host governments around the world. The following table presents a breakdown of our economic benefit footprint for the year.

Indicator Components (CDN \$)	Ambatovy <sup>1</sup>	Fort Saskatchewan	Moa <sup>1</sup>	Oil & Gas and Power <sup>1</sup>	Total Sherritt
Payments to					
governments	35,986,638.93 <sup>2</sup>	11,292,859.00	33,772,831.75	23,279,347.71	104,331,677.39
Local/national					
procurement	278,644,333.08	97,206,887.00 <sup>3</sup>	108,945,875.59	26,850,440.62	520,647,536.29
Local salaries,					
wages and benefits	37,401,995.40	108,562,388.00	54,818,549.79	13,664,451.58	214,447,384.77
Community					
investment <sup>4</sup>	1,931,381.00	229,735.00	391,168.00	489,841.00	3,042,125.00
Economic benefit					
footprint⁵	362,964,348.41	217,291,869.00	197,928,425.00	64,284,080.91	842,468,723.45

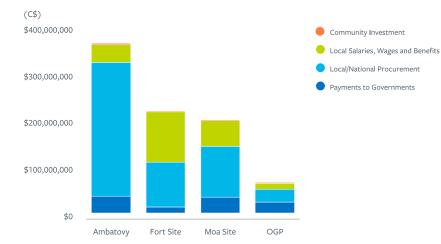
1 Reported in USD; converted using Bank of Canada's 2017 average exchange rate of 1.2986

2 At Ambatovy, the payment method for royalties is under development and no royalty payments were released in 2017.

3 Procurement is calculated at the national level for all except Fort Saskatchewan, which refers to the Greater Edmonton Area.

4 Includes in-kind valuations

5 This calculation includes the sum of the value of spending on local suppliers, local salaries and wages, payments to government, and community investment. All reported on a 100% ownership basis.





CASE STUDY COMMUNITY INVESTMENT IN CUBA

**PAGE 98** 

"Sherritt has co-operated with Cuba and has taken part in the country's development plans for more than two decades, to support the company's commitment to being a responsible foreign investor and our mutual priorities for sustainable economic development that benefits our country."

 H.E. Julio Garmendía, Cuba's Ambassador to Canada, Ambassador Extraordinary and Plenipotentiary of the Republic of Cuba

Approximately 62% of our benefit footprint results from the purchase of goods and services from local- and national-level suppliers serving our operations. Given that Madagascar did not have a large-scale mining industry in place prior to our arrival, the

Ambatovy Joint Venture has invested great effort in developing a local supply chain. The Ambatovy Local Business Initiative (ALBI) provides support to local businesses and entrepreneurs through training, mentoring and capacity-building programs. ALBI was created to fulfill Ambatovy's "buy locally, hire locally" policy. To this end, ALBI is fully integrated within Ambatovy's Supply Chain Management Department to identify local businesses capable of responding to company and market needs. By maximizing local procurement, Ambatovy provides a much-needed impetus to the Malagasy economy and to entrepreneurs. Read about ALBI's work in this case study to learn about a small but promising ALBI-funded project involving wood recycling.

Local salaries and wages account for our second-most-significant contribution, reflecting the importance of our sector in raising the standard of living and creating wealth in communities adjacent to our operating sites – in both developed and developing jurisdictions – through well-paying jobs.

Our payments to governments in 2017 also represented a significant contribution to host countries and communities. We strive to ensure that these payments are openly and transparently reported, so that our contributions to national, regional and local governments are recognized, and to encourage accountability for the spending of those funds, which should go towards building essential infrastructure and increasing access to education and healthcare, especially for populations near our operations. As a Supporting Company of the Extractive Industries Transparency Initiative (EITI), we are committed to the transparent reporting of payments to governments. Ambatovy has actively encouraged and supported the Government of Madagascar's EITI candidacy and reporting efforts over the last several years and is an active member of Madagascar's National EITI Committee. Visit this website to review EITI Madagascar's latest report, which was published in 2016. Throughout the year, Sherritt also further developed an internal process to meet the reporting requirements of the Government of Canada's Extractive Sector Transparency Measures Act (ESTMA), which - much like EITI - requires companies in the sector to publish payments to governments in all jurisdictions. In 2017, Sherritt published its first ESTMA report, which contained 2016 data.

In Madagascar, Ambatovy is participating in a collaborative approach with other national and international stakeholders to develop a mechanism to distribute royalty payments to local communities. Read this case study to learn how this initiative progressed in 2017.

## Community Investment

Community investment expenditures represent slightly less than 1% of our total economic benefit footprint. The vast majority of Sherritt's community investment continues to go towards contributing to socio-economic development in all jurisdictions where we are present.

Overall, Sherritt's total amount allocated towards community investment in 2017 decreased by approximately 50% from the previous year. As has been the case for a number of years, Ambatovy is responsible for allocating the most significant portion of Sherritt's community investment budget, given the significant community development needs in Madagascar. Ambatovy's central mechanism for investing in communities is the Social Investment Fund (SIF), a one-time \$25 million allocation established in 2012 in partnership with the Government of Madagascar. The SIF supports several projects, such as updating public institutions, like schools and electrical generators; and building new ones, like markets and roadways. In order to qualify for SIF funding, projects require support from beneficiary communities, the government and Ambatovy. In 2017, many of the 17 approved SIF projects were marked completed or near completion. The conclusion of the Social Investment Fund in the near future will be a significant milestone in Ambatovy's community commitments. For more information on the SIF projects, see this case study.

In Cuba, we have been providing about half a million dollars in annual funding for important projects relating to public health and safety, transportation, sanitation, education and culture in communities adjacent to our operations for more than 10 years, as part of our longstanding commitment to sharing prosperity with the Cuban people. Every project we fund is directly linked to Cuba's national, provincial and local development priorities. We believe that Cuba provides a model in development planning for other jurisdictions, and we are proud to support the country's efforts. Refer to this case study for additional information on our contributions to Cuba in 2017.

At the Fort Saskatchewan site and in Calgary and Toronto, where we have administrative offices, community investment is much less significant and is used to support employee engagement, philanthropy and meeting the needs of the less fortunate. Over the course of the year, in implementing Sherritt's Community Investment Standard, the Fort Site created and launched the Spirit of Sherritt giving program. Refer to this case study for more information. In 2017, the Fort Site donated a Heat Exchange Bundle with an in-kind value of over \$165,000 to the Northern Alberta Institute of Technology (NAIT) for their Boilermaker program.

Our corporate office in Toronto makes strategic investments to support divisional and site-level priorities, such as conservation programs in Madagascar and community health in Fort Saskatchewan. In 2017, Sherritt signed a three-year partnership with UNICEF Canada to support the Child Road Traffic Injury Prevention Program in promoting road safety among young people. Read more here.

In 2017, Sherritt also directed significant resources to disaster relief as a result of Hurricane Irma and Cyclone Enawo. Refer to this section for more information on the impacts of the storms.

## Employee Volunteerism and Giving

Sherritt employees have long been active participants in the communities where we operate, both during and outside of work hours. With the implementation of Sherritt's Community Investment Standard completed in 2017, our aim was to further encourage and better organize employee volunteerism through a variety of delivery options. The result was a significant increase in both the amount of volunteer hours occurring and the recording of hours already taking place on a regular basis.

In 2017, approximately 150 Ambatovy employees worked to help local communities recover from the effects of Cyclone Enawo, involving clean-up and minor repair work.

Reporting was most improved at Moa, where they recorded over 3,400 hours of employee volunteer time. Employees at the Moa site contributed to saving lives through the employee blood donation program, and were significantly involved in post-hurricane restoration, donating nearly 2,000 hours. Seven hundred hours were volunteered in the maintenance of the local community garden.

As a result of the Spirit of Sherritt program, Fort employees donated 96 hours of company time to non-profit and charitable causes that were meaningful to them, and the Fort Site donated \$3,000 to causes supported by employees who volunteered over 1,600 hours of their own time. Through an annual employee giving initiative at the Fort Saskatchewan site, employees elected to donate more than \$65,000 of their pay to the United Way, supporting various local charities, in 2017. This very well-organized campaign resulted in a 30% increase in donations over 2016. Since 2012, our employees have raised an impressive \$820,000.00.

Sherritt's head office for OGP is located in Calgary, Alberta. For 10 years, OGP has partnered with Alberta Children's Hospital to host a golf tournament fundraiser. In 2017, they celebrated their 10th year, and incredibly, through donations by employees and vendors, have raised over \$800,000, which has been used to purchase expensive medical equipment. The tournament, as well as participation in the hospital's annual radiothon, was possible due to the contribution of over 150 employee volunteer hours.



Ambatovy supports the Cultural and Social Centre, an independent educational organization that runs a training centre for disadvantaged youth from Toamasina.

# CASE STUDY LOCAL BUSINESS INITIATIVES AT AMBATOVY

Ambatovy is committed to maximizing economic returns to our local communities. We have implemented a range of programs and have made support tools available to local businesses and entrepreneurs so they can provide Ambatovy with goods and services that meet our standards of procurement and quality. The Ambatovy Local Business Initiative (ALBI) was created during construction to support our commitment to buy locally. In 2017, 868 local suppliers continued to provide Ambatovy with goods and services across 40 sectors of business including construction, transportation, cleaning and catering services.

Examples of locally sourced materials include pallets used for shipping nickel and cobalt as well as uniforms distributed to our employees. The exact number of jobs created to indirectly support Ambatovy's procurement needs is difficult to calculate – however, we know that almost 500 jobs were created to build wood pallets; manufacture uniforms; and recycle plastic, tires and wood.

Ambatovy has a large stock of pallets and wooden crates stored at the plant site. In order to minimize waste, we turn to local businesses and organizations – such as the Cultural and Social Centre (CCS, in French) – to recycle and transform them into useful products they can sell. The CCS is an independent educational organization that runs a training centre for disadvantaged youth from Toamasina, teaching them practical skills to find jobs or start their own small businesses.

Through the Ambatovy Local Business Initiative (ALBI), we provide the CCS with up to 200 m<sup>3</sup> of used wood per month, as well as skills training, monitoring, mentoring and general business advice. The CCS has a workshop that recycles and transforms the wood not only into furniture and other daily-life objects, but also into fuel in the form of chip briquettes, helping to reduce the use of charcoal.

"We have one of the best-equipped workshops in Toamasina," said the CCS's director, Mr. Ratovonera. "So far, we have noted that our trainees can easily find jobs once they complete their training, and our best students are regularly sought after by several companies." Over the long run, CCS expects that the wood-recycling initiative will be of significant benefit to the region in the areas of employment creation, entrepreneurship development and pollution reduction.



Ambatovy is helping catalyze discussions on transparency, and the equitable distribution and use of funds generated by our business.

# CASE STUDY ROYALTIES GOVERNANCE AT AMBATOVY

Ambatovy has been involved in the Tsaratanana (Good Governance) Project over the last number of years to develop a credible mechanism for royalty distribution at the community level, as required by the Malagasy law for large mining investments. The project is overseen by a steering committee with representatives from various Malagasy government ministries (including the Presidency and the Prime Minister's Office), as well as the Chamber of Mines and the Extractive Industries Transparency Initiative in Madagascar. The project's aim is to provide recommendations to the national government on how best to distribute the royalties it receives from our business to the local jurisdictions that are impacted by our presence, and to ensure these funds are managed effectively, transparently and sustainably to help these communities achieve their aspirations.

A consulting firm was retained to help with this work. The firm had consultations with key government representatives, donors and civil society groups, among others, and held consultations and workshops in the field with local authorities, traditional leaders and community members. The firm's work led to the proposal of a mechanism for the management of the royalties.

In December 2017, an arrêté interministériel (interdepartmental order) for the royalties' distribution was signed by the Malagasy government. Ambatovy is waiting for the specific order that will apply to Ambatovy to be issued by the Ministry of Mines, expected in the very near future. We will continue to keep other key groups informed, such as the World Bank, UNDP, GIZ and EU, and will look for opportunities to develop a governance initiative to strengthen capacities at commune levels. This effort is another demonstration of the role that Ambatovy plays in helping catalyze discussions on transparency, and the equitable distribution and use of funds generated by our business.



In 2017, we invested \$500,000 in community projects across Cuba, including supporting the recovery efforts after Hurricane Irma.

# CASE STUDY

Since we began operating in Cuba more than 20 years ago, we have always invested in the development of communities near our sites. In the mid-2000s, this effort, referred to as the Cuba Community Investment Program, took on a more formal structure and approach. Sherritt began working with local and provincial governments in Cuba to develop an annual community investment plan for purchasing equipment and goods to meet local development needs that aligns with national development priorities, today known in Spanish as the Lineamientos. The Cuban authorities would arrange for the installation or use of these items by local state-run agencies and organizations. This approach serves as a great example of effective community development planning, with highly capable local leaders setting clear development goals for their communities that a company like ours supports. Cuba's Minister of Foreign Investment and Trade recently confirmed that Sherritt is the only foreign investor in Cuba that has such a program in place.

Over the years, we have made several millions of dollars' worth of investments to support a range of community-development initiatives in Cuba, including a project to provide public lighting along the streets in communities near our OGP facilities. Those efforts improved visibility along many roads during the evening, contributing directly to public safety.

In 2017, we invested more than \$500,000 in community projects across Cuba. Some of that amount went towards supporting Cuba's recovery efforts after Hurricane Irma, but most of the funds supported community development projects in Moa, the municipality adjacent to our nickel mining joint venture, and Cardenas and Santa Cruz del Norte, communities near our Oil & Gas and Power facilities. Investments included: the procurement of lighting and air conditioning units for public institutions including Moa's hospital; a water tank truck for the delivery of potable water; plastic garbage bins for the municipality; and sporting equipment. These investments contribute to the quality of life of the Cuban people in communities around our operations.

In addition, Sherritt made progress on renovating two local health clinics in Moa. It is expected construction will be completed in 2018.



This report was prepared in accordance with the GRI Standards (Core Option), and showcases how we support international principles relating to sustainable development. All data are based on the calendar year, and all references to currency are in Canadian dollars, unless otherwise noted.

# **IN THIS SECTION**

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PAGE 117 **OECD** 

PAGE 118 GRI INDEX DATA TABLES

# **FIVE-YEAR SUSTAINABILITY GOALS**

Previously, Sherritt reported against annual sustainability targets in this section. In place of these annualized performance metrics, Sherritt developed a suite of five-year sustainability goals in 2017. With the input of the divisions, and approved by the Executive team, these goals will shape priorities, long-range planning, and investment in sustainable development across all of Sherritt's operations. For 2017 performance, review the 2017 performance summaries on the landing page of each pillar: Providing a Safe and Rewarding Workplace; Operating Ethically; Demonstrating Environmental Responsibility; and Engaging Stakeholders and Benefitting Communities. As well, all GRI reporting data can be found here.

These strategic goals will incorporate our external commitments and focus on areas that advance and protect our interests, and support Operational Excellence. They are intended to complement and supplement – not duplicate – priority efforts already underway.



Check back for an update regarding the reporting template and metrics for the goals in the 2018 Sustainability Report.

# **GRI INDEX**

We have aligned our report with the Global Reporting Initiative's GRI Standards Guide. See www.globalreporting.org for more information.

#### GENERAL STANDARD DISCLOSURES

GRI Indicator	Description	Location	SDG
102-1	Name of the organization	About Sherritt	
102-2	Activities, brands, products and services	About Sherritt	
102-3	Location of headquarters	About Sherritt- Map/Description	
102-4	Location of operations	About Sherritt- Map/Description	
102-5	Ownership and legal form	About Sherritt	
102-6	Markets served	About Sherritt – Divisions/Products	
102-7	Scale of the organization	About Sherritt – 2017 Key Indicators	
		2017 Annual Report	
102-8	Information on employees and other workers	Providing a Safe and Rewarding Workplace – Employee Relations	1 POVERTY 8 DECENT WORK AND POVERTY
		View Data Table – See page 118	
102-9	Supply chain	About Sherritt – Our Supply Chain	12 RESPONSELE CONSIGNMENTION AND PRODUCTION
102-10	Significant changes to the organization and supply chain	About Sherritt	
102-11	Precautionary principle or approach	Demonstrating Environmental Responsibility	12 RESPONSIBLE CONSUMPTION AND PROJUCTION
102-12	External initiatives	Operating Ethically	
		Engaging Stakeholders – Multi-Stakeholder Initiatives and Associations	
		Management Systems	
102-13	Membership of associations	Operating Ethically	<b>17</b> PARTNERSHIPS FOR THE GOALS
		Engaging Stakeholders – Multi-Stakeholder Initiatives and Associations	
		Engaging Stakeholders – Partnerships	
102-14	Statement from senior decision-maker	CEO Message	12 RESPONSIBLE CONSIMPTION AND PRODUCTION

#### GENERAL STANDARD DISCLOSURES

GRI Indicator	Description	Location	SDG
102-16	Values, principles, standards and norms of behavior	Our Approach	
102-18	Governance structure	Our Approach – Governance	
102-40	List of stakeholder groups	Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Management Approach	
102-41	Percentage of total employees covered by collective bargaining agreements	Providing a Safe and Rewarding Workplace – Employee Relations – Organized Labour, Grievances and Strike Action	8 DECENT WORK AND ECONOMIC GROWTH
		View Data Table - See page 118	
102-42	Identifying and selecting stakeholders	Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Management Approach	
102-43	Approach to stakeholder engagement	Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Management Approach	
102-44	Key topics and concerns raised	Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Performance – Community Relations Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Community Grievances	
		Operating Ethically – Human Rights – Human Rights Grievances Providing a Safe and Rewarding Workplace – Employee Relations – Organized Labour,	
		Grievances and Strike Action	
102-45	Entities included in the consolidated financial statements	2017 Annual Report – Overview of the Business	
102-46	Defining report content and topic	Our Approach – Materiality	
	boundaries	About This Report	
102-47	List of material topics	Our Approach – Materiality	
102-48	Restatements of information	Water Quantity	
102-49	Changes in reporting	About This Report	
102-50	Reporting period	About This Report	
102-51	Date of most recent report	About This Report	
102-52	Reporting cycle	About This Report	
102-53	Contact point for questions regarding the report	About This Report	

#### GENERAL STANDARD DISCLOSURES

GRI Indicator	Description	Location	SDG
102-54	Claims of reporting in accordance with the GRI Standards	About This Report	
102-56	Policy/practice for external assurance		

#### ECONOMIC PERFORMANCE

GRI Indicator	Description	Location	SDG
Material Top	ic: Economic Performance		
103	The management approach and its components	Our Approach – Materiality	
	components	Operating Ethically - Economic Performance	
		An evaluation of the management approach for this topic did not occur in 2017	
201-1	Direct economic value generated and distributed	About Sherritt – 2017 Key Indicators	8 DECENT WORK AND ECONOMIC GROWTH 9 NOUSTRY, INNOVATION
	distributed	Operating Ethically - Economic Performance	
		Engaging Stakeholders and Benefitting	
		Communities – Community Development – Performance – Economic Benefit Footprint	
		View Data Table - See page 119	
201-2	Financial implications and other risks and opportunities due to climate change	2017 Annual Information Form - Climate Change/ Greenhouse Gas Emissions	13 CILIMATE
		Demonstrating Environmental Responsibility – Energy and Climate Change – Management Approach	
201-4	Financial assistance received from	Operating Ethically - Economic Performance	
	government	View Data Table – See page 119	
Material Top	ic: Market Presence		
103	The management approach and its components	Our Approach – Materiality	
		Engaging Stakeholders and Benefitting Communities – Community Development	
		Sherritt Financial Reports	
		An evaluation of the management approach for this topic did not occur in 2017	

#### ECONOMIC PERFORMANCE

GRI Indicator	Description	Location	SDG
202-2	Proportion of senior management hired from the local community at significant locations of operation	Engaging Stakeholders and Benefitting Communities – Community Development – Performance – Economic Benefit Footprint	8 BECENT WORK AND ECONOMIC GROWTH
		View Data Table – See page 119	
Material Top	ic: Indirect Economic Impacts		
103	The management approach and its components	Our Approach – Materiality Engaging Stakeholders and Benefitting Communities – Community Development Sherritt Financial Reports	
		An evaluation of the management approach for this topic did not occur in 2017	
203-1	Infrastructure investments and services supported	<ul> <li>About Sherritt - Our Supply Chain</li> <li>Engaging Stakeholders and Benefitting</li> <li>Communities - Community Development -</li> <li>Performance - Economic Benefit Footprint</li> <li>Engaging Stakeholders and Benefitting</li> <li>Communities - Community Development -</li> <li>Performance - Community Investment</li> <li>View Data Table - See page 120</li> </ul>	3       GOOD HEALTH ADDWELLEBENE
203-2	Significant indirect economic impacts	Engaging Stakeholders and Benefitting Communities – Community Development – Performance – Economic Benefit Footprint	1 POVERTY RECONSIDING GROWTH RECONSIDING GROWTH

SI-1	Economic benefit footprint	Engaging Stakeholders and Benefitting Communities – Community Development – Performance – Economic Benefit Footprint	1 POVERTY 前前前前
		View Data Table – See page 120	
Material T	opic: Procurement Practices		
103	The management approach and its components	Our Approach – Materiality	
	components	Engaging Stakeholders and Benefitting	
		Communities – Community Development	
		An evaluation of the management approach for	
		this topic did not occur in 2017	

12 RESPONSIBLE CONSUMPTION

## ECONOMIC PERFORMANCE

GRI Indicator	Description	Location	SDG
204-1	Proportion of spending on local suppliers	Engaging Stakeholders and Benefitting Communities – Community Development – Performance – Economic Benefit Footprint	8 DECENT WORK AND ECONOMIC GROWTH AND PRODUCTION
		View Data Table – See page 120	
Material Top	ic: Anti-Corruption		
103	The management approach and its	Our Approach – Materiality	
	components	Operating Ethically – Business Conduct	
		An evaluation of the management approach for this topic did not occur in 2017	
205-2	Communication and training about anti- corruption policies and procedures	Operating Ethically – Business Conduct – Performance – Anti-Corruption	16 PEACE JUSTICE NUSTRONG
		Case Study – Operating Ethically – Rolling Out Anti-Corruption Training	
		View Data Table – See page 121	

#### ENVIRONMENTAL PERFORMANCE

GRI Indicator	Description	Location	SDG
Material Top	ic: Energy		
103	The management approach and its components	Our Approach – Materiality Demonstrating Environmental Responsibility – Energy and Climate Change An evaluation of the management approach for this topic did not occur in 2017	
302-1	Energy consumption within the organization	Demonstrating Environmental Responsibility – Energy and Climate Change View Data Table – See page 121	7 AFORDABLE AND CLEANNERGY
Material Top	ic: Water		
103	The management approach and its components	Our Approach – Materiality Demonstrating Environmental Responsibility – Water An evaluation of the management approach for this topic did not occur in 2017	
303-1	Water withdrawal by source	Demonstrating Environmental Responsibility – Water – Performance – Water Use View Data Table – See page 122	6 CLEAN WATER AND SANITATION

#### ENVIRONMENTAL PERFORMANCE

GRI Indicator	Description	Location	SDG
303-3	Water recycled and reused	Demonstrating Environmental Responsibility – Water – Performance – Water Use	6 CLEAN WATER AND SANITATION AND PRODUCTION
		View Data Table – See page 122	
Material Top	ic: Biodiversity		
103	The management approach and its components	Our Approach – Materiality	
		Demonstrating Environmental Responsibility – Biodiversity and Land	
		An evaluation of the management approach for this topic did not occur in 2017	
304-1	Operational sites owned, leased, managed in or adjacent to protected areas and areas of high biodiversity value outside protected areas	Demonstrating Environmental Responsibility – Biodiversity and Land	15 LIFE ON LAND
304-2	Significant impacts of activities, products and services on biodiversity	Demonstrating Environmental Responsibility – Biodiversity and Land	15 UFF ON LAND
304-3	Habitats protected or restored	Demonstrating Environmental Responsibility – Biodiversity and Land – Performance Demonstrating Environmental Responsibility – Environmental Liabilities, Closure and Reclamation – Performance – Closed Properties View Data Table – See page 122	15 UPE DE LAND
MM1	Amount of land (owned or leased, and managed for production activities or extractive use) disturbed or rehabilitated	Demonstrating Environmental Responsibility – Biodiversity and Land – Performance – Land Management View Data Table – See page 122	12 ESPONSIBIL AND PRODUCTION
MM2	Sites requiring biodiversity management plans	Demonstrating Environmental Responsibility – Biodiversity and Land View Data Table – See page 123	12 RESPONSIBLE CONSUMPTION COO
			15 LIFE ON LAND

#### ENVIRONMENTAL PERFORMANCE

GRI Indicator	Description	Location	SDG
Material Top	ic: Emissions		
103	The management approach and its components	Our Approach – Materiality	
		Demonstrating Environmental Responsibility – Energy and Climate Change	
		An evaluation of the management approach for this topic did not occur in 2017	
305-1	Direct (scope 1) GHG emissions	Demonstrating Environmental Responsibility – Energy and Climate Change – Performance – GHG Emissions and Energy Consumption	12 RESPONSIBLE CONSUMPTION AND PRODUCTION
		View Data Table – See page 123	
305-2	Energy indirect (scope 2) GHG emissions	Demonstrating Environmental Responsibility – Energy and Climate Change – Performance – GHG Emissions and Energy Consumption	12 RESPONSIBLE ADDPRODUCTION
		View Data Table – See page 123	
305-7	Nitrogen oxides, sulfur oxides and other significant air emissions	Demonstrating Environmental Responsibility – Energy and Climate Change – Performance – Air Quality	12 RESPONSIBLE CONSIMMITION AND PRODUCTION
		View Data Table - See page 123	
Material Top	ics: Effluents and Waste		
103	The management approach and its components	Our Approach – Materiality	
		Demonstrating Environmental Responsibility – Tailings Management	
		An evaluation of the management approach for this topic did not occur in 2017	
306-3	Significant spills	Demonstrating Environmental Responsibility – Water – Performance – Water Quality	6 CLEAN WATER ANDSAMIATION
		View Data Table - See page 124	<b>Ý</b> )
MM3	Total amounts of overburden, rock, tailings and sludges and their associated risks	Demonstrating Environmental Responsibility – Tailings Management – Performance	12 RESPONSIBLE CONSIMUTION AND PRODUCTION
		View Data Table - See page 124	
			15 HE AND

#### ENVIRONMENTAL PERFORMANCE

GRI Indicator	Description	Location	SDG		
Material Topi	Material Topic: Environmental Compliance				
103	The management approach and its components	Our Approach – Materiality Demonstrating Environmental Responsibility – Environmental Liabilities, Closure and Reclamation An evaluation of the management approach for this topic did not occur in 2017			
307-1	Non-compliance with environmental laws and regulations	Demonstrating Environmental Responsibility – Tailings Management – Performance – Update on Remediation of Obed Containment Pond Breach Demonstrating Environmental Responsibility – Environmental Liabilities, Closure and Reclamation – Management Approach View Data Table – See page 124	16 PEACE_JUSTICE AND STRONG NOTIFICITIONS		
SI-3	High-severity environmental incidents	Providing a Safe and Rewarding Workplace – Public Safety – Performance – Post-Incident Community Support View Data Table – See page 124	3 GODD HEALTH 		

#### SOCIAL PERFORMANCE: LABOUR PRACTICES

GRI Indicator	Description	Location	SDG
Material Topic: Labour/Management Relations			
103	The management approach and its components	Our Approach – Materiality	16 PEACE, JUSTICE AND STRONG NSTITUTIONS
		Providing a Safe and Rewarding Workplace – Employee Relations	
		Providing a Safe and Rewarding Workplace – Employee Relations – Performance – Organized Labour, Grievances and Strike Action	
		View Data Table - See page 125	
		An evaluation of the management approach for this topic did not occur in 2017	
402-1	Minimum notice periods regarding operational changes	Providing a Safe and Rewarding Workplace – Employee Relations – Management Approach	8 DECENT WORK AND ECONOMIC GROWTH
		View Data Table - See page 125	

GRI Indicator	Description	Location	SDG
MM4	Number of strikes and lock-outs exceeding one week's duration, by country	Providing a Safe and Rewarding Workplace – Labour Relations – Performance – Organized Labour, Grievances and Strike Action	8 ECONOMIC GROWTH
		View Data Table – See page 125	
Material Top	ic: Occupational Health and Safety		
103	The management approach and its components	Our Approach – Materiality Providing a Safe and Rewarding Workplace –	
		Health and Safety	
		An evaluation of the management approach for this topic did not occur in 2017	
403-2	Type of injury, occupational diseases, lost days and absenteeism, and total number of work-related fatalities	Providing a Safe and Rewarding Workplace – Health and Safety – Performance – Lost Time and Recordable Incidents	3 GODO HEALTH AND WELLBEING 
		View Data Table - See page 126	
SI-4	Emergency preparedness	Providing a Safe and Rewarding Workplace – Public Safety – Performance – Emergency Response Planning and Training	3 GOOD HEATH AND WELEBEING 
		Case Study – Providing a Safe and Rewarding Workplace – Emergency Prevention and Preparedness – Cuba's Experience	
		View Data Table - See page 126	
Material Top	ic: Diversity and Equal Opportunity		
103	The management approach and its components	Our Approach – Materiality	
	components	Providing a Safe and Rewarding Workplace – Employee Relations	
		An evaluation of the management approach for this topic did not occur in 2017	
405-1	Diversity of governance bodies and employees	Providing a Safe and Rewarding Workplace – Employee Relations – Performance – Workplace Diversity	5 GENDER EQUALITY S CONDUCTOR B DECENT WORK AND CONDUCTOR CON
		View Data Table - See page 127	

#### SOCIAL PERFORMANCE: HUMAN RIGHTS

GRI Indicator	Description	Location	SDG
Material Topi	c: Non-Discrimination		
103	The management approach and its	Our Approach – Materiality	16 PEACE, JUSTICE AND STRONG
	components	Operating Ethically - Human Rights	
		Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Performance – Community Grievances	<u>∎-≖-</u> +
		View Data Table – See page 125	
		An evaluation of the management approach for this topic did not occur in 2017	
406-1	Incidents of discrimination and corrective	Operating Ethically - Human Rights	5 GENDER 8 DECENT WORK AND ECONOMIC GROWTH
	actions taken	View Data Table - See page 127	ST AN
			16 PEACE JUSTICE AND STRONGS NSTITUTIONS
Material Topi	c: Freedom of Association and Collective Bargaining		
103	The management approach and its components	Our Approach – Materiality	16 PEACE, JUSTICE AND STRONG
		Providing a Safe and Rewarding Workplace – Employee Relations	NSTITUTIONS
		Providing a Safe and Rewarding Workplace – Employee Relations – Performance – Organized Labour, Grievances and Strike Action	
		View Data Table – See page 125	
		An evaluation of the management approach for this topic did not occur in 2017	
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Providing a Safe and Rewarding Workplace – Employee Relations – Performance – Organized Labour, Grievances and Strike Action	8 DECENT WORK AND ECONOMIC GROWTH
		View Data Table – See page 128	
Material Topi	c: Child Labour		
103	The management approach and its components	Our Approach – Materiality	16 PEACE JUSTICE AND STRONG
		Operating Ethically – Human Rights	NSTITUTIONS
		Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Performance – Community Grievances	
		View Data Table - See page 125	
		An evaluation of the management approach for this topic did not occur in 2017	

#### SOCIAL PERFORMANCE: HUMAN RIGHTS

GRI Indicator	Description	Location	SDG
408-1	Operations and suppliers at significant risk for incidents of child labour	Operating Ethically – Human Rights – Management Approach	8 DECENT WORK AND ECONOMIC GROWTH STITUTIONS
		Operating Ethically – Human Rights – Performance – Children's Rights	
		View Data Table - See page 128	
Material Top	ic: Security Practices		
103	The management approach and its components	Our Approach – Materiality	16 PEACE, JUSTICE AND STRONG INSTITUTIONS
		Providing a Safe and Rewarding Workplace – Site Security	
		Case Study – Providing a Safe and Rewarding Workplace – Implementing the Voluntary	
		Principles in Madagascar	
		Engaging Stakeholders and Benefitting	
		Communities – Stakeholder Engagement – Performance – Community Grievances	
		View Data Table - See page 125	
		An evaluation of the management approach for this topic did not occur in 2017	
410-1	Security personnel trained in human rights policies or procedures	Providing a Safe and Rewarding Workplace – Site Security – Management Approach	16 PEACE_JUSTICE AND STRONG WITTUTIONS
		View Data Table – See page 128	
Material Top	ic: Human Rights Assessment		
103	The management approach and its components	Our Approach – Materiality	16 PEACE JUSTICE AND STRONG
		Operating Ethically – Human Rights	
		Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Performance – Community Grievances	
		View Data Table - See page 125	
		An evaluation of the management approach for this topic did not occur in 2017	
412-1	Operations that have been subject to human rights reviews or impact	Operating Ethically – Human Rights – Performance	16 PEACE, JUSTICE AND STRONG NOTIFUTIONS
	assessments	Providing a Safe and Rewarding Workplace – Site Security – Performance – Security and Human Rights	
		View Data Table – See page 128	

#### SOCIAL PERFORMANCE: SOCIETY

GRI Indicator	Description	Location	SDG
Material Top	ic: Local Communities		
103	The management approach and its	Our Approach – Materiality	16 PEACE, JUSTICE AND STRONG
	components	Engaging Stakeholders and Benefitting Communities - Community Development	
		Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Performance – Community Grievances	
		View Data Table – See page 125	
		An evaluation of the management approach for this topic did not occur in 2017	
413-1	Operations with local community engagement, impact assessments and development programs	Engaging Stakeholders and Benefitting Communities – Community Development – Performance – Community Investment	10 REDUCED INCOMMENTES
		View Data Table – See page 129	
SI-5	Number of community meetings	Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement	10 REDUCED INEQUALITIES
		View Data Table - See page 129	
Material Top	ic: Artisanal and Small-Scale Mining		
MM8	Number and percentage of company operating sites where artisanal and small- scale mining takes place on or adjacent to the site; the associated risks and the action taken to manage and mitigate these risks	Operating Ethically – Human Rights View Data Table – See page 129	8 BEENT WORK AND ECONOMIC BROWTH AND PRODUCTION
Material Top	ic: Resettlement		
MM9	Sites where resettlements took place, the number of households resettled in each	Operating Ethically - Human Rights	1 NO POVERTY 16 PEACE, JUSTICE AND STRONG INSTITUTIONS
	and how their livelihoods were affected in	View Data Table – See page 130	ŃĸŔŔĸĬ 🚬
	the process	Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Performance – Community Grievances	
		View Data Table – See page 125	
Material Top	ic: Closure Planning		
MM10	Number and percentage of operations with closure plans	Demonstrating Environmental Responsibility – Environmental Liabilities, Closure and Reclamation – Performance – Current Operations	12 RESPONDENCE AND STRONG AND STRONG NOTIFICIAL STRUCTORS
		View Data Table – See page 130	
		Engaging Stakeholders and Benefitting Communities – Stakeholder Engagement – Performance – Community Grievances	
		View Data Table - See page 125	

#### SOCIAL PERFORMANCE: SOCIETY

GRI Indicator	Description	Location	SDG		
Material Top	ic: Oil & Gas				
OG1	Volume and type of estimated proved reserves and production	2017 Annual Information Form – Description of the Business – Section 3.2			
OG4	Number and percentage of significant operating sites in which biodiversity risk has been assessed and monitored	View Data Table - See page 130	15 UHF AND		
OG5	Volume and disposal of formation or produced water	View Data Table – See page 131	6 CLEAN WATER AND SAMIFATION		
OG6	Volume of flared and vented hydrocarbon	View Data Table – See page 131	12 RESPONSELE CONSIMPTION AND PRODUCTION		
OG7	Amount of drilling waste (drill mud and cuttings) and strategies for treatment and disposal	View Data Table – See page 131	12 RESPONSILE AND PRODUCTION		
OG11	Number of sites that have been decommissioned and sites that are in the process of being decommissioned	View Data Table – See page 131	12 EXPONSIBLE CONSIMPTION AND PRODUCTION		
OG13	Number of process safety events, by business activity	View Data Table – See page 132	3 GOOD HEALTH AND WELEBENG 		

# UNITED NATIONS GLOBAL COMPACT (UNGC)

Please see www.unglobalcompact.org for more information on the UNGC.

UN Global Compact Principles Reference	Location/Description
PRINCIPLE 1: HUMAN RIGHTS	Operating Ethically – Human Rights
Businesses should support and respect the protection of internationally proclaimed human	102-41
rights.	406-1
	410-1
	412-1
	413-1
PRINCIPLE 2: HUMAN RIGHTS	Operating Ethically – Human Rights
Businesses should make sure that they are not complicit in human rights abuses.	Providing a Safe and Rewarding Workplace – Site Security
	Case Study - Implementing the Voluntary Principles in Madagascar
PRINCIPLE 3: LABOUR	Providing a Safe and Rewarding Workplace – Employee Relations
Businesses should uphold the freedom of association and the effective recognition of the	102-41
right to collective bargaining.	402-1
	407-1
	MM4
PRINCIPLE 4: LABOUR	Operating Ethically – Business Conduct
Businesses should uphold the elimination of all forms of forced and compulsory labour.	Providing a Safe and Rewarding Workplace – Employee Relations
PRINCIPLE 5: LABOUR	Our Approach – Management Systems
Businesses should uphold the effective abolition of child labour.	Operating Ethically – Human Rights
	408-1
	Case Study – Supporting Children and Youth in Madagascar
PRINCIPLE 6: LABOUR	Providing a Safe and Rewarding Workplace – Employee Relations
Businesses should uphold the elimination of discrimination in respect of employment and	102-8
occupation.	202-2
	405-1
	406-1

UN Global Compact Principles Reference	Location/Description
PRINCIPLE 7: ENVIRONMENT	Demonstrating Environmental Responsibility
Businesses should support a precautionary approach to environmental challenges.	201-2
	302-1
	303-1
	305-1
	305-2
	305-7
	MM2
	MM8
	MM10
	Case Study – Award for Excellence in Sustainable Development at Ambatovy
	Case Study – Protecting the Smallest Inhabitants Where We Operate
	Case Study – Construction of the New Acid Plant at Moa
	Case Study – Rehabilitation and Reclamation at Moa, Cuba

UN Global Compact Principles Reference	Location/Description
PRINCIPLE 8: ENVIRONMENT	Demonstrating Environmental Responsibility
Businesses should undertake initiatives to promote greater environmental responsibility.	302-1
	303-1
	304-1
	304-2
	304-3
	305-1
	305-2
	305-7
	306-3
	307-1
	MM1
	MM2
	Case Study – Award for Excellence in Sustainable Development at Ambatovy
	Case Study – Protecting the Smallest Inhabitants Where We Operate
	Case Study – Construction of the New Acid Plant at Moa
	Case Study - Rehabilitation and Reclamation at Moa, Cuba
PRINCIPLE 9: ENVIRONMENT	Case Study – Construction of the New Acid Plant at Moa
Businesses should encourage the development and diffusion of environmentally friendly	Case Study – Clean Development Mechanism Credits in Cuba
technologies.	Case Study – Sustainable Transportation on Site
PRINCIPLE 10: ANTI-CORRUPTION	Operating Ethically – Business Conduct
Businesses should work against corruption in all its forms, including extortion and bribery.	102-16
	205-2
	Case Study – Rolling Out Anti-Corruption Training

# THE ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (OECD)

Please see www.oecd.org for more information on the OECD.

OECD	Location
OECD IV. Human Rights	Operating Ethically – Human Rights
	102-41
	406-1
	410-1
	412-1
OECD V. Employment and Industrial Relations	Providing a Safe and Rewarding Workplace – Employee Relations
	102-8
	202-2
	405-1
OECD VI. Environment	Demonstrating Environmental Responsibility
	303-1
	304-3
	305-1
	305-7
	306-3
	307-1
	MM1
	MM2
OECD VII. Combatting Bribery, Bribe	Operating Ethically – Business Conduct
Solicitation and Extortion	205-2
OECD VIII. Consumer Interest	2017 Annual Information Form
	2017 Annual Report
OECD IX. Science and Technology	About Sherritt – Divisions/Products
	2017 Annual Information Form - Section 3.4
OECD X. Competition	Operating Ethically – Business Conduct
	2017 Annual Information Form - Section 3.7
OECD XI. Taxation	Engaging Stakeholders and Benefitting Communities
	201-1
	2017 Annual Information Form – Section 3.7

#### **GRI INDEX DATA TABLES**

#### **102-8 INFORMATION ON EMPLOYEES AND OTHER WORKERS**

Disclosure Components	Canada	Cuba <sup>2</sup>	Madagascar	Other <sup>3</sup>	Total Sherritt
Full-time					
Men	669	525	2,940	6	4,140
Women	158	65	437	11	671
Unknown	_	1,931	-	_	1,931
Part-time					
Men	7	_	-	_	7
Women	6	_	_	_	6
Unknown	_	_	-	_	-
Permanent					
Men	676	525	2,940	6	4,147
Women	164	65	437	11	677
Unknown	_	1,931	-	7	1,938
Temporary <sup>1</sup>					
Men	6	5	5,137	_	5,148
Women	7	_	528	_	535
Unknown	54	_	_	2	56

1 Temporary employees include consultants or positions currently filled by contractors. Ambatovy has a temporary workforce included in reporting.

2 Includes the office in Havana, Sherritt and GNC employees at Moa, as well as employees of the entities which make up the Oil & Gas and Power businesses (including Energas).

3~ "Other" includes our Bahamian marketing office, which services the Moa JV, and OGP Spain.

#### 102-41 PERCENTAGE OF TOTAL EMPLOYEES COVERED BY COLLECTIVE BARGAINING AGREEMENTS

Disclosure Components	Ambatovy	Fort Saskatchewan	Moa Site	Oil & Gas and Power	Corporate	Total Sherritt
Percentage of total employees covered by collective bargaining agreements	A process that began in previous years to put a collective bargaining process in place at Ambatovy advanced in 2017.	53.9%1	consideration by the Cuban systems and t in other jurisd	ictions are not re. There were reported by	Not applicable	Approximately 5% of Sherritt's employee base is unionized.

1 Hourly employees as a percent of total employees at the Fort Site only

#### 201-1 DIRECT ECONOMIC VALUE GENERATED AND DISTRIBUTED<sup>1</sup>

(C\$ Million, for the year ended December 31, 2017)

Disclosure Components	Ambatovy	Moa JV and Fort Site	Oil & Gas and Power	Corporate and Other	Total Sherritt
Revenues	279.2	417.0	178.2	43.1	917.5
Costs					
Operating costs (cost of sales), excludes depreciation, employee costs and community investments disclosed below	198.8	228.7	53.1	39.4	520.0
Employee wages and benefits	39.5	102.0	28.5	41.0	211.0
Spending on capital	44.2	20.9	20.9	0.0	86.0
Payments to governments <sup>2</sup>	13.6	28.2	20.9	6.1	68.8
Community investment <sup>3</sup>	0.52	0.86	0.38	0.30	2.06
Total economic value distributed	296.6	380.7	123.8	86.8	887.9
Economic value retained or invested (pre-calculated as "Direct economic value generated" less "Economic value distributed")	(17.4)	36.3	54.4	(43.7)	29.6

1 These figures reflect Sherritt's ownership share in 2017 and reporting for the Moa Joint Venture and Fort Saskatchewan facility are combined to align with other financial disclosures.

2 Includes fines and penalties, where appropriate.

3 Reported on cash basis only. Does not include in-kind valuations. See Economic Benefit Footprint for more information.

Note: There may be some discrepancies between Sherritt's economic disclosures and the ESTMA filing, due to differences in reporting scope and definitions.

#### 201-4 FINANCIAL ASSISTANCE RECEIVED FROM GOVERNMENT<sup>1</sup>

Disclosure Components	Ambatovy	Fort Saskatchewan	Moa Site	Oil & Gas and Power
Total monetary value of financial assistance received by the organization from				
governments, by country <sup>2</sup>	-	\$180,391	-	-

1 See section "Overview of Our Business" in our Annual Report for information on whether, and the extent to which, governments are present in the shareholding structure.

2 These figures are based on a 100% ownership structure.

#### 202-2 PROPORTION OF SENIOR MANAGEMENT HIRED FROM THE LOCAL COMMUNITY AT SIGNIFICANT LOCATIONS OF OPERATION

Disclosure Components	Ambatovy	Fort Saskatchewan	Moa Site	Oil & Gas and Power	Corporate
Percentage of senior management <sup>1</sup> at significant locations of					Not
operation that are hired from the local <sup>2</sup> community	17%	89%	98%	54%	applicable

1 Definition: Manager (of a group), Director, Controller, Senior Counsel, VP, SVP, CFO, COO, President or CEO.

2 "Local community" refers to national-level hiring at Ambatovy and Cuban sites and to the Greater Edmonton and Toronto Areas for the Fort Site and Corporate, respectively.

#### 203-1 INFRASTRUCTURE INVESTMENTS AND SERVICES SUPPORTED

Disclosure Components	Ambatovy	Fort Saskatchewan	Cuba
Extent of development of	In Madagascar, Ambatovy has	There were no significant	In Cuba, Sherritt has invested in
significant infrastructure	invested heavily in industrial and	investments in infrastructure in	public infrastructure through its
investments and services	public infrastructure, in order to	2017.	Community Investment program,
supported	support its 100% value-added		including, among other things,
	operations in-country. For		street lighting; sanitation and
Current or expected positive	example, in 2017, Ambatovy built		construction equipment; roads;
or negative impacts on	two markets (in Moramanga and		transportation services; and
communities and local	in Brickaville), paved a roadway		equipment for hospitals, schools
economies	in the city of Toamasina and		and retirement homes.
	rehabilitated a vocational school.		
	These projects were funded by		
	the Social Investment Fund.		

#### SI-1 ECONOMIC BENEFIT FOOTPRINT

#### (C\$ millions)

Disclosure Components	Ambatovy <sup>1</sup>	Fort Saskatchewan	Moa Site <sup>1</sup>	Oil & Gas and Power <sup>1</sup>	Total Sherritt
Payments to governments	35.99 <sup>2</sup>	11.29	33.77	23.28	104.33
Local/national procurement <sup>3</sup>	278.64	97.21	108.95	26.85	520.65
Local salaries, wages and benefits	37.40	108.56	54.82	13.66	214.45
Community investment <sup>4</sup>	1.93	0.23	0.39	0.49	3.04
Economic benefit footprint⁵	362.96	217.29	197.93	64.28	842.47

1 Reported in USD; converted using Bank of Canada's 2017 average exchange rate of 1.2986.

2 At Ambatovy, the payment method for royalties is under development and no royalty payments were released in 2017.

3 Procurement is calculated at the national level for all except for the Fort Site, which refers to the Greater Edmonton Area.

4 Includes in-kind valuations.

5 This calculation includes the sum of the value on local suppliers, local salaries and wages, payments to government and community investment. All reported on a 100% ownership basis.

#### 204-1 PROPORTION OF SPENDING ON LOCAL SUPPLIERS<sup>1</sup>

Disclosure Components	Ambatovy	Fort Saskatchewan	Moa Site	Oil & Gas and Power
Percentage of the procurement budget used for significant locations of operation spent on suppliers local <sup>1</sup> to that operation	38%	81%	36%	44%

1 "Local suppliers" refers to the national level for Madagascar and Cuba and to the Greater Edmonton Area for the Fort Site.

205-2 COMMUNICATION AND TRAINING ABOUT ANTI-CORRUPTION POLICIES AND PROCEDURES
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Disclosure Components	Ambatovy	Fort Saskatchewan	Moa Site	Oil & Gas and Power	Corporate
Total percentage of employees to whom the organization's anti-corruption policies and procedures have been communicated and who have been trained on these policies and procedures, broken down by employee category and region <sup>1</sup>	100% of existing employees and 92% of new employees in 2017	100% <sup>3</sup>	suppliers to are to incluc contractual ensure com our Anti-Co Contractors	s that empower represent Sherri le appropriate safeguards to pliance with rruption Policy. are not required ng at this time.	
The total percentage of governance body members that have received training on anti-corruption, broken down by region (training includes being communicated to) <sup>2</sup>	100%	100%	100%	100%	100%

1 Only Sherritt workers in Canada and Madagascar as well as expatriates are currently eligible for training. Training for other joint venture partners and workers is not within the scope of Sherritt's policy. We are, however, exploring opportunities to provide a high-level presentation on anti-corruption to Cuban nationals, so they have greater awareness of Canadian and international standards in this evolving area.

2 Those eligible for this training include Sherritt's Board of Directors and Sherritt employees who sit on boards of subsidiary companies or joint ventures. Non-Sherritt representatives are not within the scope of the policy's training requirements.

3 Sherritt is currently revising its onboarding procedure for new employees to better address anti-corruption training for new employees. More information will be provided in 2018.

#### 302-1 ENERGY CONSUMPTION WITHIN THE ORGANIZATION

Disclosure Components	Ambatovy	Fort Saskatchewan	Moa Site	Oil & Gas and Power
Total fossil fuel consumption (GJ)	14,386,003 <sup>1</sup>	4,458,000	5,987,255	30,921,740
Total electricity consumption (GJ)	1,849,630	575,000	592,890	822,868
Total waste fuel consumption (GJ)	-	168,000	-	-
Total coal consumption (GJ)	12,420,135	_	-	-
Total fuel consumption from renewable fuel sources (solar, wind, etc.)	_	-	-	-
Heating consumption	_	-	-	-
Cooling consumption	-	_	-	-
Steam consumption (tonnes)	5,007,580	_	-	-
Electricity sold (MWh)	-	_	_	2,637,918
Heating sold	_	_	_	_
Cooling sold	-	_	-	-
Steam sold (GJ)	_	101,000	-	-

1 Includes energy consumption from coal (provided by the site) and estimates of fossil fuel consumption based on higher heating value conversion factors for diesel, LPG (propane) and naphtha.

#### 303-1 WATER WITHDRAWAL BY SOURCE<sup>1</sup>

Disclosure Components	Ambatovy	Fort Saskatchewan	Moa Site	Oil & Gas and Power
Total water withdrawal (m <sup>3</sup> )	26,771,382.5	2,800,000.0	14,040,000.0	5,299,603.0
Surface water, including water from wetlands, rivers and lakes (m³)	26,149,702.5	2,700,000.0	12,855,000.0	-
Saltwater (m³)	-	Not applicable	_	4,978,230.0
Ground water (m <sup>3</sup> )	601,942.0	_	_	_
Rainwater collected directly and stored by the organization $(m^3)$	-	-	-	-
Waste water from another organization (m <sup>3</sup> )	_	_	_	3,776.0
Municipal water supplies or other water utilities (m <sup>3</sup> )	-	100,000.0	1,155,000.0	174,544.0

1 Data are collected from meters and some estimates; collection methodologies differ between sites.

#### 303-3 WATER RECYCLED AND REUSED

Disclosure Components	Ambatovy	Fort Saskatchewan	Moa Site	Oil & Gas and Power
Total volume of water recycled (m <sup>3</sup> )	3,498,150	-	4,500,000	-
Total volume of water recycled and reused as a percentage of total water withdrawal	13.1%	-	32%	-
Reclaimed water use (m <sup>3</sup> )	-	-	-	-
Process water use (m <sup>3</sup> )	3,452,208	2,800,000	13,432,000	162,471
Cooling water inflow (m <sup>3</sup> )	3,507,411	1,100,000	912,565	4,519,104

#### 304-3 HABITATS PROTECTED OR RESTORED

		Fort		Oil & Gas
Disclosure Components	Ambatovy	Saskatchewan	Moa Site	and Power
Total size of protected areas (ha)	24,133 ha of	Not applicable	Not applicable	Not applicable
	conservation			
	areas			

#### MM1 AMOUNT OF LAND (OWNED OR LEASED, AND MANAGED FOR PRODUCTION ACTIVITIES OR EXTRACTIVE USE) DISTURBED OR REHABILITATED

Disclosure Components	Units	Ambatovy	Fort Saskatchewan	Moa Site <sup>1</sup>	Oil & Gas and Power	Total Sherritt
Total amount of land disturbed and not yet rehabilitated	ha	2,045.5	100	202	42	2,389.5
Total amount of land newly disturbed within the reporting period	ha	168.5	_	51	2	221.5
Total amount of land newly rehabilitated within the reporting period to the agreed end use	ha	4	-	15	Not applicable	19
Total land rehabilitated since start of project –			Not		Not	
estimate	ha	108.5	applicable	655	applicable	763.5

1 Data reported for Moa represent land disturbance that occurred from 1994 onwards – or the years that the Moa Joint Venture between Sherritt and the Cuban state has been in place. The data do not reflect any mining activity at the site that pre-dates the joint venture.

#### MM2 SITES REQUIRING BIODIVERSITY MANAGEMENT PLANS

Disclosure Components	Units	Ambatovy	Fort Saskatchewan	Moa Site	Oil & Gas and Power
Total number of operations requiring biodiversity management plans	#	1	Not applicable	1	Not applicable
Number of total operations that have been assessed under the criteria as in need of a BMP	#	1	Not applicable	1	Not applicable
Percentage of total operations that have been assessed under the criteria as in need of a BMP	%	100	Not applicable	100	Not applicable
Of the number of operations in need of a BMP, the number that have a BMP in place and operational	#	1	Not applicable	1	Not applicable
Of the number of operations in need of a BMP, the percentage that have a BMP in place and operational	%	100	Not applicable	100	Not applicable

#### 305-1 DIRECT (SCOPE 1) GHG EMISSIONS

Disclosure Components	Ambatovy	Fort Saskatchewan	Moa Site	Oil & Gas and Power	Total
Scope 1 emissions (kt $CO_2e$ )	1,808	349	610	1,507	4,274
				CO <sub>2</sub> , NO <sub>x</sub> ,	
Sources included in the GHG emissions calculation	$CO_2, CH_4, N_2O$	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O	CO <sub>2</sub> , CH <sub>4</sub>	SO <sub>x</sub> , SO <sub>2</sub>	-
		64 kt of credits			
Other site-specific indicators	-	purchased	-	-	-

#### 305-2 ENERGY INDIRECT (SCOPE 2) GHG EMISSIONS

Disclosure Components	Ambatovy	Fort Saskatchewan	Moa Site	Oil & Gas and Power	Total
Scope 2 emissions (kt CO <sub>2</sub> e)	-	59 <sup>1</sup>	49 <sup>2</sup>	-	108

1 Purchased grid electricity

2 National grid supply

#### 305-7 NITROGEN OXIDES, SULFUR OXIDES AND OTHER SIGNIFICANT AIR EMISSIONS

Disclosure Components	Ambatovy <sup>1</sup>	Fort Saskatchewan	Moa Site	Oil & Gas and Power
Air emissions – NO <sub>x</sub> (tonnes)	Not reported	1,381	1,304	5,836
Air emissions – SO <sub>x</sub> (tonnes)	Not reported	76	12,091	31,751
Air emissions – TPM (tonnes)	Not reported	91	Not reported	Not applicable
Air emissions – Persistent organic pollutants (tonnes)	Not reported	-	Not applicable	Not applicable
Air emissions - Volatile organic compounds (tonnes)	Not reported	0.5	Not applicable	Not reported
Air emissions - Hazardous air pollutants (tonnes)	Not reported	1.1	Not applicable	Not reported
Source or emission factors	Not reported	US EPA Air Emissions Factors	US EPA Air Emissions Factors	Measured by Gamma <sup>2</sup>

1 In Madagascar, our current monitoring system records air emissions as a concentration rather than a total mass (which is what we monitor at our other operations), and we base our ambient air quality observations at ground level. So we are unable to normalize these data across Sherritt.

2 OGP works with Gamma, operating on behalf of the Cuban environmental regulator CITMA, on matters of environmental monitoring.

#### **306-3 SIGNIFICANT SPILLS**

Disclosure Components	Ambatovy	Fort Saskatchewan	Moa Site	Oil & Gas and Power	Total Sherritt
Total number of recorded significant spills (#)	-	_	-	-	-
Total volume of recorded significant spills (m <sup>3</sup> )	-	_	-	_	-

#### MM3 TOTAL AMOUNTS OF OVERBURDEN, ROCK, TAILINGS AND SLUDGES AND THEIR ASSOCIATED RISKS

Disclosure Components	Ambatovy	Fort Saskatchewan	Moa Site	Oil & Gas and Power	Total Sherritt
		Not		Not	
Total amounts of waste rock (tonnes)		applicable	47,871	applicable	
		Not		Not	
Total amounts of overburden (tonnes)	3,123,00	applicable	2,111,759	applicable	5,282,630
		Not		Not	
Total amounts of liquid tailings and sludge (tonnes)	24,077,453	applicable	12,221,196	applicable	36,298,649

#### 307-1 NON-COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS

Disclosure Components	Ambatovy	Fort Saskatchewan	Moa Site	Oil & Gas and Power	Corporate
Significant fines and non-monetary sanctions in terms of:					
Total monetary value of significant fines (millions)	-	-	-	-	\$6.1
Total number of non-monetary sanctions (#)	1	-	-	-	-
Cases brought through dispute resolution mechanisms – fines (millions)	_	_	_	_	_
Cases brought through dispute resolution mechanisms – non-monetary sanctions (#)	_	-	_	-	_

#### SI-3 HIGH-SEVERITY ENVIRONMENTAL INCIDENTS

Disclosure Components	Ambatovy	Fort Saskatchewan	Moa Site	Oil & Gas and Power	Corporate
Number of high-severity environmental incidents (#)	-	_	_	_	-
Comments	Ambatovy was ordered	-	-	_	Sherritt paid federa
	by the national regulator				and provincial fines and
	to remove a ramp in the				penalties formalize
	Mangoro river, installed				by the Court in Albert
	to assist with approved				during the yea
	water diversion for				ended December 31
	operations.				2017, related to pas
					infractions

#### 103 NUMBER OF GRIEVANCES FILED, ADDRESSED AND RESOLVED

Disclosure Components	Ambatovy	Fort Saskatchewan	Moa Site	Oil & Gas and Power	Corporate	Total Sherritt
Labour practices						
Total number of grievances about labour practices filed through formal grievance mechanisms during the reporting period	8	30	labour cor are mand	ll organized nsiderations lated by the	_	38
Of the identified grievances about labour practices, how many were addressed during the reporting period	8	19	system	e and many ns and tools non in other	_	27
Of the identified grievances about labour practices, how many were resolved during the reporting period	8	19	employed t	ons are not here. There grievances	-	27
Total number of grievances about labour practices filed prior to the reporting period that were resolved during the reporting period	_	_	reported by expatriate or Canada-based employees.		_	_
Impacts on society, human rights or the environment						
Total number of grievances about impacts on society, human rights or the environment filed through formal grievance mechanisms during the reporting period	82	_	_	_	_	82
Of the identified grievances about impacts on society, human rights or the environment, how many were addressed during the reporting period	82	_	-	_	_	82
Of the identified grievances about impacts on society, human rights or the environment, how many were resolved during the reporting period	82	_	-	_	_	82
Total number of grievances about impacts on society, human rights or the environment practices filed prior to the reporting period that were resolved during the reporting period	_	_	_	-	_	-

#### 402-1 MINIMUM NOTICE PERIODS REGARDING OPERATIONAL CHANGES

		Fort		Oil & Gas
Disclosure Components	Ambatovy	Saskatchewan	Moa Site	and Power
Minimum number of weeks' notice typically provided to employees and their elected representatives prior to the implementation of significant operational changes that could substantially affect them	20 days (the minimum legal requirement for the Workers' Council to respond)	2 weeks (not specified in collective agreement)	2 months (standard requirement of state-run employment agency) and additional guidance provided by Cuba's Ministry of Labour and Social Security	2 months (standard requirement of state-run employment agency) and additional guidance provided by Cuba's Ministry of Labour and Social Security

#### MM4 NUMBER OF STRIKES AND LOCK-OUTS EXCEEDING ONE WEEK'S DURATION, BY COUNTRY

Disclosure Components	Ambatovy	Fort Saskatchewan	Moa Site	Oil & Gas and Power	Corporate
Total number of strikes and lock-outs that exceeded one week's duration during the reporting period, by country	_	_	_	_	_

#### 403-2 TYPE OF INJURY, OCCUPATIONAL DISEASES, LOST DAYS AND ABSENTEEISM, AND TOTAL NUMBER OF WORK-RELATED FATALITIES<sup>1</sup>

		Fort		<b>e</b> '' e -		<b>.</b> .	Tota
Disclosure Components	Ambatovy	Ambatovy Saskatchewan Moa Site			and Power	Corporate	Sherritt
				(O&G)	(Power)		
Number of work-related fatalities							
Employees	-	-	-	-	-	-	-
Contractors and other workers	-	-	_	-	_	-	-
Total	_	-	-	-	-	-	-
Number of lost time injuries							
Employees	Data are only reported as total	1	12	-	_	-	15
Contractors and other workers		-	1	-	1	-	-
Total	2	1	13	_	1	-	17
Total recordable injury (TRI) index <sup>3</sup>							
Employees	Data are only	0.13	0.63	_	0.31	1.52	0.26
Contractors and other workers	reported as total	0.75	0.54	0.72	0.94	_	0.36
Total	0.18	0.23	0.50	0.20	0.47	1.52	0.26
Lost time injury (LTI) index							
Employees	Data are only	0.13	0.58	_	_	_	0.12
Contractors and other workers	reported as total	0	0.14	_	0.94	_	0.18
Total	0.13	0.11	0.47	-	0.23	_	0.12

1 All sites are applying the U.S. Occupational Safety & Health Administration (OSHA) general recording criteria. Reference Standard 29 CFR section 1904.7. The Sherritt standard is aligned to this system of rules. We did not track occupational disease rate in 2017 and we currently do not track these data by gender.

2 LTI index = # LTI \* 200,000/SUM (exposure hours for the year)

3 Minor (first-aid level) injuries are not included in TRI index.

"Employees" include: Sherritt and GNC employees seconded to the Moa Joint Venture (100% basis) and local employees of Sherritt seconded to the Ambatovy Joint Venture (100% basis) and others working at Ambatovy; employees of the entities through which the Corporation carries on its Oil & Gas business employees of Energas.

"Contractors and other workers" include contractors and other workers included in the "Employees" category.

#### SI-4 EMERGENCY PREPAREDNESS

Disclosure Components	Ambatovy	Fort Saskatchewan	Moa Site	Oil & Gas and Power	Corporate
Sites with crisis communication plans	Y	Y	Y	Y	Y
Sites with crisis/emergency preparedness and response plans	Y	Y	Y	Y	Y

#### 405-1 DIVERSITY OF GOVERNANCE BODIES AND EMPLOYEES

Disclosure Components	Total Sherritt
Percentage of individuals within the organization's governance bodies (board members)	
Male	75%
Female	25% <sup>1</sup>
Under 30 years old	_
30-50 years old	14%
Over 50 years old	86%
Minority groups <sup>2</sup>	Not reported

1 In 2017, Edythe A. (Dee) Marcoux departed from the Board mid-year, reducing the representation of females on the Board to 14% for a time; however, in the beginning of 2018, Maryse Bélanger was appointed, returning Sherritt to 25% female representation.

2 Board members that self-identify as Aboriginal, persons with a disability or as a visible minority as defined in Canada's Employment Equity Act

Disclosure Components'	Canada	Ambatovy	Cuba
Percentage of employees			
Male	80.48%	87.10%	89%
Female	19.52%	12.9%	11%

1 Includes Sherritt employees and Cuban local national employees

Disclosure Components <sup>1,2</sup>	Ambatovy	Oil & Gas and Power	Corporate	Metals (Fort Site only)	Commercial and Technologies
Percentage of employees					
Under 30 years old	15.84%	7.4%	11.4%	16.5%	-
30-50 years old	76.96%	44.7%	54.5%	45.5%	40%
Over 50 years old	7.2%	47.9%	34.1%	38%	60%

1 Includes Sherritt employees and Cuban local national employees

2 Sherritt does not currently track percentage of minority groups for our divisions; however, note that local employment is the majority at all of our sites globally.

#### 406-1 INCIDENTS OF DISCRIMINATION AND CORRECTIVE ACTIONS TAKEN

Disclosure Components	Ambatovy	Fort Saskatchewan	Moa Site	Oil & Gas and Power
Number of incidents of discrimination on			Incidents of discrimination in Cuba are ha	
grounds of race, colour, sex, religion, political opinion, national extraction or social origin as			employment agency that provides Sh and joint ventures on the island na	
defined by the ILO, or other			The employment agency will require t	
			Sherritt and/or its joint venture partner	
			cases, as appropriate. Such involveme	nt has occurred in
	-	-		previous years.

# 407-1 OPERATIONS AND SUPPLIERS IN WHICH THE RIGHT TO FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING MAY BE AT RISK

Disclosure Components	Ambatovy	Fort Saskatchewan	Moa Site	Oil & Gas and Power
Measures taken by the organization in the reporting period intended to support rights to exercise freedom of association and collective bargaining	The vendor audit questionnaire includes verification of the respect of Malagasy Labour Code to have worker delegates for those vendors with more than 11 employees.	Not applicable	All Cuban emp through natio	5

#### 408-1 OPERATIONS AND SUPPLIERS AT SIGNIFICANT RISK FOR INCIDENTS OF CHILD LABOUR

Disclosure Components	Ambatovy	Fort Saskatchewan	Moa Site	Oil & Gas and Power
Measures taken by the organization in the reporting period intended to contribute to the effective abolition of child labour	Included in any contract clause to be signed off by any new contractor prior to start of work, and also included in the vendor audit questionnaire as a mandatory verification. Any vendor who violates this clause will be terminated immediately.	In Canada, the use of child labour is prohibited under labour laws.	of Child Labour Cor the prohibition and forms of child labou trafficking, the use conflict, the use of pornography and ill drug trafficking) as work. Cuban legisla	of children in armed a child for prostitution, icit activities (such as well as in hazardous tion prohibits child nes 17 years old as the

#### 410-1 SECURITY PERSONNEL TRAINED IN HUMAN RIGHTS POLICIES OR PROCEDURES

Disclosure Components	Ambatovy	Fort Saskatchewan	Moa Site	Oil & Gas and Power
Percentage of security personnel who have received formal training in the organization's human rights policies or specific procedures and their application to security	75%: Full-time 100%: Private security service providers (contractors) 100%: Government security forces	100%	Cuban state a	ovided by the and Sherritt rity over their

#### 412-1 OPERATIONS THAT HAVE BEEN SUBJECT TO HUMAN RIGHTS REVIEWS OR IMPACT ASSESSMENTS

Disclosure Components	Ambatovy	Fort Saskatchewan	Moa Site	Oil & Gas and Power
Total number of operations that have been subject to human rights reviews or human rights impact assessments in country	1	1	1	1
Percentage of operations that have been subject to human rights reviews or human rights impact assessments in country	100%	100%	100%	100%

#### 413-1 OPERATIONS WITH LOCAL COMMUNITY ENGAGEMENT, IMPACT ASSESSMENTS AND DEVELOPMENT PROGRAMS

Disclosure Components	Ambatovy	Fort Saskatchewan	Moa Site	Oil & Gas and Power
Percentage of operations with				
Implemented local community engagement, impact assessments and development programs	1	1	J	
Social impact assessments, including gender impact assessments based on participatory processes	1	_	_	
Environmental impact assessments and ongoing monitoring	1	1	1	1
Public disclosure of results of environmental and social impact assessments	1	_	_	-
Local community development programs based on local communities' needs	1	1	1	V
Stakeholder engagement plans based on stakeholder mapping	1	1	1	1
Broad-based local community consultation committees and processes that include vulnerable groups	1	_	_	-
Works councils, occupational health and safety committees and other employee representation bodies to deal with impacts	1	1	_	-
Formal local community grievance processes	1	In progress	system where of complaints ag organization or en activities they fee	ainst an entity terprise whose
	•	in progress		
Implemented local community engagement impact assessments and development programs	1	1	-	-

#### SI-5 NUMBER OF COMMUNITY MEETINGS

Disclosure Components	Ambatovy	Fort Saskatchewan	Moa Site	Oil & Gas and Power
Number of community meetings	1,337	26	5	4

#### MM8 NUMBER AND PERCENTAGE OF COMPANY OPERATING SITES WHERE ARTISANAL AND SMALL-SCALE MINING TAKES PLACE ON OR ADJACENT TO THE SITE; THE ASSOCIATED RISKS AND THE ACTION TAKEN TO MANAGE AND MITIGATE THESE RISKS

Disclosure Components	Ambatovy
Where ASM takes place on or adjacent to company sites, or presents risks to the company's operations	Small-scale sites of artisanal gold mining have been observed along the pipeline at Ambatovy. This activity presents certain social risks and threatens the integrity of our pipeline; however, to be clear, the size and scale of this activity has been quite small and the risk is relatively low. This activity is not at all comparable with the larger-scale artisanal mining activities happening near gold mines in other parts of Africa and elsewhere. Ambatovy is working with local authorities to sensitize communities to the potential risks and dangers of these activities and to identify alternatives to enhance income and revenue. Authorities are willing to collaborate with us to address this matter. In 2017, Ambatovy continued to observe small-scale, intermittent exploitation.

# MM9 SITES WHERE RESETTLEMENTS TOOK PLACE, THE NUMBER OF HOUSEHOLDS RESETTLED IN EACH AND HOW THEIR LIVELIHOODS WERE AFFECTED IN THE PROCESS

Disclosure Components	Ambatovy	Moa Site
Sites where resettlement of a community occurred	-	-
Number of households involved in any resettlement program	-	-
Number of individuals involved in any resettlement program	-	-
Consultation processes and measures put in place to reestablish the affected community and to mitigate any impacts of relocation, and the outcomes in terms of livelihoods, including sustainable land use	No resettlement occurred in 2017. Throughout the year, there were ongoing discussions with communities near the mine lease area about future resettlement plans. Any resettlement is done in strict adherence to the International Finance Corporation (IFC) Performance Standards, and guidelines set by Madagascar's national regulatory body.	No resettlement occurred in 2017.
Significant disputes related to resettlement and the processes employed to resolve outstanding issues	-	-

#### MM10 NUMBER AND PERCENTAGE OF OPERATIONS WITH CLOSURE PLANS

Disclosure Components	Units	Ambatovy	Fort Saskatchewan <sup>1</sup>	Moa Site	Oil & Gas and Power
Operations within the division that have closure plans	ions within the division that have closure %		100	100	OGP sites revert to the Cuban state upon closure.
	#	1	1	1	OGP sites revert to the Cuban state upon closure.

1 As part of the provincial operating approval, a closure plan outlining approaches on reclamation and/or remediation is required. In 2017, the Fort Site developed an appropriate plan for the site. This plan was included in the Operating Approval renewal application.

#### OG4 NUMBER AND PERCENTAGE OF SIGNIFICANT OPERATING SITES IN WHICH BIODIVERSITY RISK HAS BEEN ASSESSED AND MONITORED

Disclosure Components	Oil & Gas
Criteria used to define priority sites for biodiversity conservation and where significant biodiversity risk requires Biodiversity Action Plans to be in place	As regulated
Biodiversity Action Plan methodology (e.g., definitions, baseline assessments, management plans, protected areas, endemic species' habitats, endangered species)	As regulated
Total number and percentage of significant operating sites where biodiversity risk has been assessed	5 sites currently 100%
Number and percentage of significant operating sites exposed to significant biodiversity risk	-
Number and percentage of significant operating sites exposed to significant biodiversity risk in which Biodiversity Action Plans have been implemented and monitored	-

#### OG5 VOLUME AND DISPOSAL OF FORMATION OR PRODUCED WATER

Disclosure Components	Oil & Gas
Total volume of produced water	407,486 m <sup>3</sup>
Volume and percentage of produced water by disposal method (including reused, recycled, reinjected)	397,240 m <sup>3</sup> reinjected
Strategies and criteria for disposal and treatment, and standards used for quality of produced water discharged, including hydrocarbon and salinity	Metered

Volume of hydrocarbon discharged within produced water is not measured at this time.

#### **OG6 VOLUME OF FLARED AND VENTED HYDROCARBON**

Disclosure Components	Oil & Gas
Volume of flared hydrocarbon	104,355 e³m³
Volume of continuously flared hydrocarbon broken down by country	104,355 e³m³
Volume of vented hydrocarbon	-
Volume of continuously vented hydrocarbon broken down by country	_

#### OG7 AMOUNT OF DRILLING WASTE (DRILL MUD AND CUTTINGS) AND STRATEGIES FOR TREATMENT AND DISPOSAL

Disclosure Components	Oil & Gas
Total amount of drill mud and cuttings (in tonnes) produced using non-aqueous drilling fluid	Sherritt – 150 m³ Cupet – 1,764 m³
Total amount of drill mud and cuttings produced (in tonnes) using aqueous drilling fluid, by disposal method	11,020 m <sup>3</sup>
Treatment, disposal and minimization strategies	Evaporation pond for liquids. Solids are reclaimed, treated and land farmed.

# OG11 NUMBER OF SITES THAT HAVE BEEN DECOMMISSIONED AND SITES THAT ARE IN THE PROCESS OF BEING DECOMMISSIONED

Disclosure Components	Oil & Gas
Number of sites (broken down into offshore and onshore) and total land area of sites (onshore only) for both active and inactive sites	VW PSC Block #2 was returned to CUPET in November 2017
Criteria for defining inactive sites	End of contract
Percentage of active sites that have decommissioning plans in place	Assets are transferred to state partner at end of contract
Decommissioning approach (e.g., plans for and owners, labour transition, finance, community infrastructure, environment remediation and government sign-off, post-decommissioning monitoring and aftercare)	Assets are transferred to state partner at end of contract
Complaints on outstanding local community issues or government notices on decommissioning	Not applicable

#### OG13 NUMBER OF PROCESS SAFETY EVENTS, BY BUSINESS ACTIVITY

Disclosure Components	Oil & Gas
Number of Tier 1 process safety events with narrative per API RP 754 definitions and reported per business activity (refining, upstream, etc.)	None
Number of Tier 2 process safety events with narrative per API RP 754 definitions and reported per business activity (refining, upstream, etc.)	None
Report on asset integrity monitoring and maintenance program, including progress against actions identified	Yearly ultrasonic thickness program in place to test wall thickness.



Sherritt International Corporation, based in Toronto, Canada, is a world leader in the mining and refining of nickel from lateritic ores with operations in Canada, Cuba and Madagascar. The company, which celebrated its 90th anniversary in 2017, is the largest independent energy producer in Cuba, with extensive oil and power operations on the island. Sherritt licenses its proprietary technologies and provides metallurgical services to commercial metals operations worldwide. The common shares of the Corporation are listed on the Toronto Stock Exchange, trading under the symbol "S", and are widely held by both institutional and retail investors.

#### **IN THIS SECTION**

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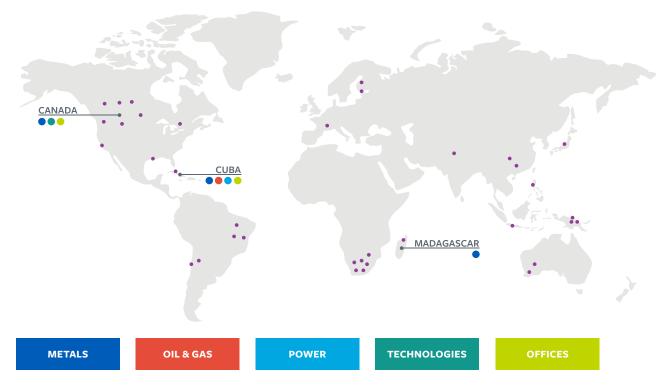
PAGE 135 OUR HISTORY

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2017 KEY INDICATORS

PAGE 142 OUR SUPPLY CHAIN

## **MAP/DESCRIPTION**



#### COMMERCIAL OPERATIONS DEVELOPED WITH SHERRITT TECHNOLOGIES

Incorporated in 1927 as Sherritt Gordon Mines Limited, Sherritt has deep Canadian roots; it is one of the oldest Canadian-owned metals producers still in operation. Refer to "Sherritt's History", below, for more information.

### SHERRITT'S HISTORY – KEY DATES AND EVENTS

#### 1927



Sherritt Gordon Mines Limited is incorporated to develop resources, principally base metals.

#### 1930

Sherridon Development Company is formed to provide services and build the Town of Sherridon, Manitoba.

#### 1931

Sherridon mine production begins, shipping copper concentrate to the new nearby Hudson Bay copper smelter.

#### 1941



First significant discovery of nickel at Lynn Lake, Manitoba.

#### 1946

Sherridon mining and milling equipment is transferred to a new nickel mine site at Lynn Lake.

#### 1947

Sherritt begins to fund the University of British Columbia (UBC) to experiment with hydrometallurgical techniques for ore processing.

#### 1948

UBC discovers a direct ammonia leach method that had the potential to simplify the processing of nickel concentrates.

#### 1949

Sherritt builds a pilot plant in Ottawa to further develop the ammonia leach process.

#### 1950

Sherritt builds a second pilot plant, incorporating the hydrogen-reduction process pioneered by Chemical Construction Corp.

#### 1951

Sherritt provides partial funding for the Canadian National Railway (CNR) to construct a railway line from Sherridon to Lynn Lake. Sherritt builds a third pilot plant in Ottawa that is operated to finalize the design for a commercial refinery. Closure of the Sherridon mine takes place.

#### 1952

Construction begins on the refinery at Fort Saskatchewan, Alberta. The site was chosen due to abundant supplies of water and natural gas (required to make the ammonia for the refinery), its location on the CNR line and availability of skilled labour.



VIDEO WATCH 90 YEARS OF HISTORY

The ore production from the Lynn Lake mine begins and concentrate is shipped by rail from Manitoba to Alberta.

#### 1954

Construction and start-up of the nickel refinery, including production facilities for by-product fertilizer, are completed at Fort Saskatchewan.

#### 1955

Sherritt's research division is transferred from Ottawa to Fort Saskatchewan; pilot plant equipment is transferred to form the basis of a cobalt refinery. Inland Chemicals builds a 100 tonnes/day sulphuric acid plant to supply the Fort Saskatchewan refinery.

#### 1957

Sherritt buys hydrometallurgical technology patents from Chemical Construction, including those used in the Moa facility, which was still under construction then.

#### 1961

Sherritt develops a coinage business, starting with shipments of nickel blanks from Fort Saskatchewan's rolling mill to the Royal Canadian Mint. Within a decade, the rolling mill is producing coin blanks for multiple countries as well as commemorative medallions. Sherritt conducts its first external technologies project, developing a nickel process for Marinduque Iron Mines in the Philippines.

#### 1962-65

Sherritt expands its ammonia plant, constructs two urea production trains (120 and 150 tonnes/day), and expands into the phosphate fertilizer business with a new phosphate plant at the Fort Saskatchewan site, using phosphate rock imported from Florida.

#### 1967

Sherritt licenses its process for acid pressure leaching of nickel-cobalt sulphides to Outokumpo in Finland.

#### 1968-69

Sherritt starts construction on the Fox copper mine and the Ruttan copper-zinc mine in Manitoba.

#### 1969

Sherritt licenses its ammonia pressure leach process for nickel concentrates and mattes to Western Mining Corp. in Australia, and its acid pressure leaching process for PGM-bearing nickel-copper mattes to Impala Platinum in South Africa. Sherritt starts pilot testing its laterite leach process for the Marinduque project.

#### 1970-73

Shipment of concentrates from the Fox mine and the Ruttan mine begins.

#### 1974

Production begins of refined nickel from the Marinduque/Sherritt-owned Surigao nickel laterite project on Dinagat Island in the Philippines, under license from Sherritt. This is the first commercial production of refined nickel directly from laterite ores.

#### 1976

Closure of the Lynn Lake mine takes place. Sherritt's nickel refinery becomes a toll processor. Sherritt purchases Thio-Pet Chemicals, a producer of hydrogen sulphide used in the Fort Saskatchewan refinery. Sherritt begins producing nickel-bonded steel coinage products and ultrafine cobalt powder.

Sherritt produces medals and commemorative medallions for the Commonwealth Games.

#### 1979

Sherritt presents the City of Fort Saskatchewan with a clock tower to celebrate 25 years of operation. Sherritt begins production of cobalt-samarium powder for rare-earth magnets.

#### 1980

Sherritt debottlenecks the sulphuric acid plant to achieve a production rate of 600 tonnes/day. (Subsequent work through the 1990s/2000s results in an 800 tonnes/day operation.)

#### 1981

The first zinc pressure leach plant, at Cominco in Trail, British Columbia, is commissioned. Other facilities follow over the next 12 years at Kidd Creek in Ontario, Ruhr-Zink in Germany and Hudson's Bay Mining and Smelting in Manitoba. New NBS coinage plant opens, increasing capacity by a factor of five. TuffStuds enters commercial production.

#### 1982

Commissioning of Rustenburg matte leach refinery takes place in South Africa, under license from Sherritt.

#### 1983

Sherritt commissions a new world-scale (1,000 tonnes/day ammonia, 900 tonnes/ day urea) nitrogen fertilizer plant in Alberta. Commissioning of Impala Platinum cobalt refinery in South Africa and Kidd Creek zinc pressure leach facility in Canada, under license from Sherritt, takes place.

#### 1985

Fox mine closes. Sherritt creates and floats SherrGold, retaining a 60% interest. Start-up of Western Platinum matte leach refinery in South Africa, under license from Sherritt, occurs.

#### 1986

Metals refinery celebrates one billion pounds of cumulative nickel production. Start-up of SherrGold's MacLellan gold mine occurs. The Surigao nickel refinery is officially closed.

#### **1987**

The aureate-bonded nickel coinage plant opens, contracted to supply Canadian "loonie" dollar coin blanks. Sherritt acquires United Chemical Company. Ruttan mine is sold to Hudson's Bay Mining and Smelting.

#### 1988

The company sells its interest in SherrGold and is renamed Sherritt Gordon Limited. Ultrafine copper pilot plant is commissioned.

#### 1989

Sherritt and the governments of Alberta and Canada create Westaim, a co-operative venture designed to develop new advanced-materials technologies. NBS coinage plant capacity is doubled. Ultrafine copper commercial plant is commissioned.

#### 1990

Major investor lan Delaney leads a successful proxy contest for control of Sherritt.

Sherritt acquires Canada Northwest Energy Limited, a Calgary-based producer of oil and natural gas. The company begins acquiring feed from a nickel mine in Moa, Cuba, for the Fort Saskatchewan refinery.

#### 1993

Sherritt Gordon Limited is renamed Sherritt Inc. Sherritt completes an extensive refurbishment and expansion of its Fort Saskatchewan nickel and cobalt refinery to allow for efficient processing of mixed sulphides from Moa, Cuba.

#### 1994

Sherritt acquires fertilizer assets from Imperial Oil Limited and becomes the largest producer of nitrogen and phosphate fertilizers in Canada and one of the largest fertilizer producers in the world. Sherritt extends its nickel and cobalt refining business into a vertically integrated mining/refining business in a joint venture with the General Nickel Company of Cuba.

#### 1995

Sherritt Inc. creates Sherritt International Corporation, an independent Canadian public company. Sherritt Inc. retains the fertilizer business, Canadian oil and gas properties and the specialty metals and technology businesses.

#### 1996

Sherritt Inc. changes its name to Viridian Inc., which merges with a wholly owned subsidiary of Agrium Inc. Sherritt International acquires certain utilities, fertilizer and other assets in Fort Saskatchewan, from which it produces and sells fertilizer, and supplies inputs and utilities to the nickel and cobalt refinery.

#### 1997

Sherritt acquires Dynatec International Ltd. and merges it with Sherritt's metallurgical consulting business, creating Dynatec Corporation, which is spun out as a separate public company.

#### 1998

Sherritt creates Sherritt Power Corporation, which constructs and operates power generating facilities in Cuba through a one-third ownership in Energas S.A.

#### 2000

The Fort Saskatchewan site stops effluent discharge to the river; effluent flows to the Alberta Capital Region Wastewater Treatment Facility via the City of Fort Saskatchewan's collection system.

#### 2001

Sherritt and a partner acquire Canada's largest coal producer, Luscar Ltd., creating the Luscar Energy Partnership.

#### 2003

The Luscar Energy Partnership acquires the Canadian thermal coal assets of Fording Inc. The Fort Saskatchewan site's ammonium phosphate plant is converted to produce granular ammonium sulphate.

#### 2004

Sherritt celebrates 50 years of operation at the Fort Saskatchewan refinery. Through its minority interest in Energas, Sherritt begins construction on an 85 MW expansion in Cuba.

#### 2005

The Fort Saskatchewan refinery celebrates two billion pounds of cumulative nickel production. A two-million tonne expansion of the Coal Valley mine is announced; construction is completed the next year.

The Metals expansion project is initiated at Moa, Cuba. At Energas, an 85 MW power expansion is completed and a new 65 MW expansion begins.

#### 2007

Sherritt acquires Dynatec Corporation, including its 40% ownership in the Ambatovy Nickel Project. Sherritt Technologies is formed, including the former Dynatec Metallurgical Technologies operations, to utilize and license the Corporation's 50-plus years of hydrometallurgical research, development and commercial process implementation. The 65 MW power expansion is completed in Cuba.

#### 2008

The 150 MW power expansion at Boca de Jaruco in Cuba commences. Sherritt suspends expansion activities due to the global financial crisis.

#### 2011

Construction at Ambatovy is completed.

2012

Production of finished nickel and cobalt commences at Ambatovy.

#### 2014

Sherritt achieves commercial production at Ambatovy. Sherritt sells its coal business.

#### 2015

Sherritt achieves a production test milestone (running at 90% capacity for 90 straight days) and financial completion at Ambatovy.

# **DIVISIONS/PRODUCTS**

Currently, Sherritt has three operating divisions, as well as a corporate office and a commercial and technologies group. These entities are accounted for in our financial and sustainability reporting.

Entity	Operations, Products and Markets		
Metals	• <b>Ambatovy Joint Venture</b> in Madagascar (12% ownership and operator) – nickel and cobalt mining, processing and refining for international markets. Watch this video to learn more about the Ambatovy operation.		
	• Moa Joint Venture (50% ownership)		
	• Moa, Cuba – nickel and cobalt mining and processing.		
	<ul> <li>Fort Saskatchewan, Alberta, Canada – nickel and cobalt refining for international markets.</li> </ul>		
	• Fort Saskatchewan (100% ownership) – ammonia, sulphuric acid and utilities for the Moa Joint Venture's nickel and cobalt production, and ammonium sulphate fertilizer (a by-product of nickel and cobalt production) for the western Canadian market. Watch this video to learn more about the Fort Saskatchewan operation.		
Oil & Gas	• <b>Oil &amp; Gas</b> in Cuba (100% ownership) – exploration and production for Cuba's energy needs.		
Power	• Energas, S.A. in Cuba (33.3% ownership) – electricity production from natural gas for Cuba's electricity needs.		
Corporate and Commercial and	Corporate Office in Toronto – corporate administration and management.		
Technologies	• <b>Commercial and Technologies</b> – provides technical support, marketing and bulk commodity procurement services to Sherritt's operating divisions and identifies opportunities for the Corporation as a result of its international activities and research and development activities.		

A more detailed overview of our business and corporate structure can be found in our 2017 Annual Information Form.

In December 2017, Sherritt successfully closed its previously announced transaction to restructure its Ambatovy Joint Venture with Sumitomo Corporation and Korea Resources Corporation (KORES). Sherritt transferred a 28% interest in the Joint Venture, eliminated \$1.3 billion of related debt from its balance sheet, and will continue to serve as operator of the Ambatovy mine until at least 2024. Otherwise, there were no significant changes to the size of our company or its structure, ownership or supply chains during the reporting period.



2017 ANNUAL INFORMATION FORM

### **2017 KEY INDICATORS**

#### **FINANCIAL**

(C\$ millions, except per share data, as at December 31)	2017	Change
Combined revenue	\$917.50	12%
Adjusted EBITDA <sup>1</sup>	\$149.80	275%
Combined free cash flow <sup>1</sup>	(\$62.10)	45%
Net earnings (loss) from the period	\$293.80	178%
Net loss from continuing operations per share	\$1.04	180%
Cash, cash equivalents and short-term investments	\$203.00	(34%)
Non-recourse loans and borrowings	_	(100%)
Other loans and borrowings	\$824.10	(4%)

1 For additional information, please see the Non-GAAP Measures section of the Management's Discussion and Analysis in our 2017 Financial Statements.

#### PRODUCTION

- Nickel: 66,997 tonnes (100% basis)
- Cobalt: 6,654 tonnes (100% basis)
- Oil: 13,479 barrels of oil equivalent per day
- Electricity: 2,544 gigawatt hours (100% basis)

#### PEOPLE

- Full- and part-time employees and permanent contractors: 6,755 (including the Cuban workforce at Moa)
- Temporary workforce: 5,739 (mainly long-term suppliers working at Ambatovy)

### **OUR SUPPLY CHAIN**

Sherritt is thinking more and more about what it means to "supply a sustainable future" and the role commodities have to play in manufacturing and consumer products. Like most commodity producers, we play the role of a value-adding producer in a long supply chain. We require significant goods and services as inputs (the upstream supply chain) to develop bulk products, which we sell to customers that produce finished products for consumers (the downstream supply chain).

There is a growing requirement from manufacturers and consumer-facing companies to demonstrate responsibility in their supply chain, which is subsequently putting pressure on upstream mining companies to provide evidence of social and environmental responsibility at their operations, with a particular focus on human rights, labour rights and occupational health and safety. An increasing number of customers, potential customers and industry groups are requesting risk readiness assessments and third-party audits of Sherritt operations, and we are preparing ourselves to support our customers in this endeavour by: aligning with international standards, such as Towards Sustainable Mining; conducting internal audits on responsible supply chain requirements; engaging in direct conversations with key downstream stakeholders; and leveraging industry associations for insight and support.

As the table below demonstrates, many of our products contribute materially to global sustainable development. For instance: we provide energy to the Cuban people, we produce fertilizer for agricultural development and our high-quality metals are used in clean-technology infrastructure and products, such as alloys for renewable power applications, batteries for electric and hybrid electric vehicles, buildings, airplanes, household goods and appliances, medical devices and much more. For more information on how nickel is used in society, visit the Nickel Institute's website.

Business	Key Inputs	Sherritt's Contribution	Key Customers
Metals	Energy products, sulphuric acid, sulphur, limestone, engineering/technical expertise	Mining, processing and refining to produce finished nickel and cobalt and a fertilizer by-product	<ul> <li>Car-component manufacturers</li> <li>Steel producers</li> <li>Battery producers</li> <li>Agricultural producers</li> </ul>
Oil & Gas	Current technological drilling practices	Drilling and extraction of oil	<ul> <li>CUPET, Cuba's national oil company, for national energy needs</li> </ul>
Power	Raw natural gas	Processing of gas to produce electricity and by-products, such as condensate and liquefied petroleum gas	<ul> <li>UNE, Cuba's electricity utility, for the national grid</li> <li>CUPET, for industrial processes and domestic needs</li> </ul>

Refer to Operating Ethically for a description of how Sherritt applies anti-corruption and human rights requirements to its supply chain.

### **ABOUT THIS REPORT**

This report describes our sustainability performance for the calendar year of January 1, 2017 through December 31, 2017. We report on an annual basis, with any material sustainability information included in our quarterly disclosures through the course of the year. Our most recent annual sustainability report covered the period from January 1, 2016 through December 31, 2016.

We have structured this report to align with our sustainability framework. For each pillar, we disclose our management approach and performance in relation to our material issues. This report was prepared in accordance with the Global Reporting Initiative's Standards (Core Option). A full Global Reporting Initiative index and performance table can be found here.

The 2017 sustainability report has not been externally assured.

To contact Sherritt regarding its sustainability performance, email sustainability@sherritt.com

