

AMBATOVY DELIVERING SUSTAINABLE VALUE TO MADAGASCAR



AMBATOVY IS ONE OF THE MOST AMBITIOUS INDUSTRIAL UNDERTAKINGS IN THE HISTORY OF MADAGASCAR & THE INDIAN OCEAN, AIMING NOT ONLY AT PROFITS BUT ALSO AT DEVELOPING LOCAL COMMUNITIES & CONTRIBUTING TO THE NATIONAL ECONOMY IN A SUSTAINABLE MANNER.

DELIVERING SUSTAINABLE VALUE TO MADAGASCAR

PROJECT MANAGED BY: JAMIE WAITE

Set in Madagascar, in an area with a poetic local name 'Ambatovy' meaning 'the place where stones are iron' in reference to the iron oxide layer that exists above the laterite deposit, is a large-scale nickel and cobalt mining enterprise that is changing lives on the island.

Over the remaining project life, Ambatovy expects to produce more than 1.1 million tonnes of refined nickel and more than 100,000 tonnes of refined cobalt. With an estimated remaining project life of 30 years, Ambatovy's goal is to create lasting prosperity for all its stakeholders and to contribute significantly to sustainable development in Madagascar.

"Ambatovy is a joint venture of two shareholder companies: Japanese Sumitomo Corporation and South-Korean Korea

Resources Corporation (Kores), with Sherritt International being a shareholder up until very recently. However, while we have foreign shareholders, we are a Malagasy company and we are proud to be in Madagascar," says Stuart Macnaughton, President of the joint venture.

After a five-year construction period in 2007-2011, the joint venture started commercial production in 2012. In 2015 financial completion was achieved, and in the same year, Ambatovy's nickel was listed on the London Metal Exchange (LME).

HIGH-QUALITY PRODUCT

At a total project cost of more than US\$8 billion to date, Ambatovy is the largest-ever foreign investment in the country – and one of the biggest in sub-Saharan Africa and the Indian Ocean region. It ranks among the largest lateritic nickel mining entities in the world.

"Our investors chose Madagascar not only because of the proven nickel and cobalt reserves but also because they felt that Madagascar had the right attributes to permit a successful long-term win-win mining and industrial venture. The decision to do in-country refining was made with a view not only to creating a cost advantage but also to bringing important economic and social benefits to Madagascar," says Stuart Macnaughton. >>

Stuart Macnaughton, President of Ambatovy.

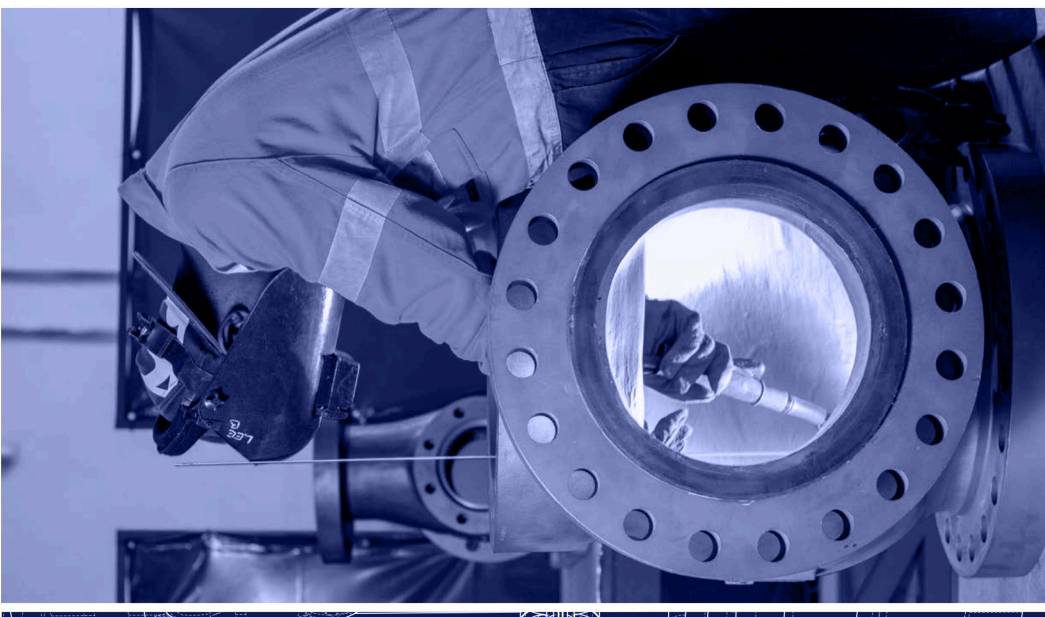




Innovative Valve Management

Callidus Group of Companies specialise in the repair, maintenance, management, servicing and diagnostics of valves, actuators, instrumentation & associated equipment.

Our goal is customer satisfaction achieved through engineering expertise, highly skilled employees and a commitment to service.



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CALLIDUS PROCESS SOLUTIONS

MADAGASCAR FACILITIES

Callidus Process Solutions Madagascar has been supporting Ambatovy since 2010 during the construction and commissioning of the plant. We have been there every step of the way throughout the production phase sharing both the experiences and the challenges. As part of our long term commitment to supporting Ambatovy we have established a 3000m² workshop within a 10 minute drive of the Ambatovy Plant to provide 24 hour support, 365 days a year. From this facility, operated by highly skilled competent personnel, we provide comprehensive valve repair services including:

- Full evaluation and reporting of valve failures
- Repair to OEM – industry specifications
- Failure investigation including investigatory testing
- Overhaul of valves & associated equipment
- Thermal coating application
- Engineering consultancy
- New valve and spares supply
- Valve modifications
- In-house welding, machining, non-destructive testing & coating
- Design, manufacture & testing of valve control systems
- Pressure & functional testing
- Development & application of specific test procedures
- Full repair certification

Having the facility located in Toamasina greatly reduces costs and lead times for Ambatovy on equipment that may otherwise require shipping overseas.

CRITICAL VALVES

The most critical valves on the plant situated on and around the autoclave are commonly seen on other plants also maintained by Callidus in Australia, the Philippines and New Caledonia. Having Callidus maintain these valves allows Ambatovy to take advantage of any research and development already trialed on other plants where results exceed even original manufacturers specifications.

Corrosion and erosion protection of valve internals is the key focus area for research and development, with many advances already implemented using thermal coatings and Titanium nitriding. This greatly increases the lifespan of valve internals and in turn decreases plant downtime and client costs.

ON-SITE SUPPORT

Over the years Callidus have provided a team of personnel dedicated to Pressure Safety Valve recertifications. Set up on site with a self-sufficient sea container and pressure testing equipment we were able to ensure that Ambatovy met its legal compliance requirements for recertification of all safety relief valves across the plant.

EFFECTIVE AND EFFICIENT VALVE MANAGEMENT

Ambatovy has access to our Valve Strategy tool, BluePrint. This has already been implemented across the population of Pressure Safety Valves. Value is delivered by defining the importance of the entire valve population and tailoring the management processes to effectively and efficiently manage all valves. Traditionally asset management underestimates the importance of all but the most critical valves. The remaining valves (up to 90%) are typically not evaluated leading to an increased risk of high consequence failures. The combination of Blueprint software and Callidus experience ensures that each valve is effectively assessed and appropriate maintenance, spares and engineering processes are employed.

Advantages of a good valve strategy include;

- **Reduce unplanned maintenance:** by developing a scheduling program for the entire valve population. This structured approach ensures all valves are maintained or inspected according to their application demand.
- **Reduce high consequence failures:** by measuring the consequence of a valve failure and mitigating the risk by applying specific inspection and maintenance techniques which target the valve failure modes.
- **Increase valve knowledge:** by identifying high critical valves and initiating a detailed review of the valve and application. Specific inspection and maintenance procedures are

developed using Callidus engineers and extensive historical industry knowledge.

- **Increase spares efficiency:** by assessing a wide range of valves, applications, repair-ability and cost factors in order to calculate optimal spares recommendations. This includes complete valves and parts down to component level. Spares are scaled to ensure an efficient balance is achieved between investment and coverage.

ENGINEERING SUPPORT

All of our remote sites are supported by a dedicated team of qualified engineers and draftsmen. Services available include;

- Valve + Actuator Sizing & Selection
- Datasheet Creation
- Design and specification review
- Procedures (testing and maintenance)
- Work Pack Development
- Root cause analysis
- Preventative recommendations
- Metallurgical and laboratory investigations
- Valve Diagnostics and Condition Monitoring
- Online acoustic leakage testing
- In-situ valve diagnostics and calibration
- In-situ safety valve testing
- Valve Modification & Upgrades
- Performance Optimisation
- Increase service life
- Detailed manufacture drawing
- Full suite of computer aided engineering
 - CAD / CAM with integrated CMM
 - Finite element analysis
 - Process condition calculation
- R&D for specific applications
- Repair optimisation & cost reduction
- Shutdown Management
- Mobilisations / Right of Entry / Visas / Work Permits
- Spares / Material selection ordering and expediting

PEOPLE

Having the right people in the right location at the right time is critical to the success of our operations. At Callidus we have core crew dedicated to the Ambatovy project supported by a global team of technicians that can be mobilized to Madagascar at short notice to meet an increase in client demands.

Callidus technicians supporting Ambatovy are trades qualified personnel, with over 10 years' experience in the mining industry. They are trained and skilled in the specific valve types seen on the plant and are proficient in problem solving to keep operations running.

As part of our commitment to the local community Callidus employs a well-educated local employee force of 30 nationals. The team speak Malagasy, French and English which gives us the depth to cover client and vendor communication at all levels.

We have had particular success in training nationals in the areas of Welding, Machining and Fitting which greatly reduces overhead costs of flying in skilled labour from another facility, a benefit passed on to Ambatovy.

COMMUNITY

At Callidus we believe in giving something back to the local community wherever we set up a base. In Toamasina, along with one of our main Vendors, we have helped to develop and improve the facilities at a local school.

A new building was established to allow an increase in the number of children attending and a new home for the teachers was built to reduce the need for them travelling by foot over many kilometers every day.

On-going support is given in the way of school supplies and building maintenance. Without such support many of these children would receive no formal education at all.

www.callidusprocess.com.au

The mining enterprise is comprised of a lateritic mine near Moramanga, about 80 km east of the country's capital, Antananarivo, and a processing and refining plant, occupying an area of 320 ha, located approximately 10 km south of the port of Toamasina, on the east coast of the country.

The ore body at the mine consists of two large, weathered lateritic nickel deposits located approximately 3 km apart (the "Ambatovy Deposit" and the "Analamay Deposit"). Combined, the Ambatovy and Analamay deposits cover an area of about 1,600 ha, with depths ranging between 20 and 100 m.

Due to the soft nature of the ore, no blasting is necessary. Ore is surface-mined by hydraulic excavators and delivered to the Ore Preparation Plant (OPP) in haulage trucks. There, the ore is processed with water to remove the rocks and become a slurry that is delivered by a 220 km pipeline to the processing plant and refinery. At the Plant site, the ore undergoes multi-stage hydrometallurgical processing which ultimately yields refined nickel and cobalt.

"We have a very complex operation that permits the production of high-quality nickel and cobalt, which is 99.9% pure. Only a few nickel and cobalt projects in the developing world produce such high-quality nickel and cobalt," says Stuart Macnaughton, pointing out that the products are ideally suited for use in electric vehicle battery manufacturing, a rapidly growing global market.

"As the demand for electric cars increases, buyers will want to make sure that the nickel and cobalt have been responsibly sourced and sustainably produced. The Ambatovy joint venture is in a very good position to demonstrate that. Following



a detailed review by one of the electric vehicle battery manufacturers last year, we have been endorsed as a responsibly sourced supplier. This is an exciting achievement that will create a market advantage for us, and proof that sustainability is one of our top priorities."

PROMOTING LOCAL DEVELOPMENT

He affirms that being a producer of high-quality nickel and cobalt that creates lasting value for all stakeholders and contributes to sustainable development in Madagascar

has been one of the company's key goals. "We have developed strong relationships with all our stakeholders, in particular with our host communities. These relationships are critical for our social licence to operate and for our continued presence in Madagascar. We work closely with them on fulfilling our national and international obligations, as well as our voluntary commitments, to ensure we that we are in a win-win partnership for everyone's mutual benefit and to leave a positive legacy well beyond the life of our operations."

"AS THE DEMAND FOR ELECTRIC CARS INCREASES, BUYERS WILL WANT TO MAKE SURE THAT THE NICKEL AND COBALT HAVE BEEN RESPONSIBLY SOURCED AND SUSTAINABLY PRODUCED. THE AMBATOVY JOINT VENTURE IS IN A VERY GOOD POSITION TO DEMONSTRATE THAT."

HENRI FRAISE
FILS & Cie



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HENRI FRAISE FILS & CIE

Henri Fraise Fils & Cie 100 years of experience in Madagascar, Created in 1921 and since then has been supplying mining equipment to Madagascar and the Indian ocean. They have been Caterpillar dealer for nearly 80 years. All types of minerals are mined in Madagascar: Chromium, Nickel, Ilmenite, Zircon, Cobalt, Rare earth, etc. Henri Fraise Fils & Cie covers all mining applications:

- Feasibility studies
- Personalized monitoring throughout the project, from the first ideas of operations to the delivery of materials
- Design of integrated and technically advanced mining solutions, guaranteeing the lowest costs per tonne
- Maintenance and follow-up of equipment's

Besides the supply of mining equipment, Henri Fraise Fils & Cie offers complementary solutions for rental, craneage, power and is a real service provider. Henri Fraise Fils & Cie represents more than twenty international brands to ensure quality and reliability. With several generations of technicians able to ensure safe, fast interventions in accordance with the recommendations of manufacturers through a network of agencies in Madagascar (Taolagnaro, Toamasina, Moramanga, Ambatovy, Antsiranana, Majunga) but also in Mayotte, Seychelles and Comoros. They do not just sell you a machine, they sell you services that will allow you to maximize your operation over time.

These agencies include several support workshops for components and equipment, welding equipment, painting room, these are the only professional workshop fully equipped in the region. The central workshop in Antananarivo is 4 stars certified « CAT CONTAMINATION CONTROL » since 2010 and has all tooling and technicians for repairs of engines, hydraulics, electrical components. The experienced technicians are highly mobile and technical staff uses the most modern tools. Human and material resources respect the standards required by the manufacturers.

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- Keep your creditworthiness for the real needs of your business.

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EXPERIENCED TO DELIVER ELECTRICITY, ANYWHERE IN MADAGASCAR AND INDIAN OCEAN.

Henri Fraise Fils et Cie is professional in the installation of Thermal, Solar Hybrid or Hydraulic power plant. They design, build, deliver and operate the full system. Their experience in the maintenance of these systems ensures you to benefit the maximum potential of your investment. In 2020, solar installation in Seychelles and 15 diesel and hybrid stations in Madagascar have been developed. Also, in 2020 full solar battery project has been finalized with USAID for rural electrification.

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UBP Madagascar has been providing blasting services to Ambatovy minerals since 2009:

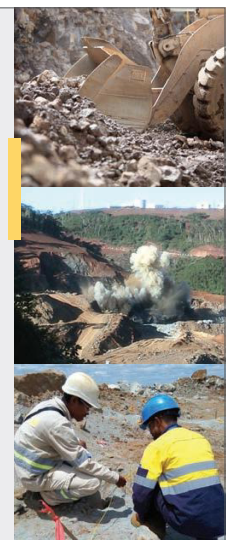
- At the mine site at Ambatovy
- Along the pipeline during its construction phase between 2009 and 2011

MEMBER OF UBP GROUP

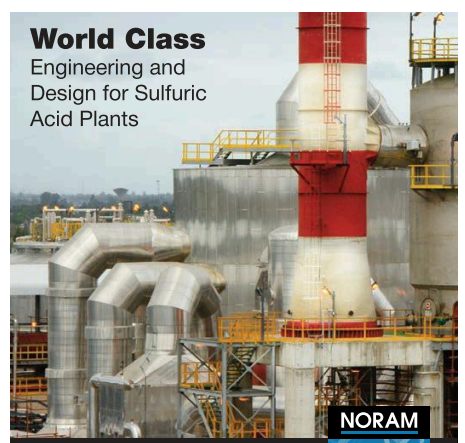
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↑ An Ambatovy representative discusses with a farmer in her rice field.

“ALBI IS LEADING OUR EFFORTS TO MAKE SURE THAT WE MAXIMIZE OUR ECONOMIC IMPACT AND THAT WE PRIORITISE LOCAL PURCHASING AND LOCAL EMPLOYMENT, TO THE GREATEST EXTENT POSSIBLE.”

With approximately 9,000 employees and contractors working on-site the company is easily one of the largest employers in Madagascar. Mr Macnaughton points out that the company is very proud that 93% of its direct employees are Malagasy, in a country with a relatively young mining sector.

“To preparing the local workforce for the industrial skills required at Ambatovy, many of which could not be found in the country prior to our arrival, the company has made significant investments in training, skills development and leadership so that the company’s Malagasy employees can take on more and more responsibility,” he says. “To this end, in 2010 we established the Ambatovy Training Center. This training is contributing to a local labour pool for future mining and industrial projects that could come to Madagascar. So far, more than 8,000 people have been trained at the training centre.”

Local focus is also reflected in the ‘Buy locally hire locally’ philosophy that is behind the Ambatovy Local Business Initiative (ALBI), as Mr Macnaughton explains. “ALBI is leading our efforts to make sure that we maximize our economic impact and that we prioritise local purchasing and local employment, to the greatest extent possible.”

“In 2018, for example, this led to more than \$250 million in local spending, with approximately 450 local companies from more than 40 business sectors providing goods and services. Through >>

HPAL trains, Ambatovy



Partnership Excellence

- On-island site service technician and 24-hour support
- Technology advancements and site trials
- Sharing operational experience and OEM product knowledge



Above: MOGAS workshop in Ambatovy's Equipment Repair and Overhaul Shop

Left: MOGAS 14-inch discharge valve

Right: Actuating feed valve

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MOGAS

"PARTNERSHIP EXCELLENCE" – THE FOUNDATION FOR SUSTAINED FUTURE VALUE GENERATION

The autoclave industry has evolved rapidly over the last three decades. As operating experience, application knowledge and technology boundaries are being pushed continuously, it is very clear that "customer-supplier" partnerships would play a critical part in mastering pressure leach applications and building this niche industry. This partnership excellence would ultimately lead not only to improving equipment performance, but also improving the plant safety, availability, equipment reliability with obvious implications on production.

Through the very early stages of engagement with Ambatovy's commissioning team - and continuing to grow these relationships throughout the operational maturity phase, three critical components have contributed to cementing "partnership excellence":

A.) On-island site service and support – The Ambatovy - MOGAS partnership has been beneficial in reviewing and evaluating several options to balance the challenges of achieving the highest quality service support, while continuously reducing maintenance costs. The current model allows for a highly skilled site-based MOGAS technician, providing 24-hour support to Ambatovy throughout the year. In addition, MOGAS supplies and manages a wide selection of dedicated parts inventory for the isolation valves on site, which ensures the highest valve availability at any given time, safeguarding the customer against unforeseen operational events, as well as climatic and/or geopolitical impacts.

B.) Technology advancement & site trials – MOGAS' technology-driven focus and significant investment in Research & Development not only adds value to its products, but this value is ultimately being passed down to Ambatovy's operation, in the form of extended valve life & reduced valve repair costs. This was illustrated recently when Ambatovy trialed MOGAS' ML-381 metallurgically bonded coating on a 14" valve in two autoclave slurry discharge locations – which is considered the most severe service applications. The valve not only surpassed the installed life of the previous coating, but the condition of the valve internals, even after being in service for over 300 days, were good enough to undergo minor clean up and re-use. The success of this trial has led to subsequent additional installations in other locations.

C.) Sharing operational experience & OEM product knowledge – The "partnership excellence" foundation that developed over the years, allowed for information sharing on both operational sequencing as well as product perspectives. This has allowed MOGAS to monitor valve exposure in service while the valves are installed and has formed a basis for pro-actively highlighting and communicating abnormal conditions which can potentially have a detrimental impact on the valve. This approach not only allows for verifying optimal valve and coating selection based on operational philosophy, but also contributes to driving the valve repair costs down as there is an active approach to "manage" valve exposure, rather than waiting for when there is a valve-related issue.

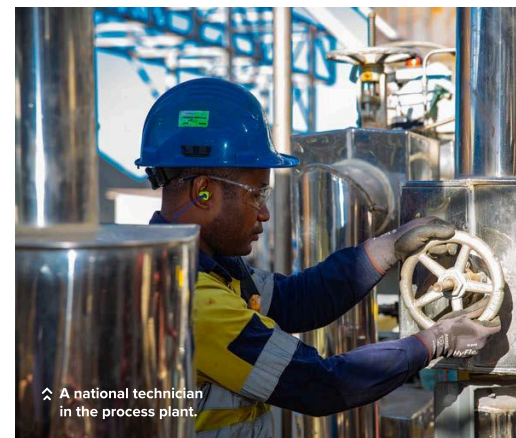
MOGAS strives to continuously improve on valve designs and coatings, thereby setting the benchmark for performance on quality products, and capitalizing on its vast experience of installed base worldwide. MOGAS has also diversified its Autoclave services significantly over the last decade by strategic acquisition of two technology-focused companies, including Brenco, A Division of MOGAS, which enables them to expand into solution offerings in the adjacent equipment market. MOGAS is excited to engage with Ambatovy on these new opportunities, adding further value to the operation and in the process, build upon the current foundation of partnership excellence.

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AMBATOVY

the ALBI programme, we also train and provide mentoring support to Small-and-Medium Enterprises (SMEs) for them to be able to meet high-quality standards and international norms, including in health and safety, human rights, and environmental stewardship."

"IN 2010 WE ESTABLISHED THE AMBATOVY TRAINING CENTER. THIS TRAINING IS CONTRIBUTING TO A LOCAL LABOUR POOL FOR FUTURE MINING AND INDUSTRIAL PROJECTS THAT COULD COME TO MADAGASCAR."



^ A national technician in the process plant.

POSITIVE IMPACT

Ambatovy's engagement in Madagascar has a society-wide impact. The company has introduced a significant Corporate Social Responsibility programme at the community level that ensures that its social and economic investments contribute to the development of nearby communities. It includes >>



↙ An operator stands in front of one of the Mine site excavators.

active community engagement; promotion of livelihoods and income-generating activities for farmers' associations and local cooperatives; support for education, community health and safety activities in its zones of intervention; compensation for any losses or damages that may have been incurred; and preservation of cultural heritage.

"In addition, with the Government, we established the Social Investment Fund (SIF), in which Ambatovy invested US\$25 million. The SIF has supported a range of social and infrastructure projects, developed and implemented in collaboration with the local and national authorities."

In 2018, Ambatovy paid a total of US\$43.4 million in various taxes to the Malagasy Government (including royalties). "To ensure that our royalty payments have significant, lasting and positive impacts in Madagascar, we are working with a local NGO and with local authorities and communities to promote good governance and to provide communities with capacity building and project management support. This will ensure that our royalties contribute to real sustainable development," Mr Macnaughton points out.

"We also collaborate with local and regional officials as well as communities on emergency preparedness and response planning for industrial risks and natural disasters, including support for relief efforts during the current Covid-19 pandemic," he further affirms.

Ambatovy also participates in a number of voluntary initiatives, such as Towards Sustainable Mining (TSM), an initiative of the Mining Association of Canada to help companies improve their sustainability

performance; Extractive Industries Transparency Initiative (EITI); and Voluntary Principles on Security and Human Rights (VPSHR). The company was a pilot project of the Business and Biodiversity Offsets Program that ran from 2004 to 2018 - a

collaboration of approximately 50 companies, financial institutions, governments and civil society organizations, aimed to develop and test best practices for conservation and biodiversity offsets by following the mitigation hierarchy.

"IN COLLABORATION WITH THE GOVERNMENT, WE ESTABLISHED THE SOCIAL INVESTMENT FUND (SIF), IN WHICH AMBATOVY INVESTED US\$25 MILLION. THE SIF HAS SUPPORTED A RANGE OF SOCIAL AND INFRASTRUCTURE PROJECTS, DEVELOPED AND IMPLEMENTED IN COLLABORATION WITH THE LOCAL AND NATIONAL AUTHORITIES."

SUSTAINING BIO-DIVERSITY

As a responsible mining enterprise, Ambatovy is committed to upholding stringent environmental standards including the Equator Principles and the World Bank Group's International Finance Corporation Performance Standards. To meet and surpass these requirements and commitments, Ambatovy has developed a comprehensive approach to environmental management, which will ensure compliance, reduce residual impacts, and mitigate risks.

Ambatovy is set to restore a multifunctional forest on the Mine's footprint through progressive revegetation with the original species, with an industrial-scale production >>



Supporting education is one of the main areas of Ambatovy CSR interventions.

Looking into the future's new reality, it is clear that mining and metallurgical facilities will increasingly focus on asset reliability and durability, with the strengthening of environmental, social and governance (ESG) requirements being an integral part of sound asset management. With decades of experience in brownfield engineering in partnership with many different client sites, the Norda Stelo team offers recognized know-how and unique experience in the field of existing asset management, thus increasing the service life of assets, while evaluating their condition and promoting proactive risk management.

At Norda Stelo, we believe that "Brown IS the New Green" and that by restoring, enhancing equipment performance and extending the life of existing facilities, a positive impact on the environment and climate change is achieved, and significant value is added to clients' assets.

Asset Durability is an innovative indicator that takes into account physical asset management, biodiversity and climate change, all of which are managed through the delicate balance of Costs, Risks, Performance and Governance.

New digital tool for managing assets

As we move into the Digital transformation era, Norda Stelo is aware of the importance of big or smart data to help with diagnostic, predictive and prescriptive analysis, combining human knowledge, thought process and experience to its collaborative asset management platform developed for all types of assets.

This platform provides a clear image of the actual condition of assets in addition to generating maximum data and information as part of the platform's analytical tools and the engineers' cutting-edge expertise. This tool delivers dynamic monitoring of the assets' condition over time.

Risk levels, residual service life and CAPEX predictions are continually updated as operating parameters change or new inspection data become available. The impact of improved maintenance practices on the residual service life may also be integrated into the system. With access to continually updated, in-depth information, managers and engineers have the tools they need to make the right decisions and ultimately enhance the service life of their assets.



" A data lake can be interpreted or used in many ways, but only human know-how and experience can provide true meaning and value to this data. And that's what Norda Stelo brings to its clients. "

Sophie Boisvert, P. Eng.
Vice-President Resources and Industry

Who are we?

We're a Canadian employee-owned engineering firm founded in 1963 with operations in North America, Africa, the Middle East and in the South Pacific region. We at Norda Stelo promote the development of high-level expertise while meeting the needs of an evolving industry in an ever-changing world. We are a nonconventional engineering firm looking to create high value for our clients, while combining digital technologies, environment, social and governance (ESG) in the integration process.

We are seeking to create long-term partnerships with clients who share our vision, our values and our business model.

" We took the gamble that our future would depend on mobilizing everyone around the Norda Stelo Project, which puts our employees and clients at the heart of our company's interests. With the support of our employees and clients like Dynatec Madagascar SA, we have become a distinctive firm within the industry. "

- Alex Brisson, CEO

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nursery operating as part of the plan, as well as working with villages nurseries that were set up for this purpose. The company's pipeline avoids native forests wherever possible and only passes through near-primary zonal forest within the first two km of the Mine Site. The focus for the Plant Site is the treatment of process wastewater through the neutralization process to meet national and international standards for discharge.

Mr Macnaughton insists that environmental protection and sustainability are a core part of the business. The company has a robust Environment Programme in place, with extensive activities in biodiversity, conservation efforts and offsets, and works closely with communities near its sites to ensure they are involved in the protection of the environment and

conservation activities as well as in responsible ecosystems services management.

"Our mine is located within the biodiversity "hotspot" of Madagascar. By employing the mitigation hierarchy put forward by the former Business and Biodiversity Offsets Program, we are committed to no net loss, and preferably a net gain, in biodiversity through our extensive offset programme that includes 18,000 ha of conservation areas. These areas have among the lowest rate of deforestation in the country and are being sustainably managed in collaboration with local communities and NGOs," he explains.

"Despite the challenging times that we are currently facing, we remain committed to sustainability," he further affirms. "Ambatovy is special in this respect. I have been working



An Ambatovy representative discusses with two local farmers.



Plant Nursery.

“DESPITE THE CHALLENGING TIMES THAT WE ARE CURRENTLY FACING, WE REMAIN COMMITTED TO SUSTAINABILITY. I HAVE BEEN WORKING IN THE MINING SECTOR AROUND THE WORLD FOR 30 YEARS AND I CAN TRULY SAY THAT THIS ORGANISATION HAS INVESTED MORE IN ENVIRONMENTAL MANAGEMENT, SUSTAINABILITY AND BIO-DIVERSITY THAN ANY OTHER PROJECT I HAVE WORKED FOR.”

in the mining sector around the world for 30 years and I can truly say that this organisation has invested more in environmental management, sustainability and bio-diversity than any other project I have worked for. This reflects not only the special location in Madagascar but also the philosophy of the shareholders and the Ambatovy management. >>

SUPPORTING GROWTH & DEVELOPMENT IN MADAGASCAR



At EnerMech, we invest in the communities we call home. Our global family promotes an inclusive culture that supports the needs of the people and places in which we work. This means supporting causes that are close to the hearts of our colleagues in Madagascar.

- 71%** of our workforce on the Ambatovy project are local technicians
- LOCAL** We purchase all our consumables locally, contributing to regional growth in Tamatave
- 72** unskilled local labourers trained as certified scaffolders, UHP blasters and painters
- SUPPORT** We provide essentials to a local primary school

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The Group operates through its four Aircraft Operating Certificates in Mauritius, Mozambique, Costa Rica, South Africa and its 3 Aircraft Maintenance Organisations in Costa Rica, South Africa and the Czech Republic.

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At EnerMech, we provide long-term and project-based support across all key stages of an asset's life; we deliver fully integrated solutions across a range of mechanical, electrical, instrumentation and integrity management services to the global energy and infrastructure markets. Our offering is simple yet powerful - 10 key services, delivered with a holistic view, providing improved safety, reduced costs and complexity.

By sharing lessons learned, adopting best practices and engineering innovative solutions, we drive efficiencies and help deliver on the Ambatovy vision, to create lasting prosperity and to contribute significantly to sustainable development in Madagascar.

Running a safe and socially responsible business that drives innovation, enhances well-being and contributes positively to the environments in which we operate is non-negotiable. Competence development plays a big part in our culture, we believe that continual upskilling, and training is the result of a strong safety culture, which reflects in our Ambatovy work with no LTIs (Loss time injuries) across 320,000 person-hours to date.

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AMBATOVY

THE MOST SUCCESSFUL MINING OPERATION

Today, Ambatovy is already a major contributor to Madagascar's national prosperity and a significant source of revenue for its people and government. During its lifetime, Ambatovy will generate important economic and social benefits through the payment of taxes and royalties, investment in infrastructure, job creation, local business development, and technology transfer as well as training, education, and health-related programmes.

Although there are no plans for immediate business expansion, the company invests US\$80 million - US\$100 million each year into its facilities to keep them in good condition. At the moment, efforts are focused on getting ready for the safe re-start in early 2021 after the operation was temporarily suspended due to Covid-19, says Mr Macnaughton.

"Restarting the mine and the plant is our priority right now. Still, time has not been lost. We have taken the opportunity to address a few technical issues in the plant and will be up and running early next year."

"WE BELIEVE THAT WE CAN PLAY AN IMPORTANT ROLE FOR MADAGASCAR AS AN AMBASSADOR FOR FUTURE FOREIGN INVESTMENT. THE SUCCESS OF AMBATOVY SHOULD BE A STRONG ENDORSEMENT FOR COMPANIES CONSIDERING AN INVESTMENT IN THE COUNTRY."

Workers in the mine site control room.



The Ambatovy Plant site, located in Toamasina, Madagascar.

Moving forward, he insists that it will be important for Ambatovy to maintain its social licence to operate with a robust environmental programme, strong community engagement and effective relations with authorities and stakeholders. “We will also continue to enhance the level of mutual understanding between Madagascar and Ambatovy, and to strengthen collaboration with partners to ensure significant, lasting and positive impacts in the communities where we work.”

But the company’s role is set to be more far-reaching, setting an example for other investors, affirms Mr Macnaughton. “We believe that we can play an important role for Madagascar as an ambassador for future foreign investment. The success of Ambatovy should be a strong endorsement for companies considering an investment in the country. For Madagascar, future foreign investment in the resources sector and other industries is one of the keys to sustainable economic development for the country.”

In the medium and long term, the company’s vision is for Ambatovy to be recognised as the most successful nickel laterite operation worldwide, in line with its mission ‘Together in Madagascar, we sustainably deliver value, producing high-quality nickel and cobalt’.



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