



SUSTAINABLE DEVELOPMENT REPORT 2013

A COMPANY IN MOTION

INTRODUCTION

FIVE STRATEGIC
PRINCIPLES

ENVIRONMENTAL
ASPECTS

INTRODUCTION

The entire Aluminerie Alouette team is pleased to present its most recent Sustainable Development Report, providing results for 2013. Published annually to share our achievements and challenges with the public, the theme of this year's edition is "A Company in Motion", which truly reflects the reality of our organization. The culture of continuous improvement is anchored in Alouette's strategy and is present in all aspects of the company's activities. Editions of previous years' Sustainable Development Reports are available on our website at www.alouette.com. You will also find a new section there, with photographs of the year's events and milestones.

Happy reading!



OUR MISSION

Aluminerie Alouette, as an independent operating company, shall operate as a low-cost smelter using world-class business principles and continuous optimization of processes and assets. As a sustainable company, Aluminerie Alouette will maintain high standards of health, safety and environment in order to be recognized as a responsible employer and corporate citizen.



OUR STRATEGY

Aluminerie Alouette is driven every-day by a strategy based on five axes guiding us to achieve the level of excellence that contributes to maintaining Alouette among the leading producers of primary aluminium.

PEOPLE AND CULTURE ACTING TOGETHER

Over the years, the ties that bind together the greater Alouette family continue to strengthen, with employees mobilizing in times of challenge and need. Activities for continuing improvement were intensified, and the participation of hundreds of employees largely contributed to maximizing gains in spite of certain operational difficulties. Specifically, 404 problematic situations were dealt with thanks to the problem-resolution method (PRM), 62 of which were Kaizen activities as well as larger projects (green belt and black belt). In addition, reinforcement of good work was supported with visual workstations, which created a better structure for recognition and encouraged more participation. Over the course of the year, tens of thousands of training hours were provided to employees, contributing to development that benefits the organization as a whole.

A STRONG TEAM RISING TO MANY CHALLENGES

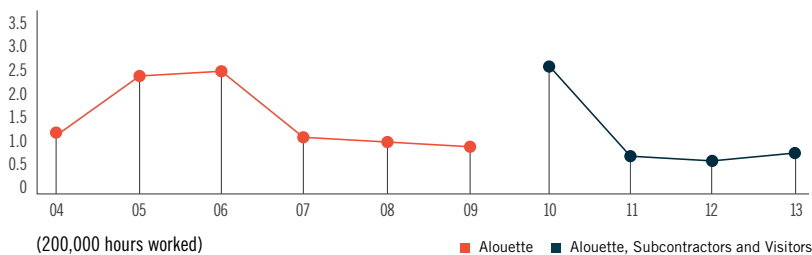
HEALTH AND SAFETY, ENVIRONMENT STAYING PROACTIVE

Health, safety and environment are at the heart of company strategy and everyday actions. Constant attention in these matters on the part of employees and management alike has resulted once again in improved general performance. Despite environmental results affected by various disturbances in operations mainly due to external factors, Alouette is in a good position to continue its improvement. The year's health and safety records show an impressive level of vigilance on the part of employees, subcontractors and visitors. In terms of the environment, the renewal of *ICI ON RECYCLE* Level 3 certification confirms the company's commitment to the environment in which it operates. The totality of emissions, at the source as well as ambient air, remains below recommended levels and norms, and the same applies to runoff water and residues. Aluminerie Alouette proudly continues to be a global reference in energy efficiency.

75% IMPROVEMENT IN HEALTH AND SAFETY SINCE 2010

TOTAL INJURY FREQUENCY

In 2013, 9 events with recordable injuries occurred, which represents a significant improvement in 3 years.



STRONG AND LASTING TIES

- 12 employees celebrated 20 years of service
- A membership of 850 current and retired employees in **COBRAL Social Club**
- Almost 90% of employees participated in forums, unique opportunities for exchange and communication

DEVELOPING SKILLS

- Over 40,000 hours of training
- A second group of mechanical technicians with college diplomas in industrial reliability
- Over 450 activities related to continuous improvement
- Approximately 50% of employees were involved in a continuous improvement project

THE FACTS

- 2 periods of over 100 consecutive days without recordable injury
- Participation in the Regional Grand Prix of the *Commission de la santé et de la sécurité du travail*
- Several sectors achieved notable milestones

EFFECTIVE TOOLS

- Six days **IMPACT 100%** dedicated to health, safety and environment
- A creative and committed **promotion subcommittee**
- “Intervention between colleagues” for enhancing personal accountability
- Fruitful, positive meetings with subcontractors
- Continuous improvement to injury-reduction services
- Numerous activities related to health and well-being

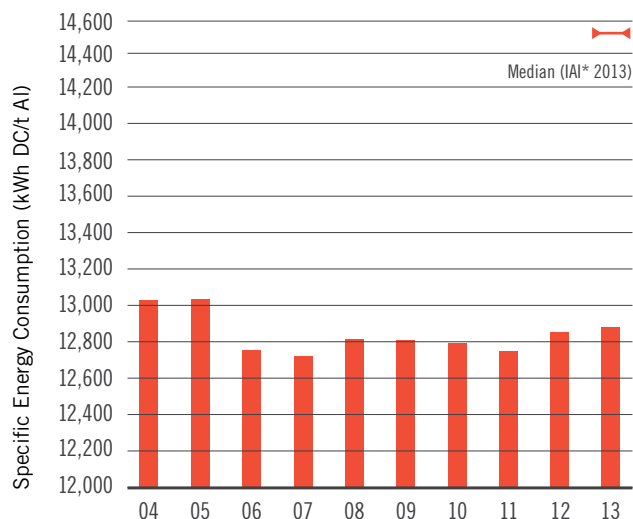
SIGNS OF COMMITMENT

- *ICI ON RECYCLE* Level 3 certification renewed
- Successful audits for ISO 14001 and OHSAS 18001 certifications
- Active participation in the *Table de concertation sur la qualité de l'air*

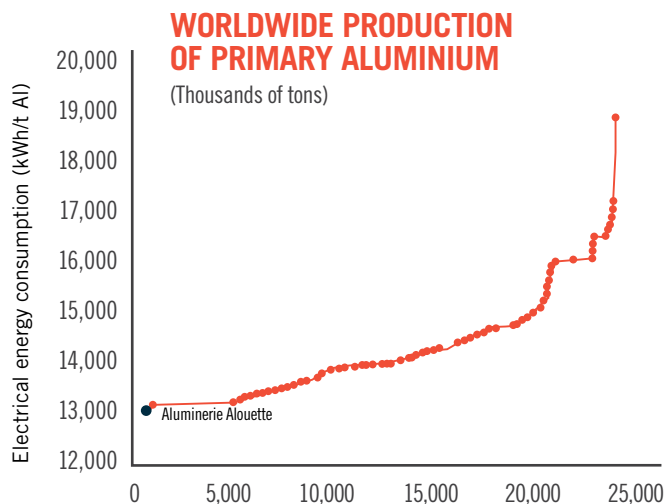
ENERGY EFFICIENCY

SPECIFIC ENERGY CONSUMPTION

Specific energy consumption in electrolytic process is 12,896 kWh/t Al of continuous current. Aluminerie Alouette is a world leader in this aspect.

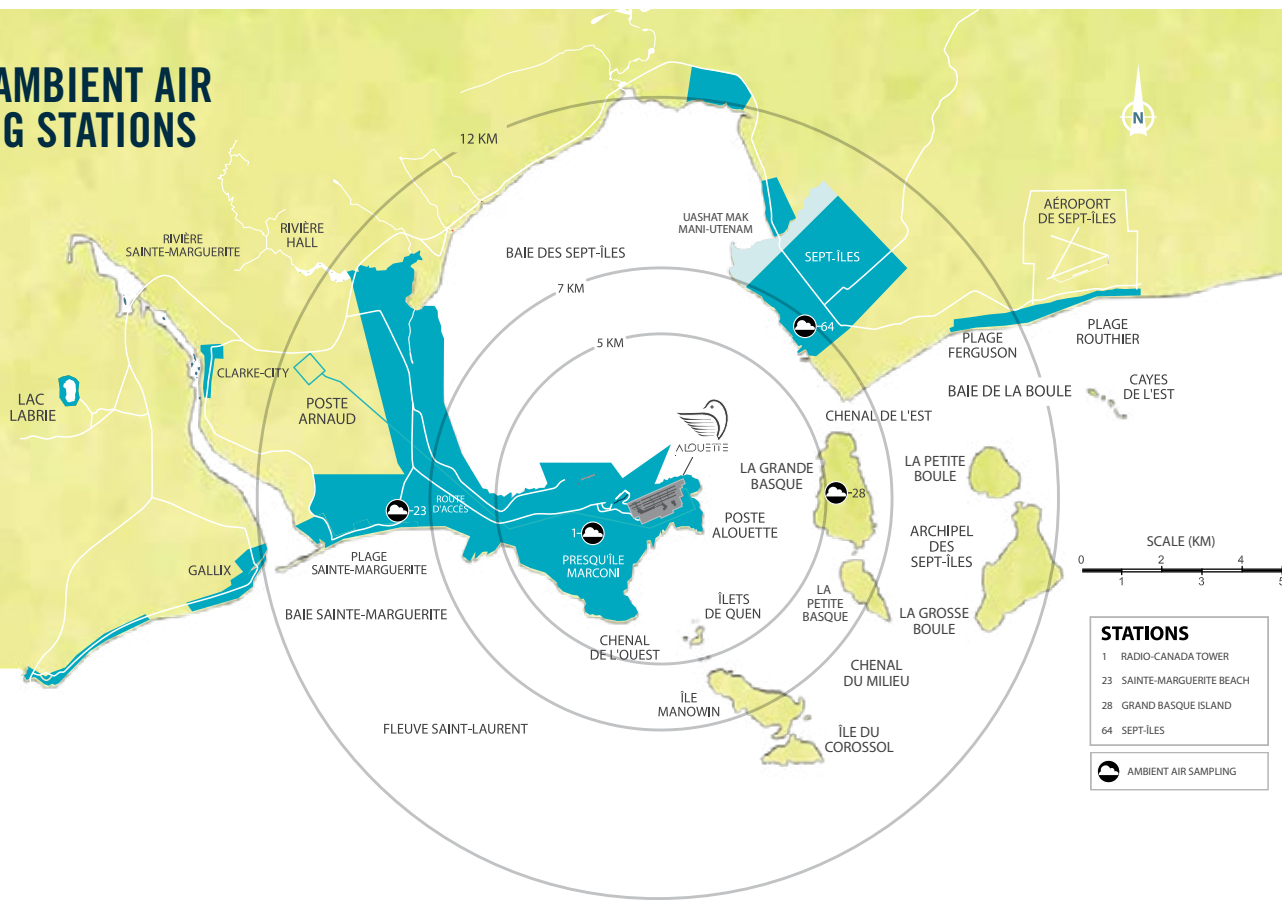


* IAI: International Aluminium Institute.



ALOUETTE CONTINUALLY PROMOTES LOW-ENERGY CONSUMPTION IN ITS OPERATIONS. IMPROVEMENTS IN ENERGY EFFICIENCY IS A PRIORITY THAT IS CONSISTENT WITH OUR VISION OF GROWTH AND SUSTAINABLE DEVELOPMENT. CURRENTLY BEING IMPLEMENTED, THE AP40LE ELECTROLYTIC CELL WAS DEVELOPED WITH THIS VISION IN MIND.

MAP OF AMBIENT AIR SAMPLING STATIONS



AIR EMISSIONS

GREENHOUSE GAS EMISSIONS (GHG)

The technology transition period contributed to a slight increase in greenhouse gas emissions at 1.88 t eq. CO₂/t Al. In our quest to learn more and improve environmental performances of the new generation of cells, a perfluorocarbon (PFC) sample campaign was undertaken in 2013 by a world expert. Since 2003, Aluminerie Alouette fulfilled its commitments within the scope of two agreements with the Government of Quebec to reduce greenhouse gas emissions. Alouette is continuing its efforts in this respect.



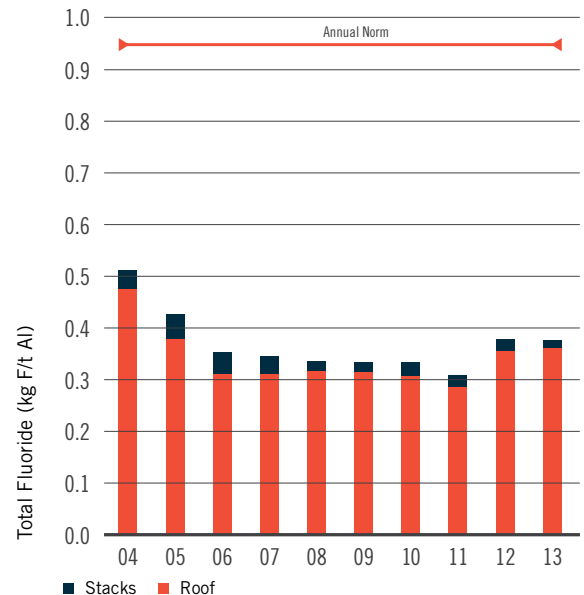
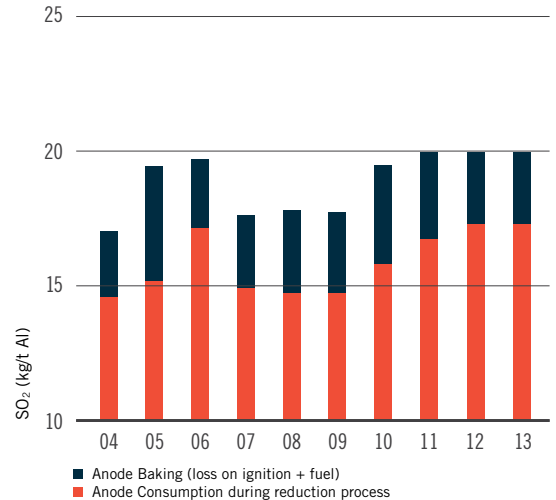
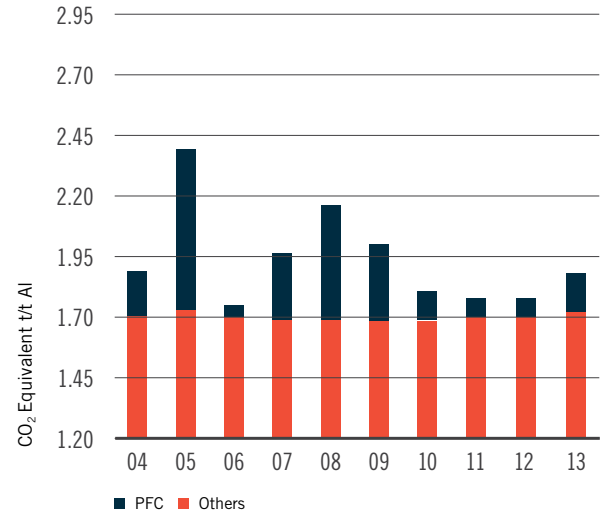
CANADIAN ALUMINIUM IS THE GREENEST IN THE WORLD,
THANKS TO RENEWABLE, HYDROELECTRIC ENERGY
USED FOR ITS PRODUCTION.

SULPHUR DIOXIDE (SO₂)

In a proactive approach, new coke-mixing installations operating throughout 2013 have helped maintain sulfur dioxide emissions at levels similar to those of 2012 in spite of significant variability in the quality of raw materials. This factor remains a major issue for the industry in the coming years. The University of Quebec in Chicoutimi-Aluminerie Alouette Research Chair on carbon use for manufacturing primary aluminium is also pursuing its work to develop high quality anodes.

TOTAL FLUORIDES FROM REDUCTION PROCESS

Fluoride emissions in the electrolytic process were 0.37 kg F/t Al. Thanks to employee involvement and consistency of operational best practices, several improvements contributed to maintaining levels similar to those of 2012, in spite of major operational disturbances linked to power failures (due to forest fires) as well as the technology transition period. Significant improvements were also made to gas treatment collection plants.



POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)

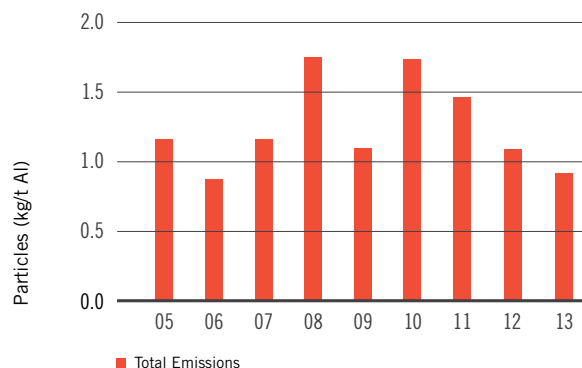
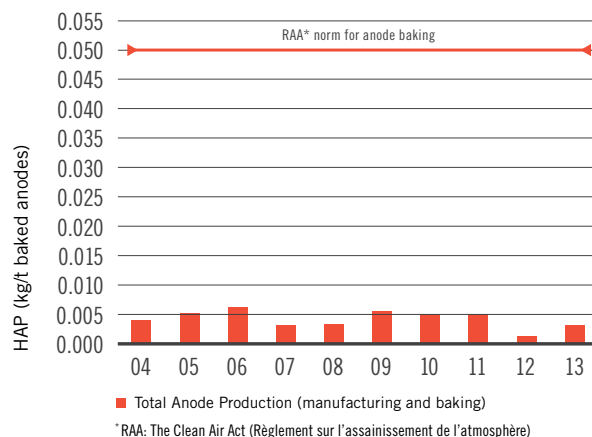
Very few PAH emissions are associated with the use of precooked anode technology present at Alouette. PAH emissions at the Anode Plant (production and cooking) in 2013 were 0.0017 kg/t cooked anodes. These results are well below governmental regulations for cooking anodes of 0.05 kg/t anodes cooked. Alouette intends to maintain these very low levels for years to come.

RESIDUES

In keeping with a continuous improvement project in 2013, Alouette recycled all aluminium dross produced – a practice that is now part of Alouette's process. Alouette's *ICI ON RECYCLE* Level 3 certification was renewed, a testimony to Alouette's commitment, as well as that of its employees, and the sound management of waste materials. Ours is the only large company located in the North Shore to have earned this highest level of certification.

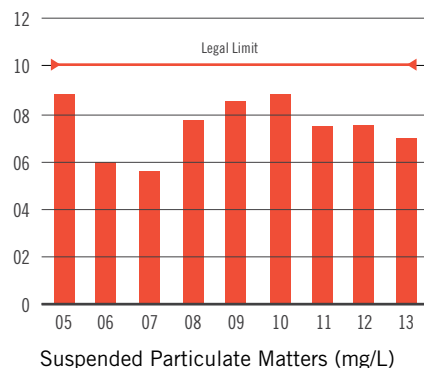
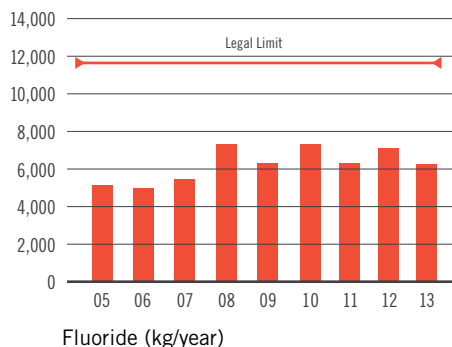
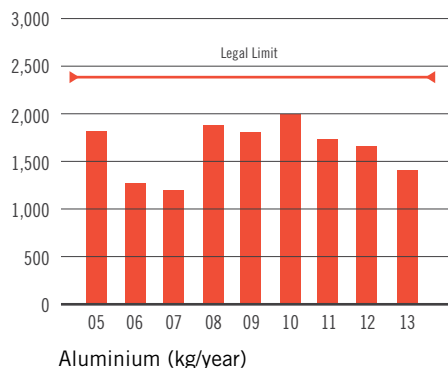
PARTICLES

Particle emissions come mainly from roof vents, scrubber outlets and dust collectors. Particle emissions in 2013 were 0.92 kg/t Al. The decrease in particle emissions is due to improved equipment reliability and a team dedicated to the maintenance and reliability.



RUNOFF WATER

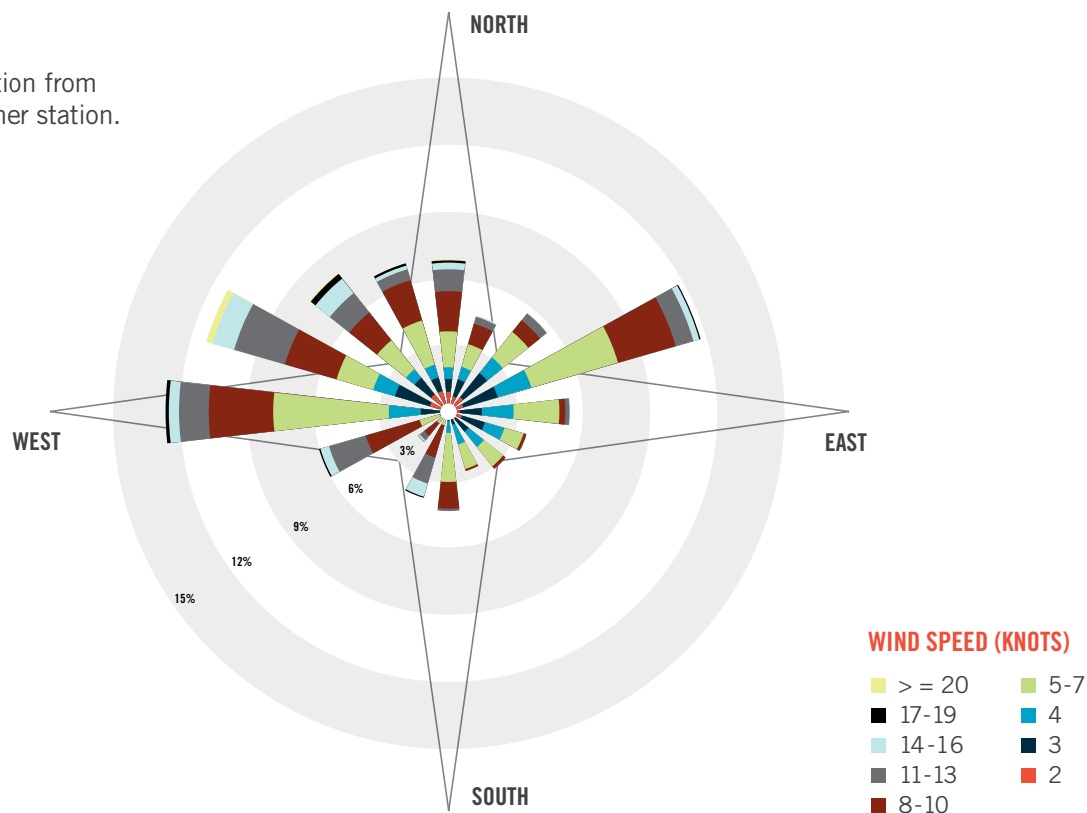
The main outflow of rainwater is located at the storm drainage system outlet, where water from the roof and surrounding facilities is collected. This water is sampled on an ongoing basis, with strict adherence to wastewater standards. Upgrades were made to the storm drainage system in 2013, which increased rainwater residence time inside the storm drain.



PROCESS WATER IS NEVER DISCHARGED INTO THE ENVIRONMENT. INSTEAD, INDUSTRIAL WATER IS REUSED IN COOLING TOWERS AND FUME TREATMENT CENTRES.

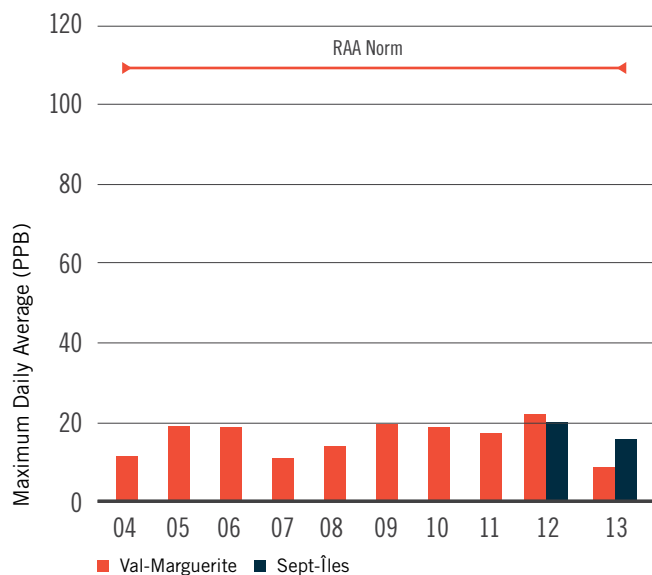
WIND ROSE

Wind speed and direction from the Pointe-Noire weather station.



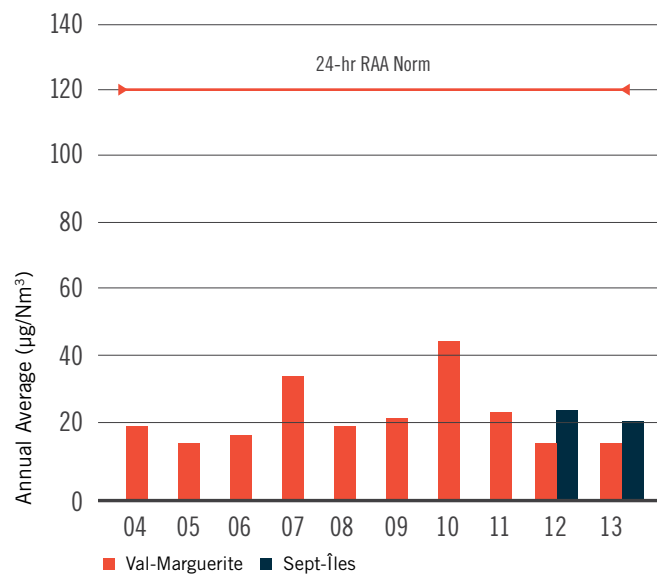
AMBIENT AIR

Alouette operates different ambient air-sampling stations with another added in 2012, to take measurements that include all emission sources regardless of the origin of contaminant. This data helps to better understand general air quality, as well as the impact of the company's operations. No excesses in ambient air quality norms have been registered.



SULPHUR DIOXIDE (SO₂) IN AMBIENT AIR

SO₂ levels in the air met the 110 ppb standard. In addition, the maximum standard (4 minutes) of 400 ppb was never exceeded during the year.

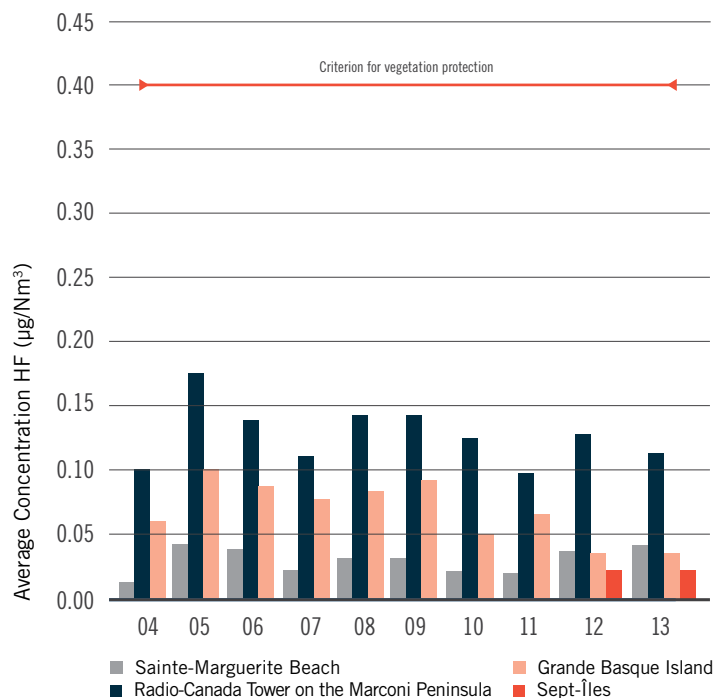


TOTAL PARTICLES IN AMBIENT AIR

The chart represents the annual average of various samples taken. The 24-hour norm was never exceeded.

GASEOUS FLUORIDE IN AMBIENT AIR

Average concentrations of gaseous fluoride (HF) in ambient air remained below the criterion for protecting vegetation. A specialized, external firm carried out the annual assessment of vegetation conditions in both industrial and non-industrial zones. This inspection covers a 7-kilometre radius around the facilities, including Grande Basque Island and Arnaud Avenue in Sept-Îles. Results indicate that Alouette's operations have no significant impact on vegetation beyond the site.



BUDDING VEGETATION IS MORE SENSITIVE TO FLUORIDE. ALOUETTE SCHEDULES THE MAINTENANCE OF ITS SCRUBBING FACILITIES OUTSIDE OF THIS CRITICAL BUDDING PERIOD. THIS MAINTENANCE IS ESSENTIAL FOR KEEPING THE EQUIPMENT IN GOOD WORKING ORDER, WITH A 99% RATE OF AVAILABILITY AND PERFORMANCE (FLUORIDE AND DUST).

OPERATIONAL EXCELLENCE ACTING WITH DETERMINATION

A jewel in the primary aluminium industry, Aluminerie Alouette strives year after year to maintain its position as leader and to ensure sustainability. The largest aluminium smelter in all of the Americas, Alouette produced near 580,000 tons of aluminium. Stability of operations (and therefore production) is influenced by diverse factors. Several major power failures occurred in rapid sequence as a result of forest fires in northern Quebec. Alouette employees' resounding ability to adapt played an important role in helping Alouette operate during these disturbances with limited impact. This same resiliency and spirit of innovation was demonstrated at a time of cohabitation between two different cell technologies (AP30 and AP40LE).

TECHNOLOGY TRANSITION POSES A CHALLENGE

Numerous continuing improvement projects, constant monitoring of stable operations, and assessments of reliable maintenance all contributed to a better situation by year-end.

PRODUCTION

- 579,759 tons of **solid aluminium**

TRANSITION

- 178 cells with **AP40LE technology**
- **New Technology** meeting expectations
- **Modifications to anodes** in order to support growth

SHAREHOLDERS, COMMUNITY AND PARTNERS

CONCRETE ACTIONS

Aluminerie Alouette's close ties with the surrounding communities of Sept-Îles, Port-Cartier and Uashat mak Mani-Utenam are deeply rooted in our organization. The leader in primary aluminium could not exist without real socio-economic collaboration with the people in these areas. We welcome hundreds of visitors into our "home" every year to discover the world of aluminium. Reliance on maritime transportation and maximization of the blue highway is another good example of positive partnerships all round. It is this very partnership that prevents 100,000 tons of CO₂ equivalent emissions.

A CLOSE, LONG-STANDING AND SUSTAINABLE PARTNERSHIP WITH THE COMMUNITIES

Teams participating in external events, such as the Best Business Practices show, also exemplify the culture of continuous improvement. Alouette and its employees are proud to be involved in hundreds of charitable and community activities.

FINANCIAL EXCELLENCE

ACTING WITH VISION

Neither the situation of the economy nor the aluminium market saw much improvement in 2013, prompting Alouette to excel financially in order to maintain its competitiveness and ensure its sustainability. The optimization of certain processes through the implementation of over 80 cost-reducing initiatives resulted in lasting and significant gains. These actions follow the guidelines of the company's "60/60 Program", which, for the period of 2010 to 2018, aims to save 60 million dollars and increase production by 60,000 tons of aluminium. The collaboration of all stakeholders connected to the organization

COMMITMENT TO JOB CREATION IN PHASE 2, RECOGNIZED 2 YEARS IN ADVANCE

and the efforts made by every employee have contributed to this remarkable performance. Solid asset management has also played an important role, and was the impetus for completing the upgrade of Phase 1's current rectifiers this year. It is certain that in a context like this and with an eye to achieving our plans for growth, more competitive energy prices are essential.

LASTING PARTNERSHIPS

- **35th Orange Alouette volleyball tournament**
- **6th edition** of the Cote-Nord Festival of the Environment
- **\$225,236** given to *Opération Enfant Soleil*
- **\$211,500** given to Centraide Duplessis
- **Very active Research Chair** with the University of Quebec in Chicoutimi

AN IMPORTANT LEGACY

- Beginning of construction of the **Alouette University Pavilion** in Sept-Îles, a **\$10 million investment** by Aluminerie Alouette and its shareholders.

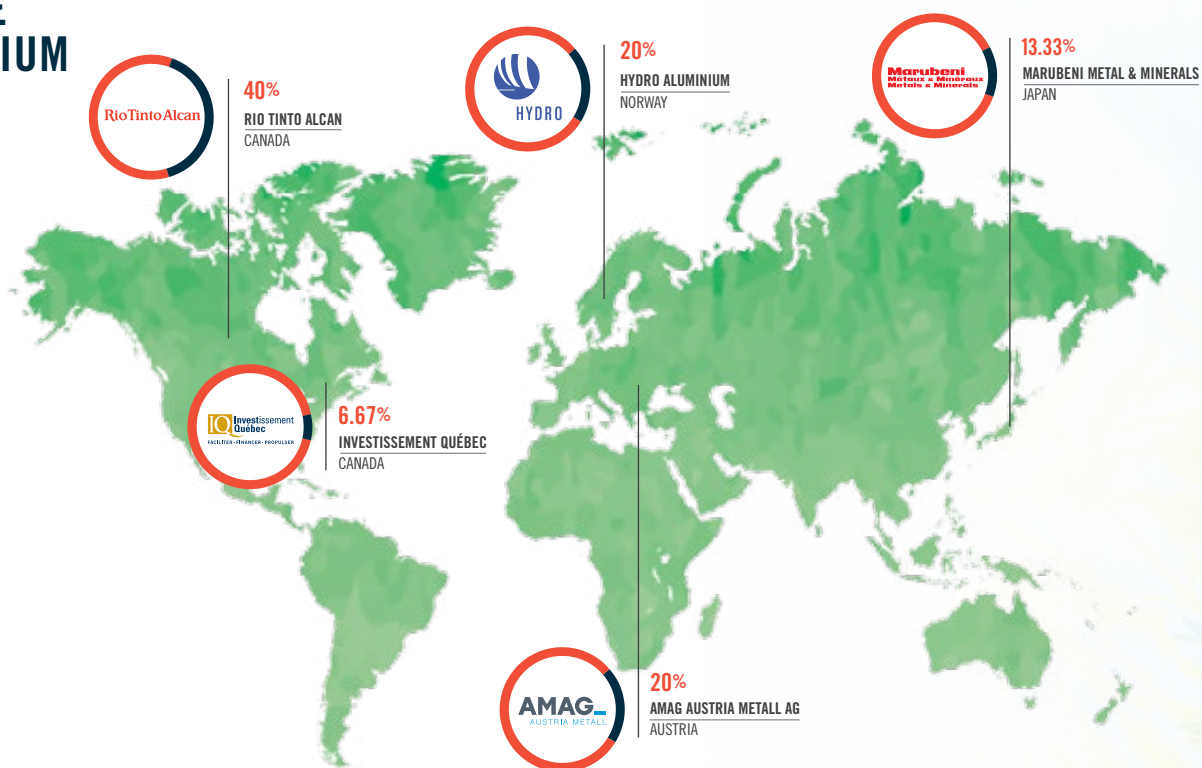
STRATEGIC DEVELOPMENT

- **More than 1500 3-year sustained jobs** created in the field of aluminium
- **Participation** in the new Quebec aluminium Industry Cluster
- Participation in the **new Quebec Aluminium Industry Cluster**.
- **3-year agreement** with the École d'Entrepreneurship de Beauce

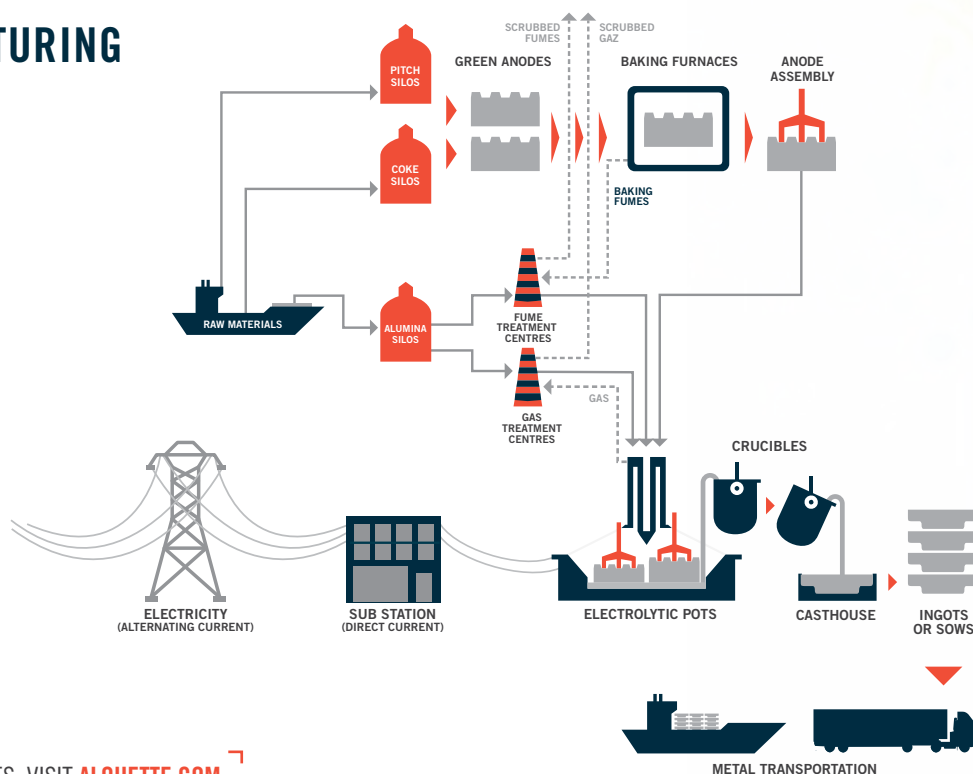
POSITIONING

- Building an **Aluminium Logistics Centre** on the cutting edge of technology
- **Several new contracts** related to the transport of raw materials
- Over **\$25 million invested** in capital expenditures

ALOUETTE CONSORTIUM



MANUFACTURING PROCESS



2013 IN PICTURES, VISIT ALOUETTE.COM

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