



AVALON
RARE METALS INC.
MATERIALS FOR CLEAN TECHNOLOGY

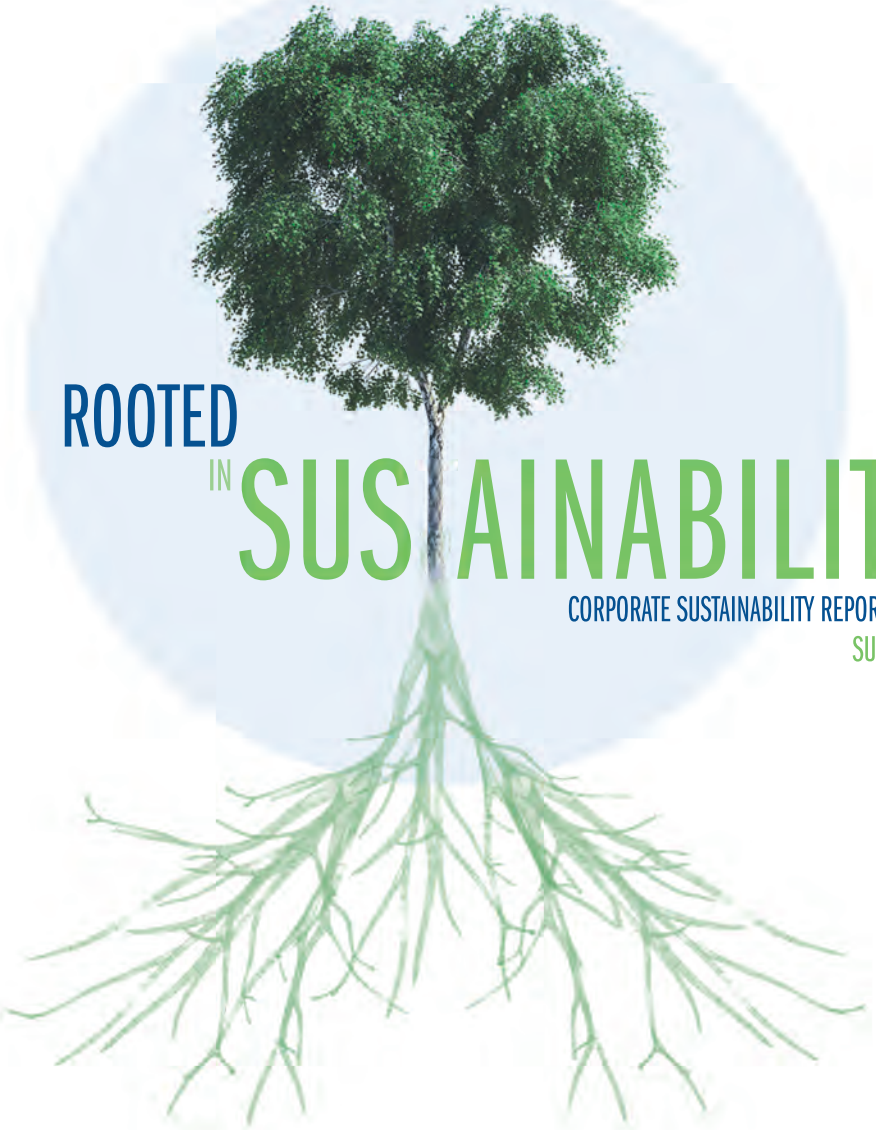
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IN

SUSTAINABILITY

CORPORATE SUSTAINABILITY REPORT 2012

SUMMARY



INTRODUCTION AND SUMMARY

- This summary is a precursor to the full 2012 Corporate Sustainability Report. The full report is being prepared within the framework of the Global Reporting Initiative (GRI), Version G3.1, Level C. Avalon's 2011 Corporate Sustainability Report, *A Journey to a Sustainable Future*, can be viewed at http://www.avalonraremetals.com/_resources/AVL_CSR_2011.pdf.
- For 2012, Avalon has **increased the number of Performance Indicators by over 25%**, organized along the category lines framed by the GRI.
- In August 2012, Avalon retained the services of Sustainalytics (formerly Jantzi Research Inc.) to conduct an independent sustainability assessment. The purpose was to determine Avalon's sustainability performance relative to its peers in the rare earth sector, its peers operating in the Northwest Territories and the industries' best practices in general. Sustainalytics conducted its first performance assessment on Avalon in August 2010.
- Based on interviews conducted with various communities of interest and stakeholder groups, material issues continue to be water protection, biodiversity/wildlife protection, community relations, and health & safety. **Avalon's profile and reputation is seen as highly favourable**; particularly its efforts to establish formal partnership agreements with key communities. Avalon is aware of and respects that local communities have stated cautious optimism that we will continue to act responsibly, as some of their experiences with other companies have been less than positive.

- Avalon's performance, benchmarked against four comparable North American-based mining companies (which are close to or are already in production), earned **an overall score of 73.5, significantly higher than the four benchmarked companies, which averaged 50.8 points**. Avalon lags the average of the 20 highest rated mining companies internationally by 12 points. Given the very early stage of Avalon's Nechalacho Project development in comparison to the leading operating companies, Avalon is satisfied with this finding. A report of Sustainalytics' findings will be issued mid-2013.

	Overall ESG	Governance Overall	Social Overall	Environment Overall
Avalon Rare Metals	73.5	76.3	75.0	69.5
Average of Four Benchmarking Companies	50.8	58.0	55.4	40.1
Weighted Industry Average	55.0	56.6	49.6	61.9
Weighted Top Quartile Average	85.5	93.9	81.4	87.4

- Activities and performance on both corporate and project levels are reported over the calendar year 2012. Financial figures, however, are based on Avalon's 2012 fiscal year: September 1, 2011 to August 31, 2012.
- The following table shows Avalon's project sites, their activity stage and materiality to this year's CSR information. The most significant advancement was the completion of the Feasibility Study for Nechalacho. The results were shared publicly in April 2013 .

LEGEND:	Exploration Stage	Preliminary Economic Assessment	Pre-feasibility Study	Feasibility Study	Permitting (Related to Stage of Project)	Operations - Construction	Material to the Report (Yes/No)
✓ - completed							
★ - in progress							
Nechalacho	✓	✓	✓	✓ ¹	★		Yes
Separation Rapids	✓	✓	✓		★		Yes
Warren Township	✓	✓			✓ ²		No
East Kemptville	✓	★			✓ ³		No
Spor Mountain	★				✓ ⁴		Yes
Miramichi Tin	★						No
Lilypad Lakes	★						No

1 Nechalacho (includes project sites at Thor Lake, Pine Point and Geismar): Feasibility Study completed and the results announced in April 2013

2 Warren Township: Mining license and production permit for 1/3 of the deposit was received

3 East Kemptville: Special license obtained from Ministry of Natural Resources for exploration drilling

4 Spor Mountain: Approvals for exploration drilling in place

ENVIRONMENTAL PERFORMANCE

Thorium and Uranium Management

Avalon continues to assess uranium and thorium in its process facilities and their potential to impact people and the environment. In 2012, a Pathways assessment of the Pine Point site was completed by SENES, an internationally recognized external expert in radiation, to

complement a similar study done at the Thor Lake site. This study also **confirmed that radiation from the plant feed, process, products and wastes does not represent a risk to personnel, the public or the environment.**

Transporting Goods, Materials and People

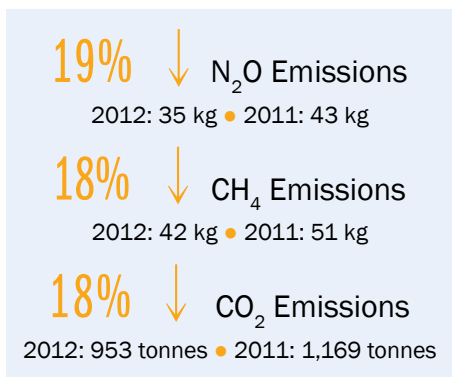
Flight safety improvement was an emphasis in 2012. Avalon now operates half loads when landing at the Nechalacho air strip. Plans to extend the Nechalacho air strip to improve safety were also advanced.

Barging remains a concern of the local communities. Avalon was able to **reduce the planned number of barge trips** across Great Slave Lake by more efficiently recovering metals in the concentrator, thereby reducing

the amount of concentrate produced. Alternate routes were assessed for safety. It was determined that there is approximately double the number of shipping days available than are required, meaning Avalon need only ship in good weather. Barging emergency response systems are well established, including recovery of lost cargo, and can be backed up with response capability by Avalon and the Coast Guard in the NWT.

Energy

In 2012, a concerted effort to more efficiently utilize and reduce the number of flights to the site resulted in a **reduction in greenhouse gas generation (GHG)** from this form of transportation. Further energy use reductions were realized at the exploration camp, made possible through the use of more efficient electrically controlled heaters and solar energy system, as well as through shallower drill holes, less drilling and fewer personnel on site. While **overall GHG generation decreased**, GHG generation on the basis of litres of diesel fuel consumed per metre of drilling increased marginally due to lost efficiencies associated with fewer drills.



Water Usage and Discharge

Avalon continued to monitor water use at Nechalacho and evaluate daily trends and usage. **Overall water use decreased** in 2012 largely due to fewer personnel on site and a smaller drilling program.

There will be no surface water discharge at the Pine Point facility. The development of a groundwater model for the Pine Point hydrometallurgical plant tailings facility and additional water quality and quantity baseline studies concluded the **impacts to the ground water will take between 40-80 years to reach the nearest receiver, Great Slave Lake, and will have no measurable impact.**

Avalon **developed water treatment technologies** for its Nechalacho tailings management area (TMA). Treated effluent passed both acute and sensitive sub-lethal toxicity tests including reproduction and growth rate tests on fish, water fleas, algae and aquatic plants. In the absence of any known regulation or guidelines for rare earth element effluent criteria nationally and internationally, Avalon utilized the Canadian Council of Ministers of the Environment ("CCME") methodologies to set very conservative effluent guidelines for the protection of aquatic life and is committed to meet these guidelines.

Biodiversity

The ongoing objective of having **no impact on SARA and IUCN** list species was met. Environmental protection training has been augmented. Strategies such as the Wildlife and

Wildlife Habitat Protection plan for mitigating impacts, and in some instances improving on existing habitats, have been included in the feasibility study for the Nechalacho Project.

ECONOMIC PERFORMANCE AND CONTRIBUTIONS

- Significant increase in engineering, process design and pilot plant testing toward completing the Nechalacho Project Feasibility Study.
- Increased activity related to Environmental Assessment Process and permitting initiatives.
- Drilling focused on Nechalacho resource definition and mine planning.
- Modest reduction in donations, particularly during extensive public consultation and hearing process to ensure arms-length discussion and input.

81% ↑
in Salaries and Benefits
FY2012 = \$2,902,440 • FY2011 = \$1,600,985

\$37,500 in Community Donations

\$3.9 million of purchases from Aboriginal and Local Businesses

Procurement and Local Hiring

As Avalon's Nechalacho Project is currently in the advanced development stages and is not yet in construction or operations, its procurement metrics reflect those of an exploration and development company.

The large overall expenditure and the proportion of expenditures on non-local consultants were a result of our **focus on professional and technical design and pilot plant testing** services related to completing the Feasibility Study and environmental hearing related activities.

As Avalon progresses to construction at its Nechalacho Project, factors which will influence supplier selection include safety, environment and health, partnerships with Aboriginal businesses, relevant experience in Northern climates, reputation, product/service quality, quantity, delivery and price competitiveness.

\$30,331,895
in purchases for Thor Lake

6% spent on **Local** Vendors
7% spent on **Aboriginal** Vendors
87% spent on **Other** Vendors

SOCIAL PERFORMANCE

Total Workforce and Camp Demographics

No lost time injuries
for Avalon Employees

32% ↑ number of **Full-Time Employees** over 2011.

Total workforce was **72% male** and **28% female**,
with the **average** age being **41 years old**.

Of the people employed **at Thor Lake, 65%** were **Aboriginal**.

Health and Safety

While the **Lost Time Injury Rate for Contractors decreased to 17.5 in 2012 from 19 in 2011, our goal of achieving Zero Harm was not met.** Three lost time drilling contractor injuries, all burns, occurred early in the year, two of which were serious. Thankfully, the persons who suffered burn injuries are fully recovered. Increases in regular risk assessments, safety meetings, inspections, as well as changes in the incentive system, appear to have been effective as there were no additional lost-time injuries after the fire incident. Work continued through the year to develop the health and safety management system required for the future construction and operations programs.

NWT Aboriginal and Community Engagement

Avalon **entered into a formal Accommodation Agreement with the Deninu K'ue First Nation.** The number of communications and engagements with Aboriginal communities increased substantially as Avalon continues to negotiate formal agreements with the remaining identified Aboriginal communities of interest related to the Nechalacho Project.

	2012	2011	2010	2009
Communications	629	344	479	137
Engagement	137	60	79	56
Aboriginal	357	309	378	129
Aboriginal Business	60	21	47	11
Non-Aboriginal Government and Regulatory	229	67	85	14
NGO	50	7	48	39

UNIVERSITY OUTREACH

- **McGill University, Materials Engineering:** students conducted technical, environmental and economic assessments on varying REE deposits and geographic locations.
- **Schulich School of Business:** adjudicated the International Case Competition as part of the recently-launched MBA in Mining Speciality. Delivered seminars at Natural Resources Opportunities Club.
- **University of Toronto, Chemical Engineering:** students designed variations of Avalon's hydrometallurgy processes.
- **University of Toronto, Engineering Science:** students analyzed and evaluated the technical, economic, environmental and social outcomes related to different potential alternative energy systems.
- **Western University, Chemical and Mechanical Engineering:** students designed alternative energy systems to reduce a full reliance on diesel at Nechalacho.
- Sponsored graduate student research projects at several Canadian universities.
- Avalon chaired the Organizing Committee at the inaugural Rare Earth Elements Symposium at the annual **Conference of Metallurgists (COM12)**, attended by academia and industry scientists and engineers.
- Avalon continued to actively organize, sponsor and participate in numerous **PDAC** and other major industry forums focused on technical and CSR-related specialities, as well as local community education programs.




















PERFORMANCE AGAINST TARGETS

Avalon's 2011 CSR Report included self-assessments against the Mining Association of Canada's (MAC) Towards Sustainable Mining (TSM) self-assessment and additional internal targets. Overall, we **made progress in many areas against the 2012 Targets**; however, we have not yet completed the formal documentation in many of these categories. As such, **we cannot say that we fully achieved several of them**. Details of each target will be outlined in the full 2012 CSR Report.

Avalon Scorecard

Below is a high level scorecard of the 2011 CSR Report Targets and Objectives. The following color legend illustrates if our targets were achieved:

- Green = target has been achieved.
- Yellow = target substantially achieved (at least 75%).
- Red = target not yet achieved.

Develop Health and Safety Targets		Develop Environmental Targets	
Develop Process for Prioritizing Sustainability Risks and Opportunities		Zero Fatalities	
Implement and Use Leading Safety Indicators		Implement Emergency Response Capability at Thor Lake Site	
Complete External Sustainability Review and Benchmark Against Peers		Broaden Scope of Sustainability Reporting	
Reduce Diesel, Gasoline and Aviation Fuel Consumption		Implement Wildlife Monitoring and Protection Programs	
Document Corporate Policies and Procedures. Formalize Training.		Adopt Contractor Management Systems Aligned with Best Practices	
Adopt Best Standards in Waste Management		Adopt Best in Class Community Consultation Policies, Plans and Practices	
Secure Formal Agreements with Aboriginal governments		Complete Environmental Permitting for Nechalacho Construction	
Zero Lost Time Accidents		Upgrade Environment and Safety Policy to a Sustainability Policy	
Prepare and Implement Purchasing Policy		Implement radiation protection plan prior to construction	N/A

TSM Self-Assessment

For information on the TSM framework, go to www.mining.ca/site/index.php/en/towards-sustainable-mining.html. The following color legend illustrates if our targets were achieved:

- Green = target has been achieved.
- Yellow = target substantially achieved (at least 75%).
- Red = target not yet achieved.

TSM Performance Indicator	2012 Rating	2012 Target	2011 Rating
Aboriginal and Community Outreach			
Communities of Interest Identification (COI)	●	AA	A
COI Engagement and Dialogue	●	A	B
COI Response Mechanism	●	A	A/B
Reporting	●	AA	A
Biodiversity Conservation Management			
Corporate biodiversity conservation policy, accountability and communications	●	A/B	C
Facility-level biodiversity conservation planning and implementation	●	B	C/B
Biodiversity conservation reporting	●	B	C
Crisis Management Planning			
Preparedness	●	Yes	No
Review	●	Yes	Yes
Training	●	Yes	Yes
Energy Use and GHG Management			
Energy use management systems	●	C/B	C
Energy use reporting systems	●	B	B
Energy intensity performance targets	●	C	C
GHG emissions management systems	●	C	C
GHG reporting systems	●	B	B
GHG intensity performance targets	●	C	C
Health and Safety			
HS Policy, commitment and accountability	●	A	A
Planning, implementation and operation	●	A	B
Training, behaviour and culture	●	AAA	B
Monitoring and reporting	●	A	B
Performance	●	AA	B
Tailings Management	N/A	N/A	N/A



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Revised October 2013 with correct emissions data