

Global Reporting Initiative Index

Please note that, due to Avalon not significantly changing its form, governance or approach to material topics during the fiscal year, many of the Disclosures in the Index below contain repetitive text from Avalon's previous reports.

As discussed on [page 26](#), the Index below contains a column with icons to indicate which United Nations Sustainable Development Goal(s) the GRI Disclosure corresponds with.

ORGANIZATIONAL PROFILE

Name of organization 102-01

Avalon Advanced Materials Inc. (Avalon or the Company)

Activities, brands, products, and services 102-02

Avalon is a mineral resource exploration and development company that owns five projects across Canada, all potential sources of critical minerals for sustainable technologies.

Location of headquarters 102-03

Toronto, Ontario, Canada.

Location of operations 102-04

Canada. See Avalon's website at [Projects](#) for specific project locations.

Ownership and legal form 102-05

Avalon is a Canadian corporation continued under the Canadian Business Corporations Act. It is a publicly-traded company with common shares listed on the Toronto Stock Exchange, on the OTCQB in New York and on the Frankfurt Stock Exchange in Germany. Avalon has three wholly-owned subsidiaries: Nolava Minerals Inc., 8110131 Canada Inc. and Avalon Rare Metals Ltd.

Markets Served
102-06

As none of Avalon’s projects are currently in production, the Company does not yet serve any market with a product or service. Avalon is primarily targeting the clean technology sector, where new demand is being created for elements such as lithium and the rare earths.

Scale of the Organization
102-07

See Avalon’s 2019 Year End Financial Statements available publicly on [SEDAR](#) and [EDGAR](#).

Information on employees and other workers
102-08

As at August 31, 2019, Avalon had nine permanent, full time employees (four female, five male) and two permanent, part time employees (one female, one male). The permanent workforce is based in Toronto, Ontario, Canada. Avalon employs contracted individuals in some corporate roles, as well as project site roles as needed.



Supply Chain
102-09

Avalon purchases goods and services to develop the properties it owns. It does not currently sell any products or services.

Significant changes to the organization and its supply chain
102-10

No significant changes during FY2019 in Avalon’s ownership, scale or supply chain. In June 2019, Avalon and Cheetah Resources Pty Ltd. signed a purchase and sale agreement under which Cheetah will acquire ownership of the near-surface T-Zone and Tardiff Zone resources for C\$5 million. Avalon retains its ownership of the mineral resources below a depth of 150 metres above sea level (including the Basal Zone deposit) and will continue to have access to the property for exploration, development and mining purposes. Avalon will also continue to assist Cheetah where needed in executing its planned work programs and retain its 3% NSR type royalty.

Avalon has included the work programs it managed for Cheetah within its health and safety statistics. However, Cheetah’s programs’ GHG emissions, wastes and water usage are not calculated as part of Avalon’s overall data.

Precautionary Principle or approach
102-11

Avalon applies the precautionary approach in its management of environmental risk. This approach reflects the need to take prudent action in the face of potentially serious risk without having to await the completion of further scientific research for confirmation. The precautionary approach incorporates a cost benefit analysis to ensure that the lack of full scientific certainty is not used as a reason for postponing cost effective measures to prevent environmental degradation.

External Initiatives
102-12

Avalon has [publicly subscribed](#) to the principles and practices of the Prospectors and Developers Association of Canada (PDAC)’s e3 Plus: A Framework for Responsible Exploration and the Mining Association of Canada (MAC)’s *Towards Sustainable Mining* (TSM) framework.

**Membership of associations
102-13**

Association	Involvement/Membership Level
Association for Mineral Exploration British Columbia	Member Health and Safety Committee Member
Association of Professional Geoscientists of Nova Scotia	Member
Association of Professional Geoscientists of Ontario	Member
Canadian Rare Earth Elements Network	Founding Member Executive Committee Member
Canadian Rare Earth R&D Initiative	Environmental Committee Member Leaching and Separation Committee Member Physical Separation Committee Member Research & Development Initiative Steering Committee
International Standards Organization TC298 Rare Earths Canadian Mirror Committee	Committee Member
International Tin Association	Member - Explorers and Developers Group
Metallurgical Society of Canada's COM2020 Critical Materials Symposium	Organizing Committee Member
Mining Association of Canada	Member of the Board Environmental Committee Member Science Committee Member Community of Interest Panel
Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists	Member
NWT & Nunavut Chamber of Mines	Member of the Board
Prospectors and Developers Association of Canada	Aboriginal Affairs Committee Member Awards Committee Member Convention Planning Member Geoscience Committee Member Health and Safety Committee Chair Sustainability Committee Member

This information refers to memberships maintained at the organizational level. In addition, Avalon supports Don Bubar's participation in the Advisory Board to the Faculty of Science of McGill University and as a Director of Mining Matters.

STRATEGY

**Statement from senior decision-maker
102-14**

See Message from the President and CEO on [page 3](#).

**Key impacts, risks and opportunities
102-15**

See Message from the VP, Sustainability on [page 7](#), FY2019 Goals on [page 11](#) and Disclosures on Management Approach on page 46 of Avalon's [2017 Sustainability Report](#).

ETHICS AND INTEGRITY

**Values, principles, standards and norms of behavior
102-16**

See Avalon's website at [About - Governance](#) for more information.



Mechanisms for advice and concerns about ethics
102-17

The Whistleblower Protection Policy establishes procedures for managing complaints received regarding accounting, internal accounting controls, auditing matters or violations of the Company's Code of Business Conduct and Ethics. All good faith reports of suspected violations will be treated fairly and without reprisals. Investigations will be conducted into all allegations of inappropriate behaviour. The Whistleblower Protection Policy provides contact persons independent of management for those who wish to file a report. The Whistleblower Protection Policy is found on Avalon's website at [About - Governance](#). When an operating mine is in place, Avalon will look at employing appropriate external mechanisms for reporting concerns.



GOVERNANCE

Governance structure
102-18

Avalon is a widely held public company that is overseen by its Board of Directors and managed by its senior management team. For further information, see Avalon's website at [About - Directors and Committees](#).

Delegating authority
102-19

During Board meetings, the Board of Directors receives regular input from Avalon's management team with regard to economic, environmental, community and risk management concerns, both internal and external. These are held at least four times a year (five meetings in FY2019) or at necessary times depending on the urgency of the concern. When required, the Directors take action on this input by providing direction to senior management or through amendments, to the Company's policies. Current policies are found on Avalon's website at [About - Governance](#).

Executive-level responsibility for economic, environmental and social topics
102-20

Avalon's President and CEO, Don Bubar, is the primary contact for informing the Board of Directors of any concerns. Reporting to the President, Avalon has also appointed Jim Andersen, VP, Finance and CFO; Dave Marsh, Senior VP, Metallurgy and Technology Development; and Mark Wiseman, VP, Sustainability, to be responsible for the day to day management of economic, environmental, safety, process development, risk management programs and social topics and provide a quarterly update to the Board of Directors on these matters. Bill Mercer, VP, Exploration, also periodically reports to the President and Board of Directors on field project environment, health and safety, environmental geological operations and community relations matters raised during the course of field activities.

Consulting stakeholders on economic, environmental and social topics
102-21

Avalon's Board of Directors is updated by the management team on relevant developments. Avalon management regularly engages with its Communities of Interest in order to provide project updates and obtain feedback. As well, Communities of Interest may contact the appropriate manager for consultation, most frequently through the VP, Exploration; VP, Sustainability; President and CEO; or Manager, Investor Relations. The Chair of the Board is accessible to Communities of Interest outreach on concerns.



Composition of the highest governance body and its committees
102-22

See Avalon's website at [About - Directors and Committees](#).



Chair of the highest governance body
102-23

Mr. Brian MacEachen is non-executive Chair of Avalon's Board of Directors.



Nominating and selecting the highest governance body
102-24

The responsibility of nominating an individual as a Director of the Company falls under the Compensation, Governance and Nominating (CGN) Committee. In making its recommendations, the CGN Committee will consider the candidates' competencies and skills (including experience in economic, environmental or social topics); ability to devote sufficient time and resources; diversity; and compliance with the requirements of the applicable securities regulatory authorities. The CGN Committee periodically reviews the size and composition of the Board and Board Committees and accepts recommendations from the President and CEO. As a publicly-traded company, all members of Avalon's Board of Directors are re-elected by shareholders' votes at the Company's Annual General Meeting.



Conflicts of interest
102-25

The Board of Directors conducts periodic reviews of the Company's Code of Business Conduct and Ethics, which all Directors and employees are subject. Additionally, Directors are bound by the rules of the Canada Business Corporations Act. The Act obliges Directors to disclose material interest in any transaction or arrangement that the Board is contemplating. Directors who have divulged such an interest are prohibited from participating in the analysis or voting on the disclosed transaction. Avalon is currently reviewing all its corporate policies, and expects all documents, including the Company's Code of Business Conduct and Ethics, to be updated in early 2020.



Role of highest governance body in setting purpose, values and strategy
102-26

Avalon's Vision, Mission and Values statement received Board Approval in 2013. Material revisions to this and other corporate policies require Board approval. Each year, senior management and the Board review the Company's sustainability goals in the annual Sustainability Report.

Collective knowledge of highest governance body
102-27

See GRI Disclosure 102-19 on [page 30](#).



Evaluating the highest governance body's performance
102-28

The Board of Directors conducted a self-assessment, during FY2015 with respect to overall effectiveness and performance. The evaluation was conducted and reviewed internally. There were no specific actions that came or were identified from the self-assessment. Similar assessments are planned to be conducted in the future.

Identifying and managing economic, environmental and social impacts
102-29

Avalon continuously works at embedding risk management practices throughout the organization, from periodic reporting of high level risks to the Board of Directors through daily risk assessments with front line employees. Avalon's risk management practices include a formal process to identify, evaluate, rank, mitigate, monitor and assign responsibility for all types of risks facing the Company. High level and moderate risks must be regularly monitored and mitigated to within acceptable levels.



Emergency preparedness is a component of risk management. Avalon has developed site-specific emergency response plans to deal with emergencies that could impact its business, including a response and notification procedure to ensure action plans are put in place and information is disseminated in an efficient and reliable manner. These plans are updated at a minimum of every three years, or whenever there is a significant change in scope of work at an active project.

Effectiveness of risk management processes
102-30

Avalon's VP, Sustainability and VP, Finance have day to day responsibility for management of economic, health and safety, environmental and social risks. Health and safety responsibility is assigned at all levels within the Company as part of the health, safety and environment management plan. Material, high level risks are periodically reported to the Board of Directors at their request, or on the recommendation of management to ensure that risk management systems are in place and operating to manage these risks to acceptable levels. Increased scrutiny occurs when there is a significant change in a project's status or phase.

Review of economic, environmental and social topics
102-31

See GRI Disclosure 102-19 on [page 30](#).

Highest governance body's role in sustainability reporting
102-32

The VP, Sustainability and members of the Sustainability Advisory Committee (which includes a member of the Board of Directors) review the annual Sustainability Report.

Communicating critical concerns
102-33

See GRI Disclosure 102-19 on [page 30](#).

Nature and total number of critical concerns
102-34

Avalon did not experience any health and safety, environmental, community or financial critical concerns over the course of FY2019. Mechanism for addressing critical concerns is as described in Avalon's Whistleblower Protection Policy found on Avalon's website at [About - Governance](#).

Remuneration policies
102-35

Avalon's CGN Committee aims to evaluate and maintain fair and reasonable levels of compensation. Compensation to Avalon's executive officers, including the President and CEO, has three components: base salary, cash bonuses and long term incentive in the form of stock options. Bonus compensation is a cash component of management compensation in order to permit the recognition of outstanding individual efforts, performance (including health, safety, environmental and community), achievements and/or accomplishments by members of the Company's management team. The long term incentive plan uses stock options to align employees' performance with the continued growth of the Company. Employee options, in general, are vested at 25% per year over four years starting on their first anniversary date. Options are granted annually to reflect prevailing market conditions. The Board and affiliated Board committee members receive remuneration for acting as Directors and/or fees for attending meetings. See Avalon's 2019 Year End Financial Statements with Management Discussion and Analysis publicly available on [SEDAR](#) and [EDGAR](#), or Avalon's annual Information Circular available on its website at [Investors - Regulatory Filings](#).

Process for determining remuneration
102-36

Senior executive compensation is governed through the approval of the CGN Committee. Compensation of non-executive employees is determined by management and is based on market conditions, values and individual performance. Avalon currently does not rely on remuneration consultants to establish compensation levels, but has utilized external salary surveys to determine market values.

Stakeholders' involvement in remuneration
102-37

Remuneration at Avalon follows the prevailing conditions of the market. The Company's methodology and practices with respect to remuneration are described in detail in the Company's 2019 [Information Circular](#). No issues were raised by the shareholders with respect to remuneration at the Company's Annual General Meeting in February 2019.



STAKEHOLDER ENGAGEMENT

List of stakeholder groups
102-40

See 'Defining Report Content, Materiality, and Boundaries' on page 49 of Avalon's [2016 Sustainability Report](#).

Collective bargaining agreements
102-41

None.



Identifying and selecting stakeholders
102-42

See 'Defining Report Content, Materiality, and Boundaries' on page 49 of Avalon's [2016 Sustainability Report](#).

Approach to stakeholder engagement
102-43

As reflected in the table below, Avalon regularly conducts Communities of Interest engagement at a level commensurate with project activity. Avalon welcomes comments and questions regarding its annual Sustainability Reports, and all sustainable initiatives undertaken by the Company throughout the year. Engagement is part of the way Avalon conducts business and is not undertaken specifically as part of the report preparation process.

	Separation Rapids			East Kemptville			Nechalacho			Lilypad		Multiple Project		
	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2019	2018	2017
Total Non-Indigenous	124	126	196	54	119	55	58	47	51	0	1	40	20	53
Contacts	108	98	138	42	48	46	42	28	39	0	1	21	4	29
Engagements	16	28	58	12	71	9	16	19	12	0	0	19	16	24
Government/Regulators	245	125	194	66	43	27	122	36	38	0	1	31	5	5
Other	0	1	1	0	21	27	5	11	13	0	0	481	15	42
NGOs	0	0	1	0	55	1	48	0	0	0	0	0	0	6
Surface Rights Holder	-	-	-	43	-	-	-	-	-	-	-	-	-	-
Total Indigenous	162	111	213	19	30	2	58	17	4	1	3	1	2	2
Contacts	159	105	192	14	4	1	47	16	4	1	3	1	2	2
Engagements	3	6	21	5	26	1	11	1	0	0	0	0	0	0
Indigenous Governments and Organizations	159	79	159	62	30	2	106	14	0	5	3	0	0	1
Indigenous Business	68	28	52	0	0	0	21	3	3	0	0	2	1	0
Indigenous Other	12	4	2	43	0	0	2	0	1	0	0	0	1	1
Indigenous Rights Violations	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Key topics and concerns raised
102-44

Avalon formalized its procedure for identifying impacted Communities of Interest in FY2018, and engagement continued at all active projects in FY2019. The Company also engaged with industry associations, regulators and federal and provincial governments throughout FY2019, on a range of regulatory initiatives with the potential to impact Avalon projects. This included submissions directly from the Company or included with MAC responses.

See the Message from the VP, Sustainability on [page 7](#) and FY2019 Goal Performance on [page 11](#) for examples of engagement.

REPORTING PRACTICE

Entities included in the consolidated financial statements
102-45

See Avalon's 2019 Year End Financial Statements available publicly on [SEDAR](#) and [EDGAR](#). This Sustainability Report does not cover inactive or non-material entities that may be mentioned within the Company's Financial Statements.

Defining report content and topic Boundaries
102-46

See 'Defining Report Content, Materiality, and Boundaries' on page 49 of Avalon's [2016 Sustainability Report](#).

List of material topics
102-47

See 'Defining Report Content, Materiality, and Boundaries' on page 49 of Avalon's [2016 Sustainability Report](#).

Restatements of information
102-48

There have been no restatements of Avalon's previous Sustainability Reports.

Changes in reporting
102-49

See 'Defining Report Content, Materiality, and Boundaries' on page 49 of Avalon's [2016 Sustainability Report](#).

Reporting period
102-50

September 1, 2018 to August 31, 2019 (Avalon's 2019 fiscal year).

Date of most recent report
102-51

December 3, 2018.

Reporting cycle
102-52

Annual.

Contact point for questions regarding the report
102-53

Avalon's VP, Sustainability, Mark Wiseman, can be reached at sustainability@AvalonAM.com or +1-416-364-4938.

**Claims of reporting in accordance with the GRI Standards
102-54**

This Sustainability Report has been prepared in accordance with the GRI Standards: Core option.

**GRI content index
102-55**

This complete GRI Content Index begins on [page 27](#).

**External assurance
102-56**

This Sustainability Report has not been externally assured. At this time, there is a low level of risk in the information presented herein and the fundamental systems used to gather data. As Avalon's projects progress and the Company grows in size and resources, the formal reporting systems will be externally assured.

GRI 103: MANAGEMENT APPROACH 2016

**Explanation of the material topic and its Boundary; management approach and its components
103-01/02/03**

See Disclosures on Management Approach starting on page 46 of Avalon's [2017 Sustainability Report](#).



GRI 201: ECONOMIC PERFORMANCE 2016

**Direct economic value generated and distributed
201-01**

	FY2019	FY2018	FY2017	FY2016
Revenue	-	-	-	-
Interest	\$42,819	\$61,777	\$28,211	\$35,160
Management fees	\$10,204	-	-	-
Expenses	\$3,594,034	\$3,520,753	\$3,703,000	\$3,990,945
Loss from Operations	-\$3,541,011	-\$3,458,976	-\$3,674,789	-\$3,955,785
Deferred Income Tax Recoveries	\$154,676	\$218,232	\$317,468	\$416,140
Net Loss for the Year	-\$3,386,335	-\$3,240,744	-\$3,357,321	-\$3,539,645



**Defined benefit plan obligations and other retirement plans
201-03**

Avalon has no defined benefits plan.

**Financial assistance received from government
201-04**

None.

GRI 203: INDIRECT ECONOMIC IMPACTS 2016

Infrastructure investments and services supported 203-01

Other than educational institutional supports, there were no infrastructure developments, services or investments supported by Avalon during FY2019.



GRI 204: PROCUREMENT PRACTICES 2016

Proportion of spending on local suppliers 204-01

	FY2019		FY2018		FY2017		FY2016	
Indigenous Vendors	1%	\$2,000	1%	\$7,944	1%	\$18,710	0%	\$2,289
Local Vendors	28%	\$100,864	22%	\$258,679	24%	\$355,030	22%	\$296,919
Other Vendors	71%	\$251,980	77%	\$903,882	75%	\$1,106,089	78%	\$1,048,489
TOTAL		\$354,844		\$1,170,505		\$1,479,829		\$1,347,697

	FY2019		FY2018		FY2017		FY2016	
Indigenous Vendors	0%	-	0%	\$0	0%	\$0	0%	\$0
Local Vendors	48%	\$82,713	13%	\$30,230	41%	\$35,966	22%	\$273,059
Other Vendors	52%	\$90,252	87%	\$206,689	59%	\$51,923	78%	\$995,275
TOTAL		\$172,965		\$236,919		\$87,889		\$1,268,334

	FY2019		FY2018		FY2017		FY2016	
Indigenous Vendors	13%	\$10,982	23%	\$42,113	11%	\$14,413	0%	\$245
Local Vendors	51%	\$43,787	62%	\$114,556	41%	\$51,187	30%	\$58,883
Other Vendors	36%	\$31,600	15%	\$28,668	48%	\$60,086	70%	\$140,122
TOTAL		\$86,369		\$185,337		\$125,686		\$199,250



GRI 302: ENERGY 2016

Energy consumption within the organization 302-01

Avalon consumed 389.29 gigajoules (GJ) internally over FY2019. See table below for year-over-year comparison.



**Energy consumption outside of the organization
302-02**

Avalon consumed 313.24 GJ externally over FY2019. See table below for year-over-year comparison.

Energy Use (GJ)					
	FY2019	FY2018	FY2017	FY2016	FY2015
Internal	389.29	1206.64	1368.77	788.1	730
External	313.24	359.86	455.29	535.2	1248.3

**Reduction of energy consumption
302-04**

Avalon’s energy consumption varies mainly due to the equipment used, length of and conditions during drill campaigns and changes in the frequency and destination of executive travel. External energy use decreased in FY2019 primarily due to reduced executive travel, while internal energy use primarily decreased due to lack of drill activity at Company’s sites, as well as a reduced footprint at the head office.

GRI 303: WATER AND EFFLUENTS 2018

**Interactions with water as a shared resource
303-01**

Protecting the environment by monitoring and managing the environmental impacts of its activities and potential activities are central to Avalon’s core values and those of many of the Company’s Communities of Interest.



The Company’s Sustainability Policy outlines Avalon’s environmental management approach. Potential risks to water are identified as part of a risk management program and appropriate management strategies identified. Avalon’s VP, Sustainability has overall responsibility for managing Avalon’s activities that may impact water.

Avalon conducts environmental impact assessments for its advanced projects, collecting and utilizing extensive baseline environmental data utilizing standard accepted methodologies, time lines and Quality Assurance/Quality Control protocols. Baseline water quality data normally spans in excess of two years. Avalon utilizes decades of locally-available climatic data for the design and management of water and wind and to design for critical storm events such as temperature extremes, the 1:100 year storm and Probable Maximum Storm events. Aquatic, terrestrial species and Species at Risk Act (SARA)-compliant studies detail species local to project sites and management plans are developed as necessary to protect them. This includes engagement with local Indigenous groups, regulators and communities regarding a wide variety of water uses, discharges, short and long term water quality criteria and goals and including the cumulative impacts of other potential environmental impacts and climate change. Results of monitoring are regularly reported to government regulators, local communities and are also summarized in Avalon’s annual Sustainability Report. Avalon also prepares rehabilitation plans for post closure land use that include the long term protection of water quality post closure.

Avalon is engineering its processing facilities to minimize water use and maximize recycling. Water is withdrawn from large local sources in a manner that will not have any significant impact on water flow and water levels and thus have no measurable impact on the biota. Pilot scale testing of water treatment systems ensures that the minimal water quantities discharged and returned to the local sources meet or improve upon effluent criteria, and where those are not available, Avalon has historically established its own criteria for the protection of receivers. In keeping with best practices, site-specific and detailed management plans will be developed for each project location to monitor aquatic effects, site run off, spill contingency, waste management and other potential risks to water.

Management of water discharge-related impacts
303-02

Avalon operations are all located in Canadian jurisdictions with well-developed water quality and biological performance criteria. However, occasionally there are data-poor minerals with lesser known impacts on the environment for which effluent criteria or guidelines have not yet been established. In such cases, Avalon attempts to develop its own guidelines. At the Nechalacho Property in the Northwest Territories, Avalon worked with academia and regulators to develop effluent guidelines for the rare earth elements using protocols similar to the Canadian Council of Minister of Environment protocols. These guidelines have subsequently been proposed as regulatory guidelines in Avalon's water permit.

Avalon has worked extensively with MAC and Ministry of the Environment, Conservation and Parks to establish the water quality and biological criteria that were incorporated into the new Metal and Diamond Mines regulation. The Company is also engaged with regulators in the establishment of regulations and guidelines associated with new acts at the provincial, territorial and federal levels.

Avalon has selected non-fish habitat for siting of its tailings management facilities and discharge locations where possible. Where not possible, Avalon engages with Indigenous peoples and regulators regarding their preferred water discharge location, which include considerations of the receiver water and biotic health, use(s) and how best to minimize potential for impacts. Site-specific criteria have been developed at two sites where Avalon proposes to operate, both of which consider the background water quality. In some cases, the effluent water quality has improved on natural background conditions.



Water withdrawal
303-03

Avalon used 250 metres³ of water during FY2019 at its office headquarters in Toronto.



Water discharge
303-04

Virtually all of the 250 metres³ of water was returned to the municipal system for treatment and eventual release into the natural environment.

Water consumption
303-05

Avalon considers its water consumption due to corporate activities to be nil, as all withdrawn water returns to the natural environment, if not to the same source.

GRI 304: BIODIVERSITY 2016

Operational sites in, or adjacent to, protected areas and areas of high biodiversity value
304-01

The East Kemptville Project is located adjacent to the Tobeatic Wilderness Area in Nova Scotia, on the northern boundary of the property. Avalon's other project sites are not located in or near protected or high biodiversity value areas.



Significant impacts of activities, products, and services on biodiversity
304-02

At this time, Avalon has no material construction, manufacturing plants, mines or transportation infrastructure that have the potential to have significant impacts on biodiversity in protected areas or areas of high biodiversity outside protected areas.

The East Kemptville Project is separated from the Tobeatic Wilderness Area by the provincial Highway 203 and the Tusket River. No impacts have been identified due to historic or existing operations.



Habitats protected or restored
304-03

See Disclosure G4-MM01 on [page 46](#).

IUCN Red List species and national conservation list species with habitats in areas affected by operations
304-04

At Nechalacho, in addition to the potential for several rare plant species, the following International Union for Conservation of Nature (IUCN) Red List or simply "listed" animal species have been 'rarely' identified near the mine site: Rusty Blackbird, Horned Grebe (both Vulnerable); Olive-sided Flycatcher (Near Threatened); and Wolverine, Common Nighthawk, Short-Eared Owl and Peregrine Falcon (all Least Concern). Given the mobility of these species, the small project footprint and planned monitoring and mitigation measures, impact is assessed as "highly unlikely."

The only IUCN Red List species identified at Avalon's Separation Rapids site—specifically was some occurrences of the Little Brown Bat (Endangered) in 2013. Avalon plans to assess power line route options and access roads, and conduct a SARA study on the chosen route to determine if there are any concerns in the areas surrounding the project site.

No federally or provincially designated vascular plant species at risk were encountered at the East Kemptville Project. A wetland survey was completed and no new concerns were identified in FY2019, though four species of conservation interest (all IUCN listed as Least Concern) were identified: a barn swallow (provincially considered as Endangered); pairs of Common Nighthawk (Threatened); snapping turtles (Vulnerable); and mainland moose (Endangered).



GRI 305: EMISSIONS 2016

Direct (Scope 1) GHG emissions
305-01

Avalon generated total Scope 1 Emissions of 3.77 tonnes of CO₂e. See table below for year-over-year comparisons.

Energy indirect (Scope 2) emissions
305-02

Avalon generated total Scope 2 Emissions of 15.46 tonnes of CO₂e. See table below for year-over-year comparisons. Scope 1 and 2 emissions primarily decreased due to lack of drill activity at Company's sites, as well as a reduced footprint at the head office.

Other indirect (Scope 3) emissions
305-03

Avalon generated total Scope 3 Emissions of 13.98 tonnes of CO₂e. See table below for year-over-year comparisons. Scope 3 Emissions decreased primarily due to reduced executive travel.



GHG Emissions (Tonnes CO2e)					
	2019	2018	2017	2016	2015
Scope 1	3.77	52.36	64.58	46.54	38.94
Scope 2	15.46	23.78	7.19	7.65	9.08
Scope 3	13.98	27.25	33.43	39.55	86.11

Nitrogen oxides (NOX), sulfur oxides (SOX) and other significant air emissions
305-07

NOX are included in the CO₂e totals for Scope 1, 2 and 3 emissions. Due to the factors used to convert units of energy/distance to CO₂e, only for some types of emissions are the NOX tonnes calculated separately, and then converted to CO₂e. SOX is not a material component of the Company's emissions at this time.



GRI 306: EFFLUENTS AND WASTE 2016

Water discharge by quality and destination
306-01

Avalon used 250 metres³ of water during FY2019 at its office headquarters in Toronto. Virtually all of the 250 metres³ of water was returned to the municipal system for treatment and eventual release into the natural environment. Avalon considers its water consumption due to corporate activities to be nil, as all withdrawn water returns to the natural environment, if not to the same source.



Waste by type and disposal method
306-02

Avalon did not create or dispose of any wastes at its project sites in FY2019.



Significant spills
306-03

Avalon had no reportable spills during the course of FY2019.

Given that the Nechalacho camp had not been used in several years, Avalon made significant effort to rehabilitate the existing facilities. There were two positive inspections by the GNWT Land Use Inspector, and Avalon completed minor recommendations for improvements in a timely manner. For example, a diesel drum was found to have a small drip. The drum had been disconnected from the lines, but not correctly stood up to avoid leakage. Avalon collected all contaminated soil and removed it for treatment.



Transport of hazardous waste
306-04

None.

Water bodies affected by water discharges and/or runoff
306-05

None, as Avalon has no operations at this time.



GRI 307: ENVIRONMENTAL COMPLIANCE 2016

Non-compliance with environmental laws and regulations
307-01

There have been no instances of any non-compliance with laws and regulations in FY2019.



GRI 308: SUPPLIER ENVIRONMENTAL ASSESSMENT 2016

New suppliers that were screened using environmental criteria
308-01

In FY2017, Avalon modified its sustainability questionnaire used to evaluate contractors to make it less time consuming for contractors to complete while maintaining its comprehensiveness.

Avalon includes its sustainability questionnaire on Requests for Proposals. The contractors' health and safety record, including sustainability questionnaire responses, are factored into Avalon's ultimate choice of contractor.

GRI 401: EMPLOYMENT 2016

New employee hires and employee turnover
401-01

No full time employees were hired during the reporting period. Overall employee turnover rate was 8%.



Benefits provided to full-time employees that are not provided to temporary or part-time employees
401-02

All full time and permanent, part time employees of Avalon receive full benefits from the Company. Fixed term, temporary employees do not.



Parental leave
401-03

All full time and permanent part time employees of Avalon are entitled to parental leave as lawful in the province in Ontario, where the workforce resides. In FY2019, one female employee returned from parental leave.



GRI 403: OCCUPATIONAL HEALTH AND SAFETY 2018

Occupational health and safety management system 403-01

Health and safety is a core Company value. While safety is the responsibility of all employees and contractors, Avalon's VP, Sustainability has overall responsibility for health and safety management systems.

Avalon's corporate values state that "We will never cause harm to people in the pursuit of production and profits or in the conduct of our business." Avalon ensures the workforce has the proper resources to work safely in full compliance with all health and safety regulations.

Avalon works in jurisdictions with well-developed health and safety regulations including the Ontario Health and Safety Act and associated applicable regulations; the Nova Scotia Occupational Health and Safety Act and applicable regulations; the NWT Safety Act and applicable regulations; and the Mine Health and Safety Act and applicable regulations. All jurisdictions have Worker Safety and Compensation systems for the management of injured workers. There are also a variety of different acts and regulations that apply in the various jurisdictions that relate to explosives management, emergency response, the Transportation of Dangerous Goods Act, etc.

In support of Avalon's Sustainability Policy, a health, safety and environment management plan and emergency response plans have been developed that detail health and safety requirements for all of Avalon's project sites as part of the Occupational Health and Safety Management System. Contractor health and safety systems and performance are assessed against Avalon's standards prior to engaging them.

Avalon has a Risk Management Policy and Procedure that is utilized to identify and manage risk at all stages of its operations. Risk assessments are completed before all new site activities and management plans and procedures developed as required based on these assessments.

Hazard identification, risk assessment and incident investigation 403-02

Regular occupational health, safety and environment meetings, inspections and risk assessments are completed at all sites and reported through the organization. While accident prevention is the priority, accident and incident management and emergency response are all components of the health and safety programs at all sites.

All workers are required to participate in daily risk assessment prior to the start of work and prior to any significant change in work activity during the shift. This is supported by near miss and accident reporting and associated actions to reduce future risks related to them.

All accidents and incidents are investigated and actions to reduce or eliminate the associated risks and potential for a repeat incident are taken.

Occupational health services 403-03

Avalon's VP, Sustainability is responsible for the development of the health and safety and risk management system. All employees are responsible for their own safety and the safety of others around them in the workplace, and for the identification and management of risk.

Avalon provides training for all employees in the identification and management of risk, with an emphasis on supervisory training and root cause analysis. Accident and incident reports are regularly reviewed by the VP, Sustainability and the VP, Exploration. Where reports are inadequate, they become involved in the ongoing investigation to ensure that the risks have been properly identified and addressed.





Worker participation, consultation and communication on occupational health and safety
403-04

Avalon is a small company with part time, occasional workers employed at sites. These workers have participated in site-specific training, and have contributed to these training programs and the development of emergency response plans. They are also involved in the training of site contractors. Both the VP, Exploration and VP, Sustainability participate in the development of the health and safety training programs, risk assessment training, risk assessment and the preparation of emergency response plans.

Avalon has a joint health and safety committee located in the Toronto office, and monthly walk-throughs are conducted to assess first aid supplies and protective equipment. An Avalon employee attends the office building’s management group’s health and safety committee meetings, as well as fire warden training. All Toronto-based employees participate in an emergency fire drill and evacuation a minimum of once a year.

When the workforce is of sufficient size, joint management-worker health and safety committees will be implemented.

Worker training on occupational health and safety
403-05

All employees received site-specific induction training prior to any work activities. This includes the identification and management of site-specific risks. All drillers also received specific training on drilling hazard management and safety requirements prior to arrival on site from their employer.

Promotion of worker health
403-06

All employees at Avalon are covered under a benefits plan that includes health promotion and services. Employees are given multiple, confidential methods to receive medical and healthcare directly through the Company’s insurance provider. The health issues and risks of each employee remain confidential from the Company.

Work-related injuries
403-09

	Lost Time Injury Frequency	Medical Aid Injury Frequency	Total Recordable Frequency	Severity Frequency	Lost Time Injuries	Medical Aid Injuries	Total Recordable Injuries	Total Hours	Lost or Light Duty Days
FY2019	0	0	0	0	0	0	0	27,207	0
FY2018	0	0	0	0	0	0	0	32,462	0
FY2017	0	5	5	18	0	1	1	43,268	4
FY2016	0	0	0	0	0	0	0	39,473	0
FY2015	0	5	5	0	0	1	1	43,072	0
FY2014	0	0	0	0	0	0	0	58,593	0
FY2013	0	3	3	22	0	1	1	72,839	8
FY2012	13	2	15	519	6	1	7	91,291	237

Work-related ill health
403-10

There were no fatalities or reportable work related health issues in FY2019. During the last fiscal year, the serious hazards to overall health were related to field risks including climate (freezing or heat stroke), animal (ticks and related disease, bears, etc.), vehicle accidents, aviation accidents and heavy equipment accidents (drill, bulldozer). The work-related risks will be significantly greater in number when Avalon is in operations.

GRI 404: TRAINING AND EDUCATION 2016

Average hours of training per year per employee 404-01

50.46 hours of training or professional development were recorded on average for each of Avalon's eleven employees in FY2019, or 555 hours company-wide.

- Five female employees completed a total of 310 hours, or an average of 62 hours per female employee.
- Six male employees completed a total of 245 hours, or an average of 40.84 hours per male employee.
- Five professional level employees completed a total of 280 hours, or an average of 56 hours per professional level employee.
- Six executive level employees completed 275 hours, or an average of 45.84 hours per executive level employee.

Executive employees are defined as the President, VPs and the Controller. All other employees are Professional level.



Percentage of employees receiving regular performance and career development reviews 404-03

100% of permanent employees take part in an annual performance review, conducted by their direct supervisor or Board of Directors as determined by the employment category.



GRI 405: DIVERSITY AND EQUAL OPPORTUNITY 2016

Diversity of governance bodies and employees 405-01

	% of Board	Over 50
Male - 3	75	3
Female - 1*	25	1

	<30 Female	<30 Male	30-50 Female	30-50 Male	>50 Female	>50 Male
Professional	0	0	3	1	1	0
Executive	0	0	0	1	1	4
Total	0	0	3	2	2	4

Executive employees are defined as the President, VPs and the Controller. All other employees are Professional level.

*Naomi Johnson is not included here, as her appointment was slightly subsequent to the reporting period.



GRI 406: NON-DISCRIMINATION

Incidents of discrimination 406-01

Avalon had no incidents of discrimination at any of its work sites in FY2019.



GRI 411: RIGHTS OF INDIGENOUS PEOPLES 2016

Incidents of violations involving rights of Indigenous peoples 411-01

Avalon had no incidents of violations involving the rights of Indigenous peoples at any of its work sites in FY2019.



GRI 412: HUMANS RIGHTS ASSESSMENT 2016

Employee training on human rights policies or procedures 412-02

Each year, every Avalon employee is required to sign a Policy Compliance Certificate. This states that the employee has read and agrees to abide by the Company's policies and procedures, including Avalon's Anti-Harassment, Bullying and Violence Policy.

GRI 413: LOCAL COMMUNITIES 2016

Operations with local community engagement, impact assessments, and development programs 413-01

Avalon's level of engagement with Communities of Interest is commensurate with project activity.

Community engagement and information exchanges occurred throughout FY2019 in respect to Avalon's Nechalacho, Separation Rapids and East Kemptville projects, though no formalized programs have yet been developed for these projects given Avalon's present low impact activities.

As discussed in previous years, Avalon has completed an impacts assessment for Nechalacho; developed draft community engagement plans for review and comment; and signed two formal Agreements. Read more at Avalon's website at [Projects - Nechalacho - Community Engagement](#).

Operations with significant actual and potential negative impacts on local communities 413-02

Given that only low impact exploration activities have taken place at Avalon's projects, there have been no known negative significant impacts to local communities from Avalon's activities. Prior to development proceeding, each project undergoes a rigorous environmental assessment process to evaluate the potential environmental and social impacts and to identify mitigation measures where necessary. Engagement on this is sought from impacted local communities, including Indigenous communities and governments. Avalon seeks out opportunities for both short and long term benefits to the local communities commensurate to project activity.



GRI 414: SUPPLIER SOCIAL ASSESSMENT 2016

New suppliers that were screened using social criteria
414-01

See 308-01 on [page 41](#).



GRI 419: SOCIOECONOMIC COMPLIANCE 2016

Non-compliance with laws and regulations in the social and economic area
419-01

Avalon had no significant fines nor any non-monetary sanctions levied against the organization in FY2019.

G4 MINING AND METALS SECTOR DISCLOSURES 2013

Amount Of Land (Owned Or Leased, And Managed For Production Activities Or Extractive Use) Disturbed Or Rehabilitated
G4-MM01

Total land disturbed at all of Avalon's work sites is 33.951 ha, less than 0.25% of lands claimed and leased.



The Number And Percentage Of Sites Requiring Biodiversity Management Plans and Percentage Of Those Sites With Plans In Place
G4-MM02

All three of Avalon's project sites with significant past or ongoing activities have financially assured rehabilitation plans in place to mitigate potential disturbance-related impacts to biodiversity. Given the low level of impact at all sites at their present stages of development, impacts to biodiversity are not significant.

The Nechalacho Property is not adjacent to identified areas of high biodiversity value and does not have a formal biodiversity management plan in place. It does, however, have in place a number of lands, wildlife and aquatic and other management plans as required by regulation for future permits that effectively comprise a biodiversity management plan. These plans are available on the Mackenzie Valley Land and Water Board public registry.

