



**AMENDED AND RESTATED  
ANNUAL INFORMATION FORM**

**For the Year Ended December 31, 2019**

**September 3, 2020**

## FORWARD-LOOKING STATEMENTS

This amended and restated Annual Information Form (“**AIF**”) contains “forward-looking statements” or “forward-looking information” (collectively, “**forward-looking statements**”) within the meaning of Canadian securities legislation. Such forward-looking statements concern Athabasca Minerals Inc. (“**Athabasca**” or the “**Corporation**”) and its subsidiaries, relating to, without limitation, expectations, intentions, plans and beliefs, including information as to the future events, results of operations and Athabasca’s future performance (both operational and financial) and business prospects. Forward-looking statements can be identified by the use of words such as “anticipates”, “believes”, “continue”, “estimates”, “expects”, “intends”, “may”, “pending”, “potential”, “plans”, “seeks”, “should”, “projects”, “will” or variations of such words and phrases.

Forward-looking statements are based on the expectations and opinions of the Corporation’s management (“**Management**”) on the date the statements are made. The assumptions used in the preparation of such statements, although considered reasonable at the time of preparation, may prove to be imprecise and, as such, readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date the statements were made. Such forward-looking statements reflect Athabasca’s beliefs, estimates and opinions regarding its future growth, results of operations, future performance (both operational and financial), and business prospects and opportunities at the time such statements are made, and Athabasca undertakes no obligation to update forward-looking statements if these beliefs, estimates and opinions or circumstances should change, except as required by applicable securities laws. Forward-looking statements are necessarily based upon a number of estimates and assumptions made by Athabasca that are inherently subject to significant business, economic, competitive, political and social uncertainties and contingencies. Forward-looking statements are not guarantees of future performance.

Forward-looking statements included in this AIF include, but are not limited to, statements with respect to:

- the expected trend of macroeconomic conditions and their impact on the Corporation’s operations;
- the economic life of the Corporation’s assets;
- the Corporation’s business and operations strategy;
- the Corporation’s future growth and profitability;
- the Corporation’s anticipated results of operations and performance;
- the Corporation’s business prospects and opportunities; and
- the realization of the anticipated benefits of potential acquisitions.

Statements relating to mineral resources are deemed to be forward-looking statements, as they involve the implied assessment, based on certain estimates and assumptions, that the mineral resources described exist in the quantities predicted or estimated and that the mineral resources described might be able to be profitably produced in the future.

By their nature, forward-looking statements involve numerous assumptions, known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of Athabasca to differ materially from those anticipated by Athabasca and described in the forward-looking statements.

With respect to the forward-looking statements contained in this AIF, assumptions have been made regarding, among other things:

- the ability of Athabasca to execute on its growth strategy;
- future global economic and financial conditions;
- future prices and price volatility for oil, natural gas, natural gas liquids, aggregates, and other commodity prices;
- levels of activity in the oil and gas industry in the areas in which Athabasca operates;
- the continued availability of timely and safe transportation for Athabasca’s products;
- the continued support from the senior management team;
- operating costs;
- that the regulatory environment in which Athabasca operates will be maintained in the manner currently

- anticipated by Athabasca;
- Athabasca's exploration, environmental, community, health and safety initiatives;
- climate change;
- the recoverability of Athabasca's resources;
- expected receipt or completion of prefeasibility studies, feasibility studies and other studies and the expected timing thereof;
- the accuracy and veracity of information and projections sourced from third parties respecting, among other things, future industry conditions and product demand;
- Athabasca's ability to obtain qualified staff and equipment in a timely and cost-efficient manner;
- future capital expenditures to be made by Athabasca;
- the threat associated with outbreaks of viruses and infectious diseases, including the novel COVID-19 virus;
- indigenous relations;
- future sources of funding for Athabasca's capital program;
- dilution of Athabasca's shares;
- Athabasca's future debt levels;
- the impact of competition on Athabasca; and
- Athabasca's ability to obtain financing on acceptable terms.

A number of factors, risks and uncertainties, as found in RISK FACTORS, could cause results to differ materially from those anticipated and described herein including:

- COVID-19;
- economic cyclicality of the energy industry
- commodity risk;
- environmental and regulatory;
- conditions of equity markets;
- access to capital;
- risk of delays to projects and stakeholder management
- seasonality
- loss of key personnel;
- shortage of equipment or other supplies
- sales and inventory turnover versus production;
- profitability from production and operations;
- reclamation and remediation obligations;
- estimation of resource reserves;
- healthy, safety and environmental operational risks;
- cyber security risk; and
- litigation.

Although Athabasca has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in its forward-looking statements, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. There can be no assurance that forward-looking statements will materialize or prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. The forward-looking statements contained in this AIF are expressly qualified by this cautionary statement. Readers should not place undue reliance on forward-looking statements. These statements speak only to factors as of the date of this AIF. Except as may be required by law, Athabasca expressly disclaims any intention or obligation to revise or update any forward-looking statements or information whether as a result of new information, future events or otherwise.

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## GENERAL MATTERS

### Date of Information

All information in this AIF is as of December 31, 2019, unless otherwise indicated, and the information contained herein is current as of such date, unless otherwise stated.

This amended and restated AIF is being filed to rectify certain typographical misprints contained in Athabasca’s AIF filed August 31, 2020.

### Abbreviations

The following abbreviations have the indicated meaning in this AIF:

Unit	Defined Term	Unit	Defined Term
cm	centimetre(s)	m <sup>2</sup>	metre(s) squared
g/cm <sup>3</sup>	gram per cubic centimetre	Mt	metric tonne
ha	hectares(s)	Wt. %	weight percent
km	kilometre(s)	K	crush resistance value
km <sup>2</sup>	kilometre(s) squared		

### Currency

All dollar or \$ amounts stated in this AIF refer to Canadian dollars.

## CORPORATE STRUCTURE

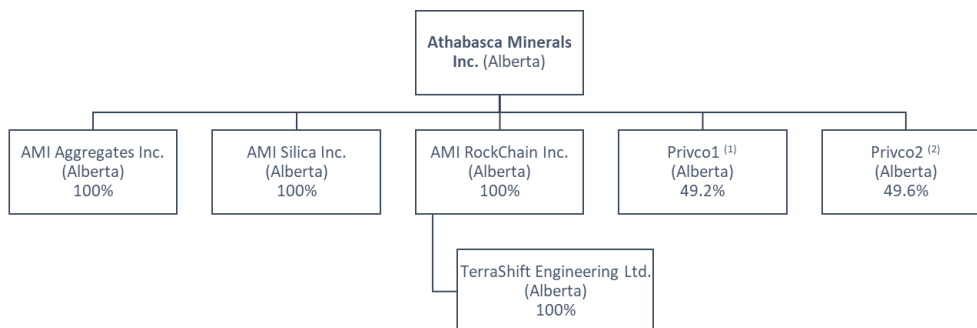
### Name, Address and Incorporation

Athabasca was incorporated under the *Business Corporations Act (Alberta)* (“**ABCA**”) on December 31, 2006. Athabasca’s common shares (“**Common Shares**”) are listed on the TSX Venture Exchange (“**TSXV**”) under the trading symbol “AMI”. Prior to November 15, 2019, Athabasca traded under the ticker symbol “ABM” on the TSXV.

The head office of the Corporation is located at 4409 - 94 Street NW, Edmonton, Alberta, T6E 6T7.

### Intercorporate Relationships

The following diagram sets forth the organizational structure of the Corporation and its subsidiary entities as at August 19, 2020, with the percentage figures denoting the percentage of votes attaching to all the voting securities beneficially owned by the Corporation and each of its subsidiaries.



#### Notes:

- (1) The investment in Privco1 (as defined herein) occurred on December 14, 2018. See “Description of Business - Divisional Projects - Silica Sand Projects - Montney In-Basin Project”.

- (2) The investment in Privco2 (as defined herein) occurred on January 25, 2019. See “Description of Business - Divisional Projects - Silica Sand Projects – Duvernay Project”.

## GENERAL DEVELOPMENT OF THE BUSINESS

### Recent Developments Subsequent to 2019

- On June 30, 2020, Athabasca, and its wholly-owned subsidiary AMI RockChain, acquired TerraShift Engineering Ltd. in a mainly share-based deal.
- Also, on June 30, 2020, Athabasca rescheduled the Annual Special and General Meeting (“ASGM”) for September 22, 2020.
- Effective June 1, 2020, the Corporation implemented an Employee Share Purchase Plan (the “ESP Plan”). The ESP Plan is intended to enable Participants to acquire Common Shares in the Corporation in a convenient and systematic manner, so as to encourage continued employee interest in the operation, growth and development of the Corporation, as well as to provide an additional investment opportunity to eligible employees of the Corporation and its subsidiaries. Further, in an effort to preserve the Corporation’s cash position during the COVID-19 pandemic and economic downturn, the employees and director will be paid 90% of their salary / fees in cash and 10% of the salary / fees in Common Shares issued from treasury. The TSXV conditionally approved plan and it will be voted on at the AGSM on September 22, 2020.
- On May 22, 2020, the Corporation announced the implementation of new health and safety policies and protocols in response to the COVID-19 pandemic.
- Also, on May 22, 2020, Athabasca announced a number of the financial initiatives the Corporation undertook in response to the COVID-19 pandemic, including:
  - Through the Canadian Emergency Business Account (“CEBA”) secured \$40,000 loans for both AMI Silica and AMI RockChain;
  - Applied and received payments for the Canadian Emergency Wage Subsidy (“CEWS”); and
  - Three month deferment of the principal repayment of the \$1.5 million bank loan from Canadian West Bank (“CWB”) with interest-only payment terms.
- On May 7, 2020, in response to the COVID-19 pandemic, the Corporation announced the postponement of the Annual General Meeting.
- On April 8, 2020, the Corporation announced that AMI RockChain completed a \$1 million order and provided a corporate update.
- On March 23, 2020, the Corporation announced the opening of Coffey Lake Public Pit (“Coffey Lake”), effective March 21, 2020.
- On March 23, 2020, Athabasca announced a 50/50 joint venture with MGT Management Inc. to develop a limestone quarry (the “Buckhorn Quarry”) in Ontario.
- On March 18, 2020, Alberta Environment & Parks granted Athabasca a disposition for a commercial lease for the True North Staging Hub, for stockpiling and crushing aggregates.
- On March 16, 2020, Athabasca announced the appointment of Tanya Finney as Director, Investor and Stakeholder Relations, effective March 16, 2020.
- On February 19, 2020, Athabasca announced the rebranding of the wholly-owned subsidiary, Aggregates Marketing Inc. to AMI RockChain Inc.
- On February 11, 2020, Athabasca announced an offtake agreement with Shell Canada Energy (“Shell”) to supply Shell with frac sand from its Duvernay Frac Sand Project (the “Duvernay Project”). See “Frac Sand Projects”.
- Also, on February 11, 2020, Athabasca announce that it launched a strategic review for AMI Silica.
- On January 28, 2020, the Corporation entered into a loan agreement with CWB whereby \$1.5 million was advanced to Athabasca for the development of Coffey Lake.
- On January 13, 2020, the Province of Alberta issued the Corporation a disposition for the Coffey Lake and a Surface Material Lease (“SML”) to allows for extraction of sand and gravel.

- On January 13, 2020, the Corporation announced that it would forgo exercising the buy-out options for the remaining 50.8% and 50.4%, respectively, on the Montney and Duvernay projects.

### Three Year History

Over the three most recently completed financial years, the following events contributed materially to the development of the Corporation's business. For further information regarding the history and recent developments of the Corporation, see Athabasca's public disclosure on SEDAR at [www.sedar.com](http://www.sedar.com).

#### 2019

- On December 2, 2019, Athabasca filed an updated technical report for the Firebag Project (as defined herein).
- On December 2, 2019, Athabasca filed an updated technical report for the Richardson Project.
- On November 12, 2019, Athabasca announced that it had changed its trading ticker symbol on the TSXV from ABM to AMI.
- On November 6, 2019, Athabasca filed a technical report for the White Rabbit frac sand mine (the "**White Rabbit Property**") associated with the Corporation's Duvernay Project.
- On November 4, 2019, Athabasca announced it expanded its strategic business relationship with the Montana First Nation ("**MFN**").
- On October 29, 2019, Athabasca announced the appointment of Mr. Neil Manning to the board of directors of the Corporation (the "**Board of Directors**") and the resignation of Mr. John Halliwell from the Board of Directors, both effective October 25, 2019.
- On October 2, 2019, Athabasca announced it received approval of its Susan Lake closure plan by Alberta Environment and Parks ("**AEP**") on August 15, 2019.
- Also, on October 2, 2019, Athabasca announced it finalized a settlement agreement with Syncrude Canada Ltd. ("**Syncrude**"), which included the discontinuance of the claim and counterclaim by Athabasca and Syncrude, respectively, effective September 26, 2019. See "*Legal Proceedings and Regulatory Actions – Legal Proceedings*".
- On September 23, 2019, Athabasca announced that its wholly-owned subsidiary, Aggregates Marketing Inc., developed and deployed its proprietary "RockChain™" digital platform, which has assisted with supply transport solutions for numerous construction material bids.
- On September 11, 2019, Athabasca announced the appointment of Mr. Terrance Kutryk to the Board of Directors, effective September 5, 2019.
- On August 8, 2019, Athabasca announced it appointed Mr. Jan Cerny as Vice President, Corporate Development, effective August 1, 2019.
- On June 21, 2019, Athabasca announced the resignation of Mr. Gerry Romanzin from the Board of Directors, effective June 21, 2019.
- Also, on June 21, 2019, the Corporation announced it appointed Mr. Ryan Lissel as Vice President, Projects & News Ventures.
- On June 19, 2019, Athabasca announced the signing of a ten-year aggregates management agreement with the MFN.
- On May 7, 2019, Athabasca announced it had increased its ownership in the Duvernay Project to 49.6%.
- On March 26, 2019, the Corporation announced that the Province of Alberta granted Metallic and Industrial Mineral leases for AMI's Richardson Dolomite / Granite Aggregate Project ("Richardson Project").
- On March 6, 2019, Athabasca announced it was awarded a 15-year contract by the Province of Alberta to construct, operate and manage the Coffey Lake north of Fort McMurray, Alberta. This Crown resource is situated on approximately 1,345 acres of land approximately 90 kms north of Fort McMurray.



- On February 1, 2019, Athabasca appointed Mr. Mark Smith as the Chief Financial Officer (“**CFO**”), previously the interim CFO. This appointment was effective February 1, 2019.
- On January 29, 2019, Athabasca announced it entered into an agreement to acquire 16.2% ownership of a private Alberta corporation (“**Privco2**”) that owns the Duvernay Project. Athabasca and Privco2 formed a joint project team and have commenced initial exploration activities. Athabasca has the option to purchase an additional 33.4% of Privco2 for \$742,000 and the issuance of 1,680,000 Common Shares. Athabasca has the further option to purchase the remaining 50.4% of Privco2’s shares for \$8.0 million for one year following the closing date. See “*Description of Business - Divisional Projects - Frac Sand Projects - Privco1 and Privco2*”.
- On January 7, 2019, Athabasca announced the appointment of Mr. Dana Archibald as Chief Operating Officer, effective January 2, 2019.

## 2018

- On December 17, 2018, Athabasca announced it purchased a 49.2% ownership of a private Alberta corporation (“**Privco1**”) that owns the Montney Project. The project consists of over 150,000 contiguous ha strategically located in the heart of the Montney basin. Athabasca has the option to purchase the remaining 50.8% of Privco1’s shares for \$8.0 million. See “*Description of Business - Divisional Projects – Silica Sand Projects*”.
- On November 23, 2018, Athabasca announced it appointed Mr. Mark Smith as the interim CFO, effective November 30, 2018, and replaced Mr. Lucas Murray as CFO as at that date.
- On November 21, 2018, Athabasca announced that it closed the second and final tranche of a non-brokered private placement of 650,000 units (“**Units**”) at a price of \$0.20 per Unit, for gross proceeds of \$130,000. Each Unit consists of one Common Share and one-half of one Common Share purchase warrant (“**Warrant**”), with each Warrant entitling the holder to purchase one additional Common Share at an exercise price of \$0.35 per Common Share for a period of two years after the closing.
- On November 19, 2018, Athabasca announced that it closed the first tranche of a non-brokered private placement of 5,100,000 Units at a price of \$0.20 per Unit, for gross proceeds of \$1.02 million. Each Unit consists of one Common Share and one-half of one Warrant with each Warrant entitling the holder to purchase one additional Common Share at an exercise price of \$0.35 per Common Share for a period of two years after the closing.
- On October 5, 2018, Athabasca transferred the Firebag frac sand mine (the “**Firebag Property**”) to its wholly-owned subsidiary, AMI Silica Inc. (“**AMI**”). The transfer included the Corporation’s right, title and interest in the Firebag Property assets to AMI in exchange for 33,302,650 Class A Common Shares of AMI at the fair market value of \$30.375 million based on an arm’s length valuation performed by Evans & Evans Inc.

## 2017

- On December 5, 2017, Athabasca announced that its ten-year Susan Lake renewal management contract (the “**Susan Lake Contract**”) with the Province of Alberta expired on November 30, 2017. The Susan Lake gravel pit remained operational under over-holding tenancy status until the Susan Lake closure plan approved by the AEP. The Corporation has been actively working on closure-related activities and managing the phased closure of the pit.
- On June 13, 2017, Athabasca announced the appointment of Mr. Robert J. Beekhuizen as Chief Executive Officer (“**CEO**”), effective June 19, 2017.
- On January 25, 2017, Athabasca announced it had received a positive decision in the court proceedings with Syncrude relating to the decision released by the Court of Queen’s Bench of Alberta denying an application brought by Syncrude for an injunction on activities at the Susan Lake property. See “*Legal Proceedings and Regulatory Actions - Legal Proceedings*”.

## DESCRIPTION OF BUSINESS

### *The Business of the Corporation*

Incorporated in 2006, Athabasca is an integrated group of companies focused on the aggregates, industrial minerals and resource sectors, including exploration and development; aggregates marketing and midstream supply-logistics solutions. Business activities include aggregate production, sales and royalties from corporate-owned pits, management services of third-party pits, acquisitions of sand and gravel operations, integrated supply/delivery solutions of industrial minerals, and new venture development. The Corporation is strategically focused on growing its three core business units: the AMI Aggregates division, the AMI RockChain division, and the AMI Silica division. Management is continually pursuing opportunities for sustained growth and diversification in supplying aggregate products and industrial minerals.

Athabasca's business is comprised the following three reportable segments:

- **AMI Aggregates** division produces and sells aggregate out of its corporate pits and manages the Coffey Lake Public Pit on behalf of the Province of Alberta for which aggregate management services revenue are earned.
- **AMI Silica** division is positioning to become a leading supplier of premium domestic silica sand with regional deposits in Alberta and NE British Columbia. This reporting segment encompasses all silica assets including Firebag, the Duvernay Project and the Montney In-Basin Project.
- **AMI RockChain** division is a midstream technology-based business using its proprietary RockChain™ digital platform, associated algorithm and quality assurance & control services to provide cost-effective integrated supply / delivery solutions of industrial minerals to industry, and the construction sector.
  - **TerraShift Engineering Ltd.** is a newly acquired entity of RockChain. It offers technology-based applications that support resource exploration and development, environmental and regulatory planning, resource management, compliance reporting, and reclamation for a growing customer base across Western Canada and Ontario.

### *Reportable Segments*

For the year ended December 31, 2019, Athabasca's business comprised the following three reportable segments:

- **AMI Aggregates Inc.** produces and sells aggregate out of its corporate pits and manages the Coffey Lake Public Pit on behalf of the Province of Alberta for which aggregate management services revenue are earned. Additionally, the Corporation has industrial mineral leases, such as those supporting AMI's Richardson Quarry Project, that are strategically positioned for future development in industrial regions with historically and consistently high demand for aggregates.
- **AMI Silica Inc.** is a subsidiary positioning to become a leading supplier of premium domestic silica sand with regional deposits in Alberta and NE British Columbia. This reporting segment encompasses all silica assets including Firebag, the Duvernay Project and the Montney In-Basin Project.
- **AMI RockChain Inc.** (formerly Aggregates Marketing Inc.) is a midstream technology-based business using its proprietary RockChain™ digital platform, associated algorithm and quality assurance & control services to provide cost-effective integrated supply /delivery solutions of industrial minerals to industry, and the construction sector.

The Corporation's operating segments are components that engage in business activities and earn revenues and/or incur expenses for which there is discrete financial information available that is regularly reviewed by Management to make resource allocation decisions and assess the segment's performance. The Corporation combines reportable segments with similar economic characteristics. Reportable segments are determined based on the corporate structure and operations.

## Divisional Projects

The Corporation owns and/or operates the following projects, strategically located throughout western Canada.

### **Coffey Lake**

In early 2019, the Corporation was awarded a 15-year contract to construct, operate and manage the Coffey Lake public pit. Coffey Lake is located north of Fort McMurray, Alberta. Subsequent to December 31, 2019 and effective January 13, 2020, the Province of Alberta issued the Corporation a disposition for the Coffey Lake Pit and a Surface Mineral Lease that allows for the extraction of sand and gravel. This authorization enables the Corporation, as pit management contractor on behalf of the Province of Alberta, to commence activities to open aggregate operations at Coffey Lake to the public. Operations at Coffey Lake commenced in March 2020.

### **Susan Lake**

Since 1998, the Corporation managed the Susan Lake gravel pit on behalf of the Government of Alberta pursuant to the Susan Lake Contract. As of the end of Q1 2019, the Susan Lake gravel pit was closed to the public. As such, there were no further sales beyond this point. On October 2, 2019, the Corporation announced it received approval of its Susan Lake closure plan by the AEP. The Corporation's services included exploration, identification of sand and gravel, clearing, topsoil stripping, site preparation, road maintenance, allocation of pit areas to specific users, scaling of material and general administration of the pit. The Susan Lake gravel pit remained operational under overholding tenancy status, since the Susan Lake Contract expiration on November 30, 2017. For these services, the Corporation received a management fee for each tonne of aggregate material removed from the pit for the duration of the Susan Lake Contract. The Susan Lake Gravel Pit was a revenue producing property for the Corporation during the year ended December 31, 2019.

### **Corporate Owned Pits**

The Corporation holds Surface Material Leases ("SMLs") for several aggregate pits in northern Alberta for the purpose of extracting sand and gravel from these properties for a variety of purposes and customers. These aggregate operations are fully controlled by the Corporation, enabling the Corporation to benefit from the full market value on all sales of aggregates, including when applicable, the processing and delivery. A SML grants the lease holder the right to extract sand and gravel from Crown land. The Corporation also operates additional gravel SMLs held by other companies.

### **Richardson Project – Exploration Project**

- The Corporation holds leases for a potential large-scale quarry located approximately 70 km north of the Susan Lake gravel pit and 130 km north of Fort McMurray, Alberta for the Richardson Project. It contains high quality dolomite and granite deposits;
- With the closure of Susan Lake as a source of aggregates, limited options are available to the industry for supply in the Fort McMurray/Wood Buffalo region. Proximity to market and market demand are important factors. The Richardson Quarry Project is located about 40 kilometers from major oilsands operations north of Fort McMurray. These oilsands operations represent significant sustainable annual demand for aggregates and justify the potential role of the Richardson Quarry Project in the coming years, especially as Coffey Lake Public Pit depletes reserves and declines in production. The Richardson Quarry Project offers high quality granite and dolomite in large volumes (683+ million tonnes), on a transportation corridor, which make it attractive for future development. It offers a new source of high-quality crushed aggregates that supports a wide variety of construction applications with the capability of meeting ongoing regional demand;
- An initial drilling program in 2013 confirmed that granite and dolomite extended beyond the outcrop, and a follow up drilling program completed in 2014 successfully cored the dolomite, and all but one drill hole intersected the granite basement. APEX Geoscience Ltd. ("APEX") of Edmonton, Alberta completed a technical resource report in accordance with NI 43-101 on the Richardson Project in 2015, estimating an initial crush rock dolomite aggregate inferred mineral resource of 683 million tonnes with thickness ranging from 8.3 m to 47.9 m, averaging 39.5 m. The granite is conservatively estimated at 165 million tonnes;

- In Q1 2019, the Corporation was granted three Metallic and Industrial Mineral Leases for the Richardson Quarry Project totaling 9,647 acres (3,904 hectares). Management secured the leases following discussions with government, industry and First Nations stakeholders in relation to the newly designated Kitaskino Nuwenēné Wildland Provincial Park, which was announced by the Province of Alberta on March 11, 2019. With a view to the establishment of the new wildland provincial park, the Corporation agreed to voluntarily surrender 97,575 acres (39,488 hectares) of its original eight contiguous Metallic and Industrial Minerals Permits which had no impact on the project. AMI's lease boundary includes the deposit that was assessed in the Richardson Technical Report (as defined herein) so that the estimated inferred resource has not been compromised and includes additional lands proximal to the deposit area and the granite outcrop;
- In December 2019, AMI announced that the Richardson Technical Report had been updated by APEX Geoscience Ltd. with respect to three contiguous Metallic and Industrial Mineral Leases of 9,647 acres (3,904 hectares) granted to Athabasca by the Province of Alberta in Q1 2019. The updated Richardson Technical Report includes estimates of approximately 683 million tonnes of inferred crush rock aggregate (dolomite and granite) resource situated in the "Winnipegosis Formation" with a thickness ranging from 8.3m to 47.9m averaging 39.5m. The resource lies beneath an estimated 497 million tonnes of unconsolidated glaciofluvial sand and boulders ("overburden") with an average thickness of 35.7m. In addition, the updated Richardson Technical Report assessed the basement granite as a potential target for future exploration and describes a potential granite deposit of between 157 and 236 million tonnes in the resource area;
- The leases provide the Corporation with subsurface rights to commercially develop industrial minerals, but prior to commencing operations, the leases are subject to a regulatory review including an environmental impact assessment and public consultations. Other municipal development permits and provincial authorizations (e.g. under the Public Lands Act (Alberta) and the Water Act (Alberta)) will also be required;
- Athabasca is maintaining front-end development plans for the Richardson Quarry Project, including a preliminary budget for regulatory approvals. Regulatory sensitivities associated with woodland caribou remain a factor affecting permit timing and start of construction. An assessment of a draft Caribou Range Plan published by the Government of Alberta in 2018 did not identify immediate negative impacts. The Corporation will align the Richardson Project with goals for restoring the caribou habitat pending a final decision for the proposed caribou plan; and
- Athabasca intends to pursue a joint-venture approach for the development of the Corporation's Richardson Quarry Project north of Fort McMurray over the next 2 years, and is engaged in ongoing discussions with potentially interested parties.

#### *Kearl Pit – Development Project*

- The Kearl corporate pit is located on 80 acres (32 hectares) of crown land north of Fort McMurray, Alberta on an all-season road in close proximity to Imperial Oil /Exxon Kearl Oilsands Operations;
- Athabasca received SML approval in March 2011 for 10 years to develop and operate an aggregate operation; and
- The Kearl corporate pit was in production for approximately four years with approximately one million tonnes of aggregates removed. Kearl has not been operational since 2016 in response to a slowdown in the regional demand market. As would be expected, the pit will have incremental production costs when the time comes to access the remaining aggregates reserves. Athabasca is currently bidding on multiple projects in the vicinity of Kearl.

#### *Logan Pit – Development Project*

- The Logan corporate pit is located on 81 hectares (200 acres) across 3 leases of crown land, approximately 110 km north of Lac La Biche, Alberta, and is accessible by an all-season road to the south and a seasonal winter road from the east;
- Athabasca received SML approvals for each of the three adjacent leases on February 2010, May 2012, Nov-2012 respectively, in each case for 10 years, to develop and operate an aggregate operation; and
- The Logan corporate pit (first lease) was in production from 2013 to 2017 with approximately 400,000 tonnes of aggregates removed. It has not been operational since 2017 due to changes in the regional demand market

and seasonal access limitations which require advanced orders versus crushing on-demand.

#### *House River Pit – Development Project*

- The House River corporate pit is located on 160 acres (65 hectares) across two leases of Crown land south of Fort McMurray, Alberta, approximately 11 km east of Highway 63 on the House River. During August 2011, the Corporation received SML approval from the Government of Alberta to develop an open pit aggregate operation on 80 acres (32 hectares) of the leased land for a term of 10 years. A second SML approval was obtained in October 2016 for 10 years for an additional 80 acres (32 hectares) of Crown land; and
- The House River corporate pit was in production for one winter season with approximately 250,000 tonnes of aggregates removed in 2016.

#### *Pelican Hill Pit – Development Project*

- The Pelican corporate pit is located on 80 acres (32 hectares) of crown land approximately 70 km south-east of the hamlet of Wabasca, Alberta, and historically was only accessible by a 2 km winter road;
- Athabasca received SML approval in June-2011 for 10 years to develop and operate an aggregate operation;
- The Pelican corporate pit has not yet gone into production due to changes in the regional demand market and seasonal access limitations which require advanced orders versus crushing on demand; and
- In Q2-2019, the Corporation entered into a royalty agreement with a 3rd party. The Corporation is now actively addressing the opening of the pit for operation in 2020, based on demand associated with potential infrastructure projects in the area. Conversion of the winter-access road into an all-season road is underway.

#### *Emerson Pit – Development Project*

- The Emerson corporate pit is located on 75 acres (30 hectares) of crown land approximately 27 km south-east of the community of Hinton, Alberta on an all-season road;
- Athabasca acquired the SML in March-2011 for 10 years to develop and operate an aggregate operation;
- The Corporation had the SML transferred into its possession on April 17, 2019 in accordance with the asset purchase and sale agreement dated June 1, 2016 with Prairie Mines; and
- The pit was active in 2019, and 2020 sales will be based on demand from projects in the area.

#### ***Inventory Staging and Distribution Hubs (Conklin, Sunday Creek, KM208, and True North Staging Hub)***

The Corporation has strategic inventory staging hubs on accessible, year-round roads to support product supply and deliveries on demand to local projects and industry customers. These staging hubs are also accessible in relation to nearby Corporate pits. AMI's key staging hubs include:

- **Conklin** - The Conklin staging hub, located 13km East of the Town of Conklin, Alberta. The Conklin staging hub is accessible by Corporation's Logan Pit, and has inventory on location.
- **Sunday Creek** - The Sunday Creek staging hub is located 26km North of the Town of Conklin, Alberta on roads accessible to nearby industry SAGD operations. The Sunday Creek hub has historically staged and delivered product from various aggregate sources in the area to service annual orders.
- **KM248** - Located at kilometer 248 of Highway 881, KM248 hub was historically an aggregate source (now depleted) and has been re-purposed as a staging hub for industrial customers near the town of Anzac, Alberta, south of Fort McMurray.
- **True North Staging Hub** - Strategically located 7 km from the Coffey Lake Public Pit at the Highway-63 junction, near Fort McMurray, Alberta. AMI received its disposition from Alberta Environment & Parks in Q1-2020. The Corporation will manage the True North Hub to provide stockpiling and crushing access for aggregate producers in the area. The Corporation completed vegetation clearing activities in Q1 2020 and expects to open the hub in Q2-Q3 2020.

## Silica Sand Projects

### Duvernay Project

- The Corporation has a 49.6% ownership interest in an entity (“Privco2”) that owns the Duvernay Project. The Corporation’s cash investments in Privco2 have been allocated towards funding the delineation program, a NI 43-101 compliant technical report (including validation of reserve or resource), securing land options, conducting facility design, and for the preparation of regulatory applications;
- In Q3-2019, Privco2 completed a NI 43-101 technical report (the “Duvernay Report”) to validate the reserves and resources. The Duvernay Report was prepared by Stantec;
- The Privco2 resource encompasses 878 acres (356 hectares) of largely contiguous, and privately-owned, properties. The underlying sand deposit was delineated based on 49 drill holes, and the retrieval of over 200 stratum samples which were subject to a comprehensive lab testing program;
- The Duvernay Report establishes that AMI's Duvernay Project contains a sand resource of:
  - fine-to-coarse grain sands with pay thickness from 0.4 meters to 21.6 meters; and
  - 24.7 million metric tonnes (“MT”) measured resource, with an additional 5.6 million MT indicated resource, and a further 4.9 million MT inferred resource.
- On February 3, 2020, a Master Purchase Contract was entered into whereby a contract with an effective date of July 1, 2021 was agreed to by AMI Silica and Shell Canada (“Shell”). Under terms of the contract, Shell is to purchase, at pre-determined prices, a minimum amount of silica sand up to an annual maximum representing the majority of the Duvernay Project’s stated capacity. The contract’s initial term is five years commencing on the effective date with Shell having the right to extend the contract for an additional period of two 12-month terms. The contract also provides Shell with the option to procure sand from the Corporation’s future Montney silica sand project;
- The Corporation invested \$834,068 in contract asset costs during the three-month period ended March 31, 2020 (December 31, 2019: \$nil) in order to secure a Duvernay offtake agreement with Shell Canada Energy for frac-sand from the Duvernay site; and
- The development program is presently focused on revising the Front-end Engineering & Development (FEED) in collaboration with a pending industrial partner, obtaining permits, and thereafter confirming Financial Investment Decision (FID) to proceed to Execution.

### Montney In-Basin Project

- On December 14, 2018, the Corporation purchased a 49.2% ownership interest in a private Alberta corporation (“Privco1”) that owns the Montney In-Basin silica sand project located in the vicinity of Dawson Creek and Fort St. John, British Columbia. The purchase price for the 49.2% interest was \$1,498,000 cash and 1,186,956 common shares of the Corporation;
- The Corporation’s cash investment in the Montney Project is being deployed for its resource delineation program and the subsequent funding of a National Instrument 43-101 technical report for the validation of reserve or resource status once a preferred development location is confirmed; and
- AMI Silica’s Montney Silica Sand Delineation & Development program has been re-adjusted for cashflow management purposes, in relation concurrent demands related to the Duvernay Project. Together with its existing joint-venture (JV) partner, Privco1, the parties are taking a measured approach concerning expenditures in order to confirm the most suitable and cost-effective location for development within the 370,650-acre (150,000 hectare) area in which the JV holds mineral leases.

## Strategic Partnerships

### Montana First Nations (MFN)

- In 2019, AMI and MFN entered into a 10-year Aggregates Management Agreement to explore and develop

potential aggregate resources on 9,600 acres (3,885 ha) of MFN lands, as well as develop commercial opportunities with AMI RockChain. In 2019, AMI made progress on the following:

- AMI RockChain in conjunction with MFN secured an aggregate supply and delivery contract on ‘Spread- 1’ of the TMX Pipeline Project in Q4 2019;
- AMI RockChain and MFN are bidding on additional industrial developments within MFN’s traditional territory.;
- AMI successfully executed an Emergency Road Repair Program on MFN lands in Q4-2019; and
- initial exploration for aggregates was conducted at select locations on MFN lands in Q3- Q4 2019 with limited results.

### **Credit and Lending**

The Corporation has letters of credit with CWB for \$1.4 million to the benefit of the Government of Alberta for decommissioning and restoration with guaranteed investment certificates. Each letter of credit costs the Corporation an annual fee of 1.5%.

On January 29, 2020 the Corporation entered into an arrangement with CWB, whereby \$1.5 million was advanced to the Corporation by CWB for the development of Coffey Lake. The term of the bank loan is thirty-nine months with thirty-three monthly loan payments of \$49,022 starting in August 2020, after six months of interest only payments.

The Corporation has undertaken several financial initiatives in response to the COVID-19 pandemic to preserve cash flow, including the following:

- Secured a \$40,000 loan for AMI Silica, and another \$40,000 loan for AMI RockChain through the Canadian Emergency Business Account (CEBA) program. Both loans are interest free and require no principal payments until December 2022;
- AMI has been continually applying for the Canadian Emergency Wage Subsidy (CEWS) on a monthly basis for all subsidiaries; and
- principal repayment of the \$1,500,000 bank loan purposed for Coffey Lake Public Pit and the True North Staging Hub construction was deferred three months with interest-only payment terms from May to July 2020.

As of the date of this AIF, the Corporation is in compliance with all covenants and capital spending requirements as part of the current credit facility.

The Corporation has secured its letters of credit to the benefit of the Government of Alberta with guaranteed investment certificates to the benefit of CWB.

### **Customer Base**

The customer base of Athabasca consists of entities from the infrastructure industry, construction, power generation industry, aggregates industry, forestry industry, and oil and gas sector. Athabasca’s clients range from large multi-national companies and governmental bodies to small, private companies.

### **Specialized Skill and Knowledge**

Most aspects of the Corporation’s business require specialized skills and knowledge. Such skills and knowledge include the areas of geology, exploration, development, construction, production and accounting. The Corporation has a number of executive officers and employees with extensive experience in mining, geology, exploration and development, as well as executive officers and employees with relevant accounting experience. See “*Risk Factors - Loss of Key Personnel*”.

## Competitive Conditions

The Corporation competes with major mining companies, aggregate companies and other smaller natural resource companies in the acquisition, exploration, financing and development of new properties and projects. Many of these companies are more experienced, larger and have greater financial resources for, among other things, financing and the recruitment and retention of qualified personnel. The barriers to entry for new competitors include a high cost of capital in acquiring and operating similar projects, access to a skilled and qualified workforce, and access to a qualified and experienced management team that can properly assess and manage the full scale of operational and technical issues including safety, health and environmental liabilities. See comments under the section titled “Risk Factors”.

## Cycles

Athabasca focuses on two industries: civil/infrastructure and energy. The demand for infrastructure services is largely dependent on the amount of municipal and provincial capital budgets in markets proximate to the Corporation’s projects. These amounts may vary from year to year and directly affect the amount of capital allocated for infrastructure projects. Further, the level of activity in the oil and natural gas industry in the Western Canadian Sedimentary Basin is influenced by seasonal weather patterns. In the spring, frost comes out of the ground, making the ground unstable and less capable of supporting heavy weights. Consequently, municipalities and transportation departments enforce road bans that restrict the movement of heavy equipment, thereby reducing drilling and well servicing activity levels. Normally this ‘spring breakup’ begins in late March and restricts activity through May, which directly affects demand for the Corporation’s products. The length of spring breakup will depend on the moisture received in March through May. See “Risk Factors - Seasonality”.

## Economic Dependence

The Corporation’s customers include exploration and production companies and infrastructure builders that operate in western Canada. Athabasca’s goal is to create long-term, partnership-oriented relationships with its customers. Accordingly, Athabasca strives to provide solutions for its customers’ aggregate and frac sand supply, logistics, transportation and handling challenges, a strategy which Athabasca believes will continue to strengthen its customer relationships.

## Environmental Protection and Policies

The Corporation is subject to the laws and regulations relating to environmental matters in all jurisdictions in which it operates, including provisions relating to property reclamation, discharge of hazardous materials and other matters. The Corporation may also be held liable should environmental problems be discovered that were caused by former owners and operators of its properties. The Corporation intends to conduct its mineral development activities in compliance with applicable environmental protection legislation. The Corporation is not aware of any existing environmental problems related to any of its mineral resource properties that may result in material liability to the Corporation.

Environmental legislation is becoming increasingly stringent and costs and expenses of regulatory compliance are increasing. The impact of new and future environmental legislation on the Corporation’s operations may cause additional expenses and restrictions. If the restrictions adversely affect the scope of exploration and development on the mineral property interests, the potential for production on the property may be diminished or negated. See “Risk Factors - Environmental and Regulatory”.

## Employees

The Corporation and its subsidiaries currently have 17 full-time employees. The Corporation also relies upon consultants to carry on its operations. All management functions of the Corporation are performed by the executive officers of the Corporation.



## SUMMARY OF MINERAL RESERVE AND MINERAL RESOURCE ESTIMATES

Set forth below under the heading “*Material Properties - Technical Reports*” are the mineral resource and mineral reserve estimates for the Corporation’s material mineral properties as at the date of this AIF. Such estimates were based on the following reports:

1. *National Instrument 43-101 Technical Report on the Firebag Property, Alberta Canada*, effective November 8, 2019, prepared by William A. Turner, P. Geol. and A.C. (Chris) Hunter, P. Geol., each of whom is a “qualified person” pursuant to NI 43-101 (the “**Firebag Technical Report**”). The Firebag Technical Report was filed on SEDAR on December 2, 2019 and is available at [www.sedar.com](http://www.sedar.com).
2. *National Instrument 43-101 Technical Report, Inferred Crush Rock Aggregate Resource Estimate with Updated Lease Boundaries for the Richardson Property, Northeastern Alberta, Canada*, effective October 24, 2019, prepared by Roy Eccles, MSc., and Steven Nicholls, BA.Sc, MAIG, each of whom is a “qualified person” pursuant to NI 43-101 (the “**Richardson Technical Report**”). The Richardson Technical Report was filed on SEDAR on December 2, 2019 and is available at [www.sedar.com](http://www.sedar.com).
3. *National Instrument 43-101 Technical Report on the White Rabbit Property, Alberta, Canada*, effective August 7, 2019, prepared by A.C. (Chris) Hunter, P. Geol. and William A. Turner, P. Geol., each of whom is a “qualified person” pursuant to NI 43-101 (the “**White Rabbit Technical Report**”). The White Rabbit Technical Report was filed on SEDAR on November 6, 2019 and is available at [www.sedar.com](http://www.sedar.com).

### MATERIAL PROPERTIES - TECHNICAL REPORTS

For the purposes of this AIF, Athabasca has identified its Firebag Property, the Richardson Property and the White Rabbit Property as material properties. The following is a description of these particular properties and is of a summary nature only. Reference should be made to the full text of each property, which is available under the Corporation’s profile on SEDAR at [www.sedar.com](http://www.sedar.com).

#### **Firebag Property**

The below summary is a direct extract and reproduction of the summary contained in the Firebag Technical Report, without material modification or revision and all defined terms used in the summary shall have the meanings ascribed to them in the Firebag Technical Report. The below summary is subject to all the assumptions, qualifications and procedures set out in the Firebag Technical Report. The Firebag Technical Report was prepared in accordance with NI 43-101. For full technical details of the report, reference should be made to the complete text of the Firebag Technical Report, which has been filed with the applicable regulatory authorities and is available under the Corporation’s SEDAR profile at [www.sedar.com](http://www.sedar.com). The Firebag Technical Report is incorporated by reference in this AIF and the summary set forth below is qualified in its entirety with reference to the full text of the Firebag Technical Report. The authors of the Firebag Technical Report have reviewed and approved the scientific and technical disclosure contained in this AIF related to the Firebag Technical Report.

#### **Firebag Technical Report**

*“National Instrument 43-101 Technical Report, Firebag Property, Alberta, Canada”  
Prepared by William A. Turner, P. Geol. and A.C. (Chris) Hunter, P. Geol., dated November 27, 2019*

On November 5, 2019, Athabasca contracted Stantec Consulting Ltd. (“**Stantec**”) to prepare a technical report in accordance with the requirements of NI 43-101. The purpose of the Firebag Technical Report is to constrain the physical characteristics, thickness, depth and continuity of the unconsolidated Quaternary sand on the Firebag Property to assess its suitability as a natural proppant. As part of this evaluation, the quality and volumes of the natural proppant and the reasonable prospects for eventual economic extraction were assessed.

The Firebag Property is located 95 km north of Fort McMurray and 130 km southwest of Fort Chipewyan in the Regional Municipality of Wood Buffalo, northeastern Alberta in map sheets 074E06, 074E11, and 074E12. The Firebag Property area spans from 57°34'11"N to 57°35'07"N, and 111°17'33"W to 111°16'48"W, with the Firebag Property centre being located at approximately 57°34'41"N, 111°16'49"W. Access to the Firebag Property is via the Chipewyan winter road or by helicopter from Fort McMurray. Figure 1-1 shows the general location of the Firebag Property.

The Firebag Property consists of Quaternary sediments, sand and silts.

A Stantec qualified person inspected the Firebag Property on November 7, 2019. During this property inspection, the qualified person collected 10 sand samples with a soil auger at specified depths that aligned with previously tested areas. The samples were directly transported by the qualified person to Calgary and were taken by the qualified person to AGAT Laboratories Ltd. (“AGAT”) on November 7, 2019.

The Firebag Property includes four Alberta Public Land Dispositions, three of which are active and one is pending (Alberta Government, 2019; Altalis, 2019). The SMLs that apply to the Firebag Property are registered to Athabasca. In addition to the approved and pending SMLs, Athabasca is also granted a Department License of Occupation (“DLO”) and a Department Miscellaneous Lease (“DML”). The DLO was obtained to secure road access into the Firebag Property from the Fort Chipewyan winter road. The DML is to serve as a laydown and is located to the northeast of the DLO road and the SMLs.

As of August 25, 2014, Athabasca was granted the right to extract surface material from SLM 130021 for 10 years. SML 120032 is still in the application stage as of the effective date of this Firebag Technical Report. Assignment of a 10-year term to SML 120032 is contingent on meeting the reclamation stipulations required for SML 130021. The details of the Firebag Property held land dispositions are shown in Table 1-1.

**Table 1-1**  
**Firebag Property Land Dispositions**

Agreement Number	Type	Status	Application Date	Effective Date	Amendment Date	Expiry Date	Area (ha)	Area (ac)
SML 130021	Surface Material Lease	Active / Disposed	2013-03-28	2014-08-25	2014-08-21	2024-08-24	32	80
SML 120032	Surface Material Lease	Approved Amendment For Surface Disposition	2012-04-30	-	2014-01-13	-	170	420
DLO 130748	Licence of Occupation	Active / Disposed	2013-03-28	2017-04-28	2014-09-18	2027-04-27	1	3
DML 130162	Miscellaneous Lease	Active / Disposed	2013-08-09	2017-04-28	2014-09-18	2027-04-27	10	25
<b>Total</b>							<b>213</b>	<b>528</b>

The Fort Chipewyan winter road runs along the western flank of the Firebag Property. This road is only accessible by truck during the winter months. Access to the Firebag Property may be possible year-round by all-terrain vehicles; however, winter is obviously the preferred time of the year to access the property and complete field work. The all-weather road gate at the north terminus of Highway 63 is seven km south of the Firebag Property access. Athabasca’s SMLs can also be accessed from an 860 m access road that is operated by Athabasca and intersects the Fort Chipewyan winter road.

In 2009, Athabasca commenced a regional exploration program to identify subsurface gypsum deposits as well as to examine dolomitized outcrops along the Firebag river. During this exploration program, Athabasca discovered sand that visually appeared to have high silica purity. Samples were collected during this program, and geochemical and size distribution analyses were completed on the sand samples to assess its silica purity. The results of this preliminary study showed that the sand may have suitable physical properties to act as a proppant. Based on these results, the decision was made to conduct further exploration with test pit and auger testing in 2011.

Two auger drilling campaigns were completed in the vicinity of the project to assess the extent and quality of the sand, and to constrain the optimal area to secure the surface material leases. Nineteen auger holes were drilled to approximately 14.3 m depth in January 2011. The location of auger hole TH6, which was drilled during this January 2011 campaign, was selected for further testing. In December 2011, a second field program was conducted in that area that involved the completion of 26 test pits and seven additional auger holes, which were drilled to 24.4 m depth. The results from this second testing campaign constrained the proposed SLM boundary.



### Mineral Resource

The mineral resource shown in Table 1-2 is reported as in-place tonnages. The volumes calculated from the zone thickness were converted to tonnage by the application of representative average in-place bulk density of 1.5 g/cm<sup>3</sup>. The 20/40, 40/70, 70/140 and 140/170 fractions were assessed during the preparation of this report as each fraction has different applications during the hydraulic fracturing process.

**Table 1-2**  
**In-Place Mineral Resource Summary, Effective Date November 8, 2019**

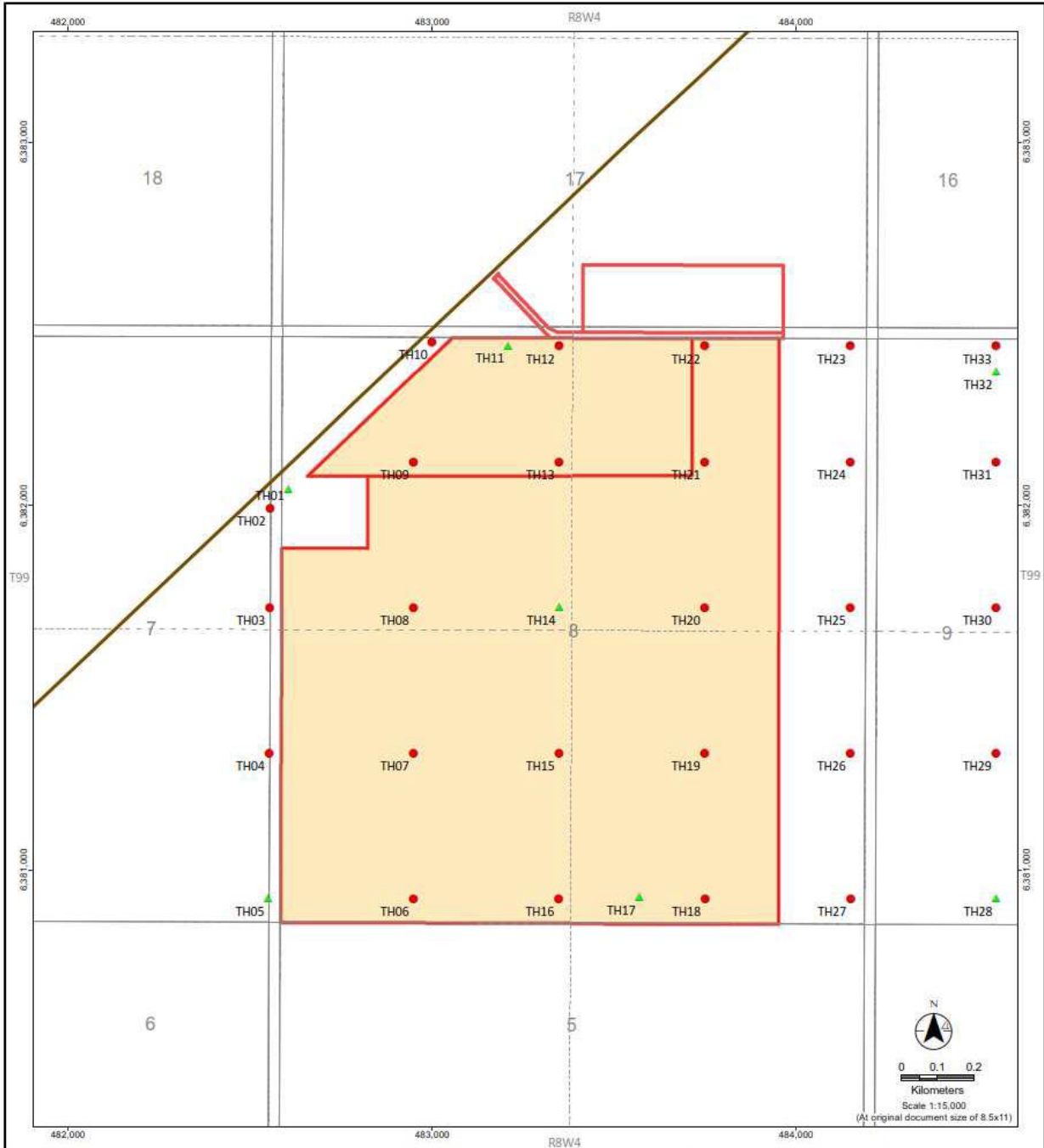
Category	Mineral Resources (Mt)				
	20/40 Mesh Fraction	40/70 Mesh Fraction	70/140 Mesh Fraction	140/170 Mesh Fraction	Total
MEASURED	-	-	-	-	-
INDICATED	4.45	19.34	13.40	0.98	38.18
<b>MEASURED &amp; INDICATED</b>	4.45	19.34	13.40	0.98	38.18

Mt = Million Tonnes

SML 130021 with 32.2 ha is calculated to have 6.02 Mt of saleable sand fractions and SML 120032 with 172.3 ha is calculated to have 32.16 Mt of saleable sand fractions.

A breakdown between the upper and lower zones, has the upper, zone 1, with 37.4% of the resource based on 16 data inputs and the lower, zone 2, contains 62.6% of the resource based on five data inputs analyses. The fractions outside of this reported range, the greater than 20 mesh and less than 170 mesh, sum to 1.50 Mt of non-saleable material.

The sand on the Firebag Property was classified as indicated resource based on the qualified person(s) experience with classifying flat lying stratified deposits. The resource is classified according to the confidence categories defined by CIM Best Practice Guidelines for Industrial Minerals, which was published by the CIM Estimation Best Practice Committee on November 23, 2003.



- Legend**
- Test Pit
  - ▲ Auger Hole
  - ▭ Firebag Property
  - Resource Distribution
  - Winter Road

**Notes**  
 Coordinate System: NAD 1983 UTM Zone 12N  
 Data Sources: Altalis; AMI



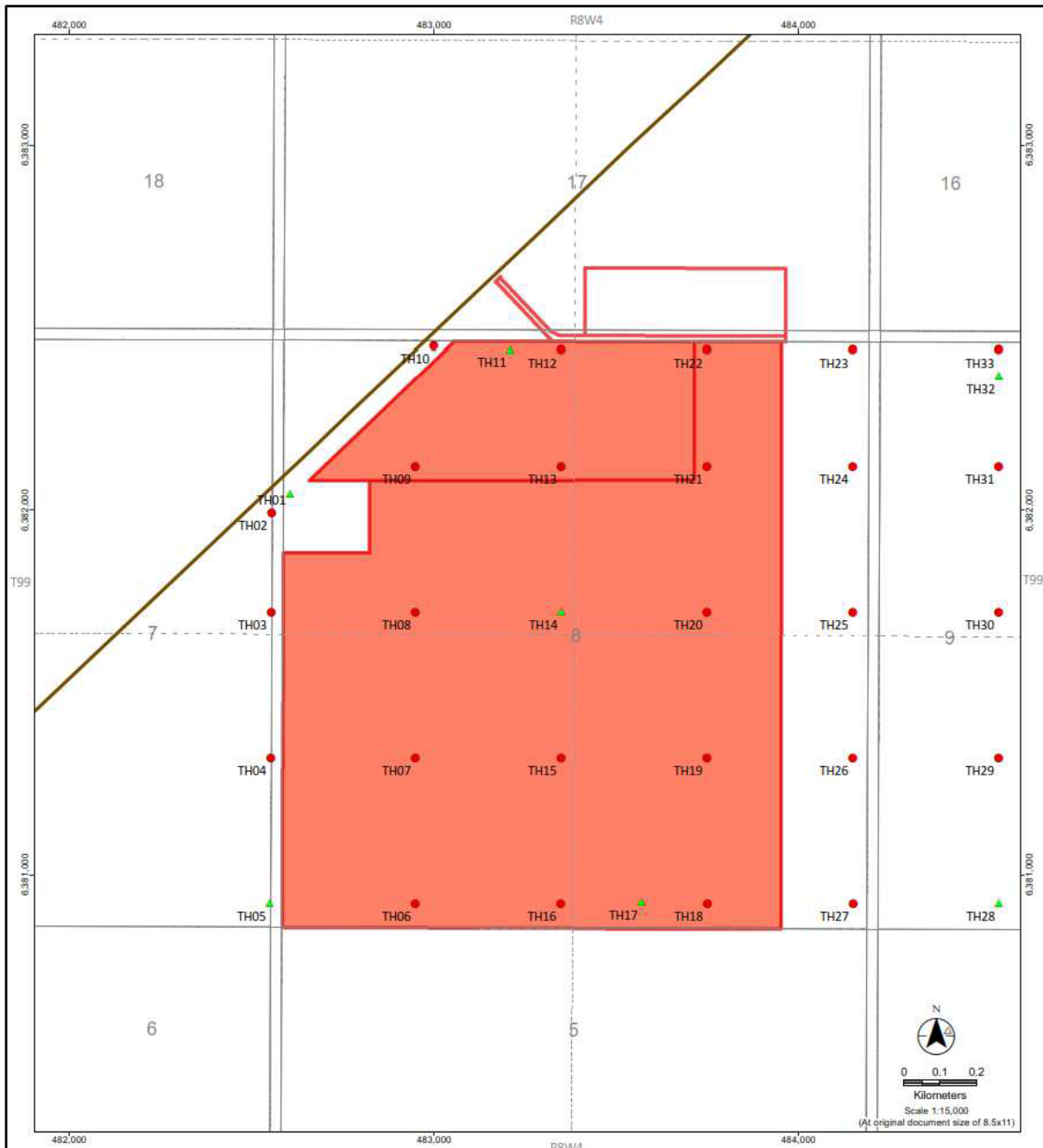
TECHNICAL REPORT FIREBAG PROPERTY

**Resource Distribution Map**

**Figure 1-2**

DRAWN BY: M.B.	FILE: Fig_14_9_Resource_Distribution
CHK'D BY: C.H.	V:\1295\active\129500285\Reports\Draft\Figures\MXD
DATE: 19/ 11/ 13	

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.



- Legend**
- Test Pit
  - ▲ Auger Hole
  - Firebag Property
  - Resource Classification - Indicated
  - Winter Road

**Notes**  
 Coordinate System: NAD 1983 UTM Zone 12N  
 Data Sources: Altalis, AMI



TECHNICAL REPORT FIREBAG PROPERTY

## Resource Classification Map

**Figure 1-3**

DRAWN BY: M.B. FILE: Fig\_14\_10\_Resource\_Classification  
 CHK'D BY: C.H. V:\1295\active\129500285\Reports\Draw\Figures\MXD  
 DATE: 19/ 11/14

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

Two follow-up phases are recommended to advance this Firebag Property.

### **Phase One: Sonic Drill Program (C\$101K)**

Much of the testing on the Firebag Property has been completed through excavation of test pits; there are only five auger drill holes completed directly within the model. It is recommended that a subsequent mini sonic drill program be completed that penetrates through the base of the sand in all holes so that a comprehensive understanding of the sand thickness be obtained. Use of a mini sonic drill is recommended over the use of an auger drill at greater depths, such as depths greater than 25 m. Also, due to the advancement of continuous casing during drilling, the sonic core is not contaminated through dragging against the sidewall of the drill hole. It is recommended that approximately six sonic holes be completed in this phase.

Systematic continuous sampling is required to characterize potential variations in the sand that may occur spatially across the Firebag Property. Table 1-3 lists the required tasks and the estimated associated cost.

**Table 1-3**  
**Phase 1: Sonic Exploration Program**

<b>Task</b>	<b>Estimated Cost (C\$)</b>
Personnel (Office, Field, Travel Expenses)	14,000
Six-Hole Drill Program (Rig and crew)	30,000
Laboratory (Sieve Analyses)	17,000
Laboratory (Proppant Testing & Shipment)	40,000
<b>Estimate Total</b>	<b>101,000</b>

### **Phase Two: Revised Preliminary Economic Assessment (C\$350K)**

Depending on the results of the drilling, it is advised that a new geological model be developed, and the resource tonnage be reassessed and reclassified. A reevaluation of the economics is recommended as a Preliminary Economic Assessment (“PEA”) was last completed on the project in 2015. Stantec recommends an independent market assessment be completed to support a PEA. Table 1-4 shows the list of tasks that require revision following completion of Phase One.

**Table 1-4**  
**Phase 2: Preliminary Economic Assessment**

<b>Project Task</b>	<b>Fees (Cdn\$)</b>
Project Management	\$10,000
Geology, Resource Evaluation, Reclassification	\$30,000
Water Management Plan	\$65,000
Extraction and Development Plan	\$90,000
Infrastructure / Transport / Process	\$80,000
Environmental / Regulatory / Permitting	\$5,000
Project Cost & Economic Analyses	\$40,000
Project Review and Reporting	\$30,000
<b>Total</b>	<b>\$350,000</b>

## **Richardson Property**

The below summary is a direct extract and reproduction of the summary contained in the Richardson Technical Report, without material modification or revision and all defined terms used in the summary shall have the meanings ascribed to them in the Richardson Technical Report. The below summary is subject to all the assumptions, qualifications and procedures set out in the Richardson Technical Report. The Richardson Technical Report was prepared in accordance with NI 43-101. For full technical details of the report, reference should be made to the complete text of the Richardson Technical Report, which has been filed with the applicable regulatory authorities and is available under the Corporation's SEDAR profile at [www.sedar.com](http://www.sedar.com). The Richardson Technical Report is incorporated by reference in this AIF and the summary set forth below is qualified in its entirety with reference to the full text of the Richardson Technical Report. The authors of the Richardson Technical Report have reviewed and approved the scientific and technical disclosure contained in this AIF related to the Richardson Technical Report.

### **Richardson Technical Report**

[“National Instrument 43-101 Technical Report, Inferred Crush Rock Aggregate Resource Estimate with Updated Lease Boundaries for the Richardson Property, Northeastern Alberta, Canada”](#)

[Prepared by Roy Eccles, M. SC., P. Geol. and Steven Nicholls BA. Sc, MAIG, dated October 24, 2019.](#)

The Richardson Property is located adjacent to the prolific Athabasca oil sands region of northeastern Alberta, approximately 130 km north-northeast of the urban service area (or city) of Fort McMurray. The Richardson Property comprises of three contiguous Alberta Metallic and Industrial Minerals Leases totalling 3,904 ha (9,647 acres). Athabasca maintains 100% interest in all three leases and has the exclusive right to develop and mine Alberta-owned metallic and industrial minerals in a specified location.

A maiden inferred resource technical report was originally prepared by APEX for the Richardson Property with an effective date of June 8, 2015. Since then, Athabasca has not conducted any exploration activities and/or other work that is material to the issuer; however, Athabasca has been in consultations with the Government of Alberta with respect to the implementation of a new provincial park, the Kitaskino Nuwenënë Wildland Provincial Park, in the vicinity of the original Richardson Property permits.

Accordingly, the purpose of this updated technical report is to: 1) state Athabasca's revised Richardson Property land position; 2) state Athabasca's conversion of mineral exploration 'permits' to mineral development 'leases'; and 3) show that the original inferred resource estimate prepared in June 2015 is still current because the resource area outline is situated entirely within the boundaries of the new Richardson Property boundary (i.e., the resource area is within the three contiguous leases). Hence, the change in land position and conversion of permits to leases represent the only material change to the issuer as documented in this updated and current technical report, which supersedes and replaces the technical report with an effective date of June 8, 2015.

The Richardson Property is being assessed by Athabasca for its crush rock aggregate potential, which generally refers to materials that are hard and granular, and are suitable to be used alone or with other materials as binding agents for a number of applications such as: concrete in building construction; road stone; railway track blast; mortar; flux in iron and steelmaking; or to reduce coal sulphur dioxide emissions. Crush rock aggregate is produced from a variety of materials that are usually produced as low-cost, high-volume and bulk mineable commodities.

The Richardson Property is situated along the passive, eastward thinning margin of the Western Canada Sedimentary Basin where sedimentary successions uncomfortably overly and onlap the southwest dipping Precambrian basement. Within the Richardson Property, Precambrian basement, Devonian carbonate and Quaternary surficial materials are either exposed, or occur near the surface. From the industrial mineral perspective, carbonate rocks are commonly considered to be mechanically strong due to their interlocking grain fabrics, carbonaceous mineralogy and subjectivity to recrystallization processes, which in turn increase their strength and decrease porosity. In addition, igneous Precambrian rocks such as granite typically produce strong aggregates that are skid resistant and therefore, are favourable road aggregate materials.



There are no all-weather roads to the Richardson Property; however, a 280 km winter road extending from Fort McMurray to the hamlet of Fort Chipewyan traverses through the central portion of the Richardson Property and provides intermittent access with transport-load capacity.

During 2013, Athabasca conducted a four-hole diamond drill hole program (drill holes GNA-05, GNA-10, GNA-11 and GNA-16; totalling 235 m) intended to test the Devonian carbonate and Precambrian basement at the Richardson Property. The drill program cored complete stratigraphic sections of the uppermost carbonate lithostratigraphic unit (the Winnipegosis Formation) in two of the four drill holes, and a single drill hole intersected down through the carbonate stratigraphy and into the Precambrian basement. To acquire additional material for evaluation, APEX was retained by Athabasca in 2014 to conduct an eight drill hole program (14RLD001 to 14RLD008; totalling 843 m) at the Richardson Property over an area spanning approximately 20 km<sup>2</sup>. With the exception of one of the eight 2014 drill holes, the program successfully cored entire stratigraphic sections that terminated in Precambrian basement granite.

The 2013 and 2014 drill campaigns conducted by Athabasca shows that the bedrock underlying the Richardson Property includes, from stratigraphic base to top: Precambrian crystalline basement granitic rocks of the Taltson Magmatic Zone; an Early Devonian discontinuous zone of detrital basal feldspathic sandstone and conglomerate known as the La Loche Formation; marginal marine dolomitic silty shale of the Devonian Contact Rapids Formation; and a thick (relative to the Contact Rapids and La Loche formations), finely crystalline dolostone known as the Winnipegosis Formation. The bedrock is overlain by a layer of Quaternary glaciofluvial and glaciolacustrine deposits that have formed kettle depressions and kame deposits and redistributed surficial sediments into low-lying areas.

Based on the 2013 and 2014 drill results, Athabasca further commissioned APEX to: 1) supervise the logging and sampling of the 2013 and 2014 drill core; 2) supervise the appropriate aggregate test work and geochemical analysis to assess the Winnipegosis Formation and the Precambrian basement granite for their suitability as potential source of crush rock aggregate; 3) prepare a NI 43-101 technical report and maiden inferred crush rock aggregate resource estimate of the Middle Devonian Winnipegosis Formation; and 4) make recommendations on future exploration to advance the Richardson Property. The Winnipegosis Formation is the focus of this technical report due to the near surface proximity of the dolostone unit in the drill area, which represents a small north-central portion of the Richardson Property. A secondary objective includes an aggregate assessment of the basement granite, mainly intended toward future exploration strategies at the Richardson Property.

The drilling strategy was to terminate each drill hole once 10 m of Precambrian basement granite was penetrated and cored. A single drill hole (14RLD007) tested the granite to a coring depth of 44.5 m to test its uniformity and crush rock aggregate potential at depth (and precious-, base- and specialty- metal potential). The granite comprised light-blue grey coarse-grained weakly foliated granite that is fairly consistent throughout the area of drilling, albeit being variably subjected to potassic alteration. The thickness of the Winnipegosis Formation varies from 8.3 m to 47.9 m (averages 39.5 m) and is comprised largely of competent, light brown dolostone. Overburden thickness ranged from 18.0 m to 64.9 m (averages 35.7 m) and is comprised largely of unconsolidated glaciofluvial sand and boulders.

The core was logged and sampled in accordance with the appropriate assessment of crush rock aggregate, which involves criteria that considers the materials strength, continuity, fractures and the presence of weakening particulate matter. Geotechnical measurements included: rock quality description, fracture frequency and rock defects, and discontinuity and fracture conditions. Density measurements were carried out once per every metre using the “hydrostatic” method, which involves weighing the item in air and then again while fully submerged in water, to calculate the weight (tonnage) of a volume of rock. Portable x-ray fluorescence analyzer measurements were taken every metre of core to provide an evaluation of the chemical homogeneity and potential aggregate strength of the core, and secondarily, to evaluate the metallic mineral potential of the core.

The analytical sampling process consisted of two separate sample sets: 1) composite samples for aggregate test work; and 2) interval or channel samples for major and trace-element geochemical analysis. The objective of the aggregate analytical test work, in the context of this crush rock aggregate resource estimate, was predominantly focused on the aggregate mechanical qualities for its use in aggregate road building and concrete. A sufficient and appropriate number of samples were analyzed to ensure that meaningful sample results were obtained, including: eleven composite samples of Winnipegosis Formation (one sample per drill hole plus one duplicate sample for quality assurance); one composite sample of Contact Rapids (amalgamated from all ten drill holes due to the narrowness of

the unit); and two composite samples of basement granite (amalgamated from all drill holes that penetrated basement; n=8).

The results of the aggregate test work were evaluated by making comparisons with aggregate specification and screening criteria as set by Alberta Transportation and the Canadian Standards Association. The results show that the Winnipegosis Formation and Precambrian basement granite met the maximum allowable screening criteria for major aggregate test methods, including: plasticity index; Los Angeles abrasion; magnesium sulphate soundness; and unconfined freeze-thaw. Based on the results of this test work and evidence of the homogeneity and uniformity of the rock units, it is concluded that the Winnipegosis Formation and Precambrian basement granite represent material of merit for several Alberta Transportation aggregate designations, including: designation 1 (asphalt concrete pavement); and designation 2 (base course aggregate).

With respect to reporting a resource estimate and abiding by NI 43-101, the aggregate test work yields results that suggest the Winnipegosis Formation from the Richardson Property has reasonable prospects of economic viability for an industrial mineral deposit. Despite having analyzed only two amalgamated composite granite samples, the Precambrian basement granite also yielded positive aggregate test work results and is recommended, therefore, to undergo additional aggregate testing in the future. In contrast, the single Contact Rapids sample does not meet the screening criteria, and therefore, does not meet the reasonable expectation and/or demonstration of economic viability of an industrial mineral deposit.

The Richardson maiden inferred crush rock aggregate resource estimate is reported in accordance with NI 43-101, and has been estimated using the CIM “Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines” dated November 23, 2003 and CIM “Definition Standards for Mineral Resources and Mineral Reserves” adopted May 10, 2014. The senior author performed a site inspection at the Richardson Property on October 25, 2017; the date of the site inspection is considered sufficient for this technical report as there has been no material change at the Richardson Property since the 2014 drill program.

The CIM Standards on Mineral Resources and Mineral Reserves, Definitions and Guidelines, dated August 20, 2000 states that: “when reporting mineral resource and mineral reserve estimates relating to an industrial mineral site, the qualified person(s) must make the reader aware of certain special properties of these commodities”. It should be noted that the Richardson crush rock aggregate, in the context of this technical report, represents an ‘early stage project’. The ultimate suitability of an industrial mineral for use in specific applications requires detailed marketing and economic investigations, which are beyond the scope of this technical report. With respect to the Richardson Property and northeastern Alberta in general, however, a fundamental statement is that the Fort McMurray region is best known for its vast resource of bituminous oil sand, and that vast quantities of aggregate materials are required to supplement ongoing oil sands infrastructure and construction demand. In addition, it is pertinent to note that government baseline aggregate mapping in the Fort McMurray area has shown that sand and gravel deposits are distributed unevenly, of variable quality and quantity, and have largely been exploited. Consequently, aggregate exploration has focused on importing aggregate, which is difficult from an industrial mineral economics perspective, or on locating local sources of buried crush rock aggregate. For example, Hammerstone Corporation produces limestone crush rock aggregate from its Muskeg Valley Quarry, which is adjacent to the Richardson Property. Lastly, the oil sands industry poses no potential conflict or risk to industrial minerals production as separate statutes regulate the right to metallic and industrial minerals, to coal, to oil/gas, and to bitumen (oil sands) in the province of Alberta.

The resource estimation presented in this technical report considered data from four 2013 drill holes and eight 2014 drill holes drilled by Athabasca (twelve total drill holes). Because two of the 2013 drill holes were terminated at less than 30 m, and did not penetrate through the entire lithostratigraphic section of the Winnipegosis Formation (the primary focus of this resource estimate), only ten drill holes were utilized in the Richardson maiden inferred crush rock aggregate resource modelling and estimation. The 2013 and 2014 drill holes were initially surveyed using a hand-held Garmin GPS unit with the collar elevations subsequently being modified using high resolution light detection and ranging technology with 1 m resolution. All drill holes were vertical holes; no down hole surveying was employed. Spacing between drill holes varies from 500 m to 1.37 km, with an average of about 900 m between drill holes. Consequently, modelling in MICROMINE utilized seven drill lines that ranged in spacing from 570 m to 900 m. In the context of this crushed rock aggregate deposit type, style and formation, the drill spacing is sufficient for resource volume estimation.

Stratigraphic logging, which was performed by APEX for both the 2013 and 2014 drill holes, showed that with the exception of the La Loche Formation–Precambrian basement boundary, which can be gradational, the boundaries between formations have sharp, visually identifiable contacts. These definitive geological boundaries are further characterized as having extensive lateral continuity of the individual formations. The homogeneity of the stratigraphic units was further evaluated using geotechnical (rock quality description and total fracture data) and geochemical data derived from the cores. A positive correlation between the drill logs and the geotechnical/geochemical data confirmed the lithostratigraphic formation divisions, and the homogenous nature of the Winnipegosis Formation, which highlights its applicability in resource estimation as a potential source of crush rock aggregate.

The single ‘impurity’ to report involves supplementary bitumen, which is more or less confined to the uppermost portions of the Winnipegosis Formation (and the La Loche Formation directly overlying the Winnipegosis dolostone). The bitumen ranges in intensity from non-existent (in most of the core) to pervasive, the latter of which is evident in 25 cm to 90 cm wide ‘bituminous horizons’ that occur in the eastern drill holes 14RLD006 and 14RLD008. The bitumen appears to be confined to porosity enabling textures in the carbonate such as vugs, sandy horizons and fracture planes. It is not known how the bitumen might influence the processing or marketing of the potential crush rock aggregate, but the overall consistency and volume of non-bitumen-bearing dolostone, and the positive aggregate test work results, provide justification that the bitumen does not influence the viability of the Winnipegosis as an industrial mineral deposit in the evaluation of this early stage project.

A total of 675 bulk density measurements were collected from drill core within the Richardson maiden inferred crush rock aggregate resource area. Additional density measurements (n=14) were also performed as part of aggregate test work, and these results were consistent with hydrostatic average formation density values of 2.68, 2.50 and 2.63 for the Winnipegosis, Contact Rapids and basement granite, respectively, that were used in this technical report.

Mineral resource modelling was carried out using a three dimensional model in commercial geological modelling and mine planning software, MICROMINE (v.14.0.4). Block modelling of the resource area was not necessary as no ‘grade’ was being estimated; instead a three-dimensional computer-generated ‘solid’ of the area was generated in MICROMINE to calculate the resource ‘volume’. A separate wireframe was created for each formation (Precambrian basement granite; La Loche Formation; Contact Rapids Formation; Winnipegosis Formation; and overburden), from which, separate ensuing formation volumes could be derived for each lithostratigraphic unit.

The surface area of the resource outline reported in this technical report is 6.30 km<sup>2</sup>. With the exception of two northwestern drill holes (GNA-10 and 14RDL-008), a resource outline of 500 m was constructed around the outermost drill holes to clip the individual formation wireframes and restrict the lateral extension of the wireframes and the main resource model to the general 2013 and 2014 Athabasca drill area which represents only a small north-central portion of the Richardson Property. The resource outline of 500 m was deemed appropriate based on the continuous nature of the stratigraphic formations within the resource outline area as defined by 2013 and 2014 Athabasca drilling, and because the same generally flat-lying stratigraphic formations has been intersected in oil and gas wells that are located several tens to hundreds of kms away from the Richardson resource area. The radius of the boundary outlines for drill holes GNA-10 and 14RDL-008 was reduced to 50 m (from 500 m) due to the proximity of a lake.

This three-dimensional model formed the spatial basis for calculating the volume and tonnage for the Richardson maiden inferred crush rock aggregate resource estimate. Within the three-dimensional model, the volume of each formation was used to multiply against a nominal density value, which was determined on a formation by formation basis. This resulted in the reported tonnages. The Richardson maiden inferred crush rock aggregate resource estimate has been classified as ‘inferred’ according to the CIM definition standards.

The classification of the Richardson maiden inferred crush rock aggregate resource was based on geological confidence, data quality and stratigraphic continuity. That is, the criteria and rationale for the classification of inferred resource is based upon the wide spaced nature of the drilling to date and the fact that the Richardson crush rock aggregate project is classified as an early stage project with little mineral processing test work completed to date. As this is the maiden inferred resource, no mining studies have been employed to constrain the resource within an optimal pit shell.

The Richardson maiden inferred crush rock aggregate resource estimate consists of 683 million tonnes of aggregate material situated within the favourable Winnipegosis Formation (Table 1). Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no guarantee that all or any part of the mineral resource will be converted into a mineral reserve. The Winnipegosis aggregate resource is directly overlain by 497 million tonnes of overburden-waste material.

*Table 1. Richardson maiden inferred crush rock aggregate resource. Volumes and tonnages for the overburden and all lithostratigraphic units in the resource area are included, but the main resource reported in this technical report relates to the Winnipegosis Formation.*

<b>Formation</b>	<b>Volume (m<sup>3</sup>)</b>	<b>Density (t/m<sup>3</sup>) *</b>	<b>Tonnes (million tonnes) **</b>
Overburden	220,625,000	2.25	497.29
<b>Winnipegosis</b>	<b>254,523,000</b>	<b>2.68</b>	<b>683.14</b>
Contact Rapids	63,322,000	2.50	158.11
La Loche	13,339,000	2.54	33.93
Basement granite	62,941,000	2.63	165.41

\* Density has been rounded to two decimal places.

\*\* Tonnes have been rounded to the nearest 10,000 tonnes.

Note 1: Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no guarantee that all or any part of the mineral resource will be converted into a mineral reserve.

Note 2: The quantity of tonnes reported in these inferred resource estimations are uncertain in nature and there has been insufficient exploration to define these inferred resources as an indicated or measured mineral resource, and it is uncertain if further exploration will result in upgrading them to an indicated or measured resource category.

The estimate of mineral resources presented in this technical report may be materially affected by geology, environment, permitting, legal, title, taxation, socio-political, marketing or other relevant issues. Because the Richardson Property is in its preliminary exploration stages, specific detail on project's risks and uncertainties has yet to be fully investigated at this time. As the Richardson Property advances toward an early stage conceptual assessment of potential economic viability of the mineral resources, future discussion on the significant risks, uncertainties and foreseeable impacts are required, including those risks to the project's potential economic viability.

The portion of the Richardson Property resource that has been classified as 'Inferred' demonstrates that the nature, quantity and distribution of data is such as to allow confident interpretation of the geological framework and to reasonably assume continuity of geological formations. The collective work to date from the Richardson Property indicate that while the project is in early stages of exploration/resource work that indications of the metallurgical and mineral processing qualities give suggestions that they are of high enough quality that the Winnipegosis at the Richardson Property is considered to be a 'property of merit' and warrants further exploration. This contention is supported by results presented in this technical report, which include:

- the Winnipegosis Formation is a uniform and continuous target unit that has undergone pervasive dolomitization and is therefore a hard, competent and resistive lithostratigraphic unit with crush rock aggregate deposit potential;
- sample composites of the Winnipegosis Formation yielded positive aggregate test work results in comparison to Alberta Transportation and Canadian Standards Association aggregate specifications and standards;

- the Winnipegosis Formation is considered the most favourable unit for crush rock aggregate in the resource area given that it is the shallowest lithostratigraphic unit (directly underlying the Quaternary cover and occurs at depths ranging from 18.0 m to 64.9 m) with early stage project crush rock aggregate deposit potential;
  - a Richardson maiden inferred crush rock aggregate resource estimate that has an aerial extent of 6.30 km<sup>2</sup> and consists of 683 million tonnes of crush rock aggregate material situated within the Winnipegosis Formation (see aforementioned disclaimers); and
  - the oil sands region of northeastern Alberta represents an area of enormous growth – while continued oil sands development is subject to an infinite number of variables (e.g., geology, hydrocarbon prices, environment, taxation, socio-political, marketing or other relevant issues), the current circumstances suggest a continued and positive market demand for ‘local’ aggregate products.

In addition to the Richardson maiden inferred crush rock aggregate resource estimate, a stratigraphic compilation of publicly available oil and gas well information, historical metallic and industrial mineral assessment reports, and data from Athabasca 2013 and 2014 drill programs shows that there is good stratigraphic continuity of the Winnipegosis Formation and Precambrian basement surface in the general Richardson Property area. By way of preliminary reasoning, the Richardson Property has several potential targets for further exploration. The following statements referring to any potential extension of the Richardson crush aggregate deposit are conceptual in nature; there has been insufficient exploration to define the extended mineral deposit and it is uncertain if further exploration will result in the target being delineated as a mineral deposit and/or resource. Potential targets for further exploration are summarized as follows:

1. Based on good stratigraphic continuity of the Winnipegosis Formation, an extension of the current Winnipegosis crush rock aggregate deposit outwards from the resource area to other parts of the Property could create additional and/or more accessible Winnipegosis tonnage. For example, a potential southerly extension of the Winnipegosis Formation deposit (i.e., an additional aerial extent of 7.49 km<sup>2</sup>) could add between 0.671 and 1.006 billion tonnes of aggregate crush rock. There is also justification in targeting the Winnipegosis Formation to the east-northeast, where the thickness of overburden is assumed to be thinner and could potentially lower the strip ratio to access the Winnipegosis in comparison to the resource area.
2. If the economics of mining the Winnipegosis Formation are feasible, then the Precambrian basement granite represents a potential secondary crush rock aggregate exploration target within the resource area due to its uniform nature and overall hardness as shown by aggregate test work conducted in this technical report. Modelling in this technical report shows that within the resource area, the Precambrian basement granite could account for an additional 157 to 236 million tonnes of potential aggregate. This exploration target estimate is conservative as the volume assumes a maximum depth of 10 m (corresponding to when most of the drill holes were terminated). Lastly, the Contact Rapids Formation, which underlies the Winnipegosis, comprises weakly consolidated muddy and sandy limestone, and is therefore not as desirable in comparison to the Winnipegosis (this is evident in poor aggregate test work results presented in this technical report). There is the possibility, however, that the Contract Rapids could provide a source of alternative flux material if the Winnipegosis were to be mined as crush rock aggregate.
3. In paragraph 2 above, any potential granite evaluation in the resource area is contingent on the Winnipegosis being economic. However, the Precambrian basement granite is known crop out on the Richardson Property directly east-southeast of the resource area. In addition, a multi- technique geophysical conducted over the general granite outcrop area helps to define the near- surface boundaries of the granite body. Ground Penetrating Radar (“GPR”) profiles and ground magnetic data show that the granite outcrop is fairly constrained to the immediate observed exposure; however, the GPR profiles suggest that the area directly north of the outcrop has the least amount of overburden and/or Winnipegosis dolostone material to overlie the Precambrian basement granite. Based on the GPR results, the estimated areas of combined surficial overburden and Winnipegosis Formation dolostone material that is situated on top of the Precambrian granite and is within 5 m, 10 m, 15 m, 20 m

and 25 m of surface is approximately: 4,600 m<sup>2</sup>; 15,200 m<sup>2</sup>; 45,100 m<sup>2</sup>; 91,300 m<sup>2</sup>; and 147,233 m<sup>2</sup>, respectively. The geophysical interpretations remain inherently ambiguous and require other geological information such as drilling to properly confirm and classify the identified litho-magnetic zones. However, based on the uniformity and positive granite aggregate test results from the resource area, and delineation of an exposed and near-surface area of granite on the eastern part of the Property, Precambrian granite at the Richardson Property represents a potential target for further exploration.

4. Lastly, the Contact Rapids Formation, which underlies the Winnipegosis, comprises weakly consolidated muddy and sandy limestone, and is therefore not as desirable in comparison to the Winnipegosis (this is evident in poor aggregate test work results presented in this technical report). There is the possibility, however, that the Contract Rapids could provide a source of alternative flux material if the Winnipegosis were to be mined as crush rock aggregate.

To conclude, there are several hypotheses to potentially increase and diversify the current Richardson crush-rock aggregate deposit. Accordingly, a two-Phase approach is recommended for 2019-2020 exploration at the Richardson Property consisting of: Phase One geophysical work, including a GPR survey; and a Phase Two extension and infill drill program. Results pending, the Phase Two drill program could be contemporaneous with a PEA scoping study. The total cost of both phases of recommended exploration work is estimated at CDN\$916,000 (Table 2; not including contingency). With a 10% contingency the total budget is CDN\$1,007,600.

The phase one exploration work includes a 35 line-km GPR survey to:

- create a preliminary three-dimensional geological model of the resource area and beyond;
- depict those areas that have shallow overburden overlying Devonian Winnipegosis dolomite and the Precambrian basement granite; and
- define the drill hole locations for the phase two drill program.

Subject to the results of the phase one survey, a phase two extension/infill drill hole program and aggregate test work analyses will:

- verify the three-dimensional geological model; and
- provide additional confidence to uniformity, extent, depth and quality of the Winnipegosis dolomite and the basement granite, which is necessary to produce an updated mineral resource estimate.

It is recommended that the phase two extension and infill drilling consists of ten to eleven systematically placed diamond drill holes (totalling approximately 1,000 m) designed to:

- extend the Winnipegosis deposit area to the south and to the east-northeast of the resource area; and
- verify and define a potential Precambrian granite aggregate deposit to the area east- southeast of the resource area (adjacent to a known exposure of Precambrian granite).

The drill hole and analytical results will generate: a revised inferred, and possibly indicated, mineral resource technical report; and trigger a PEA scoping study that includes an economic analysis of the potential viability of crush rock aggregate resources at the Richardson Property. The PEA scoping study should include: the creation of an initial pit shell; estimations of strip ratios to remove the overburden; examination of certain economic and environmental factors related to the market for crushed rock aggregate in the immediate vicinity of the Richardson Property.

Table 2. Summary of Recommendations for the Richardson Property.

### Phase One: Ground Geophysical Survey and Preliminary 3D Model

Activity	Description	Cost (CDN\$)
Ground Penetrating Radar (GPR) geophysical survey	A 35-line km GPR survey to develop a preliminary 3D model, determine o/b thickness and site drillhole locations.	\$40,000
	<b>Sub-total</b>	<b>\$40,000</b>

### Phase Two: Drill Program, Indicated/Inferred Technical Report and Preliminary Economic Assessment

Activity	Description	Cost (CDN\$)
Drilling	A 10-11 drillhole heli-supported program (approximately 1,000 m of coring)	\$511,000
Analysis	Aggregate test work	\$30,000
Reporting	NI 43-101 Mineral Resource Estimation and Technical Report	\$35,000
Reporting	Preliminary Economic Assessment Scoping Study	\$300,000
	<b>Sub-total</b>	<b>\$876,000</b>
	<b>Total</b>	<b>\$916,000</b>
	<b>10% Contingency</b>	<b>\$91,600</b>
	<b>Total with Contingency</b>	<b>\$1,007,600</b>

### White Rabbit Property

The below summary is a direct extract and reproduction of the summary contained in the White Rabbit Technical Report, without material modification or revision and all defined terms used in the summary shall have the meanings ascribed to them in the White Rabbit Technical Report. The below summary is subject to all the assumptions, qualifications and procedures set out in the White Rabbit Technical Report. The White Rabbit Technical Report was prepared in accordance with NI 43-101. For full technical details of the report, reference should be made to the complete text of the White Rabbit Technical Report, which has been filed with the applicable regulatory authorities and is available under the Corporation's SEDAR profile at [www.sedar.com](http://www.sedar.com). The White Rabbit Technical Report is incorporated by reference in this AIF and the summary set forth below is qualified in its entirety with reference to the full text of the White Rabbit Technical Report. The authors of the White Rabbit Technical Report have reviewed and approved the scientific and technical disclosure contained in this AIF related to the White Rabbit Technical Report.

### White Rabbit Technical Report

*“National Instrument 43-101 Technical Report, White Rabbit Property, Alberta, Canada”  
Prepared by A.C. (Chris) Hunter, P. Geol. and William A. Turner, P. Geol., dated October 30, 2019.*

On April 29, 2019, a private corporation, Privco2, contracted Stantec to prepare a technical report in accordance with the requirements of NI 43-101. The purpose of this technical report is to constrain the physical characteristics, thickness, depth and continuity of the unconsolidated Quaternary sand on the White Rabbit Property to assess its suitability as a natural proppant. As part of this evaluation, the quality and volumes of the natural proppant and the reasonable prospects for eventual economic extraction were assessed.

On January 29, 2019, Athabasca entered into an agreement to acquire an ownership position in Privco2. The terms of the agreement are progressing through three stages. On May 7, 2019, Athabasca increased its ownership in Privco2 to 49.6%.

Figure 1-1 shows the general location of the White Rabbit Property. The centre of the White Rabbit Property is located approximately 8 km southeast of the town of Athabasca and is within the Rural Municipality of Athabasca County, Alberta. The White Rabbit Property encompasses 356 ha (878 acres) and consists of seven privately owned contiguous quarter sections. Surface and subsurface infrastructure is well developed near the White Rabbit Property, where AltaGas Ltd. and TC Energy Corporation (formerly TransCanada Corporation) have established services.

The White Rabbit Property consists of Quaternary sediments that include diamicton, sand, silts, and clay units. Historic water well data from the area identified sand proximal to surface on the White Rabbit Property.

Stantec qualified person(s) inspected the White Rabbit Property on March 14 and 15, 2019. During this property visit, the qualified person(s) observed drill hole locations, sample retrieval methods from the auger rig, and the sample quality control and assurance practices. In addition, during the White Rabbit Property review, the qualified person(s) completed independent field descriptive geological logs of two drill holes to characterize the visual physical properties of the sand and to independently observe sand interval thicknesses on the White Rabbit Property.

In March and April 2019, 49 auger holes were drilled on the White Rabbit Property by Mobile Augers and Research Ltd. using an M10 rig. This field program identified sand that was further tested to assess its suitability to be used as a hydraulic fracturing proppant. Following the drilling, samples were sent to four laboratories for analyses: AGAT, Loring Laboratories Ltd., Stim-Lab, Inc. (“**Stim-Lab**”), and Turnkey Processing Solutions Sand Laboratory (“**TPS**”).



Stim-Lab and TPS completed a total of 219 crush resistant tests. All samples underwent attrition prior to analyses. The breakdown by fraction is: 26 tests from the 20/40 fraction that averaged a 5K crush, 54 tests from the 30/50 fraction that averaged a 6K crush, 70 tests from the 40/70 fraction that averaged a 7K crush, and 67 tests from the 70/140 fraction that averaged a 9K crush. In addition, Stim-Lab performed two crush resistant tests on the 50/140 fractions that both had a 9K crush. The TPS crush results align with those obtained by Stim-Lab for each fraction spread.



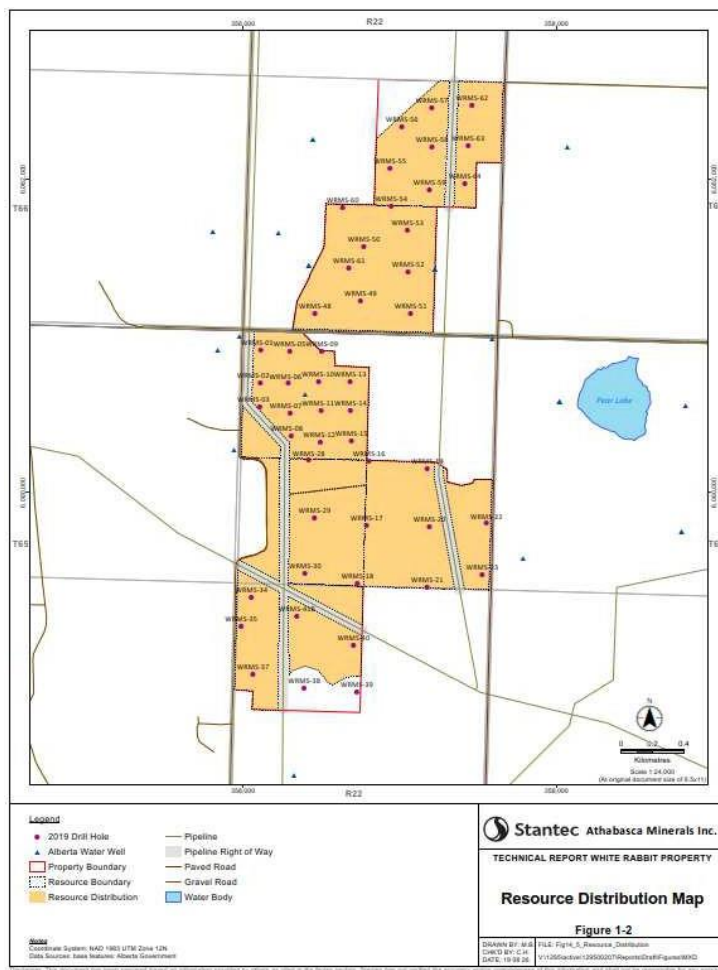
Following development of the mineral resource model, an in-place mineral resource was calculated. In- place bulk densities of 1.5 g/cm<sup>3</sup> for sand, 1.25 g/cm<sup>3</sup> for interburden clays and 1.4 g/cm<sup>3</sup> applied to silts of 1.5 g/cm<sup>3</sup> was used to calculate tonnages. This resource estimation only includes those resources found within the White Rabbit Property boundaries as illustrated on Figure 1-2. The In-Place Mineral Resource is shown in Table 1.1.

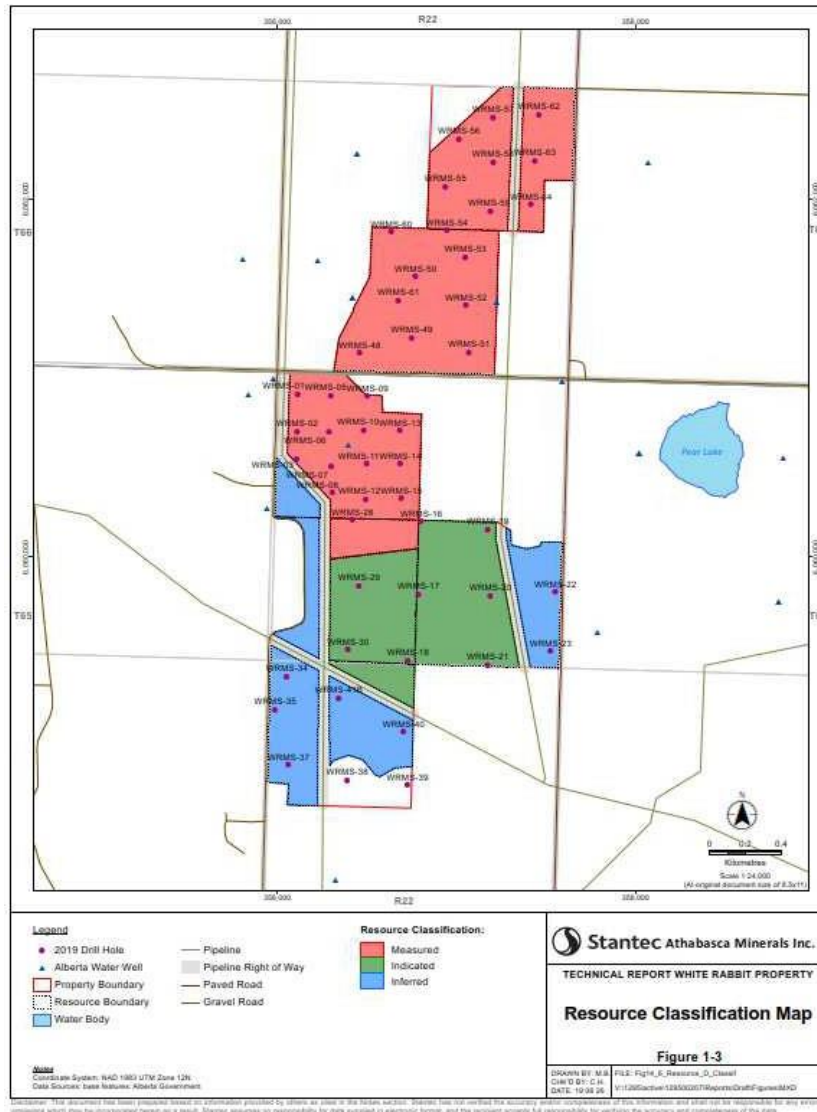
**Table 1.1**  
**In-Place Mineral Resource Summary, Effective Date August 7, 2019**

Category	Mineral Resources (Mt)				
	20 / 40 Mesh	40 / 70 Mesh	70 / 140 Mesh	140 / 170 Mesh	Total (Combined)
Measured Resource – million MT	3.4	11.2	9.0	1.1	24.7
Indicated Resource – million MT	0.6	2.5	2.2	0.3	5.6
<b>Measured &amp; Indicated – million MT</b>	<b>4.0</b>	<b>13.7</b>	<b>11.2</b>	<b>1.4</b>	<b>30.3</b>
Measured & Indicated (%)	13.2%	45.2%	37.0%	4.6%	
Inferred Resource – million MT	0.5	2.1	2	0.3	4.9

The Technical Report establishes that AMI's Duvernay Project contains a sand resource of:

- fine-to-coarse grain sands with pay thickness from 0.4 meters to 21.6 meters;
- 24.7 million metric tonnes (MT) measured resource, with an additional 5.6 million MT indicated resource, and a further 4.9 million MT inferred resource.





It is recommended that Privco2 focus on the areas with high potential for the first stage of extraction. There are two phases of work that are recommended.

Phase 1: Preliminary and detailed property assessments to constrain the potential impact of the sand quarry operation in the project area as shown on Table 1-2.

**Table 1-2**  
**Phase 1: Property Assessment Study**

Task	Estimated Cost (C\$)
Phase 1 Preliminary Property Assessment (desktop study, property visit)	30,000
Phase 2 Detailed Property Assessment (sampling, species at risk, watershed issues etc.)	100,000
Work phases may identify potential additional areas to be addressed, such as noise, air, Transportation Impact Assessment, Water Act application, historic resource clearance, First Nation Consultation, clay lined ponds potential requirements.	30,000
<b>Estimate Total</b>	<b>160,000</b>

Phase 2: It is recommended that a selected area, corresponding to a preliminary first cut area, be drilled at a higher density utilizing a sonic core drill with capabilities to penetrate greater depths as shown on Table 1-3.

Table 1-3  
Phase 2: Sonic Exploration Program

Task	Estimated Cost (C\$)
Personnel (Office, Field, Travel Expenses)	11,000
Six-Hole Drill Program (Rig Costs)	14,000
Laboratory Expenses (Shipment and Analyses)	60,000
<b>Estimate Total</b>	<b>85,000</b>

## RISK FACTORS

The risk factors set out below are which are the most applicable to the Corporation; however, these risks are not exhaustive and should not be taken as a complete summary or description of all the risks associated with the Corporation's business and its industry. Risk management is an ongoing exercise upon which the Corporation spends a substantial amount of time. While it is not possible to eliminate all of the risks inherent in its business, the Corporation strives to manage these risks to the greatest extent possible.

### COVID-19

During the three months ended March 31, 2020, the World Health Organization declared COVID-19 a global pandemic; prompting many countries around the world to close international borders and order the closure of institutions and businesses. This has resulted in a swift and significant reduction in economic activity in Canada and internationally and has resulted in a sudden drop in demand for crude oil and natural gas. COVID-19 has caused an unprecedented global health crisis, and, coupled with an oversupply of crude oil has contributed to an economic crisis as well. The effect of low commodity prices in the energy sector will have a negative impact on parts to Athabasca's customer base and associated revenues.

The extent to which COVID-19 continues to impact the Corporation's business, including its operations and the market for its securities, will depend on future developments, which are highly uncertain and cannot be predicted at this time, and include: the duration, severity and scope of the outbreak and the actions taken to contain or remedy the pandemic. In particular, the continuation of the pandemic could materially and adversely impact the Corporation's business including without limitation: employee health, workforce productivity, increased insurance premiums, limitations on travel, the availability of industry experts and personnel, potential restrictions to its projects, resource development program and the timing thereof, which are beyond the Corporation's control, and which may have a material or adverse effect on its business, financial condition and operations. The Corporation will continue to monitor and take corrective action in accordance with government guidelines to mitigate the impact on AMI's staff and business operations.

### Economic Cyclicity of the Energy Industry

The aggregates business is directly affected by fluctuations in the level of oil and natural gas exploration, development, production and decommissioning activities carried on by its customers in the energy industry, which in turn is dictated by numerous factors, including world energy prices and government policies. Additionally, the business risks also include but are not limited to: seasonality; availability of skilled workers; ability to retain key customers; and the environmental and safety risks inherent in the business.

The demand, pricing and terms for the Corporation's products and services largely depend upon the level of oil and natural gas exploration and development activity. Industry conditions are influenced by numerous factors that the Corporation has no control over, including but not limited to: oil and natural gas prices; expectations about future oil and natural gas prices; the cost of exploring for, producing and delivering oil and natural gas; the expected rates of declining production; the discovery rates of new oil and natural gas reserves; available pipeline and other oil and natural gas transportation capacity; certain regional weather conditions; global political, military, regulatory and economic conditions; and the ability of oil and natural gas producing companies to raise equity capital or debt financing.

The aggregates sector is highly reliant on the level of capital expenditures made by energy companies who base their capital expenditure decisions on several factors, including but not limited to oil and natural gas prices, production levels, availability of export capacity and access to capital. Commodity prices, and therefore, the level of drilling, production and exploration activity have been volatile. A prolonged, substantial reduction in commodity prices negatively affects the activity levels of energy companies and the demand for the Corporation's services. A significant, prolonged decline in commodity prices could have a material adverse effect on the aggregates sector, aggregates pricing, the Corporation's business, results of operations, cash flows and financial condition.

The price of labor, fuel, equipment and other input costs, insurance costs, interest rates, fluctuations in customers' business cycles and international, national and regional economic conditions are factors over which the Corporation has little or no control. A significant increase in fuel prices, equipment prices, employee wages and other input prices, interest rates, currency exchange rates or insurance costs could reduce profitability and could adversely affect the Corporation's cash flow and financial condition. The Corporation cannot predict the impact of future economic conditions and there is no assurance that the operations of the Corporation will continue to be profitable.

### **Commodity Risk**

The Corporation's aggregates, including silica sand, are commodities, and as such there is commodity pricing risks in a competitive market.

### **Environmental & Regulatory**

Environmental and Regulatory legislation is becoming increasingly stringent and time-consuming. Costs, expenses and approval periods associated with regulatory compliance are increasing. The impact of new and future environmental legislation on the Corporation's projects or operations could affect financial performance. Restrictions such as those relating to wildlife habitat can adversely affect the timing and scope of exploration and development activities or introduce production constraints.

### **Conditions of Equity Markets**

The Corporation's on-going ability to finance exploration and development can be affected by, among other things, conditions of the equity market.

### **Access to Capital**

The Corporation's access to capital for planned and future projects, including debt and equity financing, is subject to risk related to the amount capital required, market conditions, and timing.

### **Risk of Delays to Projects & Stakeholder Management**

The development of resource projects may be subject to unexpected problems or delays due to a variety of stakeholder management factors, which in turn can delay or postpone the profitability expected from these ventures.

### **Seasonality**

Extreme weather conditions in Alberta can impact the mining industry and project activities during cold winter months and wet spring months.

### **Loss of Key Personnel**

The Corporation relies on certain key employees whose skills and knowledge are critical to maintaining its success. Loss of key personnel is an inherent risk. Athabasca strives to retain key employees with competitive compensation, including incentive-based programs.

### **Shortage of Equipment or Other Supplies**

The mining industry in Alberta has a history of long periods of growth and significant capital development which can often impact the availability of equipment, labor and other supplies.

## **Sales and Inventory Turnover Versus Production**

The conversion of annual aggregates production into annual sales within a given budget year is variable, where sales often range between 50% - 80% of production. Inventory turnover of annual production is typically affected by, but not limited to, economic demand, construction-window seasonality, and competitor pricing responses to market conditions.

## **Profitability from Production and Operations**

The profitability of mining and resource companies depends, in part, on the actual costs of developing and operating such properties, which may differ significantly from estimates determined at the time a relevant resource project was approved. The development of resource projects may also be subject to unexpected problems and delays that could increase the cost of development and the ultimate operating cost of a given project. Athabasca's past and future decisions to acquire, develop, and operate resource properties for production are based on estimates in relation to expected or anticipated economic returns. These estimates are based on assumptions regarding future aggregate prices, anticipated tonnage (with geological uncertainties), recovery rates and quality, anticipated capital expenditures and operating costs. Actual cash operating costs, production and economic returns may vary from those anticipated by original project development estimates.

## **Reclamation & Remediation Obligations**

The Corporation is subject to the laws and regulations relating to environmental matters in all jurisdictions in which it operates, including provisions relating to property reclamation, discharge of hazardous material and other matters. The estimates made by the Corporation for reclamation obligations could vary significantly due to potential changes in regulatory requirements and/or contractor rates and services prior to the actual commencement of reclamation work.

## **Estimation of Resource Reserves**

The Corporation has a risk that actual reserves in place on its properties can vary from geological estimates of such reserves and resources.

## **Health, Safety & Environment ("HSE") Operational Risks**

Any major HSE operational incident in the future could significantly impact production, productivity, corporate reputation, or cause disruption to operations.

## **Cyber Security Risk**

The Corporation's business requires the continued operation of information technology systems and network infrastructure. Management believes it has implemented reasonable cyber security measures, including third party surveillance, to safeguard against potential cyber-attacks. However, if a cyber security event occurred, and the Corporation's systems were detrimentally affected in a way that information systems cannot be recovered or re-instated in a timely manner, this could impact business operations, payment or financial collection.

## **Litigation**

The risk of unknown future claims against the Corporation in excess of the Corporation's commercial general liability coverage could materially affect the Corporation's future operations.

## DIVIDENDS AND DISTRIBUTIONS

Athabasca has not declared or paid any dividends since its incorporation. Athabasca does not currently anticipate paying any cash dividends on its Common Shares in the foreseeable future but will review that policy from time to time as circumstances warrant. Athabasca currently intends to retain future earnings, if any, for future operations, expansion and debt repayment. Any decision to declare and pay dividends in the future will be made at the discretion of the Board of Directors and will depend on, among other things, Athabasca's results of operations, current and anticipated cash requirements and surplus, financial condition, contractual restrictions and financing agreement covenants, solvency tests imposed by corporate law and other factors that the Board of Directors may deem relevant.

## CAPITAL STRUCTURE

### *General Description of Capital Structure*

The authorized share capital of the Corporation consists of an unlimited number of Common Shares and an unlimited number of preferred shares.

Each Common Share entitles the holder to receive notice of and to attend all meetings of Shareholders of the Corporation and to one vote per Common Share at such meetings (other than meetings at which only holders of a specified class of shares are entitled to vote). The Common Shares entitle the holders to receive any dividend declared by the Corporation on the Common Shares as a class, subject to prior satisfaction of all preferential rights to dividends attached to all shares of other classes of shares of the Corporation ranking in priority to the Common Shares in respect of dividends. Holders of Common Shares are entitled to receive the remaining property of the Corporation upon its liquidation, dissolution or winding-up.

The preferred shares may be issuable in one or more series, each series to consist of such number of shares as may, before the issuance thereof, be determined by the Board of Directors. The Board of Directors may from time to time fix, before issuance, the designation, rights, privileges, restrictions and conditions attaching to each series of preferred shares including, without limiting the generality of the foregoing, any voting rights, the rate, form, entitlement and payment of preferred dividends, the redemption price, terms, procedures and conditions of redemption, if any, voting rights and conversation rights, if any, and any sinking fund, purchase fund or other provisions attaching to the preferred shares of such series; and provided however, that no shares of any series shall be issued until the Corporation has filed an amendment to the articles of incorporation with the Registrar of Corporations, Province of Alberta, or such designated person in any other jurisdiction in which the Corporation may be continued.

## MARKET FOR SECURITIES

### Trading Price and Volume

The Corporation commenced trading on the TSXV under the symbol “AMI” on November 15, 2019. Prior to this, the Common Shares traded on the TSXV under the symbol “ABM”, starting on February 13, 2008. The monthly high and low closing prices and trading volumes for the Common Shares on the TSXV are as set out below for the months indicated:

Month	High (\$)	Low (\$)	Volume
January 2019	0.35	0.22	1,855,810
February 2019	0.47	0.28	2,865,510
March 2019	0.71	0.38	7,319,630
April 2019	0.68	0.59	1,495,982
May 2019	0.60	0.47	2,748,428
June 2019	0.77	0.56	2,062,850
July 2019	0.70	0.55	1,102,073
August 2019	0.67	0.54	1,068,110
September 2019	0.70	0.48	1,998,380
October 2019	0.79	0.40	989,672
November 2019	0.50	0.31	585,276
December 2019	0.37	0.25	3,280,200
January 2020	0.35	0.08	933,731
February 2020	0.38	0.24	1,492,601
March 2020	0.24	0.11	1,049,665
April 2020	0.20	0.14	726,777
May 2020	0.18	0.13	635,651
June 2020	0.19	0.15	644,167
July 2020	0.19	0.14	1,240,312



## DIRECTORS AND OFFICERS

### *Name, Occupation and Security Holdings*

The following table sets forth the name, province or state and country of residence, position with the Corporation at the date hereof, and principal occupation during the five preceding years, of each director and executive officer of the Corporation. Each of the directors of the Corporation holds office until the next annual general meeting of the Corporation unless the director's office is earlier vacated in accordance with the articles of the Corporation or the director becomes disqualified to serve as a director.

Name and Municipality of Residence	Position Held	Date of Appointment as Director <sup>(1)</sup> or Officer	Number and Percentage of Common Shares Held or Controlled <sup>(2)</sup>	Present Occupation and Positions Held During the Last Five Years
<b>Don Paulencu</b> <sup>(3)(4)</sup> Sherwood Park, Alberta	Chair and Director	August 7, 2015	1,250,667 3%	Director of the Corporation since August 2015. Interim CEO from July 2016 to June 2017. Audit partner at Deloitte LLP from 1984 until May 30, 2015.
<b>Terrance Kutryk</b> <sup>(3)(4)</sup> Calgary, Alberta	Director	September 11, 2019	141,834 0%	Corporate director from January 2018 to present, formerly President and CEO of Alliance Pipeline Ltd. from October 2012 to December 2017.
<b>Neil Manning</b> <sup>(4)</sup> Edmonton, Alberta	Director	October 25, 2019	505,334 1%	Corporate director from 2014 to present, director of TFI International Inc.
<b>Dale Nolan</b> <sup>(5)</sup> Lacombe, Alberta	Director	July 11, 2016	503,101 1%	Director and Officer of Hopkins Construction (Lacombe) Ltd., Hopkins Heavy Hauling Ltd. and Hopkins Construction Ltd. since 1995.
<b>Robert Beekhuizen</b> <sup>(4)</sup> Calgary, Alberta	Director, Chief Executive Officer	June 19, 2017	1,254,676 3%	Chief Executive Officer of the Corporation since June 2017. Mr. Beekhuizen has extensive international Executive leadership experience in the construction and energy industries. Mr. Beekhuizen has previously held Executive positions at AltaGas Ltd., Granite Construction Incorporated, and Fluor Canada Ltd.
<b>Dana Archibald</b> Edmonton, Alberta	Chief Operating Officer	07-Jan-19	74,783 0%	Chief Operating Officer of the Corporation since January 2019; Senior Business and Project Development Manager for Dechant Construction and Schott Earthworks from 2013 to December 2018.
<b>Mark Smith</b> Calgary, Alberta	Chief Financial Officer	30-Nov-18	132,595 0%	Appointed interim CFO of the Corporation in November 2018, and then CFO in February 2019; Vice President of the Corporation from September 2018 to October 2018; Investment Banking Associate with Scotia Global Banking and Markets from September 2016 to September 2018; and Drilling Engineer with Shell Canada from September 2011 to September 2015.

**Notes:**

- (1) The term of office of all directors will expire on the date of the next annual meeting of Shareholders or until their successors are elected or appointed pursuant to the ABCA.
- (2) "Number of Shares Held" indicates Common Shares beneficially owned, or controlled or directed, directly or indirectly, as of July 31, 2020.
- (3) Member of the Corporation's Audit Committee.
- (4) Member of the Corporation's Compensation, Corporate Governance and Nominating Committee.
- (5) Member of the Corporation's Resources, Environmental, Health and Safety Committee.

As at the date hereof, the directors and executive officers of the Corporation as a group beneficially owned, or controlled or directed, directly or indirectly, approximately 3.8 million Common Shares or 8.0% of the issued and outstanding Common Shares of the Corporation.

### **Cease Trade Orders, Bankruptcies, Penalties or Sanctions**

Other than as set forth below, no director, within ten years before the date of this AIF, has been a director, CEO or CFO of any Corporation that:

- (a) was subject to: (i) a cease trade order; (ii) an order similar to a cease trade order; or (iii) an order that denied the relevant Corporation access to any exemption under securities legislation, that was in effect for a period of more than thirty consecutive days (collectively, an “**Order**”) that was issued while the director was acting in the capacity as director, CEO or CFO; or
- (b) was subject to an Order that was issued after the director ceased to be a director, CEO or CFO and which resulted from an event that occurred while that person was acting in the capacity as director, CEO or CFO.

### **Bankruptcies**

No director, within ten years before the date of this AIF, has been a director or executive officer of any Corporation that, while the director was acting in that capacity, or within a year of the director ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets.

### **Personal Bankruptcies**

No director, within ten years before the date of this AIF, has been a director or executive officer of any Corporation that, while the director was acting in that capacity, or within a year of the director ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets.

### **Penalties and Sanctions**

No director has been subject to:

- (a) securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority; or
- (b) any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable securityholder in deciding whether to vote for a director, other than a settlement agreement entered into before December 31, 2000 that would likely not be important to a reasonable securityholder in deciding whether to vote for a director.

### **Conflicts of Interest**

There are potential conflicts of interest to which the directors and officers of the Corporation will be subject in connection with the business of the Corporation. In particular, certain of the directors and/or officers of the Corporation serve as directors and/or officers of other companies that are similarly engaged in the business of acquiring, developing and exploiting natural resource properties and whose business may, from time to time, be in direct or indirect competition with the Corporation. Such associations may give rise to conflicts of interest from time to time. The directors of the Corporation are required by law to act honestly and in good faith with a view to the best interests of the Corporation and to disclose any interest, which they may have in any project opportunity of the

Corporation. Conflicts, if any, will be subject to and governed by laws applicable to directors' and officers' conflicts of interest, including the procedures and remedies available under the ABCA. The ABCA provides that, in the event that a director has an interest in a contract or proposed contract or agreement, the director shall disclose his or her interest in such contract or agreement and shall refrain from voting on any matter in respect of such contract or agreement unless otherwise provided by the ABCA. The Corporation is not aware of any existing or potential material conflicts of interest between the Corporation and any director or officer of the Corporation.

## LEGAL PROCEEDINGS AND REGULATORY ACTIONS

### Legal Proceedings

In the ordinary course of conducting business, Athabasca occasionally becomes involved in legal proceedings relating to contracts, environmental issues, or other matters. Other than the following litigation matters, neither the Corporation nor any of its subsidiaries are party to, nor is aware of, any contemplated or current legal proceedings or regulatory actions that might reasonably be considered to have a material effect on the Corporation or its subsidiaries.

During 2015, the Corporation filed a statement of claim against Syncrude regarding approximately \$620,000 in user fees and government royalties that the Corporation believed were owed by Syncrude to the Corporation in respect of gravel used by Syncrude from the Susan Lake public pit. In addition to denying all allegations in the Corporation's statement of claim, Syncrude brought several counterclaims against the Corporation seeking damages in excess of \$68.0 million. On January 24, 2017, Athabasca announced that the Court of Queen's Bench of Alberta released a decision denying an application brought by Syncrude for an injunction on activities at Susan Lake. On September 26, 2019, Athabasca and Syncrude finalized a settlement agreement which included the discontinuance of the claim and counterclaim by Athabasca and Syncrude, respectively.

### Regulatory Actions

During the Corporation's last financial year:

- (a) no penalties or sanctions were imposed against the Corporation by a court relating to securities legislation or by a securities regulatory authority;
- (b) no other penalties or sanctions were imposed by a court or regulatory body against the Corporation that would likely be considered important to a reasonable investor in making an investment decision in the Corporation's securities; and
- (c) no settlement agreements of the Corporation were entered into with any court relating to securities legislation or with any securities regulatory authority.

## INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

Except as otherwise set out herein, no director or executive officer of the Corporation, nor any associate or affiliate of the foregoing persons has any material interest, direct or indirect, by way of beneficial ownership of securities or otherwise, in matters to be acted upon at a meeting.

## TRANSFER AGENT AND REGISTRAR

TSX Trust Corporation (at its principal transfer offices in Calgary, Alberta) is the transfer agent and registrar for the Common Shares. The register of transfers of Common Shares is located at the Calgary offices of TSX Trust Corporation.

## MATERIAL CONTRACTS

There were no material contracts entered into during the year ended December 31, 2019 or prior thereto, other than the Coffey Lake agreement.

## NAMES AND INTERESTS OF EXPERTS

The following persons and companies have prepared or certified a statement, report, valuation or opinion, during, or relating to, the Corporation's financial year ended December 31, 2019 or subsequent thereto:

Name of Individual or Corporation	Document Prepared or Certified
Stantec Consulting Ltd.	National Instrument 43-101 Technical Report on the Firebag Property (November 8, 2019).
William A. Turner, P. Geol. of Stantec Consulting Ltd.	National Instrument 43-101 Technical Report on the Firebag Property (November 8, 2019).
A.C. (Chris) Hunter, P. Geol. of Stantec Consulting Ltd.	National Instrument 43-101 Technical Report on the Firebag Property (November 8, 2019).
APEX Geoscience Ltd.	National Instrument 43-101 Technical Report on the Richardson Property (October 24, 2019).
Roy Eccles, M. Sc., P. Geol. of APEX Geoscience Ltd.	National Instrument 43-101 Technical Report on the Richardson Property (October 24, 2019).
Steven Nicholls, BA. SC, MAIG of APEX Geoscience Ltd.	National Instrument 43-101 Technical Report on the Richardson Property (October 24, 2019).
Stantec Consulting Ltd.	National Instrument 43-101 Technical Report on the White Rabbit Property (August 7, 2019).
William A. Turner, P. Geol. of Stantec Consulting Ltd.	National Instrument 43-101 Technical Report on the White Rabbit Property (August 7, 2019).
A.C. (Chris) Hunter, P. Geol. of Stantec Consulting Ltd.	National Instrument 43-101 Technical Report on the White Rabbit Property (August 7, 2019).
Grant Thornton LLP	Audited consolidated financial statements for the fiscal year ended December 31, 2019.

To the knowledge of the Corporation, none of the experts named above or their respective associates or affiliates held, as of the date of the applicable report above, currently hold or will receive any registered or beneficial interests, direct or indirect, in any securities or other property of the Corporation.

The auditor of the Corporation, Grant Thornton LLP, is independent from the Corporation within the meaning of the Rules of Professional Conduct of the Institute of Chartered Accountants of Alberta.

## ADDITIONAL INFORMATION

Additional information relating to the Corporation may be found on SEDAR at [www.sedar.com](http://www.sedar.com).

Additional information, including directors' and officers' remuneration and indebtedness, principal holders of the Corporation's securities and securities authorized for issuance under equity compensation plans, is contained in the Corporation's management information circular dated August 19, 2020, in respect of the Corporation's annual general meeting of Shareholders held on September 22, 2020.

Additional information is provided in the Corporation's audited consolidated financial statements and management's discussion and analysis for the financial year ended available on SEDAR at [www.sedar.com](http://www.sedar.com).