



ANNUAL INFORMATION FORM
For the year ended December 31, 2022

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March 7, 2023

TABLE OF CONTENTS

CAUTIONARY STATEMENT	2
CURRENCY PRESENTATION	3
CORPORATE STRUCTURE	3
GENERAL DEVELOPMENT OF THE BUSINESS	4
NARRATIVE DESCRIPTION OF THE BUSINESS	9
RISK FACTORS	12
DESCRIPTION OF THE SHYMANIVSKE PROJECT	22
DIVIDENDS	22
DESCRIPTION OF CAPITAL STRUCTURE	44
MARKET FOR SECURITIES	45
DIRECTORS AND OFFICERS	46
AUDIT COMMITTEE DISCLOSURE	49
LEGAL PROCEEDINGS AND REGULATORY ACTIONS	50
INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS	50
TRANSFER AGENT AND REGISTRAR	50
MATERIAL CONTRACTS	51
INTERESTS OF EXPERTS	51
ADDITIONAL INFORMATION	51
BLACK IRON INC.	52
CHARTER OF THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS	52

CAUTIONARY STATEMENT

This annual information form (“AIF”) contains forward-looking information under Canadian securities legislation. Forward-looking information includes, but is not limited to, information with respect to the Company’s (as defined herein) expected production from, and further potential, of the Company’s properties; the state of unrest and future government in Ukraine; the outbreak of war between Russia and Ukraine and any resolution thereof; the Company’s ability to raise additional funds; the future price of minerals, particularly iron ore; the estimation and realization of mineral resources and reserves; the realization of projections made in the PEA (as herein defined), conclusions of economic evaluations; the realization of mineral resource and reserve estimates; the timing and amount of estimated future production; the Company’s ability to acquire additional assets; costs of production; capital expenditures; success of exploration activities, costs and timing of exploration; and timing and possible outcome of pending litigation and regulatory matters. In general, forward-looking information can be identified by the use of forward-looking terminology such as “plans”, “expects” or “does not expect”, “budget”, “scheduled”, “estimates”, “forecasts”, “intends”, “anticipates” or “does not anticipate”, or “believes”, or variations of such words and phrases or statements that certain actions, events or results “may”, “could”, “would”, “might” or “will be taken”, “occur” or “be achieved”. Forward-looking information is based on the opinions and estimates of management as of the date such statements are made and is based on information currently available to management and upon what management believes to be reasonable assumptions. Estimates regarding the anticipated timing, amount and cost of exploration, and development and production activities are based on assumptions underlying mineral reserve estimates and the realization of such estimates. Forward-looking information involves known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by the forward-looking information. Such factors include: risks relating to war, military disputes and social unrest, geo-political risks, financing risks, development risks, risks related to government regulation, uncertainty in acquiring and maintaining necessary licences, permits and access rights, risks associated with foreign operations, dependence on one main mineral resource project, planning and environmental risks and liabilities, title risks, insurance risks, dependence on management and outside advisors, limited operating history, fluctuations in mineral prices, reduced global demand for steel or interruptions in steel production, no history of revenues, risks and hazards inherent in the mining industry, uncertainty of inferred mineral resources, conflicts of interest and other risks of the mining industry. Although management of the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such information. Accordingly, readers should not place undue reliance on forward-looking information. The Company does not undertake to update any forward-looking information, except in accordance with applicable securities laws.

CAUTIONARY NOTE TO UNITED STATES INVESTORS CONCERNING ESTIMATES OF MEASURED, INDICATED AND INFERRED MINERAL RESOURCES

This AIF uses the terms “measured”, “indicated” and “inferred” resources. United States investors are advised that while such terms are recognized and required by Canadian regulations, the United States Securities and Exchange Commission does not recognize them. “Inferred mineral resources” have a great amount of uncertainty as to their existence, and as to their economic and legal feasibility. It cannot be assumed that all or any part of an inferred mineral resource will ever be upgraded to a higher category. Under Canadian rules, estimates of inferred mineral resources may not form the basis of feasibility or other economic studies. United States investors are cautioned not to assume that all or any part of measured or indicated mineral resources will ever be converted into mineral reserves. United States investors are also cautioned not to assume that all or any part of an inferred mineral resource exists, or is economically or legally mineable.

CURRENCY PRESENTATION

This AIF contains references to United States dollars and Canadian dollars. United States dollars are expressed as “US\$” and Canadian dollars are referred to as “\$”.

The closing, high, and low exchange rates for US\$1.00 (based on the noon spot rate of exchange) in terms of Canadian dollars for each of the three years ended December 31, 2022, 2021 and 2020, as reported by the Bank of Canada, were as follows:

U.S. Dollar	Year Ended December 31,		
	2022	2021	2020
Closing	1.3544	1.2678	1.2732
High	1.3856	1.2942	1.4496
Low	1.2541	1.204	1.2718

On March 6, 2023, the closing rate of exchange in United States dollars reported by the Bank of Canada was \$1.3615.

All information in this AIF is given as of March 7, 2023 unless otherwise indicated.

CORPORATE STRUCTURE

Name and Incorporation

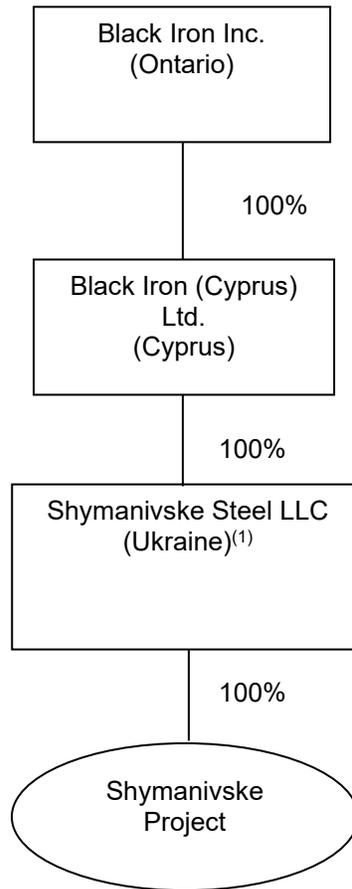
Black Iron Inc. (“**Black Iron**” or the “**Company**”) was incorporated on June 29, 2010, pursuant to the provisions of the *Business Corporations Act* (Ontario) (the “**OBCA**”) under the name “2248964 Ontario Inc.” On January 18, 2011, pursuant to articles of amendment, the Company changed its name to “Black Iron Inc.”

The Company’s head and registered office is located at 198 Davenport Road, Toronto, Ontario M5R 1J2

Intercorporate Relationships

The Company has two subsidiaries as set out in the corporate chart below. The chart also sets out the Company’s ownership and the jurisdiction of incorporation of each subsidiary. Black Iron (Cyprus) Ltd. (“**BKI Cyprus**”) was incorporated on April 21, 2007. On January 12, 2011, BKI Cyprus changed its name from “Geo-Alliance Ore East Limited” to “Black Iron (Cyprus) Ltd.” Shymanivske Steel LLC (“**Shymanivske Steel**”) is registered with the Ukrainian state registrar.

Unless otherwise indicated in this AIF, any reference to the “Company” refers to Black Iron and its subsidiaries.



GENERAL DEVELOPMENT OF THE BUSINESS

Three-Year History

The following is a summary of the development of the Company over the past three financial years and the current financial year.

Financial Year Ended December 31, 2022

On April 5, 2022, the Company announced that it has been advised by Wood Plc., who's employees are the main authors of the updated Shymanivske Iron Ore (the "**Project**") feasibility study (the "**Upcoming Study**"), that publication of the Upcoming Study cannot occur until there is peace in Ukraine and it is possible to revisit site. In particular, to meet the requirements for a *National Instrument 43-101: Standards of Disclosure for Mineral Projects* feasibility study, at the time of publication of the Upcoming Study, it needs to be reasonably justified that extraction can occur, that the envisaged infrastructure including power, rail and port are operational and that the foreign exchange rate can be predicted with more accuracy.

Financial Year Ended December 31, 2021

On July 21, 2021, the Company announced that it has closed its short form prospectus offering, including the full exercise of the over-allotment option, raising gross proceeds of \$11.5 million for the Company through the issuance of 28,750,000 common shares of the Company ("**Shares**") at a price of \$0.40 per

Share (the “**Offering**”). Canaccord Genuity Corp. acted as agent and sole bookrunner in connection with the Offering.

On June 30, 2021, the Company announced that Wood PLC has been retained to complete an updated feasibility study for the Company’s Shymanivske iron ore project (the “**Project**” or the “**Shymanivske Project**”). With 40,000 professionals, across 60 countries, Wood is a global leader in consulting and engineering across energy and the built environment. Black Iron’s Project will be led by Wood’s Oakville, Ontario office and involve experts from their other offices located in FSU countries who have extensive relevant firsthand construction experience in the region.

On May 18, 2021, the Company announced the appointment of Zenon Potoczny to its Board of Directors, Stefan Gueorguiev as Project Director and retirement of Les Kwasik. Mr. Potoczny is the president-elect of the Canada-Ukraine Chamber of Commerce, VP Operations for the Ukrainian World Congress and Director of Sweden publicly listed Zhoda Investments. Mr. Potoczny has successfully built and operated several companies in Ukraine ranging from oil and gas projects through to hotels.

Mr. Gueorguiev has over 25 years’ experience in the engineering, project management and construction industry. Most recently, Mr. Gueorguiev was VP Projects & Capital Construction for Polyus where he was responsible for the construction of several Russian based gold mines valued at over US\$800 million per year.

On May 10, 2021, the Company announced that it has selected Cargill, Incorporated (“**Cargill**”) for offtake rights on the initial four million tonnes per year of production from the Project. Subject to completion of due diligence and successful conclusion of negotiations, Cargill will offtake the production and extend financing of US\$75 million for the construction of the Project through a finance facility. Drawdown on this funding will be subject to certain conditions being met, as is customary for this type of transaction, mainly related to the Project being fully permitted and financed for construction.

On March 8, 2021, the Company announced the engagement of Environmental Resources Management (“**ERM**”) to conduct an environmental and social impact assessment (“**ESIA**”) on the Project.

Financial Year Ended December 31, 2020

On December 22, 2020, the Company announced it had entered into a non-binding royalty term sheet for US\$100 million with a prominent US based institutional investor. In exchange for investing US\$100 million, the investor will be entitled to receive a 6.75% royalty on the phase-one volume of four million tonnes. In conjunction with this term sheet, the Company issued thirty million non-transferable common share purchase warrants (the “**Perpetual Warrants**”) to Perpetual Iron Inc. at a price of \$0.31 per Perpetual Warrant for a period of five years for facilitating and supporting negotiations between Black Iron and the investor. None of the Perpetual Warrants vest until binding agreements are signed with the investor. Ten million Perpetual Warrants will vest upon the Company entering into a binding definitive agreement with the investor and the balance of the Perpetual Warrants will vest upon the investor funding the Company upon which there will also be a payment to Perpetual of US\$4 million. Given the ongoing war in Ukraine prevented the Company from entering into a binding definitive agreement with this investor prior to December 22, 2022, the Perpetual Warrants have been voided.

On October 13, 2020, the Company announced it had entered into a second heads of agreement with a construction company that includes an investment package valued at approximately US\$60 million as a potential source of funding for construction of the Shymanivske project (the “**Shymanivske Project**” or the “**Project**”).

On April 24, 2020, Lind Global Macro Fund LP (“**Lind**”) invested an additional \$415,000 into the Company less a 3.5% closing fee of \$14,525 resulting in net proceeds of \$400,475 to Black Iron by exercising a portion of its \$1.25 million first convertible security re-investment right. The loan was fully converted to equity (repaid) in the first quarter of 2021.

On May 8, 2020, the Company closed a non-brokered private placement of units of the Company. Pursuant to the offering, the Company issued a total of 36,534,420 units at a price of \$0.05 per unit for gross proceeds of \$1,826,721. Each unit consists of one common share of the Company and one-third of one common share purchase warrant. Each whole warrant entitles the holder to acquire a common share at a price of \$0.06 for a period of three years from the date of issuance.

On March 3, 2020, the Company amended the 2017 Preliminary Economic Assessment (PEA) mine model from its National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* Technical Report (the “**Technical Report**”) entitled “Preliminary Economic Assessment of the Re-scoped Shymanivske Iron Ore Deposit” effective November 21, 2017 (the “**2017 PEA**”). The update in the mine model has resulted in a slightly revised mine life and strip ratio (amount of waste mined per tonne of mineralized material). This has very little impact on the projected Project economics. The Company filed the amended Technical Report, retaining the same title as the 2017 PEA on SEDAR. The amended Technical Report replaces the 2017 PEA as the current technical report for the Project. Please see “*Description of the Shymanivske Project*” below.

Controls Relating to Corporate Structure Risk

Black Iron has implemented a system of corporate governance, internal controls over financial reporting, and disclosure controls and procedures that apply at all levels of the Company and its subsidiaries. These systems are overseen by the Company’s board of directors (the “**Board**”) and implemented by the Company’s senior management. The relevant features of these systems include:

- (a) Black Iron’s Control Over Subsidiaries. Black Iron’s corporate structure has been designed to ensure that the Company controls, or has a measure of direct oversight over the operations of, its subsidiaries. All of the Company’s subsidiaries are wholly-owned. Accordingly, the Company directly controls the appointments of all of the directors of its subsidiaries. The directors of the Company’s subsidiaries are ultimately accountable to the Company as the shareholder appointing him or her, and the Company’s Board and senior management. As well, the annual budget, capital investment and exploration program in respect of the Company’s mineral properties are established by the Company.

Further, signing officers for subsidiary foreign bank accounts are either employees of the Company or employees of the subsidiaries. In accordance with the Company’s internal policies, all subsidiaries must notify the Company’s corporate treasury department of any changes in their local bank accounts including requests for changes to authority over the subsidiaries’ foreign bank accounts. Monetary limits are established internally by the Company as well as with the respective banking institution. Annually, authorizations over bank accounts are reviewed and revised as necessary. Changes are communicated to the banking institution by the Company and the applicable subsidiary to ensure appropriate individuals are identified as having authority over the bank accounts.

- (b) Strategic Direction. The Company’s Board is responsible for the overall stewardship of the Company and, as such, supervises the management of the business and affairs of the Company. More specifically, the Board is responsible for reviewing the strategic business plans and corporate objectives, and approving acquisitions, dispositions, investments, capital expenditures and other transactions and matters that are material to the Company including those of its material subsidiaries.
- (c) Internal Control Over Financial Reporting. The Company prepares its consolidated financial statements and management disclosure and analysis (“**MD&A**”) on a quarterly and annual basis, using International Financial Reporting Standards (“**IFRS**”) as issued by the International Accounting Standards Board, which require financial information and disclosures from its subsidiaries. The Company has implemented internal controls over the preparation of its financial

statements and other financial disclosures to provide reasonable assurance that its financial reporting is reliable and that the quarterly and annual financial statements and MD&A are being prepared in accordance with IFRS and relevant securities laws. These internal controls include the following:

- I. All public documents and statements relating to the Company and its subsidiaries containing material information (including financial information) are reviewed by senior management, particularly the Chief Executive Officer, the Chief Financial Officer and internal legal counsel before such material information is disclosed, to make sure that all material information has been considered by management of the Company and properly disclosed.
 - II. The audit committee of the Board (the “**Audit Committee**”) obtains confirmation from the Chief Executive Officer and Chief Financial Officer as to the matters addressed in the quarterly and annual certifications required under National Instrument 52-109 - *Certification of Disclosure in the Company’s Annual and Interim Filings* (“**NI 52-109**”).
 - III. The Audit Committee reviews and approves the Company’s quarterly and annual financial statements and MD&A and recommends to the Company’s Board for the Board’s approval of the Company’s quarterly and annual financial statements and MD&A, and any other financial information requiring board approval, prior to their publication or release.
 - IV. The Audit Committee assesses and evaluates the adequacy of the procedures in place for the review of the Company’s public disclosure of financial information extracted or derived from the Company’s financial statements by way of reports from management and its internal and external auditor.
 - V. Although not specifically a management control, the Company engages its external auditor to perform an audit of the annual consolidated financial statements in accordance with Canadian generally accepted auditing standards.
- (d) Disclosure Controls and Procedures. The responsibilities of the Audit Committee include oversight of the Company’s internal control systems including those systems to identify, monitor and mitigate business risks as well as compliance with legal, ethical and regulatory requirements.
- (e) CEO and CFO Certifications. In order for the Company’s Chief Executive Officer and Chief Financial Officer to be in a position to attest to the matters addressed in the quarterly and annual certifications required by NI 52-109, the Company has developed internal procedures and responsibilities throughout the organization for its regular periodic and special situation reporting in order to provide assurances that information that may constitute material information will:
- I. reach the appropriate individuals who review public documents and statements relating to the Company and its subsidiaries containing material information,
 - II. is prepared with input from the responsible officers and employees, and
 - III. is available for review by the Chief Executive Officer and Chief Financial Officer in a timely manner.
- (f) Asset Verification. The Company ensures its assets in Ukraine held under the Shymanivske Project remain the assets of the Company and comply with Ukrainian laws by conducting annual audits in compliance with IFRS and with the help of local legal counsel. Standard annual filings required to be filed by the Company to maintain the ownership of its assets, if any, are drafted or reviewed by local legal counsel.

These systems of corporate governance, internal control over financial reporting and disclosure controls and procedures are designed to ensure that, among other things, the Company has access to all material information about its subsidiaries.

Legal Right to Conduct Operations in Ukraine

The Company has obtained all permits, licenses and regulatory permits required to conduct its business as presently conducted in Ukraine. In order to comply with Ukrainian laws, the Company relies on the local experience of its Shymanivske Project's management team and relies on external service providers with specific Ukrainian expertise as required, including accounting professionals and local legal counsel. The Company has engaged Hillmont Partners LLC for various legal services in Ukraine.

Management Experience in Foreign Jurisdiction

Mr. Simpson, Mr. Bozoki and the directors of the Company each have ten years of extensive experience conducting business in Ukraine through their roles with the Company, as the Company has been primarily focused on its Ukrainian asset during this time.

Additionally, Zenon Potoczny, director of the company, is the president-elect of the Canada-Ukraine Chamber of Commerce, VP Operations for the Ukrainian World Congress and Director of Sweden publicly listed Zhoda Investments. Mr. Potoczny has successfully built and operated several companies in Ukraine ranging from oil and gas projects through to hotels. Pierre Pettigrew, also a director of the Company, has foreign international experience through his position as Canada's former Minister of Foreign Affairs and International Trade where he was involved in the drafting and negotiation of various multinational documents such as the North American Free Trade Agreement and was a key participant in the World Trade Organization.

In addition to the knowledge and expertise of the officers and directors of the Company as they relate to the Company's Ukrainian operations, to ensure directors and officers keep updated on current local matters such as the laws of Ukraine, the changing role of Ukraine's government on the Company's operations, local business culture and practices and updates on the local banking system, directors and officers rely on the expertise of local counsel and the Shymanivske Steel's management team. Prior to the COVID-19 pandemic, officers of the Company would meet with the Shymanivske Project's management team four to six times per year. Currently, officers of the Company conduct video and teleconference calls with the Shymanivske Project's management team regularly. The Company does not experience any language barriers as all senior members of the Shymanivske Project speak fluent English and all internal communication of the Company is conducted in English. Local team members of the Shymanivske Project are fluent in English and Ukrainian.

Procedures of the Board of Directors of the Company - Fund Transfers from the Company's Subsidiaries to the Company

The Company has limited financial resources, has earned nominal revenue since commencing operations and has no source of operating cash flow, therefore funds are not typically transferred by the Company's subsidiaries to the Company. If required, funds are transferred by the Company's subsidiaries to the Company by way of wire transfer.

Procedures of the Board of Directors of the Company - Removal of Directors of Subsidiaries

Subject to applicable local corporate laws and the respective constating documents of each of the Company's subsidiaries, the Company may remove directors of these subsidiaries from office either by way of a resolution duly passed by the Company at a shareholders' meeting or by way of a written resolution.

Procedures of the Board of Directors of the Company - Records Management of the Company's Subsidiaries

The original minute books, corporate seal and corporate records of each of the Company's subsidiaries are kept at each subsidiary's respective registered office. The Company maintains at its head office a duplicate set of such corporate records for all of its subsidiaries.

NARRATIVE DESCRIPTION OF THE BUSINESS

General

The Company is an iron ore exploration and development company with its project located in the Dnipropetrovsk region of Ukraine. The Company holds a 100% interest in a mining permit that covers an area of approximately 2.56 square kilometers and comprises the Shymanivske Project through Shymanivske Steel. For additional information on the Shymanivske Project, see "*Description of Shymanivske Project*" below.

The Company does not currently have a source of revenue.

Competitive Conditions

The mineral exploration and mining business is competitive in all phases of exploration, development and production. The Company competes with a number of other exploration and mining companies in the search for, and acquisition of, mineral properties. The Company also competes for financing with other resource companies, many of whom have greater financial resources and/or more advanced properties.

The ability of the Company to acquire properties depends, to a large part, on its success in exploring and developing its present properties and on its ability to select, acquire and bring to production suitable properties or prospects for mineral exploration and development. The Company may compete with other exploration and mining companies for the procurement of equipment and for the availability of skilled labour. Factors beyond the control of the Company may affect the marketability of minerals mined or discovered by the Company. See "*Risk Factors*" below.

Changes to Contracts

The Company does not expect it will be affected in the current financial year by any renegotiation or termination of any contracts or sub-contracts that could materially affect the Company's business plan.

Environmental Regulation and Policies

The Company's exploration activities as well as any future development and mining activities are subject to environmental laws and regulations in Ukraine. See "*Risk Factors*" below. The Company maintains and will maintain a policy of operating its business in compliance with all environmental laws and regulations, as well as international best standards.

Ukrainian environmental laws and regulations can increase the cost of planning, designing, installing and operating mining facilities on the Shymanivske Project. However, except in the course of an extraordinary event, the Company does not expect any compliance to have a material effect upon the Company's capital expenditure, profits and competitive position.

The Company engaged ERM in March 2021 to conduct an ESIA on the Project, but this work is currently on hold given the ongoing war in Ukraine.

Employees

As of December 31, 2022, the Company had five full time staff in Ukraine. The Company's strategy is consistent with that of many junior mineral exploration and development companies being to operate through sub-contractors and consultants for the purposes of cost management.

The Company also has one full time and seven part-time staff in Canada.

Foreign Operations

The Company's material property interests are currently located in Ukraine and are exposed to certain regulatory, economic, political and other risks and uncertainties. See "*Risk Factors*" below.

Ukraine

Ukraine is a presidential parliamentary republic that achieved independence in 1991 with the dissolution of the Soviet Union.

Ukraine covers a total area of 603,628 square kilometres located in Eastern Europe bordering the Black Sea. The population is approximately 42 million people, making it the 32nd largest country by population in the world. Steel is the largest industry in Ukraine and represents Ukraine's top export. According to the World Steel Association, Ukraine was the world's tenth largest producer of steel in 2016. Ukraine is rich in natural resources with production focused on ferrous minerals (iron ore and manganese), coal and ilmenite. As a result of the policies of the Soviet Union, the country's mineral deposits are relatively well explored but substantially under-exploited. The country's iron ore district is characterized by a 300 kilometre trend of sedimentary rock hosting a banded iron formation. There are an estimated 15 major iron ore mines located within the country's major iron ore district with seven operating mines located in the central Kryvyi Rih Iron Basin.

Ukraine's political and economic situation has deteriorated significantly since the Government's decision not to sign the Association Agreement and the Deep and Comprehensive Free Trade Agreement with the European Union in late November 2013. Political and social unrest, which escalated into violent conflicts in February 2014 that are still ongoing with a war in the eastern part of the country, has resulted in the Ukrainian parliament initiating the resignation of the president, change of government and heads of key governing bodies. It also led to the deepening of the ongoing economic crisis, widening of the state budget deficit, depletion of the National Bank of Ukraine's foreign currency reserves and, as a result, a downgrading of Ukraine's sovereign debt credit rating. In February 2014, following the significant devaluation of the national currency, the National Bank of Ukraine introduced certain administrative restrictions on currency conversion transactions. The final resolution and the effects of the political and economic crisis are difficult to predict but may have further severe effects on the Ukrainian economy. Ukraine's current government has experienced quite a bit of turnover including the replacement all of but four members of parliament on March 4, 2020, replacement of its Minister of Defence again on November 3, 2021 and most recently again on February 5, 2023 leading to Black Iron's management not being able to progress the Project's land and permitting requirements on a typical timeline.

In February 2022, Russia launched an invasion of Ukraine, and the war is ongoing as of the date of this AIF. The Shymanivske Project is situated in the Dnipropetrovsk Oblast region in central Ukraine and as of the date of this AIF, the region is under Ukrainian control. The affected area has also attracted international attention, and the Company continues to monitor the situation as it develops.

While management believes it is taking appropriate measures to support the sustainability of the Company's business in the current circumstances, a continuation of the current unstable business environment could negatively affect the Company's results and financial position in a manner not currently determinable.

Ukrainian Mining Regime

The principal legislation governing mining activities in Ukraine are the *Code of Ukraine On Subsurface*, dated July 27, 1994 (the “**Subsurface Code**”) and the *Mining Law of Ukraine*, dated October 6, 1999.

The Subsurface Code defines the subsurface as “the part of the earth’s crust underlying the land surface and reservoirs’ bottom and stretching to the depths accessible for geological survey and development”. The subsurface of Ukraine is the exclusive property of the people of Ukraine and may only be granted for use to Ukrainian and foreign legal entities and individuals.

Ukrainian legislation provides that national and foreign legal entities aiming to explore and/or extract mineral resources in Ukraine have to obtain special permit(s) for subsurface use (granted for exploration or extraction of minerals), mining allotment(s), and documents evidencing the allocation of a land plot for subsurface use, as provided by the land legislation of Ukraine. Moreover, subsurface users are subject to other requirements of Ukrainian law, in particular, relating to payments for subsurface use, insurance, environmental and other matters.

A company that intends to develop an unexplored deposit (being a deposit at which resources have not been estimated and approved by the Ukrainian State Commission on Mineral Reserves) must first obtain an exploration permit (geological survey) and carry out prospecting works at its own expense. In general, the State Geology and Subsurface Service of Ukraine grants special permits for exploration for deposits to applicants for an initial period of up to five years (except for oil and gas deposits, granted for ten years), which may be extended twice for a further period of not more than five years (in some cases special permits for exploration may be granted without auction). The special permit for exploration is subject to various conditions and may be suspended or revoked in specified circumstances. Prospecting work must begin within two years of the date of permit issue. Upon completion of the geological survey of the deposit, all discovered mineral reserves are subject to the state examination that certifies the sufficiency and completeness of the geological survey.

If, according to the expert reviewer’s report, the mineral reserves are estimated and approved as geologically surveyed, such reserves are further registered in the State Balance of Mineral Deposits, and only then a company may apply for a special permit for extraction permits (commonly referred to as a “mining permit”) for resource development and a mining allotment as is currently held by Shymanivske Steel.

The State Service for Mining Supervision and Industrial Safety grants mining allotments to applicants on submission of the mining permit, estimated reserves report and field development program. A mining company may also apply for a mining permit for a deposit that had been previously explored by the State and for which reserves are registered in the State Balance of Mineral Deposits, subject to payment for the geological data.

In general the State Geology and Subsurface Service of Ukraine grants mining permits for the extraction of mineral resources for an initial period of up to 20 years to the auction’s winners (in some cases mining permits may be granted without auction). A mining company may also apply to extend a mining permit, provided that certain conditions are met. The mining permit may be subject to special conditions relating, amongst other things, to the mining technology used, environmental protection, scope of work and termination of mining activities. In general, mining activities must begin within two years of the date of issue of the mining permit.

Generally, mining permits are not transferable, although they may be re-issued in the name of a legal successor (with certain limitations) of the original permit holder. Changes in the ownership structure of the permit holder do not affect the permit.

Both exploration and mining permits may be suspended or revoked, or an extension may be refused, in specified circumstances, including, inter alia, non-payment of fees, breach of permit conditions or breach of environmental or subsurface legislation.

Mining companies are also obliged to observe certain obligations as prescribed by Ukrainian legislation, which may be generally divided into mining and environmental. Such compliance is subject to regular audits conducted by state authorities. Failure to comply with the orders of the supervising authority may result in suspension and/or annulment of a mining permit, imposition of fines or criminal liability of relevant employees. Mining companies also pay fees for subsoil use (i.e. exploration and extraction works) that are calculated based on the type of mineral deposit, size and geological features of the deposit, duration of mining works and other factors.

It should be noted that a new law on environmental impact assessments (the “**EIA Law**”) took effect on December 18, 2017. The newly adopted EIA Law requires mandatory assessment of impacts (both direct and indirect) on the environment of certain industrial businesses and activities, including the extraction of mineral resources. Mineral extraction may not be commenced until the impact on the environment has been assessed in accordance with the EIA Law and until a positive decision is received from the relevant authorities. The EIA Law also provides for the establishment of a unified register of environmental impact assessments. As part of the assessment process, the environmental authorities need to be provided with an assessment of the environmental impact, and such report becomes subject to public discussion. The environmental authorities review the report and provide their opinion on the assessment. The report on the environmental impact assessment, a report for public discussion and an opinion of the environmental authorities form the basis for local authorities to issue the relevant permit(s).

Reorganizations

On February 8, 2018, the Company’s wholly-owned Ukrainian subsidiary, Shymanivske Steel LLC, amalgamated with the Company’s wholly-owned Ukrainian subsidiary, Zelenivske Steel LLC, and the amalgamated entity continued as Shymanivske Steel LLC.

RISK FACTORS

Investing in the Company involves risks that should be carefully considered. The business of the Company is speculative due to the high-risk nature of iron ore mining in Ukraine. Investors should be aware that there are various risks, including those discussed below, that could have a material adverse effect on, among other things, title to the projects, permitting, the operating results, earnings, business and condition (financial or otherwise) of the Company.

Outbreak of War in Ukraine

The Company’s future operations may be affected by the outbreak of war between Russia and Ukraine. On February 24, 2022, Russia launched an invasion of Ukraine, and as of the date hereof, is still ongoing. As a result, the international community has responded with a variety of sanctions on Russia and companies have withdrawn products and services from Russia. Furthermore, the international community has provided a wide variety of armament to Ukraine to defend against the Russian invasion. Any further escalation, imposition of sanctions in areas which the Company operates, outbreak of war into other countries or regions or other escalation may have a material adverse effect on the Company’s ability to develop the Project due to, among other factors, diversion of resources of the Ukrainian government to resolving such conflict particularly from its Ministry of Defence who hold essential land for Project development, withdrawal of the Company’s personnel from Ukraine for their safety, difficulty in getting foreign consultants on site, inability to complete future feasibility studies, inability to secure financing due to increased risk profile of the Project, destruction of property due to the Ukraine war or expropriation or de-facto expropriation of the Project and all associated assets. The Company continues to monitor the situation and maintains an open dialogue with the Ukrainian government, although there is no assurance the current efforts to progress the Project will not be adversely affected by geo-political tensions.

Development Financing Risks

Substantial expenditures are required to develop a mine. No assurance can be given that the funds required for development can be obtained on a timely basis or at all. It is also possible that the actual capital cost, operating costs, other economic parameters and economic returns of any proposed mine may differ from those estimated and such differences could have a material adverse effect on the Company's business, financial condition, results of operations and prospects.

Development Risks

The Company will also need to acquire additional property in order to develop the Shymanivske Project for tailings storage, waste rock and processing infrastructure. While the Company has commenced the process of acquiring additional property, this process has been delayed by the current political unrest in Ukraine and there can be no assurance that the Company will be able to acquire additional property on terms that are satisfactory to the Company or at all. In addition, there can be no assurance that the Company will be able to commence and complete development of the Shymanivske Project or any other iron ore development project on time, on budget or at all due to, among other things, and in addition to those factors described elsewhere herein, a decline in iron ore prices, changes in the economics of the Shymanivske Project, delays in receiving required consents, including obtaining and maintaining permits and licences, the delivery and installation of plant and equipment, cost overruns, governmental regulations, including regulations relating to permitting, licences, prices, taxes, royalties, infrastructure, land use, importing and exporting of commodities and environmental protection, or that the Company's personnel, systems, procedures and controls will be adequate to support operations. Should any of these events occur, it would have a material adverse effect on the Company's business, financial condition, results of operations and prospects.

Uncertainty in Acquiring and Maintaining Necessary Licences, Permits and Access Rights

Although the Company currently holds an extraction permit and mining allotment for the Shymanivske Project, the Company has no assurance that it will receive any permits, including environmental and surface rights permits, that are required to carry out further exploration, development and production activities on its properties, obtain them in a timely manner, or be able to maintain existing permits due to the ability to meet compliance deadlines or changes in regulation and political regimes. The failure to obtain or maintain such permits could adversely affect the Company's operations and consequently the value of the securities of the Company. The Company's exploration and development activities require permits and approvals from various government authorities, and are subject to extensive national, regional and local laws and regulations governing prospecting, exploration, development, production, transportation, exports, taxes, labour standards, occupational health and safety, mine safety and other matters. Such laws and regulations are subject to change, can become more stringent and compliance can therefore become more time consuming and costly. In addition, the Company may be required to compensate those suffering loss or damage by reason of its activities. The Company will be required to obtain additional licences and permits from various governmental authorities to continue and expand its exploration and development activities. There can be no guarantee that the Company will be able to maintain or obtain all necessary licences, permits and approvals that may be required to explore and develop its properties, or commence construction or operation of mining facilities. Exploration and mining permits can be challenged by the Ukrainian authorities if they are able to find grounds that the mining permits were issued in violation of the procedures stipulated by Ukrainian law, including due to actions of the previous owner of the exploration and mining permits.

Exploration and mining permits are granted by the State Geology and Subsurface Service of Ukraine. Exploration and mining permits are not granted in perpetuity and any extension must be obtained before expiration of the relevant permit. The Company has an extraction permit valid until November 1, 2024 on the Shymanivske Project. This permit requires certain work to be done and milestones reached in order to keep the permit in good standing. Exploration and extraction permits may be suspended or revoked, or an extension may be refused, if the Company does not satisfy the conditions of its permit, including the

payment of exploration and mining fees, the commencement of work within the period stipulated in the permit and compliance with mining, environmental, health and safety regulations. There can be no assurance that the Company will be able to achieve compliance with all applicable regulations at all times.

The grant of the mining permit does not automatically confer upon the licensee rights of surface access to the permit areas and the Company is required to secure access agreements with the relevant landowners. The Company currently does not own the surface rights to its project. Currently, non-residents are prohibited from purchasing agricultural land in Ukraine and can only obtain a leasehold for up to 49 years. There is no assurance that the Company will be able to obtain the cooperation of the landowners and/or lessors or successfully negotiate access agreements on terms that are favourable to the Company. In addition, currently there is a mine service garage, waste dumps and several small houses located on or near the Shymanivske Project that may need to be acquired, relocated and/or dismantled by the Company. Although the Company has commenced discussion in respect of the garage and waste dumps, surface rights over a portion of the Shymanivske Project has been leased to two third parties, one of which is jointly owned by Metinvest. The Company will also need the permission from a neighbouring mine to build an under or overpass under or above its railway line in order to gain access to the land where the Company plans to locate its mine infrastructure.

Novel Coronavirus

The outbreak of the novel strain of coronavirus, specifically identified as “COVID-19”, has resulted in governments worldwide enacting emergency measures to combat the spread of the virus. These measures, which include the implementation of travel bans, self-imposed quarantine periods and social distancing, have caused material disruption to businesses globally resulting in an economic slowdown. Global equity markets have experienced significant volatility and weakness. Governments and central banks have reacted with significant monetary and fiscal interventions designed to stabilize economic conditions. The duration and impact of the COVID-19 outbreak is unknown at this time, as is the efficacy of the government and central bank interventions. It is not possible to reliably estimate the length and severity of these developments and the impact on the financial results and condition of the Company and the Company’s operating subsidiary in future periods. Depending on the length and severity of the pandemic, COVID-19 could impact the Company’s ability to gain access to government officials, ability to obtain any required permits for the Shymanivske Project, the ability to conduct site visits with investors, consultants, agents, contractors and government officials to the Shymanivske Project, employees’ health, workforce productivity, increase insurance premiums, limit the potential of necessary travel, limit the availability of industry experts and personnel, impair the Corporation’s ability to complete the financing transactions detailed herein (including the Company’s US\$100 million royalty term sheet, the Company’s \$65 million construction financing heads of agreement and the Cargill offtake and associate financing), and the Company’s ability raise funds more generally and other factors that will depend on future developments beyond the Company’s control including land transfer. To the knowledge of the Company’s management as of the date hereof, COVID-19 does not present, at this time, any specific known impacts to the Company in relation to the Company’s business objectives. However, prolonged restricted measures by the Canadian and Ukrainian governments or other adverse public health developments, could materially and adversely impact the Company’s business and the advancement and development of the Shymanivske Project. The Company is not currently aware of any changes in laws, regulations or guidelines, including tax and accounting requirements, arising from COVID-19 which would be reasonably anticipated to materially affect the Corporation’s business.

Risks Relating to Government Regulation

The Company’s mineral properties, exploration activities and future mining operations are subject to various laws and regulations governing mineral concession acquisition, mine development and prospecting, mining, production, occupational health and safety, labour standards, employment, waste disposal, toxic substances, land use, environmental protection, use of water, exports, taxes and other matters. It is possible that the Company may not be able to comply with existing and future laws and regulations. In addition, future changes in applicable laws, regulations, agreements or changes in their enforcement or

regulatory interpretation could result in changes to the terms of the Company's permits and agreements, which could have a material adverse impact on the Company's current exploration activities and future development and operations. The Company may experience increased costs and delays in development and production as a result of the need to comply with applicable laws, regulations and permits. Permits are subject to the discretion of government authorities and there is no assurance that the Company will be able to obtain all required permits on reasonable terms or on a timely basis.

Any failure to comply with applicable laws and regulations or permits, even if inadvertent, could result in enforcement actions thereunder including the suspension and/or annulment of the Company's mining and exploration permits, orders issued by regulatory or judicial authorities requiring operations to cease or be curtailed, fines, penalties or other liabilities. The Company may be required to compensate those suffering loss or damage by reason of its mining operations and Company management may become subject to civil liability or criminal liability.

Risk Associated with Foreign Operations

The Shymanivske Project is located in Ukraine and, accordingly, the Company is subject to risks normally associated with the exploration, development and production of mineral properties in Ukraine, as noted below under the risk factor entitled "*Ukraine's Developing Legal System*". The Company's business may be affected in varying degrees by political change and changes in government regulations relating to foreign investment and the mining industry. Ukraine's political and economic situation has deteriorated significantly since the government's decision not to sign the Association Agreement and the Deep and Comprehensive Free Trade Agreement with the European Union in late November 2013. Political and social unrest, which escalated into violent conflicts commencing in February 2014, resulted in the Ukrainian parliament initiating elections for a new president, unscheduled parliamentary elections and filling several ministerial and government roles with temporary appointees. It also led to the deepening of the ongoing economic crisis, widening of the state budget deficit, depletion of the National Bank of Ukraine's foreign currency reserves and, as a result, a further downgrading of the Ukrainian sovereign debt credit ratings. In February 2014, following the significant devaluation of the national currency, the National Bank of Ukraine introduced certain administrative restrictions on currency conversion transactions. The final resolution and the effects of the political and economic crisis are difficult to predict but may have further severe effects on the Ukrainian economy. Ukraine's current government has been slow in delivering promised reforms leading to Black Iron's management not being able to progress the land and permitting requirements on a typical time line. While management believes it is taking appropriate measures to support the sustainability of the Company's business in the current circumstances, a continuation of the current unstable business environment could negatively affect the Company's results and financial position in a manner not currently determinable.

Future operations may also be affected in varying degrees by the current political instability with possible future labour and/or civil unrest, fluctuations in currency exchange rates, high inflation, and by government regulations with respect to restrictions on production, price controls, export controls, income taxes, and environmental legislation and safety. Any such changes (including new or modified taxes or other governmental levies and new legislation) could have a material adverse effect on the Company's results of operations and financial condition. The Company cannot predict the government's future position on foreign investment, mining concessions, land tenure, environmental regulation or taxation. A change in government positions on these issues could adversely affect the Company's business and/or its holdings, assets and operations. Any changes in regulations or shifts in political conditions are beyond the Company's control and there is no assurance that current exploration activities and future mining operations will not be adversely affected by political, social or economic changes.

Fluctuations in Mineral Prices

The Company's future profitability and long-term viability, including its ability to develop the Shymanivske Project will depend, among other factors, on the global market price of iron ore and the marketability of such minerals extracted from the Shymanivske Project. The market price of iron ore is set in the world

market and is affected by numerous factors beyond the Company's control, including the demand for steel, inflation, currency exchange fluctuations, interest rates, speculative activities, international political and economic trends, iron ore production levels, inventories, demand for industrial products containing metals, costs of substitutes, production costs, increased production due to new and improved extraction and production methods, sales by other producers (including prices negotiated by Vale SA, BHP Billiton Limited and Rio Tinto plc), global and regional consumption patterns, and demand and supply fundamentals. The aggregate effect of these factors on iron ore prices is impossible for the Company to predict, and an adverse decline in the price of iron ore as is currently being experienced could require the Company to cease exploration, development or operations at any or all of its projects.

Reduced Global Demand for Steel or Interruptions in Steel Production

The global steel manufacturing industry has historically been subject to fluctuations based on a variety of factors, including general economic conditions and interest rates. Fluctuations in the demand for steel can lead to similar fluctuations in iron ore demand. A decrease in economic growth rates could lead to a reduction in demand for iron ore, and therefore its price. Such changes may affect adversely the financial condition of the Company, or require the Company to cease exploration, development or operations at any of its projects.

Dependence on Shymanivske Project

The Company's sole mineral property is the Shymanivske Project. As a result, any adverse developments affecting this project or the Company's rights to develop this project could materially adversely affect the Company's business, financial condition and results of operations and prospects. Unless the Company acquires additional property interests, any adverse developments affecting the Shymanivske Project would have a material adverse effect upon Black Iron and would materially and adversely affect the potential mineral resource production, profitability, financial performance and results of operations of Black Iron.

Limited Operating History

The Company is in the early stage of development. Accordingly, the Company is subject to many risks common to such enterprises, including under-capitalization, cash shortages, limitations with respect to personnel, financial and other resources, and the lack of revenues. There is no assurance that the Company will be successful in achieving a return on shareholders' investment and the likelihood of success must be considered in light of its early stage of operations. The Company has no history of earnings.

No History of Revenues

The Company has limited financial resources and has no source of operating cash flow. As well, there is no assurance that additional funding will be available to it for exploration and development as needed. The Company's expenses and capital expenditures will increase as the work of consultants, personnel and equipment associated with the exploration, and possible development, of the Shymanivske Project progresses. The development of the Company's properties will continue to require the commitment of substantial resources.

There can be no assurance that the Company will continue as a going concern, generate any revenues or achieve profitability. Furthermore, additional financing will be required to continue the development of the Company's properties even if the Company's exploration program is successful and technical and economic studies are positive. There is no assurance that the Company will be successful in obtaining the required financing or that such financing will be available on terms acceptable to the Company. In addition, any future financing may also be dilutive to existing shareholders of the Company.

Risks and Hazards Inherent in the Mining Industry

Iron ore exploration, development, and operations are highly speculative and are characterized by a number of significant inherent risks, which even a combination of careful evaluation, experience and knowledge may not eliminate and may result in the inability to develop a project. Some of these risks include but are not limited to environmental hazards, industrial accidents, labour disputes, unusual or unexpected geologic formations or other geological or grade problems, unanticipated changes in metallurgical characteristics and mineral recovery, the inability to obtain suitable or adequate machinery, equipment or labour, the inability to obtain required capital, unanticipated ground or water conditions, wall slides, flooding, fires, power outages, periodic interruptions due to bad or hazardous weather conditions and other acts of nature, and unfavourable operating conditions. There is no assurance that the foregoing risks will not occur and inhibit, delay or cease the development of the Shymanivske Project or other exploration or development activities, all of which would have a material and adverse impact on the Company's business, results of operations and financial condition.

Should any of these risks and hazards adversely affect the Company's future mining operations or exploration activities, it may cause an increase in the cost of operations to the point where it is no longer economically feasible to continue, it may require the Company to write down the carrying value of one or more mines or a property, it may cause delays or a stoppage in mineral exploration, development or production, it may result in damage to or destruction of mineral properties or processing facilities, and may result in personal injury or death or legal liability, all of which may have a material adverse effect on the Company's financial condition, results of operation, and future cash flows and could have an adverse effect on the value of the securities of the Company. In 2016, the Company wrote down the value of the Shymanivske Project to nominal value. Please see "*Financial Year Ended December 31, 2018*" above for more information.

Uncertainty of Mineral Reserve and Resource Estimates

There are numerous uncertainties inherent in estimating mineral resources and the future cash flows that might be derived from their production. The estimation of mineralization is a subjective process and the accuracy of estimates is a function of quantity and quality of available data, the accuracy of statistical computations, and the assumptions and judgments made in interpreting engineering and geological information. In respect of mineral resource estimates, no assurance can be given that the anticipated tonnage and grades will be achieved, that the indicated level of recovery will be realized or that mineral resources will be upgraded to mineral reserve categories or mined or processed profitably. Estimates of mineral resources necessarily depend upon a number of variable factors and assumptions, including, among others, geological and mining conditions that may not be fully identified by available exploration data or that may differ from experience in current operations, historical production from the area compared with production from other producing areas, the assumed effects of regulation by governmental agencies and assumptions concerning metal prices, exchange rates, interest rates, inflation, operating costs, development and maintenance costs, reclamation costs and the availability and cost of labour, equipment, raw materials and other services required to mine and refine the ore.

Estimates may have to be recalculated based on changes in mineral prices or further exploration or development activity. This could materially and adversely affect estimates of the volume or grade of mineralization, estimated recovery rates or other important factors that influence estimates. Market price fluctuations for minerals, increased production costs or reduced recovery rates, or other factors can adversely affect the economic viability of a project.

There can be no assurance that mineral recoveries in small scale laboratory tests will be duplicated in larger scale tests under on-site conditions or during production. For these reasons, estimates of the Company's mineral resources, including classifications thereof based on probability of recovery may vary substantially. If the Company's actual mineral resources are less than its estimates, the Company's results of operations and financial condition may be materially impaired and there could be an adverse effect on the value of the securities of the Company.

Uncertainty of Inferred Mineral Resources

Mineral resources that are not mineral reserves do not have demonstrated economic viability. Inferred mineral resources are considered too speculative geologically to have economic considerations applied to them to enable them to be categorized as mineral reserves. The estimates of mineral resources contained in this AIF contain estimates of inferred mineral resources. Due to the uncertainty that may attach to inferred mineral resources, there is no assurance that the estimated tonnage and grades as stated will be achieved or that they will be upgraded to measured and indicated mineral resources or proven and probable mineral reserves as a result of continued exploration.

Planning and Environmental Risks and Liabilities

The Company's current exploration activities and future mining operations, including development and production activities, are subject to environmental regulations promulgated by the Ukrainian government and other agencies from time to time. The Company is subject to potential risks and unanticipated liabilities associated with pollution of the environment resulting from its exploration and future mining operations. There is no assurance that the Company will be able to obtain any required consents in a timely manner or at all. Environmental legislation may be changed in a manner that will require stricter standards and enforcement, increased fines and penalties for non-compliance, more stringent environmental assessments of proposed projects and a heightened degree of responsibility for companies and their officers, directors and employees. There is no assurance that future changes in environmental regulation, if any, will not adversely affect operations at the Shymanivske Project. Environmental hazards may exist on the relevant properties that are unknown to the Company at present.

To the extent the Company is subject to environmental liabilities, the payment of any liabilities or the costs that may be incurred to remedy environmental impacts would reduce funds otherwise available for exploration, development and operations. If the Company is unable to remedy an environmental problem fully, it may be required to suspend operations or enter into interim compliance measures pending completion of the required remedy. The potential financial exposure may be significant. The Company does not currently carry insurance for environmental risks (including potential liability for pollution or other hazards as a result of the disposal of waste products occurring from exploration and production).

There are a number of possible constraints to mine development, and the Company will need to carry out detailed assessments of all proposed activities to ensure that mineral development is carried out in accordance with applicable Ukrainian law and environmental regulations. In addition, prior to the commencement of mining operations, the Company will need to obtain certain permits and consents in accordance with Ukrainian law. There is no guarantee that all necessary permits and consents will be obtained.

Title Risks

The acquisition of title to resource properties or interests is a very detailed and time-consuming process. Title to the areas covered by the mining permits and exploration permits may be disputed. Title may be based upon interpretation of a country's laws, which may be ambiguous, inconsistently applied and subject to reinterpretation or change. While the Company has diligently investigated its title to, and rights over and interests in and relating to the Shymanivske Project, there is no guarantee of title to any of the Company's properties, which may be subject to prior unregistered liens, agreements, transfers or claims, and rights may be affected by, among other things, undetected defects, technical deficiencies and irregularities in title.

Insurance Risk

The mining industry is subject to significant risks that could result in damage to, or destruction of, mineral properties or producing and processing facilities, personal injury or death, environmental damage, delays in mining, and monetary losses and possible legal liability. The Company does not maintain insurance

against all risks of operating its business. The Company's insurance policies do not provide coverage for all losses related to the Company's business and the payment of any such liabilities not covered by such insurance policies would reduce the funds available to the Company and could have a material and adverse effect on the Company's profitability, results of operation and financial condition.

Dependence on Management and Outside Advisors

The success of the Company's operations and activities is dependent to a significant extent on the efforts and abilities of its management team, as well as outside contractors, experts and other advisors. Investors must be willing to rely to a significant extent on management's discretion and judgment, as well as the expertise and competence of outside contractors, experts and other advisors hired by the Company. The Company does not have in place a formal program for succession of management or training of management. The loss of one or more members of senior management, key employees or contractors could materially adversely affect the Company's operations and financial performance.

Currency Fluctuations

Iron ore is typically sold in U.S. dollars. The Company's operations are in Ukraine and the Company transfers money to its subsidiaries denominated in U.S. dollars, as required, with a portion converted to local Ukrainian Hryvnia. As a result, the Company is subject to foreign exchange risks relating to the relative value of the U.S. dollar as compared to the Ukrainian Hryvnia and to a lesser extent the Canadian dollar on its corporate office costs. The Company does not currently have any intention to enter into hedging contracts in connection with foreign currencies. To the extent that the Company generates revenues upon commencing production at the Shymanivske Project, it will be subject to foreign exchange risks as revenues will be received in U.S. dollars while the majority of operating and potentially some capital costs will also be incurred in Ukrainian Hryvnia. A decline in the U.S. dollar would result in a decrease in the real value of the Company's future potential revenues and adversely affect the Company's financial performance. The appreciation of the Ukrainian Hryvnia against the U.S. dollar would in U.S. dollar terms increase the costs of exploration and development of the Company's property, increase the future operating costs, and increase future taxes and royalties paid to the Ukrainian government.

Competition in the Mining Industry

The Company competes with other mineral exploration and mining companies for the acquisition of mineral claims, permits, concessions and other mineral interests as well as for the recruitment and retention of qualified employees. As a result of this competition, much of which is with large established mining companies with substantially greater financial and technical resources, the Company may be unable to acquire additional attractive mining concessions or financing on terms it considers acceptable. Increased competition could result in increased costs and reduced profitability. Moreover, due to the competitive market conditions which exist in Ukraine, such competitive conditions may negatively affect the Company through the exertion of political influence by the Company's competitors, or oligopoly conditions which may arise. Consequently, the Company's revenues, operations and financial condition could be materially adversely affected.

Black Iron faces significant competition for attractive mineral properties

The Company faces significant competition for attractive mineral properties. There is significant competition in the mining industry for mineral rich properties that can be developed and produced economically. Many competitors not only explore for and mine minerals, but also conduct refining and marketing operations on a global basis. As a result of this competition, some of which is with large established mining companies with substantial capabilities and greater financial and technical resources than Black Iron, Black Iron may be unable to acquire desired properties, to recruit or retain qualified employees or to acquire the capital necessary to fund its operations and develop its projects. Existing or future competition in the mining industry could materially adversely affect Black Iron's prospects for mineral exploration and success in the future.

Inability to Enforce Legal Rights in Certain Circumstances

The Company is organized under the laws of the Province of Ontario, however, its operating subsidiaries are organized under the laws of Ukraine. In the event a dispute arises in Ukraine or in another foreign jurisdiction, the Company may be subject to the exclusive jurisdiction of foreign courts or may not be successful in subjecting foreign persons to the jurisdictions of courts in Canada. Similarly, given that a substantial portion of the Company's assets are located outside of Canada, investors may have difficulty collecting from the Company or enforcing any judgments obtained in the Canadian courts and predicated on the civil liability provisions of Canadian securities legislation or other laws of Canada, against foreign persons or the Company.

Ukraine's Developing Legal System

Since independence in 1991, as Ukraine has been developing from a planned to a market-based economy, the Ukrainian legal system has also been developing to support this market-based economy. Ukraine's legal system is, however, in transition and is, therefore, subject to greater risks and uncertainties than a more mature legal system. In particular, risks associated with the Ukrainian legal system include, but are not limited to: (i) inconsistencies between and among the Constitution of Ukraine and various laws, presidential decrees, governmental, ministerial and local orders, decisions, resolutions and other acts; (ii) provisions in the laws and regulations that are ambiguously worded or lack specificity and thereby raise difficulties when implemented or interpreted; (iii) difficulty in predicting the outcome of judicial application of Ukrainian legislation; and (iv) the fact that not all Ukrainian resolutions, orders and decrees and other similar acts are readily available to the public or available in an understandably organized form.

Furthermore, several fundamental Ukrainian laws either have only recently become effective or are still pending in the Ukrainian parliament. The recent origin of much of Ukrainian legislation, lack of consensus about the scope, content and pace of economic and political reform and the rapid evolution of the Ukrainian legal system in ways that may not always coincide with market developments, place the enforceability and underlying constitutionality of laws in doubt, and result in ambiguities, inconsistencies and anomalies. In addition, Ukrainian legislation often contemplates implementing regulations. Often such implementing regulations have either not yet been promulgated, leaving substantial gaps in the regulatory infrastructure, or have been promulgated with substantial deviation from the principal rules and conditions imposed by the respective legislation, which results in a lack of clarity and growing conflicts between companies and regulatory authorities. These and other factors that have an impact on Ukraine's legal system make investment in the Company subject to greater risks and uncertainties than an investment in a country with a more mature legal system.

The independence of the judicial system and its immunity from economic and political influences in Ukraine remains questionable. Although the Constitutional Court of Ukraine is the only body authorized to exercise constitutional jurisdiction and has been mostly impartial, the system of constitutional jurisdiction itself remains complicated and, accordingly, it is difficult to ensure smooth and effective removal of discrepancies

between the Constitution and applicable Ukrainian legislation on the one hand and among various laws of Ukraine on the other hand.

The Ukrainian court system lacks staffing and funding. Judicial decisions under Ukrainian law generally have no precedential effect. Moreover, courts themselves are generally not bound by earlier decisions taken under the same or similar circumstances, which results in the inconsistent application of Ukrainian legislation to resolve the same or similar disputes. Not all judicial decisions are publicly available and, therefore, the role of judicial decisions as precedents or guidelines in interpreting applicable Ukrainian legislation to the public is generally limited.

The Ukrainian judicial system became more hierarchical as a result of the recent judicial reforms. All of these factors make judicial decisions in Ukraine difficult to predict and effective redress uncertain. In addition, court claims are often used in furtherance of political aims. Finally, court orders are not always enforced or followed by law enforcement institutions. The uncertainties of the Ukrainian judicial system may have a negative effect on the Ukrainian economy as a whole, and thus may materially adversely affect the Company's business, financial condition, results of operations or prospects in Ukraine.

Conflicts of Interest

Certain of the directors and officers of the Company also serve as directors and/or officers of other companies involved in natural resource exploration and development. To the extent that such other companies may participate in ventures or pursue opportunities in which the Company may participate, there exists the possibility for such directors and officers to be or come into a position of conflict. In accordance with the laws of the Province of Ontario, directors of the Company are required to act honestly, in good faith and in the best interests of the Company. In addition, such directors will declare and abstain from voting on any matter in which such directors may have a conflict of interest.

Taxes

The Company performs most of its operations in Ukraine and therefore is within the jurisdiction of the Ukrainian tax authorities. The Ukrainian tax system can be characterized by numerous taxes and frequently changing legislation which may be applied retroactively, open to wide interpretation and in some cases are conflicting. Instances of inconsistent opinions between local, regional, and national tax authorities and the Ministry of Finance are not unusual. Tax declarations are subject to review and investigation by a number of authorities that are enacted by law to impose severe fines and penalties and interest charges. A tax year remains open for review by the tax authorities during the three subsequent calendar years; however, under certain circumstances a tax year may remain open longer. These facts create tax risks greater than typically found in countries with more developed systems. Management believes that it has provided adequately for tax liabilities based on its interpretations of applicable tax legislation, official pronouncements and court decisions. However, the interpretations of the relevant authorities could differ and the effect on the Company, if the authorities were successful in enforcing their interpretations, could be significant.

Market price of Common Shares

The Common Shares are publicly traded and are subject to various factors that have made the price of the Common Shares volatile. The Company may issue additional Common Shares in the future, which could further dilute a shareholder's holdings in the Company. In addition, the prices of shares in the mining industry has experienced volatility that has been unrelated to the operating performance of companies in the mining industry. The market and industry fluctuations could adversely affect the market price of the Company's Common Shares.

Dividends are discretionary

The Company is not obligated to pay dividends on its Common Shares. The payment of dividends is at the sole discretion of the Company's board of directors and since its incorporation, the Company has not paid dividends. In addition, in the future should the Company obtain credit facilities to finance its operations, such credit facilities may restrict its ability to pay dividends, and thus the Company's ability to pay dividends on its shares will depend on, among other things, its level of indebtedness at the time of the proposed dividend and whether it is in compliance with such facilities. Any reduction or elimination of dividends could cause the market price of the Common Shares to decline and could further cause the Common Shares to become less liquid, which may result in losses to shareholders.

DESCRIPTION OF THE SHYMANIVSKE PROJECT

The following is a summary from the amended re-scoped preliminary economic assessment (the "**PEA**") entitled "Amended Preliminary Economic Assessment of the Re-Scoped Shymanivske Iron Ore Deposit" with an effective date of March 2, 2020 (the "**Report**"), and prepared by Mr. Angelo Grandillo, P.Eng. and Mr. Jeffrey Cassoff, P.Eng. of BBA Inc. and Mr. Richard W. Risto, M.Sc., P.Geo and Mr. Michael Kociumbas, B.Sc., P.Geo, both of Watts, Griffis and McOuat Limited ("**WGM**"). The Report was commissioned at the request of Black Iron management in respect to the Shymanivske Project and in compliance with NI 43-101 – *Standards of Disclosure for Mineral Projects* ("**NI 43-101**"). This summary has been reviewed by Matthew Simpson, P.Geo, Chief Executive Officer of the Company and a "qualified person" as defined by NI 43-101. Unless specifically noted, the following disclosure regarding the Shymanivske Project has been prepared under the authority and supervision and with the consent of the authors, each being a "qualified person" within the meaning of NI 43-101, and, in some cases, is a direct extract from the Report. The full Report is available under the Company's corporate profile on SEDAR at www.sedar.com. Please see "*Cautionary Statement*" above.

Project Description, Location, and Access

The Shymanivske iron ore deposit is strategically situated in Ukraine between markets in Europe, Asia, and the Middle East. It is located 330 kilometres southeast from Kyiv in central Ukraine, in the well-known KrivBass iron ore mining district. The mine site is eight kilometres from the city of Kryvyi Rih. The ArcelorMittal iron ore mining and steel production operations purchased in 2005 from Ukraine's Government are located immediately to the north of the property and Metinvest/Evraz's southern iron ore processing ("**YuGOK**") property is located immediately to the south-east.

The Shymanivske Project operates under Special Permit No. 4537, granted on November 1, 2007, which covers an area of 2.56 square kilometres and is valid until November 2024 with the option to renew in 20 year increments. This permit authorizes the extraction of the subsurface ferriferous quartzite minerals from the Shymanivske deposit. In order to maintain the active mining license, compliance with a work program is required.

The proposed pit shell covers the majority of the Shymanivske Property's licensed area. However additional land for the processing plant, tailings and waste-rock dumps is needed for the development of the Shymanivske Project. The east and south sides of the licence area face space limitations due to close proximity of active mine operations and infrastructure. However, on the north and west sides of the Shymanivske licensed territory, there is more than 5,000 hectares of state-owned land currently being used by the Ministry of Defence, 1,460 ha of which are being sought to support Project development and further expansions. To access this land on the west, a small portion of land will need to be leased or acquired from the State Forestry agency, which is supportive of a land swap based on fairly advanced land rezoning work, as of the time of writing of this AIF. On the north, there is a small portion of land owned by the City of Kryvyi Rih that is not being used.

The area to the south is occupied by the village of Rudnichnoe that falls into the sanitary zone of the future open pit and will have to be relocated. In addition, there is an old-mine service garage and reclaimed waste dumps owned by the neighbouring mines YuGOK and ArcelorMittal, which are located on the Shymanivske

Project's property (the "**Shymanivske Property**") and will have to be moved by Black Iron. The Company reached a non-binding agreement with YuGOK in 2005 with respect to relocation of their garage and partial waste dump removal and has held discussions with ArcelorMittal KR, and the local authorities with respect to the railway line and their partial waste dump removals.

A land consultant was hired by Shymanivske Steel to perform a detailed "land audit" of the required Project properties. The audit confirmed that the land east of the ArcelorMittal railway needed for pit development (~650 ha) belongs to the Kryvyi Rih City Council. The land west of the ArcelorMittal railway necessary for accommodating the Project general infrastructure, tailings storage facility waste dumps and beneficiation plant is owned by the Ukrainian state and being used by its Ministry of Defense for training purposes. Shymanivske Steel is currently in discussion with the City Council and the State authorities regarding obtaining the surface rights for all lands required by the Project. Black Iron is not aware of any environmental liabilities or any royalties attached to the Shymanivske Property, other than levies that are payable to the Ukrainian State.

The majority of the surface rights upon which the Shymanivske Property resides are owned by the City of Kryvyi Rih. However, a portion in the northern end of the Shymanivske Property, where most of the inferred resources are located, has been leased to ArcelorMittal by the Kryvyi Rih City Council. Acquisition of these surface rights is required to maximize the Project's economics given this area of the ore body contains relatively high grade and low strip ratio ore. Shymanivske Steel has initiated a legal proceeding to challenge the legitimacy of the processes of the Kryvyi Rih City Council, as land owner, in granting these leases.

On March 29, 2017, the Kryvyi Rih City Council approved the Project's detailed plan of territory which allows Shymanivske Steel to start the land allotment procedure. This entails conducting design work in preparation for allocating a major part of Kryvyi Rih City land (except the village of Rudnichnoe) for the Project's development purposes.

The Shymanivske Property is encompassed by road systems serving the city of Kryvyi Rih and local mines. These roads are mostly paved. Although there is an airport in Kryvyi Rih suitable for large commercial aircraft, international access is typically achieved using the Dnipropetrovsk International Airport which is serviced by multiple daily flights and is a 2.5 hour drive to site.

History

Historical geological exploration has been carried out in the area covered by the Shymanivske Project deposit (formerly known as the Likhmanovsky syncline and Tarapako-Likhmanovsky anticline) since 1925, and can be divided into four periods: (i) the first period being up to 1965; (ii) the second period being from 1965-1978; (iii) the third period being from 1982-1984; and (iv) the fourth period being from 1985-1989.

In the period up to 1965, work was directed at achieving two goals: (i) drill testing the rich-iron (supergene) "oxidized quartzite" mineralization associated with the lithological contact between Gdantsev and Saksagan (or Saxagan depending on translation and spelling) sequence rocks (west margin of the Shymanivske Property); and (ii) exploratory drilling to test taconite-style mineralization for a proposed open pit mine on the Shymanivske Property.

From 1966 to 1978, exploration work was carried out by the Inguletsky GRP of Krivbassgeologiya Trust ("**Inguletsky GRP**") and Central GDS of Krivbassgeologiya Trust ("**Central GDS**"). The work carried out by the Inguletsky GRP was aimed at achieving an estimate of mineralization and included metallurgical testwork. The program of Central GDS was aimed at evaluating the taconite - "un-oxidized quartzite" - mineralization. A total of nine holes aggregating 2,580 metres ("**m**") were drilled.

From 1982 to 1985 a program was carried out to increase the mineral resource base of the former ArcelorMittal mine formerly known as NKODPE (the previous owner of the adjacent iron mines now owned by ArcelorMittal Kryvyi Rih). A total of 32 holes aggregating 9,902.6 m were drilled. From this work, "mineral resources" were estimated. Down hole geophysical surveys included measuring electrical, electromagnetic, magnetic and radioactivity components, as well as hydrological surveys.

During the period 1985 to 1986, exploration, drilling and testwork continued. In all, 96 holes aggregating 18,113 m were drilled, which form the basis of a new mineral resource estimate.

It is known that several underground mines once existed near the Shymanivske Property. These mines are now obscured by the piles of mine waste from adjacent open-pit mines. There is an existing quarry, partially filled with water, located just SW of the Shymanivske Property's centre, approximately 212 m long (NNW-SSE) and 100 m wide (WNW-ESE) at surface. The quarry was allegedly excavated to provide limestone to test and evaluate its potential (a flat-lying unit of limestone overlies the older, folded rock sequence that includes the iron formation). The topographic survey by Abitibi Geophysics ("**Abitibi**") shows that it is over 20 m deep, from water surface in pit to natural topographic level adjacent to pit. Observation by the authors of the Report suggests it penetrates into the iron formation and is very close to where an accumulation of martite mineralization would be expected to occur. No other information concerning this quarry, besides its surface dimensions in plan, and its location is available.

Geological Setting, Mineralization and Deposit Types

Local & Regional Geology

The Shymanivske Property is situated in the Kryvyi Rih Basin ("**KrivBass**"), a Paleoproterozoic synclinorium structure in the Archean Ukrainian shield. The KrivBass lies along the western edge of the Middle Dnieper block of the shield adjacent to the Inhul-Inhulets, or Kirovograd Block. The basin extends approximately 85 km north to south and is 2 to 10 km wide. KrivBass is one of several Ukrainian iron formation-hosting Paleozoic basins on micro-plate boundaries.

The rocks in the basin or synclinorium as deformed by superimposed folds of several orders with amplitudes ranging from millimetres to kilometres. Several of the second order fold components have been named, and from west to east, these major component folds are the Tarapako-Likhmanovakaya anticline, the Main Syncline and the Seksaganskaya anticline and syncline. The component fold structures tend to range from upright to slightly overturned. The larger folds have symmetrical hinges and asymmetric limbs. All folds are described as plunging gently northeast at 15 to 20 degrees. The western margin of the synclinorium is cut by a steep regional thrust fault or fault zone. This fault largely separates the Archean basement from the KrivBass Paleoproterozoic sequence and provides egress of meteoric fluids to weather the iron formation

Property Geology

The Shymanivske Property geology appears analogous to the regional geology of the KrivBass in terms of both rock units and structure. The general structural alignment of rocks is NE-SW, parallel to the KrivBass. Similar to the regional context, the KrivBass Paleoproterozoic rocks, Skelevat to Gdantsev sequences, are deformed into a series of gently north-plunging sub-parallel first-order NE-SW folds, and have superimposed minor folding of multiple orders. The main fold components describe a tight to asymmetric anticline which, on the Shymanivske Property, includes the western part of the Paleoproterozoic sequence and a parallel trending open syncline that underlies the central and eastern parts of the Shymanivske Property.

The oldest rocks on the Shymanivske Property are the Archean-age basement rocks intersected by historic drill holes on the northwestern part of the Shymanivske Property. These rocks include granites with intercalated amphibolites that are part of the Novokrivoroshskaya or "New Kryvyi Rih" Group. These rocks are cut by a series of NE-SW oriented steeply dipping to NW dipping faults. Eastwardly, the basement is succeeded by rocks of the younger Gdantsev Group. The Gdantsev rocks in fault, and/or unconformable contact with the older rocks, include quartz-biotite metasediments and perhaps minor iron formation.

A significant portion of the Shymanivske Property surface is covered by mine waste rock from the adjacent YuGOK mine. Comparison of the present topography, as determined by Abitibi surveys in April 2011, with the historic Soviet cross-sections, shows this waste rock is up to 30 m thick in some areas. Below the waste rock there is a thin soil which overlies Cenozoic karsted fossiliferous limestone. The limestone is generally

10 to 25 m thick and drapes the flat, lying to the rolling weathered Paleoproterozoic surface. The upper surface of the Paleoproterozoic rocks immediately under the limestone is weathered. Where the upper weathered surface is iron formation, the magnetite has often been oxidized and some or all of the magnetite, depending on depth, has been converted to goethite/limonite. In some places, iron enrichment that is caused by silica leaching occurs. Some of the weathered iron formation approaches the grade of direct shipping ore. The strong weathering is generally restricted to a depth of less than six meters. This zone of sub-surface weathering thickens and merges with the fault zones or unconformity-controlled weathering and supergene iron enrichment, which exist on the western margin of the deposit along the Gdantsev-Saksagan contact. The oxidized iron layer can extend into areas not underlain by iron formation, and this material may be akin to canga.

Mineralization

Mineralization of economic interest on the Shymanivske Property is the oxide facies iron formation or oxide facies banded iron formation and it is magnetite-rich taconite that contains minor hematite throughout. The iron formation on the property is mainly confined to the Saksagan sequence and is folded into a NE gently plunging anticline (west part of the deposit) and an adjacent open syncline (central and east parts of the deposit). The taconite extends the entire NE-SW extent of the property, 2.2 kilometres and beyond, and occurs over a width of 800m to 1km in a NW-SE direction. The taconite is folded and its true thickness varies throughout because of tectonic thickening, erosion and possibly the original basin topology. The true thickness of the iron formation package, including the intervening inter-oxide iron formation "slate" members, is in the order of 200 to 250 m. Because of the folding, there is no consistent relationship between drill hole orientation and the true width of mineralization. Drill testing has been completed, generally to a vertical depth of 300 to 500 m. Mineralization along the western margin of the deposit, particularly the steeply dipping NW limb of the main anticline, extends to unknown depth and has been tested by drilling to a maximum vertical depth of 500 m.

The Saksagan ferruginous members (f-members) are in gradational contact with the "slate" members (s-members) of the group. No sharp contacts between these members are discernible and percentage of total iron (" $\% \text{Fe}_{\text{tot}}$ ") and magnetic iron (" $\% \text{Fe}_{\text{mag}}$ ") grades are also gradational between these members. Small-scale folding likely contributes to the gradational affect. Maximum iron grade is often reached in the centre of the drill hole intersections in magnetite taconite f-members, while minimum grade is reached in the middle of the "slate" intersections s-members and the iron grade generally is smoothly progressive between these extremes. These slate members are mainly composed of amphibole, with lesser amounts of chert and magnetite. Where the slate members contain more than 15% iron, the rock could be called silicate iron formation, which consists mainly of amphibole and chert, often associated with carbonate (often iron carbonate) and it can contain magnetite or hematite in minor amounts.

Mine waste covers the surface on both the NW and NE margins of the cross-section. Beneath the mine waste there is a layer of flat-lying Cenozoic limestone and marl. Beneath this layer, there is a thin horizon of limonite/goethite and this is the upper limit of the folded Proterozoic sequence of iron formation interlayered with slate. This thin hydroxide iron layer merges with the thicker martite mineralization on the NW margin of the deposit. The martite zone follows down the interface between the iron formation sequence and the Gdantsev metasediments. This interface is a fault zone or an unconformity, or a fault zone superimposed on an unconformity. The steep western margin of the deposit has not been well drilled. The Archean basement occurs further west of the NW margin of the cross-section, and it is in contact with the Gdantsev sequence.

Deposit Type

The iron formation on the Shymanivske Property is of the Lake Superior-type. This type of iron formation consists of banded sedimentary rocks composed principally of bands of iron oxides, magnetite and hematite within quartz or chert-rich rock with variable amounts of silicate, carbonate and sulphide lithofacies.

Lithofacies that are not highly metamorphosed or altered by weathering and are fine grained are referred to as taconite. Taconite generally ranges in iron content from 15% to 45%. The ferruginous quartzite

(metachert) horizons characteristic of the Saksagan sequence that comprise the majority of mineralization on the Shymanivske Property and are mined throughout the Krivbass are identified as magnetite taconite. In general, the Shymanivske Property and the Krivbass also hosts a certain amount of supergene: weathered oxidized taconite leading to martite-magnetite, martite and goethite/limonite – martite mineralization. In the historic interpretations, this mineralization on the Shymanivske Property has been mainly attributed to sxf5 unit, the fifth ferruginous horizon of the Saksagan Group associated with the regional NE-SW oriented fault zones that form the western margin of the Krivbass. WGM believes that for the Shymanivske Property, it is not clear that the martite mineralization actually belongs to sx5f, but may be lower down in the stratigraphy. WGM believes the main control on the location of the oxidized mineralization is the fault or uniformity interface between the Gdantsev and Saksagan, which may cross cut stratigraphy.

Supergene weathered taconite becomes enriched in iron through oxidation, the leaching of silica and the concentration of oxide iron. Strongly enriched variations of this type of material are often known as direct shipping ores. Such mineralization was prevalent through the Krivbass, especially prior to World War II, but is still mined underground in the Krivbass today. The Novaya mine, a former underground producer located just south of the Shymanivske Property, exploited this type of mineralization and a number of small underground mines were located on the Shymanivske Property, but little is known of them. Any surface evidence is covered now by mine waste but, according to hearsay, Soviet drillholes intersected some of these underground workings. One of Black Iron's drillholes also intersected one and was terminated when it intersected the underground opening. For non-supergene-enriched iron formation to be mined economically, oxide iron content must be sufficiently high, but also the iron oxides must be amenable to concentration (beneficiation) and the concentrates produced must be low in deleterious elements such as silica, aluminum, phosphorus, manganese, sulphur and alkalis. For bulk mining, the silicate and carbonate lithofacies and other rock types interbedded in general, within the iron formation must be sufficiently segregated from the iron oxides. Folding can be important for repeating iron formation and concentrating iron formation beds to create economic concentrations of iron.

Exploration

Following completion of the Company's initial public offering, the Company engaged Abitibi from Val-d'Or, Quebec, to conduct a GPS-Integrated ground magnetic field survey and ground gravity survey over the Shymanivske Property. The various inter-oxide iron formation metasedimentary rocks (quartz amphibolite, quartz amphibolite silicate, quartz biotite) and quartz biotite slate have elevated levels of Fe_{tot} , but low levels of Fe_{mag} . These rocks also have elevated levels of aluminum befitting higher clay content and levels of sulphur much higher than in oxide iron formation. The magnetite-rich taconite iron formation on the Shymanivske Property consists mainly of semi-massive bands, or layers, and disseminations of magnetite containing very minor hematite (specularite), not readily visible, in re-crystallized chert and interlayered with bands (beds) of chert with carbonate and iron silicates and amphibolitic slate.

Drilling

Historical drilling was done on sections perpendicular to the strike of the formations with spacing varying from 40 to 130 m along sections and from 80 to 300 m along strike with vertical depths of 250 to 500 m. The drilling totals about 40,000 m spread across 215 holes.

To date, Black Iron has conducted two drilling programs on the Shymanivske Property. The twin drilling program also known as Phase I drilling program comprised 22 holes aggregating 6,042m. Immediately following this, the Phase II drilling program was initiated. It consisted of 48 holes aggregating 11,435 m, including seven holes (totalling 695 m) that were drilled to acquire larger diameter core for comminution testwork. Total drilling thus aggregated 70 holes and 17,477 m. The primary purpose of the Phase I program was to collect material for metallurgical testwork by drilling a selection of drill holes as close as possible and at similar attitude to historic locations. The secondary goal of the drilling program was to validate the historic drilling completed on the property. The purpose of the Phase II program was to provide additional information to advance deposit interpretation in support of an updated and upgraded categorized mineral resource estimate.

Drill hole collars were spotted prior to drilling by the Shymanivske Project surveyors TNT TPI LLC (“**TNT TPI**”). For the Phase I program, holes were staked out using DGPS. Later in Phase II, conventional transit was used. The surveyors also surveyed the foresights to be used for aligning the drills during set-up and for aligning the gyroscopic down hole attitude survey at termination of the holes. Drilling azimuths were established by lining up the drill visually on collar picket and foresight. Drill inclinations were established using an inclinometer on the drill head. Drill set-up was supervised by the rig-geologist. After the holes were completed and the drill dismantled and moved off, the collar locations were again resurveyed by TNT TPI and a picket planted to identify the drill hole. As well as surveying the collars of the Black Iron drill holes, the surveyors also surveyed the historical casings that had been located.

Down hole geophysical and gyroscopic attitude surveys were systematically performed by Pivnichgeologiya, a Ukrainian company under contract to GeoResource. The down hole geophysical surveys included measurement of natural radioactivity (gamma ray survey), rock density (gamma-gamma survey using a cesium radioactive source), electrical conductivity, magnetic susceptibility, caliper and flow meter. Almost all of the drill holes were surveyed.

For most of the twin holes, the positional relationship between the original historical collar and the new twin collar could only be determined for the historic holes where casings have been identified; otherwise, locational relationships must be inferred from historic database coordinates. WGM observed four or five of these historic casings. GeoResource found an additional seven casings, but none of these corresponds to historic holes that were twinned by Black Iron. In all cases, these historic casings were within several meters (10 to 12 m) of the location of the twin hole collars, as spotted by TNT TPI. The various reasons for the known difference in location between the casings and the drill hole collar locations, as surveyed for the present program, are not known. Also, the actual coordinates are not known for all the historic drill holes and it is believed that, by capturing the locations from those shown on the Soviet plan maps and cross sections, GIC determined collar locations for these other holes for which Soviet coordinate lists are not available. Therefore, the lack of perfect coincidence between casing locations and database locations for some holes is probably partly due to small measuring errors from the Soviet plan maps. Each of the cross-sections show %Fe_{mag} assays as histograms down the drill holes with different colors based on grades. Also shown are composite averages (length weighted averages) for %Fe_{tot} and %Fe_{mag} over intersection length. The composite locations were selected to represent as best as possible the equivalent intervals in the twin and historic drill holes, so that assay averages for close-to-equivalent material could be compared. In many cases, the limits on the composite intervals have been selected on the basis of a Fe_{mag} cut-off of 10%.

Generally, agreement is very good with respect to intersected lithology and assays between twin and historical drill holes. Also notable is the martite or strongly oxidized mineralization that often occurs immediately under the limestone cover. The calculated percentage hematite spikes for this type of mineralization are caused by increased Fe. The %Fe_{mag} decreases sharply due to the oxidization of any magnetite. For the “slate” intervals, where they have been sampled and assayed, % Fe_{tot} often decreases only slightly compared with the oxide iron formation intervals but %Fe_{mag} decreases much more considerably. In these intervals, the iron is hosted largely in silicates.

Although the patterns of highs and lows in assays are very similar between historic and the twin drillholes, certain assay biases appear to be present. For certain historic drillholes, % Fe_{tot} appears to be significantly biased low. For most samples, the ratio of Fe_{mag} to Fe_{tot} is similar. However, a population of samples does not correspond. These two latter drillholes are holes where Fe_{tot} is biased low. An observation of a similar plot of all historic samples shows many more samples that are similar. WGM can't be sure if these are all because Fe_{tot} is low or if Fe_{mag} is too high. It would have been helpful if drilling dates for each of the historic drillholes were available, so that drilling by campaign could be determined. This might make it possible to determine which historic drillholes or campaigns had low-biased assays. However, very few of the historic drill core logs are available to allow for this analysis.

Sampling, Analysis and Data Verification

Black Iron's 2011 Phase I and Phase II drilling programs were managed by GeoResource, which conducted the drill core sampling under guidelines provided by WGM. GeoResource drill rig geologists logged the drill holes in the field adjacent to the drills. Leonid Galchansky, Chief Geologist for GeoResource, established the standards and nomenclature to be applied to the logging and supervised the drill rig geologists. Lithological coding was recorded in an MS Excel database. The logging procedure included core photography.

The intervals for sampling were determined and marked on the core with permanent markers once the core was transferred to the GeoResource core shed. Sample limits were defined by geology, where lithological variations were significant. The sample limits and the Sample IDs were marked on the core.

Sampling guidelines from WGM included a nominal sample length of 3m, with variations being based on geology and no narrow gaps to be left between samples. Shoulder or bracket samples were to be collected on the margins of all mineralized intervals. The samples were sawn in half using diamond core saws. Guidelines called for sample sawing to be nominally perpendicular to layer banding to maximize sample symmetry. However, folding of the iron formation was often so intense that compliance was not often feasible. In the rubble zones, generally associated with the martite mineralization and limonite/goethite weathered zones, sawing of the core was not always possible and sampling was simply done by trying to take out a representative half-portion of core. The half-core comprising the samples was bagged with a corresponding sample tag and protected by a plastic envelope. The remaining core was returned to the core trays and the other sample tag, also in a plastic envelope, was inserted in the trays under the first piece of core retained for the sample.

2011 Core Storage

The remaining drill core remains in Black Iron's core shed, cross piled hole-by hole. The building is a large warehouse-style structure, with a concrete floor, secure doors and security fence.

2011 Sample Security

After being sawed, samples were trucked under GeoResource's supervision directly to the primary laboratory, Mekhanobrchermet ("**MCM**"), in Kryvyi Rih for preparation and assaying. GeoResource provided MCM with a sample list for each shipment. Rejects and pulps originally in the possession of MCM are now stored on racks in Black Iron's core shed.

Laboratory Sample Preparation and Analysis

The primary laboratory for Black Iron's 2011 twin drilling (Phase I) and Phase II drilling programs was MCM, based in Kryvyi Rih. Sample preparation for assay included first-stage jaw crushing, second-stage roll crushing and finally puck and ring pulverization to provide a representative pulp for assay.

Each entire half-split core sample was jaw-crushed to 75%, passing 10 millimetres ("**mm**"). At every 20th sample, the crushed product was tested by screening, using a 10mm screen. The total weight of the sample was recorded. After each sample, the crusher was blown out with compressed air. On a plastic sheet the sample was then thoroughly mixed by trowelling the sample three times back and forth from pile to pile. The thoroughly mixed sample was then coned and quartered. One-half of the sample was returned to the original sample bag with the original sample tag, and subsequently returned to GeoResource for storage. The retained half portion was weighed to ensure it amounted to one-half of the sample. The retained half was then transferred to the rolls mill where it was stage-crushed, which usually required two to three stages. After each stage, the sample material was screened at 2mm, the oversize being returned to the mill for further crushing aimed at achieving 75% passing 2mm. The product sub-sample was then thoroughly mixed by trowelling the material back and forth three times on the plastic sheet. It was then reduced in size again by cone and quarter. Normally two successive stages of cone and quartering were required to separate

250 g of the sub-sample. The reject was weighed, the mass being recorded on the assay certificates, and then put into a new sample bag for storage.

The 250g (approximate) sub-sample was pulverized in a ring and puck pulverizer for a specified time, with the aim of achieving 100% passing 0.1mm. Two pulverizers were required for each sample to handle the 250g. The sample, after each stage of pulverization, was hand screened at 0.1mm. The oversize was returned to the pulverizer until 100% passing 0.1mm was achieved. After each sample, the pulverizers were blown out with compressed air and wiped clean.

The pulverized sub-sample was divided into three portions. This was done by coning the pile, flattening the pile and then using a small scoop to select material from different parts of the disc of material. Two 50g pulps were collected, one was for assay at MCM and the other was sent to GeoResource for storage and future use. The excess material was bagged and retained in storage at MCM and, apparently, moved to the core shed later.

2011 Sample Assaying

Assaying at MCM included determination of Fe_{tot} , Fe_{mag} , total oxidized iron (“**FeO_T”**), silicon dioxide (“**SiO₂”**) and phosphorus (“**P**”) on all samples, including routine and field-inserted quality assurance and quality control (“**QA/QC**”) samples and laboratory-inserted QA/QC materials. Selected samples also had their bulk density determined, by weighing in air and in water the core pieces that comprised the entire sample intervals. Other selected samples had specific gravity (“**SG**”) determined by a pycnometer method. GeoResource selected the samples for bulk density and SG. The guidelines from WGM were to try to select samples throughout the deposit that represented the entire range of rock types and mineralization intensity. Routine samples included all drill core samples, split and sampled, to evaluate their mineral content, including bracket and or shoulder samples. Bracket or shoulder samples are samples of waste from the margins of mineralized intersections. A total of 3,869 routine samples were assayed during the Phase I and II programs. The QA/QC program resulted in the identification of a number of sampling and assaying issues, and the follow-up of these issues generated additional samples for assaying.

2011 Quality Assurance and Quality Control

The 2011 QA/QC program for sampling and sample analysis included components conducted by GeoResource that were initiated during core sampling in the field in addition to components operated by MCM as part of the in-laboratory QA/QC program. The in-field components included the insertion of blanks, duplicates and Certified Reference Standards into the sample stream going to MCM. The in-MCM components included the use of blanks, duplicates and Certified Reference Standards throughout the sample preparation and assaying procedure.

In the field, standards, blanks and duplicate samples were inserted into the sample stream going to MCM. The Certified Standard Reference material used for field standards was CANMET FER-3. The FER-3 standards were inserted into the sample stream at a frequency of one per 20 routine samples. Field blanks were inserted into the sample stream at a frequency of one per 20 routine samples. Generally, the blanks and the FER-3 standards were consecutive samples in the sampling sequence.

Field duplicate (“**FDUP**”) samples were second-half core samples. These samples were cut and inserted into the sample stream at a frequency of one per 50 routine samples. Whenever FDUP samples are taken, both halves of the drill core are sampled; one half becomes the routine sample and the other half becomes the duplicate. When this type of sampling is performed, no archived core for these sampled intervals remains. These types of samples are “blind” to the lab.

Generally, the results shown on the plots show good assay precision; however, two samples appear to plot out of pattern. WGM believes that four samples may be mixed up, either because of coding in GeoResource’s sampling records or because the samples were mixed up at the lab. No re-assaying is necessary.

Supplementary to GeoResource's in-field QA/QC program, MCM, the primary analytical laboratory for Black Iron's drill programs, operated an in-laboratory QA/QC program involving preparation duplicates (replicates), analytical duplicates, blanks and Certified Reference Standards. These QA/QC materials were analyzed along with the samples received from GeoResource. The preparation duplicates comprise a second sample, riffled out after coarse crushing to enable the monitoring of sample preparation variance. For normal samples received by the lab, one sample is partitioned off from the reject and then proceeds to pulverization. When a preparation duplicate is called for, two portions are partitioned off from the reject and two pulps are created instead of one. Preparation duplicates were prepared at a frequency of one per 50 field samples to MCM. Accordingly, for every 50 samples a second sub-sample was generated for assaying. The preparation duplicates were labelled with a "PDUP" prefix. Analytical duplicates ("ADUP") are second portions of pulps that are sub-sampled from normal pulps and assayed. These samples were also completed at a frequency of one per 50 samples to the lab. Later in the program, a MCM in-house standard was added to the in-laboratory assay scheme to fulfill the role of a blank ("LBLK") and to provide a standard with very low levels of iron.

Instances of PDUP, ADUP and LBLK were inserted into the sample stream every 50 samples from the field. MCM also assayed a Certified Reference Standard at a frequency of one per 20 field samples. This standard was a Ukrainian Certified Standard, namely P-010, characterized as magnetite iron ore. To document this material, MCM provided certificate 1063, issued on December 17, 2009, by the State Committee of Ukraine for Technical Regulation and Consumer Policy.

Supplemental Assaying

In addition to the in-field insertion of blanks, duplicates and standards, some follow-up check-assaying was completed, with a view to understanding and resolving particular issues. Some of this was managed by Black Iron and some by WGM.

On November 18, 2011, a letter report was sent to Black Iron. The document was titled "Draft of Review of twin drill hole program and QA/QC Results Shimanovskogo Iron Property, Ukraine". In the document, WGM brought to Black Iron's attention the fact that MCM's Fe_{mag} assays appeared to be lower in value than historic assays in the corresponding twin drill holes and in initial check-assays of MCM pulps that WGM had collected during its second site visit. Black Iron communicated this finding to MCM. MCM subsequently completed a re-calibration of its instrumentation and provided newly adjusted Fe_{mag} assays for the previously assayed samples (all samples pre-SH18, 23 September 2011, assay certificates). The new calibration was used for all later samples.

Following this re-calibration, Black Iron selected, in October 2011, 100 pulps from samples previously assayed at MCM, which spanned the twin-hole program and also various Fe_{tot} and Fe_{mag} grades. The list of samples was provided to MCM to check the newly adjusted Fe_{mag} values. Black Iron requested MCM to re-assay these samples for Fe_{tot} and Fe_{mag} . MCM performed this service, completing the assays in duplicate.

MCM subsequently forwarded a portion of the pulps for these 100 samples to SGS-Lakefield Research ("SGS-Lakefield") for check assaying. SGS-Lakefield assayed the 100 samples received from MCM for whole rock – x-ray fluorescence ("WR-XRF") major elements and Satmagan, and issued its results in February 2012. A selection of 25 of these samples also had Davis Tube tests completed at SGS-Lakefield, and their magnetic concentrate products were analyzed for major elements by WR-XRF. Neither FeO_T nor S_T was completed on the head samples. The SGS-Lakefield Fe_{mag} values from Satmagan were still higher than MCM, even after MCM's recalibration of its instrumentation.

On 25 of the 100 samples sent to SGS-Lakefield, Davis Tube tests were completed. The samples were pulverized to 95% passing 45 μm (325 mesh). Results for the two methods of determination are close, but the Satmagan numbers were generally a little higher.

Early in 2012, Black Iron selected 35 of the aforementioned 100 samples and requested SGS-Lakefield to forward a portion of the pulps to ALS Minerals ("ALS") in Australia. The 35 samples at ALS were assayed

for a variety of analytes, including major elements by XRF, magnetic susceptibility and FeO_T. Original assaying at MCM included the Shymanivske Project standard analytical package, including Fe_{tot}, Fe_{mag}, FeO_T, P and S_T. Later in 2012, Black Iron selected and collected 115 routine samples and four Certified Reference Standards (two each of FER-3 and P-010) from the archived sample pulps and rejects in storage at the Ukrainian core shed. When the samples were forwarded to ALS, magnetic susceptibility and FeO_T were determined.

The results show no bias between labs and are in accord with previous results, wherein previous sets of data have shown excellent agreement between MCM and SGS-Lakefield.

On the basis of its review of drill core and “quick logs” completed, which included checking sample intervals and tags in Ukraine at Black Iron’s core shed, WGM is satisfied that logging and sampling by GeoResource’s personnel was of reasonable quality. Information gathered by WGM was compared against the database being built by GeoResource for accuracy and representivity. GeoResource’s personnel, in addition to capturing data and recording them in the database, also collected some descriptive data. WGM was not able to review these logs because they are not in English and they have not been fully finalized.

In conclusion, on the basis of all the sample assays from secondary laboratories, WGM is satisfied that MCM’s assays for the routine samples are generally reliable. As aforementioned, Fe_{tot}, FeO_T, SiO₂ and S_T assays are accurate and precise, although MCM’s assays of P are biased too high. MCM’s final assays for Fe_{mag} are generally reasonably accurate and precise. For very few samples, depending on the assaying sequence, Fe_{mag} values may be very slightly too low. Because of the aforementioned assay irregularities that are not understood, WGM cautions that the Fe_{mag} assays for control samples such as FER-3 and P-010, or any of the others inserted by MCM and not “blind” to MCM should not be relied upon.

Data Verification

Drill core samples collected for Black Iron as part of the 2011 drilling programs were submitted by GeoResource’s to MCM, SGS-Lakefield and ALS. WGM understands that MCM is accredited under Ukrainian regulations and holds an ISO 9001:2009 certification for quality management systems. SGS Lakefield is fully accredited under ISO 9001 and ISO 17025, for specific laboratory procedures. ALS is similarly accredited under ISO 9001 and ISO 17025, for specific laboratory procedures. Although WGM has reviewed the assay results generated by MCM and SGS-Lakefield and believes the results are generally accurate, WGM is relying on the two laboratories as independent experts in the field of analyses.

WGM Senior Associate Geologist, Mr. Richard Risto, P.Geo., QP, visited the Shymanivske Property four times in 2011 to assist with implementation of sampling and assaying protocols verification of drilling and to complete independent sampling. WGM’s first site visit was completed between April 11 and April 18; the second site visit was completed between May 22 and May 29; the third site visit was completed between June 27 and July 3; and the fourth site visit was completed between December 12 and 17. WGM reviewed the Black Iron program results with Black Iron’s senior Geologist, Mr. Farshid Ghazanfari, P.Geo, BKI’s chief geologist at the time, and GeoResource personnel conducting the program. Mr. Risto collected independent drill core samples during the second, third and fourth site visits for independent assaying.

During its site visits, WGM visited the drills in progress for both the Phase I and II drilling programs. WGM also confirmed the coordinates of the drill hole collars to be similar to those which had been proposed and confirmed that they were located on the property. WGM also witnessed the existence of six historic drill casings on the property.

WGM “quick” logged a number of Black Iron Phase I and II cores at the GeoResource core shed during its site visits. During this process, WGM confirmed that the GeoResource logging was reasonably accurate with its lithostratigraphic coding that generally agreed with WGM’s observations. WGM completed independent sampling of Black Iron’s half-split drill core and assay pulps prepared by MCM during its second, third and fourth site visits to the Shymanivske Property. In total, WGM collected 23 samples of half-split core and 93 pulps (one pulp was lost in transit, providing 92 for assay at SGS-Lakefield). To this

stream, WGM inserted instances of two Certified Reference Standards: CANMET'S FER-3 and the Ukrainian Standard P-010.

The pulps were collected from second pulps prepared by MCM. The laboratory protocol called for MCM to prepare a second 100g pulp for every sample processed. MCM riffled this material out of the pulverized fraction. One pulp went to analysis at MCM; the second pulp was put aside for our use. During its visits, WGM selected the pulps and sub-sampled each one, extracting 20 to 30g and placed this material in small bags. The samples were selected by WGM to be representative of the entire assay/sample program, with samples taken from each of the sample shipment/MCM certificate batches. The samples were also selected to span the range of mineralization represented by a range of MCM assay results.

The drill core samples were sampled by WGM from the core boxes. For the most part, WGM's samples represented the remainder of the half-split core left in the core trays after original sampling for MCM assaying. All but two of WGM's samples correspond to GeoResource's samples. These samples were assigned new sample identities, placed in sample bags with tamper-evident closures and shipped to SGS-Lakefield. It is important to note that the identity of the samples was not known to MCM, GeoResource, Black Iron, or SGS-Lakefield. Upon arrival, SGS-Lakefield performed an inspection of the bags and reported that they were in good shape, showing no evidence of tampering. At SGS-Lakefield, each sample was analyzed for major elements by lithium metaborate fusion WR-XRF; FeO_T was determined by $\text{H}_2\text{SO}_4/\text{HF}$ acid digest potassium dichromate titration; Fe_{mag} was determined by Satmagan; and S_T by LECO. Each sample also had SG determined on pulp, by gas comparison pycnometer. Bulk density was determined on each of the core samples (not the pulps) prior to crushing, using the weighing-in-water/weighing-in-air method.

The pulps required no sample preparation at SGS-Lakefield. The drill core samples were cone crushed to nominal $\frac{1}{4}$ " and then a 1 kilogram sub-sample was riffled out. The sub-sample was stage-crushed to 10-mesh (2mm), a 100 gram was pulverized in a ring pulverizer to 200-mesh (75 micrometres), and then sent for analysis. Each of the samples collected during WGM's fourth site visit was split into two portions, one portion going to SGS-Lakefield and the second portion going "blind" to MCM for re-assay, using the analytical package standard to the Shymanivske Project.

Samples collected during WGM's second and third site visits aggregated 53 pulps and 18 half-split drill core samples, including six Certified Reference Standards. Initial interpretation of analytical results for these samples showed that results for Fe_{tot} , SiO_2 , FeO_T , and S_T were closely comparable between SGSLakefield and MCM. However, for Fe_{mag} , initial results showed that MCM values were lower than SGSLakefield values. An analysis of the twin drill hole results was completed at the same time, by comparing assay results in Black Iron's twin drill holes with its corresponding historic twin. Fe_{mag} values returned for Black Iron's samples were also generally lower than historic values. These two findings suggested that MCM's Fe_{mag} values were generally 2%-4% lower.

After completing its verification in the field in Ukraine, its review of the twin hole drilling program results, and its review of historical documents WGM is satisfied that Soviet drilling locations, assay and lithology results are substantially and generally reliable, with a few caveats. WGM believes that minor errors and uncertainties are associated with many of the Soviet data items, but the extent of these errors has not proven to be significant.

On the basis of check assay comparisons with SGS-Lakefield and ALS, in which much of the check assaying is based on samples "blind" to all parties, except WGM, WGM is satisfied that MCM assay results for Black Iron's drilling are generally reliable. The check assaying done on MCM-prepared pulps and non-MCM processed second half-split core samples using secondary labs and "blind" samples suggests that any possible assay inaccuracies are not very significant for evaluating the Shymanivske deposit.

Metallurgical Testing

A significant amount of test work was completed over a number of years, including that done during the Company's feasibility study entitled "Feasibility Study of the Shymanivske Iron Ore Deposit" dated

December 17, 2012, and prepared by Mr. R.M. Spiering, P. Eng., Mr. Masoud Gorjian, P. Eng., Mr. Reza Ehsani, P. Eng., PMP, all of WorleyParsons Canada Services Limited, Mr. Philip Burris, C.Geol, Eur. Geol., of WorleyParsons UK Limited, Mr. Eugene Puritch, P. Eng., of P&E Mining Consultants Inc., and Mr. Richard W. Risto, M.Sc., P.Geo, and Mr. Michael Kociumbas, B.Sc., P.Geo, both of WGM (“**2012 FS**”). As suggested in that report, additional tests were necessary in order to refine assumptions and to potentially introduce newer technologies to the proposed flowsheet. The additional tests which were completed included pilot scale comminution and beneficiation. The tests were carried out at various facilities including Studiengesellschaft für Eisenerzaufbereitung in Germany, high pressure grinding rolls (“**HPGR**”) manufacturers in Germany, COREM in Quebec City, Metso’s facility in the USA as well as additional tests at SGS in Canada, SGS in Australia, MCM in Ukraine and ALS Ammtec in Australia.

The main conclusion that came from the 2012 FS testwork is that the iron mineralization from the Shymanivske deposit can be processed and upgraded to the targeted specifications with crushing, stage grinding, low intensity magnetic separation and sulphide flotation. The additional testwork completed during the updated feasibility study entitled “Feasibility Study of the Shymanivske Iron Ore Deposit” dated January 24, 2014 and prepared by Mr. Balaji Thangavel, P.Eng. PMP, Mr. Mauro O. Batista, P.Eng, Mr. Enayat Sharokni, P.Eng, all of Lycopodium Minerals Canada Ltd., Mr. Daniel Roy, B.Sc., Eng, of Soutex Inc., Mr. Eugene Puritch, P. Eng., of P&E Mining Consultants Inc., and Mr. Richard W. Risto, M.Sc., P.Geo, and Mr. Michael Kociumbas, B.Sc., P.Geo, both of WGM (“**2014 BFS**”) allowed the flowsheet to be refined and supported the results derived from the 2012 campaign. Testwork indicated that a final grinding size of 80% passing 32 µm was required to achieve a concentrate grading 68% iron and 4.5% silica with a sulphur content of 0.05%.

Mineral Resource Estimates

Following the completion of additional drilling in December 2011, Farshid Ghazanfari, P.Geo., prepared an updated mineral resource estimate for the Shymanivske deposit. WGM was retained by Black Iron to audit this in-house estimate. The first NI 43-101 compliant mineral resource estimate for the Shymanivske deposit was completed in May 2011, for a preliminary economic assessment by Black Iron and then verified and audited by Hugh De Corta, P.Geo., an independent consulting geologist. Additional confirmation and infill drilling by Black Iron, which commenced in April 2011, led to the compilation of this data, and the subsequent drilling density allowed for the upgrading of the mineral resource estimates for the Shymanivske Project. Information used for this update included historical drill hole data, in addition to Black Iron twin drilling and definition drilling programs.

Although WGM was not able to verify the quality assurance and quality control processes and methods used in compiling the historical technical data, WGM believes that the historical technical data is relevant to the overall potential of the Shymanivske Project and to the establishment of updated mineral resources.

The mineral resources estimate below is effective as of March 2, 2020 and is the most recent estimate.

The current mineral resources are categorized as measured, indicated and inferred and the categories are based on drill hole spacing, data quality (and confidence) and search ellipse distances. Resources are interpolated out to a maximum of 675 m (approx.) on the ends/edges and at depth, when supporting information from adjacent cross-sections was available. The resources are reported above -440 m elevation level (about 500 m from surface), based on the same pit shell depth which was used in the previous preliminary economic assessment.

Measured & Indicated Mineral Resource Estimate for Shymanivske Project

Category	Zone	Tonnes (Million)	% Fe (tot)	% Fe (mag)
Measured	SX1F	44.0	31.0	17.0
	SX2F	311.1	32.1	19.9
Total		355.1	32.0	19.5
Indicated	SX1F	101.6	30.7	16.3
	SX2F	163.8	31.3	19.0
	SX3F	6.1	30.7	16.7
	SX4F	19.2	30.9	17.4
Total		290.7	31.1	17.9
Total Measured and Indicated		645.8	31.6	18.8

Inferred Mineral Resource Estimate for Shymanivske Project

Category	Zone	Tonnes (Million)	% Fe (tot)	% Fe (mag)
Inferred	SX1F	17.4	32.0	17.1
	SX2F	169.4	30.0	18.6
	SX4F	1.5	23.6	16.1
Total		188.3	30.1	18.4

Due to the uncertainty that may be attached to inferred mineral resources, it cannot be assumed that all or any part of an inferred mineral resource will be upgraded to an indicated or measured mineral resource as a result of continued exploration. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

The validation of the mineral resource estimate of the Shymanivske deposit was carried out in two separate steps. For the first step, block grades (Fe_{tot} and $\%Fe_{mag}$) were compared visually against drillhole assay data and composite data for each section and on plan views. The global validation of the block model results, when compared with the grade of the assay and composite intervals, were confirmed with this visual comparison. For the second step, the average of the block grades was reported at 0.01% Fe_{tot} cut-off when blocks in all classifications were totalled. This average is the average grade of all blocks within the mineralized domain. The values of the interpolated grades for the block model were compared to the average grade of head and the average grade of composites of all samples from within the domain.

A cut-off grade of 10% Fe_{mag} was determined to be appropriate for the purposes of the Report and was chosen on the basis of a preliminary review of the parameters that would likely determine the economic viability of a large open-pit operation. This cut-off compares well to similar projects and neighboring mines in the area.

The Fe_{tot} grades have been included in the Report, but in WGM's opinion, the total iron grades in the mineral resource estimate should not be relied upon as a basis for evaluating the Shymanivske deposit. To obtain a truly meaningful measure of the deposit, Fe_{mag} is a much better basis as reported in the tables above.

The total inferred resource tonnage for the martite-rich quartzite horizon (SX5F) was historically estimated (111.5 million tonnes ("Mt") @ 33% Fe_{tot} and 4.3% Fe_{mag}) in previous work from the Soviet era and in the technical report titled "Resource Estimate – Shymanivske Deposit in Ukraine Technical Report NI 43-101" dated January 27, 2011 prepared by Hugues de Corta, P.Geo, of GENIVAR Limited Partnership. For the current block model, Fe_{tot} and Fe_{mag} grades were interpolated within this SX5F martite domain and are comparable to past estimates, but due to a lack of drilling within this domain, drillholes being abandoned and intersecting this unit at shallow angles, and unknown Fe recoveries of this unit, the results of the SX5F Domain are not included in the current mineral resource estimates and it is considered waste for the purposes of the estimate. It is possible that this material will be brought into the resource estimate in the future, once further metallurgical testwork and additional drilling are completed.

Because of the lack of outcrops on the Shymanivske Property, the impact of the faulting and thrusting in the structural interpretation of the deposit is debatable and WGM and Black Iron have some differences in this regard. WGM agrees that faulting is important, but believes that a major unconformity is the principal reason for the oxide zone. WGM also believes that the stratigraphic assignment of SX5F to this zone and adjacent zones is not very reliable and that it would make less use of the Saksagan Group member stratigraphy in future.

Black Iron's block model mineral resource estimate procedure included:

- validation of digital data in the geological software package of Gemcom Software International Inc. ("**GemcomTM**"); The data was transferred to WGM from Black Iron in GemcomTM format for the WGM audit and it was validated both within MSAccess and GemcomTM;
- generation of cross-sections to be used for geological interpretations;
- basic statistical analyses to assess cut-off grades, compositing and cutting (capping) factors, if required;
- Development of 3-D wireframe models for the different ore horizons within the Shymanivske Property that had sufficient continuity of geology/mineralization, using available geochemical assays for each drillhole sample interval; and
- generation of block models for the mineral resource estimates and categorization of the results, according to NI 43-101 and CIM definitions.

Mineral Reserves Estimate

Since the Report summarizes the results of the PEA, no Mineral Reserves have been estimated for the Shymanivske deposit as per NI 43-101 guidelines.

Mining Operations

A phased project development plan has been adopted whereby the concentrator and ancillary facilities will first be constructed for a nominal capacity of 4 million tonnes per annum ("**Mtpa**") of dry concentrate, to be followed by an additional 4 Mtpa (for a total of 8Mtpa) in the fifth year of operation.

The Shymanivske Project is designed to be developed as an open pit operation using conventional mining equipment including electric rope shovels and diesel haulage trucks. The mining method and equipment were selected taking anticipated performance, operations and best management practices into consideration. Vegetation and topsoil will be stripped and stockpiled for further reclamation use. Overburden, as well as parts to the historic waste dumps that will be mined, will be sent to either waste dumps or to the tailings facility to be used as construction material. The mineralized material and waste rock will be mined with 15m high benches, drilled, blasted and loaded into a fleet of haul trucks using electric cable shovels.

The pit that has been designed for the Shymanivske Project is approximately 1,200 m long and 750 m wide at surface with a maximum pit depth from surface of 300 m. The total surface area of the pit is roughly 2,000,000 m². The pit is completely contained within the mining allotment.

Two exits/entrances have been designed for the final engineered pit. One of the pit ramps enters the pit from the north side at the 75 m elevation and is mainly used to access the crusher as well as the topsoil dump located on the North side of the pit. The second pit ramp also enters the pit at the 75 m elevation and is located on the southwest corner to access the waste dump. Both ramps can be used to haul the mineralized material and waste rock depending on which phase is being mined.

A total of three phases (cutbacks) have been designed in order to defer waste stripping and maximize the NPV of the Project. The table below presents the grades, tonnages and strip ratios associated with each phase.

Phase Designs

Description	Mineralization (Mt)	Fe _{mag} (%)	Fe _{tot} (%)	Overburden (Mt)	Waste Rock (Mt)	Strip Ratio
Phase 1	132	19.8	31.4	37	47	0.6
Phase 2	147	19.1	31.3	41	87	0.9
Phase 3	133	19.1	31.3	30	153	1.4
Total	411	19.3	31.3	108	287	1.0

Over the life of the Project, two waste storage facilities will be required. The first facility known as Reclamation Material Stockpile (“RMS”) will be located on the north side of the pit and will be used to stockpile vegetation and topsoil. The second facility known as Waste Storage Facility (“WSF-1”) will be located on the west side of the pit and will be used to stockpile a mix of waste rock and overburden. The RMS has been designed to contain 1.5 million cubic metres of topsoil which was estimated assuming the top 300 mm of the ground surface will be topsoil. WSF-1 has been designed to contain 205 million cubic metres of rock and overburden. The footprint of this dump is approximately 285 ha and it will be built to a height of approximately 125 m.

The mine plan considers a production ramp up of 75% capacity in Year 1 and begins the expansion phase ramp-up in Year 5 which is 75% of the incremental expansion capacity. By Year 6, the mine plan feeds the concentrator at its full nominal capacity of 28.7 Mtpa.

The mine plan includes a pre-production phase of one year which is required to strip 11.6 Mt of overburden (including waste rock from the historic waste dumps). This material will be used to construct the starter dike at the Tailings Storage Facility and to build site infrastructure.

Mine development will begin in Phase 1 and by the end of year 2, the pit floor will be at an elevation of 10 m. Phase 2 will start in Year 3 and will facilitate the blending of mill feed and will provide a secondary source of production in case there are operational issues in the main pit of Phase 1. Phase 3 will begin in Year 9 which lines up with the completion of Phase 1.

The total material mined per year during the 17-year mine life averages 45 Mt and ranges from 35 Mt in Year 1 to a maximum of 57 Mt from Years 12 to 14. It is important to note that the majority of the Inferred Resources are mined beyond Year 10.

Processing and Recovery Operations

Metallurgical laboratory and pilot testwork were conducted during the 2012 FS and 2014 BFS in order to establish the process flowsheet developed in the PEA. The testwork campaigns achieved the desired quality of concentrate and demonstrated that by using the proposed process and flowsheet, it is possible to economically recover magnetite from the Shymanivske mineralization. Results from the testwork were used to determine process performance parameters such as throughput, Fe and weight recoveries, final concentrate grade (including key elements such as Fe, SiO₂, Al₂O₃ and P) and product particle size. These results were also used for determining final equipment sizing.

In order to produce concentrate with the desired specification, the mined material will be processed through two-stage crushing, one-stage HPGR, low-intensity magnetic separation and sulphide flotation. Although the process flowsheet and metallurgical performance are deemed to be robust and well supported by the

metallurgical testwork, the sulphide flotation circuit requires further testwork to confirm retention times and final sizing prior to purchase.

Infrastructure, Permitting and Compliance Activities

Infrastructure

The major features and designated locations for site infrastructure developed during the 2014 BFS were maintained for the re-scoped Shymanivske Project. For the PEA, the site plot plan has been adjusted to reflect the conceptual changes arising from the re-scoped Project. Major site infrastructure consists of the following:

- Shymanivske open pit mine constrained within the mining allotment boundary;
- Overburden and waste-rock dumps;
- Surface water management features (ditches and settling basins) and water treatment facilities;
- Roads, bridges and accesses for mine vehicles and light traffic;
- Mine support infrastructure including mine equipment maintenance shop, truck wash station, fuel loading and vehicle fueling system, explosives magazine;
- Dry process areas and buildings including primary crusher, secondary crushing area, crushed ore stockpile, HPGR area and conveyors;
- Wet process areas including primary and secondary grinding areas, LIMS areas, thickener area and filtering area;
- Concentrate handling including conveyors, covered stockpile, load-out system and rail spurs;
- Designated footprint for capacity expansion (addition of second mineral processing line);
- Tailings storage facility (TSF) and tailings pumping system;
- Main electrical substation and electrical distribution system; and
- Diesel fuel receiving and storage area.

The Project area is serviced by existing rail and ports. Rail transportation, port terminal and ship loading services will be provided by a common service provider. As such, Shymanivske Steel will not need to build its own infrastructure for these areas. Several port options were reviewed in the previous feasibility studies. For the Report, it is assumed that rail and port facilities will have sufficient capacity and availability to service the Project as previously confirmed by Shymanivske Steel through letters of intent for service supply.

Black Iron's Project will require the movement of 4 Mtpa of dry concentrate (4.4 Mtpa wet) in Phase 1 of the Project and 8 Mtpa of dry concentrate (8.8 Mtpa wet) in its ultimate Phase 2, from the Kryvyi Rih area Moiseevka rail station to the Black Sea port Yuzhny berth owned by TransInvestServic (TIS).

Iron concentrate will be railed from the project site to the privately-owned TIS-Ugol terminal located at Port Yuzhny. To date, Black Iron has signed a Protocol of Intent ("**POI**") with TIS-Ugol to provide all port services from rail car dumping to ship loading. The required utilities such as power, process water and natural gas are available in the vicinity of the Shymanivske Project. The local Power Utility DTEK DneprOblEnergo confirmed via a POI that the local power grid has sufficient spare capacity (2,400 megawatt by 2017) to deliver the required power to the Shymanivske Project. As of the date of the Report, the Gornaya Substation is loaded to only 30% of its full capacity.

Although such POIs are in place, formal contracts should be negotiated and signed as the Shymanivske Project develops.

Environmental and Permitting

As of December 18, 2017, Ukrainian organizations planning any activity that has the potential to significantly impact the environment are required to perform an Environmental Impact Assessment ("**EIA**") subject to the requirements imposed by Law No. 2059-VIII regarding Environment Impact Assessment adopted on May 23, 2017. Article 3 of the law lists activities that are capable of having significant impact on the

environment and includes extraction of minerals and processing of minerals. This new law applies to the Shymanivske Project.

Public consultation must be carried out as per the new law and the EIA is reviewed by an authorized body (Ministry of Ecology or local environmental authorities).

It is assumed that the modification to applicable regulations regarding the EIA will not have a significant impact on the permitting schedule for the Shymanivske Project. BBA recommends that a more detailed analysis of this new law be performed at the next Project study phase to fully assess any impacts the new law may have on the Project.

Considering that no environmental expert analysis will have been completed on the Shymanivske Project before December 18, 2017, the Project will be subjected to the new law. It is assumed that the modification to applicable regulations regarding the EIA will not have a significant impact on the permitting schedule for the Shymanivske Project. BBA recommends that a more detailed analysis of this new law be performed at the next Project study phase to fully assess any impacts the new law may have on the Project.

Considering that the Shymanivske Project will be located in an area where iron ore mining operations have been taking place for a number of years, the Project will further contribute to the environmental footprint of the area, namely with respect to air, water, soil and noise. These will need to be addressed during the permitting process and adequate mitigation will need to be planned. Also, the new regulations need to be well understood and the environmental permitting schedule will need to be integrated within the overall Project development schedule.

Mine Closure Plan

Ukraine has an emerging policy and practice with respect to progressive reclamation, and only a general reference to mine closure and reclamation is included in the Code of Ukraine on Mineral Resources, No. 132/94-VR, July, 1994. The Code generally states that a territory disturbed during the course of the Project must be reclaimed and brought to a state suitable for further public use.

Definitive reclamation requirements are subject to specific mine licence agreements and conditions, as set out in the mining permit. A formal mine closure plan will be developed prior to confirmation of the final project design and approvals submission, which will address issues such as bonds, percentage of annual rehabilitation, community development and livelihood diversification. All these factors are complex instruments requiring negotiation as a condition for an individual mining agreement. Guidance on international best practice for mine closure will be referred to.

Capital and Operating Costs

The Shymanivske Project scope covered in the Report is based on the construction of a facility having a nominal production capacity of 4.0 Mtpa of concentrate in Phase 1 followed by an increase to 8.0 Mtpa via the addition of a second processing line in Phase 2 (construction starting in Year 3 for operation in Year 5). The initial Phase 1 capital cost, expansion Phase 2 capital cost, sustaining capital and operating cost estimates to support mining and mineral processing operations over the 17-year life of mine were estimated by BBA's mining and mineral processing teams based on the mine plan, the process design and infrastructure design summarized herein and described in detail in the Report. These cost estimates were based on those developed by Lycopodium for the 2014 BFS. The capital and operating costs were reviewed and updated based on new vendor budget prices for major equipment and, where applicable, adjusted on a factored basis to reflect the new processing strategy and throughput. Adjustments for price escalation and currency exchange rates were also made to reflect more current conditions.

The table below presents a summary of total estimated capital cost for Phase 1 of the Shymanivske Project.

Estimated Phase 1 Capital Costs

Estimated Capital Costs	(M\$)
Construction Indirects	5.1
Mine Area	22.2
Beneficiation Plant	192.0
Tailings and Waste	11.1
Project Infrastructure	44.1
Total Direct Costs	274.5
Owner's Costs	38.2
Project Indirect Costs	41.2
Contingency	53.7
Total Project Capital Cost	407.6
Mine Pre-Stripping (Capitalized from Opex)	13.9
Mining Equipment Leasing Cost (Capitalized)	30.0
Total Pre-production Capital Cost	451.5

The total Phase 1 capital cost is estimated to be \$407.6M and the total pre-production capital costs at \$451.5M. This capital cost estimate is expressed in constant Q4-2018 US Dollars using the following exchange rates:

- 28.00 UHA = 1.00 USD
- 6.55 CNY = 1.00 USD

The table below presents a summary of total estimated capital cost for Phase 2 of the Shymanivske Project.

Estimated Phase 2 Capital Costs

Estimated Capital Costs	(M\$)
Construction Indirects	-
Mine Area	3.3
Beneficiation Plant	196.4
Tailings and Waste	3.2
Project Infrastructure	24.0
Total Direct Costs	226.9
Owner's Costs	11.2
Project Indirect Costs	33.6
Contingency	43.7
Total Project Capital Cost	315.3
Mining Equipment	49.0
Total Phase 2 Capital Cost	364.3

The total Phase 2 capital cost is estimated to be \$364.3M.

Direct costs include costs related to transporting purchased equipment to the Project site. The pre-production capital costs include the initial mine pre-stripping costs in the amount of \$13.9M. Also included in the costs is the initial mining equipment fleet required for pre-stripping and Year 1 of mining operations, having an estimated value of \$94.3M, as well as concentrate loaders required for Phase 1 with an estimated value of \$15.5M, which both will be leased. As such, annual lease payments over the life of the leases are included in the operating costs. Lease payments made prior to production start-up amount to \$30.0M.

The preceding Phase 1 and Phase 2 estimate tables do not include the following items:

- Sustaining capital costs are estimated at \$231.6M and consist of:
 - Mine equipment fleet additions and replacements totalling \$119.5M
 - Facilities additions and improvements, and costs related to phasing of the TSF dam construction over the life of mine (“**LOM**”) totalling \$112.1M;
- Costs related to closure and rehabilitation of the mine site, totaling \$27.9M, assumed to be disbursed in the final year of operations. These costs consist of costs associated with the closure of the TMF, as well as costs associated with the restoration of other site infrastructure that were estimated by BBA using factors from similar projects.

The following table presents a summary of total estimated average, LOM operating costs in \$/t of dry concentrate produced.

Total Estimated Average LOM Operating Cost (\$/t Dry Concentrate)

Estimated Average	\$/t
Mining	11.47
Mineral Processing	10.17
Site Infrastructure	0.68
General Administration	0.64
Environmental and Tailings Management	0.37
Rail Transportation and Port Services	9.30
Total	32.63

The total estimated operating costs are \$32.63/t of dry concentrate produced. Operating costs include the estimated costs of leased equipment (equipment cost plus interest) over the life of the leases as well as the salvage value estimated for the concentrate loaders, which will no longer be required in Year 5 of operation and beyond.

Royalties and working capital are not included in the operating cost estimate presented but are treated separately in the economic analysis below.

Economic Analysis

The economic analysis for the Shymanivske Project was performed using a discounted cash flow model on both a pre-tax and post-tax basis. The capital and operating cost estimates are based on the mining and processing plan developed in the Report to produce a nominal 4.0 Mtpa of 68% Fe concentrate in Phase 1 (first four years of operation) and 8.0 Mtpa following the Phase 2 expansion starting in Year 5 of the Project. The PEA is preliminary in nature, and it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no certainty that the PEA will be realized.

The internal rate of return (“**IRR**”) on the total investment and the net present value (“**NPV**”) were calculated on a 100% equity financed basis using discounting rates varying between 0% and 12%, resulting from the

net cash flow generated by the Project. The Project base case NPV was calculated using a discounting rate of 10%.

The economic analysis was performed with the following assumptions and basis:

- An assumed two-year construction schedule;
- A LOM of 17 years;
- The price of concentrate loaded on the ship (FOB) at the TIS Port Terminal is \$97.19/dmt. This price considers the following:
 - The benchmark reference price is the Platts IODEX 62% Fe, CFR North China. The 36-month trailing average price of \$61.88/dmt;
 - An Fe premium of \$43.28/dmt is used for the Shymanivske Project's concentrate grading 68% Fe. This was based on the November 10, 2017, 3-month trailing average price of \$90.24/dmt for the benchmark Platts IODEX 65% Fe, CFR North China;
 - A \$3.57/dmt net premium is applied in consideration of product quality parameters (%SiO₂, %Al₂O₃ and %P) for the Shymanivske concentrate;
 - Shipping cost from the TIS Port Terminal to the Chinese port is estimated at \$11.54/dmt, calculated based on a rate of \$10.50 per gross tonne and adjusted for 9% humidity in the concentrate. This estimate was provided by TIS based on rates currently being charged to their other iron ore customers;
- All of the concentrate is sold in the same year as it is produced;
- All costs and sales estimates are in constant Q4-2018 dollars;
- The economic analysis includes working capital;
- All sunk costs are not considered in this economic analysis; and
- An 8% royalty on net selling price payable to Ukraine's Federal Government.

The table below summarizes the key highlights of the re-scoped PEA.

PEA Highlights (all currency is US\$)

IRR (pre-tax unlevered)	40.5%
IRR (after-tax unlevered)	34.4%
NPV at 10% discount (pre-tax unlevered)	\$1.85 billion
NPV at 10% discount (after-tax unlevered)	\$1.44 billion
Projected Years to Payback (at 10% Discount Rate, pre-tax)	2.9 years
Projected Years to Payback (at 10% Discount Rate, after-tax)	3.3 years
Nominal Annual Production Rate: Phase 1	4 Mt
Phase 2	8 Mt
Capital Cost to build: Phase 1	\$451.5 million
Phase 2	\$364.3 million
Long Term Benchmark Iron Ore Price (62% Fe CFR Port in China)	\$61.88 /dmt
Final Product Iron Grade	68% Fe
Black Iron Projected Sale Price FOB Ukraine Port Yuzhny	\$97.19/dmt

(Including product quality adjustments and net shipping costs)	
Life of Mine FOB OPEX (Includes mining, beneficiation, rail, ship loading and G&A costs)	\$32.63/t
Estimated Plant Construction Duration: Phase 1 Phase 2	2.3 years 2.3 years
Proposed Initiation of Phase 2 Construction Post Phase 1 Startup	Year 3
Measured and Indicated Resources (at 18.8% Mag Fe, 31.6% Total Fe) Inferred Resources (at 18.4% Mag Fe, 30.1% Total Fe)	645.8 Mt 188.3 Mt
In-Pit Measured and Indicated Resources (at 19.0% Mag Fe, 31.2% Total Fe) In-Pit Inferred Resources (at 19.6% Mag Fe, 31.2% Total Fe)	389 Mt 22 Mt
Strip Ratio (life of mine)	1.0:1.0
Estimated Mine Life (based on in-pit resources)	17 Years
Exchange Rate	28UAH:US\$1

Pre-Tax (Unlevered) Economic Analysis Results

IRR = 40.5% Payback = 2.9 years	NPV (M\$)
Discounting Rate	
0%	5,725
8%	2,295
10%	1,852
12%	1,501

The Project is subject to two levels of taxation that are material to the financial performance of the Project:

- Corporate tax applied at a rate of 18% on taxable income.
- Value Added Tax (“**VAT**”) applied at a 20% rate on all taxable purchases of goods and services. In practice, the VAT is not expected to be refunded until the Project is operational. After operations commence, the VAT is expected to be refunded with a one-year delay after being incurred.

The results of the economic analysis project a post-tax IRR of 34.4% and a \$1.44 billion NPV at a 10% discount rate.

Post Tax (Unlevered) Economic Analysis Results

IRR = 34.4% Payback = 3.3 years	NPV (M\$)
Discounting Rate	
0%	4,642
8%	1,807
10%	1,442
12%	1,152

Other Details and Assumptions

It is required that a commodity selling price be assumed in order to perform the Project economic analysis. Black Iron has not undertaken a market study and must therefore resort to other means to reasonably assume the selling price of iron ore concentrate. The IODEX and MBIOI 62% Fe, CFR China Port indices are commonly used as the benchmarks for basing off-take agreements. Indices based on 65% Fe iron ore products have also become an important benchmark to differentiate higher quality iron ore products. Adjustments in the form of a premium or penalty are made to account for higher (or lower) Fe content. The spread between the 62% Fe index and the 65% Fe index provides a good measure of the premium attributed to higher grade products. Quality premiums/penalties are also tracked for other elements such as SiO₂, Al₂O₃ and P, which have an important impact on downstream operations such as sintering, pelletizing, ironmaking and steelmaking.

The PEA assumes a product selling price of US\$108.73/dmt of concentrate, CFR China. This price was calculated using the 36-month trailing average price of US\$61.88/dmt for the Platts IODEX 62% Fe, CFR North China, adding the three-month trailing average iron grade premium of US\$7.21/dmt per 1%Fe above 62% Fe, which equates to \$43.28/dmt for Black Iron's 68% Fe product, and applying a trace element premium (for silica, phosphorus and alumina), net of penalties, of \$3.57/dmt of concentrate. The realized selling price for a ship loaded at Port Yuzhny (FOB) assumed in the financial analysis is US\$97.19/dmt. The final price is determined after applying the current actual shipping cost of US\$11.54/dmt to deliver product to North China.

Exploration, Development, and Production

A high level project execution plan and a project execution schedule were developed as part of the Report.

Black Iron has indicated that it will proceed with an infill drilling program with the objective of better defining the Inferred Resources that lie within the pit shell containing the in-pit resources. This will likely lead to a revised resource estimate to be included in a new feasibility study for the Project.

Black Iron will likely proceed with a new feasibility study for the Project, which is expected to last approximately nine months. In parallel, the permitting process will also be undertaken.

Black Iron does not yet have all the necessary surface rights to conduct mining activities on the Project. However, surface rights are not required to conduct the on-going exploration and engineering activities. The next major permitting step for Black Iron is to obtain a land allotment, which entails hosting a public hearing on the Project followed by completion of a detailed report describing the proposed major infrastructure and utility tie-ins required for the Project. Black Iron's management, supported by local city council, successfully completed the public hearings in January 2017 and received approval from Kryvyi Rih's City Council to complete the land allotment plan in March 2017. Work on the Land Allotment plan is currently ongoing.

DIVIDENDS

The Company is not limited in any way in its ability to pay dividends on its Common Shares. However, the Company has not paid any dividends since incorporation and the Company does not expect to pay dividends in the foreseeable future. Payment of dividends in the future will be made at the discretion of the Board.

DESCRIPTION OF CAPITAL STRUCTURE

Common Shares

The Company is authorized to issue an unlimited number of Common Shares of which 303,792,298 Common Shares are issued and outstanding as of the date hereof.

Holders of Common Shares are entitled to receive notice of and to attend any meetings of shareholders and shall have one vote per share at all meetings, except meetings at which only holders of another class or series of shares are entitled to vote separately as such class or series. Holders of Common Shares are entitled to receive on a *pro rata* basis such dividends, if any, as and when declared by the Board and, upon liquidation, dissolution or winding up of the Company, are entitled to receive on a *pro rata* basis the net assets of the Company after payment of debts and other liabilities, in each case subject to the rights, privileges, restrictions and conditions attaching to any other series or class of shares ranking senior in priority to or on a *pro rata* basis with the holders of Common Shares. The Common Shares do not carry any pre-emptive, subscription, redemption or conversion rights, nor do they contain any sinking or purchase fund provisions.

Warrants

As of the date hereof, Common Share purchase warrants to acquire an aggregate of up to 20,484,728 Common Shares were issued and outstanding. Of such Common Share purchase warrants, (i) 13,081,395 were exercisable to each acquire one Common Share at a price of \$0.11 until September 27, 2023; (ii) 3,384,991 were exercisable to each acquire one Common Share at a price of \$0.11 until April 24, 2024; (iii) 2,678,141 were exercisable to each acquire one Common Share at a price of \$0.06 until May 8, 2023; (iv) 1,340,201 were exercisable to each acquire one Common Share at a price of \$0.40 until July 21, 2023.

Stock Options

The Company has established an “evergreen” stock option plan (the “**Stock Option Plan**”), which provides the Company’s Board may from time to time, in its discretion, grant executive directors, employees, senior officers and consultants incentive stock options. The Stock Option Plan is considered an “evergreen” plan since the number of options available to be granted increases as the number of issued and outstanding Common Shares increases. The aggregate number of Common Shares issuable pursuant to the Stock Option Plan and any other share compensation arrangement to all participants shall not exceed ten percent (10%) of the issued and outstanding Common Shares at the time of the grant. The aggregate number of Common Shares issuable under the Stock Option Plan and any other share compensation arrangement to insiders of the Company shall not at any time exceed ten percent (10%) of the Common Shares then outstanding. The aggregate number of Common Shares issued upon exercise of the options granted under the Stock Option Plan and any other share compensation arrangement to insiders of the Company within a one-year period shall not exceed ten percent (10%) of the Common Shares then outstanding.

Pursuant to the Stock Option Plan, the Company has, as of the date hereof, granted 13,257,500 stock options (the “**Stock Options**”) to certain officers, employees and consultants of the Company.

Deferred Stock Unit Plan

The Company implemented a deferred share unit plan (the “**DSU Plan**”) for the benefit of the Company’s non-executive directors. The Board uses the deferred share units (“**DSUs**”) issued under the Company’s DSU Plan as part of the Company’s overall director compensation plan. Since the value of DSUs increase or decrease with the price of the Common Shares, DSUs reflect a philosophy of aligning the interests of directors with those of the Shareholders by tying compensation to share price performance. The DSU Plan provides the Company with the ability to issue DSUs from treasury as a treasury-based plan and to reserve for issuance an aggregate of up to five percent (5%) of the number of issued and outstanding Common Shares, subject to an aggregate maximum number of Common Shares issuable from the Stock Option Plan and DSU Plan of ten percent (10%). The DSU Plan is administered by the Joint Committee of the Board.

Pursuant to the Company’s deferred share unit plan (the “**DSU Plan**”), the Company has, as of the date hereof, granted 10,050,644 DSUs to the non-executive directors of the Company. Each DSU can be converted into one (1) Common Share pursuant to the terms of the DSU Plan.

For additional information regarding the Company’s share capital as well as the issued and outstanding Common Shares, Common Share purchase warrants, Stock Options and DSUs, please see notes 7, 8 and 9 of the Company’s consolidated financial statements for the year ended December 31, 2022, a copy of which is available for review under the Company’s SEDAR profile at www.sedar.com.

MARKET FOR SECURITIES

Trading Price and Volume

The following table sets forth the high and low trading price in Canadian dollars and average daily trading volumes of the Common Shares which are listed on the Toronto Stock Exchange under the symbol “BKI”, for each month of 2022.

Period (2022)	High (\$)	Low (\$)	Average Daily Volume
December	0.09	0.075	56,102
November	0.095	0.07	110,183
October	0.095	0.065	150,789
September	0.11	0.06	171,701
August	0.075	0.06	113,332
July	0.08	0.06	85,368
June	0.095	0.06	161,210
May	0.11	0.085	286,054
April	0.155	0.10	437,212
March	0.18	0.11	1,017,412
February	0.225	0.10	952,385
January	0.23	0.13	558,421

Prior Sales of Securities

Stock Options

During the financial year ended December 31, 2022, the Company issued the following Stock Options to purchase Common Shares:

Date	Exercise Price per Security	Number of Securities
March 9, 2022	\$0.12	2,125,000

(1) Issued to consultants of the Company.

Deferred Share Units

During the financial year ended December 31, 2022, the Company issued 724,590 DSUs to the non-executive directors of the Company.

DIRECTORS AND OFFICERS

The following table sets forth the names, province or state and country of residence, current principal occupation and position with the Company of each director and each executive officer of the Company. Information regarding number of Common Shares that each person beneficially owns, directly or indirectly, or over which such person exercises control or direction, has been provided by each individual. The term of office for each of our directors will expire at the time of the next annual meeting of our shareholders or until his or her successor is duly elected or appointed pursuant to the by-laws of the Company.

Name & Jurisdiction of Residence	Present Principal Occupation	Position with Company	Number of Common Shares Beneficially Held	Percentage of Common Shares Beneficially Held ⁽¹⁾
Matthew Simpson Ontario, Canada	Chief Executive Officer and Director	Chief Executive Officer and Director	1,341,333	0.44%
Paul Bozoki Ontario, Canada	Chief Financial Officer	Chief Financial Officer	1,195,000	0.39%
Kenny Choi Ontario, Canada	Lawyer	Corporate Secretary	-	-
Bruce Humphrey ⁽³⁾ Ontario, Canada	Mining Executive	Director	622,500	0.20%
John Detmold ⁽²⁾⁽³⁾ Naucalpan, Mexico	Managing Director Invecture Group	Director	3,690,909	1.21%
Pierre Pettigrew ⁽²⁾⁽³⁾ Ontario, Canada	Executive Advisor Deloitte & Touche, LLP	Director	737,500	0.24%
David Porter ⁽²⁾⁽³⁾ Ontario, Canada	Retired	Director	125,000	0.04%
Zenon Potoczny Ontario, Canada	Director of Zhoda Investments	Director	100	0.00%

Notes:

(1) Percentages are based on 303,792,298 Common Shares issued and outstanding as of the date hereof.

(2) Member of the Audit Committee.

(3) Member of the Joint Corporate Governance and Compensation Committee.

As of the date hereof, the directors and executive officers of the Company, as a group, beneficially own, directly or indirectly, or exercise control 7,712,342 Common Shares, representing approximately 2.53% of the issued and outstanding Common Shares as of the date hereof. The term of service of each of the directors expires at the next annual and general meeting of the shareholders of the Company, subject to their prior resignation or removal.

The principal occupations of each of the Company's directors and executive officers within the past five years are disclosed in the table above and brief biographies below.

Matthew Simpson (Chief Executive Officer and Director). From 2002 to 2010, Mr. Simpson worked for the Iron Ore Company of Canada ("IOC"), a subsidiary of Rio Tinto plc with annual production capacity of 17.5 million tonnes of iron ore concentrate as publicly reported in 2009. At IOC, he held several progressive roles in business evaluation, operations planning, continuous improvement and in his last three years as Mine General Manager. His work with the IOC primarily took place at their Carol Lake iron ore deposit in

Labrador. Prior to joining IOC, Mr. Simpson worked as a process engineer for Hatch Ltd. designing and debottlenecking metallurgical refineries around the world. Mr. Simpson has extensive experience in mine design, operations and project management. He holds a Master of Business Administration (**MBA**) as well as a Bachelor of Science in Chemical Engineering, both from Queen's University. Mr. Simpson is also the President and Chief Executive Officer of Brazil Potash Corp., a private company. Mr. Simpson has been a director of the Company since December 22, 2010.

Paul Bozoki (Chief Financial Officer). Mr. Bozoki is a Chartered Accountant and holds an MBA with over 25 years of accounting, tax and corporate finance experience in Canada and Europe. From 2007 through September 2010, he was the Chief Financial Officer of CD Capital Partners, a privately held real estate development firm focused on developing mixed use retail and office real estate in Russia, Ukraine and Romania. Mr. Bozoki is experienced in matters of international taxation and foreign capital markets and began his career at Ernst & Young LLP where he spent six years auditing clients in mining and other industries in Canada, Australia and Hungary.

Kenny Choi (Corporate Secretary). Mr. Choi is a corporate lawyer who graduated from Western University's JD/HBA program in 2013. He was previously an associate at a top-tier Bay Street firm, where he honed his skills in areas including equity and debt financing, mergers and acquisitions, fund formation and private and public securities law. Kenny currently acts as corporate secretary and legal counsel to various publicly-traded CSE, TSXV, TSX and NEO companies to help them develop innovative solutions to achieve their corporate goals.

Bruce Humphrey (Chairman). Mr. Humphrey is a mining engineer with over 45 years' experience working in senior management roles with both junior and senior mining companies. From 2007 to 2009 he served as Chairman of Consolidated Thompson Iron Mines Limited. He is a member of the Professional Engineers of Ontario. Mr. Humphrey has been a director of the Company since December 22, 2010.

John Detmold (Director). Mr. Detmold has over 30 years of corporate finance experience, specialising in cross border transactions. Mr. Detmold is the Managing Director of Invecture Group, S.A. de C.V., the Chairman of Comunicacion Xersa, S.A. de C.V. and is an active member of the Young Presidents Organization. From 2002, Mr. Detmold founded Invecture Group, S.A. de C.V. in 2002 and continues to be its Managing Director. Invecture Group is an asset manager and merger and acquisition advisory firm specialising in mining and infrastructure. Prior to this, Mr. Detmold was the Chairman and Chief Executive Officer of Banca Quadrum. Mr. Detmold graduated from McGill University with a Bachelor of Economics degree. Mr. Detmold has been a director of the Company since December 22, 2010.

Pierre Pettigrew (Director). The Honourable Pierre S. Pettigrew has had a distinguished career as a Canadian federal cabinet minister, serving as Minister of Foreign Affairs from 2004 to 2006 and Minister for International Trade from 1999 to 2003. Pierre Pettigrew also served as Minister of Health and Minister of Intergovernmental Affairs from 2003 to 2004 and Minister of Human Resources Development and Minister of International Cooperation from 1996 to 1999. As a cabinet minister, he chaired numerous working groups on difficult international trade issues and lead trade missions to China, India, Russia, Germany, Algeria, Morocco, South Africa, Nigeria, Mexico, and other countries. From 1985 to 1995, he was an International Business Consultant with Deloitte & Touche LLP and from 2006 to present he has been an Executive Advisor, International at Deloitte & Touche LLP. Mr. Pettigrew has been a director of the Company since December 22, 2010.

David Porter (Director). Mr. Porter holds an MBA and is a seasoned executive who served as Vice President Human Resources and Organizational Effectiveness for IOC from 1992 to 2008. Since January, 2009 Mr. Porter has been a Principal at Atlee Services. He has also been responsible for operations, safety, health, sustainable development, communications and community relations across the mining and steel sectors for over 33 years. Mr. Porter has lead the development and execution of business strategy, negotiated agreements with international unions, governments and communities and lead business transformation initiatives. Mr. Porter has been a director of the Company since December 22, 2010.

Zenon Potoczny (Director). Zenon Potoczny is currently the president-elect of the Canada-Ukraine Chamber of Commerce, VP Operations for the Ukrainian World Congress and Director of Sweden publicly listed Zhoda Investments. Zenon has successfully built and operated several companies in Ukraine ranging from oil and gas projects through to hotels. He has extensive relationships with senior members of Ukraine's government and is typically involved in all major diplomatic visits between Canada and Ukraine. Mr. Potoczny has been a director of the Company since May 18, 2021. Mr. Potoczny holds a Masters Degree in Engineering and MBA both from the University of Toronto.

Corporate Cease Trade Orders, Bankruptcies, Penalties or Sanctions

Other than as described herein, no director or executive officer of the Company, (a) is, as at the date of this AIF, or was, within ten years before the date of this AIF, a director, chief executive officer or chief financial officer of any company (including the Company) that (i) while that person was acting in the capacity as director, chief executive officer or chief financial officer was the subject of a cease trade or similar order or an order that denied the relevant company access to any exemption under the securities legislation, for a period of more than 30 consecutive days that was issued; or (ii) was subject to a cease trade or similar order or an order that denied the relevant company access to any exemption under securities legislation for a period of more than 30 consecutive days that was issued after the director or executive officer ceased to be a director, chief executive officer or chief financial officer and which resulted from an event that occurred while that person was acting in the capacity as a director, chief executive officer or chief financial officer.

No director or executive officer of the Company, or a shareholder holding a sufficient number of securities of the Company to affect materially the control of the Company, (i) is, as at the date of this AIF, or has been within the ten years before the date of this AIF, a director or executive officer of any company (including the Company) that while that person was acting in that capacity, or within a year of that person 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, or (ii) has, within the ten years before the date of this AIF, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold its assets.

No director or executive officer of the Company or shareholder holding a sufficient number of securities of the Company to affect materially the control of the Company has: (a) been subject to any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority; or (b) been subject to any other penalties or sanctions imposed by a court or regulatory body that would be likely to be considered important to a reasonable investor in making an investment decision.

Conflicts of Interest

Certain of the Company's directors and officers serve or may agree to serve as directors or officers of other reporting companies or have significant shareholdings in other reporting companies. For a list of the other reporting issuers in which directors of the Company also serve as directors, please see the Company's management information circular for its upcoming shareholders meeting or the directors' and insider's profile available on SEDI at www.sedi.ca. To the extent that such other companies may participate in ventures in which the Company may participate, the directors of the Company may have a conflict of interest in negotiating and concluding terms regarding the extent of such participation. In the event that such a conflict of interest arises at a meeting of the Company's directors, a director who has such a conflict will abstain from voting for or against the approval of such participation or such terms. From time to time, several companies may participate in the acquisition, exploration and development of natural resource properties thereby allowing for their participation in larger programs, permitting involvement in a greater number of programs and reducing financial exposure in respect of any one program. It may also occur that a particular company will assign all or a portion of its interest in a particular program to another of these companies due to the financial position of the Company making the assignment. Under the laws of the Province of Ontario

and Canada, the directors of the Company are required to act honestly, in good faith and in the best interests of the Company. In determining whether or not the Company will participate in a particular program and the interest therein to be acquired by it, the directors will primarily consider the degree of risk to which the Company may be exposed and its financial position at that time. See “*Risk Factors*”.

AUDIT COMMITTEE DISCLOSURE

National Instrument 52-110 – *Audit Committees* of the Canadian Securities Administrators (“**NI 52-110**”) requires the Company to have a written audit committee charter and to make the disclosure required by Form 52-110F1.

Audit Committee Charter

The Company’s Board adopted an Audit Committee Charter on May 29, 2019, a copy of which is attached as Schedule A hereto to this AIF. The Audit Committee Charter has been adopted by the Board in order to comply with NI 52-110 and to more properly define the role of the Committee in the oversight of the financial reporting process of the Company. Nothing in the Charter is intended to restrict the ability of the Board or Committee to alter or vary procedures in order to comply more fully with the Instrument, as amended from time to time.

Composition of the Audit Committee

The Audit Committee is comprised of three directors, namely John Detmold (Chair), David Porter and Pierre Pettigrew. Each member of the Audit Committee is independent of the Company and financially literate, as such terms are defined in NI 52-110.

Relevant Education and Experience

For a summary of the qualifications of each member of the Audit Committee, please refer to their biographies found above under the heading “*Directors and Officers*”.

Audit Committee Oversight

At no time since the commencement of the Company’s most recently completed financial year has there been a recommendation of the Audit Committee to nominate or compensate an external auditor that was not adopted by the Board.

Reliance on Certain Exemptions

Since January 1, 2021, the Company has not relied on any of the exemptions regarding the Audit Committee provided in NI 52-110.

Pre-Approval Policies and Procedures

The Audit Committee has adopted specific policies and procedures for the engagement of non-audit services which are referred to in the Company’s Audit Committee Charter attached as Schedule A to this AIF.

External Auditor Service Fees

The fees billed by the Company’s external auditors, McGovern Hurley LLP, in each of the last two financial years for audit and non- audit related services provided to the Company or its subsidiaries are as follows:

Financial Year Ending	Audit Fees⁽¹⁾	Audit Related	Tax Fees⁽³⁾	All Other Fees⁽⁴⁾
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December 31		Fees⁽²⁾		
2022	\$60,900	Nil	\$6,300	Nil
2021	\$68,000	Nil	\$4,000	\$20,000

Notes:

(1) "Audit Fees" include fees necessary to perform the annual audit and quarterly reviews of the Company's consolidated financial statements. Audit Fees include fees for review of tax provisions and for accounting consultations on matters reflected in the financial statements. Audit Fees also include audit or other attest services required by legislation or regulation, such as comfort letters, consents, reviews of securities filings and statutory audits.

(2) "Audit-Related Fees" include services that are traditionally performed by the auditor. These audit-related services include employee benefit audits, due diligence assistance, accounting consultations on proposed transactions, internal control reviews and audit or attest services not required by legislation or regulation.

(3) "Tax Fees" include fees for all tax services other than those included in "Audit Fees" and "Audit-Related Fees". This category includes fees for tax compliance, tax planning and tax advice. Tax planning and tax advice includes assistance with tax audits and appeals, tax advice related to mergers and acquisitions, and requests for rulings or technical advice from tax authorities.

(4) "All Other Fees" include all other non-audit services associated with the July 2021 prospectus financing.

LEGAL PROCEEDINGS AND REGULATORY ACTIONS

The following sets out the legal proceedings during the financial year ended December 31, 2022 to which the Company was a party or of which any of the Company's property was subject that would have had a material adverse effect on the Company. To the knowledge of the Company, there are no other legal proceedings existing or contemplated to which the Company is a party or of which any of the Company's property is subject that would have a material adverse effect on the Company.

There have been no penalties or sanctions imposed against the Company by a court relating to securities legislation or by any securities regulatory authority during the fiscal year ended December 31, 2022, or any other penalties or sanctions imposed by a court or regulatory body against the Company that would likely be considered important to a reasonable investor making an investment decision. The Company has not entered into any settlement agreements with a court relating to securities legislation or with a securities regulatory authority during the fiscal year ended December 31, 2022.

Other Matters

A former officer of the Company, Aaron Wolfe, through Asset Strategy Corp., an entity he controls, initiated a legal action in the Ontario Superior Court of Justice on May 29, 2015 seeking approximately \$1.1 million for a change of control payment in connection with the transaction between the Company and Metinvest B.V. pursuant to which Metinvest acquired a 49% equity interest in BKI Cyprus in 2014. This matter was settled out of court for a reduced sum in January 2022.

INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

Other than set forth below, none of the directors or executive officers of the Company, nor any person who beneficially owns, controls, or directs, directly or indirectly, Common Shares carrying more than 10% of the voting rights attached to all outstanding Common Shares, nor any associate or affiliate of the foregoing persons, has any material interest, direct or indirect, in any transaction since the commencement of the Company's last completed financial year or in any proposed transaction not otherwise disclosed herein which, in either case, has affected or will materially affect the Company other than RAB Capital Holdings Ltd. who beneficially owns 40,334,500 Common Shares.

TRANSFER AGENT AND REGISTRAR

The Company's transfer agent and registrar is TSX Trust Company, located in Toronto, Ontario.

MATERIAL CONTRACTS

Except for contracts entered into by the Company in the ordinary course of business, the Company did not enter into any contract within the last financial year that could reasonably be regarded as material.

INTERESTS OF EXPERTS

The following are the names of all the persons who have prepared or certified for the Company a statement, report or valuation described or included in this AIF:

Information of a scientific or technical nature in respect of the Shymanivske Project is included in this AIF based upon the PEA prepared by Mr. Angelo Grandillo, P.Eng. and Mr. Jeffrey Cassoff, P.Eng. of BBA Inc. and Mr. Richard W. Risto, M.Sc., P.Geo and Mr. Michael Kociumbas, B.Sc., P.Geo, both of WGM, each of whom is a “qualified person” and “independent” as such terms are defined in NI 43-101. To the knowledge of the Company, each of these experts held less than one percent (1%) of the outstanding Common Shares of the Company, at the time of the preparation of the reports and/or at the time of the preparation of the technical information contained in this AIF and either did not receive any or received less than a one percent (1%), direct or indirect, interest in any securities of the Company or of any associate or affiliate of the Company in connection with the preparation of such reports or data.

None of the aforementioned firms or persons, nor any directors, officers or employees of such firms, are currently, or are expected to be elected, appointed or employed as, a director, officer or employee of the Company or of any associate or affiliate of the Company.

McGovern Hurley LLP, Chartered Professional Accountants, the Company’s external auditors, have prepared the audit report on the Company’s audited consolidated financial statements for its most recently completed financial year. McGovern Hurley LLP have advised that they are independent with respect to the Company within the meaning of the Rules of Professional Conduct of the Institute of Chartered Professional Accountants of Ontario.

ADDITIONAL INFORMATION

Additional financial information is provided in the Company’s annual financial statements and management discussion and analysis for the year ended December 31, 2022.

Additional information, including directors’ and officers’ remuneration and indebtedness, principal holders of our securities and securities authorized for issuance under our equity compensation plans is contained in our management information circular dated May 24, 2022 prepared and filed in connection with our annual and special meeting of shareholders held on June 30, 2022.

These documents and other information about the Company can be found on SEDAR under the Company’s profile at www.sedar.com.

SCHEDULE "A"

BLACK IRON INC.

CHARTER OF THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS

1. PURPOSE OF THIS CHARTER

The Audit Committee (the "**Committee**") is appointed by the Board of Directors (the "**Board**") of Black Iron Inc. (the "**Corporation**") to assist the Board in fulfilling its oversight responsibilities relating to financial accounting and reporting process and internal controls for the Corporation. The Committee's primary duties and responsibilities are to:

- a) conduct such reviews and discussions with management and the external auditors relating to the audit and financial reporting as are deemed appropriate by the Committee;
- b) assess the integrity of internal controls and financial reporting procedures of the Corporation and ensure implementation of such controls and procedures;
- c) ensure that there is an appropriate standard of corporate conduct for senior financial personnel and employees including, if necessary, adopting a corporate code of ethics;
- d) review the quarterly and annual financial statements and management's discussion and analysis of the Corporation's financial position and operating results and in the case of the annual financial statements and related management's discussion and analysis, report thereon to the Board for approval of same;
- e) select and monitor the independence and performance of the Corporation's external auditors, including attending at private meetings with the external auditors and reviewing and approving all renewals or dismissals of the external auditors and their remuneration; and
- f) provide oversight of all disclosure relating to, and information derived from, financial statements, management's discussion and analysis and information.

The Committee has the authority to conduct any investigation appropriate to its responsibilities, and it may request the external auditors, as well as any officer of the Corporation, or outside counsel for the Corporation, to attend a meeting of the Committee or to meet with any members of, or advisors to, the Committee. The Committee shall have unrestricted access to the books and records of the Corporation and has the authority to retain, at the expense of the Corporation, special legal, accounting, or other consultants or experts to assist in the performance of the Committee's duties.

The Committee shall review and assess the adequacy of this Charter annually and submit any proposed revisions to the Board for approval.

In fulfilling its responsibilities, the Committee will carry out the specific duties set out in Part 4 of this Charter.

2. AUTHORITY OF THE AUDIT COMMITTEE

The Committee shall have the authority to:

- a) engage independent counsel and other advisors as it determines necessary to carry out its duties;

- b) set and pay the compensation for advisors employed by the Committee; and
- c) communicate directly with the internal and external auditors.

3. COMPOSITION AND MEETINGS

The Committee and its membership shall meet all applicable legal, regulatory and listing requirements, including, without limitation, those of the Ontario Securities Commission (“**OSC**”), the Toronto Stock Exchange, the *Business Corporations Act* (Ontario) and all applicable securities regulatory authorities.

- a) The Committee shall be composed of three or more directors as shall be designated by the Board from time to time. The members of the Committee shall appoint from among themselves a member who shall serve as Chair. The position description and responsibilities of the Chair are set out in Schedule “A” attached hereto.
- b) Each member of the Committee shall be “independent” and “financially literate”. An “independent” director is a director who has no direct or indirect material relationship with the Corporation. A “material relationship” is a relationship which, in the view of the Board of Directors of the Corporation, could be reasonably expected to interfere with the exercise of the director’s independent judgement or a relationship deemed to be a material relationship pursuant to Sections 1.4 and 1.5 of National Instrument 52-110 — *Audit Committees*, as set out in Schedule “B” hereto. A “financially literate” director is a director who has the ability to read and understand a set of financial instruments that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of the accounting issues that can be reasonably expected to be raised in the Corporation’s financial statements.
- c) Each member of the Committee shall sit at the appointment of the Board of Directors, and in any event, only so long as he or she shall be independent. The Committee shall report to the Board of Directors.
- d) The Committee shall meet at least quarterly, at the discretion of the Chair or a majority of its members, as circumstances dictate or as may be required by applicable legal or listing requirements. A minimum of two and at least 50% of the members of the Committee present, either in person or by telephone, shall constitute a quorum.
- e) If within one hour of the time appointed for a meeting of the Committee, a quorum is not present, the meeting shall stand adjourned to the same hour on the next business day following the date of such meeting at the same place. If at the adjourned meeting a quorum as hereinbefore specified is not present within one hour of the time appointed for such adjourned meeting, such meeting shall stand adjourned to the same hour on the second business day following the date of such meeting at the same place. If at the second adjourned meeting a quorum as hereinbefore specified is not present, the quorum for the adjourned meeting shall consist of the members then present.
- f) If, and whenever a vacancy shall exist, the remaining members of the Committee may exercise all of its powers and responsibilities so long as a quorum remains in office.
- g) The time and place at which meetings of the Committee shall be held, and procedures at such meetings, shall be determined from time to time by the Committee. A meeting of the Committee may be called by letter, telephone, facsimile, email or other communication equipment, by giving at least 48 hours’ notice, provided that no notice of a meeting shall be necessary if all of the members are present either in person or by means of conference

telephone or if those absent have waived notice or otherwise signified their consent to the holding of such meeting.

- h) Any member of the Committee may participate in the meeting of the Committee by means of conference telephone or other communication equipment, and the member participating in a meeting pursuant to this paragraph shall be deemed, for purposes hereof, to be present in person at the meeting.
- i) The Committee shall keep minutes of its meetings which shall be submitted to the Board. The Committee may, from time to time, appoint any person who need not be a member, to act as a secretary at any meeting.
- j) The Committee may invite such officers, directors and employees of the Corporation and its subsidiaries as the Committee may see fit, from time to time, to attend at meetings of the Committee.
- k) Any matters to be determined by the Committee shall be decided by a majority of votes cast at a meeting of the Committee called for such purpose. Actions of the Committee may be taken by an instrument or instruments in writing signed by all of the members of the Committee, and such actions shall be effective as though they had been decided by a majority of votes cast at a meeting of the Committee called for such purpose. The Committee shall report its determinations to the Board at the next scheduled meeting of the Board, or earlier as the Committee deems necessary. All decisions or recommendations of the Committee shall require the approval of the Board prior to implementation, other than those relating to non-audit services and annual audit fees which do not require the approval of the Board.
- l) The Committee members will be elected annually at the first meeting of the Board following the annual general meeting of shareholders.
- m) The Board may at any time amend or rescind any of the provisions hereof, or cancel them entirely, with or without substitution.

4. RESPONSIBILITIES

a) Financial Accounting and Reporting Process and Internal Controls

- i) The Committee shall review the annual audited and interim financial statements and related management's discussion and analysis before the Corporation publicly discloses this information to satisfy itself that the financial statements are presented in accordance with applicable accounting principles and in the case of the annual audited financial statements and related management's discussion and analysis, report thereon and recommend to the Board whether or not same should be approved prior to their being filed with the appropriate regulatory authorities. With respect to the annual audited financial statements, the Committee shall discuss significant issues regarding accounting principles, practices, and judgments of management with management and the external auditors as and when the Committee deems it appropriate to do so. The Committee shall satisfy itself that the information contained in the annual audited financial statements is not significantly erroneous, misleading or incomplete and that the audit function has been effectively carried out.
- ii) The Committee shall review any internal control reports prepared by management and the evaluation of such report by the external auditors, together with management's response.

- iii) The Committee shall be satisfied that adequate procedures are in place for the review of the Corporation's public disclosure of financial information extracted or derived from the Corporation's financial statements, management's discussion and analysis and annual and interim earnings press releases, and periodically assess the adequacy of these procedures.
- iv) The Committee shall review any press releases containing disclosure regarding financial information that are required to be reviewed by the Committee under any applicable laws before the Corporation publicly discloses this information.
- v) The Committee shall meet no less than annually with the external auditors and the Chief Financial Officer or, in the absence of a Chief Financial Officer, with the officer of the Corporation in charge of financial matters, to review accounting practices, internal controls and such other matters as the Committee, Chief Financial Officer or, in the absence of a Chief Financial Officer, the officer of the Corporation in charge of financial matters, deem appropriate.
- vi) The Committee shall inquire of management and the external auditors about significant risks or exposures, both internal and external, to which the Corporation may be subject, and assess the steps management has taken to minimize such risks.
- (vii) The Committee shall provide oversight of the Corporation's policies, procedures and practices with respect to the maintenance of the books, records and accounts, and the filing of reports, by the Corporation with respect to third party payments in compliance with the *Corruption of Foreign Public Officials Act* (Canada), the *Extractive Sector Transparency Measures Act* (Canada) and similar applicable laws.
- viii) The Committee shall review the post-audit or management letter containing the recommendations of the external auditors and management's response and subsequent follow-up to any identified weaknesses.
- ix) The Committee shall ensure that there is an appropriate standard of corporate conduct including, if necessary, adopting a corporate code of ethics for senior financial personnel and all employees.
- x) The Committee shall establish and monitor procedures for:
 - the receipt, retention and treatment of complaints received by the Corporation regarding: (a) accounting, internal accounting controls or auditing matters; or (b) violations of the Corporation's policies including the Code of Business Conduct and Ethics; Anti-Bribery and Anti-Corruption Policy; and Corporate Disclosure, Confidentiality and Insider Trading Policy; and
 - the confidential, anonymous submission by employees of the Corporation of concerns regarding questionable accounting or auditing matters or violations of any of the Corporation's policies (as described above).

The Corporation's whistleblower policy will be extended to cover any concerns or complaints regarding the aforementioned matters.
- xi) The Committee shall provide oversight to related party transactions entered into by the Corporation.

- xii) The Committee shall establish the budget process, which shall include the setting of spending limits and authorizations, as well as periodic reports from the Chief Financial Officer comparing actual spending to the budget.
- xiii) The Committee shall have the authority to adopt such policies and procedures as it deems appropriate to operate effectively.

b) Independent Auditors

- i) The Committee shall recommend to the Board the external auditors to be nominated for the purpose of preparing or issuing an auditors' report or performing other audit, review or attest services for the Corporation, shall set the compensation for the external auditors, provide oversight of the external auditors and shall ensure that the external auditors' report directly to the Committee.
- ii) The Committee shall be directly responsible for overseeing the work of the external auditors, including the resolution of disagreements between management and the external auditors regarding financial reporting.
- iii) The pre-approval of the Committee shall be required as further set out in Schedule "C" prior to the undertaking of any non-audit services not prohibited by law to be provided by the external auditors in accordance with this Charter.
- iv) The Committee shall monitor and assess the relationship between management and the external auditors and monitor, support and assure the independence and objectivity of the external auditors.
- v) The Committee shall review the external auditors' audit plan, including the scope, procedures and timing of the audit.
- vi) The Committee shall review the results of the annual audit with the external auditors, including matters related to the conduct of the audit.
- vii) The Committee shall obtain timely reports from the external auditors describing critical accounting policies and practices, alternative treatments of information within IFRS that were discussed with management, their ramifications, and the external auditors' preferred treatment and material written communications between the Corporation and the external auditors.
- viii) The Committee shall review fees paid by the Corporation to the external auditors and other professionals in respect of audit and non-audit services on an annual basis.
- ix) The Committee shall review and approve the Corporation's hiring policies regarding partners, employees and former partners and employees of the present and former auditors of the Corporation.
- x) The Committee shall monitor and assess the relationship between management and the external auditors and monitor and support the independence and objectivity of the external auditors.
- xi) The Committee shall have the authority to engage the external auditors to perform a review of the interim financial statements.

c) Other Responsibilities

The Committee shall perform any other activities consistent with this Charter and governing law, as the Committee or the Board deems necessary or appropriate.

SCHEDULE “A”

BLACK IRON INC. POSITION DESCRIPTION FOR THE CHAIRMAN OF THE AUDIT COMMITTEE

1. PURPOSE

The Chairman of the Audit Committee of the Board shall be an independent director who is elected by the Board to act as the leader of the Committee in assisting the Board in fulfilling its financial reporting and control responsibilities to the shareholders of the Corporation.

2. WHO MAY BE CHAIRMAN

The Chairman will be selected from amongst the independent directors of the Corporation who have a sufficient level of financial sophistication and experience in dealing with financial issues to ensure the leadership and effectiveness of the Committee.

The Chairman will be selected annually at the first meeting of the Board following the annual general meeting of shareholders.

3. RESPONSIBILITIES

The following are the primary responsibilities of the Chairman:

- a) chairing all meetings of the Committee in a manner that promotes meaningful discussion;
- b) ensuring adherence to the Committee’s Charter and that the adequacy of the Committee’s Charter is reviewed annually;
- c) providing leadership to the Committee to enhance the Committee’s effectiveness, including:
 - i) providing the information to the Board relative to the Committee’s issues and initiatives and reviewing and submitting to the Board an appraisal of the Corporation’s independent auditors and internal auditing functions;
 - ii) ensuring that the Committee works as a cohesive team with open communication, as well as ensuring open lines of communication among the independent auditors, financial and senior management and the Board of Directors for financial and control matters;
 - iii) ensuring that the resources available to the Committee are adequate to support its work and to resolve issues in a timely manner;
 - iv) ensuring that the Committee serves as an independent and objective party to monitor the Corporation’s financial reporting process and internal control systems, as well as to monitor the relationship between the Corporation and the independent auditors to ensure independence;
 - v) ensuring that procedures are in place to assess the audit activities of the independent auditors and the internal audit functions;

- vi) ensuring that procedures are in place to review the Corporation's public disclosure of financial information and assess the adequacy of such procedures periodically, in consultation with any disclosure committee of the Corporation;
 - vii) ensuring that clear hiring policies are put in place for partners and employees of the auditors;
- d) ensuring that procedures are in place for dealing with complaints received by the Corporation regarding accounting, internal controls and auditing matters, and for employees to submit confidential anonymous concerns, ensuring the establishment of a budget process, which shall include the setting of spending limits and authorizations and periodical reports from the Chief Financial Officer of actual spending as compared to the budget regarding questionable accounting or auditing matters; and
- e) managing the Committee, including:
- i) adopting procedures to ensure that the Committee can conduct its work effectively and efficiently, including committee structure and composition, scheduling, and management of meetings;
 - ii) preparing the agenda of the Committee meetings and ensuring pre-meeting material is distributed in a timely manner and is appropriate in terms of relevance, efficient format and detail;
 - iii) ensuring meetings are appropriate in terms of frequency, length and content;
 - iv) obtaining and reviewing with the Committee an annual report from the independent auditors, and arranging meetings with the auditors and financial management to review the scope of the proposed audit for the current year, its staffing and the audit procedures to be used;
 - v) overseeing the Committee's participation in the Corporation's accounting and financial reporting process and the audits of its financial statements;
 - vi) ensuring that the auditor's report directly to the Committee, as representatives of the Corporation's shareholders; and
 - vii) annually reviewing with the Committee its own performance.

SCHEDULE "B"

BLACK IRON INC. NATIONAL INSTRUMENT 52-110 AUDIT COMMITTEES ("NI 52-110")

Section 1.4 — Meaning of Independence

- (1) An audit committee member is independent if he or she has no direct or indirect material relationship with the issuer.
- (2) For the purposes of subsection (1), a "material relationship" is a relationship which could, in the view of the issuer's board of directors, be reasonably expected to interfere with the exercise of a member's independent judgment.
- (3) Despite subsection (2), the following individuals are considered to have a material relationship with an issuer:
 - (a) an individual who is, or has been within the last three years, an employee or executive officer of the issuer;
 - (b) an individual whose immediate family member is, or has been within the last three years, an executive officer of the issuer;
 - (c) an individual who:
 - (i) is a partner of a firm that is the issuer's internal or external auditor,
 - (ii) is an employee of that firm, or
 - (iii) was within the last three years a partner or employee of that firm and personally worked on the issuer's audit within that time;
 - (d) an individual whose spouse, minor child or stepchild, or child or stepchild who shares a home with the individual:
 - (i) is a partner of a firm that is the issuer's internal or external auditor,
 - (ii) is an employee of that firm and participates in its audit, assurance or tax compliance (but not tax planning) practice, or
 - (iii) was within the last three years a partner or employee of that firm and personally worked on the issuer's audit within that time;
 - (e) an individual who, or whose immediate family member, is or has been within the last three years, an executive officer of an entity if any of the issuer's current executive officers serves or served at that same time on the entity's compensation committee; and
 - (f) an individual who received, or whose immediate family member who is employed as an executive officer of the issuer received, more than \$75,000 in direct compensation from the issuer during any 12 month period within the last three years.
- (4) Despite subsection (3), an individual will not be considered to have a material relationship with the issuer solely because

- (a) he or she had a relationship identified in subsection (3) if that relationship ended before March 30, 2004; or
 - (b) he or she had a relationship identified in subsection (3) by virtue of subsection (8) if that relationship ended before June 30, 2005.
- (5) For the purposes of clauses (3)(c) and (3)(d), a partner does not include a fixed income partner whose interest in the firm that is the internal or external auditor is limited to the receipt of fixed amounts of compensation (including deferred compensation) for prior service with that firm if the compensation is not contingent in any way on continued service.
- (6) For the purposes of clause (3)(f), direct compensation does not include:
- (a) remuneration for acting as a member of the board of directors or of any board committee of the issuer, and
 - (b) the receipt of fixed amounts of compensation under a retirement plan (including deferred compensation) for prior service with the issuer if the compensation is not contingent in any way on continued service.
- (7) Despite subsection (3), an individual will not be considered to have a material relationship with the issuer solely because the individual or his or her immediate family member
- (a) has previously acted as an interim chief executive officer of the issuer, or
 - (b) acts, or has previously acted, as a chair or vice-chair of the board of directors or of any board committee of the issuer on a part-time basis.
- (8) For the purpose of section 1.4, an issuer includes a subsidiary entity of the issuer and a parent of the issuer.

Section 1.5 — Additional Independence Requirements for Audit Committee Members

- (1) Despite any determination made under section 1.4 of NI 52-110, an individual who
- (a) accepts, directly or indirectly, any consulting, advisory or other compensatory fee from the issuer or any subsidiary entity of the issuer, other than as remuneration for acting in his or her capacity as a member of the board of directors or any board committee, or as a part-time chair or vice-chair of the board or any board committee; or
 - (b) is an affiliated entity of the issuer or any of its subsidiary entities,
- is considered to have a material relationship with the issuer.
- (2) For the purposes of subsection (1), the indirect acceptance by an individual of any consulting, advisory or other compensatory fee includes acceptance of a fee by
- (a) an individual's spouse, minor child or stepchild, or a child or stepchild who shares the individual's home; or
 - (b) an entity in which such individual is a partner, member, an officer such as a managing director occupying a comparable position or executive officer, or occupies a similar position (except limited partners, non-managing members and those occupying similar positions who, in each case, have no active role in providing services to the entity) and which

provides accounting, consulting, legal, investment banking or financial advisory services to the issuer or any subsidiary entity of the issuer.

- (3) For the purposes of subsection (1), compensatory fees do not include the receipt of fixed amounts of compensation under a retirement plan (including deferred compensation) for prior service with the issuer if the compensation is not contingent in any way on continued service.

SCHEDULE "C"

BLACK IRON INC.

Procedures for Approval of Non-Audit Services

1. The Corporation's external auditors shall be prohibited from performing for the Corporation the following categories of non-audit services:
 - (a) bookkeeping or other services related to the Corporation's accounting records or financial statements;
 - (b) appraisal or valuation services, fairness opinion or contributions-in-kind reports;
 - (c) actuarial services;
 - (d) internal audit outsourcing services;
 - (e) management functions;
 - (f) human resources;
 - (g) broker or dealer, investment adviser or investment banking services;
 - (h) legal services; and
 - (i) any other service that the Canadian Public Accountability Board or International Accounting Standards Board or other analogous board which may govern the Corporation's accounting standards, from time to time determines is impermissible.
2. In the event that the Corporation wishes to retain the services of the Corporation's external auditors for tax compliance, tax advice or tax planning, the Chief Financial Officer of the Corporation shall consult with the Chair of the Committee, who shall have the authority to approve or disapprove on behalf of the Committee, such non-audit services. All other non-audit services shall be approved or disapproved by the Committee as a whole.
3. The Chief Financial Officer of the Corporation shall maintain a record of non-audit services approved by the Chair of the Committee or the Committee for each fiscal year and provide a report to the Committee no less frequently than on a quarterly basis.