



Cameco Corporation

2022 Annual information form

March 29, 2023

Contents

- Important information about this document..... 1**
- Our business 5**
- Our vision, values and strategy 10**
- Operations, projects and other nuclear fuel cycle investments 24**
 - Uranium – Tier-one operations 25
 - Uranium – Tier-two operations 69
 - Uranium – Advanced projects..... 70
 - Uranium – exploration..... 72
 - Fuel services 73
 - Other nuclear fuel cycle investments 75
 - Corporate development 78
- Mineral reserves and resources 78**
- Our ESG principles and practices 84**
- The regulatory environment..... 87**
- Risks that can affect our business 98**
 - 1 – Operational risks..... 98
 - 2 – Financial risks..... 104
 - 3 – Governance and compliance risks..... 110
 - 4 – Social risks..... 112
 - 5 – Environmental risks 113
 - 6 – Strategic risks 114
- Legal proceedings..... 126**
- Investor information..... 126**
- Governance 132**
- Appendix A 137**

Important information about this document

This annual information form (AIF) for the year ended December 31, 2022 provides important information about Cameco Corporation. It describes our history, our markets, our operations and projects, our mineral reserves and resources, our approach to environmental, social and governance matters (ESG), our regulatory environment, the risks we face in our business and the market for our shares, among other things.

It also incorporates by reference:

- our management's discussion and analysis for the year ended December 31, 2022 (2022 MD&A), which is available on SEDAR (sedar.com) and on EDGAR (sec.gov) as an exhibit to our Annual Report on Form 40-F; and
- Our audited consolidated financial statements for the year ended December 31, 2022 (2022 financial statements), which are also available on SEDAR and on EDGAR as an exhibit to our Annual Report on Form 40-F.

Throughout this document, the terms *we*, *us*, *our*, *the company* and *Cameco* mean Cameco Corporation and its subsidiaries.

We have prepared this document to meet the requirements of Canadian securities laws, which are different from what United States (US) securities laws require.

The information contained in this AIF is presented as at December 31, 2022, the last day of our most recently completed financial year, and is based on what we knew as of March 15, 2023, except as otherwise stated.

Reporting currency and financial information

Unless we have specified otherwise, all dollar amounts are in Canadian dollars. Any references to \$(US) mean US dollars.

The financial information in this AIF has been presented in accordance with International Financial Reporting Standards (IFRS).

Caution about forward-looking information

Our AIF and the documents incorporated by reference include statements and information about our expectations for the future. When we discuss our strategy, plans and future financial and operating performance, or other things that have not yet taken place, we are making statements considered to be *forward-looking information* or *forward-looking statements* under Canadian and US securities laws. We refer to them in this AIF as *forward-looking information*. In particular, the discussions under the headings *Market overview and developments*, *Building a balanced portfolio*, and *Other nuclear fuel cycle investments – Proposed acquisition of Westinghouse* in this AIF contain forward-looking information.

Key things to understand about the forward-looking information in this AIF:

- It typically includes words and phrases about the future, such as *anticipate*, *believe*, *estimate*, *expect*, *plan*, *will*, *intend*, *goal*, *target*, *forecast*, *project*, *strategy* and *outlook* (see examples on page 2).
- It represents our current views and can change significantly.
- It is based on a number of *material assumptions*, including those we have listed below, which may prove to be incorrect.
- Actual results and events may be significantly different from what we currently expect, due to the risks associated with our business. We list a number of these material risks below. We recommend you also review other parts of this document, including *Risks that can affect our business* starting on page 98, and our 2022 MD&A, which includes a discussion of other material risks that could cause actual results to differ significantly from our current expectations.

Forward-looking information is designed to help you understand management's current views of our near- and longer-term prospects, and it may not be appropriate for other purposes. We will not necessarily update this information unless we are required to by Canadian or US securities laws.

Examples of forward-looking information in this AIF

- our view that we have the strengths to take advantage of the world's rising demand for safe, reliable, affordable, and carbon-free energy, and our vision to energize a clean-air world
- our expectations about 2023 and future global uranium supply, consumption, contracting, demand, geopolitical issues and the market, including the discussion under the headings *Market overview and developments* and *Building a balanced portfolio*
- our expectations about 2023 and future consumption of conversion services
- our efforts to participate in the commercialization and deployment of small modular reactors (SMRs) and contribute to the mitigation of global climate change and help to provide energy security and affordability by exploring SMRs and other emerging opportunities within the fuel cycle
- our expectation that the US Department of Energy (DOE) will make available a portion of its excess uranium inventory over the next two decades
- the discussion under the heading *Our ESG principles and practices*, including our belief there is a significant opportunity for us to be part of the solution to combat climate change and that we are well positioned to deliver significant long-term business value
- our ability to implement and execute our overarching low-carbon transition strategy
- our expectations relating to care and maintenance costs
- the discussion of our expectations relating to our Canada Revenue Agency (CRA) transfer pricing dispute
- our expectations for future tax payments and rates, including effective tax rates
- our expectations of executing major supply contracts
- our ability to capitalize on the current backlog of long-term contracting as a proven and reliable supplier with tier-one productive capacity and a record of honouring supply commitments, and to increase value throughout these price cycles
- future plans and expectations for our uranium properties, advanced projects, and fuel services operating sites, including production levels and the suspension of production at certain properties, pace of advancement and expansion capacity, and carbon reduction targets
- estimates of operating and capital costs and mine life for our tier one uranium operations
- our expectations in receiving positive re-licensing decisions from the Canadian Nuclear Safety Commission (CNSC) for McArthur River and Rabbit Lake
- our ability to successfully negotiate a new collective agreement for the unionized employees at McArthur River
- estimated decommissioning and reclamation costs for uranium properties and fuel services operating sites
- the discussion of Joint Venture Inkai LLP's (JV Inkai) expansion plans for a 10.4 million pound per year operation (100% basis)
- our mineral reserve and resource estimates
- our expectations that the price of uranium, production costs, and recovery rates will allow us to operate or develop a particular site or sites
- estimates of metallurgical recovery and other production parameters for each uranium property
- production estimates at the McArthur River/Key Lake, Cigar Lake and Inkai operations, and the Port Hope UF₆ conversion facility
- our discussion of the ongoing conflict between Russia and Ukraine
- our investments allowing us to participate in the entire nuclear fuel value chain; fuel fabrication; reactor maintenance; development of new reactors; and nuclear sustainability services
- the discussion of our expectations relating to our acquisition of a 49% interest in Westinghouse Electric Company (Westinghouse), including the sources and uses of financing for the acquisition, the timeline of the acquisition, including the anticipated closing thereof, and the acquisition organizational structure, equity accounting for our investment, generation of new revenue opportunities, the potential to generate additional revenue in the year following the acquisition closing, our expectation that the acquisition will be accretive to our cash flow after closing, Westinghouse's ability to generate cash flow to fund its approved annual operating budget and provide quarterly distributions to the partners after closing, the acquisition expanding our participation in the nuclear fuel value chain, and providing a platform for further growth, our intention in respect of not issuing additional equity to fund our portion of the purchase price for the Westinghouse acquisition and various factors and drivers for Westinghouse's business segments

Material risks

- actual sales volumes or market prices for any of our products or services are lower than we expect, or cost of sales is higher than we expect, for any reason, including changes in market prices, loss of market share to a competitor, trade restrictions, geopolitical issues or the impact of the COVID-19 pandemic
- we are adversely affected by changes in currency exchange rates, interest rates, royalty rates, tax rates or inflation
- our production costs are higher than planned, or necessary supplies are not available, delayed or not available on commercially reasonable terms
- our strategies may change, be unsuccessful or have unanticipated consequences, or we may not be able to achieve anticipated operational flexibility and efficiency
- changing views of governments regarding the pursuit of carbon reduction strategies or our view may prove to be inaccurate on the role of nuclear power in pursuit of those strategies
- our estimates and forecasts prove to be inaccurate, including production, purchases, deliveries, cash flow, revenue, costs, decommissioning, reclamation expenses, or receipt of future dividends from JV Inkai, and those relating to the Westinghouse acquisition
- we are unable to enforce our legal rights under our agreements, permits or licences
- disruption or delay in the transportation of our products
- we are subject to litigation or arbitration that has an adverse outcome
- that we may not receive expected refunds and payments from CRA
- that the courts may accept the same, similar or different positions and arguments advanced by CRA to reach decisions that are adverse to us for other tax years
- the possibility of a materially different outcome in disputes with CRA for other tax years
- that CRA does not agree that the court rulings for the years that have been resolved in our favour should apply to subsequent tax years
- that CRA will not return all or substantially all of the cash and security that has been paid or otherwise secured in a timely manner, or at all
- there are defects in, or challenges to, title to our properties
- our mineral reserve and resource estimates are not reliable, or there are unexpected or challenging geological, hydrological, or mining conditions
- we are affected by environmental, safety and regulatory risks, including workforce health and safety or increased regulatory burdens or delays resulting from the COVID-19 pandemic or other causes
- operations are disrupted due to problems with our own or our suppliers' or customers' facilities, the unavailability of reagents, equipment, operating parts and supplies critical to production, equipment failure, cyber-attacks, lack of tailings capacity, labour shortages, labour relations issues, strikes or lockouts, fires, underground floods, cave-ins, ground movements, tailings dam failures, transportation disruptions or accidents, aging infrastructure, or other development and operating risks
- we are affected by political risks, including unrest in Kazakhstan, and geopolitical events, including the Russian invasion of Ukraine
- we are affected by war, terrorism, sabotage, blockades, civil unrest, social or political activism, outbreak of illness (such as a pandemic like COVID-19), accident or a deterioration in political support for, or demand for, nuclear energy
- a major accident or incident at a nuclear power plant
- we are impacted by changes in the regulation or public perception of the safety of nuclear power plants, which adversely affect the construction of new plants, the relicensing of existing plants, and the demand for uranium
- government laws, regulations, policies, or decisions that adversely affect us, including tax and trade laws and sanctions on nuclear fuel exports and imports
- our uranium suppliers or purchasers fail to fulfil their commitments
- our McArthur River development, mining or production plans are delayed or do not succeed for any reason, including due to labour disruption
- our Key Lake mill production plan is delayed or does not succeed for any reason, including due to labour disruption
- our Cigar Lake development, mining or production plans are delayed or do not succeed for any reason
- the McClean Lake's mill production plan is delayed or does not succeed for any reason
- our production plans for our Port Hope UF₆ conversion facility do not succeed for any reason
- water quality and environmental concerns could result in a potential deferral of production and additional capital and operating expenses required for the Cigar Lake operation and McArthur River/Key Lake operations
- JV Inkai's development, mining or production plans are delayed or do not succeed for any reason or JV Inkai is unable to transport and deliver its production

- necessary permits or approvals from government authorities cannot be obtained or maintained
- the Westinghouse acquisition may be delayed or may not be completed on the terms in the acquisition agreement or at all
- consummation of the Westinghouse acquisition is subject to closing conditions and regulatory approvals that may not be satisfied on a timely basis or at all
- that we may not realize the expected benefits from the Westinghouse acquisition
- after closing the acquisition, Westinghouse fails to generate sufficient cash flow to fund its approved annual operating budget or make quarterly distributions to the partners
- we may be unsuccessful in pursuing innovation or implementing advanced technologies, including the risk that the commercialization and deployment of SMRs or new enrichment technology may incur unanticipated delays or expenses, or ultimately prove to be unsuccessful
- our expectations relating to care and maintenance costs prove to be inaccurate
- we are affected by climate change or natural phenomena, including inclement weather, forest fires, flood, and earthquakes

Material assumptions

- our expectations regarding sales and purchase volumes and prices for uranium and fuel services, cost of sales, trade restrictions, inflation, and that counterparties to our sales and purchase agreements will honour their commitments
- our expectations for the nuclear industry, including its growth profile, market conditions, geopolitical issues, and the demand for and supply of uranium
- our ability to adopt innovative and advanced digital and automation technologies to improve efficiency and operational flexibility
- the continuing pursuit of carbon reduction strategies and greenhouse gas emissions strategies by governments and the role of nuclear in the pursuit of those strategies
- our expectations regarding spot prices and realized prices for uranium
- that the construction of new nuclear power plants and the relicensing of existing nuclear power plants will not be more adversely affected than expected by changes in regulation or in the public perception of the safety of nuclear power plants
- our ability to continue to supply our products and services in the expected quantities and at the expected times
- our expected production levels for Cigar Lake, McArthur River/Key Lake, JV Inkai and our fuel services operating sites
- plans to transport our products succeed, including the shipment of our share of JV Inkai production to our Blind River refinery
- our ability to mitigate adverse consequences of delays in the shipment of our share of JV Inkai production to our Blind River refinery
- our cost expectations, including production costs, operating costs, and capital costs,
- our expectations regarding tax rates and payments, royalty rates, currency exchange rates, interest rates and inflation
- our operations are not significantly disrupted as a result of political instability, nationalization, terrorism, sabotage, blockades, civil unrest, breakdown, climate change, natural disasters, forest or other fires, outbreak of illness (such as a pandemic like COVID-19), governmental, political or regulatory actions, litigation or arbitration proceedings, cyber-attacks, the unavailability of reagents, equipment, operating parts and supplies critical to production, supply chain issues, labour shortages, labour relations issues, strikes or lockouts, health and safety issues, underground floods, loadings to the environment, cave-ins, ground movements, tailings dam failure, lack of tailings capacity, improper air emissions releases or treated water releases, transportation disruptions or accidents, aging infrastructure, or other development or operating risks
- JV Inkai's ability to abide by the provisions of the subsoil code, ecological code, and Currency Law (as defined in this document under the heading *Currency Control Regulation*)
- our Cigar Lake and McArthur River development, mining and production plans succeed
- our Key Lake mill production plan succeeds
- the McClean Lake mill is able to process Cigar Lake ore as expected
- JV Inkai's development, mining and production plans succeed, and that JV Inkai will be able to deliver its production
- the ability of JV Inkai to pay dividends
- our production plan for our Port Hope UF₆ conversion facility succeeds
- that care and maintenance costs will be as expected
- our and our contractors' ability to comply with current and future environmental, safety and other regulatory requirements and to obtain and maintain required regulatory approvals

- our entitlement to and ability to receive expected refunds and payments from CRA in our dispute with CRA, that courts will reach consistent decisions for other tax years that are based upon similar positions and arguments
- that CRA will not successfully advance different positions and arguments that may lead to different outcomes for other tax years
- our expectation that we will recover all or substantially all of the amounts paid or secured in respect of the CRA dispute to date
- our decommissioning and reclamation estimates, including the assumptions upon which they are based, are reliable
- our ability to select mine designs and mining methods which mitigate hydrological, radiological and geotechnical risks
- our mineral reserve and resource estimates, and the assumptions upon which they are based, are reliable
- our understanding of the geological, hydrological and other conditions at our uranium properties
- the Westinghouse acquisition is closed on the anticipated timeline and on the terms in the acquisition agreement
- Westinghouse's ability to generate cash flow and fund its approved annual operating budget and make quarterly distributions to the partners after closing of the acquisition
- our ability to compete for additional business opportunities so as to generate additional revenue for us in the year after closing the Westinghouse acquisition
- market conditions and other factors upon which we based the Westinghouse acquisition and our related forecasts will be as expected
- the success of our plans and strategies relating to the Westinghouse acquisition

Our business

Our vision is to energize a clean-air world. We have a more than 30-year proven track record of providing secure and reliable nuclear fuel supplies to a global customer base to generate safe, reliable, and affordable carbon-free energy. Nuclear energy plants around the world use our uranium products to generate one of the cleanest sources of electricity available today.

Our operations span the nuclear fuel cycle from exploration to fuel services, which include uranium production, refining, UO₂ and UF₆ conversion services and CANDU fuel manufacturing for heavy water reactors. To meet our customers' growing demand for nuclear fuel supplies and services that are reliable and secure, we have also made investments, that if successful, we expect will allow us to participate in the entire nuclear fuel value chain, adding capabilities in enrichment; fuel fabrication for light water reactors; reactor maintenance and other services; the design, engineering, and support for the development of new reactors; and nuclear sustainability services.

With extraordinary assets, a proven operating track record, long-term contract portfolio, strong ESG commitment, employee expertise, comprehensive industry knowledge, and a strong balance sheet, the company is making investments that it expects will create a platform for strategic growth. We are confident in our ability to increase long-term growth by positioning the company as one of the global leaders in supporting the clean energy transition at a time when the world's prioritization of decarbonization and energy security is driving growth in demand and when geopolitics are creating concerns about the origin and security of supplies across the nuclear fuel cycle.

Cameco Corporation
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This is our head office, registered office and principal place of business.

We are publicly listed on the Toronto and New York stock exchanges, and had a total of 2,424 employees at December 31, 2022.

Business segments

URANIUM

Our uranium production capacity is among the world's largest. However, in 2022, with many of our operations in care and maintenance, we accounted for about 12% of world production. We have controlling ownership of the world's largest high-grade mineral reserves.

Product

- uranium concentrates (U_3O_8)

Mineral reserves and resources

Mineral reserves

- approximately 469 million pounds proven and probable

Mineral resources

- approximately 451 million pounds measured and indicated
- approximately 154 million pounds inferred

Tier-one operations

- McArthur River and Key Lake, Saskatchewan
- Cigar Lake, Saskatchewan
- Inkai, Kazakhstan

Tier-two operations

- Rabbit Lake, Saskatchewan
- Smith Ranch-Highland, Wyoming
- Crow Butte, Nebraska

Advanced projects

- Millennium, Saskatchewan
- Yeelirrie, Australia
- Kintyre, Australia

Exploration

- focused on North America
 - approximately 0.78 million hectares of land
-

FUEL SERVICES

We are an integrated uranium fuel supplier, offering refining, conversion, and fuel manufacturing services.

Products

- uranium trioxide (UO_3)
- uranium hexafluoride (UF_6) for light-water reactors (we have about 21% of world primary conversion capacity)
- uranium dioxide (UO_2) for CANDU heavy-water reactors
- fuel bundles, reactor components and monitoring equipment used by CANDU heavy-water reactors

Operations

- Blind River refinery, Ontario (refines uranium concentrates to UO_3)
- Port Hope conversion facility, Ontario (converts UO_3 to UF_6 or UO_2)
- Cameco Fuel Manufacturing Inc. (CFM), Ontario (manufactures fuel bundles and reactor components for CANDU heavy-water reactors)

For information about our revenue and gross profit by business segment for the years ended December 31, 2022 and 2021, see our 2022 MD&A as follows:

- uranium – page 57
 - fuel services – page 59
-

OTHER NUCLEAR FUEL CYCLE INVESTMENTS

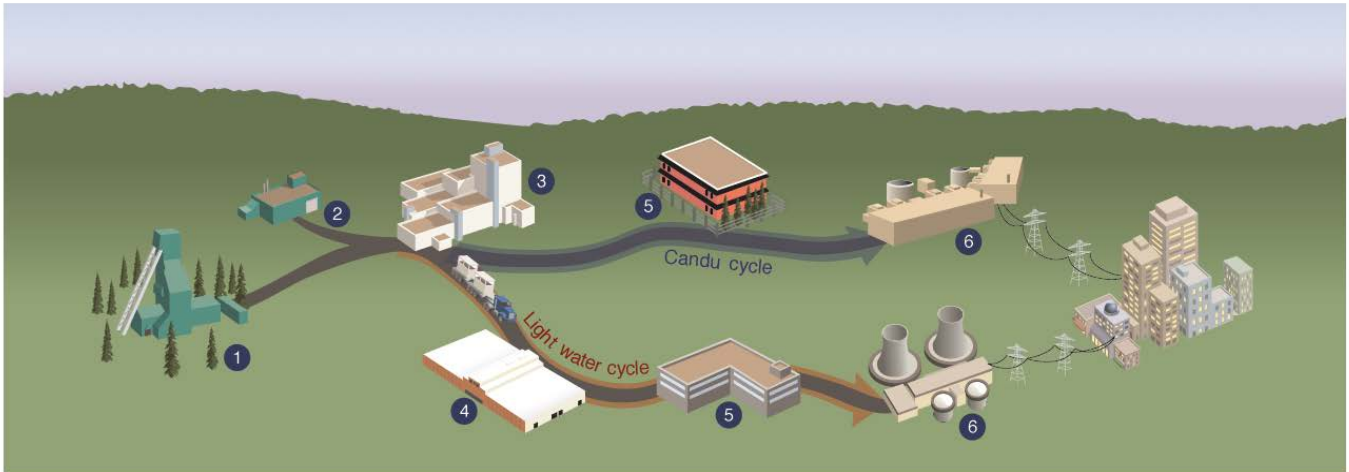
Enrichment

We have a 49% interest in Global Laser Enrichment LLC (GLE) which is testing third-generation enrichment technology that, if successful, will use lasers to commercially enrich uranium. GLE is the exclusive licensee of the proprietary SILEX laser enrichment technology, that is in the development phase.

Westinghouse Electric Company (Westinghouse)

In October 2022, we announced the planned acquisition of a 49% interest in Westinghouse, a global provider of mission critical and specialized technologies, products, and services for light-water reactors across most phases of the nuclear power sector. The planned acquisition is through a strategic partnership with Brookfield Renewable. The acquisition is expected to close in the second half of 2023 and is subject to customary closing conditions and certain regulatory approvals.

The nuclear fuel cycle



Our operations and investments span the nuclear fuel cycle, from exploration to fuel manufacturing.

1 Mining

Once an orebody is discovered and defined by exploration, there are three common ways to mine uranium, depending on the depth of the orebody and the deposit's geological characteristics:

- *Open pit mining* is used if the ore is near the surface. The ore is usually mined using drilling and blasting.
- *Underground mining* is used if the ore is too deep to make open pit mining economical. Tunnels and shafts provide access to the ore.
- *In situ recovery (ISR)* does not require large scale excavation. Instead, holes are drilled into the ore and a solution is used to dissolve the uranium. The solution is pumped to the surface where the uranium is recovered.

1 Milling

Ore from open pit and underground mines is processed to extract the uranium and package it as a powder typically referred to as *uranium ore concentrates (UOC)* or *yellowcake (U₃O₈)*. The leftover processed rock and other solid waste (*tailings*) is placed in an engineered tailings facility.

2 Refining

Refining removes the impurities from the uranium concentrate and changes its chemical form to *uranium trioxide (UO₃)*.

3 Conversion

For light water reactors, the UO₃ is converted to *uranium hexafluoride (UF₆)* gas to prepare it for enrichment. For heavy water reactors like the CANDU reactor, the UO₃ is converted into powdered *uranium dioxide (UO₂)*.

4 Enrichment

Uranium is made up of two main isotopes: U-238 and U-235. Only U-235 atoms, which make up 0.7% of natural uranium, are involved in the nuclear reaction (fission). Most of the world's commercial nuclear reactors require uranium that has an enriched level of U-235 atoms.

The enrichment process increases the concentration of U-235 to between 3% and 5% by separating U-235 atoms from the U-238. Enriched UF₆ gas is then converted to powdered UO₂.

5 Fuel manufacturing

Natural or enriched UO₂ is pressed into pellets, which are baked at a high temperature. These are packed into zircaloy or stainless steel tubes, sealed and then assembled into fuel bundles.

6 Generation

Nuclear reactors are used to generate electricity. U-235 atoms in the reactor fuel fission, creating heat that generates steam to drive turbines. The fuel bundles in the reactor need to be replaced as the U-235 atoms are depleted, typically after one or two years depending upon the reactor type. The used – or *spent* – fuel is stored or reprocessed.

Spent fuel management

The majority of spent fuel is safely stored at the reactor site. A small amount of spent fuel is reprocessed. The reprocessed fuel is used in some European and Japanese reactors.

Major developments

2020	2021	2022
<p>March</p> <ul style="list-style-type: none">• We announce the temporary suspension of production at Cigar Lake as a precautionary measure due to the threat posed by the COVID-19 pandemic.	<p>January</p> <ul style="list-style-type: none">• We announce the closing of the agreement between Cameco, Silex Systems Limited and GE-Hitachi Nuclear Energy, completing the ownership restructuring of GLE with Cameco's interest in GLE increasing from 24% to 49%.	<p>January</p> <ul style="list-style-type: none">• We announce plans to transition McArthur River and Key Lake from care and maintenance to planned production of 15 million pounds per year (100% basis) by 2024, 40% below its annual licensed capacity, and to reduce production at Cigar Lake in 2024 to 13.5 million pounds per year (100% basis), 25% below its annual licensed capacity starting in 2024.
<p>April</p> <ul style="list-style-type: none">• We announce temporary operational changes at our fuel services division as a precautionary measure due to the challenge of maintaining an adequate workforce due to the COVID-19 pandemic.• We extend the temporary Cigar Lake production suspension and withdraw our 2020 outlook.	<p>February</p> <ul style="list-style-type: none">• We announce the Supreme Court of Canada dismissed CRA's application for leave to appeal the June 26, 2020 decision of the Federal Court of Appeal with respect to the 2003, 2005 and 2006 tax years.	<p>May</p> <ul style="list-style-type: none">• We acquire an additional 4.522 percentage points in Cigar Lake increasing our interest to 54.547%.
<p>May</p> <ul style="list-style-type: none">• We announce resumption of production at our Port Hope UF₆ plant and the Blind River refinery, and the continued Cigar Lake mine production suspension.	<p>April</p> <ul style="list-style-type: none">• We announce plans to restart production at the Cigar Lake mine.	<p>October</p> <ul style="list-style-type: none">• We announce our plans to form a strategic partnership with Brookfield Renewable Partners L.P., together with its institutional partners (Brookfield Renewable), to acquire Westinghouse, a global provider of nuclear services, from Brookfield Business Partners L.P. and its institutional partners. Brookfield Renewable will own a 51% interest and we will own a 49% interest in Westinghouse. We are responsible to contribute approximately \$2.2 billion (US) in respect of the acquisition. The acquisition is subject to closing conditions, including regulatory approvals, and it is anticipated to be completed in the second half of 2023.
<p>June</p> <ul style="list-style-type: none">• We announce that the Federal Court of Appeal upheld the 2018 decision of the Tax Court of Canada in Cameco's favour for the 2003, 2005 and 2006 tax years.	<p>October</p> <ul style="list-style-type: none">• We file a notice of appeal with the Tax Court of Canada, asking it to order the reversal of CRA's transfer pricing adjustment and the return of \$777 million in cash and letters of credit we paid or secured for the tax years 2007 through 2013, with costs.	<ul style="list-style-type: none">• We issue 34,057,250 common shares at a price of \$21.95 (US) per share for gross proceeds to us of approximately \$747.6 million (US) pursuant to a bought deal. The net offering proceeds are intended to partially fund our share of the acquisition of Westinghouse.
<p>September</p> <ul style="list-style-type: none">• We resume production at Cigar Lake.		
<p>October</p> <ul style="list-style-type: none">• We issue \$400 million of debentures, bearing interest at 2.95%, maturing in 2027.• We receive notification and announce that CRA has sought leave from the Supreme Court of Canada to appeal the June 2020 decision of the Federal Court of Appeal.		
<p>November</p> <ul style="list-style-type: none">• We redeem \$400 million of debentures, bearing interest at 3.75%, maturing in 2022.		
<p>December</p> <ul style="list-style-type: none">• We announce a second temporary suspension of production at Cigar Lake as a precautionary measure due to the increasing risks posed by the COVID-19 pandemic.		<p>November</p> <ul style="list-style-type: none">• We announce that the first pounds of uranium ore from the McArthur River mine have now been milled and packaged at the Key Lake mill, marking the achievement of initial production as these facilities transition back into normal operations.

Updated 2024 Production Plan for McArthur Rive/Key Lake and Cigar Lake

In February 2023, we announced our plan will now be for McArthur River/Key Lake to produce 18 million pounds per year (100% basis) starting in 2024 and to continue to operate Cigar Lake at its licensed capacity of 18 million pounds per year (100% basis) in 2024.

Agreement on Key Supply Terms with Energoatom

In February 2023, we announced we had reached agreement on commercial terms for a major supply contract with SE NNEGC Energoatom (Energoatom), Ukraine's state-owned utility and that the agreement was subject to contract finalization. The agreement was finalized and signed in March 2023.

The 12-year agreement will run from 2024 through 2035. The agreement will see Cameco supply 100% of Energoatom's UF₆ requirements (consisting of uranium and conversion services) for the nine nuclear reactors at the Rivne, Khmelytsky and South Ukraine nuclear power plants. These plants have combined requirements over the contract term of approximately 15.3 million KgU as UF₆ (the equivalent of around 40.1 million pounds of uranium concentrate, or U₃O₈).

The contract will also contain an option for Cameco to supply up to 100% of the fuel requirements for the six reactors at the Zaporizhzhya nuclear power plant, currently under Russian control, should it return to Energoatom's operation. If this option was exercised in 2024, the Zaporizhzhya power plant would require roughly 10.4 million KgU as UF₆ the equivalent of around 27.2 million pounds of uranium concentrate, or U₃O₈) over the contract period.

Cameco to Receive Substantial Refund of \$300 Million from Canada Revenue Agency

On March 27, 2023, we announced that CRA issued revised reassessments for the 2007 through 2013 tax years that will result in a refund of approximately \$300 million of the \$780 million in cash and letters of credit being held by CRA. The refund will consist of \$89 million in cash and \$211 million in letters of credit. The timing of the refund is yet to be determined. Notwithstanding this pending refund, our broader tax dispute with CRA remains ongoing. CRA continues to hold \$480 million (\$206 million in cash and \$274 million in letters of credit) that Cameco has remitted or secured to date. See *The Regulatory Environment – Taxes and Royalties*.

How Cameco was formed

Cameco was incorporated under the *Canada Business Corporations Act* on June 19, 1987.

We were formed when two crown corporations were privatized and their assets merged:

- Saskatchewan Mining Development Corporation (SMDC) (uranium mining and milling operations); and
- Eldorado Nuclear Limited (uranium mining, refining and conversion operations) (now Canada Eldor Inc.)

There are constraints and restrictions on ownership of shares in the capital of Cameco (Cameco shares) set out in our company articles, and a related requirement to maintain offices in Saskatchewan. These are requirements of *the Eldorado Nuclear Limited Reorganization and Divestiture Act* (Canada), as amended, and *The Saskatchewan Mining Development Corporation Reorganization Act*, as amended, and are described on pages 128 and 129.

We have made the following amendments to our articles:

-
- | | |
|-------------|---|
| 2002 | <ul style="list-style-type: none">• increased the maximum share ownership for individual non-residents to 15% from 5%• increased the limit on voting rights of non-residents to 25% from 20% |
| <hr/> | |
| 2003 | <ul style="list-style-type: none">• allowed the board to appoint new directors between shareholder meetings as permitted by the <i>Canada Business Corporations Act</i>, subject to certain limitations• eliminated the requirement for the chair of the board to be ordinarily resident in the province of Saskatchewan |
-

We have one main subsidiary:

- Cameco Europe Ltd., a Swiss company that we have 100% ownership of through subsidiaries

At January 1, 2023, we do not have any other subsidiary that is material, either individually or collectively.

For more information

You can find more information about Cameco on SEDAR (sedar.com), EDGAR (sec.gov) and on our website (cameco.com).

See our most recent management proxy circular for additional information, including how our directors and officers are compensated and any loans to them, principal holders of our securities, and securities authorized for issue under our equity compensation plans. We expect the circular for our May 10, 2023 annual meeting of shareholders to be available on April 6, 2023.

See our 2022 financial statements and 2022 MD&A for additional financial information.

Our vision, values and strategy

Our vision

Our vision – “Energizing a clean-air world” – recognizes that we have an important role to play in enabling the vast reductions in global GHG emissions required to achieve a resilient net-zero carbon economy. We support climate action that is consistent with the ambition of the Paris Agreement and the Canadian government’s commitment to the agreement to limit global temperature rise to less than 2°C and we believe that this means the world needs to reach net-zero emissions by 2050 or sooner. The uranium we produce is used around the world in the generation of safe, carbon-free, affordable, base-load nuclear power.

We believe we have the right strategy to achieve our vision and we will do so in a manner that reflects our values. For over 30 years, we have been delivering our products responsibly. Building on that strong foundation, we remain committed to our efforts to transform our own, already low, greenhouse gas footprint in our ambition to reach net-zero emissions, while identifying and addressing the ESG risks and opportunities that we believe may have a significant impact on our ability to add long-term value for our stakeholders.

Committed to our values

Our values are discussed below. They define who we are as a company and are at the core of everything we do and help to embed ESG principles and practices as we execute on our strategy in pursuit of our vision. They are:

- safety and environment
- people
- integrity
- excellence

Safety and Environment

The safety of people and protection of the environment are the foundations of our work. All of us share in the responsibility of continually improving the safety of our workplace and the quality of our environment.

We are committed to keeping people safe and conducting our business with respect and care for both the local and global environment.

People

We value the contribution of every employee and we treat people fairly by demonstrating our respect for individual dignity, creativity and cultural diversity. By being open and honest, we achieve the strong relationships we seek.

We are committed to developing and supporting a flexible, skilled, stable and diverse workforce, in an environment that:

- attracts and retains talented people and inspires them to be fully productive and engaged
- encourages relationships that build the trust, credibility and support we need to grow our business

Integrity

Through personal and professional integrity, we lead by example, earn trust, honour our commitments and conduct our business ethically.

We are committed to acting with integrity in every area of our business, wherever we operate.

Excellence

We pursue excellence in all that we do. Through leadership, collaboration and innovation, we strive to achieve our full potential and inspire others to reach theirs.

Our strategy

We are a pure-play investment in the growing demand for nuclear energy. We are focused on providing nuclear fuel products and services across the fuel cycle to support the generation of clean, reliable, secure and affordable energy, and we are focused on taking advantage of the long-term growth we see coming in our industry. Our strategy is set within the context of what we believe is a transitioning market environment, where increasing populations, a growing focus on electrification and decarbonization, and concerns about energy security and affordability are expected to durably strengthen the long-term fundamentals for our industry. Nuclear energy must be a central part of the solution to the world's shift to a low-carbon, climate resilient economy. It is an option that can provide the power needed, not only reliably, but also safely and affordably, and in a way that will help avoid some of the worst consequences of climate change.

Our strategy is to capture full-cycle value by:

- remaining disciplined in our contracting activity, building a balanced portfolio in accordance with our contracting framework
- profitably producing from our tier-one assets and aligning our production decisions in all segments of our business with our contract portfolio and customer needs
- being financially disciplined to allow us to execute on our strategy, take advantage of strategic opportunities and to self-manage risk
- exploring other emerging and non-traditional opportunities within the fuel cycle, which align with our commitment to responsibly and sustainably manage our business, contribute to the mitigation of global climate change, and help to provide energy security and affordability

We expect our strategy will allow us to increase long-term value, and we will execute it with an emphasis on safety, people and the environment.

For more information on our strategy, see our 2022 MD&A.

Market overview and developments

A market in transition

In 2022, geopolitical events coupled with the ongoing focus on the climate crisis created what we believe are transformative tailwinds for the nuclear power industry from both a demand and supply perspective. Uranium prices continued to rise, reaching levels not seen since 2011 driven by a tightened uranium market and growing security of supply concerns. In early-January, unrest in Kazakhstan raised concerns about the more than 40% of global uranium supply that originates from Kazakhstan. However, it was the Russian invasion of Ukraine in late-February that was the most transformative event for our industry. We believe it has set in motion a geopolitical realignment in energy markets that is highlighting the increasingly important role for nuclear power not just in providing clean energy, but also providing secure and affordable energy. And, with the global nuclear industry reliant on Russian supplies for approximately 14% of uranium concentrates, 27% of conversion and 39% of enrichment, it is highlighting the security of supply risk associated with the growing primary supply gap and shrinking secondary supplies and increasing the focus on origin of supply.

With the heightened supply risk caused by geopolitical uncertainty, utilities are evaluating their nuclear fuel supply chains. Utilities continue to be focused on ensuring they have the conversion and enrichment services they require secured under long-term contracts and are now beginning to return their focus to uranium. The uncertainty about where nuclear fuel supplies will come from to satisfy growing demand led to increased long-term contracting activity in 2022. This contracting activity resulted in a 22% increase in the long-term price of uranium over the past year, conversion prices that are at historic highs, and enrichment prices that have increased over 210% since the start of the invasion of Ukraine. Notably, utilities are now approaching replacement rate contracting for the first time in over a decade. Therefore, we expect there will be continued

competition to secure uranium, conversion and enrichment services under long-term contracts with proven producers and assets in geopolitically attractive jurisdictions, with strong environmental, social and governance (ESG) performance and on terms that will ensure the availability of reliable supply to satisfy demand.

Durable demand growth

The benefits of nuclear energy have come clearly into focus with a durability we believe has not been previously seen. The durability is being driven not only by accountability for achieving the net-zero carbon targets set by countries and companies around the world, but also by a geopolitical realignment that is causing countries to reexamine how they approach their energy needs. Net-zero carbon targets are turning attention to a triple challenge. First, is to lift one-third of the global population out of energy poverty by growing clean and reliable baseload electricity. Second, is to replace 85% of the current global electricity grids that run on carbon-emitting sources of thermal power with a clean, reliable alternative. And finally, is to grow global power grids by electrifying industries, such as private and commercial transportation, home, and industrial heating, largely powered with carbon-emitting sources of thermal energy today. Additionally, the Russian invasion of Ukraine has deepened the energy crisis experienced in some parts of the world and amplified concerns about energy security, highlighting the role of energy policy in balancing three main objectives: providing a clean emissions profile; providing a reliable and secure baseload profile; and providing an affordable leveled cost profile. There is increasing recognition that nuclear power meets these objectives and has a key role to play in achieving decarbonization goals. The growth in demand is not just long-term in the form of new builds, it is medium-term demand in the form of reactor life extensions, and it is near-term growth as early reactor retirements are prevented and new markets continue to emerge. And we are seeing momentum building for non-traditional commercial uses of nuclear power around the world such as development of small modular reactors and advanced reactors, with numerous companies and countries pursuing projects.

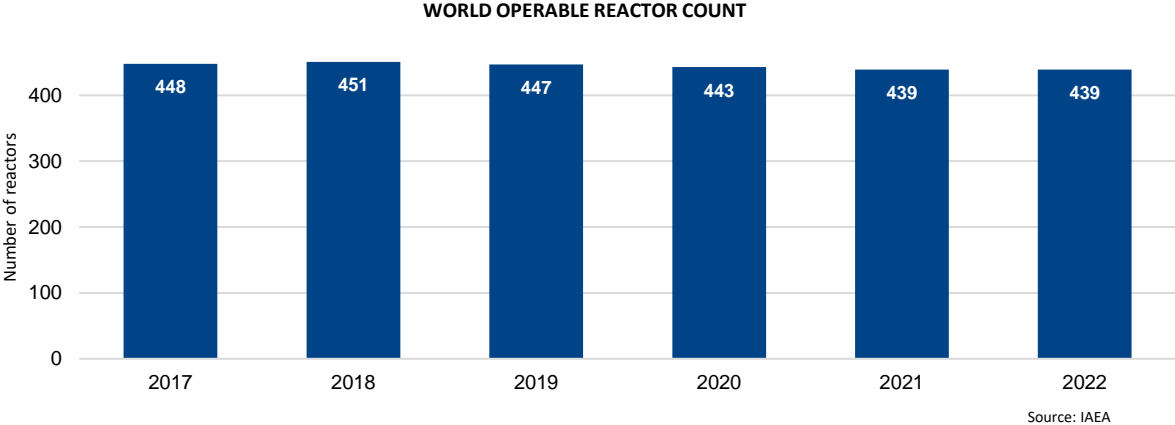
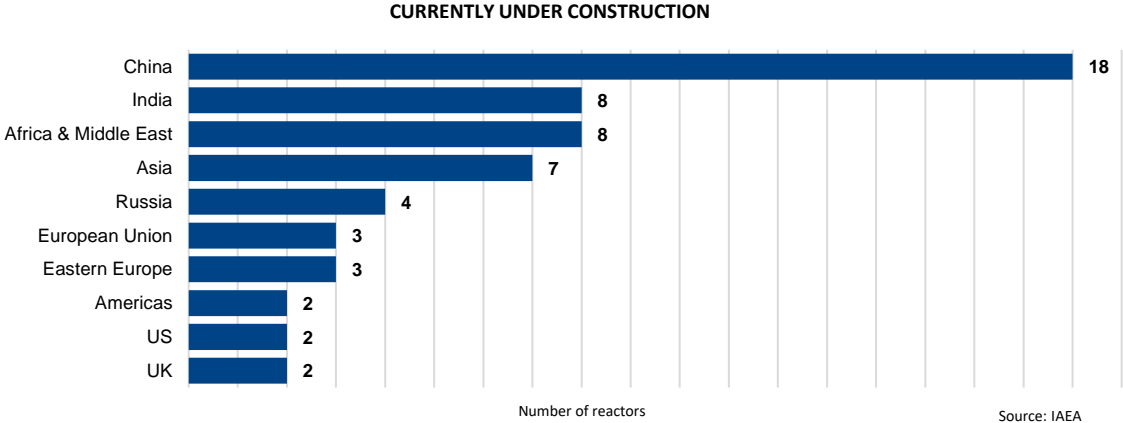
Demand and energy policy highlights

- China announced plans to accelerate new nuclear projects to combat future electricity shortages, indicating it could raise the number of new reactor construction approvals to ten or more per year. In 2022, there were ten approvals.
- In December 2022, Japan announced a new plan to maximize nuclear power by restarting as many existing reactors as possible, prolonging the operating lives of aging reactors beyond a 60-year limit, and building new reactors. This followed an earlier pledge by Japan's Prime Minister Kishida to have up to 17 reactors restarted by the summer of 2023. Additionally, the Japanese government set a target for nuclear to make up 20% to 22% of the country's energy mix by the end of the decade, and under the new policy will push for the development and construction of "next-generation innovative reactors" to replace about 20 reactors now set for decommissioning.
- South Korea finalized their 10th Basic Plan for Electricity Supply and Demand in January 2023. The plan aims to maintain 30% of the country's 2030 energy mix as nuclear power, resume construction on Units 3 and 4 at the Shin Hanul nuclear plant, and sets a goal of exporting 10 nuclear power plants by 2030, as well as the development of a Korean small modular reactor (SMR). This positive news builds from the earlier 2022 announcements that included nuclear power in South Korea's green taxonomy and reversed the previous administration's anti-nuclear stance.
- In July 2022, the European Parliament voted to keep nuclear power in the European Union's sustainable finance taxonomy as a transitional "green" investment. The Complimentary Delegated Act from this vote was entered into application on January 1, 2023. Including nuclear power in the "transitional" category indicates that it will help mitigate climate change but cannot yet be replaced by economically and technologically feasible low-carbon alternatives.
- Following the Russian invasion of Ukraine, numerous European countries announced their intention to reduce reliance on Russian-supplied nuclear fuel under long-term contracts. For example, on June 2, 2022, Ukraine's state-owned utility, Energoatom, signed an agreement with Westinghouse to supply all its nuclear fuel and increase the number of planned AP1000 reactor new builds from five to nine. Numerous other countries have also taken steps to diversify their nuclear fuel supply.
- In Sweden, a newly elected coalition majority government immediately updated the country's energy policy to be more pro-nuclear. They cited a significant shift away from the previous focus on renewables, changing the previous goal of "100% renewable" electricity by 2040 to "100% fossil free electricity", and have put forward legislation to allow for the construction of more reactors.
- Belgium shut down its Doel-3 nuclear reactor in September, but in January announced 10-year life extensions for their two newest reactors, Doel 4 and Tihange 3. These reactors were set to close in 2025 but will now restart in November 2026 after the necessary preparation and will continue operating for 10 years.

- Chancellor Olaf Scholz has ordered the life extension of Germany's three remaining reactors until mid-April 2023, keeping them on stand-by due to energy concerns.
- In November 2022, the United Kingdom (UK) announced that it would take a joint stake alongside French partner Électricité de France (EDF) in the construction of its new Sizewell C nuclear power station, replacing China General Nuclear's 20% stake. The UK will invest £700 million in the project, which will be matched by EDF.
- In France, the government and regulator are working on conditions to extend the operating lives of existing reactors and are planning an "industrial build" program with the start of construction around 2028 for the first two of six new EPR reactors and with plans for eight additional EPRs in the future. In addition, France is finalizing increased ownership in EDF from 84% to 100% to provide a smooth energy transition, ensure sovereignty in the face of war and firm up the company's diminished financial situation.
- In Finland, Teollisuuden Voima Oyj announced Olkiluoto 3, the 1,600 Mwe EPR, resumed test electricity production in December 2022 following a few months delay with regular electricity production now scheduled to start in March 2023.
- Poland confirmed its intent to build nuclear power capacity for the first time and is progressing plans with both Westinghouse for AP1000 PWR's and Korea Hydro & Nuclear Power (KHNP) for APR 1400's.
- Egypt began construction on the first two of four Russian built VVER 1200 reactors at the El-Dabaa Power Plant as the government looks to accelerate the project. Additionally, in December 2022, Egypt announced plans to start mining uranium in 2024 as part of the country's rapidly developing program for peaceful use of nuclear energy.
- India's first domestically designed 700 Mwe pressurized heavy water reactor at Kakrapar is now in commercial operation, an important milestone for the country. Three more units of this design are expected to come online in the next few years. The country is targeting an expansion to have 22.5 Gwe operating by 2031.
- In August 2022, President Biden signed the Inflation Reduction Act of 2022 (IRA) into law. Through \$369 billion (US) in tax incentives and other investments, IRA is a major federal legislative initiative enacted to address climate change. The IRA includes significant support for nuclear power with the establishment of a Production Tax Credit to support existing nuclear reactors and provides \$700 million (US) to incentivize the development of domestic sources of high-assay low-enriched uranium. Additionally, in December 2022, the International Nuclear Energy Act passed a US Senate Committee vote and is expected to be reintroduced to Congress. The bill seeks to promote engagement with partner and ally nations to develop a civil nuclear export strategy, establish financing relationships, standardize licensing frameworks, and is designed to offset the influence of Russia and China in the international nuclear market. This support comes in addition to ongoing work at various levels of the US government to eliminate US dependence on nuclear fuel imports from Russia.
- In the US state of California, Governor Newsom signed a bill seeking to extend operations at the Diablo Canyon Power Plant for five years beyond its current licence, which expires in 2025.
- Southern Company announced fuel loading began in October 2022 for Vogtle unit 3, the first of two 1,250 Mwe AP1000's under construction in Georgia. Southern Company also confirmed its plans to apply to have the operating licences for its Farley and Hatch reactors extended to 80 years. This followed similar announced extensions for Tennessee Valley Authority's Browns Ferry reactor, Xcel Energy's Monticello reactor, and Dominion Energy's Virgil C. Summer reactor.
- Mexico's Laguna Verde nuclear plant has been granted 30-year operating life extensions for its two units.
- In Canada, Ontario Power Generation (OPG) announced plans to extend the life of the Pickering nuclear power plant until at least 2026 and potentially up to 30 years. In addition, OPG signed an agreement with X-energy to examine deploying their Xe-100 SMR. Finally, OPG issued a \$300 million Green Bond, a first-of-its-kind for the company and part of its commitment to be net zero by 2040. The funds are to be used to finance the refurbishment activities at its Darlington site, where life extensions to four units are in progress, as well as for maintenance of existing nuclear facilities.
- In October 2022, OPG completed a significant project milestone by submitting an application for a Licence to Construct to the CNSC. This licence application is the next step in the deployment of a SMR at the Darlington site. The submission comes after the beginning of site preparation activities earlier in 2022, which was another significant milestone.
- In late 2022, Bruce Power achieved a major milestone in the refurbishment of Unit 6, as project teams successfully installed the CANDU reactor's fuel channel assembly, which puts the project on track to return to operation in 2023. Additionally, the Unit 3 refurbishment campaign is scheduled to begin in March 2023.
- Sprott Physical Uranium Trust (SPUT) purchased about 17 million pounds U₃O₈ in 2022, bringing total purchases since inception to over 41 million pounds U₃O₈. The challenging equity markets in recent months have contributed to SPUT shares trading at a discount to net asset value, impacting its ability to raise funds to purchase uranium.

According to the International Atomic Energy Agency, globally there are currently 439 operable reactors and 57 reactors under construction. Several nations are appreciating the clean energy and energy security benefits of nuclear power. They have

reaffirmed their commitment to it and are developing plans to support existing reactor units and are reviewing their policies to encourage more nuclear capacity. Several other non-nuclear countries have emerged as candidates for new nuclear capacity. In the EU, specific nuclear energy projects have been identified for inclusion under its sustainable financing taxonomy and therefore eligible for access to low-cost financing. Even in countries where phase-out policies were in place, there have been policy reversals and decisions to, at a minimum, temporarily keep reactors running, with public opinion polls showing growing support for it. With a number of reactor construction projects recently approved, and many more planned, the demand for uranium continues to improve. There is growing recognition of the role nuclear must play in providing safe, affordable, carbon free- baseload electricity that achieves a low-carbon economy while being a reliable energy source to help countries diversify away from Russian energy supply.



Supply uncertainty

In addition to low uranium prices, government-driven trade policies, the COVID-19 pandemic, and ongoing supply chain challenges, the most notable factor impacting security of supply in 2022 was geopolitical uncertainty. The geopolitical uncertainty, driven by the Russian invasion of Ukraine, has led many governments and utilities to re-examine supply chains and procurement strategies that are reliant on nuclear fuel supplies coming out of Russia. In addition, sanctions on Russia, government restrictions, and restrictions on and cancellations of some cargo insurance coverage are creating transportation and further supply chain risks for fuel supplies coming out of Central Asia. Despite the recent increase in uranium prices, years of underinvestment in new capacity and the deepening geopolitical uncertainty has shifted risk from producers to utilities.

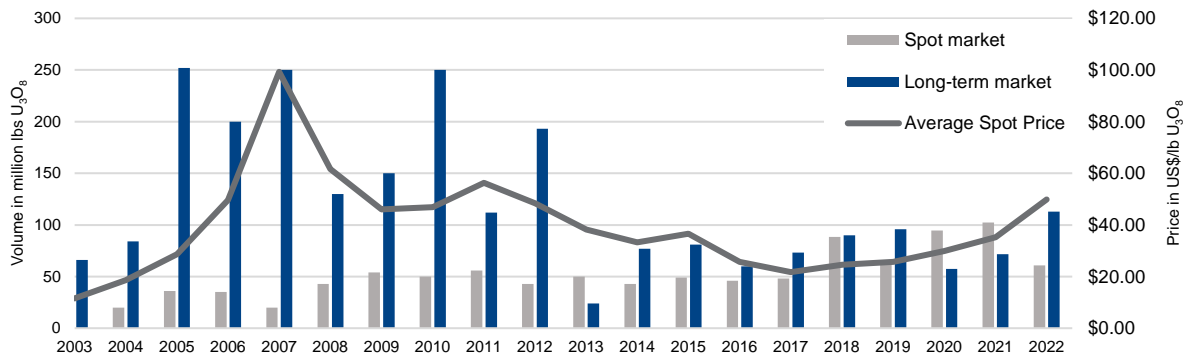
Supply and trade policy highlights

- In November 2022, Cameco announced that the first pounds of uranium ore from the McArthur River mine had been milled and packaged at the Key Lake mill, marking the achievement of initial production as the facilities transition back into normal operations.
- In early January 2022, Kazakhstan saw the most significant political instability since it became independent in 1991. The events resulted in a state of emergency being declared across the country. Order was restored in the second half of January, and the state of emergency was gradually lifted. In November 2022, President Tokayev was re-elected for a new 7-year term.
- Kazatomprom (KAP) announced in August 2022 its plan to produce 10% below its total Subsoil Use Contracts level in 2024. This plan was expected to result in increased production in Kazakhstan of about 5 million to 8 million pounds U_3O_8 compared to the current 20% reduction, bringing total expected annual uranium production to about 65 million pounds in 2024. KAP stated the decision was based on its contracting progress but that it may still face significant challenges to increase above current production levels due to the state of global supply chains. In January 2023, KAP's operational update showed lower expected production in 2023 due to wellfield development, procurement and supply chain issues, resulting in forecasted production of between 53.3 million and 55.9 million pounds, compared to between 58.5 million and 59.8 million pounds previously.
- KATCO, the joint venture between Orano Mining (Orano) and KAP, was granted a new mining permit for a parcel of the Muyunkum uranium deposit in Kazakhstan bringing total estimated uranium reserves to about 120 million pounds U_3O_8 . The full production level of about 10.4 million pounds U_3O_8 is planned for 2026 at the earliest.
- Orano announced plans to increase its enrichment production capacity by 30%, which could involve an expansion of the Georges-Besse II plant located in Tricastin, France. The cost of the project is estimated at \$970M (US) and could increase the capacity at its Georges Besse II plant to 11 million separative work units (SWU) from 7.5 million SWU.
- GLE made progress with the first full-scale laser system module, successfully completing eight months of testing in Australia. The system, which was developed by Silex Systems Ltd for deployment in GLE's commercial pilot demonstration facility has been delivered to GLE's facility in the US. Additionally, GLE signed letters of intent (LOI) to collaborate with two major US utilities to help diversify a portion of the US nuclear fuel supply chain, including measures to support its deployment of laser enrichment technology in the US.
- In June, Boss Energy Limited (Boss) finalized their decision to develop the Honeymoon Uranium Project in South Australia. Boss intends to accelerate construction and is projecting Honeymoon will have first production in the fourth quarter of 2023, ramping up to 2.45 million pounds U_3O_8 production per year within three years.
- ConverDyn's parent, Honeywell, is planning for a 2023 restart of its UF_6 conversion facility in Illinois.

Long-term contracting creates full-cycle value for proven productive assets

Like other commodities, the demand for uranium is cyclical. However, unlike other commodities, uranium is not traded in meaningful quantities on a commodity exchange. The uranium market is principally based on bilaterally negotiated long-term contracts covering the annual run-rate requirements of nuclear power plants, with a small spot market to serve discretionary demand. History demonstrates that in general, when prices are rising and high, uranium is perceived as scarce, and more contracting activity takes place with proven and reliable suppliers. The higher demand discovered during this contracting cycle drives investment in higher-cost sources of production, which due to lengthy development timelines, tend to miss the contracting cycle and ramp up after demand has already been won by proven producers. The new uncommitted supply exposed to the small, discretionary spot market puts downward pressure on price and can create the perception that uranium is abundant, potentially resulting in a failure of long-term price signals. When prices are declining and low, there is no perceived urgency to contract, and contracting activity and investment in new supply dramatically decreases. After years of low prices, and a lack of investment in supply, and as the uncommitted material available in the spot market begins to thin, security-of-supply tends to overtake price concerns. Utilities typically re-enter the long-term contracting market to ensure they have a reliable future supply of uranium to run their reactors.

URANIUM CONTRACTING VOLUMES AND PRICE HISTORY

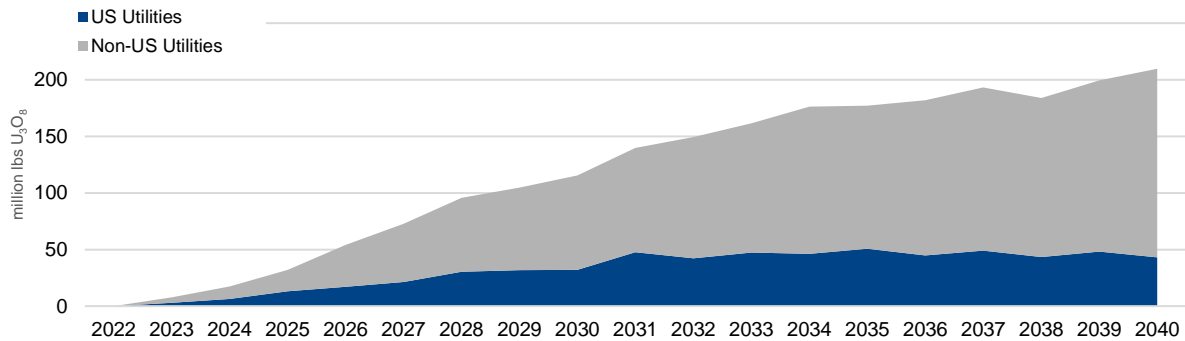


Source: UxC estimates

UxC reports that over the last five years approximately 430 million pounds U₃O₈ equivalent have been locked-up in the long-term market, while approximately 775 million pounds U₃O₈ equivalent have been consumed in reactors. We remain confident that utilities have a growing gap to fill.

We believe the current backlog of long-term contracting presents a substantial opportunity for proven and reliable suppliers with tier-one productive capacity and a record of honouring supply commitments. As a low-cost producer, we manage our operations to increase value throughout these price cycles.

UTILITY UNCOVERED REQUIREMENTS (2022 - 2040)



Source: UxC estimates - December 31, 2022

In our industry, customers do not come to the market right before they need to load nuclear fuel into their reactors. To operate a reactor that could run for more than 60 years, natural uranium and the downstream services have to be purchased years in advance, allowing time for a number of processing steps before a finished fuel bundle arrives at the power plant. At present, we believe there is a significant amount of uranium that needs to be contracted to keep reactors running into the next decade.

UxC estimates that cumulative uncovered requirements are about 2.3 billion pounds to the end of 2040. With the lack of investment over the past decade, there is growing uncertainty about where uranium will come from to satisfy growing demand, and utilities are becoming increasingly concerned about the availability of material to meet their long-term needs. In addition, secondary supplies have diminished, and the material available in the spot market has thinned as producers and financial funds continue to purchase material. Furthermore, the Russian invasion of Ukraine in February has given rise to a geopolitical realignment in energy markets that is causing some utilities to seek nuclear fuel suppliers whose values are aligned with their own or whose origin of supply better protects them from potential interruptions, including from transportation challenges or the possible imposition of formal sanctions.

We will continue to take the actions we believe are necessary to position the company for long-term success. Therefore, we will continue to align our production decisions with our customers' needs under our contract portfolio. We will undertake

contracting activity which is intended to ensure we have adequate protection while maintaining exposure to the benefits that come from having uncommitted, low-cost supply to place into a strengthening market.

Building a balanced portfolio

The purpose of our contracting framework is to deliver value. Our approach is to secure a solid base of earnings and cash flow by maintaining a balanced contract portfolio that optimizes our realized price.

Contracting decisions in all segments of our business need to consider the nuclear fuel market structure, the nature of our competitors, and the current market environment. The vast majority of run-rate fuel requirements are procured under long-term contracts. The spot market is thinly-traded where utilities buy small, discretionary volumes. This market structure is reflective of the baseload nature of nuclear power and the relatively small proportion of the overall operating costs the fuel represents compared to other sources of baseload electricity. Additionally, about half of the fuel supply typically comes from diversified mining companies that produce uranium as a by-product, or by state-owned entities with production volume strategies or ambitions to serve state nuclear power ambitions with low-cost fuel supplies. We evaluate our strategy in the context of our market environment and continue to adjust our actions in accordance with our contracting framework:

- First, we build a long-term contract portfolio by layering in volumes over time. In addition to our committed sales, we will compete for end-user demand in the market where we think we can obtain value and, in general, as part of longer-term contracts. We will take advantage of opportunities the market provides, where it makes sense from an economic, logistical, diversification and strategic point of view. Those opportunities may come in the form of spot, mid-term or long-term demand, and will be additive to our current committed sales.
- Once we have built a portfolio of long-term contracts, we decide how to best source material to satisfy that demand, planning our production in accordance with our contract portfolio and other available sources of supply. We will not produce from our tier-one assets to sell into an oversupplied spot market.
- We do not intend to build an inventory of excess uranium. Excess inventory serves to contribute to the sense that uranium is abundant and creates an overhang on the market, and it ties up working capital on our balance sheet.
- Depending on the timing and volume of our production, purchase commitments, and our inventory volumes, this means we may be active buyers in the market in order to meet our annual delivery commitments. Historically, prior to the supply curtailments that we began in 2016, we have generally planned our annual delivery commitments to slightly exceed the annual supply we expect to come from our annual production and our purchase commitments and have therefore relied on the spot market to meet a small portion of our delivery commitments. In general, if we choose to purchase material to meet demand, we expect the cost of that material will be more than offset by the volume of commitments in our sales portfolio that are exposed to market prices at the time of delivery over the long-term.

In addition to this framework, our contracting decisions always factor in who the customer is, our desire for regional diversification, the product form, and logistical factors.

Ultimately, our goal is to protect and extend the value of our contract portfolio on terms that recognize the value of our assets and pricing mechanisms that provide adequate protection when prices go down and exposure to rising prices. We believe using this framework will allow us to create long-term value. Our focus will continue to be on ensuring we have the financial capacity to execute our strategy and self-manage risk.

Long-term contracting

Uranium is not traded in meaningful quantities on a commodity exchange. Utilities have historically bought the majority of their uranium and fuel services products under long-term contracts that are bilaterally negotiated with suppliers. The spot market is discretionary and typically used for one-time volumes, not to satisfy annual demand. We sell uranium and fuel products and services directly to nuclear utilities around the world as uranium concentrates, UO₂ and UF₆, conversion services, or fuel fabrication and reactor components for CANDU heavy water reactors. We have a solid portfolio of long-term sales contracts that reflect our reputation as a proven, reliable supplier of geographically stable supply, and the long-term relationships we have built with our customers.

In general, we are active in the market, buying and selling uranium when it is beneficial for us and in support of our long-term contract portfolio. We undertake activity in the spot and term markets prudently, looking at the prices and other business factors to decide whether it is appropriate to purchase or sell into the spot or term market. Not only is this activity a source of profit, but it also gives us insight into underlying market fundamentals.

We deliver the majority of our uranium under long-term contracts each year, some of which are tied to market-related pricing mechanisms quoted at time of delivery. Therefore, our net earnings and operating cash flows are affected by changes in the uranium price. Market prices are influenced by the fundamentals of supply and demand, market access and trade policy issues, geopolitical events, disruptions in planned supply and demand, and other market factors.

The objectives of our contracting strategy are to:

- optimize realized price by balancing exposure to future market prices while providing some certainty for our future earnings and cash flow
- focus on meeting the nuclear industry's growing annual uncovered requirements with our tier-one production
- establish and grow market share with strategic and regionally diverse customers

We have a portfolio of long-term contracts, each bilaterally negotiated with customers, that have a mix of base-escalated pricing and market-related pricing mechanisms, including provisions that provide exposure to rising market prices and also protect us when the market price is declining. This is a balanced and flexible approach that allows us to adapt to market conditions, put a floor on our average realized price and deliver the best value over the long term.

This approach has allowed our realized price to outperform the market during periods of weak uranium demand, and we expect it will enable us to realize increases linked to higher market prices in the future.

Base-escalated contracts for uranium (price at time of acceptance escalated over the term): use a pricing mechanism based on a term-price indicator at the time the contract is accepted and escalated to time of each delivery over the term of the contract.

Market-related contracts for uranium: are different from base-escalated contracts in that the pricing mechanism may be based on either the spot price or the long-term price, and that price is as quoted at the time of delivery rather than at the time the contract is accepted. These contracts may provide for discounts, and typically include floor prices and/or ceiling prices, which are fixed at time of contract acceptance and usually escalate over the term of the contract.

Fuel services contracts: the majority of our fuel services contracts use a base-escalated mechanism per kgU and reflect the market at the time the contract is accepted.

Optimizing our contract portfolio

We work with our customers to optimize the value of our contract portfolio. With respect to new contracting activity, there is often a lag from when contracting discussions begin and when contracts are executed. With our large pipeline of business under negotiation in our uranium segment, and a value driven strategy, we continue to be strategically patient in considering the commercial terms we are willing to accept. We layer in contracts over time, with higher commitments in the near term and declining over time in accordance with utilities growing uncovered requirements. Much of our pending business is off-market but we are starting to see more on-market activity emerge. We remain confident that we can add acceptable new sales commitments to our portfolio of long-term contracts to underpin the ongoing operation of our productive capacity and capture long-term value.

Given our view that additional long-term supply will need to be incented to meet the growing demand for safe, clean, reliable, carbon-free nuclear energy, our preference today is to sign long-term contracts with market-related pricing mechanisms. Unsurprisingly, we believe our customers too expect prices to rise and prefer to lock-in today's prices, with a fixed-price mechanism. Our goal is to balance all these factors, along with our desire for customer and regional diversification, with product form, and logistical factors to ensure we have adequate protection and will have exposure to rising market prices under our contract portfolio, while maintaining the benefits that come from having low-cost supply to deliver into a strengthening market.

With respect to our existing contracts, at times we may also look for opportunities to optimize the value of our portfolio. In cases where there is a changing policy, operating, or economic environment, we may consider options that allow us to maintain our customer relationships and are mutually beneficial.

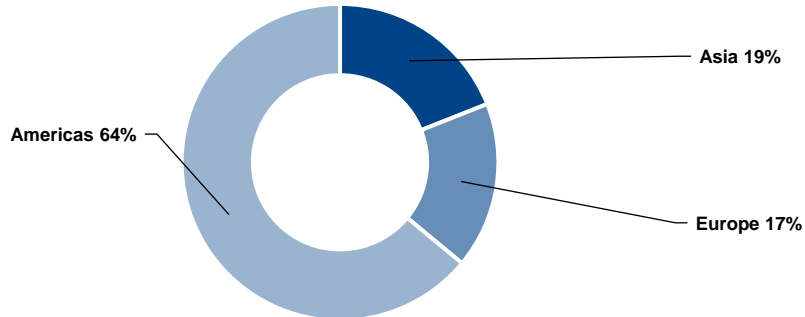
Contract portfolio status

We have commitments to sell approximately 180 million pounds of U₃O₈ with 34 customers worldwide in our uranium segment, and over 55 million kilograms as UF₆ conversion with 31 customers worldwide in our fuel services segment.

Customers – U₃O₈:

Five largest customers account for 56% of commitments

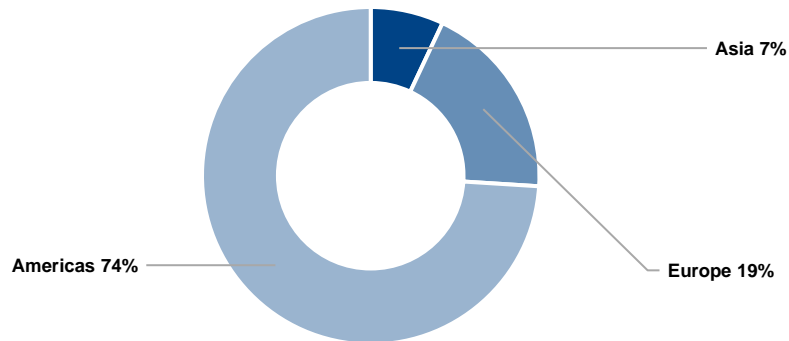
COMMITTED U₃O₈ SALES BY REGION



Customers – UF₆ conversion:

Five largest customers account for 59% of commitments

COMMITTED UF₆ SALES BY REGION



Managing our contract commitments

We allow sales volumes to vary year-to-year depending on:

- the level of sales commitments in our long-term contract portfolio
- market opportunities
- our sources of supply

To meet our delivery commitments and to mitigate risk, we have access to a number of sources of supply, which includes uranium obtained from:

- our productive capacity
- purchases under our JV Inkai agreement, under long-term agreements and in the spot market
- our inventory in excess of our working requirements
- product loans

Our supply discipline

As spot is not the fundamental market, true value is built under a long-term contract portfolio and is measured over the full commodity cycle. Therefore, we align our uranium production decisions with our contract commitments and market opportunities to avoid carrying excess inventory or having to sell into an oversupplied spot market. In accordance with market conditions, and to mitigate risk, we evaluate the optimal mix of our production, inventory and purchases in order to satisfy our contractual commitments and in order to realize the best return over the entire commodity cycle. During a prolonged period of uncertainty, this could mean leaving our uranium in the ground. For the years 2016 through 2022, we left more than 130 million pounds of uranium in the ground (100% basis) by curtailing our production. We purchased more than 60 million pounds including spot and long-term purchases and in 2018 we drew down our inventory by almost 20 million pounds. That totals over 210 million pounds (100% basis) of uranium that were not available to the market.

However, today we believe we are in the early stages of a uranium market transition, driven by the growing demand for nuclear energy and the increasingly undeniable conclusion that it is essential to the clean-energy transition and to energy security. In our uranium segment, in 2022 we added 80 million pounds to our portfolio of long-term uranium contracts, about 58 million of which are finalized and 22 million pounds accepted with key commercial terms, such as pricing mechanism, volume, and tenor having been agreed to, but still awaiting contract finalization; and we have a large and growing pipeline of uranium business under discussion. As the market continues to transition, we expect to continue to place our uranium under long-term contracts and to meet rising demand with production from our best margin operations.

With the improvements in the market, the new long-term contracts we have put in place, and a pipeline of contracting discussions, we have decided to adjust our production plan for McArthur River/Key Lake to produce 18 million pounds (100% basis) starting in 2024, and we plan to continue to operate Cigar Lake at its licensed capacity of 18 million pounds per year (100% basis) in 2024. At Inkai, production will continue to follow the 20% reduction planned by KAP until the end of 2023.

With annual licensed capacity of 25 million pounds (100% basis) at McArthur River/Key Lake, we continue to have the ability to expand production from our existing assets, however some additional investment would be required. Any decision to expand production will be dependent on further improvements in the uranium market and our ability to secure the appropriate long-term contract homes for our unencumbered, in-ground inventory, demonstrating that we continue to responsibly manage our assets in accordance with our customers' needs. In addition to our plans to expand uranium production, at our Port Hope UF₆ conversion facility we are working on increasing production to 12,000 tonnes by 2024 to satisfy our book of long-term business for conversion services and customer demand, at a time when conversion prices are at historic highs.

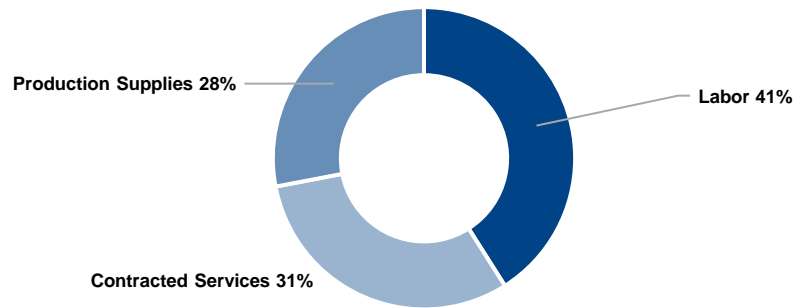
Our adjusted production plans for McArthur River/Key Lake and Cigar Lake are expected to significantly improve our financial performance by allowing us to source more of our committed sales from the lower-cost produced pounds and we will no longer be required to expense care and maintenance or operational readiness costs related to McArthur River/Key Lake to cost of sales. In addition, with conversion demand elevated, we have been successful in securing long-term sales commitments that will support increased UF₆ production at Port Hope, which is expected to further improve its contribution to our financial results. Over the course of 2023, we will undertake all of the activities necessary to ensure we are operationally ready to achieve the 2024 production plan. However, this is not an end to our supply discipline. We expect to continue to adjust our production in accordance with our contract portfolio. This will remain our production plan until we see further improvements in the uranium market and contracting progress, once again demonstrating that we are a responsible fuel supplier.

Managing our costs

Production costs

In order to operate efficiently and cost-effectively, we manage operating costs and improve plant reliability by prudently investing in production infrastructure, new technology, and business process improvements. Like all mining companies, our uranium segment is affected by the cost of inputs such as labour and fuel.

2022 URANIUM OPERATING COSTS BY CATEGORY



* Production supplies include reagents, fuel and other items. Contracted services include utilities and camp costs, air charters, mining and maintenance contractors and security and ground freight.

Over the last number of years, the annual cash cost of production reflected the operating cost of mining and milling our share of Cigar Lake as this was our only operating site. With the restart of the McArthur River/Key Lake operations the annual cost of production will reflect a combined cost of all our operating uranium assets. See *2022 financial results by segment – Uranium* starting on page 57 of our 2022 MD&A for more information. In 2023, our cash production costs may continue to be affected by inflation, the availability of personnel with the necessary skills and experience, supply chain challenges impacting the availability of materials and reagents, and our ability to ramp up to planned production at McArthur River/Key Lake.

Operating costs in our fuel services segment are mainly fixed. In 2022, labour accounted for about 51% of the total. The largest variable operating cost is for zirconium, followed by anhydrous hydrogen fluoride, and energy (natural gas and electricity).

We continue to look to adopt innovative and advanced digital and automation technologies to improve efficiency and operational flexibility, and to further reduce cost.

Care and maintenance costs and operational readiness costs

In 2023, we expect to incur between \$50 million and \$60 million in care and maintenance costs related to the suspension of production at our Rabbit Lake mine and mill, and our US operations. These operations are higher-cost and a restart is less certain. We continue to evaluate our options in order to minimize these costs.

Purchases and inventory costs

Our costs are also affected by the purchases of uranium and conversion services we make under long-term contracts and on the spot market.

To meet our delivery commitments, we make use of our mined production, inventories, purchases under long-term contracts, purchases we make on the spot market and product loans. In 2023, the price for the majority of our purchases will be quoted at the time of delivery.

The cost of purchased material may be higher or lower than our other sources of supply, depending on market conditions. The cost of purchased material affects our cost of sales, which is determined by calculating the average of all of our sources of supply, including opening inventory, production, and purchases, and adding royalties, selling costs, and care and maintenance costs. Our cost of sales could be impacted if we do not achieve our annual production plan, or we are unable to source uranium as planned, and we are required to purchase uranium at prices that differ from our cost of inventory.

Financial impact

The growing demand for nuclear power due to its safety, clean energy, reliability, security and affordability attributes has contributed to increased demand for nuclear fuel products and services. As a result, we have seen price increases across the nuclear fuel value chain, which reflect the need for capacity increases to satisfy the projected growth.

The deliberate and disciplined actions we took to curtail production and streamline operations over the past decade came with near-term costs like care and maintenance costs, operational readiness costs, and purchase costs higher than our production costs. However, we considered these costs as investments in our future.

Today, thanks to our investments, and with our continued ability to secure new long-term sales commitments we believe we are well-positioned for growth. Our core growth is expected to come from our existing tier-one mining and fuel services assets. We do not have to build new capacity to pursue new opportunities. We currently have sufficient productive capacity to expand, a position we have not enjoyed in previous price cycles.

And, with the planned joint acquisition of Westinghouse, we expect to be able to expand our growth profile by extending our reach in the nuclear fuel cycle at a time when there are tremendous tailwinds for the nuclear power industry. We are extending our reach with an investment in assets, that like ours, are strategic, proven, licensed and permitted, that are located in geopolitically favourable jurisdictions, and that we expect will be able to grow from their existing footprint. These assets are also expected to provide new opportunities for our existing suite of uranium and fuel services assets.

We believe our actions and investments have helped position the company to self-manage risk and as we make the transition back to a tier-one run rate, we expect our financial performance to significantly improve, allowing us to execute on our strategy while rewarding our stakeholders for their continued patience and support of our strategy to build long-term value.

Supply sources

Uranium supply sources include primary production (production from mines that are currently in commercial operation) and secondary supply sources (excess inventories, uranium made available from defense stockpiles and the decommissioning of nuclear weapons, re-enriched depleted uranium tails, and used reactor fuel that has been reprocessed).

Primary production

While the uranium production industry is international in scope, there are only a small number of companies operating in relatively few countries. In addition, there are barriers to entry and bringing on and ramping up production can take a significant number of years. During the low-price environment that persisted for about a decade following 2011, a number of projects were cancelled or delayed, and some production was discontinued. While today's uranium prices and contracting activity have supported the restart of some tier-one assets, they are not sufficient to encourage the restart of tier-two assets, or the investment in new mine development.

We estimate world mine production in 2022 was about 133 million pounds U₃O₈, up from 124 million pounds in 2021:

- About 85% of estimated world production came from five countries: Kazakhstan (42%), Canada (15%), Namibia (12%), Australia (9%), and Uzbekistan (7%).
- About 76% of estimated world production was attributable to five producers. We accounted for about 12% (15 million pounds) of estimated world production in 2022.

Secondary sources

There are a number of secondary sources, but most of these sources are finite and will not meet long-term needs:

- The US government has historically made some of its inventories available to the market, although in smaller and predictable quantities.
- The Russian government also holds substantial volumes of nuclear fuel inventory largely in the form of depleted uranium, but overall, their contribution to secondary supplies has reduced significantly since the end of the HEU Agreement.
- Utilities, mostly in Europe and some in Japan and Russia, use reprocessed uranium and plutonium from used reactor fuel.
- Re-enriched depleted uranium tails and uranium from underfeeding are also generated when there is excess enrichment capacity.

Uranium from US inventories

We expect a sizeable portion of the US Department of Energy (DOE) inventory will be available to the market over the next two decades, although a significant portion of the inventory requires either further processing or the development of commercial arrangements before it can be brought to market.

DOE Excess Uranium Inventory Management Plan

Historically, the DOE was one of the primary sources of secondary supplies in the uranium market. This role has been significantly reduced since the suspension of the barter program of its natural UF₆ inventory. DOE's current primary contribution to secondary supplies is high-enriched uranium (HEU) downblending. The vast majority of the DOE's inventory is large volumes of depleted uranium (DU).

In 2018, the DOE suspended its practice of bartering its excess uranium through 2019. The barter suspension has since been extended on an annual basis. The DOE has indicated a commitment to continue the suspension of the UF₆ barter program. There is currently no available timetable to dispose of the remaining natural UF₆ in DOE's excess inventory, estimated at less than 9 million pounds.

Trade restraints and policies

The importation of Russian uranium into the US market is regulated by the amended *USEC Privatization Act* and by the Agreement Suspending the Antidumping Action against Russian Uranium Products (RSA), which together impose annual quotas on imports of Russian uranium. These quotas were set at the equivalent of 20% of annual US reactor demand and expired at the end of 2020. An amendment to the RSA was signed that extends the agreement from January 1, 2021 through December 31, 2040 and provides a clear set of rules around access to the US nuclear energy sector by Russian nuclear fuel suppliers. Since 1992, the importation of Russian uranium products in the US has been subject to a quota under the RSA. The amendment reduces the average overall quota and introduces caps, which will reduce the amount of Russian uranium, conversion and enrichment supplied to the US over the long-term. The amendment also includes important new provisions to ensure that all Russian origin uranium must be counted against the quota even if it is imported after further processing in other countries.

The US restrictions do not affect the sale of Russian uranium to other countries. A significant portion of world uranium demand is from utilities in countries that are not affected by the US restrictions. Utilities in some countries, however, adopt policies that limit the amount of Russian uranium they will buy. The Euratom Supply Agency in Europe must approve all uranium related contracts for members of the European Union (EU) and limits the use of certain nuclear fuel supplies from any one source to maintain security of supply, although these limits do not apply to uranium sold separately from enriched uranium product.

Since the Russian invasion of Ukraine on February 24, 2022, many jurisdictions have imposed strict economic sanctions against Russia, including Canada, the United States, the European Union, the United Kingdom, and others. The Canadian government has cancelled existing export permits to Russia and will not grant new export permits to Russia. The US government is yet to ban imports of Russian supplies, though a bill has been introduced in the US House of Representatives which proposes an immediate ban on Russian imports 90 days after enactment. However, the proposed bill allows for a waiver process which authorizes imports equal to but not exceeding volumes stipulated in the RSA. These waivers would expire on January 1, 2028, and no new Russian imports would be permitted thereafter. Trade sanctions will impact the flow of nuclear fuel supplies coming in and out of Russia, including supplies shipped through Russian ports. The global nuclear industry currently relies on Russia for approximately 14% of its supply of uranium concentrates, 27% of conversion supply, and 39% of enrichment capacity.

The US Congress approved an omnibus spending bill for 2021, providing nearly \$1.5 billion (US) in spending for nuclear programs which notably included initial funding of \$75 million (US) for the creation of a national uranium reserve. This allowed the US government to begin purchasing domestically produced uranium and UF₆ to guard against potential commercial and national security risks as a result of the country's near-total reliance on foreign imports. In 2022, contracts were awarded to five US uranium producers for 1.1 million pounds U₃O₈.

Conversion services

We have about 21% of world UF₆ primary conversion capacity and supply UO₂ for Canadian-made CANDU reactors. For conversion services, we compete with a small number of primary commercial suppliers to meet global demand. In addition, at times we compete with secondary supplies that come to market as UF₆ and are described above.

Operations, projects and other nuclear fuel cycle investments

Uranium

Tier-one operations	
McArthur River mine/Key Lake mill	25
Cigar Lake	40
Inkai	54
Tier-two operations	
Rabbit Lake	69
US ISR Operations	70
Advanced projects	
Millennium	71
Yeelirrie	71
Kintyre	71
Exploration	72

Fuel services

Refining, conversion and fuel manufacturing	
Blind River Refinery	73
Port Hope Conversion Services	74
Cameco Fuel Manufacturing Inc.	75

Other nuclear fuel cycle investments

Global Laser Enrichment (GLE)	75
Proposed acquisition of Westinghouse	76

Corporate development 78

Uranium production

Cameco's share (million lbs U ₃ O ₈)	2021	2022	2023 Plan
McArthur River/Key Lake	- 1	0.8 ³	10.5
Cigar Lake	6.1 ²	9.6 ³	9.8
Rabbit Lake	- 1	- 1	- 1
US ISR Operations	- 1	- 1	- 1
Total	6.1	10.4	20.3

¹ The McArthur River/Key Lake operations began to restart in 2022, the Rabbit Lake operation remains in a state of care and maintenance, and we are no longer developing new wellfields at US ISR Operations.

² A production target was not set in 2021 until after production at Cigar Lake resumed following the proactive four-month COVID-19 related suspension that started in December 2020. A production target of up to 6.0 million pounds (our share) was provided in our 2021 second quarter MD&A.

³ Cigar Lake was successful in catching up on development work that had been deferred from 2021, and the production target was updated to 9.5 million pounds (our share) in our 2022 second quarter MD&A. The increase also reflected our increase in ownership at Cigar Lake. A production target of up to 1.4 million pounds (our share) from McArthur River/Key Lake was provided in our 2022 second quarter MD&A due to commissioning delays at the mill.

We expect total production from Inkai to be 8.3 million pounds in 2023 on a 100% basis, assuming no production disruptions due to the COVID-19 pandemic, civil unrest, supply chain issues or other causes. Due to equity accounting, our share of production is shown as a purchase. An adjustment to the production purchase entitlement allows us to purchase 4.2 million pounds in 2023.

Uranium – Tier-one operations

McArthur River mine / Key Lake mill



2022 Production (our share)

0.8M lbs

2023 Production Outlook (our share)

10.5M lbs

Estimated Reserves (our share)

275.0M lbs

Estimated Mine Life

2044

McArthur River is the world's largest, high-grade uranium mine, and Key Lake is the world's largest uranium mill. We are the operator of both the mine and mill.

McArthur River is considered a material uranium property for us. There is a technical report dated March 29, 2019 (effective December 31, 2018) that can be downloaded from SEDAR (sedar.com) or from EDGAR (sec.gov).

Location	Saskatchewan, Canada
Ownership	McArthur River – 69.805% Key Lake – 83.33%
Mine type	Underground
Mining methods	Blasthole stoping, Raiseboring
End product	Uranium concentrate
Certification	ISO 14001 certified
Estimated reserves	275.0 million pounds (proven and probable), average grade U ₃ O ₈ : 6.70%
Estimated resources	4.7 million pounds (measured and indicated), average grade U ₃ O ₈ : 2.23% 1.7 million pounds (inferred), average grade U ₃ O ₈ : 2.89%
Licensed capacity	Mine and mill: 25.0 million pounds per year
Licence term	Through October 2023
Total packaged production:	
2000 to 2022	326.5 million pounds (McArthur River/Key Lake) (100% basis)
1983 to 2002	209.8 million pounds (Key Lake) (100% basis)
2022 production	0.8 million pounds (1.1 million pounds on 100% basis)
2023 production outlook	10.5 million pounds (15.0 million pounds on 100% basis)
Estimated decommissioning cost	\$42 million – McArthur River (100% basis) \$223 million – Key Lake (100% basis)

All values shown, including reserves and resources, represent our share only, unless indicated.

Business structure

McArthur River is owned by a joint venture (MRJV) between two companies:

- Cameco – 69.805% (operator)
- Orano Canada Inc. (Orano) – 30.195%

Key Lake is owned by a joint venture between the same two companies:

- Cameco – 83.333% (operator)
- Orano – 16.667%

History

1976	<ul style="list-style-type: none"> • Canadian Kelvin Resources Ltd. and Asamera Oil Corporation Ltd. form an exploration joint venture, which includes the lands that the McArthur River mine is situated on
1977	<ul style="list-style-type: none"> • SMDC, one of our predecessor companies, acquires a 50% interest
1980	<ul style="list-style-type: none"> • McArthur River joint venture is formed • SMDC becomes the operator • Active surface exploration begins • Between 1980 and 1988 SMDC reduces its interest to 43.991%
1988	<ul style="list-style-type: none"> • Eldorado Resources Limited merges with SMDC to form Cameco • We become the operator • Deposit discovered by surface drilling
1988-1992	<ul style="list-style-type: none"> • Surface drilling reveals significant mineralization of potentially economic uranium grades, in a 1,700 metre zone at depths of between 500 to 640 metres
1992	<ul style="list-style-type: none"> • We increase our interest to 53.991%
1993	<ul style="list-style-type: none"> • Underground exploration program receives government approval – program consists of shaft sinking (completed in 1994) and underground development and drilling
1995	<ul style="list-style-type: none"> • We increase our interest to 55.844%
1997-1998	<ul style="list-style-type: none"> • Federal authorities issue construction licences for McArthur River after reviewing the environmental impact statement, holding public hearings, and receiving approvals from the governments of Canada and Saskatchewan
1998	<ul style="list-style-type: none"> • We acquire all of the shares of Uranerz Exploration and Mining Ltd. (UEM), increasing our interest to 83.766% • We sell half of the shares of UEM to Orano, reducing our interest to 69.805%, and increasing Orano's to 30.195%
1999	<ul style="list-style-type: none"> • Federal authorities issue the operating licence and provincial authorities give operating approval, and mining begins in December
2003	<ul style="list-style-type: none"> • Production is temporarily suspended in April because of a water inflow • Mining resumes in July
2009	<ul style="list-style-type: none"> • UEM distributes equally to its shareholders: <ul style="list-style-type: none"> – its 27.922% interest in the McArthur River joint venture, giving us a 69.805% direct interest, and Orano a 30.195% direct interest – its 33.333% interest in the Key Lake joint venture, giving us an 83.33% direct interest, and Orano a 16.667% direct interest
2013	<ul style="list-style-type: none"> • Federal authorities granted a 10-year renewal of the McArthur River and Key Lake operating licences
2014	<ul style="list-style-type: none"> • After a two-week labour disruption, we enter into a four-year collective agreement with unionized employees at McArthur River and Key Lake operations
2017	<ul style="list-style-type: none"> • We announce our plan to temporarily suspend production at McArthur River and Key Lake in 2018
2018	<ul style="list-style-type: none"> • We announce the suspension of production at McArthur River and Key Lake for an indeterminate duration
2022	<ul style="list-style-type: none"> • We announce plans to transition McArthur River and Key Lake from care and maintenance to planned production of 15 million pounds per year (100% basis) by 2024
2023	<ul style="list-style-type: none"> • We updated our production plans for McArthur River and Key Lake to achieve production of 18 million pounds per year (100% basis) starting in 2024

Technical report

This description is based on the project's technical report: McArthur River Operation, Northern Saskatchewan, Canada, dated March 29, 2019 (effective December 31, 2018). The report was prepared for us in accordance with *Canadian National Instrument 43-101 – Standards of Disclosure for Mineral Projects* (NI 43-101), by or under the supervision of Linda Bray, P. Eng., Gregory M. Murdock, P. Eng., and Alain D. Renaud, P. Geo. The following description has been prepared under the supervision of Biman Bharadwaj, P. Eng., Daley McIntyre, P. Eng., Gregory M. Murdock, P. Eng., and Alain D. Renaud, P. Geo. They are all qualified persons within the meaning of NI 43-101 but are not independent of us.

The conclusions, projections and estimates included in this description are subject to the qualifications, assumptions and exclusions set out in the technical report. We recommend you read the technical report in its entirety to fully understand the project. You can download a copy from SEDAR (sedar.com) or from EDGAR (sec.gov).

About the McArthur River property

Location

The McArthur River mine site is located near Toby Lake, approximately 620 kilometres north of Saskatoon. The mine site is in close proximity to other uranium production operations: the Key Lake mill is 80 kilometres southwest by road and the Cigar Lake mine is 46 kilometres northeast by air.

Access

Access to the property is by an all-weather gravel road and by air. Supplies are transported by truck from Saskatoon and elsewhere. There is a 1.6-kilometre unpaved air strip and an air terminal one kilometre east of the mine site, on the surface lease.

Saskatoon, a major population centre south of the McArthur River property, has highway and air links to the rest of North America.

Leases

Surface lease

The MRJV acquired the right to use and occupy the lands necessary to mine the deposit under a surface lease agreement with the province of Saskatchewan. The lease covers 1,425 hectares and expires in May 2043.

We are required to report annually on the status of the environment, land development and progress on northern employment and business development.

Mineral lease

We have the right to mine the deposit under ML 5516, granted to us by the province of Saskatchewan. The lease covers 1,380 hectares and expires in March 2024. We have the right to renew the lease for further 10-year terms.

Mineral claims

A mineral claim gives us the right to explore for minerals and to apply for a mineral lease. There are 28 mineral claims, totalling 87,747 hectares, adjoining the mineral lease and surrounding the deposit. The mineral claims are in good standing until 2024, or later.

Environment, social and community factors

The climate is typical of the continental sub-arctic region of northern Saskatchewan. Summers are short and cool even though daily temperatures can sometimes reach above 30°C. The mean daily temperature for the coldest month is below -20°C, and winter daily temperatures can reach below -40°C.

For information about uranium sales see pages 17 to 20, environmental matters see *Our ESG principles and practices* and *The regulatory environment* starting on pages 84 and 87, and taxes see page 95.

For a description of royalties payable to the province of Saskatchewan on the sale of uranium extracted from orebodies within the province, see page 94.

For a description of risks that might affect access, title or the right or ability to perform work on the property, see *Governance and compliance risks* starting at page 110, *Social risks* starting at page 112 and *Environmental risks* starting at page 113.

The deposit is 40 kilometres inside the eastern margin of the Athabasca Basin in northern Saskatchewan. The topography and environment are typical of the taiga forested lands in the Athabasca Basin.

We are committed to building long-lasting and trusting relationships with the communities in which we operate. For more information, see *Our ESG principles and practices* at page 84.

No communities are in the immediate vicinity of McArthur River. The community of Wollaston Lake is approximately 120 kilometres by air to the east of the mine site. The community of Pinehouse is approximately 300 kilometres south of the mine by road.

Athabasca Basin community resident employees and contractors fly to the mine site from designated pick-up points. Other employees and contractors fly to the mine from Saskatoon with pick-up points in Prince Albert and La Ronge.

Geological setting

The deposit is in the southeastern portion of the Athabasca Basin in northern Saskatchewan, within the southwest part of the Churchill structural province of the Canadian Shield. The deposit is located at or near the unconformity contact between the Athabasca Group sandstones and underlying metasedimentary rocks of the Wollaston Domain.

The deposit is similar to other Athabasca Basin deposits but is distinguished by its very high grade and overall size. Unlike Cigar Lake, there is no development of extensive hydrothermal clay alteration in the sandstone above the uranium mineralization and the deposit is relatively simple geochemically with negligible amounts of other metals.

McArthur River's geological setting is similar to the Cigar Lake deposit in that the sandstone that overlies the deposit and basement rocks contains large volumes of water at significant pressure.

Mineralization

McArthur River's mineralization is structurally controlled by a northeast-southwest trending reverse fault (the P2 fault), which dips 40-65 degrees to the southeast and has thrust a wedge of basement rock into the overlying sandstone with a vertical displacement ranging between 60 and 80 metres.

The deposit consists of nine mineralized zones with delineated mineral resources and/or reserves: Zones 1, 2, 3, 4, 4 South, A, B, McA North 1 and McA North 2. These and three under-explored mineralized showings, known as McA North 3, McA North 4 and McA South 1, as well as other mineralized occurrences have been identified over a strike length of 2,700 metres.

The main part of the mineralization, generally at the upper part of the basement wedge, averages 12.7 metres in width and has a vertical extent ranging between 50 metres and 120 metres.

The deposit has two distinct styles of mineralization:

- high-grade mineralization at the unconformity near the P2 reverse fault and within both sandstone and basement rocks
- fracture controlled and vein like mineralization that occurs in the sandstone away from the unconformity and within the basement quartzite

The high-grade mineralization along the unconformity constitutes most of the mineralization within the McArthur River deposit. Mineralization occurs across a zone of strongly altered basement rocks and sandstone across both the unconformity and the P2 structure. Mineralization is generally within 15 metres of the basement/sandstone contact with the exception of Zone 2.

Uranium oxide in the form of uraninite and pitchblende (+/- coffinite) occurs as disseminated grains in aggregates ranging in size from millimetres to decimetres, and as massive mineralization up to several metres thick.

Geochemically, the deposit does not contain any significant quantities of the elements nickel, copper, cobalt, lead, zinc, molybdenum, and arsenic that are present in other unconformity related Athabasca uranium deposits although locally elevated quantities of these elements have been observed in Zone B.

Deposit type

McArthur River is an unconformity-associated uranium deposit. Deposits of this type are believed to have formed through an oxidation-reduction reaction at a contact where oxygenated fluids met with reducing fluids. The geological model was confirmed by surface drilling, underground drilling, development, and production activities.

About the McArthur River operation

McArthur River is a fully developed property with sufficient surface rights to meet current mining operation needs. In February 2018, we began a planned 10-month production suspension. In response to market conditions, in July 2018 we extended the suspension for an indeterminate duration. In February 2022, we announced plans to transition from care and maintenance to planned production of 15 million pounds per year (100% basis) by 2024. In February 2023, we updated our 2024 production plan to achieve 18 million pounds per year (100% basis) by 2024.

We began construction and development of the McArthur River mine in 1997 and completed it on schedule. Mining began in December 1999 and commercial production on November 1, 2000. We have successfully extracted over 325 million pounds (100% basis) since we began mining in 1999.

The mineral reserves at McArthur River are contained within seven zones: Zones 1, 2, 3, 4, 4 South, A and B. Prior to care and maintenance, there were two active mining zones and one where development was significantly advanced.

Zone 2 has been actively mined since production began in 1999. The ore zone was initially divided into three freeze panels. As the freeze wall was expanded, the inner connecting freeze walls were decommissioned to recover the inaccessible uranium around the active freeze pipes. Mining of Zone 2 is almost complete. About 4.7 million pounds of mineral reserves remain (100% basis) and we expect to recover them using a combination of raisebore and blasthole stope mining.

Zone 4 has been actively mined since 2010. The zone was divided into four freeze panels, and like in Zone 2, as the freeze wall was expanded, the inner connecting freeze walls were decommissioned. Zone 4 has 116.6 million pounds of mineral reserves (100% basis) secured behind freeze walls and it will be the main source of production for the next several years. Raisebore mining and blasthole stoping will be used to recover the mineral reserves.

Zone 1 is the next planned mine area to be brought into production. Freezehole drilling was 90% complete and brine distribution construction was approximately 10% complete when work was suspended in 2018 as part of the production suspension. Work remaining before production can begin includes completion of the freezehole drilling, brine distribution construction, ground freezing, and drill and extraction chamber development. Work is expected to resume in zone 1 in 2023. Once complete, an additional 48.0 million pounds of mineral reserves (100% basis) will be secured behind freeze walls. Blasthole stope mining is currently planned as the main extraction method.

Permits

We need three key permits to operate the McArthur River mine:

- Uranium Mine Operating Licence – renewed in 2013 and expires on October 31, 2023 (from the CNSC);
- Approval to Operate Pollutant Control Facilities – renewed in 2017 and expires on June 30, 2023 (from the Saskatchewan Ministry of Environment (SMOE)); and
- Water Rights Licence and Approval to Operate Works – amended in 2011 and valid for an undefined term (from the Saskatchewan Watershed Authority)

The CNSC relicensing process is under way for McArthur River and Key Lake, and we expect a decision from the CNSC later in 2023. We do not expect any interruption or significant risks from this process.

The CNSC licence conditions handbook allows McArthur River to produce up to 25.0 million pounds (100% basis) per year.

Infrastructure

Surface facilities are 550 metres above sea level. The site includes:

- an underground mine with three shafts: one full service shaft and two ventilation shafts
- 1.6-kilometre gravel airstrip and air terminal
- waste rock stockpiles
- water containment ponds and treatment plant
- a freshwater pump house
- a powerhouse
- electrical substations
- backup electrical generators
- a warehouse
- freeze plants
- a concrete batch plant
- an administration and maintenance shop building
- a permanent residence and recreation facilities
- an ore slurry load out facility

Water, power and heat

Toby Lake, which is nearby and easy to access, has enough water to satisfy all surface water requirements. Collection of groundwater that naturally enters our shafts is sufficient to meet all underground process water requirements and supplements the surface industrial water supply. The site is connected to the provincial power grid, and it has backup generators in case there is an interruption in grid power.

McArthur River operates throughout the year despite cold winter conditions. During the winter, we heat the fresh air necessary to ventilate the underground workings using propane-fired burners.

Employees

Employees are recruited with preference given to residents of northern Saskatchewan.

We reached a new collective agreement with unionized employees at our McArthur River/Key Lake operations in July 2019. The agreement expired on December 31, 2022. Negotiations for a new agreement have commenced. As in past negotiations, work continues under the terms of the expired collective agreement. There is a risk to the production plan if we are unable to reach an agreement and there is a labour dispute.

Mining

The McArthur River deposit presents unique challenges that are not typical of traditional hard or soft rock mines. These challenges are the result of mining in or near high pressure ground water in challenging ground conditions with significant radiation concerns due to the high-grade uranium ore. We take significant steps and precautions to reduce the risks. Mine designs and mining methods are selected based on their ability to mitigate hydrological, radiological, and geotechnical risks. Operational experience gained since the start of production has resulted in a significant reduction in risk. However, there is no guarantee that our efforts to mitigate risk will be successful.

Mining methods and techniques

There are three approved mining methods at McArthur River: raisebore mining, blasthole stope mining and boxhole mining. However, only raisebore and blasthole stope mining remain in use. These methods all use ground freezing to mine the McArthur River deposit.

Ground freezing

All the mineralized areas discovered to date at McArthur River are in, or partially in, water-bearing ground with significant pressure at mining depths. This high pressure water source is isolated from active development and production areas in order to reduce the inherent risk of an inflow. To date, McArthur River has relied on pressure grouting and ground freezing to successfully mitigate the risks of the high pressure ground water.

Chilled brine is circulated through freeze holes to form an impermeable freeze barrier around the area being mined. This prevents water from entering the mine, and helps stabilize weak rock formations. Ground freezing significantly reduces, but does not fully eliminate, the risk of water inflows.

Blasthole stoping

Blasthole stoping began in 2011 and was the main extraction method prior to our production suspension. It is planned in areas where blastholes can be accurately drilled and small stable stopes excavated without jeopardizing the freeze wall integrity. The use of this method has allowed the site to improve operating costs by increasing overall extraction efficiency by reducing underground development, concrete consumption, mineralized waste generation and improving extraction cycle time.

Raisebore mining

Raisebore mining is an innovative non-entry approach that we adapted to meet the unique challenges at McArthur River, and it has been used since mining began in 1999. This method is favourable for mining the weaker rock mass areas of the deposit, and is suitable for massive high-grade zones where there is access both above and below the ore zone.

Initial processing

McArthur River produces two product streams, high-grade slurry and low-grade mineralized rock. Both product streams are shipped to the Key Lake mill to produce uranium ore concentrate.

The high-grade material is ground and thickened into a slurry underground and then pumped to surface. The material is then thickened further, blended for grade control and shipped to Key Lake in slurry totes using haul trucks.

The low-grade mineralized material is hoisted to surface and shipped as a dry product to Key Lake using covered haul trucks. Once at Key Lake, the material is ground, thickened and blended with the high-grade slurry to a nominal 5% U₃O₈ mill feed grade. It is then processed into uranium ore concentrate and packaged in drums for further processing offsite.

New mining areas

We must bring on new mining zones to sustain production. Prior to the production shutdown, two new areas were under active development. Zone 1 was in the freeze drilling stage (90% complete) and Zone 4 South was in the initial freeze drift development stage.

In 2018, all development and construction activities for the new mining zones were halted as part of the production suspension. Work is expected to resume in zone 1 in 2023.

Tailings

McArthur River does not have a tailings management facility (TMF) as it ships all mineralized material to Key Lake for final milling and processing.

Waste rock

The waste rock piles are confined to a small footprint on the surface lease and managed in contained facilities. These are separated into three categories:

- clean waste (includes mine development waste, crushed waste, and various piles for concrete aggregate and backfill)
- low-grade mineralization temporarily stored on lined pads until trucked to Key Lake
- waste with acid-generating potential – temporarily stored on lined pads – for concrete aggregate

Water inflow incidents

There have been two notable water inflow incidents at the McArthur River mine. These two inflows have strongly influenced our mine design, inflow risk mitigation and inflow preparedness:

Bay 12 Inflow: Production was suspended on April 6, 2003, as increased water inflow due to a rock fall in a new development area (Bay 12 located just above the 530-metre level) began to flood the lower portions of the mine, including the underground grinding circuit area. Additional dewatering capacity was installed, and the flooded areas were dewatered and repaired. We resumed mining in July 2003 and sealed off the excess water inflow in July 2004.

590-7820N Inflow: In November 2008, there was a small water inflow in the lower Zone 4 development area on the 590-metre level. It did not impact production but did delay local development for approximately one year. In January 2010, the inflow was sealed off and local development was resumed.

Pumping capacity and treatment limits

Our standard for this mine is to secure pumping capacity of at least one and a half times the estimated maximum sustained inflow. We review our dewatering system and requirements at least once a year and before we begin work on any new zone. As our mine plan is advanced, our dewatering system will be expanded to handle water from the new mine areas. We believe we have sufficient pumping, water treatment and surface storage capacity to handle the estimated maximum sustained inflow.

Production

McArthur River Mine

No mining took place from 2019 through 2021. In 2022, we produced 0.64 million pounds; our share 0.45 million pounds. We plan to produce 15 million pounds (100% basis) in 2023 and 18 million pounds (100% basis) in 2024.

The mine plan is designed to extract all current McArthur River mineral reserves. The following is a general summary of the mine plan production schedule parameters on a 100% basis for these mineral reserves:

Total mine production	<ul style="list-style-type: none"> • 2,221,000 tonnes of ore • 389 million pounds of U₃O₈, based on current unmined mineral reserves • Average grade of 7.94% • 150 to 350 tonnes per day, varying with ore grade
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Note: Broken and in-circuit ore inventory (previously mined material) is not included in the mine production plan total. Current broken inventory consists of 3.6 million pounds at McArthur River and 1.5 million pounds at Key Lake.

With the improvement in the uranium market and the success we have had in securing new long-term contracts, we have updated our 2024 production plan to achieve 18 million pounds (100% basis) per year starting in 2024.

Key Lake Mill

No milling took place from 2019 through 2021. In 2022, we packaged 1.1 million pounds; our share 0.8 million pounds.

The mill plan is designed to process all current McArthur River mineral reserves plus Key Lake low-grade mineralization remaining from the Deilmann and Gaertner pits. In addition, a small amount of recycled product from Blind River and Port Hope facilities is planned to be processed. The following is a general summary of the mill plan production schedule parameters on a 100% basis for these mineral reserves, mineralized material, and product:

Total mill production	<ul style="list-style-type: none"> • 3,466,000 tonnes of mill feed including blend and recycle material • Average feed grade of 5.20% • 394 million pounds of U₃O₈ packaged based on an average recovery of 99.0%
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Production Suspension

In 2018, we had a temporary planned production suspension and in July 2018 we extended the suspension for an indeterminate duration. There was nominal production in 2018 and no production from 2019 through 2021. A reduced workforce remained at McArthur River and Key Lake to keep the facilities in a state of safe care and maintenance. Care and maintenance activities included mine dewatering, water treatment, freeze wall maintenance, and environmental monitoring, as well as preservation maintenance and monitoring of critical facilities.

Production Resumption Plan

With our February 2022 announcement to transition McArthur River and Key Lake from care and maintenance to resuming production, through most of 2022, we undertook the necessary operational readiness activities prior to restarting production.

In November 2022, we announced that the first pounds of uranium ore from the McArthur River mine had been milled and packaged at the Key Lake mill, marking the achievement of initial production as these facilities transition back into normal operations. Total packaged production from McArthur River and Key Lake in 2022 was 1.1 million pounds (0.8 million pounds our share).

Operational readiness activities consisted of recruitment, training, infrastructure upgrades and commissioning as well as reactivation of mobile equipment previously stored for care and maintenance. Operational activities included mine dewatering, water treatment, freeze wall maintenance, and environmental monitoring.

In 2022, production forecasts were revised as we worked through normal commissioning issues to integrate the existing and new assets with upgraded operational technology which caused some delays to the schedule at the mill. During the year, we expensed operational readiness costs of approximately \$169 million directly to cost of sales. With the restart of production in 2023, we will no longer expense monthly operational readiness costs.

With the extended period of time the assets were on care and maintenance, the operational changes made, and commissioning issues that we have worked through at the mill, which caused delays to the production schedule in 2022, there is continued uncertainty regarding the timing of a successful ramp up to planned production and the associated costs. In addition, inflation, the availability of personnel with the necessary skills and experience, and the potential impact of supply chain challenges on the availability of materials and reagents carry with them the risks of not achieving our production plans, production delays and increased costs.

Licensed annual production capacity

The McArthur River mine and Key Lake mill are both licensed to produce up to 25 million pounds (100% basis) per year. To achieve annual production at the licensed capacity, additional investment will be required.

Innovation

In 2020, we began a program to advance the assessment of innovation opportunities at the McArthur River mine and Key Lake mill. We established a team of internal experts who have been tasked with assessing, designing, and implementing opportunities to improve operating efficiency. We continue to advance the projects that meet our investment criteria.

Key Lake mill

Location and access

The Key Lake mill is located in northern Saskatchewan, 570 kilometres north of Saskatoon. The site is 9 kilometres long and 5 kilometres wide and is connected to McArthur River by an 80-kilometre all-weather road. There is a 1.6-kilometre unpaved air strip and an air terminal on the east edge of the site.

Permits

We need two key permits to operate the Key Lake mill:

- *Uranium Mill Operating Licence* – renewed in 2013 and expires on October 31, 2023 (from the CNSC); and
- *Approval to Operate Pollutant Control Facilities* – renewed in 2021 and expires on November 30, 2029 (from the SMOE)

The CNSC licence conditions handbook allows the Key Lake mill to produce up to 25.0 million pounds (100% basis) per year.

Supply

All McArthur River ore, including our share, is milled at Key Lake. We do not have a formal toll milling agreement with the Key Lake joint venture.

In June 1999, the Key Lake joint venture (Cameco and UEM) entered a toll milling agreement with Orano to process their total share of McArthur River ore. The terms of the agreement (as amended in January 2001) include the following:

- processing is at cost, plus a toll milling fee; and
- the Key Lake joint venture owners are responsible for decommissioning the Key Lake mill and for certain capital costs, including the cost of any tailings management associated with milling Orano's share of McArthur River ore

With the UEM distribution in 2009 (see History on page 26 for more information), we made the following changes to the agreement:

- the fees and expenses related to Orano's pro-rata share of ore produced just before the UEM distribution (16.234% – the first ore stream) have not changed. Orano is not responsible for any capital or decommissioning costs related to the first ore stream.
- the fees and expenses related to Orano's pro-rata share of ore produced as a result of the UEM distribution (an additional 13.961% – the second ore stream) have not changed. Orano's responsibility for capital and decommissioning costs related to the second ore stream are, however, as a Key Lake joint venture owner under the original agreement.

The agreement was amended again in 2011 and now requires:

- milling of the first ore stream at the Key Lake mill until May 31, 2028; and
- milling of the second ore stream at the Key Lake mill for the entire life of the McArthur River project

Processing

McArthur River low-grade mineralization, including legacy low-grade mineralized waste rock stored at Key Lake, is ground and thickened at Key Lake and then blended with McArthur River high-grade slurry to a nominal 5% U₃O₈ mill feed grade. All remaining uranium processing (leaching through to calcined uranium ore concentrate packaging) and tailings disposal also occur at Key Lake.

The Key Lake mill comprises the following eight plants:

- ore slurry receiving plant
- grinding/blending plant
- reverse osmosis plant
- leaching/counter current decantation plant
- solvent extraction plant
- yellowcake precipitation/dewatering/calcining/packing/ammonium sulphate plant
- bulk neutralization/lime handling/tailings treatment and pumping
- powerhouse/utilities/acid plant/oxygen plant complex

Recovery and metallurgical testing

The McArthur River original flowsheet was largely based on the use of conventional mineral processing concepts and equipment. Where necessary, testwork was undertaken to prove design concepts or adapt conventional equipment for unique services. Simulated ore was utilized in much of the testwork because the off-site testing facilities were not licensed to receive radioactive materials. Testwork at the Key Lake metallurgical laboratory also confirmed the suitability of the Key Lake mill circuit for processing McArthur River ore with some Key Lake circuit modifications.

To date, numerous changes have been made to both the McArthur River and Key Lake processing and water treatment circuits to improve their operational reliability and efficiency. From a uranium recovery perspective, the most important was to change the McArthur River grinding circuit classification system from screens to cyclones. This was completed in late 2009 and provided a measurable recovery increase as well as reduced particle segregation issues. From 2012 to 2017 Key Lake achieved an annual mill recovery of 99% and this is assumed to continue.

Testing at Key Lake has shown that use of a silica coagulant was able to alleviate the issues caused by the cement dilution in the ore from McArthur River. This has eliminated the need to operate the gravity concentrator circuit as well as increased the solvent extraction circuit operational reliability.

Waste rock

There are five rock stockpiles at the Key Lake site:

- three contain non-mineralized waste rock. These will be decommissioned when the site is closed.
- two contain low-grade mineralized material. These are used to lower the grade of McArthur River ore before it enters the milling circuit.

Treatment of effluent

We modified Key Lake's effluent treatment process to satisfy our licence and permit requirements.

Tailings capacity

There are two tailings management facilities (TMF) at the Key Lake site:

- an above-ground impoundment facility, where tailings are stored within compacted till embankments. We have not deposited tailings here since 1996, and are looking at several options for decommissioning this facility in the future; and
- the Deilmann open pit, which was mined out in the 1990s. Tailings from processing McArthur River ore are deposited in the Deilmann in-pit TMF.

Beginning in July 2001, periodic sloughing of the pit walls in the western portion of the Deilmann TMF was experienced. We implemented a long-term stabilization plan, with the final phase completed in 2019.

Based upon the current licence conditions, tailings capacity is sufficient to mill all the known McArthur River mineral reserves and resources, should they be converted to reserves, with additional capacity to toll mill ore from other regional deposits.

Decommissioning and financial assurances

Updated preliminary decommissioning plans for McArthur River and Key Lake were submitted in 2017 and 2018 as part of the regular five-year update schedule. Prior to revising the letters of credit, approval of the updated plans is required from the province of Saskatchewan and CNSC staff as well as formal approval from the CNSC through a Commission proceeding. The

necessary approvals were received. The documents included our estimated cost for implementing the plans and addressing known environmental liabilities.

In 2022, as part of the required five-year update schedule, we submitted revised preliminary decommissioning estimates for McArthur River and Key Lake, which are currently being reviewed by the province of Saskatchewan and CNSC staff.

For more information, see *Nuclear waste management and decommissioning*.

Operating and capital costs

The following is a summary of the operating and capital cost estimates for the life of mine, stated in constant 2022 dollars and reflecting a forecast life-of-mine mill production of 394 million pounds U₃O₈ packaged.

Operating Costs (\$Cdn million)	Total (2023 – 2044)
McArthur River Mining	
Site administration	\$973.7
Mining costs	1,865.9
Process	315.0
Corporate overhead	209.7
Total mining costs	\$3,364.3
Key Lake Milling	
Administration	\$928.6
Milling costs	1,901.9
Corporate overhead	172.7
Total milling costs	\$3,003.2
Total operating costs	\$6,367.5
Total operating cost per pound U₃O₈	\$16.15

Note:

1. Presented as total cost to the McArthur River Joint Venture.

Estimated operating costs to the MRJV consist of annual expenditures at McArthur River to mine the mineral reserves, process it underground, including grinding, density control and pumping the resulting slurry to surface for transportation to Key Lake.

Operating costs at Key Lake consist of costs for receipt of the slurry, up to and including precipitation of the uranium into yellowcake, including cost of disposal of tailings to the Deilmann TMF.

Capital Costs (\$Cdn million)	Total (2023 – 2044)
McArthur River Mine Development	\$453.7
McArthur River Mine Capital	
Freeze infrastructure	\$133.2
Water management and electrical infrastructure	10.1
Other mine capital	332.3
Total mine capital	\$475.6
Key Lake Mill Sustaining	
Total mill capital	\$244.0
Total capital costs	\$1,173.3

Notes:

1. Presented as total cost to the McArthur River Joint Venture.
2. Mine development includes delineation drilling, mine development, probe and grout drilling, freeze drilling, and minor support infrastructure.

Estimated capital costs to the MRJV include sustaining costs for both McArthur River and Key Lake, as well as underground development at McArthur River to bring mineral reserves into production. Overall, the largest segment of capital at McArthur River is mine development. Other significant capital includes freeze infrastructure costs.

The economic analysis, effective as of December 31, 2018, being the effective date of the technical report for McArthur River and Key Lake operations, resulted in an estimated pre-tax net present value (NPV) (at a discount rate of 8%) to Cameco for net cash flows from January 1, 2019 forward of \$2.97 billion for its share of the current McArthur River mineral reserves. Using the total capital invested to December 31, 2018, along with the operating and capital estimates for the remainder of the mineral reserves, the pre-tax internal rate of return (IRR) was estimated to be 11.6%.

The analysis was from the point of view of Cameco, which owns 69.805% of the MRJV, and incorporated a projection of Cameco's sales revenue from its proportionate share of the related production, less its share of related operating and capital costs of the MRJV, as well as royalties and surcharges that will be payable on the sale of concentrates.

For the purpose of the economic analysis, the projected impact of income taxes was excluded due to the nature of the required calculations. McArthur River operates as an unincorporated joint venture and is, therefore, not subject to direct income taxation at the joint venture level. It is not practical to allocate a resulting income tax cost to Cameco's portion of the McArthur River operation, as Cameco's tax expense is a function of several variables, most of which are independent of its investment in McArthur River.

Economic Analysis (\$Cdn M)	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Production volume (000's lbs U3O8)	-	2,788	12,508	12,550	12,653	12,591	12,621	12,611	12,550	12,556	12,587	12,553	12,569
Sales revenue	\$ -	\$ 131.7	\$ 572.2	\$ 577.5	\$ 602.8	\$ 618.7	\$ 635.0	\$ 651.6	\$ 662.9	\$ 683.3	\$ 698.0	\$ 709.1	\$ 719.4
Operating costs	68.2	137.5	171.1	169.5	169.0	168.9	170.1	172.9	177.5	177.9	179.3	179.9	180.0
Capital costs	3.7	31.1	36.7	31.9	31.0	42.9	36.8	34.7	35.0	42.6	43.6	74.4	32.0
Basic royalty	-	5.6	24.3	24.5	25.6	26.3	27.0	27.7	28.2	29.0	29.7	30.1	30.6
Resource surcharge	-	3.9	17.2	17.3	18.1	18.6	19.0	19.5	19.9	20.5	20.9	21.3	21.6
Profit royalty	-	-	42.6	49.7	53.5	54.1	57.3	59.6	60.4	62.3	64.1	61.1	69.1
Net pre-tax cash flow	\$ (71.9)	\$ (46.5)	\$ 280.2	\$ 284.6	\$ 305.5	\$ 307.9	\$ 324.8	\$ 337.2	\$ 341.8	\$ 351.0	\$ 360.4	\$ 342.3	\$ 386.2

Economic Analysis (\$Cdn M)	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Total
Production volume (000's lbs U3O8)	12,567	12,630	12,618	12,602	12,591	12,603	12,611	12,649	12,779	11,705	6,060	272,553
Sales revenue	\$ 748.7	\$ 757.8	\$ 772.9	\$ 787.6	\$ 780.6	\$ 787.7	\$ 794.5	\$ 796.9	\$ 805.1	\$ 737.4	\$ 381.8	\$ 15,413.2
Operating costs	182.1	184.7	185.3	184.5	184.0	182.1	181.8	178.8	175.4	171.0	148.6	4,080.3
Capital costs	33.3	23.6	21.7	21.4	21.6	21.9	17.7	11.9	6.4	1.4	-	657.5
Basic royalty	31.8	32.2	32.8	33.5	33.2	33.5	33.8	33.9	34.2	31.3	16.2	655.1
Resource surcharge	22.5	22.7	23.2	23.6	23.4	23.6	23.8	23.9	24.2	22.1	11.5	462.4
Profit royalty	73.1	75.7	78.1	80.5	79.5	80.8	82.5	84.2	86.6	78.5	31.7	1,465.0
Net pre-tax cash flow	\$ 405.9	\$ 418.9	\$ 431.7	\$ 444.1	\$ 438.9	\$ 445.7	\$ 454.9	\$ 464.3	\$ 478.2	\$ 433.0	\$ 173.8	\$ 8,092.9

Pre-tax NPV (8%) to January 1, 2019 \$ 2,973.3
Pre-tax IRR (%) 11.6%

Notes:

1. The economic analysis assumes the McArthur River in and Key Lake mill are both in a state of care and maintenance during Year 0 with a restart occurring in Year 1.
2. Production volume does not include recycled product received from the Blind River Refinery and the Port Hope Conversion Facility.
3. In February 2022, Cameco announced its plan to transition McArthur River and Key Lake from care and maintenance to planned production of 15 million pounds (100% basis) by 2024. In February 2023, Cameco announced an update to this plan with planned production of 18 million pounds (100% basis) by 2024. The economic analysis has not been updated for these announcements.

Our expectations and plans regarding McArthur River/Key Lake, including forecasts of operating and capital costs, net cash flow, production and mine life are forward-looking information and are based specifically on the risks and assumptions discussed on pages 3, 4 and 5. We may change our operating or capital spending plans in 2023, depending upon uranium markets, our financial position, results of operation, or other factors. Estimates of expected future production, and capital and operating costs are inherently uncertain, particularly beyond one year, and may change materially over time.

Exploration, drilling, sampling, data quality and estimates

There are no historical mineral resource estimates within the meaning of NI 43-101 to report. The original McArthur River mineral resource estimates were derived from surface diamond drilling from 1980 to 1992. In 1988 and 1989, this drilling first revealed significant uranium mineralization and by 1992, we had delineated the mineralization over a strike length of 1,700 metres at depths of between 500 to 640 metres. Following the drillhole results, development of an underground exploration project was undertaken in 1993.

Exploration

Drilling has been carried out extensively from both surface and underground to locate and delineate mineralization. Surface exploration drilling is initially used in areas where underground access is not available. The results are used to guide future underground exploration activities.

There was no exploration activity in 2022 as we focused on the restart of production.

Drilling

Surface drilling

We have carried out surface drilling since 2004, to test the extension of mineralization identified from the historical surface drillholes, to test new targets along the strike, and to evaluate the P2 trend northeast and southwest of the mine. Surface drilling since 2004 has extended the potential strike length to more than 2,700 metres.

We have completed preliminary drill tests of the P2 trend at 300 metre intervals or less over 11.5 kilometres (5.0 kilometres northeast and 6.4 kilometres southwest of the McArthur River deposit) of the total 13.75 kilometres strike length of the P2 trend. Surface exploration drilling in 2015 focused on additional evaluation in the southern part of the P2 trend south of the P2 main mineralization. Starting in 2016, exploration efforts shifted away from the P2 trend to the north part of the property.

Underground drilling

In 1993, regulators approved an underground exploration program, consisting of shaft sinking, lateral development and drilling. We completed the shaft in 1994.

We have drilled more than 1,260 underground drillholes since 1993 to get detailed information along 1,800 metres of strike length. The drilling was primarily completed from the 530 and 640 metre levels.

Other data

In addition to the exploration drilling, geological data has been collected from the underground probe and grout, service, drain, freeze, and geotechnical drill programs.

Recent activity

Since the halt of underground delineation drilling in 2018 as part of the production suspension, there has been no drilling activity. Resumption of drilling activities is planned for 2023.

Sampling, analysis and data verification

Surface samples

Surface holes were generally drilled on sections spaced between 50 and 200 metres with 12 to 25 metres between holes on a section when necessary. Drilled depths average 670 metres.

The orientation of mineralization is variable but, in general, vertical holes generally intersect mineralization at angles of 25 to 45 degrees, resulting in true widths being 40 to 70% of the intersected width. Angled holes usually intercept mineralization closer to perpendicular, giving intercepts that are closer to true width.

Any stratigraphy exhibiting noteworthy alteration, structures or radiometric anomalies is split and sampled.

Given that the vast majority of the deposit has been delineated from underground, few surface holes are used for mineral resource and reserve estimation purposes.

Underground samples

Underground drilling is generally planned to provide close to true thicknesses results. All underground exploration holes are core drilled and gamma probed whenever possible. McArthur River uses a high-flux gamma probe designed and constructed by alphaNUCLEAR, a member of the Cameco group of companies. This high-flux gamma probe utilizes two Geiger Müller tubes to detect the amount of gamma radiation emanating from the surroundings. The count rate obtained from the high-flux probe is compared against chemical assay results to establish a correlation to convert corrected probe count rates into equivalent % U₃O₈ grades for use when assay results are unavailable. The consistency between probe data and chemical assays demonstrates that secular equilibrium exists within the deposit. A small portion of the data used to estimate mineral resources is obtained from assays, and in these cases, the core depth is validated by comparing the down-hole gamma survey results with a hand-held scintillometer on core before it is logged, photographed, and then sampled for uranium analysis. Attempts are made to avoid having samples cross geological boundaries.

When sampled, the entire core from each sample interval is taken for assay or other measurements to characterize the physical and geochemical properties of the deposit. This reduces the potential sample bias inherent when splitting core. Core recovery throughout the deposit has generally been very good. However, in areas of poor core recovery, uranium grade determination is generally based on radiometric probe results.

The typical sample collection process at our operations is performed by or under the supervision of a qualified geoscientist and includes the following procedures:

- marking the sample intervals on the core boxes at nominal 50 cm sample lengths
- collection of the samples in plastic bags, taking the entire core
- documentation of the sample location, assigning a sample number, and description of the sample, including radiometric values from a hand-held device
- bagging and sealing, with sample tags inside bags and sample numbers on the bags; and
- placement of samples in steel drums for shipping

Sample security

Current sampling protocols dictate that all samples are collected and prepared in a restricted core processing facility. The core samples are collected and transferred from the core boxes to high-strength plastic sample bags, then sealed. The sealed bags are then placed in steel drums and shipped in compliance with the Transport of Dangerous Goods regulations with tamper-proof security seals. Chain of custody documentation is present from inserting samples into steel drums to the final delivery of results by the Saskatchewan Research Council Geoanalytical Laboratories (SRC).

All samples collected are prepared and analysed under the close supervision of qualified personnel at SRC, which is a restricted access laboratory licensed by the CNSC.

Analysis

Drill core assay sample preparation is performed at SRC's main laboratory, which is independent of the participants of the MRJV. It involves jaw crushing to 60% @ 2 mm and splitting out a 100 – 200 g sub-sample using a riffle splitter. The sub-sample is pulverized to 90% @ -106 microns using a puck and ring grinding mill. The pulp is then transferred to a bar coded plastic snap top vial. Assaying by SRC involves digesting an aliquot of pulp in concentrated 3:1 HCL:HNO₃, on a hot plate for approximately one hour. The volume is then made up in a 100 ml volumetric flask using deionized water prior to analysis by ICP-OES. Instruments used in the analysis are calibrated using certified commercial solutions. This method is ISO/IEC 17025:2017 accredited by the Standards Council of Canada.

Quality control and data verification

The quality assurance and quality control procedures used during early drilling programs were typical for the time. Many of the original signed assay certificates from surface drilling are available and have been reviewed by Cameco geologists.

More recent sample preparation and assaying was completed under the supervision of qualified personnel at SRC and includes preparing and analysing standards, duplicates and blanks. At least two standards are analysed for each 40-sample batch, with another sample being analysed in duplicate. We also include a pulp repeat and 1 split sample repeat with every group. Samples that fail quality controls are re-analyzed.

In 2013, McArthur River implemented an SQL server based centralized geological data management system to manage all drillhole and sample related data. All core logging, sample collection, downhole probing and sample dispatching activities are carried out and managed within this system. All assay, geochemical and physical analytical results obtained from the external laboratory are uploaded directly into the centralized database, thereby mitigating the potential for manual data transfer errors. The database used for the current mineral resource and mineral reserve estimates was validated by Cameco qualified geoscientists.

Additional data quality control measures include:

- review of drillhole collar coordinates and downhole deviations in the database against planned location of the holes. All results from work performed in 2022 were within acceptable tolerances.
- comparison of the information in the database against the original data, including paper logs, assay certificates and original probing data files as required. Some hole intervals were reviewed against scintillometer data and core logs to confirm the presence or absence of mineralization.
- validation of core logging information in plan and section views, and review of logs against photographs of the core. Some hole intervals were reviewed against core photos to confirm the presence or absence of mineralization.
- checking for data errors such as overlapping intervals and out of range values. No issues were observed.
- radiometric probes undergo annual servicing and re-calibration as well as additional checks including control probing to ensure precision and accuracy of the probes. Servicing and re-calibration of the probes were performed to prepare for the resumption of drilling activities.
- validating uranium grades comparing radiometric probing, core radioactivity measurements and sample assay results. No new measurement data has been collected since the temporary production suspension.

No quality control and data verification related issues of note were identified during the minor mineral resource estimation work performed in 2022.

Since the start of commercial production, we have regularly compared information collected from production activities, such as freezeholets, raisebore pilot holes, radiometric scanning of scoop tram buckets and mill feed sampling, to the drillhole data informed models. We also compare the uranium block model with mine production results monthly to ensure an acceptable level of accuracy is maintained.

Our geoscientists, including a qualified person as such term is defined in NI 43-101, have witnessed or reviewed drilling, core handling, radiometric probing, logging, sampling facilities and data verification procedures employed at the McArthur River operation and consider the methodologies to be satisfactory and the results representative and reliable. There has been no indication of significant inconsistencies in the data used or verified nor any failures to adequately verify the data.

Accuracy

We are satisfied with the quality of data and consider it valid for use in the estimation of mineral resources and reserves for McArthur River. Comparison of actual mine production with past expected production supports this opinion.

Mineral reserve and resource estimates

Please see page 78 for our mineral reserve and resource estimates for McArthur River.

Uranium – Tier-one operations

Cigar Lake



2022 Production (our share)

9.6M lbs

2023 Production Outlook (our share)

9.8M lbs

Estimated Reserves (our share)

84.4M lbs

Estimated Mine Life

2031

Cigar Lake is the world's highest grade uranium mine. We are a 54.547% owner and the mine operator. Cigar Lake uranium is milled at Orano's McClean Lake mill.

Cigar Lake is considered a material uranium property for us. There is a technical report dated March 29, 2016 (effective December 31, 2015) that can be downloaded from SEDAR (sedar.com) or from EDGAR (sec.gov).

Location	Saskatchewan, Canada
Ownership	54.547%
Mine type	Underground
Mining method	Jet boring system
End product	Uranium concentrate
Certification	ISO 14001 certified
Estimated reserves	84.4 million pounds (proven and probable), average grade U ₃ O ₈ : 17.21%
Estimated resources	57.5 million pounds (measured and indicated), average grade U ₃ O ₈ : 13.19% 12.0 million pounds (inferred), average grade U ₃ O ₈ : 5.62%
Licensed capacity	18.0 million pounds per year (our share 9.8 million pounds per year)
Licence term	Through June, 2031
Total packaged production: 2014 to 2022	123 million pounds (100% basis)
2022 production	9.6 million pounds (18.0 million pounds on 100% basis)
2023 production outlook	9.8 million pounds (18.0 million pounds on 100% basis)
Estimated decommissioning cost	\$62 million (100% basis)

All values shown, including reserves and resources, represent our share only, unless otherwise indicated.

Business structure

Cigar Lake is owned by a joint venture of three companies (CLJV):

- Cameco – 54.547% (operator)
- Orano – 40.453%
- TEPCO Resources Inc. – 5.000%

History

1976	<ul style="list-style-type: none"> Canadian Kelvin Resources and Asamera Oil Corporation form an exploration joint venture, which includes the lands that the Cigar Lake mine was built on
1977	<ul style="list-style-type: none"> SMDC, one of our predecessor companies, acquires a 50% interest
1980	<ul style="list-style-type: none"> Waterbury Lake joint venture formed, includes lands now called Cigar Lake
1981	<ul style="list-style-type: none"> Deposit discovered by surface drilling – it was delineated by a surface drilling program between 1982 and 1986
1985	<ul style="list-style-type: none"> Reorganization of the Waterbury Lake joint venture – Cigar Lake Mining Corporation becomes the operator of the Cigar Lake lands and a predecessor to Orano becomes the operator of the remaining Waterbury Lake lands SMDC has a 50.75% interest
1987-1992	<ul style="list-style-type: none"> Test mining, including sinking shaft 1 to 500 metres and lateral development on 420 metre, 465 metre and 480 metre levels
1988	<ul style="list-style-type: none"> Eldorado Resources Limited merges with SMDC to form Cameco
1993-1997	<ul style="list-style-type: none"> Canadian and Saskatchewan governments authorize the project to proceed to regulatory licensing stage, based on recommendation of the joint federal-provincial panel after public hearings on the project's environmental impact
2000	<ul style="list-style-type: none"> JBS tested in waste and frozen ore
2001	<ul style="list-style-type: none"> Joint venture approves a feasibility study and detailed engineering begins in June
2002	<ul style="list-style-type: none"> Joint venture is reorganized, new joint venture agreement is signed, Rabbit Lake and JEB toll milling agreements are signed, and we replace Cigar Lake Mining Corporation as Cigar Lake mine operator
2004	<ul style="list-style-type: none"> Environmental assessment process is complete CNSC issues a construction licence
2005	<ul style="list-style-type: none"> Development begins in January
2006	<ul style="list-style-type: none"> Two water inflow incidents delay development: <ul style="list-style-type: none"> – in April, shaft 2 floods – in October, underground development areas flood In November, we begin work to remediate the underground development areas
2008	<ul style="list-style-type: none"> Remediation interrupted by another inflow in August, preventing the mine from being dewatered
2009	<ul style="list-style-type: none"> Remediation of shaft 2 completed in May We seal the 2008 inflow in October
2010	<ul style="list-style-type: none"> We finish dewatering the underground development areas in February, establish safe access to the 480 metre level, the main working level of the mine, and backfill the 465 metre level We substantially complete clean-up, inspection, assessment and securing of underground development and resume underground development in the south end of the mine
2011	<ul style="list-style-type: none"> We begin to freeze the ground around shaft 2 and restart freezing the orebody from underground and from the surface We resume the sinking of shaft 2 and early in 2012 achieve breakthrough to the 480 metre level, establishing a second means of egress for the mine We receive regulatory approval of our mine plan and begin work on our Seru Bay project Agreements are signed by the Cigar Lake and McClean Lake joint venture participants to mill all Cigar Lake ore at the McClean Lake mill and the Rabbit Lake toll milling agreement is terminated
2012	<ul style="list-style-type: none"> We achieve breakthrough to the 500 metre level in shaft 2 We assemble the first JBS unit underground and move it to a production tunnel where we commence preliminary commissioning
2013	<ul style="list-style-type: none"> CNSC issues an eight-year operating licence We begin jet boring in ore
2014	<ul style="list-style-type: none"> First Cigar Lake ore shipped to McClean Lake mill McClean Lake mill starts producing uranium concentrate from Cigar Lake ore

2015	<ul style="list-style-type: none"> • We declared commercial production in May
2016	<ul style="list-style-type: none"> • We updated the CNSC on our commissioning activities to satisfy a condition in our federal licence
2020	<ul style="list-style-type: none"> • In March, production is temporarily suspended as a precautionary measure due to the COVID-19 pandemic • In September, production resumes • In December, production is temporarily suspended as a precautionary measure due to the COVID-19 pandemic
2021	<ul style="list-style-type: none"> • In April, we announce plans to restart production • In June, CNSC granted a 10-year renewal of Cigar Lake's uranium operating licence
2022	<ul style="list-style-type: none"> • In February, we announce plans to reduce production at Cigar Lake in 2024 to 13.5 million pounds per year (100% basis), 25% below its annual licensed capacity • In May, we acquire an additional 4.522 percentage points in Cigar Lake increasing our interest to 54.547%
2023	<ul style="list-style-type: none"> • We updated our production plans for Cigar Lake to maintain production of 18 million pounds per year (100% basis) in 2024

Technical report

This description is based on the project's technical report: Cigar Lake Operation, Northern Saskatchewan, Canada, dated March 29, 2016 (effective December 31, 2015) except for some updates that reflect developments since the technical report was published. The report was prepared for us in accordance with NI 43-101, by or under the supervision of Scott Bishop, P. Eng., Alain G. Mainville, P. Geo., and Leslie D. Yesnik, P. Eng. The following description has been prepared under the supervision of Biman Bharadwaj, P. Eng., Scott Bishop, P. Eng., Alain D. Renaud, P. Geo., and Lloyd Rowson, P. Eng. They are all qualified persons within the meaning of NI 43-101 but are not independent of us.

The conclusions, projections and estimates included in this description are subject to the qualifications, assumptions and exclusions set out in the technical report except as such qualifications, assumptions and exclusions may be modified in this AIF. We recommend you read the technical report in its entirety to fully understand the project. You can download a copy from SEDAR (sedar.com) or from EDGAR (sec.gov).

About the Cigar Lake property

We began developing the Cigar Lake underground mine in 2005, but development was delayed due to water inflows. In October 2014, the McClean Lake mill produced the first uranium concentrate from ore mined at the Cigar Lake operation. Commercial production was declared in May 2015.

Location

The Cigar Lake mine site is located near Waterbury Lake, approximately 660 kilometres north of Saskatoon. The mine site is near other uranium production operations: McClean Lake mill is 69 kilometres northeast by road and McArthur River mine is 46 kilometres southwest by air from the mine site.

Access

Access to the property is by an all-weather road and by air. Site activities occur year-round, including supply deliveries. There is an unpaved airstrip and air terminal east of the mine site.

Saskatoon, a major population centre south of the Cigar Lake deposit, has highway and air links to the rest of North America.

For information about uranium sales see pages 17 to 20, environmental matters see *Our ESG principles and practices and The regulatory environment* starting on pages 84 and 87, and taxes see page 95.

For a description of royalties payable to the province of Saskatchewan on the sale of uranium extracted from orebodies within the province, see page 94.

For a description of risks that might affect access, title or the right or ability to perform work on the property, see *Governance and compliance risks* starting at page 110, *Social risks* starting at page 112 and *Environmental risks* starting at page 113.

Leases

Surface lease

The CLJV acquired the right to use and occupy the lands necessary to mine the deposit under a surface lease agreement with the province of Saskatchewan. The lease covers approximately 1,042 hectares and expires in May 2044.

We are required to report annually on the status of the environment, land development and progress on northern employment and business development.

Mineral lease

We have the right to mine the deposit under ML 5521, granted to the CLJV by the province of Saskatchewan. The lease covers 308 hectares and expires in December 2031. The CLJV has the right to renew the lease for further 10-year terms.

Mineral claims

A mineral claim gives us the right to explore for minerals and to apply for a mineral lease. There are 38 mineral claims totalling 95,293 hectares, adjoining the mineral lease and surrounding the site. The mineral claims are in good standing until 2037 or later.

Environment, social and community factors

The climate is typical of the continental sub-arctic region of northern Saskatchewan. Summers are short and cool even though daily temperatures can sometimes reach above 30°C. The mean daily temperature for the coldest month is below -20°C, and winter daily temperatures can reach below -40°C.

The deposit is 40 kilometres west of the eastern margin of the Athabasca Basin in northern Saskatchewan. The topography and environment are typical of the taiga forested lands in the Athabasca Basin. This area is covered with 30 to 50 metres of overburden. Vegetation is dominated by black spruce and jack pine. There is a lake known as “Cigar Lake” which, in part, overlays the deposit.

We are committed to building long-lasting and trusting relationships with the communities in which we operate. For more information, see *Our ESG principles and practices* at page 84.

The closest inhabited site is Points North Landing, 56 kilometres northeast by road. The community of Wollaston Lake is approximately 80 kilometres by air to the east of the mine site.

Athabasca Basin community resident employees and contractors fly to the mine site from designed pick-up points. Other employees and contractors fly to site from Saskatoon with pickup points in Prince Albert and La Ronge.

Geological setting

The deposit is at the unconformity contact separating late Paleoproterozoic to Mesoproterozoic sandstone of the Athabasca Group from middle Paleoproterozoic metasedimentary gneiss and plutonic rocks of the Wollaston Group. The Key Lake, McClean Lake and Collins Bay deposits all have a similar structural setting. While Cigar Lake shares many similarities with these deposits, it is distinguished from other similar deposits by its size, very high grade, and the high degree of clay alteration.

Cigar Lake’s geological setting is similar to McArthur River’s: the permeable sandstone, which overlays the deposit and basement rocks, contains large volumes of water at significant pressure. Unlike McArthur River, however, the deposit is flat lying with the ore zone being overlain by variably developed clay alteration as opposed to silica enrichment.

Mineralization

The Cigar Lake deposit has the shape of a flat- to cigar-shaped lens and is approximately 1,950 metres in length, 20 to 100 metres in width, and ranges up to 13.5 metres thick, with an average thickness of about 5.4 metres. It occurs at depths ranging between 410 to 450 metres below the surface. The eastern part of Cigar Lake is approximately 670 metres long by 100 metres wide and the western part is approximately 1,280 metres long by 75 metres wide.

The deposit has two distinct styles of mineralization:

- high-grade mineralization at the unconformity which includes almost all of the mineral resources and mineral reserves
- fracture controlled, vein-like mineralization which is located either higher up in the sandstone or in the basement rock mass

The uranium oxide in the form of uraninite and pitchblende occurs as disseminated grains in aggregates ranging in size from millimetres to decimetres, and as massive lenses of mineralization up to a few metres thick in a matrix of sandstone and clay. Coffinite (uranium silicate) is estimated to form less than 3% of the total uranium mineralization.

Geochemically, the deposit contains quantities of the elements nickel, copper, cobalt, lead, zinc, molybdenum and arsenic, but in non-economic concentrations. Higher concentrations of these elements are associated with massive pitchblende or massive sections of arseno-sulphides.

Deposit type

Cigar Lake is an unconformity-associated uranium deposit. Deposits of this type are believed to have formed through a redox reaction at a contact where oxygenated fluids met with reducing fluids. The geological model was confirmed by surface drilling, underground drilling, development, and production activities.

About the Cigar Lake operation

Cigar Lake is a developed property with sufficient surface rights to meet current mining operation needs. We are currently mining in the eastern part of the ore body.

Permits

Please see page 49 for more information about regulatory approvals for Cigar Lake.

Infrastructure

Surface facilities are 490 metres above sea level. The site includes:

- an underground mine with two shafts
- access road joining the provincial highway and McClean Lake
- site roads and site grading
- airport and terminal
- employee residence and construction camp
- Shaft No. 1 and No. 2 surface facilities
- freeze plants and brine distribution equipment
- surface freeze pads
- water supply, storage and distribution for industrial water, potable water and fire suppression
- propane, diesel and gasoline storage and distribution
- electrical power substation and distribution
- compressed air supply and distribution
- mine water storage ponds and water treatment
- sewage collection and treatment
- surface and underground pumping system installation
- waste rock stockpiles
- garbage disposal landfill
- administration, maintenance and warehousing facilities
- underground tunnels
- ore load out facility
- concrete batch plant
- Seru Bay pipeline
- emergency power generating facilities

The Cigar Lake mine site contains all the necessary services and facilities to operate a remote underground mine, including personnel accommodation, access to water, airport, site roads and other necessary buildings and infrastructure.

Water, power and heat

Waterbury Lake, which is nearby, provides water for the industrial activities and the camp. The site is connected to the provincial electricity grid, and it has standby generators in case there is an interruption in grid power.

Cigar Lake operates throughout the year despite cold winter conditions. During the winter, we use propane-fired burners to heat the fresh air necessary to ventilate the underground workings.

Employees

Employees are recruited with preference given to residents of northern Saskatchewan.

Mining

The Cigar Lake deposit presents unique challenges that are not typical of traditional hard or soft rock mines. These challenges are the result of mining in or near high-pressure ground water in challenging ground conditions with significant radiation concerns due to the high-grade uranium and elements of concern in the orebody with respect to water quality. We take significant steps and precautions to reduce the risks. Mine designs and the mining method are selected based on their ability

to mitigate hydrological, radiological, and geotechnical risks. Operational experience gained since the start of production has resulted in a significant reduction in risk. However, there is no guarantee that our efforts to mitigate risk will be successful.

Mining methods

We use the JBS method to mine the Cigar Lake deposit.

Bulk ground freezing

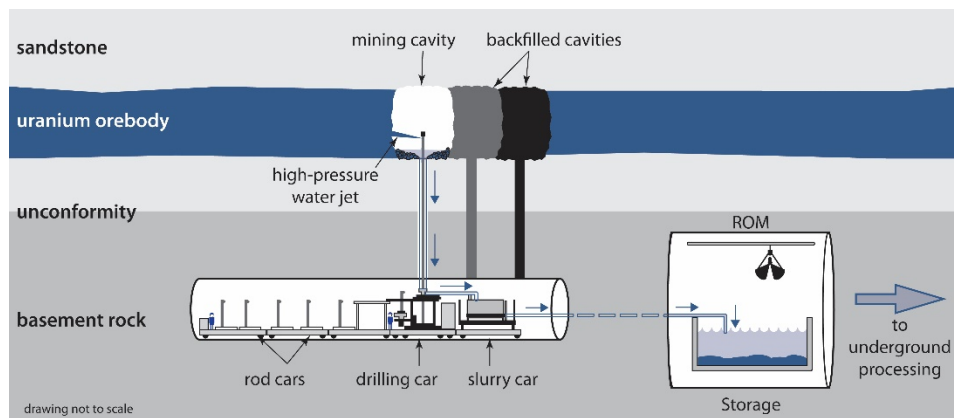
The permeable sandstone that overlays the deposit and basement rocks contains large volumes of water under significant pressure. From surface, we freeze the ore zone and surrounding ground in the area to be mined to prevent water from entering the mine, to help stabilize weak rock formations, and meet our production schedule. This system freezes the deposit and underlying basement rock in two to four years, depending on water content and geological conditions. We have identified greater variation of the freeze rates of different geological formations encountered in the mine, based on information obtained through surface freeze drilling. To manage our risks and to meet our production schedule, the area being mined must meet specific ground freezing requirements before we begin jet boring. Bulk freezing reduces but does not eliminate the risk of water inflows.

Artificial ground freezing is accomplished by drilling a systematic grid of boreholes through the orebody from surface. A network of supply and return pipes on surface convey a calcium chloride brine to and from each hole. The warm brine returning from each hole is chilled to a temperature of approximately -30°C at the surface freeze plant and recirculated.

JBS mining

As a result of the unique geological conditions at Cigar Lake, we are unable to utilize traditional mining methods that require access above the ore, which necessitated the development of a non-entry mining method specifically adapted for this deposit. After many years of test mining, we selected jet boring, a non-entry mining method, and it has been used since we began mining in 2014. This method involves:

- drilling a pilot hole into the frozen orebody, inserting a high-pressure water jet and cutting a cavity out of the frozen ore;
- collecting the ore and water mixture (slurry) from the cavity and pumping it to a storage sump, allowing it to settle;
- using a clamshell, transporting the ore from the storage sump to an underground grinding and processing circuit;
- once mining is complete, filling each cavity in the orebody with concrete; and
- starting the process again with the next cavity.



This is a non-entry method, which means mining is carried out from headings in the basement rock below the deposit, so employees are not exposed to the ore. This mining approach is highly effective at managing worker exposure to radiation levels. Combined with ground freezing and the cuttings collection and hydraulic conveyance system, jet boring reduces radiation exposure to acceptable levels that are below regulatory limits.

The mine equipment fleet is currently comprised of three JBS units plus other equipment to support mine development, drilling and other services, and is sufficient to meet production requirements for the remainder of the mine life.

We have divided the orebody into production panels. At least three production panels need to be frozen at one time to achieve the full annual production rate of 18 million pounds. One JBS machine will be located below each frozen panel and the three

JBS machines required are currently in operation. Two machines actively mine at any given time while the third is moving, setting up, or undergoing maintenance.

Mine development

Mine development for construction and operation uses two basic approaches: drill and blast with conventional ground support is applied in areas with a competent rock mass. Most permanent areas of the mine, which contain the majority of the installed equipment and infrastructure, are hosted in competent rock mass and are excavated and supported conventionally. The production tunnels immediately below the orebody are primarily in poor, weak rock mass and are excavated and supported using the New Austrian Tunnelling Method (NATM). NATM was adopted as the primary method of developing new production cross-cuts, replacing the former Mine Development System (MDS).

NATM, as applied at Cigar Lake, involves a multi-stage sequential mechanical excavation, extensive external ground support and a specialized shotcrete liner. The liner system incorporates yielding elements which permit controlled deformation required to accommodate additive pressure from mining and ground freezing activities. The production tunnels have an inside diameter of five metres and are approximately circular in profile.

We plan our mine development to take place away from known groundwater sources whenever possible. In addition, we assess all planned mine development for relative risk and apply extensive additional technical and operating controls for all higher risk development.

In order to successfully achieve the planned production schedule, we must continue to successfully transition into new mining areas, which includes mine development and investment in critical support infrastructure. If development work is delayed for any reason, including availability of storage capacity for waste rock, our ability to meet our future production plans may be impacted.

Mine access

There are two main levels in the mine: the 480 and 500 metre levels. Both levels are in the basement rocks below the unconformity. Mining is conducted from the 480-metre level which is located approximately 40 metres below the ore zone. The main underground processing and infrastructure facilities are located on this level. The 500-metre level is accessed via a ramp from the 480-metre level. The 500-metre level provides for the main ventilation exhaust drift for the mine, the mine dewatering sump and additional processing facilities. All construction required for production has been completed.

Processing

Cigar Lake ore slurry is processed in two locations:

Cigar Lake – Ore slurry produced by the JBS is pumped to Cigar Lake's underground crushing, grinding and thickening facility. The resulting finely ground, high density ore slurry is pumped 500 meters to surface to one of the two slurry holding tanks. It is blended and thickened, further removing excess water. The final slurry, at an average grade of approximately 17%, is pumped into transport truck containers like the ones used at McArthur River.

Water from this process, including water from underground operations, is treated on the surface. Any excess treated water is released into the environment.

McClellan Lake – Containers of ore slurry are trucked to Orano's McClellan Lake mill, 69 kilometres to the northeast for further processing (Leaching to Yellowcake Packaging). See *Toll milling agreement* below for a discussion of this arrangement.

Recovery and metallurgical testing

Extensive metallurgical test work was performed on core samples of Cigar Lake ore over a seven-year period from 1992 to 1999. This work was used to design the McClellan Lake mill circuits relevant to Cigar Lake ore and associated modifications. Samples used for metallurgical test work may not be representative of the deposit as a whole. Additional test work, completed in 2012 with drill core samples, verified that a high uranium recovery rate could be achieved regardless of the variability of the ore. Test work also concluded that more hydrogen gas evolution took place than previously anticipated, which resulted in modifications to the leaching circuit. Leaching modifications were completed in 2014.

The 1992 – 1999 work was performed in France at Orano's SEPA test centre. The results of this test work have provided the core process criteria for the design of the additions and modifications required at the McClellan Lake mill for processing Cigar

Lake ore. To date, a range of monthly average ore grades, as high as 28% U₃O₈, have been processed at the McClean Lake milling facility. Based on the test results and past mill performance, an overall uranium recovery of 98.8% is expected.

There is a risk that elevated arsenic concentration in the mill feed may result in increased leaching circuit solution temperatures. The leach process cooling system was updated in 2016 and testing confirmed solution temperature control. The plan is to continue to monitor leaching temperature.

Tailings

Cigar Lake site does not have a TMF. The ore is processed at the McClean Lake mill. See *Toll milling agreement* below for a discussion of the McClean Lake TMF.

Waste rock

The waste rock piles are separated into three categories:

- clean rock – will remain on the mine site for use as aggregate for roads, concrete backfill and future site reclamation
- mineralized waste (>0.03% U₃O₈) – will be disposed of underground at the Cigar Lake mine; and
- waste with acid-generating potential – temporarily stored on lined pads

The latter two stockpiles are contained on lined pads; however, no significant mineralized waste has been identified during development to date.

Production

The mine plan is designed to extract all current Cigar Lake mineral reserves. The following is a general summary of the mine plan production schedule parameters on a 100% basis for these mineral reserves:

Total mill production	<ul style="list-style-type: none"> • 153 million pounds of U₃O₈, based on current mineral reserves and an overall milling recovery of 98.8% • Full annual production of 18 million pounds of U₃O₈
Total mine production	<ul style="list-style-type: none"> • 408,000 tonnes of ore
Average annual mine production	<ul style="list-style-type: none"> • 100 to 200 tonnes per day during peak production, depending on ore grade
Average mill feed grade	<ul style="list-style-type: none"> • 17.2% U₃O₈

Total packaged production from Cigar Lake in 2022 was 18 million pounds U₃O₈ (9.6 million pounds our share) compared to 12.2 million pounds U₃O₈ (6.1 million pounds our share) in 2021. 2021 production was impacted by suspensions, which were a precautionary measure due to the COVID-19 pandemic. In 2022, we were successful in catching up on development work that had been deferred from 2021. Our share of production for 2022 has been updated to reflect the ownership increase effective May 19, 2022.

Consistent with our strategy to align our production decisions with our contract portfolio and market opportunities, we have updated our 2024 production plan. We expect to maintain production at the licensed rate of 18 million pounds (100% basis) per year based on our contracting success and the improved outlook for the uranium market compared to our previous plan of 13.5 million pounds (100% basis) per year in 2024.

Inflation, the availability of personnel with the necessary skills and experience, and the impact of supply chain challenges on the availability of materials and reagents carry with them the risk of not achieving our production plans, production delays and increased costs in 2023 and future years.

Decommissioning and financial assurances

An updated preliminary decommissioning plan for Cigar Lake was submitted in 2017 and 2018 as part of the regular five-year update schedule. Prior to revising the letters of credit, approval of the updated plan is required from the province and CNSC staff as well as formal approval from the CNSC through a Commission proceeding. The necessary approvals were received. The document included our estimated cost for implementing the plan and addressing known environmental liabilities.

The reclamation and remediation activities associated with waste rock and tailings at the McClean Lake mill are covered by the plans and cost estimates for this facility.

In 2022, as part of the required five-year update schedule, we submitted a revised preliminary decommissioning estimate for Cigar Lake, which is currently being reviewed by the province and CNSC staff.

For more information, see *Nuclear waste management and decommissioning*.

Water inflow and mine/mill development

Cigar Lake water inflow incidents

From 2006 through 2008, the Cigar Lake project suffered several setbacks because of three water inflow incidents. The first occurred in 2006, resulting in the flooding of the then partially completed Shaft No. 2. The two subsequent incidents involved inflows in the mine workings connected to Shaft No. 1 and resulted in flooding of the mine workings. We executed recovery and remediation plans for all three inflows. Re-entry into the main mine workings was achieved in 2010 and work to secure the mine was completed in 2011. The mine is fully remediated and entered commercial production in 2015.

Lessons learned from the inflows have been applied to the subsequent mine plan and development to reduce the risk of future inflows and improve our ability to manage them should they occur.

Increased pumping capacity

In 2012, we increased the installed mine dewatering capacity to 2,500 cubic metres per hour. Mine water treatment capacity has been increased to 2,550 cubic metres per hour, and regulatory approval to discharge routine and non-routine treated water to Seru Bay is in place. As a result, we believe we have sufficient pumping, water treatment and surface storage capacity to handle the estimated maximum inflow.

Current status of development

Construction of all major permanent underground development and process facilities required for the duration of the mine life is complete. A number of underground access drifts and production crosscuts remain to be driven as part of ongoing mine development to sustain production rates.

On surface, construction of all permanent infrastructure required to achieve nameplate capacity has been completed.

Underground mine development continued in 2022. We completed the first production crosscut in the western portion of the orebody in preparation for ore mining starting in the second quarter of 2023.

During 2022, we:

- executed planned 21-day annual maintenance activities in July
- executed production activities from four production tunnels in the eastern part of the orebody
- in alignment with our long-term production planning, brought one new panel online as another production panel was depleted
- continued underground header construction activities and expanded our ground freezing program to ensure continued frozen ore inventory

In 2023, we plan to:

- continue production activities focused on bringing two new production panels online
- complete surface freeze drilling and complete construction and commissioning of freeze distribution infrastructure expansion in support of future production
- continue underground mine development on two new production tunnels as well as expand ventilation and access drifts in alignment with the long-term mine plan
- continue upgrades to process water handling circuits and the surface backfill batch plant to support ongoing operations
- execute a surface delineation drilling program and underground geotechnical drilling program

The McClean Lake mill has been expanded to process and package all Cigar Lake ore.

Toll milling agreement

The McClean Lake joint venture agreed to process Cigar Lake's ore slurry at its McClean Lake mill, according to the terms in its agreement with the CLJV: JEB toll milling agreement (effective January 1, 2002 and amended and restated effective November 30, 2011), dedicating the necessary McClean Lake mill capacity to process and package 18 million pounds of Cigar Lake uranium concentrate annually.

The CLJV pays a toll milling fee and its share of milling expenses.

The McClean Lake mill started receiving Cigar Lake ore in March 2014 and produced its first drum of Cigar Lake yellowcake in October 2014. All of Cigar Lake's ore slurry from current mineral reserves will be processed at the McClean Lake mill, operated by Orano. Orano does not expect any new major infrastructure is necessary at McClean Lake mill to receive and process Cigar Lake's mineral reserves. Minor upgrades related to throughput optimisation were completed in 2020.

The McClean Lake joint venture commenced work in 2012 to optimize its TMF to accommodate all of Cigar Lake's current mineral reserves. The first stage of the work is complete. Additional work, which involves increasing the required elevation of a liner for the facility, is scheduled to take place from 2022 to 2024. With the liner extended, the TMF is expected to have capacity to receive tailings from processing all of Cigar Lake's current mineral reserves.

In January 2022, the CNSC granted the McClean Lake joint venture an amendment to its licence to expand its TMF, which will provide capacity for tailings from processing additional ore.

The McClean Lake joint venture is responsible for all costs of decommissioning the McClean Lake mill. As well, the joint venture is responsible for the liabilities associated with tailings produced from processing Cigar Lake ore at the McClean Lake mill.

The collective agreement with unionized employees at the McClean Lake mill ends on May 31, 2025.

Regulatory approvals

There are three key permits that are required to operate the mine.

Operating and processing licences

Federally, Cigar Lake holds a "Uranium Mine Licence" from the CNSC with a corresponding Licence Conditions Handbook (LCH). Provincially, Cigar Lake holds an "Approval to Operate Pollutant Control Facilities" from the SMOE and a "Water Rights Licence to Use Surface Water and Approval to Operate Works" from the Saskatchewan Watershed Authority.

The CNSC licence expires on June 30, 2031. The SMOE approval was renewed in 2017 and expires in 2023. The Saskatchewan Watershed Authority water rights licence was obtained in 1988 and was last amended in July 2011. It is valid for an undefined term.

The current Cigar Lake LCH authorizes an annual production rate up to 18 million pounds per year. In 2016, Orano received approval to increase annual production at the McClean Lake mill to 24 million pounds per year.

Water treatment/effluent discharge system

The mine dewatering system was designed and constructed to handle both routine and non-routine water treatment and effluent discharge, and it has been approved and licensed by the CNSC and the SMOE.

We began discharging treated water to Seru Bay in August 2013 following the receipt of regulatory approvals.

The Cigar Lake orebody contains elements of concern with respect to the water quality and the receiving environment. The distribution of elements such as arsenic, molybdenum, selenium and others is non-uniform throughout the orebody, and this can present challenges in attaining and maintaining the required effluent concentrations.

There have been ongoing efforts to optimize the current water treatment process and water handling systems to ensure acceptable environmental performance, which is expected to avoid the need for additional capital upgrades and potential deferral of production.

Operating and capital costs

The following is a summary of the Cigar Lake operating and capital cost estimates for the remaining life of mine, stated in constant 2022 dollars and reflecting a forecast life-of-mine mill production of 153 million pounds.

Operating Costs (\$Cdn million)	Total (2023 – 2031)
Cigar Lake Mining	
Site administration	\$440.8
Mining costs	604.0
Process	240.3
Corporate overhead	90.3
Total mining costs	\$1,375.4
McClellan Lake Milling	
Administration	\$422.2
Milling costs	750.5
Corporate overhead	69.6
Toll milling	156.9
Total milling costs	\$1,399.2
Total operating costs	\$2,774.6
Total operating cost per pound U₃O₈	\$18.13

Note: presented as total cost to the CLJV (100% basis)

Operating costs consist of annual expenditures at Cigar Lake to mine the ore, treat the ore underground, including crushing, grinding and density control, followed by pumping the resulting slurry to surface for transportation to McClellan Lake.

Operating costs at McClellan Lake consist of the cost of offloading and leaching the Cigar Lake ore slurry into uranium solution and further processing into calcined U₃O₈ product.

Capital Costs (\$Cdn million)	Total (2023 – 2031)
Cigar Lake Mine Development	\$76.8
Cigar Lake Mine Capital	
Sustaining capital	\$73.2
Capacity replacement capital	33.3
Growth capital	-
Reclamation	-
Total mine capital	\$106.5
McClellan Lake mill sustaining capital	\$107.3
McClellan Lake mill expansion capital	47.3
Total mill capital	\$154.6
Total capital costs	\$337.9

Note: presented as total cost to the CLJV (100% basis)

Estimated capital costs to the CLJV include sustaining capital for Cigar Lake and McClellan Lake mill, as well as underground development at Cigar Lake to bring mineral reserves into production. Overall, the largest capital cost at Cigar Lake is surface freeze drilling and brine distribution infrastructure. Other significant capital includes tunnel outfitting and mine development costs.

Our expectations and plans regarding Cigar Lake, including forecasts of operating and capital costs, production and mine life are forward-looking information, and are based specifically on the risks and assumptions discussed on pages 3, 4 and 5. We may change operating or capital spending plans in 2023, depending upon uranium markets, our financial position, results of operation and other factors. Estimates of expected future production and capital and operating costs are inherently uncertain, particularly beyond one year, and may change materially over time.

Exploration, drilling, sampling, data quality and estimates

There are no historical estimates within the meaning of NI 43-101 to report. The Cigar Lake uranium deposit was discovered in 1981 by surface exploration drilling.

We focus most of our exploration activities on mineral lease ML 5521. Orano is responsible for exploration activity on the 38 surrounding mineral claims. The data from the exploration program on the 38 mineral claims is not part of the database used for the estimate of the mineral resources and mineral reserves at Cigar Lake.

Exploration

After the 2006 water inflow events, it was recognized that more detailed geophysical information in the immediate deposit area was required. Since 2006, a number of geophysical surveys over the Cigar Lake deposit provided additional knowledge on geological structures and fault zones. In the fall of 2007, a supplementary geophysical program was conducted over a portion of the eastern area of the deposit to identify major structures within the sandstone column. This information has since been incorporated into our geological models. These are regularly updated as additional information is collected, allowing for better mine planning and mitigation of potential risk.

Drilling

Surface drilling – mineral lease

The last diamond drillhole of the 1981 program was located south of Cigar Lake and was the discovery hole for the Cigar Lake uranium deposit. The deposit was subsequently delineated by surface drilling between 1982 and 1986, and followed by several small drilling campaigns to gather geotechnical and infill data between 1986 and 2007. Additional diamond drilling campaigns over the eastern part of the deposit and the western portion were conducted by us between 2007 and 2012, which targeted a broad range of technical objectives. In 2016, we initiated a surface delineation program on the western portion of the deposit, which ended in 2017.

Average drill depths for surface delineation holes range from approximately 460 m to 500 m, with the majority of surface freezeholes drilled to a depth of approximately 462 m. Delineation drilling in the eastern area has been done at a nominal drillhole fence spacing of 25 to 50 m (east-west), with holes at 20 to 25 m (north-south) spacing on the fences. The approximate surface freezehole spacing is 7 x 7 metres.

The western area was historically drilled at a nominal drillhole fence spacing of 200 m, with holes at 20 m spacing on the fences. Additional infill drillholes were completed in 2011 and 2012 by Cameco for select areas, locally reducing the drillhole spacing down to an approximate 15 x 15 m pattern followed by additional drilling in 2016 and 2017 to upgrade the majority of the resource to the indicated category. A total of 125 delineation holes currently inform the western area mineral resource estimate. Minor delineation drilling is planned for 2023.

Drilling results have been used to delineate and interpret the 3-dimensional geometry of the mineralized areas, the litho structural settings, the geotechnical conditions, and to estimate the distribution and content of uranium and other elements.

Surface freezehole drilling over the eastern part of the deposit has been ongoing since 2012. Drilling results obtained between September 2021 and September 2022, representing 146 additional freezeholes, are reflected in our reported mineral resources and reserves.

Underground drilling – mineral lease

Diamond drilling from underground is primarily to ascertain rock mass characteristics in advance of development and mining. Cigar Lake Mining Corporation, the previous operator, and Cameco have conducted underground geotechnical drilling since 1989 at Cigar Lake, except for the period from 2007 to 2009 during which time the mine was flooded.

At one time, freezeholes were drilled from underground into the deposit for the purpose of freezing the ground prior to mining. No underground freezeholes have been drilled since 2006. None of them are currently used for freezing or for mineral resource and reserve estimation purposes.

Sampling, analysis and data verification

Sampling

Vertical surface drilling generally represents the true thickness of the zone given the flat-lying mineralization. All holes are core drilled and gamma probed whenever possible. Cigar Lake uses a high-flux gamma probe designed and constructed by alphaNUCLEAR, a member of the Cameco group of companies. This high-flux gamma probe utilizes two Geiger Müller tubes to detect the amount of gamma radiation emanating from the surroundings. The count rate obtained from the high-flux probe is compared against chemical assay results to establish a correlation to convert corrected probe count rates into equivalent % U_3O_8 grades for use when assay results are unavailable. The consistency between probe data and chemical assays demonstrates that secular equilibrium exists within the deposit. Approximately 25% of the data used to estimate mineral resources is obtained from assays, and in these cases, the core depth is validated by comparing the down-hole gamma survey results with a hand-held scintillometer on core before it is logged, photographed, and then sampled for uranium analysis. Attempts are made to avoid having samples cross geological boundaries.

When sampled, the entire core from each sample interval is taken for assay or other measurements to characterize the physical and geochemical properties of the deposit, except for some of the earliest sampling in 1981 and 1982 (which were validated or removed following subsequent delineation drilling and whole core assay measurements). This reduces the potential sample bias inherent when splitting core. Core recovery throughout the deposit has generally been very good. However, in areas of poor core recovery, uranium grade determination is generally based on radiometric probe results.

The typical sample collection process at our operations is performed by or under the supervision of a qualified geoscientist and includes the following procedures:

- marking the sample intervals on the core boxes at nominal 50 cm sample lengths
- collection of the samples in plastic bags, taking the entire core
- documentation of the sample location, assigning a sample number, and description of the sample, including radiometric values from a hand-held device
- bagging and sealing, with sample tags inside bags and sample numbers on the bags; and
- placement of samples in steel drums for shipping

Sample security

Current sampling protocols dictate that all samples are collected and prepared in a restricted core processing facility. Core samples are collected and transferred from core boxes to high-strength plastic sample bags, then sealed. The sealed bags are then placed in steel drums and shipped in compliance with the Transport of Dangerous Goods regulations with tamper-proof security seals. Chain of custody documentation is present from inserting samples into steel drums to final delivery of results by SRC.

All samples collected are prepared and analysed under close supervision of qualified personnel at SRC, which is a restricted access laboratory licensed by the CNSC.

Analysis

Since 2002, assay sample preparation has been done at SRC, which is independent of the participants of CLJV. It involves jaw crushing to 60% @ -2 mm and splitting out a 100 – 200 g sub-sample using a riffle splitter. The sub-sample is pulverized to 90% @ -106 microns using a puck and ring grinding mill. The pulp is then transferred to a bar coded plastic snap top vial. Assaying by SRC involves digesting an aliquot of pulp in concentrated 3:1 HCL:HNO₃ on a hot plate for approximately one hour. The volume is then made up in a 100 ml volumetric flask using deionized water prior to analysis by ICP-OES. Instruments used in the analysis are calibrated using certified commercial solutions. This method is ISO/IEC 17025:2017 accredited by the Standards Council of Canada.

Quality control and data verification

The quality assurance and quality control procedures used during the early drilling programs were typical for the time. The majority of uranium assays in the database from the early drilling programs were obtained from Loring Laboratories Ltd., which was independent of the participants of CLJV. For uranium assays up to 5% U_3O_8 , 12 standards and two blanks were run with each batch of samples and for uranium assays over 5% U_3O_8 , a minimum of four standards were run with each batch of samples.

More recent sample preparation and assaying is being completed under the close supervision of qualified personnel at SRC and includes preparing and analysing standards, duplicates, and blanks. At least two standards are analysed for each 40-sample batch, with another sample being analyzed in duplicate. We also include a pulp repeat and 1 split sample repeat with every group. Samples that fail quality controls are re-analyzed.

The original database, which forms part of the database used for the current mineral resource and mineral reserve estimates, was compiled by previous operators. Many of the original signed assay certificates are available and have been reviewed by Cameco geologists.

In 2013, Cigar Lake implemented an SQL server based centralized geological data management system to manage all drillhole and sample related data. All core logging, sample collection, downhole probing and sample dispatching activities are carried out and managed within this system. All assay, geochemical and physical analytical results obtained from the external laboratory are uploaded directly into the centralized database, thereby mitigating potential for manual data transfer errors. The database used for the current mineral resource and mineral reserve estimates was validated by Cameco qualified geoscientists.

Additional data quality control measures include:

- review of drillhole collar coordinates and downhole deviations in the database against planned location of the holes. All results were within acceptable tolerances.
- comparison of the information in the database against the original data, including paper logs, assay certificates and original probing files as required. Approximately 10% of holes in the resource estimate update were compared against the assay certificates with no discrepancies observed.
- validation of core logging information in plan and section views, and review of logs against photographs of the core. Core logging information reviewed during geological modelling. Three historical holes were removed from the mineral resource update dataset following the addition of new surface freeze hole information.
- checking for data errors such as overlapping intervals and out of range values. No issues were observed in 2022.
- radiometric probes undergo annual servicing and re-calibration as well as additional checks including control probing to ensure precision and accuracy of the probes. All probes were serviced and re-calibrated. Control probing results were within acceptable tolerances in 2022.
- validating uranium grades comparing radiometric probing with core radioactivity measurements and sample assay results. Uranium grades were reviewed during the 2022 mineral resource update. A review of the correlation to convert corrected probe count rates into equivalent % U₃O₈ grades was initiated.

Since the start of commercial production, we have compared the uranium block model with mine production results on a quarterly basis to ensure an acceptable level of accuracy is maintained. Historically, we have seen acceptable variances, but in 2022, we saw apparent model overperformance variances justifying further review.

Our geoscientists, including a qualified person as such term is defined in NI 43-101, have witnessed or reviewed drilling, core handling, radiometric probing, logging, sampling facilities and data verification procedures employed at the Cigar Lake operation and consider the methodologies to be satisfactory and the results representative and reliable. There has been no indication of significant inconsistencies in the data used or verified nor any failures to adequately verify the data.

Accuracy

We are satisfied with the quality of data and consider it valid for use in the estimation of mineral resources and reserves for Cigar Lake. Comparison of actual mine production with expected production supports this opinion.

Mineral reserve and resource estimates

Please see page 78 for our mineral reserve and resource estimates for Cigar Lake.

Uranium – Tier-one operations

Inkai



2022 Production (100% basis)

8.3M lbs

2023 Production Outlook (100% basis)

8.3M lbs

Estimated Reserves (our share)

108.7M lbs

Estimated Mine Life

2045
(based on licence term)

Inkai is a very significant uranium deposit, located in Kazakhstan. The operator is JV Inkai limited liability partnership, which we jointly own (40%)¹ with Kazatomprom (60%).

Inkai is considered a material uranium property for us. There is a technical report dated January 25, 2018 (effective January 1, 2018) that can be downloaded from SEDAR (sedar.com) or from EDGAR (sec.gov).

Location	South Kazakhstan
Ownership	40% ¹
Mine type	In situ recovery (ISR)
End product	Uranium concentrate
Certifications	BSI OHSAS 18001 ISO 14001 certified
Estimated reserves	108.7 million pounds (proven and probable), average grade U ₃ O ₈ : 0.04%
Estimated resources	35.6 million pounds (measured and indicated), average grade U ₃ O ₈ : 0.03% 9.6 million pounds (inferred), average grade U ₃ O ₈ : 0.03%
Licensed capacity (wellfields)	10.4 million pounds per year (our share 4.2 million pounds per year) ¹
Licence term	Through July 2045
Total packaged production: 2009 to 2022	81 million pounds (100% basis)
2022 production	8.3 million pounds (100% basis) ¹
2023 production outlook	8.3 million pounds (100% basis) ¹
Estimated decommissioning cost (100% basis)	\$30 million (US) (100% basis)

All values shown, including reserves and resources, represent our share only, unless indicated.

¹ Our ownership interest in the joint venture is 40% and we equity account for our investment. As such, our share of production is shown as a purchase.

Business structure

JV Inkai is a Kazakhstan limited liability partnership between two companies:

- Cameco – 40%
- Kazatomprom (KAP) – 60%

History

1976-78	<ul style="list-style-type: none"> • Deposit is discovered • Exploration drilling continues until 1996
1979	<ul style="list-style-type: none"> • Regional and local hydrogeology studies begin • Borehole tests characterize the four aquifers within the Inkai deposit (Uvanas, Zhalspak, Inkuduk and Mynkuduk)
1988	<ul style="list-style-type: none"> • Pilot test in the northeast area of block 1 begins, lasts 495 days and recovers 92,900 pounds of uranium

1993	<ul style="list-style-type: none"> • First Kazakhstan estimates of uranium resources for block 1
1996	<ul style="list-style-type: none"> • First Kazakhstan estimates of uranium resources for block 2 • Kazakhstan regulators registers JV Inkai, a joint venture among us, Uranerzbergbau-GmbH and KATEP
1997	<ul style="list-style-type: none"> • KAP is established
1998	<ul style="list-style-type: none"> • KATEP transfers all of its interest in JV Inkai to KAP • We acquire all of Uranerzbergbau-GmbH's interest in JV Inkai, increasing our interest to 66 2/3% • We agree to transfer a 6 2/3% interest to KAP, reducing our holdings to a 60% interest
1999	<ul style="list-style-type: none"> • JV Inkai receives a mining licence for block 1 and an exploration with subsequent mining licence for blocks 2 and 3 from the government of Kazakhstan
2000	<ul style="list-style-type: none"> • JV Inkai and the government of Kazakhstan sign a subsoil use contract (called the <i>resource use contract</i>), which covers the licences issued in 1999 (see above)
2002	<ul style="list-style-type: none"> • Pilot leach test in the north area of block 2 begins
2005	<ul style="list-style-type: none"> • Construction of ISR commercial processing facility at block 1 begins
2006	<ul style="list-style-type: none"> • Complete pilot leach test at block 2 • Exploration-delineation drilling initiated at block 3
2007	<ul style="list-style-type: none"> • Sign Amendment No.1 to the resource use contract, extending the exploration period at blocks 2 and 3
2008	<ul style="list-style-type: none"> • Commission front half of the main processing plant in the fourth quarter, and begin processing solution from block 1
2009	<ul style="list-style-type: none"> • Sign Amendment No. 2 to the resource use contract, which approves the mining licence at block 2, extends the exploration period for block 3 to July 13, 2010, and requires JV Inkai to adopt the new tax code and meet the Kazakhstan content thresholds for human resources, goods, works and services • Commission the main processing plant, and started commissioning the first satellite plant
2010	<ul style="list-style-type: none"> • Receive regulatory approval for commissioning of the main processing plant • File a notice of potential commercial discovery at block 3 • Receive approval in principle for the extension of block 3 exploration for a five-year appraisal period that expires July 2015, and an increase in annual production from blocks 1 and 2 to 3.9 million pounds (100% basis)
2011	<ul style="list-style-type: none"> • Receive regulatory approval for commissioning of the first satellite plant • Sign Amendment No. 3 to the resource use contract, which extends the exploration period for block 3 to July 2015 and provides government approval to increase annual production from blocks 1 and 2 to 3.9 million pounds (100% basis) • Sign a memorandum of agreement with KAP to increase annual production from blocks 1 and 2 from 3.9 million pounds to 5.2 million pounds (100% basis)
2012	<ul style="list-style-type: none"> • Sign a memorandum of agreement with KAP setting out the framework to increase annual production from blocks 1 and 2 to 10.4 million pounds (100% basis), to extend the term of JV Inkai's resource use contract through 2045 and to cooperate on the development of uranium conversion capacity, with the primary focus on uranium refining rather than uranium conversion • Start construction of a test leach facility at block 3
2013	<ul style="list-style-type: none"> • Sign Amendment No. 4 to the resource use contract, which provides government approval to increase annual production from blocks 1 and 2 to 5.2 million pounds (100% basis)
2015	<ul style="list-style-type: none"> • At block 3, construction of the test leach facility is completed and the pilot leach test initiated
2016	<ul style="list-style-type: none"> • Sign an agreement with KAP and JV Inkai to restructure and enhance JV Inkai, subject to closing, increasing KAP's holdings to a 60% interest and reducing our holdings to a 40% interest • Sign Amendment No. 5 to the resource use contract, which extends the exploration period for block 3 to July 2018
2017	<ul style="list-style-type: none"> • In December, close the agreement with KAP and JV Inkai to restructure and enhance JV Inkai. Under the agreement, effective January 1, 2018, our ownership interest dropped to 40% and we will equity account for our investment. • Sign Amendment No. 6 to the resource use contract, which grants JV Inkai the right to produce up to 10.4 million pounds per year and extends the term of the resource use contract until July 13, 2045

Technical report

This description is based on the project's technical report: Inkai Operation, South Kazakhstan Oblast, Republic of Kazakhstan, dated January 25, 2018 (effective January 1, 2018) except for some updates that reflect developments since the technical report was published. The report was prepared for us in accordance with NI 43-101, by or under the supervision of Darryl Clark, PhD, FAusIMM, Alain G. Mainville, P. Geo., Stuart B. Soliz, P. Geo., and Robert J. Sumner, PhD, P. Eng. The following description has been prepared under the supervision of Biman Bharadwaj, P. Eng., Scott Bishop, P. Eng., Sergey Ivanov, P. Geo., and Alain D. Renaud, P. Geo. They are all qualified persons within the meaning of NI 43-101 but are not independent of us.

The conclusions, projections and estimates included in this description are subject to the qualifications, assumptions and exclusions set out in the technical report except as such qualifications, assumptions and exclusions may be modified in this AIF. We recommend you read the technical report in its entirety to fully understand the project. You can download a copy from SEDAR (sedar.com) or from EDGAR (sec.gov).

For information about environmental matters, see *Our ESG principles and practices* and *The regulatory environment* starting on pages 84 and 87.

For a description of royalties payable to the government of Kazakhstan on the sale of uranium extracted from orebodies within the country and taxes, see page 95.

For a description of risks that might affect access, title or the right or ability to perform work on the property, see *Strategic risks – Foreign investments and operations and Kazakhstan* at pages 118 and 119, *Operational risks – Permitting and licensing* at pages 103 and 104, *Governance and compliance risks* starting at page 110, *Social risks* starting at page 112, and *Environmental risks* starting at page 113.

About the Inkai property

Location

Inkai is in the Suzak District of Turkestan Oblast, Kazakhstan near the town of Taikonur, 350 kilometres northwest of the city of Shymkent and 155 kilometres east of the city of Kyzyl-Orda. JV Inkai's corporate office is in Shymkent.

Access

The road to Taikonur is the primary road for transporting people, supplies and uranium product to and from the mine. It is a paved road that crosses the Karatau Mountains. Rail transportation is available from Almaty to Shymkent, then northwest to Shieli, Kyzyl-Orda and beyond. A rail line also runs from the town of Dzhambul to a KAP facility to the south of Taikonur. From Almaty and Astana, commercial airline services are available to Shymkent and Kyzyl-Orda.

Property tenure – MA area and mining allotment

The resource use contract between the Republic of Kazakhstan and JV Inkai (the resource use contract) grants JV Inkai the rights to explore for and to extract uranium from the subsoil contained in the Mining Allotment Area (the MA Area). The MA Area is the 139 square kilometres area in which JV Inkai currently has the right to mine, as covered by the Mining Allotment, which includes block 1 and portions of blocks 2 and 3. The Mining Allotment was the document issued by the Geology Committee of the Republic of Kazakhstan to JV Inkai in July 2017, which graphically and descriptively defines the area in which JV Inkai has the right to mine. As provided for in Amendment No. 6, it is part of the resource use contract. JV Inkai owns uranium extracted from the subsoil contained in the MA Area and has the right to use the surface of the MA Area. JV Inkai has obligations under the resource use contract which it must comply with to maintain these rights.

In addition to complying with its obligations under the resource use contract, JV Inkai, like all subsoil users, is required to abide by the work program appended to its resource use contract, which relates to its mining operations.

Under Kazakhstan law, subsoil and mineral resources belong to the state. Currently, the state provides access to subsoil and mineral resources under a resource use contract (hydrocarbons and uranium only) and a licence (the rest of mineral resources). Minerals extracted from the subsoil by a subsoil user under a resource use contract are the property of the subsoil user unless the subsoil code (as defined below) or a resource use contract provides otherwise.

A resource use contract gives the contractor a right to use the surface of the property while exploring, mining, and reclaiming the land. However, this right must be set forth in a land lease agreement with the applicable local administrative authorities.

On a regular basis, JV Inkai obtains from local authorities the necessary land lease agreements for new buildings and infrastructure. JV Inkai does not hold land leases for the entire MA Area. JV Inkai obtains land leases gradually only for surface area required for exploration, mining, or construction of new infrastructure.

Environment, social and community factors

Inkai lies in the Betpak Dala Desert, which has a semi-arid climate, minimal precipitation, and relatively high evaporation. The average precipitation varies from 130 to 140 millimetres per year, and 22 to 40% of this is snow. The surface elevation within the MA Area ranges from 140 to 300 metres above mean sea level.

The area also has strong winds. The prevailing winds are northeast. Dust storms are common. The major water systems in the area include the Shu, Sarysu and Boktykaryn rivers.

The resource use contract prescribes that a certain level of employees be from Kazakhstan. See *Resource use contract* on page 61 for more information.

JV Inkai must give preference to local businesses. See *Kazakhstan government and legislation – local content* on pages 63 and 64 for more information.

In accordance with JV Inkai's corporate responsibility strategy and to comply with its obligations under the resource use contract, JV Inkai finances projects and provides goods and services to support the district's social infrastructure.

Geological setting

South-central Kazakhstan geology is comprised of a large relatively flat basin of Cretaceous to Quaternary age continental clastic sedimentary rocks. The Chu-Sarysu basin extends for more than 1,000 kilometres from the foothills of the Tien Shan Mountains located on the south and southeast sides of the basin, and merges into the flats of the Aral Sea depression to the northwest. The basin is up to 250 kilometres wide, bordered by the Karatau Mountains on the southwest and the Kazakh Uplands on the northeast. The basin is composed of gently dipping to nearly flat-lying fluvial-derived unconsolidated sediments composed of inter-bedded sand, silt, and local clay horizons.

The Cretaceous and Paleogene sediments contain several stacked and relatively continuous, sinuous "roll-fronts" or oxidation reduction (redox) fronts hosted in the more porous and permeable sand and silt units. Several uranium deposits and active uranium ISR mines are located at these regional redox roll-fronts, developed along a regional system of superimposed mineralization fronts. The overall stratigraphic horizon of interest in the basin is approximately 200 to 250 metres in vertical section.

The Inkai deposit is one of these roll-front deposits. It is hosted within the Lower and Middle Inkuduk horizons and Mynkuduk horizon which comprise fine, medium, and coarse-grained sands, gravels and clays. The redox boundary can be readily recognised in core by a distinct colour change from grey and greenish-grey on the reduced side to light-grey with yellowish stains on the oxidized side, stemming from the oxidation of pyrite to limonite.

The sands have high horizontal hydraulic conductivities. Hydrogeological parameters of the deposit play a key role in ISR mining. Studies and mining results indicate Inkai has favourable hydrogeological conditions for ISR mining.

Mineralization

Mineralization in the Middle Inkuduk horizon occurs in the central, western, and northern parts of the MA Area. The overall strike length is approximately 35 kilometres. Width in plan view ranges from 40 to 1,600 metres and averages 350 metres. The depth ranges from 262 to 380 metres, averaging 314 metres.

Mineralization in the Lower Inkuduk horizon occurs in the southern, eastern, and northern parts of the MA Area. The overall strike length is approximately 40 kilometres. Width in plan view ranges from 40 to 600 metres and averages 250 metres. The depth ranges from 317 to 447 metres, averaging 382 metres.

Mineralization in the Mynkuduk horizon stretches from south to north in the eastern part of the MA Area. The overall strike length is approximately 40 kilometres. Width in plan view ranges from 40 to 350 metres and averages 200 metres. The depth ranges from 350 to 528 metres, averaging 390 metres.

Mineralization comprises sooty pitchblende (85%) and coffinite (15%). The pitchblende occurs as micron-sized globules and spherical aggregates, while the coffinite forms tiny crystals. Both uranium minerals occur in pores on interstitial materials such as clay minerals, as films around and in cracks within sand grains, and as replacements of rare organic matter, and are commonly associated with pyrite.

Deposit type

The Inkai uranium deposit is a roll-front type deposit. Roll-front deposits are a common example of stratiform deposits that form within permeable sandstones at the interface between oxidized and reduced environments. The Cretaceous and Paleogene sediments contain several stacked and relatively continuous, sinuous “roll-fronts”, or redox fronts hosted in the more porous and permeable sand and silt units. Microcrystalline uraninite and coffinite are deposited during diagenesis by ground water, in a crescent-shaped lens that cuts across bedding and forms at the interface between oxidized and reduced ground. Sandstone host rocks are medium to coarse grained were highly permeable at the time of mineralization. There are several uranium deposits and active ISR uranium mines at these regional oxidation roll-fronts, developed along a regional system of superimposed mineralization fronts.

About the Inkai operation

Inkai is a developed producing property with sufficient surface rights to meet future mining operation needs for the current mineral reserves. It has site facilities and infrastructure. Plans are progressing to expand the operation to give it the capability to produce up to 10.4 million pounds per year.

Licences

The resource use contract grants JV Inkai the rights to explore for and to extract uranium from the subsoil contained in the MA Area until July 13, 2045. Other material licences JV Inkai currently holds relating to its mining activities are:

- “Licence for radioactive substances handling” valid until December 31, 2024
- “Licence for operation of mining production and mineral raw material processing” with an indefinite term
- “Licence for transportation of radioactive substances within the territory of the Republic of Kazakhstan” valid until December 30, 2024
- “Licence for radioactive waste handling” valid until December 30, 2024

JV Inkai’s material environmental permits are described on page 62.

Infrastructure

There are three processing facilities on the MA Area: the Main Processing Plant (MPP) and two satellite plants, Sat1 and Sat2.

As part of the expansion, the following upgrades were completed:

- addition of new pumping stations and sand ponds at Sat2
- expansion of the processing facilities to add processing capacity at Sat2

The existing MPP, Sat1 and Sat2 circuit capacities were estimated using Inkai daily process summaries, which were subsequently demonstrated since 2019 by actual annual production. The MPP has an ion exchange (IX) capacity of 2.7 million pounds U_3O_8 per year and a product drying and packaging capacity of 8.3 million pounds U_3O_8 per year. Sat1 and Sat2 have respective IX capacities of 6.0 and 4.5 million pounds U_3O_8 per year.

The following infrastructure currently exists on the MA Area: administrative, engineering and construction offices, a laboratory, shops, garages, holding ponds and reagent storage tanks, enclosures for low-level radioactive waste and domestic waste, an emergency response building, food services facilities, roads and power lines, wellfield pipelines and header houses.

As part of the expansion, the following upgrades are planned:

- addition of calcining capability and processing capacity at the MPP
- expansion of office buildings and the laboratory

At Taikonur, JV Inkai has an employee residence camp with catering and leisure facilities. As part of the expansion, the following upgrades are planned:

- expansion of the camp in a phased approach with construction of two residential blocks for 165 people each and addition of a dining room for 150 people
- construction of a 24-kilometre asphalt paved road connecting the camp to the three processing facilities

Water, power and heat

Groundwater wells provide sufficient water for all planned industrial activities. Potable water for use at the camp and at site facilities is supplied from shallow wells on the site. The site is connected to the national power grid. In case of power outages, there are standby generators. Operations continue throughout the year despite cold winters (lows of -35°C) and hot summers (highs of +40°C).

Employees

Taikonur has a population of about 680 who are mainly employed in uranium development and exploration. Whenever possible, JV Inkai hires personnel from Taikonur and surrounding villages.

Mining

Mining at Inkai is based upon a conventional and well-established ISR process. ISR mining of uranium is defined by the IAEA as:

“The extraction of ore from a host sandstone by chemical solutions and the recovery of uranium at the surface. ISR extraction is conducted by injecting a suitable leach solution into the ore zone below the water table; oxidizing, complexing and mobilizing the uranium; recovering the pregnant solutions through production wells; and finally, pumping the uranium bearing solution to the surface for further processing.”

ISR mining at Inkai is comprised of the following components to produce a uranium-bearing lixiviant (an aqueous solution which includes sulphuric acid), which goes to settling ponds and then to the processing plants for production as yellowcake:

- **Determination of the GT (grade x thickness) cut-off** for the initial design and the operating period. The design sets a lower limit to the pounds per pattern required to warrant installation of a pattern before funds are committed, and the operating cut-off applies to individual producer wells and dictates the lower limit of operation once a well has entered production.
- **Preparation of a production sequence**, which will deliver the uranium-bearing lixiviant to meet production requirements, considering the rate of uranium recovery, lixiviant uranium head grades, and wellfield flow rates.
- **Wellfield development practices**, using an optimal pattern design, distribute barren lixiviant to the wellfield injectors, and then collect lixiviant, which carries the dissolved uranium, back to the MPP, Sat1 or Sat2, as the case may be.

The above factors are used to estimate the number of operating wellfields, wellfield patterns and wellfield houses over the production life. They also determine the unit cost of each of the mining components required to achieve the production schedule, including drilling, wellfield installation and wellfield operation.

There is ongoing wellfield development to support the current production plan. The mining project documents are being updated following the 2021 completion of the resource estimate report as described in *Exploration* on page 67 below.

Processing

As a result of extensive test work and operational experience, a very efficient process of uranium recovery has been established. The process consists of the following major steps:

- uranium in-situ leaching with a lixiviant
- uranium adsorption from solution with IX resin
- elution of uranium from resin with ammonium nitrate
- precipitation of uranium as yellowcake with hydrogen peroxide and ammonia
- yellowcake thickening, dewatering, and drying
- packaging of dry yellowcake product in containers

All plants load and elute uranium from resin while the resulting eluate is converted to yellowcake at the MPP. Inkai is designed to produce a dry uranium product that meets the quality specifications of uranium refining and conversion facilities. Overall recovery in 2022 slightly exceeded our target of 85%.

Production

Total production

Based on current mineral reserves and resource use contract term, we expect Inkai to produce a total of 224 million pounds U_3O_8 (100% basis, recovered after processing) over the life of the mine from January 2023 to mid-2045.

Average annual production

Collectively the MPP, Sat1 and Sat2 have the capacity to produce about 8.3 million pounds U_3O_8 per year (100% basis) depending on the grade of the production solution. Construction work for a process expansion of the Inkai circuit to 10.4 million pounds U_3O_8 per year is in progress. The expansion project includes an upgrade to the yellowcake filtration and packaging units and the addition of a pre-dryer and calciner.

Production increase and restructuring – Implementation Agreement

In 2016, we signed an agreement with KAP and JV Inkai to restructure and enhance JV Inkai (the implementation agreement). The restructuring closed in December 2017 and took effect January 1, 2018. This restructuring was subject to obtaining all required government approvals, including an amendment to the resource use contract, which were obtained. The restructuring consisted of the following:

- JV Inkai has the right to produce 10.4 million pounds of U_3O_8 per year, an increase from the prior licensed annual production of 5.2 million pounds
- JV Inkai has the right to produce until 2045 (previously, the licence terms, based on the boundaries prior to the restructuring, were to 2024 and 2030)
- our ownership interest in JV Inkai is 40% and KAP's ownership interest is 60%. However, during production ramp up to the licensed limit of 10.4 million pounds, we are entitled to purchase 57.5% of the first 5.2 million pounds, and, as annual production increases above 5.2 million pounds, we are entitled to purchase 22.5% of any incremental production, to the maximum annual share of 4.2 million pounds. Once the ramp up to 10.4 million pounds annually is complete, we will be entitled to purchase 40% of such annual production, matching our ownership interest
- a governance framework that provides protection for us as a minority owner
- the boundaries of the MA Area match the agreed production profile for JV Inkai to 2045
- priority payment of the loan that our subsidiary made to JV Inkai to fund exploration and evaluation of the historically defined block 3 area (in 2019, the loan was repaid)

With KAP, we completed and reviewed a feasibility study for the purpose of evaluating the design, construction, and operation of a uranium refinery in Kazakhstan. In accordance with the agreement, a decision was made not to proceed with construction of the uranium refinery as contemplated in the feasibility study. We subsequently signed an agreement to licence our proprietary UF_6 conversion technology to KAP, which will allow KAP to examine the feasibility of constructing and operating its own UF_6 conversion facility in Kazakhstan.

The subsoil code allows producers to deviate within 20% (above or below) from the production parameters (including annual production levels) set out in the state approved project documentation, without triggering a mandatory amendment process.

With the change in ownership interests, we account for JV Inkai on an equity basis.

2022 Production

Total 2022 production from Inkai was 8.3 million pounds (100% basis) as planned, a decrease of 7% from 2021. In 2022, Inkai experienced a number of operational issues related to interruptions in reagent delivery and wellfield drilling. While the issues have been partially mitigated, their impact on production and inflationary pressure on production supplies pose a risk to JV Inkai's 2023 production volume and its costs.

The first shipment of our share of JV Inkai's 2022 production via the Trans-Caspian route arrived at a Canadian port in December 2022. This was the first shipment of our share of finished product from JV Inkai that did not rely on Russian rail lines or ports. However, the geopolitical situation continues to cause transportation risks in the region. Our 2022 share of earnings from this equity-accounted investee were impacted due to the timing of delivery of our share of 2022 production.

Based on an adjustment to the production purchase entitlement under the 2016 implementation agreement, in 2022 we were entitled to purchase 4.2 million pounds, or 50% of JV Inkai's 2022 production of 8.3 million pounds.

2023 Production

Based on an adjustment to the production purchase entitlement under the 2016 implementation agreement described above, we are entitled to purchase 4.2 million pounds, or 50% of JV Inkai's planned 2023 production of 8.3 million pounds.

Presently, JV Inkai is experiencing wellfield development, procurement and supply chain issues, and inflationary pressures on its production materials and reagents. Achievement of its 2023 production forecast requires it to successfully manage these risks. If there is a significant disruption to JV Inkai's operations for any reason, it may not achieve its production plans, there may be a delay in production, and it may experience increased costs to produce uranium. In addition, JV Inkai's costs could be impacted by potential changes to the tax code in Kazakhstan and by possible increased financial contributions to social and other state causes, although these risks cannot be quantified or estimated at this time.

Our share of production is purchased at a discount to the spot price and included at this value in inventory. In addition, JV Inkai capital is not included in our outlook for capital expenditures.

In August 2022, KAP announced its plan to produce 10% below the planned volumes under its subsoil use contracts in 2024.

Sales

There are annual uranium sales contracts entered into between JV Inkai and a Cameco subsidiary to purchase Cameco's share of Inkai production for each year, as well as similar contracts between JV Inkai and KAP. JV Inkai currently has no other forward-sales commitments for its uranium production.

In accordance with the Kazakhstan government's resolution on uranium concentrate pricing regulations, product is currently purchased from JV Inkai at a price equal to the uranium spot price, less a 5% discount.

Cash distribution

Excess cash, net of working capital requirements, will be distributed to the partners as dividends. In 2022, we received dividend payments from JV Inkai totaling \$92.4 million (US). Our share of dividends follows our production purchase entitlements as described above.

Resource use contract

The resource use contract was signed by the Republic of Kazakhstan and JV Inkai and then registered on July 13, 2000 based on the licence granted on April 20, 1999. The resource use contract provides for JV Inkai's mining rights to the MA Area, as well as containing obligations with which JV Inkai must comply in order to maintain such rights. There have been six amendments to the resource use contract, the most recent in November 2017, being Amendment No. 6 to:

- define the boundaries of the MA Area to match the agreed production profile for JV Inkai to 2045
- increase the annual production rate from the MA Area to 10.4 million pounds U₃O₈
- extend the extraction term from the MA Area until July 13, 2045

The other prior significant amendments to the resource use contract are as follows:

- In 2007, Amendment No. 1 to the resource use contract was signed, extending the exploration period of blocks 2 and 3 for two years.
- In 2009, Amendment No. 2 to the resource use contract was signed, adopting the 2009 Tax Code, implementing local content and employment requirements, and extending the exploration period at block 3.
- In 2011, Amendment No 3 to the resource use contract was signed, increasing production and giving JV Inkai government approval to carry out a five-year assessment program on block 3 that included delineation drilling, uranium resource estimation, construction and operation of a processing plant at block 3, and completion of a feasibility study.
- In 2013, Amendment No. 4 to the resource use contract was signed to increase annual production from blocks 1 and 2 to 5.2 million pounds U₃O₈.
- In 2016, Amendment No. 5 to the resource use contract was signed, extending the exploration period at block 3 to July 13, 2018.

In addition to complying with its obligations under the resource use contract, JV Inkai, like all subsoil users, is required to abide by the work program appended to the resource use contract, which relates to its mining operations. The current work program, to increase the annual production rate to 10.4 million pounds U₃O₈, is attached to Amendment No. 6.

Environment

JV Inkai has to comply with environmental requirements during all stages of the operation, and develop an environmental impact assessment for examination by a state environmental expert before making any legal, organizational, or economic decisions that could have an effect on the environment and public health.

As required under Kazakhstan law, JV Inkai has a permit for environmental emissions and discharges for the operation that is valid until December 31, 2030. JV Inkai also holds certain water use permits which have various expiry dates.

JV Inkai carries environmental insurance, as required by the resource use contract and environmental law.

Decommissioning

JV Inkai's decommissioning obligations are defined by the resource use contract and the subsoil code. JV Inkai is required to maintain a fund, which is capped at \$500,000 (US), as security for meeting its decommissioning obligations. Under the resource use contract, JV Inkai must submit a plan for decommissioning the property to the government six months before mining activities are complete.

JV Inkai has developed a preliminary decommissioning plan to estimate total decommissioning costs, and updates the plan when there is a significant change at the operation that could affect decommissioning estimates. The preliminary decommissioning estimate is \$30 million (US) and is subject to ongoing review.

Groundwater is not actively restored post-mining in Kazakhstan. See page 92 for additional details.

Kazakhstan government and legislation

Subsoil law

The principal legislation governing subsoil exploration and mining activity in Kazakhstan is the *Code of the Republic of Kazakhstan on Subsoil and Subsoil Use No. 125-VI dated December 27, 2017* (which became effective on June 28, 2018), as amended (the subsoil code). It replaced the *Law on the Subsoil and Subsoil Use dated June 24, 2010*, as amended.

In general, the rights held by JV Inkai are governed by the old subsoil law that was in effect at the time of the resource use contract registration in July 2000. The subsoil use rights held by JV Inkai came into effect upon the initial issuance of these licences (April 1999) and the execution and the state registration of the resource use contract (July 2000).

The subsoil code defines the framework and procedures connected with the granting, transfer and termination of subsoil rights, and the regulation of the activities of subsoil users. The subsoil, including mineral resources in their underground state, are the property of the people of Kazakhstan and the people's property rights are exercised by the state by the regime of state property. Resources brought to the surface belong to the subsoil user, unless otherwise provided by the subsoil code. The state has priority and approval rights with regards to strategic deposits with some exceptions (for example, for inter-group transfers in certain circumstances), if a subsoil user transfers its subsoil rights or if there is a transfer (direct or indirect) of an ownership interest in a subsoil user.

Subsoil rights go into effect when a contract with the competent authority is finalized and registered. Pursuant to the subsoil code, the subsoil user is given, among other things, the exclusive right to conduct mining operations, to build production facilities, to freely dispose of its share of production and to negotiate extensions of the contract, subject to restrictions and requirements set out in the subsoil code.

Currently, the Ministry of Energy of the Republic of Kazakhstan is the competent authority on hydrocarbons and uranium under the subsoil code.

Stabilization

The subsoil code provides, subject to a number of exceptions, that any licences issued and contracts executed before the enactment of the subsoil code remain valid. Therefore, the resource use contract remains valid. Most of the general provisions of the subsoil code apply to subsoil contracts concluded and licences issued before the subsoil code enactment. At the same time, the subsoil code's special provisions on uranium generally do not have retrospective effect except for certain rules such as obligations in the spheres of education, science and social, regional economic development during production, procurement, environmental protection, and contract termination rules.

Given that some subsoil use contracts (including the resource use contract) contain the legislation stability guarantee and the latter is also provided for by both the stabilized law and the subsoil code, any retrospective provisions of the subsoil code do not override such stability guarantee unless an exception applies. For example, environmental regulations of the subsoil code are an exception to the stability guarantee and apply to subsoil users operating under old contracts.

Overall, the Republic of Kazakhstan has gradually weakened the stabilization guarantee, particularly in relation to the new projects, and the national security exception in the subsoil code is applied broadly to encompass security over strategic national resources.

Amendment No. 2 to the resource use contract eliminated the tax stabilization provision that applied to JV Inkai.

Transfer of subsoil rights and priority rights

The subsoil code liberates to some extent the regime of regulatory approvals by requiring the consent for the transfer of an object connected with the subsoil use right only in relation to hydrocarbons, uranium and deposits under a solid minerals licence. In addition, it abolished the requirement to obtain consent in case of a charter capital increase without change in shareholding and a transaction with government, state body, national management holding or national company. As previously, failing to obtain the consent of the competent authority makes the transaction void.

Similar to the old subsoil law, the subsoil code provides the state with the priority right only with respect to transfers of a subsoil use right related to a strategic subsoil area and shares and other securities circulated at organized securities market, which constitutes an object connected with the subsoil use right related to the strategic subsoil area. The exemptions from the requirement to obtain the consent of the competent authority discussed above also exempts a transaction from the requirement to obtain a waiver of the priority right of the state.

The subsoil code has introduced a new requirement, which is a change of control notification to be made within 30 calendar days from such change. The subsoil code provides that control means inter alia holding more than 25% shares (participatory interests or securities convertible in shares), having voting rights for more than 25% of all votes in the highest management body.

Dispute resolution

The subsoil code contains provisions on resolution of disputes by a court order (meaning state courts) on a number of specific issues such as disputes regarding revocation of licences or termination of resource use contracts. Pursuant to amendments to the subsoil code that came into effect on January 10, 2023, disputes under contracts related to complex hydrocarbon projects are expressly allowed to be referred to international arbitration under UNCITRAL rules.

The subsoil code is silent on the status of arbitration clauses contained in uranium resource use contracts currently in effect. Therefore, strictly speaking, the subsoil code does not disallow international arbitration for uranium resource use contracts.

The resource use contract contains a dispute resolution clause referring contractual disputes to international arbitration. We believe the subsoil code does not affect this right.

Contract termination

The subsoil code introduces specific grounds for unilateral termination of subsoil use contracts (hydrocarbons and uranium).

Due to March 2021 amendments to the subsoil code, the provisions on termination of resource use contracts were given retrospective effect. Generally, however, those retrospective provisions should not override the stability guarantee and should not apply to the resource use contract.

The subsoil code applies some general grounds for unilateral repudiation retrospectively. Those are (i) a breach of the requirement to obtain the competent authority's consent for transfer of a subsoil use right or an object connected with subsoil use right for hard minerals containing a major or strategic deposit which lead to a threat to national security; and (ii) actions of subsoil user during subsoil use operations at major deposits of hard minerals leading to a change in the economic interest of the Republic of Kazakhstan which creates a threat to national security. To the extent these grounds for unilateral termination relate to national security which is an area not covered by the stability guarantee, they apply to resource use contracts entered into before the subsoil code came into effect.

Local content

The subsoil code imposes local content requirements for works, services and employees.

The resource use contract imposes local content requirements on JV Inkai with respect to employees, goods, works and services. As such, at least 40% of the costs of the acquired goods and equipment, 90% of contract works and 100%, 70% and 60% of employees, depending on their qualifications (workers, engineers, and management, respectively), must be of local origin. Effective January 1, 2021, under Kazakhstan law this local content requirement ceased to apply to goods procured by JV Inkai.

Strategic deposits

The subsoil code provides that all uranium deposits are strategic deposits. According to a governmental resolution On Determination of the Strategic Subsoil Areas Importance dated June 28, 2018 No. 389, 137 areas are strategic deposits, including Inkai's blocks.

Transfer of subsoil use rights on strategic areas is subject to the priority right and the competent authority's consent, as described above.

Reintroduction of the licensing regime

The subsoil code reintroduces the licensing regime for widespread and solid minerals except uranium. The regime of the resource use contracts only applies to exploration and production rights for hydrocarbons and uranium. As such, the rights to explore and produce uranium will continue to be provided based on a resource use contract.

Decommissioning

The subsoil code modified the general provisions related to decommissioning. Some of them are applied retroactively. One such modification introduces a new requirement to provide financial security for a subsoil user's decommissioning obligations in the form of a guarantee, insurance and/or bank deposit.

The subsoil code also contains special provisions on decommissioning of uranium wellfields. They do not have retroactive effect. However, because they fall within the sphere of environmental protection, they are not covered by the stability guarantee.

Uranium special regulations

The subsoil code differentiates uranium from the rest of solid minerals and provides an additional and distinct set of rules to govern uranium mining specifically.

The subsoil code provides that a uranium deposit is granted for mining only to a uranium national company (a joint stock company created by a decree of the government of Kazakhstan with the controlling stock belonging to the state or the national management fund on the basis of direct negotiations).

The subsoil code further stipulates that a subsoil use right for uranium mining (or a share in such subsoil use right) granted to a uranium national company on the basis of direct negotiations may only be further transferred to its subsidiary entities where the uranium national company holds more than 50% of the shares (participating interests) directly or indirectly. Such a transferee, in turn, may only transfer the subsoil use right (or share in the subsoil use right) to the uranium national company's subsidiary entities where the uranium national company holds more than 50% of the shares (participating interests) directly or indirectly.

The uranium special rules also regulate issues such as termination of the uranium subsoil use right, provision of a uranium deposit and its extension/reduction, conditions, and periods of mining and project and design documents. The subsoil code does not make these special uranium rules retroactive, subject to a few exceptions.

Currency control regulations

Under *the Law of the Republic of Kazakhstan on Currency Regulation and Currency Control No. 167-VI* dated July 2, 2018 (effective from July 1, 2019) (the Currency Law), in the event of an emergency situation presenting a threat to economic security and stability of the financial system of Kazakhstan, the Kazakhstan government based on a joint recommendation from the National Bank of Kazakhstan (the NBK) and other relevant state authorities is entitled to introduce a special currency regime for a period of up to one year. The following terms and requirements may potentially be imposed under such special currency regime:

- the requirement to deposit money on an interest free basis with a Kazakhstan bank or the NBK for a set period
- the requirement to obtain a special permit from the NBK to carry out certain foreign exchange transactions

- the requirement to sell foreign currency received by Kazakhstan residents
- the restriction on use of overseas bank accounts
- the establishment of a term for the return of foreign currency earnings and limits on volumes, amount and currency of settlement under foreign exchange transactions; and
- other temporary currency restrictions

Under the Currency Law, the requirements of the special currency regime may not restrict:

- the performance of obligations by Kazakhstan residents towards non-residents of Kazakhstan arising as a result of such non-residents of Kazakhstan performing their obligations under currency contracts entered into before the introduction of the special currency regime; and
- the transfer by non-residents of Kazakhstan of dividends, interest and other proceeds under deposit, and securities

Since the Currency Law has become effective, the following substantial changes envisaged by the Currency Law are noteworthy:

- amendment to the definition of Kazakhstan residents
- introduction of a requirement for Kazakhstan legal entities to confirm the purpose of the purchase and use of foreign currency in the Kazakhstan market
- cancellation of current currency operations registration and notification regimes and introduction of one regime for currency operations monitoring; and
- new requirements applicable to export/import operations with customs clearance in the territory of Kazakhstan

The resource use contract grants JV Inkai a measure of protection from currency control regulations, granting it the right to freely transfer funds, in state and other currencies, inside and outside of Kazakhstan with the exception that financial transactions within Kazakhstan must be concluded in the national currency.

Operating, capital costs and economic analysis

The following is a summary of the operating and capital cost estimates for the remaining life of mine, stated in constant 2022 dollars and reflecting a forecast life-of-mine production of 224 million pounds U₃O₈ and a 391 Kazakhstan Tenge to 1 Cdn dollar exchange rate assumption.

Operating Costs (\$Cdn million)	Total (2023 – 2045)
Site administration	\$458.0
Processing costs	269.2
Mining costs	599.8
Corporate overhead	422.2
Total operating costs	\$1,749.2
Average cost per pound U₃O₈	\$7.80

Note: presented as total cost to JV Inkai (100% basis).

Estimated operating costs consist of annual expenditures to mine and process the mineral reserves into U₃O₈ as well as site administration and corporate overhead costs.

Capital Costs (\$Cdn million)	Total (2023 – 2045)
Total wellfield development	\$610.5
Construction and maintenance capital	57.4
Sustaining capital	58.7
Total capital costs	\$726.6

Note: presented as total cost to JV Inkai (100% basis).

The economic analysis, effective as of January 1, 2018 being the effective date of the technical report for Inkai, undertaken from the perspective of JV Inkai, based on JV Inkai's share (100%) of Inkai mineral reserves, results in an after tax NPV of \$2.2 billion (at a discount rate of 12%), for the net annual cash flows from January 1, 2018 to mid-2045 totalling \$8.9 billion.

Using the total capital invested, along with the operating and capital cost estimates for the remainder of mineral reserves, the after tax IRR is estimated to be 27.1%. Payback for JV Inkai, including all actual costs was achieved in 2015, on an undiscounted, after tax basis. All future capital expenditures are forecasted to be covered by operating cash flow.

Annual Cash Flows – 100% JV Inkai basis

Annual cash flows (\$Cdn M)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Production volume (000's lbs U ₃ O ₈)	6,896	8,351	10,406 ¹	10,399 ¹	10,399 ¹	10,293 ¹	9,305	9,445	8,526	7,979	7,417	5,776	6,134
Sales Revenue	\$229.3	\$337.2	\$531.4	\$642.1	\$679.2	\$696.7	\$629.8	\$639.3	\$577.1	\$540.1	\$502.0	\$391.0	\$415.2
Operating Costs	67.0	77.5	89.8	86.0	86.6	87.8	82.0	82.3	79.1	77.2	76.2	69.0	70.0
Capital Costs	59.4	81.1	75.3	45.0	49.9	37.6	36.9	37.9	43.0	34.5	32.7	25.2	28.0
Mineral Extraction Tax	14.2	18.3	20.5	19.2	19.6	19.0	16.1	16.4	14.4	14.0	13.3	9.8	10.4
Corporate Income Tax	23.7	39.7	74.9	96.9	103.8	107.9	97.6	99.3	89.0	82.2	75.5	57.1	61.2
Net cash flow	\$65.1	\$120.6	\$271.0	\$395.1	\$419.3	\$444.5	\$397.2	\$403.4	\$351.5	\$332.2	\$304.5	\$230.0	\$245.7

2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	Total
6,986	7,908	9,650	8,389	7,522	6,186	6,917	7,321	9,115	9,412	8,876	8,762	8,892	8,421	3,475	229,159
\$472.9	\$535.3	\$653.2	\$567.8	\$509.1	\$418.7	\$468.2	\$495.5	\$617.0	\$637.1	\$600.8	\$593.1	\$601.8	\$570.0	\$235.2	\$14,786.1
73.8	75.3	80.7	78.5	74.3	71.8	73.9	75.2	81.3	83.3	81.2	80.0	81.3	82.3	65.3	2,188.5
27.6	30.3	37.7	34.8	29.9	26.0	31.2	29.9	39.5	38.4	36.0	34.9	35.2	34.3	11.5	1,063.5
11.5	12.5	15.3	12.7	10.7	9.4	10.4	10.7	13.4	14.2	13.1	13.0	13.1	13.0	5.5	383.5
71.3	82.5	102.8	88.6	79.0	62.6	71.3	76.3	97.4	100.6	94.5	93.0	96.0	90.2	30.8	2,245.5
\$288.7	\$334.7	\$416.7	\$353.2	\$315.2	\$248.9	\$281.5	\$303.5	\$385.4	\$400.6	\$376.1	\$372.1	\$376.2	\$350.2	\$122.1	\$8,905.1

Note: Effective January 1, 2018 and presented from the perspective of JV Inkai and based on JV Inkai's share (100%) of the mineral reserves at an 85% recovery.

¹ Due to KAP's announced plans to maintain its aggregate production reduction of 20% through 2023, we expect total production from JV Inkai to be 8.3 million pounds in 2023. The production reduction of 20% also applied to the 2020 through 2022 production plans for an annual target of 8.3 million pounds; however, due to the impact of COVID-19, actual 2020 production was 7.0 million pounds. 2021 production was 9.0 million pounds and 2022 production was 8.3 million pounds.

Estimated capital costs include wellfield development to mine the mineral reserves as well as construction and maintenance capital along with sustaining capital. Construction capital was originally heavily weighted to 2019 to 2020 due to the capital required for the production ramp up to 10.4 million pounds annually as well as upgrades to existing facilities. The spending during those years was somewhat lower than projected as the construction capital will continue through 2023 to coincide with the ramp up of production in 2024.

The current forecast production is now 224 million pounds U₃O₈ for the remaining term of the resource use contract, ending mid-2045. Operating costs are expected to decrease by approximately 7% as compared to the 2021 AIF and decrease by approximately 18% compared to the 2018 technical report as a result of the valuation of the Kazakhstan Tenge, expected adjustments to remuneration programs, and inflationary factors. There is considerable uncertainty regarding the future political

and economic landscape in Kazakhstan, which could impact capital and operating cost estimates (for additional information see a discussion of *Financial risks* starting on page 104 and *Strategic risks – Foreign investments and operations and Kazakhstan* on page 118 and page 119).

Our expectations and plans regarding Inkai, including forecasts of operating and capital costs, net annual cash flow, production and mine life are forward-looking information, and are based specifically on the risks and assumptions discussed on pages 3, 4 and 5. Operating or capital spending plans may change in 2023, depending on uranium markets and other factors. Estimates of expected future production, net annual cash flows, and capital and operating costs are inherently uncertain, particularly beyond one year, and may change materially over time.

Exploration, drilling, sampling, data quality and estimates

Exploration at Inkai began in the 1970s and progressed until 1996. Since 2006, exploration and delineation drilling is conducted by JV Inkai, with the focus on block 3. From 2013 to 2016, delineation drilling was conducted at block 1 and block 2 to better establish the mineralization distribution and to support further development and wellfield design. In 2018 and 2019 JV Inkai carried out infill drilling program in the central and western parts of the MA Area (referred to as Sat1 area).

We have relied on historical data to estimate mineral reserves and resources for portions of the MA Area that came from block 1. Extensive exploration and delineation work was completed in the portion of the MA Area that came from block 3. It was used to estimate mineral reserves and resources. There are no historical mineral resources and reserves estimates within the meaning of NI 43-101 to report.

Exploration

Exploration drilling

JV Inkai's uranium exploration and delineation drilling programs were conducted by drilling vertical holes from surface. Delineation of the deposit on the MA Area and its geological structural features was carried out by drilling on a grid at prescribed density of 3.2 to 1.6-kilometre line spacing and 200 to 50-metre hole spacing with coring. Increasing level of geological knowledge and confidence is obtained by further drilling at grids of 800 to 400 x 200 to 50 metre with coring and 200 to 100 x 50 to 25 metre grid, usually without core.

Vertical holes are drilled with a triangular drill bit for use in unconsolidated formations down to a certain depth and the rest of the hole is cored. At the Inkai deposit, approximately 50% of all exploration holes are cored through the entire mineralized interval, and 70% core recovery is required for assay sampling. Radiometric probing, hole deviation, geophysical and hole diameter surveys are done by site crews and experienced contractors.

As the mineralized horizons lie practically horizontal and the drill holes are nearly vertical, the mineralized intercepts represent the true thickness of the mineralization.

The total number of exploration holes drilled before 2018 on the MA Area was approximately 4,500.

The drilling results were used for the identification of the horizons and mineralization encountered and served for the geological modelling, the estimation of uranium distribution and content, and the understanding of hydrogeological and metallurgical characteristics.

In 2019, JV Inkai continued the infill drilling program started in 2018 in the Sat1 area aimed at upgrading the inferred and indicated resources and probable reserves to higher categories. From the beginning of the drilling program, a total of 1,208 drillholes (487,638 metres) were drilled, including 482 core holes (196,727 metres) and 716 non-core holes (290,910 metres). Drilling was carried out by progressively tightening from 400 by 100 metres to 200 by 50 metres grids. The infill drilling program was completed in September 2019. Preparation of a resource estimate report was initiated in October 2019 and was completed in 2021, incorporating the infill drilling results from 2018 and 2019. These results have been assessed and went through the local governmental approval process. The report is being used to update the mining project documents. This update also involves updating the work program for mining operations by amendment to the resource use contract and obtaining the required government approvals. This process is ongoing and at this stage JV Inkai has retained a local engineering firm to update the mining project documents.

Sampling analysis and data verification

The sampling, sample preparation, analyses, and geophysical downhole logging during the exploration and delineation programs follow the procedures and manuals which adhere to the requirements set out in the State Reserves Commission guidelines.

Sampling

- Detailed sampling procedures guide the sampling interval within the mineralization. Holes are drilled on progressively tightening grids: 3.2 to 1.6 kilometre x 200-50 metre, 800-400 metre x 200-50 metre and 200-100 metre x 50-25 metre. When core recoveries are higher than 70% and radioactivity greater than a certain threshold, core samples are taken at intervals of 0.2 to 1.2 metres. Sample intervals are also differentiated by barren or low permeability material.
- The drillholes are nearly vertical and the mineralized horizons are almost horizontal, so the mineralized intercepts represent the true thickness of the mineralization.
- JV Inkai surveys the drillholes, logging radiometric, electrical (spontaneous potential and resistivity), caliper and deviation data.
- Sampling is done on half of the core. The average core sample length is 0.4 metre.
- The split core is tested for grainsize and carbonate content.
- Core recovery is considered acceptable given the unconsolidated state of the mineralized material.

Sample security

JV Inkai's current sampling process follows the strict regulations imposed by the Kazakhstan government, and includes the highest level of security measures, quality assurance and quality control. We have not been able to locate the documents describing sample security for historical Kazakhstan exploration on the MA Area, but we believe the security measures taken to store and ship samples were of the same high quality.

Analysis

- The core samples for uranium and radium determination are ground down to 1.0 mm grain size and are further subdivided by one or three times quartering until the final representative weight of samples and duplicates is reached (0.2 kg).
- The laboratory tests for uranium and radium were performed by the Central Analytical Laboratory of JSC Volkovgeology, a company related to KAP, the other owner of JV Inkai. The laboratory is certified and licensed by the National Centre for Accreditation of the Republic of Kazakhstan.
- The uranium content was determined by using the X-ray fluorescence spectrum analysis. The radium content was determined from the gamma-X-ray spectrum analysis.

Quality control and data verification

- The sampling reproducibility for the uranium and radium assays was determined by two methods: (1) having the remaining half of the core sampled by another sampler and by (2) by compositing samples consisting of the original sample rejects and samples of the remaining half of the core. Reproducibility of uranium and radium assays were within acceptable tolerances.
- Internal laboratory control of the uranium and the radium grade determination is performed by comparing the results of the sample and its blind duplicate. The mean square error between sample and duplicate was calculated by measuring the deviation to ensure it stayed within the prescribed limits.
- External (inter-laboratory) controls for the uranium and radium assays were carried out at the VIMS laboratory in Moscow, Russia, Nevskoe PGO laboratory in Saint-Petersburg, Russia and Kyzyltepageologiya Laboratory in Navoi, Uzbekistan. The number of control samples was approximately 2% of all samples for uranium and approximately 1% of all samples for radium.
- All of the drillhole information in use at Inkai is regularly provided to Cameco. The current database has been validated a number of times by geologists with JV Inkai, JSC Volkovgeology, the State Reserve Commission, Two Key LLP, and Cameco, and is considered relevant and reliable.
- Our geoscientists, including qualified persons as such term is defined in NI 43-101, have witnessed or reviewed drilling, core handling, radiometric probing, logging and sampling facilities used at the Inkai mine and consider the methodologies to be satisfactory and the results representative and reliable.
- We confirmed the correlation between radioactive readings and calculated radium grades.

- We carried out data verification processes that validated the mineral resource and reserve estimates. Our geoscientists, including qualified persons as such term is defined in NI 43-101, consider the data verification processes employed to be representative and reliable. There has been no indication of significant inconsistencies in the data used or verified nor any failures to adequately verify the data.
- All drilling, logging, core drilling, and subsequent core splitting and assaying, were completed under the direction of various geological expeditions of the USSR Ministry of Geology and later under the supervision of JSC Volkovgeology.
- Based on numerous quality assurance and quality controls applied by JSC Volkovgeology, including internal checks and inter-laboratory checks, the repeatability of the results for uranium and radium confirmed the accuracy required and no significant systematic deviations were found.
- Sampling and analysis procedures have been examined by an independent consultant and found to be detailed and thorough.
- The findings are supported by results of the leach tests and wellfield drilling results on the MA Area.

Accuracy

We are satisfied with the quality of data and consider it valid for use in the estimation of mineral resources and reserves for the MA Area. Comparison of the actual mine production with the expected production supports this opinion.

Mineral reserve and resource estimates

Please see page 78 for our mineral reserve and resource estimates for Inkai.

Uranium – Tier-two operations

Rabbit Lake

Located in Saskatchewan, Canada, our 100% owned Rabbit Lake operation opened in 1975. Due to market conditions, we suspended production at Rabbit Lake during the second quarter of 2016.

Location	Saskatchewan, Canada
Ownership	100%
End product	Uranium concentrates
ISO certification	ISO 14001 certified
Mine type	Underground
Estimated reserves	-
Estimated resources	38.6 million pounds (indicated), average grade U ₃ O ₈ : 0.95% 33.7 million pounds (inferred), average grade U ₃ O ₈ : 0.62%
Mining methods	Vertical blasthole stoping
Licensed capacity	Mill: maximum 16.9 million pounds per year; currently 11 million
Licence term	Through October 2023
Total production: 1975 to 2022	202.2 million pounds
2022 production	0 million pounds
2023 production outlook	0 million pounds
Estimated decommissioning cost	\$213 million

Production suspension

The facilities remained in a state of safe and sustainable care and maintenance throughout 2022.

While in standby, we continue to evaluate our options in order to minimize care and maintenance costs. We expect care and maintenance costs to range between \$27 million and \$32 million annually.

The current operating licence from the CNSC for Rabbit Lake expires in October 2023. The relicensing process is under way, and we expect a decision from the CNSC later in 2023.

Future production

We do not expect any production in 2023.

US ISR Operations

Located in Nebraska and Wyoming in the US, the Crow Butte and Smith Ranch-Highland (including the North Butte satellite) operations began production in 1991 and 1975. Each operation has its own processing facility. Due to market conditions, we curtailed production and deferred all wellfield development at these operations during the second quarter of 2016.

Ownership		100%
End product		Uranium concentrates
ISO certification		ISO 14001 certified
Estimated reserves	<i>Smith Ranch-Highland:</i>	-
	<i>North Butte-Brown Ranch:</i>	-
	<i>Crow Butte:</i>	-
Estimated resources	<i>Smith Ranch-Highland:</i>	24.9 million pounds (measured and indicated), average grade U ₃ O ₈ : 0.06% 7.7 million pounds (inferred), average grade U ₃ O ₈ : 0.05%
	<i>North Butte-Brown Ranch:</i>	9.4 million pounds (measured and indicated), average grade U ₃ O ₈ : 0.07% 0.4 million pounds (inferred), average grade U ₃ O ₈ : 0.06%
	<i>Crow Butte:</i>	13.9 million pounds (measured and indicated), average grade U ₃ O ₈ : 0.25% 1.8 million pounds (inferred), average grade U ₃ O ₈ : 0.16%
Mining methods		In situ recovery (ISR)
Licensed capacity	¹ <i>Smith Ranch-Highland:</i>	Wellfields: 3 million pounds per year; processing plants: 5.5 million pounds per year
	<i>Crow Butte:</i>	Processing plants and wellfields: 2 million pounds per year
Licence term	<i>Smith Ranch-Highland:</i>	Through September 2028
	<i>Crow Butte:</i>	Through October 2024
Total production: 2002 to 2022		33.0 million pounds
2022 production		0 million pounds
2023 production outlook		0 million pounds
Estimated decommissioning cost		Smith Ranch-Highland: \$219 million (US), including North Butte Crow Butte: \$56 million (US)

¹ Including Highland mill.

Production and curtailment

As a result of our 2016 decision, production at the US operations ceased in 2018.

We expect ongoing cash and non-cash care and maintenance costs to range between \$12 million (US) and \$14 million (US) for 2023.

Future production

We do not expect any production in 2023.

Uranium – Advanced projects

Work on our advanced projects has been scaled back and will continue at a pace aligned with market signals.

Millennium

Location	Saskatchewan, Canada
Ownership	69.9%
End product	Uranium concentrates
Potential mine type	Underground
Estimated resources (our share)	53.0 million pounds (indicated), average grade U ₃ O ₈ : 2.39% 20.2 million pounds (inferred), average grade U ₃ O ₈ : 3.19%

Background

The Millennium deposit was discovered in 2000 and was delineated by surface drilling work between 2000 and 2013.

Yeelirrie

Location	Western Australia
Ownership	100%
End product	Uranium concentrates
Potential mine type	Open pit
Estimated resources	128.1 million pounds (measured and indicated), average grade U ₃ O ₈ : 0.15%

Background

The Yeelirrie deposit was discovered in 1972 and is a near-surface calcrete-style deposit that is amenable to open pit mining techniques. It is one of Australia's largest undeveloped uranium deposits.

Kintyre

Location	Western Australia
Ownership	100%
End product	Uranium concentrates
Potential mine type	Open pit
Estimated resources (our share)	53.5 million pounds (indicated), average grade U ₃ O ₈ : 0.62% 6.0 million pounds (inferred), average grade U ₃ O ₈ : 0.53%

Background

The Kintyre deposit was discovered in 1985 and is amenable to open pit mining techniques.

2022 project updates

We believe that we have some of the best undeveloped uranium projects in the world. However, in the current market environment our primary focus is on producing from our tier-one uranium assets at a pace aligned with our contract portfolio and market opportunities. We continue to await a signal from our customers that additional production is needed prior to making any new development decisions.

Planning for the future

2023 Planned activity

No work is planned at Millennium, Yeelirrie or Kintyre.

Further progress towards a development decision on any of these projects is not expected until the market fully transitions and supply is incited by prices that reflect production economics.

Project approval

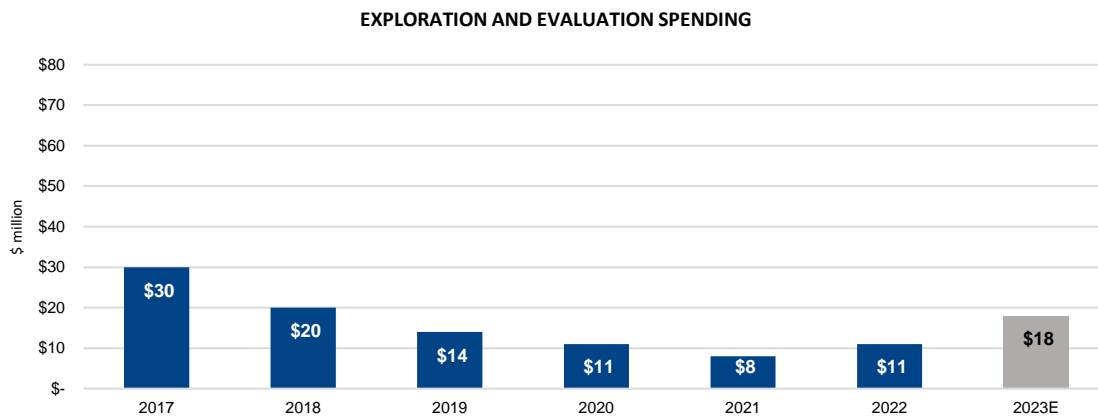
The approval received for Kintyre from the prior state government required substantial commencement of the project by March 2020, being within five years of the grant of the approval, and this was not achieved. The current government declined to grant us an extension to achieve it. In the future, we can apply for an extension of time to achieve substantial commencement of the

project. If granted by a future government we could commence the Kintyre project, provided we have all other required regulatory approvals.

The approval for the Yeelirrie project, received from the prior state government, required substantial commencement of the project by January 2022, and this was not achieved. The current government declined to grant us an extension to achieve it. In the future, we can again apply for an extension of time to achieve substantial commencement of the project. If granted by a future government we could commence the Yeelirrie project, provided we have all other required regulatory approvals. Approval for the Yeelirrie project at the federal level was granted in 2019 and extends until 2043.

Uranium – exploration

Our exploration program is directed at replacing mineral reserves as they are depleted by our production and is key to sustaining our business. We are focused on exploration near our existing operations where we have established infrastructure and capacity to expand. Globally, we have land with exploration and development prospects that are among the best in the world, mainly in Canada, Australia and the US. Our land holdings total about 0.78 million hectares (1.9 million acres). In northern Saskatchewan alone, we have direct interests in about 0.68 million hectares (1.7 million acres) of land covering many of the most prospective exploration areas of the Athabasca Basin.



2022 UPDATE

Brownfield exploration

Brownfield exploration is uranium exploration near our existing operations and includes expenses for advanced exploration on the evaluation of projects where uranium mineralization is being defined.

In 2022, we spent about \$2 million on brownfields and advanced uranium projects in Saskatchewan and Australia. At the US operations we spent \$1 million.

Regional exploration

We spent about \$8 million on regional exploration programs (including support costs), primarily in Saskatchewan’s Athabasca Basin.

PLANNING FOR THE FUTURE

We will maintain an active uranium exploration program and continue to focus on our core projects in Saskatchewan under our long-term exploration strategy. Long-term, we look for properties that meet our investment criteria. We may partner with other companies through strategic alliances, equity holdings and traditional joint venture arrangements. Our industry expertise in both exploration and corporate social responsibility make us a partner of choice.

Fuel services

Refining, conversion and fuel manufacturing

We have about 21% of world UF₆ primary conversion capacity and are a supplier of natural UO₂. Our focus is on cost-competitiveness and operational efficiency, as well as increasing our production of UF₆ in line with our contract portfolio and market opportunities.

Our fuel services segment is strategically important because it helps support the growth of the uranium segment. Offering a range of products and services to customers helps us broaden our business relationships and meet customer needs.

In 2022, fuel services produced 13.0 million kgU, 7% higher than 2021 due to an increase in demand in 2022.

We plan to produce between 13 million and 14 million kgU in 2023. In addition, at our Port Hope UF₆ conversion facility we are working on increasing annual production to 12,000 tonnes in 2024 to satisfy our book of long-term business and demand for conversion services.

In conjunction with our initiative intended to provide a greater focus on technology and its applications to improve efficiency and reduce costs across the organization, we will continue to look for opportunities to improve operational effectiveness, including the use of digital and automation technologies.

Inflation, the availability of personnel with the necessary skills and experience, aging infrastructure, and the potential impact of supply chain challenges on the availability of materials and reagents carry the risk of not achieving our production plans, production delays, and increased costs in 2023 and future years.

Blind River Refinery



Licensed Capacity

24.0M kgU as UO₃

Licence renewal in

February 2032

Blind River is the world's largest commercial uranium refinery, refining uranium concentrates from mines around the world into UO₃.

Location	Ontario, Canada
Ownership	100%
End product	UO ₃
ISO certification	ISO 14001 certified
Licensed capacity	18.0 million kgU as UO ₃ per year, approved to 24.0 million subject to the completion of certain equipment upgrades (advancement depends on market conditions)
Licence term	Through February 2032
Estimated decommissioning cost	\$58 million

Markets

UO₃ is shipped to Port Hope for conversion into either UF₆ or UO₂.

Capacity

In 2012, the CNSC granted an increase to our annual licensed production capacity from 18 million kgU per year as UO_3 to 24 million kgU as UO_3 , subject to the completion of certain equipment upgrades. These upgrades will be advanced based on market conditions.

Licensing

In February 2022, the CNSC granted our Blind River refinery a 10-year operating licence, which will expire in February 2032.

Port Hope Conversion Services



Licensed Capacity

12.5M kgU as UF_6

2.8M kgU as UO_2

Licence renewal in

February 2027

Port Hope is the only uranium conversion facility in Canada and a supplier of UO_2 for Canadian-made CANDU reactors.

Location	Ontario, Canada
Ownership	100%
End product	UF_6 , UO_2
ISO certification	ISO 14001 certified
Licensed capacity	12.5 million kgU as UF_6 per year 2.8 million kgU as UO_2 per year
Licence term	Through February 2027
Estimated decommissioning cost	\$129 million

Conversion services

At our UO_2 plant, we convert UO_3 to UO_2 powder, used to make pellets for Canadian CANDU reactors and CANDU reactors in other countries and blanket fuel for light water nuclear reactors.

At our UF_6 plant, we convert UO_3 to UF_6 , and then ship it to enrichment plants primarily in the US and Europe. There, it is processed to become low enriched UF_6 , which is subsequently converted to enriched UO_2 and used as reactor fuel for light water nuclear reactors.

Anhydrous hydrofluoric acid (AHF) is a primary feed material for the production of UF_6 . We have agreements with more than one supplier of AHF to provide us with diversity of supply.

Port Hope conversion facility clean-up and modernization (Vision in Motion)

Vision in Motion is a unique opportunity that demonstrates our continued commitment to a clean environment. It has been made possible by the opening of a long-term waste management facility by the Government of Canada's Port Hope Area Initiative project. There is a limited opportunity during the life of this project to engage in clean-up and renewal activities that address legacy waste at the Port Hope Conversion facility inherited from historic operations. Progress was made over the past year to facilitate the removal of some old buildings and structures, which will be the focus in the year ahead.

Licensing

In February 2017, the CNSC approved a ten-year operating licence for the Port Hope conversion facility.

Labour relations

The current collective bargaining agreement with the unionized employees at our Port Hope conversion facility ends on June 30, 2025.

Cameco Fuel Manufacturing Inc. (CFM)



Licensed Capacity

1.65M kgU as UO₂ fuel pellets

Licence renewal in

February 2043

CFM produces fuel bundles and reactor components for CANDU reactors.

Location	Ontario, Canada
Ownership	100%
End product	CANDU fuel bundles and components
ISO certification	ISO 9001 certified, ISO 14001 certified
Licensed capacity	1.65 million kgU as UO ₂ fuel pellets
Licence term	Through February 2043
Estimated decommissioning cost	\$10.8 million

Fuel manufacturing

CFM's main business is making fuel bundles for CANDU reactors. CFM presses UO₂ powder into pellets that are loaded into tubes, manufactured by CFM, and then assembled into fuel bundles. These bundles are ready to insert into a CANDU reactor core. CFM also produces many different zirconium-based reactor components for CANDU reactors.

Manufacturing services agreements

A substantial portion of CFM's business is the supply of fuel bundles to the Bruce Power A and B nuclear units in Ontario. We supply the UO₂ for these fuel bundles.

Licensing

In January 2023, the CNSC granted a 20-year renewal to the licence for CFM. The licence renewal also grants CFM's request for a slight production increase to 1,650 tonnes as UO₂ fuel pellets.

Labour relations

The current collective bargaining agreement with the unionized employees at CFM ends on June 1, 2024.

Other nuclear fuel cycle investments

Global Laser Enrichment

GLE is the exclusive licensee of the proprietary Separation of Isotopes by Laser Excitation (SILEX) laser enrichment technology, a third-generation uranium enrichment technology. We are the commercial lead for the GLE project with a 49% interest and starting in February 2023, an option to attain a majority interest of up to 75% ownership.

Subject to completion of the technology development program, and its progression through to commercialization, GLE has the potential to offer a variety of advantages to the global nuclear energy sector over the long-term, which include:

- re-enriching depleted uranium tails leftover as a by-product of previous-generation enrichment technologies, repurposing legacy waste into a commercial source of uranium and conversion products to fuel nuclear reactors and aiding in the responsible clean-up of enrichment facilities no longer in operation, as per GLE's agreement with the US Department of Energy
- producing commercial low-enriched uranium (LEU) fuel for the world's existing and future fleet of large-scale light-water reactors with greater efficiency and flexibility than current enrichment technologies
- producing high-assay low-enriched uranium (HALEU), the primary fuel stock for the majority of small modular reactor (SMR) and advanced reactor designs that are proceeding through the development stage and continuing toward commercial readiness

In 2022, GLE made progress with the first full-scale laser system module, successfully completing eight months of testing in Australia, and the system was delivered to GLE's commercial pilot demonstration facility in the US. In addition, GLE signed letters of intent to collaborate with two major US utilities to help diversify the US nuclear fuel supply chain, including measures to support its deployment of laser enrichment technology in the US.

The development timeline for GLE will be dependent on several factors, including market fundamentals, securing government funding, support for HALEU availability in the US and GLE's ability to secure long-term contracts to underpin the deployment of a commercial facility.

Proposed acquisition of Westinghouse

As announced on October 11, 2022, we entered into a strategic partnership with Brookfield Renewable to acquire Westinghouse, a global provider of mission-critical and specialized technologies, products and services across most phases of the nuclear power sector. Brookfield Renewable will beneficially own a 51% interest in Westinghouse and Cameco will beneficially own 49%. Bringing together Cameco's expertise in the nuclear industry with Brookfield Renewable's expertise in clean energy positions nuclear power at the heart of the energy transition and creates a powerful platform for strategic growth across the nuclear sector.

Westinghouse's history in the energy industry stretches back over a century, during which time the company became a pioneer in nuclear energy.

Westinghouse is organized in three business segments:

- **Operating Plant Services:** Long-term contracting for the manufacturing and installation of fuel assemblies and other ancillary equipment across multiple light water reactor technologies. Westinghouse provides recurring services for outages and maintenance, engineering solutions, and replacement components and parts.
- **Energy Systems:** Designing, engineering and supporting the development of new nuclear reactors.
- **Environmental Services:** Services to government and commercial customers that support nuclear sustainability, environmental stewardship and remediation.

The largest business segment is Operating Plant Services, which accounted for approximately \$2.7 billion (US) or about 81% of Westinghouse's total 2021 revenue of approximately \$3.3 billion (US). This segment is built on long-term customer relationships. These customers seek solutions to ensure their reactors operate efficiently and reliably and therefore results in predictable revenue streams.

The acquisition of Westinghouse will be through a strategic partnership with Brookfield Renewable in the form of a limited partnership that will allow each of us to further participate in and support the growing momentum for nuclear energy. The board of directors of the general partner of the limited partnership will consist of six directors, three appointed by Cameco and three appointed by Brookfield Renewable. Decision-making by the board of the general partnership will correspond to percentage ownership interests in the limited partnership (51% Brookfield Renewable and 49% Cameco). There are a number of significant decisions that require the presence and support of both Cameco and Brookfield Renewable appointees to the board as long as certain ownership thresholds are met. These "reserved" matters will include decisions such as the approval of the annual budget, entering into material contracts, the making of significant investments, entering into new lines of business and related-party transactions. We expect to account for our share of the investment using the equity method.

We expect the acquisition to:

- expand our participation in the nuclear fuel value chain. The acquisition is expected to complement our high-quality, tier-one uranium assets and fuel services, including CANDU fuel manufacturing for heavy water reactors with Westinghouse's global nuclear fuel and plant services platform for light water reactors, which we expect will augment and expand our ability to meet the growing demand for nuclear fuel supplies and services that are reliable and secure;
- be accretive to our cash flow after the closing, and prior to considering new revenue opportunities and to complement our existing business. Based on Westinghouse's strong long-term customer relationships, the service type model of the Operating Plant Services segment and resulting reliable revenue streams we expect it to generate stable cash flow, to fund its approved annual operating budget and provide quarterly distributions to the partners after the closing;
- create new revenue opportunities for us by expanding our ability to satisfy existing and new customer needs. In addition to Westinghouse's contribution to our financial results, the acquisition is expected to result in up to \$50 million in additional revenue for Cameco in the year following the closing of the transaction and to result in additional revenue opportunities for us in the future from new customers and existing customers seeking a fully fabricated fuel supply option; and
- maintain our strong balance sheet through a disciplined funding strategy designed to enhance our financial strength. At the same time, we expect to continue to execute on our strategy and provide a platform for further growth, expanding our reach in an industry that has historically performed well during varying macroeconomic environments due to the baseload nature of nuclear power and its strong customer base.

The total enterprise purchase price for the acquisition is \$7.875 billion (US), which includes an assumption of an estimated \$3.4 billion (US) of debt which will remain with Westinghouse, and which is subject to customary purchase price adjustments. The remainder of the purchase price will be paid by approximately \$4.5 billion (US) of aggregate cash contributions, our share of which will be approximately \$2.2 billion (US).

Concurrently with the execution of the acquisition agreement, we secured commitments that provide for a \$1 billion (US) bridge loan facility and \$600 million (US) in term loans. Following the announcement, we undertook a \$650 million (US) bought deal offering of common shares, with an underwriter option to purchase additional shares. The offering closed on October 17, 2022, providing us with gross proceeds of approximately \$747.6 million (US) including the underwriters' exercise of the option to purchase additional shares in full. With the proceeds from the closing of the offering and based on current uncertainty in the global macroeconomic environment and the success we are having in adding new long-term business, at this time, we do not intend to issue additional equity to fund our portion of the purchase price for the Westinghouse acquisition. As of the closing of the bought deal offering, the bridge loan facility was reduced to \$280 million (US). The debt facilities will remain undrawn until closing of the acquisition. The bridge facility, if funded, will mature 364 days after the acquisition closing date, and the term loans consisting of two tranches of \$300 million (US) each, are expected to mature two years and three years after the acquisition closes.

The acquisition is expected to close in the second half of 2023 and continues to be subject to customary closing conditions and certain regulatory approvals. The final financing is not required until close of the acquisition and will be determined based on market conditions and the expected run rate of our business at that time. We expect a permanent financing mix of capital sources, including cash, debt and equity, designed to preserve our balance sheet and ratings strength, while maintaining healthy liquidity. The acquisition is not subject to a financing condition.

For more information on the proposed acquisition of Westinghouse, see page 122 – *Proposed acquisition of Westinghouse risks* and our 2022 MD&A under the heading *Proposed acquisition of Westinghouse*.

Caution about forward-looking information relating to the Westinghouse acquisition

This discussion of our expectations for the Westinghouse acquisition, including sources and uses of financing for the acquisition, timeline for the acquisition, including anticipated closing date, expected benefits, and our intention in respect of not issuing additional equity to fund our portion of the purchase price for the Westinghouse acquisition is forward-looking information that is based upon the assumptions and subject to the material risks discussed under the headings Caution about forward-looking information beginning on page 1 and in our October 18, 2022 material change report, and *Proposed acquisition of Westinghouse risks* on page 122. The material change report is available at www.sedar.com and www.sec.gov. Actual results and events may be significantly different from what we currently expect.

Corporate development

Investment program

Currently, with our extensive portfolio of mineral reserves and resources and our belief that we have ample productive capacity with the ability to expand as the demand for nuclear energy and nuclear fuels grows, our focus is on navigating by our investment-grade rating and returning to our tier-one run rate while aligning our tier-one production with our delivery commitments and market opportunities. We expect that these assets will allow us to meet rising uranium demand with increased production from our best margin operations and will help to mitigate risk in the event of prolonged uncertainty.

Additionally, we are exploring opportunities across the fuel cycle, which align well with our commitment to responsibly and sustainably manage our business and increase our contributions to global climate change solutions. These opportunities include investments such as our recently announced plans to acquire a 49% interest in Westinghouse, as well as emerging opportunities such as our investment in GLE. It also includes the non-binding arrangements we have signed to explore several areas of cooperation to advance the commercialization and deployment of small modular reactors in Canada and around the world.

We continually evaluate investment opportunities within the nuclear fuel cycle that could add to our future supply options, support our customer's needs, and complement and enhance our business in the nuclear industry. We will make an investment decision when an opportunity is available at the right time and the right price. We strive to pursue corporate development initiatives that will leave us and our stakeholders in a fundamentally stronger position. As such, an investment opportunity is never assessed in isolation. Investments must compete for investment capital with our own internal growth opportunities. They are subject to our capital allocation process described in our 2022 MD&A under *Our vision, values and strategy*.

Mineral reserves and resources

Our mineral reserves and resources are the foundation of our company and fundamental to our success.

We have interests in a number of uranium properties. The tables in this section show the estimates of the proven and probable mineral reserves, and measured, indicated, and inferred mineral resources at those properties. However, only three of the properties listed in those tables are material uranium properties for us: McArthur River/Key Lake, Cigar Lake and Inkai. Mineral reserves and resources are all reported as of December 31, 2022.

We estimate and disclose mineral reserves and resources in five categories, using the definition standards adopted by the Canadian Institute of Mining, Metallurgy and Petroleum Council, and in accordance with NI 43-101. You can find out more about these categories at www.cim.org.

About mineral resources

Mineral resources do not have to demonstrate economic viability but have reasonable prospects for eventual economic extraction. They fall into three categories: measured, indicated and inferred. Our reported mineral resources are exclusive of mineral reserves.

- *Measured and indicated mineral resources* can be estimated with sufficient confidence to allow the appropriate application of technical, economic, marketing, legal, environmental, social, and governmental factors to support evaluation of the economic viability of the deposit.
 - *measured resources*: we can confirm both geological and grade continuity to support detailed mine planning
 - *indicated resources*: we can reasonably assume geological and grade continuity to support mine planning
- *Inferred mineral resources* are estimated using limited geological evidence and sampling information. We do not have enough confidence to evaluate their economic viability in a meaningful way. You should not assume that all or any part of an inferred mineral resource will be upgraded to an indicated or measured mineral resource, but it is reasonably expected that the majority of inferred mineral resources could be upgraded to indicated mineral resources with continued exploration.

Our share of uranium in the following mineral resource tables is based on our respective ownership interests. Mineral resources that are not mineral reserves have no demonstrated economic viability.

About mineral reserves

Mineral reserves are the economically mineable part of measured and/or indicated mineral resources demonstrated by at least a preliminary feasibility study. The reference point at which mineral reserves are defined is the point where the ore is delivered to the processing plant, except for ISR operations where the reference point is where the mineralization occurs under the existing or planned wellfield patterns. Mineral reserves fall into two categories:

- *proven reserves*: the economically mineable part of a measured resource for which at least a preliminary feasibility study demonstrates that, at the time of reporting, economic extraction could be reasonably justified with a high degree of confidence
- *probable reserves*: the economically mineable part of a measured and/or indicated resource for which at least a preliminary feasibility study demonstrates that, at the time of reporting, economic extraction could be reasonably justified with a degree of confidence lower than that applying to proven reserves

For properties for which we are the operator, we use current geological models, an average uranium price of \$53 (US) per pound U₃O₈, and current or projected operating costs and mine plans to estimate our mineral reserves, allowing for dilution and mining losses. We apply our standard data verification process for every estimate. For properties in which we have an interest but are not the operator, we take reasonable steps to ensure that the reserve and resource estimates we report are reliable.

Our share of uranium in the mineral reserves table below is based on our respective ownership interests.

Qualified persons

The technical and scientific information discussed in this AIF, including mineral reserve and resource estimates, for our material properties (McArthur River/Key Lake, Cigar Lake and Inkai) was approved by the following individuals who are qualified persons for the purposes of NI 43-101:

McArthur River/Key Lake

- Greg Murdock, general manager, McArthur River, Cameco
- Daley McIntyre, general manager, Key Lake, Cameco
- Alain D. Renaud, principal resource geologist, technical services, Cameco
- Biman Bharadwaj, principal metallurgist, technical services, Cameco

Cigar Lake

- Lloyd Rowson, general manager, Cigar Lake, Cameco
- Scott Bishop, director, technical services, Cameco
- Alain D. Renaud, principal resource geologist, technical services, Cameco
- Biman Bharadwaj, principal metallurgist, technical services, Cameco

Inkai

- Sergey Ivanov, deputy director general, technical services, Cameco Kazakhstan LLP
- Alain D. Renaud, principal resource geologist, technical services, Cameco
- Scott Bishop, director, technical services, Cameco
- Biman Bharadwaj, principal metallurgist, technical services, Cameco

Important information about mineral reserve and resource estimates

Although we have carefully prepared and verified the mineral reserve and resource figures in this document, the figures are estimates, based in part on forward-looking information.

Estimates are based on our knowledge, mining experience, analysis of drilling results, the quality of available data and management's best judgment. They are, however, imprecise by nature, may change over time, and include many variables and assumptions including:

- geological interpretation
- extraction plans
- commodity prices and currency exchange rates
- recovery rates
- operating and capital costs

There is no assurance that the indicated levels of uranium will be produced, and we may have to re-estimate our mineral reserves based on actual production experience. Changes in the price of uranium, production costs or recovery rates could make it unprofitable for us to operate or develop a particular site or sites for a period of time. See page 1 for information about forward-looking information, and page 98 for a discussion of the risks that can affect our business.

Please see pages 82 and 83 for the specific assumptions, parameters and methods used for the McArthur River, Cigar Lake and Inkai mineral reserve and resource estimates.

Our estimate of mineral resources and mineral reserves may be materially affected by the occurrence of one or more of the risks described under the heading *Reserve and resource estimates are not precise* on page 106. In addition to those risks, our estimates of mineral resources and mineral reserves for certain properties may be materially affected by the occurrence of one or more of the following risks or factors:

McArthur River and Cigar Lake mineral resource and reserve estimates

- Water inflows – see *Flooding at McArthur River and Cigar Lake* at page 99
- Technical challenges – see *Technical challenges at Cigar Lake and McArthur River* at page 100

Inkai mineral resource and reserve estimates

- Political risks – see *Foreign investments and operations* at page 118 and *Kazakhstan* at page 119.

The extent to which our estimates of mineral resources and mineral reserves may be affected by the foregoing issues could vary from material gains to material losses.

Important information for US investors

We present information about mineralization, mineral reserves and resources as required by NI 43-101 of the Canadian Securities Administrators, in accordance with applicable Canadian securities laws. As a foreign private issuer filing reports with the US Securities and Exchange Commission (SEC) under the Multijurisdictional Disclosure System, we are not required to comply with the SEC's disclosure requirements relating to mining properties. Investors in the US should be aware that the disclosure requirements of NI 43-101 are different from those under applicable SEC rules, and the information that we present concerning mineralization, mineral reserves and resources may not be comparable to information made public by companies that comply with the SEC's reporting and disclosure requirements for mining companies.

Mineral reserves

As of December 31, 2022 (100% – only the shaded column shows our share)

Proven and probable

(tonnes in thousands; pounds in millions)

PROPERTY	MINING METHOD	PROVEN			PROBABLE			TOTAL MINERAL RESERVES			OUR SHARE RESERVES	METALLURGICAL RECOVERY (%)
		TONNES	GRADE % U ₃ O ₈	CONTENT (LBS U ₃ O ₈)	TONNES	GRADE % U ₃ O ₈	CONTENT (LBS U ₃ O ₈)	TONNES	GRADE % U ₃ O ₈	CONTENT (LBS U ₃ O ₈)	CONTENT (LBS U ₃ O ₈)	
Cigar Lake	UG	308.9	16.25	110.7	99.1	20.19	44.1	408.0	17.21	154.8	84.4	98.8
Key Lake	OP	61.1	0.52	0.7	-	-	-	61.1	0.52	0.7	0.6	95
McArthur River	UG	2,138.3	7.00	329.9	530.7	5.47	64.0	2,669.0	6.70	394.0	275.0	99
Inkai	ISR	253,647.2	0.04	218.3	71,803.1	0.03	53.5	325,450.3	0.04	271.8	108.7	85
Total		256,155.6	-	659.7	72,432.9	-	161.6	328,588.5	-	821.3	468.8	-

(UG – underground, OP – open pit, ISR – in situ recovery)

Note that the estimates in the above table:

- use a constant dollar average uranium price of approximately \$53 (US) per pound U₃O₈
- are based on exchange rates of \$1.00 US=\$1.26 Cdn and \$1.00 US=490 Kazakhstan Tenge

Metallurgical recovery

We report mineral reserves as the quantity of contained ore supporting our mining plans and provide an estimate of the metallurgical recovery for each uranium property. The estimate of the amount of valuable product that can be physically recovered by the metallurgical extraction process is obtained by multiplying the quantity of contained metal (content) by the planned metallurgical recovery percentage. The content and our share of uranium in the table above are before accounting for estimated metallurgical recovery.

Changes this year

Our share of proven and probable mineral reserves increased from 464 million pounds U₃O₈ at the end of 2021, to 469 million pounds at the end of 2022. The change was primarily the result of:

- a mineral resource and reserve estimate update at Cigar Lake which added 9 million pounds to proven and probable reserves based on ongoing surface freeze drilling results
- increased ownership stake at Cigar Lake which added 7 million pounds

partially offset by:

- production at Cigar Lake, Inkai and McArthur River, which removed 14 million pounds from our mineral inventory

The remaining changes are attributable to other adjustments based on the mineral resource and reserve estimate updates at Cigar Lake and McArthur River.

Mineral resources

As of December 31, 2022 (100% – only the shaded columns show our share)

Measured, indicated and inferred

(tonnes in thousands; pounds in millions)

PROPERTY	MEASURED RESOURCES (M)			INDICATED RESOURCES (I)			TOTAL M+I CONTENT (LBS U ₃ O ₈)	OUR SHARE TOTAL M+I CONTENT (LBS U ₃ O ₈)	INFERRED RESOURCES			OUR SHARE INFERRED CONTENT (LBS U ₃ O ₈)
	TONNES	GRADE % U ₃ O ₈	CONTENT (LBS U ₃ O ₈)	TONNES	GRADE % U ₃ O ₈	CONTENT (LBS U ₃ O ₈)			TONNES	GRADE % U ₃ O ₈	CONTENT (LBS U ₃ O ₈)	
Cigar Lake	48.0	6.06	6.4	314.1	14.28	98.9	105.3	57.5	178.2	5.62	22.1	12.0
Fox Lake	-	-	-	-	-	-	-	-	386.7	7.99	68.1	53.3
Kintyre	-	-	-	3,897.7	0.62	53.5	53.5	53.5	517.1	0.53	6.0	6.0
McArthur River	74.9	2.23	3.7	63.0	2.23	3.1	6.8	4.7	38.9	2.89	2.5	1.7
Millennium	-	-	-	1,442.6	2.39	75.9	75.9	53.0	412.4	3.19	29.0	20.2
Rabbit Lake	-	-	-	1,836.5	0.95	38.6	38.6	38.6	2,460.9	0.62	33.7	33.7
Tamarack	-	-	-	183.8	4.42	17.9	17.9	10.3	45.6	1.02	1.0	0.6
Yeelirrie	27,172.9	0.16	95.9	12,178.3	0.12	32.2	128.1	128.1	-	-	-	-
Crow Butte	1,558.1	0.19	6.6	939.3	0.35	7.3	13.9	13.9	531.4	0.16	1.8	1.8
Gas Hills - Peach	687.2	0.11	1.7	3,626.1	0.15	11.6	13.3	13.3	3,307.5	0.08	6.0	6.0
Inkai	87,192.7	0.03	56.1	65,236.0	0.02	32.9	89.1	35.6	36,165.2	0.03	23.9	9.6
North Butte - Brown Ranch	604.2	0.08	1.1	5,530.3	0.07	8.4	9.4	9.4	294.5	0.06	0.4	0.4
Ruby Ranch	-	-	-	2,215.3	0.08	4.1	4.1	4.1	56.2	0.13	0.2	0.2
Shirley Basin	89.2	0.15	0.3	1,638.2	0.11	4.1	4.4	4.4	508.0	0.10	1.1	1.1
Smith Ranch - Highland	3,703.5	0.10	7.9	14,372.3	0.05	17.0	24.9	24.9	6,861.0	0.05	7.7	7.7
Total	121,130.7	-	179.7	113,473.7	-	405.5	585.2	451.4	51,763.7	-	203.5	154.4

Note that mineral resources:

- do not include amounts that have been identified as mineral reserves
- do not have demonstrated economic viability
- totals may not add due to rounding

Changes this year

Our share of measured and indicated mineral resources increased from 447 million pounds U₃O₈ at the end of 2021, to 451 million pounds at the end of 2022. Our share of inferred mineral resources remains unchanged at 154 million pounds U₃O₈.

Key assumptions, parameters and methods

McArthur River

Key assumptions

- Mineral reserves assume a 99.4% planned mine recovery and have allowances for expected waste (42% average) and backfill (6.8% average) dilution as part of the normal mining extraction process. Mineral resources do not include such allowances.
- A constant dollar average uranium price of \$53 (US) per pound U₃O₈ with a \$1.00 (US) = \$1.26 (Cdn) fixed exchange rate was used to estimate the mineral reserves.
- Mining rates assume annual packaged production of at least 15 million pounds.

Key parameters

- Grades of U₃O₈ were obtained from chemical assaying of drill core or from equivalent % U₃O₈ grades obtained from radiometric probing results. In areas of poor core recovery (usually < 75%) or missing samples, the grade was determined from probing.
- When not measured, densities are determined using formulas based on the relation between density measurements of drill core and chemical assay grades.
- Mineral resources are estimated at a minimum mineralized thickness of 1.0 metre and at a minimum grade of 0.50% U₃O₈. Reported mineral reserves are based on pounds U₃O₈ recovered per excavation, translating into an average cut-off grade of 0.75% U₃O₈.
- Mineral reserves are estimated based on the use of raisebore and blasthole stope mining methods in conjunction with freeze curtains.
- Reasonable expectation for eventual economic extraction of the mineral resources is based on a uranium price of \$57 (US) per pound U₃O₈, anticipated exchange rates, mining and process recoveries, production costs, royalties and mineralized area tonnage, grade, and spatial continuity considerations.

Key methods

- The models were created from the geological interpretation in section views and in 3-dimensions from surface and underground drillhole information.
- Mineral resources and mineral reserves were estimated using 3-dimensional block models. Ordinary kriging and inverse distance squared methods were used to estimate the grade and density.
- Maptrek Vulcan and Leapfrog Geo software were used to generate the mineral resource and reserve estimates.

Cigar Lake

Key assumptions

- Mineral reserves have been estimated with an average allowance of 34% dilution at 0% U₃O₈ and a 86% mining recovery factor. Mineral resources do not include such allowances.
- The mining rate is assumed to vary between 100 and 200 tonnes per day and a full mill production rate of approximately 18 million pounds U₃O₈ per year.
- Areas being mined must meet specific ground freezing requirements before jet boring begins.
- A constant dollar average uranium price of \$53 (US) per pound U₃O₈ with a \$1.00 (US) = \$1.26 (Cdn) fixed exchange rate was used to estimate the mineral reserves.

Key parameters

- Grades of U₃O₈ were obtained from chemical assaying of drill core or from equivalent % U₃O₈ grades obtained from radiometric probing results. In areas of poor core recovery (usually < 75%) or missing samples, the grade was determined from probing.
- When not measured, densities are determined using formulas based on the relation between density measurements of drill core and chemical assay grades.
- Mineral resources have been estimated using a minimum mineralization thickness of 1.0 metre and a minimum grade of 1.0% U₃O₈.
- Mineral reserves have been estimated on the basis of designed JBS cavities with positive economics from the estimated recovered uranium.
- Reasonable expectation for eventual economic extraction of the mineral resources is based on a uranium price of \$57 (US) per pound U₃O₈, anticipated exchange rates, mining and process recoveries, production costs, royalties and mineralized area tonnage, grade, and spatial continuity considerations.

Key methods

- The geological interpretation of the orebody was done in section views and in 3-dimensions from surface drillhole information.
- Mineral resources and mineral reserves were estimated using 3-dimensional block models. Geostatistical conditional simulation (with sequential Gaussian simulation) and inverse distance squared methods were used to estimate the grade and density.
- Maptek Vulcan and Leapfrog Geo software were used to generate the mineral resource and reserve estimates.

Inkai

Key assumptions

- Mineral resources have been estimated based on the use of the ISR extraction method.
- Average metallurgical recovery of 85%.
- A constant dollar average uranium price of \$53 (US) per pound U₃O₈, with a \$1.00 US = \$1.26 Cdn and 490 Kazakhstan Tenge to \$1.00 US fixed exchange rate was used to estimate the mineral reserves.

Key parameters

- Grades (% U₃O₈) were obtained from gamma radiometric probing of drillholes, checked against assay results and prompt fission neutron logging results to account for disequilibrium.
- Average density of approximately 1.7 tonnes per cubic metre was used, based on historical and current sample measurements.
- Mineral resources are estimated using a minimum grade of 0.012% U₃O₈ per drillhole interval and minimum Grade x Thickness (GT) of 0.071 m% U₃O₈ for MPP area and 0.047 m% U₃O₈ for Sat1 and Sat2 areas.
- Mineral reserves represent the in-situ ore available for production within the term of the resource use contract.
- A cut-off for the mineral reserves of 0.13 m% U₃O₈ is applied on the estimated GT value for each block of the model.
- Reasonable expectation for eventual economic extraction of the mineral resources is based on a uranium price of \$57 (US) per pound U₃O₈, anticipated exchange rates, mining and process recoveries, production costs, royalties and mineralized area tonnage, grade, and spatial continuity considerations.

Key methods

- The geological interpretation of the orebody was done in section and plan views derived from surface drillhole information.
- Mineral resources were estimated with the GT area average method, where the estimated variable is the uranium grade multiplied by the thickness of the interval, and using averages for two-dimensional block models.
- A resource block must be confined to one aquifer taking into consideration the distribution of local aquitards.
- Considerations of the rate of in-situ uranium recovery, lixiviant uranium head grades, wellfield flow rates and production requirements to define the production sequence.
- Geological modelling and mining software used were AtomGeo, MapInfo and Micromine.

Our ESG principles and practices

A key part of our strategy, reflecting our values

We are committed to delivering our products responsibly. We integrate ESG principles and practices into every aspect of our business, from our corporate objectives and approach to compensation, to our overall corporate strategy, risk management, and day-to-day operations, and they align with our values. We seek to be transparent with our stakeholders, keeping them updated on the risks and opportunities that we believe may have a significant impact on our ability to achieve our strategic plan and add long-term value. We recognize the importance of integrating certain ESG factors, such as safety performance, a clean environment and supportive communities, into our executive compensation strategy as we see success in these areas as critical to the long-term success of the company.

Our board of directors holds the highest level of oversight for our business strategy and strategic risks, including ESG matters and climate-related risks. Oversight of ESG and climate-related reporting and disclosure has been delegated by the board to the Safety, Health and Environment (SHE) committee of the board of directors. We also have a multi-disciplinary ESG steering committee, chaired by our senior vice-president and chief corporate officer that includes representatives from across the organization whose role is to review our ESG governance and reporting, and our current approach to sustainability, against evolving trends. Additional information about our governance of ESG matters is included in our most recent ESG report.

In an effort to continually evolve the robustness of our sustainability commitments and communications, starting in 2020, we aligned our ESG performance indicators with the ones recommended by the Sustainability Accounting Standards Board (SASB). In addition, we began addressing the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) in our ESG report. In 2022, we continued to progress our work, conducting a gap analysis to identify how we could better align to TCFD recommendations. Findings from this work identified the need to undertake scenario analysis (physical and transition) to develop a robust evidence base for our climate strategy and pursue opportunities to financially quantify identified climate-related risks and opportunities where possible. See the discussion below regarding our climate change scenario analysis for more information.

In July 2022, we published our 2021 ESG report. The report sets out our strategy and the policies and programs we use to govern and manage ESG issues that are important to our stakeholders. In addition to SASB and TCFD, the report provides key ESG performance indicator data based on the Global Reporting Initiative's Sustainability Framework as well as some unique corporate indicators, to measure and report our performance on environmental, social and economic impacts in the areas we believe have a significant impact on our sustainability in the long-term and that are important to our stakeholders. This is our ESG report card to our stakeholders. You can find our report at cameco.com/about/sustainability.

Environment

We recognize and embrace our responsibility to manage our activities with care for the protection of environmental resources. Protection of the environment is one of our highest corporate priorities during all stages of our activities from exploration through development, operations, and decommissioning. Environmental stewardship is embedded in how we operate.

We are guided by our safety, health, environment and quality policy and associated programs that are designed to minimize our impact on air, land, and water and to conserve the biodiversity of surrounding ecosystems. Across our operations, we comply with strict regulations and have systems in place to monitor and mitigate our potential impacts. In addition to our own environmental monitoring, we collaborate with local communities in northern Saskatchewan around our operations to give confidence to them that traditionally harvested foods remain safe to eat, and water remains safe to drink.

Climate change: Nuclear power is part of the solution

We recognize the critical nature of the fight against climate change, and want our employees, customers, investors, and community partners near our operations to know we are committed to being an active and constructive partner in addressing this challenge. The reduction of carbon and greenhouse gas (GHG) emissions is important and necessary in Canada and around the world. Nuclear power must be a central part of the solution to the world's shift to a low-carbon, climate-resilient economy. As one of the world's largest producers of the uranium needed to fuel nuclear reactors, we believe there is a significant opportunity for us to be part of the solution to combat climate change. We enable vast emissions reductions that

can be achieved through nuclear power and are committed to transforming our already low GHG emissions footprint to achieve our ambition of having net-zero emissions while delivering significant long-term business value.

In accordance with our 2022 compensable corporate objectives, we undertook a planning process to outline our overarching low-carbon transition strategy. We identified the practical and achievable actions that we expect to take to decarbonize our operations and manage climate-related risks. In doing so, we are demonstrating our alignment with the ambitions of the Paris Agreement to, “limit global temperature rise to well below 2 degrees Celsius (°C), above pre-industrial levels, and to pursue efforts to limit global temperature rise even further to 1.5°C”. By extension, we are demonstrating our alignment with the Government of Canada’s commitment to the Paris Agreement in accordance with the Net Zero Accountability Act and resulting 2030 Emissions Reduction Plan.

We recognize that climate change, including shifts in temperature, precipitation and more frequent severe weather events could affect our operations in a range of possible ways. As part of our low-carbon transition planning, we completed a climate change scenario analysis to understand how projected long-term changing climate conditions could impact our employees, assets, and operations in northern Saskatchewan. We leveraged internal subject matter expertise with assistance from a third-party expert to complete the assessment.

The physical risk assessment study was undertaken to deliver an initial forward-looking physical climate risk assessment across our four sites in northern Saskatchewan and identify possible risk management and adaptation options. The next steps for the northern Saskatchewan physical risk assessment are to embed the physical climate risk findings into Cameco’s internal risk processes and develop an adaptation action plan for each site in the study. We are targeting the completion of similar assessments for all our majority owned and operated facilities over the next five years. In 2023, we will focus our physical climate risk assessment efforts on our Ontario operations.

We will continue to explore climate change projections for the areas where we operate and those critical to moving supplies and products through our value chain. We will use this information to identify where our existing climate-related acute and chronic risk management practices are expected to remain sufficient in the years to come and where adaptation and other enhancements may be required.

When it comes to climate change, we have tracked and reported our GHG emissions for more than two decades. A summary of our activities to understand and mitigate the risks associated with climate change scenarios is reported to the board of directors on a regular basis in accordance with our Enterprise Risk Management program, including the mitigating controls and management actions taken to reduce these risks.

In 2022, we developed the Energy and GHG Emissions Reductions Ideas Box that allows all employees to submit ideas to support us in reducing operational emissions. The Ideas Box also provides employees the opportunity to see key details from all decarbonization projects under investigation today.

We have also enjoyed some significant success in our efforts to reduce our energy use and GHG emissions to date. For example, at our Port Hope conversion facility, we have achieved a 28% reduction to peak power demand and more than \$2.1 million in annual energy savings with projects such as HVAC and compressed air system upgrades and lighting efficiency retrofits. At our northern Saskatchewan mining and milling operations, recent efforts have focused on the implementation of an Energy Management Information System (EMIS) in alignment with our larger digital transformation efforts. The EMIS improves our ability to visualize, monitor, and manage our energy use and emissions profile in real time. Ultimately, EMIS gives those operations the ability to identify where our highest impact emissions reduction opportunities exist and assurance that the actions we have taken are maintained over time.

Beyond these projects and initiatives, we have completed work to profile our emissions, enabling the identification of multiple high impact energy efficiency and emissions reductions opportunities including lighting retrofits, building envelope improvements, heat recovery projects, and the ability to explore alternative energy sources. Through these and other innovative decarbonization actions across efficiency, electrification, waste to value, carbon economy, and fuel switching themes – we expect to achieve a 30% absolute reduction from our total Scope 1 and 2 emissions level by 2030 from our 2015 baseline as our first major milestone on the journey to achieve our ambition of being net zero. For our Scope 2 emissions (purchased power), achieving this target will largely be dependent on the success of SaskPower in decarbonizing its grid in accordance with its current plans.

Social

Our relationships with our workforce, Indigenous Peoples, and local communities are fundamental to our success. The safety and protection of our workforce and the public is our top priority in our assessment of risk and planning for safe operations and product transport. To deliver on our vision, we invest in programs to attract and retain a diverse and skilled workforce that better reflects the communities in which we operate and to increase the participation of underrepresented groups in trades and technical positions. We want to build a workforce that is dedicated to continuous improvement and shares our values.

The importance of our workers and Indigenous Peoples working and living near our operations is exemplified by our ongoing commitment to help manage the impacts of the COVID-19 pandemic on our workforce, their families and their communities.

Our response to the COVID-19 pandemic

We continue to closely monitor and adapt to the developments related to COVID-19. Throughout the pandemic, our priority has been to protect the health and well-being of our workers, including employees and contractors, their families, and their communities.

The proactive decisions we made, and our ongoing efforts to monitor and manage the risk of COVID-19, to help ensure our workers are safe are consistent with our values. The health and safety of our workers, their families and their communities continues to be the priority in all our plans, which will align with the guidance of the relevant health authorities where we operate.

Governance

We believe that sound governance is the foundation for strong corporate performance. Our diverse and independent board of directors' primary role is to provide strategic direction and risk oversight in order to help the company achieve its vision of "energizing a clean-air world". The board guides the company to operate as a sustainable business, to optimize financial returns while effectively managing risk, and to conduct business in a way that is transparent, independent, and ethical.

The board has formal governance guidelines that set out our approach to governance and the board's governance role and practices. The guidelines ensure we comply with all of the applicable governance rules and legislation in Canada and the US, conduct ourselves in the best interests of our stakeholders, and meet industry best practices. The guidelines are reviewed and updated regularly.

Our corporate governance framework includes an established and recognized management system that describes the policies, processes and procedures we use to help us fulfill all the tasks required to achieve our objectives and strategy. It sets out our vision, values, and measures of success. It speaks to our strategic planning process, leadership alignment and accountability, compliance and assessment, people and culture, process identification and work management, risk management, communications and stakeholder support, knowledge and information management, change management, problem identification and resolution, and continual improvement.

Risk and Risk Management

Our board of directors oversees management's implementation of appropriate risk management processes and controls. We have a Risk Policy that is supported by our formal Risk Management Program.

Our Risk Management Program involves a broad, systematic approach to identifying, assessing, monitoring, reporting and managing the significant risks we face in our business and operations, including consideration of ESG and climate-related risks that could impact our four measures of success. The program is based on the ISO 31000 Risk Management guidelines. ISO 31000 provides guidance on risk management activities with internationally recognized practices and provides sound principles for effective management and governance of risks. Our program applies to all risks facing the company, including climate-related risks. The program establishes clear accountabilities for employees throughout the company to take ownership of risks specific to their area and to effectively manage those risks. The program is reviewed annually to ensure that it continues to meet our needs.

We use a common risk matrix throughout the company. Any risk that has the potential to significantly affect our ability to achieve our corporate objectives or strategic plan is considered an enterprise risk and is brought to the attention of senior management and the board. We continually update our risk profile by performing regular monitoring of risks across the organization. Regular monitoring helps us to properly manage risks and identify any new risks. Detailed risk reporting is

provided on a quarterly basis to senior management and the board and its committees on the status of the mitigating and/or monitoring plans for each of the enterprise risks. Management also reviews monthly updates on the company's progress in managing these risks.

See *Managing the risks*, starting on page 67 of our 2022 MD&A, for a discussion of the material risks, and the specific risks discussed under each operation, advanced project, and other nuclear fuel cycle investment update in our 2022 MD&A. In addition to carefully considering the other information in this AIF, we also recommend you review *Risks that can affect our business* starting at page 98 of this AIF which includes a discussion of other material risks that could have an impact on our business.

Measuring our results

Targets and Metrics: The Link between ESG Factors and Executive Pay

Each year, we set corporate objectives that are aligned with our strategic plan. These objectives fall under our four measures of success: (1) outstanding financial performance, (2) safe, healthy and rewarding workplace, (3) clean environment and (4) supportive communities. Performance against specific targets under these objectives forms the foundation for a portion of annual employee and executive compensation. See our most recent management proxy circular for more information on how executive compensation is determined.

Our targets for 2022 continue to reflect the operational and strategic actions that we have taken. While we are beginning to see a significant improvement in our financial performance (earnings and cash flow) as our tier-one production increases and our average realized price reflects the improving market, our results still do not reflect our expected long-term run rate performance. As our long-term contract portfolio continues to grow and our tier-one production continues to ramp up, we believe that the strategic actions we have taken have helped to pave the way to stronger financial performance over time. Additionally, we will not compromise our commitment to safety, people and our environment. For more information on our compensation targets and our reported performance against those targets, see the *Measuring our results* section in our 2022 MD&A and our most recent management proxy circular.

The regulatory environment

This section discusses some of the more significant government controls and regulations that have a material effect on our business. A significant part of our economic value depends on our ability to comply with the extensive and complex laws and regulations that govern our activities. At this time, we do not expect any of the proposed legislation or changes to existing legislation will have a material effect on our business.

International treaty on the non-proliferation of nuclear weapons

The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) is an international treaty that was established in 1970. It has three objectives:

- to prevent the spread of nuclear weapons and weapons technology
- to foster the peaceful uses of nuclear energy
- to further the goal of achieving general and complete disarmament

The NPT establishes a safeguards system under the responsibility of the IAEA. Almost all countries are signatories to the NPT, including Canada, the US, the United Kingdom and France. We are therefore subject to the NPT and comply with the IAEA's requirements.

Industry regulation and permits

Canada

Our Canadian operations have regulatory obligations to both the federal and provincial governments. There are four main regulatory agencies that issue licences and approvals:

- CNSC (federal)
- Fisheries and Oceans Canada (federal)

- SMOE
- Ontario Ministry of Environment

Environment and Climate Change Canada (federal) is also a major regulatory agency that has a mandate involving specific pieces of federal regulations.

Uranium industry regulation

The government of Canada recognizes the special importance of the uranium industry to Canada's national interest, and regulates the industry through legislation and regulations, and exerts additional control through government policy.

Federal legislation applies to any work or undertaking in Canada for the development, production, or use of nuclear energy or for the mining, production, refinement, conversion, enrichment, processing, reprocessing, possession, or use of a nuclear substance. Federal policy requires that any property or plant used for any of these purposes must be legally and beneficially owned by a company incorporated in Canada.

Mine ownership restrictions

The federal government has instituted a policy that restricts ownership of Canadian uranium mining properties to:

- a minimum of 51% ownership by residents
- a basic maximum limit of 49% ownership by non-residents of uranium properties at the first stage of production

The government may grant exceptions. For example, resident ownership may be less than 51% if the property is Canadian controlled. Exceptions will only be granted in cases where it is demonstrated that Canadian partners cannot be found, and it must receive Cabinet approval.

The government issued a letter to the Canadian uranium industry on December 23, 1987, outlining the details of this ownership policy. On March 3, 2010, the government announced its intention to liberalize the foreign investment restrictions on Canada's uranium mining sector to "ensure that unnecessary regulation does not inhibit the growth of Canada's uranium mining industry by unduly restricting foreign investment". However, after striking an expert panel to study the issue and soliciting feedback from various stakeholders, the federal government stated in October 2011 that it would not be changing the policy.

The Canada-EU Trade Agreement (CETA) was provisionally implemented in September 2017. The Non-resident Ownership Policy provisions for CETA countries are now in effect, which removes the requirement to seek a Canadian partner to hold the majority interest in a Canadian uranium mining property before applying for an exemption. An EU company is still required to apply for an exemption to hold a majority interest in a Canadian uranium mining property and the proposal will be evaluated by the government on its merits.

Cameco ownership restriction

We are subject to ownership restrictions under *the Eldorado Nuclear Limited Reorganization and Divestiture Act*, which restricts the issue, transfer, and ownership, including joint ownership, of Cameco shares to prevent both residents and non-residents of Canada from owning or controlling more than a certain percentage of shares. See page 128 for more information.

Industry governance

The *Nuclear Safety and Control Act (NSCA)* is the primary federal legislation governing the control of the mining, extraction, processing, use and export of uranium in Canada. It authorizes the CNSC to make regulations governing all aspects of the development and application of nuclear energy, including uranium mining, milling, conversion, fuel fabrication and transportation. It grants the CNSC licensing authority. A person may only possess or dispose of nuclear substances and build, operate, and decommission its nuclear facilities according to the terms and conditions of a CNSC licence. Licensees must satisfy specific conditions of the licence to maintain the right to operate their nuclear facilities.

The NSCA emphasizes the importance of environmental as well as health and safety matters and requires licence applicants and licensees to make adequate provisions for protection of the environment and for the health and safety of workers and the public.

Regulations made under the NSCA include those dealing with the specific licence requirements of facilities, radiation protection, physical security for all nuclear facilities and the transport of radioactive materials. The CNSC has also issued regulatory documents to assist licensees in complying with regulatory requirements, such as decommissioning, emergency planning, and optimizing radiation protection measures.

All of our Canadian operations are governed primarily by licences granted by the CNSC and are subject to all federal statutes and regulations that apply to us, and all the laws that generally apply in the province where the operation is located, unless there is a conflict with the terms and conditions of the licence or the federal laws that apply to us.

Uranium export

We must secure export licences and export permits from the CNSC and Global Affairs Canada to export our uranium. These arrangements are governed by the bi-lateral and multi-lateral agreements that are in place between governments.

Land tenure

Most of our uranium reserves and resources are in the province of Saskatchewan:

- a *mineral claim* from the province gives us the right to explore for minerals (other government approvals are required to carry out surface exploration)
- a *crown lease* with the province gives us the right to mine the minerals on the property
- a *surface lease* with the province gives us the right to use the land for surface facilities and mine shafts while mining and reclaiming the land

A mineral claim has a one-year term, with the right to renew for successive one-year periods. Generally, the holder must spend a certain amount on exploration to keep the mineral claim in good standing. If we spend more than the amount required, then the extra amount can be applied to future years.

A holder of a mineral claim in good standing has the right to convert it into a crown lease. A crown lease is for 10 years, with a right to renew for additional 10-year terms. The lessee must spend a certain amount on work during each year of the crown lease. The lease cannot be terminated unless the lessee defaults on any terms of the lease, or under any provisions of *The Crown Minerals Act* (Saskatchewan) or regulations under it, including any prescribed environmental concerns. Crown leases can be amended unilaterally by the lessor by an amendment to *The Crown Minerals Act* (Saskatchewan) or *The Mineral Tenure Registry Regulations* (Saskatchewan).

A surface lease can be for up to 33 years in accordance with *The Crown Resource Land Regulations, 2019* (Saskatchewan) made pursuant to *The Provincial Lands Act, 2016* (Saskatchewan), as necessary for operating the mine and reclaiming the land. The province also uses surface leases to specify other requirements relating to environmental and radiation protection as well as socioeconomic objectives.

United States

Uranium industry regulation

In the US, uranium recovery is regulated by the NRC according to the *Atomic Energy Act of 1954*, as amended. Its primary function is to:

- ensure employees, the public and the environment are protected from radioactive materials
- regulate most aspects of the uranium recovery process

The NRC's regulations for uranium recovery facilities are codified in *Title 10 of the Code of Federal Regulations* (10 CFR). It issues Domestic Source Material Licences under 10 CFR, Part 40. *The National Environmental Policy Act* governs the review of licence applications, which is implemented through 10 CFR, Part 51.

At Smith Ranch-Highland and Crow Butte, safety is regulated by the federal Occupational Safety and Health Administration.

Other governmental agencies are also involved in the regulation of the uranium recovery industry.

The NRC also regulates the export of uranium from the US and the transport of nuclear materials within the US. It does not review or approve specific sales contracts. It also grants export licences to ship uranium outside the US.

Wyoming

The uranium recovery industry is also regulated by the WDEQ, the Land Quality Division (LQD) according to the *Wyoming Environmental Quality Act* (WEQA) and the *Land Quality Division Non Coal Rules and Regulations* under the WEQA. According to the state act, the WDEQ issues a permit to mine. The LQD administers the permit. As of September 30, 2018, the NRC has entered into an agreement with the state of Wyoming, transferring regulatory authority for licensing, rulemaking, inspection, and enforcement activities necessary to regulate uranium ISR mining. The WDEQ LQD Uranium Recovery Program (URP) has assumed this regulatory authority.

The state also administers a number of EPA programs under the *Clean Air Act* and the *Clean Water Act*. Some of the programs, like the *Underground Injection Control Regulations*, are incorporated in the *Land Quality Division Non-Coal Rules and Regulations*. Wyoming currently requires wellfield decommissioning to the standard of pre-mining use.

Nebraska

The uranium recovery industry is regulated by the NRC, and the Nebraska Department of Environmental Quality according to the *Nebraska Environmental Protection Act*. The Nebraska Department of Environmental Quality issues a permit to mine. The state requires wellfield groundwater be restored to the class of use water standard.

Land tenure

Our uranium resources in the US are held by subsidiaries located in Wyoming and Nebraska. The right to mine or develop minerals is acquired either by leases from the owners (private parties or the state) or mining claims located on property owned by the US federal government. Our subsidiaries acquire surface leases that allow them to conduct operations.

Kazakhstan

See *Kazakhstan government and legislation* starting on page 62.

Complying with environmental regulations

Our business is required to comply with laws and regulations that are designed to protect the environment and control the management of hazardous wastes and materials. Some laws and regulations focus on environmental issues in general, and others are specifically related to mining and the nuclear sector. They change often, with requirements increasing, and existing standards being applied more stringently. While this dynamic promotes continuous improvement, it can increase expenses and capital expenditures, or limit or delay our activities.

Government legislation and regulation in various jurisdictions establish standards for system performance, standards, objectives and guidelines for air and water quality emissions, and other design or operational requirements for the various SHEQ components of our operations and the mines that we plan to develop. In addition, we must complete an environmental assessment before we begin developing a new mine or make any significant change to our operations. Once we have permanently stopped mining and processing activities, we are required to decommission and reclaim the operating site to the satisfaction of the regulators, and we may be required to actively manage former mining properties for many years.

Canada

Not only is there ongoing regulatory oversight by the CNSC, the SMOE, the Ontario Ministry of the Environment, and Environment and Climate Change Canada, but there is also public scrutiny of the impact our operations have on the environment.

The CNSC, an independent regulatory authority established by the federal government under the NSCA, is our main federal regulator in Canada. In 2019, the federal government introduced the *Impact Assessment Act* along with changes to the *Fisheries Act* and introduced the *Canadian Navigable Waters Act*. The new assessment legislation broadens the scope of a federal assessment beyond strictly environment, and the *Fisheries Act* and the *Canadian Navigable Waters Act* introduced changes to the language that will take some time to fully understand as the government is still developing and issuing guidance and working out the impact of the revisions.

Plans to build new mines in Saskatchewan are subject to the provincial environmental assessment process. In certain cases, a review panel may be appointed, and public hearings held.

Over the past few years, CNSC audits of our operations have focused on the following SHEQ programs:

- radiation protection
- environmental monitoring
- fire protection
- operational quality assurance
- organization and management systems effectiveness
- transportation systems
- geotechnical monitoring
- training
- ventilation systems
- waste management

Improving our environmental performance is challenging and we have focused on maintaining our excellent water quality while maintaining production at our facilities or while they are in care and maintenance.

Efforts like these often require additional environmental studies near the operations, and we will continue to undertake these as required.

It can take a significant amount of time for regulators to make requested changes to a licence or grant a requested approval because the activity may require an approval with an extensive review of supporting technical data, management programs and procedures. We are improving the quality of our proposals and submissions and have introduced a number of programs to ensure we continue to comply with regulatory requirements, but this has also increased our capital expenditures and our operating costs.

As our SHEQ management system matures, regulators continue to review our programs and recommend ways to improve our SHEQ performance. These recommendations are generally procedural and do not involve large capital costs, although systems applications can be significant and result in higher operating costs.

Federal requirements stemming from the *Species at Risk Act* are introducing significant uncertainty into the management of activities in northern Saskatchewan. One specific example includes the amended national recovery strategy for woodland caribou, which contains strategic directions that have the potential to impact economic and social development in northern Saskatchewan. As a requirement of this document, the province of Saskatchewan is responsible for developing range plans that outline population and habitat protection measures for activities conducted in northern Saskatchewan. Mitigation requirements, and other measures, could have an impact on our Saskatchewan operations and advanced projects in northern Saskatchewan.

A number of government or governmental bodies have introduced or are contemplating regulatory changes in response to the potential impacts of climate change. While we have a relatively small carbon footprint, our Canadian facilities could experience higher annual operating costs due to changes in GHG pricing and regulations, such as carbon pricing, the Canadian Clean Fuel Standard, and/or other policy changes. As indicated above, we recognize that climate change, including shifts in temperature, precipitation and more frequent severe weather events could affect our operations in a range of possible ways. As part of our low-carbon transition planning, we completed a climate change scenario analysis to understand how projected long-term changing climate conditions could impact our employees, assets, and operations in northern Saskatchewan. We leveraged internal subject matter expertise with the assistance of a third-party expert to complete the assessment.

We believe that regulatory expectations of the CNSC and other federal and provincial regulators will continue to evolve, and lead to changes to both requirements and the regulatory framework. This will likely increase our costs.

United States

Our ISR operations in the US must meet federal, state, and local regulations governing air emissions, water discharges, handling and disposal of hazardous materials and site reclamation, among other things.

Mining activities must meet comprehensive environmental regulations from the NRC, Bureau of Land Management, Environmental Protection Agency (EPA) and state environmental agencies. The process of obtaining mine permits and licences generally takes several years, and involves environmental assessment reports, public hearings, and comments. We have the permits and licences required for our US ISR Operations for 2023.

The ISR mining method at our US ISR Operations involves extracting uranium from underground non-potable aquifers by dissolving the uranium with a carbonate-based water solution and pumping it to a processing facility on the surface. After mining is complete, ISR wellfields must be restored according to regulatory requirements. This generally involves restoring the groundwater to its pre-mining state or equivalent class of use water standard. Restoration of Crow Butte wellfields is regulated

by the Nebraska Department of Environmental Quality and the NRC. Restoration of Smith Ranch-Highland wellfields is regulated by the WDEQ.

See page 97 for the status of wellfield restoration and regulatory approvals.

Kazakhstan

In its resource use contract with the Kazakhstan government, JV Inkai committed to conducting its operations according to good international mining practices. It must comply with the environmental requirements of Kazakhstan legislation and regulations, and, as an industrial company, it must also reduce, control, or eliminate various kinds of pollution and protect natural resources. JV Inkai is required to submit annual reports on pollution levels to the Kazakhstan environmental, tax and statistics authorities. The authorities conduct tests to validate JV Inkai's results.

Environmental protection legislation in Kazakhstan has evolved rapidly, especially in recent years. As the subsoil use sector has evolved, there has been a trend towards greater regulation, heightened enforcement, and greater liability for non-compliance. The most significant development was the adoption of *the Ecological Code* in 2007. This code replaced the three main laws related to environmental protection. Kazakhstan enacted a new ecological code, which took effect July 1, 2021 (*2021 Ecological Code*).

JV Inkai is required to comply with environmental requirements during all stages of the project and must develop an environmental impact assessment for examination by a state environmental expert before making any legal, organizational, or economic decisions that could have an effect on the environment and public health.

Under the *2007 Ecological Code*, JV Inkai required an environmental permit to operate. The permit certifies the holder's right to discharge emissions into the environment, provided that it complies with the requirements of the permit and that code. JV Inkai obtained a permit for environmental emissions and discharges for the operation under the *2007 Ecological Code*. This permit is no longer in effect. JV Inkai has obtained a permit under the *2021 Ecological Code*.

Facilities, based on their environmental impact, are divided into 4 categories both under the *2007 Ecological Code* and the *2021 Ecological Code*. In August 2021, JV Inkai was assigned category 1 and obtained an emissions permit under *the 2021 Ecological Code*, valid until the end of 2030. Generally, this new permit is similar to an emissions permit issued under the *2007 Ecological Code*. After expiry of this emissions permit at the end of 2030, JV Inkai will be required to have a comprehensive environmental permit.

A comprehensive environmental permit includes standards for emissions, waste accumulation, and water use. An operator of a category I facility must introduce and invest in best available techniques. The best available techniques are technologies, ways, and methods that are used during an activity and are effective, advanced, and practically applicable. Operators of category I facilities who operate under this permit and invest in best available techniques are exempt from payments for emissions into the environment.

JV Inkai also holds the required permits under the *Water Code*.

Government authorities and the courts enforce compliance with these permits, and violations can result in the imposition of administrative, civil or criminal penalties, the suspension or stopping of operations, orders to pay compensation, orders to remedy the effects of violations and orders to take preventive steps against possible future violations. In certain situations, the issuing authority may suspend or revoke the permits. With the adoption of the *2021 Ecological Code*, the level of administrative penalties has generally been increased.

The ISR mining method at Inkai uses an acid in the mining solution to extract uranium from underground non potable aquifers. The injection and recovery system is engineered to prevent the mining solution from migrating to the aquifer above the orebody, which has water with higher purity.

JV Inkai is not required to actively restore groundwater post-mining. After a number of decommissioning steps are taken, natural attenuation of the residual acid in the mined-out horizon, as a passive form of groundwater restoration, has been accepted. Attenuation is a combination of neutralization of the groundwater residual acid content by interaction with the host rock minerals and other chemical reactions which immobilize residual groundwater contaminants in the mined-out subsoil horizon. This approach is considered acceptable because it results in water quality similar to the pre-mining baseline status.

JV Inkai has environmental insurance, as required by the *2007 Ecological Code*, the *2021 Ecological Code*, and the resource use contract.

Taxes and Royalties

Transfer pricing dispute

Background

Since 2008, CRA has disputed our marketing and trading structure and the related transfer pricing methodology we used for certain intercompany uranium sale and purchase agreements.

For the years 2003 to 2014, CRA shifted Cameco Europe Limited's income (as recalculated by CRA) back to Canada and applied statutory tax rates, interest and instalment penalties, and, from 2007 to 2011, transfer pricing penalties. In addition, for 2014 to 2016, CRA has advanced an alternate reassessing position, see *Reassessments, remittance and next steps* below for more information.

In September 2018, the Tax Court of Canada (Tax Court) ruled that our marketing and trading structure involving foreign subsidiaries, as well as the related transfer pricing methodology used for certain intercompany uranium sales and purchasing agreements, were in full compliance with Canadian law for the tax years in question (2003, 2005 and 2006). On June 26, 2020, the Federal Court of Appeal (Court of Appeal) upheld the Tax Court's decision.

On February 18, 2021, the Supreme Court of Canada (Supreme Court) dismissed CRA's application for leave to appeal the June 26, 2020 decision of the Court of Appeal. The dismissal means that the dispute for the 2003, 2005 and 2006 tax years is fully and finally resolved in our favour. Although not technically binding, there is nothing in the reasoning of the lower court decisions that should result in a different outcome for the 2007 through 2014 tax years, which were reassessed on the same basis.

Refund and cost award

The Minister of National Revenue issued new reassessments for the 2003 through 2006 tax years in accordance with the decision and in July 2021, refunded the tax paid for those years. Pursuant to a cost award from the courts, we are expecting a payment of approximately \$13 million for disbursements which is in addition to the \$10 million we received from CRA in April 2021 as reimbursement for legal fees.

Reassessments, remittances and next steps

The Canadian income tax rules include provisions that generally require larger companies like us to remit or otherwise secure 50% of the cash tax plus related interest and penalties at the time of reassessment. Following the Supreme Court's dismissal of CRA's application for leave to appeal, we wrote to CRA requesting reversal of CRA's transfer pricing adjustments for 2007 through 2013 and the return the \$780 million in cash and letters of credit we have paid or provided for those years. Given the strength of the court decisions received, our request was made on the basis that the Tax Court would reject any attempt by CRA to defend its reassessments for the 2007 through 2013 tax years applying the same or similar positions already denied for previous years.

On March 27, 2023, we announced that CRA issued revised reassessments for the 2007 through 2013 tax years that will result in a refund of approximately \$300 million of the \$780 million in cash and letters of credit being held by CRA. The refund will consist of \$89 million in cash and \$211 million in letters of credit. The timing of the refund is yet to be determined.

The series of court decisions that were completely and unequivocally in our favour for the 2003, 2005 and 2006 tax years, determined that the income earned by our foreign subsidiary from the sale of non-Canadian produced uranium was not taxable in Canada. In accordance with these decisions, CRA issued reassessments reducing the proposed transfer pricing adjustment from \$5.12 billion to \$3.25 billion, resulting in a reduction of \$1.87 billion in income taxable in Canada compared to the previous reassessments issued to us by CRA for the 2007 through 2013 tax years.

Notwithstanding the pending refund of approximately \$300 million in cash and security due to the reduced reassessment amounts for 2007 through 2013, our broader tax dispute with CRA remains ongoing. CRA continues to hold \$480 million (\$206 million in cash and \$274 million in letters of credit) that Cameco has remitted or secured to date.

The remaining transfer pricing adjustment of \$3.25 billion for the 2007 to 2013 tax years relates to the sale of Canadian-produced uranium by our foreign subsidiary. Cameco maintains that the clear and decisive court decisions described above apply, and that CRA should fully reverse the remaining transfer pricing adjustments for these years and return the cash and security being held.

In October 2021, due to a lack of significant progress on our points of contention, we filed a notice of appeal with the Tax Court for the years 2007 through 2013. We have asked the Tax Court to order the complete reversal of CRA's transfer pricing adjustment for those years and the return of the remainder of our cash and letters of credit being held, with costs.

In 2020, CRA advanced an alternate reassessing position for the 2014 tax year in the event the basis for its original reassessment, noted above, is unsuccessful. Subsequent to this, in 2021, we received a reassessment for the 2015 tax year and in late 2022, we received a reassessment for the 2016 tax year, both using this alternative reassessing position. The new basis of reassessment is inconsistent with the methodology CRA has pursued for prior years and we are disputing it separately. Our view is that this alternate methodology will not result in a materially different outcome from our 2014 to 2016 filing positions. On October 12, 2022, we filed an appeal with the Tax Court for the years 2014 and 2015, and recently filed a notice of objection for 2016. At the time of these reassessments, CRA did not require additional security for the tax debts they considered owing for 2014 and 2015. We have requested the same treatment with respect to the 2016 reassessment.

We will not be in a position to determine the definitive outcome of this dispute for any tax year other than 2003 through 2006 until such time as all reassessments have been issued advancing CRA's arguments and final resolution is reached for that tax year. CRA may also advance alternative reassessment methodologies for years other than 2003 through 2006, such as the alternative reassessing position advanced for 2014 through 2016.

Caution about forward-looking information relating to our CRA tax dispute

This discussion of our expectations relating to our tax dispute with CRA and future tax reassessments by CRA is forward-looking information that is based upon the assumptions and subject to the material risks discussed under the heading *Caution about forward-looking information* beginning on page 1 and also on the more specific assumptions and risks listed below. Actual outcomes may vary significantly.

Assumptions

- our entitlement and ability to receive the expected refunds and payments from CRA
- the courts will reach consistent decisions for subsequent tax years that are based on similar positions and arguments
- CRA will not successfully advance different positions and arguments that may lead to a different outcome for other tax years

Material risks that could cause actual results to differ materially

- we will not receive the expected refunds and payments from CRA
- the possibility the courts may accept the same, similar or different positions and arguments advanced by CRA to reach decisions that are adverse to us for other tax years
- the possibility that we will not be successful in eliminating all double taxation
- the possibility that CRA does not agree that the court decisions for the years that have been resolved in Cameco's favour should apply to subsequent tax years
- the possibility CRA will not return all or substantially all of the cash and security that has been paid or otherwise secured by Cameco in a timely manner, or at all
- the possibility of a materially different outcome in disputes for other tax years
- an unfavourable determination of the officer of the Tax Court of the amount of our disbursements award

Canadian royalties

We pay royalties on the sale of all uranium extracted at our mines in the province of Saskatchewan.

Two types of royalties are paid:

- *Basic royalty*: This royalty is calculated as 5% of gross sales of uranium, less the Saskatchewan resource credit of 0.75%.
- *Profit royalty*: A 10% royalty is charged on profit up to and including \$26.268/kg U₃O₈ (\$11.91/lb) and a 15% royalty is charged on profit in excess of \$26.268/kg U₃O₈. Profit is determined as revenue less certain operating, exploration, reclamation and capital costs. Both exploration and capital costs are deductible at the discretion of the producer.

As a resource corporation in Saskatchewan, we also pay a corporate resource surcharge of 3% of the value of resource sales.

Canadian income taxes

We are subject to federal income tax and provincial taxes in Saskatchewan and Ontario. Current income tax expense for 2022 was \$2.26 million.

Our Ontario fuel services operations are eligible for a manufacturing and processing tax credit.

The Organization for Economic Co-operation and Development has proposed the introduction of rules that would impose a global minimum tax rate of 15%. The European Union has unanimously agreed to implement these rules and impose them into each country's national law by the end of 2023, and we expect Canada to follow suit. If these tax laws are enacted or substantively enacted in any jurisdiction in which we operate, we may be subject to a minimum rate of 15% in that jurisdiction.

US taxes

Our subsidiaries in Wyoming and Nebraska pay severance taxes, property taxes and Ad Valorem taxes in those states. They incurred \$0.77 million (US) in taxes in 2022.

Our US subsidiaries are subject to US federal and state income tax.

Kazakhstan taxes

Stability of the tax regime envisaged by a number of resource use contracts, including the resource use contract, was abolished with the entry into legal force of the *2009 Tax Code* in 2009. Amendment No. 2 to the resource use contract, signed in 2009, by making applicable the *2009 Tax Code*, eliminated the tax stabilization provision of the resource use contract.

A new tax code, effective January 1, 2018 (*the 2018 Tax Code*), provides that subsoil users pay all taxes and payments provided in the tax legislation effective as of the date of occurrence of tax obligations. Although under *the 2018 Tax Code* the main principles of subsoil users' taxation remain the same (for example, the rate of corporate income tax, 20%), there were several important changes relevant to special taxes and payments of subsoil users as briefly described below:

- Starting January 1, 2023, significant changes were introduced in relation to computation of the mineral extraction tax on uranium, including changes to the tax base and the tax rate. It is expected that the amount of tax may increase due to such changes.
- The exemption of dividends payable by a subsoil user to a foreign shareholder from income tax withholding at the source of payment was abolished starting January 1, 2023. Under *the 2018 Tax Code* the standard tax rate on dividends is 15%. A reduced rate of 10% may be applied subject to compliance with certain conditions (similar to those that were provided in respect of the prior dividend exemption). Potentially, dividends that will be paid to us by JV Inkai may qualify for this reduced rate under *the 2018 Tax Code*. In addition, such dividends may qualify for reduced 5% withholding tax on dividends under the Canada-Kazakhstan double taxation treaty (subject to compliance with certain requirements).
- *The Excess Profits Tax* has been abolished with respect to several categories of subsoil use contracts, including, "contracts for *exploration* and (or) production of solid minerals, subsoil water and (or) therapeutic muds provided that such contracts do not envisage extraction of other categories of minerals." Based on the subsoil code, we believe that for the purposes of *the 2018 Tax Code*, the term solid minerals includes uranium. However, there is a risk that the tax authorities may hold the opposite view.
- The commercial discovery bonus has been abolished.
- The rates of payment for the use of land by subsoil users is now expressly provided for in *the 2018 Tax Code*.

JV Inkai's costs could be impacted by potential changes to *the 2018 Tax Code* and by possible increased financial contributions to social and other state causes, although these risks cannot be quantified or estimated at this time.

Nuclear waste management and decommissioning

Once we have permanently stopped mining and processing activities, we are required to decommission the operating sites. This includes reclaiming all waste rock, TMF and other areas of the site affected by our activities to the satisfaction of regulatory authorities.

Estimating decommissioning and reclamation costs

We develop conceptual decommissioning plans for our operating sites and use them to estimate our decommissioning costs. We also submit them to regulators to determine the amount of financial assurance we must provide to secure our decommissioning obligations. Our plans include reclamation techniques that we believe generate reasonable environmental and radiological performance. Regulators give “conceptual approval” to a decommissioning plan if they believe the concept is reasonable.

We started conducting reviews of our conceptual decommissioning plans for all Canadian sites in 1996. We typically review them every five years, or when we amend or renew an operating licence. We review our cost estimates for both accounting purposes and licence applications. For our US sites, they are reviewed annually. A preliminary decommissioning plan has been established for Inkai. The plan is updated every five years or as significant changes take place, which would affect the decommissioning estimate.

As properties approach or go into decommissioning, regulators review the detailed decommissioning plans. This can result in additional regulatory process, requirements, costs, and financial assurances.

At the end of 2022, our estimate of total decommissioning and reclamation costs was \$1.36 billion. This is the undiscounted value of the obligation and is based on our current operations. We had accounting provisions of \$1.06 billion at the end of 2022 (the present value of the \$1.36 billion). Regulatory approval is required prior to beginning decommissioning. Since we expect to incur most of these expenditures at the end of the useful lives of the operations they relate to, and none of our assets have approval for decommissioning, our expected costs for decommissioning and reclamation for the next five years are not material.

We provide financial assurances for decommissioning and reclamation such as letters of credit or surety bonds to regulatory authorities, as required. We had a total of about \$1.04 billion in financial assurances supporting our reclamation liabilities at the end of 2022. All of our North American operations have financial assurance in place in connection with our approved preliminary plans for decommissioning of the sites.

Please also see note 16 to our 2022 financial statements for our estimate of decommissioning and reclamation costs and related financial assurances.

Canada

Decommissioning estimates

(100% basis)

McArthur River	\$42 million
Rabbit Lake	\$213 million
Key Lake	\$223 million
Cigar Lake	\$62 million

Preliminary decommissioning plans for all Saskatchewan mining operations were submitted in 2017 and 2018 as part of the regular five-year update schedule. Prior to revising the letters of credit, approval of the updated plans is required from the province and CNSC staff as well as formal approval from the CNSC through a Commission proceeding. All Saskatchewan mining operations have received the necessary approvals.

In 2022, as part of the required five-year update schedule, we submitted revised preliminary decommissioning estimates for all Saskatchewan mining operations, which are currently being reviewed the province and CNSC staff.

The reclamation and remediation activities associated with waste rock and tailings from processing Cigar Lake ore and uranium solution are covered in the plans and cost estimates for the facility that will be processing it.

Decommissioning estimates

(100% basis)

Port Hope	\$129 million
Blind River	\$58 million
CFM	\$11 million

We renewed our licence for Port Hope in 2017. As part of that process, an update to the Port Hope Conversion Facility preliminary decommissioning plan was finalized and accepted in February 2017. The letter of credit was updated in March 2017 and reflects the current decommissioning estimate. In 2022, as part of the required five-year update schedule, we submitted a revised preliminary decommissioning estimate for PHCF, which is currently being reviewed by CNSC staff. We renewed our licence for Blind River in 2022. As part of the process, an update to the Blind River preliminary decommissioning plan was finalized and accepted in February 2022. An update to the CFM preliminary decommissioning plan was also finalized and accepted in February 2022.

Recycling uranium byproducts

We have arrangements with two facilities for processing certain uranium-bearing by-products from Blind River and Port Hope. An agreement has been in place with the White Mesa mill in Blanding, Utah for a number of years. Recycled by-product material was being processed at Key Lake until the decision was made in 2018 to suspend production and place the mill and the McArthur River mine in care and maintenance.

United States

After mining has been completed, an ISR wellfield has to be restored according to regulatory requirements. This generally involves restoring the groundwater to its pre-mining state or equivalent class of water standard.

For wellfield restoration to be complete, regulatory approval is required. It is difficult for us to estimate the timing for wellfield restoration due to the uncertainty in timing for receiving final regulatory approval.

Crow Butte

Restoration of Crow Butte wellfields is regulated by the Nebraska Department of Environmental Quality and the Nuclear Regulatory Commission (NRC). There are five wellfields being restored at Crow Butte. The groundwater at mine unit #1 has been restored to pre mining quality standards, all wells are plugged, and the piping removed.

Our estimated cost of decommissioning the property is \$56 million (US). We have provided the state of Nebraska with \$56 million (US) in financial assurances as security for decommissioning the property.

Smith Ranch-Highland

Restoration of Smith Ranch-Highland wellfields is regulated by the Wyoming Department of Environmental Quality (WDEQ). In 2018, the NRC transferred to the state of Wyoming its authority to regulate uranium ISR mining in the state. There are nine wellfields being restored at Smith Ranch-Highland, one wellfield in stability, and two wellfields (mine unit A and mine unit B) that have been fully restored.

Restoration of mine unit B was approved by the WDEQ in 2008, while NRC approval has not yet been attained. An Alternate Concentration Limit (ACL) request was submitted to the NRC in May 2013. The NRC subsequently requested additional information, and that additional sampling be conducted.

Our estimated cost of decommissioning the property is \$219 million (US), including North Butte. We have provided the state of Wyoming with \$218 million (US) in financial assurances as security for decommissioning the property.

Kazakhstan

JV Inkai's decommissioning obligations are defined by the resource use contract and the subsoil code. JV Inkai is required to maintain a fund, which is capped at \$500,000 (US), as security for meeting its decommissioning obligations. Under the resource use contract, JV Inkai must submit a plan for decommissioning the property to the government six months before mining activities are complete.

JV Inkai has developed a preliminary decommissioning plan to estimate total decommissioning costs and updates the plan when there is a significant change at the operation that could affect decommissioning estimates. The preliminary decommissioning estimate is \$30 million (US) and is subject to ongoing review.

Groundwater is not actively restored post-mining in Kazakhstan. See page 92 for additional details.

Risks that can affect our business

The nature of our business means we face many kinds of risks and hazards – some that relate to the nuclear energy industry in general, and others that apply to specific properties, operations, planned operations, or planned investments. These risks could have a significant impact on our business, earnings, cash flows, financial condition, results of operations or prospects, which may result in a significant decrease in the market price of our common shares. In addition to considering the other information in this AIF, you should consider carefully the risks discussed in this section in deciding whether to invest in securities of Cameco.

The following section describes the risks that are most material to our business. This is not, however, a complete list of the potential risks we face – there may be others we are not aware of, or risks we feel are not material today that could become material in the future. Our risk policy and process involves a broad, systematic approach to identifying, assessing, reporting and managing the significant risks we face in our business and operations. However, there is no assurance that we will be successful in preventing the harm that any of these risks could cause.

Please also see the risk discussion in our 2022 MD&A.

Types of risk

- Operational
- Financial
- Governance and compliance
- Environmental
- Social
- Strategic

1 – Operational risks

General operating risks and hazards

We are subject to a number of operational risks and hazards, many of which are beyond our control.

These risks and hazards include:

- catastrophic accidents resulting in large-scale releases of hazardous chemicals, or a tailings facility failure, which could pose a significant risk to the environment, and to employee and public safety
- environmental incidents (including hazardous emissions from our refinery and conversion facilities, such as a release of UF₆ or a leak of anhydrous hydrogen fluoride used in the UF₆ conversion process)
- industrial safety accidents
- equipment failures
- fires
- transportation incidents, which may involve radioactive or other hazardous materials
- transportation and delivery disruptions
- labour shortages, disputes or strikes
- availability of personnel with the necessary skills and experience
- cyberattacks
- joint venture dispute or litigation
- non-compliance with legal requirements, including exceedances of applicable air or water limits or requirements
- inability to obtain and renew the licences and other approvals needed to operate, restart, and to increase production at our mines, mills, and processing facilities, or to develop new mines
- workforce health and safety or increased regulatory burdens resulting from the COVID 19 pandemic or other causes
- uncertain impact of changing regulations or policy leading to higher annual operating costs, including GHG pricing and regulations (e.g., carbon pricing, the Canadian Clean Fuel Standard)
- blockades or other acts of social or political activism
- natural phenomena, such as forest fires, floods, and earthquakes as well as shifts in temperature,

- cost increases for labour, contracted or purchased materials, supplies and services
- shortages of, or interruptions in the supply of, required equipment, materials, and supplies (including anhydrous hydrofluoric acid at our conversion facilities)
- interruptions in the supply of electricity, water, and other utilities or other infrastructure
- inability of our innovation initiatives to achieve the expected cost saving and operational flexibility objectives
- precipitation, and the impact of more frequent severe weather conditions on our operations as a result of climate change
- outbreak of illness (such as a pandemic like COVID-19)
- unusual, unexpected or adverse mining or geological conditions
- underground water inflows at our mining operations
- ground movement or cave-ins at our mining operations
- subsurface contamination from current or legacy operations

There is no assurance that any of the above risks will not result in:

- damage to or destruction of our properties and facilities located on these properties
- personal injury or death
- environmental damage
- delays in, or interruptions of, our exploration or development activities or transportation and delivery of our products
- delays in, interruptions of, or decrease in production at our operations
- costs, expenses, or monetary losses
- legal liability
- adverse government or regulatory action

Any of these events could result in one or more of our operations becoming unprofitable, cause us not to receive an adequate return on invested capital, or have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

Insurance coverage

We buy insurance to cover losses or liabilities arising from some of the operating risks and hazards listed above, as well as other business risks. We do not have dedicated cyber insurance coverage and we do not buy property insurance for our Rabbit Lake operation.

We believe we have a reasonable amount of coverage for the risks we choose to insure against. There is no assurance, however, that this coverage will be adequate, that it will continue to be available, that premiums will be economically feasible, or that we will maintain this coverage. Like other nuclear energy and mining companies, we do not have insurance coverage for certain environmental losses or liabilities and other risks, either because it is not available, or because it cannot be purchased at a reasonable cost. Insurance availability at any time is driven by several factors and availability may be impacted by the announced intention of certain providers to restrict underwriting of certain industries, assets or projects. We may also be required to increase the amount of our insurance coverage due to changes in the regulation of the nuclear industry.

We may suffer material losses from uninsurable or uninsured risks or insufficient insurance coverage, which could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

Flooding at McArthur River and Cigar Lake

The sandstone that overlays the McArthur River and Cigar Lake deposits and basement rock is water-bearing with significant pressure at mining depths. This high-pressure water source is isolated from active development and production areas in order to reduce the inherent risk of an inflow. McArthur River relies on pressure grouting and ground freezing, and sufficient pumping, water treatment and above ground storage capacity to mitigate the risks of the high-pressure ground water. Cigar Lake relies on these same controls except for pressure grouting. These steps reduce, but do not fully eliminate, the risk of water inflows.

A water inflow could have a material and adverse effect on us, including:

- significant delays or interruptions in production or lower production

- significant delays or interruptions in mine development
- loss of mineral reserves
- a material increase in capital or operating costs
- erosion of stakeholder support, including governments, communities and shareholders

It could also have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects. The degree of impact depends on the magnitude, location and timing of the flood or water inflow. Floods and water inflows are generally not insurable.

McArthur River and Cigar Lake have had water inflows. There is no guarantee that there will not be water inflows at McArthur River or Cigar Lake in the future.

McArthur River

Production was suspended for three months in 2003 due to a water inflow event that occurred as the result of a ground failure during tunnel development. This resulted in flooding of portions of the mine and caused a major setback in the development advancement of a new mining zone. In 2008, we also had a small water inflow event that did not impact production but caused significant development delay.

Cigar Lake

We have had three water inflows at Cigar Lake since 2006 (please see page 48 for details).

These water inflows caused:

- a significant delay in development and production at the property
- a significant increase in capital costs
- the need to notify many of our customers of the interruption in planned uranium supply

Technical challenges at Cigar Lake and McArthur River

The unique nature of the deposits at Cigar Lake and McArthur River poses many technical challenges, including but not limited to: high-pressure ground water management, unplanned water inflows, weak and altered ground conditions, unplanned ground failures, schedule uncertainty of development and freeze times of new mine zones, radiation protection, ore-handling and transport controls, water treatment performance and other mining-related challenges such as variable dilution and recovery values.

The areas being mined at Cigar Lake must meet specific ground freezing requirements before we begin jet boring. We have encountered longer than anticipated freeze durations due to inherent variability of the underlying geology across the deposit.

The Cigar Lake orebody contains elements of concern with respect to the water quality and the receiving environment. The distribution of elements such as arsenic, molybdenum, selenium and others is non-uniform throughout the orebody, and this can present challenges in attaining and maintaining the required effluent concentrations. There have been ongoing efforts to optimize the current water treatment process and water handling systems to ensure acceptable environmental performance, which is expected to avoid the need for additional capital upgrades and potential deferral of production.

Metallurgical test work has been used to design the McClean Lake mill circuits and associated modifications relevant to Cigar Lake ore. Samples used for metallurgical test work may not be representative of the deposit as a whole. There is a risk that elevated arsenic concentration in the mill feed may result in increased leaching circuit solution temperatures, potentially causing an increase in costs and reducing production.

If any of these technical challenges are not managed, it could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

McArthur River mine and Key Lake mill ramp up

In 2018, production was suspended. In November 2022, the McArthur River mine and Key Lake mill resumed production.

With the extended period of time the assets were on care and maintenance, the operational changes made, and commissioning issues worked through at the mill, which caused delays to the production schedule in 2022, there is increased uncertainty regarding the timing of a successful ramp up to planned production and the associated costs. In addition, inflation, the availability of personnel with the necessary skills and experience, and the potential impact of supply chain challenges on the availability of materials and reagents carry with them the risks of not achieving our production plans, production delays and increased costs.

Information technology systems

We have become increasingly dependent on the availability and integrity of our electronic information and the reliability of our information technology systems and infrastructure. We rely on our information technology to process, transmit and store electronic information, including information we use to safely operate our assets. Our information technology systems are subject to disruption, damage, or failure from a variety of sources, including without limitation, security breaches, cyber-attacks, computer viruses, malicious software, natural disasters or defects in hardware or software systems.

Cyber attackers may use a range of techniques, from manipulating people to using sophisticated malicious software and hardware on a single or distributed basis. Often, advanced cyber attackers use a combination of techniques in their attempt to evade safeguards and delay discovery of a cyber-attack. We take measures to secure our infrastructure against potential cyber-attacks that may damage our infrastructure, systems, and data. We have implemented a defense in depth security program to secure and protect our information and business operations including formalizing and implementing an information security policy, user awareness training, and introducing system security configuration standards and access control measures. As technologies evolve and cyber-attacks become more sophisticated, we may incur significant costs to upgrade or enhance our security measures to mitigate potential harm.

We do not have dedicated cyber insurance coverage. However, to reduce the risk of successful cyber-attacks and to reduce the impact of any successful cyber-attacks, we have implemented several layers of perimeter and endpoint security defense and response mechanisms, security event logging and monitoring of network activities, and developed a cyber incident response process.

Despite the measures put in place to protect our systems and data, there can be no assurance that these measures will be sufficient to protect against such cyber-attacks or mitigate against such risks, or if such cyber-attacks or risks occur, that they will be adequately addressed in a timely manner.

Such a breach could result in unauthorized access to proprietary, confidential or sensitive information, destruction or corruption of data, disruption or delay in our business activities, remediation costs that may include liability for stolen assets or information, repairing system damage or incentives offered to customers or suppliers in an effort to maintain business relationships after an attack, legal or regulatory consequences, and a negative effect on our reputation and customer confidence. Disruption of critical information technology services or breaches of information security could have a material and adverse effect on our earnings, cash flows, financial condition, or results of operations.

Tailings management

Managing tailings is integral to mining. Cameco has four tailings management facilities (TMFs), two at the Key Lake mill and two at the Rabbit Lake operation (where the site is in a state of safe care and maintenance). Key Lake and Rabbit Lake each have one active in pit TMF and one inactive above ground TMF.

Our active tailings management facilities are in pit with no risk of dam failure. If a TMF failure, pit slope failure, regulatory, or other issues prevent us from maintaining the existing tailings management capacity at our Key Lake mill, or if these issues prevent Orano from maintaining or increasing tailing capacity at the McClean Lake mill, then uranium production could be constrained and this could have a material and adverse effect on our earnings, cash flows, financial condition, or results of operations.

A failure of the confining embankment for either of Cameco's above ground TMFs (one at Key Lake, one at Rabbit Lake) may release stored water and tailings into the environment. This failure could result in environmental damage, increased costs, and regulatory action. Such an event could have a material and adverse effect on our earnings, cash flows, financial condition, or results of operations.

We have designed and operated our tailings management facilities with the intent to achieve a safe state both during operations and post-decommissioning. Our conceptual decommissioning plans for our Canadian properties address decommissioning of our tailing management facilities. Among other things, the plans are based upon a conceptual design model of the decommissioned facility that seeks to limit the environmental impact in accordance with regulatory requirements. Although we seek to ensure closure design of the facility accomplishes that objective, due to the inherent uncertainty with modeling outcomes, we cannot guarantee that we will. As the facilities approach or go into decommissioning, this can result in additional requirements and costs. In addition, as the facilities are decommissioned, there is a possibility of increased loadings to the environment, resulting in environmental damage, increased costs and regulatory action among other things. The occurrence of one or more of these events could have a material and adverse effect on our earnings, cash flows, financial condition, or results of operations.

Aging facilities

Our Blind River and Port Hope fuel services facilities and our milling facilities in northern Saskatchewan are aging. This exposes us to many risks, including the potential for higher maintenance and operating costs, the need for significant capital expenditures to upgrade and refurbish these facilities, the potential for decreases or delays in, or interruption of, production, and the potential for environmental damage.

These risks could have a material and adverse effect on our earnings, cash flows, financial condition, or results of operations.

Ability to attract and retain a skilled and diverse workforce

The company's ability to manage its operations efficiently and effectively including maintaining strong safety and environmental performance, is dependent on the efforts of the company's employees and contractors, including our executive, and senior technical and operating personnel. Having a diverse and inclusive workplace is integral to the success of the company to bring new ideas, perspectives, experiences, and expertise to the company which can create a competitive advantage and enhance the support of the communities where we operate.

We compete with mining and other companies on a global basis to attract and retain workers at all levels with appropriate skills and experience necessary to operate our mines, fuel processing and manufacturing facilities and work at our corporate office. We may not always be able to fill positions on a timely basis. There is a limited pool of skilled people and competition is intense. We also experience employee turnover because of an aging workforce. From time to time, the mining or nuclear energy industry experiences a shortage of tradespeople and other skilled or experienced personnel globally, regionally, or locally. We have a comprehensive strategy to attract and retain high caliber people, including programs to increase inclusion and diversity in our workplace. Our goal is to create an inclusive work environment, with a workforce that is skilled, diverse and reflects the demographics where we operate. Despite our efforts, there is no assurance the company will be able to attract and retain a skilled and diverse workforce that is fully reflective of the communities closest to our operations. Failure to do so could adversely impact our measures of success, increase our recruiting and training costs and reduce the efficiency of our operations, and have an adverse effect on our earnings, cash flows, financial condition or results of operations.

Collective agreements

We have unionized employees and face the risk of strikes. On December 31, 2022, we had 2,424 employees (including employees of our subsidiaries). This includes 689 unionized employees at McArthur River, Key Lake, Port Hope, and at CFM's facilities, who are members of four different locals of the United Steelworkers trade union.

- The collective agreement with the bargaining unit employees at our conversion facilities at Port Hope ends on June 30, 2025.
- The collective agreement with the bargaining unit employees at the McArthur River and Key Lake operations ended on December 31, 2022. Negotiations for a new agreement have commenced. As in past negotiations work continues under the terms of the expired agreement.
- The collective agreement with the bargaining unit employees at CFM ends on June 1, 2024.
- Orano's collective agreement with bargaining unit employees at the McClean Lake mill ends on May 31, 2025.

We cannot predict whether we or Orano will reach new collective agreements with these and other employees without a work stoppage or work interruptions while negotiations are underway.

A lengthy work interruption could have a material and adverse effect on our earnings, cash flows, financial condition or results of operations.

Supplies and contractors

Supplies

We buy reagents and other production inputs and supplies from suppliers around the world. If there is a shortage of, or disruption in the delivery of, any of these supplies, including parts and equipment, or their costs rise significantly, it could limit or interrupt production or increase production costs. It could also have an adverse effect on our ability to carry out operations or have a material and adverse effect on our earnings, cash flows, financial condition, or results of operations. We examine our entire supply chain as necessary to identify areas to diversify or add inventory where we may be vulnerable, but there is no assurance that we will be able to mitigate the risk. Disruptions to the supply chain worldwide due to the COVID-19 pandemic has increased the risk and the February 2022 Russian invasion of Ukraine further increased the risk. In 2021, planned production from our fuel services operations was impacted by hydrogen supply issues.

Presently, JV Inkai is experiencing wellfield development, procurement, and supply chain issues, including inflationary pressure on production materials and reagents, which are expected to continue and could pose a risk to JV Inkai's 2023 production volume, impacting its costs and our purchases.

Contractors

In some cases, we rely on a single contractor or supplier to provide us with services and/or reagents or other production inputs and supplies. Relying on a single contractor or supplier is a security of supply risk because we may not receive quality service, timely service, or service that otherwise meets our needs. These risks could have a material and adverse effect on our earnings, cash flows, financial condition, or results of operations.

Transportation

Due to the geographical location of many of our mines and operations, including Inkai, and our customers, we are highly dependent on third parties for the provision of transportation services, including road, air, and port services. We negotiate prices for the provision of these services in circumstances where we may not have viable alternatives to using specific providers. We require regulatory approvals to transport and export our products. Contractual disputes, demurrage charges and port capacity issues, regulatory issues, availability of transports and vessels, inclement weather or other factors can have a material adverse effect on our ability to transport materials and our products according to schedules and contractual commitments. These risks could have a material and adverse effect on our earnings, cash flows, financial condition, or results of operations.

The geopolitical situation continues to cause transportation risks for Inkai, which impacted our shipments of finished product from JV Inkai in 2022. We may experience delays in our expected deliveries for Inkai from 2022 and for 2023. To mitigate this risk, we have inventory, long-term purchase agreements and loan arrangements in place we can draw on. Depending on when we receive shipments of our share of Inkai's production, our share of earnings from this equity-accounted investee and the timing of the receipt of our share of dividends from JV Inkai may be impacted.

Infrastructure

Mining, processing, development, and exploration can only be successful with adequate infrastructure. Reliable roads, bridges, power sources and water supply are important factors that affect capital and operating costs and the ability to produce and deliver products on a timely basis.

Our activities could be negatively affected if climate change, unusual weather, interference from communities, government or others, aging, sabotage, or other causes affect the quality or reliability of the infrastructure.

A lack of adequate infrastructure could have a material and adverse effect on our earnings, cash flows, financial condition, or results of operations.

Permitting and licensing

All mining projects and processing facilities around the world require government approvals, licences, or permits, and operations and development projects in Canada, the US, Kazakhstan, and Australia are no exception. Depending on the

location of the project, this can be a complex and time-consuming process involving multiple government agencies. We also require governmental permits to export and transport our products.

Many approvals, licences and permits must be obtained from regulatory authorities and maintained, but there is no assurance that they will grant or renew them, approve any additional licences or permits for potential changes to operations in the future or in response to new legislation, or that they will process any of the applications on a timely basis. Stakeholders, like environmental groups, non-government organizations (NGOs) and Indigenous groups claiming rights to traditional lands, can raise legal challenges. A significant delay in obtaining or renewing the necessary approvals, licences or permits, or failure to receive the necessary approvals, licences or permits, could interrupt operations, or prevent them from operating, or disrupt the transportation and sale of our products, which could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations, or prospects.

Public health issues and disease outbreaks

Our business and results of operations are subject to uncertainties arising out of public health issues. A local, regional, national, or international outbreak of an illness or contagious disease, such as a pandemic like COVID-19, could result in a general or acute decline in economic activity in the regions where our customers reside, where we operate in or hold assets in, production and transport delays, and general business interruptions. In addition, these risks could result in an increase in the cost of supplies and equipment, delays from difficulties in obtaining export or import licenses, tariffs and other barriers and restrictions, a decrease in the willingness of the general population to travel, staff shortages, mobility restrictions and other quarantine measures, supply shortages, increased government regulation, and the quarantine or contamination of one or more of our operating sites or buildings. Any such events could have a material and adverse impact on our business, financial condition, and results of operations.

In 2020 and 2021, our operations were impacted because of precautionary production suspensions due to the COVID-19 pandemic. Production at Cigar Lake was suspended between March and September 2020, and for a subsequent period between December 2020 and April 2021.

There were disruptions to the supply chain worldwide due to the COVID-19 pandemic. 2021 planned production from our fuel services operations was impacted by hydrogen supply issues.

Fuel fabrication defects and product liability

We fabricate nuclear fuel bundles, other reactor components, and monitoring equipment. These products are complex and may have defects that can be detected at any point in their product life cycle. Flaws in the products could materially and adversely affect our reputation, which could result in a significant cost to us and have a negative effect on our ability to sell our products in the future. We could also incur substantial costs to correct any product errors, which could have an adverse effect on our operating margins. While we have introduced significant automation to limit the potential for quality issues, there is no guarantee that we will detect all defects or errors in our products.

It is possible that some customers may demand compensation if we deliver defective products. If there are a significant number of product defects, it could have a significant impact on our operating results.

Agreements with some customers may include specific terms limiting our liability to customers. Even if there are limited liability provisions in place, existing or future laws, or unfavourable judicial decisions may make them ineffective. We have not experienced any material product liability claims to date, however, they could occur in the future because of the nature of nuclear fuel products. A successful product liability claim could result in significant monetary liability and could seriously disrupt our fuel manufacturing business and the company overall.

2 – Financial risks

Volatility and sensitivity to prices

We are concentrated in the nuclear fuel business, with our primary focus on uranium mining. As such, our earnings and cash flow are closely related to, and sensitive to, fluctuations in the spot and long-term market prices of U₃O₈ and uranium conversion services.

Many factors beyond our control affect these prices, including the following, among others:

- demand for nuclear power and the rate of construction of nuclear power plants
- timing and volume of demand for uranium and conversion services
- forward contracts of U₃O₈ supplies for nuclear power plants
- accidents in any part of the world affecting the nuclear industry in a specific region or in general, such as the March 11, 2011 accident at Fukushima Dai-ichi Nuclear Power Plant in Japan
- terrorist attacks on uranium mining, transport, or production or on nuclear power plants
- war and civil disturbances (including the ongoing conflict between Russia and Ukraine)
- uncertain legal, political, and economic environments
- political and economic conditions in countries producing and buying uranium
- government laws, policies, and decisions, including trade restrictions and sanctions
- reprocessing of used reactor fuel and the re-enrichment of depleted uranium tails
- uranium from underfeeding generated using excess enrichment capacity
- sales of excess civilian and military inventories of uranium by governments and industry participants
- levels of uranium production and production costs
- significant production interruptions or delays in expansion plans or new mines going into production
- actions of investment and hedge funds in the uranium market
- transactions by speculators and producers
- prices of alternate sources to nuclear power, including oil, natural gas, coal, hydroelectric, solar and wind

We cannot predict the effect that any one or all of these factors will have on the prices of U₃O₈ and uranium conversion services.

Prices have fluctuated widely in the last several years, though have seen recovery in 2022 with long term U₃O₈ prices now approaching levels seen before the March 11, 2011 accident at Fukushima. We have experienced difficult uranium markets, which have adversely impacted our financial condition and prospects, though the recent price trend has been positive.

The table below shows the range in spot prices over the last five years.

Range of spot uranium prices					
\$US/lb of U ₃ O ₈					
	2018	2019	2020	2021	2022
High	\$29.10	\$28.90	\$33.93	\$45.75	\$58.20
Low	21.00	24.05	24.63	27.98	43.08

Spot UF₆ conversion values					
\$US/kg U					
	2018	2019	2020	2021	2022
High	\$13.50	\$22.13	\$22.50	\$21.75	\$40.00
Low	6.13	13.75	21.50	16.10	16.25

The next table shows the range in term prices over the last five years.

Range of long-term uranium prices					
\$US/lb of U ₃ O ₈					
	2018	2019	2020	2021	2022
High	\$32.00	\$32.50	\$36.00	\$43.00	\$52.00
Low	29.00	31.00	32.50	33.50	42.88

Term UF₆ conversion values					
\$US/kg U					
	2018	2019	2020	2021	2022
High	\$16.00	\$18.13	\$19.00	\$19.00	\$27.25
Low	12.25	15.50	18.00	18.00	18.50

Notes:

- Spot and long-term uranium prices are the average of prices published monthly by UxC, LLC (UxC) and from The Nuexco Exchange Value, published by TradeTech.
- Spot and term UF₆ conversion values are the average of the North American prices published monthly by UxC and from The Nuexco Conversion Value, published by TradeTech.

If prices for U₃O₈ or uranium conversion services fall below our own production costs for a sustained period, continued production or conversion at our sites may cease to be profitable and we may have to change our operating plans. This would have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects. We have been impacted by low U₃O₈ prices in the past. In 2016, we suspended production at Rabbit Lake and curtailed production at our US mines and in 2018, we suspended production at our McArthur River and Key Lake operations and reduced our dividend.

Declines in U₃O₈ prices could also delay or deter a decision to build a new mine or begin commercial production once constructed, or adversely affect our ability to finance our operations, as well necessitate a decision to cut production volumes further for an extended period. Any of these events could have an adverse effect on our future earnings, cash flows, financial condition, results of operations, or prospects.

A sustained decline in U₃O₈ prices may require us to write down our mineral reserves and mineral resources, and any significant write downs may lead to material write downs of our investment in the mining properties affected, and an increase in charges for amortization, reclamation, and closures.

In our uranium segment, we use a uranium contracting strategy to reduce volatility in our future earnings and cash flow from exposure to fluctuations in uranium prices. It involves building a portfolio that consists of base-escalated contracts and market-related contracts with terms of 5 to 10 years (on average). This strategy can create opportunity losses because we may not benefit fully if there is a significant increase in U₃O₈ prices. This strategy also creates currency risk since we receive payment under the majority of our sales contracts in US dollars. In addition, this strategy has provided us with a measure of protection for our business from the low uranium prices experienced since 2011. At year end, the annual average sales commitments in our contract portfolio over the next five years in our uranium segment is 21 million pounds, with commitment levels in 2023 through 2025 higher than average and in 2026 and 2027 lower than average. As a result, we may become more exposed to fluctuations in uranium prices and this could have an adverse effect on our future earnings, cash flows, financial condition, results of operations or prospects. There is no assurance that our contracting strategy will be successful.

We make purchases on the spot market and under long-term agreements to supplement our production and supply our contracts. There are, however, risks associated with these purchases, including the risk of losses, which could have an adverse effect on our earnings, cash flows, financial condition, or results of operations.

Reserve, resource, production, capital and operating cost estimates

Reserve and resource estimates are not precise

Our mineral reserves and resources are the foundation of our uranium mining operations and are fundamental to our success.

The uranium mineral reserves and resources reported in this AIF are estimates and are therefore subjective and subject to numerous inherent uncertainties. There is no assurance that the indicated tonnages or grades of uranium will be mined or milled or that we will receive the uranium price we used in estimating these reserves.

While we believe that the mineral reserve and resource estimates included in this AIF are well established and reflect management's best estimates, reserve and resource estimates, by their nature, are imprecise, do not reflect exact quantities and depend to a certain extent on statistical inferences that may ultimately prove unreliable. The tonnage and grade of reserves we actually recover, and rates of production from our current mineral reserves, may be less than our estimates. Fluctuations in the market price of uranium and changing exchange rates and operating and capital costs can make reserves uneconomic to mine in the future and ultimately cause us to reduce our reserves.

Short-term operating factors relating to mineral reserves, like the need for orderly development of orebodies or the processing of different ore grades, can also prompt us to modify reserve estimates or make reserves uneconomic to mine in the future, and can ultimately cause us to reduce our reserves. Reserves also may have to be re-estimated based on actual production experience.

Mineral resources may be upgraded to proven or probable mineral reserves if they demonstrate profitable recovery. Estimating reserves or resources is always affected by economic and technological factors, which can change over time, and experience in using a particular mining method. There is no assurance that any resource estimate will ultimately be upgraded to proven or probable reserves. If we do not obtain or maintain the necessary permits or government approvals, or there are changes to applicable legislation, it could cause us to reduce our reserves.

Mineral resource and reserve estimates can be uncertain because they are based on data from limited sampling and drilling and not from the entire orebody. As we gain more knowledge and understanding of an orebody, the resource and reserve estimate may change significantly, either positively or negatively.

The reliability of resource and reserve estimates is highly dependent upon the accuracy of the assumptions upon which they are based and the quality of information available. These assumptions may prove to be inaccurate.

If our mineral reserve or resource estimates for our uranium properties are inaccurate or are reduced in the future, it could:

- require us to write down the value of a property
- result in lower uranium concentrate production than previously estimated
- result in lower revenue than previously estimated
- require us to incur increased capital or operating costs, or
- require us to operate mines or facilities unprofitably

This could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations, or prospects.

Production, capital and operating cost estimates may be inaccurate

We establish our operating and capital plans based on the information we have at the time, including expert opinions. There is no assurance, however, that these plans will not change as new information is available or there is a change in expert opinion.

Studies we use may contain estimated capital and operating costs, production and economic returns and other estimates that may be significantly different than actual results.

We prepare estimates of future production, capital costs and operating costs for particular operations, but there is no assurance we will achieve these estimates. Estimates of expected future production, capital costs and operating costs are inherently uncertain, particularly beyond one year, and could change materially over time.

Production, capital cost and operating cost estimates for:

- McArthur River/Key Lake assume that development, mining, milling, and production plans proceed as expected
- Cigar Lake assume that development, mining, milling, and production plans proceed as expected
- Inkai assume that development, mining, and production plans proceed as expected

Production estimates for uranium refining, conversion and fuel manufacturing assume there is no disruption or reduction in supply from us or third-party sources, and that estimated rates and costs of processing are accurate, among other things.

Our actual production and costs may vary from estimates for a variety of reasons, including, among others:

- actual ore mined varying from estimated grade, tonnage, dilution, metallurgical and other characteristics
- mining and milling losses greater than planned
- short-term operating factors relating to the ore, such as the need for sequential development of orebodies and the processing of new or different ore grades
- risks and hazards associated with mining, milling, uranium refining, conversion and fuel manufacturing
- failure of mining methods and plans
- failure to obtain and maintain the necessary regulatory and participant approvals
- difficulties in milling McArthur River ore at Key Lake
- development, mining, or production plans for Cigar Lake are delayed or do not succeed for any reason
- difficulties in milling Cigar Lake ore at McClean Lake
- development, mining, or production plans for Inkai are delayed or do not succeed for any reason
- interruptions in the supply of electricity, water, and other utilities or infrastructure
- delays, interruption or reduction in production or construction activities due to fires, failure or unavailability of critical equipment, shortage of

- natural phenomena, such as forest fires, floods, or earthquakes as well as shifts in temperature, precipitation, and the impact of more frequent severe weather condition as the result of climate change
- labour shortages or strikes
- development, mining, or production plans for McArthur River are delayed or do not succeed for any reason

supplies, underground floods, earthquakes, tailings dam failures, lack of tailings capacity, ground movements and cave-ins, outbreak of illness (such as a pandemic like COVID-19), cyber-attacks, or other difficulties

Operating costs may also be affected by a variety of factors including changing waste to ore ratios, ore grade metallurgy, mine and mill recoveries, labour costs, costs of supplies and services (for example, fuel and power), general inflationary pressures, and currency exchange rates, and increasing regulatory burdens.

Failure to achieve production or cost estimates or a material increase in costs could have a material and adverse effect on our earnings, cash flows, financial condition, or results of operations.

Market price volatility

The company's common shares are listed on the TSX and the NYSE. The price of our common shares may be significantly affected by factors unrelated to our performance, including the following:

- market risk and sentiment
- legal, political, and economic environments factors
- energy prices
- a reduction in analytical coverage of us by investment banks with research capabilities
- a drop in trading volume and general market interest in our securities may adversely affect an investor's ability to liquidate an investment and consequently an investor's interest in acquiring a significant stake in us
- our failure to meet the reporting and other obligations under Canadian and US securities laws or imposed by the exchanges could result in a delisting of our common shares from the TSX or NYSE

As a result of any of these factors, the market price of our common shares may increase or decline even if our operating results, underlying asset values or prospects have not changed. This may cause decreases in asset values that are deemed to be non-temporary, which may result in impairment losses. There can be no assurance that continuing fluctuations in price and volume will not occur. If such increased levels of volatility and market turmoil continue, our operations could be adversely impacted, and the trading price of our common shares may be materially adversely affected.

Currency fluctuations

Our earnings and cash flow may also be affected by fluctuations in the exchange rate between the Canadian and US dollar. We sell the majority of our uranium and fuel services products under long-term sales contracts, which are routinely denominated in US dollars. Our product purchases are denominated in US dollars while our production costs are largely denominated in Canadian dollars. In addition, our purchases of uranium are primarily denominated in US dollars. Our consolidated financial statements are expressed in Canadian dollars.

Any fluctuations in the exchange rate between the US dollar and Canadian dollar can result in favourable or unfavourable foreign currency exposure, which can have a material effect on our future earnings, cash flows, financial condition or results of operations, as has been the case in the past. While we use a hedging program to limit any adverse effects of fluctuations in foreign exchange rates, there is no assurance that these hedges will eliminate any potential material negative impact of fluctuating exchange rates.

Interest Rate Changes

Our exposure to changes in interest rates results from investing and borrowing activities undertaken to manage our liquidity and capital requirements. While we use a hedging program to limit any adverse effects of fluctuations in interest rates, there is no assurance that these hedges will eliminate any potential material negative impact of fluctuating interest rates.

Customers

Our main business relates to the production and sale of uranium concentrates (our uranium segment) and providing uranium conversion services (our fuel services segment). We rely heavily on a small number of customers to purchase a significant portion of our uranium concentrates and conversion services.

At December 31, 2022:

- in our uranium segment, our five largest customers account for 56% of our contracted supply of U₃O₈
- in our fuel services segment, our five largest UF₆ conversion customers account for 59% of our contracted supply of UF₆ conversion services

We are a supplier of UO₂ used by Canadian CANDU heavy water reactors. Our sales to our largest customer accounted for 51% of our UO₂ sales in 2022. In addition, revenues in 2022 from our two largest customers of our uranium and conversion segments represented \$260 million or approximately 21% of our total revenues from those segments.

Sales for the Bruce A and B reactors represent a substantial portion of our fuel manufacturing business.

If we lose any of our largest customers, if any of them curtails their purchases, or if we are unable to transport our products to them, it could have a material and adverse effect on our earnings, cash flows, financial condition or results of operations.

Counterparty and credit risk

Our business operations expose us to the risk of counterparties not meeting their contractual obligations, including:

- customers
- suppliers
- financial institutions and other counterparties to our derivative financial instruments and hedging arrangements relating to foreign currency exchange rates and interest rates
- financial institutions which hold our cash on deposit and through which we make short-term investments
- insurance providers

Credit risk is the risk that counterparties will not be able to pay for services provided under the terms of the contract. If a counterparty to any of our significant contracts defaults on a payment or other obligation or becomes insolvent, it could have a material and adverse effect on our cash flows, earnings, financial condition, or results of operations.

Uranium products, conversion and fuel services

In our uranium and fuel services segments, we manage the credit risk of our customers for uranium products, conversion, and fuel services by:

- monitoring their creditworthiness
- asking for pre-payment or another form of security if they pose an unacceptable level of credit risk

As of December 31, 2022, 92% of our forecast revenue under contract for the period 2023 to 2025 is with customers whose creditworthiness meets our standards for unsecured payment terms.

Other

We manage the credit risk on our derivative and hedging arrangements, cash deposits and insurance policies by dealing with financial institutions and insurers that meet our credit rating standards and by limiting our exposure to individual counterparties.

We diversify or increase inventory in our supply chain to limit our reliance on a single contractor, or limited number of contractors. We also monitor the creditworthiness of our suppliers to manage the risk of suppliers defaulting on delivery commitments.

There is no assurance, however, that we will be successful in our efforts to manage the risk of default or credit risk.

Liquidity and financing

Liquidity, or access to funds, is essential to our business.

Nuclear energy and mining are extremely capital-intensive businesses, and companies need significant ongoing capital to maintain and improve existing operations, invest in large scale capital projects with long lead times, and manage uncertain development and permitting timelines and the volatility associated with fluctuating uranium and input prices.

We believe our current financial resources are sufficient to support projects planned for 2023. We have a number of alternatives to fund future capital requirements, including using our operating cash flow, drawing on our cash balances, drawing on existing credit facilities, entering new credit facilities, and raising additional capital through debt or equity financings.

There is no assurance that we will obtain the financing we need when needed. Volatile uranium markets, a claim against us, an adverse court or arbitration decision, a significant event disrupting our business or operations, or other factors, may make it difficult or impossible for us to obtain debt or equity financing on favourable terms, or at all.

A lack of liquidity could result in a delay or postponement of any or all of our exploration, development or other growth initiatives, or could otherwise have a material adverse impact on our financial condition.

Decommissioning and reclamation obligations

Environmental regulators are demanding more and more financial assurances so that the parties involved, and not the government, bear the cost of decommissioning and reclaiming sites. Our North American operations have financial assurances in place in connection with our preliminary plans for decommissioning of the sites.

We have filed conceptual decommissioning plans for some of our properties with the regulators. We review these plans for Canadian facilities every five years, or at the time of an amendment or renewal of an operating licence. Plans for our US sites are reviewed every year. Regulators review our conceptual plans on a regular basis. As the sites approach or go into decommissioning, regulators review the detailed decommissioning plans, and this can lead to additional requirements, costs, and financial assurances. It is not possible to predict what level of decommissioning and reclamation and financial assurances regulators may require in the future.

If we must comply with additional regulations, or the actual cost of decommissioning and reclamation in the future is significantly higher than our current estimates, this could have a material and adverse effect on our earnings, cash flows, financial condition, or results of operations.

Carrying values of assets

We evaluate the carrying value of our assets to decide whether current events and circumstances indicate if we can recover the carrying amount. This involves comparing the estimated fair value of our reporting units to their carrying values.

We base our fair value estimates on various assumptions, however, the actual fair values can be significantly different than the estimates. If we do not have any mitigating valuation factors or experience a decline in the fair value of our reporting units, it could ultimately result in an impairment charge.

Dilution of common shares

We are authorized to issue an unlimited number of common shares, of which 432,518,470 were issued and outstanding as of December 31, 2022. Future issuances for financings, acquisitions, reorganizations, amalgamations, and other transactions, may result in significant dilution to our common shares, and these issuances may be at prices substantially below the price paid for our common shares by our existing shareholders. Significant dilution would reduce the proportionate ownership and voting power held by our existing shareholders and may result in a decrease in the market price of our common shares.

3 – Governance and compliance risks

Litigation

We are currently subject to litigation or threats of litigation and may be involved in disputes with other parties in the future that result in litigation. This litigation may involve joint venture participants, suppliers, customers, governments, regulators, tax authorities, or other persons.

We cannot accurately predict the outcome of any litigation. The costs of defending or settling litigation can be significant. If a dispute cannot be resolved favourably, it may have a material and adverse effect on our earnings, cash flows, financial condition, results of operations, or prospects. See Legal proceedings on page 126 more information.

We are currently involved in a tax dispute with CRA and in 2017 settled a dispute with the IRS. See *Transfer pricing dispute* at pages 93 and 94. In addition, we are subject to the risk that CRA, the IRS or other tax authorities in other countries may seek to challenge or reassess our income tax returns on the same or a different basis for the same periods or other previously reported periods. Substantial success for CRA in the tax dispute would be material, and other unfavourable outcomes of challenges or reassessments initiated by the IRS or tax authorities in other countries could be material to our cash flows, financial condition, results of operations or prospects.

Joint ventures

We participate in McArthur River, Key Lake, Cigar Lake, Inkai, Millennium, and GLE through joint ventures with third parties, and, subject to closing, will participate in Westinghouse through a joint venture with third parties. Some of these joint ventures are unincorporated and some are incorporated (like JV Inkai, GLE and Westinghouse). We have other joint ventures and may enter more in the future.

There are risks associated with joint ventures, including:

- disagreement with a joint venture participant about how to develop, operate or finance a project
- a joint venture participant not complying with a joint venture agreement
- possible litigation or arbitration between joint venture participants about joint venture matters
- the inability to exert control over decisions related to a joint venture we do not have a controlling interest in

The other owner of JV Inkai is KAP, an entity majority owned by the government of Kazakhstan, so its actions and priorities could be dictated by government policies instead of commercial considerations.

These risks could result in legal liability, affect our ability to develop or operate a project under a joint venture, or have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

Government laws and regulations

In addition to laws and regulations relating to the protection of the environment, employee health and safety, and waste management (see *Environmental risks*), our business activities are subject to extensive and complex laws and regulations in other areas.

There are laws and regulations for uranium exploration, development, mining, milling, refining, conversion, fuel manufacturing, transport, exports, imports, taxes and royalties, labour standards, occupational health, waste disposal, protection, and remediation of the environment, decommissioning and reclamation, safety, hazardous substances, emergency response, land use, water use and other matters.

Significant financial and management resources are required to comply with these laws and regulations, and this will likely continue as laws and government regulations become more and more strict. We are unable to predict the ultimate cost of compliance or its effect on our business because legal requirements change frequently, are subject to interpretation, and may be enforced to varying degrees.

Some of our operations are regulated by government agencies that exercise discretionary powers conferred by statute. If these agencies do not apply their discretionary authority consistently, then we may not be able to predict the ultimate cost of complying with these requirements or their effect on operations.

Existing, new, or changing laws, regulations and standards of regulatory enforcement could disrupt transportation of our products, increase costs, lower, delay or interrupt production, or affect decisions about whether to continue with existing operations or development projects. This could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations, or prospects.

If we do not comply with the laws and regulations that apply to our business, or it is alleged we do not comply, then regulatory or judicial authorities could take any number of enforcement actions, including:

- corrective measures that require us to increase capital or operating expenditures or install additional equipment

- remedial actions that result in temporary or permanent shut-down or reduction of our operations
- requirements that we compensate communities that suffer loss or damage because of our activities
- civil or criminal fines or penalties

Legal and political circumstances are different outside North America, which can change the nature of regulatory risks in foreign jurisdictions when compared with regulatory risks associated with operations in North America.

Internal controls over financial reporting

We use internal controls over financial reporting to provide reasonable assurance that we authorize transactions, safeguard assets against improper or unauthorized use, and record and report transactions properly. This gives us reasonable assurance that our financial reporting is reliable and prepared in accordance with IFRS.

It is impossible for any system to provide absolute assurance or guarantee reliability, regardless of how well it is designed or operated. We continue to evaluate our internal controls to identify areas for improvement and provide as much assurance as reasonably possible. We conduct an annual assessment of our internal controls over financial reporting and produce an attestation report of their effectiveness by our independent auditors to meet the requirement of Section 404 of the *Sarbanes-Oxley Act of 2002*.

If we do not satisfy the requirements for internal controls on an ongoing, timely basis, it could negatively affect investor confidence in our financial reporting, which could have an impact on our business and the trading price of our common shares. If a deficiency is identified and we do not introduce new or better controls, or have difficulty implementing them, it could harm our financial results or our ability to meet reporting obligations.

Anti-bribery and anti-corruption laws

We are subject to anti-bribery and anti-corruption laws, including the *Corruption of Foreign Public Officials Act* (Canada) and the United States *Foreign Corrupt Practices Act of 1977*. Failure to comply with these laws could subject us to, among other things, reputational damage, civil or criminal penalties, other remedial measures and legal expenses which could adversely affect our business, results from operations, and financial condition. It may not be possible for us to ensure compliance with anti-bribery and anti-corruption laws in every jurisdiction in which our employees, agents, sub-contractors or joint venture partners are located or may be located in the future.

4 – Social risks

Defects in title

We have investigated our rights to explore and mine our material properties, and those rights are in good standing to our knowledge. There is no assurance, however, that these rights will not be revoked or significantly altered to our detriment, or that our rights will not be challenged by third parties, including local governments and by Indigenous groups, such as First Nations and Métis in Canada.

Relationships with Indigenous peoples and local communities

Our ability to foster and maintain the support of local communities and governments for our development projects and operations is critical to the conduct and growth of our business, and we do this by engaging in dialogue and consulting with them about our activities and the social and economic benefits they will generate. There is no assurance, however, that this support can be fostered or maintained. There is an increasing focus on ensuring that appropriate ESG policies, programs and policies are in place to manage nuclear energy and mining activities to protect the environment and communities affected by the activities. Some NGOs are vocal critics of the nuclear energy and mining industries, and oppose globalization, nuclear energy, and resource development. Adverse publicity generated by these NGOs or others, related to the nuclear energy industry or the extractive industry in general, or our operations in particular, could have an adverse effect on our reputation or financial condition and may affect our relationship with the communities we operate in. While we are committed to operating in a socially responsible way, there is no guarantee that our efforts will mitigate this risk.

Indigenous rights, title claims, engagement and consultation

Managing Indigenous rights, title claims, engagement and related consultation is an integral part of our exploration, development, and mining activities, and we are committed to managing them effectively. We have signed agreements with

the communities closest to our Canadian mining operations to help mitigate the risks associated with potential Indigenous land or consultation claims that could impact our Canadian mining operations. These agreements provide substantial socioeconomic opportunities to these communities and are intended to provide us with support for these operations from those communities. There is no assurance, however, that we will not face material adverse consequences because of the legal and factual uncertainties inherent with Indigenous rights, title claims and consultation.

Exploration, development, mining, milling and decommissioning activities at our various properties in Saskatchewan may be affected by claims by Indigenous groups, and related consultation issues. We also face similar issues with our activities in other provinces and countries.

It is generally acknowledged that under historical treaties, First Nations in northern Saskatchewan ceded title to most traditional lands in the region in exchange for treaty benefits and reserve lands. Some First Nations in Saskatchewan, however, assert that their treaties are not an accurate record of their agreement with the Canadian government and that they did not cede title to the minerals when they ceded title to their traditional lands. Further, the *United Nations Declaration on the Rights of Indigenous Peoples Act* (UNDRIP) came into force on June 21, 2021, which creates some additional risk for future activities. UNDRIP requires that an action plan setting out how the objectives of the Declaration will be achieved be tabled by June 21, 2023. The action plan may provide further clarity for future activities.

5 – Environmental risks

Complex legislation and environmental, health and safety risk

Our activities have an impact on the environment, so our operations are subject to extensive and complex laws and regulations relating to the protection of the environment, employee health and safety, and waste management. We also face risks that are unique to uranium mining, processing, and fuel manufacturing. Laws to protect the environment as well as employee health and safety are becoming more stringent for members of the nuclear energy industry.

Our facilities operate under various operating and environmental approvals, licences, and permits that have conditions that we must meet as part of our regular business activities. In a number of instances, our right to continue operating these facilities depends on our compliance with these conditions.

Our ability to obtain approvals, licences, and permits, maintain them, and successfully develop and operate our facilities may be adversely affected by the real or perceived impact of our activities on the environment and human health and safety at our development projects and operations and in surrounding communities. The real or perceived impact of activities of other nuclear energy or mining companies can also have an adverse effect on our ability to secure and maintain approvals, licences and permits.

Our compliance with laws and regulations relating to the protection of the environment, employee health and safety, and waste management requires significant expenditures, and can cause delays in production or project development. This has been the case in the past and may be so in the future. Failing to comply can lead to fines and penalties, temporary or permanent suspension of development and operational activities, clean-up costs, damages, and the loss of, or the inability to obtain, key approvals, permits, and licences. We are exposed to these potential liabilities for our development projects and operations as well as our closed operations. There is no assurance that we have been or will be in full compliance with all these laws and regulations, or with all the necessary approvals, permits, and licences.

These risks could delay or interrupt our operations or project development activities, delay, interrupt or lower our production, and could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

Treated water releases

Responsible management of water is critical to our business success. At our Canadian operations, treated water releases are monitored and studies are conducted to monitor conditions in the downstream receiving environment. However, changes in ore chemistry, identification of a new elements of concern, changes in regulatory requirements or other issues, may result in additional costs and regulatory action, and could also require installation of new water treatment facilities. The occurrence of one or more of these events could have a material and adverse effect on our earnings, cash flows, financial condition, or results of operations.

Air emissions at Port Hope Conversion Facility

At the Port Hope Conversion Facility, the main stacks for UF₆ and UO₂ are continuously monitored and have discharge limits in place, which are monitored while the plants are operational. A large-scale process failure or catastrophic accident has potential to significantly impact the surrounding community and have other consequences, including constraining production, regulatory action, and environmental damage. The occurrence of one or more of such events could have a material and adverse effect on our earnings, cash flows, financial condition, or results of operations.

6 – Strategic risks

Major nuclear incident risk

Due to their inherent materiality, major accidents in the nuclear industry, and most notably at nuclear power plants, such as the Chernobyl nuclear power plant accident of 1986 in the Soviet Union and the accident in 2011 at the Fukushima-Daiichi nuclear power plant in Japan, garner significant worldwide attention and spawn global public sentiment favouring more significant regulation for nuclear power generation. For example, following the accident at Fukushima, certain countries, including Germany, Switzerland and Belgium, announced their intention to phase out nuclear power. As of December 31, 2022, Germany had shut down 14 of its 17 nuclear reactors. The remaining three reactors were extended until at least mid-April 2023, keeping them online due to energy concerns. Prior to the accident in 2011 at Fukushima, Japan had 54 nuclear reactors, which represented 12% of global nuclear generating capacity. As of December 31, 2022, Japan has restarted 10 reactors. The effect of the 2011 accident at the Fukushima-Daiichi nuclear power plant on the uranium market has had a material and adverse effect on our earnings, cash flows, financial condition, results of operations, and prospects.

Another major accident at a nuclear power plant, or a similar disaster related to the nuclear industry, including as the result of the military conflict between Russia and Ukraine, could lead to more countries adopting increasingly stringent safety regulations in the nuclear industry, cause the public sentiment to shift more in favour of phasing-out nuclear power, and reverse or halt the recent positive trend towards nuclear power. The reaction to any such major accident could be significantly more severe and may result in a rapid global abandonment of nuclear power generation. Any such event may result in, among other things, a significant reduction in the demand for uranium and the resulting decline in the price of uranium.

Another major accident at a nuclear power plant, or a similar disaster related to the nuclear industry, could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations, and prospects.

Public acceptance of nuclear energy is uncertain

Maintaining the demand for uranium at current levels and achieving any growth in demand in the future will depend on society's acceptance of nuclear technology as a means of generating electricity and pursuing carbon reduction. Because of unique political, technological, and environmental factors affecting the nuclear industry, including public attention following the 2011 accident at Fukushima in Japan, the industry is subject to public opinion risks that could have a material adverse impact on the demand for nuclear power and increase the regulation of the nuclear power industry.

A major shift in public opinion, whether due to an accident at a nuclear power plant, changing views regarding the pursuit of carbon reduction strategies, or other causes, could impact the continuing acceptance of nuclear energy and the future prospects for nuclear power generation, which could have a material adverse effect on our earnings, cash flows, financial condition, results of operations, or prospects.

In addition, we may be impacted by changes in regulation and public perception of the safety of nuclear power plants, which could adversely affect the construction of new plants, the re-licensing of existing plants, the demand for uranium and the future prospects for nuclear generation. These events could have a material adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

Industry concentration risk

We are concentrated in the nuclear fuel business, with our primary focus on uranium mining. As such, we are sensitive to changes in, and our performance and future prospects, will depend to a greater extent on, the overall condition of the nuclear energy industry and the public acceptance of nuclear energy. We may be susceptible to increased risks, compared

to diversified metals trading companies or diversified mining companies, as a result of the fact that our operations are concentrated in the nuclear fuel business.

Because we derive the majority of our revenues from sales of nuclear fuel, our results of operations and cash flows will fluctuate as the price of nuclear fuel increases or decreases. A sustained period of declining nuclear fuel prices would materially and adversely affect our results of operations and cash flows. Additionally, if the market price for nuclear fuel declines or remains at relatively low levels for a sustained period, we may have to revise our operating plans, including reducing operating costs and capital expenditures, terminating, or suspending mining operations at one or more of our properties, and discontinuing certain exploration and development plans. We have been impacted by the sustained period of low prices. In a sustained period of low prices, we may be unable to decrease our costs in an amount sufficient to offset reductions in revenues and may incur losses. See *Financial risks – Volatility and sensitivity to prices* on page 104.

Mine concentration risk

Our main sources of uranium production are mines at Cigar Lake and McArthur River and our interest in JV Inkai.

In 2023, our share of planned Cigar Lake production is 9.8 million pounds. Cigar Lake production is milled at the McClean Lake mill operated by Orano. There is a risk to our Cigar Lake production plan if the McClean Lake is unable to mill Cigar Lake production.

In 2023, our share of planned McArthur River production is 10.5 million pounds and we have announced plans to produce 18 million pounds per year (100% basis) by 2024. McArthur River production is milled at the Key Lake mill we operate. There is uncertainty regarding the timing of a successful ramp up to planned production. See *McArthur River mine and Key Lake mill ramp up* on page 100.

We own a 40% interest in JV Inkai and have the right to purchase production from the Inkai mine (in 2023 we are entitled to purchase 4.2 million pounds due to an adjustment to our purchase entitlement under the implementation agreement (see *2023 Production* on page 61).

Any disruption in or reduction in production from one or more of these mines could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

Environmental Regulatory Uncertainty

Laws and regulations on the environment, employee health and safety, and waste management continue to evolve, and this can create significant uncertainty around the environmental, employee health and safety, and waste management costs we incur. If new legislation and regulations are introduced in the future, then they could lead to additional capital and operating costs, restrictions and delays at existing operations or development projects, and the extent of any of these possible changes cannot be predicted in a meaningful way.

Environmental and regulatory review is a long and complex process that can delay the opening, modification or expansion of a mine, conversion facility or refining facility, or extend decommissioning activities at a closed mine or other facility.

These risks could delay or interrupt our operations or project development activities, delay, interrupt or lower our production, and could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

Alternate sources of energy

Nuclear energy competes with other sources of energy like oil, natural gas, coal, hydroelectric, solar and wind. These sources are somewhat interchangeable with nuclear energy, particularly over the longer term and sustained lower prices for these energy sources may result in lower demand for nuclear energy and consequently reduction in demand for uranium and uranium prices.

A major shift in the power generation industry towards non-nuclear power or non-uranium based sources of nuclear energy, whether due to lower cost of power generation associated with such sources, government policy decisions, or otherwise, could have a material adverse effect on our earnings, cash flows, financial condition, results of operations, or prospects.

Industry competition and international trade restrictions

The international uranium industry, which includes supplying uranium concentrates and uranium conversion services, is highly competitive. We directly compete with a relatively small number of uranium mining and enrichment companies in the world. Their supply may come from mining uranium, excess inventories, including inventories made available from decommissioning of nuclear weapons, reprocessed uranium and plutonium derived from used reactor fuel, and from using excess enrichment capacity to re-enrich depleted uranium tails and generate uranium from underfeeding. The number of potential end customers for our uranium products, being utility companies, is relatively scarce.

The supply of uranium is affected by a number of international trade agreements and government legislation and policies. These and any similar future agreements, governmental legislation, policies, or trade restrictions are beyond our control and may affect the supply of uranium available in the US, Europe and Asia, the world's largest markets for uranium.

For conversion services, we compete with a small number of primary commercial suppliers. In addition, we compete with the availability of additional supplies from excess inventories, including those from decommissioning nuclear weapons and using excess enrichment capacity to re-enrich depleted uranium tails.

Any political decisions about the uranium market can affect our future prospects. There is no assurance that the US or other governments will not enact legislation or take other actions that restricts who can buy or supply uranium or facilitates a new supply of uranium.

Technical innovation and obsolescence

Requirements for our products may be affected by technological changes and innovation in nuclear reactors and other uses of uranium. These technological changes could reduce the demand for uranium, which could have a material adverse impact on our future earnings, cash flows, financial condition or results of operations.

Deregulation of the electrical utility industry

A significant part of our future prospects is directly linked to developments in the global electrical utility industry.

Deregulation of the utility industry, particularly in the US, Japan, and Europe, could affect the market for nuclear and other fuels and could lead to the premature shutdown of some nuclear reactors.

Deregulation has resulted in utilities improving the performance of their reactors to record capacity, but there is no assurance this trend will continue.

Deregulation can have a material and adverse effect on our future earnings, cash flows, financial condition or results of operations.

Reputational risks

Damage to our reputation can occur from actual or perceived actions or inactions and a variety of events and circumstances, many of which are out of our control. The growing use of social media to generate, publish and discuss community news and issues and to connect with others has made it significantly easier for individuals and groups to share their opinions of us and our activities, whether accurate or not. We do not control how we are perceived by others. Loss of reputation could result in, among other things, a decrease to the price of our common shares, decreased investor confidence, challenges in maintaining positive relationships with the communities in which we operate and other important stakeholders, and increased risks in obtaining permits or financing for our operations, any of which could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations, or prospects.

Replacement of depleted reserves

Cigar Lake, Inkai and McArthur River mines are currently our main sources of mined uranium concentrates. We must replace mineral reserves depleted by production at these mines to maintain or increase our annual production levels over the long term. Reserves can be replaced by expanding known orebodies, locating new deposits, or making acquisitions. Substantial expenditures are required to establish new mineral reserves. We may not be able to sustain or increase production if:

- we do not identify, discover, or acquire other deposits
- we do not find extensions to existing ore bodies

- we do not convert resources to reserves at our mines or other projects

This could have a material and adverse effect on our ability to maintain production to or beyond currently contemplated mine lives, as well it could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

Although we have successfully replenished reserves in the past through ongoing exploration, development and acquisition programs, there is no assurance that we will be successful in our current or future exploration, development, or acquisition efforts.

Development and expansion projects to sustain production and fuel growth

Our ability to sustain and increase our uranium production depends in part on successfully developing new mines and/or expanding existing operations.

Several factors affect the economics and success of these projects:

- the attributes of the deposit, including its depth, size and grade
- capital and operating costs
- metallurgical recoveries
- the accuracy of reserve estimates
- government regulations
- availability of appropriate infrastructure, particularly power and water
- future uranium prices
- the accuracy of feasibility studies
- acquiring surface or other land rights
- receiving necessary government permits
- receiving necessary stakeholder support

The effect of these factors, either alone or in combination, cannot be accurately predicted and their impact may result in our inability to extract uranium economically from any identified mineral resource.

Generally, development projects have no operating history that can be used to estimate future cash flows. We must invest a substantial amount of capital and time to develop a project and achieve commercial production. A change in costs or construction schedule can affect the economics of a project. Actual costs could increase significantly, and economic returns could be materially different from our estimates. We could fail to obtain the necessary governmental approvals for construction or operation. In any of these situations, a project might not proceed according to its original timing, or at all.

It is not unusual in the nuclear energy or mining industries for new or expanded operations to experience unexpected problems during start-up or ramp-up, resulting in delays, higher capital expenditures than anticipated and reductions in planned production. Production may be insufficient to recover exploration, development, and production costs. Delays, additional costs or reduced or insufficient production could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

There is no assurance we will be able to complete development of new mines, or expand existing operations, economically or on a timely basis.

Uranium exploration is highly speculative

Uranium exploration is highly speculative and involves many risks, and few properties that are explored are ultimately developed into producing mines.

Even if mineralization is discovered, it can take several years in the initial phases of drilling until a production decision is possible, and the economic feasibility of developing an exploration property may change over time. We are required to make a substantial investment to establish proven and probable mineral reserves, to determine the optimal metallurgical process to extract minerals from the ore, to construct mining and processing facilities (in the case of new properties) and to extract and process the ore. We might abandon an exploration project because of poor results or because we feel that we cannot economically mine the mineralization.

Given these uncertainties, there is no assurance that our exploration activities will be successful and result in new reserves to expand or replace our current mineral reserves to maintain or increase our production.

Competition for sources of uranium

There is competition for mineral acquisition opportunities throughout the world, so we may not be able to acquire rights to explore additional attractive uranium mining properties on terms that we consider acceptable.

There is no assurance that we will acquire any interest in additional uranium properties or buy additional uranium concentrates from the decommissioning of nuclear weapons or the release of excess government inventory, that will result in additional uranium concentrates we can sell. If we are not able to acquire these interests or rights, it could have a material and adverse effect on our future earnings, cash flows, financial condition, or results of operations. Even if we do acquire these interests or rights, the resulting business arrangements may ultimately prove not to be beneficial.

Changes in climate conditions and regulatory regime could adversely affect our business and operations

There is significant evidence of the effects of climate change on our planet and an intensifying focus on addressing these issues. We recognize that climate change is a global challenge that may have both favorable and adverse effects on our business in a range of possible ways. Mining and uranium processing operations are energy intensive and result in a carbon footprint either directly or through the purchase of fossil-fuel based electricity. As such, we are impacted by current and emerging policy and regulation relating to green house gas emission levels, energy efficiency, and reporting of climate-change related risks. While some of the costs associated with reducing emissions may be offset by increased energy efficiency, technological innovation, or the increased demand for our uranium and conversion services, the current regulatory trend may result in additional transition costs at some of our operations. A number of government or governmental bodies have introduced or are contemplating regulatory changes in response to the potential impacts of climate change. Where legislation already exists, regulations relating to emissions levels and energy efficiency are becoming more stringent. Changes in legislation and regulation will likely increase our compliance costs.

In addition, the physical risks of climate change may also have an adverse effect at our operations. These may include shifts in temperature and precipitation as well as extreme weather events such as floods, droughts, forest and bush fires, and extreme storms. Such events may occur more frequently. These physical impacts could require us to suspend or reduce production or close operations and could prevent us from pursuing expansion opportunities. These effects may adversely impact the cost, production, and financial performance of our operations.

As mentioned above, in 2022, Cameco completed a physical risk assessment study to deliver an initial forward-looking physical climate risk assessment across our four sites in northern Saskatchewan and identify possible risk management and adaptation options. The next steps for the northern Saskatchewan physical risk assessment are to embed the physical climate risk findings into Cameco's internal risk processes and develop an adaptation action plan for each site in the study. We are targeting the completion of similar assessments for all our majority owned and operated facilities over the next five years. In 2023, we will focus our physical climate risk assessment efforts on our Ontario operations.

We will continue to explore climate change projections for the areas where we operate and those critical to moving supplies and products through our value chain. We will use this information to identify where our existing climate-related acute and chronic risk management practices are expected to remain sufficient in the years to come and where adaptation and other enhancements may be required.

However, we can provide no assurance that efforts to mitigate the risks of climate change will be effective and that physical risks of climate change will not have a material and adverse effect on our earnings, cash flows, financial condition, results of operations, or prospects.

Foreign investments and operations

We do business in countries and jurisdictions outside of Canada and the US, including the developing world. Doing business in these countries poses risks because they have different economic, cultural, regulatory, and political environments. Future economic and political conditions could also cause governments of these countries to change their policies on foreign investments, development and ownership of resources, or impose other restrictions, limitations or requirements that we may not foresee today.

Risks related to doing business in a foreign country can include:

- uncertain legal, political, and economic environments
- strong governmental control and regulation
- lack of an independent judiciary
- war, terrorism, and civil disturbances (including the ongoing conflict between Russia and Ukraine)
- crime, corruption, making improper payments or providing benefits that may violate Canadian or US law or laws relating to foreign corrupt practices
- unexpected changes in governments and regulatory officials
- uncertainty or disputes as to the authority of regulatory officials
- changes in a country's laws or policies, including those related to mineral tenure, mining, imports, exports, tax, duties, and currency
- cancellation or renegotiation of permits or contracts
- exposure to global public health issues (for example, an outbreak of illness like COVID-19)
- disruption in transportation between jurisdictions
- royalty and tax increases or other claims by government entities, including retroactive claims
- expropriation and nationalization
- delays in obtaining necessary permits or inability to obtain or maintain them
- currency fluctuations
- high inflation
- joint venture participants falling out of political favour
- restrictions on local operating companies selling their production offshore
- exchange or capital controls, including restrictions on local operating companies holding US dollars or other foreign currencies in offshore bank accounts
- import and export regulations, including restrictions on the export of uranium
- limitations on the repatriation of earnings
- exposure to different employment practices and labour laws
- increased financing costs

If one or more of these risks occur, it could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

We also risk being at a competitive disadvantage to companies from countries that are not subject to Canadian or US law or laws relating to foreign corrupt practices.

We enter joint venture arrangements with local participants from time to time to mitigate political risk. There is no assurance that these joint ventures will mitigate our political risk in a foreign jurisdiction.

We do not have political risk insurance for our foreign investments, including our investment in JV Inkai.

Kazakhstan

Kazakhstan declared itself independent in 1991 after the dissolution of the Soviet Union. Our investment in JV Inkai is subject to the greater risks associated with doing business in developing countries, which have significant potential for social, economic, political, legal, and fiscal instability. Kazakhstan laws and regulations are complex and still developing and their application can be difficult to predict. The other owner of JV Inkai is KAP, an entity majority owned by the government of Kazakhstan. We have entered into agreements with JV Inkai and KAP intended to mitigate political risk. Among other things, this risk includes the imposition of governmental laws or policies that could restrict or hinder JV Inkai paying us dividends, or selling us our share of JV Inkai production, or that impose discriminatory taxes or currency controls on these transactions. The restructuring of JV Inkai, which took effect January 1, 2018, was undertaken with the objective to better align the interests of Cameco and KAP and includes a governance framework that provides for protection for us as a minority owner of JV Inkai. There can be no assurance we will be successful in managing this risk.

Complex legal regime

JV Inkai has a contract with the Kazakhstan government and was granted licences to conduct mining and exploration activities at Inkai. The licensing regime has long been abolished but licences issued before such abolishment remain valid. JV Inkai's ability to conduct these activities, however, depends on the regulator's view on whether its licences are still valid and other government approvals being granted.

To maintain and increase production at Inkai, JV Inkai needs ongoing support, agreement, and co-operation from KAP and from the Kazakhstan government. Kazakhstan foreign investment, environmental and mining laws and regulations are complex and still developing, so it can be difficult to predict how they will be applied. JV Inkai's best efforts may therefore not always reflect full compliance with the law, and non-compliance can lead to an outcome that is disproportionate to the nature of the breach.

Subsoil law

Amendments to the old subsoil law in 2007 allow the government to reopen resource use contracts in certain circumstances, and in 2009, the Kazakhstan government passed a resolution that classified 231 blocks, including Inkai's blocks, as strategic deposits. The Kazakhstan government re-approved this list in 2011 and in 2018 and Inkai's blocks remain on it. These actions may increase the government's ability to expropriate JV Inkai's properties in certain situations. In 2009, at the request of the Kazakhstan government, JV Inkai amended the resource use contract to adopt a new tax code, even though the government had agreed to tax stabilization provisions in the original contract.

The previous subsoil use law which went into effect in 2010 weakened the stabilization guarantee of the prior law and the current subsoil code contains a significant number of provisions which apply retrospectively. These developments reflect increased political risk in Kazakhstan.

Nationalization

Industries like mineral production are regarded as nationally or strategically important, but there is no assurance they will not be expropriated or nationalized. Government policy can change to discourage foreign investment and nationalize mineral production, or the government can implement new limitations, restrictions, or requirements.

There is no assurance that our investment in Kazakhstan will not be nationalized, taken over or confiscated by any authority or body, whether the action is legitimate or not. While there are provisions for compensation and reimbursement of losses to investors under these circumstances, there is no assurance that these provisions would restore the value of our original investment or fully compensate us for the investment loss. This could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

Government regulations

Our investment in Kazakhstan may be affected in varying degrees by government regulations restricting production, price controls, export controls, currency controls, taxes and royalties, expropriation of property, environmental, mining and safety legislation, and annual fees to maintain mineral properties in good standing. Kazakhstan regulatory authorities exercise considerable discretion in the interpretation and enforcement of local laws and regulations. At times, authorities use this discretion to enforce rights in a manner that is inconsistent with relevant legislation, particularly with respect to licence issuance, renewal, and compliance. Requirements imposed by regulatory authorities may be costly and time-consuming and may result in delays in the commencement, continuation, or expansion of production operations. Regulatory authorities may impose more onerous requirements and obligations than those currently in effect.

There is no assurance that the laws in Kazakhstan which provide protection to investments, including foreign investments, will not be amended, or abolished, or that these existing laws will be enforced or interpreted to provide adequate protection against any or all of the risks described above. There is also no assurance that the resource use contract can be enforced or will provide adequate protection against any or all the risks described above.

See pages 62 to 65 for a more detailed discussion of the regulatory and political environment in Kazakhstan.

Presidential succession and recent instability

The President of Kazakhstan, Nursultan Nazarbayev, was in office since Kazakhstan became an independent republic in 1991 until he resigned on March 20, 2019. He was succeeded by Kassym-Jomart Tokayev. Subsequently Kazakhstan began to experience some instability.

In early January 2022, Kazakhstan saw the most significant instability since it became independent in 1991. The events resulted in a state of emergency being declared across the country. With the assistance of the Collective Security Treaty Organization (CSTO), the government restored order and in the second half of January, the state of emergency was gradually lifted and withdrawal of CSTO forces from Kazakhstan was completed. The early outcome of those events was a number of political and economic reforms declared by the government. While the exact impact of those reforms is unclear, they could potentially impact JV Inkai's operations and costs. In November 2022, President Tokayev was re-elected for a new 7-year term.

There is considerable uncertainty regarding the future political and economic landscape in Kazakhstan, which could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

Australia

Western Australian Government's uranium policy

State governments in Australia have prohibited uranium mining or uranium exploration from time to time. From 2002 to 2008, uranium mining was banned in Western Australia, where our Kintyre and Yeelirrie projects are located. In 2017, the Western Australian state government announced a ban on the grant of future uranium mining leases and that it would not prevent the progress of four uranium projects that had received approval from the previous government, two of the approved projects being Kintyre and Yeelirrie.

The approval received for Kintyre from the prior state government required substantial commencement of the project by March 2020, and this was not achieved. The current government declined to grant us an extension to achieve it. In the future, we can apply for an extension of time to achieve substantial commencement of the project. If granted by a future government we could commence the Kintyre project, provided we have all other required regulatory approvals.

The approval received for Yeelirrie project from the prior state government required substantial commencement of the project by January 2022, and this was not achieved. The current government declined to grant us an extension to achieve it. In the future we can again apply for an extension of time to achieve substantial commencement of the project. If granted by a future government we could commence the Yeelirrie project, provided we have all other required regulatory approvals. Approval for the Yeelirrie project at the federal level was granted in 2019 and extends until 2043.

A prohibition or restriction on uranium exploration or mining in the future that interferes with the development of Kintyre or Yeelirrie could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations, or prospects.

Conflict in Ukraine

On February 24, 2022, Russia commenced a military invasion of Ukraine. In response, many jurisdictions have imposed strict economic sanctions against Russia, including Canada, the United States, the European Union, the United Kingdom, and others. Currently, the global nuclear industry relies on Russia for approximately 14% of its supply of uranium concentrates, 27% of conversion supply and 39% of enrichment capacity. With continued conflict, there is ongoing uncertainty about the ability to continue to rely on nuclear fuel supplies coming out of Russia or that ship through Russian ports. The geopolitical situation continues to cause transportation risks in Central Asia, which impacted our shipments of finished JV Inkai product in 2022 and we may continue to experience delays in our expected deliveries from 2022 and for 2023. Our 2022 share of earnings from JV Inkai were impacted due to delays to the delivery of our share of 2022 production. See *Uranium – Tier-one operations – Inkai* and *Operational risks – Transportation*.

Our business has been and may continue be impacted by the ongoing conflict between Russia and Ukraine and the related economic sanctions.

In February 2023, we announced that we had reached agreement on commercial terms for a major supply contract with Energoatom, Ukraine's state-owned nuclear energy utility, including an option supply up to 100% of the fuel requirements for the six reactors at the Zaporizhzhya nuclear power plant, currently under Russian control, should it return to Energoatom's operation. See *Major Developments – Agreement on Key Supply Terms with Energoatom*. The military conflict between Russia and Ukraine may have a negative impact on this supply contract, which could have a material and adverse effect on our earnings, cash flow, financial condition, result of operations, or prospects.

The military conflict between Russia and Ukraine has had and continues to have a negative impact on Westinghouse's operations in Ukraine, resulting in the loss of revenue and the corresponding loss of earnings, See *Strategic risks – Proposed acquisition of Westinghouse risks – A future major nuclear accident or disaster could have a negative effect on our and Westinghouse's operations*.

As we have from time to time purchased uranium enrichment services from a Russia-based entity in order to sell enriched uranium directly to customers, we may be required to purchase such enrichment services from other suppliers. Cameco infrequently purchases these services, as the majority of our customers work directly with their own enrichment services providers. In addition, our customer contracts may require deliveries of uranium to areas that are directly affected by the ongoing conflict and the related economic sanctions. These deliveries may need to be adjusted in consideration of the ongoing conflict and/or to comply with applicable sanctions.

The ongoing conflict and economic sanctions may also give rise to additional indirect impacts, including increased fuel prices, supply chain challenges, logistics and transport disruptions and heightened cybersecurity disruptions and threats. Increased fuel prices and ongoing volatility of such prices may have adverse impacts on our costs of doing business.

We have not yet been materially affected by the current conflict and economic sanctions, but there remains significant uncertainty surrounding the outcome of the ongoing conflict, future economic sanctions, our contractual arrangements with Energoatom and shipments of our share of finished JV product. We will continue to monitor the potential impacts on our business as the situation develops.

Proposed acquisition of Westinghouse risks

Delay or failure to complete the acquisition

The acquisition of Westinghouse may be delayed or may not be completed on the terms contemplated in the acquisition agreement or at all. No assurance can be given that the acquisition will be completed when expected, on the terms proposed or at all. Closing of the acquisition is subject to the receipt of required regulatory approvals and the satisfaction of various closing conditions. There is no certainty, nor can we provide any assurance, that these conditions will be satisfied or, if satisfied, when they will be satisfied.

Given a potentially long period prior to closing the acquisition, there can be no assurance that Westinghouse or its operations and assets will not be adversely affected by intervening events before the closing of the acquisition. The relevant regulatory authorities may decline to give approval or clearance for the acquisition, or may attach terms or conditions to their approval or clearance, which could have a material adverse effect on our ability to realize any or all of the anticipated benefits of, or complete, the acquisition.

If the acquisition is not completed, we could be subject to a number of risks that may adversely affect our business and the market price of our common shares, including:

- the time and resources committed by our management to matters relating to the acquisition could otherwise have been devoted to pursuing other beneficial opportunities;
- the market price of our common shares could decline to the extent that the current market price reflects a market assumption that the acquisition will be completed;
- we would not realize any or all of the benefits we expect to realize from completing the acquisition; and
- we will be required to pay costs relating to the acquisition, such as legal, accounting, and financial advisory fees, whether or not the acquisition is completed.

We may also be subject to litigation related to any failure to complete the acquisition. If the acquisition is not completed, these risks may materialize and may adversely affect our business, financial results, and financial condition, as well as the price of our common shares, which may cause the value of an investment in our common shares to decline.

No financing condition in the acquisition agreement

There exists no closing condition for financing under the acquisition agreement that we can rely on to terminate the acquisition agreement. As a result, if our new credit facilities to finance the acquisition were not available, we would remain obligated to complete the acquisition and may not have sufficient funds to do so or may have to incur additional costs to do so, which could result in a material adverse effect on our business, prospects, financial condition, results of operations and cash flows.

Completion of the acquisition is subject to the satisfaction of closing conditions and regulatory approvals

The acquisition closing is subject to certain closing conditions that may not be satisfied or completed on a timely basis, if at all, which may prevent or delay the consummation of the acquisition. Any delay in completing the acquisition may reduce or eliminate the expected benefits of the acquisition. These, include, among other things:

- the receipt of certain approvals under applicable antitrust laws and foreign investment laws;
- the receipt of required national security clearances;
- the conclusion of the applicable notice period under the International Traffic in Arms Regulations or receipt of the consent of the US Department of State, Directorate of Defense Trade Controls; and

- the filing of certain other applications and notices with, and receipt of the approvals, licences or consents from, other applicable governmental authorities.

We cannot provide any assurance that all necessary regulatory and other approvals will be obtained nor the timing of such approvals, nor can we provide any assurance that all of the other closing conditions will be satisfied or waived. The failure to obtain necessary approvals or the failure to satisfy some or all of the other required conditions could delay the acquisition closing for a significant period of time or prevent it from occurring. Lawsuits or other legal proceedings brought in connection with the acquisition could also delay or prevent the acquisition closing, and may cause us to incur additional costs and divert management's attention from the acquisition process and our core business operations. Any delay in obtaining the required approvals or satisfying the other closing conditions could reduce or eliminate the anticipated benefits of the acquisition, or prevent the acquisition closing from occurring at all.

Failure to realize any or all of the anticipated benefits from the acquisition

Following the acquisition, we expect to see certain near-term benefits, including potential new revenue opportunities related to integrated fuel supply and improved access for uranium and conversion services, as well as longer-term opportunities for growth from new capacity.

Any benefits and growth that we realize from such efforts may differ materially from our estimates. In particular, our estimates of the potential benefits and growth from the acquisition are based in part on a valuation of Westinghouse that may differ from the performance of Westinghouse in the future.

In addition, any benefits that we realize may be offset, in whole or in part, by reductions in revenues, or through increases in other expenses, including costs to achieve our estimated synergies and growth. Our plans for Westinghouse following the acquisition are subject to numerous risks and uncertainties that may change at any time.

We cannot provide any assurance that our initiatives will be completed as anticipated or that the benefits we expect will be achieved on a timely basis or at all. Even if the acquisition is completed, it may take longer than expected to achieve the anticipated benefits and growth.

Failure to comply with nuclear licence and quality assurance requirements at certain Westinghouse facilities could result in costs, additional regulatory oversight and reputational risk

Westinghouse is a supplier of nuclear reactors, components, fuel and fuel handling equipment, maintenance and operating support services, and dismantling and decontamination services to the global nuclear power sector. Westinghouse and its affiliates maintain licences from nuclear regulatory authorities in the United States, United Kingdom, Sweden, and Spain to operate fuel fabrication facilities. These facilities are subject to significant regulatory scrutiny and any failure to comply with safety, security and quality assurances requirements at those facilities could result in increased regulatory oversight and civil penalties, as well as costs in remedying noncompliance and reputational risk.

In addition, enhanced safety or security requirements promulgated by these regulatory bodies could necessitate capital expenditures by Westinghouse. Significant non-compliance could result in revocation of certain of Westinghouse's licenses.

Further, Westinghouse operates major nuclear component fabrication facilities in the United States and Italy. Components fabricated by Westinghouse at these facilities must comply with stringent quality requirements, including certifications under nuclear quality standards. Failure to adhere to these standards could result in liability under customer contracts, including replacement of supplied components and potential exposure to litigation over nuclear power plant shutdowns resulting from defective components. Quality control issues at these facilities could also result in additional regulatory oversight and costs arising out of implementation of corrective actions. Any such adverse effects would negatively impact the acquisition and may adversely affect our business, financial results, and financial condition, as well as the price of our common shares.

Westinghouse's comprehensive protections against liability for nuclear damage depend on the viability of global indemnities and continuation of nuclear liability regimes

Global nuclear liability regimes shield nuclear industry participants from unlimited exposure to nuclear accident risks and ensure compensation for victims of nuclear incidents. The US regime, based on the *Price-Anderson Nuclear Industries Indemnity Act*, as amended, provides for "economic channeling" of liability by establishing requirements for nuclear reactor operators to maintain two layers of insurance (totaling approximately \$14 billion (US)), which cover anyone potentially liable,

including suppliers, for nuclear damage. International global nuclear liability regimes under the 1963 Vienna Convention on Civil Liability, as amended by the 1997 Protocol; the Paris Convention on Third Party Liability in the Field of Nuclear Energy and the Brussels Supplementary Convention; and the 1997 Convention on Supplementary Compensation for Nuclear Damage provide for legal channeling of liability to the operator of a nuclear installation.

While these nuclear liability regimes shield nuclear suppliers and service providers from nuclear damage in the specific jurisdiction in which a nuclear incident occurs, radioactive releases can be transboundary, and there is no single global nuclear liability regime. Only approximately 70 countries are party to an existing liability regime, and not all the regimes are interconnected. This exposes suppliers to potential liability in jurisdictions not party to a nuclear liability regime. In addition, nuclear liability regimes cover only offsite nuclear damage and do not apply to property damage to the plant itself or any equipment onsite, which typically is covered by separate insurance maintained by nuclear operators.

To address these gaps, Westinghouse obtains from its customers global indemnities against nuclear damage as well as waivers of any onsite property damage. However, should an existing nuclear liability regime be repealed in any country, should any such indemnity be insufficient or should a customer become unable to act on an indemnity due to a bankruptcy or other financial hardship, Westinghouse could be exposed to claims in the event of a nuclear incident.

Westinghouse operates in a politically sensitive environment, and the public perception of nuclear energy can affect Westinghouse's customers and Westinghouse

Westinghouse's business involves providing products and services for the nuclear industry, which is a politically sensitive environment. Opposition by third parties to particular projects, including in connection with any incident involving the potential discharge of radioactive materials, could affect Westinghouse and its customers' businesses. Adverse public reaction could also lead to increased regulation, limitations on the activities of Westinghouse and Westinghouse's customers, more onerous operating requirements or other conditions that could have a material adverse impact on Westinghouse and its customers.

Nuclear power plant operations are also potentially subject to disruption by a nuclear accident. A future accident at a nuclear reactor anywhere in the world could result in the shutdown of existing plants or impact the continued acceptance by the public and regulatory authorities of nuclear energy and the future prospects for nuclear generators, each of which could have a material adverse impact on Westinghouse.

Furthermore, accidents, terrorism, natural disasters or other incidents occurring at nuclear facilities or involving shipments of nuclear materials or technological changes could reduce the demand for nuclear products and services. All of these risks could adversely impact our operations and our investment in Westinghouse after the acquisition.

Threat of increased nuclear trade barriers could have an adverse impact on Westinghouse's business

The nuclear energy industry is global and also susceptible to nuclear trade controls due to the sensitive nature of nuclear technologies, equipment and material and the importance of nuclear energy to national security. The ability of Westinghouse to conduct business globally is dependent on its ability to maintain and secure new licenses for the export of nuclear technology, equipment, and materials.

While licences are not always required, there are certain nuclear exports and destinations for those exports that are subject to stringent licensing requirements. For example, Westinghouse's continued ability to sell services and equipment to reactors in China is dependent on its existing specific authorization under applicable law. In case of geopolitical circumstances that would result in sanctions on China, this specific authorization would be limited or terminated, negatively impacting the business.

A future major nuclear accident or disaster could have a negative effect on our and Westinghouse's operations

Due to their inherent materiality, major accidents in the nuclear industry, and most notably at nuclear power plants garner significant worldwide attention and spawn global public sentiment favouring more significant regulation for nuclear power generation. Westinghouse has various contracts in place with Energoatom, Ukraine's national nuclear power company and actively carries on business in the country. The military conflict between Russia and Ukraine has had and continues to have a negative impact on Westinghouse's operations in Ukraine, resulting in loss of revenue and corresponding loss of earnings. Furthermore, certain nuclear power plants are located in the disputed territory.

A major accident at a nuclear power plant, or a similar disaster related to the nuclear industry, including as a result of the military conflict between Russia and Ukraine, could lead to more countries adopting increasingly stringent safety regulations in

the nuclear industry, cause public sentiment to shift more in favour of phasing-out nuclear power, and reverse or halt the recent positive trend towards nuclear power. The reaction to any such major accident or disaster could be significantly more severe, and may result in a rapid global abandonment of nuclear power generation. Any such event may result in, among other things, a significant reduction in the demand for uranium and the resulting decline in the price of uranium plus a significant reduction in demand for nuclear services or production of new power plants.

A major accident at a nuclear power plant, or a similar disaster related to the nuclear industry, could have a material and adverse effect on our and Westinghouse's earnings, cash flows, financial condition, results of operations, and prospects.

We do not currently control Westinghouse and will not control Westinghouse after the Acquisition is completed

We do not currently control Westinghouse and, after the closing of the acquisition, we will beneficially own 49% of Westinghouse, and Brookfield Renewable will beneficially own 51%. Until the acquisition closing, we cannot provide any assurance that Westinghouse will be operated in the same way that it would be operated under the control of us and Brookfield Renewable. Although we will have certain governance and approval rights in connection with our ownership interest in the partnership used for the acquisition (Acquisition Partnership) following the acquisition closing, we cannot provide any assurance that Westinghouse will be operated in the same way we would operate Westinghouse if we were its sole owner.

The liabilities of Westinghouse may exceed our estimates, and there may also be unknown or undisclosed liabilities in connection with the Acquisition

Westinghouse has various potential liabilities relating to the conduct of its business prior to the acquisition, including, but not limited to, potential liability for unfunded pension liabilities, liability for cleanup, decommissioning or remediation of environmental conditions, intellectual property disputes, and other potential liabilities that could adversely affect Westinghouse's financial position. If the acquisition is completed, these potential liabilities could negatively impact the value of our investment in the Acquisition Partnership. Although we have conducted what we believe to be a sufficient level of investigation in connection with the acquisition, it is possible that the potential liabilities we have identified may exceed our expectations, and there may be liabilities that we failed to discover or were unable to quantify accurately or at all in our due diligence, which we conducted prior to the entry into the acquisition agreement. Only certain of these events may entitle the purchaser to recourse under the acquisition agreement for such liabilities and contingencies. The discovery of any material liabilities, or the inability to obtain full recourse for such liabilities, could have a material adverse effect on our investment in the Acquisition Partnership and our ability to realize the benefits of the proposed acquisition.

In connection with the acquisition, the Acquisition Partnership and the general partner (each an Acquisition Entity) obtained representation and warranty coverage, with total limits of up to \$800 million (US) above retention of 0.5% of the enterprise value. Nevertheless, this insurance policy is subject to certain exclusions and limitations. In addition, there may be circumstances for which the insurer may elect to limit such coverage or refuse to indemnify us or situations for which the coverage provided under the representation and warranty insurance policy may not be sufficient or applicable.

Certain defaults under specified Westinghouse credit facilities or an event of default under the Westinghouse credit facilities could result in the failure to complete the acquisition

Westinghouse has entered into various credit agreements with its lenders, pursuant to which it has incurred approximately \$4.6 billion (US) in principal amount of indebtedness in the aggregate. A breach of certain covenants in the credit agreements governing Westinghouse's credit facilities, or the occurrence of certain events, including certain change of control triggering events, may constitute an event of default. The closing of the acquisition is conditioned upon the absence of certain defaults under specified credit facilities of Westinghouse and its affiliates. The failure to satisfy any such condition could result in the failure to complete the acquisition, which could have a material adverse effect on Westinghouse.

If an event of default exists under Westinghouse's credit facilities, the lenders could declare all amounts outstanding thereunder to be immediately due and payable and foreclose on any pledged collateral. Westinghouse may not have access to sufficient funds at the time of any such acceleration to repay outstanding amounts under the credit agreements, or may be subject to contractual restrictions that may prohibit such repayments. This could have a material adverse effect on Westinghouse's financial condition and on the Acquisition Partnership.

Westinghouse's operations are exposed to occupational health and safety and accident risks

Some of the tasks undertaken by Westinghouse's employees and contractors are inherently dangerous and have the potential to result in serious injury or death. Accordingly, Westinghouse's operations are exposed to the risk of accidents that may give rise to personal injury, loss of life, disruption to service and economic loss, including, for example, resulting from related litigation.

Westinghouse is subject to increasingly stringent laws and regulations governing health and safety matters, which differ in the jurisdictions in which Westinghouse operates. Any violation of these obligations, or serious accidents involving Westinghouse's employees, contractors or members of the public, could expose Westinghouse or its operating businesses to adverse regulatory consequences, including the forfeiture or suspension of its operating licences, potential litigation, claims for material financial compensation, reputational damage, fines or other legislative sanctions, which may materially and adversely impact Westinghouse's financial condition.

Risks to our business associated with entry into the strategic partnership with Brookfield Renewable

Although we have certain rights pursuant to a shareholders' agreement between us and Brookfield Renewable with regards to the governance of the Acquisition Partnership general partner, including the right to designate directors of the boards of directors of the general partner and certain material subsidiaries of the Acquisition Entities, our beneficial ownership in the strategic partnership entities will be 49%, whereas Brookfield Renewable will beneficially own 51%, and the directors are entitled to weighted voting corresponding to the designating shareholder's proportionate equity interest. Consequently, other than in the case of certain reserved matters expressly set out in the governance agreement, Brookfield Renewable has the power to control the strategic partnership entities. Accordingly, we cannot provide any assurance that the strategic partnership entities will be operated in the same way they would have been operated if we were the sole owner.

Following the acquisition closing, we expect that the strategic partnership entities will, to the greatest extent possible, be funded by their own cash flows and third-party funding. Pursuant to the governance agreement, to the extent a strategic partnership entity requires additional capital to meet a funding shortfall for certain approved activities, if approved as a reserved matter, the Acquisition Partnership may make equity funding requests to us and Brookfield Renewable, on a *pro rata* basis on the basis of our and Brookfield Renewable's respective equity interests in the Acquisition Entities. Failure by us to meet such an equity funding request would not constitute a default under the governance agreement, but in the event that Brookfield Renewable elects to participate in the equity financing and we do not, our interest in the Acquisition Partnership may be diluted. There can be no assurance that we or Brookfield Renewable will have the necessary capital resources to meet an equity funding request if and when made by the Acquisition Partnership. In the event that the Acquisition Partnership cannot raise the necessary funds from us or Brookfield Renewable or otherwise obtain adequate required capital on favorable terms or at all, it may be required to scale back or entirely halt any operating or expansion plans and its business, financial condition and results of operations could be adversely affected.

Further, disputes may arise between us and Brookfield Renewable that may adversely affect the success of the strategic partnership entities and have a material adverse effect on our business, results of operations and financial performance. Our failure to otherwise comply with our obligations under the governance agreement may result in us being in default under the governance agreement and could result in us losing some or all of our interest in the Acquisition Partnership.

Legal proceedings

We discuss any legal proceedings that we or our subsidiaries are a party, as at December 31, 2022, in note 22 to the 2022 financial statements.

We are currently involved in a dispute with CRA. See *Transfer pricing dispute* at page 93 for more details about this dispute.

Investor information

Share capital

Our authorized share capital consists of:

- first preferred shares

- second preferred shares
- common shares
- one class B share

Preferred shares

We do not currently have any preferred shares outstanding, but we can issue an unlimited number of first preferred or second preferred shares with no nominal or par value, in one or more series. The board must approve the number of shares, and the designation, rights, privileges, restrictions and conditions attached to each series of first or second preferred shares.

Preferred shares can carry voting rights, and they rank ahead of common shares and the class B share for receiving dividends and distributing assets if the company is liquidated, dissolved or wound up.

First preferred shares

Each series of first preferred shares ranks equally with the shares of other series of first preferred shares. First preferred shares rank ahead of second preferred shares, common shares and the class B share.

Second preferred shares

Each series of second preferred shares ranks equally with the shares of other series of second preferred shares. Second preferred shares rank after first preferred shares and ahead of common shares and the class B share.

Common shares

We can issue an unlimited number of common shares with no nominal or par value. Only holders of common shares have full voting rights in Cameco.

If you hold our common shares, you are entitled to vote on all matters that are to be voted on at any shareholder meeting, other than meetings that are only for holders of another class or series of shares. Each Cameco share you own represents one vote, except where noted below. As a holder of common shares, you are also entitled to receive any dividends that are declared by our board of directors.

Common shares rank after preferred shares with respect to the payment of dividends and the distribution of assets if the company is liquidated, dissolved or wound up, or any other distribution of our assets among our shareholders if we were to wind up our affairs.

Holders of our common shares have no pre-emptive, redemption, purchase or conversion rights for these shares. Except as described under *Ownership and voting restrictions*, non-residents of Canada who hold common shares have the same rights as shareholders who are residents of Canada.

On December 31, 2022, we had 432,518,470 common shares outstanding. These were fully paid and non-assessable.

On February 28, 2023, there were 2,553,854 stock options outstanding to acquire common shares of Cameco under the company's stock option plan with exercise prices ranging from \$11.32 to \$16.38.

In 2022 and 2023, no stock options were granted.

Our articles of incorporation have provisions that restrict the issue, transfer, and ownership of voting securities of Cameco (see *Ownership and voting restrictions* below).

Class B shares

The province of Saskatchewan holds our one class B share outstanding. It is fully paid and non-assessable.

The one class B share entitles the province to receive notices of and attend all meetings of shareholders, for any class or series.

The class B shareholder can only vote at a meeting of class B shareholders, and only as a class if there is a proposal to:

- amend Part 1 of Schedule B of the articles, which states that:
 - Cameco's registered office and head office operations must be in Saskatchewan

- the vice-chair of the board, chief executive officer (CEO), president, chief financial officer (CFO) and generally all of the senior officers (vice-presidents and above) must live in Saskatchewan
- all annual meetings of shareholders must be held in Saskatchewan
- amalgamation, if it would require an amendment to Part 1 of Schedule B of the articles, or
- an amendment to the articles in a way that would change the rights of class B shareholders

The class B shareholder can request and receive information from us to determine whether or not we are complying with Part 1 of Schedule B of the articles.

The class B shareholder does not have the right to receive any dividends declared by Cameco. The class B share ranks after first and second preferred shares, but equally with common shareholders, with respect to the distribution of assets if the company is liquidated, dissolved or wound up. The class B shareholder has no pre-emptive, redemption, purchase or conversion rights with its class B share, and the share cannot be transferred.

Ownership and voting restrictions

The federal government established ownership restrictions when Cameco was formed so we would remain Canadian controlled. There are restrictions on issuing, transferring, and owning Cameco common shares whether you own the shares as a registered shareholder, hold them beneficially or control your investment interest in Cameco directly or indirectly. These are described in the *Eldorado Nuclear Limited Reorganization and Divestiture Act (Canada)* (ENL Reorganization Act) and our company articles.

The following is a summary of the restrictions listed in our company articles.

Residents

A Canadian resident, either individually or together with associates, cannot hold, beneficially own or control shares or other Cameco securities, directly or indirectly, representing more than 25% of the votes that can be cast to elect directors.

Non-residents

A non-resident of Canada, either individually or together with associates, cannot hold, beneficially own or control shares or other Cameco securities, directly or indirectly, representing more than 15% of the total votes that can be cast to elect directors.

Voting restrictions

All votes cast at the meeting by non-residents, either beneficially or controlled directly or indirectly, will be counted and pro-rated collectively to limit the proportion of votes cast by non-residents to no more than 25% of the total shareholder votes cast at the meeting.

We limit the counting of votes by non-residents of Canada at our annual meeting of shareholders to abide by this restriction. This has resulted in non-residents receiving less than one vote per share.

Enforcement

The company articles allow us to enforce the ownership and voting restrictions by:

- suspending voting rights
- forfeiting dividends and other distributions
- prohibiting the issue and transfer of Cameco shares
- requiring the sale or disposition of Cameco shares
- suspending all other shareholder rights.

To verify compliance with restrictions on ownership and voting of Cameco shares, we require existing shareholders, proposed transferees or other subscribers for voting shares to declare their residency, ownership of Cameco shares and other things relating to the restrictions. Nominees such as banks, trust companies, securities brokers or other financial institutions who hold the shares on behalf of beneficial shareholders need to make the declaration on their behalf.

We cannot issue or register a transfer of any voting shares if it would result in a contravention of the resident or non-resident ownership restrictions.

If we believe there is a contravention of our ownership restrictions based on any shareholder declarations filed with us, or our books and records or those of our registrar and transfer agent or otherwise, we can suspend all shareholder rights for the securities they hold, other than the right to transfer them. We can only do this after giving the shareholder 30 days' notice, unless he or she has disposed of the holdings, and we have been advised of this.

Understanding the terms

Please see our articles for the exact definitions of associate, resident, non-resident, control, and beneficial ownership which are used for the restrictions described above.

Other restrictions

The *ENL Reorganization Act* imposes some additional restrictions on Cameco. We must maintain our registered office and our head office operations in Saskatchewan. We are also prohibited from:

- creating restricted shares (these are generally defined as a participating share with restrictive voting rights)
- applying for continuance in another jurisdiction
- enacting articles of incorporation or bylaws that have provisions that are inconsistent with the *ENL Reorganization Act*

We must maintain our registered office and head office operations in Saskatchewan under *the Saskatchewan Mining Development Corporation Reorganization Act*. This generally includes all executive, corporate planning, senior management, administrative and general management functions.

Credit ratings

Credit ratings provide an independent, professional assessment of a corporation's credit risk. They are not a comment on the market price of a security or suitability for an individual investor and are, therefore, not recommendations to buy, hold or sell our securities.

We provide rating agencies DBRS Limited (DBRS) and Standard & Poor's (S&P) with confidential information to support the credit rating process.

The credit ratings assigned to our securities by external ratings agencies are important to our ability to raise capital at competitive pricing to support our business operations and execute our strategy.

We have three series of senior unsecured debentures outstanding:

- \$100 million of debentures issued on November 14, 2012, that have an interest rate of 5.09% per year and mature on November 14, 2042
- \$500 million of debentures issued on June 24, 2014, that have an interest rate of 4.19% per year and mature on June 24, 2024
- \$400 million of debentures issued on October 21, 2020, that have an interest rate of 2.95% per year and mature on October 21, 2027

We have a commercial paper program which is supported by a \$1 billion unsecured revolving credit facility that matures October 1, 2026. As of December 31, 2022, there were no amounts outstanding under the commercial paper facility.

The table below shows the current DBRS and S&P ratings and the rating trends/outlooks of our commercial paper and senior unsecured debentures:

Rating Agency	Rating	Rating Trend/Outlook
Commercial paper		
DBRS	R-2 (middle)	Stable
S&P	A-3	Stable
Senior Unsecured Debentures		
DBRS	BBB	Stable
S&P	BBB-	Stable

The rating agencies may revise or withdraw these ratings at any time if they believe circumstances warrant. The rating trend/outlook represents the ratings agency's assessment of the likelihood and direction that the rating could change in the future.

A change in our credit ratings could affect our cost of funding and our access to capital through the capital markets.

On May 28, 2020, DBRS changed Cameco's rating outlook to stable from negative. The change was based on the improving outlook for the uranium industry, including the uranium price increases in 2020. On May 26, 2021 and May 27, 2022, DBRS confirmed the rating and the outlook. Currently our rating is under review following the announcement of the proposed acquisition of Westinghouse.

On February 16, 2022, S&P revised its outlook for Cameco to stable from negative and affirmed the BBB- rating. The outlook reflected the estimated improvement in profitability and credit measures, with an expected reduction in unit costs based on expanded uranium output with the restart of McArthur River/Key Lake and relatively favourable prices.

Commercial paper

Rating scales for commercial paper are meant to indicate the risk that a borrower will not fulfill its near-term debt obligations in a timely manner.

The table below explains the credit ratings of our commercial paper in more detail:

	Rating	Ranking
DBRS rates commercial paper by categories ranging from a high of <i>R-1</i> to a low of <i>D</i>	R-2 (Middle)	<ul style="list-style-type: none"> • middle of the R-2 category • represents "adequate credit quality" • fifth highest of 10 available credit rating categories
S&P rates commercial paper by categories ranging from a high of <i>A-1 (high)</i> to a low of <i>D</i>	A-3	<ul style="list-style-type: none"> • represents "adequate protection parameters" • third highest of six available credit rating categories

Senior unsecured debentures

Long-term debt rating scales are meant to indicate the risk that a borrower will not fulfill its full obligations, with respect to interest and principal, in a timely manner.

The table below explains the credit ratings of our senior unsecured debentures in more detail:

	Rating	Ranking
DBRS rates senior unsecured debentures by categories ranging from a high of <i>AAA</i> to a low of <i>D</i>	BBB	<ul style="list-style-type: none"> • middle of the BBB category • represents "adequate credit quality" • fourth highest of eight available credit rating categories • capacity for the payment of financial obligations is considered acceptable • may be vulnerable to future economic events
S&P rates senior unsecured debentures by categories ranging from a high of <i>AAA</i> to a low of <i>D</i>	BBB-	<ul style="list-style-type: none"> • the lower end of the BBB category • exhibits "adequate protection parameters" • fourth highest of 10 available credit rating categories • adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity to meet financial commitments

Payments to credit rating agencies

Over the last two years, we paid \$1,354,000 in connection with credit ratings related services.

Material contracts

Below is a list of material contracts entered into and still in effect, which have been filed on SEDAR in accordance with *National Instrument 51-102* Continuous Disclosure requirements:

Supplemental indentures

We entered into the *Sixth supplemental indenture* with CIBC Mellon on November 14, 2012, relating to the issue of \$100 million in unsecured debentures at an interest rate of 5.09% per year and due in 2042.

We entered into the *Seventh supplemental indenture* with CIBC Mellon on June 24, 2014, relating to the issue of \$500 million in unsecured debentures at an interest rate of 4.19% per year and due in 2024.

We entered into the *Eighth supplemental indenture* with CIBC Mellon on October 21, 2020, relating to the issue of \$400 million in unsecured debentures at an interest rate of 2.95% per year and due in 2027.

We entered into the *Resignation and Appointment Agreement* with CIBC Mellon and BNY Trust Company of Canada on February 22, 2021, relating to resignation of CIBC Mellon as trustee and appointment of BNY as trustee under the above supplemental indentures.

See *Senior unsecured debentures*, above for more information about these debentures.

US trust indenture

We entered into an indenture with The Bank of New York Mellon on May 22, 2012, to set forth the general terms and provisions of debt securities. The terms of this indenture were fully described in our final short form base shelf prospectus dated December 9, 2014. We have not issued any debt securities under this indenture. The specific terms of any offering of debt securities under this indenture would be set forth in a shelf prospectus supplement.

Resource use contract

See page 61 at *Resource use contract* for information about this contract.

Westinghouse acquisition agreement

We entered into the equity purchase agreement with Watt New Aggregator L.P., Brookfield WEC Aggregator L.P., Brookfield Capital Partners (Bermuda) Ltd., Watt Aggregator L.P., and Brookfield Business Partners L.P. on October 11, 2022 related to the Westinghouse acquisition. See page 76 at *Other nuclear fuel cycle investments – Proposed acquisition of Westinghouse* for information about this contract.

Market for our securities

Our common shares are listed and traded on the Toronto Stock Exchange (TSX) (under the symbol CCO) and the New York Stock Exchange (under the symbol CCJ).

We have a registrar and transfer agent in Canada and the US for our common shares:

Canada	TSX Trust Company 1 Toronto Street, Suite 1200 Toronto, ON M5C 2V6	US	American Stock Transfer & Trust Company, LLC 6201 15 th Avenue Brooklyn, New York United States of America 11219
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Trading activity

The table below shows the high and low closing prices and trading volume for our common shares on the TSX in 2022.

2022	High (\$)	Low (\$)	Volume
January	33.73	23.03	35,990,940
February	31.33	24.19	37,530,335
March	37.98	28.45	51,576,915
April	41.05	32.42	33,678,991
May	35.20	26.15	45,800,217
June	35.41	26.32	33,183,435
July	33.15	26.62	24,109,445
August	39.25	28.60	28,378,477
September	40.81	33.53	34,560,419
October	38.76	29.21	44,935,332
November	33.38	30.24	29,558,548
December	33.18	28.98	24,561,360

Dividend

In 2022, our board of directors declared a dividend of \$0.12 per common share which was paid on December 15, 2022. The decision to declare an annual dividend by our board is reviewed regularly and will be based on our cash flow, financial position, strategy and other relevant factors including appropriate alignment with the cyclical nature of our earnings.

The table below shows the dividends per common share for the last three fiscal years.

	2022	2021	2020
Cash dividends	\$0.12	\$0.08	\$0.08
Total dividends paid (millions)	\$52	\$32	\$32

Governance

Directors

Director	Board committees	Principal occupation or employment
Ian Bruce Calgary, Alberta, Canada Director since 2012	A member of all board committees	Corporate director as of 2010
Daniel Camus Westmount, Québec, Canada Director since 2011	Audit and finance (Chair) Human resources and compensation	Corporate director as of 2011
Don Deranger Prince Albert, Saskatchewan, Canada Director since 2009	Nominating, corporate governance and risk Safety, health and environment Technical	May 2013 to present – non-executive chair of the board of Points Athabasca Contracting LP, a civil, earthworks and industrial contracting company 1997 to present – Advisor to First Nations Communities
Catherine Gignac Mississauga, Ontario, Canada Director since 2014	Nominating, corporate governance and risk (Chair) Audit and finance Technical	Corporate director as of 2011

Director	Board committees	Principal occupation or employment
Tim Gitzel Saskatoon, Saskatchewan, Canada Director since 2011	None	July 2011 to present – President and Chief Executive Officer
Jim Gowans Surrey, British Columbia, Canada Director since 2009	Safety, health and environment (Chair) Audit and finance Technical	Corporate director as of 2018 August 2019 to May 2020 – Interim president, CEO and a director of Trilogy Metals Inc. January 2016 to 2018 – President and CEO of Arizona Mining Inc., an exploration and development company
Kathryn Jackson Pittsburgh, Pennsylvania, USA Director since 2017	Human resources and compensation Nominating, corporate governance and risk Safety, health and environment Technical (Chair)	Corporate director as of 2008
Don Kayne Delta, British Columbia, Canada Director since 2016	Human resources and compensation (Chair) Safety, health and environment	May 2011 to present – President and CEO of Canfor Corporation September 2012 to April 2022 – Chief Executive Officer of Canfor Pulp Products Incorporated, an integrated forest products company
Leontine van Leeuwen-Atkins Calgary, Alberta, Canada Director since 2020	Nominating, corporate governance and risk Audit and finance Technical	Corporate director as of 2019 2006 to early 2019 – Partner at KPMG Canada

Each director is elected for a term of one year, and holds office until the next annual meeting unless he or she steps down, as required by corporate law.

Officers

Officer	Principal occupation or employment for past five years
Ian Bruce Chair of the Board Calgary, Alberta, Canada	Corporate director as of 2010
Tim Gitzel President and Chief Executive Officer Saskatoon, Saskatchewan, Canada	Assumed current position July 2011
Grant Isaac Executive Vice-President and Chief Financial Officer Saskatoon, Saskatchewan, Canada	Assumed current position February 2023 July 2011 to February 1, 2023 – Senior Vice-President and Chief Financial Officer
Sean Quinn Senior Vice-President, Chief Legal Officer and Corporate Secretary Saskatoon, Saskatchewan, Canada	Assumed current position April 2014
Brian Reilly Senior Vice-President and Chief Operating Officer Saskatoon, Saskatchewan, Canada	Assumed current position July 2017 March to June 2017 – Vice-President, Mining, Projects and Technology

Officer	Principal occupation or employment for past five years
Heidi Shockey Senior Vice-President and Deputy Chief Financial Officer Saskatoon, Saskatchewan, Canada	Assumed current position February 2023 April 2013 to February 1, 2023 – Vice-President, Controller October 2017 to April 2020 – Vice-President, Controller and Treasurer
Alice Wong Senior Vice-President and Chief Corporate Officer Saskatoon, Saskatchewan, Canada	Assumed current position July 2011

To our knowledge, the total number of common shares that the directors and executive officers as a group either: (i) beneficially owned; or (ii) exercised direction or control over, directly or indirectly, was 763,297 as at March 15, 2023. This represents less than 1% of our outstanding common shares.

To the best of our knowledge, none of the directors, executive officers or shareholders that either: (i) beneficially owned; or (ii) exercised direction or control of, directly or indirectly, over 10% of any class of our outstanding securities, nor their associates or affiliates, have or have had within the three most recently completed financial years, any material interests in material transactions which have affected, or will materially affect, the company.

Other information about our directors and officers

None of our directors or officers, or a shareholder with significant holdings that could materially affect control of us, is or was a director or executive officer of another company in the past 10 years that:

- was the subject of a cease trade or similar order, or an order denying that company any exemption under securities legislation, for more than 30 consecutive days while the director or executive officer held that role with the company
- was involved in an event that resulted in the company being subject to one of the above orders after the director or executive officer no longer held that role with the company
- while acting in that capacity, or within a year of acting 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 the assets of that company, except for:
 - Ian Bruce was a director of Laricina Energy Limited (Laricina), a junior oilsands private company, from 2013 to December 2017. Laricina was under a *Companies' Creditors Arrangement Act (Canada)* (CCAA) protection order from March 26, 2015 to February 1, 2016; and
 - Jim Gowans was a director of Gedex Technologies Inc. (Gedex), an Ontario-based developer of airborne geological imaging technology, from 2015 to November 2019. Gedex was under a CCAA protection from August 12 to December 5, 2019.

None of them in the past 10 years:

- became bankrupt
- made a proposal under any legislation relating to bankruptcy or insolvency
- has been subject to or launched any proceedings, arrangement or compromise with any creditors, or
- had a receiver, receiver manager or trustee appointed to hold any of their assets

None of them has ever been subject to:

- 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
- any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision

About the audit and finance committee

Audit and finance committee charter

See appendix A for a copy of the audit and finance committee charter. You can also find a copy on our website (cameco.com/about/governance/board-committees).

Composition of the audit and finance committee

The committee is made up of five members: Daniel Camus (chair), Ian Bruce, Catherine Gignac, Jim Gowans, and Leontine van Leeuwen-Atkins. Each member is independent and financially literate using criteria that meet the standards of the Canadian Securities Administrators as set out in *National Instrument 52-110*.

Relevant education and experience

Ian Bruce, a corporate director, is the former President and CEO of Peters & Co. Limited, an independent investment dealer. He was a past member of the Expert Panel on Securities Regulation for the Minister of Finance of Canada. He currently serves on the board of one other publicly-traded company and one private company and has served as a director and audit committee member of several public companies since 1997. Mr. Bruce was a board member and chair of the Investment Industry Association of Canada. Mr. Bruce is a Fellow of the Chartered Professional Accountants (CPA) of Alberta, a recognized Specialist in Valuation under Canadian CPA rules and is a Chartered Business Valuator.

Daniel Camus is the former group chief financial officer and former head of strategy and international activities of Electricité de France SA (EDF), a France-based integrated energy operator active in the generation, distribution, transmission, supply and trading of electrical energy with international subsidiaries. He is the audit committee chair and board member of the non-governmental organization, FIND Diagnostics, located in Geneva, Switzerland and of MedAccess plc, located in London, UK. He is the former Chief Financial Officer of the humanitarian finance organization, The Global Fund to Fight AIDS, Tuberculosis and Malaria. Mr. Camus received his PhD in Economics from Sorbonne University and an MBA in finance and economics from the Institute d'Études Politiques de Paris.

Catherine Gignac, a corporate director, is a former mining equity research analyst with leading global brokerage firms. She currently serves on the board of one other publicly-traded company and served on the board of the publicly-traded company, Corvus Gold Inc., for six years and as chair of its board for five years. She has more than 30 years' experience as a mining equity research analyst and geologist. She held senior positions with leading firms, including Merrill Lynch Canada, RBC Capital Markets, UBS Investment Bank and Dundee Capital Markets Inc. and Loewen Ondaatje McCutcheon Limited. Ms. Gignac was the principal of Catherine Gignac & Associates from 2011 to 2015.

Jim Gowans, a corporate director, is a former mining executive. He served as interim President and CEO of Trilogy Metals Inc. from 2019 to 2020, as the president and CEO of Arizona Mining Inc. from 2016 to 2018, and at Barrick Gold Corporation in various senior executive positions throughout 2014 and 2015. He has over 30 years of experience as a senior mining executive and is the past chair of the Mining Association of Canada. Mr. Gowans currently serves on the board of four other publicly-traded companies. He received his applied science degree in mineral engineering from the University of British Columbia and attended the Banff School of Advanced Management.

Leontine van Leeuwen-Atkins, a corporate director, is a former Partner with KPMG Canada, and served as a board member of KPMG Canada's National Board of Directors until 2019. Ms. Atkins serves on the board of one other publicly-traded company and as its audit committee chair. She serves on the board of one private company as well as audit committee member. She is a Fellow of the Chartered Professional Accountants (CPA) of Alberta and holds the ICD.D designation from the Institute of Corporate Directors. She has over 30 years of experience in the global mining, power, utility and oil and gas industries, with a focus on corporate strategy. Ms. Atkins received her bachelor of business administration degree in finance from Acadia University and a master of business administration degree from Dalhousie University.

Auditors' fees

The table below shows the fees billed by the external auditors for services in 2022 and 2021:

	2022 (\$)	% of total fees	2021 (\$)	% of total fees
Audit fees				
Cameco ¹	2,389,200	82.8	1,863,000	83.8
Subsidiaries ²	136,800	4.7	146,600	6.6
Total audit fees	2,526,000	87.5	2,009,600	90.4
Audit-related fees				
Translation services ³	137,500	4.8	-	-
Pensions	30,000	1.0	30,000	1.3
Total audit-related fees	167,500	5.8	30,000	1.3
Tax fees				
Compliance	5,100	0.2	15,300	0.7
Planning and advice ⁴	117,700	4.1	168,600	7.6
Total tax fees	122,800	4.3	183,900	8.3
All other fees				
Other non-audit fees ⁵	69,500	2.4	-	-
Total other non-audit fees	69,500	2.4	-	-
Total fees	2,885,800	100.0	2,223,500	100.0

¹ Includes amounts billed for the audit of Cameco's annual consolidated financial statements and the review of interim financial statements.

² Includes amounts billed for the audit of Cameco's subsidiary financial statements.

³ Translation services for 2022 relate to the French translation of the 2021 annual financial statements and MD&A, 2022 Q2 interim financial statements and MD&A, and certain sections of the September 2022 base shelf prospectus. No invoices were issued in 2021 for translation services.

⁴ Includes amounts billed for tax compliance and tax advisory services.

⁵ Includes amounts billed for Cameco's I-4 Membership. No invoices were issued in 2021.

Approving services

The audit and finance committee must pre-approve all services the external auditors will provide to make sure they remain independent. This is according to our audit and finance committee charter and consistent with our corporate governance practices. The audit and finance committee pre-approves services up to a specific limit. If we expect the fees to exceed the limit, or the external auditors to provide new audit or non-audit services that have not been pre-approved in the past, then this must be pre-approved separately.

Any service that is not generally pre-approved must be approved by the audit and finance committee before the work is carried out, or by the committee chair, or board chair in his or her absence, as long as the proposed service is presented to the full audit and finance committee at its next meeting.

The committee has adopted a written policy that describes the procedures for implementing these principles.

Interest of experts

Our auditor is KPMG LLP, independent chartered accountants, who have audited our 2022 financial statements.

KPMG LLP are the auditors of Cameco and have confirmed with respect to Cameco that they are independent within the meaning of the relevant rules and related interpretations prescribed by the relevant professional bodies in Canada and any applicable legislation or regulations and that they are independent accountants with respect to Cameco under all relevant US professional and regulatory standards.

The individuals who are qualified persons for the purposes of NI 43-101 are listed under *Mineral reserves and resources* on page 79 and under *Technical report* on pages 27, 42 and 56. As a group, they beneficially own, directly or indirectly, less than 1% of any class of the outstanding securities of Cameco and our associates and affiliates.

Appendix A

Audit and finance committee of the Board of Directors

Mandate

Purpose

The primary purpose of the audit and finance committee (the “committee”) is to assist the board of directors (the “board”) in fulfilling its oversight responsibilities for (a) the accounting and financial reporting processes, (b) the internal controls, (c) the external auditors, including performance, qualifications, independence, and their audit of the corporation’s financial statements, (d) the performance of the corporation’s internal audit function, (e) financial matters and risk management of financial risks, (f) the corporation’s process for monitoring compliance with laws and regulations (other than environmental and safety laws) and its code of conduct and ethics, and (g) prevention and detection of fraudulent activities. The committee shall also prepare such reports as required to be prepared by it by applicable securities laws.

In addition, the committee provides an avenue for communication between each of the internal auditor, the external auditors, management, and the board. The committee shall have a clear understanding with the external auditors that they must maintain an open and transparent relationship with the committee and that the ultimate accountability of the external auditors is to the board and the committee, as representatives of the shareholders. The committee, in its capacity as a committee of the board, subject to the requirements of applicable law, is directly responsible for the appointment, compensation, retention, and oversight of the external auditors.

The committee has the authority to communicate directly with the external auditors and internal auditor.

The committee shall make regular reports to the board concerning its activities and in particular shall review with the board any issues that arise with respect to the quality or integrity of the corporation’s financial statements, the performance and independence of the external auditors, the performance of the corporation’s internal audit function, or the corporation’s process for monitoring compliance with laws and regulations other than environmental and safety laws.

Composition

The board shall appoint annually, from among its members, a committee and its chair. The committee shall consist of at least three members and shall not include any director employed by the corporation.

Each committee member will be independent pursuant to the standards for independence adopted by the board.

Each committee member shall be financially literate with at least one member having accounting or related financial expertise, using the terms defined as follows:

“Financially literate” means the ability to read and understand a set of financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of issues that can reasonably be expected to be raised by the corporation’s financial statements; and

“Accounting or related financial expertise” means the ability to analyse and interpret a full set of financial statements, including the notes attached thereto, in accordance with Canadian generally accepted accounting principles.

In addition, where possible, at least one member of the committee shall qualify as an “audit committee financial expert” within the meaning of applicable securities law.

Members of the committee may not serve on the audit and finance committees of more than three public companies (including Cameco’s) without the approval of the board.

Meetings

The committee will meet at least four times annually and as many additional times as the committee considers necessary to carry out its duties effectively. The committee will hold separate closed sessions with the external auditors, the internal auditor, the chief financial officer and other members of management at each regularly scheduled meeting.

A majority of the members of the committee shall constitute a quorum. No business may be transacted by the committee except at a meeting of its members at which a quorum of the committee is present.

The committee may invite such officers, directors and employees of the corporation as it may see fit from time to time to attend at meetings of the committee and assist thereat in the discussion and consideration of any matter.

A meeting of the committee may be convened by the chair of the committee, a member of the committee, the external auditors, the internal auditor, the chief executive officer or the chief financial officer. The secretary, who shall be appointed by the committee, shall, upon direction of any of the foregoing, arrange a meeting of the committee. The committee shall report to the board in a timely manner with respect to each of its meetings.

Duties and responsibilities

To carry out its oversight responsibilities, the committee shall:

Financial reporting process

1. Review with management and the external auditors any items of concern, any proposed changes in the selection or application of major accounting policies and the reasons for the change, any identified risks and uncertainties, and any issues requiring management judgement, to the extent that the foregoing may be material to financial reporting.
2. Consider any matter required to be communicated to the committee by the external auditors under applicable generally accepted auditing standards, applicable law and listing standards, including the external auditors' report to the committee (and management's response thereto) on: (a) all critical accounting policies and practices used by the corporation; (b) all material alternative accounting treatments of financial information within generally accepted accounting principles that have been discussed with management, including the ramifications of the use of such alternative treatments and disclosures and the treatment preferred by the external auditors; and (c) any other material written communications between the external auditors and management.
3. Require the external auditors to present and discuss with the committee their views about the quality, not just the acceptability, of the implementation of generally accepted accounting principles with particular focus on accounting estimates and judgements made by management and their selection of accounting principles.
4. Discuss with management and the external auditors (a) any accounting adjustments that were noted or proposed (i.e. immaterial or otherwise) by the external auditors but were not reflected in the financial statements, (b) any material correcting adjustments that were identified by the external auditors in accordance with generally accepted accounting principles or applicable law, (c) any communication reflecting a difference of opinion between the audit team and the external auditors' national office on material auditing or accounting issues raised by the engagement, and (d) any "management" or "internal control" letter issued, or proposed to be issued, by the external auditors to the corporation.
5. Discuss with management and the external auditors any significant financial reporting issues considered during the fiscal period and the method of resolution. Resolve disagreements between management and the external auditors regarding financial reporting.
6. Review with management and the external auditors (a) any off-balance sheet financing mechanisms being used by the corporation and their effect on the corporation's financial statements and (b) the effect of regulatory and accounting initiatives on the corporation's financial statements, including the potential impact of proposed initiatives.
7. Review with management and the external auditors and legal counsel, if necessary, any litigation, claim or other contingency, including tax assessments, that could have a material effect on the financial position or operating results of the corporation, and the manner in which these matters have been disclosed or reflected in the financial statements.
8. Review with the external auditors any audit problems or difficulties experienced by the external auditors in performing the audit, including any restrictions or limitations imposed by management, and management's response. Resolve any disagreements between management and the external auditors regarding these matters.
9. Review the results of the external auditors' audit work including findings and recommendations, management's response, and any resulting changes in accounting practices or policies and the impact such changes may have on the financial statements.

10. Review and discuss with management and the external auditors the audited annual financial statements and related management discussion and analysis, make recommendations to the board with respect to approval thereof, before being released to the public, and obtain an explanation from management of all significant variances between comparable reporting periods.
11. Review and discuss with management and the external auditors all interim unaudited financial statements and related interim management discussion and analysis and make recommendations to the board with respect to the approval thereof, before being released to the public.
12. Obtain confirmation from the chief executive officer and the chief financial officer (and considering the external auditors' comments, if any, thereon) to their knowledge:
 - (a) that the audited financial statements, together with any financial information included in the annual MD&A and annual information form, fairly present in all material respects the corporation's financial condition, cash flow and results of operation, as of the date and for the periods presented in such filings; and
 - (b) that the interim financial statements, together with any financial information included in the interim MD&A, fairly present in all material respects the corporation's financial condition, cash flow and results of operation, as of the date and for the periods presented in such filings.
13. Review news releases to be issued in connection with the audited annual financial statements and related management discussion and analysis and the interim unaudited financial statements and related interim management discussion and analysis, before being released to the public. Discuss the type and presentation of information to be included in news releases (paying particular attention to any use of "pro-forma" or "adjusted" non-GAAP, information).
14. Review any news release, before being released to the public, containing earnings guidance or financial information based upon the corporation's financial statements prior to the release of such statements.
15. Review the appointment of the chief financial officer and have the chief financial officer report to the committee on the qualifications of new key financial executives involved in the financial reporting process.
16. Consult with the human resources and compensation committee on the succession plan for the chief financial officer and controller. Review the succession plans in respect of the chief financial officer and controller.

Internal controls

1. Receive from management a statement of the corporation's system of internal controls over accounting and financial reporting.
2. Consider and review with management, the internal auditor and the external auditors, the adequacy and effectiveness of internal controls over accounting and financial reporting within the corporation and any proposed significant changes in them.
3. Consider and discuss the scope of the internal auditors' and external auditors' review of the corporation's internal controls, and obtain reports on significant findings and recommendations, together with management responses.
4. Discuss, as appropriate, with management, the external auditors and the internal auditor, any major issues as to the adequacy of the corporation's internal controls and any special audit steps in light of material internal control deficiencies.
5. Review annually the disclosure controls and procedures, including (a) the certification timetable and related process and (b) the procedures that are in place for the review of the corporation's disclosure of financial information extracted from the corporation's financial statements and the adequacy of such procedures. Receive confirmation from the chief executive officer and the chief financial officer of the effectiveness of disclosure controls and procedures, and whether there are any significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the corporation's ability to record, process, summarize and report financial information or any fraud, whether or not material, that involves management or other employees who have a significant role in the corporation's internal control over financial reporting. In addition, receive confirmation from

the chief executive officer and the chief financial officer that they are prepared to sign the annual and quarterly certificates required by applicable securities law.

6. Review management's annual report and the external auditors' report on the assessment of the effectiveness of the corporation's internal control over financial reporting.
7. Receive a report, at least annually, from the technical committee of the board on the corporation's mineral reserves.

External auditors

(i) External Auditors' Qualifications and Selection

1. Subject to the requirements of applicable law, be solely responsible to select, retain, compensate, oversee, evaluate and, where appropriate, replace the external auditors, who must be registered with agencies mandated by applicable law. The committee shall be entitled to adequate funding from the corporation for the purpose of compensating the external auditors for completing an audit and audit report.
2. Instruct the external auditors that:
 - (a) they are ultimately accountable to the board and the committee, as representatives of shareholders; and
 - (b) they must report directly to the committee.
3. Ensure that the external auditors have direct and open communication with the committee and that the external auditors meet regularly with the committee without the presence of management to discuss any matters that the committee or the external auditors believe should be discussed privately.
4. Evaluate the external auditors' qualifications, performance, and independence. As part of that evaluation:
 - (a) at least annually, request and review a formal report by the external auditors describing: the firm's internal quality-control procedures; any material issues raised by the most recent internal quality-control review, or peer review, of the firm, or by any inquiry or investigation by governmental or professional authorities, within the preceding five years, respecting one or more independent audits carried out by the firm, and any steps taken to deal with any such issues; and (to assess the auditors' independence) all relationships between the external auditors and the corporation, including the amount of fees received by the external auditors for the audit services and for various types of non-audit services for the periods prescribed by applicable law; and
 - (b) annually review and confirm with management and the external auditors the independence of the external auditors, including the extent of non-audit services and fees, the extent to which the compensation of the audit partners of the external auditors is based upon selling non-audit services, the timing and process for implementing the rotation of the lead audit partner, reviewing partner and other partners providing audit services for the corporation, whether there should be a regular rotation of the audit firm itself, and whether there has been a "cooling off" period of one year for any former employees of the external auditors who are now employees with a financial oversight role, in order to assure compliance with applicable law on such matters; and
 - (c) annually review and evaluate senior members of the external audit team, including their expertise and qualifications. In making this evaluation, the audit and finance committee should consider the opinions of management and the internal auditor.

Conclusions on the independence of the external auditors should be reported to the board.

5. Review and approve the corporation's policies for the corporation's hiring of employees and former employees of the external auditors. Such policies shall include, at minimum, a one-year hiring "cooling off" period.

(ii) Other Matters

6. Meet with the external auditors to review and approve the annual audit plan of the corporation's financial statements prior to the annual audit being undertaken by the external auditors, including reviewing the year-to-year co-ordination of the audit plan and the planning, staffing and extent of the scope of the annual audit. This review should include an explanation from the external auditors of the factors considered by the external auditors in determining their audit scope,

including major risk factors. The external auditors shall report to the committee all significant changes to the approved audit plan.

7. Review and approve the basis and amount of the external auditors' fees with respect to the annual audit in light of all relevant matters.
8. Review and pre-approve all audit and non-audit service engagement fees and terms in accordance with applicable law, including those provided to the subsidiaries of the corporation by the external auditors or any other person in its capacity as external auditors of such subsidiary. Between scheduled committee meetings, the chair of the committee, on behalf of the committee, is authorised to pre-approve any audit or non-audit service engagement fees and terms. At the next committee meeting, the chair shall report to the committee any such pre-approval given. Establish and adopt procedures for such matters.

Internal auditor

1. Review and approve the appointment or removal of the internal auditor.
2. Review and discuss with the external auditors, management, and internal auditor the responsibilities, budget and staffing of the corporation's internal audit function.
3. Review and approve the mandate for the internal auditor and the scope of annual work planned by the internal auditor, receive summary reports of internal audit findings, management's response thereto, and reports on any subsequent follow-up to any identified weakness.
4. Ensure that the internal auditor has direct and open communication with the committee and that the internal auditor meets regularly with the committee without the presence of management to discuss any matters that the committee or the internal auditor believe should be discussed privately, such as problems or difficulties which were encountered in the course of internal audit work, including restrictions on the scope of activities or access to required information, and any disagreements with management.
5. Review and discuss with the internal auditor and management the internal auditor's ongoing assessments of the corporation's business processes and system of internal controls.
6. Review the effectiveness of the internal audit function, including staffing, organizational structure and qualifications of the internal auditor and staff.

Compliance

1. Monitor compliance by the corporation with all payments and remittances required to be made in accordance with applicable law, where the failure to make such payments could render the directors of the corporation personally liable.
2. The receipt of regular updates from management regarding compliance with laws and regulations and the process in place to monitor such compliance, excluding, however, legal compliance matters subject to the oversight of the safety, health and environment committee of the board. Review the findings of any examination by regulatory authorities and any external auditors' observations relating to such matters.
3. Establish and oversee the procedures in the code of conduct and ethics policy to address:
 - (a) the receipt, retention and treatment of complaints received by the corporation regarding accounting, internal accounting or auditing matters; and
 - (b) confidential, anonymous submissions by employees of concerns regarding questionable accounting and auditing matters.

Receive periodically a summary report from the senior vice-president, chief legal officer and corporate secretary on such matters as required by the code of conduct and ethics.

4. Review and recommend to the board for approval a code of conduct and ethics for employees, officers and directors of the corporation. Monitor management's implementation of the code of conduct and ethics and the global anti-corruption program and review compliance therewith by, among other things, obtaining an annual report summarizing statements of compliance by employees pursuant to such policies and reviewing the findings of any investigations of non-compliance.

Periodically review the adequacy and appropriateness of such policies and programs and make recommendations to the board thereon.

5. Monitor management's implementation of the anti-fraud policy; and review compliance therewith by, among other things, receiving reports from management on:
 - (a) any investigations of fraudulent activity;
 - (b) monitoring activities in relation to fraud risks and controls; and
 - (c) assessments of fraud risk.

Periodically review the adequacy and appropriateness of the anti-fraud policy and make recommendations to the board thereon.

6. Review all proposed related party transactions and situations involving a director's, senior officer's or an affiliate's potential or actual conflict of interest that are not required to be dealt with by an "independent committee" pursuant to securities law rules, other than routine transactions and situations arising in the ordinary course of business, consistent with past practice. Between scheduled committee meetings, the chair of the committee, on behalf of the committee, is authorized to review all such transactions and situations. At the next committee meeting, the chair shall report the results of such review.
7. Monitor management of hedging, debt and credit, make recommendations to the board respecting policies for management of such risks, and review the corporation's compliance therewith.
8. Approve the review and approval process for the expenses submitted for reimbursement by the chief executive officer.
9. Oversee management's mitigation of material risks within the committee's mandate and as otherwise assigned.
10. Undertake such other tasks as may be directed to it from time to time by the board.

Financial oversight

1. Assist the board in its consideration and ongoing oversight of matters pertaining to:
 - (a) capital structure and funding including finance and cash flow planning;
 - (b) capital management planning and initiatives;
 - (c) property and corporate acquisitions and divestitures including proposals which may have a material impact on the corporation's capital position;
 - (d) the corporation's annual budget and business plan;
 - (e) the corporation's insurance program;
 - (f) directors' and officers' liability insurance and indemnity agreements;
 - (g) the annual approval to elect the end-user exception under Dodd Frank; and
 - (h) matters the board may refer to the committee from time to time in connection with the corporation's capital position.

Organizational matters

1. The procedures governing the committee shall, except as otherwise provided for herein, be those applicable to the board committees as set forth in Part 7 of the General Bylaws of the corporation.
2. The members and the chair of the committee shall be entitled to receive remuneration for acting in such capacity as the board may from time to time determine.
3. The committee shall have the resources and authority appropriate to discharge its duties and responsibilities, including the authority to:
 - (a) select, retain, terminate, set and approve the fees and other retention terms of special or independent counsel, accountants or other experts, as it considers appropriate; and

(b) obtain appropriate funding to pay, or approve the payment of, such approved fees;

without seeking approval of the board or management.

4. Any member of the committee may be removed or replaced at any time by the board and shall cease to be a member of the committee upon ceasing to be a director. The board may fill vacancies on the committee by appointment from among its members. If and whenever a vacancy shall exist on the committee, the remaining members may exercise all its powers so long as a quorum remains in office. Subject to the foregoing, each member of the committee shall remain as such until the next annual meeting of shareholders after that member's election.
5. The committee shall annually review and assess the adequacy of its mandate and recommend any proposed changes to the nominating, corporate governance and risk committee for recommendation to the board for approval.
6. The committee shall participate in an annual performance evaluation, the results of which will be reviewed by the board.
7. The committee shall perform any other activities consistent with this mandate, the corporation's governing laws and the regulations of stock exchanges, as the committee or the board considers necessary or appropriate.
8. A standing invitation will be issued to all non-executive directors to attend the financial oversight portion of each committee meeting.