

TD Securities Global Mining Conference
January 2022

Powering
**PEOPLE, PARTNERSHIPS
AND PASSION.**



Denison Mines
Uranium Development & Exploration
The Athabasca Basin, Northern Saskatchewan

This presentation and the information contained herein is designed to help you understand management's current views, and may not be appropriate for other purposes. This presentation contains information relating to the uranium market, third party and provincial infrastructure, and the plans and availability thereof, derived from third-party publications and reports which Denison believes are reliable but have not been independently verified by the Company.

Certain information contained in this presentation constitutes "forward-looking information", within the meaning of the United States Private Securities Litigation Reform Act of 1995 and similar Canadian legislation concerning the business, operations and financial performance and condition of Denison. Generally, these forward-looking statements can be identified by the use of forward-looking terminology such as "plans", "expects", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates", or "believes", or the negatives and / or variations of such words and phrases, or state that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur", "be achieved" or "has the potential to". In particular, this presentation contains forward-looking information pertaining to the results of, and estimates, assumptions and projections provided in, the Wheeler PFS and the Waterbury PEA, including future development methods and plans, market prices, costs and capital expenditures; assumptions regarding Denison's ability to obtain all necessary regulatory approvals to commence development at Wheeler; Denison's percentage interest in its projects and its agreements with its joint venture partners; and the availability of services to be provided by third parties. Statements relating to "mineral resources" are deemed to be forward-looking information, as they involve the implied assessment, based on certain estimates and assumptions that the mineral resources described can be profitably produced in the future.

Forward looking statements are based on the opinions and estimates of management as of the date such statements are made, and they are subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of Denison to be materially different from those expressed or implied by such forward-looking statements. Denison faces certain risks, including the current and potential impacts of the COVID-19 pandemic, use of mining methods which are novel and untested in the Athabasca basin, the inability to permit or develop its projects as currently planned, the inability to secure sufficient financing to pursue its business objectives, the unpredictability of market prices, events that could materially increase costs, changes in the regulatory environment governing the project lands, and unanticipated claims against title and rights to the project. Denison believes that the expectations reflected in this forward-looking information are reasonable but there can be no assurance that such statements will prove to be accurate and may differ materially from those anticipated in this forward looking information. For a discussion in respect of risks and other factors that could influence forward-looking events, please refer to the "Risk Factors" in Denison's Annual Information Form dated March 26, 2021 available under its profile at www.sedar.com and its Form 40-F available at www.sec.gov/edgar.shtml. These factors are not, and should not be construed as being exhaustive.

Readers should not place undue reliance on forward-looking statements. The forward-looking information contained in this presentation is expressly qualified by this cautionary statement. Any forward-looking information and the assumptions made with respect thereto speaks only to the effective date of this presentation. Denison does not undertake any obligation to publicly update or revise any forward-looking information after such date to conform such information to actual results or to changes in its expectations except as otherwise required by applicable legislation.

Cautionary Note to United States Investors Concerning Estimates of Mineral Resources and Mineral Reserves: This presentation may use terms such as "measured", "indicated" and/or "inferred" mineral resources and "proven" or "probable" mineral reserves, which are terms defined with reference to the guidelines set out in the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") CIM Definition Standards on Mineral Resources and Mineral Reserves ("CIM Standards"). The Company's descriptions of its projects may not be comparable to similar information made public by U.S. companies subject to the reporting and disclosure requirements under the United States federal securities laws and the rules and regulations thereunder.

Qualified Persons

The disclosure of a scientific or technical nature within this presentation, including the disclosure of mineral resources, mineral reserves, as well as the results of the Wheeler PFS and Waterbury PEA, was reviewed and approved by David Bronkhorst, P.Eng., who is a Qualified Person in accordance with the requirements of NI 43-101.

Technical Reports

- For further details regarding the **Wheeler River project**, please refer to the Company's press release dated September 24, 2018 and the technical report titled "*Prefeasibility Study for the Wheeler River Uranium Project, Saskatchewan, Canada*" with an effective date of September 24, 2018 ("Wheeler PFS").
- For further details regarding the **Waterbury Lake project**, please refer to the Company's press release dated November 17, 2020 and the technical report titled "*Preliminary Economic Assessment for the Tthe Heldeth Tuvé (J Zone) Deposit, Waterbury Lake Property, Northern Saskatchewan, Canada*" with an effective date of October 30, 2020 ("Waterbury PEA"). **The PEA is a preliminary analysis of the potential viability of the Project's mineral resources, and should not be considered the same as a Pre-Feasibility or Feasibility Study, as various factors are preliminary in nature. There is no certainty that the results from the PEA will be realized. Mineral resources are not mineral reserves and do not have demonstrated economic viability. Scheduled tonnes and grade do not represent an estimate of mineral reserves.**

For a description of the data verification, assay procedures and the quality assurance program and quality control measures applied by Denison, please see Denison's Annual Information Form dated March 26, 2021. A copy of the foregoing is available on Denison's website and under its profile on SEDAR at www.sedar.com and on EDGAR at www.sec.gov/edgar.shtml.

Diversified Athabasca Basin asset base with superior development leverage

95%⁽¹⁾

effective interest in Flagship Wheeler River project

PFS stage development project⁽²⁾

Largest undeveloped uranium project in the infrastructure rich eastern Athabasca Basin

Environmental Assessment (“EA”) and Feasibility Study initiated⁽³⁾

22.5%

interest in Strategic McClean Lake Uranium Mill

Strategic regional asset

+12% of global uranium production

Excess licensed annual capacity

Licensed for expansion of tailings management facility (“TMF”) ⁽⁴⁾

66.9%

interest in Emerging Waterbury Lake project

PEA stage development project⁽⁵⁾

The Heldeth Túé (“THT”) deposit (formerly J Zone) highlights potential for future development project pipeline

Participating interests in key development-stage assets operated by uranium “majors”

Includes 22.5% in McClean Lake (Orano), 25.17% in Midwest (Orano), and an effective 15% in Millennium (Cameco) through 50% ownership of JCU⁽⁶⁾

+280,000

hectares of exploration ground

PHOTO:

Aerial view of Denison’s 22.5% owned McClean Lake mill facility

NOTES:

(1) Denison increased its effective interest in Wheeler River as part of the acquisition of 50% of JCU (Canada) Exploration Company, Limited. See Denison’s news release dated August. 3, 2021.

(2) Refer to the Wheeler River Technical Report titled “Pre-feasibility Study Report for the Wheeler River Uranium Project, Saskatchewan, Canada” dated September 24, 2018.

(3) See Denison’s news release dated September 22, 2021.

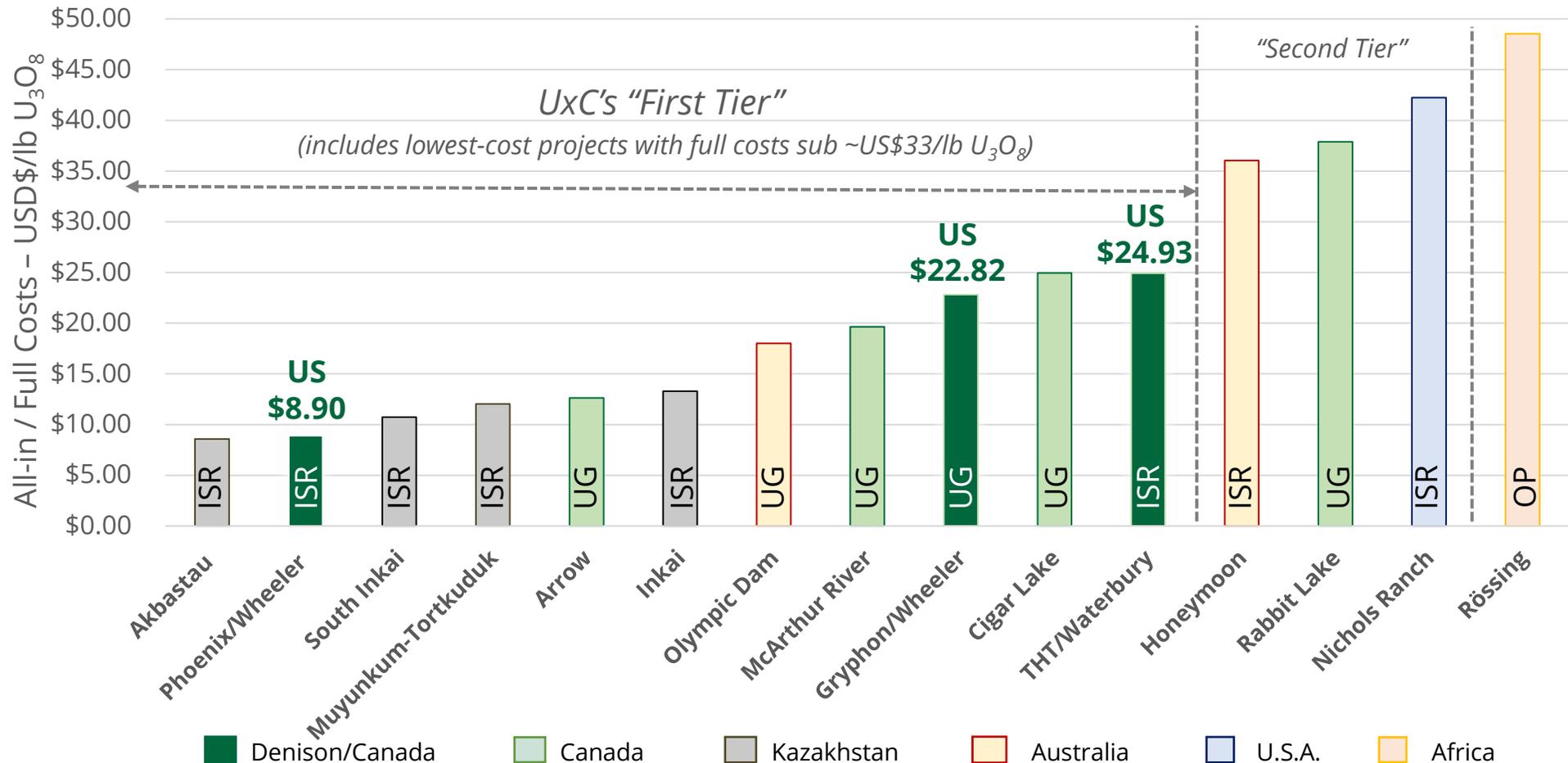
(4) See Denison’s news release dated January 19, 2022.

(5) Refer to the Waterbury Lake Technical Report titled “Preliminary Economic Assessment for the Tthe Heldeth Túé (J Zone) Deposit, Waterbury Lake Property, Northern Saskatchewan, Canada” dated October 30, 2020.

(6) See Denison’s news release dated August. 3, 2021.

Denison's development portfolio projects: Positioned amongst the lowest all-in cost assets of UxC's First Tier

Sample of Global Production Costs⁽¹⁾⁽²⁾⁽³⁾
Planned and Producing Operations (with Mining Method)



NOTES:

(1) Chart data, including all-in costs and UxC's categorization of production cost "tiers", have been derived from UxC's estimates of Worldwide Production Costs from the Uranium Production Cost Study dated August 2021.

(2) For Phoenix and Gryphon, refer to the Wheeler River Technical Report titled "Pre-feasibility Study Report for the Wheeler River Uranium Project, Saskatchewan, Canada" dated September 24, 2018.

(3) for THT/Waterbury, refer to the Waterbury Lake Technical Report titled "Preliminary Economic Assessment for the Tthe Heldeth Túé (J Zone) Deposit, Waterbury Lake Property, Northern Saskatchewan, Canada" dated October 30, 2020.

Robust Balance Sheet with +CAD\$200M in working capital and investments⁽¹⁾

2.4M lbs U₃O₈

in holdings of
physical uranium

Market value ~**CAD\$131M** (US\$43.00/lb U₃O₈)

Acquired at average cost of **US\$29.62/lb U₃O₈**

Long-term holding expected to enhance access to
future project financing for flagship Wheeler River⁽²⁾

All material received and held in licenced North
American storage facilities (Cameco + ConverDyn)

+100K lbs U₃O₈ delivered Oct. 4th for US\$3M

+CAD\$25M

invested in
uranium equities

Significant equity holdings in uranium
exploration and development companies,
including GoviEx Uranium Inc. ("GoviEx") &
Skyharbour Resources Ltd.

Sold 32.5M shares in GoviEx and option to
purchase further 32.5M of Denison's shares in
GoviEx (at exercise price of CAD\$0.80/share)
on October 26th for **CAD\$15.6M**⁽³⁾

+CAD\$50M

 in cash and cash equivalents at Sep. 30, 2021

PHOTO:

Packaged U₃O₈ yellowcake
at Denison's 22.5% owned
McClellan Lake mill.

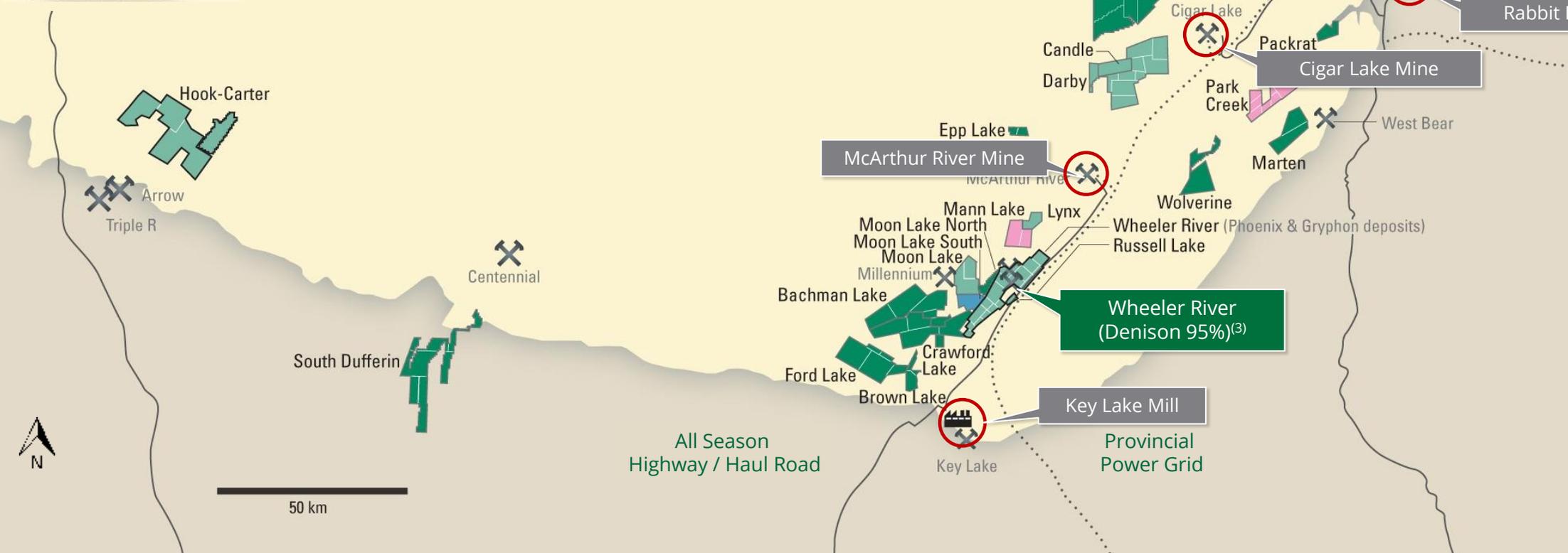
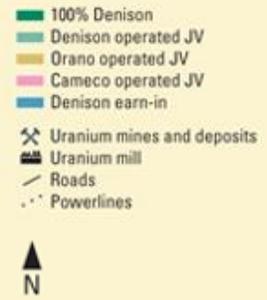
NOTES:

(1) As of September 30,
2021, see Q3'2021
financial statements and
MD&A for additional
details.

(2) See Denison's news
releases dated March 15,
2021, March 22, 2021, and
April 1, 2021.

(3) See Denison's news
releases dated October
21, 2021 and October 26,
2021.

Large land position in the infrastructure-rich eastern portion of the Athabasca Basin⁽¹⁾⁽²⁾



NOTES:

(1) Denison direct land position shown as of September 30, 2021.

(2) Excludes interests held only through 50% ownership of JCU – See Denison news release dated August 3, 2021.

(3) Denison increased its effective interest in Wheeler River as part of the acquisition of 50% of JCU (Canada) Exploration Company, Limited. See Denison's news release dated August. 3, 2021.

95% owned flagship Wheeler River development project⁽¹⁾⁽²⁾

Two

High-grade uranium deposits

Phoenix – designed as a low-cost In-Situ Recovery (“ISR”) operation with on-site processing to finished yellow cake (U_3O_8)

Gryphon – contributes additional low-cost production via conventional underground mining with assumed toll milling at 22.5% Denison owned McClean Lake mill

14-year
combined
Mine Life

109.4M lbs U_3O_8
combined
Probable Reserves
(100% basis)

CAD\$322.5M
estimated
Initial CAPEX
(100% basis)

NI 43-101
compliant
Pre-Feasibility Study
completed in 2018
considers staged
development plan⁽¹⁾

Located within the boundaries of Treaty 10
in the traditional territory of English River First Nation and
in the homeland of the Métis

11,720
hectares of prospective
ground over 19 claims

PHOTO:

Installation of large-diameter commercial scale ISR test wells at Phoenix during 2021.

LINKS:

[Wheeler River Project Video on Vimeo](#)

[Wheeler River Project Page on Denison Website](#)

NOTES:

(1) Refer to the Wheeler River Technical Report titled “Pre-feasibility Study Report for the Wheeler River Uranium Project, Saskatchewan, Canada” dated September 24, 2018.

(2) Denison increased its effective interest in Wheeler River as part of the acquisition of 50% of JCU (Canada) Exploration Company, Limited. See Denison’s news release dated August. 3, 2021.

Phoenix In-Situ Recovery ("ISR") Operation:

PFS highlights potential to become one of the lowest cost uranium mines in the world⁽¹⁾



70.2M
lbs U₃O₈
@
19.14%
U₃O₈

Indicated Mineral Resources
(166,000 tonnes, 100% basis)

Highest-grade undeveloped uranium deposit

Plus...
1.1M
lbs U₃O₈
Inferred mineral resources
(8,600 tonnes @ 5.8% U₃O₈, 100% basis)

6M lbs
lbs U₃O₈
Average annual production over 10 years
(100% basis)

us\$3.33
/ lbs U₃O₈
average Cash Operating Costs

(C\$4.33/lb U₃O₈)

c\$1.91B
estimated Pre-Tax NPV_{8%}
(100% basis)

US\$65/lb U₃O₈ selling price
(see note 3, 4)

c\$322.5M
estimated Initial CAPEX
(100% basis)

us\$8.90
/ lbs U₃O₈
average All-in Cost⁽²⁾

(C\$11.57/lb U₃O₈)

71.5%
estimated Pre-Tax IRR

US\$65/lb U₃O₈ selling price
(see note 3, 4)

PHOTOS:

ISR test pattern and commercial scale well-head (inset) at Phoenix during field tests / tracer test completed in 2021.

NOTES:

(1) Refer to the Wheeler River Technical Report titled "Pre-feasibility Study Report for the Wheeler River Uranium Project, Saskatchewan, Canada" dated September 24, 2018.

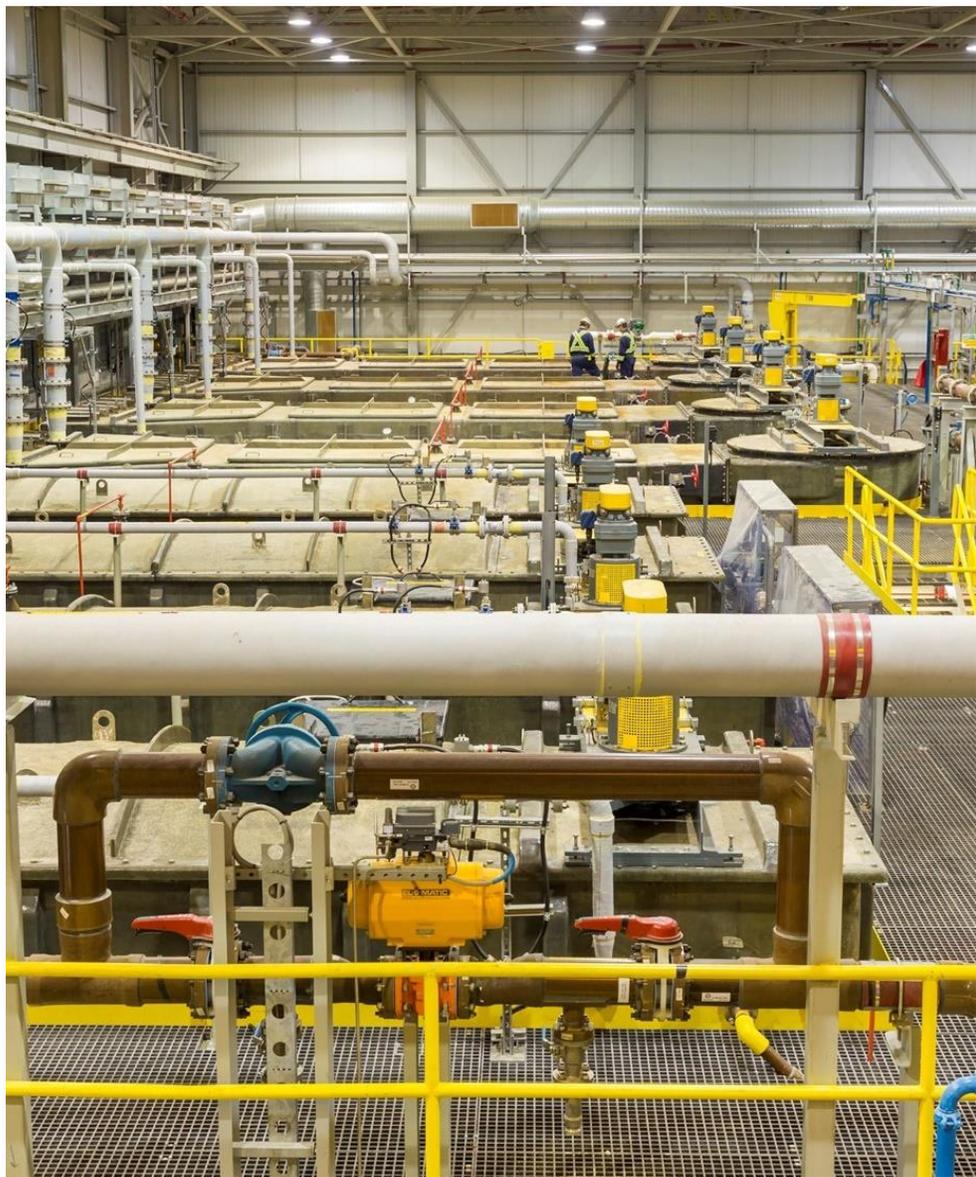
(2) All-in cost is estimated on a pre-tax basis and includes all project operating costs and capital costs, divided by the estimated number of total pounds U₃O₈ to be produced.

(3) NPV and IRR are calculated based on assessed "high-case" uranium price, to the start of pre-production activities for the Phoenix operation.

(4) Indicative post-tax results were prepared on a combined basis with the Gryphon deposit for Denison's then 90% ownership interest, see economics slide for details.

Gryphon Underground (“UG”) Operation:

PFS shows potential to add further low-cost production by using existing infrastructure⁽¹⁾



61.9M
lbs U₃O₈
@
1.7%
U₃O₈

Indicated Mineral Resources (1,643,000 tonnes, 100% basis)

Moderate grade allows low-cost conventional UG mining approach

Plus...
1.9M
lbs U₃O₈
Inferred mineral resources
(73,000 tonnes @ 1.2% U₃O₈, 100% basis)

7.6M
lbs U₃O₈
Average annual production over 6.5 years (100% basis)

US\$11.70
/ lbs U₃O₈
average Cash Operating Costs
(C\$15.21/lb U₃O₈)

c\$998.8M
estimated Pre-Tax NPV_{8%}
(100% basis)
US\$65/lb U₃O₈ selling price
(see note 3, 4)

c\$623.1M
estimated Initial CAPEX
(100% basis)

US\$22.82/
lbs U₃O₈
average All-in Cost⁽²⁾
(C\$29.67/lb U₃O₈)

31.0%
estimated Pre-Tax IRR
US\$65/lb U₃O₈ selling price
(see note 3, 4)

PHOTO:

View inside the SX circuit at Denison's 22.5% owned McClean Lake mill, which is assumed to toll mill production from the Gryphon UG operation

NOTES:

(1) Refer to the Wheeler River Technical Report titled "Pre-feasibility Study Report for the Wheeler River Uranium Project, Saskatchewan, Canada" dated September 24, 2018.

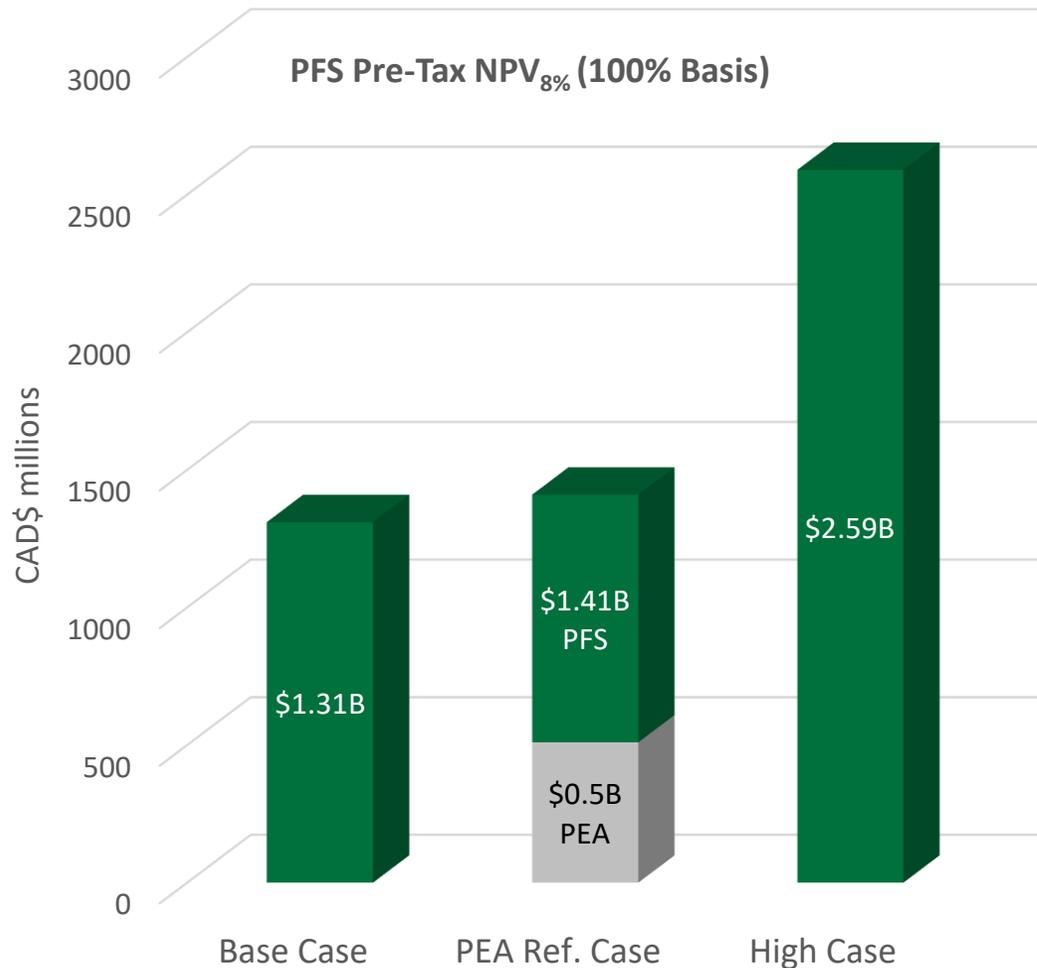
(2) All-in cost is estimated on a pre-tax basis and includes all project operating costs and capital costs, divided by the estimated number of total pounds U₃O₈ to be produced.

(3) NPV and IRR are calculated based on assessed "high-case" uranium price, to the start of pre-production activities for the Gryphon operation.

(4) Indicative post-tax results were prepared on a combined basis with the Phoenix deposit for Denison's then 90% ownership interest, see economics slide for details.

Wheeler River PFS:

Robust economics supported by conservative uranium price assumptions



Phoenix

~US\$29/ lb U₃O₈
increasing to US\$45/lb U₃O₈ used in Base Case

Gryphon

US\$50/ lb U₃O₈
fixed price used in Base Case

+175% increase in pre-tax project NPV from 2016 PEA⁽⁶⁾ (using PEA selling price of US\$44/lb U₃O₈)

Assumptions / Results ⁽¹⁾	Base Case	PEA Ref.	High Case
Selling price / lb U ₃ O ₈	As above	US\$44	US\$65
Pre-tax NPV _{8%} ⁽²⁾⁽⁴⁾ (100%)	\$1.31 billion	\$1.41 billion	\$2.59 billion
Pre-tax IRR ⁽²⁾⁽⁵⁾	38.7%	47.4%	67.4%
Pre-tax payback period ⁽³⁾	~24 months	~15 months	~ 11 months

NOTES:

(1) Refer to the Wheeler River Technical Report titled "Pre-feasibility Study Report for the Wheeler River Uranium Project, Saskatchewan, Canada" dated September 24, 2018.

(2) NPV and IRR are calculated to the start of pre-production activities for the applicable operation.

(3) Payback period is stated as number of years to pay-back from the start of commercial production.

(4) Post-tax NPV attributable to Denison's then pro-forma 90% interest is estimated to be between \$756 million (base-case) and \$1.5 billion (\$65/lb high-case).

(5) Post-tax IRR attributable to Denison's then pro-forma 90% interest is estimated to be between 32.7% (base-case) and 55.7% (\$65/lb high-case).

(6) 2016 PEA produced pre-tax project NPV(8%) of \$513 million at fixed uranium selling price of US\$44/lb U₃O₈.

Phoenix ISR De-Risking:

Combining the world's lowest cost uranium mining method with the world's highest-grade undeveloped uranium deposit

2019/2020 ISR Field Tests⁽¹⁾

35 small-diameter test, observation and re-charge wells

2 large-diameter commercial scale wells

Pump and injection tests collecting critical hydrogeological data

Demonstrated "Proof of Concept" for use of ISR

Specialized Core Leach Testing⁽²⁾

Leach testing indicative of in-situ conditions using intact core samples from Phoenix

Results consistently produced uranium bearing solution head-grade levels significantly higher than grade used in the 2018 PFS

Additional High-Grade uranium discovered at Phoenix⁽³⁾

22.0% eU₃O₈
over 8.6 metres in GWR-045

Located outside of the existing high-grade resource domain for Zone A and Phase 1 of the current mining plan

2021 field test of commercial-scale ISR test pattern⁽⁴⁾

Achieved commercial-scale flow-rate used in the 2018 PFS

Completed Athabasca Basin first "tracer test" showing hydraulic control, breakthrough times consistent with modelling, and ability to carry out "clean-up"

PHOTOS (Left to Right):

Small diameter ISR test wells installed at Phoenix in 2019; Specialized core-leach testing apparatus from the Saskatchewan Research Council (SRC); high-grade uranium core and scintillometer; monitoring of commercial scale ISR test wells at Phoenix in 2021.

LINKS:

[2021 Phoenix ISR Test Program on Vimeo](#)

NOTES:

(1) See Denison's news releases dated December 18, 2019, February 24, 2020, and June 4, 2020.

(2) See Denison's news releases dated February 19, 2020, and August 4, 2021.

(3) See Denison's news release dated July 29, 2021.

(4) See Denison's news release dated October 28, 2021.

Capital Structure & Corporate Information

Market Summary ⁽¹⁾

Exchanges	TSX: DML NYSE American: DNN
Shares Outstanding	807.4 M
Share Purchase Warrants (US\$2/US\$2.25)	15.8M / 39.2M
Share Units	7.3 M
Options	10.6 M
Fully Diluted Shares	880.3 M
Market Cap – DML @ C\$1.78/share ⁽²⁾	CAD \$1.44 B
Daily Trading Volume – DML ⁽³⁾	4.1M Shares
Market Cap – DNN @ US\$1.40/share ⁽²⁾	USD \$1.13 B
Daily Trading Volume – DNN ⁽³⁾	12.9M Shares

Management & Directors

David Cates (President & CEO, Director)

Mac McDonald (Exec. VP & CFO)

David Bronkhorst (VP Operations)

Elizabeth Sidle (VP Finance)

Amanda Willett (VP Legal)

Ron F. Hochstein (Non-Executive Chair)

W. Robert Dengler (Director)

Brian D. Edgar (Director)

Jun Gon Kim (Director)

David Neuburger (Director)

Jennifer Traub (Director)

Patricia M. Volker (Director)

LINKS:

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Twitter:
[@DenisonMinesCo](https://twitter.com/DenisonMinesCo)

Email:
info@denisonmines.com

NOTES:

(1) Share capital information as of November 4, 2021 (Q3'2021 MDA).

(2) Based on shares outstanding above and DML/DNN share prices as of December 31, 2021.

(3) Average daily trading volume over previous 3 months as of December 31, 2021.