

Corporate Update  
January 2022

*Powering*  
**PEOPLE, PARTNERSHIPS  
AND PASSION.**



**Lenison 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](http://www.sedar.com) and its Form 40-F available at [www.sec.gov/edgar.shtml](http://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

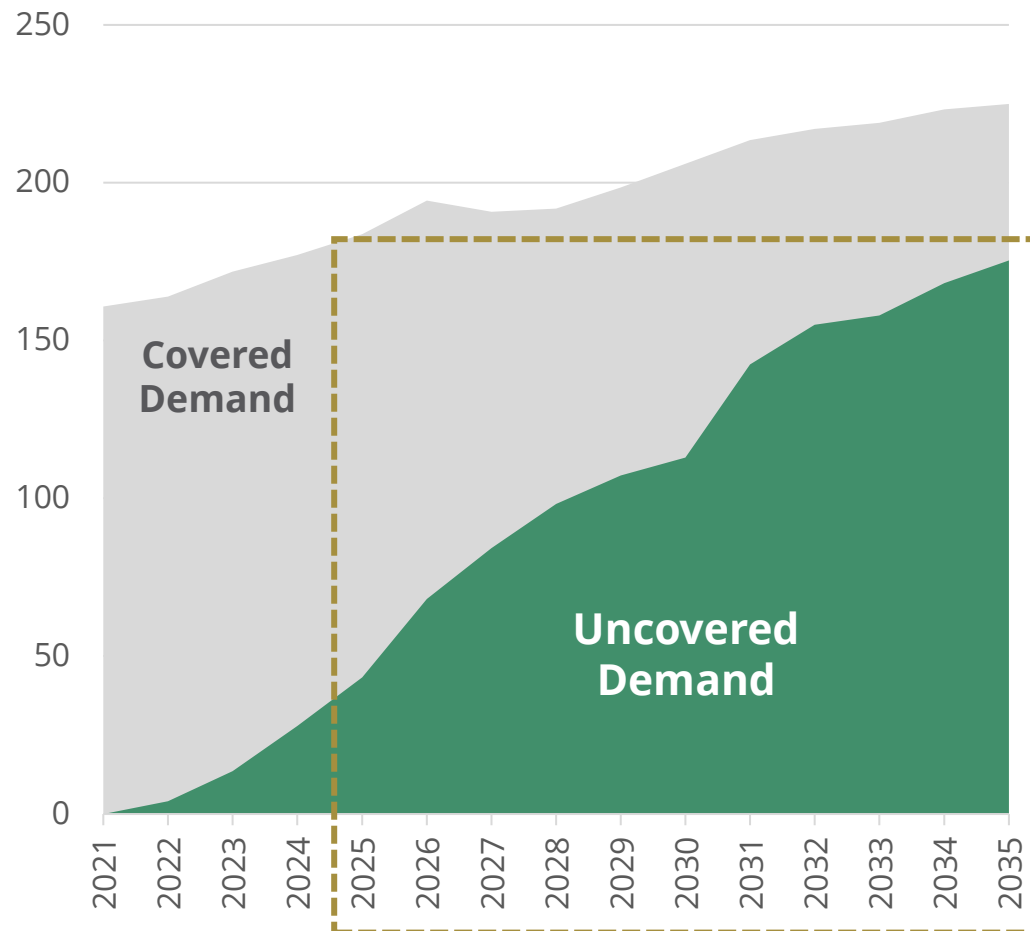
- For further details regarding the **Wheeler River project**, please refer to the Company's press release dated September 24, 2018 and the technical report titled "*Prefeasibility Study for the Wheeler River Uranium Project, Saskatchewan, Canada*" with an effective date of September 24, 2018 ("Wheeler 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](http://www.sedar.com) and on EDGAR at [www.sec.gov/edgar.shtml](http://www.sec.gov/edgar.shtml).



# The Uranium Investment Thesis: Fundamentals progressing towards a positive new uranium cycle

Annual Utility Uranium Requirements <sup>(1)</sup>  
(million pounds U<sub>3</sub>O<sub>8</sub> - per UxC Q4'21)



## Key Market Themes:

1. Demand story is positive – now exceeding pre-Fukushima levels + **clean-energy transition** has identified the critical role of nuclear in battle against climate change
2. Curtailment decisions made by uranium producers created a significant primary production deficit
3. COVID-19 related supply disruptions accelerated the drawdown of surplus inventories
4. Long-term contracts from previous cycle ending with **significant uncovered requirements emerging**
5. Sustained period of low prices means project pipeline may be inadequate to deliver new production in time to replace aging mines
6. Investor interest in uranium market has increased, with purchasing **physical uranium** gaining in popularity + testing depth of discretionary supplies

### NOTES:

(1) Data in this slide has been derived from UxC's Uranium Market Outlook dated Q4'2021, including UxC's estimates of uncovered requirements and the URM "Base Demand No Inventory Build" requirements forecast to estimate covered demand.

# Diversified Athabasca Basin asset base with superior development leverage

**95%**<sup>(1)</sup>

effective interest in  
Flagship  
Wheeler River project

PFS stage development project<sup>(2)</sup>

Largest undeveloped uranium project in the infrastructure rich eastern Athabasca Basin

Environmental Assessment (“EA”) and Feasibility Study initiated<sup>(3)</sup>

**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”) <sup>(4)</sup>

**66.9%**

interest in  
Emerging  
Waterbury Lake project

PEA stage development project<sup>(5)</sup>

The Heldeth Tùé (“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<sup>(6)</sup>

**+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.

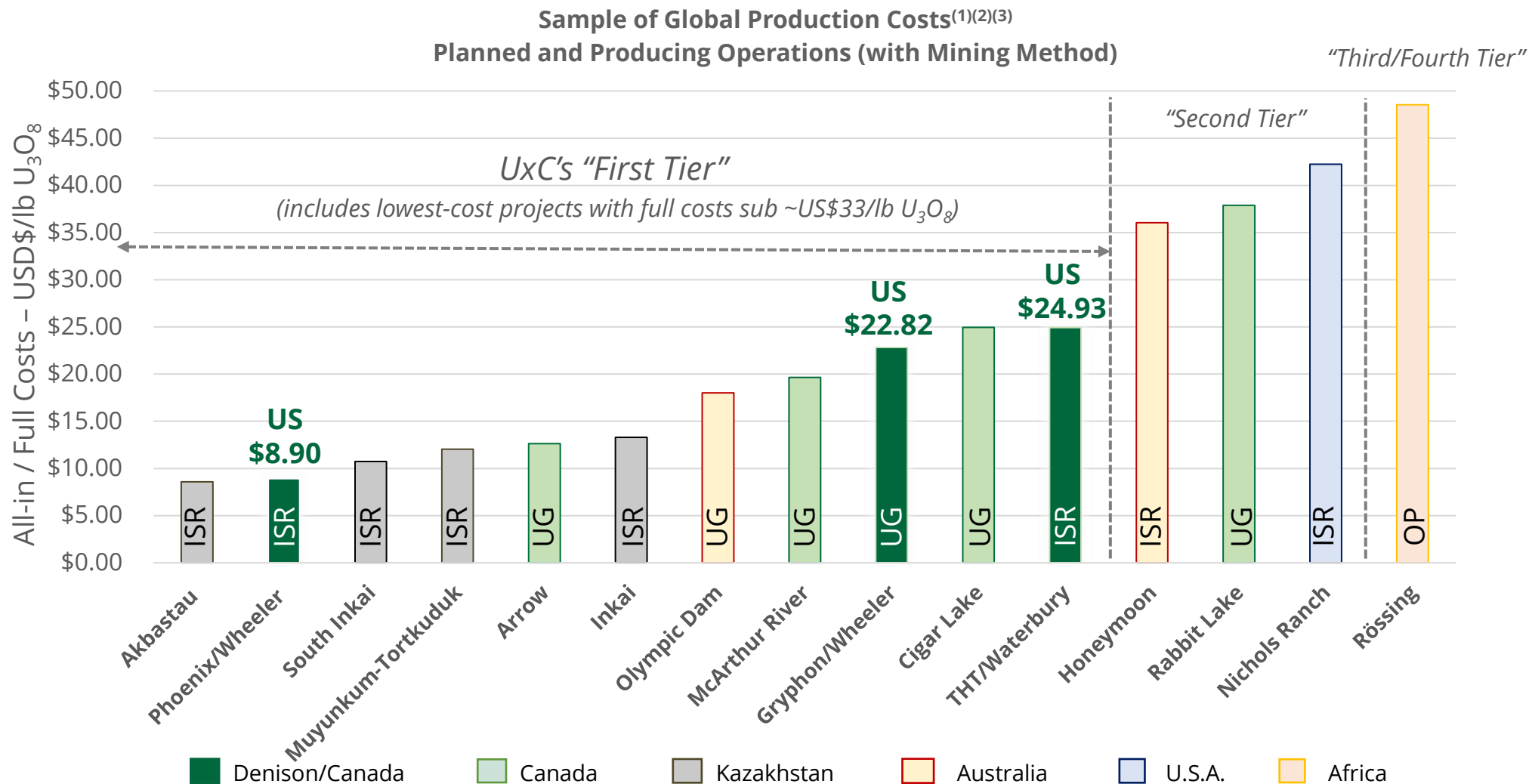
(3) See Denison’s news release dated September 22, 2021.

(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 Tùé (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



**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<sup>(1)</sup>

## 2.4M lbs U<sub>3</sub>O<sub>8</sub>

in holdings of  
physical uranium

Market value ~**CAD\$131M** (US\$43.00/lb U<sub>3</sub>O<sub>8</sub>)

Acquired at average cost of **US\$29.62/lb U<sub>3</sub>O<sub>8</sub>**

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

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

+100K lbs U<sub>3</sub>O<sub>8</sub> delivered Oct. 4<sup>th</sup> 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 26<sup>th</sup> for **CAD\$15.6M**<sup>(3)</sup>

## +CAD\$50M

 in cash and cash equivalents at Sep. 30, 2021

PHOTO:

Packaged U<sub>3</sub>O<sub>8</sub> 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<sup>(1)(2)</sup>



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<sup>(1)(2)</sup>

## 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<sub>3</sub>O<sub>8</sub>)

**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<sub>3</sub>O<sub>8</sub>

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<sup>(1)</sup>

## 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<sup>(1)</sup>



**70.2M**  
**lbs U<sub>3</sub>O<sub>8</sub>**  
@  
**19.14%**  
**U<sub>3</sub>O<sub>8</sub>**

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

Highest-grade undeveloped uranium deposit

Plus...  
**1.1M**  
**lbs U<sub>3</sub>O<sub>8</sub>**  
**Inferred mineral resources**  
(8,600 tonnes @ 5.8% U<sub>3</sub>O<sub>8</sub>, 100% basis)

**6M lbs**  
**lbs U<sub>3</sub>O<sub>8</sub>**  
Average annual production over 10 years  
(100% basis)

**us\$3.33**  
**/ lbs U<sub>3</sub>O<sub>8</sub>**  
average Cash Operating Costs

(C\$4.33/lb U<sub>3</sub>O<sub>8</sub>)

**c\$1.91B**  
estimated Pre-Tax NPV<sub>8%</sub>  
(100% basis)

US\$65/lb U<sub>3</sub>O<sub>8</sub> selling price  
(see note 3, 4)

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

**us\$8.90**  
**/ lbs U<sub>3</sub>O<sub>8</sub>**  
average All-in Cost<sup>(2)</sup>

(C\$11.57/lb U<sub>3</sub>O<sub>8</sub>)

**71.5%**  
estimated Pre-Tax IRR

US\$65/lb U<sub>3</sub>O<sub>8</sub> 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 U<sub>3</sub>O<sub>8</sub> 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 slide 12 for details.



# Gryphon Underground (“UG”) Operation:

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



**61.9M**  
**lbs U<sub>3</sub>O<sub>8</sub>**  
 @  
**1.7%**  
**U<sub>3</sub>O<sub>8</sub>**

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

Moderate grade allows low-cost conventional UG mining approach

Plus...  
**1.9M**  
**lbs U<sub>3</sub>O<sub>8</sub>**  
**Inferred mineral resources**  
 (73,000 tonnes @ 1.2% U<sub>3</sub>O<sub>8</sub>, 100% basis)

**7.6M**  
**lbs U<sub>3</sub>O<sub>8</sub>**  
 Average annual production over 6.5 years (100% basis)

**US\$11.70**  
**/ lbs U<sub>3</sub>O<sub>8</sub>**  
**average Cash Operating Costs**  
 (C\$15.21/lb U<sub>3</sub>O<sub>8</sub>)

**c\$998.8M**  
**estimated Pre-Tax NPV<sub>8%</sub>**  
 (100% basis)  
 US\$65/lb U<sub>3</sub>O<sub>8</sub> selling price  
 (see note 3, 4)

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

**US\$22.82/**  
**lbs U<sub>3</sub>O<sub>8</sub>**  
**average All-in Cost<sup>(2)</sup>**  
 (C\$29.67/lb U<sub>3</sub>O<sub>8</sub>)

**31.0%**  
**estimated Pre-Tax IRR**  
 US\$65/lb U<sub>3</sub>O<sub>8</sub> 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 U<sub>3</sub>O<sub>8</sub> to be produced.

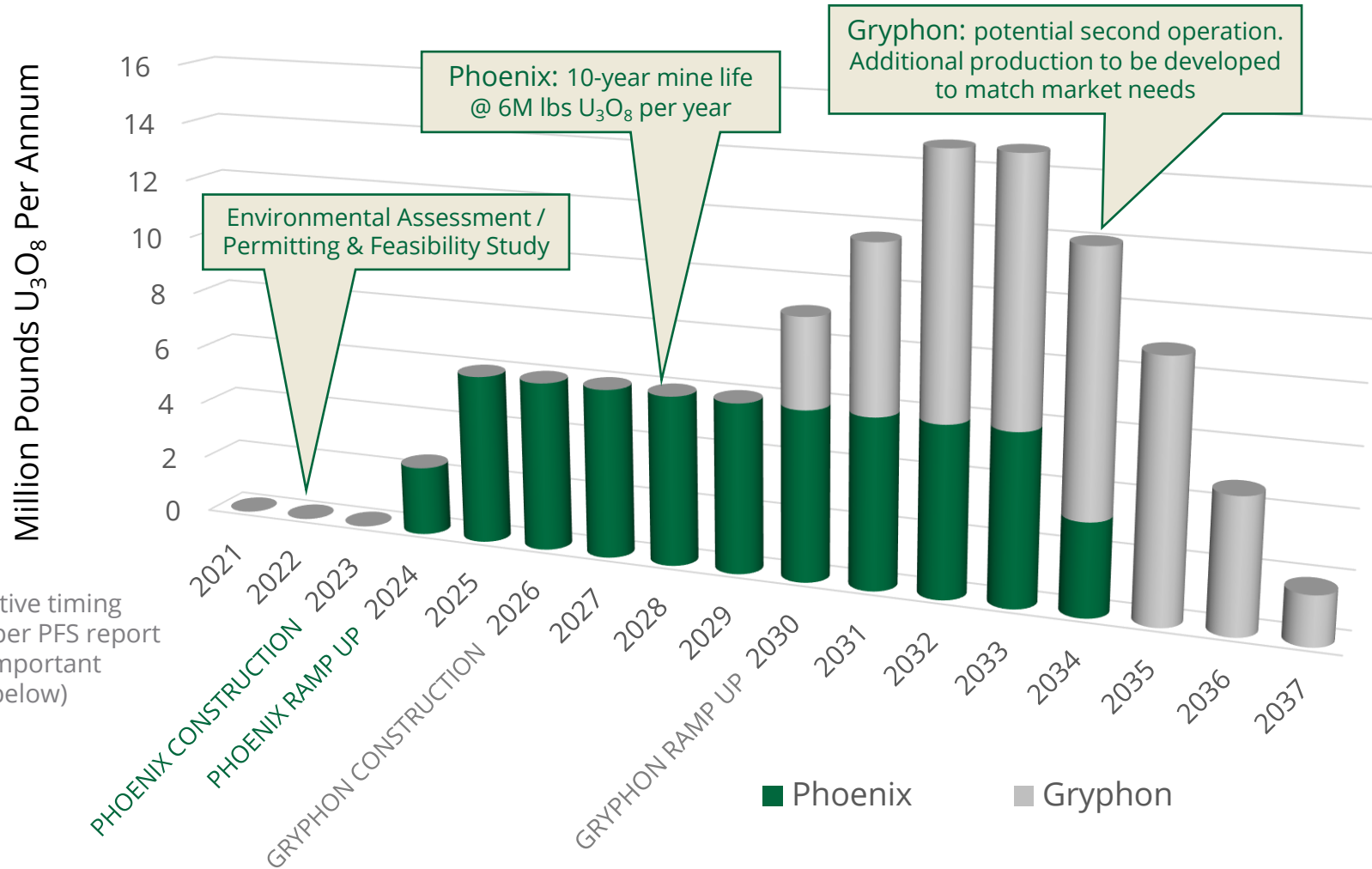
(3) NPV and IRR are calculated based on assessed “high-case” uranium price, to the start of pre-production activities for the Gryphon operation.

(4) Indicative post-tax results were prepared on a combined basis with the Phoenix deposit for Denison’s then 90% ownership interest, see slide 12 for details.



# Wheeler River PFS:

Staged development plan reduces risk and delivers production to match market needs<sup>(1)</sup>



Indicative timing only, per PFS report (see important note below)

NOTES:

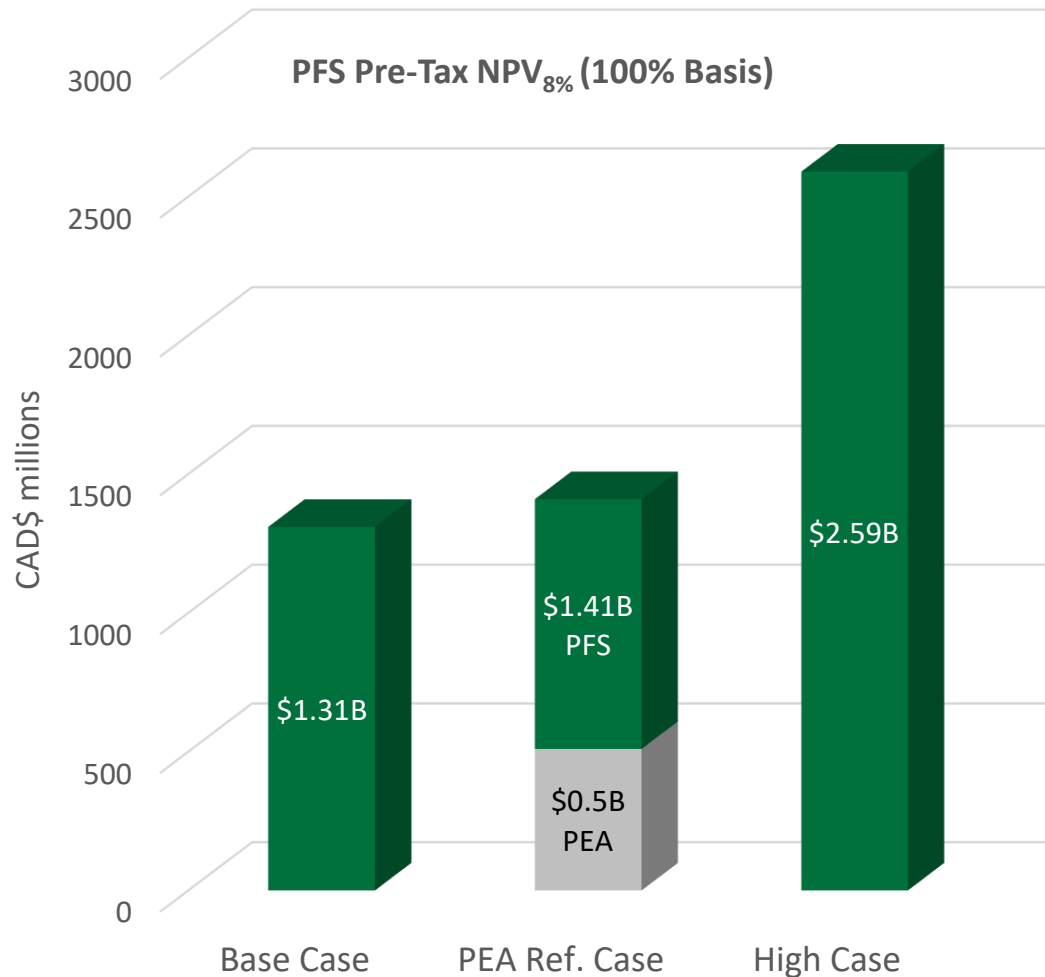
(1) Refer to the Wheeler River Technical Report titled "Pre-feasibility Study Report for the Wheeler River Uranium Project, Saskatchewan, Canada" dated September 24, 2018.

(2) See Denison's news release from March 20, 2020, for details.

**\*\*\*IMPORTANT\*\*\*** The Wheeler River PFS estimated pre-production activities to begin in 2021, assuming receipt of required regulatory approvals, with first production from the Phoenix deposit expected in 2024. In response to the onset of the COVID-19 pandemic in Canada in 2020, Denison suspended certain activities at Wheeler River, including the Environmental Assessment programs on the critical path to achieving the project development schedule outlined in the PFS. See Note 2. **EA activities were resumed effective January 2021.** The temporary suspension of the EA process is expected to impact the project development schedule outlined in the PFS for Wheeler River. The Company is not yet able to estimate the impact to the project development schedule outlined in the PFS, and **users are cautioned that the estimates provided therein regarding the start of pre-production activities in 2021 and first production in 2024 should not be relied upon.**

# Wheeler River PFS:

Robust economics supported by conservative uranium price assumptions



### Phoenix

~US\$29/ lb U<sub>3</sub>O<sub>8</sub>  
increasing to US\$45/lb U<sub>3</sub>O<sub>8</sub> used in Base Case

### Gryphon

US\$50/ lb U<sub>3</sub>O<sub>8</sub>  
fixed price used in Base Case

**+175% increase** in pre-tax project NPV from 2016 PEA<sup>(6)</sup> (using PEA selling price of US\$44/lb U<sub>3</sub>O<sub>8</sub>)

Assumptions / Results <sup>(1)</sup>	Base Case	PEA Ref.	High Case
Selling price / lb U <sub>3</sub> O <sub>8</sub>	As above	US\$44	US\$65
Pre-tax NPV <sub>8%</sub> <sup>(2)(4)</sup> (100%)	<b>\$1.31 billion</b>	<b>\$1.41 billion</b>	<b>\$2.59 billion</b>
Pre-tax IRR <sup>(2)(5)</sup>	38.7%	47.4%	67.4%
Pre-tax payback period <sup>(3)</sup>	~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 U<sub>3</sub>O<sub>8</sub>.



# 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<sup>(1)</sup>

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<sup>(2)</sup>

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<sup>(3)</sup>

**22.0% eU<sub>3</sub>O<sub>8</sub>**  
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<sup>(4)</sup>

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.

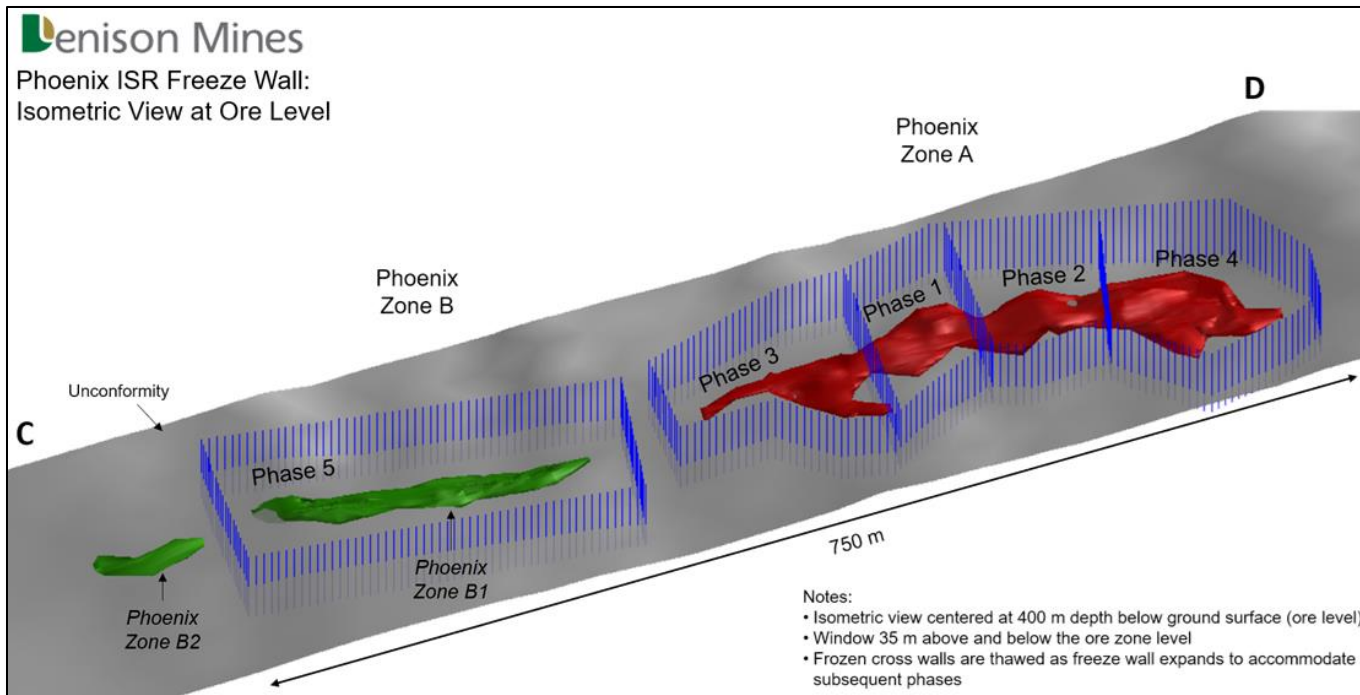
(3) See Denison's news release dated July 29, 2021.

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



# Phoenix ISR Feasibility Study:

Wood PLC selected to lead + author independent Feasibility Study in accordance with NI 43-101<sup>(1)</sup>



**50% increase**

to ISR mining uranium head-grade in PFS<sup>(3)</sup>

**Updated**

Estimate of Mineral Resources including results from GWR-045<sup>(4)</sup>

**Process Plant Optimization**

Including increase in ISR mining head-grade

**Mine Design Optimization**

Including results from multiple field tests

## Freeze wall design shows potential for significant advantages<sup>(2)</sup>

Conventional freeze “wall” design selected to replace novel freeze dome / cap design in 2018 PFS

- Enhanced environmental design – full containment of ISR wellfield to surface
- Lower technical complexity and operational risk – using existing diamond drilling methods
- Expected reduction in initial capital costs with introduction of phased mining approach
- Strengthened project sustainability

**Superior Standard of Environmental Stewardship**

Incorporating technical work and feedback from ongoing EA

**Class 3 Capital Cost Estimate**

AACE international standard with an accuracy of -15%/+25%

PHOTO:

Isometric view of planned ISR Freeze Wall for Phoenix, including illustration of phased mining approach

NOTES:

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

(2) See Denison’s news release dated December 1, 2020.

(3) See Denison’s news release dated August 4, 2021.

(4) See Denison’s news release dated July 29, 2021.



PHOTO:

Isometric schematic of ISR wellfield and freeze wall at depth of the THT deposit on Waterbury Lake property.

LINKS:

[Waterbury Lake Project Video on Vimeo](#)

[Waterbury Project Page on Denison Website](#)

NOTES:

(1) 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" and dated October 30, 2020.

(2) 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.

# 66.90% owned Waterbury Lake project demonstrates potential for ISR to transform portfolio projects<sup>(1)</sup>

(Rio Tinto)

## ISR

Mining method

**The Heldeth Túé ("THT")** deposit (formerly J Zone) designed as a low-cost In-Situ Recovery ("ISR") operation with freeze wall design

Uranium Bearing Solution ("UBS") to be transported by truck to 22.5% Denison's owned McClean Lake mill for toll processing

Minimal site infrastructure

**6-year**  
Mine Life

**CAD\$112M**  
estimated  
Initial CAPEX  
(100% basis)

**9.7M lbs U<sub>3</sub>O<sub>8</sub>**  
projected  
Mine Production  
(100% basis)

12.8M lbs U<sub>3</sub>O<sub>8</sub> @ 2.0% U<sub>3</sub>O<sub>8</sub>  
(291,00 tonnes) in Indicated Mineral Resources estimated for THT (100% basis)

**NI 43-101**  
compliant  
Preliminary Economic Assessment ("PEA")  
Completed in 2020<sup>(2)</sup>

## Partnership

with consortium led by state-owned nuclear company Korea Hydro Nuclear Power ("KHNP")

## Located within the boundaries of Treaty 10

in Nuhenéné / Athabasca Denesúliné traditional territory and the homeland of the Métis

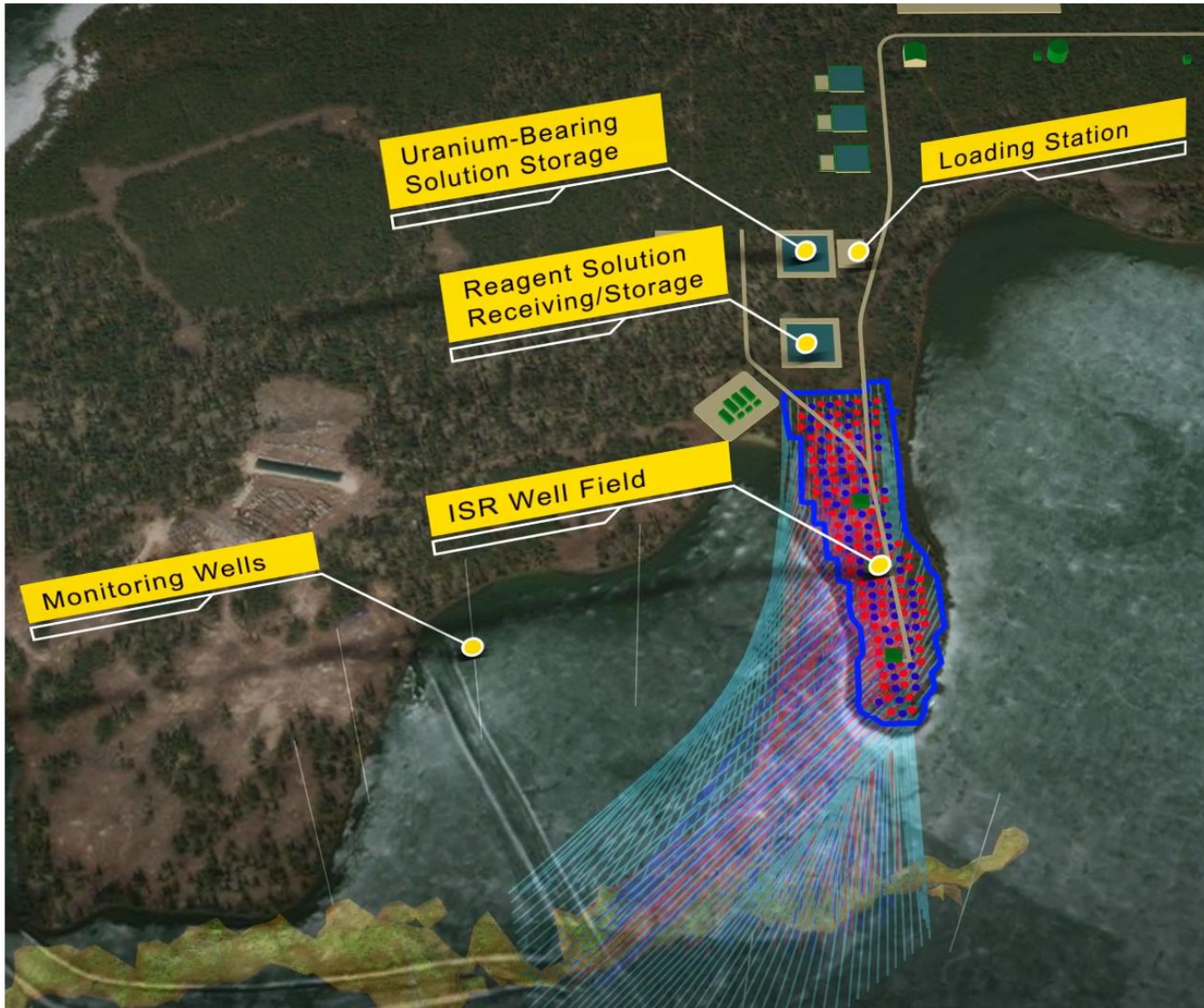
**40,256**

hectares of prospective ground over 13 claims

McClean Lake  
(Orano / Denison)



# Tthe Heldeth Túé (“THT”) In-Situ Recovery (“ISR”) Operation: PEA shows potential for ISR to change future of uranium mining landscape in Canada<sup>(1)</sup>



PHOTOS:

Aerial rendering of surface facilities for the THT ISR operation

NOTES:

(1) 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. See PEA note on Slide 15.

(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 finished pounds  $U_3O_8$  produced.

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

(4) Post-tax NPV attributable to Denison's then 66.90% interest is estimated to be between \$72 million (base-case) and \$109 million (\$65/lb high-case).

(5) Post-tax IRR attributable to Denison's then 66.90% interest is estimated to be between 30.4% (base-case) and 38.9% (\$65/lb high-case).

**1.6M lbs**  
**lbs  $U_3O_8$**   
Average annual  
production over  
6 years  
(100% basis)

**c\$112M**  
**estimated**  
Initial  
CAPEX  
(100% basis)

**us\$12.23**  
**/ lbs  $U_3O_8$**   
average  
Cash Operating  
Costs  
  
(C\$16.27/lb  $U_3O_8$ )

**us\$24.93**  
**/ lbs  $U_3O_8$**   
average  
All-in  
Cost<sup>(2)</sup>  
  
(C\$33.16/lb  $U_3O_8$ )

**c\$265M**  
**estimated**  
Pre-Tax NPV<sub>8%</sub>  
(100% basis)

US\$65/lb  $U_3O_8$   
selling price  
(see note 3, 4)

**50.0%**  
**estimated**  
Pre-Tax  
IRR

US\$65/lb  $U_3O_8$   
selling price  
(see note 3, 5)



# 22.5% Denison-owned McClean Lake Mill Operation: Excess licensed capacity and CNSC approval in place for expansion of tailings facility



**+12%**  
of global  
uranium  
production

Recent normal annual operating production of ~18M lbs U<sub>3</sub>O<sub>8</sub> from Cigar Lake under tolling agreement, represents +12% of UxC's estimated global primary production for 2022<sup>(1)</sup>

**24M**  
lbs U<sub>3</sub>O<sub>8</sub>

Licensed annual production<sup>(4)</sup>

**6M**  
lbs U<sub>3</sub>O<sub>8</sub>  
Excess licensed capacity

if maximum produced under Cigar Lake tolling<sup>(2)</sup>

**10-Year**  
CNSC Operating License<sup>(4)</sup>

Renewed in 2017 for operations up to June 30, 2027.

**Orano**  
Canada Inc.

French nuclear giant serves as site operator and is owner of 77.5% interest

**750km**  
north of  
Saskatoon<sup>(4)</sup>

Accessible by road over all-weather highways and by air via Points North

**+50M**  
lbs U<sub>3</sub>O<sub>8</sub>

Historic uranium production from mined McClean Lake deposits (JEB + Sue A, B, C, & E)<sup>(4)</sup>

**TMF**  
Expansion  
Approved<sup>(3)</sup>

CNSC approval obtained to increase tailings capacity

PHOTO:

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

LINKS:

[McClean Lake Project Page on Denison Website](#)

NOTES:

(1) Per UxC's Q4'2021 Uranium Market Outlook.

(2) Denison monetized its share of tolling revenues from the Cigar Lake toll milling agreement. See Denison's news releases dated February 1, 2017 and February 13, 2017. Please also refer to Denison's current Annual Information Form and Financial Statements and Management, Discussion and Analysis for additional details related to the toll milling agreement.

(3) See Denison's news release dated January 19, 2022.

(4) See Denison's current Annual Information Form for additional details regarding the McClean Lake mill facility.



# 22.5% Denison-owned McClean Lake Property: SABRE mining method has potential to unlock value from unmined deposits close to mill



## SABRE mining method

Successful 5-year test mining program for “Surface Access Borehole Resource Extraction” (SABRE) mining method

Mined four cavities of McClean North deposit in 2021 to produce ~1,500 tonnes of high-value ore <sup>(1)</sup>

## Orano Canada Inc.

French nuclear giant serves as project operator and is owner of 77.5% interest

## Patented

SABRE mining method is property of McClean Lake JV with patent issued in 2016

**18M lbs U<sub>3</sub>O<sub>8</sub>**  
Indicated Mineral Resources<sup>(2)</sup> (100% basis)

Combined 376,400 tonnes @ 2.22% U<sub>3</sub>O<sub>8</sub> for the Caribou, Sue D and McClean North deposits

**4,258**  
Hectares

4 mineral leases (1,147 hectares) plus 13 mineral claims (3,111 hectares)

## To Evaluate

The use of the SABRE mining method for use on unmined McClean Lake deposits<sup>(1)</sup>

**7.6M lbs U<sub>3</sub>O<sub>8</sub>**  
Inferred Mineral Resources<sup>(2)</sup> (100% basis)

Combined 510,900 tonnes @ 0.68% U<sub>3</sub>O<sub>8</sub> for the Sue D, Sue E, and McClean North deposits

**5.04% eU<sub>3</sub>O<sub>8</sub> over 14.0 metres**

Recently discovered in drill hole MCS-34 at the McClean South target area<sup>(3)</sup>

PHOTO:

2021 SABRE test mining program in action, with view of specialized mining pipes in inset photo.

LINKS:

[McClean Lake Project Page on Denison Website](#)

NOTES:

(1) See Denison’s news release dated November 3, 2021.

(2) See Denison’s current Annual Information Form for additional details regarding the McClean Lake deposits and SABRE mining method.

(3) See Denison’s news release dated April 14, 2021.



# 25.17% Denison-owned Midwest Property:

Two high-grade uranium deposits in close proximity to the McClean Lake mill



## Approved Environmental Impact Statement ("EIS")

Despite deferral of development decision in 2008, EIS approval efforts continued with assessment of open pit mining method and processing at McClean Lake.

CNSC approved final EIS in 2012<sup>(1)</sup>

## 25km from McClean Lake mill

Via existing roads, and only 1km from the Points North airstrip

## Deferred

2007 development decision for Midwest Main was deferred in 2008, due to regulatory approval timeline, and then decline in uranium market<sup>(1)</sup>

## Midwest Main deposit<sup>(2)</sup>

**39.9M lbs U<sub>3</sub>O<sub>8</sub>**  
(453,000 tonnes @ 4.0% U<sub>3</sub>O<sub>8</sub>) in Indicated Mineral Resources

**11.5M lbs U<sub>3</sub>O<sub>8</sub>**  
(793,000 tonnes @ 0.66% U<sub>3</sub>O<sub>8</sub>) in Inferred Mineral Resources  
(100% basis)

## Orano

Canada Inc.

French nuclear giant serves as project operator and is owner of 74.83% interest

## Midwest "A" deposit<sup>(2)</sup>

**10.8M lbs U<sub>3</sub>O<sub>8</sub>**  
(566,000 tonnes @ 0.87% U<sub>3</sub>O<sub>8</sub>) in Indicated Mineral Resources

**6.7M lbs U<sub>3</sub>O<sub>8</sub>**  
(53,000 tonnes @ 5.8% U<sub>3</sub>O<sub>8</sub>) in Inferred Mineral Resources  
(100% basis)

PHOTO:

Aerial view of Denison's 25.17% owned Midwest Project.

LINKS:

[Midwest Project Page on Denison Website](#)

NOTES:

(1) See Denison's current Annual Information Form for additional details regarding the Midwest project.

(2) Refer to the Midwest Technical Report titled "Technical Report with an Updated Mineral Resource Estimate for the Midwest Property, Northern Saskatchewan, Canada" and dated March 26, 2018.

# Capital Structure & Corporate Information

## Market Summary <sup>(1)</sup>

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 <sup>(2)</sup>	CAD \$1.44 B
Daily Trading Volume – DML <sup>(3)</sup>	4.1M Shares
Market Cap – DNN @ US\$1.40/share <sup>(2)</sup>	USD \$1.13 B
Daily Trading Volume – DNN <sup>(3)</sup>	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:

Website:  
[www.denisonmines.com](http://www.denisonmines.com)

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

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[info@denisonmines.com](mailto: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.