



Uranium Development & Exploration  
The Athabasca Basin



Investor Update – February 2018



# Cautionary Statements & References

## **Cautionary Statements:**

This presentation includes forward-looking information or forward-looking statements under Canadian and U.S. securities laws that involve risks, uncertainties and other factors that could cause actual results to differ materially from those expressed or implied by such forward-looking statements.

Factors that could cause differences may include: the speculative nature of exploration and development projects, the failure of Denison to realize benefits from transactions, Denison's inability to expand and replace its mineral reserves and resources and the imprecision of mineral reserves and resources estimates, the impact of volatility in uranium prices on the valuation of mineral reserves and resources and the market price of Denison's shares, unexpected development and operating risks, delays in obtaining permits and licenses for development properties, reliance on other operators and partners, and uncertainty surrounding Denison's successful completion of exploration plans, timely completion economic analyses (including a PEA or PFS), the ability to reach revenue targets, and the ability to operate within budget. In addition, we have made assumptions in drawing the conclusions contained in these statements, including assumptions regarding future demand for uranium, production levels and costs, mining conditions, relationships with partners, and our ability to continue our operations without any significant disruptions.

Additional information about the material factors that could cause the results to differ materially, and the material assumptions we have made, are contained in our current Annual Information Form and our current annual MD&A, which are available on SEDAR. 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 securities laws.

This presentation may use the terms "measured", "indicated", "inferred" and "historical" mineral resources. U.S. investors are advised that, while such terms are recognized and required by Canadian regulations, the Securities and Exchange Commission does not recognize them. "Inferred mineral resources" and "historical estimates" have a great amount of uncertainty as to their existence and great uncertainty as to their economic feasibility. It cannot be assumed that all or any part of an inferred mineral resource or a historical estimate will ever be upgraded to a higher category. Under Canadian rules, estimates of inferred mineral resources may not form the basis of feasibility or other economic studies. Further, historical estimates are not recognized under Canada's NI 43-101. U.S. investors are cautioned not to assume that all or any part of measured or indicated mineral resources will ever be converted to mineral reserves.

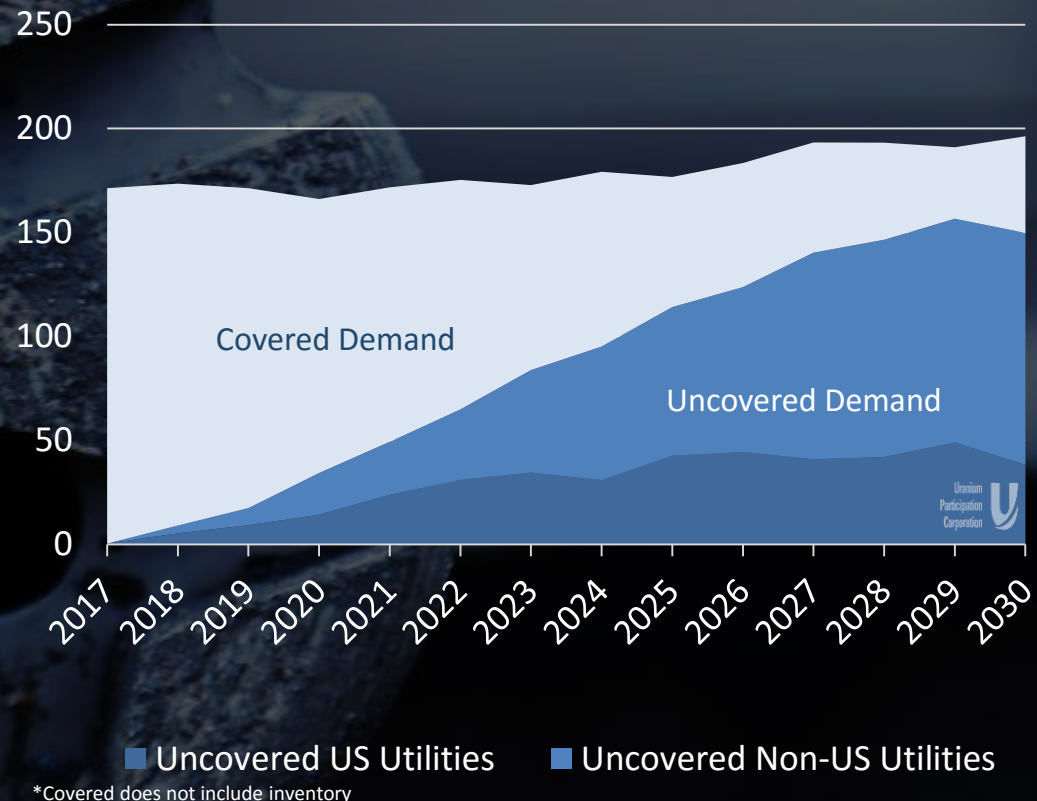
## **Technical Report References:**

- **McClean Lake** "Technical Report on the Denison Mines Inc. Uranium Properties, Saskatchewan, Canada" dated February 16, 2006. Richard E. Routledge, M.Sc., P. Geo. and James W. Hendry, P. Eng., are the independent Qualified Persons for the McClean Technical Report for the purposes of the requirements of NI 43-101.
- **McClean Lake - Sue D** "Technical Report on the Sue D Uranium Deposit Mineral Resource Estimate, Saskatchewan, Canada", dated March 31, 2006. Richard E. Routledge, M.Sc., P. Geo. and James W. Hendry, P. Eng., are the independent Qualified Persons for the Sue D Report for the purposes of the requirements of NI 43-101.
- **McClean Lake – McClean North** "Technical Report on the McClean North Uranium Deposit Mineral Resource Estimate, Saskatchewan, Canada", dated January 31, 2007. Richard E. Routledge, M.Sc., P. Geo. is the independent Qualified Person for the McClean North Technical Report for the purposes of the requirements of NI 43-101.
- **Midwest** "Technical Report on the Midwest Uranium Deposit Mineral Resource and Mineral Reserve Estimates, Saskatchewan, Canada" (the "Midwest Technical Report") dated February 14, 2006. Richard E. Routledge, M.Sc., P. Geo., James W. Hendry, P. Eng. and Luke Evans, M.Sc., P. Eng. are the independent Qualified Persons for the Midwest Technical Report for the purposes of the requirements of NI 43-101.
- **Midwest – Midwest A** "Technical Report on the Midwest A Uranium Deposit of Saskatchewan, Canada" (the "Midwest A Technical Report") dated January 31, 2008. Michel Dagbert, P. Eng is the independent Qualified Person for the Midwest A Technical Report for the purposes of the requirements of NI 43-101.
- **Waterbury** "Mineral Resource Estimate On The J Zone Uranium Deposit, Waterbury Lake Property" (the "J Zone Technical Report"), dated September 6, 2013. Allan Armitage, Ph.D., P.Geol., and Alan Sexton, M.Sc., P.Geol., are the independent Qualified Persons for the J Zone Technical Report for the purposes of the requirements of NI 43-101.
- **Wheeler River:** (1) "Technical Report on a Mineral Resource Estimate for the Wheeler River Property, Eastern Athabasca Basin, Northern Saskatchewan, Canada." Nov. 25, 2015 with material change made to the resource on January 31, 2018. William E. Roscoe Ph.D, P.Eng. and Mark B. Mathisen C.P.G. A copy of this report and the material change is available on SEDAR at [www.sedar.com](http://www.sedar.com). William E. Roscoe, Ph.D, P. Eng., is the independent Qualified Person for the Report for the purposes of NI 43-101. and, (2) PRELIMINARY ECONOMIC ANALYSIS FOR THE WHEELER RIVER URANIUM PROJECT, SASKATCHEWAN, CANADA" March 31, 2016. Ken Reipas, P. Eng.

# Uranium Market: Shifting Fundamentals?

- Sustained low spot and LT price means very few new sources of supply in the pipeline
- ~1.2B lbs  $U_3O_8$  in uncovered demand by 2030
- Uncovered utility demand reaches ~21% by 2020 and ~65% by 2025
- Recent production cuts from world's largest producers – including Cameco's McArthur River / Key Lake operation in the Athabasca Basin

Utility Uranium Requirements  
(million pounds  $U_3O_8$  - per UxC Q4'17)





# Infrastructure Rich Eastern Athabasca Basin



All season highway / haul road

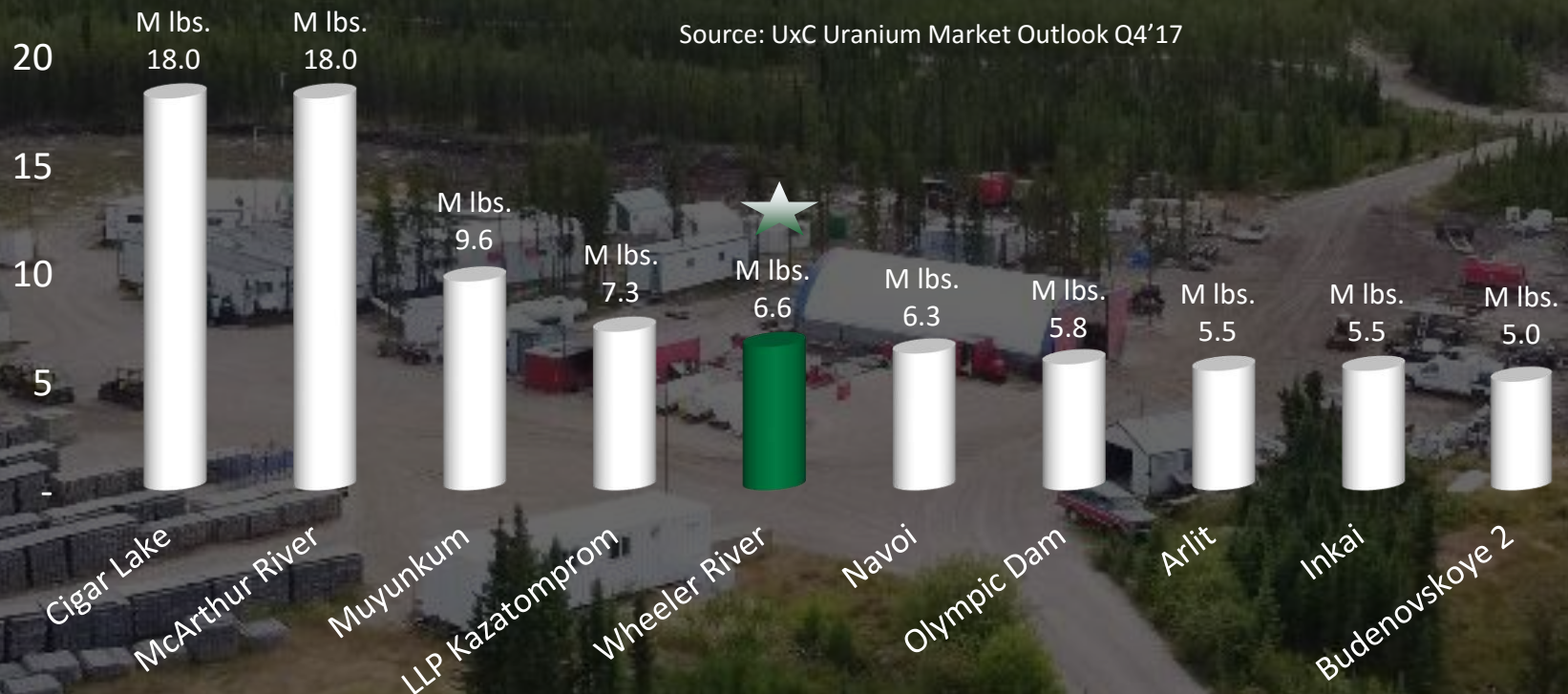
Provincial power grid

# Potential to be Top 5 Producing Asset

## Top Producing Uranium Mines 2017 est. vs. Wheeler PEA Production Plan<sup>(1)(2)</sup>

Source: UxC Uranium Market Outlook Q4'17

Million Pounds U<sub>3</sub>O<sub>8</sub>



(1) **IMPORTANT CAUTION REGARDING THE PRELIMINARY ECONOMIC ASSESSMENT (“PEA”):** The PEA is preliminary in nature and includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them to be categorized as mineral reserves, and there is no certainty that the preliminary economic assessment will be realized. Mineral resources are not mineral reserves and do not have demonstrated economic value. See Press Release dated April 4, 2016 and Technical Report filed on SEDAR and EDGAR: “PRELIMINARY ECONOMIC ANALYSIS FOR THE WHEELER RIVER URANIUM PROJECT, SASKATCHEWAN, CANADA” March 31, 2016. Ken Reipas, P. Eng.

(2) Based on Wheeler River average annual production (100% basis) per PEA



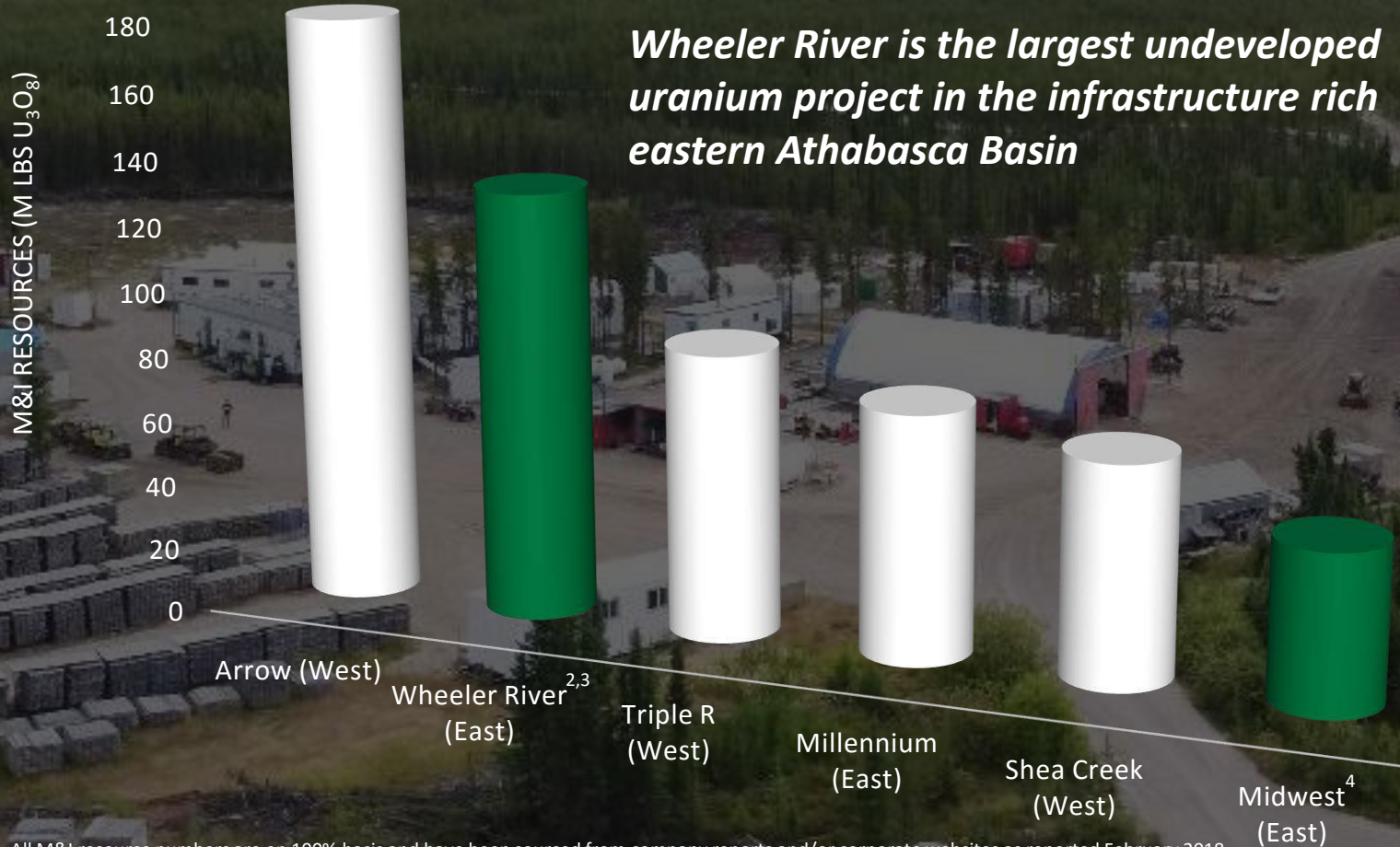
# Project Development Scorecard

Wheeler River is poised to be the next uranium development project in the Athabasca Basin region

Project Development Criteria	Wheeler River	Ranking <sup>(1)</sup>
Ownership of licenced mill with excess capacity	Denison owns 22.5% of McClean Lake Mill	<b>1st</b>
Proximity to infrastructure	Provincial power line and highway on property	<b>1st</b>
Estimated resources in M&I category	132M lbs U <sub>3</sub> O <sub>8</sub>	<b>2nd</b>
Degree of confidence in estimated resources	97% of total resources in M&I	<b>1st</b>
Overall Grade on existing M&I resources	3.3% U <sub>3</sub> O <sub>8</sub>	<b>2nd</b>
Estimate of CAPEX required to build <sup>(2)</sup> (Lowest)	CAD \$560M	<b>1st</b>
Timeline to Pre-Feasibility Study <sup>(3)</sup> (Shortest)	~6 months	<b>1st</b>

Notes: (1) Rankings are based on comparison of undeveloped uranium projects (at 100% ownership) with total indicated resources greater than 40M lbs U<sub>3</sub>O<sub>8</sub>, located in the Athabasca Basin region – namely Arrow (NexGen Energy Ltd.), Triple R (Fission Uranium Corp.), Millennium (Cameco, JCU), Shea Creek (Areva, UEX Corp.), Midwest (including the Midwest and Midwest A deposits)(Areva, Denison, OURD). All numbers used in comparisons have been taken from corporate presentations, technical reports, website disclosure and/or news releases available on their respective websites or SEDAR. (2) CAPEX estimates are per NI 43-101 technical reports. Certain projects do not have NI 43-101 estimates of upfront capital costs. (3) Timeline to feasibility is based on company disclosures / guidance.

# M&I Resources Available for Pre-Feasibility Studies

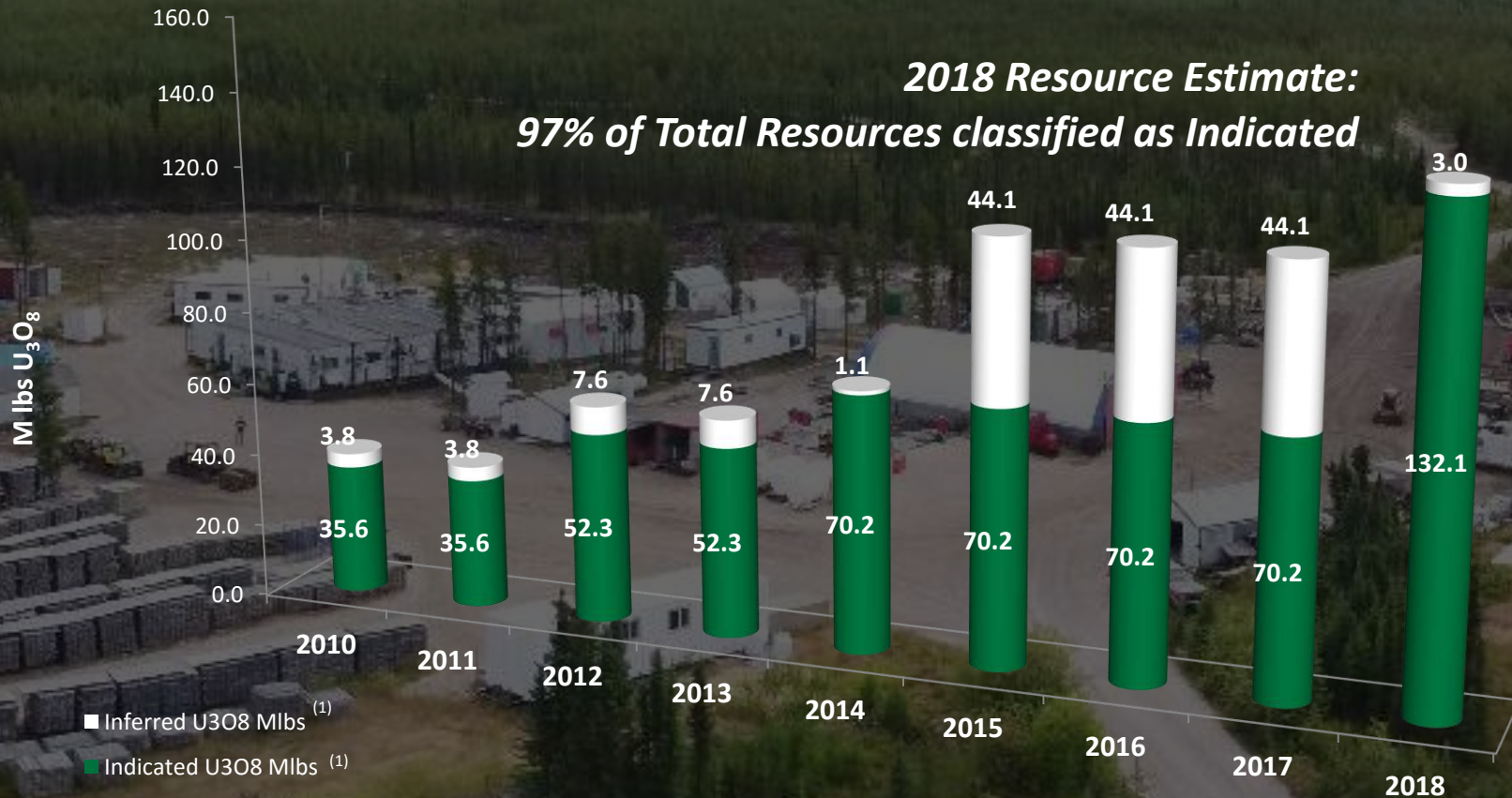


- (1) All M&I resource numbers are on 100% basis and have been sourced from company reports and/or corporate websites as reported February 2018.
- (2) See Denison news release dated January 31<sup>st</sup>, 2018 for additional technical information and notes on quality control.
- (3) See important cautionary information about the Wheeler River technical report and qualified persons pertaining to the resource estimate update on slide 4 and Denison's news release dated January 31, 2018.
- (4) Midwest is inclusive of Indicated resources from both Midwest and Midwest A deposits. (~70% ARC, ~25% Denison and ~6% OURD).



# Wheeler River Resource Growth Continues...

**2018 Resource Estimate:  
97% of Total Resources classified as Indicated**



(1) Mineral resources are not mineral reserves and do not have demonstrated economic value. See Press Releases dated April 4, 2016 and January 31, 2018, as well as the Technical Report filed on SEDAR and EDGAR as "PRELIMINARY ECONOMIC ANALYSIS FOR THE WHEELER RIVER URANIUM PROJECT, SASKATCHEWAN, CANADA" March 31, 2016. Ken Reipas, P. Eng.



**WHEELER  
RIVER  
URANIUM  
PROJECT**

**Gryphon Deposit**  
High-grade, basement-hosted

~3km

**Phoenix Deposit**  
High-grade, unconformity-hosted

# WHEELER RIVER URANIUM PROJECT

## Phoenix - Zone A

Indicated Mineral Resources

	Tonnes	Grade U <sub>3</sub> O <sub>8</sub>	Combined Metal
High Grade Core	62,900	43.2%	59.9M lbs U <sub>3</sub> O <sub>8</sub>
Lower Grade Shell	84,300	2.4%	4.4M lbs U <sub>3</sub> O <sub>8</sub>

Refer to current NI 43-101 for Wheeler River Project

0m

380m

(1) See the Technical Report filed on SEDAR and EDGAR as "PRELIMINARY ECONOMIC ANALYSIS FOR THE WHEELER RIVER URANIUM PROJECT, SASKATCHEWAN, CANADA" March 31, 2016. Ken Reipas, P. Eng.



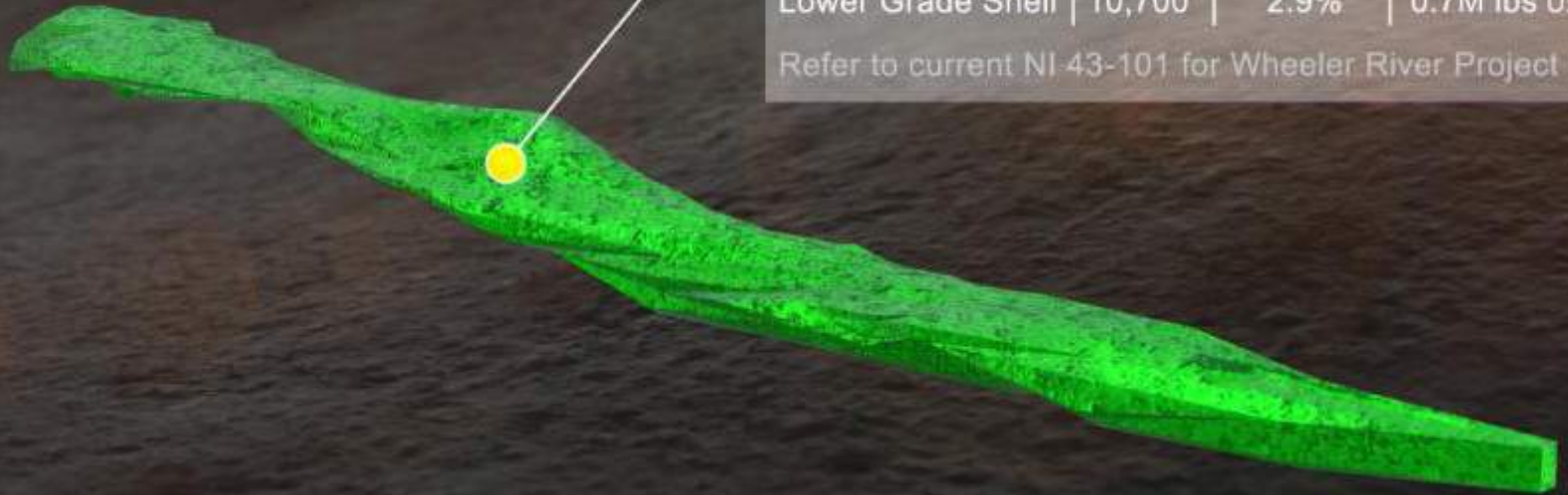
**WHEELER  
RIVER  
URANIUM  
PROJECT**

**Phoenix - Zone B**

Indicated Mineral Resources

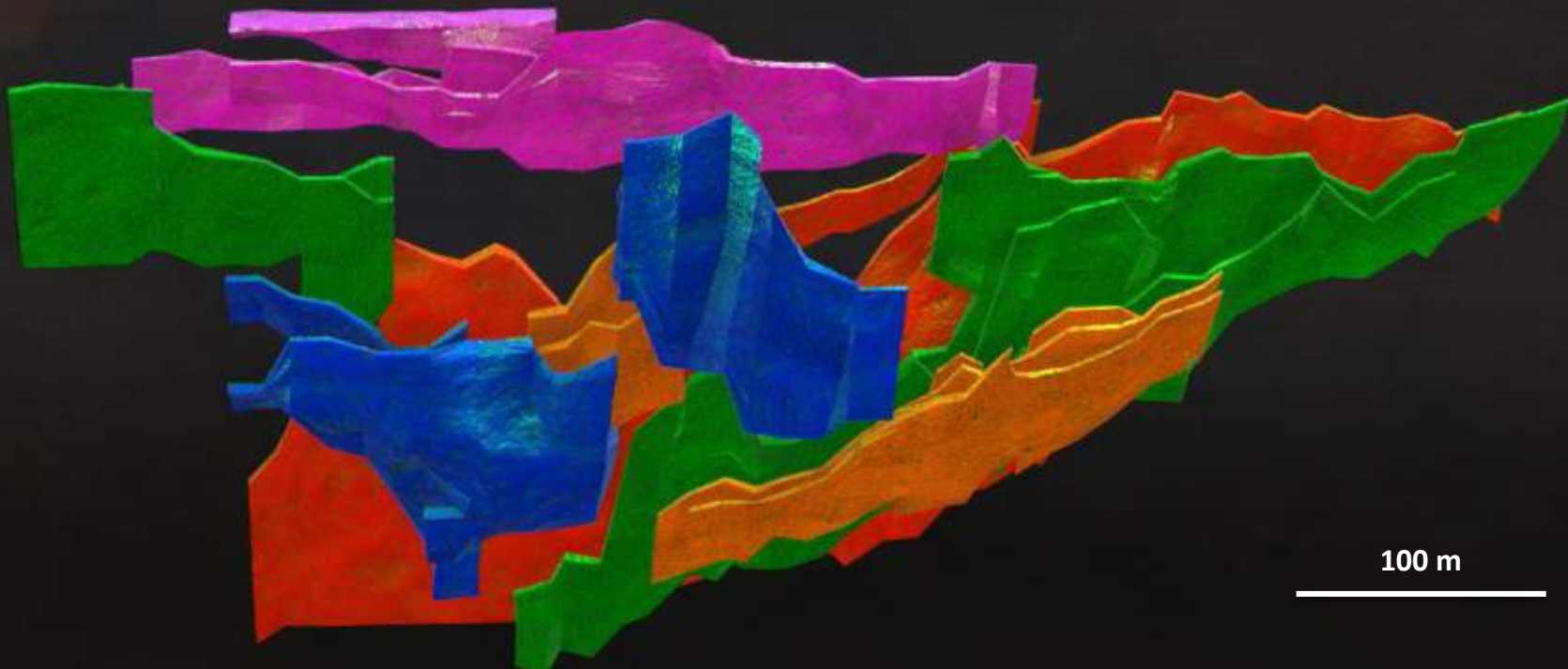
	Tonnes	Grade U <sub>3</sub> O <sub>8</sub>	Combined Metal
High Grade Core	8,500	28.0%	5.2M lbs U <sub>3</sub> O <sub>8</sub>
Lower Grade Shell	10,700	2.9%	0.7M lbs U <sub>3</sub> O <sub>8</sub>

Refer to current NI 43-101 for Wheeler River Project



**Indicated Mineral Resources**

	 <b>A Series Lenses</b>	 <b>B Series Lenses</b>	 <b>C Series Lenses</b>	 <b>D Series Lenses</b>	 <b>E Series Lenses</b>
Tonnes	811,000	378,000	105,000	285,000	65,000
Grade U <sub>3</sub> O <sub>8</sub>	2.1%	1.3%	1.2%	1.5%	1.2%
Combined Metal	37.3M lbs U <sub>3</sub> O <sub>8</sub>	10.7M lbs U <sub>3</sub> O <sub>8</sub>	2.7M lbs U <sub>3</sub> O <sub>8</sub>	9.5M lbs U <sub>3</sub> O <sub>8</sub>	1.7M lbs U <sub>3</sub> O <sub>8</sub>



(1) See Denison news release dated January 31<sup>st</sup>, 2018 for additional technical information and notes on quality control.



# Project PEA: 2 Phase Development Plan

## 2016 PEA<sup>(1)</sup>:

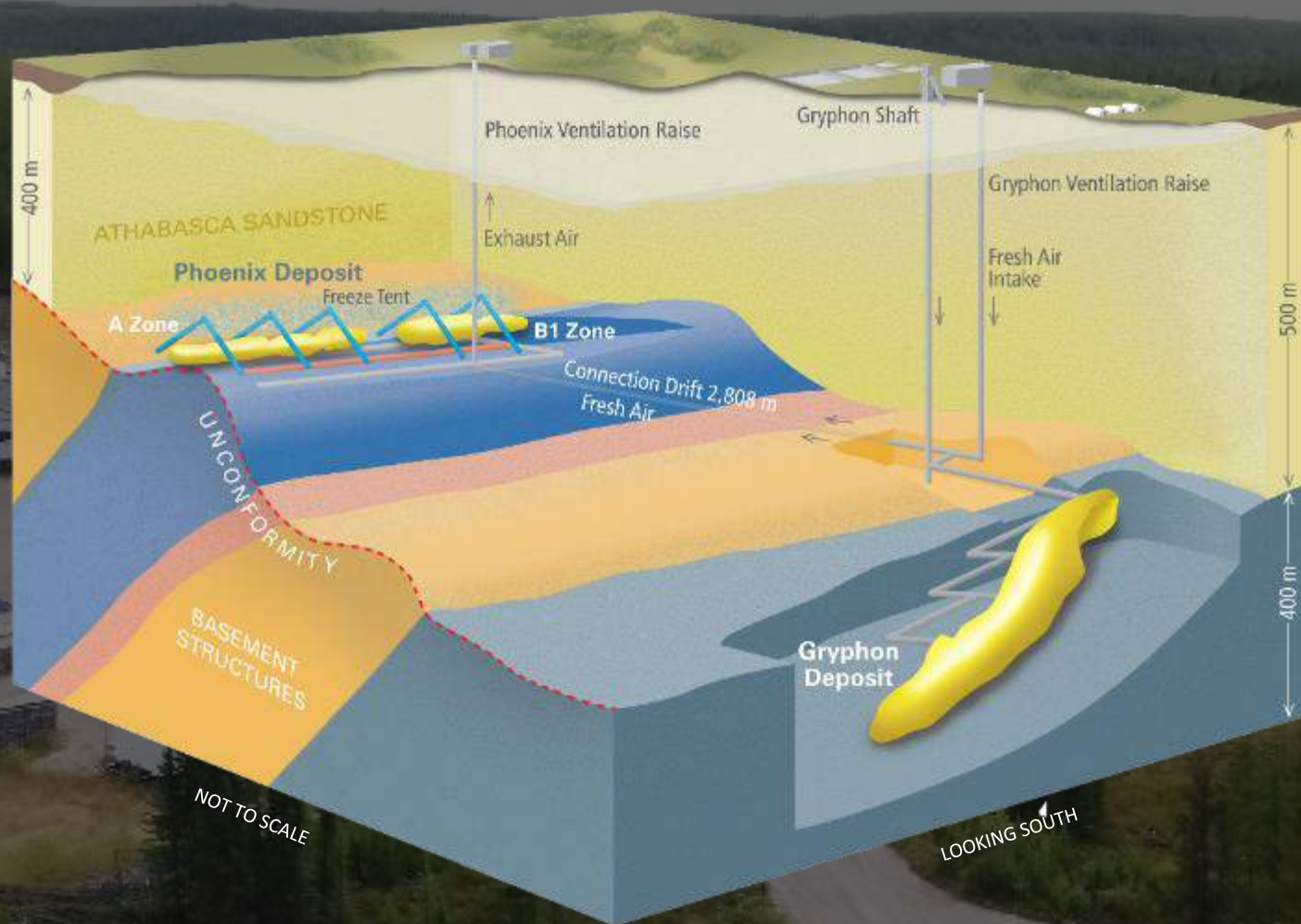
- Does not include increase to Gryphon resource estimate announced 2018

## PHASE 1: Gryphon

- Conventional underground mining
- USD\$14.28/lb  $U_3O_8$  est. OPEX
- 6M lbs  $U_3O_8$  / year <sup>(1)</sup>
- 7 years

## PHASE 2: Phoenix

- U/G freezing + Jet Bore mining
- USD\$22.15/lb  $U_3O_8$  est. OPEX
- 7M lbs  $U_3O_8$  / year <sup>(1)</sup>
- 9 years



(1) See IMPORTANT CAUTION REGARDING PEA on slide 4



# Project PEA Assumes Processing at 22.5% Owned McClean Lake Mill<sup>(1)</sup>

## Licensed Capacity

- 24M lbs/yr  $U_3O_8$
- 18M lbs/yr reserved for Cigar Lake
- 6M lbs/yr expected excess capacity

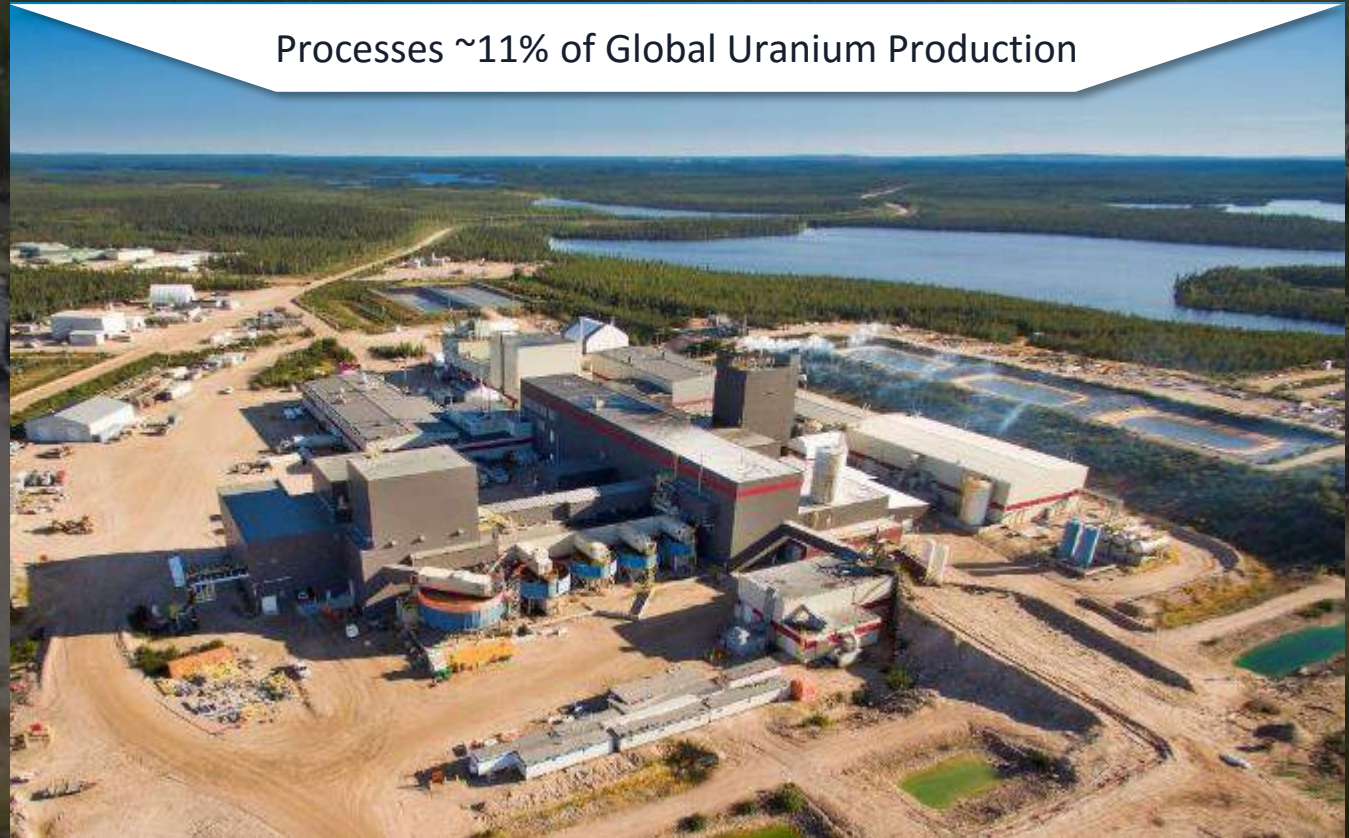
## Positive Processing Metallurgical Test

- +97% recovery

## Granted 10-Year Licence Renewal by CNSC in 2017

## McClean Lake Mill

Processes ~11% of Global Uranium Production



**(22.5% Denison, 70% AREVA, 7.5% OURD)**

(1) See IMPORTANT CAUTION REGARDING PEA on slide 4



# Infrastructure Rich Eastern Athabasca

- Existing infrastructure is tailored to mining operations surrounding the Wheeler property, allowing for low initial CAPEX & a lower risk profile throughout the development of the project
- Wheeler is located within 50km & 100km of the two largest uranium mines in the world (McArthur River & Cigar Lake)

Existing provincial power grid with ample capacity



Existing provincial highways & haul roads



3 licensed & 2 operating uranium mills



Precedent with local stakeholders



Reduced Risk & Shorter Lead time at Wheeler













# Company Specific Catalysts on The Horizon

## Wheeler River Drilling Program



**Q1-2018**

Commencement of 45,000 metre drilling program targeting resource growth along strike of Gryphon and at untested regional targets throughout 2018.

CAD\$9.5M Budget  
(CAD\$7.1M Denison)

## Wheeler River Pre-Feasibility Study



**Mid-2018**

The PFS is expected to build on the updated resource estimate for Gryphon and potentially incorporate work on alternative mining methods for Phoenix – both having the potential to enhance the already strong economics of the project.

CAD\$3.1M Budget  
(CAD\$2.3M Denison)

## New high-grade “Huskie” discovery at Waterbury



**Winter & Summer 2018**

High-grade discovery, including a result of 9.1%  $U_3O_8$  over 3.7 Metres (drill hole WAT17-446A). Remains open in all directions, with 14,400 metres of follow-up drilling planned in 2018.

CAD\$3.5M Budget  
(100% Denison funded)

## Inaugural drilling program at Hook-Carter



**Winter 2018**

20,522 hectares of ground in the western Athabasca Basin, highlighted by 15km of untested strike potential along the Patterson Corridor. Inaugural drill program expected to include 10,000 metres of drilling.

CAD\$2.2M Budget  
(100% Denison funded)

# Denison's Uniquely Diversified Asset Base

- Denison's Flagship property in eastern Athabasca Basin (AB)
- **Gryphon + Phoenix co-development**
- PEA completed 1H16 with 20.4% IRR @ US\$44/lb  $U_3O_8$
- PFS in progress

## Wheeler River Project (63.3%)

- Strategic high-grade AB uranium mill
  - **6 M lbs/year excess milling capacity**
  - Currently tolling Cigar Lake ore
  - 24 M lbs /year lic. capacity

## McClean Lake Mill (22.5%)

- Interests in Midwest (25.17%), McClean (22.5%), and Waterbury (~64%)
- **Over 350,000 hectares of AB exploration properties**
- (e.g. Crawford, Hook-Carter, Murphy)

## Strategic Project Portfolio

## Cash Flow from UPC & DES

- Management services Agreement with UPC (TSX: U)
- DES environmental services group in Elliot Lake
- **Regular cash flow minimizes reliance on dilutive equity financing**



# The enison Advantage

**Wheeler River: Largest undeveloped uranium project in the infrastructure rich eastern Athabasca Basin**

**Increasing our interest in Wheeler to up to ~66% by end of 2018**

**Potential to improve Wheeler River PEA economics through exploration and engineering activities**

**Early days on new and exciting “Huskie” discovery at Waterbury Lake**

**Diversified asset base including McClean Lake mill and investments in GoviEx Uranium (~20%) and SkyHarbour Resources (~10%), providing leverage to rising commodity price**

**Financial flexibility to advance projects with strong balance sheet**



## **Appendix: Wheeler River**



# Appendix: Wheeler River Resources

## 2018 Wheeler River Property Mineral Resource Estimate Summary<sup>(1)</sup>

Deposit	Category	Tonnes	Grade (%U <sub>3</sub> O <sub>8</sub> )	Million lbs U <sub>3</sub> O <sub>8</sub> (100%)	Million lbs U <sub>3</sub> O <sub>8</sub> (63.3% Denison)
Gryphon	Indicated	1,634,000	1.7	61.9	39.2
Phoenix	Indicated	166,000	19.1 	70.2	42.1
<b>Total Indicated</b>		<b>1,809,000</b>	<b>3.3</b>	<b>132.1</b>	<b>83.6</b>
Gryphon	Inferred	73,000	1.2	1.9	1.2
Phoenix	Inferred	9,000	5.8	1.1	0.7
<b>Total Inferred</b>		<b>82,000</b>	<b>1.7</b>	<b>3.0</b>	<b>1.9</b>

<b>Gryphon Deposit<sup>(2)</sup></b>	<ul style="list-style-type: none"> <li>➤ High-grade and hosted in basement rock</li> <li>➤ Expected to allow for conventional underground mining methods (longitudinal longhole method assumed)</li> </ul>
<b>Phoenix Deposit<sup>(2)</sup></b>	<ul style="list-style-type: none"> <li>➤ Very high grade and hosted at the sub-Athabasca unconformity</li> <li>➤ Expected to require remote mining method and ground freezing to prevent water inflows (jet boring method assumed)</li> </ul>

(1) See NI 43-101 Technical Report or news release dated January 31<sup>st</sup>, 2018 for additional information and quality control notes.

(2) See IMPORTANT CAUTION REGARDING PEA on slide 4.

# Appendix: Wheeler River PEA Economics

## 2016 Wheeler River Project Preliminary Economic Assessment<sup>(1)</sup> (100%)

Assumptions / Financial Results	Base Case	Production Case
Uranium Price	<b>US\$44.00</b>	<b>US\$62.60</b>
Exchange Rate (CAD:USD)	1.35	1.35
Discount Rate	8.00%	8.00%
Pre-Tax IRR <sup>(2)</sup>	20.4%	34.1%
Pre-Tax NPV <sup>(2)</sup> (100%)	CAD\$513M	CAD\$1,420M
Payback Period <sup>(3)</sup>	~3 years	~18 months
Initial Capital Costs	CAD\$560M (100%); CAD\$336M to DML <sup>(4)</sup>	
Sustaining Capital Costs	CAD\$543M (100%); CAD\$326M to DML <sup>(4)</sup>	
Average Operating Costs per lb U <sub>3</sub> O <sub>8</sub>	CAD\$25.67 (USD\$19.01)	

(1) See IMPORTANT CAUTION REGARDING PEA on slide 4

(2) NPV and IRR are calculated to the start of pre-production activities in 2021.

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

(4) Based on DML's ownership of 60% at time of PEA (current ownership of 63.3%)



# Appendix: Wheeler River Estimated CAPEX

## 2016 Wheeler River Project Preliminary Economic Assessment<sup>(1)</sup>

Capital Costs (CAD\$ millions)	Initial	Sustaining	Total
Surface Infrastructure	\$166	\$7	\$174
Mine	\$220	\$334	\$554
Mineral Processing	\$19	\$60	\$79
Owners Costs	\$25	\$0	\$25
Decommissioning	\$0	\$40	\$40
Subtotal	\$429	\$442	\$871
Contingency	\$131	\$101	\$232
<b>Total Capital (100%)</b>	<b>\$560</b>	<b>\$543</b>	<b>\$1,103</b>
<b>Denison's Share (60%)</b>	<b>\$336</b>	<b>\$325</b>	<b>\$661</b>

(1) IMPORTANT CAUTION REGARDING THE PRELIMINARY ECONOMIC ASSESSMENT ("PEA"): The PEA is preliminary in nature. Capital costs are stated in 2015 Canadian dollars to a bottom line accuracy of +/- 40%. Initial capital costs are from Jan. 1, 2021 to Dec. 31, 2025. Sustaining capital costs are from Jan. 1, 2026 to end of 2045. See IMPORTANT CAUTION REGARDING PEA on slide 6.

# Appendix: Wheeler River Estimated OPEX

## 2016 Wheeler River Project Preliminary Economic Assessment<sup>(1)</sup>

Operating Costs (CAD\$/lb U <sub>3</sub> O <sub>8</sub> )	Gryphon	Phoenix
Mining	\$3.45	\$17.45
Surface Transportation	\$1.63	\$0.85
Mineral Processing (including tolling)	\$10.03	\$8.03
General & Administration	\$4.17	\$3.57
<b>Total (CAD\$/lb U<sub>3</sub>O<sub>8</sub>)</b>	<b>\$19.28</b>	<b>\$29.90</b>
<b>Total (USD\$/lb U<sub>3</sub>O<sub>8</sub>)</b>	<b>\$14.28</b>	<b>\$22.15</b>
<b>Average Operating Cost (USD\$/lb U<sub>3</sub>O<sub>8</sub>)</b>	<b>\$19.01</b>	

(1) IMPORTANT CAUTION REGARDING THE PRELIMINARY ECONOMIC ASSESSMENT ("PEA"): The PEA is preliminary in nature and includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them to be categorized as mineral reserves, and there is no certainty that the preliminary economic assessment will be realized. Mineral resources are not mineral reserves and do not have demonstrated economic value. See IMPORTANT CAUTION REGARDING PEA on slide 6.



# Corporate Information

## Market Summary

Exchanges TSX: **DML**, NYSE MKT: **DNN**

Shares Outstanding<sup>(1)</sup> 559.1 M

Warrants<sup>(1)</sup> 1.7 M

Options<sup>(1)</sup> 12.5 M

Fully Diluted Shares<sup>(1)</sup> 573.3 M

Market Cap – DML @ C\$0.62/share<sup>(2)</sup> CAD\$346.7 M

Market Cap – DNN @ U\$0.49/share<sup>(2)</sup> USD\$273.7 M

Daily Trading Volume – DML<sup>(3)</sup> 1.6M shares

Daily Trading Volume – DNN<sup>(3)</sup> 0.69M shares

## Management & Directors

Lukas Lundin (Executive Chairman)

David Cates (President & CEO)

Mac McDonald (VP Finance & CFO)

Peter Longo (VP Project Development)

Dale Verran (VP Exploration)

Kwang-Hee Jeong (Director)

W. Robert Dengler (Director)

Brian D. Edgar (Director)

Ron F. Hochstein (Director)

William A. Rand (Director)

Catherine J.G. Stefan (Director)

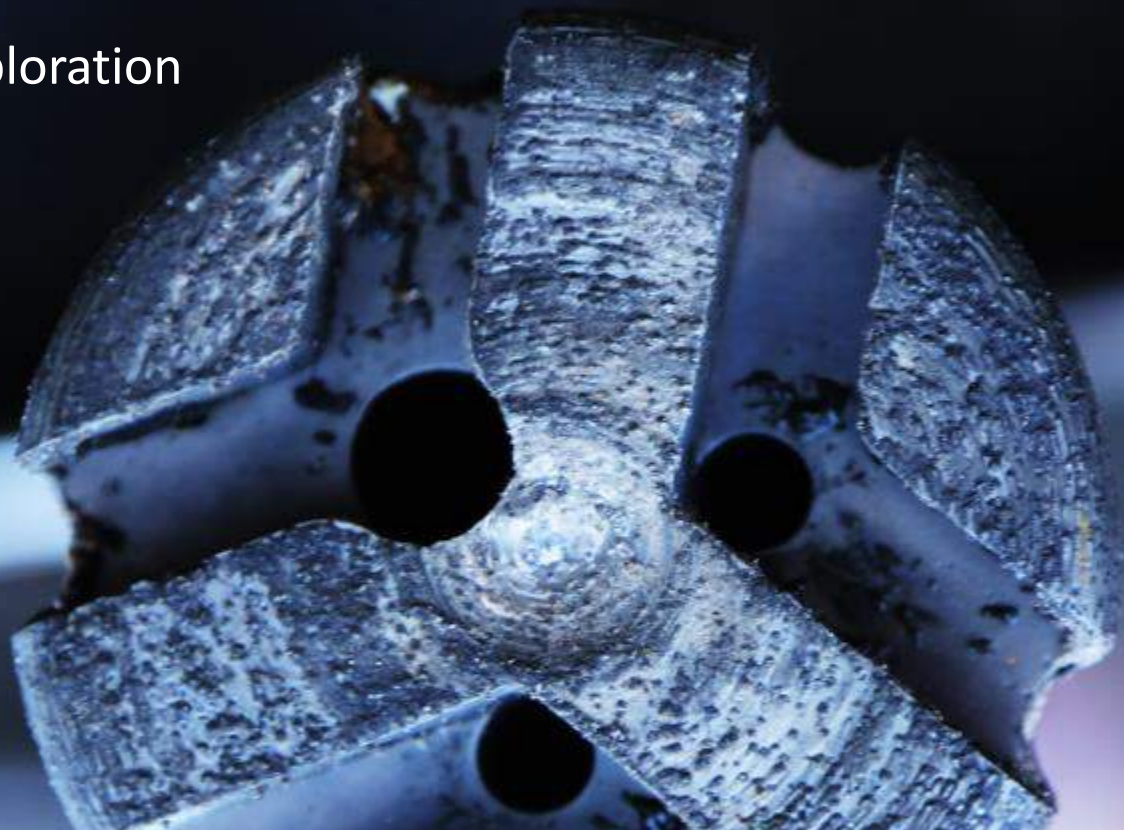
(1) As of September 30, 2017 – per Denison's Q3 Report

(2) Based on shares outstanding above, and DML & DNN share prices as of February 20, 2018

(3) Average daily trading volume over 100 day period as at February 20, 2018



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The Athabasca Basin



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