

## PRESS RELEASE

**DENISON ANNOUNCES SIGNIFICANT INCREASE TO  
SUMMER 2017 DRILLING PROGRAM AT WHEELER RIVER**

**Toronto, ON – September 12, 2017** Denison Mines Corp. (“Denison” or the “Company”) (TSX: DML) (NYSE MKT: DNN) (NYSE American: DNN) is pleased to announce a significant increase in the number of drill holes to be completed during the summer 2017 exploration program on the Company’s 60% owned Wheeler River project. The summer 2017 program is now expected to continue into October and will be increased by approximately 16 drill holes (6,500 metres). As a result of the increase, the summer exploration program is now expected to include a total of approximately 62 drill holes (28,000 metres).

The summer 2017 drilling program has focused on the infill and expansion of the Gryphon deposit, and has already resulted in the successful expansion of the A, B and D series of mineralized lenses, as well as the recognition and expansion of the new E series lenses (see Denison’s Press Releases dated [July 24](#) and [August 30](#), 2017). Most notably, the D and E series lenses are not included in the current resources estimated for the Gryphon deposit, and the expansions of the A and B series lenses also occur outside of the current resources.

The additional drill holes planned for the remainder of the summer 2017 drilling program are designed to continue the successful expansion of high-grade mineralization in priority target areas – with potential to convert drill results into resources. As a result, the drilling is expected to be completed on a spacing with the potential to add indicated or inferred resources to the Gryphon deposit ahead of the resource estimate scheduled for later in the year, and the Pre-Feasibility Study (“PFS”) scheduled for 2018.

David Cates, Denison’s President and CEO, commented, ***“The exploration team set out this year with a focus on increasing the confidence in our resources at Gryphon, ahead of the PFS planned for 2018. In addition to successful infill results, throughout the winter and summer drilling programs, we’ve had significant success in our efforts to expand the extent of the mineralization at and in the vicinity of the Gryphon deposit – particularly in the D series and new E series of lenses. With our drilling operations on track and positive results continuing to come in from the field, we see this as a unique opportunity to extend the 2017 summer program and continue drilling into October. We’re doing this in an attempt to maximize the number of new pounds that can be included in an updated resource estimate for the Wheeler River project, and ultimately the PFS.”***

In connection with the extended drilling program, the Wheeler River Joint Venture (“WRJV”) approved an increased budget for 2017, including approximately CAD\$2,300,000 in additional spending through to the end of 2017 (“Additional Budget”). Denison will fund 100% of the Additional Budget on the behalf of the WRJV in 2017, and the costs will become Joint Venture Expenses on or after January 1, 2018 – at which point all WRJV partners will be responsible to fund their shares in accordance with the terms of the WRJV and the special agreement amongst the joint venture partners, dated January 9, 2017 (see Denison’s [Press Release dated January 10, 2017](#)). The January 9, 2017 special agreement allows for Denison to increase its ownership in the Wheeler River project from 60% to approximately 66% by funding 75% of joint venture expenses in 2017 and 2018. Under the terms of the agreement, Cameco will fund 50% of its ordinary 30% share in 2017 and 2018, and JCU is expected to continue to fund its 10% interest in the project.

***Deferral of the Hook-Carter 2017 Drilling Program***

Denison has elected to defer the Hook-Carter drilling program planned for the late summer of 2017 to the winter of 2018. Higher costs associated with helicopter-supported drilling programs in summer months,

complications with recent forest fires in the area, and the integration and interpretation of significant amounts of ground geophysical data acquired earlier this year, have all been contributing factors to the decision. The drilling program originally planned for the summer of 2017 included a reconnaissance five-hole drill program of approximately 2,700 metres. Ground geophysical surveys, including ground resistivity and electromagnetic surveying, have been completed as per plan.

Dale Verran, Denison's Vice President of Exploration, commented, ***“Our team is extremely eager to commence our first drilling campaign at Hook-Carter; however, we have decided to defer the program until winter 2018 in response to numerous factors. A winter 2018 drilling program is expected to have lower costs per metre and thus should allow for increased target testing for budget spent. A deferral also provides us with additional time for optimized target selection through the continued integration and interpretation of the ground geophysical data collected earlier this year.”***

The Hook-Carter project is owned 80% by Denison and 20% by ALX Uranium Corp. (“ALX”), and Denison has agreed to fund ALX's share of the first CAD\$12M in expenditures (see Denison's Press Releases dated October 13th and November 7th, 2016). The Hook-Carter project consists of 38 claims, totaling nearly 20,000 hectares, and is located near the southwestern margin of the Athabasca Basin. The project is highlighted by 15 kilometres of strike potential along the prolific Patterson Lake Corridor – host to the recently discovered Triple R deposit (Fission Uranium Corp.), Arrow deposit (NexGen Energy Ltd.), and Spitfire discovery (Purepoint Uranium Group Inc., Cameco Corp., and AREVA Resources Canada Inc.), which occur within 8 to 20 kilometres of the property. The property is significantly underexplored compared to other properties along this trend, with only five of eight historic drill holes located along the 15 kilometres of Patterson Lake Corridor strike length. The property also covers significant portions of the Derkson and Carter Corridors which provide additional priority target areas.

### **Qualified Persons and Further Details**

Dale Verran, MSc, P.Geo, Pr.Sci.Nat., Denison's Vice President, Exploration, who is a Qualified Person in accordance with the requirements of NI 43-101 has reviewed and approved the technical information contained in this release.

Further details regarding the Gryphon deposit and the Wheeler River project are provided in the NI 43-101 Technical Report for the Wheeler River project titled "Preliminary Economic Assessment for the Wheeler River Uranium Project, Saskatchewan, Canada" dated April 8, 2016 with an effective date of March 31, 2016. A copy of this report 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). Figure 1 provides the location and basement geology of the Wheeler River project. Further details on Denison's pipeline exploration projects are available in the Company's MD&A 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).

### **About Wheeler River**

*Wheeler River is the largest undeveloped high-grade uranium project in the infrastructure rich eastern portion of the Athabasca Basin region, in northern Saskatchewan. The project is a joint venture between Denison (60% and operator), Cameco Corp. (“Cameco”) (30%), and JCU (Canada) Exploration Company Limited (“JCU”) (10%), and is host to the high-grade Gryphon and Phoenix uranium deposits discovered by Denison in 2014 and 2008, respectively. The Gryphon deposit is hosted in basement rock and is currently estimated to contain inferred resources of 43.0 million pounds U<sub>3</sub>O<sub>8</sub> (above a cut-off grade of 0.2% U<sub>3</sub>O<sub>8</sub>) based on 834,000 tonnes of mineralization at an average grade of 2.3% U<sub>3</sub>O<sub>8</sub>. The Phoenix unconformity deposit is located approximately 3 kilometres to the southeast of Gryphon and is estimated to include indicated resources of 70.2 million pounds U<sub>3</sub>O<sub>8</sub> (above a cut-off grade of 0.8% U<sub>3</sub>O<sub>8</sub>) based on 166,000 tonnes of mineralization at an average grade of 19.1% U<sub>3</sub>O<sub>8</sub>, and is the highest grade undeveloped known uranium deposit in the world.*

*On April 4th, 2016, Denison announced the results of a Preliminary Economic Assessment (“PEA”) for the Wheeler River Project, which considers the potential economic merit of co-developing the high-grade Gryphon and Phoenix deposits as a single underground mining operation. The PEA returned a base case pre-tax Internal Rate of Return (“IRR”) of 20.4% based on the current long term contract price of uranium (US\$44.00 per pound U<sub>3</sub>O<sub>8</sub>), and Denison's share of estimated initial capital expenditures (“CAPEX”) of CAD\$336M (CAD\$560M on 100% ownership basis). Exploration results from the subsequent drilling*

programs have not been incorporated into the resource estimate or the 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 viability. On July 19th, 2016 Denison announced the initiation of a Pre-Feasibility Study ("PFS") for the Wheeler River property and the complimentary commencement of an infill drilling program at the Gryphon deposit to bring the inferred resources to an indicated level of confidence.

## **About Denison**

Denison is a uranium exploration and development company with interests focused in the Athabasca Basin region of northern Saskatchewan, Canada. In addition to its 60% owned Wheeler River project, which hosts the high-grade Phoenix and Gryphon uranium deposits, Denison's exploration portfolio consists of numerous projects covering approximately 359,000 hectares in the Athabasca Basin region, including 340,000 hectares in the infrastructure rich eastern portion of the Athabasca Basin. Denison's interests in Saskatchewan also include a 22.5% ownership interest in the McClean Lake joint venture ("MLJV"), which includes several uranium deposits and the McClean Lake uranium mill, which is currently processing ore from the Cigar Lake mine under a toll milling agreement, plus a 25.17% interest in the Midwest deposit and a 64.22% interest in the J Zone deposit on the Waterbury Lake property. Both the Midwest and J Zone deposits are located within 20 kilometres of the McClean Lake mill.

Denison is also engaged in mine decommissioning and environmental services through its Denison Environmental Services division and is the manager of Uranium Participation Corp., a publicly traded company which invests in uranium oxide and uranium hexafluoride.

## **For more information, please contact**

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## **Cautionary Statement Regarding Forward-Looking Statements**

*Certain information contained in this press release 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 press release contains forward-looking information pertaining to the following: exploration (including drilling) and evaluation activities, plans and objectives; potential mineralization of drill targets; the estimates of Denison's mineral resources and the results of its PEA; and Denison's percentage in its properties and its plans and agreements with its joint venture partners, as applicable. Statements relating to "mineral reserves" or "mineral resources" are deemed to be forward-looking information, as they involve the implied assessment, based on certain estimates and assumptions that the mineral reserves and 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 forward-looking statements. Denison believes that the expectations reflected in this forward-looking information are reasonable but no assurance can be given that these expectations 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 factors discussed in Denison's Annual Information Form dated March 23, 2017 under the heading "Risk Factors". These factors are not, and should not be construed as being exhaustive. Accordingly, readers should not place undue reliance on forward-looking statements.*

*The forward-looking information contained in this press release is expressly qualified by this cautionary statement. Any forward-looking information and the assumptions made with respect thereto speaks only as of the date of this press release. Denison does not undertake any obligation to publicly update or revise any forward-looking information after the date of this press release to conform such information to actual results or to changes in Denison's expectations except as otherwise required by applicable legislation.*

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

# Wheeler River Property Location and Geology

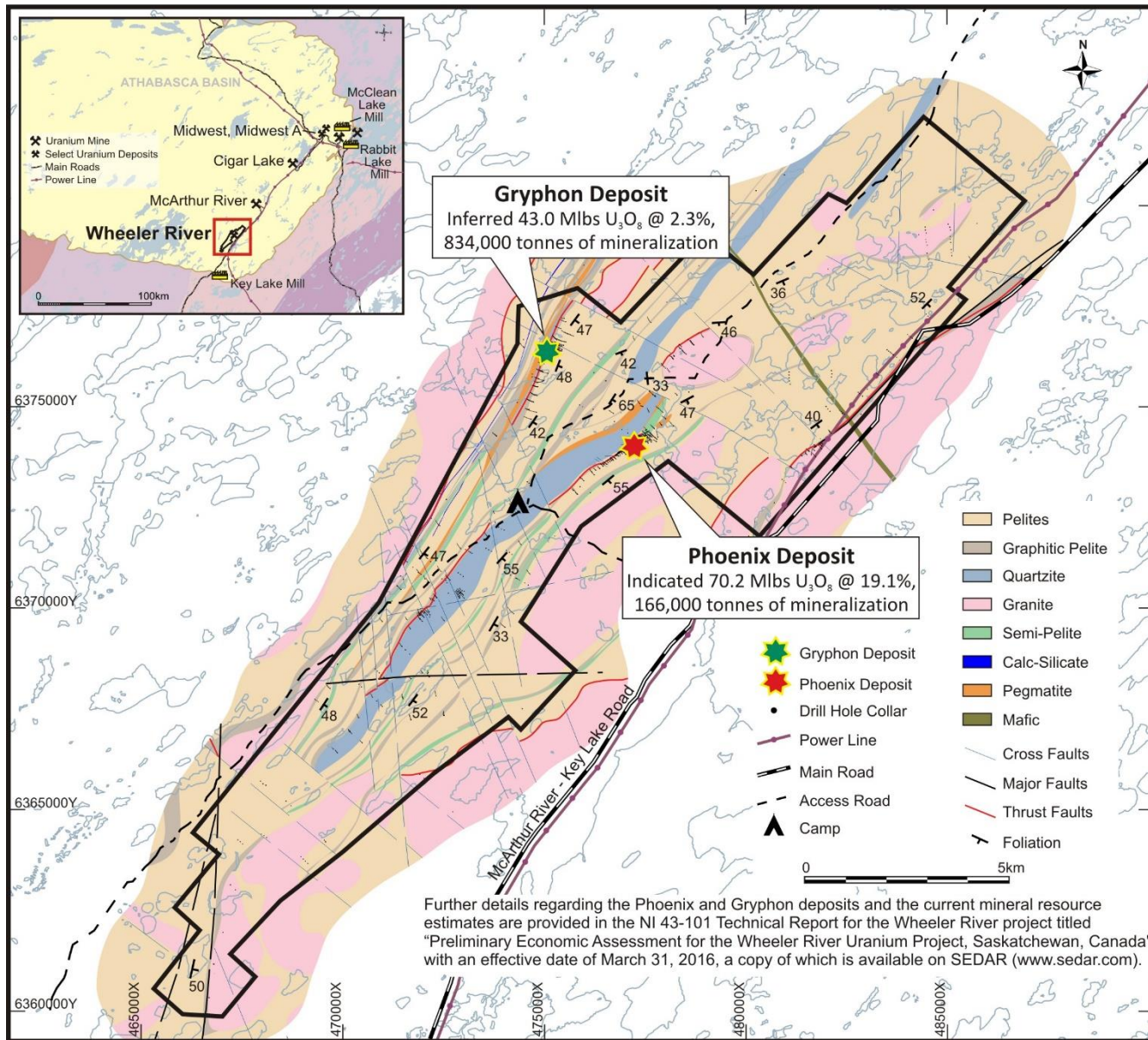


Figure 1: Location map and basement geology of the Wheeler River project.