



PRESS RELEASE

DENISON REPORTS RESULTS FROM Q1 2020

Toronto, ON – May 6, 2020. Denison Mines Corp. ("Denison" or the "Company") (DML: TSX, DNN: NYSE MKT) today filed its Consolidated Financial Statements and Management's Discussion & Analysis ("MD&A") for the quarter ended March 31, 2020. Both documents can be found on the Company's website at www.denisonmines.com or on SEDAR (at www.sec.gov/edgar.shtml). The highlights provided below are derived from these documents and should be read in conjunction with them. All amounts in this release are in Canadian dollars unless otherwise stated.

David Cates, President and CEO of Denison commented, "During the first quarter of 2020, Denison announced several positive developments related to the application of the In-Situ Recovery ('ISR') mining method at the Company's 90% owned Wheeler River uranium project. These results have increased our technical confidence in advancing the Phoenix deposit as the Athabasca Basin's first ISR uranium development project. Unfortunately, also during the first quarter, the significant social and economic disruptions created by the COVID-19 pandemic necessitated that Denison suspend the Wheeler River Environmental Assessment ('EA') and certain other activities planned for Wheeler River in 2020. While we are disappointed to pause the EA process, we our proud of our swift action to ensure employee safety, support public health efforts to limit transmission of COVID-19, and exercise prudent financial discipline.

An important element of our approach to the temporary suspension is the retention of all senior technical and supporting staff involved in the advancement of Wheeler River. With our project development team in-tact during this time, we have developed work plans that are financially prudent and designed to make the most of this interim opportunity to organize our efforts so that we can quickly resume activity in support of the advancement of Phoenix, once determined appropriate.

In recent days we have learned more about the troubling out-break of COVID-19 in northern Saskatchewan. Denison was a first mover in supporting several communities in northern Saskatchewan – with both financial support and the procurement and distribution of critical preventative health supplies, including nearly 1,000 litres of hand sanitizer, soap, and other essential hygiene supplies. Northern Saskatchewan communities are resilient, and we are continuing to actively support community-led COVID-19 response initiatives that are foundational to achieving success against these outbreaks and ensure the protection of Northern Saskatchewan citizens."

HIGHLIGHTS

Temporary suspension of Wheeler River Environmental Assessment ('EA') amidst COVID-19 disruptions

In March 2020, in light of the significant social and economic disruption that has emerged as a result of the COVID-19 pandemic and in line with the Company's commitment to ensure employee safety, support public health efforts to limit transmission of COVID-19, and in order to exercise prudent financial discipline, Denison announced the decision to suspend the EA process and certain other activities planned at Wheeler River for 2020. The decision to temporarily suspend the EA process is expected to impact the project development schedule outlined in the Pre-Feasibility Study ('PFS') for Wheeler River, though the extent of any such impact is currently unknown.

Successful completion of equity financing to provide ongoing funding for business activities

In April 2020, Denison successfully completed a public offering of 28,750,000 common shares at a price of USD\$0.20 per common share for gross proceeds of \$8,041,000 (USD\$5,750,000), which includes the full exercise of the overallotment option of 3,750,000 common shares. The estimated net proceeds of \$6,800,000 are expected to be used to fund the Company's business activities for the remainder of 2020 and into 2021.

 Uranium concentrations from initial core leach tests reported up to four times the amount assumed in PFS for Phoenix In-Situ Recovery ('ISR') operation

In December 2019, Denison announced the initiation of the next phase of ISR metallurgical laboratory testing for uranium recovery, which will utilize mineralized drill core recovered through the installation of various test wells during the 2019 ISR field test program. The metallurgical laboratory test program builds upon the laboratory tests completed for the recovery of uranium as part of the project's PFS and is expected to further increase confidence and reduce

risk associated with the application of the ISR mining method at the Phoenix deposit. The results are expected to facilitate detailed mine and process plant planning as part of a future Feasibility Study ('FS'), and will provide key inputs for the EA process. Significant components of the metallurgical laboratory test program include core leach tests, column leach tests, bench-scale tests and metallurgical modelling.

In February 2020, Denison reported that initial data from core leach tests includes the recovery of elemental uranium concentrations, after test startup, in the range of 13.5 grams per litre ('g/L') to 39.8 g/L, with an average of 29.8 g/L over 20 days of testing (see Denison's press release dated February 19, 2020). This compares favourably to the previous metallurgical test work completed to assess the use of the ISR mining method at Phoenix – which supported a uranium concentration of 10 g/L for the ISR processing plant design used in the PFS.

 Ability to achieve hydraulic conductivity values consistent with PFS confirmed by results from 2019 ISR field test at Phoenix

Extensive hydrogeological data was collected during the 2019 ISR field program to be incorporated into a hydrogeological model for Phoenix. In February 2020, Denison reported that the results from the hydrogeological test work completed to-date have confirmed the ability to achieve bulk hydraulic conductivity values (a measure of permeability) consistent with the PFS (see Denison press release dated February 24, 2020).

About Wheeler River

Wheeler River is the largest undeveloped uranium project in the infrastructure rich eastern portion of the Athabasca Basin region, in northern Saskatchewan and is a joint venture between Denison (90% and operator) and JCU (Canada) Exploration Company Limited (10%). The project is host to the high-grade Phoenix and Gryphon uranium deposits, discovered by Denison in 2008 and 2014, respectively, estimated to have combined Indicated Mineral Resources of 132.1 million pounds U_3O_8 (1,809,000 tonnes at an average grade of 3.3% U_3O_8), plus combined Inferred Mineral Resources of 3.0 million pounds U_3O_8 (82,000 tonnes at an average grade of 1.7% U_3O_8).

A pre-feasibility study ('PFS') was completed in late 2018, considering the potential economic merit of developing the Phoenix deposit as an ISR operation and the Gryphon deposit as a conventional underground mining operation. Taken together, the project is estimated to have mine production of 109.4 million pounds U_3O_8 over a 14-year mine life, with a base case pre-tax net present value ('NPV') of \$1.31 billion (8% discount rate), Internal Rate of Return ("IRR") of 38.7%, and initial pre-production capital expenditures of \$322.5 million. The Phoenix ISR operation is estimated to have a stand-alone base case pre-tax NPV of \$930.4 million (8% discount rate), internal rate of return ('IRR') of 43.3%, initial pre-production capital expenditures of \$322.5 million, and industry leading average operating costs of US\$3.33/lb U_3O_8 . The PFS was prepared on a project (100% ownership) and pre-tax basis, as each of the partners to the Wheeler River Joint Venture are subject to different tax and other obligations.

Further details regarding the PFS, including additional scientific and technical information, as well as after-tax results attributable to Denison's ownership interest, are described in greater detail in the NI 43-101 Technical Report titled "Pre-feasibility Study for the Wheeler River Uranium Project, Saskatchewan, Canada" dated October 30, 2018 with an effective date of September 24, 2018. A copy of this report 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.

Given recent social, financial and market disruptions, Denison has suspended certain activities at Wheeler River, including the EA program, which is on the critical path to achieving the project development schedule outlined in the PFS. Given the uncertainty associated with the duration of suspension, the Company is not currently able to estimate the impact to the project development schedule outlined in the PFS, and users are cautioned against relying on the estimates provided therein regarding the start of pre-production activities in 2021 and first production in 2024.

About Denison

Denison Mines Corp. was formed under the laws of Ontario and is a reporting issuer in all Canadian provinces. Denison's common shares are listed on the Toronto Stock Exchange (the 'TSX') under the symbol 'DML' and on the NYSE American exchange under the symbol 'DNN'.

Denison is a uranium exploration and development company with interests focused in the Athabasca Basin region of northern Saskatchewan, Canada. The Company's flagship project is the 90% owned Wheeler River Uranium Project. 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 deposits and a 66.57% interest in the J Zone and Huskie deposits on the Waterbury Lake property. The Midwest, J Zone and Huskie deposits are located within 20 kilometres of the McClean Lake mill. In addition, Denison has an extensive portfolio of exploration projects in the Athabasca Basin region.

Denison is engaged in mine decommissioning and environmental services through its Closed Mines group (formerly Denison Environmental Services), which manages Denison's Elliot Lake reclamation projects and provides post-closure mine and maintenance services to a variety of industry and government clients.

Denison is also the manager of Uranium Participation Corporation ('UPC'), a publicly traded company listed on the TSX under the symbol 'U', which invests in uranium oxide in concentrates ('U₃O₈') and uranium hexafluoride ('UF₆').

Technical Disclosure and Qualified Person

The disclosure of scientific and technical information regarding Denison's material properties in this MD&A was prepared by, or reviewed and approved by, Dale Verran, MSc, Pr.Sci.Nat., the Company's Vice President Exploration, or David Bronkhorst, P.Eng., the Company's Vice President Operations, each a Qualified Person in accordance with the requirements of NI 43-101.

For more information, please contact

David Cates (416) 979-1991 ext 362

President and Chief Executive Officer

Sophia Shane (604) 689-7842

Investor Relations

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CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

Certain information contained in this news release constitutes 'forward-looking information', within the meaning of the applicable United States and 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 news release contains forward-looking information pertaining to the following: exploration, development and expansion plans and objectives, including the results of, and estimates and assumptions within, the PFS, the plans and objectives for ISR and the related field and hydrogeological testing results, plans and objectives; the suspension of EA activities and anticipated results of such suspension; the impact of COVID-19 on Denison's operations; expectations regarding environmental and regulatory standards and permitting processes; the estimates of Denison's mineral reserves and mineral resources; plans for any FS, and any work to be undertaken in respect thereto; expectations regarding Denison's joint venture ownership interests; and expectations regarding the continuity of its agreements with third parties. 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 such forward-looking statements. For example, the results and underlying assumptions and interpretations of the PFS as well as the ISR field test and hydrogeological test programs discussed herein may not be maintained after further testing or be representative of actual conditions within the Phoenix deposit. In addition, Denison may decide or otherwise be required to extend the EA and/or otherwise discontinue testing, evaluation and development work at Wheeler River, and may not complete a FS, if it is unable to maintain or otherwise secure the necessary approvals or resources (such as testing facilities, capital funding, etc). 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 results 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 13, 2020 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 news 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 news release. Denison does not undertake any obligation to publicly update or revise any forward-looking information after the date of this news 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 and Probable Mineral Reserves: This MD&A may use the terms 'measured', 'indicated' and 'inferred' mineral resources. United States investors are advised that while such terms have been prepared in accordance with the definition standards on mineral reserves of the Canadian Institute of Mining, Metallurgy and Petroleum referred to in Canadian National Instrument 43-101 Mineral Disclosure Standards ('NI 43-101') and are recognized and required by Canadian regulations, these terms are not defined under Industry Guide 7 under the United States Securities Act and, until recently, have not been permitted to be used in reports and registration statements

filed with the United States Securities and Exchange Commission ('SEC'). '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. In addition, the terms "mineral reserve", "proven mineral reserve" and "probable mineral reserve" for the purposes of NI 43-101 differ from the definitions and allowable usage in Industry Guide 7. Effective February 2019, the SEC adopted amendments to its disclosure rules to modernize the mineral property disclosure requirements for issuers whose securities are registered with the SEC under the Exchange Act and as a result, the SEC now recognizes estimates of "measured mineral resources", "indicated mineral resources" and "inferred mineral resources". In addition, the SEC has amended its definitions of "proven mineral reserves" and "probable mineral reserves" to be "substantially similar" to the corresponding definitions under the CIM Standards, as required under NI 43-101. However, information regarding mineral resources or mineral reserves in Denison's disclosure may not be comparable to similar information made public by United States companies.