

PRESS RELEASE**DENISON REPORTS RESULTS FROM Q1 2021**

Toronto, ON – May 6, 2021. Denison Mines Corp. ('Denison' or the 'Company') (TSX: DML, NYSE American: DNN) today filed its Condensed Consolidated Financial Statements and Management's Discussion & Analysis ('MD&A') for the quarter ended March 31, 2021. Both documents can be found on the Company's website at www.denisonmines.com or on SEDAR (at www.sedar.com) and EDGAR (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 2021, Denison capitalized on improved market sentiment for the role of nuclear energy, as part of the global clean energy transition movement, and entered into strategic financings that have significantly de-risked the Company's balance sheet and provide considerable financial flexibility for the Company. In addition to securing funding to continue to advance our flagship Wheeler River Uranium Project ('Wheeler River') through the Environmental Assessment ('EA') and feasibility study ('FS') processes, we were also the first to complete a novel future project financing initiative – involving the acquisition of 2.5 million pounds of U₃O₈ to be held as a long-term strategic capital asset. Excluding the cash reserved to execute on our uranium purchase commitments, the Company's cash and investment holdings were reported at \$96 million at the end of the quarter.*

In parallel, our Saskatoon-based technical team continues to progress critical path projects related to the advancement of Wheeler River – including the full resumption of the EA process early in Q1, and the commencement of an ambitious 2021 Field Program at Phoenix. To date, we have already successfully drilled, cased and cemented the commercial scale wells in the 5-spot In-Situ Recovery ('ISR') test pattern located in Phase 1 of the Phoenix deposit. In support of our efforts at Wheeler River and in the Athabasca Basin region, the Company also entered into a Participation and Funding agreement and Exploration agreement with the English River First Nation ('ERFN'), whose traditional territory includes the Wheeler River property, as well as many of Denison's other interests in the Athabasca Basin region.

Additionally, in response to the unexpected announcement of a sale of JCU (Canada) Exploration Company Limited ('JCU') by Overseas Uranium Resources Development Co., Ltd. ('OURD'), Denison promptly delivered a binding offer to purchase JCU from OURD for \$40.5 million, which we believe more appropriately reflects the underlying value of JCU's assets – including their 10% interest in Wheeler River."

HIGHLIGHTS**▪ Successful completion of equity financing to fund the Environmental Assessment and Feasibility Study process for Wheeler River**

Denison completed equity financings for gross proceeds of \$40.2 million (including \$3.9 million from an At-the-Market ('ATM') offering) in the first quarter of 2021. Subject to a decision to advance to a formal FS for the high-grade Phoenix uranium deposit ('Phoenix'), the proceeds from the offerings are expected, based on current estimates, to be sufficient to complete such FS process and the EA process.

▪ Financing completed for 2021 and 2022 high potential exploration programs

The Company completed a flow-through equity financing of \$8.0 million in March 2021. Proceeds of the financing will be used for eligible Canadian exploration activities in 2021 and 2022 – including the Company's planned follow up on the discovery of high-grade uranium mineralization at the K-West target area, located approximately 4 km west of Phoenix on the Wheeler River property.

▪ Funded a project financing initiative involving the strategic acquisition of physical uranium

In March 2021, Denison successfully completed a public offering for gross proceeds of \$107,949,000. The majority of the net proceeds of the offering are anticipated to fund the strategic purchase of uranium concentrates ('U₃O₈') to be held by Denison as a long-term investment, which is intended to support the potential future financing of the advancement and/or construction of Wheeler River. At March 31, 2021, the Company has committed to purchase 2.5 million pounds of U₃O₈ at a weighted average price of US\$29.61 per pound U₃O₈.

- **Executed agreements with the English River First Nation**

In April 2021, Denison announced that it has entered into a Participation and Funding Agreement and Letter of Intent with the ERFN in connection with the advancement of the proposed ISR operation at Wheeler River. The Company also entered into an Exploration Agreement in respect of Denison's exploration and evaluation activities within the ERFN traditional territories. These agreements reflect Denison's desire to operate its business in a progressive and sustainable manner that respects ERFN rights and advances reconciliation with Indigenous peoples. The agreements provide ERFN with economic opportunities and other benefits, and establish a foundation for future collaboration in an authentic, cooperative, and respectful way.

- **Commenced the 2021 ISR field program at Wheeler River**

During the first quarter of 2021, the Company initiated the 2021 ISR Field Program, including the installation of a five-spot commercial scale well ('CSW') ISR test pattern at Wheeler River. Mobilization of drilling equipment necessary to complete the large diameter drill holes was completed in early April, and all five CSWs have been successfully drilled to target depths, cased, and cemented into position. The installation of the Test Pattern is the first step in the 2021 field program, which is designed to support the further de-risking of the application of ISR mining at Phoenix.

- **Discovery of new high-grade uranium mineralization at McClean Lake South**

New high-grade unconformity-hosted uranium mineralization was discovered during the winter 2021 exploration program completed at the Company's 22.5% owned McClean Lake Joint Venture. Three of the final four drill holes completed by Orano Canada Inc., 77.5% owner and operator of the MLJV, returned uranium mineralization at the McClean South target area, with the results highlighted by drill hole MCS-34, which returned 5.04% eU₃O₈ over 14.0 metres (including 14.86% eU₃O₈ over 3.9 metres).

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 U₃O₈ (1,809,000 tonnes at an average grade of 3.3% U₃O₈), plus combined Inferred Mineral Resources of 3.0 million pounds U₃O₈ (82,000 tonnes at an average grade of 1.7% U₃O₈).

The 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 U₃O₈ 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), IRR of 43.3%, initial pre-production capital expenditures of \$322.5 million, and industry leading average operating costs of US\$3.33/lb U₃O₈. 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 the social, financial and market disruptions related to COVID-19, and certain fiscally prudent measures, Denison temporarily suspended certain activities at Wheeler River starting in April 2020, including the formal parts of the EA program, which is on the critical path to achieving the project development schedule outlined in the PFS Technical Report. While the formal EA process has resumed in early 2021, the Company is not currently able to estimate the impact to the project development schedule, outlined in the PFS Technical Report, and users are cautioned that certain of the estimates provided therein, particularly regarding the start of pre-production activities in 2021 and first production in 2024 should not be relied upon.

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. In addition to the Company's flagship project, Wheeler River, Denison's interests in Saskatchewan include a 22.5% ownership interest in the 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 Main and Midwest A deposits and a 66.90% interest in the Tthe Heldeth Túé ('THT', formerly J Zone) and Huskie deposits on the Waterbury Lake property. The Midwest, THT 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 technical information contained in this press release has been reviewed and approved by David Bronkhorst, P.Eng, Denison's Vice President, Operations and/or Andrew Yackulic, P. Geo, Denison's Director, Exploration, each of whom is a Qualified Person in accordance with the requirements of NI 43-101.

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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 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 press release contains forward-looking information pertaining to the following: projections with respect to use of proceeds of recent financings; exploration, development and expansion plans and objectives, including the plans and objectives for Wheeler River and the related EA and FS processes and 2021 Field Program, and exploration objectives, including plans for follow-up work at the K-West target area; the impact of COVID-19 on Denison's operations; the current objectives with respect to the strategic acquisition of uranium;; the estimates of Denison's mineral reserves and mineral resources or results of exploration, such as the uranium mineralization reported from the McClean Lake South exploration drilling program; expectations regarding Denison's joint venture ownership interests; expectations regarding the continuity of its agreements with third parties, including the agreements with the ERFN and Denison's intentions and objectives with respect thereto; and its interpretations of, and expectations for, nuclear energy. 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 de-risking efforts such as the 2021 Field Program discussed herein may not be maintained after further testing or be representative of actual conditions within

the applicable deposits. In addition, Denison may decide or otherwise be required to extend the EA and/or otherwise discontinue testing, evaluation and development work, including a FS at Wheeler River, 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 26, 2021 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 Mineral Resources and Mineral Reserves: This press release 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 using CIM Standards 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. . **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.**