

PRESS RELEASE

Denison Reports Impressive Financial and Operational Results for 2023 Including Significant Increase in Phoenix ISR Project Economics and a \$134 Million Gain on Physical Uranium Holdings

Toronto, ON – February 29, 2024. Denison Mines Corp. ('Denison' or the 'Company') (TSX: DML, NYSE American: DNN) today filed its Audited Consolidated Financial Statements and Management's Discussion & Analysis ('MD&A') for the year ended December 31, 2023. Both documents are or will be available on the Company's website at <u>www.denisonmines.com</u>, SEDAR+ (at <u>www.sedarplus.ca</u>) and EDGAR (at <u>www.sec.gov/edgar.shtml</u>). 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.

The Company reported earnings per share ('EPS') from continuing operations of \$0.11 for the year ended December 31, 2023, representing a 450% increase from the 2022 EPS of \$0.02, driven by the recognition of a significantly larger gain on the Company's physical uranium holdings offset by operating expenses primarily related to the Company's advancement of its flagship Wheeler River Project.

A description of the Company's plans and budget for 2024 ('2024 Outlook') is included in the MD&A.

David Cates, President and CEO of Denison commented, "The sheer magnitude of Denison's numerous operational accomplishments in 2023 reflects an extraordinarily productive time for our Company. With the completion of the Phoenix Feasibility Study in June, we have cemented Phoenix's position as a globally leading uranium development project, showcasing Denison's industry leadership in the de-risking and application of the In-Situ Recovery mining method in the Athabasca Basin. The results from an updated Pre-Feasibility Study for the Gryphon deposit, completed as part of a newly issued Technical Report for the Company's flagship Wheeler River property, also demonstrate the significant potential additional leverage that comes from Denison's diversified portfolio of projects.

We achieved a notable milestone for the project in 2023 with the signing of a Shared Prosperity Agreement with English River First Nation supporting the development and operation of Wheeler River. The SPA reflects ERFN's consent to the advancement of the project and acknowledges that Wheeler River is located within ERFN's Ancestral Lands. The SPA further describes a mutual commitment to maintain an open, respectful, and cooperative relationship between Denison and ERFN to ensure mutual prosperity as the development and operation of the project progresses.

Significant progress has also been made in support of permitting the planned Phoenix ISR mine, consistent with our plans and objective to achieve first production in 2027 or 2028. The Company has responded to multiple rounds of technical comments and information requests from both the Provincial and Federal regulators in respect of its draft Environmental Impact Statement and has successfully reduced the number of outstanding requests, including confirmation from the Saskatchewan Ministry of Environment that it is satisfied with our responses and that Denison may proceed to finalize the EIS for provincial approval.

The evolution of the uranium market in 2023 has been quite interesting and has had a significant positive impact on Denison's balance sheet. With the uranium price rising from US\$48/b U_3O_8 at the start of the year to US\$91/b U_3O_8 at year end, Denison's strategic physical uranium holdings have appreciated considerably – driving the Company's highest earnings per share since 2007. It is apparent that the uranium market has entered a new phase and we are pleased to see the market recognize the growing scarcity of available future uranium production and that higher prices are required to incentivize sufficient new uranium production to meet current and growing demand. Importantly, the higher price environment follows an initial wave of long-term contracting that has already incentivized a series of mine restarts from the industry's incumbent producers. This transition to a production cost-based market environment is consistent with Denison's expectations and validates the Company's tireless work to advance Phoenix towards a final investment decision during several challenging years of negative uranium market conditions.

Our hard work in past years has paved the way for an incredibly exciting time for our Company as we focus on delivery of our Phoenix ISR project. As outlined in our 2024 Outlook, the Company's expected priorities for Phoenix include advancement of detailed design engineering, long-lead procurement, permitting, and project financing. In parallel, we plan to continue to pursue opportunities to drive additional value from our diverse project portfolio – including preparations for the restart of uranium mining at McClean Lake, a robust exploration program, and advancement of both the Midwest and Waterbury Lake projects through the next stages of technical and economic evaluations."

Highlights

 Exceptional annual earnings from continuing operations driven by \$134 million gain on physical uranium investments

During 2023, the Company's earnings from continuing operations of \$89.4 million (\$0.11 per share) were driven by an impressive \$134.2 million fair value gain on the Company's investments in physical uranium. The Company acquired 2.5 million pounds U_3O_8 in 2021 at an average price of \$36.67 per pound U_3O_8 (US\$29.66 per pound U_3O_8). In the fourth quarter, the Company sold 200,000 pounds U_3O_8 at an average selling price of \$99.50 per pound U_3O_8 (US\$73.38 per pound U_3O_8), representing a realized gain on sale of \$12.6 million (US\$8.8 million). As at December 31, 2023, the Company's remaining uranium portfolio has increased in value by 228% to \$120.35 per pound U_3O_8 (US\$91.00 per pound U_3O_8) for an aggregate value of approximately \$276.8 million (US\$20.3 million).

• Feasibility Study for Wheeler River Phoenix deposit yields significant increase in project economics

In June 2023, Denison released the results of the Feasibility Study ('Phoenix FS') completed for In-Situ Recovery ('ISR') mining of the high-grade Phoenix uranium deposit ('Phoenix'), which is part of the Company's flagship Wheeler River Project ('Wheeler River' or the 'Project').

The Phoenix FS demonstrates robust economics including:

- Base case pre-tax Net Present Value ('NPV') (8%) of \$2.34 billion (100% ownership-basis) representing a 150% increase in the base-case pre-tax NPV_{8%} for Phoenix from the 2018 Pre-Feasibility Study ('2018 PFS').
- Very robust base-case pre-tax Internal Rate of Return ('IRR') of 105.9%.
- Adjusted base case after-tax NPV_{8%} of \$1.56 billion (100% basis) and IRR of 90.0% with Denison's effective 95% interest in the project equating to an adjusted base case after-tax NPV_{8%} of \$1.48 billion.
- Base case pre-tax and after-tax (adjusted) payback period of 10 months equating to a reduction of 11 months for the pre-tax payback period from the 2018 PFS.
- Optimized production profile, based on ISR mine planning efforts evaluating production potential for individual well patterns resulting in an increase to the planned rate of production by approximately 43% during the first five years of operations.
- Estimated pre-production capital costs of under \$420 million (100% basis), yielding an impressive base-case after-tax (adjusted) NPV to initial capital cost ratio in excess of 3.7 to 1.
- Robust economics that easily absorb cost-inflation and design changes impacting both operating and capital costs, confirming Phoenix's estimated cash operating and all-in costs to be amongst the lowest-cost uranium mining projects in the world.
- Phoenix FS plans aligned and costed to meet or exceed environmental criteria expected to be required by the ongoing regulatory approval process.
- Updated mineral resource estimate, reflecting the results of 70 drill holes completed in support of ISR de-risking and resource delineation activities, which has upgraded 30.9 million pounds U₃O₈ into measured mineral resources. The updated mineral resource also resulted in an increase to the average grade of the Zone A highgrade domain, which is now estimated to contain 56.3 million pounds U₃O₈ in Measured and Indicated mineral resources at an average grade of 46.0% U₃O₈.
- Upgraded 3.4 million pounds U₃O₈ into Proven mineral reserves, representing the equivalent of 85% of production planned during the first calendar year of operations.
- Phoenix ISR de-risking completed and focus transitions to engineering design

The Phoenix FS reflects independent third-party validation of the selection of the ISR mining method for Phoenix and builds on the findings from a comprehensive and rigorous multi-year technical de-risking process highlighted by the highly successful completion of the leaching and neutralization phases of the Phoenix Feasibility Field Test ('FFT') in late 2022.

Through the technical de-risking process, Denison acquired extensive deposit-specific data and developed a robust ISR mine planning model that involved evaluation of the production potential for individual well patterns. With

technical de-risking of the application of ISR at Phoenix substantially complete, Denison undertook front-end engineering design ('FEED') to support the advancement of the planned Phoenix operation and, with the results thereof substantially complete, is transitioning into detailed engineering design.

Landmark Shared Prosperity Agreement signed with English River First Nation

In September 2023, Denison announced the signing of a Shared Prosperity Agreement ('SPA') with English River First Nation ('ERFN') supporting the development and operation of Wheeler River. The SPA received support from a substantial majority of ERFN members who participated in a ratification vote on its key terms.

The signing of the SPA follows years of active engagement, including a four-month-long ERFN-led community consultation process ahead of the ratification vote, and represents a significant milestone in the history of both Denison's relationship with ERFN and the Project.

The SPA acknowledges that the Project is located within ERFN's Ancestral Lands and provides Denison with ERFN's consent to advance the Project. Additionally, the SPA outlines a shared recognition that ERFN is the Knowledge Keeper of the culture, ways, customs, and values of ERFN in relation to the environment and its Members and reflects ERFN's desire to prioritize sustainability. Amongst other key commitments, the SPA provides ERFN and its Members with (i) an important role in environmental monitoring and management, and (ii) benefits from community investment, business opportunities, employment and training opportunities, and financial compensation. Overall, the SPA describes a mutual commitment to maintain an open, respectful, and cooperative relationship between Denison and ERFN to ensure mutual prosperity as the development and operation of the Project progresses.

Phoenix Environmental Impact Statement ('EIS') advanced through regulatory review

Denison's draft EIS for Phoenix was submitted to the Saskatchewan Minister of Environment ('SKMOE') and the Canadian Nuclear Safety Commission ('CNSC') in late 2022. The EIS submission outlines the Company's assessment of the potential effects, including applicable mitigation measures, of the proposed ISR uranium mine and processing plant planned for Phoenix, and reflects several years of baseline environmental data collection, technical assessments, plus extensive engagement and consultation with Indigenous and non-Indigenous interested parties.

In the first quarter of 2023, the Company received technical comments and information requests from both regulatory agencies and the Company has provided technical responses to both the Provincial and Federal regulators.

In August 2023, reflective of the extensive efforts undertaken by and for the Company, the CNSC deemed complete the Company's responses to the approximately 250 Federal comments from the CNSC. In November 2023, a second round of information requests was received from the CNSC. Following the successful resolution of the outstanding comments from the Federal Indigenous Review Team, the Company expects to then be in position to submit a final version of EIS for consideration at a future hearing of the CNSC.

In October 2023 the Saskatchewan Ministry of Environment confirmed its satisfaction with Denison's comment responses and proposed EIS updates. The confirmation would allow Denison to finalize the EIS for the purpose of obtaining a Provincial Environmental Assessment ('EA') approval, however this would delink the currently coordinated Provincial – Federal EA process, which is not expected to provide a meaningful schedule advantage for the Phoenix project. Denison plans to submit one version of the final EIS to both authorities once the Federal information requests have been resolved.

Phoenix ISR Feasibility Field Test Recovered Solution Management phase completed

In November 2023, the Company announced the successful completion of the recovered solution management phase of the FFT. The FFT was designed to use the existing commercial-scale ISR test pattern to perform a combined assessment of the Phoenix deposit's hydraulic flow properties along with the leaching characteristics that had been assessed through the metallurgical core-leach testing program. The prior phases of the FFT, completed in 2022, were highlighted by the recovery of 14,400 pounds of U_3O_8 dissolved in solutions generated during the leaching and neutralization phases of the test.

The solution recovered during the FFT was stored on site and this final phase of the FFT involved the treatment of the recovered solution via an on-site purpose-built treatment system. Following treatment, a uranium precipitate product and a treated effluent were produced. The mineralized precipitates have been recovered from the process with over 99.99% efficiency. The treated effluent was tested to ensure compliance with permit conditions before being injected into a designated subsurface area.

Cost update to the 2018 PFS for Wheeler River Gryphon deposit ('Gryphon') confirms the project's position amongst the lowest-cost uranium mining projects in the world

During 2023, the Company also completed a cost update ('Gryphon Update') to the 2018 PFS for conventional underground mining of the basement-hosted Gryphon deposit. The scope of the Gryphon Update was targeted at the review and update of capital and operating costs. Mining and processing plans remain largely unchanged from the 2018 PFS aside from minor scheduling and construction sequencing optimizations. The key points include:

- Base case pre-tax NPV (8%) of \$1.43 billion (100% basis) is a 148% increase in the base-case pre-tax NPV_{8%} for Gryphon from the 2018 PFS.
- Strong base-case pre-tax IRR of 41.4%.
- Base case after-tax NPV_{8%} of \$864.2 million (100% basis) and IRR of 37.6% with Denison's effective 95% interest in the project equating to a base case after-tax NPV_{8%} of \$821.0 million.
- Base case pre-tax payback period of 20 months, and base case after-tax payback period of 22 months equating to a reduction of 17 months for the pre-tax payback period from the 2018 PFS.

Importantly, Gryphon remains a highly valuable project that provides Denison with an additional source of low-cost potential production to deploy significant free cash flows expected from Phoenix.

• \$113 million raised through equity financings to fund operations and the advancement of Phoenix

In October 2023, Denison completed a bought deal public offering resulting in the issuance of 37,000,000 shares at a price of \$2.03 (US\$1.49) per share for total gross proceeds of \$75.1 million (US\$55.1 million). Throughout 2023, Denison also issued 19,786,160 shares under its At-The-Market ('ATM') equity program at an average price of \$1.91 per share for aggregate gross proceeds of \$37.9 million.

• Waterbury Lake inaugural ISR field test program completed

In November 2023, the Company announced the completion of an inaugural ISR field test program at the Tthe Heldeth Túé uranium deposit ('THT') on the Waterbury Lake property. The program included (i) the installation of an eight well ISR test pattern designed to collect an initial database of hydrogeological data, (ii) testing of a permeability enhancement technique, (iii) the completion of hydrogeologic test work, highlighted by the achievement of hydraulic conductivity values consistent with those from the 2020 Preliminary Economic Assessment ('PEA'), and (iv) the execution of an ion tracer test which established a 10 hour breakthrough time between the injection and extraction wells, while also demonstrating hydraulic control of the injected solution. Overall, the program successfully achieved each of its planned objectives.

Midwest internal concept study completed to examine potential application of ISR mining method

The Company completed an internal conceptual mining study examining the potential application of ISR at the Company's 25.17% owned Midwest Project ('Midwest'). The concept study was prepared by Denison during 2022 and formally issued to the Midwest Joint Venture ('MWJV') in early 2023. Based on the positive results of the concept study, the MWJV provided Denison with approval to complete additional ISR-related work, to be undertaken for Midwest in 2023 and 2024.

Moon Lake South discovery of high-grade uranium mineralization

In April 2023, Denison reported the discovery of high-grade sandstone hosted uranium mineralization approximately 30 metres above the unconformity in drill hole MS 23-10A, which was completed as part of the 2023 winter exploration program at the Moon Lake South property. The intersection in MS 23-10A returned 2.46% U_3O_8 over 8.0 metres, including a sub-interval grading 3.71% U_3O_8 over 4.5 metres. This result represents the best drill hole completed on the Moon Lake South property to date and is a high priority for follow-up exploration.

• \$15 million strategic investment in F3 Uranium Corp.

In October 2023, the Company completed a \$15 million strategic investment in F3 Uranium Corp. ('F3') in the form of unsecured convertible debentures (the 'Debentures'), which carry a 9% coupon and will be convertible at Denison's option into common shares of F3 at a conversion price of \$0.56 per share. F3 has the right to pay up to one third of the quarterly interest payable by issuing common shares. F3 will also have certain redemption rights on or after the third anniversary of the date of issuance of the Debentures and/or in the event of an F3 change of control.

• Executive team changes undertaken in 2023

In December 2023, Denison announced the promotion of Ms. Elizabeth Sidle to the position of Chief Financial Officer, in addition to her position as the Company's Vice President Finance. Ms. Sidle joined Denison in 2016, advancing

to the position of Vice President Finance in 2021. Ms. Sidle had been serving as Denison's Interim Chief Financial Officer since September 1, 2023, during a temporary medical leave of absence of the Company's previous Chief Financial Officer and since his departure from Denison in late October 2023.

Denison also announced the addition of Mr. Geoff Smith to the position of Vice President Corporate Development & Commercial. Mr. Smith will be focused on supporting Denison's investor and customer engagement, the evaluation and execution of growth opportunities and financing arrangements, and the development and oversight of the Company's uranium sales and contracting strategies.

About Denison

Denison Mines Corp. was formed under the laws of Ontario and is a reporting issuer in all Canadian provinces and territories. 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 has an effective 95% interest in its flagship Wheeler River Uranium Project, which is the largest undeveloped uranium project in the infrastructure rich eastern portion of the Athabasca Basin region of northern Saskatchewan. In mid-2023, a Feasibility Study was completed for Wheeler River's Phoenix deposit as an ISR mining operation, and an update to the previously prepared PFS was completed for Wheeler River's Gryphon deposit as a conventional underground mining operation. Based on the respective studies, both deposits have the potential to be competitive with the lowest cost uranium mining operations in the world. Permitting efforts for the planned Phoenix ISR operation commenced in 2019 and have advanced significantly, with licensing in progress and a draft Environmental Impact Statement ('EIS') submitted for regulator and public review October 2022.

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 contracted to process the 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 69.35% interest in the Tthe Heldeth Túé ('THT,' formerly J Zone) and Huskie deposits on the Waterbury Lake property. The Midwest Main, Midwest A, THT and Huskie deposits are located within 20 kilometres of the McClean Lake mill.

Through its 50% ownership of Japan (Canada) Exploration Company, Ltd ('JCU'), Denison holds additional interests in various uranium project joint ventures in Canada, including the Millennium project (JCU, 30.099%), the Kiggavik project (JCU, 33.8118%) and Christie Lake (JCU, 34.4508%).

Denison's exploration portfolio includes further interests in properties covering approximately 385,000 hectares in the Athabasca Basin region.

Technical Disclosure and Qualified Person

The technical information contained in this press release has been reviewed and approved by Chad Sorba, P.Geo., Denison's Vice President Technical Services and Project Evaluation, and Andy Yackulic, P.Geo., Denison's Vice President Exploration, who are both Qualified Persons in accordance with the requirements of NI 43-101.

Further details of the Phoenix FS and Gryphon Update are provided in Denison's press release of June 26, 2023. The results of the Phoenix FS and Gryphon Update are also detailed in a technical report entitled "NI 43-101 Technical Report on the Wheeler River Project Athabasca Basin, Saskatchewan, Canada," with an effective date of June 23, 2023 and dated August 8, 2023. The technical report is available on the Company's website at <u>www.denisonmines.com</u>, on SEDAR+ (at www.sedarplus.ca) and on EDGAR (at www.sec.gov/edgar.shtml).

For more information, please contact

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Non-GAAP Financial Measures

This release includes certain terms or performance measures commonly used in the mining industry that are not defined under International Financial Reporting Standards ('IFRS'). Such non-GAAP performance measures, including NPV,

are included because the Company understands that investors use this information to determine the Company's ability to generate earnings and cash flows. The Company believes that conventional measures of performance prepared in accordance with IFRS do not fully illustrate the ability of mines to generate cash flows. Non-GAAP financial measures should not be considered in isolation as a substitute for measures of performance prepared in accordance with IFRS and are not necessarily indicative of operating costs, operating profit or cash flows presented under IFRS.

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 exploration, development and expansion plans and objectives, including the results of the FS and the scope, objectives and interpretations of the technical de-risking process for the proposed ISR operation for the Phoenix deposit, including the FFT, and the interpretation of the results therefrom; expectations with respect to future evaluation and development of Phoenix, including engineering design efforts, long-lead item procurement; expectations regarding regulatory applications and approvals and the elements thereof, including the EIS; expectations with respect to Company resources and project financing; expectations regarding the performance of the uranium market and global sentiment regarding nuclear energy; 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 FS as well as de-risking efforts such as the ISR field programs 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 its evaluation activities and/or discontinue testing, evaluation and development work 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 the MD&A dated February 29, 2024 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 news release may use the terms 'measured', 'indicated' and 'inferred' mineral resources. United States investors are advised that 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 NI 43-101 and are recognized and required by Canadian regulations. 'Inferred mineral resources' have a great amount of uncertainty as to their existence, and as to their economic and legal feasibility. 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 an inferred mineral resource swill ever be converted into mineral reserves.

Effective February 2019, the United States Securities and Exchange Commission ('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.