

PRESS RELEASE**Denison Reports Financial and Operational Results for 2022, Including Significant De-Risking and Regulatory Milestones**

Toronto, ON – March 9, 2023. 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 year ended December 31, 2022. Both documents will be available on the Company's website at www.denisonmines.com, 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, *"Our results from 2022 reflect an incredibly successful year highlighted by significant de-risking and regulatory milestones supporting the continued advancement of our flagship Wheeler River project.*

We made history with the successful permitting, procurement, construction, commissioning and operation of the Feasibility Field Test ('FFT') facilities at the high-grade Phoenix uranium deposit ('Phoenix') – where we achieved the first known recovery of uranium bearing solution via in-situ recovery ('ISR') mining in Saskatchewan's prolific Athabasca Basin region. The FFT was accomplished through the tireless efforts of our Saskatoon-based technical team over the past four years to systematically de-risk the use of ISR mining through extensive field and laboratory testing programs. The highly successful results of the FFT clearly demonstrate that the Phoenix deposit is amenable to ISR mining and that the Company can move confidently ahead with its plans to complete a feasibility study for the project during the first half of 2023.

In parallel to our technical de-risking efforts, we achieved a notable milestone in the permitting process for the planned Phoenix ISR project with the submission of a draft Environmental Impact Statement ('EIS'), which follows from several years of baseline environmental data collection, technical assessments, and extensive engagement and consultation with Indigenous and non-Indigenous interested parties. The draft EIS demonstrates that the project can be constructed, operated, and decommissioned in a manner that has fewer residual effects remaining after mitigation than conventional open pit or underground mining and milling operations – potentially achieving a superior standard of environmental sustainability and re-shaping the future of uranium mining in Saskatchewan.

I'm proud of the exceptional efforts of our growing and highly motivated team to challenge the norm and achieve what others may have previously considered impossible – with the result positioning Denison as an industry leader on the cusp of deploying the world's lowest cost uranium mining method at one of the world's highest grade uranium deposits. Our timing is excellent, as our success comes while we are observing sustained improvements in both global sentiment towards nuclear energy's necessity in the battle against climate change and the underlying uranium market."

Highlights**▪ Successfully completed 2022 ISR field work, including permitting, constructing, and completing the leaching and neutralization phases of the Feasibility Field Test at Phoenix**

The Company's ambitious 2022 evaluation plan for the Wheeler River project ('Wheeler River' or the 'Project') was designed to further de-risk the technical elements of the ISR mining project planned for the high-grade Phoenix uranium deposit. Central to this plan was the FFT, which was designed to use the existing commercial-scale ISR test pattern to perform a combined assessment of Phoenix's hydraulic flow properties along with the leaching characteristics that have been assessed through the metallurgical core-leach testing program. Overall, the FFT is intended to provide further verification of the permeability, leachability, and containment parameters needed for the successful application of the ISR mining method at Phoenix.

During 2022, the Company received approval to construct and operate a pollutant control facility from the Saskatchewan Minister of Environment ('SKMOE') and a License to Possess, Use, Store and Transfer a Nuclear Substance ('Nuclear Substance License') from the Canadian Nuclear Safety Commission ('CNSC'). With the receipt of these approvals, the Company was fully permitted to operate the ISR FFT for Phoenix. The Company completed the construction and commissioning of the lixiviant injection system for the FFT and commenced the leaching phase of the FFT in September 2022.

In November, the Company announced the highlights of the highly successful leaching phase, which:

- Recovered approximately 14,400 pounds of U₃O₈ over ten days of active leaching following completion of initial acidification of the leaching area;
- Returned maximum uranium head grade of recovered solution of 43 grams per litre ('g/L') when the leaching phase of the FFT was completed, with grades still rising (indicative of the ramp-up segment of a well production profile);
- Achieved suitable acidification for ISR mining within 7 days post initial injection at 5 metre well spacing (GWR-041) and within 17 days for 10 metre well spacing (GWR-038);
- Demonstrated the ability to achieve and maintain uranium mass flow rate consistent with the assumptions in the Pre-Feasibility Study ('PFS') prepared for the Project in 2018;
- Further demonstrated hydraulic control of injected solution during the FFT, reporting no responses in the monitoring wells outside of the designed FFT test area; and
- Confirmed breakthrough times between injection and recovery wells, consistent with the Project's hydrogeological model and the previously completed tracer test.

The Company then successfully completed the neutralization phase of the FFT, after which sampling of monitoring wells around the FFT site confirmed the successful restoration of the leaching zone to environmentally acceptable pH conditions, as outlined in the applicable regulatory approvals for the FFT. The neutralization phase was designed to confirm certain environmental assessment assumptions and verify the efficiency and effectiveness of the neutralization process planned for ISR mining at Phoenix.

The final phase of the FFT, which involves management of the recovered solution, is expected to commence in the spring of 2023.

Other ISR field work completed in 2022 included the installation of additional test wells in multiple three-spot test patterns at the Phoenix site in order to assess the ISR mining conditions in additional areas of Phoenix, as well as the completion of extensive hydrogeologic test work and a substantial borehole geophysics program.

The results of the FFT and additional test work completed in 2022 are expected to inform and support the completion of the Feasibility Study ('FS') initiated for Phoenix in late 2021.

▪ **Exceeded 97% recovery from long-term Phoenix ISR core leach test**

In December 2022, Denison announced the results from long-term core leach metallurgical testing designed to support the establishment of ISR production and recovery curves to be used in the FS. The Company completed a long-term test of a representative intact core sample ('Core 4A') using specialized equipment to replicate the in-situ leaching conditions of the Phoenix deposit.

The results from long-term core leach testing of Core 4A were highlighted by the following:

- Overall recovery of uranium in excess of 97% – demonstrating excellent recovery of uranium from intact high-grade core, without the use of permeability enhancement;
- Average recovered solution uranium head grade of 18.3 g/L – exceeding the assumed 15 g/L uranium head grade being used in FS plant designs (see news release dated August 4, 2021);
- Continuous intact core leach testing over a period of 377 days, with uranium recovery head grades consistently maintained above 5 g/L during the final stages of the production curve and then declining during the ramp-down stage; and
- Maximum recovered solution uranium head grade of 49.8 g/L achieved using similar lixiviant concentrations as to those used during the FFT.

▪ **Achieved significant regulatory milestone for Wheeler River with the submission of the draft EIS**

In October 2022, Denison announced a significant regulatory milestone for Wheeler River with the submission of the draft EIS to the SKMOE and the CNSC. 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 Wheeler River, and reflects several years of baseline environmental data collection, technical assessments, plus extensive engagement and consultation with Indigenous and non-Indigenous interested parties.

In November 2022, the Company announced that the CNSC completed its conformity review of the draft EIS and determined that the draft EIS met the requirements for the advancement of the Environmental Assessment ('EA')

process. Denison also reported that the federal technical review of the EIS, which is being completed under the provisions of the *Canadian Environmental Assessment Act, 2012* ('CEAA 2012'), had commenced.

- **Executed agreements with Indigenous and non-Indigenous communities of interest in the Athabasca Basin**

In 2022, Denison entered into an exploration agreement with Kineepik Métis Local #9 ('KML') and an exploration agreement with the Ya'thi Néné Lands and Resources Office ('YNLRO'), Hatchet Lake Denesuliné First Nation, Black Lake Denesuliné First Nation, Fond du Lac Denesuliné First Nation (collectively, the 'Athabasca Nations') and the Northern Hamlet of Stony Rapids, the Northern Settlement of Uranium City, the Northern Settlement of Wollaston Lake and the Northern Settlement of Camsell Portage (collectively, the 'Athabasca Communities') in respect of Denison's exploration and evaluation activities within the KML's land and occupancy area and within the traditional territories of the Athabasca Nations and Athabasca Communities.

Each exploration agreement expresses the respective parties' intentions to build a long-term relationship and that Denison wishes to conduct and advance its exploration activities in a sustainable manner that respects the rights and interests of KML and the Athabasca Nations' Indigenous rights, advances reconciliation with Indigenous peoples, and provides economic opportunities and other benefits to the communities in an authentic, cooperative and respectful way.

Denison also entered into a participation and funding agreement with KML, which expresses Denison's and KML's mutual commitment to co-develop an agreement supporting the advancement of Wheeler River.

Finally, Denison entered into a capacity and funding agreement with the Métis Nation – Saskatchewan ('MN-S'), which expresses Denison's commitment to ensure the MN-S' participation in the regulatory process and associated documents for Wheeler River.

- **Expanded high-grade uranium mineralization at McClean Lake South**

In September 2022, Denison announced that assays received from exploration drilling completed at the Company's 22.5% owned McClean Lake Joint Venture ('McClean Lake' or 'MLJV') during the winter of 2022 resulted in a significant expansion of the high-grade unconformity-hosted zone of uranium mineralization discovered in 2021 between the McClean South 8W and 8E pods (see news release dated April 14, 2021). Ten drill holes completed during 2022 by Orano Canada Inc. ('Orano Canada'), 77.5% owner and operator of the MLJV, returned notable uranium mineralization, including drill hole MCS-58, which returned 2.96% U_3O_8 over 15.5 metres, including 24.49% U_3O_8 over 1.5 metres, located approximately 54 metres to the southeast of drill hole MCS-34, which was completed in 2021 and returned a mineralized interval of 8.67% U_3O_8 over 13.5 metres. Overall, the results from 2022 have successfully expanded the footprint of the mineralized zone to approximately 180 metres in strike length.

- **Intersected additional high-grade uranium mineralization at Waterfound**

In March 2022, multiple high-grade intercepts of unconformity-hosted uranium mineralization were discovered in the final three drill holes completed during the winter 2022 exploration program at the Orano Canada-operated Waterfound Joint Venture ('Waterfound'). The results were highlighted by drill hole WF-68, which returned a broad zone of uranium mineralization, including a peak interval of 5.91% eU_3O_8 over 3.9 metres (0.05% eU_3O_8 cut-off) with a sub-interval grading 25.30% eU_3O_8 over 0.7 m, located approximately 800 metres west, along the La Rocque conductive corridor, of the previously discovered high-grade mineralization (including 4.49% U_3O_8 over 10.53 metres) at the Alligator Zone.

In September 2022, Denison announced that uranium mineralization was encountered in three of the seven drill holes completed during the summer exploration program at Waterfound, highlighted by drill hole WF-74A, which intersected 4.75% eU_3O_8 over 13.3 metres, including a sub-interval grading 25.23% eU_3O_8 over 0.5 metres. The mineralized intersection from WF-74A represents the best mineralized hole drilled on the Waterfound property to date, and highlights the potential for the discovery of additional high-grade uranium mineralization further along strike to the west of the Alligator Zone. Denison holds an effective 24.68% ownership interest in Waterfound through its direct interest in the joint venture and its 50% ownership of JCU (Canada) Exploration Company Limited ('JCU').

- **Completed the sale of 40,000 pounds of U₃O₈ from MLJV production at a sales price of \$74.65 (US\$59.25) per pound U₃O₈.**

In April 2022, Denison completed the sale of 40,000 pounds of U₃O₈, representing the Company's share of production from the SABRE test mining program completed by the MLJV in 2021. The uranium was sold at a price of \$74.65 (US\$59.25) per pound U₃O₈ for gross proceeds of \$2,986,000.

- **Obtained regulatory approval for the expansion of the McClean Lake Tailings Management Facility**

In January 2022, the CNSC approved an amendment to the operating license for the MLJV and Midwest Joint Venture ('MWJV') operations, which allows for the expansion of the McClean Lake Tailings Management Facility ('TMF'), along with the associated revised Preliminary Decommissioning Plan ('PDP') and cost estimate. The McClean Lake mill is a strategically significant asset in the Athabasca Basin region and the approval of the TMF expansion ensures the facility will be well positioned to serve as a regional milling centre for current and future uranium mining projects in the eastern portion of the Athabasca Basin for many years to come.

As a result of the updated PDP, the Company's pro rata share of the financial assurances required to be provided to the Province of Saskatchewan decreased from \$24,135,000 to \$22,972,000. Accordingly, in April 2022, the pledged amount of cash required under the Company's 2022 Credit Facility was decreased to \$7,972,000, and the additional cash collateral of \$135,000 was released – resulting in the return of \$1,163,000 in previously restricted cash to the Company.

- **Received US\$4.8 million from Uranium Industry a.s ('UI') pursuant to a Repayment Agreement**

During 2022, the Company received US\$4.8 million from UI pursuant to the terms of a Repayment Agreement ('RA') that was executed in January 2022. Under the RA, UI has agreed to make scheduled payments on account of an arbitration award in favour of Denison (with respect to the arbitration proceedings between the Company and UI related to the 2015 sale by Denison to UI of its mining assets and operations located in Mongolia), plus additional interest and fees. The total amount due to Denison under the RA, including amounts already received in 2022, is approximately US\$16 million, which is payable over a series of quarterly installments and annual milestone payments ending on December 31, 2025.

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 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. A Pre-Feasibility Study ('PFS') was completed for Wheeler River in late 2018, considering the potential economic merit of developing Phoenix as an ISR operation and the Gryphon deposit as a conventional underground mining operation. Denison's interests in Saskatchewan also include a 22.5% ownership interest in the 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 67.41% interest in the T the 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 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 300,000 hectares in the Athabasca Basin region.

Denison is also engaged in post-closure mine care and maintenance services through its Closed Mines group, which manages Denison's reclaimed mine sites in the Elliot Lake region and provides related services to certain third-party projects.

Technical Disclosure and Qualified Person

The technical information contained in this press release has been reviewed and approved by Chad Sorba, P.Geol., Denison's Director, Technical Services, and Andy Yackulic, P.Geol., Denison's Director, Exploration, who are both Qualified Persons 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

Mac McDonald (416) 979-1991 ext. 242
Exec. Vice President & Chief Financial Officer

Follow Denison on Twitter @DenisonMinesCo

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 scope, objectives and interpretations of the Feasibility Study process for the proposed ISR operation for the Phoenix deposit, including the FFT and metallurgical testing programs described herein and the interpretation of the results therefrom; expectations regarding regulatory applications and approvals and the elements thereof, including the EIS; 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 PFS 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 the FS and/or otherwise 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 Management's Discussion and Analysis dated March 9, 2023 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.