



PRESS RELEASE

Denison Announces Significant Regulatory Milestone for Wheeler River with Submission of Environmental Impact Statement

Toronto, ON – October 26, 2022. Denison Mines Corp. ("Denison" or the "Company") (TSX: DML; NYSE American: DNN) is pleased to announce a significant regulatory milestone for the Company's 95% owned Wheeler River project ("Wheeler River") with the submission of the draft Environmental Impact Statement ("EIS") to the Saskatchewan Ministry of Environment ("MOE") and the Canadian Nuclear Safety Commission ("CNSC"). The EIS submission outlines the Company's assessment of the potential effects, including applicable mitigation measures, of the proposed in-situ recovery ("ISR") uranium mine and processing plant (the "Project") 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.

David Cates, Denison's President & CEO, commented, "Canada is an environmentally conscious nation with rigorous federal and provincial environmental protection regimes. Through the process of assessing potential environmental impacts, it became apparent that our Project has the potential to achieve a superior standard of environmental sustainability. Our assessments indicate that the Project has fewer residual effects remaining after mitigation when compared to conventional open pit or underground uranium mining and milling operations. We are proud of the outcomes outlined in the EIS and the role that Denison is playing in re-shaping the uranium mining industry in Saskatchewan."

Kevin Himbeault, Denison's Vice President of Plant Operations & Regulatory Affairs, added, "The EIS reflects a transparent and conservative assessment process that followed a stepwise approach for evaluating potential environmental effects. Working together with world-class subject matter experts, the evaluations and conclusions of the EIS indicate that the Project can be constructed, operated, and decommissioned while regional environmental components remain viable and healthy, human health is protected, opportunities for land use activities (including exercising Indigenous rights) are maintained and social and economic viability of local economies is supported."

This press release constitutes a "designated news release" for the purposes of the Company's prospectus supplement dated September 28, 2021, to its short form base shelf prospectus dated September 16, 2021.

Environmental Assessment Process

A project description was submitted by Denison and accepted by the MOE and the CNSC in 2019, which marked the formal initiation of the Environmental Assessment ("EA") process for the Project (see news release dated June 3, 2019).

The EIS has been prepared in accordance with the Terms of Reference provided by the MOE in 2019 and the Generic Guidelines for the Preparation of an Environmental Impact Statement ("Guidelines") as authorized by the CNSC in 2019. Additionally, the EIS has been prepared to align with the federal and provincial EA processes as stipulated under the Saskatchewan Environmental Assessment Act, 2018 and the Canadian Environmental Assessment Act, 2012.

The joint provincial and federal EA process allows Denison to file one EIS that meets the requirements of both the MOE and CNSC. Following the submission of the draft EIS, the MOE and CNSC are expected to initiate their respective review processes. The CNSC process involves an initial conformity review against the Guidelines, prior to the commencement of the formal process of completing technical and public reviews. The review process is expected to involve further requests for information/clarification from Denison before the final EIS is accepted by the regulatory agencies. This process can take multiple years to complete. Importantly, the commitments within the approved EIS are expected to then form the basis for which future regulatory licensing approvals will be framed.

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 – including 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). The project is host to the high-grade Phoenix and Gryphon uranium deposits, discovered by Denison in 2008 and 2014, respectively, and is a joint venture between Denison (operator) and JCU (Canada) Exploration Company Limited ("JCU"). Denison has an effective 95% ownership interest in Wheeler River (90% directly, and 5% indirectly through a 50% ownership in JCU).

A Pre-Feasibility Study ("PFS") was completed for Wheeler River in 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 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 U_3O_8 . The PFS is 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.

Denison suspended certain activities at Wheeler River during 2020, including the EA process, which is on the critical path to achieving the project development schedule outlined in the PFS. While the EA process has resumed, 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 is a uranium exploration and development company with interests focused in the Athabasca Basin region of northern Saskatchewan, Canada. In addition to its effective 95% interest in the Wheeler River project, Denison's interests in the Athabasca Basin include a 22.5% ownership interest in the McClean Lake joint venture, which includes several uranium deposits and the McClean Lake uranium mill that 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 67.01% interest in the 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 each 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 ~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.

For more information, please contact

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Follow Denison on Twitter @DenisonMinesCo

Qualified Persons

The disclosure of scientific or technical information related to the FFT or Wheeler River project contained in this release has been reviewed and approved, as applicable, by Mr. David Bronkhorst, P.Eng, Denison's Vice President, Operations or Mr. Andrew Yackulic, P. Geo., Denison's Director, Exploration, who are Qualified Persons in accordance with the requirements of NI 43-101.

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 'potential', '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' or 'be achieved'.

In particular, this news release contains forward-looking information pertaining to the following: expectations with respect to the EA process, including the draft EIS and the results and objectives thereof; expectations regarding regulatory reviews and processes; and expectations regarding its joint venture ownership interests and the continuity of its agreements with its partners and third parties.

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 modelling and assumptions upon which the work plans for exploration and/or the Wheeler River Project are based may not be maintained after further work is completed. In addition, Denison may decide or otherwise be required to discontinue exploration, testing, evaluation and development work if it is unable to maintain or otherwise secure the necessary resources (such as testing facilities, capital funding, regulatory approvals, 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 25, 2022 or subsequent quarterly financial reports 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.