

PRESS RELEASE

Denison Announces 22.5% Owned McClean Lake Operation Granted Approval to Expand Tailings Management Facility

Toronto – Jan 19, 2022. Denison Mines Corp. (“Denison” or the “Company”) (TSX: DML) (NYSE American: DNN) is pleased to report that the Canadian Nuclear Safety Commission (“CNSC”) has approved an amendment to the uranium mine and mill licence for the McClean Lake Operation to allow for the expansion of the JEB Tailings Management Facility (“TMF”).

David Cates, Denison’s President & CEO, commented ***“The McClean Lake mill remains a strategically significant asset in the Athabasca Basin region – representing the only uranium milling facility currently operating in Canada. The amendment to the operating licence for the McClean Lake Operation allows for the expansion of the TMF, such that 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.*”**

Denison congratulates Orano, as our partner and the operator of the McClean Lake Operation, on obtaining approval for the environmentally responsible approach put forward to expand the capacity of the TMF without resulting in a significant impact to the operation’s overall footprint.”

The public hearing regarding the application for amendment was held on October 4, 2021 and included submissions from Orano Canada Inc. (“Orano”), as operator of the McClean Lake Joint Venture (“MLJV”), as well as input from Denison, CNSC staff, Cameco Corporation, the English River First Nation, the Metis Nation of Saskatchewan, and the Athabasca Joint Engagement and Environmental Subcommittee, among others.

The Commission considered the adequacy of the proposed measures for protecting the environment, the health and safety of persons, national security, and other international obligations. The operation’s past operating performance, environmental protection, radiation protection, Indigenous consultation and engagement, decommissioning plans, and other safety and control areas were also examined. The TMF is designed in line with the Global Industry Standard on Tailings Management developed by the International Council of Mining and Metals (ICMM).

The amended licence remains valid until June 30, 2027. To see the full record of decision, please see the CNSC website at: <http://nuclearsafety.gc.ca>.

The McClean Lake Mill

The McClean Lake property is located on the eastern edge of the Athabasca Basin in northern Saskatchewan, approximately 750 kilometres north of Saskatoon, and is home to the McClean Lake uranium mill, one of the world’s largest uranium processing facilities. The mill has licensed annual production capacity of 24.0 million pounds U₃O₈ and is currently operating under a 10-year license expiring in 2027. The mill is contracted to process the ore from the Cigar Lake mine under a toll milling agreement (up to 18.0 million pounds U₃O₈ per year). The MLJV is an unincorporated contractual arrangement between Orano with a 77.5% interest and Denison with a 22.5% interest. Orano is the operator of the project.

Denison has assessed the potential economic benefit of using the McClean Lake mill as a regional milling centre for the future processing of uranium resources extracted from the Gryphon uranium deposit, on Denison’s 95% owned Wheeler River property, and the Tthe Heldeth Túé (“THT,” formerly J Zone) uranium deposit, on Denison’s 66.90% owned Waterbury Lake property.

For more information about these projects, please refer to the technical reports titled "Prefeasibility Study for the Wheeler River Uranium Project, Saskatchewan, Canada" (September 24, 2018), and "Preliminary Economic Assessment for the Tthe Heldeth T    (J Zone) Deposit, Waterbury Lake Property, Northern Saskatchewan, Canada" (October 30, 2020).

About Denison

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 addition to Denison's interests in Wheeler River and McClean Lake, Denison's interests in Saskatchewan include a 25.17% interest in the Midwest Main and Midwest A deposits, and a 66.90% interest in the THT and Huskie deposits on the Waterbury Lake property. Each of Midwest Main, Midwest A, THT and Huskie are located within 20 kilometres of the McClean Lake mill.

Through its 50% ownership of JCU (Canada) Exploration Company, Limited ("JCU"), Denison also holds interests in various uranium project joint ventures in Canada, including the Millennium project (JCU 30.099%), the Kiggavik project (JCU 33.8123%) and Christie Lake (JCU 34.4508%).

Denison is also 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 third-party post-closure mine care and maintenance services.

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 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 permitting of the MLJV's operations, including the JEB TMF expansion, underlying assumptions and the MLJV's intentions with respect thereto; assumptions and projections with respect to processing uranium resources from Denison projects; and expectations regarding its joint venture ownership interests and the continuity of its agreements with its partners.

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, Denison is relying on the information provided, and the procedures undertaken, by the operator of the MLJV. 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 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.