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PRESS RELEASE

Denison Announces Board and Management Additions

Toronto, ON – Jan 31, 2022. Denison Mines Corp. ("Denison" or the "Company") (TSX: DML, NYSE American: DNN) is pleased to announce the appointment of Ms. Laurie Sterritt to the Board of Directors and Mr. Kevin Himbeault to the position of Vice President of Plant Operations & Regulatory Affairs.

Ron Hochstein, Chair of the Board of Denison, commented, "We are pleased to welcome Laurie Sterritt to the Board. Laurie has over 25 years of experience in the fields of Indigenous, government, and community relations and a passion for influencing diversity and inclusion within corporate Canada. Given Laurie's tremendous experience, we are gratified that she has agreed to join our Board of Directors, particularly at this critical time of growth for the Company."

Mr. Cates, President & CEO of the Company, further commented, "We are also quite pleased to have Kevin Himbeault join the Denison leadership team. Kevin has extensive senior experience in the operation and oversight of Athabasca Basin uranium processing, as well as the critically important area of licensing and regulatory affairs for uranium processing operations in Canada. Kevin joins Denison at an exciting time, as his unique industry knowledge and practical experience will provide immediate value to our Feasibility Study efforts for our flagship Wheeler River project, as well as support the ongoing development and growth of our Saskatoon-based technical team."

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.

Ms. Laurie Sterritt - Director

Laurie Sterritt is a Managing Director at Leaders International, an executive search firm in Canada. In 2018 and 2019, Ms. Sterritt hosted and produced the first-of-its-kind Indigenous Women's Leadership Summit (IWLS), with a mandate to inspire and uplift Indigenous women throughout their personal and professional journeys. Prior to that, Ms. Sterritt developed and implemented the Indigenous Employment and Business Development strategy for BC Hydro and led the start-up and growth of the Aboriginal Mentoring and Training Association (AMTA) and its subsidiary social enterprise, First Resources Impact Ventures (FRIV).

Ms. Sterritt is a member of the Kispiox Band of the Gitxsan Nation and has been recognized for her commitment to creating respectful and inclusive workplaces and, most notably, was a nominee for the 2013 YWCA Women of Distinction Awards. Ms. Sterritt formerly held Board roles with the Canadian Centre for Arts and Technology (CANCAT), the Real Estate Council of BC, the Industry Training Authority of BC and the British Columbia Institute of Technology. Ms. Sterritt holds a Bachelor of Commerce from the University of British Columbia and a Certificate in Professional Fund Raising from the University of Indiana.

Mr. Kevin Himbeault - Vice President Plant Operations & Regulatory Affairs

Mr. Himbeault will be based in the Company's Saskatoon office and will be tasked with oversight of all matters related to process plant operations and regulatory affairs (including environmental assessments, licencing, quality, as well as health and safety) for Denison operated uranium development projects and the Company's minority interests in operating facilities.

Mr. Himbeault has significant operational and regulatory experience, with over 25 years of diverse involvement in the mining industry through consulting and operations management.

In previous roles, Mr. Himbeault has been responsible for substantial improvements in mining and processing facilities, to ensure sustainability of operations, and has successfully facilitated environmental assessments in both the uranium and diamond mining sectors. During his 18-year career with Cameco Corporation, Mr. Himbeault led the Key Lake Operation through multiple relicensing processes and spearheaded the development and approval of the environmental assessment for the Key Lake Extension Project. With over 14 years of direct experience at the Key Lake Operation, his responsibilities have included senior management leadership for plant operations (including uranium processing, site infrastructure services, maintenance, and recent automation initiatives), as well as oversight of the development of safety, health, quality, and radiation protection programs. Mr. Himbeault most recently held the position of Operations Manager at the Key Lake mill and holds a Master of Science (MSc) degree in Toxicology from the University of Saskatchewan.

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. 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 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 66.90% interest in the Tthe Heldeth Túé ("THT", formerly J Zone) 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, Denison holds additional 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's exploration portfolio includes further interests in properties covering ~280,000 hectares in the Athabasca Basin region.

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

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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 United States Private Securities Litigation Reform Act of 1995 and similar 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: the anticipated role and objectives to be achieved with the creation of the Vice President Plant Operations & Regulatory Affairs position and the appointment of Kevin Himbeault; and Denison's percentage interest in its properties and its plans and agreements with its joint venture 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, performance or achievements of Denison to be materially different from those expressed or implied by forward-looking statements. 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 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.