

# Dundee Sustainable Technologies Inc.

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## NEWS RELEASE

### DST ANNOUNCES POSITIVE RESULTS FROM GIANT MINE FLUE DUSTS USING GLASSLOCK PROCESS™ AND APPOINTMENTS

MONTREAL, QUEBEC, April 22, 2021 – Dundee Sustainable Technologies Inc. (“DST” or the “Corporation”) (CSE: DST) is pleased to announce that it has completed a metallurgical testing program with the Giant Mine Oversight Board (“GMOB”) to apply its GlassLock Process™ (“GlassLock” or the “Technology”) on arsenic trioxide material from the Giant Mine site located in Yellowknife in the Northwest Territories. The testing program was done on samples received from GMOB from the 237,000 tonnes of legacy arsenic trioxide stored on site.

GMOB has a mandate to support research that will identify a permanent solution for the management of arsenic trioxide stored underground at Giant Mine. Working with NSERC-TERRE-NET (a consortium of researchers specializing in the management of mine wastes), GMOB is currently evaluating multiple arsenic trioxide stabilization techniques, one of which is vitrification.

DST produced kilogram scale, arsenical glass samples using GlassLock on arsenic trioxide provided by GMOB. Based on analyses by DST, glass samples containing over 12% arsenic successfully met the requirements of the U.S. Environmental Protection Agency’s (“EPA”) Toxicity Characterization Leaching Procedure (“TCLP”, Method 1311). The vitrified samples will be assessed by GMOB and NSERC-TERRE-NET to evaluate the amenability of the Technology to provide a viable remediation solution to the situation prevailing at the Giant Mine site.

“The management of DST is very pleased with the results to date and look forward to continuing its collaboration with GMOB and NSERC-TERRE-NET. The Giant Mine site is an important Canadian remediation project and DST supports GMOB in its objective of developing a long-term and permanent remediation process for the Giant Mine site and local communities.” stated Mr. David Lemieux, the President and CEO of the Corporation.

As previously reported ([DST Press Release dated September 13, 2017](#) and [DST Press Release dated May 26, 2020](#)), a State of Knowledge Review report prepared by Arcadis Canada Inc., released on September 11, 2017 on behalf of GMOB concluded that vitrification “ranked first in the scoring matrix for stabilization/treatment methods” based on the potential for long-term stability, moderate overall costs, and potential for gold recovery. GMOB is currently in the process of verifying the accuracy of that initial assessment.

The GlassLock Process is designed for the sequestration of arsenic in a stable glass form. DST has successfully demonstrated its Technology at laboratory, pilot and industrial level, where arsenical material was processed to generate vitrified arsenical glass, containing up to 20% arsenic while meeting the United States Environmental Protection Agency's (EPA) toxicity characterization leaching procedure (TCLP, Method 1311).

#### **Appointment to the Audit Committee**

The Corporation is pleased to announce the appointment of Mr. Robert Sellars to the Audit Committee as Chair of the Corporation’s Audit Committee. Mr. Sellars acts as Director of DST

since November 8, 2019. Following this appointment, the Audit Committee is composed of Messrs. Robert Sellars (Chair), Hubert Marleau and Mario Jacob. Messrs. Marleau and Jacob are independent.

### **Appointment of Executive Vice-President**

DST is also delighted to announce the appointment of Mr. Jean-Philippe Mai as Executive Vice-President. Mr. Mai has been with the Corporation since 2013 and most recently as Vice-President Business Development since May 2016. He has been a key player in the commercialisation efforts of the Corporation's technologies and the development of DST's technical services. Mr. Mai holds a Bachelor of Science in Geology from the University of Quebec in Montreal ("UQAM") and has a vast experience in mining projects in Canada, Australia and South America. Mr. Mai is a Professional Geologist and a member of *L'ordre des géologues du Québec*.

Mr. David Lemieux, President and CEO commented, "Jean-Philippe has demonstrated strong leadership, communication and teamwork skills and we trust that he will continue to have a central role in the future of the Corporation".

### **About Giant Mine**

The gold ore at the Giant Mine is co-located with arsenopyrite, an arsenic-bearing mineral. Initially released to the atmosphere, arsenic trioxide dust mixture was generated as a by-product of the milling process. Beginning in 1952 the arsenic trioxide dust mixture was precipitated, collected in baghouses and stored underground on-site in purpose-built vaults, or in previously mined out [underground] chambers (stopes). Over approximately 50 years of operation, 237,000 tonnes of arsenic trioxide dust were generated and stored on site. The dust is, on average, approximately 60% arsenic by weight. Arsenic trioxide is water soluble and poses a risk to both people and the environment through transport to local water bodies such as Baker Creek and Great Slave Lake.

### **About Dundee Sustainable Technologies**

The Corporation is engaged in the development and commercialisation of environment-friendly technologies for the treatment of materials in the mining industry. Through the development of patented, proprietary processes, DST extracts precious and base metals from mineralised material, concentrates and tailings, while stabilising contaminants such as arsenic, which could not otherwise be extracted or stabilised with conventional processes because of metallurgical issues or environmental considerations.

DST has filed, published, and has been granted patents for the CLEVR Process™ and GlassLock Process™ in numerous countries.

### **FOR FURTHER INFORMATION PLEASE CONTACT:**

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Forward-looking statements are based on the expectations and opinions of the Corporation's management on the date the statements are made. The assumptions used in the preparation of such statements, although considered reasonable at the time of preparation, may prove to be imprecise and, as such, undue reliance should not be placed on forward-looking statements. The Corporation expressly disclaims any intention or obligation to update or revise any forward-looking statements whether as a result of new information, future events or otherwise, except as required by applicable law.

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