

# Dundee Sustainable Technologies Inc.

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## NEWS RELEASE

### **Arsenic vitrification technology considered the best performing dust stabilization option for Giant Mine**

MONTREAL, QUEBEC, September 13, 2017 – Dundee Sustainable Technologies Inc. (“DST” or the “Corporation”) (CSE: DST) is pleased to announce that the arsenic vitrification proposal submitted by DST has been considered as the top-ranked dust stabilization and processing method by the State of Knowledge Review report (the “SOK Review”), prepared by Arcadis Canada Inc., and released on September 11, 2017 on behalf of the Giant Mine Oversight Board (“GMOB”).

Please refer to the following link:

[http://gmob.ca/wp-content/uploads/2017/09/2017-08-Giant-Mine-State-of-Knowledge-Review\\_FINAL.pdf](http://gmob.ca/wp-content/uploads/2017/09/2017-08-Giant-Mine-State-of-Knowledge-Review_FINAL.pdf)

According to the SOK Review, the arsenic vitrification technology, as proposed by DST, was considered the best performing dust stabilization and processing method, based on the potential for long-term stability of the resulting glass, moderate overall costs, and potential for gold recovery. Arcadis’s mandate was to provide an assessment of technologies, methods, or integrated combinations of technologies and methods that are potentially relevant to arsenic trioxide management at the Giant Mine site north of Yellowknife in the Northwest Territories, including over 50 technologies, previously evaluated by a technical advisor. The SOK Review recommends that future research on arsenic dust treatment involve further vitrification-based technologies.

*“Arsenic trioxide dust is a problematic by-product of the mining industry and needs to be treated safely and permanently”* said Brian Howlett, President & CEO. *“DST arsenic vitrification technology offers the right solution at the right time and we look forward to the next steps in the evolution of our proprietary technology”*.

The vitrification technology developed and patented by DST is designed for the sequestration of arsenic in a stable glass form. DST successfully demonstrated its technology at laboratory and pilot level, where arsenical material was processed and generated vitrified arsenical glass, containing up to 20.4% arsenic while meeting the United States Environmental Protection Agency's (EPA) toxicity characterization leaching procedure (TCLP, Method 1311).

In addition to the development of its arsenic stabilization technology, the Corporation continues the commercialization of its cyanide-free gold extraction technology. DST also provides its technical expertise and facilities to companies wishing to further evaluate the development of their projects using the Corporation’s laboratory, piloting and/or industrial demonstration facilities on specific projects in need of viable processing capacities, and to initiate engineering studies required for an industrial implementation.

## **About Giant Mine**

The gold ore at the Giant Mine is collocated with arsenopyrite, an arsenic-bearing mineral. During processing of the ore, an arsenic trioxide dust mixture was generated, precipitated and collected in baghouses. Beginning in 1951, the dust was stored 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 was generated and stored on site. The dust is, on average, approximately 60% arsenic by weight. Arsenic trioxide is water soluble and therefore poses a risk to both people and the environment through transport to local water bodies such as Baker Creek and the Great Slave Lake.

## **About Dundee Sustainable Technologies, a company controlled by Dundee Corporation**

The Corporation is engaged in the development and commercialization 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 mineralized material, concentrates and tailings, while stabilizing contaminants such as arsenic, which could not otherwise be extracted or stabilized with conventional processes because of metallurgical issues or environmental considerations.

DST has filed, published and was granted patents for these processes in several 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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