

# MAWSON

1305 – 1090 West Georgia Street, Vancouver, BC, V6E 3V7  
Phone: +1 604 685 9316 / Fax: +1 604 683 1585

NEWS RELEASE

NOVEMBER 22, 2021

## MAWSON BASE OF TILL DRILLING AND ARTIFICIAL INTELLIGENCE DRIVING EXPLORATION TARGETING IN FINLAND

Vancouver, Canada – Mawson Gold Limited (“Mawson”) or (the “Company”) (TSX:MAW) (Frankfurt:MXR) (PINKSHEETS: MWSNF) announces the results of [New Exploration Technologies \(“NEXT”\)](#) advanced Artificial Intelligence (“AI”) work to prioritize new targets within the extensive Rajapalot geophysical and geological databases to create maps for high prospectivity areas. The combination of AI, base of till drill results and smart geological thinking is driving development of winter drill targets at the 100% owned Rajapalot project in Finland.

### Key Points:

- **Prospectivity maps for Rajapalot (Figure 1)** have been developed using AI over Mawson’s extensive airborne and ground geophysics in addition to the lithologic and geochemical data;
- **Base of till (“BOT”) drill** results show considerable overlap with expected high prospectivity zones at Rajapalot (Figure 1);
- **Known mineralized areas were used to calibrate machine learning models** that analysed regional level drill core, geophysics, geochemistry, interpreted geology and mineral system genetic models.
- **Base of till** is utilized as an *in situ* method for locating mineralization, as was so successfully demonstrated by Rupert Resources at [Ikkari](#), discovered by following up “a single anomalous base of till sample of 0.2 ppm Au”;
- **New maps focus on only 18 km<sup>2</sup> surrounding the resource**, where data density was high enough to define known mineralization;
- **163 km<sup>2</sup> of project area remains underexplored**, with further ground magnetics and electromagnetics to add to the existing base of till drill data (Figure 2) and smart mapping capabilities;
- **Direct drillable targets** have been created at Rajapalot during this exercise as Mawson already holds considerable structural and rock type information;
- **The AI components of the study were funded by the Horizon2020 NEXT project** as part the European Union’s initiatives to understand economically important metallogenic belts.

After two years of sharp focus to drill out resources, exploration has returned back to a regional scale within Mawson’s 100%-owned large and strategic 183.5 km<sup>2</sup> ground holding in the Peräpohja Schist belt. The program leverages the intimate understanding of the mineral system defining the 1.04 Moz @ 3.0 g/t gold equivalent (“AuEq”) 2021 Inferred Mineral Resource estimate ([link](#)) to demonstrate the camp-scale opportunity to grow resources.

Mr. Fairhall, CEO, states, “Each time we revisit the data outside our million-ounce equivalent inferred resource area, we are reminded of the high prospectivity of our large landholding. The NEXT AI analysis is a powerful prospecting tool which has

*helped uncover and confirm complex correlations that drive our mineralized system, and is something that can be deployed permit-wide. Like the base of till, no single prospecting filter tells us where to drill, but combined we have built a pipeline of targets across our tenement package that we will systematically refine and prioritize as drill targets in the upcoming and future drill seasons.*

This study leveraged existing literature, and the results from other [NEXT](#) research about the mineral system genetic models to gain insights into the mineralization processes at Rajapalot, and two other metalliferous deposits in Europe. Trap-related favourable settings were derived, and the constituent geological processes leading to mineralization were modelled, over which advanced statistical and machine learning methods for prospectivity were run over the study area. Unsupervised methods such as self-organizing maps (SOM) classify the data points according to how similar they are to each other. Supervised methods such as the artificial neural network (ANN) use training data (for example known mineral deposits) to discover data points which are most similar to the training data.

The map shown in Figure 1 is an example of a SOM map with K-means clustering. It is important to note that many of the BOT drill hole locations (n=2974 sites) identified have geological contexts matching the broad outlines of the mineralization potential areas and others represent untested targets with permissive geophysical character. The level of base of till anomalism is represented by a cumulative gold-arsenic-bismuth-tellurium ("Au-As-Bi-Te") signal. These elements form part of a common multi-variate geochemical association observed in the Rajapalot Au-Co Inferred Mineral Resource.

On a regional scale base of till drilling has identified targets for either direct drill or ground geophysical follow-up (Figure2).

### **Technical Background**

The Qualified Person, Dr Nick Cook, Mawson's Chief Geologist, and a Fellow of the Australasian Institute of Mining and Metallurgy, has reviewed and verified the technical contents of this release.

BOT samples were transported by commercial transport from site to the ALSGlobal sample preparation facility at Sodankylä, Finland. Gold was analyzed using 30 g fire assay and ICP finish method Au-ICP21. Multi-element analytical work was conducted at ALSGlobal using method ME-MS41L, using an aqua regia digest followed by ICP mass spectrometry analysis. The QA/QC program of Mawson consists of the systematic insertion of certified standards of known gold and cobalt content, duplicate samples by quartering the core, and blanks the within interpreted mineralized rock. ALSGlobal also inserts blanks and standards during the analytical process.

Gold equivalent "AuEq" = Au+(Co/1005) based on assumed prices of cobalt US\$23.07/lb and gold US\$1,590/oz.

Prospectivity mapping papers: Chudasama, B., Torppa, J., Nykänen, V. & Kinnunen, J. 2021, under revision. Target-scale prospectivity modeling for gold mineralization within the Rajapalot Au-Co project area in northern Fennoscandian Shield, Finland. Part 2: Application of self-organizing maps and artificial neural networks for exploration targeting. Submission to Ore Geology Reviews.

### **About Mawson Gold Limited (TSX:MAW, FRANKFURT:MXR, PINKSHEETS:MWSNF)**

[Mawson Gold Limited](#) is a gold exploration and development company and has distinguished itself as a leading exploration company with a focus on the flagship Rajapalot gold-cobalt project in Finland and its Victorian gold properties in Australia.

### **About New Exploration Technologies (NEXT)**

The project received funding from European Union's Horizon 2020 research and innovation programme under Grant Agreement No. 776804 – H2020-SC5-2017 NEXT – New Exploration Technologies ("NEXT"). NEXT was created to develop new geomodels and novel sensitive exploration technologies which are fast, cost-effective, environmentally safe and socially accepted. NEXT is a pan-European consortium, which consists of 16 partners from leading research institutes. The members come from 6 EU member states and represent the main metal producing regions of Europe, Fennoscandian Shield, Iberian Pyrite Belt and Central European Belt. These economically most important metallogenic belts of the EU have diverse geology with evident potential for different types of new mineral resource. The mineral deposits in these belts are the most feasible sources of critical, high-tech and other economically important metals in the EU.

On behalf of the Board,

**"Ivan Fairhall"**

Ivan Fairhall, CEO

### **Further Information**

[www.mawsongold.com](http://www.mawsongold.com)

1305 – 1090 West Georgia St., Vancouver, BC, V6E 3V7

Mariana Bermudez (Canada), Corporate Secretary, +1 (604) 685 9316,

[info@mawsongold.com](mailto:info@mawsongold.com)

## **Forward-Looking Statement**

This news release contains forward-looking statements or forward-looking information within the meaning of applicable Canadian securities laws (collectively, "forward-looking statements"). All statements herein, other than statements of historical fact, are forward-looking statements and are based upon various estimates and assumptions including, without limitation, the expectations and beliefs of management, including that the Company can access financing, appropriate equipment and sufficient labor. Forward-looking statements are typically identified by words such as: believe, expect, anticipate, intend, estimate, postulate, and similar expressions, or are those, which, by their nature, refer to future events. Mawson cautions investors that any forward-looking statements are not guarantees of future results or performance, and that actual results may differ materially from those in forward-looking statements as a result of various factors, including, but not limited to: capital and other costs varying significantly from estimates; changes in world metal markets; changes in equity markets; ability to achieve goals; that the political environment in which the Company operates will continue to support the development and operation of mining projects; the threat associated with outbreaks of viruses and infectious diseases, including the novel COVID-19 virus; risks related to negative publicity with respect to the Company or the mining industry in general; reliance on a single asset; planned drill programs and results varying from expectations; unexpected geological conditions; local community relations; dealings with non-governmental organizations; delays in operations due to permit grants; environmental and safety risks; and other risks and uncertainties disclosed under the heading "Risk Factors" in Mawson's most recent Annual Information Form filed on [www.sedar.com](http://www.sedar.com). While these factors and assumptions are considered reasonable by Mawson, in light of management's experience and perception of current conditions and expected developments, Mawson can give no assurance that such expectations will prove to be correct. Any forward-looking statement speaks only as of the date on which it is made and, except as may be required by applicable securities laws, Mawson disclaims any intent or obligation to update any forward-looking statement, whether as a result of new information, future events or results or otherwise.

Figure 1. Self-organizing map (SOM) with K-means clustering indicating prospectivity combined with BOT drill anomalism and map view of Inferred Mineral Resource estimate boundaries. Note that the BOT anomalies are created using a linear combination of Au, As, Bi and Te with the top 7% plotted as coloured dots.

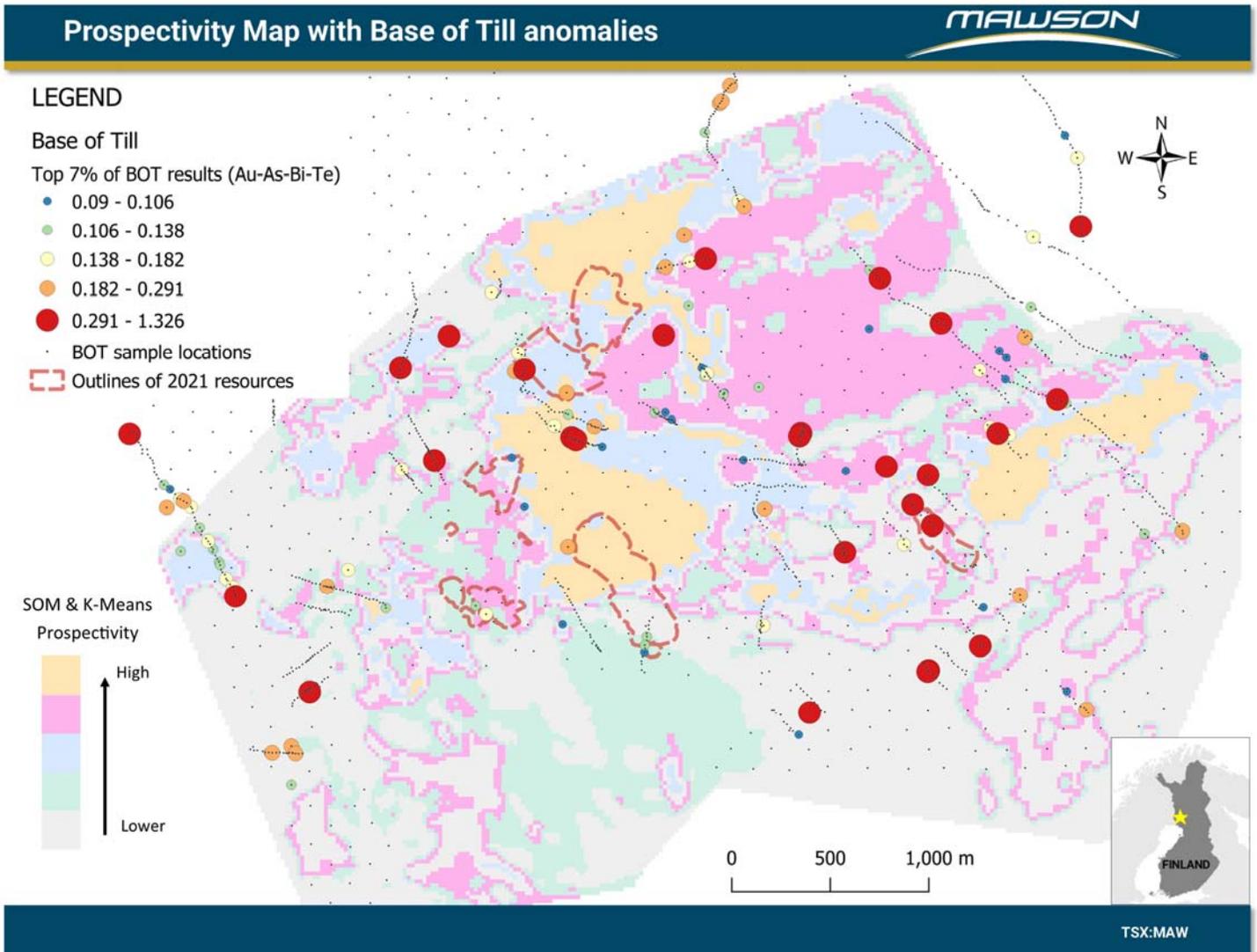


Figure 2. Mawson's contiguous exploration permits at Rompas-Rajapalot showing base of till drill locations (small white dots) and colour-scaled top 7% anomalous Au-As-Bi-Te signal indicating extensive gold prospectivity across the areas tested

