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Bluejay Mining plc / Ticker: JAY / Market: AIM / Sector: Mining

### Blueiay to participate in the €5.6 million AIMEX (Artificial Intelligence in Mineral Exploration) Project as an Industry Collaborator

Bluejay Mining plc ('Bluejay' or the 'Company'), the AIM, FSE listed and OTCQB traded exploration and development company with projects in Greenland and Finland, is pleased to announce that its wholly owned Finnish subsidiary, FinnAust Mining Finland Oy ('FinnAust') has been selected to participate as an industry collaborator on the newly established Artificial Intelligence in Mineral Exploration Project ('AIMEX Project'), a consortium of the Geological Survey of Finland ('GTK'), the University of Turku, and the Finnish Environment Institute and led by the GTK. The total funding for the consortium is €5.6 million, a substantial proportion of which is co-innovation funding from Business Finland, to further increase the international competitiveness of the Finnish exploration and mining industry.

The AIMEX Project seeks to leverage advanced artificial intelligence ('AI') and machine learning ('ML') techniques, including unsupervised and supervised ML methods, to revolutionise mineral prospectivity mapping. The goal of the AIMEX Project is to develop a sophisticated decision-making system for mineral exploration with a specific focus on sustainability. This system will integrate a broad spectrum of essential factors, such as mineral resource assessments, economic considerations, natural conservation areas, and land use constraints, thereby facilitating more responsible and sustainable mineral exploration in Finland. The AIMEX Project runs from July 2023 to December 2025.

### **Highlights:**

FinnAust will contribute to the AIMEX Project through in-kind support, providing both expertise and exploration data from the Company's Hammaslahti copper-zinc-gold-silver ('Cu-Zn-Au-Ag') ('Hammaslahti') and Outokumpu copper-nickel-cobalt-zinc-gold-silver ('Cu-Ni-Co-Zn-Au-Ag') ('Outokumpu') projects located in Eastern Finland. There is no financial contribution required from the Company.

- The Company's Hammaslahti and Outokumpu projects will be used as principal test areas for the AIMEX Project. Bluejay will benefit from the resulting mineral prospectivity maps and other AI and ML derived datasets generated for these project areas, as well as access to a broad range of expertise from external partners within the consortium.
- For the official press release on the AIMEX Project from the GTK, visit the following link:
   Finnish Research Consortium Pioneers AI Breakthrough in Sustainable Mineral Exploration with €5.6 Million Project.

## Chief Executive Officer of Bluejay Mining plc, Dr Bo Møller Stensgaard, commented:

"We are delighted that our Finnish subsidiary, FinnAust has been selected to collaborate in the €5.6 million AIMEX Project. The AIMEX consortium brings together leading researchers in mineral prospectivity mapping, machine learning, and sustainable development. Combined with a strong group of industrial partners, this will provide a powerful platform for developing and harnessing the ability of AI and ML for advancing responsible mineral exploration and aligning it with core ESG (Environment, Social and Governance) principles and ethical sourcing of mineral resources.

"FinnAust will be contributing to AIMEX with technical expertise and data from our belt-scale Hammaslahti and Outokumpu polymetallic projects in eastern Finland. Both projects represent former mining districts with multiple drill-ready targets and a proven potential for new discoveries, as recently demonstrated by Bluejay's discovery of the E-lode orebody at Hammaslahti. In addition, the Hammaslahti and Outokumpu mining districts have a wealth of technical, environmental and socioeconomic datasets available, which makes them ideal test sites for the AIMEX Project.

"Collaborative research projects of this magnitude, often lead to step changes in the geological understanding of study sites. We firmly believe that our participation in the AIMEX Project will deliver significant value to our Finnish assets in parallel with our continued commercial advancement of the projects. The system developed under the AIMEX Project could ultimately be utilised across our remaining project portfolio in Finland and Greenland as well as allowing us to assess future opportunities."

# Professor Vesa Nykänen of the Geological Survey of Finland, project leader of AIMEX consortium, commented:

"We are pleased to have FinnAust join the AIMEX consortium. Their projects in eastern Finland represent well-recognised former mining districts with a potential to be revitalised and contribute to the future supply of critical raw materials for Europe. We look forward to working closely with the FinnAust team and supporting the technical advancement of their exploration projects through the AIMEX Project.

"Together with our other Finnish and international-based partners in the AIMEX consortium, we will be integrating a broad range of technical and sustainability related datasets for selected promising target areas in Finland through the development and application of advanced machine learning applied to mineral prospectivity mapping. This will result in an innovative new system for mineral exploration that in addition to interrogating geological and technical datasets, also incorporates environmental, societal, ethical and governance attributes to facilitate improved holistic decision-making in the exploration sector."

#### **About the Hammaslahti Cu-Zn-Au-Ag Project**

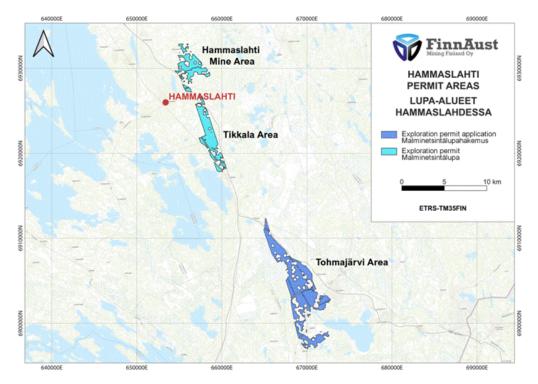
Bluejay owns 100% of the Hammaslahti project through its wholly owned subsidiary FinnAust. The project is located approximately 35 kilometres ('**km**') southeast of the city of Joensuu and benefits from excellent near-mine infrastructure for exploration and future development. Bluejay's licence area (Figure 1) contains the historic Hammaslahti Mine, which was operated by the Finnish state mining company, Outokumpu Oy from 1971 to 1986. The open-pit and underground mine produced a total of 7 million tonnes ('**Mt**') grading 1.16% Cu, 1.55% Zn, 0.59 grammes per tonne ('**g/t**') Au and 5.2 g/t Ag (Geological Survey of Finland, 2023). The polymetallic

mineralisation at Hammaslahti is interpreted to be a partially re-mobilised volcanogenic massive sulphide ('**VMS**') type deposit.

The Company's exploration permits, totalling 39.3 square kilometres ('**sq km**'), cover the majority of the Hammaslahti-Tohmajärvi Metallogenic Belt. The c.35 km long belt is considered prospective for the discovery of further polymetallic VMS deposits as supported by the presence of high-grade mineralised outcrops and boulders within Bluejay's licence areas south of the former mine, providing further upside to the project.

The Company recently announced positive results from its 2023 diamond drilling programme at Hammaslahti (see Bluejay press release dated: 2 October 2023). Nine drill holes for a total of 2244.4 metres ('m') were completed at Hammaslahti during 2023, eight of which targeted extensions of the E-lode ore body. Highlights included drill Hole HAM0008, which returned a significant intersection of 5.7m of mineralisation grading 2.99% copper-equivalent ('CuEq') or 7.41% zinc-equivalent ('ZnEq') (0.89% Cu, 3.43% Zn, 0.37% Pb, 29.6 g/t Ag and 0.46 g/t Au) from 95.9m depth down-hole, including 2.1m grading 6.31% CuEq or 15.63% ZnEq (2.04% Cu, 7.22% Zn, 0.5% Pb, 61.7 g/t Ag and 0.86 g/t Au) from 95.9m depth down-hole. Drill Hole HAM0005 returned an intersection of 8.8m of mineralisation grading 1.20% CuEq or 2.97% ZnEq (0.43% Cu, 1.46% Zn, 0.18% Pb, 9.7 g/t Ag and 0.06 g/t Au) from 301.2m depth down-hole, including: 4.1m grading 2.32% CuEq or 5.74% ZnEq (0.73% Cu, 3.07% Zn, 0.39% Pb, 18.9 ppm Ag and 0.10 g/t Au) from 302.9m depth down-hole. The E-lode mineralisation remains open both up plunge towards north (where we anticipate it outcrops beneath till cover) and down plunge towards south as well as up and down dip of historic E-lode mineralisation intercepts. The E-lode is located approximately 200m east from underground infrastructure of the former mine and is comparable in grade and style of mineralisation to the ore-lodes that were mined historically.

Based on results from detailed geophysical and geological reinterpretations by Bluejay, significant further potential for new sulphide mineralisation is present to the North of the E-lode ore body and the Hammaslahti mine. This increases the Company's exploration search space immediately north of the former mine by at least 750m towards a modelled isoclinal fold hinge zone in addition to the eastern limbs of the regional folds. This represents a significant increase in search space for discovery of additional ore bodies. In comparison, the surface expression of the historical mined ore bodies covers a distance of c.700m. Several distinct coincident gravity and magnetic anomalies have been identified within the newly defined search space. These anomalies could represent the near surface portions of previously unidentified sulphide mineralisation. The Company's planned follow-up exploration programme (timing subject to funding) is discussed in an earlier press release (see Bluejay press release dated: 2 October 2023).



**Figure 1:** Bluejay's license holdings within the Hammaslahti-Tohmajärvi Metallogenic Belt.

### About the Outokumpu Cu-Zn-Ni-Co-Ag-Au Project

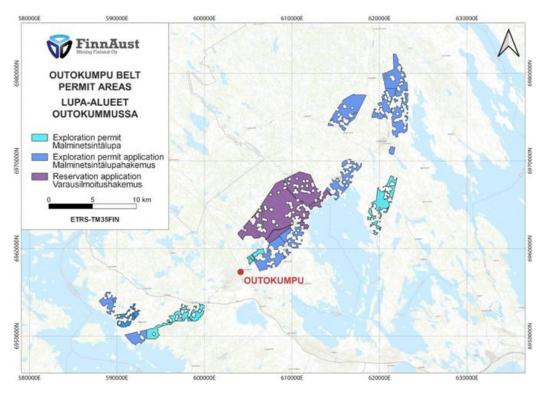
Bluejay owns 100% of the Outokumpu Project through its subsidiary, FinnAust. The Company is the largest licence holder within the c.50 km long Outokumpu belt. Earlier this year, the Company further increased its licence area (see Bluejay press release dated: 16 January 2023), and now holds an area totalling 80.64 sq km, comprising of 12 exploration permits, permit applications and reservations along the Outokumpu Belt (Figure 2).

The Outokumpu Belt is a highly prospective metallogenic belt; three former mines within the belt, Keretti, Vuonos and Kylylahti, have produced a total of approximately 39Mt of ore at an average grade of 3.3% Cu, 1.1% Zn, 0.22% Co, 0.14% Ni and 0.71 g/t Au between 1914 and 2020. The mines, especially Keretti, also produced a significant amount of silver. The known Outokumpu-type sulphide deposits have been previously found structurally on the culmination parts of the belt. Deeper parts of the belt are generally unexplored. Large tracts of untested prospective lithologies occur at depth along strike from the former mines as well as following the mineralised trend. In addition, some shallow targets remain untested by drilling despite their proximity to a recently producing mine, e.g., the Haapovaara targets (see e.g. Bluejay press release dated: 24 July 2023).

The metal basket that the unique Outokumpu-type ore provides, is a compelling exploration target in the context of increasing demand for base metals related to the battery industrial ecosystems, electrification and the green transition including copper, cobalt, and nickel. Cobalt grades present at Outokumpu underscore the importance of the Outokumpu Belt as a secure and sustainable domestic supply of cobalt for European markets. A recent study led by the British Geological Survey (Horn et al., 2021, Ore Geology Reviews) acknowledged that the Outokumpu belt represents one of the most important repositories of cobalt in Europe.

As one of Finland's most significant metallogenic belts that supported 110 years of near continuous mining for Cu-Zn-Ni-Co-Ag-Au, Outokumpu has received significant commercial and research focus. This has resulted in an extraordinary wealth of geological, geochemical and geophysical data that is seldom matched anywhere else in Europe making the belt an ideal test site for the AIMEX project. These datasets include geophysical data from the publicly-funded TEKES Green Mining Programme

2013-2016 that surveyed the Outokumpu belt to a depth of 2 km, and to 5 km in cases, using seismic reflection, audiomagnetotellurics, airborne Z-axis tipper electromagnetics ('ZTEM'), and electromagnetic and potential field methods (e.g., gravity and magnetics). Other publicly financed initiatives on the belt have include a 2516m deep research borehole that was drilled in 2004-2005 by the GTK's Outokumpu Deep Drilling Project. Other datasets include ground and airborne magnetics, electromagnetics and gravity surveys collected by various operators, including FinnAust. Bluejay has compiled a drillhole database for the belt that includes 2,380 drill holes (both historical and those drilled by FinnAust) and >49,500 geochemical analyses. Supplementary to the AIMEX Project, 3D Leapfrog modelling of the entire Outokumpu belt based on all available historical geological data and interpretations, seismic profiles and geophysical datasets is underway by Bluejay's geologists.



**Figure 2:** Bluejay's license holdings within the Outokumpu Metallogenic Belt. The city of Outokumpu is marked with a red circle - this is the location of Bluejay's incountry exploration office, core logging facilities and warehousing which support all of the Company's activities in Eastern Finland.

For further information please visit <a href="http://www.bluejaymining.com">http://www.bluejaymining.com</a> or contact:

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### **About Bluejay Mining plc**

Bluejay is listed on the London AIM market and Frankfurt Stock Exchange and its shares also trade on the OTCQB Market in the US. With multiple projects in Greenland and Finland, Bluejay offers both portfolio and commodity diversification focused on base and precious metals in Tier 1 jurisdictions.

Bluejay, through its wholly owned subsidiary Disko Exploration Ltd., has signed a definitive Joint Venture Agreement with KoBold Metals to guide exploration for new

deposits rich in the critical materials required for the green energy transition and electric vehicles (the Disko-Nuussuag nickel-copper-cobalt-PGE Project).

Disko Exploration Ltd holds two additional projects in Greenland - the 692 sq km Kangerluarsuk zinc-lead- silver project, where historical work has recovered grades of up to 45.4% zinc, 9.3% lead and 596 g/t silver; and the 920 sq km Thunderstone project which has the potential to host large-scale base metal and gold deposits. Bluejay also owns 100% of the fully permitted Dundas Ilmenite Project under its subsidiary Dundas Titanium A/S in northwest Greenland for which it is seeking strategic alternatives.

In Finland, Bluejay currently holds three large scale multi-metal projects through its wholly owned subsidiary FinnAust Mining Finland Oy. The Company has identified multiple drill ready targets at the Enonkoski nickel-copper-cobalt project in East Finland. Bluejay's Hammaslahti copper-zinc-gold-silver project hosts high-grade VMS mineralisation and extensions of historical ore lodes have been proven. The drill ready Outokumpu copper-nickel-cobalt-zinc-gold-silver project is located in a prolific geological belt that hosts several high-grade former mines. In August 2023, Bluejay successfully divested its Black Schist Projects in Finland to Metals One plc in a transaction worth £4.125 million (Bluejay currently owns c. 29% of the issued ordinary share capital of AIM listed Metals One plc).

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Bluejay to participate in EUR5.6M AIMEX Project
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Company Announcement - General
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