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Triumph Gold Completes Artificial Intelligence Study
at the Freegold Mountain Project, Yukon

Vancouver, B.C., August 3, 2021 – **Triumph Gold Corp.** (TSX-V: TIG | OTCMKTS: TIGCF) ("**Triumph Gold**" or "**the Company**") is pleased to announce that it has concluded an in-depth Artificial Intelligence ("**AI**") study focused on the Revenue-Nucleus Area, a large zone of gold-copper-silver-molybdenum mineralization, within their district-scale Freegold Mountain Project ("**the Project**") located in Yukon, Canada (Figure 1). The Company engaged Minerva Intelligence Inc. ("**Minerva**") to utilize their cutting-edge DRIVER software along with K-Means Cluster Analysis to evaluate multi-element drilling data.

Results from Minerva's cognitive AI analysis have enhanced Triumph's technical understanding of the Nucleus and Revenue Deposits by providing confidence in existing models and identifying unrealized controls on mineralization. Key findings are being used to guide current exploration activities at the Freegold Mountain Project, notably:

1. At the Nucleus Deposit, **DRIVER revealed new vectors to gold and copper mineralization not characterized in the current mineral resource** delivering superior exploration models and a clear path forward for resource expansion,

2. At the Revenue Deposit, **DRIVER has identified under-evaluated areas at northeast and southern contacts of the diatreme** providing credible drill-ready exploration targets, and

3. In the Revenue-Nucleus Area, **K-Means Cluster Analysis highlighted semi-quantitative alteration styles** allowing for robust modelling and vectoring toward zones of high-grade mineralization.

"As an exploration company that embraces the application of new technology, Triumph is pleased by the depth of insight provided by Minerva," says Jesse Halle, VP Exploration for Triumph Gold. "Having over 145,000 metres of drilling at the Freegold Mountain Project, along with a massive amount of other exploration data, Minerva's AI engine has helped sharpen the focus of our new Technical Team."

Brian May, Chief Geoscientist for Triumph Gold adds, "DRIVER has validated Triumph's stratigraphic and structural interpretations in the Nucleus deposit area. Multielement overlaps will be drill-tested to further confirm our technical team's interpretations this exploration season."

Scott Tillman, Minerva Intelligence CEO, is excited about the results. "Our ongoing relationship with Triumph Gold is a win-win for our respective companies," said Tillman. "Triumph's embrace of our state-of-the-art mining and exploration software is proof-positive of the value our cognitive AI technology can bring to mining and exploration companies. Triumph's vast amount of data made the results even better than we had expected."

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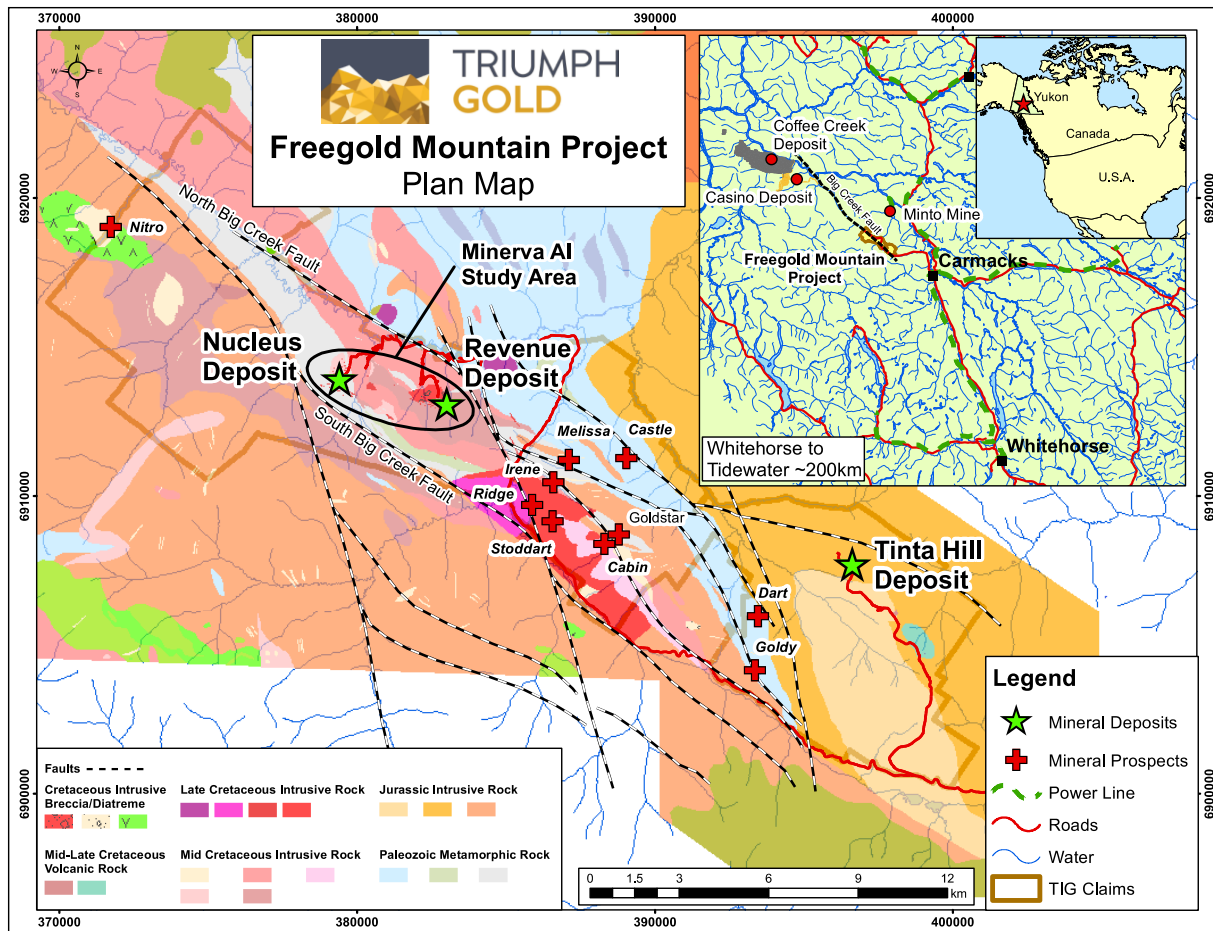www.triumphgoldcorp.com   Tel: 604.893.8757

Figure 1 – Location of the Freegold Mountain Project and Triumph Gold's 2021 Minerva Artificial Intelligence study of the Revenue-Nucleus Area.

DRIVER Software

Minerva Intelligence DRIVER software analyzed and evaluated a comprehensive database of geochemical results compiled from multiple generations of diamond drilling in the Revenue and Nucleus Mineral Resource Deposit areas of the Freegold Mountain Project.

Cost-effective computer reasoning generated orientation data for all elements in the dataset. Further work was performed on key economic elements through automated identification of optimal ("preferred") orientations, in both planar and linear modes. These results provided potential exploration vectors from Triumph's database that can be used to identify exploration targets in unexplored regions outside the known resources or mineral prospects.

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Additionally, Minerva's cognitive reasoning platform compared elemental association data from hundreds of past and present mines throughout the world with that of the Revenue-Nucleus Area. Comparisons between Triumph's resources and known deposit types serve as reliable models upon which geologists can confidently develop their exploration and/or development strategies.

Nucleus Au-Ag-Cu Deposit

The Nucleus Au-Ag-Cu deposit is a complex deposit involving early porphyry-copper and skarn mineralization overprinted with related epithermal styles of mineralization. Triumph Gold's technical team has recently modeled the skarn-style mineralization to be preferentially located along favourable horizons within the host Yukon-Tanana metamorphic rock package, as well as at contacts with leucogranite dikes and sills. Past geochronology shows at least some of the Au-Ag-Cu mineralization is coincident with the emplacement of east-trending quartz-feldspar porphyry dikes.

The results of DRIVER's AI analysis were many, including an independent confirmation of the probability shell developed for the 2020 Resource Estimate which was largely based on dike orientation. The close agreement of the optimal orientation and the rigorously-defined gold shell in the deposit area provides confidence in the Resource Estimate and supports this orientation as an exploration opportunity. Minerva believes this type of agreement may soon be utilized to evaluate other metals as potential co- and by-products on a semi-quantitative basis.

An additional previously unappreciated gold orientation was identified from DRIVER's outputs at the Nucleus deposit, this time along a northwest-trending structure. This orientation is correlated with a fault corridor and coincident dike swarm and represents an additional opportunity for proximal expansion of, and exploration around, the current resource.

The preferred orientations for copper at the Nucleus deposit area resulted in a largely bimodal distribution, which had not been previously understood. The technical team is currently working on identifying underlying reasons for this distribution, along with other vectors controlling economic mineralization.

Revenue Au-Ag-Cu-Mo-W Deposit

The Revenue Deposit consists of porphyry-copper and related epithermal mineralization within a granodiorite to quartz monzonite intrusive complex. Numerous mineralized zones have been discovered at Revenue, notably the gold-copper-silver-molybdenum-bearing Blue Sky and WAu Porphyry and Epithermal Zones and the proximal mineralized diatreme breccia. Several other mineralized centres have been identified in the Revenue deposit area, including the Guder, Revenue West, Grainger, and Keirsten Zones.

Minerva's optimal orientation DRIVER results for gold, copper, and molybdenum delineate both the southern and the northeastern contact between the diatreme breccia and the granodiorite as primary locations for further evaluation. The DRIVER results also agree very well with the current lithologic model, providing additional confidence for the technical team's interpretations.

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K-Means Cluster Analysis

K-Means Cluster (KMC) Analysis is an unsupervised learning algorithm meant to identify relationships inherent in a dataset. Unlike supervised learning methods, it does not require labeled training data from which to practice and learn, but rather uncovers native associations within the data itself. For multi-element geochemical data, it identifies potential element assemblages present in the data. If executed carefully and with appropriate data preparation, KMC Analysis can reveal complicated patterns in the data that would otherwise be missed.

Geochemical data was analyzed and evaluated using K-Means Cluster Analysis available in ioGAS software. Clusters (or groups of data records with similar geochemistry) are defined and redefined based on minimizing the distance between the data record and the cluster centre. KMC Analysis concludes when either the change in the distance of each of the data points from the respective centres for assigned cluster approaches a minimum, or the specified number of iterations is reached. Multiple iterations were attempted on the data for both the Nucleus and Revenue Deposit areas using various elements, data transforms and/or initial analytical parameters.

Nucleus Au-Ag-Cu Deposit

K-Means Cluster Analysis and subsequent interpretation though discrimination plots suggest the numerous lithologies within the Nucleus Deposit area have been subjected to variable degrees and styles of potassic alteration. Discrimination plots suggest a small proportion of the data is potassic feldspar (K-spar) alteration, implying an underlying copper-porphyry-style signature. The plots are more suggestive of potassic alteration predominantly expressed as secondary sericite. Based on molar ratios, the *most recent* alteration event is interpreted to preferentially involve plagioclase (predominantly albite) and is largely independent of K-spar. These observations are consistent with mineralization stemming from the intrusion of quartz-feldspar porphyry dikes from a buried porphyry intrusion.

A large portion of the results in the Nucleus Deposit area are consistent with intrusion-related skarn-type mineralization and closely-associated sulphide mineralization. The geochemistry of these high-iron areas is consistent with the appearance of secondary Ca-rich pyroxene and clinochlore. Triumph geologists believe these results are consistent with the skarn-style mineralization observed in many areas of the deposit.

Revenue Au-Ag-Cu-Mo-W Deposit

K-Means Cluster Analysis and subsequent interpretation though discrimination plots highlight the Blue Sky porphyry and contacts of diatreme breccia as the largest zone of extensive alteration, documenting high values for Ca, K and Na. Barium (Ba) is also anomalous in this zone and extends westward towards Keirsten South Zone. These zones are largely underexplored and represent targets for future work.

Specific locations in the Revenue Deposit are flagged in the K-Means Cluster Analysis work as having been subjected to alkali alteration through Na depletion and potassium addition. Results

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indicate that the dominant potassic phase is K-rich muscovite with only a small subset interpreted as potassium feldspar alteration. This type of alteration is consistent with the 'low sulphidation' deposit model proposed for the deposit area.

About the Freegold Mountain Project

Triumph Gold's flagship Freegold Mountain Project is located approximately 200 kilometres northwest of the city of Whitehorse and 70 kilometres northwest of Carmacks within the prolific Dawson Range Copper-Gold Belt in southwestern Yukon. The Project area is road-accessible and covers highly prospective rocks along the northwest-trending Big Creek fault zone. The Freegold Mountain Project is endowed with three significant mineral deposits, including the Nucleus Au-Ag-Cu deposit, the Revenue Au-Cu-Ag-Mo-W deposit, and the Tinta Hill polymetallic vein system, as well as numerous other gold and copper showings.

At the Nucleus Au-Ag-Cu Deposit, strata of the Yukon-Tanana terrane is intruded by numerous plutonic bodies, all crosscut by later dike swarms predominantly oriented east–west. Intrusive lithologies are largely granitic to granodioritic in composition. Mineralization is hosted within polyphase quartz-chalcopyrite-pyrite-arsenopyrite veins, infill breccia, and semi- to massive-sulphide lenses associated with multiple phases of skarn and epithermal gold mineralization.

At the Revenue Au-Cu-Ag-Mo-W Deposit, an east-trending ovoid diatreme intrusive breccia body separates two distinct phases of Whitehorse Suite granodiorite. Zones of gold-rich porphyry copper style mineralization have been identified in numerous locations around the breccia, notably the southern and eastern contacts, where the Blue Sky and WAu Breccia Zones have been discovered.

The Tinta Hill Au-Ag-Cu-Pb-Zn Deposit consists of sub-parallel polymetallic veins hosted within Long Lake Suite Intrusives, discontinuously mapped for more than 3,500 metres along strike, with true thickness between 0.9 metres to 1.6 metres. Mineralization is dominated by northwest-trending, sub-vertical quartz ± carbonate - sulphide veins containing pyrite, chalcopyrite, galena, and sphalerite.

Qualified Person

The technical content of this news release has been reviewed and approved by Jesse Halle, P.Geo., Vice President of Exploration for the company and qualified person as defined by National Instrument 43-101 – Standards of Disclosure for Mineral Projects.

About Triumph Gold Corp.

Triumph Gold Corp. is a Canadian based, growth-oriented exploration and development company with a district scale land package in mining friendly Yukon. The Company's 100% owned, road accessible, flagship Freegold Mountain Project is located in the Dawson Range Cu-Au Belt and is host to three NI 43-101 Mineral Deposits (Nucleus, Revenue, and Tinta Hill). The Project covers an extensive section of the Big Creek Fault zone, a structure directly related to epithermal gold and silver mineralization as well as gold-rich porphyry copper mineralization. The Company, led

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by an experienced management and technical team, is focused on actively advancing the Freegold Mountain Project using multidiscipline exploration and evaluation techniques.

The Company also owns 100% of the Big Creek and Tad/Toro copper-gold Properties, situated along strike of the Freegold Mountain Project within the Dawson Range. For more information, please visit triumphgoldcorp.com.

About Minerva Intelligence, Inc.

Minerva Intelligence Inc. is a knowledge engineering company based in Vancouver, Canada, with a subsidiary office in Darmstadt, Germany. Their proprietary evidence-based decision-making software applies the benefits of artificial intelligence technology to industries dependent on reasoning with complex technical and scientific data. Currently, Minerva's AI applications focus on earth science-related domains, including, but not limited to, natural hazards and mineral exploration; their technology has applications in diverse industries and domains.

Minerva's common shares are currently listed on the TSX Venture Exchange (symbol MVAI). For further details, please refer to their website www.minervaintelligence.com or follow Minerva on Twitter or LinkedIn.

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On behalf of the Board of Directors

Signed "John Anderson"

John Anderson, Executive Chairman

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