Alba Mineral Resources plc

("Alba" or the "Company")

Clogau-St David's Gold Mine, North Wales Near-Mine Exploration Update

Alba Mineral Resources plc (AIM: ALBA) is pleased to provide an update on its ongoing work activities at the Clogau-St David's Gold Mine ("Clogau" or the "Mine") in North Wales in relation to the identification of new near-mine gold resources, as well as an update on the permitting process in relation to the proposed dewatering of the Llechfraith Shaft.

Key Points

- Additional potential for gold mineralisation at and around Clogau revealed by multielement Prospectivity Modelling of Alba's 2019 Soil Sampling Programme ("SSP").
- Six high-confidence targets refined from the 10 targets previously defined by the SSP for follow-up investigation, including:
 - a 1.8 km long structure to the east of the Brintirion Fault which cuts through and displaces the lodes between the Clogau and St. David's workings.
 - a 2 km long target in the NE of the project area, previously tested by trenching in late 2020.
- High-resolution UAV-Aeromagnetic Geophysical survey being commissioned to pinpoint the bedrock sources of geochemical anomalies.
- Alba's detailed report has now been submitted to NRW in respect of the latter's Habitat Regulations Assessment of the proposed dewatering of the Llechfraith Shaft.

Alba's Executive Chairman, George Frangeskides, commented:

"We continue to make excellent progress at the Clogau-St. David's Gold Mine in Wales as we build our understanding of the potential extent of near-mine gold mineralisation. Our recent work has distilled the 10 regional and near-mine gold targets we previously identified into six high-priority targets, including two which are 1.8 km and 2 km long. We look forward to advancing our knowledge of these virgin gold targets by further in-depth exploration, including applying the latest technological advances in drone geophysical surveys."

Prospectivity Modelling

Following geochemical analysis of 1,997 soil samples collected in 2018-19, 10 targets were defined around clusters of gold ('Au') anomalies in a large area centred over the Clogau-St. David's Mine (see RNS dated 6 August 2019).

Gold is known to be prone to the "nugget effect" during sampling programmes and this is especially prevalent in the style of mineralisation seen at Clogau. Therefore, incorporating additional elements into targeting workflows is important to pick up the traces of mineralisation in the absence of Au itself or in the case of low-level gold anomalism.

Multi-element analysis of mineralised drill core at Clogau has confirmed several key pathfinder trace elements in the mineralising system, showing that silver ('Ag'), Arsenic ('As'), bismuth ('Bi'), admium ('Cd'), antimony ('Sb'), selenium ('Se') and tellurium ('Te') are enriched within the quartz veins. In addition, the more common elements cobalt ('Co'), copper ('Cu'), lead ('Pb') and zinc ('Zn') are all known to be found in mineral phases closely associated with Au in the Dolgellau Gold Field and at Clogau.



Figure 1: Weighted overlay model of soil geochemistry. Weightings for individual elements in the model are shown in the table. Circled in this diagram are clear multi-element targets where soil geochemistry indicates a strong chance of mineralisation in the underlying bedrock. Hot colours (orange to red) indicate prospective ground, whereas cold colours (green to blue) indicate a potential lack of prospectivity.

These elements were all reported as part of the geochemical analysis of the soil samples from the 2019 Soil Sampling Programme and anomalies incorporated into a Weighted Overlay Model. (see Figure 1). Mineralisation at Clogau and in the Dolgellau Gold Field is in general hosted by ENE-WSW / NE-SW trending quartz veins, so geological structures in these orientations are considered highly prospective.

The model highlights several key areas where geochemically prospective ground appears to conform to this structural trend. Both the "North Vigra" and "Fryngaer" targets conform to a NE-SW trend, and to structures mapped by the British Geological Survey ('BGS') in this general orientation. Additionally, highly prospective ground has been identified immediately to the south of the Mine workings, showing the potential for extensions along-strike of the Old Clogau lode and other lodes.

Importantly, the model picks out a ~1.8 km long ENE-WSW striking zone of prospective ground to the east of the Brintirion Fault, a structure which cuts through and displaces the lodes between the Clogau and St. David's workings (see "Clogau-NE Target" on Figure 1). This represents the possible continuation of mineralisation related to the lodes worked at Clogau itself. Further work will be done to establish the bedrock source of these anomalies.

In addition, the ~2 km long anomalies previously defined in the NE as Targets "9" and "10" have been consolidated into a single target, and strong pathfinder element anomalies here confirm the prospectivity of this region (see area labelled "Cefn Coch–Union Target" on Figure 1). When this NE-SW trending zone of prospectivity is extrapolated to the northeast, it lines up directly with the workings of the Union and Cefn Coch Gold Mines, which are ~0.5 km and ~1.6 km away respectively along strike.

The Cefn Coch mine was one of the more productive in the Dolgellau Gold Field, producing 1,392 Oz of Au from ~2,704 tons of ore between 1862 and 1912. 19^{th} Century workings are also recorded at the closer Union (or Wnion) Mine. Alba's soil data suggests that the

lode network exploited at both of these sites may continue in the subsurface below the prospective ground seen in Figure 1. Trenching in this region identified a significant thickness of glacial overburden, which means that the true bedrock source of these anomalies is currently unconstrained.



Figure 2: Close-up view of Cefn Coch-Union target (target trend shown by black intermittent lines overlaid on the prospectivity hotspots (orange to red). When this NE-SW trending zone is extrapolated to the NE, it lines up with the workings of the Union and Cefn Coch Gold Mines, which are \sim 0.5 km and \sim 1.6 km away respectively along strike. Gold stars indicate historic gold occurrences.

UAV-Aeromagnetic Survey

In order to narrow the possible bedrock sources of the key targets identified by the 2019 geochemical survey programme, as refined by the Prospectivity Modelling presented above, Alba is commissioning Wales-headquartered UAVE Ltd to carry out a UAV-borne geophysical survey to map the magnetic properties of the subsurface below these targets.

Using UAVs (or drones) to perform airborne geophysical surveys confers significant benefits over traditional helicopter or fixed-wing aircraft surveys. Drones are considerably cheaper to commission, cause minimal disturbance, collect data at a much higher resolution and have a significantly lower carbon footprint.

The survey will use the state-of-the-art Geometrics MFAM (Micro Fabricated Atomic Magnetometer) system, a recent technological advance which has allowed a 10-fold reduction in size and power consumption whilst retaining the high quality of a Cesium-vapour magnetometer.

The survey objective is to pinpoint the bedrock sources of geochemical anomalies, which will have significant implications for both regional exploration and the identification of further near-mine resource opportunities. The resolution of the survey, using a 25 m line spacing and with the drone able to operate just 30-50 metres from ground level, will enable Alba to define targets with enough confidence to undertake intrusive follow-up investigations such as drilling.

If successful, Alba will look to roll out the same drone-borne aeromagnetic surveys to a number of the other regional gold exploration targets within its portfolio, allowing the team to explore for significant new resource opportunities in the Dolgellau Gold Field.

The survey will be undertaken once all relevant landowner consents are in place, which process is well underway. The Company hopes to be in a position to undertake the first survey in Q1 2022.

Dewatering of Llechfraith Shaft

As reported in the Company's announcement of 8 October 2021, Alba's environmental and ecological team has been compiling a detailed report to inform the NRW's Habitat Regulations Assessment ("HRA"), the overall objective of which is to assist NRW in its assessment of any potential impacts of the proposed dewatering of the Llechfraith Shaft on the integrity of the Special Areas of Conservation ("SACs") situated closest to the mine.

Alba is now pleased to confirm that its report, which runs to more than 70 pages, has been submitted to NRW. The Company will advise of further material developments in the permitting process as and when they arise.

This announcement contains inside information for the purposes of the UK Market Abuse Regulation and the Directors of the Company are responsible for the release of this announcement.

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<u>Glossary</u>

- Mineralisation: Any single mineral or combination of minerals occurring in a mass, or deposit, of economic interest. The term is intended to cover all forms in which mineralisation might occur, whether by class of deposit, mode of occurrence, genesis or composition.
- Quartz vein: A sheet-like body consisting predominantly of the mineral quartz, which is known to host gold mineralisation in the Dolgellau Gold Belt.

Weighted Overlay

Model: A method by which maps of geochemical data can be assigned levels of importance (a 'Weighting') and combined to produce a prospectivity map that highlights areas of high potential for mineralisation.

UAV-Borne

Aeromagnetic

Survey: An aeromagnetic survey is a type of geophysical survey carried out using a magnetometer attached to a Unmanned Aerial Vehicle (UAV) or drone. The magnetometer records magnetic variations below the surface and mounting this on a drone allows large areas of the Earth's surface to be covered quickly for regional reconnaissance and targeted exploration alike. The aircraft typically flies in a grid-like pattern with height and line spacing determining the resolution of the data.

Forward Looking Statements

This announcement contains forward-looking statements relating to expected or anticipated future events and anticipated results that are forward-looking in nature and, as a result, are subject to certain risks and uncertainties, such as general economic, market and business conditions, competition for qualified staff, the regulatory process and actions, technical issues, new legislation, uncertainties resulting from potential delays or changes in plans, uncertainties resulting from working in a new political jurisdiction, uncertainties regarding the results of exploration, uncertainties regarding the timing and granting of prospecting rights, uncertainties regarding the timing and granting of regulatory and other third party consents and approvals, uncertainties regarding the Company's or any third party's ability to execute and implement future plans, and the occurrence of unexpected events.

Without prejudice to the generality of the foregoing, uncertainties also exist in connection with the ongoing Coronavirus (COVID-19) pandemic which may result in further lockdown measures and restrictions being imposed by Governments and other competent regulatory bodies and agencies from time to time in response to the pandemic, which measures and restrictions may prevent or inhibit the Company from executing its work activities according to the timelines set out in this announcement or indeed from executing its work activities at all. The Coronavirus (COVID-19) pandemic may also affect the Company's ability to execute its work activities due to personnel and contractors testing positive for COVID-19 or otherwise being required to self-isolate from time to time.

Actual results achieved may vary from the information provided herein as a result of numerous known and unknown risks and uncertainties and other factors.

All activities and timelines in this announcement are subject to the timely receipt of regulatory and other third-party consents and to the timely availability of contractors, plant and equipment.

Competent Person Declaration

The information in this release that relates to Exploration Results has been reviewed by Mr Mark Austin. Mr Austin is a member of SACNASP (Reg. No. 400235/06), Fellow of The Geological Society and Fellow of the Geological Society of South Africa. He has a B.Sc. Honours in Geology with 38 years' experience.

Mark Austin has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration targets, Exploration Results, Mineral Resources and Ore Reserves', also known as the JORC Code. The JORC code is a national reporting organisation that is aligned with CRIRSCO. Mr Austin consents to the inclusion in the announcement of the matters based on his information in the form and context in which they appear.

Mining Projects Operated by Alba	Location	Ownership
Clogau (gold)	Wales	90%
Dolgellau Gold Exploration (gold)	Wales	90-100%
Gwynfynydd (gold)	Wales	100%
Limerick (zinc-lead)	Ireland	100%
Investments Held by Alba	Location	Ownership
GreenRoc Mining Plc (mining)	Greenland	54%
Horse Hill (oil)	England	11.765%

Alba's Projects and Investments