## Alba Mineral Resources plc

("Alba" or the "Company")

# Dolgellau Gold Field Project Update Significant Gold and Base Metal Grades Across Multiple Targets

Alba Mineral Resources plc (AIM: ALBA) is pleased to provide an update on regional exploration activities at its Dolgellau Gold Field Project ('DGF' or the 'Project') in Wales as well as an update on the Company's application to dewater the Llechfraith Shaft at the Clogau-St David's Gold Mine.

#### **Key Points**

## Dolgellau Gold Field Exploration Project

- Further exploration across a number of high-priority regional exploration targets in the DGF has resulted in a suite of substantial precious and base metal results
- Multi-commodity mineralisation confirmed from sampling at Hafod Owen Prospect and Carndochan Gold Mine:
  - Hafod Owen Prospect in-situ gold mineralisation grading up to 1.5 g/t Au (with previous sampling grading up to 24.1 g/t Au) and spoil tip samples grading 0.353 g/t Au and 6.76% Cu)
  - Carndochan Gold Mine samples returned grades of up to 20.6 g/t Au, 27.1 g/t Ag and 1.175% Pb
- New regional exploration target identified, the Afon Gain Prospect:
  - Two historic trial mining sites sampled, with precious metal grades of up to 2.43 g/t gold (Au) & 33.7 g/t silver (Ag) and base metal grades of up to 3.96% copper (Cu), 4.25% lead (Pb) & 2.39% zinc (Zn).
- Caerwych Prospect identified within new licence expansion, with copper grades of up to 2.92% Cu and structural gold targets identified for follow-up work.

#### Clogau-St David's Gold Mine - Water Discharge Application

• Following recent constructive discussions with the regulatory authority, Alba is in the process of preparing certain supplementary information to enable a further consideration of the Company's application to dewater the Llechfraith Shaft.

#### Alba's Executive Chairman, George Frangeskides, commented:

"Our ongoing exploration programme at the Dolgellau Gold Field in Wales has not only yielded substantial precious metal grades, including 20.6 g/t gold and 27.1 g/t silver at the Carndochan Gold Mine, but, importantly, it has also generated strong base metal results, which greatly increase the Project's multi-commodity potential. With grades for high demand metals of up to 3.96% copper, 4.25% lead and 2.39% zinc at the newly identified Afon Gain Prospect, we look forward to continuing to advance this multifaceted UK project and quantifying its full potential."

"In other encouraging news, I am pleased to report on constructive discussions having been held with the regulatory authority on the matter of our application to dewater the Llechfraith Shaft at the Clogau Gold Mine. Our team is now working to provide updated submissions with a view to a further consideration of our application."

#### **Dolgellau Gold Field Exploration Update**

In the Company's RNS of 22 July 2021, we reported on a new regional gold target within our exploration licence area, close to Gwynfynydd, with grab samples grading up to 24 g/t Au. Our field geologists have since returned to that target, Hafod Owen, to conduct further sampling, have initiated field exploration at the former Carndochan Gold Mine, situated in the most easterly of our package of licence areas, and have confirmed the potential of a new target, Afon Gain, which shows significant potential for polymetallic mineralisation.

Following the recent grant to the Company of an additional licence area in the DGF (see our RNS of 20 September 2021), Alba's field team has also conducted field reconnaissance at the historic Caerwych mine site, situated in the new licence area, taking samples which have returned notable copper grades.

We report below on each of these developments, which not only re-emphasise the significant number of high-grade gold prospects within the DGF but also highlight the copper, lead and zinc potential of the region.

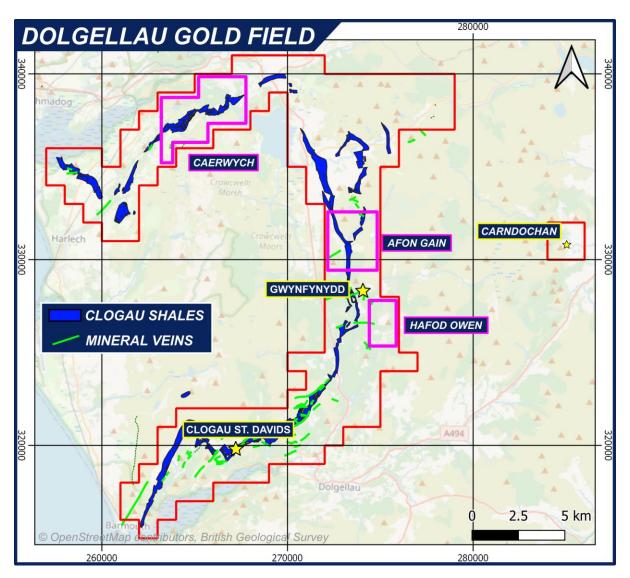


Figure 1: Alba Licence Areas in Dolgellau Gold Field (outlined in red), with regional exploration target areas Afon Gain, Hafod Owen and Caerwych marked by magenta polygons and Carndochan Gold Mine shown far right.

### **Hafod Owen Prospect**

Alba has conducted follow-up field exploration at Hafod Owen after samples taken in May 2021 returned significant grades of up to 24.1 g/t Au. The 24.1 g/t sample was taken from a boulder close to historic mine workings in a major N-S valley. A thin vein (MHO-03) with a similar mineralogy was observed in outcrop in another N-S valley 300 m to the east of the original high-grade sample. This was sampled and assayed, returning 1.5 g/t Au, thereby confirming the potential for widespread gold mineralisation at Hafod Owen.

Assaying of an additional sample (MHO-04) taken from a historic mine waste tip associated with a possible N-S structure  $\sim\!250$  m southwest of the 24.1 g/t Au sample returned grades of 0.363g/t Au as well as high-grade copper at 6.76 % Cu. This highlights the potential for polymetallic mineralisation in the lodes at Hafod Owen.

A sample (MHO-05) taken from an outcrop with visible quartz veining graded 0.487 g/t

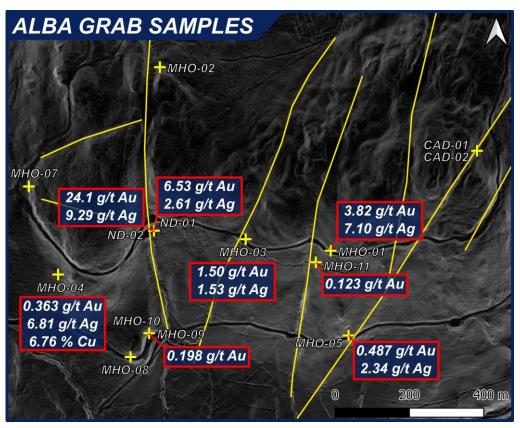


Figure 2: LiDAR-derived slope map of the Hafod Owen Prospect, highlighting inferred target structures (yellow lines) and sample locations (yellow crosses) with notable assay results.

Au, confirming the presence of auriferous mineralising fluids close to the easternmost target structure identified by Alba (see Figure 2). Additional samples were taken from road cutting outcrops, with sample MHO-09 assaying at 0.198 g/t Au, highlighting the presence of mineralising fluids in a quartz vein sub-parallel to an adjacent NNW-trending shear zone.

To date, outcrop sampling has shown the presence of elevated gold concentrations in relatively poorly mineralised bedrock, indicating auriferous hydrothermal fluid activity in the region. The vein samples previously taken from a spoil tip at the prospect (samples 802 and 803 in Table 1 which returned 6.53 g/t Au and 24.1 g/t Au respectively) demonstrate the potential for high-grade mineralisation at Hafod Owen, and the relatively

poor outcrop exposure in this region leads the Company to believe that examples of these veins and the breccia mineralisation have remained hidden below superficial cover.

Alba's technical team is finalising an exploration strategy to unlock the significant potential of the Hafod Owen Prospect, with a view to identifying targets for drilling.

#### **Carndochan Gold Mine**

The Carndochan Gold Mine, the furthest east of all the notable historic gold mines in the region, was intermittently operated up until the early 20<sup>th</sup> Century, reportedly producing 2,643 oz Au from 6,956 tonnes of ore. The mine produced gold at an average grade of 11.88 g/t, as well as significant silver and lead credits. In addition to free-milling gold, the lode hosted galena shoots which were rich in gold and silver.

Alba's field work at the mine has involved collecting structural data to create an initial 3D model, as well as taking samples from a historical waste tip. Samples were cut on-site, revealing the presence of coarse galena and subordinate sphalerite and pyrite in the vein material.

Assay results have returned high-grade gold-silver, with significant zinc-lead credits. Notably, sample CCD-02 represents a good representation of the target mineralisation at Carndochan, displaying coarse aggregates of galena with sphalerite and pyrite grains. The sample (weighing 2.3 kg) returned grades of 20.6 g/t Au, 27.1 g/t Ag, 1.175 % Pb and 0.257 % Zn (see Figure 3). Sample CCD-03 showed stronger sphalerite mineralisation, grading 1.63% Zn and 0.392 g/t Au.



The Carndochan deposit is considered to be underdeveloped, being untested both at depth and along strike of the existing workings.

Alba's technical team is currently evaluating the optimal strategy for taking this prospect forward, adding yet another brownfield exploration asset to Alba's significant portfolio in the DGF.

Figure 3 (left): sample CCD-02, displaying visible galena.

## **Afon Gain Prospect**

Identified in Alba's previous work on geochemically prospective drainage basins as a possible area of interest (see our RNS of 22 July 2021), recent analysis of three historical stream sediment datasets has confirmed the prospectivity of two key drainage basins in the catchment of the Afon Gain. A field visit to the prospect involved ground-truthing two known mineral occurrences, which confirmed the presence of trial mining sites on mineralised quartz veins in and above the Clogau Formation, a shale unit which is a critical

control on gold mineralisation at the Clogau St. David's Gold Mine and elsewhere in the DGF.

At the first locality, a surface trial was found to expose a 1.5-2 m thick vein system (see Figure 4), which was observed to contain sulphide mineralisation. An in-situ sample taken from this vein graded 0.125 g/t Au, 9.83 g/t Ag and 0.872 % Cu. The vein trends ENEWSW, and quickly disappears under thick overburden which is characteristic of the target region.



Figure 4: Photograph of the AG-002 Sample locality at Afon Gain, highlighting the thickness of the vein observed in outcrop, with sample assays in the bottom right corner.

More extensive trial mine workings were found at a second locality, and samples were taken from spoil tips that were rich in heavily mineralised quartz. Sample AG-003 was taken from the largest spoil tip, and returned assays of 0.143~g/t Au, 33.7~g/t Ag, 1.115~% Cu, 4.25~% Pb and 2.39~% Zn, showing significant potential for polymetallic mineralisation. Samples were also taken from a second waste tip, with sample AG-004 assaying at 2.43~g/t Au, 15~g/t Ag and 1.22~% Cu, and AG-006 grading 1.6~g/t Au, 12.45~g/t Ag and 1.62~% Cu. Another sample was taken from a waste dump to the west of this site, where the worked lode had been displaced to the south by a cross-cutting fault. This sample graded 0.532~g/t Au, 21.2~g/t Ag and 3.96% Cu.

Both localities showed ENE-WSW striking veins with very similar mineralogy and vein textures, suggesting they formed as part of the same larger mineralised system. The Aupathfinder geochemical characteristics of the veins suggest that the system has potential for gold-belt style mineralisation, especially in association with the Clogau Formation. Utilising modern exploration techniques to explore through thick overburden will enable the first concerted, in-depth exploration of the resource potential of this new prospect.

#### **Caerwych Prospect**

Following the grant of the north-west extension to Alba's licence areas over the DGF (see Figure 1, area outlined in red, top left), Alba has conducted field reconnaissance at the historic Caerwych mine site. The focus of historic production at Caerwych is understood

to have been on base metals, possibly prior to the discovery of gold at Cwmheisian in the 1840s. The lode at Caerwych showed some signs of chalcopyrite and pyrite mineralisation, particularly in association with wall-rock contacts. While seven samples taken by Alba from outcropping mineralisation and spoil tips showed no significant gold grades, samples CRW-01 and CRW-03 showed notable copper grades of 1.335 % Cu and 2.92 % Cu respectively.

The Caerwych lode is hosted by the sedimentary rocks of the lower Gamlan Formation, underlying the economic package in which gold mineralisation is found elsewhere in the DGF. However, the lode also lies within a notable topographic lineament that visibly extends for several kilometres to the NE and is thought to cross through the Clogau Shales and intrusive units, both critical controls on ore formation at Clogau St. David's. Future work at Caerwych will focus on where this lineament and other sub-parallel NE-SW structures intersect the Clogau Shales, in order to assess whether these structures have the potential to host the high-grade mineralisation found elsewhere in the DGF.

Table 1: Rock sample assay grades for Alba's regional exploration samples showing Au, Ag, Cu, Pb and Zn grades. Significant grades highlighted in bold. Previously reported assays (802-806) shown in italics. (NB: 1 ppm is equal to 1 g/t, and 10,000 ppm equals 1 wt.%)

Sample	Location	Comple Type	Assay Grades (ppm)				
No.	ID	Sample Type	Au	Ag	Cu	Pb	Zn
Hafod Owen	1						
802	ND-01	Tree Root Boulder	6.53	2.61	42.4	73.4	2
803	ND-02	Tree Root Boulder	24.1	9.29	308	181.5	10
804	CAD-01	In-situ Vein	0.069	0.11	3.7	7.7	3
805	CAD-02	In-situ Vein	0.041	0.06	2.1	5.4	2
806	MHO-01	Rock Outcrop	3.82	7.1	46	46.9	1390
834	MHO-02	In-situ Qz Vein	0.021	0.07	33.3	3.2	6
835	MHO-03	In-situ veining, sulphide mineralisation and alteration	1.5	1.53	690	7.4	23
836	MHO-04	Qz Dump, no outcrop	0.363	6.81	67600	45	32
837	MHO-05	In-situ vein and alteration halo	0.487	2.34	187	79.9	51
838	MHO-06	In-situ Qz Vein, Shear Zone	0.002	0.04	56.8	1.9	23
68	MHO-07	In-situ Breccia	0.064	0.31	1890	5.7	11
70	MHO-08	In-situ Qz Vein	0.039	0.2	353	8.6	22
71	MHO-09	In-situ Qz Vein	0.198	0.38	82.4	48.5	6
72	MHO-10	Shear zone hosting sulphide rich vein	0.064	0.38	1730	13.2	13
73	MHO-11	Boulder	0.123	0.51	52	28.8	59
Afon Gain							
839	AG_001	Spoil Heap	0.006	0.57	1420	13.1	11
840	AG_002	In-Situ Vein	0.125	9.83	8720	795	242
841	AG_003	Spoil Tip	0.143	33.7	11150	42500	23900

842	AG_004	Spoil Tip	2.43	15	12200	159	383
843	AG_005	In-situ Vein	0.01	1.2	727	168.5	135
81	AG_006	Spoil Tip	1.62	12.45	8630	143.5	266
82	AG_007	Spoil Tip	0.532	21.2	39600	28.5	400
83	AG_008	In-situ Vein	0.005	0.45	423	6.0	16
Caerwych							
74	CRW-01	Spoil Heap	0.018	1.73	13350	96.4	159
75	CRW-02	Spoil Heap	0.016	4.63	2790	321	442
76	CRW-03	Spoil Heap	0.037	4.88	29200	31.8	50
77	CRW-04	In-situ Hanging Wall	0.009	1.69	2170	30.6	604
78	CRW-05	In-situ Qz Vein	0.009	0.33	1080	4.4	171
79	CRW-06	In-situ Qz Vein	0.004	0.28	805	109	42
80	CRW-07	In-situ Qz Vein	0.003	5.04	387	2530	4320
Carndochan Gold Mine							
84	CCD-01	Spoil Heap	0.001	22.2	517	4390	552
85	CCD-02	Spoil Heap	20.6	27.1	38.1	11750	2570
86	CCD-03	Spoil Heap	0.392	5.65	21.4	1780	16250

## Clogau-St David's Gold Mine - Update on Water Discharge Application

The Company is pleased to provide an update further to the announcement on 1 November 2021, which reported that Natural Resources Wales ("NRW") had given notice of its refusal of the Company's application requesting the grant of an environmental permit for a water discharge activity to allow treated mine water from the Llechfraith Shaft to discharge to the River Cwm-Llechen.

Subsequent constructive discussions between Alba management and NRW have clarified the key points which led to the refusal decision. The Company is therefore working to update its submissions to provide certain additional information, with a view to a further consideration of the Company's application rather than the Company having to go through a formal appeal process. Further material updates will be provided as and when they are available.

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.

#### **Glossary**

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.

Panned Drainage Sample: A sample of sediment collected from a river that has been

panned to produce a heavy mineral concentrate that can then

be sent for analytical assay.

Geochemical Anomaly: A sample that contains a notably high concentration of an

element (in this case Gold) that stands out from the

concentrations in other samples in a campaign.

# **Mineral abbreviations**

Au: Gold

Ag: Silver

Cu: Copper

Pb: Lead

Zn: Zinc

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# **ENDS**

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

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#### **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.

# **Alba's Projects and Investments**

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%