

Copper Wolf Project: Wolverine prospectivity enhanced (BUX 100%)

- 1,200 m x 250 m cluster of magnetic anomalies coincide with NE trending, Cu-Mo bearing porphyry dykes
- Rock chip sample returns 1.2% Cu & 383 ppm Mo adjacent to drill site
- Laramide age date confirms link to Copper Wolf porphyry system
- Outcropping mineralisation & no previous drilling in the area
- Permits to drill at Wolverine received from BLM
- Next steps include IP geophysical surveys & additional mapping / sampling

Buxton Resources Ltd (ASX:BUX) is pleased to report that recent drone magnetics has revealed a large cluster of NE trending magnetic anomalies which correspond to mineralised porphyry dykes at the Wolverine prospect (Figure 1).

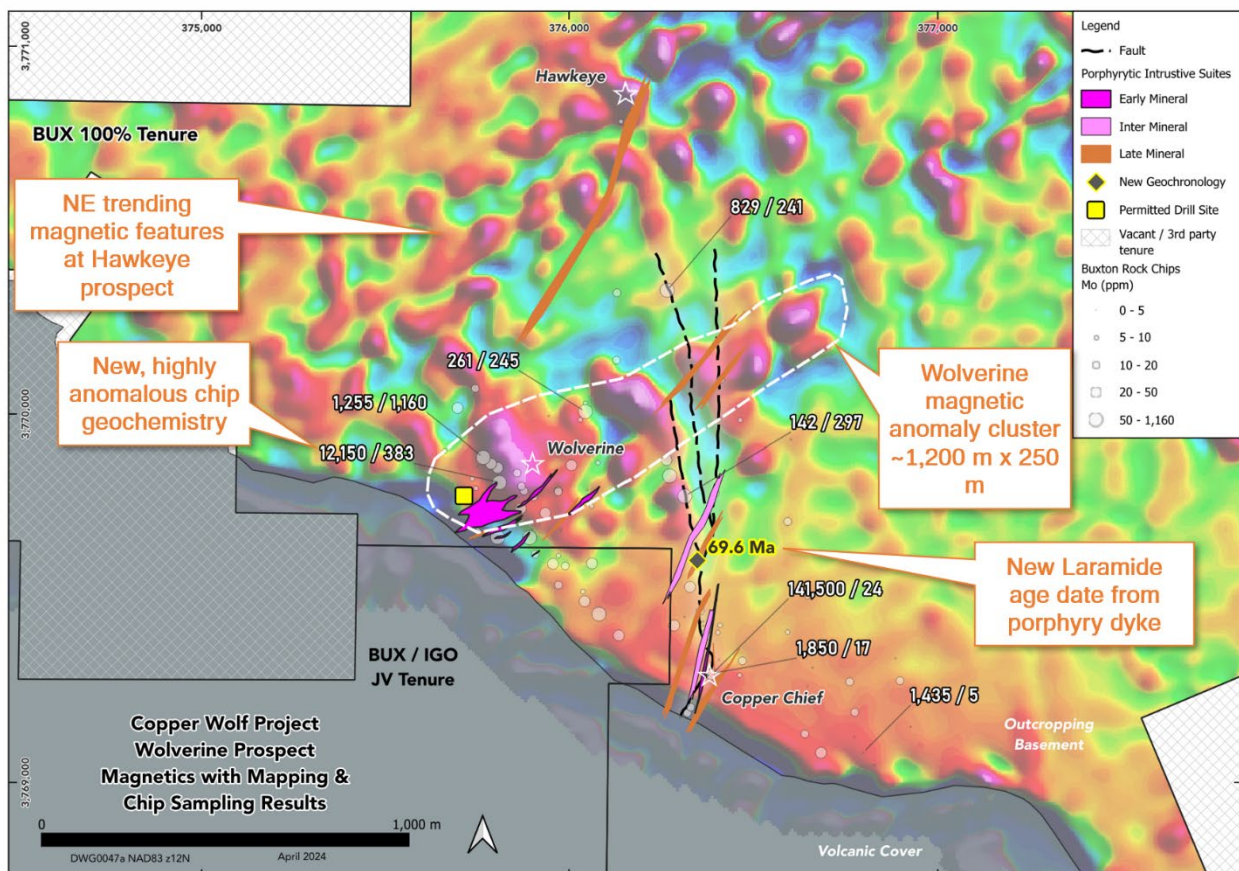


Figure 1: Drone magnetics survey image (RTP 1VD) of the Wolverine, Hawkeye & Copper Chief area with Buxton's proprietary mapping, a new Laramide age date and location of BLM permit to drill.

The magnetic features at Wolverine are likely caused by mafic host rocks, and / or high concentrations of porphyry "B" veins (Wilson, 2023). Both features were observed to strongly favour copper mineralisation in CPW0002DD ([ASX 14/12/2023](#)).

Potential exists for both features to coincide which would be strongly favourable for a high-grade porphyry Cu discovery at Wolverine (e.g. [Sillitoe & Perelló 2023](#)).

The 69.6 Ma (Laramide) age date confirms that this area of 100% BUX tenure is part of the Copper Wolf porphyry mineralisation system. Highly anomalous geochemistry has now been returned from widespread sampling at Wolverine, including the new chip assay (12,150 ppm Cu and 383 ppm Mo - Figure 1). This sample is located adjacent to previously reported 1,255 ppm Cu and 1,160 ppm Mo ([ASX 11/1/2024](#), Figure 4).

In summary, the coincidence of encouraging geological, geochemical and geophysical features at Wolverine highlights this as an extremely compelling porphyry Cu-Mo target, particularly given that mineralisation outcrops in this area, and that there has been no previous drilling of Buxton's emerging targets.

Given the extent of magnetic anomalism revealed by the drone survey, Buxton will also look to undertake additional mapping/sampling and IP geophysical surveying aimed at providing additional targets to the follow-up drill program.

Furthermore, the Bureau of Land Management have now provided necessary approvals to drill at the Wolverine prospect.

Buxton looks forward updating shareholders on progress from this exciting project.

This release is authorised by the Board of Buxton Resources Limited. For further information, please contact:

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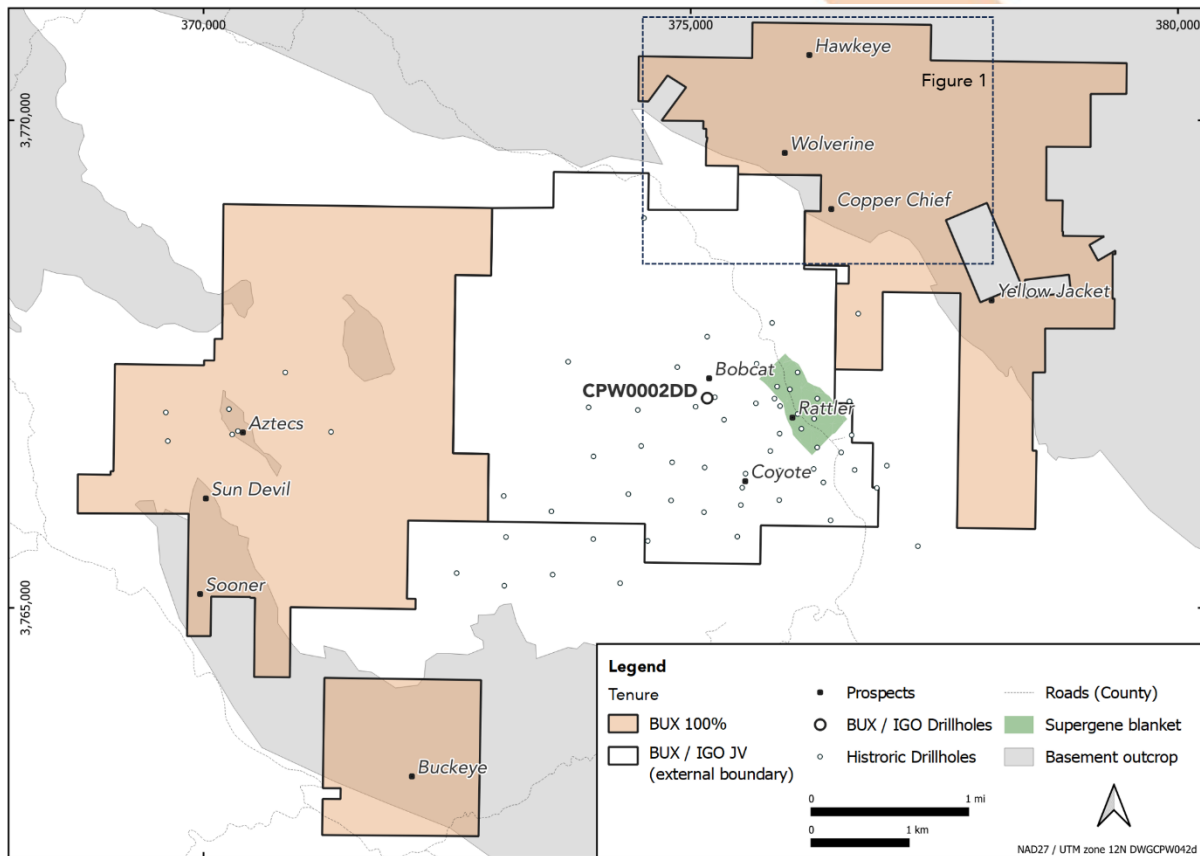


Figure 2: Copper Wolf Project tenure situation showing ~25.9 km² area (coloured polygons) for which Buxton has 100% unencumbered interest in the subsurface estate (except for IGO's First Right of Refusal, see Table 1, Section 2). These areas include substantial basement exposures indicating potential for copper porphyry mineralisation at shallower depths in comparison to the Bobcat, Rattler and Coyote prospects. The BUX / IGO JV covers ~12.5 km² and includes the supergene blanket which has been the focus of previous exploration including [historical resource estimates](#).

Competent Persons

The information in this report that relates to Exploration Results is based on information compiled by Mr Martin Moloney, Member of the Australian Institute of Geoscientists and Society of Economic Geologist, and Mr Dale Cameron, Member of Australian Institute of Geoscientists. Mr Moloney and Mr Cameron are full-time employees of Buxton Resources Ltd. Mr Moloney and Mr Cameron have sufficient experience which is relevant to the activity being undertaken to qualify as a "Competent Person" as defined in the 2012 edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Moloney and Mr Cameron consent to the inclusion in this report of the matters based on the information in the form and context in which it appears.

About the Copper Wolf Project

The Copper Wolf Project has [multiple historical resource estimates](#) available that confirm the presence of a large porphyry Cu-Mo system. Porphyry Cu-Mo mineralisation at Copper Wolf has been dated at 70.3 Ma (Laramide age, based molybdenite from drillhole CC-1A) and is largely concealed by a post-mineral (Tertiary) sequence of volcanic and sedimentary rocks. The Project is located within one of the most prolifically endowed copper belts in the world (Figure 3), yet it has not seen any drilling since the early 1990s. Buxton’s 2022 airborne magnetic survey was the first geophysical work undertaken since the early 1960s. Historic exploration has consisted of relatively wide spaced drilling which focussed on significant supergene copper mineralisation located where the NW trending Cow Creek Fault intersects Laramide hypogene porphyry style mineralisation. Buxton is targeting high grade, underground bulk mineable copper-molybdenum mineralisation. In this context, Buxton’s exploration approach can leverage the significant advances and ready availability of modern geophysical targeting tools and mineral systems knowledge that have been developed since exploration in this area ceased many decades ago.



Figure 3: Buxton’s Copper Wolf project is located in the prolific porphyry copper belt of SW USA / Northern Mexico - most of the porphyry Cu-Mo deposits marked are current or historical mines.

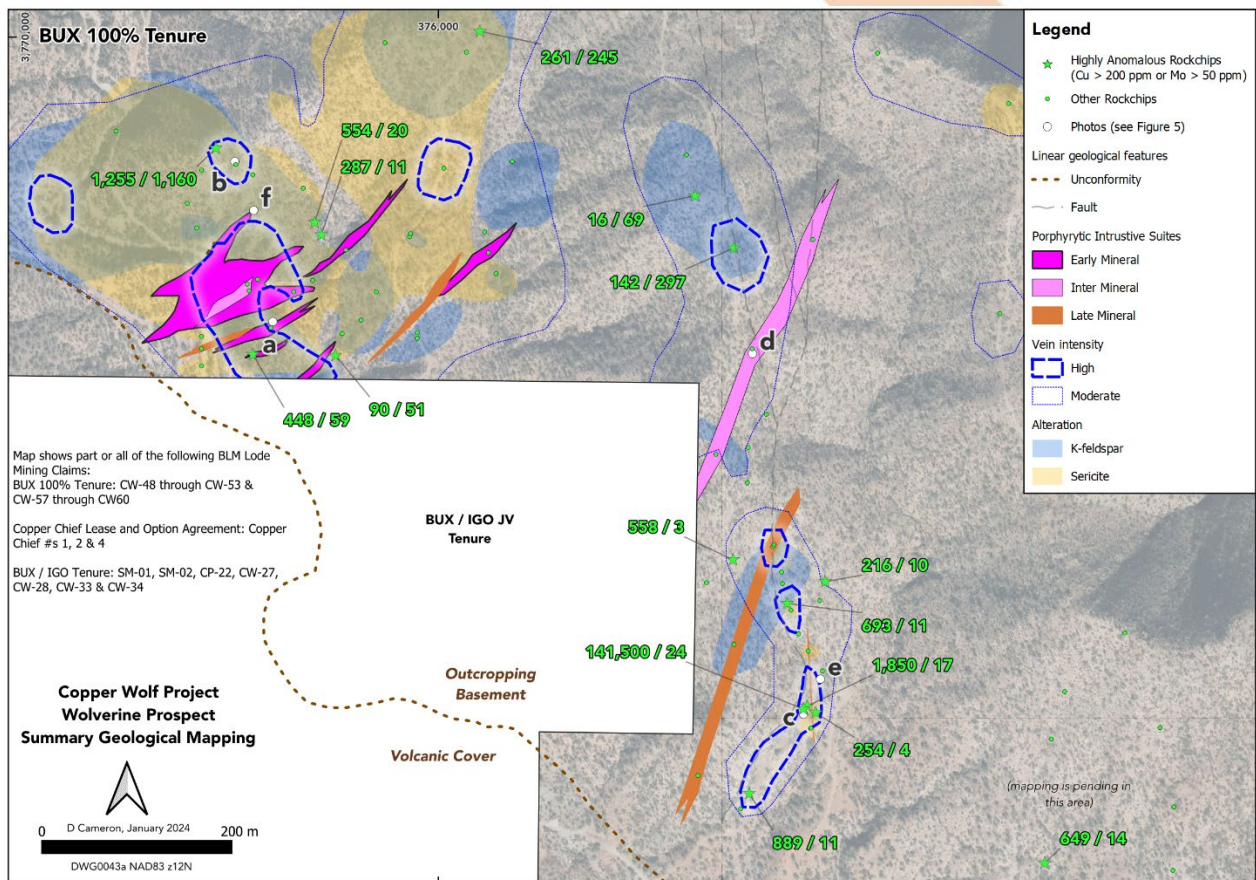


Figure 4: Buxton's geological mapping at the 100% owned Wolverine Prospect with Cu & Mo results from recon rock chips & samples currently at the lab. Outcropping veining & alteration is related to porphyritic dykes that intrude Proterozoic granitoids. Labels "a" - "f" refer to photos in Figure 5 (from previous ASX Release 11/1/2024 - Extension to Cu-Mo Porphyry System Discovered at Surface).

Previously Reported Information

There is information in this announcement relating to exploration results previously announced on:

1. 25th October 2021 - [Copper Wolf Copper Project; Arizona USA](#)
2. 22nd August 2022 - [Buxton and IGO enter into 3 interdependent transactions](#)
3. 4th October 2022 - [Results of Annual General Meeting](#)
4. 7th November 2022 - [Magnetics defines setting of porphyry Cu-Mo system](#)
5. 6th September 2023 - [626.8m porphyry Cu-Mo sulphide observed in CPW0002DD](#)
6. 14th December 2023 - [Assay Results from CPW0002DD at Copper Wolf Project](#)
7. 11th January 2024 - [Extension to Cu-Mo Porphyry System Discovered at Surface](#)

Validity of Referenced Results

Buxton confirms that it is not aware of any new information or data that materially affects the information from previous ASX announcements which has been referenced in this announcement.

External Reports Referenced in this Release

[Sillitoe, R.H., Perelló, J. 2023. Exploration Guides for High-Grade Hypogene Porphyry Copper Deposits. SEG Discovery 2023; \(135\).](#)

Wilson. A.J. 2023. Comments on the geology and exploration potential of the Copper Wolf porphyry Cu-Mo deposit, Arizona, USA, Internal report for IGO Ltd Nov 23rd 2023.

JORC 2012 Table 1: Section 1 – Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down-hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i>	Rock chip samples were collected as representative samples from the above locations. Each individual grab sample weighs between 1 – 2.5kg with all samples submitted to ALS Laboratories in Tucson. Drone surveying was undertaken during March 2024 by Storm Exploration LLC on 30 m spaced lines, with a flight height of 25m using a GEM DroneMAG system. The drone magnetic sensor has specifications as follows;
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	Sensitivity: 0.0002 nT @ 1 Hz Resolution: 0.0001 nT Absolute Accuracy: +/- 0.1 nT Heading Error: + / – 0.05 nT Dynamic Range: 15,000 to 120,000 nT Gradient Tolerance: 50,000 nT/m Sampling Intervals: 1, 2, 5, 10, 20 Hz Operating Temperature: -40°C to +55°C
	<i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i>	Age dating was undertaken by Department of Earth, Energy and Environment University of Calgary utilising U-Pb LAICPMS geochronology of zircon. Ages are reported as 206Pb / 238U weighted mean age (Ma) ± 2 SE. 40 grains were analysed. 35 grains give a weighted mean age of 69.6 ± 0.4. 3 grains with age range 1362.7 - 1644.4 Ma (classified as inherited). All uncertainties on both 206Pb/238U and 207Pb/206Pb ages of the age standards were ≤ 1.6 % during the analytical session. Decay constants of Jaffey et al. (1971) used with modification after Mattinson (1987).
Drilling techniques	<i>Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i>	Not applicable – the announcement does not refer to new drilling results. Previous results for CPW0002DD can be found in BUX ASX Announcement 14/12/2023 "Assay Results from 2nd Diamond Hole at Copper Wolf Project".
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Not applicable – the announcement does not refer to new drilling results. Previous results for CPW0002DD can be found in BUX ASX Announcement 14/12/2023 "Assay Results from 2nd Diamond Hole at Copper Wolf Project".
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	
	<i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	
Logging	<i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i>	All rock chips are geologically logged onsite by qualified and experienced geologists, recording relevant data and photographs to a set template.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	
	<i>The total length and percentage of the relevant intersections logged.</i>	
	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	

Sub-sampling techniques and sample preparation	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	Procedures, including the sample sizes, meet industry standards, and sample sizes are appropriate for the style of mineralisation encountered.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	
	<i>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</i>	
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	<p>Samples were submitted to ALS Laboratories in Tucson, Arizona</p> <p>Sample preparation comprised of drying, crushing to 70% passing 2mm and a 250g split was pulverized to better than 85% passing 75 micron mesh</p> <p>Samples were submitted for multi-element analysis by ME-MS61L and ME-MS61L-REE which comprise of 4-acid digestion and ICP-MS finish for the Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Dy, Er, Eu, Fe, Ga, Gd, Hf, Ho, In, K, La, Li, Lu, Mg, Mn, Mo, Na, Nb, Nd, Ni, P, Pb, Pr, Rb, Re, S, Sb, Sc, Se, Sm, Sn, Sr, Ta, Tb, Te, Th, Th, Ti, Tl, Tm, U, V, W, Y, Yb, Zn and Zr</p> <p>Samples were additionally assayed for Au via Au-ICP22 using 50g samples for fire assay and ICP-AES finish</p>
	<i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i>	See notes in "Sample Techniques" above.
	<i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i>	<p>ALS undertakes internal industry standard laboratory quality control procedures including insertion of blanks and standards and QA/QC review.</p> <p>All results for QAQC fall within acceptable limits.</p>
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	The assay results have been reviewed by Buxton's geologists in Arizona and Perth.
	<i>The use of twinned holes.</i>	Not applicable – the announcement does not refer to new drilling results. Previous results for CPW0002DD can be found in BUX ASX Announcement 14/12/2023 "Assay Results from 2nd Diamond Hole at Copper Wolf Project".
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	All sample data is entered to spreadsheets by Company personnel and validated by Company geologists. This data is then imported into specialised software where additional validation is completed. Digital data is securely archived on and off-site.
	<i>Discuss any adjustment to assay data.</i>	No adjustments were made to assay data

<i>Location of data points</i>	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>	Handheld GPS (+/-5m) as well as reference to topographical, remote sensing and known reference points (e.g., previously surveyed holes). Previous drill collars were pickup by licensed surveyor.
	<i>Specification of the grid system used.</i>	Locations reported here use NAD83 zone 12, elevations are reported as NAVD 88
	<i>Quality and adequacy of topographic control.</i>	Topographic control is USGS NED 1/3 arc-second n35w113 1 x 1 degree ArcGrid 2019.
<i>Data spacing and distribution</i>	<i>Data spacing for reporting of Exploration Results.</i>	The rock chip sampling programs are reconnaissance in nature and sample spacing is deemed appropriate for this stage of exploration.
	<i>Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i>	No Mineral Resource or Ore Reserve calculations have been performed.
	<i>Whether sample compositing has been applied.</i>	No sample compositing has been undertaken.
<i>Orientation of data in relation to geological structure</i>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	The rock chip sampling programs are reconnaissance in nature and sample spacing is deemed appropriate for this stage of exploration.
	<i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	
<i>Sample security</i>	<i>The measures taken to ensure sample security.</i>	Samples are stored and processed within a secure workshop facility. Samples are regularly dispatched to a laboratory for analysis as they are processed.
<i>Audits or reviews</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	No specific external audits or reviews have been undertaken.

JORC 2012 Table 1: Section 2 – Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i>	<p>BUX's interest comprise a 100% interest in ~37.83 km² of tenure consisting of Federal Lode Mining Claims SM1-SM54 and CW01-CW342 issued by the Bureau of Land Management (BLM) and Arizona State Lands Department (ASLD) Mineral Exploration Permits 008-121028, 008-1213390, 008-124215 and 008-124640.</p> <p>On the 4th of October 2022, Buxton satisfied all conditions precedent for Buxton and IGO to enter into an earn-in and joint venture agreement for the Copper Wolf Project (Arizona, USA) then held as 100% by BUX. By that agreement, IGO has an exclusive right to earn a 51% interest in the initial Copper Wolf Project tenements (SM1-SM54, CW01-CW44, 008-121028 and 008-1213390, covering approximately 12.51 km²) by incurring and sole funding A\$350,000 of exploration expenditure in a 24-month period from 4/10/2022. Upon IGO incurring the A\$350,000 earn-in expenditure, it may elect to earn-in and form a 51% IGO / 49% BUX unincorporated joint venture. During the earn-in period, BUX will be the project manager.</p>

		<p>IGO will be the initial manager of the joint venture. Within 6 months of the commencement of the joint venture, IGO has the exclusive right to elect to earn a further 19% joint venture interest (to take its joint venture interest to 70%) by sole funding exploration expenditure of A\$5,000,000 over 3 years (stage 2 earn-in). For a 5 year period from the date of the agreement, BUX are committed to present all copper projects it secures or generates in Arizona to IGO by way of a right of first refusal.</p> <p>On the 10th November 2023, Buxton entered into a “Copper Chief Lease and Option Agreement” with the private owner of 7 Lode Mining Claims (Copper Chief #1-5 & Copper Chief #18-19) covering approximately 59 hectares (0.59 km²) and a parcel of private property covering approximately 16 hectares which is wholly contained within the area of the Copper Chief Lode Mining Claims. This package of surface and subsurface rights is contiguous with existing BUX tenure. The agreement provides BUX the option to acquire 100% of the surface and subsurface rights at any time prior to 10th November 2028. Should BUX chose to exercise the option, BUX will grant the seller a five percent (5%) Net Smelter Returns Royalty, with rights to purchase up to 3.5% of that Royalty.</p> <p>There is a long history of exploration and mining in the project area, so it is considered likely requisite permits will be obtained as and when they are required.</p> <p>The Copper Wolf project does not intersect or lie adjacent to areas with native title interests, historical cultural sites, wilderness or national park and otherwise sensitive environmental settings.</p>
	<i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i>	The tenements are in good standing with the Federal / State government agencies.
<i>Exploration done by other parties</i>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	The Competent Person has reviewed all historic reports. Practices employed appear to have been consistent with those adopted at other projects in North America around the same time.
<i>Geology</i>	<i>Deposit type, geological setting and style of mineralisation.</i>	The mineralisation at the Copper Wolf Project comprises porphyry copper-molybdenum type, with both hypogene (primary) and supergene (secondary) variants. This type of mineralisation is widely distributed in the region around the Project
<i>Drill hole Information</i>	<p><i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i></p> <p><i>easting and northing of the drill hole collar</i> <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> <i>dip and azimuth of the hole</i> <i>down hole length and interception depth</i> <i>hole length</i></p> <p><i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of</i></p>	Not applicable – the announcement does not refer to new drilling results. Previous results for CPW0002DD can be found in BUX ASX Announcement 14/12/2023 “Assay Results from 2nd Diamond Hole at Copper Wolf Project”.

	<i>the report, the Competent Person should clearly explain why this is the case.</i>	
<i>Data aggregation methods</i>	<p><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i></p> <p><i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></p> <p><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p>	No assay weighting or aggregating of assay results are reported herein.
<i>Relationship between mineralisation widths and intercept lengths</i>	<p><i>These relationships are particularly important in the reporting of Exploration Results.</i></p> <p><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></p> <p><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i></p>	Not applicable – the announcement does not refer to new drilling results. Previous results for CPW0002DD can be found in BUX ASX Announcement 14/12/2023 "Assay Results from 2nd Diamond Hole at Copper Wolf Project".
<i>Diagrams</i>	<i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	See text and figures in body of release.
<i>Balanced reporting</i>	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	Results of all available significant historical work have been previously reported.
<i>Other substantive exploration data</i>	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	All relevant, meaningful and material exploration data pertinent to the reported observations has been presented in this announcement.
<i>Further work</i>	<p><i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></p> <p><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></p>	<p>See text and figures in body of release.</p> <p>See figures in body of release.</p>

Cautionary Note Regarding Forward-Looking Information

This Announcement contains forward-looking statements and forward-looking information within the meaning of applicable Australian securities laws, which are based on expectations, estimates and projections as of the date of publication. This forward-looking information includes, or may be based upon, without limitation, estimates, forecasts and statements as to management's expectations with respect to, among other things, the timing required to execute the Company's programs, and the length of time required to obtain permits, certifications and approvals.

Wherever possible, words such as "anticipate", "believe", "expect", "intend", "should", "intend", "may" and similar expressions have been used to identify such forward-looking information. Forward-looking information is based on the opinions and estimates of management at the date the information is given, and on information available to management at such time. Forward-looking information involves significant risks, uncertainties, assumptions, and other factors that could cause actual results, performance or achievements to differ materially from the results discussed or implied in the forward-looking information. These factors, including, but not limited to, fluctuations in currency markets, fluctuations in commodity prices, the ability of the Company to access sufficient capital on favourable terms or at all, changes in national and local government legislation, taxation, controls, regulations, political or economic developments in Australia or other countries in which the Company does business or may carry on business in the future, operational or technical difficulties in connection with exploration or development activities, employee relations, the speculative nature of mineral exploration and development, obtaining necessary licenses and permits, contests over title to properties, especially title to undeveloped properties, the inherent risks involved in the exploration and development of mineral properties, the uncertainties involved in interpreting drill results and other geological data, environmental hazards, industrial accidents, limitations of insurance coverage and the possibility of project cost overruns or unanticipated costs and expenses, and should be considered carefully.

Many of these uncertainties and contingencies can affect the Company's actual results and could cause actual results to differ materially from those expressed or implied in any forward-looking statements made by, or on behalf of, the Company. Prospective investors should not place undue reliance on any forward-looking information. Although the forward-looking information contained on in this Announcement is based upon what management believes, or believed at the time, to be reasonable assumptions, the Company cannot assure prospective purchasers that actual results will be consistent with such forward-looking information, as there may be other factors that cause results not to be as anticipated, estimated or intended, and neither the Company nor any other person assumes responsibility for the accuracy and completeness of any such forward-looking information.

The Company does not undertake, and assumes no obligation, to update or revise any such forward-looking statements or forward-looking information contained herein to reflect new events or circumstances, except as may be required by law. No stock exchange, regulation services provider, securities commission or other regulatory authority has approved or disapproved the information contained in this Announcement.