

## **QUARTERLY ACTIVITIES REPORT for the period ending 31 December 2022**

### **Graphite Bull Project (100% BUX)**

- Metallurgical test work achieves > 99% TGC via a HF-free caustic bake purification process
- Heritage survey completed
- Hydrogeological and Environmental surveys commenced
- New Miscellaneous Licenses Application submitted
- A significant forward work program was planned, including resource infill / extension drilling, geophysical (EM) surveys, geotechnical studies, hydrological testwork, and metallurgical components

### **Copper Wolf Project; Arizona USA (100% BUX, IGO option to earn 70%)**

- Results of magnetic data interpretation released
- Project footprint expanded
- Land access agreements executed
- Preparations for geophysical and drilling programs commenced

### **Narryer Project (100% BUX, IGO option to earn 51%)**

- Field review of AEM anomalies by IGO
- Ground EM planned for the next Quarter will be 100% funded by IGO

### **West Kimberley JV (BUX/IGO)**

- 2022 field season completed
- All activities 100% funded by IGO

### **Corporate**

- Cash balance (31 December 2022) of approximately \$3.1 million
- Settlement of the IGO Transactions was completed.
  - IGO paid BUX \$1 million under the Merlin Project Joint Venture Amendment to earn a further 29% joint venture interest (to take it to 80%)
  - IGO subscribed for 8,975,000 shares at 11.2 cents per share = \$1,005,200 (to take voting power from 15.08% to 19.9%)
  - IGO paid BUX \$350,000 (plus GST) reimbursement as per the Letter Agreement – Earn-in and Joint Venture – Copper Wolf

Buxton Resources Limited (ASX: BUX or “Buxton”) is pleased to release the Quarterly activities report and Appendix 5B for the period ended 31 December 2022 (the Quarter).

## **Yalbra Project (BUX 100%)**

The Yalbra Graphite Project (Exploration License E09/1985) is located 280 km East of Carnarvon in the Murchison Region of Western Australia. In 2014, Buxton released an updated, JORC 2012 compliant, Mineral Resource Estimate for the main zone of graphite mineralisation. The Inferred Mineral Resource at Yalbra is 4.0Mt @ 16.2% TGC, using a 4% TGC cut-off (see ASX announcement 24th October 2014).

During the Quarter, Buxton have continued to progress metallurgical studies focussed on process optimisation aimed at defining a low-cost flowsheet to produce spherical graphite. This work resulted in downstream processing to yield >99.95% C feed suitable for Purified Spheronised Graphite production. Buxton also undertook several site surveys, including groundwater sampling and lodged miscellaneous licence applications to secure a potential access route and groundwater supply. Buxton contracted Wireline Services Group to undertake a ground EM survey in early 2023. Buxton undertook a heritage survey to clear a for infill drilling to upgrade the existing Resource to Indicated / Measured JORC classification and also to increase the overall size of the Resource.

## **West Kimberley Project (BUX / IGO JV)**

The West Kimberley Project is targeting Nova-style magmatic Ni-Cu sulphide mineralisation in Proterozoic belts of the West Kimberley Region of Western Australia. Buxton have Farm In and JV agreements over three separate Project areas (Merlin Project, Quickshears Project and West Kimberley Regional Project) which fall within the overall West Kimberly Region.

On the 4<sup>th</sup> October August 2022, Buxton received shareholder approval for Buxton and IGO to amend the existing Merlin Project Joint Venture in the West Kimberley (previously IGO 51% and BUX 49%) allowing IGO to a further 29% interest to take it to 80% for a cash payment to Buxton of \$1,000,000.

During the Quarter, IGO completed their 2022 field season at the Sentinel area within the West Kimberley Regional Project. Field work involved

geological/geochemical traversing and ground EM. Assays from the surface geological sample traversing have identified anomalous Ni-Cu results at the Topham target in the Sentinel area, coincident with AEM anomalies that warrant follow-up ground EM surveying in 2023. A Helitem airborne EM survey was completed in the West Kimberley region over several areas adjacent to the previous Spectrem AEM Survey. Several new targets have been generated from the dataset. Follow-up diamond drilling conducted at the Skarloey target, within the Sentinel area, encountered pyrrhotite stringer sulphides, indicative of a deformed Cu-Zn Volcanogenic Massive Sulphide (VMS) system.

### **Fraser Range Project (BUX 10% / IGO 90%)**

Exploration The Fraser Range Project is targeting magmatic Ni-Cu sulphide mineralisation along strike from IGO's operating Nova mining operation. During the Quarter IGO have continued their thorough exploration of these licenses. Buxton remain free carried until completion of a feasibility study with Buxton retaining an exclusive right to explore and develop iron ore on the Tenements.

### **Narryer Project (BUX 100% / IGO option to earn 51%)**

The Narryer Project is targeting magmatic Ni-Cu-PGE sulphide mineralisation along the Yilgarn Craton margin within the Murchison Region of WA. The three Narryer Project ELs covering > 1800 km<sup>2</sup> were granted early in the Quarter.

On the 4<sup>th</sup> October August 2022, Buxton received shareholder approval for Buxton and IGO to enter into a subscription agreement and option over the Narryer Project. By the Earn-In and Joint Venture Agreement (upon exercise of an initial option), IGO may earn a 51% interest in the Narryer tenements by spending \$3,000,000 within a 3-year period. Upon IGO incurring the \$3,000,000 of earn-in expenditure and electing to exercise the earn-in, Buxton and IGO will form an unincorporated Joint Venture with the interests being IGO 51% and Buxton 49%.

During the Quarter IGO have undertaken field reconnaissance trip aimed at verifying targets for ground EM surveys scheduled for early 2023.

## **Copper Wolf Project (BUX 100% / IGO option to earn 70%)**

Buxton's Copper Wolf project consists of BLM Lode Mining Claims and ASLD Mineral Exploration Permits covering approximately 12.5 km<sup>2</sup> in Yavapai County Arizona over a historic copper exploration project.

On the 4<sup>th</sup> October August 2022, Buxton received shareholder approval for Buxton and IGO to enter into an earn-in and joint venture agreement for the Copper Wolf Project (Arizona, USA) currently held as to 100% by BUX.

During the Quarter, Buxton announced the results of integrated geoscientific analysis of the recently acquired magnetic data and expanded the tenure via the staking of new lode mining claims. Buxton also undertook additional landholder engagement and secured several land access agreements that provide access to and across key parcels of private land to support the forward exploration program.

## **Centurion Project (BUX 100% / TKM earning 75%)**

The Centurion Project consists of Exploration License E80/5579 located approximately 180 km south-southwest of Balgo Western Australia on unclaimed crown land and accessible via shire roads and several 1960s-1980s seismic lines.

This license covers a prominent dipolar and offset magnetic and gravity gradiometer anomalies characteristic of Iron Oxide Copper Gold deposits including Olympic Dam and Prominent Hill. Magnetic data indicate that the target is located approximately 700 metres beneath ground level under post mineral cover sequences of the Canning Basin.

On 28 March 2022, Buxton announced that the company has entered into a Farm-In and Joint Venture (JV) Agreement with ASX listed Trek Metals Ltd (ASX:TKM) for the Centurion Project. Under the Joint Venture terms, Trek will be required to drill test the Centurion IOCG target within 21 months of signing of the JV and shall sole fund \$500,000 of expenditure including satisfying a minimum of at least 300 metres of diamond core drilling (Stage 1). On completion of Stage 1, Trek may elect to withdraw from the JV or will have earned a 51% interest in the tenement. If results from the first drill hole are positive/encouraging TKM will have the ability to elect to proceed to stage 2 where TKM will have earned 51% of Centurion's project equity and be obliged to spend a further \$3 million within 3 years to earn a further 24% taking them to 75% overall project equity and Buxton will be free carried at 25%

project equity level until a Decision to Mine milestone is reached where both parties may elect to into a co-contributing JV.

During the Quarter TKM progressed Heritage Agreement negotiations with the Native Title groups including TKM and Buxton jointly attending on-country meetings at the Balgo community.

## **Shogun & Royale Projects (BUX 100%)**

The Shogun and Royale Projects form a contiguous package covering 2617 km<sup>2</sup> located in the Paterson Region of Western Australia. Exploration on the two (2) Shogun Project ELA 45/6533 and 45/6534 is targeting magmatic Ni-Cu-Co-PGE sulphide deposits. The five (5) Royale Project ELAs (E45/6228 through E45/6232) cover exploration targets for hydrothermal Cu +/- Au - Mo deposits.

During the Quarter, Buxton continued to undertake negotiations with the Native Title group with a view to executing a Heritage Agreement in early 2023.

## **Lateron Project (BUX 100%)**

The Lateron Project Exploration License E80/5545 was granted during the Quarter. The Lateron Project is located on unclaimed crown land approximately 10 km East of Billiluna and 150 km South of Halls Creek in Western Australia.

During the Quarter Buxton have undertaken planning for the 2023 field season.

## **Corporate**

The Company's Quarterly Cashflow Report (Appendix 5B) follows this activities report. The Company had \$3.1 million in cash as 31 December 2022. Exploration Expenditure for the Quarter was \$591k with most of this expenditure being associated with tenement applications at Copper Wolf Project, field work in support of the Copper Wolf, Narryer Projects and Graphite Bull Projects, metallurgical studies in support of the Graphite Bull Project, with other ongoing project assessment. Buxton is also continuing to actively pursue copper and other commodity opportunities in the USA.

On the 4<sup>th</sup> October August 2022, Buxton received shareholder approval for the Company or its subsidiaries has entered into transaction documents for 3 interdependent transactions with IGO Limited (IGO) or its subsidiaries. Buxton and IGO already have a deep commercial and technical relationship with four active Joint Ventures in the Fraser Range and West Kimberley regions of Western Australia. Significantly, IGO is already Buxton's largest shareholder currently holding 15.08% of Buxton's ordinary shares. The 3 interdependent transactions, being the Merlin Project Joint Venture Amendment, Narryer Project Transaction and the Copper Wolf Project Transaction (together, the IGO Transactions) are detailed in ASX Announcement 22<sup>nd</sup> August, 2022..

The aggregate amount of payments to related parties and their associates included in the current Quarter cash flows from operating activities were approximately \$87k comprising directors fees, salaries and superannuation. Corporate and other administration expenditure was \$67k for the Quarter which represents general costs associated with running the Company, including ASX fees, legal fees, rent, etc. Cash outflows for the Quarter were in line with management expectations. The company is adequately funded to continue its current activities and will continue to demonstrate appropriate fiscal management.

This announcement is authorised by the Board.

For further information, please contact:

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## Appendix 1: Changes in interests in mining tenements - Buxton Resources Ltd 1/10/22 – 31/12/22

Interests in mining tenements relinquished, reduced or lapsed	Tenement	Location / Project	% at beginning of Quarter	% at end of Quarter
	ELA59/2595	Fatboy Project	100	0
	E04/1533	West Kimberley – Merlin-IGO JV	49	20
	E04/2026	West Kimberley – Merlin-IGO JV	49	20
	E04/2142	West Kimberley – Merlin-IGO JV	49	20
	E04/2536	West Kimberley Regional - IGO JV	relinquished	

Interest in mining tenements acquired or increased	Tenement	Location / Project	% at beginning of Quarter	% at end of Quarter
	LA09/102	Graphite Bull	0	100
	LA09/103	Graphite Bull	0	100
	CW 01-44	Copper Wolf Project, Yavapai Co, Arizona (Federal Lode Mining Claims)	0	100

*\* changes occurred between end of the Quarter and issuing this report*

	E04/2451	West Kimberley - Baracus / IGO JV	16	16
	E04/2462	West Kimberley - Baracus / IGO JV	16	16
	E04/2060	West Kimberley Regional - IGO JV	20	20
	E04/2407	West Kimberley Regional - IGO JV	20	20
	E04/2408	West Kimberley Regional - IGO JV	20	20
	E04/2411	West Kimberley Regional - IGO JV	20	20
	E04/2466	West Kimberley Regional - IGO JV	20	20
	E04/2467	West Kimberley Regional - IGO JV	20	20
	E04/2468	West Kimberley Regional - IGO JV	20	20
	E04/2469	West Kimberley Regional - IGO JV	20	20
	E04/2480	West Kimberley Regional - IGO JV	20	20
	E04/2527	West Kimberley Regional - IGO JV	20	20
	E04/2530	West Kimberley Regional - IGO JV	20	20
	E04/2536	West Kimberley Regional - IGO JV	20	20
	E04/2549	West Kimberley Regional - IGO JV	20	20
	E04/2550	West Kimberley Regional - IGO JV	20	20
	E04/2578	West Kimberley Regional - IGO JV	20	20
	E04/2579	West Kimberley Regional - IGO JV	20	20
	E04/2580	West Kimberley Regional - IGO JV	20	20
	E04/2581	West Kimberley Regional - IGO JV	20	20
	E04/2584	West Kimberley Regional - IGO JV	20	20
	E04/2585	West Kimberley Regional - IGO JV	20	20
	E04/2609	West Kimberley Regional - IGO JV	20	20
	E04/2610	West Kimberley Regional - IGO JV	20	20

E04/2611	West Kimberley Regional - IGO JV	20	20
E04/2612	West Kimberley Regional - IGO JV	20	20
E04/2613	West Kimberley Regional - IGO JV	20	20
E04/2614	West Kimberley Regional - IGO JV	20	20
E04/2615	West Kimberley Regional - IGO JV	20	20
E04/2617	West Kimberley Regional - IGO JV	20	20
E04/2629	West Kimberley Regional - IGO JV	20	20
E04/2630	West Kimberley Regional - IGO JV	20	20
E04/2631	West Kimberley Regional - IGO JV	20	20
E04/2648	West Kimberley Regional - IGO JV	20	20
E04/2649	West Kimberley Regional - IGO JV	20	20
E04/2650	West Kimberley Regional - IGO JV	20	20
E04/2651	West Kimberley Regional - IGO JV	20	20
E04/1972	West Kimberley – IGO/NWC/TT JV	16	16
E04/2314	West Kimberley – IGO/NWC/TT JV	16	16
E04/2423	West Kimberley – IGO/NWC/TT JV	20	20
E28/1959	Fraser Range - IGO JV	10	10
E28/2201	Fraser Range - IGO JV	10	10
EL09/2427	Narryer Project	100	100
EL09/2428	Narryer Project	100	100
EL09/2429	Narryer Project	100	100
E09/1985	Graphite Bull Project	100	100
EL80/5545	Lateron	100	100
EL80/5579	Centurion Project JV (TKM earning 75%)	100	100
MEP 008-121028	Copper Wolf Project (Section 16 T8NR1W G&SR Meridian)	100	100
MEP 008-123390	Copper Wolf Project (Section 9 T8NR1W G&SR Meridian)	100	100
SM-01 through SM-54	Copper Wolf Project, Yavapai Co, Arizona (Federal Lode Mining Claims)	100	100
ELA45/6228	Royale Project	100	100
ELA45/6229	Royale Project	100	100
ELA45/6230	Royale Project	100	100
ELA45/6231	Royale Project	100	100
ELA45/6232	Royale Project	100	100
ELA45/6233	Shogun Project	100	100
ELA45/6234	Shogun Project	100	100

**Abbreviations and Definitions used in Tenement Schedule:**

E = Exploration Licence (WA), ELA = Exploration Licence Application (WA), LA – Miscellaneous License Application (WA), MEP = Mineral Exploration Permit (Arizona)

## Appendix 5B

### Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

Buxton Resources Limited

ABN

86 125 049 550

Quarter ended ("current quarter")

31 December 2022

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	29	29
1.2 Payments for		
(a) exploration & evaluation	(591)	(1,026)
(b) development	-	-
(c) production	-	-
(d) staff costs	(205)	(348)
(e) administration and corporate costs	(67)	(217)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	2	4
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other - GST	163	145
<b>1.9 Net cash used in operating activities</b>	<b>(669)</b>	<b>(1,413)</b>
<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire or for:		
(a) entities	-	-
(b) tenements	-	-
(c) property, plant and equipment	(3)	(3)
(d) exploration & evaluation	-	-
(e) investments	-	-
(f) other non-current assets	-	-

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$A'000</b>	<b>Year to date (6 months) \$A'000</b>
2.2 Proceeds from the disposal of:		
(a) entities	-	-
(b) tenements interests	1,350	1,350
(c) property, plant and equipment	-	-
(d) investments	-	-
(e) other non-current assets	-	-
2.3 Cash flows from loans to other entities	-	-
2.4 Dividends received (see note 3)	-	-
2.5 Other (provide details if material)	-	-
<b>2.6 Net cash used in investing activities</b>	<b>1,347</b>	<b>1,347</b>

<b>3. Cash flows from financing activities</b>		
3.1 Proceeds from issues of equity securities (excluding convertible debt securities)	1,080	1,085
3.2 Proceeds from issue of convertible debt securities	-	-
3.3 Proceeds from exercise of options	-	-
3.4 Transaction costs related to issues of equity securities or convertible debt securities	(2)	(4)
3.5 Proceeds from borrowings	-	-
3.6 Repayment of borrowings	-	-
3.7 Transaction costs related to loans and borrowings	-	-
3.8 Dividends paid	-	-
3.9 Other	-	-
<b>3.10 Net cash from financing activities</b>	<b>1,078</b>	<b>1,081</b>

<b>4. Net decrease in cash and cash equivalents for the period</b>		
4.1 Cash and cash equivalents at beginning of period	1,359	2,100
4.2 Net cash used in operating activities (item 1.9 above)	(669)	(1,413)
4.3 Net cash used in investing activities (item 2.6 above)	1,347	1,347
4.4 Net cash from financing activities (item 3.10 above)	1,078	1,081

Appendix 5B

**Mining exploration entity or oil and gas exploration entity quarterly cash flow report**

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (6 months) \$A'000</b>
4.5	Effect of movement in exchange rates on cash held	(2)	(2)
<b>444.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>3,113</b>	<b>3,113</b>

<b>5.</b>	<b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter \$A'000</b>	<b>Previous quarter \$A'000</b>
5.1	Bank balances	3,000	1,241
5.2	Call deposits	-	-
5.3	Term deposits	128	128
5.4	Credit card	(15)	(10)
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>3,113</b>	<b>1,359</b>

<b>6.</b>	<b>Payments to related parties of the entity and their associates</b>	<b>Current quarter \$A'000</b>
6.1	Aggregate amount of payments to related parties and their associates included in item 1	87
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

*Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.*

## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

<b>7. Financing facilities</b>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
<i>Note: the term "facility" includes all forms of financing arrangements available to the entity.</i>		
<i>Add notes as necessary for an understanding of the sources of finance available to the entity.</i>		
7.1 Loan facilities	-	-
7.2 Credit standby arrangements	-	-
7.3 Other (please specify)	-	-
<b>7.4 Total financing facilities</b>	-	-
<b>7.5 Unused financing facilities available at quarter end</b>		-
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.	

<b>8. Estimated cash available for future operating activities</b>	<b>\$A'000</b>
8.1 Net cash used in operating activities (item 1.9)	(669)
8.2 (Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	-
8.3 Total relevant outgoings (item 8.1 + item 8.2)	(669)
8.4 Cash and cash equivalents at quarter end (item 4.6)	3,113
8.5 Unused finance facilities available at quarter end (item 7.5)	-
8.6 Total available funding (item 8.4 + item 8.5)	3,113
<b>8.7 Estimated quarters of funding available (item 8.6 divided by item 8.3)</b>	4.65
<i>Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.</i>	
8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:	
8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
Answer: n/a	
8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
Answer: n/a	
8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?	
Answer: n/a	
<i>Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.</i>	

## Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

31 January 2023

Date: .....

By the Board

Authorised by: .....  
(Name of body or officer authorising release – see note 4)

## Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.